STORMWATER MANAGEMENT REPORT

for

Hudson Logistics Center
43 Lowell Road
Hudson, New Hampshire

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EXECUTIVE SUMMARY

This stormwater management report has been prepared in support of the proposed development of approximately 375 acre site located at 43 Steele Road in the Town of Hudson New Hampshire. The existing site is currently developed as a 39-hole golf course known as Green Meadow Golf Club and is accessed from Steele Road. The existing topography on the site exhibits significant grade changes of up to 90 feet in elevation change. Many high and low points, and rolling topography can be found on site.

The proposed development is the construction and operation of a distribution warehouse facility known as the Hudson Logistics Center. The main warehousing building will have a footprint of approximately 1.4 million SF with a finished floor elevation of approximately 147. The development is to include a truck court entry guardhouse, pull-through inspection facility, back-in trailer maintenance building, and transportation building to support the operations on site.

The current access via Steele road to the site is unable to support the proposed facilities as the main access road. Therefore an entrance drive will be created for the redevelopment. A secondary access is proposed in northeast portion of the property. Upgraded utility service lines will be brought to the site within the proposed entrance ways.

Hydrologically, the site is located in the Merrimack River watershed, which is approximately 5,014 square miles, of which the project site encompasses a nominal amount of approximately 0.075%. The site is part of the Limit Brook – Merrimack River sub-watershed which encompasses approximately the southern three quarters of the Town of Hudson. Under the proposed conditions, the majority of the developed site will drain through closed pipe networks to the stormwater treatment systems before discharging off site at a controlled rate. Existing drainage patterns are being maintained to the greatest extent possible.

The proposed stormwater management system has been designed in accordance with the Town of Hudson current requirements, the New Hampshire Stormwater Manual, and the New Hampshire Department of Environmental Services regulations. The system incorporates elevated levels of stormwater quality, maintains or decreases the existing peak rate of runoff for all storm events analyzed, and provides above the required groundwater recharge volumes. The design of the proposed stormwater management system incorporates comments and feedback received throughout the permitting process of the previously approved application. This revised design, as compared to the previously approved application, more similarly maintains watershed areas and flow patterns in the proposed condition to those of the existing condition.

1.0 PROJECT OVERVIEW

1.1 Owner

The current owner of the site is as follows:

Green Meadow Golf Club, Inc.—Friel (condo lots 239/1 & 234/34)
55 Marsh Road
Hudson, New Hampshire

1.2 Address of Development

The site address is a follows:

43 Steele Road
Hudson New Hampshire
&
11 Steele Road
Hudson New Hampshire

1.3 Location of Site

The two-parcel site is currently known as the Green Meadow Golf Club located off of Steele Road in the Town of Hudson, New Hampshire on roughly 375 acres. The property is bounded to the northeast by multiple commercial sites including Sam's Club and Mercury Systems; to the southeast by an undeveloped lot along Lowell Road and residential properties; along the southern property line by residential properties; along the western property line by the Merrimack River; and along the northern property line by the Circumferential Highway (See Figure 1).

1.4 Description of the Receiving Waters

Hydrologically, the site is located in the Merrimack River watershed, which is approximately 5,014 square miles, of which the project site encompasses a nominal amount of approximately 0.075%. The site is part of the Limit Brook – Merrimack River sub-watershed which encompasses approximately the southern three quarters of the Town of Hudson. Under the proposed conditions, the majority of the developed site will drain through closed pipe networks to the stormwater treatment systems before discharging off site at a controlled rate. Existing drainage patterns are being maintained to the greatest extent practical.

1.5 Nature and Purpose of Land Disturbing Activity

The project proposes the development of a distribution facility on the current Green Meadows Golf Course and is being referred to as the Hudson Logistics Center. The existing Green Meadows site consists of a 39-hole golf course and under existing conditions, has a single access location through a residential neighborhood with limited utility infrastructure as is typical of a development of this nature.

The proposed development will be a single parcel consisting of a newly constructed warehousing and distribution facility with a foot print of roughly 1.4m sf and a finished floor elevation of 147.00'. In support of the warehousing facility a truck court entry guard house (±1,114 sf), a transportation building (±3,538 sf), a maintenance building (±7,427 sf), and a pull through inspection canopy structure (±13,700 sf) will also be constructed. In addition to the structures described above, to support the operation of the facility, site improvements including the follow features are proposed; vehicular parking and a drop off area for employees, employee patio areas, loading bays, truck courts with trailer parking, circulation drives, pedestrian designated walkways, a snow removal system, and landscaped areas.

The facility will require a secure, fenced truck court area and separate, fenced associate parking area. A guard house will be located at the main access point to the truck court yard. Circulation drives will be partially separated between truck traffic and passenger vehicles to reduce on-site conflicts and ensure the safety of onsite operations. The number of employee parking stalls is based on the number employees required to operate the facility under peak season conditions. The loading bays and trailer parking stalls allow for the most efficient and effective operation of the facility in the smallest practical footprint.

A shared, private entrance roadway is proposed at the existing signal on Lowell Road that currently services the Mercury Systems building to allow access to the site. A second, private access road will connect to the western extent of Walmart Boulevard within an existing easement.

Upgraded utility infrastructure will be brought into the site within the two proposed entrance roadways to service the facility. The improvements have been coordinated with abutting properties to ensure service is appropriately maintained in the proposed condition.

1.6 Limits of Disturbance

The limits of disturbance have been kept to a practical minimum. The proposed warehouse and site improvements require large, flat areas with minimum variation in elevation. The existing topography on site includes large elevation changes. Flattening these areas to accommodate the building pad and surrounding paved areas will require cut and fill slopes that extend horizontally from the limits of the site improvements to meet existing grades. A relative flat tie-in slope of 4 feet horizontal to 1 foot vertical has been incorporated across majority of the site to ensure slope stability.

The required site access roads create necessary disturbance for reasons discussed above. The access roadways extend into the site and across several smaller wetland features to allow for the development to avoid the impacts to more high quality wetland systems. All disturbance to sensitive buffer areas and wetlands have been kept as low as practical through the use of increased tie-in grades and retaining walls. The specific layout for the development, associate site features and stormwater treatment systems were designed in a manner to encourage the most compact development footprint practical. For further site layout design details refer to the Low Impact Design (LID) discussion of Minimize Disturbance Areas in section 3.6 Stormwater Management.

During construction, the designed limits of disturbance will include soil erosion and sediment control features such as fiber rolls and silt fencing to ensure no unnecessary disturbance to natural areas will occur.

1.7 Construction Schedule

Due to the complexities of construction sequencing on a project of this magnitude, a general contractor will need to be consulted to outline specific details based on their individual approach. As a general contractor has not yet been selected for the project a rough three phased construction sequence identifying major construction actives has been outlined below. The schedule below is subject to change based on input from the general contractor, availability of materials and final permitting approval.

<u>Phase 1</u>

Quarter 1 2023

- Install phase 1 Soil Erosion and Sediment control Measures
- Install construction and demolition staging areas
- Utility and services disconnect

- Establish temporary services
- Site demolition, clearing and grubbing
- Install and construct Northeastern stream crossing

Phase 2

Quarter 1 2023
- Install phase 2 Soil Erosion and Sediment control Measures
- Mass earthwork and rough grading
  - Construct southern berm as soon as possible and stabilize soils
- Building pad construction

Phase 3

Quarter 3/4 2023
- Install phase 3 Soil Erosion and Sediment control Measures
- Stormwater conveyance system and utility installation
- Building construction
- Paving and landscaping installation
- Final site stabilization

Quarter 1 2024
- Certificate of Occupancy
- Removal of Soil Erosion and Sediment Control features

2.0 EXISTING CONDITIONS SUMMARY

2.1 Existing Site Conditions

Under existing conditions, Green Meadow Golf Course consists of a 39-hole golf course with associated cart paths, water and sand hazards, rolling topography, and supporting infrastructure. The site has two building on the property with access from Steele Road; a roughly 5,300 sf club house at elevation 158 feet in the center of the property with a small refreshment service and a roughly 11,000 sf maintenance facility with detached garage at elevation 138 feet in the south west corner of the property. The club house includes a several acre, paved parking lot and cart storage/staging area. Paved and gravel access roads service the club house and maintenance facility. The maintenance facility has dirt and gravel storage and service areas surrounding the building.

The existing topography on the site has significant grade changes with elevations varying up to 90 feet. Grades along Lowell Road from the northern intersection at Lowell Road and Walmart Boulevard to the southern intersection of Lowell Road and the Mercury System drive entrance are roughly elevation 160 to 170 feet respectively. Heading in a

westerly direction into the subject site, elevation drops to varying low points ranging between elevation 120 and 125 feet in the main wetland systems which runs from the north property line, along the rear of the Mercury Systems property line to the southern border. Further west into the site, elevations rise amongst rolling golf course topography to the top of a shallow ridge line which splits the major site watersheds. This ridge line begins at the northern extent of the property at roughly elevation 155 feet and continues south, approximately two thirds the length of the property where it reaches its highest elevation of ±170 feet. The ridge continues to the south where it meets the existing property line at elevation ±160 feet. To the west of the ridge, elevation drops over rolling golf course topography to the top of a steep slope about 60 feet from the edge of the Merrimack River. Elevations along the top of this steep slope vary from a north to south direction from approximately 120 to 100 feet in elevation. The edge of the Merrimack River from a north to south direction along the property limits is roughly elevation 88 to 87 feet.

2.2 Wetlands and Streams

Four main categories of wetlands exist on the site today; isolated ponds, the northeast wetlands, the southeast wetlands, and the Merrimack River. The isolated ponds, northeast and southeast wetlands on site have a long history of alteration predating the regulation of freshwater wetlands. The site was cleared and use for the agricultural purposes prior to the construction of the golf course in the 1950s. Between 1952 and 1965 large earthwork manipulation took place to construct the existing golf course. On-site wetlands were manipulated over this time period through clearing, filling, channelization, and excavation. Areas were also excavated outside of existing wetland areas to place water hazards, creating multiple isolated wetlands and some hydrologically connected wetlands through the use of pipes. The result is the complex wetland system on site today with varying levels of quality and function.

The northeastern wetland system is a mostly wooded area containing excavated ditched to provide a drainage path for stormwater discharge from an upstream detention pond located off the subject site. These excavated ditches flow to an unnamed perennial stream that discharges to the Merrimack River approximately 1,600 feet to the northeast.

The southeasterly wetland system contains wooded areas, scrub-shrub, emergent and open water wetlands; some of which are directly associate with Limit Brook. Limit Brook is a perennial tributary to the Merrimack River. Limit Brook enters the property to the southeast corner of the site, curves to the west and exists the site to the south. The

portion of the curve located on site was modified to create water hazards during the construction of the golf course.

More detailed descriptions of the wetland area functionalities and proposed impacts can be found in the NH DES Wetland Bureau Major Impact Dredge & Fill Application as an Appendix to this report under separate cover.

2.3 Soil Conditions

According to the USDA Natural Resources Conservation Service (NRCS) Web Soil Survey, the hydrologic soil type on site is predominantly group A and B (see Figure 3). However, upon further investigation out lined in "Site-specific Soil Survey Report, Hudson Logistics Center, Lowell and Steel Roads Hudson, NH, GES #2019216" performed by Gove Environmental Services, Inc. dated May 4th, 2020, found as an Appendix to this report, the following soils have been identified on site. The boundaries and locations of these soils can be found on the Site Specific Soil Survey Map Series.

Table 1: Soil Identification Chart

Map Unit Symbol	Map Unit Name	Rating
4	Pootatuck Very Fine Sandy Loam	B
24	Agawam Fine Sandy Loam	B
115	Scarboro Muck	D
400	Udorthents, Sandy	A
513	Ninigret Fine Sandy Loam	B
540	Raypol Loamy Fine Sand	D
699	Urban land	IMPERVIOUS
917	Ninigret Variant (Somewhat Poorly Drained)	C
Ponds	Open Water	N/A

A summary of the basic characteristics of the soil series present on-site are outlined below:

Pootatuck Very Fine Sandy Soil – Pootatuck Very Fine Sandy Soil occurs on flood plains that flood sporadically. These are fine textured soils that are moderately well drained. In this case, the Pootatuck series is found adjacent the Merrimac River.

Agawam Fine Sandy Loam – occurs on glacial outwash plains and alluvial deposits. The Agawam series has a fine sandy loam topsoil and subsoil, then becomes loamy sand in the substratum. This is a well-drained soil with estimated seasonal high water tables deeper than 40 inches. While this soil map unit is in a golf course that has undergone significant grading, the essential soil characteristics are present to identify the soil series. Common inclusions in depressions and swales is the soil series Ninigret.

Scarboro Muck – Scarboro Muck occurs in the wetlands on the site. Scarboro is very poorly drained and has an organic topsoil. Common inclusions are the poorly drained Raypol series and the Borohemists that have deeper organic deposits.

Udorthents, Sandy – Udorthents, Sandy represent areas on the site where excavation and filling have occurred to the extent that no soil characteristics remain to classify as a soil series. These are typically sandy or gravelly areas that are well to excessively drained.

Ninigret Fine Sandy Loam – Ninigret Fine Sandy Loam is the moderately well drained analog of the Agawam soil series. This is a moderately well drained soil that has an estimated seasonal high water table 20 to 30 inches below the soil surface. Like Agawam, the topsoil is fine sandy loam, the subsoil is fine sandy loam, and the substratum becomes coarser such as loamy sand or fine sand. It occurs on the same glacial outwash

landforms as Agawam, but is found more in the flat areas, drainage ways and swales. Inclusions are Deerfield loamy sand and the Ninigret Variant.

Raypol Loamy Fine Sand – Raypol Loamy Fine Sand is a hydric soil that is found on glacial outwash plains. It is found in conjunction with Agawam, Ninigret and Ninigret variant. It is found between the upland moderately well drained and somewhat poorly drained soils and the very poorly drained Scarboro muck. It is typically identified as wetlands.

Urban Land – Urban Land is a map unit that represents impervious areas of buildings, pavement and packed gravel parking areas.

Ninigret Variant (Somewhat Poorly Drained) – Ninigret Variant (Somewhat Poorly Drained) is the wetter analog of the Ninigret series. This is a somewhat poorly drained soil that has a seasonal high water table from 0 to 15 inches below the soil surface, but has high chroma matrices that do not make the soil hydric. This most occurs on this site as an inclusion to the Ninigret map unit.

Soils are classified into hydrologic soil groups (HSG) to indicate the minimum rate of infiltration obtained for bare soil after prolonged wetting. The HSGs, which are A, B, C and D, are one element used to determine runoff curve numbers and analyzing stormwater characteristics of a site.

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.

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.

2.4 FEMA

According to the Flood Insurance Rate Map of Hillsborough County, New Hampshire conducted by the Federal Emergency Management Agency (FEMA) map number 33011C0656D and map number 33011C0658D with effective dates of September 25, 2009 the site is located within the following zones:

- FEMA Flood Zone X (Unshaded)
- FEMA Flood Zone X (Shaded)
- FEMA Flood Zone A
- FEMA Flood Zone AE with a base flood elevation (BFE) of 111 (see Figure 2)
- Floodway Areas in Zone AE

The FEMA figure does not accurately reflect the limits of the Zone AE flood plain based on more accurate topographic information provided by the topographical survey used for this development. The Zone AE limits follow Base Flood Elevation (BFE) 111 contour in the northwestern portion of the site and the BFE 110 in the southwestern portion of the site. The accurate Zone AE flood limits, adjusted to the design vertical datum, is reflected in the proposed design documents. The survey files reflect the FEMA delineated line.

The project will not including any fill condition within the 100 year flood plain.

The Zone A flood area located in the south east region of the site along Limit brook was analyzed in the army corps of engineer's software known as HEC-Ras to determine the 100 year flood elevations. These calculations can be found in Appendix J of this report.

The limits of the Zone A floodplain have been reflected similarly to those of the adjusted Zone AE limits discussed above.

3.0 PROPOSED STORMWATER TREATMENT SUMMARY

The purpose of the Stormwater Management Plan is to provide long-term protection of natural resources in and around the site. This is achieved by implementing stormwater quality and quantity control measures designed to reduce pollutant discharge from the site, maintain a level of stormwater recharge and control discharge flow rates.

3.1 Design Criteria

Peak flow rates at all points of discharge from the site were analyzed to compare proposed discharge rates with the existing condition.

The storms analyzed include the following:

- A 2-year, 24-hour storm consisting of 3.11 inches of rainfall
- A 10-year, 24-hour storm consisting of 4.79 inches of rainfall
- A 25-year, 24-hour storm consisting of 5.84 inches of rainfall
- A 50-year, 24-hour storm consisting of 6.62 inches of rainfall

These events are based on the site specific location data provided by the National Weather Service (NOAA) Precipitation Frequency Data Server (PFDS) and the Northeast Regional Climate Center (NRCC) "Atlas of Precipitation Extremes for the Northeastern United States and Southeast Canada" Type III, 24-hour storm event for Hudson New Hampshire. NOAA Atlas 14, Volume 10, Version 3.

3.2 Design Methodology

The peak runoff discharges for the existing and proposed conditions were analyzed using Soil Conservation Service (SCS) methodology, which outlines procedures for calculating peak rates of runoff resulting from precipitation events, and procedures for developing runoff hydrographs. Values for area, curve number, and time of concentration were calculated for the existing and proposed conditions.

The curve number "CN" is a land-sensitive coefficient that dictates the relationship between total rainfall depth and direct storm runoff. The soils within the watershed are divided into hydrologic soil groups (A, B, C and D) as previously described.

The time of concentration, Tc, is defined as the time for runoff to travel from the hydraulically most distant point in the watershed to a point of interest. Values of time of concentration were determined for existing and proposed conditions based on land cover and slope of the flow path, using methods outlined in the SCS methodology.

For this study, a 24-hour SCS Type III standard rainfall distribution was used to determine the peak flow rate to all points of discharge from the site.

3.3 Existing Runoff Discharges (See Appendix A for Calculations)

The project site directs stormwater run-off to two analysis locations under the existing conditions. Watershed A discharges run off directly to the Merrimack River along the western Property line via sheet flow or pipe discharge. Watershed B discharges run off, to wetland systems running north to south through the eastern region of the property west of Lowell Road. This wetlands system includes portions of an unnamed stream to the north and portions of Limit Brook to the south. Both of which ultimately discharge to the Merrimack River.

The watershed analysis includes surrounding areas beyond the property line that contribute flow to the project site's watersheds and drainage analysis. The existing watersheds A and B analyzed in this report were further delineated into Watersheds A1, A2, A3, A4, A5, A6, A7, A8, A9, A10, A11, A12 and Watersheds B1, B2, B3, B4, B5, B6, B7, B8, B9, B10, B11, B12, B13 to more accurately model the existing flow patterns. These watersheds are described below:

Watershed A

Watershed A1, ±32.78 acres, is located along the western region of the project site. The watershed consists of areas of the golf course including fairways, paths, trees and sand traps as well some more heavily wooded regions. Run off sheet flows over land in a south westerly direction where majority of the run off is directed through an existing 48 inch RCP culvert and discharged directly into the Merrimack River. A small area in the southern section of the watershed sheet flows directly over land to the watershed analysis point A, the Merrimack River.

Watershed A2, ±2.84 acres, is located along the northern property line. The watershed consists of some fairway areas, paths, and lightly wooded regions. Run off sheet flows over land in a north easterly direction where it enters an offsite drainage channel that discharges to the Watershed analysis point A, the Merrimack River.

Watershed A3, ±25.56 acres, is located along the southern property line. The watershed consists of areas of the golf course including fairways, paths, trees and sand traps as well some more heavily wooded regions. Run off sheet flows over land in a westerly direction to the watershed analysis point A, the Merrimack River.

Watershed A4, ±32.41 acres, is located in the southerly region of the site. The watershed consists of areas of the golf course areas including fairways, paths, trees, sand traps and a small pond feature that functions as a golf water hazard. More heavily wooded areas exist on steep slopes in the watershed. A maintenance facility including a main building and a smaller accessory structure, gravel parking / staging areas and roadway exist in this watershed. Run off sheet flows over land in a westerly direction to the water hazard pond. Overflow volumes are directed through watershed A11 to watershed analysis point A, the Merrimack River.

Watershed A5, ±18.17 acres, is located in the south west region of the site. The watershed consists of areas of the golf course areas including fairways, paths, trees, sand traps and a shallow, wooded wetland depression. Run off sheet flows over land in a westerly direction to the wetland depression where it captured. Overflow volumes are directed through watershed A11 to watershed analysis point A, the Merrimack River.

Watershed A6, ±9.80 acres, is located in the norther east corner of the site, along the northern property line. The watershed consists of areas of the golf course areas including fairways, paths, trees, and sand traps. Run off sheet flows over land in a westerly direction to shallow channel directing flows to watershed A-8 where run off ultimately discharges to Watershed analysis point A, the Merrimack River.

Watershed A7, ±12.15 acres, is located in the northern region of the site. The watershed consists of areas of the golf course areas including fairways, paths, trees, sand traps, and more minor areas of more densely wooded sections. Run off sheet flows over land and is partially captured in shallow depressions created by the golf course topography where shallow pools are infiltrated. By passing flows are directed to watershed A12.

Watershed A8, ±1.75 acres, is located in the north western property line and runs along the Merrimack River. This watershed consists of mainly wooded areas and steep slopes along the river bank. Some grassy areas associated with the golf course are included along the eastern watershed extent. Run off from this watershed sheet flows directly over land to Watershed analysis point A, the Merrimack River.

Watershed A9, ±9.69 acres, is located in the central, western region of the site. The majority of watershed consists of the main club house building and patio, paved parking lot, cart storage staging area, paths, drives and walkways. Areas of the golf course including fairways, trees, and sand traps make up the remained or the watershed. Run off sheet flows over land in a westerly direction to a rip rap channel with a pipe inlet. Water is captured and conveyed via closed pipe network to a direct discharge location in watershed A1 along the bank of the Merrimack River, watershed analysis point A.

Watershed A10, ±9.46 acres, is located in the central region of the site. The majority of watershed consists of the golf course areas including fairways, paths, trees, and sand traps with a more densely wooded area toward the middle of the watershed. Run off sheet flows over land in a westerly direction to a shallow depression with a catch basin inlet. Linked pipe information is available, however flows appear to be conveyed via closed pipe network and daylight in watershed A4 and ultimately, watershed analysis point A, the Merrimack River.

Watershed A11, ±6.18 acres, is located along the western property line and runs along the Merrimack River. This watershed consists of mainly wooded areas and steep slopes along the river bank. Some grassy areas and sand traps associated with the golf course are included along the eastern watershed extent. Run off from this watershed sheet flows directly over land to Watershed analysis point A, the Merrimack River

Watershed A12, ±22.00 acres, is located in the northern central area of the site. The watershed consists of areas of the golf course areas including fairways, paths, trees and sand traps. Run off sheet flows over land and is partially captured in shallow depressions created by the golf course topography where shallow pools are infiltrated. By passing flows are directed to watershed A1 where run off ultimate discharges to watershed analysis point A, the Merrimack River.

Watershed B

Watershed B1, ±33.06 acres, is located in the northeastern area of the project site. A small portion of watershed B-1 is located to the northern side of the existing Mercury System drive entrance. The northern half of the crowned access drive sheet flows to a wetland system discharging to the unnamed stream located in the main portion of watershed B1. The eastern two thirds of the main watershed consists of woods, wetlands and an unnamed stream as well as a portion of Walmart Boulevard. The western

third includes portions of the golf course including fairways, paths, trees and sand traps. Run off sheet flows directly to the main wetland system of Watershed analysis point B.

Watershed B2, ±12.77 acres, is located in the central northern section of the site. The area includes portions of the golf course including fairways, paths, trees, sand traps and a water hazard pond. Run off sheet flows over land to the water hazard pond and subsequently to the main wetland system of Watershed analysis point B within watershed B3.

Watershed B3, ±18.52 acres, is located in the central, eastern region of the project site. The eastern half of the watershed consists of wooded and wetland areas. The western half includes areas of the golf course including fairways, paths, trees and sand traps. Run off sheet flows directly to the main wetland system of watershed analysis point B.

Watershed B4, ±29.73 acres, is located along the eastern property line within the existing property lines. The watershed consists of woods and wetland areas to the north and portions of the golf course including fairways, paths, trees sand traps, wetlands and a portion of Limit Brook to the south. Run off sheet flows in a southerly direction over land to wetlands connected to Limit Brook and to the main wetland system of Watershed analysis point B.

Watershed B5, ±34.44 acres, is located in the central eastern region of the project site. The eastern region of the watershed consists of wetland areas, a section of Limit Brook and a wooded portion of the property. The western half consists of sections of the golf course including fairways, paths, trees, sand traps and sections of the main access drive. Run off sheet flows in an easterly direction over land to the main wetland system of watershed analysis point B.

Watershed B6, ±27.95 acres, is located in the south eastern region of the project site. The watershed consists of sections of the golf course including fairways, paths, trees, sand traps and sections of the main access drive as well a region of Limit Brook and wetland systems containing minimal trees. Run off sheet flows in an easterly direction over land to the main wetland system of watershed analysis point B.

Watershed B7, ±7.76 acres, is the south eastern extent of the project site. The watershed consists mainly of woods, wetlands and region of Limit Brook. A section of the golf course fairways, paths, and trees occupy the western extent of the watershed. Run off sheet

flows in an easterly direction over land to the main wetland system of watershed analysis point B.

Watershed B8, ±10.50 acres, is located along the southern property line near the eastern corner. The watershed consists or golf course fairways, paths, sand traps, trees and a pond. Run off sheet flows in an easterly direction over land to the pond. The pond discharges over flow volumes easterly to combine with watershed B-7 and ultimately discharge to the main wetland system of watershed analysis point B.

Watershed B9, ±10.08 acres, is located centrally to the project area. The watershed consists of portions of the golf course including fairways, paths, trees and sand traps. Run off sheet flows over land and is partially captured in shallow depressions created by the golf course topography where shallow pools are infiltrated. By passing flows are directed into the main wetland system of watershed analysis point B through watershed B5.

Watershed B10, ±1.01 acres, is located along the northern property line. This area consists of mainly woods. Run off sheet flows over land and is partially captured in shallow depressions created by the golf course topography where shallow pools are infiltrated. By passing flows are directed into the main wetland system of Watershed analysis point B through watershed B1.

Watershed B11, ±1.28 acres, is located along the northern property line. This area consists of mainly woods. Run off sheet flows over land and is partially captured in shallow depressions created by the golf course topography where shallow pools are infiltrated. By passing flows are directed into the main wetland system of watershed analysis point B through watershed B1.

Watershed B12, ±5.24 acres, is located in the south east region of the site. The watershed consists or golf course fairways, paths, sand traps, trees and a pond. Run off sheet flows in an easterly direction over land to the pond. The pond discharges over flow volumes easterly to combine with watershed B-5 and ultimately discharge to the main wetland system of watershed analysis point B

Watershed B13, ±14.40 acres, is located along the western extent of Lowell Road and extends to the eastern existing property line of the subject property. The majority of this watershed consists of woods and wetland areas. Portions of the northern abutter's access driveway and roadway shoulders along Lowell Road are also included in the

watershed. Run off sheet flows in a south westerly direction over land to wetlands connected to Limit Brook and to the main wetland system of watershed analysis point B.

3.4 Proposed Runoff Discharges (See Appendix B for Calculations)

The proposed watershed analysis utilizes the same two discharge locations as under the existing conditions, A and B. The outer limits and overall area analyzed under the proposed conditions is consistent with the existing conditions. Having consistent analysis of overall areas and discharge locations between the existing and proposed conditions ensures the model represents an accurate pre and post construction run off comparison.

In order to accurately model and route the various stormwater features the proposed watersheds have been further delineated. Several of the existing watershed no longer exist. The elimination of these watersheds is a result of the areas being significantly altered requiring them to be combine with other watersheds. The proposed watersheds area have been identified as follows;

- Watershed A
  - A1-1
  - A1-2
  - A1-3
  - A2
  - A3
  - A4
  - A5
  - A6-1
  - A8
  - A11
  - A11-1

- Watershed B
  - B1-1
  - B1-2
  - B1-3
  - B2
  - B3-1
  - B3-2
  - B4
  - B5-1
  - B5-2
  - B6-1
  - B6-2
  - B7
  - B8
  - B10
  - B11
  - B13

Watershed A

Watershed A1-1, ±22.14 acres, includes the western portion of existing watershed A1. The eastern most potion of the watershed area has been reduced and a seeded fill slope now occupies a section of the area. Flows patterns in this watershed have been substantially maintained as under existing conditions.

Watershed A1-2, ±21.47 acres, includes the central western region of the roof area, the central, western region of the loading bays and truck court, the transportation building, O.T.R. and tractor parking lots, pedestrian walk ways and landscaped areas. Run off from this watershed is collected by four foot deep sumped catchbasins or roof leaders and conveyed via a closed pipe network. Run off collected from the truck court area passes through an oil water separator. Stormwater is discharged from the collection network to a sediment forebay located in Infiltration basin A1-2. The stormwater quality volume is treated, groundwater recharge provided, and flows attenuated before discharging at a controlled rate through an outlet control structure. Flows discharge over a preformed scour hole and combine with watershed A1.

Watershed A1-3, ±31.97 acres, is located entirely in the north western region of the developed area. The watershed includes the north western region the main building's roof area, the northern western loading bays and truck court areas, main truck entrance guard shack and parking lot, truck turn around area, snow scrapper, pull through inspection canopy, pedestrian paths, and landscaped areas. Run off from this watershed is collected by four foot deep sumped catchbasins or roof leaders and conveyed via a closed pipe network. Run off collected from the truck court area passes through an oil water separator. Stormwater is discharged from the collection network to a sediment forebay located in Infiltration basin A1-3. The stormwater quality volume is treated, groundwater recharge provided, and flows attenuated before discharging at a controlled rate through an outlet control structure. Flows discharge over a preformed scour hole and combine with watershed A1-1.

Watershed A2, ±0.16 acres, includes the remaining area of existing watershed A2. The southernmost area of the watershed has been reduced. Flows patterns in this watershed have been substantially maintained as compared to the existing conditions. Run off sheet flows over land in a north easterly direction where it enters an offsite drainage channel that discharges to the Watershed analysis point A, the Merrimack River.

Watershed A3, ±23.40 acres, includes the remaining area of existing watershed A3. The northernmost area of the watershed has been reduced. A large section of the planted berm is included in this watershed. A grass swale has been included to ensure run off from the berm is directed to the south, away from the neighboring residential properties. The swale discharges to a shallow pool which over tops to a level spreader dissipating flow to ensure no erosion will occur. From there, water sheet flows towards the Merrimac River.

Watershed A4, ±14.77 acres, includes the remaining area of existing watershed A4. The north eastern most area of the watershed has been reduced. A seeded and planted area is proposed where the demolished maintenance building stood. Flows patterns in this watershed have been substantially maintained as compared to existing conditions.

Watershed A5, ±5.47 acres, includes the remaining area of existing watershed A5. The easternmost area of the watershed has been reduced and now contains a portion of the earthen berm. Flows patterns in this watershed have been substantially maintained as compared to the existing conditions.

Watershed A6, ±4.89 acres, includes the remaining area of existing watershed A6. The north eastern area of the watershed has been reduced and now contains the seeded fill slope of Infiltration basin A1-3. Flows patterns in this watershed have been substantially maintained as compared to the existing conditions.

Watershed A8, ±1.75 acres, is located in the north western property line and runs along the Merrimack River and remains untouched from the existing condition. This watershed consists of mainly wooded areas and steep slopes along the river bank. Some grassy areas associated with the golf course are included along the eastern watershed extent. Run off from this watershed sheet flows directly over land to Watershed analysis point A, the Merrimack River.

Watershed A11-1, ±6.18 acres, remains unaltered in the proposed condition with the exception of additional planting. Flow patterns have been maintained from existing conditions.

Watershed A11-2, ±34.75 acres, includes a portion of the northern face of the earthen berm, a section of the emergency access road and areas of the existing golf course that are to be planted. Run off flows overland to infiltration basin A11-2. A11-2 is continued in the south western region of the development. The watershed includes the south western region of the roof area, the south western region of the loading bays and truck court, the maintenance building and associated parking lot, south west associate parking lot, pedestrian walk ways and landscaped areas. Run off from this watershed is collected by four foot deep sumped catchbasins or roof leaders and conveyed via a closed pipe network. Run off collected from the truck court area passes through an oil water separator. Stormwater is discharged from the collection network to a sediment forebay located in Infiltration basin A11-2. The stormwater quality volume is treated, groundwater recharge provided, and flows attenuated before discharging at a controlled rate through

an outlet control structure. Flows discharge over a preformed scour hole and combine with watershed A11-1.

Watershed B

Watershed B1-1, ±26.80 acres, includes the remaining area of existing watershed B-1. The western most potion of the watershed was reduced. The northern Walmart Blvd. access road way spilt the main watershed in an east to west direction. All proposed impervious run off is removed from the watershed. Where the roadway crosses the wetland and unnamed stream, an arched, open bottom culvert crossing has been proposed to maintain ecological and hydrologic connective as under existing conditions. The small portion to the north of the Mercury Systems drive has also been reduced, removing impervious areas and incorporating planted slopes. Flows patterns in this watershed have been substantially maintained as under existing conditions.

Watershed B1-2, ±4.40 acres, is located in the northern eastern region of the development and includes the northern access roadway, a segment of the truck entrance and guard shack parking area drive, and a portion of north eastern site circulation road. Run off from this watershed is collected by catchbasins and conveyed in a four foot deep sumped catchbasin, closed pipe network. Water is discharged from the collection network to a sediment forebay located in Infiltration basin B1-2. The stormwater quality volume is treated, groundwater recharge provided, and flows attenuated before discharging at a controlled rate through and outlet control structure. Flows discharge to a preformed scour hole and combine with watershed B1-1.

Watershed B1-3, ±20.50 acres, is located in the north eastern region of the development and include a portion of the truck court area, pallet storage area, roof drainage and landscaped areas. Run off from this watershed is collected by four foot deep sumped catchbasins or roof leaders and conveyed via a closed pipe network. Run off collected from the truck court area passes through an oil water separator. Stormwater is discharged from the collection network to a sediment forebay located in extended dry detention basin B1-3. The stormwater quality volume is treated, and flows attenuated before discharging at a controlled rate through an outlet control structure. Flows discharge over a preformed scour hole in infiltration basin B1-2 and continue downstream as described above.

Watershed B2, ±7.32 acres, includes the remaining area of existing watershed B-2. The western most potion of the watershed was reduced and a seeded fill slope now occupies

a section of the area. Flow patterns in this watershed have been substantially maintained as compared to the existing conditions.

Watershed B3-1, ±13.90 acres, includes the remaining area of existing watershed B-3. The western and southern most potion of the watershed has been reduced and a seeded fill slope and retaining wall now occupy a section of the area. Flow patterns in this watershed have been substantially maintained as compared to the existing conditions.

Watershed B3-2, ±7.08 acres, encompasses the entirety of the central site access roadway, portions of the eastern site circulation roadway, landscaped areas and pedestrian walkways. Run off from this watershed is collected by catchbasins and conveyed in a four foot deep sumped catchbasin, closed pipe network. Water is discharged from the collection network to a sediment forebay located in extended dry detention basin B3-2. The stormwater quality volume is treated, and flows attenuated before discharging at a controlled rate through and outlet control structure. Flows discharge to a preformed scour hole and combine with watershed B3.

Watershed B4, ±28.64 acres, includes the remaining area of existing watershed B-4. The watershed has been split by the main access drive. All proposed impervious run off is removed from the watershed. Seeded side slopes and drainage features are now included in the watershed. Flow patterns in this watershed have been substantially maintained as compared to the existing conditions.

Watershed B5-1, ±24.06 acres, includes the remaining area of existing watershed B-5. The watershed has been split by the main access drive. All proposed impervious run off is removed from the watershed. Seeded side slopes and drainage features are now included in the watershed. Where the main access road crossed the wetland, an arched open bottom culvert has been installed to maintain ecological and hydrologic connectivity as under existing conditions. Flow patterns in this watershed have been substantially maintained as compared to the existing conditions.

Watershed B5-2, ±10.22 acres, is located eastern central region of the development and includes a portion of the south eastern truck court, water tower, landscaped areas and pedestrian walk ways. Run off from this watershed is collected by four foot deep sumped catchbasins or roof leaders and conveyed via a closed pipe network. Run off collected from the truck court area passes through an oil water separator. Water is discharged from the collection network to a sediment forebay located in Infiltration basin B5-2. The stormwater quality volume is treated, groundwater recharge provided, and flows

attenuated before discharging at a controlled rate through and outlet control structure. Flows discharge to a preformed scour hole and combine with watershed B5.

Watershed B6-1, ±10.05 acres, includes the remaining area of existing watershed B-6. The western region of the watershed has been reduced and now includes planted slopes and a portion of the emergency access road. Flow patterns in this watershed have been substantially maintained as compared to the existing conditions.

Watershed B6-2, ±39.11 acres, is located in the south eastern region of the development. The watershed includes the south eastern portion the main building's roof area, eastern associate parking lots, associate entry gates, drop off area, south eastern circulation road, emergency access road, patio areas, north eastern extent of the berm, pedestrian paths, and landscaped areas. Run off from this watershed is collected by four foot deep sumped catchbasins or roof leaders and conveyed via a closed pipe network. Stormwater is discharged from the collection network to a sediment forebay located in Infiltration basin B6-2. The stormwater quality volume is treated, groundwater recharge provided, and flows attenuated before discharging at a controlled rate through an outlet control structure. Flows discharge over a preformed scour hole and combine with watershed B6-1.

Watershed B7, ±8.04 acres, includes the remaining area of existing watershed B-7. The western most potion of the watershed was reduced and a seeded berm slope now occupies a section of the area. Flow patterns in this watershed have been substantially maintained as compared to the existing conditions.

Watershed B8, ±7.57 acres, includes the remaining area of existing watershed B-8. The western most potion of the watershed was reduced and seeded berm slopes now occupy a section of the area. The existing, manmade pond was left intact. Flow patterns in this watershed have been substantially maintained as compared to the existing conditions.

Watershed B10, ±0.70 acres, includes the remaining area of existing watershed B-10. The southernmost potion of the watershed was reduced. Flow patterns in this watershed have been substantially maintained as compared to the existing conditions.

Watershed B11, ±0.73 acres, includes the remaining area of existing watershed B-11. The southernmost potion of the watershed was reduced. Flow patterns in this watershed have been substantially maintained as compared to the existing conditions.

Watershed B13, ±13.44 acres, includes the remaining area of existing watershed B-13. The northernmost potion of the watershed was reduced. Flow patterns in this watershed have been substantially maintained as compared to the existing conditions.

In the above described watershed, the impervious areas have increased from the existing to the proposed condition. Impervious areas were strategically placed as far from sensitive areas as discussed in section 3.6. The vast majority of proposed impervious area will be captured and treated at a very high level as described in the section below. The existing impervious area is roughly ±11.59 aces (±504,860 sf). In the proposed condition, the impervious coverage is ±111.28 acres (±4,847,313 sf). Standing water is considered an impervious coverage area from a stormwater analysis perspective and has been included as such in the above areas. The development will result in a net increase of ±99.69 acres (±4,342,453 sf) of impervious area.

3.5 Existing vs. Proposed Discharge Comparison

The proposed stormwater management plan, discussed in this report, results in a net reduction of peak offsite flows from watershed A and B. While the impervious area on site will increase, stormwater BMPs have been sized to not only meet but exceed the current regulations for stormwater treatment, flow attenuation and groundwater recharge requirements. Stormwater treatment will be discussed later on in this report.

Table 2 provides a comparison of the peak run off rates from the pre development state to the post development state. Flow comparison is provided for the 2, 10, 25, and 50 year storm events and the percentage reduction in flow is listed for each instance.

Table 2: Peak Flow Runoff Rate Comparison (cubic-feet per second)

		FLOW (CFS)			
		2-year	**10-year**	**25-year**	**50-year**
A	Pre	20.37	81.97	145.64	211.88
	Post	9.83	49.54	83.45	112.03
	Delta	**-51.74%**	**-39.56%**	**-42.70%**	**-47.13%**
B	Pre	49.99	190.62	299.32	387.69
	Post	44.88	155.15	239.09	306.31
	Delta	**-10.22%**	**-18.61%**	**-20.12%**	**-20.99%**

Table 3 provides a comparison of the volume run off conditions in the same manner as the peak run off Table 2 above. The 2 year storm volume is a critical measure to ensure appropriate channel protection (CP). As seen in Table 3 below, the post development 2

year storm event volumes do not exceed pre development volume. Having reduced the peak flows from the 2-yr storm as well, the downstream channel protection criteria has been met for the site discharge.

Table 3: Runoff Volume Comparison (cubic-feet)

VOLUME (AC-FT)					
		2-year	10-year	25-year	50-year
A	Pre	3.97	13.34	20.92	27.11
	Post	2.20	9.25	15.07	19.93
	Delta	**-44.51%**	**-30.65%**	**-27.96%**	**-26.47%**
B	Pre	7.00	20.91	31.73	40.51
	Post	6.27	20.25	30.90	39.80
	Delta	**-10.43%**	**-3.15%**	**-2.62%**	**-1.75%**

3.6 Stormwater Management

The stormwater management system described in this reports meets or exceeds the applicable regulatory criteria. Site layout, stormwater management features, BMPs, watershed layout, and LID practices have been carefully designed to provide an environmentally sensitive and sustainable stormwater treatment train. The major aspects of these design will be discussed in this section.

The Low impact development (LID) practices used to in this design include minimized disturbance areas, minimized impervious areas, flow path practices, preservation of infiltratable soils, preservation of natural depression areas, and natural vegetation preservation.

Minimize Disturbance Areas

The site layout was chosen to incorporate a large footprint development on the property while avoiding sensitive areas and limiting over all disturbance to areas such as wetlands and the shoreland protection buffer. Roadways, building pads, parking lots, truck courts, circulation routes and other impervious areas have been placed entirely out side of the shoreline protection buffer. The main access roads to the site have been routed to minimize direct wetland impact at required crossing to the greatest extent practical. Interior roadways, building pads, parking lots, truck courts, circulation routes and other impervious areas have been consolidated to the center of the site, avoiding sensitive areas to the east and west.

No major site improvements or stormwater BMPs have been located in the shoreland buffer. Areas of disturbance in the shoreland buffer consist of impervious surface removal, minor utility installation, and plantings and restoration efforts to return the fairways and open areas to a more natural state. This will allow any direct run off in the buffer to filter through large swaths of vegetation before entering the Merrimack River and for natural habitat growth within the buffer zone. Disturbance within the buffer is located in areas that limit effects on natural vegetation growth close the river such as wooded areas and vegetation not previously maintained by the existing golf course.

Impervious placement of site features and disturbance to wetland buffers were avoided as much as practical. Direct wetland impacts are necessary to construct the development. Roadway layout and wetland crossings were located in the least intrusive locations while maintaining ecological and hydrologic connectivity, allowing for flows for designed storms to operate as under existing conditions. The direct wetland impacts were reduced through the use of retaining walls and steeper tie-in slopes. Disturbance to four existing man-made ponds have been intentional avoided by proposed development. The ponds are to remain and receive restoration plantings around the perimeter to improve their overall function.

Minimize Impervious Areas

Impervious areas were minimized as much as possible through reduced roadway width and pedestrian areas while incorporating many landscaped island and grassy areas to break up large impervious surfaces when possible. Disconnected impervious areas do not lend themselves well to a development of this magnitude and its location in close proximity to wetlands and buffer areas. To ensure high levels of treatment, as much run off from impervious areas as practical is being captured and treated beyond the required volume. In many situations, run off will pass through multiple BMPs in series before reaching the final discharge location. To further provided elevated treatment, roof run off will be treated the same as other impervious areas receiving full pretreatment before entering BMPs.

Flow Path Practices

Flow paths are ultimately directed to the same discharge locations as under existing conditions. Run off from impervious areas are mainly captured by closed pipe, 4 foot deep sumped catchbasin networks before discharging to the treatment BMPs. The majority of

runoff from truck court surfaces is directed to oil water separators prior to entering downstream BMPs.

Outfall locations from treatment and attenuation features where chosen to encourage long overland flow paths through vegetated areas prior to leaving the site where practical. These locations have also been chosen to avoiding channelization and downstream erosion.

Preservation of Infiltrative Soils

Based on recent sub surface investigation performed by Langan, the soils on site vary greatly in infiltration rate. Across the entire project site, measures were taken to provide protection to existing areas of infiltration. As previously discussed, the main impervious portions in the proposed condition are located in the center of the site, away from setback areas and wetlands. The center of the site is also the highest topographical location on the site under existing conditions. Currently, this directs run off to the east and west. Along the eastern side, wetlands occupy the low lying areas. To the west, many shallow ponding areas and depressions exist due to the rolling topography of the existing golf course. In the proposed condition, the existing topographic features to the east, west and south of the developed areas will be left as is and a meadow mix planted. This will maintain the infiltrative capacity of undisturbed areas while locating majority of the site on the existing high points that currently deflect run off rather than infiltrate.

Areas that are proposed as infiltration basins have been call out in the soil erosion and sediment control phasing plans to be protected. They will be protected from construction activities and compaction. If over land construction run off is directed towards the infiltration basins, the temporary bottoms are to be constructed feet above the finished proposed infiltration basin floors. All fines and infiltration limiting materials that have accumulated are to be dug out and clean soils exposed before planting and final stabilization.

Preservation of Naturally Depressed Areas,

Existing low points and depressions have been preserved in much the same manner as discussed above in the preservation of infiltrative soils sections. In addition to maintaining depressed topography in undisturbed locations, proposed BMP locations were sited to utilize natural depressions and low points on site. Infiltration basins A1-1 and A11-1 are placed in existing depressions where run off natural flows to. Placing ponds in natural

depressions has allowed for lower exterior pond embankment heights and a stormwater management features that blend into the natural surrounds. Infiltration basin B1-2, B5-1, and B6-2 incorporate the tie in slope of the adjacent roadway and are located in areas that are topographically depressed in the existing condition. Pond B1-3 and B5-2 take advantage of the area between the development and the main circulation road rather than creating additional disturbance in close proximity to wetland areas. Discharge locations from ponds were sited to daylight in low depressed areas with shallow slopes to provide as much over land flow through vegetative, infiltratable area before reaching the final discharge locations.

All four existing manmade ponds or golf course water hazards are to be maintained. These pond will also receive planting in the buffer zone surrounding the wetlands to improve the overall function of the habitats under the proposed condition.

Natural Vegetation Preservation

Disturbance of natural vegetation has been avoid as much as practical while laying out the site design and grading features in the proposed condition. As discussed in the Minimize Disturbance Areas under section 3.6 the wetlands and buffer areas, including associated vegetation were avoid as much as practical. The berm with sound fence near the southern property line was located to maintain as many well established trees and vegetation as practical. A large region of undeveloped area between the southern associate parking and the northern face of the berm has been left undisturbed with the exception of an emergency access road that has been sited to avoid existing vegetation as much as possible. Where disturbance for the development is not necessary, natural vegetation such as trees and underlying growth will remain. Fairways and maintained grasses for golf course use will be replaced with a specifically designed meadow mix or planting.

3.7 Stormwater Treatment Measures

The proposed development includes many forms of stormwater treatment. This section discusses how the proposed stormwater management system satisfies the water quality treatment and groundwater recharge requirements of the governing authorities.

This stormwater management report has been designed in accordance with the criteria set forth in The Town of Hudson Zoning Ordinance Chapter 290 Stormwater Management and with the New Hampshire Department of Environmental Services. This application is

considered a New Development under the Town of Hudson Zoning Ordinance, chapter 290 states the following for new developments:

> *(1) New Development: In addition to the Basic Stormwater Management Standards in Subsection A above, new development projects that will disturb 40,000 square feet or more shall also meet one of the following enhanced stormwater management requirements in accordance with EPA's MS4 Stormwater Permit requirements:*
>
> *(a) Incorporate stormwater treatment BMPs into the project design that are designed to retain the Water Quality Volume generated from the total post-construction impervious area to the maximum extent practicable and calculated in accordance with N.H. Code Admin. R. Part Env-Wq 1504.10.; or*
>
> *(b) Incorporate stormwater treatment BMPs designed to remove 80% of the average annual Total Suspended Solids (TSS) load and 50% of the average annual Total Phosphorus (TP) load generated from the total post-construction impervious area to the maximum extent practicable. [NOTE: Pollutant removal efficiencies shall be based on procedures contained in Attachment 3 of Appendix F of the 2017 NH MS4 Permit or by using the Best Management Practices (BMP) Performance Data Contained in the Appendix E of the NH Stormwater Manual, Volume 1, 2008 or as amended.]*

The proposed design will not only satisfy criteria 1(a) by sizing BMPs to treat water quality volumes from the total post-construction impervious areas to the maximum extent practicable calculated using the NHDES BMP worksheets but incorporates specific BMPs to remove, at a minimum, 80% TSS removal and target phosphorous and nutrient removal.

In-ground Infiltration Basins

The main water quality, pollutant removal and groundwater recharge treatment is provided through several infiltration basin BMPs. All Infiltration basins conform to the New Hampshire Stormwater Manual design criteria. Each basin has been designed to contain the 50 year storm with a minimum of 1 foot of free board, maintain a minimum of 3 feet of separation from the bottom of the pond to the seasonal high groundwater table, provide a minimum of 25% pretreatment of the full water quality volume, a maximum of 4:1 side slopes, and incorporates access locations for maintenance. These basins are equipped with outlet control structures designed to retain, at a minimum, the required WQV below the lowest orifice. As a back-up measure, dry well structures are incorporated to ensure the basins will not remain wet if infiltration rates fail over time. Sediment forebays within the infiltration basins have been excluded from the total retention / attenuation capacity, infiltration rate drawdown times, groundwater recharge and total water quality

calculations. The forebays have also been sized to accommodate a minimum of 25% of the total WQV, including the roof areas which are allowed to bypass forebays according to the New Hampshire Stormwater Manual.

The design infiltration rate of these basins vary based on the location of the feature. The infiltration feasibility report included as an appendix to this report outlines the infiltration testing procedure and rates used for each area based on soil type and infield testing. A factor of safety of 2 has been applied to ensure a conservative approach.

Dry Extended Detention Basin with Micropool

Two dry extended detention basins with micro pools have been included in the proposed design. The two locations have been chosen for detention because they require low bottoms of pond with less than 3 feet of separation to groundwater to allow long run horizontal conveyance lines to discharge at appropriate elevations. The ponds are designed to accommodate the 50 year storm volume with a minimum of 1 foot of freeboard. Sediment forebays have been sized to accommodate 25% of the overall WQv and are excluded form retention volumes. The micro pool has been designed to accommodate between 10% and 50% of the total WQV and 5% of the larger pool area. A low flow outlet is placed at the same elevation of the larger pool bottom to ensure the basin fully drains.

Sediment Forebays

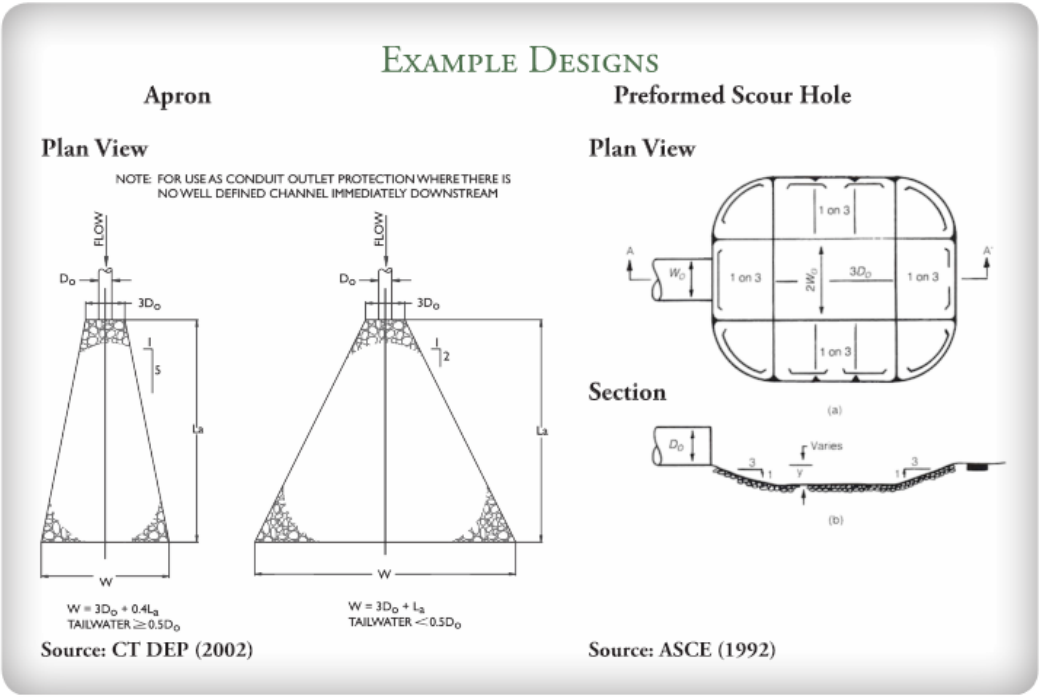
Sediment forebays have been sized to accommodate a minimum of 25% of the calculated WQv for the respective watershed below the first opportunity to enter the overall feature. These features are proposed above the water table. While some benefit is expected, no WQv, GRv, or pollutant removal credit has been taken for these features other than pretreatment.

Oil / Water Separators

Oil / Water separators have been provided to treat majority of truck court run off areas. These units have been sized to treat the first flush of a rainfall event or a 1 inch storm. While no fueling operations will take place on the proposed development, the truck court areas are more prone to leaks and spills. The units has been placed where applicable to ensure that majority of floatable pollutants, such as oil or fuel, will not be discharged to the treatment features or off site.

Preformed Scour Holes (Permanent Outlet Protection)

Rip Rap lined, preformed sour holes will be placed at all proposed pipe outfall locations on site, including outlet locations to treatment features and final site discharge locations with the exception of pipes installed within wetland system which provide ecological and hydrological connectivity. The preformed scour holes are sized based on pipe diameter, water velocity and, at a minimum, to the specifications outlined in the detail shown below taken from Volume 2 of the New Hampshire Stormwater Manual.



4 Foot Deep Sump Catch Basin

All catch basin structures will include a 4 foot deep sump. This allows for the sediment of suspended particulates has the run off flows to the discharge locations. Captured materials in the sump locations can be removed by vacuuming and disposed of off site, avoiding degradation of downstream treatment features. While the conveyance systems do not meet all the criteria set forth in the New Hampshire Stormwater Manual for true deep sump catch basins, some treatment is expected. No water treatment has been taken credit for in the calculations.

Street Sweeping

A street sweeping schedule has been developed, in line with the New Hampshire Stormwater Manual design criteria, as part of the long term maintenance and operations plans for the site.

Snow and Ice Management

A snow and ice management plan has been developed, in line with the New Hampshire Stormwater Manual design criteria, as part of the long term maintenance and operations plans for the site. Snow removal will be performed by a Green SnowPro certified contractor or state approved equal.

Water Treatment Summary

Table 4 shown below, depicts each treatment feature in the proposed condition. The table displays the type of feature, associated watershed, the required and provided water quality volume associated with the watershed, the required and provided pretreatment volume of the feature and the groundwater recharge volume provided by the feature. Some features do not provide water quality volume or groundwater recharge. Other features on site have been oversized to accommodate the required volumes for the site as a whole.

Table 5 depicts a condensed summary of the water quality volume and groundwater recharge volumes required and provided for the site as a whole. The proposed management system treats a substantially larger volume than required then required under the state and local stormwater ordinance.

While the proposed design meets and exceeds the required treatment rates for the project as a whole and does not need to target nutrient and phosphorous removal, infiltration basins have a removal rate of 60% for nutrients and 65% for phosphorous.

Groundwater recharge volume for the site as a whole has been provided multiple times over the minimum requirement.

Table 4: BMP Sizing Summary

BMP Sizing Summary Chart (CF Unless otherwise noted)						
Stormwater Feature	**Watershed**	**WQv (Required)**	**WQv (Provided)**	**Pre-treatment (Required)**	**Pre-treatment (Provided)**	**GRv (Provided)**
Infiltration Basin	**A1-2**	50,778	52,698	12,695	20,648	52,698
Infiltration Basin	**A1-3**	85,544	90,194	21,386	24,609	90,194
Infiltration Basin	**A11-2**	57,879	131,341	14,470	26,038	131,341
Infiltration Basin	**B1-2**	8,215	23,923	2,054	6,029	23,923
Infiltration Basin	**B5-2**	24,475	100,355	6,119	6,751	100,355
Infiltration Basin	**B6-2**	72,527	106,905	18,132	20,316	106,905
Dry Ext. Det. Pond w/ Micro Pool	**B1-3**	59,646	84,481	14,912	19,001	
Dry Ext. Det. Pond w/ Micro Pool	**B3-2**	14,238	93,635	3,560	4,362	

Table 5: Water Quality Volume and Groundwater Recharge Volume Summary

	GRv	In Excess of Required
Required	**108,675**	
Total Provided	505,416	396,741

	WQv	In Excess of Required
Required	**373,302**	
Total Provided	683,532	310,230

3.8 Geotechnical Considerations

Groundwater elevation, depth to bedrock, and infiltration rates are based on the reports titled "Geotechnical Engineering Study for Hudson Logistic Center Hudson New Hampshire", prepared by Langan Engineering & Environmental Services, Inc. and dated September 2022. This document can be found in Appendix G of this report.

Groundwater Impacts

Groundwater was found to vary greatly across the project site with shallow seasonal high water elevations in the eastern region of the site near the major wetland systems and at relatively deep elevations along the western property line next to the Merrimack River. Majority of site maintains several feet of separation between finished grade and seasonal

high groundwater. Due to the large, flat footprint required by the specific use, the central and central southern portions of the site are located in a large cut area. This cut will impact and expose the existing groundwater surface.

To ensure there will be no hydrostatic lift and proper drainage below the proposed improvements, extensive sub-grade drainage systems have been designed in the areas of impact. A groundwater surface model was developed from the numerous borings and test pits performed across the site. The limits of groundwater 4 feet below the finished grade were then identified. Within lose limits, below impervious surfaces and building slabs, a sub-grade drainage system was designed. The system drains by gravity to the stormwater conveyance networks.

Once the impacted areas of groundwater within 4 feet of the finished grade were established, a groundwater flow analysis was performed for each area. The affected areas were secluded in the groundwater analysis model to ensure drawdown from lower elevation impacts would not decrease daily flows from higher elevation impact areas, ensuring a conservative model. The following flow rates to each system have been included in the sizing of the stormwater management system peak discharge rates and volumes. Where collected groundwater is introduced to the conveyance network, the flow rate for the entire impact area is applied to the most upstream structure to ensure conservative hydraulic grade line modeling and pipe sizing. Groundwater impact areas and proposed sub-grade drainage networks can be seen in the CG200 Series.

Table 6: Additional Flow Due to Sub-Grade Drainage System

Additional Flow Due to Sub-Grade Drainage System		
Feature	**Structure**	**Flow (CFS)**
Infiltration Basin A1-1	CLCB-23 (A1-3)	0.38
Infiltration Basin A1-2	CCB-5 (A1-2)	0.13
Infiltration Basin A1-2	DOUBLE CLCB-12 (A1-2)	0.64
Infiltration Basin A1-2	CCB-3 (A1-2)	0.54

Infiltration Basin B6-2	MH-5 (B6-2)	0.22
Infiltration Basin B6-2	CLCB-20 (B6-2)	0.50

For additional information on groundwater, please refer to the geotechnical engineering study.

Bedrock

Refusal was encountered in various location on site at varying depths. A rock surface model has been developed to ensure proper separation from sensitive stormwater features and to be incorporated into the site design. Detail information on rock elevations can be found in the geotechnical engineering studies attached to this report.

Infiltration Rates

Infiltration rates have been determined through field testing and observation, site specific soils, and the "Ksat Values for New Hampshire Soils" SSSNNE Special publication No.5 dated September, 2009. Each infiltration practice has been assigned a unique design infiltration rate. This rate was determined by identifying the soils at the specific location and elevation through the site specific soils map, test pits and borings, and performing field infiltration tests at specified elevations corresponding to the bottom of the practice. The observed and calculated infiltration rate, based on the process outlined in Chapter ENv-Wq 150 Alteration of Terrain, was then reduced by half to provide a factor of safety of two. Detailed infiltration testing locations, descriptions and rates can be found in the Infiltration Feasibility Report included as an appendix to this report.

While an extensive subsurface investigation has been performed throughout the site, additional testing within the final footprints of select infiltration basins is required to meet the minimum number of tests defined by the state New Hampshire. This testing is currently on going and will be completed. Using the significant amount of site specific data, including similar soil types and infiltration testing performed within or in close proximity to these basins, appropriate design infiltration rates have been assigned. The final results of testing will be incorporated into the stormwater model and modifications, if required, will be made to ensure regulatory compliance.

Receiving Waters

The receiving waters of run off from this site are not classified as impaired waterways. Limit Brook in the southeastern region of the site and the unnamed stream to the north eastern, Assessment Unit ID NHRIV700061206-23 and NHRIV700061206-13 respectively of the New Hampshire's watershed report cards, are not classified as impaired waterways and convey water over a short distance directly to the Merrimack River. The Merrimack River, Assessment Unit ID NHRIV700061206-24 of the New Hampshire's watershed report cards, is listed under the Surface Water Impairments 2016 with 1 Mile Buffer" layer of the New Hampshire GIS database. Impairments listed as related to stormwater are Aluminum, Chlorophyll-a, and Escherichia coli. The specific BMPs chosen for this site include nutrient removal benefits and will help to protect against downstream receiving water pollutants.

4.0 STORM DRAINAGE COLLECTION SYSTEM DESIGN (SEE APPENDIX D FOR CALCULATIONS)

4.1 Design Criteria

The proposed subsurface storm drainage collection system is designed to convey the 25 -year design storm event to the discharge locations while maintaining an HGL below the proposed grade. This is in accordance with the Town of Hudson Engineering Department Engineering Guidelines & Typical Details.

4.2 Design Methodology

The storm drainage system was analyzed using the Rational Method for estimating runoff for a 25-year design storm event. The site was divided into subareas, each contributing runoff to an individual catch basin, inlet or roof drain. A value for area, time of concentration, and runoff coefficient was calculated for each contributing subarea.

Values of time of concentration were chosen based on land cover and flow path slope from the hydraulically most distant point in the subarea to the appropriate inlet. The average runoff coefficient, which is the ratio of peak runoff rate to the average rainfall rate for the period known as the time of concentration, was chosen using the following values:

CONDITION	C
Grass/Landscaping	0.30
Paved/Impervious	0.90

Rainfall intensities were taken from the intensity-duration-frequency curve for Hudson, New Hampshire as presented in National Weather Service (NOAA) Precipitation Frequency Data Server (PFDS). Storm drainage pipes were then sized based on calculated flows using Manning's Equation and were verified by solving for the hydraulic grade line. Starting hydraulic grade lines for the pipe networks were set to the calculated maximum water elevations in the respective ponds for the 25-year-design storm event creating a conservative tail water condition. Additional, calculated flows have been included in the most upstream structure for the discharge rate of the sub-grade drainage systems where applicable.

4.3 Storm Drainage Collection Summary

The runoff from the development will be collected using a conventional roof drain, 4 foot deep sump catch basin, and manhole system. In cases of large storm events where overtopping occurs along the collection system, all flooding is directed away from buildings and critical areas to designated stormwater attenuation features or safely conveyed offsite via overland flow.

5.0 OFF-SITE ANALYSIS

As discussed above, the site is located in the sub-watershed Limit Brook – Merrimack River. After treatment and attenuation, analysis point B enters either the unnamed stream or Limit Brook and is conveyed over a short distance before discharging directly to the Merrimack River. After treatment and attenuation, analysis point A discharges directly to the Merrimack River. The Merrimack River continues in a southerly direction for roughly three quarters of a mile before crossing the New Hampshire / Massachusetts boarder.

Run off will be treated from the vast majority of proposed imperious surfaces before reaching the final discharge locations. Through the above described treatment method, downstream receiving waters are well protected. Sedimentation and erosion are mitigated through TSS removal in BMPs and attenuated flows matching or reducing peak rates from the existing condition. All discharge locations are directed over preformed scour holes to further dissipate flow velocities. Shallow slopes have been designed to ensure that erodible soils on site will not run off of planted slopes. The water quality provided by the proposed system is well in excess of Town of Hudson stormwater

ordinance and BMPs have been specifically selected to target nutrient and phosphorus removal.

Should a spill occur on site at one of the facilities, the operations and maintenance manual addresses the method to safely clean and disposes of any harmful materials. In most instances, should a spill occur that reaches the stormwater conveyance system in the truck court areas, the runoff will pass through an oil water separator rated for separation and storage of oils and other floatable debris until it can manually cleaned out and properly disposed of.

The receiving waters will have the capacity to handle run off for the post development condition. All post construction peak flow rate have been significantly reduced which will lessen the needed capacity of the receiving waters during high run off periods. Volumes to the Merrimack River, analysis point A, have been significantly reduced through all storm events. This will reduce the need for capacity of the receiving water downstream. Analysis point B reduces volumes during each storm event, improving existing flooding conditions downstream, while maintaining a similar level of overall contributing volume to maintain the wetlands system.

6.0 CONCLUSION

The proposed stormwater management system has been designed in accordance with the Town of Hudson current requirements, the New Hampshire Stormwater Manual, and the New Hampshire Department of Environmental Services. The system incorporates elevated levels of stormwater quality, maintains or decreases the existing peak rate of runoff for all storm events analyzed, and provides above the required groundwater recharge volumes.

It is the opinion of this office and the findings of this report that the proposed stormwater management system, as designed, will effectively manage quality and quantity of stormwater runoff for the proposed development.

7.0 REFERENCES

1. Town of Hudson Zoning Ordinance Adopted 3-8-1994

2. Town of Hudson Stormwater Management Program, June 2019

3. Town of Hudson Engineering Department Engineering Technical Guidelines and Typical Details, August 2001 Revised February 2020

4. Chapter 290 Stormwater Management, Town of Hudson Zoning Ordinance, as of 2022

5. New Hampshire Stormwater Manual, Vol1, 2, 3, December 2020.

6. New Hampshire Code of Administrative Rules; Env-Wq 1500

7. New Hampshire Manual on Drainage Design for Highways

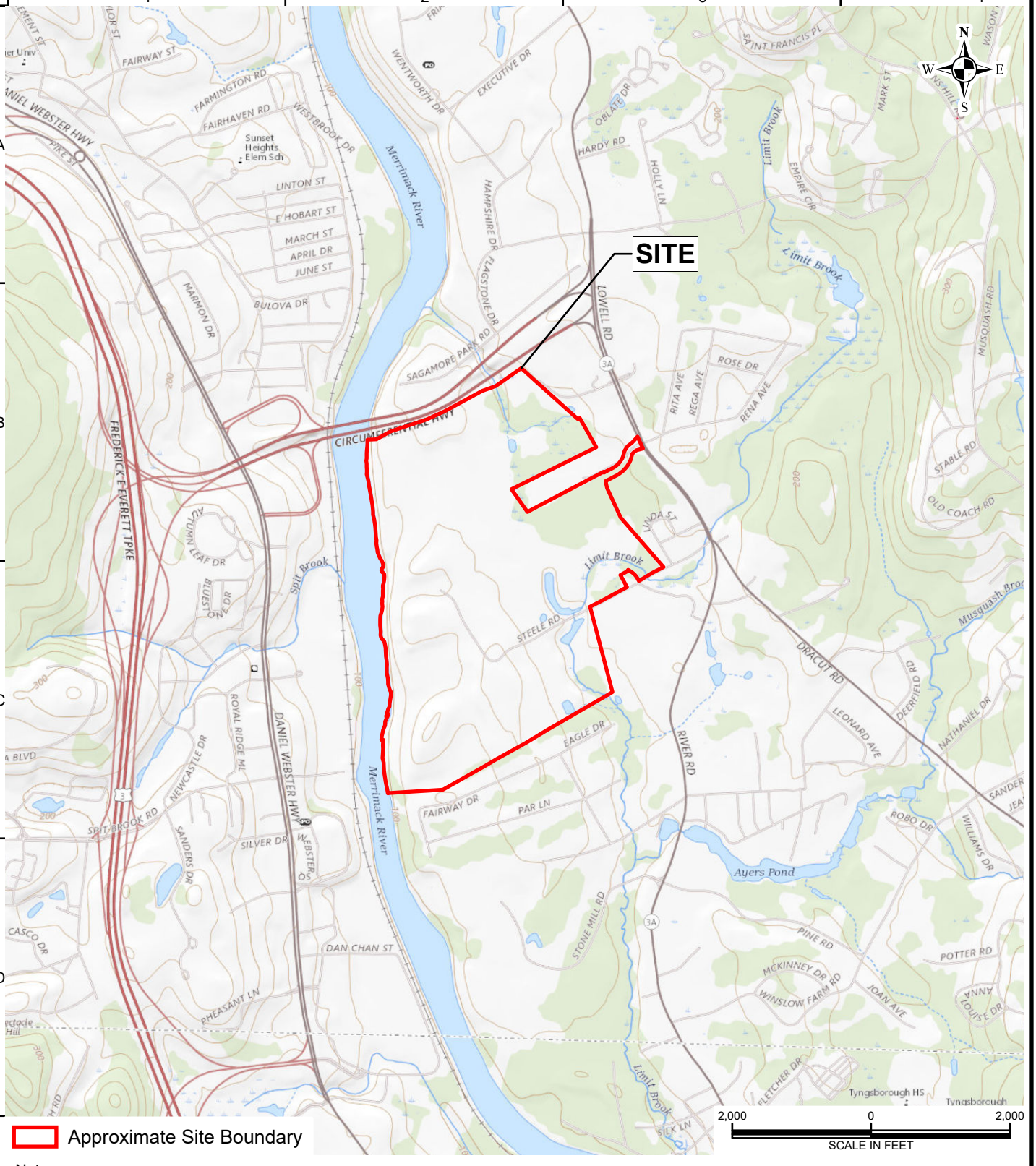
8. Precipitation Frequency Data Server (PFDS) National Weather Service (NOAA)

9. USGS Web Soil Survey, United States National Resources Conservation Service, 2016

10. Urban Hydrology for Small Watersheds, Technical Release 55, United States Department of Agriculture, Soil Conservation Service, June 1986.

11. Ksat Values for New Hampshire Soils, SSSNNE Special Publication No.5, September, 2009

FIGURES



Approximate Site Boundary

Notes:
Basemap provided by United States Geological Survey. Quadrangle: Nashua South, NH, dated: 2018.

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Project	HILLWOOD HUDSON HILLSBOROUGH COUNTY NEW HAMPSHIRE
Drawing Title	SITE LOCATION MAP
Project No.	151010101
Figure	1
Date	05/18/2020
Scale	1" = 2,000'
Drawn By	MG
Submission Date	
Sheet	Sheet 1 of 5

Notes:
Imagery provided through Langan's subscription to Nearmap.com. Flown on 09/28/2019.

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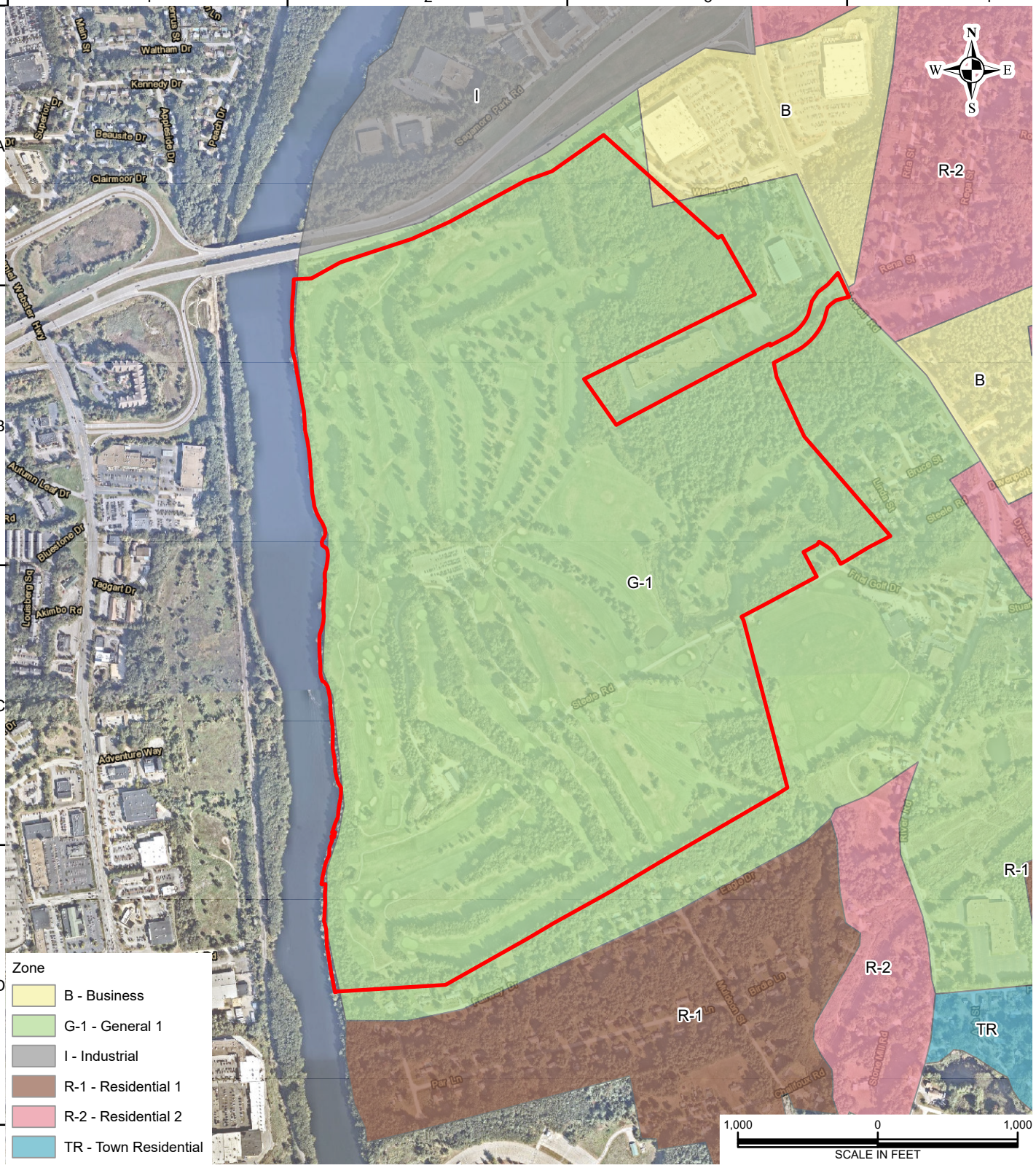
Project	HILLWOOD HUDSON HILLSBOROUGH COUNTY NEW HAMPSHIRE
Drawing Title	AERIAL MAP
Project No.	151010101
Figure	2
Date	05/18/2020
Scale	1" = 1,000'
Drawn By	MG
Submission Date	
Sheet	Sheet 2 of 5



Notes:
Zoning data provided by the Town of Hudson.

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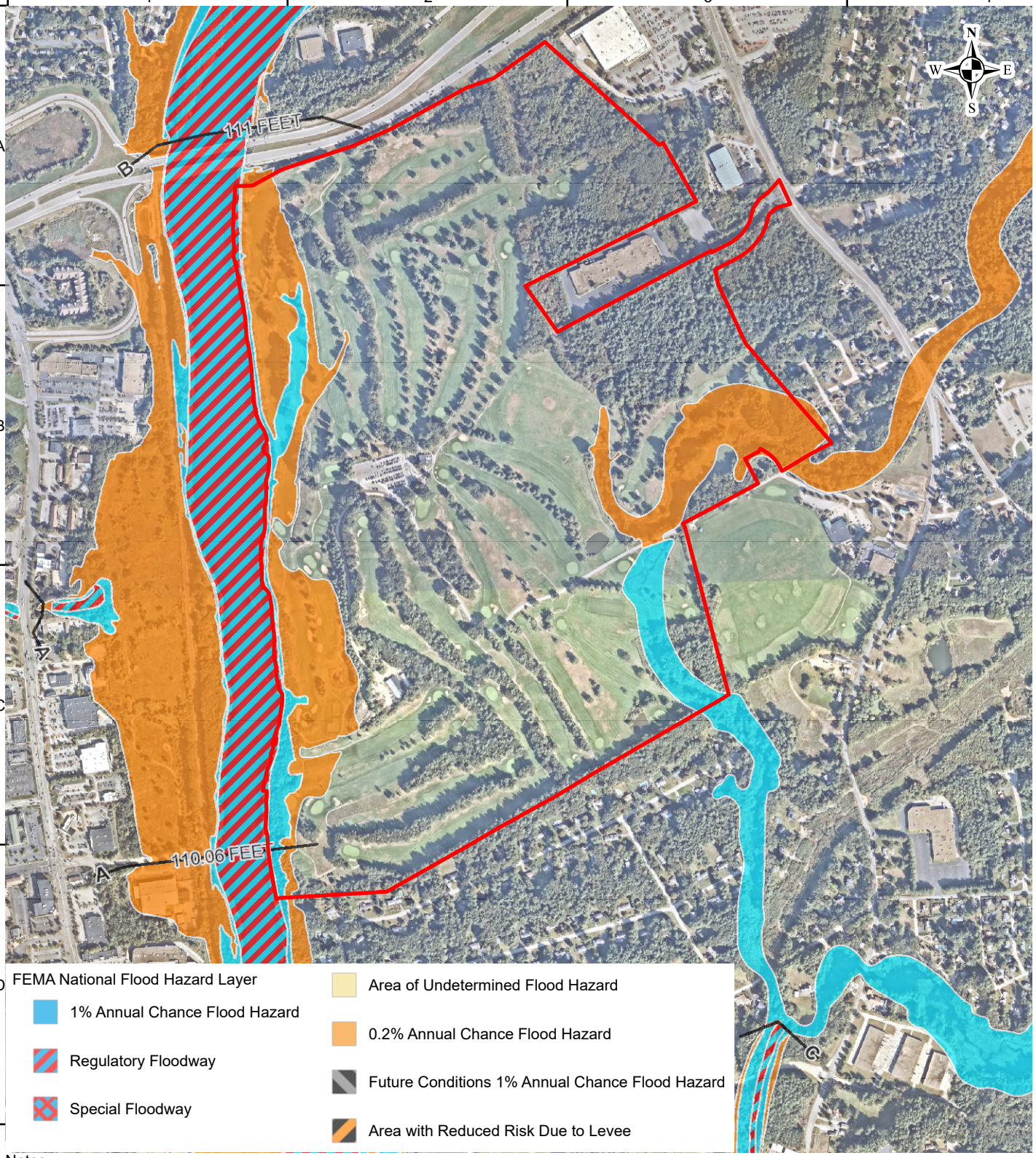
HILLWOOD
HUDSON
HILLSBOROUGH COUNTY NEW HAMPSHIRE

Drawing Title
ZONING MAP

Project No. 151010101	Figure 3
Date 05/18/2020	
Scale 1" = 1,000'	
Drawn By MG	
Submission Date	Sheet 3 of 5



Notes:
Basemap provided by FEMA, Panels 33011C0656D and 25017C0108E, Dated September 25, 2009 and June 4, 2010.

1,000 0 1,000
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HUDSON
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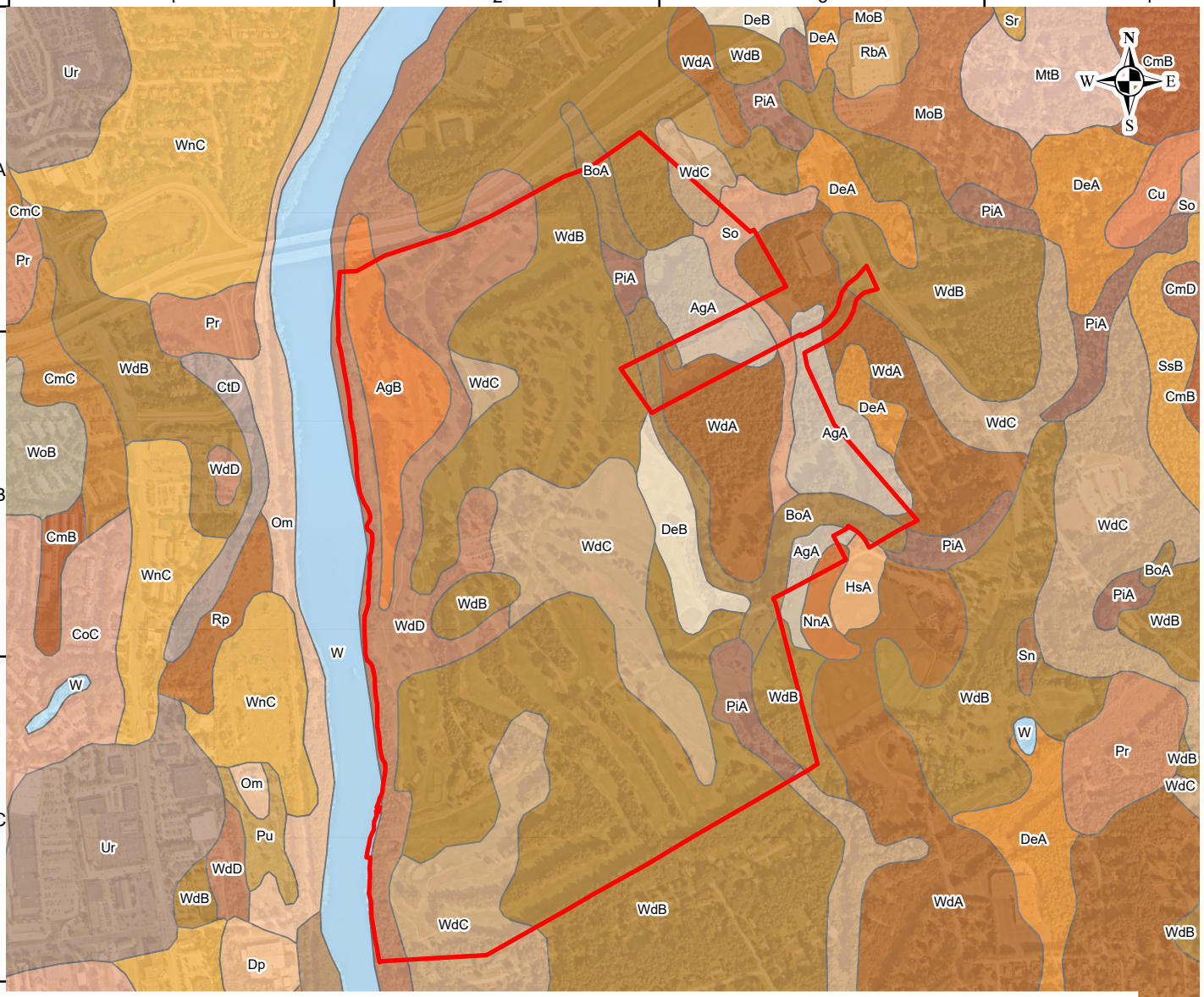
Drawing Title
EFFECTIVE FEMA FLOOD MAP

Project No. 151010101	Figure 4
Date 05/18/2020	
Scale 1" = 1,000'	
Drawn By MG	
Submission Date	Sheet 4 of 5



Soil Type

- AgA - Agawam fine sandy loam, 0 to 3 percent slopes
- AgB - Agawam fine sandy loam, 3 to 8 percent slopes
- BoA - Borohemists, nearly level
- CaB - Canton fine sandy loam, 0 to 8 percent slopes
- CmB - Canton fine sandy loam, 0 to 8 percent slopes, very stony
- CmC - Canton fine sandy loam, 8 to 15 percent slopes, very stony
- CmD - Canton fine sandy loam, 15 to 25 percent slopes, very stony
- CoC - Canton-Urban land complex, 3 to 15 percent slopes
- CtD - Chatfield-Hollis-Rock outcrop complex, 15 to 35 percent slopes
- Cu - Swansea mucky peat, 0 to 2 percent slopes
- DeA - Deerfield loamy fine sand, 0 to 3 percent slopes
- DeB - Deerfield loamy fine sand, 3 to 8 percent slopes
- Dp - Dumps
- HsA - Hinckley loamy sand, 0 to 3 percent slopes
- MoB - Montauk fine sandy loam, 3 to 8 percent slopes
- MtB - Montauk fine sandy loam, 0 to 8 percent slopes, very stony
- NnA - Ninigret fine sandy loam, 0 to 3 percent slopes
- Om - Occum fine sandy loam, high bottom
- PiA - Pipestone loamy sand, 0 to 3 percent slopes
- Pr - Pits, gravel
- Pu - Pootatuck fine sandy loam
- RbA - Ridgebury fine sandy loam, 0 to 3 percent slopes
- Rp - Rippowam fine sandy loam
- Sn - Saugatuck loamy sand
- So - Scarboro mucky fine sandy loam, 0 to 3 percent slopes
- Sr - Scarboro stony mucky loamy sand
- SsB - Scituate fine sandy loam, 3 to 8 percent slopes
- Su - Suncook loamy fine sand
- UdA - Udipsamments, nearly level
- Ur - Urban land
- W - Water (less than 40 acres)
- WdA - Windsor loamy sand, 0 to 3 percent slopes
- WdB - Windsor loamy sand, 3 to 8 percent slopes
- WdC - Windsor loamy sand, 8 to 15 percent slopes
- WdD - Windsor loamy sand, 15 to 35 percent slopes
- WnC - Windsor-Urban land complex, 3 to 15 percent slopes
- WoB - Woodbridge fine sandy loam, 3 to 8 percent slopes

Notes:
Soils data downloaded from the USDA Soil Survey Geographic (SSURGO) database on 3/25/2020.

1,200 0 1,200
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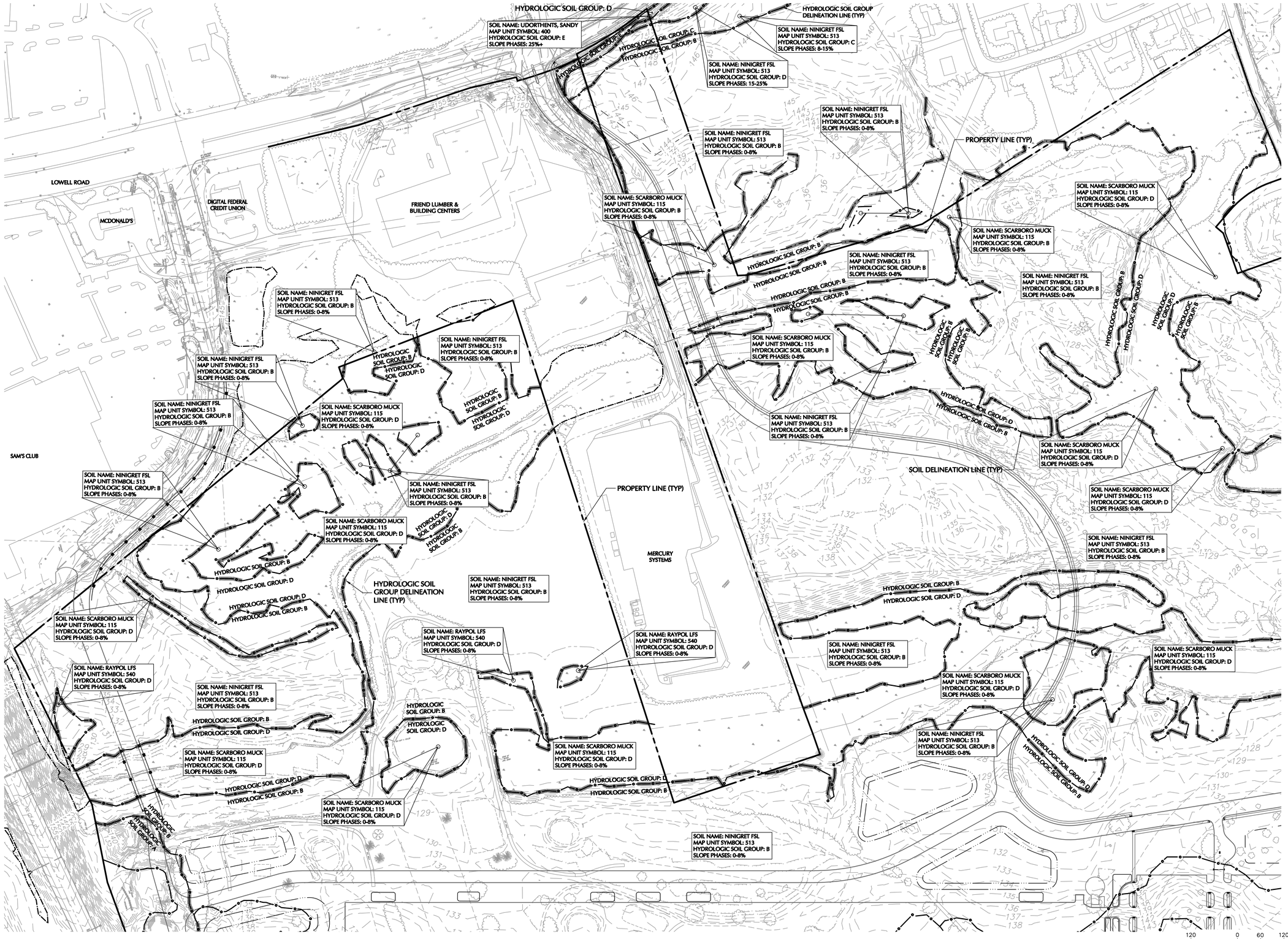
Drawing Title
NRCS SOILS MAP

Project No.	151010101
Date	05/18/2020
Scale	1" = 1,200'
Drawn By	MG
Submission Date	

Figure 5

Sheet 5 of 5

DRAWINGS



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SOILS WERE IDENTIFIED WITH THE NEW HAMPSHIRE STATE-WIDE NUMERICAL SOILS LEGEND, USDA NRCS, DURHAM, NH. ISSUE # 10, JANUARY 2011.

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SOIL MAP SYMBOL	SOIL MAP UNIT NAME	HISS CONVERSION	HSG
4	POOTATUCK VFSL	371	B
24	AGAWAM FSL	211	B
115	SCARBORO MUCK	611	D
400	UDORTHENTS, SANDY	211	A
513	NINIGRET FSL	311	B
540	RAYPOL LFS	511	D
699	URBAN LAND	N/A	IMPERVIOUS
917	NINIGRET VARIANT (SWPD)	411	C
PONDS	OPEN WATER	N/A	N/A

SLOPE PHASES: 0-8% = B 8-15% = C 15-25% = D 25%+ = E

LEGEND	
PROPERTY LINE	
SOIL DELINEATION LINE	
HYDROLOGIC SOIL GROUP DELINEATION LINE	

Date	Description	No.
Revisions		

Signature Date

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PROJECT HUDSON

MAP No. 239, LOT No. 1

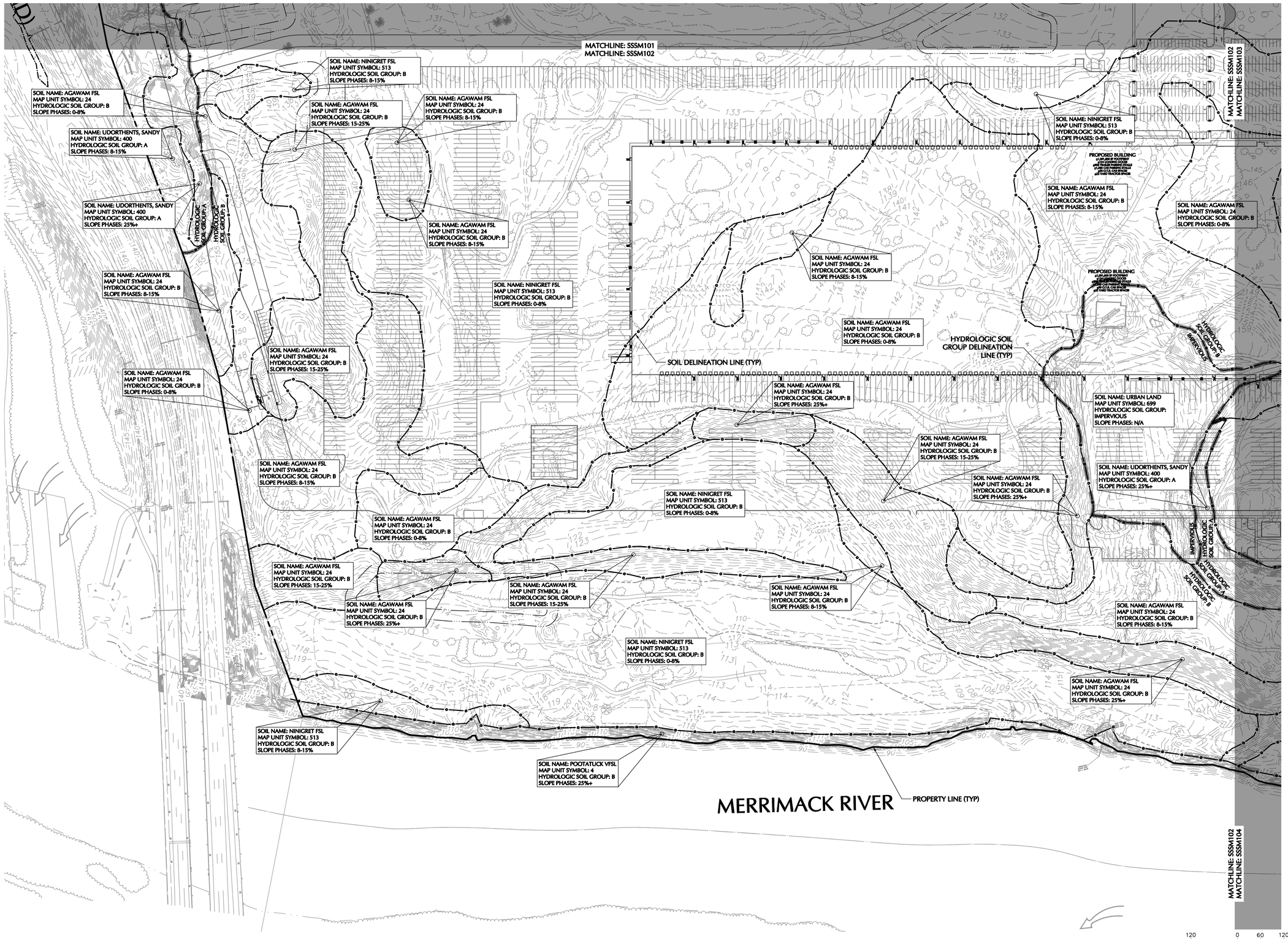
HUDSON NEW HAMPSHIRE

Drawing Title

SITE SPECIFIC SOIL MAP PLAN I

Project No.	Drawing No.
151010101	SSSM101
Date: 08/25/2022	
Drawn By: JNW	
Checked By: TDO	Sheet 1 of 10

Project No. 151010101



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400	UDORTHENTS, SANDY	211	A
513	NINIGRET FSL	311	B
540	RAYPOL LFS	511	D
699	URBAN LAND	N/A	IMPERVIOUS
917	NINIGRET VARIANT (SWPD)	411	C
PONDS	OPEN WATER	N/A	N/A

SLOPE PHASES: 0-8% = B 8-15% = C 15-25% = D 25%+ = E

LEGEND	
PROPERTY LINE	
SOIL DELINEATION LINE	
HYDROLOGIC SOIL GROUP DELINEATION LINE	

Date	Description	No.
Revisions		

Signature Date

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MAP No. 239, LOT No. 1

HUDSON NEW HAMPSHIRE

Drawing Title

SITE SPECIFIC SOIL MAP PLAN II

Project No. 151010101	Drawing No. SSSM102
Date 08/25/2022	
Drawn By JNW	
Checked By MKB	Sheet 2 of 10

LANGAN

Project No. 151010101

Date: 8/25/2022 Time: 17:34 User: jwatler Style Table: Langan.stb Layout: SOIL MAP II Document Code: 151010101-0203-CA101-0102

NOTE:

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SOILS WERE IDENTIFIED WITH THE NEW HAMPSHIRE STATE-WIDE NUMERICAL SOILS LEGEND, USDA NRCS, DURHAM, NH. ISSUE # 10, JANUARY 2011.

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917	NINIGRET VARIANT (SWPD)	411	C
PONDS	OPEN WATER	N/A	N/A

SLOPE PHASES: 0-8% = B 8-15% = C 15-25% = D 25%+ = E

LEGEND	
PROPERTY LINE	
SOIL DELINEATION LINE	
HYDROLOGIC SOIL GROUP DELINEATION LINE	

Date	Description	No.
Revisions		

Signature Date

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PROJECT HUDSON

MAP No. 239, LOT No. 1

HUDSON **NEW HAMPSHIRE**

Drawing Title

SITE SPECIFIC SOIL MAP PLAN III

Project No. **151010101**	Drawing No. **SSSM103**
Date **08/25/2022**	
Drawn By **JNW**	
Checked By **MKB**	Sheet **3** of **10**

LANGAN Project No. 151010101

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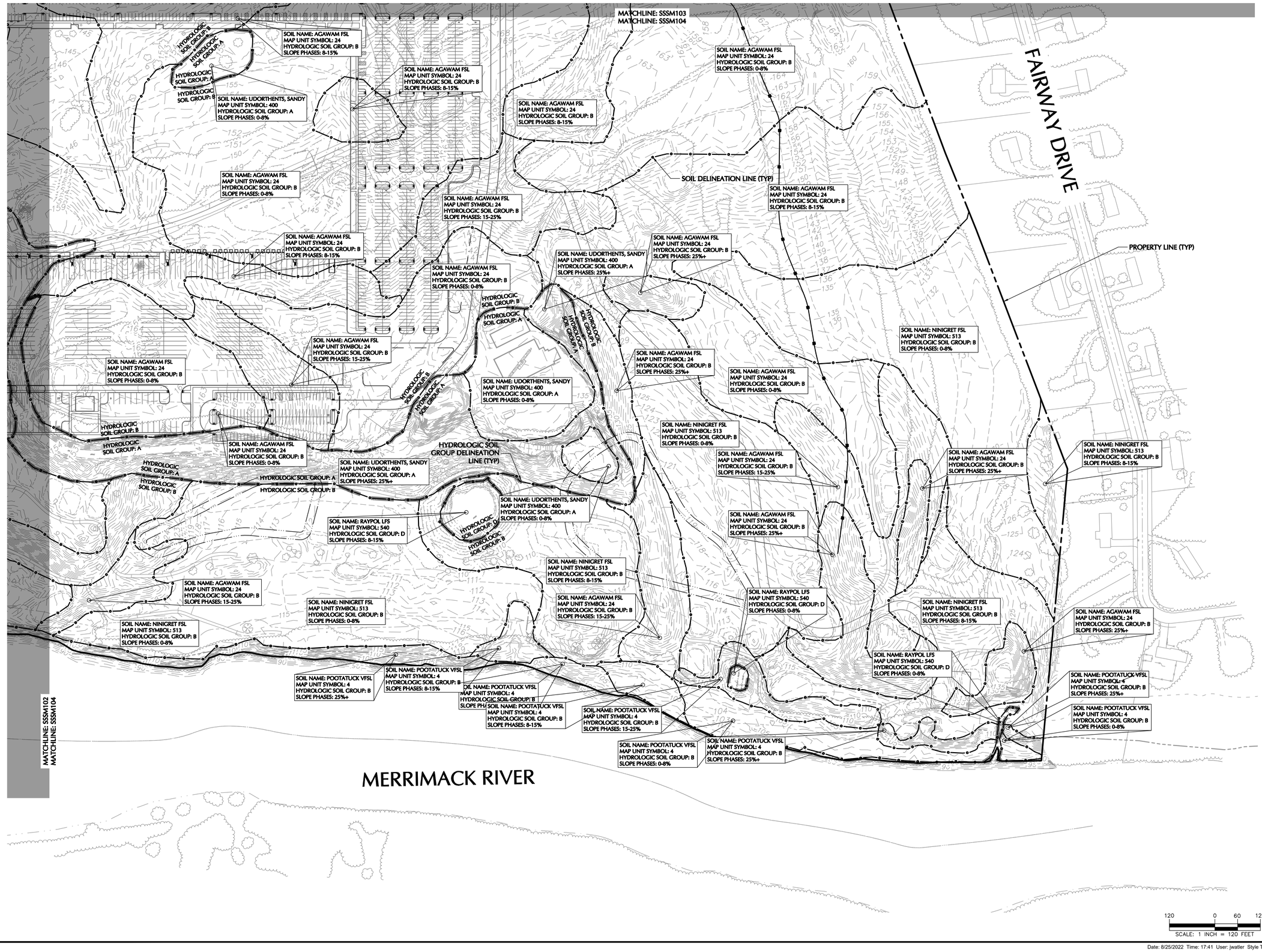

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540	RAYPOL LFS	511	D
699	URBAN LAND	N/A	IMPERVIOUS
917	NINIGRET VARIANT (SWPD)	411	C
PONDS	OPEN WATER	N/A	N/A

SLOPE PHASES: 0-8% = B 8-15% = C 15-25% = D 25%+ = E

LEGEND	
PROPERTY LINE	
SOIL DELINEATION LINE	
HYDROLOGIC SOIL GROUP DELINEATION LINE	

Date	Description	No.
Revisions		

Signature Date

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MAP No. 239, LOT No. 1

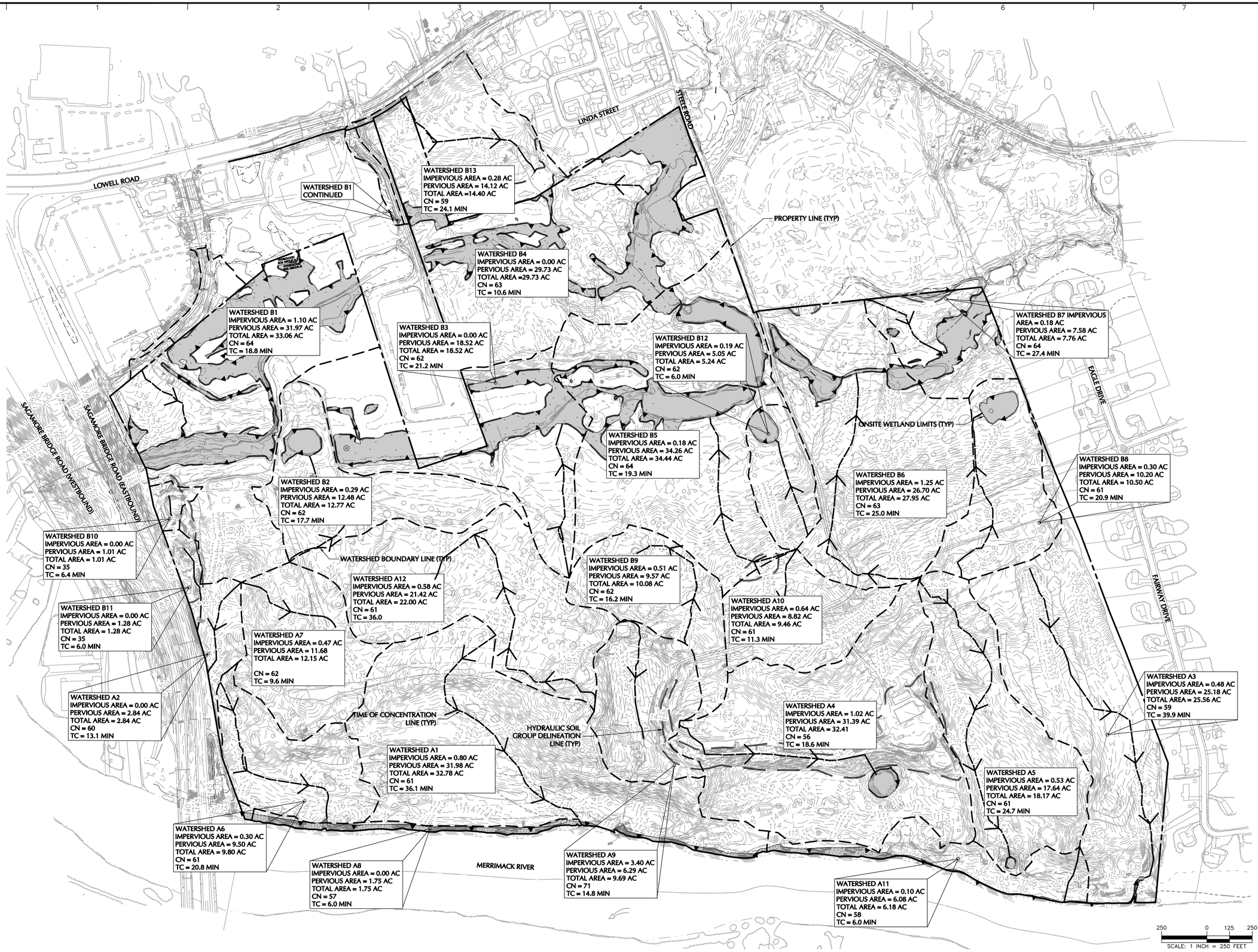
HUDSON NEW HAMPSHIRE

Drawing Title

SITE SPECIFIC SOIL MAP PLAN IV

Project No.	Drawing No.
151010101	SSSM104
Date: 08/25/2022	
Drawn By: JNW	
Checked By: MKB	Sheet 4 of 10

Project No. 151010101



LEGEND	
PROPERTY LINE	
HYDROLOGIC SOIL GROUP DELINEATION LINE	
ON-SITE WETLAND LIMITS	
WATERSHED BOUNDARY	
TIME OF CONCENTRATION LINE	
50' WETLAND ZONE OF NONINTERFERENCE	

Date	Description	No.
Revisions		

Signature Date

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PROJECT HUDSON

MAP No. 239, LOT No. 1

HUDSON NEW HAMPSHIRE

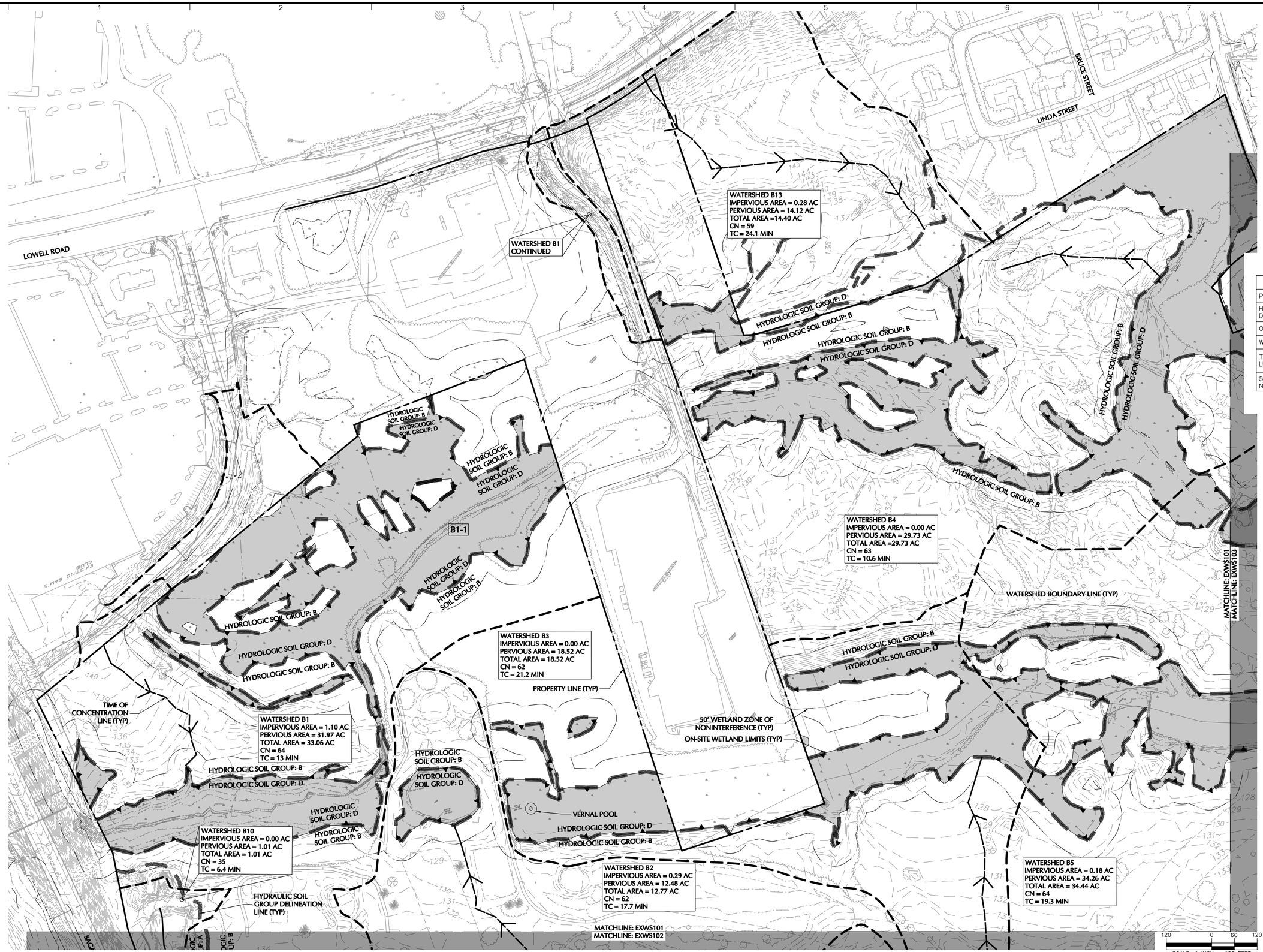
Drawing Title

EXISTING WATERSHED MAP OVERALL PLAN

Project No.	Drawing No.
151010101	EXWS 100
Date: 08/26/2022	
Drawn By: JNW	
Checked By: TDO	Sheet 5 of 10

Project No. 151010101

Date: 9/6/2022 Time: 17:04 User: jwatler Style Table: Langan.stb Layout: EXWS 100 Document Code: 151010101-0203-CG103-0108



LEGEND	
PROPERTY LINE	
HYDROLOGIC SOIL GROUP DELINEATION LINE	
ON-SITE WETLAND LIMITS	
WATERSHED BOUNDARY	
TIME OF CONCENTRATION LINE	
50' WETLAND ZONE OF NONINTERFERENCE	

Date	Description	No.
Revisions		

Signature Date

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Project

PROJECT HUDSON

MAP No. 239, LOT No. 1

HUDSON NEW HAMPSHIRE

Drawing Title

EXISTING WATERSHED MAP PLAN I

Project No.	Drawing No.
151010101	EXWS 101
Date: 08/26/2022	
Drawn By: JNW	
Checked By: TDO	Sheet 6 of 10

LANGAN

Project No. 151010101

Date: 9/6/2022 Time: 17:04 User: jwatler Style Table: Langan.stb Layout: EXWS 101 Document Code: 151010101-0203-CG103-0107

MATCHLINE: EXWS101
MATCHLINE: EXWS102

HYDROLOGIC SOIL GROUP: A

WATERSHED B11
IMPERVIOUS AREA = 0.00 AC
PERVIOUS AREA = 1.28 AC
TOTAL AREA = 1.28 AC
CN = 35
TC = 6.0 MIN

WATERSHED A2
IMPERVIOUS AREA = 0.00 AC
PERVIOUS AREA = 2.84 AC
TOTAL AREA = 2.84 AC
CN = 60
TC = 13.1 MIN

WATERSHED A7
IMPERVIOUS AREA = 0.47 AC
PERVIOUS AREA = 11.68
TOTAL AREA = 12.15 AC
CN = 62
TC = 9.6 MIN

WATERSHED A12
IMPERVIOUS AREA = 0.58 AC
PERVIOUS AREA = 21.42 AC
TOTAL AREA = 22.00 AC
CN = 61
TC = 36.0

WATERSHED A1
IMPERVIOUS AREA = 0.80 AC
PERVIOUS AREA = 31.98 AC
TOTAL AREA = 32.78 AC
CN = 61
TC = 36.1 MIN

WATERSHED A6
IMPERVIOUS AREA = 0.30 AC
PERVIOUS AREA = 9.50 AC
TOTAL AREA = 9.80 AC
CN = 61
TC = 20.8 MIN

WATERSHED A8
IMPERVIOUS AREA = 0.00 AC
PERVIOUS AREA = 1.75 AC
TOTAL AREA = 1.75 AC
CN = 57
TC = 6.0 MIN

WATERSHED B5
IMPERVIOUS AREA = 0.18 AC
PERVIOUS AREA = 34.26 AC
TOTAL AREA = 34.44 AC
CN = 64
TC = 19.3 MIN

WATERSHED B3
IMPERVIOUS AREA = 0.00 AC
PERVIOUS AREA = 18.52 AC
TOTAL AREA = 18.52 AC
CN = 62
TC = 17.8 MIN

WATERSHED B9
IMPERVIOUS AREA = 0.51 AC
PERVIOUS AREA = 9.57 AC
TOTAL AREA = 10.08 AC
CN = 62
TC = 16.2 MIN

WATERSHED A10
IMPERVIOUS AREA = 0.64 AC
PERVIOUS AREA = 8.82 AC
TOTAL AREA = 9.46 AC
CN = 62
TC = 11.3 MIN

WATERSHED A9
IMPERVIOUS AREA = 3.40 AC
PERVIOUS AREA = 6.29 AC
TOTAL AREA = 9.69 AC
CN = 71
TC = 14.8 MIN

TIME OF CONCENTRATION LINE (TYP)

WATERSHED BOUNDARY LINE (TYP)

HYDRAULIC SOIL GROUP DELINEATION LINE (TYP)

50' WETLAND ZONE OF NONINTERFERENCE (TYP)

PROPERTY LINE (TYP)

ON-SITE WETLAND LIMITS (TYP)

SAGAMORE BRIDGE ROAD (WESTBOUND)

SAGAMORE BRIDGE ROAD (EASTBOUND)

MERRIMACK RIVER

MATCHLINE: EXWS102
MATCHLINE: EXWS104

120 0 60 120
SCALE: 1 INCH = 120 FEET

LEGEND	
PROPERTY LINE	
HYDROLOGIC SOIL GROUP DELINEATION LINE	
ON-SITE WETLAND LIMITS	
WATERSHED BOUNDARY	
TIME OF CONCENTRATION LINE	
50' WETLAND ZONE OF NONINTERFERENCE	

Date	Description	No.
Revisions		

Signature Date

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Project

PROJECT HUDSON

MAP No. 239, LOT No. 1

HUDSON NEW HAMPSHIRE

Drawing Title

EXISTING WATERSHED MAP PLAN II

Project No.	Drawing No.
151010101	EXWS102
Date: 08/26/2022	
Drawn By: JNW	
Checked By: TDO	Sheet 7 of 10

Project No. 151010101

Date: 9/6/2022 Time: 17:04 User: jwatler Style Table: Langan.stb Layout: EXWS 102 Document Code: 151010101-0203-CG103-0109

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Project No. 151010101

Date	Description	No.
Revisions		

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Project

PROJECT HUDSON

MAP No. 239, LOT No. 1

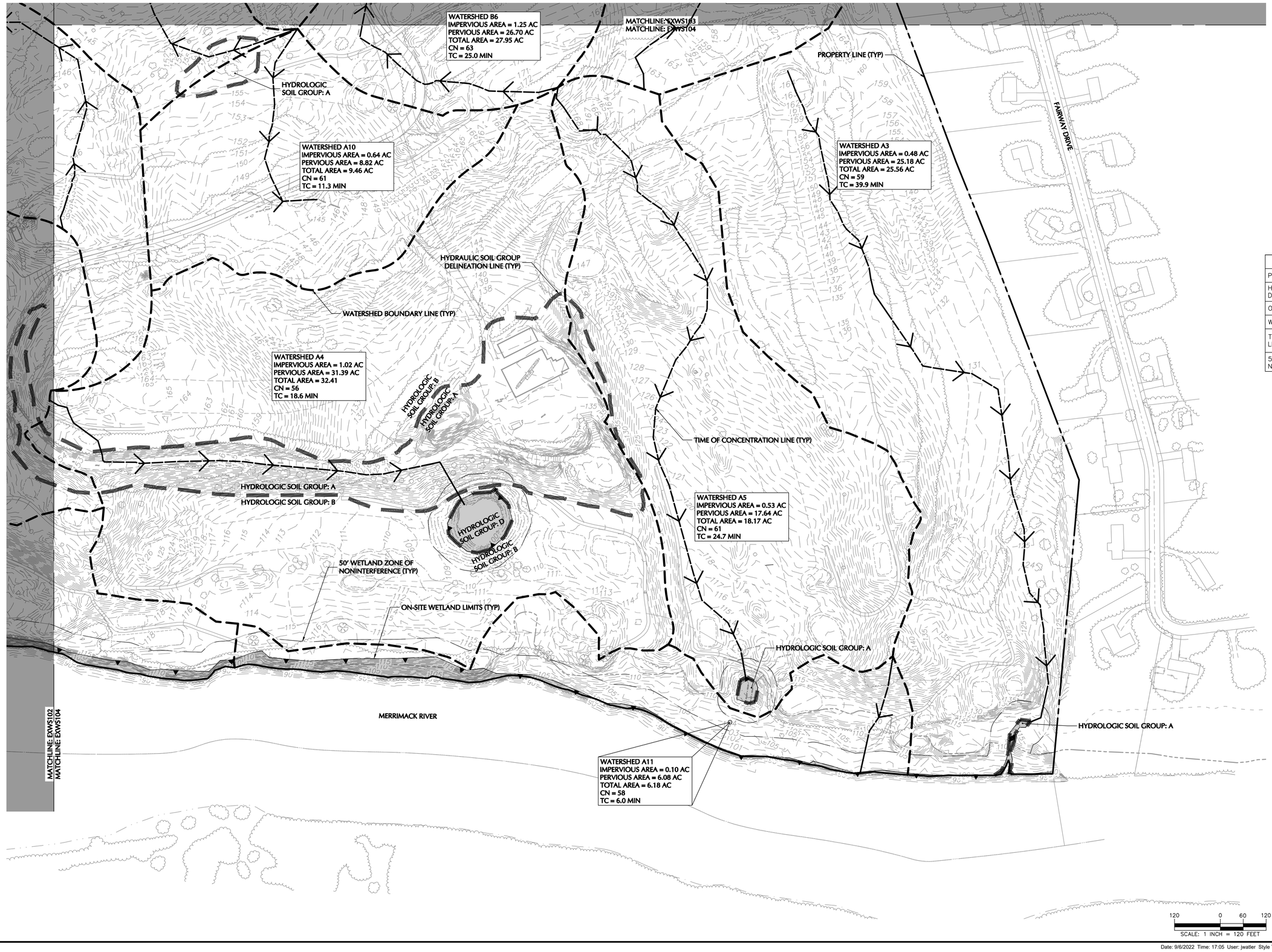
HUDSON NEW HAMPSHIRE

Drawing Title

EXISTING WATERSHED MAP PLAN III

Project No.	Drawing No.
151010101	EXWS103
Date: 08/26/2022	
Drawn By: JNW	
Checked By: TDO	Sheet 8 of 10

Date: 9/6/2022 Time: 17:05 User: jwatler Style Table: Langan.stb Layout: EXWS 103 Document Code: 151010101-0203-CG103-0110



LEGEND	
PROPERTY LINE	
HYDROLOGIC SOIL GROUP DELINEATION LINE	
ON-SITE WETLAND LIMITS	
WATERSHED BOUNDARY	
TIME OF CONCENTRATION LINE	
50' WETLAND ZONE OF NONINTERFERENCE	

Date	Description	No.
Revisions		

Signature Date

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Project

PROJECT HUDSON

MAP No. 239, LOT No. 1

HUDSON NEW HAMPSHIRE

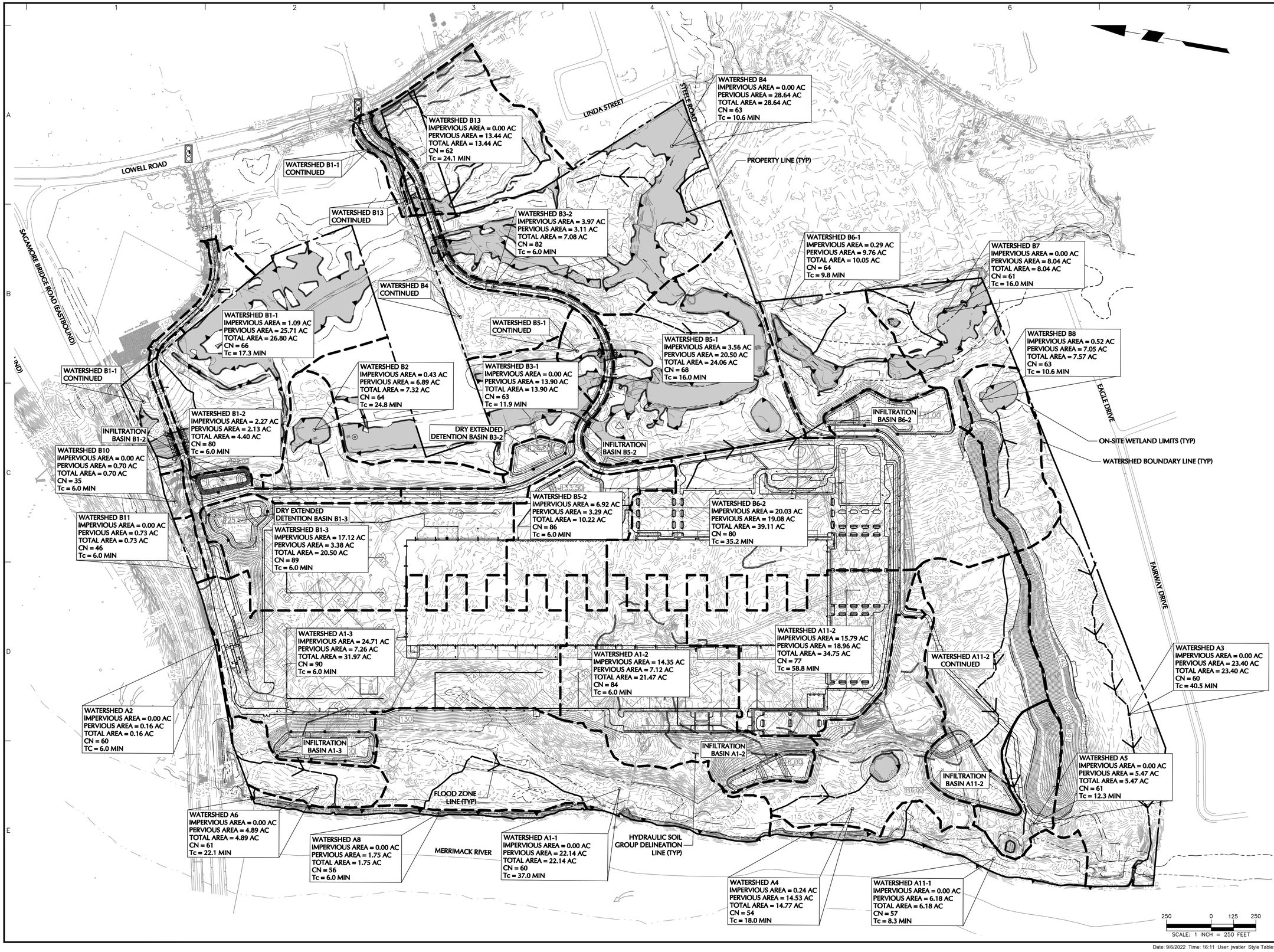
Drawing Title

EXISTING WATERSHED MAP PLAN IV

Project No.	Drawing No.
151010101	EXWS104
Date: 08/26/2022	
Drawn By: JNW	
Checked By: TDO	Sheet 9 of 10

LANGAN Project No. 151010101

Date: 9/6/2022 Time: 17:05 User: jwatler Style Table: Langan.stb Layout: EXWS 104 Document Code: 151010101-0203-CG103-0111



LEGEND	
PROPERTY LINE	
HYDROLOGIC SOIL GROUP DELINEATION LINE	
ON-SITE WETLAND LIMITS	
WATERSHED BOUNDARY	
TIME OF CONCENTRATION LINE	
50' WETLAND ZONE OF NONINTERFERENCE	
SUB-WATERSHED BOUNDARY	

Date	Description	No.
Revisions		

Signature Date

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Project

PROJECT HUDSON

MAP No. 239, LOT No. 1

HUDSON NEW HAMPSHIRE

Drawing Title

PROPOSED WATERSHED MAP OVERALL PLAN

Project No.	Drawing No.
151010101	PRWS100
Date: 08/26/2022	
Drawn By: JNW	
Checked By: MKB	Sheet 10 of 10

LANGAN Project No. 151010101

Date: 9/6/2022 Time: 16:11 User: jwatler Style Table: Langan.stb Layout: PRWS 100 Document Code: 151010101-0203-CG104-0101

LEGEND	
PROPERTY LINE	
HYDROLOGIC SOIL GROUP DELINEATION LINE	
ON-SITE WETLAND LIMITS	
WATERSHED BOUNDARY	
TIME OF CONCENTRATION LINE	
50' WETLAND ZONE OF NONINTERFERENCE	
SUB-WATERSHED BOUNDARY	

Date	Description	No.
Revisions		

Signature Date

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PROJECT HUDSON

MAP No. 239, LOT No. 1

HUDSON NEW HAMPSHIRE

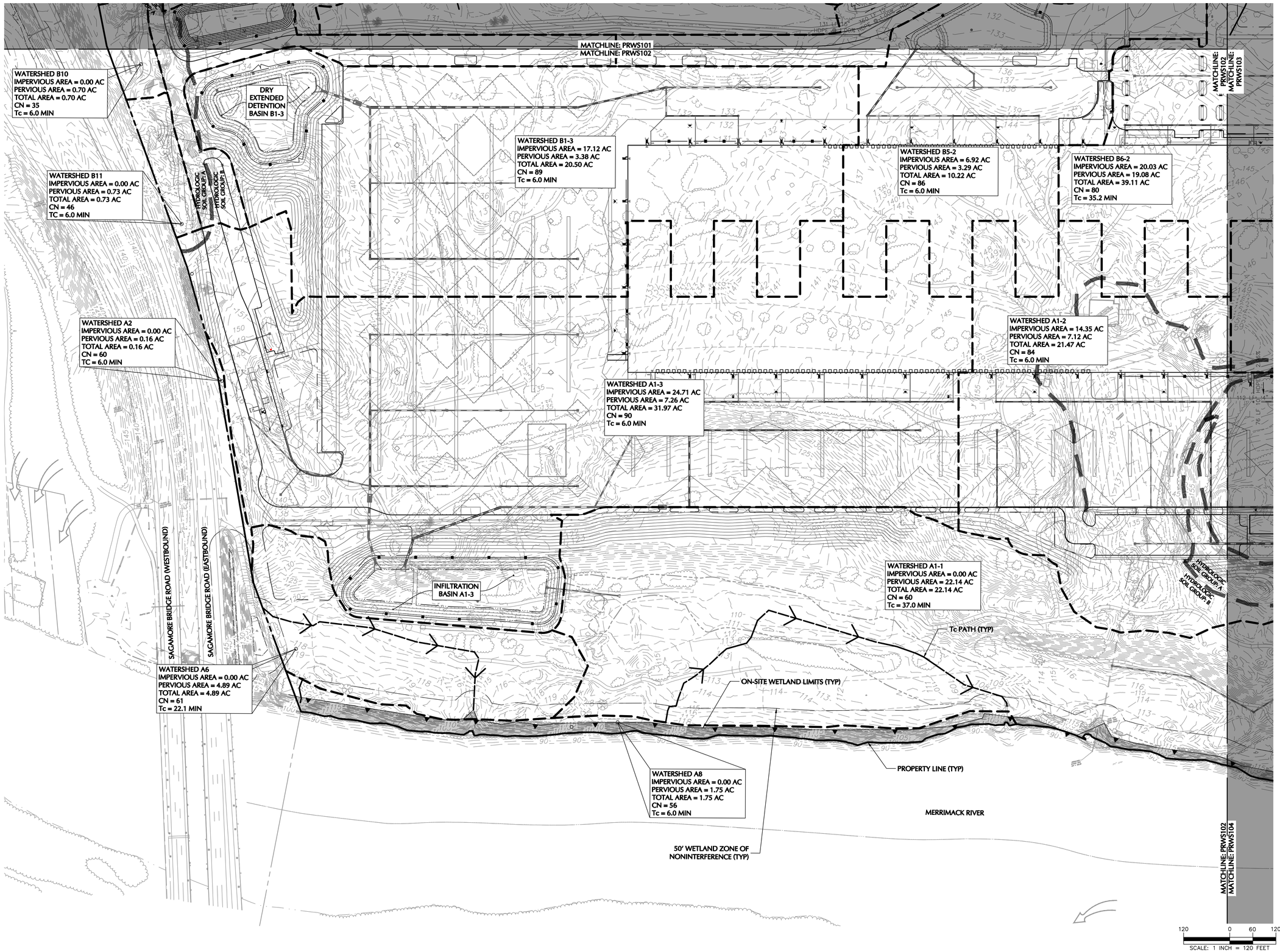
Drawing Title

PROPOSED WATERSHED MAP PLAN I

Project No.	Drawing No.
151010101	PRWS101
Date: 08/26/2022	
Drawn By: JNW	
Checked By: TDO	Sheet 11 of 10

LANGAN Project No. 151010101

Date: 9/6/2022 Time: 16:12 User: jwatler Style Table: Langan.stb Layout: PRWS 101 Document Code: 151010101-0203-CG104-0102



LEGEND	
PROPERTY LINE	
HYDROLOGIC SOIL GROUP DELINEATION LINE	
ON-SITE WETLAND LIMITS	
WATERSHED BOUNDARY	
TIME OF CONCENTRATION LINE	
50' WETLAND ZONE OF NONINTERFERENCE	
SUB-WATERSHED BOUNDARY	

Date	Description	No.
Revisions		

Signature Date

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Project

PROJECT HUDSON

MAP No. 239, LOT No. 1

HUDSON NEW HAMPSHIRE

Drawing Title

PROPOSED WATERSHED MAP PLAN II

Project No.	Drawing No.
151010101	PRWS102
Date: 08/26/2022	
Drawn By: JNW	
Checked By: MKB	Sheet 12 of 10

LANGAN Project No. 151010101

Date: 9/6/2022 Time: 16:13 User: jwatler Style Table: Langan.stb Layout: PRWS 102 Document Code: 151010101-0203-CG104-0103

LEGEND	
PROPERTY LINE	
HYDROLOGIC SOIL GROUP DELINEATION LINE	
ON-SITE WETLAND LIMITS	
WATERSHED BOUNDARY	
TIME OF CONCENTRATION LINE	
50' WETLAND ZONE OF NONINTERFERENCE	
SUB-WATERSHED BOUNDARY	

120 0 60 120
SCALE: 1 INCH = 120 FEET

Date	Description	No.
Revisions		

Signature Date

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Project

PROJECT HUDSON

MAP No. 239, LOT No. 1

HUDSON NEW HAMPSHIRE

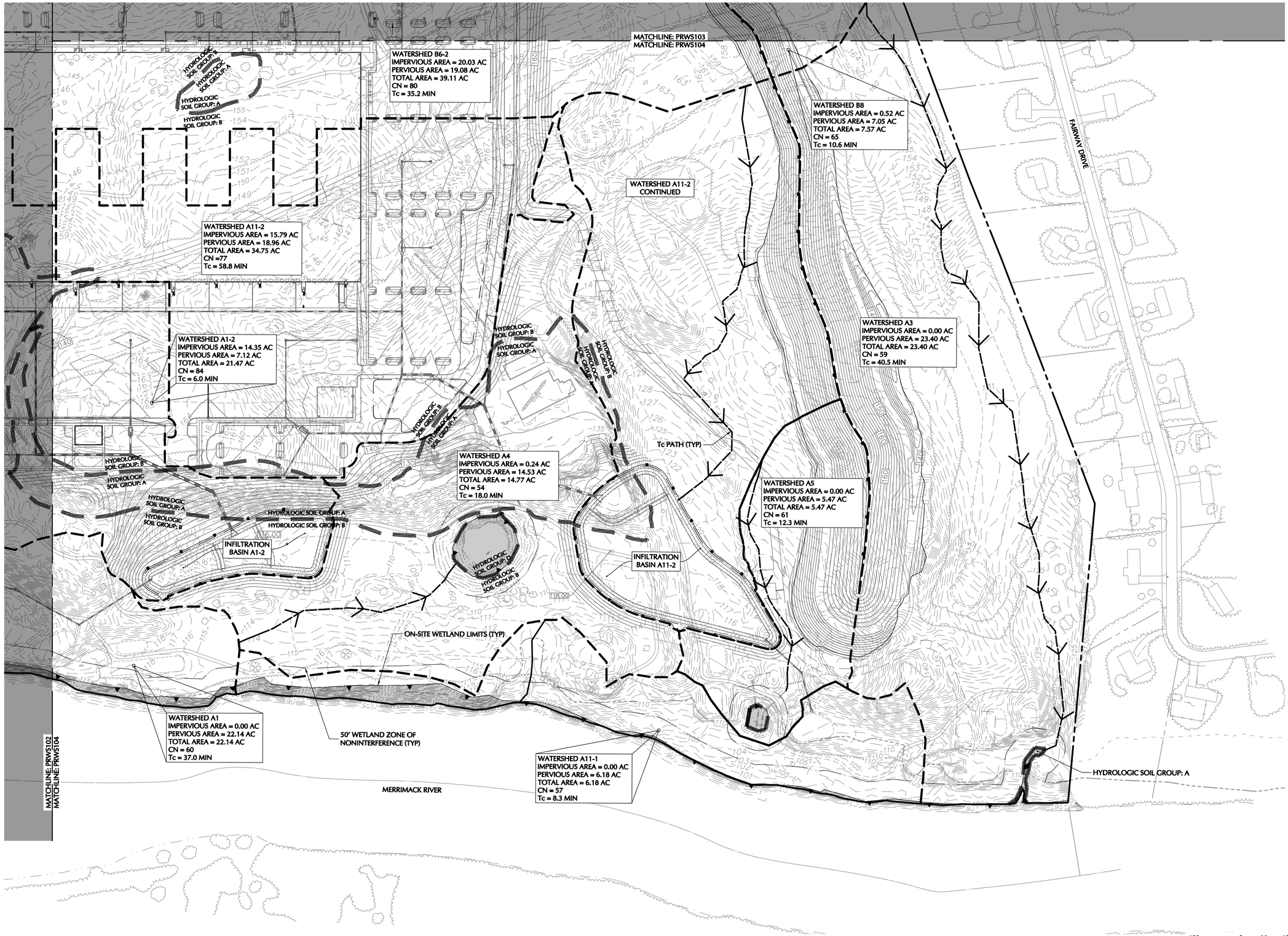
Drawing Title

PROPOSED WATERSHED MAP PLAN III

Project No.	Drawing No.
151010101	PRWS103
Date: 08/26/2022	
Drawn By: JNW	
Checked By: MKB	Sheet 13 of 10

LANGAN Project No. 151010101

Date: 9/6/2022 Time: 16:14 User: jwatler Style Table: Langan.stb Layout: PRWS 103 Document Code: 151010101-0203-CG104-0104



LEGEND	
PROPERTY LINE	
HYDROLOGIC SOIL GROUP DELINEATION LINE	
ON-SITE WETLAND LIMITS	
WATERSHED BOUNDARY	
TIME OF CONCENTRATION LINE	
50' WETLAND ZONE OF NONINTERFERENCE	
SUB-WATERSHED BOUNDARY	

SCALE: 1 INCH = 120 FEET

Date	Description	No.
Revisions		

Signature Date

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Project

PROJECT HUDSON

MAP No. 239, LOT No. 1

HUDSON NEW HAMPSHIRE

Drawing Title

PROPOSED WATERSHED MAP PLAN IV

Project No.	Drawing No.
151010101	PRWS104
Date: 08/26/2022	
Drawn By: JNW	
Checked By: MKB	Sheet 14 of 10

LANGAN Project No. 151010101

LEGEND	
PROPERTY LINE	
ON-SITE WETLAND LIMITS	
WATERSHED BOUNDARY	
50' WETLAND ZONE OF NONINTERFERENCE	
DRAINAGE AREA DELINEATION LINE	

Date	Description	No.
Revisions		

Signature Date

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Project

PROJECT HUDSON

MAP No. 239, LOT No. 1

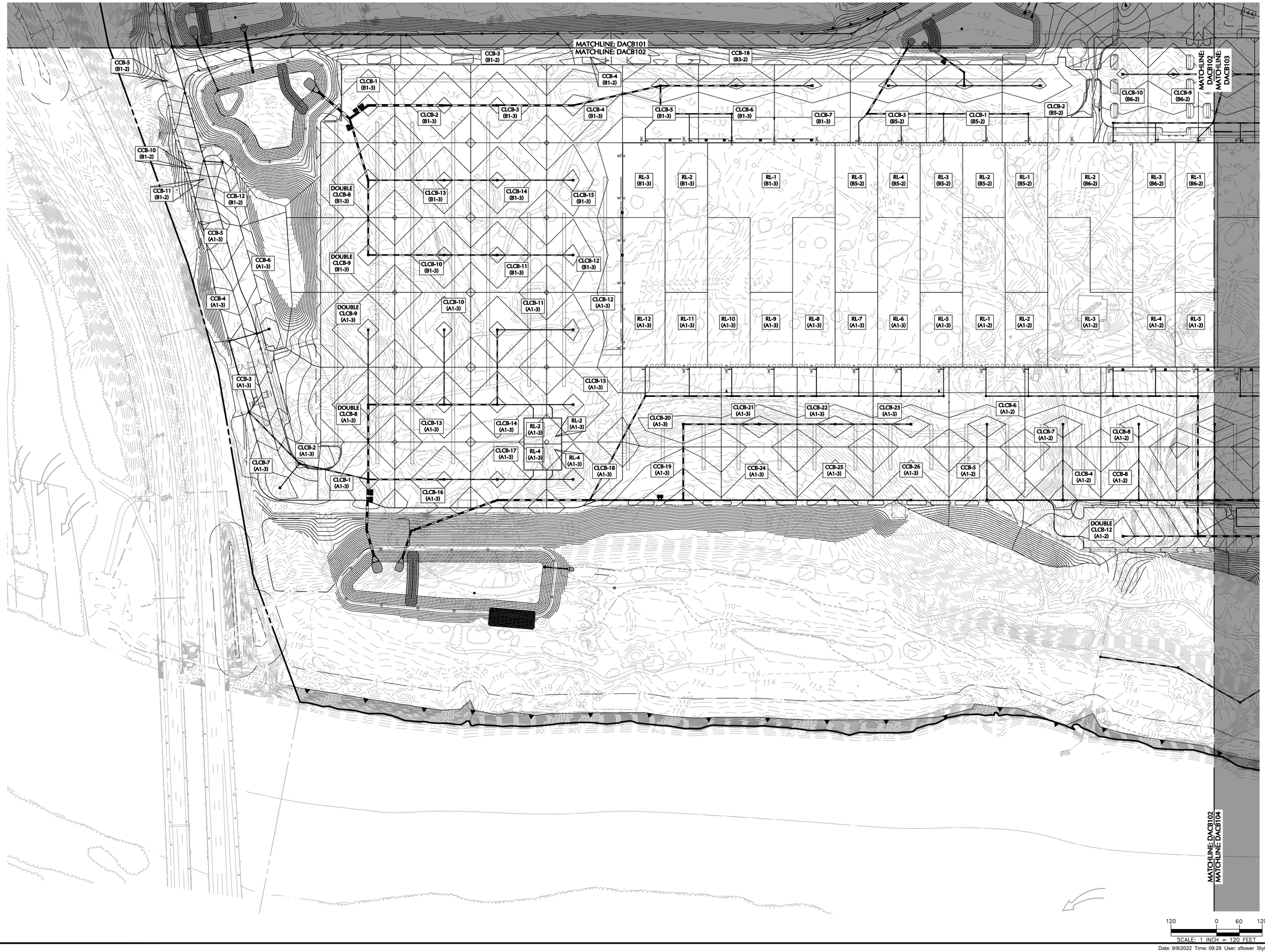
HUDSON **NEW HAMPSHIRE**

Drawing Title

DRAINAGE AREA MAP I

Project No. **151010101**	Drawing No. **DACB101**
Date **05/21/2020**	
Drawn By **CDR**	
Checked By **NLK**	Sheet **15** of **10**

LANGAN Project No. 151010101



LEGEND	
PROPERTY LINE	
ON-SITE WETLAND LIMITS	
WATERSHED BOUNDARY	
50' WETLAND ZONE OF NONINTERFERENCE	
DRAINAGE AREA DELINEATION LINE	

Date	Description	No.
11/30/20	CON. COMM. / PLANNING BOARD COMMENT RESPONSE	2
08/17/20	CONSERVATION COMMISSION REVISIONS	1

Revisions

Signature Date

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Project

PROJECT HUDSON

MAP No. 239, LOT No. 1

HUDSON NEW HAMPSHIRE

Drawing Title

DRAINAGE AREA MAP II

Project No.	Drawing No.
151010101	DACB102
Date: 05/21/2020	
Drawn By: CDR	
Checked By: NLK	Sheet 16 of 10

LANGAN

Project No. 151010101

Date: 9/8/2022 Time: 09:28 User: sflower Style Table: Langan.stb Layout: DACB102 Document Code: 151010101-0502-CG104-0101

LEGEND	
PROPERTY LINE	
ON-SITE WETLAND LIMITS	
WATERSHED BOUNDARY	
50' WETLAND ZONE OF NONINTERFERENCE	
DRAINAGE AREA DELINEATION LINE	

120 0 60 120
SCALE: 1 INCH = 120 FEET

Date	Description	No.
Revisions		

Signature Date

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Project

PROJECT HUDSON

MAP No. 239, LOT No. 1

HUDSON **NEW HAMPSHIRE**

Drawing Title

DRAINAGE AREA MAP III

Project No.	Drawing No.
151010101	DACB103
Date: **05/21/2020**	
Drawn By: **CDR**	
Checked By: **NLK**	Sheet **17** of **10**

LANGAN Project No. 151010101

Date: 9/8/2022 Time: 09:29 User: sflower Style Table: Langan.stb Layout: DA103 Document Code: 151010101-0203-CG104-0106

LEGEND	
PROPERTY LINE	
ON-SITE WETLAND LIMITS	
WATERSHED BOUNDARY	
50' WETLAND ZONE OF NONINTERFERENCE	
DRAINAGE AREA DELINEATION LINE	

Date	Description	No.
11/30/20	CON. COMM. / PLANNING BOARD COMMENT RESPONSE	2
08/17/20	CONSERVATION COMMISSION REVISIONS	1

Revisions

Signature Date

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PROJECT HUDSON

MAP No. 239, LOT No. 1

HUDSON **NEW HAMPSHIRE**

Drawing Title

DRAINAGE AREA MAP IV

Project No.	Drawing No.
151010101	DACB104
Date: **05/21/2020**	
Drawn By: **CDR**	
Checked By: **NLK**	

Sheet **18** of **10**

LANGAN

Project No. 151010101

Date: 9/8/2022 Time: 09:30 User: sflower Style Table: Langan.stb Layout: DACB104 Document Code: 151010101-0203-CG104-0107

APPENDIX A

Existing Stormwater Discharge Calculations

LANGAN

NOAA Atlas 14, Volume 10, Version 3
Location name: Hudson, New Hampshire, USA*
Latitude: 42.7196°, Longitude: -71.4302°
Elevation: 132.91 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.315 (0.254-0.388)	0.374 (0.301-0.460)	0.470 (0.377-0.581)	0.550 (0.438-0.684)	0.659 (0.506-0.855)	0.741 (0.557-0.983)	0.828 (0.600-1.14)	0.927 (0.631-1.30)	1.07 (0.698-1.55)	1.19 (0.754-1.76)
10-min	0.446 (0.360-0.549)	0.529 (0.427-0.652)	0.665 (0.535-0.823)	0.778 (0.621-0.967)	0.933 (0.717-1.21)	1.05 (0.788-1.39)	1.17 (0.850-1.61)	1.31 (0.894-1.84)	1.52 (0.988-2.20)	1.69 (1.07-2.49)
15-min	0.525 (0.424-0.646)	0.623 (0.502-0.767)	0.783 (0.629-0.968)	0.915 (0.731-1.14)	1.10 (0.844-1.43)	1.24 (0.927-1.64)	1.38 (1.00-1.90)	1.55 (1.05-2.17)	1.79 (1.16-2.59)	1.98 (1.26-2.93)
30-min	0.720 (0.582-0.886)	0.856 (0.691-1.06)	1.08 (0.867-1.33)	1.26 (1.01-1.57)	1.52 (1.17-1.97)	1.71 (1.28-2.26)	1.91 (1.38-2.62)	2.14 (1.46-2.99)	2.47 (1.61-3.58)	2.74 (1.74-4.05)
60-min	0.915 (0.739-1.13)	1.09 (0.879-1.34)	1.37 (1.10-1.70)	1.61 (1.29-2.00)	1.94 (1.49-2.51)	2.18 (1.64-2.89)	2.44 (1.77-3.35)	2.73 (1.86-3.83)	3.15 (2.05-4.57)	3.50 (2.22-5.17)
2-hr	1.14 (0.930-1.40)	1.39 (1.13-1.70)	1.80 (1.45-2.21)	2.13 (1.71-2.63)	2.59 (2.01-3.36)	2.94 (2.22-3.88)	3.30 (2.42-4.55)	3.75 (2.56-5.22)	4.42 (2.88-6.36)	4.99 (3.17-7.32)
3-hr	1.31 (1.07-1.59)	1.60 (1.31-1.96)	2.09 (1.69-2.56)	2.49 (2.01-3.06)	3.04 (2.36-3.93)	3.45 (2.62-4.56)	3.89 (2.87-5.36)	4.43 (3.03-6.15)	5.26 (3.44-7.55)	5.98 (3.80-8.74)
6-hr	1.66 (1.37-2.01)	2.04 (1.68-2.48)	2.67 (2.18-3.25)	3.19 (2.59-3.90)	3.90 (3.05-5.01)	4.42 (3.38-5.82)	5.00 (3.71-6.85)	5.71 (3.91-7.87)	6.80 (4.46-9.70)	7.75 (4.94-11.3)
12-hr	2.11 (1.75-2.54)	2.58 (2.13-3.11)	3.34 (2.75-4.04)	3.98 (3.25-4.84)	4.85 (3.82-6.19)	5.50 (4.23-7.18)	6.20 (4.62-8.43)	7.06 (4.87-9.68)	8.38 (5.51-11.9)	9.52 (6.09-13.7)
24-hr	2.55 (2.12-3.05)	3.11 (2.59-3.72)	4.03 (3.34-4.84)	4.79 (3.94-5.79)	5.84 (4.63-7.40)	6.62 (5.12-8.57)	7.46 (5.58-10.1)	8.49 (5.88-11.6)	10.1 (6.64-14.2)	11.4 (7.33-16.4)
2-day	2.91 (2.44-3.46)	3.58 (3.00-4.25)	4.66 (3.89-5.56)	5.56 (4.61-6.67)	6.80 (5.42-8.57)	7.72 (6.00-9.95)	8.72 (6.56-11.7)	9.94 (6.91-13.5)	11.8 (7.83-16.5)	13.4 (8.65-19.2)
3-day	3.20 (2.69-3.78)	3.91 (3.29-4.63)	5.07 (4.25-6.02)	6.03 (5.01-7.21)	7.36 (5.88-9.22)	8.34 (6.50-10.7)	9.40 (7.08-12.6)	10.7 (7.45-14.4)	12.7 (8.41-17.7)	14.4 (9.27-20.4)
4-day	3.46 (2.92-4.08)	4.19 (3.54-4.96)	5.40 (4.53-6.40)	6.39 (5.33-7.62)	7.77 (6.22-9.70)	8.78 (6.86-11.2)	9.88 (7.45-13.1)	11.2 (7.82-15.1)	13.2 (8.79-18.4)	14.9 (9.64-21.1)
7-day	4.17 (3.55-4.90)	4.95 (4.20-5.82)	6.22 (5.25-7.33)	7.27 (6.10-8.62)	8.72 (7.01-10.8)	9.80 (7.67-12.4)	10.9 (8.25-14.4)	12.3 (8.62-16.4)	14.3 (9.53-19.7)	15.9 (10.3-22.4)
10-day	4.84 (4.13-5.67)	5.65 (4.81-6.61)	6.96 (5.90-8.17)	8.04 (6.77-9.50)	9.54 (7.69-11.7)	10.7 (8.36-13.4)	11.8 (8.92-15.4)	13.2 (9.27-17.5)	15.1 (10.1-20.8)	16.7 (10.8-23.4)
20-day	6.82 (5.86-7.93)	7.69 (6.60-8.95)	9.12 (7.78-10.6)	10.3 (8.73-12.1)	11.9 (9.65-14.5)	13.2 (10.4-16.3)	14.4 (10.8-18.5)	15.7 (11.1-20.8)	17.5 (11.8-23.9)	18.9 (12.3-26.3)
30-day	8.46 (7.30-9.80)	9.39 (8.09-10.9)	10.9 (9.35-12.7)	12.2 (10.4-14.2)	13.9 (11.3-16.8)	15.3 (12.0-18.8)	16.6 (12.4-21.0)	17.9 (12.7-23.5)	19.5 (13.2-26.5)	20.7 (13.5-28.8)
45-day	10.5 (9.11-12.1)	11.5 (9.96-13.3)	13.2 (11.3-15.2)	14.5 (12.4-16.9)	16.4 (13.3-19.7)	17.9 (14.1-21.8)	19.3 (14.5-24.2)	20.6 (14.7-26.9)	22.1 (15.0-30.0)	23.2 (15.2-32.1)
60-day	12.2 (10.6-14.1)	13.3 (11.5-15.3)	15.1 (13.0-17.4)	16.5 (14.1-19.2)	18.5 (15.1-22.1)	20.1 (15.9-24.4)	21.5 (16.2-26.9)	22.9 (16.3-29.8)	24.4 (16.6-32.9)	25.4 (16.6-35.1)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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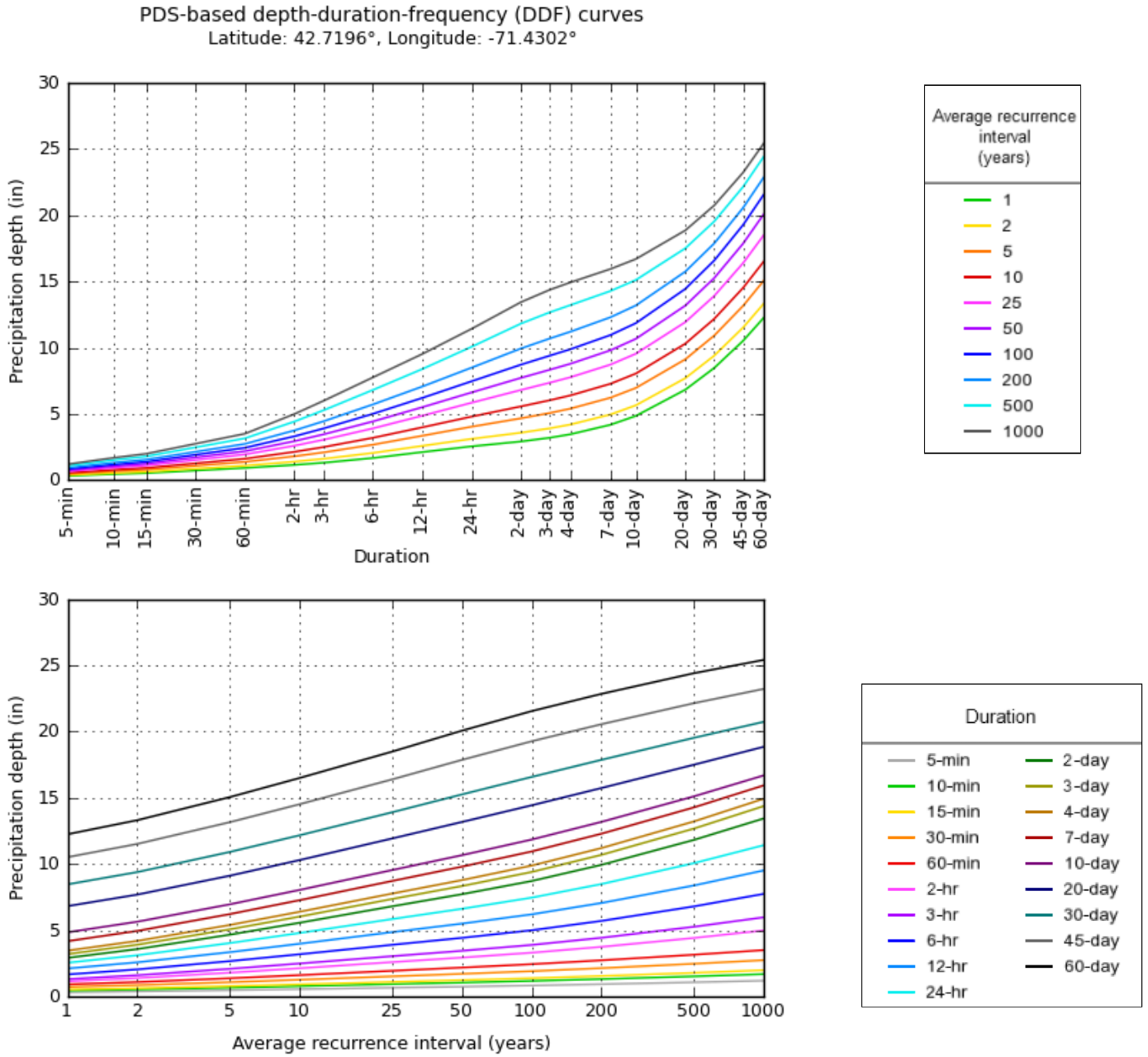
PF graphical



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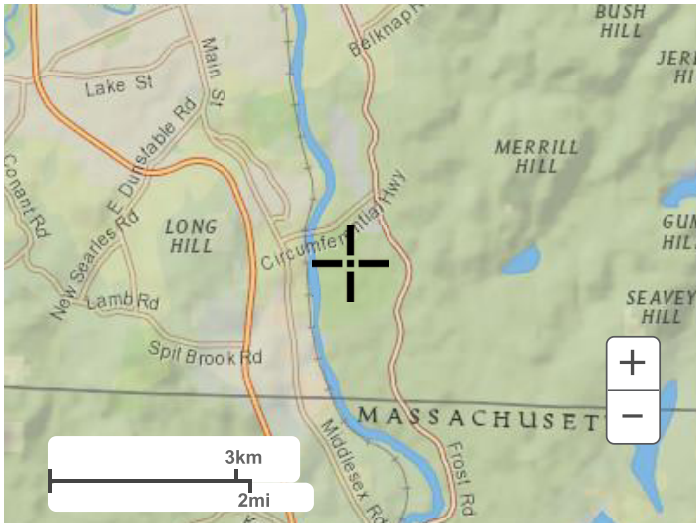
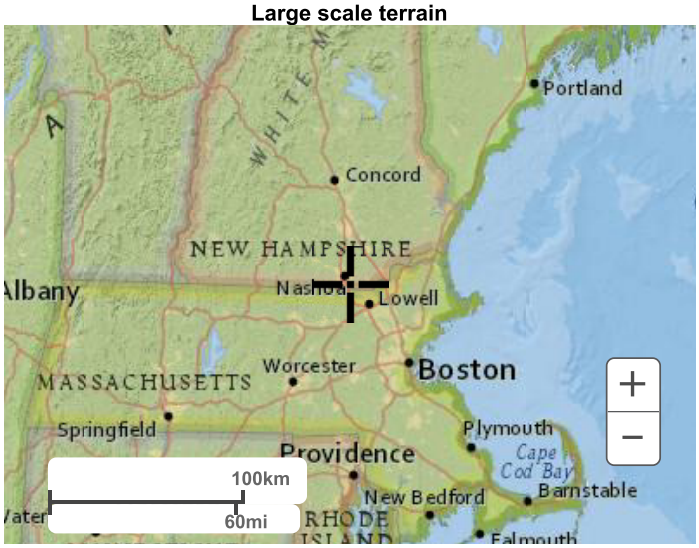
Maps & aerials

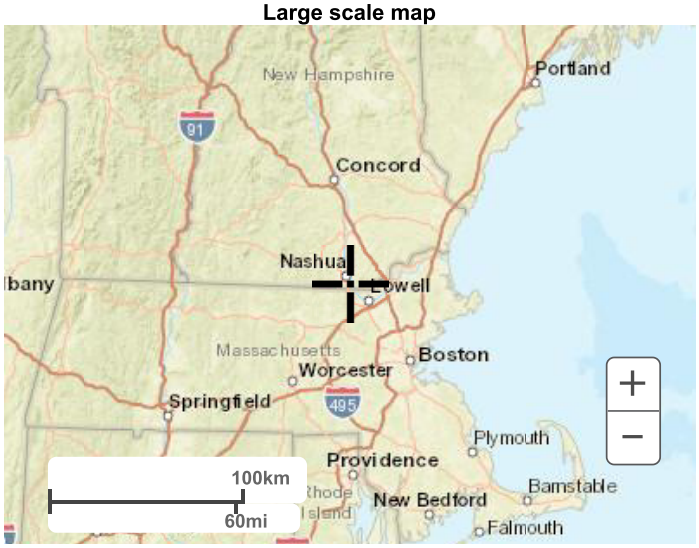
Small scale terrain



Large scale terrain



Large scale map



Large scale aerial

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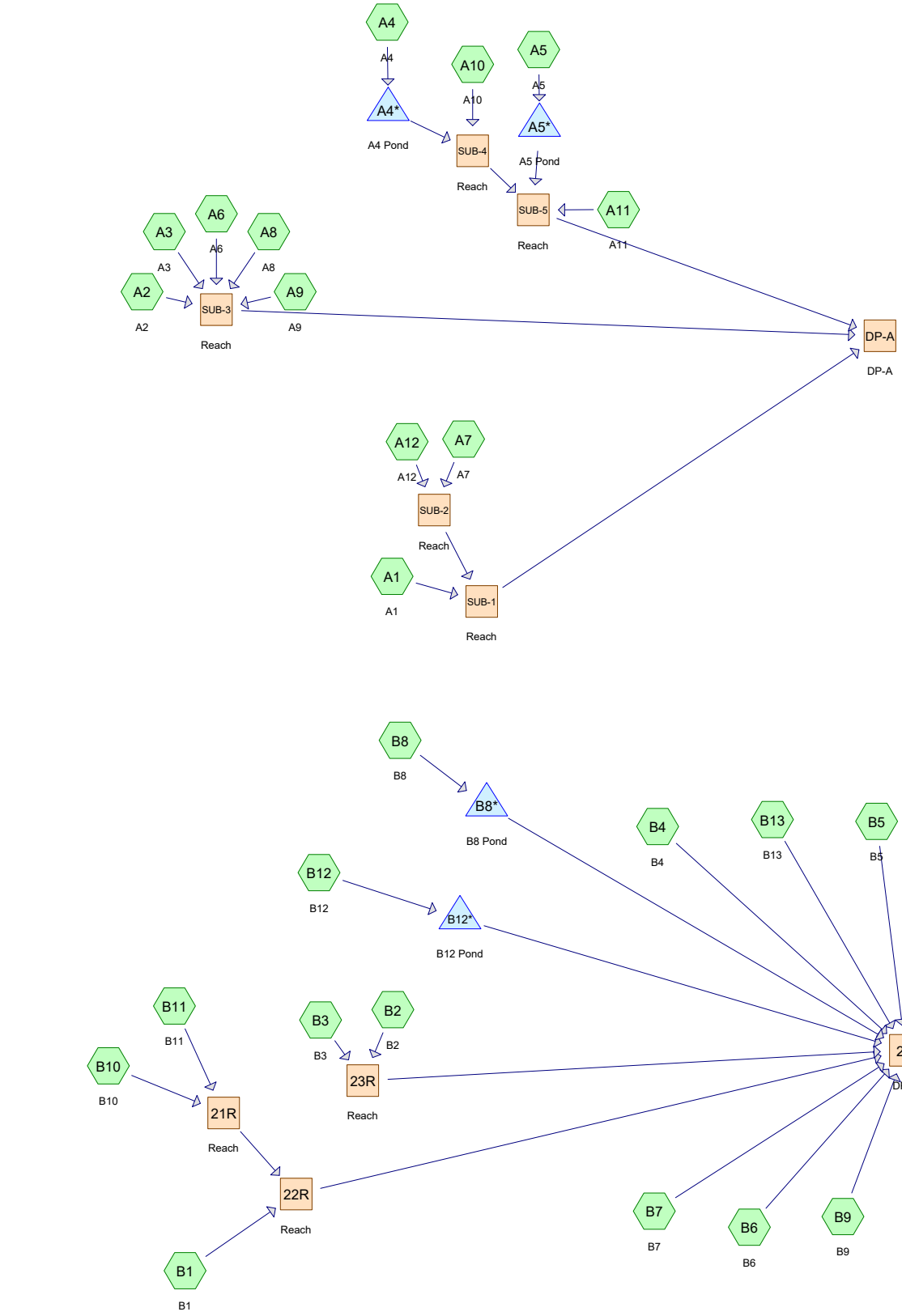


Routing Diagram for ExistingConditions_Hudson

Prepared by Langan Engineering and Environmental Services, Printed 9/7/2022

HydroCAD® 10.10-6a s/n 11011 © 2020 HydroCAD Software Solutions LLC

Project Notes

Rainfall events imported from "ProposedConditions_Hudson.hcp"

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
4.590	39	>75% Grass cover, Good, HSG A (A10, A2, A4, A9, B1, B10, B11, B6)
237.109	61	>75% Grass cover, Good, HSG B (A1, A10, A11, A12, A2, A3, A4, A5, A6, A7, A8, A9, B1, B10, B11, B12, B13, B2, B3, B4, B5, B6, B7, B8, B9)
12.654	80	>75% Grass cover, Good, HSG D (A4, A5, B1, B13, B2, B3, B4, B5, B6, B7)
0.064	48	Brush, Good, HSG B (B1)
0.168	85	Gravel roads, HSG B (B1)
3.739	98	Paved parking, HSG A (B1, B12, B13, B2, B5, B6, B7, B8, B9)
8.320	98	Unconnected pavement, HSG A (A1, A10, A11, A12, A3, A4, A5, A6, A7, A9)
0.369	98	Water Surface, HSG B (B1)
5.720	30	Woods, Good, HSG A (A10, A2, A4, A9, B1, B10, B11)
91.987	55	Woods, Good, HSG B (A1, A10, A11, A12, A2, A3, A4, A5, A6, A7, A8, A9, B1, B10, B11, B12, B13, B2, B3, B4, B5, B6, B7, B8, B9)
24.813	77	Woods, Good, HSG D (A3, B1, B13, B2, B3, B4, B5, B6, B7)
389.533	**62**	**TOTAL AREA**

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

SubcatchmentA1: A1 Runoff Area=32.780 ac 2.44% Impervious Runoff Depth>0.35"
Flow Length=1,500' Tc=36.1 min CN=61 Runoff=5.38 cfs 0.950 af

SubcatchmentA10: A10 Runoff Area=9.460 ac 6.77% Impervious Runoff Depth>0.35"
Tc=11.3 min UI Adjusted CN=61 Runoff=2.21 cfs 0.279 af

SubcatchmentA11: A11 Runoff Area=6.180 ac 1.62% Impervious Runoff Depth>0.27"
Tc=6.0 min CN=58 Runoff=0.92 cfs 0.137 af

SubcatchmentA12: A12 Runoff Area=22.000 ac 2.64% Impervious Runoff Depth>0.35"
Flow Length=1,802' Tc=36.0 min CN=61 Runoff=3.61 cfs 0.638 af

SubcatchmentA2: A2 Runoff Area=2.840 ac 0.00% Impervious Runoff Depth>0.32"
Flow Length=569' Tc=13.1 min CN=60 Runoff=0.55 cfs 0.076 af

SubcatchmentA3: A3 Runoff Area=25.560 ac 1.88% Impervious Runoff Depth>0.29"
Flow Length=1,986' Tc=39.9 min UI Adjusted CN=59 Runoff=2.98 cfs 0.610 af

SubcatchmentA4: A4 Runoff Area=32.410 ac 3.15% Impervious Runoff Depth>0.21"
Flow Length=1,245' Tc=18.6 min UI Adjusted CN=56 Runoff=2.98 cfs 0.567 af

SubcatchmentA5: A5 Runoff Area=18.170 ac 2.92% Impervious Runoff Depth>0.35"
Flow Length=1,830' Tc=24.7 min UI Adjusted CN=61 Runoff=3.47 cfs 0.531 af

SubcatchmentA6: A6 Runoff Area=9.800 ac 3.06% Impervious Runoff Depth>0.35"
Flow Length=1,286' Tc=20.8 min CN=61 Runoff=1.97 cfs 0.287 af

SubcatchmentA7: A7 Runoff Area=12.150 ac 3.87% Impervious Runoff Depth>0.35"
Flow Length=615' Tc=9.6 min CN=61 Runoff=2.98 cfs 0.359 af

SubcatchmentA8: A8 Runoff Area=1.750 ac 0.00% Impervious Runoff Depth>0.24"
Tc=6.0 min CN=57 Runoff=0.22 cfs 0.035 af

SubcatchmentA9: A9 Runoff Area=9.690 ac 35.09% Impervious Runoff Depth>0.74"
Flow Length=742' Tc=14.8 min CN=71 Runoff=6.29 cfs 0.599 af

SubcatchmentB1: B1 Runoff Area=33.063 ac 2.81% Impervious Runoff Depth>0.45"
Flow Length=844' Tc=18.8 min CN=64 Runoff=10.09 cfs 1.250 af

SubcatchmentB10: B10 Runoff Area=1.010 ac 0.00% Impervious Runoff Depth=0.00"
Flow Length=109' Tc=6.4 min CN=35 Runoff=0.00 cfs 0.000 af

SubcatchmentB11: B11 Runoff Area=1.280 ac 0.00% Impervious Runoff Depth=0.00"
Tc=6.0 min CN=35 Runoff=0.00 cfs 0.000 af

SubcatchmentB12: B12 Runoff Area=5.240 ac 3.63% Impervious Runoff Depth>0.39"
Tc=6.0 min CN=62 Runoff=1.73 cfs 0.169 af

SubcatchmentB13: B13 Runoff Area=14.400 ac 1.94% Impervious Runoff Depth>0.29"
Flow Length=963' Tc=24.1 min CN=59 Runoff=2.07 cfs 0.348 af

SubcatchmentB2: B2 Runoff Area=12.770 ac 2.27% Impervious Runoff Depth>0.38"
Flow Length=844' Tc=17.7 min CN=62 Runoff=3.08 cfs 0.410 af

SubcatchmentB3: B3 Runoff Area=18.520 ac 0.00% Impervious Runoff Depth>0.38"
Flow Length=886' Tc=21.2 min CN=62 Runoff=4.25 cfs 0.593 af

SubcatchmentB4: B4 Runoff Area=29.730 ac 0.00% Impervious Runoff Depth>0.42"
Flow Length=448' Tc=10.6 min CN=63 Runoff=9.59 cfs 1.042 af

SubcatchmentB5: B5 Runoff Area=34.440 ac 0.52% Impervious Runoff Depth>0.45"
Flow Length=1,139' Tc=19.3 min CN=64 Runoff=10.42 cfs 1.302 af

SubcatchmentB6: B6 Runoff Area=27.950 ac 4.47% Impervious Runoff Depth>0.42"
Flow Length=1,589' Tc=25.0 min CN=63 Runoff=6.89 cfs 0.971 af

SubcatchmentB7: B7 Runoff Area=7.760 ac 2.32% Impervious Runoff Depth>0.45"
Flow Length=538' Tc=27.4 min CN=64 Runoff=2.08 cfs 0.292 af

SubcatchmentB8: B8 Runoff Area=10.500 ac 2.86% Impervious Runoff Depth>0.35"
Flow Length=1,062' Tc=20.9 min CN=61 Runoff=2.11 cfs 0.308 af

SubcatchmentB9: B9 Runoff Area=10.080 ac 5.06% Impervious Runoff Depth>0.39"
Flow Length=805' Slope=0.0260 '/' Tc=16.2 min CN=62 Runoff=2.50 cfs 0.324 af

Reach 2R: DP-B Inflow=49.99 cfs 6.998 af
Outflow=49.99 cfs 6.998 af

Reach 21R: Reach Inflow=0.00 cfs 0.000 af
Outflow=0.00 cfs 0.000 af

Reach 22R: Reach Inflow=10.09 cfs 1.250 af
Outflow=10.09 cfs 1.250 af

Reach 23R: Reach Inflow=7.27 cfs 1.002 af
Outflow=7.27 cfs 1.002 af

Reach DP-A: DP-A Inflow=20.37 cfs 3.970 af
Outflow=20.37 cfs 3.970 af

Reach SUB-1: Reach Inflow=10.22 cfs 1.947 af
Outflow=10.22 cfs 1.947 af

Reach SUB-2: Reach Inflow=5.06 cfs 0.996 af
Outflow=5.06 cfs 0.996 af

Reach SUB-3: Reach Inflow=8.92 cfs 1.608 af
Outflow=8.92 cfs 1.608 af

Reach SUB-4: Reach Inflow=2.21 cfs 0.279 af
Outflow=2.21 cfs 0.279 af

Reach SUB-5: Reach Inflow=3.13 cfs 0.416 af
Outflow=3.13 cfs 0.416 af

Pond A4*: A4 Pond Peak Elev=101.43' Storage=24,679 cf Inflow=2.98 cfs 0.567 af
Outflow=0.00 cfs 0.000 af

Pond A5*: A5 Pond Peak Elev=106.78' Storage=23,101 cf Inflow=3.47 cfs 0.531 af
Outflow=0.00 cfs 0.000 af

Pond B12*: B12 Pond Peak Elev=126.03' Storage=567 cf Inflow=1.73 cfs 0.169 af
Outflow=1.32 cfs 0.167 af

Pond B8*: B8 Pond Peak Elev=132.05' Storage=1,415 cf Inflow=2.11 cfs 0.308 af
Outflow=1.77 cfs 0.301 af

Total Runoff Area = 389.533 ac Runoff Volume = 12.075 af Average Runoff Depth = 0.37"
96.81% Pervious = 377.105 ac 3.19% Impervious = 12.428 ac

Summary for Subcatchment A1: A1

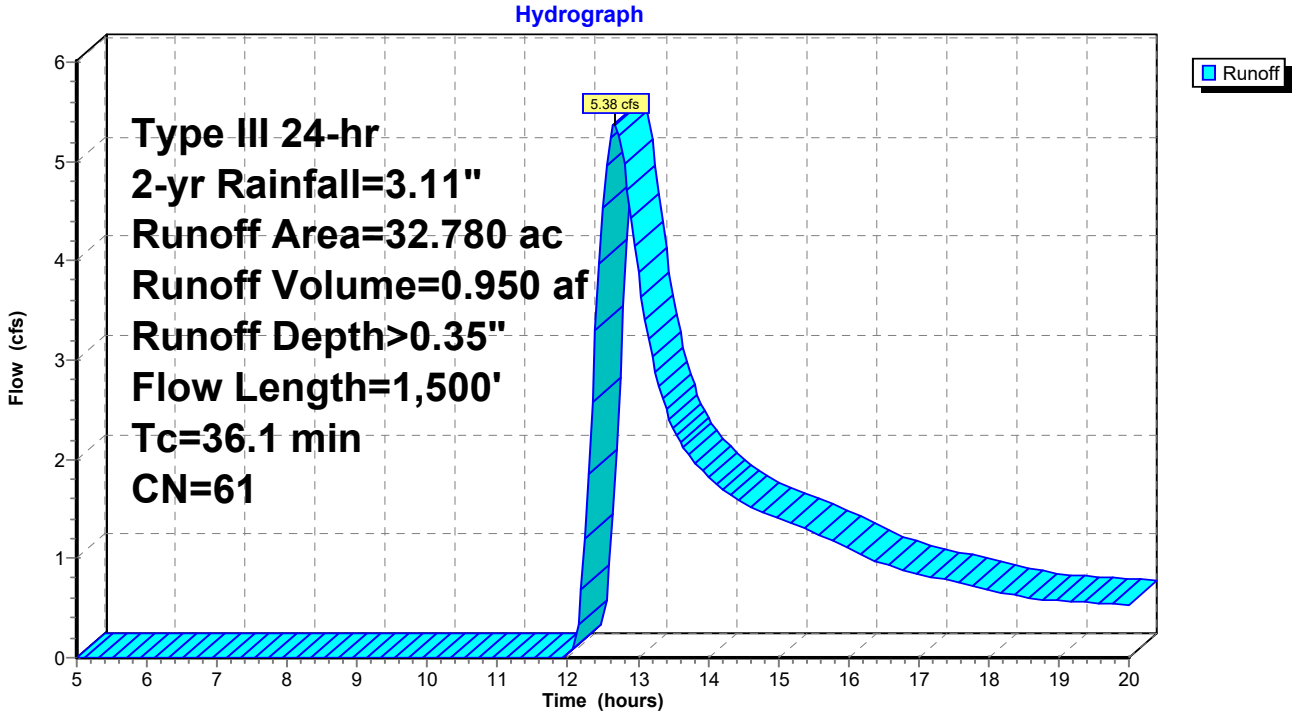
Runoff = 5.38 cfs @ 12.66 hrs, Volume= 0.950 af, Depth> 0.35"
Routed to Reach SUB-1 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.800	98	Unconnected pavement, HSG A
28.270	61	>75% Grass cover, Good, HSG B
3.710	55	Woods, Good, HSG B
32.780	61	Weighted Average
31.980		97.56% Pervious Area
0.800		2.44% Impervious Area
0.800		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	50	0.0100	0.11		**Sheet Flow, SF-1** Grass: Short n= 0.150 P2= 3.11"
5.9	315	0.0160	0.89		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
0.3	64	0.2160	3.25		**Shallow Concentrated Flow, scf-2** Short Grass Pasture Kv= 7.0 fps
22.4	1,071	0.0130	0.80		**Shallow Concentrated Flow, scf-3** Short Grass Pasture Kv= 7.0 fps
36.1	1,500	Total			

Subcatchment A1: A1



Hydrograph for Subcatchment A1: A1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.01	0.01
12.25	2.01	0.07	1.19
12.50	2.18	0.11	**4.53**
12.75	2.27	0.13	**5.19**
13.00	2.33	0.15	3.88
13.25	2.39	0.16	2.88
13.50	2.44	0.18	2.31
13.75	2.48	0.19	2.02
14.00	2.52	0.20	1.84
14.25	2.56	0.21	1.68
14.50	2.59	0.22	1.56
14.75	2.63	0.23	1.48
15.00	2.66	0.24	1.40
15.25	2.68	0.25	1.33
15.50	2.71	0.26	1.26
15.75	2.73	0.27	1.18
16.00	2.76	0.28	1.10
16.25	2.78	0.28	1.02
16.50	2.79	0.29	0.94
16.75	2.81	0.30	0.89
17.00	2.83	0.30	0.85
17.25	2.84	0.31	0.81
17.50	2.86	0.31	0.77
17.75	2.87	0.32	0.73
18.00	2.89	0.32	0.69
18.25	2.90	0.33	0.65
18.50	2.91	0.33	0.61
18.75	2.92	0.34	0.59
19.00	2.93	0.34	0.58
19.25	2.94	0.34	0.56
19.50	2.96	0.35	0.55
19.75	2.97	0.35	0.54
20.00	**2.98**	**0.36**	0.53

Summary for Subcatchment A10: A10

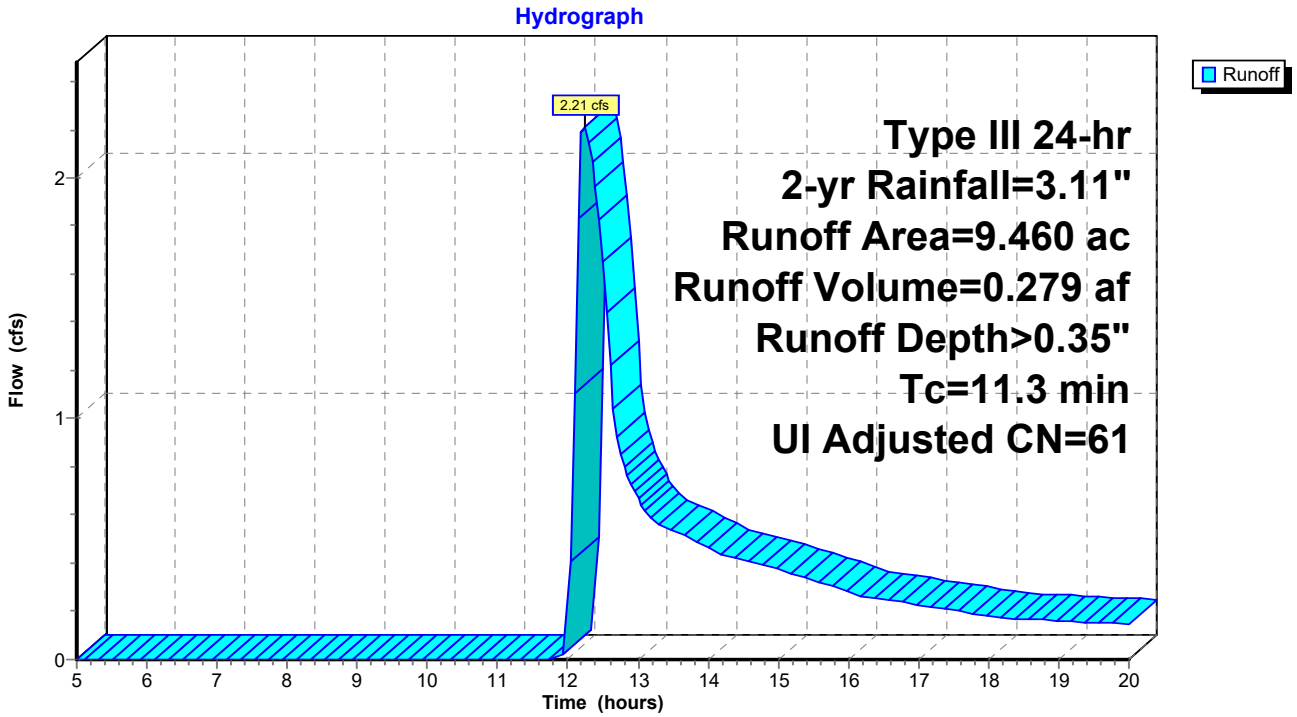
Runoff = 2.21 cfs @ 12.24 hrs, Volume= 0.279 af, Depth> 0.35"
Routed to Reach SUB-4 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Adj	Description
0.640	98		Unconnected pavement, HSG A
0.230	39		>75% Grass cover, Good, HSG A
0.020	30		Woods, Good, HSG A
6.870	61		>75% Grass cover, Good, HSG B
1.700	55		Woods, Good, HSG B
9.460	62	61	Weighted Average, UI Adjusted
8.820			93.23% Pervious Area
0.640			6.77% Impervious Area
0.640			100.00% Unconnected

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

Subcatchment A10: A10



Hydrograph for Subcatchment A10: A10

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.01	0.08
12.25	2.01	0.07	**2.21**
12.50	2.18	0.11	1.64
12.75	2.27	0.13	0.85
13.00	2.33	0.15	0.67
13.25	2.39	0.16	0.57
13.50	2.44	0.18	0.53
13.75	2.48	0.19	0.50
14.00	2.52	0.20	0.46
14.25	2.56	0.21	0.43
14.50	2.59	0.22	0.41
14.75	2.63	0.23	0.39
15.00	2.66	0.24	0.37
15.25	2.68	0.25	0.35
15.50	2.71	0.26	0.33
15.75	2.73	0.27	0.31
16.00	2.76	0.28	0.28
16.25	2.78	0.28	0.26
16.50	2.79	0.29	0.25
16.75	2.81	0.30	0.24
17.00	2.83	0.30	0.23
17.25	2.84	0.31	0.22
17.50	2.86	0.31	0.20
17.75	2.87	0.32	0.19
18.00	2.89	0.32	0.18
18.25	2.90	0.33	0.17
18.50	2.91	0.33	0.17
18.75	2.92	0.34	0.16
19.00	2.93	0.34	0.16
19.25	2.94	0.34	0.16
19.50	2.96	0.35	0.15
19.75	2.97	0.35	0.15
20.00	**2.98**	**0.36**	0.15

Summary for Subcatchment A11: A11

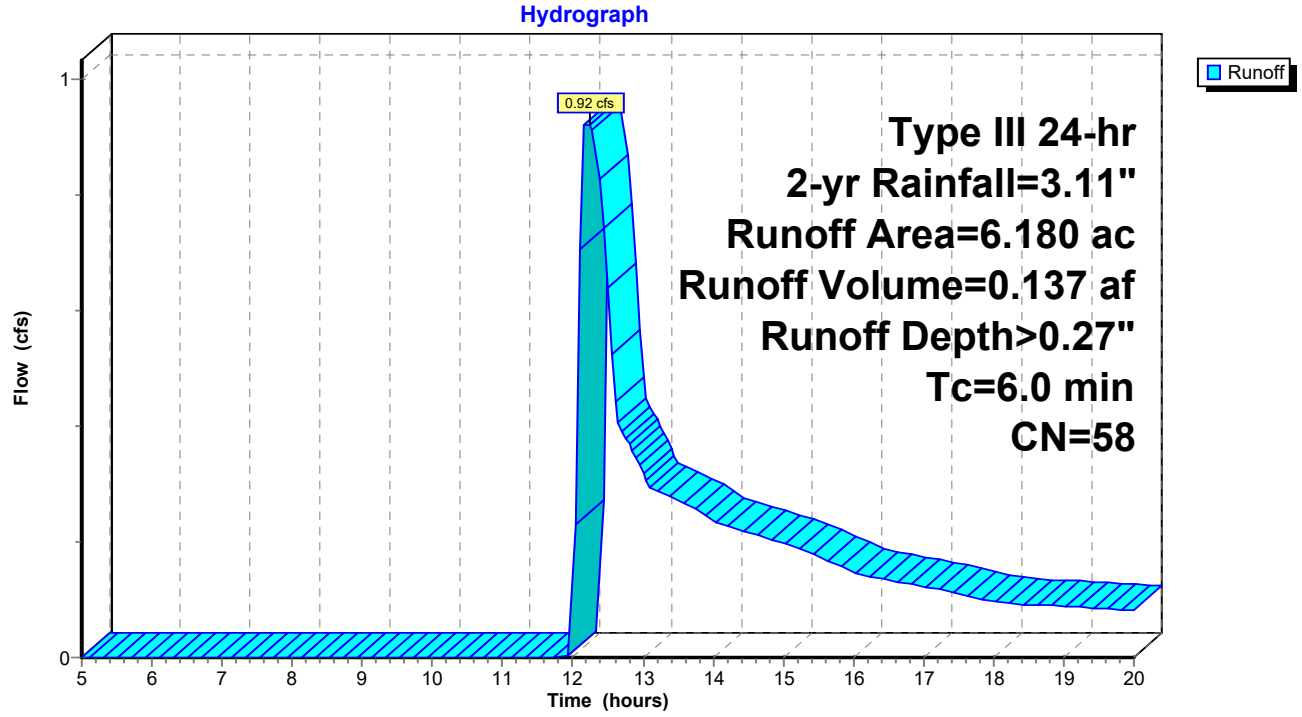
Runoff = 0.92 cfs @ 12.25 hrs, Volume= 0.137 af, Depth> 0.27"
Routed to Reach SUB-5 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.100	98	Unconnected pavement, HSG A
2.490	61	>75% Grass cover, Good, HSG B
3.590	55	Woods, Good, HSG B
6.180	58	Weighted Average
6.080		98.38% Pervious Area
0.100		1.62% Impervious Area
0.100		100.00% Unconnected

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

Subcatchment A11: A11



Hydrograph for Subcatchment A11: A11

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.00	0.01
12.25	2.01	0.04	**0.92**
12.50	2.18	0.07	0.64
12.75	2.27	0.08	0.38
13.00	2.33	0.10	0.32
13.25	2.39	0.11	0.29
13.50	2.44	0.12	0.27
13.75	2.48	0.13	0.26
14.00	2.52	0.14	0.24
14.25	2.56	0.15	0.22
14.50	2.59	0.16	0.22
14.75	2.63	0.16	0.21
15.00	2.66	0.17	0.20
15.25	2.68	0.18	0.19
15.50	2.71	0.19	0.17
15.75	2.73	0.19	0.16
16.00	2.76	0.20	0.15
16.25	2.78	0.21	0.14
16.50	2.79	0.21	0.13
16.75	2.81	0.22	0.13
17.00	2.83	0.22	0.12
17.25	2.84	0.23	0.12
17.50	2.86	0.23	0.11
17.75	2.87	0.23	0.10
18.00	2.89	0.24	0.10
18.25	2.90	0.24	0.09
18.50	2.91	0.25	0.09
18.75	2.92	0.25	0.09
19.00	2.93	0.25	0.09
19.25	2.94	0.26	0.09
19.50	2.96	0.26	0.08
19.75	2.97	0.26	0.08
20.00	**2.98**	**0.27**	0.08

Summary for Subcatchment A12: A12

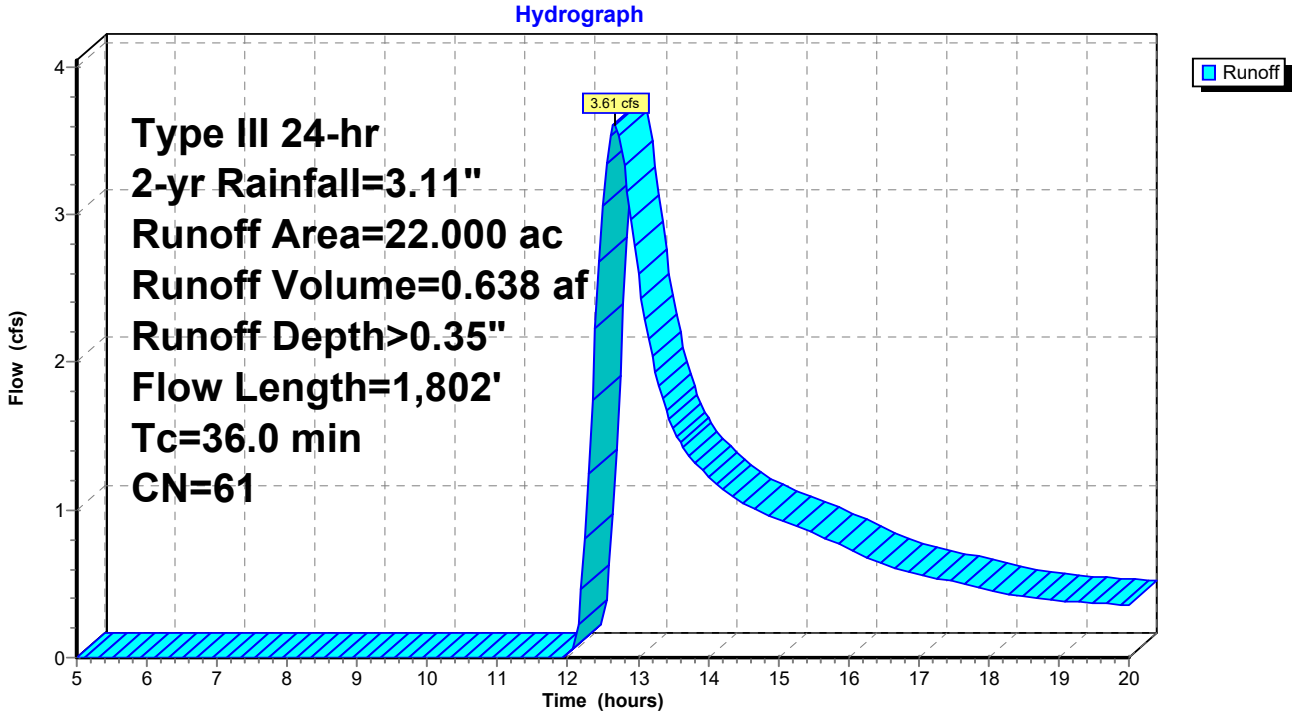
Runoff = 3.61 cfs @ 12.66 hrs, Volume= 0.638 af, Depth> 0.35"
Routed to Reach SUB-2 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.580	98	Unconnected pavement, HSG A
18.290	61	>75% Grass cover, Good, HSG B
3.130	55	Woods, Good, HSG B
22.000	61	Weighted Average
21.420		97.36% Pervious Area
0.580		2.64% Impervious Area
0.580		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	50	0.0200	0.15		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
30.3	1,752	0.0190	0.96		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
36.0	1,802	Total			

Subcatchment A12: A12



Hydrograph for Subcatchment A12: A12

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.01	0.00
12.25	2.01	0.07	0.81
12.50	2.18	0.11	**3.06**
12.75	2.27	0.13	**3.48**
13.00	2.33	0.15	2.60
13.25	2.39	0.16	1.93
13.50	2.44	0.18	1.55
13.75	2.48	0.19	1.35
14.00	2.52	0.20	1.23
14.25	2.56	0.21	1.13
14.50	2.59	0.22	1.05
14.75	2.63	0.23	0.99
15.00	2.66	0.24	0.94
15.25	2.68	0.25	0.90
15.50	2.71	0.26	0.85
15.75	2.73	0.27	0.79
16.00	2.76	0.28	0.74
16.25	2.78	0.28	0.68
16.50	2.79	0.29	0.63
16.75	2.81	0.30	0.60
17.00	2.83	0.30	0.57
17.25	2.84	0.31	0.54
17.50	2.86	0.31	0.52
17.75	2.87	0.32	0.49
18.00	2.89	0.32	0.46
18.25	2.90	0.33	0.43
18.50	2.91	0.33	0.41
18.75	2.92	0.34	0.40
19.00	2.93	0.34	0.39
19.25	2.94	0.34	0.38
19.50	2.96	0.35	0.37
19.75	2.97	0.35	0.36
20.00	**2.98**	**0.36**	0.35

Summary for Subcatchment A2: A2

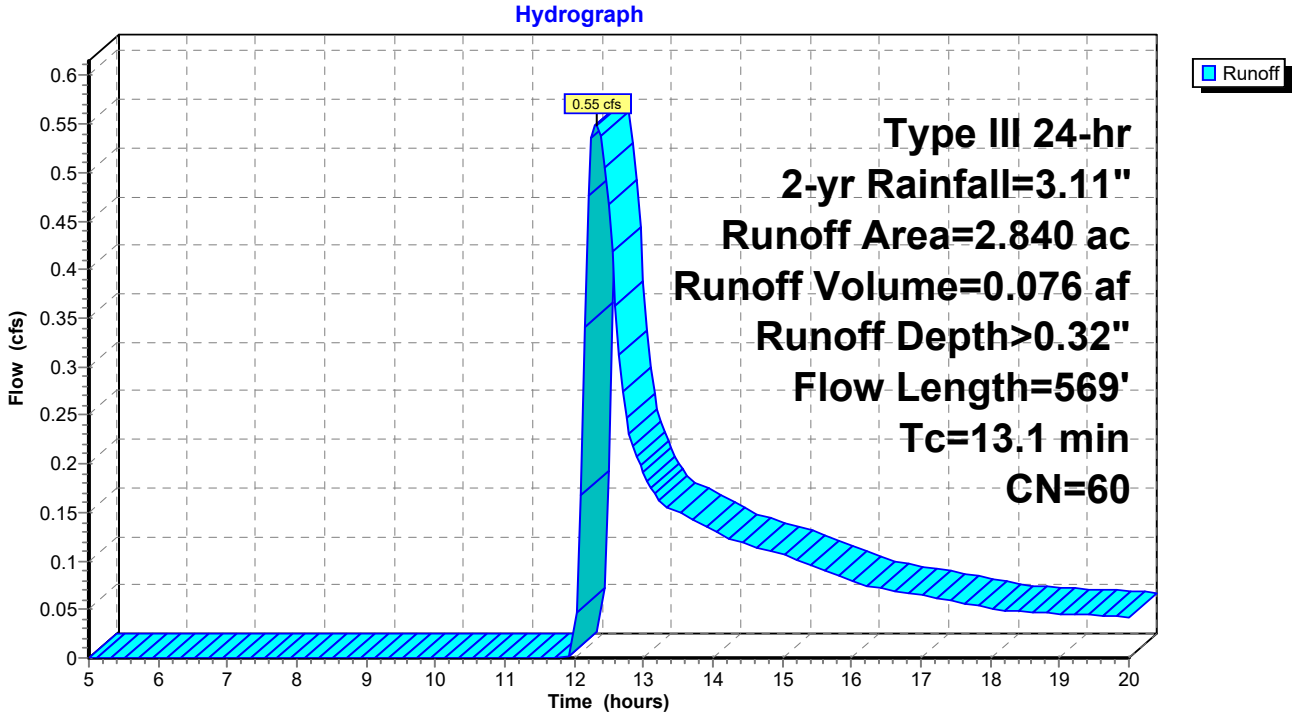
Runoff = 0.55 cfs @ 12.31 hrs, Volume= 0.076 af, Depth> 0.32"
Routed to Reach SUB-3 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.010	39	>75% Grass cover, Good, HSG A
0.010	30	Woods, Good, HSG A
2.470	61	>75% Grass cover, Good, HSG B
0.350	55	Woods, Good, HSG B
2.840	60	Weighted Average
2.840		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	50	0.0200	0.15		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
7.4	519	0.0280	1.17		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
13.1	569	Total			

Subcatchment A2: A2



Hydrograph for Subcatchment A2: A2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.01	0.01
12.25	2.01	0.06	**0.54**
12.50	2.18	0.10	**0.47**
12.75	2.27	0.11	0.25
13.00	2.33	0.13	0.19
13.25	2.39	0.14	0.16
13.50	2.44	0.16	0.15
13.75	2.48	0.17	0.14
14.00	2.52	0.18	0.13
14.25	2.56	0.19	0.12
14.50	2.59	0.20	0.12
14.75	2.63	0.21	0.11
15.00	2.66	0.22	0.11
15.25	2.68	0.23	0.10
15.50	2.71	0.24	0.09
15.75	2.73	0.24	0.09
16.00	2.76	0.25	0.08
16.25	2.78	0.26	0.07
16.50	2.79	0.26	0.07
16.75	2.81	0.27	0.07
17.00	2.83	0.27	0.06
17.25	2.84	0.28	0.06
17.50	2.86	0.28	0.06
17.75	2.87	0.29	0.06
18.00	2.89	0.29	0.05
18.25	2.90	0.30	0.05
18.50	2.91	0.30	0.05
18.75	2.92	0.31	0.05
19.00	2.93	0.31	0.05
19.25	2.94	0.31	0.04
19.50	2.96	0.32	0.04
19.75	2.97	0.32	0.04
20.00	**2.98**	**0.32**	0.04

Summary for Subcatchment A3: A3

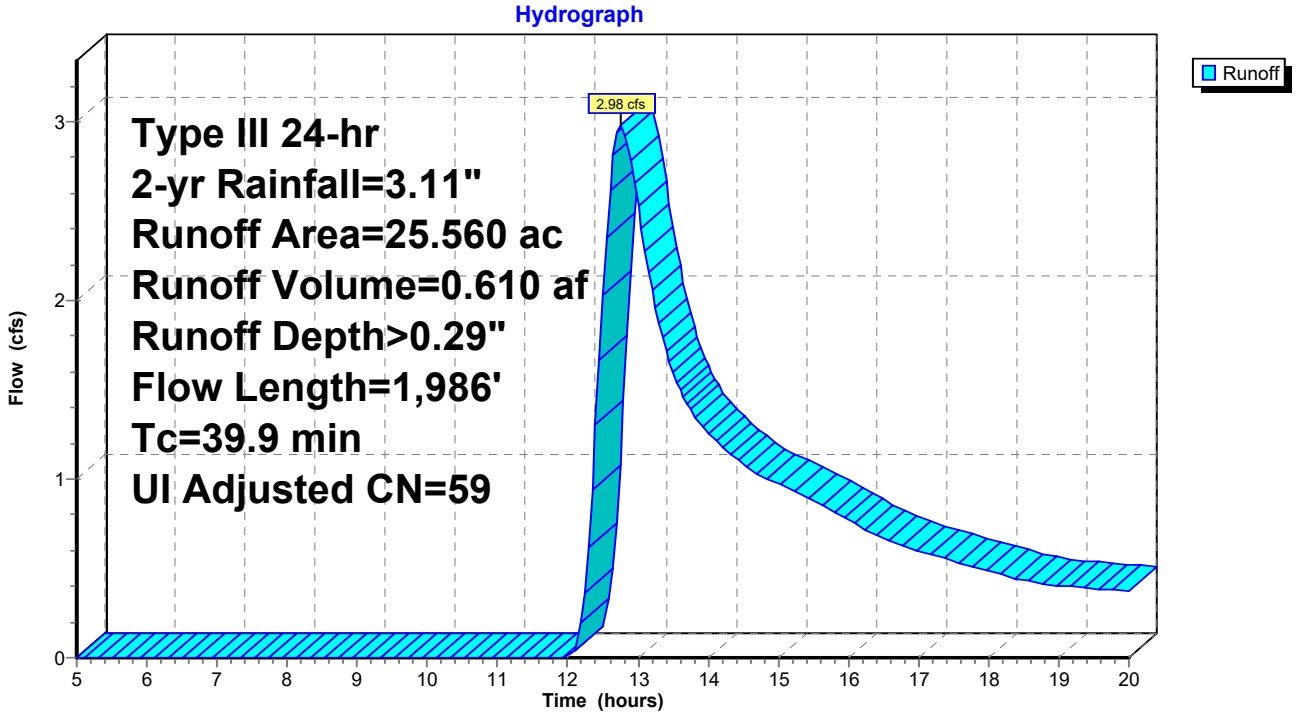
Runoff = 2.98 cfs @ 12.76 hrs, Volume= 0.610 af, Depth> 0.29"
Routed to Reach SUB-3 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Adj	Description
0.480	98		Unconnected pavement, HSG A
16.730	61		>75% Grass cover, Good, HSG B
8.300	55		Woods, Good, HSG B
0.050	77		Woods, Good, HSG D
25.560	60	59	Weighted Average, UI Adjusted
25.080			98.12% Pervious Area
0.480			1.88% Impervious Area
0.480			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.0360	0.18		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
6.1	586	0.0520	1.60		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
29.3	1,350	0.0120	0.77		**Shallow Concentrated Flow, scf-2** Short Grass Pasture Kv= 7.0 fps
39.9	1,986	Total			

Subcatchment A3: A3



Hydrograph for Subcatchment A3: A3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.00	0.00
12.25	2.01	0.05	0.36
12.50	2.18	0.08	2.03
12.75	2.27	0.10	**2.98**
13.00	2.33	0.11	2.53
13.25	2.39	0.13	1.96
13.50	2.44	0.14	1.59
13.75	2.48	0.15	1.39
14.00	2.52	0.16	1.26
14.25	2.56	0.17	1.16
14.50	2.59	0.18	1.08
14.75	2.63	0.19	1.02
15.00	2.66	0.20	0.97
15.25	2.68	0.20	0.92
15.50	2.71	0.21	0.88
15.75	2.73	0.22	0.83
16.00	2.76	0.22	0.77
16.25	2.78	0.23	0.72
16.50	2.79	0.24	0.66
16.75	2.81	0.24	0.63
17.00	2.83	0.25	0.59
17.25	2.84	0.25	0.57
17.50	2.86	0.26	0.54
17.75	2.87	0.26	0.51
18.00	2.89	0.27	0.48
18.25	2.90	0.27	0.46
18.50	2.91	0.27	0.43
18.75	2.92	0.28	0.42
19.00	2.93	0.28	0.41
19.25	2.94	0.28	0.40
19.50	2.96	0.29	0.39
19.75	2.97	0.29	0.38
20.00	**2.98**	**0.29**	0.37

Summary for Subcatchment A4: A4

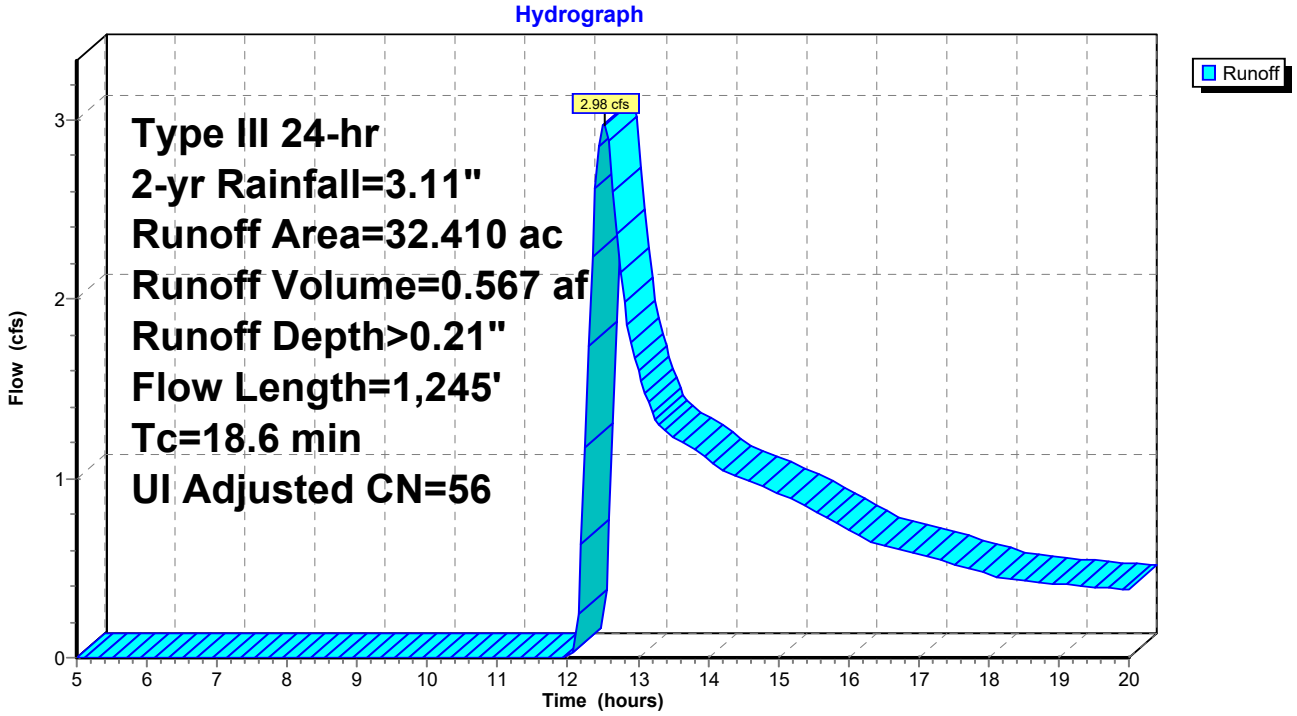
Runoff = 2.98 cfs @ 12.52 hrs, Volume= 0.567 af, Depth> 0.21"
Routed to Pond A4* : A4 Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Adj	Description
1.020	98		Unconnected pavement, HSG A
3.120	39		>75% Grass cover, Good, HSG A
3.710	30		Woods, Good, HSG A
22.820	61		>75% Grass cover, Good, HSG B
1.280	55		Woods, Good, HSG B
0.460	80		>75% Grass cover, Good, HSG D
32.410	57	56	Weighted Average, UI Adjusted
31.390			96.85% Pervious Area
1.020			3.15% Impervious Area
1.020			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	50	0.0460	0.20		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
2.1	158	0.0320	1.25		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
0.1	21	0.4760	4.83		**Shallow Concentrated Flow, scf-2** Short Grass Pasture Kv= 7.0 fps
11.6	888	0.0330	1.27		**Shallow Concentrated Flow, scf-3** Short Grass Pasture Kv= 7.0 fps
0.7	128	0.1880	3.04		**Shallow Concentrated Flow, scf-4** Short Grass Pasture Kv= 7.0 fps
18.6	1,245	Total			

Subcatchment A4: A4



Hydrograph for Subcatchment A4: A4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.00	0.00
12.25	2.01	0.02	1.17
12.50	2.18	0.04	**2.97**
12.75	2.27	0.06	2.16
13.00	2.33	0.07	1.60
13.25	2.39	0.08	1.33
13.50	2.44	0.09	1.23
13.75	2.48	0.09	1.18
14.00	2.52	0.10	1.11
14.25	2.56	0.11	1.04
14.50	2.59	0.12	0.99
14.75	2.63	0.12	0.96
15.00	2.66	0.13	0.92
15.25	2.68	0.14	0.88
15.50	2.71	0.14	0.83
15.75	2.73	0.15	0.77
16.00	2.76	0.16	0.72
16.25	2.78	0.16	0.66
16.50	2.79	0.16	0.63
16.75	2.81	0.17	0.60
17.00	2.83	0.17	0.58
17.25	2.84	0.18	0.55
17.50	2.86	0.18	0.52
17.75	2.87	0.19	0.50
18.00	2.89	0.19	0.47
18.25	2.90	0.19	0.44
18.50	2.91	0.19	0.43
18.75	2.92	0.20	0.42
19.00	2.93	0.20	0.41
19.25	2.94	0.20	0.40
19.50	2.96	0.21	0.40
19.75	2.97	0.21	0.39
20.00	**2.98**	**0.21**	0.38

Summary for Subcatchment A5: A5

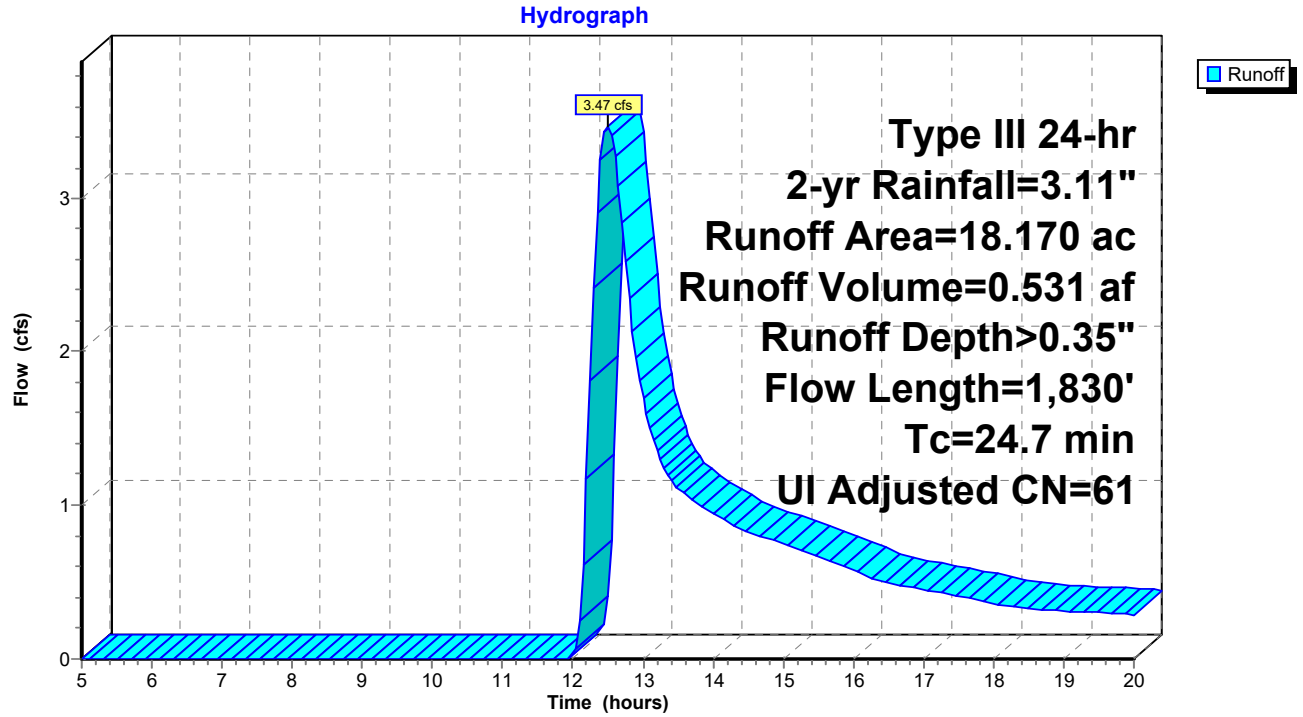
Runoff = 3.47 cfs @ 12.50 hrs, Volume= 0.531 af, Depth> 0.35"
Routed to Pond A5* : A5 Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Adj	Description
0.530	98		Unconnected pavement, HSG A
16.500	61		>75% Grass cover, Good, HSG B
1.080	55		Woods, Good, HSG B
0.060	80		>75% Grass cover, Good, HSG D
18.170	62	61	Weighted Average, UI Adjusted
17.640			97.08% Pervious Area
0.530			2.92% Impervious Area
0.530			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0	50	0.1000	0.28		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
21.7	1,780	0.0380	1.36		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
24.7	1,830	Total			

Subcatchment A5: A5



Hydrograph for Subcatchment A5: A5

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.01	0.01
12.25	2.01	0.07	1.81
12.50	2.18	0.11	**3.47**
12.75	2.27	0.13	2.58
13.00	2.33	0.15	1.70
13.25	2.39	0.16	1.30
13.50	2.44	0.18	1.11
13.75	2.48	0.19	1.02
14.00	2.52	0.20	0.95
14.25	2.56	0.21	0.88
14.50	2.59	0.22	0.83
14.75	2.63	0.23	0.79
15.00	2.66	0.24	0.75
15.25	2.68	0.25	0.71
15.50	2.71	0.26	0.67
15.75	2.73	0.27	0.63
16.00	2.76	0.28	0.58
16.25	2.78	0.28	0.53
16.50	2.79	0.29	0.50
16.75	2.81	0.30	0.48
17.00	2.83	0.30	0.45
17.25	2.84	0.31	0.43
17.50	2.86	0.31	0.41
17.75	2.87	0.32	0.39
18.00	2.89	0.32	0.37
18.25	2.90	0.33	0.34
18.50	2.91	0.33	0.33
18.75	2.92	0.34	0.32
19.00	2.93	0.34	0.31
19.25	2.94	0.34	0.31
19.50	2.96	0.35	0.30
19.75	2.97	0.35	0.30
20.00	**2.98**	**0.36**	0.29

Summary for Subcatchment A6: A6

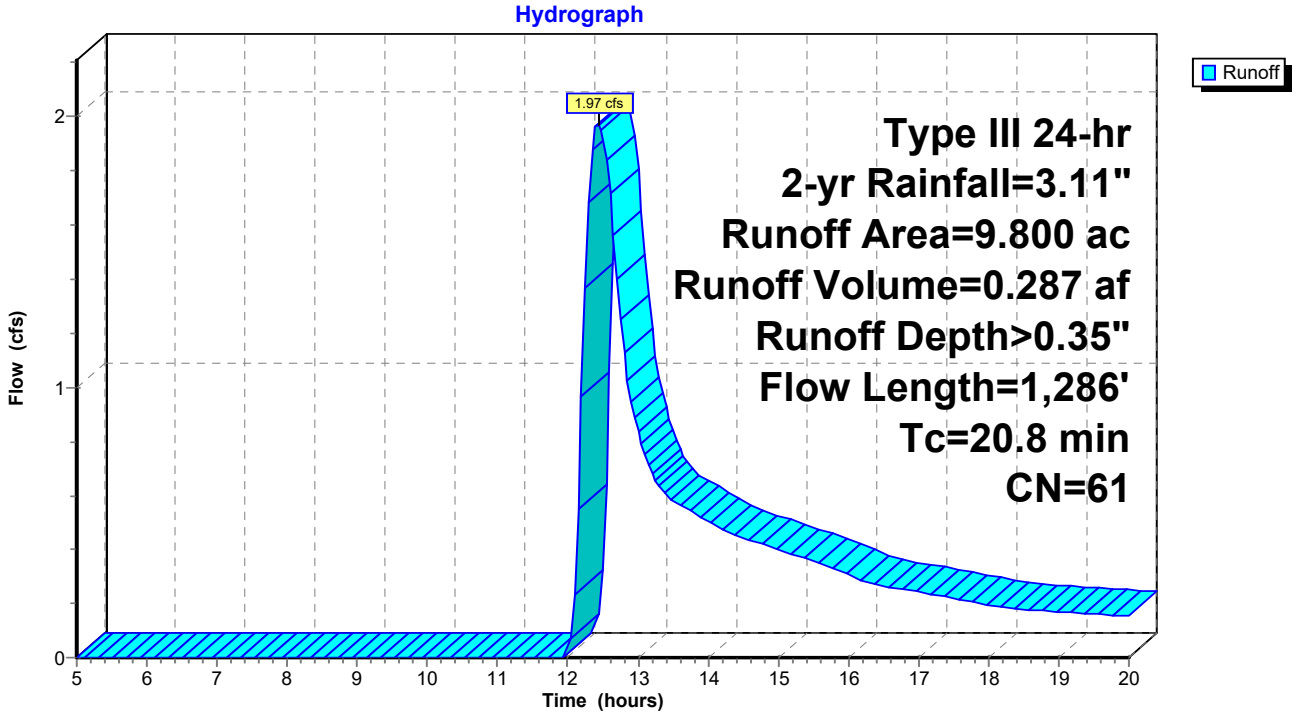
Runoff = 1.97 cfs @ 12.43 hrs, Volume= 0.287 af, Depth> 0.35"
Routed to Reach SUB-3 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.300	98	Unconnected pavement, HSG A
8.150	61	>75% Grass cover, Good, HSG B
1.350	55	Woods, Good, HSG B
9.800	61	Weighted Average
9.500		96.94% Pervious Area
0.300		3.06% Impervious Area
0.300		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	50	0.0260	0.16		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
15.7	1,236	0.0350	1.31		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
20.8	1,286	Total			

Subcatchment A6: A6



Hydrograph for Subcatchment A6: A6

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.01	0.01
12.25	2.01	0.07	**1.37**
12.50	2.18	0.11	**1.92**
12.75	2.27	0.13	1.25
13.00	2.33	0.15	0.83
13.25	2.39	0.16	0.65
13.50	2.44	0.18	0.58
13.75	2.48	0.19	0.54
14.00	2.52	0.20	0.50
14.25	2.56	0.21	0.47
14.50	2.59	0.22	0.44
14.75	2.63	0.23	0.42
15.00	2.66	0.24	0.40
15.25	2.68	0.25	0.38
15.50	2.71	0.26	0.36
15.75	2.73	0.27	0.33
16.00	2.76	0.28	0.31
16.25	2.78	0.28	0.28
16.50	2.79	0.29	0.27
16.75	2.81	0.30	0.25
17.00	2.83	0.30	0.24
17.25	2.84	0.31	0.23
17.50	2.86	0.31	0.22
17.75	2.87	0.32	0.21
18.00	2.89	0.32	0.19
18.25	2.90	0.33	0.18
18.50	2.91	0.33	0.18
18.75	2.92	0.34	0.17
19.00	2.93	0.34	0.17
19.25	2.94	0.34	0.17
19.50	2.96	0.35	0.16
19.75	2.97	0.35	0.16
20.00	**2.98**	**0.36**	0.15

Summary for Subcatchment A7: A7

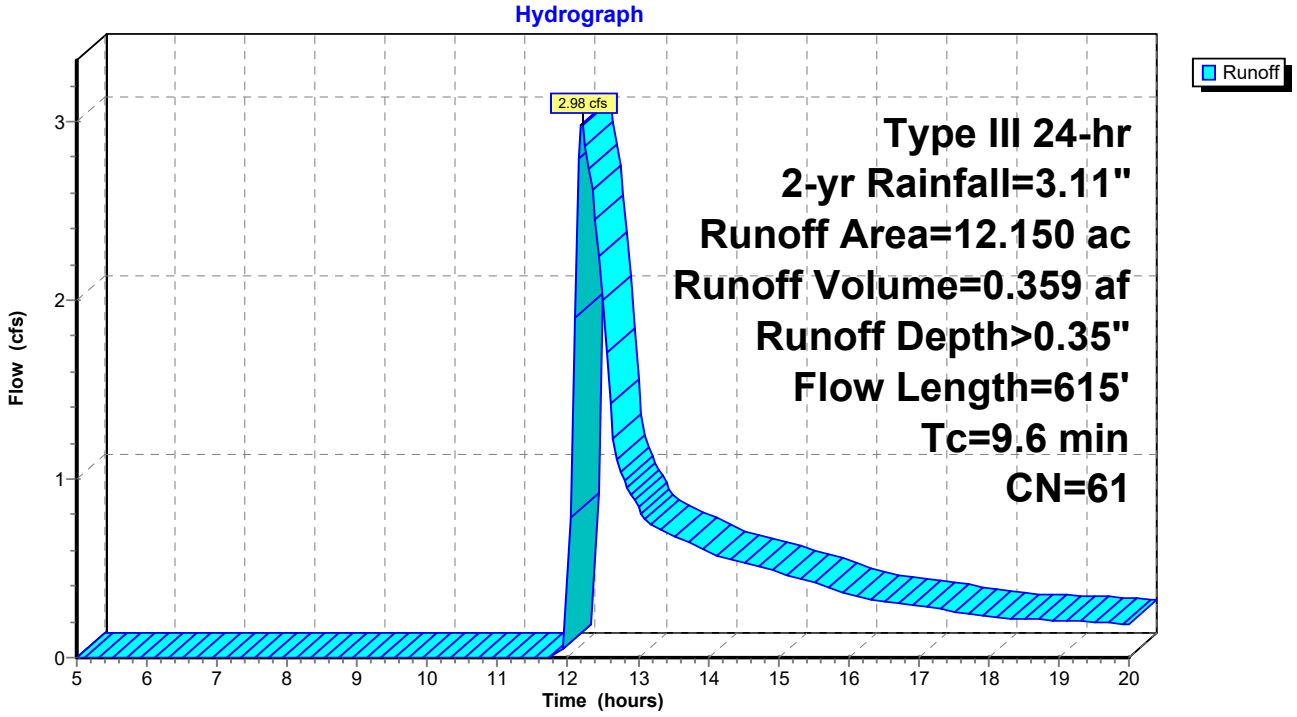
Runoff = 2.98 cfs @ 12.21 hrs, Volume= 0.359 af, Depth> 0.35"
Routed to Reach SUB-2 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.470	98	Unconnected pavement, HSG A
9.790	61	>75% Grass cover, Good, HSG B
1.890	55	Woods, Good, HSG B
12.150	61	Weighted Average
11.680		96.13% Pervious Area
0.470		3.87% Impervious Area
0.470		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	50	0.0800	0.25		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
6.3	565	0.0450	1.48		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
9.6	615	Total			

Subcatchment A7: A7



Hydrograph for Subcatchment A7: A7

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.01	**0.16**
12.25	2.01	0.07	**2.86**
12.50	2.18	0.11	1.99
12.75	2.27	0.13	1.04
13.00	2.33	0.15	0.84
13.25	2.39	0.16	0.72
13.50	2.44	0.18	0.68
13.75	2.48	0.19	0.64
14.00	2.52	0.20	0.59
14.25	2.56	0.21	0.55
14.50	2.59	0.22	0.53
14.75	2.63	0.23	0.50
15.00	2.66	0.24	0.48
15.25	2.68	0.25	0.45
15.50	2.71	0.26	0.42
15.75	2.73	0.27	0.39
16.00	2.76	0.28	0.36
16.25	2.78	0.28	0.33
16.50	2.79	0.29	0.32
16.75	2.81	0.30	0.30
17.00	2.83	0.30	0.29
17.25	2.84	0.31	0.28
17.50	2.86	0.31	0.26
17.75	2.87	0.32	0.25
18.00	2.89	0.32	0.23
18.25	2.90	0.33	0.22
18.50	2.91	0.33	0.21
18.75	2.92	0.34	0.21
19.00	2.93	0.34	0.21
19.25	2.94	0.34	0.20
19.50	2.96	0.35	0.20
19.75	2.97	0.35	0.19
20.00	**2.98**	**0.36**	0.19

Summary for Subcatchment A8: A8

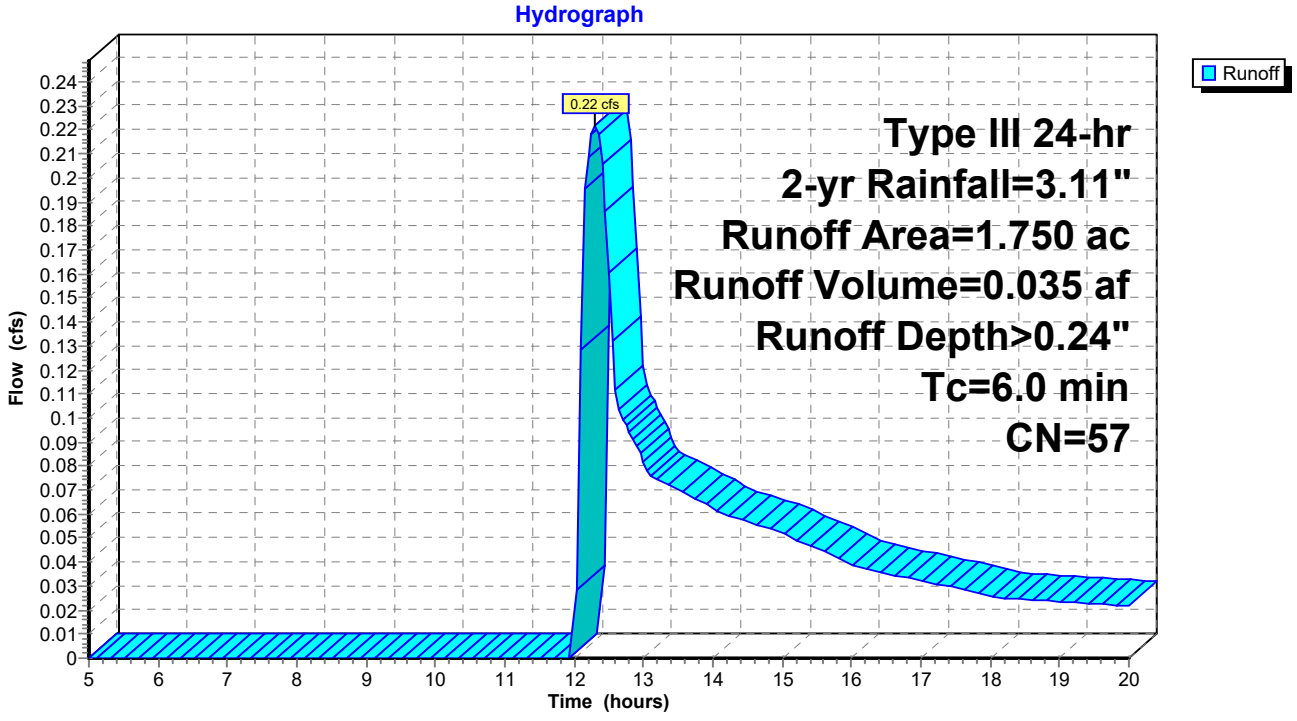
Runoff = 0.22 cfs @ 12.30 hrs, Volume= 0.035 af, Depth> 0.24"
Routed to Reach SUB-3 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.440	61	>75% Grass cover, Good, HSG B
1.310	55	Woods, Good, HSG B
1.750	57	Weighted Average
1.750		100.00% Pervious Area

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

Subcatchment A8: A8



Hydrograph for Subcatchment A8: A8

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.00	0.00
12.25	2.01	0.03	**0.22**
12.50	2.18	0.06	**0.16**
12.75	2.27	0.07	0.10
13.00	2.33	0.08	0.08
13.25	2.39	0.09	0.07
13.50	2.44	0.10	0.07
13.75	2.48	0.11	0.07
14.00	2.52	0.12	0.06
14.25	2.56	0.13	0.06
14.50	2.59	0.14	0.06
14.75	2.63	0.14	0.05
15.00	2.66	0.15	0.05
15.25	2.68	0.16	0.05
15.50	2.71	0.17	0.05
15.75	2.73	0.17	0.04
16.00	2.76	0.18	0.04
16.25	2.78	0.18	0.04
16.50	2.79	0.19	0.04
16.75	2.81	0.19	0.03
17.00	2.83	0.20	0.03
17.25	2.84	0.20	0.03
17.50	2.86	0.21	0.03
17.75	2.87	0.21	0.03
18.00	2.89	0.21	0.03
18.25	2.90	0.22	0.02
18.50	2.91	0.22	0.02
18.75	2.92	0.22	0.02
19.00	2.93	0.23	0.02
19.25	2.94	0.23	0.02
19.50	2.96	0.23	0.02
19.75	2.97	0.24	0.02
20.00	**2.98**	**0.24**	0.02

Summary for Subcatchment A9: A9

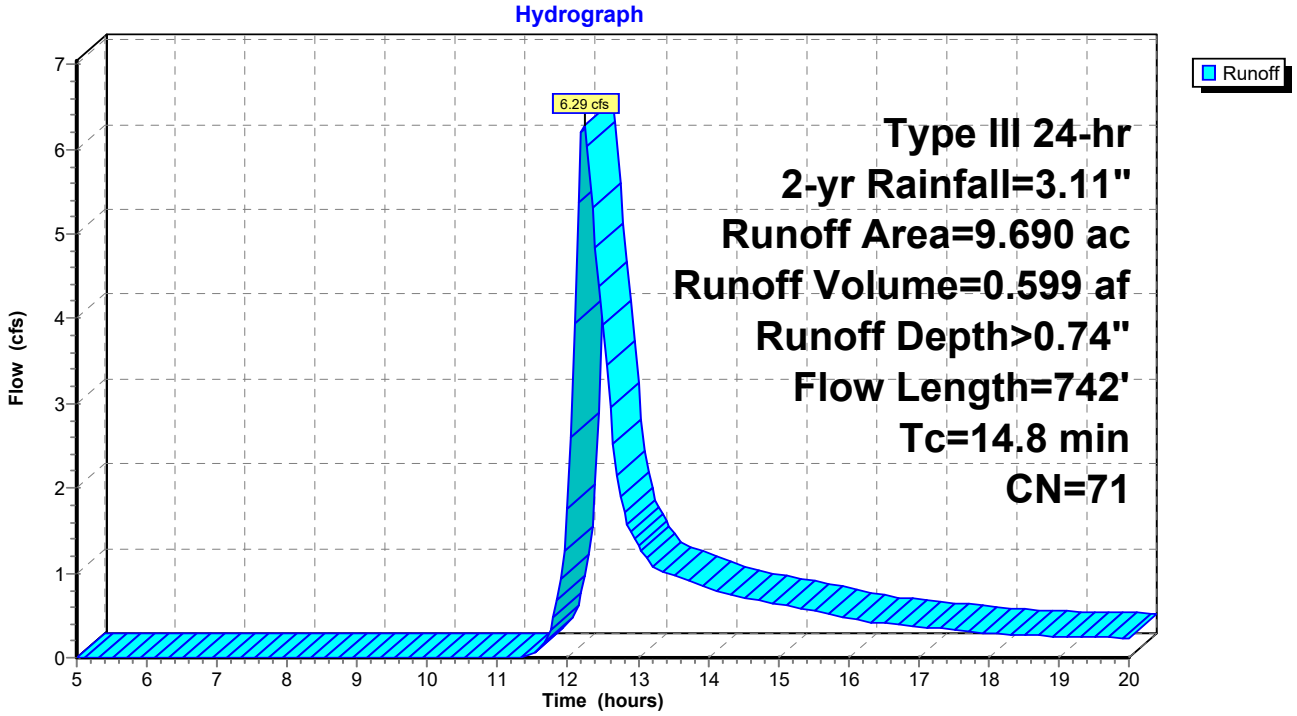
Runoff = 6.29 cfs @ 12.23 hrs, Volume= 0.599 af, Depth> 0.74"
Routed to Reach SUB-3 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
3.400	98	Unconnected pavement, HSG A
0.340	39	>75% Grass cover, Good, HSG A
0.260	30	Woods, Good, HSG A
4.080	61	>75% Grass cover, Good, HSG B
1.610	55	Woods, Good, HSG B
9.690	71	Weighted Average
6.290		64.91% Pervious Area
3.400		35.09% Impervious Area
3.400		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	50	0.0180	0.14		**Sheet Flow, SF-1** Grass: Short n= 0.150 P2= 3.11"
8.8	692	0.0350	1.31		**Shallow Concentrated Flow, SCF-1** Short Grass Pasture Kv= 7.0 fps
14.8	742	Total			

Subcatchment A9: A9



Hydrograph for Subcatchment A9: A9

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.06
11.75	1.10	0.02	0.33
12.00	1.55	0.11	1.75
12.25	2.01	0.27	**6.25**
12.50	2.18	0.34	3.92
12.75	2.27	0.38	1.89
13.00	2.33	0.41	1.32
13.25	2.39	0.44	1.06
13.50	2.44	0.46	0.97
13.75	2.48	0.48	0.90
14.00	2.52	0.50	0.82
14.25	2.56	0.52	0.75
14.50	2.59	0.54	0.71
14.75	2.63	0.56	0.67
15.00	2.66	0.57	0.63
15.25	2.68	0.59	0.59
15.50	2.71	0.60	0.55
15.75	2.73	0.61	0.51
16.00	2.76	0.62	0.47
16.25	2.78	0.63	0.43
16.50	2.79	0.64	0.41
16.75	2.81	0.65	0.39
17.00	2.83	0.66	0.37
17.25	2.84	0.67	0.35
17.50	2.86	0.68	0.33
17.75	2.87	0.69	0.31
18.00	2.89	0.70	0.29
18.25	2.90	0.70	0.27
18.50	2.91	0.71	0.27
18.75	2.92	0.72	0.26
19.00	2.93	0.72	0.25
19.25	2.94	0.73	0.25
19.50	2.96	0.73	0.24
19.75	2.97	0.74	0.24
20.00	**2.98**	**0.75**	0.23

Summary for Subcatchment B1: B1

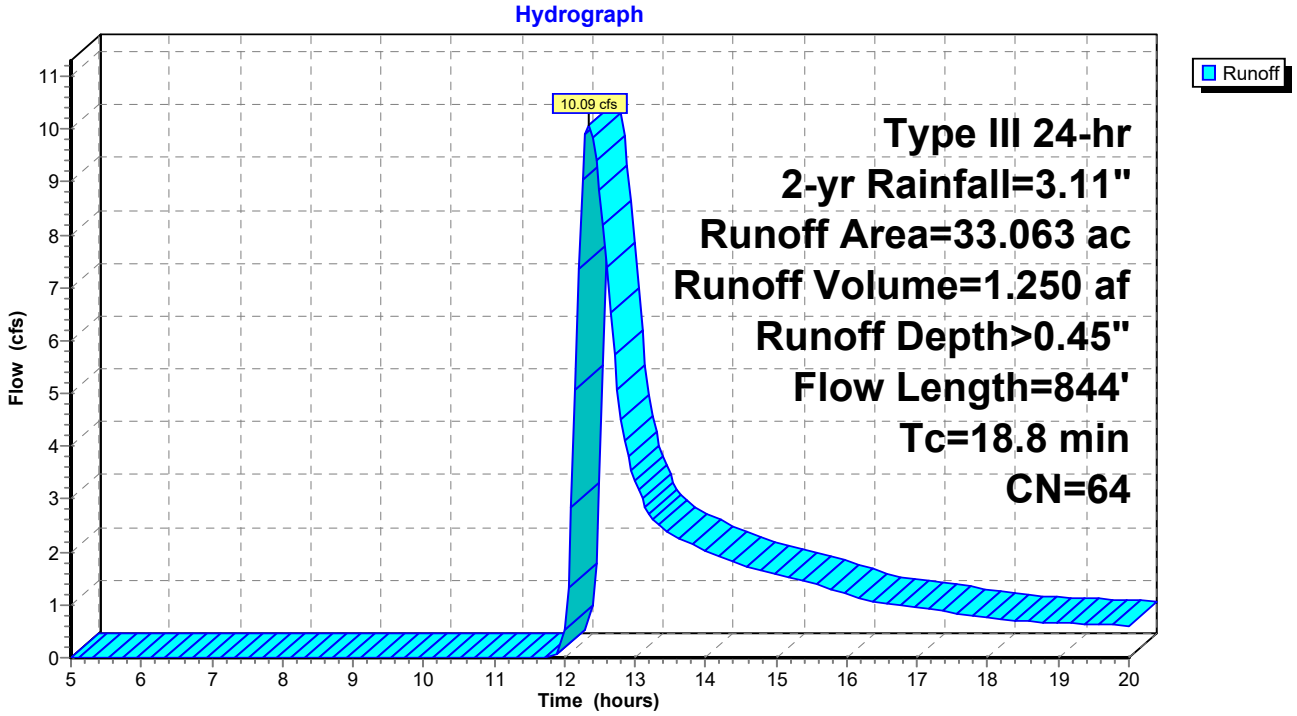
Runoff = 10.09 cfs @ 12.34 hrs, Volume= 1.250 af, Depth> 0.45"
Routed to Reach 22R : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.090	98	Paved parking, HSG A
0.300	39	>75% Grass cover, Good, HSG A
0.160	30	Woods, Good, HSG A
6.657	61	>75% Grass cover, Good, HSG B
13.760	55	Woods, Good, HSG B
0.800	80	>75% Grass cover, Good, HSG D
9.340	77	Woods, Good, HSG D
0.252	61	>75% Grass cover, Good, HSG B
0.124	80	>75% Grass cover, Good, HSG D
0.357	55	Woods, Good, HSG B
0.153	77	Woods, Good, HSG D
0.168	85	Gravel roads, HSG B
0.369	98	Water Surface, HSG B
0.064	48	Brush, Good, HSG B
0.469	98	Paved parking, HSG A
33.063	64	Weighted Average
32.135		97.19% Pervious Area
0.928		2.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	50	0.0100	0.11		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
11.3	794	0.0280	1.17		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
18.8	844	Total			

Subcatchment B1: B1



Hydrograph for Subcatchment B1: B1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.03	0.53
12.25	2.01	0.12	**9.06**
12.50	2.18	0.17	**8.85**
12.75	2.27	0.19	5.05
13.00	2.33	0.21	3.35
13.25	2.39	0.23	2.63
13.50	2.44	0.25	2.35
13.75	2.48	0.26	2.19
14.00	2.52	0.28	2.03
14.25	2.56	0.29	1.86
14.50	2.59	0.30	1.76
14.75	2.63	0.32	1.68
15.00	2.66	0.33	1.59
15.25	2.68	0.34	1.50
15.50	2.71	0.35	1.40
15.75	2.73	0.36	1.30
16.00	2.76	0.37	1.20
16.25	2.78	0.37	1.10
16.50	2.79	0.38	1.04
16.75	2.81	0.39	0.99
17.00	2.83	0.40	0.95
17.25	2.84	0.40	0.90
17.50	2.86	0.41	0.85
17.75	2.87	0.41	0.81
18.00	2.89	0.42	0.76
18.25	2.90	0.43	0.71
18.50	2.91	0.43	0.69
18.75	2.92	0.44	0.67
19.00	2.93	0.44	0.66
19.25	2.94	0.44	0.64
19.50	2.96	0.45	0.63
19.75	2.97	0.45	0.62
20.00	**2.98**	**0.46**	0.60

Summary for Subcatchment B10: B10

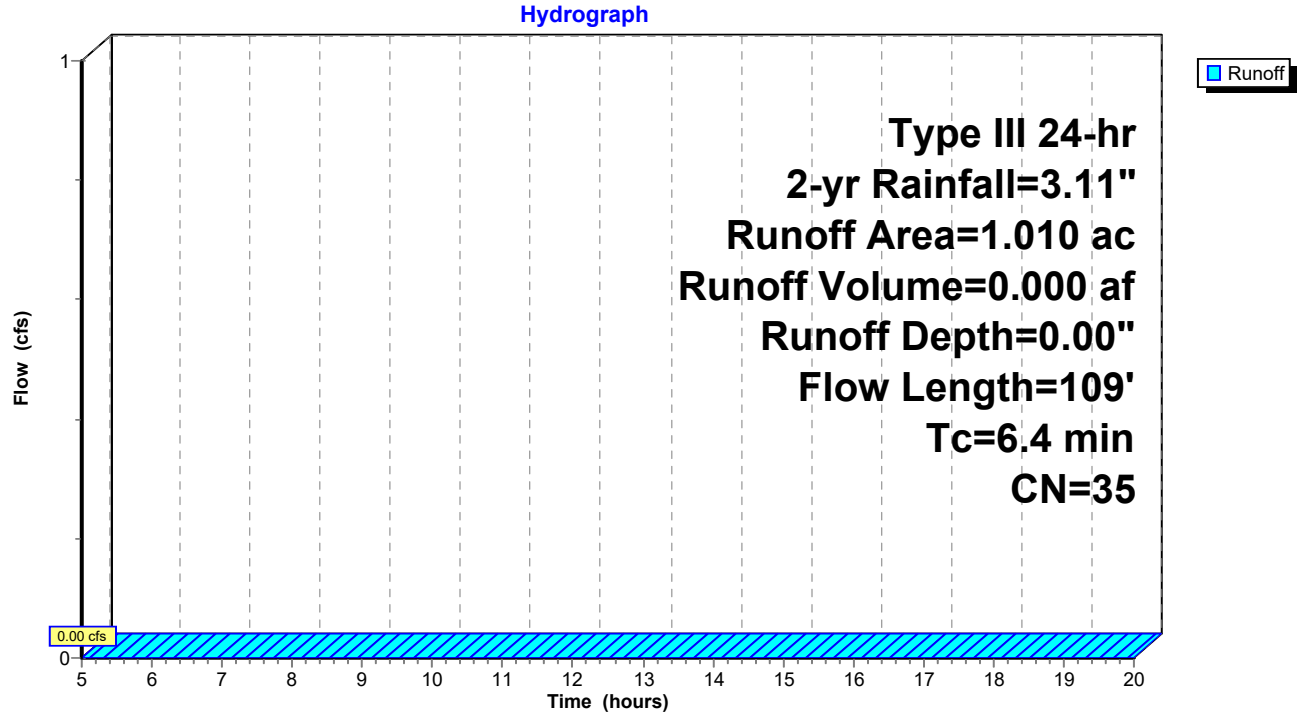
Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Reach 21R : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.250	39	>75% Grass cover, Good, HSG A
0.640	30	Woods, Good, HSG A
0.030	61	>75% Grass cover, Good, HSG B
0.090	55	Woods, Good, HSG B
1.010	35	Weighted Average
1.010		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	50	0.0180	0.14		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
0.4	59	0.1610	2.81		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
6.4	109	Total			

Subcatchment B10: B10



Hydrograph for Subcatchment B10: B10

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	**0.00**	**0.00**	17.75	2.87	0.00	0.00
5.25	0.19	0.00	0.00	18.00	2.89	0.00	0.00
5.50	0.20	0.00	0.00	18.25	2.90	0.00	0.00
5.75	0.21	0.00	0.00	18.50	2.91	0.00	0.00
6.00	0.22	0.00	0.00	18.75	2.92	0.00	0.00
6.25	0.24	0.00	0.00	19.00	2.93	0.00	0.00
6.50	0.25	0.00	0.00	19.25	2.94	0.00	0.00
6.75	0.27	0.00	0.00	19.50	2.96	0.00	0.00
7.00	0.28	0.00	0.00	19.75	2.97	0.00	0.00
7.25	0.30	0.00	0.00	20.00	**2.98**	0.00	0.00
7.50	0.32	0.00	0.00				
7.75	0.33	0.00	0.00				
8.00	0.35	0.00	0.00				
8.25	0.38	0.00	0.00				
8.50	0.40	0.00	0.00				
8.75	0.43	0.00	0.00				
9.00	0.45	0.00	0.00				
9.25	0.48	0.00	0.00				
9.50	0.52	0.00	0.00				
9.75	0.55	0.00	0.00				
10.00	0.59	0.00	0.00				
10.25	0.63	0.00	0.00				
10.50	0.67	0.00	0.00				
10.75	0.72	0.00	0.00				
11.00	0.78	0.00	0.00				
11.25	0.84	0.00	0.00				
11.50	0.93	0.00	0.00				
11.75	1.10	0.00	0.00				
12.00	1.55	0.00	0.00				
12.25	2.01	0.00	0.00				
12.50	2.18	0.00	0.00				
12.75	2.27	0.00	0.00				
13.00	2.33	0.00	0.00				
13.25	2.39	0.00	0.00				
13.50	2.44	0.00	0.00				
13.75	2.48	0.00	0.00				
14.00	2.52	0.00	0.00				
14.25	2.56	0.00	0.00				
14.50	2.59	0.00	0.00				
14.75	2.63	0.00	0.00				
15.00	2.66	0.00	0.00				
15.25	2.68	0.00	0.00				
15.50	2.71	0.00	0.00				
15.75	2.73	0.00	0.00				
16.00	2.76	0.00	0.00				
16.25	2.78	0.00	0.00				
16.50	2.79	0.00	0.00				
16.75	2.81	0.00	0.00				
17.00	2.83	0.00	0.00				
17.25	2.84	0.00	0.00				
17.50	2.86	0.00	0.00				

Summary for Subcatchment B11: B11

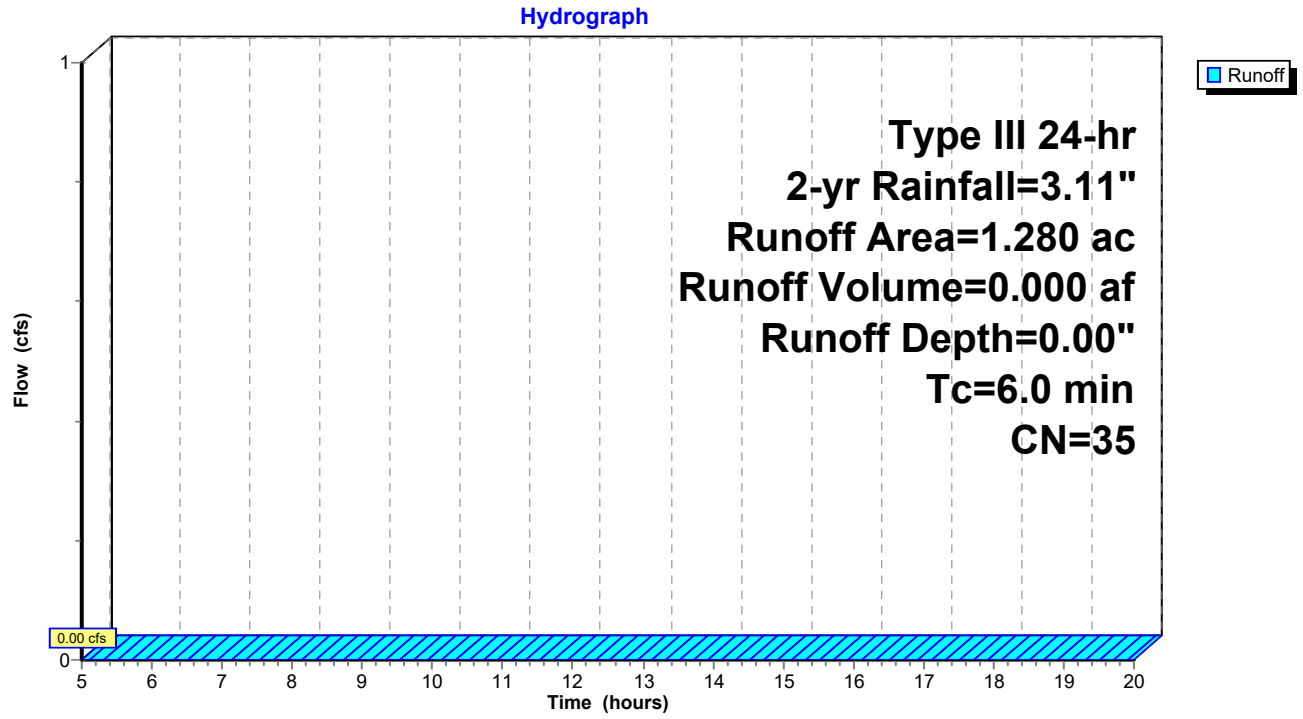
Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Reach 21R : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.180	39	>75% Grass cover, Good, HSG A
0.920	30	Woods, Good, HSG A
0.150	61	>75% Grass cover, Good, HSG B
0.030	55	Woods, Good, HSG B
1.280	35	Weighted Average
1.280		100.00% Pervious Area

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

Subcatchment B11: B11



Hydrograph for Subcatchment B11: B11

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	**0.00**	**0.00**	17.75	2.87	0.00	0.00
5.25	0.19	0.00	0.00	18.00	2.89	0.00	0.00
5.50	0.20	0.00	0.00	18.25	2.90	0.00	0.00
5.75	0.21	0.00	0.00	18.50	2.91	0.00	0.00
6.00	0.22	0.00	0.00	18.75	2.92	0.00	0.00
6.25	0.24	0.00	0.00	19.00	2.93	0.00	0.00
6.50	0.25	0.00	0.00	19.25	2.94	0.00	0.00
6.75	0.27	0.00	0.00	19.50	2.96	0.00	0.00
7.00	0.28	0.00	0.00	19.75	2.97	0.00	0.00
7.25	0.30	0.00	0.00	20.00	**2.98**	0.00	0.00
7.50	0.32	0.00	0.00				
7.75	0.33	0.00	0.00				
8.00	0.35	0.00	0.00				
8.25	0.38	0.00	0.00				
8.50	0.40	0.00	0.00				
8.75	0.43	0.00	0.00				
9.00	0.45	0.00	0.00				
9.25	0.48	0.00	0.00				
9.50	0.52	0.00	0.00				
9.75	0.55	0.00	0.00				
10.00	0.59	0.00	0.00				
10.25	0.63	0.00	0.00				
10.50	0.67	0.00	0.00				
10.75	0.72	0.00	0.00				
11.00	0.78	0.00	0.00				
11.25	0.84	0.00	0.00				
11.50	0.93	0.00	0.00				
11.75	1.10	0.00	0.00				
12.00	1.55	0.00	0.00				
12.25	2.01	0.00	0.00				
12.50	2.18	0.00	0.00				
12.75	2.27	0.00	0.00				
13.00	2.33	0.00	0.00				
13.25	2.39	0.00	0.00				
13.50	2.44	0.00	0.00				
13.75	2.48	0.00	0.00				
14.00	2.52	0.00	0.00				
14.25	2.56	0.00	0.00				
14.50	2.59	0.00	0.00				
14.75	2.63	0.00	0.00				
15.00	2.66	0.00	0.00				
15.25	2.68	0.00	0.00				
15.50	2.71	0.00	0.00				
15.75	2.73	0.00	0.00				
16.00	2.76	0.00	0.00				
16.25	2.78	0.00	0.00				
16.50	2.79	0.00	0.00				
16.75	2.81	0.00	0.00				
17.00	2.83	0.00	0.00				
17.25	2.84	0.00	0.00				
17.50	2.86	0.00	0.00				

Summary for Subcatchment B12: B12

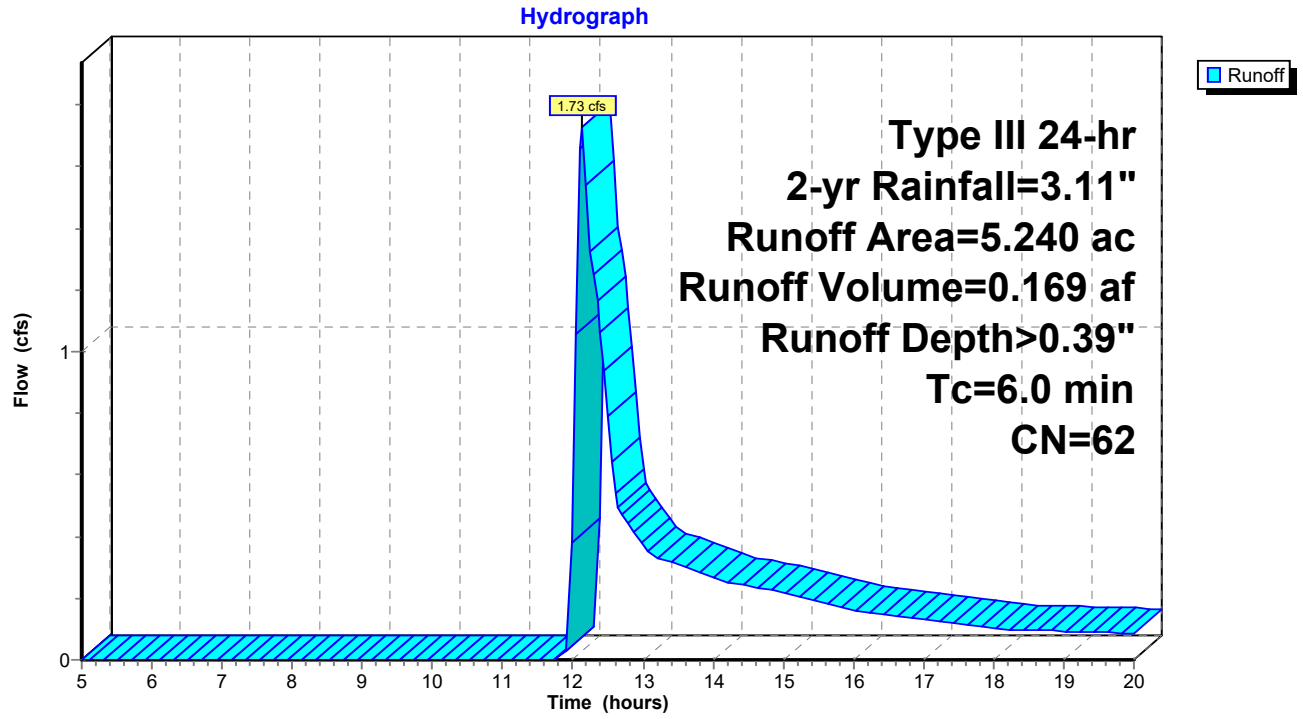
Runoff = 1.73 cfs @ 12.12 hrs, Volume= 0.169 af, Depth> 0.39"
Routed to Pond B12* : B12 Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.190	98	Paved parking, HSG A
4.590	61	>75% Grass cover, Good, HSG B
0.460	55	Woods, Good, HSG B
5.240	62	Weighted Average
5.050		96.37% Pervious Area
0.190		3.63% Impervious Area

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

Subcatchment B12: B12



Hydrograph for Subcatchment B12: B12

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.02	**0.38**
12.25	2.01	0.09	**1.32**
12.50	2.18	0.13	0.79
12.75	2.27	0.15	0.45
13.00	2.33	0.17	0.37
13.25	2.39	0.18	0.33
13.50	2.44	0.20	0.31
13.75	2.48	0.21	0.29
14.00	2.52	0.23	0.27
14.25	2.56	0.24	0.25
14.50	2.59	0.25	0.24
14.75	2.63	0.26	0.23
15.00	2.66	0.27	0.22
15.25	2.68	0.28	0.20
15.50	2.71	0.29	0.19
15.75	2.73	0.30	0.17
16.00	2.76	0.31	0.16
16.25	2.78	0.31	0.15
16.50	2.79	0.32	0.14
16.75	2.81	0.33	0.14
17.00	2.83	0.33	0.13
17.25	2.84	0.34	0.12
17.50	2.86	0.34	0.12
17.75	2.87	0.35	0.11
18.00	2.89	0.35	0.10
18.25	2.90	0.36	0.10
18.50	2.91	0.36	0.10
18.75	2.92	0.37	0.10
19.00	2.93	0.37	0.09
19.25	2.94	0.38	0.09
19.50	2.96	0.38	0.09
19.75	2.97	0.38	0.09
20.00	**2.98**	**0.39**	0.09

Summary for Subcatchment B13: B13

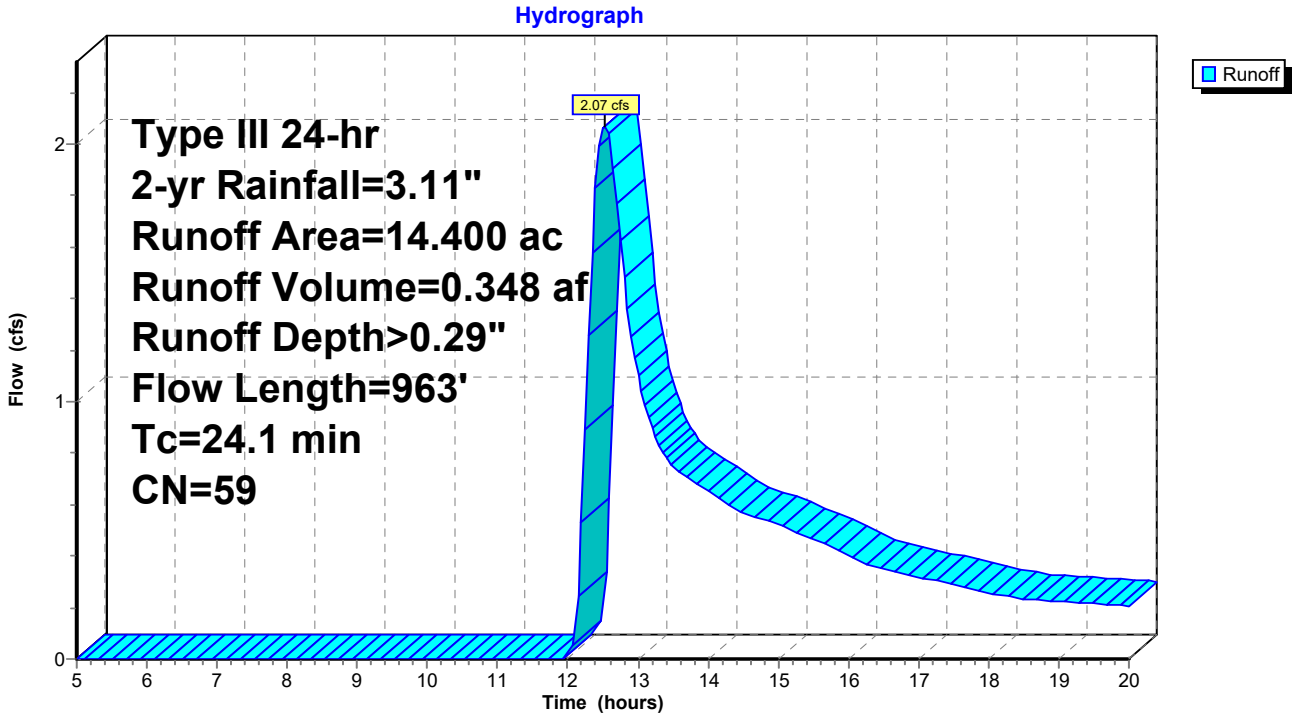
Runoff = 2.07 cfs @ 12.53 hrs, Volume= 0.348 af, Depth> 0.29"
Routed to Reach 2R : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.280	98	Paved parking, HSG A
1.340	61	>75% Grass cover, Good, HSG B
10.860	55	Woods, Good, HSG B
0.310	80	>75% Grass cover, Good, HSG D
1.610	77	Woods, Good, HSG D
14.400	59	Weighted Average
14.120		98.06% Pervious Area
0.280		1.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.2600	0.19		**Sheet Flow, sf-1** Woods: Light underbrush n= 0.400 P2= 3.11"
19.6	913	0.0240	0.77		**Shallow Concentrated Flow, scf-1** Woodland Kv= 5.0 fps
24.1	963	Total			

Subcatchment B13: B13



Hydrograph for Subcatchment B13: B13

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.00	0.00
12.25	2.01	0.05	0.89
12.50	2.18	0.08	**2.06**
12.75	2.27	0.10	**1.62**
13.00	2.33	0.11	1.10
13.25	2.39	0.13	0.86
13.50	2.44	0.14	0.75
13.75	2.48	0.15	0.70
14.00	2.52	0.16	0.65
14.25	2.56	0.17	0.60
14.50	2.59	0.18	0.57
14.75	2.63	0.19	0.55
15.00	2.66	0.20	0.52
15.25	2.68	0.20	0.50
15.50	2.71	0.21	0.47
15.75	2.73	0.22	0.44
16.00	2.76	0.22	0.40
16.25	2.78	0.23	0.37
16.50	2.79	0.24	0.35
16.75	2.81	0.24	0.33
17.00	2.83	0.25	0.32
17.25	2.84	0.25	0.30
17.50	2.86	0.26	0.29
17.75	2.87	0.26	0.27
18.00	2.89	0.27	0.26
18.25	2.90	0.27	0.24
18.50	2.91	0.27	0.23
18.75	2.92	0.28	0.23
19.00	2.93	0.28	0.22
19.25	2.94	0.28	0.22
19.50	2.96	0.29	0.21
19.75	2.97	0.29	0.21
20.00	**2.98**	**0.29**	0.20

Summary for Subcatchment B2: B2

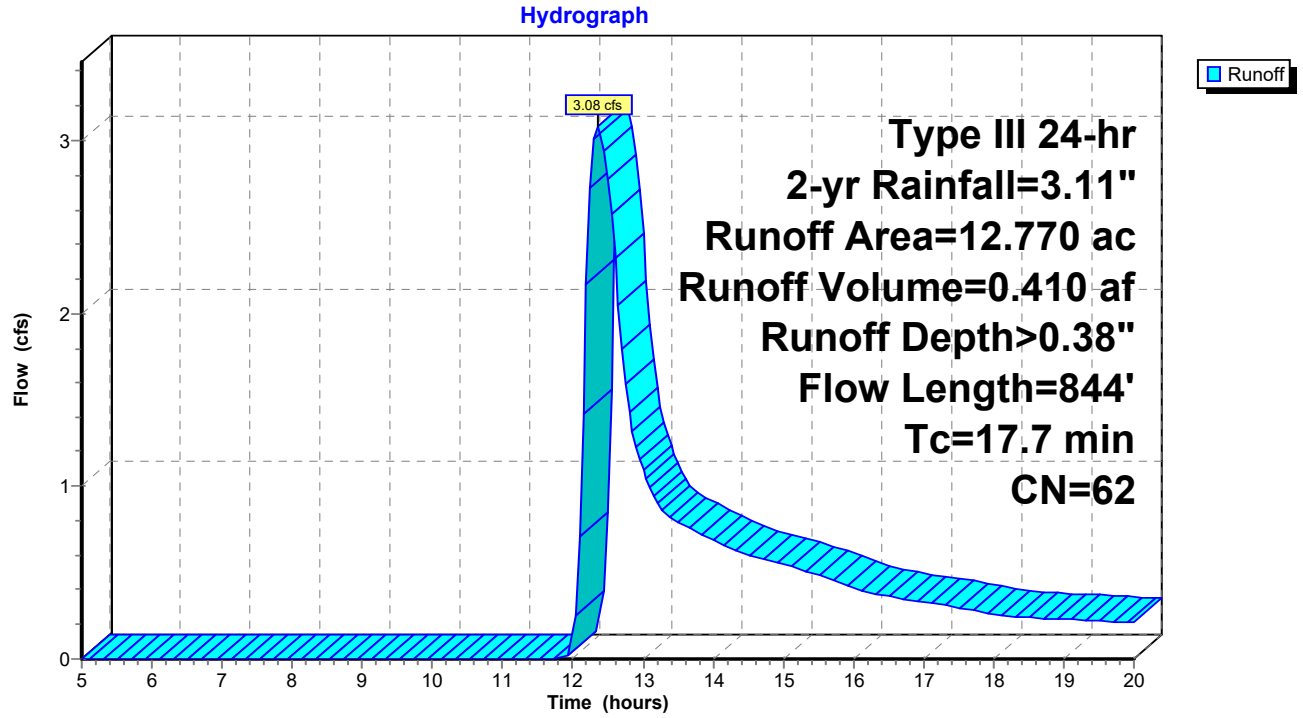
Runoff = 3.08 cfs @ 12.36 hrs, Volume= 0.410 af, Depth> 0.38"
Routed to Reach 23R : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.290	98	Paved parking, HSG A
11.040	61	>75% Grass cover, Good, HSG B
0.800	55	Woods, Good, HSG B
0.630	80	>75% Grass cover, Good, HSG D
0.010	77	Woods, Good, HSG D
12.770	62	Weighted Average
12.480		97.73% Pervious Area
0.290		2.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	50	0.0500	0.21		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
13.7	794	0.0190	0.96		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
17.7	844	Total			

Subcatchment B2: B2



Hydrograph for Subcatchment B2: B2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.02	0.06
12.25	2.01	0.09	**2.73**
12.50	2.18	0.13	**2.78**
12.75	2.27	0.15	1.59
13.00	2.33	0.17	1.09
13.25	2.39	0.18	0.88
13.50	2.44	0.20	0.79
13.75	2.48	0.21	0.74
14.00	2.52	0.23	0.69
14.25	2.56	0.24	0.64
14.50	2.59	0.25	0.60
14.75	2.63	0.26	0.58
15.00	2.66	0.27	0.55
15.25	2.68	0.28	0.52
15.50	2.71	0.29	0.48
15.75	2.73	0.30	0.45
16.00	2.76	0.31	0.41
16.25	2.78	0.31	0.38
16.50	2.79	0.32	0.36
16.75	2.81	0.33	0.35
17.00	2.83	0.33	0.33
17.25	2.84	0.34	0.31
17.50	2.86	0.34	0.30
17.75	2.87	0.35	0.28
18.00	2.89	0.35	0.26
18.25	2.90	0.36	0.25
18.50	2.91	0.36	0.24
18.75	2.92	0.37	0.24
19.00	2.93	0.37	0.23
19.25	2.94	0.38	0.23
19.50	2.96	0.38	0.22
19.75	2.97	0.38	0.22
20.00	**2.98**	**0.39**	0.21

Summary for Subcatchment B3: B3

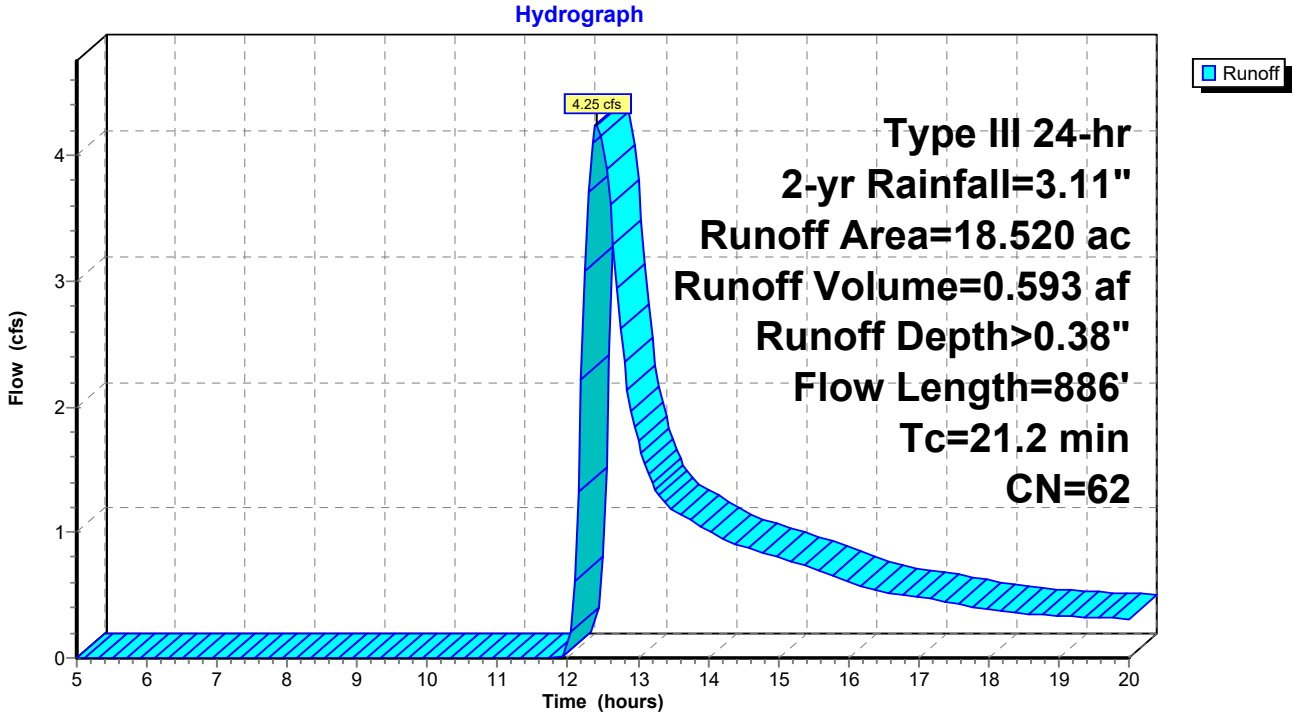
Runoff = 4.25 cfs @ 12.42 hrs, Volume= 0.593 af, Depth> 0.38"
Routed to Reach 23R : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
6.280	61	>75% Grass cover, Good, HSG B
7.880	55	Woods, Good, HSG B
0.520	80	>75% Grass cover, Good, HSG D
3.840	77	Woods, Good, HSG D
18.520	62	Weighted Average
18.520		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	50	0.0100	0.11		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
13.7	836	0.0210	1.01		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
21.2	886	Total			

Subcatchment B3: B3



Hydrograph for Subcatchment B3: B3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.02	0.05
12.25	2.01	0.09	**3.08**
12.50	2.18	0.13	**4.09**
12.75	2.27	0.15	2.63
13.00	2.33	0.17	1.72
13.25	2.39	0.18	1.34
13.50	2.44	0.20	1.18
13.75	2.48	0.21	1.10
14.00	2.52	0.23	1.02
14.25	2.56	0.24	0.94
14.50	2.59	0.25	0.89
14.75	2.63	0.26	0.85
15.00	2.66	0.27	0.80
15.25	2.68	0.28	0.76
15.50	2.71	0.29	0.71
15.75	2.73	0.30	0.66
16.00	2.76	0.31	0.61
16.25	2.78	0.31	0.56
16.50	2.79	0.32	0.53
16.75	2.81	0.33	0.51
17.00	2.83	0.33	0.48
17.25	2.84	0.34	0.46
17.50	2.86	0.34	0.44
17.75	2.87	0.35	0.41
18.00	2.89	0.35	0.39
18.25	2.90	0.36	0.36
18.50	2.91	0.36	0.35
18.75	2.92	0.37	0.34
19.00	2.93	0.37	0.34
19.25	2.94	0.38	0.33
19.50	2.96	0.38	0.32
19.75	2.97	0.38	0.32
20.00	**2.98**	**0.39**	0.31

Summary for Subcatchment B4: B4

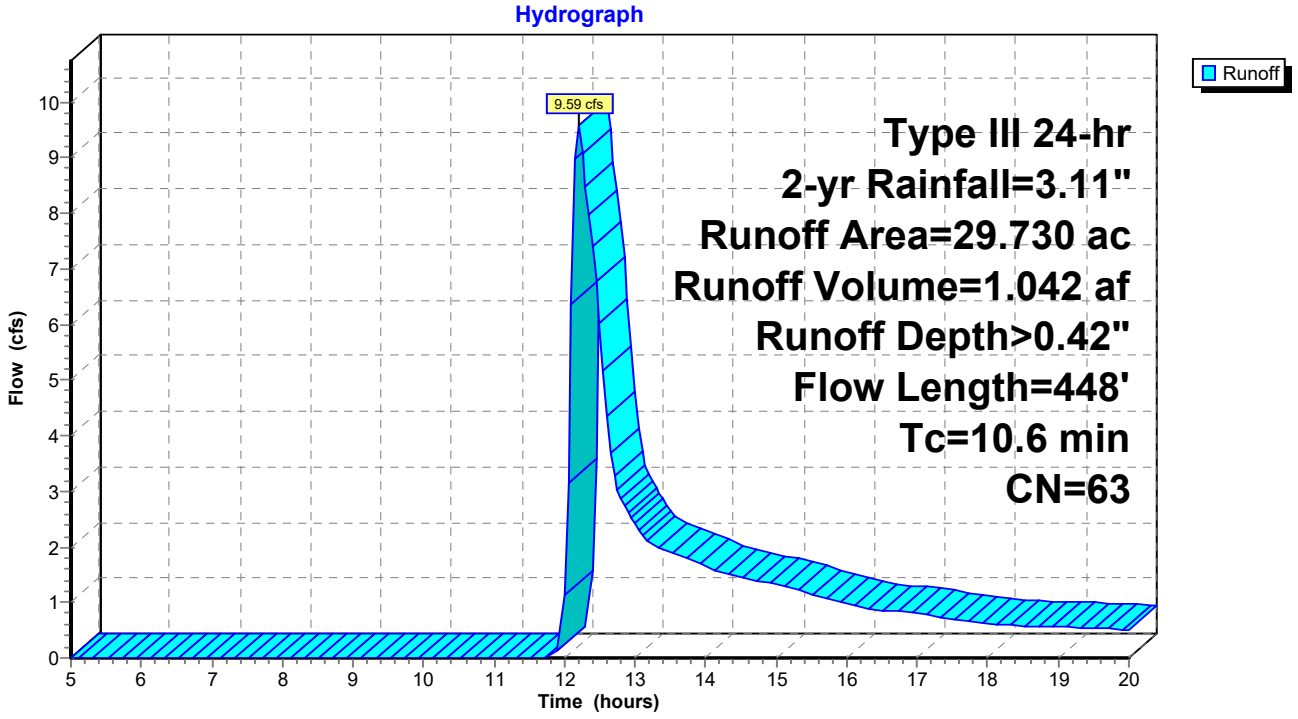
Runoff = 9.59 cfs @ 12.20 hrs, Volume= 1.042 af, Depth> 0.42"
Routed to Reach 2R : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
6.860	61	>75% Grass cover, Good, HSG B
14.270	55	Woods, Good, HSG B
1.390	80	>75% Grass cover, Good, HSG D
7.210	77	Woods, Good, HSG D
29.730	63	Weighted Average
29.730		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.0360	0.18		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
6.1	398	0.0240	1.08		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
10.6	448	Total			

Subcatchment B4: B4



Hydrograph for Subcatchment B4: B4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.02	**1.15**
12.25	2.01	0.10	**9.08**
12.50	2.18	0.15	6.02
12.75	2.27	0.17	3.04
13.00	2.33	0.19	2.41
13.25	2.39	0.21	2.04
13.50	2.44	0.22	1.91
13.75	2.48	0.24	1.79
14.00	2.52	0.25	1.65
14.25	2.56	0.26	1.53
14.50	2.59	0.28	1.46
14.75	2.63	0.29	1.39
15.00	2.66	0.30	1.32
15.25	2.68	0.31	1.24
15.50	2.71	0.32	1.16
15.75	2.73	0.33	1.07
16.00	2.76	0.34	0.98
16.25	2.78	0.34	0.91
16.50	2.79	0.35	0.87
16.75	2.81	0.36	0.83
17.00	2.83	0.36	0.79
17.25	2.84	0.37	0.75
17.50	2.86	0.38	0.71
17.75	2.87	0.38	0.67
18.00	2.89	0.39	0.63
18.25	2.90	0.39	0.59
18.50	2.91	0.40	0.58
18.75	2.92	0.40	0.57
19.00	2.93	0.41	0.56
19.25	2.94	0.41	0.55
19.50	2.96	0.41	0.54
19.75	2.97	0.42	0.52
20.00	**2.98**	**0.42**	0.51

Summary for Subcatchment B5: B5

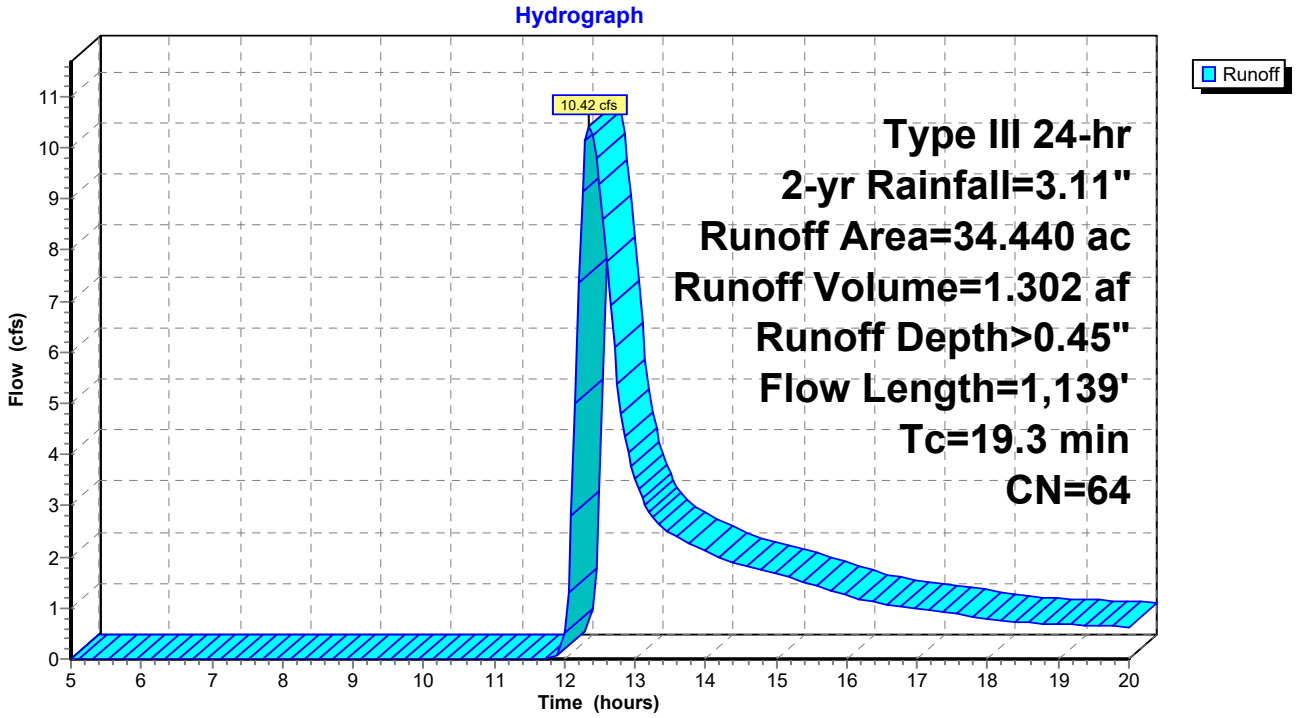
Runoff = 10.42 cfs @ 12.35 hrs, Volume= 1.302 af, Depth> 0.45"
Routed to Reach 2R : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.180	98	Paved parking, HSG A
22.890	61	>75% Grass cover, Good, HSG B
4.240	55	Woods, Good, HSG B
6.330	80	>75% Grass cover, Good, HSG D
0.800	77	Woods, Good, HSG D
34.440	64	Weighted Average
34.260		99.48% Pervious Area
0.180		0.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0340	0.18		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
14.7	1,089	0.0310	1.23		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
19.3	1,139	Total			

Subcatchment B5: B5



Hydrograph for Subcatchment B5: B5

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.03	0.51
12.25	2.01	0.12	**9.16**
12.50	2.18	0.17	**9.26**
12.75	2.27	0.19	5.37
13.00	2.33	0.21	3.53
13.25	2.39	0.23	2.76
13.50	2.44	0.25	2.46
13.75	2.48	0.26	2.29
14.00	2.52	0.28	2.12
14.25	2.56	0.29	1.95
14.50	2.59	0.30	1.84
14.75	2.63	0.32	1.75
15.00	2.66	0.33	1.66
15.25	2.68	0.34	1.57
15.50	2.71	0.35	1.47
15.75	2.73	0.36	1.36
16.00	2.76	0.37	1.25
16.25	2.78	0.37	1.15
16.50	2.79	0.38	1.09
16.75	2.81	0.39	1.04
17.00	2.83	0.40	0.99
17.25	2.84	0.40	0.94
17.50	2.86	0.41	0.89
17.75	2.87	0.41	0.84
18.00	2.89	0.42	0.79
18.25	2.90	0.43	0.74
18.50	2.91	0.43	0.72
18.75	2.92	0.44	0.70
19.00	2.93	0.44	0.69
19.25	2.94	0.44	0.67
19.50	2.96	0.45	0.66
19.75	2.97	0.45	0.64
20.00	**2.98**	**0.46**	0.63

Summary for Subcatchment B6: B6

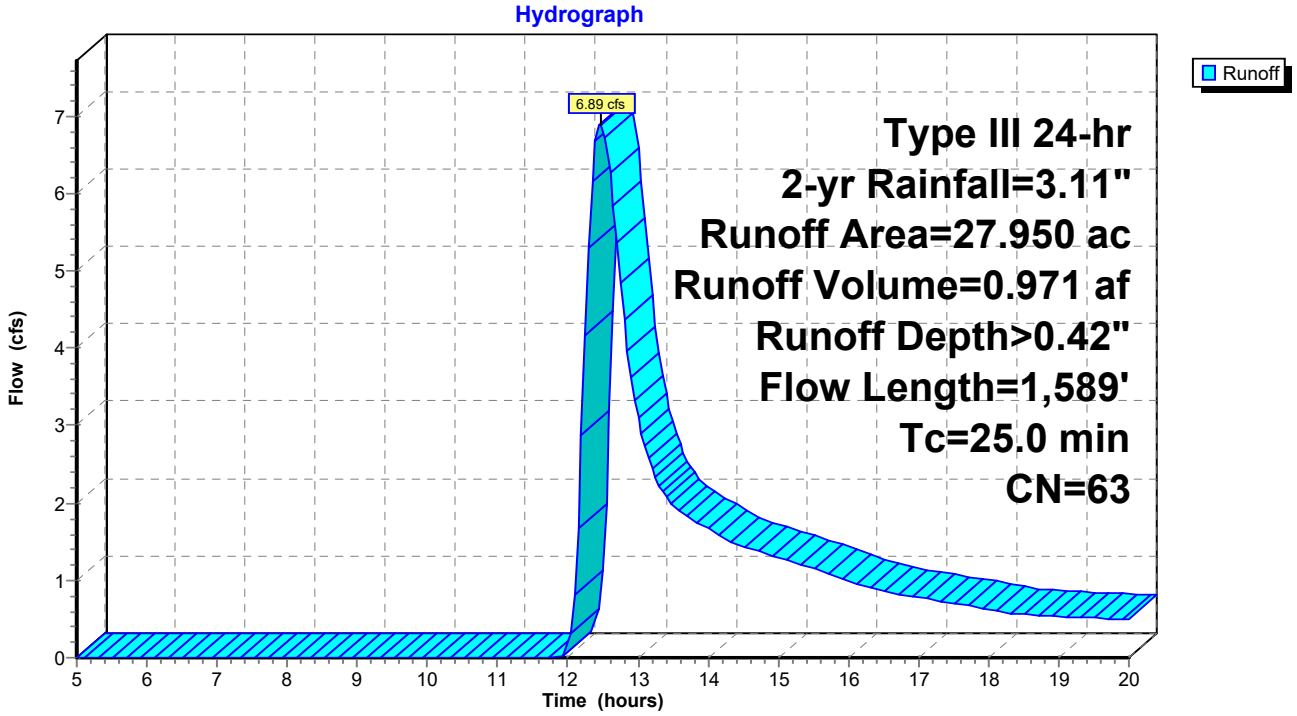
Runoff = 6.89 cfs @ 12.47 hrs, Volume= 0.971 af, Depth> 0.42"
Routed to Reach 2R : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
1.250	98	Paved parking, HSG A
0.160	39	>75% Grass cover, Good, HSG A
21.280	61	>75% Grass cover, Good, HSG B
3.640	55	Woods, Good, HSG B
1.600	80	>75% Grass cover, Good, HSG D
0.020	77	Woods, Good, HSG D
27.950	63	Weighted Average
26.700		95.53% Pervious Area
1.250		4.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	50	0.0260	0.16		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
19.9	1,539	0.0340	1.29		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
25.0	1,589	Total			

Subcatchment B6: B6



Hydrograph for Subcatchment B6: B6

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.02	0.10
12.25	2.01	0.10	**4.16**
12.50	2.18	0.15	**6.83**
12.75	2.27	0.17	4.85
13.00	2.33	0.19	3.10
13.25	2.39	0.21	2.33
13.50	2.44	0.22	1.97
13.75	2.48	0.24	1.80
14.00	2.52	0.25	1.67
14.25	2.56	0.26	1.53
14.50	2.59	0.28	1.44
14.75	2.63	0.29	1.37
15.00	2.66	0.30	1.30
15.25	2.68	0.31	1.23
15.50	2.71	0.32	1.16
15.75	2.73	0.33	1.08
16.00	2.76	0.34	1.00
16.25	2.78	0.34	0.91
16.50	2.79	0.35	0.86
16.75	2.81	0.36	0.82
17.00	2.83	0.36	0.78
17.25	2.84	0.37	0.74
17.50	2.86	0.38	0.70
17.75	2.87	0.38	0.66
18.00	2.89	0.39	0.62
18.25	2.90	0.39	0.59
18.50	2.91	0.40	0.56
18.75	2.92	0.40	0.55
19.00	2.93	0.41	0.54
19.25	2.94	0.41	0.52
19.50	2.96	0.41	0.51
19.75	2.97	0.42	0.50
20.00	**2.98**	**0.42**	0.49

Summary for Subcatchment B7: B7

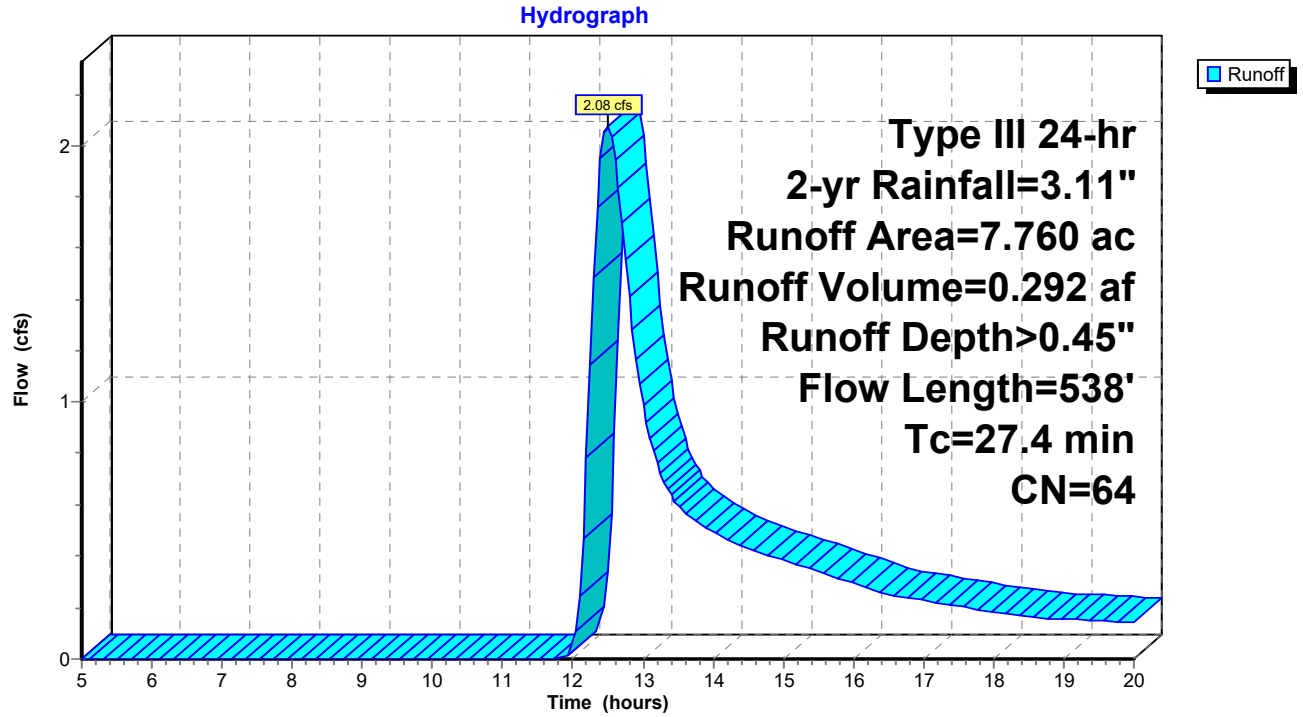
Runoff = 2.08 cfs @ 12.49 hrs, Volume= 0.292 af, Depth> 0.45"
Routed to Reach 2R : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.180	98	Paved parking, HSG A
2.080	61	>75% Grass cover, Good, HSG B
3.290	55	Woods, Good, HSG B
0.430	80	>75% Grass cover, Good, HSG D
1.780	77	Woods, Good, HSG D
7.760	64	Weighted Average
7.580		97.68% Pervious Area
0.180		2.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	50	0.0160	0.06		**Sheet Flow, sf-1** Woods: Light underbrush n= 0.400 P2= 3.11"
13.7	488	0.0140	0.59		**Shallow Concentrated Flow, scf-1** Woodland Kv= 5.0 fps
27.4	538	Total			

Subcatchment B7: B7



Hydrograph for Subcatchment B7: B7

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.03	0.04
12.25	2.01	0.12	1.15
12.50	2.18	0.17	**2.08**
12.75	2.27	0.19	1.55
13.00	2.33	0.21	0.99
13.25	2.39	0.23	0.73
13.50	2.44	0.25	0.60
13.75	2.48	0.26	0.54
14.00	2.52	0.28	0.50
14.25	2.56	0.29	0.46
14.50	2.59	0.30	0.43
14.75	2.63	0.32	0.40
15.00	2.66	0.33	0.38
15.25	2.68	0.34	0.36
15.50	2.71	0.35	0.34
15.75	2.73	0.36	0.32
16.00	2.76	0.37	0.29
16.25	2.78	0.37	0.27
16.50	2.79	0.38	0.25
16.75	2.81	0.39	0.24
17.00	2.83	0.40	0.23
17.25	2.84	0.40	0.22
17.50	2.86	0.41	0.21
17.75	2.87	0.41	0.20
18.00	2.89	0.42	0.18
18.25	2.90	0.43	0.17
18.50	2.91	0.43	0.16
18.75	2.92	0.44	0.16
19.00	2.93	0.44	0.16
19.25	2.94	0.44	0.15
19.50	2.96	0.45	0.15
19.75	2.97	0.45	0.15
20.00	**2.98**	**0.46**	0.14

Summary for Subcatchment B8: B8

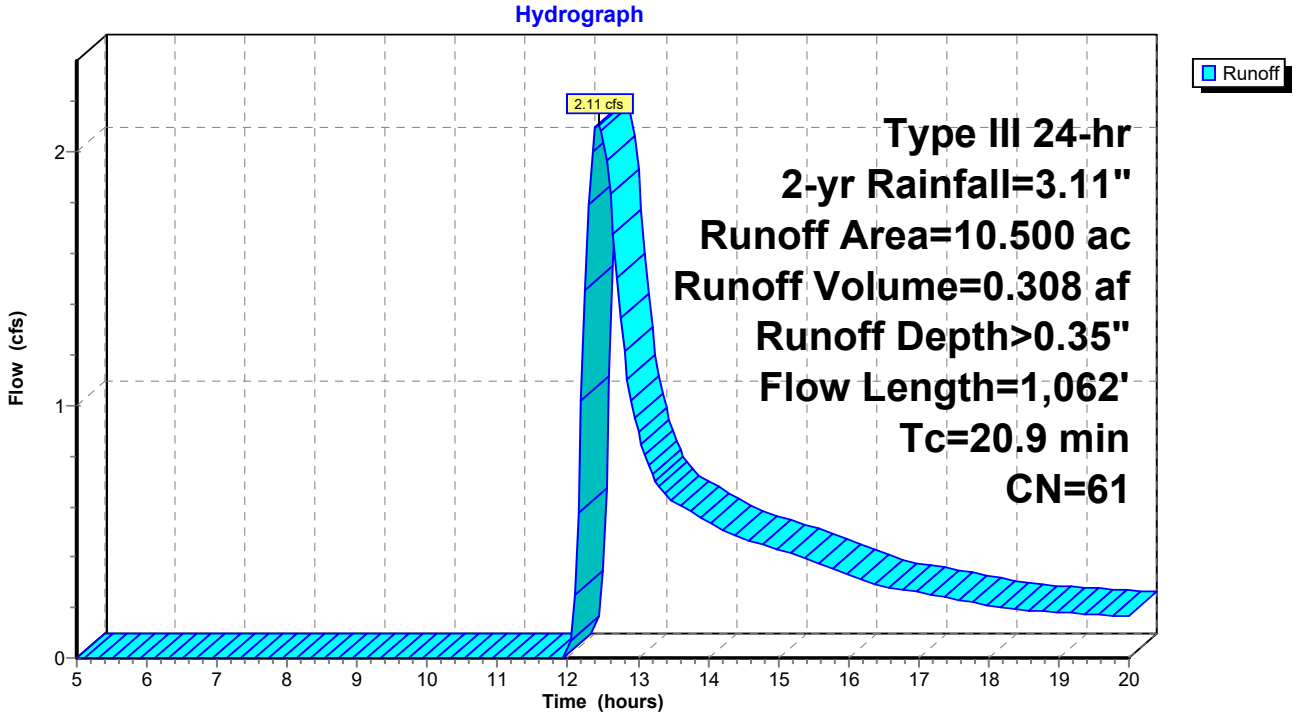
Runoff = 2.11 cfs @ 12.43 hrs, Volume= 0.308 af, Depth> 0.35"
Routed to Pond B8* : B8 Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.300	98	Paved parking, HSG A
8.360	61	>75% Grass cover, Good, HSG B
1.840	55	Woods, Good, HSG B
10.500	61	Weighted Average
10.200		97.14% Pervious Area
0.300		2.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	50	0.0120	0.12		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
13.9	1,012	0.0300	1.21		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
20.9	1,062	Total			

Subcatchment B8: B8



Hydrograph for Subcatchment B8: B8

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.01	0.01
12.25	2.01	0.07	**1.45**
12.50	2.18	0.11	**2.06**
12.75	2.27	0.13	1.34
13.00	2.33	0.15	0.90
13.25	2.39	0.16	0.70
13.50	2.44	0.18	0.62
13.75	2.48	0.19	0.58
14.00	2.52	0.20	0.54
14.25	2.56	0.21	0.50
14.50	2.59	0.22	0.47
14.75	2.63	0.23	0.45
15.00	2.66	0.24	0.43
15.25	2.68	0.25	0.41
15.50	2.71	0.26	0.38
15.75	2.73	0.27	0.36
16.00	2.76	0.28	0.33
16.25	2.78	0.28	0.30
16.50	2.79	0.29	0.28
16.75	2.81	0.30	0.27
17.00	2.83	0.30	0.26
17.25	2.84	0.31	0.25
17.50	2.86	0.31	0.23
17.75	2.87	0.32	0.22
18.00	2.89	0.32	0.21
18.25	2.90	0.33	0.20
18.50	2.91	0.33	0.19
18.75	2.92	0.34	0.18
19.00	2.93	0.34	0.18
19.25	2.94	0.34	0.18
19.50	2.96	0.35	0.17
19.75	2.97	0.35	0.17
20.00	**2.98**	**0.36**	0.17

Summary for Subcatchment B9: B9

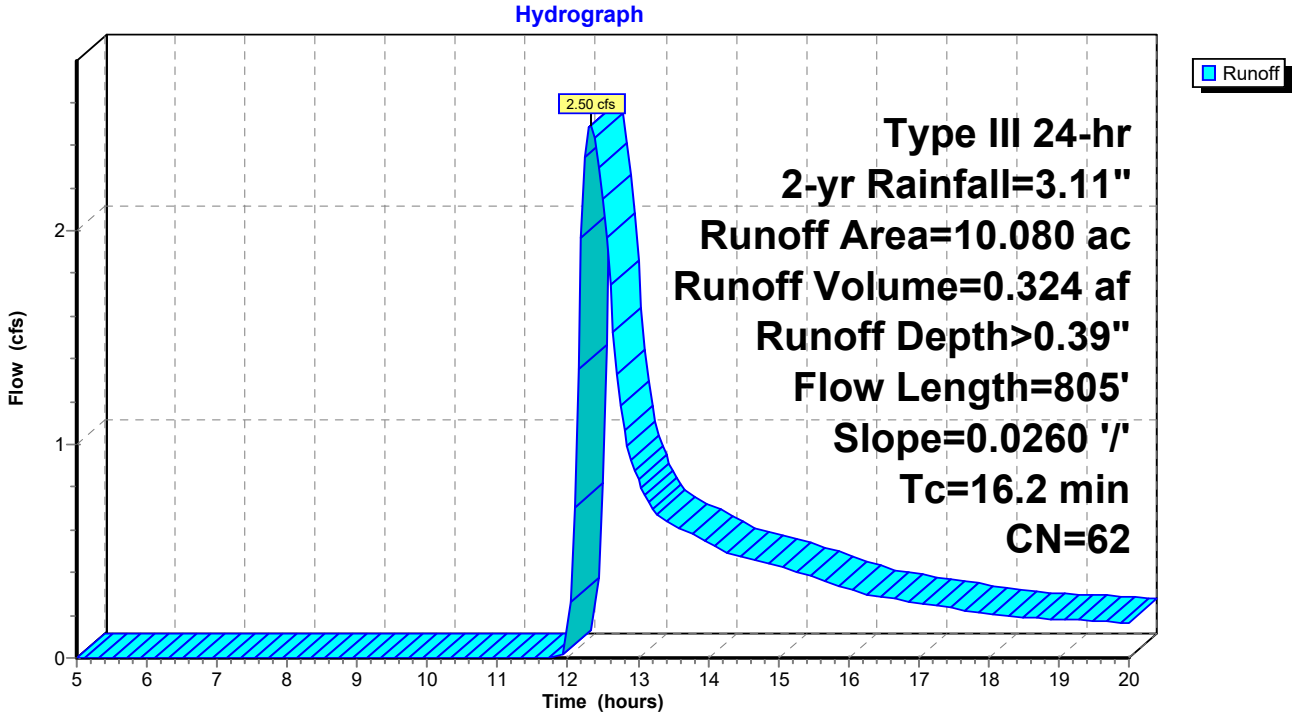
Runoff = 2.50 cfs @ 12.32 hrs, Volume= 0.324 af, Depth> 0.39"
Routed to Reach 2R : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.510	98	Paved parking, HSG A
8.400	61	>75% Grass cover, Good, HSG B
1.170	55	Woods, Good, HSG B
10.080	62	Weighted Average
9.570		94.94% Pervious Area
0.510		5.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	50	0.0260	0.16		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
11.1	755	0.0260	1.13		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
16.2	805	Total			

Subcatchment B9: B9



Hydrograph for Subcatchment B9: B9

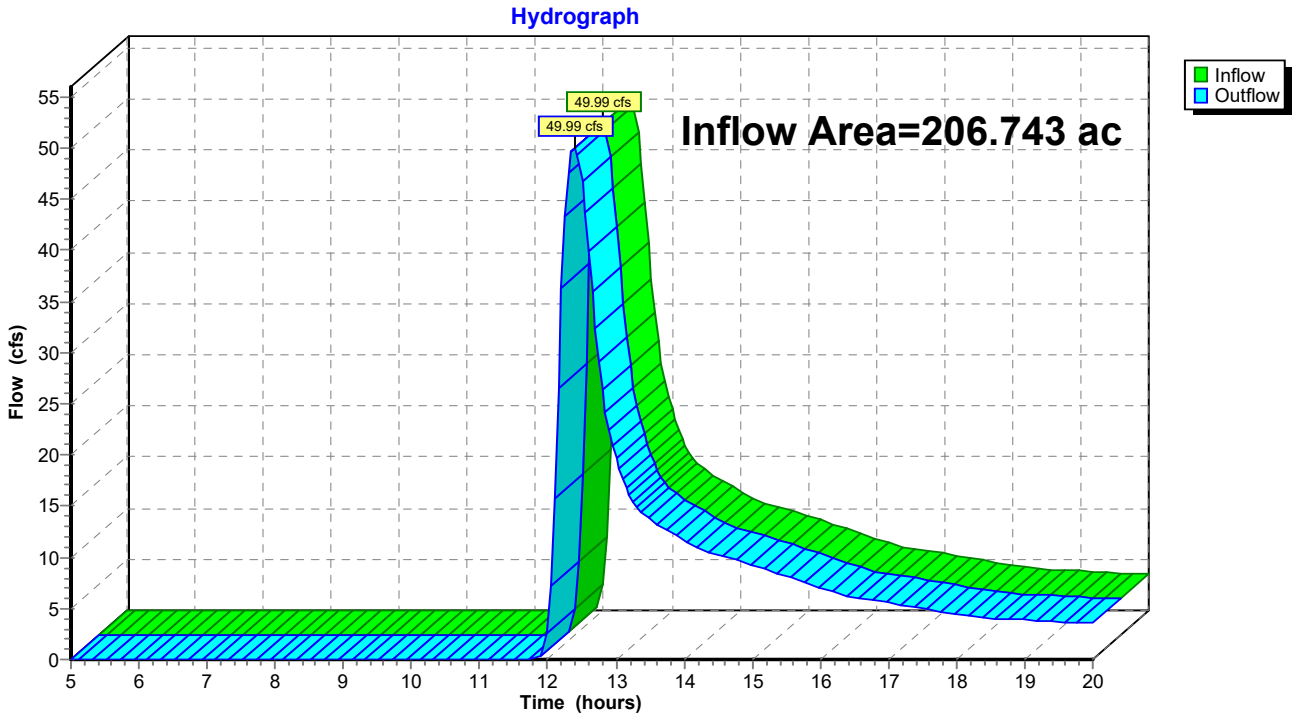
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.02	0.06
12.25	2.01	0.09	**2.35**
12.50	2.18	0.13	**2.16**
12.75	2.27	0.15	1.18
13.00	2.33	0.17	0.84
13.25	2.39	0.18	0.68
13.50	2.44	0.20	0.62
13.75	2.48	0.21	0.58
14.00	2.52	0.23	0.54
14.25	2.56	0.24	0.50
14.50	2.59	0.25	0.47
14.75	2.63	0.26	0.45
15.00	2.66	0.27	0.43
15.25	2.68	0.28	0.41
15.50	2.71	0.29	0.38
15.75	2.73	0.30	0.35
16.00	2.76	0.31	0.32
16.25	2.78	0.31	0.30
16.50	2.79	0.32	0.28
16.75	2.81	0.33	0.27
17.00	2.83	0.33	0.26
17.25	2.84	0.34	0.25
17.50	2.86	0.34	0.23
17.75	2.87	0.35	0.22
18.00	2.89	0.35	0.21
18.25	2.90	0.36	0.19
18.50	2.91	0.36	0.19
18.75	2.92	0.37	0.19
19.00	2.93	0.37	0.18
19.25	2.94	0.38	0.18
19.50	2.96	0.38	0.17
19.75	2.97	0.38	0.17
20.00	**2.98**	**0.39**	0.17

Summary for Reach 2R: DP-B

Inflow Area = 206.743 ac, 1.99% Impervious, Inflow Depth > 0.41" for 2-yr event
Inflow = 49.99 cfs @ 12.38 hrs, Volume= 6.998 af
Outflow = 49.99 cfs @ 12.38 hrs, Volume= 6.998 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 2R: DP-B



Hydrograph for Reach 2R: DP-B

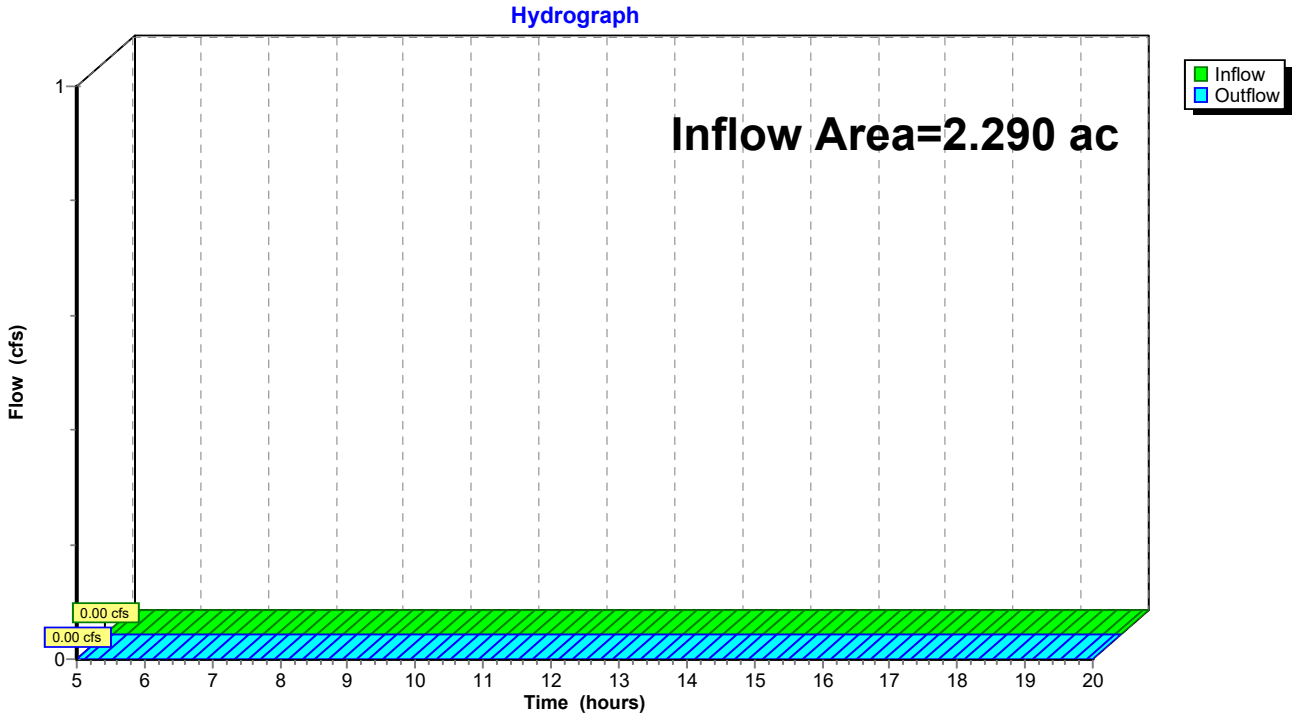
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	4.71		4.71
5.25	0.00		0.00	18.00	4.42		4.42
5.50	0.00		0.00	18.25	4.16		4.16
5.75	0.00		0.00	18.50	4.02		4.02
6.00	0.00		0.00	18.75	3.93		3.93
6.25	0.00		0.00	19.00	3.85		3.85
6.50	0.00		0.00	19.25	3.77		3.77
6.75	0.00		0.00	19.50	3.69		3.69
7.00	0.00		0.00	19.75	3.60		3.60
7.25	0.00		0.00	20.00	3.52		3.52
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.00		0.00				
10.25	0.00		0.00				
10.50	0.00		0.00				
10.75	0.00		0.00				
11.00	0.00		0.00				
11.25	0.00		0.00				
11.50	0.00		0.00				
11.75	0.00		0.00				
12.00	2.53		2.53				
12.25	**43.24**		**43.24**				
12.50	**46.70**		**46.70**				
12.75	29.05		29.05				
13.00	19.70		19.70				
13.25	15.45		15.45				
13.50	13.66		13.66				
13.75	12.65		12.65				
14.00	11.71		11.71				
14.25	10.80		10.80				
14.50	10.21		10.21				
14.75	9.72		9.72				
15.00	9.23		9.23				
15.25	8.72		8.72				
15.50	8.17		8.17				
15.75	7.60		7.60				
16.00	7.00		7.00				
16.25	6.44		6.44				
16.50	6.09		6.09				
16.75	5.81		5.81				
17.00	5.54		5.54				
17.25	5.27		5.27				
17.50	4.99		4.99				

Summary for Reach 21R: Reach

Inflow Area = 2.290 ac, 0.00% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
Routed to Reach 22R : Reach

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 21R: Reach



Hydrograph for Reach 21R: Reach

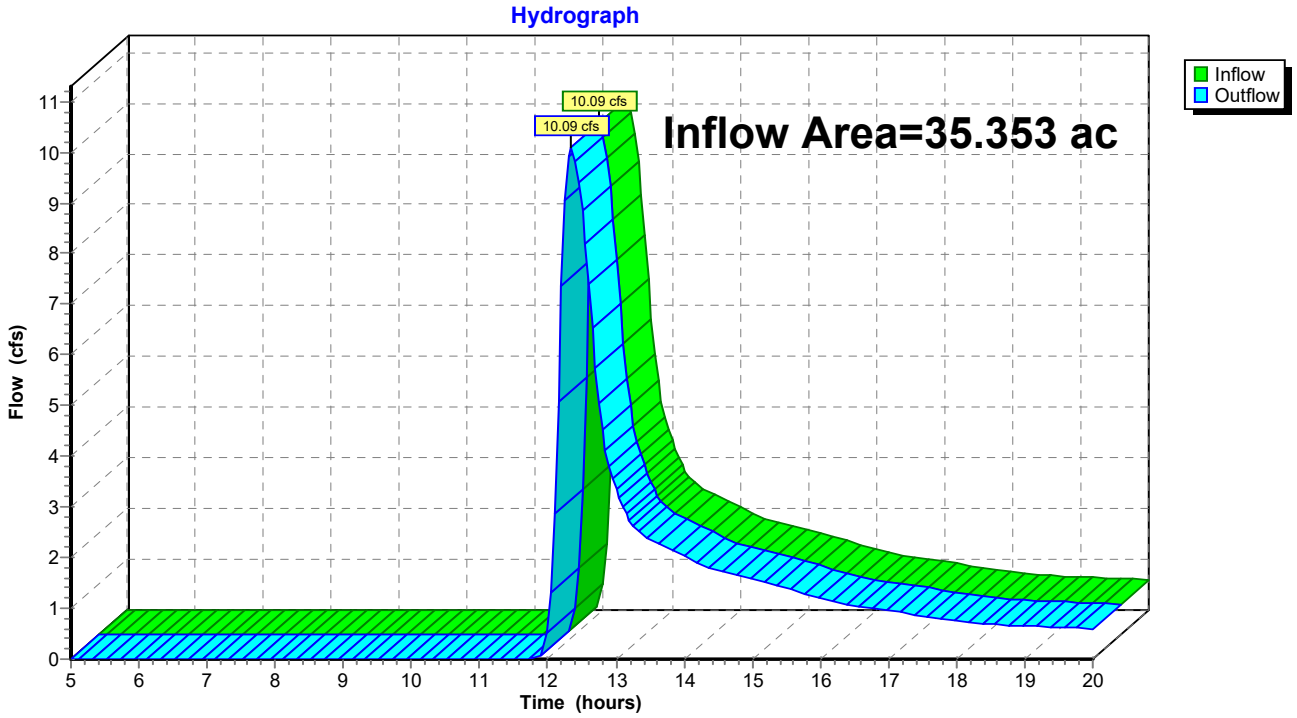
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	**0.00**		**0.00**	17.75	0.00		0.00
5.25	0.00		0.00	18.00	0.00		0.00
5.50	0.00		0.00	18.25	0.00		0.00
5.75	0.00		0.00	18.50	0.00		0.00
6.00	0.00		0.00	18.75	0.00		0.00
6.25	0.00		0.00	19.00	0.00		0.00
6.50	0.00		0.00	19.25	0.00		0.00
6.75	0.00		0.00	19.50	0.00		0.00
7.00	0.00		0.00	19.75	0.00		0.00
7.25	0.00		0.00	20.00	0.00		0.00
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.00		0.00				
10.25	0.00		0.00				
10.50	0.00		0.00				
10.75	0.00		0.00				
11.00	0.00		0.00				
11.25	0.00		0.00				
11.50	0.00		0.00				
11.75	0.00		0.00				
12.00	0.00		0.00				
12.25	0.00		0.00				
12.50	0.00		0.00				
12.75	0.00		0.00				
13.00	0.00		0.00				
13.25	0.00		0.00				
13.50	0.00		0.00				
13.75	0.00		0.00				
14.00	0.00		0.00				
14.25	0.00		0.00				
14.50	0.00		0.00				
14.75	0.00		0.00				
15.00	0.00		0.00				
15.25	0.00		0.00				
15.50	0.00		0.00				
15.75	0.00		0.00				
16.00	0.00		0.00				
16.25	0.00		0.00				
16.50	0.00		0.00				
16.75	0.00		0.00				
17.00	0.00		0.00				
17.25	0.00		0.00				
17.50	0.00		0.00				

Summary for Reach 22R: Reach

Inflow Area = 35.353 ac, 2.62% Impervious, Inflow Depth > 0.42" for 2-yr event
Inflow = 10.09 cfs @ 12.34 hrs, Volume= 1.250 af
Outflow = 10.09 cfs @ 12.34 hrs, Volume= 1.250 af, Atten= 0%, Lag= 0.0 min
Routed to Reach 2R : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 22R: Reach



Hydrograph for Reach 22R: Reach

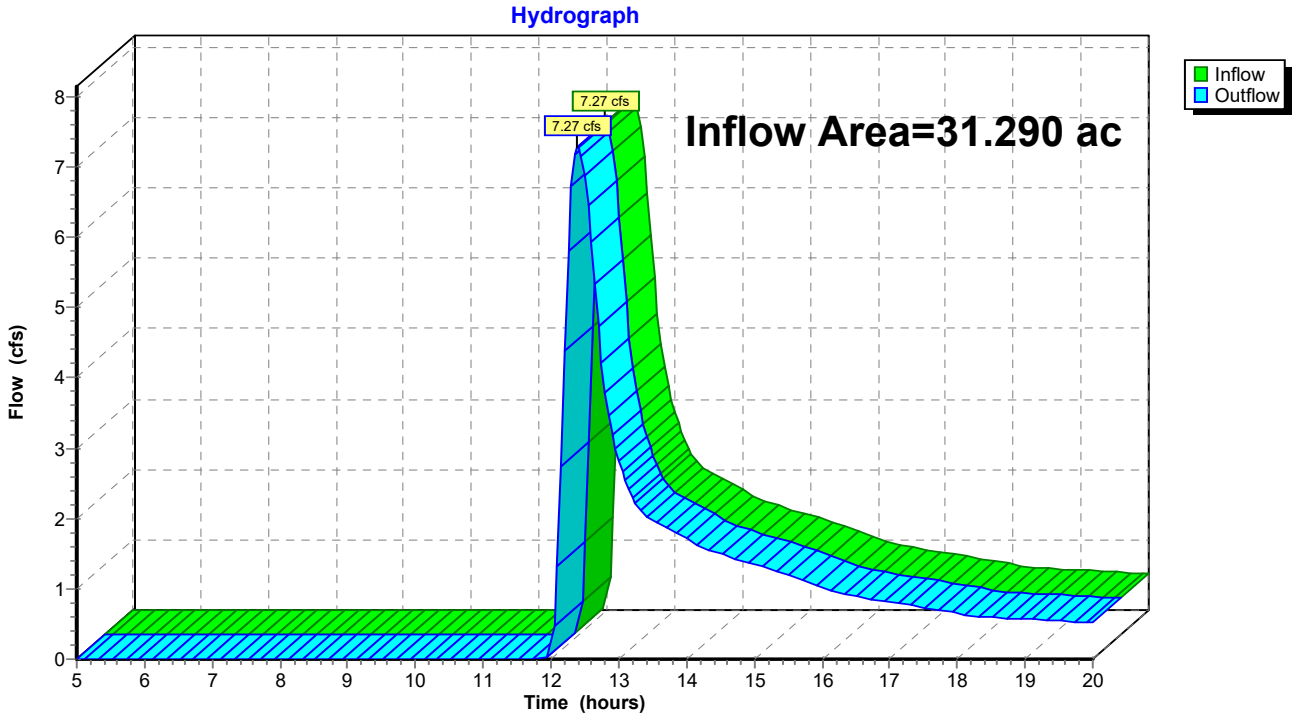
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	0.81		0.81
5.25	0.00		0.00	18.00	0.76		0.76
5.50	0.00		0.00	18.25	0.71		0.71
5.75	0.00		0.00	18.50	0.69		0.69
6.00	0.00		0.00	18.75	0.67		0.67
6.25	0.00		0.00	19.00	0.66		0.66
6.50	0.00		0.00	19.25	0.64		0.64
6.75	0.00		0.00	19.50	0.63		0.63
7.00	0.00		0.00	19.75	0.62		0.62
7.25	0.00		0.00	20.00	0.60		0.60
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.00		0.00				
10.25	0.00		0.00				
10.50	0.00		0.00				
10.75	0.00		0.00				
11.00	0.00		0.00				
11.25	0.00		0.00				
11.50	0.00		0.00				
11.75	0.00		0.00				
12.00	0.53		0.53				
12.25	**9.06**		**9.06**				
12.50	**8.85**		**8.85**				
12.75	5.05		5.05				
13.00	3.35		3.35				
13.25	2.63		2.63				
13.50	2.35		2.35				
13.75	2.19		2.19				
14.00	2.03		2.03				
14.25	1.86		1.86				
14.50	1.76		1.76				
14.75	1.68		1.68				
15.00	1.59		1.59				
15.25	1.50		1.50				
15.50	1.40		1.40				
15.75	1.30		1.30				
16.00	1.20		1.20				
16.25	1.10		1.10				
16.50	1.04		1.04				
16.75	0.99		0.99				
17.00	0.95		0.95				
17.25	0.90		0.90				
17.50	0.85		0.85				

Summary for Reach 23R: Reach

Inflow Area = 31.290 ac, 0.93% Impervious, Inflow Depth > 0.38" for 2-yr event
Inflow = 7.27 cfs @ 12.40 hrs, Volume= 1.002 af
Outflow = 7.27 cfs @ 12.40 hrs, Volume= 1.002 af, Atten= 0%, Lag= 0.0 min
Routed to Reach 2R : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 23R: Reach



Hydrograph for Reach 23R: Reach

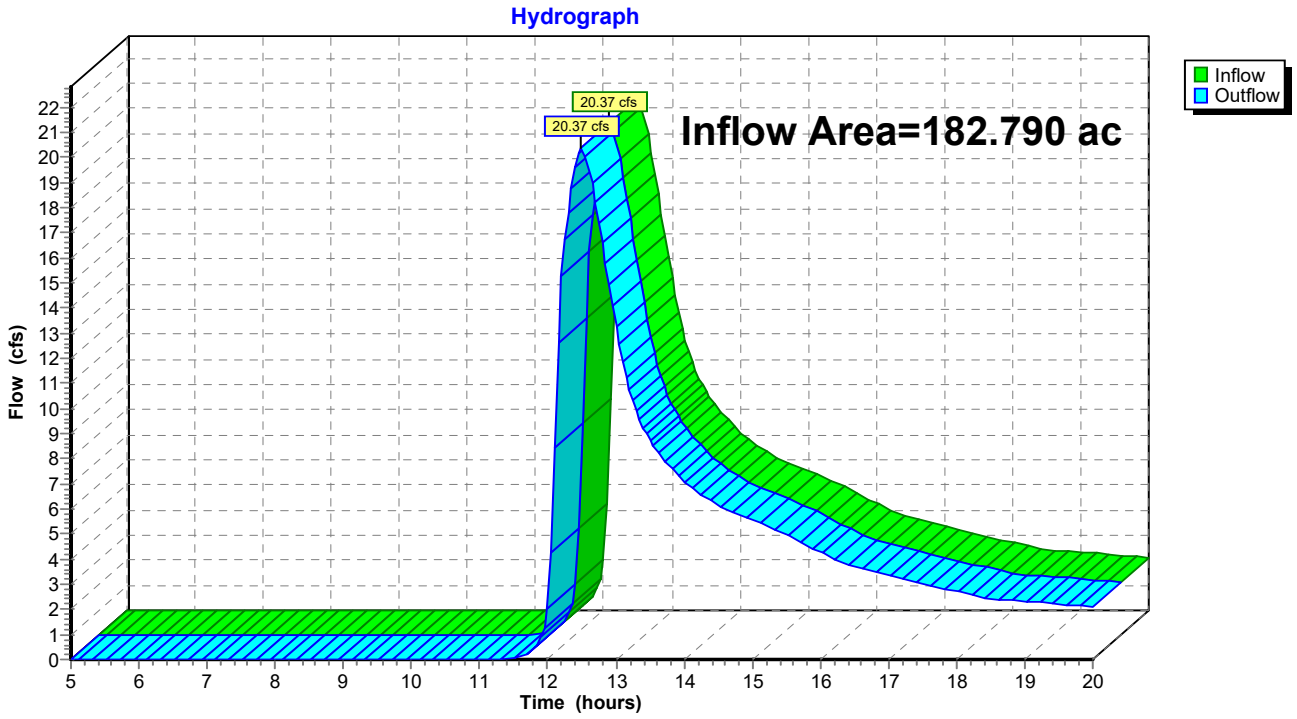
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00
5.25	0.00		0.00
5.50	0.00		0.00
5.75	0.00		0.00
6.00	0.00		0.00
6.25	0.00		0.00
6.50	0.00		0.00
6.75	0.00		0.00
7.00	0.00		0.00
7.25	0.00		0.00
7.50	0.00		0.00
7.75	0.00		0.00
8.00	0.00		0.00
8.25	0.00		0.00
8.50	0.00		0.00
8.75	0.00		0.00
9.00	0.00		0.00
9.25	0.00		0.00
9.50	0.00		0.00
9.75	0.00		0.00
10.00	0.00		0.00
10.25	0.00		0.00
10.50	0.00		0.00
10.75	0.00		0.00
11.00	0.00		0.00
11.25	0.00		0.00
11.50	0.00		0.00
11.75	0.00		0.00
12.00	0.11		0.11
12.25	**5.80**		**5.80**
12.50	**6.87**		**6.87**
12.75	4.22		4.22
13.00	2.82		2.82
13.25	2.21		2.21
13.50	1.97		1.97
13.75	1.84		1.84
14.00	1.71		1.71
14.25	1.58		1.58
14.50	1.49		1.49
14.75	1.42		1.42
15.00	1.35		1.35
15.25	1.28		1.28
15.50	1.20		1.20
15.75	1.11		1.11
16.00	1.03		1.03
16.25	0.94		0.94
16.50	0.89		0.89
16.75	0.85		0.85
17.00	0.81		0.81
17.25	0.77		0.77
17.50	0.73		0.73
17.75	0.69		0.69
18.00	0.65		0.65
18.25	0.61		0.61
18.50	0.59		0.59
18.75	0.58		0.58
19.00	0.57		0.57
19.25	0.56		0.56
19.50	0.54		0.54
19.75	0.53		0.53
20.00	0.52		0.52

Summary for Reach DP-A: DP-A

Inflow Area = 182.790 ac, 4.55% Impervious, Inflow Depth > 0.26" for 2-yr event
Inflow = 20.37 cfs @ 12.50 hrs, Volume= 3.970 af
Outflow = 20.37 cfs @ 12.50 hrs, Volume= 3.970 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-A: DP-A



Hydrograph for Reach DP-A: DP-A

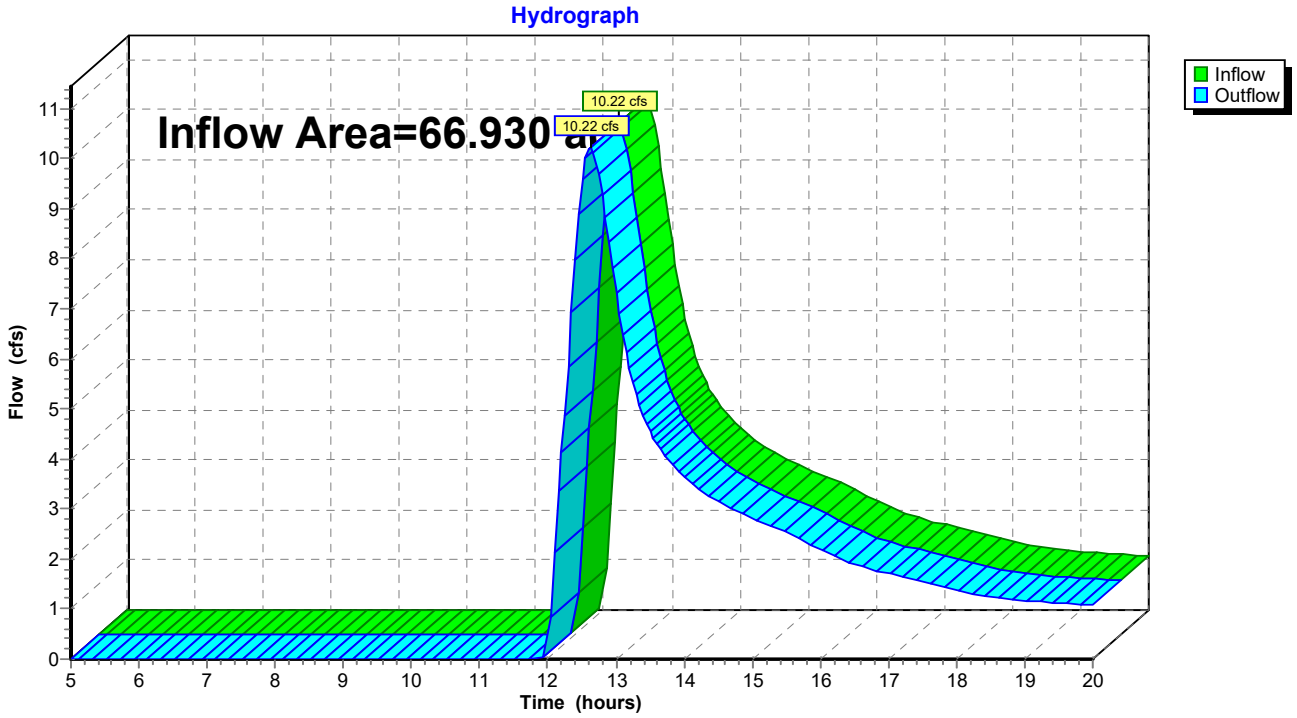
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	2.87		2.87
5.25	0.00		0.00	18.00	2.70		2.70
5.50	0.00		0.00	18.25	2.55		2.55
5.75	0.00		0.00	18.50	2.45		2.45
6.00	0.00		0.00	18.75	2.37		2.37
6.25	0.00		0.00	19.00	2.32		2.32
6.50	0.00		0.00	19.25	2.27		2.27
6.75	0.00		0.00	19.50	2.22		2.22
7.00	0.00		0.00	19.75	2.17		2.17
7.25	0.00		0.00	20.00	2.12		2.12
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.00		0.00				
10.25	0.00		0.00				
10.50	0.00		0.00				
10.75	0.00		0.00				
11.00	0.00		0.00				
11.25	0.00		0.00				
11.50	0.06		0.06				
11.75	0.33		0.33				
12.00	2.03		2.03				
12.25	16.73		16.73				
12.50	**20.37**		**20.37**				
12.75	17.40		17.40				
13.00	13.28		13.28				
13.25	10.30		10.30				
13.50	8.72		8.72				
13.75	7.80		7.80				
14.00	7.14		7.14				
14.25	6.58		6.58				
14.50	6.17		6.17				
14.75	5.85		5.85				
15.00	5.56		5.56				
15.25	5.26		5.26				
15.50	4.96		4.96				
15.75	4.63		4.63				
16.00	4.29		4.29				
16.25	3.97		3.97				
16.50	3.72		3.72				
16.75	3.53		3.53				
17.00	3.36		3.36				
17.25	3.20		3.20				
17.50	3.04		3.04				

Summary for Reach SUB-1: Reach

Inflow Area = 66.930 ac, 2.76% Impervious, Inflow Depth > 0.35" for 2-yr event
Inflow = 10.22 cfs @ 12.62 hrs, Volume= 1.947 af
Outflow = 10.22 cfs @ 12.62 hrs, Volume= 1.947 af, Atten= 0%, Lag= 0.0 min
Routed to Reach DP-A : DP-A

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SUB-1: Reach



Hydrograph for Reach SUB-1: Reach

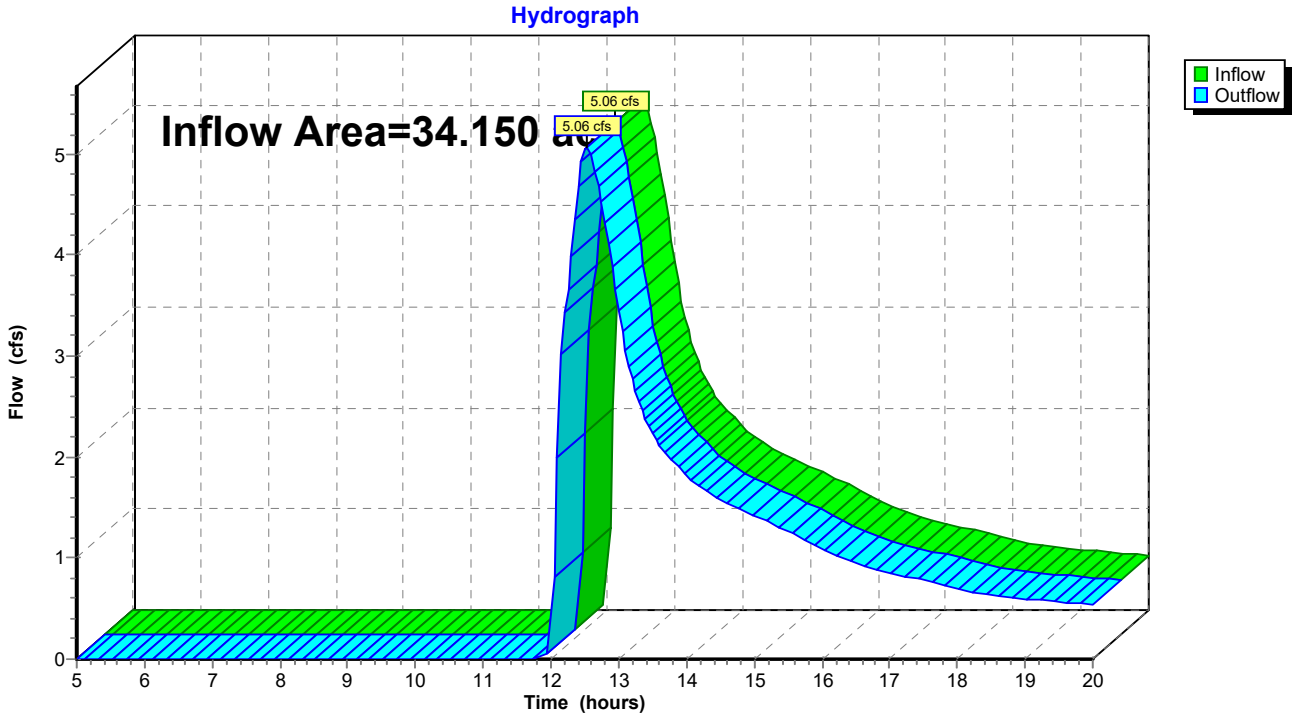
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00
5.25	0.00		0.00
5.50	0.00		0.00
5.75	0.00		0.00
6.00	0.00		0.00
6.25	0.00		0.00
6.50	0.00		0.00
6.75	0.00		0.00
7.00	0.00		0.00
7.25	0.00		0.00
7.50	0.00		0.00
7.75	0.00		0.00
8.00	0.00		0.00
8.25	0.00		0.00
8.50	0.00		0.00
8.75	0.00		0.00
9.00	0.00		0.00
9.25	0.00		0.00
9.50	0.00		0.00
9.75	0.00		0.00
10.00	0.00		0.00
10.25	0.00		0.00
10.50	0.00		0.00
10.75	0.00		0.00
11.00	0.00		0.00
11.25	0.00		0.00
11.50	0.00		0.00
11.75	0.00		0.00
12.00	0.17		0.17
12.25	4.86		4.86
12.50	**9.58**		**9.58**
12.75	**9.71**		**9.71**
13.00	7.33		7.33
13.25	5.54		5.54
13.50	4.55		4.55
13.75	4.01		4.01
14.00	3.66		3.66
14.25	3.36		3.36
14.50	3.14		3.14
14.75	2.97		2.97
15.00	2.83		2.83
15.25	2.68		2.68
15.50	2.53		2.53
15.75	2.37		2.37
16.00	2.20		2.20
16.25	2.03		2.03
16.50	1.90		1.90
16.75	1.79		1.79
17.00	1.71		1.71
17.25	1.63		1.63
17.50	1.55		1.55
17.75	1.46		1.46
18.00	1.38		1.38
18.25	1.30		1.30
18.50	1.24		1.24
18.75	1.20		1.20
19.00	1.17		1.17
19.25	1.15		1.15
19.50	1.12		1.12
19.75	1.10		1.10
20.00	1.07		1.07

Summary for Reach SUB-2: Reach

Inflow Area = 34.150 ac, 3.07% Impervious, Inflow Depth > 0.35" for 2-yr event
Inflow = 5.06 cfs @ 12.52 hrs, Volume= 0.996 af
Outflow = 5.06 cfs @ 12.52 hrs, Volume= 0.996 af, Atten= 0%, Lag= 0.0 min
Routed to Reach SUB-1 : Reach

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SUB-2: Reach



Hydrograph for Reach SUB-2: Reach

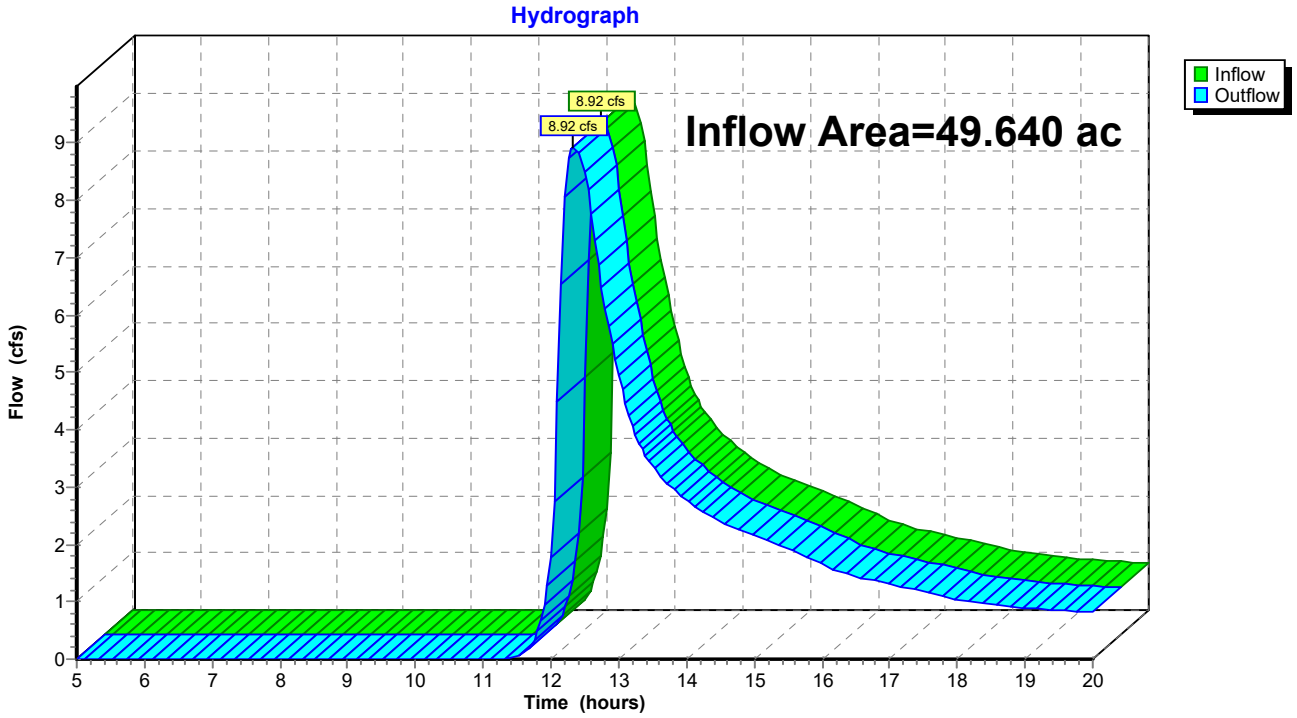
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	0.73		0.73
5.25	0.00		0.00	18.00	0.69		0.69
5.50	0.00		0.00	18.25	0.65		0.65
5.75	0.00		0.00	18.50	0.63		0.63
6.00	0.00		0.00	18.75	0.61		0.61
6.25	0.00		0.00	19.00	0.59		0.59
6.50	0.00		0.00	19.25	0.58		0.58
6.75	0.00		0.00	19.50	0.57		0.57
7.00	0.00		0.00	19.75	0.56		0.56
7.25	0.00		0.00	20.00	0.54		0.54
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.00		0.00				
10.25	0.00		0.00				
10.50	0.00		0.00				
10.75	0.00		0.00				
11.00	0.00		0.00				
11.25	0.00		0.00				
11.50	0.00		0.00				
11.75	0.00		0.00				
12.00	0.17		0.17				
12.25	3.66		3.66				
12.50	**5.05**		**5.05**				
12.75	4.52		4.52				
13.00	3.45		3.45				
13.25	2.65		2.65				
13.50	2.23		2.23				
13.75	1.99		1.99				
14.00	1.82		1.82				
14.25	1.68		1.68				
14.50	1.58		1.58				
14.75	1.50		1.50				
15.00	1.42		1.42				
15.25	1.35		1.35				
15.50	1.27		1.27				
15.75	1.18		1.18				
16.00	1.10		1.10				
16.25	1.01		1.01				
16.50	0.95		0.95				
16.75	0.90		0.90				
17.00	0.86		0.86				
17.25	0.82		0.82				
17.50	0.78		0.78				

Summary for Reach SUB-3: Reach

Inflow Area = 49.640 ac, 8.42% Impervious, Inflow Depth > 0.39" for 2-yr event
Inflow = 8.92 cfs @ 12.32 hrs, Volume= 1.608 af
Outflow = 8.92 cfs @ 12.32 hrs, Volume= 1.608 af, Atten= 0%, Lag= 0.0 min
Routed to Reach DP-A : DP-A

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SUB-3: Reach



Hydrograph for Reach SUB-3: Reach

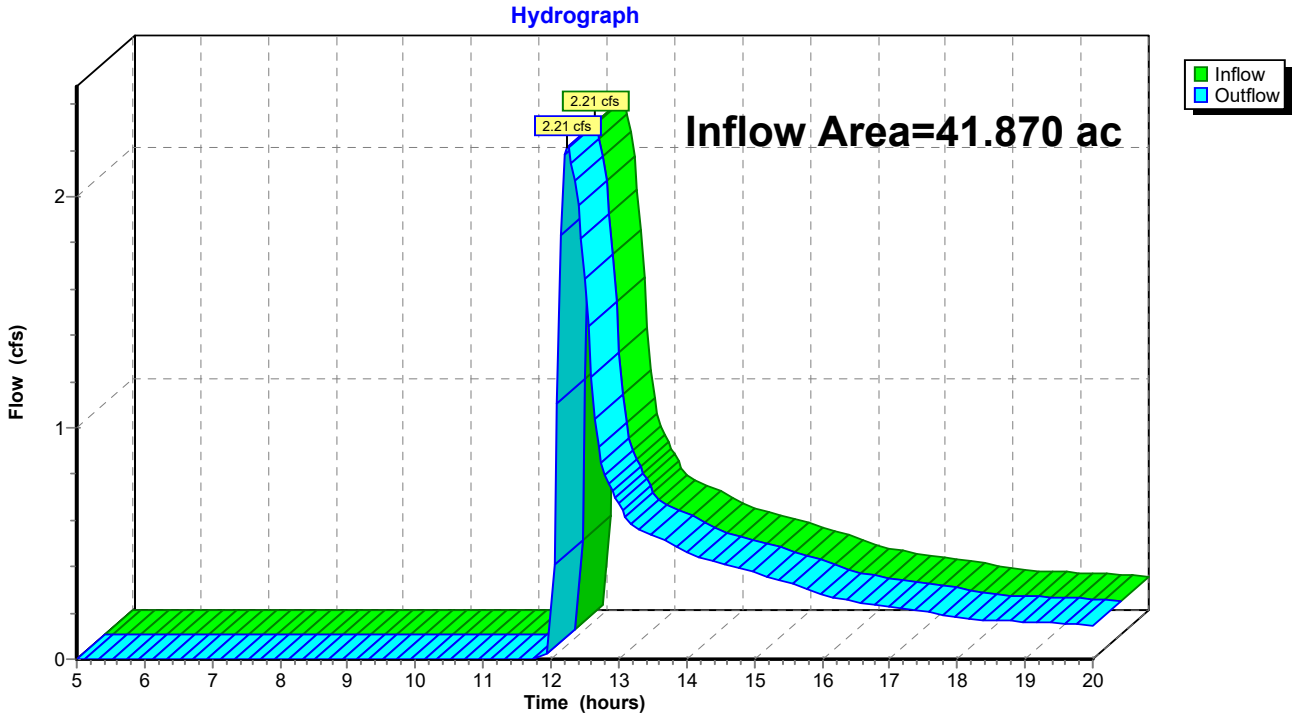
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00
5.25	0.00		0.00
5.50	0.00		0.00
5.75	0.00		0.00
6.00	0.00		0.00
6.25	0.00		0.00
6.50	0.00		0.00
6.75	0.00		0.00
7.00	0.00		0.00
7.25	0.00		0.00
7.50	0.00		0.00
7.75	0.00		0.00
8.00	0.00		0.00
8.25	0.00		0.00
8.50	0.00		0.00
8.75	0.00		0.00
9.00	0.00		0.00
9.25	0.00		0.00
9.50	0.00		0.00
9.75	0.00		0.00
10.00	0.00		0.00
10.25	0.00		0.00
10.50	0.00		0.00
10.75	0.00		0.00
11.00	0.00		0.00
11.25	0.00		0.00
11.50	0.06		0.06
11.75	0.33		0.33
12.00	1.77		1.77
12.25	**8.74**		**8.74**
12.50	**8.50**		**8.50**
12.75	6.47		6.47
13.00	4.96		4.96
13.25	3.91		3.91
13.50	3.36		3.36
13.75	3.03		3.03
14.00	2.78		2.78
14.25	2.56		2.56
14.50	2.40		2.40
14.75	2.28		2.28
15.00	2.16		2.16
15.25	2.05		2.05
15.50	1.92		1.92
15.75	1.80		1.80
16.00	1.66		1.66
16.25	1.54		1.54
16.50	1.44		1.44
16.75	1.37		1.37
17.00	1.30		1.30
17.25	1.24		1.24
17.50	1.18		1.18
17.75	1.11		1.11
18.00	1.05		1.05
18.25	0.99		0.99
18.50	0.95		0.95
18.75	0.92		0.92
19.00	0.90		0.90
19.25	0.88		0.88
19.50	0.86		0.86
19.75	0.84		0.84
20.00	0.82		0.82

Summary for Reach SUB-4: Reach

Inflow Area = 41.870 ac, 3.96% Impervious, Inflow Depth > 0.08" for 2-yr event
Inflow = 2.21 cfs @ 12.24 hrs, Volume= 0.279 af
Outflow = 2.21 cfs @ 12.24 hrs, Volume= 0.279 af, Atten= 0%, Lag= 0.0 min
Routed to Reach SUB-5 : Reach

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SUB-4: Reach



Hydrograph for Reach SUB-4: Reach

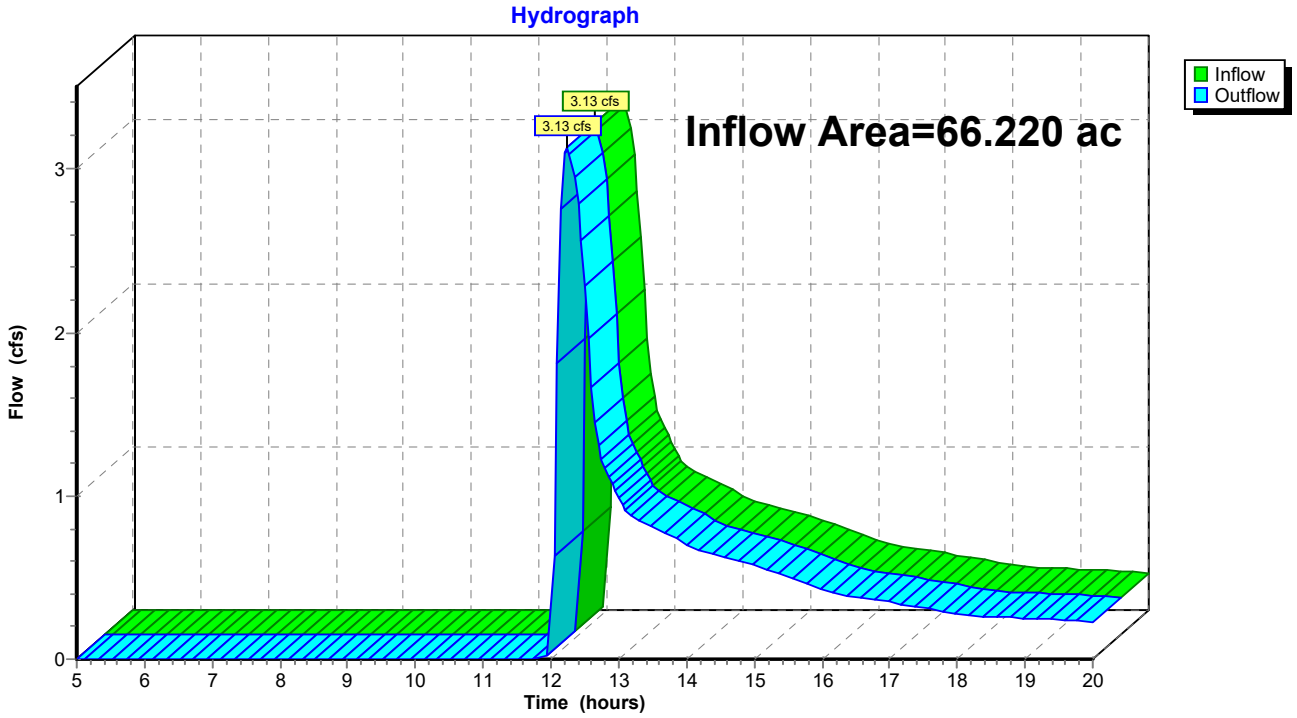
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	0.19		0.19
5.25	0.00		0.00	18.00	0.18		0.18
5.50	0.00		0.00	18.25	0.17		0.17
5.75	0.00		0.00	18.50	0.17		0.17
6.00	0.00		0.00	18.75	0.16		0.16
6.25	0.00		0.00	19.00	0.16		0.16
6.50	0.00		0.00	19.25	0.16		0.16
6.75	0.00		0.00	19.50	0.15		0.15
7.00	0.00		0.00	19.75	0.15		0.15
7.25	0.00		0.00	20.00	0.15		0.15
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.00		0.00				
10.25	0.00		0.00				
10.50	0.00		0.00				
10.75	0.00		0.00				
11.00	0.00		0.00				
11.25	0.00		0.00				
11.50	0.00		0.00				
11.75	0.00		0.00				
12.00	0.08		0.08				
12.25	**2.21**		**2.21**				
12.50	1.64		1.64				
12.75	0.85		0.85				
13.00	0.67		0.67				
13.25	0.57		0.57				
13.50	0.53		0.53				
13.75	0.50		0.50				
14.00	0.46		0.46				
14.25	0.43		0.43				
14.50	0.41		0.41				
14.75	0.39		0.39				
15.00	0.37		0.37				
15.25	0.35		0.35				
15.50	0.33		0.33				
15.75	0.31		0.31				
16.00	0.28		0.28				
16.25	0.26		0.26				
16.50	0.25		0.25				
16.75	0.24		0.24				
17.00	0.23		0.23				
17.25	0.22		0.22				
17.50	0.20		0.20				

Summary for Reach SUB-5: Reach

Inflow Area = 66.220 ac, 3.46% Impervious, Inflow Depth > 0.08" for 2-yr event
Inflow = 3.13 cfs @ 12.24 hrs, Volume= 0.416 af
Outflow = 3.13 cfs @ 12.24 hrs, Volume= 0.416 af, Atten= 0%, Lag= 0.0 min
Routed to Reach DP-A : DP-A

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SUB-5: Reach



Hydrograph for Reach SUB-5: Reach

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	0.30		0.30
5.25	0.00		0.00	18.00	0.28		0.28
5.50	0.00		0.00	18.25	0.26		0.26
5.75	0.00		0.00	18.50	0.26		0.26
6.00	0.00		0.00	18.75	0.25		0.25
6.25	0.00		0.00	19.00	0.25		0.25
6.50	0.00		0.00	19.25	0.24		0.24
6.75	0.00		0.00	19.50	0.24		0.24
7.00	0.00		0.00	19.75	0.23		0.23
7.25	0.00		0.00	20.00	0.23		0.23
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.00		0.00				
10.25	0.00		0.00				
10.50	0.00		0.00				
10.75	0.00		0.00				
11.00	0.00		0.00				
11.25	0.00		0.00				
11.50	0.00		0.00				
11.75	0.00		0.00				
12.00	0.09		0.09				
12.25	**3.13**		**3.13**				
12.50	2.28		2.28				
12.75	1.23		1.23				
13.00	0.99		0.99				
13.25	0.85		0.85				
13.50	0.81		0.81				
13.75	0.76		0.76				
14.00	0.70		0.70				
14.25	0.66		0.66				
14.50	0.63		0.63				
14.75	0.60		0.60				
15.00	0.57		0.57				
15.25	0.54		0.54				
15.50	0.50		0.50				
15.75	0.47		0.47				
16.00	0.43		0.43				
16.25	0.40		0.40				
16.50	0.38		0.38				
16.75	0.37		0.37				
17.00	0.35		0.35				
17.25	0.33		0.33				
17.50	0.31		0.31				

Summary for Pond A4*: A4 Pond

Inflow Area = 32.410 ac, 3.15% Impervious, Inflow Depth > 0.21" for 2-yr event
Inflow = 2.98 cfs @ 12.52 hrs, Volume= 0.567 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Reach SUB-4 : Reach

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 101.43' @ 20.00 hrs Storage= 24,679 cf

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

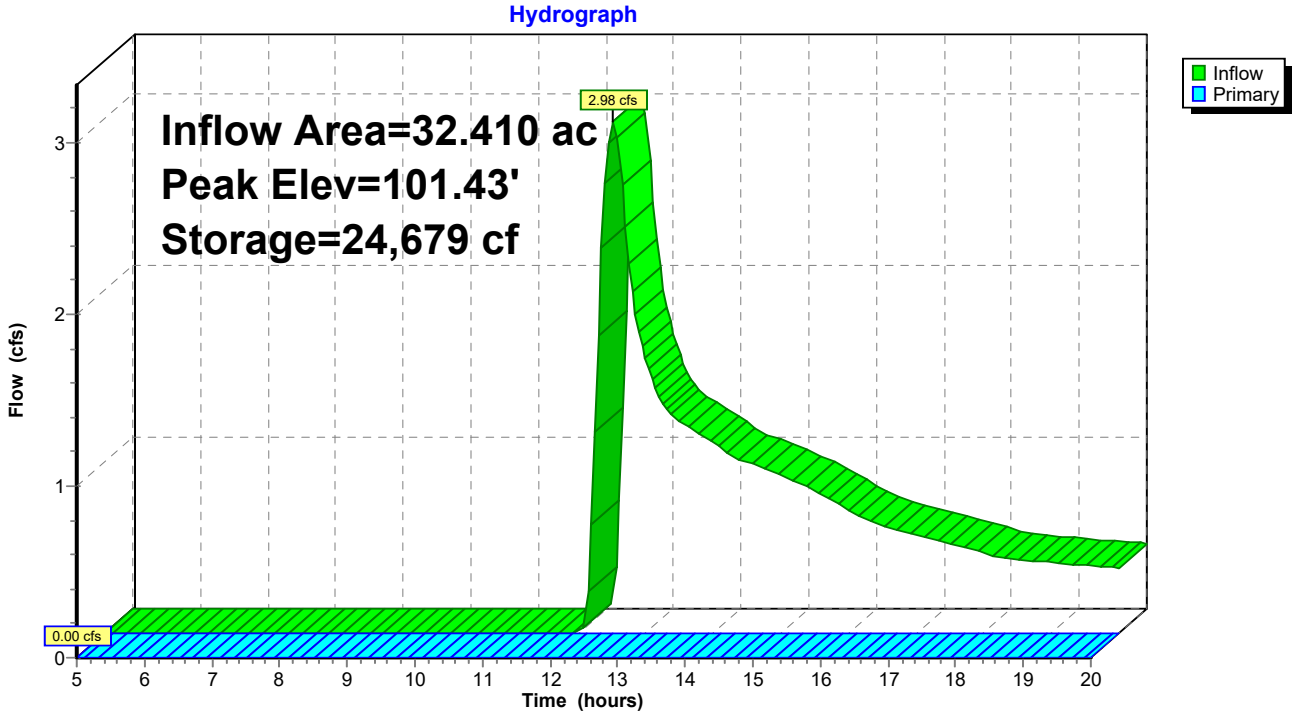
Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	576,398 cf	**Custom Stage Data**Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
100.00	0	0
105.00	86,533	86,533
110.00	200,119	286,652
115.00	289,746	576,398

Device	Routing	Invert	Outlet Devices
#1	Primary	110.00'	**220.0' long Broad-Crested Rectangular Weir** Head (feet) 10.00 Coef. (English) 2.60

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=100.00' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond A4*: A4 Pond



Hydrograph for Pond A4*: A4 Pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	100.00	**0.00**
5.50	0.00	0	100.00	0.00
6.00	0.00	0	100.00	0.00
6.50	0.00	0	100.00	0.00
7.00	0.00	0	100.00	0.00
7.50	0.00	0	100.00	0.00
8.00	0.00	0	100.00	0.00
8.50	0.00	0	100.00	0.00
9.00	0.00	0	100.00	0.00
9.50	0.00	0	100.00	0.00
10.00	0.00	0	100.00	0.00
10.50	0.00	0	100.00	0.00
11.00	0.00	0	100.00	0.00
11.50	0.00	0	100.00	0.00
12.00	0.00	0	100.00	0.00
12.50	**2.97**	2,349	100.14	0.00
13.00	1.60	6,390	100.37	0.00
13.50	1.23	8,848	100.51	0.00
14.00	1.11	10,961	100.63	0.00
14.50	0.99	12,839	100.74	0.00
15.00	0.92	14,564	100.84	0.00
15.50	0.83	16,138	100.93	0.00
16.00	0.72	17,529	101.01	0.00
16.50	0.63	18,726	101.08	0.00
17.00	0.58	19,813	101.14	0.00
17.50	0.52	20,806	101.20	0.00
18.00	0.47	21,699	101.25	0.00
18.50	0.43	22,497	101.30	0.00
19.00	0.41	23,252	101.34	0.00
19.50	0.40	23,980	101.39	0.00
20.00	0.38	**24,679**	**101.43**	0.00

Stage-Discharge for Pond A4*: A4 Pond

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
100.00	0.00	105.10	0.00	110.20	51.16
100.10	0.00	105.20	0.00	110.30	93.99
100.20	0.00	105.30	0.00	110.40	144.71
100.30	0.00	105.40	0.00	110.50	202.23
100.40	0.00	105.50	0.00	110.60	265.84
100.50	0.00	105.60	0.00	110.70	335.00
100.60	0.00	105.70	0.00	110.80	409.29
100.70	0.00	105.80	0.00	110.90	488.38
100.80	0.00	105.90	0.00	111.00	572.00
100.90	0.00	106.00	0.00	111.10	659.91
101.00	0.00	106.10	0.00	111.20	751.91
101.10	0.00	106.20	0.00	111.30	847.83
101.20	0.00	106.30	0.00	111.40	947.52
101.30	0.00	106.40	0.00	111.50	1,050.83
101.40	0.00	106.50	0.00	111.60	1,157.65
101.50	0.00	106.60	0.00	111.70	1,267.85
101.60	0.00	106.70	0.00	111.80	1,381.35
101.70	0.00	106.80	0.00	111.90	1,498.05
101.80	0.00	106.90	0.00	112.00	1,617.86
101.90	0.00	107.00	0.00	112.10	1,740.70
102.00	0.00	107.10	0.00	112.20	1,866.51
102.10	0.00	107.20	0.00	112.30	1,995.21
102.20	0.00	107.30	0.00	112.40	2,126.73
102.30	0.00	107.40	0.00	112.50	2,261.03
102.40	0.00	107.50	0.00	112.60	2,398.04
102.50	0.00	107.60	0.00	112.70	2,537.71
102.60	0.00	107.70	0.00	112.80	2,679.99
102.70	0.00	107.80	0.00	112.90	2,824.83
102.80	0.00	107.90	0.00	113.00	2,972.20
102.90	0.00	108.00	0.00	113.10	3,122.04
103.00	0.00	108.10	0.00	113.20	3,274.32
103.10	0.00	108.20	0.00	113.30	3,429.00
103.20	0.00	108.30	0.00	113.40	3,586.03
103.30	0.00	108.40	0.00	113.50	3,745.40
103.40	0.00	108.50	0.00	113.60	3,907.06
103.50	0.00	108.60	0.00	113.70	4,070.98
103.60	0.00	108.70	0.00	113.80	4,237.13
103.70	0.00	108.80	0.00	113.90	4,405.48
103.80	0.00	108.90	0.00	114.00	4,576.00
103.90	0.00	109.00	0.00	114.10	4,748.67
104.00	0.00	109.10	0.00	114.20	4,923.45
104.10	0.00	109.20	0.00	114.30	5,100.34
104.20	0.00	109.30	0.00	114.40	5,279.28
104.30	0.00	109.40	0.00	114.50	5,460.28
104.40	0.00	109.50	0.00	114.60	5,643.30
104.50	0.00	109.60	0.00	114.70	5,828.31
104.60	0.00	109.70	0.00	114.80	6,015.31
104.70	0.00	109.80	0.00	114.90	6,204.26
104.80	0.00	109.90	0.00	115.00	**6,395.15**
104.90	0.00	110.00	0.00		
105.00	0.00	110.10	18.09		

Stage-Area-Storage for Pond A4*: A4 Pond

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
100.00	0	105.10	90,535	110.20	298,242
100.10	1,731	105.20	94,538	110.30	304,037
100.20	3,461	105.30	98,540	110.40	309,832
100.30	5,192	105.40	102,543	110.50	315,627
100.40	6,923	105.50	106,545	110.60	321,422
100.50	8,653	105.60	110,547	110.70	327,216
100.60	10,384	105.70	114,550	110.80	333,011
100.70	12,115	105.80	118,552	110.90	338,806
100.80	13,845	105.90	122,554	111.00	344,601
100.90	15,576	106.00	126,557	111.10	350,396
101.00	17,307	106.10	130,559	111.20	356,191
101.10	19,037	106.20	134,562	111.30	361,986
101.20	20,768	106.30	138,564	111.40	367,781
101.30	22,499	106.40	142,566	111.50	373,576
101.40	24,229	106.50	146,569	111.60	379,371
101.50	25,960	106.60	150,571	111.70	385,166
101.60	27,691	106.70	154,573	111.80	390,961
101.70	29,421	106.80	158,576	111.90	396,755
101.80	31,152	106.90	162,578	112.00	402,550
101.90	32,883	107.00	166,581	112.10	408,345
102.00	34,613	107.10	170,583	112.20	414,140
102.10	36,344	107.20	174,585	112.30	419,935
102.20	38,075	107.30	178,588	112.40	425,730
102.30	39,805	107.40	182,590	112.50	431,525
102.40	41,536	107.50	186,593	112.60	437,320
102.50	43,267	107.60	190,595	112.70	443,115
102.60	44,997	107.70	194,597	112.80	448,910
102.70	46,728	107.80	198,600	112.90	454,705
102.80	48,458	107.90	202,602	113.00	460,500
102.90	50,189	108.00	206,604	113.10	466,295
103.00	51,920	108.10	210,607	113.20	472,089
103.10	53,650	108.20	214,609	113.30	477,884
103.20	55,381	108.30	218,612	113.40	483,679
103.30	57,112	108.40	222,614	113.50	489,474
103.40	58,842	108.50	226,616	113.60	495,269
103.50	60,573	108.60	230,619	113.70	501,064
103.60	62,304	108.70	234,621	113.80	506,859
103.70	64,034	108.80	238,623	113.90	512,654
103.80	65,765	108.90	242,626	114.00	518,449
103.90	67,496	109.00	246,628	114.10	524,244
104.00	69,226	109.10	250,631	114.20	530,039
104.10	70,957	109.20	254,633	114.30	535,834
104.20	72,688	109.30	258,635	114.40	541,628
104.30	74,418	109.40	262,638	114.50	547,423
104.40	76,149	109.50	266,640	114.60	553,218
104.50	77,880	109.60	270,642	114.70	559,013
104.60	79,610	109.70	274,645	114.80	564,808
104.70	81,341	109.80	278,647	114.90	570,603
104.80	83,072	109.90	282,650	115.00	**576,398**
104.90	84,802	110.00	286,652		
105.00	86,533	110.10	292,447		

Summary for Pond A5*: A5 Pond

Inflow Area = 18.170 ac, 2.92% Impervious, Inflow Depth > 0.35" for 2-yr event
Inflow = 3.47 cfs @ 12.50 hrs, Volume= 0.531 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Reach SUB-5 : Reach

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 106.78' @ 20.00 hrs Storage= 23,101 cf

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

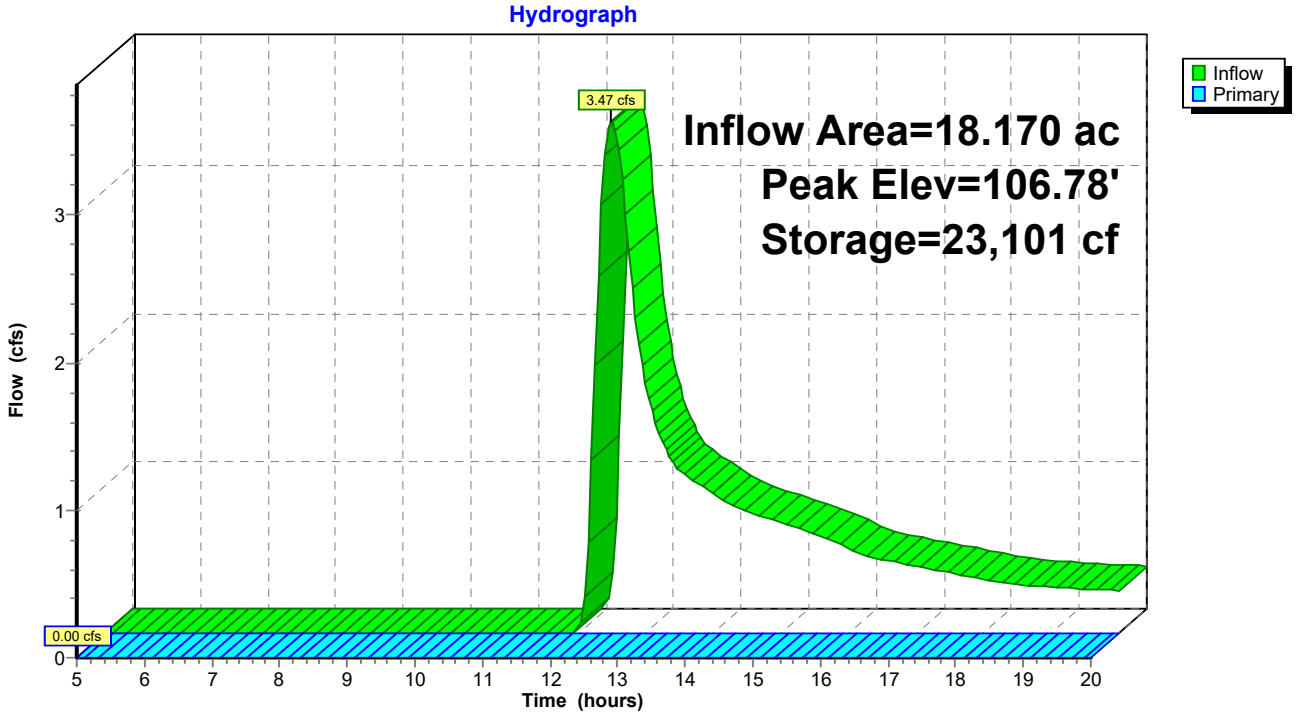
Volume	Invert	Avail.Storage	Storage Description
#1	102.00'	47,512 cf	**Custom Stage Data**Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
102.00	0	0
103.00	1,980	1,980
104.00	3,154	5,134
105.00	4,438	9,572
110.00	37,940	47,512

Device	Routing	Invert	Outlet Devices
#1	Primary	108.00'	**110.0' long Broad-Crested Rectangular Weir** Head (feet) 6.00 Coef. (English) 2.60

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=102.00' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond A5*: A5 Pond



Hydrograph for Pond A5*: A5 Pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	102.00	**0.00**
5.50	0.00	0	102.00	0.00
6.00	0.00	0	102.00	0.00
6.50	0.00	0	102.00	0.00
7.00	0.00	0	102.00	0.00
7.50	0.00	0	102.00	0.00
8.00	0.00	0	102.00	0.00
8.50	0.00	0	102.00	0.00
9.00	0.00	0	102.00	0.00
9.50	0.00	0	102.00	0.00
10.00	0.00	0	102.00	0.00
10.50	0.00	0	102.00	0.00
11.00	0.00	0	102.00	0.00
11.50	0.00	0	102.00	0.00
12.00	0.01	1	102.00	0.00
12.50	**3.47**	3,182	103.38	0.00
13.00	1.70	7,864	104.62	0.00
13.50	1.11	10,264	105.09	0.00
14.00	0.95	12,108	105.33	0.00
14.50	0.83	13,696	105.54	0.00
15.00	0.75	15,116	105.73	0.00
15.50	0.67	16,396	105.90	0.00
16.00	0.58	17,521	106.05	0.00
16.50	0.50	18,482	106.17	0.00
17.00	0.45	19,339	106.29	0.00
17.50	0.41	20,117	106.39	0.00
18.00	0.37	20,816	106.48	0.00
18.50	0.33	21,436	106.56	0.00
19.00	0.31	22,015	106.64	0.00
19.50	0.30	22,569	106.71	0.00
20.00	0.29	**23,101**	**106.78**	0.00

Stage-Discharge for Pond A5*: A5 Pond

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
102.00	0.00	104.55	0.00	107.10	0.00	109.65	606.17
102.05	0.00	104.60	0.00	107.15	0.00	109.70	633.93
102.10	0.00	104.65	0.00	107.20	0.00	109.75	662.10
102.15	0.00	104.70	0.00	107.25	0.00	109.80	690.68
102.20	0.00	104.75	0.00	107.30	0.00	109.85	719.65
102.25	0.00	104.80	0.00	107.35	0.00	109.90	749.03
102.30	0.00	104.85	0.00	107.40	0.00	109.95	778.79
102.35	0.00	104.90	0.00	107.45	0.00	110.00	**808.93**
102.40	0.00	104.95	0.00	107.50	0.00		
102.45	0.00	105.00	0.00	107.55	0.00		
102.50	0.00	105.05	0.00	107.60	0.00		
102.55	0.00	105.10	0.00	107.65	0.00		
102.60	0.00	105.15	0.00	107.70	0.00		
102.65	0.00	105.20	0.00	107.75	0.00		
102.70	0.00	105.25	0.00	107.80	0.00		
102.75	0.00	105.30	0.00	107.85	0.00		
102.80	0.00	105.35	0.00	107.90	0.00		
102.85	0.00	105.40	0.00	107.95	0.00		
102.90	0.00	105.45	0.00	108.00	0.00		
102.95	0.00	105.50	0.00	108.05	3.20		
103.00	0.00	105.55	0.00	108.10	9.04		
103.05	0.00	105.60	0.00	108.15	16.62		
103.10	0.00	105.65	0.00	108.20	25.58		
103.15	0.00	105.70	0.00	108.25	35.75		
103.20	0.00	105.75	0.00	108.30	46.99		
103.25	0.00	105.80	0.00	108.35	59.22		
103.30	0.00	105.85	0.00	108.40	72.35		
103.35	0.00	105.90	0.00	108.45	86.33		
103.40	0.00	105.95	0.00	108.50	101.12		
103.45	0.00	106.00	0.00	108.55	116.66		
103.50	0.00	106.05	0.00	108.60	132.92		
103.55	0.00	106.10	0.00	108.65	149.88		
103.60	0.00	106.15	0.00	108.70	167.50		
103.65	0.00	106.20	0.00	108.75	185.76		
103.70	0.00	106.25	0.00	108.80	204.64		
103.75	0.00	106.30	0.00	108.85	224.13		
103.80	0.00	106.35	0.00	108.90	244.19		
103.85	0.00	106.40	0.00	108.95	264.82		
103.90	0.00	106.45	0.00	109.00	286.00		
103.95	0.00	106.50	0.00	109.05	307.72		
104.00	0.00	106.55	0.00	109.10	329.96		
104.05	0.00	106.60	0.00	109.15	352.71		
104.10	0.00	106.65	0.00	109.20	375.96		
104.15	0.00	106.70	0.00	109.25	399.70		
104.20	0.00	106.75	0.00	109.30	423.92		
104.25	0.00	106.80	0.00	109.35	448.61		
104.30	0.00	106.85	0.00	109.40	473.76		
104.35	0.00	106.90	0.00	109.45	499.36		
104.40	0.00	106.95	0.00	109.50	525.42		
104.45	0.00	107.00	0.00	109.55	551.90		
104.50	0.00	107.05	0.00	109.60	578.82		

Stage-Area-Storage for Pond A5*: A5 Pond

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
102.00	0	107.10	25,507
102.10	198	107.20	26,266
102.20	396	107.30	27,024
102.30	594	107.40	27,783
102.40	792	107.50	28,542
102.50	990	107.60	29,301
102.60	1,188	107.70	30,060
102.70	1,386	107.80	30,818
102.80	1,584	107.90	31,577
102.90	1,782	108.00	32,336
103.00	1,980	108.10	33,095
103.10	2,295	108.20	33,854
103.20	2,611	108.30	34,612
103.30	2,926	108.40	35,371
103.40	3,242	108.50	36,130
103.50	3,557	108.60	36,889
103.60	3,872	108.70	37,648
103.70	4,188	108.80	38,406
103.80	4,503	108.90	39,165
103.90	4,819	109.00	39,924
104.00	5,134	109.10	40,683
104.10	5,578	109.20	41,442
104.20	6,022	109.30	42,200
104.30	6,465	109.40	42,959
104.40	6,909	109.50	43,718
104.50	7,353	109.60	44,477
104.60	7,797	109.70	45,236
104.70	8,241	109.80	45,994
104.80	8,684	109.90	46,753
104.90	9,128	110.00	**47,512**
105.00	9,572		
105.10	10,331		
105.20	11,090		
105.30	11,848		
105.40	12,607		
105.50	13,366		
105.60	14,125		
105.70	14,884		
105.80	15,642		
105.90	16,401		
106.00	17,160		
106.10	17,919		
106.20	18,678		
106.30	19,436		
106.40	20,195		
106.50	20,954		
106.60	21,713		
106.70	22,472		
106.80	23,230		
106.90	23,989		
107.00	24,748		

Summary for Pond B12*: B12 Pond

Inflow Area = 5.240 ac, 3.63% Impervious, Inflow Depth > 0.39" for 2-yr event
Inflow = 1.73 cfs @ 12.12 hrs, Volume= 0.169 af
Outflow = 1.32 cfs @ 12.26 hrs, Volume= 0.167 af, Atten= 23%, Lag= 8.3 min
Primary = 1.32 cfs @ 12.26 hrs, Volume= 0.167 af
Routed to Reach 2R : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 126.03' @ 12.26 hrs Storage= 567 cf

Plug-Flow detention time= 11.4 min calculated for 0.167 af (98% of inflow)
Center-of-Mass det. time= 7.2 min (862.8 - 855.6)

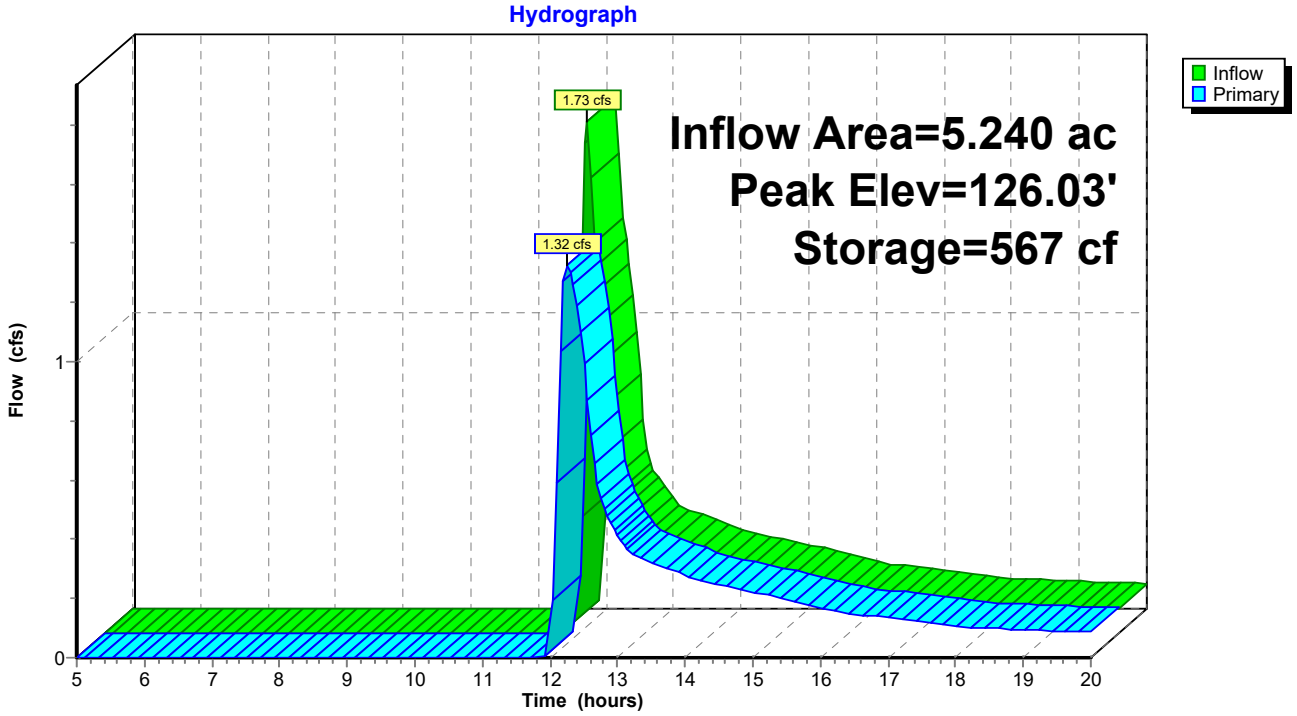
Volume	Invert	Avail.Storage	Storage Description
#1	126.00'	63,569 cf	**Custom Stage Data**Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
126.00	0	0
127.00	21,148	21,148
128.00	21,203	42,351
129.00	21,218	63,569

Device	Routing	Invert	Outlet Devices
#1	Primary	126.00'	**116.0' long Broad-Crested Rectangular Weir** Head (feet) 2.00 Coef. (English) 2.60

Primary OutFlow Max=1.32 cfs @ 12.26 hrs HW=126.03' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Weir Controls 1.32 cfs @ 0.42 fps)

Pond B12*: B12 Pond



Hydrograph for Pond B12*: B12 Pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	126.00	0.00
5.50	0.00	0	126.00	0.00
6.00	0.00	0	126.00	0.00
6.50	0.00	0	126.00	0.00
7.00	0.00	0	126.00	0.00
7.50	0.00	0	126.00	0.00
8.00	0.00	0	126.00	0.00
8.50	0.00	0	126.00	0.00
9.00	0.00	0	126.00	0.00
9.50	0.00	0	126.00	0.00
10.00	0.00	0	126.00	0.00
10.50	0.00	0	126.00	0.00
11.00	0.00	0	126.00	0.00
11.50	0.00	0	126.00	0.00
12.00	**0.38**	**48**	**126.00**	**0.03**
12.50	**0.79**	**468**	**126.02**	**0.99**
13.00	0.37	262	126.01	0.41
13.50	0.31	221	126.01	0.32
14.00	0.27	201	126.01	0.28
14.50	0.24	185	126.01	0.25
15.00	0.22	173	126.01	0.22
15.50	0.19	159	126.01	0.20
16.00	0.16	144	126.01	0.17
16.50	0.14	132	126.01	0.15
17.00	0.13	124	126.01	0.14
17.50	0.12	116	126.01	0.12
18.00	0.10	107	126.01	0.11
18.50	0.10	101	126.00	0.10
19.00	0.09	98	126.00	0.09
19.50	0.09	95	126.00	0.09
20.00	0.09	92	126.00	0.09

Stage-Discharge for Pond B12*: B12 Pond

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
126.00	0.00	127.02	310.69	128.04	878.77
126.02	0.85	127.04	319.88	128.06	891.73
126.04	2.41	127.06	329.15	128.08	904.75
126.06	4.43	127.08	338.51	128.10	917.83
126.08	6.82	127.10	347.95	128.12	930.97
126.10	9.54	127.12	357.49	128.14	944.17
126.12	12.54	127.14	367.10	128.16	957.44
126.14	15.80	127.16	376.81	128.18	970.77
126.16	19.30	127.18	386.59	128.20	984.16
126.18	23.03	127.20	396.46	128.22	997.61
126.20	26.98	127.22	406.42	128.24	1,011.12
126.22	31.12	127.24	416.45	128.26	1,024.69
126.24	35.46	127.26	426.57	128.28	1,038.33
126.26	39.98	127.28	436.76	128.30	1,052.02
126.28	44.69	127.30	447.04	128.32	1,065.77
126.30	49.56	127.32	457.40	128.34	1,079.58
126.32	54.60	127.34	467.83	128.36	1,093.45
126.34	59.79	127.36	478.34	128.38	1,107.38
126.36	65.15	127.38	488.93	128.40	1,121.37
126.38	70.65	127.40	499.60	128.42	1,135.41
126.40	76.30	127.42	510.34	128.44	1,149.52
126.42	82.09	127.44	521.16	128.46	1,163.68
126.44	88.03	127.46	532.06	128.48	1,177.90
126.46	94.10	127.48	543.03	128.50	1,192.18
126.48	100.30	127.50	554.07	128.52	1,206.51
126.50	106.63	127.52	565.19	128.54	1,220.91
126.52	113.09	127.54	576.38	128.56	1,235.35
126.54	119.68	127.56	587.65	128.58	1,249.86
126.56	126.39	127.58	598.99	128.60	1,264.42
126.58	133.22	127.60	610.40	128.62	1,279.04
126.60	140.17	127.62	621.88	128.64	1,293.71
126.62	147.24	127.64	633.43	128.66	1,308.44
126.64	154.42	127.66	645.05	128.68	1,323.22
126.66	161.71	127.68	656.74	128.70	1,338.06
126.68	169.12	127.70	668.51	128.72	1,352.96
126.70	176.64	127.72	680.34	128.74	1,367.91
126.72	184.26	127.74	692.24	128.76	1,382.91
126.74	191.99	127.76	704.21	128.78	1,397.97
126.76	199.83	127.78	716.24	128.80	1,413.09
126.78	207.77	127.80	728.35	128.82	1,428.25
126.80	215.81	127.82	740.52	128.84	1,443.47
126.82	223.95	127.84	752.76	128.86	1,458.75
126.84	232.19	127.86	765.07	128.88	1,474.08
126.86	240.54	127.88	777.44	128.90	1,489.46
126.88	248.97	127.90	789.88	128.92	1,504.89
126.90	257.51	127.92	802.39	128.94	1,520.38
126.92	266.14	127.94	814.96	128.96	1,535.92
126.94	274.87	127.96	827.59	128.98	1,551.51
126.96	283.69	127.98	840.29	129.00	**1,567.16**
126.98	292.60	128.00	853.05		
127.00	301.60	128.02	865.88		

Stage-Area-Storage for Pond B12*: B12 Pond

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
126.00	0	127.02	21,572	128.04	43,200
126.02	423	127.04	21,996	128.06	43,624
126.04	846	127.06	22,420	128.08	44,048
126.06	1,269	127.08	22,844	128.10	44,473
126.08	1,692	127.10	23,268	128.12	44,897
126.10	2,115	127.12	23,692	128.14	45,322
126.12	2,538	127.14	24,116	128.16	45,746
126.14	2,961	127.16	24,540	128.18	46,170
126.16	3,384	127.18	24,965	128.20	46,595
126.18	3,807	127.20	25,389	128.22	47,019
126.20	4,230	127.22	25,813	128.24	47,443
126.22	4,653	127.24	26,237	128.26	47,868
126.24	5,076	127.26	26,661	128.28	48,292
126.26	5,498	127.28	27,085	128.30	48,716
126.28	5,921	127.30	27,509	128.32	49,141
126.30	6,344	127.32	27,933	128.34	49,565
126.32	6,767	127.34	28,357	128.36	49,989
126.34	7,190	127.36	28,781	128.38	50,414
126.36	7,613	127.38	29,205	128.40	50,838
126.38	8,036	127.40	29,629	128.42	51,263
126.40	8,459	127.42	30,053	128.44	51,687
126.42	8,882	127.44	30,477	128.46	52,111
126.44	9,305	127.46	30,901	128.48	52,536
126.46	9,728	127.48	31,325	128.50	52,960
126.48	10,151	127.50	31,750	128.52	53,384
126.50	10,574	127.52	32,174	128.54	53,809
126.52	10,997	127.54	32,598	128.56	54,233
126.54	11,420	127.56	33,022	128.58	54,657
126.56	11,843	127.58	33,446	128.60	55,082
126.58	12,266	127.60	33,870	128.62	55,506
126.60	12,689	127.62	34,294	128.64	55,931
126.62	13,112	127.64	34,718	128.66	56,355
126.64	13,535	127.66	35,142	128.68	56,779
126.66	13,958	127.68	35,566	128.70	57,204
126.68	14,381	127.70	35,990	128.72	57,628
126.70	14,804	127.72	36,414	128.74	58,052
126.72	15,227	127.74	36,838	128.76	58,477
126.74	15,650	127.76	37,262	128.78	58,901
126.76	16,072	127.78	37,686	128.80	59,325
126.78	16,495	127.80	38,110	128.82	59,750
126.80	16,918	127.82	38,534	128.84	60,174
126.82	17,341	127.84	38,959	128.86	60,598
126.84	17,764	127.86	39,383	128.88	61,023
126.86	18,187	127.88	39,807	128.90	61,447
126.88	18,610	127.90	40,231	128.92	61,872
126.90	19,033	127.92	40,655	128.94	62,296
126.92	19,456	127.94	41,079	128.96	62,720
126.94	19,879	127.96	41,503	128.98	63,145
126.96	20,302	127.98	41,927	129.00	**63,569**
126.98	20,725	128.00	42,351		
127.00	21,148	128.02	42,775		

Summary for Pond B8*: B8 Pond

Inflow Area = 10.500 ac, 2.86% Impervious, Inflow Depth > 0.35" for 2-yr event
Inflow = 2.11 cfs @ 12.43 hrs, Volume= 0.308 af
Outflow = 1.77 cfs @ 12.62 hrs, Volume= 0.301 af, Atten= 16%, Lag= 11.5 min
Primary = 1.77 cfs @ 12.62 hrs, Volume= 0.301 af
Routed to Reach 2R : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 132.05' @ 12.62 hrs Storage= 1,415 cf

Plug-Flow detention time= 19.4 min calculated for 0.300 af (97% of inflow)
Center-of-Mass det. time= 12.3 min (882.3 - 870.0)

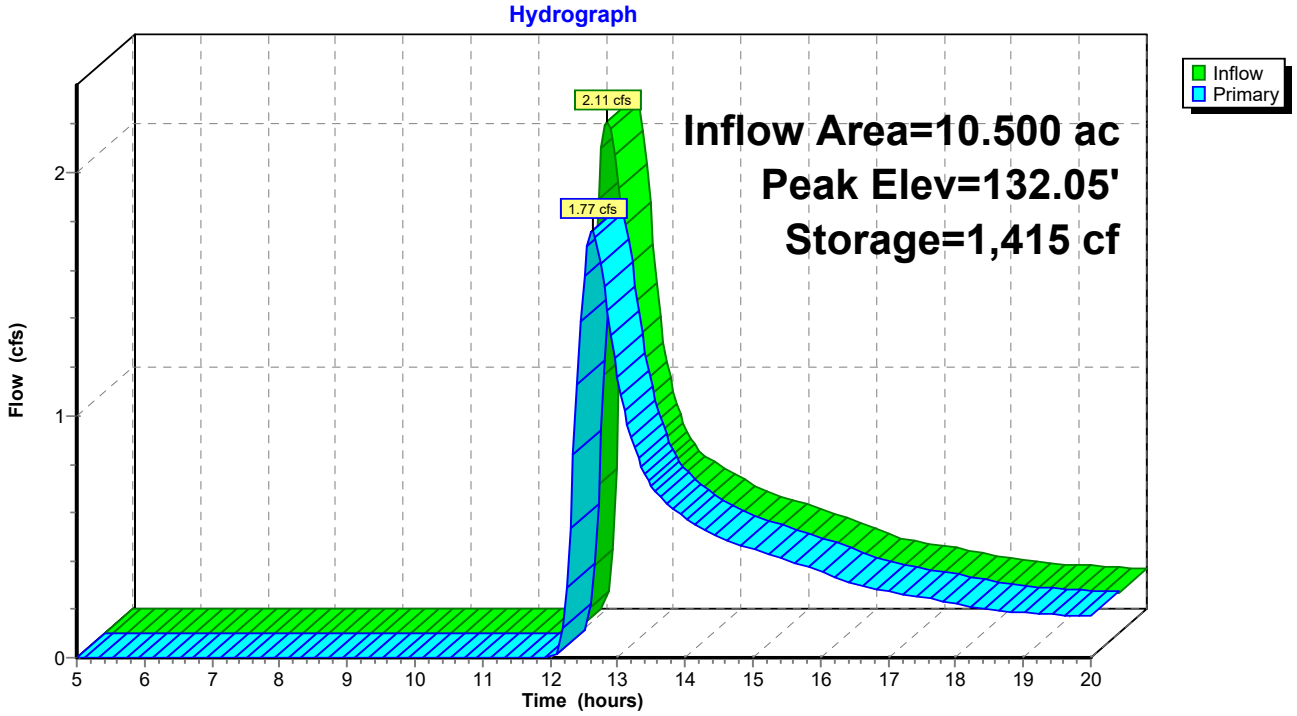
Volume	Invert	Avail.Storage	Storage Description
#1	132.00'	59,494 cf	**Custom Stage Data**Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
132.00	0	0
133.00	29,722	29,722
134.00	29,772	59,494

Device	Routing	Invert	Outlet Devices
#1	Primary	132.00'	**170.0' long Broad-Crested Rectangular Weir** Head (feet) 2.00 Coef. (English) 1.00

Primary OutFlow Max=1.76 cfs @ 12.62 hrs HW=132.05' TW=0.00' (Dynamic Tailwater)
1=Broad-Crested Rectangular Weir (Weir Controls 1.76 cfs @ 0.22 fps)

Pond B8*: B8 Pond



Hydrograph for Pond B8*: B8 Pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	132.00	0.00
5.50	0.00	0	132.00	0.00
6.00	0.00	0	132.00	0.00
6.50	0.00	0	132.00	0.00
7.00	0.00	0	132.00	0.00
7.50	0.00	0	132.00	0.00
8.00	0.00	0	132.00	0.00
8.50	0.00	0	132.00	0.00
9.00	0.00	0	132.00	0.00
9.50	0.00	0	132.00	0.00
10.00	0.00	0	132.00	0.00
10.50	0.00	0	132.00	0.00
11.00	0.00	0	132.00	0.00
11.50	0.00	0	132.00	0.00
12.00	**0.01**	1	132.00	0.00
12.50	**2.06**	**1,312**	**132.04**	**1.58**
13.00	0.90	**1,067**	**132.04**	**1.16**
13.50	0.62	769	132.03	0.71
14.00	0.54	672	132.02	0.58
14.50	0.47	609	132.02	0.50
15.00	0.43	568	132.02	0.45
15.50	0.38	529	132.02	0.40
16.00	0.33	485	132.02	0.35
16.50	0.28	439	132.01	0.31
17.00	0.26	409	132.01	0.27
17.50	0.23	383	132.01	0.25
18.00	0.21	356	132.01	0.22
18.50	0.19	331	132.01	0.20
19.00	0.18	317	132.01	0.19
19.50	0.17	307	132.01	0.18
20.00	0.17	298	132.01	0.17

Stage-Discharge for Pond B8*: B8 Pond

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
132.00	0.00	132.51	61.92	133.02	175.13	133.53	321.73
132.01	0.17	132.52	63.75	133.03	177.71	133.54	324.89
132.02	0.48	132.53	65.59	133.04	180.30	133.55	328.05
132.03	0.88	132.54	67.46	133.05	182.91	133.56	331.23
132.04	1.36	132.55	69.34	133.06	185.53	133.57	334.42
132.05	1.90	132.56	71.24	133.07	188.16	133.58	337.62
132.06	2.50	132.57	73.16	133.08	190.80	133.59	340.84
132.07	3.15	132.58	75.09	133.09	193.46	133.60	344.06
132.08	3.85	132.59	77.04	133.10	196.13	133.61	347.29
132.09	4.59	132.60	79.01	133.11	198.81	133.62	350.53
132.10	5.38	132.61	80.99	133.12	201.50	133.63	353.78
132.11	6.20	132.62	82.99	133.13	204.21	133.64	357.04
132.12	7.07	132.63	85.01	133.14	206.92	133.65	360.31
132.13	7.97	132.64	87.04	133.15	209.65	133.66	363.59
132.14	8.91	132.65	89.09	133.16	212.39	133.67	366.88
132.15	9.88	132.66	91.15	133.17	215.14	133.68	370.18
132.16	10.88	132.67	93.23	133.18	217.91	133.69	373.49
132.17	11.92	132.68	95.33	133.19	220.68	133.70	376.81
132.18	12.98	132.69	97.44	133.20	223.47	133.71	380.14
132.19	14.08	132.70	99.56	133.21	226.27	133.72	383.48
132.20	15.21	132.71	101.70	133.22	229.08	133.73	386.83
132.21	16.36	132.72	103.86	133.23	231.90	133.74	390.19
132.22	17.54	132.73	106.03	133.24	234.74	133.75	393.56
132.23	18.75	132.74	108.22	133.25	237.58	133.76	396.93
132.24	19.99	132.75	110.42	133.26	240.44	133.77	400.32
132.25	21.25	132.76	112.63	133.27	243.31	133.78	403.72
132.26	22.54	132.77	114.86	133.28	246.19	133.79	407.13
132.27	23.85	132.78	117.11	133.29	249.08	133.80	410.54
132.28	25.19	132.79	119.37	133.30	251.98	133.81	413.97
132.29	26.55	132.80	121.64	133.31	254.89	133.82	417.40
132.30	27.93	132.81	123.93	133.32	257.82	133.83	420.85
132.31	29.34	132.82	126.23	133.33	260.75	133.84	424.30
132.32	30.77	132.83	128.55	133.34	263.70	133.85	427.77
132.33	32.23	132.84	130.88	133.35	266.65	133.86	431.24
132.34	33.70	132.85	133.22	133.36	269.62	133.87	434.72
132.35	35.20	132.86	135.58	133.37	272.60	133.88	438.21
132.36	36.72	132.87	137.95	133.38	275.59	133.89	441.71
132.37	38.26	132.88	140.34	133.39	278.59	133.90	445.22
132.38	39.82	132.89	142.74	133.40	281.61	133.91	448.74
132.39	41.40	132.90	145.15	133.41	284.63	133.92	452.27
132.40	43.01	132.91	147.57	133.42	287.66	133.93	455.81
132.41	44.63	132.92	150.01	133.43	290.71	133.94	459.36
132.42	46.27	132.93	152.47	133.44	293.76	133.95	462.91
132.43	47.93	132.94	154.93	133.45	296.83	133.96	466.48
132.44	49.62	132.95	157.41	133.46	299.90	133.97	470.05
132.45	51.32	132.96	159.90	133.47	302.99	133.98	473.64
132.46	53.04	132.97	162.41	133.48	306.08	133.99	477.23
132.47	54.78	132.98	164.93	133.49	309.19	134.00	**480.83**
132.48	56.53	132.99	167.46	133.50	312.31		
132.49	58.31	133.00	170.00	133.51	315.44		
132.50	60.10	133.01	172.56	133.52	318.58		

Stage-Area-Storage for Pond B8*: B8 Pond

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
132.00	0	133.02	30,317
132.02	594	133.04	30,913
132.04	1,189	133.06	31,508
132.06	1,783	133.08	32,104
132.08	2,378	133.10	32,699
132.10	2,972	133.12	33,295
132.12	3,567	133.14	33,890
132.14	4,161	133.16	34,486
132.16	4,756	133.18	35,081
132.18	5,350	133.20	35,676
132.20	5,944	133.22	36,272
132.22	6,539	133.24	36,867
132.24	7,133	133.26	37,463
132.26	7,728	133.28	38,058
132.28	8,322	133.30	38,654
132.30	8,917	133.32	39,249
132.32	9,511	133.34	39,844
132.34	10,105	133.36	40,440
132.36	10,700	133.38	41,035
132.38	11,294	133.40	41,631
132.40	11,889	133.42	42,226
132.42	12,483	133.44	42,822
132.44	13,078	133.46	43,417
132.46	13,672	133.48	44,013
132.48	14,267	133.50	44,608
132.50	14,861	133.52	45,203
132.52	15,455	133.54	45,799
132.54	16,050	133.56	46,394
132.56	16,644	133.58	46,990
132.58	17,239	133.60	47,585
132.60	17,833	133.62	48,181
132.62	18,428	133.64	48,776
132.64	19,022	133.66	49,372
132.66	19,617	133.68	49,967
132.68	20,211	133.70	50,562
132.70	20,805	133.72	51,158
132.72	21,400	133.74	51,753
132.74	21,994	133.76	52,349
132.76	22,589	133.78	52,944
132.78	23,183	133.80	53,540
132.80	23,778	133.82	54,135
132.82	24,372	133.84	54,730
132.84	24,966	133.86	55,326
132.86	25,561	133.88	55,921
132.88	26,155	133.90	56,517
132.90	26,750	133.92	57,112
132.92	27,344	133.94	57,708
132.94	27,939	133.96	58,303
132.96	28,533	133.98	58,899
132.98	29,128	134.00	**59,494**
133.00	29,722		

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

SubcatchmentA1: A1 Runoff Area=32.780 ac 2.44% Impervious Runoff Depth>1.11"
Flow Length=1,500' Tc=36.1 min CN=61 Runoff=22.20 cfs 3.024 af

SubcatchmentA10: A10 Runoff Area=9.460 ac 6.77% Impervious Runoff Depth>1.12"
Tc=11.3 min UI Adjusted CN=61 Runoff=10.12 cfs 0.884 af

SubcatchmentA11: A11 Runoff Area=6.180 ac 1.62% Impervious Runoff Depth>0.95"
Tc=6.0 min CN=58 Runoff=6.37 cfs 0.487 af

SubcatchmentA12: A12 Runoff Area=22.000 ac 2.64% Impervious Runoff Depth>1.11"
Flow Length=1,802' Tc=36.0 min CN=61 Runoff=14.92 cfs 2.030 af

SubcatchmentA2: A2 Runoff Area=2.840 ac 0.00% Impervious Runoff Depth>1.06"
Flow Length=569' Tc=13.1 min CN=60 Runoff=2.71 cfs 0.251 af

SubcatchmentA3: A3 Runoff Area=25.560 ac 1.88% Impervious Runoff Depth>0.99"
Flow Length=1,986' Tc=39.9 min UI Adjusted CN=59 Runoff=14.29 cfs 2.099 af

SubcatchmentA4: A4 Runoff Area=32.410 ac 3.15% Impervious Runoff Depth>0.83"
Flow Length=1,245' Tc=18.6 min UI Adjusted CN=56 Runoff=19.55 cfs 2.234 af

SubcatchmentA5: A5 Runoff Area=18.170 ac 2.92% Impervious Runoff Depth>1.11"
Flow Length=1,830' Tc=24.7 min UI Adjusted CN=61 Runoff=14.56 cfs 1.686 af

SubcatchmentA6: A6 Runoff Area=9.800 ac 3.06% Impervious Runoff Depth>1.12"
Flow Length=1,286' Tc=20.8 min CN=61 Runoff=8.40 cfs 0.911 af

SubcatchmentA7: A7 Runoff Area=12.150 ac 3.87% Impervious Runoff Depth>1.12"
Flow Length=615' Tc=9.6 min CN=61 Runoff=13.84 cfs 1.136 af

SubcatchmentA8: A8 Runoff Area=1.750 ac 0.00% Impervious Runoff Depth>0.89"
Tc=6.0 min CN=57 Runoff=1.66 cfs 0.130 af

SubcatchmentA9: A9 Runoff Area=9.690 ac 35.09% Impervious Runoff Depth>1.80"
Flow Length=742' Tc=14.8 min CN=71 Runoff=16.50 cfs 1.452 af

SubcatchmentB1: B1 Runoff Area=33.063 ac 2.81% Impervious Runoff Depth>1.31"
Flow Length=844' Tc=18.8 min CN=64 Runoff=35.70 cfs 3.600 af

SubcatchmentB10: B10 Runoff Area=1.010 ac 0.00% Impervious Runoff Depth>0.04"
Flow Length=109' Tc=6.4 min CN=35 Runoff=0.01 cfs 0.003 af

SubcatchmentB11: B11 Runoff Area=1.280 ac 0.00% Impervious Runoff Depth>0.04"
Tc=6.0 min CN=35 Runoff=0.01 cfs 0.004 af

SubcatchmentB12: B12 Runoff Area=5.240 ac 3.63% Impervious Runoff Depth>1.19"
Tc=6.0 min CN=62 Runoff=7.22 cfs 0.518 af

SubcatchmentB13: B13 Runoff Area=14.400 ac 1.94% Impervious Runoff Depth>0.99"
Flow Length=963' Tc=24.1 min CN=59 Runoff=10.10 cfs 1.193 af

SubcatchmentB2: B2 Runoff Area=12.770 ac 2.27% Impervious Runoff Depth>1.18"
Flow Length=844' Tc=17.7 min CN=62 Runoff=12.51 cfs 1.255 af

SubcatchmentB3: B3 Runoff Area=18.520 ac 0.00% Impervious Runoff Depth>1.18"
Flow Length=886' Tc=21.2 min CN=62 Runoff=16.85 cfs 1.817 af

SubcatchmentB4: B4 Runoff Area=29.730 ac 0.00% Impervious Runoff Depth>1.25"
Flow Length=448' Tc=10.6 min CN=63 Runoff=37.45 cfs 3.090 af

SubcatchmentB5: B5 Runoff Area=34.440 ac 0.52% Impervious Runoff Depth>1.31"
Flow Length=1,139' Tc=19.3 min CN=64 Runoff=36.83 cfs 3.750 af

SubcatchmentB6: B6 Runoff Area=27.950 ac 4.47% Impervious Runoff Depth>1.24"
Flow Length=1,589' Tc=25.0 min CN=63 Runoff=25.35 cfs 2.885 af

SubcatchmentB7: B7 Runoff Area=7.760 ac 2.32% Impervious Runoff Depth>1.30"
Flow Length=538' Tc=27.4 min CN=64 Runoff=7.20 cfs 0.842 af

SubcatchmentB8: B8 Runoff Area=10.500 ac 2.86% Impervious Runoff Depth>1.12"
Flow Length=1,062' Tc=20.9 min CN=61 Runoff=8.99 cfs 0.976 af

SubcatchmentB9: B9 Runoff Area=10.080 ac 5.06% Impervious Runoff Depth>1.18"
Flow Length=805' Slope=0.0260 '/' Tc=16.2 min CN=62 Runoff=10.20 cfs 0.992 af

Reach 2R: DP-B Inflow=188.77 cfs 20.909 af
Outflow=188.77 cfs 20.909 af

Reach 21R: Reach Inflow=0.02 cfs 0.007 af
Outflow=0.02 cfs 0.007 af

Reach 22R: Reach Inflow=35.70 cfs 3.608 af
Outflow=35.70 cfs 3.608 af

Reach 23R: Reach Inflow=29.07 cfs 3.073 af
Outflow=29.07 cfs 3.073 af

Reach DP-A: DP-A Inflow=81.97 cfs 13.344 af
Outflow=81.97 cfs 13.344 af

Reach SUB-1: Reach Inflow=42.35 cfs 6.190 af
Outflow=42.35 cfs 6.190 af

Reach SUB-2: Reach Inflow=20.81 cfs 3.166 af
Outflow=20.81 cfs 3.166 af

Reach SUB-3: Reach Inflow=33.28 cfs 4.843 af
Outflow=33.28 cfs 4.843 af

Reach SUB-4: Reach Inflow=10.12 cfs 0.884 af
Outflow=10.12 cfs 0.884 af

Reach SUB-5: Reach Inflow=15.62 cfs 2.311 af
Outflow=15.62 cfs 2.311 af

Pond A4*: A4 Pond Peak Elev=105.27' Storage=97,207 cf Inflow=19.55 cfs 2.234 af
Outflow=0.00 cfs 0.000 af

Pond A5*: A5 Pond Peak Elev=108.08' Storage=32,921 cf Inflow=14.56 cfs 1.686 af
Outflow=6.09 cfs 0.941 af

Pond B12*: B12 Pond Peak Elev=126.08' Storage=1,615 cf Inflow=7.22 cfs 0.518 af
Outflow=6.36 cfs 0.514 af

Pond B8*: B8 Pond Peak Elev=132.13' Storage=3,936 cf Inflow=8.99 cfs 0.976 af
Outflow=8.19 cfs 0.964 af

Total Runoff Area = 389.533 ac Runoff Volume = 37.247 af Average Runoff Depth = 1.15"
96.81% Pervious = 377.105 ac 3.19% Impervious = 12.428 ac

Summary for Subcatchment A1: A1

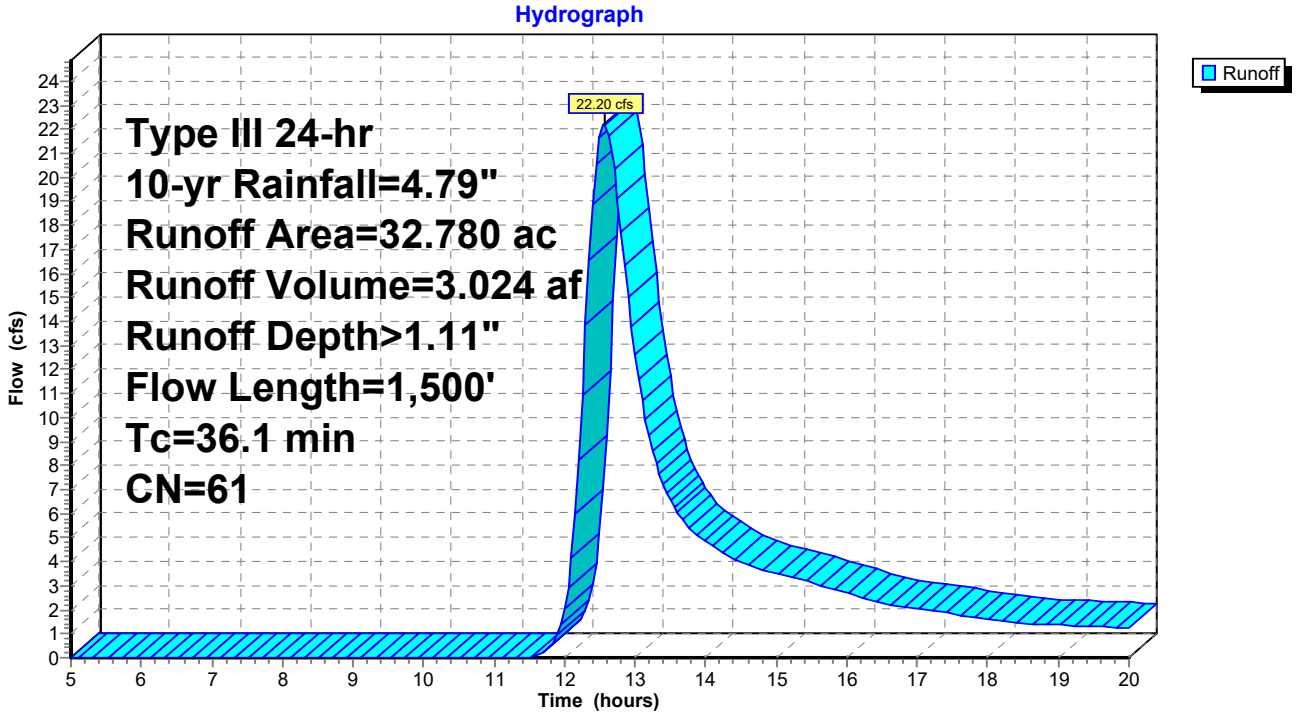
Runoff = 22.20 cfs @ 12.57 hrs, Volume= 3.024 af, Depth> 1.11"
Routed to Reach SUB-1 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.800	98	Unconnected pavement, HSG A
28.270	61	>75% Grass cover, Good, HSG B
3.710	55	Woods, Good, HSG B
32.780	61	Weighted Average
31.980		97.56% Pervious Area
0.800		2.44% Impervious Area
0.800		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	50	0.0100	0.11		**Sheet Flow, SF-1** Grass: Short n= 0.150 P2= 3.11"
5.9	315	0.0160	0.89		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
0.3	64	0.2160	3.25		**Shallow Concentrated Flow, scf-2** Short Grass Pasture Kv= 7.0 fps
22.4	1,071	0.0130	0.80		**Shallow Concentrated Flow, scf-3** Short Grass Pasture Kv= 7.0 fps
36.1	1,500	Total			

Subcatchment A1: A1



Hydrograph for Subcatchment A1: A1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.02
11.75	1.70	0.03	0.30
12.00	2.39	0.17	2.02
12.25	3.09	0.40	10.92
12.50	3.36	0.51	**21.69**
12.75	3.49	0.57	**19.10**
13.00	3.59	0.61	12.64
13.25	3.68	0.65	8.63
13.50	3.75	0.69	6.54
13.75	3.82	0.72	5.48
14.00	3.88	0.75	4.85
14.25	3.94	0.78	4.37
14.50	4.00	0.81	4.00
14.75	4.05	0.84	3.74
15.00	4.09	0.86	3.53
15.25	4.14	0.88	3.32
15.50	4.17	0.90	3.12
15.75	4.21	0.92	2.91
16.00	4.24	0.94	2.69
16.25	4.27	0.96	2.48
16.50	4.30	0.97	2.28
16.75	4.33	0.99	2.15
17.00	4.36	1.00	2.04
17.25	4.38	1.01	1.93
17.50	4.40	1.03	1.83
17.75	4.43	1.04	1.73
18.00	4.45	1.05	1.63
18.25	4.46	1.06	1.53
18.50	4.48	1.07	1.45
18.75	4.50	1.08	1.39
19.00	4.52	1.09	1.35
19.25	4.54	1.10	1.32
19.50	4.55	1.11	1.29
19.75	4.57	1.12	1.26
20.00	**4.58**	**1.13**	1.23

Summary for Subcatchment A10: A10

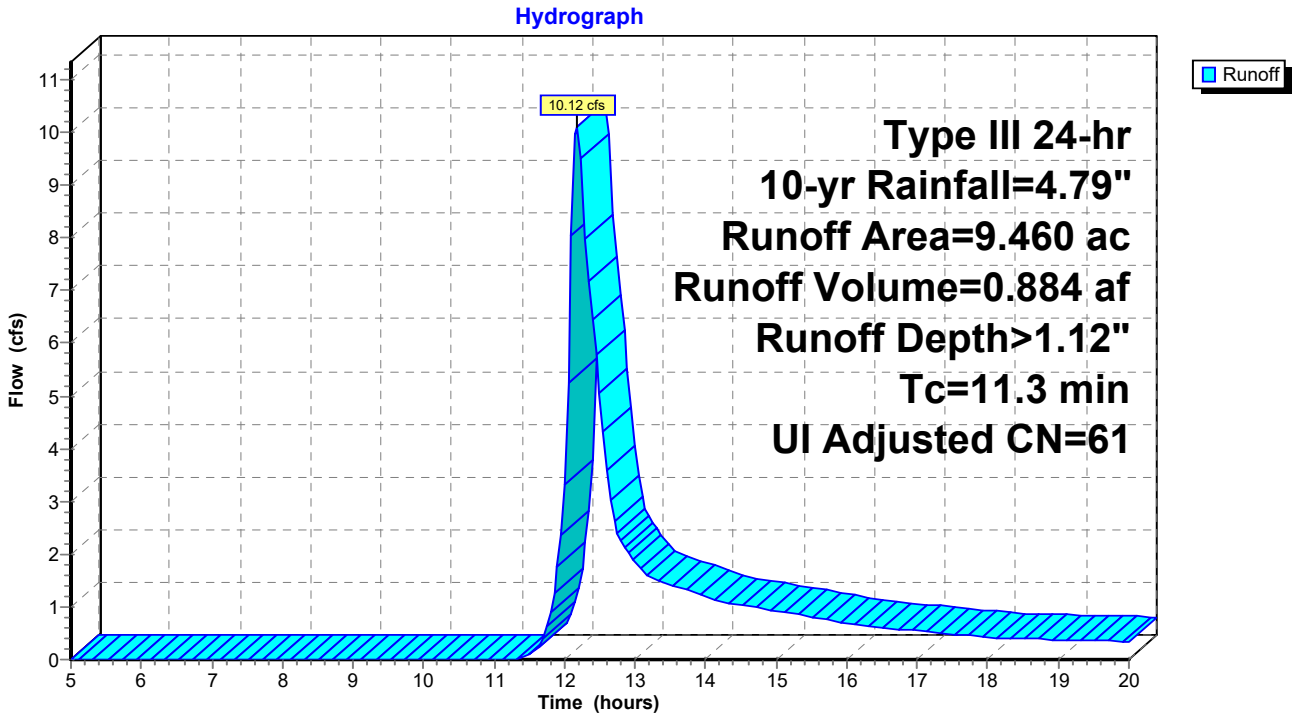
Runoff = 10.12 cfs @ 12.18 hrs, Volume= 0.884 af, Depth> 1.12"
Routed to Reach SUB-4 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Adj	Description
0.640	98		Unconnected pavement, HSG A
0.230	39		>75% Grass cover, Good, HSG A
0.020	30		Woods, Good, HSG A
6.870	61		>75% Grass cover, Good, HSG B
1.700	55		Woods, Good, HSG B
9.460	62	61	Weighted Average, UI Adjusted
8.820			93.23% Pervious Area
0.640			6.77% Impervious Area
0.640			100.00% Unconnected

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

Subcatchment A10: A10



Hydrograph for Subcatchment A10: A10

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.09
11.75	1.70	0.03	0.62
12.00	2.39	0.17	**3.32**
12.25	3.09	0.40	**8.98**
12.50	3.36	0.51	5.06
12.75	3.49	0.57	2.40
13.00	3.59	0.61	1.84
13.25	3.68	0.65	1.53
13.50	3.75	0.69	1.41
13.75	3.82	0.72	1.31
14.00	3.88	0.75	1.19
14.25	3.94	0.78	1.10
14.50	4.00	0.81	1.04
14.75	4.05	0.84	0.99
15.00	4.09	0.86	0.93
15.25	4.14	0.88	0.87
15.50	4.17	0.90	0.81
15.75	4.21	0.92	0.74
16.00	4.24	0.94	0.68
16.25	4.27	0.96	0.63
16.50	4.30	0.97	0.60
16.75	4.33	0.99	0.57
17.00	4.36	1.00	0.54
17.25	4.38	1.01	0.51
17.50	4.40	1.03	0.48
17.75	4.43	1.04	0.45
18.00	4.45	1.05	0.43
18.25	4.46	1.06	0.40
18.50	4.48	1.07	0.39
18.75	4.50	1.08	0.39
19.00	4.52	1.09	0.38
19.25	4.54	1.10	0.37
19.50	4.55	1.11	0.36
19.75	4.57	1.12	0.35
20.00	**4.58**	**1.13**	0.34

Summary for Subcatchment A11: A11

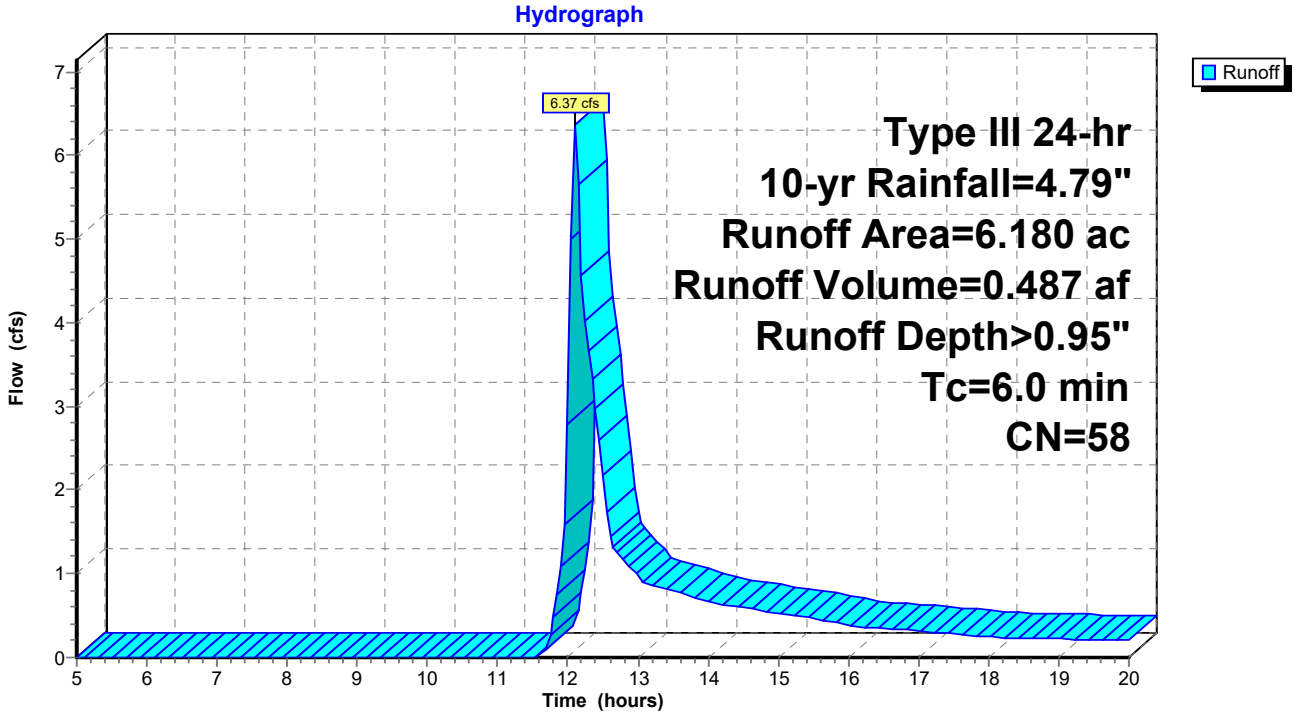
Runoff = 6.37 cfs @ 12.11 hrs, Volume= 0.487 af, Depth> 0.95"
Routed to Reach SUB-5 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.100	98	Unconnected pavement, HSG A
2.490	61	>75% Grass cover, Good, HSG B
3.590	55	Woods, Good, HSG B
6.180	58	Weighted Average
6.080		98.38% Pervious Area
0.100		1.62% Impervious Area
0.100		100.00% Unconnected

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

Subcatchment A11: A11



Hydrograph for Subcatchment A11: A11

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.00
11.75	1.70	0.01	0.28
12.00	2.39	0.11	**2.79**
12.25	3.09	0.30	**4.01**
12.50	3.36	0.40	2.17
12.75	3.49	0.45	1.21
13.00	3.59	0.49	0.97
13.25	3.68	0.52	0.85
13.50	3.75	0.56	0.79
13.75	3.82	0.59	0.73
14.00	3.88	0.61	0.67
14.25	3.94	0.64	0.63
14.50	4.00	0.66	0.60
14.75	4.05	0.69	0.56
15.00	4.09	0.71	0.53
15.25	4.14	0.73	0.50
15.50	4.17	0.75	0.46
15.75	4.21	0.76	0.42
16.00	4.24	0.78	0.39
16.25	4.27	0.79	0.36
16.50	4.30	0.81	0.35
16.75	4.33	0.82	0.33
17.00	4.36	0.83	0.31
17.25	4.38	0.85	0.30
17.50	4.40	0.86	0.28
17.75	4.43	0.87	0.26
18.00	4.45	0.88	0.25
18.25	4.46	0.89	0.24
18.50	4.48	0.90	0.23
18.75	4.50	0.91	0.23
19.00	4.52	0.91	0.22
19.25	4.54	0.92	0.22
19.50	4.55	0.93	0.21
19.75	4.57	0.94	0.21
20.00	**4.58**	**0.95**	0.20

Summary for Subcatchment A12: A12

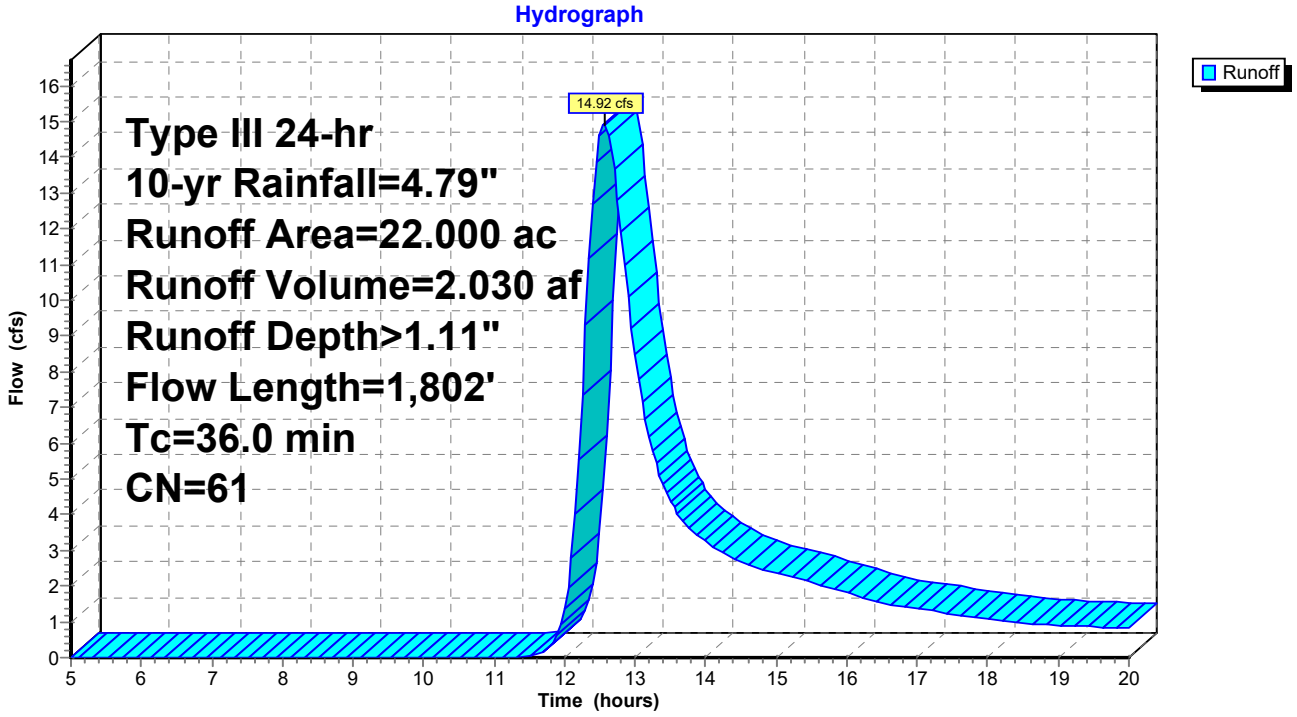
Runoff = 14.92 cfs @ 12.56 hrs, Volume= 2.030 af, Depth> 1.11"
Routed to Reach SUB-2 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.580	98	Unconnected pavement, HSG A
18.290	61	>75% Grass cover, Good, HSG B
3.130	55	Woods, Good, HSG B
22.000	61	Weighted Average
21.420		97.36% Pervious Area
0.580		2.64% Impervious Area
0.580		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	50	0.0200	0.15		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
30.3	1,752	0.0190	0.96		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
36.0	1,802	Total			

Subcatchment A12: A12



Hydrograph for Subcatchment A12: A12

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.01
11.75	1.70	0.03	0.20
12.00	2.39	0.17	1.36
12.25	3.09	0.40	7.37
12.50	3.36	0.51	**14.60**
12.75	3.49	0.57	**12.81**
13.00	3.59	0.61	8.47
13.25	3.68	0.65	5.78
13.50	3.75	0.69	4.38
13.75	3.82	0.72	3.67
14.00	3.88	0.75	3.25
14.25	3.94	0.78	2.93
14.50	4.00	0.81	2.68
14.75	4.05	0.84	2.51
15.00	4.09	0.86	2.37
15.25	4.14	0.88	2.23
15.50	4.17	0.90	2.09
15.75	4.21	0.92	1.95
16.00	4.24	0.94	1.81
16.25	4.27	0.96	1.66
16.50	4.30	0.97	1.53
16.75	4.33	0.99	1.44
17.00	4.36	1.00	1.37
17.25	4.38	1.01	1.30
17.50	4.40	1.03	1.23
17.75	4.43	1.04	1.16
18.00	4.45	1.05	1.09
18.25	4.46	1.06	1.03
18.50	4.48	1.07	0.97
18.75	4.50	1.08	0.93
19.00	4.52	1.09	0.91
19.25	4.54	1.10	0.89
19.50	4.55	1.11	0.87
19.75	4.57	1.12	0.85
20.00	**4.58**	**1.13**	0.83

Summary for Subcatchment A2: A2

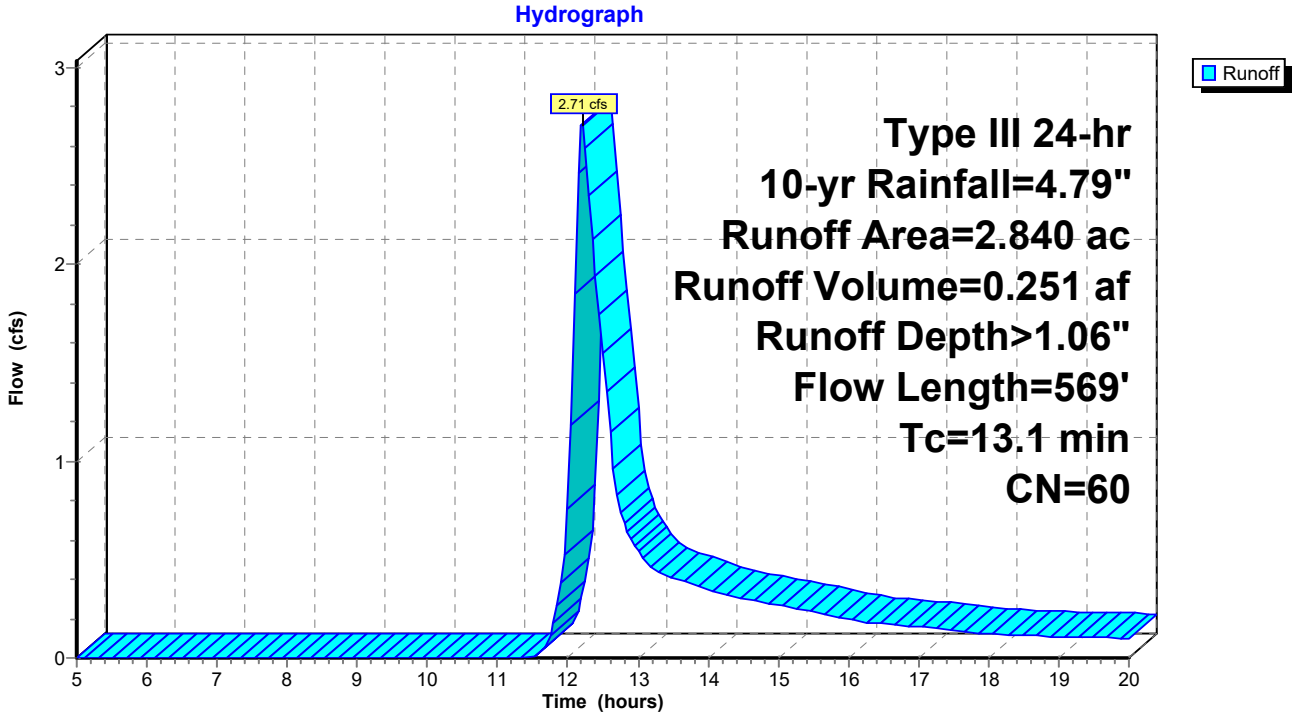
Runoff = 2.71 cfs @ 12.21 hrs, Volume= 0.251 af, Depth> 1.06"
Routed to Reach SUB-3 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.010	39	>75% Grass cover, Good, HSG A
0.010	30	Woods, Good, HSG A
2.470	61	>75% Grass cover, Good, HSG B
0.350	55	Woods, Good, HSG B
2.840	60	Weighted Average
2.840		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	50	0.0200	0.15		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
7.4	519	0.0280	1.17		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
13.1	569	Total			

Subcatchment A2: A2



Hydrograph for Subcatchment A2: A2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.01
11.75	1.70	0.02	0.11
12.00	2.39	0.15	**0.76**
12.25	3.09	0.37	**2.59**
12.50	3.36	0.47	1.55
12.75	3.49	0.53	0.74
13.00	3.59	0.57	0.55
13.25	3.68	0.61	0.45
13.50	3.75	0.64	0.41
13.75	3.82	0.68	0.38
14.00	3.88	0.71	0.35
14.25	3.94	0.73	0.32
14.50	4.00	0.76	0.30
14.75	4.05	0.78	0.29
15.00	4.09	0.81	0.27
15.25	4.14	0.83	0.25
15.50	4.17	0.85	0.24
15.75	4.21	0.87	0.22
16.00	4.24	0.88	0.20
16.25	4.27	0.90	0.18
16.50	4.30	0.92	0.17
16.75	4.33	0.93	0.17
17.00	4.36	0.94	0.16
17.25	4.38	0.96	0.15
17.50	4.40	0.97	0.14
17.75	4.43	0.98	0.13
18.00	4.45	0.99	0.12
18.25	4.46	1.00	0.12
18.50	4.48	1.01	0.11
18.75	4.50	1.02	0.11
19.00	4.52	1.03	0.11
19.25	4.54	1.04	0.11
19.50	4.55	1.05	0.10
19.75	4.57	1.06	0.10
20.00	**4.58**	**1.07**	0.10

Summary for Subcatchment A3: A3

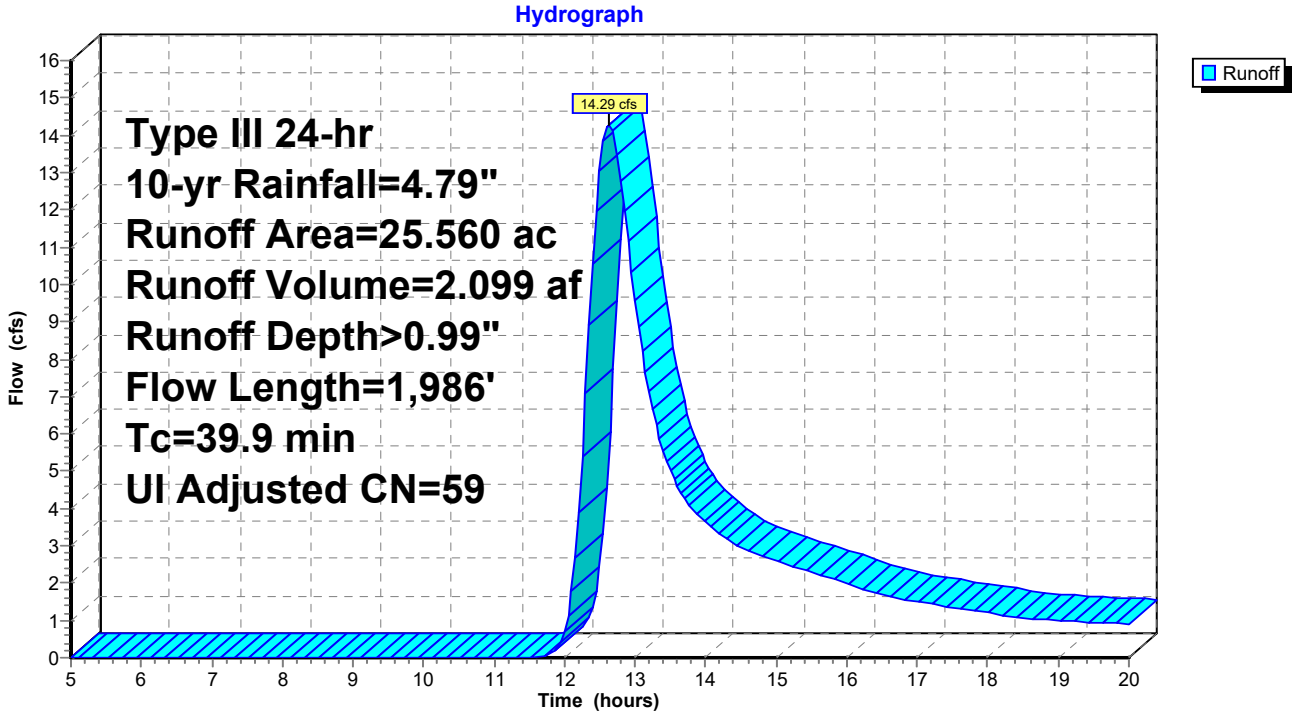
Runoff = 14.29 cfs @ 12.64 hrs, Volume= 2.099 af, Depth> 0.99"
Routed to Reach SUB-3 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Adj	Description
0.480	98		Unconnected pavement, HSG A
16.730	61		>75% Grass cover, Good, HSG B
8.300	55		Woods, Good, HSG B
0.050	77		Woods, Good, HSG D
25.560	60	59	Weighted Average, UI Adjusted
25.080			98.12% Pervious Area
0.480			1.88% Impervious Area
0.480			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.0360	0.18		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
6.1	586	0.0520	1.60		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
29.3	1,350	0.0120	0.77		**Shallow Concentrated Flow, scf-2** Short Grass Pasture Kv= 7.0 fps
39.9	1,986	Total			

Subcatchment A3: A3



Hydrograph for Subcatchment A3: A3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.00
11.75	1.70	0.01	0.04
12.00	2.39	0.13	0.71
12.25	3.09	0.33	5.39
12.50	3.36	0.44	**13.06**
12.75	3.49	0.49	**13.46**
13.00	3.59	0.53	9.59
13.25	3.68	0.57	6.65
13.50	3.75	0.60	5.01
13.75	3.82	0.63	4.13
14.00	3.88	0.66	3.62
14.25	3.94	0.69	3.24
14.50	4.00	0.71	2.95
14.75	4.05	0.73	2.75
15.00	4.09	0.76	2.59
15.25	4.14	0.78	2.44
15.50	4.17	0.80	2.30
15.75	4.21	0.81	2.15
16.00	4.24	0.83	1.99
16.25	4.27	0.85	1.84
16.50	4.30	0.86	1.69
16.75	4.33	0.87	1.59
17.00	4.36	0.89	1.50
17.25	4.38	0.90	1.43
17.50	4.40	0.91	1.35
17.75	4.43	0.92	1.28
18.00	4.45	0.93	1.21
18.25	4.46	0.94	1.13
18.50	4.48	0.95	1.07
18.75	4.50	0.96	1.03
19.00	4.52	0.97	1.00
19.25	4.54	0.98	0.97
19.50	4.55	0.99	0.95
19.75	4.57	1.00	0.93
20.00	**4.58**	**1.01**	0.91

Summary for Subcatchment A4: A4

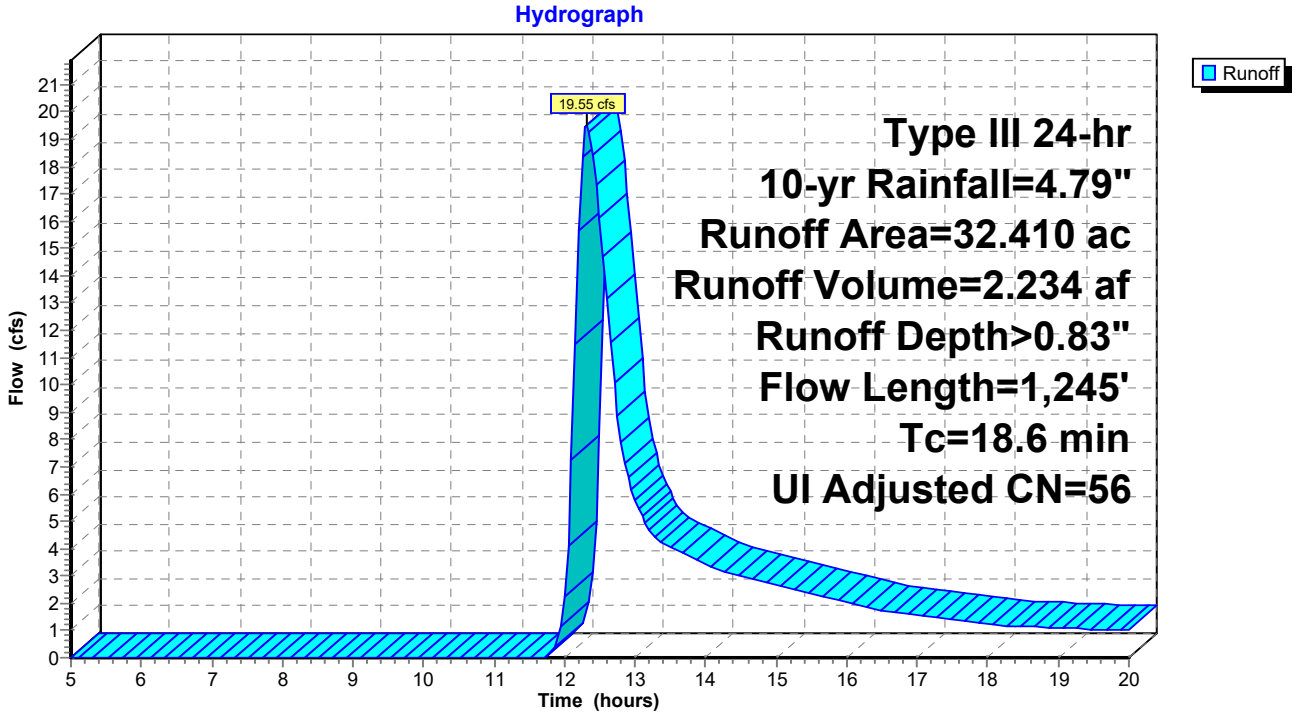
Runoff = 19.55 cfs @ 12.32 hrs, Volume= 2.234 af, Depth> 0.83"
Routed to Pond A4* : A4 Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Adj	Description
1.020	98		Unconnected pavement, HSG A
3.120	39		>75% Grass cover, Good, HSG A
3.710	30		Woods, Good, HSG A
22.820	61		>75% Grass cover, Good, HSG B
1.280	55		Woods, Good, HSG B
0.460	80		>75% Grass cover, Good, HSG D
32.410	57	56	Weighted Average, UI Adjusted
31.390			96.85% Pervious Area
1.020			3.15% Impervious Area
1.020			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	50	0.0460	0.20		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
2.1	158	0.0320	1.25		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
0.1	21	0.4760	4.83		**Shallow Concentrated Flow, scf-2** Short Grass Pasture Kv= 7.0 fps
11.6	888	0.0330	1.27		**Shallow Concentrated Flow, scf-3** Short Grass Pasture Kv= 7.0 fps
0.7	128	0.1880	3.04		**Shallow Concentrated Flow, scf-4** Short Grass Pasture Kv= 7.0 fps
18.6	1,245	Total			

Subcatchment A4: A4



Hydrograph for Subcatchment A4: A4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.00
11.75	1.70	0.00	0.01
12.00	2.39	0.08	2.23
12.25	3.09	0.25	**18.39**
12.50	3.36	0.33	**16.11**
12.75	3.49	0.38	8.85
13.00	3.59	0.41	5.79
13.25	3.68	0.44	4.52
13.50	3.75	0.47	4.03
13.75	3.82	0.50	3.74
14.00	3.88	0.53	3.45
14.25	3.94	0.55	3.16
14.50	4.00	0.57	2.99
14.75	4.05	0.59	2.84
15.00	4.09	0.61	2.69
15.25	4.14	0.63	2.53
15.50	4.17	0.65	2.36
15.75	4.21	0.66	2.19
16.00	4.24	0.68	2.01
16.25	4.27	0.69	1.85
16.50	4.30	0.70	1.74
16.75	4.33	0.72	1.66
17.00	4.36	0.73	1.59
17.25	4.38	0.74	1.51
17.50	4.40	0.75	1.43
17.75	4.43	0.76	1.34
18.00	4.45	0.77	1.26
18.25	4.46	0.78	1.18
18.50	4.48	0.79	1.14
18.75	4.50	0.80	1.12
19.00	4.52	0.80	1.10
19.25	4.54	0.81	1.07
19.50	4.55	0.82	1.05
19.75	4.57	0.83	1.02
20.00	**4.58**	**0.83**	1.00

Summary for Subcatchment A5: A5

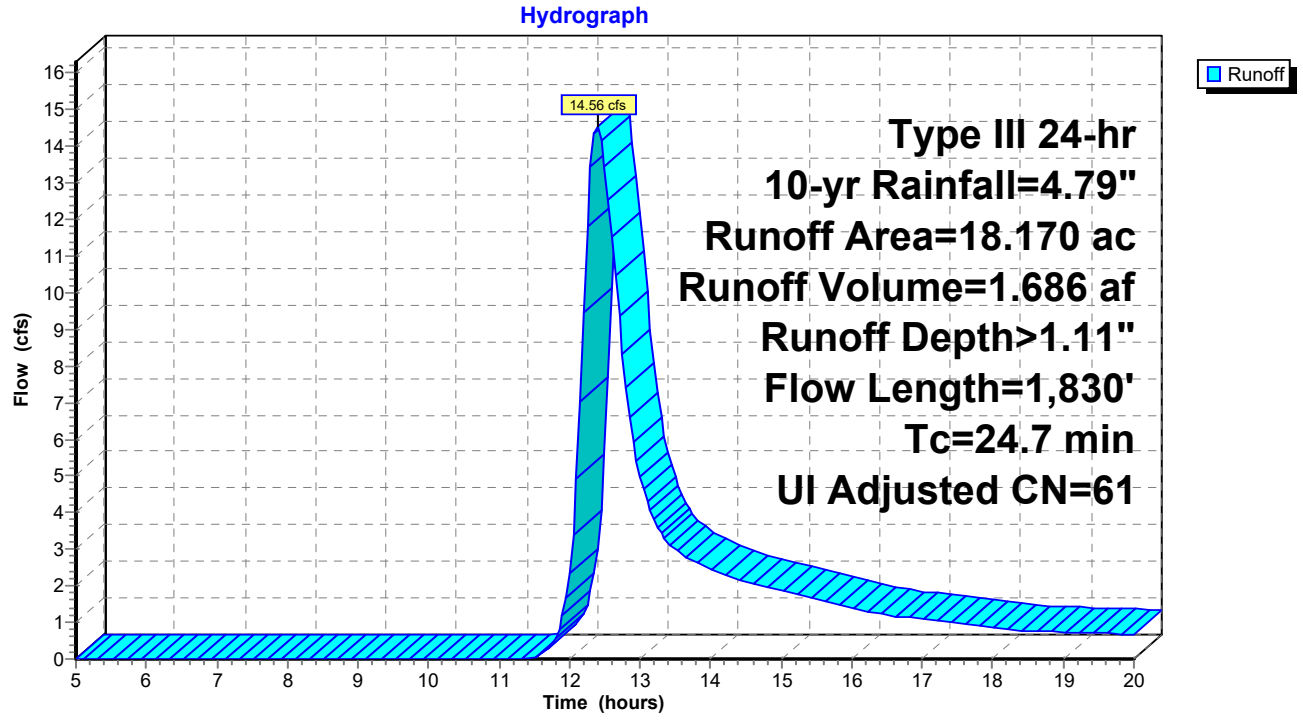
Runoff = 14.56 cfs @ 12.39 hrs, Volume= 1.686 af, Depth> 1.11"
Routed to Pond A5* : A5 Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Adj	Description
0.530	98		Unconnected pavement, HSG A
16.500	61		>75% Grass cover, Good, HSG B
1.080	55		Woods, Good, HSG B
0.060	80		>75% Grass cover, Good, HSG D
18.170	62	61	Weighted Average, UI Adjusted
17.640			97.08% Pervious Area
0.530			2.92% Impervious Area
0.530			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0	50	0.1000	0.28		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
21.7	1,780	0.0380	1.36		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
24.7	1,830	Total			

Subcatchment A5: A5



Hydrograph for Subcatchment A5: A5

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.04
11.75	1.70	0.03	0.38
12.00	2.39	0.17	2.36
12.25	3.09	0.40	**11.79**
12.50	3.36	0.51	**13.43**
12.75	3.49	0.57	8.34
13.00	3.59	0.61	4.98
13.25	3.68	0.65	3.61
13.50	3.75	0.69	2.98
13.75	3.82	0.72	2.69
14.00	3.88	0.75	2.47
14.25	3.94	0.78	2.26
14.50	4.00	0.81	2.10
14.75	4.05	0.84	1.98
15.00	4.09	0.86	1.87
15.25	4.14	0.88	1.76
15.50	4.17	0.90	1.65
15.75	4.21	0.92	1.53
16.00	4.24	0.94	1.41
16.25	4.27	0.96	1.29
16.50	4.30	0.97	1.20
16.75	4.33	0.99	1.14
17.00	4.36	1.00	1.09
17.25	4.38	1.01	1.03
17.50	4.40	1.03	0.98
17.75	4.43	1.04	0.92
18.00	4.45	1.05	0.86
18.25	4.46	1.06	0.81
18.50	4.48	1.07	0.77
18.75	4.50	1.08	0.75
19.00	4.52	1.09	0.74
19.25	4.54	1.10	0.72
19.50	4.55	1.11	0.70
19.75	4.57	1.12	0.69
20.00	**4.58**	**1.13**	0.67

Summary for Subcatchment A6: A6

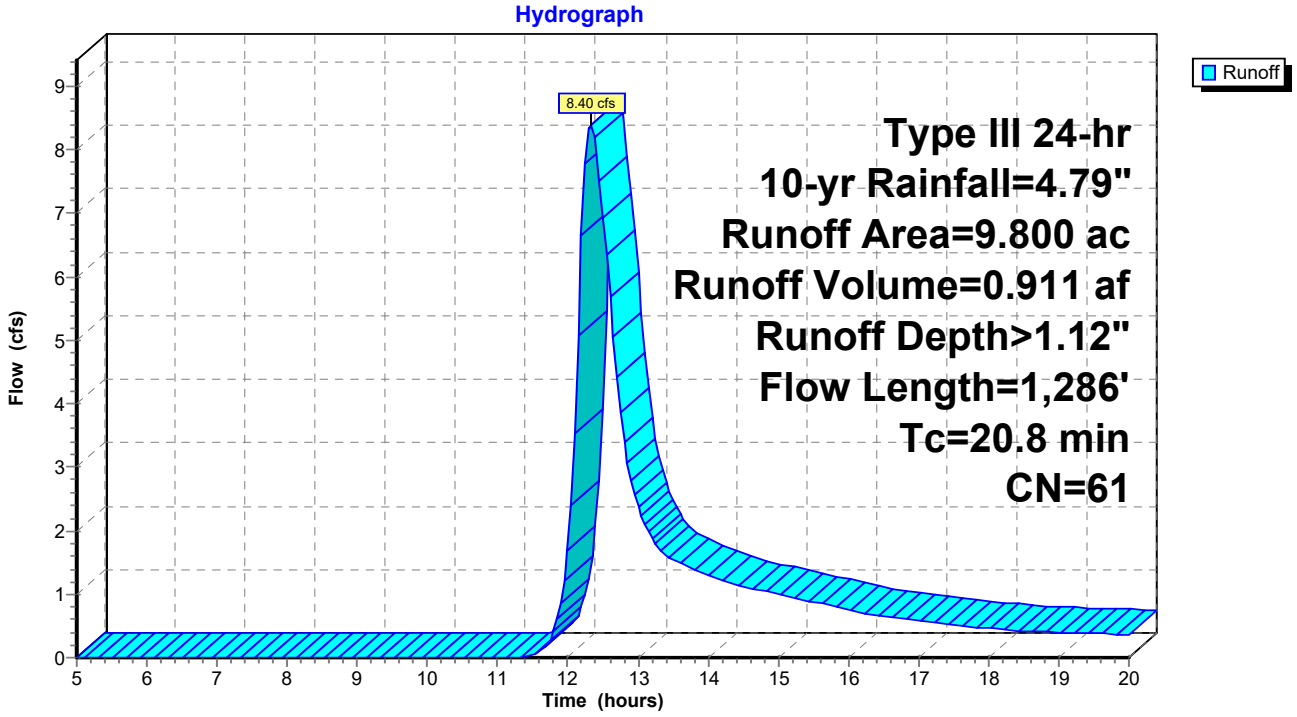
Runoff = 8.40 cfs @ 12.33 hrs, Volume= 0.911 af, Depth> 1.12"
Routed to Reach SUB-3 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.300	98	Unconnected pavement, HSG A
8.150	61	>75% Grass cover, Good, HSG B
1.350	55	Woods, Good, HSG B
9.800	61	Weighted Average
9.500		96.94% Pervious Area
0.300		3.06% Impervious Area
0.300		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	50	0.0260	0.16		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
15.7	1,236	0.0350	1.31		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
20.8	1,286	Total			

Subcatchment A6: A6



Hydrograph for Subcatchment A6: A6

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.03
11.75	1.70	0.03	0.28
12.00	2.39	0.17	1.67
12.25	3.09	0.40	**7.79**
12.50	3.36	0.51	**6.93**
12.75	3.49	0.57	3.86
13.00	3.59	0.61	2.38
13.25	3.68	0.65	1.78
13.50	3.75	0.69	1.55
13.75	3.82	0.72	1.42
14.00	3.88	0.75	1.30
14.25	3.94	0.78	1.19
14.50	4.00	0.81	1.11
14.75	4.05	0.84	1.06
15.00	4.09	0.86	1.00
15.25	4.14	0.88	0.94
15.50	4.17	0.90	0.87
15.75	4.21	0.92	0.81
16.00	4.24	0.94	0.74
16.25	4.27	0.96	0.68
16.50	4.30	0.97	0.64
16.75	4.33	0.99	0.61
17.00	4.36	1.00	0.58
17.25	4.38	1.01	0.55
17.50	4.40	1.03	0.52
17.75	4.43	1.04	0.49
18.00	4.45	1.05	0.46
18.25	4.46	1.06	0.43
18.50	4.48	1.07	0.41
18.75	4.50	1.08	0.40
19.00	4.52	1.09	0.40
19.25	4.54	1.10	0.39
19.50	4.55	1.11	0.38
19.75	4.57	1.12	0.37
20.00	**4.58**	**1.13**	0.36

Summary for Subcatchment A7: A7

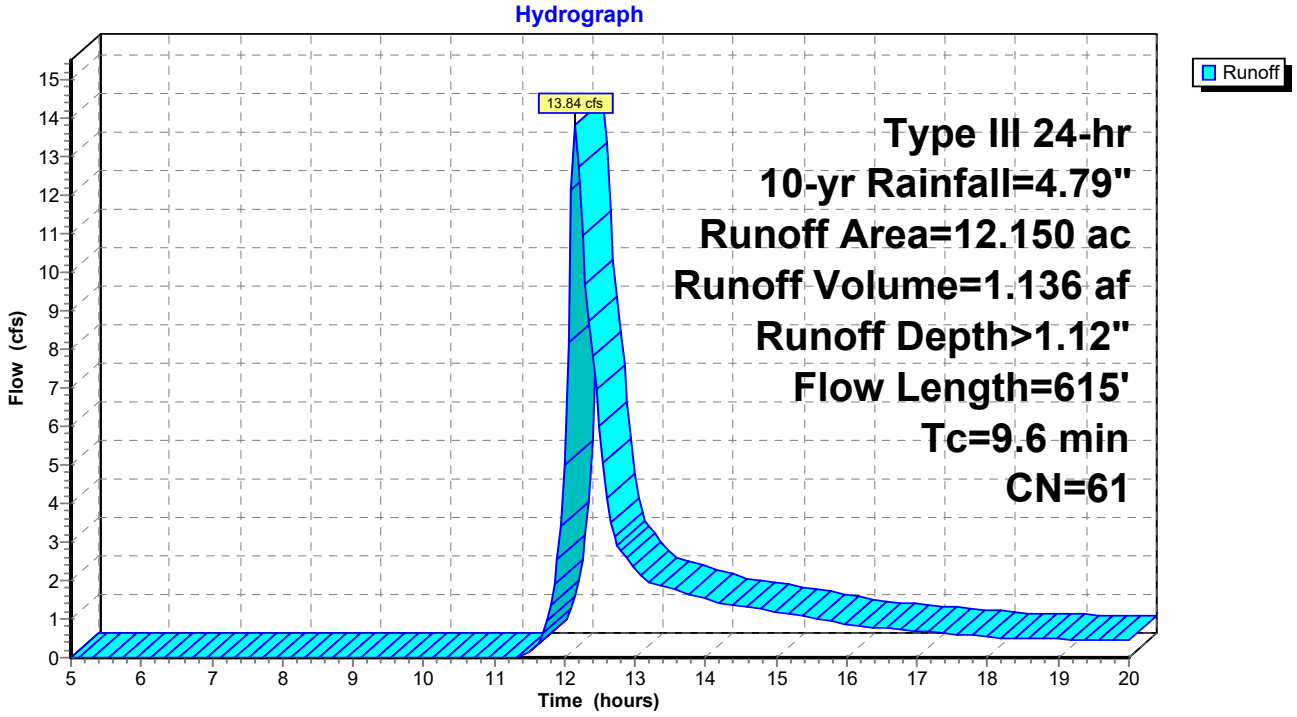
Runoff = 13.84 cfs @ 12.16 hrs, Volume= 1.136 af, Depth> 1.12"
Routed to Reach SUB-2 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.470	98	Unconnected pavement, HSG A
9.790	61	>75% Grass cover, Good, HSG B
1.890	55	Woods, Good, HSG B
12.150	61	Weighted Average
11.680		96.13% Pervious Area
0.470		3.87% Impervious Area
0.470		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	50	0.0800	0.25		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
6.3	565	0.0450	1.48		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
9.6	615	Total			

Subcatchment A7: A7



Hydrograph for Subcatchment A7: A7

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.14
11.75	1.70	0.03	0.93
12.00	2.39	0.17	**4.98**
12.25	3.09	0.40	**10.96**
12.50	3.36	0.51	6.01
12.75	3.49	0.57	2.92
13.00	3.59	0.61	2.31
13.25	3.68	0.65	1.94
13.50	3.75	0.69	1.80
13.75	3.82	0.72	1.66
14.00	3.88	0.75	1.51
14.25	3.94	0.78	1.40
14.50	4.00	0.81	1.33
14.75	4.05	0.84	1.26
15.00	4.09	0.86	1.18
15.25	4.14	0.88	1.11
15.50	4.17	0.90	1.03
15.75	4.21	0.92	0.95
16.00	4.24	0.94	0.86
16.25	4.27	0.96	0.80
16.50	4.30	0.97	0.76
16.75	4.33	0.99	0.73
17.00	4.36	1.00	0.69
17.25	4.38	1.01	0.66
17.50	4.40	1.03	0.62
17.75	4.43	1.04	0.58
18.00	4.45	1.05	0.54
18.25	4.46	1.06	0.52
18.50	4.48	1.07	0.50
18.75	4.50	1.08	0.49
19.00	4.52	1.09	0.48
19.25	4.54	1.10	0.47
19.50	4.55	1.11	0.46
19.75	4.57	1.12	0.45
20.00	**4.58**	**1.13**	0.44

Summary for Subcatchment A8: A8

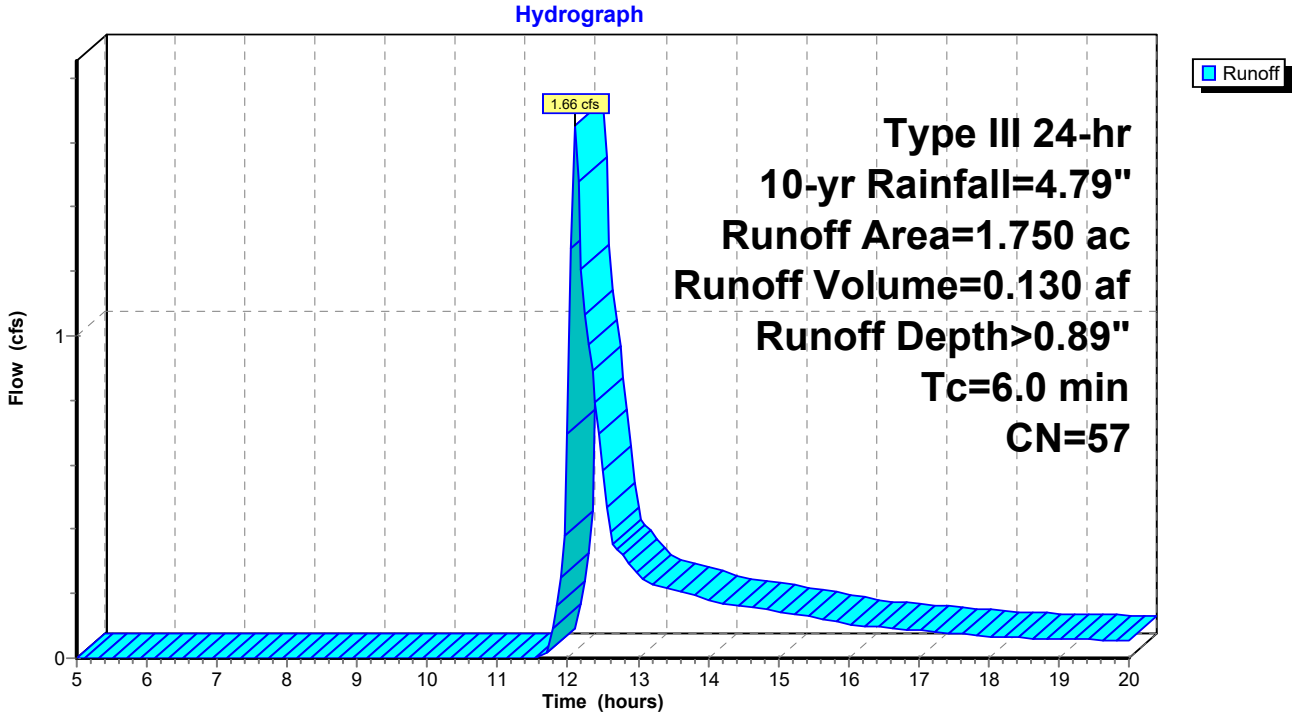
Runoff = 1.66 cfs @ 12.11 hrs, Volume= 0.130 af, Depth> 0.89"
Routed to Reach SUB-3 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.440	61	>75% Grass cover, Good, HSG B
1.310	55	Woods, Good, HSG B
1.750	57	Weighted Average
1.750		100.00% Pervious Area

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

Subcatchment A8: A8



Hydrograph for Subcatchment A8: A8

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.00
11.75	1.70	0.00	0.04
12.00	2.39	0.09	**0.70**
12.25	3.09	0.27	**1.07**
12.50	3.36	0.37	0.58
12.75	3.49	0.41	0.32
13.00	3.59	0.45	0.26
13.25	3.68	0.48	0.23
13.50	3.75	0.51	0.22
13.75	3.82	0.54	0.20
14.00	3.88	0.57	0.18
14.25	3.94	0.59	0.17
14.50	4.00	0.62	0.16
14.75	4.05	0.64	0.15
15.00	4.09	0.66	0.14
15.25	4.14	0.68	0.14
15.50	4.17	0.70	0.13
15.75	4.21	0.71	0.12
16.00	4.24	0.73	0.11
16.25	4.27	0.74	0.10
16.50	4.30	0.76	0.09
16.75	4.33	0.77	0.09
17.00	4.36	0.78	0.09
17.25	4.38	0.79	0.08
17.50	4.40	0.80	0.08
17.75	4.43	0.81	0.07
18.00	4.45	0.82	0.07
18.25	4.46	0.83	0.06
18.50	4.48	0.84	0.06
18.75	4.50	0.85	0.06
19.00	4.52	0.86	0.06
19.25	4.54	0.87	0.06
19.50	4.55	0.87	0.06
19.75	4.57	0.88	0.06
20.00	**4.58**	**0.89**	0.05

Summary for Subcatchment A9: A9

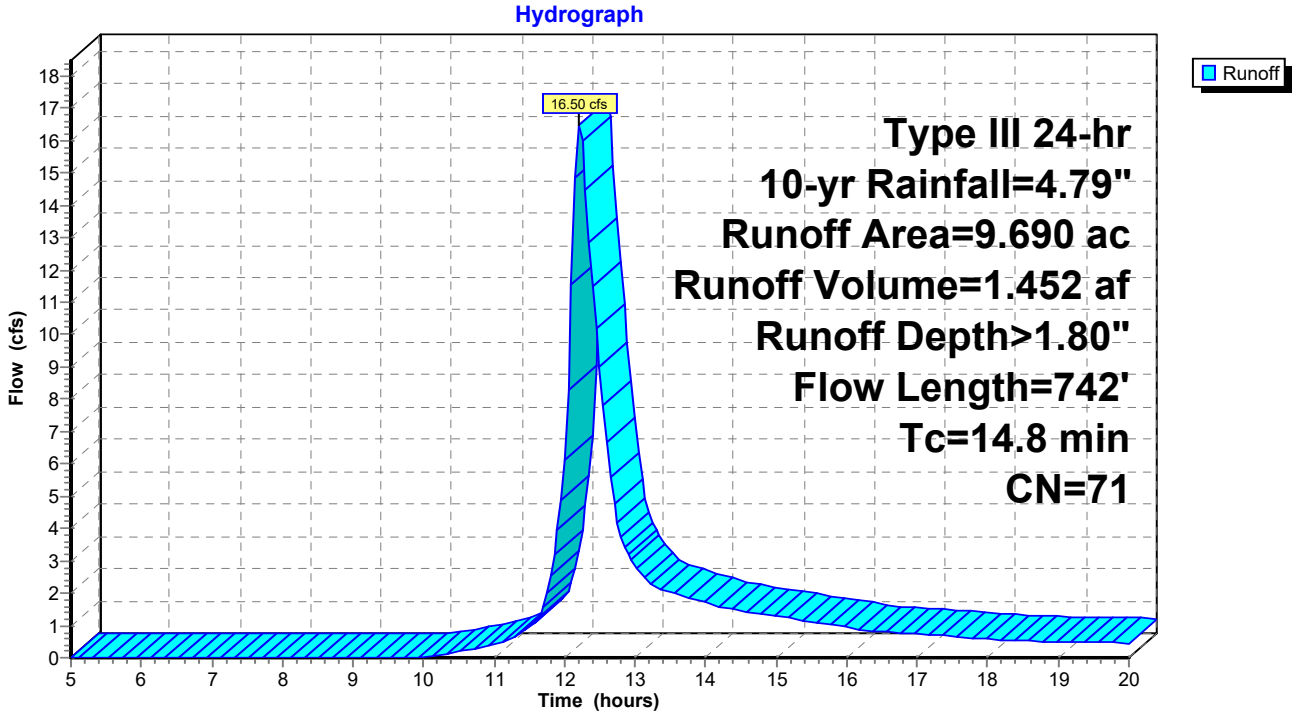
Runoff = 16.50 cfs @ 12.21 hrs, Volume= 1.452 af, Depth> 1.80"
Routed to Reach SUB-3 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
3.400	98	Unconnected pavement, HSG A
0.340	39	>75% Grass cover, Good, HSG A
0.260	30	Woods, Good, HSG A
4.080	61	>75% Grass cover, Good, HSG B
1.610	55	Woods, Good, HSG B
9.690	71	Weighted Average
6.290		64.91% Pervious Area
3.400		35.09% Impervious Area
3.400		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	50	0.0180	0.14		**Sheet Flow, SF-1** Grass: Short n= 0.150 P2= 3.11"
8.8	692	0.0350	1.31		**Shallow Concentrated Flow, SCF-1** Short Grass Pasture Kv= 7.0 fps
14.8	742	Total			

Subcatchment A9: A9



Hydrograph for Subcatchment A9: A9

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.04
10.25	0.97	0.01	0.10
10.50	1.04	0.01	0.19
10.75	1.11	0.02	0.30
11.00	1.20	0.03	0.42
11.25	1.30	0.05	0.61
11.50	1.43	0.08	0.94
11.75	1.70	0.16	1.99
12.00	2.39	0.44	**6.13**
12.25	3.09	0.81	**15.98**
12.50	3.36	0.98	9.01
12.75	3.49	1.06	4.16
13.00	3.59	1.12	2.85
13.25	3.68	1.18	2.26
13.50	3.75	1.23	2.04
13.75	3.82	1.27	1.87
14.00	3.88	1.32	1.70
14.25	3.94	1.35	1.55
14.50	4.00	1.39	1.46
14.75	4.05	1.43	1.38
15.00	4.09	1.46	1.29
15.25	4.14	1.49	1.21
15.50	4.17	1.52	1.12
15.75	4.21	1.54	1.03
16.00	4.24	1.56	0.94
16.25	4.27	1.58	0.86
16.50	4.30	1.61	0.82
16.75	4.33	1.62	0.78
17.00	4.36	1.64	0.74
17.25	4.38	1.66	0.70
17.50	4.40	1.68	0.66
17.75	4.43	1.69	0.62
18.00	4.45	1.71	0.58
18.25	4.46	1.72	0.54
18.50	4.48	1.73	0.53
18.75	4.50	1.75	0.51
19.00	4.52	1.76	0.50
19.25	4.54	1.77	0.49
19.50	4.55	1.78	0.48
19.75	4.57	1.80	0.47
20.00	**4.58**	**1.81**	0.45

Summary for Subcatchment B1: B1

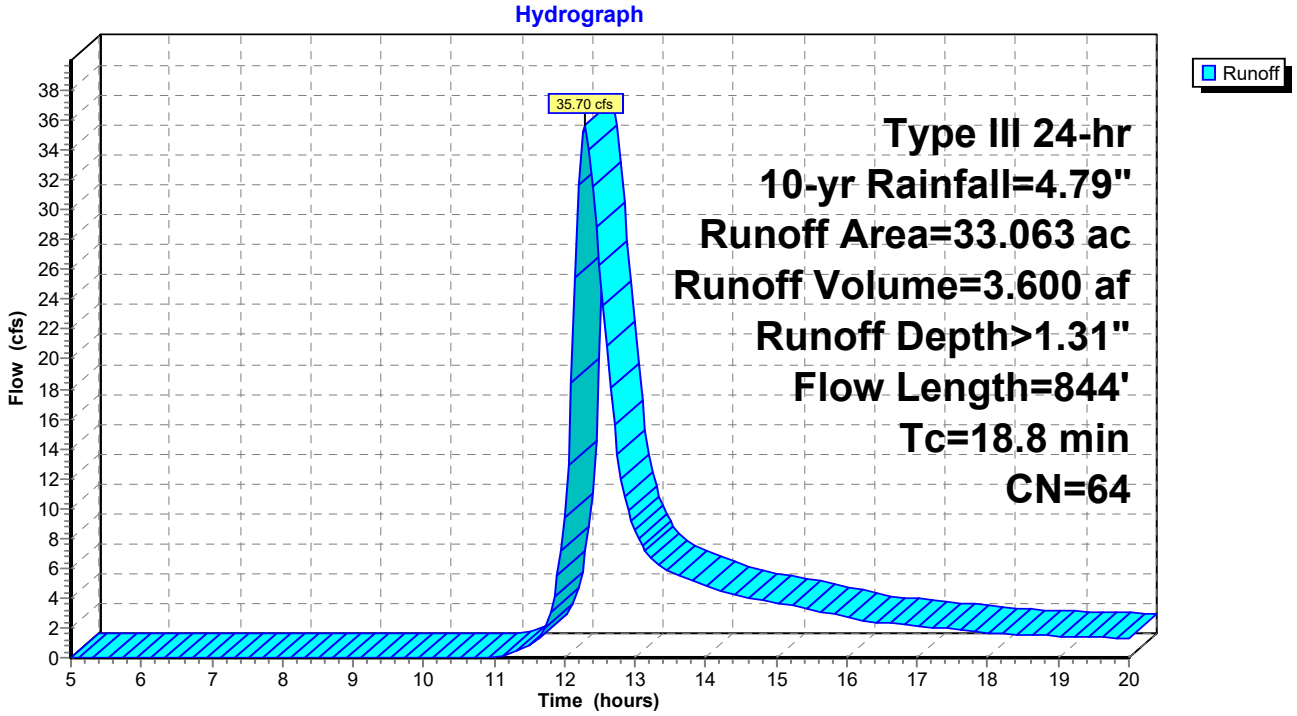
Runoff = 35.70 cfs @ 12.29 hrs, Volume= 3.600 af, Depth> 1.31"
Routed to Reach 22R : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.090	98	Paved parking, HSG A
0.300	39	>75% Grass cover, Good, HSG A
0.160	30	Woods, Good, HSG A
6.657	61	>75% Grass cover, Good, HSG B
13.760	55	Woods, Good, HSG B
0.800	80	>75% Grass cover, Good, HSG D
9.340	77	Woods, Good, HSG D
0.252	61	>75% Grass cover, Good, HSG B
0.124	80	>75% Grass cover, Good, HSG D
0.357	55	Woods, Good, HSG B
0.153	77	Woods, Good, HSG D
0.168	85	Gravel roads, HSG B
0.369	98	Water Surface, HSG B
0.064	48	Brush, Good, HSG B
0.469	98	Paved parking, HSG A
33.063	64	Weighted Average
32.135		97.19% Pervious Area
0.928		2.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	50	0.0100	0.11		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
11.3	794	0.0280	1.17		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
18.8	844	Total			

Subcatchment B1: B1



Hydrograph for Subcatchment B1: B1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.02
11.25	1.30	0.01	0.28
11.50	1.43	0.02	0.84
11.75	1.70	0.05	2.31
12.00	2.39	0.23	9.40
12.25	3.09	0.51	**35.13**
12.50	3.36	0.64	**26.29**
12.75	3.49	0.70	13.59
13.00	3.59	0.75	8.54
13.25	3.68	0.80	6.53
13.50	3.75	0.84	5.75
13.75	3.82	0.87	5.29
14.00	3.88	0.91	4.84
14.25	3.94	0.94	4.41
14.50	4.00	0.97	4.14
14.75	4.05	1.00	3.91
15.00	4.09	1.02	3.69
15.25	4.14	1.05	3.46
15.50	4.17	1.07	3.22
15.75	4.21	1.09	2.98
16.00	4.24	1.11	2.73
16.25	4.27	1.13	2.49
16.50	4.30	1.15	2.35
16.75	4.33	1.16	2.24
17.00	4.36	1.18	2.13
17.25	4.38	1.19	2.02
17.50	4.40	1.21	1.91
17.75	4.43	1.22	1.79
18.00	4.45	1.23	1.68
18.25	4.46	1.24	1.57
18.50	4.48	1.25	1.52
18.75	4.50	1.27	1.49
19.00	4.52	1.28	1.45
19.25	4.54	1.29	1.42
19.50	4.55	1.30	1.39
19.75	4.57	1.31	1.35
20.00	**4.58**	**1.32**	1.32

Summary for Subcatchment B10: B10

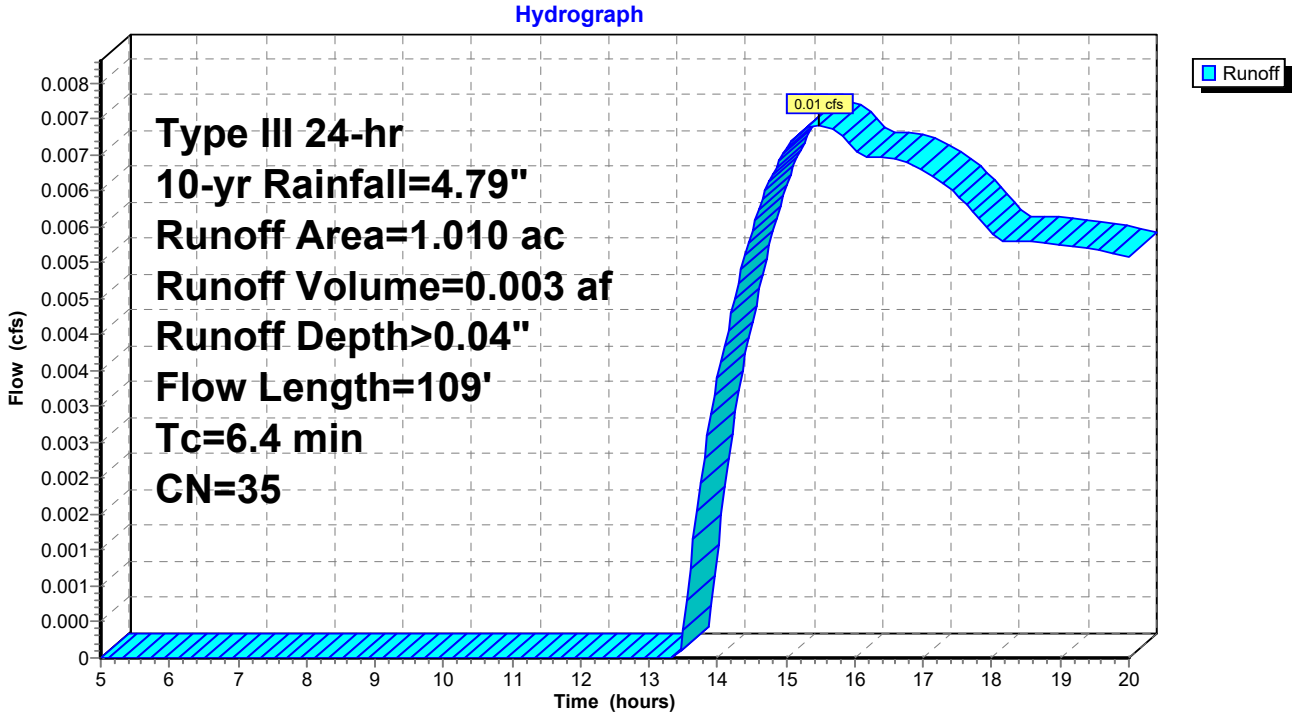
Runoff = 0.01 cfs @ 15.48 hrs, Volume= 0.003 af, Depth> 0.04"
Routed to Reach 21R : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.250	39	>75% Grass cover, Good, HSG A
0.640	30	Woods, Good, HSG A
0.030	61	>75% Grass cover, Good, HSG B
0.090	55	Woods, Good, HSG B
1.010	35	Weighted Average
1.010		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	50	0.0180	0.14		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
0.4	59	0.1610	2.81		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
6.4	109	Total			

Subcatchment B10: B10



Hydrograph for Subcatchment B10: B10

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.00
11.75	1.70	0.00	0.00
12.00	2.39	0.00	0.00
12.25	3.09	0.00	0.00
12.50	3.36	0.00	0.00
12.75	3.49	0.00	0.00
13.00	3.59	0.00	0.00
13.25	3.68	0.00	0.00
13.50	3.75	0.00	0.00
13.75	3.82	0.00	0.00
14.00	3.88	0.00	0.00
14.25	3.94	0.00	0.01
14.50	4.00	0.00	0.01
14.75	4.05	0.01	0.01
15.00	4.09	0.01	0.01
15.25	4.14	0.01	0.01
15.50	4.17	0.01	**0.01**
15.75	4.21	0.01	0.01
16.00	4.24	0.01	0.01
16.25	4.27	0.02	0.01
16.50	4.30	0.02	0.01
16.75	4.33	0.02	0.01
17.00	4.36	0.02	0.01
17.25	4.38	0.02	0.01
17.50	4.40	0.02	0.01
17.75	4.43	0.03	0.01
18.00	4.45	0.03	0.01
18.25	4.46	0.03	0.01
18.50	4.48	0.03	0.01
18.75	4.50	0.03	0.01
19.00	4.52	0.03	0.01
19.25	4.54	0.03	0.01
19.50	4.55	0.04	0.01
19.75	4.57	0.04	0.01
20.00	**4.58**	**0.04**	0.01

Summary for Subcatchment B11: B11

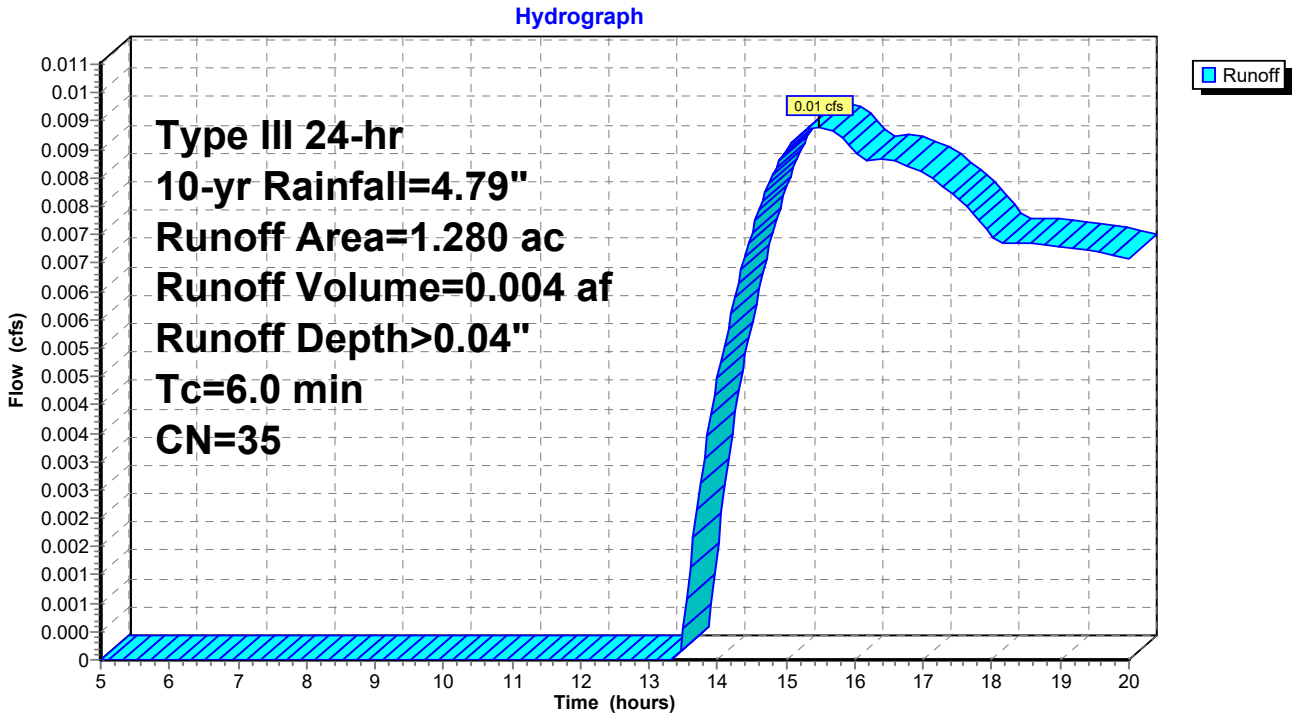
Runoff = 0.01 cfs @ 15.47 hrs, Volume= 0.004 af, Depth> 0.04"
Routed to Reach 21R : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.180	39	>75% Grass cover, Good, HSG A
0.920	30	Woods, Good, HSG A
0.150	61	>75% Grass cover, Good, HSG B
0.030	55	Woods, Good, HSG B
1.280	35	Weighted Average
1.280		100.00% Pervious Area

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

Subcatchment B11: B11



Hydrograph for Subcatchment B11: B11

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.00
11.75	1.70	0.00	0.00
12.00	2.39	0.00	0.00
12.25	3.09	0.00	0.00
12.50	3.36	0.00	0.00
12.75	3.49	0.00	0.00
13.00	3.59	0.00	0.00
13.25	3.68	0.00	0.00
13.50	3.75	0.00	0.00
13.75	3.82	0.00	0.00
14.00	3.88	0.00	0.00
14.25	3.94	0.00	0.01
14.50	4.00	0.00	0.01
14.75	4.05	0.01	0.01
15.00	4.09	0.01	0.01
15.25	4.14	0.01	**0.01**
15.50	4.17	0.01	**0.01**
15.75	4.21	0.01	0.01
16.00	4.24	0.01	0.01
16.25	4.27	0.02	0.01
16.50	4.30	0.02	0.01
16.75	4.33	0.02	0.01
17.00	4.36	0.02	0.01
17.25	4.38	0.02	0.01
17.50	4.40	0.02	0.01
17.75	4.43	0.03	0.01
18.00	4.45	0.03	0.01
18.25	4.46	0.03	0.01
18.50	4.48	0.03	0.01
18.75	4.50	0.03	0.01
19.00	4.52	0.03	0.01
19.25	4.54	0.03	0.01
19.50	4.55	0.04	0.01
19.75	4.57	0.04	0.01
20.00	**4.58**	**0.04**	0.01

Summary for Subcatchment B12: B12

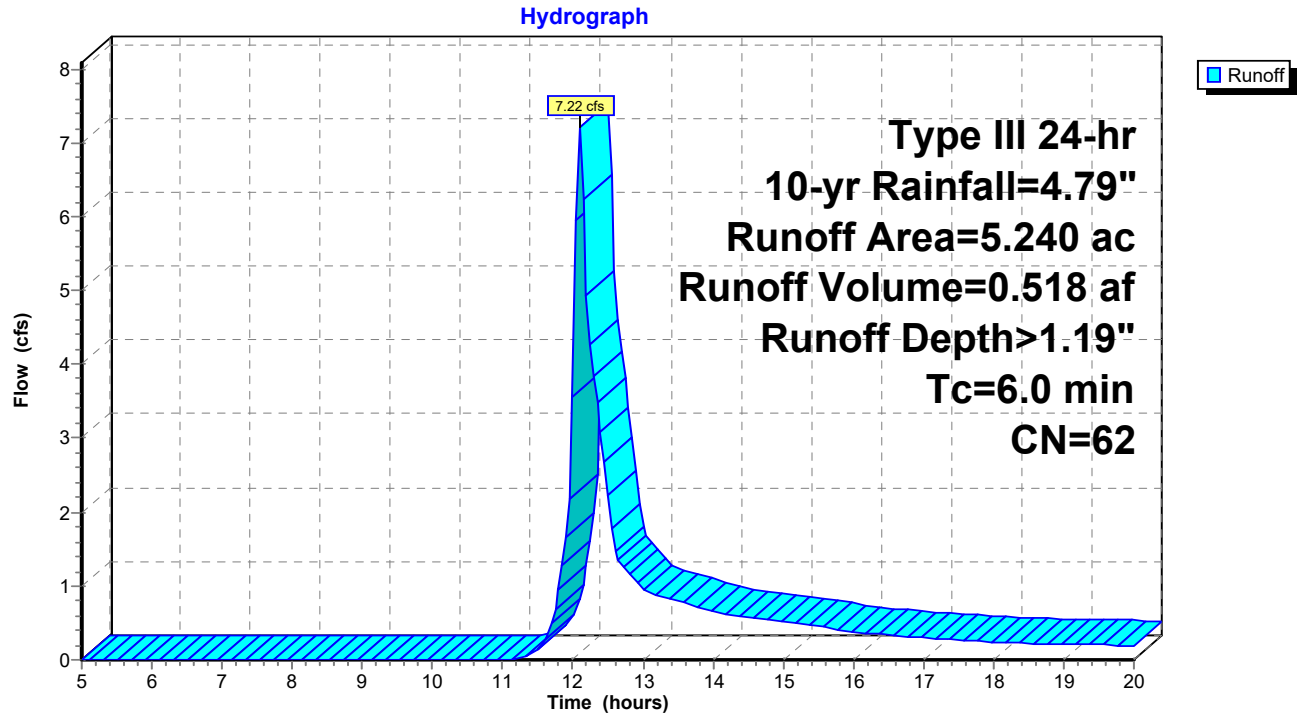
Runoff = 7.22 cfs @ 12.10 hrs, Volume= 0.518 af, Depth> 1.19"
Routed to Pond B12* : B12 Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.190	98	Paved parking, HSG A
4.590	61	>75% Grass cover, Good, HSG B
0.460	55	Woods, Good, HSG B
5.240	62	Weighted Average
5.050		96.37% Pervious Area
0.190		3.63% Impervious Area

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

Subcatchment B12: B12



Hydrograph for Subcatchment B12: B12

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.02
11.50	1.43	0.01	0.13
11.75	1.70	0.03	0.70
12.00	2.39	0.19	**3.55**
12.25	3.09	0.43	**4.27**
12.50	3.36	0.55	2.23
12.75	3.49	0.61	1.22
13.00	3.59	0.66	0.98
13.25	3.68	0.70	0.85
13.50	3.75	0.74	0.79
13.75	3.82	0.77	0.73
14.00	3.88	0.80	0.66
14.25	3.94	0.83	0.62
14.50	4.00	0.86	0.59
14.75	4.05	0.89	0.55
15.00	4.09	0.91	0.52
15.25	4.14	0.94	0.49
15.50	4.17	0.96	0.45
15.75	4.21	0.98	0.41
16.00	4.24	1.00	0.38
16.25	4.27	1.01	0.35
16.50	4.30	1.03	0.34
16.75	4.33	1.04	0.32
17.00	4.36	1.06	0.30
17.25	4.38	1.07	0.29
17.50	4.40	1.09	0.27
17.75	4.43	1.10	0.25
18.00	4.45	1.11	0.24
18.25	4.46	1.12	0.23
18.50	4.48	1.13	0.22
18.75	4.50	1.14	0.22
19.00	4.52	1.15	0.21
19.25	4.54	1.16	0.21
19.50	4.55	1.17	0.20
19.75	4.57	1.18	0.20
20.00	**4.58**	**1.19**	0.19

Summary for Subcatchment B13: B13

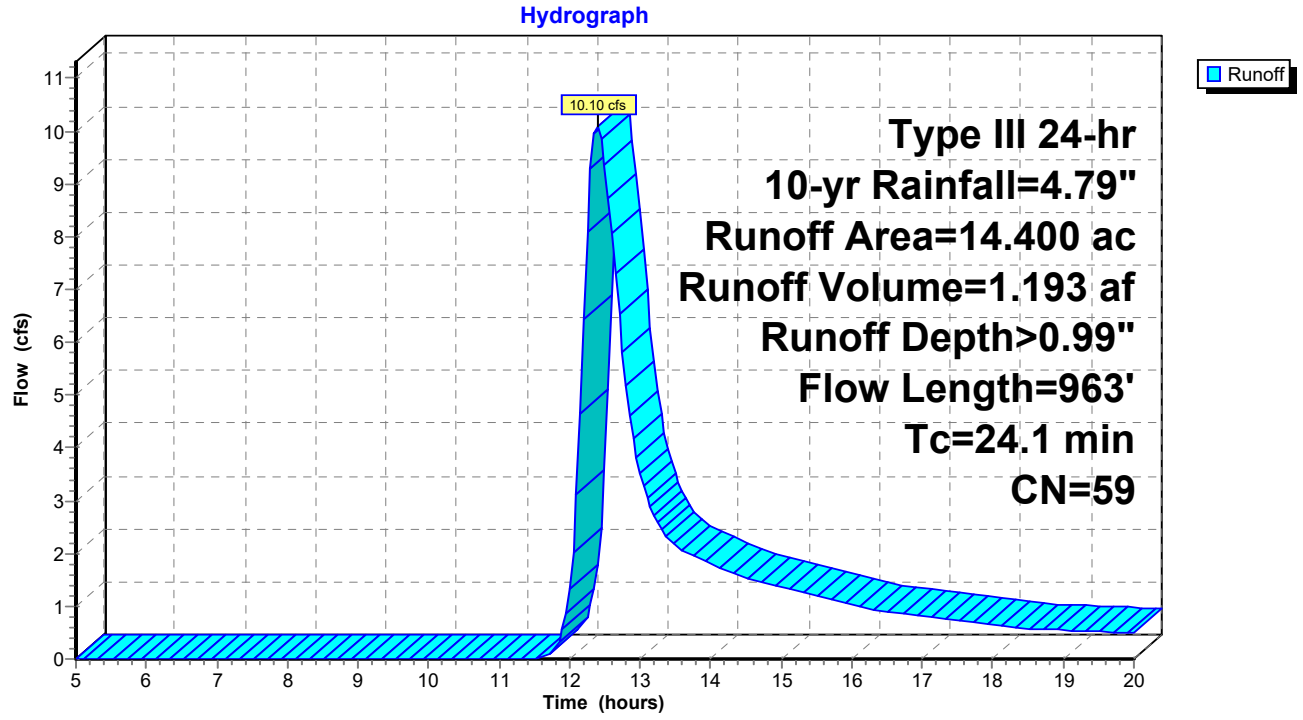
Runoff = 10.10 cfs @ 12.39 hrs, Volume= 1.193 af, Depth> 0.99"
Routed to Reach 2R : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.280	98	Paved parking, HSG A
1.340	61	>75% Grass cover, Good, HSG B
10.860	55	Woods, Good, HSG B
0.310	80	>75% Grass cover, Good, HSG D
1.610	77	Woods, Good, HSG D
14.400	59	Weighted Average
14.120		98.06% Pervious Area
0.280		1.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.2600	0.19		**Sheet Flow, sf-1** Woods: Light underbrush n= 0.400 P2= 3.11"
19.6	913	0.0240	0.77		**Shallow Concentrated Flow, scf-1** Woodland Kv= 5.0 fps
24.1	963	Total			

Subcatchment B13: B13



Hydrograph for Subcatchment B13: B13

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.00
11.75	1.70	0.01	0.09
12.00	2.39	0.13	1.32
12.25	3.09	0.33	**8.10**
12.50	3.36	0.44	**9.34**
12.75	3.49	0.49	5.82
13.00	3.59	0.53	3.52
13.25	3.68	0.57	2.58
13.50	3.75	0.60	2.16
13.75	3.82	0.63	1.96
14.00	3.88	0.66	1.80
14.25	3.94	0.69	1.65
14.50	4.00	0.71	1.54
14.75	4.05	0.73	1.46
15.00	4.09	0.76	1.38
15.25	4.14	0.78	1.30
15.50	4.17	0.80	1.21
15.75	4.21	0.81	1.13
16.00	4.24	0.83	1.04
16.25	4.27	0.85	0.95
16.50	4.30	0.86	0.89
16.75	4.33	0.87	0.84
17.00	4.36	0.89	0.80
17.25	4.38	0.90	0.76
17.50	4.40	0.91	0.72
17.75	4.43	0.92	0.68
18.00	4.45	0.93	0.64
18.25	4.46	0.94	0.60
18.50	4.48	0.95	0.57
18.75	4.50	0.96	0.56
19.00	4.52	0.97	0.55
19.25	4.54	0.98	0.53
19.50	4.55	0.99	0.52
19.75	4.57	1.00	0.51
20.00	**4.58**	**1.01**	0.50

Summary for Subcatchment B2: B2

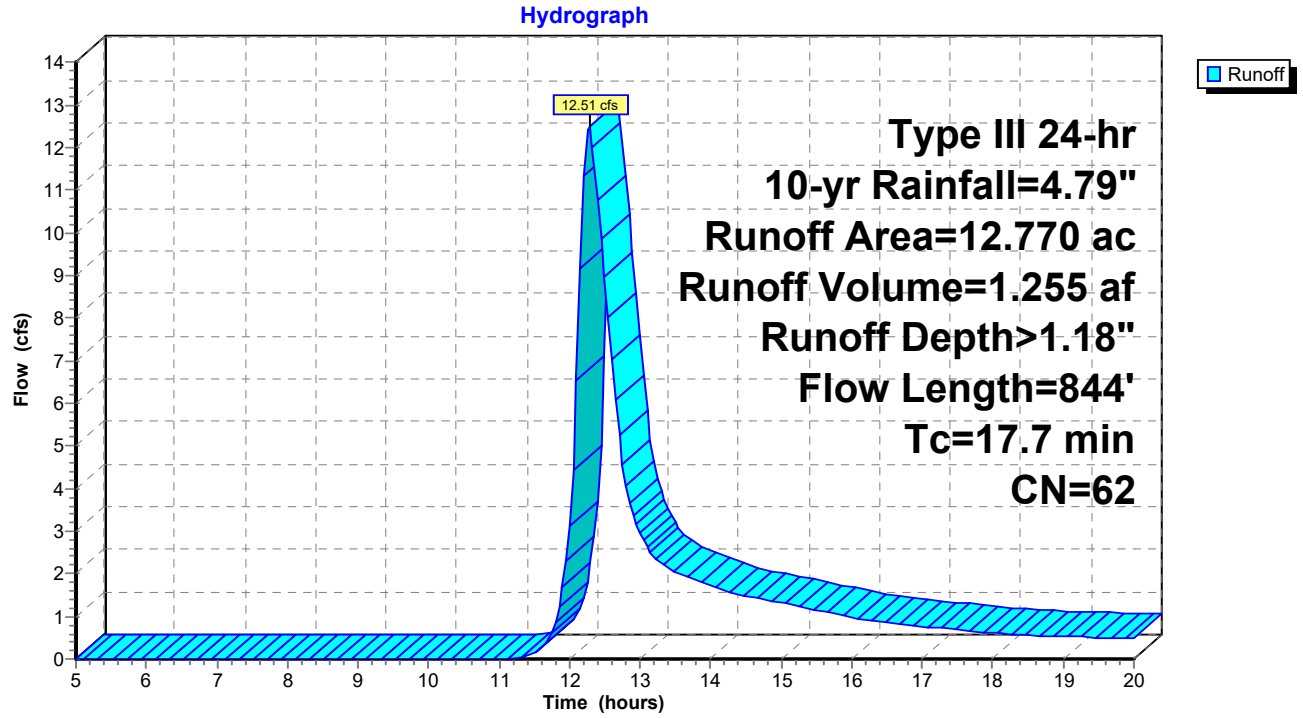
Runoff = 12.51 cfs @ 12.27 hrs, Volume= 1.255 af, Depth> 1.18"
Routed to Reach 23R : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.290	98	Paved parking, HSG A
11.040	61	>75% Grass cover, Good, HSG B
0.800	55	Woods, Good, HSG B
0.630	80	>75% Grass cover, Good, HSG D
0.010	77	Woods, Good, HSG D
12.770	62	Weighted Average
12.480		97.73% Pervious Area
0.290		2.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	50	0.0500	0.21		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
13.7	794	0.0190	0.96		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
17.7	844	Total			

Subcatchment B2: B2



Hydrograph for Subcatchment B2: B2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.01
11.50	1.43	0.01	0.14
11.75	1.70	0.03	0.62
12.00	2.39	0.19	3.11
12.25	3.09	0.43	**12.39**
12.50	3.36	0.55	8.95
12.75	3.49	0.61	4.56
13.00	3.59	0.66	2.95
13.25	3.68	0.70	2.30
13.50	3.75	0.74	2.05
13.75	3.82	0.77	1.89
14.00	3.88	0.80	1.73
14.25	3.94	0.83	1.58
14.50	4.00	0.86	1.49
14.75	4.05	0.89	1.41
15.00	4.09	0.91	1.33
15.25	4.14	0.94	1.25
15.50	4.17	0.96	1.16
15.75	4.21	0.98	1.07
16.00	4.24	1.00	0.98
16.25	4.27	1.01	0.90
16.50	4.30	1.03	0.85
16.75	4.33	1.04	0.81
17.00	4.36	1.06	0.77
17.25	4.38	1.07	0.73
17.50	4.40	1.09	0.69
17.75	4.43	1.10	0.65
18.00	4.45	1.11	0.61
18.25	4.46	1.12	0.57
18.50	4.48	1.13	0.55
18.75	4.50	1.14	0.54
19.00	4.52	1.15	0.53
19.25	4.54	1.16	0.52
19.50	4.55	1.17	0.50
19.75	4.57	1.18	0.49
20.00	**4.58**	**1.19**	0.48

Summary for Subcatchment B3: B3

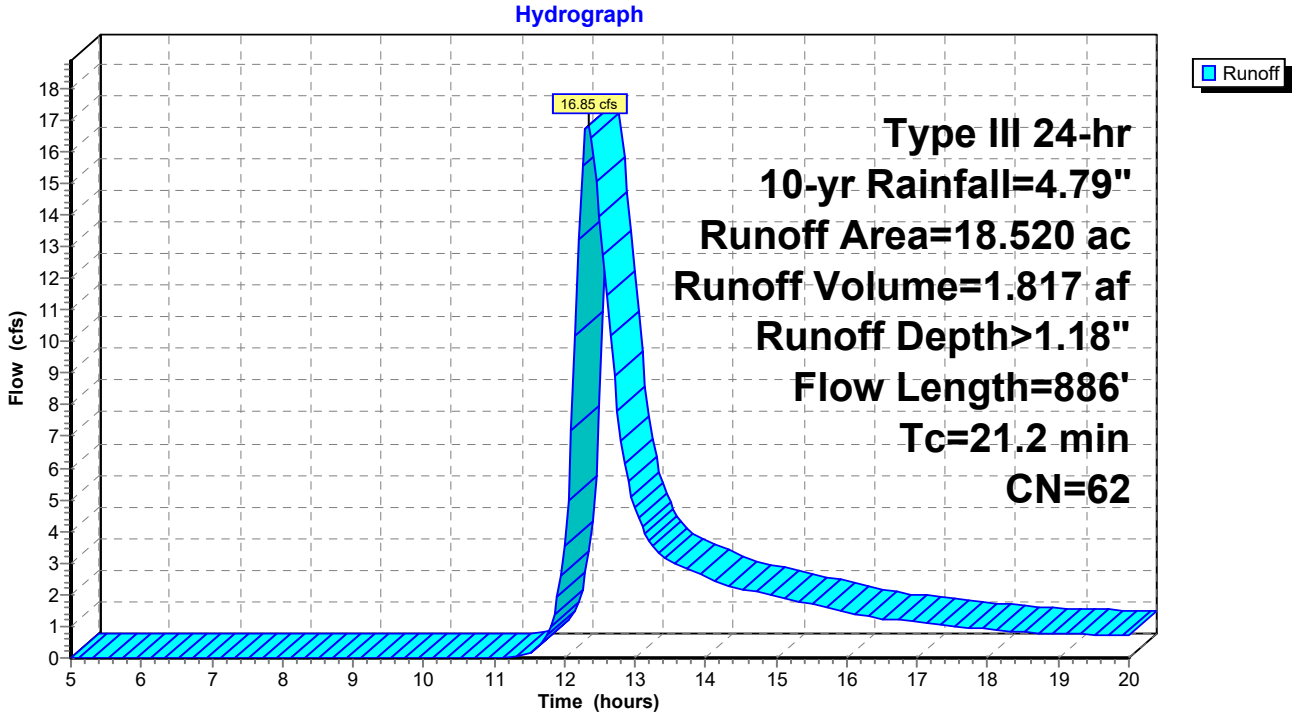
Runoff = 16.85 cfs @ 12.33 hrs, Volume= 1.817 af, Depth> 1.18"
Routed to Reach 23R : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
6.280	61	>75% Grass cover, Good, HSG B
7.880	55	Woods, Good, HSG B
0.520	80	>75% Grass cover, Good, HSG D
3.840	77	Woods, Good, HSG D
18.520	62	Weighted Average
18.520		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	50	0.0100	0.11		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
13.7	836	0.0210	1.01		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
21.2	886	Total			

Subcatchment B3: B3



Hydrograph for Subcatchment B3: B3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.01
11.50	1.43	0.01	0.15
11.75	1.70	0.03	0.70
12.00	2.39	0.19	3.55
12.25	3.09	0.43	**15.56**
12.50	3.36	0.55	**13.94**
12.75	3.49	0.61	7.79
13.00	3.59	0.66	4.75
13.25	3.68	0.70	3.54
13.50	3.75	0.74	3.05
13.75	3.82	0.77	2.79
14.00	3.88	0.80	2.56
14.25	3.94	0.83	2.34
14.50	4.00	0.86	2.19
14.75	4.05	0.89	2.07
15.00	4.09	0.91	1.95
15.25	4.14	0.94	1.83
15.50	4.17	0.96	1.71
15.75	4.21	0.98	1.58
16.00	4.24	1.00	1.46
16.25	4.27	1.01	1.33
16.50	4.30	1.03	1.25
16.75	4.33	1.04	1.19
17.00	4.36	1.06	1.13
17.25	4.38	1.07	1.07
17.50	4.40	1.09	1.01
17.75	4.43	1.10	0.96
18.00	4.45	1.11	0.90
18.25	4.46	1.12	0.84
18.50	4.48	1.13	0.81
18.75	4.50	1.14	0.79
19.00	4.52	1.15	0.77
19.25	4.54	1.16	0.75
19.50	4.55	1.17	0.74
19.75	4.57	1.18	0.72
20.00	**4.58**	**1.19**	0.70

Summary for Subcatchment B4: B4

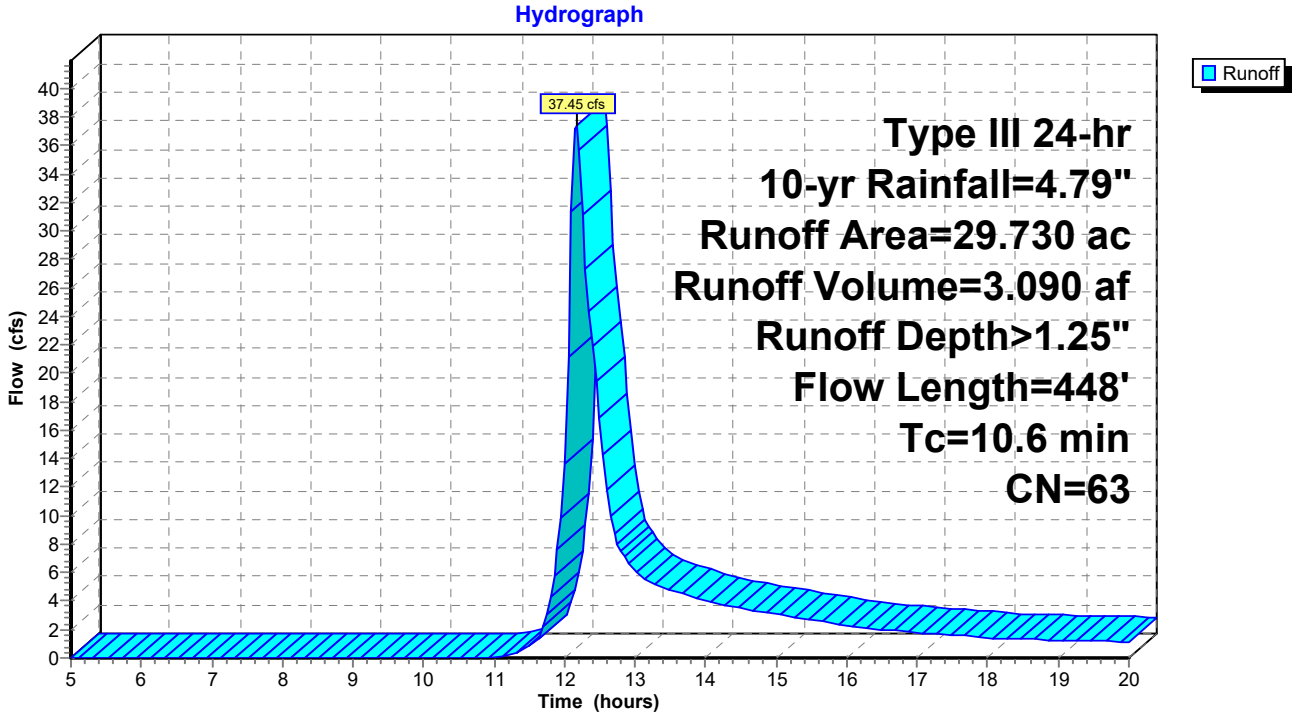
Runoff = 37.45 cfs @ 12.16 hrs, Volume= 3.090 af, Depth> 1.25"
Routed to Reach 2R : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
6.860	61	>75% Grass cover, Good, HSG B
14.270	55	Woods, Good, HSG B
1.390	80	>75% Grass cover, Good, HSG D
7.210	77	Woods, Good, HSG D
29.730	63	Weighted Average
29.730		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.0360	0.18		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
6.1	398	0.0240	1.08		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
10.6	448	Total			

Subcatchment B4: B4



Hydrograph for Subcatchment B4: B4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.23
11.50	1.43	0.01	0.82
11.75	1.70	0.04	3.13
12.00	2.39	0.21	**13.60**
12.25	3.09	0.47	**31.09**
12.50	3.36	0.59	16.89
12.75	3.49	0.66	8.02
13.00	3.59	0.71	6.20
13.25	3.68	0.75	5.15
13.50	3.75	0.79	4.77
13.75	3.82	0.82	4.40
14.00	3.88	0.86	4.01
14.25	3.94	0.89	3.69
14.50	4.00	0.92	3.50
14.75	4.05	0.94	3.31
15.00	4.09	0.97	3.11
15.25	4.14	0.99	2.91
15.50	4.17	1.01	2.70
15.75	4.21	1.03	2.49
16.00	4.24	1.05	2.27
16.25	4.27	1.07	2.10
16.50	4.30	1.09	2.00
16.75	4.33	1.10	1.91
17.00	4.36	1.12	1.81
17.25	4.38	1.13	1.71
17.50	4.40	1.15	1.62
17.75	4.43	1.16	1.52
18.00	4.45	1.17	1.42
18.25	4.46	1.18	1.34
18.50	4.48	1.19	1.31
18.75	4.50	1.20	1.28
19.00	4.52	1.21	1.26
19.25	4.54	1.22	1.23
19.50	4.55	1.23	1.20
19.75	4.57	1.24	1.17
20.00	**4.58**	**1.25**	1.14

Summary for Subcatchment B5: B5

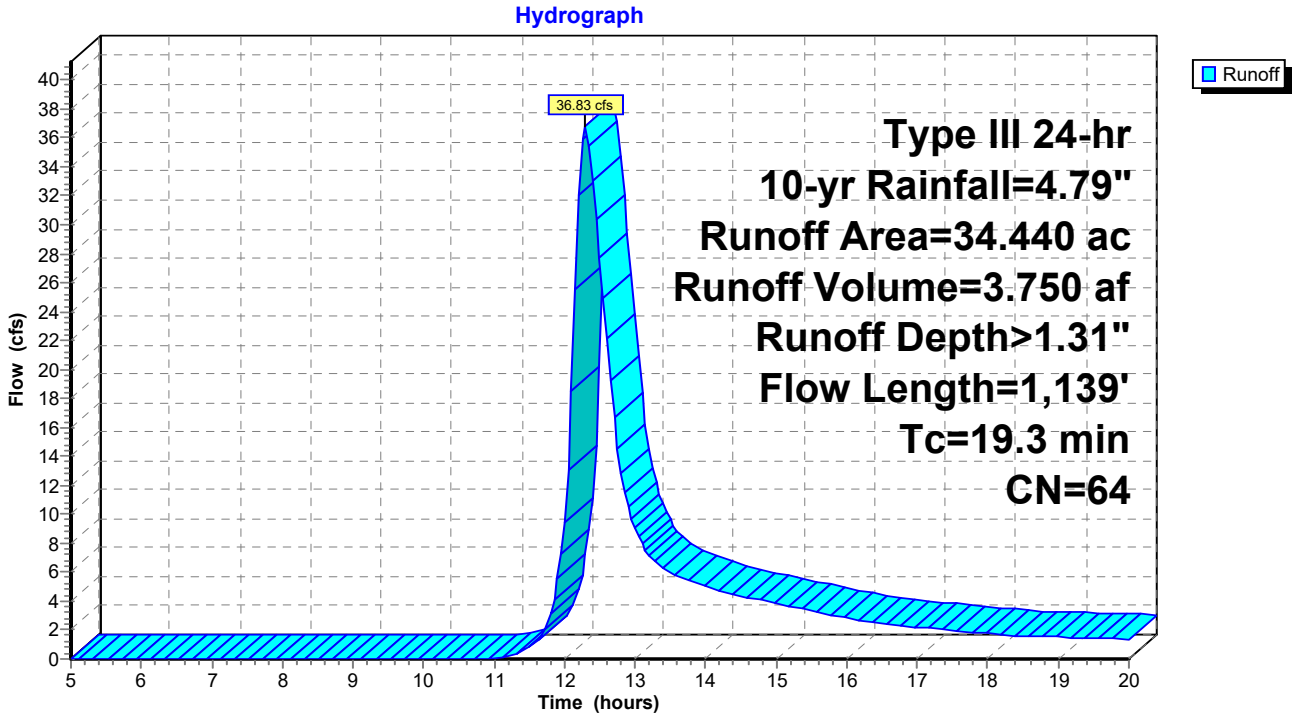
Runoff = 36.83 cfs @ 12.30 hrs, Volume= 3.750 af, Depth> 1.31"
Routed to Reach 2R : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.180	98	Paved parking, HSG A
22.890	61	>75% Grass cover, Good, HSG B
4.240	55	Woods, Good, HSG B
6.330	80	>75% Grass cover, Good, HSG D
0.800	77	Woods, Good, HSG D
34.440	64	Weighted Average
34.260		99.48% Pervious Area
0.180		0.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0340	0.18		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
14.7	1,089	0.0310	1.23		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
19.3	1,139	Total			

Subcatchment B5: B5



Hydrograph for Subcatchment B5: B5

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.02
11.25	1.30	0.01	0.28
11.50	1.43	0.02	0.85
11.75	1.70	0.05	2.33
12.00	2.39	0.23	9.50
12.25	3.09	0.51	**35.91**
12.50	3.36	0.64	**27.69**
12.75	3.49	0.70	14.50
13.00	3.59	0.75	9.03
13.25	3.68	0.80	6.86
13.50	3.75	0.84	6.01
13.75	3.82	0.87	5.52
14.00	3.88	0.91	5.06
14.25	3.94	0.94	4.61
14.50	4.00	0.97	4.32
14.75	4.05	1.00	4.08
15.00	4.09	1.02	3.85
15.25	4.14	1.05	3.61
15.50	4.17	1.07	3.36
15.75	4.21	1.09	3.11
16.00	4.24	1.11	2.85
16.25	4.27	1.13	2.61
16.50	4.30	1.15	2.45
16.75	4.33	1.16	2.34
17.00	4.36	1.18	2.22
17.25	4.38	1.19	2.11
17.50	4.40	1.21	1.99
17.75	4.43	1.22	1.87
18.00	4.45	1.23	1.75
18.25	4.46	1.24	1.64
18.50	4.48	1.25	1.59
18.75	4.50	1.27	1.55
19.00	4.52	1.28	1.51
19.25	4.54	1.29	1.48
19.50	4.55	1.30	1.45
19.75	4.57	1.31	1.41
20.00	**4.58**	**1.32**	1.38

Summary for Subcatchment B6: B6

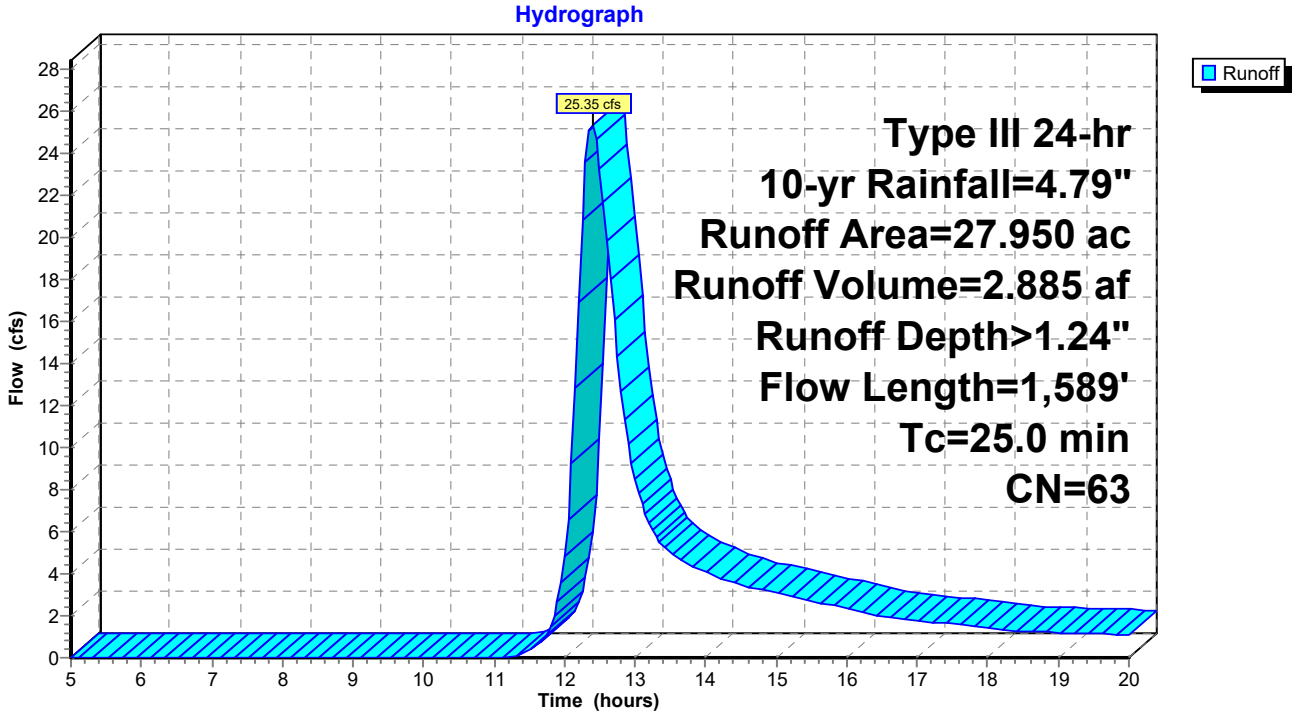
Runoff = 25.35 cfs @ 12.39 hrs, Volume= 2.885 af, Depth> 1.24"
Routed to Reach 2R : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
1.250	98	Paved parking, HSG A
0.160	39	>75% Grass cover, Good, HSG A
21.280	61	>75% Grass cover, Good, HSG B
3.640	55	Woods, Good, HSG B
1.600	80	>75% Grass cover, Good, HSG D
0.020	77	Woods, Good, HSG D
27.950	63	Weighted Average
26.700		95.53% Pervious Area
1.250		4.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	50	0.0260	0.16		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
19.9	1,539	0.0340	1.29		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
25.0	1,589	Total			

Subcatchment B6: B6



Hydrograph for Subcatchment B6: B6

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.05
11.50	1.43	0.01	0.33
11.75	1.70	0.04	1.10
12.00	2.39	0.21	4.81
12.25	3.09	0.47	**20.79**
12.50	3.36	0.59	**23.25**
12.75	3.49	0.66	14.29
13.00	3.59	0.71	8.45
13.25	3.68	0.75	6.06
13.50	3.75	0.79	4.97
13.75	3.82	0.82	4.48
14.00	3.88	0.86	4.10
14.25	3.94	0.89	3.74
14.50	4.00	0.92	3.47
14.75	4.05	0.94	3.28
15.00	4.09	0.97	3.09
15.25	4.14	0.99	2.90
15.50	4.17	1.01	2.71
15.75	4.21	1.03	2.52
16.00	4.24	1.05	2.31
16.25	4.27	1.07	2.12
16.50	4.30	1.09	1.97
16.75	4.33	1.10	1.87
17.00	4.36	1.12	1.78
17.25	4.38	1.13	1.69
17.50	4.40	1.15	1.60
17.75	4.43	1.16	1.51
18.00	4.45	1.17	1.41
18.25	4.46	1.18	1.32
18.50	4.48	1.19	1.27
18.75	4.50	1.20	1.23
19.00	4.52	1.21	1.20
19.25	4.54	1.22	1.18
19.50	4.55	1.23	1.15
19.75	4.57	1.24	1.12
20.00	**4.58**	**1.25**	1.10

Summary for Subcatchment B7: B7

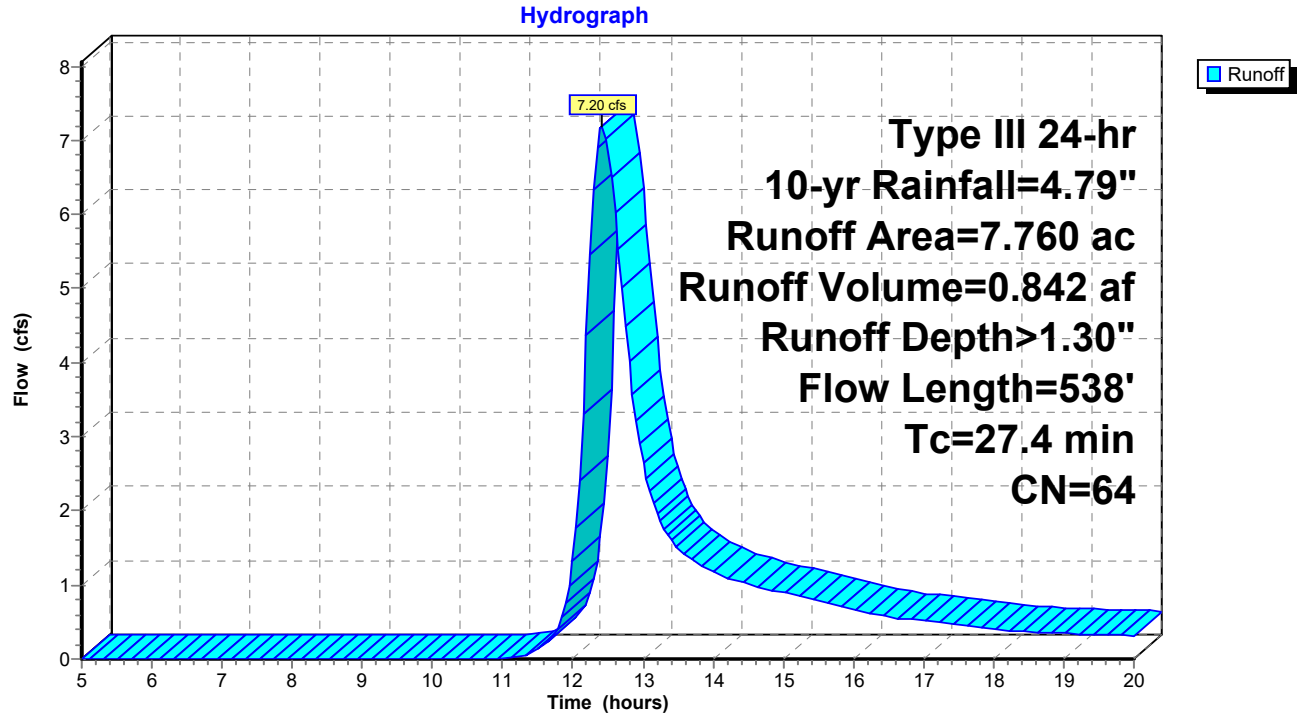
Runoff = 7.20 cfs @ 12.42 hrs, Volume= 0.842 af, Depth> 1.30"
Routed to Reach 2R : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.180	98	Paved parking, HSG A
2.080	61	>75% Grass cover, Good, HSG B
3.290	55	Woods, Good, HSG B
0.430	80	>75% Grass cover, Good, HSG D
1.780	77	Woods, Good, HSG D
7.760	64	Weighted Average
7.580		97.68% Pervious Area
0.180		2.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	50	0.0160	0.06		**Sheet Flow, sf-1** Woods: Light underbrush n= 0.400 P2= 3.11"
13.7	488	0.0140	0.59		**Shallow Concentrated Flow, scf-1** Woodland Kv= 5.0 fps
27.4	538	Total			

Subcatchment B7: B7



Hydrograph for Subcatchment B7: B7

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.01	0.03
11.50	1.43	0.02	0.13
11.75	1.70	0.05	0.35
12.00	2.39	0.23	1.32
12.25	3.09	0.51	**5.45**
12.50	3.36	0.64	**6.90**
12.75	3.49	0.70	4.49
13.00	3.59	0.75	2.65
13.25	3.68	0.80	1.86
13.50	3.75	0.84	1.48
13.75	3.82	0.87	1.31
14.00	3.88	0.91	1.19
14.25	3.94	0.94	1.09
14.50	4.00	0.97	1.01
14.75	4.05	1.00	0.95
15.00	4.09	1.02	0.89
15.25	4.14	1.05	0.84
15.50	4.17	1.07	0.79
15.75	4.21	1.09	0.73
16.00	4.24	1.11	0.67
16.25	4.27	1.13	0.61
16.50	4.30	1.15	0.57
16.75	4.33	1.16	0.54
17.00	4.36	1.18	0.51
17.25	4.38	1.19	0.49
17.50	4.40	1.21	0.46
17.75	4.43	1.22	0.44
18.00	4.45	1.23	0.41
18.25	4.46	1.24	0.38
18.50	4.48	1.25	0.36
18.75	4.50	1.27	0.35
19.00	4.52	1.28	0.35
19.25	4.54	1.29	0.34
19.50	4.55	1.30	0.33
19.75	4.57	1.31	0.32
20.00	**4.58**	**1.32**	0.31

Summary for Subcatchment B8: B8

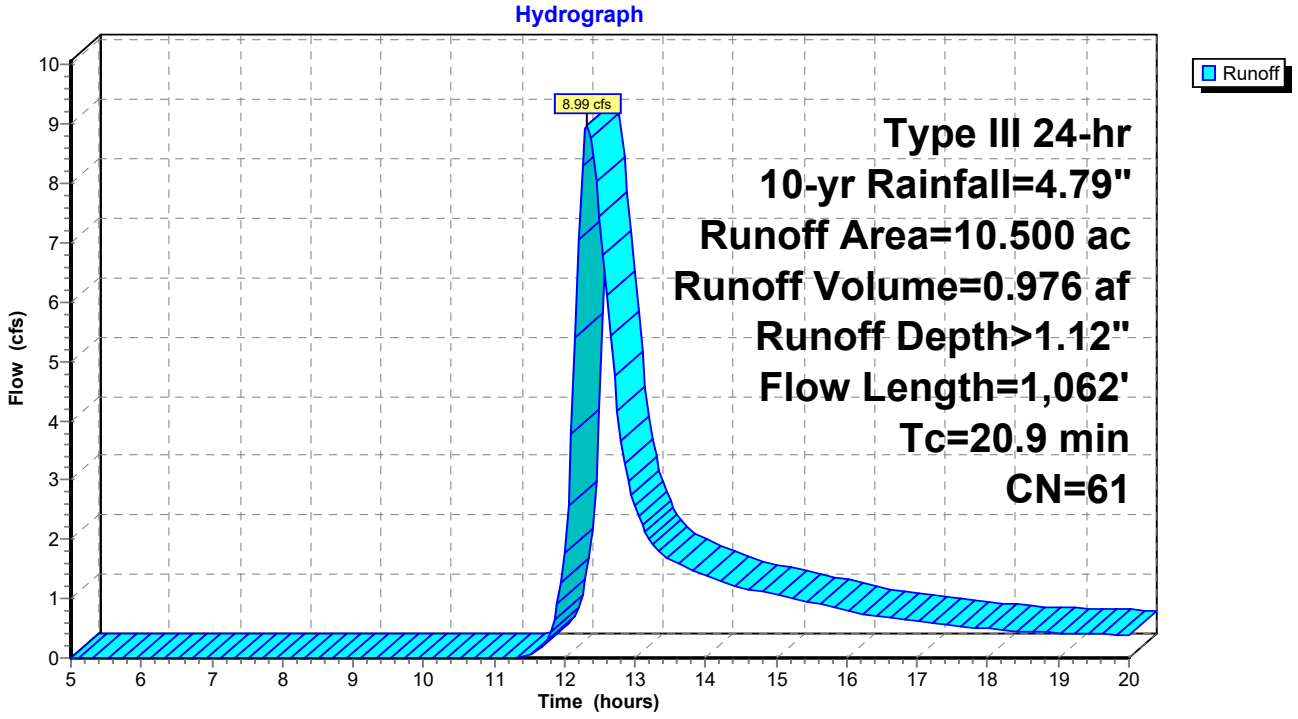
Runoff = 8.99 cfs @ 12.33 hrs, Volume= 0.976 af, Depth> 1.12"
Routed to Pond B8* : B8 Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.300	98	Paved parking, HSG A
8.360	61	>75% Grass cover, Good, HSG B
1.840	55	Woods, Good, HSG B
10.500	61	Weighted Average
10.200		97.14% Pervious Area
0.300		2.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	50	0.0120	0.12		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
13.9	1,012	0.0300	1.21		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
20.9	1,062	Total			

Subcatchment B8: B8



Hydrograph for Subcatchment B8: B8

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.03
11.75	1.70	0.03	0.29
12.00	2.39	0.17	1.78
12.25	3.09	0.40	**8.31**
12.50	3.36	0.51	**7.44**
12.75	3.49	0.57	4.15
13.00	3.59	0.61	2.56
13.25	3.68	0.65	1.92
13.50	3.75	0.69	1.66
13.75	3.82	0.72	1.52
14.00	3.88	0.75	1.40
14.25	3.94	0.78	1.28
14.50	4.00	0.81	1.19
14.75	4.05	0.84	1.13
15.00	4.09	0.86	1.07
15.25	4.14	0.88	1.00
15.50	4.17	0.90	0.94
15.75	4.21	0.92	0.87
16.00	4.24	0.94	0.80
16.25	4.27	0.96	0.73
16.50	4.30	0.97	0.68
16.75	4.33	0.99	0.65
17.00	4.36	1.00	0.62
17.25	4.38	1.01	0.59
17.50	4.40	1.03	0.56
17.75	4.43	1.04	0.52
18.00	4.45	1.05	0.49
18.25	4.46	1.06	0.46
18.50	4.48	1.07	0.44
18.75	4.50	1.08	0.43
19.00	4.52	1.09	0.42
19.25	4.54	1.10	0.41
19.50	4.55	1.11	0.40
19.75	4.57	1.12	0.40
20.00	**4.58**	**1.13**	0.39

Summary for Subcatchment B9: B9

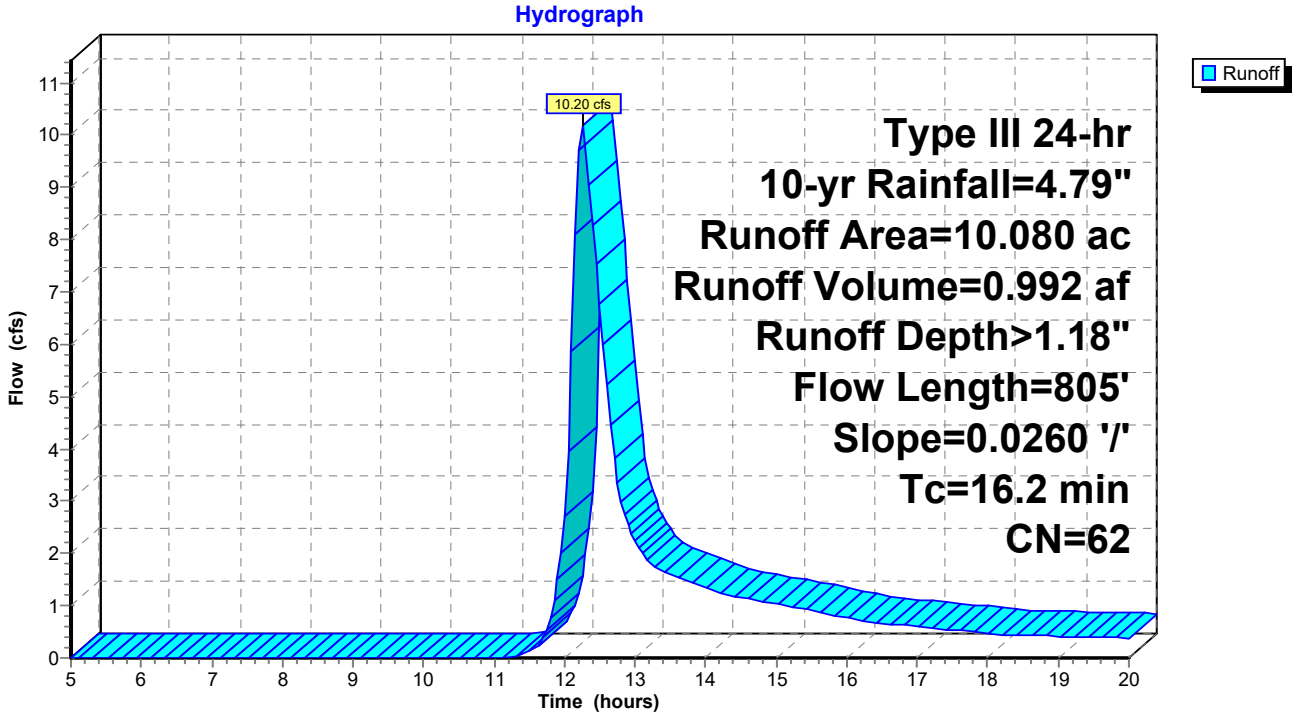
Runoff = 10.20 cfs @ 12.25 hrs, Volume= 0.992 af, Depth> 1.18"
Routed to Reach 2R : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.510	98	Paved parking, HSG A
8.400	61	>75% Grass cover, Good, HSG B
1.170	55	Woods, Good, HSG B
10.080	62	Weighted Average
9.570		94.94% Pervious Area
0.510		5.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	50	0.0260	0.16		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
11.1	755	0.0260	1.13		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
16.2	805	Total			

Subcatchment B9: B9



Hydrograph for Subcatchment B9: B9

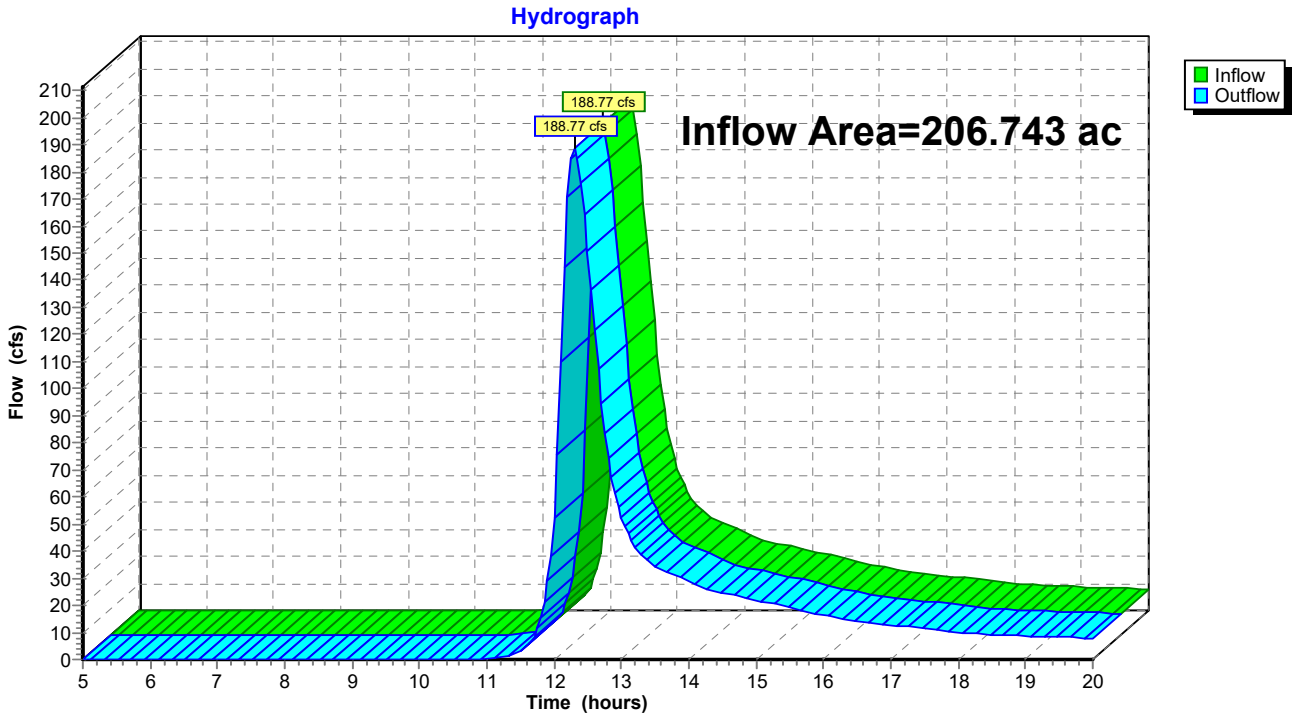
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.01
11.50	1.43	0.01	0.12
11.75	1.70	0.03	0.55
12.00	2.39	0.19	2.72
12.25	3.09	0.43	**10.20**
12.50	3.36	0.55	6.78
12.75	3.49	0.61	3.34
13.00	3.59	0.66	2.24
13.25	3.68	0.70	1.78
13.50	3.75	0.74	1.60
13.75	3.82	0.77	1.48
14.00	3.88	0.80	1.36
14.25	3.94	0.83	1.24
14.50	4.00	0.86	1.17
14.75	4.05	0.89	1.11
15.00	4.09	0.91	1.04
15.25	4.14	0.94	0.98
15.50	4.17	0.96	0.91
15.75	4.21	0.98	0.84
16.00	4.24	1.00	0.77
16.25	4.27	1.01	0.71
16.50	4.30	1.03	0.67
16.75	4.33	1.04	0.64
17.00	4.36	1.06	0.61
17.25	4.38	1.07	0.57
17.50	4.40	1.09	0.54
17.75	4.43	1.10	0.51
18.00	4.45	1.11	0.48
18.25	4.46	1.12	0.45
18.50	4.48	1.13	0.44
18.75	4.50	1.14	0.43
19.00	4.52	1.15	0.42
19.25	4.54	1.16	0.41
19.50	4.55	1.17	0.40
19.75	4.57	1.18	0.39
20.00	**4.58**	**1.19**	0.38

Summary for Reach 2R: DP-B

Inflow Area = 206.743 ac, 1.99% Impervious, Inflow Depth > 1.21" for 10-yr event
Inflow = 188.77 cfs @ 12.30 hrs, Volume= 20.909 af
Outflow = 188.77 cfs @ 12.30 hrs, Volume= 20.909 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 2R: DP-B



Hydrograph for Reach 2R: DP-B

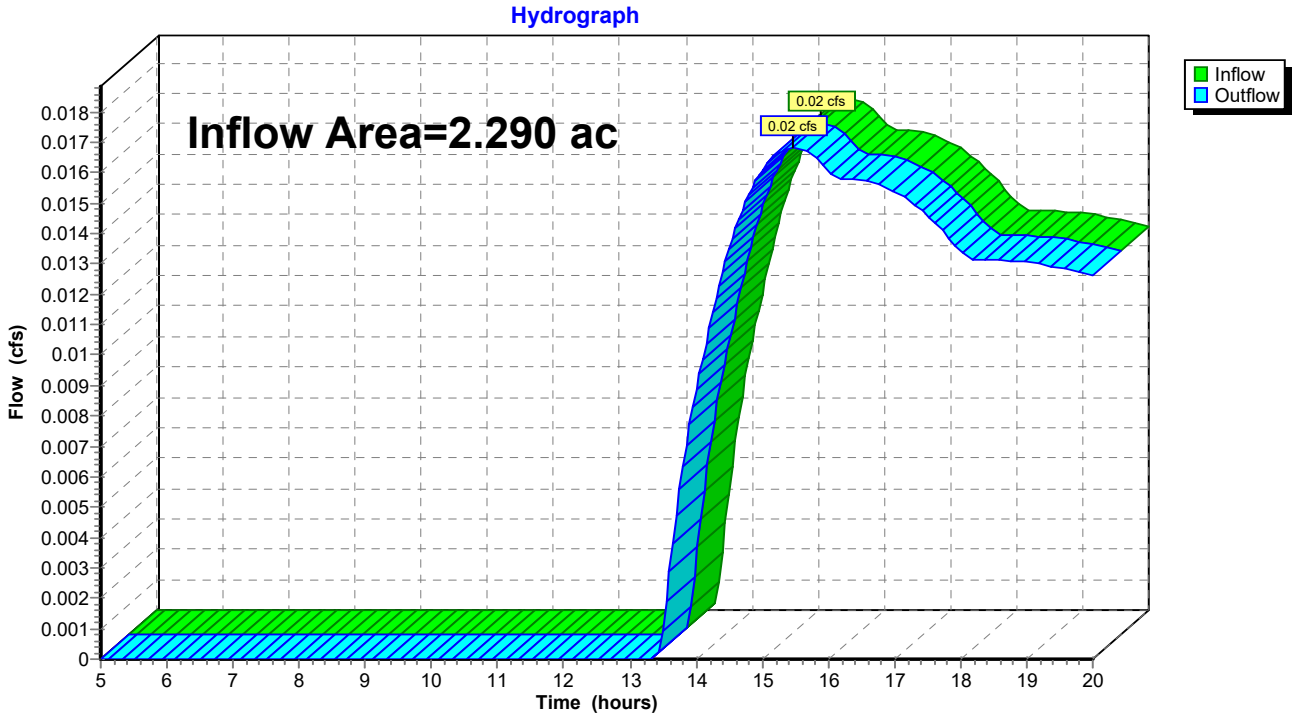
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	10.75		10.75
5.25	0.00		0.00	18.00	10.07		10.07
5.50	0.00		0.00	18.25	9.46		9.46
5.75	0.00		0.00	18.50	9.12		9.12
6.00	0.00		0.00	18.75	8.90		8.90
6.25	0.00		0.00	19.00	8.70		8.70
6.50	0.00		0.00	19.25	8.50		8.50
6.75	0.00		0.00	19.50	8.30		8.30
7.00	0.00		0.00	19.75	8.11		8.11
7.25	0.00		0.00	20.00	7.91		7.91
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.00		0.00				
10.25	0.00		0.00				
10.50	0.00		0.00				
10.75	0.00		0.00				
11.00	0.05		0.05				
11.25	0.88		0.88				
11.50	3.44		3.44				
11.75	11.57		11.57				
12.00	52.11		52.11				
12.25	**184.82**		**184.82**				
12.50	**150.75**		**150.75**				
12.75	83.12		83.12				
13.00	52.64		52.64				
13.25	39.81		39.81				
13.50	34.48		34.48				
13.75	31.50		31.50				
14.00	28.83		28.83				
14.25	26.34		26.34				
14.50	24.68		24.68				
14.75	23.33		23.33				
15.00	22.00		22.00				
15.25	20.65		20.65				
15.50	19.25		19.25				
15.75	17.81		17.81				
16.00	16.34		16.34				
16.25	14.97		14.97				
16.50	14.09		14.09				
16.75	13.40		13.40				
17.00	12.74		12.74				
17.25	12.09		12.09				
17.50	11.42		11.42				

Summary for Reach 21R: Reach

Inflow Area = 2.290 ac, 0.00% Impervious, Inflow Depth > 0.04" for 10-yr event
Inflow = 0.02 cfs @ 15.48 hrs, Volume= 0.007 af
Outflow = 0.02 cfs @ 15.48 hrs, Volume= 0.007 af, Atten= 0%, Lag= 0.0 min
Routed to Reach 22R : Reach

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 21R: Reach



Hydrograph for Reach 21R: Reach

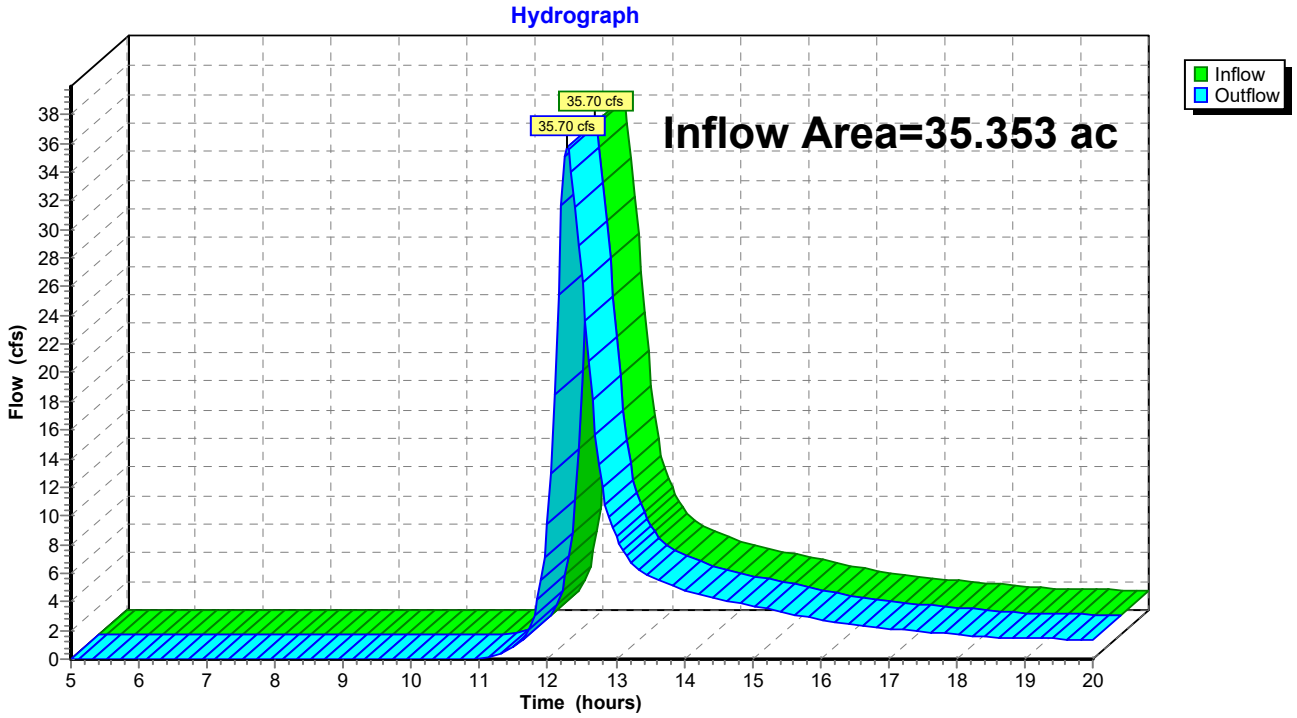
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00
5.25	0.00		0.00
5.50	0.00		0.00
5.75	0.00		0.00
6.00	0.00		0.00
6.25	0.00		0.00
6.50	0.00		0.00
6.75	0.00		0.00
7.00	0.00		0.00
7.25	0.00		0.00
7.50	0.00		0.00
7.75	0.00		0.00
8.00	0.00		0.00
8.25	0.00		0.00
8.50	0.00		0.00
8.75	0.00		0.00
9.00	0.00		0.00
9.25	0.00		0.00
9.50	0.00		0.00
9.75	0.00		0.00
10.00	0.00		0.00
10.25	0.00		0.00
10.50	0.00		0.00
10.75	0.00		0.00
11.00	0.00		0.00
11.25	0.00		0.00
11.50	0.00		0.00
11.75	0.00		0.00
12.00	0.00		0.00
12.25	0.00		0.00
12.50	0.00		0.00
12.75	0.00		0.00
13.00	0.00		0.00
13.25	0.00		0.00
13.50	0.00		0.00
13.75	0.01		0.01
14.00	0.01		0.01
14.25	0.01		0.01
14.50	0.01		0.01
14.75	0.02		0.02
15.00	0.02		0.02
15.25	0.02		0.02
15.50	**0.02**		**0.02**
15.75	0.02		0.02
16.00	0.02		0.02
16.25	0.02		0.02
16.50	0.02		0.02
16.75	0.02		0.02
17.00	0.02		0.02
17.25	0.02		0.02
17.50	0.01		0.01
17.75	0.01		0.01
18.00	0.01		0.01
18.25	0.01		0.01
18.50	0.01		0.01
18.75	0.01		0.01
19.00	0.01		0.01
19.25	0.01		0.01
19.50	0.01		0.01
19.75	0.01		0.01
20.00	0.01		0.01

Summary for Reach 22R: Reach

Inflow Area = 35.353 ac, 2.62% Impervious, Inflow Depth > 1.22" for 10-yr event
Inflow = 35.70 cfs @ 12.29 hrs, Volume= 3.608 af
Outflow = 35.70 cfs @ 12.29 hrs, Volume= 3.608 af, Atten= 0%, Lag= 0.0 min
Routed to Reach 2R : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 22R: Reach



Hydrograph for Reach 22R: Reach

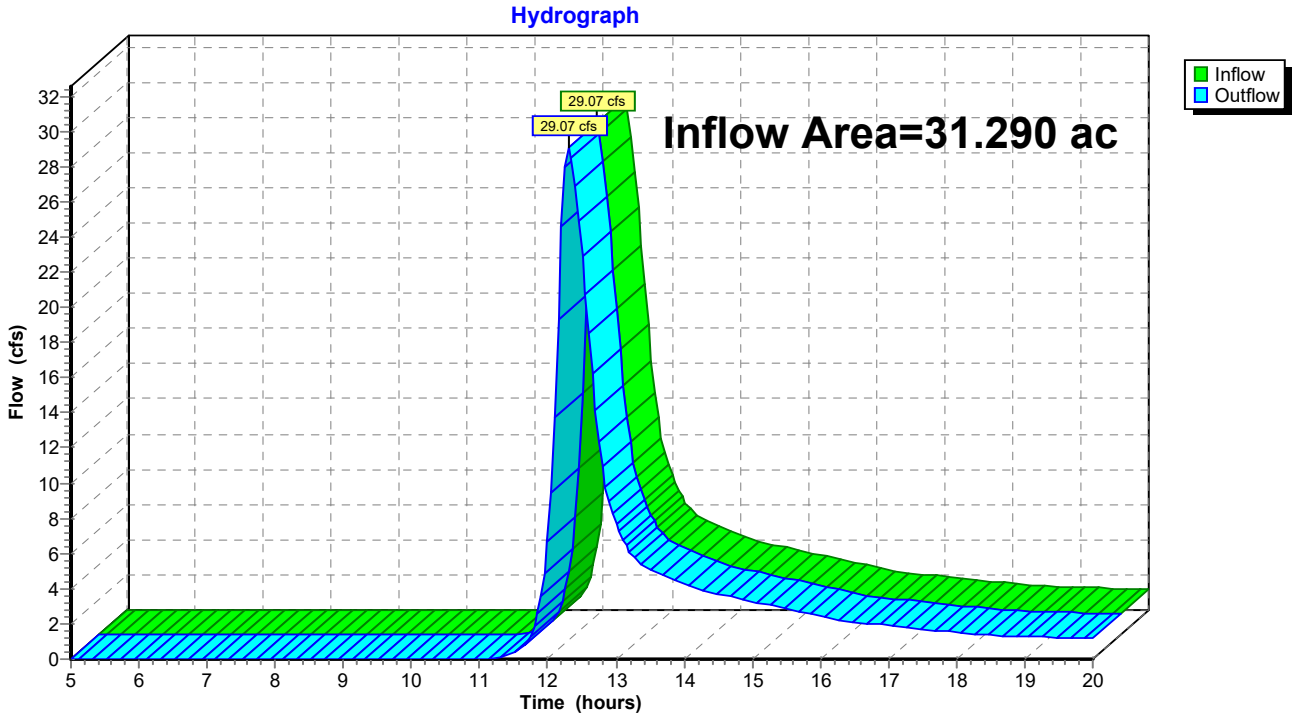
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00
5.25	0.00		0.00
5.50	0.00		0.00
5.75	0.00		0.00
6.00	0.00		0.00
6.25	0.00		0.00
6.50	0.00		0.00
6.75	0.00		0.00
7.00	0.00		0.00
7.25	0.00		0.00
7.50	0.00		0.00
7.75	0.00		0.00
8.00	0.00		0.00
8.25	0.00		0.00
8.50	0.00		0.00
8.75	0.00		0.00
9.00	0.00		0.00
9.25	0.00		0.00
9.50	0.00		0.00
9.75	0.00		0.00
10.00	0.00		0.00
10.25	0.00		0.00
10.50	0.00		0.00
10.75	0.00		0.00
11.00	0.02		0.02
11.25	0.28		0.28
11.50	0.84		0.84
11.75	2.31		2.31
12.00	9.40		9.40
12.25	**35.13**		**35.13**
12.50	**26.29**		**26.29**
12.75	13.59		13.59
13.00	8.54		8.54
13.25	6.53		6.53
13.50	5.75		5.75
13.75	5.29		5.29
14.00	4.85		4.85
14.25	4.42		4.42
14.50	4.15		4.15
14.75	3.93		3.93
15.00	3.71		3.71
15.25	3.48		3.48
15.50	3.24		3.24
15.75	2.99		2.99
16.00	2.74		2.74
16.25	2.51		2.51
16.50	2.37		2.37
16.75	2.25		2.25
17.00	2.14		2.14
17.25	2.03		2.03
17.50	1.92		1.92
17.75	1.81		1.81
18.00	1.69		1.69
18.25	1.59		1.59
18.50	1.53		1.53
18.75	1.50		1.50
19.00	1.47		1.47
19.25	1.43		1.43
19.50	1.40		1.40
19.75	1.37		1.37
20.00	1.33		1.33

Summary for Reach 23R: Reach

Inflow Area = 31.290 ac, 0.93% Impervious, Inflow Depth > 1.18" for 10-yr event
Inflow = 29.07 cfs @ 12.31 hrs, Volume= 3.073 af
Outflow = 29.07 cfs @ 12.31 hrs, Volume= 3.073 af, Atten= 0%, Lag= 0.0 min
Routed to Reach 2R : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 23R: Reach



Hydrograph for Reach 23R: Reach

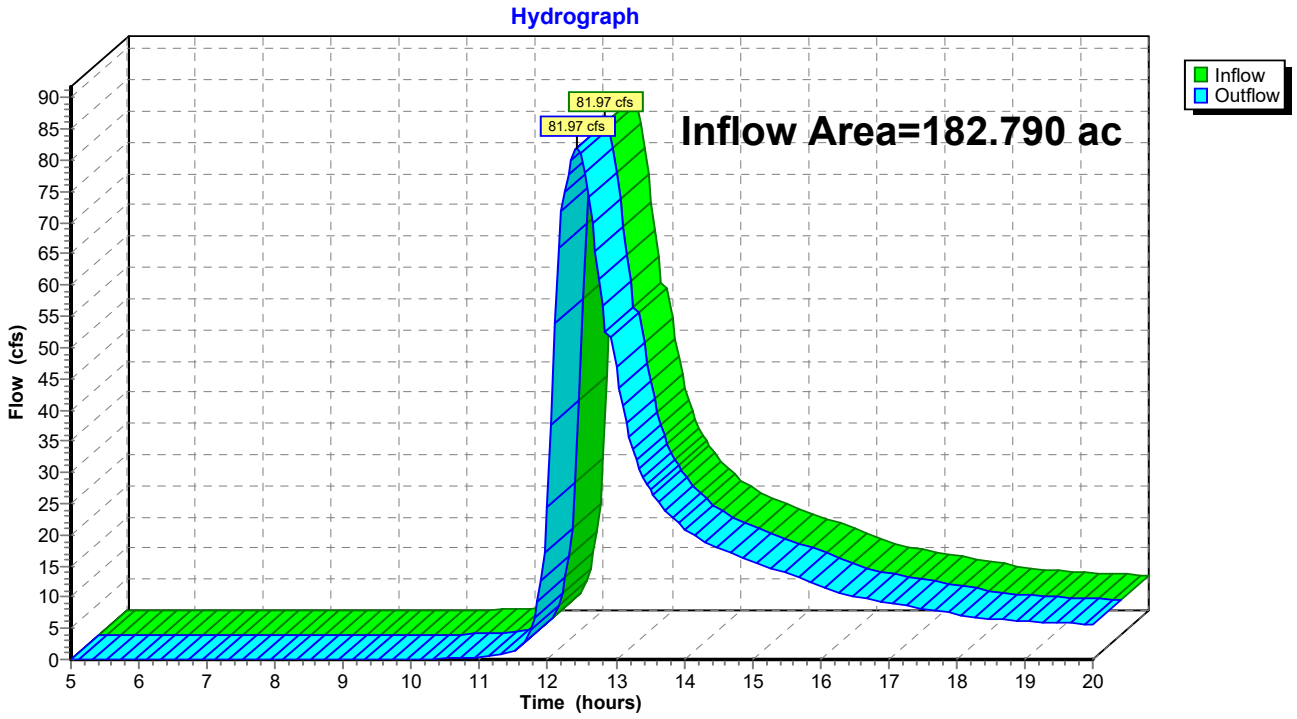
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	1.61		1.61
5.25	0.00		0.00	18.00	1.50		1.50
5.50	0.00		0.00	18.25	1.41		1.41
5.75	0.00		0.00	18.50	1.36		1.36
6.00	0.00		0.00	18.75	1.33		1.33
6.25	0.00		0.00	19.00	1.30		1.30
6.50	0.00		0.00	19.25	1.27		1.27
6.75	0.00		0.00	19.50	1.24		1.24
7.00	0.00		0.00	19.75	1.21		1.21
7.25	0.00		0.00	20.00	1.18		1.18
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.00		0.00				
10.25	0.00		0.00				
10.50	0.00		0.00				
10.75	0.00		0.00				
11.00	0.00		0.00				
11.25	0.01		0.01				
11.50	0.29		0.29				
11.75	1.32		1.32				
12.00	6.66		6.66				
12.25	**27.95**		**27.95**				
12.50	**22.89**		**22.89**				
12.75	12.35		12.35				
13.00	7.70		7.70				
13.25	5.84		5.84				
13.50	5.10		5.10				
13.75	4.68		4.68				
14.00	4.30		4.30				
14.25	3.92		3.92				
14.50	3.68		3.68				
14.75	3.48		3.48				
15.00	3.28		3.28				
15.25	3.08		3.08				
15.50	2.87		2.87				
15.75	2.66		2.66				
16.00	2.44		2.44				
16.25	2.23		2.23				
16.50	2.10		2.10				
16.75	2.00		2.00				
17.00	1.90		1.90				
17.25	1.80		1.80				
17.50	1.71		1.71				

Summary for Reach DP-A: DP-A

Inflow Area = 182.790 ac, 4.55% Impervious, Inflow Depth > 0.88" for 10-yr event
Inflow = 81.97 cfs @ 12.43 hrs, Volume= 13.344 af
Outflow = 81.97 cfs @ 12.43 hrs, Volume= 13.344 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-A: DP-A



Hydrograph for Reach DP-A: DP-A

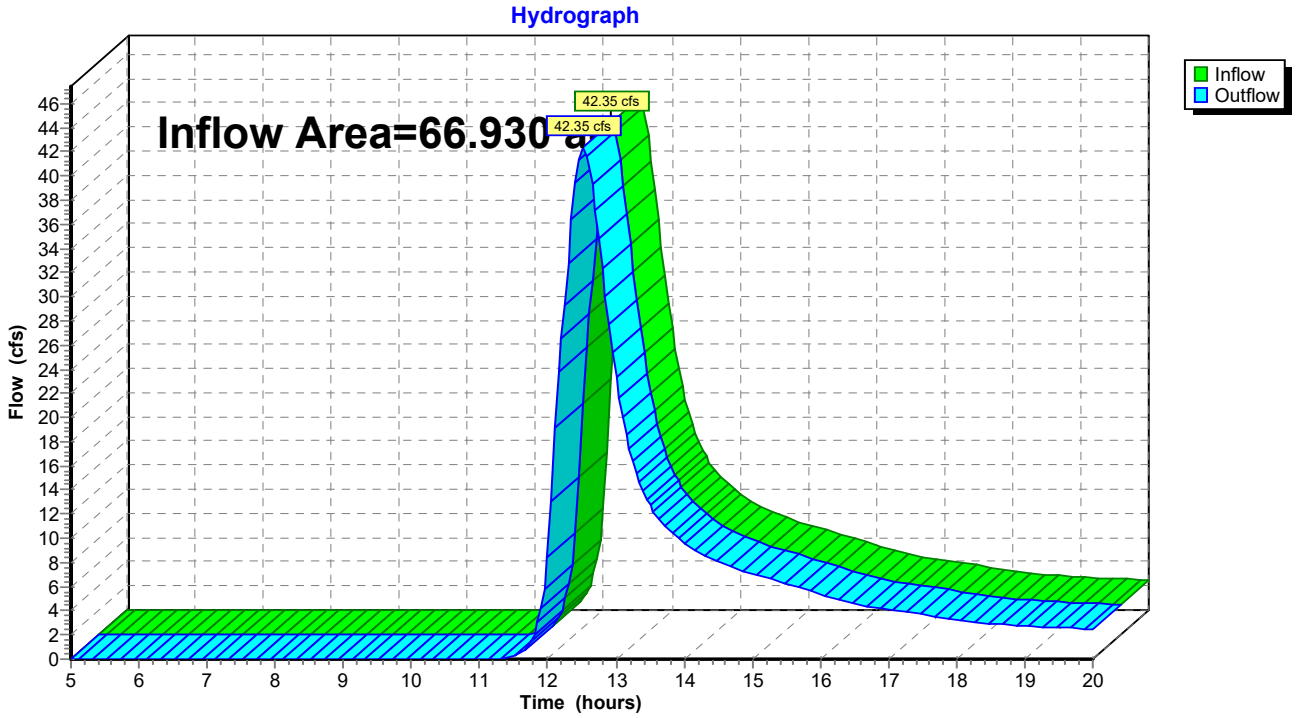
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	7.71		7.71
5.25	0.00		0.00	18.00	7.24		7.24
5.50	0.00		0.00	18.25	6.81		6.81
5.75	0.00		0.00	18.50	6.51		6.51
6.00	0.00		0.00	18.75	6.31		6.31
6.25	0.00		0.00	19.00	6.15		6.15
6.50	0.00		0.00	19.25	6.00		6.00
6.75	0.00		0.00	19.50	5.86		5.86
7.00	0.00		0.00	19.75	5.73		5.73
7.25	0.00		0.00	20.00	5.59		5.59
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.04		0.04				
10.25	0.10		0.10				
10.50	0.19		0.19				
10.75	0.30		0.30				
11.00	0.42		0.42				
11.25	0.61		0.61				
11.50	1.25		1.25				
11.75	4.77		4.77				
12.00	24.46		24.46				
12.25	**75.07**		**75.07**				
12.50	**80.65**		**80.65**				
12.75	60.99		60.99				
13.00	46.93		46.93				
13.25	33.79		33.79				
13.50	27.16		27.16				
13.75	23.57		23.57				
14.00	21.12		21.12				
14.25	19.17		19.17				
14.50	17.76		17.76				
14.75	16.68		16.68				
15.00	15.72		15.72				
15.25	14.78		14.78				
15.50	13.82		13.82				
15.75	12.84		12.84				
16.00	11.83		11.83				
16.25	10.88		10.88				
16.50	10.15		10.15				
16.75	9.59		9.59				
17.00	9.11		9.11				
17.25	8.64		8.64				
17.50	8.18		8.18				

Summary for Reach SUB-1: Reach

Inflow Area = 66.930 ac, 2.76% Impervious, Inflow Depth > 1.11" for 10-yr event
Inflow = 42.35 cfs @ 12.52 hrs, Volume= 6.190 af
Outflow = 42.35 cfs @ 12.52 hrs, Volume= 6.190 af, Atten= 0%, Lag= 0.0 min
Routed to Reach DP-A : DP-A

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SUB-1: Reach



Hydrograph for Reach SUB-1: Reach

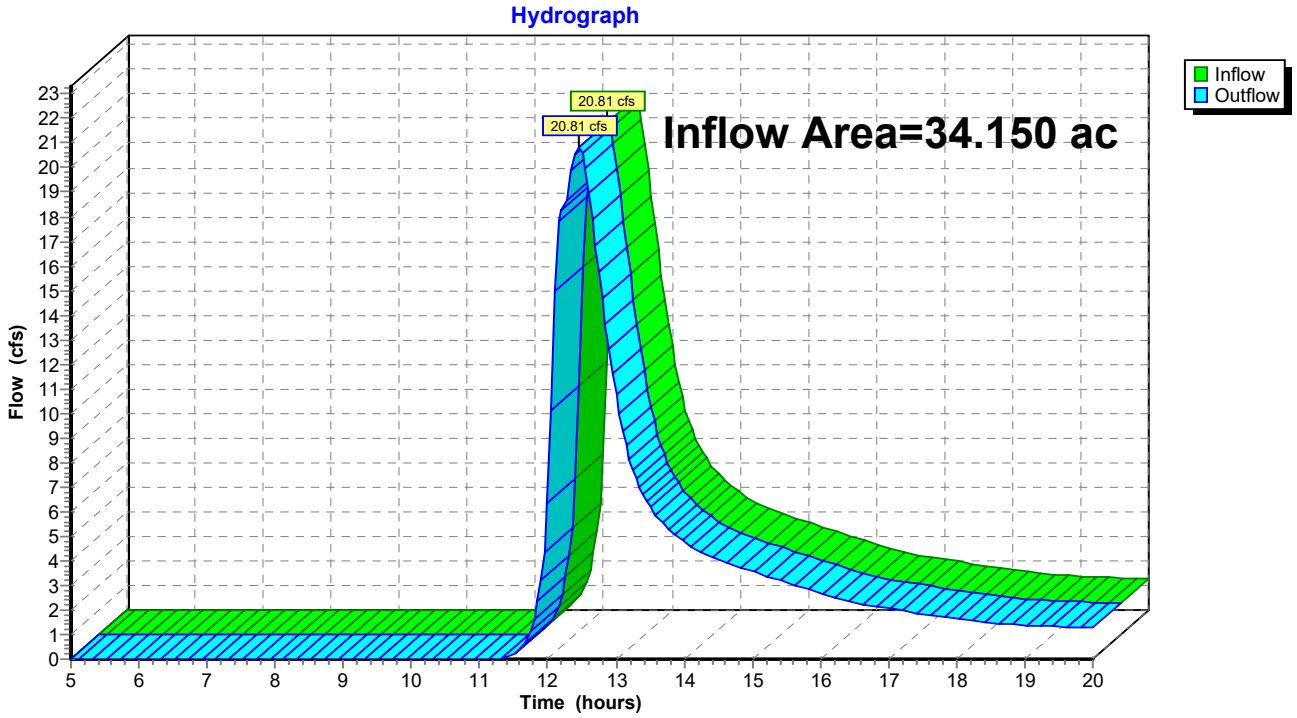
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00
5.25	0.00		0.00
5.50	0.00		0.00
5.75	0.00		0.00
6.00	0.00		0.00
6.25	0.00		0.00
6.50	0.00		0.00
6.75	0.00		0.00
7.00	0.00		0.00
7.25	0.00		0.00
7.50	0.00		0.00
7.75	0.00		0.00
8.00	0.00		0.00
8.25	0.00		0.00
8.50	0.00		0.00
8.75	0.00		0.00
9.00	0.00		0.00
9.25	0.00		0.00
9.50	0.00		0.00
9.75	0.00		0.00
10.00	0.00		0.00
10.25	0.00		0.00
10.50	0.00		0.00
10.75	0.00		0.00
11.00	0.00		0.00
11.25	0.00		0.00
11.50	0.17		0.17
11.75	1.43		1.43
12.00	8.37		8.37
12.25	29.25		29.25
12.50	**42.29**		**42.29**
12.75	34.83		34.83
13.00	23.42		23.42
13.25	16.35		16.35
13.50	12.72		12.72
13.75	10.82		10.82
14.00	9.61		9.61
14.25	8.69		8.69
14.50	8.02		8.02
14.75	7.51		7.51
15.00	7.08		7.08
15.25	6.66		6.66
15.50	6.24		6.24
15.75	5.81		5.81
16.00	5.36		5.36
16.25	4.94		4.94
16.50	4.58		4.58
16.75	4.32		4.32
17.00	4.09		4.09
17.25	3.89		3.89
17.50	3.68		3.68
17.75	3.47		3.47
18.00	3.27		3.27
18.25	3.07		3.07
18.50	2.92		2.92
18.75	2.82		2.82
19.00	2.75		2.75
19.25	2.68		2.68
19.50	2.62		2.62
19.75	2.56		2.56
20.00	2.50		2.50

Summary for Reach SUB-2: Reach

Inflow Area = 34.150 ac, 3.07% Impervious, Inflow Depth > 1.11" for 10-yr event
Inflow = 20.81 cfs @ 12.45 hrs, Volume= 3.166 af
Outflow = 20.81 cfs @ 12.45 hrs, Volume= 3.166 af, Atten= 0%, Lag= 0.0 min
Routed to Reach SUB-1 : Reach

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SUB-2: Reach



Hydrograph for Reach SUB-2: Reach

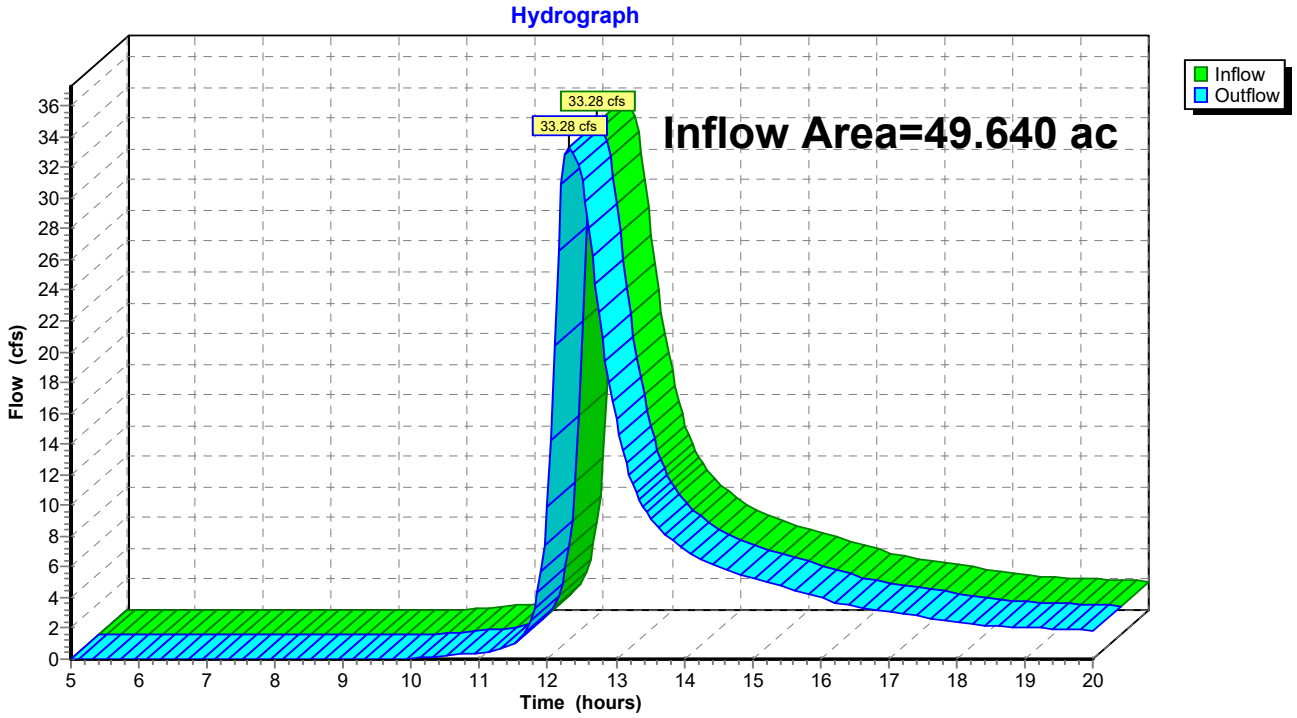
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00
5.25	0.00		0.00
5.50	0.00		0.00
5.75	0.00		0.00
6.00	0.00		0.00
6.25	0.00		0.00
6.50	0.00		0.00
6.75	0.00		0.00
7.00	0.00		0.00
7.25	0.00		0.00
7.50	0.00		0.00
7.75	0.00		0.00
8.00	0.00		0.00
8.25	0.00		0.00
8.50	0.00		0.00
8.75	0.00		0.00
9.00	0.00		0.00
9.25	0.00		0.00
9.50	0.00		0.00
9.75	0.00		0.00
10.00	0.00		0.00
10.25	0.00		0.00
10.50	0.00		0.00
10.75	0.00		0.00
11.00	0.00		0.00
11.25	0.00		0.00
11.50	0.15		0.15
11.75	1.13		1.13
12.00	6.35		6.35
12.25	**18.33**		**18.33**
12.50	**20.60**		**20.60**
12.75	15.73		15.73
13.00	10.77		10.77
13.25	7.72		7.72
13.50	6.18		6.18
13.75	5.33		5.33
14.00	4.76		4.76
14.25	4.33		4.33
14.50	4.01		4.01
14.75	3.77		3.77
15.00	3.55		3.55
15.25	3.34		3.34
15.50	3.12		3.12
15.75	2.90		2.90
16.00	2.67		2.67
16.25	2.46		2.46
16.50	2.30		2.30
16.75	2.17		2.17
17.00	2.06		2.06
17.25	1.95		1.95
17.50	1.85		1.85
17.75	1.74		1.74
18.00	1.64		1.64
18.25	1.54		1.54
18.50	1.47		1.47
18.75	1.43		1.43
19.00	1.39		1.39
19.25	1.36		1.36
19.50	1.33		1.33
19.75	1.30		1.30
20.00	1.26		1.26

Summary for Reach SUB-3: Reach

Inflow Area = 49.640 ac, 8.42% Impervious, Inflow Depth > 1.17" for 10-yr event
Inflow = 33.28 cfs @ 12.31 hrs, Volume= 4.843 af
Outflow = 33.28 cfs @ 12.31 hrs, Volume= 4.843 af, Atten= 0%, Lag= 0.0 min
Routed to Reach DP-A : DP-A

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SUB-3: Reach



Hydrograph for Reach SUB-3: Reach

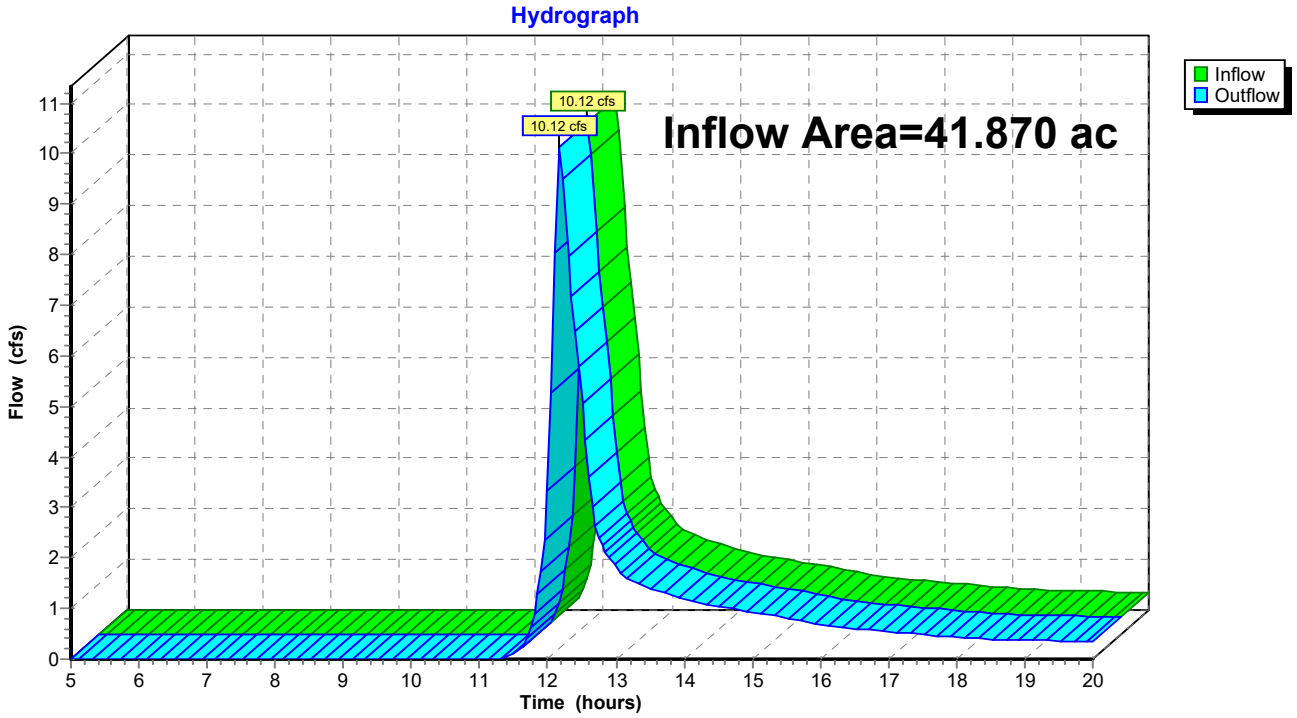
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00
5.25	0.00		0.00
5.50	0.00		0.00
5.75	0.00		0.00
6.00	0.00		0.00
6.25	0.00		0.00
6.50	0.00		0.00
6.75	0.00		0.00
7.00	0.00		0.00
7.25	0.00		0.00
7.50	0.00		0.00
7.75	0.00		0.00
8.00	0.00		0.00
8.25	0.00		0.00
8.50	0.00		0.00
8.75	0.00		0.00
9.00	0.00		0.00
9.25	0.00		0.00
9.50	0.00		0.00
9.75	0.00		0.00
10.00	0.04		0.04
10.25	0.10		0.10
10.50	0.19		0.19
10.75	0.30		0.30
11.00	0.42		0.42
11.25	0.61		0.61
11.50	0.98		0.98
11.75	2.45		2.45
12.00	9.97		9.97
12.25	**32.82**		**32.82**
12.50	**31.13**		**31.13**
12.75	22.55		22.55
13.00	15.62		15.62
13.25	11.37		11.37
13.50	9.22		9.22
13.75	8.00		8.00
14.00	7.16		7.16
14.25	6.47		6.47
14.50	5.99		5.99
14.75	5.62		5.62
15.00	5.29		5.29
15.25	4.97		4.97
15.50	4.65		4.65
15.75	4.32		4.32
16.00	3.98		3.98
16.25	3.66		3.66
16.50	3.42		3.42
16.75	3.23		3.23
17.00	3.06		3.06
17.25	2.90		2.90
17.50	2.75		2.75
17.75	2.59		2.59
18.00	2.43		2.43
18.25	2.29		2.29
18.50	2.19		2.19
18.75	2.12		2.12
19.00	2.06		2.06
19.25	2.02		2.02
19.50	1.97		1.97
19.75	1.92		1.92
20.00	1.88		1.88

Summary for Reach SUB-4: Reach

Inflow Area = 41.870 ac, 3.96% Impervious, Inflow Depth > 0.25" for 10-yr event
Inflow = 10.12 cfs @ 12.18 hrs, Volume= 0.884 af
Outflow = 10.12 cfs @ 12.18 hrs, Volume= 0.884 af, Atten= 0%, Lag= 0.0 min
Routed to Reach SUB-5 : Reach

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SUB-4: Reach



Hydrograph for Reach SUB-4: Reach

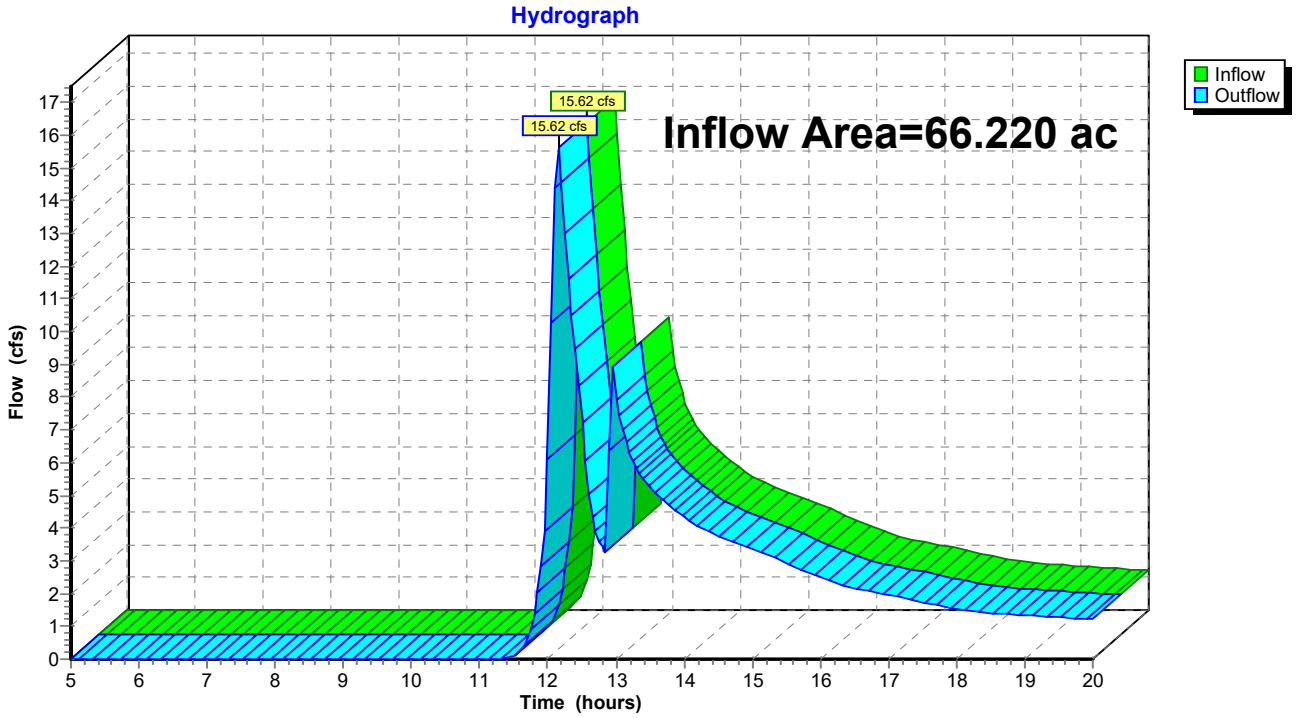
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00
5.25	0.00		0.00
5.50	0.00		0.00
5.75	0.00		0.00
6.00	0.00		0.00
6.25	0.00		0.00
6.50	0.00		0.00
6.75	0.00		0.00
7.00	0.00		0.00
7.25	0.00		0.00
7.50	0.00		0.00
7.75	0.00		0.00
8.00	0.00		0.00
8.25	0.00		0.00
8.50	0.00		0.00
8.75	0.00		0.00
9.00	0.00		0.00
9.25	0.00		0.00
9.50	0.00		0.00
9.75	0.00		0.00
10.00	0.00		0.00
10.25	0.00		0.00
10.50	0.00		0.00
10.75	0.00		0.00
11.00	0.00		0.00
11.25	0.00		0.00
11.50	0.09		0.09
11.75	0.62		0.62
12.00	**3.32**		**3.32**
12.25	**8.98**		**8.98**
12.50	5.06		5.06
12.75	2.40		2.40
13.00	1.84		1.84
13.25	1.53		1.53
13.50	1.41		1.41
13.75	1.31		1.31
14.00	1.19		1.19
14.25	1.10		1.10
14.50	1.04		1.04
14.75	0.99		0.99
15.00	0.93		0.93
15.25	0.87		0.87
15.50	0.81		0.81
15.75	0.74		0.74
16.00	0.68		0.68
16.25	0.63		0.63
16.50	0.60		0.60
16.75	0.57		0.57
17.00	0.54		0.54
17.25	0.51		0.51
17.50	0.48		0.48
17.75	0.45		0.45
18.00	0.43		0.43
18.25	0.40		0.40
18.50	0.39		0.39
18.75	0.39		0.39
19.00	0.38		0.38
19.25	0.37		0.37
19.50	0.36		0.36
19.75	0.35		0.35
20.00	0.34		0.34

Summary for Reach SUB-5: Reach

Inflow Area = 66.220 ac, 3.46% Impervious, Inflow Depth > 0.42" for 10-yr event
Inflow = 15.62 cfs @ 12.15 hrs, Volume= 2.311 af
Outflow = 15.62 cfs @ 12.15 hrs, Volume= 2.311 af, Atten= 0%, Lag= 0.0 min
Routed to Reach DP-A : DP-A

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SUB-5: Reach



Hydrograph for Reach SUB-5: Reach

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00
5.25	0.00		0.00
5.50	0.00		0.00
5.75	0.00		0.00
6.00	0.00		0.00
6.25	0.00		0.00
6.50	0.00		0.00
6.75	0.00		0.00
7.00	0.00		0.00
7.25	0.00		0.00
7.50	0.00		0.00
7.75	0.00		0.00
8.00	0.00		0.00
8.25	0.00		0.00
8.50	0.00		0.00
8.75	0.00		0.00
9.00	0.00		0.00
9.25	0.00		0.00
9.50	0.00		0.00
9.75	0.00		0.00
10.00	0.00		0.00
10.25	0.00		0.00
10.50	0.00		0.00
10.75	0.00		0.00
11.00	0.00		0.00
11.25	0.00		0.00
11.50	0.09		0.09
11.75	0.89		0.89
12.00	**6.12**		**6.12**
12.25	**12.99**		**12.99**
12.50	7.23		7.23
12.75	3.61		3.61
13.00	7.90		7.90
13.25	6.07		6.07
13.50	5.22		5.22
13.75	4.76		4.76
14.00	4.35		4.35
14.25	4.00		4.00
14.50	3.75		3.75
14.75	3.55		3.55
15.00	3.35		3.35
15.25	3.14		3.14
15.50	2.93		2.93
15.75	2.71		2.71
16.00	2.49		2.49
16.25	2.29		2.29
16.50	2.16		2.16
16.75	2.05		2.05
17.00	1.95		1.95
17.25	1.85		1.85
17.50	1.75		1.75
17.75	1.65		1.65
18.00	1.54		1.54
18.25	1.45		1.45
18.50	1.40		1.40
18.75	1.37		1.37
19.00	1.34		1.34
19.25	1.31		1.31
19.50	1.28		1.28
19.75	1.25		1.25
20.00	1.22		1.22

Summary for Pond A4*: A4 Pond

Inflow Area = 32.410 ac, 3.15% Impervious, Inflow Depth > 0.83" for 10-yr event
Inflow = 19.55 cfs @ 12.32 hrs, Volume= 2.234 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Reach SUB-4 : Reach

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 105.27' @ 20.00 hrs Storage= 97,207 cf

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

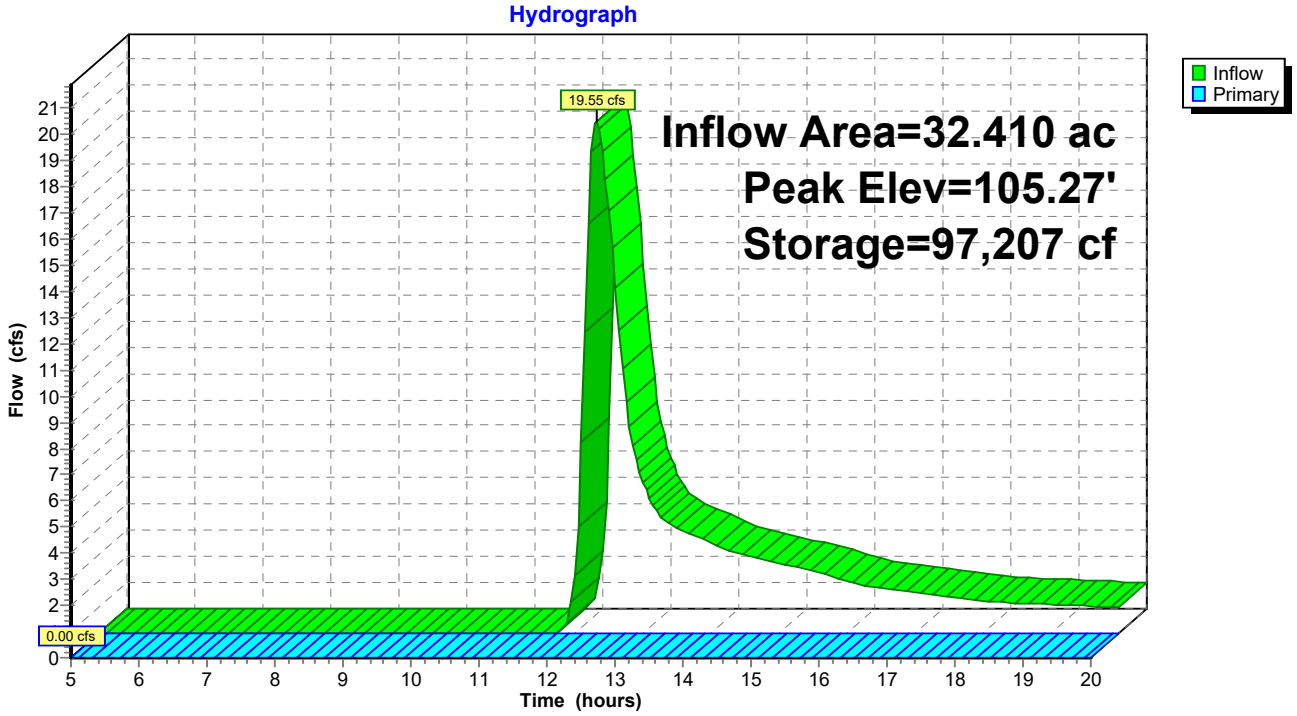
Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	576,398 cf	**Custom Stage Data**Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
100.00	0	0
105.00	86,533	86,533
110.00	200,119	286,652
115.00	289,746	576,398

Device	Routing	Invert	Outlet Devices
#1	Primary	110.00'	**220.0' long Broad-Crested Rectangular Weir** Head (feet) 10.00 Coef. (English) 2.60

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=100.00' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond A4*: A4 Pond



Hydrograph for Pond A4*: A4 Pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	100.00	**0.00**
5.50	0.00	0	100.00	0.00
6.00	0.00	0	100.00	0.00
6.50	0.00	0	100.00	0.00
7.00	0.00	0	100.00	0.00
7.50	0.00	0	100.00	0.00
8.00	0.00	0	100.00	0.00
8.50	0.00	0	100.00	0.00
9.00	0.00	0	100.00	0.00
9.50	0.00	0	100.00	0.00
10.00	0.00	0	100.00	0.00
10.50	0.00	0	100.00	0.00
11.00	0.00	0	100.00	0.00
11.50	0.00	0	100.00	0.00
12.00	**2.23**	569	100.03	0.00
12.50	**16.11**	25,867	101.49	0.00
13.00	5.79	43,352	102.50	0.00
13.50	4.03	51,739	102.99	0.00
14.00	3.45	58,470	103.38	0.00
14.50	2.99	64,202	103.71	0.00
15.00	2.69	69,308	104.00	0.00
15.50	2.36	73,857	104.27	0.00
16.00	2.01	77,800	104.50	0.00
16.50	1.74	81,145	104.69	0.00
17.00	1.59	84,142	104.86	0.00
17.50	1.43	86,855	105.01	0.00
18.00	1.26	89,273	105.07	0.00
18.50	1.14	91,416	105.12	0.00
19.00	1.10	93,432	105.17	0.00
19.50	1.05	95,363	105.22	0.00
20.00	1.00	**97,207**	**105.27**	0.00

Stage-Discharge for Pond A4*: A4 Pond

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
100.00	0.00	105.10	0.00	110.20	51.16
100.10	0.00	105.20	0.00	110.30	93.99
100.20	0.00	105.30	0.00	110.40	144.71
100.30	0.00	105.40	0.00	110.50	202.23
100.40	0.00	105.50	0.00	110.60	265.84
100.50	0.00	105.60	0.00	110.70	335.00
100.60	0.00	105.70	0.00	110.80	409.29
100.70	0.00	105.80	0.00	110.90	488.38
100.80	0.00	105.90	0.00	111.00	572.00
100.90	0.00	106.00	0.00	111.10	659.91
101.00	0.00	106.10	0.00	111.20	751.91
101.10	0.00	106.20	0.00	111.30	847.83
101.20	0.00	106.30	0.00	111.40	947.52
101.30	0.00	106.40	0.00	111.50	1,050.83
101.40	0.00	106.50	0.00	111.60	1,157.65
101.50	0.00	106.60	0.00	111.70	1,267.85
101.60	0.00	106.70	0.00	111.80	1,381.35
101.70	0.00	106.80	0.00	111.90	1,498.05
101.80	0.00	106.90	0.00	112.00	1,617.86
101.90	0.00	107.00	0.00	112.10	1,740.70
102.00	0.00	107.10	0.00	112.20	1,866.51
102.10	0.00	107.20	0.00	112.30	1,995.21
102.20	0.00	107.30	0.00	112.40	2,126.73
102.30	0.00	107.40	0.00	112.50	2,261.03
102.40	0.00	107.50	0.00	112.60	2,398.04
102.50	0.00	107.60	0.00	112.70	2,537.71
102.60	0.00	107.70	0.00	112.80	2,679.99
102.70	0.00	107.80	0.00	112.90	2,824.83
102.80	0.00	107.90	0.00	113.00	2,972.20
102.90	0.00	108.00	0.00	113.10	3,122.04
103.00	0.00	108.10	0.00	113.20	3,274.32
103.10	0.00	108.20	0.00	113.30	3,429.00
103.20	0.00	108.30	0.00	113.40	3,586.03
103.30	0.00	108.40	0.00	113.50	3,745.40
103.40	0.00	108.50	0.00	113.60	3,907.06
103.50	0.00	108.60	0.00	113.70	4,070.98
103.60	0.00	108.70	0.00	113.80	4,237.13
103.70	0.00	108.80	0.00	113.90	4,405.48
103.80	0.00	108.90	0.00	114.00	4,576.00
103.90	0.00	109.00	0.00	114.10	4,748.67
104.00	0.00	109.10	0.00	114.20	4,923.45
104.10	0.00	109.20	0.00	114.30	5,100.34
104.20	0.00	109.30	0.00	114.40	5,279.28
104.30	0.00	109.40	0.00	114.50	5,460.28
104.40	0.00	109.50	0.00	114.60	5,643.30
104.50	0.00	109.60	0.00	114.70	5,828.31
104.60	0.00	109.70	0.00	114.80	6,015.31
104.70	0.00	109.80	0.00	114.90	6,204.26
104.80	0.00	109.90	0.00	115.00	**6,395.15**
104.90	0.00	110.00	0.00		
105.00	0.00	110.10	18.09		

Stage-Area-Storage for Pond A4*: A4 Pond

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
100.00	0	105.10	90,535	110.20	298,242
100.10	1,731	105.20	94,538	110.30	304,037
100.20	3,461	105.30	98,540	110.40	309,832
100.30	5,192	105.40	102,543	110.50	315,627
100.40	6,923	105.50	106,545	110.60	321,422
100.50	8,653	105.60	110,547	110.70	327,216
100.60	10,384	105.70	114,550	110.80	333,011
100.70	12,115	105.80	118,552	110.90	338,806
100.80	13,845	105.90	122,554	111.00	344,601
100.90	15,576	106.00	126,557	111.10	350,396
101.00	17,307	106.10	130,559	111.20	356,191
101.10	19,037	106.20	134,562	111.30	361,986
101.20	20,768	106.30	138,564	111.40	367,781
101.30	22,499	106.40	142,566	111.50	373,576
101.40	24,229	106.50	146,569	111.60	379,371
101.50	25,960	106.60	150,571	111.70	385,166
101.60	27,691	106.70	154,573	111.80	390,961
101.70	29,421	106.80	158,576	111.90	396,755
101.80	31,152	106.90	162,578	112.00	402,550
101.90	32,883	107.00	166,581	112.10	408,345
102.00	34,613	107.10	170,583	112.20	414,140
102.10	36,344	107.20	174,585	112.30	419,935
102.20	38,075	107.30	178,588	112.40	425,730
102.30	39,805	107.40	182,590	112.50	431,525
102.40	41,536	107.50	186,593	112.60	437,320
102.50	43,267	107.60	190,595	112.70	443,115
102.60	44,997	107.70	194,597	112.80	448,910
102.70	46,728	107.80	198,600	112.90	454,705
102.80	48,458	107.90	202,602	113.00	460,500
102.90	50,189	108.00	206,604	113.10	466,295
103.00	51,920	108.10	210,607	113.20	472,089
103.10	53,650	108.20	214,609	113.30	477,884
103.20	55,381	108.30	218,612	113.40	483,679
103.30	57,112	108.40	222,614	113.50	489,474
103.40	58,842	108.50	226,616	113.60	495,269
103.50	60,573	108.60	230,619	113.70	501,064
103.60	62,304	108.70	234,621	113.80	506,859
103.70	64,034	108.80	238,623	113.90	512,654
103.80	65,765	108.90	242,626	114.00	518,449
103.90	67,496	109.00	246,628	114.10	524,244
104.00	69,226	109.10	250,631	114.20	530,039
104.10	70,957	109.20	254,633	114.30	535,834
104.20	72,688	109.30	258,635	114.40	541,628
104.30	74,418	109.40	262,638	114.50	547,423
104.40	76,149	109.50	266,640	114.60	553,218
104.50	77,880	109.60	270,642	114.70	559,013
104.60	79,610	109.70	274,645	114.80	564,808
104.70	81,341	109.80	278,647	114.90	570,603
104.80	83,072	109.90	282,650	115.00	**576,398**
104.90	84,802	110.00	286,652		
105.00	86,533	110.10	292,447		

Summary for Pond A5*: A5 Pond

Inflow Area = 18.170 ac, 2.92% Impervious, Inflow Depth > 1.11" for 10-yr event
Inflow = 14.56 cfs @ 12.39 hrs, Volume= 1.686 af
Outflow = 6.09 cfs @ 12.96 hrs, Volume= 0.941 af, Atten= 58%, Lag= 34.2 min
Primary = 6.09 cfs @ 12.96 hrs, Volume= 0.941 af
Routed to Reach SUB-5 : Reach

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 108.08' @ 12.96 hrs Storage= 32,921 cf

Plug-Flow detention time= 164.3 min calculated for 0.941 af (56% of inflow)
Center-of-Mass det. time= 77.0 min (919.1 - 842.1)

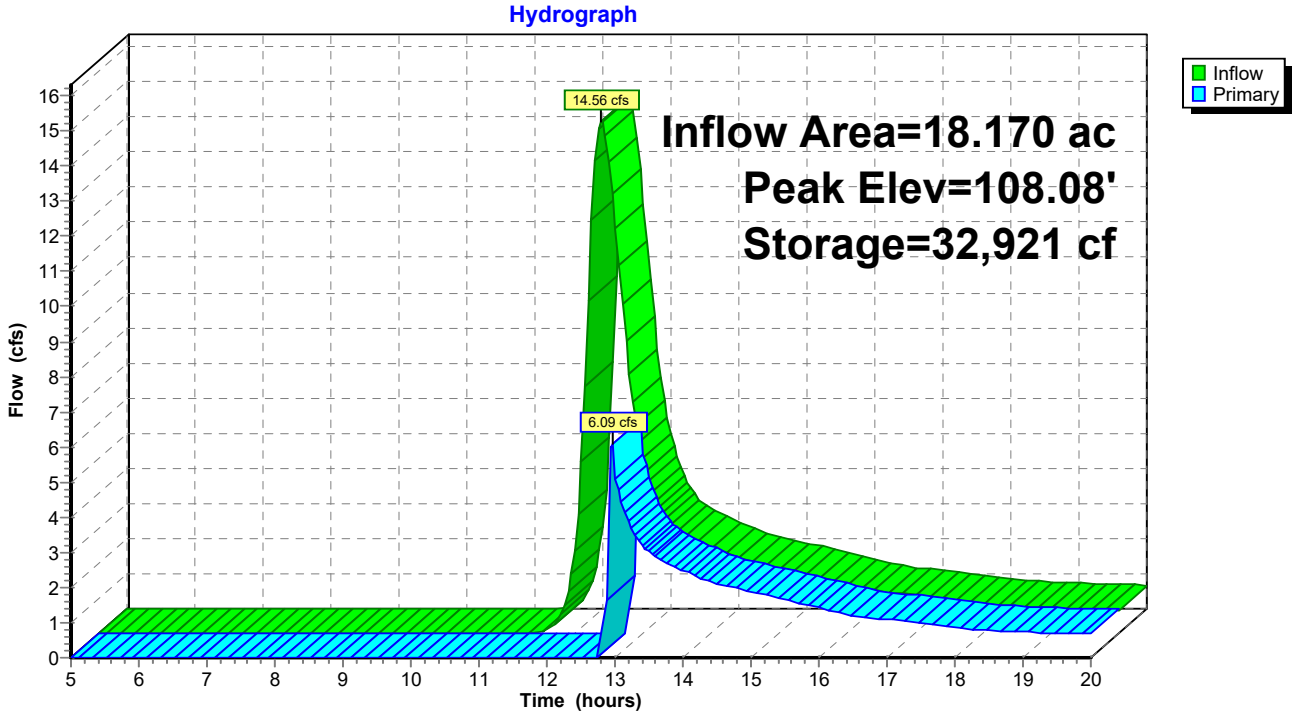
Volume	Invert	Avail.Storage	Storage Description
#1	102.00'	47,512 cf	**Custom Stage Data**Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
102.00	0	0
103.00	1,980	1,980
104.00	3,154	5,134
105.00	4,438	9,572
110.00	37,940	47,512

Device	Routing	Invert	Outlet Devices
#1	Primary	108.00'	**110.0' long Broad-Crested Rectangular Weir** Head (feet) 6.00 Coef. (English) 2.60

Primary OutFlow Max=5.75 cfs @ 12.96 hrs HW=108.07' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Weir Controls 5.75 cfs @ 0.71 fps)

Pond A5*: A5 Pond



Hydrograph for Pond A5*: A5 Pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	102.00	0.00
5.50	0.00	0	102.00	0.00
6.00	0.00	0	102.00	0.00
6.50	0.00	0	102.00	0.00
7.00	0.00	0	102.00	0.00
7.50	0.00	0	102.00	0.00
8.00	0.00	0	102.00	0.00
8.50	0.00	0	102.00	0.00
9.00	0.00	0	102.00	0.00
9.50	0.00	0	102.00	0.00
10.00	0.00	0	102.00	0.00
10.50	0.00	0	102.00	0.00
11.00	0.00	0	102.00	0.00
11.50	0.04	8	102.00	0.00
12.00	**2.36**	1,164	102.59	0.00
12.50	**13.43**	**19,344**	**106.29**	**0.00**
13.00	4.98	**32,853**	**108.07**	**5.08**
13.50	2.98	32,701	108.05	3.02
14.00	2.47	32,657	108.04	2.49
14.50	2.10	32,624	108.04	2.11
15.00	1.87	32,603	108.04	1.89
15.50	1.65	32,581	108.03	1.66
16.00	1.41	32,557	108.03	1.42
16.50	1.20	32,535	108.03	1.21
17.00	1.09	32,522	108.02	1.09
17.50	0.98	32,509	108.02	0.98
18.00	0.86	32,495	108.02	0.87
18.50	0.77	32,484	108.02	0.78
19.00	0.74	32,479	108.02	0.74
19.50	0.70	32,475	108.02	0.71
20.00	0.67	32,470	108.02	0.67

Stage-Discharge for Pond A5*: A5 Pond

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
102.00	0.00	104.55	0.00	107.10	0.00	109.65	606.17
102.05	0.00	104.60	0.00	107.15	0.00	109.70	633.93
102.10	0.00	104.65	0.00	107.20	0.00	109.75	662.10
102.15	0.00	104.70	0.00	107.25	0.00	109.80	690.68
102.20	0.00	104.75	0.00	107.30	0.00	109.85	719.65
102.25	0.00	104.80	0.00	107.35	0.00	109.90	749.03
102.30	0.00	104.85	0.00	107.40	0.00	109.95	778.79
102.35	0.00	104.90	0.00	107.45	0.00	110.00	**808.93**
102.40	0.00	104.95	0.00	107.50	0.00		
102.45	0.00	105.00	0.00	107.55	0.00		
102.50	0.00	105.05	0.00	107.60	0.00		
102.55	0.00	105.10	0.00	107.65	0.00		
102.60	0.00	105.15	0.00	107.70	0.00		
102.65	0.00	105.20	0.00	107.75	0.00		
102.70	0.00	105.25	0.00	107.80	0.00		
102.75	0.00	105.30	0.00	107.85	0.00		
102.80	0.00	105.35	0.00	107.90	0.00		
102.85	0.00	105.40	0.00	107.95	0.00		
102.90	0.00	105.45	0.00	108.00	0.00		
102.95	0.00	105.50	0.00	108.05	3.20		
103.00	0.00	105.55	0.00	108.10	9.04		
103.05	0.00	105.60	0.00	108.15	16.62		
103.10	0.00	105.65	0.00	108.20	25.58		
103.15	0.00	105.70	0.00	108.25	35.75		
103.20	0.00	105.75	0.00	108.30	46.99		
103.25	0.00	105.80	0.00	108.35	59.22		
103.30	0.00	105.85	0.00	108.40	72.35		
103.35	0.00	105.90	0.00	108.45	86.33		
103.40	0.00	105.95	0.00	108.50	101.12		
103.45	0.00	106.00	0.00	108.55	116.66		
103.50	0.00	106.05	0.00	108.60	132.92		
103.55	0.00	106.10	0.00	108.65	149.88		
103.60	0.00	106.15	0.00	108.70	167.50		
103.65	0.00	106.20	0.00	108.75	185.76		
103.70	0.00	106.25	0.00	108.80	204.64		
103.75	0.00	106.30	0.00	108.85	224.13		
103.80	0.00	106.35	0.00	108.90	244.19		
103.85	0.00	106.40	0.00	108.95	264.82		
103.90	0.00	106.45	0.00	109.00	286.00		
103.95	0.00	106.50	0.00	109.05	307.72		
104.00	0.00	106.55	0.00	109.10	329.96		
104.05	0.00	106.60	0.00	109.15	352.71		
104.10	0.00	106.65	0.00	109.20	375.96		
104.15	0.00	106.70	0.00	109.25	399.70		
104.20	0.00	106.75	0.00	109.30	423.92		
104.25	0.00	106.80	0.00	109.35	448.61		
104.30	0.00	106.85	0.00	109.40	473.76		
104.35	0.00	106.90	0.00	109.45	499.36		
104.40	0.00	106.95	0.00	109.50	525.42		
104.45	0.00	107.00	0.00	109.55	551.90		
104.50	0.00	107.05	0.00	109.60	578.82		

Stage-Area-Storage for Pond A5*: A5 Pond

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
102.00	0	107.10	25,507
102.10	198	107.20	26,266
102.20	396	107.30	27,024
102.30	594	107.40	27,783
102.40	792	107.50	28,542
102.50	990	107.60	29,301
102.60	1,188	107.70	30,060
102.70	1,386	107.80	30,818
102.80	1,584	107.90	31,577
102.90	1,782	108.00	32,336
103.00	1,980	108.10	33,095
103.10	2,295	108.20	33,854
103.20	2,611	108.30	34,612
103.30	2,926	108.40	35,371
103.40	3,242	108.50	36,130
103.50	3,557	108.60	36,889
103.60	3,872	108.70	37,648
103.70	4,188	108.80	38,406
103.80	4,503	108.90	39,165
103.90	4,819	109.00	39,924
104.00	5,134	109.10	40,683
104.10	5,578	109.20	41,442
104.20	6,022	109.30	42,200
104.30	6,465	109.40	42,959
104.40	6,909	109.50	43,718
104.50	7,353	109.60	44,477
104.60	7,797	109.70	45,236
104.70	8,241	109.80	45,994
104.80	8,684	109.90	46,753
104.90	9,128	110.00	**47,512**
105.00	9,572		
105.10	10,331		
105.20	11,090		
105.30	11,848		
105.40	12,607		
105.50	13,366		
105.60	14,125		
105.70	14,884		
105.80	15,642		
105.90	16,401		
106.00	17,160		
106.10	17,919		
106.20	18,678		
106.30	19,436		
106.40	20,195		
106.50	20,954		
106.60	21,713		
106.70	22,472		
106.80	23,230		
106.90	23,989		
107.00	24,748		

Summary for Pond B12*: B12 Pond

Inflow Area = 5.240 ac, 3.63% Impervious, Inflow Depth > 1.19" for 10-yr event
Inflow = 7.22 cfs @ 12.10 hrs, Volume= 0.518 af
Outflow = 6.36 cfs @ 12.16 hrs, Volume= 0.514 af, Atten= 12%, Lag= 3.1 min
Primary = 6.36 cfs @ 12.16 hrs, Volume= 0.514 af
Routed to Reach 2R : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 126.08' @ 12.16 hrs Storage= 1,615 cf

Plug-Flow detention time= 7.7 min calculated for 0.514 af (99% of inflow)
Center-of-Mass det. time= 5.1 min (831.0 - 825.9)

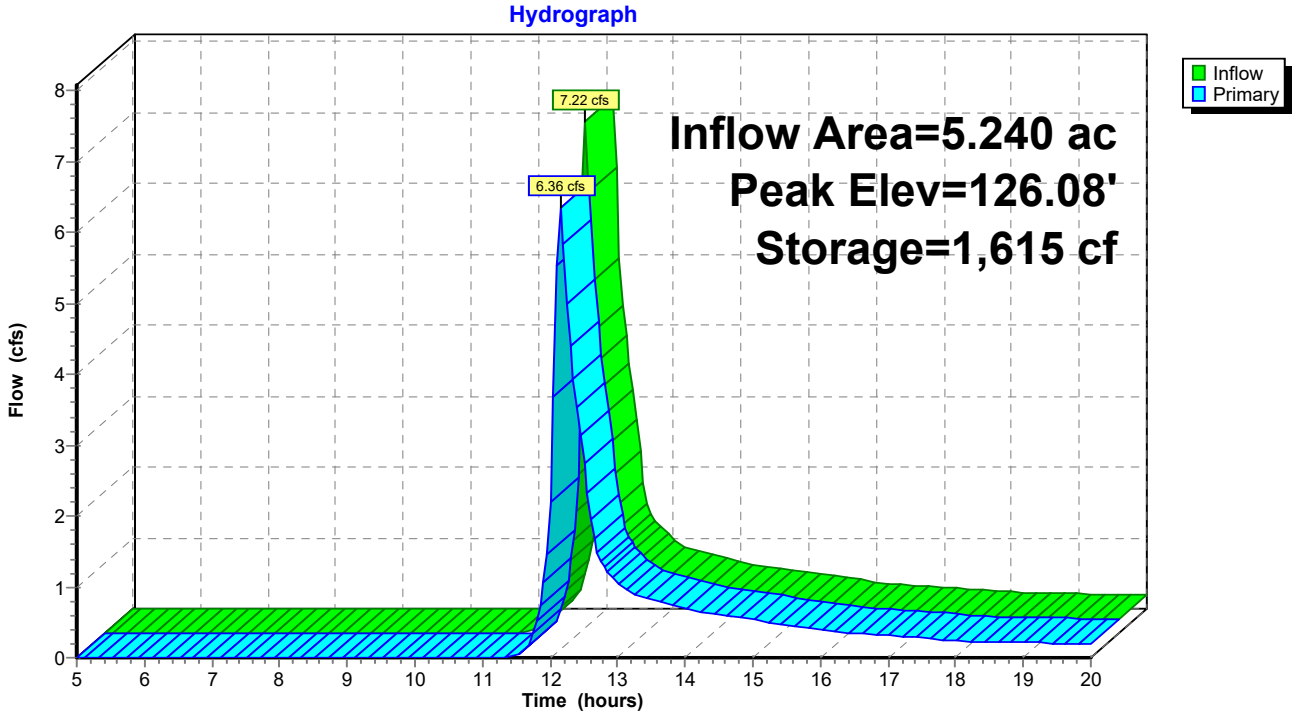
Volume	Invert	Avail.Storage	Storage Description
#1	126.00'	63,569 cf	**Custom Stage Data**Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
126.00	0	0
127.00	21,148	21,148
128.00	21,203	42,351
129.00	21,218	63,569

Device	Routing	Invert	Outlet Devices
#1	Primary	126.00'	**116.0' long Broad-Crested Rectangular Weir** Head (feet) 2.00 Coef. (English) 2.60

Primary OutFlow Max=6.30 cfs @ 12.16 hrs HW=126.08' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Weir Controls 6.30 cfs @ 0.72 fps)

Pond B12*: B12 Pond



Hydrograph for Pond B12*: B12 Pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	126.00	0.00
5.50	0.00	0	126.00	0.00
6.00	0.00	0	126.00	0.00
6.50	0.00	0	126.00	0.00
7.00	0.00	0	126.00	0.00
7.50	0.00	0	126.00	0.00
8.00	0.00	0	126.00	0.00
8.50	0.00	0	126.00	0.00
9.00	0.00	0	126.00	0.00
9.50	0.00	0	126.00	0.00
10.00	0.00	0	126.00	0.00
10.50	0.00	0	126.00	0.00
11.00	0.00	0	126.00	0.00
11.50	0.13	58	126.00	0.04
12.00	**3.55**	**794**	**126.04**	**2.19**
12.50	**2.23**	**920**	**126.04**	**2.74**
13.00	0.98	490	126.02	1.07
13.50	0.79	410	126.02	0.82
14.00	0.66	367	126.02	0.69
14.50	0.59	335	126.02	0.60
15.00	0.52	310	126.01	0.54
15.50	0.45	283	126.01	0.47
16.00	0.38	253	126.01	0.39
16.50	0.34	231	126.01	0.35
17.00	0.30	217	126.01	0.31
17.50	0.27	201	126.01	0.28
18.00	0.24	185	126.01	0.25
18.50	0.22	175	126.01	0.23
19.00	0.21	169	126.01	0.22
19.50	0.20	164	126.01	0.21
20.00	0.19	159	126.01	0.20

Stage-Discharge for Pond B12*: B12 Pond

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
126.00	0.00	127.02	310.69	128.04	878.77
126.02	0.85	127.04	319.88	128.06	891.73
126.04	2.41	127.06	329.15	128.08	904.75
126.06	4.43	127.08	338.51	128.10	917.83
126.08	6.82	127.10	347.95	128.12	930.97
126.10	9.54	127.12	357.49	128.14	944.17
126.12	12.54	127.14	367.10	128.16	957.44
126.14	15.80	127.16	376.81	128.18	970.77
126.16	19.30	127.18	386.59	128.20	984.16
126.18	23.03	127.20	396.46	128.22	997.61
126.20	26.98	127.22	406.42	128.24	1,011.12
126.22	31.12	127.24	416.45	128.26	1,024.69
126.24	35.46	127.26	426.57	128.28	1,038.33
126.26	39.98	127.28	436.76	128.30	1,052.02
126.28	44.69	127.30	447.04	128.32	1,065.77
126.30	49.56	127.32	457.40	128.34	1,079.58
126.32	54.60	127.34	467.83	128.36	1,093.45
126.34	59.79	127.36	478.34	128.38	1,107.38
126.36	65.15	127.38	488.93	128.40	1,121.37
126.38	70.65	127.40	499.60	128.42	1,135.41
126.40	76.30	127.42	510.34	128.44	1,149.52
126.42	82.09	127.44	521.16	128.46	1,163.68
126.44	88.03	127.46	532.06	128.48	1,177.90
126.46	94.10	127.48	543.03	128.50	1,192.18
126.48	100.30	127.50	554.07	128.52	1,206.51
126.50	106.63	127.52	565.19	128.54	1,220.91
126.52	113.09	127.54	576.38	128.56	1,235.35
126.54	119.68	127.56	587.65	128.58	1,249.86
126.56	126.39	127.58	598.99	128.60	1,264.42
126.58	133.22	127.60	610.40	128.62	1,279.04
126.60	140.17	127.62	621.88	128.64	1,293.71
126.62	147.24	127.64	633.43	128.66	1,308.44
126.64	154.42	127.66	645.05	128.68	1,323.22
126.66	161.71	127.68	656.74	128.70	1,338.06
126.68	169.12	127.70	668.51	128.72	1,352.96
126.70	176.64	127.72	680.34	128.74	1,367.91
126.72	184.26	127.74	692.24	128.76	1,382.91
126.74	191.99	127.76	704.21	128.78	1,397.97
126.76	199.83	127.78	716.24	128.80	1,413.09
126.78	207.77	127.80	728.35	128.82	1,428.25
126.80	215.81	127.82	740.52	128.84	1,443.47
126.82	223.95	127.84	752.76	128.86	1,458.75
126.84	232.19	127.86	765.07	128.88	1,474.08
126.86	240.54	127.88	777.44	128.90	1,489.46
126.88	248.97	127.90	789.88	128.92	1,504.89
126.90	257.51	127.92	802.39	128.94	1,520.38
126.92	266.14	127.94	814.96	128.96	1,535.92
126.94	274.87	127.96	827.59	128.98	1,551.51
126.96	283.69	127.98	840.29	129.00	**1,567.16**
126.98	292.60	128.00	853.05		
127.00	301.60	128.02	865.88		

Stage-Area-Storage for Pond B12*: B12 Pond

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
126.00	0	127.02	21,572	128.04	43,200
126.02	423	127.04	21,996	128.06	43,624
126.04	846	127.06	22,420	128.08	44,048
126.06	1,269	127.08	22,844	128.10	44,473
126.08	1,692	127.10	23,268	128.12	44,897
126.10	2,115	127.12	23,692	128.14	45,322
126.12	2,538	127.14	24,116	128.16	45,746
126.14	2,961	127.16	24,540	128.18	46,170
126.16	3,384	127.18	24,965	128.20	46,595
126.18	3,807	127.20	25,389	128.22	47,019
126.20	4,230	127.22	25,813	128.24	47,443
126.22	4,653	127.24	26,237	128.26	47,868
126.24	5,076	127.26	26,661	128.28	48,292
126.26	5,498	127.28	27,085	128.30	48,716
126.28	5,921	127.30	27,509	128.32	49,141
126.30	6,344	127.32	27,933	128.34	49,565
126.32	6,767	127.34	28,357	128.36	49,989
126.34	7,190	127.36	28,781	128.38	50,414
126.36	7,613	127.38	29,205	128.40	50,838
126.38	8,036	127.40	29,629	128.42	51,263
126.40	8,459	127.42	30,053	128.44	51,687
126.42	8,882	127.44	30,477	128.46	52,111
126.44	9,305	127.46	30,901	128.48	52,536
126.46	9,728	127.48	31,325	128.50	52,960
126.48	10,151	127.50	31,750	128.52	53,384
126.50	10,574	127.52	32,174	128.54	53,809
126.52	10,997	127.54	32,598	128.56	54,233
126.54	11,420	127.56	33,022	128.58	54,657
126.56	11,843	127.58	33,446	128.60	55,082
126.58	12,266	127.60	33,870	128.62	55,506
126.60	12,689	127.62	34,294	128.64	55,931
126.62	13,112	127.64	34,718	128.66	56,355
126.64	13,535	127.66	35,142	128.68	56,779
126.66	13,958	127.68	35,566	128.70	57,204
126.68	14,381	127.70	35,990	128.72	57,628
126.70	14,804	127.72	36,414	128.74	58,052
126.72	15,227	127.74	36,838	128.76	58,477
126.74	15,650	127.76	37,262	128.78	58,901
126.76	16,072	127.78	37,686	128.80	59,325
126.78	16,495	127.80	38,110	128.82	59,750
126.80	16,918	127.82	38,534	128.84	60,174
126.82	17,341	127.84	38,959	128.86	60,598
126.84	17,764	127.86	39,383	128.88	61,023
126.86	18,187	127.88	39,807	128.90	61,447
126.88	18,610	127.90	40,231	128.92	61,872
126.90	19,033	127.92	40,655	128.94	62,296
126.92	19,456	127.94	41,079	128.96	62,720
126.94	19,879	127.96	41,503	128.98	63,145
126.96	20,302	127.98	41,927	129.00	**63,569**
126.98	20,725	128.00	42,351		
127.00	21,148	128.02	42,775		

Summary for Pond B8*: B8 Pond

Inflow Area = 10.500 ac, 2.86% Impervious, Inflow Depth > 1.12" for 10-yr event
Inflow = 8.99 cfs @ 12.33 hrs, Volume= 0.976 af
Outflow = 8.19 cfs @ 12.44 hrs, Volume= 0.964 af, Atten= 9%, Lag= 6.7 min
Primary = 8.19 cfs @ 12.44 hrs, Volume= 0.964 af
Routed to Reach 2R : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 132.13' @ 12.44 hrs Storage= 3,936 cf

Plug-Flow detention time= 12.9 min calculated for 0.964 af (99% of inflow)
Center-of-Mass det. time= 8.5 min (847.8 - 839.3)

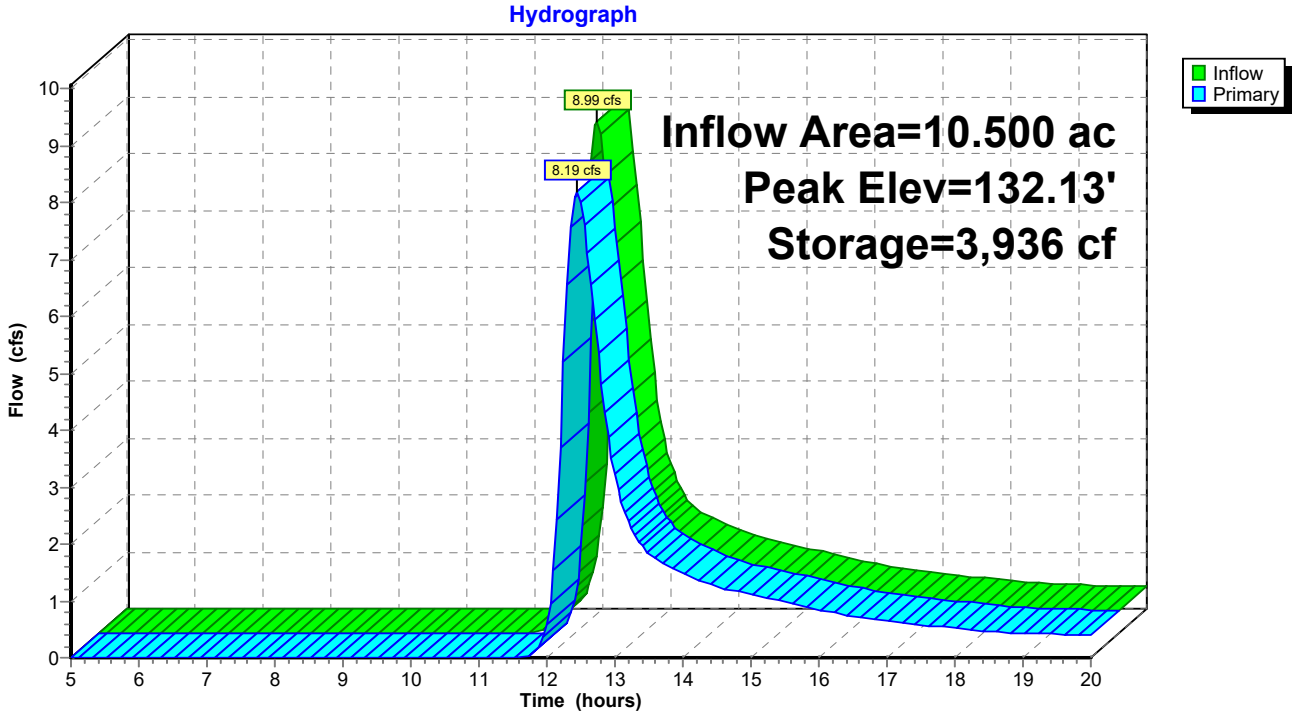
Volume	Invert	Avail.Storage	Storage Description
#1	132.00'	59,494 cf	**Custom Stage Data**Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
132.00	0	0
133.00	29,722	29,722
134.00	29,772	59,494

Device	Routing	Invert	Outlet Devices
#1	Primary	132.00'	**170.0' long Broad-Crested Rectangular Weir** Head (feet) 2.00 Coef. (English) 1.00

Primary OutFlow Max=8.17 cfs @ 12.44 hrs HW=132.13' TW=0.00' (Dynamic Tailwater)
↑**1=Broad-Crested Rectangular Weir** (Weir Controls 8.17 cfs @ 0.36 fps)

Pond B8*: B8 Pond



Hydrograph for Pond B8*: B8 Pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	132.00	0.00
5.50	0.00	0	132.00	0.00
6.00	0.00	0	132.00	0.00
6.50	0.00	0	132.00	0.00
7.00	0.00	0	132.00	0.00
7.50	0.00	0	132.00	0.00
8.00	0.00	0	132.00	0.00
8.50	0.00	0	132.00	0.00
9.00	0.00	0	132.00	0.00
9.50	0.00	0	132.00	0.00
10.00	0.00	0	132.00	0.00
10.50	0.00	0	132.00	0.00
11.00	0.00	0	132.00	0.00
11.50	0.03	7	132.00	0.00
12.00	**1.78**	**687**	**132.02**	**0.60**
12.50	**7.44**	**3,871**	**132.13**	**7.99**
13.00	2.56	2,111	132.07	3.22
13.50	1.66	1,446	132.05	1.82
14.00	1.40	1,257	132.04	1.48
14.50	1.19	1,125	132.04	1.25
15.00	1.07	1,040	132.03	1.11
15.50	0.94	958	132.03	0.98
16.00	0.80	868	132.03	0.85
16.50	0.68	780	132.03	0.72
17.00	0.62	725	132.02	0.65
17.50	0.56	677	132.02	0.58
18.00	0.49	626	132.02	0.52
18.50	0.44	579	132.02	0.46
19.00	0.42	555	132.02	0.43
19.50	0.40	538	132.02	0.41
20.00	0.39	521	132.02	0.39

Stage-Discharge for Pond B8*: B8 Pond

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
132.00	0.00	132.51	61.92	133.02	175.13	133.53	321.73
132.01	0.17	132.52	63.75	133.03	177.71	133.54	324.89
132.02	0.48	132.53	65.59	133.04	180.30	133.55	328.05
132.03	0.88	132.54	67.46	133.05	182.91	133.56	331.23
132.04	1.36	132.55	69.34	133.06	185.53	133.57	334.42
132.05	1.90	132.56	71.24	133.07	188.16	133.58	337.62
132.06	2.50	132.57	73.16	133.08	190.80	133.59	340.84
132.07	3.15	132.58	75.09	133.09	193.46	133.60	344.06
132.08	3.85	132.59	77.04	133.10	196.13	133.61	347.29
132.09	4.59	132.60	79.01	133.11	198.81	133.62	350.53
132.10	5.38	132.61	80.99	133.12	201.50	133.63	353.78
132.11	6.20	132.62	82.99	133.13	204.21	133.64	357.04
132.12	7.07	132.63	85.01	133.14	206.92	133.65	360.31
132.13	7.97	132.64	87.04	133.15	209.65	133.66	363.59
132.14	8.91	132.65	89.09	133.16	212.39	133.67	366.88
132.15	9.88	132.66	91.15	133.17	215.14	133.68	370.18
132.16	10.88	132.67	93.23	133.18	217.91	133.69	373.49
132.17	11.92	132.68	95.33	133.19	220.68	133.70	376.81
132.18	12.98	132.69	97.44	133.20	223.47	133.71	380.14
132.19	14.08	132.70	99.56	133.21	226.27	133.72	383.48
132.20	15.21	132.71	101.70	133.22	229.08	133.73	386.83
132.21	16.36	132.72	103.86	133.23	231.90	133.74	390.19
132.22	17.54	132.73	106.03	133.24	234.74	133.75	393.56
132.23	18.75	132.74	108.22	133.25	237.58	133.76	396.93
132.24	19.99	132.75	110.42	133.26	240.44	133.77	400.32
132.25	21.25	132.76	112.63	133.27	243.31	133.78	403.72
132.26	22.54	132.77	114.86	133.28	246.19	133.79	407.13
132.27	23.85	132.78	117.11	133.29	249.08	133.80	410.54
132.28	25.19	132.79	119.37	133.30	251.98	133.81	413.97
132.29	26.55	132.80	121.64	133.31	254.89	133.82	417.40
132.30	27.93	132.81	123.93	133.32	257.82	133.83	420.85
132.31	29.34	132.82	126.23	133.33	260.75	133.84	424.30
132.32	30.77	132.83	128.55	133.34	263.70	133.85	427.77
132.33	32.23	132.84	130.88	133.35	266.65	133.86	431.24
132.34	33.70	132.85	133.22	133.36	269.62	133.87	434.72
132.35	35.20	132.86	135.58	133.37	272.60	133.88	438.21
132.36	36.72	132.87	137.95	133.38	275.59	133.89	441.71
132.37	38.26	132.88	140.34	133.39	278.59	133.90	445.22
132.38	39.82	132.89	142.74	133.40	281.61	133.91	448.74
132.39	41.40	132.90	145.15	133.41	284.63	133.92	452.27
132.40	43.01	132.91	147.57	133.42	287.66	133.93	455.81
132.41	44.63	132.92	150.01	133.43	290.71	133.94	459.36
132.42	46.27	132.93	152.47	133.44	293.76	133.95	462.91
132.43	47.93	132.94	154.93	133.45	296.83	133.96	466.48
132.44	49.62	132.95	157.41	133.46	299.90	133.97	470.05
132.45	51.32	132.96	159.90	133.47	302.99	133.98	473.64
132.46	53.04	132.97	162.41	133.48	306.08	133.99	477.23
132.47	54.78	132.98	164.93	133.49	309.19	134.00	**480.83**
132.48	56.53	132.99	167.46	133.50	312.31		
132.49	58.31	133.00	170.00	133.51	315.44		
132.50	60.10	133.01	172.56	133.52	318.58		

Stage-Area-Storage for Pond B8*: B8 Pond

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
132.00	0	133.02	30,317
132.02	594	133.04	30,913
132.04	1,189	133.06	31,508
132.06	1,783	133.08	32,104
132.08	2,378	133.10	32,699
132.10	2,972	133.12	33,295
132.12	3,567	133.14	33,890
132.14	4,161	133.16	34,486
132.16	4,756	133.18	35,081
132.18	5,350	133.20	35,676
132.20	5,944	133.22	36,272
132.22	6,539	133.24	36,867
132.24	7,133	133.26	37,463
132.26	7,728	133.28	38,058
132.28	8,322	133.30	38,654
132.30	8,917	133.32	39,249
132.32	9,511	133.34	39,844
132.34	10,105	133.36	40,440
132.36	10,700	133.38	41,035
132.38	11,294	133.40	41,631
132.40	11,889	133.42	42,226
132.42	12,483	133.44	42,822
132.44	13,078	133.46	43,417
132.46	13,672	133.48	44,013
132.48	14,267	133.50	44,608
132.50	14,861	133.52	45,203
132.52	15,455	133.54	45,799
132.54	16,050	133.56	46,394
132.56	16,644	133.58	46,990
132.58	17,239	133.60	47,585
132.60	17,833	133.62	48,181
132.62	18,428	133.64	48,776
132.64	19,022	133.66	49,372
132.66	19,617	133.68	49,967
132.68	20,211	133.70	50,562
132.70	20,805	133.72	51,158
132.72	21,400	133.74	51,753
132.74	21,994	133.76	52,349
132.76	22,589	133.78	52,944
132.78	23,183	133.80	53,540
132.80	23,778	133.82	54,135
132.82	24,372	133.84	54,730
132.84	24,966	133.86	55,326
132.86	25,561	133.88	55,921
132.88	26,155	133.90	56,517
132.90	26,750	133.92	57,112
132.92	27,344	133.94	57,708
132.94	27,939	133.96	58,303
132.96	28,533	133.98	58,899
132.98	29,128	134.00	**59,494**
133.00	29,722		

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

SubcatchmentA1: A1 Runoff Area=32.780 ac 2.44% Impervious Runoff Depth>1.71"
Flow Length=1,500' Tc=36.1 min CN=61 Runoff=35.73 cfs 4.668 af

SubcatchmentA10: A10 Runoff Area=9.460 ac 6.77% Impervious Runoff Depth>1.73"
Tc=11.3 min UI Adjusted CN=61 Runoff=16.55 cfs 1.362 af

SubcatchmentA11: A11 Runoff Area=6.180 ac 1.62% Impervious Runoff Depth>1.50"
Tc=6.0 min CN=58 Runoff=10.88 cfs 0.774 af

SubcatchmentA12: A12 Runoff Area=22.000 ac 2.64% Impervious Runoff Depth>1.71"
Flow Length=1,802' Tc=36.0 min CN=61 Runoff=24.01 cfs 3.133 af

SubcatchmentA2: A2 Runoff Area=2.840 ac 0.00% Impervious Runoff Depth>1.65"
Flow Length=569' Tc=13.1 min CN=60 Runoff=4.46 cfs 0.390 af

SubcatchmentA3: A3 Runoff Area=25.560 ac 1.88% Impervious Runoff Depth>1.55"
Flow Length=1,986' Tc=39.9 min UI Adjusted CN=59 Runoff=23.77 cfs 3.308 af

SubcatchmentA4: A4 Runoff Area=32.410 ac 3.15% Impervious Runoff Depth>1.35"
Flow Length=1,245' Tc=18.6 min UI Adjusted CN=56 Runoff=34.96 cfs 3.640 af

SubcatchmentA5: A5 Runoff Area=18.170 ac 2.92% Impervious Runoff Depth>1.72"
Flow Length=1,830' Tc=24.7 min UI Adjusted CN=61 Runoff=23.49 cfs 2.601 af

SubcatchmentA6: A6 Runoff Area=9.800 ac 3.06% Impervious Runoff Depth>1.72"
Flow Length=1,286' Tc=20.8 min CN=61 Runoff=13.60 cfs 1.405 af

SubcatchmentA7: A7 Runoff Area=12.150 ac 3.87% Impervious Runoff Depth>1.73"
Flow Length=615' Tc=9.6 min CN=61 Runoff=22.35 cfs 1.751 af

SubcatchmentA8: A8 Runoff Area=1.750 ac 0.00% Impervious Runoff Depth>1.43"
Tc=6.0 min CN=57 Runoff=2.90 cfs 0.208 af

SubcatchmentA9: A9 Runoff Area=9.690 ac 35.09% Impervious Runoff Depth>2.56"
Flow Length=742' Tc=14.8 min CN=71 Runoff=23.68 cfs 2.066 af

SubcatchmentB1: B1 Runoff Area=33.063 ac 2.81% Impervious Runoff Depth>1.96"
Flow Length=844' Tc=18.8 min CN=64 Runoff=55.22 cfs 5.403 af

SubcatchmentB10: B10 Runoff Area=1.010 ac 0.00% Impervious Runoff Depth>0.17"
Flow Length=109' Tc=6.4 min CN=35 Runoff=0.04 cfs 0.014 af

SubcatchmentB11: B11 Runoff Area=1.280 ac 0.00% Impervious Runoff Depth>0.17"
Tc=6.0 min CN=35 Runoff=0.04 cfs 0.018 af

SubcatchmentB12: B12 Runoff Area=5.240 ac 3.63% Impervious Runoff Depth>1.81"
Tc=6.0 min CN=62 Runoff=11.45 cfs 0.791 af

SubcatchmentB13: B13 Runoff Area=14.400 ac 1.94% Impervious Runoff Depth>1.57"
Flow Length=963' Tc=24.1 min CN=59 Runoff=16.88 cfs 1.878 af

SubcatchmentB2: B2 Runoff Area=12.770 ac 2.27% Impervious Runoff Depth>1.80"
Flow Length=844' Tc=17.7 min CN=62 Runoff=19.90 cfs 1.917 af

SubcatchmentB3: B3 Runoff Area=18.520 ac 0.00% Impervious Runoff Depth>1.80"
Flow Length=886' Tc=21.2 min CN=62 Runoff=26.84 cfs 2.776 af

SubcatchmentB4: B4 Runoff Area=29.730 ac 0.00% Impervious Runoff Depth>1.89"
Flow Length=448' Tc=10.6 min CN=63 Runoff=58.74 cfs 4.675 af

SubcatchmentB5: B5 Runoff Area=34.440 ac 0.52% Impervious Runoff Depth>1.96"
Flow Length=1,139' Tc=19.3 min CN=64 Runoff=56.95 cfs 5.627 af

SubcatchmentB6: B6 Runoff Area=27.950 ac 4.47% Impervious Runoff Depth>1.88"
Flow Length=1,589' Tc=25.0 min CN=63 Runoff=39.71 cfs 4.368 af

SubcatchmentB7: B7 Runoff Area=7.760 ac 2.32% Impervious Runoff Depth>1.95"
Flow Length=538' Tc=27.4 min CN=64 Runoff=11.11 cfs 1.263 af

SubcatchmentB8: B8 Runoff Area=10.500 ac 2.86% Impervious Runoff Depth>1.72"
Flow Length=1,062' Tc=20.9 min CN=61 Runoff=14.55 cfs 1.506 af

SubcatchmentB9: B9 Runoff Area=10.080 ac 5.06% Impervious Runoff Depth>1.80"
Flow Length=805' Slope=0.0260 '/' Tc=16.2 min CN=62 Runoff=16.22 cfs 1.514 af

Reach 2R: DP-B Inflow=297.19 cfs 31.731 af
Outflow=297.19 cfs 31.731 af

Reach 21R: Reach Inflow=0.08 cfs 0.033 af
Outflow=0.08 cfs 0.033 af

Reach 22R: Reach Inflow=55.22 cfs 5.435 af
Outflow=55.22 cfs 5.435 af

Reach 23R: Reach Inflow=46.22 cfs 4.694 af
Outflow=46.22 cfs 4.694 af

Reach DP-A: DP-A Inflow=145.64 cfs 20.922 af
Outflow=145.64 cfs 20.922 af

Reach SUB-1: Reach Inflow=68.08 cfs 9.552 af
Outflow=68.08 cfs 9.552 af

Reach SUB-2: Reach Inflow=33.32 cfs 4.884 af
Outflow=33.32 cfs 4.884 af

Reach SUB-3: Reach Inflow=53.00 cfs 7.378 af
Outflow=53.00 cfs 7.378 af

Reach SUB-4: Reach Inflow=16.55 cfs 1.362 af
Outflow=16.55 cfs 1.362 af

Reach SUB-5: Reach Inflow=30.74 cfs 3.991 af
Outflow=30.74 cfs 3.991 af

Pond A4*: A4 Pond Peak Elev=106.80' Storage=158,437 cf Inflow=34.96 cfs 3.640 af
Outflow=0.00 cfs 0.000 af

Pond A5*: A5 Pond Peak Elev=108.18' Storage=33,694 cf Inflow=23.49 cfs 2.601 af
Outflow=21.66 cfs 1.855 af

Pond B12*: B12 Pond Peak Elev=126.11' Storage=2,232 cf Inflow=11.45 cfs 0.791 af
Outflow=10.34 cfs 0.786 af

Pond B8*: B8 Pond Peak Elev=132.19' Storage=5,506 cf Inflow=14.55 cfs 1.506 af
Outflow=13.56 cfs 1.491 af

Total Runoff Area = 389.533 ac Runoff Volume = 57.059 af Average Runoff Depth = 1.76"
96.81% Pervious = 377.105 ac 3.19% Impervious = 12.428 ac

Summary for Subcatchment A1: A1

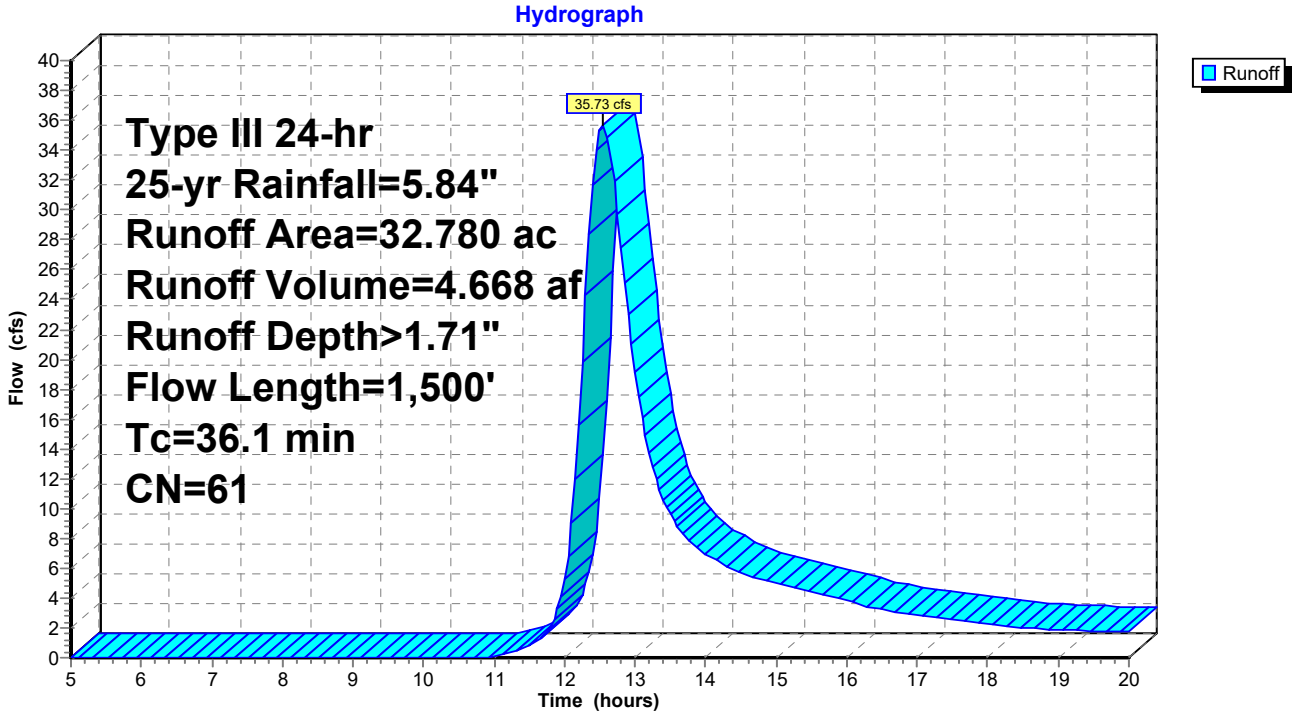
Runoff = 35.73 cfs @ 12.54 hrs, Volume= 4.668 af, Depth> 1.71"
Routed to Reach SUB-1 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.800	98	Unconnected pavement, HSG A
28.270	61	>75% Grass cover, Good, HSG B
3.710	55	Woods, Good, HSG B
32.780	61	Weighted Average
31.980		97.56% Pervious Area
0.800		2.44% Impervious Area
0.800		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	50	0.0100	0.11		**Sheet Flow, SF-1** Grass: Short n= 0.150 P2= 3.11"
5.9	315	0.0160	0.89		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
0.3	64	0.2160	3.25		**Shallow Concentrated Flow, scf-2** Short Grass Pasture Kv= 7.0 fps
22.4	1,071	0.0130	0.80		**Shallow Concentrated Flow, scf-3** Short Grass Pasture Kv= 7.0 fps
36.1	1,500	Total			

Subcatchment A1: A1



Hydrograph for Subcatchment A1: A1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.00
11.00	1.46	0.01	0.08
11.25	1.58	0.01	0.33
11.50	1.74	0.03	0.81
11.75	2.07	0.09	1.76
12.00	2.92	0.34	5.26
12.25	3.77	0.70	19.87
12.50	4.10	0.86	**35.36**
12.75	4.26	0.95	**29.69**
13.00	4.38	1.01	19.14
13.25	4.48	1.07	12.82
13.50	4.58	1.12	9.57
13.75	4.66	1.17	7.94
14.00	4.74	1.21	6.97
14.25	4.81	1.25	6.25
14.50	4.87	1.29	5.71
14.75	4.93	1.33	5.32
15.00	4.99	1.36	5.01
15.25	5.04	1.39	4.71
15.50	5.09	1.42	4.41
15.75	5.13	1.45	4.10
16.00	5.17	1.47	3.79
16.25	5.21	1.50	3.48
16.50	5.25	1.52	3.21
16.75	5.28	1.54	3.01
17.00	5.31	1.56	2.85
17.25	5.34	1.58	2.70
17.50	5.37	1.60	2.56
17.75	5.40	1.61	2.42
18.00	5.42	1.63	2.28
18.25	5.44	1.64	2.13
18.50	5.47	1.66	2.01
18.75	5.49	1.67	1.94
19.00	5.51	1.68	1.88
19.25	5.53	1.70	1.84
19.50	5.55	1.71	1.79
19.75	5.57	1.72	1.75
20.00	**5.59**	**1.74**	1.71

Summary for Subcatchment A10: A10

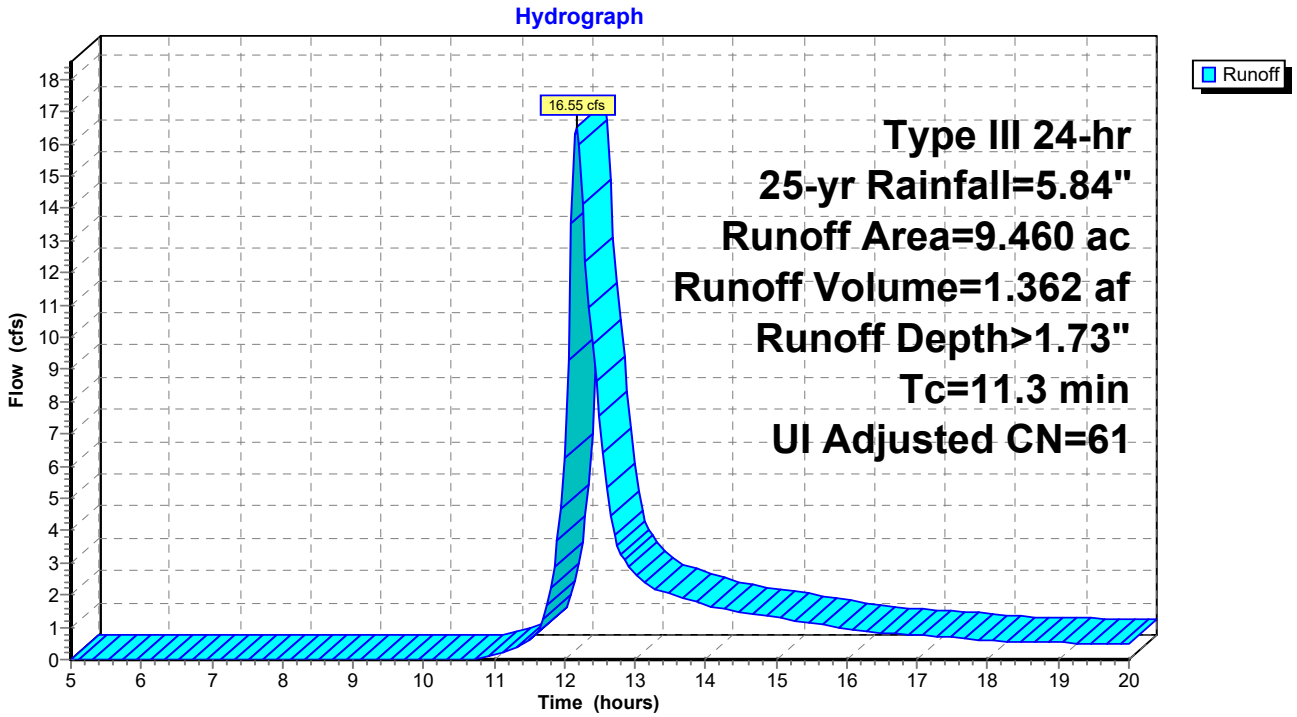
Runoff = 16.55 cfs @ 12.17 hrs, Volume= 1.362 af, Depth> 1.73"
Routed to Reach SUB-4 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Adj	Description
0.640	98		Unconnected pavement, HSG A
0.230	39		>75% Grass cover, Good, HSG A
0.020	30		Woods, Good, HSG A
6.870	61		>75% Grass cover, Good, HSG B
1.700	55		Woods, Good, HSG B
9.460	62	61	Weighted Average, UI Adjusted
8.820			93.23% Pervious Area
0.640			6.77% Impervious Area
0.640			100.00% Unconnected

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

Subcatchment A10: A10



Hydrograph for Subcatchment A10: A10

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.02
11.00	1.46	0.01	0.13
11.25	1.58	0.01	0.29
11.50	1.74	0.03	0.59
11.75	2.07	0.09	1.69
12.00	2.92	0.34	**6.24**
12.25	3.77	0.70	**14.11**
12.50	4.10	0.86	7.54
12.75	4.26	0.95	3.52
13.00	4.38	1.01	2.67
13.25	4.48	1.07	2.20
13.50	4.58	1.12	2.03
13.75	4.66	1.17	1.87
14.00	4.74	1.21	1.70
14.25	4.81	1.25	1.56
14.50	4.87	1.29	1.48
14.75	4.93	1.33	1.40
15.00	4.99	1.36	1.31
15.25	5.04	1.39	1.23
15.50	5.09	1.42	1.14
15.75	5.13	1.45	1.05
16.00	5.17	1.47	0.95
16.25	5.21	1.50	0.88
16.50	5.25	1.52	0.84
16.75	5.28	1.54	0.80
17.00	5.31	1.56	0.76
17.25	5.34	1.58	0.72
17.50	5.37	1.60	0.68
17.75	5.40	1.61	0.63
18.00	5.42	1.63	0.59
18.25	5.44	1.64	0.56
18.50	5.47	1.66	0.55
18.75	5.49	1.67	0.54
19.00	5.51	1.68	0.52
19.25	5.53	1.70	0.51
19.50	5.55	1.71	0.50
19.75	5.57	1.72	0.49
20.00	**5.59**	**1.74**	0.47

Summary for Subcatchment A11: A11

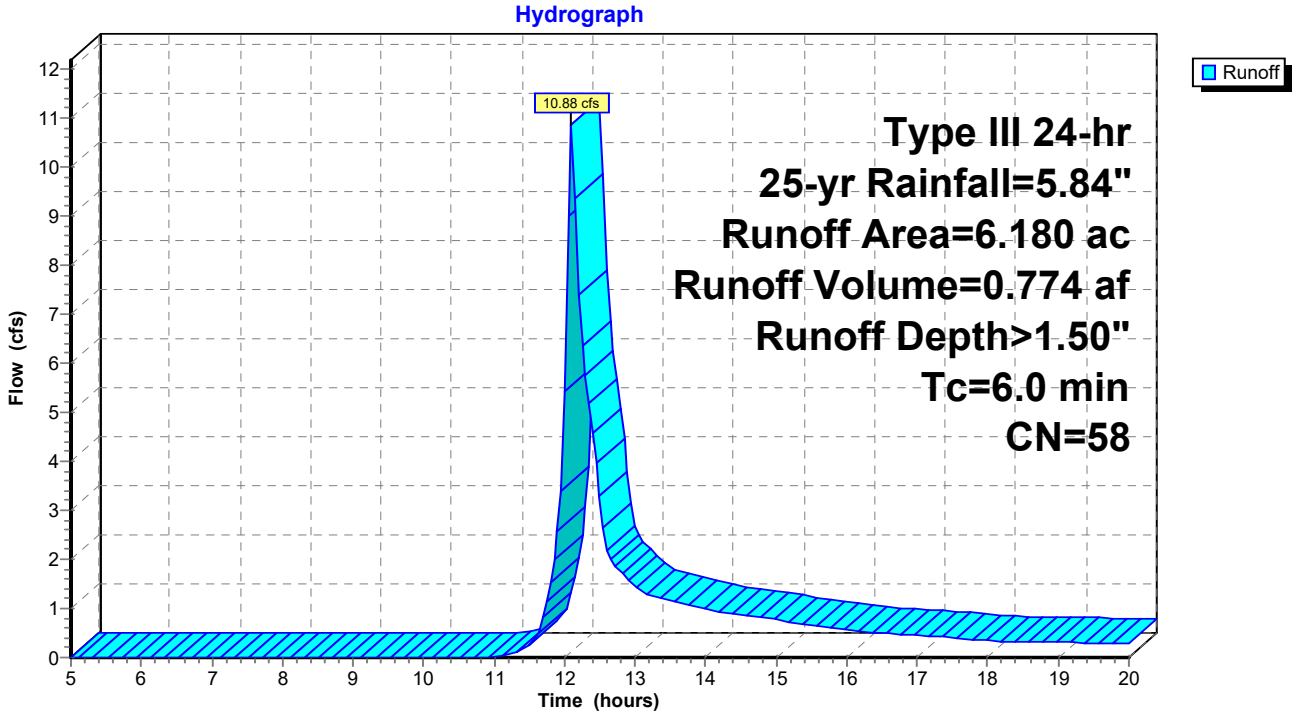
Runoff = 10.88 cfs @ 12.10 hrs, Volume= 0.774 af, Depth> 1.50"
Routed to Reach SUB-5 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.100	98	Unconnected pavement, HSG A
2.490	61	>75% Grass cover, Good, HSG B
3.590	55	Woods, Good, HSG B
6.180	58	Weighted Average
6.080		98.38% Pervious Area
0.100		1.62% Impervious Area
0.100		100.00% Unconnected

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

Subcatchment A11: A11



Hydrograph for Subcatchment A11: A11

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.00
11.00	1.46	0.00	0.00
11.25	1.58	0.00	0.08
11.50	1.74	0.01	0.25
11.75	2.07	0.05	1.13
12.00	2.92	0.25	**5.44**
12.25	3.77	0.56	**6.37**
12.50	4.10	0.71	3.30
12.75	4.26	0.78	1.81
13.00	4.38	0.84	1.45
13.25	4.48	0.90	1.26
13.50	4.58	0.94	1.17
13.75	4.66	0.99	1.08
14.00	4.74	1.03	0.98
14.25	4.81	1.06	0.91
14.50	4.87	1.10	0.87
14.75	4.93	1.13	0.82
15.00	4.99	1.16	0.77
15.25	5.04	1.19	0.72
15.50	5.09	1.22	0.66
15.75	5.13	1.24	0.61
16.00	5.17	1.27	0.55
16.25	5.21	1.29	0.52
16.50	5.25	1.31	0.50
16.75	5.28	1.33	0.47
17.00	5.31	1.34	0.45
17.25	5.34	1.36	0.42
17.50	5.37	1.38	0.40
17.75	5.40	1.39	0.37
18.00	5.42	1.41	0.35
18.25	5.44	1.42	0.34
18.50	5.47	1.43	0.33
18.75	5.49	1.45	0.32
19.00	5.51	1.46	0.31
19.25	5.53	1.47	0.31
19.50	5.55	1.48	0.30
19.75	5.57	1.49	0.29
20.00	**5.59**	**1.51**	0.28

Summary for Subcatchment A12: A12

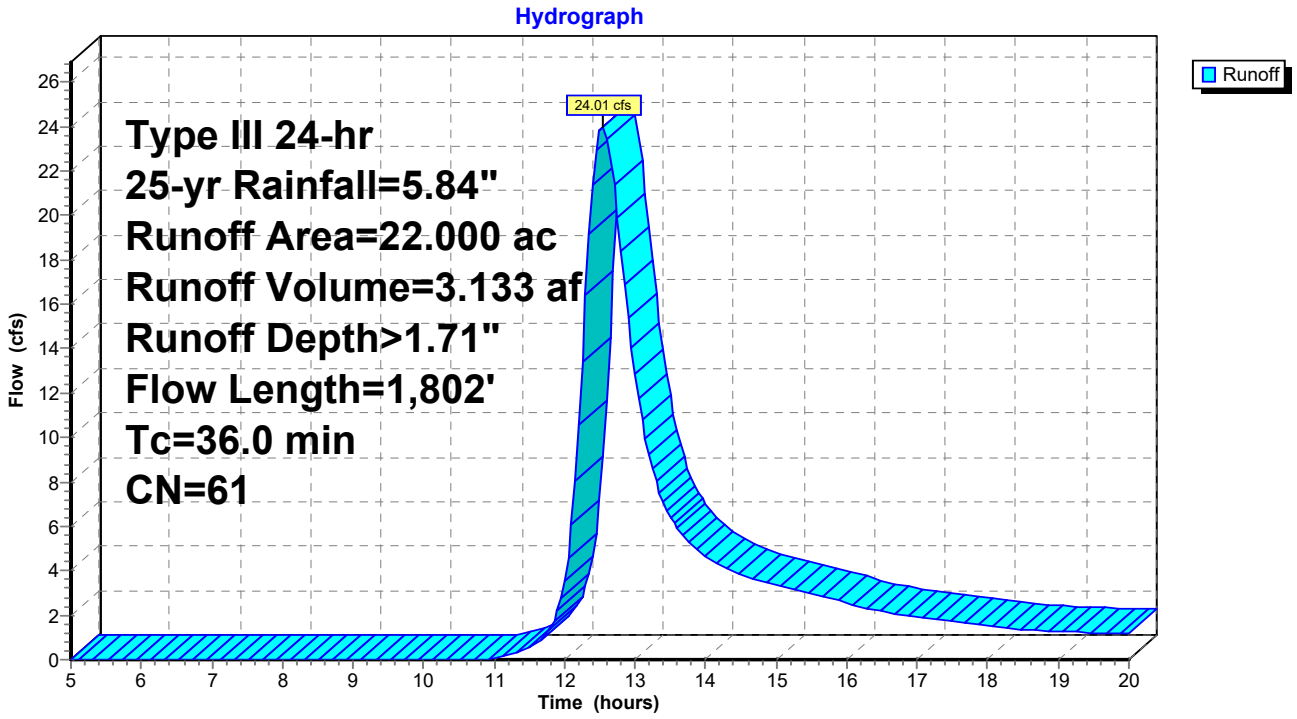
Runoff = 24.01 cfs @ 12.54 hrs, Volume= 3.133 af, Depth> 1.71"
Routed to Reach SUB-2 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.580	98	Unconnected pavement, HSG A
18.290	61	>75% Grass cover, Good, HSG B
3.130	55	Woods, Good, HSG B
22.000	61	Weighted Average
21.420		97.36% Pervious Area
0.580		2.64% Impervious Area
0.580		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	50	0.0200	0.15		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
30.3	1,752	0.0190	0.96		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
36.0	1,802	Total			

Subcatchment A12: A12



Hydrograph for Subcatchment A12: A12

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.00
11.00	1.46	0.01	0.05
11.25	1.58	0.01	0.22
11.50	1.74	0.03	0.55
11.75	2.07	0.09	1.18
12.00	2.92	0.34	3.54
12.25	3.77	0.70	13.40
12.50	4.10	0.86	**23.79**
12.75	4.26	0.95	**19.90**
13.00	4.38	1.01	12.82
13.25	4.48	1.07	8.58
13.50	4.58	1.12	6.41
13.75	4.66	1.17	5.32
14.00	4.74	1.21	4.67
14.25	4.81	1.25	4.19
14.50	4.87	1.29	3.83
14.75	4.93	1.33	3.57
15.00	4.99	1.36	3.36
15.25	5.04	1.39	3.16
15.50	5.09	1.42	2.96
15.75	5.13	1.45	2.75
16.00	5.17	1.47	2.54
16.25	5.21	1.50	2.33
16.50	5.25	1.52	2.15
16.75	5.28	1.54	2.02
17.00	5.31	1.56	1.91
17.25	5.34	1.58	1.82
17.50	5.37	1.60	1.72
17.75	5.40	1.61	1.62
18.00	5.42	1.63	1.53
18.25	5.44	1.64	1.43
18.50	5.47	1.66	1.35
18.75	5.49	1.67	1.30
19.00	5.51	1.68	1.27
19.25	5.53	1.70	1.23
19.50	5.55	1.71	1.20
19.75	5.57	1.72	1.18
20.00	**5.59**	**1.74**	1.15

Summary for Subcatchment A2: A2

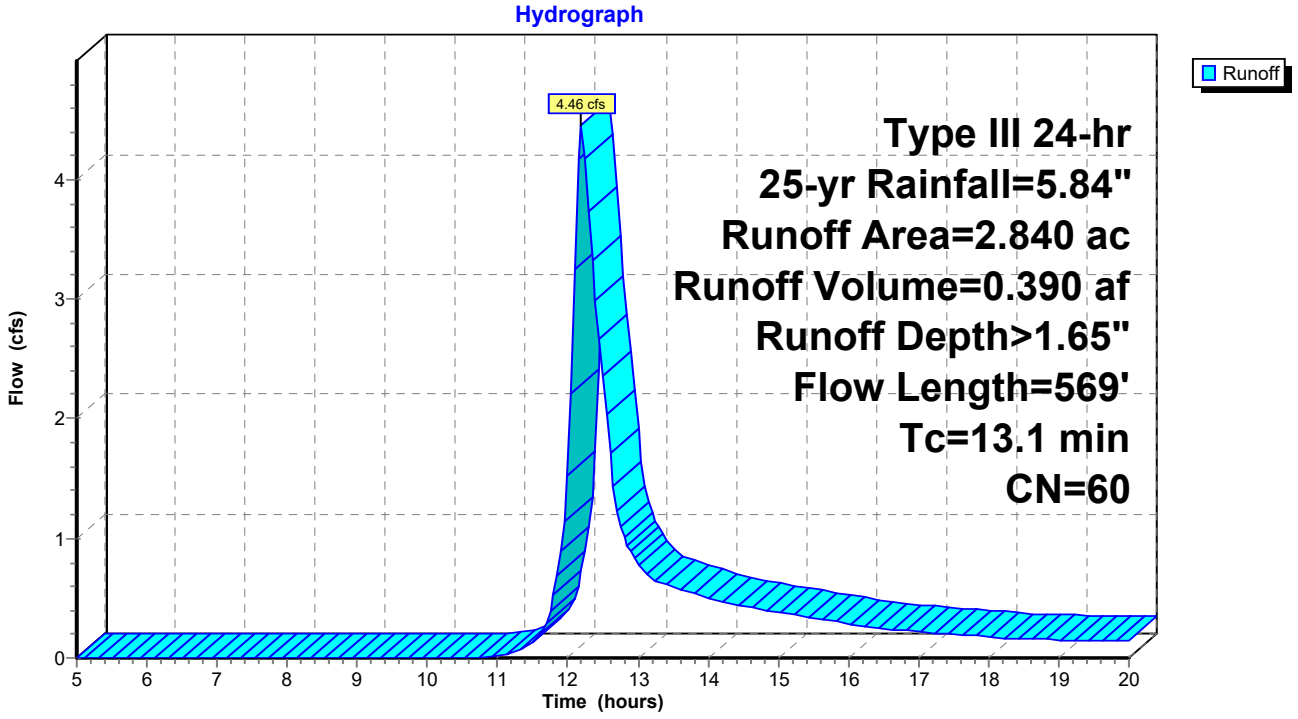
Runoff = 4.46 cfs @ 12.20 hrs, Volume= 0.390 af, Depth> 1.65"
Routed to Reach SUB-3 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.010	39	>75% Grass cover, Good, HSG A
0.010	30	Woods, Good, HSG A
2.470	61	>75% Grass cover, Good, HSG B
0.350	55	Woods, Good, HSG B
2.840	60	Weighted Average
2.840		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	50	0.0200	0.15		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
7.4	519	0.0280	1.17		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
13.1	569	Total			

Subcatchment A2: A2



Hydrograph for Subcatchment A2: A2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.00
11.00	1.46	0.00	0.02
11.25	1.58	0.01	0.06
11.50	1.74	0.02	0.13
11.75	2.07	0.07	0.39
12.00	2.92	0.31	**1.52**
12.25	3.77	0.65	**4.18**
12.50	4.10	0.81	2.36
12.75	4.26	0.89	1.10
13.00	4.38	0.96	0.80
13.25	4.48	1.01	0.65
13.50	4.58	1.06	0.60
13.75	4.66	1.11	0.55
14.00	4.74	1.15	0.50
14.25	4.81	1.19	0.46
14.50	4.87	1.23	0.43
14.75	4.93	1.26	0.41
15.00	4.99	1.29	0.39
15.25	5.04	1.33	0.36
15.50	5.09	1.35	0.33
15.75	5.13	1.38	0.31
16.00	5.17	1.40	0.28
16.25	5.21	1.43	0.26
16.50	5.25	1.45	0.25
16.75	5.28	1.47	0.23
17.00	5.31	1.49	0.22
17.25	5.34	1.50	0.21
17.50	5.37	1.52	0.20
17.75	5.40	1.54	0.19
18.00	5.42	1.55	0.17
18.25	5.44	1.57	0.16
18.50	5.47	1.58	0.16
18.75	5.49	1.59	0.16
19.00	5.51	1.61	0.15
19.25	5.53	1.62	0.15
19.50	5.55	1.63	0.15
19.75	5.57	1.65	0.14
20.00	**5.59**	**1.66**	0.14

Summary for Subcatchment A3: A3

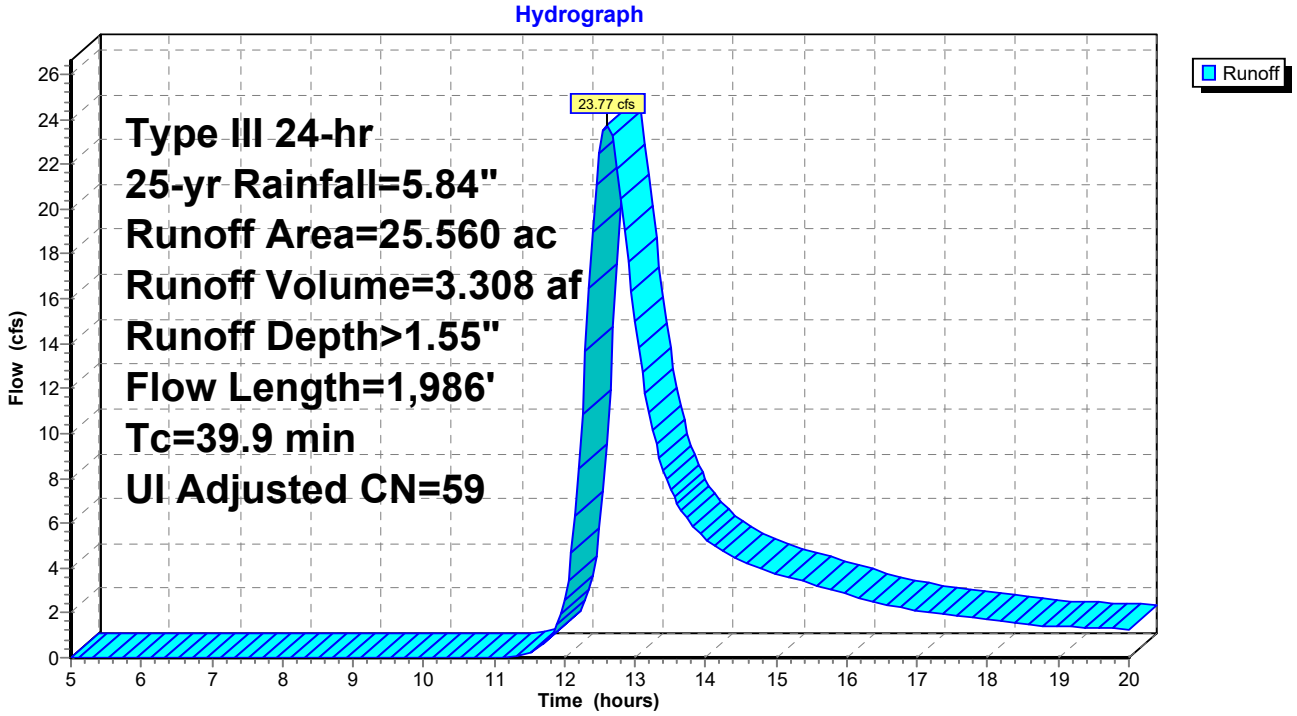
Runoff = 23.77 cfs @ 12.61 hrs, Volume= 3.308 af, Depth> 1.55"
Routed to Reach SUB-3 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Adj	Description
0.480	98		Unconnected pavement, HSG A
16.730	61		>75% Grass cover, Good, HSG B
8.300	55		Woods, Good, HSG B
0.050	77		Woods, Good, HSG D
25.560	60	59	Weighted Average, UI Adjusted
25.080			98.12% Pervious Area
0.480			1.88% Impervious Area
0.480			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.0360	0.18		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
6.1	586	0.0520	1.60		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
29.3	1,350	0.0120	0.77		**Shallow Concentrated Flow, scf-2** Short Grass Pasture Kv= 7.0 fps
39.9	1,986	Total			

Subcatchment A3: A3



Hydrograph for Subcatchment A3: A3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.00
11.00	1.46	0.00	0.00
11.25	1.58	0.01	0.04
11.50	1.74	0.02	0.23
11.75	2.07	0.06	0.73
12.00	2.92	0.28	2.61
12.25	3.77	0.61	10.89
12.50	4.10	0.76	**22.51**
12.75	4.26	0.84	**21.80**
13.00	4.38	0.90	15.02
13.25	4.48	0.95	10.18
13.50	4.58	1.00	7.52
13.75	4.66	1.05	6.12
14.00	4.74	1.09	5.32
14.25	4.81	1.13	4.73
14.50	4.87	1.16	4.29
14.75	4.93	1.20	3.98
15.00	4.99	1.23	3.73
15.25	5.04	1.26	3.51
15.50	5.09	1.29	3.29
15.75	5.13	1.31	3.07
16.00	5.17	1.33	2.85
16.25	5.21	1.36	2.62
16.50	5.25	1.38	2.41
16.75	5.28	1.40	2.26
17.00	5.31	1.41	2.13
17.25	5.34	1.43	2.03
17.50	5.37	1.45	1.92
17.75	5.40	1.46	1.81
18.00	5.42	1.48	1.71
18.25	5.44	1.49	1.60
18.50	5.47	1.51	1.51
18.75	5.49	1.52	1.45
19.00	5.51	1.53	1.41
19.25	5.53	1.55	1.37
19.50	5.55	1.56	1.34
19.75	5.57	1.57	1.31
20.00	**5.59**	**1.58**	1.27

Summary for Subcatchment A4: A4

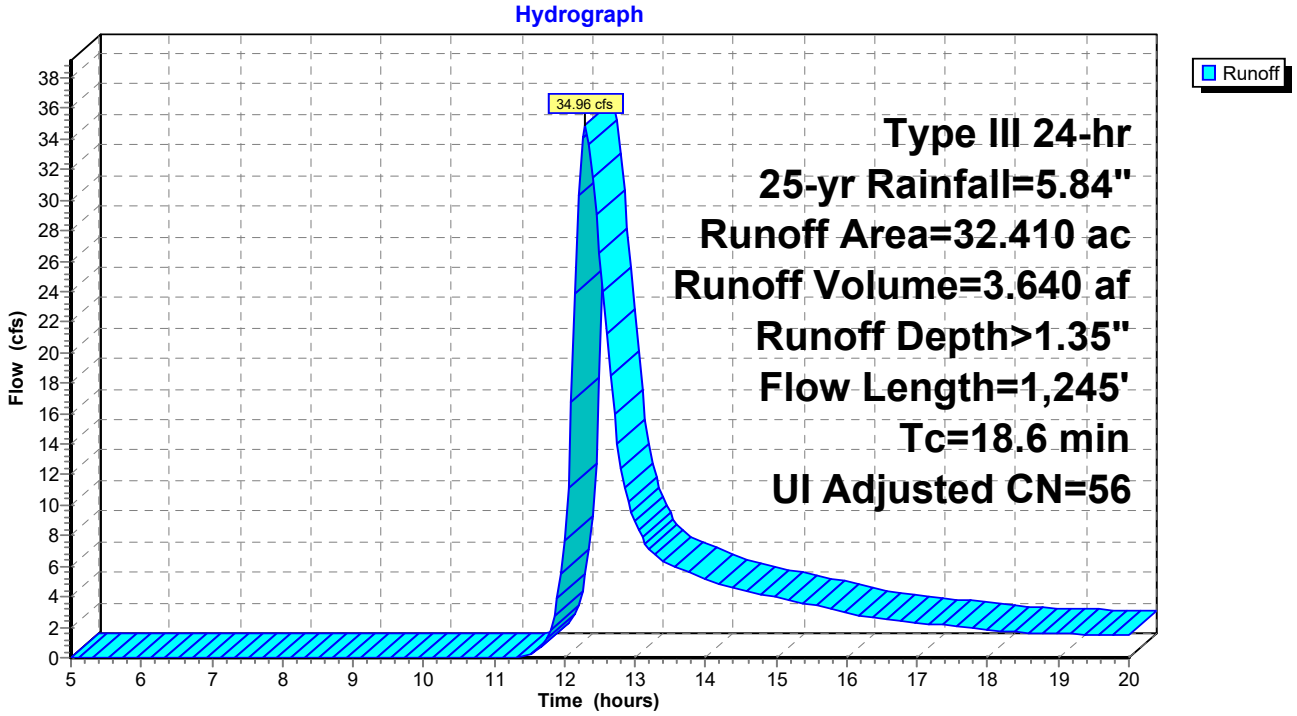
Runoff = 34.96 cfs @ 12.29 hrs, Volume= 3.640 af, Depth> 1.35"
Routed to Pond A4* : A4 Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Adj	Description
1.020	98		Unconnected pavement, HSG A
3.120	39		>75% Grass cover, Good, HSG A
3.710	30		Woods, Good, HSG A
22.820	61		>75% Grass cover, Good, HSG B
1.280	55		Woods, Good, HSG B
0.460	80		>75% Grass cover, Good, HSG D
32.410	57	56	Weighted Average, UI Adjusted
31.390			96.85% Pervious Area
1.020			3.15% Impervious Area
1.020			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	50	0.0460	0.20		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
2.1	158	0.0320	1.25		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
0.1	21	0.4760	4.83		**Shallow Concentrated Flow, scf-2** Short Grass Pasture Kv= 7.0 fps
11.6	888	0.0330	1.27		**Shallow Concentrated Flow, scf-3** Short Grass Pasture Kv= 7.0 fps
0.7	128	0.1880	3.04		**Shallow Concentrated Flow, scf-4** Short Grass Pasture Kv= 7.0 fps
18.6	1,245	Total			

Subcatchment A4: A4



Hydrograph for Subcatchment A4: A4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.00
11.00	1.46	0.00	0.00
11.25	1.58	0.00	0.00
11.50	1.74	0.00	0.13
11.75	2.07	0.03	1.24
12.00	2.92	0.20	7.69
12.25	3.77	0.48	**34.13**
12.50	4.10	0.62	**26.56**
12.75	4.26	0.68	13.95
13.00	4.38	0.74	8.91
13.25	4.48	0.79	6.87
13.50	4.58	0.83	6.09
13.75	4.66	0.87	5.62
14.00	4.74	0.91	5.15
14.25	4.81	0.94	4.71
14.50	4.87	0.98	4.43
14.75	4.93	1.01	4.19
15.00	4.99	1.04	3.96
15.25	5.04	1.06	3.72
15.50	5.09	1.09	3.47
15.75	5.13	1.11	3.21
16.00	5.17	1.13	2.94
16.25	5.21	1.15	2.69
16.50	5.25	1.17	2.54
16.75	5.28	1.19	2.42
17.00	5.31	1.21	2.30
17.25	5.34	1.22	2.19
17.50	5.37	1.24	2.07
17.75	5.40	1.25	1.94
18.00	5.42	1.27	1.82
18.25	5.44	1.28	1.71
18.50	5.47	1.29	1.65
18.75	5.49	1.30	1.61
19.00	5.51	1.31	1.58
19.25	5.53	1.33	1.54
19.50	5.55	1.34	1.51
19.75	5.57	1.35	1.47
20.00	**5.59**	**1.36**	1.44

Summary for Subcatchment A5: A5

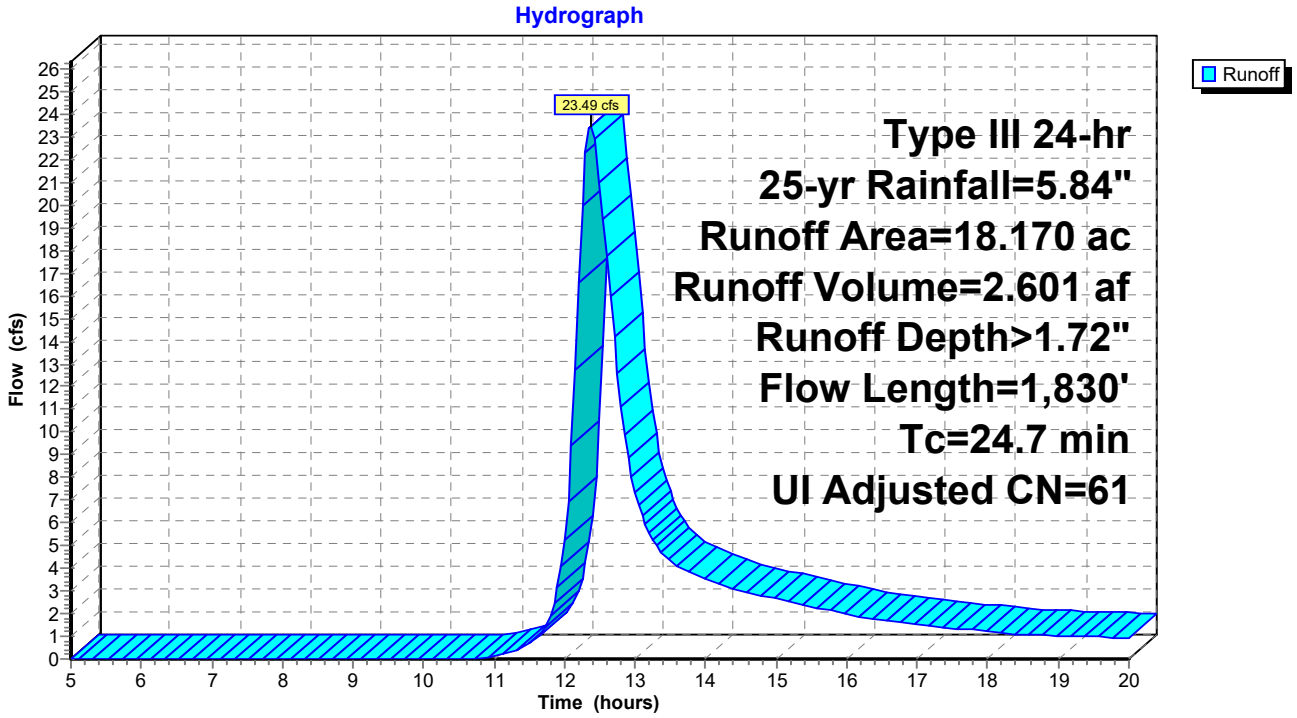
Runoff = 23.49 cfs @ 12.37 hrs, Volume= 2.601 af, Depth> 1.72"
Routed to Pond A5* : A5 Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Adj	Description
0.530	98		Unconnected pavement, HSG A
16.500	61		>75% Grass cover, Good, HSG B
1.080	55		Woods, Good, HSG B
0.060	80		>75% Grass cover, Good, HSG D
18.170	62	61	Weighted Average, UI Adjusted
17.640			97.08% Pervious Area
0.530			2.92% Impervious Area
0.530			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0	50	0.1000	0.28		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
21.7	1,780	0.0380	1.36		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
24.7	1,830	Total			

Subcatchment A5: A5



Hydrograph for Subcatchment A5: A5

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.01
11.00	1.46	0.01	0.10
11.25	1.58	0.01	0.31
11.50	1.74	0.03	0.69
11.75	2.07	0.09	1.51
12.00	2.92	0.34	5.25
12.25	3.77	0.70	**19.98**
12.50	4.10	0.86	**21.01**
12.75	4.26	0.95	12.57
13.00	4.38	1.01	7.36
13.25	4.48	1.07	5.25
13.50	4.58	1.12	4.31
13.75	4.66	1.17	3.87
14.00	4.74	1.21	3.54
14.25	4.81	1.25	3.22
14.50	4.87	1.29	2.99
14.75	4.93	1.33	2.82
15.00	4.99	1.36	2.66
15.25	5.04	1.39	2.49
15.50	5.09	1.42	2.33
15.75	5.13	1.45	2.15
16.00	5.17	1.47	1.98
16.25	5.21	1.50	1.81
16.50	5.25	1.52	1.69
16.75	5.28	1.54	1.60
17.00	5.31	1.56	1.52
17.25	5.34	1.58	1.44
17.50	5.37	1.60	1.36
17.75	5.40	1.61	1.29
18.00	5.42	1.63	1.20
18.25	5.44	1.64	1.13
18.50	5.47	1.66	1.08
18.75	5.49	1.67	1.05
19.00	5.51	1.68	1.03
19.25	5.53	1.70	1.00
19.50	5.55	1.71	0.98
19.75	5.57	1.72	0.95
20.00	**5.59**	**1.74**	0.93

Summary for Subcatchment A6: A6

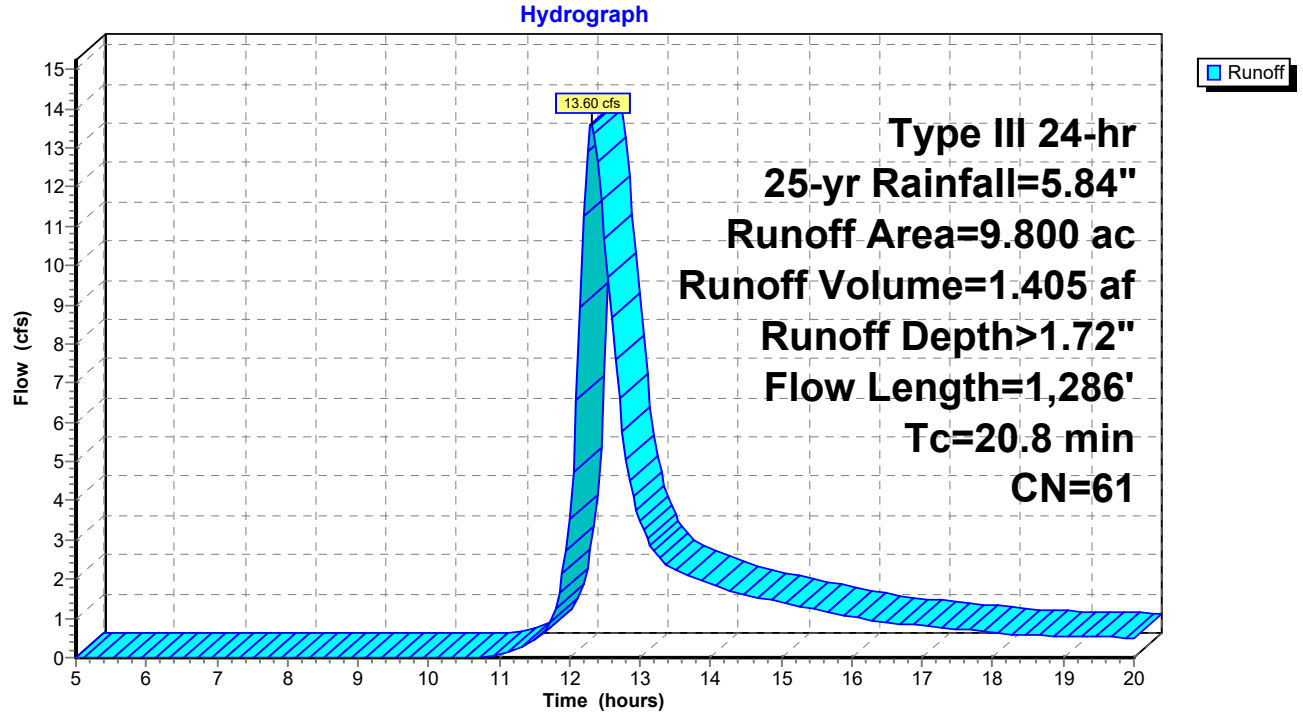
Runoff = 13.60 cfs @ 12.31 hrs, Volume= 1.405 af, Depth> 1.72"
Routed to Reach SUB-3 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.300	98	Unconnected pavement, HSG A
8.150	61	>75% Grass cover, Good, HSG B
1.350	55	Woods, Good, HSG B
9.800	61	Weighted Average
9.500		96.94% Pervious Area
0.300		3.06% Impervious Area
0.300		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	50	0.0260	0.16		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
15.7	1,236	0.0350	1.31		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
20.8	1,286	Total			

Subcatchment A6: A6



Hydrograph for Subcatchment A6: A6

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.01
11.00	1.46	0.01	0.07
11.25	1.58	0.01	0.20
11.50	1.74	0.03	0.43
11.75	2.07	0.09	0.98
12.00	2.92	0.34	3.54
12.25	3.77	0.70	**12.92**
12.50	4.10	0.86	**10.69**
12.75	4.26	0.95	5.77
13.00	4.38	1.01	3.49
13.25	4.48	1.07	2.59
13.50	4.58	1.12	2.23
13.75	4.66	1.17	2.04
14.00	4.74	1.21	1.86
14.25	4.81	1.25	1.70
14.50	4.87	1.29	1.59
14.75	4.93	1.33	1.50
15.00	4.99	1.36	1.41
15.25	5.04	1.39	1.32
15.50	5.09	1.42	1.23
15.75	5.13	1.45	1.14
16.00	5.17	1.47	1.04
16.25	5.21	1.50	0.95
16.50	5.25	1.52	0.90
16.75	5.28	1.54	0.85
17.00	5.31	1.56	0.81
17.25	5.34	1.58	0.77
17.50	5.37	1.60	0.73
17.75	5.40	1.61	0.68
18.00	5.42	1.63	0.64
18.25	5.44	1.64	0.60
18.50	5.47	1.66	0.58
18.75	5.49	1.67	0.56
19.00	5.51	1.68	0.55
19.25	5.53	1.70	0.54
19.50	5.55	1.71	0.52
19.75	5.57	1.72	0.51
20.00	**5.59**	**1.74**	0.50

Summary for Subcatchment A7: A7

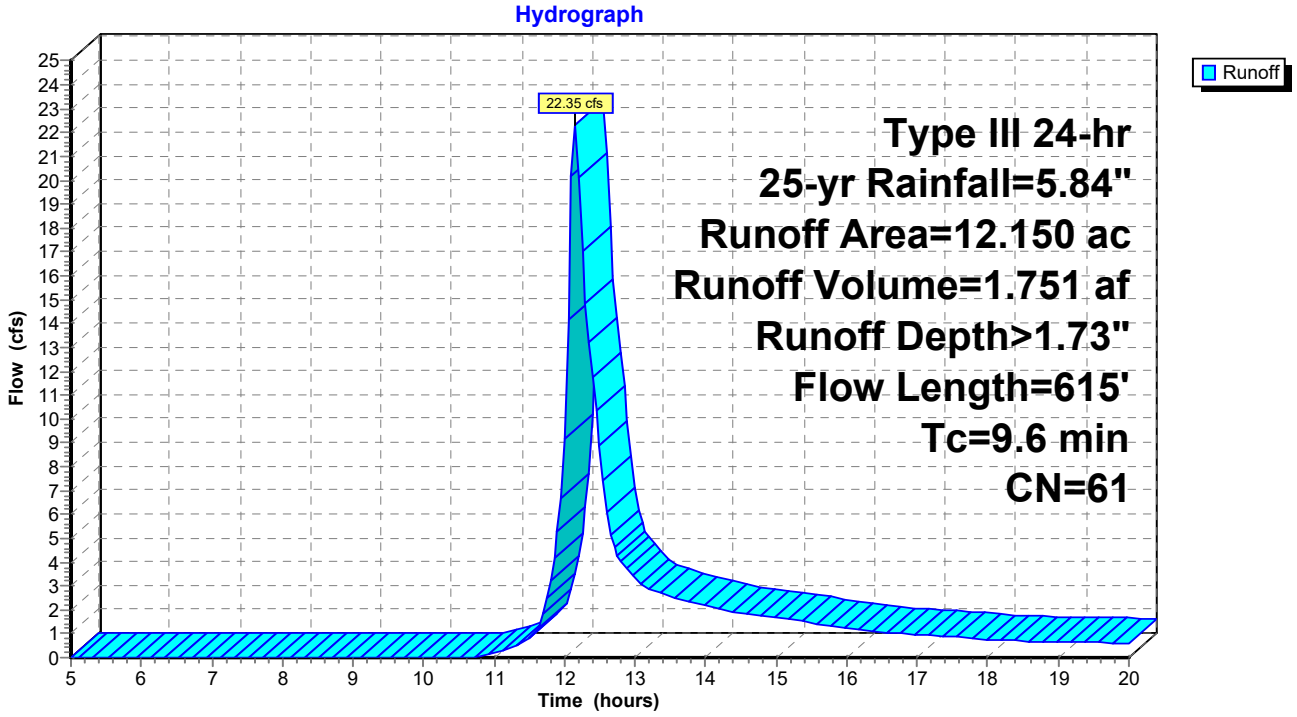
Runoff = 22.35 cfs @ 12.15 hrs, Volume= 1.751 af, Depth> 1.73"
Routed to Reach SUB-2 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.470	98	Unconnected pavement, HSG A
9.790	61	>75% Grass cover, Good, HSG B
1.890	55	Woods, Good, HSG B
12.150	61	Weighted Average
11.680		96.13% Pervious Area
0.470		3.87% Impervious Area
0.470		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	50	0.0800	0.25		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
6.3	565	0.0450	1.48		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
9.6	615	Total			

Subcatchment A7: A7



Hydrograph for Subcatchment A7: A7

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.04
11.00	1.46	0.01	0.18
11.25	1.58	0.01	0.41
11.50	1.74	0.03	0.80
11.75	2.07	0.09	2.46
12.00	2.92	0.34	**9.15**
12.25	3.77	0.70	**17.05**
12.50	4.10	0.86	8.91
12.75	4.26	0.95	4.27
13.00	4.38	1.01	3.34
13.25	4.48	1.07	2.79
13.50	4.58	1.12	2.59
13.75	4.66	1.17	2.38
14.00	4.74	1.21	2.16
14.25	4.81	1.25	1.99
14.50	4.87	1.29	1.89
14.75	4.93	1.33	1.78
15.00	4.99	1.36	1.67
15.25	5.04	1.39	1.56
15.50	5.09	1.42	1.45
15.75	5.13	1.45	1.33
16.00	5.17	1.47	1.21
16.25	5.21	1.50	1.12
16.50	5.25	1.52	1.07
16.75	5.28	1.54	1.02
17.00	5.31	1.56	0.97
17.25	5.34	1.58	0.92
17.50	5.37	1.60	0.86
17.75	5.40	1.61	0.81
18.00	5.42	1.63	0.76
18.25	5.44	1.64	0.72
18.50	5.47	1.66	0.70
18.75	5.49	1.67	0.69
19.00	5.51	1.68	0.67
19.25	5.53	1.70	0.66
19.50	5.55	1.71	0.64
19.75	5.57	1.72	0.62
20.00	**5.59**	**1.74**	0.61

Summary for Subcatchment A8: A8

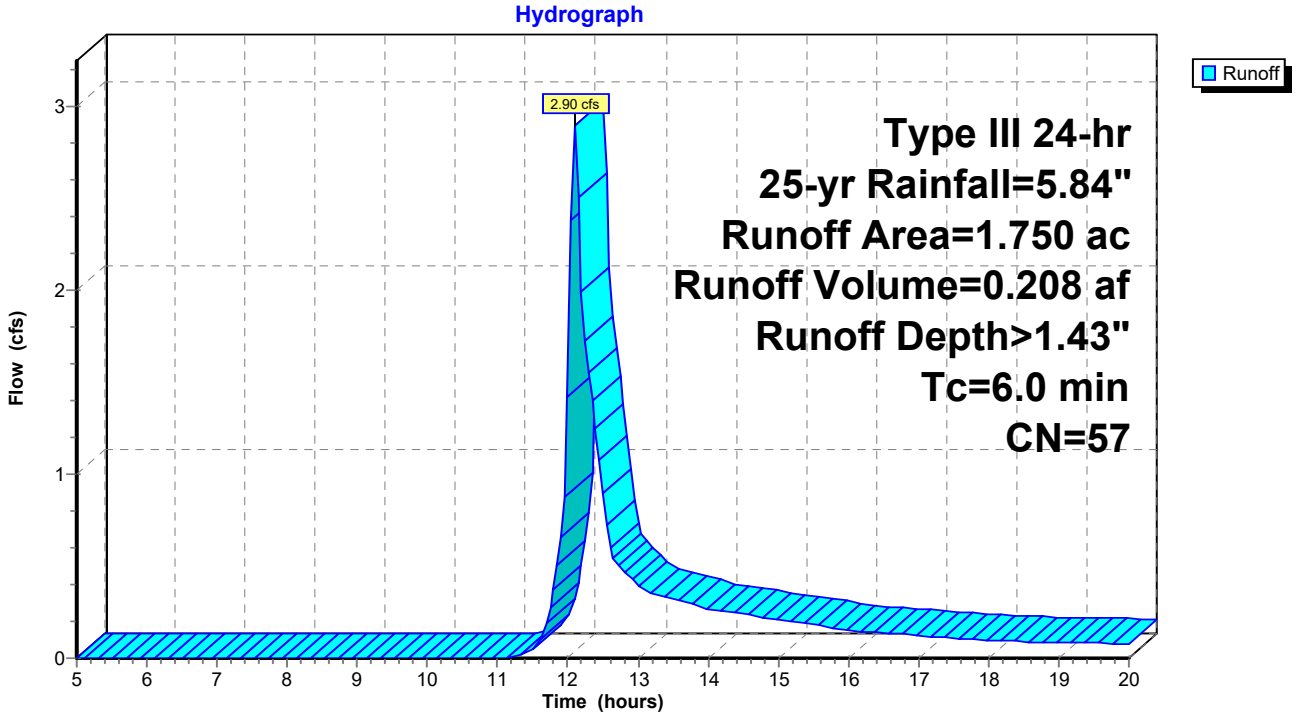
Runoff = 2.90 cfs @ 12.10 hrs, Volume= 0.208 af, Depth> 1.43"
Routed to Reach SUB-3 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.440	61	>75% Grass cover, Good, HSG B
1.310	55	Woods, Good, HSG B
1.750	57	Weighted Average
1.750		100.00% Pervious Area

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

Subcatchment A8: A8



Hydrograph for Subcatchment A8: A8

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.00
11.00	1.46	0.00	0.00
11.25	1.58	0.00	0.01
11.50	1.74	0.01	0.05
11.75	2.07	0.04	0.27
12.00	2.92	0.22	**1.42**
12.25	3.77	0.52	**1.72**
12.50	4.10	0.66	0.90
12.75	4.26	0.73	0.49
13.00	4.38	0.79	0.40
13.25	4.48	0.84	0.34
13.50	4.58	0.89	0.32
13.75	4.66	0.93	0.29
14.00	4.74	0.97	0.27
14.25	4.81	1.00	0.25
14.50	4.87	1.04	0.24
14.75	4.93	1.07	0.22
15.00	4.99	1.10	0.21
15.25	5.04	1.13	0.20
15.50	5.09	1.15	0.18
15.75	5.13	1.18	0.17
16.00	5.17	1.20	0.15
16.25	5.21	1.22	0.14
16.50	5.25	1.24	0.14
16.75	5.28	1.26	0.13
17.00	5.31	1.27	0.12
17.25	5.34	1.29	0.12
17.50	5.37	1.31	0.11
17.75	5.40	1.32	0.10
18.00	5.42	1.34	0.10
18.25	5.44	1.35	0.09
18.50	5.47	1.36	0.09
18.75	5.49	1.37	0.09
19.00	5.51	1.39	0.09
19.25	5.53	1.40	0.08
19.50	5.55	1.41	0.08
19.75	5.57	1.42	0.08
20.00	**5.59**	**1.43**	0.08

Summary for Subcatchment A9: A9

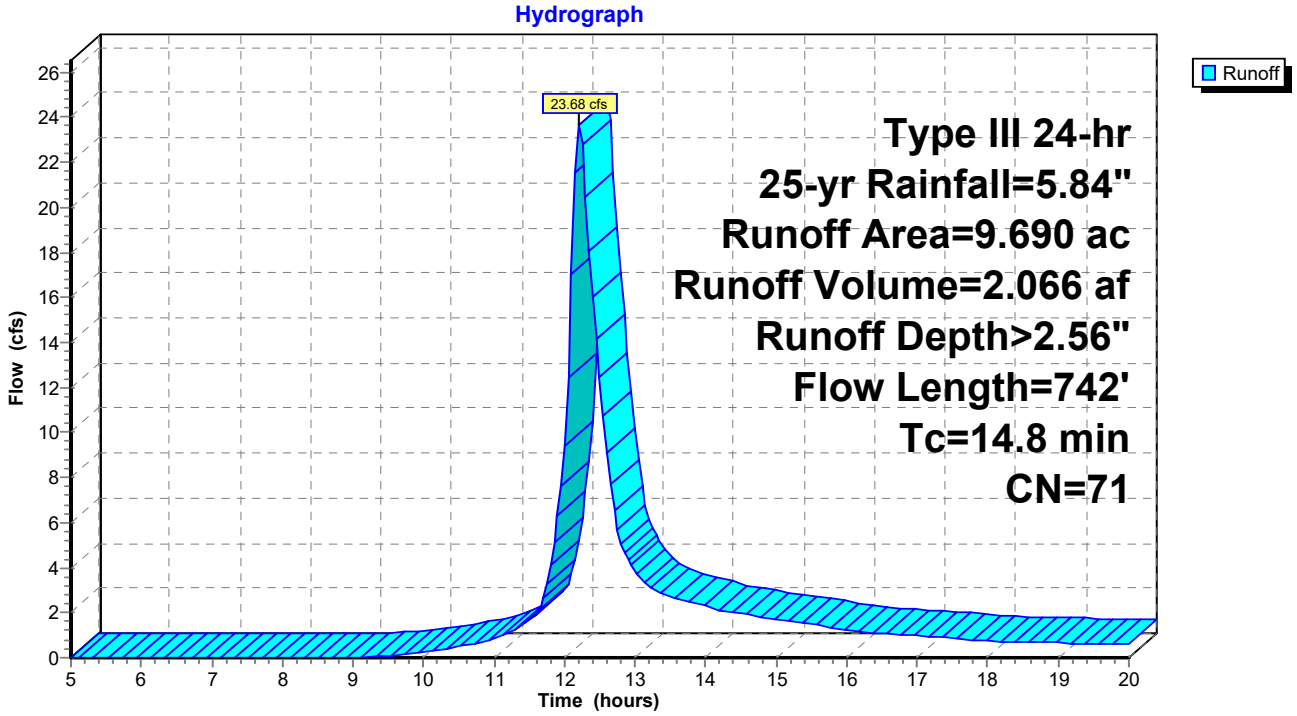
Runoff = 23.68 cfs @ 12.21 hrs, Volume= 2.066 af, Depth> 2.56"
Routed to Reach SUB-3 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
3.400	98	Unconnected pavement, HSG A
0.340	39	>75% Grass cover, Good, HSG A
0.260	30	Woods, Good, HSG A
4.080	61	>75% Grass cover, Good, HSG B
1.610	55	Woods, Good, HSG B
9.690	71	Weighted Average
6.290		64.91% Pervious Area
3.400		35.09% Impervious Area
3.400		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	50	0.0180	0.14		**Sheet Flow, SF-1** Grass: Short n= 0.150 P2= 3.11"
8.8	692	0.0350	1.31		**Shallow Concentrated Flow, SCF-1** Short Grass Pasture Kv= 7.0 fps
14.8	742	Total			

Subcatchment A9: A9



Hydrograph for Subcatchment A9: A9

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.04
9.50	0.97	0.01	0.11
9.75	1.03	0.01	0.18
10.00	1.10	0.02	0.27
10.25	1.18	0.03	0.37
10.50	1.26	0.04	0.51
10.75	1.36	0.06	0.67
11.00	1.46	0.09	0.86
11.25	1.58	0.12	1.14
11.50	1.74	0.17	1.66
11.75	2.07	0.30	3.28
12.00	2.92	0.71	**9.39**
12.25	3.77	1.24	**22.78**
12.50	4.10	1.46	12.45
12.75	4.26	1.57	5.68
13.00	4.38	1.66	3.86
13.25	4.48	1.73	3.05
13.50	4.58	1.80	2.75
13.75	4.66	1.86	2.52
14.00	4.74	1.92	2.28
14.25	4.81	1.97	2.08
14.50	4.87	2.02	1.95
14.75	4.93	2.07	1.84
15.00	4.99	2.11	1.72
15.25	5.04	2.15	1.61
15.50	5.09	2.18	1.49
15.75	5.13	2.22	1.37
16.00	5.17	2.25	1.25
16.25	5.21	2.28	1.14
16.50	5.25	2.30	1.08
16.75	5.28	2.33	1.03
17.00	5.31	2.35	0.98
17.25	5.34	2.38	0.92
17.50	5.37	2.40	0.87
17.75	5.40	2.42	0.81
18.00	5.42	2.44	0.76
18.25	5.44	2.46	0.72
18.50	5.47	2.47	0.69
18.75	5.49	2.49	0.68
19.00	5.51	2.51	0.66
19.25	5.53	2.52	0.65
19.50	5.55	2.54	0.63
19.75	5.57	2.56	0.61
20.00	**5.59**	**2.57**	0.60

Summary for Subcatchment B1: B1

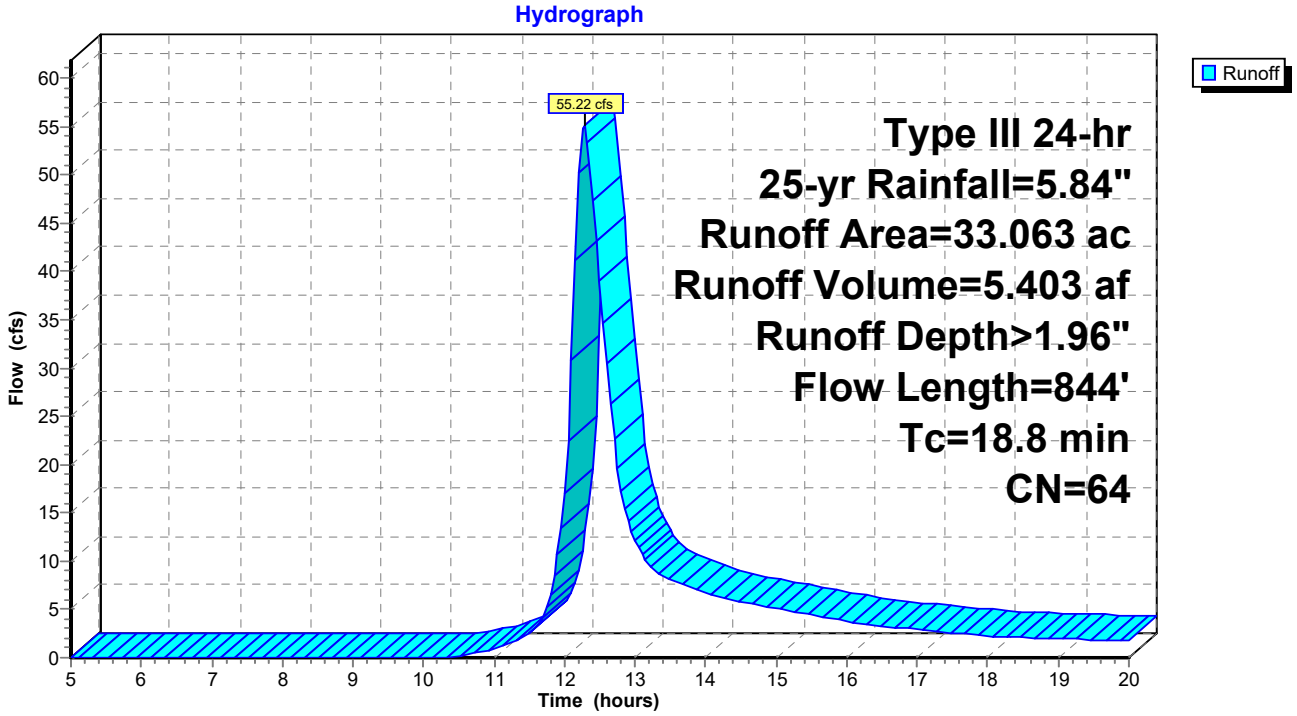
Runoff = 55.22 cfs @ 12.28 hrs, Volume= 5.403 af, Depth> 1.96"
Routed to Reach 22R : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.090	98	Paved parking, HSG A
0.300	39	>75% Grass cover, Good, HSG A
0.160	30	Woods, Good, HSG A
6.657	61	>75% Grass cover, Good, HSG B
13.760	55	Woods, Good, HSG B
0.800	80	>75% Grass cover, Good, HSG D
9.340	77	Woods, Good, HSG D
0.252	61	>75% Grass cover, Good, HSG B
0.124	80	>75% Grass cover, Good, HSG D
0.357	55	Woods, Good, HSG B
0.153	77	Woods, Good, HSG D
0.168	85	Gravel roads, HSG B
0.369	98	Water Surface, HSG B
0.064	48	Brush, Good, HSG B
0.469	98	Paved parking, HSG A
33.063	64	Weighted Average
32.135		97.19% Pervious Area
0.928		2.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	50	0.0100	0.11		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
11.3	794	0.0280	1.17		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
18.8	844	Total			

Subcatchment B1: B1



Hydrograph for Subcatchment B1: B1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.01
10.50	1.26	0.00	0.18
10.75	1.36	0.01	0.52
11.00	1.46	0.02	0.95
11.25	1.58	0.03	1.53
11.50	1.74	0.06	2.57
11.75	2.07	0.14	5.23
12.00	2.92	0.43	17.05
12.25	3.77	0.84	**54.82**
12.50	4.10	1.03	**38.91**
12.75	4.26	1.12	19.63
13.00	4.38	1.19	12.17
13.25	4.48	1.25	9.24
13.50	4.58	1.31	8.10
13.75	4.66	1.36	7.42
14.00	4.74	1.41	6.77
14.25	4.81	1.46	6.16
14.50	4.87	1.50	5.76
14.75	4.93	1.54	5.44
15.00	4.99	1.57	5.12
15.25	5.04	1.61	4.79
15.50	5.09	1.64	4.45
15.75	5.13	1.67	4.11
16.00	5.17	1.69	3.76
16.25	5.21	1.72	3.44
16.50	5.25	1.74	3.23
16.75	5.28	1.77	3.08
17.00	5.31	1.79	2.92
17.25	5.34	1.81	2.77
17.50	5.37	1.83	2.61
17.75	5.40	1.84	2.46
18.00	5.42	1.86	2.30
18.25	5.44	1.87	2.15
18.50	5.47	1.89	2.08
18.75	5.49	1.91	2.03
19.00	5.51	1.92	1.98
19.25	5.53	1.93	1.94
19.50	5.55	1.95	1.89
19.75	5.57	1.96	1.85
20.00	**5.59**	**1.98**	1.80

Summary for Subcatchment B10: B10

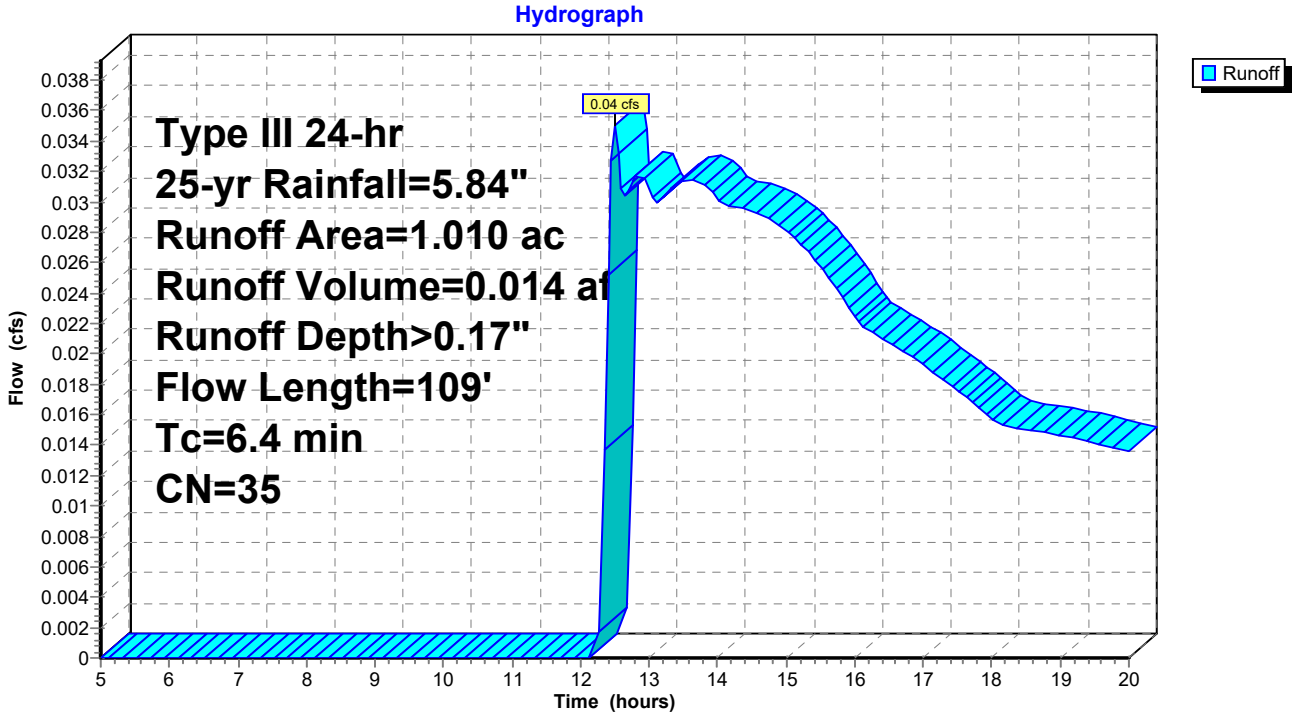
Runoff = 0.04 cfs @ 12.50 hrs, Volume= 0.014 af, Depth> 0.17"
Routed to Reach 21R : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.250	39	>75% Grass cover, Good, HSG A
0.640	30	Woods, Good, HSG A
0.030	61	>75% Grass cover, Good, HSG B
0.090	55	Woods, Good, HSG B
1.010	35	Weighted Average
1.010		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	50	0.0180	0.14		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
0.4	59	0.1610	2.81		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
6.4	109	Total			

Subcatchment B10: B10



Hydrograph for Subcatchment B10: B10

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.00
11.00	1.46	0.00	0.00
11.25	1.58	0.00	0.00
11.50	1.74	0.00	0.00
11.75	2.07	0.00	0.00
12.00	2.92	0.00	0.00
12.25	3.77	0.00	0.00
12.50	4.10	0.01	**0.04**
12.75	4.26	0.02	0.03
13.00	4.38	0.02	0.03
13.25	4.48	0.03	0.03
13.50	4.58	0.04	0.03
13.75	4.66	0.05	0.03
14.00	4.74	0.05	0.03
14.25	4.81	0.06	0.03
14.50	4.87	0.07	0.03
14.75	4.93	0.07	0.03
15.00	4.99	0.08	0.03
15.25	5.04	0.09	0.03
15.50	5.09	0.09	0.03
15.75	5.13	0.10	0.02
16.00	5.17	0.11	0.02
16.25	5.21	0.11	0.02
16.50	5.25	0.12	0.02
16.75	5.28	0.12	0.02
17.00	5.31	0.13	0.02
17.25	5.34	0.13	0.02
17.50	5.37	0.14	0.02
17.75	5.40	0.14	0.02
18.00	5.42	0.14	0.02
18.25	5.44	0.15	0.02
18.50	5.47	0.15	0.02
18.75	5.49	0.15	0.01
19.00	5.51	0.16	0.01
19.25	5.53	0.16	0.01
19.50	5.55	0.17	0.01
19.75	5.57	0.17	0.01
20.00	**5.59**	**0.17**	0.01

Summary for Subcatchment B11: B11

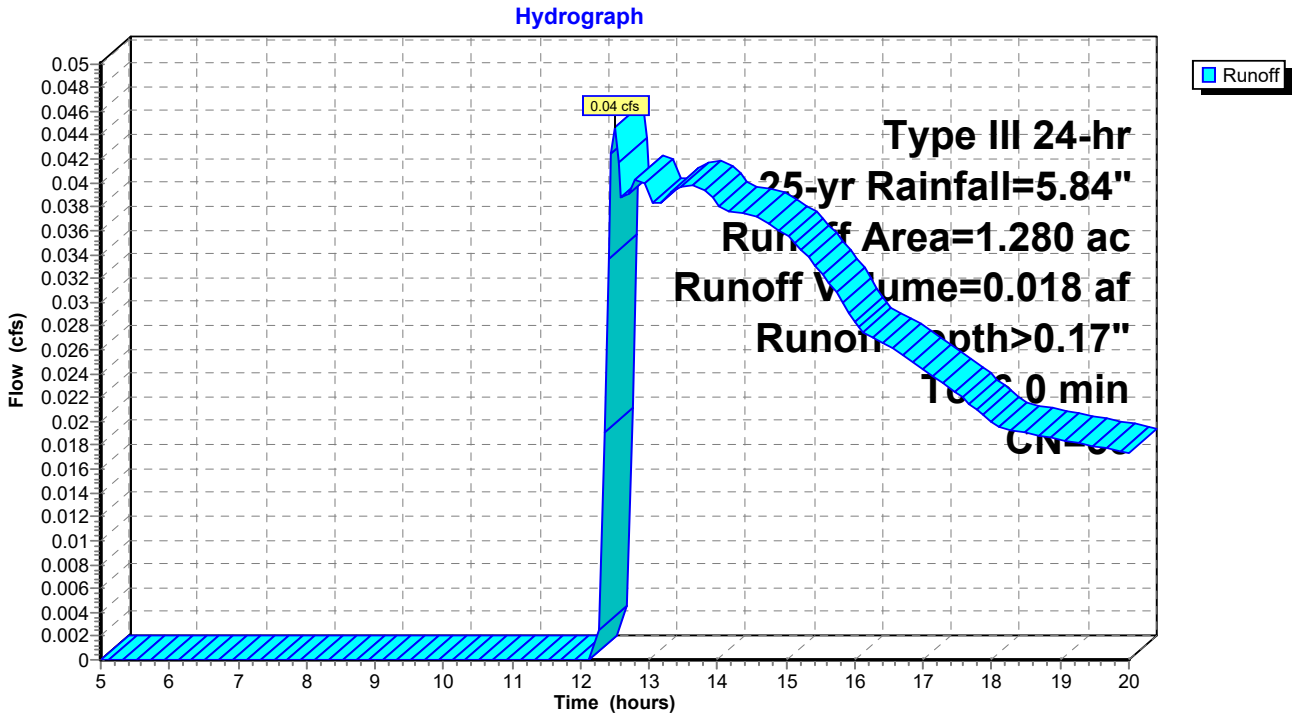
Runoff = 0.04 cfs @ 12.50 hrs, Volume= 0.018 af, Depth> 0.17"
Routed to Reach 21R : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.180	39	>75% Grass cover, Good, HSG A
0.920	30	Woods, Good, HSG A
0.150	61	>75% Grass cover, Good, HSG B
0.030	55	Woods, Good, HSG B
1.280	35	Weighted Average
1.280		100.00% Pervious Area

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

Subcatchment B11: B11



Hydrograph for Subcatchment B11: B11

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.00
11.00	1.46	0.00	0.00
11.25	1.58	0.00	0.00
11.50	1.74	0.00	0.00
11.75	2.07	0.00	0.00
12.00	2.92	0.00	0.00
12.25	3.77	0.00	0.00
12.50	4.10	0.01	**0.04**
12.75	4.26	0.02	0.04
13.00	4.38	0.02	0.04
13.25	4.48	0.03	0.04
13.50	4.58	0.04	0.04
13.75	4.66	0.05	0.04
14.00	4.74	0.05	0.04
14.25	4.81	0.06	0.04
14.50	4.87	0.07	0.04
14.75	4.93	0.07	0.04
15.00	4.99	0.08	0.04
15.25	5.04	0.09	0.03
15.50	5.09	0.09	0.03
15.75	5.13	0.10	0.03
16.00	5.17	0.11	0.03
16.25	5.21	0.11	0.03
16.50	5.25	0.12	0.03
16.75	5.28	0.12	0.03
17.00	5.31	0.13	0.02
17.25	5.34	0.13	0.02
17.50	5.37	0.14	0.02
17.75	5.40	0.14	0.02
18.00	5.42	0.14	0.02
18.25	5.44	0.15	0.02
18.50	5.47	0.15	0.02
18.75	5.49	0.15	0.02
19.00	5.51	0.16	0.02
19.25	5.53	0.16	0.02
19.50	5.55	0.17	0.02
19.75	5.57	0.17	0.02
20.00	**5.59**	**0.17**	0.02

Summary for Subcatchment B12: B12

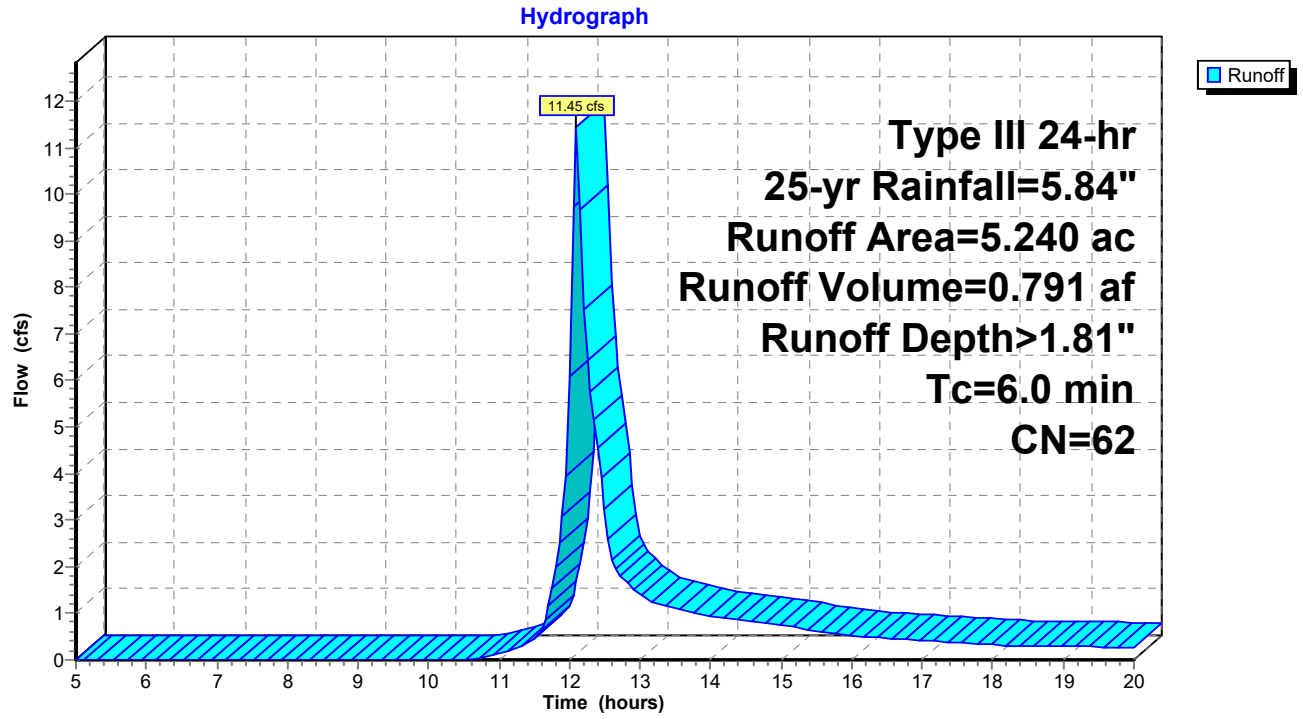
Runoff = 11.45 cfs @ 12.10 hrs, Volume= 0.791 af, Depth> 1.81"
Routed to Pond B12* : B12 Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.190	98	Paved parking, HSG A
4.590	61	>75% Grass cover, Good, HSG B
0.460	55	Woods, Good, HSG B
5.240	62	Weighted Average
5.050		96.37% Pervious Area
0.190		3.63% Impervious Area

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

Subcatchment B12: B12



Hydrograph for Subcatchment B12: B12

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.01
10.75	1.36	0.00	0.06
11.00	1.46	0.01	0.13
11.25	1.58	0.02	0.25
11.50	1.74	0.04	0.45
11.75	2.07	0.10	1.55
12.00	2.92	0.37	**6.08**
12.25	3.77	0.74	**6.43**
12.50	4.10	0.92	3.25
12.75	4.26	1.00	1.77
13.00	4.38	1.07	1.41
13.25	4.48	1.13	1.22
13.50	4.58	1.18	1.13
13.75	4.66	1.23	1.04
14.00	4.74	1.28	0.94
14.25	4.81	1.32	0.87
14.50	4.87	1.36	0.83
14.75	4.93	1.40	0.78
15.00	4.99	1.43	0.73
15.25	5.04	1.46	0.68
15.50	5.09	1.49	0.63
15.75	5.13	1.52	0.58
16.00	5.17	1.55	0.53
16.25	5.21	1.57	0.49
16.50	5.25	1.59	0.47
16.75	5.28	1.61	0.45
17.00	5.31	1.63	0.42
17.25	5.34	1.65	0.40
17.50	5.37	1.67	0.38
17.75	5.40	1.69	0.35
18.00	5.42	1.70	0.33
18.25	5.44	1.72	0.32
18.50	5.47	1.73	0.31
18.75	5.49	1.75	0.30
19.00	5.51	1.76	0.29
19.25	5.53	1.78	0.29
19.50	5.55	1.79	0.28
19.75	5.57	1.80	0.27
20.00	**5.59**	**1.81**	0.27

Summary for Subcatchment B13: B13

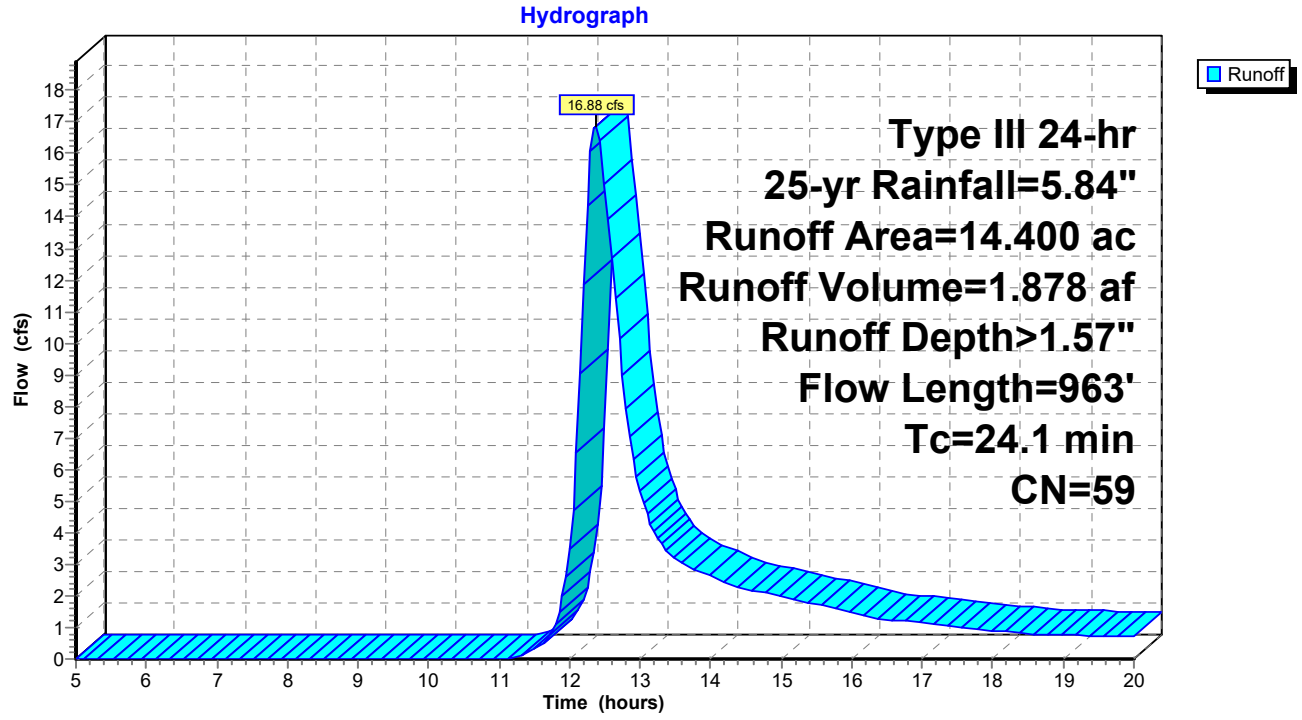
Runoff = 16.88 cfs @ 12.37 hrs, Volume= 1.878 af, Depth> 1.57"
Routed to Reach 2R : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.280	98	Paved parking, HSG A
1.340	61	>75% Grass cover, Good, HSG B
10.860	55	Woods, Good, HSG B
0.310	80	>75% Grass cover, Good, HSG D
1.610	77	Woods, Good, HSG D
14.400	59	Weighted Average
14.120		98.06% Pervious Area
0.280		1.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.2600	0.19		**Sheet Flow, sf-1** Woods: Light underbrush n= 0.400 P2= 3.11"
19.6	913	0.0240	0.77		**Shallow Concentrated Flow, scf-1** Woodland Kv= 5.0 fps
24.1	963	Total			

Subcatchment B13: B13



Hydrograph for Subcatchment B13: B13

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.00
11.00	1.46	0.00	0.00
11.25	1.58	0.01	0.07
11.50	1.74	0.02	0.31
11.75	2.07	0.06	0.86
12.00	2.92	0.28	3.48
12.25	3.77	0.61	**14.38**
12.50	4.10	0.76	**15.03**
12.75	4.26	0.84	8.97
13.00	4.38	0.90	5.30
13.25	4.48	0.95	3.83
13.50	4.58	1.00	3.17
13.75	4.66	1.05	2.86
14.00	4.74	1.09	2.62
14.25	4.81	1.13	2.39
14.50	4.87	1.16	2.22
14.75	4.93	1.20	2.10
15.00	4.99	1.23	1.98
15.25	5.04	1.26	1.86
15.50	5.09	1.29	1.74
15.75	5.13	1.31	1.61
16.00	5.17	1.33	1.48
16.25	5.21	1.36	1.35
16.50	5.25	1.38	1.26
16.75	5.28	1.40	1.20
17.00	5.31	1.41	1.14
17.25	5.34	1.43	1.08
17.50	5.37	1.45	1.02
17.75	5.40	1.46	0.96
18.00	5.42	1.48	0.90
18.25	5.44	1.49	0.85
18.50	5.47	1.51	0.81
18.75	5.49	1.52	0.79
19.00	5.51	1.53	0.77
19.25	5.53	1.55	0.75
19.50	5.55	1.56	0.74
19.75	5.57	1.57	0.72
20.00	**5.59**	**1.58**	0.70

Summary for Subcatchment B2: B2

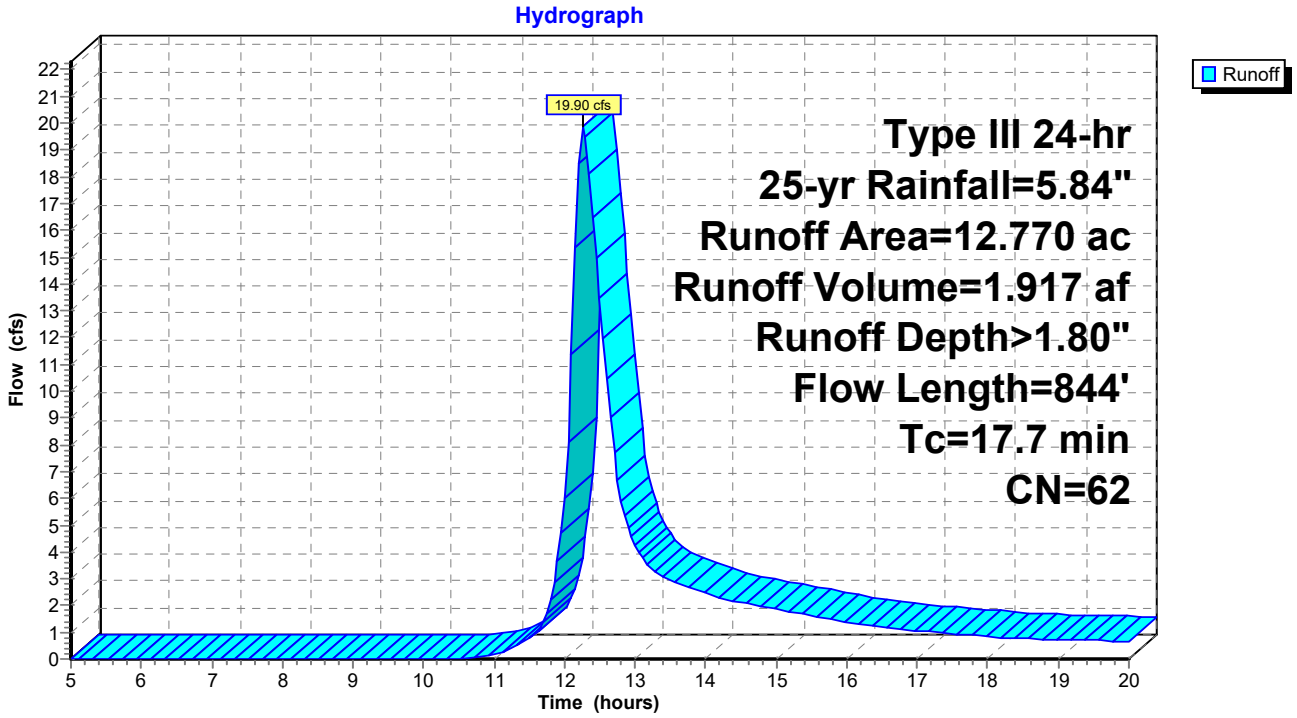
Runoff = 19.90 cfs @ 12.26 hrs, Volume= 1.917 af, Depth> 1.80"
Routed to Reach 23R : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.290	98	Paved parking, HSG A
11.040	61	>75% Grass cover, Good, HSG B
0.800	55	Woods, Good, HSG B
0.630	80	>75% Grass cover, Good, HSG D
0.010	77	Woods, Good, HSG D
12.770	62	Weighted Average
12.480		97.73% Pervious Area
0.290		2.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	50	0.0500	0.21		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
13.7	794	0.0190	0.96		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
17.7	844	Total			

Subcatchment B2: B2



Hydrograph for Subcatchment B2: B2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.06
11.00	1.46	0.01	0.20
11.25	1.58	0.02	0.40
11.50	1.74	0.04	0.76
11.75	2.07	0.10	1.71
12.00	2.92	0.37	6.02
12.25	3.77	0.74	**19.84**
12.50	4.10	0.92	13.49
12.75	4.26	1.00	6.69
13.00	4.38	1.07	4.27
13.25	4.48	1.13	3.30
13.50	4.58	1.18	2.93
13.75	4.66	1.23	2.69
14.00	4.74	1.28	2.46
14.25	4.81	1.32	2.24
14.50	4.87	1.36	2.10
14.75	4.93	1.40	1.98
15.00	4.99	1.43	1.87
15.25	5.04	1.46	1.75
15.50	5.09	1.49	1.63
15.75	5.13	1.52	1.50
16.00	5.17	1.55	1.37
16.25	5.21	1.57	1.26
16.50	5.25	1.59	1.18
16.75	5.28	1.61	1.13
17.00	5.31	1.63	1.07
17.25	5.34	1.65	1.02
17.50	5.37	1.67	0.96
17.75	5.40	1.69	0.90
18.00	5.42	1.70	0.84
18.25	5.44	1.72	0.79
18.50	5.47	1.73	0.77
18.75	5.49	1.75	0.75
19.00	5.51	1.76	0.73
19.25	5.53	1.78	0.71
19.50	5.55	1.79	0.70
19.75	5.57	1.80	0.68
20.00	**5.59**	**1.81**	0.66

Summary for Subcatchment B3: B3

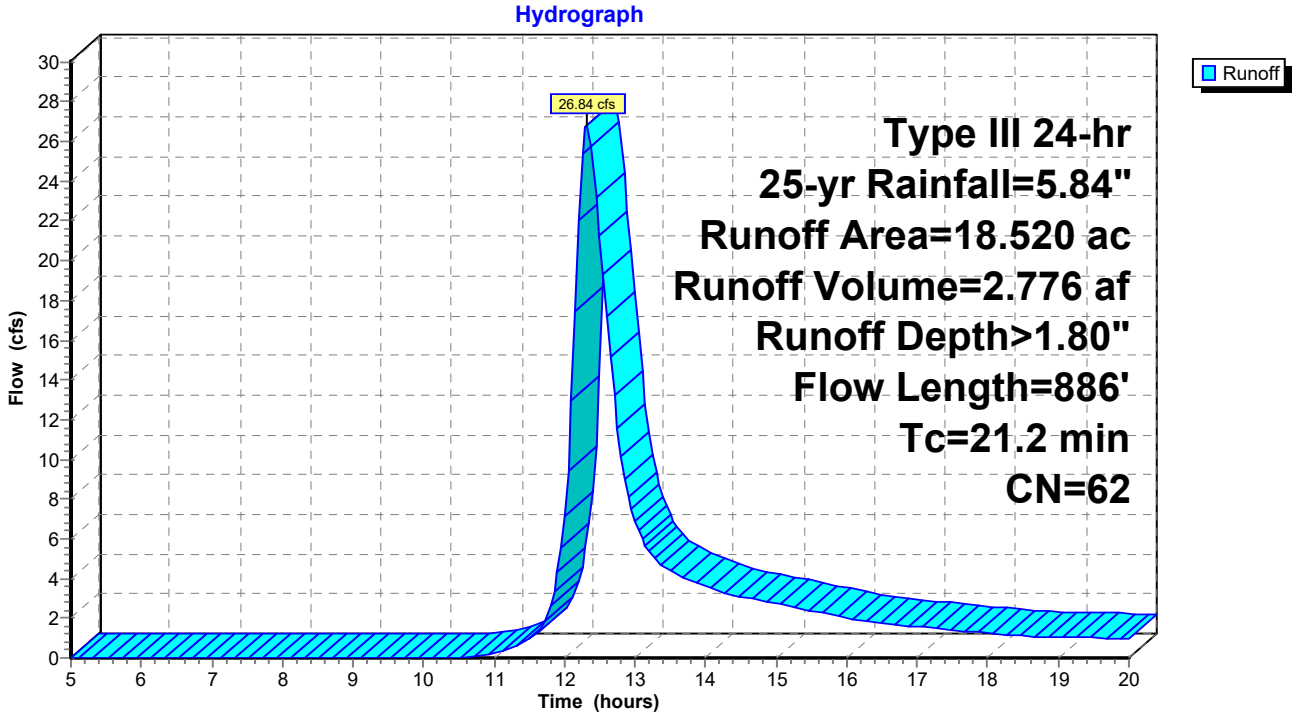
Runoff = 26.84 cfs @ 12.32 hrs, Volume= 2.776 af, Depth> 1.80"
Routed to Reach 23R : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
6.280	61	>75% Grass cover, Good, HSG B
7.880	55	Woods, Good, HSG B
0.520	80	>75% Grass cover, Good, HSG D
3.840	77	Woods, Good, HSG D
18.520	62	Weighted Average
18.520		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	50	0.0100	0.11		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
13.7	836	0.0210	1.01		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
21.2	886	Total			

Subcatchment B3: B3



Hydrograph for Subcatchment B3: B3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.06
11.00	1.46	0.01	0.25
11.25	1.58	0.02	0.51
11.50	1.74	0.04	0.98
11.75	2.07	0.10	2.08
12.00	2.92	0.37	7.14
12.25	3.77	0.74	**25.35**
12.50	4.10	0.92	**21.25**
12.75	4.26	1.00	11.52
13.00	4.38	1.07	6.90
13.25	4.48	1.13	5.09
13.50	4.58	1.18	4.36
13.75	4.66	1.23	3.98
14.00	4.74	1.28	3.64
14.25	4.81	1.32	3.31
14.50	4.87	1.36	3.09
14.75	4.93	1.40	2.91
15.00	4.99	1.43	2.75
15.25	5.04	1.46	2.57
15.50	5.09	1.49	2.40
15.75	5.13	1.52	2.22
16.00	5.17	1.55	2.03
16.25	5.21	1.57	1.86
16.50	5.25	1.59	1.74
16.75	5.28	1.61	1.65
17.00	5.31	1.63	1.57
17.25	5.34	1.65	1.49
17.50	5.37	1.67	1.41
17.75	5.40	1.69	1.33
18.00	5.42	1.70	1.24
18.25	5.44	1.72	1.16
18.50	5.47	1.73	1.12
18.75	5.49	1.75	1.09
19.00	5.51	1.76	1.07
19.25	5.53	1.78	1.04
19.50	5.55	1.79	1.02
19.75	5.57	1.80	0.99
20.00	**5.59**	**1.81**	0.97

Summary for Subcatchment B4: B4

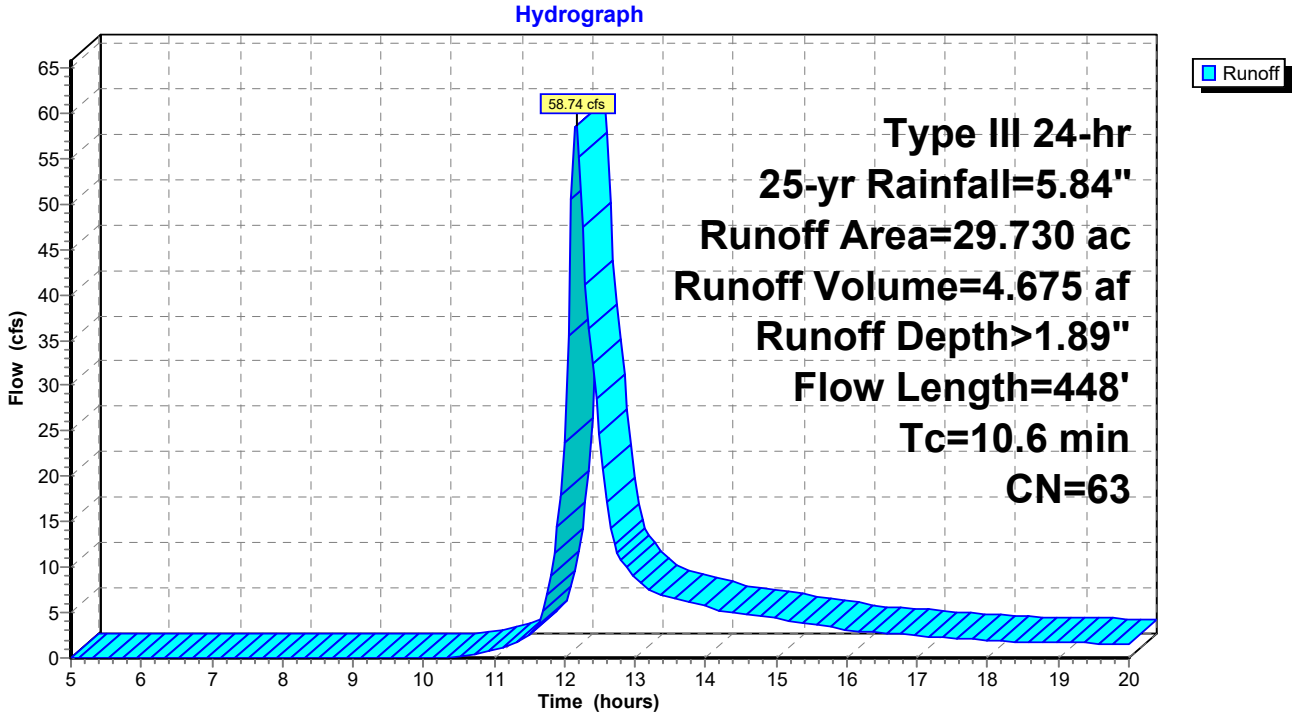
Runoff = 58.74 cfs @ 12.16 hrs, Volume= 4.675 af, Depth> 1.89"
Routed to Reach 2R : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
6.860	61	>75% Grass cover, Good, HSG B
14.270	55	Woods, Good, HSG B
1.390	80	>75% Grass cover, Good, HSG D
7.210	77	Woods, Good, HSG D
29.730	63	Weighted Average
29.730		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.0360	0.18		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
6.1	398	0.0240	1.08		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
10.6	448	Total			

Subcatchment B4: B4



Hydrograph for Subcatchment B4: B4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.12
10.75	1.36	0.01	0.45
11.00	1.46	0.01	0.85
11.25	1.58	0.03	1.47
11.50	1.74	0.05	2.56
11.75	2.07	0.12	6.94
12.00	2.92	0.40	**23.75**
12.25	3.77	0.79	**47.40**
12.50	4.10	0.97	24.65
12.75	4.26	1.06	11.53
13.00	4.38	1.13	8.85
13.25	4.48	1.19	7.32
13.50	4.58	1.25	6.75
13.75	4.66	1.30	6.21
14.00	4.74	1.34	5.64
14.25	4.81	1.39	5.18
14.50	4.87	1.43	4.90
14.75	4.93	1.47	4.62
15.00	4.99	1.50	4.34
15.25	5.04	1.54	4.05
15.50	5.09	1.57	3.75
15.75	5.13	1.59	3.45
16.00	5.17	1.62	3.14
16.25	5.21	1.64	2.90
16.50	5.25	1.67	2.77
16.75	5.28	1.69	2.63
17.00	5.31	1.71	2.50
17.25	5.34	1.73	2.36
17.50	5.37	1.75	2.23
17.75	5.40	1.76	2.09
18.00	5.42	1.78	1.95
18.25	5.44	1.80	1.85
18.50	5.47	1.81	1.80
18.75	5.49	1.83	1.76
19.00	5.51	1.84	1.72
19.25	5.53	1.85	1.68
19.50	5.55	1.87	1.64
19.75	5.57	1.88	1.60
20.00	**5.59**	**1.89**	1.56

Summary for Subcatchment B5: B5

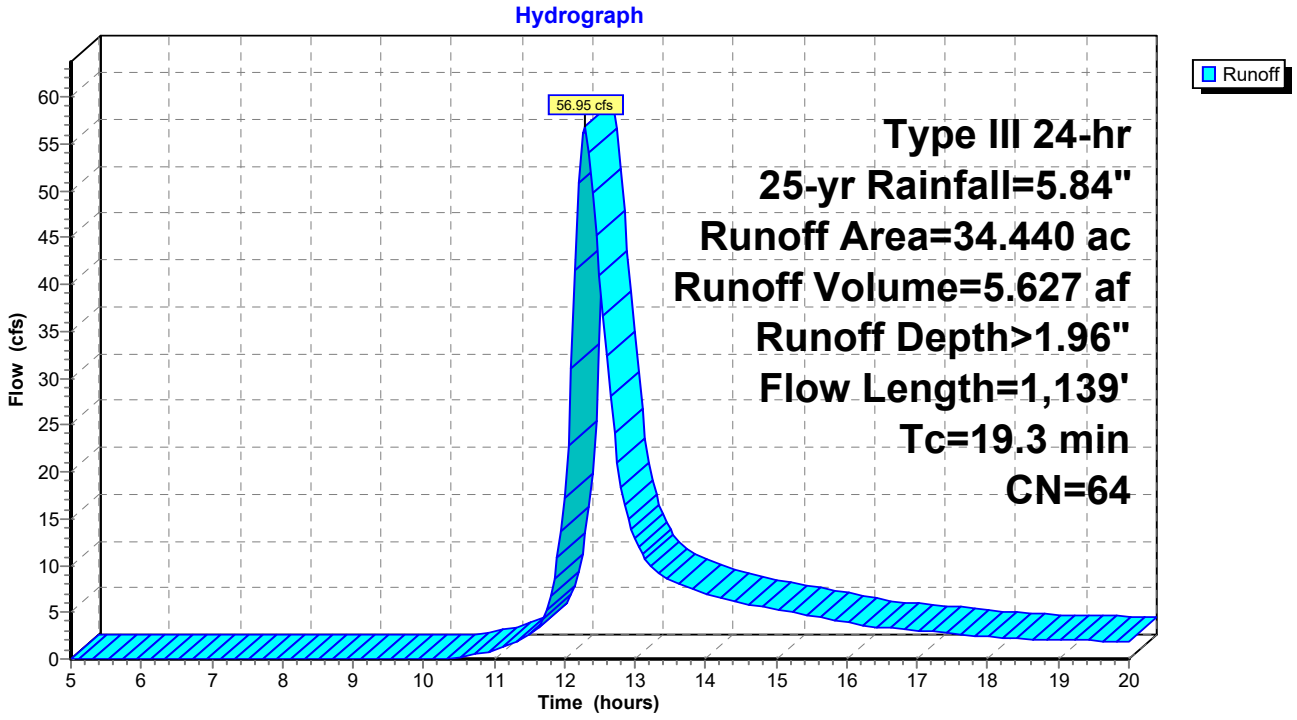
Runoff = 56.95 cfs @ 12.28 hrs, Volume= 5.627 af, Depth> 1.96"
Routed to Reach 2R : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.180	98	Paved parking, HSG A
22.890	61	>75% Grass cover, Good, HSG B
4.240	55	Woods, Good, HSG B
6.330	80	>75% Grass cover, Good, HSG D
0.800	77	Woods, Good, HSG D
34.440	64	Weighted Average
34.260		99.48% Pervious Area
0.180		0.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0340	0.18		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
14.7	1,089	0.0310	1.23		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
19.3	1,139	Total			

Subcatchment B5: B5



Hydrograph for Subcatchment B5: B5

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.01
10.50	1.26	0.00	0.18
10.75	1.36	0.01	0.53
11.00	1.46	0.02	0.98
11.25	1.58	0.03	1.57
11.50	1.74	0.06	2.64
11.75	2.07	0.14	5.31
12.00	2.92	0.43	17.28
12.25	3.77	0.84	**56.16**
12.50	4.10	1.03	**41.04**
12.75	4.26	1.12	20.97
13.00	4.38	1.19	12.88
13.25	4.48	1.25	9.70
13.50	4.58	1.31	8.46
13.75	4.66	1.36	7.75
14.00	4.74	1.41	7.08
14.25	4.81	1.46	6.43
14.50	4.87	1.50	6.01
14.75	4.93	1.54	5.68
15.00	4.99	1.57	5.34
15.25	5.04	1.61	5.00
15.50	5.09	1.64	4.65
15.75	5.13	1.67	4.29
16.00	5.17	1.69	3.93
16.25	5.21	1.72	3.59
16.50	5.25	1.74	3.37
16.75	5.28	1.77	3.21
17.00	5.31	1.79	3.05
17.25	5.34	1.81	2.89
17.50	5.37	1.83	2.73
17.75	5.40	1.84	2.56
18.00	5.42	1.86	2.40
18.25	5.44	1.87	2.25
18.50	5.47	1.89	2.17
18.75	5.49	1.91	2.12
19.00	5.51	1.92	2.07
19.25	5.53	1.93	2.02
19.50	5.55	1.95	1.97
19.75	5.57	1.96	1.92
20.00	**5.59**	**1.98**	1.88

Summary for Subcatchment B6: B6

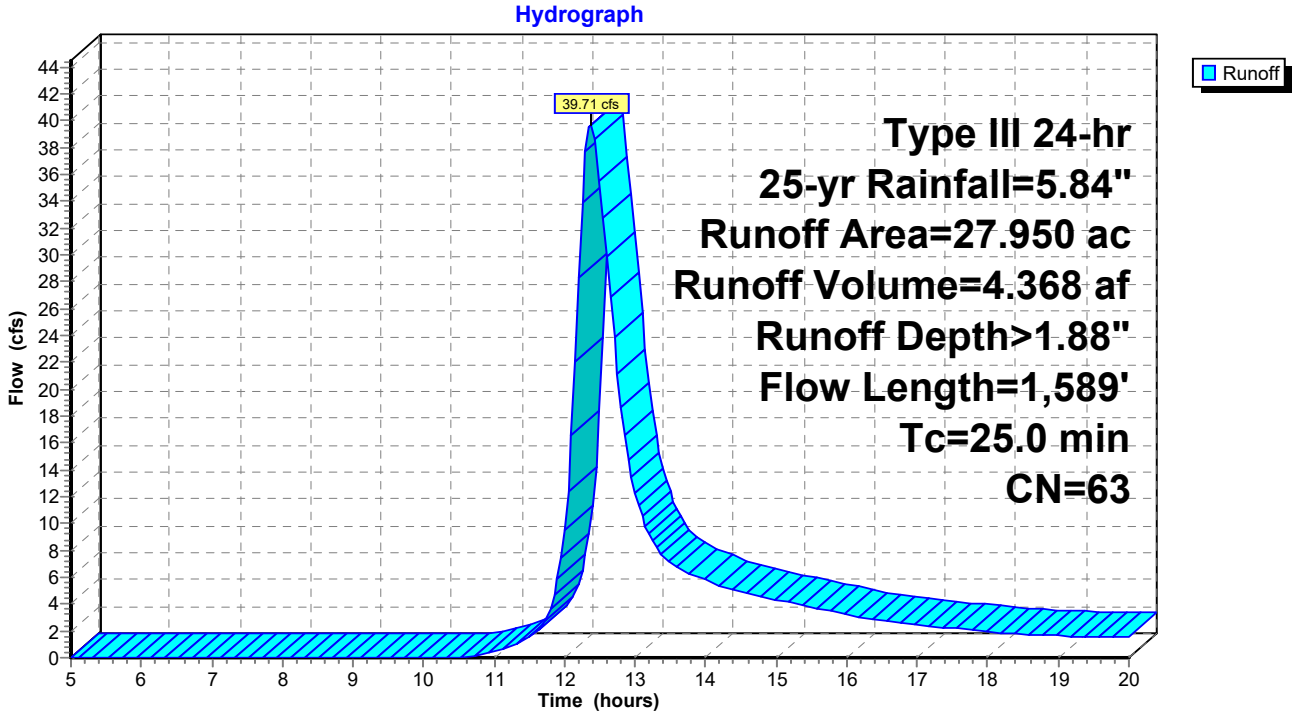
Runoff = 39.71 cfs @ 12.37 hrs, Volume= 4.368 af, Depth> 1.88"
Routed to Reach 2R : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
1.250	98	Paved parking, HSG A
0.160	39	>75% Grass cover, Good, HSG A
21.280	61	>75% Grass cover, Good, HSG B
3.640	55	Woods, Good, HSG B
1.600	80	>75% Grass cover, Good, HSG D
0.020	77	Woods, Good, HSG D
27.950	63	Weighted Average
26.700		95.53% Pervious Area
1.250		4.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	50	0.0260	0.16		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
19.9	1,539	0.0340	1.29		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
25.0	1,589	Total			

Subcatchment B6: B6



Hydrograph for Subcatchment B6: B6

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.02
10.75	1.36	0.01	0.18
11.00	1.46	0.01	0.48
11.25	1.58	0.03	0.88
11.50	1.74	0.05	1.56
11.75	2.07	0.12	3.03
12.00	2.92	0.40	9.53
12.25	3.77	0.79	**33.87**
12.50	4.10	0.97	**35.46**
12.75	4.26	1.06	21.13
13.00	4.38	1.13	12.26
13.25	4.48	1.19	8.69
13.50	4.58	1.25	7.07
13.75	4.66	1.30	6.34
14.00	4.74	1.34	5.78
14.25	4.81	1.39	5.25
14.50	4.87	1.43	4.87
14.75	4.93	1.47	4.58
15.00	4.99	1.50	4.32
15.25	5.04	1.54	4.05
15.50	5.09	1.57	3.78
15.75	5.13	1.59	3.50
16.00	5.17	1.62	3.21
16.25	5.21	1.64	2.93
16.50	5.25	1.67	2.73
16.75	5.28	1.69	2.59
17.00	5.31	1.71	2.46
17.25	5.34	1.73	2.34
17.50	5.37	1.75	2.21
17.75	5.40	1.76	2.08
18.00	5.42	1.78	1.95
18.25	5.44	1.80	1.82
18.50	5.47	1.81	1.74
18.75	5.49	1.83	1.70
19.00	5.51	1.84	1.66
19.25	5.53	1.85	1.62
19.50	5.55	1.87	1.58
19.75	5.57	1.88	1.54
20.00	**5.59**	**1.89**	1.50

Summary for Subcatchment B7: B7

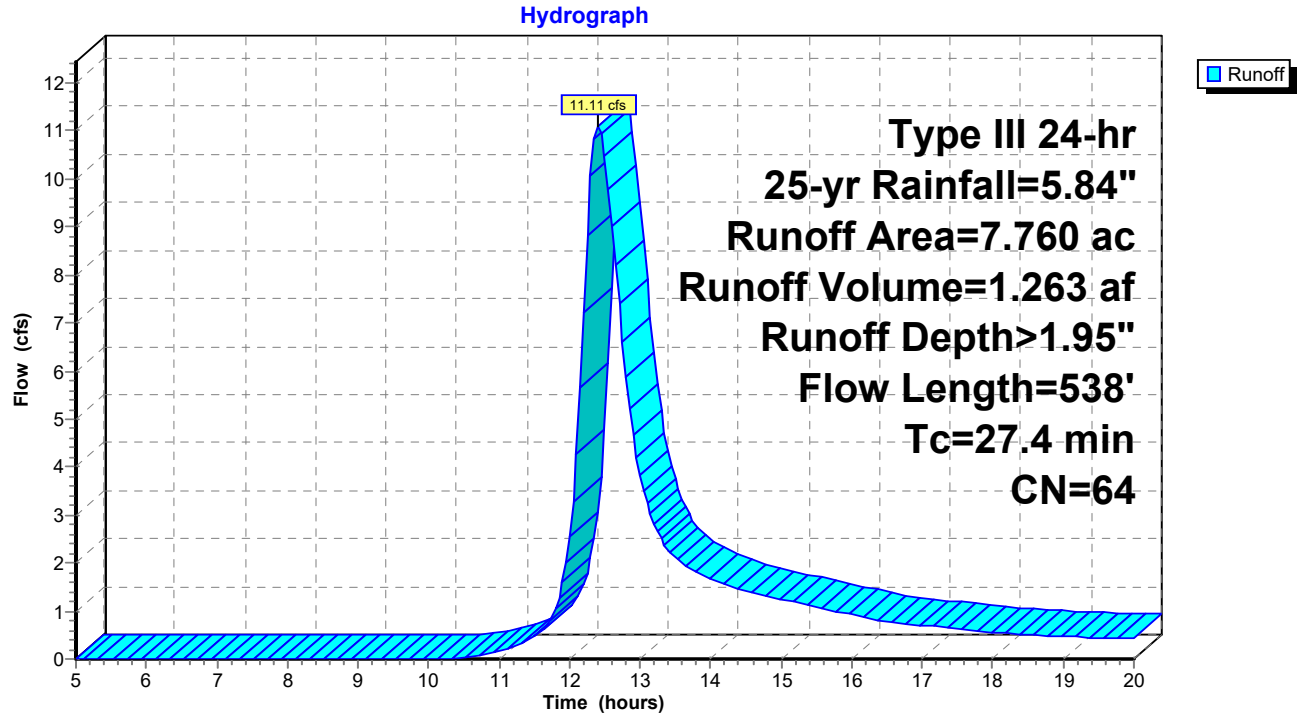
Runoff = 11.11 cfs @ 12.41 hrs, Volume= 1.263 af, Depth> 1.95"
Routed to Reach 2R : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.180	98	Paved parking, HSG A
2.080	61	>75% Grass cover, Good, HSG B
3.290	55	Woods, Good, HSG B
0.430	80	>75% Grass cover, Good, HSG D
1.780	77	Woods, Good, HSG D
7.760	64	Weighted Average
7.580		97.68% Pervious Area
0.180		2.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	50	0.0160	0.06		**Sheet Flow, sf-1** Woods: Light underbrush n= 0.400 P2= 3.11"
13.7	488	0.0140	0.59		**Shallow Concentrated Flow, scf-1** Woodland Kv= 5.0 fps
27.4	538	Total			

Subcatchment B7: B7



Hydrograph for Subcatchment B7: B7

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.02
10.75	1.36	0.01	0.08
11.00	1.46	0.02	0.17
11.25	1.58	0.03	0.29
11.50	1.74	0.06	0.48
11.75	2.07	0.14	0.87
12.00	2.92	0.43	2.54
12.25	3.77	0.84	**8.82**
12.50	4.10	1.03	**10.47**
12.75	4.26	1.12	6.61
13.00	4.38	1.19	3.83
13.25	4.48	1.25	2.65
13.50	4.58	1.31	2.10
13.75	4.66	1.36	1.84
14.00	4.74	1.41	1.67
14.25	4.81	1.46	1.52
14.50	4.87	1.50	1.40
14.75	4.93	1.54	1.32
15.00	4.99	1.57	1.24
15.25	5.04	1.61	1.16
15.50	5.09	1.64	1.09
15.75	5.13	1.67	1.01
16.00	5.17	1.69	0.93
16.25	5.21	1.72	0.85
16.50	5.25	1.74	0.79
16.75	5.28	1.77	0.74
17.00	5.31	1.79	0.71
17.25	5.34	1.81	0.67
17.50	5.37	1.83	0.63
17.75	5.40	1.84	0.60
18.00	5.42	1.86	0.56
18.25	5.44	1.87	0.52
18.50	5.47	1.89	0.50
18.75	5.49	1.91	0.48
19.00	5.51	1.92	0.47
19.25	5.53	1.93	0.46
19.50	5.55	1.95	0.45
19.75	5.57	1.96	0.44
20.00	**5.59**	**1.98**	0.43

Summary for Subcatchment B8: B8

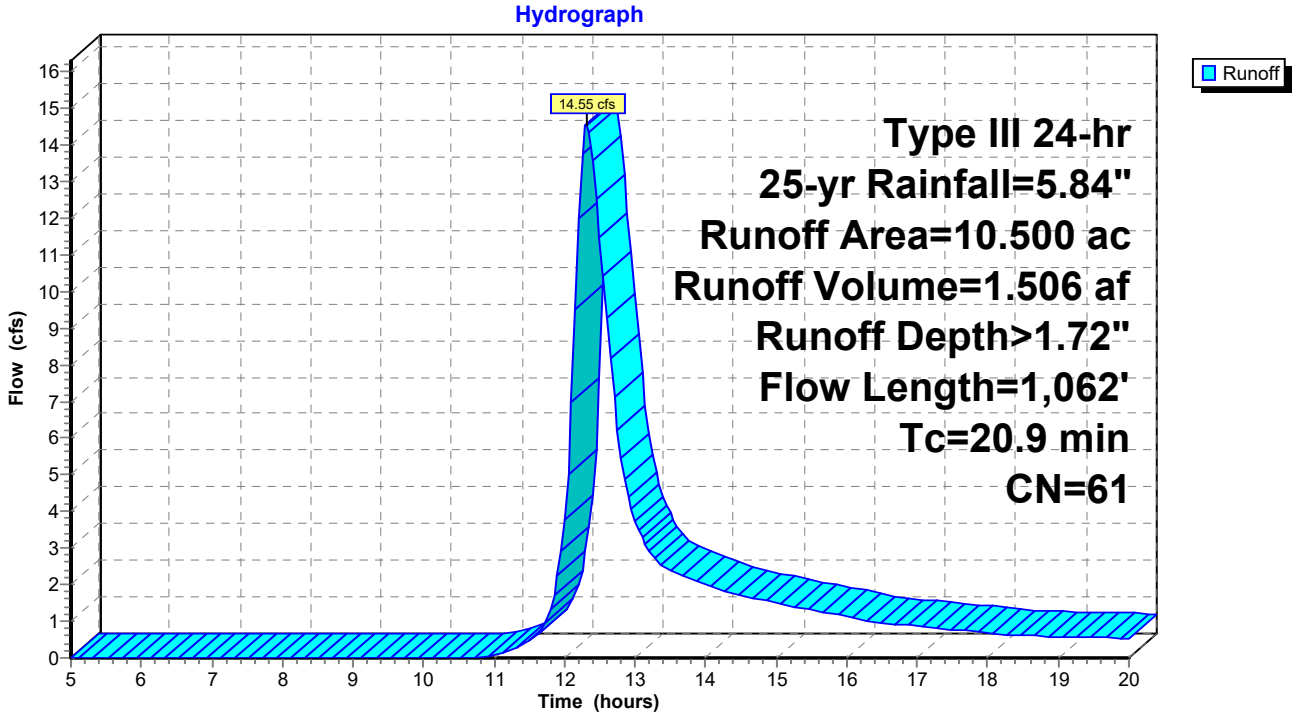
Runoff = 14.55 cfs @ 12.32 hrs, Volume= 1.506 af, Depth> 1.72"
Routed to Pond B8* : B8 Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.300	98	Paved parking, HSG A
8.360	61	>75% Grass cover, Good, HSG B
1.840	55	Woods, Good, HSG B
10.500	61	Weighted Average
10.200		97.14% Pervious Area
0.300		2.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	50	0.0120	0.12		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
13.9	1,012	0.0300	1.21		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
20.9	1,062	Total			

Subcatchment B8: B8



Hydrograph for Subcatchment B8: B8

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.01
11.00	1.46	0.01	0.08
11.25	1.58	0.01	0.21
11.50	1.74	0.03	0.46
11.75	2.07	0.09	1.04
12.00	2.92	0.34	3.77
12.25	3.77	0.70	**13.78**
12.50	4.10	0.86	**11.48**
12.75	4.26	0.95	6.21
13.00	4.38	1.01	3.75
13.25	4.48	1.07	2.78
13.50	4.58	1.12	2.39
13.75	4.66	1.17	2.19
14.00	4.74	1.21	2.00
14.25	4.81	1.25	1.82
14.50	4.87	1.29	1.70
14.75	4.93	1.33	1.60
15.00	4.99	1.36	1.51
15.25	5.04	1.39	1.42
15.50	5.09	1.42	1.32
15.75	5.13	1.45	1.22
16.00	5.17	1.47	1.12
16.25	5.21	1.50	1.02
16.50	5.25	1.52	0.96
16.75	5.28	1.54	0.91
17.00	5.31	1.56	0.87
17.25	5.34	1.58	0.82
17.50	5.37	1.60	0.78
17.75	5.40	1.61	0.73
18.00	5.42	1.63	0.69
18.25	5.44	1.64	0.64
18.50	5.47	1.66	0.62
18.75	5.49	1.67	0.60
19.00	5.51	1.68	0.59
19.25	5.53	1.70	0.58
19.50	5.55	1.71	0.56
19.75	5.57	1.72	0.55
20.00	**5.59**	**1.74**	0.53

Summary for Subcatchment B9: B9

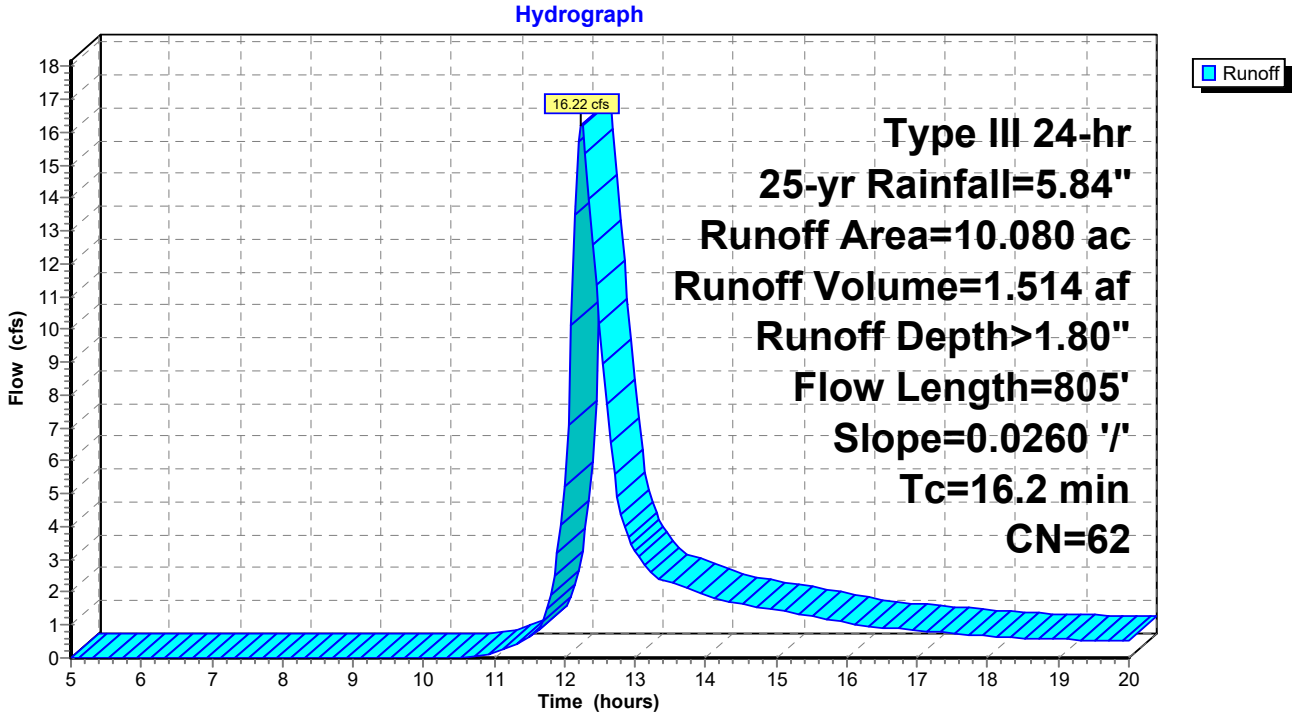
Runoff = 16.22 cfs @ 12.24 hrs, Volume= 1.514 af, Depth> 1.80"
Routed to Reach 2R : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.510	98	Paved parking, HSG A
8.400	61	>75% Grass cover, Good, HSG B
1.170	55	Woods, Good, HSG B
10.080	62	Weighted Average
9.570		94.94% Pervious Area
0.510		5.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	50	0.0260	0.16		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
11.1	755	0.0260	1.13		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
16.2	805	Total			

Subcatchment B9: B9



Hydrograph for Subcatchment B9: B9

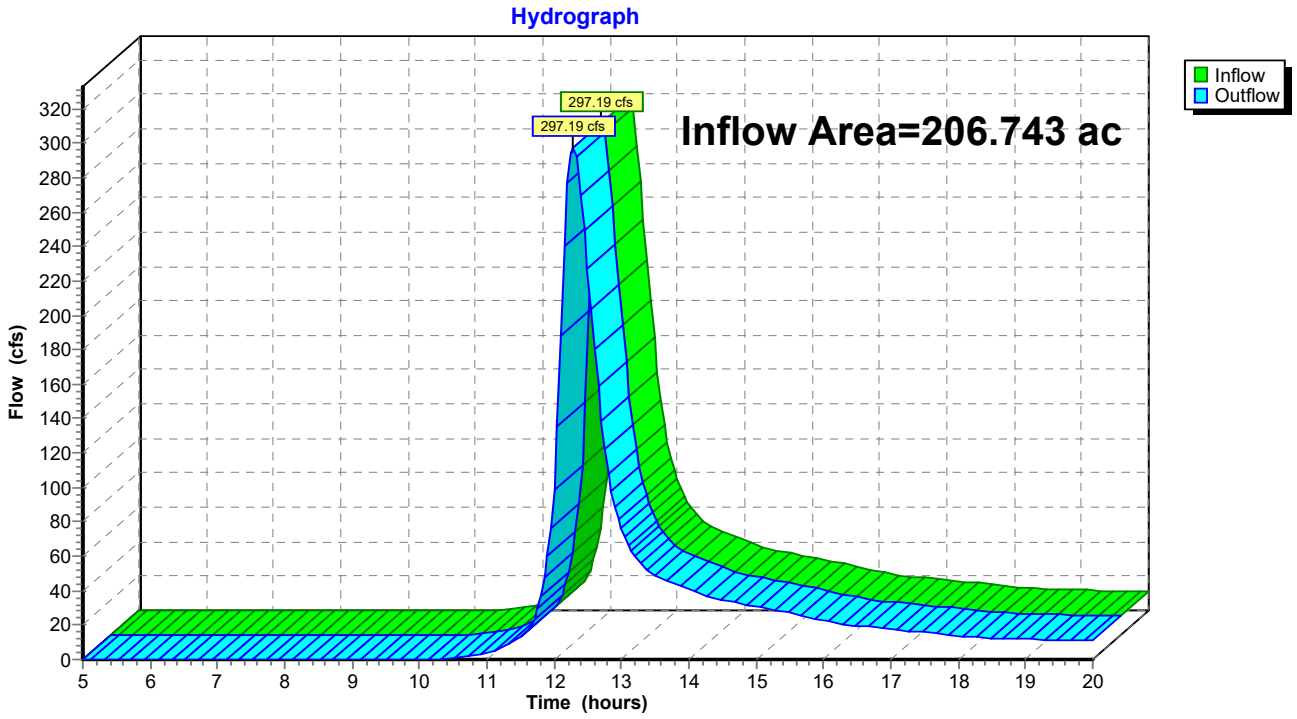
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.05
11.00	1.46	0.01	0.17
11.25	1.58	0.02	0.33
11.50	1.74	0.04	0.63
11.75	2.07	0.10	1.47
12.00	2.92	0.37	5.20
12.25	3.77	0.74	**16.21**
12.50	4.10	0.92	10.16
12.75	4.26	1.00	4.89
13.00	4.38	1.07	3.24
13.25	4.48	1.13	2.55
13.50	4.58	1.18	2.29
13.75	4.66	1.23	2.11
14.00	4.74	1.28	1.92
14.25	4.81	1.32	1.75
14.50	4.87	1.36	1.65
14.75	4.93	1.40	1.56
15.00	4.99	1.43	1.47
15.25	5.04	1.46	1.37
15.50	5.09	1.49	1.27
15.75	5.13	1.52	1.18
16.00	5.17	1.55	1.07
16.25	5.21	1.57	0.98
16.50	5.25	1.59	0.93
16.75	5.28	1.61	0.89
17.00	5.31	1.63	0.84
17.25	5.34	1.65	0.80
17.50	5.37	1.67	0.75
17.75	5.40	1.69	0.71
18.00	5.42	1.70	0.66
18.25	5.44	1.72	0.62
18.50	5.47	1.73	0.60
18.75	5.49	1.75	0.59
19.00	5.51	1.76	0.58
19.25	5.53	1.78	0.56
19.50	5.55	1.79	0.55
19.75	5.57	1.80	0.54
20.00	**5.59**	**1.81**	0.52

Summary for Reach 2R: DP-B

Inflow Area = 206.743 ac, 1.99% Impervious, Inflow Depth > 1.84" for 25-yr event
Inflow = 297.19 cfs @ 12.28 hrs, Volume= 31.731 af
Outflow = 297.19 cfs @ 12.28 hrs, Volume= 31.731 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 2R: DP-B



Hydrograph for Reach 2R: DP-B

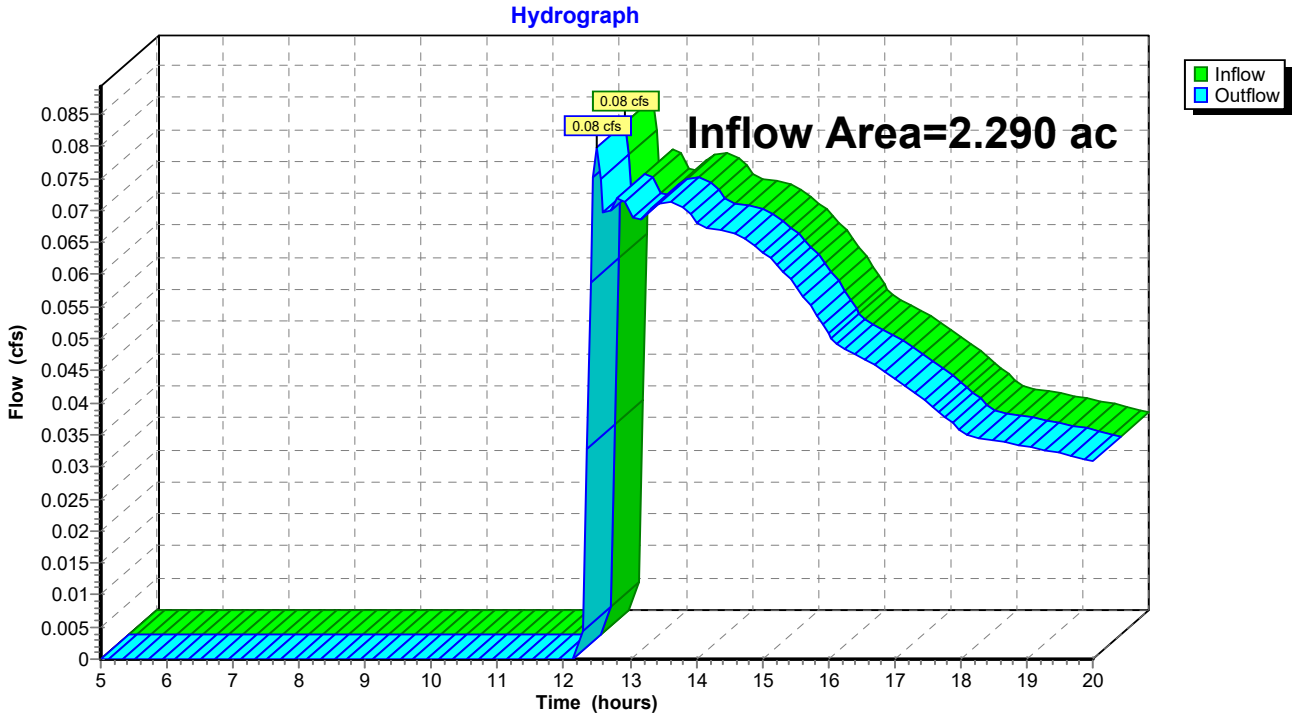
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	14.85		14.85
5.25	0.00		0.00	18.00	13.90		13.90
5.50	0.00		0.00	18.25	13.05		13.05
5.75	0.00		0.00	18.50	12.58		12.58
6.00	0.00		0.00	18.75	12.26		12.26
6.25	0.00		0.00	19.00	11.98		11.98
6.50	0.00		0.00	19.25	11.70		11.70
6.75	0.00		0.00	19.50	11.43		11.43
7.00	0.00		0.00	19.75	11.15		11.15
7.25	0.00		0.00	20.00	10.87		10.87
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.00		0.00				
10.25	0.02		0.02				
10.50	0.53		0.53				
10.75	1.94		1.94				
11.00	4.12		4.12				
11.25	7.28		7.28				
11.50	13.02		13.02				
11.75	29.03		29.03				
12.00	98.26		98.26				
12.25	**294.39**		**294.39**				
12.50	**227.14**		**227.14**				
12.75	121.85		121.85				
13.00	75.92		75.92				
13.25	56.92		56.92				
13.50	49.06		49.06				
13.75	44.64		44.64				
14.00	40.73		40.73				
14.25	37.11		37.11				
14.50	34.69		34.69				
14.75	32.72		32.72				
15.00	30.80		30.80				
15.25	28.84		28.84				
15.50	26.84		26.84				
15.75	24.80		24.80				
16.00	22.72		22.72				
16.25	20.79		20.79				
16.50	19.55		19.55				
16.75	18.57		18.57				
17.00	17.65		17.65				
17.25	16.72		16.72				
17.50	15.79		15.79				

Summary for Reach 21R: Reach

Inflow Area = 2.290 ac, 0.00% Impervious, Inflow Depth > 0.17" for 25-yr event
Inflow = 0.08 cfs @ 12.50 hrs, Volume= 0.033 af
Outflow = 0.08 cfs @ 12.50 hrs, Volume= 0.033 af, Atten= 0%, Lag= 0.0 min
Routed to Reach 22R : Reach

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 21R: Reach



Hydrograph for Reach 21R: Reach

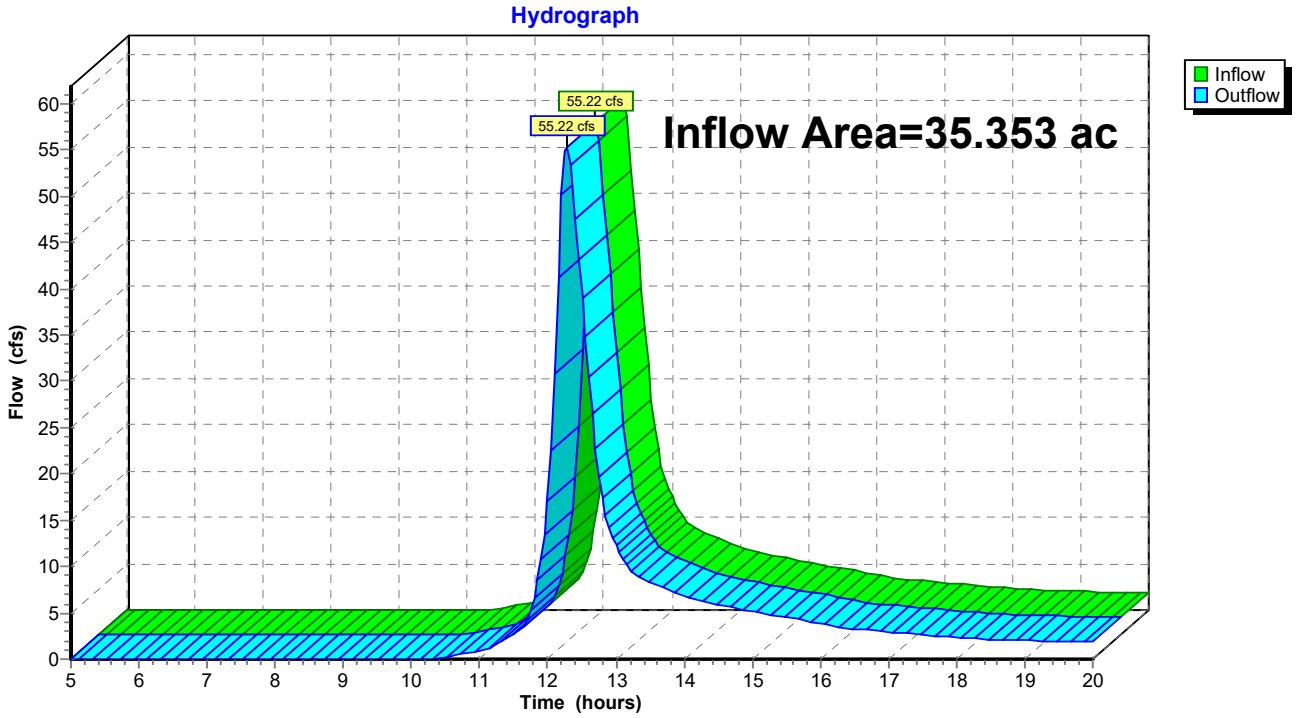
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00
5.25	0.00		0.00
5.50	0.00		0.00
5.75	0.00		0.00
6.00	0.00		0.00
6.25	0.00		0.00
6.50	0.00		0.00
6.75	0.00		0.00
7.00	0.00		0.00
7.25	0.00		0.00
7.50	0.00		0.00
7.75	0.00		0.00
8.00	0.00		0.00
8.25	0.00		0.00
8.50	0.00		0.00
8.75	0.00		0.00
9.00	0.00		0.00
9.25	0.00		0.00
9.50	0.00		0.00
9.75	0.00		0.00
10.00	0.00		0.00
10.25	0.00		0.00
10.50	0.00		0.00
10.75	0.00		0.00
11.00	0.00		0.00
11.25	0.00		0.00
11.50	0.00		0.00
11.75	0.00		0.00
12.00	0.00		0.00
12.25	0.00		0.00
12.50	**0.08**		**0.08**
12.75	0.07		0.07
13.00	0.07		0.07
13.25	0.07		0.07
13.50	0.07		0.07
13.75	0.07		0.07
14.00	0.07		0.07
14.25	0.07		0.07
14.50	0.07		0.07
14.75	0.07		0.07
15.00	0.06		0.06
15.25	0.06		0.06
15.50	0.06		0.06
15.75	0.05		0.05
16.00	0.05		0.05
16.25	0.05		0.05
16.50	0.05		0.05
16.75	0.05		0.05
17.00	0.04		0.04
17.25	0.04		0.04
17.50	0.04		0.04
17.75	0.04		0.04
18.00	0.04		0.04
18.25	0.03		0.03
18.50	0.03		0.03
18.75	0.03		0.03
19.00	0.03		0.03
19.25	0.03		0.03
19.50	0.03		0.03
19.75	0.03		0.03
20.00	0.03		0.03

Summary for Reach 22R: Reach

Inflow Area = 35.353 ac, 2.62% Impervious, Inflow Depth > 1.84" for 25-yr event
Inflow = 55.22 cfs @ 12.28 hrs, Volume= 5.435 af
Outflow = 55.22 cfs @ 12.28 hrs, Volume= 5.435 af, Atten= 0%, Lag= 0.0 min
Routed to Reach 2R : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 22R: Reach



Hydrograph for Reach 22R: Reach

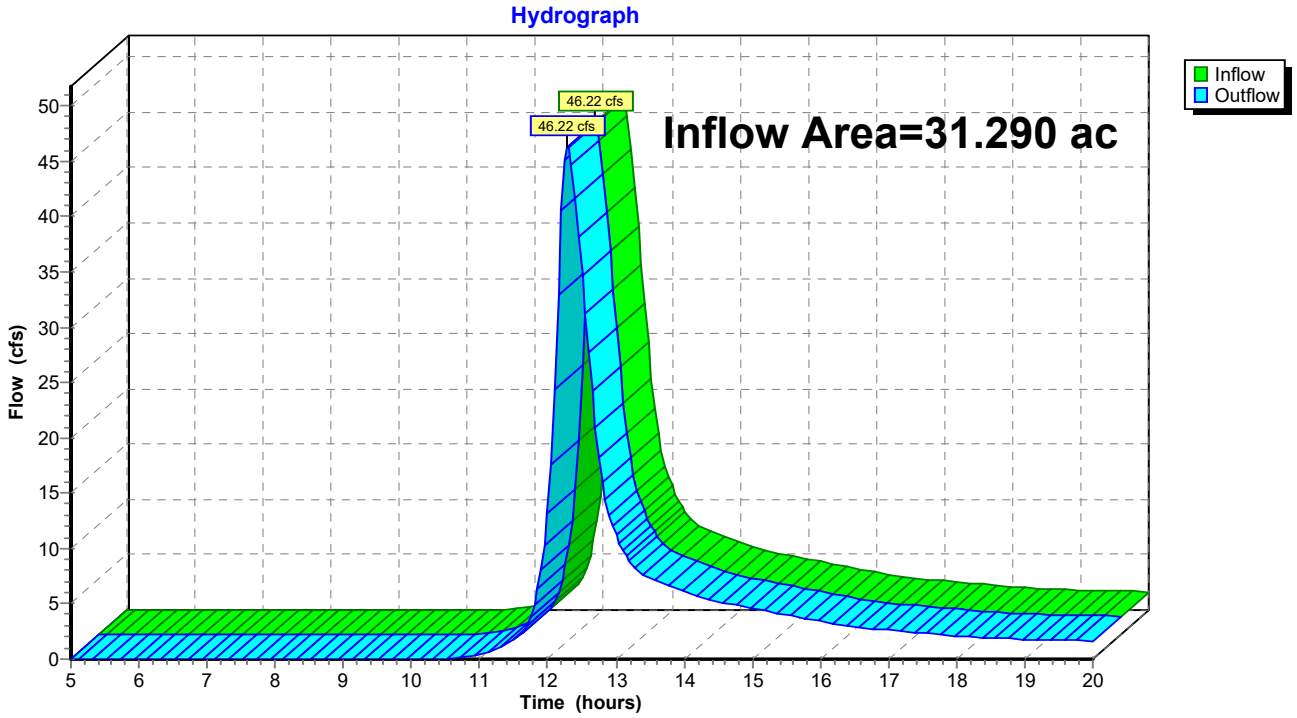
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	2.50		2.50
5.25	0.00		0.00	18.00	2.33		2.33
5.50	0.00		0.00	18.25	2.19		2.19
5.75	0.00		0.00	18.50	2.11		2.11
6.00	0.00		0.00	18.75	2.06		2.06
6.25	0.00		0.00	19.00	2.02		2.02
6.50	0.00		0.00	19.25	1.97		1.97
6.75	0.00		0.00	19.50	1.92		1.92
7.00	0.00		0.00	19.75	1.88		1.88
7.25	0.00		0.00	20.00	1.83		1.83
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.00		0.00				
10.25	0.01		0.01				
10.50	0.18		0.18				
10.75	0.52		0.52				
11.00	0.95		0.95				
11.25	1.53		1.53				
11.50	2.57		2.57				
11.75	5.23		5.23				
12.00	17.05		17.05				
12.25	**54.82**		**54.82**				
12.50	**38.99**		**38.99**				
12.75	19.70		19.70				
13.00	12.24		12.24				
13.25	9.30		9.30				
13.50	8.17		8.17				
13.75	7.49		7.49				
14.00	6.84		6.84				
14.25	6.23		6.23				
14.50	5.83		5.83				
14.75	5.50		5.50				
15.00	5.18		5.18				
15.25	4.85		4.85				
15.50	4.51		4.51				
15.75	4.17		4.17				
16.00	3.81		3.81				
16.25	3.48		3.48				
16.50	3.28		3.28				
16.75	3.12		3.12				
17.00	2.97		2.97				
17.25	2.81		2.81				
17.50	2.65		2.65				

Summary for Reach 23R: Reach

Inflow Area = 31.290 ac, 0.93% Impervious, Inflow Depth > 1.80" for 25-yr event
Inflow = 46.22 cfs @ 12.29 hrs, Volume= 4.694 af
Outflow = 46.22 cfs @ 12.29 hrs, Volume= 4.694 af, Atten= 0%, Lag= 0.0 min
Routed to Reach 2R : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 23R: Reach



Hydrograph for Reach 23R: Reach

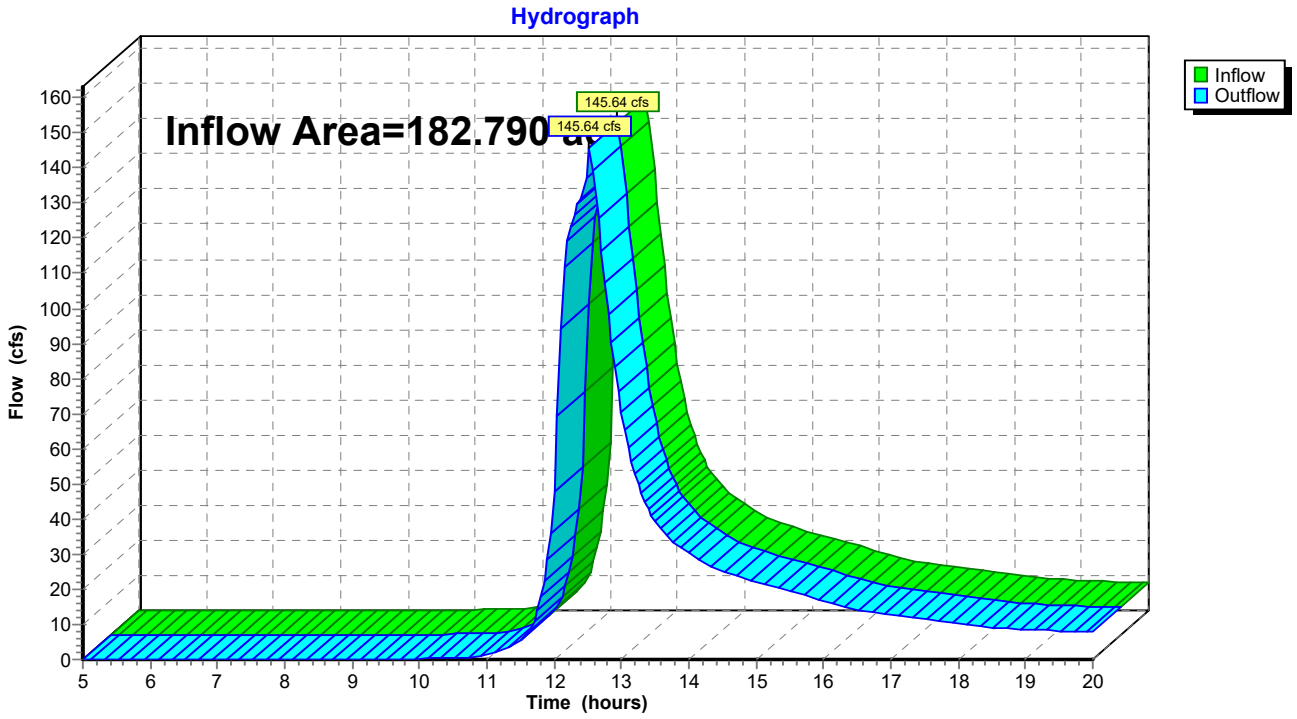
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	2.23		2.23
5.25	0.00		0.00	18.00	2.08		2.08
5.50	0.00		0.00	18.25	1.95		1.95
5.75	0.00		0.00	18.50	1.88		1.88
6.00	0.00		0.00	18.75	1.84		1.84
6.25	0.00		0.00	19.00	1.80		1.80
6.50	0.00		0.00	19.25	1.75		1.75
6.75	0.00		0.00	19.50	1.71		1.71
7.00	0.00		0.00	19.75	1.67		1.67
7.25	0.00		0.00	20.00	1.63		1.63
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.00		0.00				
10.25	0.00		0.00				
10.50	0.00		0.00				
10.75	0.12		0.12				
11.00	0.45		0.45				
11.25	0.91		0.91				
11.50	1.73		1.73				
11.75	3.78		3.78				
12.00	13.16		13.16				
12.25	**45.19**		**45.19**				
12.50	**34.74**		**34.74**				
12.75	18.21		18.21				
13.00	11.17		11.17				
13.25	8.39		8.39				
13.50	7.29		7.29				
13.75	6.67		6.67				
14.00	6.10		6.10				
14.25	5.55		5.55				
14.50	5.19		5.19				
14.75	4.90		4.90				
15.00	4.61		4.61				
15.25	4.32		4.32				
15.50	4.02		4.02				
15.75	3.72		3.72				
16.00	3.41		3.41				
16.25	3.11		3.11				
16.50	2.92		2.92				
16.75	2.78		2.78				
17.00	2.64		2.64				
17.25	2.51		2.51				
17.50	2.37		2.37				

Summary for Reach DP-A: DP-A

Inflow Area = 182.790 ac, 4.55% Impervious, Inflow Depth > 1.37" for 25-yr event
Inflow = 145.64 cfs @ 12.53 hrs, Volume= 20.922 af
Outflow = 145.64 cfs @ 12.53 hrs, Volume= 20.922 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-A: DP-A



Hydrograph for Reach DP-A: DP-A

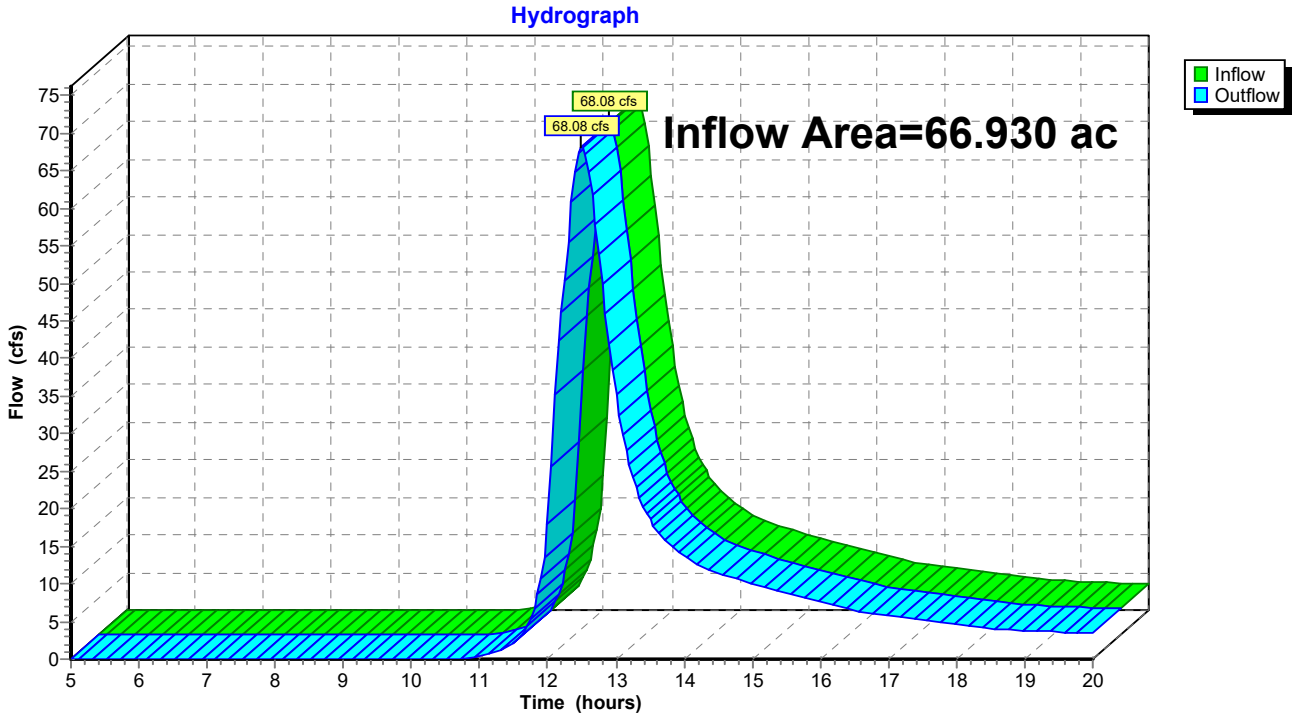
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	10.76		10.76
5.25	0.00		0.00	18.00	10.09		10.09
5.50	0.00		0.00	18.25	9.49		9.49
5.75	0.00		0.00	18.50	9.06		9.06
6.00	0.00		0.00	18.75	8.77		8.77
6.25	0.00		0.00	19.00	8.54		8.54
6.50	0.00		0.00	19.25	8.34		8.34
6.75	0.00		0.00	19.50	8.14		8.14
7.00	0.00		0.00	19.75	7.94		7.94
7.25	0.00		0.00	20.00	7.75		7.75
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.04		0.04				
9.50	0.11		0.11				
9.75	0.18		0.18				
10.00	0.27		0.27				
10.25	0.37		0.37				
10.50	0.51		0.51				
10.75	0.74		0.74				
11.00	1.39		1.39				
11.25	2.77		2.77				
11.50	5.49		5.49				
11.75	13.87		13.87				
12.00	48.09		48.09				
12.25	123.30		123.30				
12.50	**143.89**		**143.89**				
12.75	**107.06**		**107.06**				
13.00	70.56		70.56				
13.25	49.83		49.83				
13.50	39.53		39.53				
13.75	34.00		34.00				
14.00	30.28		30.28				
14.25	27.36		27.36				
14.50	25.27		25.27				
14.75	23.67		23.67				
15.00	22.25		22.25				
15.25	20.87		20.87				
15.50	19.49		19.49				
15.75	18.07		18.07				
16.00	16.63		16.63				
16.25	15.28		15.28				
16.50	14.23		14.23				
16.75	13.43		13.43				
17.00	12.74		12.74				
17.25	12.07		12.07				
17.50	11.42		11.42				

Summary for Reach SUB-1: Reach

Inflow Area = 66.930 ac, 2.76% Impervious, Inflow Depth > 1.71" for 25-yr event
Inflow = 68.08 cfs @ 12.50 hrs, Volume= 9.552 af
Outflow = 68.08 cfs @ 12.50 hrs, Volume= 9.552 af, Atten= 0%, Lag= 0.0 min
Routed to Reach DP-A : DP-A

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SUB-1: Reach



Hydrograph for Reach SUB-1: Reach

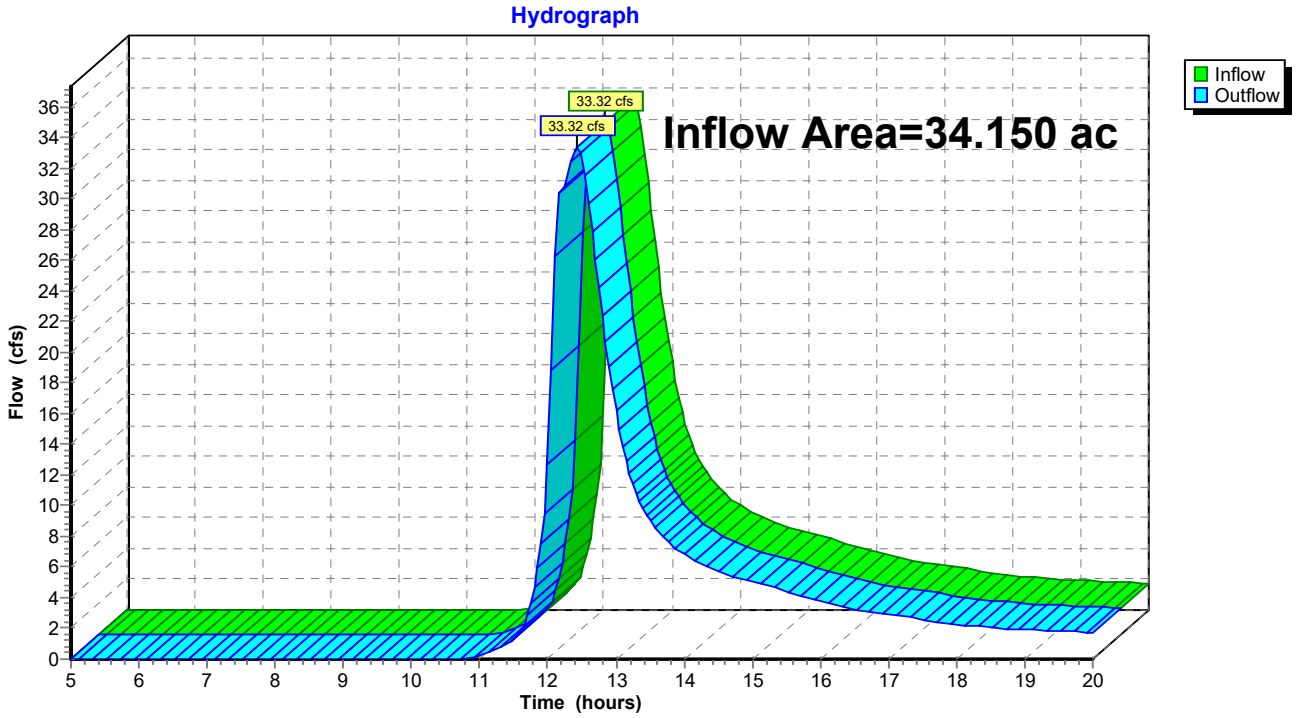
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	4.85		4.85
5.25	0.00		0.00	18.00	4.56		4.56
5.50	0.00		0.00	18.25	4.28		4.28
5.75	0.00		0.00	18.50	4.07		4.07
6.00	0.00		0.00	18.75	3.93		3.93
6.25	0.00		0.00	19.00	3.82		3.82
6.50	0.00		0.00	19.25	3.73		3.73
6.75	0.00		0.00	19.50	3.64		3.64
7.00	0.00		0.00	19.75	3.55		3.55
7.25	0.00		0.00	20.00	3.47		3.47
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.00		0.00				
10.25	0.00		0.00				
10.50	0.00		0.00				
10.75	0.04		0.04				
11.00	0.31		0.31				
11.25	0.96		0.96				
11.50	2.16		2.16				
11.75	5.40		5.40				
12.00	17.95		17.95				
12.25	50.32		50.32				
12.50	**68.07**		**68.07**				
12.75	53.86		53.86				
13.00	35.31		35.31				
13.25	24.19		24.19				
13.50	18.56		18.56				
13.75	15.64		15.64				
14.00	13.80		13.80				
14.25	12.43		12.43				
14.50	11.43		11.43				
14.75	10.68		10.68				
15.00	10.04		10.04				
15.25	9.43		9.43				
15.50	8.81		8.81				
15.75	8.19		8.19				
16.00	7.55		7.55				
16.25	6.94		6.94				
16.50	6.43		6.43				
16.75	6.05		6.05				
17.00	5.73		5.73				
17.25	5.44		5.44				
17.50	5.14		5.14				

Summary for Reach SUB-2: Reach

Inflow Area = 34.150 ac, 3.07% Impervious, Inflow Depth > 1.72" for 25-yr event
Inflow = 33.32 cfs @ 12.44 hrs, Volume= 4.884 af
Outflow = 33.32 cfs @ 12.44 hrs, Volume= 4.884 af, Atten= 0%, Lag= 0.0 min
Routed to Reach SUB-1 : Reach

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SUB-2: Reach



Hydrograph for Reach SUB-2: Reach

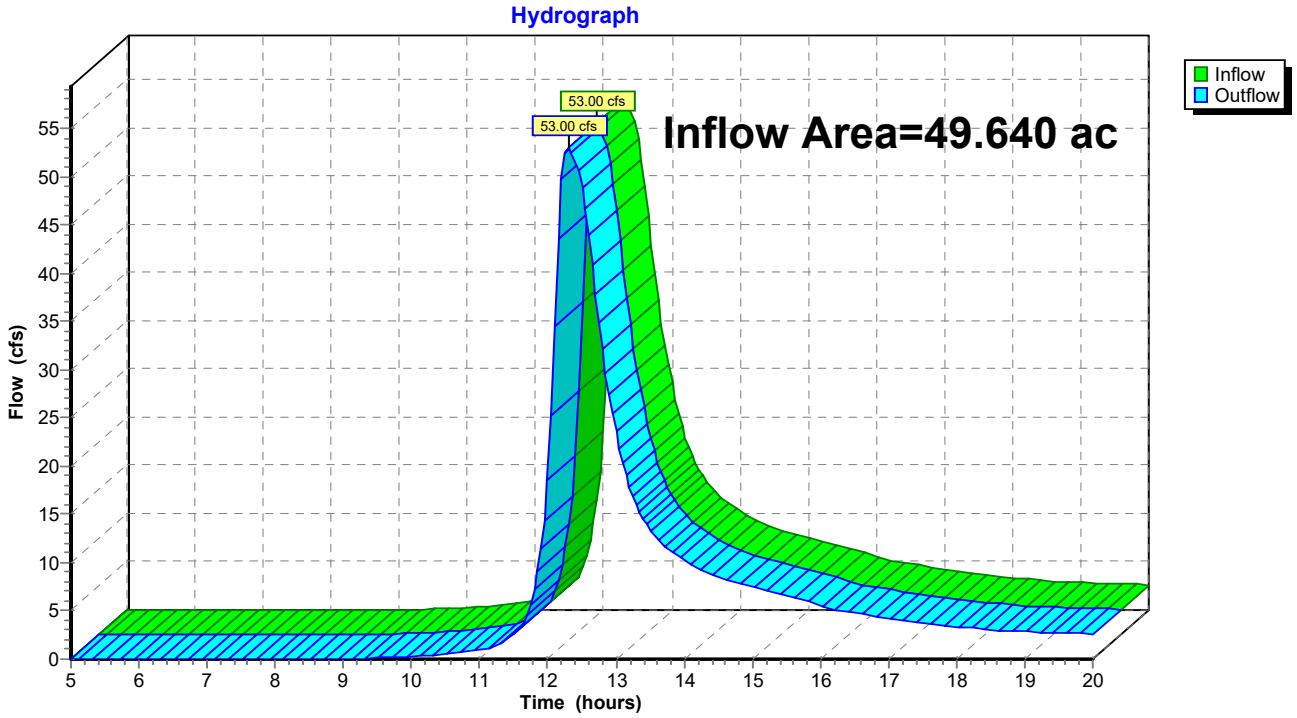
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	2.43		2.43
5.25	0.00		0.00	18.00	2.28		2.28
5.50	0.00		0.00	18.25	2.15		2.15
5.75	0.00		0.00	18.50	2.05		2.05
6.00	0.00		0.00	18.75	1.99		1.99
6.25	0.00		0.00	19.00	1.94		1.94
6.50	0.00		0.00	19.25	1.89		1.89
6.75	0.00		0.00	19.50	1.84		1.84
7.00	0.00		0.00	19.75	1.80		1.80
7.25	0.00		0.00	20.00	1.75		1.75
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.00		0.00				
10.25	0.00		0.00				
10.50	0.00		0.00				
10.75	0.04		0.04				
11.00	0.23		0.23				
11.25	0.63		0.63				
11.50	1.35		1.35				
11.75	3.64		3.64				
12.00	12.69		12.69				
12.25	**30.45**		**30.45**				
12.50	**32.71**		**32.71**				
12.75	24.18		24.18				
13.00	16.16		16.16				
13.25	11.38		11.38				
13.50	8.99		8.99				
13.75	7.70		7.70				
14.00	6.83		6.83				
14.25	6.18		6.18				
14.50	5.72		5.72				
14.75	5.36		5.36				
15.00	5.03		5.03				
15.25	4.72		4.72				
15.50	4.41		4.41				
15.75	4.08		4.08				
16.00	3.76		3.76				
16.25	3.46		3.46				
16.50	3.22		3.22				
16.75	3.04		3.04				
17.00	2.88		2.88				
17.25	2.73		2.73				
17.50	2.58		2.58				

Summary for Reach SUB-3: Reach

Inflow Area = 49.640 ac, 8.42% Impervious, Inflow Depth > 1.78" for 25-yr event
Inflow = 53.00 cfs @ 12.30 hrs, Volume= 7.378 af
Outflow = 53.00 cfs @ 12.30 hrs, Volume= 7.378 af, Atten= 0%, Lag= 0.0 min
Routed to Reach DP-A : DP-A

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SUB-3: Reach



Hydrograph for Reach SUB-3: Reach

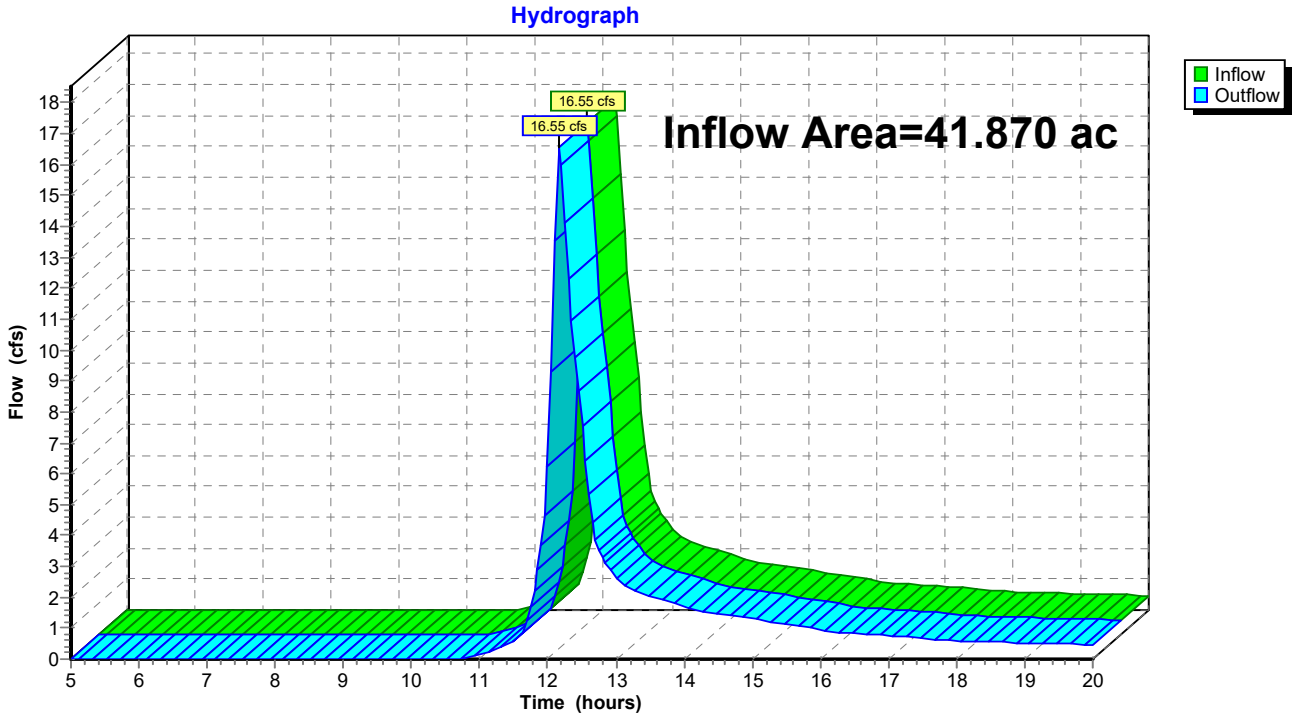
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00
5.25	0.00		0.00
5.50	0.00		0.00
5.75	0.00		0.00
6.00	0.00		0.00
6.25	0.00		0.00
6.50	0.00		0.00
6.75	0.00		0.00
7.00	0.00		0.00
7.25	0.00		0.00
7.50	0.00		0.00
7.75	0.00		0.00
8.00	0.00		0.00
8.25	0.00		0.00
8.50	0.00		0.00
8.75	0.00		0.00
9.00	0.00		0.00
9.25	0.04		0.04
9.50	0.11		0.11
9.75	0.18		0.18
10.00	0.27		0.27
10.25	0.37		0.37
10.50	0.51		0.51
10.75	0.68		0.68
11.00	0.95		0.95
11.25	1.44		1.44
11.50	2.50		2.50
11.75	5.65		5.65
12.00	18.47		18.47
12.25	**52.49**		**52.49**
12.50	**48.91**		**48.91**
12.75	34.83		34.83
13.00	23.56		23.56
13.25	16.81		16.81
13.50	13.42		13.42
13.75	11.52		11.52
14.00	10.23		10.23
14.25	9.21		9.21
14.50	8.49		8.49
14.75	7.95		7.95
15.00	7.46		7.46
15.25	7.00		7.00
15.50	6.53		6.53
15.75	6.06		6.06
16.00	5.57		5.57
16.25	5.12		5.12
16.50	4.77		4.77
16.75	4.50		4.50
17.00	4.27		4.27
17.25	4.04		4.04
17.50	3.82		3.82
17.75	3.60		3.60
18.00	3.38		3.38
18.25	3.17		3.17
18.50	3.03		3.03
18.75	2.94		2.94
19.00	2.86		2.86
19.25	2.79		2.79
19.50	2.72		2.72
19.75	2.66		2.66
20.00	2.59		2.59

Summary for Reach SUB-4: Reach

Inflow Area = 41.870 ac, 3.96% Impervious, Inflow Depth > 0.39" for 25-yr event
Inflow = 16.55 cfs @ 12.17 hrs, Volume= 1.362 af
Outflow = 16.55 cfs @ 12.17 hrs, Volume= 1.362 af, Atten= 0%, Lag= 0.0 min
Routed to Reach SUB-5 : Reach

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SUB-4: Reach



Hydrograph for Reach SUB-4: Reach

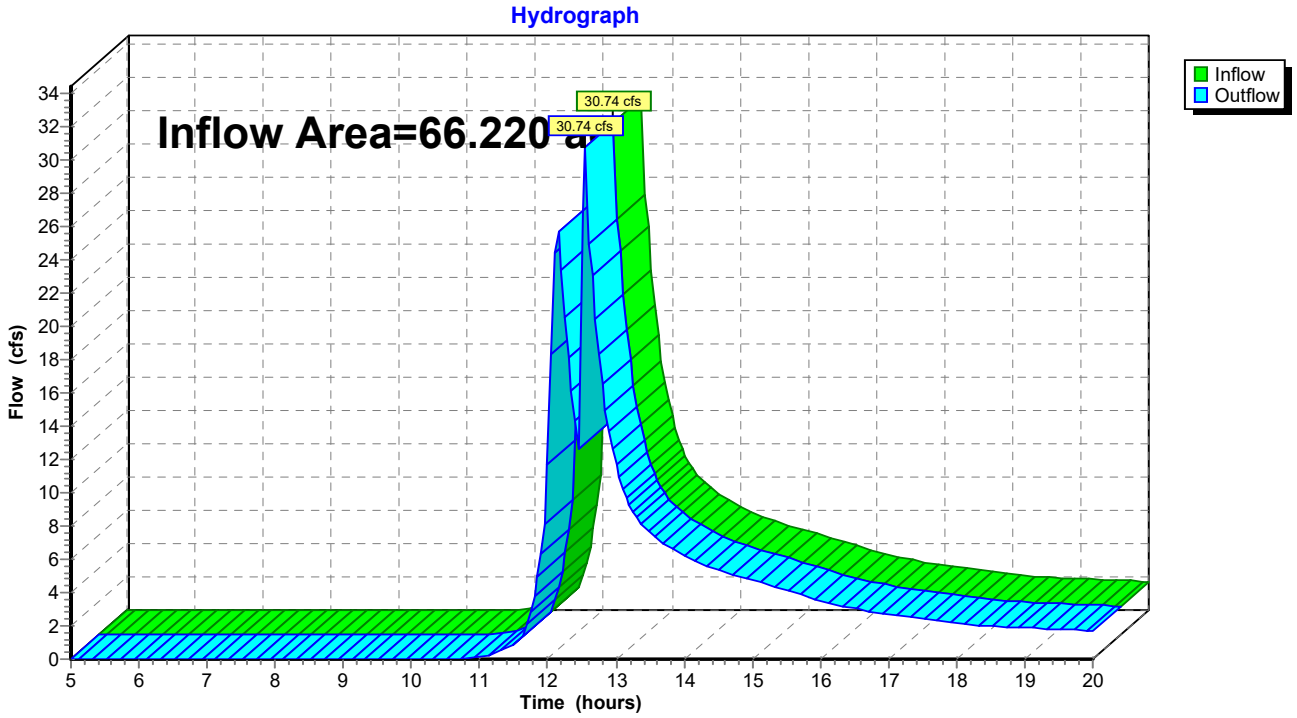
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00
5.25	0.00		0.00
5.50	0.00		0.00
5.75	0.00		0.00
6.00	0.00		0.00
6.25	0.00		0.00
6.50	0.00		0.00
6.75	0.00		0.00
7.00	0.00		0.00
7.25	0.00		0.00
7.50	0.00		0.00
7.75	0.00		0.00
8.00	0.00		0.00
8.25	0.00		0.00
8.50	0.00		0.00
8.75	0.00		0.00
9.00	0.00		0.00
9.25	0.00		0.00
9.50	0.00		0.00
9.75	0.00		0.00
10.00	0.00		0.00
10.25	0.00		0.00
10.50	0.00		0.00
10.75	0.02		0.02
11.00	0.13		0.13
11.25	0.29		0.29
11.50	0.59		0.59
11.75	1.69		1.69
12.00	**6.24**		**6.24**
12.25	**14.11**		**14.11**
12.50	7.54		7.54
12.75	3.52		3.52
13.00	2.67		2.67
13.25	2.20		2.20
13.50	2.03		2.03
13.75	1.87		1.87
14.00	1.70		1.70
14.25	1.56		1.56
14.50	1.48		1.48
14.75	1.40		1.40
15.00	1.31		1.31
15.25	1.23		1.23
15.50	1.14		1.14
15.75	1.05		1.05
16.00	0.95		0.95
16.25	0.88		0.88
16.50	0.84		0.84
16.75	0.80		0.80
17.00	0.76		0.76
17.25	0.72		0.72
17.50	0.68		0.68
17.75	0.63		0.63
18.00	0.59		0.59
18.25	0.56		0.56
18.50	0.55		0.55
18.75	0.54		0.54
19.00	0.52		0.52
19.25	0.51		0.51
19.50	0.50		0.50
19.75	0.49		0.49
20.00	0.47		0.47

Summary for Reach SUB-5: Reach

Inflow Area = 66.220 ac, 3.46% Impervious, Inflow Depth > 0.72" for 25-yr event
Inflow = 30.74 cfs @ 12.54 hrs, Volume= 3.991 af
Outflow = 30.74 cfs @ 12.54 hrs, Volume= 3.991 af, Atten= 0%, Lag= 0.0 min
Routed to Reach DP-A : DP-A

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SUB-5: Reach



Hydrograph for Reach SUB-5: Reach

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	2.30		2.30
5.25	0.00		0.00	18.00	2.16		2.16
5.50	0.00		0.00	18.25	2.03		2.03
5.75	0.00		0.00	18.50	1.96		1.96
6.00	0.00		0.00	18.75	1.91		1.91
6.25	0.00		0.00	19.00	1.87		1.87
6.50	0.00		0.00	19.25	1.82		1.82
6.75	0.00		0.00	19.50	1.78		1.78
7.00	0.00		0.00	19.75	1.74		1.74
7.25	0.00		0.00	20.00	1.69		1.69
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.00		0.00				
10.25	0.00		0.00				
10.50	0.00		0.00				
10.75	0.02		0.02				
11.00	0.13		0.13				
11.25	0.37		0.37				
11.50	0.83		0.83				
11.75	2.82		2.82				
12.00	11.67		11.67				
12.25	20.48		20.48				
12.50	**26.91**		**26.91**				
12.75	**18.37**		**18.37**				
13.00	11.70		11.70				
13.25	8.83		8.83				
13.50	7.55		7.55				
13.75	6.85		6.85				
14.00	6.24		6.24				
14.25	5.72		5.72				
14.50	5.35		5.35				
14.75	5.05		5.05				
15.00	4.75		4.75				
15.25	4.45		4.45				
15.50	4.14		4.14				
15.75	3.83		3.83				
16.00	3.51		3.51				
16.25	3.22		3.22				
16.50	3.03		3.03				
16.75	2.88		2.88				
17.00	2.74		2.74				
17.25	2.59		2.59				
17.50	2.45		2.45				

Summary for Pond A4*: A4 Pond

Inflow Area = 32.410 ac, 3.15% Impervious, Inflow Depth > 1.35" for 25-yr event
Inflow = 34.96 cfs @ 12.29 hrs, Volume= 3.640 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Reach SUB-4 : Reach

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 106.80' @ 20.00 hrs Storage= 158,437 cf

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

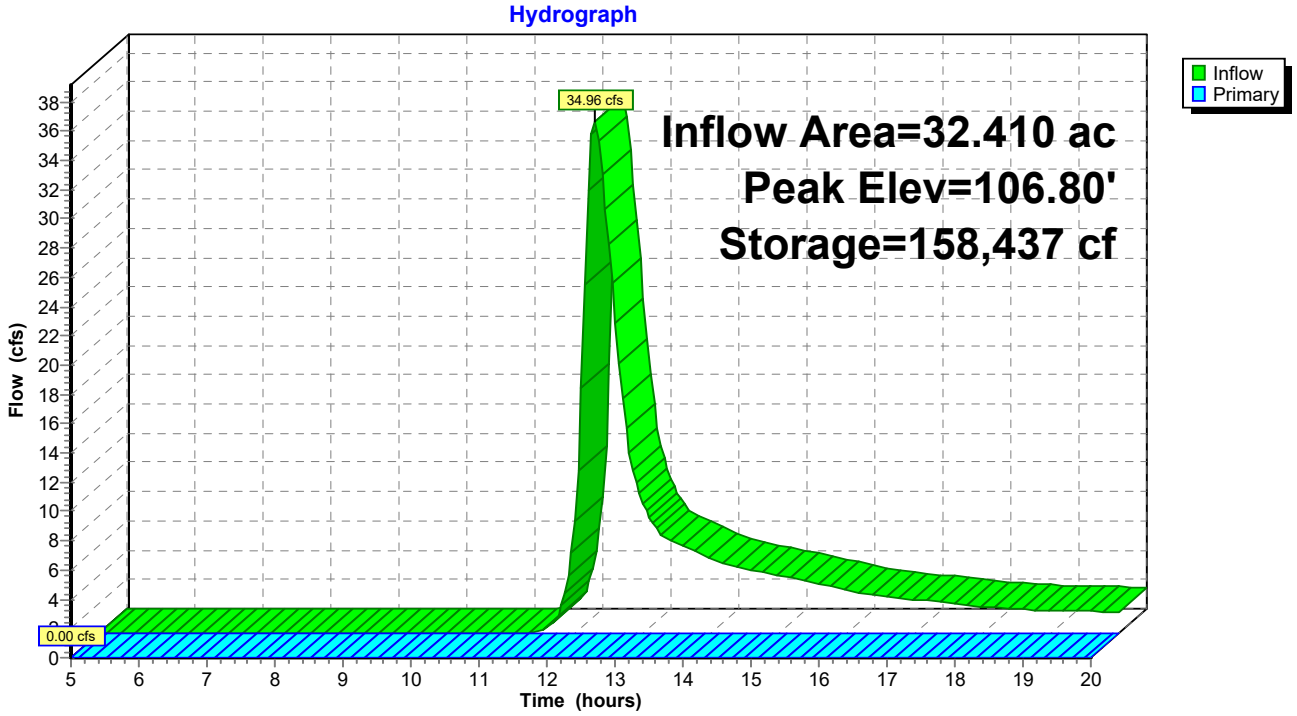
Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	576,398 cf	**Custom Stage Data**Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
100.00	0	0
105.00	86,533	86,533
110.00	200,119	286,652
115.00	289,746	576,398

Device	Routing	Invert	Outlet Devices
#1	Primary	110.00'	**220.0' long Broad-Crested Rectangular Weir** Head (feet) 10.00 Coef. (English) 2.60

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=100.00' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond A4*: A4 Pond



Hydrograph for Pond A4*: A4 Pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	100.00	**0.00**
5.50	0.00	0	100.00	0.00
6.00	0.00	0	100.00	0.00
6.50	0.00	0	100.00	0.00
7.00	0.00	0	100.00	0.00
7.50	0.00	0	100.00	0.00
8.00	0.00	0	100.00	0.00
8.50	0.00	0	100.00	0.00
9.00	0.00	0	100.00	0.00
9.50	0.00	0	100.00	0.00
10.00	0.00	0	100.00	0.00
10.50	0.00	0	100.00	0.00
11.00	0.00	0	100.00	0.00
11.50	0.13	27	100.00	0.00
12.00	**7.69**	3,840	100.22	0.00
12.50	**26.56**	51,070	102.95	0.00
13.00	8.91	78,907	104.56	0.00
13.50	6.09	91,682	105.13	0.00
14.00	5.15	101,793	105.38	0.00
14.50	4.43	110,327	105.59	0.00
15.00	3.96	117,875	105.78	0.00
15.50	3.47	124,563	105.95	0.00
16.00	2.94	130,334	106.09	0.00
16.50	2.54	135,213	106.22	0.00
17.00	2.30	139,571	106.33	0.00
17.50	2.07	143,505	106.42	0.00
18.00	1.82	147,004	106.51	0.00
18.50	1.65	150,098	106.59	0.00
19.00	1.58	153,005	106.66	0.00
19.50	1.51	155,785	106.73	0.00
20.00	1.44	**158,437**	**106.80**	0.00

Stage-Discharge for Pond A4*: A4 Pond

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
100.00	0.00	105.10	0.00	110.20	51.16
100.10	0.00	105.20	0.00	110.30	93.99
100.20	0.00	105.30	0.00	110.40	144.71
100.30	0.00	105.40	0.00	110.50	202.23
100.40	0.00	105.50	0.00	110.60	265.84
100.50	0.00	105.60	0.00	110.70	335.00
100.60	0.00	105.70	0.00	110.80	409.29
100.70	0.00	105.80	0.00	110.90	488.38
100.80	0.00	105.90	0.00	111.00	572.00
100.90	0.00	106.00	0.00	111.10	659.91
101.00	0.00	106.10	0.00	111.20	751.91
101.10	0.00	106.20	0.00	111.30	847.83
101.20	0.00	106.30	0.00	111.40	947.52
101.30	0.00	106.40	0.00	111.50	1,050.83
101.40	0.00	106.50	0.00	111.60	1,157.65
101.50	0.00	106.60	0.00	111.70	1,267.85
101.60	0.00	106.70	0.00	111.80	1,381.35
101.70	0.00	106.80	0.00	111.90	1,498.05
101.80	0.00	106.90	0.00	112.00	1,617.86
101.90	0.00	107.00	0.00	112.10	1,740.70
102.00	0.00	107.10	0.00	112.20	1,866.51
102.10	0.00	107.20	0.00	112.30	1,995.21
102.20	0.00	107.30	0.00	112.40	2,126.73
102.30	0.00	107.40	0.00	112.50	2,261.03
102.40	0.00	107.50	0.00	112.60	2,398.04
102.50	0.00	107.60	0.00	112.70	2,537.71
102.60	0.00	107.70	0.00	112.80	2,679.99
102.70	0.00	107.80	0.00	112.90	2,824.83
102.80	0.00	107.90	0.00	113.00	2,972.20
102.90	0.00	108.00	0.00	113.10	3,122.04
103.00	0.00	108.10	0.00	113.20	3,274.32
103.10	0.00	108.20	0.00	113.30	3,429.00
103.20	0.00	108.30	0.00	113.40	3,586.03
103.30	0.00	108.40	0.00	113.50	3,745.40
103.40	0.00	108.50	0.00	113.60	3,907.06
103.50	0.00	108.60	0.00	113.70	4,070.98
103.60	0.00	108.70	0.00	113.80	4,237.13
103.70	0.00	108.80	0.00	113.90	4,405.48
103.80	0.00	108.90	0.00	114.00	4,576.00
103.90	0.00	109.00	0.00	114.10	4,748.67
104.00	0.00	109.10	0.00	114.20	4,923.45
104.10	0.00	109.20	0.00	114.30	5,100.34
104.20	0.00	109.30	0.00	114.40	5,279.28
104.30	0.00	109.40	0.00	114.50	5,460.28
104.40	0.00	109.50	0.00	114.60	5,643.30
104.50	0.00	109.60	0.00	114.70	5,828.31
104.60	0.00	109.70	0.00	114.80	6,015.31
104.70	0.00	109.80	0.00	114.90	6,204.26
104.80	0.00	109.90	0.00	115.00	**6,395.15**
104.90	0.00	110.00	0.00		
105.00	0.00	110.10	18.09		

Stage-Area-Storage for Pond A4*: A4 Pond

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
100.00	0	105.10	90,535	110.20	298,242
100.10	1,731	105.20	94,538	110.30	304,037
100.20	3,461	105.30	98,540	110.40	309,832
100.30	5,192	105.40	102,543	110.50	315,627
100.40	6,923	105.50	106,545	110.60	321,422
100.50	8,653	105.60	110,547	110.70	327,216
100.60	10,384	105.70	114,550	110.80	333,011
100.70	12,115	105.80	118,552	110.90	338,806
100.80	13,845	105.90	122,554	111.00	344,601
100.90	15,576	106.00	126,557	111.10	350,396
101.00	17,307	106.10	130,559	111.20	356,191
101.10	19,037	106.20	134,562	111.30	361,986
101.20	20,768	106.30	138,564	111.40	367,781
101.30	22,499	106.40	142,566	111.50	373,576
101.40	24,229	106.50	146,569	111.60	379,371
101.50	25,960	106.60	150,571	111.70	385,166
101.60	27,691	106.70	154,573	111.80	390,961
101.70	29,421	106.80	158,576	111.90	396,755
101.80	31,152	106.90	162,578	112.00	402,550
101.90	32,883	107.00	166,581	112.10	408,345
102.00	34,613	107.10	170,583	112.20	414,140
102.10	36,344	107.20	174,585	112.30	419,935
102.20	38,075	107.30	178,588	112.40	425,730
102.30	39,805	107.40	182,590	112.50	431,525
102.40	41,536	107.50	186,593	112.60	437,320
102.50	43,267	107.60	190,595	112.70	443,115
102.60	44,997	107.70	194,597	112.80	448,910
102.70	46,728	107.80	198,600	112.90	454,705
102.80	48,458	107.90	202,602	113.00	460,500
102.90	50,189	108.00	206,604	113.10	466,295
103.00	51,920	108.10	210,607	113.20	472,089
103.10	53,650	108.20	214,609	113.30	477,884
103.20	55,381	108.30	218,612	113.40	483,679
103.30	57,112	108.40	222,614	113.50	489,474
103.40	58,842	108.50	226,616	113.60	495,269
103.50	60,573	108.60	230,619	113.70	501,064
103.60	62,304	108.70	234,621	113.80	506,859
103.70	64,034	108.80	238,623	113.90	512,654
103.80	65,765	108.90	242,626	114.00	518,449
103.90	67,496	109.00	246,628	114.10	524,244
104.00	69,226	109.10	250,631	114.20	530,039
104.10	70,957	109.20	254,633	114.30	535,834
104.20	72,688	109.30	258,635	114.40	541,628
104.30	74,418	109.40	262,638	114.50	547,423
104.40	76,149	109.50	266,640	114.60	553,218
104.50	77,880	109.60	270,642	114.70	559,013
104.60	79,610	109.70	274,645	114.80	564,808
104.70	81,341	109.80	278,647	114.90	570,603
104.80	83,072	109.90	282,650	115.00	**576,398**
104.90	84,802	110.00	286,652		
105.00	86,533	110.10	292,447		

Summary for Pond A5*: A5 Pond

Inflow Area = 18.170 ac, 2.92% Impervious, Inflow Depth > 1.72" for 25-yr event
Inflow = 23.49 cfs @ 12.37 hrs, Volume= 2.601 af
Outflow = 21.66 cfs @ 12.55 hrs, Volume= 1.855 af, Atten= 8%, Lag= 10.8 min
Primary = 21.66 cfs @ 12.55 hrs, Volume= 1.855 af
Routed to Reach SUB-5 : Reach

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 108.18' @ 12.55 hrs Storage= 33,694 cf

Plug-Flow detention time= 107.9 min calculated for 1.855 af (71% of inflow)
Center-of-Mass det. time= 41.0 min (873.3 - 832.3)

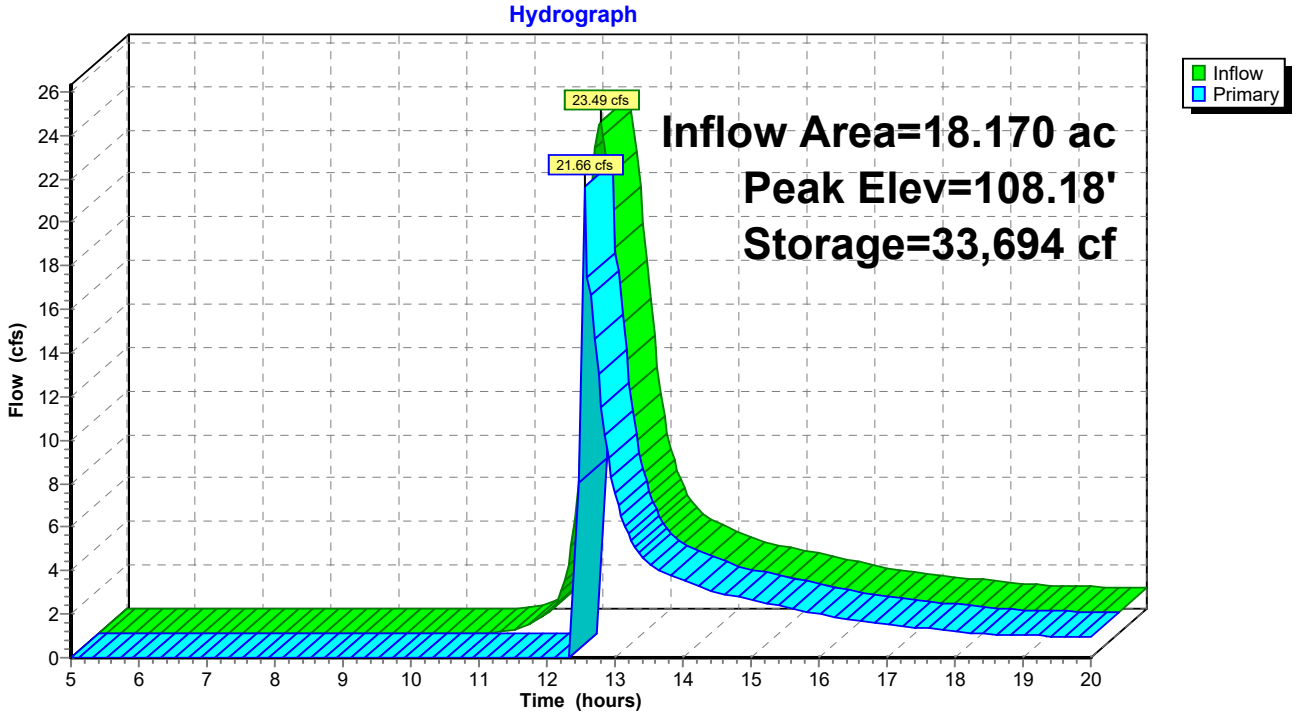
Volume	Invert	Avail.Storage	Storage Description
#1	102.00'	47,512 cf	**Custom Stage Data**Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
102.00	0	0
103.00	1,980	1,980
104.00	3,154	5,134
105.00	4,438	9,572
110.00	37,940	47,512

Device	Routing	Invert	Outlet Devices
#1	Primary	108.00'	**110.0' long Broad-Crested Rectangular Weir** Head (feet) 6.00 Coef. (English) 2.60

Primary OutFlow Max=21.32 cfs @ 12.55 hrs HW=108.18' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Weir Controls 21.32 cfs @ 1.09 fps)

Pond A5*: A5 Pond



Hydrograph for Pond A5*: A5 Pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	102.00	0.00
5.50	0.00	0	102.00	0.00
6.00	0.00	0	102.00	0.00
6.50	0.00	0	102.00	0.00
7.00	0.00	0	102.00	0.00
7.50	0.00	0	102.00	0.00
8.00	0.00	0	102.00	0.00
8.50	0.00	0	102.00	0.00
9.00	0.00	0	102.00	0.00
9.50	0.00	0	102.00	0.00
10.00	0.00	0	102.00	0.00
10.50	0.00	0	102.00	0.00
11.00	0.10	39	102.02	0.00
11.50	0.69	653	102.33	0.00
12.00	**5.25**	4,252	103.72	0.00
12.50	**21.01**	**33,449**	**108.15**	**16.06**
13.00	7.36	**33,010**	**108.09**	**7.57**
13.50	4.31	32,802	108.06	4.35
14.00	3.54	32,744	108.05	3.56
14.50	2.99	32,700	108.05	3.01
15.00	2.66	32,672	108.04	2.67
15.50	2.33	32,644	108.04	2.34
16.00	1.98	32,613	108.04	2.00
16.50	1.69	32,585	108.03	1.70
17.00	1.52	32,568	108.03	1.53
17.50	1.36	32,552	108.03	1.37
18.00	1.20	32,535	108.03	1.21
18.50	1.08	32,520	108.02	1.08
19.00	1.03	32,514	108.02	1.03
19.50	0.98	32,509	108.02	0.98
20.00	0.93	32,503	108.02	0.93

Stage-Discharge for Pond A5*: A5 Pond

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
102.00	0.00	104.55	0.00	107.10	0.00	109.65	606.17
102.05	0.00	104.60	0.00	107.15	0.00	109.70	633.93
102.10	0.00	104.65	0.00	107.20	0.00	109.75	662.10
102.15	0.00	104.70	0.00	107.25	0.00	109.80	690.68
102.20	0.00	104.75	0.00	107.30	0.00	109.85	719.65
102.25	0.00	104.80	0.00	107.35	0.00	109.90	749.03
102.30	0.00	104.85	0.00	107.40	0.00	109.95	778.79
102.35	0.00	104.90	0.00	107.45	0.00	110.00	**808.93**
102.40	0.00	104.95	0.00	107.50	0.00		
102.45	0.00	105.00	0.00	107.55	0.00		
102.50	0.00	105.05	0.00	107.60	0.00		
102.55	0.00	105.10	0.00	107.65	0.00		
102.60	0.00	105.15	0.00	107.70	0.00		
102.65	0.00	105.20	0.00	107.75	0.00		
102.70	0.00	105.25	0.00	107.80	0.00		
102.75	0.00	105.30	0.00	107.85	0.00		
102.80	0.00	105.35	0.00	107.90	0.00		
102.85	0.00	105.40	0.00	107.95	0.00		
102.90	0.00	105.45	0.00	108.00	0.00		
102.95	0.00	105.50	0.00	108.05	3.20		
103.00	0.00	105.55	0.00	108.10	9.04		
103.05	0.00	105.60	0.00	108.15	16.62		
103.10	0.00	105.65	0.00	108.20	25.58		
103.15	0.00	105.70	0.00	108.25	35.75		
103.20	0.00	105.75	0.00	108.30	46.99		
103.25	0.00	105.80	0.00	108.35	59.22		
103.30	0.00	105.85	0.00	108.40	72.35		
103.35	0.00	105.90	0.00	108.45	86.33		
103.40	0.00	105.95	0.00	108.50	101.12		
103.45	0.00	106.00	0.00	108.55	116.66		
103.50	0.00	106.05	0.00	108.60	132.92		
103.55	0.00	106.10	0.00	108.65	149.88		
103.60	0.00	106.15	0.00	108.70	167.50		
103.65	0.00	106.20	0.00	108.75	185.76		
103.70	0.00	106.25	0.00	108.80	204.64		
103.75	0.00	106.30	0.00	108.85	224.13		
103.80	0.00	106.35	0.00	108.90	244.19		
103.85	0.00	106.40	0.00	108.95	264.82		
103.90	0.00	106.45	0.00	109.00	286.00		
103.95	0.00	106.50	0.00	109.05	307.72		
104.00	0.00	106.55	0.00	109.10	329.96		
104.05	0.00	106.60	0.00	109.15	352.71		
104.10	0.00	106.65	0.00	109.20	375.96		
104.15	0.00	106.70	0.00	109.25	399.70		
104.20	0.00	106.75	0.00	109.30	423.92		
104.25	0.00	106.80	0.00	109.35	448.61		
104.30	0.00	106.85	0.00	109.40	473.76		
104.35	0.00	106.90	0.00	109.45	499.36		
104.40	0.00	106.95	0.00	109.50	525.42		
104.45	0.00	107.00	0.00	109.55	551.90		
104.50	0.00	107.05	0.00	109.60	578.82		

Stage-Area-Storage for Pond A5*: A5 Pond

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
102.00	0	107.10	25,507
102.10	198	107.20	26,266
102.20	396	107.30	27,024
102.30	594	107.40	27,783
102.40	792	107.50	28,542
102.50	990	107.60	29,301
102.60	1,188	107.70	30,060
102.70	1,386	107.80	30,818
102.80	1,584	107.90	31,577
102.90	1,782	108.00	32,336
103.00	1,980	108.10	33,095
103.10	2,295	108.20	33,854
103.20	2,611	108.30	34,612
103.30	2,926	108.40	35,371
103.40	3,242	108.50	36,130
103.50	3,557	108.60	36,889
103.60	3,872	108.70	37,648
103.70	4,188	108.80	38,406
103.80	4,503	108.90	39,165
103.90	4,819	109.00	39,924
104.00	5,134	109.10	40,683
104.10	5,578	109.20	41,442
104.20	6,022	109.30	42,200
104.30	6,465	109.40	42,959
104.40	6,909	109.50	43,718
104.50	7,353	109.60	44,477
104.60	7,797	109.70	45,236
104.70	8,241	109.80	45,994
104.80	8,684	109.90	46,753
104.90	9,128	110.00	**47,512**
105.00	9,572		
105.10	10,331		
105.20	11,090		
105.30	11,848		
105.40	12,607		
105.50	13,366		
105.60	14,125		
105.70	14,884		
105.80	15,642		
105.90	16,401		
106.00	17,160		
106.10	17,919		
106.20	18,678		
106.30	19,436		
106.40	20,195		
106.50	20,954		
106.60	21,713		
106.70	22,472		
106.80	23,230		
106.90	23,989		
107.00	24,748		

Summary for Pond B12*: B12 Pond

Inflow Area = 5.240 ac, 3.63% Impervious, Inflow Depth > 1.81" for 25-yr event
Inflow = 11.45 cfs @ 12.10 hrs, Volume= 0.791 af
Outflow = 10.34 cfs @ 12.14 hrs, Volume= 0.786 af, Atten= 10%, Lag= 2.6 min
Primary = 10.34 cfs @ 12.14 hrs, Volume= 0.786 af
Routed to Reach 2R : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 126.11' @ 12.14 hrs Storage= 2,232 cf

Plug-Flow detention time= 6.7 min calculated for 0.784 af (99% of inflow)
Center-of-Mass det. time= 4.6 min (820.8 - 816.2)

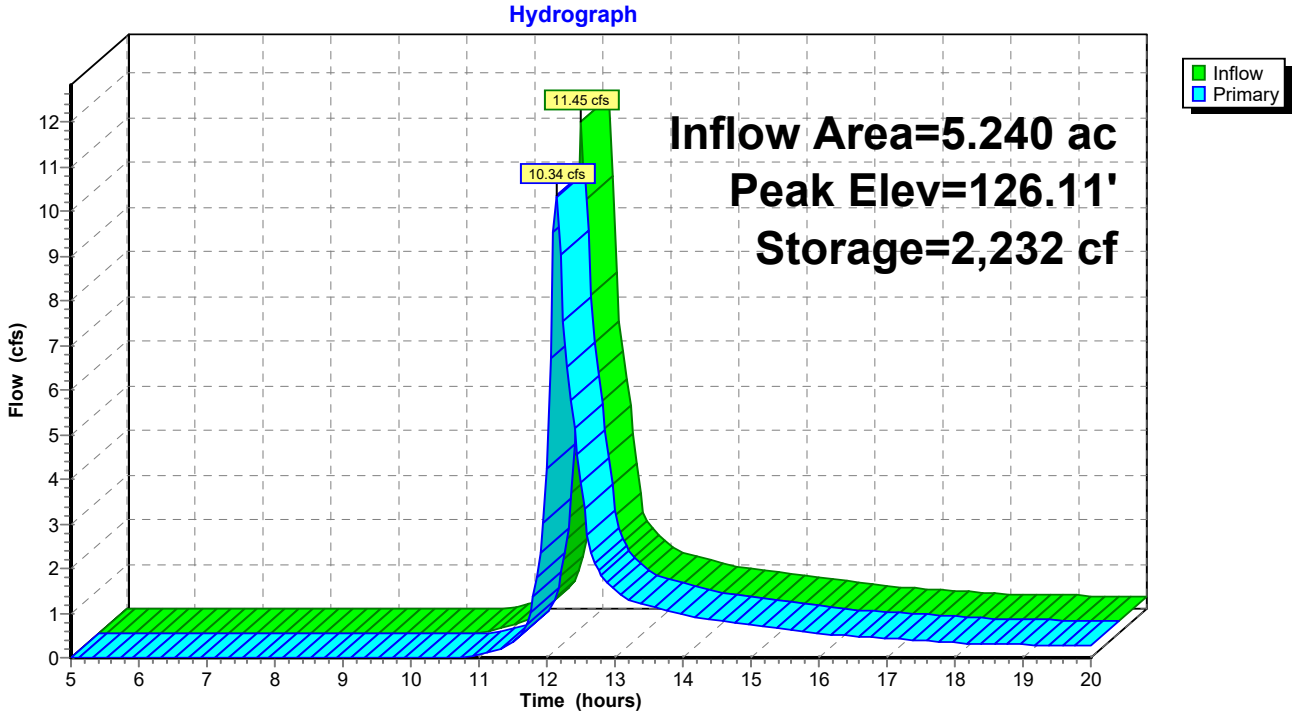
Volume	Invert	Avail.Storage	Storage Description
#1	126.00'	63,569 cf	**Custom Stage Data**Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
126.00	0	0
127.00	21,148	21,148
128.00	21,203	42,351
129.00	21,218	63,569

Device	Routing	Invert	Outlet Devices
#1	Primary	126.00'	**116.0' long Broad-Crested Rectangular Weir** Head (feet) 2.00 Coef. (English) 2.60

Primary OutFlow Max=10.23 cfs @ 12.14 hrs HW=126.10' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Weir Controls 10.23 cfs @ 0.84 fps)

Pond B12*: B12 Pond



Hydrograph for Pond B12*: B12 Pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	126.00	0.00
5.50	0.00	0	126.00	0.00
6.00	0.00	0	126.00	0.00
6.50	0.00	0	126.00	0.00
7.00	0.00	0	126.00	0.00
7.50	0.00	0	126.00	0.00
8.00	0.00	0	126.00	0.00
8.50	0.00	0	126.00	0.00
9.00	0.00	0	126.00	0.00
9.50	0.00	0	126.00	0.00
10.00	0.00	0	126.00	0.00
10.50	0.01	1	126.00	0.00
11.00	0.13	79	126.00	0.07
11.50	0.45	231	126.01	0.34
12.00	**6.08**	**1,230**	**126.06**	**4.23**
12.50	**3.25**	**1,172**	**126.06**	**3.94**
13.00	1.41	621	126.03	1.52
13.50	1.13	519	126.02	1.16
14.00	0.94	461	126.02	0.97
14.50	0.83	420	126.02	0.84
15.00	0.73	388	126.02	0.75
15.50	0.63	353	126.02	0.65
16.00	0.53	315	126.01	0.55
16.50	0.47	288	126.01	0.48
17.00	0.42	269	126.01	0.43
17.50	0.38	250	126.01	0.39
18.00	0.33	229	126.01	0.34
18.50	0.31	217	126.01	0.31
19.00	0.29	210	126.01	0.30
19.50	0.28	204	126.01	0.28
20.00	0.27	197	126.01	0.27

Stage-Discharge for Pond B12*: B12 Pond

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
126.00	0.00	127.02	310.69	128.04	878.77
126.02	0.85	127.04	319.88	128.06	891.73
126.04	2.41	127.06	329.15	128.08	904.75
126.06	4.43	127.08	338.51	128.10	917.83
126.08	6.82	127.10	347.95	128.12	930.97
126.10	9.54	127.12	357.49	128.14	944.17
126.12	12.54	127.14	367.10	128.16	957.44
126.14	15.80	127.16	376.81	128.18	970.77
126.16	19.30	127.18	386.59	128.20	984.16
126.18	23.03	127.20	396.46	128.22	997.61
126.20	26.98	127.22	406.42	128.24	1,011.12
126.22	31.12	127.24	416.45	128.26	1,024.69
126.24	35.46	127.26	426.57	128.28	1,038.33
126.26	39.98	127.28	436.76	128.30	1,052.02
126.28	44.69	127.30	447.04	128.32	1,065.77
126.30	49.56	127.32	457.40	128.34	1,079.58
126.32	54.60	127.34	467.83	128.36	1,093.45
126.34	59.79	127.36	478.34	128.38	1,107.38
126.36	65.15	127.38	488.93	128.40	1,121.37
126.38	70.65	127.40	499.60	128.42	1,135.41
126.40	76.30	127.42	510.34	128.44	1,149.52
126.42	82.09	127.44	521.16	128.46	1,163.68
126.44	88.03	127.46	532.06	128.48	1,177.90
126.46	94.10	127.48	543.03	128.50	1,192.18
126.48	100.30	127.50	554.07	128.52	1,206.51
126.50	106.63	127.52	565.19	128.54	1,220.91
126.52	113.09	127.54	576.38	128.56	1,235.35
126.54	119.68	127.56	587.65	128.58	1,249.86
126.56	126.39	127.58	598.99	128.60	1,264.42
126.58	133.22	127.60	610.40	128.62	1,279.04
126.60	140.17	127.62	621.88	128.64	1,293.71
126.62	147.24	127.64	633.43	128.66	1,308.44
126.64	154.42	127.66	645.05	128.68	1,323.22
126.66	161.71	127.68	656.74	128.70	1,338.06
126.68	169.12	127.70	668.51	128.72	1,352.96
126.70	176.64	127.72	680.34	128.74	1,367.91
126.72	184.26	127.74	692.24	128.76	1,382.91
126.74	191.99	127.76	704.21	128.78	1,397.97
126.76	199.83	127.78	716.24	128.80	1,413.09
126.78	207.77	127.80	728.35	128.82	1,428.25
126.80	215.81	127.82	740.52	128.84	1,443.47
126.82	223.95	127.84	752.76	128.86	1,458.75
126.84	232.19	127.86	765.07	128.88	1,474.08
126.86	240.54	127.88	777.44	128.90	1,489.46
126.88	248.97	127.90	789.88	128.92	1,504.89
126.90	257.51	127.92	802.39	128.94	1,520.38
126.92	266.14	127.94	814.96	128.96	1,535.92
126.94	274.87	127.96	827.59	128.98	1,551.51
126.96	283.69	127.98	840.29	129.00	**1,567.16**
126.98	292.60	128.00	853.05		
127.00	301.60	128.02	865.88		

Stage-Area-Storage for Pond B12*: B12 Pond

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
126.00	0	127.02	21,572	128.04	43,200
126.02	423	127.04	21,996	128.06	43,624
126.04	846	127.06	22,420	128.08	44,048
126.06	1,269	127.08	22,844	128.10	44,473
126.08	1,692	127.10	23,268	128.12	44,897
126.10	2,115	127.12	23,692	128.14	45,322
126.12	2,538	127.14	24,116	128.16	45,746
126.14	2,961	127.16	24,540	128.18	46,170
126.16	3,384	127.18	24,965	128.20	46,595
126.18	3,807	127.20	25,389	128.22	47,019
126.20	4,230	127.22	25,813	128.24	47,443
126.22	4,653	127.24	26,237	128.26	47,868
126.24	5,076	127.26	26,661	128.28	48,292
126.26	5,498	127.28	27,085	128.30	48,716
126.28	5,921	127.30	27,509	128.32	49,141
126.30	6,344	127.32	27,933	128.34	49,565
126.32	6,767	127.34	28,357	128.36	49,989
126.34	7,190	127.36	28,781	128.38	50,414
126.36	7,613	127.38	29,205	128.40	50,838
126.38	8,036	127.40	29,629	128.42	51,263
126.40	8,459	127.42	30,053	128.44	51,687
126.42	8,882	127.44	30,477	128.46	52,111
126.44	9,305	127.46	30,901	128.48	52,536
126.46	9,728	127.48	31,325	128.50	52,960
126.48	10,151	127.50	31,750	128.52	53,384
126.50	10,574	127.52	32,174	128.54	53,809
126.52	10,997	127.54	32,598	128.56	54,233
126.54	11,420	127.56	33,022	128.58	54,657
126.56	11,843	127.58	33,446	128.60	55,082
126.58	12,266	127.60	33,870	128.62	55,506
126.60	12,689	127.62	34,294	128.64	55,931
126.62	13,112	127.64	34,718	128.66	56,355
126.64	13,535	127.66	35,142	128.68	56,779
126.66	13,958	127.68	35,566	128.70	57,204
126.68	14,381	127.70	35,990	128.72	57,628
126.70	14,804	127.72	36,414	128.74	58,052
126.72	15,227	127.74	36,838	128.76	58,477
126.74	15,650	127.76	37,262	128.78	58,901
126.76	16,072	127.78	37,686	128.80	59,325
126.78	16,495	127.80	38,110	128.82	59,750
126.80	16,918	127.82	38,534	128.84	60,174
126.82	17,341	127.84	38,959	128.86	60,598
126.84	17,764	127.86	39,383	128.88	61,023
126.86	18,187	127.88	39,807	128.90	61,447
126.88	18,610	127.90	40,231	128.92	61,872
126.90	19,033	127.92	40,655	128.94	62,296
126.92	19,456	127.94	41,079	128.96	62,720
126.94	19,879	127.96	41,503	128.98	63,145
126.96	20,302	127.98	41,927	129.00	**63,569**
126.98	20,725	128.00	42,351		
127.00	21,148	128.02	42,775		

Summary for Pond B8*: B8 Pond

Inflow Area = 10.500 ac, 2.86% Impervious, Inflow Depth > 1.72" for 25-yr event
Inflow = 14.55 cfs @ 12.32 hrs, Volume= 1.506 af
Outflow = 13.56 cfs @ 12.40 hrs, Volume= 1.491 af, Atten= 7%, Lag= 5.4 min
Primary = 13.56 cfs @ 12.40 hrs, Volume= 1.491 af
Routed to Reach 2R : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 132.19' @ 12.41 hrs Storage= 5,506 cf

Plug-Flow detention time= 11.2 min calculated for 1.491 af (99% of inflow)
Center-of-Mass det. time= 7.6 min (837.1 - 829.5)

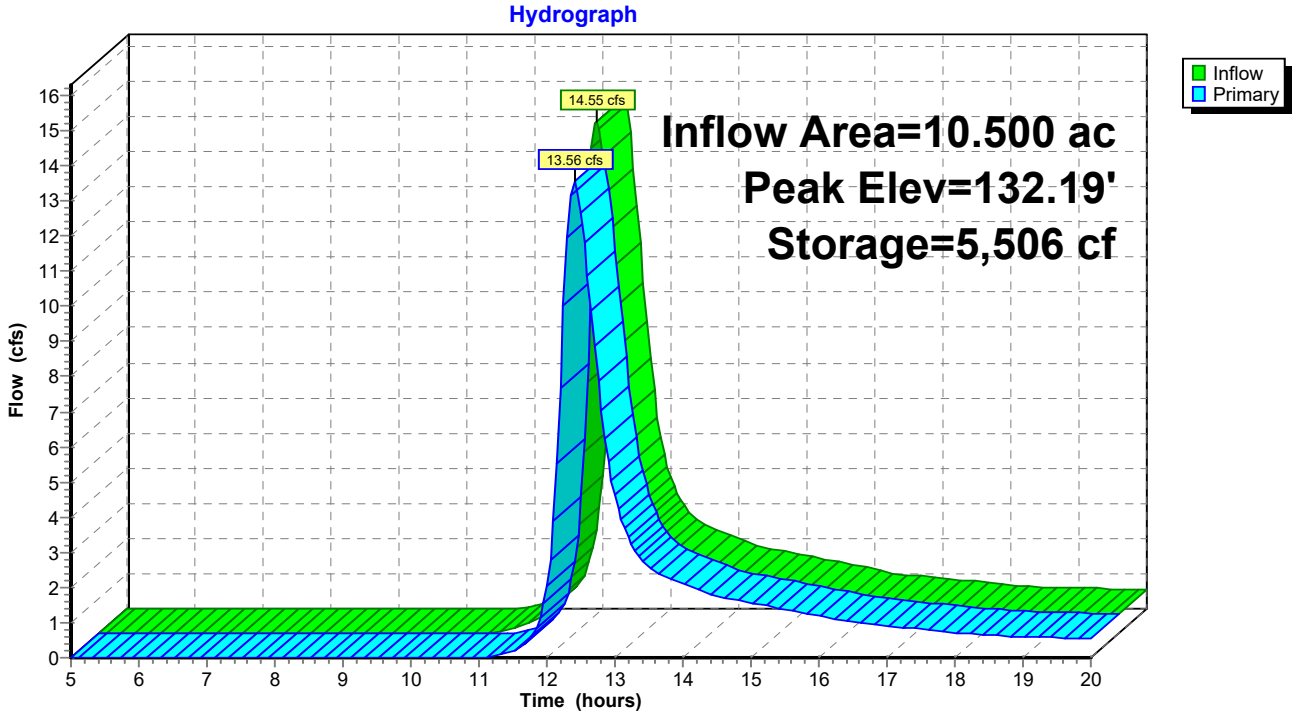
Volume	Invert	Avail.Storage	Storage Description
#1	132.00'	59,494 cf	**Custom Stage Data** Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
132.00	0	0
133.00	29,722	29,722
134.00	29,772	59,494

Device	Routing	Invert	Outlet Devices
#1	Primary	132.00'	**170.0' long Broad-Crested Rectangular Weir** Head (feet) 2.00 Coef. (English) 1.00

Primary OutFlow Max=13.53 cfs @ 12.40 hrs HW=132.18' TW=0.00' (Dynamic Tailwater)
1=Broad-Crested Rectangular Weir (Weir Controls 13.53 cfs @ 0.43 fps)

Pond B8*: B8 Pond



Hydrograph for Pond B8*: B8 Pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	132.00	0.00
5.50	0.00	0	132.00	0.00
6.00	0.00	0	132.00	0.00
6.50	0.00	0	132.00	0.00
7.00	0.00	0	132.00	0.00
7.50	0.00	0	132.00	0.00
8.00	0.00	0	132.00	0.00
8.50	0.00	0	132.00	0.00
9.00	0.00	0	132.00	0.00
9.50	0.00	0	132.00	0.00
10.00	0.00	0	132.00	0.00
10.50	0.00	0	132.00	0.00
11.00	0.08	31	132.00	0.01
11.50	0.46	326	132.01	0.20
12.00	**3.77**	**1,564**	**132.05**	**2.05**
12.50	**11.48**	**5,260**	**132.18**	**12.66**
13.00	3.75	2,684	132.09	4.61
13.50	2.39	1,831	132.06	2.60
14.00	2.00	1,591	132.05	2.11
14.50	1.70	1,418	132.05	1.77
15.00	1.51	1,308	132.04	1.57
15.50	1.32	1,202	132.04	1.38
16.00	1.12	1,086	132.04	1.19
16.50	0.96	974	132.03	1.01
17.00	0.87	904	132.03	0.90
17.50	0.78	843	132.03	0.81
18.00	0.69	779	132.03	0.72
18.50	0.62	720	132.02	0.64
19.00	0.59	690	132.02	0.60
19.50	0.56	669	132.02	0.57
20.00	0.53	648	132.02	0.55

Stage-Discharge for Pond B8*: B8 Pond

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
132.00	0.00	132.51	61.92	133.02	175.13	133.53	321.73
132.01	0.17	132.52	63.75	133.03	177.71	133.54	324.89
132.02	0.48	132.53	65.59	133.04	180.30	133.55	328.05
132.03	0.88	132.54	67.46	133.05	182.91	133.56	331.23
132.04	1.36	132.55	69.34	133.06	185.53	133.57	334.42
132.05	1.90	132.56	71.24	133.07	188.16	133.58	337.62
132.06	2.50	132.57	73.16	133.08	190.80	133.59	340.84
132.07	3.15	132.58	75.09	133.09	193.46	133.60	344.06
132.08	3.85	132.59	77.04	133.10	196.13	133.61	347.29
132.09	4.59	132.60	79.01	133.11	198.81	133.62	350.53
132.10	5.38	132.61	80.99	133.12	201.50	133.63	353.78
132.11	6.20	132.62	82.99	133.13	204.21	133.64	357.04
132.12	7.07	132.63	85.01	133.14	206.92	133.65	360.31
132.13	7.97	132.64	87.04	133.15	209.65	133.66	363.59
132.14	8.91	132.65	89.09	133.16	212.39	133.67	366.88
132.15	9.88	132.66	91.15	133.17	215.14	133.68	370.18
132.16	10.88	132.67	93.23	133.18	217.91	133.69	373.49
132.17	11.92	132.68	95.33	133.19	220.68	133.70	376.81
132.18	12.98	132.69	97.44	133.20	223.47	133.71	380.14
132.19	14.08	132.70	99.56	133.21	226.27	133.72	383.48
132.20	15.21	132.71	101.70	133.22	229.08	133.73	386.83
132.21	16.36	132.72	103.86	133.23	231.90	133.74	390.19
132.22	17.54	132.73	106.03	133.24	234.74	133.75	393.56
132.23	18.75	132.74	108.22	133.25	237.58	133.76	396.93
132.24	19.99	132.75	110.42	133.26	240.44	133.77	400.32
132.25	21.25	132.76	112.63	133.27	243.31	133.78	403.72
132.26	22.54	132.77	114.86	133.28	246.19	133.79	407.13
132.27	23.85	132.78	117.11	133.29	249.08	133.80	410.54
132.28	25.19	132.79	119.37	133.30	251.98	133.81	413.97
132.29	26.55	132.80	121.64	133.31	254.89	133.82	417.40
132.30	27.93	132.81	123.93	133.32	257.82	133.83	420.85
132.31	29.34	132.82	126.23	133.33	260.75	133.84	424.30
132.32	30.77	132.83	128.55	133.34	263.70	133.85	427.77
132.33	32.23	132.84	130.88	133.35	266.65	133.86	431.24
132.34	33.70	132.85	133.22	133.36	269.62	133.87	434.72
132.35	35.20	132.86	135.58	133.37	272.60	133.88	438.21
132.36	36.72	132.87	137.95	133.38	275.59	133.89	441.71
132.37	38.26	132.88	140.34	133.39	278.59	133.90	445.22
132.38	39.82	132.89	142.74	133.40	281.61	133.91	448.74
132.39	41.40	132.90	145.15	133.41	284.63	133.92	452.27
132.40	43.01	132.91	147.57	133.42	287.66	133.93	455.81
132.41	44.63	132.92	150.01	133.43	290.71	133.94	459.36
132.42	46.27	132.93	152.47	133.44	293.76	133.95	462.91
132.43	47.93	132.94	154.93	133.45	296.83	133.96	466.48
132.44	49.62	132.95	157.41	133.46	299.90	133.97	470.05
132.45	51.32	132.96	159.90	133.47	302.99	133.98	473.64
132.46	53.04	132.97	162.41	133.48	306.08	133.99	477.23
132.47	54.78	132.98	164.93	133.49	309.19	134.00	**480.83**
132.48	56.53	132.99	167.46	133.50	312.31		
132.49	58.31	133.00	170.00	133.51	315.44		
132.50	60.10	133.01	172.56	133.52	318.58		

Stage-Area-Storage for Pond B8*: B8 Pond

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
132.00	0	133.02	30,317
132.02	594	133.04	30,913
132.04	1,189	133.06	31,508
132.06	1,783	133.08	32,104
132.08	2,378	133.10	32,699
132.10	2,972	133.12	33,295
132.12	3,567	133.14	33,890
132.14	4,161	133.16	34,486
132.16	4,756	133.18	35,081
132.18	5,350	133.20	35,676
132.20	5,944	133.22	36,272
132.22	6,539	133.24	36,867
132.24	7,133	133.26	37,463
132.26	7,728	133.28	38,058
132.28	8,322	133.30	38,654
132.30	8,917	133.32	39,249
132.32	9,511	133.34	39,844
132.34	10,105	133.36	40,440
132.36	10,700	133.38	41,035
132.38	11,294	133.40	41,631
132.40	11,889	133.42	42,226
132.42	12,483	133.44	42,822
132.44	13,078	133.46	43,417
132.46	13,672	133.48	44,013
132.48	14,267	133.50	44,608
132.50	14,861	133.52	45,203
132.52	15,455	133.54	45,799
132.54	16,050	133.56	46,394
132.56	16,644	133.58	46,990
132.58	17,239	133.60	47,585
132.60	17,833	133.62	48,181
132.62	18,428	133.64	48,776
132.64	19,022	133.66	49,372
132.66	19,617	133.68	49,967
132.68	20,211	133.70	50,562
132.70	20,805	133.72	51,158
132.72	21,400	133.74	51,753
132.74	21,994	133.76	52,349
132.76	22,589	133.78	52,944
132.78	23,183	133.80	53,540
132.80	23,778	133.82	54,135
132.82	24,372	133.84	54,730
132.84	24,966	133.86	55,326
132.86	25,561	133.88	55,921
132.88	26,155	133.90	56,517
132.90	26,750	133.92	57,112
132.92	27,344	133.94	57,708
132.94	27,939	133.96	58,303
132.96	28,533	133.98	58,899
132.98	29,128	134.00	**59,494**
133.00	29,722		

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

SubcatchmentA1: A1 Runoff Area=32.780 ac 2.44% Impervious Runoff Depth>2.20"
Flow Length=1,500' Tc=36.1 min CN=61 Runoff=46.69 cfs 6.011 af

SubcatchmentA10: A10 Runoff Area=9.460 ac 6.77% Impervious Runoff Depth>2.22"
Tc=11.3 min UI Adjusted CN=61 Runoff=21.68 cfs 1.753 af

SubcatchmentA11: A11 Runoff Area=6.180 ac 1.62% Impervious Runoff Depth>1.97"
Tc=6.0 min CN=58 Runoff=14.57 cfs 1.012 af

SubcatchmentA12: A12 Runoff Area=22.000 ac 2.64% Impervious Runoff Depth>2.20"
Flow Length=1,802' Tc=36.0 min CN=61 Runoff=31.38 cfs 4.034 af

SubcatchmentA2: A2 Runoff Area=2.840 ac 0.00% Impervious Runoff Depth>2.13"
Flow Length=569' Tc=13.1 min CN=60 Runoff=5.88 cfs 0.505 af

SubcatchmentA3: A3 Runoff Area=25.560 ac 1.88% Impervious Runoff Depth>2.02"
Flow Length=1,986' Tc=39.9 min UI Adjusted CN=59 Runoff=31.56 cfs 4.305 af

SubcatchmentA4: A4 Runoff Area=32.410 ac 3.15% Impervious Runoff Depth>1.78"
Flow Length=1,245' Tc=18.6 min UI Adjusted CN=56 Runoff=47.85 cfs 4.819 af

SubcatchmentA5: A5 Runoff Area=18.170 ac 2.92% Impervious Runoff Depth>2.21"
Flow Length=1,830' Tc=24.7 min UI Adjusted CN=61 Runoff=30.73 cfs 3.349 af

SubcatchmentA6: A6 Runoff Area=9.800 ac 3.06% Impervious Runoff Depth>2.22"
Flow Length=1,286' Tc=20.8 min CN=61 Runoff=17.80 cfs 1.809 af

SubcatchmentA7: A7 Runoff Area=12.150 ac 3.87% Impervious Runoff Depth>2.23"
Flow Length=615' Tc=9.6 min CN=61 Runoff=29.24 cfs 2.254 af

SubcatchmentA8: A8 Runoff Area=1.750 ac 0.00% Impervious Runoff Depth>1.88"
Tc=6.0 min CN=57 Runoff=3.92 cfs 0.274 af

SubcatchmentA9: A9 Runoff Area=9.690 ac 35.09% Impervious Runoff Depth>3.16"
Flow Length=742' Tc=14.8 min CN=71 Runoff=29.25 cfs 2.549 af

SubcatchmentB1: B1 Runoff Area=33.063 ac 2.81% Impervious Runoff Depth>2.49"
Flow Length=844' Tc=18.8 min CN=64 Runoff=71.07 cfs 6.856 af

SubcatchmentB10: B10 Runoff Area=1.010 ac 0.00% Impervious Runoff Depth>0.32"
Flow Length=109' Tc=6.4 min CN=35 Runoff=0.13 cfs 0.027 af

SubcatchmentB11: B11 Runoff Area=1.280 ac 0.00% Impervious Runoff Depth>0.32"
Tc=6.0 min CN=35 Runoff=0.16 cfs 0.034 af

SubcatchmentB12: B12 Runoff Area=5.240 ac 3.63% Impervious Runoff Depth>2.32"
Tc=6.0 min CN=62 Runoff=14.85 cfs 1.013 af

SubcatchmentB13: B13 Runoff Area=14.400 ac 1.94% Impervious Runoff Depth>2.04"
Flow Length=963' Tc=24.1 min CN=59 Runoff=22.43 cfs 2.443 af

SubcatchmentB2: B2 Runoff Area=12.770 ac 2.27% Impervious Runoff Depth>2.31"
Flow Length=844' Tc=17.7 min CN=62 Runoff=25.87 cfs 2.456 af

SubcatchmentB3: B3 Runoff Area=18.520 ac 0.00% Impervious Runoff Depth>2.30"
Flow Length=886' Tc=21.2 min CN=62 Runoff=34.88 cfs 3.556 af

SubcatchmentB4: B4 Runoff Area=29.730 ac 0.00% Impervious Runoff Depth>2.41"
Flow Length=448' Tc=10.6 min CN=63 Runoff=75.80 cfs 5.959 af

SubcatchmentB5: B5 Runoff Area=34.440 ac 0.52% Impervious Runoff Depth>2.49"
Flow Length=1,139' Tc=19.3 min CN=64 Runoff=73.04 cfs 7.140 af

SubcatchmentB6: B6 Runoff Area=27.950 ac 4.47% Impervious Runoff Depth>2.39"
Flow Length=1,589' Tc=25.0 min CN=63 Runoff=51.23 cfs 5.569 af

SubcatchmentB7: B7 Runoff Area=7.760 ac 2.32% Impervious Runoff Depth>2.48"
Flow Length=538' Tc=27.4 min CN=64 Runoff=14.23 cfs 1.604 af

SubcatchmentB8: B8 Runoff Area=10.500 ac 2.86% Impervious Runoff Depth>2.22"
Flow Length=1,062' Tc=20.9 min CN=61 Runoff=19.04 cfs 1.938 af

SubcatchmentB9: B9 Runoff Area=10.080 ac 5.06% Impervious Runoff Depth>2.31"
Flow Length=805' Slope=0.0260 '/' Tc=16.2 min CN=62 Runoff=21.09 cfs 1.940 af

Reach 2R: DP-B Inflow=384.67 cfs 40.514 af
Outflow=384.67 cfs 40.514 af

Reach 21R: Reach Inflow=0.29 cfs 0.062 af
Outflow=0.29 cfs 0.062 af

Reach 22R: Reach Inflow=71.30 cfs 6.918 af
Outflow=71.30 cfs 6.918 af

Reach 23R: Reach Inflow=60.07 cfs 6.012 af
Outflow=60.07 cfs 6.012 af

Reach DP-A: DP-A Inflow=211.88 cfs 27.109 af
Outflow=211.88 cfs 27.109 af

Reach SUB-1: Reach Inflow=88.91 cfs 12.299 af
Outflow=88.91 cfs 12.299 af

Reach SUB-2: Reach Inflow=43.43 cfs 6.288 af
Outflow=43.43 cfs 6.288 af

Reach SUB-3: Reach Inflow=68.91 cfs 9.443 af
Outflow=68.91 cfs 9.443 af

Reach SUB-4: Reach Inflow=21.68 cfs 1.753 af
Outflow=21.68 cfs 1.753 af

Reach SUB-5: Reach Inflow=58.72 cfs 5.367 af
Outflow=58.72 cfs 5.367 af

Pond A4*: A4 Pond Peak Elev=108.08' Storage=209,736 cf Inflow=47.85 cfs 4.819 af
Outflow=0.00 cfs 0.000 af

Pond A5*: A5 Pond Peak Elev=108.28' Storage=34,457 cf Inflow=30.73 cfs 3.349 af
Outflow=40.95 cfs 2.602 af

Pond B12*: B12 Pond Peak Elev=126.13' Storage=2,675 cf Inflow=14.85 cfs 1.013 af
Outflow=13.56 cfs 1.007 af

Pond B8*: B8 Pond Peak Elev=132.22' Storage=6,631 cf Inflow=19.04 cfs 1.938 af
Outflow=17.92 cfs 1.921 af

Total Runoff Area = 389.533 ac Runoff Volume = 73.210 af Average Runoff Depth = 2.26"
96.81% Pervious = 377.105 ac 3.19% Impervious = 12.428 ac

Summary for Subcatchment A1: A1

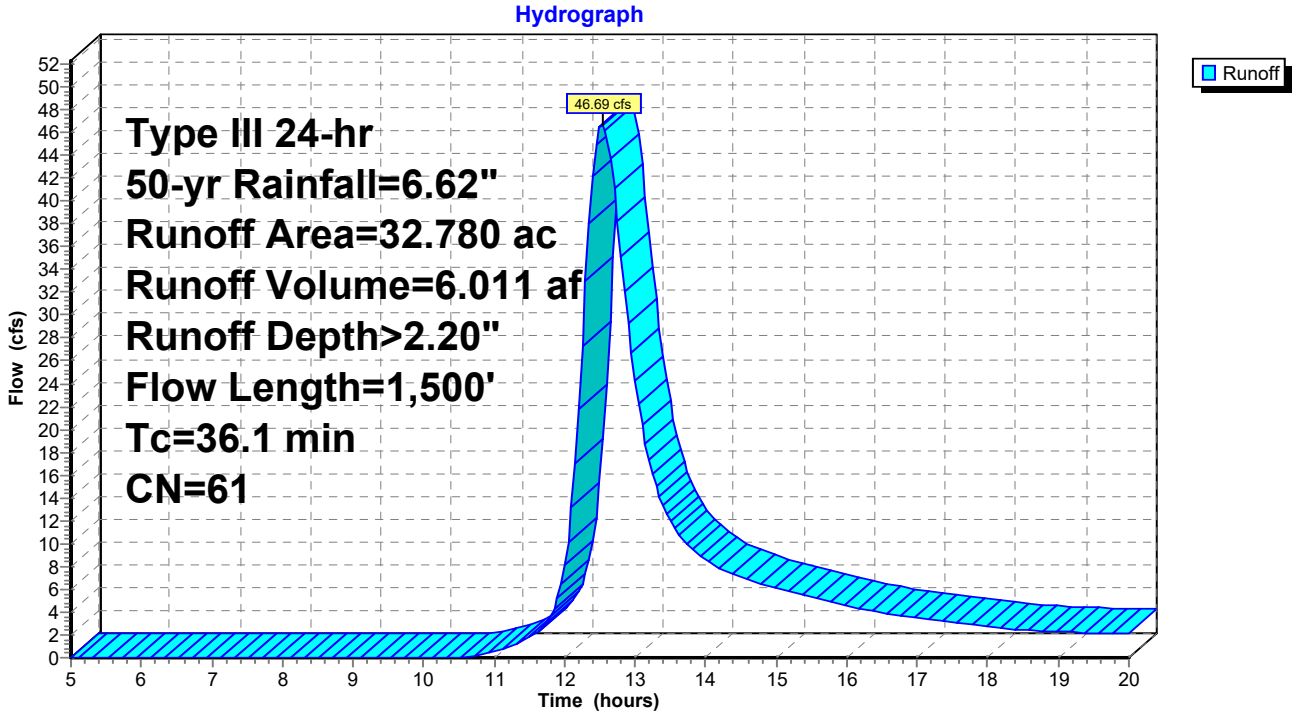
Runoff = 46.69 cfs @ 12.53 hrs, Volume= 6.011 af, Depth> 2.20"
Routed to Reach SUB-1 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.800	98	Unconnected pavement, HSG A
28.270	61	>75% Grass cover, Good, HSG B
3.710	55	Woods, Good, HSG B
32.780	61	Weighted Average
31.980		97.56% Pervious Area
0.800		2.44% Impervious Area
0.800		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	50	0.0100	0.11		**Sheet Flow, SF-1** Grass: Short n= 0.150 P2= 3.11"
5.9	315	0.0160	0.89		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
0.3	64	0.2160	3.25		**Shallow Concentrated Flow, scf-2** Short Grass Pasture Kv= 7.0 fps
22.4	1,071	0.0130	0.80		**Shallow Concentrated Flow, scf-3** Short Grass Pasture Kv= 7.0 fps
36.1	1,500	Total			

Subcatchment A1: A1



Hydrograph for Subcatchment A1: A1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.00
10.50	1.43	0.00	0.05
10.75	1.54	0.01	0.24
11.00	1.66	0.02	0.59
11.25	1.79	0.04	1.07
11.50	1.97	0.07	1.80
11.75	2.35	0.15	3.15
12.00	3.31	0.49	8.07
12.25	4.27	0.95	27.29
12.50	4.65	1.16	**46.42**
12.75	4.83	1.27	**38.13**
13.00	4.96	1.35	24.28
13.25	5.08	1.42	16.10
13.50	5.19	1.48	11.94
13.75	5.28	1.54	9.85
14.00	5.37	1.60	8.61
14.25	5.45	1.65	7.71
14.50	5.52	1.69	7.03
14.75	5.59	1.74	6.54
15.00	5.66	1.78	6.14
15.25	5.71	1.82	5.77
15.50	5.77	1.85	5.40
15.75	5.82	1.89	5.02
16.00	5.87	1.92	4.64
16.25	5.91	1.94	4.25
16.50	5.95	1.97	3.92
16.75	5.99	2.00	3.67
17.00	6.02	2.02	3.48
17.25	6.05	2.04	3.30
17.50	6.09	2.06	3.12
17.75	6.12	2.08	2.95
18.00	6.14	2.10	2.77
18.25	6.17	2.12	2.59
18.50	6.20	2.14	2.45
18.75	6.22	2.15	2.36
19.00	6.24	2.17	2.29
19.25	6.27	2.19	2.23
19.50	6.29	2.20	2.18
19.75	6.31	2.22	2.13
20.00	**6.34**	**2.23**	2.08

Summary for Subcatchment A10: A10

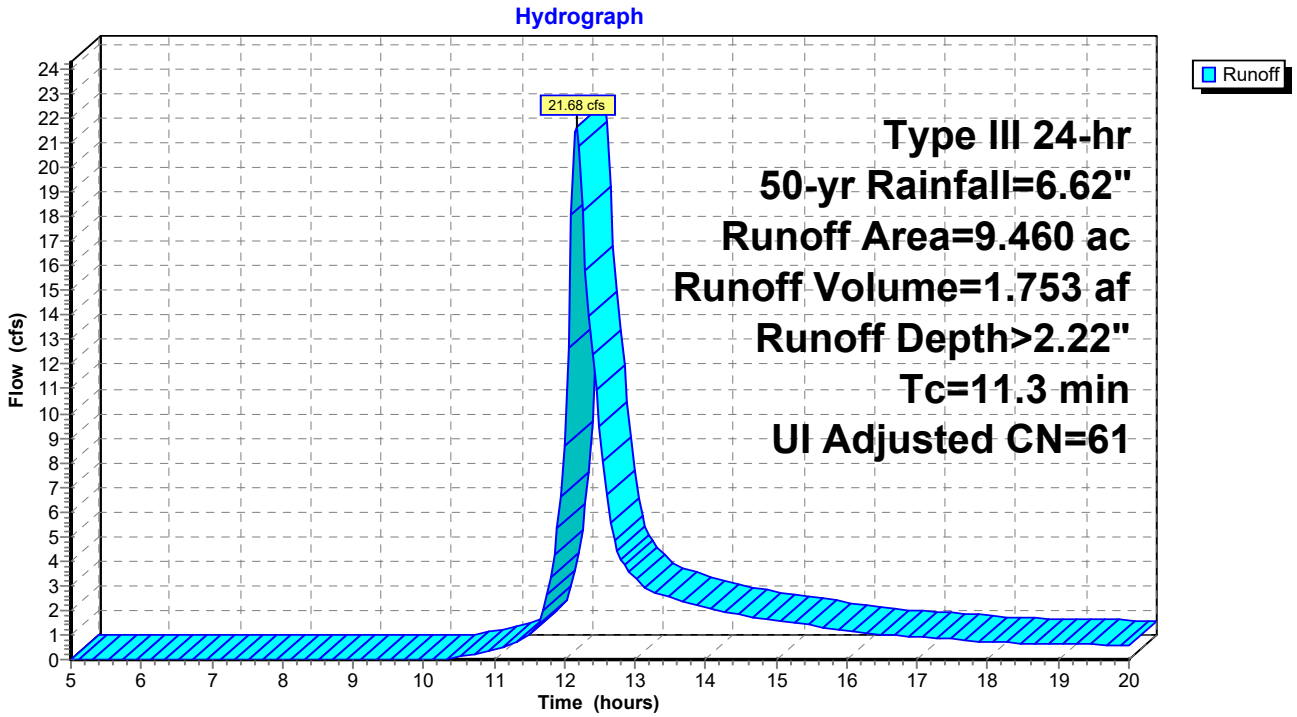
Runoff = 21.68 cfs @ 12.17 hrs, Volume= 1.753 af, Depth> 2.22"
Routed to Reach SUB-4 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Adj	Description
0.640	98		Unconnected pavement, HSG A
0.230	39		>75% Grass cover, Good, HSG A
0.020	30		Woods, Good, HSG A
6.870	61		>75% Grass cover, Good, HSG B
1.700	55		Woods, Good, HSG B
9.460	62	61	Weighted Average, UI Adjusted
8.820			93.23% Pervious Area
0.640			6.77% Impervious Area
0.640			100.00% Unconnected

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

Subcatchment A10: A10



Hydrograph for Subcatchment A10: A10

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.01
10.50	1.43	0.00	0.10
10.75	1.54	0.01	0.22
11.00	1.66	0.02	0.38
11.25	1.79	0.04	0.61
11.50	1.97	0.07	1.02
11.75	2.35	0.15	2.61
12.00	3.31	0.49	**8.65**
12.25	4.27	0.95	**18.22**
12.50	4.65	1.16	9.50
12.75	4.83	1.27	4.39
13.00	4.96	1.35	3.32
13.25	5.08	1.42	2.73
13.50	5.19	1.48	2.51
13.75	5.28	1.54	2.31
14.00	5.37	1.60	2.09
14.25	5.45	1.65	1.92
14.50	5.52	1.69	1.82
14.75	5.59	1.74	1.71
15.00	5.66	1.78	1.61
15.25	5.71	1.82	1.50
15.50	5.77	1.85	1.39
15.75	5.82	1.89	1.28
16.00	5.87	1.92	1.17
16.25	5.91	1.94	1.07
16.50	5.95	1.97	1.02
16.75	5.99	2.00	0.97
17.00	6.02	2.02	0.92
17.25	6.05	2.04	0.87
17.50	6.09	2.06	0.82
17.75	6.12	2.08	0.77
18.00	6.14	2.10	0.72
18.25	6.17	2.12	0.68
18.50	6.20	2.14	0.67
18.75	6.22	2.15	0.65
19.00	6.24	2.17	0.64
19.25	6.27	2.19	0.62
19.50	6.29	2.20	0.61
19.75	6.31	2.22	0.59
20.00	**6.34**	**2.23**	0.58

Summary for Subcatchment A11: A11

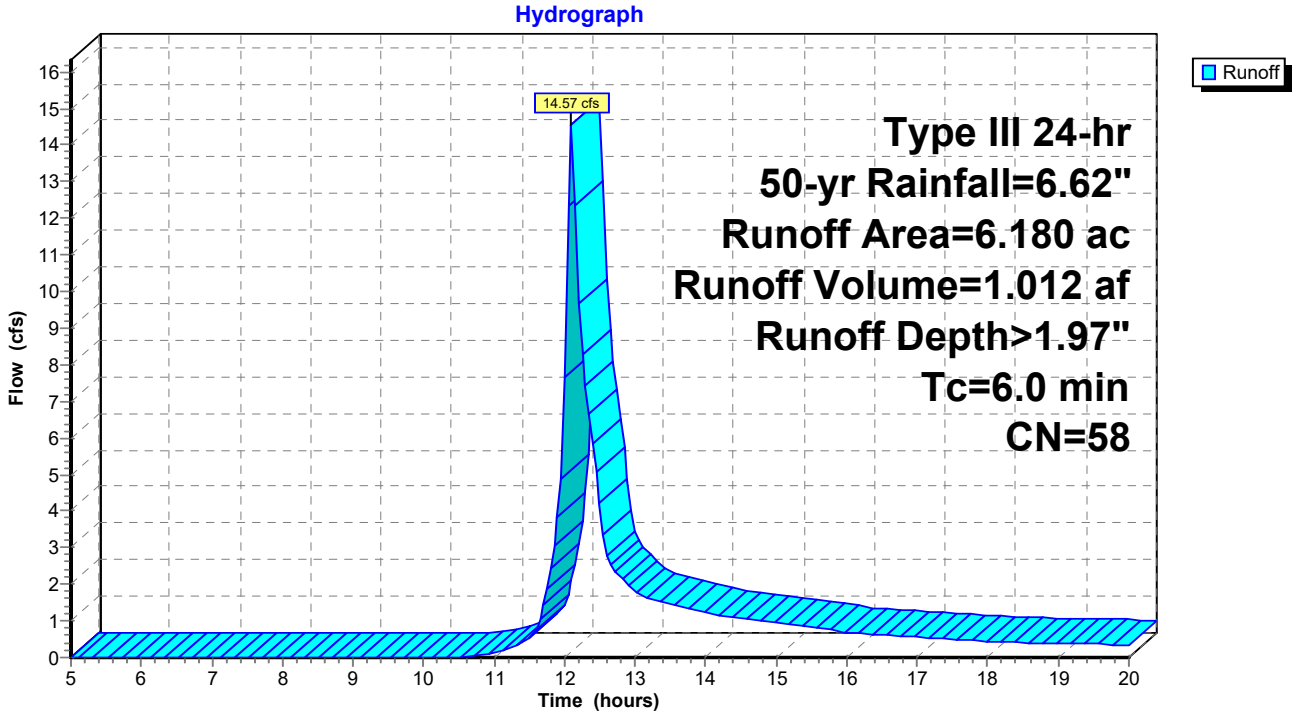
Runoff = 14.57 cfs @ 12.10 hrs, Volume= 1.012 af, Depth> 1.97"
Routed to Reach SUB-5 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.100	98	Unconnected pavement, HSG A
2.490	61	>75% Grass cover, Good, HSG B
3.590	55	Woods, Good, HSG B
6.180	58	Weighted Average
6.080		98.38% Pervious Area
0.100		1.62% Impervious Area
0.100		100.00% Unconnected

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

Subcatchment A11: A11



Hydrograph for Subcatchment A11: A11

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.00
10.50	1.43	0.00	0.00
10.75	1.54	0.00	0.04
11.00	1.66	0.01	0.13
11.25	1.79	0.02	0.27
11.50	1.97	0.04	0.52
11.75	2.35	0.10	1.87
12.00	3.31	0.38	**7.64**
12.25	4.27	0.79	**8.26**
12.50	4.65	0.98	4.20
12.75	4.83	1.07	2.29
13.00	4.96	1.15	1.83
13.25	5.08	1.21	1.58
13.50	5.19	1.27	1.47
13.75	5.28	1.33	1.35
14.00	5.37	1.38	1.22
14.25	5.45	1.42	1.13
14.50	5.52	1.47	1.08
14.75	5.59	1.51	1.01
15.00	5.66	1.55	0.95
15.25	5.71	1.58	0.89
15.50	5.77	1.62	0.82
15.75	5.82	1.65	0.75
16.00	5.87	1.67	0.68
16.25	5.91	1.70	0.64
16.50	5.95	1.72	0.61
16.75	5.99	1.75	0.58
17.00	6.02	1.77	0.55
17.25	6.05	1.79	0.52
17.50	6.09	1.81	0.49
17.75	6.12	1.83	0.46
18.00	6.14	1.85	0.43
18.25	6.17	1.86	0.41
18.50	6.20	1.88	0.40
18.75	6.22	1.90	0.39
19.00	6.24	1.91	0.39
19.25	6.27	1.93	0.38
19.50	6.29	1.94	0.37
19.75	6.31	1.96	0.36
20.00	**6.34**	**1.97**	0.35

Summary for Subcatchment A12: A12

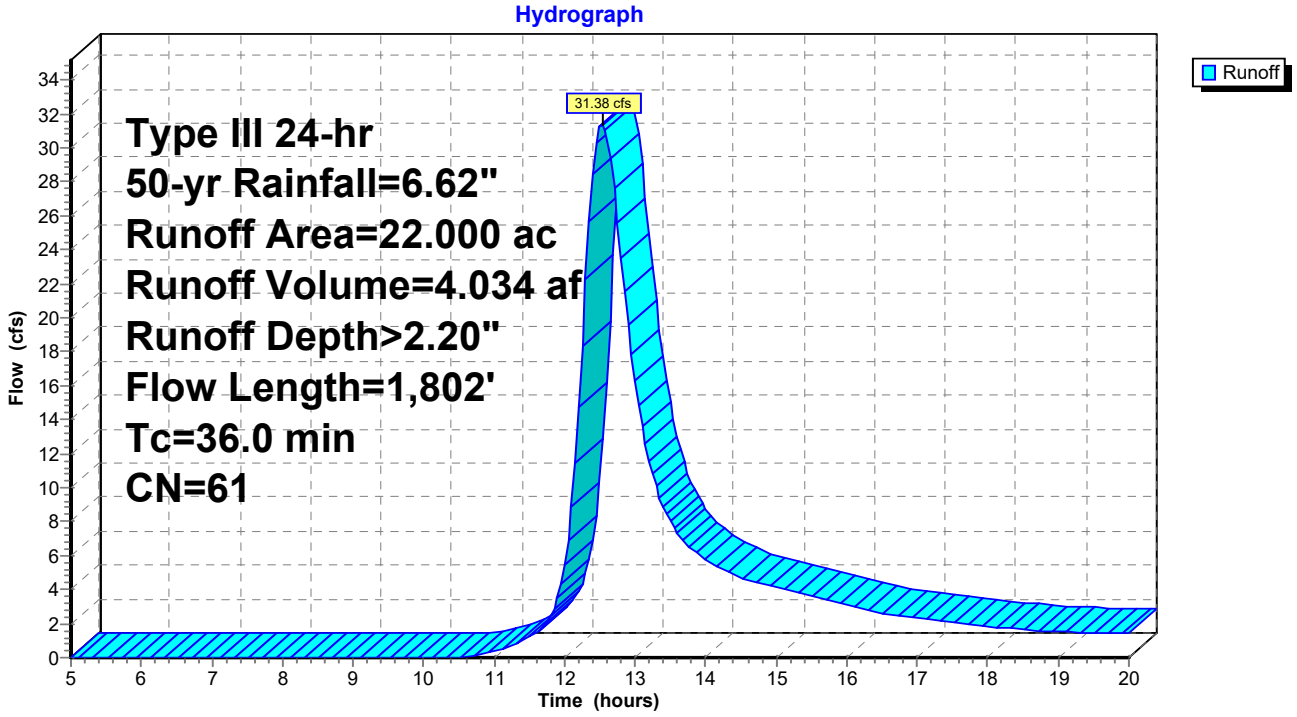
Runoff = 31.38 cfs @ 12.53 hrs, Volume= 4.034 af, Depth> 2.20"
Routed to Reach SUB-2 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.580	98	Unconnected pavement, HSG A
18.290	61	>75% Grass cover, Good, HSG B
3.130	55	Woods, Good, HSG B
22.000	61	Weighted Average
21.420		97.36% Pervious Area
0.580		2.64% Impervious Area
0.580		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	50	0.0200	0.15		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
30.3	1,752	0.0190	0.96		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
36.0	1,802	Total			

Subcatchment A12: A12



Hydrograph for Subcatchment A12: A12

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.00
10.50	1.43	0.00	0.03
10.75	1.54	0.01	0.17
11.00	1.66	0.02	0.40
11.25	1.79	0.04	0.72
11.50	1.97	0.07	1.21
11.75	2.35	0.15	2.12
12.00	3.31	0.49	5.43
12.25	4.27	0.95	18.40
12.50	4.65	1.16	**31.23**
12.75	4.83	1.27	**25.56**
13.00	4.96	1.35	16.26
13.25	5.08	1.42	10.78
13.50	5.19	1.48	7.99
13.75	5.28	1.54	6.60
14.00	5.37	1.60	5.77
14.25	5.45	1.65	5.17
14.50	5.52	1.69	4.71
14.75	5.59	1.74	4.39
15.00	5.66	1.78	4.12
15.25	5.71	1.82	3.87
15.50	5.77	1.85	3.62
15.75	5.82	1.89	3.37
16.00	5.87	1.92	3.11
16.25	5.91	1.94	2.85
16.50	5.95	1.97	2.63
16.75	5.99	2.00	2.46
17.00	6.02	2.02	2.33
17.25	6.05	2.04	2.21
17.50	6.09	2.06	2.09
17.75	6.12	2.08	1.98
18.00	6.14	2.10	1.86
18.25	6.17	2.12	1.74
18.50	6.20	2.14	1.64
18.75	6.22	2.15	1.58
19.00	6.24	2.17	1.54
19.25	6.27	2.19	1.50
19.50	6.29	2.20	1.46
19.75	6.31	2.22	1.43
20.00	**6.34**	**2.23**	1.39

Summary for Subcatchment A2: A2

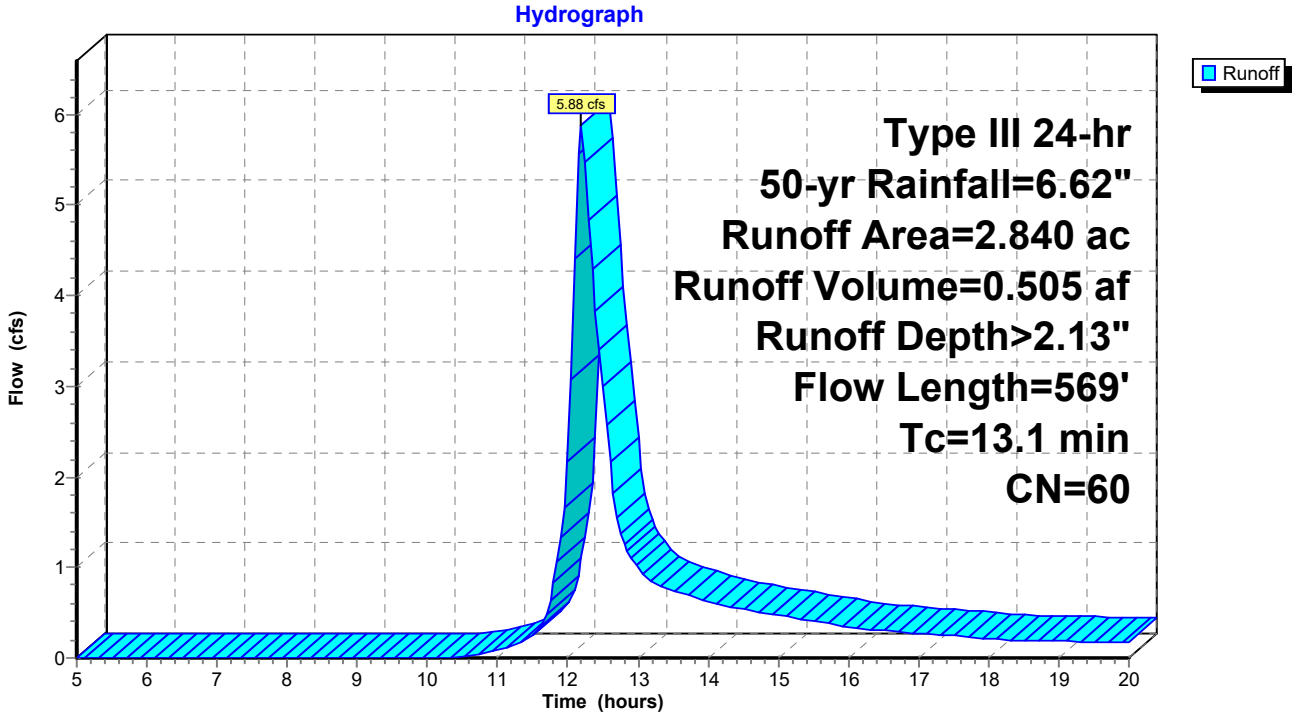
Runoff = 5.88 cfs @ 12.20 hrs, Volume= 0.505 af, Depth> 2.13"
Routed to Reach SUB-3 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.010	39	>75% Grass cover, Good, HSG A
0.010	30	Woods, Good, HSG A
2.470	61	>75% Grass cover, Good, HSG B
0.350	55	Woods, Good, HSG B
2.840	60	Weighted Average
2.840		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	50	0.0200	0.15		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
7.4	519	0.0280	1.17		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
13.1	569	Total			

Subcatchment A2: A2



Hydrograph for Subcatchment A2: A2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.00
10.50	1.43	0.00	0.01
10.75	1.54	0.01	0.04
11.00	1.66	0.01	0.08
11.25	1.79	0.03	0.15
11.50	1.97	0.06	0.26
11.75	2.35	0.13	0.63
12.00	3.31	0.45	**2.16**
12.25	4.27	0.90	**5.46**
12.50	4.65	1.10	2.99
12.75	4.83	1.20	1.38
13.00	4.96	1.28	1.00
13.25	5.08	1.35	0.81
13.50	5.19	1.41	0.74
13.75	5.28	1.47	0.68
14.00	5.37	1.52	0.62
14.25	5.45	1.57	0.57
14.50	5.52	1.62	0.53
14.75	5.59	1.66	0.50
15.00	5.66	1.70	0.47
15.25	5.71	1.74	0.44
15.50	5.77	1.77	0.41
15.75	5.82	1.80	0.38
16.00	5.87	1.83	0.35
16.25	5.91	1.86	0.32
16.50	5.95	1.89	0.30
16.75	5.99	1.91	0.29
17.00	6.02	1.94	0.27
17.25	6.05	1.96	0.26
17.50	6.09	1.98	0.24
17.75	6.12	2.00	0.23
18.00	6.14	2.02	0.21
18.25	6.17	2.03	0.20
18.50	6.20	2.05	0.20
18.75	6.22	2.07	0.19
19.00	6.24	2.08	0.19
19.25	6.27	2.10	0.18
19.50	6.29	2.11	0.18
19.75	6.31	2.13	0.17
20.00	**6.34**	**2.14**	0.17

Summary for Subcatchment A3: A3

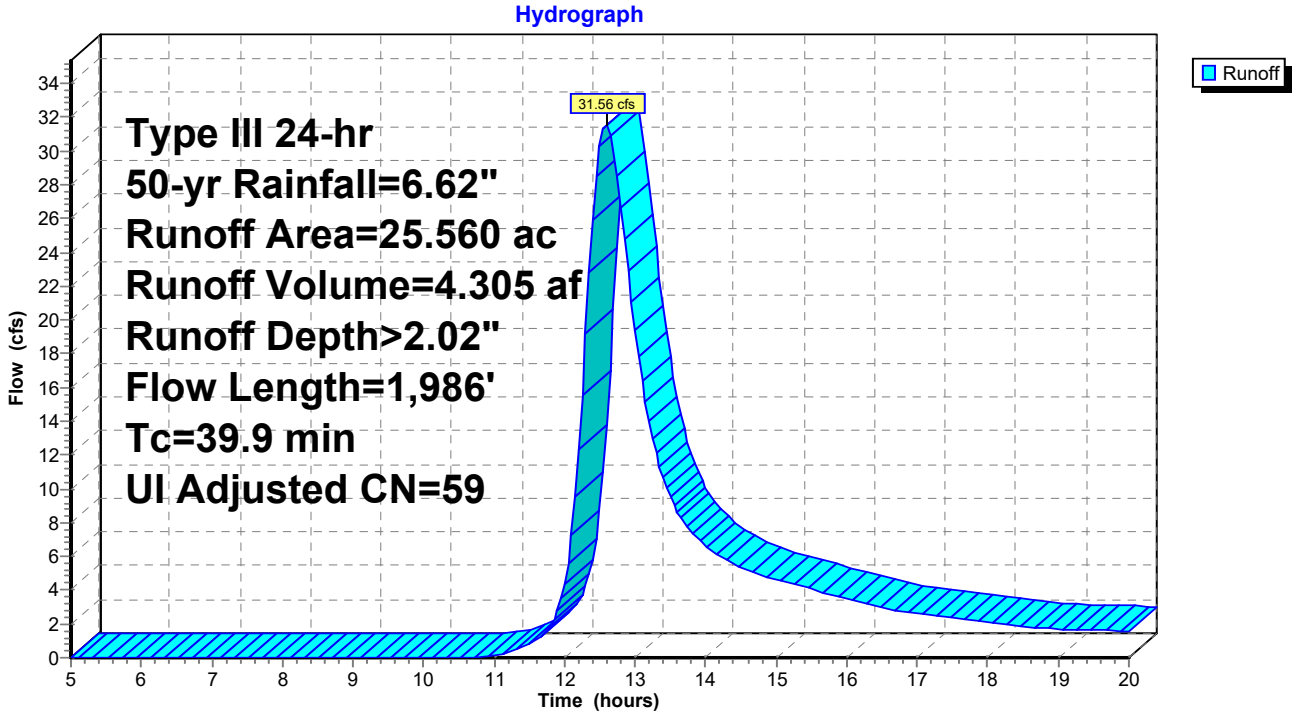
Runoff = 31.56 cfs @ 12.59 hrs, Volume= 4.305 af, Depth> 2.02"
Routed to Reach SUB-3 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Adj	Description
0.480	98		Unconnected pavement, HSG A
16.730	61		>75% Grass cover, Good, HSG B
8.300	55		Woods, Good, HSG B
0.050	77		Woods, Good, HSG D
25.560	60	59	Weighted Average, UI Adjusted
25.080			98.12% Pervious Area
0.480			1.88% Impervious Area
0.480			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.0360	0.18		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
6.1	586	0.0520	1.60		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
29.3	1,350	0.0120	0.77		**Shallow Concentrated Flow, scf-2** Short Grass Pasture Kv= 7.0 fps
39.9	1,986	Total			

Subcatchment A3: A3



Hydrograph for Subcatchment A3: A3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.00
10.50	1.43	0.00	0.00
10.75	1.54	0.00	0.02
11.00	1.66	0.01	0.14
11.25	1.79	0.02	0.40
11.50	1.97	0.05	0.83
11.75	2.35	0.12	1.64
12.00	3.31	0.42	4.39
12.25	4.27	0.84	15.56
12.50	4.65	1.04	**30.27**
12.75	4.83	1.14	**28.54**
13.00	4.96	1.21	19.36
13.25	5.08	1.28	12.98
13.50	5.19	1.34	9.51
13.75	5.28	1.40	7.68
14.00	5.37	1.45	6.64
14.25	5.45	1.50	5.88
14.50	5.52	1.54	5.32
14.75	5.59	1.58	4.93
15.00	5.66	1.62	4.62
15.25	5.71	1.66	4.34
15.50	5.77	1.69	4.07
15.75	5.82	1.72	3.79
16.00	5.87	1.75	3.51
16.25	5.91	1.78	3.22
16.50	5.95	1.81	2.97
16.75	5.99	1.83	2.77
17.00	6.02	1.85	2.62
17.25	6.05	1.87	2.49
17.50	6.09	1.89	2.35
17.75	6.12	1.91	2.22
18.00	6.14	1.93	2.09
18.25	6.17	1.95	1.96
18.50	6.20	1.96	1.85
18.75	6.22	1.98	1.77
19.00	6.24	2.00	1.72
19.25	6.27	2.01	1.68
19.50	6.29	2.03	1.63
19.75	6.31	2.04	1.60
20.00	**6.34**	**2.06**	1.56

Summary for Subcatchment A4: A4

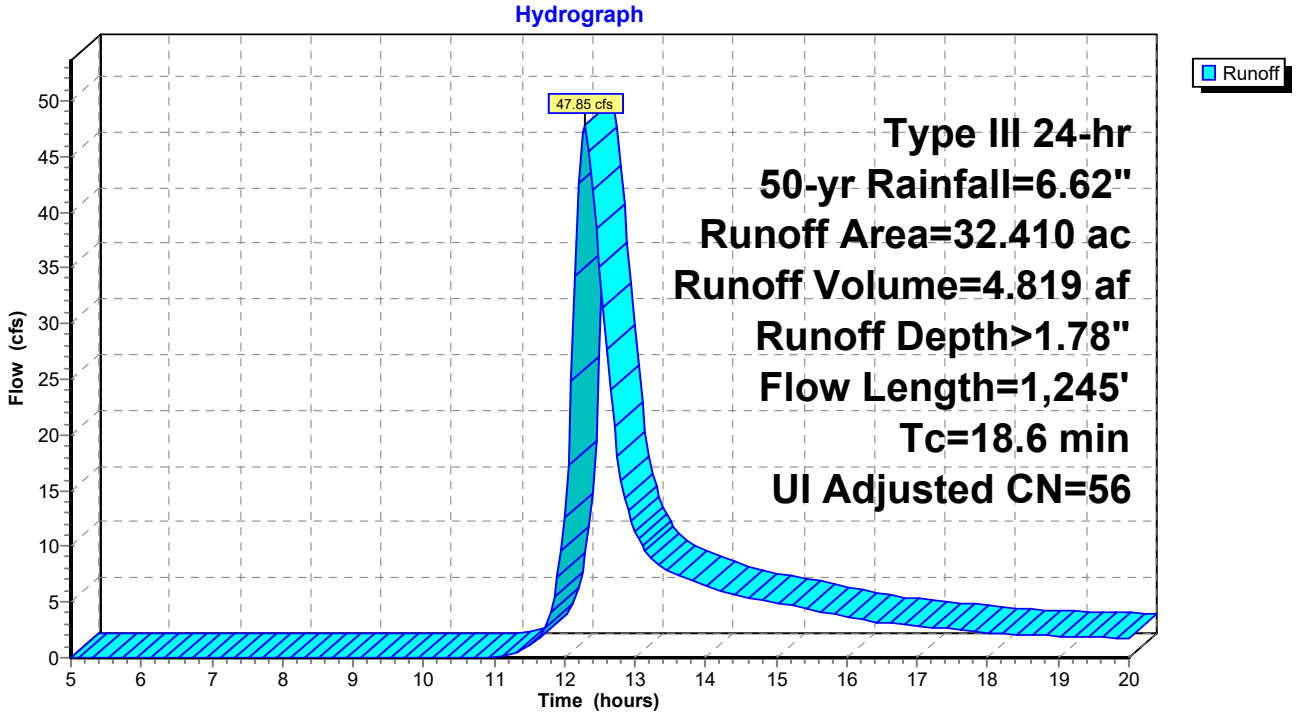
Runoff = 47.85 cfs @ 12.28 hrs, Volume= 4.819 af, Depth> 1.78"
Routed to Pond A4* : A4 Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Adj	Description
1.020	98		Unconnected pavement, HSG A
3.120	39		>75% Grass cover, Good, HSG A
3.710	30		Woods, Good, HSG A
22.820	61		>75% Grass cover, Good, HSG B
1.280	55		Woods, Good, HSG B
0.460	80		>75% Grass cover, Good, HSG D
32.410	57	56	Weighted Average, UI Adjusted
31.390			96.85% Pervious Area
1.020			3.15% Impervious Area
1.020			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	50	0.0460	0.20		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
2.1	158	0.0320	1.25		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
0.1	21	0.4760	4.83		**Shallow Concentrated Flow, scf-2** Short Grass Pasture Kv= 7.0 fps
11.6	888	0.0330	1.27		**Shallow Concentrated Flow, scf-3** Short Grass Pasture Kv= 7.0 fps
0.7	128	0.1880	3.04		**Shallow Concentrated Flow, scf-4** Short Grass Pasture Kv= 7.0 fps
18.6	1,245	Total			

Subcatchment A4: A4



Hydrograph for Subcatchment A4: A4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.00
10.50	1.43	0.00	0.00
10.75	1.54	0.00	0.00
11.00	1.66	0.00	0.02
11.25	1.79	0.01	0.32
11.50	1.97	0.02	1.06
11.75	2.35	0.07	3.02
12.00	3.31	0.31	12.57
12.25	4.27	0.69	**47.20**
12.50	4.65	0.87	**35.03**
12.75	4.83	0.95	18.03
13.00	4.96	1.02	11.39
13.25	5.08	1.08	8.74
13.50	5.19	1.14	7.71
13.75	5.28	1.19	7.09
14.00	5.37	1.24	6.50
14.25	5.45	1.28	5.92
14.50	5.52	1.32	5.56
14.75	5.59	1.36	5.26
15.00	5.66	1.40	4.96
15.25	5.71	1.43	4.65
15.50	5.77	1.46	4.33
15.75	5.82	1.49	4.00
16.00	5.87	1.52	3.67
16.25	5.91	1.54	3.35
16.50	5.95	1.57	3.16
16.75	5.99	1.59	3.01
17.00	6.02	1.61	2.86
17.25	6.05	1.63	2.71
17.50	6.09	1.65	2.56
17.75	6.12	1.67	2.41
18.00	6.14	1.68	2.26
18.25	6.17	1.70	2.12
18.50	6.20	1.71	2.05
18.75	6.22	1.73	2.00
19.00	6.24	1.74	1.95
19.25	6.27	1.76	1.91
19.50	6.29	1.77	1.87
19.75	6.31	1.78	1.82
20.00	**6.34**	**1.80**	1.78

Summary for Subcatchment A5: A5

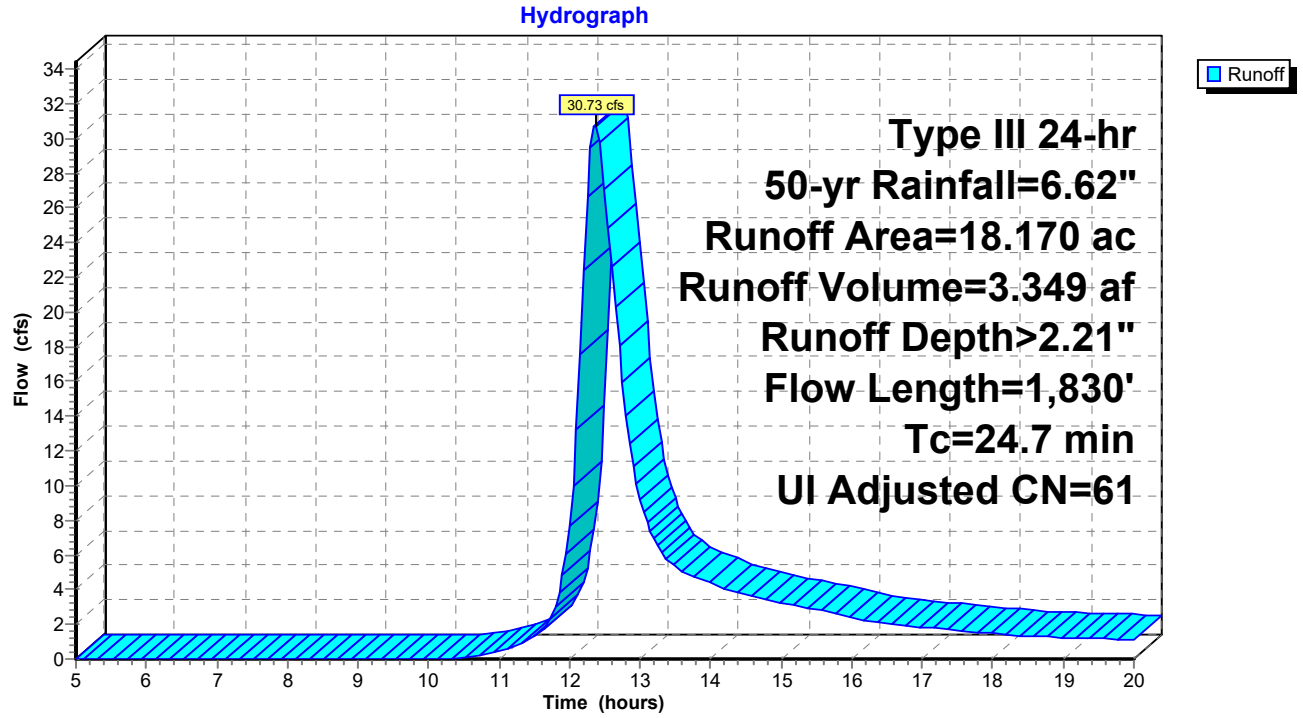
Runoff = 30.73 cfs @ 12.37 hrs, Volume= 3.349 af, Depth> 2.21"
Routed to Pond A5* : A5 Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Adj	Description
0.530	98		Unconnected pavement, HSG A
16.500	61		>75% Grass cover, Good, HSG B
1.080	55		Woods, Good, HSG B
0.060	80		>75% Grass cover, Good, HSG D
18.170	62	61	Weighted Average, UI Adjusted
17.640			97.08% Pervious Area
0.530			2.92% Impervious Area
0.530			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0	50	0.1000	0.28		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
21.7	1,780	0.0380	1.36		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
24.7	1,830	Total			

Subcatchment A5: A5



Hydrograph for Subcatchment A5: A5

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.00
10.50	1.43	0.00	0.07
10.75	1.54	0.01	0.24
11.00	1.66	0.02	0.49
11.25	1.79	0.04	0.81
11.50	1.97	0.07	1.35
11.75	2.35	0.15	2.52
12.00	3.31	0.49	7.69
12.25	4.27	0.95	**26.65**
12.50	4.65	1.16	**27.07**
12.75	4.83	1.27	15.92
13.00	4.96	1.35	9.22
13.25	5.08	1.42	6.54
13.50	5.19	1.48	5.33
13.75	5.28	1.54	4.78
14.00	5.37	1.60	4.36
14.25	5.45	1.65	3.96
14.50	5.52	1.69	3.67
14.75	5.59	1.74	3.46
15.00	5.66	1.78	3.26
15.25	5.71	1.82	3.05
15.50	5.77	1.85	2.85
15.75	5.82	1.89	2.63
16.00	5.87	1.92	2.42
16.25	5.91	1.94	2.21
16.50	5.95	1.97	2.06
16.75	5.99	2.00	1.95
17.00	6.02	2.02	1.85
17.25	6.05	2.04	1.76
17.50	6.09	2.06	1.66
17.75	6.12	2.08	1.56
18.00	6.14	2.10	1.47
18.25	6.17	2.12	1.37
18.50	6.20	2.14	1.31
18.75	6.22	2.15	1.28
19.00	6.24	2.17	1.25
19.25	6.27	2.19	1.22
19.50	6.29	2.20	1.19
19.75	6.31	2.22	1.16
20.00	**6.34**	**2.23**	1.13

Summary for Subcatchment A6: A6

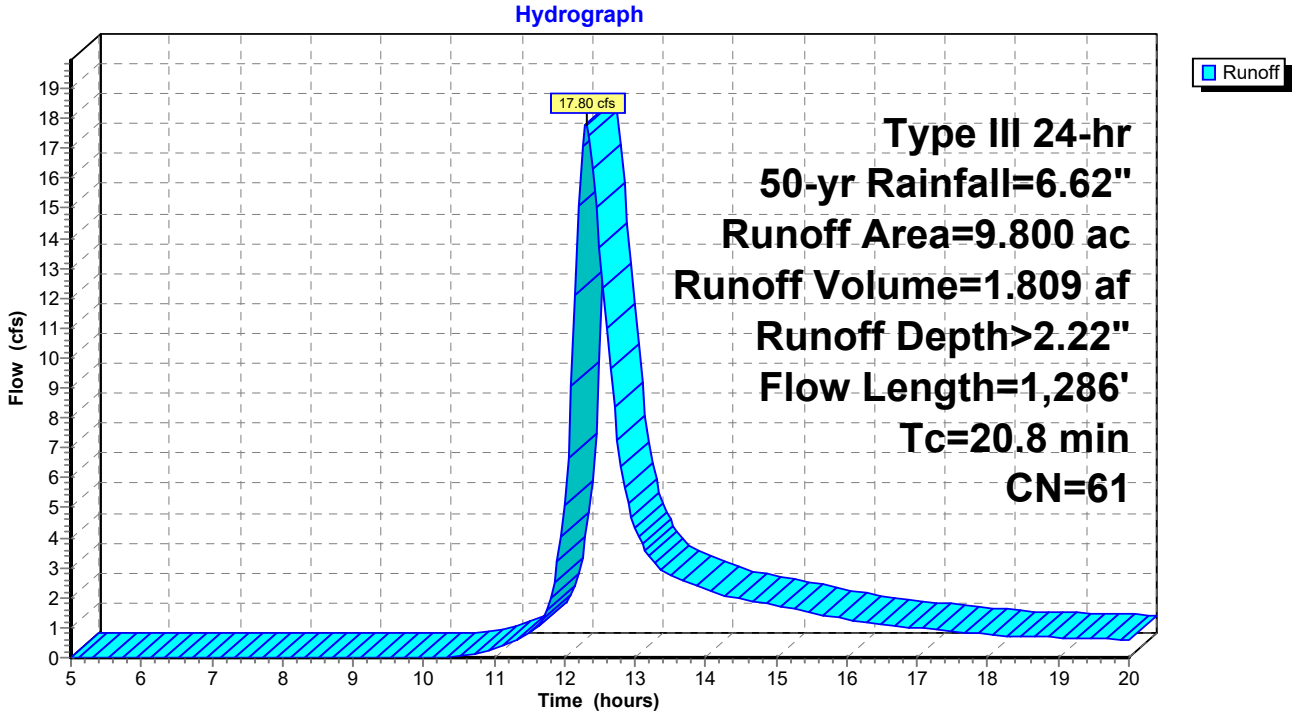
Runoff = 17.80 cfs @ 12.31 hrs, Volume= 1.809 af, Depth> 2.22"
Routed to Reach SUB-3 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.300	98	Unconnected pavement, HSG A
8.150	61	>75% Grass cover, Good, HSG B
1.350	55	Woods, Good, HSG B
9.800	61	Weighted Average
9.500		96.94% Pervious Area
0.300		3.06% Impervious Area
0.300		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	50	0.0260	0.16		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
15.7	1,236	0.0350	1.31		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
20.8	1,286	Total			

Subcatchment A6: A6



Hydrograph for Subcatchment A6: A6

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.00
10.50	1.43	0.00	0.05
10.75	1.54	0.01	0.16
11.00	1.66	0.02	0.30
11.25	1.79	0.04	0.48
11.50	1.97	0.07	0.81
11.75	2.35	0.15	1.59
12.00	3.31	0.49	5.11
12.25	4.27	0.95	**17.07**
12.50	4.65	1.16	**13.68**
12.75	4.83	1.27	7.26
13.00	4.96	1.35	4.35
13.25	5.08	1.42	3.21
13.50	5.19	1.48	2.76
13.75	5.28	1.54	2.52
14.00	5.37	1.60	2.30
14.25	5.45	1.65	2.09
14.50	5.52	1.69	1.95
14.75	5.59	1.74	1.84
15.00	5.66	1.78	1.73
15.25	5.71	1.82	1.62
15.50	5.77	1.85	1.51
15.75	5.82	1.89	1.39
16.00	5.87	1.92	1.28
16.25	5.91	1.94	1.16
16.50	5.95	1.97	1.09
16.75	5.99	2.00	1.04
17.00	6.02	2.02	0.99
17.25	6.05	2.04	0.94
17.50	6.09	2.06	0.88
17.75	6.12	2.08	0.83
18.00	6.14	2.10	0.78
18.25	6.17	2.12	0.73
18.50	6.20	2.14	0.70
18.75	6.22	2.15	0.68
19.00	6.24	2.17	0.67
19.25	6.27	2.19	0.65
19.50	6.29	2.20	0.64
19.75	6.31	2.22	0.62
20.00	**6.34**	**2.23**	0.61

Summary for Subcatchment A7: A7

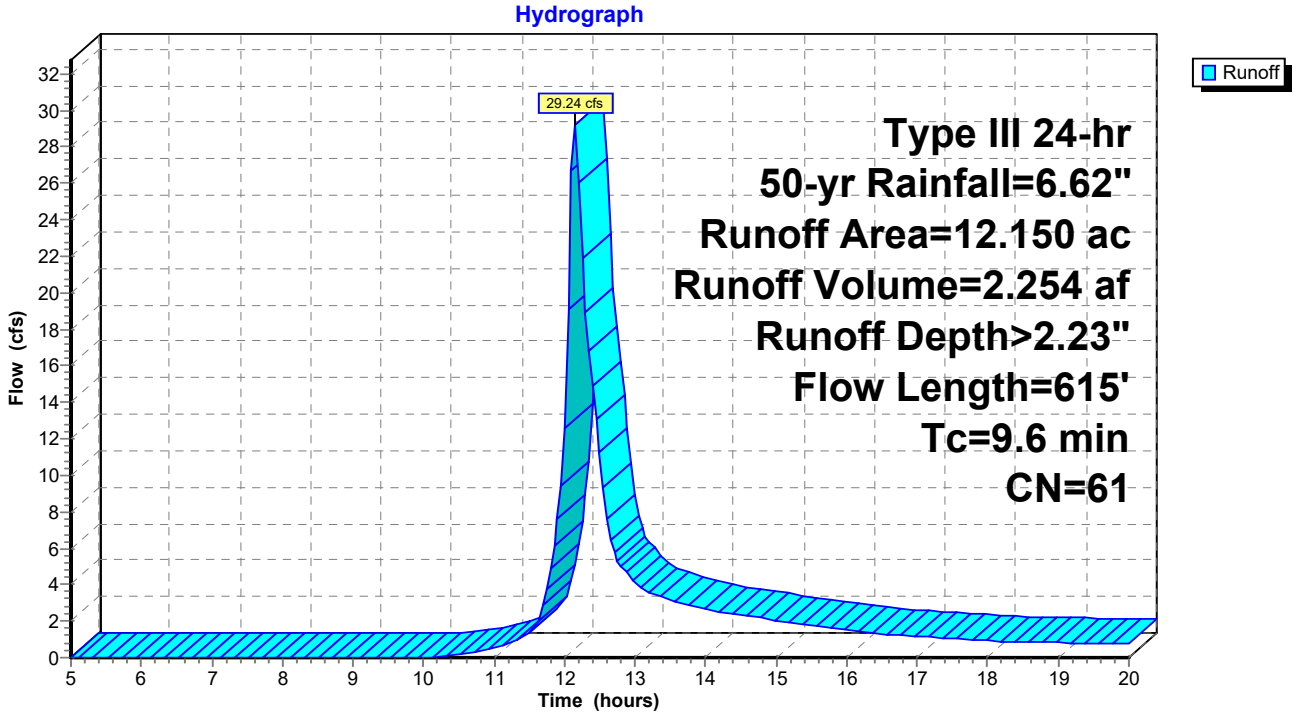
Runoff = 29.24 cfs @ 12.15 hrs, Volume= 2.254 af, Depth> 2.23"
Routed to Reach SUB-2 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.470	98	Unconnected pavement, HSG A
9.790	61	>75% Grass cover, Good, HSG B
1.890	55	Woods, Good, HSG B
12.150	61	Weighted Average
11.680		96.13% Pervious Area
0.470		3.87% Impervious Area
0.470		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	50	0.0800	0.25		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
6.3	565	0.0450	1.48		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
9.6	615	Total			

Subcatchment A7: A7



Hydrograph for Subcatchment A7: A7

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.02
10.50	1.43	0.00	0.14
10.75	1.54	0.01	0.30
11.00	1.66	0.02	0.50
11.25	1.79	0.04	0.82
11.50	1.97	0.07	1.38
11.75	2.35	0.15	3.77
12.00	3.31	0.49	**12.60**
12.25	4.27	0.95	**21.91**
12.50	4.65	1.16	11.20
12.75	4.83	1.27	5.33
13.00	4.96	1.35	4.15
13.25	5.08	1.42	3.46
13.50	5.19	1.48	3.19
13.75	5.28	1.54	2.93
14.00	5.37	1.60	2.66
14.25	5.45	1.65	2.45
14.50	5.52	1.69	2.32
14.75	5.59	1.74	2.19
15.00	5.66	1.78	2.05
15.25	5.71	1.82	1.91
15.50	5.77	1.85	1.77
15.75	5.82	1.89	1.63
16.00	5.87	1.92	1.48
16.25	5.91	1.94	1.37
16.50	5.95	1.97	1.31
16.75	5.99	2.00	1.24
17.00	6.02	2.02	1.18
17.25	6.05	2.04	1.12
17.50	6.09	2.06	1.05
17.75	6.12	2.08	0.98
18.00	6.14	2.10	0.92
18.25	6.17	2.12	0.87
18.50	6.20	2.14	0.85
18.75	6.22	2.15	0.83
19.00	6.24	2.17	0.81
19.25	6.27	2.19	0.80
19.50	6.29	2.20	0.78
19.75	6.31	2.22	0.76
20.00	**6.34**	**2.23**	0.74

Summary for Subcatchment A8: A8

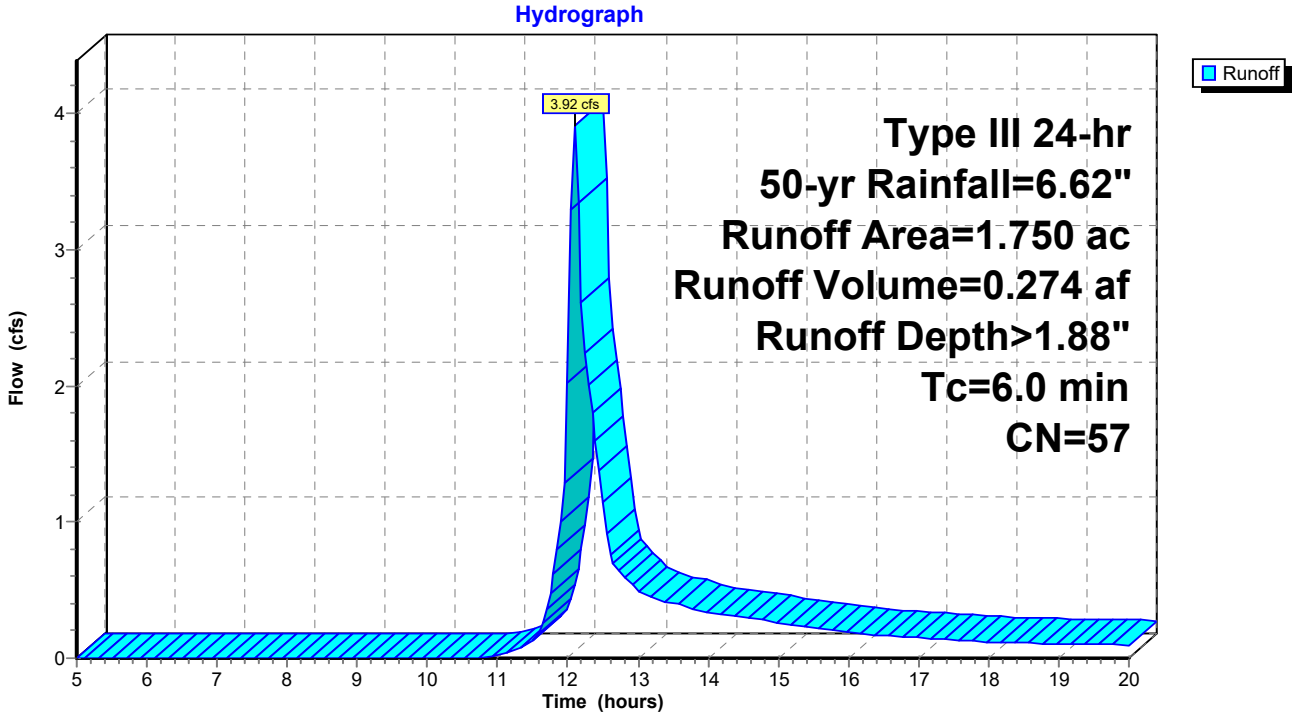
Runoff = 3.92 cfs @ 12.10 hrs, Volume= 0.274 af, Depth> 1.88"
Routed to Reach SUB-3 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.440	61	>75% Grass cover, Good, HSG B
1.310	55	Woods, Good, HSG B
1.750	57	Weighted Average
1.750		100.00% Pervious Area

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

Subcatchment A8: A8



Hydrograph for Subcatchment A8: A8

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.00
10.50	1.43	0.00	0.00
10.75	1.54	0.00	0.00
11.00	1.66	0.00	0.02
11.25	1.79	0.01	0.06
11.50	1.97	0.03	0.13
11.75	2.35	0.08	0.48
12.00	3.31	0.35	**2.03**
12.25	4.27	0.74	**2.24**
12.50	4.65	0.92	1.15
12.75	4.83	1.01	0.63
13.00	4.96	1.09	0.50
13.25	5.08	1.15	0.43
13.50	5.19	1.21	0.40
13.75	5.28	1.26	0.37
14.00	5.37	1.31	0.34
14.25	5.45	1.35	0.31
14.50	5.52	1.39	0.30
14.75	5.59	1.43	0.28
15.00	5.66	1.47	0.26
15.25	5.71	1.51	0.24
15.50	5.77	1.54	0.23
15.75	5.82	1.57	0.21
16.00	5.87	1.59	0.19
16.25	5.91	1.62	0.18
16.50	5.95	1.64	0.17
16.75	5.99	1.67	0.16
17.00	6.02	1.69	0.15
17.25	6.05	1.71	0.14
17.50	6.09	1.73	0.14
17.75	6.12	1.75	0.13
18.00	6.14	1.76	0.12
18.25	6.17	1.78	0.11
18.50	6.20	1.80	0.11
18.75	6.22	1.81	0.11
19.00	6.24	1.83	0.11
19.25	6.27	1.84	0.10
19.50	6.29	1.86	0.10
19.75	6.31	1.87	0.10
20.00	**6.34**	**1.88**	0.10

Summary for Subcatchment A9: A9

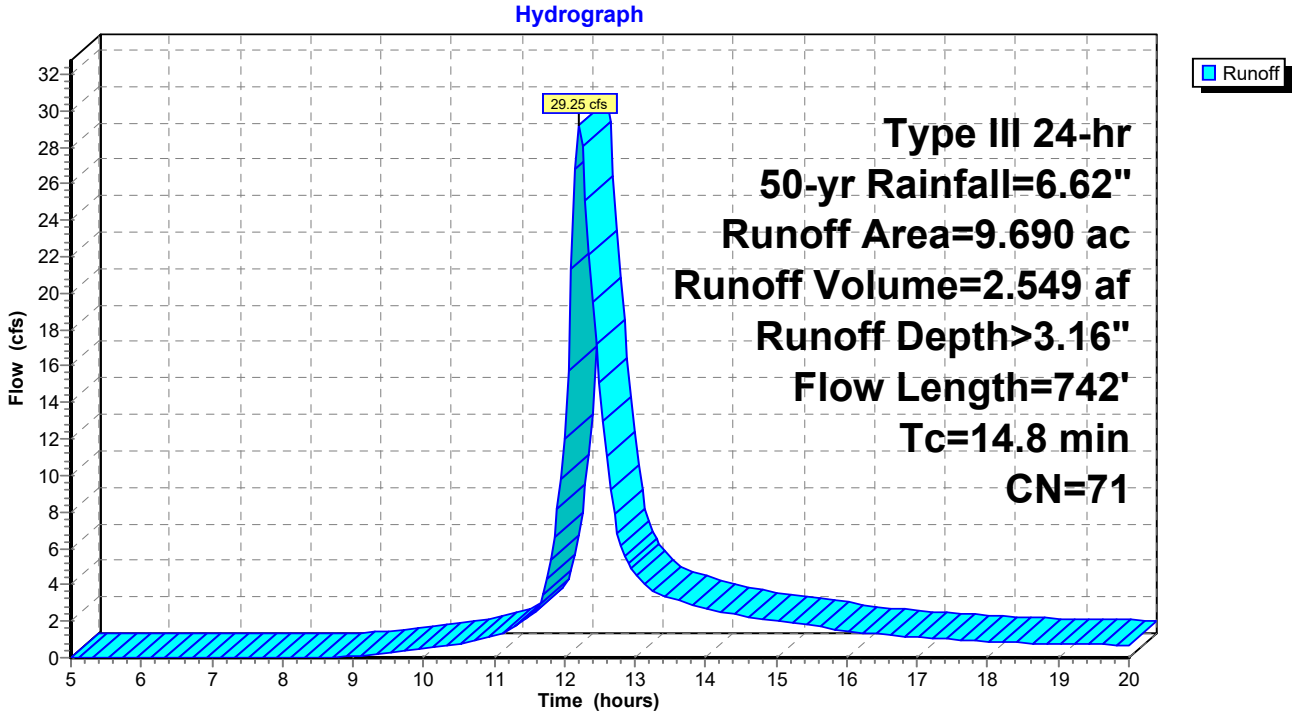
Runoff = 29.25 cfs @ 12.21 hrs, Volume= 2.549 af, Depth> 3.16"
Routed to Reach SUB-3 : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
3.400	98	Unconnected pavement, HSG A
0.340	39	>75% Grass cover, Good, HSG A
0.260	30	Woods, Good, HSG A
4.080	61	>75% Grass cover, Good, HSG B
1.610	55	Woods, Good, HSG B
9.690	71	Weighted Average
6.290		64.91% Pervious Area
3.400		35.09% Impervious Area
3.400		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	50	0.0180	0.14		**Sheet Flow, SF-1** Grass: Short n= 0.150 P2= 3.11"
8.8	692	0.0350	1.31		**Shallow Concentrated Flow, SCF-1** Short Grass Pasture Kv= 7.0 fps
14.8	742	Total			

Subcatchment A9: A9



Hydrograph for Subcatchment A9: A9

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.04
9.00	0.96	0.01	0.10
9.25	1.03	0.01	0.17
9.50	1.10	0.02	0.26
9.75	1.17	0.03	0.36
10.00	1.25	0.04	0.47
10.25	1.34	0.06	0.60
10.50	1.43	0.08	0.78
10.75	1.54	0.11	0.99
11.00	1.66	0.14	1.23
11.25	1.79	0.19	1.58
11.50	1.97	0.25	2.25
11.75	2.35	0.42	4.33
12.00	3.31	0.94	**11.97**
12.25	4.27	1.58	**28.04**
12.50	4.65	1.85	15.08
12.75	4.83	1.99	6.82
13.00	4.96	2.09	4.62
13.25	5.08	2.18	3.65
13.50	5.19	2.26	3.28
13.75	5.28	2.33	3.00
14.00	5.37	2.40	2.72
14.25	5.45	2.46	2.47
14.50	5.52	2.52	2.32
14.75	5.59	2.57	2.18
15.00	5.66	2.62	2.04
15.25	5.71	2.67	1.91
15.50	5.77	2.71	1.76
15.75	5.82	2.75	1.62
16.00	5.87	2.79	1.48
16.25	5.91	2.82	1.35
16.50	5.95	2.86	1.28
16.75	5.99	2.89	1.22
17.00	6.02	2.92	1.15
17.25	6.05	2.94	1.09
17.50	6.09	2.97	1.03
17.75	6.12	2.99	0.96
18.00	6.14	3.01	0.90
18.25	6.17	3.04	0.84
18.50	6.20	3.06	0.82
18.75	6.22	3.08	0.80
19.00	6.24	3.10	0.78
19.25	6.27	3.12	0.76
19.50	6.29	3.14	0.74
19.75	6.31	3.15	0.73
20.00	**6.34**	**3.17**	0.71

Summary for Subcatchment B1: B1

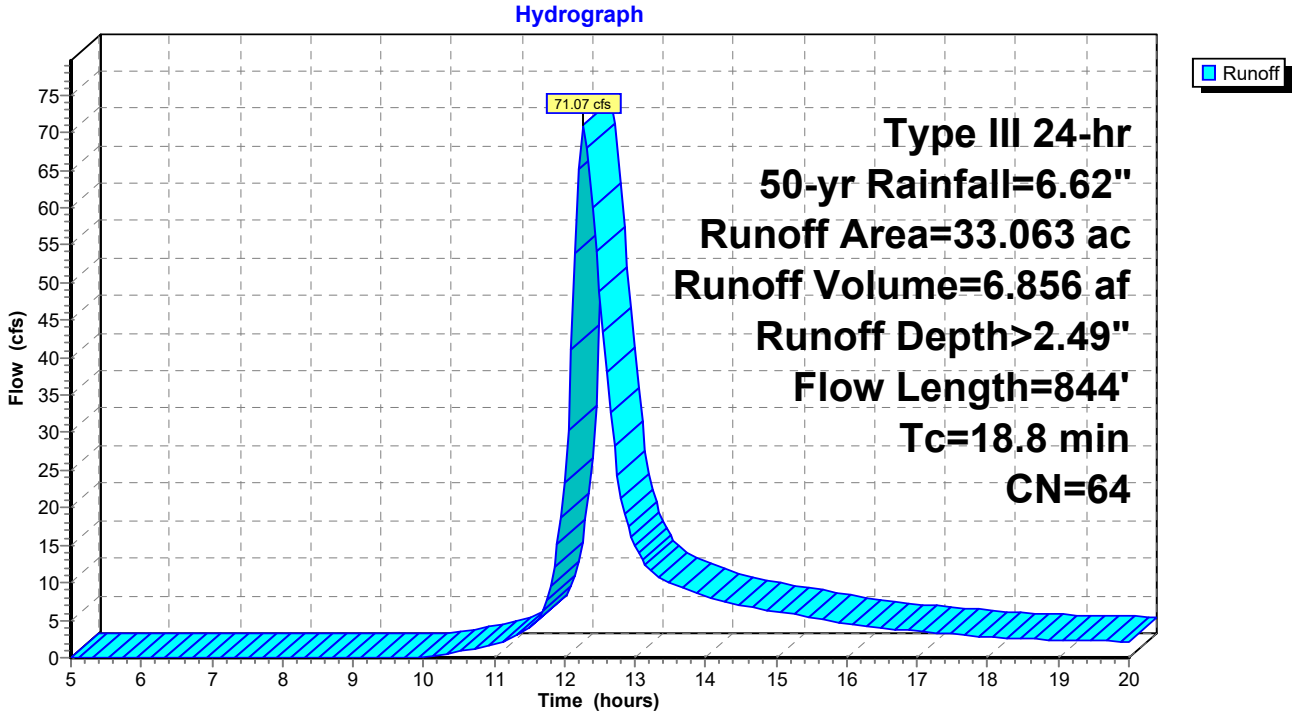
Runoff = 71.07 cfs @ 12.27 hrs, Volume= 6.856 af, Depth> 2.49"
Routed to Reach 22R : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.090	98	Paved parking, HSG A
0.300	39	>75% Grass cover, Good, HSG A
0.160	30	Woods, Good, HSG A
6.657	61	>75% Grass cover, Good, HSG B
13.760	55	Woods, Good, HSG B
0.800	80	>75% Grass cover, Good, HSG D
9.340	77	Woods, Good, HSG D
0.252	61	>75% Grass cover, Good, HSG B
0.124	80	>75% Grass cover, Good, HSG D
0.357	55	Woods, Good, HSG B
0.153	77	Woods, Good, HSG D
0.168	85	Gravel roads, HSG B
0.369	98	Water Surface, HSG B
0.064	48	Brush, Good, HSG B
0.469	98	Paved parking, HSG A
33.063	64	Weighted Average
32.135		97.19% Pervious Area
0.928		2.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	50	0.0100	0.11		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
11.3	794	0.0280	1.17		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
18.8	844	Total			

Subcatchment B1: B1



Hydrograph for Subcatchment B1: B1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.01
10.00	1.25	0.00	0.15
10.25	1.34	0.01	0.43
10.50	1.43	0.02	0.81
10.75	1.54	0.03	1.29
11.00	1.66	0.05	1.87
11.25	1.79	0.07	2.64
11.50	1.97	0.11	4.07
11.75	2.35	0.22	7.70
12.00	3.31	0.61	23.36
12.25	4.27	1.13	**70.53**
12.50	4.65	1.36	48.80
12.75	4.83	1.47	24.32
13.00	4.96	1.56	14.97
13.25	5.08	1.63	11.32
13.50	5.19	1.70	9.90
13.75	5.28	1.77	9.05
14.00	5.37	1.82	8.25
14.25	5.45	1.88	7.49
14.50	5.52	1.93	7.00
14.75	5.59	1.98	6.60
15.00	5.66	2.02	6.21
15.25	5.71	2.06	5.80
15.50	5.77	2.10	5.39
15.75	5.82	2.14	4.97
16.00	5.87	2.17	4.55
16.25	5.91	2.20	4.15
16.50	5.95	2.23	3.91
16.75	5.99	2.25	3.71
17.00	6.02	2.28	3.53
17.25	6.05	2.30	3.34
17.50	6.09	2.33	3.15
17.75	6.12	2.35	2.96
18.00	6.14	2.37	2.77
18.25	6.17	2.39	2.59
18.50	6.20	2.40	2.50
18.75	6.22	2.42	2.44
19.00	6.24	2.44	2.39
19.25	6.27	2.46	2.33
19.50	6.29	2.47	2.28
19.75	6.31	2.49	2.22
20.00	**6.34**	**2.51**	2.16

Summary for Subcatchment B10: B10

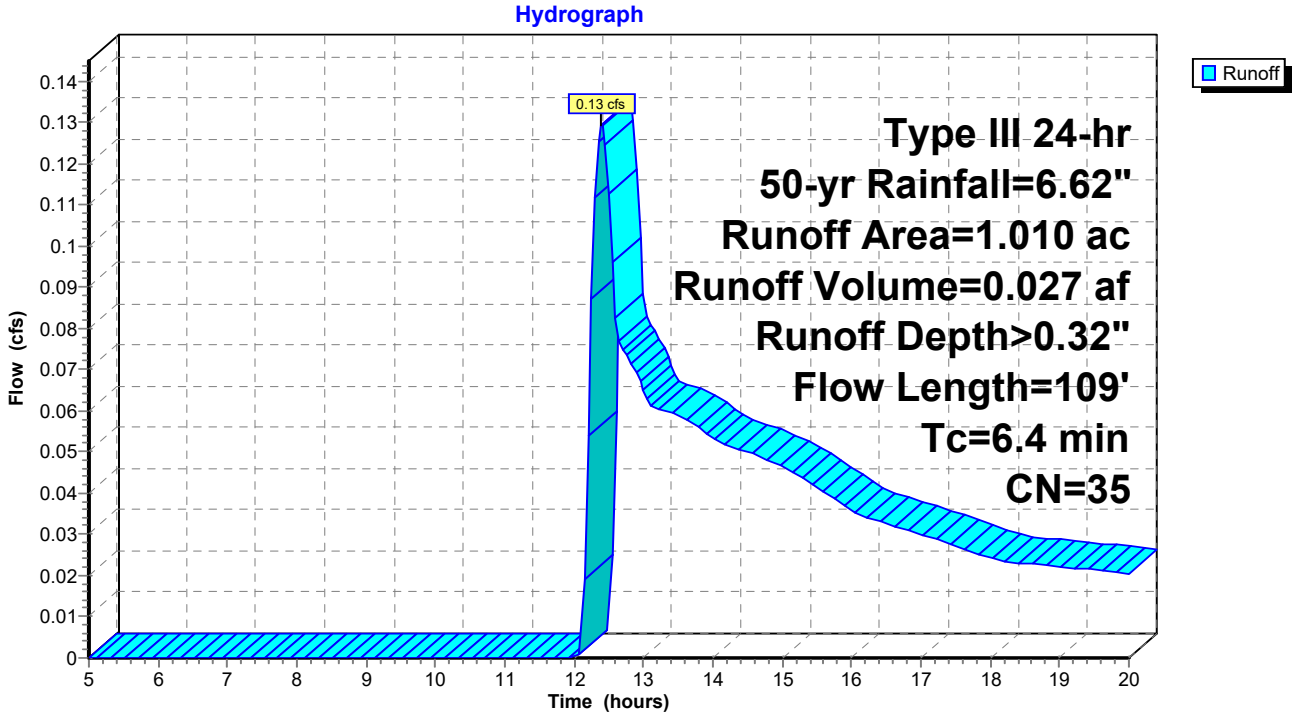
Runoff = 0.13 cfs @ 12.40 hrs, Volume= 0.027 af, Depth> 0.32"
Routed to Reach 21R : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.250	39	>75% Grass cover, Good, HSG A
0.640	30	Woods, Good, HSG A
0.030	61	>75% Grass cover, Good, HSG B
0.090	55	Woods, Good, HSG B
1.010	35	Weighted Average
1.010		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	50	0.0180	0.14		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
0.4	59	0.1610	2.81		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
6.4	109	Total			

Subcatchment B10: B10



Hydrograph for Subcatchment B10: B10

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.00
10.50	1.43	0.00	0.00
10.75	1.54	0.00	0.00
11.00	1.66	0.00	0.00
11.25	1.79	0.00	0.00
11.50	1.97	0.00	0.00
11.75	2.35	0.00	0.00
12.00	3.31	0.00	0.00
12.25	4.27	0.02	**0.09**
12.50	4.65	0.04	**0.11**
12.75	4.83	0.06	0.07
13.00	4.96	0.08	0.07
13.25	5.08	0.09	0.06
13.50	5.19	0.11	0.06
13.75	5.28	0.12	0.06
14.00	5.37	0.14	0.05
14.25	5.45	0.15	0.05
14.50	5.52	0.16	0.05
14.75	5.59	0.17	0.05
15.00	5.66	0.18	0.05
15.25	5.71	0.19	0.04
15.50	5.77	0.20	0.04
15.75	5.82	0.21	0.04
16.00	5.87	0.22	0.04
16.25	5.91	0.23	0.03
16.50	5.95	0.24	0.03
16.75	5.99	0.25	0.03
17.00	6.02	0.25	0.03
17.25	6.05	0.26	0.03
17.50	6.09	0.27	0.03
17.75	6.12	0.27	0.03
18.00	6.14	0.28	0.02
18.25	6.17	0.29	0.02
18.50	6.20	0.29	0.02
18.75	6.22	0.30	0.02
19.00	6.24	0.30	0.02
19.25	6.27	0.31	0.02
19.50	6.29	0.31	0.02
19.75	6.31	0.32	0.02
20.00	**6.34**	**0.32**	0.02

Summary for Subcatchment B11: B11

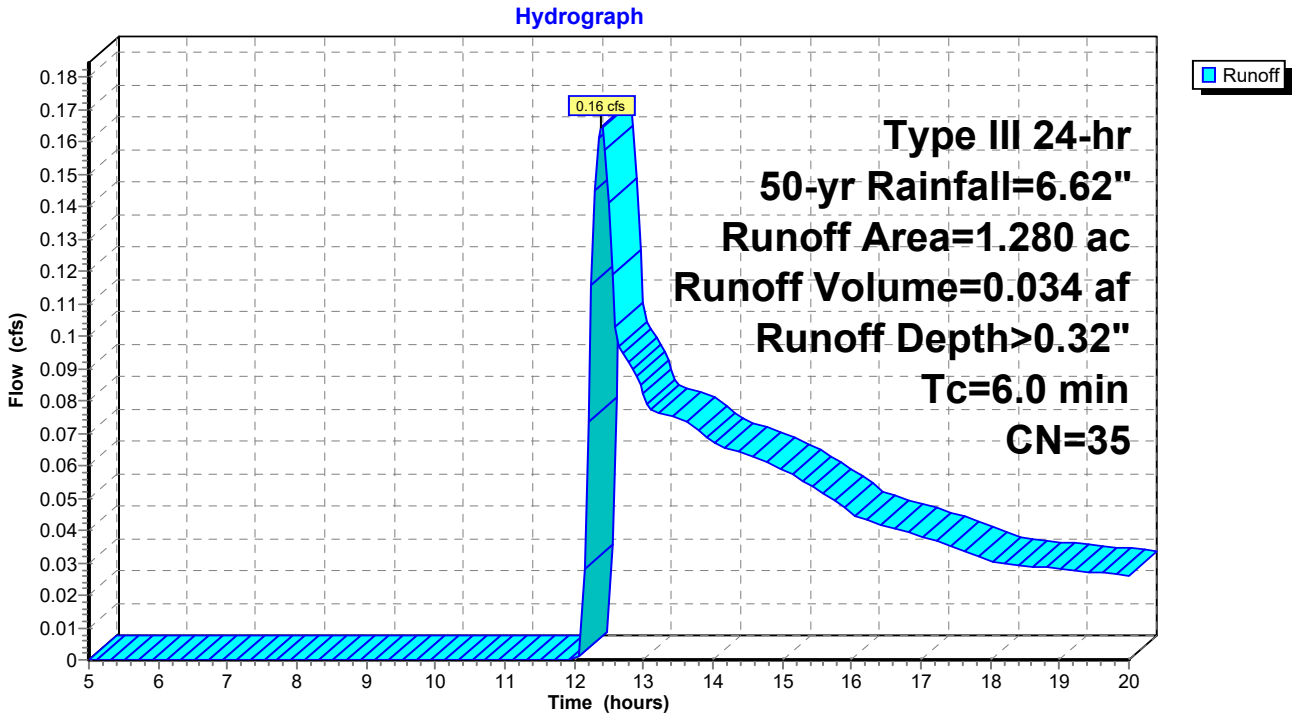
Runoff = 0.16 cfs @ 12.39 hrs, Volume= 0.034 af, Depth> 0.32"
Routed to Reach 21R : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.180	39	>75% Grass cover, Good, HSG A
0.920	30	Woods, Good, HSG A
0.150	61	>75% Grass cover, Good, HSG B
0.030	55	Woods, Good, HSG B
1.280	35	Weighted Average
1.280		100.00% Pervious Area

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

Subcatchment B11: B11



Hydrograph for Subcatchment B11: B11

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.00
10.50	1.43	0.00	0.00
10.75	1.54	0.00	0.00
11.00	1.66	0.00	0.00
11.25	1.79	0.00	0.00
11.50	1.97	0.00	0.00
11.75	2.35	0.00	0.00
12.00	3.31	0.00	0.00
12.25	4.27	0.02	**0.12**
12.50	4.65	0.04	**0.14**
12.75	4.83	0.06	0.09
13.00	4.96	0.08	0.08
13.25	5.08	0.09	0.08
13.50	5.19	0.11	0.07
13.75	5.28	0.12	0.07
14.00	5.37	0.14	0.07
14.25	5.45	0.15	0.06
14.50	5.52	0.16	0.06
14.75	5.59	0.17	0.06
15.00	5.66	0.18	0.06
15.25	5.71	0.19	0.06
15.50	5.77	0.20	0.05
15.75	5.82	0.21	0.05
16.00	5.87	0.22	0.05
16.25	5.91	0.23	0.04
16.50	5.95	0.24	0.04
16.75	5.99	0.25	0.04
17.00	6.02	0.25	0.04
17.25	6.05	0.26	0.04
17.50	6.09	0.27	0.03
17.75	6.12	0.27	0.03
18.00	6.14	0.28	0.03
18.25	6.17	0.29	0.03
18.50	6.20	0.29	0.03
18.75	6.22	0.30	0.03
19.00	6.24	0.30	0.03
19.25	6.27	0.31	0.03
19.50	6.29	0.31	0.03
19.75	6.31	0.32	0.03
20.00	**6.34**	**0.32**	0.03

Summary for Subcatchment B12: B12

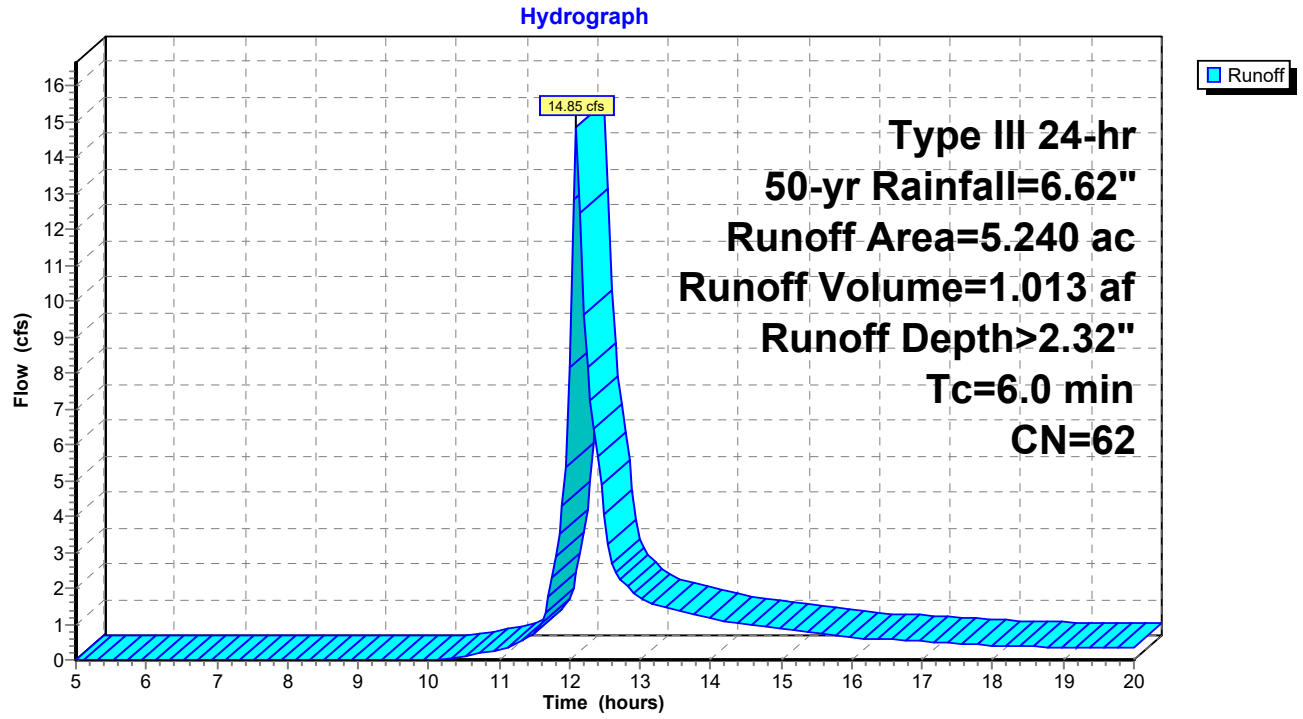
Runoff = 14.85 cfs @ 12.10 hrs, Volume= 1.013 af, Depth> 2.32"
Routed to Pond B12* : B12 Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.190	98	Paved parking, HSG A
4.590	61	>75% Grass cover, Good, HSG B
0.460	55	Woods, Good, HSG B
5.240	62	Weighted Average
5.050		96.37% Pervious Area
0.190		3.63% Impervious Area

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

Subcatchment B12: B12



Hydrograph for Subcatchment B12: B12

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.05
10.50	1.43	0.01	0.11
10.75	1.54	0.02	0.19
11.00	1.66	0.03	0.28
11.25	1.79	0.05	0.46
11.50	1.97	0.08	0.73
11.75	2.35	0.17	2.27
12.00	3.31	0.53	**8.15**
12.25	4.27	1.01	**8.14**
12.50	4.65	1.23	4.05
12.75	4.83	1.33	2.19
13.00	4.96	1.42	1.74
13.25	5.08	1.49	1.50
13.50	5.19	1.55	1.39
13.75	5.28	1.62	1.27
14.00	5.37	1.67	1.15
14.25	5.45	1.72	1.07
14.50	5.52	1.77	1.01
14.75	5.59	1.82	0.95
15.00	5.66	1.86	0.89
15.25	5.71	1.90	0.83
15.50	5.77	1.93	0.77
15.75	5.82	1.97	0.70
16.00	5.87	2.00	0.64
16.25	5.91	2.03	0.60
16.50	5.95	2.05	0.57
16.75	5.99	2.08	0.54
17.00	6.02	2.10	0.51
17.25	6.05	2.13	0.49
17.50	6.09	2.15	0.46
17.75	6.12	2.17	0.43
18.00	6.14	2.19	0.40
18.25	6.17	2.21	0.38
18.50	6.20	2.22	0.37
18.75	6.22	2.24	0.37
19.00	6.24	2.26	0.36
19.25	6.27	2.28	0.35
19.50	6.29	2.29	0.34
19.75	6.31	2.31	0.33
20.00	**6.34**	**2.32**	0.32

Summary for Subcatchment B13: B13

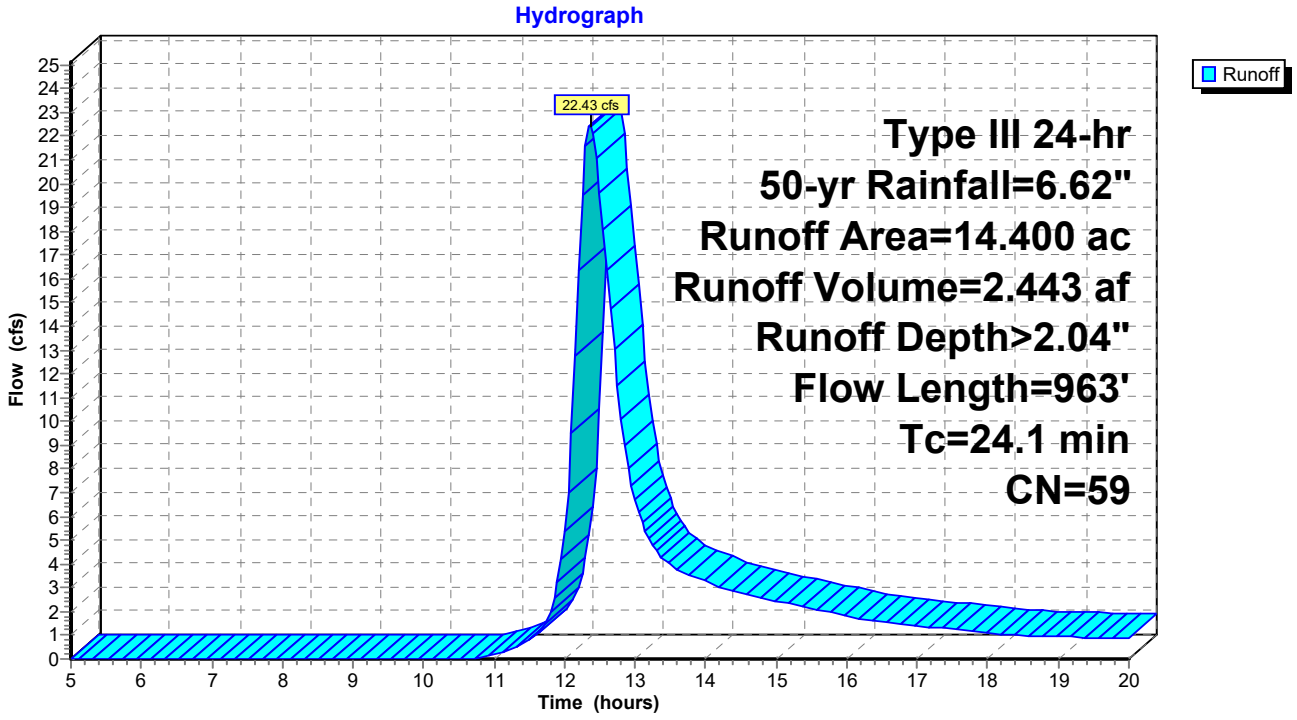
Runoff = 22.43 cfs @ 12.36 hrs, Volume= 2.443 af, Depth> 2.04"
Routed to Reach 2R : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.280	98	Paved parking, HSG A
1.340	61	>75% Grass cover, Good, HSG B
10.860	55	Woods, Good, HSG B
0.310	80	>75% Grass cover, Good, HSG D
1.610	77	Woods, Good, HSG D
14.400	59	Weighted Average
14.120		98.06% Pervious Area
0.280		1.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.2600	0.19		**Sheet Flow, sf-1** Woods: Light underbrush n= 0.400 P2= 3.11"
19.6	913	0.0240	0.77		**Shallow Concentrated Flow, scf-1** Woodland Kv= 5.0 fps
24.1	963	Total			

Subcatchment B13: B13



Hydrograph for Subcatchment B13: B13

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.00
10.50	1.43	0.00	0.00
10.75	1.54	0.00	0.04
11.00	1.66	0.01	0.19
11.25	1.79	0.02	0.41
11.50	1.97	0.05	0.78
11.75	2.35	0.12	1.61
12.00	3.31	0.42	5.35
12.25	4.27	0.84	**19.55**
12.50	4.65	1.04	**19.62**
12.75	4.83	1.14	11.48
13.00	4.96	1.21	6.71
13.25	5.08	1.28	4.80
13.50	5.19	1.34	3.96
13.75	5.28	1.40	3.57
14.00	5.37	1.45	3.26
14.25	5.45	1.50	2.97
14.50	5.52	1.54	2.76
14.75	5.59	1.58	2.60
15.00	5.66	1.62	2.45
15.25	5.71	1.66	2.29
15.50	5.77	1.69	2.14
15.75	5.82	1.72	1.98
16.00	5.87	1.75	1.82
16.25	5.91	1.78	1.66
16.50	5.95	1.81	1.55
16.75	5.99	1.83	1.47
17.00	6.02	1.85	1.40
17.25	6.05	1.87	1.33
17.50	6.09	1.89	1.25
17.75	6.12	1.91	1.18
18.00	6.14	1.93	1.11
18.25	6.17	1.95	1.04
18.50	6.20	1.96	0.99
18.75	6.22	1.98	0.97
19.00	6.24	2.00	0.94
19.25	6.27	2.01	0.92
19.50	6.29	2.03	0.90
19.75	6.31	2.04	0.88
20.00	**6.34**	**2.06**	0.86

Summary for Subcatchment B2: B2

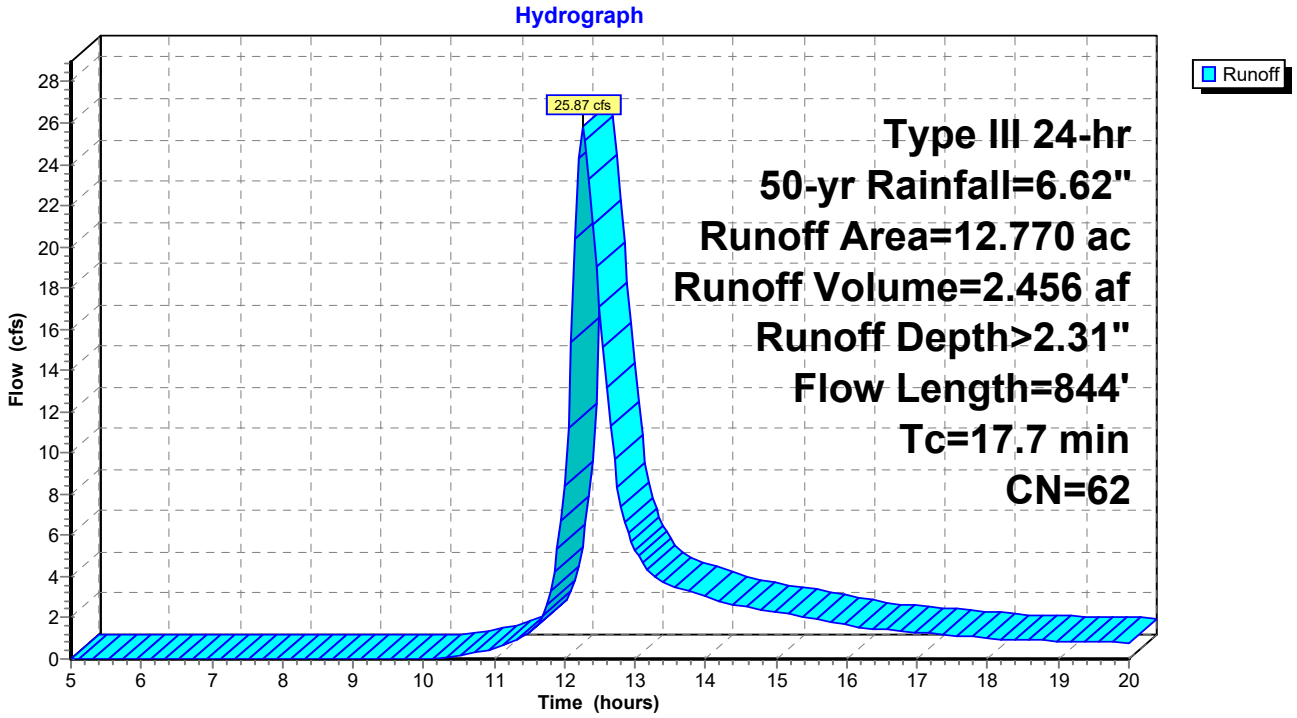
Runoff = 25.87 cfs @ 12.26 hrs, Volume= 2.456 af, Depth> 2.31"
Routed to Reach 23R : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.290	98	Paved parking, HSG A
11.040	61	>75% Grass cover, Good, HSG B
0.800	55	Woods, Good, HSG B
0.630	80	>75% Grass cover, Good, HSG D
0.010	77	Woods, Good, HSG D
12.770	62	Weighted Average
12.480		97.73% Pervious Area
0.290		2.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	50	0.0500	0.21		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
13.7	794	0.0190	0.96		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
17.7	844	Total			

Subcatchment B2: B2



Hydrograph for Subcatchment B2: B2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.04
10.50	1.43	0.01	0.16
10.75	1.54	0.02	0.32
11.00	1.66	0.03	0.53
11.25	1.79	0.05	0.80
11.50	1.97	0.08	1.30
11.75	2.35	0.17	2.64
12.00	3.31	0.53	8.45
12.25	4.27	1.01	**25.83**
12.50	4.65	1.23	17.07
12.75	4.83	1.33	8.36
13.00	4.96	1.42	5.29
13.25	5.08	1.49	4.08
13.50	5.19	1.55	3.61
13.75	5.28	1.62	3.31
14.00	5.37	1.67	3.02
14.25	5.45	1.72	2.74
14.50	5.52	1.77	2.57
14.75	5.59	1.82	2.43
15.00	5.66	1.86	2.28
15.25	5.71	1.90	2.13
15.50	5.77	1.93	1.98
15.75	5.82	1.97	1.83
16.00	5.87	2.00	1.67
16.25	5.91	2.03	1.53
16.50	5.95	2.05	1.44
16.75	5.99	2.08	1.37
17.00	6.02	2.10	1.30
17.25	6.05	2.13	1.23
17.50	6.09	2.15	1.16
17.75	6.12	2.17	1.09
18.00	6.14	2.19	1.02
18.25	6.17	2.21	0.96
18.50	6.20	2.22	0.93
18.75	6.22	2.24	0.91
19.00	6.24	2.26	0.89
19.25	6.27	2.28	0.86
19.50	6.29	2.29	0.84
19.75	6.31	2.31	0.82
20.00	**6.34**	**2.32**	0.80

Summary for Subcatchment B3: B3

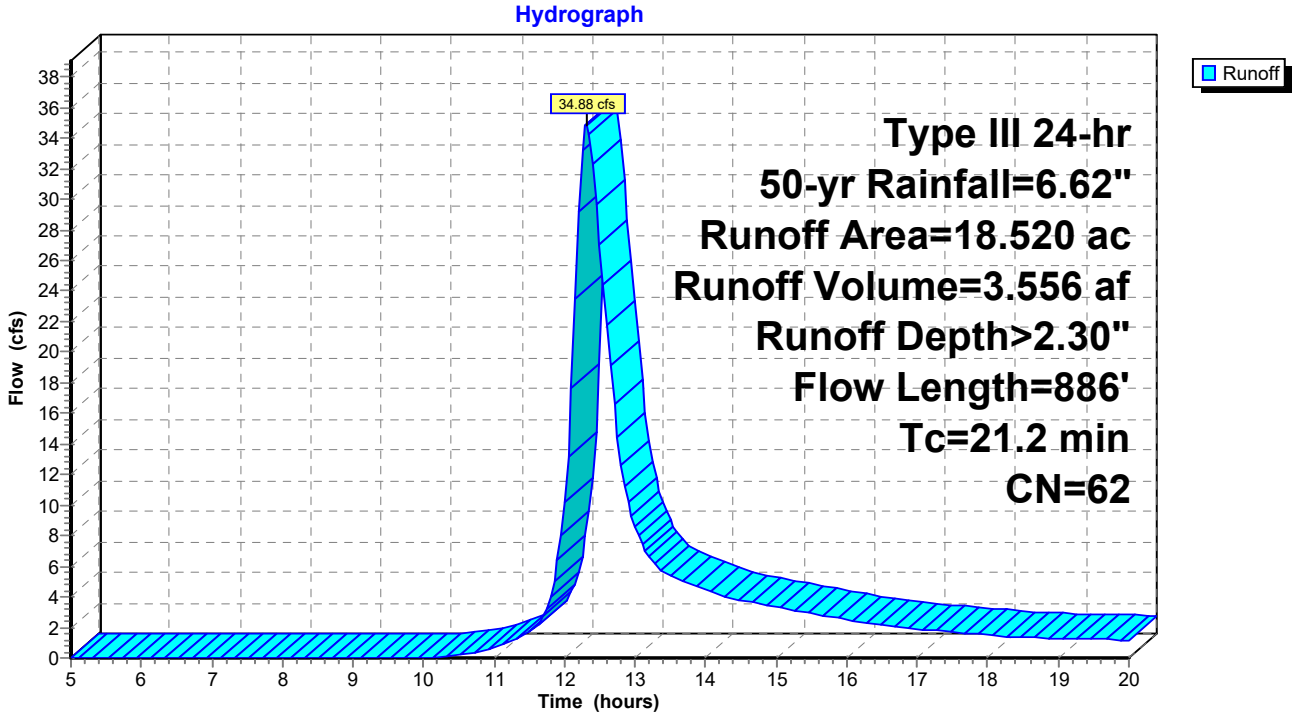
Runoff = 34.88 cfs @ 12.31 hrs, Volume= 3.556 af, Depth> 2.30"
Routed to Reach 23R : Reach

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
6.280	61	>75% Grass cover, Good, HSG B
7.880	55	Woods, Good, HSG B
0.520	80	>75% Grass cover, Good, HSG D
3.840	77	Woods, Good, HSG D
18.520	62	Weighted Average
18.520		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	50	0.0100	0.11		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
13.7	836	0.0210	1.01		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
21.2	886	Total			

Subcatchment B3: B3



Hydrograph for Subcatchment B3: B3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.04
10.50	1.43	0.01	0.19
10.75	1.54	0.02	0.42
11.00	1.66	0.03	0.70
11.25	1.79	0.05	1.07
11.50	1.97	0.08	1.72
11.75	2.35	0.17	3.26
12.00	3.31	0.53	10.14
12.25	4.27	1.01	**33.26**
12.50	4.65	1.23	**27.04**
12.75	4.83	1.33	14.45
13.00	4.96	1.42	8.58
13.25	5.08	1.49	6.30
13.50	5.19	1.55	5.38
13.75	5.28	1.62	4.89
14.00	5.37	1.67	4.47
14.25	5.45	1.72	4.06
14.50	5.52	1.77	3.78
14.75	5.59	1.82	3.56
15.00	5.66	1.86	3.35
15.25	5.71	1.90	3.14
15.50	5.77	1.93	2.92
15.75	5.82	1.97	2.70
16.00	5.87	2.00	2.47
16.25	5.91	2.03	2.26
16.50	5.95	2.05	2.12
16.75	5.99	2.08	2.01
17.00	6.02	2.10	1.91
17.25	6.05	2.13	1.81
17.50	6.09	2.15	1.71
17.75	6.12	2.17	1.61
18.00	6.14	2.19	1.50
18.25	6.17	2.21	1.41
18.50	6.20	2.22	1.35
18.75	6.22	2.24	1.32
19.00	6.24	2.26	1.29
19.25	6.27	2.28	1.26
19.50	6.29	2.29	1.23
19.75	6.31	2.31	1.20
20.00	**6.34**	**2.32**	1.17

Summary for Subcatchment B4: B4

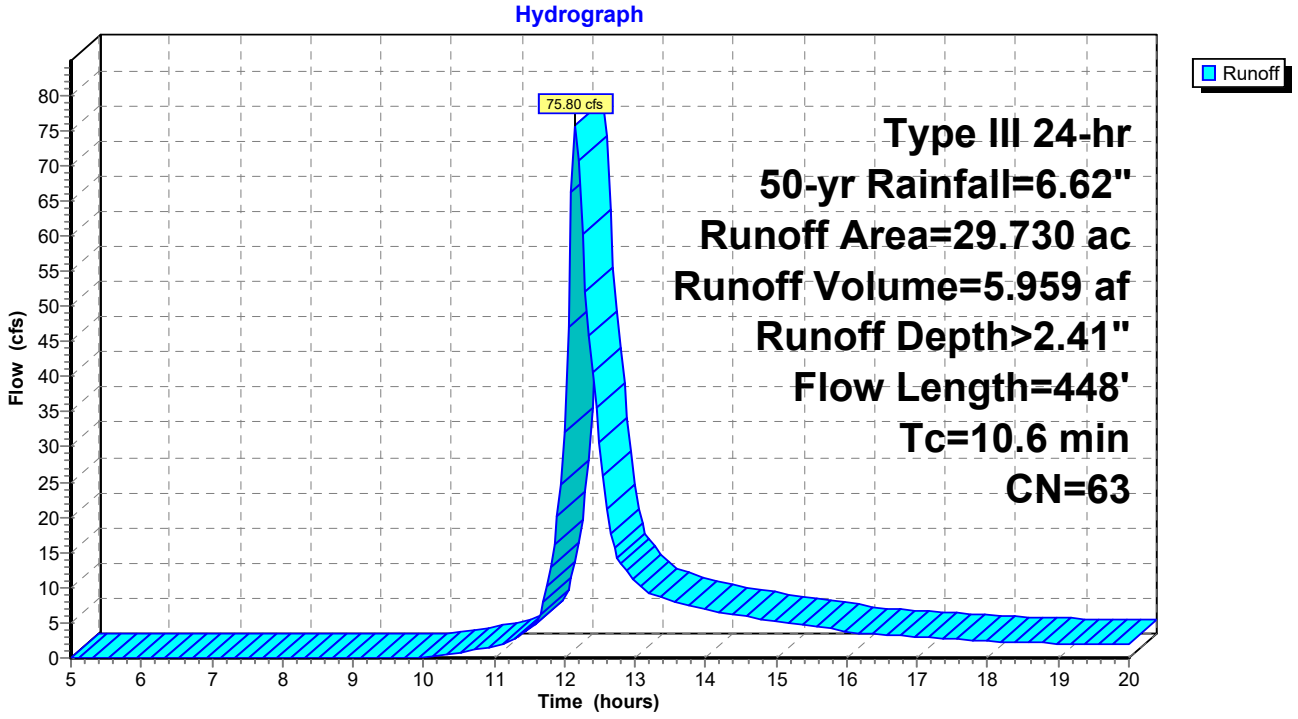
Runoff = 75.80 cfs @ 12.16 hrs, Volume= 5.959 af, Depth> 2.41"
Routed to Reach 2R : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
6.860	61	>75% Grass cover, Good, HSG B
14.270	55	Woods, Good, HSG B
1.390	80	>75% Grass cover, Good, HSG D
7.210	77	Woods, Good, HSG D
29.730	63	Weighted Average
29.730		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.0360	0.18		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
6.1	398	0.0240	1.08		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
10.6	448	Total			

Subcatchment B4: B4



Hydrograph for Subcatchment B4: B4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.09
10.25	1.34	0.00	0.36
10.50	1.43	0.01	0.72
10.75	1.54	0.02	1.17
11.00	1.66	0.04	1.71
11.25	1.79	0.06	2.56
11.50	1.97	0.10	4.07
11.75	2.35	0.20	10.17
12.00	3.31	0.57	**32.08**
12.25	4.27	1.07	**60.32**
12.50	4.65	1.29	30.70
12.75	4.83	1.40	14.26
13.00	4.96	1.49	10.90
13.25	5.08	1.56	8.99
13.50	5.19	1.63	8.27
13.75	5.28	1.69	7.59
14.00	5.37	1.75	6.89
14.25	5.45	1.80	6.32
14.50	5.52	1.85	5.97
14.75	5.59	1.90	5.63
15.00	5.66	1.94	5.28
15.25	5.71	1.98	4.92
15.50	5.77	2.02	4.56
15.75	5.82	2.05	4.19
16.00	5.87	2.08	3.81
16.25	5.91	2.11	3.52
16.50	5.95	2.14	3.35
16.75	5.99	2.17	3.19
17.00	6.02	2.19	3.02
17.25	6.05	2.21	2.86
17.50	6.09	2.24	2.69
17.75	6.12	2.26	2.52
18.00	6.14	2.28	2.36
18.25	6.17	2.30	2.23
18.50	6.20	2.31	2.18
18.75	6.22	2.33	2.13
19.00	6.24	2.35	2.08
19.25	6.27	2.37	2.03
19.50	6.29	2.38	1.98
19.75	6.31	2.40	1.93
20.00	**6.34**	**2.41**	1.88

Summary for Subcatchment B5: B5

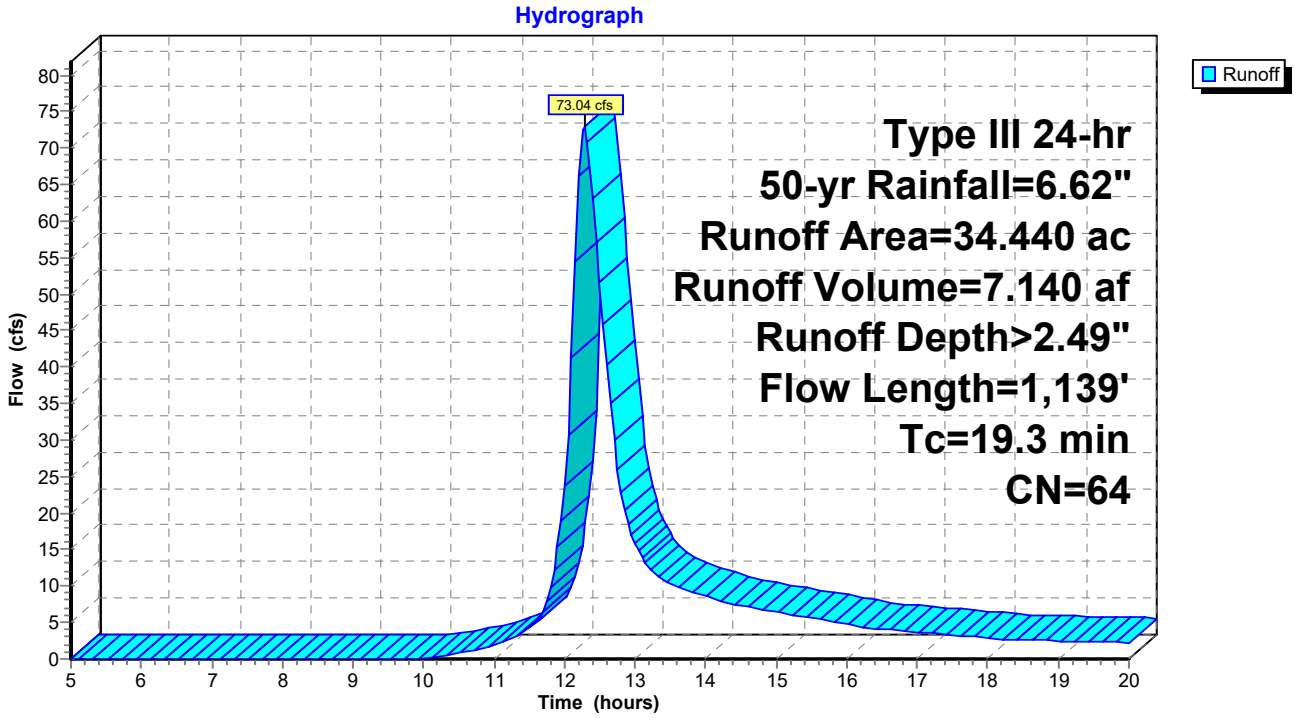
Runoff = 73.04 cfs @ 12.28 hrs, Volume= 7.140 af, Depth> 2.49"
Routed to Reach 2R : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.180	98	Paved parking, HSG A
22.890	61	>75% Grass cover, Good, HSG B
4.240	55	Woods, Good, HSG B
6.330	80	>75% Grass cover, Good, HSG D
0.800	77	Woods, Good, HSG D
34.440	64	Weighted Average
34.260		99.48% Pervious Area
0.180		0.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0340	0.18		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
14.7	1,089	0.0310	1.23		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
19.3	1,139	Total			

Subcatchment B5: B5



Hydrograph for Subcatchment B5: B5

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.01
10.00	1.25	0.00	0.15
10.25	1.34	0.01	0.44
10.50	1.43	0.02	0.83
10.75	1.54	0.03	1.33
11.00	1.66	0.05	1.93
11.25	1.79	0.07	2.72
11.50	1.97	0.11	4.19
11.75	2.35	0.22	7.84
12.00	3.31	0.61	23.71
12.25	4.27	1.13	**72.33**
12.50	4.65	1.36	**51.51**
12.75	4.83	1.47	25.99
13.00	4.96	1.56	15.85
13.25	5.08	1.63	11.89
13.50	5.19	1.70	10.35
13.75	5.28	1.77	9.46
14.00	5.37	1.82	8.62
14.25	5.45	1.88	7.83
14.50	5.52	1.93	7.31
14.75	5.59	1.98	6.89
15.00	5.66	2.02	6.48
15.25	5.71	2.06	6.06
15.50	5.77	2.10	5.63
15.75	5.82	2.14	5.19
16.00	5.87	2.17	4.75
16.25	5.91	2.20	4.34
16.50	5.95	2.23	4.08
16.75	5.99	2.25	3.87
17.00	6.02	2.28	3.68
17.25	6.05	2.30	3.49
17.50	6.09	2.33	3.29
17.75	6.12	2.35	3.09
18.00	6.14	2.37	2.89
18.25	6.17	2.39	2.71
18.50	6.20	2.40	2.61
18.75	6.22	2.42	2.55
19.00	6.24	2.44	2.49
19.25	6.27	2.46	2.43
19.50	6.29	2.47	2.37
19.75	6.31	2.49	2.31
20.00	**6.34**	**2.51**	2.25

Summary for Subcatchment B6: B6

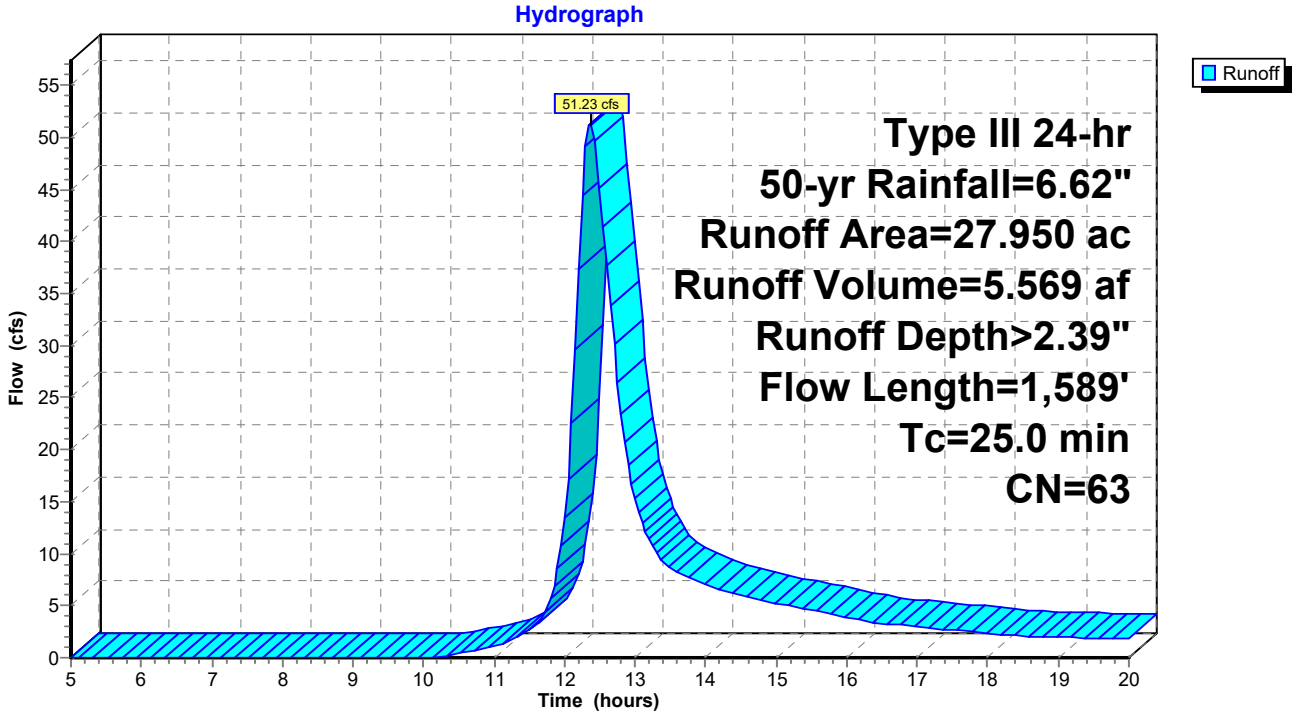
Runoff = 51.23 cfs @ 12.37 hrs, Volume= 5.569 af, Depth> 2.39"
Routed to Reach 2R : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
1.250	98	Paved parking, HSG A
0.160	39	>75% Grass cover, Good, HSG A
21.280	61	>75% Grass cover, Good, HSG B
3.640	55	Woods, Good, HSG B
1.600	80	>75% Grass cover, Good, HSG D
0.020	77	Woods, Good, HSG D
27.950	63	Weighted Average
26.700		95.53% Pervious Area
1.250		4.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	50	0.0260	0.16		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
19.9	1,539	0.0340	1.29		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
25.0	1,589	Total			

Subcatchment B6: B6



Hydrograph for Subcatchment B6: B6

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.01
10.25	1.34	0.00	0.14
10.50	1.43	0.01	0.39
10.75	1.54	0.02	0.74
11.00	1.66	0.04	1.17
11.25	1.79	0.06	1.72
11.50	1.97	0.10	2.66
11.75	2.35	0.20	4.68
12.00	3.31	0.57	13.48
12.25	4.27	1.07	**44.44**
12.50	4.65	1.29	**45.14**
12.75	4.83	1.40	26.48
13.00	4.96	1.49	15.23
13.25	5.08	1.56	10.72
13.50	5.19	1.63	8.69
13.75	5.28	1.69	7.77
14.00	5.37	1.75	7.07
14.25	5.45	1.80	6.42
14.50	5.52	1.85	5.94
14.75	5.59	1.90	5.59
15.00	5.66	1.94	5.26
15.25	5.71	1.98	4.93
15.50	5.77	2.02	4.59
15.75	5.82	2.05	4.25
16.00	5.87	2.08	3.90
16.25	5.91	2.11	3.56
16.50	5.95	2.14	3.31
16.75	5.99	2.17	3.14
17.00	6.02	2.19	2.98
17.25	6.05	2.21	2.83
17.50	6.09	2.24	2.67
17.75	6.12	2.26	2.51
18.00	6.14	2.28	2.36
18.25	6.17	2.30	2.20
18.50	6.20	2.31	2.10
18.75	6.22	2.33	2.05
19.00	6.24	2.35	2.00
19.25	6.27	2.37	1.95
19.50	6.29	2.38	1.90
19.75	6.31	2.40	1.86
20.00	**6.34**	**2.41**	1.81

Summary for Subcatchment B7: B7

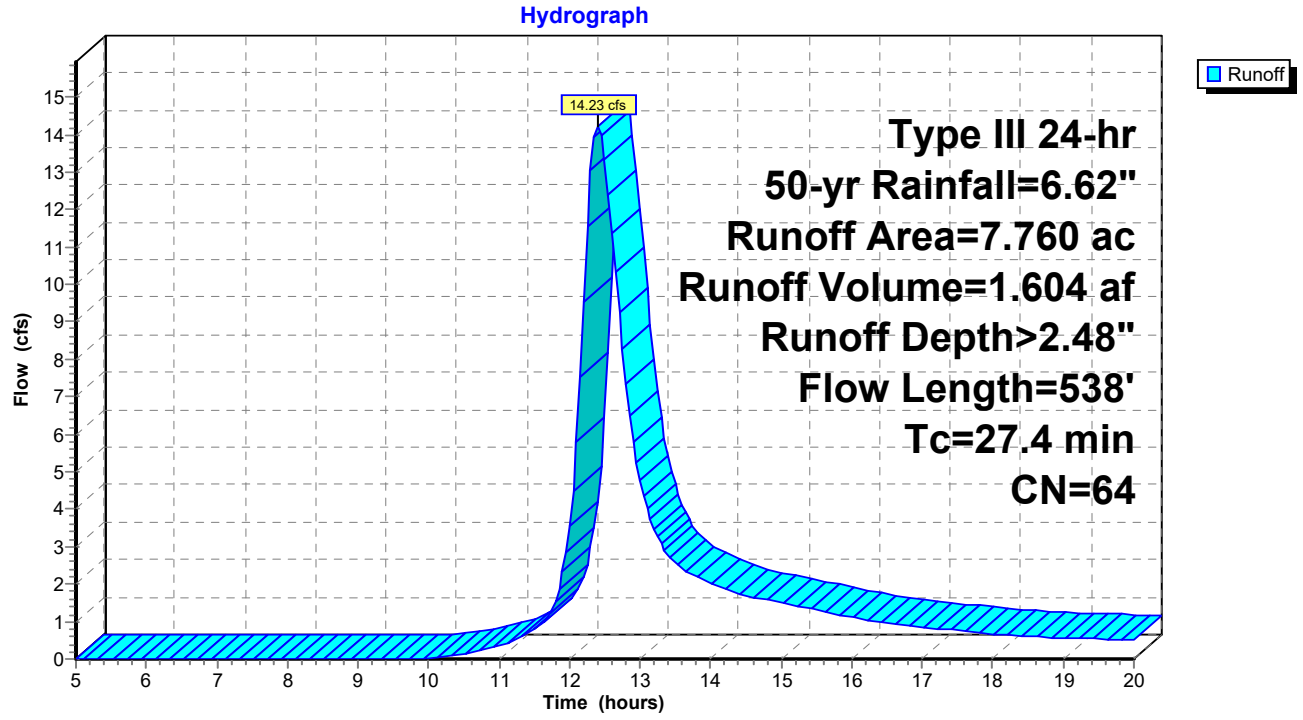
Runoff = 14.23 cfs @ 12.40 hrs, Volume= 1.604 af, Depth> 2.48"
Routed to Reach 2R : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.180	98	Paved parking, HSG A
2.080	61	>75% Grass cover, Good, HSG B
3.290	55	Woods, Good, HSG B
0.430	80	>75% Grass cover, Good, HSG D
1.780	77	Woods, Good, HSG D
7.760	64	Weighted Average
7.580		97.68% Pervious Area
0.180		2.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	50	0.0160	0.06		**Sheet Flow, sf-1** Woods: Light underbrush n= 0.400 P2= 3.11"
13.7	488	0.0140	0.59		**Shallow Concentrated Flow, scf-1** Woodland Kv= 5.0 fps
27.4	538	Total			

Subcatchment B7: B7



Hydrograph for Subcatchment B7: B7

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.02
10.25	1.34	0.01	0.07
10.50	1.43	0.02	0.14
10.75	1.54	0.03	0.24
11.00	1.66	0.05	0.37
11.25	1.79	0.07	0.52
11.50	1.97	0.11	0.78
11.75	2.35	0.22	1.31
12.00	3.31	0.61	3.56
12.25	4.27	1.13	**11.53**
12.50	4.65	1.36	**13.30**
12.75	4.83	1.47	8.26
13.00	4.96	1.56	4.75
13.25	5.08	1.63	3.26
13.50	5.19	1.70	2.57
13.75	5.28	1.77	2.25
14.00	5.37	1.82	2.04
14.25	5.45	1.88	1.85
14.50	5.52	1.93	1.71
14.75	5.59	1.98	1.60
15.00	5.66	2.02	1.51
15.25	5.71	2.06	1.41
15.50	5.77	2.10	1.32
15.75	5.82	2.14	1.22
16.00	5.87	2.17	1.12
16.25	5.91	2.20	1.02
16.50	5.95	2.23	0.95
16.75	5.99	2.25	0.90
17.00	6.02	2.28	0.85
17.25	6.05	2.30	0.81
17.50	6.09	2.33	0.76
17.75	6.12	2.35	0.72
18.00	6.14	2.37	0.67
18.25	6.17	2.39	0.63
18.50	6.20	2.40	0.60
18.75	6.22	2.42	0.58
19.00	6.24	2.44	0.57
19.25	6.27	2.46	0.55
19.50	6.29	2.47	0.54
19.75	6.31	2.49	0.53
20.00	**6.34**	**2.51**	0.51

Summary for Subcatchment B8: B8

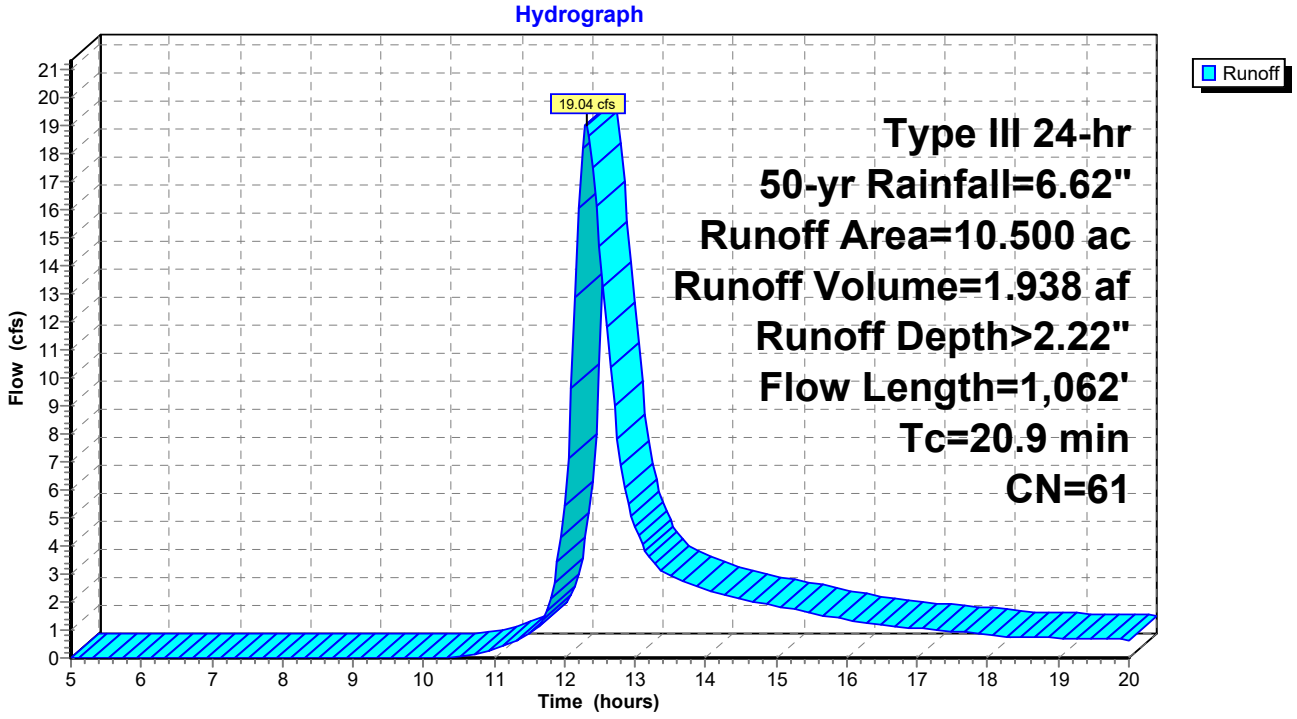
Runoff = 19.04 cfs @ 12.31 hrs, Volume= 1.938 af, Depth> 2.22"
Routed to Pond B8* : B8 Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.300	98	Paved parking, HSG A
8.360	61	>75% Grass cover, Good, HSG B
1.840	55	Woods, Good, HSG B
10.500	61	Weighted Average
10.200		97.14% Pervious Area
0.300		2.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	50	0.0120	0.12		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
13.9	1,012	0.0300	1.21		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
20.9	1,062	Total			

Subcatchment B8: B8



Hydrograph for Subcatchment B8: B8

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.00
10.50	1.43	0.00	0.05
10.75	1.54	0.01	0.17
11.00	1.66	0.02	0.32
11.25	1.79	0.04	0.51
11.50	1.97	0.07	0.87
11.75	2.35	0.15	1.70
12.00	3.31	0.49	5.45
12.25	4.27	0.95	**18.22**
12.50	4.65	1.16	**14.68**
12.75	4.83	1.27	7.82
13.00	4.96	1.35	4.68
13.25	5.08	1.42	3.45
13.50	5.19	1.48	2.96
13.75	5.28	1.54	2.70
14.00	5.37	1.60	2.46
14.25	5.45	1.65	2.24
14.50	5.52	1.69	2.09
14.75	5.59	1.74	1.97
15.00	5.66	1.78	1.85
15.25	5.71	1.82	1.74
15.50	5.77	1.85	1.62
15.75	5.82	1.89	1.49
16.00	5.87	1.92	1.37
16.25	5.91	1.94	1.25
16.50	5.95	1.97	1.17
16.75	5.99	2.00	1.11
17.00	6.02	2.02	1.06
17.25	6.05	2.04	1.00
17.50	6.09	2.06	0.95
17.75	6.12	2.08	0.89
18.00	6.14	2.10	0.83
18.25	6.17	2.12	0.78
18.50	6.20	2.14	0.75
18.75	6.22	2.15	0.73
19.00	6.24	2.17	0.72
19.25	6.27	2.19	0.70
19.50	6.29	2.20	0.68
19.75	6.31	2.22	0.67
20.00	**6.34**	**2.23**	0.65

Summary for Subcatchment B9: B9

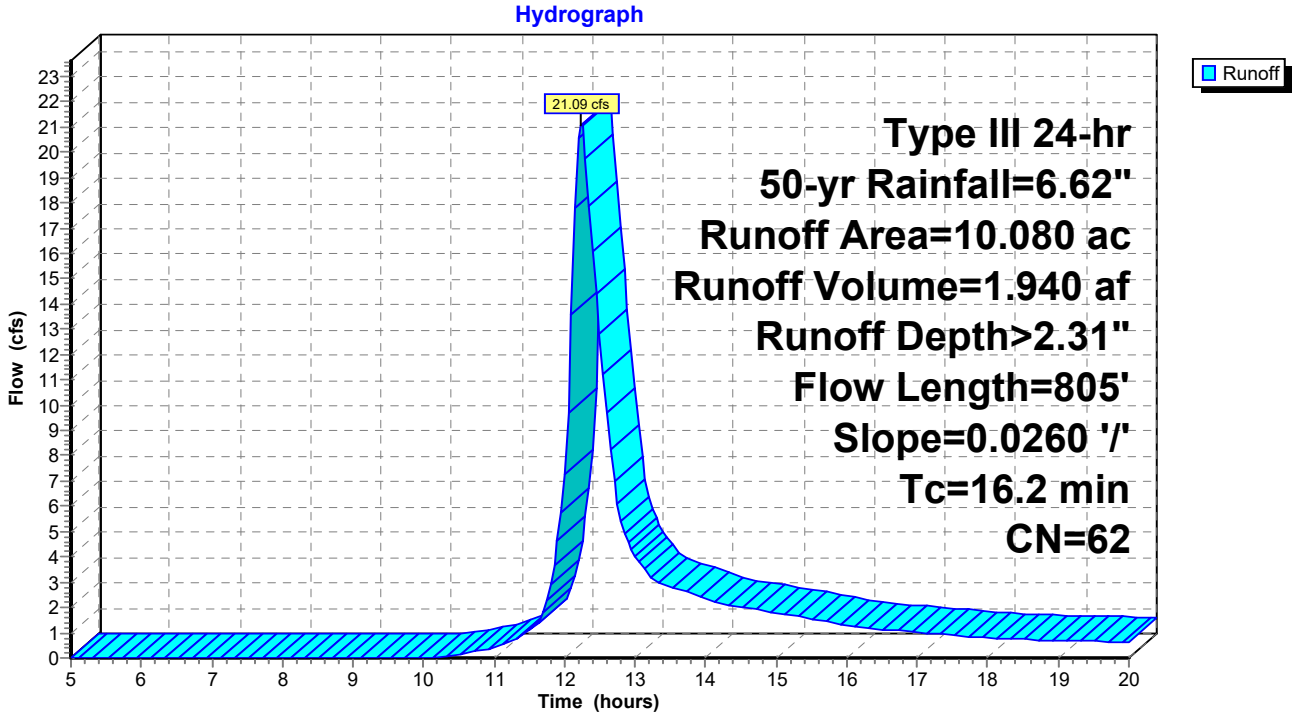
Runoff = 21.09 cfs @ 12.24 hrs, Volume= 1.940 af, Depth> 2.31"
Routed to Reach 2R : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.510	98	Paved parking, HSG A
8.400	61	>75% Grass cover, Good, HSG B
1.170	55	Woods, Good, HSG B
10.080	62	Weighted Average
9.570		94.94% Pervious Area
0.510		5.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	50	0.0260	0.16		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
11.1	755	0.0260	1.13		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
16.2	805	Total			

Subcatchment B9: B9



Hydrograph for Subcatchment B9: B9

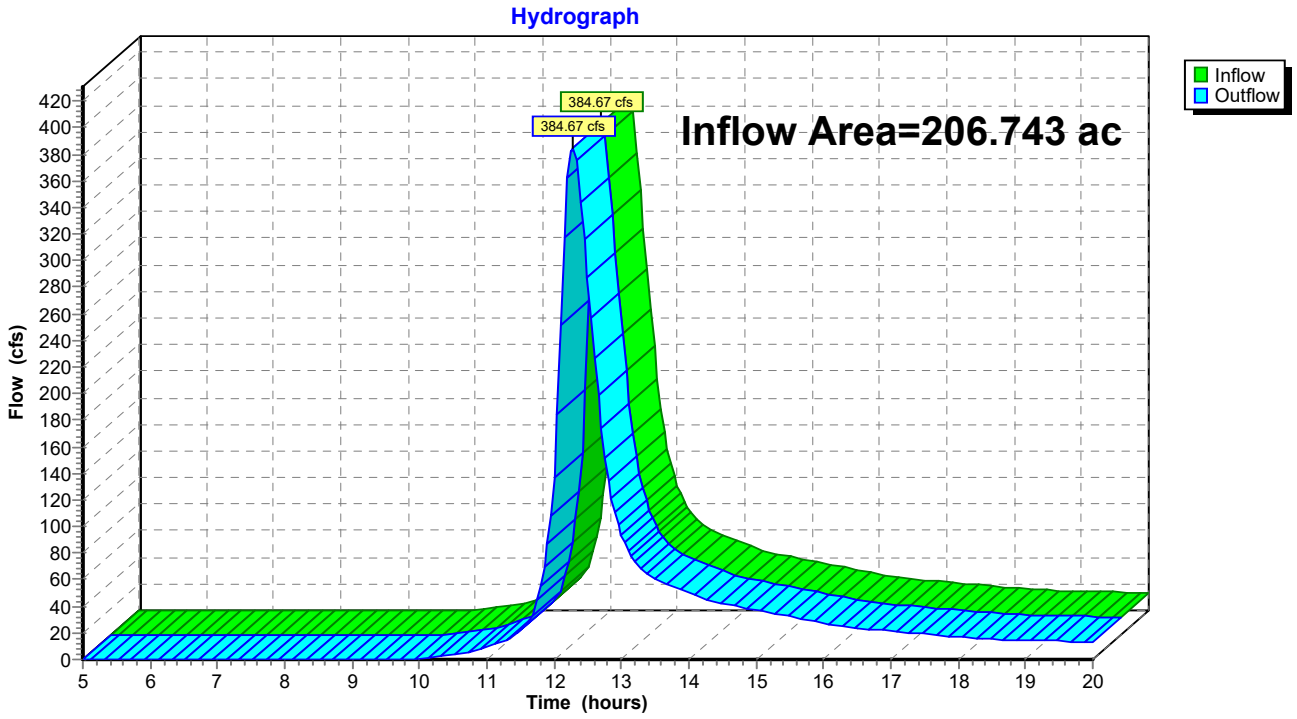
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.04
10.50	1.43	0.01	0.13
10.75	1.54	0.02	0.27
11.00	1.66	0.03	0.43
11.25	1.79	0.05	0.66
11.50	1.97	0.08	1.07
11.75	2.35	0.17	2.25
12.00	3.31	0.53	7.26
12.25	4.27	1.01	**21.03**
12.50	4.65	1.23	12.83
12.75	4.83	1.33	6.09
13.00	4.96	1.42	4.01
13.25	5.08	1.49	3.15
13.50	5.19	1.55	2.82
13.75	5.28	1.62	2.59
14.00	5.37	1.67	2.36
14.25	5.45	1.72	2.15
14.50	5.52	1.77	2.02
14.75	5.59	1.82	1.90
15.00	5.66	1.86	1.79
15.25	5.71	1.90	1.67
15.50	5.77	1.93	1.55
15.75	5.82	1.97	1.43
16.00	5.87	2.00	1.31
16.25	5.91	2.03	1.20
16.50	5.95	2.05	1.13
16.75	5.99	2.08	1.08
17.00	6.02	2.10	1.02
17.25	6.05	2.13	0.97
17.50	6.09	2.15	0.91
17.75	6.12	2.17	0.86
18.00	6.14	2.19	0.80
18.25	6.17	2.21	0.75
18.50	6.20	2.22	0.73
18.75	6.22	2.24	0.71
19.00	6.24	2.26	0.70
19.25	6.27	2.28	0.68
19.50	6.29	2.29	0.66
19.75	6.31	2.31	0.65
20.00	**6.34**	**2.32**	0.63

Summary for Reach 2R: DP-B

Inflow Area = 206.743 ac, 1.99% Impervious, Inflow Depth > 2.35" for 50-yr event
Inflow = 384.67 cfs @ 12.28 hrs, Volume= 40.514 af
Outflow = 384.67 cfs @ 12.28 hrs, Volume= 40.514 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 2R: DP-B



Hydrograph for Reach 2R: DP-B

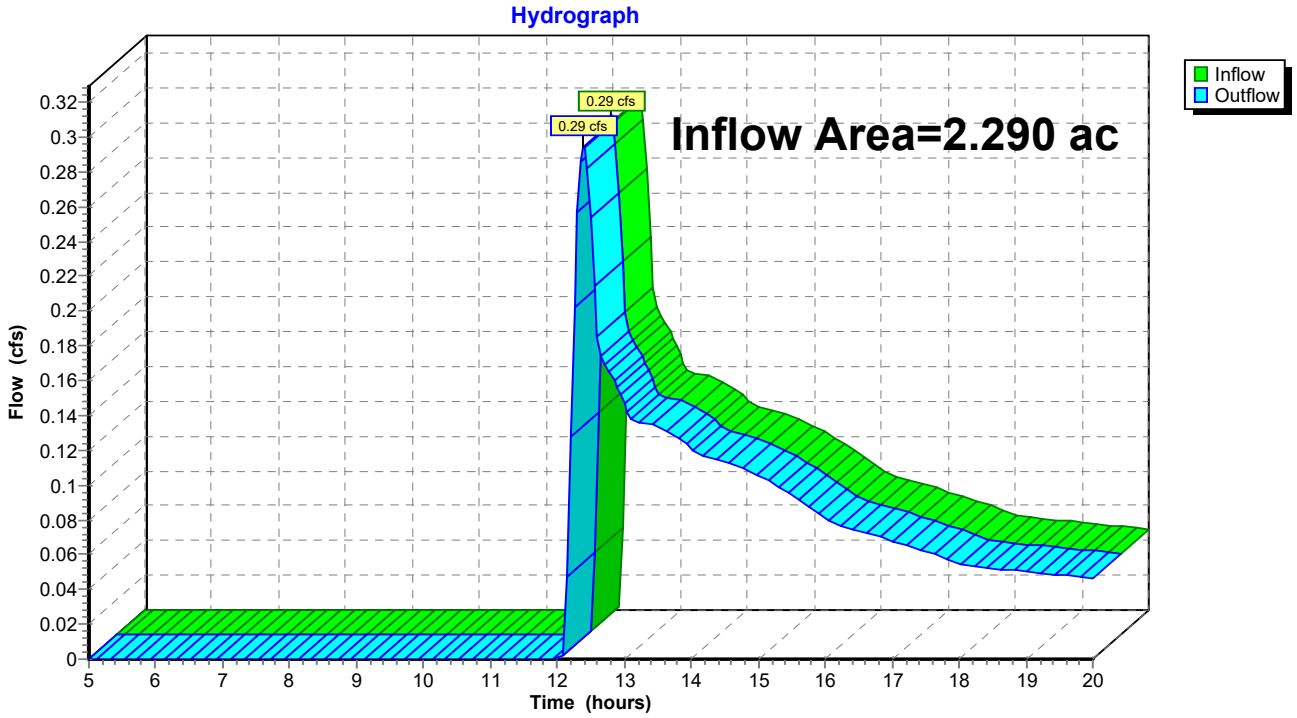
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	17.98		17.98
5.25	0.00		0.00	18.00	16.82		16.82
5.50	0.00		0.00	18.25	15.78		15.78
5.75	0.00		0.00	18.50	15.21		15.21
6.00	0.00		0.00	18.75	14.83		14.83
6.25	0.00		0.00	19.00	14.48		14.48
6.50	0.00		0.00	19.25	14.14		14.14
6.75	0.00		0.00	19.50	13.80		13.80
7.00	0.00		0.00	19.75	13.46		13.46
7.25	0.00		0.00	20.00	13.12		13.12
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.01		0.01				
10.00	0.42		0.42				
10.25	1.56		1.56				
10.50	3.44		3.44				
10.75	5.98		5.98				
11.00	9.24		9.24				
11.25	13.75		13.75				
11.50	21.83		21.83				
11.75	44.16		44.16				
12.00	136.68		136.68				
12.25	**382.52**		**382.52**				
12.50	**287.43**		**287.43**				
12.75	152.10		152.10				
13.00	94.00		94.00				
13.25	70.16		70.16				
13.50	60.30		60.30				
13.75	54.77		54.77				
14.00	49.88		49.88				
14.25	45.39		45.39				
14.50	42.37		42.37				
14.75	39.92		39.92				
15.00	37.54		37.54				
15.25	35.12		35.12				
15.50	32.66		32.66				
15.75	30.15		30.15				
16.00	27.60		27.60				
16.25	25.24		25.24				
16.50	23.71		23.71				
16.75	22.52		22.52				
17.00	21.39		21.39				
17.25	20.26		20.26				
17.50	19.12		19.12				

Summary for Reach 21R: Reach

Inflow Area = 2.290 ac, 0.00% Impervious, Inflow Depth > 0.32" for 50-yr event
Inflow = 0.29 cfs @ 12.39 hrs, Volume= 0.062 af
Outflow = 0.29 cfs @ 12.39 hrs, Volume= 0.062 af, Atten= 0%, Lag= 0.0 min
Routed to Reach 22R : Reach

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 21R: Reach



Hydrograph for Reach 21R: Reach

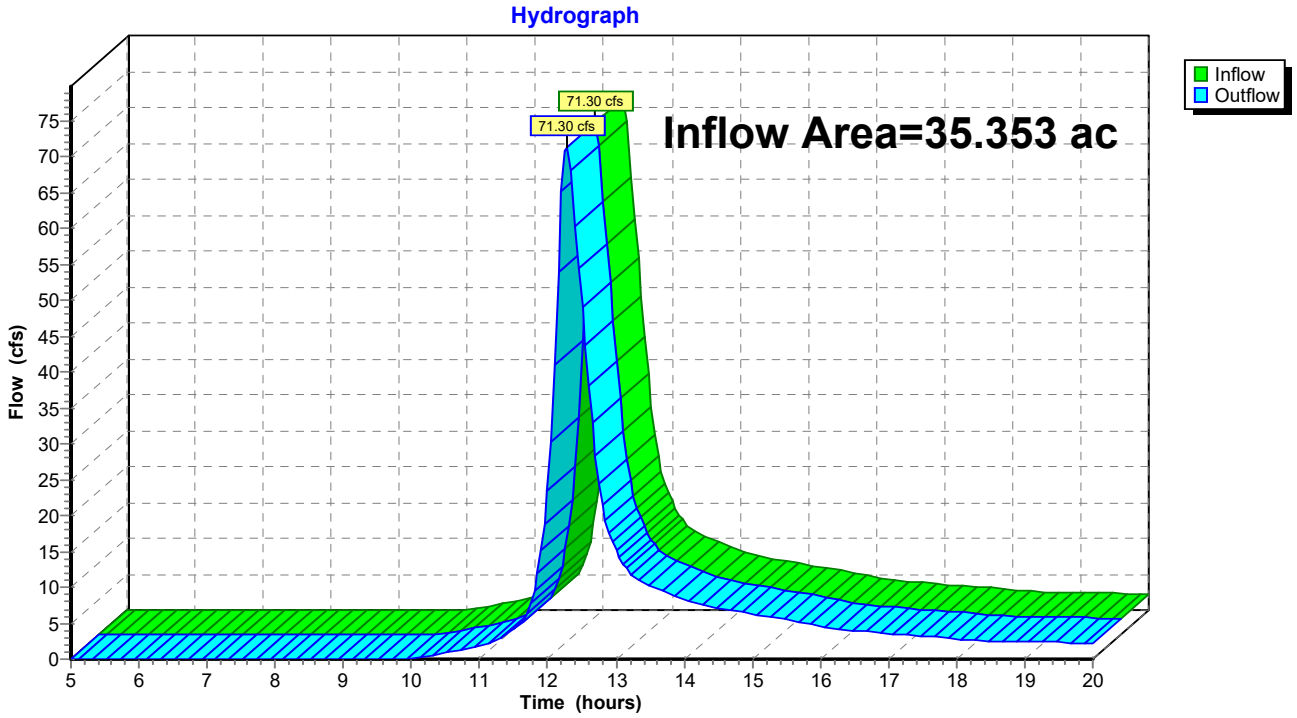
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00
5.25	0.00		0.00
5.50	0.00		0.00
5.75	0.00		0.00
6.00	0.00		0.00
6.25	0.00		0.00
6.50	0.00		0.00
6.75	0.00		0.00
7.00	0.00		0.00
7.25	0.00		0.00
7.50	0.00		0.00
7.75	0.00		0.00
8.00	0.00		0.00
8.25	0.00		0.00
8.50	0.00		0.00
8.75	0.00		0.00
9.00	0.00		0.00
9.25	0.00		0.00
9.50	0.00		0.00
9.75	0.00		0.00
10.00	0.00		0.00
10.25	0.00		0.00
10.50	0.00		0.00
10.75	0.00		0.00
11.00	0.00		0.00
11.25	0.00		0.00
11.50	0.00		0.00
11.75	0.00		0.00
12.00	0.00		0.00
12.25	**0.20**		**0.20**
12.50	**0.25**		**0.25**
12.75	0.17		0.17
13.00	0.15		0.15
13.25	0.14		0.14
13.50	0.13		0.13
13.75	0.13		0.13
14.00	0.12		0.12
14.25	0.12		0.12
14.50	0.11		0.11
14.75	0.11		0.11
15.00	0.11		0.11
15.25	0.10		0.10
15.50	0.09		0.09
15.75	0.09		0.09
16.00	0.08		0.08
16.25	0.08		0.08
16.50	0.07		0.07
16.75	0.07		0.07
17.00	0.07		0.07
17.25	0.07		0.07
17.50	0.06		0.06
17.75	0.06		0.06
18.00	0.05		0.05
18.25	0.05		0.05
18.50	0.05		0.05
18.75	0.05		0.05
19.00	0.05		0.05
19.25	0.05		0.05
19.50	0.05		0.05
19.75	0.05		0.05
20.00	0.05		0.05

Summary for Reach 22R: Reach

Inflow Area = 35.353 ac, 2.62% Impervious, Inflow Depth > 2.35" for 50-yr event
Inflow = 71.30 cfs @ 12.27 hrs, Volume= 6.918 af
Outflow = 71.30 cfs @ 12.27 hrs, Volume= 6.918 af, Atten= 0%, Lag= 0.0 min
Routed to Reach 2R : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 22R: Reach



Hydrograph for Reach 22R: Reach

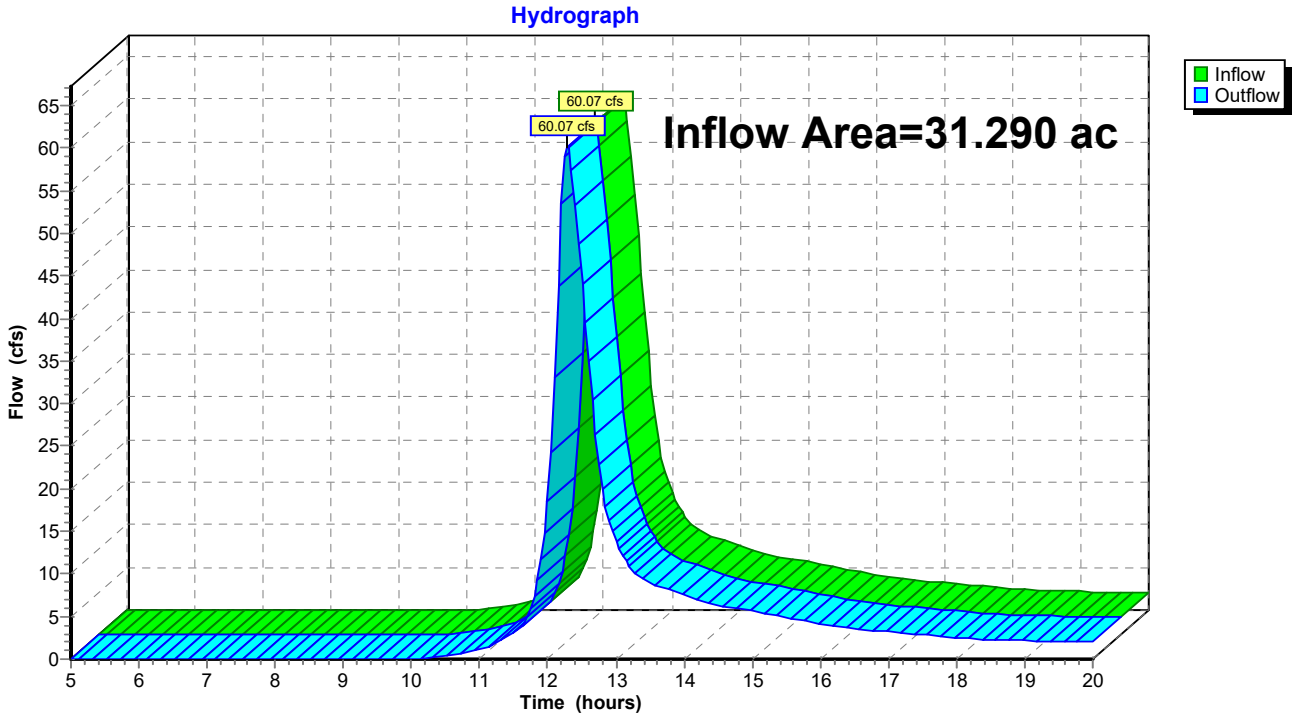
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00
5.25	0.00		0.00
5.50	0.00		0.00
5.75	0.00		0.00
6.00	0.00		0.00
6.25	0.00		0.00
6.50	0.00		0.00
6.75	0.00		0.00
7.00	0.00		0.00
7.25	0.00		0.00
7.50	0.00		0.00
7.75	0.00		0.00
8.00	0.00		0.00
8.25	0.00		0.00
8.50	0.00		0.00
8.75	0.00		0.00
9.00	0.00		0.00
9.25	0.00		0.00
9.50	0.00		0.00
9.75	0.01		0.01
10.00	0.15		0.15
10.25	0.43		0.43
10.50	0.81		0.81
10.75	1.29		1.29
11.00	1.87		1.87
11.25	2.64		2.64
11.50	4.07		4.07
11.75	7.70		7.70
12.00	23.36		23.36
12.25	**70.74**		**70.74**
12.50	49.06		49.06
12.75	24.49		24.49
13.00	15.12		15.12
13.25	11.45		11.45
13.50	10.03		10.03
13.75	9.18		9.18
14.00	8.37		8.37
14.25	7.61		7.61
14.50	7.12		7.12
14.75	6.71		6.71
15.00	6.31		6.31
15.25	5.90		5.90
15.50	5.49		5.49
15.75	5.06		5.06
16.00	4.63		4.63
16.25	4.23		4.23
16.50	3.98		3.98
16.75	3.79		3.79
17.00	3.60		3.60
17.25	3.41		3.41
17.50	3.21		3.21
17.75	3.02		3.02
18.00	2.82		2.82
18.25	2.65		2.65
18.50	2.56		2.56
18.75	2.50		2.50
19.00	2.44		2.44
19.25	2.38		2.38
19.50	2.32		2.32
19.75	2.27		2.27
20.00	2.21		2.21

Summary for Reach 23R: Reach

Inflow Area = 31.290 ac, 0.93% Impervious, Inflow Depth > 2.31" for 50-yr event
Inflow = 60.07 cfs @ 12.29 hrs, Volume= 6.012 af
Outflow = 60.07 cfs @ 12.29 hrs, Volume= 6.012 af, Atten= 0%, Lag= 0.0 min
Routed to Reach 2R : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 23R: Reach



Hydrograph for Reach 23R: Reach

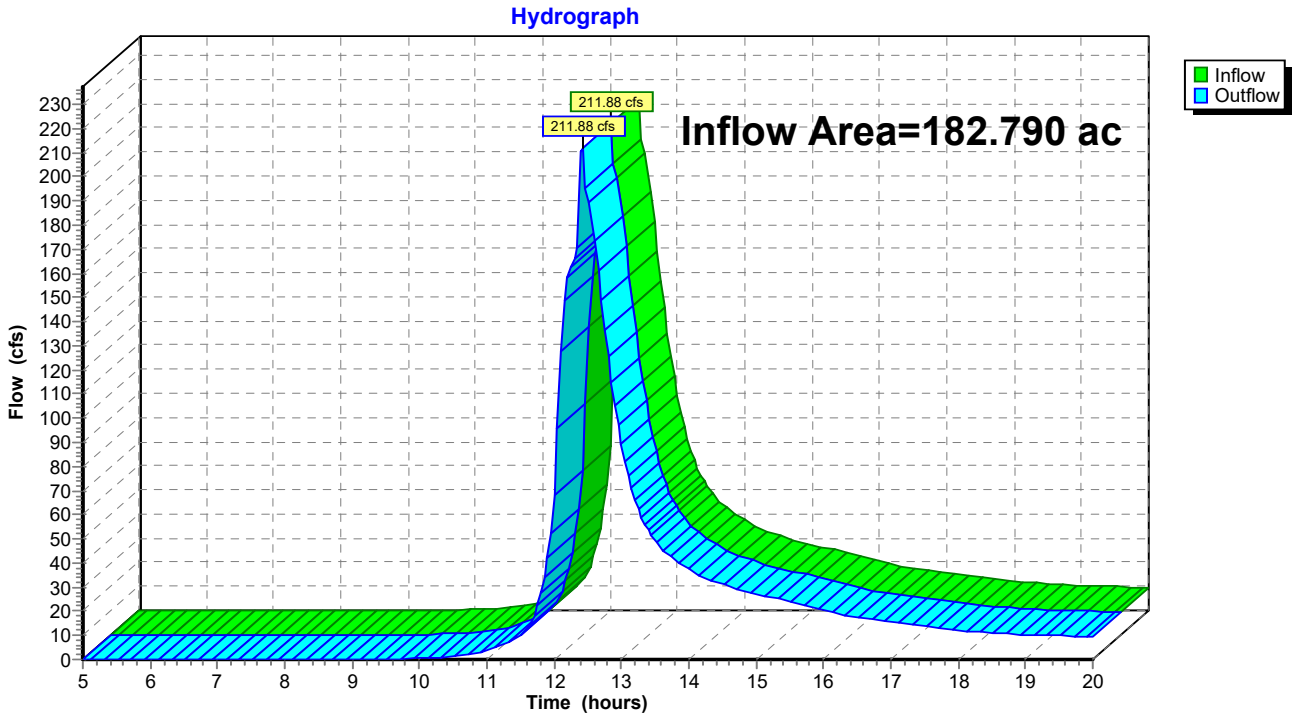
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00
5.25	0.00		0.00
5.50	0.00		0.00
5.75	0.00		0.00
6.00	0.00		0.00
6.25	0.00		0.00
6.50	0.00		0.00
6.75	0.00		0.00
7.00	0.00		0.00
7.25	0.00		0.00
7.50	0.00		0.00
7.75	0.00		0.00
8.00	0.00		0.00
8.25	0.00		0.00
8.50	0.00		0.00
8.75	0.00		0.00
9.00	0.00		0.00
9.25	0.00		0.00
9.50	0.00		0.00
9.75	0.00		0.00
10.00	0.00		0.00
10.25	0.08		0.08
10.50	0.35		0.35
10.75	0.74		0.74
11.00	1.22		1.22
11.25	1.87		1.87
11.50	3.03		3.03
11.75	5.90		5.90
12.00	18.59		18.59
12.25	**59.10**		**59.10**
12.50	**44.11**		**44.11**
12.75	22.81		22.81
13.00	13.87		13.87
13.25	10.37		10.37
13.50	8.98		8.98
13.75	8.20		8.20
14.00	7.49		7.49
14.25	6.80		6.80
14.50	6.35		6.35
14.75	5.99		5.99
15.00	5.63		5.63
15.25	5.27		5.27
15.50	4.90		4.90
15.75	4.53		4.53
16.00	4.15		4.15
16.25	3.78		3.78
16.50	3.56		3.56
16.75	3.38		3.38
17.00	3.21		3.21
17.25	3.04		3.04
17.50	2.87		2.87
17.75	2.70		2.70
18.00	2.53		2.53
18.25	2.37		2.37
18.50	2.28		2.28
18.75	2.23		2.23
19.00	2.17		2.17
19.25	2.12		2.12
19.50	2.07		2.07
19.75	2.02		2.02
20.00	1.97		1.97

Summary for Reach DP-A: DP-A

Inflow Area = 182.790 ac, 4.55% Impervious, Inflow Depth > 1.78" for 50-yr event
Inflow = 211.88 cfs @ 12.41 hrs, Volume= 27.109 af
Outflow = 211.88 cfs @ 12.41 hrs, Volume= 27.109 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-A: DP-A



Hydrograph for Reach DP-A: DP-A

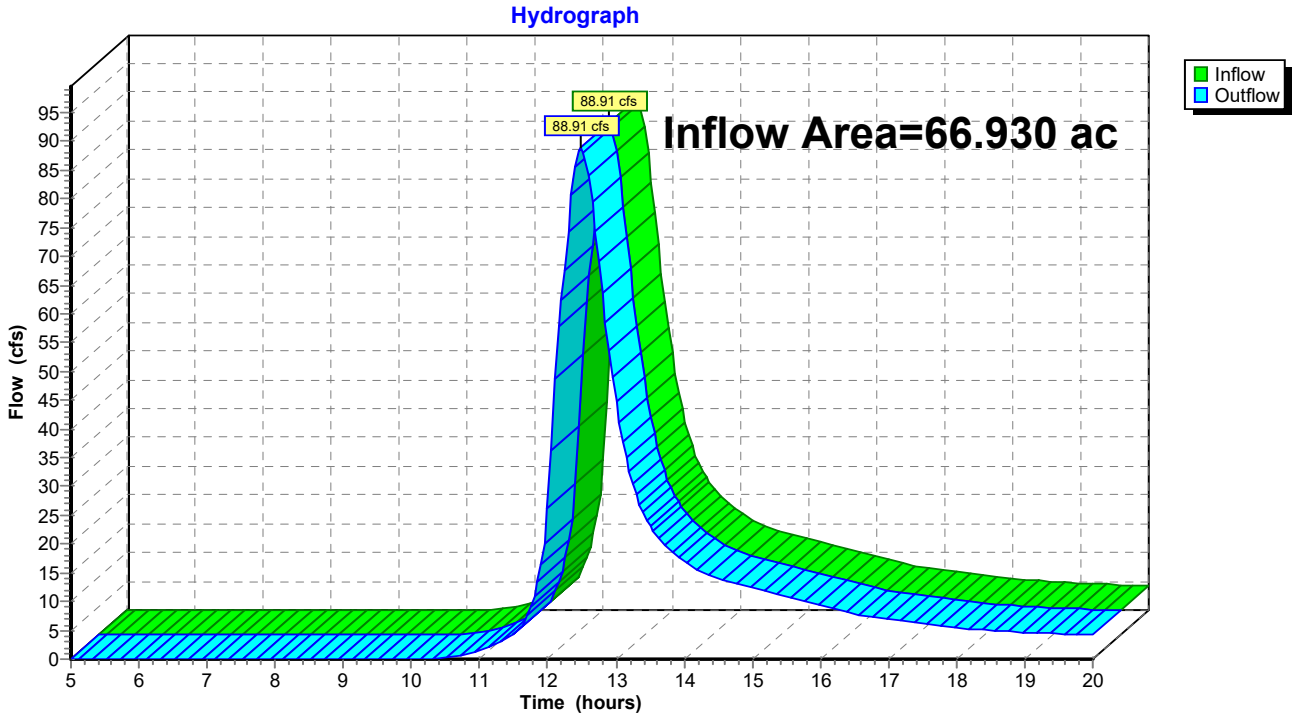
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00
5.25	0.00		0.00
5.50	0.00		0.00
5.75	0.00		0.00
6.00	0.00		0.00
6.25	0.00		0.00
6.50	0.00		0.00
6.75	0.00		0.00
7.00	0.00		0.00
7.25	0.00		0.00
7.50	0.00		0.00
7.75	0.00		0.00
8.00	0.00		0.00
8.25	0.00		0.00
8.50	0.00		0.00
8.75	0.04		0.04
9.00	0.10		0.10
9.25	0.17		0.17
9.50	0.26		0.26
9.75	0.36		0.36
10.00	0.47		0.47
10.25	0.63		0.63
10.50	1.15		1.15
10.75	2.18		2.18
11.00	3.77		3.77
11.25	6.16		6.16
11.50	10.20		10.20
11.75	22.19		22.19
12.00	68.06		68.06
12.25	**162.45**		**162.45**
12.50	**194.76**		**194.76**
12.75	136.76		136.76
13.00	89.15		89.15
13.25	62.40		62.40
13.50	49.17		49.17
13.75	42.10		42.10
14.00	37.37		37.37
14.25	33.69		33.69
14.50	31.07		31.07
14.75	29.06		29.06
15.00	27.29		27.29
15.25	25.57		25.57
15.50	23.84		23.84
15.75	22.09		22.09
16.00	20.32		20.32
16.25	18.65		18.65
16.50	17.36		17.36
16.75	16.37		16.37
17.00	15.52		15.52
17.25	14.70		14.70
17.50	13.89		13.89
17.75	13.09		13.09
18.00	12.27		12.27
18.25	11.53		11.53
18.50	11.01		11.01
18.75	10.65		10.65
19.00	10.38		10.38
19.25	10.12		10.12
19.50	9.88		9.88
19.75	9.64		9.64
20.00	9.40		9.40

Summary for Reach SUB-1: Reach

Inflow Area = 66.930 ac, 2.76% Impervious, Inflow Depth > 2.21" for 50-yr event
Inflow = 88.91 cfs @ 12.49 hrs, Volume= 12.299 af
Outflow = 88.91 cfs @ 12.49 hrs, Volume= 12.299 af, Atten= 0%, Lag= 0.0 min
Routed to Reach DP-A : DP-A

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SUB-1: Reach



Hydrograph for Reach SUB-1: Reach

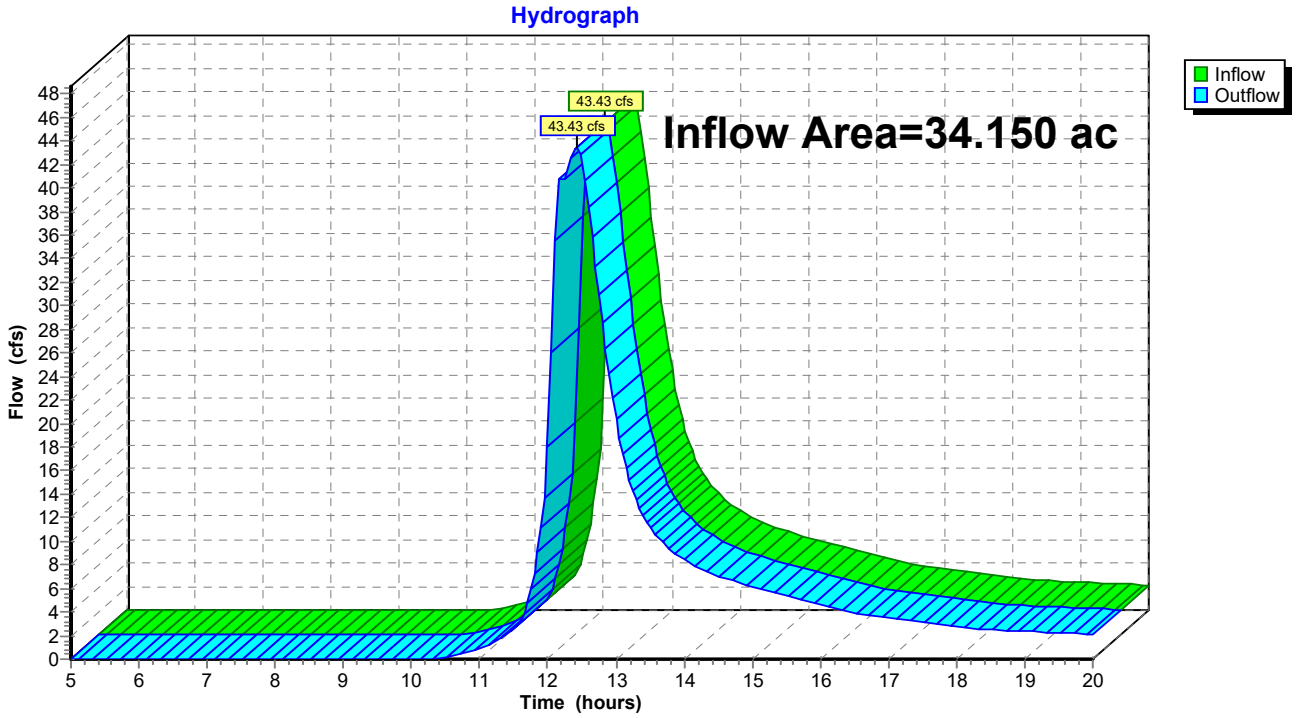
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	5.91		5.91
5.25	0.00		0.00	18.00	5.55		5.55
5.50	0.00		0.00	18.25	5.21		5.21
5.75	0.00		0.00	18.50	4.95		4.95
6.00	0.00		0.00	18.75	4.77		4.77
6.25	0.00		0.00	19.00	4.64		4.64
6.50	0.00		0.00	19.25	4.53		4.53
6.75	0.00		0.00	19.50	4.42		4.42
7.00	0.00		0.00	19.75	4.31		4.31
7.25	0.00		0.00	20.00	4.21		4.21
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.00		0.00				
10.25	0.02		0.02				
10.50	0.22		0.22				
10.75	0.71		0.71				
11.00	1.50		1.50				
11.25	2.62		2.62				
11.50	4.38		4.38				
11.75	9.04		9.04				
12.00	26.10		26.10				
12.25	67.59		67.59				
12.50	**88.85**		**88.85**				
12.75	69.01		69.01				
13.00	44.70		44.70				
13.25	30.34		30.34				
13.50	23.12		23.12				
13.75	19.38		19.38				
14.00	17.04		17.04				
14.25	15.32		15.32				
14.50	14.06		14.06				
14.75	13.12		13.12				
15.00	12.32		12.32				
15.25	11.55		11.55				
15.50	10.79		10.79				
15.75	10.01		10.01				
16.00	9.23		9.23				
16.25	8.47		8.47				
16.50	7.85		7.85				
16.75	7.38		7.38				
17.00	6.99		6.99				
17.25	6.62		6.62				
17.50	6.26		6.26				

Summary for Reach SUB-2: Reach

Inflow Area = 34.150 ac, 3.07% Impervious, Inflow Depth > 2.21" for 50-yr event
Inflow = 43.43 cfs @ 12.43 hrs, Volume= 6.288 af
Outflow = 43.43 cfs @ 12.43 hrs, Volume= 6.288 af, Atten= 0%, Lag= 0.0 min
Routed to Reach SUB-1 : Reach

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SUB-2: Reach



Hydrograph for Reach SUB-2: Reach

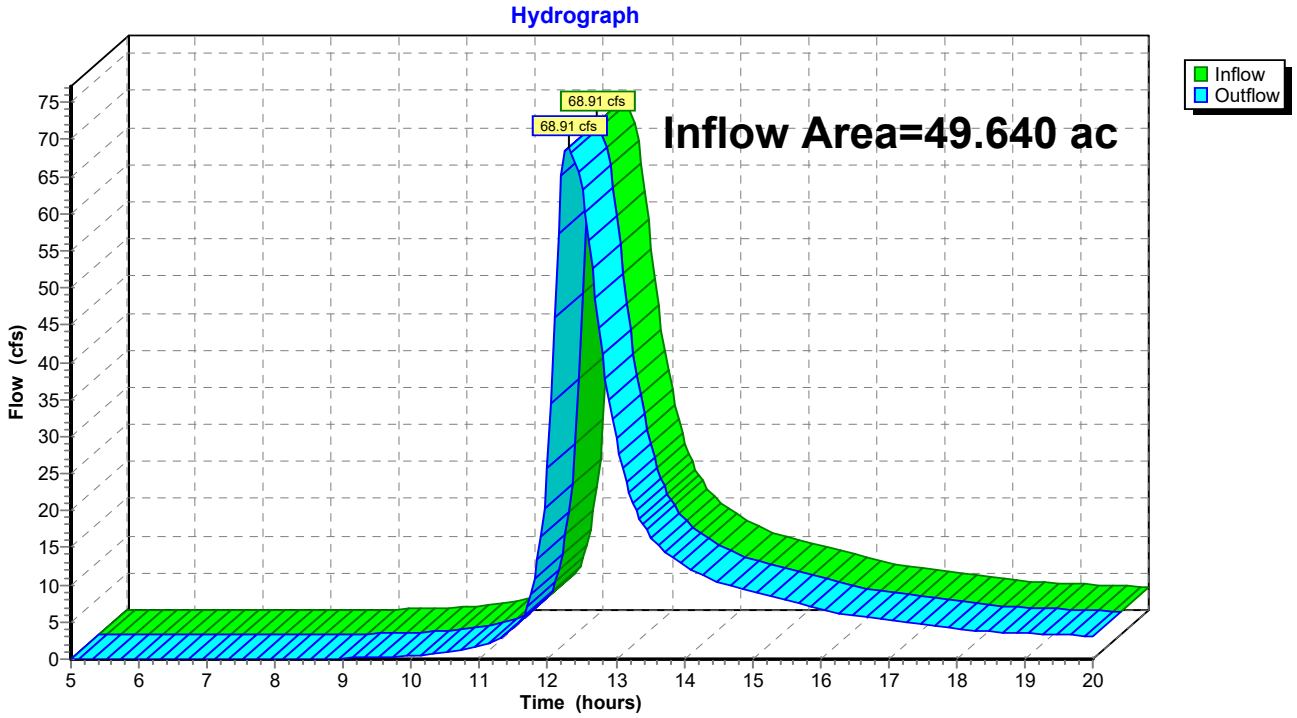
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	2.96		2.96
5.25	0.00		0.00	18.00	2.78		2.78
5.50	0.00		0.00	18.25	2.61		2.61
5.75	0.00		0.00	18.50	2.50		2.50
6.00	0.00		0.00	18.75	2.42		2.42
6.25	0.00		0.00	19.00	2.35		2.35
6.50	0.00		0.00	19.25	2.29		2.29
6.75	0.00		0.00	19.50	2.24		2.24
7.00	0.00		0.00	19.75	2.18		2.18
7.25	0.00		0.00	20.00	2.13		2.13
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.00		0.00				
10.25	0.02		0.02				
10.50	0.17		0.17				
10.75	0.47		0.47				
11.00	0.91		0.91				
11.25	1.54		1.54				
11.50	2.59		2.59				
11.75	5.89		5.89				
12.00	18.03		18.03				
12.25	**40.30**		**40.30**				
12.50	**42.43**		**42.43**				
12.75	30.89		30.89				
13.00	20.41		20.41				
13.25	14.24		14.24				
13.50	11.19		11.19				
13.75	9.53		9.53				
14.00	8.43		8.43				
14.25	7.61		7.61				
14.50	7.03		7.03				
14.75	6.58		6.58				
15.00	6.18		6.18				
15.25	5.79		5.79				
15.50	5.39		5.39				
15.75	4.99		4.99				
16.00	4.59		4.59				
16.25	4.22		4.22				
16.50	3.93		3.93				
16.75	3.71		3.71				
17.00	3.51		3.51				
17.25	3.33		3.33				
17.50	3.14		3.14				

Summary for Reach SUB-3: Reach

Inflow Area = 49.640 ac, 8.42% Impervious, Inflow Depth > 2.28" for 50-yr event
Inflow = 68.91 cfs @ 12.30 hrs, Volume= 9.443 af
Outflow = 68.91 cfs @ 12.30 hrs, Volume= 9.443 af, Atten= 0%, Lag= 0.0 min
Routed to Reach DP-A : DP-A

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SUB-3: Reach



Hydrograph for Reach SUB-3: Reach

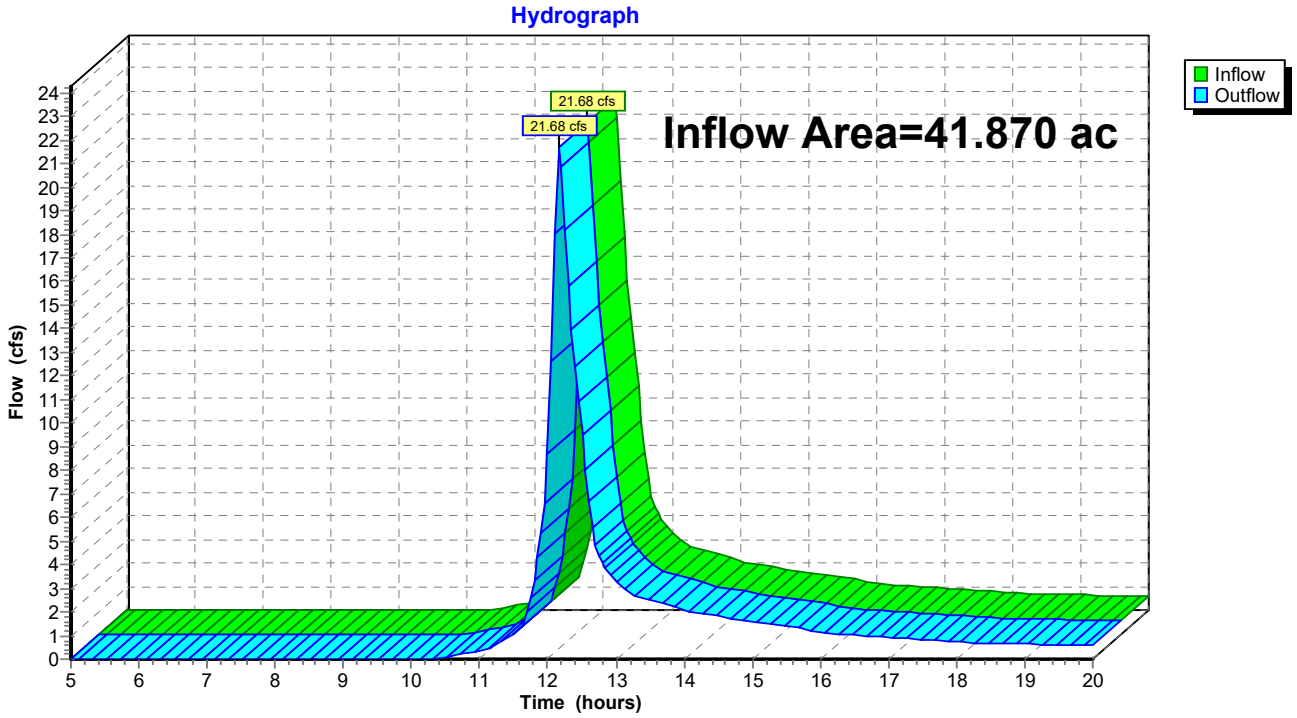
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	4.37		4.37
5.25	0.00		0.00	18.00	4.10		4.10
5.50	0.00		0.00	18.25	3.85		3.85
5.75	0.00		0.00	18.50	3.68		3.68
6.00	0.00		0.00	18.75	3.56		3.56
6.25	0.00		0.00	19.00	3.46		3.46
6.50	0.00		0.00	19.25	3.38		3.38
6.75	0.00		0.00	19.50	3.30		3.30
7.00	0.00		0.00	19.75	3.22		3.22
7.25	0.00		0.00	20.00	3.14		3.14
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.04		0.04				
9.00	0.10		0.10				
9.25	0.17		0.17				
9.50	0.26		0.26				
9.75	0.36		0.36				
10.00	0.47		0.47				
10.25	0.60		0.60				
10.50	0.84		0.84				
10.75	1.20		1.20				
11.00	1.77		1.77				
11.25	2.66		2.66				
11.50	4.27		4.27				
11.75	8.66		8.66				
12.00	25.66		25.66				
12.25	**68.38**		**68.38**				
12.50	**63.17**		**63.17**				
12.75	44.63		44.63				
13.00	29.83		29.83				
13.25	21.08		21.08				
13.50	16.69		16.69				
13.75	14.25		14.25				
14.00	12.61		12.61				
14.25	11.32		11.32				
14.50	10.42		10.42				
14.75	9.73		9.73				
15.00	9.13		9.13				
15.25	8.55		8.55				
15.50	7.98		7.98				
15.75	7.39		7.39				
16.00	6.80		6.80				
16.25	6.23		6.23				
16.50	5.81		5.81				
16.75	5.48		5.48				
17.00	5.19		5.19				
17.25	4.91		4.91				
17.50	4.64		4.64				

Summary for Reach SUB-4: Reach

Inflow Area = 41.870 ac, 3.96% Impervious, Inflow Depth > 0.50" for 50-yr event
Inflow = 21.68 cfs @ 12.17 hrs, Volume= 1.753 af
Outflow = 21.68 cfs @ 12.17 hrs, Volume= 1.753 af, Atten= 0%, Lag= 0.0 min
Routed to Reach SUB-5 : Reach

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SUB-4: Reach



Hydrograph for Reach SUB-4: Reach

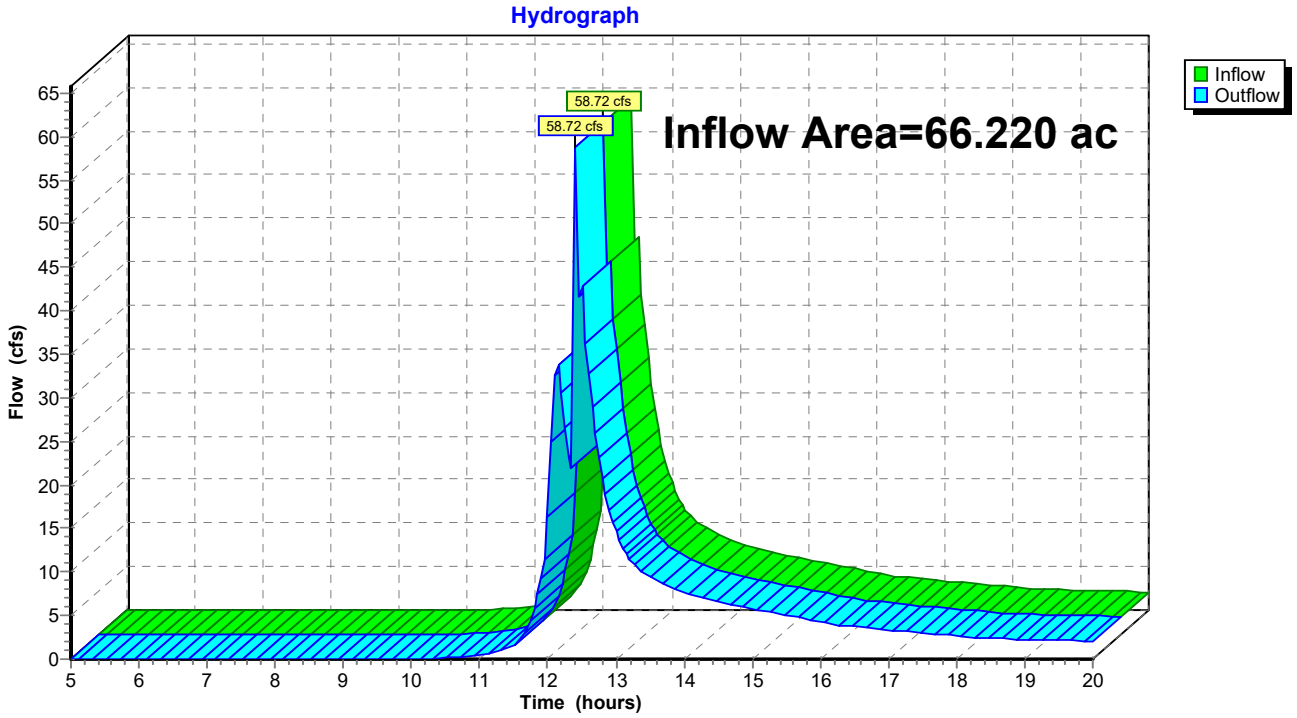
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00
5.25	0.00		0.00
5.50	0.00		0.00
5.75	0.00		0.00
6.00	0.00		0.00
6.25	0.00		0.00
6.50	0.00		0.00
6.75	0.00		0.00
7.00	0.00		0.00
7.25	0.00		0.00
7.50	0.00		0.00
7.75	0.00		0.00
8.00	0.00		0.00
8.25	0.00		0.00
8.50	0.00		0.00
8.75	0.00		0.00
9.00	0.00		0.00
9.25	0.00		0.00
9.50	0.00		0.00
9.75	0.00		0.00
10.00	0.00		0.00
10.25	0.01		0.01
10.50	0.10		0.10
10.75	0.22		0.22
11.00	0.38		0.38
11.25	0.61		0.61
11.50	1.02		1.02
11.75	2.61		2.61
12.00	**8.65**		**8.65**
12.25	**18.22**		**18.22**
12.50	9.50		9.50
12.75	4.39		4.39
13.00	3.32		3.32
13.25	2.73		2.73
13.50	2.51		2.51
13.75	2.31		2.31
14.00	2.09		2.09
14.25	1.92		1.92
14.50	1.82		1.82
14.75	1.71		1.71
15.00	1.61		1.61
15.25	1.50		1.50
15.50	1.39		1.39
15.75	1.28		1.28
16.00	1.17		1.17
16.25	1.07		1.07
16.50	1.02		1.02
16.75	0.97		0.97
17.00	0.92		0.92
17.25	0.87		0.87
17.50	0.82		0.82
17.75	0.77		0.77
18.00	0.72		0.72
18.25	0.68		0.68
18.50	0.67		0.67
18.75	0.65		0.65
19.00	0.64		0.64
19.25	0.62		0.62
19.50	0.61		0.61
19.75	0.59		0.59
20.00	0.58		0.58

Summary for Reach SUB-5: Reach

Inflow Area = 66.220 ac, 3.46% Impervious, Inflow Depth > 0.97" for 50-yr event
Inflow = 58.72 cfs @ 12.41 hrs, Volume= 5.367 af
Outflow = 58.72 cfs @ 12.41 hrs, Volume= 5.367 af, Atten= 0%, Lag= 0.0 min
Routed to Reach DP-A : DP-A

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SUB-5: Reach



Hydrograph for Reach SUB-5: Reach

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	2.81		2.81
5.25	0.00		0.00	18.00	2.63		2.63
5.50	0.00		0.00	18.25	2.48		2.48
5.75	0.00		0.00	18.50	2.38		2.38
6.00	0.00		0.00	18.75	2.32		2.32
6.25	0.00		0.00	19.00	2.27		2.27
6.50	0.00		0.00	19.25	2.22		2.22
6.75	0.00		0.00	19.50	2.16		2.16
7.00	0.00		0.00	19.75	2.11		2.11
7.25	0.00		0.00	20.00	2.06		2.06
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.00		0.00				
10.25	0.01		0.01				
10.50	0.10		0.10				
10.75	0.26		0.26				
11.00	0.50		0.50				
11.25	0.88		0.88				
11.50	1.55		1.55				
11.75	4.48		4.48				
12.00	16.30		16.30				
12.25	**26.48**		**26.48**				
12.50	**42.74**		**42.74**				
12.75	23.12		23.12				
13.00	14.62		14.62				
13.25	10.98		10.98				
13.50	9.37		9.37				
13.75	8.47		8.47				
14.00	7.71		7.71				
14.25	7.05		7.05				
14.50	6.59		6.59				
14.75	6.20		6.20				
15.00	5.83		5.83				
15.25	5.46		5.46				
15.50	5.08		5.08				
15.75	4.69		4.69				
16.00	4.29		4.29				
16.25	3.94		3.94				
16.50	3.70		3.70				
16.75	3.52		3.52				
17.00	3.34		3.34				
17.25	3.16		3.16				
17.50	2.99		2.99				

Summary for Pond A4*: A4 Pond

Inflow Area = 32.410 ac, 3.15% Impervious, Inflow Depth > 1.78" for 50-yr event
Inflow = 47.85 cfs @ 12.28 hrs, Volume= 4.819 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Reach SUB-4 : Reach

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 108.08' @ 20.00 hrs Storage= 209,736 cf

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

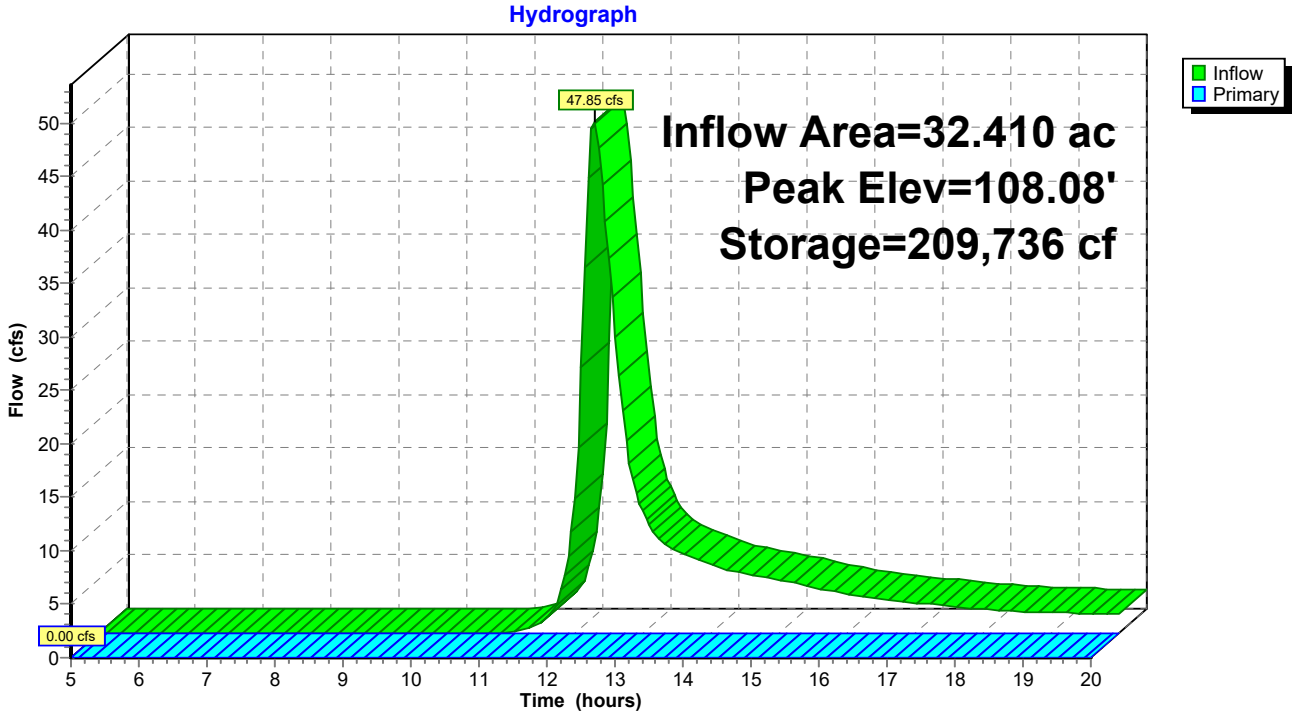
Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	576,398 cf	**Custom Stage Data**Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
100.00	0	0
105.00	86,533	86,533
110.00	200,119	286,652
115.00	289,746	576,398

Device	Routing	Invert	Outlet Devices
#1	Primary	110.00'	**220.0' long Broad-Crested Rectangular Weir** Head (feet) 10.00 Coef. (English) 2.60

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=100.00' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond A4*: A4 Pond



Hydrograph for Pond A4*: A4 Pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	100.00	**0.00**
5.50	0.00	0	100.00	0.00
6.00	0.00	0	100.00	0.00
6.50	0.00	0	100.00	0.00
7.00	0.00	0	100.00	0.00
7.50	0.00	0	100.00	0.00
8.00	0.00	0	100.00	0.00
8.50	0.00	0	100.00	0.00
9.00	0.00	0	100.00	0.00
9.50	0.00	0	100.00	0.00
10.00	0.00	0	100.00	0.00
10.50	0.00	0	100.00	0.00
11.00	0.02	2	100.00	0.00
11.50	1.06	706	100.04	0.00
12.00	**12.57**	8,450	100.49	0.00
12.50	**35.03**	73,951	104.27	0.00
13.00	11.39	110,098	105.59	0.00
13.50	7.71	126,348	105.99	0.00
14.00	6.50	139,122	106.31	0.00
14.50	5.56	149,856	106.58	0.00
15.00	4.96	159,319	106.82	0.00
15.50	4.33	167,679	107.03	0.00
16.00	3.67	174,876	107.21	0.00
16.50	3.16	180,950	107.36	0.00
17.00	2.86	186,367	107.49	0.00
17.50	2.56	191,250	107.62	0.00
18.00	2.26	195,589	107.72	0.00
18.50	2.05	199,423	107.82	0.00
19.00	1.95	203,021	107.91	0.00
19.50	1.87	206,459	108.00	0.00
20.00	1.78	**209,736**	**108.08**	0.00

Stage-Discharge for Pond A4*: A4 Pond

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
100.00	0.00	105.10	0.00	110.20	51.16
100.10	0.00	105.20	0.00	110.30	93.99
100.20	0.00	105.30	0.00	110.40	144.71
100.30	0.00	105.40	0.00	110.50	202.23
100.40	0.00	105.50	0.00	110.60	265.84
100.50	0.00	105.60	0.00	110.70	335.00
100.60	0.00	105.70	0.00	110.80	409.29
100.70	0.00	105.80	0.00	110.90	488.38
100.80	0.00	105.90	0.00	111.00	572.00
100.90	0.00	106.00	0.00	111.10	659.91
101.00	0.00	106.10	0.00	111.20	751.91
101.10	0.00	106.20	0.00	111.30	847.83
101.20	0.00	106.30	0.00	111.40	947.52
101.30	0.00	106.40	0.00	111.50	1,050.83
101.40	0.00	106.50	0.00	111.60	1,157.65
101.50	0.00	106.60	0.00	111.70	1,267.85
101.60	0.00	106.70	0.00	111.80	1,381.35
101.70	0.00	106.80	0.00	111.90	1,498.05
101.80	0.00	106.90	0.00	112.00	1,617.86
101.90	0.00	107.00	0.00	112.10	1,740.70
102.00	0.00	107.10	0.00	112.20	1,866.51
102.10	0.00	107.20	0.00	112.30	1,995.21
102.20	0.00	107.30	0.00	112.40	2,126.73
102.30	0.00	107.40	0.00	112.50	2,261.03
102.40	0.00	107.50	0.00	112.60	2,398.04
102.50	0.00	107.60	0.00	112.70	2,537.71
102.60	0.00	107.70	0.00	112.80	2,679.99
102.70	0.00	107.80	0.00	112.90	2,824.83
102.80	0.00	107.90	0.00	113.00	2,972.20
102.90	0.00	108.00	0.00	113.10	3,122.04
103.00	0.00	108.10	0.00	113.20	3,274.32
103.10	0.00	108.20	0.00	113.30	3,429.00
103.20	0.00	108.30	0.00	113.40	3,586.03
103.30	0.00	108.40	0.00	113.50	3,745.40
103.40	0.00	108.50	0.00	113.60	3,907.06
103.50	0.00	108.60	0.00	113.70	4,070.98
103.60	0.00	108.70	0.00	113.80	4,237.13
103.70	0.00	108.80	0.00	113.90	4,405.48
103.80	0.00	108.90	0.00	114.00	4,576.00
103.90	0.00	109.00	0.00	114.10	4,748.67
104.00	0.00	109.10	0.00	114.20	4,923.45
104.10	0.00	109.20	0.00	114.30	5,100.34
104.20	0.00	109.30	0.00	114.40	5,279.28
104.30	0.00	109.40	0.00	114.50	5,460.28
104.40	0.00	109.50	0.00	114.60	5,643.30
104.50	0.00	109.60	0.00	114.70	5,828.31
104.60	0.00	109.70	0.00	114.80	6,015.31
104.70	0.00	109.80	0.00	114.90	6,204.26
104.80	0.00	109.90	0.00	115.00	**6,395.15**
104.90	0.00	110.00	0.00		
105.00	0.00	110.10	18.09		

Stage-Area-Storage for Pond A4*: A4 Pond

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
100.00	0	105.10	90,535	110.20	298,242
100.10	1,731	105.20	94,538	110.30	304,037
100.20	3,461	105.30	98,540	110.40	309,832
100.30	5,192	105.40	102,543	110.50	315,627
100.40	6,923	105.50	106,545	110.60	321,422
100.50	8,653	105.60	110,547	110.70	327,216
100.60	10,384	105.70	114,550	110.80	333,011
100.70	12,115	105.80	118,552	110.90	338,806
100.80	13,845	105.90	122,554	111.00	344,601
100.90	15,576	106.00	126,557	111.10	350,396
101.00	17,307	106.10	130,559	111.20	356,191
101.10	19,037	106.20	134,562	111.30	361,986
101.20	20,768	106.30	138,564	111.40	367,781
101.30	22,499	106.40	142,566	111.50	373,576
101.40	24,229	106.50	146,569	111.60	379,371
101.50	25,960	106.60	150,571	111.70	385,166
101.60	27,691	106.70	154,573	111.80	390,961
101.70	29,421	106.80	158,576	111.90	396,755
101.80	31,152	106.90	162,578	112.00	402,550
101.90	32,883	107.00	166,581	112.10	408,345
102.00	34,613	107.10	170,583	112.20	414,140
102.10	36,344	107.20	174,585	112.30	419,935
102.20	38,075	107.30	178,588	112.40	425,730
102.30	39,805	107.40	182,590	112.50	431,525
102.40	41,536	107.50	186,593	112.60	437,320
102.50	43,267	107.60	190,595	112.70	443,115
102.60	44,997	107.70	194,597	112.80	448,910
102.70	46,728	107.80	198,600	112.90	454,705
102.80	48,458	107.90	202,602	113.00	460,500
102.90	50,189	108.00	206,604	113.10	466,295
103.00	51,920	108.10	210,607	113.20	472,089
103.10	53,650	108.20	214,609	113.30	477,884
103.20	55,381	108.30	218,612	113.40	483,679
103.30	57,112	108.40	222,614	113.50	489,474
103.40	58,842	108.50	226,616	113.60	495,269
103.50	60,573	108.60	230,619	113.70	501,064
103.60	62,304	108.70	234,621	113.80	506,859
103.70	64,034	108.80	238,623	113.90	512,654
103.80	65,765	108.90	242,626	114.00	518,449
103.90	67,496	109.00	246,628	114.10	524,244
104.00	69,226	109.10	250,631	114.20	530,039
104.10	70,957	109.20	254,633	114.30	535,834
104.20	72,688	109.30	258,635	114.40	541,628
104.30	74,418	109.40	262,638	114.50	547,423
104.40	76,149	109.50	266,640	114.60	553,218
104.50	77,880	109.60	270,642	114.70	559,013
104.60	79,610	109.70	274,645	114.80	564,808
104.70	81,341	109.80	278,647	114.90	570,603
104.80	83,072	109.90	282,650	115.00	**576,398**
104.90	84,802	110.00	286,652		
105.00	86,533	110.10	292,447		

Summary for Pond A5*: A5 Pond

Inflow Area = 18.170 ac, 2.92% Impervious, Inflow Depth > 2.21" for 50-yr event
Inflow = 30.73 cfs @ 12.37 hrs, Volume= 3.349 af
Outflow = 40.95 cfs @ 12.41 hrs, Volume= 2.602 af, Atten= 0%, Lag= 2.7 min
Primary = 40.95 cfs @ 12.41 hrs, Volume= 2.602 af
Routed to Reach SUB-5 : Reach

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 108.28' @ 12.41 hrs Storage= 34,457 cf

Plug-Flow detention time= 85.8 min calculated for 2.593 af (77% of inflow)
Center-of-Mass det. time= 30.1 min (856.9 - 826.8)

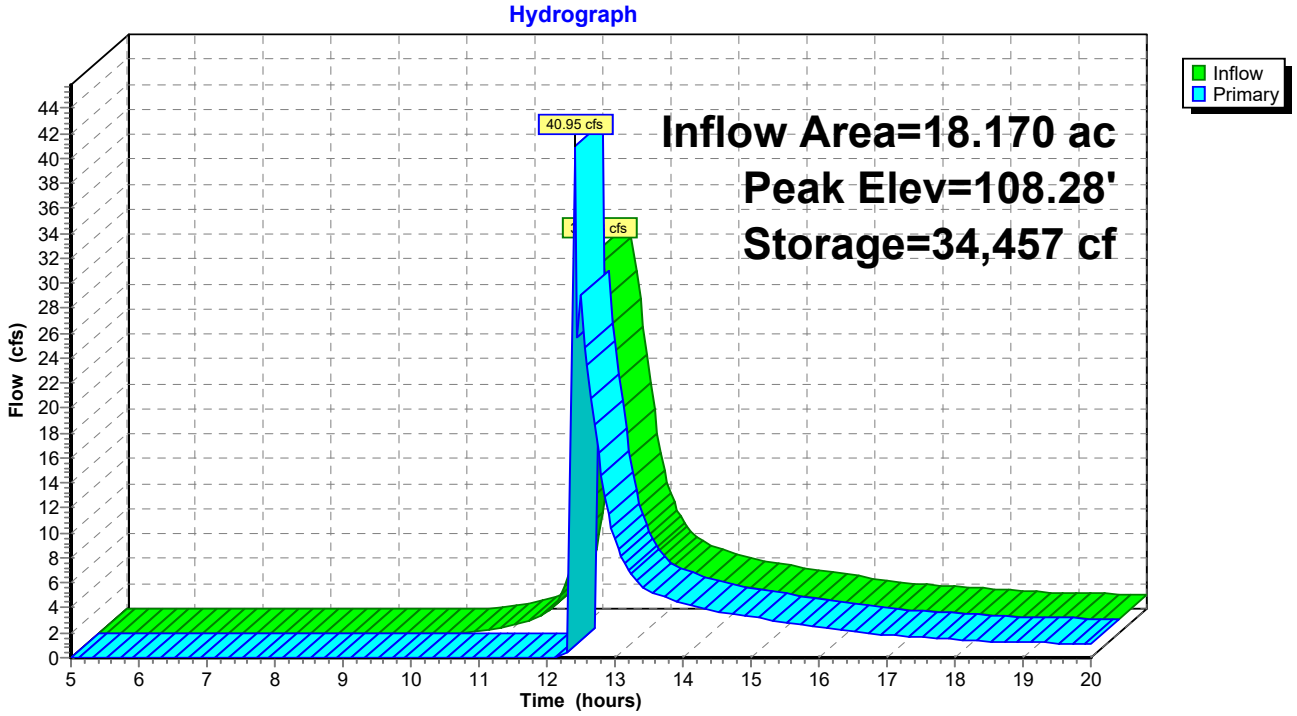
Volume	Invert	Avail.Storage	Storage Description
#1	102.00'	47,512 cf	**Custom Stage Data** Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
102.00	0	0
103.00	1,980	1,980
104.00	3,154	5,134
105.00	4,438	9,572
110.00	37,940	47,512

Device	Routing	Invert	Outlet Devices
#1	Primary	108.00'	**110.0' long Broad-Crested Rectangular Weir** Head (feet) 6.00 Coef. (English) 2.60

Primary OutFlow Max=36.10 cfs @ 12.41 hrs HW=108.25' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Weir Controls 36.10 cfs @ 1.30 fps)

Pond A5*: A5 Pond



Hydrograph for Pond A5*: A5 Pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	102.00	0.00
5.50	0.00	0	102.00	0.00
6.00	0.00	0	102.00	0.00
6.50	0.00	0	102.00	0.00
7.00	0.00	0	102.00	0.00
7.50	0.00	0	102.00	0.00
8.00	0.00	0	102.00	0.00
8.50	0.00	0	102.00	0.00
9.00	0.00	0	102.00	0.00
9.50	0.00	0	102.00	0.00
10.00	0.00	0	102.00	0.00
10.50	0.07	22	102.01	0.00
11.00	0.49	477	102.24	0.00
11.50	1.35	1,997	103.01	0.00
12.00	**7.69**	**7,757**	**104.59**	**0.00**
12.50	**27.07**	**33,988**	**108.22**	**29.04**
13.00	9.22	33,118	108.10	9.47
13.50	5.33	32,873	108.07	5.39
14.00	4.36	32,805	108.06	4.39
14.50	3.67	32,754	108.06	3.69
15.00	3.26	32,721	108.05	3.27
15.50	2.85	32,689	108.05	2.86
16.00	2.42	32,653	108.04	2.44
16.50	2.06	32,620	108.04	2.07
17.00	1.85	32,601	108.03	1.86
17.50	1.66	32,582	108.03	1.67
18.00	1.47	32,563	108.03	1.48
18.50	1.31	32,546	108.03	1.32
19.00	1.25	32,539	108.03	1.25
19.50	1.19	32,532	108.03	1.19
20.00	1.13	32,526	108.03	1.13

Stage-Discharge for Pond A5*: A5 Pond

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
102.00	0.00	104.55	0.00	107.10	0.00	109.65	606.17
102.05	0.00	104.60	0.00	107.15	0.00	109.70	633.93
102.10	0.00	104.65	0.00	107.20	0.00	109.75	662.10
102.15	0.00	104.70	0.00	107.25	0.00	109.80	690.68
102.20	0.00	104.75	0.00	107.30	0.00	109.85	719.65
102.25	0.00	104.80	0.00	107.35	0.00	109.90	749.03
102.30	0.00	104.85	0.00	107.40	0.00	109.95	778.79
102.35	0.00	104.90	0.00	107.45	0.00	110.00	**808.93**
102.40	0.00	104.95	0.00	107.50	0.00		
102.45	0.00	105.00	0.00	107.55	0.00		
102.50	0.00	105.05	0.00	107.60	0.00		
102.55	0.00	105.10	0.00	107.65	0.00		
102.60	0.00	105.15	0.00	107.70	0.00		
102.65	0.00	105.20	0.00	107.75	0.00		
102.70	0.00	105.25	0.00	107.80	0.00		
102.75	0.00	105.30	0.00	107.85	0.00		
102.80	0.00	105.35	0.00	107.90	0.00		
102.85	0.00	105.40	0.00	107.95	0.00		
102.90	0.00	105.45	0.00	108.00	0.00		
102.95	0.00	105.50	0.00	108.05	3.20		
103.00	0.00	105.55	0.00	108.10	9.04		
103.05	0.00	105.60	0.00	108.15	16.62		
103.10	0.00	105.65	0.00	108.20	25.58		
103.15	0.00	105.70	0.00	108.25	35.75		
103.20	0.00	105.75	0.00	108.30	46.99		
103.25	0.00	105.80	0.00	108.35	59.22		
103.30	0.00	105.85	0.00	108.40	72.35		
103.35	0.00	105.90	0.00	108.45	86.33		
103.40	0.00	105.95	0.00	108.50	101.12		
103.45	0.00	106.00	0.00	108.55	116.66		
103.50	0.00	106.05	0.00	108.60	132.92		
103.55	0.00	106.10	0.00	108.65	149.88		
103.60	0.00	106.15	0.00	108.70	167.50		
103.65	0.00	106.20	0.00	108.75	185.76		
103.70	0.00	106.25	0.00	108.80	204.64		
103.75	0.00	106.30	0.00	108.85	224.13		
103.80	0.00	106.35	0.00	108.90	244.19		
103.85	0.00	106.40	0.00	108.95	264.82		
103.90	0.00	106.45	0.00	109.00	286.00		
103.95	0.00	106.50	0.00	109.05	307.72		
104.00	0.00	106.55	0.00	109.10	329.96		
104.05	0.00	106.60	0.00	109.15	352.71		
104.10	0.00	106.65	0.00	109.20	375.96		
104.15	0.00	106.70	0.00	109.25	399.70		
104.20	0.00	106.75	0.00	109.30	423.92		
104.25	0.00	106.80	0.00	109.35	448.61		
104.30	0.00	106.85	0.00	109.40	473.76		
104.35	0.00	106.90	0.00	109.45	499.36		
104.40	0.00	106.95	0.00	109.50	525.42		
104.45	0.00	107.00	0.00	109.55	551.90		
104.50	0.00	107.05	0.00	109.60	578.82		

Stage-Area-Storage for Pond A5*: A5 Pond

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
102.00	0	107.10	25,507
102.10	198	107.20	26,266
102.20	396	107.30	27,024
102.30	594	107.40	27,783
102.40	792	107.50	28,542
102.50	990	107.60	29,301
102.60	1,188	107.70	30,060
102.70	1,386	107.80	30,818
102.80	1,584	107.90	31,577
102.90	1,782	108.00	32,336
103.00	1,980	108.10	33,095
103.10	2,295	108.20	33,854
103.20	2,611	108.30	34,612
103.30	2,926	108.40	35,371
103.40	3,242	108.50	36,130
103.50	3,557	108.60	36,889
103.60	3,872	108.70	37,648
103.70	4,188	108.80	38,406
103.80	4,503	108.90	39,165
103.90	4,819	109.00	39,924
104.00	5,134	109.10	40,683
104.10	5,578	109.20	41,442
104.20	6,022	109.30	42,200
104.30	6,465	109.40	42,959
104.40	6,909	109.50	43,718
104.50	7,353	109.60	44,477
104.60	7,797	109.70	45,236
104.70	8,241	109.80	45,994
104.80	8,684	109.90	46,753
104.90	9,128	110.00	**47,512**
105.00	9,572		
105.10	10,331		
105.20	11,090		
105.30	11,848		
105.40	12,607		
105.50	13,366		
105.60	14,125		
105.70	14,884		
105.80	15,642		
105.90	16,401		
106.00	17,160		
106.10	17,919		
106.20	18,678		
106.30	19,436		
106.40	20,195		
106.50	20,954		
106.60	21,713		
106.70	22,472		
106.80	23,230		
106.90	23,989		
107.00	24,748		

Summary for Pond B12*: B12 Pond

Inflow Area = 5.240 ac, 3.63% Impervious, Inflow Depth > 2.32" for 50-yr event
Inflow = 14.85 cfs @ 12.10 hrs, Volume= 1.013 af
Outflow = 13.56 cfs @ 12.14 hrs, Volume= 1.007 af, Atten= 9%, Lag= 2.4 min
Primary = 13.56 cfs @ 12.14 hrs, Volume= 1.007 af
Routed to Reach 2R : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 126.13' @ 12.14 hrs Storage= 2,675 cf

Plug-Flow detention time= 6.2 min calculated for 1.004 af (99% of inflow)
Center-of-Mass det. time= 4.3 min (815.0 - 810.7)

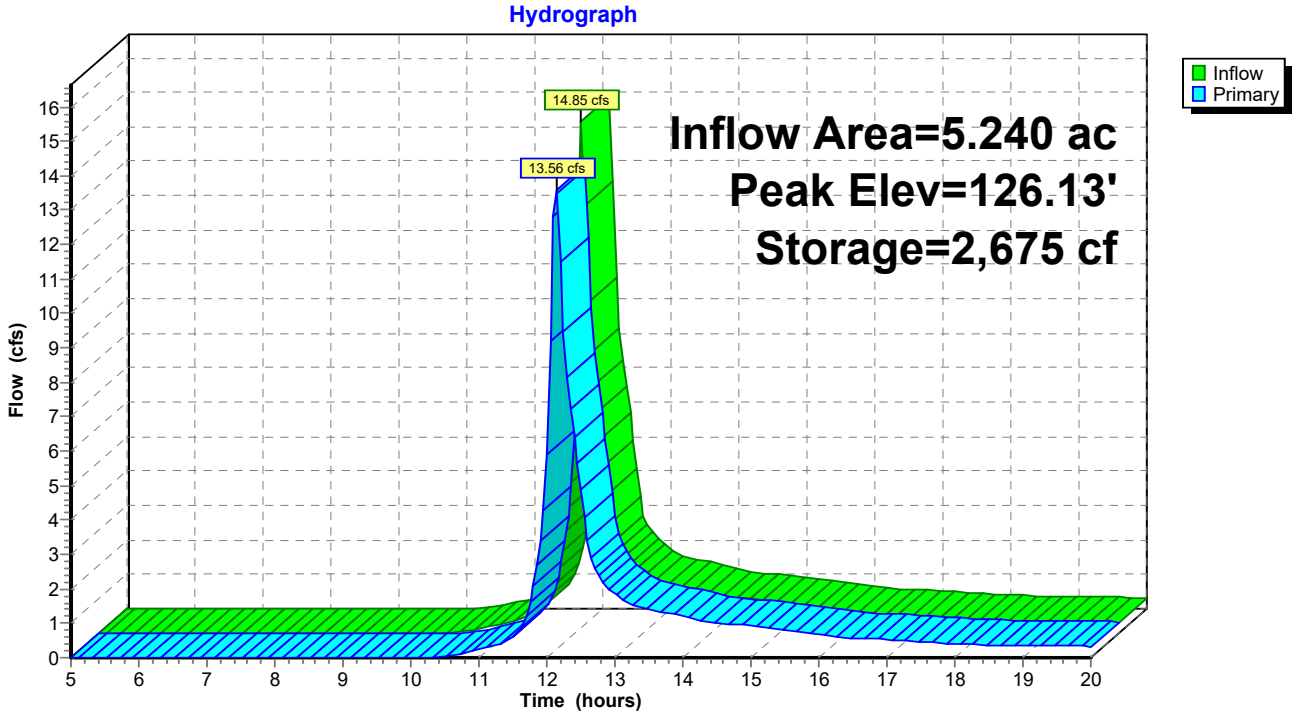
Volume	Invert	Avail.Storage	Storage Description
#1	126.00'	63,569 cf	**Custom Stage Data**Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
126.00	0	0
127.00	21,148	21,148
128.00	21,203	42,351
129.00	21,218	63,569

Device	Routing	Invert	Outlet Devices
#1	Primary	126.00'	**116.0' long Broad-Crested Rectangular Weir** Head (feet) 2.00 Coef. (English) 2.60

Primary OutFlow Max=13.31 cfs @ 12.14 hrs HW=126.12' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Weir Controls 13.31 cfs @ 0.92 fps)

Pond B12*: B12 Pond



Hydrograph for Pond B12*: B12 Pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	126.00	0.00
5.50	0.00	0	126.00	0.00
6.00	0.00	0	126.00	0.00
6.50	0.00	0	126.00	0.00
7.00	0.00	0	126.00	0.00
7.50	0.00	0	126.00	0.00
8.00	0.00	0	126.00	0.00
8.50	0.00	0	126.00	0.00
9.00	0.00	0	126.00	0.00
9.50	0.00	0	126.00	0.00
10.00	0.00	0	126.00	0.00
10.50	0.11	64	126.00	0.05
11.00	0.28	174	126.01	0.22
11.50	0.73	338	126.02	0.61
12.00	**8.15**	**1,540**	**126.07**	**5.93**
12.50	**4.05**	**1,349**	**126.06**	**4.86**
13.00	1.74	713	126.03	1.87
13.50	1.39	595	126.03	1.42
14.00	1.15	528	126.02	1.19
14.50	1.01	480	126.02	1.03
15.00	0.89	443	126.02	0.91
15.50	0.77	402	126.02	0.79
16.00	0.64	358	126.02	0.66
16.50	0.57	328	126.02	0.58
17.00	0.51	306	126.01	0.53
17.50	0.46	284	126.01	0.47
18.00	0.40	260	126.01	0.41
18.50	0.37	246	126.01	0.38
19.00	0.36	238	126.01	0.36
19.50	0.34	231	126.01	0.34
20.00	0.32	223	126.01	0.33

Stage-Discharge for Pond B12*: B12 Pond

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
126.00	0.00	127.02	310.69	128.04	878.77
126.02	0.85	127.04	319.88	128.06	891.73
126.04	2.41	127.06	329.15	128.08	904.75
126.06	4.43	127.08	338.51	128.10	917.83
126.08	6.82	127.10	347.95	128.12	930.97
126.10	9.54	127.12	357.49	128.14	944.17
126.12	12.54	127.14	367.10	128.16	957.44
126.14	15.80	127.16	376.81	128.18	970.77
126.16	19.30	127.18	386.59	128.20	984.16
126.18	23.03	127.20	396.46	128.22	997.61
126.20	26.98	127.22	406.42	128.24	1,011.12
126.22	31.12	127.24	416.45	128.26	1,024.69
126.24	35.46	127.26	426.57	128.28	1,038.33
126.26	39.98	127.28	436.76	128.30	1,052.02
126.28	44.69	127.30	447.04	128.32	1,065.77
126.30	49.56	127.32	457.40	128.34	1,079.58
126.32	54.60	127.34	467.83	128.36	1,093.45
126.34	59.79	127.36	478.34	128.38	1,107.38
126.36	65.15	127.38	488.93	128.40	1,121.37
126.38	70.65	127.40	499.60	128.42	1,135.41
126.40	76.30	127.42	510.34	128.44	1,149.52
126.42	82.09	127.44	521.16	128.46	1,163.68
126.44	88.03	127.46	532.06	128.48	1,177.90
126.46	94.10	127.48	543.03	128.50	1,192.18
126.48	100.30	127.50	554.07	128.52	1,206.51
126.50	106.63	127.52	565.19	128.54	1,220.91
126.52	113.09	127.54	576.38	128.56	1,235.35
126.54	119.68	127.56	587.65	128.58	1,249.86
126.56	126.39	127.58	598.99	128.60	1,264.42
126.58	133.22	127.60	610.40	128.62	1,279.04
126.60	140.17	127.62	621.88	128.64	1,293.71
126.62	147.24	127.64	633.43	128.66	1,308.44
126.64	154.42	127.66	645.05	128.68	1,323.22
126.66	161.71	127.68	656.74	128.70	1,338.06
126.68	169.12	127.70	668.51	128.72	1,352.96
126.70	176.64	127.72	680.34	128.74	1,367.91
126.72	184.26	127.74	692.24	128.76	1,382.91
126.74	191.99	127.76	704.21	128.78	1,397.97
126.76	199.83	127.78	716.24	128.80	1,413.09
126.78	207.77	127.80	728.35	128.82	1,428.25
126.80	215.81	127.82	740.52	128.84	1,443.47
126.82	223.95	127.84	752.76	128.86	1,458.75
126.84	232.19	127.86	765.07	128.88	1,474.08
126.86	240.54	127.88	777.44	128.90	1,489.46
126.88	248.97	127.90	789.88	128.92	1,504.89
126.90	257.51	127.92	802.39	128.94	1,520.38
126.92	266.14	127.94	814.96	128.96	1,535.92
126.94	274.87	127.96	827.59	128.98	1,551.51
126.96	283.69	127.98	840.29	129.00	**1,567.16**
126.98	292.60	128.00	853.05		
127.00	301.60	128.02	865.88		

Stage-Area-Storage for Pond B12*: B12 Pond

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
126.00	0	127.02	21,572	128.04	43,200
126.02	423	127.04	21,996	128.06	43,624
126.04	846	127.06	22,420	128.08	44,048
126.06	1,269	127.08	22,844	128.10	44,473
126.08	1,692	127.10	23,268	128.12	44,897
126.10	2,115	127.12	23,692	128.14	45,322
126.12	2,538	127.14	24,116	128.16	45,746
126.14	2,961	127.16	24,540	128.18	46,170
126.16	3,384	127.18	24,965	128.20	46,595
126.18	3,807	127.20	25,389	128.22	47,019
126.20	4,230	127.22	25,813	128.24	47,443
126.22	4,653	127.24	26,237	128.26	47,868
126.24	5,076	127.26	26,661	128.28	48,292
126.26	5,498	127.28	27,085	128.30	48,716
126.28	5,921	127.30	27,509	128.32	49,141
126.30	6,344	127.32	27,933	128.34	49,565
126.32	6,767	127.34	28,357	128.36	49,989
126.34	7,190	127.36	28,781	128.38	50,414
126.36	7,613	127.38	29,205	128.40	50,838
126.38	8,036	127.40	29,629	128.42	51,263
126.40	8,459	127.42	30,053	128.44	51,687
126.42	8,882	127.44	30,477	128.46	52,111
126.44	9,305	127.46	30,901	128.48	52,536
126.46	9,728	127.48	31,325	128.50	52,960
126.48	10,151	127.50	31,750	128.52	53,384
126.50	10,574	127.52	32,174	128.54	53,809
126.52	10,997	127.54	32,598	128.56	54,233
126.54	11,420	127.56	33,022	128.58	54,657
126.56	11,843	127.58	33,446	128.60	55,082
126.58	12,266	127.60	33,870	128.62	55,506
126.60	12,689	127.62	34,294	128.64	55,931
126.62	13,112	127.64	34,718	128.66	56,355
126.64	13,535	127.66	35,142	128.68	56,779
126.66	13,958	127.68	35,566	128.70	57,204
126.68	14,381	127.70	35,990	128.72	57,628
126.70	14,804	127.72	36,414	128.74	58,052
126.72	15,227	127.74	36,838	128.76	58,477
126.74	15,650	127.76	37,262	128.78	58,901
126.76	16,072	127.78	37,686	128.80	59,325
126.78	16,495	127.80	38,110	128.82	59,750
126.80	16,918	127.82	38,534	128.84	60,174
126.82	17,341	127.84	38,959	128.86	60,598
126.84	17,764	127.86	39,383	128.88	61,023
126.86	18,187	127.88	39,807	128.90	61,447
126.88	18,610	127.90	40,231	128.92	61,872
126.90	19,033	127.92	40,655	128.94	62,296
126.92	19,456	127.94	41,079	128.96	62,720
126.94	19,879	127.96	41,503	128.98	63,145
126.96	20,302	127.98	41,927	129.00	**63,569**
126.98	20,725	128.00	42,351		
127.00	21,148	128.02	42,775		

Summary for Pond B8*: B8 Pond

Inflow Area = 10.500 ac, 2.86% Impervious, Inflow Depth > 2.22" for 50-yr event
Inflow = 19.04 cfs @ 12.31 hrs, Volume= 1.938 af
Outflow = 17.92 cfs @ 12.39 hrs, Volume= 1.921 af, Atten= 6%, Lag= 4.8 min
Primary = 17.92 cfs @ 12.39 hrs, Volume= 1.921 af
Routed to Reach 2R : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 132.22' @ 12.39 hrs Storage= 6,631 cf

Plug-Flow detention time= 10.3 min calculated for 1.915 af (99% of inflow)
Center-of-Mass det. time= 7.1 min (831.0 - 823.9)

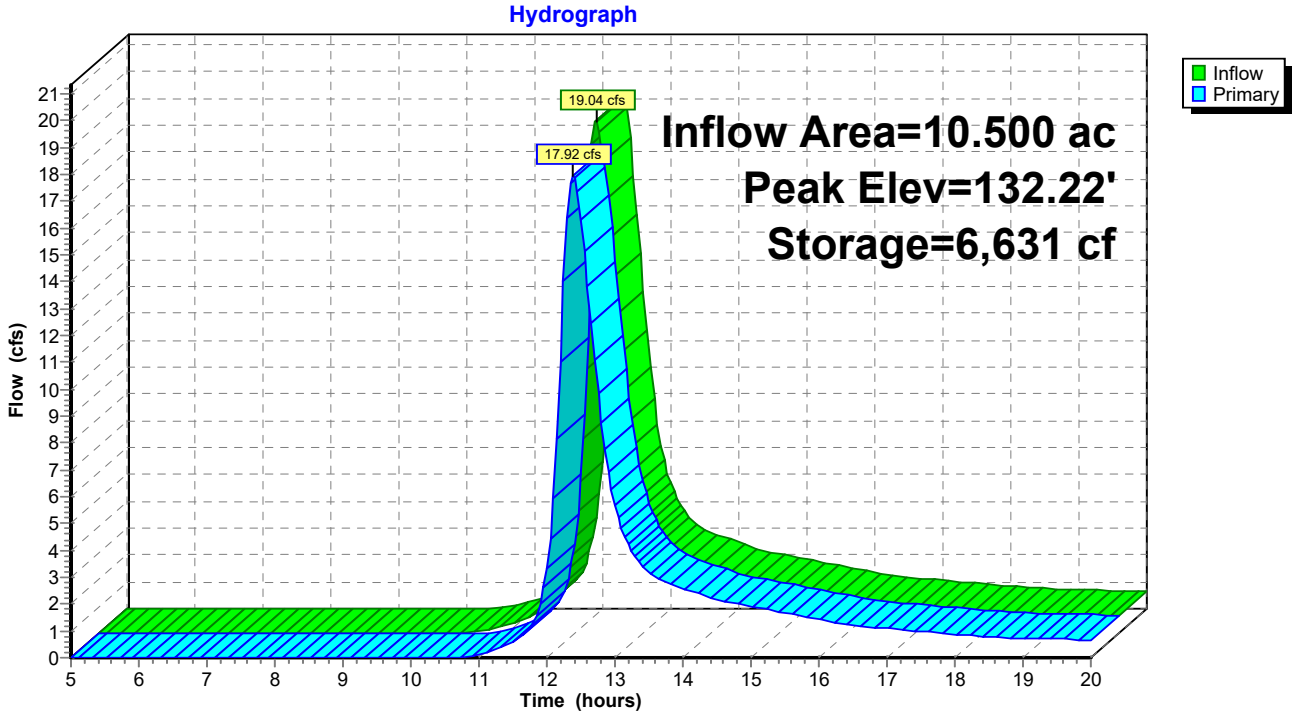
Volume	Invert	Avail.Storage	Storage Description
#1	132.00'	59,494 cf	**Custom Stage Data**Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
132.00	0	0
133.00	29,722	29,722
134.00	29,772	59,494

Device	Routing	Invert	Outlet Devices
#1	Primary	132.00'	**170.0' long Broad-Crested Rectangular Weir** Head (feet) 2.00 Coef. (English) 1.00

Primary OutFlow Max=17.85 cfs @ 12.39 hrs HW=132.22' TW=0.00' (Dynamic Tailwater)
1=Broad-Crested Rectangular Weir (Weir Controls 17.85 cfs @ 0.47 fps)

Pond B8*: B8 Pond



Hydrograph for Pond B8*: B8 Pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	132.00	0.00
5.50	0.00	0	132.00	0.00
6.00	0.00	0	132.00	0.00
6.50	0.00	0	132.00	0.00
7.00	0.00	0	132.00	0.00
7.50	0.00	0	132.00	0.00
8.00	0.00	0	132.00	0.00
8.50	0.00	0	132.00	0.00
9.00	0.00	0	132.00	0.00
9.50	0.00	0	132.00	0.00
10.00	0.00	0	132.00	0.00
10.50	0.05	18	132.00	0.00
11.00	0.32	247	132.01	0.13
11.50	0.87	661	132.02	0.56
12.00	**5.45**	**2,169**	**132.07**	**3.35**
12.50	**14.68**	**6,229**	**132.21**	**16.31**
13.00	4.68	3,084	132.10	5.68
13.50	2.96	2,101	132.07	3.20
14.00	2.46	1,826	132.06	2.59
14.50	2.09	1,625	132.05	2.17
15.00	1.85	1,497	132.05	1.92
15.50	1.62	1,373	132.05	1.69
16.00	1.37	1,239	132.04	1.45
16.50	1.17	1,109	132.04	1.23
17.00	1.06	1,030	132.03	1.10
17.50	0.95	960	132.03	0.99
18.00	0.83	887	132.03	0.88
18.50	0.75	819	132.03	0.78
19.00	0.72	785	132.03	0.73
19.50	0.68	761	132.03	0.70
20.00	0.65	736	132.02	0.66

Stage-Discharge for Pond B8*: B8 Pond

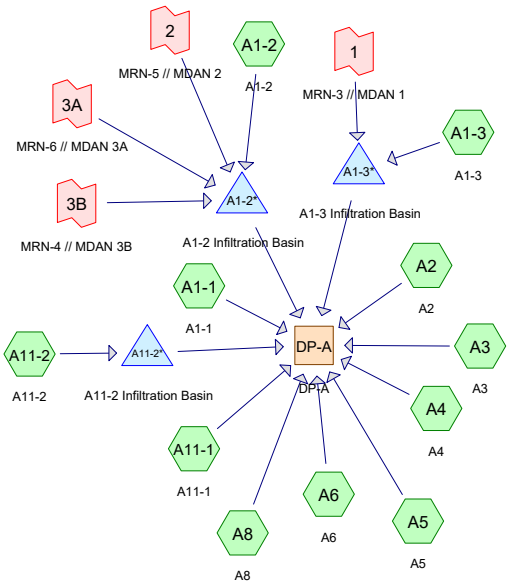
Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
132.00	0.00	132.51	61.92	133.02	175.13	133.53	321.73
132.01	0.17	132.52	63.75	133.03	177.71	133.54	324.89
132.02	0.48	132.53	65.59	133.04	180.30	133.55	328.05
132.03	0.88	132.54	67.46	133.05	182.91	133.56	331.23
132.04	1.36	132.55	69.34	133.06	185.53	133.57	334.42
132.05	1.90	132.56	71.24	133.07	188.16	133.58	337.62
132.06	2.50	132.57	73.16	133.08	190.80	133.59	340.84
132.07	3.15	132.58	75.09	133.09	193.46	133.60	344.06
132.08	3.85	132.59	77.04	133.10	196.13	133.61	347.29
132.09	4.59	132.60	79.01	133.11	198.81	133.62	350.53
132.10	5.38	132.61	80.99	133.12	201.50	133.63	353.78
132.11	6.20	132.62	82.99	133.13	204.21	133.64	357.04
132.12	7.07	132.63	85.01	133.14	206.92	133.65	360.31
132.13	7.97	132.64	87.04	133.15	209.65	133.66	363.59
132.14	8.91	132.65	89.09	133.16	212.39	133.67	366.88
132.15	9.88	132.66	91.15	133.17	215.14	133.68	370.18
132.16	10.88	132.67	93.23	133.18	217.91	133.69	373.49
132.17	11.92	132.68	95.33	133.19	220.68	133.70	376.81
132.18	12.98	132.69	97.44	133.20	223.47	133.71	380.14
132.19	14.08	132.70	99.56	133.21	226.27	133.72	383.48
132.20	15.21	132.71	101.70	133.22	229.08	133.73	386.83
132.21	16.36	132.72	103.86	133.23	231.90	133.74	390.19
132.22	17.54	132.73	106.03	133.24	234.74	133.75	393.56
132.23	18.75	132.74	108.22	133.25	237.58	133.76	396.93
132.24	19.99	132.75	110.42	133.26	240.44	133.77	400.32
132.25	21.25	132.76	112.63	133.27	243.31	133.78	403.72
132.26	22.54	132.77	114.86	133.28	246.19	133.79	407.13
132.27	23.85	132.78	117.11	133.29	249.08	133.80	410.54
132.28	25.19	132.79	119.37	133.30	251.98	133.81	413.97
132.29	26.55	132.80	121.64	133.31	254.89	133.82	417.40
132.30	27.93	132.81	123.93	133.32	257.82	133.83	420.85
132.31	29.34	132.82	126.23	133.33	260.75	133.84	424.30
132.32	30.77	132.83	128.55	133.34	263.70	133.85	427.77
132.33	32.23	132.84	130.88	133.35	266.65	133.86	431.24
132.34	33.70	132.85	133.22	133.36	269.62	133.87	434.72
132.35	35.20	132.86	135.58	133.37	272.60	133.88	438.21
132.36	36.72	132.87	137.95	133.38	275.59	133.89	441.71
132.37	38.26	132.88	140.34	133.39	278.59	133.90	445.22
132.38	39.82	132.89	142.74	133.40	281.61	133.91	448.74
132.39	41.40	132.90	145.15	133.41	284.63	133.92	452.27
132.40	43.01	132.91	147.57	133.42	287.66	133.93	455.81
132.41	44.63	132.92	150.01	133.43	290.71	133.94	459.36
132.42	46.27	132.93	152.47	133.44	293.76	133.95	462.91
132.43	47.93	132.94	154.93	133.45	296.83	133.96	466.48
132.44	49.62	132.95	157.41	133.46	299.90	133.97	470.05
132.45	51.32	132.96	159.90	133.47	302.99	133.98	473.64
132.46	53.04	132.97	162.41	133.48	306.08	133.99	477.23
132.47	54.78	132.98	164.93	133.49	309.19	134.00	**480.83**
132.48	56.53	132.99	167.46	133.50	312.31		
132.49	58.31	133.00	170.00	133.51	315.44		
132.50	60.10	133.01	172.56	133.52	318.58		

Stage-Area-Storage for Pond B8*: B8 Pond

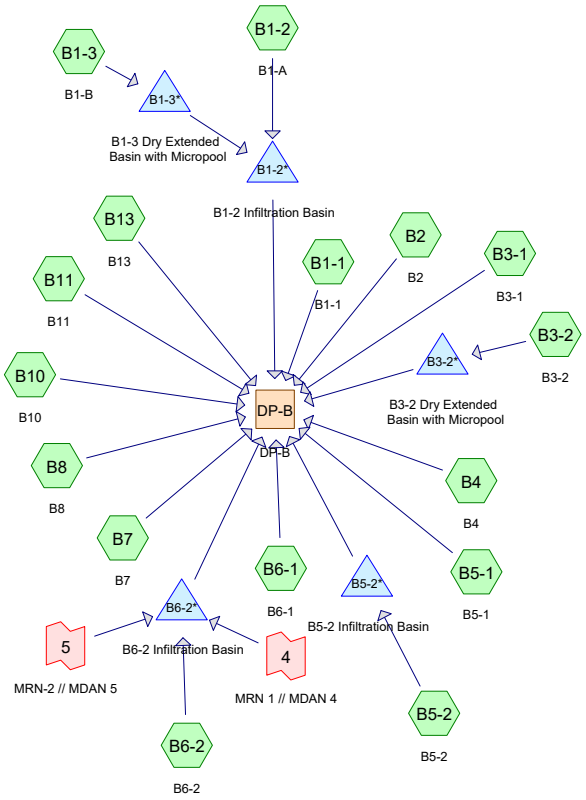
Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
132.00	0	133.02	30,317
132.02	594	133.04	30,913
132.04	1,189	133.06	31,508
132.06	1,783	133.08	32,104
132.08	2,378	133.10	32,699
132.10	2,972	133.12	33,295
132.12	3,567	133.14	33,890
132.14	4,161	133.16	34,486
132.16	4,756	133.18	35,081
132.18	5,350	133.20	35,676
132.20	5,944	133.22	36,272
132.22	6,539	133.24	36,867
132.24	7,133	133.26	37,463
132.26	7,728	133.28	38,058
132.28	8,322	133.30	38,654
132.30	8,917	133.32	39,249
132.32	9,511	133.34	39,844
132.34	10,105	133.36	40,440
132.36	10,700	133.38	41,035
132.38	11,294	133.40	41,631
132.40	11,889	133.42	42,226
132.42	12,483	133.44	42,822
132.44	13,078	133.46	43,417
132.46	13,672	133.48	44,013
132.48	14,267	133.50	44,608
132.50	14,861	133.52	45,203
132.52	15,455	133.54	45,799
132.54	16,050	133.56	46,394
132.56	16,644	133.58	46,990
132.58	17,239	133.60	47,585
132.60	17,833	133.62	48,181
132.62	18,428	133.64	48,776
132.64	19,022	133.66	49,372
132.66	19,617	133.68	49,967
132.68	20,211	133.70	50,562
132.70	20,805	133.72	51,158
132.72	21,400	133.74	51,753
132.74	21,994	133.76	52,349
132.76	22,589	133.78	52,944
132.78	23,183	133.80	53,540
132.80	23,778	133.82	54,135
132.82	24,372	133.84	54,730
132.84	24,966	133.86	55,326
132.86	25,561	133.88	55,921
132.88	26,155	133.90	56,517
132.90	26,750	133.92	57,112
132.92	27,344	133.94	57,708
132.94	27,939	133.96	58,303
132.96	28,533	133.98	58,899
132.98	29,128	134.00	**59,494**
133.00	29,722		

APPENDIX B

Proposed Stormwater Discharge Calculations



DESIGN POINT A



DESIGN POINT B

Subcat Reach Pond Link

Routing Diagram for ProposedConditions_Hudson

Prepared by Langan Engineering and Environmental Services, Printed 9/7/2022

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Project Notes

Rainfall events imported from "ExistingConditions_Hudson.hcp"

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
7.743	39	>75% Grass cover, Good, HSG A (A1-2, A1-3, A11-2, A4, B1-1, B1-2, B1-3, B10, B6-1)
164.069	61	>75% Grass cover, Good, HSG B (A1-1, A1-2, A1-3, A11-1, A11-2, A2, A3, A4, A5, A6, A8, B1-1, B1-2, B1-3, B11, B13, B2, B3-1, B3-2, B4, B5-1, B5-2, B6-1, B6-2, B7, B8)
0.070	74	>75% Grass cover, Good, HSG C (B13)
7.780	80	>75% Grass cover, Good, HSG D (A1-2, B1-1, B13, B2, B3-1, B3-2, B4, B5-1, B6-1, B7)
0.025	48	Brush, Good, HSG B (B1-1, B5-1)
2.510	73	Brush, Good, HSG D (B4, B5-1)
74.361	98	Paved parking, HSG A (A1-2, A1-3, A11-2, B1-1, B1-2, B1-3, B3-2, B5-1, B5-2, B6-1, B6-2)
31.970	98	Roofs, HSG A (A1-2, A1-3, A11-2, B1-3, B5-2, B6-2)
3.915	98	Water Surface, HSG A (B5-1, B8)
0.369	98	Water Surface, HSG B (B1-1)
0.669	98	Water Surface, HSG D (A4, B2)
1.329	30	Woods, Good, HSG A (A4, B1-1, B10, B11)
69.961	55	Woods, Good, HSG B (A1-1, A1-2, A1-3, A11-1, A11-2, A2, A3, A4, A5, A6, A8, B1-1, B13, B2, B3-1, B4, B5-1, B6-1, B6-2, B7, B8)
0.959	70	Woods, Good, HSG C (B13)
23.574	77	Woods, Good, HSG D (A3, A5, B1-1, B13, B2, B3-1, B4, B5-1, B6-1, B7)
0.227	79	Woods/grass comb., Good, HSG D (A4)
389.531	**71**	**TOTAL AREA**

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

SubcatchmentA1-1: A1-1 Runoff Area=22.141 ac 0.00% Impervious Runoff Depth>0.32"
Flow Length=1,105' Tc=37.0 min CN=60 Runoff=3.12 cfs 0.584 af

SubcatchmentA1-2: A1-2 Runoff Area=21.469 ac 66.84% Impervious Runoff Depth>1.49"
Tc=6.0 min CN=84 Runoff=39.65 cfs 2.674 af

SubcatchmentA1-3: A1-3 Runoff Area=31.975 ac 77.29% Impervious Runoff Depth>1.96"
Tc=6.0 min CN=90 Runoff=75.77 cfs 5.222 af

SubcatchmentA11-1: A11-1 Runoff Area=6.176 ac 0.00% Impervious Runoff Depth>0.24"
Flow Length=232' Tc=8.3 min CN=57 Runoff=0.77 cfs 0.122 af

SubcatchmentA11-2: A11-2 Runoff Area=34.745 ac 45.43% Impervious Runoff Depth>1.03"
Flow Length=1,250' Tc=58.8 min CN=77 Runoff=17.87 cfs 2.978 af

SubcatchmentA2: A2 Runoff Area=0.160 ac 0.00% Impervious Runoff Depth>0.29"
Tc=6.0 min CN=59 Runoff=0.03 cfs 0.004 af

SubcatchmentA3: A3 Runoff Area=23.404 ac 0.00% Impervious Runoff Depth>0.32"
Flow Length=2,107' Tc=40.5 min CN=60 Runoff=3.15 cfs 0.616 af

SubcatchmentA4: A4 Runoff Area=14.774 ac 1.59% Impervious Runoff Depth>0.16"
Flow Length=627' Tc=18.0 min CN=54 Runoff=0.88 cfs 0.201 af

SubcatchmentA5: A5 Runoff Area=5.469 ac 0.00% Impervious Runoff Depth>0.35"
Flow Length=627' Tc=12.3 min CN=61 Runoff=1.26 cfs 0.161 af

SubcatchmentA6: A6 Runoff Area=4.893 ac 0.00% Impervious Runoff Depth>0.35"
Flow Length=729' Tc=22.1 min CN=61 Runoff=0.97 cfs 0.143 af

SubcatchmentA8: A8 Runoff Area=1.754 ac 0.00% Impervious Runoff Depth>0.21"
Tc=6.0 min CN=56 Runoff=0.19 cfs 0.031 af

SubcatchmentB1-1: B1-1 Runoff Area=26.798 ac 4.06% Impervious Runoff Depth>0.53"
Flow Length=398' Tc=17.3 min CN=66 Runoff=10.51 cfs 1.181 af

SubcatchmentB1-2: B1-A Runoff Area=4.401 ac 51.58% Impervious Runoff Depth>1.23"
Tc=6.0 min CN=80 Runoff=6.67 cfs 0.451 af

SubcatchmentB1-3: B1-B Runoff Area=20.504 ac 83.49% Impervious Runoff Depth>2.14"
Tc=6.0 min CN=92 Runoff=52.10 cfs 3.650 af

SubcatchmentB10: B10 Runoff Area=0.702 ac 0.00% Impervious Runoff Depth=0.00"
Tc=6.0 min CN=35 Runoff=0.00 cfs 0.000 af

SubcatchmentB11: B11 Runoff Area=0.733 ac 0.00% Impervious Runoff Depth>0.03"
Tc=6.0 min CN=46 Runoff=0.00 cfs 0.002 af

Subcatchment B13: B13 Runoff Area=13.436 ac 0.00% Impervious Runoff Depth>0.38"
Flow Length=963' Tc=24.1 min CN=62 Runoff=2.96 cfs 0.429 af

Subcatchment B2: B2 Runoff Area=7.320 ac 5.93% Impervious Runoff Depth>0.45"
Flow Length=462' Tc=24.8 min CN=64 Runoff=2.03 cfs 0.276 af

Subcatchment B3-1: B3-1 Runoff Area=13.903 ac 0.00% Impervious Runoff Depth>0.42"
Flow Length=215' Tc=11.9 min CN=63 Runoff=4.35 cfs 0.487 af

Subcatchment B3-2: B3-2 Runoff Area=7.079 ac 56.01% Impervious Runoff Depth>1.36"
Tc=6.0 min CN=82 Runoff=11.88 cfs 0.801 af

Subcatchment B4: B4 Runoff Area=28.643 ac 0.00% Impervious Runoff Depth>0.42"
Flow Length=448' Tc=10.6 min CN=63 Runoff=9.24 cfs 1.004 af

Subcatchment B5-1: B5-1 Runoff Area=24.062 ac 14.80% Impervious Runoff Depth>0.61"
Flow Length=627' Tc=16.0 min CN=68 Runoff=11.84 cfs 1.223 af

Subcatchment B5-2: B5-2 Runoff Area=10.218 ac 67.76% Impervious Runoff Depth>1.64"
Tc=6.0 min CN=86 Runoff=20.63 cfs 1.396 af

Subcatchment B6-1: B6-1 Runoff Area=10.053 ac 2.88% Impervious Runoff Depth>0.46"
Flow Length=362' Tc=9.8 min CN=64 Runoff=3.83 cfs 0.382 af

Subcatchment B6-2: B6-2 Runoff Area=39.110 ac 51.21% Impervious Runoff Depth>1.22"
Flow Length=946' Tc=35.2 min CN=80 Runoff=31.55 cfs 3.963 af

Subcatchment B7: B7 Runoff Area=8.035 ac 0.00% Impervious Runoff Depth>0.35"
Flow Length=538' Tc=27.4 min CN=61 Runoff=1.48 cfs 0.234 af

Subcatchment B8: B8 Runoff Area=7.574 ac 6.91% Impervious Runoff Depth>0.42"
Flow Length=502' Tc=10.6 min CN=63 Runoff=2.44 cfs 0.265 af

Reach DP-A: DP-A Inflow=9.83 cfs 2.203 af
Outflow=9.83 cfs 2.203 af

Reach DP-B: DP-B Inflow=44.88 cfs 6.268 af
Outflow=44.88 cfs 6.268 af

Pond A1-2*: A1-2 Infiltration Basin Peak Elev=117.52' Storage=41,151 cf Inflow=40.96 cfs 4.303 af
Discarded=6.95 cfs 4.301 af Primary=0.00 cfs 0.000 af Outflow=6.95 cfs 4.301 af

Pond A1-3*: A1-3 Infiltration Basin Peak Elev=115.90' Storage=116,497 cf Inflow=76.15 cfs 5.695 af
Discarded=4.71 cfs 3.614 af Primary=1.36 cfs 0.340 af Outflow=6.07 cfs 3.955 af

Pond A11-2*: A11-2 Infiltration Basin Peak Elev=116.00' Storage=13 cf Inflow=17.87 cfs 2.978 af
Discarded=17.86 cfs 2.978 af Primary=0.00 cfs 0.000 af Outflow=17.86 cfs 2.978 af

Pond B1-2*: B1-2 Infiltration Basin Peak Elev=129.65' Storage=7,861 cf Inflow=7.01 cfs 1.959 af
Discarded=2.95 cfs 1.960 af Primary=0.00 cfs 0.000 af Outflow=2.95 cfs 1.960 af

Pond B1-3*: B1-3 Dry Extended Basin Peak Elev=133.13' Storage=109,473 cf Inflow=52.10 cfs 3.650 af
Outflow=2.84 cfs 1.508 af

Pond B3-2*: B3-2 Dry Extended Basin Peak Elev=125.45' Storage=27,438 cf Inflow=11.88 cfs 0.801 af
Outflow=0.27 cfs 0.174 af

Pond B5-2*: B5-2 Infiltration Basin Peak Elev=134.48' Storage=24,037 cf Inflow=20.63 cfs 1.396 af
Discarded=2.13 cfs 1.397 af Primary=0.00 cfs 0.000 af Outflow=2.13 cfs 1.397 af

Pond B6-2*: B6-2 Infiltration Basin Peak Elev=131.32' Storage=158,266 cf Inflow=32.27 cfs 4.859 af
Discarded=0.74 cfs 0.637 af Primary=1.55 cfs 0.610 af Outflow=2.29 cfs 1.247 af

Link 1: MRN-3 // MDAN 1 Manual Hydrograph Inflow=0.38 cfs 0.473 af
Primary=0.38 cfs 0.473 af

Link 2: MRN-5 // MDAN 2 Manual Hydrograph Inflow=0.13 cfs 0.162 af
Primary=0.13 cfs 0.162 af

Link 3A: MRN-6 // MDAN 3A Manual Hydrograph Inflow=0.64 cfs 0.796 af
Primary=0.64 cfs 0.796 af

Link 3B: MRN-4 // MDAN 3B Manual Hydrograph Inflow=0.54 cfs 0.672 af
Primary=0.54 cfs 0.672 af

Link 4: MRN 1 // MDAN 4 Manual Hydrograph Inflow=0.22 cfs 0.274 af
Primary=0.22 cfs 0.274 af

Link 5: MRN-2 // MDAN 5 Manual Hydrograph Inflow=0.50 cfs 0.622 af
Primary=0.50 cfs 0.622 af

Total Runoff Area = 389.531 ac Runoff Volume = 28.481 af Average Runoff Depth = 0.88"
71.43% Pervious = 278.247 ac 28.57% Impervious = 111.284 ac

Summary for Subcatchment A1-1: A1-1

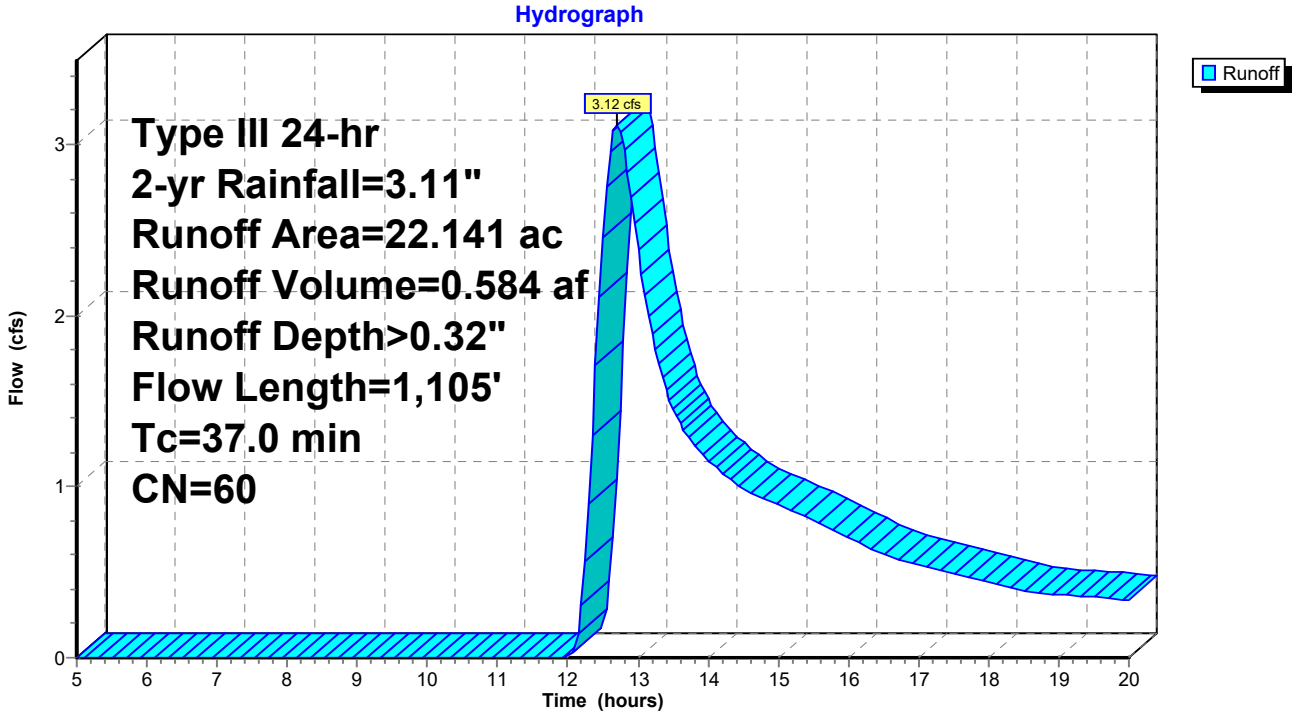
Runoff = 3.12 cfs @ 12.70 hrs, Volume= 0.584 af, Depth> 0.32"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
19.735	61	>75% Grass cover, Good, HSG B
2.406	55	Woods, Good, HSG B
22.141	60	Weighted Average
22.141		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	50	0.0620	0.23		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
8.1	264	0.0060	0.54		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
0.4	25	0.0440	1.05		**Shallow Concentrated Flow, scf-2** Woodland Kv= 5.0 fps
14.8	483	0.0060	0.54		**Shallow Concentrated Flow, scf3** Short Grass Pasture Kv= 7.0 fps
6.5	62	0.0010	0.16		**Shallow Concentrated Flow, scf4** Woodland Kv= 5.0 fps
3.6	221	0.0210	1.01		**Shallow Concentrated Flow, scf5** Short Grass Pasture Kv= 7.0 fps
37.0	1,105	Total			

Subcatchment A1-1: A1-1



Hydrograph for Subcatchment A1-1: A1-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.01	0.00
12.25	2.01	0.06	0.56
12.50	2.18	0.10	**2.46**
12.75	2.27	0.11	**3.07**
13.00	2.33	0.13	2.39
13.25	2.39	0.14	1.80
13.50	2.44	0.16	1.46
13.75	2.48	0.17	1.27
14.00	2.52	0.18	1.16
14.25	2.56	0.19	1.07
14.50	2.59	0.20	0.99
14.75	2.63	0.21	0.94
15.00	2.66	0.22	0.89
15.25	2.68	0.23	0.85
15.50	2.71	0.24	0.80
15.75	2.73	0.24	0.75
16.00	2.76	0.25	0.70
16.25	2.78	0.26	0.65
16.50	2.79	0.26	0.60
16.75	2.81	0.27	0.57
17.00	2.83	0.27	0.54
17.25	2.84	0.28	0.52
17.50	2.86	0.28	0.49
17.75	2.87	0.29	0.47
18.00	2.89	0.29	0.44
18.25	2.90	0.30	0.41
18.50	2.91	0.30	0.39
18.75	2.92	0.31	0.38
19.00	2.93	0.31	0.37
19.25	2.94	0.31	0.36
19.50	2.96	0.32	0.35
19.75	2.97	0.32	0.35
20.00	**2.98**	**0.32**	0.34

Summary for Subcatchment A1-2: A1-2

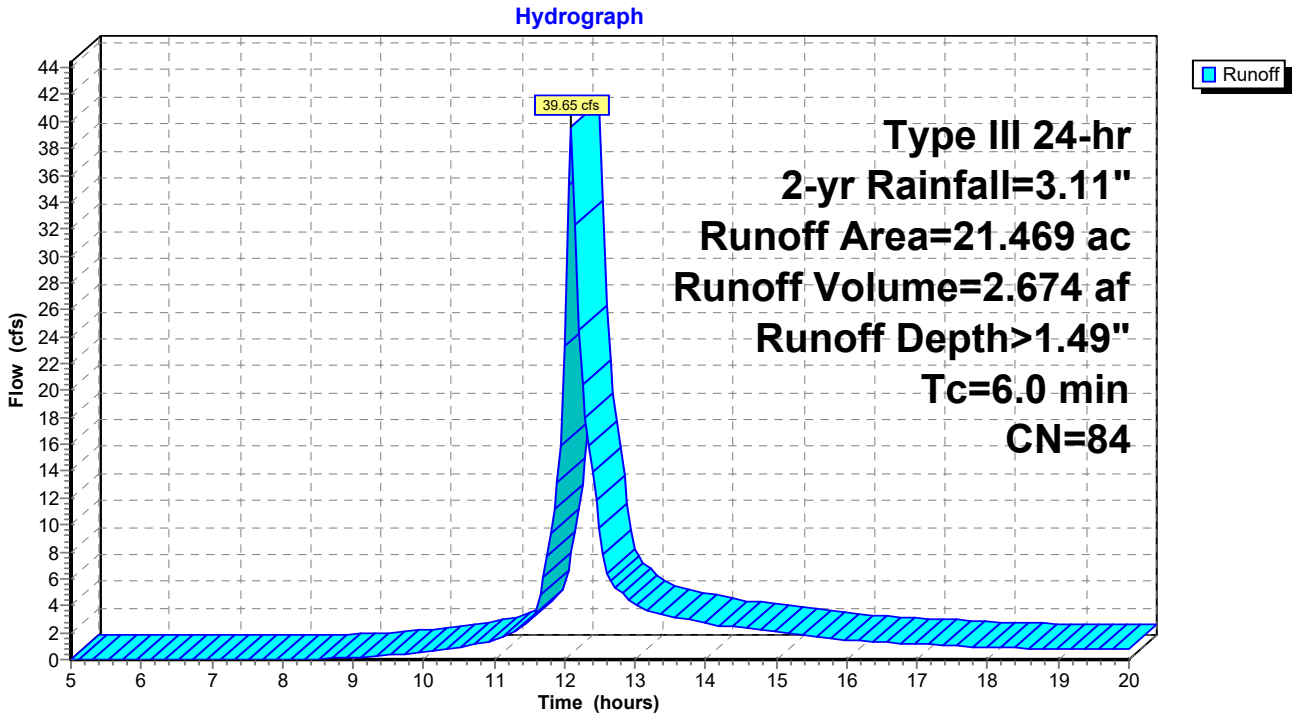
Runoff = 39.65 cfs @ 12.09 hrs, Volume= 2.674 af, Depth> 1.49"
Routed to Pond A1-2* : A1-2 Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
1.959	39	>75% Grass cover, Good, HSG A
4.962	61	>75% Grass cover, Good, HSG B
0.091	80	>75% Grass cover, Good, HSG D
0.107	55	Woods, Good, HSG B
4.561	98	Roofs, HSG A
9.789	98	Paved parking, HSG A
21.469	84	Weighted Average
7.119		33.16% Pervious Area
14.350		66.84% Impervious Area

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

Subcatchment A1-2: A1-2



Hydrograph for Subcatchment A1-2: A1-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.02
8.75	0.43	0.00	0.08
9.00	0.45	0.00	0.15
9.25	0.48	0.01	0.24
9.50	0.52	0.01	0.33
9.75	0.55	0.01	0.44
10.00	0.59	0.02	0.57
10.25	0.63	0.03	0.73
10.50	0.67	0.04	0.94
10.75	0.72	0.05	1.17
11.00	0.78	0.07	1.44
11.25	0.84	0.09	1.99
11.50	0.93	0.12	2.82
11.75	1.10	0.20	7.67
12.00	1.55	0.45	**23.30**
12.25	2.01	0.75	**20.48**
12.50	2.18	0.88	9.83
12.75	2.27	0.94	5.24
13.00	2.33	0.99	4.13
13.25	2.39	1.03	3.54
13.50	2.44	1.07	3.26
13.75	2.48	1.10	2.97
14.00	2.52	1.13	2.68
14.25	2.56	1.16	2.48
14.50	2.59	1.19	2.34
14.75	2.63	1.21	2.20
15.00	2.66	1.24	2.05
15.25	2.68	1.26	1.91
15.50	2.71	1.28	1.76
15.75	2.73	1.30	1.61
16.00	2.76	1.32	1.46
16.25	2.78	1.33	1.36
16.50	2.79	1.35	1.30
16.75	2.81	1.36	1.23
17.00	2.83	1.38	1.17
17.25	2.84	1.39	1.10
17.50	2.86	1.40	1.03
17.75	2.87	1.41	0.97
18.00	2.89	1.42	0.90
18.25	2.90	1.43	0.86
18.50	2.91	1.44	0.84
18.75	2.92	1.45	0.82
19.00	2.93	1.46	0.81
19.25	2.94	1.47	0.79
19.50	2.96	1.48	0.77
19.75	2.97	1.49	0.75
20.00	**2.98**	**1.50**	0.73

Summary for Subcatchment A1-3: A1-3

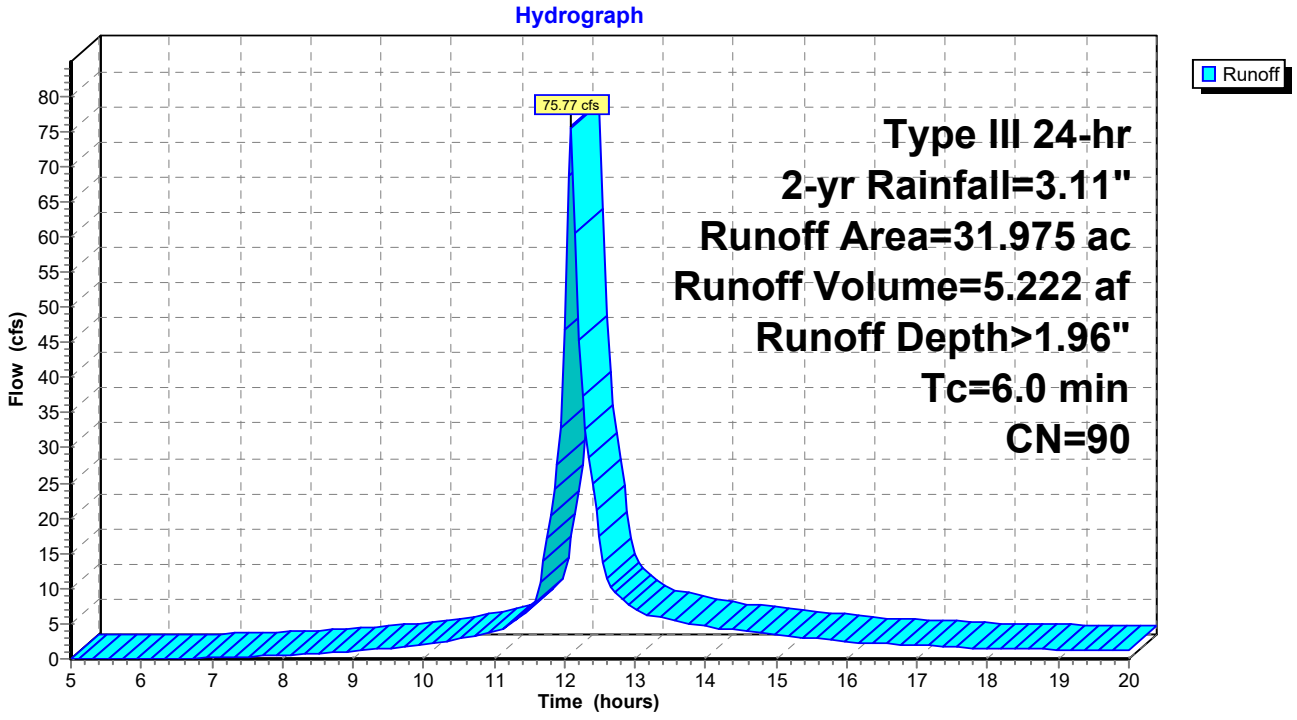
Runoff = 75.77 cfs @ 12.09 hrs, Volume= 5.222 af, Depth> 1.96"
Routed to Pond A1-3* : A1-3 Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.062	39	>75% Grass cover, Good, HSG A
7.110	61	>75% Grass cover, Good, HSG B
0.091	55	Woods, Good, HSG B
6.082	98	Roofs, HSG A
18.630	98	Paved parking, HSG A
31.975	90	Weighted Average
7.263		22.71% Pervious Area
24.712		77.29% Impervious Area

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

Subcatchment A1-3: A1-3



Hydrograph for Subcatchment A1-3: A1-3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.03
6.50	0.25	0.00	0.07
6.75	0.27	0.00	0.13
7.00	0.28	0.00	0.18
7.25	0.30	0.00	0.25
7.50	0.32	0.01	0.32
7.75	0.33	0.01	0.40
8.00	0.35	0.01	0.49
8.25	0.38	0.02	0.61
8.50	0.40	0.02	0.76
8.75	0.43	0.03	0.92
9.00	0.45	0.04	1.11
9.25	0.48	0.05	1.31
9.50	0.52	0.06	1.54
9.75	0.55	0.07	1.78
10.00	0.59	0.09	2.03
10.25	0.63	0.11	2.40
10.50	0.67	0.13	2.85
10.75	0.72	0.16	3.34
11.00	0.78	0.19	3.86
11.25	0.84	0.22	5.05
11.50	0.93	0.27	6.78
11.75	1.10	0.39	17.14
12.00	1.55	0.73	**46.77**
12.25	2.01	1.10	**37.31**
12.50	2.18	1.25	17.38
12.75	2.27	1.32	9.17
13.00	2.33	1.38	7.19
13.25	2.39	1.43	6.13
13.50	2.44	1.47	5.62
13.75	2.48	1.51	5.11
14.00	2.52	1.55	4.59
14.25	2.56	1.58	4.24
14.50	2.59	1.62	3.99
14.75	2.63	1.64	3.74
15.00	2.66	1.67	3.49
15.25	2.68	1.70	3.23
15.50	2.71	1.72	2.98
15.75	2.73	1.74	2.72
16.00	2.76	1.76	2.46
16.25	2.78	1.78	2.29
16.50	2.79	1.80	2.18
16.75	2.81	1.81	2.07
17.00	2.83	1.83	1.96
17.25	2.84	1.84	1.85
17.50	2.86	1.86	1.73
17.75	2.87	1.87	1.62
18.00	2.89	1.88	1.51
18.25	2.90	1.89	1.44
18.50	2.91	1.90	1.41
18.75	2.92	1.91	1.38
19.00	2.93	1.92	1.34
19.25	2.94	1.93	1.31
19.50	2.96	1.94	1.28
19.75	2.97	1.95	1.24
20.00	**2.98**	**1.96**	1.21

Summary for Subcatchment A11-1: A11-1

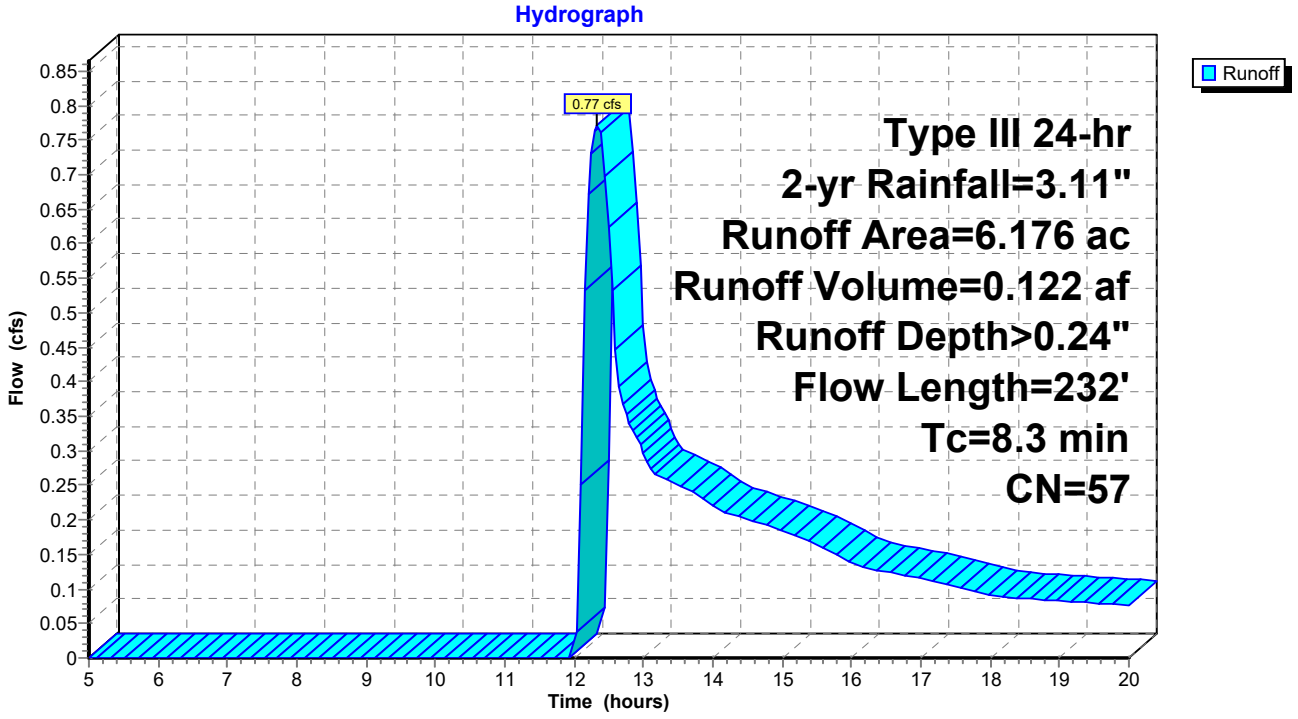
Runoff = 0.77 cfs @ 12.34 hrs, Volume= 0.122 af, Depth> 0.24"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
2.423	61	>75% Grass cover, Good, HSG B
3.753	55	Woods, Good, HSG B
6.176	57	Weighted Average
6.176		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	50	0.0200	0.15		**Sheet Flow, sf1** Grass: Short n= 0.150 P2= 3.11"
1.9	102	0.0170	0.91		**Shallow Concentrated Flow, scf1** Short Grass Pasture Kv= 7.0 fps
0.7	80	0.1300	1.80		**Shallow Concentrated Flow, scf2** Woodland Kv= 5.0 fps
8.3	232	Total			

Subcatchment A11-1: A11-1



Hydrograph for Subcatchment A11-1: A11-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.00	0.00
12.25	2.01	0.03	**0.73**
12.50	2.18	0.06	**0.62**
12.75	2.27	0.07	0.35
13.00	2.33	0.08	0.30
13.25	2.39	0.09	0.26
13.50	2.44	0.10	0.25
13.75	2.48	0.11	0.24
14.00	2.52	0.12	0.22
14.25	2.56	0.13	0.21
14.50	2.59	0.14	0.20
14.75	2.63	0.14	0.19
15.00	2.66	0.15	0.18
15.25	2.68	0.16	0.17
15.50	2.71	0.17	0.16
15.75	2.73	0.17	0.15
16.00	2.76	0.18	0.14
16.25	2.78	0.18	0.13
16.50	2.79	0.19	0.13
16.75	2.81	0.19	0.12
17.00	2.83	0.20	0.11
17.25	2.84	0.20	0.11
17.50	2.86	0.21	0.10
17.75	2.87	0.21	0.10
18.00	2.89	0.21	0.09
18.25	2.90	0.22	0.09
18.50	2.91	0.22	0.09
18.75	2.92	0.22	0.08
19.00	2.93	0.23	0.08
19.25	2.94	0.23	0.08
19.50	2.96	0.23	0.08
19.75	2.97	0.24	0.08
20.00	**2.98**	**0.24**	0.08

Summary for Subcatchment A11-2: A11-2

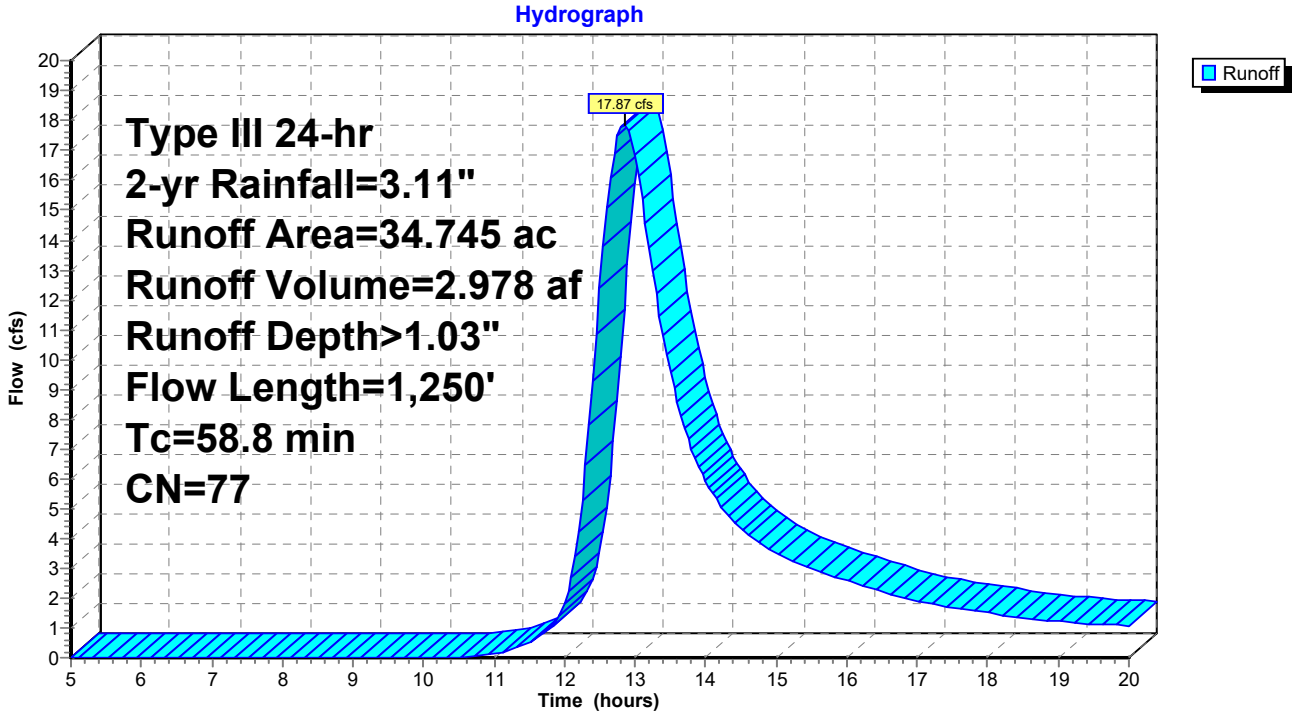
Runoff = 17.87 cfs @ 12.84 hrs, Volume= 2.978 af, Depth> 1.03"
Routed to Pond A11-2* : A11-2 Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.789	39	>75% Grass cover, Good, HSG A
15.470	61	>75% Grass cover, Good, HSG B
2.700	55	Woods, Good, HSG B
5.587	98	Roofs, HSG A
10.199	98	Paved parking, HSG A
34.745	77	Weighted Average
18.959		54.57% Pervious Area
15.786		45.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
41.5	50	0.0010	0.02		**Sheet Flow, sf1** Woods: Light underbrush n= 0.400 P2= 3.11"
5.3	316	0.0400	1.00		**Shallow Concentrated Flow, scf1** Woodland Kv= 5.0 fps
12.0	884	0.0310	1.23		**Shallow Concentrated Flow, SCF2** Short Grass Pasture Kv= 7.0 fps
58.8	1,250	Total			

Subcatchment A11-2: A11-2



Hydrograph for Subcatchment A11-2: A11-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.01
10.75	0.72	0.01	0.04
11.00	0.78	0.01	0.13
11.25	0.84	0.02	0.29
11.50	0.93	0.03	0.52
11.75	1.10	0.07	0.89
12.00	1.55	0.23	1.82
12.25	2.01	0.45	5.26
12.50	2.18	0.55	12.37
12.75	2.27	0.60	**17.51**
13.00	2.33	0.64	**16.85**
13.25	2.39	0.67	12.95
13.50	2.44	0.70	9.58
13.75	2.48	0.73	7.34
14.00	2.52	0.75	5.92
14.25	2.56	0.78	4.99
14.50	2.59	0.80	4.34
14.75	2.63	0.82	3.86
15.00	2.66	0.84	3.51
15.25	2.68	0.86	3.23
15.50	2.71	0.88	2.99
15.75	2.73	0.89	2.78
16.00	2.76	0.91	2.59
16.25	2.78	0.92	2.39
16.50	2.79	0.93	2.21
16.75	2.81	0.94	2.04
17.00	2.83	0.95	1.90
17.25	2.84	0.96	1.79
17.50	2.86	0.97	1.69
17.75	2.87	0.98	1.60
18.00	2.89	0.99	1.51
18.25	2.90	1.00	1.42
18.50	2.91	1.01	1.34
18.75	2.92	1.02	1.26
19.00	2.93	1.03	1.21
19.25	2.94	1.03	1.17
19.50	2.96	1.04	1.13
19.75	2.97	1.05	1.10
20.00	**2.98**	**1.05**	1.07

Summary for Subcatchment A2: A2

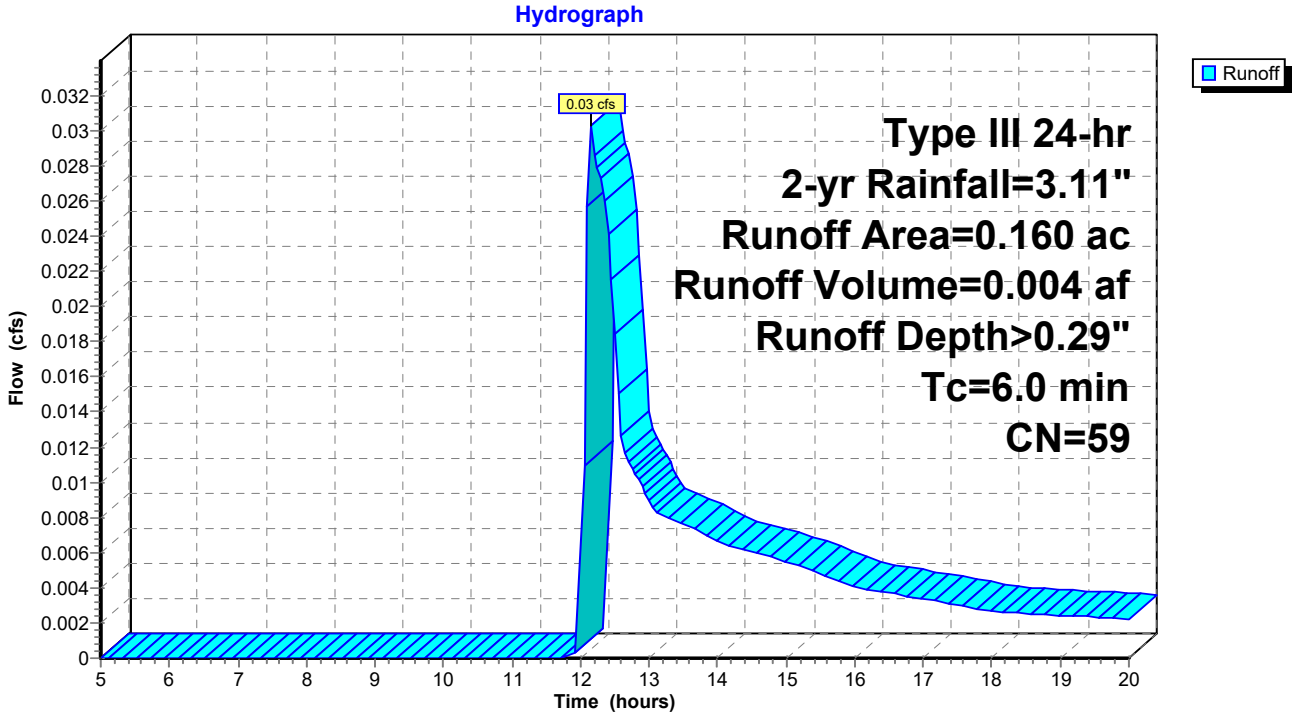
Runoff = 0.03 cfs @ 12.16 hrs, Volume= 0.004 af, Depth> 0.29"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.115	61	>75% Grass cover, Good, HSG B
0.045	55	Woods, Good, HSG B
0.160	59	Weighted Average
0.160		100.00% Pervious Area

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

Subcatchment A2: A2



Hydrograph for Subcatchment A2: A2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.00	**0.00**
12.25	2.01	0.05	**0.03**
12.50	2.18	0.08	0.02
12.75	2.27	0.10	0.01
13.00	2.33	0.11	0.01
13.25	2.39	0.13	0.01
13.50	2.44	0.14	0.01
13.75	2.48	0.15	0.01
14.00	2.52	0.16	0.01
14.25	2.56	0.17	0.01
14.50	2.59	0.18	0.01
14.75	2.63	0.19	0.01
15.00	2.66	0.20	0.01
15.25	2.68	0.20	0.01
15.50	2.71	0.21	0.00
15.75	2.73	0.22	0.00
16.00	2.76	0.22	0.00
16.25	2.78	0.23	0.00
16.50	2.79	0.24	0.00
16.75	2.81	0.24	0.00
17.00	2.83	0.25	0.00
17.25	2.84	0.25	0.00
17.50	2.86	0.26	0.00
17.75	2.87	0.26	0.00
18.00	2.89	0.27	0.00
18.25	2.90	0.27	0.00
18.50	2.91	0.27	0.00
18.75	2.92	0.28	0.00
19.00	2.93	0.28	0.00
19.25	2.94	0.28	0.00
19.50	2.96	0.29	0.00
19.75	2.97	0.29	0.00
20.00	**2.98**	**0.29**	0.00

Summary for Subcatchment A3: A3

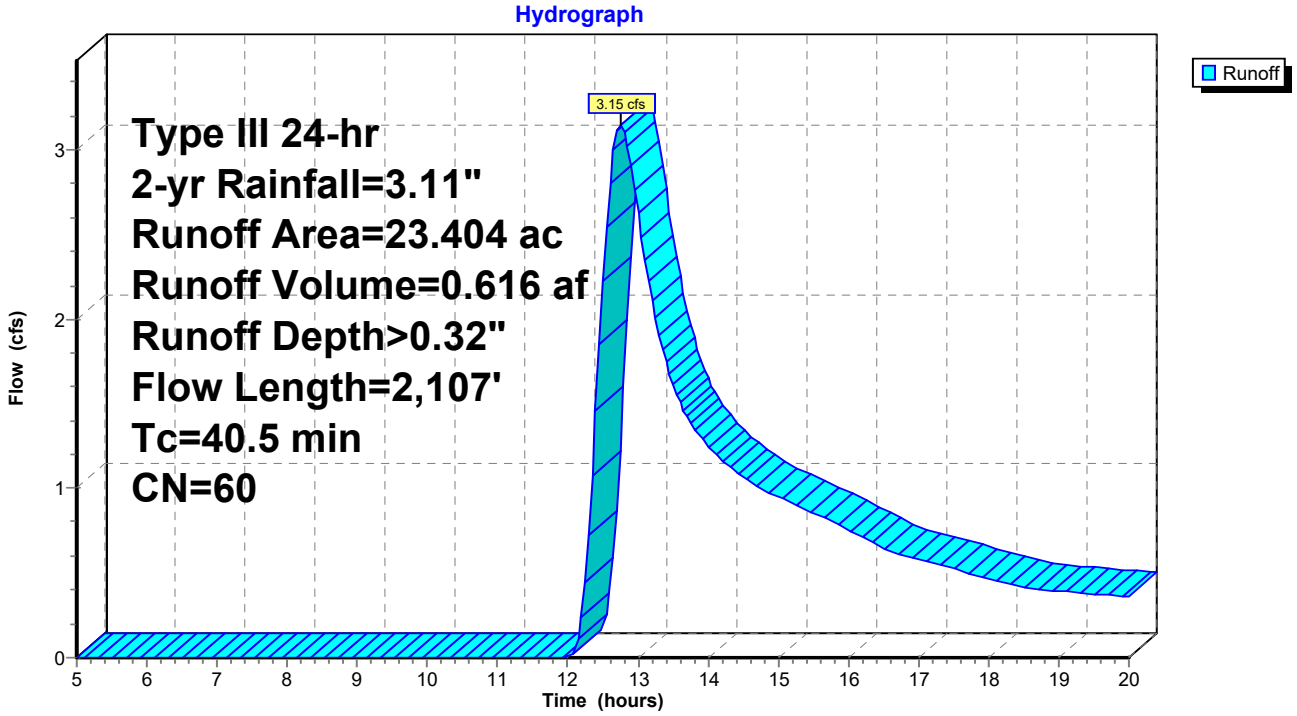
Runoff = 3.15 cfs @ 12.75 hrs, Volume= 0.616 af, Depth> 0.32"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
17.556	61	>75% Grass cover, Good, HSG B
5.800	55	Woods, Good, HSG B
0.048	77	Woods, Good, HSG D
23.404	60	Weighted Average
23.404		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	50	0.0080	0.10		**Sheet Flow, sf1** Grass: Short n= 0.150 P2= 3.11"
32.3	2,057	0.0230	1.06		**Shallow Concentrated Flow, scf1** Short Grass Pasture Kv= 7.0 fps
40.5	2,107	Total			

Subcatchment A3: A3



Hydrograph for Subcatchment A3: A3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.01	0.00
12.25	2.01	0.06	0.44
12.50	2.18	0.10	2.22
12.75	2.27	0.11	**3.15**
13.00	2.33	0.13	2.63
13.25	2.39	0.14	2.00
13.50	2.44	0.16	1.61
13.75	2.48	0.17	1.39
14.00	2.52	0.18	1.26
14.25	2.56	0.19	1.15
14.50	2.59	0.20	1.07
14.75	2.63	0.21	1.00
15.00	2.66	0.22	0.95
15.25	2.68	0.23	0.91
15.50	2.71	0.24	0.86
15.75	2.73	0.24	0.81
16.00	2.76	0.25	0.76
16.25	2.78	0.26	0.70
16.50	2.79	0.26	0.65
16.75	2.81	0.27	0.61
17.00	2.83	0.27	0.58
17.25	2.84	0.28	0.55
17.50	2.86	0.28	0.53
17.75	2.87	0.29	0.50
18.00	2.89	0.29	0.47
18.25	2.90	0.30	0.44
18.50	2.91	0.30	0.42
18.75	2.92	0.31	0.40
19.00	2.93	0.31	0.39
19.25	2.94	0.31	0.38
19.50	2.96	0.32	0.38
19.75	2.97	0.32	0.37
20.00	**2.98**	**0.32**	0.36

Summary for Subcatchment A4: A4

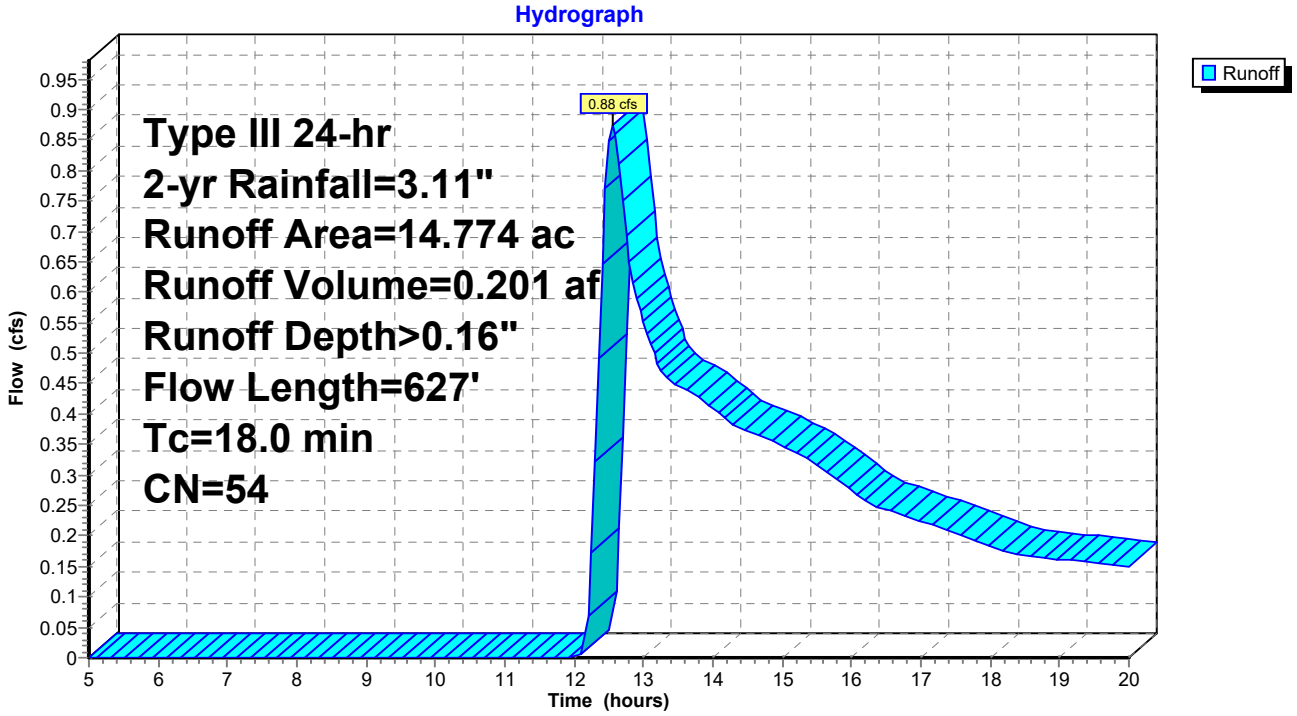
Runoff = 0.88 cfs @ 12.56 hrs, Volume= 0.201 af, Depth> 0.16"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
4.168	39	>75% Grass cover, Good, HSG A
8.560	61	>75% Grass cover, Good, HSG B
0.235	98	Water Surface, HSG D
0.227	79	Woods/grass comb., Good, HSG D
0.598	30	Woods, Good, HSG A
0.986	55	Woods, Good, HSG B
14.774	54	Weighted Average
14.539		98.41% Pervious Area
0.235		1.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	50	0.0100	0.11		**Sheet Flow, sf1** Grass: Short n= 0.150 P2= 3.11"
10.5	577	0.0170	0.91		**Shallow Concentrated Flow, scf1** Short Grass Pasture Kv= 7.0 fps
18.0	627	Total			

Subcatchment A4: A4



Hydrograph for Subcatchment A4: A4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.00	0.00
12.25	2.01	0.01	0.17
12.50	2.18	0.03	**0.85**
12.75	2.27	0.03	**0.69**
13.00	2.33	0.04	0.55
13.25	2.39	0.05	0.47
13.50	2.44	0.06	0.45
13.75	2.48	0.07	0.43
14.00	2.52	0.07	0.41
14.25	2.56	0.08	0.39
14.50	2.59	0.08	0.37
14.75	2.63	0.09	0.36
15.00	2.66	0.10	0.35
15.25	2.68	0.10	0.33
15.50	2.71	0.11	0.32
15.75	2.73	0.11	0.30
16.00	2.76	0.12	0.28
16.25	2.78	0.12	0.25
16.50	2.79	0.12	0.24
16.75	2.81	0.13	0.23
17.00	2.83	0.13	0.22
17.25	2.84	0.13	0.21
17.50	2.86	0.14	0.20
17.75	2.87	0.14	0.19
18.00	2.89	0.14	0.18
18.25	2.90	0.15	0.17
18.50	2.91	0.15	0.17
18.75	2.92	0.15	0.16
19.00	2.93	0.16	0.16
19.25	2.94	0.16	0.16
19.50	2.96	0.16	0.16
19.75	2.97	0.16	0.15
20.00	**2.98**	**0.17**	0.15

Summary for Subcatchment A5: A5

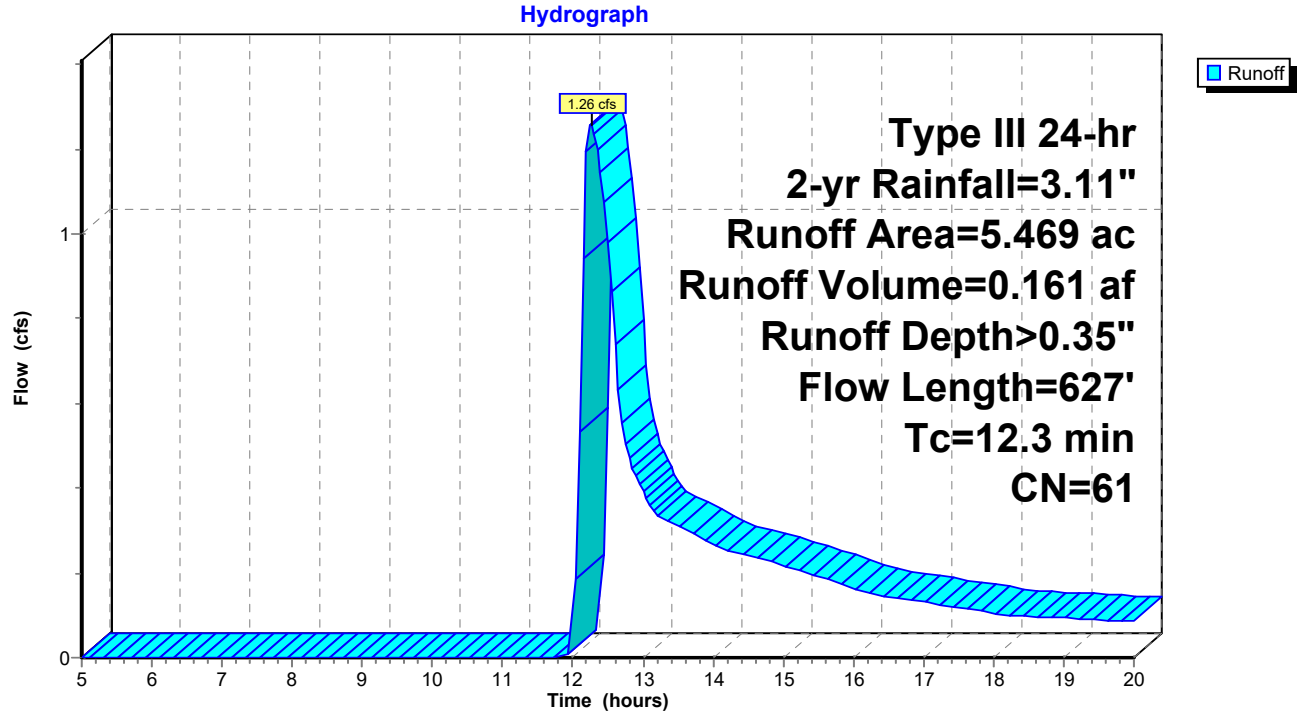
Runoff = 1.26 cfs @ 12.26 hrs, Volume= 0.161 af, Depth> 0.35"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
5.214	61	>75% Grass cover, Good, HSG B
0.190	55	Woods, Good, HSG B
0.065	77	Woods, Good, HSG D
5.469	61	Weighted Average
5.469		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	50	0.0460	0.20		**Sheet Flow, sf1** Grass: Short n= 0.150 P2= 3.11"
8.2	577	0.0280	1.17		**Shallow Concentrated Flow, scf1** Short Grass Pasture Kv= 7.0 fps
12.3	627	Total			

Subcatchment A5: A5



Hydrograph for Subcatchment A5: A5

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.01	0.04
12.25	2.01	0.07	**1.26**
12.50	2.18	0.11	0.98
12.75	2.27	0.13	0.51
13.00	2.33	0.15	0.39
13.25	2.39	0.16	0.33
13.50	2.44	0.18	0.31
13.75	2.48	0.19	0.29
14.00	2.52	0.20	0.27
14.25	2.56	0.21	0.25
14.50	2.59	0.22	0.24
14.75	2.63	0.23	0.23
15.00	2.66	0.24	0.22
15.25	2.68	0.25	0.20
15.50	2.71	0.26	0.19
15.75	2.73	0.27	0.18
16.00	2.76	0.28	0.16
16.25	2.78	0.28	0.15
16.50	2.79	0.29	0.14
16.75	2.81	0.30	0.14
17.00	2.83	0.30	0.13
17.25	2.84	0.31	0.13
17.50	2.86	0.31	0.12
17.75	2.87	0.32	0.11
18.00	2.89	0.32	0.10
18.25	2.90	0.33	0.10
18.50	2.91	0.33	0.10
18.75	2.92	0.34	0.10
19.00	2.93	0.34	0.09
19.25	2.94	0.34	0.09
19.50	2.96	0.35	0.09
19.75	2.97	0.35	0.09
20.00	**2.98**	**0.36**	0.09

Summary for Subcatchment A6: A6

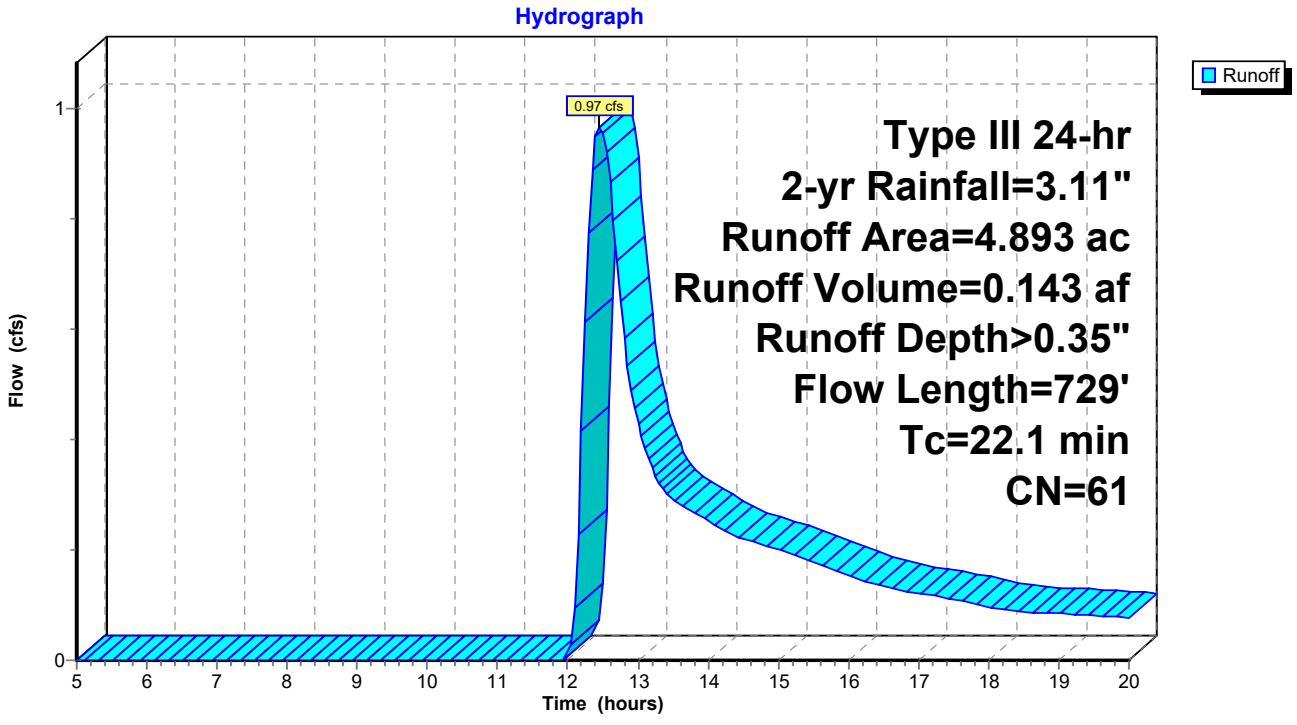
Runoff = 0.97 cfs @ 12.45 hrs, Volume= 0.143 af, Depth> 0.35"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
4.531	61	>75% Grass cover, Good, HSG B
0.362	55	Woods, Good, HSG B
4.893	61	Weighted Average
4.893		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	50	0.0480	0.21		**Sheet Flow, sf1** Grass: Short n= 0.150 P2= 3.11"
18.1	679	0.0080	0.63		**Shallow Concentrated Flow, scf1** Short Grass Pasture Kv= 7.0 fps
22.1	729	Total			

Subcatchment A6: A6



Hydrograph for Subcatchment A6: A6

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.01	0.00
12.25	2.01	0.07	**0.61**
12.50	2.18	0.11	**0.96**
12.75	2.27	0.13	0.65
13.00	2.33	0.15	0.43
13.25	2.39	0.16	0.33
13.50	2.44	0.18	0.29
13.75	2.48	0.19	0.27
14.00	2.52	0.20	0.25
14.25	2.56	0.21	0.23
14.50	2.59	0.22	0.22
14.75	2.63	0.23	0.21
15.00	2.66	0.24	0.20
15.25	2.68	0.25	0.19
15.50	2.71	0.26	0.18
15.75	2.73	0.27	0.17
16.00	2.76	0.28	0.15
16.25	2.78	0.28	0.14
16.50	2.79	0.29	0.13
16.75	2.81	0.30	0.13
17.00	2.83	0.30	0.12
17.25	2.84	0.31	0.12
17.50	2.86	0.31	0.11
17.75	2.87	0.32	0.10
18.00	2.89	0.32	0.10
18.25	2.90	0.33	0.09
18.50	2.91	0.33	0.09
18.75	2.92	0.34	0.09
19.00	2.93	0.34	0.08
19.25	2.94	0.34	0.08
19.50	2.96	0.35	0.08
19.75	2.97	0.35	0.08
20.00	**2.98**	**0.36**	0.08

Summary for Subcatchment A8: A8

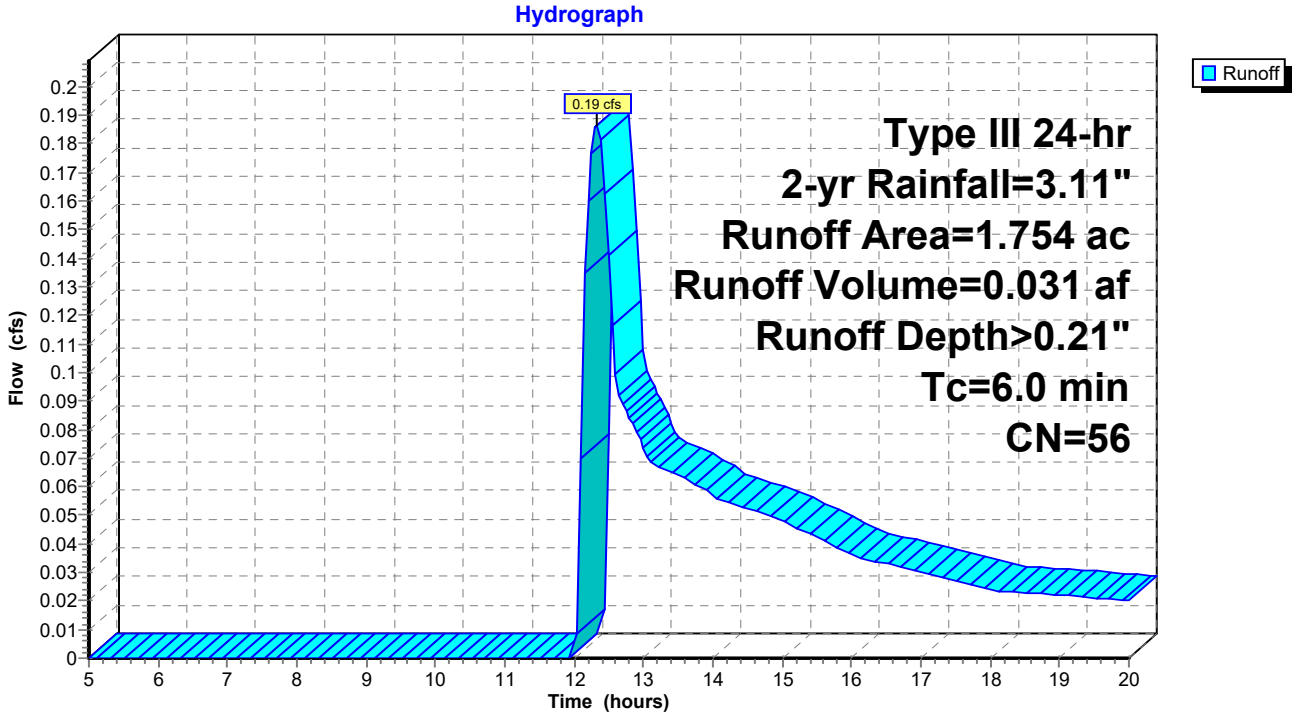
Runoff = 0.19 cfs @ 12.33 hrs, Volume= 0.031 af, Depth> 0.21"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.434	61	>75% Grass cover, Good, HSG B
1.320	55	Woods, Good, HSG B
1.754	56	Weighted Average
1.754		100.00% Pervious Area

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

Subcatchment A8: A8



Hydrograph for Subcatchment A8: A8

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.00	0.00
12.25	2.01	0.02	**0.18**
12.50	2.18	0.04	**0.14**
12.75	2.27	0.06	0.09
13.00	2.33	0.07	0.07
13.25	2.39	0.08	0.07
13.50	2.44	0.09	0.06
13.75	2.48	0.09	0.06
14.00	2.52	0.10	0.06
14.25	2.56	0.11	0.05
14.50	2.59	0.12	0.05
14.75	2.63	0.12	0.05
15.00	2.66	0.13	0.05
15.25	2.68	0.14	0.05
15.50	2.71	0.14	0.04
15.75	2.73	0.15	0.04
16.00	2.76	0.16	0.04
16.25	2.78	0.16	0.03
16.50	2.79	0.16	0.03
16.75	2.81	0.17	0.03
17.00	2.83	0.17	0.03
17.25	2.84	0.18	0.03
17.50	2.86	0.18	0.03
17.75	2.87	0.19	0.03
18.00	2.89	0.19	0.02
18.25	2.90	0.19	0.02
18.50	2.91	0.19	0.02
18.75	2.92	0.20	0.02
19.00	2.93	0.20	0.02
19.25	2.94	0.20	0.02
19.50	2.96	0.21	0.02
19.75	2.97	0.21	0.02
20.00	**2.98**	**0.21**	0.02

Summary for Subcatchment B1-1: B1-1

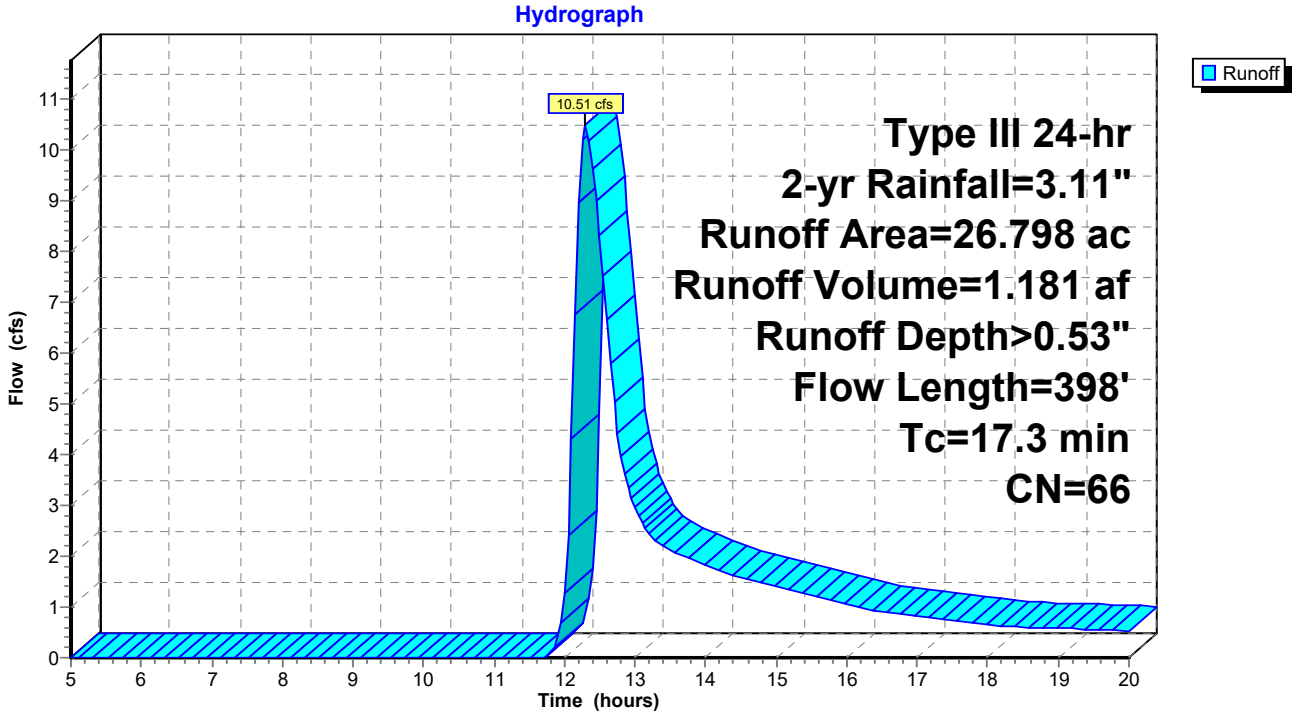
Runoff = 10.51 cfs @ 12.30 hrs, Volume= 1.181 af, Depth> 0.53"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.066	39	>75% Grass cover, Good, HSG A
2.486	61	>75% Grass cover, Good, HSG B
1.018	80	>75% Grass cover, Good, HSG D
0.054	30	Woods, Good, HSG A
12.694	55	Woods, Good, HSG B
9.382	77	Woods, Good, HSG D
0.369	98	Water Surface, HSG B
0.009	48	Brush, Good, HSG B
0.720	98	Paved parking, HSG A
26.798	66	Weighted Average
25.709		95.94% Pervious Area
1.089		4.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	50	0.0320	0.08		**Sheet Flow, sf-1** Woods: Light underbrush n= 0.400 P2= 3.11"
6.9	348	0.0280	0.84		**Shallow Concentrated Flow, scf-1** Woodland Kv= 5.0 fps
17.3	398	Total			

Subcatchment B1-1: B1-1



Hydrograph for Subcatchment B1-1: B1-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.05	1.29
12.25	2.01	0.16	**10.22**
12.50	2.18	0.21	**8.31**
12.75	2.27	0.24	4.42
13.00	2.33	0.26	2.97
13.25	2.39	0.28	2.35
13.50	2.44	0.30	2.12
13.75	2.48	0.32	1.97
14.00	2.52	0.34	1.82
14.25	2.56	0.35	1.67
14.50	2.59	0.36	1.58
14.75	2.63	0.38	1.50
15.00	2.66	0.39	1.42
15.25	2.68	0.40	1.34
15.50	2.71	0.41	1.25
15.75	2.73	0.42	1.16
16.00	2.76	0.43	1.06
16.25	2.78	0.44	0.97
16.50	2.79	0.45	0.92
16.75	2.81	0.46	0.88
17.00	2.83	0.47	0.84
17.25	2.84	0.47	0.80
17.50	2.86	0.48	0.75
17.75	2.87	0.49	0.71
18.00	2.89	0.49	0.67
18.25	2.90	0.50	0.63
18.50	2.91	0.50	0.61
18.75	2.92	0.51	0.59
19.00	2.93	0.51	0.58
19.25	2.94	0.52	0.57
19.50	2.96	0.52	0.56
19.75	2.97	0.53	0.54
20.00	**2.98**	**0.53**	0.53

Summary for Subcatchment B1-2: B1-A

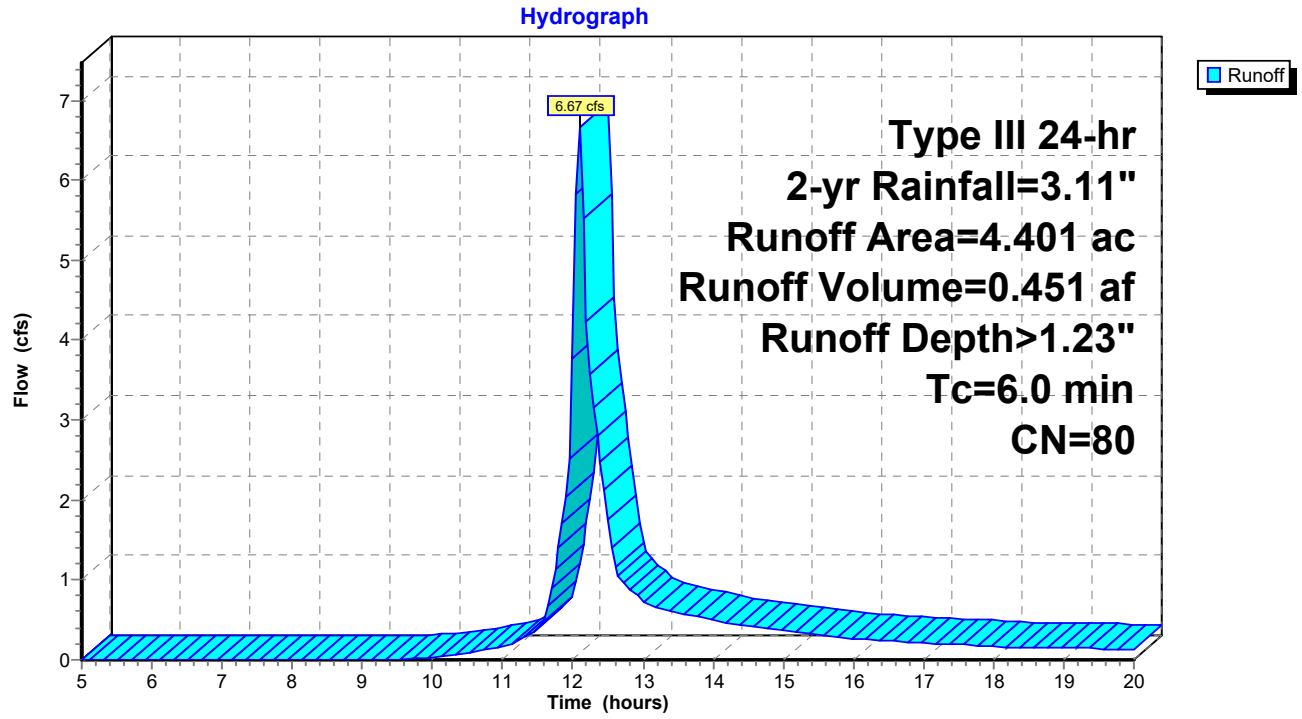
Runoff = 6.67 cfs @ 12.10 hrs, Volume= 0.451 af, Depth> 1.23"
Routed to Pond B1-2* : B1-2 Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.099	39	>75% Grass cover, Good, HSG A
2.032	61	>75% Grass cover, Good, HSG B
2.270	98	Paved parking, HSG A
4.401	80	Weighted Average
2.131		48.42% Pervious Area
2.270		51.58% Impervious Area

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

Subcatchment B1-2: B1-A



Hydrograph for Subcatchment B1-2: B1-A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.02
10.00	0.59	0.00	0.04
10.25	0.63	0.01	0.06
10.50	0.67	0.01	0.09
10.75	0.72	0.02	0.13
11.00	0.78	0.03	0.17
11.25	0.84	0.04	0.26
11.50	0.93	0.06	0.39
11.75	1.10	0.12	1.13
12.00	1.55	0.31	**3.77**
12.25	2.01	0.57	**3.57**
12.50	2.18	0.68	1.75
12.75	2.27	0.73	0.94
13.00	2.33	0.78	0.75
13.25	2.39	0.81	0.64
13.50	2.44	0.85	0.59
13.75	2.48	0.88	0.54
14.00	2.52	0.90	0.49
14.25	2.56	0.93	0.45
14.50	2.59	0.95	0.43
14.75	2.63	0.98	0.40
15.00	2.66	1.00	0.38
15.25	2.68	1.02	0.35
15.50	2.71	1.04	0.32
15.75	2.73	1.05	0.30
16.00	2.76	1.07	0.27
16.25	2.78	1.08	0.25
16.50	2.79	1.10	0.24
16.75	2.81	1.11	0.23
17.00	2.83	1.12	0.22
17.25	2.84	1.13	0.20
17.50	2.86	1.15	0.19
17.75	2.87	1.16	0.18
18.00	2.89	1.17	0.17
18.25	2.90	1.17	0.16
18.50	2.91	1.18	0.16
18.75	2.92	1.19	0.15
19.00	2.93	1.20	0.15
19.25	2.94	1.21	0.15
19.50	2.96	1.22	0.14
19.75	2.97	1.22	0.14
20.00	**2.98**	**1.23**	0.14

Summary for Subcatchment B1-3: B1-B

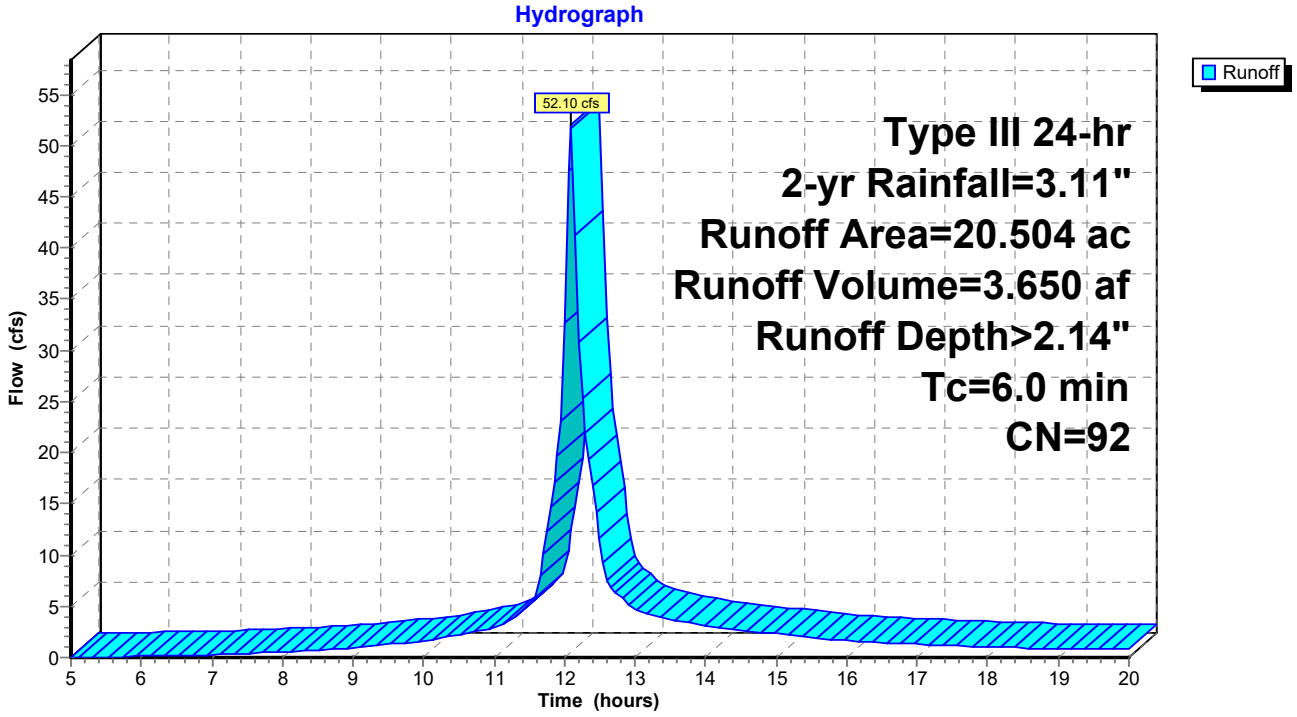
Runoff = 52.10 cfs @ 12.09 hrs, Volume= 3.650 af, Depth> 2.14"
Routed to Pond B1-3* : B1-3 Dry Extended Basin with Micropool

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.072	39	>75% Grass cover, Good, HSG A
3.314	61	>75% Grass cover, Good, HSG B
3.548	98	Roofs, HSG A
13.570	98	Paved parking, HSG A
20.504	92	Weighted Average
3.386		16.51% Pervious Area
17.118		83.49% Impervious Area

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

Subcatchment B1-3: B1-B



Hydrograph for Subcatchment B1-3: B1-B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.02
5.50	0.20	0.00	0.05
5.75	0.21	0.00	0.07
6.00	0.22	0.00	0.10
6.25	0.24	0.00	0.13
6.50	0.25	0.01	0.17
6.75	0.27	0.01	0.21
7.00	0.28	0.01	0.26
7.25	0.30	0.02	0.31
7.50	0.32	0.02	0.37
7.75	0.33	0.03	0.43
8.00	0.35	0.03	0.50
8.25	0.38	0.04	0.59
8.50	0.40	0.05	0.71
8.75	0.43	0.06	0.84
9.00	0.45	0.07	0.98
9.25	0.48	0.08	1.13
9.50	0.52	0.10	1.29
9.75	0.55	0.11	1.46
10.00	0.59	0.13	1.64
10.25	0.63	0.16	1.89
10.50	0.67	0.18	2.22
10.75	0.72	0.21	2.56
11.00	0.78	0.25	2.92
11.25	0.84	0.29	3.77
11.50	0.93	0.35	4.98
11.75	1.10	0.48	12.34
12.00	1.55	0.85	**32.63**
12.25	2.01	1.24	**25.28**
12.50	2.18	1.40	11.67
12.75	2.27	1.48	6.14
13.00	2.33	1.54	4.80
13.25	2.39	1.59	4.09
13.50	2.44	1.63	3.75
13.75	2.48	1.68	3.40
14.00	2.52	1.71	3.05
14.25	2.56	1.75	2.82
14.50	2.59	1.78	2.65
14.75	2.63	1.81	2.48
15.00	2.66	1.84	2.31
15.25	2.68	1.86	2.14
15.50	2.71	1.89	1.97
15.75	2.73	1.91	1.80
16.00	2.76	1.93	1.63
16.25	2.78	1.95	1.52
16.50	2.79	1.97	1.44
16.75	2.81	1.98	1.37
17.00	2.83	2.00	1.30
17.25	2.84	2.01	1.22
17.50	2.86	2.03	1.15
17.75	2.87	2.04	1.07
18.00	2.89	2.05	1.00
18.25	2.90	2.07	0.95
18.50	2.91	2.08	0.93
18.75	2.92	2.09	0.91
19.00	2.93	2.10	0.89
19.25	2.94	2.11	0.86
19.50	2.96	2.12	0.84
19.75	2.97	2.13	0.82
20.00	**2.98**	**2.14**	0.80

Summary for Subcatchment B10: B10

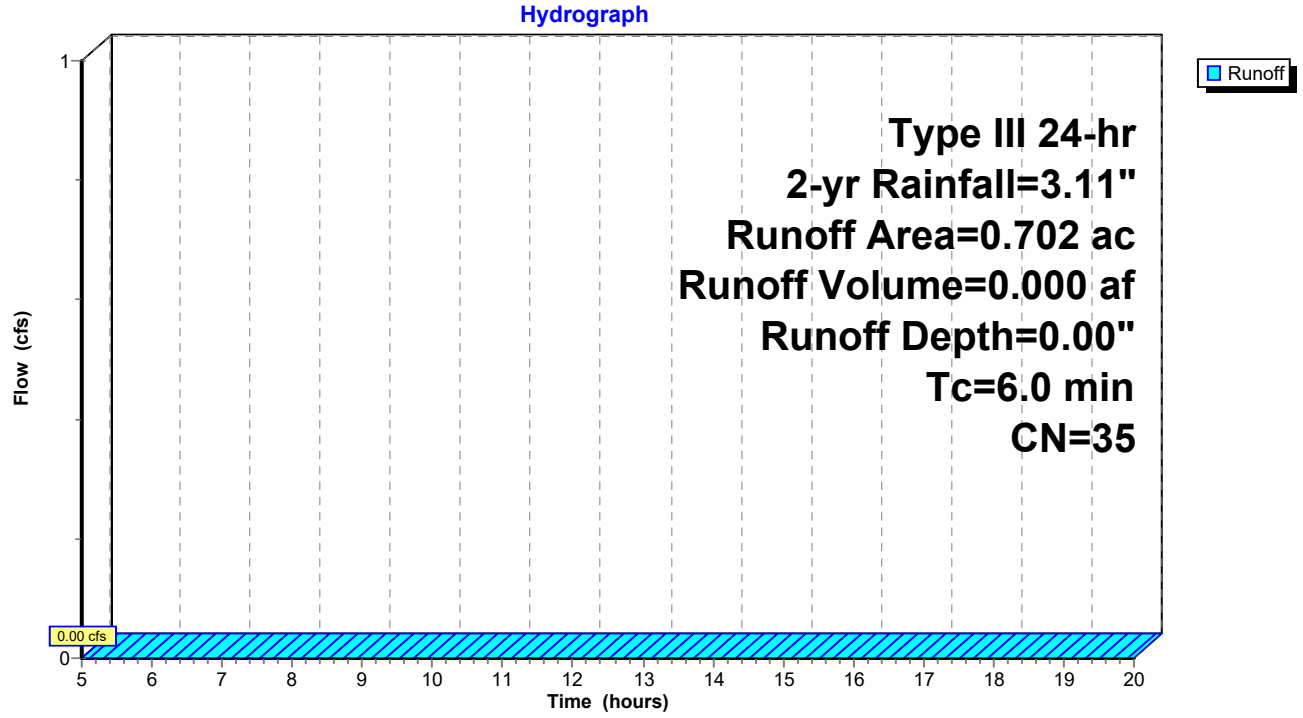
Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.368	39	>75% Grass cover, Good, HSG A
0.334	30	Woods, Good, HSG A
0.702	35	Weighted Average
0.702		100.00% Pervious Area

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

Subcatchment B10: B10



Hydrograph for Subcatchment B10: B10

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	**0.00**	**0.00**	17.75	2.87	0.00	0.00
5.25	0.19	0.00	0.00	18.00	2.89	0.00	0.00
5.50	0.20	0.00	0.00	18.25	2.90	0.00	0.00
5.75	0.21	0.00	0.00	18.50	2.91	0.00	0.00
6.00	0.22	0.00	0.00	18.75	2.92	0.00	0.00
6.25	0.24	0.00	0.00	19.00	2.93	0.00	0.00
6.50	0.25	0.00	0.00	19.25	2.94	0.00	0.00
6.75	0.27	0.00	0.00	19.50	2.96	0.00	0.00
7.00	0.28	0.00	0.00	19.75	2.97	0.00	0.00
7.25	0.30	0.00	0.00	20.00	**2.98**	0.00	0.00
7.50	0.32	0.00	0.00				
7.75	0.33	0.00	0.00				
8.00	0.35	0.00	0.00				
8.25	0.38	0.00	0.00				
8.50	0.40	0.00	0.00				
8.75	0.43	0.00	0.00				
9.00	0.45	0.00	0.00				
9.25	0.48	0.00	0.00				
9.50	0.52	0.00	0.00				
9.75	0.55	0.00	0.00				
10.00	0.59	0.00	0.00				
10.25	0.63	0.00	0.00				
10.50	0.67	0.00	0.00				
10.75	0.72	0.00	0.00				
11.00	0.78	0.00	0.00				
11.25	0.84	0.00	0.00				
11.50	0.93	0.00	0.00				
11.75	1.10	0.00	0.00				
12.00	1.55	0.00	0.00				
12.25	2.01	0.00	0.00				
12.50	2.18	0.00	0.00				
12.75	2.27	0.00	0.00				
13.00	2.33	0.00	0.00				
13.25	2.39	0.00	0.00				
13.50	2.44	0.00	0.00				
13.75	2.48	0.00	0.00				
14.00	2.52	0.00	0.00				
14.25	2.56	0.00	0.00				
14.50	2.59	0.00	0.00				
14.75	2.63	0.00	0.00				
15.00	2.66	0.00	0.00				
15.25	2.68	0.00	0.00				
15.50	2.71	0.00	0.00				
15.75	2.73	0.00	0.00				
16.00	2.76	0.00	0.00				
16.25	2.78	0.00	0.00				
16.50	2.79	0.00	0.00				
16.75	2.81	0.00	0.00				
17.00	2.83	0.00	0.00				
17.25	2.84	0.00	0.00				
17.50	2.86	0.00	0.00				

Summary for Subcatchment B11: B11

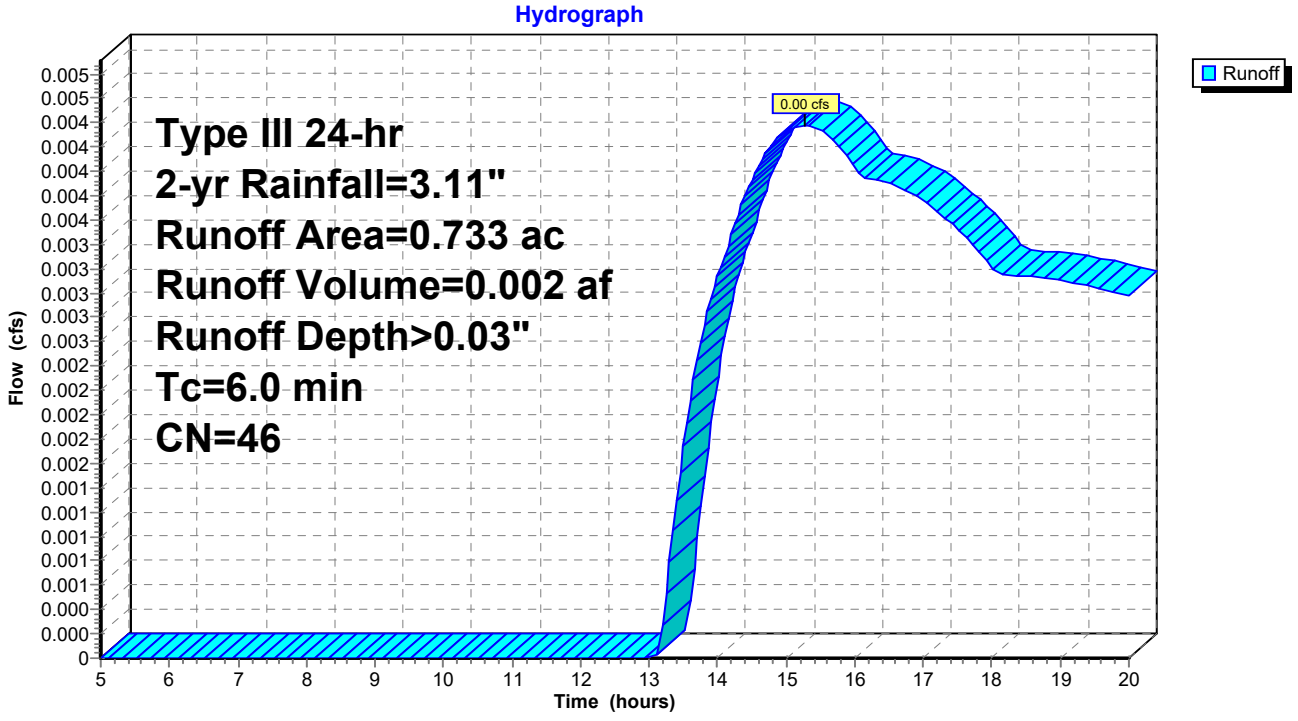
Runoff = 0.00 cfs @ 15.26 hrs, Volume= 0.002 af, Depth> 0.03"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.390	61	>75% Grass cover, Good, HSG B
0.343	30	Woods, Good, HSG A
0.733	46	Weighted Average
0.733		100.00% Pervious Area

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

Subcatchment B11: B11



Hydrograph for Subcatchment B11: B11

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.00	0.00
12.25	2.01	0.00	0.00
12.50	2.18	0.00	0.00
12.75	2.27	0.00	0.00
13.00	2.33	0.00	0.00
13.25	2.39	0.00	0.00
13.50	2.44	0.00	0.00
13.75	2.48	0.00	0.00
14.00	2.52	0.00	0.00
14.25	2.56	0.00	0.00
14.50	2.59	0.01	0.00
14.75	2.63	0.01	0.00
15.00	2.66	0.01	0.00
15.25	2.68	0.01	**0.00**
15.50	2.71	0.01	0.00
15.75	2.73	0.01	0.00
16.00	2.76	0.01	0.00
16.25	2.78	0.02	0.00
16.50	2.79	0.02	0.00
16.75	2.81	0.02	0.00
17.00	2.83	0.02	0.00
17.25	2.84	0.02	0.00
17.50	2.86	0.02	0.00
17.75	2.87	0.02	0.00
18.00	2.89	0.02	0.00
18.25	2.90	0.02	0.00
18.50	2.91	0.03	0.00
18.75	2.92	0.03	0.00
19.00	2.93	0.03	0.00
19.25	2.94	0.03	0.00
19.50	2.96	0.03	0.00
19.75	2.97	0.03	0.00
20.00	**2.98**	**0.03**	0.00

Summary for Subcatchment B13: B13

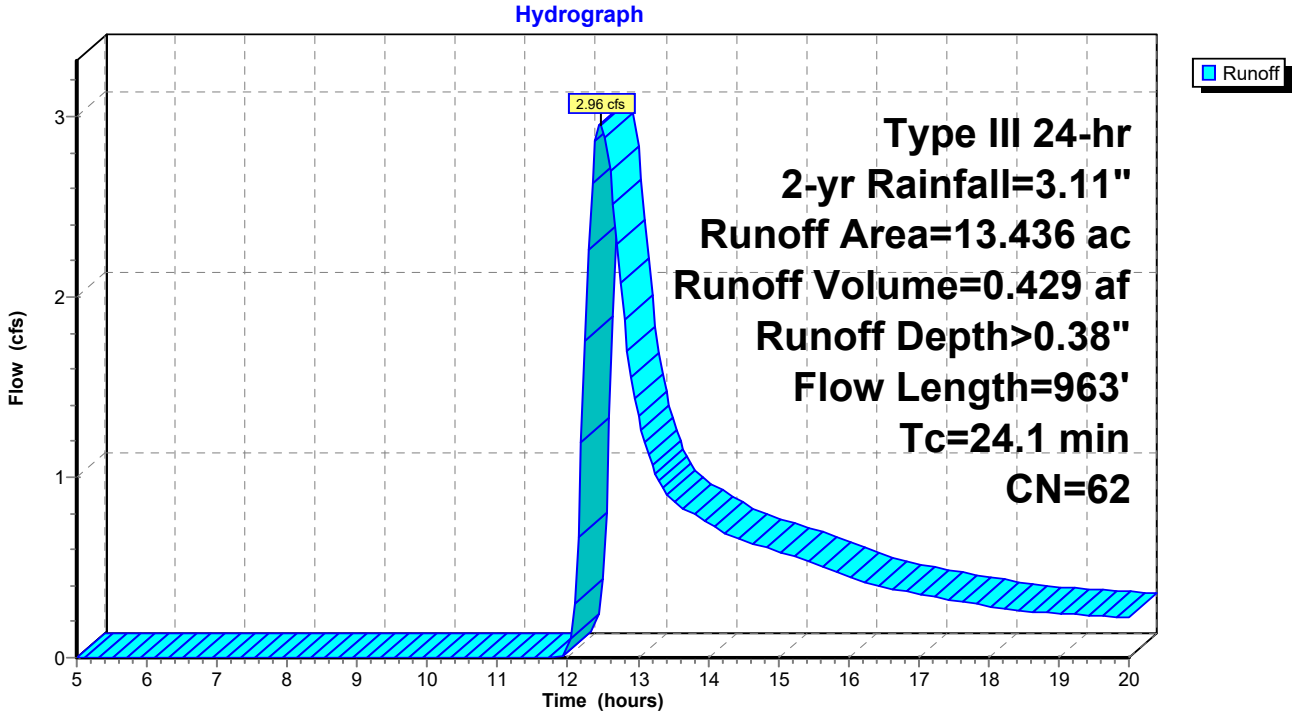
Runoff = 2.96 cfs @ 12.47 hrs, Volume= 0.429 af, Depth> 0.38"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.367	61	>75% Grass cover, Good, HSG B
0.993	61	>75% Grass cover, Good, HSG B
0.070	74	>75% Grass cover, Good, HSG C
0.836	80	>75% Grass cover, Good, HSG D
0.085	55	Woods, Good, HSG B
8.121	55	Woods, Good, HSG B
0.959	70	Woods, Good, HSG C
2.005	77	Woods, Good, HSG D
13.436	62	Weighted Average
13.436		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.2600	0.19		**Sheet Flow, sf-1** Woods: Light underbrush n= 0.400 P2= 3.11"
19.6	913	0.0240	0.77		**Shallow Concentrated Flow, scf-1** Woodland Kv= 5.0 fps
24.1	963	Total			

Subcatchment B13: B13



Hydrograph for Subcatchment B13: B13

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.02	0.02
12.25	2.01	0.09	**1.76**
12.50	2.18	0.13	**2.93**
12.75	2.27	0.15	2.08
13.00	2.33	0.17	1.34
13.25	2.39	0.18	1.02
13.50	2.44	0.20	0.88
13.75	2.48	0.21	0.81
14.00	2.52	0.23	0.75
14.25	2.56	0.24	0.69
14.50	2.59	0.25	0.65
14.75	2.63	0.26	0.62
15.00	2.66	0.27	0.59
15.25	2.68	0.28	0.56
15.50	2.71	0.29	0.52
15.75	2.73	0.30	0.49
16.00	2.76	0.31	0.45
16.25	2.78	0.31	0.41
16.50	2.79	0.32	0.39
16.75	2.81	0.33	0.37
17.00	2.83	0.33	0.35
17.25	2.84	0.34	0.34
17.50	2.86	0.34	0.32
17.75	2.87	0.35	0.30
18.00	2.89	0.35	0.28
18.25	2.90	0.36	0.27
18.50	2.91	0.36	0.26
18.75	2.92	0.37	0.25
19.00	2.93	0.37	0.24
19.25	2.94	0.38	0.24
19.50	2.96	0.38	0.23
19.75	2.97	0.38	0.23
20.00	**2.98**	**0.39**	0.22

Summary for Subcatchment B2: B2

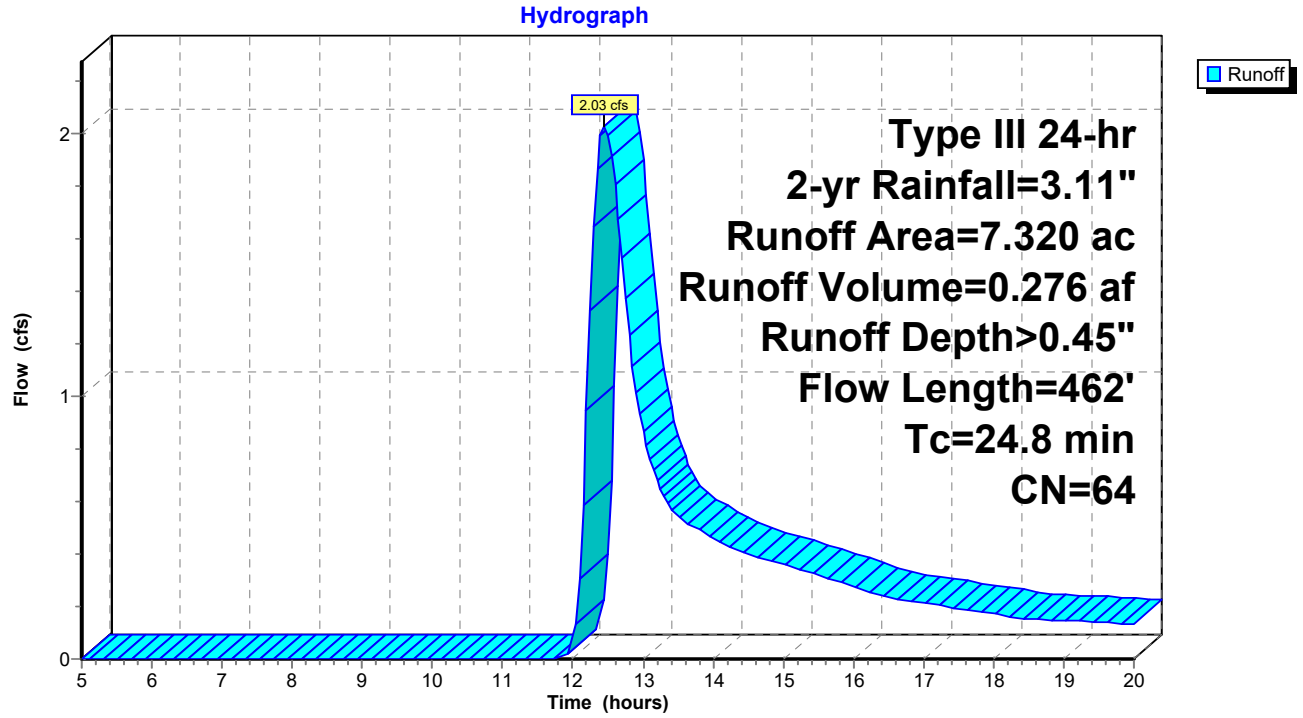
Runoff = 2.03 cfs @ 12.45 hrs, Volume= 0.276 af, Depth> 0.45"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
6.491	61	>75% Grass cover, Good, HSG B
0.198	80	>75% Grass cover, Good, HSG D
0.434	98	Water Surface, HSG D
0.193	55	Woods, Good, HSG B
0.004	77	Woods, Good, HSG D
7.320	64	Weighted Average
6.886		94.07% Pervious Area
0.434		5.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	50	0.0040	0.08		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
13.9	412	0.0050	0.49		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
24.8	462	Total			

Subcatchment B2: B2



Hydrograph for Subcatchment B2: B2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.03	0.05
12.25	2.01	0.12	**1.33**
12.50	2.18	0.17	**2.00**
12.75	2.27	0.19	1.38
13.00	2.33	0.21	0.87
13.25	2.39	0.23	0.65
13.50	2.44	0.25	0.55
13.75	2.48	0.26	0.50
14.00	2.52	0.28	0.46
14.25	2.56	0.29	0.43
14.50	2.59	0.30	0.40
14.75	2.63	0.32	0.38
15.00	2.66	0.33	0.36
15.25	2.68	0.34	0.34
15.50	2.71	0.35	0.32
15.75	2.73	0.36	0.30
16.00	2.76	0.37	0.27
16.25	2.78	0.37	0.25
16.50	2.79	0.38	0.24
16.75	2.81	0.39	0.22
17.00	2.83	0.40	0.21
17.25	2.84	0.40	0.20
17.50	2.86	0.41	0.19
17.75	2.87	0.41	0.18
18.00	2.89	0.42	0.17
18.25	2.90	0.43	0.16
18.50	2.91	0.43	0.15
18.75	2.92	0.44	0.15
19.00	2.93	0.44	0.15
19.25	2.94	0.44	0.14
19.50	2.96	0.45	0.14
19.75	2.97	0.45	0.14
20.00	**2.98**	**0.46**	0.13

Summary for Subcatchment B3-1: B3-1

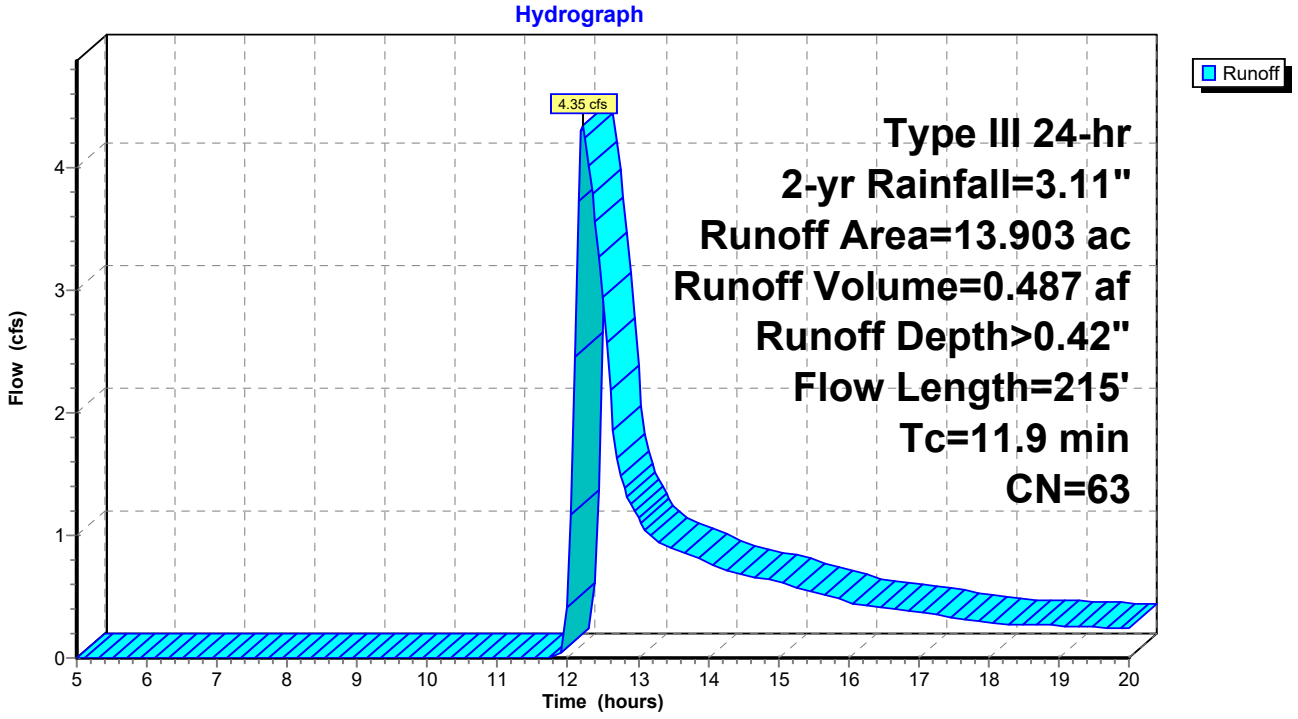
Runoff = 4.35 cfs @ 12.22 hrs, Volume= 0.487 af, Depth> 0.42"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
1.727	61	>75% Grass cover, Good, HSG B
0.454	80	>75% Grass cover, Good, HSG D
7.869	55	Woods, Good, HSG B
3.853	77	Woods, Good, HSG D
13.903	63	Weighted Average
13.903		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	50	0.0540	0.10		**Sheet Flow, sf-1** Woods: Light underbrush n= 0.400 P2= 3.11"
3.5	165	0.0250	0.79		**Shallow Concentrated Flow, scf-1** Woodland Kv= 5.0 fps
11.9	215	Total			

Subcatchment B3-1: B3-1



Hydrograph for Subcatchment B3-1: B3-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.02	**0.41**
12.25	2.01	0.10	**4.25**
12.50	2.18	0.15	2.95
12.75	2.27	0.17	1.48
13.00	2.33	0.19	1.15
13.25	2.39	0.21	0.96
13.50	2.44	0.22	0.90
13.75	2.48	0.24	0.84
14.00	2.52	0.25	0.78
14.25	2.56	0.26	0.72
14.50	2.59	0.28	0.69
14.75	2.63	0.29	0.65
15.00	2.66	0.30	0.62
15.25	2.68	0.31	0.58
15.50	2.71	0.32	0.54
15.75	2.73	0.33	0.50
16.00	2.76	0.34	0.46
16.25	2.78	0.34	0.43
16.50	2.79	0.35	0.41
16.75	2.81	0.36	0.39
17.00	2.83	0.36	0.37
17.25	2.84	0.37	0.35
17.50	2.86	0.38	0.33
17.75	2.87	0.38	0.31
18.00	2.89	0.39	0.29
18.25	2.90	0.39	0.28
18.50	2.91	0.40	0.27
18.75	2.92	0.40	0.27
19.00	2.93	0.41	0.26
19.25	2.94	0.41	0.26
19.50	2.96	0.41	0.25
19.75	2.97	0.42	0.24
20.00	**2.98**	**0.42**	0.24

Summary for Subcatchment B3-2: B3-2

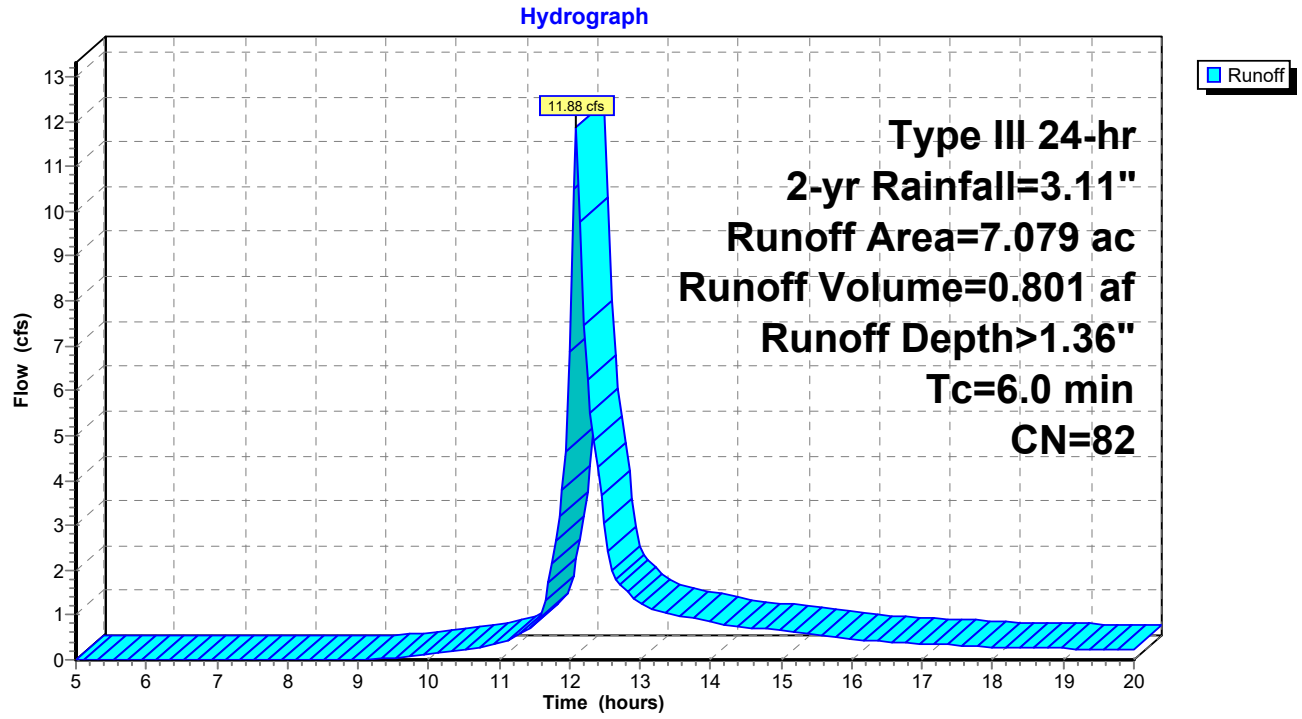
Runoff = 11.88 cfs @ 12.09 hrs, Volume= 0.801 af, Depth> 1.36"
Routed to Pond B3-2* : B3-2 Dry Extended Basin with Micropool

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
3.045	61	>75% Grass cover, Good, HSG B
0.069	80	>75% Grass cover, Good, HSG D
3.965	98	Paved parking, HSG A
7.079	82	Weighted Average
3.114		43.99% Pervious Area
3.965		56.01% Impervious Area

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

Subcatchment B3-2: B3-2



Hydrograph for Subcatchment B3-2: B3-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.03
9.50	0.52	0.00	0.05
9.75	0.55	0.01	0.08
10.00	0.59	0.01	0.12
10.25	0.63	0.02	0.17
10.50	0.67	0.02	0.22
10.75	0.72	0.03	0.29
11.00	0.78	0.05	0.37
11.25	0.84	0.06	0.53
11.50	0.93	0.09	0.77
11.75	1.10	0.15	2.16
12.00	1.55	0.38	**6.85**
12.25	2.01	0.65	**6.24**
12.50	2.18	0.77	3.03
12.75	2.27	0.83	1.62
13.00	2.33	0.88	1.28
13.25	2.39	0.92	1.10
13.50	2.44	0.95	1.02
13.75	2.48	0.98	0.93
14.00	2.52	1.01	0.84
14.25	2.56	1.04	0.77
14.50	2.59	1.07	0.73
14.75	2.63	1.09	0.69
15.00	2.66	1.11	0.64
15.25	2.68	1.14	0.60
15.50	2.71	1.16	0.55
15.75	2.73	1.17	0.51
16.00	2.76	1.19	0.46
16.25	2.78	1.20	0.43
16.50	2.79	1.22	0.41
16.75	2.81	1.23	0.39
17.00	2.83	1.25	0.37
17.25	2.84	1.26	0.35
17.50	2.86	1.27	0.33
17.75	2.87	1.28	0.30
18.00	2.89	1.29	0.28
18.25	2.90	1.30	0.27
18.50	2.91	1.31	0.27
18.75	2.92	1.32	0.26
19.00	2.93	1.33	0.25
19.25	2.94	1.34	0.25
19.50	2.96	1.34	0.24
19.75	2.97	1.35	0.24
20.00	**2.98**	**1.36**	0.23

Summary for Subcatchment B4: B4

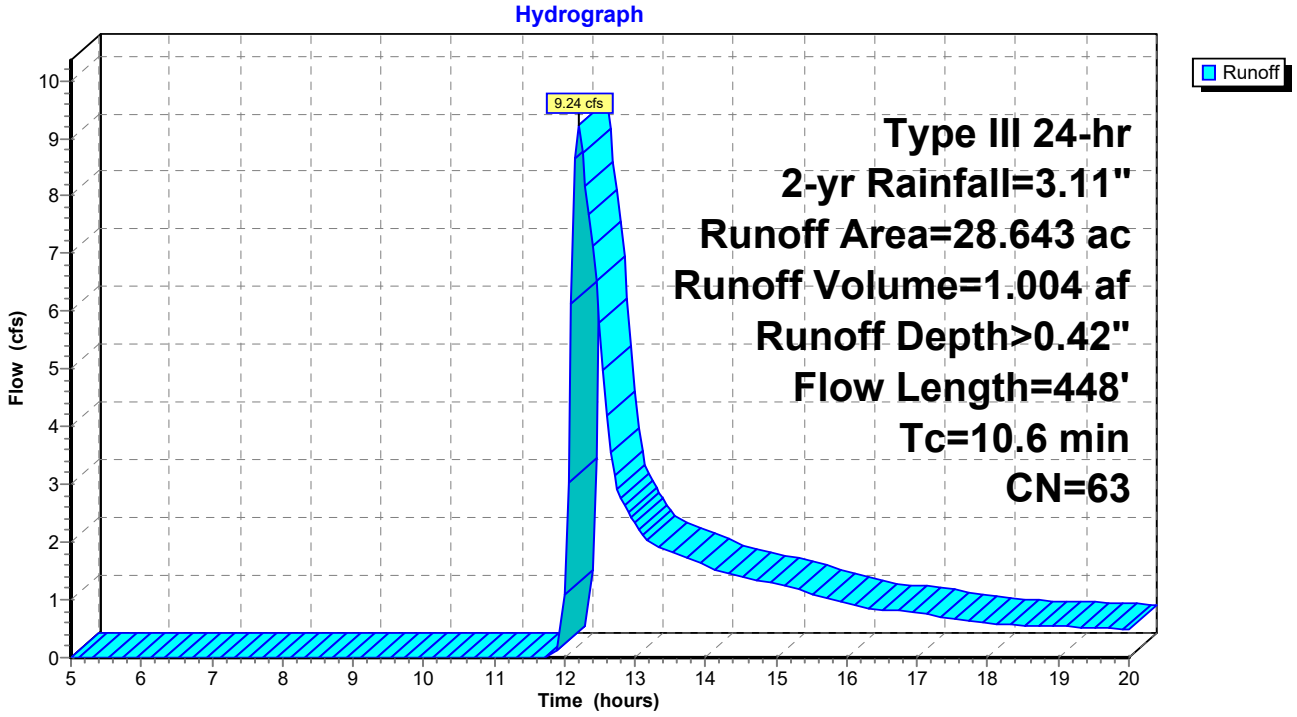
Runoff = 9.24 cfs @ 12.20 hrs, Volume= 1.004 af, Depth> 0.42"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
7.992	61	>75% Grass cover, Good, HSG B
2.765	80	>75% Grass cover, Good, HSG D
1.932	73	Brush, Good, HSG D
12.023	55	Woods, Good, HSG B
3.931	77	Woods, Good, HSG D
28.643	63	Weighted Average
28.643		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.0360	0.18		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
6.1	398	0.0240	1.08		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
10.6	448	Total			

Subcatchment B4: B4



Hydrograph for Subcatchment B4: B4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.02	**1.11**
12.25	2.01	0.10	**8.75**
12.50	2.18	0.15	5.80
12.75	2.27	0.17	2.92
13.00	2.33	0.19	2.32
13.25	2.39	0.21	1.96
13.50	2.44	0.22	1.84
13.75	2.48	0.24	1.72
14.00	2.52	0.25	1.59
14.25	2.56	0.26	1.47
14.50	2.59	0.28	1.41
14.75	2.63	0.29	1.34
15.00	2.66	0.30	1.27
15.25	2.68	0.31	1.19
15.50	2.71	0.32	1.11
15.75	2.73	0.33	1.03
16.00	2.76	0.34	0.94
16.25	2.78	0.34	0.88
16.50	2.79	0.35	0.84
16.75	2.81	0.36	0.80
17.00	2.83	0.36	0.76
17.25	2.84	0.37	0.72
17.50	2.86	0.38	0.68
17.75	2.87	0.38	0.64
18.00	2.89	0.39	0.60
18.25	2.90	0.39	0.57
18.50	2.91	0.40	0.56
18.75	2.92	0.40	0.55
19.00	2.93	0.41	0.54
19.25	2.94	0.41	0.53
19.50	2.96	0.41	0.52
19.75	2.97	0.42	0.50
20.00	**2.98**	**0.42**	0.49

Summary for Subcatchment B5-1: B5-1

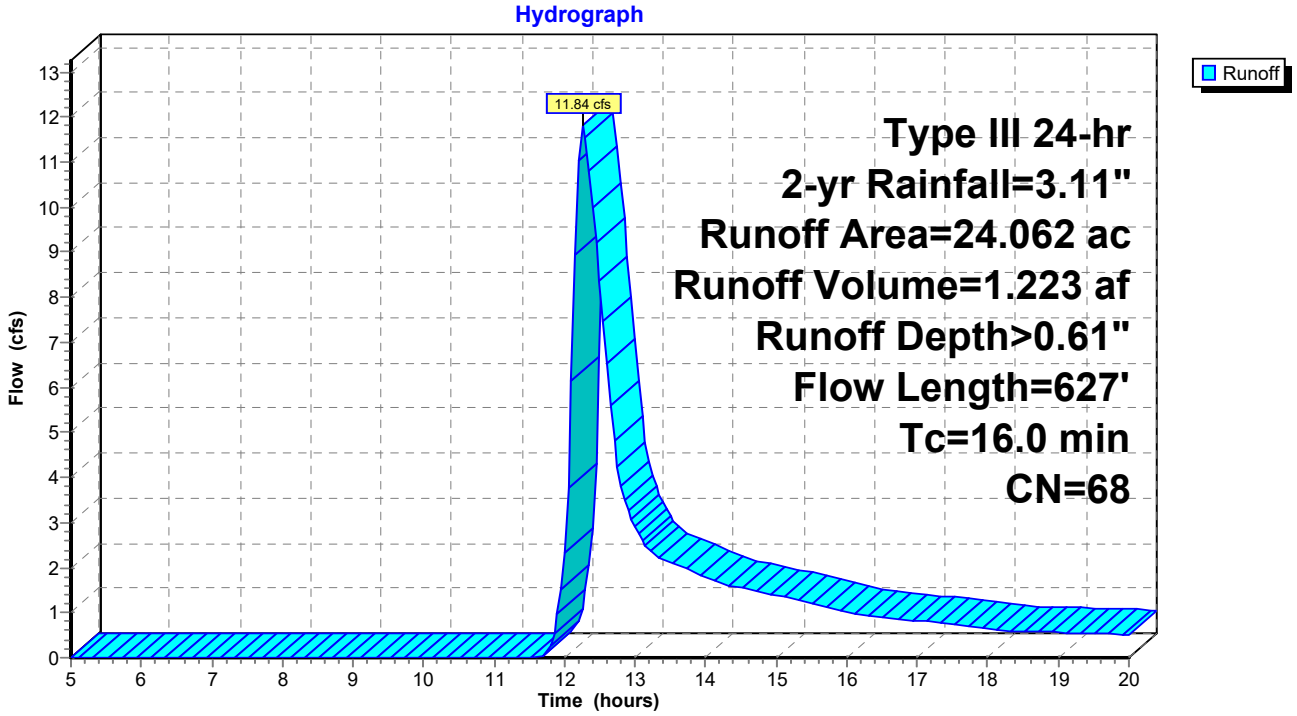
Runoff = 11.84 cfs @ 12.26 hrs, Volume= 1.223 af, Depth> 0.61"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
14.084	61	>75% Grass cover, Good, HSG B
0.295	80	>75% Grass cover, Good, HSG D
0.016	48	Brush, Good, HSG B
0.141	73	Brush, Good, HSG D
3.392	98	Water Surface, HSG A
0.437	73	Brush, Good, HSG D
3.045	55	Woods, Good, HSG B
2.484	77	Woods, Good, HSG D
0.168	98	Paved parking, HSG A
24.062	68	Weighted Average
20.502		85.20% Pervious Area
3.560		14.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	50	0.0260	0.16		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
10.9	577	0.0160	0.89		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
16.0	627	Total			

Subcatchment B5-1: B5-1



Hydrograph for Subcatchment B5-1: B5-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.01	0.12
12.00	1.55	0.07	2.32
12.25	2.01	0.20	**11.81**
12.50	2.18	0.26	8.37
12.75	2.27	0.29	4.23
13.00	2.33	0.32	2.90
13.25	2.39	0.34	2.31
13.50	2.44	0.36	2.10
13.75	2.48	0.38	1.95
14.00	2.52	0.40	1.79
14.25	2.56	0.41	1.64
14.50	2.59	0.43	1.55
14.75	2.63	0.44	1.47
15.00	2.66	0.46	1.39
15.25	2.68	0.47	1.31
15.50	2.71	0.48	1.22
15.75	2.73	0.49	1.13
16.00	2.76	0.50	1.04
16.25	2.78	0.51	0.95
16.50	2.79	0.52	0.90
16.75	2.81	0.53	0.86
17.00	2.83	0.54	0.82
17.25	2.84	0.55	0.78
17.50	2.86	0.56	0.73
17.75	2.87	0.56	0.69
18.00	2.89	0.57	0.65
18.25	2.90	0.57	0.61
18.50	2.91	0.58	0.59
18.75	2.92	0.59	0.58
19.00	2.93	0.59	0.57
19.25	2.94	0.60	0.55
19.50	2.96	0.60	0.54
19.75	2.97	0.61	0.53
20.00	**2.98**	**0.61**	0.52

Summary for Subcatchment B5-2: B5-2

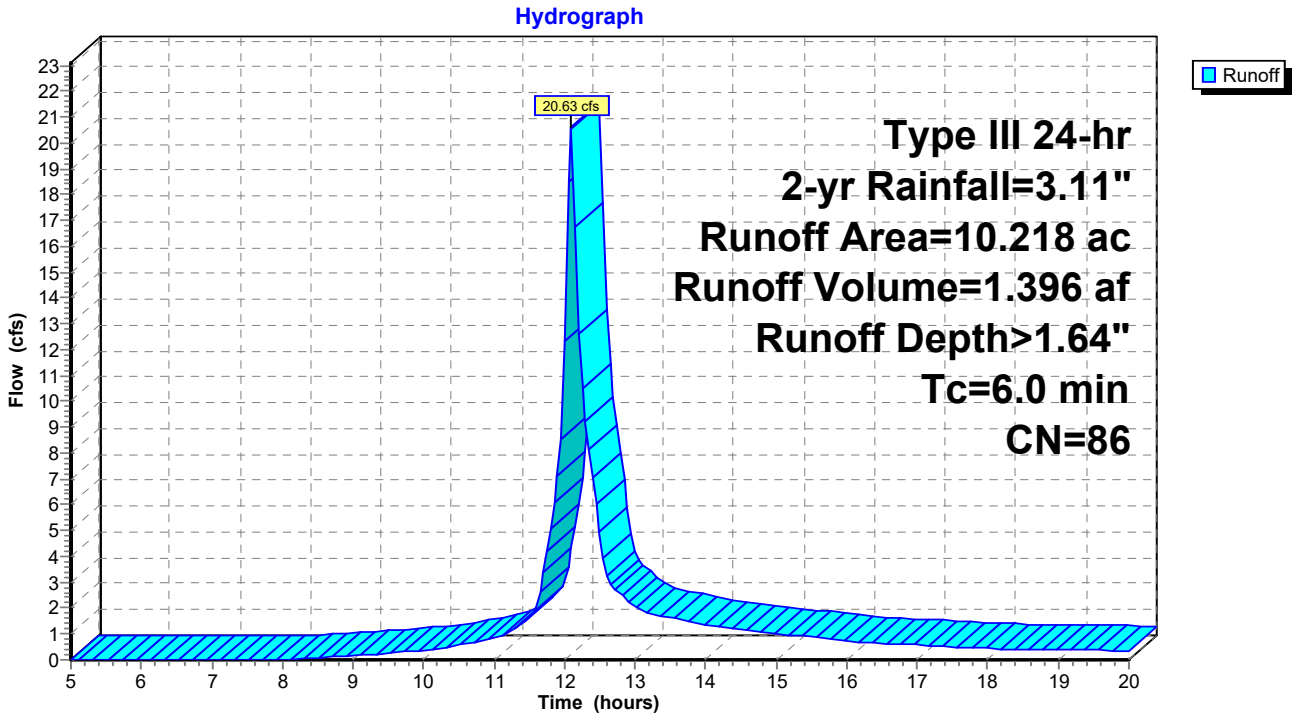
Runoff = 20.63 cfs @ 12.09 hrs, Volume= 1.396 af, Depth> 1.64"
Routed to Pond B5-2* : B5-2 Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
3.294	61	>75% Grass cover, Good, HSG B
4.054	98	Roofs, HSG A
2.870	98	Paved parking, HSG A
10.218	86	Weighted Average
3.294		32.24% Pervious Area
6.924		67.76% Impervious Area

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

Subcatchment B5-2: B5-2



Hydrograph for Subcatchment B5-2: B5-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.02
8.25	0.38	0.00	0.04
8.50	0.40	0.00	0.07
8.75	0.43	0.01	0.11
9.00	0.45	0.01	0.15
9.25	0.48	0.01	0.20
9.50	0.52	0.02	0.25
9.75	0.55	0.03	0.31
10.00	0.59	0.04	0.38
10.25	0.63	0.05	0.47
10.50	0.67	0.06	0.58
10.75	0.72	0.08	0.71
11.00	0.78	0.10	0.85
11.25	0.84	0.12	1.15
11.50	0.93	0.16	1.60
11.75	1.10	0.25	4.22
12.00	1.55	0.53	**12.34**
12.25	2.01	0.85	**10.48**
12.50	2.18	0.99	4.98
12.75	2.27	1.06	2.65
13.00	2.33	1.11	2.08
13.25	2.39	1.15	1.78
13.50	2.44	1.19	1.64
13.75	2.48	1.23	1.49
14.00	2.52	1.26	1.34
14.25	2.56	1.29	1.24
14.50	2.59	1.32	1.17
14.75	2.63	1.35	1.10
15.00	2.66	1.37	1.03
15.25	2.68	1.40	0.95
15.50	2.71	1.42	0.88
15.75	2.73	1.44	0.80
16.00	2.76	1.46	0.73
16.25	2.78	1.47	0.68
16.50	2.79	1.49	0.65
16.75	2.81	1.50	0.61
17.00	2.83	1.52	0.58
17.25	2.84	1.53	0.55
17.50	2.86	1.54	0.51
17.75	2.87	1.55	0.48
18.00	2.89	1.57	0.45
18.25	2.90	1.58	0.43
18.50	2.91	1.59	0.42
18.75	2.92	1.60	0.41
19.00	2.93	1.61	0.40
19.25	2.94	1.62	0.39
19.50	2.96	1.62	0.38
19.75	2.97	1.63	0.37
20.00	**2.98**	**1.64**	0.36

Summary for Subcatchment B6-1: B6-1

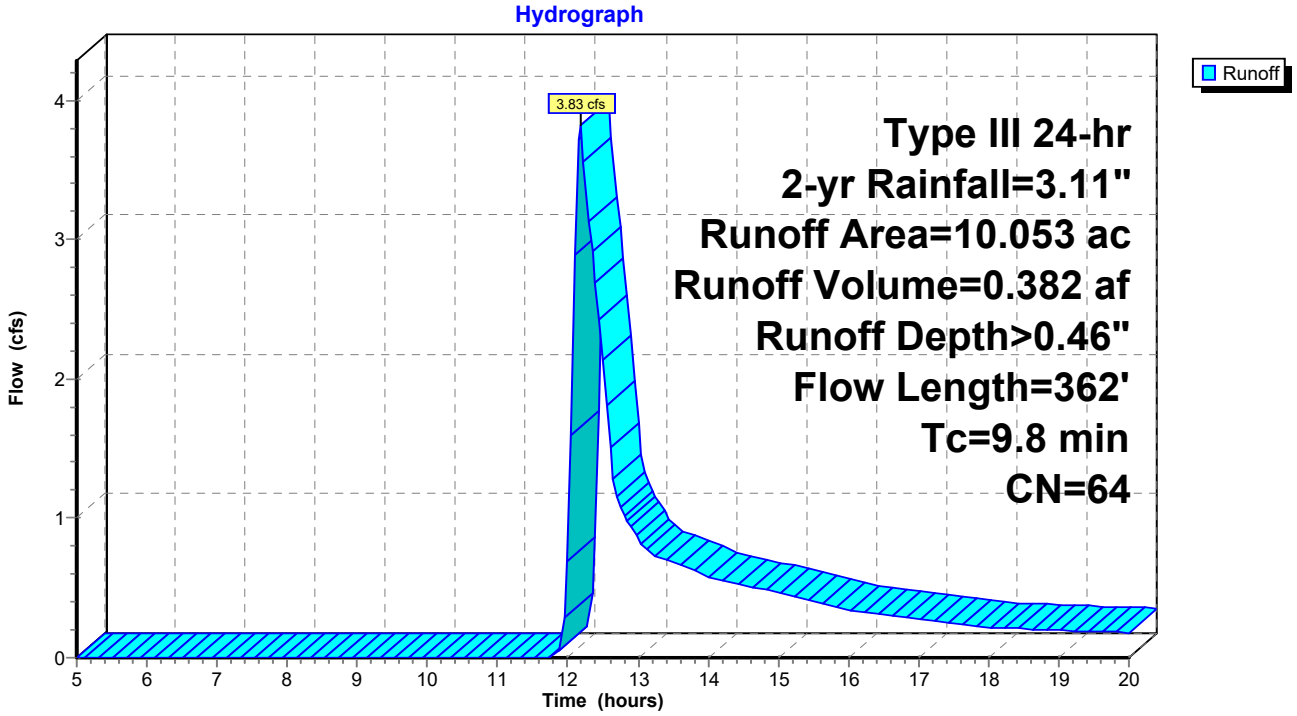
Runoff = 3.83 cfs @ 12.17 hrs, Volume= 0.382 af, Depth> 0.46"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.160	39	>75% Grass cover, Good, HSG A
7.451	61	>75% Grass cover, Good, HSG B
1.614	80	>75% Grass cover, Good, HSG D
0.517	55	Woods, Good, HSG B
0.021	77	Woods, Good, HSG D
0.290	98	Paved parking, HSG A
10.053	64	Weighted Average
9.763		97.12% Pervious Area
0.290		2.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	50	0.0250	0.16		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
4.6	312	0.0260	1.13		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
9.8	362	Total			

Subcatchment B6-1: B6-1



Hydrograph for Subcatchment B6-1: B6-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.03	**0.69**
12.25	2.01	0.12	**3.40**
12.50	2.18	0.17	2.13
12.75	2.27	0.19	1.08
13.00	2.33	0.21	0.86
13.25	2.39	0.23	0.73
13.50	2.44	0.25	0.69
13.75	2.48	0.26	0.64
14.00	2.52	0.28	0.59
14.25	2.56	0.29	0.55
14.50	2.59	0.30	0.52
14.75	2.63	0.32	0.50
15.00	2.66	0.33	0.47
15.25	2.68	0.34	0.44
15.50	2.71	0.35	0.41
15.75	2.73	0.36	0.38
16.00	2.76	0.37	0.35
16.25	2.78	0.37	0.32
16.50	2.79	0.38	0.31
16.75	2.81	0.39	0.29
17.00	2.83	0.40	0.28
17.25	2.84	0.40	0.27
17.50	2.86	0.41	0.25
17.75	2.87	0.41	0.24
18.00	2.89	0.42	0.22
18.25	2.90	0.43	0.21
18.50	2.91	0.43	0.21
18.75	2.92	0.44	0.20
19.00	2.93	0.44	0.20
19.25	2.94	0.44	0.19
19.50	2.96	0.45	0.19
19.75	2.97	0.45	0.18
20.00	**2.98**	**0.46**	0.18

Summary for Subcatchment B6-2: B6-2

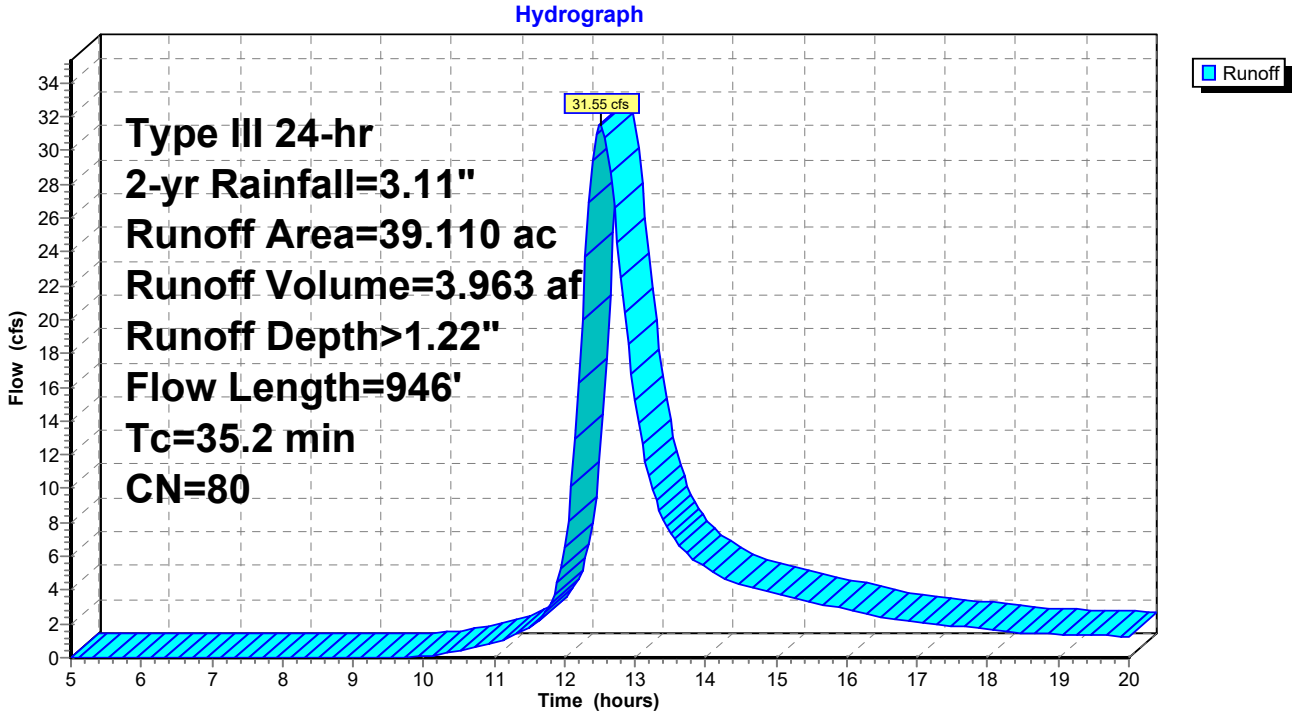
Runoff = 31.55 cfs @ 12.51 hrs, Volume= 3.963 af, Depth> 1.22"
Routed to Pond B6-2* : B6-2 Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
17.844	61	>75% Grass cover, Good, HSG B
1.238	55	Woods, Good, HSG B
8.138	98	Roofs, HSG A
11.890	98	Paved parking, HSG A
39.110	80	Weighted Average
19.082		48.79% Pervious Area
20.028		51.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.9	50	0.0010	0.04		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
2.6	142	0.0170	0.91		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
0.1	14	0.0430	4.21		**Shallow Concentrated Flow, SCF-2** Paved Kv= 20.3 fps
13.6	740	0.0075	0.91	0.05	**Pipe Channel, 36" HDPE** 36.0" Round w/ 35.0" inside fill Area= 0.1 sf Perim= 2.0' r= 0.03' n= 0.013
35.2	946	Total			

Subcatchment B6-2: B6-2



Hydrograph for Subcatchment B6-2: B6-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.01
10.00	0.59	0.00	0.09
10.25	0.63	0.01	0.22
10.50	0.67	0.01	0.40
10.75	0.72	0.02	0.63
11.00	0.78	0.03	0.91
11.25	0.84	0.04	1.26
11.50	0.93	0.06	1.80
11.75	1.10	0.12	2.82
12.00	1.55	0.31	6.52
12.25	2.01	0.57	19.96
12.50	2.18	0.68	**31.53**
12.75	2.27	0.73	24.54
13.00	2.33	0.78	15.21
13.25	2.39	0.81	9.99
13.50	2.44	0.85	7.37
13.75	2.48	0.88	6.08
14.00	2.52	0.90	5.31
14.25	2.56	0.93	4.75
14.50	2.59	0.95	4.34
14.75	2.63	0.98	4.04
15.00	2.66	1.00	3.78
15.25	2.68	1.02	3.55
15.50	2.71	1.04	3.31
15.75	2.73	1.05	3.08
16.00	2.76	1.07	2.84
16.25	2.78	1.08	2.60
16.50	2.79	1.10	2.39
16.75	2.81	1.11	2.24
17.00	2.83	1.12	2.12
17.25	2.84	1.13	2.01
17.50	2.86	1.15	1.90
17.75	2.87	1.16	1.80
18.00	2.89	1.17	1.69
18.25	2.90	1.17	1.58
18.50	2.91	1.18	1.49
18.75	2.92	1.19	1.44
19.00	2.93	1.20	1.39
19.25	2.94	1.21	1.36
19.50	2.96	1.22	1.33
19.75	2.97	1.22	1.30
20.00	**2.98**	**1.23**	1.26

Summary for Subcatchment B7: B7

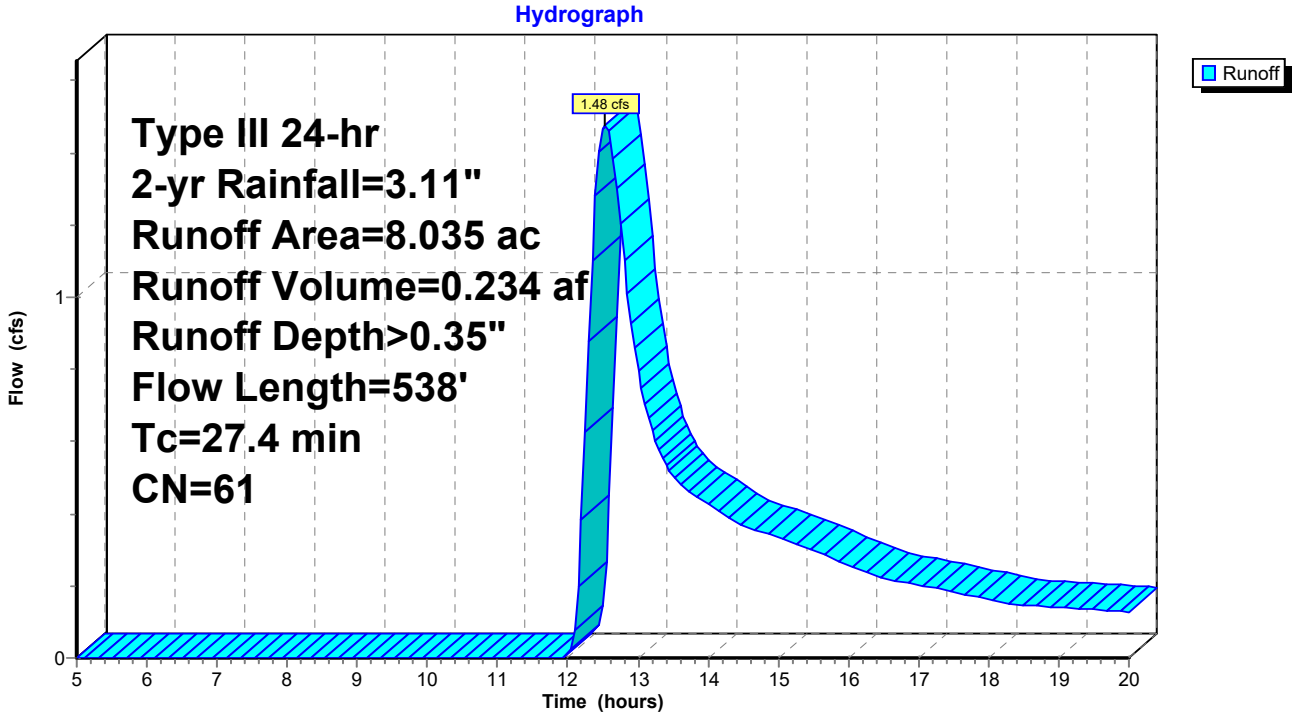
Runoff = 1.48 cfs @ 12.53 hrs, Volume= 0.234 af, Depth> 0.35"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
0.295	61	>75% Grass cover, Good, HSG B
0.440	80	>75% Grass cover, Good, HSG D
5.519	55	Woods, Good, HSG B
1.781	77	Woods, Good, HSG D
8.035	61	Weighted Average
8.035		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	50	0.0160	0.06		**Sheet Flow, SF-1** Woods: Light underbrush n= 0.400 P2= 3.11"
13.7	488	0.0140	0.59		**Shallow Concentrated Flow, SCF-1** Woodland Kv= 5.0 fps
27.4	538	Total			

Subcatchment B7: B7



Hydrograph for Subcatchment B7: B7

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.01	0.00
12.25	2.01	0.07	0.63
12.50	2.18	0.11	**1.47**
12.75	2.27	0.13	**1.20**
13.00	2.33	0.15	0.80
13.25	2.39	0.16	0.60
13.50	2.44	0.18	0.51
13.75	2.48	0.19	0.46
14.00	2.52	0.20	0.43
14.25	2.56	0.21	0.39
14.50	2.59	0.22	0.37
14.75	2.63	0.23	0.35
15.00	2.66	0.24	0.33
15.25	2.68	0.25	0.32
15.50	2.71	0.26	0.30
15.75	2.73	0.27	0.28
16.00	2.76	0.28	0.26
16.25	2.78	0.28	0.24
16.50	2.79	0.29	0.22
16.75	2.81	0.30	0.21
17.00	2.83	0.30	0.20
17.25	2.84	0.31	0.19
17.50	2.86	0.31	0.18
17.75	2.87	0.32	0.17
18.00	2.89	0.32	0.16
18.25	2.90	0.33	0.15
18.50	2.91	0.33	0.15
18.75	2.92	0.34	0.14
19.00	2.93	0.34	0.14
19.25	2.94	0.34	0.14
19.50	2.96	0.35	0.13
19.75	2.97	0.35	0.13
20.00	**2.98**	**0.36**	0.13

Summary for Subcatchment B8: B8

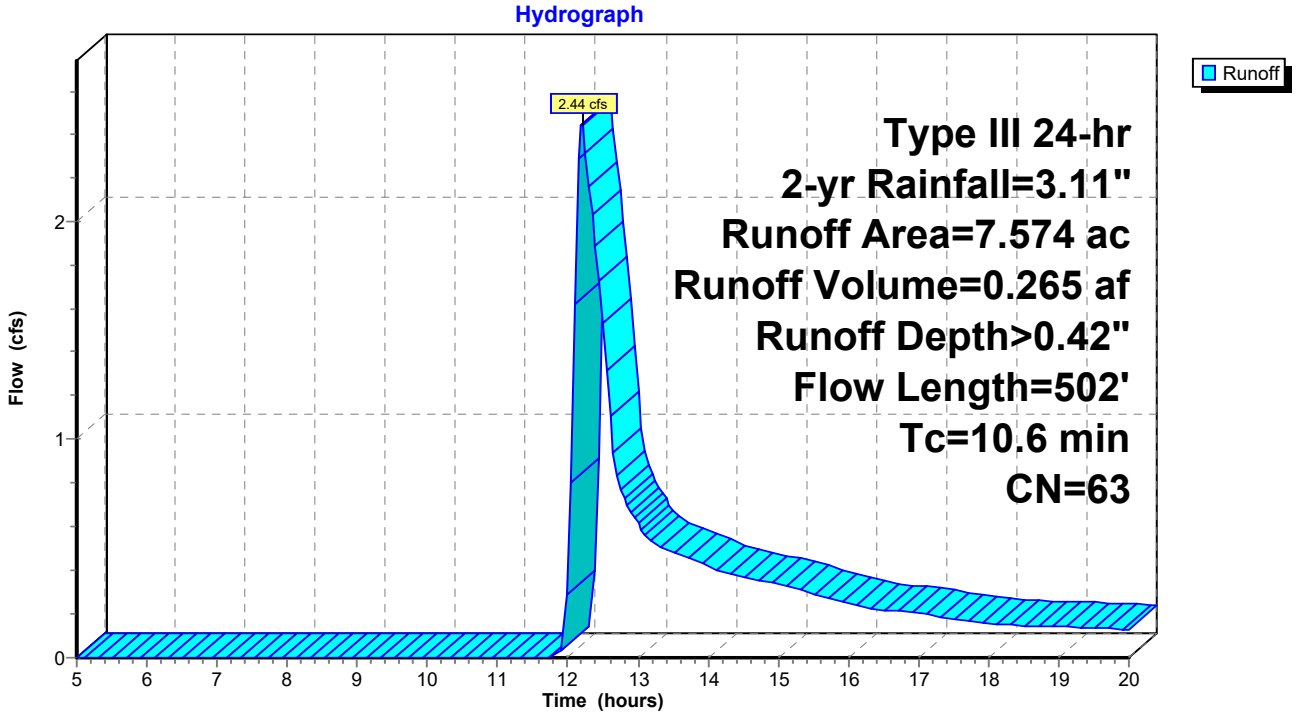
Runoff = 2.44 cfs @ 12.20 hrs, Volume= 0.265 af, Depth> 0.42"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.11"

Area (ac)	CN	Description
6.154	61	>75% Grass cover, Good, HSG B
0.897	55	Woods, Good, HSG B
0.523	98	Water Surface, HSG A
7.574	63	Weighted Average
7.051		93.09% Pervious Area
0.523		6.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	50	0.0170	0.14		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
0.9	73	0.0380	1.36		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
0.3	26	0.0680	1.30		**Shallow Concentrated Flow, scf-2** Woodland Kv= 5.0 fps
3.3	353	0.0660	1.80		**Shallow Concentrated Flow, scf-3** Short Grass Pasture Kv= 7.0 fps
10.6	502	Total			

Subcatchment B8: B8



Hydrograph for Subcatchment B8: B8

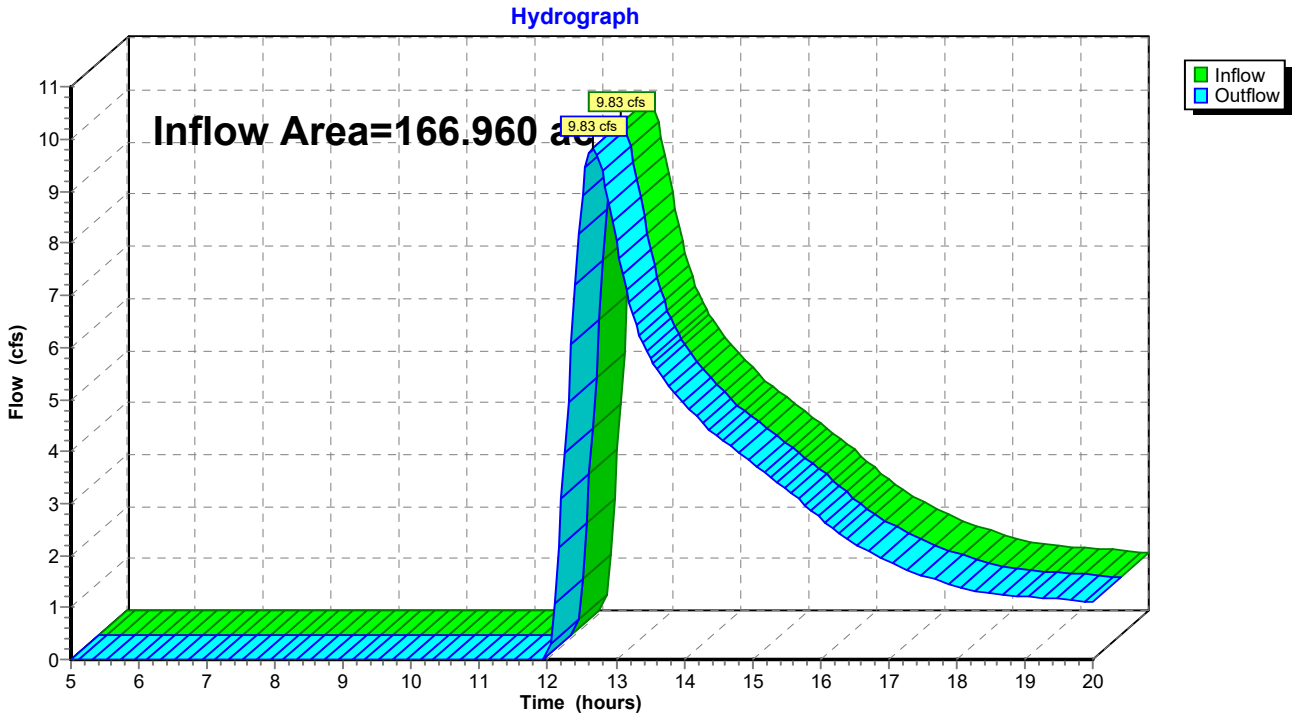
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.18	0.00	0.00
5.25	0.19	0.00	0.00
5.50	0.20	0.00	0.00
5.75	0.21	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.24	0.00	0.00
6.50	0.25	0.00	0.00
6.75	0.27	0.00	0.00
7.00	0.28	0.00	0.00
7.25	0.30	0.00	0.00
7.50	0.32	0.00	0.00
7.75	0.33	0.00	0.00
8.00	0.35	0.00	0.00
8.25	0.38	0.00	0.00
8.50	0.40	0.00	0.00
8.75	0.43	0.00	0.00
9.00	0.45	0.00	0.00
9.25	0.48	0.00	0.00
9.50	0.52	0.00	0.00
9.75	0.55	0.00	0.00
10.00	0.59	0.00	0.00
10.25	0.63	0.00	0.00
10.50	0.67	0.00	0.00
10.75	0.72	0.00	0.00
11.00	0.78	0.00	0.00
11.25	0.84	0.00	0.00
11.50	0.93	0.00	0.00
11.75	1.10	0.00	0.00
12.00	1.55	0.02	**0.29**
12.25	2.01	0.10	**2.31**
12.50	2.18	0.15	1.53
12.75	2.27	0.17	0.77
13.00	2.33	0.19	0.61
13.25	2.39	0.21	0.52
13.50	2.44	0.22	0.49
13.75	2.48	0.24	0.46
14.00	2.52	0.25	0.42
14.25	2.56	0.26	0.39
14.50	2.59	0.28	0.37
14.75	2.63	0.29	0.35
15.00	2.66	0.30	0.34
15.25	2.68	0.31	0.32
15.50	2.71	0.32	0.29
15.75	2.73	0.33	0.27
16.00	2.76	0.34	0.25
16.25	2.78	0.34	0.23
16.50	2.79	0.35	0.22
16.75	2.81	0.36	0.21
17.00	2.83	0.36	0.20
17.25	2.84	0.37	0.19
17.50	2.86	0.38	0.18
17.75	2.87	0.38	0.17
18.00	2.89	0.39	0.16
18.25	2.90	0.39	0.15
18.50	2.91	0.40	0.15
18.75	2.92	0.40	0.15
19.00	2.93	0.41	0.14
19.25	2.94	0.41	0.14
19.50	2.96	0.41	0.14
19.75	2.97	0.42	0.13
20.00	**2.98**	**0.42**	0.13

Summary for Reach DP-A: DP-A

Inflow Area = 166.960 ac, 32.99% Impervious, Inflow Depth > 0.16" for 2-yr event
Inflow = 9.83 cfs @ 12.66 hrs, Volume= 2.203 af
Outflow = 9.83 cfs @ 12.66 hrs, Volume= 2.203 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-A: DP-A



Hydrograph for Reach DP-A: DP-A

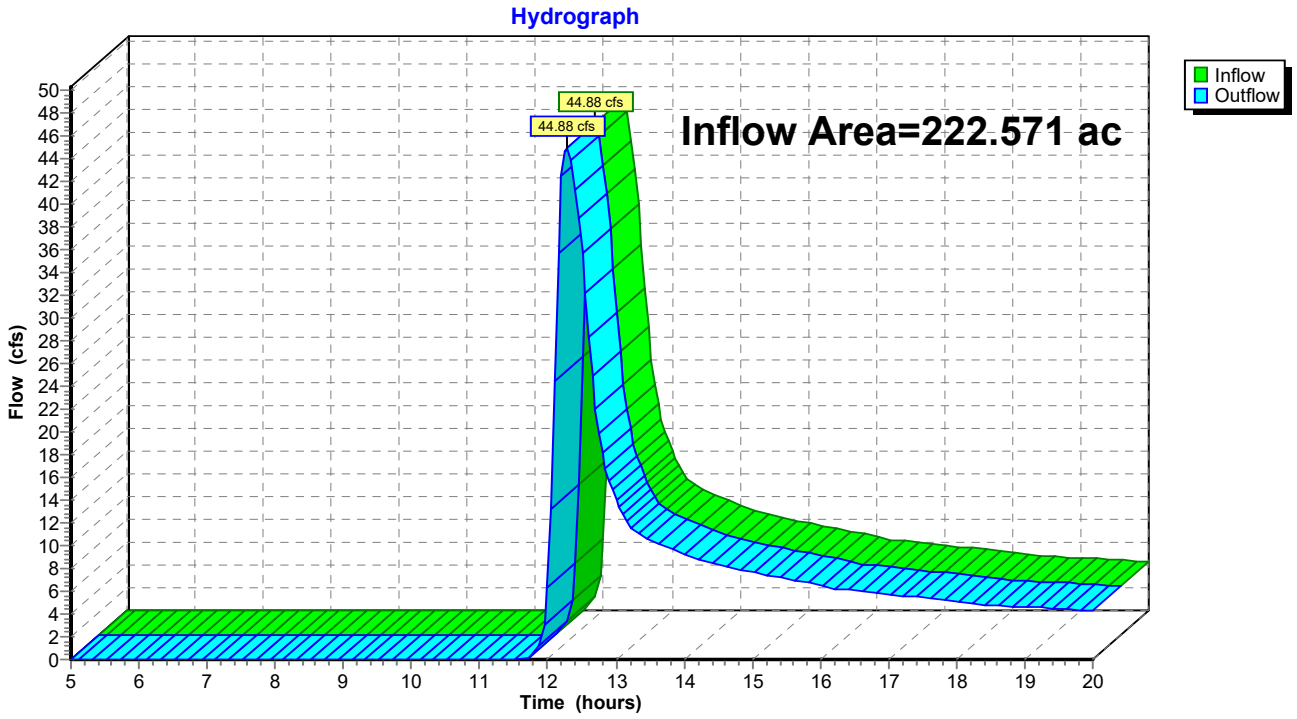
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	1.51		1.51
5.25	0.00		0.00	18.00	1.42		1.42
5.50	0.00		0.00	18.25	1.34		1.34
5.75	0.00		0.00	18.50	1.28		1.28
6.00	0.00		0.00	18.75	1.24		1.24
6.25	0.00		0.00	19.00	1.21		1.21
6.50	0.00		0.00	19.25	1.18		1.18
6.75	0.00		0.00	19.50	1.16		1.16
7.00	0.00		0.00	19.75	1.14		1.14
7.25	0.00		0.00	20.00	1.11		1.11
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.00		0.00				
10.25	0.00		0.00				
10.50	0.00		0.00				
10.75	0.00		0.00				
11.00	0.00		0.00				
11.25	0.00		0.00				
11.50	0.00		0.00				
11.75	0.00		0.00				
12.00	0.04		0.04				
12.25	3.98		3.98				
12.50	**8.94**		**8.94**				
12.75	**9.63**		**9.63**				
13.00	8.06		8.06				
13.25	6.63		6.63				
13.50	5.80		5.80				
13.75	5.30		5.30				
14.00	4.93		4.93				
14.25	4.57		4.57				
14.50	4.28		4.28				
14.75	4.02		4.02				
15.00	3.78		3.78				
15.25	3.53		3.53				
15.50	3.27		3.27				
15.75	3.00		3.00				
16.00	2.72		2.72				
16.25	2.45		2.45				
16.50	2.22		2.22				
16.75	2.04		2.04				
17.00	1.88		1.88				
17.25	1.74		1.74				
17.50	1.62		1.62				

Summary for Reach DP-B: DP-B

Inflow Area = 222.571 ac, 25.25% Impervious, Inflow Depth > 0.34" for 2-yr event
Inflow = 44.88 cfs @ 12.27 hrs, Volume= 6.268 af
Outflow = 44.88 cfs @ 12.27 hrs, Volume= 6.268 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-B: DP-B



Hydrograph for Reach DP-B: DP-B

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00
5.25	0.00		0.00
5.50	0.00		0.00
5.75	0.00		0.00
6.00	0.00		0.00
6.25	0.00		0.00
6.50	0.00		0.00
6.75	0.00		0.00
7.00	0.00		0.00
7.25	0.00		0.00
7.50	0.00		0.00
7.75	0.00		0.00
8.00	0.00		0.00
8.25	0.00		0.00
8.50	0.00		0.00
8.75	0.00		0.00
9.00	0.00		0.00
9.25	0.00		0.00
9.50	0.00		0.00
9.75	0.00		0.00
10.00	0.00		0.00
10.25	0.00		0.00
10.50	0.00		0.00
10.75	0.00		0.00
11.00	0.01		0.01
11.25	0.01		0.01
11.50	0.02		0.02
11.75	0.18		0.18
12.00	6.32		6.32
12.25	**44.65**		**44.65**
12.50	35.72		35.72
12.75	19.79		19.79
13.00	14.06		14.06
13.25	11.38		11.38
13.50	10.44		10.44
13.75	9.84		9.84
14.00	9.22		9.22
14.25	8.65		8.65
14.50	8.29		8.29
14.75	7.98		7.98
15.00	7.66		7.66
15.25	7.40		7.40
15.50	7.12		7.12
15.75	6.82		6.82
16.00	6.48		6.48
16.25	6.19		6.19
16.50	6.03		6.03
16.75	5.90		5.90
17.00	5.75		5.75
17.25	5.59		5.59
17.50	5.42		5.42
17.75	5.23		5.23
18.00	5.03		5.03
18.25	4.85		4.85
18.50	4.77		4.77
18.75	4.69		4.69
19.00	4.63		4.63
19.25	4.55		4.55
19.50	4.48		4.48
19.75	4.40		4.40
20.00	4.32		4.32

Summary for Pond A1-2*: A1-2 Infiltration Basin

Inflow Area = 21.469 ac, 66.84% Impervious, Inflow Depth > 2.41" for 2-yr event
Inflow = 40.96 cfs @ 12.09 hrs, Volume= 4.303 af
Outflow = 6.95 cfs @ 12.68 hrs, Volume= 4.301 af, Atten= 83%, Lag= 35.0 min
Discarded = 6.95 cfs @ 12.68 hrs, Volume= 4.301 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Reach DP-A : DP-A

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 117.52' @ 12.68 hrs Surf.Area= 30,019 sf Storage= 41,151 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 38.7 min (816.3 - 777.6)

Volume	Invert	Avail.Storage	Storage Description
#1	116.00'	202,931 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

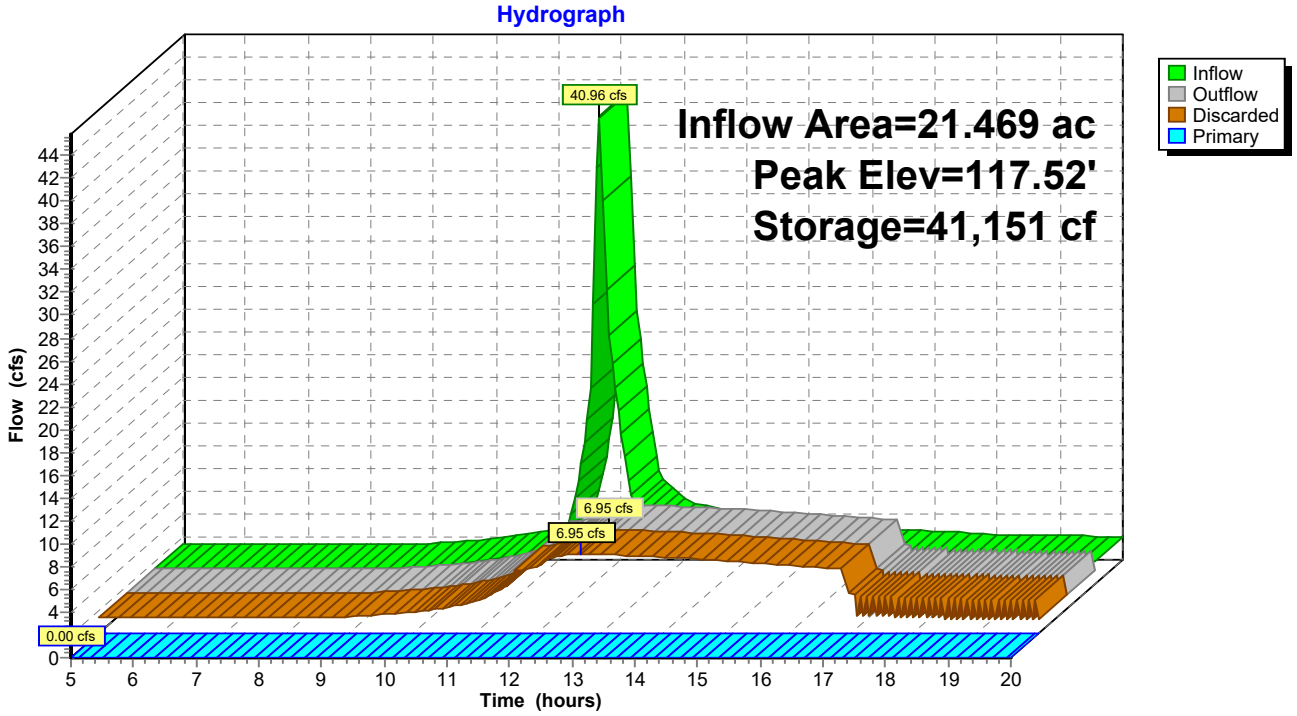
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
116.00	24,032	0	0
117.00	27,880	25,956	25,956
118.00	31,955	29,918	55,874
119.00	48,800	40,378	96,251
120.00	53,312	51,056	147,307
121.00	57,935	55,624	202,931

Device	Routing	Invert	Outlet Devices
#1	Primary	116.00'	**24.0" Round Culvert** L= 150.0' Ke= 1.000 Inlet / Outlet Invert= 116.00' / 114.00' S= 0.0133 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	117.90'	**6.0" Vert. Orifice/Grate X 3.00** C= 0.600 Limited to weir flow at low heads
#3	Device 1	118.60'	**6.0" Vert. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads
#4	Device 1	120.00'	**3.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#5	Discarded	116.00'	**10.000 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=6.95 cfs @ 12.68 hrs HW=117.52' (Free Discharge)
└**5=Exfiltration** (Exfiltration Controls 6.95 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=116.00' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Controls 0.00 cfs)
  ├**2=Orifice/Grate** (Controls 0.00 cfs)
  ├**3=Orifice/Grate** (Controls 0.00 cfs)
  └**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond A1-2*: A1-2 Infiltration Basin



Hydrograph for Pond A1-2*: A1-2 Infiltration Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
5.00	1.31	0	116.00	1.31	1.31	**0.00**
5.50	1.31	0	116.00	1.31	1.31	0.00
6.00	1.31	0	116.00	1.31	1.31	0.00
6.50	1.31	0	116.00	1.31	1.31	0.00
7.00	1.31	0	116.00	1.31	1.31	0.00
7.50	1.31	0	116.00	1.31	1.31	0.00
8.00	1.31	0	116.00	1.31	1.31	0.00
8.50	1.33	0	116.00	1.33	1.33	0.00
9.00	1.46	0	116.00	1.46	1.46	0.00
9.50	1.64	0	116.00	1.64	1.64	0.00
10.00	1.88	0	116.00	1.88	1.88	0.00
10.50	2.25	0	116.00	2.25	2.25	0.00
11.00	2.75	0	116.00	2.75	2.75	0.00
11.50	4.13	0	116.00	4.13	4.13	0.00
12.00	**24.61**	8,519	116.34	5.87	5.87	0.00
12.50	**11.14**	**40,209**	**117.49**	**6.92**	**6.92**	0.00
13.00	5.44	**40,252**	**117.49**	**6.92**	**6.92**	0.00
13.50	4.57	36,695	117.37	6.81	6.81	0.00
14.00	3.99	32,276	117.22	6.66	6.66	0.00
14.50	3.65	27,265	117.05	6.50	6.50	0.00
15.00	3.36	22,037	116.86	6.33	6.33	0.00
15.50	3.07	16,601	116.66	6.15	6.15	0.00
16.00	2.77	10,963	116.44	5.96	5.96	0.00
16.50	2.61	5,243	116.21	5.75	5.75	0.00
17.00	2.48	0	116.00	1.62	1.62	0.00
17.50	2.34	0	116.00	1.49	1.49	0.00
18.00	2.21	0	116.00	1.35	1.35	0.00
18.50	2.15	0	116.00	1.30	1.30	0.00
19.00	2.12	0	116.00	1.26	1.26	0.00
19.50	2.08	0	116.00	1.22	1.22	0.00
20.00	2.04	0	116.00	1.18	1.18	0.00

Stage-Discharge for Pond A1-2*: A1-2 Infiltration Basin

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
116.00	0.00	0.00	0.00
116.05	5.61	5.61	0.00
116.10	5.65	5.65	0.00
116.15	5.70	5.70	0.00
116.20	5.74	5.74	0.00
116.25	5.79	5.79	0.00
116.30	5.83	5.83	0.00
116.35	5.87	5.87	0.00
116.40	5.92	5.92	0.00
116.45	5.96	5.96	0.00
116.50	6.01	6.01	0.00
116.55	6.05	6.05	0.00
116.60	6.10	6.10	0.00
116.65	6.14	6.14	0.00
116.70	6.19	6.19	0.00
116.75	6.23	6.23	0.00
116.80	6.28	6.28	0.00
116.85	6.32	6.32	0.00
116.90	6.36	6.36	0.00
116.95	6.41	6.41	0.00
117.00	6.45	6.45	0.00
117.05	6.50	6.50	0.00
117.10	6.55	6.55	0.00
117.15	6.60	6.60	0.00
117.20	6.64	6.64	0.00
117.25	6.69	6.69	0.00
117.30	6.74	6.74	0.00
117.35	6.78	6.78	0.00
117.40	6.83	6.83	0.00
117.45	6.88	6.88	0.00
117.50	6.93	6.93	0.00
117.55	6.97	6.97	0.00
117.60	7.02	7.02	0.00
117.65	7.07	7.07	0.00
117.70	7.11	7.11	0.00
117.75	7.16	7.16	0.00
117.80	7.21	7.21	0.00
117.85	7.26	7.26	0.00
117.90	7.30	7.30	0.00
117.95	7.37	7.35	0.02
118.00	7.49	7.40	0.09
118.05	7.79	7.59	0.20
118.10	8.12	7.79	0.34
118.15	8.48	7.98	0.50
118.20	8.87	8.18	0.69
118.25	9.26	8.37	0.89
118.30	9.65	8.57	1.09
118.35	10.04	8.76	1.28
118.40	10.37	8.96	1.42
118.45	10.71	9.15	1.55
118.50	11.02	9.35	1.68
118.55	11.34	9.54	1.79
118.60	11.64	9.74	1.90
118.65	11.95	9.93	2.02
118.70	12.29	10.13	2.16
118.75	12.65	10.32	2.33
118.80	13.03	10.52	2.51
118.85	13.42	10.71	2.71
118.90	13.82	10.91	2.92
118.95	14.23	11.10	3.13
119.00	14.64	11.30	3.34
119.05	14.89	11.35	3.54
119.10	15.11	11.40	3.71
119.15	15.32	11.45	3.87
119.20	15.53	11.51	4.02
119.25	15.73	11.56	4.17
119.30	15.92	11.61	4.31
119.35	16.11	11.66	4.44
119.40	16.29	11.71	4.57
119.45	16.46	11.77	4.70
119.50	16.64	11.82	4.82
119.55	16.81	11.87	4.94
119.60	16.98	11.92	5.05
119.65	17.14	11.98	5.16
119.70	17.30	12.03	5.27
119.75	17.46	12.08	5.38
119.80	17.62	12.13	5.49
119.85	17.77	12.18	5.59
119.90	17.93	12.24	5.69
119.95	18.08	12.29	5.79
120.00	18.23	12.34	5.89
120.05	18.48	12.39	6.09
120.10	18.83	12.45	6.38
120.15	19.23	12.50	6.73
120.20	19.68	12.55	7.12
120.25	20.16	12.61	7.55
120.30	20.68	12.66	8.02
120.35	21.22	12.72	8.51
120.40	21.79	12.77	9.02
120.45	22.39	12.82	9.57
120.50	23.01	12.88	10.13
120.55	23.64	12.93	10.71
120.60	24.30	12.98	11.32
120.65	24.98	13.04	11.94
120.70	25.67	13.09	12.58
120.75	26.38	13.14	13.23
120.80	27.10	13.20	13.90
120.85	27.84	13.25	14.59
120.90	28.59	13.30	15.28
120.95	29.35	13.36	15.99
121.00	**30.13**	**13.41**	**16.72**

Stage-Area-Storage for Pond A1-2*: A1-2 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
116.00	24,032	24,032	0
116.10	24,417	24,417	2,422
116.20	24,802	24,802	4,883
116.30	25,186	25,186	7,383
116.40	25,571	25,571	9,921
116.50	25,956	25,956	12,497
116.60	26,341	26,341	15,112
116.70	26,726	26,726	17,765
116.80	27,110	27,110	20,457
116.90	27,495	27,495	23,187
117.00	27,880	27,880	25,956
117.10	28,287	28,287	28,764
117.20	28,695	28,695	31,614
117.30	29,102	29,102	34,503
117.40	29,510	29,510	37,434
117.50	29,918	29,918	40,405
117.60	30,325	30,325	43,417
117.70	30,733	30,733	46,470
117.80	31,140	31,140	49,564
117.90	31,548	31,548	52,698
118.00	31,955	31,955	55,874
118.10	33,639	33,639	59,153
118.20	35,324	35,324	62,601
118.30	37,008	37,008	66,218
118.40	38,693	38,693	70,003
118.50	40,378	40,378	73,957
118.60	42,062	42,062	78,079
118.70	43,747	43,747	82,369
118.80	45,431	45,431	86,828
118.90	47,116	47,116	91,455
119.00	48,800	48,800	96,251
119.10	49,251	49,251	101,154
119.20	49,702	49,702	106,101
119.30	50,154	50,154	111,094
119.40	50,605	50,605	116,132
119.50	51,056	51,056	121,215
119.60	51,507	51,507	126,343
119.70	51,958	51,958	131,516
119.80	52,410	52,410	136,735
119.90	52,861	52,861	141,998
120.00	53,312	53,312	147,307
120.10	53,774	53,774	152,661
120.20	54,237	54,237	158,062
120.30	54,699	54,699	163,509
120.40	55,161	55,161	169,002
120.50	55,624	55,624	174,541
120.60	56,086	56,086	180,126
120.70	56,548	56,548	185,758
120.80	57,010	57,010	191,436
120.90	57,473	57,473	197,160
121.00	**57,935**	**57,935**	**202,931**

Summary for Pond A1-3*: A1-3 Infiltration Basin

Inflow Area = 31.975 ac, 77.29% Impervious, Inflow Depth > 2.14" for 2-yr event
Inflow = 76.15 cfs @ 12.09 hrs, Volume= 5.695 af
Outflow = 6.07 cfs @ 13.47 hrs, Volume= 3.955 af, Atten= 92%, Lag= 82.6 min
Discarded = 4.71 cfs @ 13.47 hrs, Volume= 3.614 af
Primary = 1.36 cfs @ 13.47 hrs, Volume= 0.340 af
Routed to Reach DP-A : DP-A

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 115.90' @ 13.47 hrs Surf.Area= 57,159 sf Storage= 116,497 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 92.4 min (865.8 - 773.4)

Volume	Invert	Avail.Storage	Storage Description
#1	113.00'	398,001 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

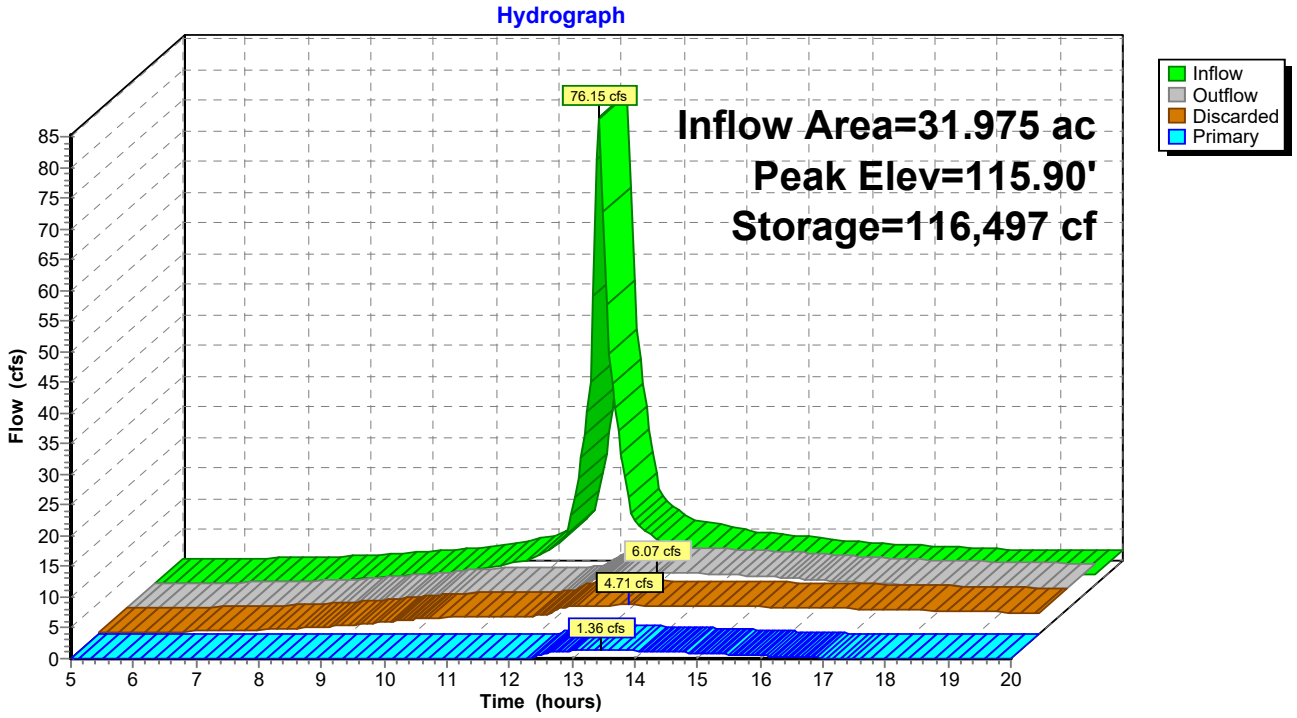
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
113.00	32,860	0	0
114.00	36,323	34,592	34,592
115.00	39,901	38,112	72,704
116.00	59,025	49,463	122,167
117.00	63,904	61,465	183,631
118.00	68,883	66,394	250,025
119.00	73,962	71,423	321,447
120.00	79,145	76,554	398,001

Device	Routing	Invert	Outlet Devices
#1	Primary	113.00'	**24.0" Round Culvert** L= 50.0' Ke= 1.000 Inlet / Outlet Invert= 113.00' / 111.00' S= 0.0400 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	115.40'	**8.0" Vert. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads
#3	Device 1	117.00'	**18.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	118.00'	**8.0" Vert. Orifice/Grate X 3.00** C= 0.600 Limited to weir flow at low heads
#5	Device 1	118.80'	**2.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#6	Discarded	113.00'	**3.560 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=4.71 cfs @ 13.47 hrs HW=115.90' (Free Discharge)
└**6=Exfiltration** (Exfiltration Controls 4.71 cfs)

Primary OutFlow Max=1.36 cfs @ 13.47 hrs HW=115.90' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 1.36 cfs of 15.65 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 1.36 cfs @ 2.41 fps)
  ├**3=Orifice/Grate** (Controls 0.00 cfs)
  ├**4=Orifice/Grate** (Controls 0.00 cfs)
  └**5=Sharp-Crested Rectangular Weir**(Controls 0.00 cfs)

Pond A1-3*: A1-3 Infiltration Basin



Hydrograph for Pond A1-3*: A1-3 Infiltration Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
5.00	0.38	0	113.00	0.38	0.38	0.00
5.50	0.38	0	113.00	0.38	0.38	0.00
6.00	0.38	0	113.00	0.38	0.38	0.00
6.50	0.45	0	113.00	0.45	0.45	0.00
7.00	0.56	0	113.00	0.56	0.56	0.00
7.50	0.70	0	113.00	0.70	0.70	0.00
8.00	0.87	0	113.00	0.87	0.87	0.00
8.50	1.14	0	113.00	1.14	1.14	0.00
9.00	1.49	0	113.00	1.49	1.49	0.00
9.50	1.92	0	113.00	1.92	1.92	0.00
10.00	2.41	1	113.00	2.41	2.41	0.00
10.50	3.23	283	113.01	2.71	2.71	0.00
11.00	4.24	2,092	113.06	2.73	2.73	0.00
11.50	7.16	7,066	113.21	2.77	2.77	0.00
12.00	**47.15**	36,810	114.06	3.01	3.01	0.00
12.50	**17.76**	107,234	115.74	5.14	4.45	0.69
13.00	7.57	**115,533**	**115.89**	**5.98**	**4.68**	**1.29**
13.50	6.00	**116,493**	**115.90**	**6.07**	**4.71**	**1.36**
14.00	4.97	115,505	115.88	5.97	4.68	1.29
14.50	4.37	113,279	115.85	5.75	4.62	1.13
15.00	3.87	110,584	115.80	5.47	4.54	0.93
15.50	3.36	107,501	115.74	5.17	4.46	0.71
16.00	2.84	104,065	115.68	4.84	4.35	0.49
16.50	2.56	100,460	115.61	4.53	4.25	0.29
17.00	2.34	96,959	115.54	4.27	4.14	0.13
17.50	2.11	93,479	115.47	4.06	4.03	0.03
18.00	1.89	89,919	115.39	3.91	3.91	0.00
18.50	1.79	86,282	115.32	3.79	3.79	0.00
19.00	1.72	82,740	115.24	3.66	3.66	0.00
19.50	1.66	79,300	115.16	3.54	3.54	0.00
20.00	1.59	75,962	115.08	3.41	3.41	0.00

Stage-Discharge for Pond A1-3*: A1-3 Infiltration Basin

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
113.00	0.00	0.00	0.00
113.10	2.74	2.74	0.00
113.20	2.76	2.76	0.00
113.30	2.79	2.79	0.00
113.40	2.82	2.82	0.00
113.50	2.85	2.85	0.00
113.60	2.88	2.88	0.00
113.70	2.91	2.91	0.00
113.80	2.94	2.94	0.00
113.90	2.96	2.96	0.00
114.00	2.99	2.99	0.00
114.10	3.02	3.02	0.00
114.20	3.05	3.05	0.00
114.30	3.08	3.08	0.00
114.40	3.11	3.11	0.00
114.50	3.14	3.14	0.00
114.60	3.17	3.17	0.00
114.70	3.20	3.20	0.00
114.80	3.23	3.23	0.00
114.90	3.26	3.26	0.00
115.00	3.29	3.29	0.00
115.10	3.45	3.45	0.00
115.20	3.60	3.60	0.00
115.30	3.76	3.76	0.00
115.40	3.92	3.92	0.00
115.50	4.15	4.08	0.07
115.60	4.50	4.23	0.27
115.70	4.96	4.39	0.57
115.80	5.49	4.55	0.94
115.90	6.06	4.71	1.35
116.00	6.61	4.86	1.75
116.10	6.94	4.90	2.04
116.20	7.24	4.94	2.30
116.30	7.52	4.98	2.53
116.40	7.77	5.02	2.74
116.50	8.01	5.07	2.94
116.60	8.23	5.11	3.13
116.70	8.45	5.15	3.30
116.80	8.66	5.19	3.47
116.90	8.86	5.23	3.63
117.00	9.05	5.27	3.78
117.10	9.39	5.31	4.08
117.20	9.85	5.35	4.50
117.30	10.39	5.39	5.00
117.40	10.99	5.43	5.56
117.50	11.64	5.47	6.17
117.60	12.19	5.51	6.68
117.70	12.66	5.55	7.10
117.80	13.08	5.59	7.49
117.90	13.48	5.64	7.84
118.00	13.85	5.68	8.17
118.10	14.31	5.72	8.59
118.20	14.95	5.76	9.19
118.30	15.73	5.80	9.93
118.40	16.61	5.84	10.77
118.50	17.54	5.89	11.65
118.60	18.43	5.93	12.50
118.70	19.16	5.97	13.19
118.80	19.83	6.01	13.82
118.90	20.67	6.05	14.62
119.00	21.63	6.10	15.54
119.10	22.67	6.14	16.53
119.20	23.76	6.18	17.58
119.30	24.89	6.22	18.67
119.40	26.06	6.27	19.79
119.50	27.25	6.31	20.95
119.60	28.47	6.35	22.12
119.70	29.71	6.39	23.32
119.80	30.97	6.44	24.54
119.90	32.24	6.48	25.76
120.00	**33.53**	**6.52**	**27.00**

Stage-Area-Storage for Pond A1-3*: A1-3 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
113.00	32,860	32,860	0
113.20	33,553	33,553	6,641
113.40	34,245	34,245	13,421
113.60	34,938	34,938	20,339
113.80	35,630	35,630	27,396
114.00	36,323	36,323	34,592
114.20	37,039	37,039	41,928
114.40	37,754	37,754	49,407
114.60	38,470	38,470	57,029
114.80	39,185	39,185	64,795
115.00	39,901	39,901	72,704
115.20	43,726	43,726	81,066
115.40	47,551	47,551	90,194
115.60	51,375	51,375	100,086
115.80	55,200	55,200	110,744
116.00	59,025	59,025	122,167
116.20	60,001	60,001	134,069
116.40	60,977	60,977	146,167
116.60	61,952	61,952	158,460
116.80	62,928	62,928	170,948
117.00	63,904	63,904	183,631
117.20	64,900	64,900	196,511
117.40	65,896	65,896	209,591
117.60	66,891	66,891	222,870
117.80	67,887	67,887	236,347
118.00	68,883	68,883	250,025
118.20	69,899	69,899	263,903
118.40	70,915	70,915	277,984
118.60	71,930	71,930	292,269
118.80	72,946	72,946	306,756
119.00	73,962	73,962	321,447
119.20	74,999	74,999	336,343
119.40	76,035	76,035	351,446
119.60	77,072	77,072	366,757
119.80	78,108	78,108	382,275
120.00	**79,145**	**79,145**	**398,001**

Summary for Pond A11-2*: A11-2 Infiltration Basin

Inflow Area = 34.745 ac, 45.43% Impervious, Inflow Depth > 1.03" for 2-yr event
Inflow = 17.87 cfs @ 12.84 hrs, Volume= 2.978 af
Outflow = 17.86 cfs @ 12.85 hrs, Volume= 2.978 af, Atten= 0%, Lag= 0.3 min
Discarded = 17.86 cfs @ 12.85 hrs, Volume= 2.978 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Reach DP-A : DP-A

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 116.00' @ 12.85 hrs Surf.Area= 83,519 sf Storage= 13 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.0 min (852.5 - 852.5)

Volume	Invert	Avail.Storage	Storage Description
#1	116.00'	526,055 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

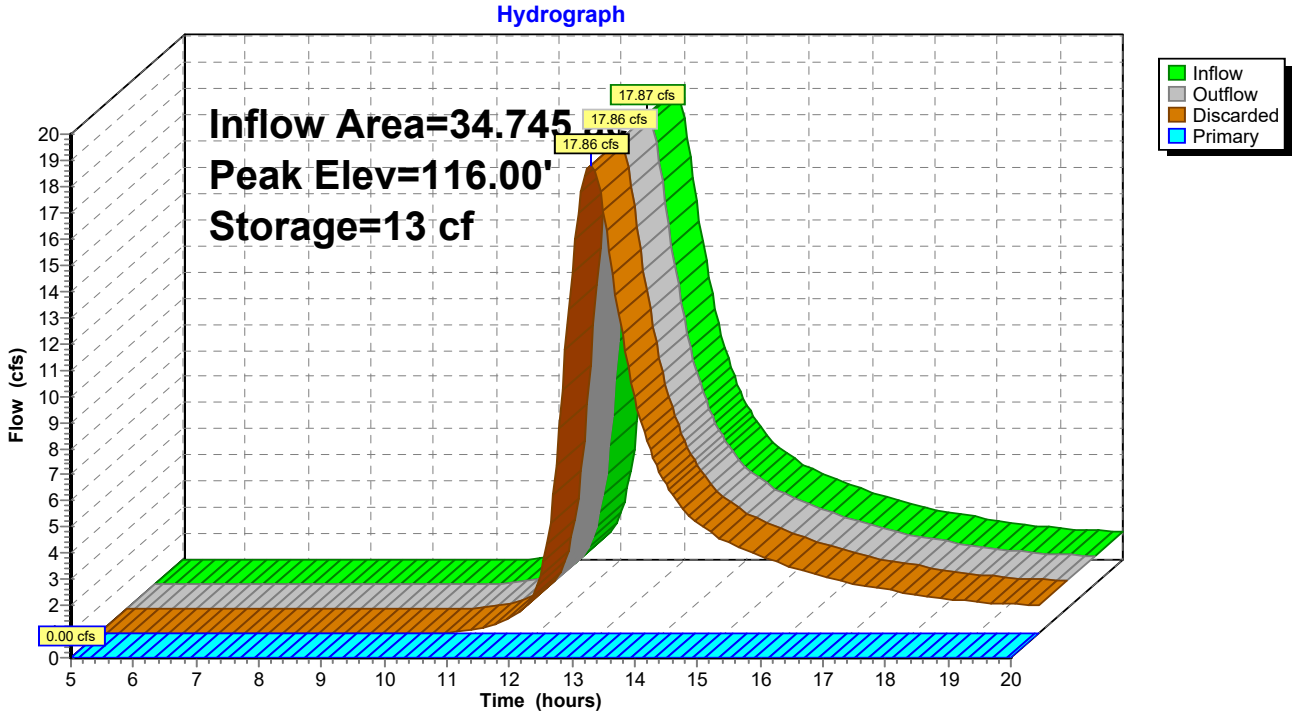
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
116.00	83,518	0	0
117.00	88,893	86,206	86,206
118.00	94,403	91,648	177,854
119.00	115,652	105,028	282,881
120.00	121,576	118,614	401,495
121.00	127,544	124,560	526,055

Device	Routing	Invert	Outlet Devices
#1	Primary	116.00'	**24.0" Round Culvert** L= 150.0' Ke= 1.000 Inlet / Outlet Invert= 116.00' / 114.00' S= 0.0133 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	117.50'	**6.0" Vert. Orifice/Grate X 3.00** C= 0.600 Limited to weir flow at low heads
#3	Device 1	118.50'	**24.0" W x 8.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	119.80'	**3.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#5	Discarded	116.00'	**10.000 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=19.33 cfs @ 12.85 hrs HW=116.00' (Free Discharge)
└**5=Exfiltration** (Exfiltration Controls 19.33 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=116.00' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Controls 0.00 cfs)
  ├**2=Orifice/Grate** (Controls 0.00 cfs)
  ├**3=Orifice/Grate** (Controls 0.00 cfs)
  └**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond A11-2*: A11-2 Infiltration Basin



Hydrograph for Pond A11-2*: A11-2 Infiltration Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
5.00	0.00	0	116.00	0.00	0.00	**0.00**
5.50	0.00	0	116.00	0.00	0.00	0.00
6.00	0.00	0	116.00	0.00	0.00	0.00
6.50	0.00	0	116.00	0.00	0.00	0.00
7.00	0.00	0	116.00	0.00	0.00	0.00
7.50	0.00	0	116.00	0.00	0.00	0.00
8.00	0.00	0	116.00	0.00	0.00	0.00
8.50	0.00	0	116.00	0.00	0.00	0.00
9.00	0.00	0	116.00	0.00	0.00	0.00
9.50	0.00	0	116.00	0.00	0.00	0.00
10.00	0.00	0	116.00	0.00	0.00	0.00
10.50	0.01	0	116.00	0.01	0.01	0.00
11.00	0.13	0	116.00	0.13	0.13	0.00
11.50	0.52	0	116.00	0.52	0.52	0.00
12.00	1.82	0	116.00	1.82	1.82	0.00
12.50	**12.37**	**0**	**116.00**	**12.37**	**12.37**	0.00
13.00	**16.85**	**2**	**116.00**	**16.86**	**16.86**	0.00
13.50	9.58	0	116.00	9.58	9.58	0.00
14.00	5.92	0	116.00	5.92	5.92	0.00
14.50	4.34	0	116.00	4.34	4.34	0.00
15.00	3.51	0	116.00	3.51	3.51	0.00
15.50	2.99	0	116.00	2.99	2.99	0.00
16.00	2.59	0	116.00	2.59	2.59	0.00
16.50	2.21	0	116.00	2.21	2.21	0.00
17.00	1.90	0	116.00	1.91	1.91	0.00
17.50	1.69	0	116.00	1.69	1.69	0.00
18.00	1.51	0	116.00	1.51	1.51	0.00
18.50	1.34	0	116.00	1.34	1.34	0.00
19.00	1.21	0	116.00	1.21	1.21	0.00
19.50	1.13	0	116.00	1.13	1.13	0.00
20.00	1.07	0	116.00	1.07	1.07	0.00

Stage-Discharge for Pond A11-2*: A11-2 Infiltration Basin

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
116.00	0.00	0.00	0.00
116.05	19.40	19.40	0.00
116.10	19.46	19.46	0.00
116.15	19.52	19.52	0.00
116.20	19.58	19.58	0.00
116.25	19.64	19.64	0.00
116.30	19.71	19.71	0.00
116.35	19.77	19.77	0.00
116.40	19.83	19.83	0.00
116.45	19.89	19.89	0.00
116.50	19.95	19.95	0.00
116.55	20.02	20.02	0.00
116.60	20.08	20.08	0.00
116.65	20.14	20.14	0.00
116.70	20.20	20.20	0.00
116.75	20.27	20.27	0.00
116.80	20.33	20.33	0.00
116.85	20.39	20.39	0.00
116.90	20.45	20.45	0.00
116.95	20.51	20.51	0.00
117.00	20.58	20.58	0.00
117.05	20.64	20.64	0.00
117.10	20.70	20.70	0.00
117.15	20.77	20.77	0.00
117.20	20.83	20.83	0.00
117.25	20.90	20.90	0.00
117.30	20.96	20.96	0.00
117.35	21.02	21.02	0.00
117.40	21.09	21.09	0.00
117.45	21.15	21.15	0.00
117.50	21.21	21.21	0.00
117.55	21.30	21.28	0.02
117.60	21.43	21.34	0.09
117.65	21.60	21.41	0.20
117.70	21.80	21.47	0.34
117.75	22.04	21.53	0.50
117.80	22.29	21.60	0.69
117.85	22.55	21.66	0.89
117.90	22.81	21.72	1.09
117.95	23.06	21.79	1.28
118.00	23.27	21.85	1.42
118.05	23.65	22.10	1.55
118.10	24.02	22.34	1.68
118.15	24.38	22.59	1.79
118.20	24.74	22.84	1.90
118.25	25.09	23.08	2.01
118.30	25.43	23.33	2.10
118.35	25.77	23.57	2.20
118.40	26.11	23.82	2.29
118.45	26.44	24.07	2.37
118.50	26.77	24.31	2.46
118.55	27.17	24.56	2.61
118.60	27.62	24.80	2.82
118.65	28.11	25.05	3.06
118.70	28.63	25.30	3.34
118.75	29.18	25.54	3.64
118.80	29.75	25.79	3.96
118.85	30.34	26.03	4.30
118.90	30.95	26.28	4.67
118.95	31.57	26.53	5.04
119.00	32.21	26.77	5.44
119.05	32.69	26.84	5.85
119.10	33.19	26.91	6.28
119.15	33.70	26.98	6.72
119.20	34.18	27.05	7.14
119.25	34.60	27.11	7.49
119.30	34.99	27.18	7.81
119.35	35.37	27.25	8.11
119.40	35.72	27.32	8.40
119.45	36.06	27.39	8.67
119.50	36.39	27.46	8.94
119.55	36.71	27.53	9.19
119.60	37.03	27.59	9.43
119.65	37.33	27.66	9.67
119.70	37.63	27.73	9.90
119.75	37.92	27.80	10.12
119.80	38.21	27.87	10.34
119.85	38.60	27.94	10.66
119.90	39.08	28.01	11.07
119.95	39.60	28.07	11.53
120.00	40.17	28.14	12.03
120.05	40.78	28.21	12.57
120.10	41.41	28.28	13.13
120.15	42.07	28.35	13.72
120.20	42.76	28.42	14.34
120.25	43.47	28.49	14.98
120.30	44.20	28.56	15.64
120.35	44.94	28.63	16.32
120.40	45.71	28.70	17.01
120.45	46.49	28.76	17.73
120.50	47.29	28.83	18.45
120.55	48.10	28.90	19.20
120.60	48.93	28.97	19.95
120.65	49.76	29.04	20.72
120.70	50.61	29.11	21.50
120.75	51.15	29.18	21.97
120.80	51.36	29.25	22.12
120.85	51.58	29.32	22.26
120.90	51.79	29.39	22.40
120.95	52.00	29.45	22.55
121.00	**52.21**	**29.52**	**22.69**

Stage-Area-Storage for Pond A11-2*: A11-2 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
116.00	83,518	83,518	0
116.10	84,055	84,055	8,379
116.20	84,593	84,593	16,811
116.30	85,130	85,130	25,297
116.40	85,668	85,668	33,837
116.50	86,206	86,206	42,431
116.60	86,743	86,743	51,078
116.70	87,281	87,281	59,779
116.80	87,818	87,818	68,534
116.90	88,356	88,356	77,343
117.00	88,893	88,893	86,206
117.10	89,444	89,444	95,122
117.20	89,995	89,995	104,094
117.30	90,546	90,546	113,121
117.40	91,097	91,097	122,204
117.50	91,648	91,648	131,341
117.60	92,199	92,199	140,533
117.70	92,750	92,750	149,781
117.80	93,301	93,301	159,083
117.90	93,852	93,852	168,441
118.00	94,403	94,403	177,854
118.10	96,528	96,528	187,400
118.20	98,653	98,653	197,159
118.30	100,778	100,778	207,131
118.40	102,903	102,903	217,315
118.50	105,028	105,028	227,711
118.60	107,152	107,152	238,320
118.70	109,277	109,277	249,142
118.80	111,402	111,402	260,176
118.90	113,527	113,527	271,422
119.00	115,652	115,652	282,881
119.10	116,244	116,244	294,476
119.20	116,837	116,837	306,130
119.30	117,429	117,429	317,843
119.40	118,022	118,022	329,616
119.50	118,614	118,614	341,448
119.60	119,206	119,206	353,339
119.70	119,799	119,799	365,289
119.80	120,391	120,391	377,298
119.90	120,984	120,984	389,367
120.00	121,576	121,576	401,495
120.10	122,173	122,173	413,682
120.20	122,770	122,770	425,930
120.30	123,366	123,366	438,236
120.40	123,963	123,963	450,603
120.50	124,560	124,560	463,029
120.60	125,157	125,157	475,515
120.70	125,754	125,754	488,060
120.80	126,350	126,350	500,666
120.90	126,947	126,947	513,330
121.00	**127,544**	**127,544**	**526,055**

Summary for Pond B1-2*: B1-2 Infiltration Basin

Inflow Area = 24.905 ac, 77.85% Impervious, Inflow Depth > 0.94" for 2-yr event
Inflow = 7.01 cfs @ 12.10 hrs, Volume= 1.959 af
Outflow = 2.95 cfs @ 15.80 hrs, Volume= 1.960 af, Atten= 58%, Lag= 222.2 min
Discarded = 2.95 cfs @ 15.80 hrs, Volume= 1.960 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Reach DP-B : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 129.65' @ 15.80 hrs Surf.Area= 12,757 sf Storage= 7,861 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 29.4 min (938.3 - 908.9)

Volume	Invert	Avail.Storage	Storage Description
#1	129.00'	126,855 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

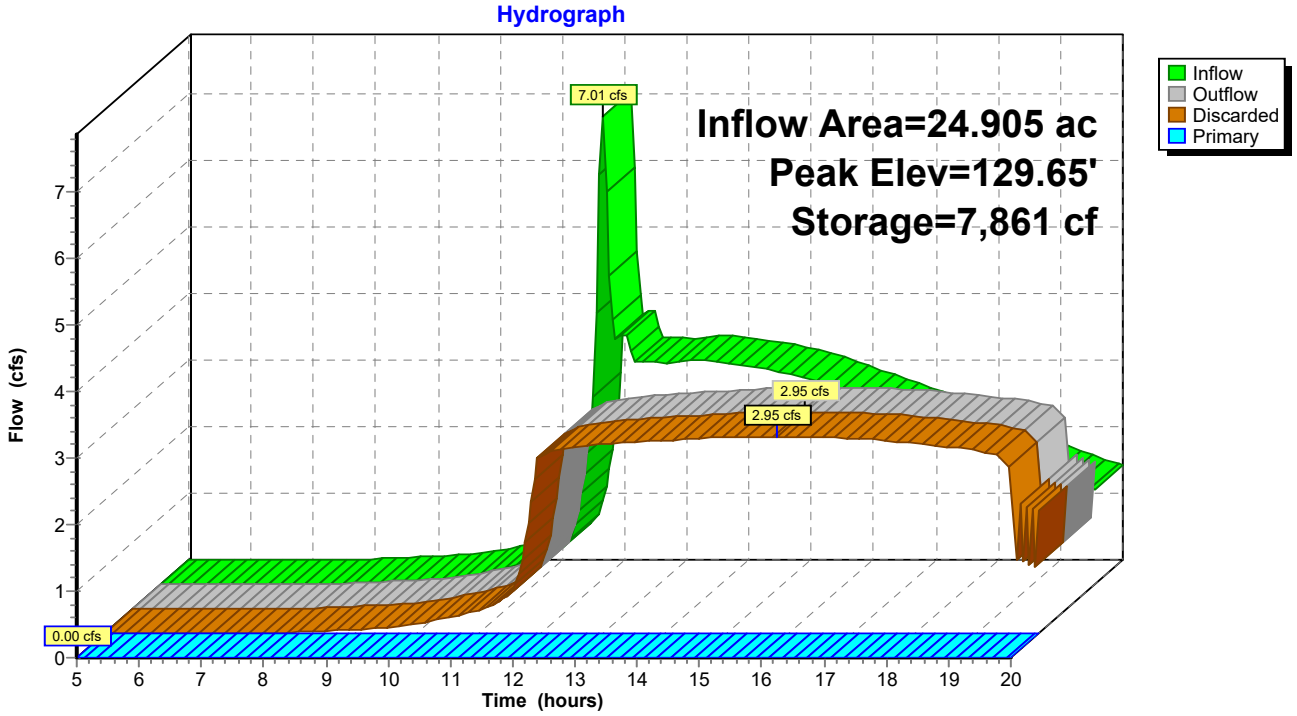
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
129.00	11,433	0	0
130.00	13,470	12,452	12,452
131.00	15,642	14,556	27,008
132.00	22,459	19,051	46,058
133.00	25,245	23,852	69,910
134.00	28,552	26,899	96,809
135.00	31,541	30,047	126,855

Device	Routing	Invert	Outlet Devices
#1	Primary	129.00'	**24.0" Round Culvert** L= 75.0' Ke= 1.000 Inlet / Outlet Invert= 129.00' / 129.00' S= 0.0000 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	130.80'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	133.00'	**18.0" W x 5.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	134.00'	**2.5' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#5	Discarded	129.00'	**10.000 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=2.95 cfs @ 15.80 hrs HW=129.65' (Free Discharge)
└**5=Exfiltration** (Exfiltration Controls 2.95 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=129.00' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Controls 0.00 cfs)
  ├**2=Orifice/Grate** (Controls 0.00 cfs)
  ├**3=Orifice/Grate** (Controls 0.00 cfs)
  └**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond B1-2*: B1-2 Infiltration Basin



Hydrograph for Pond B1-2*: B1-2 Infiltration Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
5.00	0.00	0	129.00	0.00	0.00	**0.00**
5.50	0.00	0	129.00	0.00	0.00	0.00
6.00	0.00	0	129.00	0.00	0.00	0.00
6.50	0.00	0	129.00	0.00	0.00	0.00
7.00	0.00	0	129.00	0.00	0.00	0.00
7.50	0.01	0	129.00	0.01	0.01	0.00
8.00	0.01	0	129.00	0.01	0.01	0.00
8.50	0.03	0	129.00	0.03	0.03	0.00
9.00	0.05	0	129.00	0.05	0.05	0.00
9.50	0.09	0	129.00	0.09	0.09	0.00
10.00	0.15	0	129.00	0.15	0.15	0.00
10.50	0.23	0	129.00	0.23	0.23	0.00
11.00	0.34	0	129.00	0.34	0.34	0.00
11.50	0.59	0	129.00	0.59	0.59	0.00
12.00	**4.06**	160	129.01	2.65	2.65	0.00
12.50	**3.69**	3,586	129.31	2.79	2.79	0.00
13.00	3.34	4,589	129.39	2.83	2.83	0.00
13.50	3.36	5,472	129.46	2.86	2.86	0.00
14.00	3.32	6,312	129.53	2.90	2.90	0.00
14.50	3.26	6,998	129.58	2.92	2.92	0.00
15.00	3.17	7,514	129.62	2.94	2.94	0.00
15.50	3.04	**7,810**	**129.65**	**2.95**	**2.95**	0.00
16.00	2.88	**7,837**	**129.65**	**2.95**	**2.95**	0.00
16.50	2.72	7,575	129.63	2.94	2.94	0.00
17.00	2.55	7,046	129.59	2.92	2.92	0.00
17.50	2.37	6,244	129.52	2.89	2.89	0.00
18.00	2.17	5,163	129.43	2.85	2.85	0.00
18.50	1.97	3,806	129.32	2.80	2.80	0.00
19.00	1.76	2,194	129.19	2.74	2.74	0.00
19.50	1.57	334	129.03	2.66	2.66	0.00
20.00	1.42	0	129.00	1.85	1.85	0.00

Stage-Discharge for Pond B1-2*: B1-2 Infiltration Basin

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
129.00	0.00	0.00	0.00
129.10	2.69	2.69	0.00
129.20	2.74	2.74	0.00
129.30	2.79	2.79	0.00
129.40	2.84	2.84	0.00
129.50	2.88	2.88	0.00
129.60	2.93	2.93	0.00
129.70	2.98	2.98	0.00
129.80	3.02	3.02	0.00
129.90	3.07	3.07	0.00
130.00	3.12	3.12	0.00
130.10	3.17	3.17	0.00
130.20	3.22	3.22	0.00
130.30	3.27	3.27	0.00
130.40	3.32	3.32	0.00
130.50	3.37	3.37	0.00
130.60	3.42	3.42	0.00
130.70	3.47	3.47	0.00
130.80	3.52	3.52	0.00
130.90	3.60	3.57	0.03
131.00	3.73	3.62	0.11
131.10	4.01	3.78	0.23
131.20	4.30	3.94	0.36
131.30	4.57	4.09	0.47
131.40	4.81	4.25	0.56
131.50	5.04	4.41	0.63
131.60	5.27	4.57	0.70
131.70	5.49	4.73	0.76
131.80	5.70	4.88	0.82
131.90	5.91	5.04	0.87
132.00	6.12	5.20	0.92
132.10	6.23	5.26	0.97
132.20	6.34	5.33	1.01
132.30	6.45	5.39	1.06
132.40	6.56	5.46	1.10
132.50	6.66	5.52	1.14
132.60	6.76	5.59	1.18
132.70	6.86	5.65	1.21
132.80	6.97	5.71	1.25
132.90	7.07	5.78	1.29
133.00	7.16	5.84	1.32
133.10	7.43	5.92	1.51
133.20	7.81	6.00	1.82
133.30	8.28	6.07	2.21
133.40	8.82	6.15	2.67
133.50	9.29	6.23	3.07
133.60	9.67	6.30	3.37
133.70	10.01	6.38	3.63
133.80	10.33	6.46	3.87
133.90	10.62	6.53	4.09
134.00	10.90	6.61	4.29
134.10	11.42	6.68	4.74
134.20	12.14	6.75	5.39
134.30	12.97	6.82	6.15
134.40	13.90	6.89	7.01
134.50	14.90	6.96	7.95
134.60	15.97	7.02	8.95
134.70	17.09	7.09	10.00
134.80	18.26	7.16	11.10
134.90	19.48	7.23	12.24
135.00	**20.73**	**7.30**	**13.43**

Stage-Area-Storage for Pond B1-2*: B1-2 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
129.00	11,433	11,433	0
129.20	11,840	11,840	2,327
129.40	12,248	12,248	4,736
129.60	12,655	12,655	7,226
129.80	13,063	13,063	9,798
130.00	13,470	13,470	12,452
130.20	13,904	13,904	15,189
130.40	14,339	14,339	18,013
130.60	14,773	14,773	20,924
130.80	15,208	15,208	23,923
131.00	15,642	15,642	27,008
131.20	17,005	17,005	30,272
131.40	18,369	18,369	33,810
131.60	19,732	19,732	37,620
131.80	21,096	21,096	41,703
132.00	22,459	22,459	46,058
132.20	23,016	23,016	50,606
132.40	23,573	23,573	55,264
132.60	24,131	24,131	60,035
132.80	24,688	24,688	64,917
133.00	25,245	25,245	69,910
133.20	25,906	25,906	75,025
133.40	26,568	26,568	80,273
133.60	27,229	27,229	85,652
133.80	27,891	27,891	91,164
134.00	28,552	28,552	96,809
134.20	29,150	29,150	102,579
134.40	29,748	29,748	108,468
134.60	30,345	30,345	114,478
134.80	30,943	30,943	120,607
135.00	**31,541**	**31,541**	**126,855**

Summary for Pond B1-3*: B1-3 Dry Extended Basin with Micropool

Inflow Area = 20.504 ac, 83.49% Impervious, Inflow Depth > 2.14" for 2-yr event
Inflow = 52.10 cfs @ 12.09 hrs, Volume= 3.650 af
Outflow = 2.84 cfs @ 14.22 hrs, Volume= 1.508 af, Atten= 95%, Lag= 128.0 min
Primary = 2.84 cfs @ 14.22 hrs, Volume= 1.508 af
Routed to Pond B1-2* : B1-2 Infiltration Basin

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 133.13' @ 14.22 hrs Surf.Area= 36,414 sf Storage= 109,473 cf

Plug-Flow detention time= 266.3 min calculated for 1.508 af (41% of inflow)
Center-of-Mass det. time= 172.5 min (940.0 - 767.6)

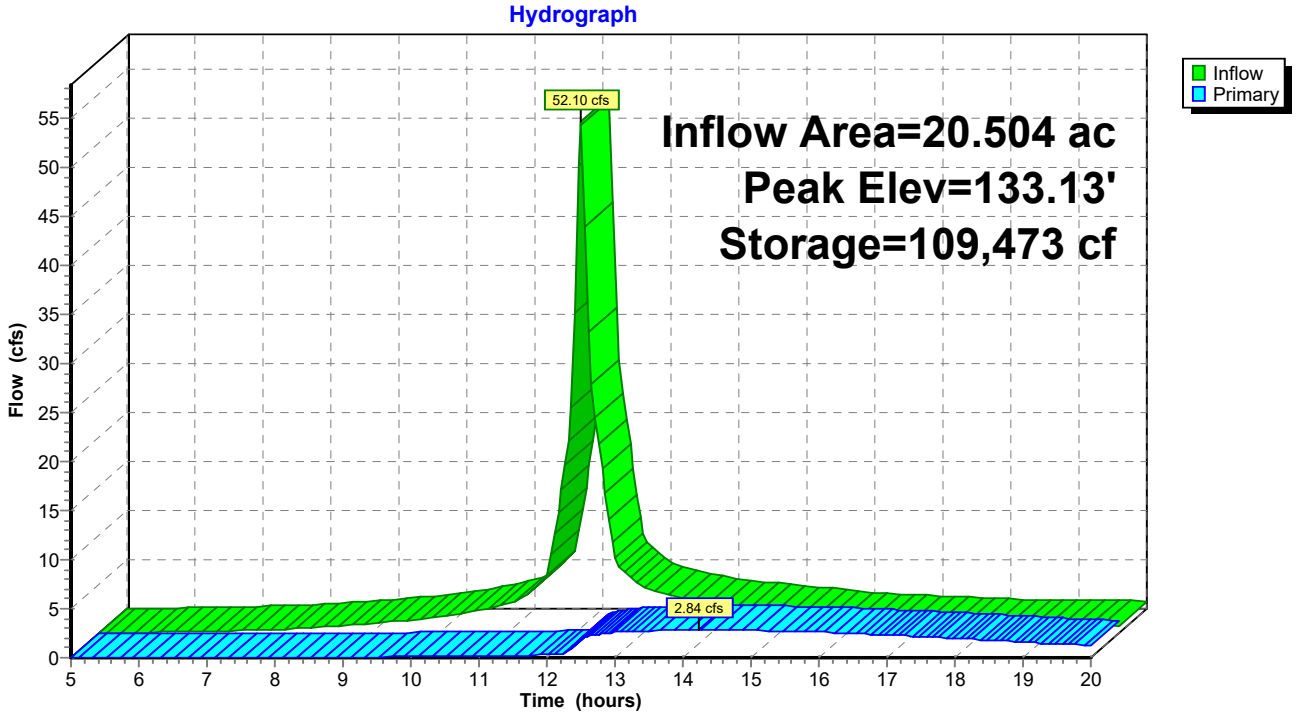
Volume	Invert	Avail.Storage	Storage Description
#1	129.50'	300,241 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
129.50	25,183	0	0
130.00	26,502	12,921	12,921
131.00	29,223	27,863	40,784
132.00	32,056	30,640	71,423
133.00	34,999	33,528	104,951
134.00	46,174	40,587	145,537
135.00	49,702	47,938	193,475
136.00	53,361	51,532	245,007
137.00	57,107	55,234	300,241

Device	Routing	Invert	Outlet Devices
#1	Primary	129.50'	**24.0" Round Culvert** L= 123.0' Ke= 1.000 Inlet / Outlet Invert= 129.50' / 129.12' S= 0.0031 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	129.50'	**3.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	132.40'	**24.0" W x 4.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	134.35'	**24.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Device 1	135.45'	**3.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=2.84 cfs @ 14.22 hrs HW=133.13' TW=129.55' (Dynamic Tailwater)
↑**1=Culvert** (Passes 2.84 cfs of 18.39 cfs potential flow)
↑**2=Orifice/Grate** (Orifice Controls 0.44 cfs @ 9.01 fps)
3=Orifice/Grate (Orifice Controls 2.39 cfs @ 3.59 fps)
4=Orifice/Grate (Controls 0.00 cfs)
5=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B1-3*: B1-3 Dry Extended Basin with Micropool



Hydrograph for Pond B1-3*: B1-3 Dry Extended Basin with Micropool

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	129.50	0.00
5.50	0.05	38	129.50	0.00
6.00	0.10	168	129.51	0.00
6.50	0.17	405	129.52	0.00
7.00	0.26	789	129.53	0.00
7.50	0.37	1,350	129.55	0.01
8.00	0.50	2,115	129.58	0.01
8.50	0.71	3,150	129.62	0.03
9.00	0.98	4,585	129.68	0.05
9.50	1.29	6,488	129.75	0.08
10.00	1.64	8,936	129.85	0.11
10.50	2.22	12,137	129.97	0.14
11.00	2.92	16,471	130.13	0.17
11.50	4.98	23,007	130.37	0.20
12.00	**32.63**	46,951	131.21	0.30
12.50	**11.67**	98,005	132.80	1.93
13.00	4.80	105,719	133.02	2.59
13.50	3.75	108,325	133.09	2.76
14.00	3.05	**109,398**	**133.12**	**2.83**
14.50	2.65	**109,381**	**133.12**	**2.83**
15.00	2.31	108,781	133.11	2.79
15.50	1.97	107,671	133.08	2.72
16.00	1.63	106,106	133.03	2.61
16.50	1.44	104,259	132.98	2.48
17.00	1.30	102,386	132.93	2.34
17.50	1.15	100,518	132.87	2.18
18.00	1.00	98,679	132.82	2.00
18.50	0.93	96,961	132.77	1.82
19.00	0.89	95,504	132.73	1.61
19.50	0.84	94,326	132.69	1.43
20.00	0.80	93,365	132.66	1.28

Stage-Discharge for Pond B1-3*: B1-3 Dry Extended Basin with Micropool

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
129.50	0.00	132.05	0.37	134.60	5.91
129.55	0.01	132.10	0.37	134.65	6.22
129.60	0.02	132.15	0.38	134.70	6.55
129.65	0.04	132.20	0.38	134.75	6.90
129.70	0.06	132.25	0.38	134.80	7.27
129.75	0.08	132.30	0.39	134.85	7.66
129.80	0.10	132.35	0.39	134.90	7.99
129.85	0.11	132.40	0.39	134.95	8.28
129.90	0.12	132.45	0.47	135.00	8.55
129.95	0.13	132.50	0.60	135.05	8.79
130.00	0.14	132.55	0.78	135.10	9.03
130.05	0.15	132.60	0.98	135.15	9.25
130.10	0.16	132.65	1.21	135.20	9.47
130.15	0.17	132.70	1.47	135.25	9.68
130.20	0.18	132.75	1.73	135.30	9.88
130.25	0.19	132.80	1.93	135.35	10.07
130.30	0.19	132.85	2.11	135.40	10.26
130.35	0.20	132.90	2.26	135.45	10.44
130.40	0.21	132.95	2.40	135.50	10.73
130.45	0.21	133.00	2.53	135.55	11.11
130.50	0.22	133.05	2.66	135.60	11.53
130.55	0.23	133.10	2.78	135.65	12.00
130.60	0.23	133.15	2.89	135.70	12.51
130.65	0.24	133.20	2.99	135.75	13.04
130.70	0.25	133.25	3.10	135.80	13.61
130.75	0.25	133.30	3.20	135.85	14.20
130.80	0.26	133.35	3.29	135.90	14.81
130.85	0.26	133.40	3.38	135.95	15.44
130.90	0.27	133.45	3.47	136.00	16.09
130.95	0.27	133.50	3.56	136.05	16.76
131.00	0.28	133.55	3.65	136.10	17.44
131.05	0.28	133.60	3.73	136.15	18.14
131.10	0.29	133.65	3.81	136.20	18.86
131.15	0.29	133.70	3.89	136.25	19.59
131.20	0.30	133.75	3.97	136.30	20.34
131.25	0.30	133.80	4.05	136.35	21.09
131.30	0.31	133.85	4.12	136.40	21.86
131.35	0.31	133.90	4.19	136.45	22.64
131.40	0.31	133.95	4.26	136.50	23.43
131.45	0.32	134.00	4.34	136.55	24.23
131.50	0.32	134.05	4.40	136.60	25.05
131.55	0.33	134.10	4.47	136.65	25.87
131.60	0.33	134.15	4.54	136.70	26.70
131.65	0.34	134.20	4.61	136.75	27.53
131.70	0.34	134.25	4.67	136.80	28.38
131.75	0.34	134.30	4.74	136.85	28.59
131.80	0.35	134.35	4.80	136.90	28.70
131.85	0.35	134.40	4.93	136.95	28.81
131.90	0.36	134.45	5.13	137.00	**28.92**
131.95	0.36	134.50	5.36		
132.00	0.36	134.55	5.62		

Stage-Area-Storage for Pond B1-3*: B1-3 Dry Extended Basin with Micropool

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
129.50	25,183	0
129.60	25,447	2,531
129.70	25,711	5,089
129.80	25,974	7,674
129.90	26,238	10,284
130.00	26,502	12,921
130.10	26,774	15,585
130.20	27,046	18,276
130.30	27,318	20,994
130.40	27,590	23,740
130.50	27,863	26,512
130.60	28,135	29,312
130.70	28,407	32,139
130.80	28,679	34,994
130.90	28,951	37,875
131.00	29,223	40,784
131.10	29,506	43,720
131.20	29,790	46,685
131.30	30,073	49,678
131.40	30,356	52,700
131.50	30,640	55,749
131.60	30,923	58,827
131.70	31,206	61,934
131.80	31,489	65,069
131.90	31,773	68,232
132.00	32,056	71,423
132.10	32,350	74,644
132.20	32,645	77,893
132.30	32,939	81,172
132.40	33,233	84,481
132.50	33,528	87,819
132.60	33,822	91,187
132.70	34,116	94,583
132.80	34,410	98,010
132.90	34,705	101,466
133.00	34,999	104,951
133.10	36,116	108,507
133.20	37,234	112,174
133.30	38,352	115,953
133.40	39,469	119,844
133.50	40,587	123,847
133.60	41,704	127,962
133.70	42,821	132,188
133.80	43,939	136,526
133.90	45,057	140,976
134.00	46,174	145,537
134.10	46,527	150,172
134.20	46,880	154,843
134.30	47,232	159,548
134.40	47,585	164,289
134.50	47,938	169,065
134.60	48,291	173,877
134.70	48,644	178,723
134.80	48,996	183,605
134.90	49,349	188,523
135.00	49,702	193,475
135.10	50,068	198,464
135.20	50,434	203,489
135.30	50,800	208,551
135.40	51,166	213,649
135.50	51,532	218,784
135.60	51,897	223,955
135.70	52,263	229,163
135.80	52,629	234,408
135.90	52,995	239,689
136.00	53,361	245,007
136.10	53,736	250,362
136.20	54,110	255,754
136.30	54,485	261,184
136.40	54,859	266,651
136.50	55,234	272,156
136.60	55,609	277,698
136.70	55,983	283,277
136.80	56,358	288,894
136.90	56,732	294,549
137.00	**57,107**	**300,241**

Summary for Pond B3-2*: B3-2 Dry Extended Basin with Micropool

Inflow Area = 7.079 ac, 56.01% Impervious, Inflow Depth > 1.36" for 2-yr event
Inflow = 11.88 cfs @ 12.09 hrs, Volume= 0.801 af
Outflow = 0.27 cfs @ 18.25 hrs, Volume= 0.174 af, Atten= 98%, Lag= 369.5 min
Primary = 0.27 cfs @ 18.25 hrs, Volume= 0.174 af
Routed to Reach DP-B : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 125.45' @ 18.25 hrs Surf.Area= 20,673 sf Storage= 27,438 cf

Plug-Flow detention time= 268.9 min calculated for 0.174 af (22% of inflow)
Center-of-Mass det. time= 165.2 min (964.9 - 799.7)

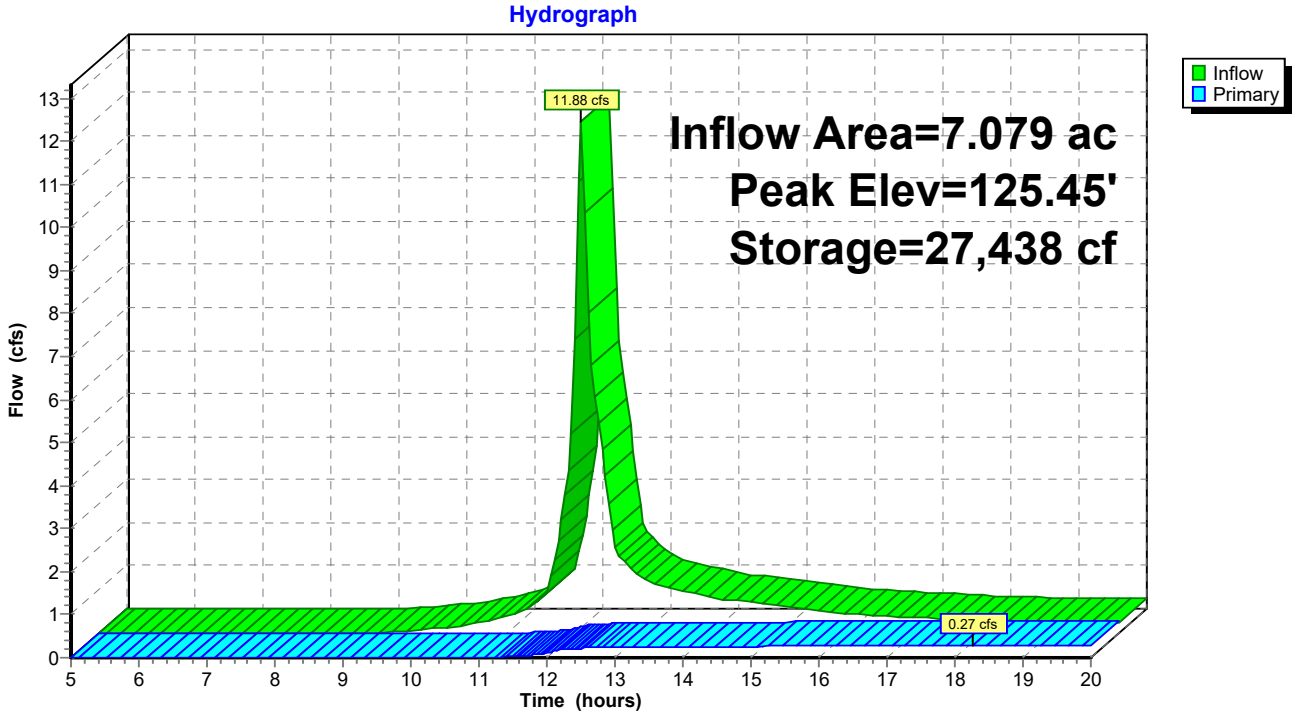
Volume	Invert	Avail.Storage	Storage Description
#1	124.00'	200,335 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
124.00	17,253	0	0
125.00	19,576	18,415	18,415
126.00	22,023	20,800	39,214
127.00	27,945	24,984	64,198
128.00	30,928	29,437	93,635
129.00	33,933	32,431	126,065
130.00	37,113	35,523	161,588
131.00	40,380	38,747	200,335

Device	Routing	Invert	Outlet Devices
#1	Primary	124.00'	**24.0" Round Culvert** L= 75.0' Ke= 1.000 Inlet / Outlet Invert= 124.00' / 123.00' S= 0.0133 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	124.00'	**3.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	128.00'	**6.0" Vert. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads
#4	Device 1	130.00'	**1.5' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=0.27 cfs @ 18.25 hrs HW=125.45' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 0.27 cfs of 7.49 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.27 cfs @ 5.54 fps)
  - **4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)
- **3=Orifice/Grate** (Controls 0.00 cfs)

Pond B3-2*: B3-2 Dry Extended Basin with Micropool



Hydrograph for Pond B3-2*: B3-2 Dry Extended Basin with Micropool

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	124.00	0.00
5.50	0.00	0	124.00	0.00
6.00	0.00	0	124.00	0.00
6.50	0.00	0	124.00	0.00
7.00	0.00	0	124.00	0.00
7.50	0.00	0	124.00	0.00
8.00	0.00	0	124.00	0.00
8.50	0.00	0	124.00	0.00
9.00	0.00	0	124.00	0.00
9.50	0.05	48	124.00	0.00
10.00	0.12	201	124.01	0.00
10.50	0.22	501	124.03	0.00
11.00	0.37	1,025	124.06	0.01
11.50	0.77	1,975	124.11	0.02
12.00	**6.85**	6,398	124.36	0.12
12.50	**3.03**	18,498	125.00	0.22
13.00	1.28	21,229	125.14	0.24
13.50	1.02	22,794	125.22	0.25
14.00	0.84	24,009	125.28	0.25
14.50	0.73	24,946	125.33	0.26
15.00	0.64	25,714	125.36	0.26
15.50	0.55	26,313	125.39	0.27
16.00	0.46	26,741	125.41	0.27
16.50	0.41	27,029	125.43	0.27
17.00	0.37	27,239	125.44	0.27
17.50	0.33	27,374	125.45	0.27
18.00	0.28	**27,434**	**125.45**	**0.27**
18.50	0.27	**27,435**	**125.45**	**0.27**
19.00	0.25	27,413	125.45	0.27
19.50	0.24	27,370	125.45	0.27
20.00	0.23	27,304	125.44	0.27

Stage-Discharge for Pond B3-2*: B3-2 Dry Extended Basin with Micropool

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
124.00	0.00	126.55	0.37	129.10	2.27
124.05	0.01	126.60	0.37	129.15	2.32
124.10	0.02	126.65	0.38	129.20	2.38
124.15	0.04	126.70	0.38	129.25	2.43
124.20	0.06	126.75	0.38	129.30	2.48
124.25	0.08	126.80	0.39	129.35	2.52
124.30	0.10	126.85	0.39	129.40	2.57
124.35	0.11	126.90	0.39	129.45	2.62
124.40	0.12	126.95	0.40	129.50	2.66
124.45	0.13	127.00	0.40	129.55	2.71
124.50	0.14	127.05	0.40	129.60	2.75
124.55	0.15	127.10	0.41	129.65	2.79
124.60	0.16	127.15	0.41	129.70	2.83
124.65	0.17	127.20	0.41	129.75	2.88
124.70	0.18	127.25	0.42	129.80	2.92
124.75	0.19	127.30	0.42	129.85	2.96
124.80	0.19	127.35	0.42	129.90	3.00
124.85	0.20	127.40	0.43	129.95	3.04
124.90	0.21	127.45	0.43	130.00	3.07
124.95	0.21	127.50	0.43	130.05	3.17
125.00	0.22	127.55	0.44	130.10	3.30
125.05	0.23	127.60	0.44	130.15	3.47
125.10	0.23	127.65	0.44	130.20	3.65
125.15	0.24	127.70	0.45	130.25	3.85
125.20	0.25	127.75	0.45	130.30	4.07
125.25	0.25	127.80	0.45	130.35	4.30
125.30	0.26	127.85	0.46	130.40	4.54
125.35	0.26	127.90	0.46	130.45	4.79
125.40	0.27	127.95	0.46	130.50	5.05
125.45	0.27	128.00	0.47	130.55	5.32
125.50	0.28	128.05	0.48	130.60	5.60
125.55	0.28	128.10	0.53	130.65	5.88
125.60	0.29	128.15	0.60	130.70	6.17
125.65	0.29	128.20	0.70	130.75	6.47
125.70	0.30	128.25	0.81	130.80	6.77
125.75	0.30	128.30	0.94	130.85	7.07
125.80	0.31	128.35	1.08	130.90	7.38
125.85	0.31	128.40	1.21	130.95	7.69
125.90	0.31	128.45	1.34	131.00	**8.01**
125.95	0.32	128.50	1.44		
126.00	0.32	128.55	1.53		
126.05	0.33	128.60	1.62		
126.10	0.33	128.65	1.70		
126.15	0.34	128.70	1.77		
126.20	0.34	128.75	1.85		
126.25	0.34	128.80	1.91		
126.30	0.35	128.85	1.98		
126.35	0.35	128.90	2.04		
126.40	0.36	128.95	2.10		
126.45	0.36	129.00	2.16		
126.50	0.36	129.05	2.22		

Stage-Area-Storage for Pond B3-2*: B3-2 Dry Extended Basin with Micropool

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
124.00	17,253	0
124.10	17,485	1,737
124.20	17,718	3,497
124.30	17,950	5,280
124.40	18,182	7,087
124.50	18,415	8,917
124.60	18,647	10,770
124.70	18,879	12,646
124.80	19,111	14,546
124.90	19,344	16,469
125.00	19,576	18,415
125.10	19,821	20,384
125.20	20,065	22,379
125.30	20,310	24,397
125.40	20,555	26,441
125.50	20,800	28,508
125.60	21,044	30,601
125.70	21,289	32,717
125.80	21,534	34,858
125.90	21,778	37,024
126.00	22,023	39,214
126.10	22,615	41,446
126.20	23,207	43,737
126.30	23,800	46,087
126.40	24,392	48,497
126.50	24,984	50,966
126.60	25,576	53,494
126.70	26,168	56,081
126.80	26,761	58,727
126.90	27,353	61,433
127.00	27,945	64,198
127.10	28,243	67,007
127.20	28,542	69,847
127.30	28,840	72,716
127.40	29,138	75,615
127.50	29,437	78,543
127.60	29,735	81,502
127.70	30,033	84,490
127.80	30,331	87,509
127.90	30,630	90,557
128.00	30,928	93,635
128.10	31,228	96,742
128.20	31,529	99,880
128.30	31,830	103,048
128.40	32,130	106,246
128.50	32,431	109,474
128.60	32,731	112,732
128.70	33,031	116,020
128.80	33,332	119,339
128.90	33,633	122,687
129.00	33,933	126,065
129.10	34,251	129,474
129.20	34,569	132,915
129.30	34,887	136,388
129.40	35,205	139,893
129.50	35,523	143,429
129.60	35,841	146,997
129.70	36,159	150,597
129.80	36,477	154,229
129.90	36,795	157,893
130.00	37,113	161,588
130.10	37,440	165,316
130.20	37,766	169,076
130.30	38,093	172,869
130.40	38,420	176,695
130.50	38,747	180,553
130.60	39,073	184,444
130.70	39,400	188,368
130.80	39,727	192,324
130.90	40,053	196,313
131.00	**40,380**	**200,335**

Summary for Pond B5-2*: B5-2 Infiltration Basin

Inflow Area = 10.218 ac, 67.76% Impervious, Inflow Depth > 1.64" for 2-yr event
Inflow = 20.63 cfs @ 12.09 hrs, Volume= 1.396 af
Outflow = 2.13 cfs @ 12.98 hrs, Volume= 1.397 af, Atten= 90%, Lag= 53.2 min
Discarded = 2.13 cfs @ 12.98 hrs, Volume= 1.397 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Reach DP-B : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 134.48' @ 12.98 hrs Surf.Area= 25,842 sf Storage= 24,037 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 101.5 min (890.2 - 788.6)

Volume	Invert	Avail.Storage	Storage Description
#1	133.50'	139,649 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

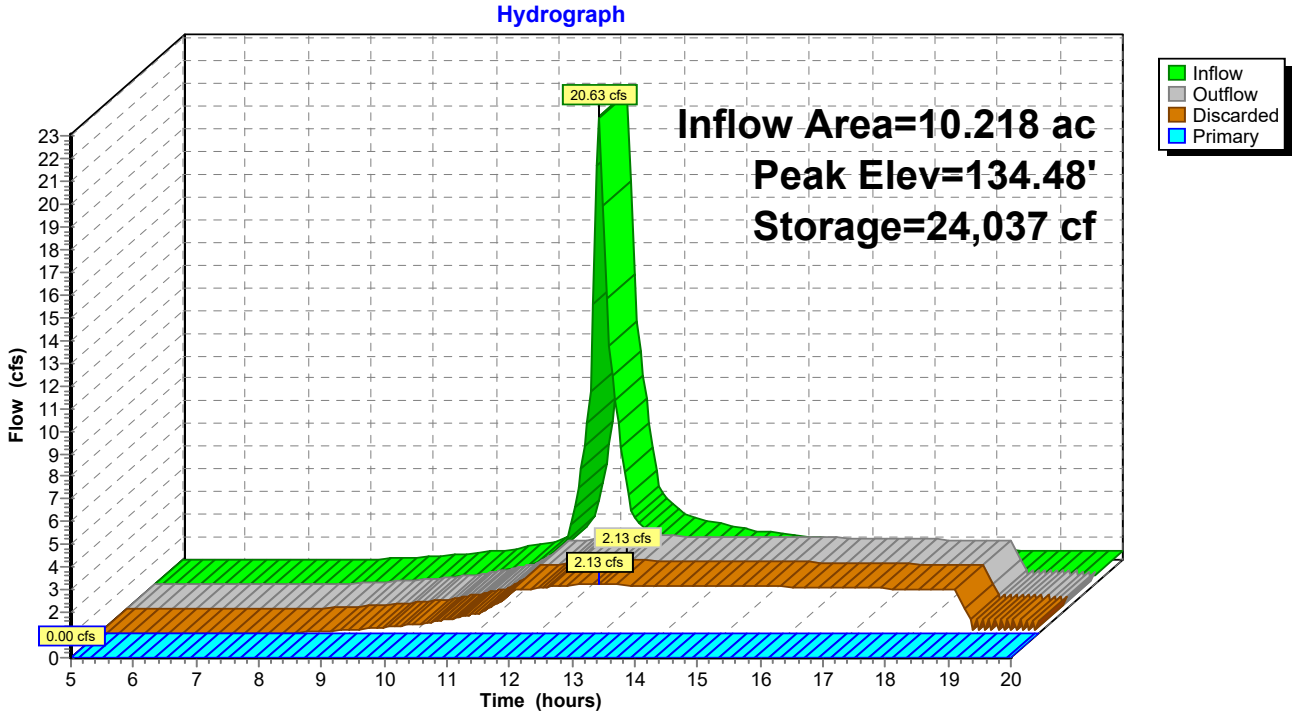
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
133.50	23,201	0	0
134.00	24,527	11,932	11,932
135.00	27,263	25,895	37,827
136.00	30,117	28,690	66,517
137.00	37,559	33,838	100,355
138.00	41,028	39,294	139,649

Device	Routing	Invert	Outlet Devices
#1	Primary	133.50'	**24.0" Round Culvert** L= 100.0' Ke= 1.000 Inlet / Outlet Invert= 133.50' / 132.00' S= 0.0150 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	137.00'	**1.5' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Discarded	133.50'	**3.560 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=2.13 cfs @ 12.98 hrs HW=134.48' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 2.13 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=133.50' TW=0.00' (Dynamic Tailwater)
↑**1=Culvert** (Controls 0.00 cfs)
↑**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond B5-2*: B5-2 Infiltration Basin



Hydrograph for Pond B5-2*: B5-2 Infiltration Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
5.00	0.00	0	133.50	0.00	0.00	**0.00**
5.50	0.00	0	133.50	0.00	0.00	0.00
6.00	0.00	0	133.50	0.00	0.00	0.00
6.50	0.00	0	133.50	0.00	0.00	0.00
7.00	0.00	0	133.50	0.00	0.00	0.00
7.50	0.00	0	133.50	0.00	0.00	0.00
8.00	0.02	0	133.50	0.02	0.02	0.00
8.50	0.07	0	133.50	0.07	0.07	0.00
9.00	0.15	0	133.50	0.15	0.15	0.00
9.50	0.25	0	133.50	0.25	0.25	0.00
10.00	0.38	0	133.50	0.38	0.38	0.00
10.50	0.58	0	133.50	0.58	0.58	0.00
11.00	0.85	0	133.50	0.85	0.85	0.00
11.50	1.60	0	133.50	1.60	1.60	0.00
12.00	**12.34**	5,213	133.72	1.96	1.96	0.00
12.50	**4.98**	22,724	134.43	2.12	2.12	0.00
13.00	2.08	**24,035**	**134.48**	**2.13**	**2.13**	0.00
13.50	1.64	23,447	134.46	2.12	2.12	0.00
14.00	1.34	22,314	134.41	2.11	2.11	0.00
14.50	1.17	20,761	134.35	2.10	2.10	0.00
15.00	1.03	18,971	134.28	2.08	2.08	0.00
15.50	0.88	16,947	134.20	2.07	2.07	0.00
16.00	0.73	14,690	134.11	2.05	2.05	0.00
16.50	0.65	12,251	134.01	2.02	2.02	0.00
17.00	0.58	9,732	133.91	2.00	2.00	0.00
17.50	0.51	7,136	133.80	1.98	1.98	0.00
18.00	0.45	4,464	133.69	1.95	1.95	0.00
18.50	0.42	1,744	133.57	1.93	1.93	0.00
19.00	0.40	0	133.50	0.61	0.61	0.00
19.50	0.38	0	133.50	0.59	0.59	0.00
20.00	0.36	0	133.50	0.57	0.57	0.00

Stage-Discharge for Pond B5-2*: B5-2 Infiltration Basin

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
133.50	0.00	0.00	0.00
133.55	1.92	1.92	0.00
133.60	1.93	1.93	0.00
133.65	1.94	1.94	0.00
133.70	1.96	1.96	0.00
133.75	1.97	1.97	0.00
133.80	1.98	1.98	0.00
133.85	1.99	1.99	0.00
133.90	2.00	2.00	0.00
133.95	2.01	2.01	0.00
134.00	2.02	2.02	0.00
134.05	2.03	2.03	0.00
134.10	2.04	2.04	0.00
134.15	2.06	2.06	0.00
134.20	2.07	2.07	0.00
134.25	2.08	2.08	0.00
134.30	2.09	2.09	0.00
134.35	2.10	2.10	0.00
134.40	2.11	2.11	0.00
134.45	2.12	2.12	0.00
134.50	2.13	2.13	0.00
134.55	2.15	2.15	0.00
134.60	2.16	2.16	0.00
134.65	2.17	2.17	0.00
134.70	2.18	2.18	0.00
134.75	2.19	2.19	0.00
134.80	2.20	2.20	0.00
134.85	2.21	2.21	0.00
134.90	2.22	2.22	0.00
134.95	2.24	2.24	0.00
135.00	2.25	2.25	0.00
135.05	2.26	2.26	0.00
135.10	2.27	2.27	0.00
135.15	2.28	2.28	0.00
135.20	2.29	2.29	0.00
135.25	2.31	2.31	0.00
135.30	2.32	2.32	0.00
135.35	2.33	2.33	0.00
135.40	2.34	2.34	0.00
135.45	2.35	2.35	0.00
135.50	2.36	2.36	0.00
135.55	2.38	2.38	0.00
135.60	2.39	2.39	0.00
135.65	2.40	2.40	0.00
135.70	2.41	2.41	0.00
135.75	2.42	2.42	0.00
135.80	2.43	2.43	0.00
135.85	2.45	2.45	0.00
135.90	2.46	2.46	0.00
135.95	2.47	2.47	0.00
136.00	2.48	2.48	0.00
136.05	2.51	2.51	0.00
136.10	2.54	2.54	0.00
136.15	2.57	2.57	0.00
136.20	2.60	2.60	0.00
136.25	2.64	2.64	0.00
136.30	2.67	2.67	0.00
136.35	2.70	2.70	0.00
136.40	2.73	2.73	0.00
136.45	2.76	2.76	0.00
136.50	2.79	2.79	0.00
136.55	2.82	2.82	0.00
136.60	2.85	2.85	0.00
136.65	2.88	2.88	0.00
136.70	2.91	2.91	0.00
136.75	2.94	2.94	0.00
136.80	2.97	2.97	0.00
136.85	3.00	3.00	0.00
136.90	3.03	3.03	0.00
136.95	3.06	3.06	0.00
137.00	3.10	3.10	0.00
137.05	3.16	3.11	0.05
137.10	3.28	3.12	0.15
137.15	3.42	3.14	0.28
137.20	3.58	3.15	0.43
137.25	3.76	3.17	0.59
137.30	3.95	3.18	0.77
137.35	4.16	3.20	0.97
137.40	4.38	3.21	1.17
137.45	4.62	3.22	1.39
137.50	4.86	3.24	1.62
137.55	5.11	3.25	1.85
137.60	5.36	3.27	2.10
137.65	5.63	3.28	2.35
137.70	5.90	3.30	2.60
137.75	6.18	3.31	2.87
137.80	6.46	3.32	3.14
137.85	6.75	3.34	3.41
137.90	7.04	3.35	3.69
137.95	7.33	3.37	3.97
138.00	**7.63**	**3.38**	**4.25**

Stage-Area-Storage for Pond B5-2*: B5-2 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
133.50	23,201	23,201	0
133.60	23,466	23,466	2,333
133.70	23,731	23,731	4,693
133.80	23,997	23,997	7,080
133.90	24,262	24,262	9,493
134.00	24,527	24,527	11,932
134.10	24,801	24,801	14,398
134.20	25,074	25,074	16,892
134.30	25,348	25,348	19,413
134.40	25,621	25,621	21,962
134.50	25,895	25,895	24,538
134.60	26,169	26,169	27,141
134.70	26,442	26,442	29,771
134.80	26,716	26,716	32,429
134.90	26,989	26,989	35,114
135.00	27,263	27,263	37,827
135.10	27,548	27,548	40,568
135.20	27,834	27,834	43,337
135.30	28,119	28,119	46,134
135.40	28,405	28,405	48,961
135.50	28,690	28,690	51,815
135.60	28,975	28,975	54,699
135.70	29,261	29,261	57,610
135.80	29,546	29,546	60,551
135.90	29,832	29,832	63,520
136.00	30,117	30,117	66,517
136.10	30,861	30,861	69,566
136.20	31,605	31,605	72,689
136.30	32,350	32,350	75,887
136.40	33,094	33,094	79,159
136.50	33,838	33,838	82,506
136.60	34,582	34,582	85,927
136.70	35,326	35,326	89,422
136.80	36,071	36,071	92,992
136.90	36,815	36,815	96,636
137.00	37,559	37,559	100,355
137.10	37,906	37,906	104,128
137.20	38,253	38,253	107,936
137.30	38,600	38,600	111,779
137.40	38,947	38,947	115,656
137.50	39,294	39,294	119,568
137.60	39,640	39,640	123,515
137.70	39,987	39,987	127,496
137.80	40,334	40,334	131,512
137.90	40,681	40,681	135,563
138.00	**41,028**	**41,028**	**139,649**

Summary for Pond B6-2*: B6-2 Infiltration Basin

Inflow Area = 39.110 ac, 51.21% Impervious, Inflow Depth > 1.49" for 2-yr event
Inflow = 32.27 cfs @ 12.51 hrs, Volume= 4.859 af
Outflow = 2.29 cfs @ 18.28 hrs, Volume= 1.247 af, Atten= 93%, Lag= 346.2 min
Discarded = 0.74 cfs @ 18.28 hrs, Volume= 0.637 af
Primary = 1.55 cfs @ 18.28 hrs, Volume= 0.610 af
Routed to Reach DP-B : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 131.32' @ 18.28 hrs Surf.Area= 77,748 sf Storage= 158,266 cf

Plug-Flow detention time= 284.4 min calculated for 1.246 af (26% of inflow)
Center-of-Mass det. time= 122.0 min (935.1 - 813.1)

Volume	Invert	Avail.Storage	Storage Description
#1	128.00'	458,168 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

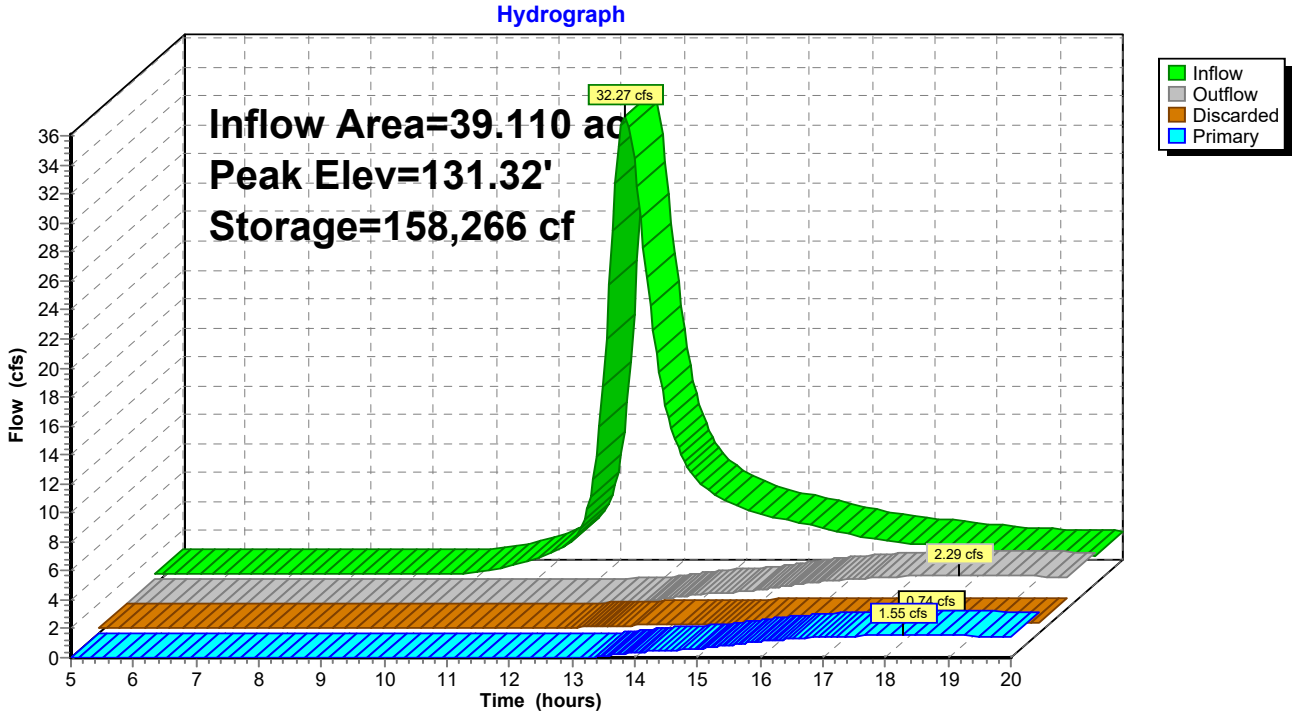
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
128.00	37,532	0	0
129.00	41,132	39,332	39,332
130.00	44,848	42,990	82,322
131.00	62,119	53,484	135,806
132.00	110,781	86,450	222,256
133.00	117,688	114,235	336,490
134.00	125,668	121,678	458,168

Device	Routing	Invert	Outlet Devices
#1	Primary	128.00'	**36.0" Round Culvert** L= 100.0' Ke= 1.000 Inlet / Outlet Invert= 128.00' / 126.00' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 7.07 sf
#2	Device 1	130.50'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	131.10'	**30.0" W x 16.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	132.45'	**3.5' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#5	Discarded	128.00'	**0.410 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=0.74 cfs @ 18.28 hrs HW=131.32' (Free Discharge)
└**5=Exfiltration** (Exfiltration Controls 0.74 cfs)

Primary OutFlow Max=1.55 cfs @ 18.28 hrs HW=131.32' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 1.55 cfs of 34.45 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.71 cfs @ 3.64 fps)
  ├**3=Orifice/Grate** (Orifice Controls 0.83 cfs @ 1.51 fps)
  └**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond B6-2*: B6-2 Infiltration Basin



Hydrograph for Pond B6-2*: B6-2 Infiltration Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
5.00	0.72	33	128.00	0.36	0.36	0.00
5.50	0.72	687	128.02	0.36	0.36	0.00
6.00	0.72	1,340	128.04	0.36	0.36	0.00
6.50	0.72	1,992	128.05	0.36	0.36	0.00
7.00	0.72	2,643	128.07	0.36	0.36	0.00
7.50	0.72	3,293	128.09	0.36	0.36	0.00
8.00	0.72	3,942	128.10	0.36	0.36	0.00
8.50	0.72	4,590	128.12	0.36	0.36	0.00
9.00	0.72	5,237	128.14	0.36	0.36	0.00
9.50	0.72	5,883	128.16	0.36	0.36	0.00
10.00	0.81	6,572	128.17	0.36	0.36	0.00
10.50	1.12	7,621	128.20	0.36	0.36	0.00
11.00	1.63	9,406	128.25	0.36	0.36	0.00
11.50	2.52	12,375	128.32	0.37	0.37	0.00
12.00	7.24	18,866	128.49	0.37	0.37	0.00
12.50	**32.25**	55,013	129.37	0.40	0.40	0.00
13.00	15.93	99,251	130.35	0.48	0.48	0.00
13.50	8.09	118,312	130.71	0.66	0.54	0.12
14.00	6.03	129,272	130.89	0.93	0.57	0.35
14.50	5.06	137,335	131.02	1.10	0.60	0.50
15.00	4.50	143,808	131.12	1.25	0.65	0.61
15.50	4.03	148,971	131.20	1.55	0.68	0.87
16.00	3.56	152,748	131.25	1.83	0.70	1.13
16.50	3.11	155,243	131.28	2.03	0.72	1.31
17.00	2.84	156,805	131.30	2.16	0.73	1.43
17.50	2.62	157,754	131.31	2.24	0.73	1.51
18.00	2.41	**158,205**	**131.32**	**2.28**	**0.74**	**1.54**
18.50	2.21	**158,235**	**131.32**	**2.28**	**0.74**	**1.55**
19.00	2.11	158,023	131.32	2.27	0.74	1.53
19.50	2.05	157,713	131.31	2.24	0.73	1.50
20.00	1.98	157,337	131.31	2.21	0.73	1.47

Stage-Discharge for Pond B6-2*: B6-2 Infiltration Basin

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
128.00	0.00	0.00	0.00
128.10	0.36	0.36	0.00
128.20	0.36	0.36	0.00
128.30	0.37	0.37	0.00
128.40	0.37	0.37	0.00
128.50	0.37	0.37	0.00
128.60	0.38	0.38	0.00
128.70	0.38	0.38	0.00
128.80	0.38	0.38	0.00
128.90	0.39	0.39	0.00
129.00	0.39	0.39	0.00
129.10	0.39	0.39	0.00
129.20	0.40	0.40	0.00
129.30	0.40	0.40	0.00
129.40	0.40	0.40	0.00
129.50	0.41	0.41	0.00
129.60	0.41	0.41	0.00
129.70	0.42	0.42	0.00
129.80	0.42	0.42	0.00
129.90	0.42	0.42	0.00
130.00	0.43	0.43	0.00
130.10	0.44	0.44	0.00
130.20	0.46	0.46	0.00
130.30	0.47	0.47	0.00
130.40	0.49	0.49	0.00
130.50	0.51	0.51	0.00
130.60	0.55	0.52	0.03
130.70	0.65	0.54	0.11
130.80	0.79	0.56	0.23
130.90	0.94	0.57	0.36
131.00	1.06	0.59	0.47
131.10	1.20	0.64	0.56
131.20	1.57	0.68	0.89
131.30	2.15	0.73	1.42
131.40	2.86	0.77	2.08
131.50	3.67	0.82	2.85
131.60	4.58	0.87	3.71
131.70	5.56	0.91	4.65
131.80	6.63	0.96	5.67
131.90	7.76	1.01	6.76
132.00	8.96	1.05	7.91
132.10	10.18	1.06	9.12
132.20	11.46	1.06	10.40
132.30	12.80	1.07	11.73
132.40	14.19	1.08	13.11
132.50	15.62	1.08	14.53
132.60	17.23	1.09	16.14
132.70	18.96	1.10	17.87
132.80	20.79	1.10	19.68
132.90	22.68	1.11	21.57
133.00	24.65	1.12	23.53
133.10	26.68	1.12	25.55
133.20	28.76	1.13	27.63
133.30	30.89	1.14	29.75
133.40	33.07	1.15	31.93
133.50	35.29	1.15	34.14
133.60	37.55	1.16	36.39
133.70	39.85	1.17	38.68
133.80	42.18	1.18	41.00
133.90	44.54	1.19	43.35
134.00	**46.92**	**1.19**	**45.73**

Stage-Area-Storage for Pond B6-2*: B6-2 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
128.00	37,532	37,532	0
128.20	38,252	38,252	7,578
128.40	38,972	38,972	15,301
128.60	39,692	39,692	23,167
128.80	40,412	40,412	31,178
129.00	41,132	41,132	39,332
129.20	41,875	41,875	47,633
129.40	42,618	42,618	56,082
129.60	43,362	43,362	64,680
129.80	44,105	44,105	73,427
130.00	44,848	44,848	82,322
130.20	48,302	48,302	91,637
130.40	51,756	51,756	101,643
130.60	55,211	55,211	112,340
130.80	58,665	58,665	123,727
131.00	62,119	62,119	135,806
131.20	71,851	71,851	149,203
131.40	81,584	81,584	164,546
131.60	91,316	91,316	181,836
131.80	101,049	101,049	201,073
132.00	110,781	110,781	222,256
132.20	112,162	112,162	244,550
132.40	113,544	113,544	267,120
132.60	114,925	114,925	289,967
132.80	116,307	116,307	313,091
133.00	117,688	117,688	336,490
133.20	119,284	119,284	360,187
133.40	120,880	120,880	384,204
133.60	122,476	122,476	408,539
133.80	124,072	124,072	433,194
134.00	**125,668**	**125,668**	**458,168**

Summary for Link 1: MRN-3 // MDAN 1

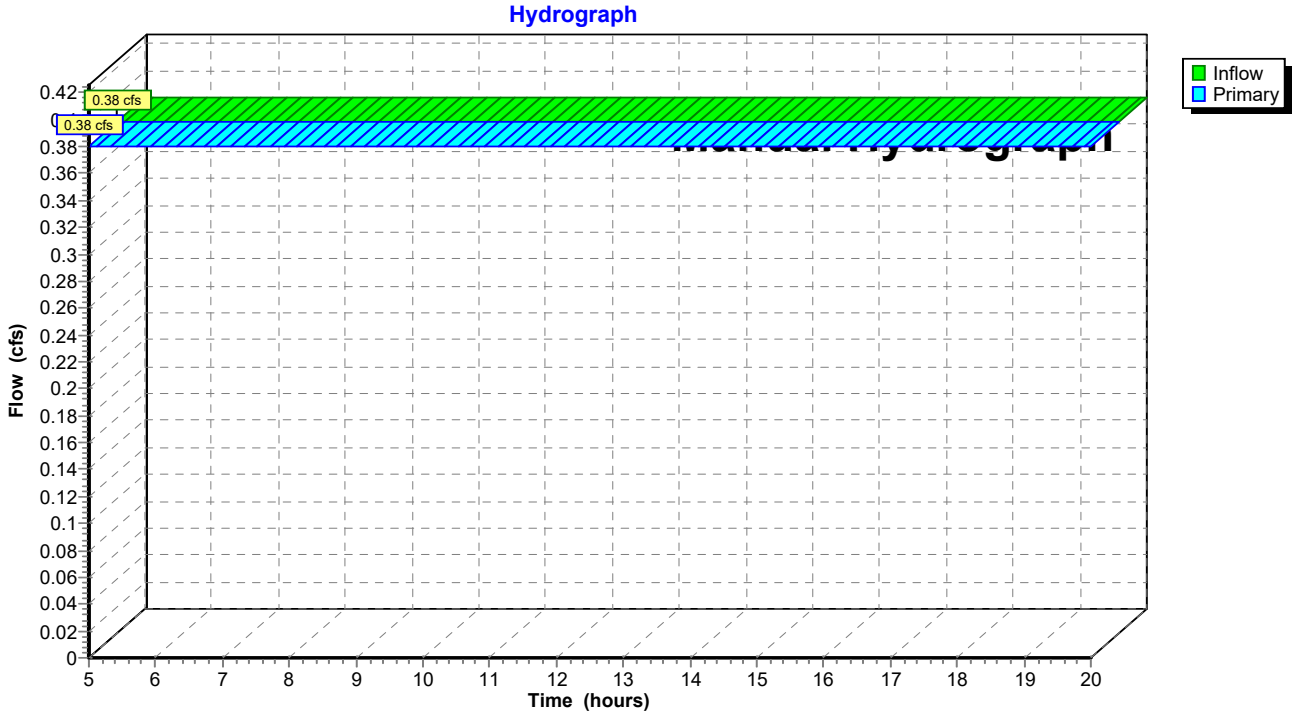
Inflow = 0.38 cfs @ 5.00 hrs, Volume= 0.473 af
Primary = 0.38 cfs @ 5.00 hrs, Volume= 0.473 af, Atten= 0%, Lag= 0.0 min
Routed to Pond A1-3* : A1-3 Infiltration Basin

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

25 Point manual hydrograph, To= 0.00 hrs, dt= 1.00 hrs, cfs =

0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
0.38	0.38	0.38	0.38	0.38					

Link 1: MRN-3 // MDAN 1



Hydrograph for Link 1: MRN-3 // MDAN 1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	**0.38**	**0.00**	**0.38**
5.25	0.38	0.00	0.38
5.50	0.38	0.00	0.38
5.75	0.38	0.00	0.38
6.00	0.38	0.00	0.38
6.25	0.38	0.00	0.38
6.50	0.38	0.00	0.38
6.75	0.38	0.00	0.38
7.00	0.38	0.00	0.38
7.25	0.38	0.00	0.38
7.50	0.38	0.00	0.38
7.75	0.38	0.00	0.38
8.00	0.38	0.00	0.38
8.25	0.38	0.00	0.38
8.50	0.38	0.00	0.38
8.75	0.38	0.00	0.38
9.00	0.38	0.00	0.38
9.25	0.38	0.00	0.38
9.50	0.38	0.00	0.38
9.75	0.38	0.00	0.38
10.00	0.38	0.00	0.38
10.25	0.38	0.00	0.38
10.50	0.38	0.00	0.38
10.75	0.38	0.00	0.38
11.00	0.38	0.00	0.38
11.25	0.38	0.00	0.38
11.50	0.38	0.00	0.38
11.75	0.38	0.00	0.38
12.00	0.38	0.00	0.38
12.25	0.38	0.00	0.38
12.50	0.38	0.00	0.38
12.75	0.38	0.00	0.38
13.00	0.38	0.00	0.38
13.25	0.38	0.00	0.38
13.50	0.38	0.00	0.38
13.75	0.38	0.00	0.38
14.00	0.38	0.00	0.38
14.25	0.38	0.00	0.38
14.50	0.38	0.00	0.38
14.75	0.38	0.00	0.38
15.00	0.38	0.00	0.38
15.25	0.38	0.00	0.38
15.50	0.38	0.00	0.38
15.75	0.38	0.00	0.38
16.00	0.38	0.00	0.38
16.25	0.38	0.00	0.38
16.50	0.38	0.00	0.38
16.75	0.38	0.00	0.38
17.00	0.38	0.00	0.38
17.25	0.38	0.00	0.38
17.50	0.38	0.00	0.38
17.75	0.38	0.00	0.38
18.00	0.38	0.00	0.38
18.25	0.38	0.00	0.38
18.50	0.38	0.00	0.38
18.75	0.38	0.00	0.38
19.00	0.38	0.00	0.38
19.25	0.38	0.00	0.38
19.50	0.38	0.00	0.38
19.75	0.38	0.00	0.38
20.00	0.38	0.00	0.38

Summary for Link 2: MRN-5 // MDAN 2

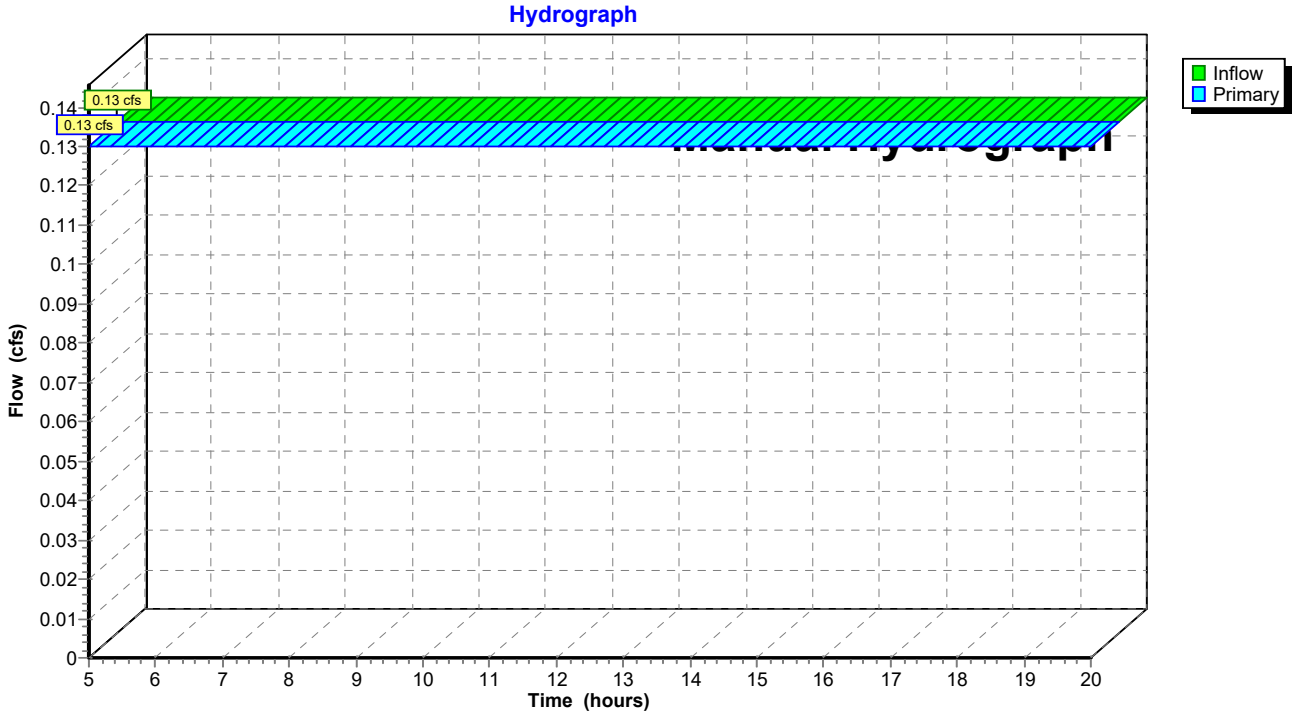
Inflow = 0.13 cfs @ 5.00 hrs, Volume= 0.162 af
Primary = 0.13 cfs @ 5.00 hrs, Volume= 0.162 af, Atten= 0%, Lag= 0.0 min
Routed to Pond A1-2* : A1-2 Infiltration Basin

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

25 Point manual hydrograph, To= 0.00 hrs, dt= 1.00 hrs, cfs =

0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
0.13	0.13	0.13	0.13	0.13					

Link 2: MRN-5 // MDAN 2



Hydrograph for Link 2: MRN-5 // MDAN 2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	**0.13**	**0.00**	**0.13**
5.25	0.13	0.00	0.13
5.50	0.13	0.00	0.13
5.75	0.13	0.00	0.13
6.00	0.13	0.00	0.13
6.25	0.13	0.00	0.13
6.50	0.13	0.00	0.13
6.75	0.13	0.00	0.13
7.00	0.13	0.00	0.13
7.25	0.13	0.00	0.13
7.50	0.13	0.00	0.13
7.75	0.13	0.00	0.13
8.00	0.13	0.00	0.13
8.25	0.13	0.00	0.13
8.50	0.13	0.00	0.13
8.75	0.13	0.00	0.13
9.00	0.13	0.00	0.13
9.25	0.13	0.00	0.13
9.50	0.13	0.00	0.13
9.75	0.13	0.00	0.13
10.00	0.13	0.00	0.13
10.25	0.13	0.00	0.13
10.50	0.13	0.00	0.13
10.75	0.13	0.00	0.13
11.00	0.13	0.00	0.13
11.25	0.13	0.00	0.13
11.50	0.13	0.00	0.13
11.75	0.13	0.00	0.13
12.00	0.13	0.00	0.13
12.25	0.13	0.00	0.13
12.50	0.13	0.00	0.13
12.75	0.13	0.00	0.13
13.00	0.13	0.00	0.13
13.25	0.13	0.00	0.13
13.50	0.13	0.00	0.13
13.75	0.13	0.00	0.13
14.00	0.13	0.00	0.13
14.25	0.13	0.00	0.13
14.50	0.13	0.00	0.13
14.75	0.13	0.00	0.13
15.00	0.13	0.00	0.13
15.25	0.13	0.00	0.13
15.50	0.13	0.00	0.13
15.75	0.13	0.00	0.13
16.00	0.13	0.00	0.13
16.25	0.13	0.00	0.13
16.50	0.13	0.00	0.13
16.75	0.13	0.00	0.13
17.00	0.13	0.00	0.13
17.25	0.13	0.00	0.13
17.50	0.13	0.00	0.13
17.75	0.13	0.00	0.13
18.00	0.13	0.00	0.13
18.25	0.13	0.00	0.13
18.50	0.13	0.00	0.13
18.75	0.13	0.00	0.13
19.00	0.13	0.00	0.13
19.25	0.13	0.00	0.13
19.50	0.13	0.00	0.13
19.75	0.13	0.00	0.13
20.00	0.13	0.00	0.13

Summary for Link 3A: MRN-6 // MDAN 3A

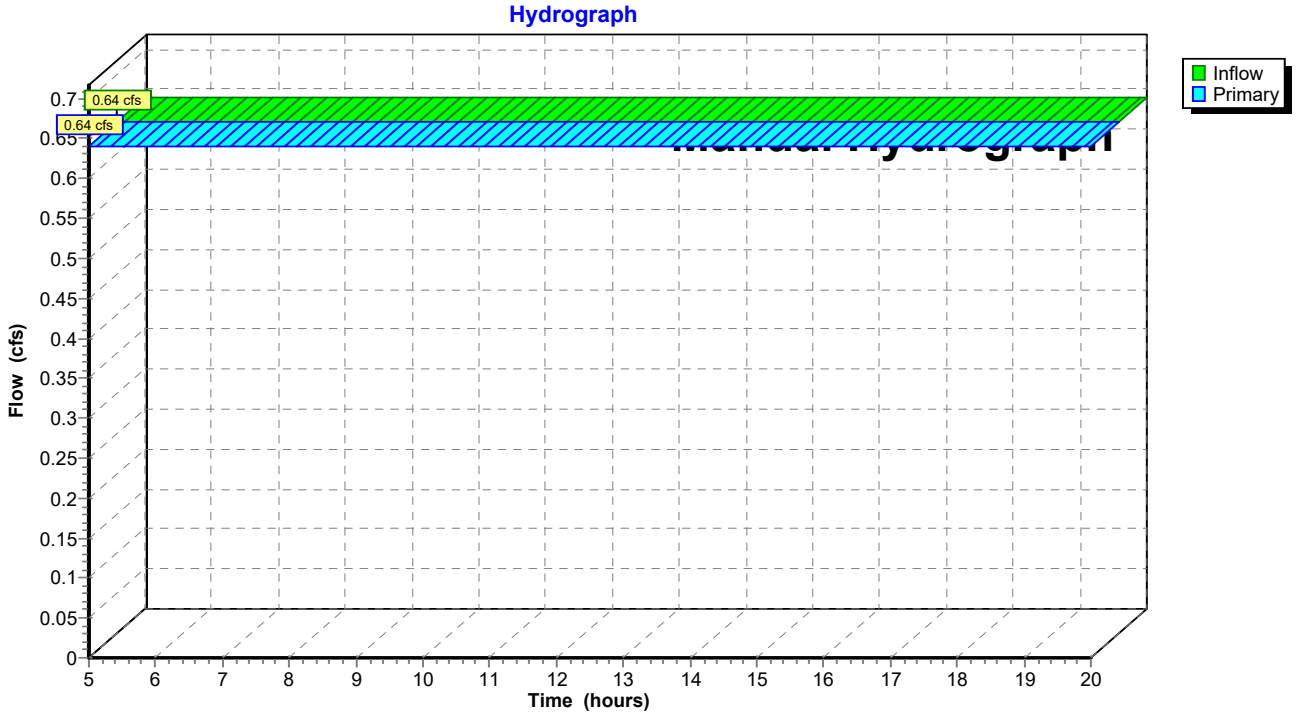
Inflow = 0.64 cfs @ 5.00 hrs, Volume= 0.796 af
Primary = 0.64 cfs @ 5.00 hrs, Volume= 0.796 af, Atten= 0%, Lag= 0.0 min
Routed to Pond A1-2* : A1-2 Infiltration Basin

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

25 Point manual hydrograph, To= 0.00 hrs, dt= 1.00 hrs, cfs =

0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
0.64	0.64	0.64	0.64	0.64					

Link 3A: MRN-6 // MDAN 3A



Hydrograph for Link 3A: MRN-6 // MDAN 3A

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	**0.64**	**0.00**	**0.64**
5.25	0.64	0.00	0.64
5.50	0.64	0.00	0.64
5.75	0.64	0.00	0.64
6.00	0.64	0.00	0.64
6.25	0.64	0.00	0.64
6.50	0.64	0.00	0.64
6.75	0.64	0.00	0.64
7.00	0.64	0.00	0.64
7.25	0.64	0.00	0.64
7.50	0.64	0.00	0.64
7.75	0.64	0.00	0.64
8.00	0.64	0.00	0.64
8.25	0.64	0.00	0.64
8.50	0.64	0.00	0.64
8.75	0.64	0.00	0.64
9.00	0.64	0.00	0.64
9.25	0.64	0.00	0.64
9.50	0.64	0.00	0.64
9.75	0.64	0.00	0.64
10.00	0.64	0.00	0.64
10.25	0.64	0.00	0.64
10.50	0.64	0.00	0.64
10.75	0.64	0.00	0.64
11.00	0.64	0.00	0.64
11.25	0.64	0.00	0.64
11.50	0.64	0.00	0.64
11.75	0.64	0.00	0.64
12.00	0.64	0.00	0.64
12.25	0.64	0.00	0.64
12.50	0.64	0.00	0.64
12.75	0.64	0.00	0.64
13.00	0.64	0.00	0.64
13.25	0.64	0.00	0.64
13.50	0.64	0.00	0.64
13.75	0.64	0.00	0.64
14.00	0.64	0.00	0.64
14.25	0.64	0.00	0.64
14.50	0.64	0.00	0.64
14.75	0.64	0.00	0.64
15.00	0.64	0.00	0.64
15.25	0.64	0.00	0.64
15.50	0.64	0.00	0.64
15.75	0.64	0.00	0.64
16.00	0.64	0.00	0.64
16.25	0.64	0.00	0.64
16.50	0.64	0.00	0.64
16.75	0.64	0.00	0.64
17.00	0.64	0.00	0.64
17.25	0.64	0.00	0.64
17.50	0.64	0.00	0.64
17.75	0.64	0.00	0.64
18.00	0.64	0.00	0.64
18.25	0.64	0.00	0.64
18.50	0.64	0.00	0.64
18.75	0.64	0.00	0.64
19.00	0.64	0.00	0.64
19.25	0.64	0.00	0.64
19.50	0.64	0.00	0.64
19.75	0.64	0.00	0.64
20.00	0.64	0.00	0.64

Summary for Link 3B: MRN-4 // MDAN 3B

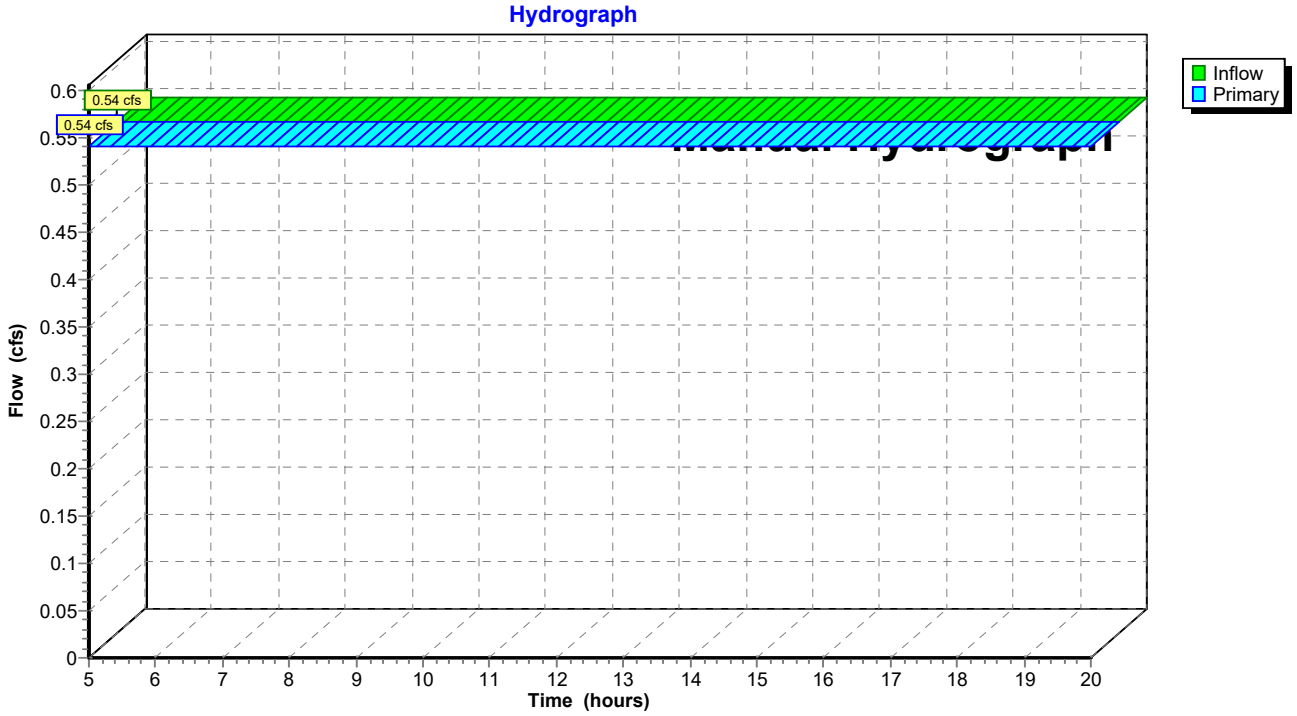
Inflow = 0.54 cfs @ 5.00 hrs, Volume= 0.672 af
Primary = 0.54 cfs @ 5.00 hrs, Volume= 0.672 af, Atten= 0%, Lag= 0.0 min
Routed to Pond A1-2* : A1-2 Infiltration Basin

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

25 Point manual hydrograph, To= 0.00 hrs, dt= 1.00 hrs, cfs =

0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
0.54	0.54	0.54	0.54	0.54					

Link 3B: MRN-4 // MDAN 3B



Hydrograph for Link 3B: MRN-4 // MDAN 3B

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	**0.54**	**0.00**	**0.54**
5.25	0.54	0.00	0.54
5.50	0.54	0.00	0.54
5.75	0.54	0.00	0.54
6.00	0.54	0.00	0.54
6.25	0.54	0.00	0.54
6.50	0.54	0.00	0.54
6.75	0.54	0.00	0.54
7.00	0.54	0.00	0.54
7.25	0.54	0.00	0.54
7.50	0.54	0.00	0.54
7.75	0.54	0.00	0.54
8.00	0.54	0.00	0.54
8.25	0.54	0.00	0.54
8.50	0.54	0.00	0.54
8.75	0.54	0.00	0.54
9.00	0.54	0.00	0.54
9.25	0.54	0.00	0.54
9.50	0.54	0.00	0.54
9.75	0.54	0.00	0.54
10.00	0.54	0.00	0.54
10.25	0.54	0.00	0.54
10.50	0.54	0.00	0.54
10.75	0.54	0.00	0.54
11.00	0.54	0.00	0.54
11.25	0.54	0.00	0.54
11.50	0.54	0.00	0.54
11.75	0.54	0.00	0.54
12.00	0.54	0.00	0.54
12.25	0.54	0.00	0.54
12.50	0.54	0.00	0.54
12.75	0.54	0.00	0.54
13.00	0.54	0.00	0.54
13.25	0.54	0.00	0.54
13.50	0.54	0.00	0.54
13.75	0.54	0.00	0.54
14.00	0.54	0.00	0.54
14.25	0.54	0.00	0.54
14.50	0.54	0.00	0.54
14.75	0.54	0.00	0.54
15.00	0.54	0.00	0.54
15.25	0.54	0.00	0.54
15.50	0.54	0.00	0.54
15.75	0.54	0.00	0.54
16.00	0.54	0.00	0.54
16.25	0.54	0.00	0.54
16.50	0.54	0.00	0.54
16.75	0.54	0.00	0.54
17.00	0.54	0.00	0.54
17.25	0.54	0.00	0.54
17.50	0.54	0.00	0.54
17.75	0.54	0.00	0.54
18.00	0.54	0.00	0.54
18.25	0.54	0.00	0.54
18.50	0.54	0.00	0.54
18.75	0.54	0.00	0.54
19.00	0.54	0.00	0.54
19.25	0.54	0.00	0.54
19.50	0.54	0.00	0.54
19.75	0.54	0.00	0.54
20.00	0.54	0.00	0.54

Summary for Link 4: MRN 1 // MDAN 4

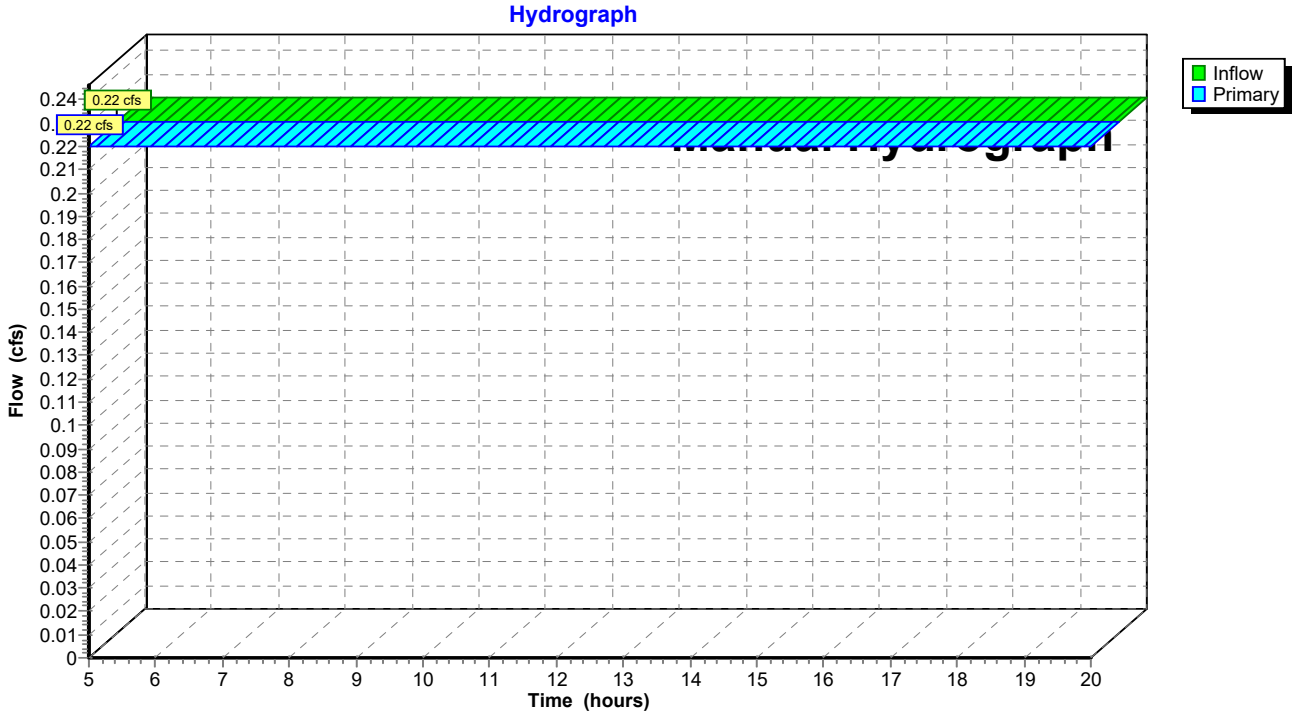
Inflow = 0.22 cfs @ 5.00 hrs, Volume= 0.274 af
Primary = 0.22 cfs @ 5.00 hrs, Volume= 0.274 af, Atten= 0%, Lag= 0.0 min
Routed to Pond B6-2* : B6-2 Infiltration Basin

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

25 Point manual hydrograph, To= 0.00 hrs, dt= 1.00 hrs, cfs =

0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
0.22	0.22	0.22	0.22	0.22					

Link 4: MRN 1 // MDAN 4



Hydrograph for Link 4: MRN 1 // MDAN 4

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	**0.22**	**0.00**	**0.22**
5.25	0.22	0.00	0.22
5.50	0.22	0.00	0.22
5.75	0.22	0.00	0.22
6.00	0.22	0.00	0.22
6.25	0.22	0.00	0.22
6.50	0.22	0.00	0.22
6.75	0.22	0.00	0.22
7.00	0.22	0.00	0.22
7.25	0.22	0.00	0.22
7.50	0.22	0.00	0.22
7.75	0.22	0.00	0.22
8.00	0.22	0.00	0.22
8.25	0.22	0.00	0.22
8.50	0.22	0.00	0.22
8.75	0.22	0.00	0.22
9.00	0.22	0.00	0.22
9.25	0.22	0.00	0.22
9.50	0.22	0.00	0.22
9.75	0.22	0.00	0.22
10.00	0.22	0.00	0.22
10.25	0.22	0.00	0.22
10.50	0.22	0.00	0.22
10.75	0.22	0.00	0.22
11.00	0.22	0.00	0.22
11.25	0.22	0.00	0.22
11.50	0.22	0.00	0.22
11.75	0.22	0.00	0.22
12.00	0.22	0.00	0.22
12.25	0.22	0.00	0.22
12.50	0.22	0.00	0.22
12.75	0.22	0.00	0.22
13.00	0.22	0.00	0.22
13.25	0.22	0.00	0.22
13.50	0.22	0.00	0.22
13.75	0.22	0.00	0.22
14.00	0.22	0.00	0.22
14.25	0.22	0.00	0.22
14.50	0.22	0.00	0.22
14.75	0.22	0.00	0.22
15.00	0.22	0.00	0.22
15.25	0.22	0.00	0.22
15.50	0.22	0.00	0.22
15.75	0.22	0.00	0.22
16.00	0.22	0.00	0.22
16.25	0.22	0.00	0.22
16.50	0.22	0.00	0.22
16.75	0.22	0.00	0.22
17.00	0.22	0.00	0.22
17.25	0.22	0.00	0.22
17.50	0.22	0.00	0.22
17.75	0.22	0.00	0.22
18.00	0.22	0.00	0.22
18.25	0.22	0.00	0.22
18.50	0.22	0.00	0.22
18.75	0.22	0.00	0.22
19.00	0.22	0.00	0.22
19.25	0.22	0.00	0.22
19.50	0.22	0.00	0.22
19.75	0.22	0.00	0.22
20.00	0.22	0.00	0.22

Summary for Link 5: MRN-2 // MDAN 5

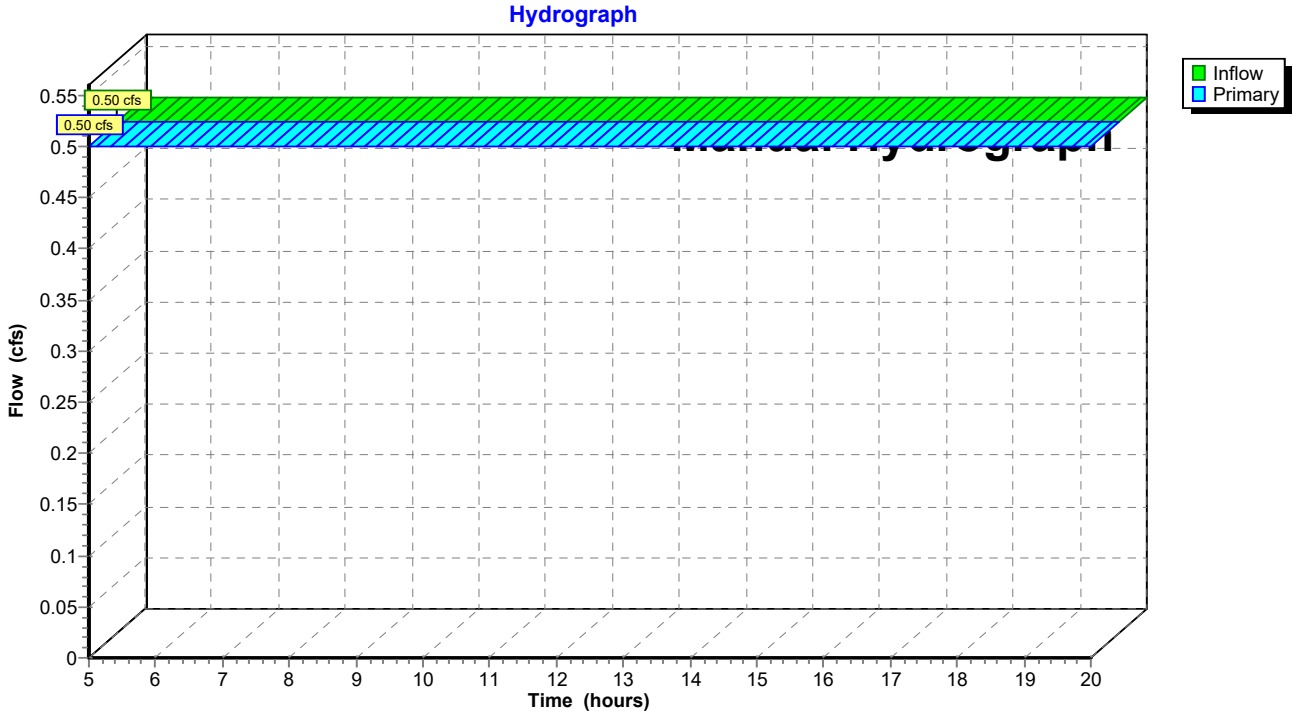
Inflow = 0.50 cfs @ 5.00 hrs, Volume= 0.622 af
Primary = 0.50 cfs @ 5.00 hrs, Volume= 0.622 af, Atten= 0%, Lag= 0.0 min
Routed to Pond B6-2* : B6-2 Infiltration Basin

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

25 Point manual hydrograph, To= 0.00 hrs, dt= 1.00 hrs, cfs =

0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.50	0.50	0.50	0.50	0.50					

Link 5: MRN-2 // MDAN 5



Hydrograph for Link 5: MRN-2 // MDAN 5

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	**0.50**	**0.00**	**0.50**
5.25	0.50	0.00	0.50
5.50	0.50	0.00	0.50
5.75	0.50	0.00	0.50
6.00	0.50	0.00	0.50
6.25	0.50	0.00	0.50
6.50	0.50	0.00	0.50
6.75	0.50	0.00	0.50
7.00	0.50	0.00	0.50
7.25	0.50	0.00	0.50
7.50	0.50	0.00	0.50
7.75	0.50	0.00	0.50
8.00	0.50	0.00	0.50
8.25	0.50	0.00	0.50
8.50	0.50	0.00	0.50
8.75	0.50	0.00	0.50
9.00	0.50	0.00	0.50
9.25	0.50	0.00	0.50
9.50	0.50	0.00	0.50
9.75	0.50	0.00	0.50
10.00	0.50	0.00	0.50
10.25	0.50	0.00	0.50
10.50	0.50	0.00	0.50
10.75	0.50	0.00	0.50
11.00	0.50	0.00	0.50
11.25	0.50	0.00	0.50
11.50	0.50	0.00	0.50
11.75	0.50	0.00	0.50
12.00	0.50	0.00	0.50
12.25	0.50	0.00	0.50
12.50	0.50	0.00	0.50
12.75	0.50	0.00	0.50
13.00	0.50	0.00	0.50
13.25	0.50	0.00	0.50
13.50	0.50	0.00	0.50
13.75	0.50	0.00	0.50
14.00	0.50	0.00	0.50
14.25	0.50	0.00	0.50
14.50	0.50	0.00	0.50
14.75	0.50	0.00	0.50
15.00	0.50	0.00	0.50
15.25	0.50	0.00	0.50
15.50	0.50	0.00	0.50
15.75	0.50	0.00	0.50
16.00	0.50	0.00	0.50
16.25	0.50	0.00	0.50
16.50	0.50	0.00	0.50
16.75	0.50	0.00	0.50
17.00	0.50	0.00	0.50
17.25	0.50	0.00	0.50
17.50	0.50	0.00	0.50
17.75	0.50	0.00	0.50
18.00	0.50	0.00	0.50
18.25	0.50	0.00	0.50
18.50	0.50	0.00	0.50
18.75	0.50	0.00	0.50
19.00	0.50	0.00	0.50
19.25	0.50	0.00	0.50
19.50	0.50	0.00	0.50
19.75	0.50	0.00	0.50
20.00	0.50	0.00	0.50

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

SubcatchmentA1-1: A1-1 Runoff Area=22.141 ac 0.00% Impervious Runoff Depth>1.05"
Flow Length=1,105' Tc=37.0 min CN=60 Runoff=13.83 cfs 1.930 af

SubcatchmentA1-2: A1-2 Runoff Area=21.469 ac 66.84% Impervious Runoff Depth>2.89"
Tc=6.0 min CN=84 Runoff=75.45 cfs 5.168 af

SubcatchmentA1-3: A1-3 Runoff Area=31.975 ac 77.29% Impervious Runoff Depth>3.47"
Tc=6.0 min CN=90 Runoff=130.24 cfs 9.248 af

SubcatchmentA11-1: A11-1 Runoff Area=6.176 ac 0.00% Impervious Runoff Depth>0.89"
Flow Length=232' Tc=8.3 min CN=57 Runoff=5.34 cfs 0.457 af

SubcatchmentA11-2: A11-2 Runoff Area=34.745 ac 45.43% Impervious Runoff Depth>2.23"
Flow Length=1,250' Tc=58.8 min CN=77 Runoff=39.46 cfs 6.461 af

SubcatchmentA2: A2 Runoff Area=0.160 ac 0.00% Impervious Runoff Depth>1.00"
Tc=6.0 min CN=59 Runoff=0.18 cfs 0.013 af

SubcatchmentA3: A3 Runoff Area=23.404 ac 0.00% Impervious Runoff Depth>1.04"
Flow Length=2,107' Tc=40.5 min CN=60 Runoff=13.96 cfs 2.037 af

SubcatchmentA4: A4 Runoff Area=14.774 ac 1.59% Impervious Runoff Depth>0.72"
Flow Length=627' Tc=18.0 min CN=54 Runoff=7.39 cfs 0.887 af

SubcatchmentA5: A5 Runoff Area=5.469 ac 0.00% Impervious Runoff Depth>1.12"
Flow Length=627' Tc=12.3 min CN=61 Runoff=5.71 cfs 0.511 af

SubcatchmentA6: A6 Runoff Area=4.893 ac 0.00% Impervious Runoff Depth>1.12"
Flow Length=729' Tc=22.1 min CN=61 Runoff=4.10 cfs 0.455 af

SubcatchmentA8: A8 Runoff Area=1.754 ac 0.00% Impervious Runoff Depth>0.83"
Tc=6.0 min CN=56 Runoff=1.52 cfs 0.122 af

SubcatchmentB1-1: B1-1 Runoff Area=26.798 ac 4.06% Impervious Runoff Depth>1.44"
Flow Length=398' Tc=17.3 min CN=66 Runoff=33.56 cfs 3.217 af

SubcatchmentB1-2: B1-A Runoff Area=4.401 ac 51.58% Impervious Runoff Depth>2.53"
Tc=6.0 min CN=80 Runoff=13.71 cfs 0.928 af

SubcatchmentB1-3: B1-B Runoff Area=20.504 ac 83.49% Impervious Runoff Depth>3.67"
Tc=6.0 min CN=92 Runoff=86.86 cfs 6.273 af

SubcatchmentB10: B10 Runoff Area=0.702 ac 0.00% Impervious Runoff Depth>0.04"
Tc=6.0 min CN=35 Runoff=0.01 cfs 0.002 af

SubcatchmentB11: B11 Runoff Area=0.733 ac 0.00% Impervious Runoff Depth>0.36"
Tc=6.0 min CN=46 Runoff=0.14 cfs 0.022 af

Subcatchment B13: B13 Runoff Area=13.436 ac 0.00% Impervious Runoff Depth>1.18"
Flow Length=963' Tc=24.1 min CN=62 Runoff=11.61 cfs 1.317 af

Subcatchment B2: B2 Runoff Area=7.320 ac 5.93% Impervious Runoff Depth>1.30"
Flow Length=462' Tc=24.8 min CN=64 Runoff=7.07 cfs 0.795 af

Subcatchment B3-1: B3-1 Runoff Area=13.903 ac 0.00% Impervious Runoff Depth>1.25"
Flow Length=215' Tc=11.9 min CN=63 Runoff=16.69 cfs 1.444 af

Subcatchment B3-2: B3-2 Runoff Area=7.079 ac 56.01% Impervious Runoff Depth>2.71"
Tc=6.0 min CN=82 Runoff=23.47 cfs 1.596 af

Subcatchment B4: B4 Runoff Area=28.643 ac 0.00% Impervious Runoff Depth>1.25"
Flow Length=448' Tc=10.6 min CN=63 Runoff=36.08 cfs 2.977 af

Subcatchment B5-1: B5-1 Runoff Area=24.062 ac 14.80% Impervious Runoff Depth>1.58"
Flow Length=627' Tc=16.0 min CN=68 Runoff=34.37 cfs 3.168 af

Subcatchment B5-2: B5-2 Runoff Area=10.218 ac 67.76% Impervious Runoff Depth>3.08"
Tc=6.0 min CN=86 Runoff=37.89 cfs 2.620 af

Subcatchment B6-1: B6-1 Runoff Area=10.053 ac 2.88% Impervious Runoff Depth>1.31"
Flow Length=362' Tc=9.8 min CN=64 Runoff=13.77 cfs 1.099 af

Subcatchment B6-2: B6-2 Runoff Area=39.110 ac 51.21% Impervious Runoff Depth>2.50"
Flow Length=946' Tc=35.2 min CN=80 Runoff=65.12 cfs 8.163 af

Subcatchment B7: B7 Runoff Area=8.035 ac 0.00% Impervious Runoff Depth>1.11"
Flow Length=538' Tc=27.4 min CN=61 Runoff=6.17 cfs 0.745 af

Subcatchment B8: B8 Runoff Area=7.574 ac 6.91% Impervious Runoff Depth>1.25"
Flow Length=502' Tc=10.6 min CN=63 Runoff=9.54 cfs 0.787 af

Reach DP-A: DP-A Inflow=49.54 cfs 9.254 af
Outflow=49.54 cfs 9.254 af

Reach DP-B: DP-B Inflow=155.15 cfs 20.250 af
Outflow=155.15 cfs 20.250 af

Pond A1-2*: A1-2 Infiltration Basin Peak Elev=118.83' Storage=88,152 cf Inflow=76.76 cfs 6.797 af
Discarded=10.63 cfs 6.436 af Primary=2.62 cfs 0.362 af Outflow=13.25 cfs 6.797 af

Pond A1-3*: A1-3 Infiltration Basin Peak Elev=117.48' Storage=214,837 cf Inflow=130.62 cfs 9.721 af
Discarded=5.46 cfs 4.616 af Primary=6.04 cfs 2.481 af Outflow=11.50 cfs 7.098 af

Pond A11-2*: A11-2 Infiltration Basin Peak Elev=116.56' Storage=47,777 cf Inflow=39.46 cfs 6.461 af
Discarded=20.03 cfs 6.472 af Primary=0.00 cfs 0.000 af Outflow=20.03 cfs 6.472 af

Pond B1-2*: B1-2 Infiltration Basin Peak Elev=131.79' Storage=41,415 cf Inflow=16.91 cfs 4.258 af
Discarded=4.86 cfs 3.135 af Primary=0.81 cfs 0.388 af Outflow=5.67 cfs 3.523 af

Pond B1-3*: B1-3 Dry Extended Basin Peak Elev=134.70' Storage=178,762 cf Inflow=86.86 cfs 6.273 af
Outflow=6.47 cfs 3.330 af

Pond B3-2*: B3-2 Dry Extended Basin Peak Elev=126.78' Storage=58,216 cf Inflow=23.47 cfs 1.596 af
Outflow=0.39 cfs 0.260 af

Pond B5-2*: B5-2 Infiltration Basin Peak Elev=135.62' Storage=55,395 cf Inflow=37.89 cfs 2.620 af
Discarded=2.39 cfs 1.940 af Primary=0.00 cfs 0.000 af Outflow=2.39 cfs 1.940 af

Pond B6-2*: B6-2 Infiltration Basin Peak Elev=132.09' Storage=232,033 cf Inflow=65.84 cfs 9.059 af
Discarded=1.06 cfs 0.840 af Primary=8.97 cfs 4.030 af Outflow=10.03 cfs 4.869 af

Link 1: MRN-3 // MDAN 1 Manual Hydrograph Inflow=0.38 cfs 0.473 af
Primary=0.38 cfs 0.473 af

Link 2: MRN-5 // MDAN 2 Manual Hydrograph Inflow=0.13 cfs 0.162 af
Primary=0.13 cfs 0.162 af

Link 3A: MRN-6 // MDAN 3A Manual Hydrograph Inflow=0.64 cfs 0.796 af
Primary=0.64 cfs 0.796 af

Link 3B: MRN-4 // MDAN 3B Manual Hydrograph Inflow=0.54 cfs 0.672 af
Primary=0.54 cfs 0.672 af

Link 4: MRN 1 // MDAN 4 Manual Hydrograph Inflow=0.22 cfs 0.274 af
Primary=0.22 cfs 0.274 af

Link 5: MRN-2 // MDAN 5 Manual Hydrograph Inflow=0.50 cfs 0.622 af
Primary=0.50 cfs 0.622 af

Total Runoff Area = 389.531 ac Runoff Volume = 62.440 af Average Runoff Depth = 1.92"
71.43% Pervious = 278.247 ac 28.57% Impervious = 111.284 ac

Summary for Subcatchment A1-1: A1-1

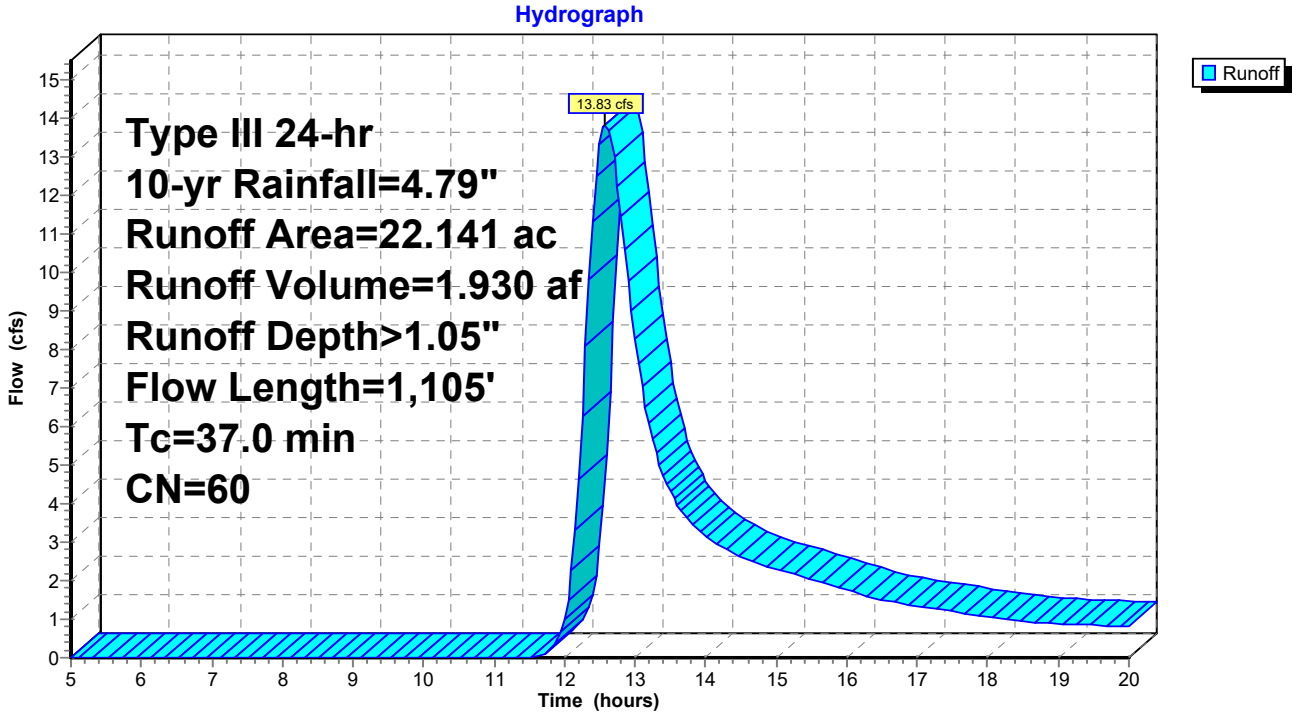
Runoff = 13.83 cfs @ 12.58 hrs, Volume= 1.930 af, Depth> 1.05"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
19.735	61	>75% Grass cover, Good, HSG B
2.406	55	Woods, Good, HSG B
22.141	60	Weighted Average
22.141		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	50	0.0620	0.23		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
8.1	264	0.0060	0.54		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
0.4	25	0.0440	1.05		**Shallow Concentrated Flow, scf-2** Woodland Kv= 5.0 fps
14.8	483	0.0060	0.54		**Shallow Concentrated Flow, scf3** Short Grass Pasture Kv= 7.0 fps
6.5	62	0.0010	0.16		**Shallow Concentrated Flow, scf4** Woodland Kv= 5.0 fps
3.6	221	0.0210	1.01		**Shallow Concentrated Flow, scf5** Short Grass Pasture Kv= 7.0 fps
37.0	1,105	Total			

Subcatchment A1-1: A1-1



Hydrograph for Subcatchment A1-1: A1-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.00
11.75	1.70	0.02	0.09
12.00	2.39	0.15	1.01
12.25	3.09	0.37	6.29
12.50	3.36	0.47	**13.30**
12.75	3.49	0.53	**12.24**
13.00	3.59	0.57	8.27
13.25	3.68	0.61	5.67
13.50	3.75	0.64	4.30
13.75	3.82	0.68	3.59
14.00	3.88	0.71	3.17
14.25	3.94	0.73	2.86
14.50	4.00	0.76	2.62
14.75	4.05	0.78	2.45
15.00	4.09	0.81	2.31
15.25	4.14	0.83	2.17
15.50	4.17	0.85	2.04
15.75	4.21	0.87	1.90
16.00	4.24	0.88	1.77
16.25	4.27	0.90	1.62
16.50	4.30	0.92	1.50
16.75	4.33	0.93	1.41
17.00	4.36	0.94	1.33
17.25	4.38	0.96	1.27
17.50	4.40	0.97	1.20
17.75	4.43	0.98	1.14
18.00	4.45	0.99	1.07
18.25	4.46	1.00	1.00
18.50	4.48	1.01	0.95
18.75	4.50	1.02	0.91
19.00	4.52	1.03	0.89
19.25	4.54	1.04	0.87
19.50	4.55	1.05	0.85
19.75	4.57	1.06	0.83
20.00	**4.58**	**1.07**	0.81

Summary for Subcatchment A1-2: A1-2

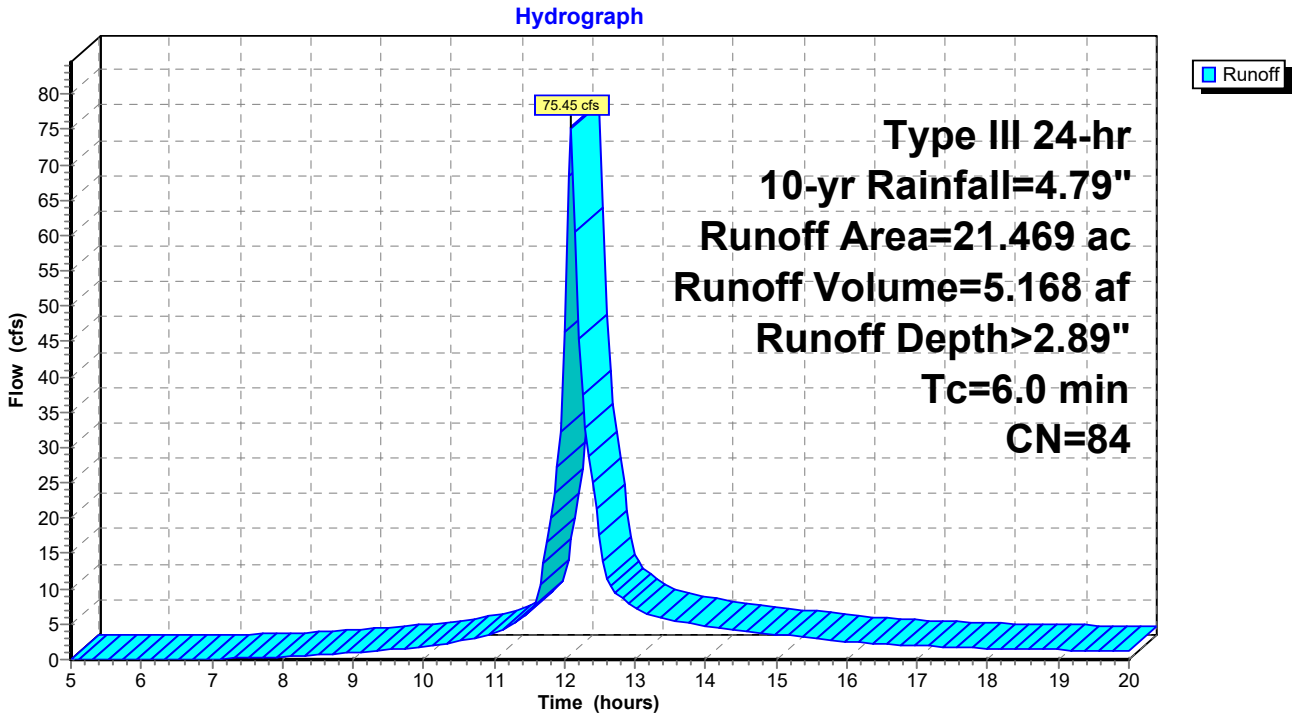
Runoff = 75.45 cfs @ 12.09 hrs, Volume= 5.168 af, Depth> 2.89"
Routed to Pond A1-2* : A1-2 Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
1.959	39	>75% Grass cover, Good, HSG A
4.962	61	>75% Grass cover, Good, HSG B
0.091	80	>75% Grass cover, Good, HSG D
0.107	55	Woods, Good, HSG B
4.561	98	Roofs, HSG A
9.789	98	Paved parking, HSG A
21.469	84	Weighted Average
7.119		33.16% Pervious Area
14.350		66.84% Impervious Area

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

Subcatchment A1-2: A1-2



Hydrograph for Subcatchment A1-2: A1-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.04
7.00	0.43	0.00	0.09
7.25	0.46	0.00	0.15
7.50	0.49	0.01	0.22
7.75	0.52	0.01	0.30
8.00	0.55	0.01	0.38
8.25	0.58	0.02	0.49
8.50	0.62	0.03	0.63
8.75	0.65	0.03	0.78
9.00	0.70	0.05	0.96
9.25	0.74	0.06	1.16
9.50	0.79	0.07	1.37
9.75	0.85	0.09	1.61
10.00	0.91	0.11	1.86
10.25	0.97	0.14	2.21
10.50	1.04	0.17	2.65
10.75	1.11	0.20	3.14
11.00	1.20	0.25	3.66
11.25	1.30	0.30	4.82
11.50	1.43	0.37	6.52
11.75	1.70	0.54	16.66
12.00	2.39	1.04	**46.22**
12.25	3.09	1.59	**37.44**
12.50	3.36	1.82	17.53
12.75	3.49	1.93	9.26
13.00	3.59	2.02	7.27
13.25	3.68	2.09	6.21
13.50	3.75	2.15	5.69
13.75	3.82	2.22	5.17
14.00	3.88	2.27	4.65
14.25	3.94	2.32	4.29
14.50	4.00	2.37	4.04
14.75	4.05	2.41	3.79
15.00	4.09	2.45	3.54
15.25	4.14	2.49	3.28
15.50	4.17	2.53	3.02
15.75	4.21	2.56	2.76
16.00	4.24	2.59	2.50
16.25	4.27	2.61	2.33
16.50	4.30	2.64	2.22
16.75	4.33	2.66	2.11
17.00	4.36	2.69	1.99
17.25	4.38	2.71	1.88
17.50	4.40	2.73	1.76
17.75	4.43	2.75	1.65
18.00	4.45	2.77	1.53
18.25	4.46	2.78	1.47
18.50	4.48	2.80	1.43
18.75	4.50	2.82	1.40
19.00	4.52	2.83	1.37
19.25	4.54	2.85	1.33
19.50	4.55	2.86	1.30
19.75	4.57	2.88	1.26
20.00	**4.58**	**2.89**	1.23

Summary for Subcatchment A1-3: A1-3

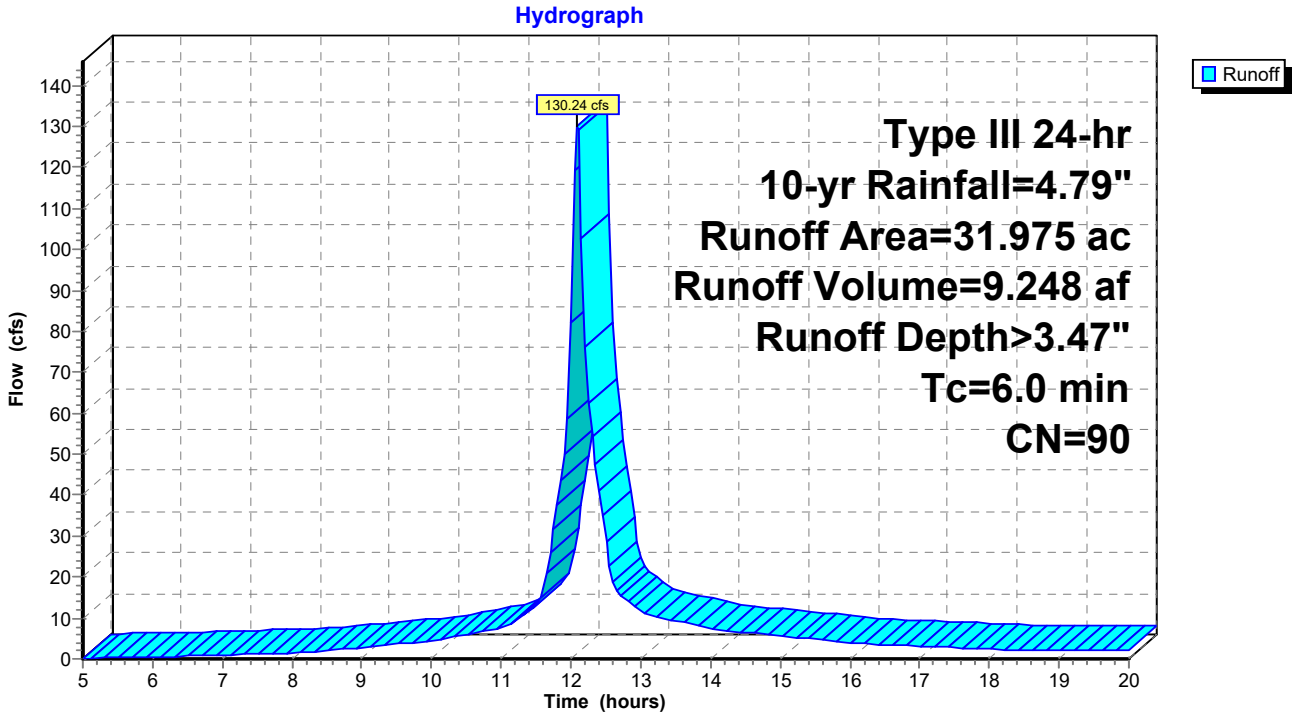
Runoff = 130.24 cfs @ 12.09 hrs, Volume= 9.248 af, Depth> 3.47"
Routed to Pond A1-3* : A1-3 Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.062	39	>75% Grass cover, Good, HSG A
7.110	61	>75% Grass cover, Good, HSG B
0.091	55	Woods, Good, HSG B
6.082	98	Roofs, HSG A
18.630	98	Paved parking, HSG A
31.975	90	Weighted Average
7.263		22.71% Pervious Area
24.712		77.29% Impervious Area

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

Subcatchment A1-3: A1-3



Hydrograph for Subcatchment A1-3: A1-3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.16
5.25	0.29	0.00	0.23
5.50	0.31	0.01	0.30
5.75	0.33	0.01	0.37
6.00	0.34	0.01	0.44
6.25	0.36	0.02	0.53
6.50	0.39	0.02	0.64
6.75	0.41	0.03	0.77
7.00	0.43	0.03	0.90
7.25	0.46	0.04	1.05
7.50	0.49	0.05	1.20
7.75	0.52	0.06	1.37
8.00	0.55	0.07	1.54
8.25	0.58	0.09	1.79
8.50	0.62	0.10	2.10
8.75	0.65	0.12	2.45
9.00	0.70	0.14	2.81
9.25	0.74	0.17	3.20
9.50	0.79	0.19	3.61
9.75	0.85	0.23	4.04
10.00	0.91	0.26	4.49
10.25	0.97	0.30	5.16
10.50	1.04	0.34	5.97
10.75	1.11	0.40	6.83
11.00	1.20	0.46	7.73
11.25	1.30	0.53	9.90
11.50	1.43	0.63	12.96
11.75	1.70	0.84	31.73
12.00	2.39	1.44	**82.30**
12.25	3.09	2.07	**62.65**
12.50	3.36	2.32	28.78
12.75	3.49	2.44	15.11
13.00	3.59	2.53	11.81
13.25	3.68	2.61	10.05
13.50	3.75	2.69	9.20
13.75	3.82	2.75	8.34
14.00	3.88	2.81	7.48
14.25	3.94	2.86	6.90
14.50	4.00	2.91	6.49
14.75	4.05	2.96	6.07
15.00	4.09	3.01	5.66
15.25	4.14	3.05	5.24
15.50	4.17	3.09	4.82
15.75	4.21	3.12	4.40
16.00	4.24	3.15	3.98
16.25	4.27	3.18	3.71
16.50	4.30	3.21	3.53
16.75	4.33	3.23	3.35
17.00	4.36	3.26	3.17
17.25	4.38	3.28	2.98
17.50	4.40	3.30	2.80
17.75	4.43	3.32	2.62
18.00	4.45	3.34	2.43
18.25	4.46	3.36	2.33
18.50	4.48	3.38	2.27
18.75	4.50	3.40	2.22
19.00	4.52	3.41	2.17
19.25	4.54	3.43	2.11
19.50	4.55	3.45	2.06
19.75	4.57	3.46	2.00
20.00	**4.58**	**3.48**	1.95

Summary for Subcatchment A11-1: A11-1

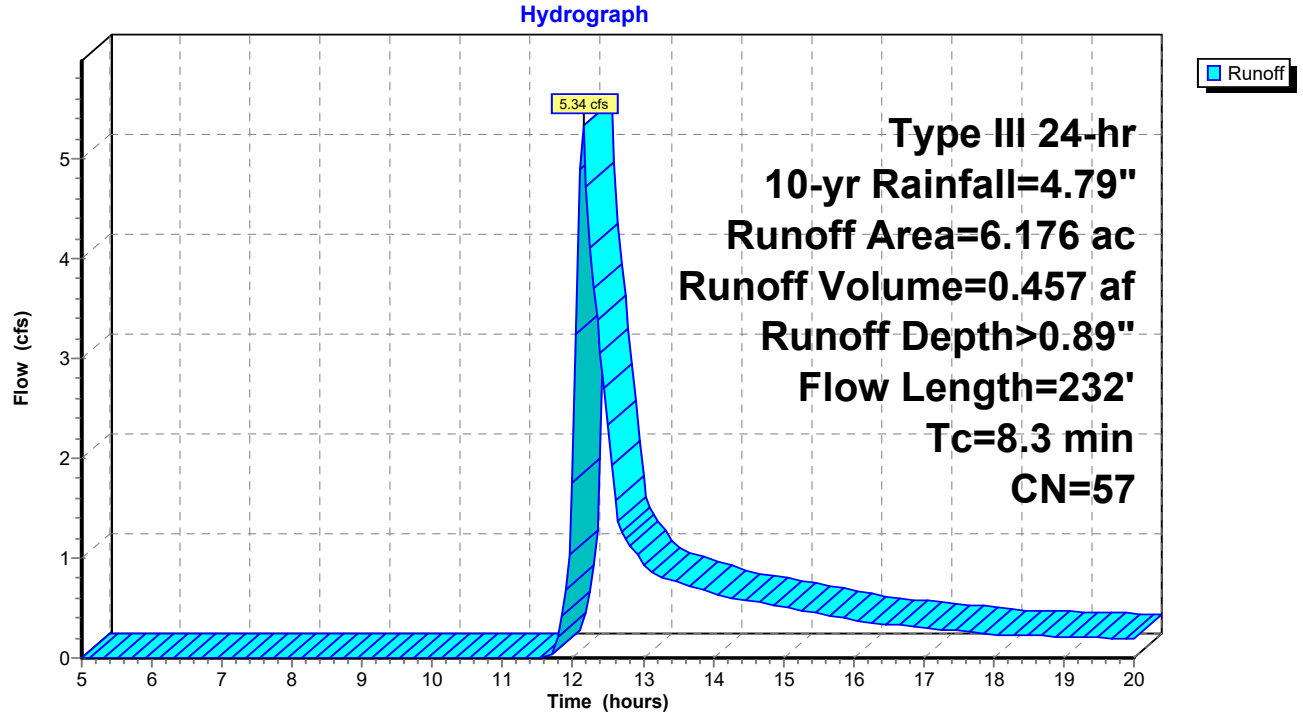
Runoff = 5.34 cfs @ 12.15 hrs, Volume= 0.457 af, Depth> 0.89"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
2.423	61	>75% Grass cover, Good, HSG B
3.753	55	Woods, Good, HSG B
6.176	57	Weighted Average
6.176		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	50	0.0200	0.15		**Sheet Flow, sf1** Grass: Short n= 0.150 P2= 3.11"
1.9	102	0.0170	0.91		**Shallow Concentrated Flow, scf1** Short Grass Pasture Kv= 7.0 fps
0.7	80	0.1300	1.80		**Shallow Concentrated Flow, scf2** Woodland Kv= 5.0 fps
8.3	232	Total			

Subcatchment A11-1: A11-1



Hydrograph for Subcatchment A11-1: A11-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.00
11.75	1.70	0.00	0.09
12.00	2.39	0.09	**1.76**
12.25	3.09	0.27	**4.10**
12.50	3.36	0.37	2.33
12.75	3.49	0.41	1.19
13.00	3.59	0.45	0.96
13.25	3.68	0.48	0.82
13.50	3.75	0.51	0.77
13.75	3.82	0.54	0.71
14.00	3.88	0.57	0.65
14.25	3.94	0.59	0.60
14.50	4.00	0.62	0.58
14.75	4.05	0.64	0.55
15.00	4.09	0.66	0.51
15.25	4.14	0.68	0.48
15.50	4.17	0.70	0.45
15.75	4.21	0.71	0.41
16.00	4.24	0.73	0.38
16.25	4.27	0.74	0.35
16.50	4.30	0.76	0.34
16.75	4.33	0.77	0.32
17.00	4.36	0.78	0.30
17.25	4.38	0.79	0.29
17.50	4.40	0.80	0.27
17.75	4.43	0.81	0.26
18.00	4.45	0.82	0.24
18.25	4.46	0.83	0.23
18.50	4.48	0.84	0.22
18.75	4.50	0.85	0.22
19.00	4.52	0.86	0.21
19.25	4.54	0.87	0.21
19.50	4.55	0.87	0.20
19.75	4.57	0.88	0.20
20.00	**4.58**	**0.89**	0.19

Summary for Subcatchment A11-2: A11-2

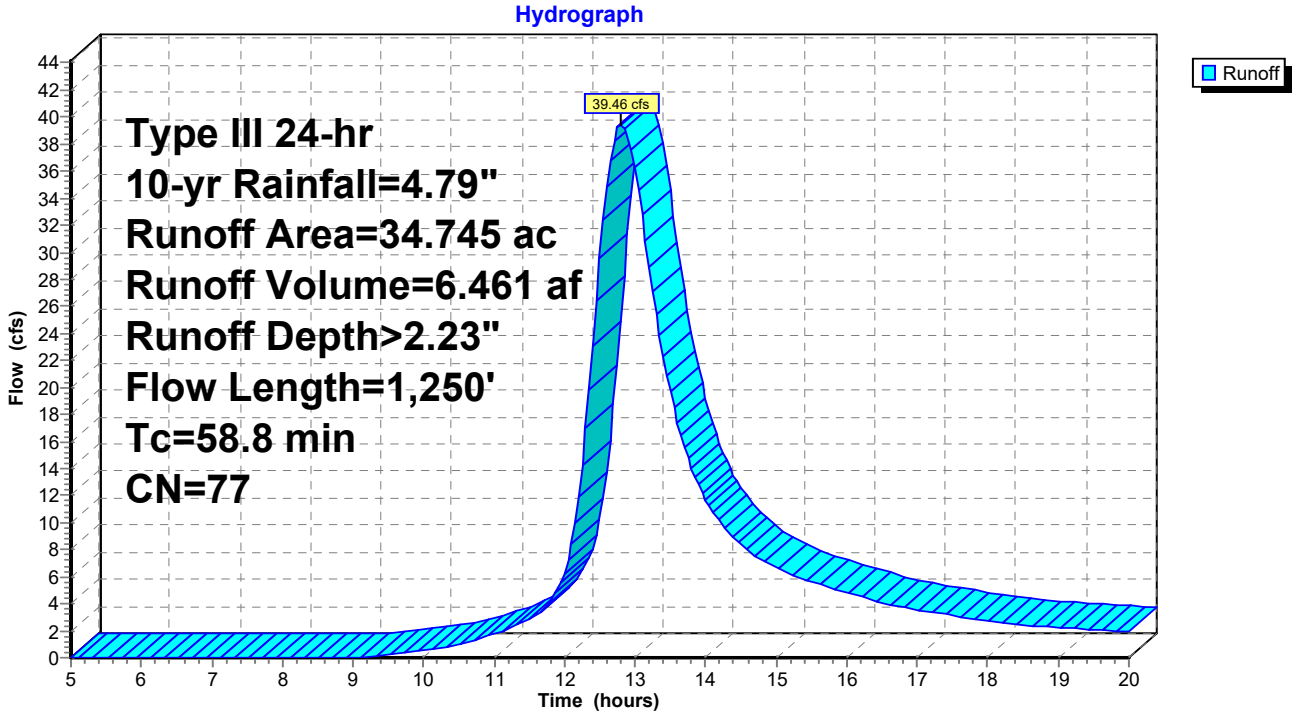
Runoff = 39.46 cfs @ 12.81 hrs, Volume= 6.461 af, Depth> 2.23"
Routed to Pond A11-2* : A11-2 Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.789	39	>75% Grass cover, Good, HSG A
15.470	61	>75% Grass cover, Good, HSG B
2.700	55	Woods, Good, HSG B
5.587	98	Roofs, HSG A
10.199	98	Paved parking, HSG A
34.745	77	Weighted Average
18.959		54.57% Pervious Area
15.786		45.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
41.5	50	0.0010	0.02		**Sheet Flow, sf1** Woods: Light underbrush n= 0.400 P2= 3.11"
5.3	316	0.0400	1.00		**Shallow Concentrated Flow, scf1** Woodland Kv= 5.0 fps
12.0	884	0.0310	1.23		**Shallow Concentrated Flow, SCF2** Short Grass Pasture Kv= 7.0 fps
58.8	1,250	Total			

Subcatchment A11-2: A11-2



Hydrograph for Subcatchment A11-2: A11-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.02
9.25	0.74	0.01	0.08
9.50	0.79	0.01	0.19
9.75	0.85	0.02	0.35
10.00	0.91	0.03	0.54
10.25	0.97	0.04	0.76
10.50	1.04	0.06	1.03
10.75	1.11	0.08	1.35
11.00	1.20	0.10	1.75
11.25	1.30	0.13	2.24
11.50	1.43	0.18	2.86
11.75	1.70	0.30	3.84
12.00	2.39	0.68	6.24
12.25	3.09	1.13	14.28
12.50	3.36	1.33	29.51
12.75	3.49	1.42	**39.20**
13.00	3.59	1.50	**36.29**
13.25	3.68	1.56	27.15
13.50	3.75	1.62	19.65
13.75	3.82	1.67	14.78
14.00	3.88	1.72	11.71
14.25	3.94	1.77	9.73
14.50	4.00	1.81	8.36
14.75	4.05	1.85	7.38
15.00	4.09	1.88	6.66
15.25	4.14	1.92	6.08
15.50	4.17	1.95	5.62
15.75	4.21	1.98	5.21
16.00	4.24	2.00	4.83
16.25	4.27	2.03	4.46
16.50	4.30	2.05	4.10
16.75	4.33	2.07	3.79
17.00	4.36	2.09	3.53
17.25	4.38	2.11	3.32
17.50	4.40	2.13	3.13
17.75	4.43	2.15	2.95
18.00	4.45	2.17	2.78
18.25	4.46	2.18	2.61
18.50	4.48	2.20	2.45
18.75	4.50	2.21	2.32
19.00	4.52	2.23	2.22
19.25	4.54	2.24	2.14
19.50	4.55	2.25	2.07
19.75	4.57	2.27	2.02
20.00	**4.58**	**2.28**	1.96

Summary for Subcatchment A2: A2

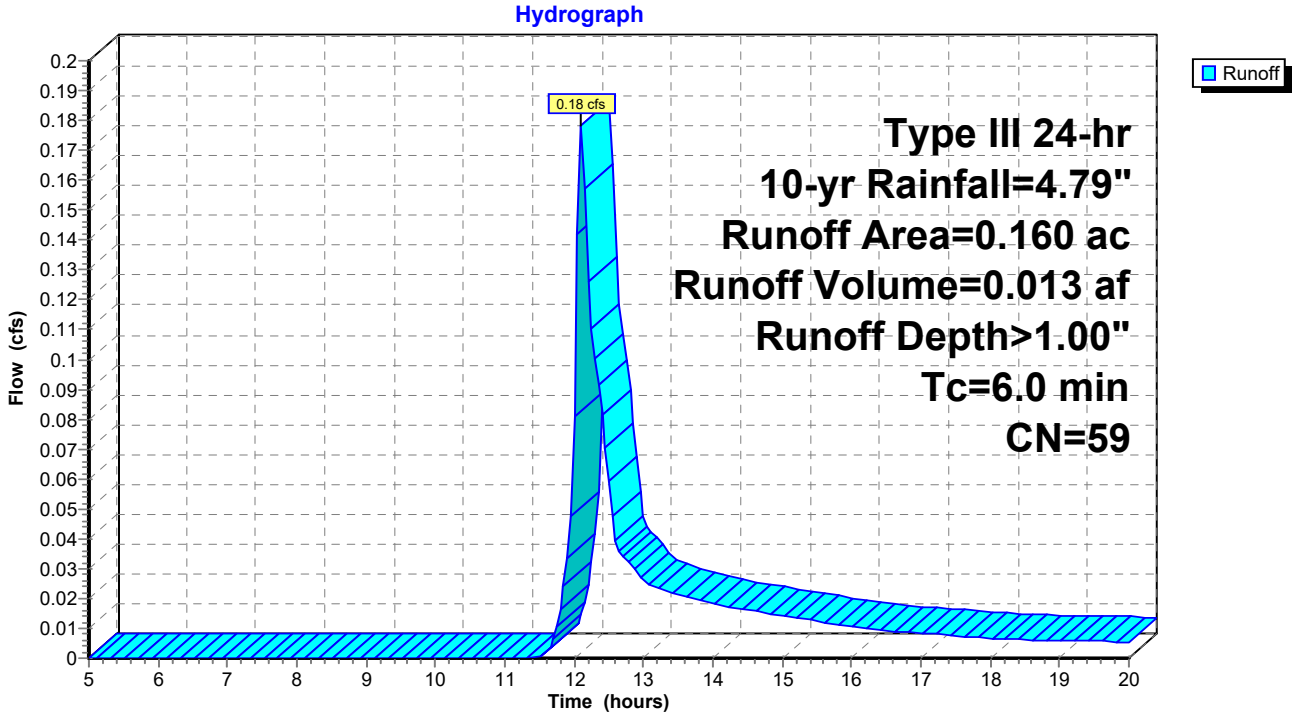
Runoff = 0.18 cfs @ 12.11 hrs, Volume= 0.013 af, Depth> 1.00"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.115	61	>75% Grass cover, Good, HSG B
0.045	55	Woods, Good, HSG B
0.160	59	Weighted Average
0.160		100.00% Pervious Area

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

Subcatchment A2: A2



Hydrograph for Subcatchment A2: A2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.00
11.75	1.70	0.01	0.01
12.00	2.39	0.13	**0.08**
12.25	3.09	0.33	**0.11**
12.50	3.36	0.44	0.06
12.75	3.49	0.49	0.03
13.00	3.59	0.53	0.03
13.25	3.68	0.57	0.02
13.50	3.75	0.60	0.02
13.75	3.82	0.63	0.02
14.00	3.88	0.66	0.02
14.25	3.94	0.69	0.02
14.50	4.00	0.71	0.02
14.75	4.05	0.73	0.02
15.00	4.09	0.76	0.01
15.25	4.14	0.78	0.01
15.50	4.17	0.80	0.01
15.75	4.21	0.81	0.01
16.00	4.24	0.83	0.01
16.25	4.27	0.85	0.01
16.50	4.30	0.86	0.01
16.75	4.33	0.87	0.01
17.00	4.36	0.89	0.01
17.25	4.38	0.90	0.01
17.50	4.40	0.91	0.01
17.75	4.43	0.92	0.01
18.00	4.45	0.93	0.01
18.25	4.46	0.94	0.01
18.50	4.48	0.95	0.01
18.75	4.50	0.96	0.01
19.00	4.52	0.97	0.01
19.25	4.54	0.98	0.01
19.50	4.55	0.99	0.01
19.75	4.57	1.00	0.01
20.00	**4.58**	**1.01**	0.01

Summary for Subcatchment A3: A3

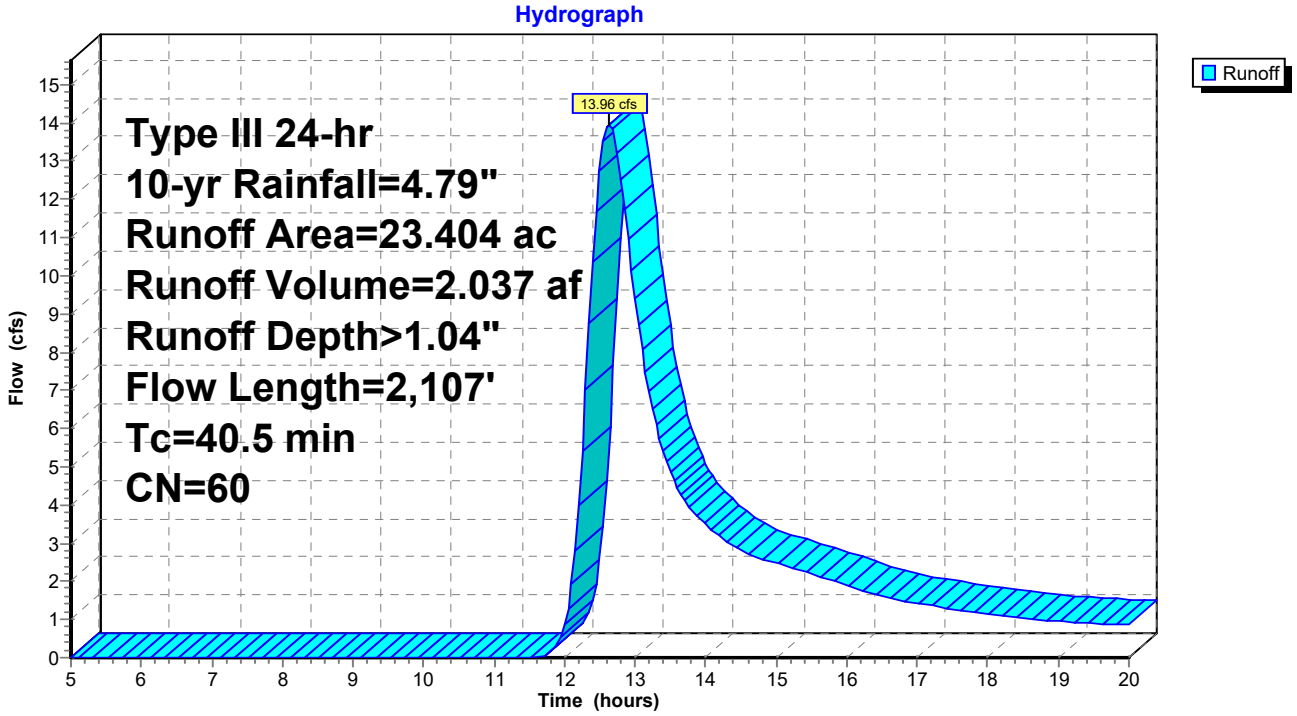
Runoff = 13.96 cfs @ 12.64 hrs, Volume= 2.037 af, Depth> 1.04"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
17.556	61	>75% Grass cover, Good, HSG B
5.800	55	Woods, Good, HSG B
0.048	77	Woods, Good, HSG D
23.404	60	Weighted Average
23.404		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	50	0.0080	0.10		**Sheet Flow, sf1** Grass: Short n= 0.150 P2= 3.11"
32.3	2,057	0.0230	1.06		**Shallow Concentrated Flow, scf1** Short Grass Pasture Kv= 7.0 fps
40.5	2,107	Total			

Subcatchment A3: A3



Hydrograph for Subcatchment A3: A3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.00
11.75	1.70	0.02	0.08
12.00	2.39	0.15	0.85
12.25	3.09	0.37	5.40
12.50	3.36	0.47	**12.75**
12.75	3.49	0.53	**13.20**
13.00	3.59	0.57	9.41
13.25	3.68	0.61	6.50
13.50	3.75	0.64	4.87
13.75	3.82	0.68	3.99
14.00	3.88	0.71	3.49
14.25	3.94	0.73	3.11
14.50	4.00	0.76	2.82
14.75	4.05	0.78	2.63
15.00	4.09	0.81	2.47
15.25	4.14	0.83	2.33
15.50	4.17	0.85	2.19
15.75	4.21	0.87	2.04
16.00	4.24	0.88	1.90
16.25	4.27	0.90	1.75
16.50	4.30	0.92	1.61
16.75	4.33	0.93	1.51
17.00	4.36	0.94	1.43
17.25	4.38	0.96	1.36
17.50	4.40	0.97	1.29
17.75	4.43	0.98	1.22
18.00	4.45	0.99	1.15
18.25	4.46	1.00	1.08
18.50	4.48	1.01	1.02
18.75	4.50	1.02	0.97
19.00	4.52	1.03	0.94
19.25	4.54	1.04	0.92
19.50	4.55	1.05	0.90
19.75	4.57	1.06	0.88
20.00	**4.58**	**1.07**	0.86

Summary for Subcatchment A4: A4

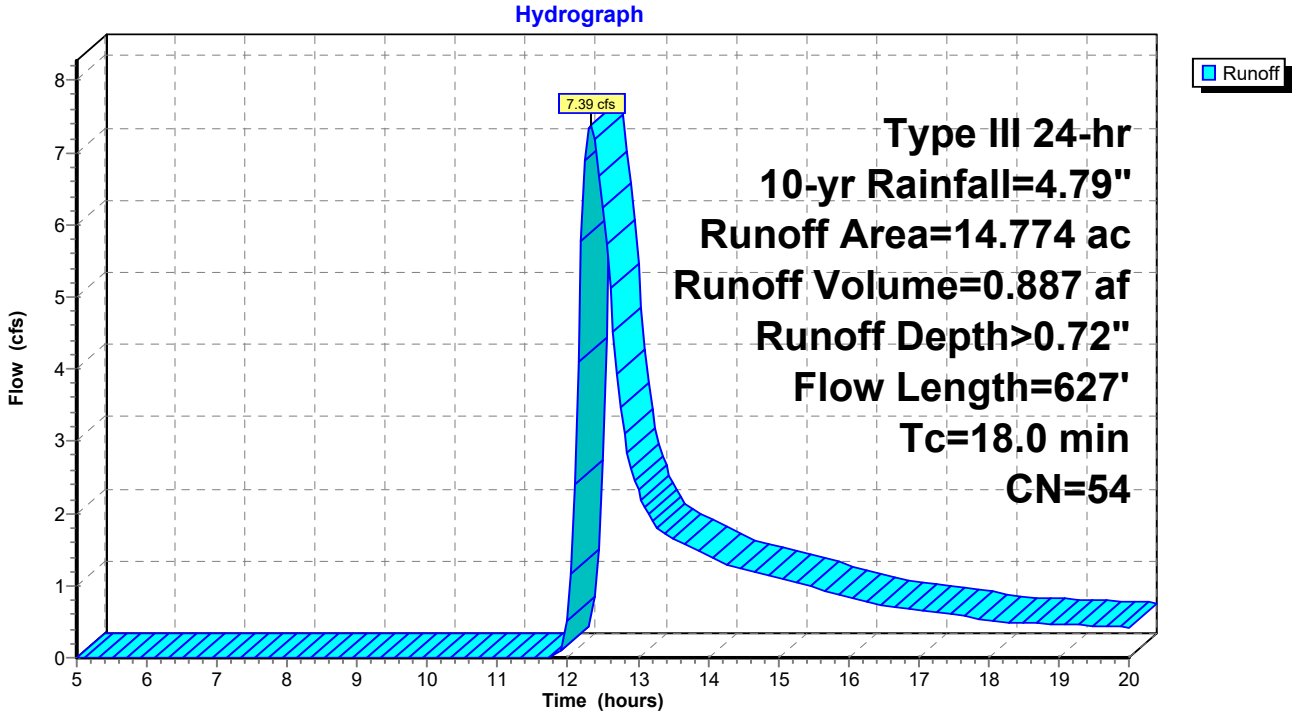
Runoff = 7.39 cfs @ 12.32 hrs, Volume= 0.887 af, Depth> 0.72"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
4.168	39	>75% Grass cover, Good, HSG A
8.560	61	>75% Grass cover, Good, HSG B
0.235	98	Water Surface, HSG D
0.227	79	Woods/grass comb., Good, HSG D
0.598	30	Woods, Good, HSG A
0.986	55	Woods, Good, HSG B
14.774	54	Weighted Average
14.539		98.41% Pervious Area
0.235		1.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	50	0.0100	0.11		**Sheet Flow, sf1** Grass: Short n= 0.150 P2= 3.11"
10.5	577	0.0170	0.91		**Shallow Concentrated Flow, scf1** Short Grass Pasture Kv= 7.0 fps
18.0	627	Total			

Subcatchment A4: A4



Hydrograph for Subcatchment A4: A4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.00
11.75	1.70	0.00	0.00
12.00	2.39	0.05	0.50
12.25	3.09	0.19	**6.88**
12.50	3.36	0.27	**6.25**
12.75	3.49	0.31	3.46
13.00	3.59	0.34	2.32
13.25	3.68	0.37	1.83
13.50	3.75	0.40	1.65
13.75	3.82	0.42	1.54
14.00	3.88	0.44	1.42
14.25	3.94	0.47	1.31
14.50	4.00	0.49	1.23
14.75	4.05	0.50	1.18
15.00	4.09	0.52	1.12
15.25	4.14	0.54	1.05
15.50	4.17	0.56	0.98
15.75	4.21	0.57	0.91
16.00	4.24	0.58	0.84
16.25	4.27	0.60	0.77
16.50	4.30	0.61	0.73
16.75	4.33	0.62	0.70
17.00	4.36	0.63	0.66
17.25	4.38	0.64	0.63
17.50	4.40	0.65	0.60
17.75	4.43	0.66	0.56
18.00	4.45	0.67	0.53
18.25	4.46	0.68	0.50
18.50	4.48	0.68	0.48
18.75	4.50	0.69	0.47
19.00	4.52	0.70	0.46
19.25	4.54	0.71	0.45
19.50	4.55	0.71	0.44
19.75	4.57	0.72	0.43
20.00	**4.58**	**0.73**	0.42

Summary for Subcatchment A5: A5

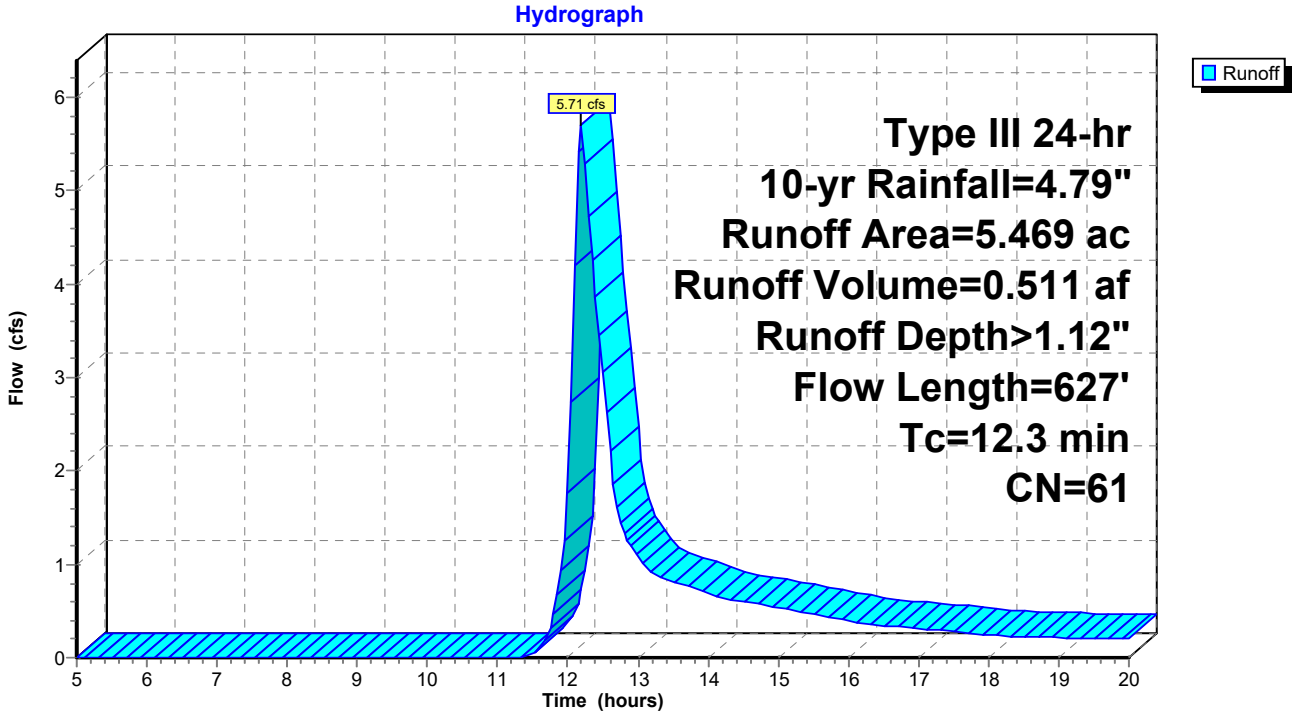
Runoff = 5.71 cfs @ 12.20 hrs, Volume= 0.511 af, Depth> 1.12"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
5.214	61	>75% Grass cover, Good, HSG B
0.190	55	Woods, Good, HSG B
0.065	77	Woods, Good, HSG D
5.469	61	Weighted Average
5.469		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	50	0.0460	0.20		**Sheet Flow, sf1** Grass: Short n= 0.150 P2= 3.11"
8.2	577	0.0280	1.17		**Shallow Concentrated Flow, scf1** Short Grass Pasture Kv= 7.0 fps
12.3	627	Total			

Subcatchment A5: A5



Hydrograph for Subcatchment A5: A5

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.05
11.75	1.70	0.03	0.32
12.00	2.39	0.17	**1.77**
12.25	3.09	0.40	**5.29**
12.50	3.36	0.51	3.05
12.75	3.49	0.57	1.44
13.00	3.59	0.61	1.08
13.25	3.68	0.65	0.89
13.50	3.75	0.69	0.82
13.75	3.82	0.72	0.76
14.00	3.88	0.75	0.69
14.25	3.94	0.78	0.64
14.50	4.00	0.81	0.60
14.75	4.05	0.84	0.57
15.00	4.09	0.86	0.54
15.25	4.14	0.88	0.50
15.50	4.17	0.90	0.47
15.75	4.21	0.92	0.43
16.00	4.24	0.94	0.40
16.25	4.27	0.96	0.36
16.50	4.30	0.97	0.35
16.75	4.33	0.99	0.33
17.00	4.36	1.00	0.31
17.25	4.38	1.01	0.30
17.50	4.40	1.03	0.28
17.75	4.43	1.04	0.26
18.00	4.45	1.05	0.25
18.25	4.46	1.06	0.23
18.50	4.48	1.07	0.23
18.75	4.50	1.08	0.22
19.00	4.52	1.09	0.22
19.25	4.54	1.10	0.21
19.50	4.55	1.11	0.21
19.75	4.57	1.12	0.20
20.00	**4.58**	**1.13**	0.20

Summary for Subcatchment A6: A6

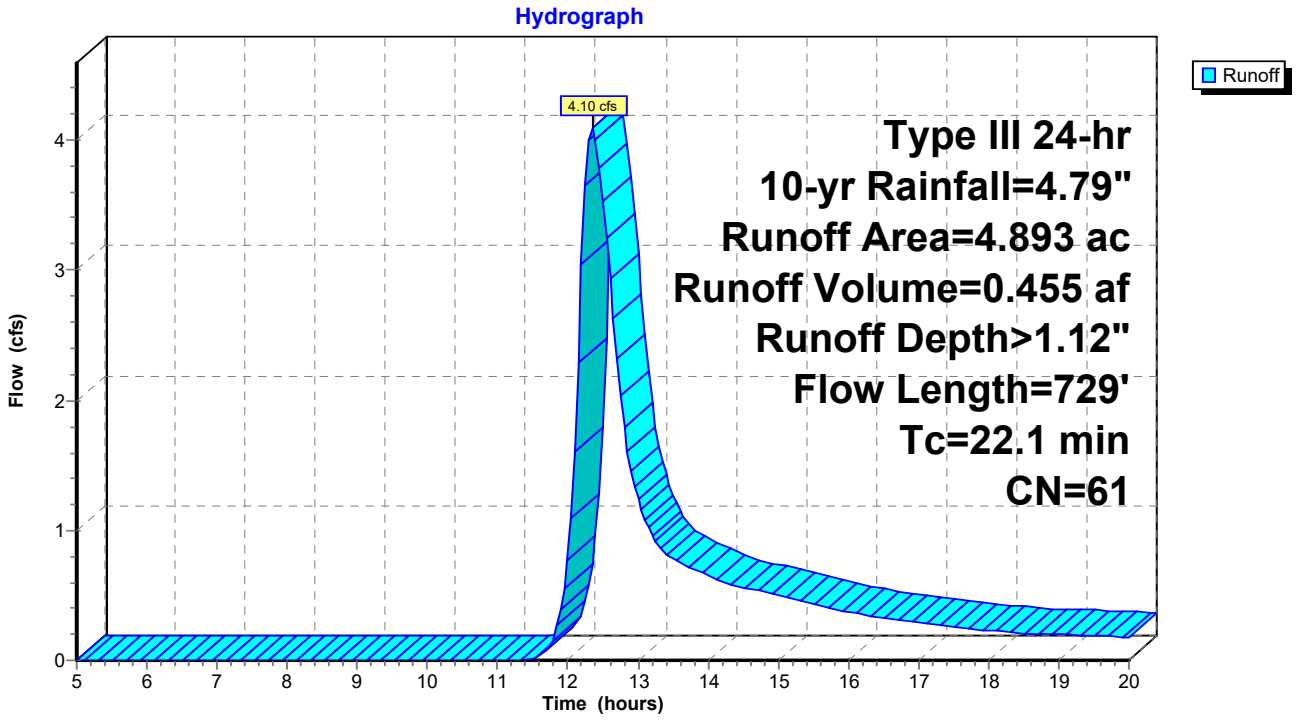
Runoff = 4.10 cfs @ 12.35 hrs, Volume= 0.455 af, Depth> 1.12"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
4.531	61	>75% Grass cover, Good, HSG B
0.362	55	Woods, Good, HSG B
4.893	61	Weighted Average
4.893		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	50	0.0480	0.21		**Sheet Flow, sf1** Grass: Short n= 0.150 P2= 3.11"
18.1	679	0.0080	0.63		**Shallow Concentrated Flow, scf1** Short Grass Pasture Kv= 7.0 fps
22.1	729	Total			

Subcatchment A6: A6



Hydrograph for Subcatchment A6: A6

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.01
11.75	1.70	0.03	0.12
12.00	2.39	0.17	0.76
12.25	3.09	0.40	**3.65**
12.50	3.36	0.51	**3.53**
12.75	3.49	0.57	2.04
13.00	3.59	0.61	1.24
13.25	3.68	0.65	0.91
13.50	3.75	0.69	0.78
13.75	3.82	0.72	0.71
14.00	3.88	0.75	0.66
14.25	3.94	0.78	0.60
14.50	4.00	0.81	0.56
14.75	4.05	0.84	0.53
15.00	4.09	0.86	0.50
15.25	4.14	0.88	0.47
15.50	4.17	0.90	0.44
15.75	4.21	0.92	0.41
16.00	4.24	0.94	0.37
16.25	4.27	0.96	0.34
16.50	4.30	0.97	0.32
16.75	4.33	0.99	0.30
17.00	4.36	1.00	0.29
17.25	4.38	1.01	0.28
17.50	4.40	1.03	0.26
17.75	4.43	1.04	0.25
18.00	4.45	1.05	0.23
18.25	4.46	1.06	0.22
18.50	4.48	1.07	0.21
18.75	4.50	1.08	0.20
19.00	4.52	1.09	0.20
19.25	4.54	1.10	0.19
19.50	4.55	1.11	0.19
19.75	4.57	1.12	0.18
20.00	**4.58**	**1.13**	0.18

Summary for Subcatchment A8: A8

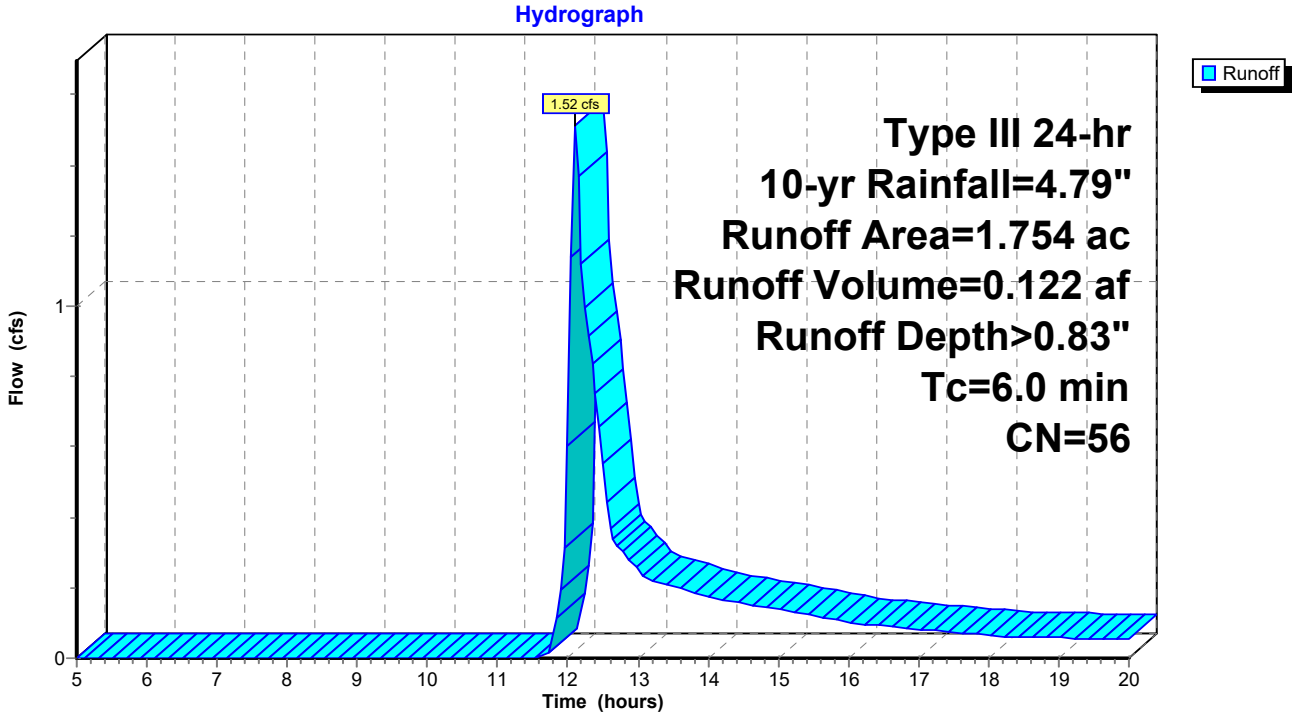
Runoff = 1.52 cfs @ 12.11 hrs, Volume= 0.122 af, Depth> 0.83"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.434	61	>75% Grass cover, Good, HSG B
1.320	55	Woods, Good, HSG B
1.754	56	Weighted Average
1.754		100.00% Pervious Area

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

Subcatchment A8: A8



Hydrograph for Subcatchment A8: A8

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.00
11.75	1.70	0.00	0.01
12.00	2.39	0.08	**0.60**
12.25	3.09	0.25	**1.00**
12.50	3.36	0.33	0.55
12.75	3.49	0.38	0.31
13.00	3.59	0.41	0.25
13.25	3.68	0.44	0.22
13.50	3.75	0.47	0.21
13.75	3.82	0.50	0.19
14.00	3.88	0.53	0.17
14.25	3.94	0.55	0.16
14.50	4.00	0.57	0.16
14.75	4.05	0.59	0.15
15.00	4.09	0.61	0.14
15.25	4.14	0.63	0.13
15.50	4.17	0.65	0.12
15.75	4.21	0.66	0.11
16.00	4.24	0.68	0.10
16.25	4.27	0.69	0.10
16.50	4.30	0.70	0.09
16.75	4.33	0.72	0.09
17.00	4.36	0.73	0.08
17.25	4.38	0.74	0.08
17.50	4.40	0.75	0.07
17.75	4.43	0.76	0.07
18.00	4.45	0.77	0.06
18.25	4.46	0.78	0.06
18.50	4.48	0.79	0.06
18.75	4.50	0.80	0.06
19.00	4.52	0.80	0.06
19.25	4.54	0.81	0.06
19.50	4.55	0.82	0.06
19.75	4.57	0.83	0.05
20.00	**4.58**	**0.83**	0.05

Summary for Subcatchment B1-1: B1-1

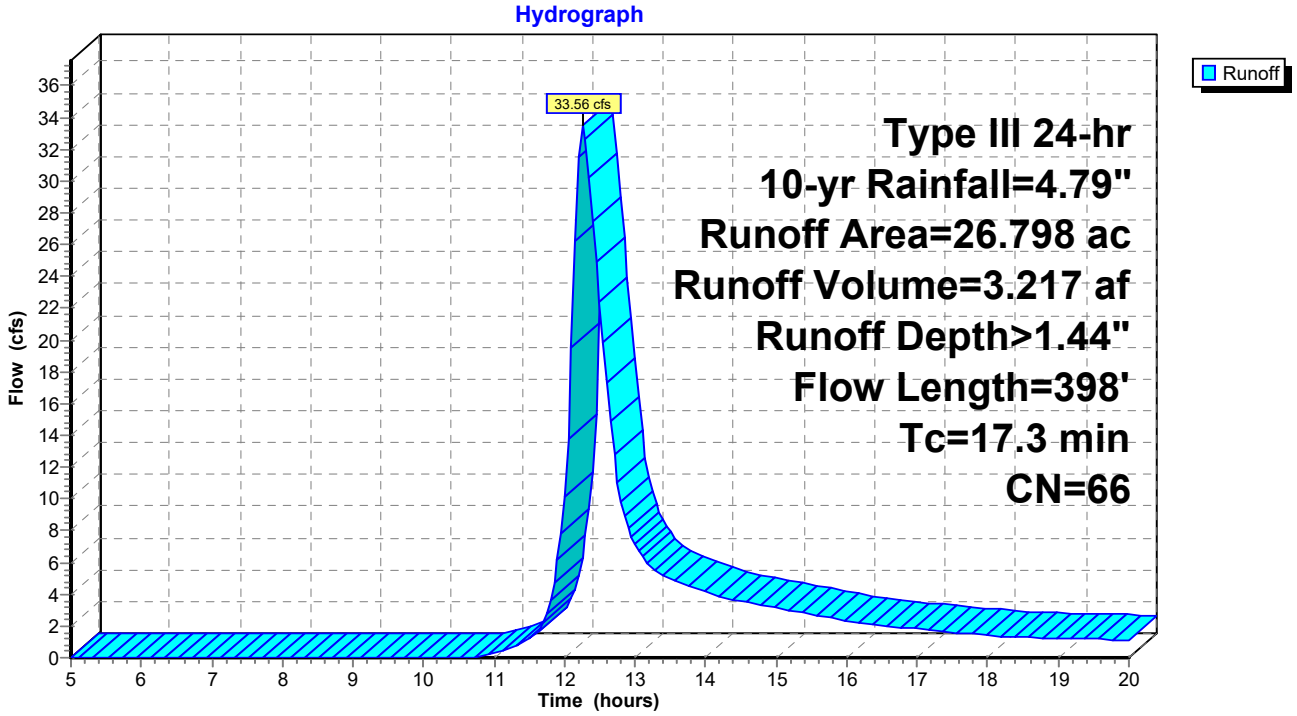
Runoff = 33.56 cfs @ 12.26 hrs, Volume= 3.217 af, Depth> 1.44"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.066	39	>75% Grass cover, Good, HSG A
2.486	61	>75% Grass cover, Good, HSG B
1.018	80	>75% Grass cover, Good, HSG D
0.054	30	Woods, Good, HSG A
12.694	55	Woods, Good, HSG B
9.382	77	Woods, Good, HSG D
0.369	98	Water Surface, HSG B
0.009	48	Brush, Good, HSG B
0.720	98	Paved parking, HSG A
26.798	66	Weighted Average
25.709		95.94% Pervious Area
1.089		4.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	50	0.0320	0.08		**Sheet Flow, sf-1** Woods: Light underbrush n= 0.400 P2= 3.11"
6.9	348	0.0280	0.84		**Shallow Concentrated Flow, scf-1** Woodland Kv= 5.0 fps
17.3	398	Total			

Subcatchment B1-1: B1-1



Hydrograph for Subcatchment B1-1: B1-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.05
11.00	1.20	0.01	0.27
11.25	1.30	0.01	0.60
11.50	1.43	0.03	1.19
11.75	1.70	0.08	2.79
12.00	2.39	0.29	10.13
12.25	3.09	0.59	**33.51**
12.50	3.36	0.73	22.42
12.75	3.49	0.80	11.05
13.00	3.59	0.85	7.13
13.25	3.68	0.90	5.54
13.50	3.75	0.94	4.94
13.75	3.82	0.98	4.54
14.00	3.88	1.02	4.15
14.25	3.94	1.05	3.78
14.50	4.00	1.08	3.55
14.75	4.05	1.11	3.36
15.00	4.09	1.14	3.16
15.25	4.14	1.17	2.96
15.50	4.17	1.19	2.75
15.75	4.21	1.21	2.54
16.00	4.24	1.23	2.32
16.25	4.27	1.25	2.12
16.50	4.30	1.27	2.01
16.75	4.33	1.29	1.91
17.00	4.36	1.31	1.82
17.25	4.38	1.32	1.72
17.50	4.40	1.33	1.62
17.75	4.43	1.35	1.53
18.00	4.45	1.36	1.43
18.25	4.46	1.37	1.34
18.50	4.48	1.39	1.30
18.75	4.50	1.40	1.27
19.00	4.52	1.41	1.24
19.25	4.54	1.42	1.21
19.50	4.55	1.43	1.18
19.75	4.57	1.44	1.15
20.00	**4.58**	**1.45**	1.12

Summary for Subcatchment B1-2: B1-A

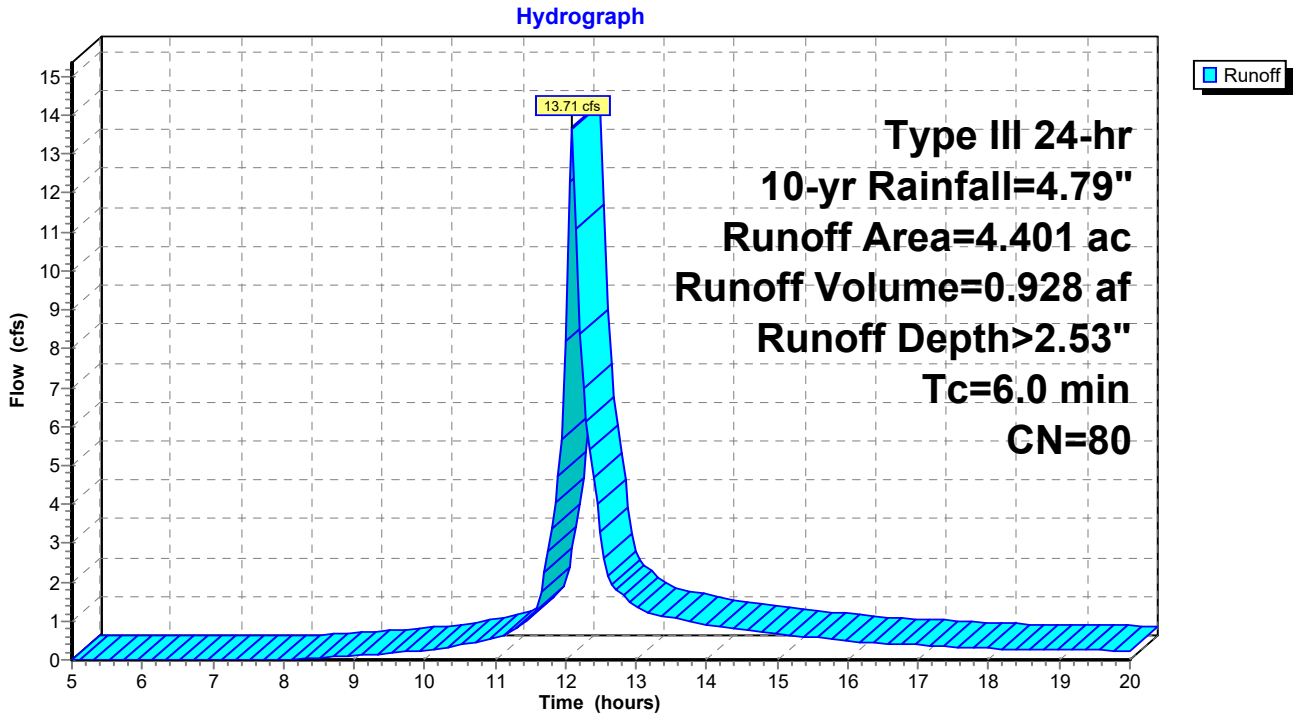
Runoff = 13.71 cfs @ 12.09 hrs, Volume= 0.928 af, Depth> 2.53"
Routed to Pond B1-2* : B1-2 Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.099	39	>75% Grass cover, Good, HSG A
2.032	61	>75% Grass cover, Good, HSG B
2.270	98	Paved parking, HSG A
4.401	80	Weighted Average
2.131		48.42% Pervious Area
2.270		51.58% Impervious Area

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

Subcatchment B1-2: B1-A



Hydrograph for Subcatchment B1-2: B1-A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.01
8.25	0.58	0.00	0.03
8.50	0.62	0.01	0.05
8.75	0.65	0.01	0.07
9.00	0.70	0.01	0.10
9.25	0.74	0.02	0.13
9.50	0.79	0.03	0.17
9.75	0.85	0.04	0.21
10.00	0.91	0.06	0.25
10.25	0.97	0.07	0.31
10.50	1.04	0.09	0.39
10.75	1.11	0.12	0.47
11.00	1.20	0.15	0.57
11.25	1.30	0.19	0.77
11.50	1.43	0.25	1.06
11.75	1.70	0.39	2.81
12.00	2.39	0.82	**8.20**
12.25	3.09	1.32	**6.96**
12.50	3.36	1.53	3.31
12.75	3.49	1.63	1.76
13.00	3.59	1.71	1.38
13.25	3.68	1.78	1.18
13.50	3.75	1.84	1.09
13.75	3.82	1.90	0.99
14.00	3.88	1.95	0.89
14.25	3.94	1.99	0.82
14.50	4.00	2.04	0.78
14.75	4.05	2.08	0.73
15.00	4.09	2.12	0.68
15.25	4.14	2.15	0.63
15.50	4.17	2.19	0.58
15.75	4.21	2.22	0.53
16.00	4.24	2.24	0.48
16.25	4.27	2.27	0.45
16.50	4.30	2.29	0.43
16.75	4.33	2.32	0.41
17.00	4.36	2.34	0.39
17.25	4.38	2.36	0.36
17.50	4.40	2.38	0.34
17.75	4.43	2.40	0.32
18.00	4.45	2.41	0.30
18.25	4.46	2.43	0.28
18.50	4.48	2.45	0.28
18.75	4.50	2.46	0.27
19.00	4.52	2.48	0.27
19.25	4.54	2.49	0.26
19.50	4.55	2.51	0.25
19.75	4.57	2.52	0.25
20.00	**4.58**	**2.53**	0.24

Summary for Subcatchment B1-3: B1-B

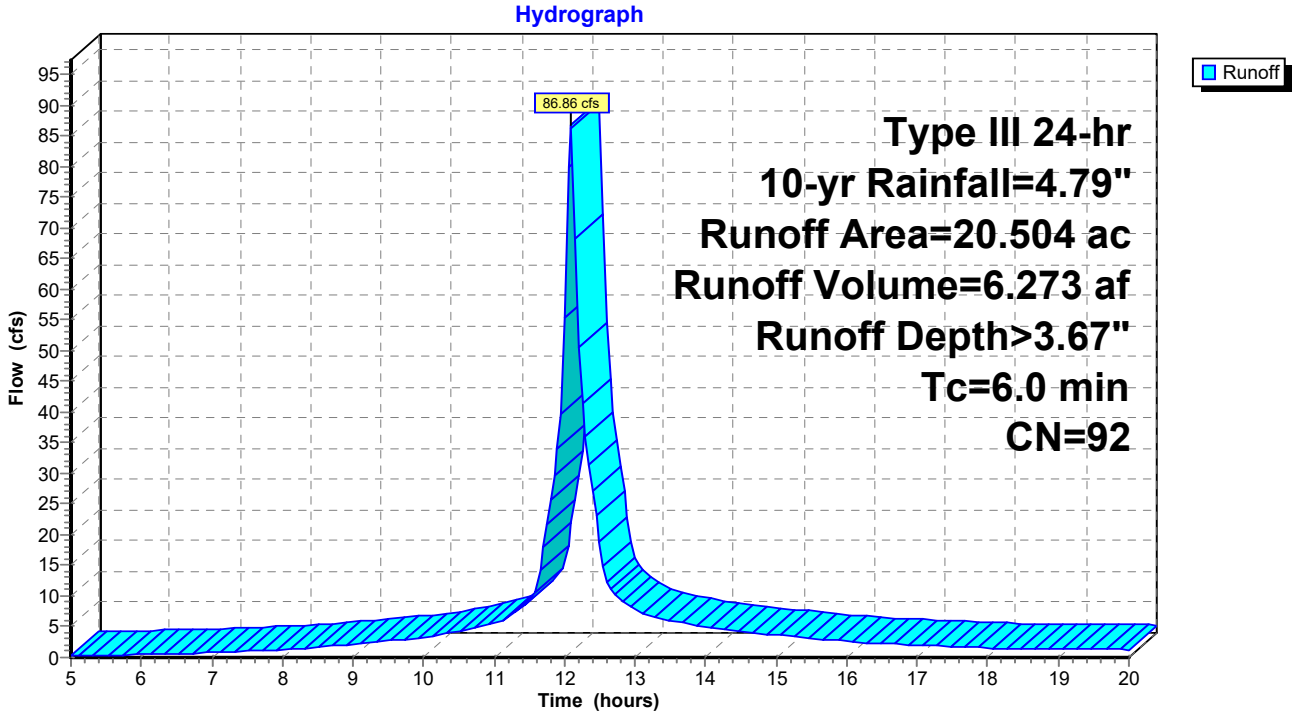
Runoff = 86.86 cfs @ 12.09 hrs, Volume= 6.273 af, Depth> 3.67"
Routed to Pond B1-3* : B1-3 Dry Extended Basin with Micropool

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.072	39	>75% Grass cover, Good, HSG A
3.314	61	>75% Grass cover, Good, HSG B
3.548	98	Roofs, HSG A
13.570	98	Paved parking, HSG A
20.504	92	Weighted Average
3.386		16.51% Pervious Area
17.118		83.49% Impervious Area

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

Subcatchment B1-3: B1-B



Hydrograph for Subcatchment B1-3: B1-B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.01	0.26
5.25	0.29	0.01	0.31
5.50	0.31	0.02	0.36
5.75	0.33	0.02	0.41
6.00	0.34	0.03	0.46
6.25	0.36	0.03	0.53
6.50	0.39	0.04	0.61
6.75	0.41	0.05	0.71
7.00	0.43	0.06	0.81
7.25	0.46	0.07	0.91
7.50	0.49	0.08	1.03
7.75	0.52	0.10	1.14
8.00	0.55	0.11	1.27
8.25	0.58	0.13	1.45
8.50	0.62	0.15	1.67
8.75	0.65	0.17	1.91
9.00	0.70	0.20	2.17
9.25	0.74	0.23	2.44
9.50	0.79	0.26	2.72
9.75	0.85	0.29	3.01
10.00	0.91	0.33	3.31
10.25	0.97	0.38	3.76
10.50	1.04	0.43	4.31
10.75	1.11	0.49	4.88
11.00	1.20	0.55	5.48
11.25	1.30	0.63	6.95
11.50	1.43	0.74	9.02
11.75	1.70	0.97	21.79
12.00	2.39	1.60	**55.38**
12.25	3.09	2.24	**41.40**
12.50	3.36	2.51	18.91
12.75	3.49	2.63	9.91
13.00	3.59	2.73	7.74
13.25	3.68	2.81	6.58
13.50	3.75	2.88	6.02
13.75	3.82	2.95	5.45
14.00	3.88	3.01	4.89
14.25	3.94	3.06	4.51
14.50	4.00	3.11	4.24
14.75	4.05	3.16	3.96
15.00	4.09	3.21	3.69
15.25	4.14	3.25	3.42
15.50	4.17	3.29	3.15
15.75	4.21	3.32	2.87
16.00	4.24	3.35	2.60
16.25	4.27	3.38	2.42
16.50	4.30	3.41	2.30
16.75	4.33	3.44	2.18
17.00	4.36	3.46	2.06
17.25	4.38	3.49	1.94
17.50	4.40	3.51	1.82
17.75	4.43	3.53	1.70
18.00	4.45	3.55	1.58
18.25	4.46	3.57	1.52
18.50	4.48	3.59	1.48
18.75	4.50	3.60	1.45
19.00	4.52	3.62	1.41
19.25	4.54	3.64	1.37
19.50	4.55	3.65	1.34
19.75	4.57	3.67	1.30
20.00	**4.58**	**3.68**	1.27

Summary for Subcatchment B10: B10

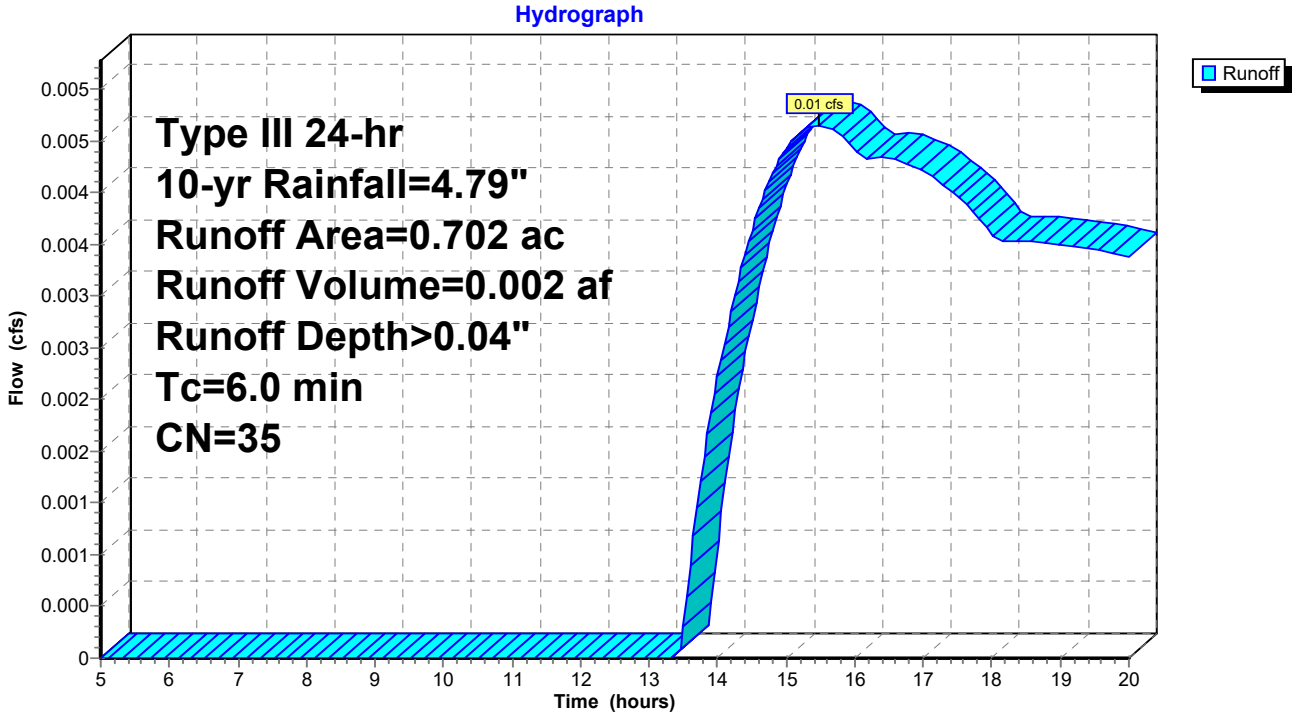
Runoff = 0.01 cfs @ 15.47 hrs, Volume= 0.002 af, Depth> 0.04"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.368	39	>75% Grass cover, Good, HSG A
0.334	30	Woods, Good, HSG A
0.702	35	Weighted Average
0.702		100.00% Pervious Area

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

Subcatchment B10: B10



Hydrograph for Subcatchment B10: B10

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.00
11.75	1.70	0.00	0.00
12.00	2.39	0.00	0.00
12.25	3.09	0.00	0.00
12.50	3.36	0.00	0.00
12.75	3.49	0.00	0.00
13.00	3.59	0.00	0.00
13.25	3.68	0.00	0.00
13.50	3.75	0.00	0.00
13.75	3.82	0.00	0.00
14.00	3.88	0.00	0.00
14.25	3.94	0.00	0.00
14.50	4.00	0.00	0.00
14.75	4.05	0.01	0.00
15.00	4.09	0.01	0.00
15.25	4.14	0.01	**0.01**
15.50	4.17	0.01	**0.01**
15.75	4.21	0.01	0.01
16.00	4.24	0.01	0.00
16.25	4.27	0.02	0.00
16.50	4.30	0.02	0.00
16.75	4.33	0.02	0.00
17.00	4.36	0.02	0.00
17.25	4.38	0.02	0.00
17.50	4.40	0.02	0.00
17.75	4.43	0.03	0.00
18.00	4.45	0.03	0.00
18.25	4.46	0.03	0.00
18.50	4.48	0.03	0.00
18.75	4.50	0.03	0.00
19.00	4.52	0.03	0.00
19.25	4.54	0.03	0.00
19.50	4.55	0.04	0.00
19.75	4.57	0.04	0.00
20.00	**4.58**	**0.04**	0.00

Summary for Subcatchment B11: B11

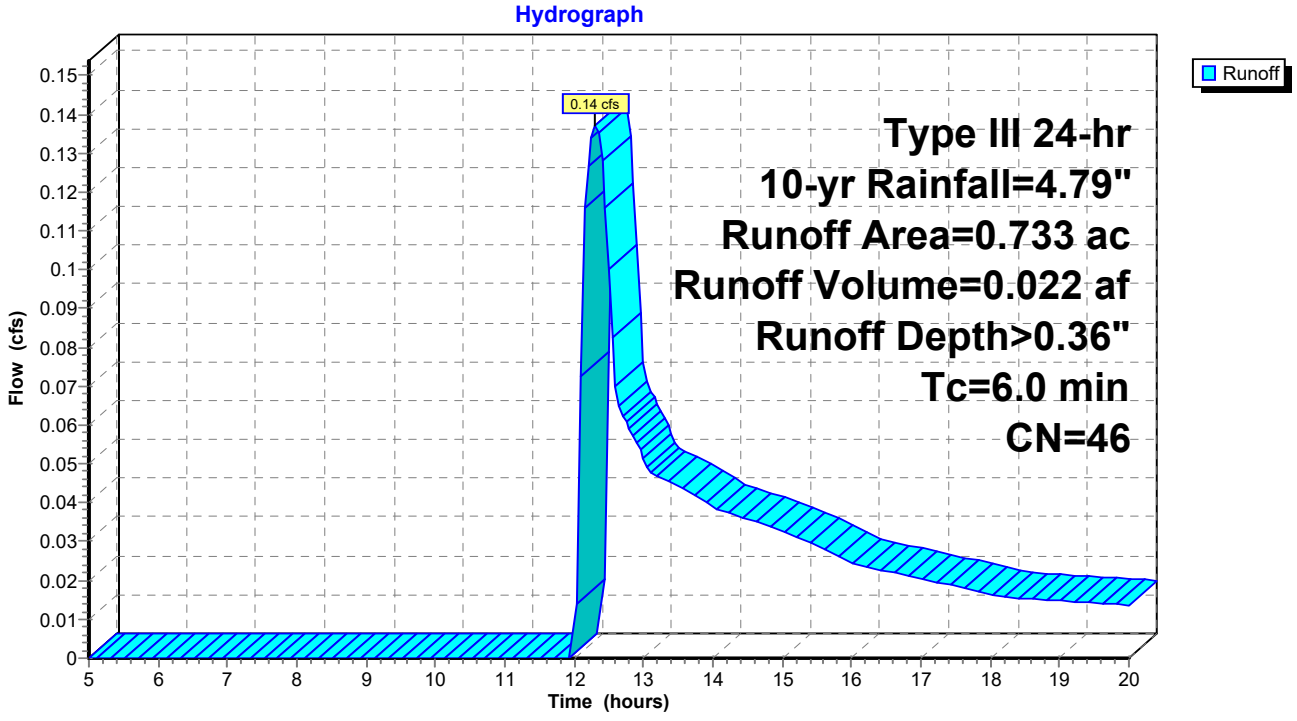
Runoff = 0.14 cfs @ 12.31 hrs, Volume= 0.022 af, Depth> 0.36"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.390	61	>75% Grass cover, Good, HSG B
0.343	30	Woods, Good, HSG A
0.733	46	Weighted Average
0.733		100.00% Pervious Area

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

Subcatchment B11: B11



Hydrograph for Subcatchment B11: B11

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.00
11.75	1.70	0.00	0.00
12.00	2.39	0.00	0.00
12.25	3.09	0.04	**0.13**
12.50	3.36	0.08	**0.10**
12.75	3.49	0.10	0.06
13.00	3.59	0.12	0.05
13.25	3.68	0.14	0.05
13.50	3.75	0.15	0.04
13.75	3.82	0.16	0.04
14.00	3.88	0.18	0.04
14.25	3.94	0.19	0.04
14.50	4.00	0.20	0.04
14.75	4.05	0.21	0.03
15.00	4.09	0.23	0.03
15.25	4.14	0.24	0.03
15.50	4.17	0.25	0.03
15.75	4.21	0.26	0.03
16.00	4.24	0.26	0.02
16.25	4.27	0.27	0.02
16.50	4.30	0.28	0.02
16.75	4.33	0.29	0.02
17.00	4.36	0.29	0.02
17.25	4.38	0.30	0.02
17.50	4.40	0.31	0.02
17.75	4.43	0.31	0.02
18.00	4.45	0.32	0.02
18.25	4.46	0.32	0.02
18.50	4.48	0.33	0.02
18.75	4.50	0.33	0.02
19.00	4.52	0.34	0.01
19.25	4.54	0.34	0.01
19.50	4.55	0.35	0.01
19.75	4.57	0.35	0.01
20.00	**4.58**	**0.36**	0.01

Summary for Subcatchment B13: B13

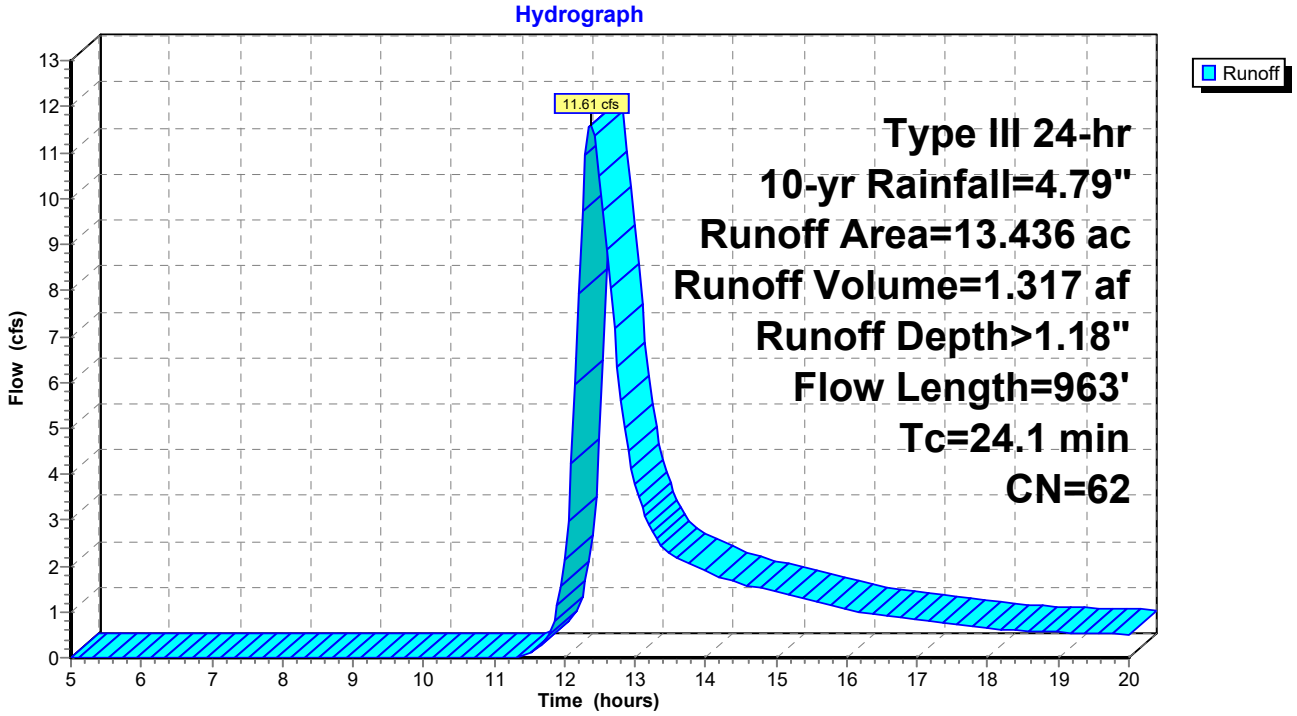
Runoff = 11.61 cfs @ 12.38 hrs, Volume= 1.317 af, Depth> 1.18"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.367	61	>75% Grass cover, Good, HSG B
0.993	61	>75% Grass cover, Good, HSG B
0.070	74	>75% Grass cover, Good, HSG C
0.836	80	>75% Grass cover, Good, HSG D
0.085	55	Woods, Good, HSG B
8.121	55	Woods, Good, HSG B
0.959	70	Woods, Good, HSG C
2.005	77	Woods, Good, HSG D
13.436	62	Weighted Average
13.436		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.2600	0.19		**Sheet Flow, sf-1** Woods: Light underbrush n= 0.400 P2= 3.11"
19.6	913	0.0240	0.77		**Shallow Concentrated Flow, scf-1** Woodland Kv= 5.0 fps
24.1	963	Total			

Subcatchment B13: B13



Hydrograph for Subcatchment B13: B13

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.01	0.09
11.75	1.70	0.03	0.42
12.00	2.39	0.19	2.13
12.25	3.09	0.43	**9.73**
12.50	3.36	0.55	**10.49**
12.75	3.49	0.61	6.34
13.00	3.59	0.66	3.78
13.25	3.68	0.70	2.74
13.50	3.75	0.74	2.28
13.75	3.82	0.77	2.06
14.00	3.88	0.80	1.89
14.25	3.94	0.83	1.72
14.50	4.00	0.86	1.61
14.75	4.05	0.89	1.52
15.00	4.09	0.91	1.43
15.25	4.14	0.94	1.35
15.50	4.17	0.96	1.26
15.75	4.21	0.98	1.17
16.00	4.24	1.00	1.07
16.25	4.27	1.01	0.98
16.50	4.30	1.03	0.92
16.75	4.33	1.04	0.87
17.00	4.36	1.06	0.83
17.25	4.38	1.07	0.79
17.50	4.40	1.09	0.74
17.75	4.43	1.10	0.70
18.00	4.45	1.11	0.66
18.25	4.46	1.12	0.62
18.50	4.48	1.13	0.59
18.75	4.50	1.14	0.57
19.00	4.52	1.15	0.56
19.25	4.54	1.16	0.55
19.50	4.55	1.17	0.54
19.75	4.57	1.18	0.52
20.00	**4.58**	**1.19**	0.51

Summary for Subcatchment B2: B2

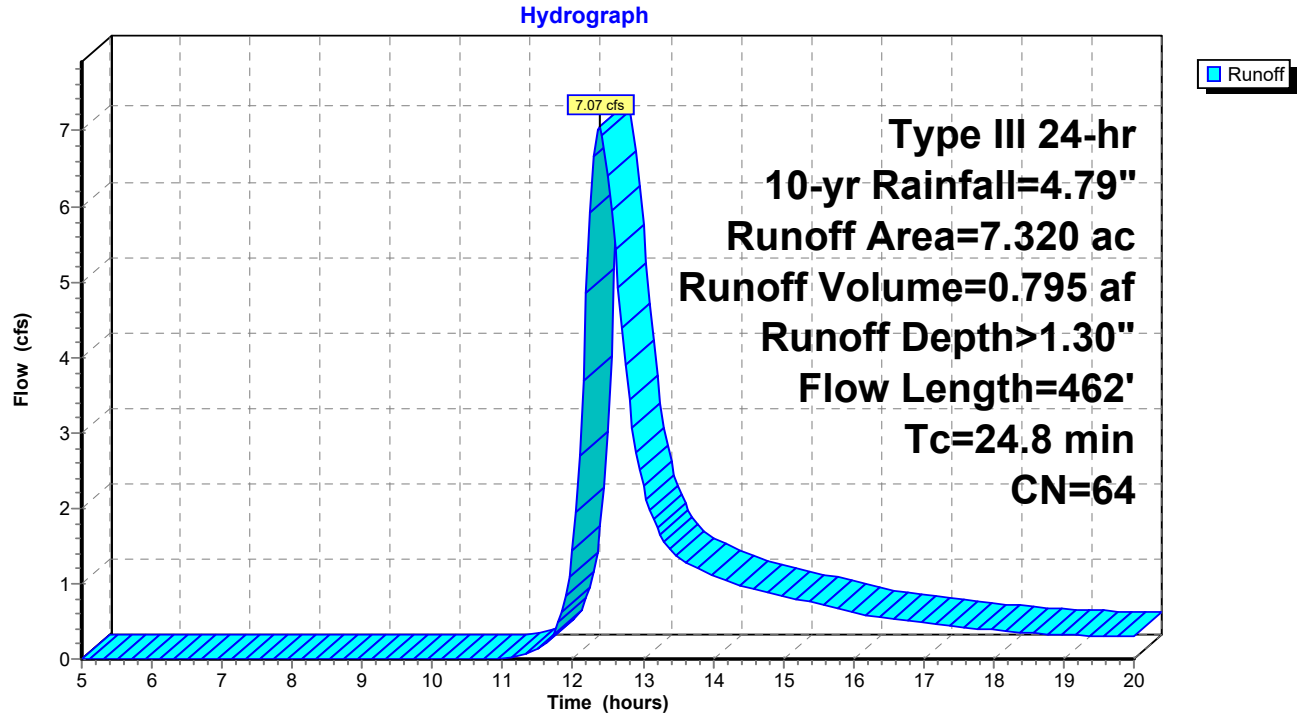
Runoff = 7.07 cfs @ 12.38 hrs, Volume= 0.795 af, Depth> 1.30"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
6.491	61	>75% Grass cover, Good, HSG B
0.198	80	>75% Grass cover, Good, HSG D
0.434	98	Water Surface, HSG D
0.193	55	Woods, Good, HSG B
0.004	77	Woods, Good, HSG D
7.320	64	Weighted Average
6.886		94.07% Pervious Area
0.434		5.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	50	0.0040	0.08		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
13.9	412	0.0050	0.49		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
24.8	462	Total			

Subcatchment B2: B2



Hydrograph for Subcatchment B2: B2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.01	0.04
11.50	1.43	0.02	0.14
11.75	1.70	0.05	0.37
12.00	2.39	0.23	1.44
12.25	3.09	0.51	**5.91**
12.50	3.36	0.64	**6.41**
12.75	3.49	0.70	3.89
13.00	3.59	0.75	2.29
13.25	3.68	0.80	1.64
13.50	3.75	0.84	1.35
13.75	3.82	0.87	1.21
14.00	3.88	0.91	1.11
14.25	3.94	0.94	1.01
14.50	4.00	0.97	0.94
14.75	4.05	1.00	0.89
15.00	4.09	1.02	0.84
15.25	4.14	1.05	0.78
15.50	4.17	1.07	0.73
15.75	4.21	1.09	0.68
16.00	4.24	1.11	0.62
16.25	4.27	1.13	0.57
16.50	4.30	1.15	0.53
16.75	4.33	1.16	0.51
17.00	4.36	1.18	0.48
17.25	4.38	1.19	0.46
17.50	4.40	1.21	0.43
17.75	4.43	1.22	0.41
18.00	4.45	1.23	0.38
18.25	4.46	1.24	0.36
18.50	4.48	1.25	0.34
18.75	4.50	1.27	0.33
19.00	4.52	1.28	0.32
19.25	4.54	1.29	0.32
19.50	4.55	1.30	0.31
19.75	4.57	1.31	0.30
20.00	**4.58**	**1.32**	0.29

Summary for Subcatchment B3-1: B3-1

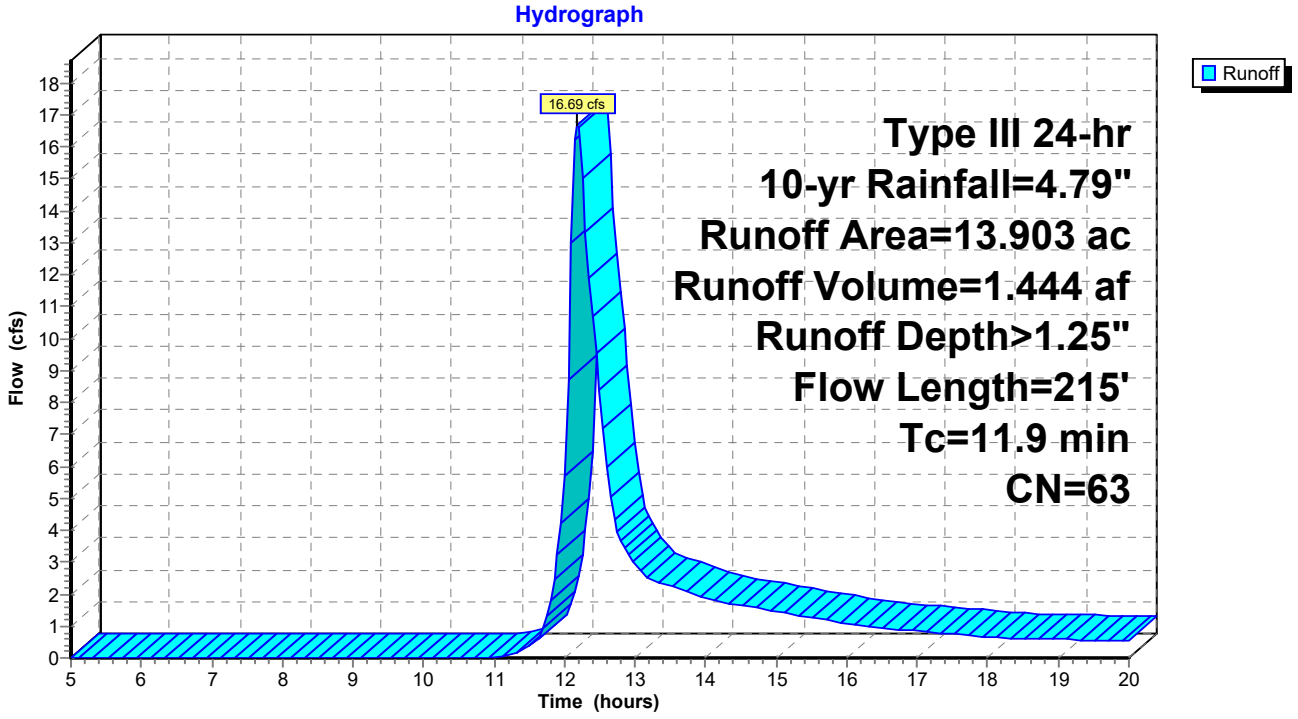
Runoff = 16.69 cfs @ 12.18 hrs, Volume= 1.444 af, Depth> 1.25"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
1.727	61	>75% Grass cover, Good, HSG B
0.454	80	>75% Grass cover, Good, HSG D
7.869	55	Woods, Good, HSG B
3.853	77	Woods, Good, HSG D
13.903	63	Weighted Average
13.903		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	50	0.0540	0.10		**Sheet Flow, sf-1** Woods: Light underbrush n= 0.400 P2= 3.11"
3.5	165	0.0250	0.79		**Shallow Concentrated Flow, scf-1** Woodland Kv= 5.0 fps
11.9	215	Total			

Subcatchment B3-1: B3-1



Hydrograph for Subcatchment B3-1: B3-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.09
11.50	1.43	0.01	0.36
11.75	1.70	0.04	1.32
12.00	2.39	0.21	**5.73**
12.25	3.09	0.47	**15.04**
12.50	3.36	0.59	8.37
12.75	3.49	0.66	3.93
13.00	3.59	0.71	2.96
13.25	3.68	0.75	2.43
13.50	3.75	0.79	2.24
13.75	3.82	0.82	2.07
14.00	3.88	0.86	1.89
14.25	3.94	0.89	1.73
14.50	4.00	0.92	1.64
14.75	4.05	0.94	1.55
15.00	4.09	0.97	1.46
15.25	4.14	0.99	1.37
15.50	4.17	1.01	1.27
15.75	4.21	1.03	1.17
16.00	4.24	1.05	1.07
16.25	4.27	1.07	0.99
16.50	4.30	1.09	0.94
16.75	4.33	1.10	0.89
17.00	4.36	1.12	0.85
17.25	4.38	1.13	0.80
17.50	4.40	1.15	0.76
17.75	4.43	1.16	0.71
18.00	4.45	1.17	0.67
18.25	4.46	1.18	0.63
18.50	4.48	1.19	0.61
18.75	4.50	1.20	0.60
19.00	4.52	1.21	0.59
19.25	4.54	1.22	0.57
19.50	4.55	1.23	0.56
19.75	4.57	1.24	0.55
20.00	**4.58**	**1.25**	0.53

Summary for Subcatchment B3-2: B3-2

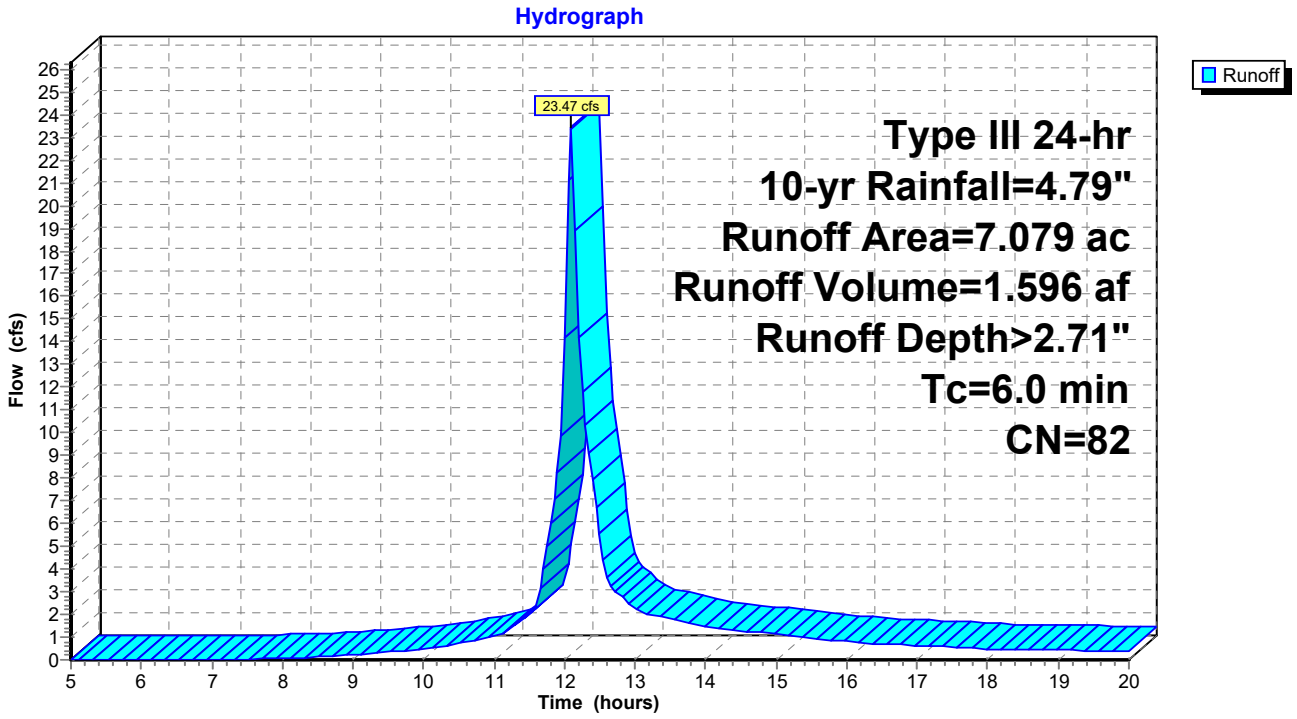
Runoff = 23.47 cfs @ 12.09 hrs, Volume= 1.596 af, Depth> 2.71"
Routed to Pond B3-2* : B3-2 Dry Extended Basin with Micropool

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
3.045	61	>75% Grass cover, Good, HSG B
0.069	80	>75% Grass cover, Good, HSG D
3.965	98	Paved parking, HSG A
7.079	82	Weighted Average
3.114		43.99% Pervious Area
3.965		56.01% Impervious Area

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

Subcatchment B3-2: B3-2



Hydrograph for Subcatchment B3-2: B3-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.01
7.50	0.49	0.00	0.03
7.75	0.52	0.00	0.05
8.00	0.55	0.00	0.07
8.25	0.58	0.01	0.10
8.50	0.62	0.01	0.14
8.75	0.65	0.02	0.18
9.00	0.70	0.03	0.24
9.25	0.74	0.04	0.29
9.50	0.79	0.05	0.36
9.75	0.85	0.06	0.43
10.00	0.91	0.08	0.51
10.25	0.97	0.10	0.61
10.50	1.04	0.13	0.74
10.75	1.11	0.16	0.89
11.00	1.20	0.19	1.05
11.25	1.30	0.24	1.41
11.50	1.43	0.31	1.92
11.75	1.70	0.46	5.00
12.00	2.39	0.92	**14.21**
12.25	3.09	1.45	**11.78**
12.50	3.36	1.67	5.55
12.75	3.49	1.78	2.94
13.00	3.59	1.86	2.31
13.25	3.68	1.93	1.98
13.50	3.75	1.99	1.81
13.75	3.82	2.05	1.65
14.00	3.88	2.10	1.48
14.25	3.94	2.15	1.37
14.50	4.00	2.20	1.29
14.75	4.05	2.24	1.21
15.00	4.09	2.28	1.13
15.25	4.14	2.32	1.05
15.50	4.17	2.35	0.97
15.75	4.21	2.38	0.88
16.00	4.24	2.41	0.80
16.25	4.27	2.44	0.75
16.50	4.30	2.46	0.71
16.75	4.33	2.49	0.68
17.00	4.36	2.51	0.64
17.25	4.38	2.53	0.60
17.50	4.40	2.55	0.57
17.75	4.43	2.57	0.53
18.00	4.45	2.59	0.49
18.25	4.46	2.60	0.47
18.50	4.48	2.62	0.46
18.75	4.50	2.64	0.45
19.00	4.52	2.65	0.44
19.25	4.54	2.67	0.43
19.50	4.55	2.68	0.42
19.75	4.57	2.70	0.41
20.00	**4.58**	**2.71**	0.40

Summary for Subcatchment B4: B4

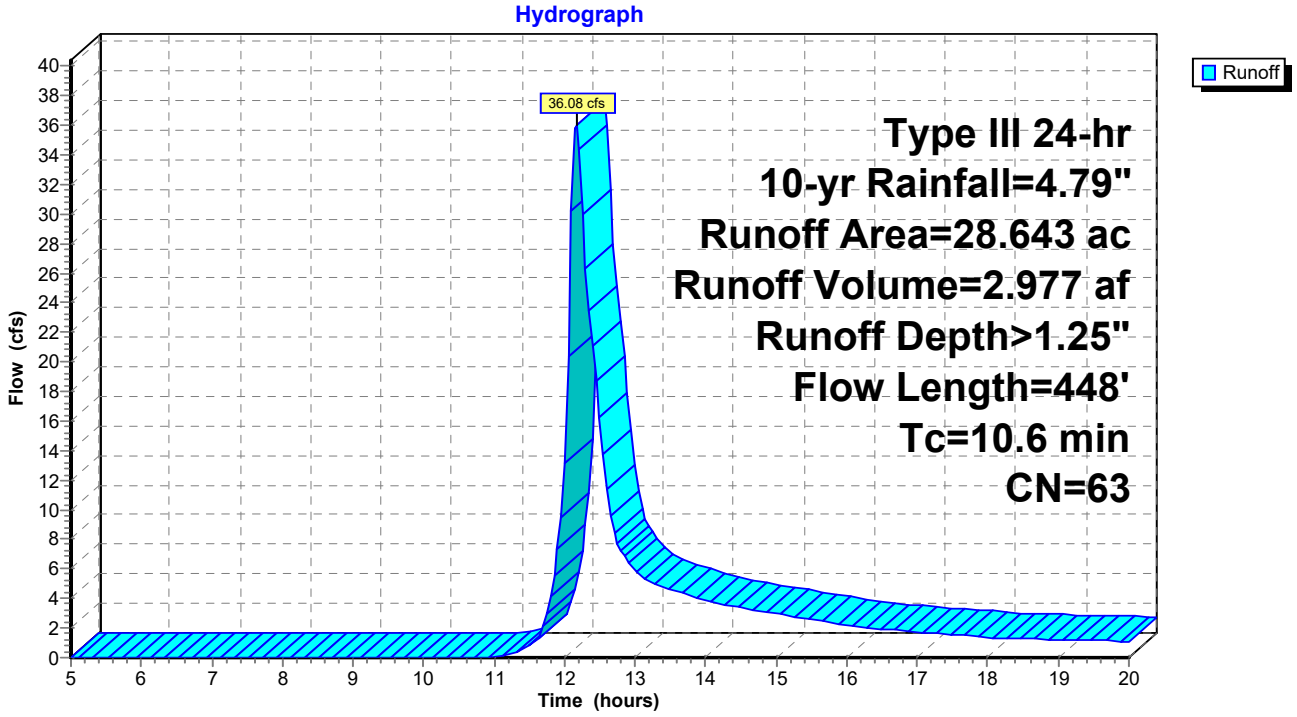
Runoff = 36.08 cfs @ 12.16 hrs, Volume= 2.977 af, Depth> 1.25"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
7.992	61	>75% Grass cover, Good, HSG B
2.765	80	>75% Grass cover, Good, HSG D
1.932	73	Brush, Good, HSG D
12.023	55	Woods, Good, HSG B
3.931	77	Woods, Good, HSG D
28.643	63	Weighted Average
28.643		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.0360	0.18		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
6.1	398	0.0240	1.08		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
10.6	448	Total			

Subcatchment B4: B4



Hydrograph for Subcatchment B4: B4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.22
11.50	1.43	0.01	0.79
11.75	1.70	0.04	3.02
12.00	2.39	0.21	**13.10**
12.25	3.09	0.47	**29.96**
12.50	3.36	0.59	16.27
12.75	3.49	0.66	7.73
13.00	3.59	0.71	5.97
13.25	3.68	0.75	4.96
13.50	3.75	0.79	4.59
13.75	3.82	0.82	4.24
14.00	3.88	0.86	3.86
14.25	3.94	0.89	3.55
14.50	4.00	0.92	3.37
14.75	4.05	0.94	3.19
15.00	4.09	0.97	3.00
15.25	4.14	0.99	2.80
15.50	4.17	1.01	2.60
15.75	4.21	1.03	2.40
16.00	4.24	1.05	2.19
16.25	4.27	1.07	2.02
16.50	4.30	1.09	1.93
16.75	4.33	1.10	1.84
17.00	4.36	1.12	1.74
17.25	4.38	1.13	1.65
17.50	4.40	1.15	1.56
17.75	4.43	1.16	1.46
18.00	4.45	1.17	1.36
18.25	4.46	1.18	1.29
18.50	4.48	1.19	1.26
18.75	4.50	1.20	1.24
19.00	4.52	1.21	1.21
19.25	4.54	1.22	1.18
19.50	4.55	1.23	1.15
19.75	4.57	1.24	1.13
20.00	**4.58**	**1.25**	1.10

Summary for Subcatchment B5-1: B5-1

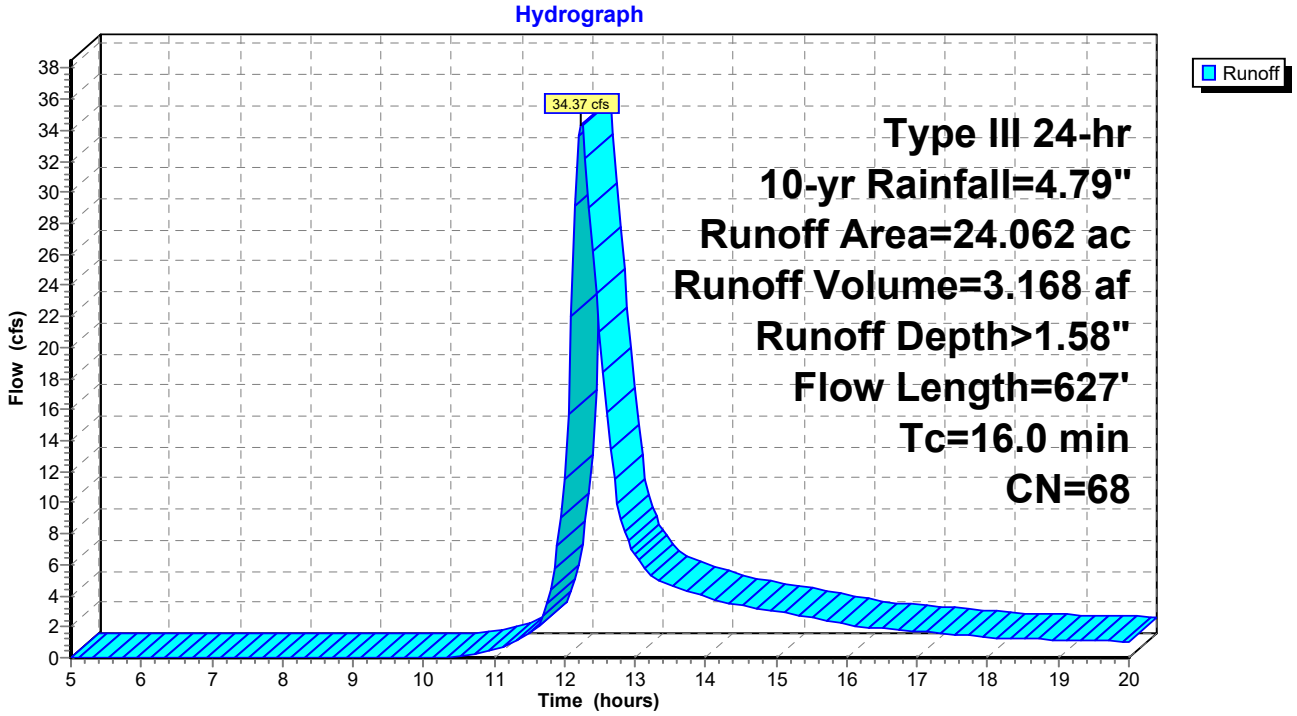
Runoff = 34.37 cfs @ 12.24 hrs, Volume= 3.168 af, Depth> 1.58"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
14.084	61	>75% Grass cover, Good, HSG B
0.295	80	>75% Grass cover, Good, HSG D
0.016	48	Brush, Good, HSG B
0.141	73	Brush, Good, HSG D
3.392	98	Water Surface, HSG A
0.437	73	Brush, Good, HSG D
3.045	55	Woods, Good, HSG B
2.484	77	Woods, Good, HSG D
0.168	98	Paved parking, HSG A
24.062	68	Weighted Average
20.502		85.20% Pervious Area
3.560		14.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	50	0.0260	0.16		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
10.9	577	0.0160	0.89		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
16.0	627	Total			

Subcatchment B5-1: B5-1



Hydrograph for Subcatchment B5-1: B5-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.09
10.75	1.11	0.01	0.29
11.00	1.20	0.01	0.55
11.25	1.30	0.03	0.91
11.50	1.43	0.05	1.56
11.75	1.70	0.11	3.45
12.00	2.39	0.34	11.55
12.25	3.09	0.67	**34.26**
12.50	3.36	0.82	20.95
12.75	3.49	0.90	9.97
13.00	3.59	0.96	6.63
13.25	3.68	1.01	5.21
13.50	3.75	1.05	4.68
13.75	3.82	1.09	4.31
14.00	3.88	1.13	3.93
14.25	3.94	1.17	3.58
14.50	4.00	1.20	3.36
14.75	4.05	1.23	3.18
15.00	4.09	1.26	2.99
15.25	4.14	1.29	2.79
15.50	4.17	1.32	2.59
15.75	4.21	1.34	2.39
16.00	4.24	1.36	2.19
16.25	4.27	1.38	2.00
16.50	4.30	1.40	1.89
16.75	4.33	1.42	1.80
17.00	4.36	1.44	1.71
17.25	4.38	1.45	1.62
17.50	4.40	1.47	1.53
17.75	4.43	1.48	1.44
18.00	4.45	1.50	1.34
18.25	4.46	1.51	1.26
18.50	4.48	1.52	1.22
18.75	4.50	1.53	1.19
19.00	4.52	1.54	1.17
19.25	4.54	1.56	1.14
19.50	4.55	1.57	1.11
19.75	4.57	1.58	1.09
20.00	**4.58**	**1.59**	1.06

Summary for Subcatchment B5-2: B5-2

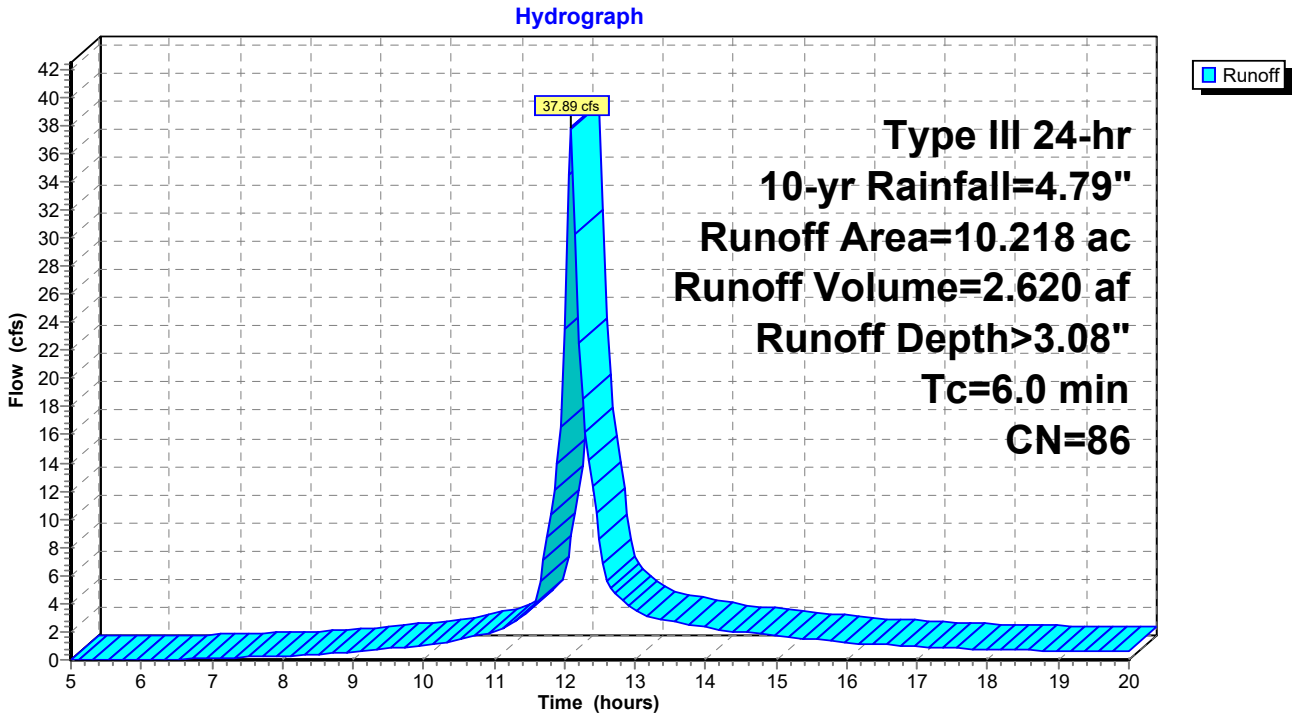
Runoff = 37.89 cfs @ 12.09 hrs, Volume= 2.620 af, Depth> 3.08"
Routed to Pond B5-2* : B5-2 Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
3.294	61	>75% Grass cover, Good, HSG B
4.054	98	Roofs, HSG A
2.870	98	Paved parking, HSG A
10.218	86	Weighted Average
3.294		32.24% Pervious Area
6.924		67.76% Impervious Area

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

Subcatchment B5-2: B5-2



Hydrograph for Subcatchment B5-2: B5-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.01
6.25	0.36	0.00	0.03
6.50	0.39	0.00	0.05
6.75	0.41	0.00	0.08
7.00	0.43	0.01	0.11
7.25	0.46	0.01	0.15
7.50	0.49	0.01	0.18
7.75	0.52	0.02	0.23
8.00	0.55	0.03	0.27
8.25	0.58	0.03	0.33
8.50	0.62	0.04	0.41
8.75	0.65	0.06	0.49
9.00	0.70	0.07	0.59
9.25	0.74	0.09	0.69
9.50	0.79	0.11	0.80
9.75	0.85	0.13	0.93
10.00	0.91	0.15	1.05
10.25	0.97	0.18	1.24
10.50	1.04	0.22	1.46
10.75	1.11	0.26	1.71
11.00	1.20	0.30	1.97
11.25	1.30	0.36	2.57
11.50	1.43	0.44	3.44
11.75	1.70	0.63	8.66
12.00	2.39	1.16	**23.47**
12.25	3.09	1.74	**18.60**
12.50	3.36	1.98	8.65
12.75	3.49	2.09	4.56
13.00	3.59	2.18	3.57
13.25	3.68	2.26	3.05
13.50	3.75	2.32	2.79
13.75	3.82	2.39	2.54
14.00	3.88	2.44	2.28
14.25	3.94	2.49	2.10
14.50	4.00	2.54	1.98
14.75	4.05	2.59	1.85
15.00	4.09	2.63	1.73
15.25	4.14	2.67	1.60
15.50	4.17	2.71	1.48
15.75	4.21	2.74	1.35
16.00	4.24	2.77	1.22
16.25	4.27	2.80	1.14
16.50	4.30	2.82	1.08
16.75	4.33	2.85	1.03
17.00	4.36	2.87	0.97
17.25	4.38	2.89	0.92
17.50	4.40	2.91	0.86
17.75	4.43	2.93	0.80
18.00	4.45	2.95	0.75
18.25	4.46	2.97	0.72
18.50	4.48	2.99	0.70
18.75	4.50	3.00	0.68
19.00	4.52	3.02	0.67
19.25	4.54	3.04	0.65
19.50	4.55	3.05	0.63
19.75	4.57	3.07	0.62
20.00	**4.58**	**3.08**	0.60

Summary for Subcatchment B6-1: B6-1

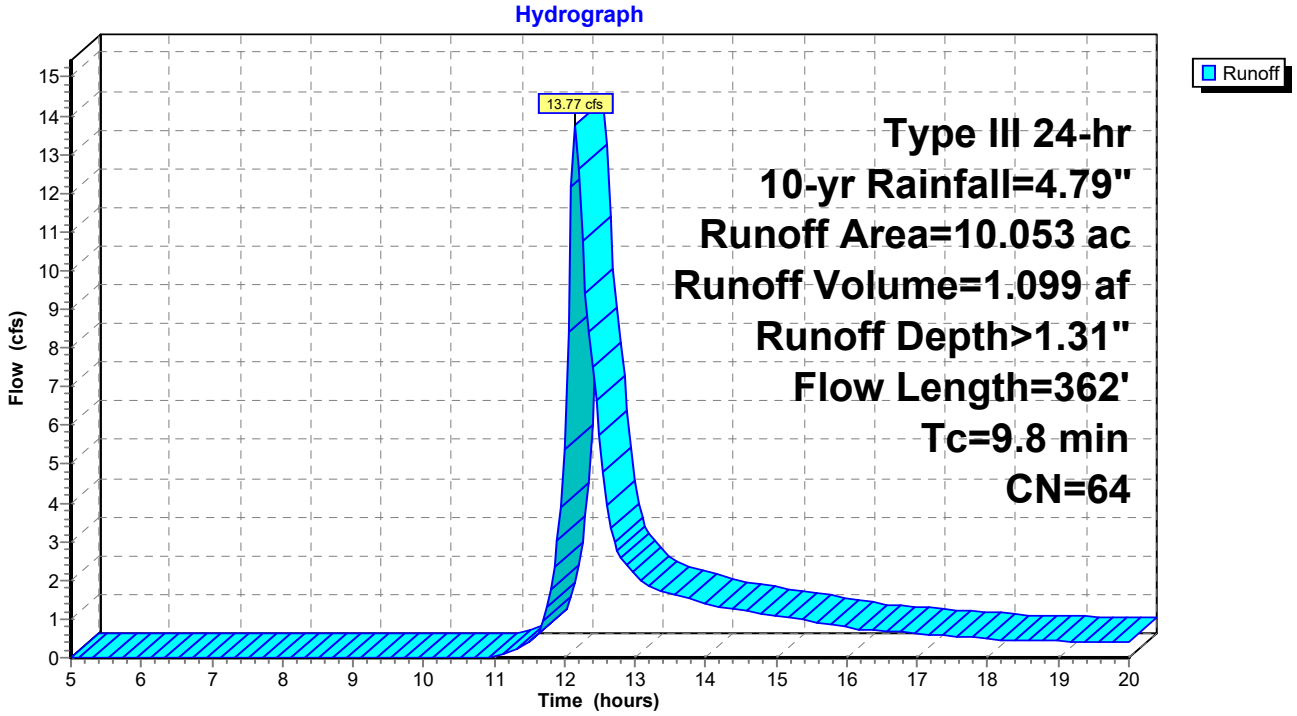
Runoff = 13.77 cfs @ 12.15 hrs, Volume= 1.099 af, Depth> 1.31"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.160	39	>75% Grass cover, Good, HSG A
7.451	61	>75% Grass cover, Good, HSG B
1.614	80	>75% Grass cover, Good, HSG D
0.517	55	Woods, Good, HSG B
0.021	77	Woods, Good, HSG D
0.290	98	Paved parking, HSG A
10.053	64	Weighted Average
9.763		97.12% Pervious Area
0.290		2.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	50	0.0250	0.16		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
4.6	312	0.0260	1.13		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
9.8	362	Total			

Subcatchment B6-1: B6-1



Hydrograph for Subcatchment B6-1: B6-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.03
11.25	1.30	0.01	0.15
11.50	1.43	0.02	0.38
11.75	1.70	0.05	1.33
12.00	2.39	0.23	**5.37**
12.25	3.09	0.51	**10.78**
12.50	3.36	0.64	5.73
12.75	3.49	0.70	2.75
13.00	3.59	0.75	2.15
13.25	3.68	0.80	1.80
13.50	3.75	0.84	1.66
13.75	3.82	0.87	1.53
14.00	3.88	0.91	1.39
14.25	3.94	0.94	1.29
14.50	4.00	0.97	1.22
14.75	4.05	1.00	1.15
15.00	4.09	1.02	1.08
15.25	4.14	1.05	1.01
15.50	4.17	1.07	0.94
15.75	4.21	1.09	0.86
16.00	4.24	1.11	0.79
16.25	4.27	1.13	0.73
16.50	4.30	1.15	0.70
16.75	4.33	1.16	0.66
17.00	4.36	1.18	0.63
17.25	4.38	1.19	0.59
17.50	4.40	1.21	0.56
17.75	4.43	1.22	0.53
18.00	4.45	1.23	0.49
18.25	4.46	1.24	0.47
18.50	4.48	1.25	0.46
18.75	4.50	1.27	0.45
19.00	4.52	1.28	0.44
19.25	4.54	1.29	0.43
19.50	4.55	1.30	0.42
19.75	4.57	1.31	0.41
20.00	**4.58**	**1.32**	0.40

Summary for Subcatchment B6-2: B6-2

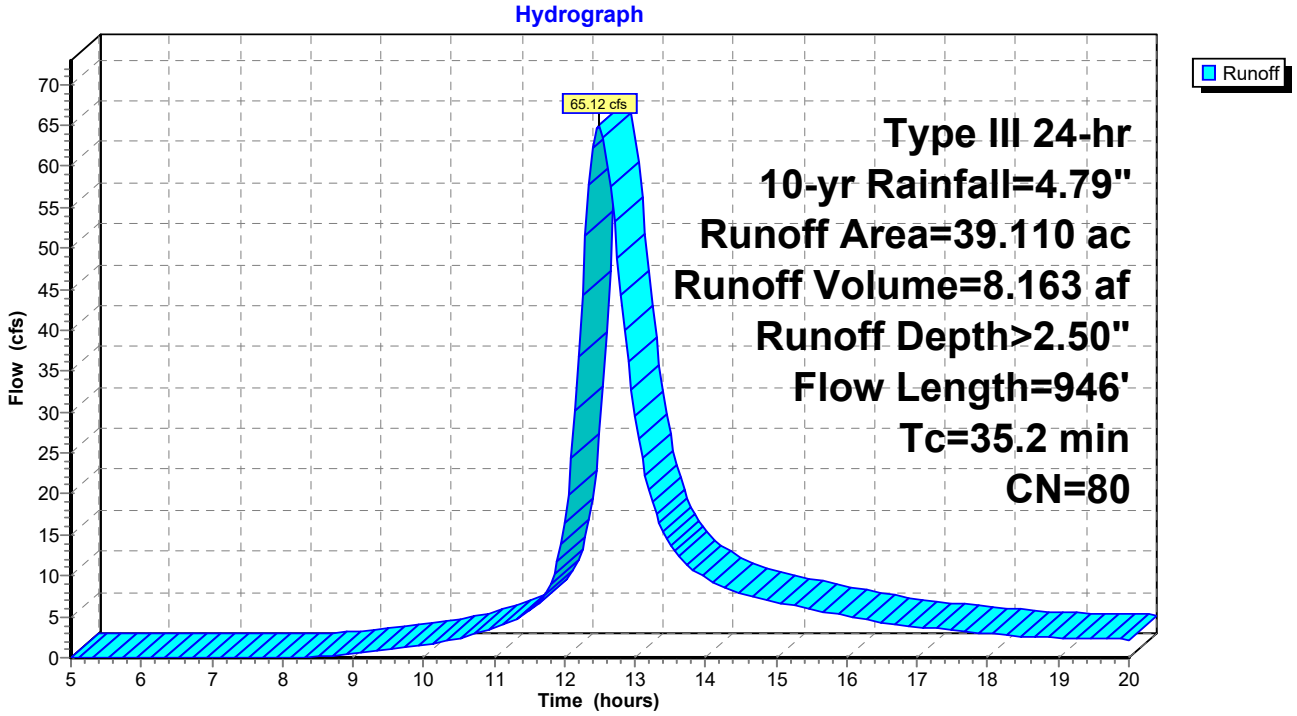
Runoff = 65.12 cfs @ 12.49 hrs, Volume= 8.163 af, Depth> 2.50"
Routed to Pond B6-2* : B6-2 Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
17.844	61	>75% Grass cover, Good, HSG B
1.238	55	Woods, Good, HSG B
8.138	98	Roofs, HSG A
11.890	98	Paved parking, HSG A
39.110	80	Weighted Average
19.082		48.79% Pervious Area
20.028		51.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.9	50	0.0010	0.04		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
2.6	142	0.0170	0.91		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
0.1	14	0.0430	4.21		**Shallow Concentrated Flow, SCF-2** Paved Kv= 20.3 fps
13.6	740	0.0075	0.91	0.05	**Pipe Channel, 36" HDPE** 36.0" Round w/ 35.0" inside fill Area= 0.1 sf Perim= 2.0' r= 0.03' n= 0.013
35.2	946	Total			

Subcatchment B6-2: B6-2



Hydrograph for Subcatchment B6-2: B6-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.01
8.25	0.58	0.00	0.07
8.50	0.62	0.01	0.18
8.75	0.65	0.01	0.32
9.00	0.70	0.01	0.50
9.25	0.74	0.02	0.72
9.50	0.79	0.03	0.97
9.75	0.85	0.04	1.26
10.00	0.91	0.06	1.59
10.25	0.97	0.07	1.95
10.50	1.04	0.09	2.40
10.75	1.11	0.12	2.97
11.00	1.20	0.15	3.64
11.25	1.30	0.19	4.43
11.50	1.43	0.25	5.66
11.75	1.70	0.39	8.03
12.00	2.39	0.82	16.50
12.25	3.09	1.32	44.28
12.50	3.36	1.53	**65.10**
12.75	3.49	1.63	48.69
13.00	3.59	1.71	29.46
13.25	3.68	1.78	18.97
13.50	3.75	1.84	13.79
13.75	3.82	1.90	11.25
14.00	3.88	1.95	9.74
14.25	3.94	1.99	8.68
14.50	4.00	2.04	7.89
14.75	4.05	2.08	7.32
15.00	4.09	2.12	6.85
15.25	4.14	2.15	6.40
15.50	4.17	2.19	5.97
15.75	4.21	2.22	5.53
16.00	4.24	2.24	5.09
16.25	4.27	2.27	4.65
16.50	4.30	2.29	4.28
16.75	4.33	2.32	4.01
17.00	4.36	2.34	3.79
17.25	4.38	2.36	3.59
17.50	4.40	2.38	3.39
17.75	4.43	2.40	3.19
18.00	4.45	2.41	3.00
18.25	4.46	2.43	2.80
18.50	4.48	2.45	2.64
18.75	4.50	2.46	2.54
19.00	4.52	2.48	2.47
19.25	4.54	2.49	2.41
19.50	4.55	2.51	2.35
19.75	4.57	2.52	2.29
20.00	**4.58**	**2.53**	2.23

Summary for Subcatchment B7: B7

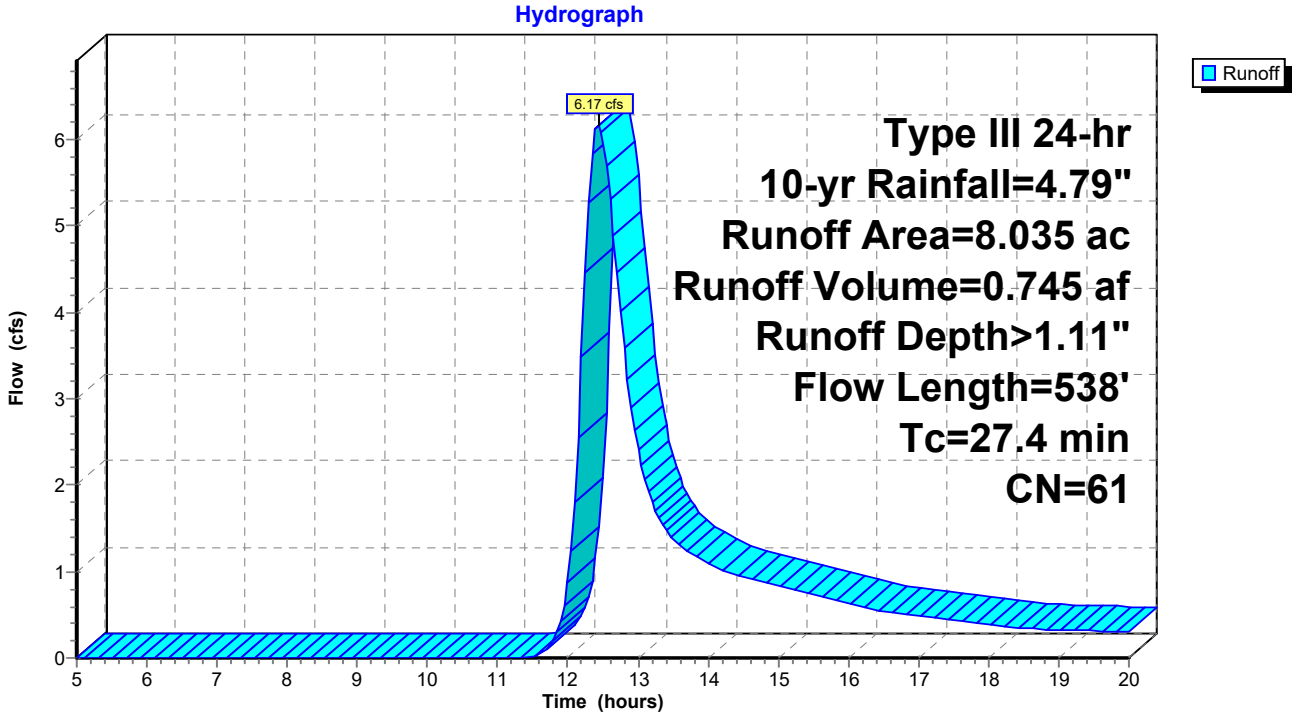
Runoff = 6.17 cfs @ 12.43 hrs, Volume= 0.745 af, Depth> 1.11"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
0.295	61	>75% Grass cover, Good, HSG B
0.440	80	>75% Grass cover, Good, HSG D
5.519	55	Woods, Good, HSG B
1.781	77	Woods, Good, HSG D
8.035	61	Weighted Average
8.035		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	50	0.0160	0.06		**Sheet Flow, SF-1** Woods: Light underbrush n= 0.400 P2= 3.11"
13.7	488	0.0140	0.59		**Shallow Concentrated Flow, SCF-1** Woodland Kv= 5.0 fps
27.4	538	Total			

Subcatchment B7: B7



Hydrograph for Subcatchment B7: B7

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.00
11.50	1.43	0.00	0.01
11.75	1.70	0.03	0.14
12.00	2.39	0.17	0.87
12.25	3.09	0.40	**4.46**
12.50	3.36	0.51	**6.00**
12.75	3.49	0.57	4.01
13.00	3.59	0.61	2.40
13.25	3.68	0.65	1.70
13.50	3.75	0.69	1.37
13.75	3.82	0.72	1.22
14.00	3.88	0.75	1.11
14.25	3.94	0.78	1.01
14.50	4.00	0.81	0.94
14.75	4.05	0.84	0.89
15.00	4.09	0.86	0.84
15.25	4.14	0.88	0.79
15.50	4.17	0.90	0.74
15.75	4.21	0.92	0.69
16.00	4.24	0.94	0.63
16.25	4.27	0.96	0.58
16.50	4.30	0.97	0.54
16.75	4.33	0.99	0.51
17.00	4.36	1.00	0.48
17.25	4.38	1.01	0.46
17.50	4.40	1.03	0.44
17.75	4.43	1.04	0.41
18.00	4.45	1.05	0.39
18.25	4.46	1.06	0.36
18.50	4.48	1.07	0.34
18.75	4.50	1.08	0.33
19.00	4.52	1.09	0.33
19.25	4.54	1.10	0.32
19.50	4.55	1.11	0.31
19.75	4.57	1.12	0.31
20.00	**4.58**	**1.13**	0.30

Summary for Subcatchment B8: B8

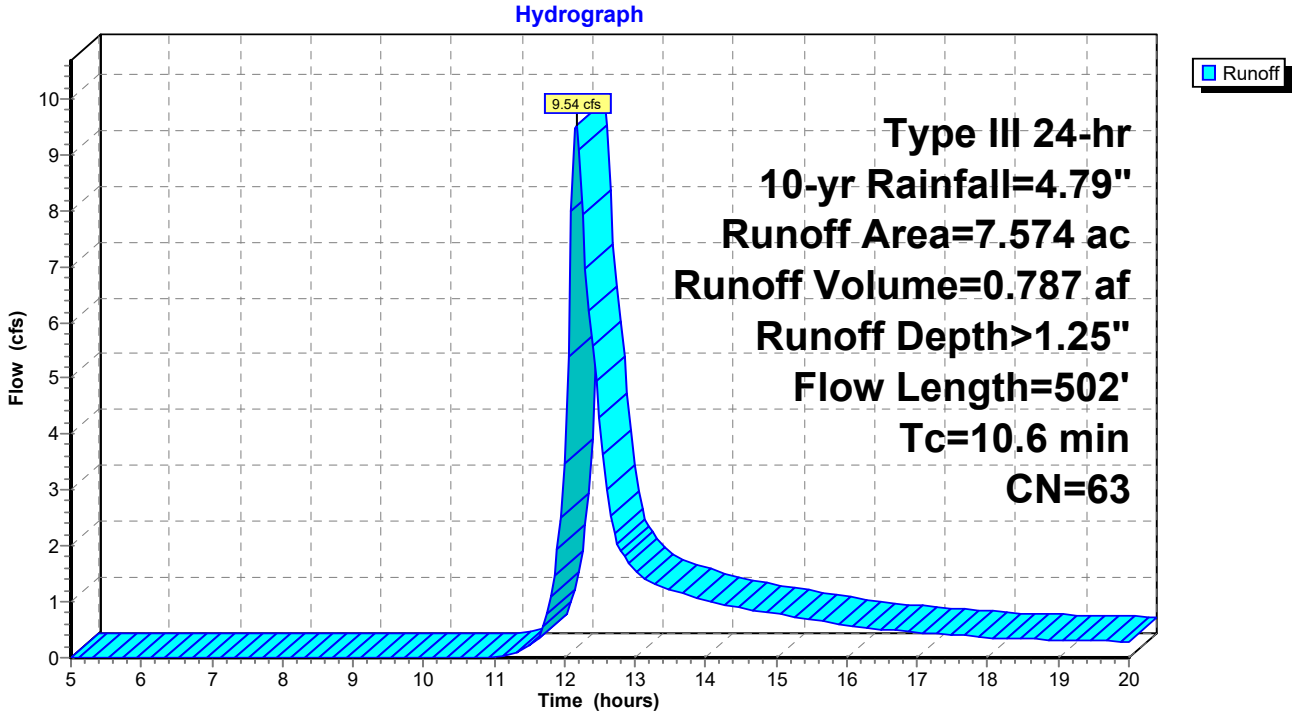
Runoff = 9.54 cfs @ 12.16 hrs, Volume= 0.787 af, Depth> 1.25"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.79"

Area (ac)	CN	Description
6.154	61	>75% Grass cover, Good, HSG B
0.897	55	Woods, Good, HSG B
0.523	98	Water Surface, HSG A
7.574	63	Weighted Average
7.051		93.09% Pervious Area
0.523		6.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	50	0.0170	0.14		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
0.9	73	0.0380	1.36		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
0.3	26	0.0680	1.30		**Shallow Concentrated Flow, scf-2** Woodland Kv= 5.0 fps
3.3	353	0.0660	1.80		**Shallow Concentrated Flow, scf-3** Short Grass Pasture Kv= 7.0 fps
10.6	502	Total			

Subcatchment B8: B8



Hydrograph for Subcatchment B8: B8

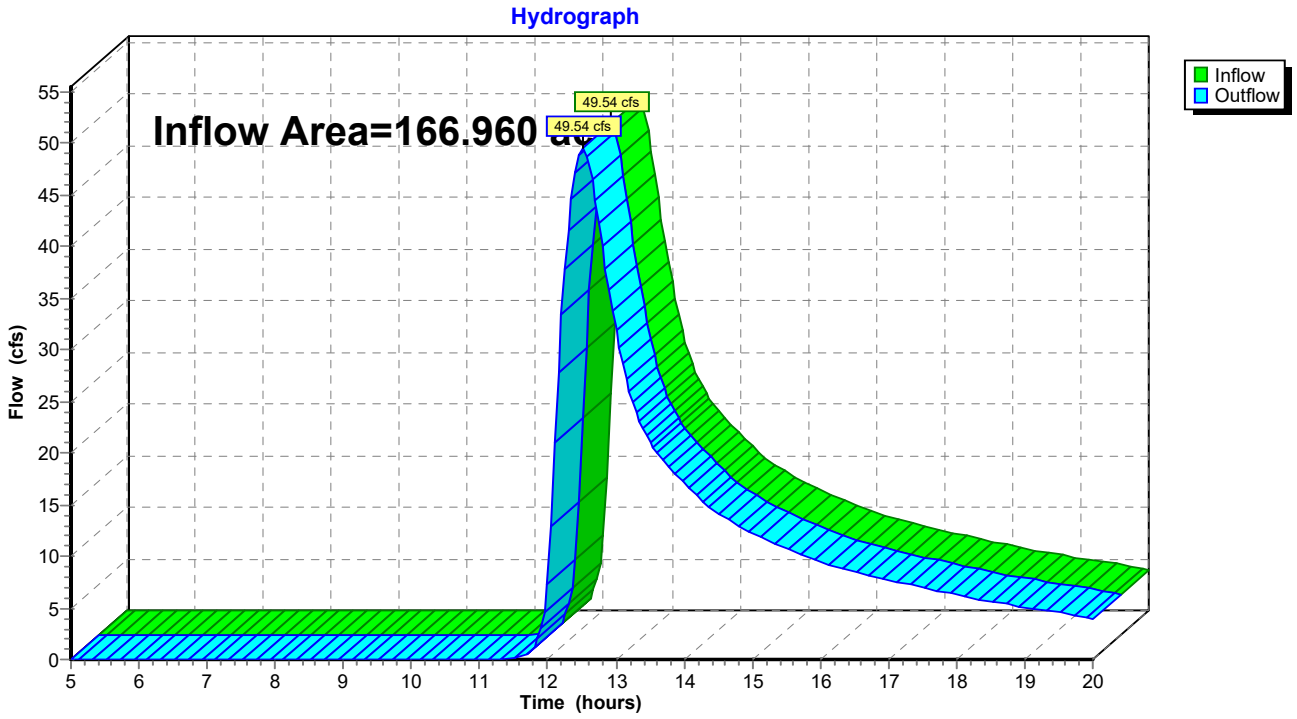
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.27	0.00	0.00
5.25	0.29	0.00	0.00
5.50	0.31	0.00	0.00
5.75	0.33	0.00	0.00
6.00	0.34	0.00	0.00
6.25	0.36	0.00	0.00
6.50	0.39	0.00	0.00
6.75	0.41	0.00	0.00
7.00	0.43	0.00	0.00
7.25	0.46	0.00	0.00
7.50	0.49	0.00	0.00
7.75	0.52	0.00	0.00
8.00	0.55	0.00	0.00
8.25	0.58	0.00	0.00
8.50	0.62	0.00	0.00
8.75	0.65	0.00	0.00
9.00	0.70	0.00	0.00
9.25	0.74	0.00	0.00
9.50	0.79	0.00	0.00
9.75	0.85	0.00	0.00
10.00	0.91	0.00	0.00
10.25	0.97	0.00	0.00
10.50	1.04	0.00	0.00
10.75	1.11	0.00	0.00
11.00	1.20	0.00	0.00
11.25	1.30	0.00	0.06
11.50	1.43	0.01	0.21
11.75	1.70	0.04	0.80
12.00	2.39	0.21	**3.46**
12.25	3.09	0.47	**7.92**
12.50	3.36	0.59	4.30
12.75	3.49	0.66	2.04
13.00	3.59	0.71	1.58
13.25	3.68	0.75	1.31
13.50	3.75	0.79	1.21
13.75	3.82	0.82	1.12
14.00	3.88	0.86	1.02
14.25	3.94	0.89	0.94
14.50	4.00	0.92	0.89
14.75	4.05	0.94	0.84
15.00	4.09	0.97	0.79
15.25	4.14	0.99	0.74
15.50	4.17	1.01	0.69
15.75	4.21	1.03	0.63
16.00	4.24	1.05	0.58
16.25	4.27	1.07	0.53
16.50	4.30	1.09	0.51
16.75	4.33	1.10	0.49
17.00	4.36	1.12	0.46
17.25	4.38	1.13	0.44
17.50	4.40	1.15	0.41
17.75	4.43	1.16	0.39
18.00	4.45	1.17	0.36
18.25	4.46	1.18	0.34
18.50	4.48	1.19	0.33
18.75	4.50	1.20	0.33
19.00	4.52	1.21	0.32
19.25	4.54	1.22	0.31
19.50	4.55	1.23	0.31
19.75	4.57	1.24	0.30
20.00	**4.58**	**1.25**	0.29

Summary for Reach DP-A: DP-A

Inflow Area = 166.960 ac, 32.99% Impervious, Inflow Depth > 0.67" for 10-yr event
Inflow = 49.54 cfs @ 12.51 hrs, Volume= 9.254 af
Outflow = 49.54 cfs @ 12.51 hrs, Volume= 9.254 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-A: DP-A



Hydrograph for Reach DP-A: DP-A

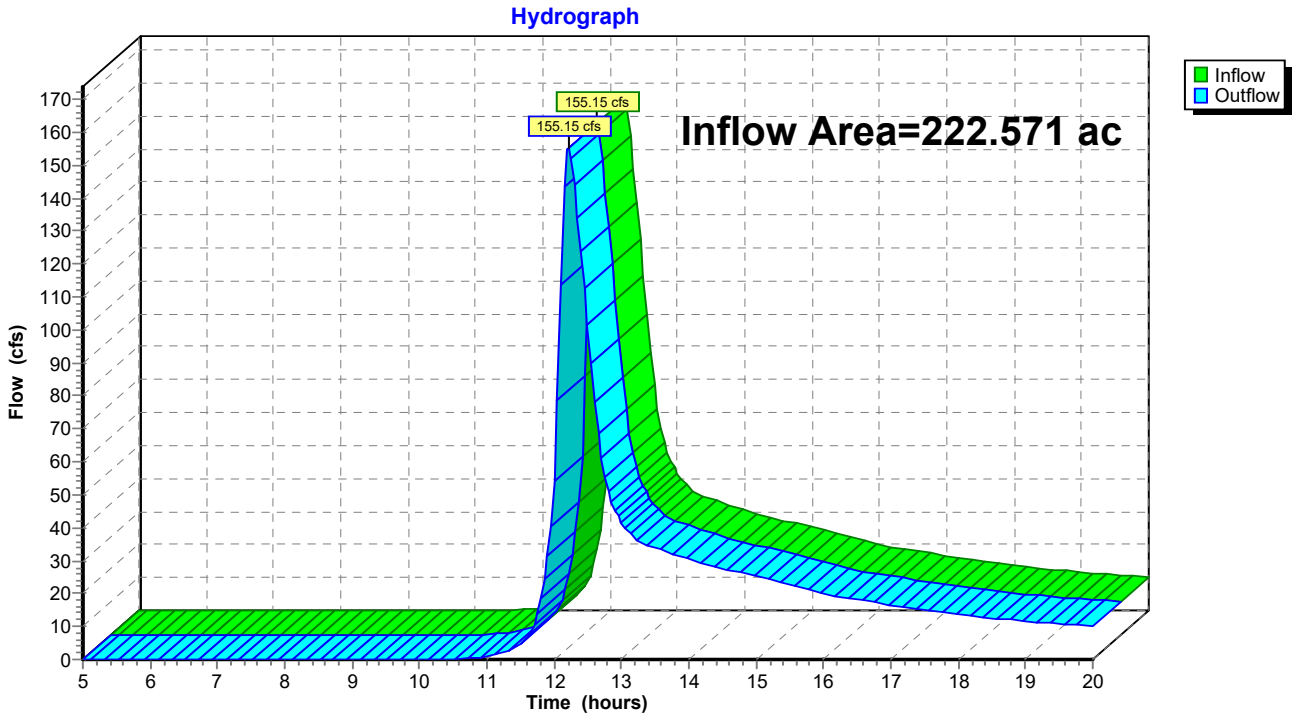
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	6.65		6.65
5.25	0.00		0.00	18.00	6.28		6.28
5.50	0.00		0.00	18.25	5.91		5.91
5.75	0.00		0.00	18.50	5.60		5.60
6.00	0.00		0.00	18.75	5.33		5.33
6.25	0.00		0.00	19.00	5.07		5.07
6.50	0.00		0.00	19.25	4.83		4.83
6.75	0.00		0.00	19.50	4.55		4.55
7.00	0.00		0.00	19.75	4.25		4.25
7.25	0.00		0.00	20.00	3.94		3.94
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.00		0.00				
10.25	0.00		0.00				
10.50	0.00		0.00				
10.75	0.00		0.00				
11.00	0.00		0.00				
11.25	0.00		0.00				
11.50	0.06		0.06				
11.75	0.73		0.73				
12.00	7.33		7.33				
12.25	37.84		37.84				
12.50	**49.52**		**49.52**				
12.75	42.29		42.29				
13.00	31.89		31.89				
13.25	24.90		24.90				
13.50	21.10		21.10				
13.75	18.80		18.80				
14.00	17.08		17.08				
14.25	15.48		15.48				
14.50	14.16		14.16				
14.75	13.10		13.10				
15.00	12.20		12.20				
15.25	11.41		11.41				
15.50	10.73		10.73				
15.75	10.08		10.08				
16.00	9.49		9.49				
16.25	8.93		8.93				
16.50	8.46		8.46				
16.75	8.07		8.07				
17.00	7.71		7.71				
17.25	7.36		7.36				
17.50	7.01		7.01				

Summary for Reach DP-B: DP-B

Inflow Area = 222.571 ac, 25.25% Impervious, Inflow Depth > 1.09" for 10-yr event
Inflow = 155.15 cfs @ 12.22 hrs, Volume= 20.250 af
Outflow = 155.15 cfs @ 12.22 hrs, Volume= 20.250 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-B: DP-B



Hydrograph for Reach DP-B: DP-B

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00
5.25	0.00		0.00
5.50	0.00		0.00
5.75	0.00		0.00
6.00	0.00		0.00
6.25	0.00		0.00
6.50	0.00		0.00
6.75	0.00		0.00
7.00	0.00		0.00
7.25	0.00		0.00
7.50	0.00		0.00
7.75	0.00		0.00
8.00	0.00		0.00
8.25	0.00		0.00
8.50	0.00		0.00
8.75	0.00		0.00
9.00	0.00		0.00
9.25	0.01		0.01
9.50	0.01		0.01
9.75	0.01		0.01
10.00	0.02		0.02
10.25	0.04		0.04
10.50	0.14		0.14
10.75	0.41		0.41
11.00	0.93		0.93
11.25	2.18		2.18
11.50	4.86		4.86
11.75	13.77		13.77
12.00	**53.99**		**53.99**
12.25	**152.01**		**152.01**
12.50	101.61		101.61
12.75	55.30		55.30
13.00	41.59		41.59
13.25	35.83		35.83
13.50	33.74		33.74
13.75	32.15		32.15
14.00	30.40		30.40
14.25	28.70		28.70
14.50	27.55		27.55
14.75	26.46		26.46
15.00	25.32		25.32
15.25	24.12		24.12
15.50	22.88		22.88
15.75	21.58		21.58
16.00	20.24		20.24
16.25	19.02		19.02
16.50	18.16		18.16
16.75	17.37		17.37
17.00	16.61		16.61
17.25	15.84		15.84
17.50	15.08		15.08
17.75	14.32		14.32
18.00	13.56		13.56
18.25	12.89		12.89
18.50	12.43		12.43
18.75	12.04		12.04
19.00	11.66		11.66
19.25	11.30		11.30
19.50	10.95		10.95
19.75	10.61		10.61
20.00	10.27		10.27

Summary for Pond A1-2*: A1-2 Infiltration Basin

Inflow Area = 21.469 ac, 66.84% Impervious, Inflow Depth > 3.80" for 10-yr event
Inflow = 76.76 cfs @ 12.09 hrs, Volume= 6.797 af
Outflow = 13.25 cfs @ 12.60 hrs, Volume= 6.797 af, Atten= 83%, Lag= 30.3 min
Discarded = 10.63 cfs @ 12.60 hrs, Volume= 6.436 af
Primary = 2.62 cfs @ 12.60 hrs, Volume= 0.362 af
Routed to Reach DP-A : DP-A

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 118.83' @ 12.60 hrs Surf.Area= 45,919 sf Storage= 88,152 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 72.4 min (844.5 - 772.1)

Volume	Invert	Avail.Storage	Storage Description
#1	116.00'	202,931 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

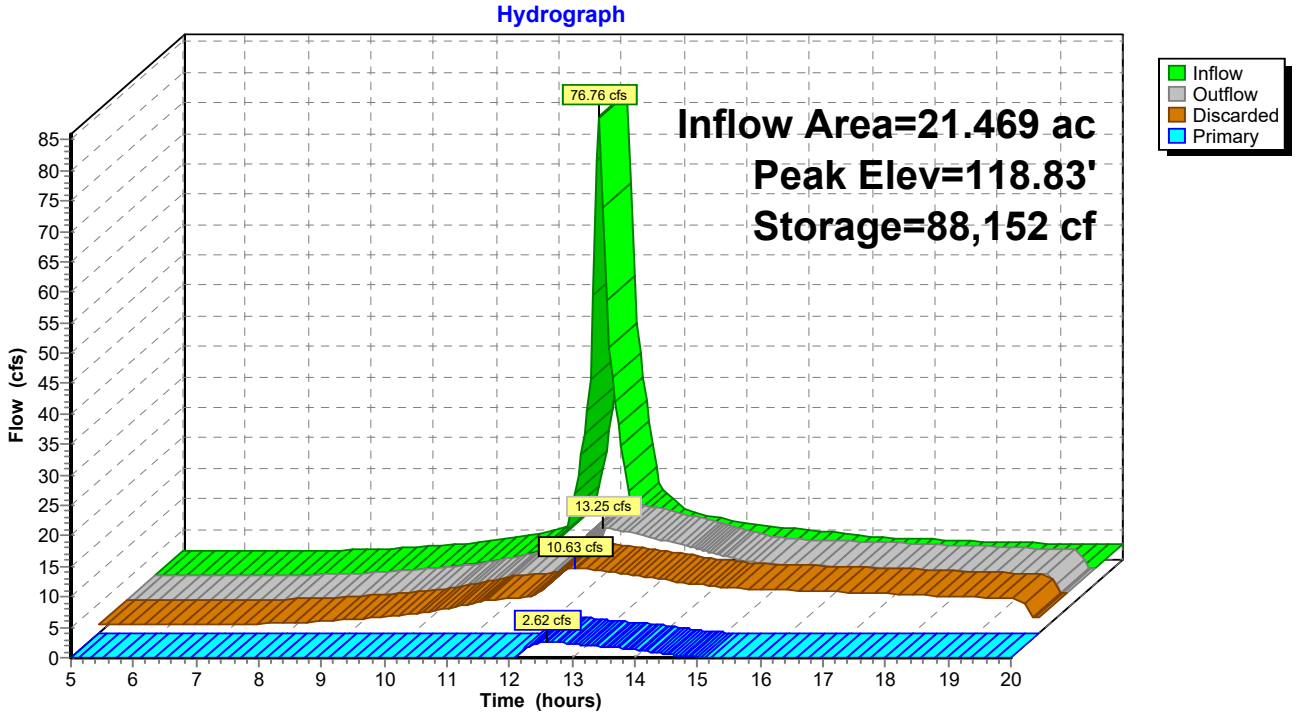
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
116.00	24,032	0	0
117.00	27,880	25,956	25,956
118.00	31,955	29,918	55,874
119.00	48,800	40,378	96,251
120.00	53,312	51,056	147,307
121.00	57,935	55,624	202,931

Device	Routing	Invert	Outlet Devices
#1	Primary	116.00'	**24.0" Round Culvert** L= 150.0' Ke= 1.000 Inlet / Outlet Invert= 116.00' / 114.00' S= 0.0133 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	117.90'	**6.0" Vert. Orifice/Grate X 3.00** C= 0.600 Limited to weir flow at low heads
#3	Device 1	118.60'	**6.0" Vert. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads
#4	Device 1	120.00'	**3.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#5	Discarded	116.00'	**10.000 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=10.63 cfs @ 12.60 hrs HW=118.83' (Free Discharge)
└**5=Exfiltration** (Exfiltration Controls 10.63 cfs)

Primary OutFlow Max=2.62 cfs @ 12.60 hrs HW=118.83' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 2.62 cfs of 15.34 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 2.34 cfs @ 3.97 fps)
├**3=Orifice/Grate** (Orifice Controls 0.29 cfs @ 1.63 fps)
└**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond A1-2*: A1-2 Infiltration Basin



Hydrograph for Pond A1-2*: A1-2 Infiltration Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
5.00	1.31	0	116.00	1.31	1.31	0.00
5.50	1.31	0	116.00	1.31	1.31	0.00
6.00	1.31	0	116.00	1.31	1.31	0.00
6.50	1.31	0	116.00	1.31	1.31	0.00
7.00	1.40	0	116.00	1.40	1.40	0.00
7.50	1.53	0	116.00	1.53	1.53	0.00
8.00	1.69	0	116.00	1.69	1.69	0.00
8.50	1.94	0	116.00	1.94	1.94	0.00
9.00	2.27	0	116.00	2.27	2.27	0.00
9.50	2.68	0	116.00	2.68	2.68	0.00
10.00	3.17	0	116.00	3.17	3.17	0.00
10.50	3.96	0	116.00	3.96	3.96	0.00
11.00	4.97	1	116.00	4.96	4.96	0.00
11.50	7.83	1,367	116.06	5.61	5.61	0.00
12.00	**47.53**	26,543	117.02	6.47	6.47	0.00
12.50	**18.84**	**87,326**	**118.81**	**13.11**	**10.56**	**2.55**
13.00	8.58	**84,247**	**118.74**	**12.59**	**10.29**	**2.30**
13.50	7.00	76,331	118.56	11.39	9.57	1.81
14.00	5.96	68,606	118.36	10.14	8.81	1.32
14.50	5.35	61,797	118.18	8.69	8.09	0.60
15.00	4.85	56,398	118.02	7.58	7.46	0.12
15.50	4.33	51,386	117.86	7.26	7.26	0.00
16.00	3.81	45,789	117.68	7.09	7.09	0.00
16.50	3.53	39,755	117.48	6.90	6.90	0.00
17.00	3.30	33,649	117.27	6.71	6.71	0.00
17.50	3.07	27,492	117.05	6.51	6.51	0.00
18.00	2.84	21,289	116.83	6.30	6.30	0.00
18.50	2.74	15,137	116.60	6.10	6.10	0.00
19.00	2.68	9,223	116.37	5.89	5.89	0.00
19.50	2.61	3,551	116.15	5.69	5.69	0.00
20.00	2.54	0	116.00	2.64	2.64	0.00

Stage-Discharge for Pond A1-2*: A1-2 Infiltration Basin

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
116.00	0.00	0.00	0.00
116.05	5.61	5.61	0.00
116.10	5.65	5.65	0.00
116.15	5.70	5.70	0.00
116.20	5.74	5.74	0.00
116.25	5.79	5.79	0.00
116.30	5.83	5.83	0.00
116.35	5.87	5.87	0.00
116.40	5.92	5.92	0.00
116.45	5.96	5.96	0.00
116.50	6.01	6.01	0.00
116.55	6.05	6.05	0.00
116.60	6.10	6.10	0.00
116.65	6.14	6.14	0.00
116.70	6.19	6.19	0.00
116.75	6.23	6.23	0.00
116.80	6.28	6.28	0.00
116.85	6.32	6.32	0.00
116.90	6.36	6.36	0.00
116.95	6.41	6.41	0.00
117.00	6.45	6.45	0.00
117.05	6.50	6.50	0.00
117.10	6.55	6.55	0.00
117.15	6.60	6.60	0.00
117.20	6.64	6.64	0.00
117.25	6.69	6.69	0.00
117.30	6.74	6.74	0.00
117.35	6.78	6.78	0.00
117.40	6.83	6.83	0.00
117.45	6.88	6.88	0.00
117.50	6.93	6.93	0.00
117.55	6.97	6.97	0.00
117.60	7.02	7.02	0.00
117.65	7.07	7.07	0.00
117.70	7.11	7.11	0.00
117.75	7.16	7.16	0.00
117.80	7.21	7.21	0.00
117.85	7.26	7.26	0.00
117.90	7.30	7.30	0.00
117.95	7.37	7.35	0.02
118.00	7.49	7.40	0.09
118.05	7.79	7.59	0.20
118.10	8.12	7.79	0.34
118.15	8.48	7.98	0.50
118.20	8.87	8.18	0.69
118.25	9.26	8.37	0.89
118.30	9.65	8.57	1.09
118.35	10.04	8.76	1.28
118.40	10.37	8.96	1.42
118.45	10.71	9.15	1.55
118.50	11.02	9.35	1.68
118.55	11.34	9.54	1.79
118.60	11.64	9.74	1.90
118.65	11.95	9.93	2.02
118.70	12.29	10.13	2.16
118.75	12.65	10.32	2.33
118.80	13.03	10.52	2.51
118.85	13.42	10.71	2.71
118.90	13.82	10.91	2.92
118.95	14.23	11.10	3.13
119.00	14.64	11.30	3.34
119.05	14.89	11.35	3.54
119.10	15.11	11.40	3.71
119.15	15.32	11.45	3.87
119.20	15.53	11.51	4.02
119.25	15.73	11.56	4.17
119.30	15.92	11.61	4.31
119.35	16.11	11.66	4.44
119.40	16.29	11.71	4.57
119.45	16.46	11.77	4.70
119.50	16.64	11.82	4.82
119.55	16.81	11.87	4.94
119.60	16.98	11.92	5.05
119.65	17.14	11.98	5.16
119.70	17.30	12.03	5.27
119.75	17.46	12.08	5.38
119.80	17.62	12.13	5.49
119.85	17.77	12.18	5.59
119.90	17.93	12.24	5.69
119.95	18.08	12.29	5.79
120.00	18.23	12.34	5.89
120.05	18.48	12.39	6.09
120.10	18.83	12.45	6.38
120.15	19.23	12.50	6.73
120.20	19.68	12.55	7.12
120.25	20.16	12.61	7.55
120.30	20.68	12.66	8.02
120.35	21.22	12.72	8.51
120.40	21.79	12.77	9.02
120.45	22.39	12.82	9.57
120.50	23.01	12.88	10.13
120.55	23.64	12.93	10.71
120.60	24.30	12.98	11.32
120.65	24.98	13.04	11.94
120.70	25.67	13.09	12.58
120.75	26.38	13.14	13.23
120.80	27.10	13.20	13.90
120.85	27.84	13.25	14.59
120.90	28.59	13.30	15.28
120.95	29.35	13.36	15.99
121.00	**30.13**	**13.41**	**16.72**

Stage-Area-Storage for Pond A1-2*: A1-2 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
116.00	24,032	24,032	0
116.10	24,417	24,417	2,422
116.20	24,802	24,802	4,883
116.30	25,186	25,186	7,383
116.40	25,571	25,571	9,921
116.50	25,956	25,956	12,497
116.60	26,341	26,341	15,112
116.70	26,726	26,726	17,765
116.80	27,110	27,110	20,457
116.90	27,495	27,495	23,187
117.00	27,880	27,880	25,956
117.10	28,287	28,287	28,764
117.20	28,695	28,695	31,614
117.30	29,102	29,102	34,503
117.40	29,510	29,510	37,434
117.50	29,918	29,918	40,405
117.60	30,325	30,325	43,417
117.70	30,733	30,733	46,470
117.80	31,140	31,140	49,564
117.90	31,548	31,548	52,698
118.00	31,955	31,955	55,874
118.10	33,639	33,639	59,153
118.20	35,324	35,324	62,601
118.30	37,008	37,008	66,218
118.40	38,693	38,693	70,003
118.50	40,378	40,378	73,957
118.60	42,062	42,062	78,079
118.70	43,747	43,747	82,369
118.80	45,431	45,431	86,828
118.90	47,116	47,116	91,455
119.00	48,800	48,800	96,251
119.10	49,251	49,251	101,154
119.20	49,702	49,702	106,101
119.30	50,154	50,154	111,094
119.40	50,605	50,605	116,132
119.50	51,056	51,056	121,215
119.60	51,507	51,507	126,343
119.70	51,958	51,958	131,516
119.80	52,410	52,410	136,735
119.90	52,861	52,861	141,998
120.00	53,312	53,312	147,307
120.10	53,774	53,774	152,661
120.20	54,237	54,237	158,062
120.30	54,699	54,699	163,509
120.40	55,161	55,161	169,002
120.50	55,624	55,624	174,541
120.60	56,086	56,086	180,126
120.70	56,548	56,548	185,758
120.80	57,010	57,010	191,436
120.90	57,473	57,473	197,160
121.00	**57,935**	**57,935**	**202,931**

Summary for Pond A1-3*: A1-3 Infiltration Basin

Inflow Area = 31.975 ac, 77.29% Impervious, Inflow Depth > 3.65" for 10-yr event
Inflow = 130.62 cfs @ 12.09 hrs, Volume= 9.721 af
Outflow = 11.50 cfs @ 13.06 hrs, Volume= 7.098 af, Atten= 91%, Lag= 58.2 min
Discarded = 5.46 cfs @ 13.06 hrs, Volume= 4.616 af
Primary = 6.04 cfs @ 13.06 hrs, Volume= 2.481 af
Routed to Reach DP-A : DP-A

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 117.48' @ 13.06 hrs Surf.Area= 66,291 sf Storage= 214,837 cf

Plug-Flow detention time= 182.2 min calculated for 7.098 af (73% of inflow)
Center-of-Mass det. time= 115.2 min (876.6 - 761.4)

Volume	Invert	Avail.Storage	Storage Description
#1	113.00'	398,001 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

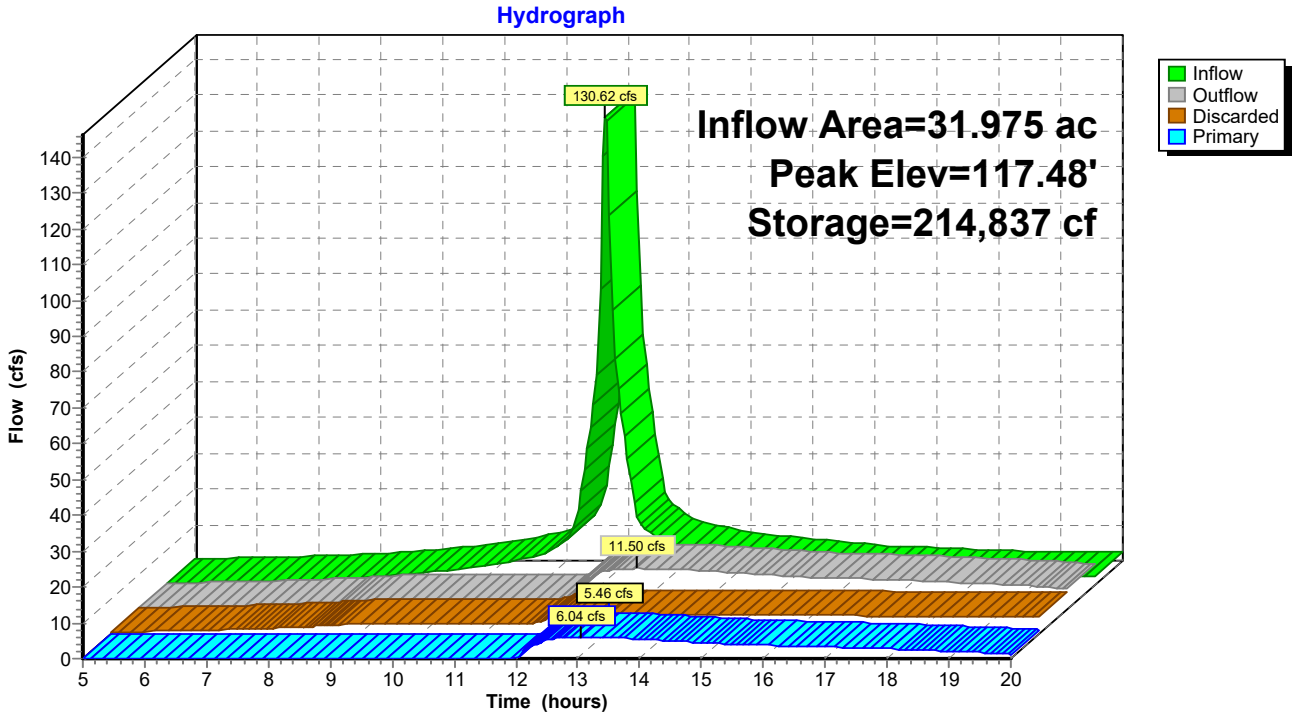
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
113.00	32,860	0	0
114.00	36,323	34,592	34,592
115.00	39,901	38,112	72,704
116.00	59,025	49,463	122,167
117.00	63,904	61,465	183,631
118.00	68,883	66,394	250,025
119.00	73,962	71,423	321,447
120.00	79,145	76,554	398,001

Device	Routing	Invert	Outlet Devices
#1	Primary	113.00'	**24.0" Round Culvert** L= 50.0' Ke= 1.000 Inlet / Outlet Invert= 113.00' / 111.00' S= 0.0400 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	115.40'	**8.0" Vert. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads
#3	Device 1	117.00'	**18.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	118.00'	**8.0" Vert. Orifice/Grate X 3.00** C= 0.600 Limited to weir flow at low heads
#5	Device 1	118.80'	**2.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#6	Discarded	113.00'	**3.560 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=5.46 cfs @ 13.06 hrs HW=117.48' (Free Discharge)
└**6=Exfiltration** (Exfiltration Controls 5.46 cfs)

Primary OutFlow Max=6.04 cfs @ 13.06 hrs HW=117.48' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 6.04 cfs of 21.16 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 4.44 cfs @ 6.36 fps)
  └**3=Orifice/Grate** (Orifice Controls 1.60 cfs @ 2.22 fps)
  └**4=Orifice/Grate** (Controls 0.00 cfs)
  └**5=Sharp-Crested Rectangular Weir**(Controls 0.00 cfs)

Pond A1-3*: A1-3 Infiltration Basin



Hydrograph for Pond A1-3*: A1-3 Infiltration Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
5.00	0.54	0	113.00	0.54	0.54	0.00
5.50	0.68	0	113.00	0.68	0.68	0.00
6.00	0.82	0	113.00	0.82	0.82	0.00
6.50	1.02	0	113.00	1.02	1.02	0.00
7.00	1.28	0	113.00	1.28	1.28	0.00
7.50	1.58	0	113.00	1.58	1.58	0.00
8.00	1.92	0	113.00	1.92	1.92	0.00
8.50	2.48	1	113.00	2.48	2.48	0.00
9.00	3.19	305	113.01	2.71	2.71	0.00
9.50	3.99	1,868	113.06	2.72	2.72	0.00
10.00	4.87	4,913	113.15	2.75	2.75	0.00
10.50	6.35	9,929	113.30	2.79	2.79	0.00
11.00	8.11	17,841	113.53	2.86	2.86	0.00
11.50	13.34	31,319	113.91	2.97	2.97	0.00
12.00	**82.68**	88,628	115.37	3.87	3.87	0.00
12.50	**29.16**	204,844	117.33	10.55	5.40	5.15
13.00	12.19	**214,769**	**117.48**	**11.50**	**5.46**	**6.03**
13.50	9.58	**213,137**	**117.45**	**11.33**	**5.45**	**5.88**
14.00	7.86	208,783	117.39	10.91	5.43	5.49
14.50	6.87	202,770	117.30	10.37	5.39	4.98
15.00	6.04	196,215	117.20	9.83	5.35	4.48
15.50	5.20	189,101	117.09	9.33	5.30	4.03
16.00	4.36	181,273	116.96	8.98	5.25	3.73
16.50	3.91	172,731	116.83	8.71	5.20	3.52
17.00	3.55	164,010	116.69	8.43	5.14	3.29
17.50	3.18	155,169	116.55	8.12	5.08	3.03
18.00	2.81	146,257	116.40	7.77	5.03	2.75
18.50	2.65	137,485	116.26	7.40	4.97	2.43
19.00	2.55	129,202	116.12	7.00	4.91	2.09
19.50	2.44	121,467	115.99	6.55	4.85	1.70
20.00	2.33	114,571	115.87	5.88	4.66	1.22

Stage-Discharge for Pond A1-3*: A1-3 Infiltration Basin

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
113.00	0.00	0.00	0.00
113.10	2.74	2.74	0.00
113.20	2.76	2.76	0.00
113.30	2.79	2.79	0.00
113.40	2.82	2.82	0.00
113.50	2.85	2.85	0.00
113.60	2.88	2.88	0.00
113.70	2.91	2.91	0.00
113.80	2.94	2.94	0.00
113.90	2.96	2.96	0.00
114.00	2.99	2.99	0.00
114.10	3.02	3.02	0.00
114.20	3.05	3.05	0.00
114.30	3.08	3.08	0.00
114.40	3.11	3.11	0.00
114.50	3.14	3.14	0.00
114.60	3.17	3.17	0.00
114.70	3.20	3.20	0.00
114.80	3.23	3.23	0.00
114.90	3.26	3.26	0.00
115.00	3.29	3.29	0.00
115.10	3.45	3.45	0.00
115.20	3.60	3.60	0.00
115.30	3.76	3.76	0.00
115.40	3.92	3.92	0.00
115.50	4.15	4.08	0.07
115.60	4.50	4.23	0.27
115.70	4.96	4.39	0.57
115.80	5.49	4.55	0.94
115.90	6.06	4.71	1.35
116.00	6.61	4.86	1.75
116.10	6.94	4.90	2.04
116.20	7.24	4.94	2.30
116.30	7.52	4.98	2.53
116.40	7.77	5.02	2.74
116.50	8.01	5.07	2.94
116.60	8.23	5.11	3.13
116.70	8.45	5.15	3.30
116.80	8.66	5.19	3.47
116.90	8.86	5.23	3.63
117.00	9.05	5.27	3.78
117.10	9.39	5.31	4.08
117.20	9.85	5.35	4.50
117.30	10.39	5.39	5.00
117.40	10.99	5.43	5.56
117.50	11.64	5.47	6.17
117.60	12.19	5.51	6.68
117.70	12.66	5.55	7.10
117.80	13.08	5.59	7.49
117.90	13.48	5.64	7.84
118.00	13.85	5.68	8.17
118.10	14.31	5.72	8.59
118.20	14.95	5.76	9.19
118.30	15.73	5.80	9.93
118.40	16.61	5.84	10.77
118.50	17.54	5.89	11.65
118.60	18.43	5.93	12.50
118.70	19.16	5.97	13.19
118.80	19.83	6.01	13.82
118.90	20.67	6.05	14.62
119.00	21.63	6.10	15.54
119.10	22.67	6.14	16.53
119.20	23.76	6.18	17.58
119.30	24.89	6.22	18.67
119.40	26.06	6.27	19.79
119.50	27.25	6.31	20.95
119.60	28.47	6.35	22.12
119.70	29.71	6.39	23.32
119.80	30.97	6.44	24.54
119.90	32.24	6.48	25.76
120.00	**33.53**	**6.52**	**27.00**

Stage-Area-Storage for Pond A1-3*: A1-3 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
113.00	32,860	32,860	0
113.20	33,553	33,553	6,641
113.40	34,245	34,245	13,421
113.60	34,938	34,938	20,339
113.80	35,630	35,630	27,396
114.00	36,323	36,323	34,592
114.20	37,039	37,039	41,928
114.40	37,754	37,754	49,407
114.60	38,470	38,470	57,029
114.80	39,185	39,185	64,795
115.00	39,901	39,901	72,704
115.20	43,726	43,726	81,066
115.40	47,551	47,551	90,194
115.60	51,375	51,375	100,086
115.80	55,200	55,200	110,744
116.00	59,025	59,025	122,167
116.20	60,001	60,001	134,069
116.40	60,977	60,977	146,167
116.60	61,952	61,952	158,460
116.80	62,928	62,928	170,948
117.00	63,904	63,904	183,631
117.20	64,900	64,900	196,511
117.40	65,896	65,896	209,591
117.60	66,891	66,891	222,870
117.80	67,887	67,887	236,347
118.00	68,883	68,883	250,025
118.20	69,899	69,899	263,903
118.40	70,915	70,915	277,984
118.60	71,930	71,930	292,269
118.80	72,946	72,946	306,756
119.00	73,962	73,962	321,447
119.20	74,999	74,999	336,343
119.40	76,035	76,035	351,446
119.60	77,072	77,072	366,757
119.80	78,108	78,108	382,275
120.00	**79,145**	**79,145**	**398,001**

Summary for Pond A11-2*: A11-2 Infiltration Basin

Inflow Area = 34.745 ac, 45.43% Impervious, Inflow Depth > 2.23" for 10-yr event
Inflow = 39.46 cfs @ 12.81 hrs, Volume= 6.461 af
Outflow = 20.03 cfs @ 13.49 hrs, Volume= 6.472 af, Atten= 49%, Lag= 40.7 min
Discarded = 20.03 cfs @ 13.49 hrs, Volume= 6.472 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Reach DP-A : DP-A

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 116.56' @ 13.49 hrs Surf.Area= 86,538 sf Storage= 47,777 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 16.1 min (852.3 - 836.3)

Volume	Invert	Avail.Storage	Storage Description
#1	116.00'	526,055 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

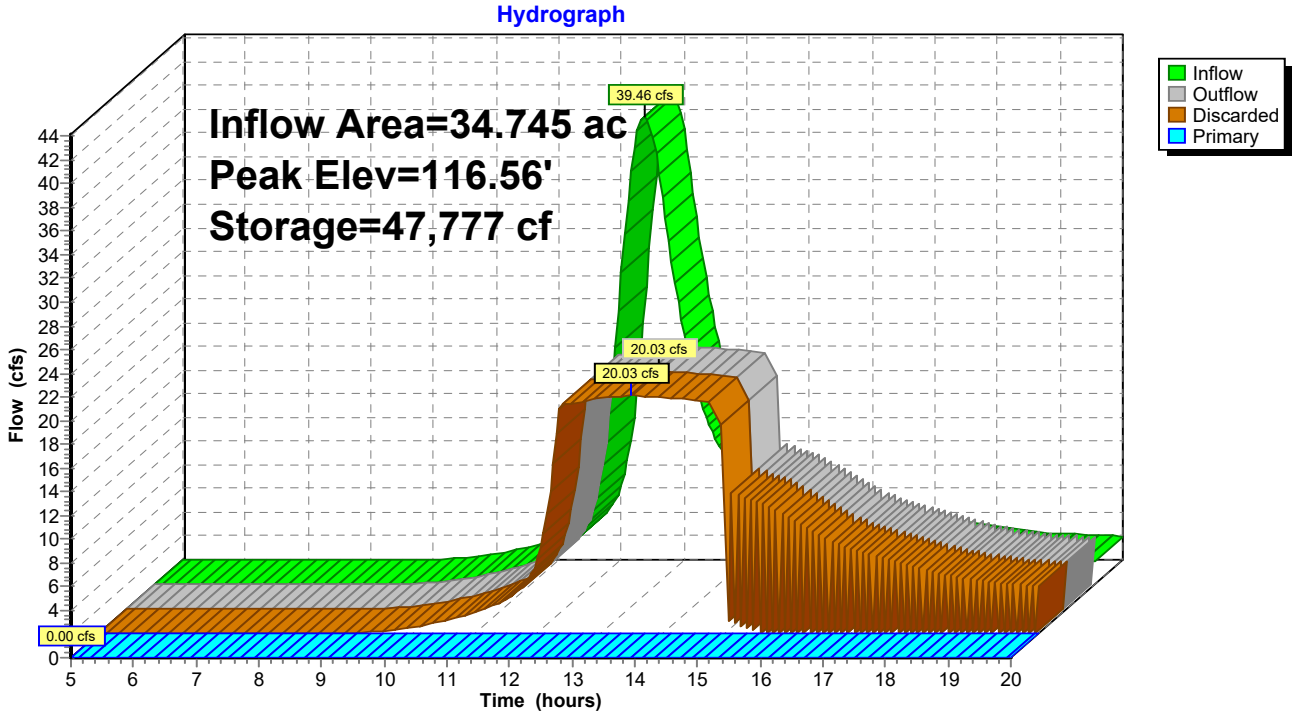
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
116.00	83,518	0	0
117.00	88,893	86,206	86,206
118.00	94,403	91,648	177,854
119.00	115,652	105,028	282,881
120.00	121,576	118,614	401,495
121.00	127,544	124,560	526,055

Device	Routing	Invert	Outlet Devices
#1	Primary	116.00'	**24.0" Round Culvert** L= 150.0' Ke= 1.000 Inlet / Outlet Invert= 116.00' / 114.00' S= 0.0133 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	117.50'	**6.0" Vert. Orifice/Grate X 3.00** C= 0.600 Limited to weir flow at low heads
#3	Device 1	118.50'	**24.0" W x 8.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	119.80'	**3.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#5	Discarded	116.00'	**10.000 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=20.03 cfs @ 13.49 hrs HW=116.56' (Free Discharge)
└**5=Exfiltration** (Exfiltration Controls 20.03 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=116.00' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Controls 0.00 cfs)
  ├**2=Orifice/Grate** (Controls 0.00 cfs)
  ├**3=Orifice/Grate** (Controls 0.00 cfs)
  └**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond A11-2*: A11-2 Infiltration Basin



Hydrograph for Pond A11-2*: A11-2 Infiltration Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
5.00	0.00	0	116.00	0.00	0.00	**0.00**
5.50	0.00	0	116.00	0.00	0.00	0.00
6.00	0.00	0	116.00	0.00	0.00	0.00
6.50	0.00	0	116.00	0.00	0.00	0.00
7.00	0.00	0	116.00	0.00	0.00	0.00
7.50	0.00	0	116.00	0.00	0.00	0.00
8.00	0.00	0	116.00	0.00	0.00	0.00
8.50	0.00	0	116.00	0.00	0.00	0.00
9.00	0.02	0	116.00	0.02	0.02	0.00
9.50	0.19	0	116.00	0.19	0.19	0.00
10.00	0.54	0	116.00	0.54	0.54	0.00
10.50	1.03	0	116.00	1.03	1.03	0.00
11.00	1.75	0	116.00	1.75	1.75	0.00
11.50	2.86	0	116.00	2.86	2.86	0.00
12.00	6.24	0	116.00	6.24	6.24	0.00
12.50	**29.51**	3,023	116.04	19.38	19.38	0.00
13.00	**36.29**	34,271	116.41	19.84	19.84	0.00
13.50	19.65	**47,768**	**116.56**	**20.03**	**20.03**	0.00
14.00	11.71	38,950	116.46	19.90	19.90	0.00
14.50	8.36	21,056	116.25	19.64	19.64	0.00
15.00	6.66	0	116.00	12.12	12.12	0.00
15.50	5.62	0	116.00	11.07	11.07	0.00
16.00	4.83	0	116.00	9.74	9.74	0.00
16.50	4.10	0	116.00	8.27	8.27	0.00
17.00	3.53	0	116.00	7.11	7.11	0.00
17.50	3.13	0	116.00	6.29	6.29	0.00
18.00	2.78	0	116.00	5.59	5.59	0.00
18.50	2.45	0	116.00	4.94	4.94	0.00
19.00	2.22	0	116.00	4.45	4.45	0.00
19.50	2.07	0	116.00	4.16	4.16	0.00
20.00	1.96	0	116.00	3.94	3.94	0.00

Stage-Discharge for Pond A11-2*: A11-2 Infiltration Basin

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
116.00	0.00	0.00	0.00
116.05	19.40	19.40	0.00
116.10	19.46	19.46	0.00
116.15	19.52	19.52	0.00
116.20	19.58	19.58	0.00
116.25	19.64	19.64	0.00
116.30	19.71	19.71	0.00
116.35	19.77	19.77	0.00
116.40	19.83	19.83	0.00
116.45	19.89	19.89	0.00
116.50	19.95	19.95	0.00
116.55	20.02	20.02	0.00
116.60	20.08	20.08	0.00
116.65	20.14	20.14	0.00
116.70	20.20	20.20	0.00
116.75	20.27	20.27	0.00
116.80	20.33	20.33	0.00
116.85	20.39	20.39	0.00
116.90	20.45	20.45	0.00
116.95	20.51	20.51	0.00
117.00	20.58	20.58	0.00
117.05	20.64	20.64	0.00
117.10	20.70	20.70	0.00
117.15	20.77	20.77	0.00
117.20	20.83	20.83	0.00
117.25	20.90	20.90	0.00
117.30	20.96	20.96	0.00
117.35	21.02	21.02	0.00
117.40	21.09	21.09	0.00
117.45	21.15	21.15	0.00
117.50	21.21	21.21	0.00
117.55	21.30	21.28	0.02
117.60	21.43	21.34	0.09
117.65	21.60	21.41	0.20
117.70	21.80	21.47	0.34
117.75	22.04	21.53	0.50
117.80	22.29	21.60	0.69
117.85	22.55	21.66	0.89
117.90	22.81	21.72	1.09
117.95	23.06	21.79	1.28
118.00	23.27	21.85	1.42
118.05	23.65	22.10	1.55
118.10	24.02	22.34	1.68
118.15	24.38	22.59	1.79
118.20	24.74	22.84	1.90
118.25	25.09	23.08	2.01
118.30	25.43	23.33	2.10
118.35	25.77	23.57	2.20
118.40	26.11	23.82	2.29
118.45	26.44	24.07	2.37
118.50	26.77	24.31	2.46
118.55	27.17	24.56	2.61
118.60	27.62	24.80	2.82
118.65	28.11	25.05	3.06
118.70	28.63	25.30	3.34
118.75	29.18	25.54	3.64
118.80	29.75	25.79	3.96
118.85	30.34	26.03	4.30
118.90	30.95	26.28	4.67
118.95	31.57	26.53	5.04
119.00	32.21	26.77	5.44
119.05	32.69	26.84	5.85
119.10	33.19	26.91	6.28
119.15	33.70	26.98	6.72
119.20	34.18	27.05	7.14
119.25	34.60	27.11	7.49
119.30	34.99	27.18	7.81
119.35	35.37	27.25	8.11
119.40	35.72	27.32	8.40
119.45	36.06	27.39	8.67
119.50	36.39	27.46	8.94
119.55	36.71	27.53	9.19
119.60	37.03	27.59	9.43
119.65	37.33	27.66	9.67
119.70	37.63	27.73	9.90
119.75	37.92	27.80	10.12
119.80	38.21	27.87	10.34
119.85	38.60	27.94	10.66
119.90	39.08	28.01	11.07
119.95	39.60	28.07	11.53
120.00	40.17	28.14	12.03
120.05	40.78	28.21	12.57
120.10	41.41	28.28	13.13
120.15	42.07	28.35	13.72
120.20	42.76	28.42	14.34
120.25	43.47	28.49	14.98
120.30	44.20	28.56	15.64
120.35	44.94	28.63	16.32
120.40	45.71	28.70	17.01
120.45	46.49	28.76	17.73
120.50	47.29	28.83	18.45
120.55	48.10	28.90	19.20
120.60	48.93	28.97	19.95
120.65	49.76	29.04	20.72
120.70	50.61	29.11	21.50
120.75	51.15	29.18	21.97
120.80	51.36	29.25	22.12
120.85	51.58	29.32	22.26
120.90	51.79	29.39	22.40
120.95	52.00	29.45	22.55
121.00	**52.21**	**29.52**	**22.69**

Stage-Area-Storage for Pond A11-2*: A11-2 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
116.00	83,518	83,518	0
116.10	84,055	84,055	8,379
116.20	84,593	84,593	16,811
116.30	85,130	85,130	25,297
116.40	85,668	85,668	33,837
116.50	86,206	86,206	42,431
116.60	86,743	86,743	51,078
116.70	87,281	87,281	59,779
116.80	87,818	87,818	68,534
116.90	88,356	88,356	77,343
117.00	88,893	88,893	86,206
117.10	89,444	89,444	95,122
117.20	89,995	89,995	104,094
117.30	90,546	90,546	113,121
117.40	91,097	91,097	122,204
117.50	91,648	91,648	131,341
117.60	92,199	92,199	140,533
117.70	92,750	92,750	149,781
117.80	93,301	93,301	159,083
117.90	93,852	93,852	168,441
118.00	94,403	94,403	177,854
118.10	96,528	96,528	187,400
118.20	98,653	98,653	197,159
118.30	100,778	100,778	207,131
118.40	102,903	102,903	217,315
118.50	105,028	105,028	227,711
118.60	107,152	107,152	238,320
118.70	109,277	109,277	249,142
118.80	111,402	111,402	260,176
118.90	113,527	113,527	271,422
119.00	115,652	115,652	282,881
119.10	116,244	116,244	294,476
119.20	116,837	116,837	306,130
119.30	117,429	117,429	317,843
119.40	118,022	118,022	329,616
119.50	118,614	118,614	341,448
119.60	119,206	119,206	353,339
119.70	119,799	119,799	365,289
119.80	120,391	120,391	377,298
119.90	120,984	120,984	389,367
120.00	121,576	121,576	401,495
120.10	122,173	122,173	413,682
120.20	122,770	122,770	425,930
120.30	123,366	123,366	438,236
120.40	123,963	123,963	450,603
120.50	124,560	124,560	463,029
120.60	125,157	125,157	475,515
120.70	125,754	125,754	488,060
120.80	126,350	126,350	500,666
120.90	126,947	126,947	513,330
121.00	**127,544**	**127,544**	**526,055**

Summary for Pond B1-2*: B1-2 Infiltration Basin

Inflow Area = 24.905 ac, 77.85% Impervious, Inflow Depth > 2.05" for 10-yr event
Inflow = 16.91 cfs @ 12.10 hrs, Volume= 4.258 af
Outflow = 5.67 cfs @ 15.52 hrs, Volume= 3.523 af, Atten= 66%, Lag= 205.2 min
Discarded = 4.86 cfs @ 15.52 hrs, Volume= 3.135 af
Primary = 0.81 cfs @ 15.52 hrs, Volume= 0.388 af
Routed to Reach DP-B : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 131.79' @ 15.52 hrs Surf.Area= 21,002 sf Storage= 41,415 cf

Plug-Flow detention time= 95.1 min calculated for 3.523 af (83% of inflow)
Center-of-Mass det. time= 46.3 min (948.6 - 902.3)

Volume	Invert	Avail.Storage	Storage Description
#1	129.00'	126,855 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

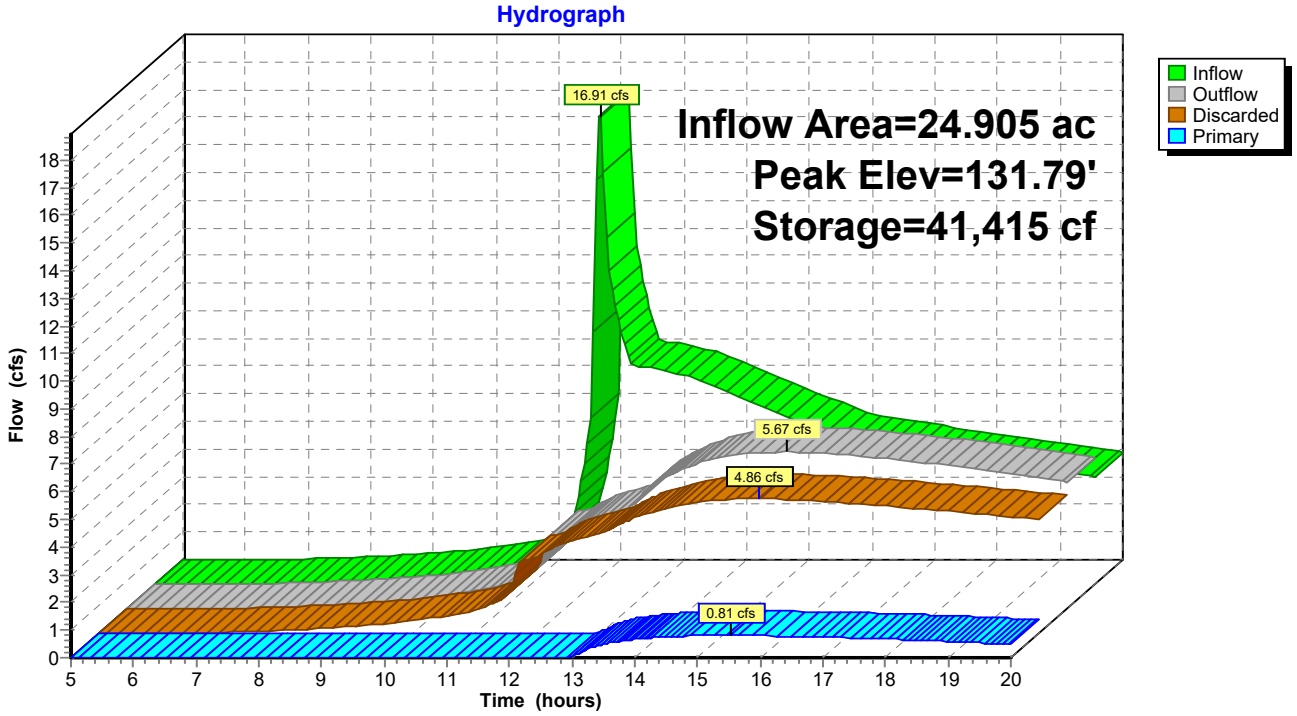
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
129.00	11,433	0	0
130.00	13,470	12,452	12,452
131.00	15,642	14,556	27,008
132.00	22,459	19,051	46,058
133.00	25,245	23,852	69,910
134.00	28,552	26,899	96,809
135.00	31,541	30,047	126,855

Device	Routing	Invert	Outlet Devices
#1	Primary	129.00'	**24.0" Round Culvert** L= 75.0' Ke= 1.000 Inlet / Outlet Invert= 129.00' / 129.00' S= 0.0000 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	130.80'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	133.00'	**18.0" W x 5.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	134.00'	**2.5' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#5	Discarded	129.00'	**10.000 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=4.86 cfs @ 15.52 hrs HW=131.79' (Free Discharge)
└**5=Exfiltration** (Exfiltration Controls 4.86 cfs)

Primary OutFlow Max=0.81 cfs @ 15.52 hrs HW=131.79' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 0.81 cfs of 13.05 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.81 cfs @ 4.13 fps)
  ├**3=Orifice/Grate** (Controls 0.00 cfs)
  └**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond B1-2*: B1-2 Infiltration Basin



Hydrograph for Pond B1-2*: B1-2 Infiltration Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
5.00	0.00	0	129.00	0.00	0.00	0.00
5.50	0.00	0	129.00	0.00	0.00	0.00
6.00	0.01	0	129.00	0.01	0.01	0.00
6.50	0.02	0	129.00	0.02	0.02	0.00
7.00	0.03	0	129.00	0.03	0.03	0.00
7.50	0.06	0	129.00	0.06	0.06	0.00
8.00	0.11	0	129.00	0.11	0.11	0.00
8.50	0.17	0	129.00	0.17	0.17	0.00
9.00	0.24	0	129.00	0.24	0.24	0.00
9.50	0.34	0	129.00	0.34	0.34	0.00
10.00	0.45	0	129.00	0.45	0.45	0.00
10.50	0.62	0	129.00	0.62	0.62	0.00
11.00	0.83	0	129.00	0.83	0.83	0.00
11.50	1.36	0	129.00	1.36	1.36	0.00
12.00	**9.10**	2,217	129.19	2.74	2.74	0.00
12.50	**8.71**	18,038	130.40	3.32	3.32	0.00
13.00	7.79	26,109	130.94	3.65	3.59	0.06
13.50	7.52	32,403	131.32	4.62	4.13	0.49
14.00	7.09	36,731	131.55	5.17	4.50	0.67
14.50	6.62	39,459	131.69	5.47	4.71	0.76
15.00	6.15	40,942	131.76	5.62	4.83	0.80
15.50	5.69	**41,414**	**131.79**	**5.67**	**4.86**	**0.81**
16.00	5.28	41,084	131.77	5.64	4.84	0.80
16.50	5.05	40,258	131.73	5.55	4.77	0.78
17.00	4.89	39,294	131.68	5.45	4.70	0.75
17.50	4.72	38,231	131.63	5.34	4.62	0.72
18.00	4.54	37,075	131.57	5.21	4.52	0.68
18.50	4.38	35,850	131.51	5.06	4.42	0.64
19.00	4.21	34,603	131.44	4.91	4.32	0.59
19.50	4.05	33,340	131.37	4.75	4.21	0.54
20.00	3.87	32,073	131.30	4.58	4.10	0.48

Stage-Discharge for Pond B1-2*: B1-2 Infiltration Basin

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
129.00	0.00	0.00	0.00
129.10	2.69	2.69	0.00
129.20	2.74	2.74	0.00
129.30	2.79	2.79	0.00
129.40	2.84	2.84	0.00
129.50	2.88	2.88	0.00
129.60	2.93	2.93	0.00
129.70	2.98	2.98	0.00
129.80	3.02	3.02	0.00
129.90	3.07	3.07	0.00
130.00	3.12	3.12	0.00
130.10	3.17	3.17	0.00
130.20	3.22	3.22	0.00
130.30	3.27	3.27	0.00
130.40	3.32	3.32	0.00
130.50	3.37	3.37	0.00
130.60	3.42	3.42	0.00
130.70	3.47	3.47	0.00
130.80	3.52	3.52	0.00
130.90	3.60	3.57	0.03
131.00	3.73	3.62	0.11
131.10	4.01	3.78	0.23
131.20	4.30	3.94	0.36
131.30	4.57	4.09	0.47
131.40	4.81	4.25	0.56
131.50	5.04	4.41	0.63
131.60	5.27	4.57	0.70
131.70	5.49	4.73	0.76
131.80	5.70	4.88	0.82
131.90	5.91	5.04	0.87
132.00	6.12	5.20	0.92
132.10	6.23	5.26	0.97
132.20	6.34	5.33	1.01
132.30	6.45	5.39	1.06
132.40	6.56	5.46	1.10
132.50	6.66	5.52	1.14
132.60	6.76	5.59	1.18
132.70	6.86	5.65	1.21
132.80	6.97	5.71	1.25
132.90	7.07	5.78	1.29
133.00	7.16	5.84	1.32
133.10	7.43	5.92	1.51
133.20	7.81	6.00	1.82
133.30	8.28	6.07	2.21
133.40	8.82	6.15	2.67
133.50	9.29	6.23	3.07
133.60	9.67	6.30	3.37
133.70	10.01	6.38	3.63
133.80	10.33	6.46	3.87
133.90	10.62	6.53	4.09
134.00	10.90	6.61	4.29
134.10	11.42	6.68	4.74
134.20	12.14	6.75	5.39
134.30	12.97	6.82	6.15
134.40	13.90	6.89	7.01
134.50	14.90	6.96	7.95
134.60	15.97	7.02	8.95
134.70	17.09	7.09	10.00
134.80	18.26	7.16	11.10
134.90	19.48	7.23	12.24
135.00	**20.73**	**7.30**	**13.43**

Stage-Area-Storage for Pond B1-2*: B1-2 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
129.00	11,433	11,433	0
129.20	11,840	11,840	2,327
129.40	12,248	12,248	4,736
129.60	12,655	12,655	7,226
129.80	13,063	13,063	9,798
130.00	13,470	13,470	12,452
130.20	13,904	13,904	15,189
130.40	14,339	14,339	18,013
130.60	14,773	14,773	20,924
130.80	15,208	15,208	23,923
131.00	15,642	15,642	27,008
131.20	17,005	17,005	30,272
131.40	18,369	18,369	33,810
131.60	19,732	19,732	37,620
131.80	21,096	21,096	41,703
132.00	22,459	22,459	46,058
132.20	23,016	23,016	50,606
132.40	23,573	23,573	55,264
132.60	24,131	24,131	60,035
132.80	24,688	24,688	64,917
133.00	25,245	25,245	69,910
133.20	25,906	25,906	75,025
133.40	26,568	26,568	80,273
133.60	27,229	27,229	85,652
133.80	27,891	27,891	91,164
134.00	28,552	28,552	96,809
134.20	29,150	29,150	102,579
134.40	29,748	29,748	108,468
134.60	30,345	30,345	114,478
134.80	30,943	30,943	120,607
135.00	**31,541**	**31,541**	**126,855**

Summary for Pond B1-3*: B1-3 Dry Extended Basin with Micropool

Inflow Area = 20.504 ac, 83.49% Impervious, Inflow Depth > 3.67" for 10-yr event
Inflow = 86.86 cfs @ 12.09 hrs, Volume= 6.273 af
Outflow = 6.47 cfs @ 13.26 hrs, Volume= 3.330 af, Atten= 93%, Lag= 70.2 min
Primary = 6.47 cfs @ 13.26 hrs, Volume= 3.330 af
Routed to Pond B1-2* : B1-2 Infiltration Basin

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 134.70' @ 13.30 hrs Surf.Area= 48,646 sf Storage= 178,762 cf

Plug-Flow detention time= 261.7 min calculated for 3.319 af (53% of inflow)
Center-of-Mass det. time= 178.4 min (934.0 - 755.6)

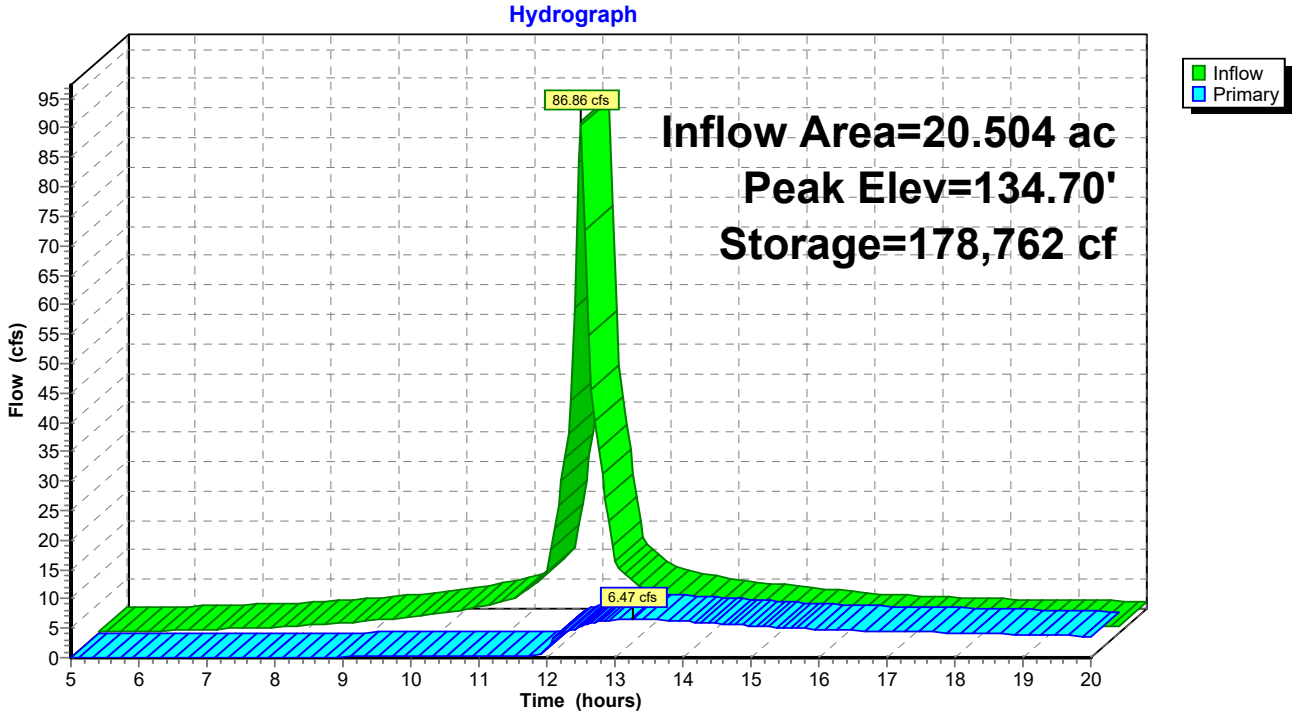
Volume	Invert	Avail.Storage	Storage Description
#1	129.50'	300,241 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
129.50	25,183	0	0
130.00	26,502	12,921	12,921
131.00	29,223	27,863	40,784
132.00	32,056	30,640	71,423
133.00	34,999	33,528	104,951
134.00	46,174	40,587	145,537
135.00	49,702	47,938	193,475
136.00	53,361	51,532	245,007
137.00	57,107	55,234	300,241

Device	Routing	Invert	Outlet Devices
#1	Primary	129.50'	**24.0" Round Culvert** L= 123.0' Ke= 1.000 Inlet / Outlet Invert= 129.50' / 129.12' S= 0.0031 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	129.50'	**3.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	132.40'	**24.0" W x 4.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	134.35'	**24.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Device 1	135.45'	**3.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=6.47 cfs @ 13.26 hrs HW=134.70' TW=131.16' (Dynamic Tailwater)
↑**1=Culvert** (Passes 6.47 cfs of 21.34 cfs potential flow)
↑**2=Orifice/Grate** (Orifice Controls 0.44 cfs @ 9.06 fps)
3=Orifice/Grate (Orifice Controls 4.69 cfs @ 7.03 fps)
4=Orifice/Grate (Orifice Controls 1.33 cfs @ 1.90 fps)
5=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B1-3*: B1-3 Dry Extended Basin with Micropool



Hydrograph for Pond B1-3*: B1-3 Dry Extended Basin with Micropool

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.26	23	129.50	0.00
5.50	0.36	575	129.52	0.00
6.00	0.46	1,303	129.55	0.01
6.50	0.61	2,241	129.59	0.02
7.00	0.81	3,473	129.64	0.03
7.50	1.03	5,033	129.70	0.06
8.00	1.27	6,952	129.77	0.09
8.50	1.67	9,382	129.87	0.12
9.00	2.17	12,600	129.99	0.14
9.50	2.72	16,713	130.14	0.17
10.00	3.31	21,801	130.33	0.20
10.50	4.31	28,203	130.56	0.23
11.00	5.48	36,560	130.85	0.26
11.50	9.02	48,701	131.27	0.30
12.00	**55.38**	90,562	132.58	0.90
12.50	**18.91**	169,853	134.52	5.40
13.00	7.74	**178,254**	**134.69**	**6.41**
13.50	6.02	**178,610**	**134.70**	**6.44**
14.00	4.89	177,023	134.66	6.20
14.50	4.24	174,321	134.61	5.84
15.00	3.69	171,283	134.55	5.47
15.50	3.15	167,922	134.48	5.11
16.00	2.60	164,188	134.40	4.79
16.50	2.30	160,119	134.31	4.62
17.00	2.06	155,835	134.22	4.50
17.50	1.82	151,337	134.13	4.38
18.00	1.58	146,643	134.02	4.24
18.50	1.48	141,873	133.92	4.10
19.00	1.41	137,231	133.82	3.95
19.50	1.34	132,734	133.71	3.79
20.00	1.27	128,390	133.61	3.63

Stage-Discharge for Pond B1-3*: B1-3 Dry Extended Basin with Micropool

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
129.50	0.00	132.05	0.37	134.60	5.91
129.55	0.01	132.10	0.37	134.65	6.22
129.60	0.02	132.15	0.38	134.70	6.55
129.65	0.04	132.20	0.38	134.75	6.90
129.70	0.06	132.25	0.38	134.80	7.27
129.75	0.08	132.30	0.39	134.85	7.66
129.80	0.10	132.35	0.39	134.90	7.99
129.85	0.11	132.40	0.39	134.95	8.28
129.90	0.12	132.45	0.47	135.00	8.55
129.95	0.13	132.50	0.60	135.05	8.79
130.00	0.14	132.55	0.78	135.10	9.03
130.05	0.15	132.60	0.98	135.15	9.25
130.10	0.16	132.65	1.21	135.20	9.47
130.15	0.17	132.70	1.47	135.25	9.68
130.20	0.18	132.75	1.73	135.30	9.88
130.25	0.19	132.80	1.93	135.35	10.07
130.30	0.19	132.85	2.11	135.40	10.26
130.35	0.20	132.90	2.26	135.45	10.44
130.40	0.21	132.95	2.40	135.50	10.73
130.45	0.21	133.00	2.53	135.55	11.11
130.50	0.22	133.05	2.66	135.60	11.53
130.55	0.23	133.10	2.78	135.65	12.00
130.60	0.23	133.15	2.89	135.70	12.51
130.65	0.24	133.20	2.99	135.75	13.04
130.70	0.25	133.25	3.10	135.80	13.61
130.75	0.25	133.30	3.20	135.85	14.20
130.80	0.26	133.35	3.29	135.90	14.81
130.85	0.26	133.40	3.38	135.95	15.44
130.90	0.27	133.45	3.47	136.00	16.09
130.95	0.27	133.50	3.56	136.05	16.76
131.00	0.28	133.55	3.65	136.10	17.44
131.05	0.28	133.60	3.73	136.15	18.14
131.10	0.29	133.65	3.81	136.20	18.86
131.15	0.29	133.70	3.89	136.25	19.59
131.20	0.30	133.75	3.97	136.30	20.34
131.25	0.30	133.80	4.05	136.35	21.09
131.30	0.31	133.85	4.12	136.40	21.86
131.35	0.31	133.90	4.19	136.45	22.64
131.40	0.31	133.95	4.26	136.50	23.43
131.45	0.32	134.00	4.34	136.55	24.23
131.50	0.32	134.05	4.40	136.60	25.05
131.55	0.33	134.10	4.47	136.65	25.87
131.60	0.33	134.15	4.54	136.70	26.70
131.65	0.34	134.20	4.61	136.75	27.53
131.70	0.34	134.25	4.67	136.80	28.38
131.75	0.34	134.30	4.74	136.85	28.59
131.80	0.35	134.35	4.80	136.90	28.70
131.85	0.35	134.40	4.93	136.95	28.81
131.90	0.36	134.45	5.13	137.00	**28.92**
131.95	0.36	134.50	5.36		
132.00	0.36	134.55	5.62		

Stage-Area-Storage for Pond B1-3*: B1-3 Dry Extended Basin with Micropool

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
129.50	25,183	0
129.60	25,447	2,531
129.70	25,711	5,089
129.80	25,974	7,674
129.90	26,238	10,284
130.00	26,502	12,921
130.10	26,774	15,585
130.20	27,046	18,276
130.30	27,318	20,994
130.40	27,590	23,740
130.50	27,863	26,512
130.60	28,135	29,312
130.70	28,407	32,139
130.80	28,679	34,994
130.90	28,951	37,875
131.00	29,223	40,784
131.10	29,506	43,720
131.20	29,790	46,685
131.30	30,073	49,678
131.40	30,356	52,700
131.50	30,640	55,749
131.60	30,923	58,827
131.70	31,206	61,934
131.80	31,489	65,069
131.90	31,773	68,232
132.00	32,056	71,423
132.10	32,350	74,644
132.20	32,645	77,893
132.30	32,939	81,172
132.40	33,233	84,481
132.50	33,528	87,819
132.60	33,822	91,187
132.70	34,116	94,583
132.80	34,410	98,010
132.90	34,705	101,466
133.00	34,999	104,951
133.10	36,116	108,507
133.20	37,234	112,174
133.30	38,352	115,953
133.40	39,469	119,844
133.50	40,587	123,847
133.60	41,704	127,962
133.70	42,821	132,188
133.80	43,939	136,526
133.90	45,057	140,976
134.00	46,174	145,537
134.10	46,527	150,172
134.20	46,880	154,843
134.30	47,232	159,548
134.40	47,585	164,289
134.50	47,938	169,065
134.60	48,291	173,877
134.70	48,644	178,723
134.80	48,996	183,605
134.90	49,349	188,523
135.00	49,702	193,475
135.10	50,068	198,464
135.20	50,434	203,489
135.30	50,800	208,551
135.40	51,166	213,649
135.50	51,532	218,784
135.60	51,897	223,955
135.70	52,263	229,163
135.80	52,629	234,408
135.90	52,995	239,689
136.00	53,361	245,007
136.10	53,736	250,362
136.20	54,110	255,754
136.30	54,485	261,184
136.40	54,859	266,651
136.50	55,234	272,156
136.60	55,609	277,698
136.70	55,983	283,277
136.80	56,358	288,894
136.90	56,732	294,549
137.00	**57,107**	**300,241**

Summary for Pond B3-2*: B3-2 Dry Extended Basin with Micropool

Inflow Area = 7.079 ac, 56.01% Impervious, Inflow Depth > 2.71" for 10-yr event
Inflow = 23.47 cfs @ 12.09 hrs, Volume= 1.596 af
Outflow = 0.39 cfs @ 20.00 hrs, Volume= 0.260 af, Atten= 98%, Lag= 474.5 min
Primary = 0.39 cfs @ 20.00 hrs, Volume= 0.260 af
Routed to Reach DP-B : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 126.78' @ 20.00 hrs Surf.Area= 26,647 sf Storage= 58,216 cf

Plug-Flow detention time= 295.9 min calculated for 0.260 af (16% of inflow)
Center-of-Mass det. time= 166.3 min (950.3 - 784.0)

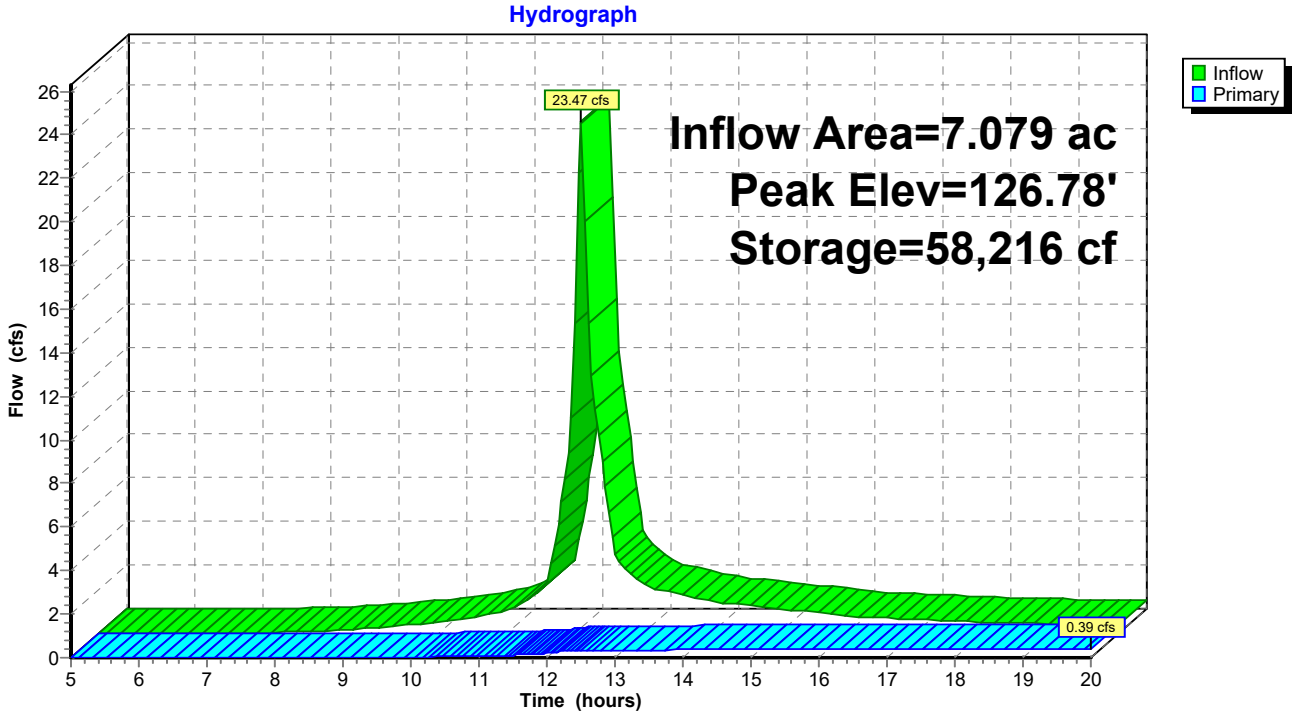
Volume	Invert	Avail.Storage	Storage Description
#1	124.00'	200,335 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
124.00	17,253	0	0
125.00	19,576	18,415	18,415
126.00	22,023	20,800	39,214
127.00	27,945	24,984	64,198
128.00	30,928	29,437	93,635
129.00	33,933	32,431	126,065
130.00	37,113	35,523	161,588
131.00	40,380	38,747	200,335

Device	Routing	Invert	Outlet Devices
#1	Primary	124.00'	**24.0" Round Culvert** L= 75.0' Ke= 1.000 Inlet / Outlet Invert= 124.00' / 123.00' S= 0.0133 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	124.00'	**3.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	128.00'	**6.0" Vert. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads
#4	Device 1	130.00'	**1.5' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=0.39 cfs @ 20.00 hrs HW=126.78' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 0.39 cfs of 15.14 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.39 cfs @ 7.85 fps)
  - **4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)
- **3=Orifice/Grate** (Controls 0.00 cfs)

Pond B3-2*: B3-2 Dry Extended Basin with Micropool



Hydrograph for Pond B3-2*: B3-2 Dry Extended Basin with Micropool

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	124.00	0.00
5.50	0.00	0	124.00	0.00
6.00	0.00	0	124.00	0.00
6.50	0.00	0	124.00	0.00
7.00	0.00	0	124.00	0.00
7.50	0.03	16	124.00	0.00
8.00	0.07	103	124.01	0.00
8.50	0.14	287	124.02	0.00
9.00	0.24	619	124.04	0.00
9.50	0.36	1,140	124.07	0.01
10.00	0.51	1,887	124.11	0.02
10.50	0.74	2,933	124.17	0.05
11.00	1.05	4,422	124.25	0.08
11.50	1.92	6,813	124.38	0.12
12.00	**14.21**	16,636	124.91	0.21
12.50	**5.55**	40,113	126.04	0.33
13.00	2.31	45,224	126.26	0.35
13.50	1.81	48,187	126.39	0.36
14.00	1.48	50,511	126.48	0.36
14.50	1.29	52,329	126.55	0.37
15.00	1.13	53,845	126.61	0.37
15.50	0.97	55,060	126.66	0.38
16.00	0.80	55,972	126.70	0.38
16.50	0.71	56,638	126.72	0.38
17.00	0.64	57,166	126.74	0.38
17.50	0.57	57,561	126.76	0.38
18.00	0.49	57,823	126.77	0.38
18.50	0.46	57,982	126.77	0.38
19.00	0.44	58,100	126.78	0.38
19.50	0.42	58,177	126.78	0.39
20.00	0.40	**58,216**	**126.78**	**0.39**

Stage-Discharge for Pond B3-2*: B3-2 Dry Extended Basin with Micropool

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
124.00	0.00	126.55	0.37	129.10	2.27
124.05	0.01	126.60	0.37	129.15	2.32
124.10	0.02	126.65	0.38	129.20	2.38
124.15	0.04	126.70	0.38	129.25	2.43
124.20	0.06	126.75	0.38	129.30	2.48
124.25	0.08	126.80	0.39	129.35	2.52
124.30	0.10	126.85	0.39	129.40	2.57
124.35	0.11	126.90	0.39	129.45	2.62
124.40	0.12	126.95	0.40	129.50	2.66
124.45	0.13	127.00	0.40	129.55	2.71
124.50	0.14	127.05	0.40	129.60	2.75
124.55	0.15	127.10	0.41	129.65	2.79
124.60	0.16	127.15	0.41	129.70	2.83
124.65	0.17	127.20	0.41	129.75	2.88
124.70	0.18	127.25	0.42	129.80	2.92
124.75	0.19	127.30	0.42	129.85	2.96
124.80	0.19	127.35	0.42	129.90	3.00
124.85	0.20	127.40	0.43	129.95	3.04
124.90	0.21	127.45	0.43	130.00	3.07
124.95	0.21	127.50	0.43	130.05	3.17
125.00	0.22	127.55	0.44	130.10	3.30
125.05	0.23	127.60	0.44	130.15	3.47
125.10	0.23	127.65	0.44	130.20	3.65
125.15	0.24	127.70	0.45	130.25	3.85
125.20	0.25	127.75	0.45	130.30	4.07
125.25	0.25	127.80	0.45	130.35	4.30
125.30	0.26	127.85	0.46	130.40	4.54
125.35	0.26	127.90	0.46	130.45	4.79
125.40	0.27	127.95	0.46	130.50	5.05
125.45	0.27	128.00	0.47	130.55	5.32
125.50	0.28	128.05	0.48	130.60	5.60
125.55	0.28	128.10	0.53	130.65	5.88
125.60	0.29	128.15	0.60	130.70	6.17
125.65	0.29	128.20	0.70	130.75	6.47
125.70	0.30	128.25	0.81	130.80	6.77
125.75	0.30	128.30	0.94	130.85	7.07
125.80	0.31	128.35	1.08	130.90	7.38
125.85	0.31	128.40	1.21	130.95	7.69
125.90	0.31	128.45	1.34	131.00	**8.01**
125.95	0.32	128.50	1.44		
126.00	0.32	128.55	1.53		
126.05	0.33	128.60	1.62		
126.10	0.33	128.65	1.70		
126.15	0.34	128.70	1.77		
126.20	0.34	128.75	1.85		
126.25	0.34	128.80	1.91		
126.30	0.35	128.85	1.98		
126.35	0.35	128.90	2.04		
126.40	0.36	128.95	2.10		
126.45	0.36	129.00	2.16		
126.50	0.36	129.05	2.22		

Stage-Area-Storage for Pond B3-2*: B3-2 Dry Extended Basin with Micropool

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
124.00	17,253	0
124.10	17,485	1,737
124.20	17,718	3,497
124.30	17,950	5,280
124.40	18,182	7,087
124.50	18,415	8,917
124.60	18,647	10,770
124.70	18,879	12,646
124.80	19,111	14,546
124.90	19,344	16,469
125.00	19,576	18,415
125.10	19,821	20,384
125.20	20,065	22,379
125.30	20,310	24,397
125.40	20,555	26,441
125.50	20,800	28,508
125.60	21,044	30,601
125.70	21,289	32,717
125.80	21,534	34,858
125.90	21,778	37,024
126.00	22,023	39,214
126.10	22,615	41,446
126.20	23,207	43,737
126.30	23,800	46,087
126.40	24,392	48,497
126.50	24,984	50,966
126.60	25,576	53,494
126.70	26,168	56,081
126.80	26,761	58,727
126.90	27,353	61,433
127.00	27,945	64,198
127.10	28,243	67,007
127.20	28,542	69,847
127.30	28,840	72,716
127.40	29,138	75,615
127.50	29,437	78,543
127.60	29,735	81,502
127.70	30,033	84,490
127.80	30,331	87,509
127.90	30,630	90,557
128.00	30,928	93,635
128.10	31,228	96,742
128.20	31,529	99,880
128.30	31,830	103,048
128.40	32,130	106,246
128.50	32,431	109,474
128.60	32,731	112,732
128.70	33,031	116,020
128.80	33,332	119,339
128.90	33,633	122,687
129.00	33,933	126,065
129.10	34,251	129,474
129.20	34,569	132,915
129.30	34,887	136,388
129.40	35,205	139,893
129.50	35,523	143,429
129.60	35,841	146,997
129.70	36,159	150,597
129.80	36,477	154,229
129.90	36,795	157,893
130.00	37,113	161,588
130.10	37,440	165,316
130.20	37,766	169,076
130.30	38,093	172,869
130.40	38,420	176,695
130.50	38,747	180,553
130.60	39,073	184,444
130.70	39,400	188,368
130.80	39,727	192,324
130.90	40,053	196,313
131.00	**40,380**	**200,335**

Summary for Pond B5-2*: B5-2 Infiltration Basin

Inflow Area = 10.218 ac, 67.76% Impervious, Inflow Depth > 3.08" for 10-yr event
Inflow = 37.89 cfs @ 12.09 hrs, Volume= 2.620 af
Outflow = 2.39 cfs @ 13.89 hrs, Volume= 1.940 af, Atten= 94%, Lag= 107.9 min
Discarded = 2.39 cfs @ 13.89 hrs, Volume= 1.940 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Reach DP-B : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 135.62' @ 13.89 hrs Surf.Area= 29,044 sf Storage= 55,395 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 115.1 min (889.0 - 773.9)

Volume	Invert	Avail.Storage	Storage Description
#1	133.50'	139,649 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

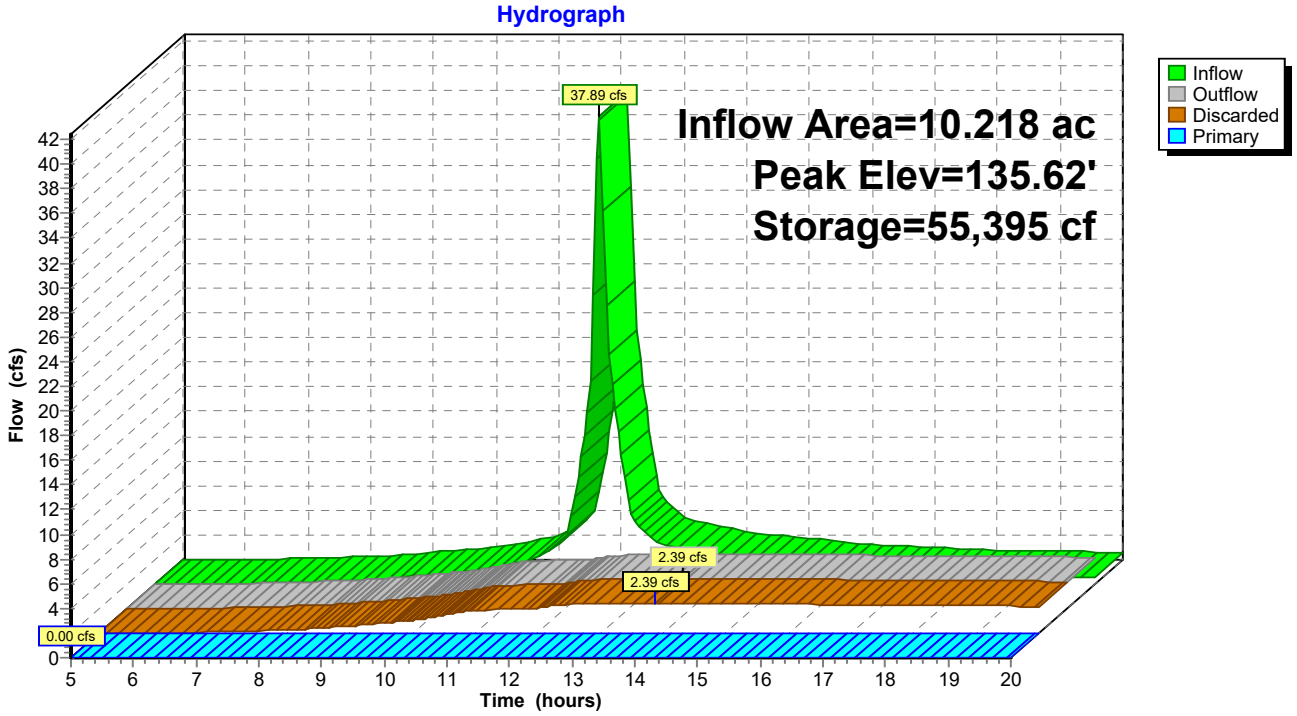
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
133.50	23,201	0	0
134.00	24,527	11,932	11,932
135.00	27,263	25,895	37,827
136.00	30,117	28,690	66,517
137.00	37,559	33,838	100,355
138.00	41,028	39,294	139,649

Device	Routing	Invert	Outlet Devices
#1	Primary	133.50'	**24.0" Round Culvert** L= 100.0' Ke= 1.000 Inlet / Outlet Invert= 133.50' / 132.00' S= 0.0150 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	137.00'	**1.5' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Discarded	133.50'	**3.560 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=2.39 cfs @ 13.89 hrs HW=135.62' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 2.39 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=133.50' TW=0.00' (Dynamic Tailwater)
↑**1=Culvert** (Controls 0.00 cfs)
↑**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond B5-2*: B5-2 Infiltration Basin



Hydrograph for Pond B5-2*: B5-2 Infiltration Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
5.00	0.00	0	133.50	0.00	0.00	**0.00**
5.50	0.00	0	133.50	0.00	0.00	0.00
6.00	0.01	0	133.50	0.01	0.01	0.00
6.50	0.05	0	133.50	0.05	0.05	0.00
7.00	0.11	0	133.50	0.11	0.11	0.00
7.50	0.18	0	133.50	0.18	0.18	0.00
8.00	0.27	0	133.50	0.27	0.27	0.00
8.50	0.41	0	133.50	0.41	0.41	0.00
9.00	0.59	0	133.50	0.59	0.59	0.00
9.50	0.80	0	133.50	0.80	0.80	0.00
10.00	1.05	0	133.50	1.05	1.05	0.00
10.50	1.46	0	133.50	1.46	1.46	0.00
11.00	1.97	19	133.50	1.90	1.90	0.00
11.50	3.44	1,270	133.55	1.92	1.92	0.00
12.00	**23.47**	14,975	134.12	2.05	2.05	0.00
12.50	**8.65**	49,257	135.41	2.34	2.34	0.00
13.00	3.57	53,868	135.57	2.38	2.38	0.00
13.50	2.79	**55,114**	**135.61**	**2.39**	**2.39**	0.00
14.00	2.28	**55,372**	**135.62**	**2.39**	**2.39**	0.00
14.50	1.98	54,863	135.61	2.39	2.39	0.00
15.00	1.73	53,906	135.57	2.38	2.38	0.00
15.50	1.48	52,514	135.52	2.37	2.37	0.00
16.00	1.22	50,688	135.46	2.36	2.36	0.00
16.50	1.08	48,519	135.38	2.34	2.34	0.00
17.00	0.97	46,178	135.30	2.32	2.32	0.00
17.50	0.86	43,673	135.21	2.30	2.30	0.00
18.00	0.75	41,005	135.12	2.27	2.27	0.00
18.50	0.70	38,225	135.01	2.25	2.25	0.00
19.00	0.67	35,425	134.91	2.23	2.23	0.00
19.50	0.63	32,606	134.81	2.20	2.20	0.00
20.00	0.60	29,770	134.70	2.18	2.18	0.00

Stage-Discharge for Pond B5-2*: B5-2 Infiltration Basin

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
133.50	0.00	0.00	0.00
133.55	1.92	1.92	0.00
133.60	1.93	1.93	0.00
133.65	1.94	1.94	0.00
133.70	1.96	1.96	0.00
133.75	1.97	1.97	0.00
133.80	1.98	1.98	0.00
133.85	1.99	1.99	0.00
133.90	2.00	2.00	0.00
133.95	2.01	2.01	0.00
134.00	2.02	2.02	0.00
134.05	2.03	2.03	0.00
134.10	2.04	2.04	0.00
134.15	2.06	2.06	0.00
134.20	2.07	2.07	0.00
134.25	2.08	2.08	0.00
134.30	2.09	2.09	0.00
134.35	2.10	2.10	0.00
134.40	2.11	2.11	0.00
134.45	2.12	2.12	0.00
134.50	2.13	2.13	0.00
134.55	2.15	2.15	0.00
134.60	2.16	2.16	0.00
134.65	2.17	2.17	0.00
134.70	2.18	2.18	0.00
134.75	2.19	2.19	0.00
134.80	2.20	2.20	0.00
134.85	2.21	2.21	0.00
134.90	2.22	2.22	0.00
134.95	2.24	2.24	0.00
135.00	2.25	2.25	0.00
135.05	2.26	2.26	0.00
135.10	2.27	2.27	0.00
135.15	2.28	2.28	0.00
135.20	2.29	2.29	0.00
135.25	2.31	2.31	0.00
135.30	2.32	2.32	0.00
135.35	2.33	2.33	0.00
135.40	2.34	2.34	0.00
135.45	2.35	2.35	0.00
135.50	2.36	2.36	0.00
135.55	2.38	2.38	0.00
135.60	2.39	2.39	0.00
135.65	2.40	2.40	0.00
135.70	2.41	2.41	0.00
135.75	2.42	2.42	0.00
135.80	2.43	2.43	0.00
135.85	2.45	2.45	0.00
135.90	2.46	2.46	0.00
135.95	2.47	2.47	0.00
136.00	2.48	2.48	0.00
136.05	2.51	2.51	0.00
136.10	2.54	2.54	0.00
136.15	2.57	2.57	0.00
136.20	2.60	2.60	0.00
136.25	2.64	2.64	0.00
136.30	2.67	2.67	0.00
136.35	2.70	2.70	0.00
136.40	2.73	2.73	0.00
136.45	2.76	2.76	0.00
136.50	2.79	2.79	0.00
136.55	2.82	2.82	0.00
136.60	2.85	2.85	0.00
136.65	2.88	2.88	0.00
136.70	2.91	2.91	0.00
136.75	2.94	2.94	0.00
136.80	2.97	2.97	0.00
136.85	3.00	3.00	0.00
136.90	3.03	3.03	0.00
136.95	3.06	3.06	0.00
137.00	3.10	3.10	0.00
137.05	3.16	3.11	0.05
137.10	3.28	3.12	0.15
137.15	3.42	3.14	0.28
137.20	3.58	3.15	0.43
137.25	3.76	3.17	0.59
137.30	3.95	3.18	0.77
137.35	4.16	3.20	0.97
137.40	4.38	3.21	1.17
137.45	4.62	3.22	1.39
137.50	4.86	3.24	1.62
137.55	5.11	3.25	1.85
137.60	5.36	3.27	2.10
137.65	5.63	3.28	2.35
137.70	5.90	3.30	2.60
137.75	6.18	3.31	2.87
137.80	6.46	3.32	3.14
137.85	6.75	3.34	3.41
137.90	7.04	3.35	3.69
137.95	7.33	3.37	3.97
138.00	**7.63**	**3.38**	**4.25**

Stage-Area-Storage for Pond B5-2*: B5-2 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
133.50	23,201	23,201	0
133.60	23,466	23,466	2,333
133.70	23,731	23,731	4,693
133.80	23,997	23,997	7,080
133.90	24,262	24,262	9,493
134.00	24,527	24,527	11,932
134.10	24,801	24,801	14,398
134.20	25,074	25,074	16,892
134.30	25,348	25,348	19,413
134.40	25,621	25,621	21,962
134.50	25,895	25,895	24,538
134.60	26,169	26,169	27,141
134.70	26,442	26,442	29,771
134.80	26,716	26,716	32,429
134.90	26,989	26,989	35,114
135.00	27,263	27,263	37,827
135.10	27,548	27,548	40,568
135.20	27,834	27,834	43,337
135.30	28,119	28,119	46,134
135.40	28,405	28,405	48,961
135.50	28,690	28,690	51,815
135.60	28,975	28,975	54,699
135.70	29,261	29,261	57,610
135.80	29,546	29,546	60,551
135.90	29,832	29,832	63,520
136.00	30,117	30,117	66,517
136.10	30,861	30,861	69,566
136.20	31,605	31,605	72,689
136.30	32,350	32,350	75,887
136.40	33,094	33,094	79,159
136.50	33,838	33,838	82,506
136.60	34,582	34,582	85,927
136.70	35,326	35,326	89,422
136.80	36,071	36,071	92,992
136.90	36,815	36,815	96,636
137.00	37,559	37,559	100,355
137.10	37,906	37,906	104,128
137.20	38,253	38,253	107,936
137.30	38,600	38,600	111,779
137.40	38,947	38,947	115,656
137.50	39,294	39,294	119,568
137.60	39,640	39,640	123,515
137.70	39,987	39,987	127,496
137.80	40,334	40,334	131,512
137.90	40,681	40,681	135,563
138.00	**41,028**	**41,028**	**139,649**

Summary for Pond B6-2*: B6-2 Infiltration Basin

Inflow Area = 39.110 ac, 51.21% Impervious, Inflow Depth > 2.78" for 10-yr event
Inflow = 65.84 cfs @ 12.49 hrs, Volume= 9.059 af
Outflow = 10.03 cfs @ 14.09 hrs, Volume= 4.869 af, Atten= 85%, Lag= 96.2 min
Discarded = 1.06 cfs @ 14.09 hrs, Volume= 0.840 af
Primary = 8.97 cfs @ 14.09 hrs, Volume= 4.030 af
Routed to Reach DP-B : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 132.09' @ 14.09 hrs Surf.Area= 111,389 sf Storage= 232,033 cf

Plug-Flow detention time= 223.4 min calculated for 4.868 af (54% of inflow)
Center-of-Mass det. time= 132.1 min (937.6 - 805.5)

Volume	Invert	Avail.Storage	Storage Description
#1	128.00'	458,168 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

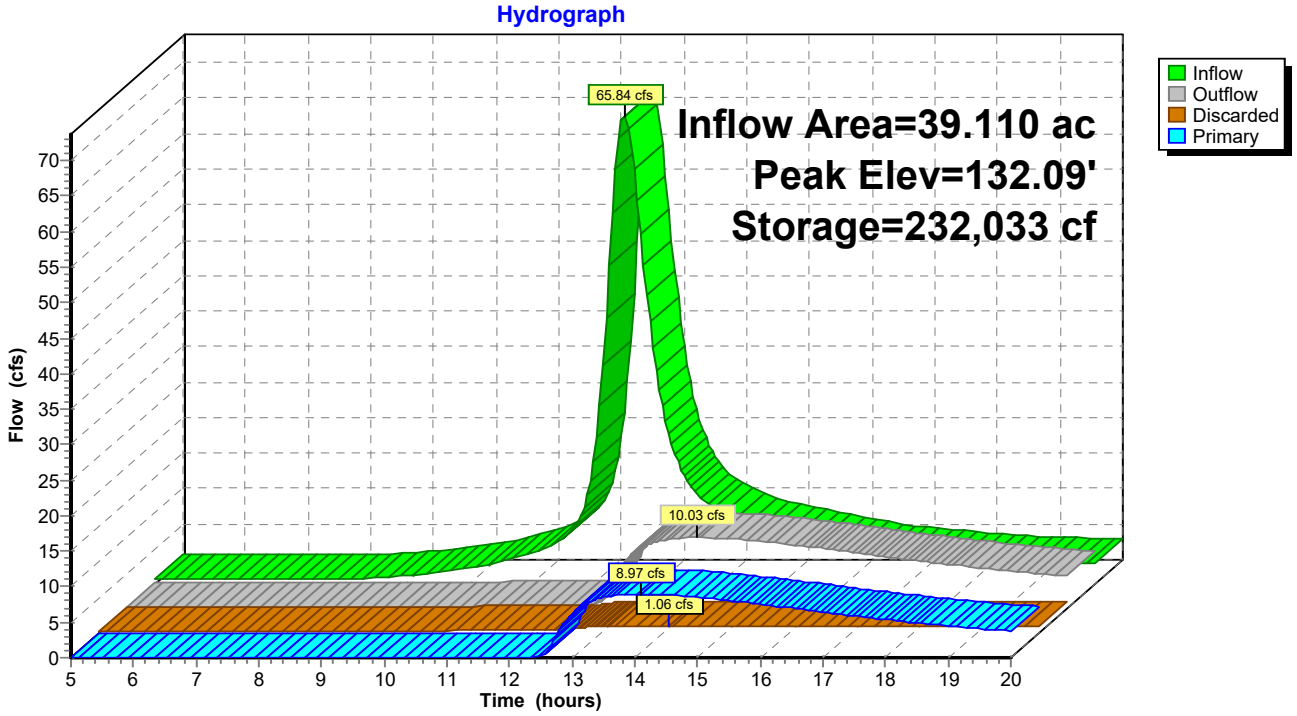
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
128.00	37,532	0	0
129.00	41,132	39,332	39,332
130.00	44,848	42,990	82,322
131.00	62,119	53,484	135,806
132.00	110,781	86,450	222,256
133.00	117,688	114,235	336,490
134.00	125,668	121,678	458,168

Device	Routing	Invert	Outlet Devices
#1	Primary	128.00'	**36.0" Round Culvert** L= 100.0' Ke= 1.000 Inlet / Outlet Invert= 128.00' / 126.00' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 7.07 sf
#2	Device 1	130.50'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	131.10'	**30.0" W x 16.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	132.45'	**3.5' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#5	Discarded	128.00'	**0.410 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=1.06 cfs @ 14.09 hrs HW=132.09' (Free Discharge)
└**5=Exfiltration** (Exfiltration Controls 1.06 cfs)

Primary OutFlow Max=8.97 cfs @ 14.09 hrs HW=132.09' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 8.97 cfs of 41.06 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 1.09 cfs @ 5.57 fps)
  ├**3=Orifice/Grate** (Orifice Controls 7.88 cfs @ 3.19 fps)
  └**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond B6-2*: B6-2 Infiltration Basin



Hydrograph for Pond B6-2*: B6-2 Infiltration Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
5.00	0.72	33	128.00	0.36	0.36	0.00
5.50	0.72	687	128.02	0.36	0.36	0.00
6.00	0.72	1,340	128.04	0.36	0.36	0.00
6.50	0.72	1,992	128.05	0.36	0.36	0.00
7.00	0.72	2,643	128.07	0.36	0.36	0.00
7.50	0.72	3,293	128.09	0.36	0.36	0.00
8.00	0.73	3,946	128.10	0.36	0.36	0.00
8.50	0.90	4,735	128.13	0.36	0.36	0.00
9.00	1.22	5,969	128.16	0.36	0.36	0.00
9.50	1.69	7,918	128.21	0.36	0.36	0.00
10.00	2.31	10,844	128.29	0.37	0.37	0.00
10.50	3.12	15,022	128.39	0.37	0.37	0.00
11.00	4.36	21,019	128.55	0.37	0.37	0.00
11.50	6.38	29,737	128.76	0.38	0.38	0.00
12.00	17.22	46,609	129.18	0.40	0.40	0.00
12.50	**65.82**	124,908	130.82	0.82	0.56	0.26
13.00	30.18	206,485	131.85	7.22	0.98	6.24
13.50	14.51	227,873	132.05	9.57	1.05	8.52
14.00	10.46	**231,960**	**132.09**	**10.02**	**1.06**	**8.97**
14.50	8.61	**230,972**	**132.08**	**9.91**	**1.06**	**8.86**
15.00	7.57	227,912	132.05	9.58	1.05	8.52
15.50	6.69	223,884	132.01	9.14	1.05	8.08
16.00	5.81	219,143	131.97	8.61	1.04	7.58
16.50	5.00	213,847	131.92	8.03	1.02	7.01
17.00	4.51	208,458	131.87	7.44	0.99	6.44
17.50	4.11	203,336	131.82	6.87	0.97	5.91
18.00	3.72	198,484	131.77	6.35	0.95	5.40
18.50	3.36	193,864	131.73	5.85	0.93	4.92
19.00	3.19	189,635	131.68	5.40	0.91	4.49
19.50	3.07	185,914	131.64	5.00	0.89	4.12
20.00	2.95	182,640	131.61	4.66	0.87	3.79

Stage-Discharge for Pond B6-2*: B6-2 Infiltration Basin

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
128.00	0.00	0.00	0.00
128.10	0.36	0.36	0.00
128.20	0.36	0.36	0.00
128.30	0.37	0.37	0.00
128.40	0.37	0.37	0.00
128.50	0.37	0.37	0.00
128.60	0.38	0.38	0.00
128.70	0.38	0.38	0.00
128.80	0.38	0.38	0.00
128.90	0.39	0.39	0.00
129.00	0.39	0.39	0.00
129.10	0.39	0.39	0.00
129.20	0.40	0.40	0.00
129.30	0.40	0.40	0.00
129.40	0.40	0.40	0.00
129.50	0.41	0.41	0.00
129.60	0.41	0.41	0.00
129.70	0.42	0.42	0.00
129.80	0.42	0.42	0.00
129.90	0.42	0.42	0.00
130.00	0.43	0.43	0.00
130.10	0.44	0.44	0.00
130.20	0.46	0.46	0.00
130.30	0.47	0.47	0.00
130.40	0.49	0.49	0.00
130.50	0.51	0.51	0.00
130.60	0.55	0.52	0.03
130.70	0.65	0.54	0.11
130.80	0.79	0.56	0.23
130.90	0.94	0.57	0.36
131.00	1.06	0.59	0.47
131.10	1.20	0.64	0.56
131.20	1.57	0.68	0.89
131.30	2.15	0.73	1.42
131.40	2.86	0.77	2.08
131.50	3.67	0.82	2.85
131.60	4.58	0.87	3.71
131.70	5.56	0.91	4.65
131.80	6.63	0.96	5.67
131.90	7.76	1.01	6.76
132.00	8.96	1.05	7.91
132.10	10.18	1.06	9.12
132.20	11.46	1.06	10.40
132.30	12.80	1.07	11.73
132.40	14.19	1.08	13.11
132.50	15.62	1.08	14.53
132.60	17.23	1.09	16.14
132.70	18.96	1.10	17.87
132.80	20.79	1.10	19.68
132.90	22.68	1.11	21.57
133.00	24.65	1.12	23.53
133.10	26.68	1.12	25.55
133.20	28.76	1.13	27.63
133.30	30.89	1.14	29.75
133.40	33.07	1.15	31.93
133.50	35.29	1.15	34.14
133.60	37.55	1.16	36.39
133.70	39.85	1.17	38.68
133.80	42.18	1.18	41.00
133.90	44.54	1.19	43.35
134.00	**46.92**	**1.19**	**45.73**

Stage-Area-Storage for Pond B6-2*: B6-2 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
128.00	37,532	37,532	0
128.20	38,252	38,252	7,578
128.40	38,972	38,972	15,301
128.60	39,692	39,692	23,167
128.80	40,412	40,412	31,178
129.00	41,132	41,132	39,332
129.20	41,875	41,875	47,633
129.40	42,618	42,618	56,082
129.60	43,362	43,362	64,680
129.80	44,105	44,105	73,427
130.00	44,848	44,848	82,322
130.20	48,302	48,302	91,637
130.40	51,756	51,756	101,643
130.60	55,211	55,211	112,340
130.80	58,665	58,665	123,727
131.00	62,119	62,119	135,806
131.20	71,851	71,851	149,203
131.40	81,584	81,584	164,546
131.60	91,316	91,316	181,836
131.80	101,049	101,049	201,073
132.00	110,781	110,781	222,256
132.20	112,162	112,162	244,550
132.40	113,544	113,544	267,120
132.60	114,925	114,925	289,967
132.80	116,307	116,307	313,091
133.00	117,688	117,688	336,490
133.20	119,284	119,284	360,187
133.40	120,880	120,880	384,204
133.60	122,476	122,476	408,539
133.80	124,072	124,072	433,194
134.00	**125,668**	**125,668**	**458,168**

Summary for Link 1: MRN-3 // MDAN 1

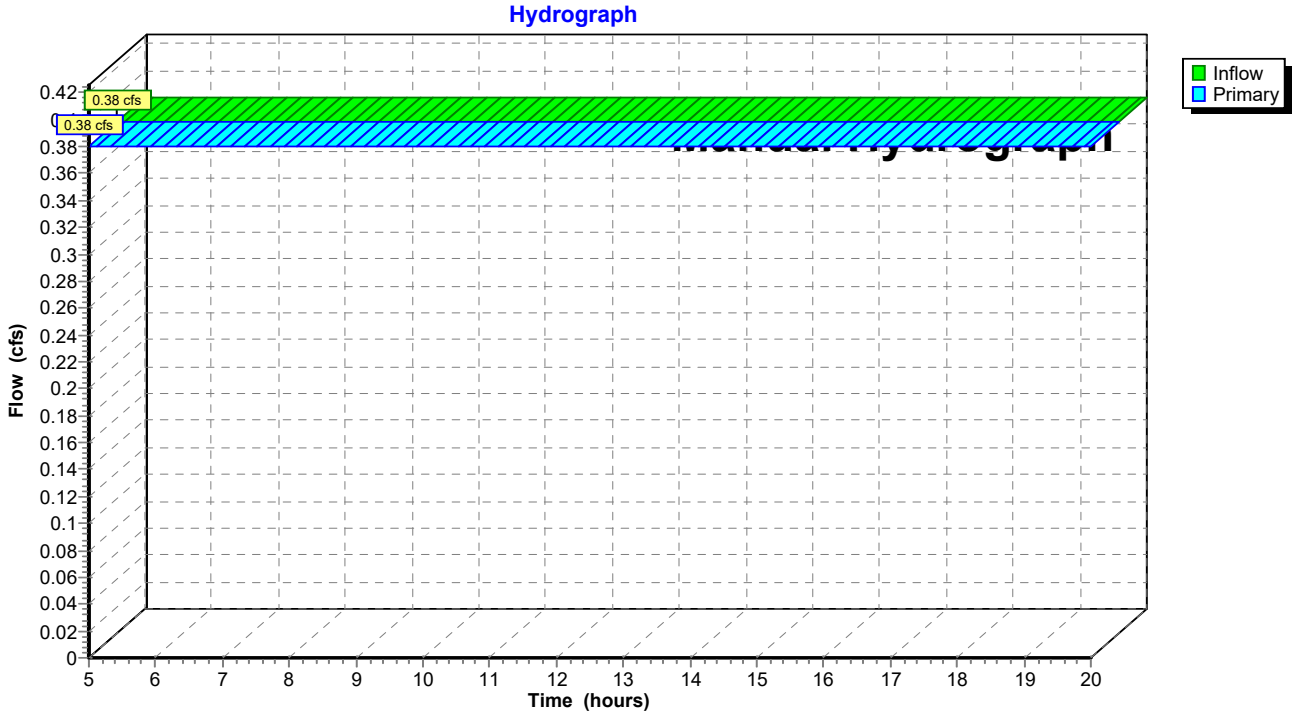
Inflow = 0.38 cfs @ 5.00 hrs, Volume= 0.473 af
Primary = 0.38 cfs @ 5.00 hrs, Volume= 0.473 af, Atten= 0%, Lag= 0.0 min
Routed to Pond A1-3* : A1-3 Infiltration Basin

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

25 Point manual hydrograph, To= 0.00 hrs, dt= 1.00 hrs, cfs =

0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
0.38	0.38	0.38	0.38	0.38					

Link 1: MRN-3 // MDAN 1



Hydrograph for Link 1: MRN-3 // MDAN 1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	**0.38**	**0.00**	**0.38**
5.25	0.38	0.00	0.38
5.50	0.38	0.00	0.38
5.75	0.38	0.00	0.38
6.00	0.38	0.00	0.38
6.25	0.38	0.00	0.38
6.50	0.38	0.00	0.38
6.75	0.38	0.00	0.38
7.00	0.38	0.00	0.38
7.25	0.38	0.00	0.38
7.50	0.38	0.00	0.38
7.75	0.38	0.00	0.38
8.00	0.38	0.00	0.38
8.25	0.38	0.00	0.38
8.50	0.38	0.00	0.38
8.75	0.38	0.00	0.38
9.00	0.38	0.00	0.38
9.25	0.38	0.00	0.38
9.50	0.38	0.00	0.38
9.75	0.38	0.00	0.38
10.00	0.38	0.00	0.38
10.25	0.38	0.00	0.38
10.50	0.38	0.00	0.38
10.75	0.38	0.00	0.38
11.00	0.38	0.00	0.38
11.25	0.38	0.00	0.38
11.50	0.38	0.00	0.38
11.75	0.38	0.00	0.38
12.00	0.38	0.00	0.38
12.25	0.38	0.00	0.38
12.50	0.38	0.00	0.38
12.75	0.38	0.00	0.38
13.00	0.38	0.00	0.38
13.25	0.38	0.00	0.38
13.50	0.38	0.00	0.38
13.75	0.38	0.00	0.38
14.00	0.38	0.00	0.38
14.25	0.38	0.00	0.38
14.50	0.38	0.00	0.38
14.75	0.38	0.00	0.38
15.00	0.38	0.00	0.38
15.25	0.38	0.00	0.38
15.50	0.38	0.00	0.38
15.75	0.38	0.00	0.38
16.00	0.38	0.00	0.38
16.25	0.38	0.00	0.38
16.50	0.38	0.00	0.38
16.75	0.38	0.00	0.38
17.00	0.38	0.00	0.38
17.25	0.38	0.00	0.38
17.50	0.38	0.00	0.38
17.75	0.38	0.00	0.38
18.00	0.38	0.00	0.38
18.25	0.38	0.00	0.38
18.50	0.38	0.00	0.38
18.75	0.38	0.00	0.38
19.00	0.38	0.00	0.38
19.25	0.38	0.00	0.38
19.50	0.38	0.00	0.38
19.75	0.38	0.00	0.38
20.00	0.38	0.00	0.38

Summary for Link 2: MRN-5 // MDAN 2

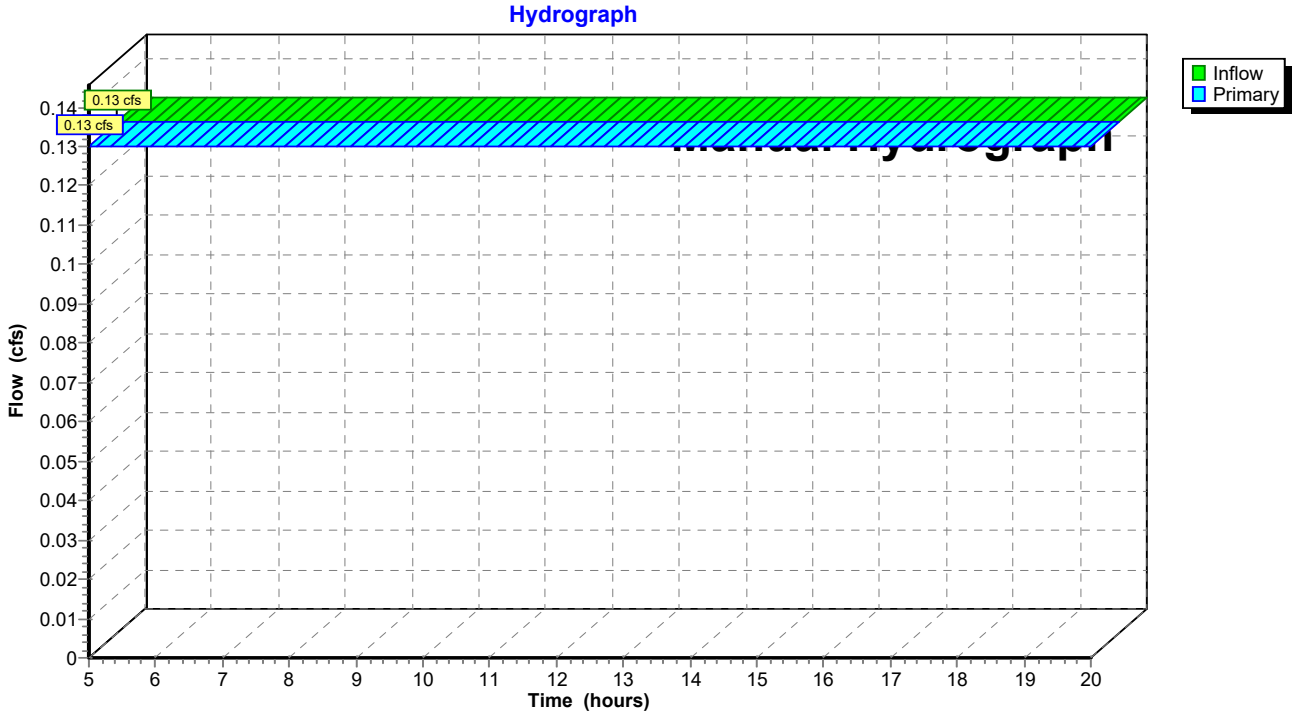
Inflow = 0.13 cfs @ 5.00 hrs, Volume= 0.162 af
Primary = 0.13 cfs @ 5.00 hrs, Volume= 0.162 af, Atten= 0%, Lag= 0.0 min
Routed to Pond A1-2* : A1-2 Infiltration Basin

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

25 Point manual hydrograph, To= 0.00 hrs, dt= 1.00 hrs, cfs =

0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
0.13	0.13	0.13	0.13	0.13					

Link 2: MRN-5 // MDAN 2



Hydrograph for Link 2: MRN-5 // MDAN 2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	**0.13**	**0.00**	**0.13**
5.25	0.13	0.00	0.13
5.50	0.13	0.00	0.13
5.75	0.13	0.00	0.13
6.00	0.13	0.00	0.13
6.25	0.13	0.00	0.13
6.50	0.13	0.00	0.13
6.75	0.13	0.00	0.13
7.00	0.13	0.00	0.13
7.25	0.13	0.00	0.13
7.50	0.13	0.00	0.13
7.75	0.13	0.00	0.13
8.00	0.13	0.00	0.13
8.25	0.13	0.00	0.13
8.50	0.13	0.00	0.13
8.75	0.13	0.00	0.13
9.00	0.13	0.00	0.13
9.25	0.13	0.00	0.13
9.50	0.13	0.00	0.13
9.75	0.13	0.00	0.13
10.00	0.13	0.00	0.13
10.25	0.13	0.00	0.13
10.50	0.13	0.00	0.13
10.75	0.13	0.00	0.13
11.00	0.13	0.00	0.13
11.25	0.13	0.00	0.13
11.50	0.13	0.00	0.13
11.75	0.13	0.00	0.13
12.00	0.13	0.00	0.13
12.25	0.13	0.00	0.13
12.50	0.13	0.00	0.13
12.75	0.13	0.00	0.13
13.00	0.13	0.00	0.13
13.25	0.13	0.00	0.13
13.50	0.13	0.00	0.13
13.75	0.13	0.00	0.13
14.00	0.13	0.00	0.13
14.25	0.13	0.00	0.13
14.50	0.13	0.00	0.13
14.75	0.13	0.00	0.13
15.00	0.13	0.00	0.13
15.25	0.13	0.00	0.13
15.50	0.13	0.00	0.13
15.75	0.13	0.00	0.13
16.00	0.13	0.00	0.13
16.25	0.13	0.00	0.13
16.50	0.13	0.00	0.13
16.75	0.13	0.00	0.13
17.00	0.13	0.00	0.13
17.25	0.13	0.00	0.13
17.50	0.13	0.00	0.13
17.75	0.13	0.00	0.13
18.00	0.13	0.00	0.13
18.25	0.13	0.00	0.13
18.50	0.13	0.00	0.13
18.75	0.13	0.00	0.13
19.00	0.13	0.00	0.13
19.25	0.13	0.00	0.13
19.50	0.13	0.00	0.13
19.75	0.13	0.00	0.13
20.00	0.13	0.00	0.13

Summary for Link 3A: MRN-6 // MDAN 3A

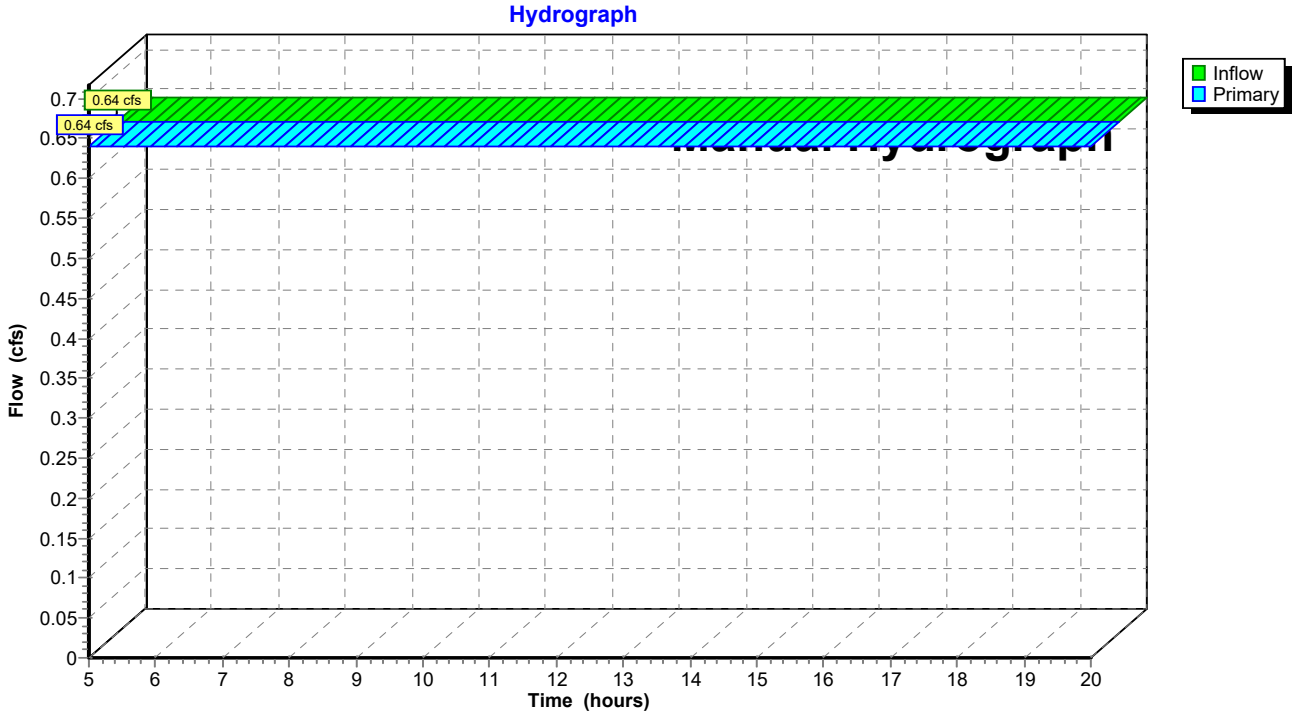
Inflow = 0.64 cfs @ 5.00 hrs, Volume= 0.796 af
Primary = 0.64 cfs @ 5.00 hrs, Volume= 0.796 af, Atten= 0%, Lag= 0.0 min
Routed to Pond A1-2* : A1-2 Infiltration Basin

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

25 Point manual hydrograph, To= 0.00 hrs, dt= 1.00 hrs, cfs =

0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
0.64	0.64	0.64	0.64	0.64					

Link 3A: MRN-6 // MDAN 3A



Hydrograph for Link 3A: MRN-6 // MDAN 3A

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	**0.64**	**0.00**	**0.64**
5.25	0.64	0.00	0.64
5.50	0.64	0.00	0.64
5.75	0.64	0.00	0.64
6.00	0.64	0.00	0.64
6.25	0.64	0.00	0.64
6.50	0.64	0.00	0.64
6.75	0.64	0.00	0.64
7.00	0.64	0.00	0.64
7.25	0.64	0.00	0.64
7.50	0.64	0.00	0.64
7.75	0.64	0.00	0.64
8.00	0.64	0.00	0.64
8.25	0.64	0.00	0.64
8.50	0.64	0.00	0.64
8.75	0.64	0.00	0.64
9.00	0.64	0.00	0.64
9.25	0.64	0.00	0.64
9.50	0.64	0.00	0.64
9.75	0.64	0.00	0.64
10.00	0.64	0.00	0.64
10.25	0.64	0.00	0.64
10.50	0.64	0.00	0.64
10.75	0.64	0.00	0.64
11.00	0.64	0.00	0.64
11.25	0.64	0.00	0.64
11.50	0.64	0.00	0.64
11.75	0.64	0.00	0.64
12.00	0.64	0.00	0.64
12.25	0.64	0.00	0.64
12.50	0.64	0.00	0.64
12.75	0.64	0.00	0.64
13.00	0.64	0.00	0.64
13.25	0.64	0.00	0.64
13.50	0.64	0.00	0.64
13.75	0.64	0.00	0.64
14.00	0.64	0.00	0.64
14.25	0.64	0.00	0.64
14.50	0.64	0.00	0.64
14.75	0.64	0.00	0.64
15.00	0.64	0.00	0.64
15.25	0.64	0.00	0.64
15.50	0.64	0.00	0.64
15.75	0.64	0.00	0.64
16.00	0.64	0.00	0.64
16.25	0.64	0.00	0.64
16.50	0.64	0.00	0.64
16.75	0.64	0.00	0.64
17.00	0.64	0.00	0.64
17.25	0.64	0.00	0.64
17.50	0.64	0.00	0.64
17.75	0.64	0.00	0.64
18.00	0.64	0.00	0.64
18.25	0.64	0.00	0.64
18.50	0.64	0.00	0.64
18.75	0.64	0.00	0.64
19.00	0.64	0.00	0.64
19.25	0.64	0.00	0.64
19.50	0.64	0.00	0.64
19.75	0.64	0.00	0.64
20.00	0.64	0.00	0.64

Summary for Link 3B: MRN-4 // MDAN 3B

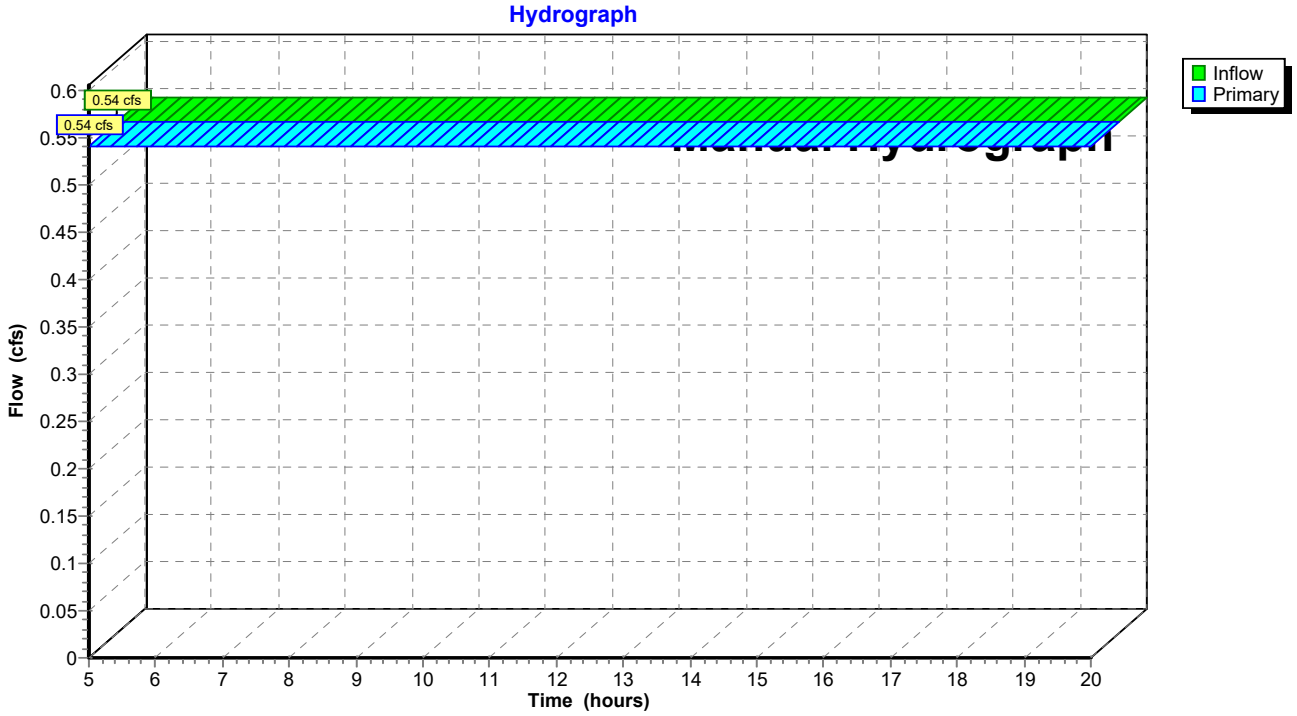
Inflow = 0.54 cfs @ 5.00 hrs, Volume= 0.672 af
Primary = 0.54 cfs @ 5.00 hrs, Volume= 0.672 af, Atten= 0%, Lag= 0.0 min
Routed to Pond A1-2* : A1-2 Infiltration Basin

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

25 Point manual hydrograph, To= 0.00 hrs, dt= 1.00 hrs, cfs =

0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
0.54	0.54	0.54	0.54	0.54					

Link 3B: MRN-4 // MDAN 3B



Hydrograph for Link 3B: MRN-4 // MDAN 3B

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	**0.54**	**0.00**	**0.54**
5.25	0.54	0.00	0.54
5.50	0.54	0.00	0.54
5.75	0.54	0.00	0.54
6.00	0.54	0.00	0.54
6.25	0.54	0.00	0.54
6.50	0.54	0.00	0.54
6.75	0.54	0.00	0.54
7.00	0.54	0.00	0.54
7.25	0.54	0.00	0.54
7.50	0.54	0.00	0.54
7.75	0.54	0.00	0.54
8.00	0.54	0.00	0.54
8.25	0.54	0.00	0.54
8.50	0.54	0.00	0.54
8.75	0.54	0.00	0.54
9.00	0.54	0.00	0.54
9.25	0.54	0.00	0.54
9.50	0.54	0.00	0.54
9.75	0.54	0.00	0.54
10.00	0.54	0.00	0.54
10.25	0.54	0.00	0.54
10.50	0.54	0.00	0.54
10.75	0.54	0.00	0.54
11.00	0.54	0.00	0.54
11.25	0.54	0.00	0.54
11.50	0.54	0.00	0.54
11.75	0.54	0.00	0.54
12.00	0.54	0.00	0.54
12.25	0.54	0.00	0.54
12.50	0.54	0.00	0.54
12.75	0.54	0.00	0.54
13.00	0.54	0.00	0.54
13.25	0.54	0.00	0.54
13.50	0.54	0.00	0.54
13.75	0.54	0.00	0.54
14.00	0.54	0.00	0.54
14.25	0.54	0.00	0.54
14.50	0.54	0.00	0.54
14.75	0.54	0.00	0.54
15.00	0.54	0.00	0.54
15.25	0.54	0.00	0.54
15.50	0.54	0.00	0.54
15.75	0.54	0.00	0.54
16.00	0.54	0.00	0.54
16.25	0.54	0.00	0.54
16.50	0.54	0.00	0.54
16.75	0.54	0.00	0.54
17.00	0.54	0.00	0.54
17.25	0.54	0.00	0.54
17.50	0.54	0.00	0.54
17.75	0.54	0.00	0.54
18.00	0.54	0.00	0.54
18.25	0.54	0.00	0.54
18.50	0.54	0.00	0.54
18.75	0.54	0.00	0.54
19.00	0.54	0.00	0.54
19.25	0.54	0.00	0.54
19.50	0.54	0.00	0.54
19.75	0.54	0.00	0.54
20.00	0.54	0.00	0.54

Summary for Link 4: MRN 1 // MDAN 4

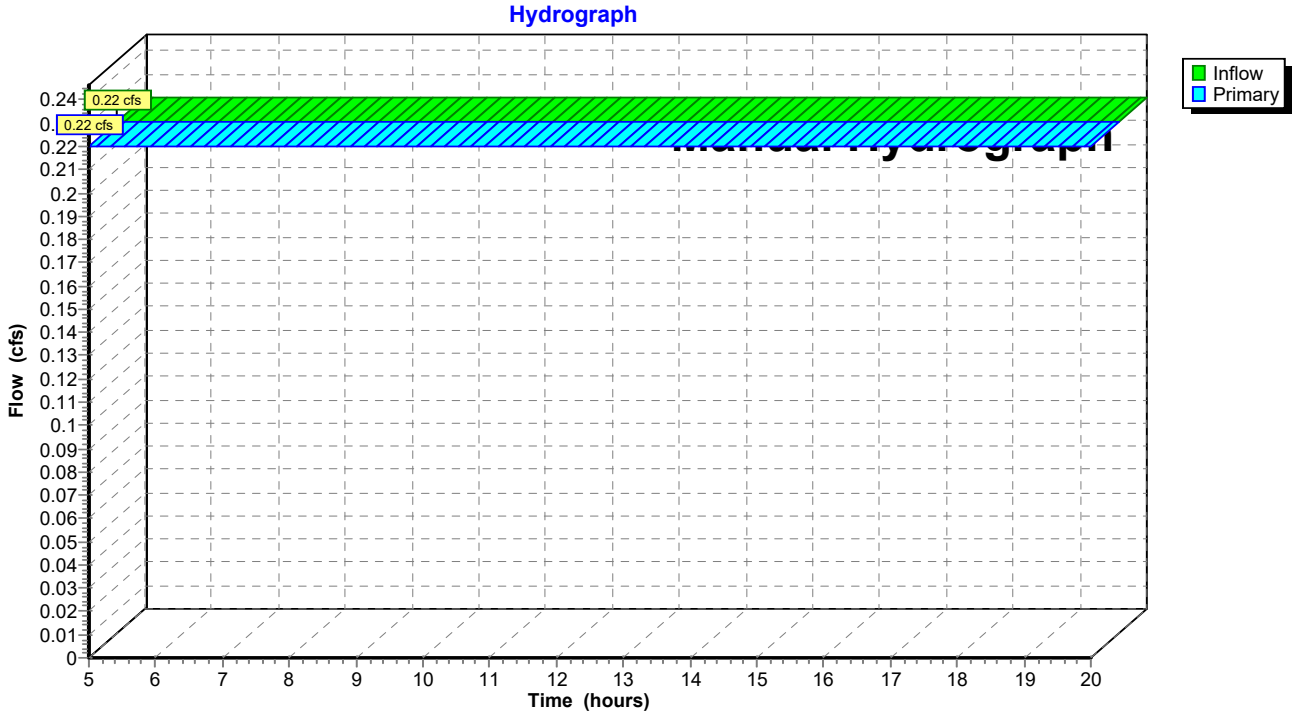
Inflow = 0.22 cfs @ 5.00 hrs, Volume= 0.274 af
Primary = 0.22 cfs @ 5.00 hrs, Volume= 0.274 af, Atten= 0%, Lag= 0.0 min
Routed to Pond B6-2* : B6-2 Infiltration Basin

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

25 Point manual hydrograph, To= 0.00 hrs, dt= 1.00 hrs, cfs =

0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
0.22	0.22	0.22	0.22	0.22					

Link 4: MRN 1 // MDAN 4



Hydrograph for Link 4: MRN 1 // MDAN 4

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	**0.22**	**0.00**	**0.22**	17.75	0.22	0.00	0.22
5.25	0.22	0.00	0.22	18.00	0.22	0.00	0.22
5.50	0.22	0.00	0.22	18.25	0.22	0.00	0.22
5.75	0.22	0.00	0.22	18.50	0.22	0.00	0.22
6.00	0.22	0.00	0.22	18.75	0.22	0.00	0.22
6.25	0.22	0.00	0.22	19.00	0.22	0.00	0.22
6.50	0.22	0.00	0.22	19.25	0.22	0.00	0.22
6.75	0.22	0.00	0.22	19.50	0.22	0.00	0.22
7.00	0.22	0.00	0.22	19.75	0.22	0.00	0.22
7.25	0.22	0.00	0.22	20.00	0.22	0.00	0.22
7.50	0.22	0.00	0.22				
7.75	0.22	0.00	0.22				
8.00	0.22	0.00	0.22				
8.25	0.22	0.00	0.22				
8.50	0.22	0.00	0.22				
8.75	0.22	0.00	0.22				
9.00	0.22	0.00	0.22				
9.25	0.22	0.00	0.22				
9.50	0.22	0.00	0.22				
9.75	0.22	0.00	0.22				
10.00	0.22	0.00	0.22				
10.25	0.22	0.00	0.22				
10.50	0.22	0.00	0.22				
10.75	0.22	0.00	0.22				
11.00	0.22	0.00	0.22				
11.25	0.22	0.00	0.22				
11.50	0.22	0.00	0.22				
11.75	0.22	0.00	0.22				
12.00	0.22	0.00	0.22				
12.25	0.22	0.00	0.22				
12.50	0.22	0.00	0.22				
12.75	0.22	0.00	0.22				
13.00	0.22	0.00	0.22				
13.25	0.22	0.00	0.22				
13.50	0.22	0.00	0.22				
13.75	0.22	0.00	0.22				
14.00	0.22	0.00	0.22				
14.25	0.22	0.00	0.22				
14.50	0.22	0.00	0.22				
14.75	0.22	0.00	0.22				
15.00	0.22	0.00	0.22				
15.25	0.22	0.00	0.22				
15.50	0.22	0.00	0.22				
15.75	0.22	0.00	0.22				
16.00	0.22	0.00	0.22				
16.25	0.22	0.00	0.22				
16.50	0.22	0.00	0.22				
16.75	0.22	0.00	0.22				
17.00	0.22	0.00	0.22				
17.25	0.22	0.00	0.22				
17.50	0.22	0.00	0.22				

Summary for Link 5: MRN-2 // MDAN 5

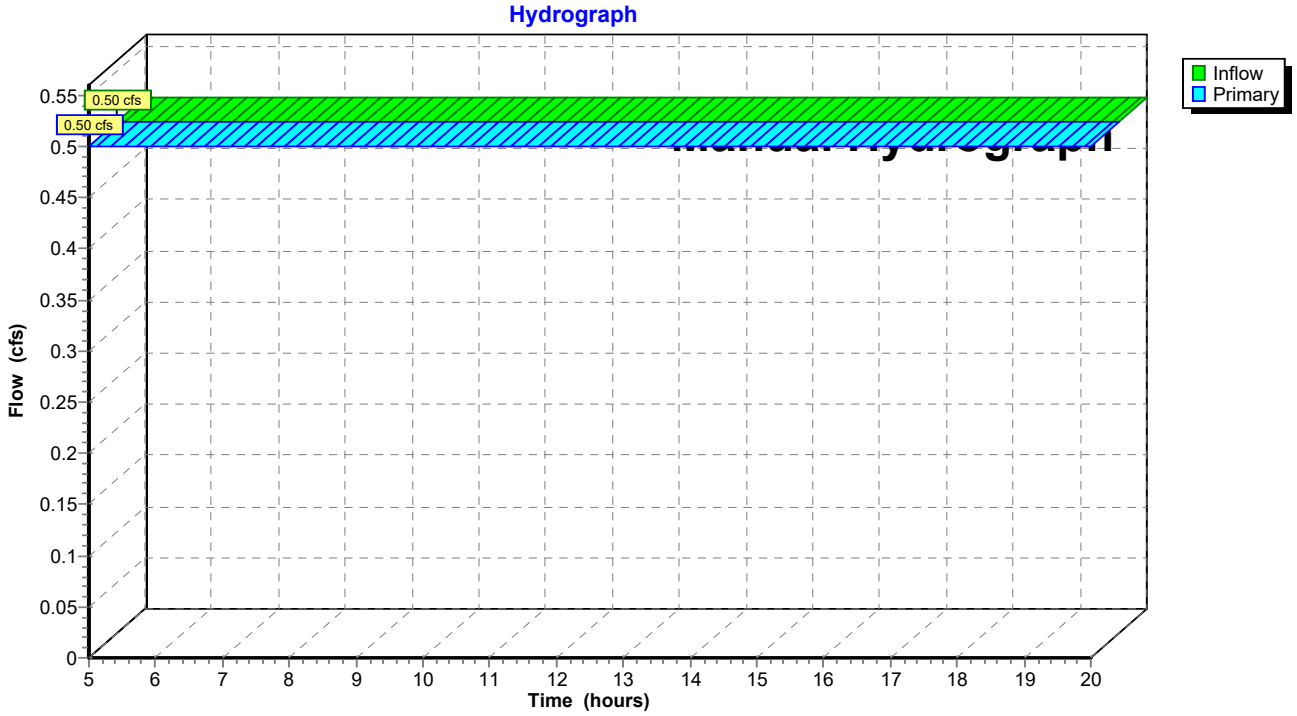
Inflow = 0.50 cfs @ 5.00 hrs, Volume= 0.622 af
Primary = 0.50 cfs @ 5.00 hrs, Volume= 0.622 af, Atten= 0%, Lag= 0.0 min
Routed to Pond B6-2* : B6-2 Infiltration Basin

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

25 Point manual hydrograph, To= 0.00 hrs, dt= 1.00 hrs, cfs =

0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.50	0.50	0.50	0.50	0.50					

Link 5: MRN-2 // MDAN 5



Hydrograph for Link 5: MRN-2 // MDAN 5

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	**0.50**	**0.00**	**0.50**
5.25	0.50	0.00	0.50
5.50	0.50	0.00	0.50
5.75	0.50	0.00	0.50
6.00	0.50	0.00	0.50
6.25	0.50	0.00	0.50
6.50	0.50	0.00	0.50
6.75	0.50	0.00	0.50
7.00	0.50	0.00	0.50
7.25	0.50	0.00	0.50
7.50	0.50	0.00	0.50
7.75	0.50	0.00	0.50
8.00	0.50	0.00	0.50
8.25	0.50	0.00	0.50
8.50	0.50	0.00	0.50
8.75	0.50	0.00	0.50
9.00	0.50	0.00	0.50
9.25	0.50	0.00	0.50
9.50	0.50	0.00	0.50
9.75	0.50	0.00	0.50
10.00	0.50	0.00	0.50
10.25	0.50	0.00	0.50
10.50	0.50	0.00	0.50
10.75	0.50	0.00	0.50
11.00	0.50	0.00	0.50
11.25	0.50	0.00	0.50
11.50	0.50	0.00	0.50
11.75	0.50	0.00	0.50
12.00	0.50	0.00	0.50
12.25	0.50	0.00	0.50
12.50	0.50	0.00	0.50
12.75	0.50	0.00	0.50
13.00	0.50	0.00	0.50
13.25	0.50	0.00	0.50
13.50	0.50	0.00	0.50
13.75	0.50	0.00	0.50
14.00	0.50	0.00	0.50
14.25	0.50	0.00	0.50
14.50	0.50	0.00	0.50
14.75	0.50	0.00	0.50
15.00	0.50	0.00	0.50
15.25	0.50	0.00	0.50
15.50	0.50	0.00	0.50
15.75	0.50	0.00	0.50
16.00	0.50	0.00	0.50
16.25	0.50	0.00	0.50
16.50	0.50	0.00	0.50
16.75	0.50	0.00	0.50
17.00	0.50	0.00	0.50
17.25	0.50	0.00	0.50
17.50	0.50	0.00	0.50
17.75	0.50	0.00	0.50
18.00	0.50	0.00	0.50
18.25	0.50	0.00	0.50
18.50	0.50	0.00	0.50
18.75	0.50	0.00	0.50
19.00	0.50	0.00	0.50
19.25	0.50	0.00	0.50
19.50	0.50	0.00	0.50
19.75	0.50	0.00	0.50
20.00	0.50	0.00	0.50

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

SubcatchmentA1-1: A1-1 Runoff Area=22.141 ac 0.00% Impervious Runoff Depth>1.63"
Flow Length=1,105' Tc=37.0 min CN=60 Runoff=22.63 cfs 3.009 af

SubcatchmentA1-2: A1-2 Runoff Area=21.469 ac 66.84% Impervious Runoff Depth>3.81"
Tc=6.0 min CN=84 Runoff=98.29 cfs 6.814 af

SubcatchmentA1-3: A1-3 Runoff Area=31.975 ac 77.29% Impervious Runoff Depth>4.43"
Tc=6.0 min CN=90 Runoff=164.07 cfs 11.812 af

SubcatchmentA11-1: A11-1 Runoff Area=6.176 ac 0.00% Impervious Runoff Depth>1.43"
Flow Length=232' Tc=8.3 min CN=57 Runoff=9.34 cfs 0.735 af

SubcatchmentA11-2: A11-2 Runoff Area=34.745 ac 45.43% Impervious Runoff Depth>3.06"
Flow Length=1,250' Tc=58.8 min CN=77 Runoff=54.04 cfs 8.864 af

SubcatchmentA2: A2 Runoff Area=0.160 ac 0.00% Impervious Runoff Depth>1.58"
Tc=6.0 min CN=59 Runoff=0.30 cfs 0.021 af

SubcatchmentA3: A3 Runoff Area=23.404 ac 0.00% Impervious Runoff Depth>1.63"
Flow Length=2,107' Tc=40.5 min CN=60 Runoff=22.82 cfs 3.176 af

SubcatchmentA4: A4 Runoff Area=14.774 ac 1.59% Impervious Runoff Depth>1.21"
Flow Length=627' Tc=18.0 min CN=54 Runoff=13.99 cfs 1.486 af

SubcatchmentA5: A5 Runoff Area=5.469 ac 0.00% Impervious Runoff Depth>1.73"
Flow Length=627' Tc=12.3 min CN=61 Runoff=9.23 cfs 0.787 af

SubcatchmentA6: A6 Runoff Area=4.893 ac 0.00% Impervious Runoff Depth>1.72"
Flow Length=729' Tc=22.1 min CN=61 Runoff=6.62 cfs 0.701 af

SubcatchmentA8: A8 Runoff Area=1.754 ac 0.00% Impervious Runoff Depth>1.36"
Tc=6.0 min CN=56 Runoff=2.72 cfs 0.198 af

SubcatchmentB1-1: B1-1 Runoff Area=26.798 ac 4.06% Impervious Runoff Depth>2.13"
Flow Length=398' Tc=17.3 min CN=66 Runoff=50.65 cfs 4.749 af

SubcatchmentB1-2: B1-A Runoff Area=4.401 ac 51.58% Impervious Runoff Depth>3.41"
Tc=6.0 min CN=80 Runoff=18.32 cfs 1.250 af

SubcatchmentB1-3: B1-B Runoff Area=20.504 ac 83.49% Impervious Runoff Depth>4.64"
Tc=6.0 min CN=92 Runoff=108.36 cfs 7.927 af

SubcatchmentB10: B10 Runoff Area=0.702 ac 0.00% Impervious Runoff Depth>0.17"
Tc=6.0 min CN=35 Runoff=0.02 cfs 0.010 af

SubcatchmentB11: B11 Runoff Area=0.733 ac 0.00% Impervious Runoff Depth>0.70"
Tc=6.0 min CN=46 Runoff=0.41 cfs 0.043 af

Subcatchment B13: B13 Runoff Area=13.436 ac 0.00% Impervious Runoff Depth>1.80"
Flow Length=963' Tc=24.1 min CN=62 Runoff=18.47 cfs 2.012 af

Subcatchment B2: B2 Runoff Area=7.320 ac 5.93% Impervious Runoff Depth>1.96"
Flow Length=462' Tc=24.8 min CN=64 Runoff=10.93 cfs 1.193 af

Subcatchment B3-1: B3-1 Runoff Area=13.903 ac 0.00% Impervious Runoff Depth>1.89"
Flow Length=215' Tc=11.9 min CN=63 Runoff=26.18 cfs 2.185 af

Subcatchment B3-2: B3-2 Runoff Area=7.079 ac 56.01% Impervious Runoff Depth>3.61"
Tc=6.0 min CN=82 Runoff=30.96 cfs 2.127 af

Subcatchment B4: B4 Runoff Area=28.643 ac 0.00% Impervious Runoff Depth>1.89"
Flow Length=448' Tc=10.6 min CN=63 Runoff=56.59 cfs 4.504 af

Subcatchment B5-1: B5-1 Runoff Area=24.062 ac 14.80% Impervious Runoff Depth>2.30"
Flow Length=627' Tc=16.0 min CN=68 Runoff=50.76 cfs 4.605 af

Subcatchment B5-2: B5-2 Runoff Area=10.218 ac 67.76% Impervious Runoff Depth>4.02"
Tc=6.0 min CN=86 Runoff=48.79 cfs 3.419 af

Subcatchment B6-1: B6-1 Runoff Area=10.053 ac 2.88% Impervious Runoff Depth>1.97"
Flow Length=362' Tc=9.8 min CN=64 Runoff=21.29 cfs 1.649 af

Subcatchment B6-2: B6-2 Runoff Area=39.110 ac 51.21% Impervious Runoff Depth>3.38"
Flow Length=946' Tc=35.2 min CN=80 Runoff=87.23 cfs 11.003 af

Subcatchment B7: B7 Runoff Area=8.035 ac 0.00% Impervious Runoff Depth>1.72"
Flow Length=538' Tc=27.4 min CN=61 Runoff=9.94 cfs 1.149 af

Subcatchment B8: B8 Runoff Area=7.574 ac 6.91% Impervious Runoff Depth>1.89"
Flow Length=502' Tc=10.6 min CN=63 Runoff=14.96 cfs 1.191 af

Reach DP-A: DP-A Inflow=83.45 cfs 15.073 af
Outflow=83.45 cfs 15.073 af

Reach DP-B: DP-B Inflow=239.09 cfs 30.899 af
Outflow=239.09 cfs 30.899 af

Pond A1-2*: A1-2 Infiltration Basin Peak Elev=119.47' Storage=119,778 cf Inflow=99.60 cfs 8.443 af
Discarded=11.79 cfs 7.365 af Primary=4.75 cfs 0.864 af Outflow=16.54 cfs 8.228 af

Pond A1-3*: A1-3 Infiltration Basin Peak Elev=118.38' Storage=276,350 cf Inflow=164.45 cfs 12.285 af
Discarded=5.83 cfs 4.974 af Primary=10.57 cfs 4.096 af Outflow=16.40 cfs 9.070 af

Pond A11-2*: A11-2 Infiltration Basin Peak Elev=117.13' Storage=97,447 cf Inflow=54.04 cfs 8.864 af
Discarded=20.74 cfs 8.860 af Primary=0.00 cfs 0.000 af Outflow=20.74 cfs 8.860 af

Pond B1-2*: B1-2 Infiltration Basin Peak Elev=133.15' Storage=73,794 cf Inflow=22.73 cfs 5.848 af
Discarded=5.96 cfs 3.948 af Primary=1.66 cfs 0.771 af Outflow=7.62 cfs 4.718 af

Pond B1-3*: B1-3 Dry Extended Basin Peak Elev=135.48' Storage=217,941 cf Inflow=108.36 cfs 7.927 af
Outflow=10.51 cfs 4.598 af

Pond B3-2*: B3-2 Dry Extended Basin Peak Elev=127.53' Storage=79,470 cf Inflow=30.96 cfs 2.127 af
Outflow=0.44 cfs 0.303 af

Pond B5-2*: B5-2 Infiltration Basin Peak Elev=136.35' Storage=77,545 cf Inflow=48.79 cfs 3.419 af
Discarded=2.70 cfs 2.209 af Primary=0.00 cfs 0.000 af Outflow=2.70 cfs 2.209 af

Pond B6-2*: B6-2 Infiltration Basin Peak Elev=132.62' Storage=291,815 cf Inflow=87.95 cfs 11.899 af
Discarded=1.09 cfs 0.886 af Primary=16.41 cfs 6.536 af Outflow=17.50 cfs 7.422 af

Link 1: MRN-3 // MDAN 1 Manual Hydrograph Inflow=0.38 cfs 0.473 af
Primary=0.38 cfs 0.473 af

Link 2: MRN-5 // MDAN 2 Manual Hydrograph Inflow=0.13 cfs 0.162 af
Primary=0.13 cfs 0.162 af

Link 3A: MRN-6 // MDAN 3A Manual Hydrograph Inflow=0.64 cfs 0.796 af
Primary=0.64 cfs 0.796 af

Link 3B: MRN-4 // MDAN 3B Manual Hydrograph Inflow=0.54 cfs 0.672 af
Primary=0.54 cfs 0.672 af

Link 4: MRN 1 // MDAN 4 Manual Hydrograph Inflow=0.22 cfs 0.274 af
Primary=0.22 cfs 0.274 af

Link 5: MRN-2 // MDAN 5 Manual Hydrograph Inflow=0.50 cfs 0.622 af
Primary=0.50 cfs 0.622 af

Total Runoff Area = 389.531 ac Runoff Volume = 86.619 af Average Runoff Depth = 2.67"
71.43% Pervious = 278.247 ac 28.57% Impervious = 111.284 ac

Summary for Subcatchment A1-1: A1-1

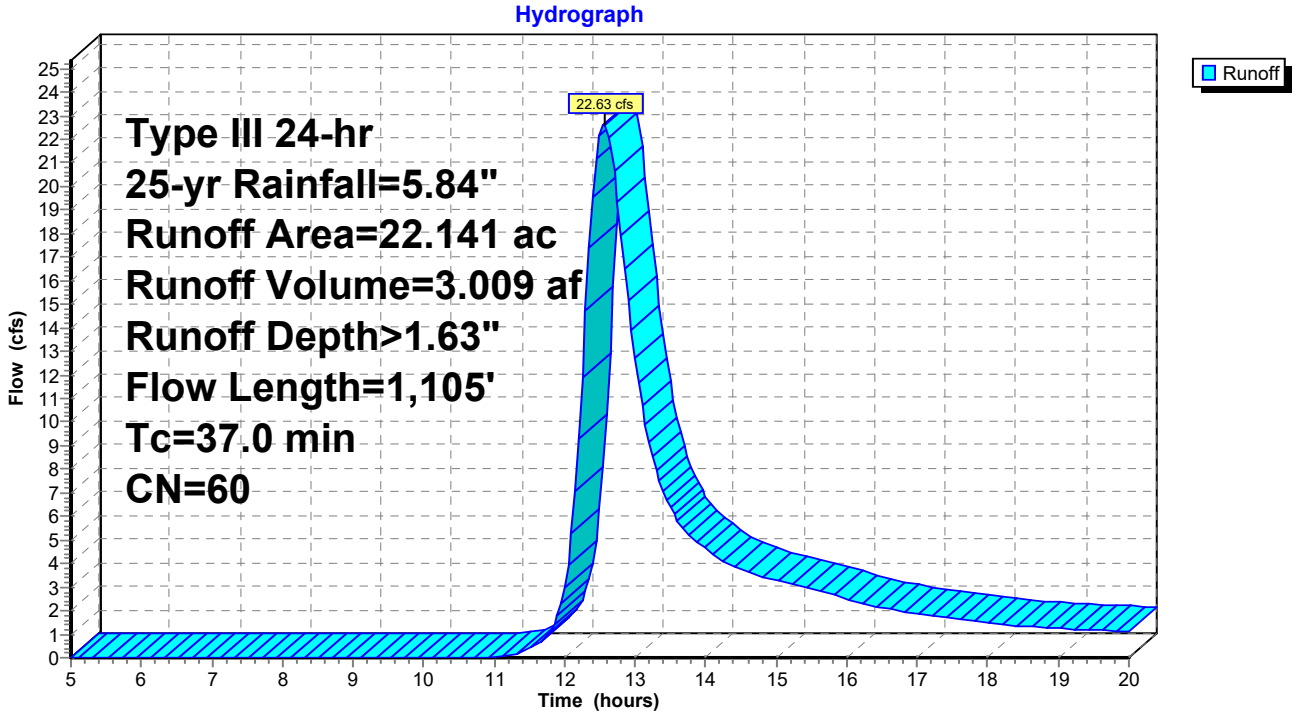
Runoff = 22.63 cfs @ 12.56 hrs, Volume= 3.009 af, Depth> 1.63"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
19.735	61	>75% Grass cover, Good, HSG B
2.406	55	Woods, Good, HSG B
22.141	60	Weighted Average
22.141		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	50	0.0620	0.23		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
8.1	264	0.0060	0.54		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
0.4	25	0.0440	1.05		**Shallow Concentrated Flow, scf-2** Woodland Kv= 5.0 fps
14.8	483	0.0060	0.54		**Shallow Concentrated Flow, scf3** Short Grass Pasture Kv= 7.0 fps
6.5	62	0.0010	0.16		**Shallow Concentrated Flow, scf4** Woodland Kv= 5.0 fps
3.6	221	0.0210	1.01		**Shallow Concentrated Flow, scf5** Short Grass Pasture Kv= 7.0 fps
37.0	1,105	Total			

Subcatchment A1-1: A1-1



Hydrograph for Subcatchment A1-1: A1-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.00
11.00	1.46	0.00	0.01
11.25	1.58	0.01	0.11
11.50	1.74	0.02	0.37
11.75	2.07	0.07	0.93
12.00	2.92	0.31	2.99
12.25	3.77	0.65	11.92
12.50	4.10	0.81	**22.18**
12.75	4.26	0.89	**19.34**
13.00	4.38	0.96	12.70
13.25	4.48	1.01	8.53
13.50	4.58	1.06	6.36
13.75	4.66	1.11	5.25
14.00	4.74	1.15	4.61
14.25	4.81	1.19	4.12
14.50	4.87	1.23	3.76
14.75	4.93	1.26	3.51
15.00	4.99	1.29	3.30
15.25	5.04	1.33	3.10
15.50	5.09	1.35	2.91
15.75	5.13	1.38	2.71
16.00	5.17	1.40	2.50
16.25	5.21	1.43	2.30
16.50	5.25	1.45	2.12
16.75	5.28	1.47	1.99
17.00	5.31	1.49	1.88
17.25	5.34	1.50	1.78
17.50	5.37	1.52	1.69
17.75	5.40	1.54	1.60
18.00	5.42	1.55	1.50
18.25	5.44	1.57	1.41
18.50	5.47	1.58	1.33
18.75	5.49	1.59	1.28
19.00	5.51	1.61	1.24
19.25	5.53	1.62	1.21
19.50	5.55	1.63	1.18
19.75	5.57	1.65	1.16
20.00	**5.59**	**1.66**	1.13

Summary for Subcatchment A1-2: A1-2

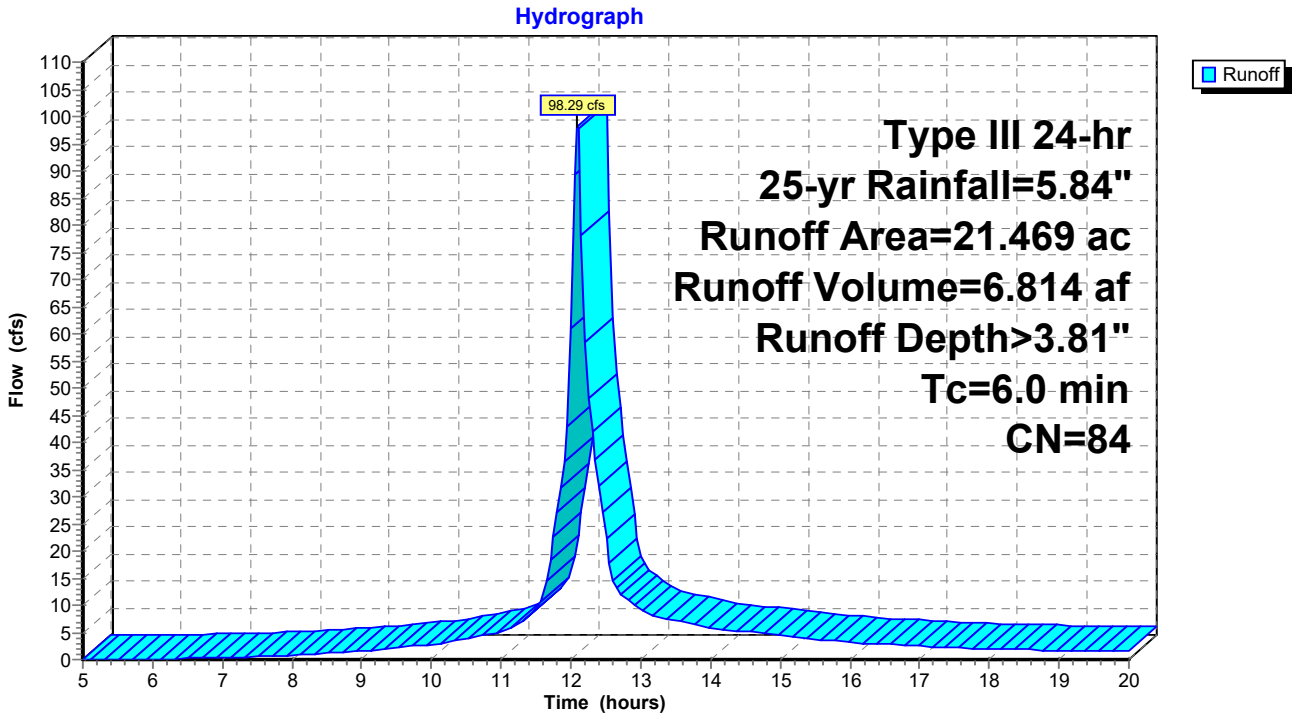
Runoff = 98.29 cfs @ 12.09 hrs, Volume= 6.814 af, Depth> 3.81"
Routed to Pond A1-2* : A1-2 Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
1.959	39	>75% Grass cover, Good, HSG A
4.962	61	>75% Grass cover, Good, HSG B
0.091	80	>75% Grass cover, Good, HSG D
0.107	55	Woods, Good, HSG B
4.561	98	Roofs, HSG A
9.789	98	Paved parking, HSG A
21.469	84	Weighted Average
7.119		33.16% Pervious Area
14.350		66.84% Impervious Area

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

Subcatchment A1-2: A1-2



Hydrograph for Subcatchment A1-2: A1-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.02
6.00	0.42	0.00	0.06
6.25	0.44	0.00	0.12
6.50	0.47	0.00	0.18
6.75	0.50	0.01	0.25
7.00	0.53	0.01	0.34
7.25	0.56	0.02	0.43
7.50	0.59	0.02	0.53
7.75	0.63	0.03	0.64
8.00	0.67	0.04	0.75
8.25	0.71	0.05	0.91
8.50	0.75	0.06	1.12
8.75	0.80	0.08	1.34
9.00	0.85	0.09	1.59
9.25	0.91	0.11	1.87
9.50	0.97	0.14	2.16
9.75	1.03	0.17	2.48
10.00	1.10	0.20	2.81
10.25	1.18	0.24	3.29
10.50	1.26	0.28	3.88
10.75	1.36	0.33	4.52
11.00	1.46	0.39	5.21
11.25	1.58	0.47	6.77
11.50	1.74	0.57	9.03
11.75	2.07	0.80	22.64
12.00	2.92	1.45	**61.03**
12.25	3.77	2.17	**48.12**
12.50	4.10	2.46	22.34
12.75	4.26	2.60	11.77
13.00	4.38	2.71	9.22
13.25	4.48	2.80	7.86
13.50	4.58	2.88	7.20
13.75	4.66	2.96	6.54
14.00	4.74	3.03	5.87
14.25	4.81	3.09	5.42
14.50	4.87	3.15	5.10
14.75	4.93	3.21	4.78
15.00	4.99	3.26	4.46
15.25	5.04	3.31	4.13
15.50	5.09	3.35	3.80
15.75	5.13	3.39	3.47
16.00	5.17	3.43	3.14
16.25	5.21	3.46	2.93
16.50	5.25	3.50	2.79
16.75	5.28	3.53	2.65
17.00	5.31	3.56	2.50
17.25	5.34	3.58	2.36
17.50	5.37	3.61	2.21
17.75	5.40	3.63	2.07
18.00	5.42	3.66	1.92
18.25	5.44	3.68	1.84
18.50	5.47	3.70	1.80
18.75	5.49	3.72	1.76
19.00	5.51	3.74	1.71
19.25	5.53	3.76	1.67
19.50	5.55	3.78	1.63
19.75	5.57	3.80	1.59
20.00	**5.59**	**3.81**	1.54

Summary for Subcatchment A1-3: A1-3

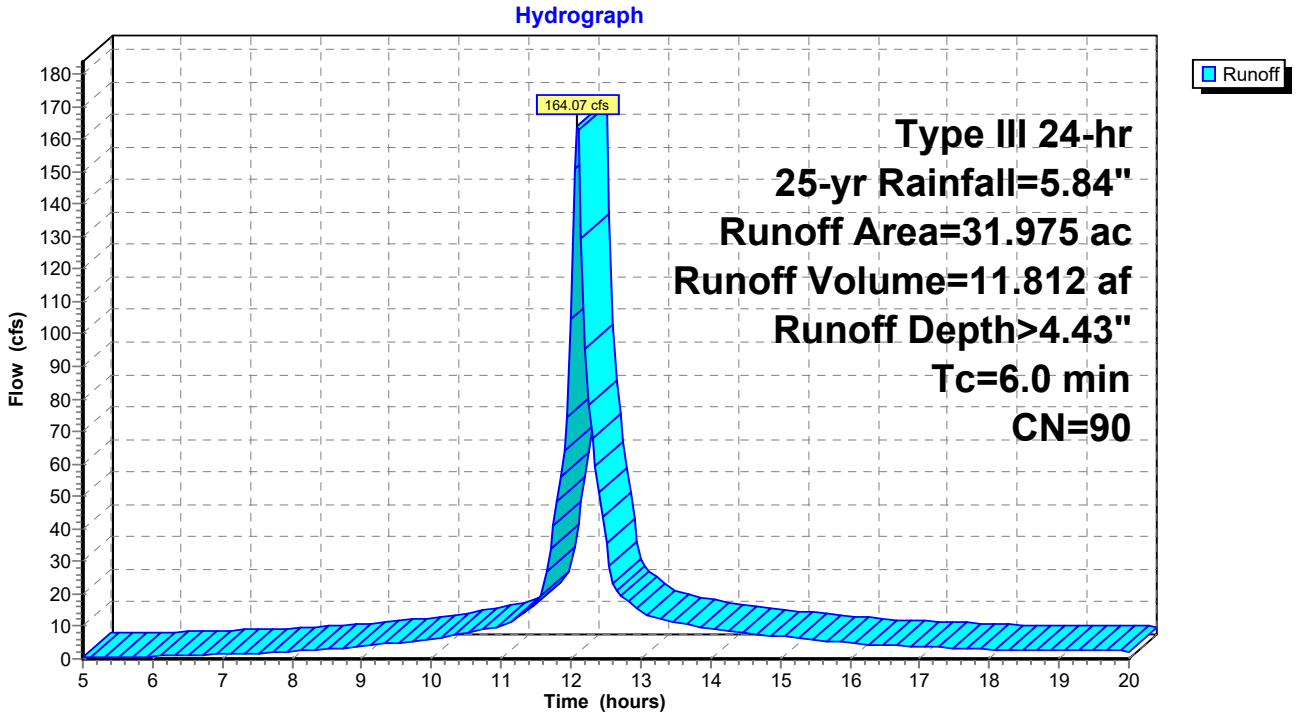
Runoff = 164.07 cfs @ 12.09 hrs, Volume= 11.812 af, Depth> 4.43"
Routed to Pond A1-3* : A1-3 Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.062	39	>75% Grass cover, Good, HSG A
7.110	61	>75% Grass cover, Good, HSG B
0.091	55	Woods, Good, HSG B
6.082	98	Roofs, HSG A
18.630	98	Paved parking, HSG A
31.975	90	Weighted Average
7.263		22.71% Pervious Area
24.712		77.29% Impervious Area

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

Subcatchment A1-3: A1-3



Hydrograph for Subcatchment A1-3: A1-3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.01	0.43
5.25	0.35	0.01	0.52
5.50	0.37	0.02	0.62
5.75	0.40	0.02	0.71
6.00	0.42	0.03	0.81
6.25	0.44	0.04	0.94
6.50	0.47	0.05	1.10
6.75	0.50	0.06	1.27
7.00	0.53	0.07	1.45
7.25	0.56	0.08	1.65
7.50	0.59	0.09	1.86
7.75	0.63	0.11	2.08
8.00	0.67	0.13	2.31
8.25	0.71	0.15	2.65
8.50	0.75	0.17	3.07
8.75	0.80	0.20	3.52
9.00	0.85	0.23	4.00
9.25	0.91	0.26	4.50
9.50	0.97	0.30	5.03
9.75	1.03	0.34	5.58
10.00	1.10	0.39	6.14
10.25	1.18	0.44	6.99
10.50	1.26	0.50	8.03
10.75	1.36	0.57	9.12
11.00	1.46	0.65	10.24
11.25	1.58	0.75	13.01
11.50	1.74	0.88	16.91
11.75	2.07	1.16	40.95
12.00	2.92	1.91	**104.45**
12.25	3.77	2.70	**78.32**
12.50	4.10	3.01	35.82
12.75	4.26	3.16	18.78
13.00	4.38	3.28	14.66
13.25	4.48	3.38	12.47
13.50	4.58	3.47	11.41
13.75	4.66	3.55	10.34
14.00	4.74	3.62	9.27
14.25	4.81	3.69	8.54
14.50	4.87	3.75	8.03
14.75	4.93	3.81	7.52
15.00	4.99	3.87	7.00
15.25	5.04	3.92	6.48
15.50	5.09	3.96	5.96
15.75	5.13	4.01	5.44
16.00	5.17	4.04	4.92
16.25	5.21	4.08	4.59
16.50	5.25	4.11	4.36
16.75	5.28	4.15	4.14
17.00	5.31	4.18	3.91
17.25	5.34	4.21	3.68
17.50	5.37	4.23	3.46
17.75	5.40	4.26	3.23
18.00	5.42	4.28	3.00
18.25	5.44	4.30	2.88
18.50	5.47	4.33	2.81
18.75	5.49	4.35	2.74
19.00	5.51	4.37	2.67
19.25	5.53	4.39	2.61
19.50	5.55	4.41	2.54
19.75	5.57	4.43	2.47
20.00	**5.59**	**4.45**	2.40

Summary for Subcatchment A11-1: A11-1

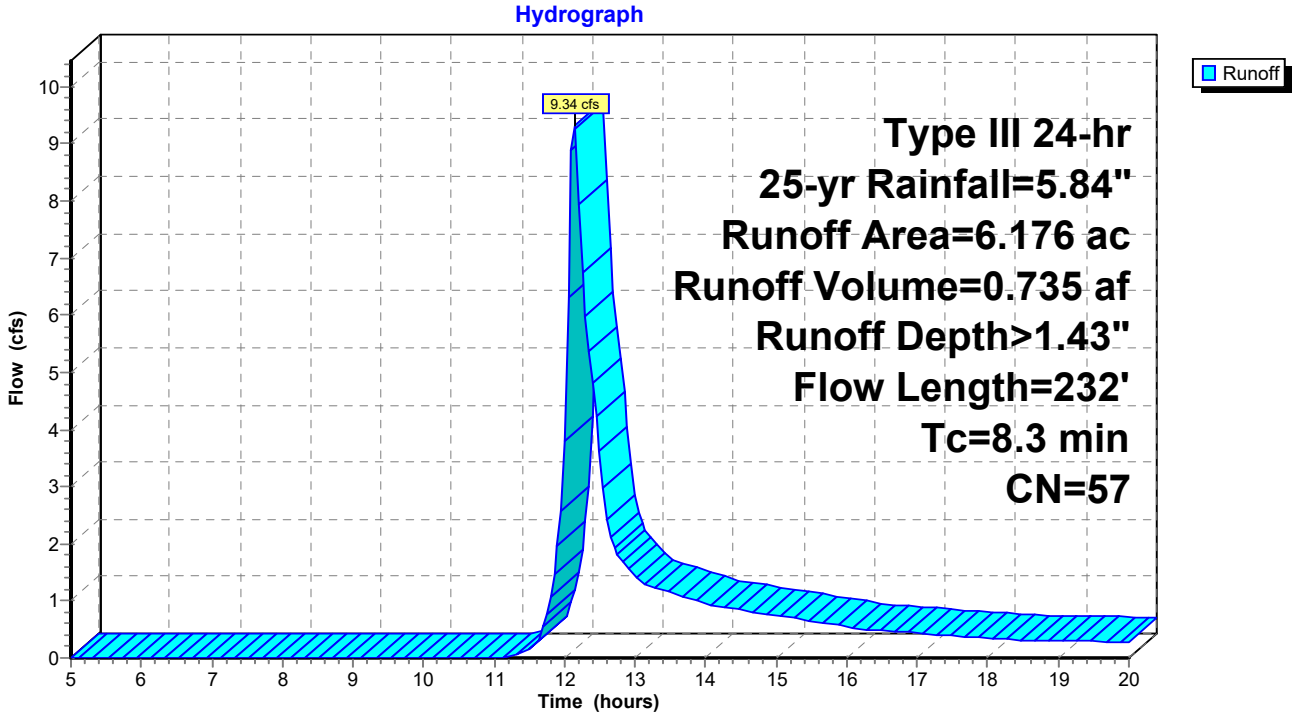
Runoff = 9.34 cfs @ 12.14 hrs, Volume= 0.735 af, Depth> 1.43"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
2.423	61	>75% Grass cover, Good, HSG B
3.753	55	Woods, Good, HSG B
6.176	57	Weighted Average
6.176		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	50	0.0200	0.15		**Sheet Flow, sf1** Grass: Short n= 0.150 P2= 3.11"
1.9	102	0.0170	0.91		**Shallow Concentrated Flow, scf1** Short Grass Pasture Kv= 7.0 fps
0.7	80	0.1300	1.80		**Shallow Concentrated Flow, scf2** Woodland Kv= 5.0 fps
8.3	232	Total			

Subcatchment A11-1: A11-1



Hydrograph for Subcatchment A11-1: A11-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.00
11.00	1.46	0.00	0.00
11.25	1.58	0.00	0.01
11.50	1.74	0.01	0.15
11.75	2.07	0.04	0.78
12.00	2.92	0.22	**3.81**
12.25	3.77	0.52	**6.73**
12.50	4.10	0.66	3.61
12.75	4.26	0.73	1.81
13.00	4.38	0.79	1.45
13.25	4.48	0.84	1.23
13.50	4.58	0.89	1.14
13.75	4.66	0.93	1.05
14.00	4.74	0.97	0.96
14.25	4.81	1.00	0.89
14.50	4.87	1.04	0.84
14.75	4.93	1.07	0.80
15.00	4.99	1.10	0.75
15.25	5.04	1.13	0.70
15.50	5.09	1.15	0.65
15.75	5.13	1.18	0.60
16.00	5.17	1.20	0.55
16.25	5.21	1.22	0.51
16.50	5.25	1.24	0.48
16.75	5.28	1.26	0.46
17.00	5.31	1.27	0.44
17.25	5.34	1.29	0.41
17.50	5.37	1.31	0.39
17.75	5.40	1.32	0.37
18.00	5.42	1.34	0.34
18.25	5.44	1.35	0.33
18.50	5.47	1.36	0.32
18.75	5.49	1.37	0.31
19.00	5.51	1.39	0.31
19.25	5.53	1.40	0.30
19.50	5.55	1.41	0.29
19.75	5.57	1.42	0.28
20.00	**5.59**	**1.43**	0.28

Summary for Subcatchment A11-2: A11-2

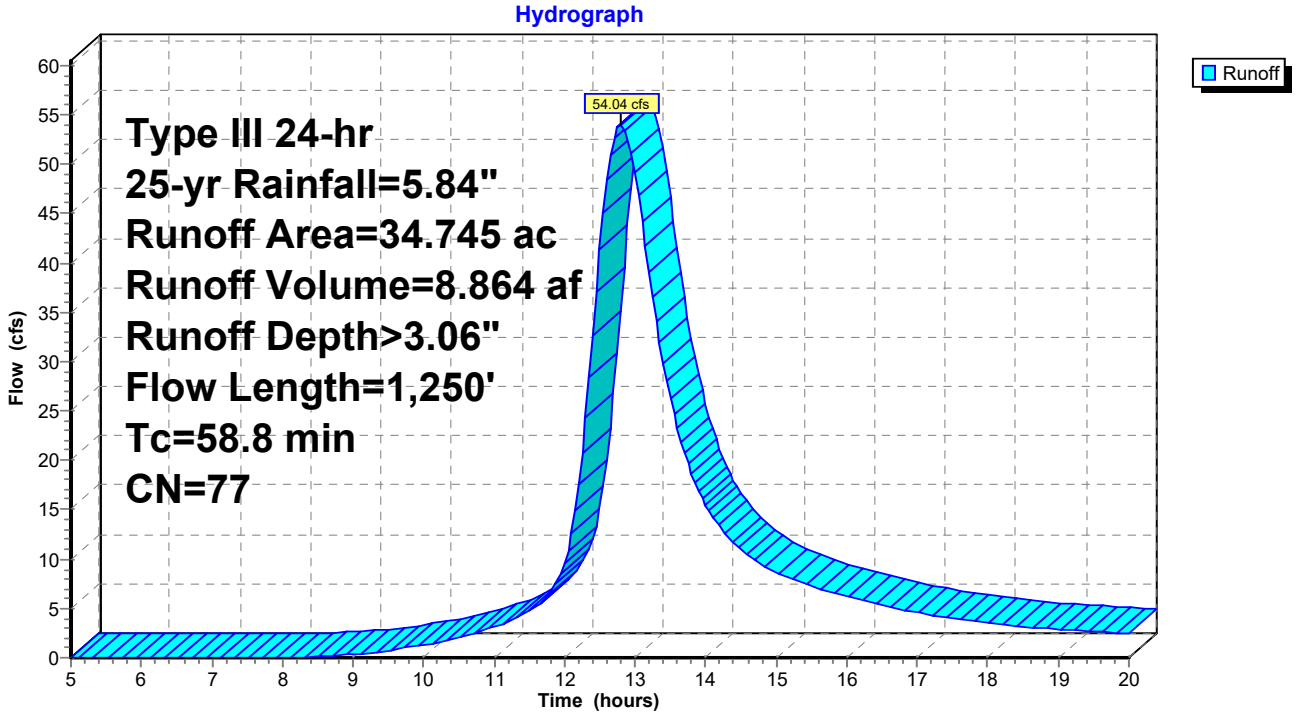
Runoff = 54.04 cfs @ 12.79 hrs, Volume= 8.864 af, Depth> 3.06"
Routed to Pond A11-2* : A11-2 Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.789	39	>75% Grass cover, Good, HSG A
15.470	61	>75% Grass cover, Good, HSG B
2.700	55	Woods, Good, HSG B
5.587	98	Roofs, HSG A
10.199	98	Paved parking, HSG A
34.745	77	Weighted Average
18.959		54.57% Pervious Area
15.786		45.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
41.5	50	0.0010	0.02		**Sheet Flow, sf1** Woods: Light underbrush n= 0.400 P2= 3.11"
5.3	316	0.0400	1.00		**Shallow Concentrated Flow, scf1** Woodland Kv= 5.0 fps
12.0	884	0.0310	1.23		**Shallow Concentrated Flow, SCF2** Short Grass Pasture Kv= 7.0 fps
58.8	1,250	Total			

Subcatchment A11-2: A11-2



Hydrograph for Subcatchment A11-2: A11-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.01
8.25	0.71	0.00	0.04
8.50	0.75	0.01	0.10
8.75	0.80	0.01	0.21
9.00	0.85	0.02	0.35
9.25	0.91	0.03	0.54
9.50	0.97	0.04	0.76
9.75	1.03	0.06	1.03
10.00	1.10	0.07	1.33
10.25	1.18	0.09	1.67
10.50	1.26	0.12	2.06
10.75	1.36	0.15	2.54
11.00	1.46	0.19	3.12
11.25	1.58	0.24	3.81
11.50	1.74	0.32	4.70
11.75	2.07	0.49	6.09
12.00	2.92	1.02	9.51
12.25	3.77	1.63	20.69
12.50	4.10	1.89	41.31
12.75	4.26	2.01	**53.84**
13.00	4.38	2.11	**49.24**
13.25	4.48	2.20	36.52
13.50	4.58	2.27	26.26
13.75	4.66	2.34	19.63
14.00	4.74	2.40	15.46
14.25	4.81	2.46	12.79
14.50	4.87	2.52	10.94
14.75	4.93	2.57	9.63
15.00	4.99	2.61	8.67
15.25	5.04	2.66	7.90
15.50	5.09	2.70	7.28
15.75	5.13	2.74	6.75
16.00	5.17	2.77	6.26
16.25	5.21	2.80	5.77
16.50	5.25	2.83	5.30
16.75	5.28	2.86	4.89
17.00	5.31	2.89	4.55
17.25	5.34	2.91	4.28
17.50	5.37	2.93	4.03
17.75	5.40	2.96	3.80
18.00	5.42	2.98	3.58
18.25	5.44	3.00	3.36
18.50	5.47	3.02	3.16
18.75	5.49	3.04	2.98
19.00	5.51	3.05	2.85
19.25	5.53	3.07	2.75
19.50	5.55	3.09	2.67
19.75	5.57	3.11	2.59
20.00	**5.59**	**3.12**	2.52

Summary for Subcatchment A2: A2

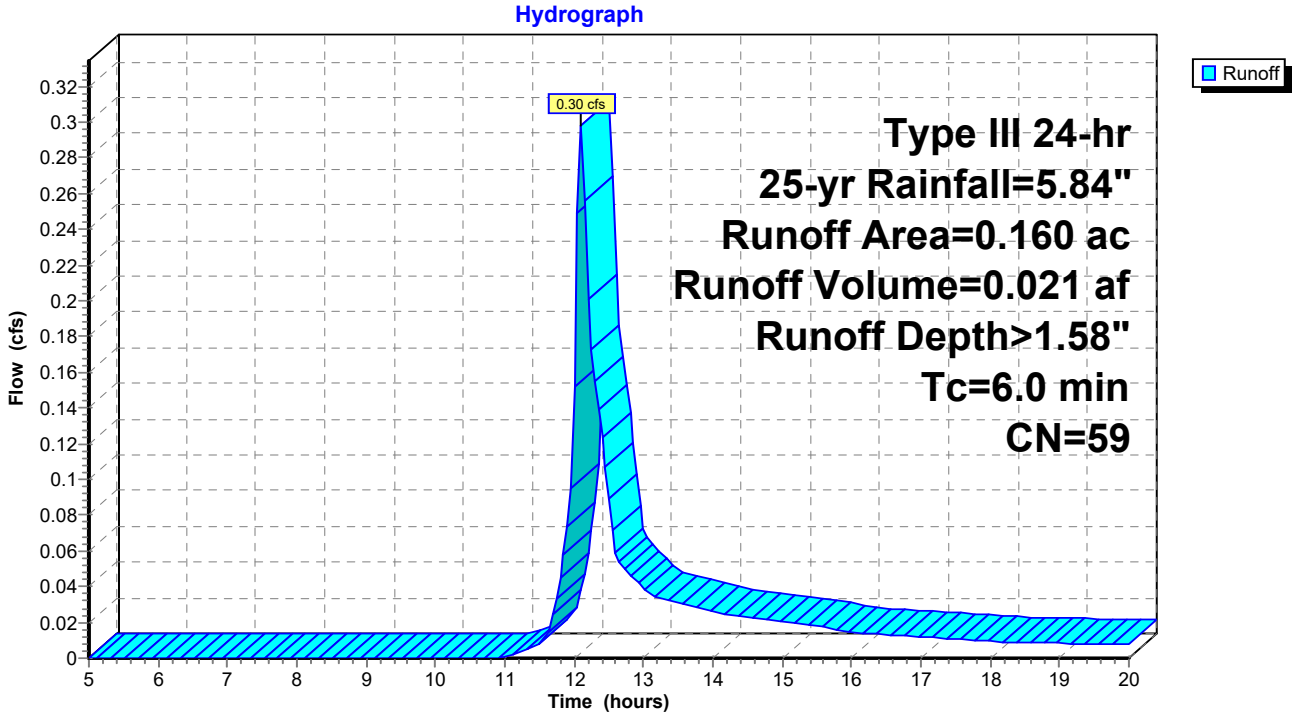
Runoff = 0.30 cfs @ 12.10 hrs, Volume= 0.021 af, Depth> 1.58"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.115	61	>75% Grass cover, Good, HSG B
0.045	55	Woods, Good, HSG B
0.160	59	Weighted Average
0.160		100.00% Pervious Area

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

Subcatchment A2: A2



Hydrograph for Subcatchment A2: A2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.00
11.00	1.46	0.00	0.00
11.25	1.58	0.01	0.00
11.50	1.74	0.02	0.01
11.75	2.07	0.06	0.03
12.00	2.92	0.28	**0.15**
12.25	3.77	0.61	**0.17**
12.50	4.10	0.76	0.09
12.75	4.26	0.84	0.05
13.00	4.38	0.90	0.04
13.25	4.48	0.95	0.03
13.50	4.58	1.00	0.03
13.75	4.66	1.05	0.03
14.00	4.74	1.09	0.03
14.25	4.81	1.13	0.02
14.50	4.87	1.16	0.02
14.75	4.93	1.20	0.02
15.00	4.99	1.23	0.02
15.25	5.04	1.26	0.02
15.50	5.09	1.29	0.02
15.75	5.13	1.31	0.02
16.00	5.17	1.33	0.01
16.25	5.21	1.36	0.01
16.50	5.25	1.38	0.01
16.75	5.28	1.40	0.01
17.00	5.31	1.41	0.01
17.25	5.34	1.43	0.01
17.50	5.37	1.45	0.01
17.75	5.40	1.46	0.01
18.00	5.42	1.48	0.01
18.25	5.44	1.49	0.01
18.50	5.47	1.51	0.01
18.75	5.49	1.52	0.01
19.00	5.51	1.53	0.01
19.25	5.53	1.55	0.01
19.50	5.55	1.56	0.01
19.75	5.57	1.57	0.01
20.00	**5.59**	**1.58**	0.01

Summary for Subcatchment A3: A3

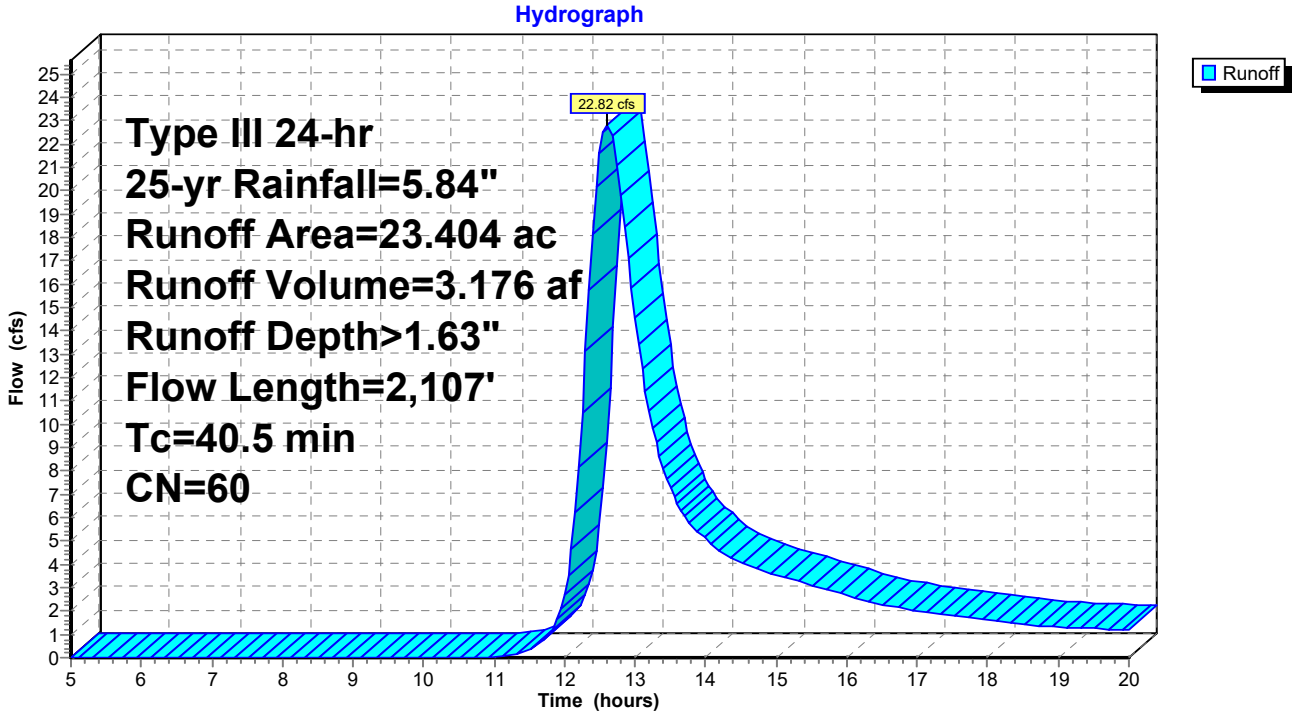
Runoff = 22.82 cfs @ 12.61 hrs, Volume= 3.176 af, Depth> 1.63"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
17.556	61	>75% Grass cover, Good, HSG B
5.800	55	Woods, Good, HSG B
0.048	77	Woods, Good, HSG D
23.404	60	Weighted Average
23.404		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	50	0.0080	0.10		**Sheet Flow, sf1** Grass: Short n= 0.150 P2= 3.11"
32.3	2,057	0.0230	1.06		**Shallow Concentrated Flow, scf1** Short Grass Pasture Kv= 7.0 fps
40.5	2,107	Total			

Subcatchment A3: A3



Hydrograph for Subcatchment A3: A3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.00
11.00	1.46	0.00	0.01
11.25	1.58	0.01	0.09
11.50	1.74	0.02	0.34
11.75	2.07	0.07	0.86
12.00	2.92	0.31	2.69
12.25	3.77	0.65	10.51
12.50	4.10	0.81	**21.55**
12.75	4.26	0.89	**21.07**
13.00	4.38	0.96	14.57
13.25	4.48	1.01	9.85
13.50	4.58	1.06	7.24
13.75	4.66	1.11	5.86
14.00	4.74	1.15	5.07
14.25	4.81	1.19	4.50
14.50	4.87	1.23	4.07
14.75	4.93	1.26	3.77
15.00	4.99	1.29	3.54
15.25	5.04	1.33	3.32
15.50	5.09	1.35	3.12
15.75	5.13	1.38	2.90
16.00	5.17	1.40	2.69
16.25	5.21	1.43	2.48
16.50	5.25	1.45	2.28
16.75	5.28	1.47	2.13
17.00	5.31	1.49	2.01
17.25	5.34	1.50	1.91
17.50	5.37	1.52	1.81
17.75	5.40	1.54	1.71
18.00	5.42	1.55	1.61
18.25	5.44	1.57	1.51
18.50	5.47	1.58	1.42
18.75	5.49	1.59	1.36
19.00	5.51	1.61	1.32
19.25	5.53	1.62	1.29
19.50	5.55	1.63	1.26
19.75	5.57	1.65	1.23
20.00	**5.59**	**1.66**	1.20

Summary for Subcatchment A4: A4

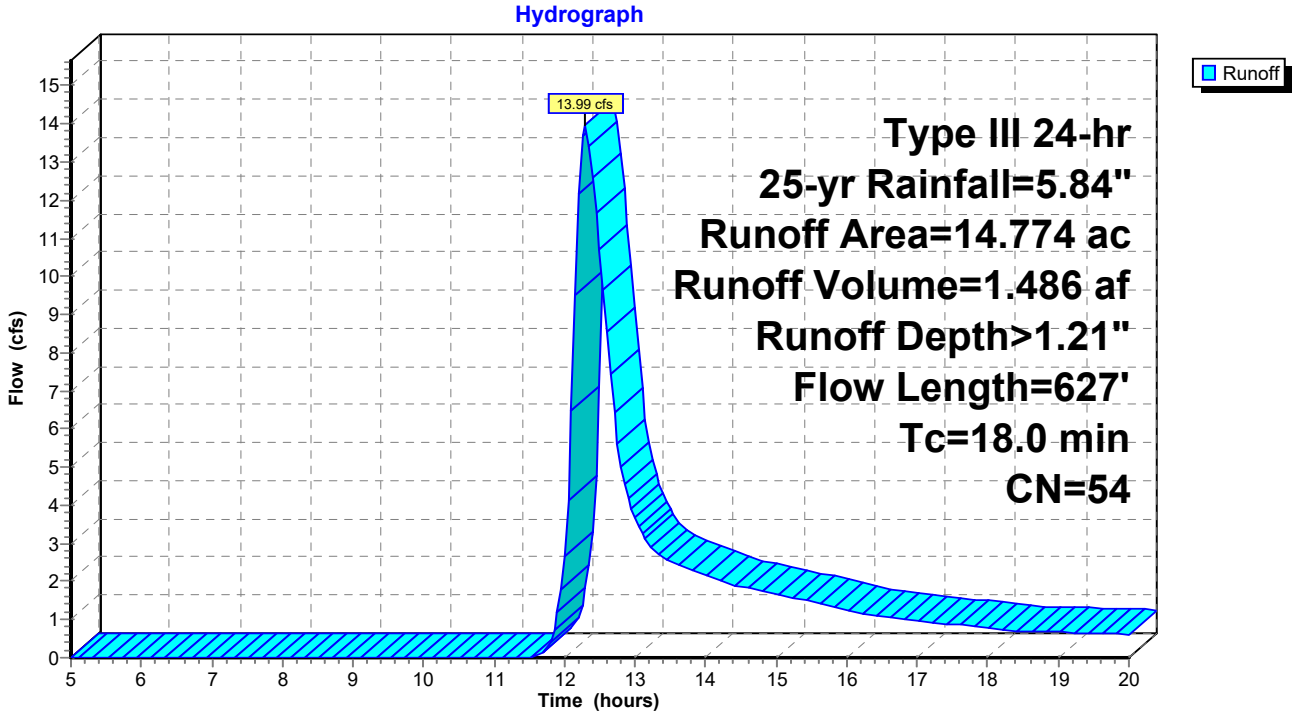
Runoff = 13.99 cfs @ 12.29 hrs, Volume= 1.486 af, Depth> 1.21"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
4.168	39	>75% Grass cover, Good, HSG A
8.560	61	>75% Grass cover, Good, HSG B
0.235	98	Water Surface, HSG D
0.227	79	Woods/grass comb., Good, HSG D
0.598	30	Woods, Good, HSG A
0.986	55	Woods, Good, HSG B
14.774	54	Weighted Average
14.539		98.41% Pervious Area
0.235		1.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	50	0.0100	0.11		**Sheet Flow, sf1** Grass: Short n= 0.150 P2= 3.11"
10.5	577	0.0170	0.91		**Shallow Concentrated Flow, scf1** Short Grass Pasture Kv= 7.0 fps
18.0	627	Total			

Subcatchment A4: A4



Hydrograph for Subcatchment A4: A4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.00
11.00	1.46	0.00	0.00
11.25	1.58	0.00	0.00
11.50	1.74	0.00	0.00
11.75	2.07	0.02	0.22
12.00	2.92	0.15	2.67
12.25	3.77	0.40	**13.70**
12.50	4.10	0.53	**10.69**
12.75	4.26	0.59	5.62
13.00	4.38	0.64	3.66
13.25	4.48	0.68	2.86
13.50	4.58	0.72	2.55
13.75	4.66	0.76	2.36
14.00	4.74	0.80	2.17
14.25	4.81	0.83	1.98
14.50	4.87	0.86	1.87
14.75	4.93	0.89	1.77
15.00	4.99	0.91	1.68
15.25	5.04	0.94	1.57
15.50	5.09	0.96	1.47
15.75	5.13	0.98	1.36
16.00	5.17	1.00	1.25
16.25	5.21	1.02	1.14
16.50	5.25	1.04	1.08
16.75	5.28	1.06	1.03
17.00	5.31	1.07	0.98
17.25	5.34	1.09	0.93
17.50	5.37	1.10	0.88
17.75	5.40	1.12	0.83
18.00	5.42	1.13	0.78
18.25	5.44	1.14	0.73
18.50	5.47	1.15	0.71
18.75	5.49	1.16	0.69
19.00	5.51	1.17	0.68
19.25	5.53	1.19	0.66
19.50	5.55	1.20	0.65
19.75	5.57	1.21	0.63
20.00	**5.59**	**1.22**	0.61

Summary for Subcatchment A5: A5

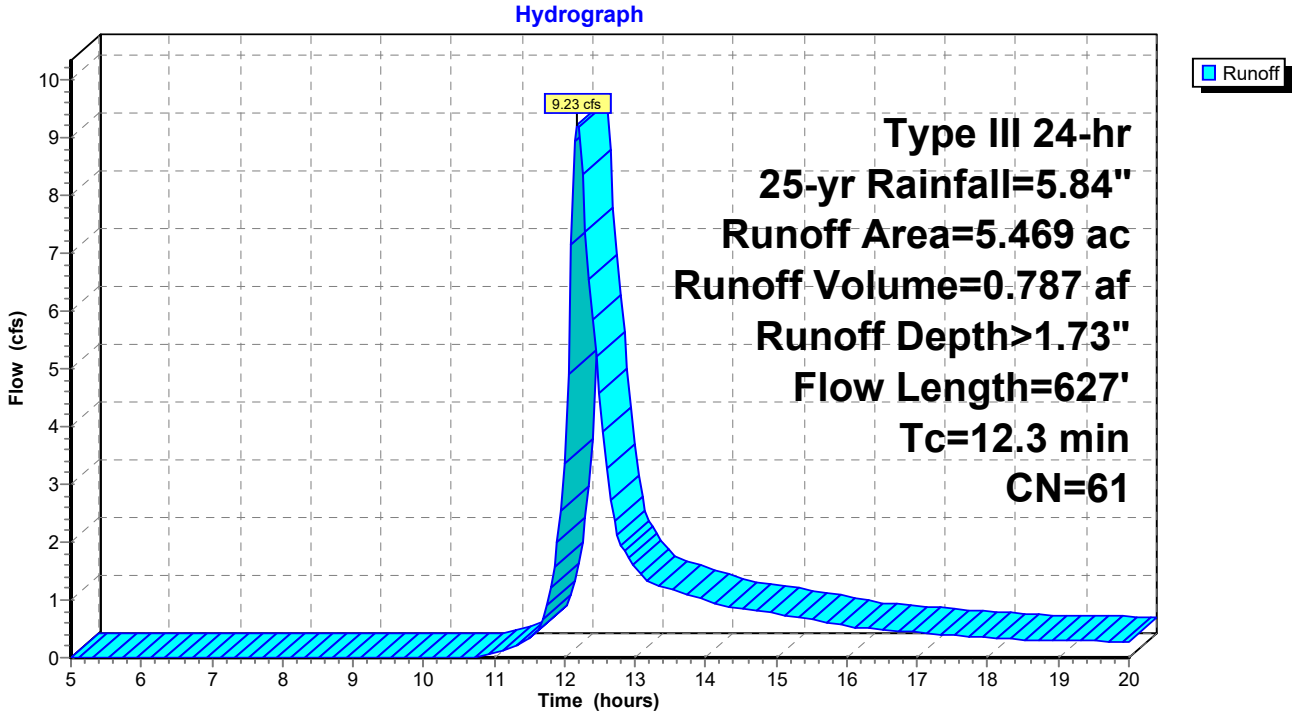
Runoff = 9.23 cfs @ 12.19 hrs, Volume= 0.787 af, Depth> 1.73"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
5.214	61	>75% Grass cover, Good, HSG B
0.190	55	Woods, Good, HSG B
0.065	77	Woods, Good, HSG D
5.469	61	Weighted Average
5.469		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	50	0.0460	0.20		**Sheet Flow, sf1** Grass: Short n= 0.150 P2= 3.11"
8.2	577	0.0280	1.17		**Shallow Concentrated Flow, scf1** Short Grass Pasture Kv= 7.0 fps
12.3	627	Total			

Subcatchment A5: A5



Hydrograph for Subcatchment A5: A5

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.01
11.00	1.46	0.01	0.07
11.25	1.58	0.01	0.16
11.50	1.74	0.03	0.33
11.75	2.07	0.09	0.91
12.00	2.92	0.34	**3.36**
12.25	3.77	0.70	**8.36**
12.50	4.10	0.86	4.56
12.75	4.26	0.95	2.12
13.00	4.38	1.01	1.57
13.25	4.48	1.07	1.28
13.50	4.58	1.12	1.18
13.75	4.66	1.17	1.09
14.00	4.74	1.21	0.99
14.25	4.81	1.25	0.91
14.50	4.87	1.29	0.86
14.75	4.93	1.33	0.81
15.00	4.99	1.36	0.76
15.25	5.04	1.39	0.71
15.50	5.09	1.42	0.66
15.75	5.13	1.45	0.61
16.00	5.17	1.47	0.56
16.25	5.21	1.50	0.51
16.50	5.25	1.52	0.49
16.75	5.28	1.54	0.46
17.00	5.31	1.56	0.44
17.25	5.34	1.58	0.42
17.50	5.37	1.60	0.39
17.75	5.40	1.61	0.37
18.00	5.42	1.63	0.34
18.25	5.44	1.64	0.33
18.50	5.47	1.66	0.32
18.75	5.49	1.67	0.31
19.00	5.51	1.68	0.30
19.25	5.53	1.70	0.30
19.50	5.55	1.71	0.29
19.75	5.57	1.72	0.28
20.00	**5.59**	**1.74**	0.27

Summary for Subcatchment A6: A6

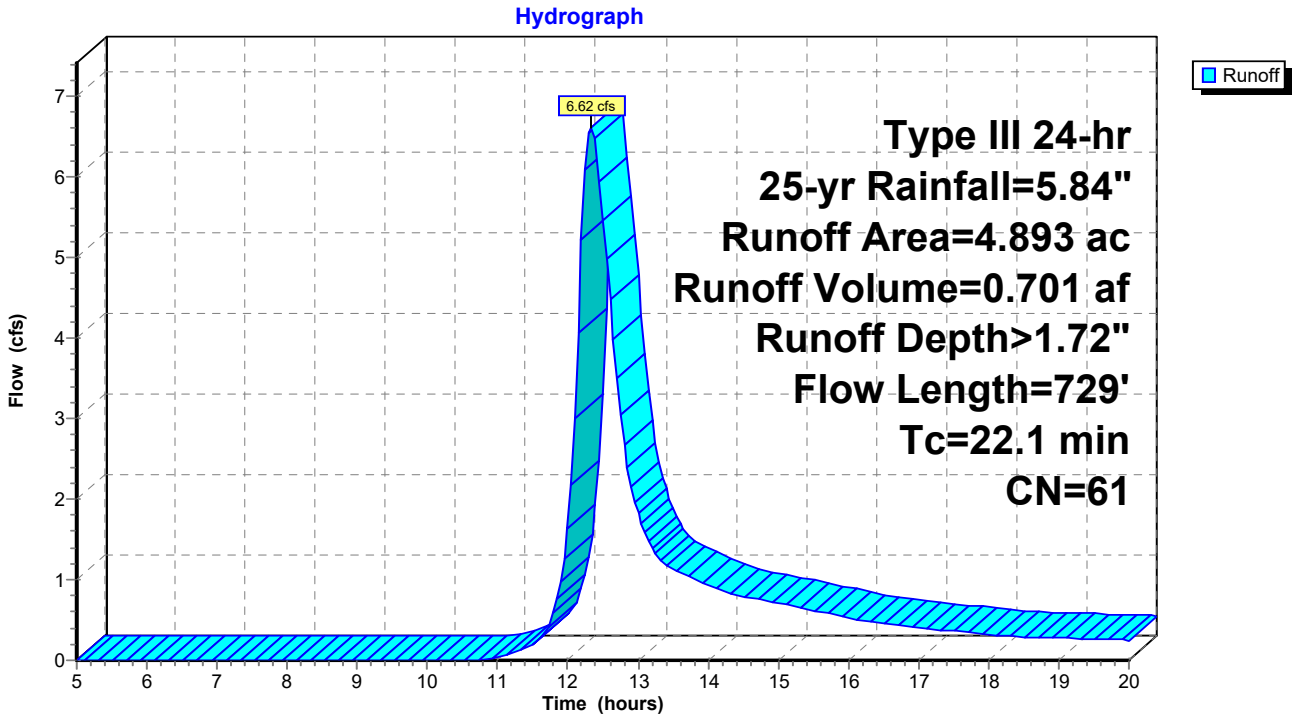
Runoff = 6.62 cfs @ 12.33 hrs, Volume= 0.701 af, Depth> 1.72"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
4.531	61	>75% Grass cover, Good, HSG B
0.362	55	Woods, Good, HSG B
4.893	61	Weighted Average
4.893		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	50	0.0480	0.21		**Sheet Flow, sf1** Grass: Short n= 0.150 P2= 3.11"
18.1	679	0.0080	0.63		**Shallow Concentrated Flow, scf1** Short Grass Pasture Kv= 7.0 fps
22.1	729	Total			

Subcatchment A6: A6



Hydrograph for Subcatchment A6: A6

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.00
11.00	1.46	0.01	0.03
11.25	1.58	0.01	0.09
11.50	1.74	0.03	0.20
11.75	2.07	0.09	0.46
12.00	2.92	0.34	1.64
12.25	3.77	0.70	**6.09**
12.50	4.10	0.86	**5.46**
12.75	4.26	0.95	3.05
13.00	4.38	1.01	1.82
13.25	4.48	1.07	1.33
13.50	4.58	1.12	1.13
13.75	4.66	1.17	1.03
14.00	4.74	1.21	0.94
14.25	4.81	1.25	0.85
14.50	4.87	1.29	0.80
14.75	4.93	1.33	0.75
15.00	4.99	1.36	0.71
15.25	5.04	1.39	0.66
15.50	5.09	1.42	0.62
15.75	5.13	1.45	0.57
16.00	5.17	1.47	0.53
16.25	5.21	1.50	0.48
16.50	5.25	1.52	0.45
16.75	5.28	1.54	0.43
17.00	5.31	1.56	0.41
17.25	5.34	1.58	0.39
17.50	5.37	1.60	0.36
17.75	5.40	1.61	0.34
18.00	5.42	1.63	0.32
18.25	5.44	1.64	0.30
18.50	5.47	1.66	0.29
18.75	5.49	1.67	0.28
19.00	5.51	1.68	0.28
19.25	5.53	1.70	0.27
19.50	5.55	1.71	0.26
19.75	5.57	1.72	0.26
20.00	**5.59**	**1.74**	0.25

Summary for Subcatchment A8: A8

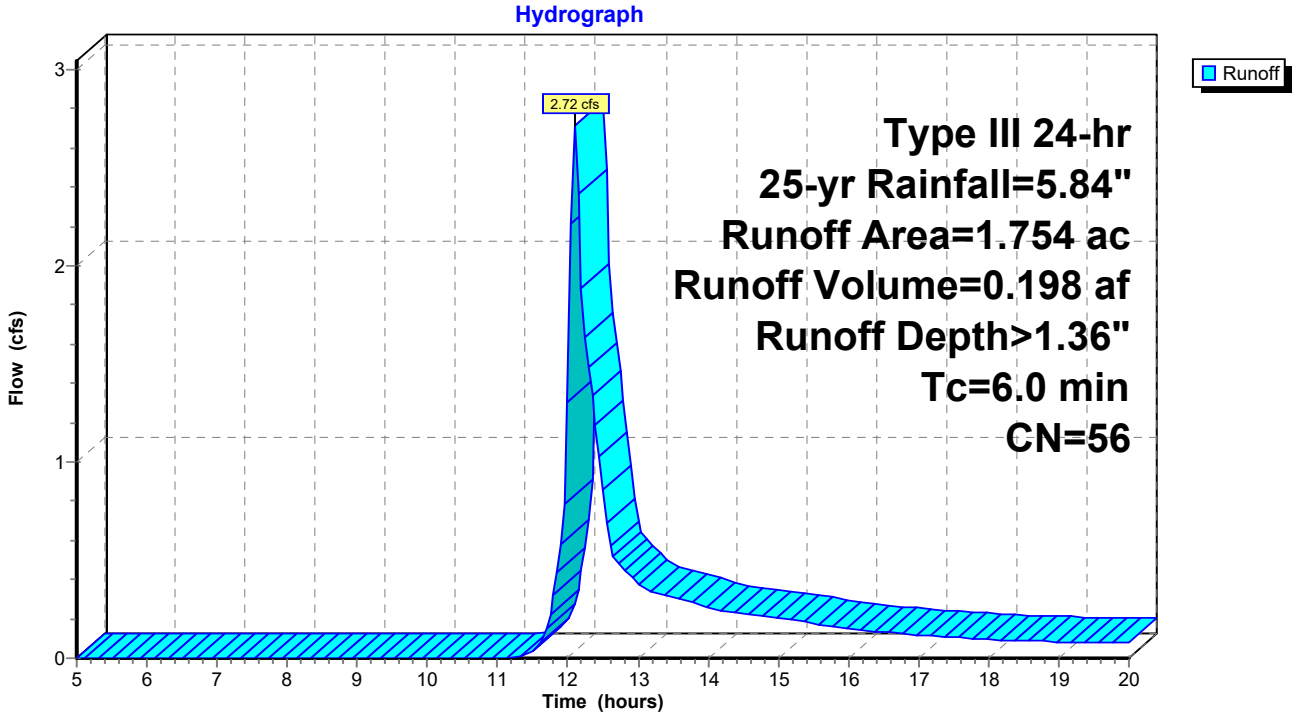
Runoff = 2.72 cfs @ 12.10 hrs, Volume= 0.198 af, Depth> 1.36"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.434	61	>75% Grass cover, Good, HSG B
1.320	55	Woods, Good, HSG B
1.754	56	Weighted Average
1.754		100.00% Pervious Area

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

Subcatchment A8: A8



Hydrograph for Subcatchment A8: A8

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.00
11.00	1.46	0.00	0.00
11.25	1.58	0.00	0.00
11.50	1.74	0.00	0.03
11.75	2.07	0.03	0.23
12.00	2.92	0.20	**1.30**
12.25	3.77	0.48	**1.64**
12.50	4.10	0.62	0.86
12.75	4.26	0.68	0.47
13.00	4.38	0.74	0.38
13.25	4.48	0.79	0.33
13.50	4.58	0.83	0.31
13.75	4.66	0.87	0.28
14.00	4.74	0.91	0.26
14.25	4.81	0.94	0.24
14.50	4.87	0.98	0.23
14.75	4.93	1.01	0.22
15.00	4.99	1.04	0.20
15.25	5.04	1.06	0.19
15.50	5.09	1.09	0.18
15.75	5.13	1.11	0.16
16.00	5.17	1.13	0.15
16.25	5.21	1.15	0.14
16.50	5.25	1.17	0.13
16.75	5.28	1.19	0.13
17.00	5.31	1.21	0.12
17.25	5.34	1.22	0.11
17.50	5.37	1.24	0.11
17.75	5.40	1.25	0.10
18.00	5.42	1.27	0.09
18.25	5.44	1.28	0.09
18.50	5.47	1.29	0.09
18.75	5.49	1.30	0.09
19.00	5.51	1.31	0.08
19.25	5.53	1.33	0.08
19.50	5.55	1.34	0.08
19.75	5.57	1.35	0.08
20.00	**5.59**	**1.36**	0.08

Summary for Subcatchment B1-1: B1-1

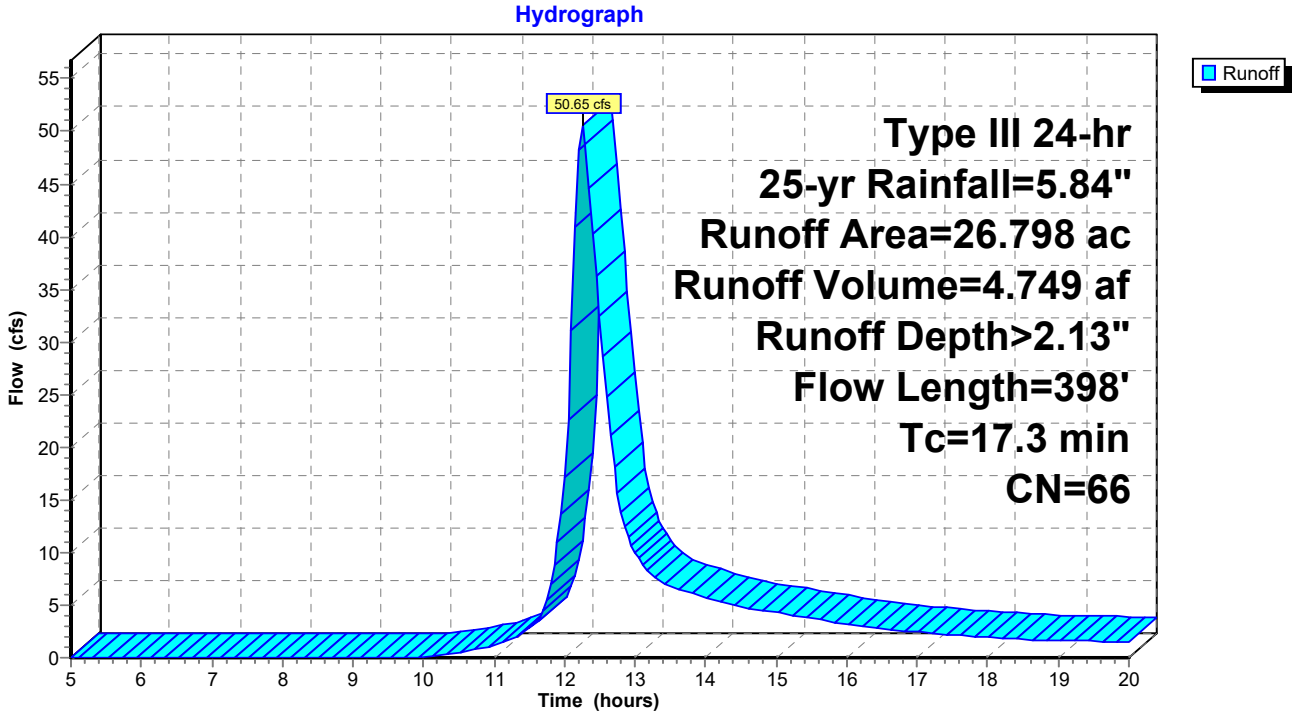
Runoff = 50.65 cfs @ 12.25 hrs, Volume= 4.749 af, Depth> 2.13"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.066	39	>75% Grass cover, Good, HSG A
2.486	61	>75% Grass cover, Good, HSG B
1.018	80	>75% Grass cover, Good, HSG D
0.054	30	Woods, Good, HSG A
12.694	55	Woods, Good, HSG B
9.382	77	Woods, Good, HSG D
0.369	98	Water Surface, HSG B
0.009	48	Brush, Good, HSG B
0.720	98	Paved parking, HSG A
26.798	66	Weighted Average
25.709		95.94% Pervious Area
1.089		4.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	50	0.0320	0.08		**Sheet Flow, sf-1** Woods: Light underbrush n= 0.400 P2= 3.11"
6.9	348	0.0280	0.84		**Shallow Concentrated Flow, scf-1** Woodland Kv= 5.0 fps
17.3	398	Total			

Subcatchment B1-1: B1-1



Hydrograph for Subcatchment B1-1: B1-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.04
10.25	1.18	0.00	0.21
10.50	1.26	0.01	0.47
10.75	1.36	0.02	0.80
11.00	1.46	0.03	1.21
11.25	1.58	0.05	1.75
11.50	1.74	0.09	2.76
11.75	2.07	0.18	5.51
12.00	2.92	0.51	17.19
12.25	3.77	0.95	**50.65**
12.50	4.10	1.15	32.42
12.75	4.26	1.24	15.67
13.00	4.38	1.32	9.99
13.25	4.48	1.38	7.72
13.50	4.58	1.45	6.86
13.75	4.66	1.50	6.29
14.00	4.74	1.55	5.73
14.25	4.81	1.60	5.21
14.50	4.87	1.64	4.88
14.75	4.93	1.68	4.60
15.00	4.99	1.72	4.33
15.25	5.04	1.76	4.04
15.50	5.09	1.79	3.76
15.75	5.13	1.82	3.46
16.00	5.17	1.85	3.17
16.25	5.21	1.87	2.89
16.50	5.25	1.90	2.73
16.75	5.28	1.92	2.60
17.00	5.31	1.94	2.47
17.25	5.34	1.96	2.33
17.50	5.37	1.98	2.20
17.75	5.40	2.00	2.07
18.00	5.42	2.02	1.93
18.25	5.44	2.04	1.81
18.50	5.47	2.05	1.76
18.75	5.49	2.07	1.71
19.00	5.51	2.08	1.68
19.25	5.53	2.10	1.64
19.50	5.55	2.11	1.60
19.75	5.57	2.13	1.56
20.00	**5.59**	**2.14**	1.52

Summary for Subcatchment B1-2: B1-A

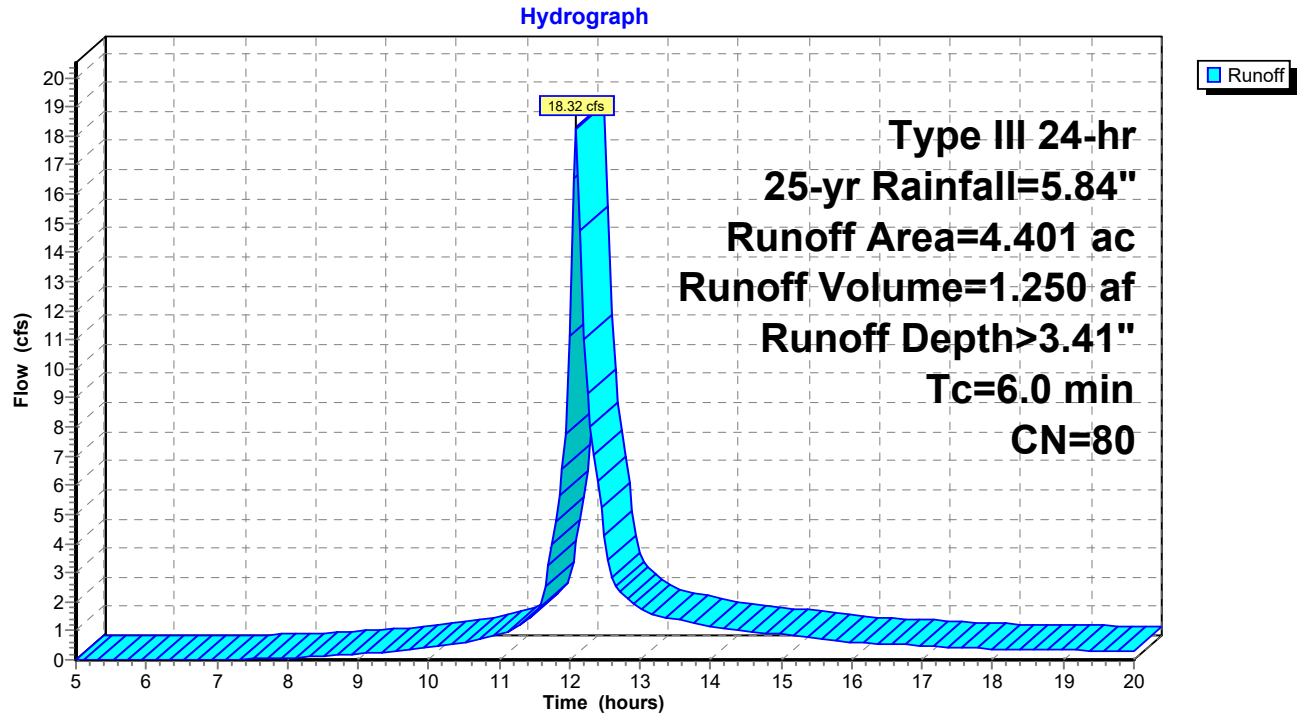
Runoff = 18.32 cfs @ 12.09 hrs, Volume= 1.250 af, Depth> 3.41"
Routed to Pond B1-2* : B1-2 Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.099	39	>75% Grass cover, Good, HSG A
2.032	61	>75% Grass cover, Good, HSG B
2.270	98	Paved parking, HSG A
4.401	80	Weighted Average
2.131		48.42% Pervious Area
2.270		51.58% Impervious Area

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

Subcatchment B1-2: B1-A



Hydrograph for Subcatchment B1-2: B1-A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.01
7.25	0.56	0.00	0.02
7.50	0.59	0.00	0.04
7.75	0.63	0.01	0.05
8.00	0.67	0.01	0.07
8.25	0.71	0.02	0.10
8.50	0.75	0.02	0.13
8.75	0.80	0.03	0.17
9.00	0.85	0.04	0.21
9.25	0.91	0.06	0.25
9.50	0.97	0.07	0.31
9.75	1.03	0.09	0.36
10.00	1.10	0.12	0.42
10.25	1.18	0.15	0.51
10.50	1.26	0.18	0.61
10.75	1.36	0.22	0.73
11.00	1.46	0.27	0.85
11.25	1.58	0.33	1.13
11.50	1.74	0.41	1.54
11.75	2.07	0.61	3.97
12.00	2.92	1.19	**11.16**
12.25	3.77	1.85	**9.14**
12.50	4.10	2.12	4.29
12.75	4.26	2.26	2.27
13.00	4.38	2.36	1.78
13.25	4.48	2.45	1.52
13.50	4.58	2.53	1.40
13.75	4.66	2.60	1.27
14.00	4.74	2.66	1.14
14.25	4.81	2.72	1.06
14.50	4.87	2.78	1.00
14.75	4.93	2.83	0.93
15.00	4.99	2.88	0.87
15.25	5.04	2.93	0.81
15.50	5.09	2.97	0.74
15.75	5.13	3.01	0.68
16.00	5.17	3.05	0.62
16.25	5.21	3.08	0.57
16.50	5.25	3.11	0.55
16.75	5.28	3.14	0.52
17.00	5.31	3.17	0.49
17.25	5.34	3.19	0.46
17.50	5.37	3.22	0.43
17.75	5.40	3.24	0.41
18.00	5.42	3.26	0.38
18.25	5.44	3.28	0.36
18.50	5.47	3.30	0.35
18.75	5.49	3.32	0.35
19.00	5.51	3.34	0.34
19.25	5.53	3.36	0.33
19.50	5.55	3.38	0.32
19.75	5.57	3.40	0.31
20.00	**5.59**	**3.41**	0.30

Summary for Subcatchment B1-3: B1-B

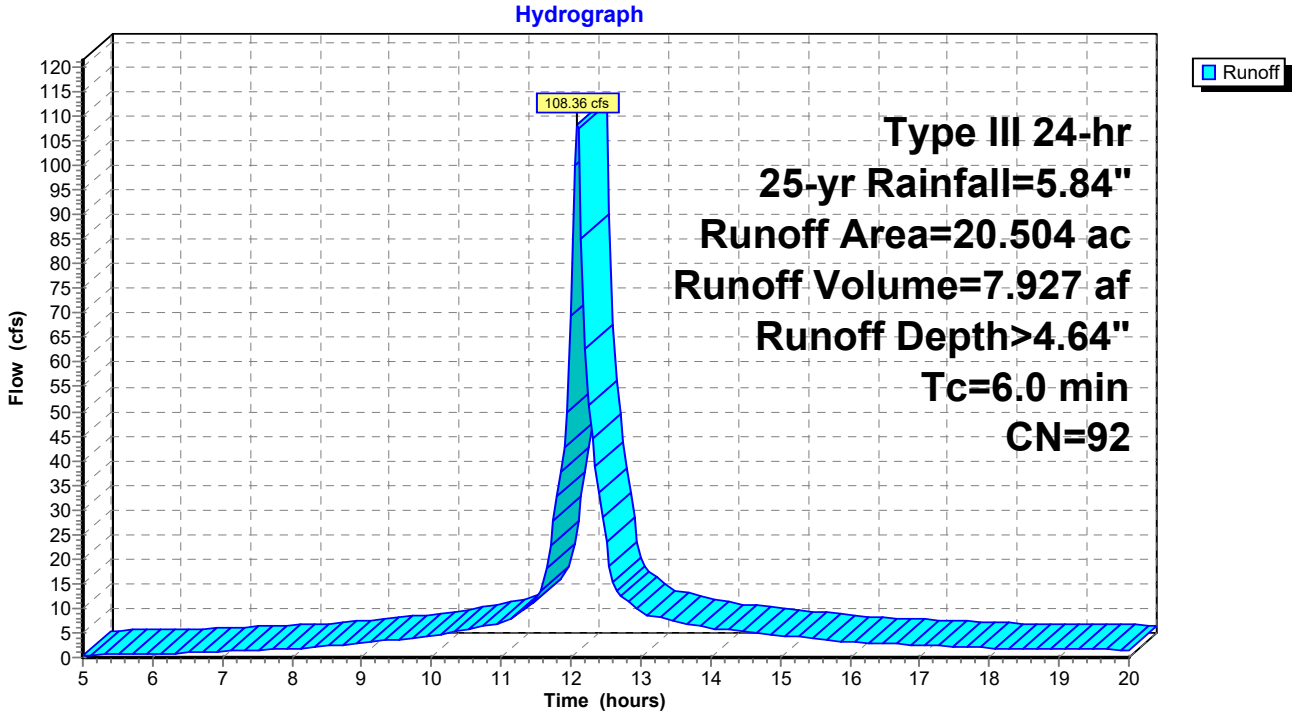
Runoff = 108.36 cfs @ 12.09 hrs, Volume= 7.927 af, Depth> 4.64"
Routed to Pond B1-3* : B1-3 Dry Extended Basin with Micropool

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.072	39	>75% Grass cover, Good, HSG A
3.314	61	>75% Grass cover, Good, HSG B
3.548	98	Roofs, HSG A
13.570	98	Paved parking, HSG A
20.504	92	Weighted Average
3.386		16.51% Pervious Area
17.118		83.49% Impervious Area

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

Subcatchment B1-3: B1-B



Hydrograph for Subcatchment B1-3: B1-B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.02	0.47
5.25	0.35	0.03	0.54
5.50	0.37	0.04	0.60
5.75	0.40	0.05	0.67
6.00	0.42	0.05	0.73
6.25	0.44	0.06	0.83
6.50	0.47	0.08	0.95
6.75	0.50	0.09	1.07
7.00	0.53	0.10	1.21
7.25	0.56	0.12	1.34
7.50	0.59	0.14	1.49
7.75	0.63	0.16	1.64
8.00	0.67	0.18	1.80
8.25	0.71	0.20	2.04
8.50	0.75	0.23	2.33
8.75	0.80	0.26	2.65
9.00	0.85	0.30	2.97
9.25	0.91	0.34	3.31
9.50	0.97	0.38	3.66
9.75	1.03	0.43	4.03
10.00	1.10	0.48	4.40
10.25	1.18	0.54	4.96
10.50	1.26	0.61	5.65
10.75	1.36	0.68	6.37
11.00	1.46	0.77	7.10
11.25	1.58	0.87	8.96
11.50	1.74	1.01	11.55
11.75	2.07	1.30	27.68
12.00	2.92	2.09	**69.47**
12.25	3.77	2.89	**51.36**
12.50	4.10	3.21	23.39
12.75	4.26	3.37	12.24
13.00	4.38	3.49	9.55
13.25	4.48	3.58	8.12
13.50	4.58	3.68	7.42
13.75	4.66	3.76	6.73
14.00	4.74	3.83	6.03
14.25	4.81	3.90	5.55
14.50	4.87	3.96	5.22
14.75	4.93	4.02	4.88
15.00	4.99	4.08	4.55
15.25	5.04	4.13	4.21
15.50	5.09	4.18	3.87
15.75	5.13	4.22	3.53
16.00	5.17	4.26	3.20
16.25	5.21	4.30	2.98
16.50	5.25	4.33	2.83
16.75	5.28	4.36	2.68
17.00	5.31	4.39	2.54
17.25	5.34	4.42	2.39
17.50	5.37	4.45	2.24
17.75	5.40	4.48	2.10
18.00	5.42	4.50	1.95
18.25	5.44	4.52	1.87
18.50	5.47	4.54	1.82
18.75	5.49	4.57	1.78
19.00	5.51	4.59	1.73
19.25	5.53	4.61	1.69
19.50	5.55	4.63	1.64
19.75	5.57	4.65	1.60
20.00	**5.59**	**4.67**	1.56

Summary for Subcatchment B10: B10

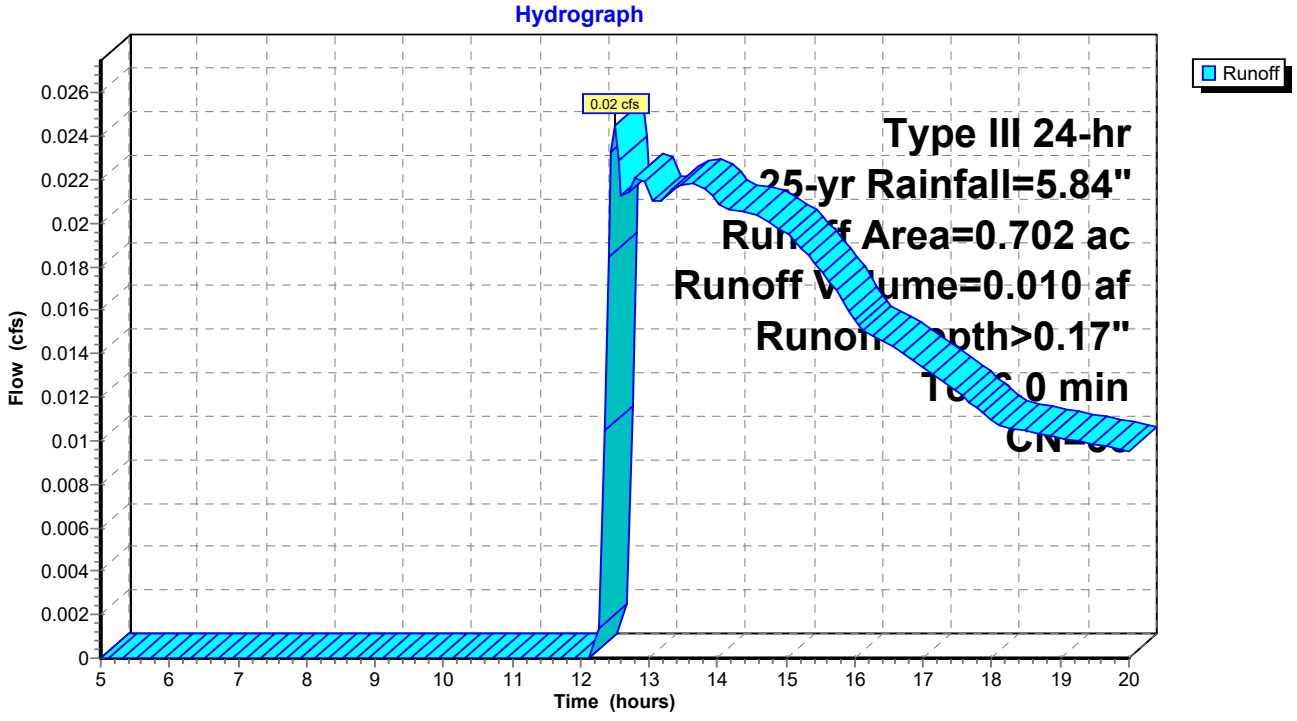
Runoff = 0.02 cfs @ 12.50 hrs, Volume= 0.010 af, Depth> 0.17"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.368	39	>75% Grass cover, Good, HSG A
0.334	30	Woods, Good, HSG A
0.702	35	Weighted Average
0.702		100.00% Pervious Area

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

Subcatchment B10: B10



Hydrograph for Subcatchment B10: B10

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.00
11.00	1.46	0.00	0.00
11.25	1.58	0.00	0.00
11.50	1.74	0.00	0.00
11.75	2.07	0.00	0.00
12.00	2.92	0.00	0.00
12.25	3.77	0.00	0.00
12.50	4.10	0.01	**0.02**
12.75	4.26	0.02	0.02
13.00	4.38	0.02	0.02
13.25	4.48	0.03	0.02
13.50	4.58	0.04	0.02
13.75	4.66	0.05	0.02
14.00	4.74	0.05	0.02
14.25	4.81	0.06	0.02
14.50	4.87	0.07	0.02
14.75	4.93	0.07	0.02
15.00	4.99	0.08	0.02
15.25	5.04	0.09	0.02
15.50	5.09	0.09	0.02
15.75	5.13	0.10	0.02
16.00	5.17	0.11	0.02
16.25	5.21	0.11	0.01
16.50	5.25	0.12	0.01
16.75	5.28	0.12	0.01
17.00	5.31	0.13	0.01
17.25	5.34	0.13	0.01
17.50	5.37	0.14	0.01
17.75	5.40	0.14	0.01
18.00	5.42	0.14	0.01
18.25	5.44	0.15	0.01
18.50	5.47	0.15	0.01
18.75	5.49	0.15	0.01
19.00	5.51	0.16	0.01
19.25	5.53	0.16	0.01
19.50	5.55	0.17	0.01
19.75	5.57	0.17	0.01
20.00	**5.59**	**0.17**	0.01

Summary for Subcatchment B11: B11

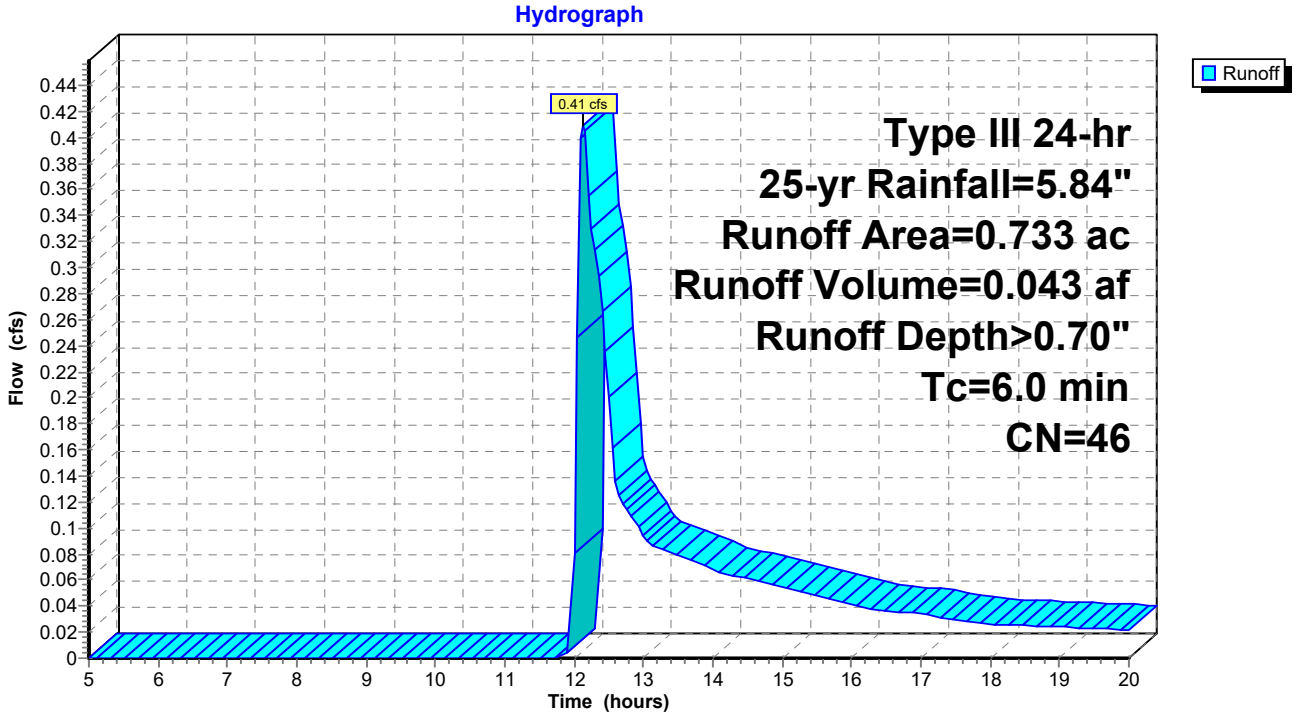
Runoff = 0.41 cfs @ 12.13 hrs, Volume= 0.043 af, Depth> 0.70"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.390	61	>75% Grass cover, Good, HSG B
0.343	30	Woods, Good, HSG A
0.733	46	Weighted Average
0.733		100.00% Pervious Area

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

Subcatchment B11: B11



Hydrograph for Subcatchment B11: B11

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.00
11.00	1.46	0.00	0.00
11.25	1.58	0.00	0.00
11.50	1.74	0.00	0.00
11.75	2.07	0.00	0.00
12.00	2.92	0.03	**0.08**
12.25	3.77	0.15	**0.33**
12.50	4.10	0.23	0.20
12.75	4.26	0.27	0.11
13.00	4.38	0.30	0.09
13.25	4.48	0.33	0.08
13.50	4.58	0.36	0.08
13.75	4.66	0.38	0.07
14.00	4.74	0.40	0.07
14.25	4.81	0.43	0.06
14.50	4.87	0.45	0.06
14.75	4.93	0.47	0.06
15.00	4.99	0.49	0.06
15.25	5.04	0.50	0.05
15.50	5.09	0.52	0.05
15.75	5.13	0.53	0.04
16.00	5.17	0.55	0.04
16.25	5.21	0.56	0.04
16.50	5.25	0.57	0.04
16.75	5.28	0.59	0.04
17.00	5.31	0.60	0.03
17.25	5.34	0.61	0.03
17.50	5.37	0.62	0.03
17.75	5.40	0.63	0.03
18.00	5.42	0.64	0.03
18.25	5.44	0.65	0.03
18.50	5.47	0.65	0.02
18.75	5.49	0.66	0.02
19.00	5.51	0.67	0.02
19.25	5.53	0.68	0.02
19.50	5.55	0.69	0.02
19.75	5.57	0.69	0.02
20.00	**5.59**	**0.70**	0.02

Summary for Subcatchment B13: B13

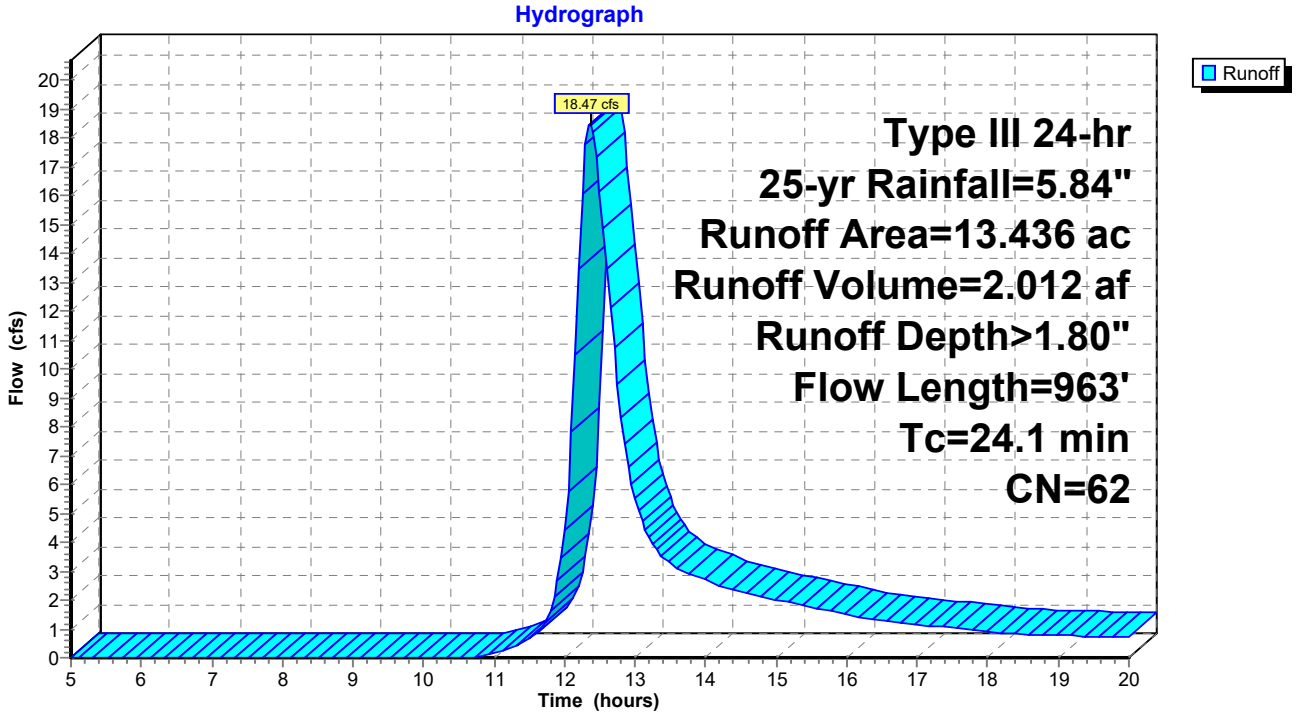
Runoff = 18.47 cfs @ 12.36 hrs, Volume= 2.012 af, Depth> 1.80"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.367	61	>75% Grass cover, Good, HSG B
0.993	61	>75% Grass cover, Good, HSG B
0.070	74	>75% Grass cover, Good, HSG C
0.836	80	>75% Grass cover, Good, HSG D
0.085	55	Woods, Good, HSG B
8.121	55	Woods, Good, HSG B
0.959	70	Woods, Good, HSG C
2.005	77	Woods, Good, HSG D
13.436	62	Weighted Average
13.436		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.2600	0.19		**Sheet Flow, sf-1** Woods: Light underbrush n= 0.400 P2= 3.11"
19.6	913	0.0240	0.77		**Shallow Concentrated Flow, scf-1** Woodland Kv= 5.0 fps
24.1	963	Total			

Subcatchment B13: B13



Hydrograph for Subcatchment B13: B13

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.03
11.00	1.46	0.01	0.15
11.25	1.58	0.02	0.34
11.50	1.74	0.04	0.64
11.75	2.07	0.10	1.32
12.00	2.92	0.37	4.41
12.25	3.77	0.74	**16.10**
12.50	4.10	0.92	**16.15**
12.75	4.26	1.00	9.45
13.00	4.38	1.07	5.52
13.25	4.48	1.13	3.96
13.50	4.58	1.18	3.26
13.75	4.66	1.23	2.94
14.00	4.74	1.28	2.69
14.25	4.81	1.32	2.44
14.50	4.87	1.36	2.27
14.75	4.93	1.40	2.14
15.00	4.99	1.43	2.01
15.25	5.04	1.46	1.89
15.50	5.09	1.49	1.76
15.75	5.13	1.52	1.63
16.00	5.17	1.55	1.50
16.25	5.21	1.57	1.37
16.50	5.25	1.59	1.28
16.75	5.28	1.61	1.21
17.00	5.31	1.63	1.15
17.25	5.34	1.65	1.09
17.50	5.37	1.67	1.03
17.75	5.40	1.69	0.97
18.00	5.42	1.70	0.91
18.25	5.44	1.72	0.85
18.50	5.47	1.73	0.82
18.75	5.49	1.75	0.79
19.00	5.51	1.76	0.78
19.25	5.53	1.78	0.76
19.50	5.55	1.79	0.74
19.75	5.57	1.80	0.72
20.00	**5.59**	**1.81**	0.70

Summary for Subcatchment B2: B2

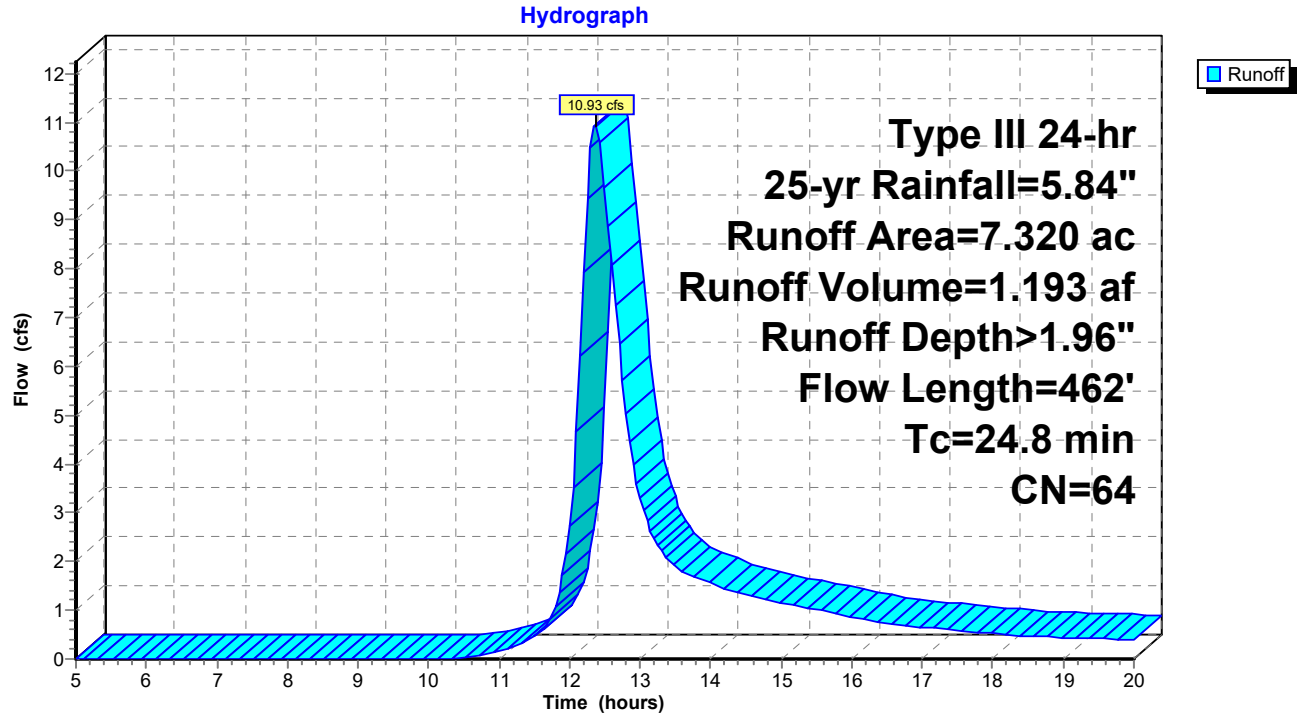
Runoff = 10.93 cfs @ 12.37 hrs, Volume= 1.193 af, Depth> 1.96"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
6.491	61	>75% Grass cover, Good, HSG B
0.198	80	>75% Grass cover, Good, HSG D
0.434	98	Water Surface, HSG D
0.193	55	Woods, Good, HSG B
0.004	77	Woods, Good, HSG D
7.320	64	Weighted Average
6.886		94.07% Pervious Area
0.434		5.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	50	0.0040	0.08		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
13.9	412	0.0050	0.49		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
24.8	462	Total			

Subcatchment B2: B2



Hydrograph for Subcatchment B2: B2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.03
10.75	1.36	0.01	0.09
11.00	1.46	0.02	0.18
11.25	1.58	0.03	0.29
11.50	1.74	0.06	0.48
11.75	2.07	0.14	0.90
12.00	2.92	0.43	2.73
12.25	3.77	0.84	**9.46**
12.50	4.10	1.03	**9.66**
12.75	4.26	1.12	5.69
13.00	4.38	1.19	3.30
13.25	4.48	1.25	2.33
13.50	4.58	1.31	1.90
13.75	4.66	1.36	1.70
14.00	4.74	1.41	1.55
14.25	4.81	1.46	1.41
14.50	4.87	1.50	1.31
14.75	4.93	1.54	1.23
15.00	4.99	1.57	1.16
15.25	5.04	1.61	1.09
15.50	5.09	1.64	1.01
15.75	5.13	1.67	0.94
16.00	5.17	1.69	0.86
16.25	5.21	1.72	0.79
16.50	5.25	1.74	0.73
16.75	5.28	1.77	0.69
17.00	5.31	1.79	0.66
17.25	5.34	1.81	0.63
17.50	5.37	1.83	0.59
17.75	5.40	1.84	0.56
18.00	5.42	1.86	0.52
18.25	5.44	1.87	0.49
18.50	5.47	1.89	0.47
18.75	5.49	1.91	0.45
19.00	5.51	1.92	0.44
19.25	5.53	1.93	0.43
19.50	5.55	1.95	0.42
19.75	5.57	1.96	0.41
20.00	**5.59**	**1.98**	0.40

Summary for Subcatchment B3-1: B3-1

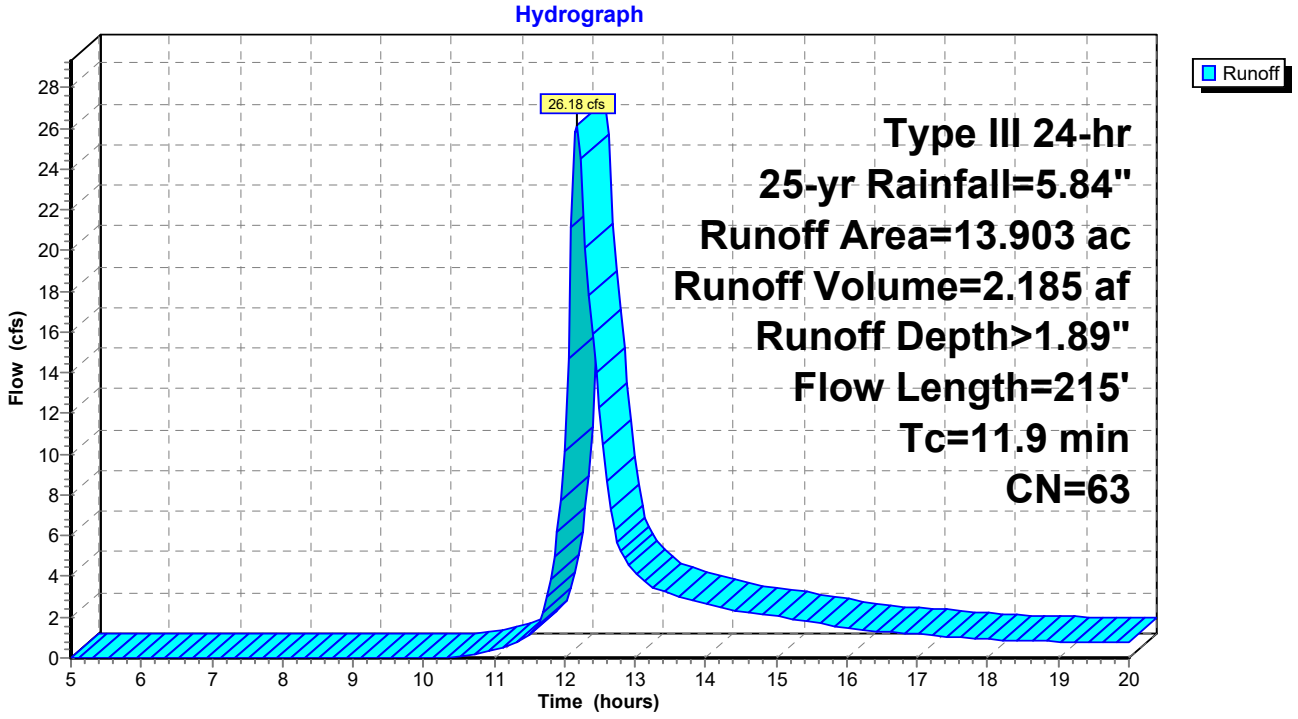
Runoff = 26.18 cfs @ 12.18 hrs, Volume= 2.185 af, Depth> 1.89"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
1.727	61	>75% Grass cover, Good, HSG B
0.454	80	>75% Grass cover, Good, HSG D
7.869	55	Woods, Good, HSG B
3.853	77	Woods, Good, HSG D
13.903	63	Weighted Average
13.903		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	50	0.0540	0.10		**Sheet Flow, sf-1** Woods: Light underbrush n= 0.400 P2= 3.11"
3.5	165	0.0250	0.79		**Shallow Concentrated Flow, scf-1** Woodland Kv= 5.0 fps
11.9	215	Total			

Subcatchment B3-1: B3-1



Hydrograph for Subcatchment B3-1: B3-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.05
10.75	1.36	0.01	0.20
11.00	1.46	0.01	0.38
11.25	1.58	0.03	0.66
11.50	1.74	0.05	1.15
11.75	2.07	0.12	2.97
12.00	2.92	0.40	**10.13**
12.25	3.77	0.79	**23.08**
12.50	4.10	0.97	12.26
12.75	4.26	1.06	5.66
13.00	4.38	1.13	4.23
13.25	4.48	1.19	3.46
13.50	4.58	1.25	3.18
13.75	4.66	1.30	2.92
14.00	4.74	1.34	2.66
14.25	4.81	1.39	2.43
14.50	4.87	1.43	2.30
14.75	4.93	1.47	2.17
15.00	4.99	1.50	2.04
15.25	5.04	1.54	1.91
15.50	5.09	1.57	1.77
15.75	5.13	1.59	1.63
16.00	5.17	1.62	1.48
16.25	5.21	1.64	1.36
16.50	5.25	1.67	1.30
16.75	5.28	1.69	1.24
17.00	5.31	1.71	1.17
17.25	5.34	1.73	1.11
17.50	5.37	1.75	1.05
17.75	5.40	1.76	0.98
18.00	5.42	1.78	0.92
18.25	5.44	1.80	0.87
18.50	5.47	1.81	0.85
18.75	5.49	1.83	0.83
19.00	5.51	1.84	0.81
19.25	5.53	1.85	0.79
19.50	5.55	1.87	0.77
19.75	5.57	1.88	0.75
20.00	**5.59**	**1.89**	0.73

Summary for Subcatchment B3-2: B3-2

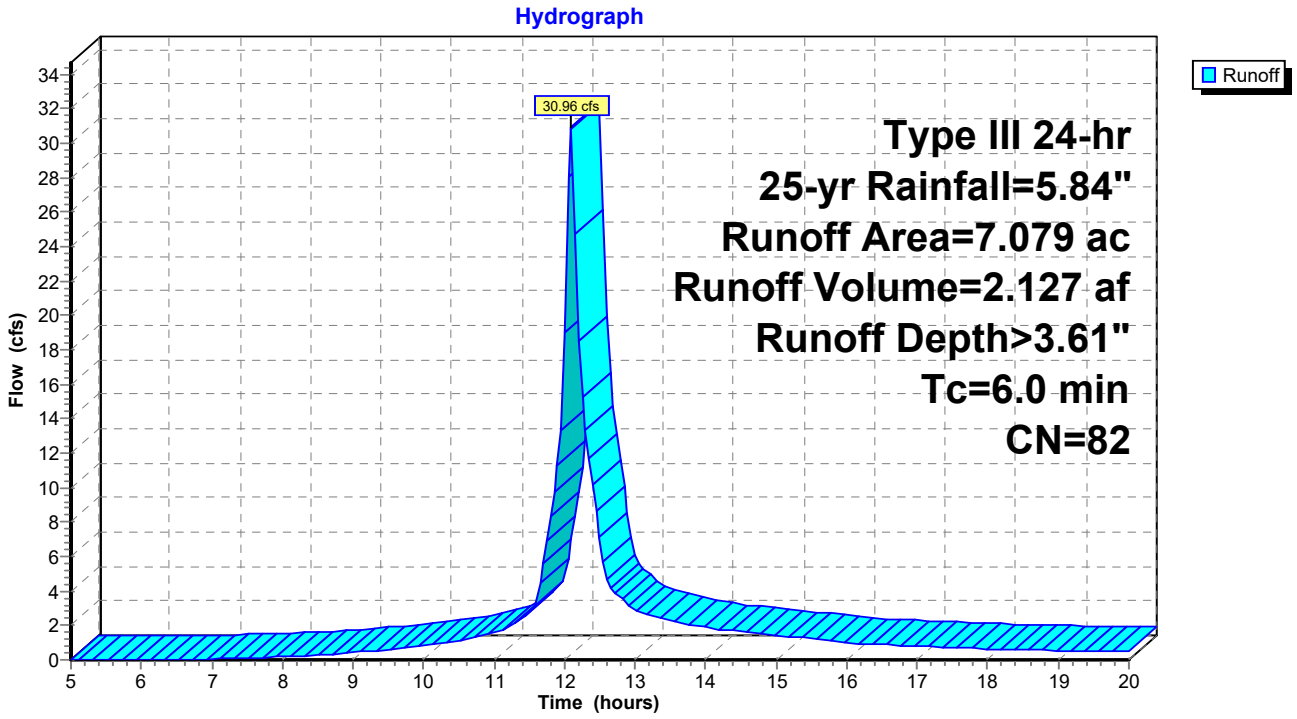
Runoff = 30.96 cfs @ 12.09 hrs, Volume= 2.127 af, Depth> 3.61"
Routed to Pond B3-2* : B3-2 Dry Extended Basin with Micropool

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
3.045	61	>75% Grass cover, Good, HSG B
0.069	80	>75% Grass cover, Good, HSG D
3.965	98	Paved parking, HSG A
7.079	82	Weighted Average
3.114		43.99% Pervious Area
3.965		56.01% Impervious Area

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

Subcatchment B3-2: B3-2



Hydrograph for Subcatchment B3-2: B3-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.01
6.75	0.50	0.00	0.03
7.00	0.53	0.00	0.06
7.25	0.56	0.01	0.08
7.50	0.59	0.01	0.11
7.75	0.63	0.02	0.15
8.00	0.67	0.02	0.18
8.25	0.71	0.03	0.23
8.50	0.75	0.04	0.28
8.75	0.80	0.05	0.35
9.00	0.85	0.07	0.43
9.25	0.91	0.08	0.51
9.50	0.97	0.10	0.60
9.75	1.03	0.13	0.70
10.00	1.10	0.15	0.80
10.25	1.18	0.19	0.95
10.50	1.26	0.23	1.13
10.75	1.36	0.27	1.33
11.00	1.46	0.32	1.54
11.25	1.58	0.39	2.02
11.50	1.74	0.48	2.73
11.75	2.07	0.70	6.92
12.00	2.92	1.32	**19.04**
12.25	3.77	2.00	**15.30**
12.50	4.10	2.29	7.14
12.75	4.26	2.42	3.77
13.00	4.38	2.53	2.96
13.25	4.48	2.62	2.52
13.50	4.58	2.70	2.32
13.75	4.66	2.78	2.10
14.00	4.74	2.84	1.89
14.25	4.81	2.91	1.75
14.50	4.87	2.96	1.64
14.75	4.93	3.02	1.54
15.00	4.99	3.07	1.44
15.25	5.04	3.12	1.33
15.50	5.09	3.16	1.23
15.75	5.13	3.20	1.12
16.00	5.17	3.24	1.01
16.25	5.21	3.27	0.95
16.50	5.25	3.30	0.90
16.75	5.28	3.33	0.85
17.00	5.31	3.36	0.81
17.25	5.34	3.39	0.76
17.50	5.37	3.41	0.72
17.75	5.40	3.43	0.67
18.00	5.42	3.46	0.62
18.25	5.44	3.48	0.60
18.50	5.47	3.50	0.58
18.75	5.49	3.52	0.57
19.00	5.51	3.54	0.55
19.25	5.53	3.56	0.54
19.50	5.55	3.58	0.53
19.75	5.57	3.59	0.51
20.00	**5.59**	**3.61**	0.50

Summary for Subcatchment B4: B4

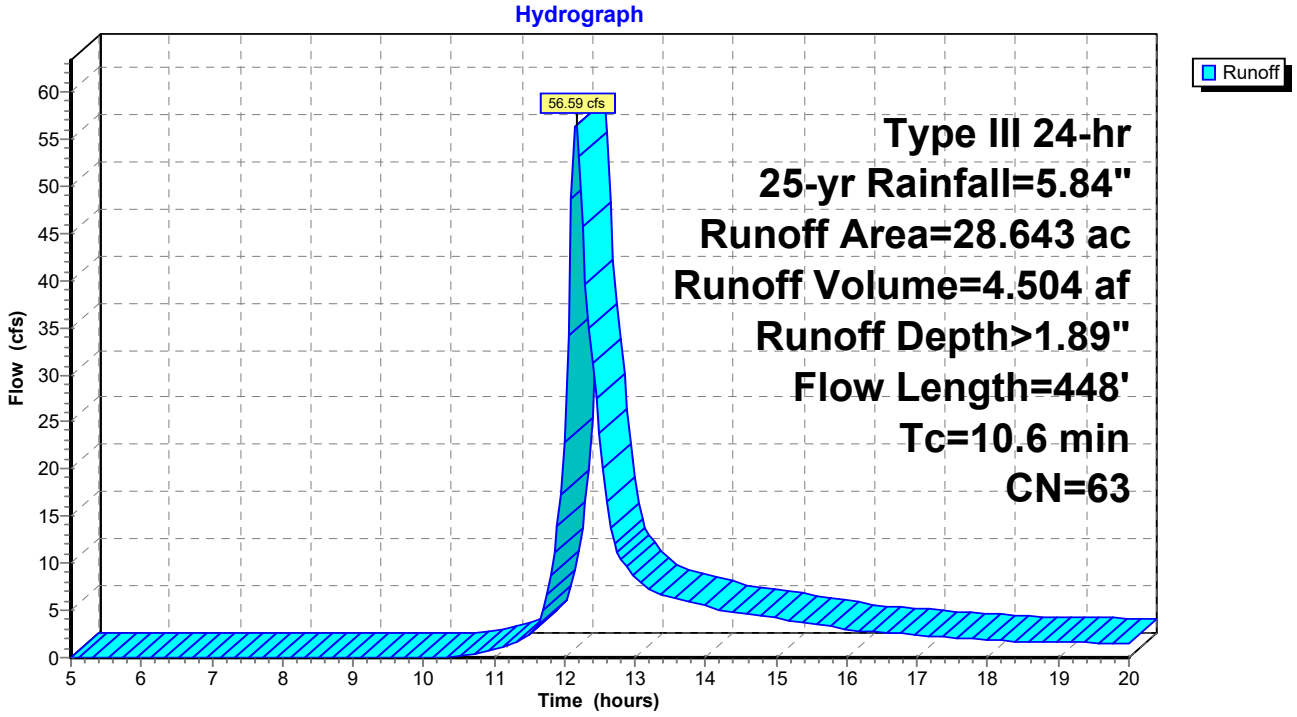
Runoff = 56.59 cfs @ 12.16 hrs, Volume= 4.504 af, Depth> 1.89"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
7.992	61	>75% Grass cover, Good, HSG B
2.765	80	>75% Grass cover, Good, HSG D
1.932	73	Brush, Good, HSG D
12.023	55	Woods, Good, HSG B
3.931	77	Woods, Good, HSG D
28.643	63	Weighted Average
28.643		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.0360	0.18		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
6.1	398	0.0240	1.08		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
10.6	448	Total			

Subcatchment B4: B4



Hydrograph for Subcatchment B4: B4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.12
10.75	1.36	0.01	0.43
11.00	1.46	0.01	0.82
11.25	1.58	0.03	1.42
11.50	1.74	0.05	2.47
11.75	2.07	0.12	6.69
12.00	2.92	0.40	**22.88**
12.25	3.77	0.79	**45.67**
12.50	4.10	0.97	23.75
12.75	4.26	1.06	11.11
13.00	4.38	1.13	8.53
13.25	4.48	1.19	7.05
13.50	4.58	1.25	6.50
13.75	4.66	1.30	5.98
14.00	4.74	1.34	5.43
14.25	4.81	1.39	4.99
14.50	4.87	1.43	4.72
14.75	4.93	1.47	4.45
15.00	4.99	1.50	4.18
15.25	5.04	1.54	3.90
15.50	5.09	1.57	3.62
15.75	5.13	1.59	3.33
16.00	5.17	1.62	3.03
16.25	5.21	1.64	2.80
16.50	5.25	1.67	2.66
16.75	5.28	1.69	2.54
17.00	5.31	1.71	2.41
17.25	5.34	1.73	2.28
17.50	5.37	1.75	2.15
17.75	5.40	1.76	2.01
18.00	5.42	1.78	1.88
18.25	5.44	1.80	1.78
18.50	5.47	1.81	1.74
18.75	5.49	1.83	1.70
19.00	5.51	1.84	1.66
19.25	5.53	1.85	1.62
19.50	5.55	1.87	1.58
19.75	5.57	1.88	1.54
20.00	**5.59**	**1.89**	1.50

Summary for Subcatchment B5-1: B5-1

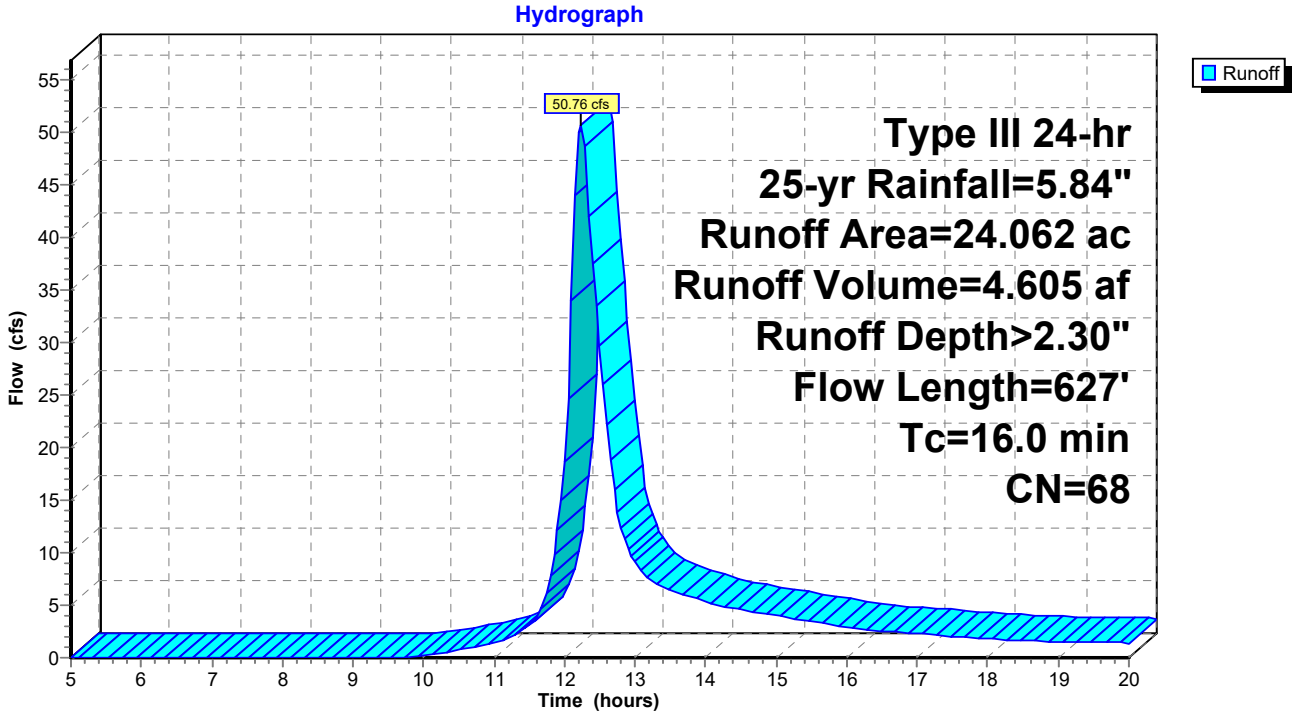
Runoff = 50.76 cfs @ 12.23 hrs, Volume= 4.605 af, Depth> 2.30"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
14.084	61	>75% Grass cover, Good, HSG B
0.295	80	>75% Grass cover, Good, HSG D
0.016	48	Brush, Good, HSG B
0.141	73	Brush, Good, HSG D
3.392	98	Water Surface, HSG A
0.437	73	Brush, Good, HSG D
3.045	55	Woods, Good, HSG B
2.484	77	Woods, Good, HSG D
0.168	98	Paved parking, HSG A
24.062	68	Weighted Average
20.502		85.20% Pervious Area
3.560		14.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	50	0.0260	0.16		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
10.9	577	0.0160	0.89		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
16.0	627	Total			

Subcatchment B5-1: B5-1



Hydrograph for Subcatchment B5-1: B5-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.09
10.00	1.10	0.01	0.26
10.25	1.18	0.01	0.47
10.50	1.26	0.02	0.74
10.75	1.36	0.03	1.09
11.00	1.46	0.05	1.49
11.25	1.58	0.08	2.06
11.50	1.74	0.12	3.13
11.75	2.07	0.22	6.21
12.00	2.92	0.59	18.66
12.25	3.77	1.06	**50.43**
12.50	4.10	1.27	29.69
12.75	4.26	1.37	13.90
13.00	4.38	1.45	9.15
13.25	4.48	1.52	7.17
13.50	4.58	1.58	6.42
13.75	4.66	1.64	5.88
14.00	4.74	1.69	5.35
14.25	4.81	1.74	4.87
14.50	4.87	1.79	4.57
14.75	4.93	1.83	4.31
15.00	4.99	1.87	4.04
15.25	5.04	1.91	3.77
15.50	5.09	1.94	3.50
15.75	5.13	1.98	3.23
16.00	5.17	2.00	2.94
16.25	5.21	2.03	2.69
16.50	5.25	2.06	2.54
16.75	5.28	2.08	2.42
17.00	5.31	2.10	2.30
17.25	5.34	2.13	2.17
17.50	5.37	2.15	2.05
17.75	5.40	2.17	1.92
18.00	5.42	2.18	1.80
18.25	5.44	2.20	1.69
18.50	5.47	2.22	1.64
18.75	5.49	2.23	1.60
19.00	5.51	2.25	1.56
19.25	5.53	2.27	1.52
19.50	5.55	2.28	1.49
19.75	5.57	2.30	1.45
20.00	**5.59**	**2.31**	1.41

Summary for Subcatchment B5-2: B5-2

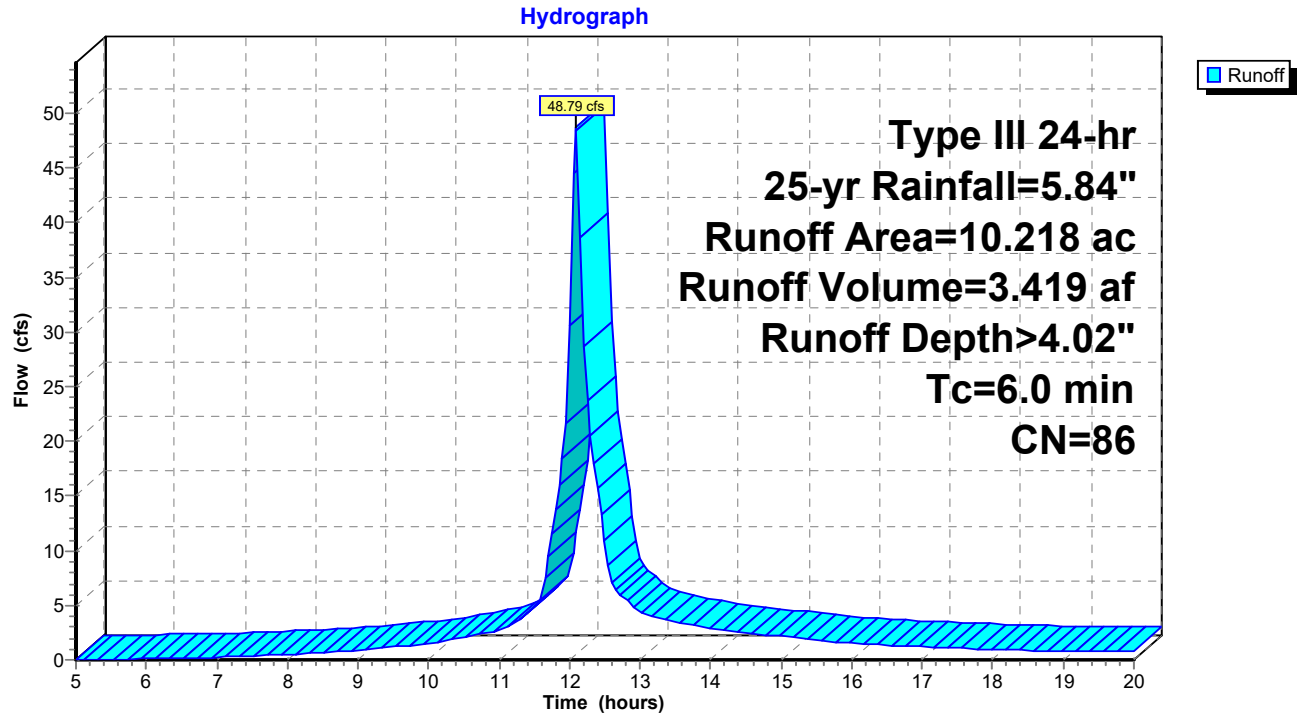
Runoff = 48.79 cfs @ 12.09 hrs, Volume= 3.419 af, Depth> 4.02"
Routed to Pond B5-2* : B5-2 Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
3.294	61	>75% Grass cover, Good, HSG B
4.054	98	Roofs, HSG A
2.870	98	Paved parking, HSG A
10.218	86	Weighted Average
3.294		32.24% Pervious Area
6.924		67.76% Impervious Area

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

Subcatchment B5-2: B5-2



Hydrograph for Subcatchment B5-2: B5-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.02
5.50	0.37	0.00	0.04
5.75	0.40	0.00	0.07
6.00	0.42	0.01	0.09
6.25	0.44	0.01	0.12
6.50	0.47	0.01	0.16
6.75	0.50	0.02	0.20
7.00	0.53	0.02	0.25
7.25	0.56	0.03	0.30
7.50	0.59	0.04	0.35
7.75	0.63	0.05	0.41
8.00	0.67	0.06	0.47
8.25	0.71	0.07	0.56
8.50	0.75	0.09	0.67
8.75	0.80	0.11	0.79
9.00	0.85	0.13	0.92
9.25	0.91	0.15	1.06
9.50	0.97	0.18	1.21
9.75	1.03	0.21	1.37
10.00	1.10	0.25	1.53
10.25	1.18	0.29	1.78
10.50	1.26	0.34	2.08
10.75	1.36	0.40	2.40
11.00	1.46	0.47	2.74
11.25	1.58	0.55	3.53
11.50	1.74	0.66	4.67
11.75	2.07	0.91	11.56
12.00	2.92	1.59	**30.56**
12.25	3.77	2.33	**23.67**
12.50	4.10	2.64	10.93
12.75	4.26	2.78	5.75
13.00	4.38	2.89	4.50
13.25	4.48	2.99	3.83
13.50	4.58	3.07	3.51
13.75	4.66	3.15	3.18
14.00	4.74	3.22	2.86
14.25	4.81	3.29	2.64
14.50	4.87	3.35	2.48
14.75	4.93	3.40	2.32
15.00	4.99	3.46	2.16
15.25	5.04	3.51	2.01
15.50	5.09	3.55	1.85
15.75	5.13	3.59	1.69
16.00	5.17	3.63	1.53
16.25	5.21	3.66	1.42
16.50	5.25	3.70	1.35
16.75	5.28	3.73	1.28
17.00	5.31	3.76	1.21
17.25	5.34	3.79	1.14
17.50	5.37	3.81	1.07
17.75	5.40	3.84	1.00
18.00	5.42	3.86	0.93
18.25	5.44	3.88	0.89
18.50	5.47	3.90	0.87
18.75	5.49	3.92	0.85
19.00	5.51	3.94	0.83
19.25	5.53	3.96	0.81
19.50	5.55	3.98	0.79
19.75	5.57	4.00	0.77
20.00	**5.59**	**4.02**	0.75

Summary for Subcatchment B6-1: B6-1

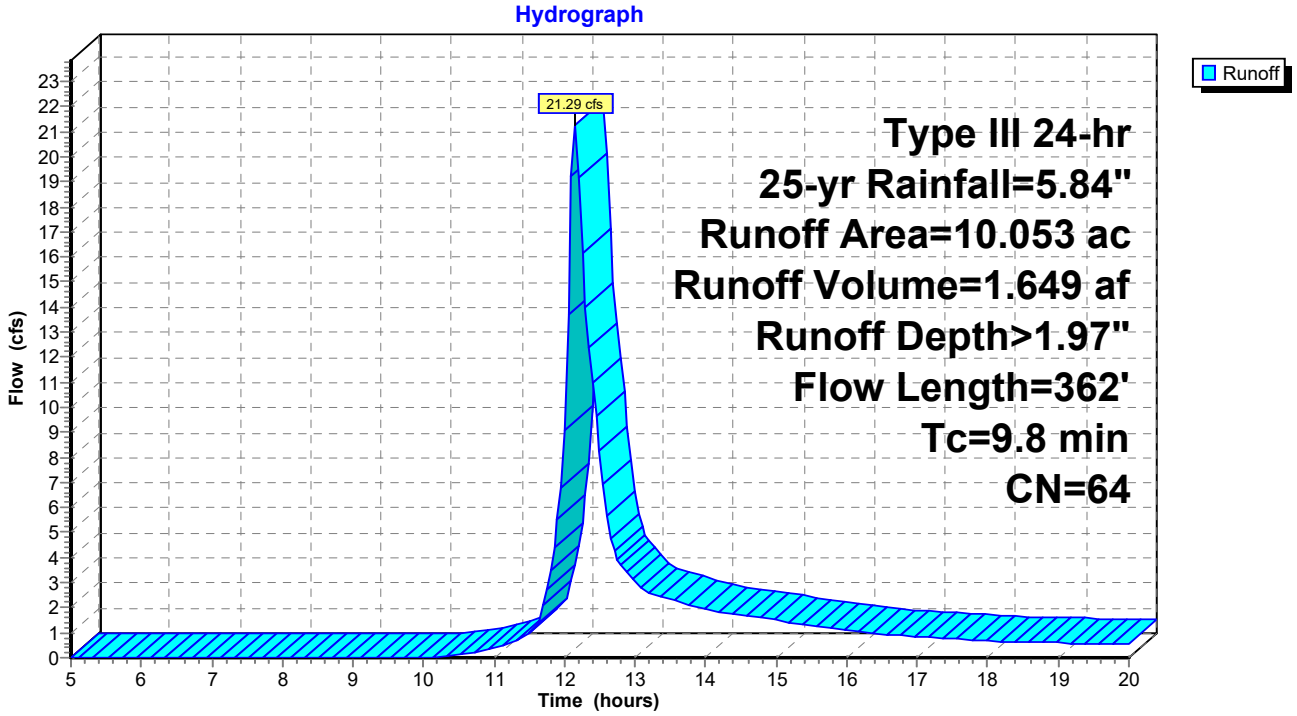
Runoff = 21.29 cfs @ 12.15 hrs, Volume= 1.649 af, Depth> 1.97"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.160	39	>75% Grass cover, Good, HSG A
7.451	61	>75% Grass cover, Good, HSG B
1.614	80	>75% Grass cover, Good, HSG D
0.517	55	Woods, Good, HSG B
0.021	77	Woods, Good, HSG D
0.290	98	Paved parking, HSG A
10.053	64	Weighted Average
9.763		97.12% Pervious Area
0.290		2.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	50	0.0250	0.16		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
4.6	312	0.0260	1.13		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
9.8	362	Total			

Subcatchment B6-1: B6-1



Hydrograph for Subcatchment B6-1: B6-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.01
10.50	1.26	0.00	0.10
10.75	1.36	0.01	0.22
11.00	1.46	0.02	0.37
11.25	1.58	0.03	0.60
11.50	1.74	0.06	1.01
11.75	2.07	0.14	2.73
12.00	2.92	0.43	**9.09**
12.25	3.77	0.84	**16.18**
12.50	4.10	1.03	8.28
12.75	4.26	1.12	3.92
13.00	4.38	1.19	3.05
13.25	4.48	1.25	2.53
13.50	4.58	1.31	2.34
13.75	4.66	1.36	2.15
14.00	4.74	1.41	1.95
14.25	4.81	1.46	1.79
14.50	4.87	1.50	1.70
14.75	4.93	1.54	1.60
15.00	4.99	1.57	1.50
15.25	5.04	1.61	1.40
15.50	5.09	1.64	1.30
15.75	5.13	1.67	1.19
16.00	5.17	1.69	1.08
16.25	5.21	1.72	1.00
16.50	5.25	1.74	0.96
16.75	5.28	1.77	0.91
17.00	5.31	1.79	0.86
17.25	5.34	1.81	0.82
17.50	5.37	1.83	0.77
17.75	5.40	1.84	0.72
18.00	5.42	1.86	0.67
18.25	5.44	1.87	0.64
18.50	5.47	1.89	0.62
18.75	5.49	1.91	0.61
19.00	5.51	1.92	0.60
19.25	5.53	1.93	0.58
19.50	5.55	1.95	0.57
19.75	5.57	1.96	0.55
20.00	**5.59**	**1.98**	0.54

Summary for Subcatchment B6-2: B6-2

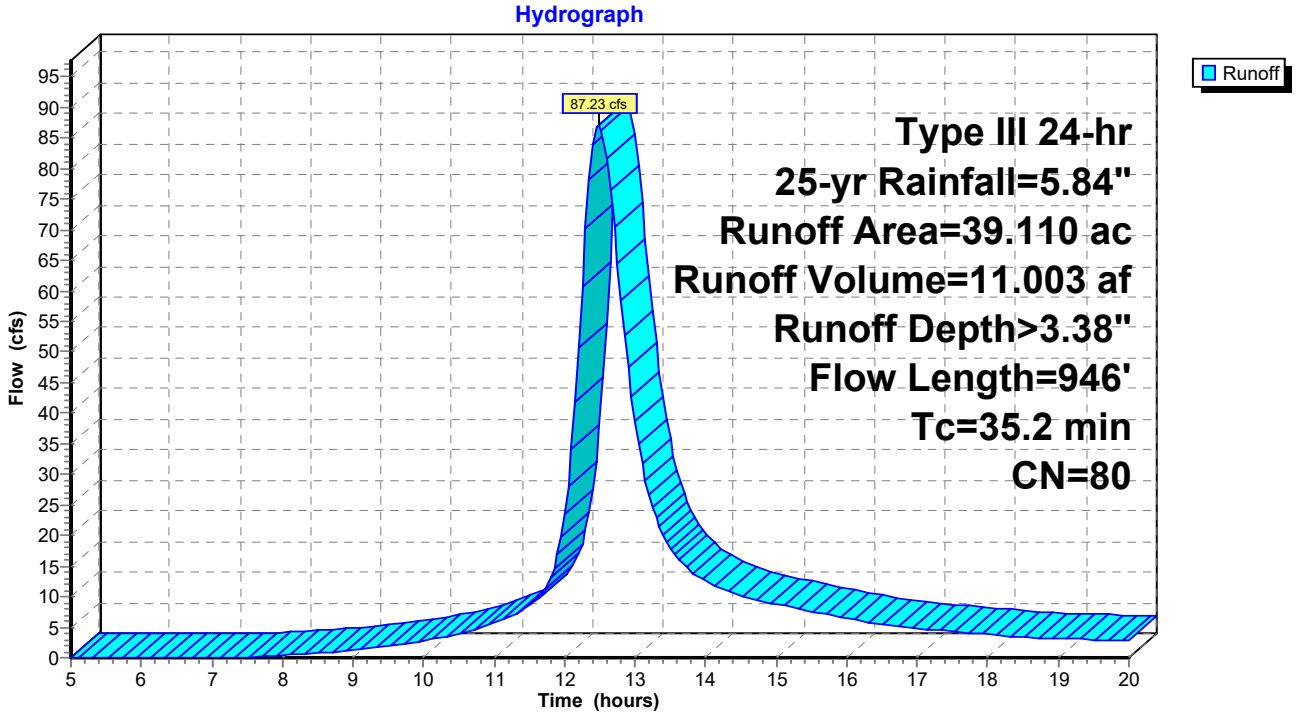
Runoff = 87.23 cfs @ 12.48 hrs, Volume= 11.003 af, Depth> 3.38"
Routed to Pond B6-2* : B6-2 Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
17.844	61	>75% Grass cover, Good, HSG B
1.238	55	Woods, Good, HSG B
8.138	98	Roofs, HSG A
11.890	98	Paved parking, HSG A
39.110	80	Weighted Average
19.082		48.79% Pervious Area
20.028		51.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.9	50	0.0010	0.04		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
2.6	142	0.0170	0.91		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
0.1	14	0.0430	4.21		**Shallow Concentrated Flow, SCF-2** Paved Kv= 20.3 fps
13.6	740	0.0075	0.91	0.05	**Pipe Channel, 36" HDPE** 36.0" Round w/ 35.0" inside fill Area= 0.1 sf Perim= 2.0' r= 0.03' n= 0.013
35.2	946	Total			

Subcatchment B6-2: B6-2



Hydrograph for Subcatchment B6-2: B6-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.03
7.50	0.59	0.00	0.11
7.75	0.63	0.01	0.23
8.00	0.67	0.01	0.37
8.25	0.71	0.02	0.53
8.50	0.75	0.02	0.71
8.75	0.80	0.03	0.95
9.00	0.85	0.04	1.24
9.25	0.91	0.06	1.57
9.50	0.97	0.07	1.95
9.75	1.03	0.09	2.37
10.00	1.10	0.12	2.83
10.25	1.18	0.15	3.34
10.50	1.26	0.18	3.97
10.75	1.36	0.22	4.76
11.00	1.46	0.27	5.70
11.25	1.58	0.33	6.77
11.50	1.74	0.41	8.48
11.75	2.07	0.61	11.77
12.00	2.92	1.19	23.46
12.25	3.77	1.85	60.63
12.50	4.10	2.12	**87.13**
12.75	4.26	2.26	64.33
13.00	4.38	2.36	38.61
13.25	4.48	2.45	24.69
13.50	4.58	2.53	17.86
13.75	4.66	2.60	14.52
14.00	4.74	2.66	12.53
14.25	4.81	2.72	11.16
14.50	4.87	2.78	10.13
14.75	4.93	2.83	9.39
15.00	4.99	2.88	8.77
15.25	5.04	2.93	8.19
15.50	5.09	2.97	7.63
15.75	5.13	3.01	7.07
16.00	5.17	3.05	6.50
16.25	5.21	3.08	5.94
16.50	5.25	3.11	5.46
16.75	5.28	3.14	5.11
17.00	5.31	3.17	4.83
17.25	5.34	3.19	4.57
17.50	5.37	3.22	4.32
17.75	5.40	3.24	4.06
18.00	5.42	3.26	3.81
18.25	5.44	3.28	3.57
18.50	5.47	3.30	3.36
18.75	5.49	3.32	3.23
19.00	5.51	3.34	3.14
19.25	5.53	3.36	3.06
19.50	5.55	3.38	2.98
19.75	5.57	3.40	2.91
20.00	**5.59**	**3.41**	2.83

Summary for Subcatchment B7: B7

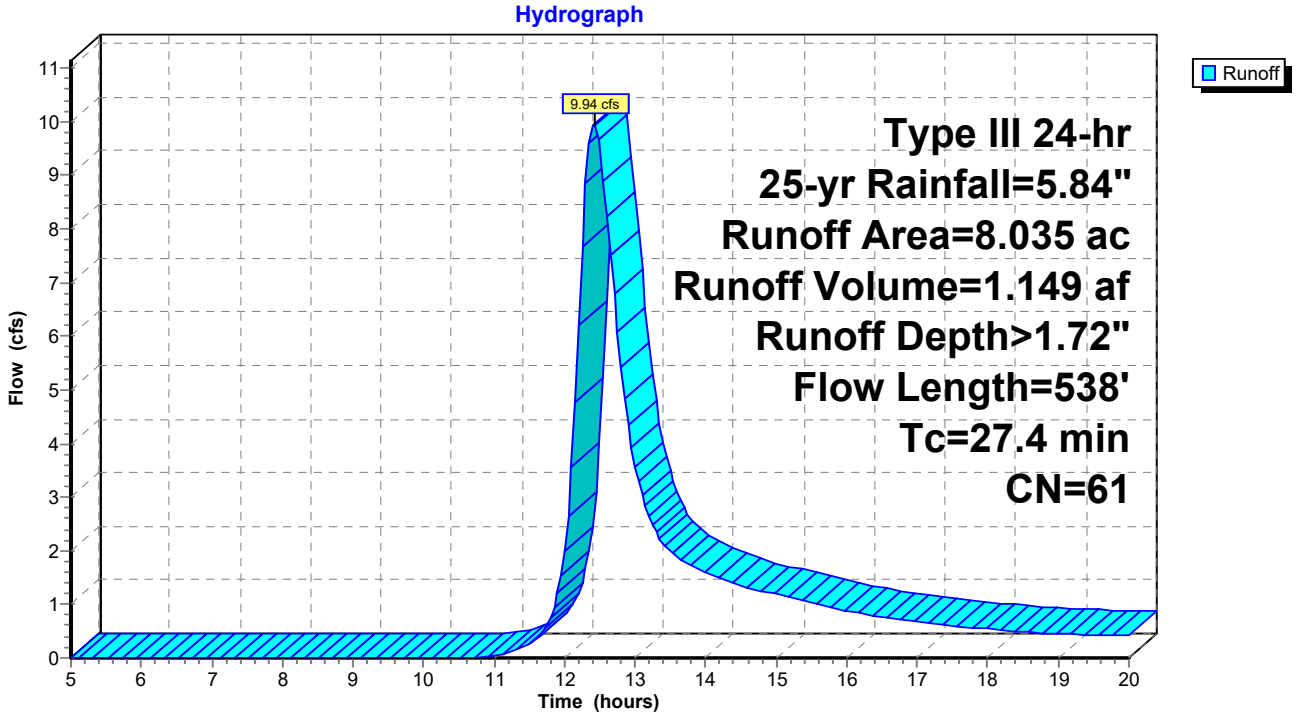
Runoff = 9.94 cfs @ 12.42 hrs, Volume= 1.149 af, Depth> 1.72"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
0.295	61	>75% Grass cover, Good, HSG B
0.440	80	>75% Grass cover, Good, HSG D
5.519	55	Woods, Good, HSG B
1.781	77	Woods, Good, HSG D
8.035	61	Weighted Average
8.035		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	50	0.0160	0.06		**Sheet Flow, SF-1** Woods: Light underbrush n= 0.400 P2= 3.11"
13.7	488	0.0140	0.59		**Shallow Concentrated Flow, SCF-1** Woodland Kv= 5.0 fps
27.4	538	Total			

Subcatchment B7: B7



Hydrograph for Subcatchment B7: B7

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.00
10.75	1.36	0.00	0.00
11.00	1.46	0.01	0.04
11.25	1.58	0.01	0.12
11.50	1.74	0.03	0.28
11.75	2.07	0.09	0.60
12.00	2.92	0.34	2.00
12.25	3.77	0.70	**7.68**
12.50	4.10	0.86	**9.47**
12.75	4.26	0.95	6.09
13.00	4.38	1.01	3.57
13.25	4.48	1.07	2.49
13.50	4.58	1.12	1.98
13.75	4.66	1.17	1.75
14.00	4.74	1.21	1.59
14.25	4.81	1.25	1.45
14.50	4.87	1.29	1.34
14.75	4.93	1.33	1.26
15.00	4.99	1.36	1.19
15.25	5.04	1.39	1.11
15.50	5.09	1.42	1.04
15.75	5.13	1.45	0.97
16.00	5.17	1.47	0.89
16.25	5.21	1.50	0.81
16.50	5.25	1.52	0.75
16.75	5.28	1.54	0.71
17.00	5.31	1.56	0.68
17.25	5.34	1.58	0.64
17.50	5.37	1.60	0.61
17.75	5.40	1.61	0.57
18.00	5.42	1.63	0.54
18.25	5.44	1.64	0.50
18.50	5.47	1.66	0.48
18.75	5.49	1.67	0.47
19.00	5.51	1.68	0.46
19.25	5.53	1.70	0.44
19.50	5.55	1.71	0.43
19.75	5.57	1.72	0.42
20.00	**5.59**	**1.74**	0.41

Summary for Subcatchment B8: B8

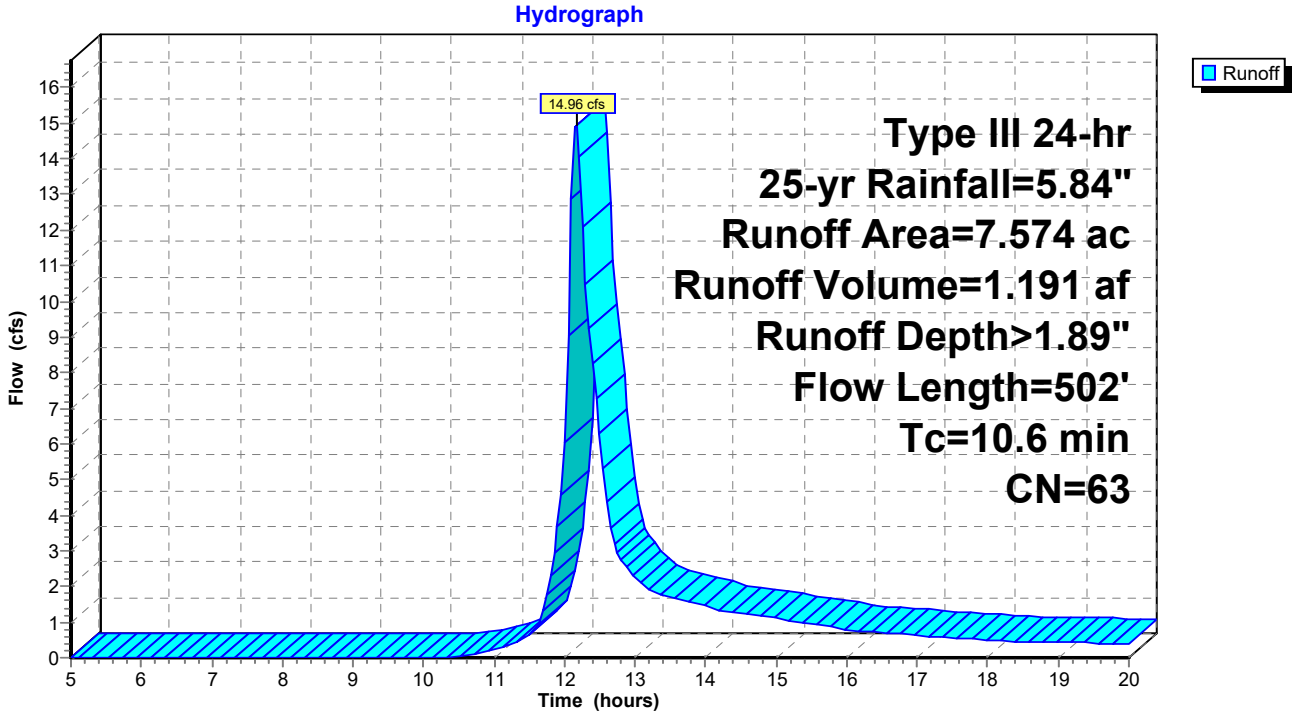
Runoff = 14.96 cfs @ 12.16 hrs, Volume= 1.191 af, Depth> 1.89"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.84"

Area (ac)	CN	Description
6.154	61	>75% Grass cover, Good, HSG B
0.897	55	Woods, Good, HSG B
0.523	98	Water Surface, HSG A
7.574	63	Weighted Average
7.051		93.09% Pervious Area
0.523		6.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	50	0.0170	0.14		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
0.9	73	0.0380	1.36		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
0.3	26	0.0680	1.30		**Shallow Concentrated Flow, scf-2** Woodland Kv= 5.0 fps
3.3	353	0.0660	1.80		**Shallow Concentrated Flow, scf-3** Short Grass Pasture Kv= 7.0 fps
10.6	502	Total			

Subcatchment B8: B8



Hydrograph for Subcatchment B8: B8

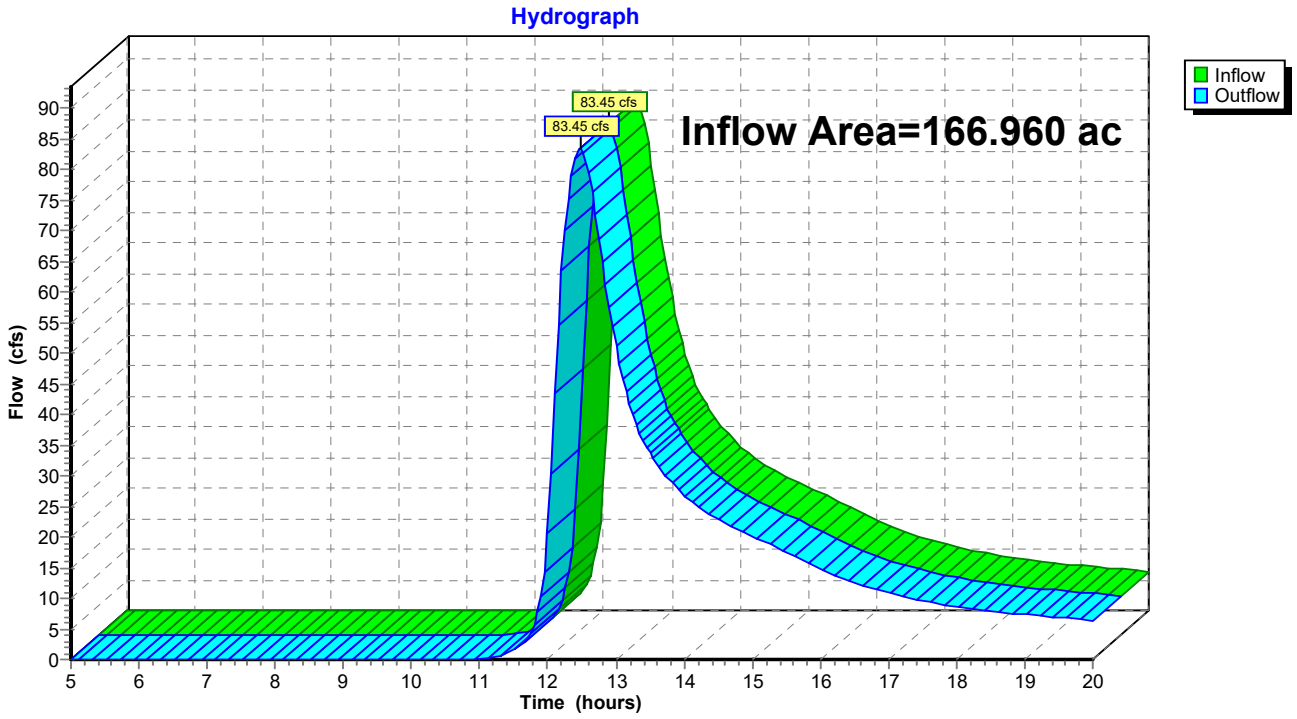
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.25	0.35	0.00	0.00
5.50	0.37	0.00	0.00
5.75	0.40	0.00	0.00
6.00	0.42	0.00	0.00
6.25	0.44	0.00	0.00
6.50	0.47	0.00	0.00
6.75	0.50	0.00	0.00
7.00	0.53	0.00	0.00
7.25	0.56	0.00	0.00
7.50	0.59	0.00	0.00
7.75	0.63	0.00	0.00
8.00	0.67	0.00	0.00
8.25	0.71	0.00	0.00
8.50	0.75	0.00	0.00
8.75	0.80	0.00	0.00
9.00	0.85	0.00	0.00
9.25	0.91	0.00	0.00
9.50	0.97	0.00	0.00
9.75	1.03	0.00	0.00
10.00	1.10	0.00	0.00
10.25	1.18	0.00	0.00
10.50	1.26	0.00	0.03
10.75	1.36	0.01	0.11
11.00	1.46	0.01	0.22
11.25	1.58	0.03	0.37
11.50	1.74	0.05	0.65
11.75	2.07	0.12	1.77
12.00	2.92	0.40	**6.05**
12.25	3.77	0.79	**12.08**
12.50	4.10	0.97	6.28
12.75	4.26	1.06	2.94
13.00	4.38	1.13	2.26
13.25	4.48	1.19	1.87
13.50	4.58	1.25	1.72
13.75	4.66	1.30	1.58
14.00	4.74	1.34	1.44
14.25	4.81	1.39	1.32
14.50	4.87	1.43	1.25
14.75	4.93	1.47	1.18
15.00	4.99	1.50	1.11
15.25	5.04	1.54	1.03
15.50	5.09	1.57	0.96
15.75	5.13	1.59	0.88
16.00	5.17	1.62	0.80
16.25	5.21	1.64	0.74
16.50	5.25	1.67	0.70
16.75	5.28	1.69	0.67
17.00	5.31	1.71	0.64
17.25	5.34	1.73	0.60
17.50	5.37	1.75	0.57
17.75	5.40	1.76	0.53
18.00	5.42	1.78	0.50
18.25	5.44	1.80	0.47
18.50	5.47	1.81	0.46
18.75	5.49	1.83	0.45
19.00	5.51	1.84	0.44
19.25	5.53	1.85	0.43
19.50	5.55	1.87	0.42
19.75	5.57	1.88	0.41
20.00	**5.59**	**1.89**	0.40

Summary for Reach DP-A: DP-A

Inflow Area = 166.960 ac, 32.99% Impervious, Inflow Depth > 1.08" for 25-yr event
Inflow = 83.45 cfs @ 12.48 hrs, Volume= 15.073 af
Outflow = 83.45 cfs @ 12.48 hrs, Volume= 15.073 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-A: DP-A



Hydrograph for Reach DP-A: DP-A

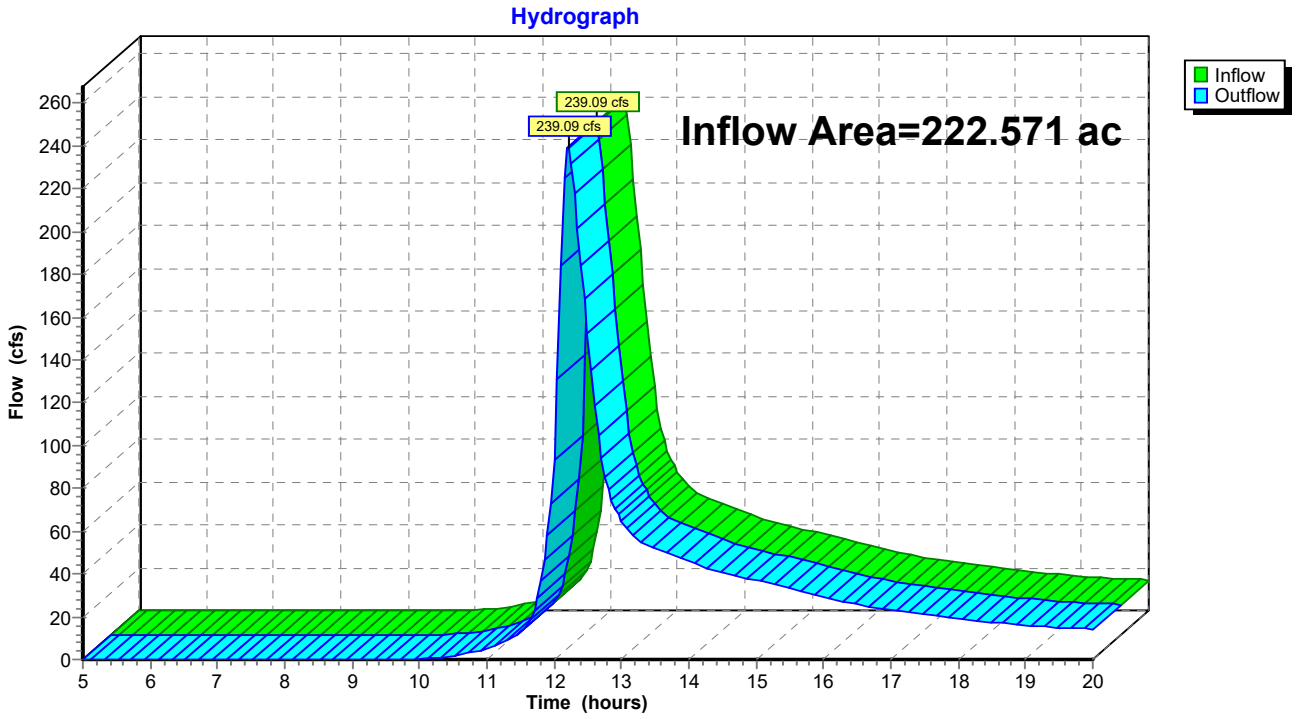
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	9.08		9.08
5.25	0.00		0.00	18.00	8.64		8.64
5.50	0.00		0.00	18.25	8.21		8.21
5.75	0.00		0.00	18.50	7.87		7.87
6.00	0.00		0.00	18.75	7.59		7.59
6.25	0.00		0.00	19.00	7.34		7.34
6.50	0.00		0.00	19.25	7.10		7.10
6.75	0.00		0.00	19.50	6.86		6.86
7.00	0.00		0.00	19.75	6.62		6.62
7.25	0.00		0.00	20.00	6.37		6.37
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.00		0.00				
10.25	0.00		0.00				
10.50	0.00		0.00				
10.75	0.01		0.01				
11.00	0.12		0.12				
11.25	0.48		0.48				
11.50	1.43		1.43				
11.75	4.41		4.41				
12.00	20.51		20.51				
12.25	69.94		69.94				
12.50	**83.32**		**83.32**				
12.75	68.69		68.69				
13.00	51.21		51.21				
13.25	39.89		39.89				
13.50	33.65		33.65				
13.75	29.81		29.81				
14.00	26.92		26.92				
14.25	24.53		24.53				
14.50	22.76		22.76				
14.75	21.44		21.44				
15.00	20.21		20.21				
15.25	18.92		18.92				
15.50	17.52		17.52				
15.75	16.14		16.14				
16.00	14.79		14.79				
16.25	13.48		13.48				
16.50	12.44		12.44				
16.75	11.59		11.59				
17.00	10.85		10.85				
17.25	10.18		10.18				
17.50	9.58		9.58				

Summary for Reach DP-B: DP-B

Inflow Area = 222.571 ac, 25.25% Impervious, Inflow Depth > 1.67" for 25-yr event
Inflow = 239.09 cfs @ 12.21 hrs, Volume= 30.899 af
Outflow = 239.09 cfs @ 12.21 hrs, Volume= 30.899 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-B: DP-B



Hydrograph for Reach DP-B: DP-B

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	17.75	19.97		19.97
5.25	0.00		0.00	18.00	18.87		18.87
5.50	0.00		0.00	18.25	17.90		17.90
5.75	0.00		0.00	18.50	17.23		17.23
6.00	0.00		0.00	18.75	16.66		16.66
6.25	0.00		0.00	19.00	16.11		16.11
6.50	0.00		0.00	19.25	15.59		15.59
6.75	0.00		0.00	19.50	15.09		15.09
7.00	0.00		0.00	19.75	14.61		14.61
7.25	0.00		0.00	20.00	14.14		14.14
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.01		0.01				
8.75	0.01		0.01				
9.00	0.02		0.02				
9.25	0.02		0.02				
9.50	0.04		0.04				
9.75	0.13		0.13				
10.00	0.36		0.36				
10.25	0.78		0.78				
10.50	1.64		1.64				
10.75	3.09		3.09				
11.00	4.98		4.98				
11.25	7.75		7.75				
11.50	12.75		12.75				
11.75	28.88		28.88				
12.00	**93.47**		**93.47**				
12.25	**231.99**		**231.99**				
12.50	152.05		152.05				
12.75	85.49		85.49				
13.00	64.93		64.93				
13.25	55.91		55.91				
13.50	52.14		52.14				
13.75	49.15		49.15				
14.00	46.00		46.00				
14.25	43.03		43.03				
14.50	40.88		40.88				
14.75	38.93		38.93				
15.00	37.11		37.11				
15.25	35.23		35.23				
15.50	33.28		33.28				
15.75	31.26		31.26				
16.00	29.17		29.17				
16.25	27.24		27.24				
16.50	25.81		25.81				
16.75	24.54		24.54				
17.00	23.35		23.35				
17.25	22.20		22.20				
17.50	21.08		21.08				

Summary for Pond A1-2*: A1-2 Infiltration Basin

Inflow Area = 21.469 ac, 66.84% Impervious, Inflow Depth > 4.72" for 25-yr event
Inflow = 99.60 cfs @ 12.09 hrs, Volume= 8.443 af
Outflow = 16.54 cfs @ 12.59 hrs, Volume= 8.228 af, Atten= 83%, Lag= 30.3 min
Discarded = 11.79 cfs @ 12.59 hrs, Volume= 7.365 af
Primary = 4.75 cfs @ 12.59 hrs, Volume= 0.864 af
Routed to Reach DP-A : DP-A

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 119.47' @ 12.59 hrs Surf.Area= 50,929 sf Storage= 119,778 cf

Plug-Flow detention time= 82.1 min calculated for 8.201 af (97% of inflow)
Center-of-Mass det. time= 71.4 min (839.6 - 768.2)

Volume	Invert	Avail.Storage	Storage Description
#1	116.00'	202,931 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

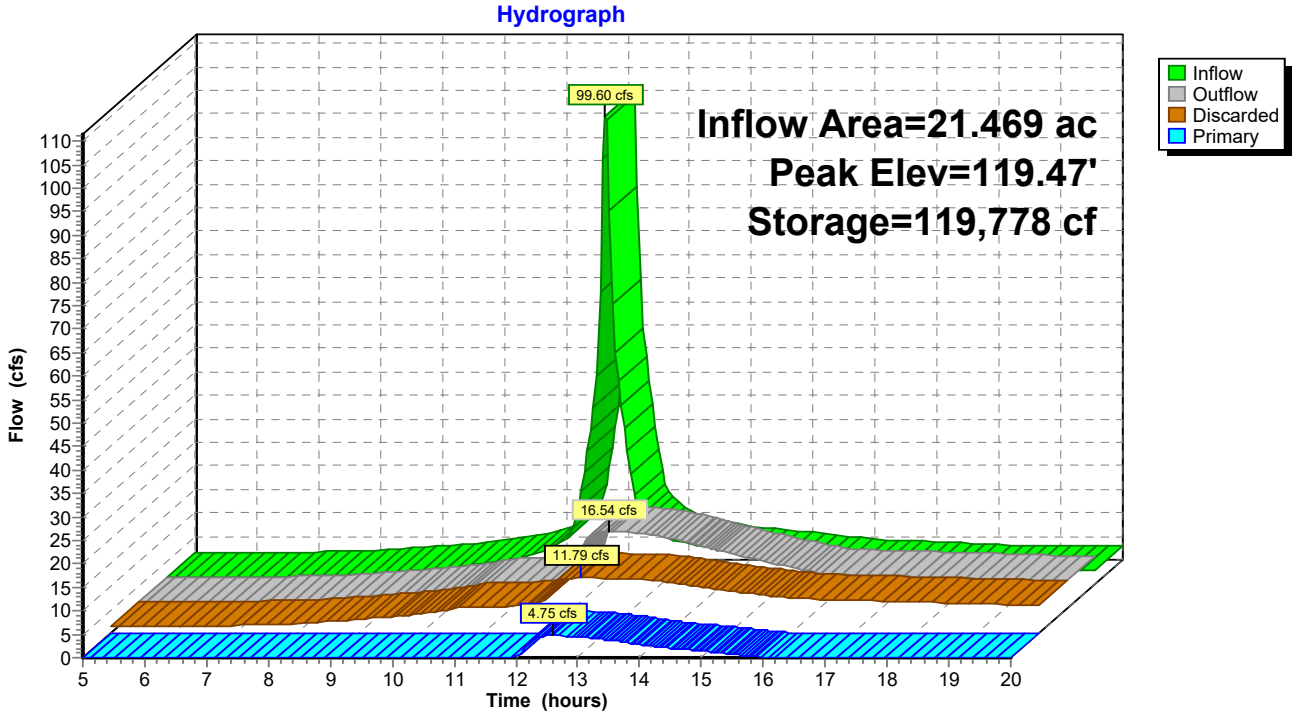
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
116.00	24,032	0	0
117.00	27,880	25,956	25,956
118.00	31,955	29,918	55,874
119.00	48,800	40,378	96,251
120.00	53,312	51,056	147,307
121.00	57,935	55,624	202,931

Device	Routing	Invert	Outlet Devices
#1	Primary	116.00'	**24.0" Round Culvert** L= 150.0' Ke= 1.000 Inlet / Outlet Invert= 116.00' / 114.00' S= 0.0133 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	117.90'	**6.0" Vert. Orifice/Grate X 3.00** C= 0.600 Limited to weir flow at low heads
#3	Device 1	118.60'	**6.0" Vert. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads
#4	Device 1	120.00'	**3.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#5	Discarded	116.00'	**10.000 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=11.79 cfs @ 12.59 hrs HW=119.47' (Free Discharge)
└**5=Exfiltration** (Exfiltration Controls 11.79 cfs)

Primary OutFlow Max=4.75 cfs @ 12.59 hrs HW=119.47' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 4.75 cfs of 17.84 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 3.26 cfs @ 5.53 fps)
  ├**3=Orifice/Grate** (Orifice Controls 1.49 cfs @ 3.80 fps)
  └**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond A1-2*: A1-2 Infiltration Basin



Hydrograph for Pond A1-2*: A1-2 Infiltration Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
5.00	1.31	0	116.00	1.31	1.31	0.00
5.50	1.31	0	116.00	1.31	1.31	0.00
6.00	1.37	0	116.00	1.37	1.37	0.00
6.50	1.49	0	116.00	1.49	1.49	0.00
7.00	1.65	0	116.00	1.65	1.65	0.00
7.50	1.84	0	116.00	1.84	1.84	0.00
8.00	2.06	0	116.00	2.06	2.06	0.00
8.50	2.43	0	116.00	2.43	2.43	0.00
9.00	2.90	0	116.00	2.90	2.90	0.00
9.50	3.47	0	116.00	3.47	3.47	0.00
10.00	4.12	0	116.00	4.12	4.12	0.00
10.50	5.19	4	116.00	5.17	5.17	0.00
11.00	6.52	626	116.03	5.59	5.59	0.00
11.50	10.34	5,175	116.21	5.75	5.75	0.00
12.00	**62.34**	41,465	117.54	6.96	6.96	0.00
12.50	**23.65**	**118,744**	**119.45**	**16.47**	**11.77**	**4.70**
13.00	10.53	**114,454**	**119.37**	**16.17**	**11.68**	**4.49**
13.50	8.51	102,793	119.13	15.25	11.44	3.82
14.00	7.18	90,667	118.88	13.69	10.84	2.84
14.50	6.41	79,867	118.64	11.90	9.90	2.00
15.00	5.77	70,672	118.42	10.49	9.02	1.47
15.50	5.11	62,951	118.21	8.94	8.22	0.73
16.00	4.45	56,707	118.03	7.64	7.50	0.14
16.50	4.10	51,075	117.85	7.25	7.25	0.00
17.00	3.81	45,295	117.66	7.08	7.08	0.00
17.50	3.52	39,324	117.46	6.89	6.89	0.00
18.00	3.23	33,179	117.25	6.69	6.69	0.00
18.50	3.11	26,999	117.04	6.49	6.49	0.00
19.00	3.02	21,018	116.82	6.29	6.29	0.00
19.50	2.94	15,229	116.60	6.10	6.10	0.00
20.00	2.85	9,630	116.39	5.91	5.91	0.00

Stage-Discharge for Pond A1-2*: A1-2 Infiltration Basin

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
116.00	0.00	0.00	0.00
116.05	5.61	5.61	0.00
116.10	5.65	5.65	0.00
116.15	5.70	5.70	0.00
116.20	5.74	5.74	0.00
116.25	5.79	5.79	0.00
116.30	5.83	5.83	0.00
116.35	5.87	5.87	0.00
116.40	5.92	5.92	0.00
116.45	5.96	5.96	0.00
116.50	6.01	6.01	0.00
116.55	6.05	6.05	0.00
116.60	6.10	6.10	0.00
116.65	6.14	6.14	0.00
116.70	6.19	6.19	0.00
116.75	6.23	6.23	0.00
116.80	6.28	6.28	0.00
116.85	6.32	6.32	0.00
116.90	6.36	6.36	0.00
116.95	6.41	6.41	0.00
117.00	6.45	6.45	0.00
117.05	6.50	6.50	0.00
117.10	6.55	6.55	0.00
117.15	6.60	6.60	0.00
117.20	6.64	6.64	0.00
117.25	6.69	6.69	0.00
117.30	6.74	6.74	0.00
117.35	6.78	6.78	0.00
117.40	6.83	6.83	0.00
117.45	6.88	6.88	0.00
117.50	6.93	6.93	0.00
117.55	6.97	6.97	0.00
117.60	7.02	7.02	0.00
117.65	7.07	7.07	0.00
117.70	7.11	7.11	0.00
117.75	7.16	7.16	0.00
117.80	7.21	7.21	0.00
117.85	7.26	7.26	0.00
117.90	7.30	7.30	0.00
117.95	7.37	7.35	0.02
118.00	7.49	7.40	0.09
118.05	7.79	7.59	0.20
118.10	8.12	7.79	0.34
118.15	8.48	7.98	0.50
118.20	8.87	8.18	0.69
118.25	9.26	8.37	0.89
118.30	9.65	8.57	1.09
118.35	10.04	8.76	1.28
118.40	10.37	8.96	1.42
118.45	10.71	9.15	1.55
118.50	11.02	9.35	1.68
118.55	11.34	9.54	1.79
118.60	11.64	9.74	1.90
118.65	11.95	9.93	2.02
118.70	12.29	10.13	2.16
118.75	12.65	10.32	2.33
118.80	13.03	10.52	2.51
118.85	13.42	10.71	2.71
118.90	13.82	10.91	2.92
118.95	14.23	11.10	3.13
119.00	14.64	11.30	3.34
119.05	14.89	11.35	3.54
119.10	15.11	11.40	3.71
119.15	15.32	11.45	3.87
119.20	15.53	11.51	4.02
119.25	15.73	11.56	4.17
119.30	15.92	11.61	4.31
119.35	16.11	11.66	4.44
119.40	16.29	11.71	4.57
119.45	16.46	11.77	4.70
119.50	16.64	11.82	4.82
119.55	16.81	11.87	4.94
119.60	16.98	11.92	5.05
119.65	17.14	11.98	5.16
119.70	17.30	12.03	5.27
119.75	17.46	12.08	5.38
119.80	17.62	12.13	5.49
119.85	17.77	12.18	5.59
119.90	17.93	12.24	5.69
119.95	18.08	12.29	5.79
120.00	18.23	12.34	5.89
120.05	18.48	12.39	6.09
120.10	18.83	12.45	6.38
120.15	19.23	12.50	6.73
120.20	19.68	12.55	7.12
120.25	20.16	12.61	7.55
120.30	20.68	12.66	8.02
120.35	21.22	12.72	8.51
120.40	21.79	12.77	9.02
120.45	22.39	12.82	9.57
120.50	23.01	12.88	10.13
120.55	23.64	12.93	10.71
120.60	24.30	12.98	11.32
120.65	24.98	13.04	11.94
120.70	25.67	13.09	12.58
120.75	26.38	13.14	13.23
120.80	27.10	13.20	13.90
120.85	27.84	13.25	14.59
120.90	28.59	13.30	15.28
120.95	29.35	13.36	15.99
121.00	**30.13**	**13.41**	**16.72**

Stage-Area-Storage for Pond A1-2*: A1-2 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
116.00	24,032	24,032	0
116.10	24,417	24,417	2,422
116.20	24,802	24,802	4,883
116.30	25,186	25,186	7,383
116.40	25,571	25,571	9,921
116.50	25,956	25,956	12,497
116.60	26,341	26,341	15,112
116.70	26,726	26,726	17,765
116.80	27,110	27,110	20,457
116.90	27,495	27,495	23,187
117.00	27,880	27,880	25,956
117.10	28,287	28,287	28,764
117.20	28,695	28,695	31,614
117.30	29,102	29,102	34,503
117.40	29,510	29,510	37,434
117.50	29,918	29,918	40,405
117.60	30,325	30,325	43,417
117.70	30,733	30,733	46,470
117.80	31,140	31,140	49,564
117.90	31,548	31,548	52,698
118.00	31,955	31,955	55,874
118.10	33,639	33,639	59,153
118.20	35,324	35,324	62,601
118.30	37,008	37,008	66,218
118.40	38,693	38,693	70,003
118.50	40,378	40,378	73,957
118.60	42,062	42,062	78,079
118.70	43,747	43,747	82,369
118.80	45,431	45,431	86,828
118.90	47,116	47,116	91,455
119.00	48,800	48,800	96,251
119.10	49,251	49,251	101,154
119.20	49,702	49,702	106,101
119.30	50,154	50,154	111,094
119.40	50,605	50,605	116,132
119.50	51,056	51,056	121,215
119.60	51,507	51,507	126,343
119.70	51,958	51,958	131,516
119.80	52,410	52,410	136,735
119.90	52,861	52,861	141,998
120.00	53,312	53,312	147,307
120.10	53,774	53,774	152,661
120.20	54,237	54,237	158,062
120.30	54,699	54,699	163,509
120.40	55,161	55,161	169,002
120.50	55,624	55,624	174,541
120.60	56,086	56,086	180,126
120.70	56,548	56,548	185,758
120.80	57,010	57,010	191,436
120.90	57,473	57,473	197,160
121.00	**57,935**	**57,935**	**202,931**

Summary for Pond A1-3*: A1-3 Infiltration Basin

Inflow Area = 31.975 ac, 77.29% Impervious, Inflow Depth > 4.61" for 25-yr event
Inflow = 164.45 cfs @ 12.09 hrs, Volume= 12.285 af
Outflow = 16.40 cfs @ 12.92 hrs, Volume= 9.070 af, Atten= 90%, Lag= 49.7 min
Discarded = 5.83 cfs @ 12.92 hrs, Volume= 4.974 af
Primary = 10.57 cfs @ 12.92 hrs, Volume= 4.096 af
Routed to Reach DP-A : DP-A

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 118.38' @ 12.92 hrs Surf.Area= 70,797 sf Storage= 276,350 cf

Plug-Flow detention time= 181.5 min calculated for 9.070 af (74% of inflow)
Center-of-Mass det. time= 116.2 min (872.7 - 756.5)

Volume	Invert	Avail.Storage	Storage Description
#1	113.00'	398,001 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

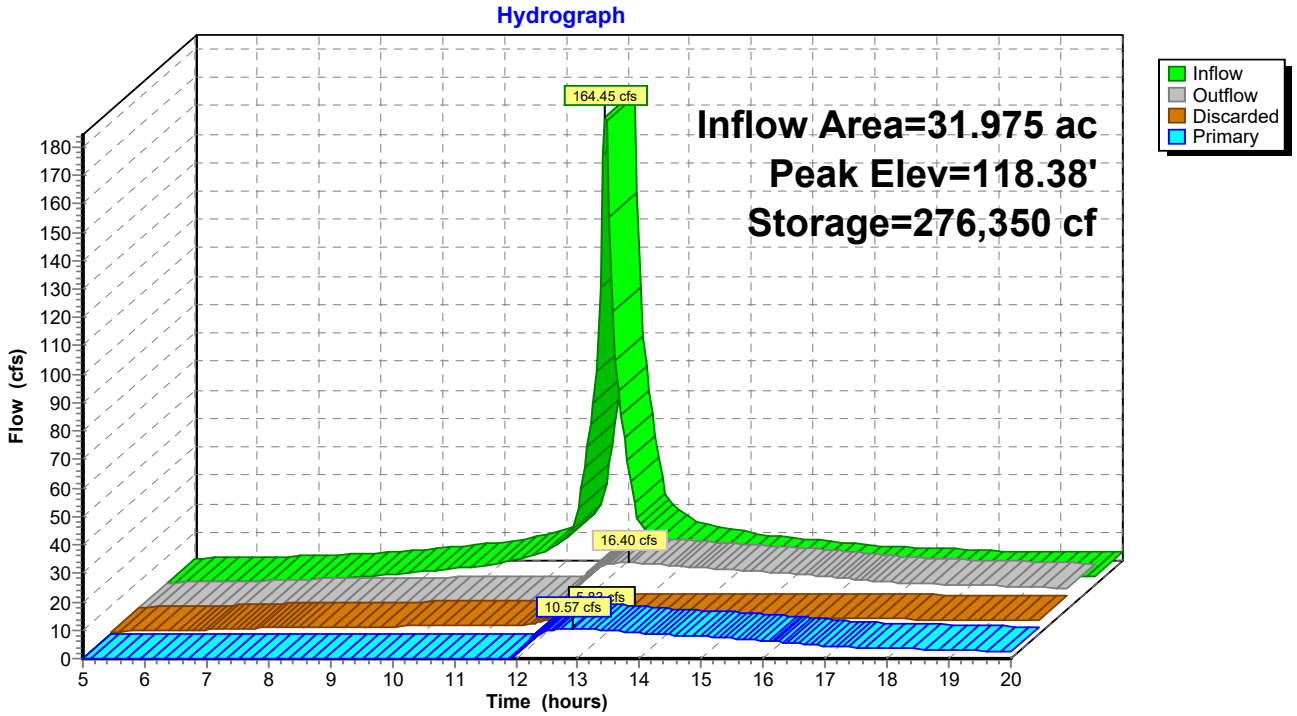
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
113.00	32,860	0	0
114.00	36,323	34,592	34,592
115.00	39,901	38,112	72,704
116.00	59,025	49,463	122,167
117.00	63,904	61,465	183,631
118.00	68,883	66,394	250,025
119.00	73,962	71,423	321,447
120.00	79,145	76,554	398,001

Device	Routing	Invert	Outlet Devices
#1	Primary	113.00'	**24.0" Round Culvert** L= 50.0' Ke= 1.000 Inlet / Outlet Invert= 113.00' / 111.00' S= 0.0400 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	115.40'	**8.0" Vert. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads
#3	Device 1	117.00'	**18.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	118.00'	**8.0" Vert. Orifice/Grate X 3.00** C= 0.600 Limited to weir flow at low heads
#5	Device 1	118.80'	**2.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#6	Discarded	113.00'	**3.560 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=5.83 cfs @ 12.92 hrs HW=118.38' (Free Discharge)
└**6=Exfiltration** (Exfiltration Controls 5.83 cfs)

Primary OutFlow Max=10.57 cfs @ 12.92 hrs HW=118.38' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 10.57 cfs of 23.73 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 5.47 cfs @ 7.83 fps)
  ├**3=Orifice/Grate** (Orifice Controls 3.83 cfs @ 5.10 fps)
  ├**4=Orifice/Grate** (Orifice Controls 1.27 cfs @ 2.09 fps)
  └**5=Sharp-Crested Rectangular Weir**(Controls 0.00 cfs)

Pond A1-3*: A1-3 Infiltration Basin



Hydrograph for Pond A1-3*: A1-3 Infiltration Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
5.00	0.81	0	113.00	0.81	0.81	0.00
5.50	1.00	0	113.00	1.00	1.00	0.00
6.00	1.19	0	113.00	1.19	1.19	0.00
6.50	1.48	0	113.00	1.48	1.48	0.00
7.00	1.83	0	113.00	1.83	1.83	0.00
7.50	2.24	0	113.00	2.24	2.24	0.00
8.00	2.69	12	113.00	2.66	2.66	0.00
8.50	3.45	611	113.02	2.71	2.71	0.00
9.00	4.38	2,739	113.08	2.73	2.73	0.00
9.50	5.41	6,590	113.20	2.76	2.76	0.00
10.00	6.52	12,303	113.37	2.81	2.81	0.00
10.50	8.41	20,494	113.60	2.88	2.88	0.00
11.00	10.62	32,334	113.94	2.98	2.98	0.00
11.50	17.29	51,225	114.45	3.13	3.13	0.00
12.00	**104.83**	125,051	116.05	6.78	4.88	1.90
12.50	**36.20**	**268,023**	**118.26**	**15.40**	**5.78**	**9.61**
13.00	15.04	**276,149**	**118.37**	**16.38**	**5.83**	**10.54**
13.50	11.79	270,597	118.30	15.69	5.80	9.89
14.00	9.65	262,429	118.18	14.80	5.75	9.05
14.50	8.41	252,653	118.04	14.00	5.69	8.31
15.00	7.38	242,182	117.89	13.42	5.63	7.79
15.50	6.34	230,965	117.72	12.75	5.56	7.18
16.00	5.30	219,228	117.55	11.91	5.49	6.42
16.50	4.74	207,749	117.37	10.81	5.42	5.40
17.00	4.29	197,262	117.21	9.91	5.35	4.56
17.50	3.84	187,391	117.06	9.23	5.29	3.94
18.00	3.38	177,642	116.91	8.87	5.23	3.64
18.50	3.19	167,833	116.75	8.56	5.17	3.39
19.00	3.05	158,341	116.60	8.23	5.10	3.13
19.50	2.92	149,203	116.45	7.89	5.04	2.85
20.00	2.78	140,450	116.31	7.53	4.99	2.54

Stage-Discharge for Pond A1-3*: A1-3 Infiltration Basin

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
113.00	0.00	0.00	0.00
113.10	2.74	2.74	0.00
113.20	2.76	2.76	0.00
113.30	2.79	2.79	0.00
113.40	2.82	2.82	0.00
113.50	2.85	2.85	0.00
113.60	2.88	2.88	0.00
113.70	2.91	2.91	0.00
113.80	2.94	2.94	0.00
113.90	2.96	2.96	0.00
114.00	2.99	2.99	0.00
114.10	3.02	3.02	0.00
114.20	3.05	3.05	0.00
114.30	3.08	3.08	0.00
114.40	3.11	3.11	0.00
114.50	3.14	3.14	0.00
114.60	3.17	3.17	0.00
114.70	3.20	3.20	0.00
114.80	3.23	3.23	0.00
114.90	3.26	3.26	0.00
115.00	3.29	3.29	0.00
115.10	3.45	3.45	0.00
115.20	3.60	3.60	0.00
115.30	3.76	3.76	0.00
115.40	3.92	3.92	0.00
115.50	4.15	4.08	0.07
115.60	4.50	4.23	0.27
115.70	4.96	4.39	0.57
115.80	5.49	4.55	0.94
115.90	6.06	4.71	1.35
116.00	6.61	4.86	1.75
116.10	6.94	4.90	2.04
116.20	7.24	4.94	2.30
116.30	7.52	4.98	2.53
116.40	7.77	5.02	2.74
116.50	8.01	5.07	2.94
116.60	8.23	5.11	3.13
116.70	8.45	5.15	3.30
116.80	8.66	5.19	3.47
116.90	8.86	5.23	3.63
117.00	9.05	5.27	3.78
117.10	9.39	5.31	4.08
117.20	9.85	5.35	4.50
117.30	10.39	5.39	5.00
117.40	10.99	5.43	5.56
117.50	11.64	5.47	6.17
117.60	12.19	5.51	6.68
117.70	12.66	5.55	7.10
117.80	13.08	5.59	7.49
117.90	13.48	5.64	7.84
118.00	13.85	5.68	8.17
118.10	14.31	5.72	8.59
118.20	14.95	5.76	9.19
118.30	15.73	5.80	9.93
118.40	16.61	5.84	10.77
118.50	17.54	5.89	11.65
118.60	18.43	5.93	12.50
118.70	19.16	5.97	13.19
118.80	19.83	6.01	13.82
118.90	20.67	6.05	14.62
119.00	21.63	6.10	15.54
119.10	22.67	6.14	16.53
119.20	23.76	6.18	17.58
119.30	24.89	6.22	18.67
119.40	26.06	6.27	19.79
119.50	27.25	6.31	20.95
119.60	28.47	6.35	22.12
119.70	29.71	6.39	23.32
119.80	30.97	6.44	24.54
119.90	32.24	6.48	25.76
120.00	**33.53**	**6.52**	**27.00**

Stage-Area-Storage for Pond A1-3*: A1-3 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
113.00	32,860	32,860	0
113.20	33,553	33,553	6,641
113.40	34,245	34,245	13,421
113.60	34,938	34,938	20,339
113.80	35,630	35,630	27,396
114.00	36,323	36,323	34,592
114.20	37,039	37,039	41,928
114.40	37,754	37,754	49,407
114.60	38,470	38,470	57,029
114.80	39,185	39,185	64,795
115.00	39,901	39,901	72,704
115.20	43,726	43,726	81,066
115.40	47,551	47,551	90,194
115.60	51,375	51,375	100,086
115.80	55,200	55,200	110,744
116.00	59,025	59,025	122,167
116.20	60,001	60,001	134,069
116.40	60,977	60,977	146,167
116.60	61,952	61,952	158,460
116.80	62,928	62,928	170,948
117.00	63,904	63,904	183,631
117.20	64,900	64,900	196,511
117.40	65,896	65,896	209,591
117.60	66,891	66,891	222,870
117.80	67,887	67,887	236,347
118.00	68,883	68,883	250,025
118.20	69,899	69,899	263,903
118.40	70,915	70,915	277,984
118.60	71,930	71,930	292,269
118.80	72,946	72,946	306,756
119.00	73,962	73,962	321,447
119.20	74,999	74,999	336,343
119.40	76,035	76,035	351,446
119.60	77,072	77,072	366,757
119.80	78,108	78,108	382,275
120.00	**79,145**	**79,145**	**398,001**

Summary for Pond A11-2*: A11-2 Infiltration Basin

Inflow Area = 34.745 ac, 45.43% Impervious, Inflow Depth > 3.06" for 25-yr event
Inflow = 54.04 cfs @ 12.79 hrs, Volume= 8.864 af
Outflow = 20.74 cfs @ 13.70 hrs, Volume= 8.860 af, Atten= 62%, Lag= 54.4 min
Discarded = 20.74 cfs @ 13.70 hrs, Volume= 8.860 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Reach DP-A : DP-A

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 117.13' @ 13.70 hrs Surf.Area= 89,587 sf Storage= 97,447 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 35.8 min (865.2 - 829.4)

Volume	Invert	Avail.Storage	Storage Description
#1	116.00'	526,055 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

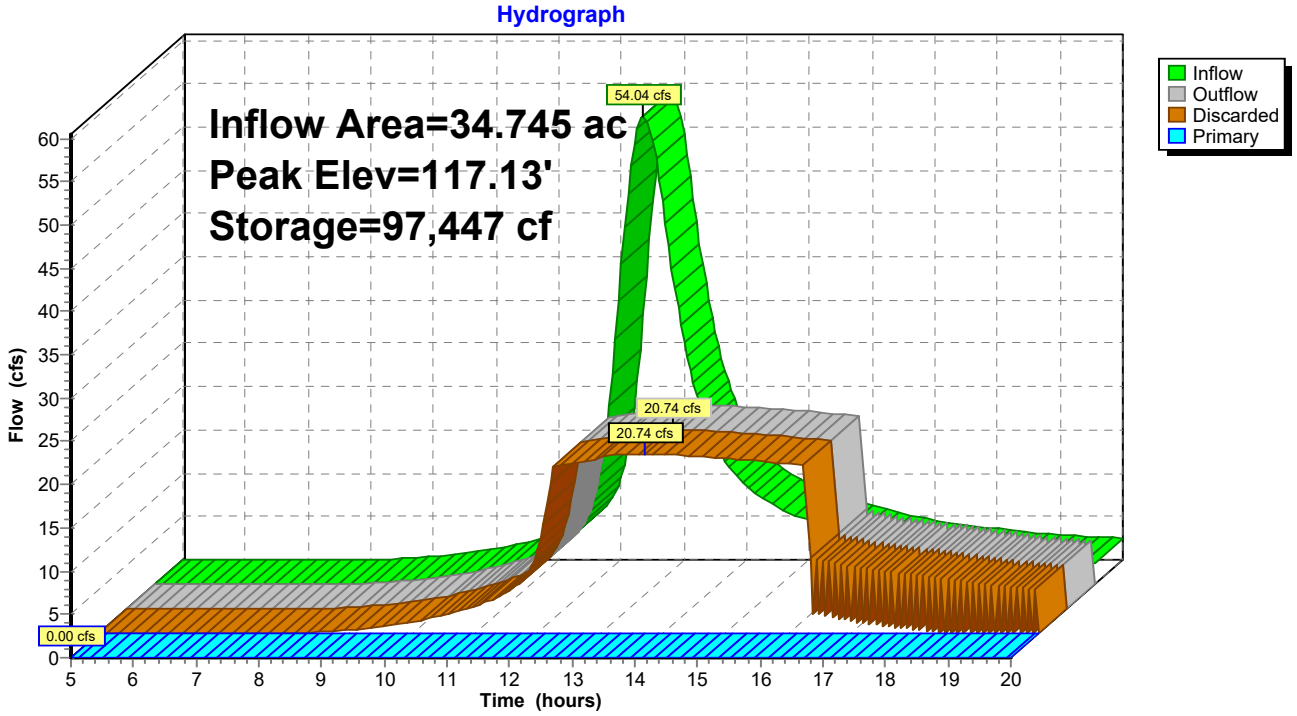
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
116.00	83,518	0	0
117.00	88,893	86,206	86,206
118.00	94,403	91,648	177,854
119.00	115,652	105,028	282,881
120.00	121,576	118,614	401,495
121.00	127,544	124,560	526,055

Device	Routing	Invert	Outlet Devices
#1	Primary	116.00'	**24.0" Round Culvert** L= 150.0' Ke= 1.000 Inlet / Outlet Invert= 116.00' / 114.00' S= 0.0133 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	117.50'	**6.0" Vert. Orifice/Grate X 3.00** C= 0.600 Limited to weir flow at low heads
#3	Device 1	118.50'	**24.0" W x 8.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	119.80'	**3.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#5	Discarded	116.00'	**10.000 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=20.74 cfs @ 13.70 hrs HW=117.13' (Free Discharge)
└**5=Exfiltration** (Exfiltration Controls 20.74 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=116.00' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Controls 0.00 cfs)
  ├**2=Orifice/Grate** (Controls 0.00 cfs)
  ├**3=Orifice/Grate** (Controls 0.00 cfs)
  └**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond A11-2*: A11-2 Infiltration Basin



Hydrograph for Pond A11-2*: A11-2 Infiltration Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
5.00	0.00	0	116.00	0.00	0.00	**0.00**
5.50	0.00	0	116.00	0.00	0.00	0.00
6.00	0.00	0	116.00	0.00	0.00	0.00
6.50	0.00	0	116.00	0.00	0.00	0.00
7.00	0.00	0	116.00	0.00	0.00	0.00
7.50	0.00	0	116.00	0.00	0.00	0.00
8.00	0.01	0	116.00	0.01	0.01	0.00
8.50	0.10	0	116.00	0.10	0.10	0.00
9.00	0.35	0	116.00	0.35	0.35	0.00
9.50	0.76	0	116.00	0.76	0.76	0.00
10.00	1.33	0	116.00	1.33	1.33	0.00
10.50	2.06	0	116.00	2.06	2.06	0.00
11.00	3.12	0	116.00	3.12	3.12	0.00
11.50	4.70	0	116.00	4.70	4.70	0.00
12.00	9.51	0	116.00	9.51	9.51	0.00
12.50	**41.31**	10,345	116.12	19.49	19.49	0.00
13.00	**49.24**	65,985	116.77	20.29	20.29	0.00
13.50	26.26	**95,582**	**117.11**	**20.71**	**20.71**	0.00
14.00	15.46	**94,354**	**117.09**	**20.69**	**20.69**	0.00
14.50	10.94	80,547	116.94	20.50	20.50	0.00
15.00	8.67	61,338	116.72	20.23	20.23	0.00
15.50	7.28	39,476	116.47	19.91	19.91	0.00
16.00	6.26	16,098	116.19	19.57	19.57	0.00
16.50	5.30	0	116.00	2.14	2.14	0.00
17.00	4.55	0	116.00	1.39	1.39	0.00
17.50	4.03	0	116.00	0.87	0.87	0.00
18.00	3.58	0	116.00	0.42	0.42	0.00
18.50	3.16	0	116.00	0.00	0.00	0.00
19.00	2.85	0	116.00	0.00	0.00	0.00
19.50	2.67	0	116.00	0.00	0.00	0.00
20.00	2.52	0	116.00	0.00	0.00	0.00

Stage-Discharge for Pond A11-2*: A11-2 Infiltration Basin

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
116.00	0.00	0.00	0.00
116.05	19.40	19.40	0.00
116.10	19.46	19.46	0.00
116.15	19.52	19.52	0.00
116.20	19.58	19.58	0.00
116.25	19.64	19.64	0.00
116.30	19.71	19.71	0.00
116.35	19.77	19.77	0.00
116.40	19.83	19.83	0.00
116.45	19.89	19.89	0.00
116.50	19.95	19.95	0.00
116.55	20.02	20.02	0.00
116.60	20.08	20.08	0.00
116.65	20.14	20.14	0.00
116.70	20.20	20.20	0.00
116.75	20.27	20.27	0.00
116.80	20.33	20.33	0.00
116.85	20.39	20.39	0.00
116.90	20.45	20.45	0.00
116.95	20.51	20.51	0.00
117.00	20.58	20.58	0.00
117.05	20.64	20.64	0.00
117.10	20.70	20.70	0.00
117.15	20.77	20.77	0.00
117.20	20.83	20.83	0.00
117.25	20.90	20.90	0.00
117.30	20.96	20.96	0.00
117.35	21.02	21.02	0.00
117.40	21.09	21.09	0.00
117.45	21.15	21.15	0.00
117.50	21.21	21.21	0.00
117.55	21.30	21.28	0.02
117.60	21.43	21.34	0.09
117.65	21.60	21.41	0.20
117.70	21.80	21.47	0.34
117.75	22.04	21.53	0.50
117.80	22.29	21.60	0.69
117.85	22.55	21.66	0.89
117.90	22.81	21.72	1.09
117.95	23.06	21.79	1.28
118.00	23.27	21.85	1.42
118.05	23.65	22.10	1.55
118.10	24.02	22.34	1.68
118.15	24.38	22.59	1.79
118.20	24.74	22.84	1.90
118.25	25.09	23.08	2.01
118.30	25.43	23.33	2.10
118.35	25.77	23.57	2.20
118.40	26.11	23.82	2.29
118.45	26.44	24.07	2.37
118.50	26.77	24.31	2.46
118.55	27.17	24.56	2.61
118.60	27.62	24.80	2.82
118.65	28.11	25.05	3.06
118.70	28.63	25.30	3.34
118.75	29.18	25.54	3.64
118.80	29.75	25.79	3.96
118.85	30.34	26.03	4.30
118.90	30.95	26.28	4.67
118.95	31.57	26.53	5.04
119.00	32.21	26.77	5.44
119.05	32.69	26.84	5.85
119.10	33.19	26.91	6.28
119.15	33.70	26.98	6.72
119.20	34.18	27.05	7.14
119.25	34.60	27.11	7.49
119.30	34.99	27.18	7.81
119.35	35.37	27.25	8.11
119.40	35.72	27.32	8.40
119.45	36.06	27.39	8.67
119.50	36.39	27.46	8.94
119.55	36.71	27.53	9.19
119.60	37.03	27.59	9.43
119.65	37.33	27.66	9.67
119.70	37.63	27.73	9.90
119.75	37.92	27.80	10.12
119.80	38.21	27.87	10.34
119.85	38.60	27.94	10.66
119.90	39.08	28.01	11.07
119.95	39.60	28.07	11.53
120.00	40.17	28.14	12.03
120.05	40.78	28.21	12.57
120.10	41.41	28.28	13.13
120.15	42.07	28.35	13.72
120.20	42.76	28.42	14.34
120.25	43.47	28.49	14.98
120.30	44.20	28.56	15.64
120.35	44.94	28.63	16.32
120.40	45.71	28.70	17.01
120.45	46.49	28.76	17.73
120.50	47.29	28.83	18.45
120.55	48.10	28.90	19.20
120.60	48.93	28.97	19.95
120.65	49.76	29.04	20.72
120.70	50.61	29.11	21.50
120.75	51.15	29.18	21.97
120.80	51.36	29.25	22.12
120.85	51.58	29.32	22.26
120.90	51.79	29.39	22.40
120.95	52.00	29.45	22.55
121.00	**52.21**	**29.52**	**22.69**

Stage-Area-Storage for Pond A11-2*: A11-2 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
116.00	83,518	83,518	0
116.10	84,055	84,055	8,379
116.20	84,593	84,593	16,811
116.30	85,130	85,130	25,297
116.40	85,668	85,668	33,837
116.50	86,206	86,206	42,431
116.60	86,743	86,743	51,078
116.70	87,281	87,281	59,779
116.80	87,818	87,818	68,534
116.90	88,356	88,356	77,343
117.00	88,893	88,893	86,206
117.10	89,444	89,444	95,122
117.20	89,995	89,995	104,094
117.30	90,546	90,546	113,121
117.40	91,097	91,097	122,204
117.50	91,648	91,648	131,341
117.60	92,199	92,199	140,533
117.70	92,750	92,750	149,781
117.80	93,301	93,301	159,083
117.90	93,852	93,852	168,441
118.00	94,403	94,403	177,854
118.10	96,528	96,528	187,400
118.20	98,653	98,653	197,159
118.30	100,778	100,778	207,131
118.40	102,903	102,903	217,315
118.50	105,028	105,028	227,711
118.60	107,152	107,152	238,320
118.70	109,277	109,277	249,142
118.80	111,402	111,402	260,176
118.90	113,527	113,527	271,422
119.00	115,652	115,652	282,881
119.10	116,244	116,244	294,476
119.20	116,837	116,837	306,130
119.30	117,429	117,429	317,843
119.40	118,022	118,022	329,616
119.50	118,614	118,614	341,448
119.60	119,206	119,206	353,339
119.70	119,799	119,799	365,289
119.80	120,391	120,391	377,298
119.90	120,984	120,984	389,367
120.00	121,576	121,576	401,495
120.10	122,173	122,173	413,682
120.20	122,770	122,770	425,930
120.30	123,366	123,366	438,236
120.40	123,963	123,963	450,603
120.50	124,560	124,560	463,029
120.60	125,157	125,157	475,515
120.70	125,754	125,754	488,060
120.80	126,350	126,350	500,666
120.90	126,947	126,947	513,330
121.00	**127,544**	**127,544**	**526,055**

Summary for Pond B1-2*: B1-2 Infiltration Basin

Inflow Area = 24.905 ac, 77.85% Impervious, Inflow Depth > 2.82" for 25-yr event
Inflow = 22.73 cfs @ 12.10 hrs, Volume= 5.848 af
Outflow = 7.62 cfs @ 15.69 hrs, Volume= 4.718 af, Atten= 66%, Lag= 215.6 min
Discarded = 5.96 cfs @ 15.69 hrs, Volume= 3.948 af
Primary = 1.66 cfs @ 15.69 hrs, Volume= 0.771 af
Routed to Reach DP-B : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 133.15' @ 15.69 hrs Surf.Area= 25,749 sf Storage= 73,794 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 62.9 min (947.1 - 884.2)

Volume	Invert	Avail.Storage	Storage Description
#1	129.00'	126,855 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

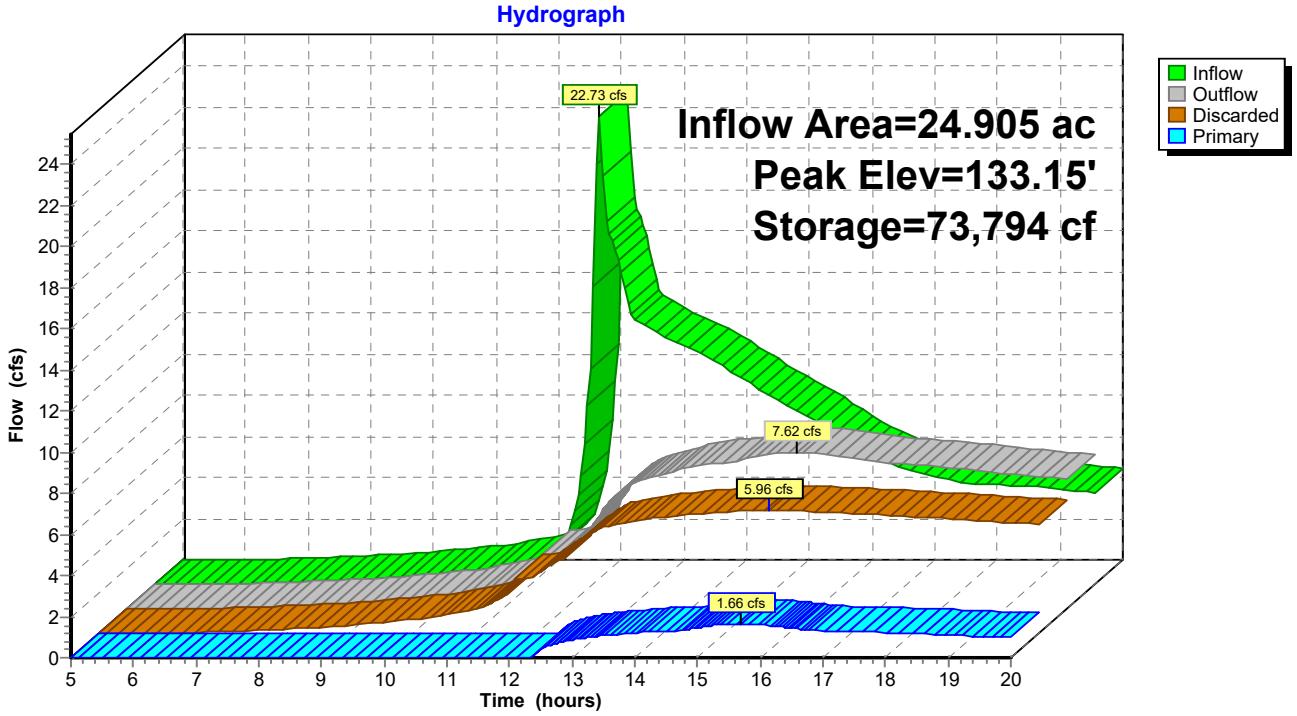
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
129.00	11,433	0	0
130.00	13,470	12,452	12,452
131.00	15,642	14,556	27,008
132.00	22,459	19,051	46,058
133.00	25,245	23,852	69,910
134.00	28,552	26,899	96,809
135.00	31,541	30,047	126,855

Device	Routing	Invert	Outlet Devices
#1	Primary	129.00'	**24.0" Round Culvert** L= 75.0' Ke= 1.000 Inlet / Outlet Invert= 129.00' / 129.00' S= 0.0000 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	130.80'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	133.00'	**18.0" W x 5.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	134.00'	**2.5' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#5	Discarded	129.00'	**10.000 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=5.96 cfs @ 15.69 hrs HW=133.15' (Free Discharge)
└**5=Exfiltration** (Exfiltration Controls 5.96 cfs)

Primary OutFlow Max=1.66 cfs @ 15.69 hrs HW=133.15' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 1.66 cfs of 20.14 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 1.37 cfs @ 6.98 fps)
  ├**3=Orifice/Grate** (Orifice Controls 0.29 cfs @ 1.25 fps)
  └**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond B1-2*: B1-2 Infiltration Basin



Hydrograph for Pond B1-2*: B1-2 Infiltration Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
5.00	0.00	0	129.00	0.00	0.00	0.00
5.50	0.00	0	129.00	0.00	0.00	0.00
6.00	0.02	0	129.00	0.02	0.02	0.00
6.50	0.04	0	129.00	0.04	0.04	0.00
7.00	0.08	0	129.00	0.08	0.08	0.00
7.50	0.14	0	129.00	0.14	0.14	0.00
8.00	0.20	0	129.00	0.20	0.20	0.00
8.50	0.28	0	129.00	0.28	0.28	0.00
9.00	0.39	0	129.00	0.39	0.39	0.00
9.50	0.52	0	129.00	0.52	0.52	0.00
10.00	0.66	0	129.00	0.66	0.66	0.00
10.50	0.88	0	129.00	0.88	0.88	0.00
11.00	1.16	0	129.00	1.16	1.16	0.00
11.50	1.89	0	129.00	1.89	1.89	0.00
12.00	**14.45**	5,240	129.44	2.85	2.85	0.00
12.50	**14.40**	30,725	131.23	4.37	3.98	0.40
13.00	12.27	44,376	131.92	5.96	5.08	0.88
13.50	11.53	54,395	132.36	6.52	5.43	1.08
14.00	10.71	62,421	132.70	6.86	5.65	1.21
14.50	9.76	68,254	132.93	7.10	5.80	1.30
15.00	8.86	72,026	133.08	7.37	5.91	1.46
15.50	7.97	**73,668**	**133.15**	**7.60**	**5.96**	**1.64**
16.00	6.98	**73,457**	**133.14**	**7.57**	**5.95**	**1.62**
16.50	6.18	71,815	133.08	7.35	5.90	1.44
17.00	5.60	69,375	132.98	7.14	5.83	1.31
17.50	5.18	66,305	132.86	7.02	5.75	1.27
18.00	4.90	62,843	132.72	6.88	5.66	1.22
18.50	4.83	59,317	132.57	6.73	5.57	1.17
19.00	4.74	55,956	132.43	6.59	5.48	1.11
19.50	4.60	52,652	132.29	6.44	5.38	1.05
20.00	4.46	49,358	132.15	6.28	5.29	0.99

Stage-Discharge for Pond B1-2*: B1-2 Infiltration Basin

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
129.00	0.00	0.00	0.00
129.10	2.69	2.69	0.00
129.20	2.74	2.74	0.00
129.30	2.79	2.79	0.00
129.40	2.84	2.84	0.00
129.50	2.88	2.88	0.00
129.60	2.93	2.93	0.00
129.70	2.98	2.98	0.00
129.80	3.02	3.02	0.00
129.90	3.07	3.07	0.00
130.00	3.12	3.12	0.00
130.10	3.17	3.17	0.00
130.20	3.22	3.22	0.00
130.30	3.27	3.27	0.00
130.40	3.32	3.32	0.00
130.50	3.37	3.37	0.00
130.60	3.42	3.42	0.00
130.70	3.47	3.47	0.00
130.80	3.52	3.52	0.00
130.90	3.60	3.57	0.03
131.00	3.73	3.62	0.11
131.10	4.01	3.78	0.23
131.20	4.30	3.94	0.36
131.30	4.57	4.09	0.47
131.40	4.81	4.25	0.56
131.50	5.04	4.41	0.63
131.60	5.27	4.57	0.70
131.70	5.49	4.73	0.76
131.80	5.70	4.88	0.82
131.90	5.91	5.04	0.87
132.00	6.12	5.20	0.92
132.10	6.23	5.26	0.97
132.20	6.34	5.33	1.01
132.30	6.45	5.39	1.06
132.40	6.56	5.46	1.10
132.50	6.66	5.52	1.14
132.60	6.76	5.59	1.18
132.70	6.86	5.65	1.21
132.80	6.97	5.71	1.25
132.90	7.07	5.78	1.29
133.00	7.16	5.84	1.32
133.10	7.43	5.92	1.51
133.20	7.81	6.00	1.82
133.30	8.28	6.07	2.21
133.40	8.82	6.15	2.67
133.50	9.29	6.23	3.07
133.60	9.67	6.30	3.37
133.70	10.01	6.38	3.63
133.80	10.33	6.46	3.87
133.90	10.62	6.53	4.09
134.00	10.90	6.61	4.29
134.10	11.42	6.68	4.74
134.20	12.14	6.75	5.39
134.30	12.97	6.82	6.15
134.40	13.90	6.89	7.01
134.50	14.90	6.96	7.95
134.60	15.97	7.02	8.95
134.70	17.09	7.09	10.00
134.80	18.26	7.16	11.10
134.90	19.48	7.23	12.24
135.00	**20.73**	**7.30**	**13.43**

Stage-Area-Storage for Pond B1-2*: B1-2 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
129.00	11,433	11,433	0
129.20	11,840	11,840	2,327
129.40	12,248	12,248	4,736
129.60	12,655	12,655	7,226
129.80	13,063	13,063	9,798
130.00	13,470	13,470	12,452
130.20	13,904	13,904	15,189
130.40	14,339	14,339	18,013
130.60	14,773	14,773	20,924
130.80	15,208	15,208	23,923
131.00	15,642	15,642	27,008
131.20	17,005	17,005	30,272
131.40	18,369	18,369	33,810
131.60	19,732	19,732	37,620
131.80	21,096	21,096	41,703
132.00	22,459	22,459	46,058
132.20	23,016	23,016	50,606
132.40	23,573	23,573	55,264
132.60	24,131	24,131	60,035
132.80	24,688	24,688	64,917
133.00	25,245	25,245	69,910
133.20	25,906	25,906	75,025
133.40	26,568	26,568	80,273
133.60	27,229	27,229	85,652
133.80	27,891	27,891	91,164
134.00	28,552	28,552	96,809
134.20	29,150	29,150	102,579
134.40	29,748	29,748	108,468
134.60	30,345	30,345	114,478
134.80	30,943	30,943	120,607
135.00	**31,541**	**31,541**	**126,855**

Summary for Pond B1-3*: B1-3 Dry Extended Basin with Micropool

Inflow Area = 20.504 ac, 83.49% Impervious, Inflow Depth > 4.64" for 25-yr event
Inflow = 108.36 cfs @ 12.09 hrs, Volume= 7.927 af
Outflow = 10.51 cfs @ 12.89 hrs, Volume= 4.598 af, Atten= 90%, Lag= 48.4 min
Primary = 10.51 cfs @ 12.89 hrs, Volume= 4.598 af
Routed to Pond B1-2* : B1-2 Infiltration Basin

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 135.48' @ 12.91 hrs Surf.Area= 51,472 sf Storage= 217,941 cf

Plug-Flow detention time= 239.7 min calculated for 4.582 af (58% of inflow)
Center-of-Mass det. time= 160.9 min (912.1 - 751.2)

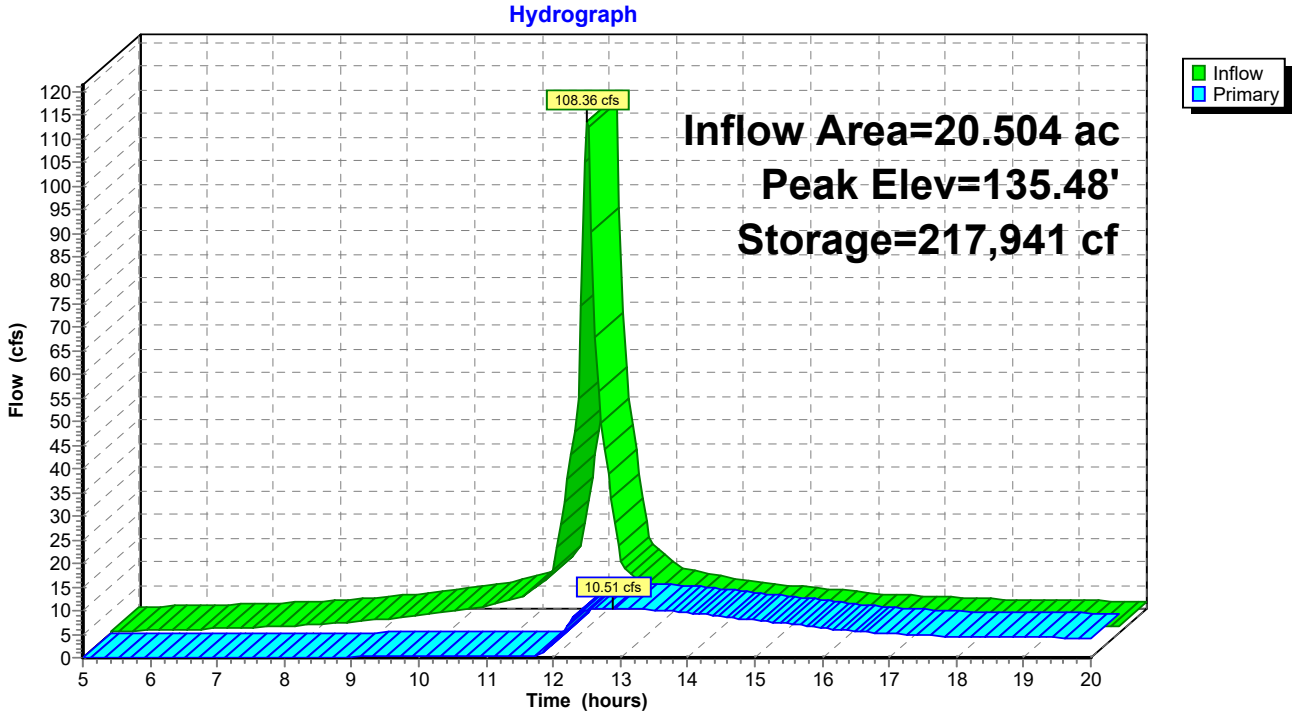
Volume	Invert	Avail.Storage	Storage Description
#1	129.50'	300,241 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
129.50	25,183	0	0
130.00	26,502	12,921	12,921
131.00	29,223	27,863	40,784
132.00	32,056	30,640	71,423
133.00	34,999	33,528	104,951
134.00	46,174	40,587	145,537
135.00	49,702	47,938	193,475
136.00	53,361	51,532	245,007
137.00	57,107	55,234	300,241

Device	Routing	Invert	Outlet Devices
#1	Primary	129.50'	**24.0" Round Culvert** L= 123.0' Ke= 1.000 Inlet / Outlet Invert= 129.50' / 129.12' S= 0.0031 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	129.50'	**3.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	132.40'	**24.0" W x 4.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	134.35'	**24.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Device 1	135.45'	**3.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=10.50 cfs @ 12.89 hrs HW=135.48' TW=131.81' (Dynamic Tailwater)
└─**1=Culvert** (Passes 10.50 cfs of 21.75 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.45 cfs @ 9.23 fps)
  ├─**3=Orifice/Grate** (Orifice Controls 5.48 cfs @ 8.22 fps)
  ├─**4=Orifice/Grate** (Orifice Controls 4.51 cfs @ 4.51 fps)
  └─**5=Sharp-Crested Rectangular Weir** (Weir Controls 0.06 cfs @ 0.60 fps)

Pond B1-3*: B1-3 Dry Extended Basin with Micropool



Hydrograph for Pond B1-3*: B1-3 Dry Extended Basin with Micropool

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.47	42	129.50	0.00
5.50	0.60	1,006	129.54	0.00
6.00	0.73	2,194	129.59	0.02
6.50	0.95	3,646	129.64	0.04
7.00	1.21	5,482	129.72	0.07
7.50	1.49	7,750	129.80	0.10
8.00	1.80	10,505	129.91	0.13
8.50	2.33	13,936	130.04	0.15
9.00	2.97	18,403	130.20	0.18
9.50	3.66	24,019	130.41	0.21
10.00	4.40	30,864	130.66	0.24
10.50	5.65	39,361	130.95	0.27
11.00	7.10	50,308	131.32	0.31
11.50	11.55	66,011	131.83	0.35
12.00	**69.47**	117,988	133.35	3.30
12.50	**23.39**	**212,686**	**135.38**	**10.11**
13.00	9.55	**217,790**	**135.48**	**10.48**
13.50	7.42	214,007	135.41	10.13
14.00	6.03	208,316	135.30	9.57
14.50	5.22	201,837	135.17	8.77
15.00	4.55	195,548	135.04	7.99
15.50	3.87	189,429	134.92	7.23
16.00	3.20	183,538	134.80	6.36
16.50	2.83	178,157	134.69	5.63
17.00	2.54	173,350	134.59	5.11
17.50	2.24	168,803	134.49	4.75
18.00	1.95	164,253	134.40	4.52
18.50	1.82	159,548	134.30	4.47
19.00	1.73	154,742	134.20	4.41
19.50	1.64	149,957	134.10	4.28
20.00	1.56	145,244	133.99	4.15

Stage-Discharge for Pond B1-3*: B1-3 Dry Extended Basin with Micropool

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
129.50	0.00	132.05	0.37	134.60	5.91
129.55	0.01	132.10	0.37	134.65	6.22
129.60	0.02	132.15	0.38	134.70	6.55
129.65	0.04	132.20	0.38	134.75	6.90
129.70	0.06	132.25	0.38	134.80	7.27
129.75	0.08	132.30	0.39	134.85	7.66
129.80	0.10	132.35	0.39	134.90	7.99
129.85	0.11	132.40	0.39	134.95	8.28
129.90	0.12	132.45	0.47	135.00	8.55
129.95	0.13	132.50	0.60	135.05	8.79
130.00	0.14	132.55	0.78	135.10	9.03
130.05	0.15	132.60	0.98	135.15	9.25
130.10	0.16	132.65	1.21	135.20	9.47
130.15	0.17	132.70	1.47	135.25	9.68
130.20	0.18	132.75	1.73	135.30	9.88
130.25	0.19	132.80	1.93	135.35	10.07
130.30	0.19	132.85	2.11	135.40	10.26
130.35	0.20	132.90	2.26	135.45	10.44
130.40	0.21	132.95	2.40	135.50	10.73
130.45	0.21	133.00	2.53	135.55	11.11
130.50	0.22	133.05	2.66	135.60	11.53
130.55	0.23	133.10	2.78	135.65	12.00
130.60	0.23	133.15	2.89	135.70	12.51
130.65	0.24	133.20	2.99	135.75	13.04
130.70	0.25	133.25	3.10	135.80	13.61
130.75	0.25	133.30	3.20	135.85	14.20
130.80	0.26	133.35	3.29	135.90	14.81
130.85	0.26	133.40	3.38	135.95	15.44
130.90	0.27	133.45	3.47	136.00	16.09
130.95	0.27	133.50	3.56	136.05	16.76
131.00	0.28	133.55	3.65	136.10	17.44
131.05	0.28	133.60	3.73	136.15	18.14
131.10	0.29	133.65	3.81	136.20	18.86
131.15	0.29	133.70	3.89	136.25	19.59
131.20	0.30	133.75	3.97	136.30	20.34
131.25	0.30	133.80	4.05	136.35	21.09
131.30	0.31	133.85	4.12	136.40	21.86
131.35	0.31	133.90	4.19	136.45	22.64
131.40	0.31	133.95	4.26	136.50	23.43
131.45	0.32	134.00	4.34	136.55	24.23
131.50	0.32	134.05	4.40	136.60	25.05
131.55	0.33	134.10	4.47	136.65	25.87
131.60	0.33	134.15	4.54	136.70	26.70
131.65	0.34	134.20	4.61	136.75	27.53
131.70	0.34	134.25	4.67	136.80	28.38
131.75	0.34	134.30	4.74	136.85	28.59
131.80	0.35	134.35	4.80	136.90	28.70
131.85	0.35	134.40	4.93	136.95	28.81
131.90	0.36	134.45	5.13	137.00	**28.92**
131.95	0.36	134.50	5.36		
132.00	0.36	134.55	5.62		

Stage-Area-Storage for Pond B1-3*: B1-3 Dry Extended Basin with Micropool

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
129.50	25,183	0
129.60	25,447	2,531
129.70	25,711	5,089
129.80	25,974	7,674
129.90	26,238	10,284
130.00	26,502	12,921
130.10	26,774	15,585
130.20	27,046	18,276
130.30	27,318	20,994
130.40	27,590	23,740
130.50	27,863	26,512
130.60	28,135	29,312
130.70	28,407	32,139
130.80	28,679	34,994
130.90	28,951	37,875
131.00	29,223	40,784
131.10	29,506	43,720
131.20	29,790	46,685
131.30	30,073	49,678
131.40	30,356	52,700
131.50	30,640	55,749
131.60	30,923	58,827
131.70	31,206	61,934
131.80	31,489	65,069
131.90	31,773	68,232
132.00	32,056	71,423
132.10	32,350	74,644
132.20	32,645	77,893
132.30	32,939	81,172
132.40	33,233	84,481
132.50	33,528	87,819
132.60	33,822	91,187
132.70	34,116	94,583
132.80	34,410	98,010
132.90	34,705	101,466
133.00	34,999	104,951
133.10	36,116	108,507
133.20	37,234	112,174
133.30	38,352	115,953
133.40	39,469	119,844
133.50	40,587	123,847
133.60	41,704	127,962
133.70	42,821	132,188
133.80	43,939	136,526
133.90	45,057	140,976
134.00	46,174	145,537
134.10	46,527	150,172
134.20	46,880	154,843
134.30	47,232	159,548
134.40	47,585	164,289
134.50	47,938	169,065
134.60	48,291	173,877
134.70	48,644	178,723
134.80	48,996	183,605
134.90	49,349	188,523
135.00	49,702	193,475
135.10	50,068	198,464
135.20	50,434	203,489
135.30	50,800	208,551
135.40	51,166	213,649
135.50	51,532	218,784
135.60	51,897	223,955
135.70	52,263	229,163
135.80	52,629	234,408
135.90	52,995	239,689
136.00	53,361	245,007
136.10	53,736	250,362
136.20	54,110	255,754
136.30	54,485	261,184
136.40	54,859	266,651
136.50	55,234	272,156
136.60	55,609	277,698
136.70	55,983	283,277
136.80	56,358	288,894
136.90	56,732	294,549
137.00	**57,107**	**300,241**

Summary for Pond B3-2*: B3-2 Dry Extended Basin with Micropool

Inflow Area = 7.079 ac, 56.01% Impervious, Inflow Depth > 3.61" for 25-yr event
Inflow = 30.96 cfs @ 12.09 hrs, Volume= 2.127 af
Outflow = 0.44 cfs @ 20.00 hrs, Volume= 0.303 af, Atten= 99%, Lag= 474.6 min
Primary = 0.44 cfs @ 20.00 hrs, Volume= 0.303 af
Routed to Reach DP-B : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 127.53' @ 20.00 hrs Surf.Area= 29,530 sf Storage= 79,470 cf

Plug-Flow detention time= 313.9 min calculated for 0.303 af (14% of inflow)
Center-of-Mass det. time= 164.0 min (941.2 - 777.2)

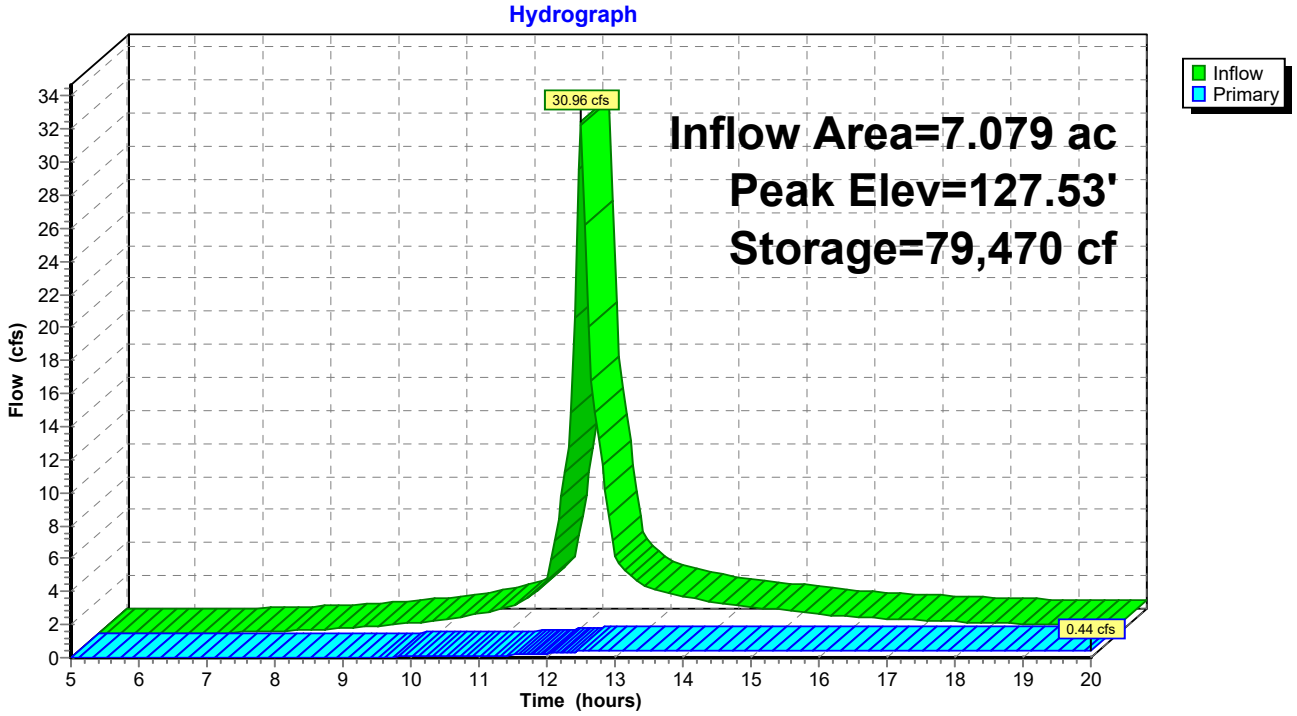
Volume	Invert	Avail.Storage	Storage Description
#1	124.00'	200,335 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
124.00	17,253	0	0
125.00	19,576	18,415	18,415
126.00	22,023	20,800	39,214
127.00	27,945	24,984	64,198
128.00	30,928	29,437	93,635
129.00	33,933	32,431	126,065
130.00	37,113	35,523	161,588
131.00	40,380	38,747	200,335

Device	Routing	Invert	Outlet Devices
#1	Primary	124.00'	**24.0" Round Culvert** L= 75.0' Ke= 1.000 Inlet / Outlet Invert= 124.00' / 123.00' S= 0.0133 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	124.00'	**3.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	128.00'	**6.0" Vert. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads
#4	Device 1	130.00'	**1.5' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=0.44 cfs @ 20.00 hrs HW=127.53' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 0.44 cfs of 18.05 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.44 cfs @ 8.89 fps)
  - **4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)
- **3=Orifice/Grate** (Controls 0.00 cfs)

Pond B3-2*: B3-2 Dry Extended Basin with Micropool



Hydrograph for Pond B3-2*: B3-2 Dry Extended Basin with Micropool

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	124.00	0.00
5.50	0.00	0	124.00	0.00
6.00	0.00	0	124.00	0.00
6.50	0.01	6	124.00	0.00
7.00	0.06	70	124.00	0.00
7.50	0.11	222	124.01	0.00
8.00	0.18	482	124.03	0.00
8.50	0.28	886	124.05	0.01
9.00	0.43	1,503	124.09	0.02
9.50	0.60	2,377	124.14	0.03
10.00	0.80	3,542	124.20	0.07
10.50	1.13	5,107	124.29	0.10
11.00	1.54	7,301	124.41	0.13
11.50	2.73	10,742	124.60	0.16
12.00	**19.04**	24,233	125.29	0.26
12.50	**7.14**	55,032	126.66	0.38
13.00	2.96	61,671	126.91	0.39
13.50	2.32	65,544	127.05	0.40
14.00	1.89	68,596	127.16	0.41
14.50	1.64	71,000	127.24	0.42
15.00	1.44	73,017	127.31	0.42
15.50	1.23	74,651	127.37	0.43
16.00	1.01	75,900	127.41	0.43
16.50	0.90	76,835	127.44	0.43
17.00	0.81	77,597	127.47	0.43
17.50	0.72	78,189	127.49	0.43
18.00	0.62	78,611	127.50	0.43
18.50	0.58	78,904	127.51	0.43
19.00	0.55	79,143	127.52	0.44
19.50	0.53	79,332	127.53	0.44
20.00	0.50	**79,470**	**127.53**	**0.44**

Stage-Discharge for Pond B3-2*: B3-2 Dry Extended Basin with Micropool

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
124.00	0.00	126.55	0.37	129.10	2.27
124.05	0.01	126.60	0.37	129.15	2.32
124.10	0.02	126.65	0.38	129.20	2.38
124.15	0.04	126.70	0.38	129.25	2.43
124.20	0.06	126.75	0.38	129.30	2.48
124.25	0.08	126.80	0.39	129.35	2.52
124.30	0.10	126.85	0.39	129.40	2.57
124.35	0.11	126.90	0.39	129.45	2.62
124.40	0.12	126.95	0.40	129.50	2.66
124.45	0.13	127.00	0.40	129.55	2.71
124.50	0.14	127.05	0.40	129.60	2.75
124.55	0.15	127.10	0.41	129.65	2.79
124.60	0.16	127.15	0.41	129.70	2.83
124.65	0.17	127.20	0.41	129.75	2.88
124.70	0.18	127.25	0.42	129.80	2.92
124.75	0.19	127.30	0.42	129.85	2.96
124.80	0.19	127.35	0.42	129.90	3.00
124.85	0.20	127.40	0.43	129.95	3.04
124.90	0.21	127.45	0.43	130.00	3.07
124.95	0.21	127.50	0.43	130.05	3.17
125.00	0.22	127.55	0.44	130.10	3.30
125.05	0.23	127.60	0.44	130.15	3.47
125.10	0.23	127.65	0.44	130.20	3.65
125.15	0.24	127.70	0.45	130.25	3.85
125.20	0.25	127.75	0.45	130.30	4.07
125.25	0.25	127.80	0.45	130.35	4.30
125.30	0.26	127.85	0.46	130.40	4.54
125.35	0.26	127.90	0.46	130.45	4.79
125.40	0.27	127.95	0.46	130.50	5.05
125.45	0.27	128.00	0.47	130.55	5.32
125.50	0.28	128.05	0.48	130.60	5.60
125.55	0.28	128.10	0.53	130.65	5.88
125.60	0.29	128.15	0.60	130.70	6.17
125.65	0.29	128.20	0.70	130.75	6.47
125.70	0.30	128.25	0.81	130.80	6.77
125.75	0.30	128.30	0.94	130.85	7.07
125.80	0.31	128.35	1.08	130.90	7.38
125.85	0.31	128.40	1.21	130.95	7.69
125.90	0.31	128.45	1.34	131.00	**8.01**
125.95	0.32	128.50	1.44		
126.00	0.32	128.55	1.53		
126.05	0.33	128.60	1.62		
126.10	0.33	128.65	1.70		
126.15	0.34	128.70	1.77		
126.20	0.34	128.75	1.85		
126.25	0.34	128.80	1.91		
126.30	0.35	128.85	1.98		
126.35	0.35	128.90	2.04		
126.40	0.36	128.95	2.10		
126.45	0.36	129.00	2.16		
126.50	0.36	129.05	2.22		

Stage-Area-Storage for Pond B3-2*: B3-2 Dry Extended Basin with Micropool

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
124.00	17,253	0
124.10	17,485	1,737
124.20	17,718	3,497
124.30	17,950	5,280
124.40	18,182	7,087
124.50	18,415	8,917
124.60	18,647	10,770
124.70	18,879	12,646
124.80	19,111	14,546
124.90	19,344	16,469
125.00	19,576	18,415
125.10	19,821	20,384
125.20	20,065	22,379
125.30	20,310	24,397
125.40	20,555	26,441
125.50	20,800	28,508
125.60	21,044	30,601
125.70	21,289	32,717
125.80	21,534	34,858
125.90	21,778	37,024
126.00	22,023	39,214
126.10	22,615	41,446
126.20	23,207	43,737
126.30	23,800	46,087
126.40	24,392	48,497
126.50	24,984	50,966
126.60	25,576	53,494
126.70	26,168	56,081
126.80	26,761	58,727
126.90	27,353	61,433
127.00	27,945	64,198
127.10	28,243	67,007
127.20	28,542	69,847
127.30	28,840	72,716
127.40	29,138	75,615
127.50	29,437	78,543
127.60	29,735	81,502
127.70	30,033	84,490
127.80	30,331	87,509
127.90	30,630	90,557
128.00	30,928	93,635
128.10	31,228	96,742
128.20	31,529	99,880
128.30	31,830	103,048
128.40	32,130	106,246
128.50	32,431	109,474
128.60	32,731	112,732
128.70	33,031	116,020
128.80	33,332	119,339
128.90	33,633	122,687
129.00	33,933	126,065
129.10	34,251	129,474
129.20	34,569	132,915
129.30	34,887	136,388
129.40	35,205	139,893
129.50	35,523	143,429
129.60	35,841	146,997
129.70	36,159	150,597
129.80	36,477	154,229
129.90	36,795	157,893
130.00	37,113	161,588
130.10	37,440	165,316
130.20	37,766	169,076
130.30	38,093	172,869
130.40	38,420	176,695
130.50	38,747	180,553
130.60	39,073	184,444
130.70	39,400	188,368
130.80	39,727	192,324
130.90	40,053	196,313
131.00	**40,380**	**200,335**

Summary for Pond B5-2*: B5-2 Infiltration Basin

Inflow Area = 10.218 ac, 67.76% Impervious, Inflow Depth > 4.02" for 25-yr event
Inflow = 48.79 cfs @ 12.09 hrs, Volume= 3.419 af
Outflow = 2.70 cfs @ 14.16 hrs, Volume= 2.209 af, Atten= 94%, Lag= 124.1 min
Discarded = 2.70 cfs @ 14.16 hrs, Volume= 2.209 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Reach DP-B : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 136.35' @ 14.16 hrs Surf.Area= 32,729 sf Storage= 77,545 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 107.9 min (875.4 - 767.5)

Volume	Invert	Avail.Storage	Storage Description
#1	133.50'	139,649 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

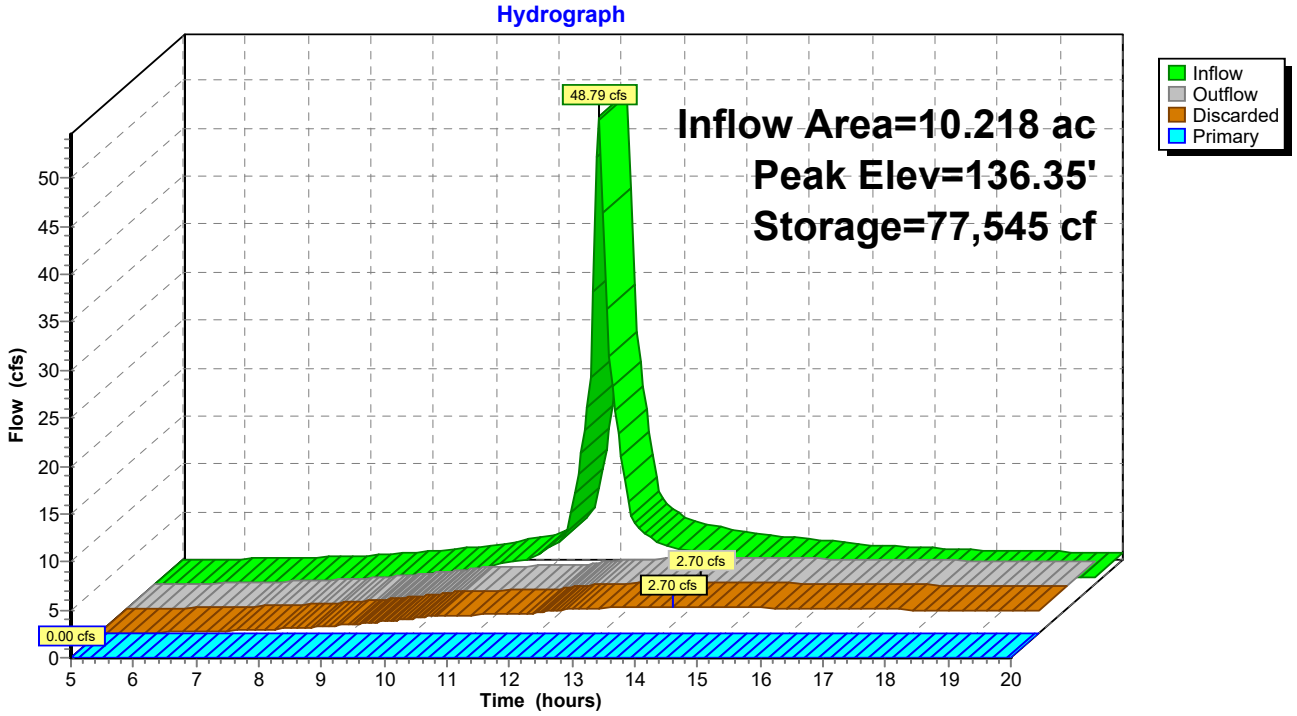
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
133.50	23,201	0	0
134.00	24,527	11,932	11,932
135.00	27,263	25,895	37,827
136.00	30,117	28,690	66,517
137.00	37,559	33,838	100,355
138.00	41,028	39,294	139,649

Device	Routing	Invert	Outlet Devices
#1	Primary	133.50'	**24.0" Round Culvert** L= 100.0' Ke= 1.000 Inlet / Outlet Invert= 133.50' / 132.00' S= 0.0150 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	137.00'	**1.5' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Discarded	133.50'	**3.560 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=2.70 cfs @ 14.16 hrs HW=136.35' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 2.70 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=133.50' TW=0.00' (Dynamic Tailwater)
↑**1=Culvert** (Controls 0.00 cfs)
↑**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond B5-2*: B5-2 Infiltration Basin



Hydrograph for Pond B5-2*: B5-2 Infiltration Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
5.00	0.00	0	133.50	0.00	0.00	**0.00**
5.50	0.04	0	133.50	0.04	0.04	0.00
6.00	0.09	0	133.50	0.09	0.09	0.00
6.50	0.16	0	133.50	0.16	0.16	0.00
7.00	0.25	0	133.50	0.25	0.25	0.00
7.50	0.35	0	133.50	0.35	0.35	0.00
8.00	0.47	0	133.50	0.47	0.47	0.00
8.50	0.67	0	133.50	0.67	0.67	0.00
9.00	0.92	0	133.50	0.92	0.92	0.00
9.50	1.21	0	133.50	1.21	1.21	0.00
10.00	1.53	0	133.50	1.53	1.53	0.00
10.50	2.08	53	133.50	1.91	1.91	0.00
11.00	2.74	928	133.54	1.92	1.92	0.00
11.50	4.67	3,890	133.67	1.95	1.95	0.00
12.00	**30.56**	23,116	134.44	2.12	2.12	0.00
12.50	**10.93**	67,909	136.05	2.51	2.51	0.00
13.00	4.50	74,437	136.25	2.64	2.64	0.00
13.50	3.51	76,617	136.32	2.68	2.68	0.00
14.00	2.86	**77,506**	**136.35**	**2.70**	**2.70**	0.00
14.50	2.48	**77,411**	**136.35**	**2.69**	**2.69**	0.00
15.00	2.16	76,750	136.33	2.68	2.68	0.00
15.50	1.85	75,550	136.29	2.66	2.66	0.00
16.00	1.53	73,826	136.24	2.63	2.63	0.00
16.50	1.35	71,701	136.17	2.59	2.59	0.00
17.00	1.21	69,397	136.09	2.54	2.54	0.00
17.50	1.07	66,927	136.01	2.49	2.49	0.00
18.00	0.93	64,276	135.93	2.46	2.46	0.00
18.50	0.87	61,472	135.83	2.44	2.44	0.00
19.00	0.83	58,629	135.73	2.42	2.42	0.00
19.50	0.79	55,751	135.64	2.40	2.40	0.00
20.00	0.75	52,841	135.54	2.37	2.37	0.00

Stage-Discharge for Pond B5-2*: B5-2 Infiltration Basin

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
133.50	0.00	0.00	0.00
133.55	1.92	1.92	0.00
133.60	1.93	1.93	0.00
133.65	1.94	1.94	0.00
133.70	1.96	1.96	0.00
133.75	1.97	1.97	0.00
133.80	1.98	1.98	0.00
133.85	1.99	1.99	0.00
133.90	2.00	2.00	0.00
133.95	2.01	2.01	0.00
134.00	2.02	2.02	0.00
134.05	2.03	2.03	0.00
134.10	2.04	2.04	0.00
134.15	2.06	2.06	0.00
134.20	2.07	2.07	0.00
134.25	2.08	2.08	0.00
134.30	2.09	2.09	0.00
134.35	2.10	2.10	0.00
134.40	2.11	2.11	0.00
134.45	2.12	2.12	0.00
134.50	2.13	2.13	0.00
134.55	2.15	2.15	0.00
134.60	2.16	2.16	0.00
134.65	2.17	2.17	0.00
134.70	2.18	2.18	0.00
134.75	2.19	2.19	0.00
134.80	2.20	2.20	0.00
134.85	2.21	2.21	0.00
134.90	2.22	2.22	0.00
134.95	2.24	2.24	0.00
135.00	2.25	2.25	0.00
135.05	2.26	2.26	0.00
135.10	2.27	2.27	0.00
135.15	2.28	2.28	0.00
135.20	2.29	2.29	0.00
135.25	2.31	2.31	0.00
135.30	2.32	2.32	0.00
135.35	2.33	2.33	0.00
135.40	2.34	2.34	0.00
135.45	2.35	2.35	0.00
135.50	2.36	2.36	0.00
135.55	2.38	2.38	0.00
135.60	2.39	2.39	0.00
135.65	2.40	2.40	0.00
135.70	2.41	2.41	0.00
135.75	2.42	2.42	0.00
135.80	2.43	2.43	0.00
135.85	2.45	2.45	0.00
135.90	2.46	2.46	0.00
135.95	2.47	2.47	0.00
136.00	2.48	2.48	0.00
136.05	2.51	2.51	0.00
136.10	2.54	2.54	0.00
136.15	2.57	2.57	0.00
136.20	2.60	2.60	0.00
136.25	2.64	2.64	0.00
136.30	2.67	2.67	0.00
136.35	2.70	2.70	0.00
136.40	2.73	2.73	0.00
136.45	2.76	2.76	0.00
136.50	2.79	2.79	0.00
136.55	2.82	2.82	0.00
136.60	2.85	2.85	0.00
136.65	2.88	2.88	0.00
136.70	2.91	2.91	0.00
136.75	2.94	2.94	0.00
136.80	2.97	2.97	0.00
136.85	3.00	3.00	0.00
136.90	3.03	3.03	0.00
136.95	3.06	3.06	0.00
137.00	3.10	3.10	0.00
137.05	3.16	3.11	0.05
137.10	3.28	3.12	0.15
137.15	3.42	3.14	0.28
137.20	3.58	3.15	0.43
137.25	3.76	3.17	0.59
137.30	3.95	3.18	0.77
137.35	4.16	3.20	0.97
137.40	4.38	3.21	1.17
137.45	4.62	3.22	1.39
137.50	4.86	3.24	1.62
137.55	5.11	3.25	1.85
137.60	5.36	3.27	2.10
137.65	5.63	3.28	2.35
137.70	5.90	3.30	2.60
137.75	6.18	3.31	2.87
137.80	6.46	3.32	3.14
137.85	6.75	3.34	3.41
137.90	7.04	3.35	3.69
137.95	7.33	3.37	3.97
138.00	**7.63**	**3.38**	**4.25**

Stage-Area-Storage for Pond B5-2*: B5-2 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
133.50	23,201	23,201	0
133.60	23,466	23,466	2,333
133.70	23,731	23,731	4,693
133.80	23,997	23,997	7,080
133.90	24,262	24,262	9,493
134.00	24,527	24,527	11,932
134.10	24,801	24,801	14,398
134.20	25,074	25,074	16,892
134.30	25,348	25,348	19,413
134.40	25,621	25,621	21,962
134.50	25,895	25,895	24,538
134.60	26,169	26,169	27,141
134.70	26,442	26,442	29,771
134.80	26,716	26,716	32,429
134.90	26,989	26,989	35,114
135.00	27,263	27,263	37,827
135.10	27,548	27,548	40,568
135.20	27,834	27,834	43,337
135.30	28,119	28,119	46,134
135.40	28,405	28,405	48,961
135.50	28,690	28,690	51,815
135.60	28,975	28,975	54,699
135.70	29,261	29,261	57,610
135.80	29,546	29,546	60,551
135.90	29,832	29,832	63,520
136.00	30,117	30,117	66,517
136.10	30,861	30,861	69,566
136.20	31,605	31,605	72,689
136.30	32,350	32,350	75,887
136.40	33,094	33,094	79,159
136.50	33,838	33,838	82,506
136.60	34,582	34,582	85,927
136.70	35,326	35,326	89,422
136.80	36,071	36,071	92,992
136.90	36,815	36,815	96,636
137.00	37,559	37,559	100,355
137.10	37,906	37,906	104,128
137.20	38,253	38,253	107,936
137.30	38,600	38,600	111,779
137.40	38,947	38,947	115,656
137.50	39,294	39,294	119,568
137.60	39,640	39,640	123,515
137.70	39,987	39,987	127,496
137.80	40,334	40,334	131,512
137.90	40,681	40,681	135,563
138.00	**41,028**	**41,028**	**139,649**

Summary for Pond B6-2*: B6-2 Infiltration Basin

Inflow Area = 39.110 ac, 51.21% Impervious, Inflow Depth > 3.65" for 25-yr event
Inflow = 87.95 cfs @ 12.48 hrs, Volume= 11.899 af
Outflow = 17.50 cfs @ 13.56 hrs, Volume= 7.422 af, Atten= 80%, Lag= 64.8 min
Discarded = 1.09 cfs @ 13.56 hrs, Volume= 0.886 af
Primary = 16.41 cfs @ 13.56 hrs, Volume= 6.536 af
Routed to Reach DP-B : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 132.62' @ 13.56 hrs Surf.Area= 115,036 sf Storage= 291,815 cf

Plug-Flow detention time= 205.6 min calculated for 7.421 af (62% of inflow)
Center-of-Mass det. time= 126.6 min (927.3 - 800.7)

Volume	Invert	Avail.Storage	Storage Description
#1	128.00'	458,168 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

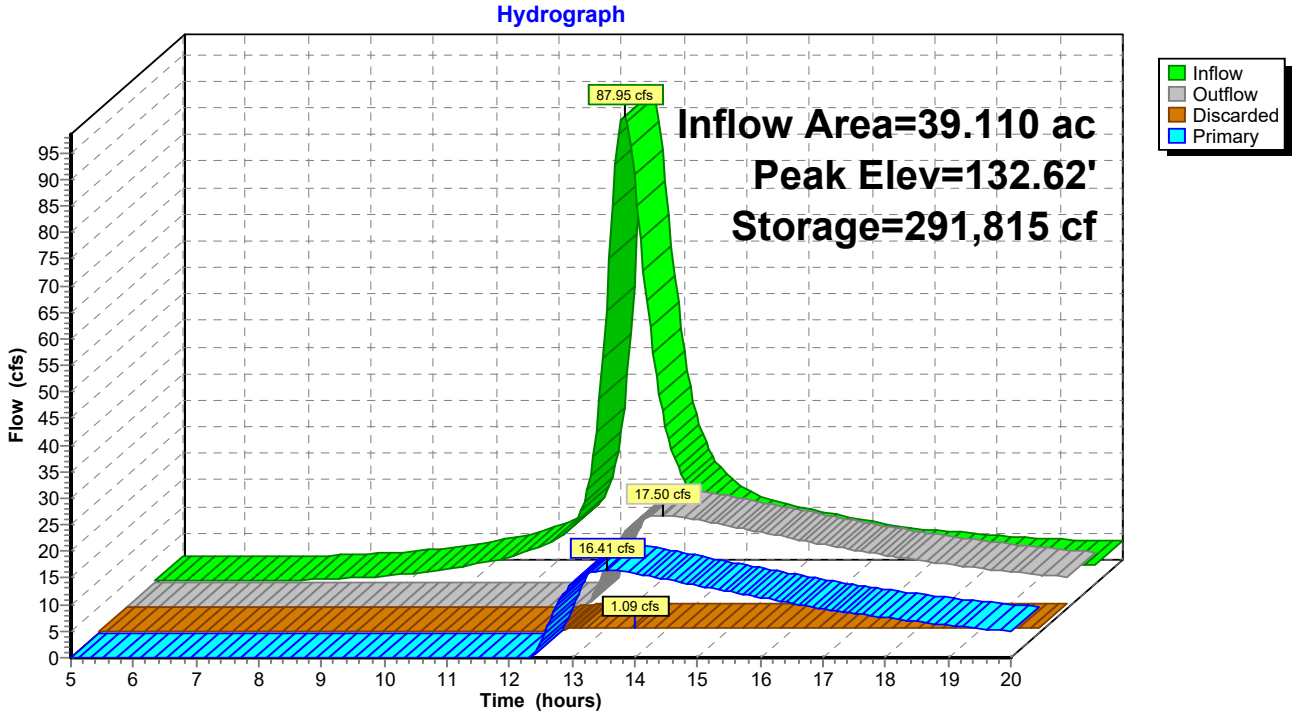
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
128.00	37,532	0	0
129.00	41,132	39,332	39,332
130.00	44,848	42,990	82,322
131.00	62,119	53,484	135,806
132.00	110,781	86,450	222,256
133.00	117,688	114,235	336,490
134.00	125,668	121,678	458,168

Device	Routing	Invert	Outlet Devices
#1	Primary	128.00'	**36.0" Round Culvert** L= 100.0' Ke= 1.000 Inlet / Outlet Invert= 128.00' / 126.00' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 7.07 sf
#2	Device 1	130.50'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	131.10'	**30.0" W x 16.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	132.45'	**3.5' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#5	Discarded	128.00'	**0.410 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=1.09 cfs @ 13.56 hrs HW=132.62' (Free Discharge)
└**5=Exfiltration** (Exfiltration Controls 1.09 cfs)

Primary OutFlow Max=16.41 cfs @ 13.56 hrs HW=132.62' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 16.41 cfs of 45.06 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 1.29 cfs @ 6.58 fps)
├**3=Orifice/Grate** (Orifice Controls 14.35 cfs @ 4.31 fps)
└**4=Sharp-Crested Rectangular Weir** (Weir Controls 0.77 cfs @ 1.33 fps)

Pond B6-2*: B6-2 Infiltration Basin



Hydrograph for Pond B6-2*: B6-2 Infiltration Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
5.00	0.72	33	128.00	0.36	0.36	0.00
5.50	0.72	687	128.02	0.36	0.36	0.00
6.00	0.72	1,340	128.04	0.36	0.36	0.00
6.50	0.72	1,992	128.05	0.36	0.36	0.00
7.00	0.72	2,644	128.07	0.36	0.36	0.00
7.50	0.83	3,366	128.09	0.36	0.36	0.00
8.00	1.09	4,432	128.12	0.36	0.36	0.00
8.50	1.43	6,032	128.16	0.36	0.36	0.00
9.00	1.96	8,406	128.22	0.36	0.36	0.00
9.50	2.67	11,888	128.31	0.37	0.37	0.00
10.00	3.55	16,801	128.44	0.37	0.37	0.00
10.50	4.69	23,480	128.61	0.38	0.38	0.00
11.00	6.42	32,704	128.84	0.38	0.38	0.00
11.50	9.20	45,684	129.15	0.40	0.40	0.00
12.00	24.18	69,958	129.72	0.42	0.42	0.00
12.50	**87.85**	175,630	131.53	3.94	0.83	3.10
13.00	39.33	273,882	132.46	15.01	1.08	13.93
13.50	18.58	**291,691**	**132.61**	**17.49**	**1.09**	**16.39**
14.00	13.25	**288,310**	**132.59**	**16.99**	**1.09**	**15.90**
14.50	10.85	280,202	132.51	15.85	1.09	14.76
15.00	9.49	270,986	132.43	14.67	1.08	13.59
15.50	8.35	261,674	132.35	13.51	1.07	12.44
16.00	7.22	252,384	132.27	12.39	1.07	11.32
16.50	6.18	243,091	132.19	11.29	1.06	10.23
17.00	5.55	234,212	132.11	10.28	1.06	9.22
17.50	5.04	226,065	132.03	9.37	1.05	8.32
18.00	4.53	218,553	131.97	8.55	1.04	7.51
18.50	4.08	211,595	131.90	7.78	1.01	6.77
19.00	3.86	205,351	131.84	7.09	0.98	6.12
19.50	3.70	199,931	131.79	6.50	0.95	5.55
20.00	3.55	195,223	131.74	5.99	0.93	5.06

Stage-Discharge for Pond B6-2*: B6-2 Infiltration Basin

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
128.00	0.00	0.00	0.00
128.10	0.36	0.36	0.00
128.20	0.36	0.36	0.00
128.30	0.37	0.37	0.00
128.40	0.37	0.37	0.00
128.50	0.37	0.37	0.00
128.60	0.38	0.38	0.00
128.70	0.38	0.38	0.00
128.80	0.38	0.38	0.00
128.90	0.39	0.39	0.00
129.00	0.39	0.39	0.00
129.10	0.39	0.39	0.00
129.20	0.40	0.40	0.00
129.30	0.40	0.40	0.00
129.40	0.40	0.40	0.00
129.50	0.41	0.41	0.00
129.60	0.41	0.41	0.00
129.70	0.42	0.42	0.00
129.80	0.42	0.42	0.00
129.90	0.42	0.42	0.00
130.00	0.43	0.43	0.00
130.10	0.44	0.44	0.00
130.20	0.46	0.46	0.00
130.30	0.47	0.47	0.00
130.40	0.49	0.49	0.00
130.50	0.51	0.51	0.00
130.60	0.55	0.52	0.03
130.70	0.65	0.54	0.11
130.80	0.79	0.56	0.23
130.90	0.94	0.57	0.36
131.00	1.06	0.59	0.47
131.10	1.20	0.64	0.56
131.20	1.57	0.68	0.89
131.30	2.15	0.73	1.42
131.40	2.86	0.77	2.08
131.50	3.67	0.82	2.85
131.60	4.58	0.87	3.71
131.70	5.56	0.91	4.65
131.80	6.63	0.96	5.67
131.90	7.76	1.01	6.76
132.00	8.96	1.05	7.91
132.10	10.18	1.06	9.12
132.20	11.46	1.06	10.40
132.30	12.80	1.07	11.73
132.40	14.19	1.08	13.11
132.50	15.62	1.08	14.53
132.60	17.23	1.09	16.14
132.70	18.96	1.10	17.87
132.80	20.79	1.10	19.68
132.90	22.68	1.11	21.57
133.00	24.65	1.12	23.53
133.10	26.68	1.12	25.55
133.20	28.76	1.13	27.63
133.30	30.89	1.14	29.75
133.40	33.07	1.15	31.93
133.50	35.29	1.15	34.14
133.60	37.55	1.16	36.39
133.70	39.85	1.17	38.68
133.80	42.18	1.18	41.00
133.90	44.54	1.19	43.35
134.00	**46.92**	**1.19**	**45.73**

Stage-Area-Storage for Pond B6-2*: B6-2 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
128.00	37,532	37,532	0
128.20	38,252	38,252	7,578
128.40	38,972	38,972	15,301
128.60	39,692	39,692	23,167
128.80	40,412	40,412	31,178
129.00	41,132	41,132	39,332
129.20	41,875	41,875	47,633
129.40	42,618	42,618	56,082
129.60	43,362	43,362	64,680
129.80	44,105	44,105	73,427
130.00	44,848	44,848	82,322
130.20	48,302	48,302	91,637
130.40	51,756	51,756	101,643
130.60	55,211	55,211	112,340
130.80	58,665	58,665	123,727
131.00	62,119	62,119	135,806
131.20	71,851	71,851	149,203
131.40	81,584	81,584	164,546
131.60	91,316	91,316	181,836
131.80	101,049	101,049	201,073
132.00	110,781	110,781	222,256
132.20	112,162	112,162	244,550
132.40	113,544	113,544	267,120
132.60	114,925	114,925	289,967
132.80	116,307	116,307	313,091
133.00	117,688	117,688	336,490
133.20	119,284	119,284	360,187
133.40	120,880	120,880	384,204
133.60	122,476	122,476	408,539
133.80	124,072	124,072	433,194
134.00	**125,668**	**125,668**	**458,168**

Summary for Link 1: MRN-3 // MDAN 1

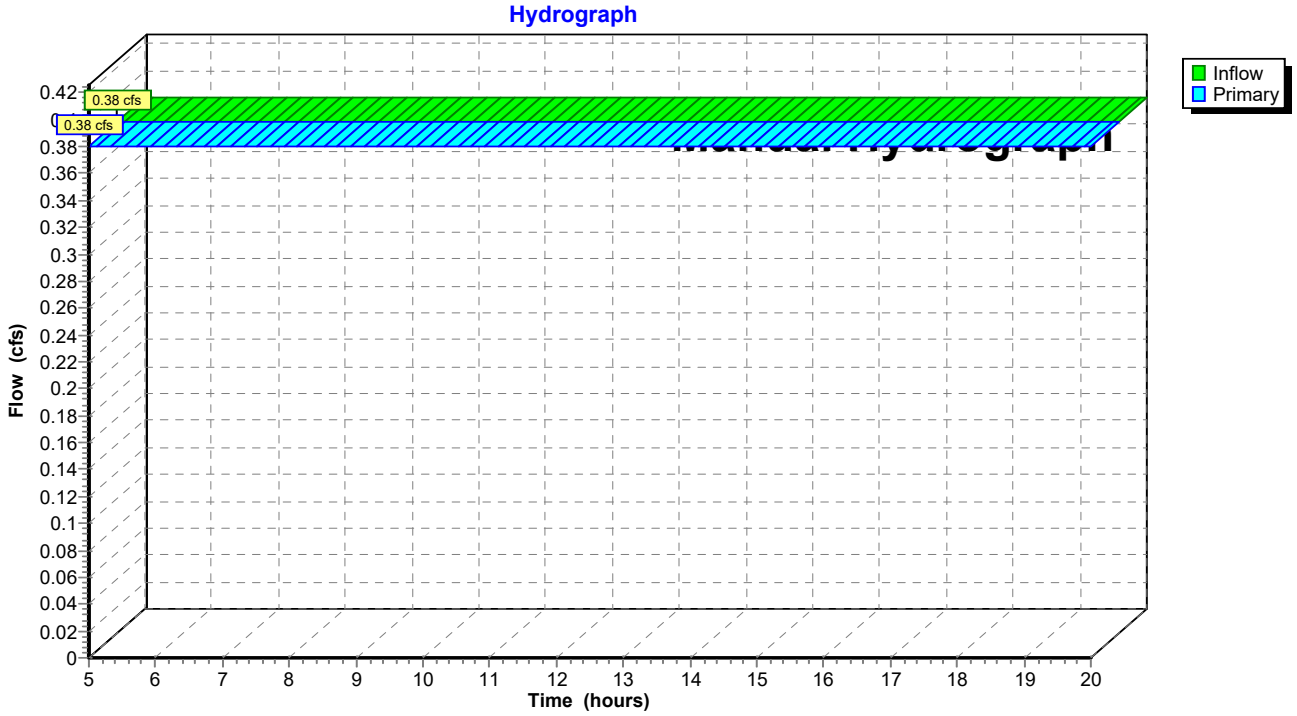
Inflow = 0.38 cfs @ 5.00 hrs, Volume= 0.473 af
Primary = 0.38 cfs @ 5.00 hrs, Volume= 0.473 af, Atten= 0%, Lag= 0.0 min
Routed to Pond A1-3* : A1-3 Infiltration Basin

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

25 Point manual hydrograph, To= 0.00 hrs, dt= 1.00 hrs, cfs =

0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
0.38	0.38	0.38	0.38	0.38					

Link 1: MRN-3 // MDAN 1



Hydrograph for Link 1: MRN-3 // MDAN 1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	**0.38**	**0.00**	**0.38**
5.25	0.38	0.00	0.38
5.50	0.38	0.00	0.38
5.75	0.38	0.00	0.38
6.00	0.38	0.00	0.38
6.25	0.38	0.00	0.38
6.50	0.38	0.00	0.38
6.75	0.38	0.00	0.38
7.00	0.38	0.00	0.38
7.25	0.38	0.00	0.38
7.50	0.38	0.00	0.38
7.75	0.38	0.00	0.38
8.00	0.38	0.00	0.38
8.25	0.38	0.00	0.38
8.50	0.38	0.00	0.38
8.75	0.38	0.00	0.38
9.00	0.38	0.00	0.38
9.25	0.38	0.00	0.38
9.50	0.38	0.00	0.38
9.75	0.38	0.00	0.38
10.00	0.38	0.00	0.38
10.25	0.38	0.00	0.38
10.50	0.38	0.00	0.38
10.75	0.38	0.00	0.38
11.00	0.38	0.00	0.38
11.25	0.38	0.00	0.38
11.50	0.38	0.00	0.38
11.75	0.38	0.00	0.38
12.00	0.38	0.00	0.38
12.25	0.38	0.00	0.38
12.50	0.38	0.00	0.38
12.75	0.38	0.00	0.38
13.00	0.38	0.00	0.38
13.25	0.38	0.00	0.38
13.50	0.38	0.00	0.38
13.75	0.38	0.00	0.38
14.00	0.38	0.00	0.38
14.25	0.38	0.00	0.38
14.50	0.38	0.00	0.38
14.75	0.38	0.00	0.38
15.00	0.38	0.00	0.38
15.25	0.38	0.00	0.38
15.50	0.38	0.00	0.38
15.75	0.38	0.00	0.38
16.00	0.38	0.00	0.38
16.25	0.38	0.00	0.38
16.50	0.38	0.00	0.38
16.75	0.38	0.00	0.38
17.00	0.38	0.00	0.38
17.25	0.38	0.00	0.38
17.50	0.38	0.00	0.38
17.75	0.38	0.00	0.38
18.00	0.38	0.00	0.38
18.25	0.38	0.00	0.38
18.50	0.38	0.00	0.38
18.75	0.38	0.00	0.38
19.00	0.38	0.00	0.38
19.25	0.38	0.00	0.38
19.50	0.38	0.00	0.38
19.75	0.38	0.00	0.38
20.00	0.38	0.00	0.38

Summary for Link 2: MRN-5 // MDAN 2

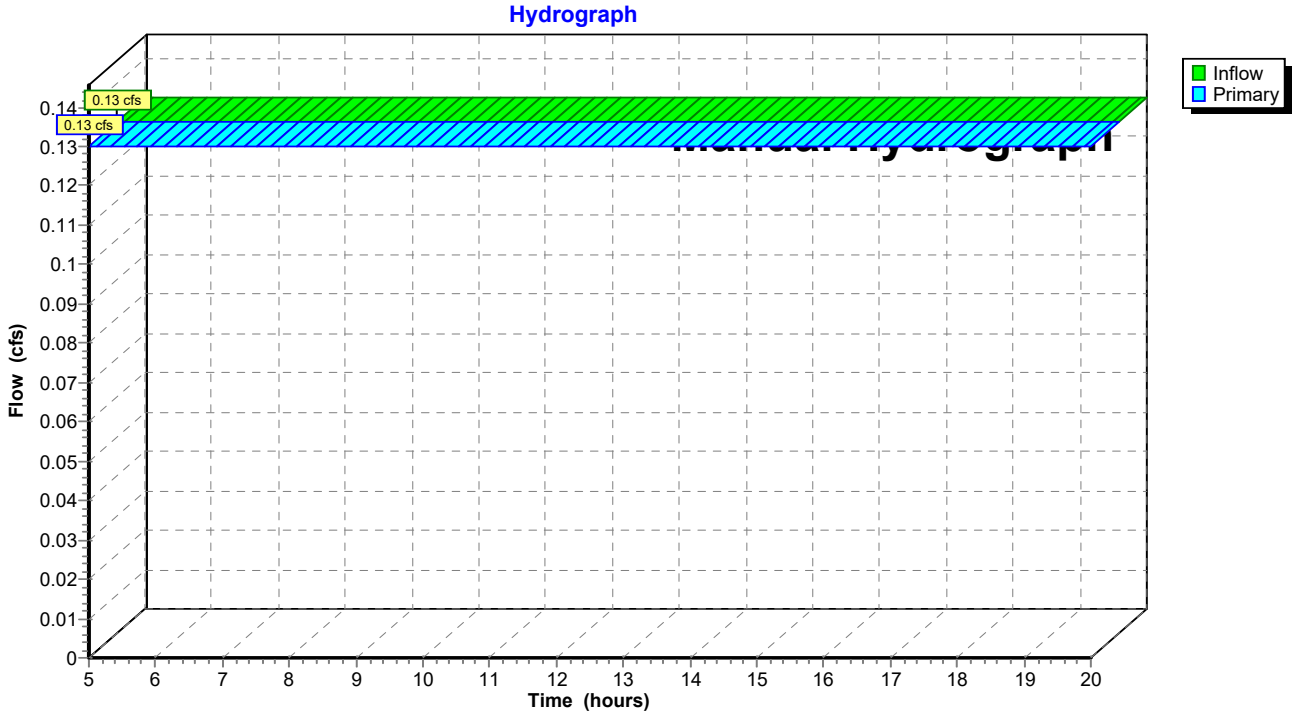
Inflow = 0.13 cfs @ 5.00 hrs, Volume= 0.162 af
Primary = 0.13 cfs @ 5.00 hrs, Volume= 0.162 af, Atten= 0%, Lag= 0.0 min
Routed to Pond A1-2* : A1-2 Infiltration Basin

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

25 Point manual hydrograph, To= 0.00 hrs, dt= 1.00 hrs, cfs =

0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
0.13	0.13	0.13	0.13	0.13					

Link 2: MRN-5 // MDAN 2



Hydrograph for Link 2: MRN-5 // MDAN 2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	**0.13**	**0.00**	**0.13**
5.25	0.13	0.00	0.13
5.50	0.13	0.00	0.13
5.75	0.13	0.00	0.13
6.00	0.13	0.00	0.13
6.25	0.13	0.00	0.13
6.50	0.13	0.00	0.13
6.75	0.13	0.00	0.13
7.00	0.13	0.00	0.13
7.25	0.13	0.00	0.13
7.50	0.13	0.00	0.13
7.75	0.13	0.00	0.13
8.00	0.13	0.00	0.13
8.25	0.13	0.00	0.13
8.50	0.13	0.00	0.13
8.75	0.13	0.00	0.13
9.00	0.13	0.00	0.13
9.25	0.13	0.00	0.13
9.50	0.13	0.00	0.13
9.75	0.13	0.00	0.13
10.00	0.13	0.00	0.13
10.25	0.13	0.00	0.13
10.50	0.13	0.00	0.13
10.75	0.13	0.00	0.13
11.00	0.13	0.00	0.13
11.25	0.13	0.00	0.13
11.50	0.13	0.00	0.13
11.75	0.13	0.00	0.13
12.00	0.13	0.00	0.13
12.25	0.13	0.00	0.13
12.50	0.13	0.00	0.13
12.75	0.13	0.00	0.13
13.00	0.13	0.00	0.13
13.25	0.13	0.00	0.13
13.50	0.13	0.00	0.13
13.75	0.13	0.00	0.13
14.00	0.13	0.00	0.13
14.25	0.13	0.00	0.13
14.50	0.13	0.00	0.13
14.75	0.13	0.00	0.13
15.00	0.13	0.00	0.13
15.25	0.13	0.00	0.13
15.50	0.13	0.00	0.13
15.75	0.13	0.00	0.13
16.00	0.13	0.00	0.13
16.25	0.13	0.00	0.13
16.50	0.13	0.00	0.13
16.75	0.13	0.00	0.13
17.00	0.13	0.00	0.13
17.25	0.13	0.00	0.13
17.50	0.13	0.00	0.13
17.75	0.13	0.00	0.13
18.00	0.13	0.00	0.13
18.25	0.13	0.00	0.13
18.50	0.13	0.00	0.13
18.75	0.13	0.00	0.13
19.00	0.13	0.00	0.13
19.25	0.13	0.00	0.13
19.50	0.13	0.00	0.13
19.75	0.13	0.00	0.13
20.00	0.13	0.00	0.13

Summary for Link 3A: MRN-6 // MDAN 3A

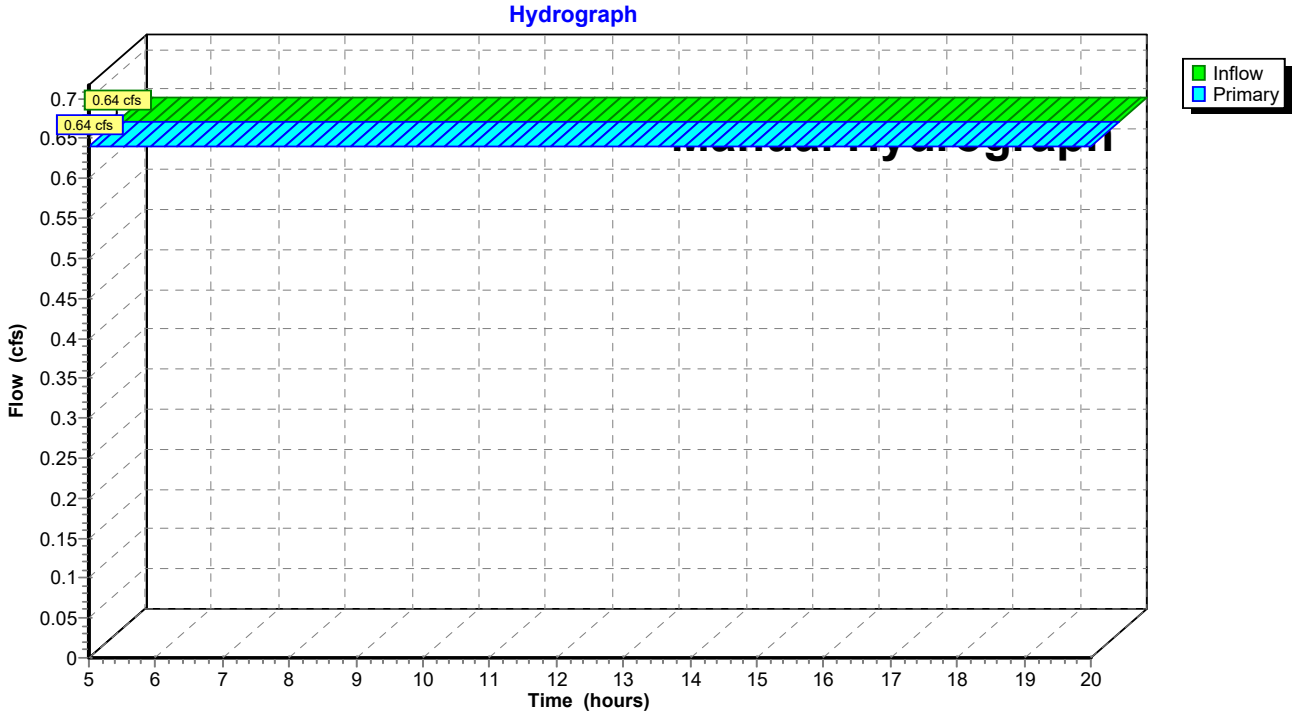
Inflow = 0.64 cfs @ 5.00 hrs, Volume= 0.796 af
Primary = 0.64 cfs @ 5.00 hrs, Volume= 0.796 af, Atten= 0%, Lag= 0.0 min
Routed to Pond A1-2* : A1-2 Infiltration Basin

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

25 Point manual hydrograph, To= 0.00 hrs, dt= 1.00 hrs, cfs =

0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
0.64	0.64	0.64	0.64	0.64					

Link 3A: MRN-6 // MDAN 3A



Hydrograph for Link 3A: MRN-6 // MDAN 3A

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	**0.64**	**0.00**	**0.64**
5.25	0.64	0.00	0.64
5.50	0.64	0.00	0.64
5.75	0.64	0.00	0.64
6.00	0.64	0.00	0.64
6.25	0.64	0.00	0.64
6.50	0.64	0.00	0.64
6.75	0.64	0.00	0.64
7.00	0.64	0.00	0.64
7.25	0.64	0.00	0.64
7.50	0.64	0.00	0.64
7.75	0.64	0.00	0.64
8.00	0.64	0.00	0.64
8.25	0.64	0.00	0.64
8.50	0.64	0.00	0.64
8.75	0.64	0.00	0.64
9.00	0.64	0.00	0.64
9.25	0.64	0.00	0.64
9.50	0.64	0.00	0.64
9.75	0.64	0.00	0.64
10.00	0.64	0.00	0.64
10.25	0.64	0.00	0.64
10.50	0.64	0.00	0.64
10.75	0.64	0.00	0.64
11.00	0.64	0.00	0.64
11.25	0.64	0.00	0.64
11.50	0.64	0.00	0.64
11.75	0.64	0.00	0.64
12.00	0.64	0.00	0.64
12.25	0.64	0.00	0.64
12.50	0.64	0.00	0.64
12.75	0.64	0.00	0.64
13.00	0.64	0.00	0.64
13.25	0.64	0.00	0.64
13.50	0.64	0.00	0.64
13.75	0.64	0.00	0.64
14.00	0.64	0.00	0.64
14.25	0.64	0.00	0.64
14.50	0.64	0.00	0.64
14.75	0.64	0.00	0.64
15.00	0.64	0.00	0.64
15.25	0.64	0.00	0.64
15.50	0.64	0.00	0.64
15.75	0.64	0.00	0.64
16.00	0.64	0.00	0.64
16.25	0.64	0.00	0.64
16.50	0.64	0.00	0.64
16.75	0.64	0.00	0.64
17.00	0.64	0.00	0.64
17.25	0.64	0.00	0.64
17.50	0.64	0.00	0.64
17.75	0.64	0.00	0.64
18.00	0.64	0.00	0.64
18.25	0.64	0.00	0.64
18.50	0.64	0.00	0.64
18.75	0.64	0.00	0.64
19.00	0.64	0.00	0.64
19.25	0.64	0.00	0.64
19.50	0.64	0.00	0.64
19.75	0.64	0.00	0.64
20.00	0.64	0.00	0.64

Summary for Link 3B: MRN-4 // MDAN 3B

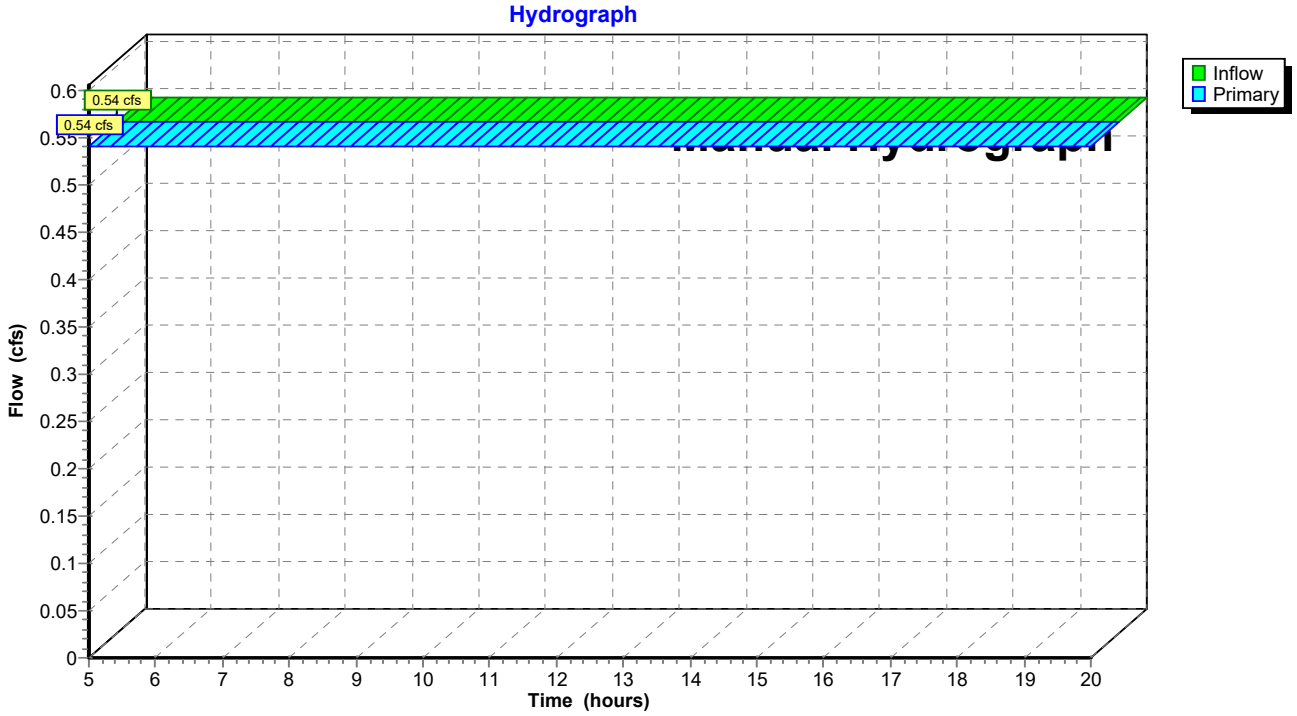
Inflow = 0.54 cfs @ 5.00 hrs, Volume= 0.672 af
Primary = 0.54 cfs @ 5.00 hrs, Volume= 0.672 af, Atten= 0%, Lag= 0.0 min
Routed to Pond A1-2* : A1-2 Infiltration Basin

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

25 Point manual hydrograph, To= 0.00 hrs, dt= 1.00 hrs, cfs =

0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
0.54	0.54	0.54	0.54	0.54					

Link 3B: MRN-4 // MDAN 3B



Hydrograph for Link 3B: MRN-4 // MDAN 3B

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	**0.54**	**0.00**	**0.54**
5.25	0.54	0.00	0.54
5.50	0.54	0.00	0.54
5.75	0.54	0.00	0.54
6.00	0.54	0.00	0.54
6.25	0.54	0.00	0.54
6.50	0.54	0.00	0.54
6.75	0.54	0.00	0.54
7.00	0.54	0.00	0.54
7.25	0.54	0.00	0.54
7.50	0.54	0.00	0.54
7.75	0.54	0.00	0.54
8.00	0.54	0.00	0.54
8.25	0.54	0.00	0.54
8.50	0.54	0.00	0.54
8.75	0.54	0.00	0.54
9.00	0.54	0.00	0.54
9.25	0.54	0.00	0.54
9.50	0.54	0.00	0.54
9.75	0.54	0.00	0.54
10.00	0.54	0.00	0.54
10.25	0.54	0.00	0.54
10.50	0.54	0.00	0.54
10.75	0.54	0.00	0.54
11.00	0.54	0.00	0.54
11.25	0.54	0.00	0.54
11.50	0.54	0.00	0.54
11.75	0.54	0.00	0.54
12.00	0.54	0.00	0.54
12.25	0.54	0.00	0.54
12.50	0.54	0.00	0.54
12.75	0.54	0.00	0.54
13.00	0.54	0.00	0.54
13.25	0.54	0.00	0.54
13.50	0.54	0.00	0.54
13.75	0.54	0.00	0.54
14.00	0.54	0.00	0.54
14.25	0.54	0.00	0.54
14.50	0.54	0.00	0.54
14.75	0.54	0.00	0.54
15.00	0.54	0.00	0.54
15.25	0.54	0.00	0.54
15.50	0.54	0.00	0.54
15.75	0.54	0.00	0.54
16.00	0.54	0.00	0.54
16.25	0.54	0.00	0.54
16.50	0.54	0.00	0.54
16.75	0.54	0.00	0.54
17.00	0.54	0.00	0.54
17.25	0.54	0.00	0.54
17.50	0.54	0.00	0.54
17.75	0.54	0.00	0.54
18.00	0.54	0.00	0.54
18.25	0.54	0.00	0.54
18.50	0.54	0.00	0.54
18.75	0.54	0.00	0.54
19.00	0.54	0.00	0.54
19.25	0.54	0.00	0.54
19.50	0.54	0.00	0.54
19.75	0.54	0.00	0.54
20.00	0.54	0.00	0.54

Summary for Link 4: MRN 1 // MDAN 4

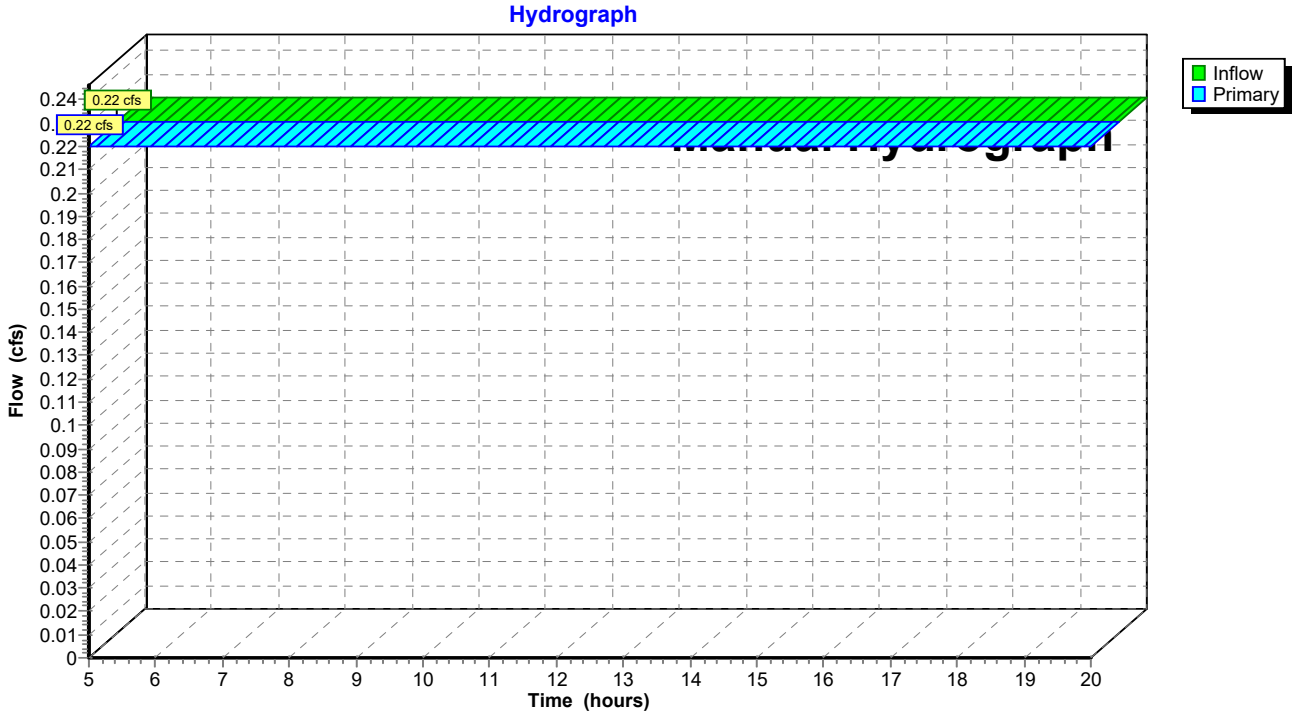
Inflow = 0.22 cfs @ 5.00 hrs, Volume= 0.274 af
Primary = 0.22 cfs @ 5.00 hrs, Volume= 0.274 af, Atten= 0%, Lag= 0.0 min
Routed to Pond B6-2* : B6-2 Infiltration Basin

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

25 Point manual hydrograph, To= 0.00 hrs, dt= 1.00 hrs, cfs =

0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
0.22	0.22	0.22	0.22	0.22					

Link 4: MRN 1 // MDAN 4



Hydrograph for Link 4: MRN 1 // MDAN 4

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	**0.22**	**0.00**	**0.22**	17.75	0.22	0.00	0.22
5.25	0.22	0.00	0.22	18.00	0.22	0.00	0.22
5.50	0.22	0.00	0.22	18.25	0.22	0.00	0.22
5.75	0.22	0.00	0.22	18.50	0.22	0.00	0.22
6.00	0.22	0.00	0.22	18.75	0.22	0.00	0.22
6.25	0.22	0.00	0.22	19.00	0.22	0.00	0.22
6.50	0.22	0.00	0.22	19.25	0.22	0.00	0.22
6.75	0.22	0.00	0.22	19.50	0.22	0.00	0.22
7.00	0.22	0.00	0.22	19.75	0.22	0.00	0.22
7.25	0.22	0.00	0.22	20.00	0.22	0.00	0.22
7.50	0.22	0.00	0.22				
7.75	0.22	0.00	0.22				
8.00	0.22	0.00	0.22				
8.25	0.22	0.00	0.22				
8.50	0.22	0.00	0.22				
8.75	0.22	0.00	0.22				
9.00	0.22	0.00	0.22				
9.25	0.22	0.00	0.22				
9.50	0.22	0.00	0.22				
9.75	0.22	0.00	0.22				
10.00	0.22	0.00	0.22				
10.25	0.22	0.00	0.22				
10.50	0.22	0.00	0.22				
10.75	0.22	0.00	0.22				
11.00	0.22	0.00	0.22				
11.25	0.22	0.00	0.22				
11.50	0.22	0.00	0.22				
11.75	0.22	0.00	0.22				
12.00	0.22	0.00	0.22				
12.25	0.22	0.00	0.22				
12.50	0.22	0.00	0.22				
12.75	0.22	0.00	0.22				
13.00	0.22	0.00	0.22				
13.25	0.22	0.00	0.22				
13.50	0.22	0.00	0.22				
13.75	0.22	0.00	0.22				
14.00	0.22	0.00	0.22				
14.25	0.22	0.00	0.22				
14.50	0.22	0.00	0.22				
14.75	0.22	0.00	0.22				
15.00	0.22	0.00	0.22				
15.25	0.22	0.00	0.22				
15.50	0.22	0.00	0.22				
15.75	0.22	0.00	0.22				
16.00	0.22	0.00	0.22				
16.25	0.22	0.00	0.22				
16.50	0.22	0.00	0.22				
16.75	0.22	0.00	0.22				
17.00	0.22	0.00	0.22				
17.25	0.22	0.00	0.22				
17.50	0.22	0.00	0.22				

Summary for Link 5: MRN-2 // MDAN 5

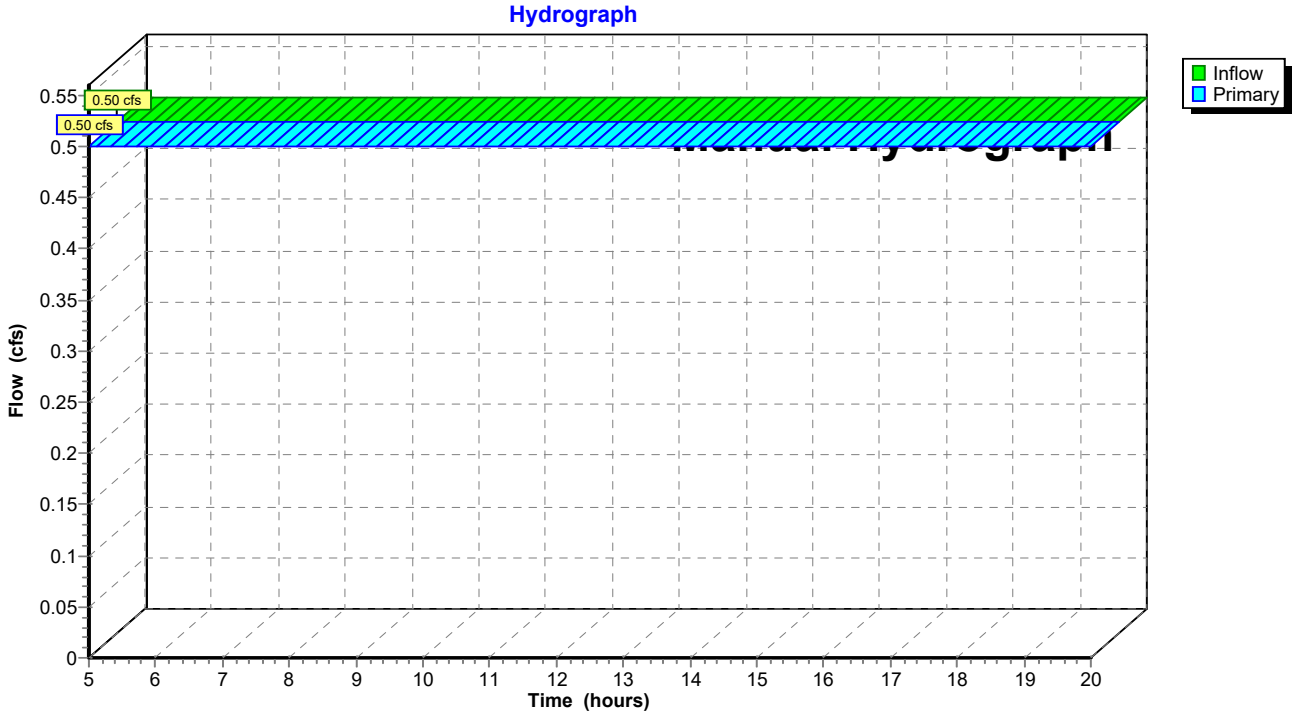
Inflow = 0.50 cfs @ 5.00 hrs, Volume= 0.622 af
Primary = 0.50 cfs @ 5.00 hrs, Volume= 0.622 af, Atten= 0%, Lag= 0.0 min
Routed to Pond B6-2* : B6-2 Infiltration Basin

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

25 Point manual hydrograph, To= 0.00 hrs, dt= 1.00 hrs, cfs =

0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.50	0.50	0.50	0.50	0.50					

Link 5: MRN-2 // MDAN 5



Hydrograph for Link 5: MRN-2 // MDAN 5

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	**0.50**	**0.00**	**0.50**
5.25	0.50	0.00	0.50
5.50	0.50	0.00	0.50
5.75	0.50	0.00	0.50
6.00	0.50	0.00	0.50
6.25	0.50	0.00	0.50
6.50	0.50	0.00	0.50
6.75	0.50	0.00	0.50
7.00	0.50	0.00	0.50
7.25	0.50	0.00	0.50
7.50	0.50	0.00	0.50
7.75	0.50	0.00	0.50
8.00	0.50	0.00	0.50
8.25	0.50	0.00	0.50
8.50	0.50	0.00	0.50
8.75	0.50	0.00	0.50
9.00	0.50	0.00	0.50
9.25	0.50	0.00	0.50
9.50	0.50	0.00	0.50
9.75	0.50	0.00	0.50
10.00	0.50	0.00	0.50
10.25	0.50	0.00	0.50
10.50	0.50	0.00	0.50
10.75	0.50	0.00	0.50
11.00	0.50	0.00	0.50
11.25	0.50	0.00	0.50
11.50	0.50	0.00	0.50
11.75	0.50	0.00	0.50
12.00	0.50	0.00	0.50
12.25	0.50	0.00	0.50
12.50	0.50	0.00	0.50
12.75	0.50	0.00	0.50
13.00	0.50	0.00	0.50
13.25	0.50	0.00	0.50
13.50	0.50	0.00	0.50
13.75	0.50	0.00	0.50
14.00	0.50	0.00	0.50
14.25	0.50	0.00	0.50
14.50	0.50	0.00	0.50
14.75	0.50	0.00	0.50
15.00	0.50	0.00	0.50
15.25	0.50	0.00	0.50
15.50	0.50	0.00	0.50
15.75	0.50	0.00	0.50
16.00	0.50	0.00	0.50
16.25	0.50	0.00	0.50
16.50	0.50	0.00	0.50
16.75	0.50	0.00	0.50
17.00	0.50	0.00	0.50
17.25	0.50	0.00	0.50
17.50	0.50	0.00	0.50
17.75	0.50	0.00	0.50
18.00	0.50	0.00	0.50
18.25	0.50	0.00	0.50
18.50	0.50	0.00	0.50
18.75	0.50	0.00	0.50
19.00	0.50	0.00	0.50
19.25	0.50	0.00	0.50
19.50	0.50	0.00	0.50
19.75	0.50	0.00	0.50
20.00	0.50	0.00	0.50

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

SubcatchmentA1-1: A1-1 Runoff Area=22.141 ac 0.00% Impervious Runoff Depth>2.11"
Flow Length=1,105' Tc=37.0 min CN=60 Runoff=29.80 cfs 3.896 af

SubcatchmentA1-2: A1-2 Runoff Area=21.469 ac 66.84% Impervious Runoff Depth>4.51"
Tc=6.0 min CN=84 Runoff=115.29 cfs 8.061 af

SubcatchmentA1-3: A1-3 Runoff Area=31.975 ac 77.29% Impervious Runoff Depth>5.15"
Tc=6.0 min CN=90 Runoff=189.06 cfs 13.725 af

SubcatchmentA11-1: A11-1 Runoff Area=6.176 ac 0.00% Impervious Runoff Depth>1.88"
Flow Length=232' Tc=8.3 min CN=57 Runoff=12.64 cfs 0.966 af

SubcatchmentA11-2: A11-2 Runoff Area=34.745 ac 45.43% Impervious Runoff Depth>3.70"
Flow Length=1,250' Tc=58.8 min CN=77 Runoff=65.14 cfs 10.719 af

SubcatchmentA2: A2 Runoff Area=0.160 ac 0.00% Impervious Runoff Depth>2.05"
Tc=6.0 min CN=59 Runoff=0.40 cfs 0.027 af

SubcatchmentA3: A3 Runoff Area=23.404 ac 0.00% Impervious Runoff Depth>2.11"
Flow Length=2,107' Tc=40.5 min CN=60 Runoff=30.06 cfs 4.111 af

SubcatchmentA4: A4 Runoff Area=14.774 ac 1.59% Impervious Runoff Depth>1.62"
Flow Length=627' Tc=18.0 min CN=54 Runoff=19.61 cfs 1.993 af

SubcatchmentA5: A5 Runoff Area=5.469 ac 0.00% Impervious Runoff Depth>2.22"
Flow Length=627' Tc=12.3 min CN=61 Runoff=12.08 cfs 1.013 af

SubcatchmentA6: A6 Runoff Area=4.893 ac 0.00% Impervious Runoff Depth>2.21"
Flow Length=729' Tc=22.1 min CN=61 Runoff=8.66 cfs 0.903 af

SubcatchmentA8: A8 Runoff Area=1.754 ac 0.00% Impervious Runoff Depth>1.79"
Tc=6.0 min CN=56 Runoff=3.72 cfs 0.262 af

SubcatchmentB1-1: B1-1 Runoff Area=26.798 ac 4.06% Impervious Runoff Depth>2.68"
Flow Length=398' Tc=17.3 min CN=66 Runoff=64.19 cfs 5.975 af

SubcatchmentB1-2: B1-A Runoff Area=4.401 ac 51.58% Impervious Runoff Depth>4.08"
Tc=6.0 min CN=80 Runoff=21.78 cfs 1.496 af

SubcatchmentB1-3: B1-B Runoff Area=20.504 ac 83.49% Impervious Runoff Depth>5.36"
Tc=6.0 min CN=92 Runoff=124.24 cfs 9.157 af

SubcatchmentB10: B10 Runoff Area=0.702 ac 0.00% Impervious Runoff Depth>0.32"
Tc=6.0 min CN=35 Runoff=0.09 cfs 0.019 af

SubcatchmentB11: B11 Runoff Area=0.733 ac 0.00% Impervious Runoff Depth>1.01"
Tc=6.0 min CN=46 Runoff=0.72 cfs 0.062 af

Subcatchment B13: B13 Runoff Area=13.436 ac 0.00% Impervious Runoff Depth>2.30"
Flow Length=963' Tc=24.1 min CN=62 Runoff=23.99 cfs 2.577 af

Subcatchment B2: B2 Runoff Area=7.320 ac 5.93% Impervious Runoff Depth>2.48"
Flow Length=462' Tc=24.8 min CN=64 Runoff=14.01 cfs 1.514 af

Subcatchment B3-1: B3-1 Runoff Area=13.903 ac 0.00% Impervious Runoff Depth>2.40"
Flow Length=215' Tc=11.9 min CN=63 Runoff=34.08 cfs 2.785 af

Subcatchment B3-2: B3-2 Runoff Area=7.079 ac 56.01% Impervious Runoff Depth>4.29"
Tc=6.0 min CN=82 Runoff=36.56 cfs 2.531 af

Subcatchment B4: B4 Runoff Area=28.643 ac 0.00% Impervious Runoff Depth>2.41"
Flow Length=448' Tc=10.6 min CN=63 Runoff=73.03 cfs 5.741 af

Subcatchment B5-1: B5-1 Runoff Area=24.062 ac 14.80% Impervious Runoff Depth>2.87"
Flow Length=627' Tc=16.0 min CN=68 Runoff=63.64 cfs 5.746 af

Subcatchment B5-2: B5-2 Runoff Area=10.218 ac 67.76% Impervious Runoff Depth>4.72"
Tc=6.0 min CN=86 Runoff=56.87 cfs 4.021 af

Subcatchment B6-1: B6-1 Runoff Area=10.053 ac 2.88% Impervious Runoff Depth>2.50"
Flow Length=362' Tc=9.8 min CN=64 Runoff=27.28 cfs 2.092 af

Subcatchment B6-2: B6-2 Runoff Area=39.110 ac 51.21% Impervious Runoff Depth>4.04"
Flow Length=946' Tc=35.2 min CN=80 Runoff=103.89 cfs 13.177 af

Subcatchment B7: B7 Runoff Area=8.035 ac 0.00% Impervious Runoff Depth>2.21"
Flow Length=538' Tc=27.4 min CN=61 Runoff=13.00 cfs 1.479 af

Subcatchment B8: B8 Runoff Area=7.574 ac 6.91% Impervious Runoff Depth>2.41"
Flow Length=502' Tc=10.6 min CN=63 Runoff=19.31 cfs 1.518 af

Reach DP-A: DP-A Inflow=112.03 cfs 19.934 af
Outflow=112.03 cfs 19.934 af

Reach DP-B: DP-B Inflow=306.31 cfs 39.803 af
Outflow=306.31 cfs 39.803 af

Pond A1-2*: A1-2 Infiltration Basin Peak Elev=119.98' Storage=146,252 cf Inflow=116.60 cfs 9.691 af
Discarded=12.32 cfs 7.976 af Primary=5.85 cfs 1.313 af Outflow=18.17 cfs 9.290 af

Pond A1-3*: A1-3 Infiltration Basin Peak Elev=118.98' Storage=319,932 cf Inflow=189.44 cfs 14.198 af
Discarded=6.09 cfs 5.193 af Primary=15.34 cfs 5.447 af Outflow=21.43 cfs 10.640 af

Pond A11-2*: A11-2 Infiltration Basin Peak Elev=117.58' Storage=138,726 cf Inflow=65.14 cfs 10.719 af
Discarded=21.32 cfs 10.714 af Primary=0.06 cfs 0.002 af Outflow=21.38 cfs 10.716 af

Pond B1-2*: B1-2 Infiltration Basin Peak Elev=133.70' Storage=88,269 cf Inflow=27.79 cfs 7.076 af
Discarded=6.38 cfs 4.286 af Primary=3.62 cfs 1.459 af Outflow=10.00 cfs 5.745 af

Pond B1-3*: B1-3 Dry Extended Basin Peak Elev=136.00' Storage=245,039 cf Inflow=124.24 cfs 9.157 af
Outflow=15.97 cfs 5.580 af

Pond B3-2*: B3-2 Dry Extended Basin Peak Elev=128.07' Storage=95,685 cf Inflow=36.56 cfs 2.531 af
Outflow=0.50 cfs 0.335 af

Pond B5-2*: B5-2 Infiltration Basin Peak Elev=136.83' Storage=94,228 cf Inflow=56.87 cfs 4.021 af
Discarded=2.99 cfs 2.463 af Primary=0.00 cfs 0.000 af Outflow=2.99 cfs 2.463 af

Pond B6-2*: B6-2 Infiltration Basin Peak Elev=133.00' Storage=336,467 cf Inflow=104.61 cfs 14.072 af
Discarded=1.12 cfs 0.908 af Primary=23.53 cfs 8.502 af Outflow=24.65 cfs 9.410 af

Link 1: MRN-3 // MDAN 1 Manual Hydrograph Inflow=0.38 cfs 0.473 af
Primary=0.38 cfs 0.473 af

Link 2: MRN-5 // MDAN 2 Manual Hydrograph Inflow=0.13 cfs 0.162 af
Primary=0.13 cfs 0.162 af

Link 3A: MRN-6 // MDAN 3A Manual Hydrograph Inflow=0.64 cfs 0.796 af
Primary=0.64 cfs 0.796 af

Link 3B: MRN-4 // MDAN 3B Manual Hydrograph Inflow=0.54 cfs 0.672 af
Primary=0.54 cfs 0.672 af

Link 4: MRN 1 // MDAN 4 Manual Hydrograph Inflow=0.22 cfs 0.274 af
Primary=0.22 cfs 0.274 af

Link 5: MRN-2 // MDAN 5 Manual Hydrograph Inflow=0.50 cfs 0.622 af
Primary=0.50 cfs 0.622 af

Total Runoff Area = 389.531 ac Runoff Volume = 105.568 af Average Runoff Depth = 3.25"
71.43% Pervious = 278.247 ac 28.57% Impervious = 111.284 ac

Summary for Subcatchment A1-1: A1-1

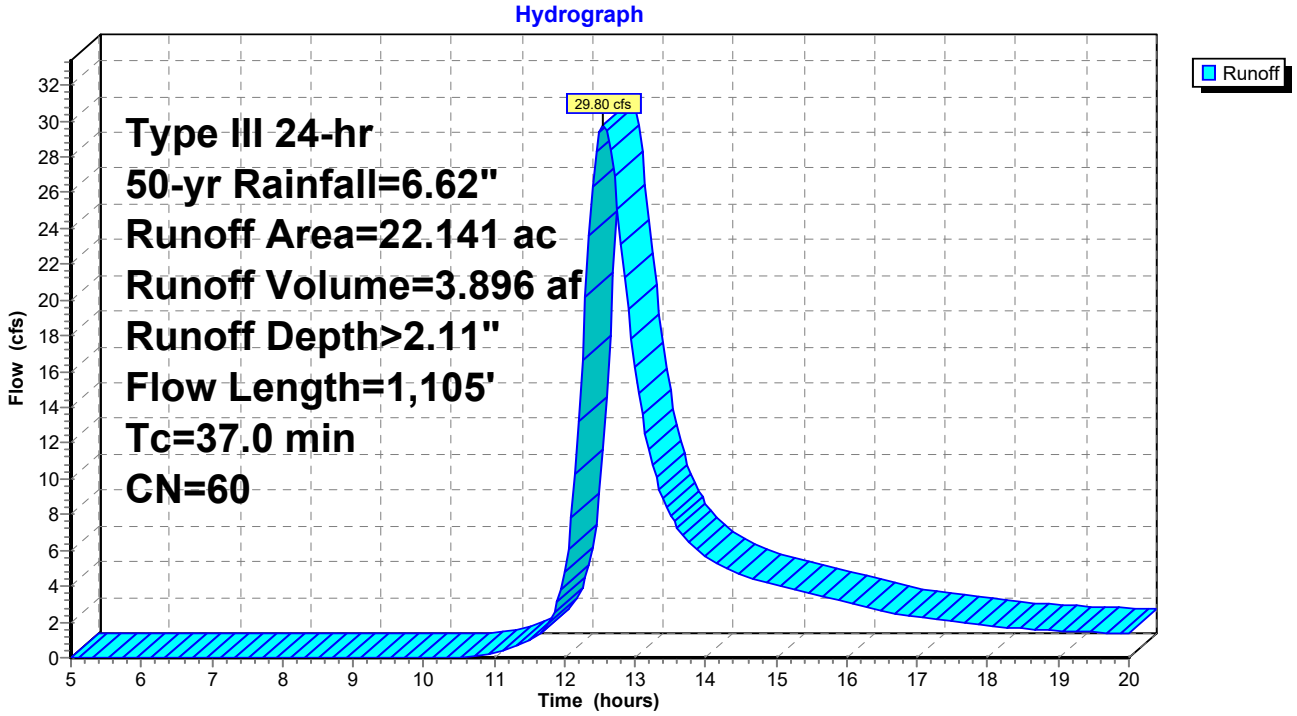
Runoff = 29.80 cfs @ 12.55 hrs, Volume= 3.896 af, Depth> 2.11"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
19.735	61	>75% Grass cover, Good, HSG B
2.406	55	Woods, Good, HSG B
22.141	60	Weighted Average
22.141		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	50	0.0620	0.23		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
8.1	264	0.0060	0.54		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
0.4	25	0.0440	1.05		**Shallow Concentrated Flow, scf-2** Woodland Kv= 5.0 fps
14.8	483	0.0060	0.54		**Shallow Concentrated Flow, scf3** Short Grass Pasture Kv= 7.0 fps
6.5	62	0.0010	0.16		**Shallow Concentrated Flow, scf4** Woodland Kv= 5.0 fps
3.6	221	0.0210	1.01		**Shallow Concentrated Flow, scf5** Short Grass Pasture Kv= 7.0 fps
37.0	1,105	Total			

Subcatchment A1-1: A1-1



Hydrograph for Subcatchment A1-1: A1-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.00
10.50	1.43	0.00	0.00
10.75	1.54	0.01	0.07
11.00	1.66	0.01	0.25
11.25	1.79	0.03	0.54
11.50	1.97	0.06	0.98
11.75	2.35	0.13	1.81
12.00	3.31	0.45	4.77
12.25	4.27	0.90	16.62
12.50	4.65	1.10	**29.40**
12.75	4.83	1.20	**25.04**
13.00	4.96	1.28	16.22
13.25	5.08	1.35	10.78
13.50	5.19	1.41	7.97
13.75	5.28	1.47	6.55
14.00	5.37	1.52	5.72
14.25	5.45	1.57	5.10
14.50	5.52	1.62	4.65
14.75	5.59	1.66	4.33
15.00	5.66	1.70	4.06
15.25	5.71	1.74	3.82
15.50	5.77	1.77	3.57
15.75	5.82	1.80	3.32
16.00	5.87	1.83	3.07
16.25	5.91	1.86	2.82
16.50	5.95	1.89	2.60
16.75	5.99	1.91	2.43
17.00	6.02	1.94	2.30
17.25	6.05	1.96	2.18
17.50	6.09	1.98	2.07
17.75	6.12	2.00	1.95
18.00	6.14	2.02	1.83
18.25	6.17	2.03	1.72
18.50	6.20	2.05	1.62
18.75	6.22	2.07	1.56
19.00	6.24	2.08	1.52
19.25	6.27	2.10	1.48
19.50	6.29	2.11	1.44
19.75	6.31	2.13	1.41
20.00	**6.34**	**2.14**	1.37

Summary for Subcatchment A1-2: A1-2

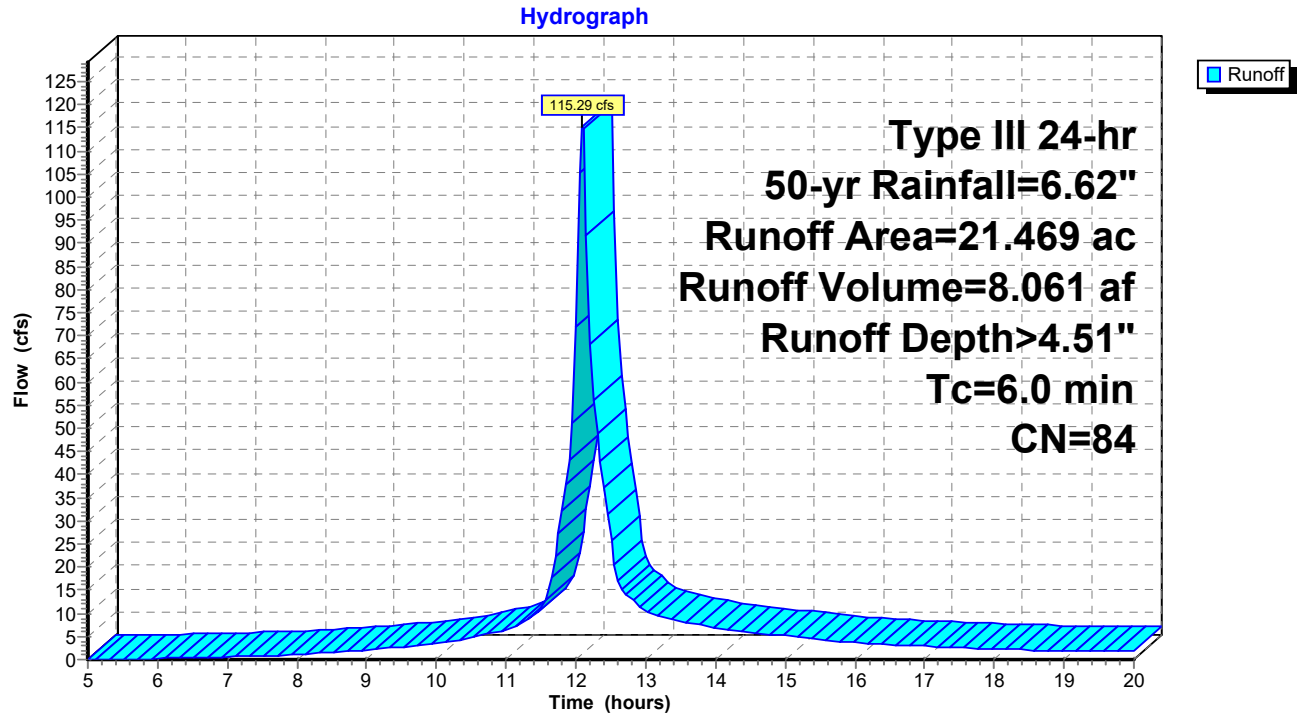
Runoff = 115.29 cfs @ 12.09 hrs, Volume= 8.061 af, Depth> 4.51"
Routed to Pond A1-2* : A1-2 Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
1.959	39	>75% Grass cover, Good, HSG A
4.962	61	>75% Grass cover, Good, HSG B
0.091	80	>75% Grass cover, Good, HSG D
0.107	55	Woods, Good, HSG B
4.561	98	Roofs, HSG A
9.789	98	Paved parking, HSG A
21.469	84	Weighted Average
7.119		33.16% Pervious Area
14.350		66.84% Impervious Area

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

Subcatchment A1-2: A1-2



Hydrograph for Subcatchment A1-2: A1-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.02
5.50	0.42	0.00	0.08
5.75	0.45	0.00	0.13
6.00	0.48	0.00	0.19
6.25	0.50	0.01	0.26
6.50	0.53	0.01	0.35
6.75	0.57	0.02	0.44
7.00	0.60	0.02	0.55
7.25	0.63	0.03	0.66
7.50	0.67	0.04	0.79
7.75	0.71	0.05	0.92
8.00	0.75	0.06	1.07
8.25	0.80	0.08	1.27
8.50	0.85	0.09	1.52
8.75	0.91	0.11	1.80
9.00	0.96	0.14	2.11
9.25	1.03	0.16	2.44
9.50	1.10	0.20	2.79
9.75	1.17	0.23	3.17
10.00	1.25	0.27	3.56
10.25	1.34	0.32	4.13
10.50	1.43	0.37	4.84
10.75	1.54	0.44	5.60
11.00	1.66	0.51	6.40
11.25	1.79	0.60	8.27
11.50	1.97	0.72	10.94
11.75	2.35	1.00	27.17
12.00	3.31	1.77	**72.11**
12.25	4.27	2.61	**56.04**
12.50	4.65	2.95	25.90
12.75	4.83	3.11	13.63
13.00	4.96	3.24	10.66
13.25	5.08	3.34	9.09
13.50	5.19	3.44	8.32
13.75	5.28	3.53	7.55
14.00	5.37	3.61	6.78
14.25	5.45	3.68	6.25
14.50	5.52	3.75	5.88
14.75	5.59	3.81	5.51
15.00	5.66	3.87	5.14
15.25	5.71	3.93	4.76
15.50	5.77	3.98	4.38
15.75	5.82	4.03	4.00
16.00	5.87	4.07	3.62
16.25	5.91	4.11	3.38
16.50	5.95	4.15	3.21
16.75	5.99	4.18	3.04
17.00	6.02	4.22	2.88
17.25	6.05	4.25	2.71
17.50	6.09	4.28	2.55
17.75	6.12	4.31	2.38
18.00	6.14	4.33	2.21
18.25	6.17	4.36	2.12
18.50	6.20	4.38	2.07
18.75	6.22	4.40	2.02
19.00	6.24	4.43	1.97
19.25	6.27	4.45	1.92
19.50	6.29	4.47	1.87
19.75	6.31	4.49	1.82
20.00	**6.34**	**4.51**	1.77

Summary for Subcatchment A1-3: A1-3

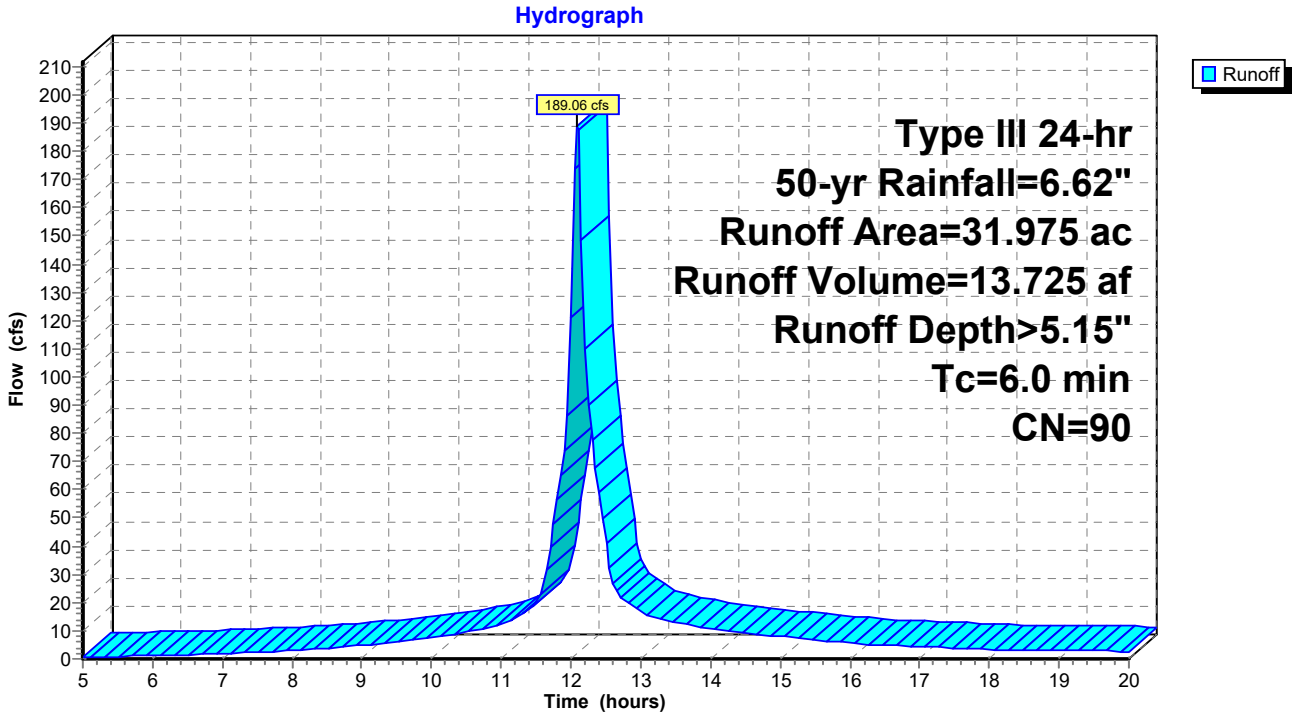
Runoff = 189.06 cfs @ 12.09 hrs, Volume= 13.725 af, Depth> 5.15"
Routed to Pond A1-3* : A1-3 Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.062	39	>75% Grass cover, Good, HSG A
7.110	61	>75% Grass cover, Good, HSG B
0.091	55	Woods, Good, HSG B
6.082	98	Roofs, HSG A
18.630	98	Paved parking, HSG A
31.975	90	Weighted Average
7.263		22.71% Pervious Area
24.712		77.29% Impervious Area

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

Subcatchment A1-3: A1-3



Hydrograph for Subcatchment A1-3: A1-3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.02	0.67
5.25	0.40	0.02	0.77
5.50	0.42	0.03	0.89
5.75	0.45	0.04	1.00
6.00	0.48	0.05	1.11
6.25	0.50	0.06	1.27
6.50	0.53	0.07	1.46
6.75	0.57	0.08	1.67
7.00	0.60	0.10	1.90
7.25	0.63	0.11	2.13
7.50	0.67	0.13	2.38
7.75	0.71	0.15	2.64
8.00	0.75	0.17	2.91
8.25	0.80	0.20	3.31
8.50	0.85	0.23	3.82
8.75	0.91	0.26	4.35
9.00	0.96	0.30	4.91
9.25	1.03	0.34	5.50
9.50	1.10	0.39	6.11
9.75	1.17	0.44	6.75
10.00	1.25	0.49	7.40
10.25	1.34	0.56	8.37
10.50	1.43	0.63	9.58
10.75	1.54	0.71	10.83
11.00	1.66	0.81	12.12
11.25	1.79	0.92	15.34
11.50	1.97	1.07	19.85
11.75	2.35	1.40	47.79
12.00	3.31	2.27	**120.83**
12.25	4.27	3.17	**89.89**
12.50	4.65	3.54	41.01
12.75	4.83	3.71	21.49
13.00	4.96	3.84	16.77
13.25	5.08	3.95	14.26
13.50	5.19	4.06	13.04
13.75	5.28	4.15	11.81
14.00	5.37	4.23	10.59
14.25	5.45	4.31	9.76
14.50	5.52	4.38	9.17
14.75	5.59	4.45	8.58
15.00	5.66	4.51	7.99
15.25	5.71	4.57	7.40
15.50	5.77	4.62	6.81
15.75	5.82	4.67	6.21
16.00	5.87	4.71	5.62
16.25	5.91	4.76	5.24
16.50	5.95	4.79	4.98
16.75	5.99	4.83	4.72
17.00	6.02	4.87	4.46
17.25	6.05	4.90	4.20
17.50	6.09	4.93	3.94
17.75	6.12	4.96	3.69
18.00	6.14	4.99	3.43
18.25	6.17	5.01	3.28
18.50	6.20	5.04	3.20
18.75	6.22	5.06	3.13
19.00	6.24	5.08	3.05
19.25	6.27	5.11	2.97
19.50	6.29	5.13	2.89
19.75	6.31	5.15	2.82
20.00	**6.34**	**5.17**	2.74

Summary for Subcatchment A11-1: A11-1

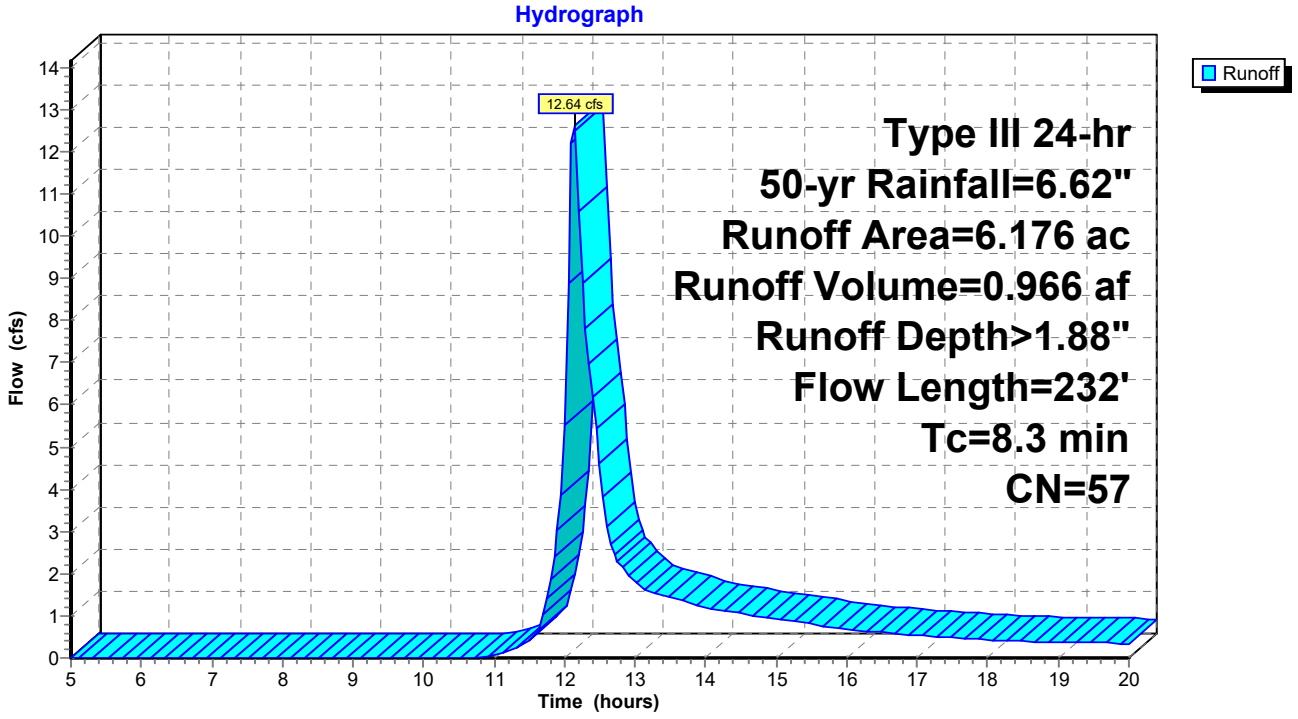
Runoff = 12.64 cfs @ 12.13 hrs, Volume= 0.966 af, Depth> 1.88"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
2.423	61	>75% Grass cover, Good, HSG B
3.753	55	Woods, Good, HSG B
6.176	57	Weighted Average
6.176		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	50	0.0200	0.15		**Sheet Flow, sf1** Grass: Short n= 0.150 P2= 3.11"
1.9	102	0.0170	0.91		**Shallow Concentrated Flow, scf1** Short Grass Pasture Kv= 7.0 fps
0.7	80	0.1300	1.80		**Shallow Concentrated Flow, scf2** Woodland Kv= 5.0 fps
8.3	232	Total			

Subcatchment A11-1: A11-1



Hydrograph for Subcatchment A11-1: A11-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.00
10.50	1.43	0.00	0.00
10.75	1.54	0.00	0.00
11.00	1.66	0.00	0.07
11.25	1.79	0.01	0.19
11.50	1.97	0.03	0.40
11.75	2.35	0.08	1.40
12.00	3.31	0.35	**5.53**
12.25	4.27	0.74	**8.86**
12.50	4.65	0.92	4.62
12.75	4.83	1.01	2.30
13.00	4.96	1.09	1.83
13.25	5.08	1.15	1.55
13.50	5.19	1.21	1.44
13.75	5.28	1.26	1.32
14.00	5.37	1.31	1.20
14.25	5.45	1.35	1.11
14.50	5.52	1.39	1.05
14.75	5.59	1.43	0.99
15.00	5.66	1.47	0.93
15.25	5.71	1.51	0.87
15.50	5.77	1.54	0.81
15.75	5.82	1.57	0.74
16.00	5.87	1.59	0.68
16.25	5.91	1.62	0.63
16.50	5.95	1.64	0.60
16.75	5.99	1.67	0.57
17.00	6.02	1.69	0.54
17.25	6.05	1.71	0.51
17.50	6.09	1.73	0.48
17.75	6.12	1.75	0.45
18.00	6.14	1.76	0.42
18.25	6.17	1.78	0.40
18.50	6.20	1.80	0.39
18.75	6.22	1.81	0.39
19.00	6.24	1.83	0.38
19.25	6.27	1.84	0.37
19.50	6.29	1.86	0.36
19.75	6.31	1.87	0.35
20.00	**6.34**	**1.88**	0.34

Summary for Subcatchment A11-2: A11-2

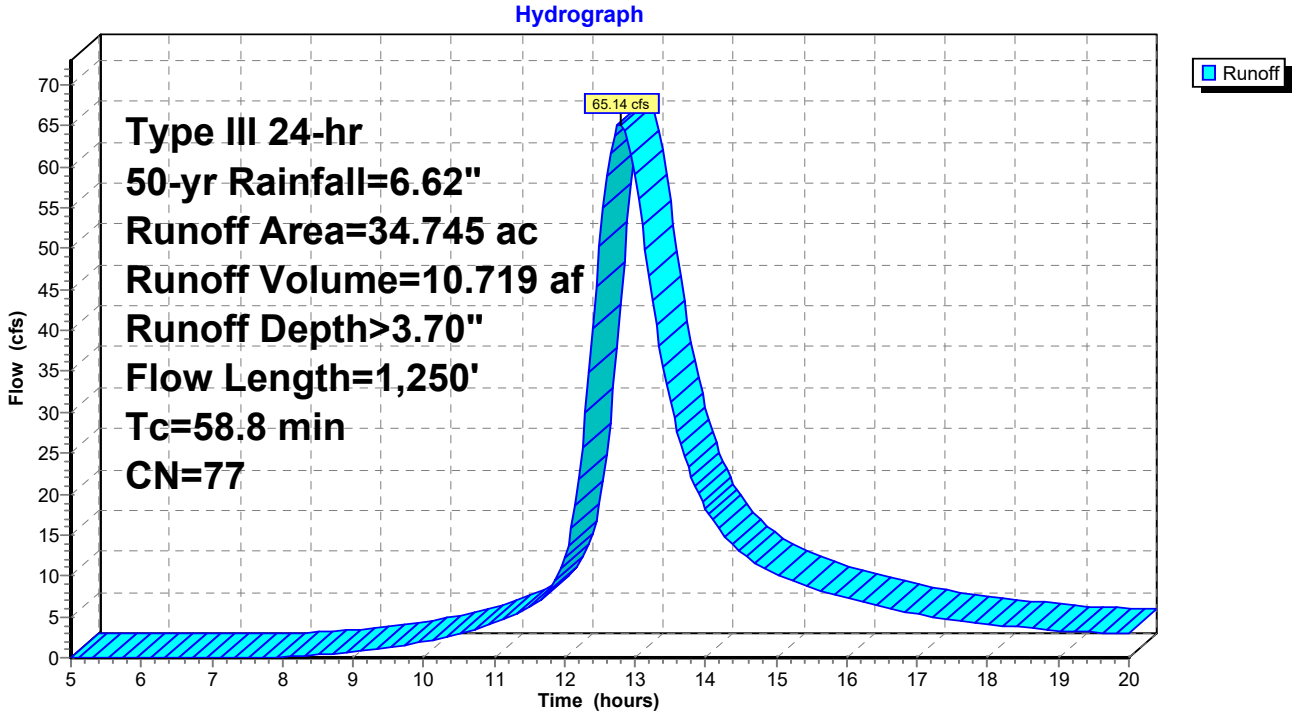
Runoff = 65.14 cfs @ 12.79 hrs, Volume= 10.719 af, Depth> 3.70"
Routed to Pond A11-2* : A11-2 Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.789	39	>75% Grass cover, Good, HSG A
15.470	61	>75% Grass cover, Good, HSG B
2.700	55	Woods, Good, HSG B
5.587	98	Roofs, HSG A
10.199	98	Paved parking, HSG A
34.745	77	Weighted Average
18.959		54.57% Pervious Area
15.786		45.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
41.5	50	0.0010	0.02		**Sheet Flow, sf1** Woods: Light underbrush n= 0.400 P2= 3.11"
5.3	316	0.0400	1.00		**Shallow Concentrated Flow, scf1** Woodland Kv= 5.0 fps
12.0	884	0.0310	1.23		**Shallow Concentrated Flow, SCF2** Short Grass Pasture Kv= 7.0 fps
58.8	1,250	Total			

Subcatchment A11-2: A11-2



Hydrograph for Subcatchment A11-2: A11-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.01
7.75	0.71	0.00	0.04
8.00	0.75	0.01	0.12
8.25	0.80	0.01	0.22
8.50	0.85	0.02	0.36
8.75	0.91	0.03	0.53
9.00	0.96	0.04	0.74
9.25	1.03	0.05	0.99
9.50	1.10	0.07	1.29
9.75	1.17	0.09	1.63
10.00	1.25	0.12	2.02
10.25	1.34	0.15	2.45
10.50	1.43	0.18	2.94
10.75	1.54	0.23	3.52
11.00	1.66	0.28	4.24
11.25	1.79	0.34	5.09
11.50	1.97	0.43	6.18
11.75	2.35	0.65	7.90
12.00	3.31	1.29	12.11
12.25	4.27	2.02	25.69
12.50	4.65	2.33	50.37
12.75	4.83	2.48	**64.99**
13.00	4.96	2.59	**59.05**
13.25	5.08	2.69	43.59
13.50	5.19	2.78	31.23
13.75	5.28	2.86	23.26
14.00	5.37	2.93	18.26
14.25	5.45	3.00	15.07
14.50	5.52	3.06	12.87
14.75	5.59	3.12	11.31
15.00	5.66	3.18	10.16
15.25	5.71	3.23	9.25
15.50	5.77	3.28	8.52
15.75	5.82	3.32	7.90
16.00	5.87	3.36	7.31
16.25	5.91	3.40	6.74
16.50	5.95	3.43	6.19
16.75	5.99	3.47	5.71
17.00	6.02	3.50	5.32
17.25	6.05	3.53	4.99
17.50	6.09	3.55	4.70
17.75	6.12	3.58	4.43
18.00	6.14	3.60	4.18
18.25	6.17	3.63	3.92
18.50	6.20	3.65	3.68
18.75	6.22	3.67	3.48
19.00	6.24	3.69	3.32
19.25	6.27	3.71	3.20
19.50	6.29	3.73	3.11
19.75	6.31	3.75	3.02
20.00	**6.34**	**3.77**	2.94

Summary for Subcatchment A2: A2

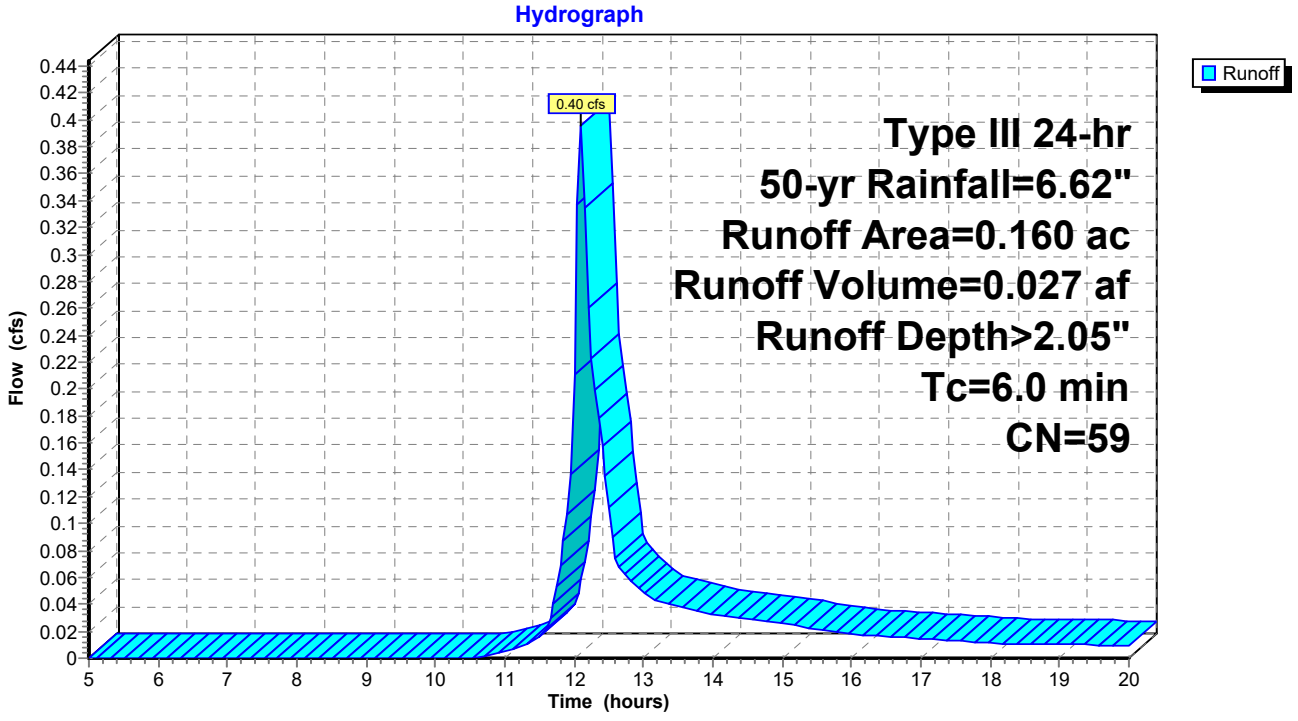
Runoff = 0.40 cfs @ 12.10 hrs, Volume= 0.027 af, Depth> 2.05"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.115	61	>75% Grass cover, Good, HSG B
0.045	55	Woods, Good, HSG B
0.160	59	Weighted Average
0.160		100.00% Pervious Area

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

Subcatchment A2: A2



Hydrograph for Subcatchment A2: A2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.00
10.50	1.43	0.00	0.00
10.75	1.54	0.00	0.00
11.00	1.66	0.01	0.00
11.25	1.79	0.02	0.01
11.50	1.97	0.05	0.02
11.75	2.35	0.12	0.05
12.00	3.31	0.42	**0.21**
12.25	4.27	0.84	**0.22**
12.50	4.65	1.04	0.11
12.75	4.83	1.14	0.06
13.00	4.96	1.21	0.05
13.25	5.08	1.28	0.04
13.50	5.19	1.34	0.04
13.75	5.28	1.40	0.04
14.00	5.37	1.45	0.03
14.25	5.45	1.50	0.03
14.50	5.52	1.54	0.03
14.75	5.59	1.58	0.03
15.00	5.66	1.62	0.03
15.25	5.71	1.66	0.02
15.50	5.77	1.69	0.02
15.75	5.82	1.72	0.02
16.00	5.87	1.75	0.02
16.25	5.91	1.78	0.02
16.50	5.95	1.81	0.02
16.75	5.99	1.83	0.02
17.00	6.02	1.85	0.01
17.25	6.05	1.87	0.01
17.50	6.09	1.89	0.01
17.75	6.12	1.91	0.01
18.00	6.14	1.93	0.01
18.25	6.17	1.95	0.01
18.50	6.20	1.96	0.01
18.75	6.22	1.98	0.01
19.00	6.24	2.00	0.01
19.25	6.27	2.01	0.01
19.50	6.29	2.03	0.01
19.75	6.31	2.04	0.01
20.00	**6.34**	**2.06**	0.01

Summary for Subcatchment A3: A3

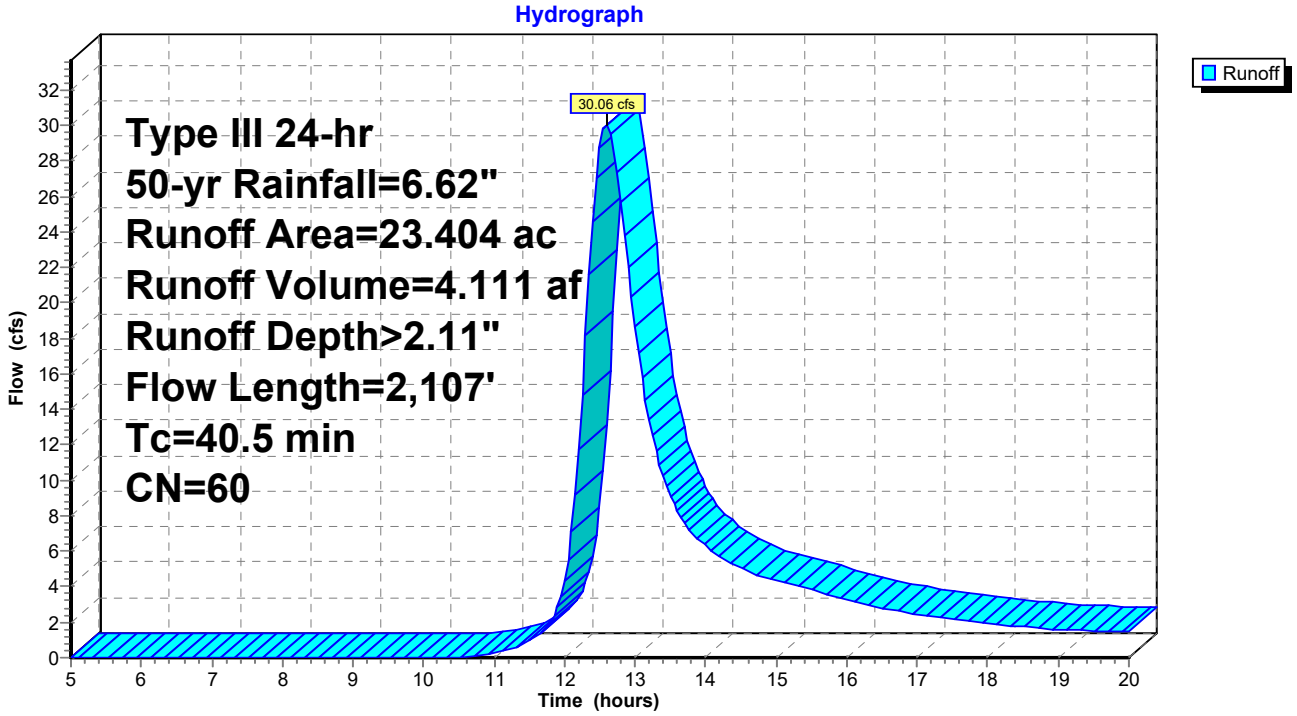
Runoff = 30.06 cfs @ 12.60 hrs, Volume= 4.111 af, Depth> 2.11"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
17.556	61	>75% Grass cover, Good, HSG B
5.800	55	Woods, Good, HSG B
0.048	77	Woods, Good, HSG D
23.404	60	Weighted Average
23.404		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	50	0.0080	0.10		**Sheet Flow, sf1** Grass: Short n= 0.150 P2= 3.11"
32.3	2,057	0.0230	1.06		**Shallow Concentrated Flow, scf1** Short Grass Pasture Kv= 7.0 fps
40.5	2,107	Total			

Subcatchment A3: A3



Hydrograph for Subcatchment A3: A3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.00
10.50	1.43	0.00	0.00
10.75	1.54	0.01	0.06
11.00	1.66	0.01	0.23
11.25	1.79	0.03	0.51
11.50	1.97	0.06	0.94
11.75	2.35	0.13	1.73
12.00	3.31	0.45	4.36
12.25	4.27	0.90	14.80
12.50	4.65	1.10	**28.74**
12.75	4.83	1.20	**27.40**
13.00	4.96	1.28	18.67
13.25	5.08	1.35	12.49
13.50	5.19	1.41	9.11
13.75	5.28	1.47	7.32
14.00	5.37	1.52	6.31
14.25	5.45	1.57	5.58
14.50	5.52	1.62	5.03
14.75	5.59	1.66	4.65
15.00	5.66	1.70	4.36
15.25	5.71	1.74	4.09
15.50	5.77	1.77	3.83
15.75	5.82	1.80	3.57
16.00	5.87	1.83	3.30
16.25	5.91	1.86	3.04
16.50	5.95	1.89	2.79
16.75	5.99	1.91	2.61
17.00	6.02	1.94	2.46
17.25	6.05	1.96	2.34
17.50	6.09	1.98	2.21
17.75	6.12	2.00	2.09
18.00	6.14	2.02	1.97
18.25	6.17	2.03	1.84
18.50	6.20	2.05	1.74
18.75	6.22	2.07	1.66
19.00	6.24	2.08	1.61
19.25	6.27	2.10	1.57
19.50	6.29	2.11	1.53
19.75	6.31	2.13	1.50
20.00	**6.34**	**2.14**	1.46

Summary for Subcatchment A4: A4

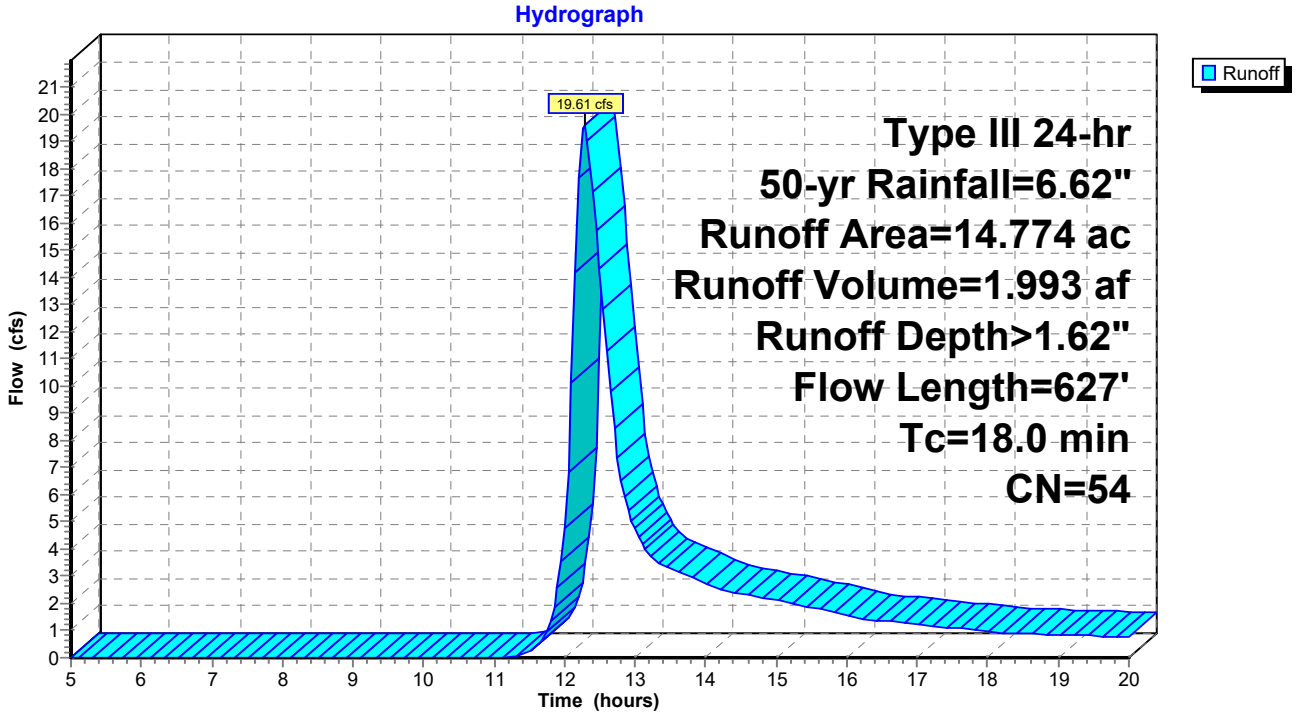
Runoff = 19.61 cfs @ 12.28 hrs, Volume= 1.993 af, Depth> 1.62"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
4.168	39	>75% Grass cover, Good, HSG A
8.560	61	>75% Grass cover, Good, HSG B
0.235	98	Water Surface, HSG D
0.227	79	Woods/grass comb., Good, HSG D
0.598	30	Woods, Good, HSG A
0.986	55	Woods, Good, HSG B
14.774	54	Weighted Average
14.539		98.41% Pervious Area
0.235		1.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	50	0.0100	0.11		**Sheet Flow, sf1** Grass: Short n= 0.150 P2= 3.11"
10.5	577	0.0170	0.91		**Shallow Concentrated Flow, scf1** Short Grass Pasture Kv= 7.0 fps
18.0	627	Total			

Subcatchment A4: A4



Hydrograph for Subcatchment A4: A4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.00
10.50	1.43	0.00	0.00
10.75	1.54	0.00	0.00
11.00	1.66	0.00	0.00
11.25	1.79	0.00	0.01
11.50	1.97	0.01	0.20
11.75	2.35	0.05	0.94
12.00	3.31	0.25	4.79
12.25	4.27	0.59	**19.43**
12.50	4.65	0.76	**14.32**
12.75	4.83	0.84	7.35
13.00	4.96	0.90	4.74
13.25	5.08	0.96	3.67
13.50	5.19	1.01	3.27
13.75	5.28	1.06	3.01
14.00	5.37	1.10	2.76
14.25	5.45	1.14	2.52
14.50	5.52	1.18	2.37
14.75	5.59	1.22	2.25
15.00	5.66	1.25	2.12
15.25	5.71	1.28	1.99
15.50	5.77	1.31	1.85
15.75	5.82	1.34	1.71
16.00	5.87	1.37	1.57
16.25	5.91	1.39	1.44
16.50	5.95	1.41	1.36
16.75	5.99	1.43	1.29
17.00	6.02	1.45	1.23
17.25	6.05	1.47	1.17
17.50	6.09	1.49	1.10
17.75	6.12	1.51	1.04
18.00	6.14	1.52	0.97
18.25	6.17	1.54	0.91
18.50	6.20	1.55	0.88
18.75	6.22	1.56	0.86
19.00	6.24	1.58	0.84
19.25	6.27	1.59	0.82
19.50	6.29	1.61	0.80
19.75	6.31	1.62	0.79
20.00	**6.34**	**1.63**	0.77

Summary for Subcatchment A5: A5

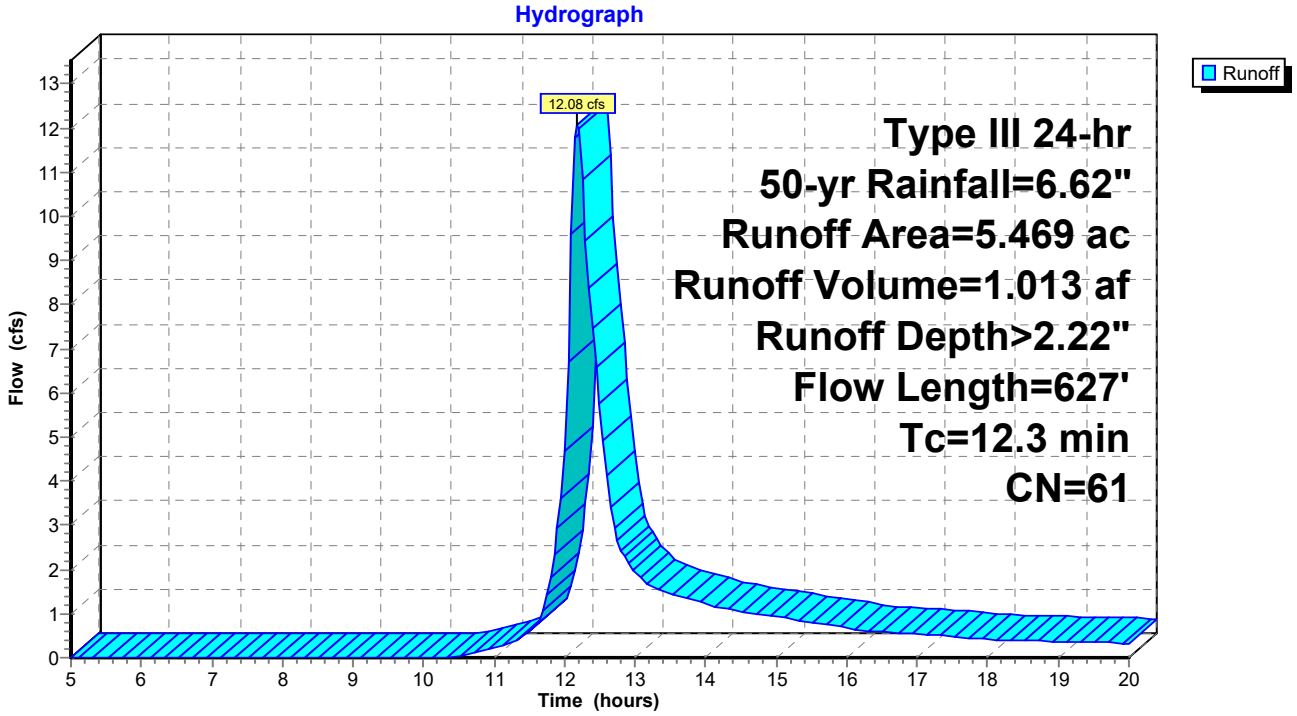
Runoff = 12.08 cfs @ 12.18 hrs, Volume= 1.013 af, Depth> 2.22"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
5.214	61	>75% Grass cover, Good, HSG B
0.190	55	Woods, Good, HSG B
0.065	77	Woods, Good, HSG D
5.469	61	Weighted Average
5.469		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	50	0.0460	0.20		**Sheet Flow, sf1** Grass: Short n= 0.150 P2= 3.11"
8.2	577	0.0280	1.17		**Shallow Concentrated Flow, scf1** Short Grass Pasture Kv= 7.0 fps
12.3	627	Total			

Subcatchment A5: A5



Hydrograph for Subcatchment A5: A5

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.00
10.50	1.43	0.00	0.05
10.75	1.54	0.01	0.12
11.00	1.66	0.02	0.21
11.25	1.79	0.04	0.34
11.50	1.97	0.07	0.57
11.75	2.35	0.15	1.41
12.00	3.31	0.49	**4.68**
12.25	4.27	0.95	**10.82**
12.50	4.65	1.16	5.75
12.75	4.83	1.27	2.64
13.00	4.96	1.35	1.95
13.25	5.08	1.42	1.59
13.50	5.19	1.48	1.46
13.75	5.28	1.54	1.34
14.00	5.37	1.60	1.22
14.25	5.45	1.65	1.11
14.50	5.52	1.69	1.05
14.75	5.59	1.74	0.99
15.00	5.66	1.78	0.93
15.25	5.71	1.82	0.87
15.50	5.77	1.85	0.81
15.75	5.82	1.89	0.74
16.00	5.87	1.92	0.68
16.25	5.91	1.94	0.62
16.50	5.95	1.97	0.59
16.75	5.99	2.00	0.56
17.00	6.02	2.02	0.54
17.25	6.05	2.04	0.51
17.50	6.09	2.06	0.48
17.75	6.12	2.08	0.45
18.00	6.14	2.10	0.42
18.25	6.17	2.12	0.40
18.50	6.20	2.14	0.39
18.75	6.22	2.15	0.38
19.00	6.24	2.17	0.37
19.25	6.27	2.19	0.36
19.50	6.29	2.20	0.35
19.75	6.31	2.22	0.34
20.00	**6.34**	**2.23**	0.33

Summary for Subcatchment A6: A6

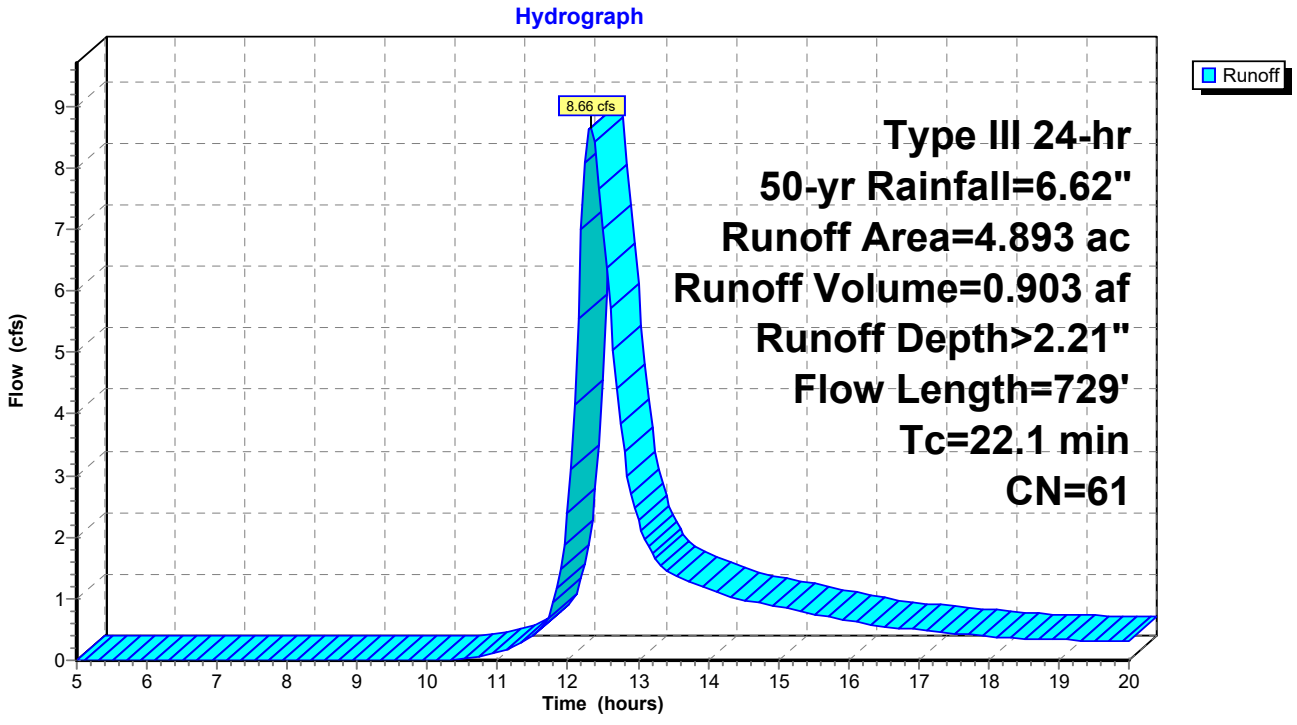
Runoff = 8.66 cfs @ 12.33 hrs, Volume= 0.903 af, Depth> 2.21"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
4.531	61	>75% Grass cover, Good, HSG B
0.362	55	Woods, Good, HSG B
4.893	61	Weighted Average
4.893		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	50	0.0480	0.21		**Sheet Flow, sf1** Grass: Short n= 0.150 P2= 3.11"
18.1	679	0.0080	0.63		**Shallow Concentrated Flow, scf1** Short Grass Pasture Kv= 7.0 fps
22.1	729	Total			

Subcatchment A6: A6



Hydrograph for Subcatchment A6: A6

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.00
10.50	1.43	0.00	0.02
10.75	1.54	0.01	0.07
11.00	1.66	0.02	0.14
11.25	1.79	0.04	0.23
11.50	1.97	0.07	0.39
11.75	2.35	0.15	0.75
12.00	3.31	0.49	2.38
12.25	4.27	0.95	**8.08**
12.50	4.65	1.16	**7.00**
12.75	4.83	1.27	3.85
13.00	4.96	1.35	2.27
13.25	5.08	1.42	1.65
13.50	5.19	1.48	1.39
13.75	5.28	1.54	1.27
14.00	5.37	1.60	1.16
14.25	5.45	1.65	1.05
14.50	5.52	1.69	0.98
14.75	5.59	1.74	0.92
15.00	5.66	1.78	0.87
15.25	5.71	1.82	0.81
15.50	5.77	1.85	0.76
15.75	5.82	1.89	0.70
16.00	5.87	1.92	0.64
16.25	5.91	1.94	0.59
16.50	5.95	1.97	0.55
16.75	5.99	2.00	0.52
17.00	6.02	2.02	0.49
17.25	6.05	2.04	0.47
17.50	6.09	2.06	0.44
17.75	6.12	2.08	0.42
18.00	6.14	2.10	0.39
18.25	6.17	2.12	0.37
18.50	6.20	2.14	0.35
18.75	6.22	2.15	0.34
19.00	6.24	2.17	0.33
19.25	6.27	2.19	0.33
19.50	6.29	2.20	0.32
19.75	6.31	2.22	0.31
20.00	**6.34**	**2.23**	0.30

Summary for Subcatchment A8: A8

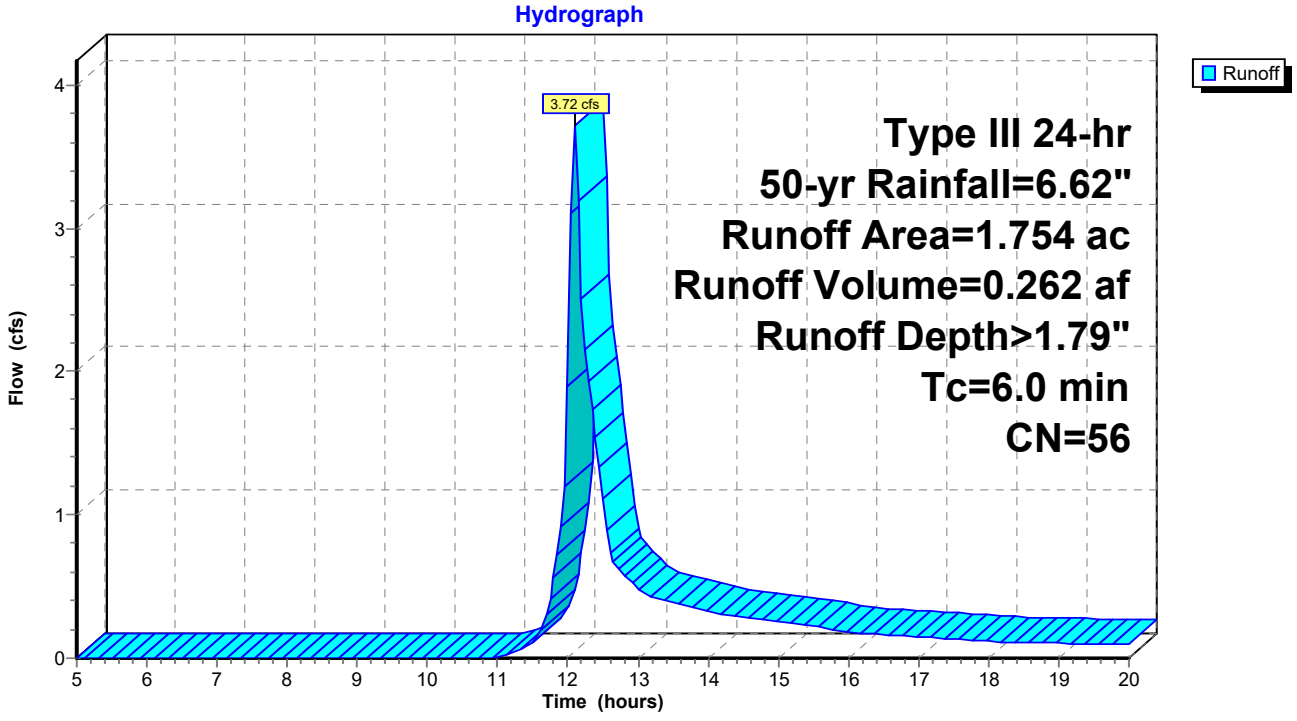
Runoff = 3.72 cfs @ 12.10 hrs, Volume= 0.262 af, Depth> 1.79"
Routed to Reach DP-A : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.434	61	>75% Grass cover, Good, HSG B
1.320	55	Woods, Good, HSG B
1.754	56	Weighted Average
1.754		100.00% Pervious Area

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

Subcatchment A8: A8



Hydrograph for Subcatchment A8: A8

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.00
10.50	1.43	0.00	0.00
10.75	1.54	0.00	0.00
11.00	1.66	0.00	0.01
11.25	1.79	0.01	0.04
11.50	1.97	0.02	0.10
11.75	2.35	0.07	0.42
12.00	3.31	0.31	**1.90**
12.25	4.27	0.69	**2.15**
12.50	4.65	0.87	1.11
12.75	4.83	0.95	0.61
13.00	4.96	1.02	0.48
13.25	5.08	1.08	0.42
13.50	5.19	1.14	0.39
13.75	5.28	1.19	0.36
14.00	5.37	1.24	0.33
14.25	5.45	1.28	0.30
14.50	5.52	1.32	0.29
14.75	5.59	1.36	0.27
15.00	5.66	1.40	0.26
15.25	5.71	1.43	0.24
15.50	5.77	1.46	0.22
15.75	5.82	1.49	0.20
16.00	5.87	1.52	0.18
16.25	5.91	1.54	0.17
16.50	5.95	1.57	0.16
16.75	5.99	1.59	0.16
17.00	6.02	1.61	0.15
17.25	6.05	1.63	0.14
17.50	6.09	1.65	0.13
17.75	6.12	1.67	0.12
18.00	6.14	1.68	0.12
18.25	6.17	1.70	0.11
18.50	6.20	1.71	0.11
18.75	6.22	1.73	0.11
19.00	6.24	1.74	0.10
19.25	6.27	1.76	0.10
19.50	6.29	1.77	0.10
19.75	6.31	1.78	0.10
20.00	**6.34**	**1.80**	0.09

Summary for Subcatchment B1-1: B1-1

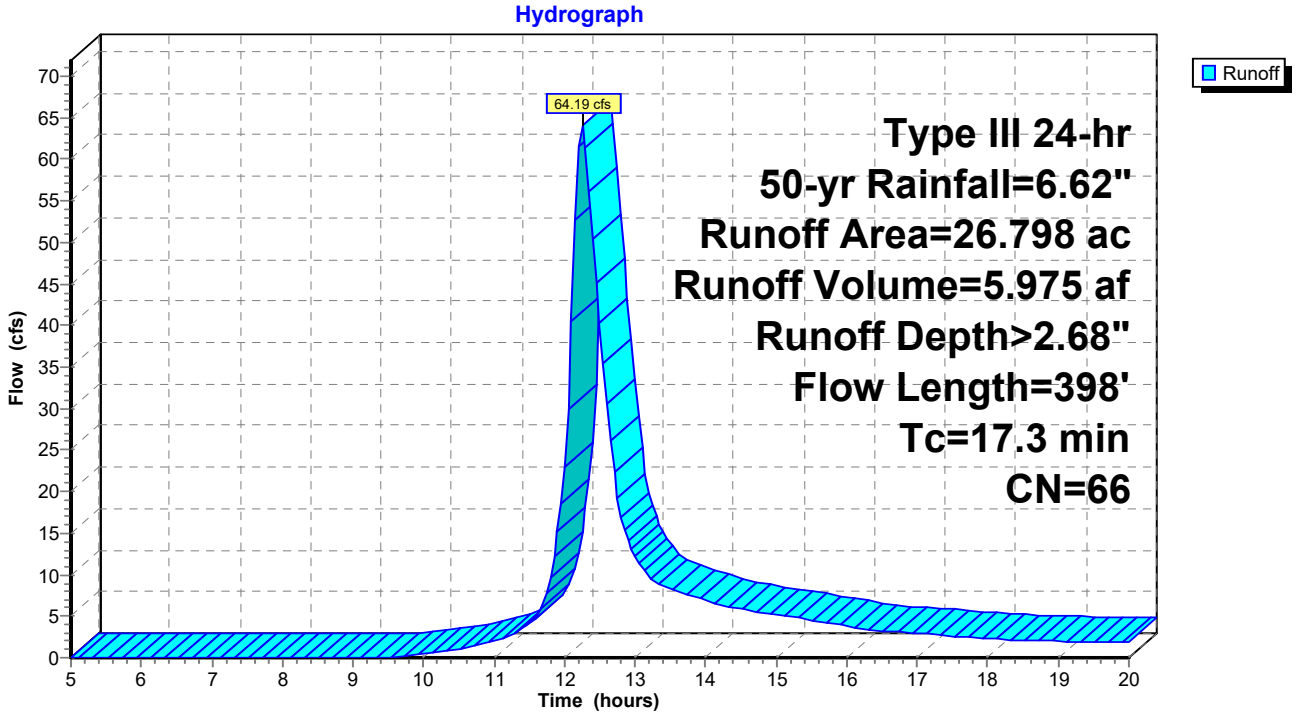
Runoff = 64.19 cfs @ 12.25 hrs, Volume= 5.975 af, Depth> 2.68"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.066	39	>75% Grass cover, Good, HSG A
2.486	61	>75% Grass cover, Good, HSG B
1.018	80	>75% Grass cover, Good, HSG D
0.054	30	Woods, Good, HSG A
12.694	55	Woods, Good, HSG B
9.382	77	Woods, Good, HSG D
0.369	98	Water Surface, HSG B
0.009	48	Brush, Good, HSG B
0.720	98	Paved parking, HSG A
26.798	66	Weighted Average
25.709		95.94% Pervious Area
1.089		4.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	50	0.0320	0.08		**Sheet Flow, sf-1** Woods: Light underbrush n= 0.400 P2= 3.11"
6.9	348	0.0280	0.84		**Shallow Concentrated Flow, scf-1** Woodland Kv= 5.0 fps
17.3	398	Total			

Subcatchment B1-1: B1-1



Hydrograph for Subcatchment B1-1: B1-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.03
9.75	1.17	0.00	0.19
10.00	1.25	0.01	0.42
10.25	1.34	0.02	0.70
10.50	1.43	0.03	1.06
10.75	1.54	0.05	1.50
11.00	1.66	0.07	2.03
11.25	1.79	0.10	2.74
11.50	1.97	0.15	4.11
11.75	2.35	0.27	7.78
12.00	3.31	0.70	22.95
12.25	4.27	1.25	**64.19**
12.50	4.65	1.49	40.19
12.75	4.83	1.61	19.22
13.00	4.96	1.70	12.19
13.25	5.08	1.78	9.39
13.50	5.19	1.86	8.32
13.75	5.28	1.92	7.62
14.00	5.37	1.98	6.93
14.25	5.45	2.04	6.29
14.50	5.52	2.09	5.89
14.75	5.59	2.14	5.55
15.00	5.66	2.19	5.21
15.25	5.71	2.23	4.87
15.50	5.77	2.27	4.52
15.75	5.82	2.31	4.16
16.00	5.87	2.34	3.80
16.25	5.91	2.37	3.47
16.50	5.95	2.40	3.28
16.75	5.99	2.43	3.11
17.00	6.02	2.46	2.96
17.25	6.05	2.48	2.80
17.50	6.09	2.50	2.64
17.75	6.12	2.53	2.48
18.00	6.14	2.55	2.32
18.25	6.17	2.57	2.17
18.50	6.20	2.59	2.10
18.75	6.22	2.60	2.05
19.00	6.24	2.62	2.00
19.25	6.27	2.64	1.96
19.50	6.29	2.66	1.91
19.75	6.31	2.67	1.86
20.00	**6.34**	**2.69**	1.81

Summary for Subcatchment B1-2: B1-A

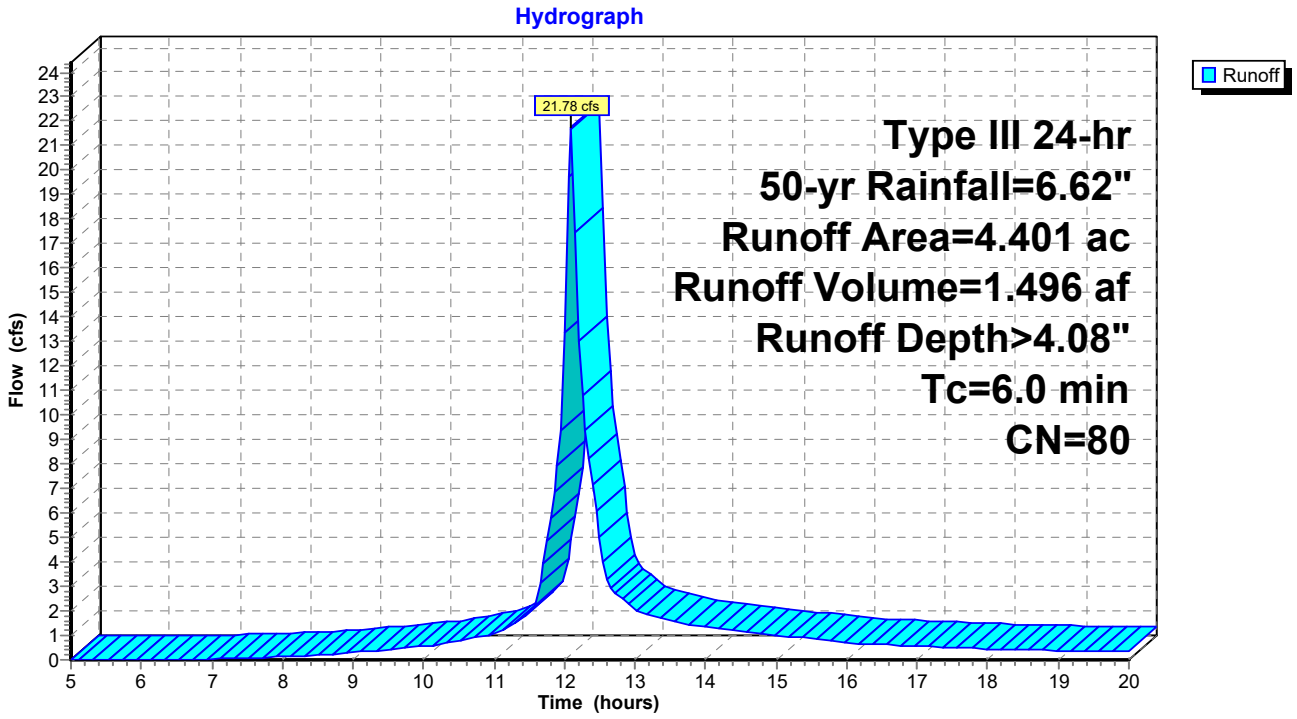
Runoff = 21.78 cfs @ 12.09 hrs, Volume= 1.496 af, Depth> 4.08"
Routed to Pond B1-2* : B1-2 Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.099	39	>75% Grass cover, Good, HSG A
2.032	61	>75% Grass cover, Good, HSG B
2.270	98	Paved parking, HSG A
4.401	80	Weighted Average
2.131		48.42% Pervious Area
2.270		51.58% Impervious Area

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

Subcatchment B1-2: B1-A



Hydrograph for Subcatchment B1-2: B1-A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.01
6.75	0.57	0.00	0.02
7.00	0.60	0.00	0.04
7.25	0.63	0.01	0.06
7.50	0.67	0.01	0.08
7.75	0.71	0.02	0.10
8.00	0.75	0.02	0.13
8.25	0.80	0.03	0.16
8.50	0.85	0.04	0.20
8.75	0.91	0.06	0.25
9.00	0.96	0.07	0.30
9.25	1.03	0.09	0.36
9.50	1.10	0.12	0.42
9.75	1.17	0.14	0.49
10.00	1.25	0.17	0.56
10.25	1.34	0.21	0.66
10.50	1.43	0.25	0.79
10.75	1.54	0.31	0.93
11.00	1.66	0.36	1.08
11.25	1.79	0.44	1.42
11.50	1.97	0.55	1.91
11.75	2.35	0.79	4.87
12.00	3.31	1.49	**13.39**
12.25	4.27	2.27	**10.77**
12.50	4.65	2.59	5.03
12.75	4.83	2.74	2.66
13.00	4.96	2.86	2.08
13.25	5.08	2.96	1.78
13.50	5.19	3.06	1.63
13.75	5.28	3.14	1.48
14.00	5.37	3.22	1.33
14.25	5.45	3.29	1.23
14.50	5.52	3.35	1.16
14.75	5.59	3.41	1.08
15.00	5.66	3.47	1.01
15.25	5.71	3.52	0.94
15.50	5.77	3.57	0.86
15.75	5.82	3.62	0.79
16.00	5.87	3.66	0.71
16.25	5.91	3.70	0.67
16.50	5.95	3.73	0.63
16.75	5.99	3.77	0.60
17.00	6.02	3.80	0.57
17.25	6.05	3.83	0.54
17.50	6.09	3.86	0.50
17.75	6.12	3.89	0.47
18.00	6.14	3.91	0.44
18.25	6.17	3.93	0.42
18.50	6.20	3.96	0.41
18.75	6.22	3.98	0.40
19.00	6.24	4.00	0.39
19.25	6.27	4.02	0.38
19.50	6.29	4.04	0.37
19.75	6.31	4.07	0.36
20.00	**6.34**	**4.09**	0.35

Summary for Subcatchment B1-3: B1-B

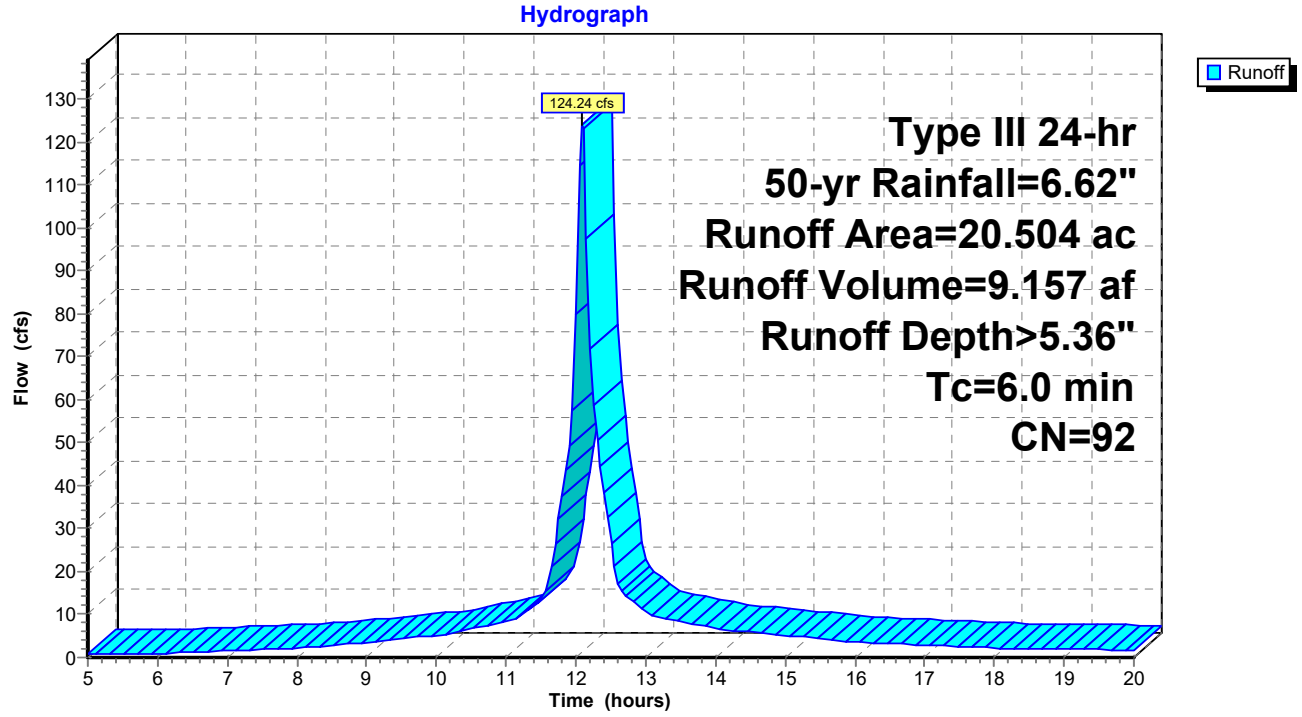
Runoff = 124.24 cfs @ 12.09 hrs, Volume= 9.157 af, Depth> 5.36"
Routed to Pond B1-3* : B1-3 Dry Extended Basin with Micropool

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.072	39	>75% Grass cover, Good, HSG A
3.314	61	>75% Grass cover, Good, HSG B
3.548	98	Roofs, HSG A
13.570	98	Paved parking, HSG A
20.504	92	Weighted Average
3.386		16.51% Pervious Area
17.118		83.49% Impervious Area

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

Subcatchment B1-3: B1-B



Hydrograph for Subcatchment B1-3: B1-B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.04	0.65
5.25	0.40	0.05	0.73
5.50	0.42	0.06	0.80
5.75	0.45	0.07	0.88
6.00	0.48	0.08	0.96
6.25	0.50	0.09	1.07
6.50	0.53	0.11	1.21
6.75	0.57	0.12	1.36
7.00	0.60	0.14	1.52
7.25	0.63	0.16	1.68
7.50	0.67	0.18	1.85
7.75	0.71	0.21	2.03
8.00	0.75	0.23	2.21
8.25	0.80	0.26	2.49
8.50	0.85	0.30	2.84
8.75	0.91	0.33	3.20
9.00	0.96	0.38	3.58
9.25	1.03	0.42	3.97
9.50	1.10	0.48	4.38
9.75	1.17	0.53	4.79
10.00	1.25	0.60	5.21
10.25	1.34	0.67	5.86
10.50	1.43	0.74	6.65
10.75	1.54	0.83	7.47
11.00	1.66	0.93	8.31
11.25	1.79	1.05	10.45
11.50	1.97	1.21	13.43
11.75	2.35	1.56	32.04
12.00	3.31	2.46	**79.88**
12.25	4.27	3.38	**58.71**
12.50	4.65	3.75	26.69
12.75	4.83	3.92	13.97
13.00	4.96	4.06	10.89
13.25	5.08	4.17	9.26
13.50	5.19	4.27	8.46
13.75	5.28	4.37	7.66
14.00	5.37	4.45	6.87
14.25	5.45	4.53	6.33
14.50	5.52	4.60	5.95
14.75	5.59	4.67	5.56
15.00	5.66	4.73	5.18
15.25	5.71	4.79	4.79
15.50	5.77	4.84	4.41
15.75	5.82	4.89	4.02
16.00	5.87	4.94	3.64
16.25	5.91	4.98	3.39
16.50	5.95	5.02	3.22
16.75	5.99	5.05	3.06
17.00	6.02	5.09	2.89
17.25	6.05	5.12	2.72
17.50	6.09	5.15	2.55
17.75	6.12	5.18	2.38
18.00	6.14	5.21	2.22
18.25	6.17	5.24	2.12
18.50	6.20	5.26	2.07
18.75	6.22	5.29	2.02
19.00	6.24	5.31	1.97
19.25	6.27	5.33	1.92
19.50	6.29	5.36	1.87
19.75	6.31	5.38	1.82
20.00	**6.34**	**5.40**	1.77

Summary for Subcatchment B10: B10

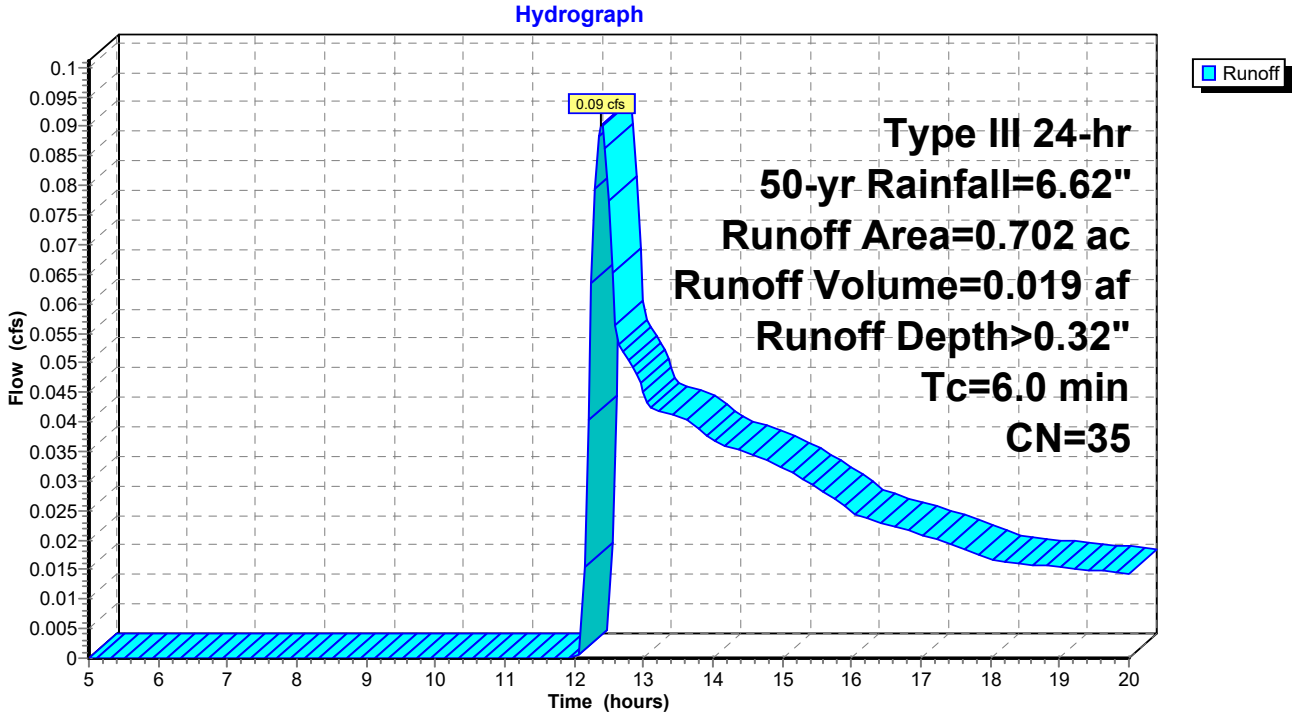
Runoff = 0.09 cfs @ 12.39 hrs, Volume= 0.019 af, Depth> 0.32"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.368	39	>75% Grass cover, Good, HSG A
0.334	30	Woods, Good, HSG A
0.702	35	Weighted Average
0.702		100.00% Pervious Area

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

Subcatchment B10: B10



Hydrograph for Subcatchment B10: B10

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.00
10.50	1.43	0.00	0.00
10.75	1.54	0.00	0.00
11.00	1.66	0.00	0.00
11.25	1.79	0.00	0.00
11.50	1.97	0.00	0.00
11.75	2.35	0.00	0.00
12.00	3.31	0.00	0.00
12.25	4.27	0.02	**0.06**
12.50	4.65	0.04	**0.08**
12.75	4.83	0.06	0.05
13.00	4.96	0.08	0.05
13.25	5.08	0.09	0.04
13.50	5.19	0.11	0.04
13.75	5.28	0.12	0.04
14.00	5.37	0.14	0.04
14.25	5.45	0.15	0.04
14.50	5.52	0.16	0.03
14.75	5.59	0.17	0.03
15.00	5.66	0.18	0.03
15.25	5.71	0.19	0.03
15.50	5.77	0.20	0.03
15.75	5.82	0.21	0.03
16.00	5.87	0.22	0.02
16.25	5.91	0.23	0.02
16.50	5.95	0.24	0.02
16.75	5.99	0.25	0.02
17.00	6.02	0.25	0.02
17.25	6.05	0.26	0.02
17.50	6.09	0.27	0.02
17.75	6.12	0.27	0.02
18.00	6.14	0.28	0.02
18.25	6.17	0.29	0.02
18.50	6.20	0.29	0.02
18.75	6.22	0.30	0.02
19.00	6.24	0.30	0.02
19.25	6.27	0.31	0.02
19.50	6.29	0.31	0.01
19.75	6.31	0.32	0.01
20.00	**6.34**	**0.32**	0.01

Summary for Subcatchment B11: B11

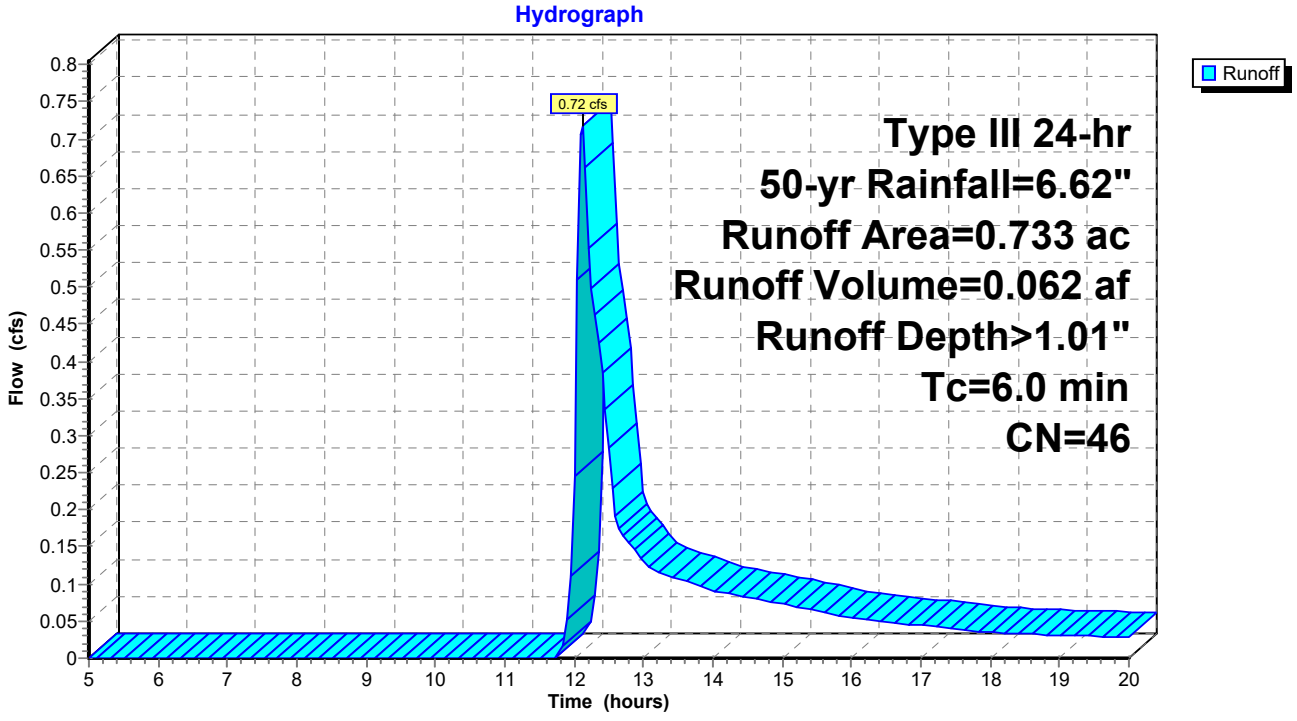
Runoff = 0.72 cfs @ 12.12 hrs, Volume= 0.062 af, Depth> 1.01"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.390	61	>75% Grass cover, Good, HSG B
0.343	30	Woods, Good, HSG A
0.733	46	Weighted Average
0.733		100.00% Pervious Area

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

Subcatchment B11: B11



Hydrograph for Subcatchment B11: B11

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.00
10.50	1.43	0.00	0.00
10.75	1.54	0.00	0.00
11.00	1.66	0.00	0.00
11.25	1.79	0.00	0.00
11.50	1.97	0.00	0.00
11.75	2.35	0.00	0.00
12.00	3.31	0.07	**0.25**
12.25	4.27	0.27	**0.50**
12.50	4.65	0.38	0.28
12.75	4.83	0.43	0.16
13.00	4.96	0.48	0.13
13.25	5.08	0.52	0.11
13.50	5.19	0.55	0.11
13.75	5.28	0.59	0.10
14.00	5.37	0.62	0.09
14.25	5.45	0.65	0.09
14.50	5.52	0.68	0.08
14.75	5.59	0.70	0.08
15.00	5.66	0.73	0.07
15.25	5.71	0.75	0.07
15.50	5.77	0.77	0.06
15.75	5.82	0.79	0.06
16.00	5.87	0.81	0.05
16.25	5.91	0.83	0.05
16.50	5.95	0.84	0.05
16.75	5.99	0.86	0.05
17.00	6.02	0.88	0.04
17.25	6.05	0.89	0.04
17.50	6.09	0.90	0.04
17.75	6.12	0.92	0.04
18.00	6.14	0.93	0.03
18.25	6.17	0.94	0.03
18.50	6.20	0.95	0.03
18.75	6.22	0.96	0.03
19.00	6.24	0.97	0.03
19.25	6.27	0.98	0.03
19.50	6.29	0.99	0.03
19.75	6.31	1.00	0.03
20.00	**6.34**	**1.01**	0.03

Summary for Subcatchment B13: B13

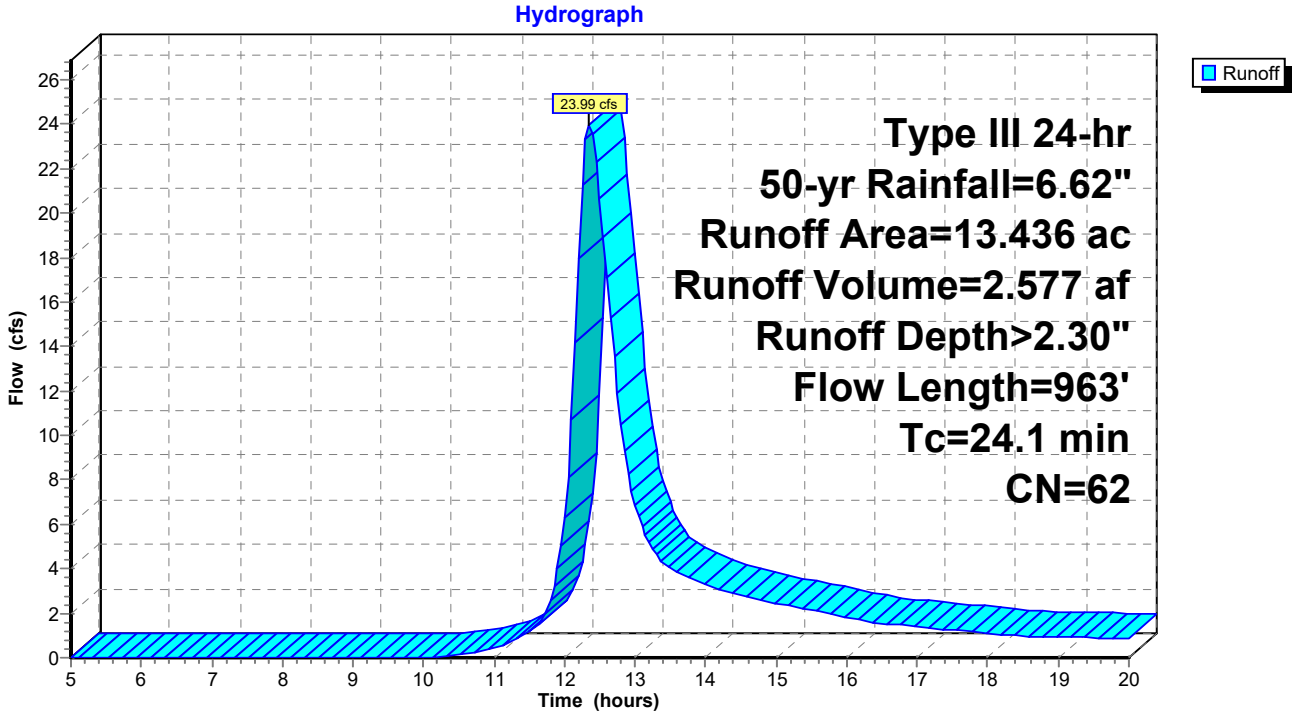
Runoff = 23.99 cfs @ 12.36 hrs, Volume= 2.577 af, Depth> 2.30"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.367	61	>75% Grass cover, Good, HSG B
0.993	61	>75% Grass cover, Good, HSG B
0.070	74	>75% Grass cover, Good, HSG C
0.836	80	>75% Grass cover, Good, HSG D
0.085	55	Woods, Good, HSG B
8.121	55	Woods, Good, HSG B
0.959	70	Woods, Good, HSG C
2.005	77	Woods, Good, HSG D
13.436	62	Weighted Average
13.436		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.2600	0.19		**Sheet Flow, sf-1** Woods: Light underbrush n= 0.400 P2= 3.11"
19.6	913	0.0240	0.77		**Shallow Concentrated Flow, scf-1** Woodland Kv= 5.0 fps
24.1	963	Total			

Subcatchment B13: B13



Hydrograph for Subcatchment B13: B13

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.02
10.50	1.43	0.01	0.12
10.75	1.54	0.02	0.27
11.00	1.66	0.03	0.47
11.25	1.79	0.05	0.72
11.50	1.97	0.08	1.16
11.75	2.35	0.17	2.11
12.00	3.31	0.53	6.32
12.25	4.27	1.01	**21.25**
12.50	4.65	1.23	**20.65**
12.75	4.83	1.33	11.90
13.00	4.96	1.42	6.88
13.25	5.08	1.49	4.90
13.50	5.19	1.55	4.02
13.75	5.28	1.62	3.62
14.00	5.37	1.67	3.30
14.25	5.45	1.72	3.00
14.50	5.52	1.77	2.78
14.75	5.59	1.82	2.61
15.00	5.66	1.86	2.46
15.25	5.71	1.90	2.31
15.50	5.77	1.93	2.15
15.75	5.82	1.97	1.99
16.00	5.87	2.00	1.82
16.25	5.91	2.03	1.66
16.50	5.95	2.05	1.55
16.75	5.99	2.08	1.47
17.00	6.02	2.10	1.40
17.25	6.05	2.13	1.33
17.50	6.09	2.15	1.25
17.75	6.12	2.17	1.18
18.00	6.14	2.19	1.10
18.25	6.17	2.21	1.03
18.50	6.20	2.22	0.99
18.75	6.22	2.24	0.96
19.00	6.24	2.26	0.94
19.25	6.27	2.28	0.92
19.50	6.29	2.29	0.90
19.75	6.31	2.31	0.87
20.00	**6.34**	**2.32**	0.85

Summary for Subcatchment B2: B2

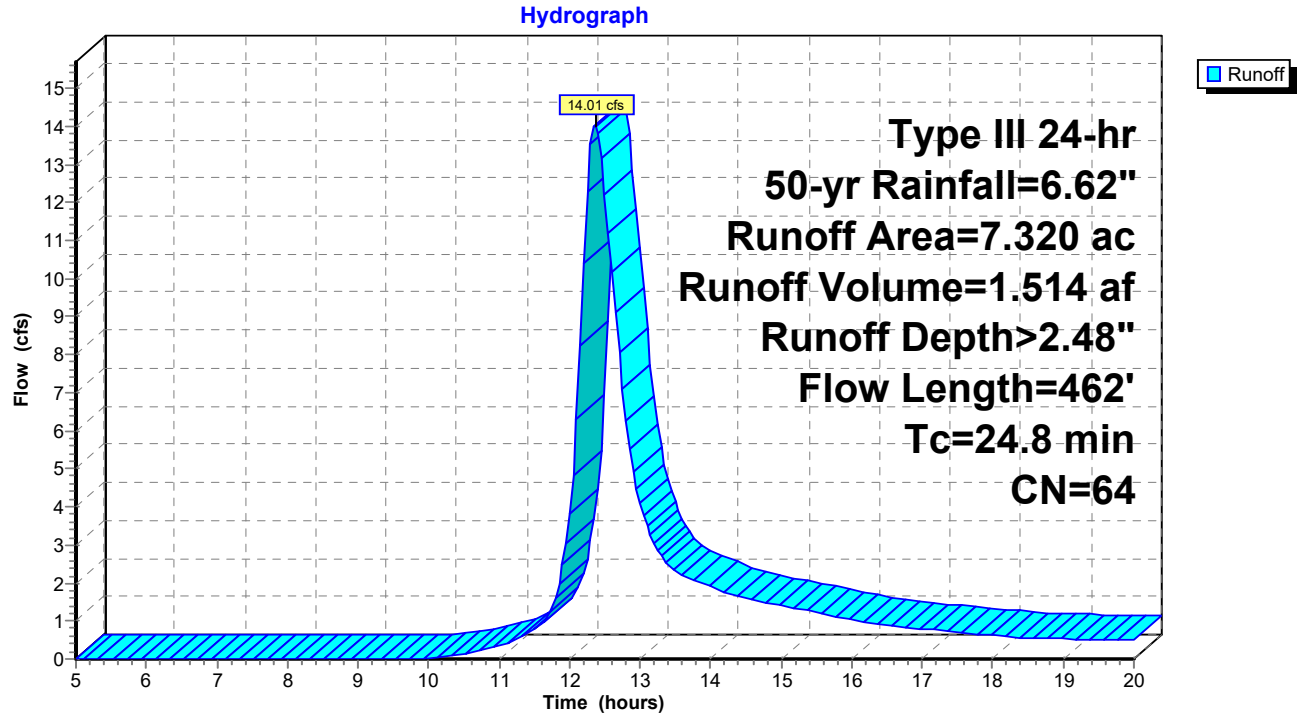
Runoff = 14.01 cfs @ 12.36 hrs, Volume= 1.514 af, Depth> 2.48"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
6.491	61	>75% Grass cover, Good, HSG B
0.198	80	>75% Grass cover, Good, HSG D
0.434	98	Water Surface, HSG D
0.193	55	Woods, Good, HSG B
0.004	77	Woods, Good, HSG D
7.320	64	Weighted Average
6.886		94.07% Pervious Area
0.434		5.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	50	0.0040	0.08		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
13.9	412	0.0050	0.49		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
24.8	462	Total			

Subcatchment B2: B2



Hydrograph for Subcatchment B2: B2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.02
10.25	1.34	0.01	0.07
10.50	1.43	0.02	0.15
10.75	1.54	0.03	0.25
11.00	1.66	0.05	0.37
11.25	1.79	0.07	0.52
11.50	1.97	0.11	0.78
11.75	2.35	0.22	1.35
12.00	3.31	0.61	3.81
12.25	4.27	1.13	**12.30**
12.50	4.65	1.36	**12.22**
12.75	4.83	1.47	7.10
13.00	4.96	1.56	4.07
13.25	5.08	1.63	2.87
13.50	5.19	1.70	2.33
13.75	5.28	1.77	2.08
14.00	5.37	1.82	1.89
14.25	5.45	1.88	1.72
14.50	5.52	1.93	1.59
14.75	5.59	1.98	1.50
15.00	5.66	2.02	1.41
15.25	5.71	2.06	1.32
15.50	5.77	2.10	1.23
15.75	5.82	2.14	1.14
16.00	5.87	2.17	1.04
16.25	5.91	2.20	0.95
16.50	5.95	2.23	0.89
16.75	5.99	2.25	0.84
17.00	6.02	2.28	0.80
17.25	6.05	2.30	0.75
17.50	6.09	2.33	0.71
17.75	6.12	2.35	0.67
18.00	6.14	2.37	0.63
18.25	6.17	2.39	0.59
18.50	6.20	2.40	0.56
18.75	6.22	2.42	0.55
19.00	6.24	2.44	0.53
19.25	6.27	2.46	0.52
19.50	6.29	2.47	0.51
19.75	6.31	2.49	0.50
20.00	**6.34**	**2.51**	0.48

Summary for Subcatchment B3-1: B3-1

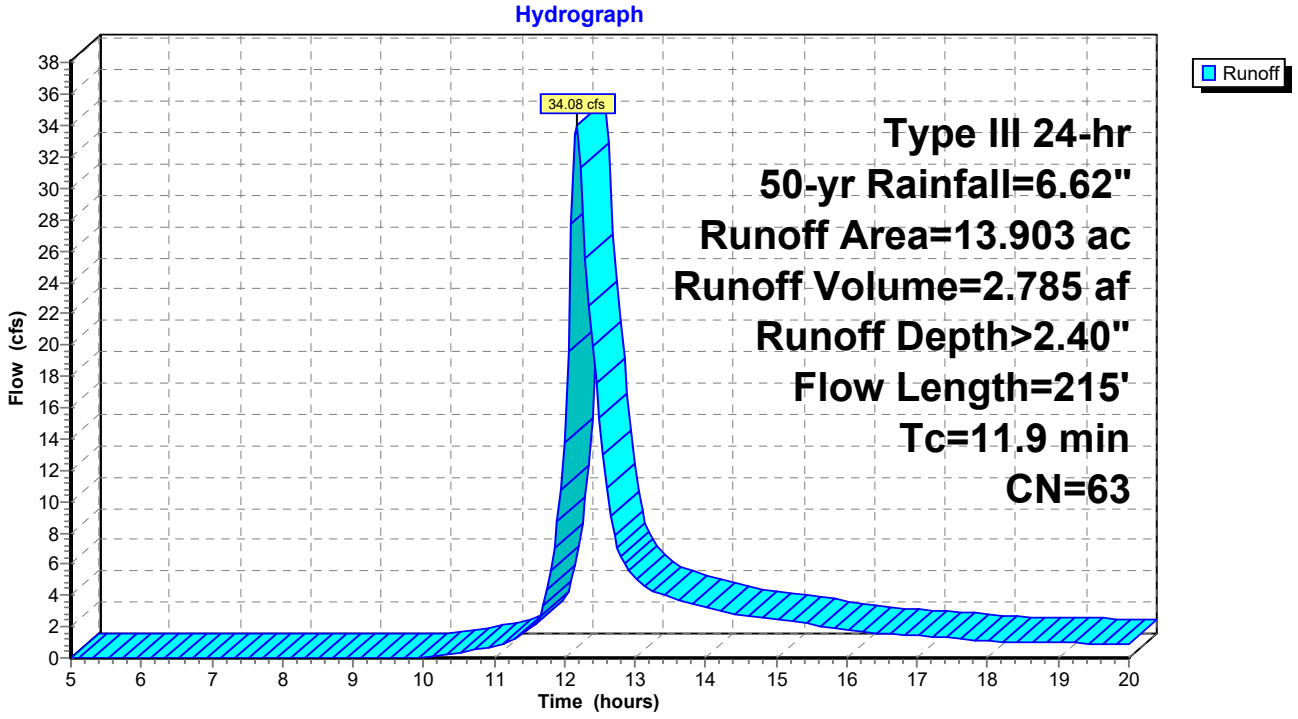
Runoff = 34.08 cfs @ 12.17 hrs, Volume= 2.785 af, Depth> 2.40"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
1.727	61	>75% Grass cover, Good, HSG B
0.454	80	>75% Grass cover, Good, HSG D
7.869	55	Woods, Good, HSG B
3.853	77	Woods, Good, HSG D
13.903	63	Weighted Average
13.903		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	50	0.0540	0.10		**Sheet Flow, sf-1** Woods: Light underbrush n= 0.400 P2= 3.11"
3.5	165	0.0250	0.79		**Shallow Concentrated Flow, scf-1** Woodland Kv= 5.0 fps
11.9	215	Total			

Subcatchment B3-1: B3-1



Hydrograph for Subcatchment B3-1: B3-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.03
10.25	1.34	0.00	0.16
10.50	1.43	0.01	0.32
10.75	1.54	0.02	0.53
11.00	1.66	0.04	0.78
11.25	1.79	0.06	1.16
11.50	1.97	0.10	1.84
11.75	2.35	0.20	4.37
12.00	3.31	0.57	**13.74**
12.25	4.27	1.07	**29.46**
12.50	4.65	1.29	15.30
12.75	4.83	1.40	7.00
13.00	4.96	1.49	5.21
13.25	5.08	1.56	4.25
13.50	5.19	1.63	3.89
13.75	5.28	1.69	3.58
14.00	5.37	1.75	3.25
14.25	5.45	1.80	2.97
14.50	5.52	1.85	2.80
14.75	5.59	1.90	2.65
15.00	5.66	1.94	2.48
15.25	5.71	1.98	2.32
15.50	5.77	2.02	2.15
15.75	5.82	2.05	1.97
16.00	5.87	2.08	1.80
16.25	5.91	2.11	1.65
16.50	5.95	2.14	1.57
16.75	5.99	2.17	1.50
17.00	6.02	2.19	1.42
17.25	6.05	2.21	1.34
17.50	6.09	2.24	1.27
17.75	6.12	2.26	1.19
18.00	6.14	2.28	1.11
18.25	6.17	2.30	1.05
18.50	6.20	2.31	1.02
18.75	6.22	2.33	1.00
19.00	6.24	2.35	0.97
19.25	6.27	2.37	0.95
19.50	6.29	2.38	0.93
19.75	6.31	2.40	0.91
20.00	**6.34**	**2.41**	0.88

Summary for Subcatchment B3-2: B3-2

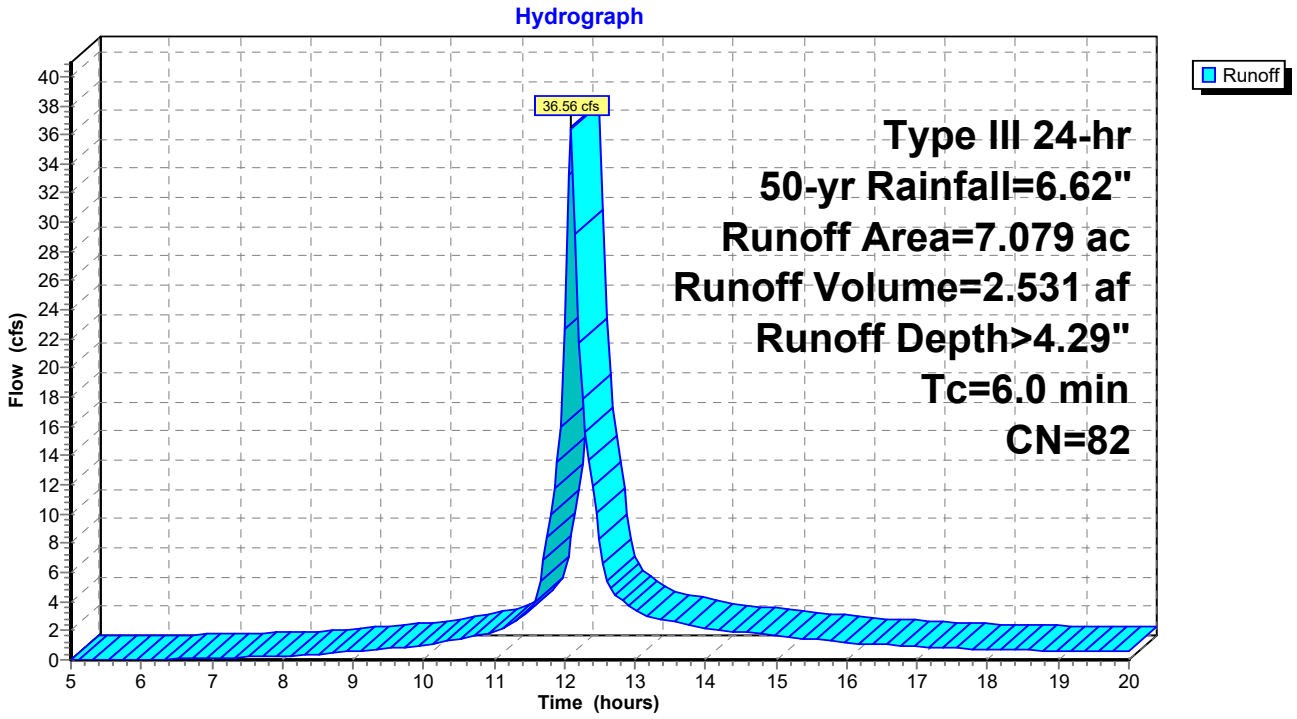
Runoff = 36.56 cfs @ 12.09 hrs, Volume= 2.531 af, Depth> 4.29"
Routed to Pond B3-2* : B3-2 Dry Extended Basin with Micropool

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
3.045	61	>75% Grass cover, Good, HSG B
0.069	80	>75% Grass cover, Good, HSG D
3.965	98	Paved parking, HSG A
7.079	82	Weighted Average
3.114		43.99% Pervious Area
3.965		56.01% Impervious Area

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

Subcatchment B3-2: B3-2



Hydrograph for Subcatchment B3-2: B3-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.02
6.25	0.50	0.00	0.04
6.50	0.53	0.00	0.06
6.75	0.57	0.01	0.09
7.00	0.60	0.01	0.12
7.25	0.63	0.02	0.15
7.50	0.67	0.02	0.19
7.75	0.71	0.03	0.23
8.00	0.75	0.04	0.27
8.25	0.80	0.05	0.33
8.50	0.85	0.06	0.41
8.75	0.91	0.08	0.49
9.00	0.96	0.10	0.58
9.25	1.03	0.13	0.68
9.50	1.10	0.15	0.79
9.75	1.17	0.18	0.91
10.00	1.25	0.22	1.03
10.25	1.34	0.26	1.21
10.50	1.43	0.31	1.43
10.75	1.54	0.37	1.67
11.00	1.66	0.43	1.92
11.25	1.79	0.52	2.50
11.50	1.97	0.63	3.34
11.75	2.35	0.89	8.39
12.00	3.31	1.63	**22.68**
12.25	4.27	2.43	**17.92**
12.50	4.65	2.77	8.32
12.75	4.83	2.92	4.39
13.00	4.96	3.05	3.44
13.25	5.08	3.15	2.93
13.50	5.19	3.25	2.69
13.75	5.28	3.33	2.44
14.00	5.37	3.41	2.19
14.25	5.45	3.48	2.02
14.50	5.52	3.55	1.90
14.75	5.59	3.61	1.78
15.00	5.66	3.67	1.66
15.25	5.71	3.73	1.54
15.50	5.77	3.78	1.42
15.75	5.82	3.82	1.30
16.00	5.87	3.86	1.17
16.25	5.91	3.90	1.09
16.50	5.95	3.94	1.04
16.75	5.99	3.97	0.99
17.00	6.02	4.01	0.93
17.25	6.05	4.04	0.88
17.50	6.09	4.07	0.83
17.75	6.12	4.09	0.77
18.00	6.14	4.12	0.72
18.25	6.17	4.14	0.69
18.50	6.20	4.17	0.67
18.75	6.22	4.19	0.66
19.00	6.24	4.21	0.64
19.25	6.27	4.23	0.62
19.50	6.29	4.26	0.61
19.75	6.31	4.28	0.59
20.00	**6.34**	**4.30**	0.58

Summary for Subcatchment B4: B4

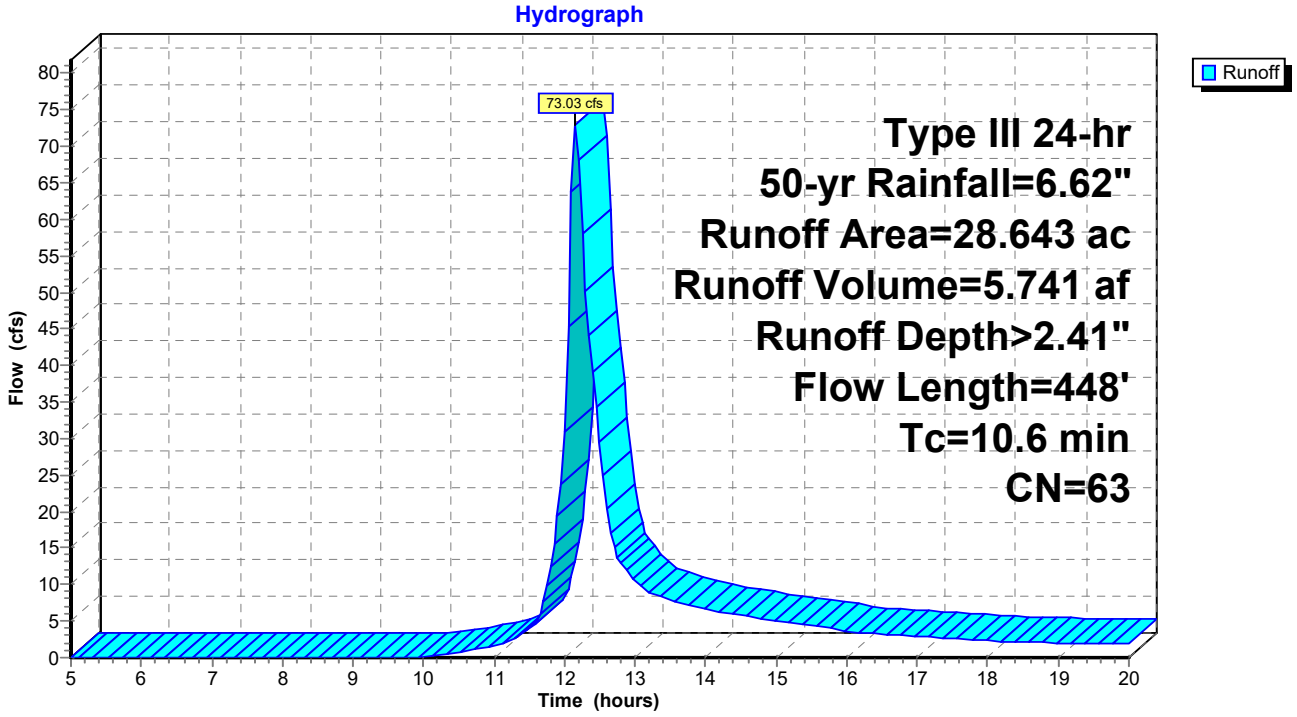
Runoff = 73.03 cfs @ 12.16 hrs, Volume= 5.741 af, Depth> 2.41"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
7.992	61	>75% Grass cover, Good, HSG B
2.765	80	>75% Grass cover, Good, HSG D
1.932	73	Brush, Good, HSG D
12.023	55	Woods, Good, HSG B
3.931	77	Woods, Good, HSG D
28.643	63	Weighted Average
28.643		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.0360	0.18		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
6.1	398	0.0240	1.08		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
10.6	448	Total			

Subcatchment B4: B4



Hydrograph for Subcatchment B4: B4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.08
10.25	1.34	0.00	0.34
10.50	1.43	0.01	0.69
10.75	1.54	0.02	1.13
11.00	1.66	0.04	1.65
11.25	1.79	0.06	2.47
11.50	1.97	0.10	3.92
11.75	2.35	0.20	9.80
12.00	3.31	0.57	**30.91**
12.25	4.27	1.07	**58.12**
12.50	4.65	1.29	29.58
12.75	4.83	1.40	13.73
13.00	4.96	1.49	10.51
13.25	5.08	1.56	8.66
13.50	5.19	1.63	7.97
13.75	5.28	1.69	7.32
14.00	5.37	1.75	6.64
14.25	5.45	1.80	6.09
14.50	5.52	1.85	5.75
14.75	5.59	1.90	5.42
15.00	5.66	1.94	5.09
15.25	5.71	1.98	4.74
15.50	5.77	2.02	4.39
15.75	5.82	2.05	4.04
16.00	5.87	2.08	3.67
16.25	5.91	2.11	3.39
16.50	5.95	2.14	3.23
16.75	5.99	2.17	3.07
17.00	6.02	2.19	2.91
17.25	6.05	2.21	2.75
17.50	6.09	2.24	2.59
17.75	6.12	2.26	2.43
18.00	6.14	2.28	2.27
18.25	6.17	2.30	2.15
18.50	6.20	2.31	2.10
18.75	6.22	2.33	2.05
19.00	6.24	2.35	2.00
19.25	6.27	2.37	1.96
19.50	6.29	2.38	1.91
19.75	6.31	2.40	1.86
20.00	**6.34**	**2.41**	1.81

Summary for Subcatchment B5-1: B5-1

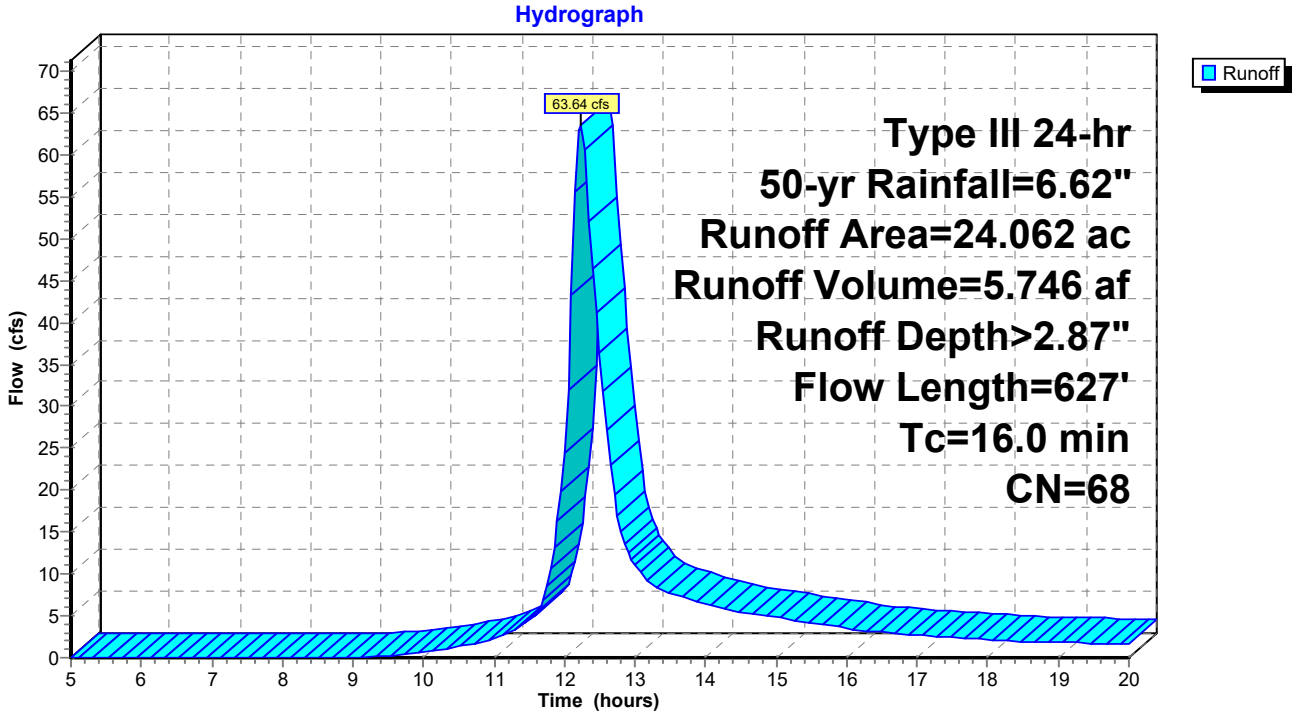
Runoff = 63.64 cfs @ 12.23 hrs, Volume= 5.746 af, Depth> 2.87"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
14.084	61	>75% Grass cover, Good, HSG B
0.295	80	>75% Grass cover, Good, HSG D
0.016	48	Brush, Good, HSG B
0.141	73	Brush, Good, HSG D
3.392	98	Water Surface, HSG A
0.437	73	Brush, Good, HSG D
3.045	55	Woods, Good, HSG B
2.484	77	Woods, Good, HSG D
0.168	98	Paved parking, HSG A
24.062	68	Weighted Average
20.502		85.20% Pervious Area
3.560		14.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	50	0.0260	0.16		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
10.9	577	0.0160	0.89		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
16.0	627	Total			

Subcatchment B5-1: B5-1



Hydrograph for Subcatchment B5-1: B5-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.08
9.50	1.10	0.01	0.24
9.75	1.17	0.01	0.45
10.00	1.25	0.02	0.68
10.25	1.34	0.03	0.96
10.50	1.43	0.05	1.33
10.75	1.54	0.07	1.78
11.00	1.66	0.09	2.30
11.25	1.79	0.13	3.04
11.50	1.97	0.19	4.44
11.75	2.35	0.33	8.49
12.00	3.31	0.79	24.39
12.25	4.27	1.38	**63.08**
12.50	4.65	1.63	36.43
12.75	4.83	1.76	16.90
13.00	4.96	1.85	11.08
13.25	5.08	1.94	8.66
13.50	5.19	2.01	7.74
13.75	5.28	2.08	7.08
14.00	5.37	2.15	6.43
14.25	5.45	2.20	5.84
14.50	5.52	2.26	5.48
14.75	5.59	2.31	5.16
15.00	5.66	2.36	4.84
15.25	5.71	2.40	4.52
15.50	5.77	2.45	4.19
15.75	5.82	2.48	3.85
16.00	5.87	2.52	3.52
16.25	5.91	2.55	3.21
16.50	5.95	2.58	3.04
16.75	5.99	2.61	2.89
17.00	6.02	2.64	2.74
17.25	6.05	2.66	2.59
17.50	6.09	2.69	2.44
17.75	6.12	2.71	2.29
18.00	6.14	2.73	2.14
18.25	6.17	2.75	2.01
18.50	6.20	2.77	1.95
18.75	6.22	2.79	1.90
19.00	6.24	2.81	1.86
19.25	6.27	2.83	1.81
19.50	6.29	2.85	1.77
19.75	6.31	2.86	1.72
20.00	**6.34**	**2.88**	1.68

Summary for Subcatchment B5-2: B5-2

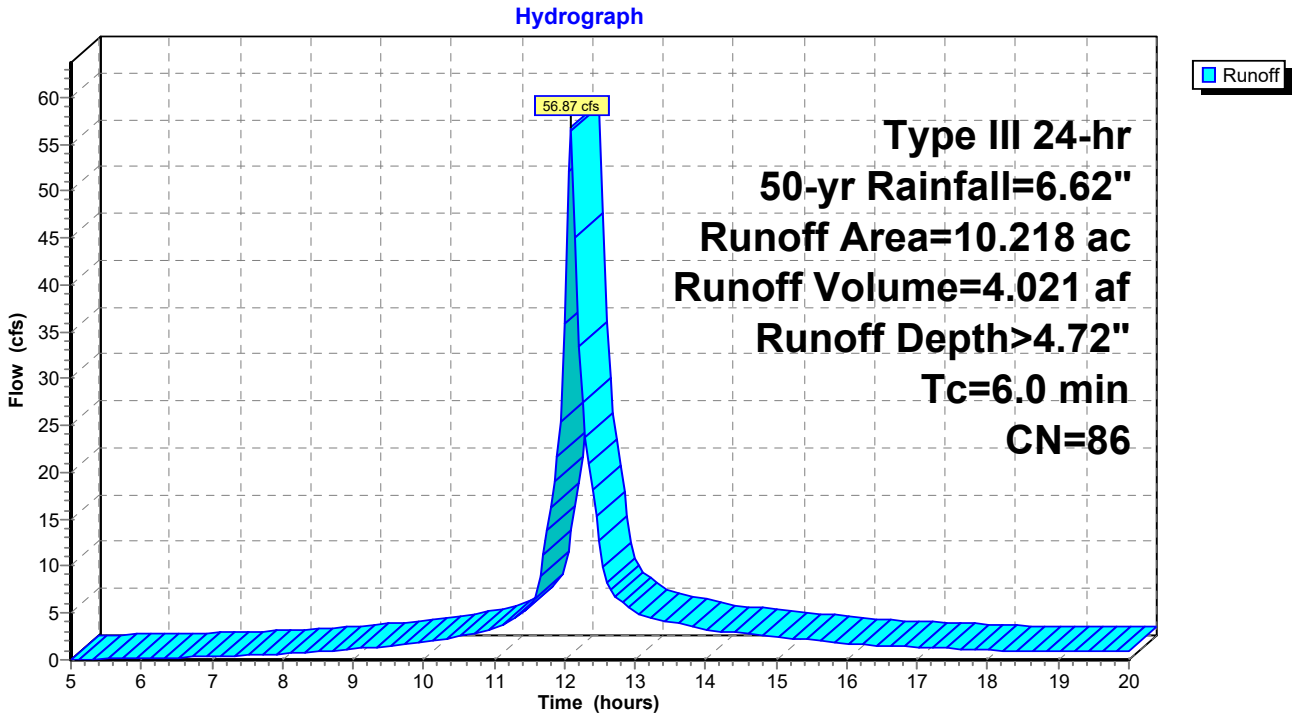
Runoff = 56.87 cfs @ 12.09 hrs, Volume= 4.021 af, Depth> 4.72"
Routed to Pond B5-2* : B5-2 Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
3.294	61	>75% Grass cover, Good, HSG B
4.054	98	Roofs, HSG A
2.870	98	Paved parking, HSG A
10.218	86	Weighted Average
3.294		32.24% Pervious Area
6.924		67.76% Impervious Area

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

Subcatchment B5-2: B5-2



Hydrograph for Subcatchment B5-2: B5-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.05
5.25	0.40	0.00	0.08
5.50	0.42	0.01	0.11
5.75	0.45	0.01	0.14
6.00	0.48	0.01	0.17
6.25	0.50	0.02	0.20
6.50	0.53	0.02	0.25
6.75	0.57	0.03	0.30
7.00	0.60	0.04	0.36
7.25	0.63	0.05	0.42
7.50	0.67	0.06	0.49
7.75	0.71	0.07	0.56
8.00	0.75	0.09	0.63
8.25	0.80	0.11	0.74
8.50	0.85	0.13	0.87
8.75	0.91	0.15	1.02
9.00	0.96	0.18	1.18
9.25	1.03	0.21	1.35
9.50	1.10	0.25	1.53
9.75	1.17	0.29	1.71
10.00	1.25	0.34	1.91
10.25	1.34	0.39	2.20
10.50	1.43	0.45	2.55
10.75	1.54	0.52	2.93
11.00	1.66	0.60	3.32
11.25	1.79	0.70	4.26
11.50	1.97	0.83	5.59
11.75	2.35	1.12	13.74
12.00	3.31	1.93	**35.84**
12.25	4.27	2.79	**27.42**
12.50	4.65	3.14	12.62
12.75	4.83	3.30	6.63
13.00	4.96	3.43	5.18
13.25	5.08	3.54	4.41
13.50	5.19	3.64	4.04
13.75	5.28	3.73	3.66
14.00	5.37	3.81	3.28
14.25	5.45	3.89	3.03
14.50	5.52	3.96	2.85
14.75	5.59	4.02	2.67
15.00	5.66	4.08	2.49
15.25	5.71	4.14	2.30
15.50	5.77	4.19	2.12
15.75	5.82	4.24	1.93
16.00	5.87	4.28	1.75
16.25	5.91	4.32	1.63
16.50	5.95	4.36	1.55
16.75	5.99	4.40	1.47
17.00	6.02	4.43	1.39
17.25	6.05	4.46	1.31
17.50	6.09	4.49	1.23
17.75	6.12	4.52	1.15
18.00	6.14	4.55	1.07
18.25	6.17	4.57	1.02
18.50	6.20	4.60	1.00
18.75	6.22	4.62	0.98
19.00	6.24	4.64	0.95
19.25	6.27	4.66	0.93
19.50	6.29	4.69	0.90
19.75	6.31	4.71	0.88
20.00	**6.34**	**4.73**	0.86

Summary for Subcatchment B6-1: B6-1

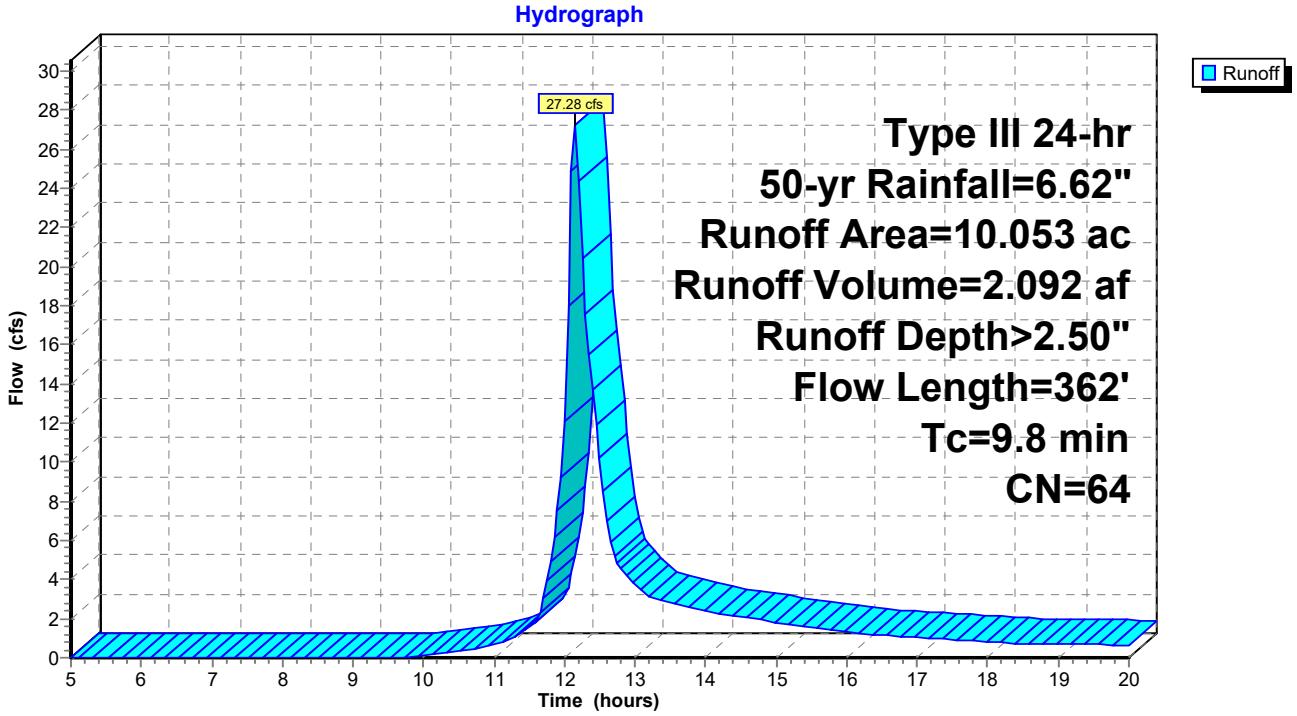
Runoff = 27.28 cfs @ 12.15 hrs, Volume= 2.092 af, Depth> 2.50"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.160	39	>75% Grass cover, Good, HSG A
7.451	61	>75% Grass cover, Good, HSG B
1.614	80	>75% Grass cover, Good, HSG D
0.517	55	Woods, Good, HSG B
0.021	77	Woods, Good, HSG D
0.290	98	Paved parking, HSG A
10.053	64	Weighted Average
9.763		97.12% Pervious Area
0.290		2.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	50	0.0250	0.16		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
4.6	312	0.0260	1.13		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
9.8	362	Total			

Subcatchment B6-1: B6-1



Hydrograph for Subcatchment B6-1: B6-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.01
10.00	1.25	0.00	0.09
10.25	1.34	0.01	0.19
10.50	1.43	0.02	0.32
10.75	1.54	0.03	0.48
11.00	1.66	0.05	0.68
11.25	1.79	0.07	0.99
11.50	1.97	0.11	1.54
11.75	2.35	0.22	3.91
12.00	3.31	0.61	**12.12**
12.25	4.27	1.13	**20.43**
12.50	4.65	1.36	10.25
12.75	4.83	1.47	4.82
13.00	4.96	1.56	3.74
13.25	5.08	1.63	3.10
13.50	5.19	1.70	2.86
13.75	5.28	1.77	2.62
14.00	5.37	1.82	2.37
14.25	5.45	1.88	2.18
14.50	5.52	1.93	2.06
14.75	5.59	1.98	1.94
15.00	5.66	2.02	1.82
15.25	5.71	2.06	1.70
15.50	5.77	2.10	1.57
15.75	5.82	2.14	1.44
16.00	5.87	2.17	1.31
16.25	5.91	2.20	1.21
16.50	5.95	2.23	1.15
16.75	5.99	2.25	1.10
17.00	6.02	2.28	1.04
17.25	6.05	2.30	0.98
17.50	6.09	2.33	0.93
17.75	6.12	2.35	0.87
18.00	6.14	2.37	0.81
18.25	6.17	2.39	0.77
18.50	6.20	2.40	0.75
18.75	6.22	2.42	0.73
19.00	6.24	2.44	0.72
19.25	6.27	2.46	0.70
19.50	6.29	2.47	0.68
19.75	6.31	2.49	0.67
20.00	**6.34**	**2.51**	0.65

Summary for Subcatchment B6-2: B6-2

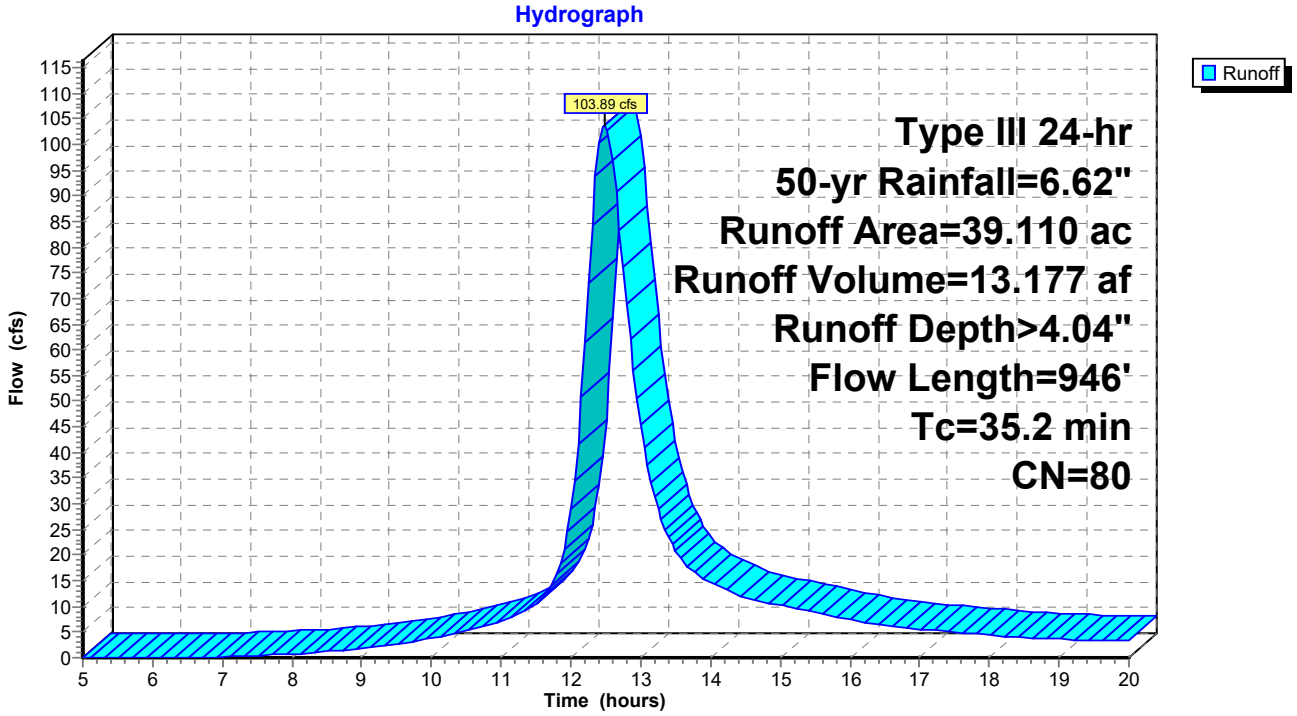
Runoff = 103.89 cfs @ 12.48 hrs, Volume= 13.177 af, Depth> 4.04"
Routed to Pond B6-2* : B6-2 Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
17.844	61	>75% Grass cover, Good, HSG B
1.238	55	Woods, Good, HSG B
8.138	98	Roofs, HSG A
11.890	98	Paved parking, HSG A
39.110	80	Weighted Average
19.082		48.79% Pervious Area
20.028		51.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.9	50	0.0010	0.04		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
2.6	142	0.0170	0.91		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
0.1	14	0.0430	4.21		**Shallow Concentrated Flow, SCF-2** Paved Kv= 20.3 fps
13.6	740	0.0075	0.91	0.05	**Pipe Channel, 36" HDPE** 36.0" Round w/ 35.0" inside fill Area= 0.1 sf Perim= 2.0' r= 0.03' n= 0.013
35.2	946	Total			

Subcatchment B6-2: B6-2



Hydrograph for Subcatchment B6-2: B6-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.04
7.00	0.60	0.00	0.13
7.25	0.63	0.01	0.25
7.50	0.67	0.01	0.39
7.75	0.71	0.02	0.56
8.00	0.75	0.02	0.74
8.25	0.80	0.03	0.95
8.50	0.85	0.04	1.19
8.75	0.91	0.06	1.50
9.00	0.96	0.07	1.87
9.25	1.03	0.09	2.29
9.50	1.10	0.12	2.77
9.75	1.17	0.14	3.29
10.00	1.25	0.17	3.86
10.25	1.34	0.21	4.48
10.50	1.43	0.25	5.24
10.75	1.54	0.31	6.21
11.00	1.66	0.36	7.34
11.25	1.79	0.44	8.64
11.50	1.97	0.55	10.70
11.75	2.35	0.79	14.69
12.00	3.31	1.49	28.84
12.25	4.27	2.27	73.04
12.50	4.65	2.59	**103.71**
12.75	4.83	2.74	76.03
13.00	4.96	2.86	45.44
13.25	5.08	2.96	28.96
13.50	5.19	3.06	20.89
13.75	5.28	3.14	16.94
14.00	5.37	3.22	14.61
14.25	5.45	3.29	12.99
14.50	5.52	3.35	11.78
14.75	5.59	3.41	10.92
15.00	5.66	3.47	10.19
15.25	5.71	3.52	9.52
15.50	5.77	3.57	8.86
15.75	5.82	3.62	8.21
16.00	5.87	3.66	7.55
16.25	5.91	3.70	6.89
16.50	5.95	3.73	6.33
16.75	5.99	3.77	5.93
17.00	6.02	3.80	5.60
17.25	6.05	3.83	5.30
17.50	6.09	3.86	5.00
17.75	6.12	3.89	4.71
18.00	6.14	3.91	4.42
18.25	6.17	3.93	4.13
18.50	6.20	3.96	3.90
18.75	6.22	3.98	3.75
19.00	6.24	4.00	3.64
19.25	6.27	4.02	3.54
19.50	6.29	4.04	3.45
19.75	6.31	4.07	3.37
20.00	**6.34**	**4.09**	3.28

Summary for Subcatchment B7: B7

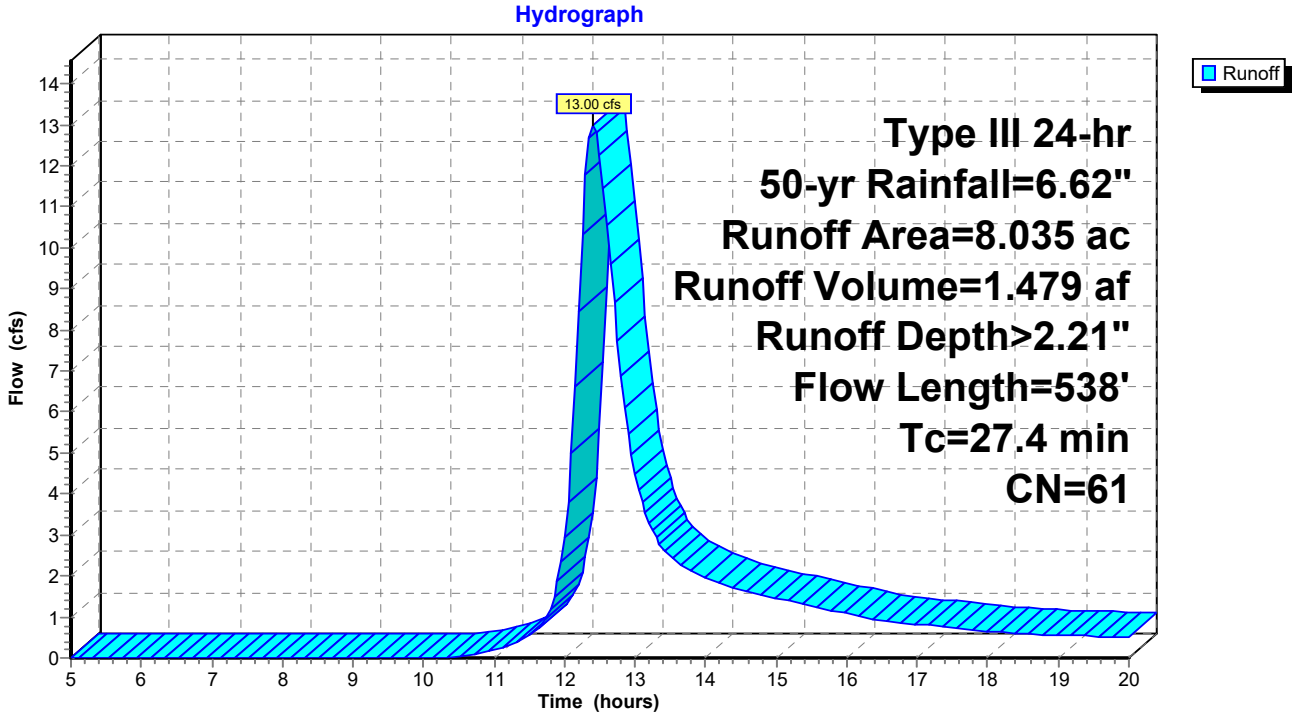
Runoff = 13.00 cfs @ 12.41 hrs, Volume= 1.479 af, Depth> 2.21"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
0.295	61	>75% Grass cover, Good, HSG B
0.440	80	>75% Grass cover, Good, HSG D
5.519	55	Woods, Good, HSG B
1.781	77	Woods, Good, HSG D
8.035	61	Weighted Average
8.035		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	50	0.0160	0.06		**Sheet Flow, SF-1** Woods: Light underbrush n= 0.400 P2= 3.11"
13.7	488	0.0140	0.59		**Shallow Concentrated Flow, SCF-1** Woodland Kv= 5.0 fps
27.4	538	Total			

Subcatchment B7: B7



Hydrograph for Subcatchment B7: B7

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.00
10.25	1.34	0.00	0.00
10.50	1.43	0.00	0.02
10.75	1.54	0.01	0.09
11.00	1.66	0.02	0.20
11.25	1.79	0.04	0.33
11.50	1.97	0.07	0.55
11.75	2.35	0.15	1.01
12.00	3.31	0.49	2.97
12.25	4.27	0.95	**10.31**
12.50	4.65	1.16	**12.26**
12.75	4.83	1.27	7.74
13.00	4.96	1.35	4.49
13.25	5.08	1.42	3.10
13.50	5.19	1.48	2.46
13.75	5.28	1.54	2.16
14.00	5.37	1.60	1.96
14.25	5.45	1.65	1.78
14.50	5.52	1.69	1.65
14.75	5.59	1.74	1.55
15.00	5.66	1.78	1.46
15.25	5.71	1.82	1.37
15.50	5.77	1.85	1.27
15.75	5.82	1.89	1.18
16.00	5.87	1.92	1.09
16.25	5.91	1.94	0.99
16.50	5.95	1.97	0.92
16.75	5.99	2.00	0.87
17.00	6.02	2.02	0.83
17.25	6.05	2.04	0.78
17.50	6.09	2.06	0.74
17.75	6.12	2.08	0.70
18.00	6.14	2.10	0.66
18.25	6.17	2.12	0.61
18.50	6.20	2.14	0.58
18.75	6.22	2.15	0.57
19.00	6.24	2.17	0.55
19.25	6.27	2.19	0.54
19.50	6.29	2.20	0.53
19.75	6.31	2.22	0.51
20.00	**6.34**	**2.23**	0.50

Summary for Subcatchment B8: B8

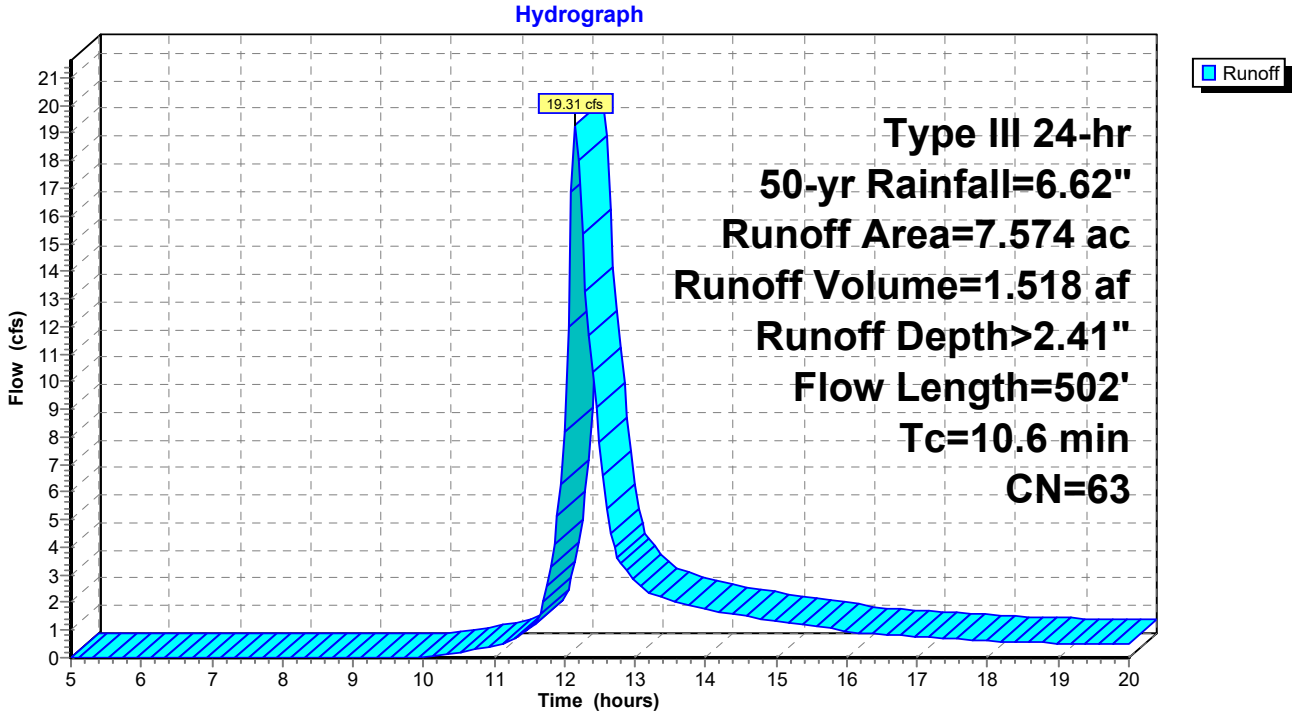
Runoff = 19.31 cfs @ 12.16 hrs, Volume= 1.518 af, Depth> 2.41"
Routed to Reach DP-B : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-yr Rainfall=6.62"

Area (ac)	CN	Description
6.154	61	>75% Grass cover, Good, HSG B
0.897	55	Woods, Good, HSG B
0.523	98	Water Surface, HSG A
7.574	63	Weighted Average
7.051		93.09% Pervious Area
0.523		6.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	50	0.0170	0.14		**Sheet Flow, sf-1** Grass: Short n= 0.150 P2= 3.11"
0.9	73	0.0380	1.36		**Shallow Concentrated Flow, scf-1** Short Grass Pasture Kv= 7.0 fps
0.3	26	0.0680	1.30		**Shallow Concentrated Flow, scf-2** Woodland Kv= 5.0 fps
3.3	353	0.0660	1.80		**Shallow Concentrated Flow, scf-3** Short Grass Pasture Kv= 7.0 fps
10.6	502	Total			

Subcatchment B8: B8



Hydrograph for Subcatchment B8: B8

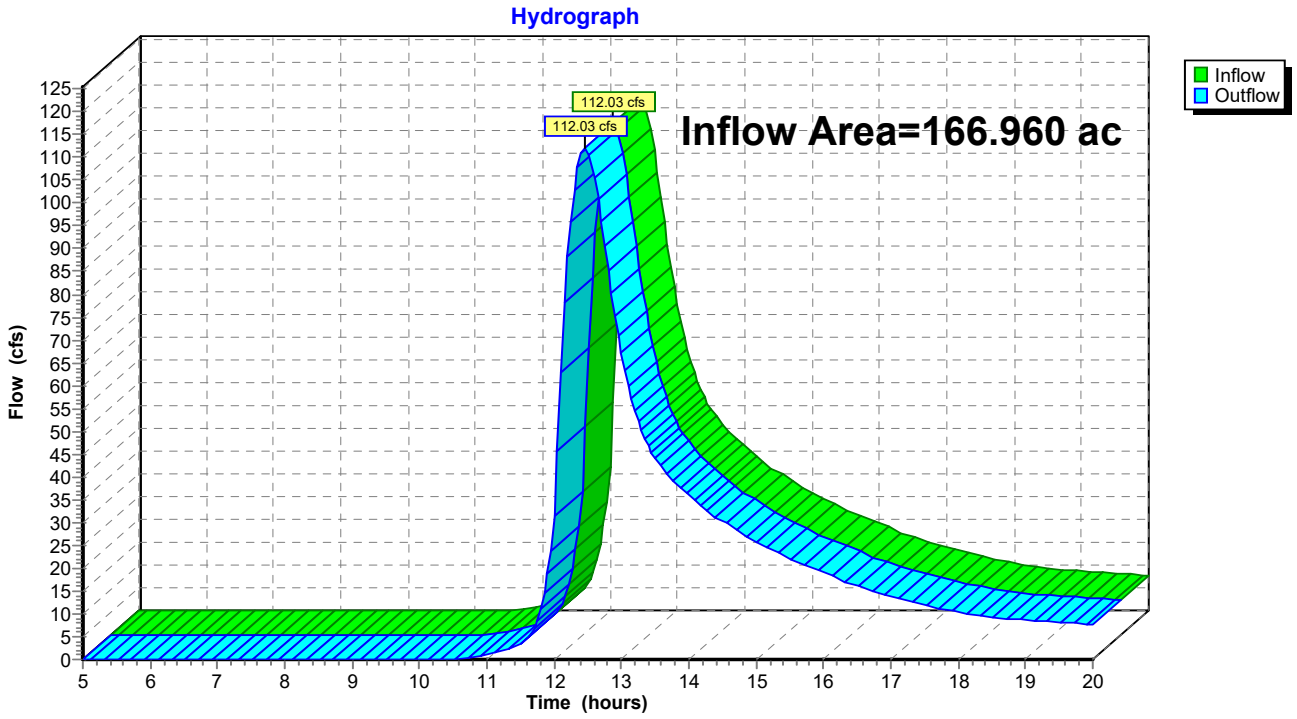
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.38	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.57	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.91	0.00	0.00
9.00	0.96	0.00	0.00
9.25	1.03	0.00	0.00
9.50	1.10	0.00	0.00
9.75	1.17	0.00	0.00
10.00	1.25	0.00	0.02
10.25	1.34	0.00	0.09
10.50	1.43	0.01	0.18
10.75	1.54	0.02	0.30
11.00	1.66	0.04	0.44
11.25	1.79	0.06	0.65
11.50	1.97	0.10	1.04
11.75	2.35	0.20	2.59
12.00	3.31	0.57	**8.17**
12.25	4.27	1.07	**15.37**
12.50	4.65	1.29	7.82
12.75	4.83	1.40	3.63
13.00	4.96	1.49	2.78
13.25	5.08	1.56	2.29
13.50	5.19	1.63	2.11
13.75	5.28	1.69	1.93
14.00	5.37	1.75	1.75
14.25	5.45	1.80	1.61
14.50	5.52	1.85	1.52
14.75	5.59	1.90	1.43
15.00	5.66	1.94	1.35
15.25	5.71	1.98	1.25
15.50	5.77	2.02	1.16
15.75	5.82	2.05	1.07
16.00	5.87	2.08	0.97
16.25	5.91	2.11	0.90
16.50	5.95	2.14	0.85
16.75	5.99	2.17	0.81
17.00	6.02	2.19	0.77
17.25	6.05	2.21	0.73
17.50	6.09	2.24	0.69
17.75	6.12	2.26	0.64
18.00	6.14	2.28	0.60
18.25	6.17	2.30	0.57
18.50	6.20	2.31	0.56
18.75	6.22	2.33	0.54
19.00	6.24	2.35	0.53
19.25	6.27	2.37	0.52
19.50	6.29	2.38	0.50
19.75	6.31	2.40	0.49
20.00	**6.34**	**2.41**	0.48

Summary for Reach DP-A: DP-A

Inflow Area = 166.960 ac, 32.99% Impervious, Inflow Depth > 1.43" for 50-yr event
Inflow = 112.03 cfs @ 12.46 hrs, Volume= 19.934 af
Outflow = 112.03 cfs @ 12.46 hrs, Volume= 19.934 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-A: DP-A



Hydrograph for Reach DP-A: DP-A

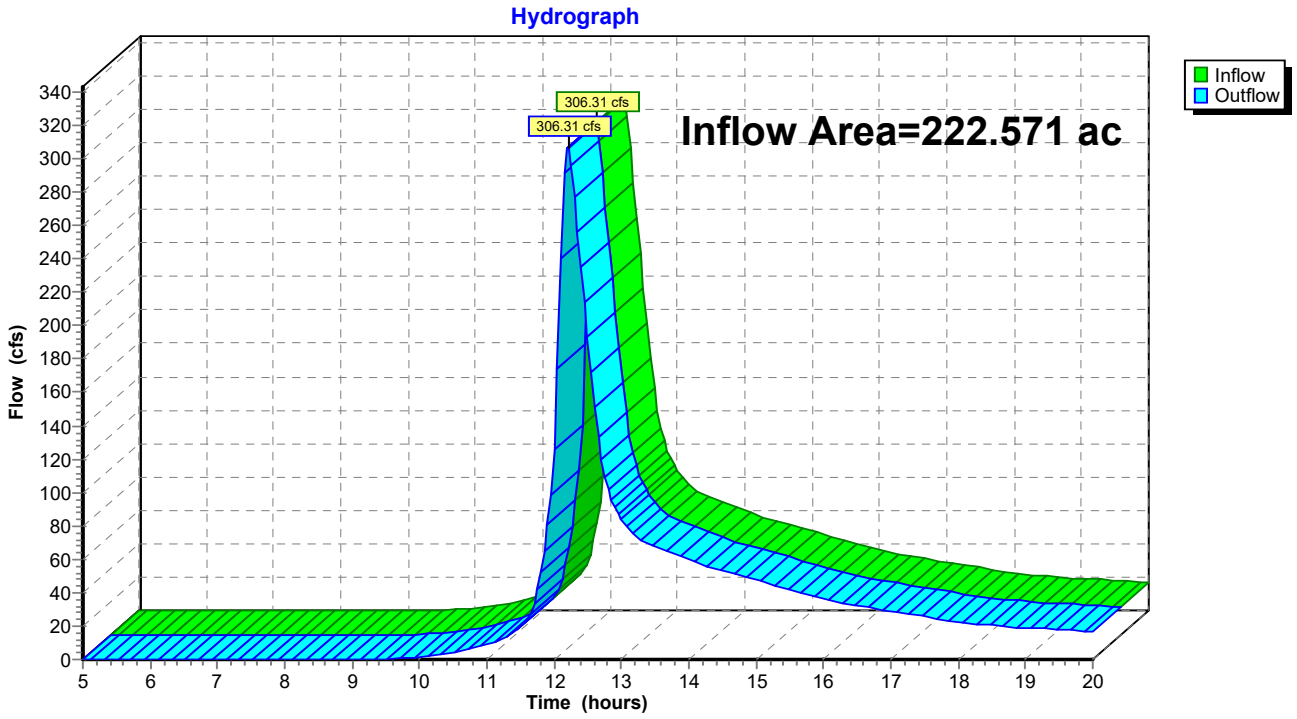
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00
5.25	0.00		0.00
5.50	0.00		0.00
5.75	0.00		0.00
6.00	0.00		0.00
6.25	0.00		0.00
6.50	0.00		0.00
6.75	0.00		0.00
7.00	0.00		0.00
7.25	0.00		0.00
7.50	0.00		0.00
7.75	0.00		0.00
8.00	0.00		0.00
8.25	0.00		0.00
8.50	0.00		0.00
8.75	0.00		0.00
9.00	0.00		0.00
9.25	0.00		0.00
9.50	0.00		0.00
9.75	0.00		0.00
10.00	0.00		0.00
10.25	0.01		0.01
10.50	0.08		0.08
10.75	0.33		0.33
11.00	0.91		0.91
11.25	1.87		1.87
11.50	3.61		3.61
11.75	8.52		8.52
12.00	31.59		31.59
12.25	**96.07**		**96.07**
12.50	**111.47**		**111.47**
12.75	90.41		90.41
13.00	66.99		66.99
13.25	52.16		52.16
13.50	44.14		44.14
13.75	39.48		39.48
14.00	36.03		36.03
14.25	32.90		32.90
14.50	30.23		30.23
14.75	27.84		27.84
15.00	25.69		25.69
15.25	23.79		23.79
15.50	22.15		22.15
15.75	20.64		20.64
16.00	19.07		19.07
16.25	17.45		17.45
16.50	16.07		16.07
16.75	14.93		14.93
17.00	13.93		13.93
17.25	12.96		12.96
17.50	12.07		12.07
17.75	11.23		11.23
18.00	10.45		10.45
18.25	9.77		9.77
18.50	9.28		9.28
18.75	8.98		8.98
19.00	8.71		8.71
19.25	8.47		8.47
19.50	8.22		8.22
19.75	7.97		7.97
20.00	7.72		7.72

Summary for Reach DP-B: DP-B

Inflow Area = 222.571 ac, 25.25% Impervious, Inflow Depth > 2.15" for 50-yr event
Inflow = 306.31 cfs @ 12.20 hrs, Volume= 39.803 af
Outflow = 306.31 cfs @ 12.20 hrs, Volume= 39.803 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-B: DP-B



Hydrograph for Reach DP-B: DP-B

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00
5.25	0.00		0.00
5.50	0.00		0.00
5.75	0.00		0.00
6.00	0.00		0.00
6.25	0.00		0.00
6.50	0.00		0.00
6.75	0.00		0.00
7.00	0.00		0.00
7.25	0.00		0.00
7.50	0.00		0.00
7.75	0.00		0.00
8.00	0.01		0.01
8.25	0.01		0.01
8.50	0.02		0.02
8.75	0.02		0.02
9.00	0.03		0.03
9.25	0.12		0.12
9.50	0.34		0.34
9.75	0.73		0.73
10.00	1.45		1.45
10.25	2.64		2.64
10.50	4.32		4.32
10.75	6.47		6.47
11.00	9.06		9.06
11.25	12.79		12.79
11.50	19.58		19.58
11.75	41.62		41.62
12.00	**125.91**		**125.91**
12.25	**295.99**		**295.99**
12.50	193.35		193.35
12.75	109.44		109.44
13.00	84.11		84.11
13.25	72.57		72.57
13.50	67.96		67.96
13.75	64.26		64.26
14.00	60.09		60.09
14.25	56.07		56.07
14.50	53.05		53.05
14.75	50.26		50.26
15.00	47.51		47.51
15.25	44.78		44.78
15.50	42.07		42.07
15.75	39.36		39.36
16.00	36.68		36.68
16.25	34.24		34.24
16.50	32.41		32.41
16.75	30.72		30.72
17.00	29.02		29.02
17.25	27.33		27.33
17.50	25.69		25.69
17.75	24.11		24.11
18.00	22.58		22.58
18.25	21.26		21.26
18.50	20.41		20.41
18.75	19.72		19.72
19.00	19.08		19.08
19.25	18.46		18.46
19.50	17.86		17.86
19.75	17.29		17.29
20.00	16.74		16.74

Summary for Pond A1-2*: A1-2 Infiltration Basin

Inflow Area = 21.469 ac, 66.84% Impervious, Inflow Depth > 5.42" for 50-yr event
Inflow = 116.60 cfs @ 12.09 hrs, Volume= 9.691 af
Outflow = 18.17 cfs @ 12.61 hrs, Volume= 9.290 af, Atten= 84%, Lag= 31.2 min
Discarded = 12.32 cfs @ 12.61 hrs, Volume= 7.976 af
Primary = 5.85 cfs @ 12.61 hrs, Volume= 1.313 af
Routed to Reach DP-A : DP-A

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 119.98' @ 12.61 hrs Surf.Area= 53,223 sf Storage= 146,252 cf

Plug-Flow detention time= 89.3 min calculated for 9.290 af (96% of inflow)
Center-of-Mass det. time= 72.5 min (837.8 - 765.4)

Volume	Invert	Avail.Storage	Storage Description
#1	116.00'	202,931 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

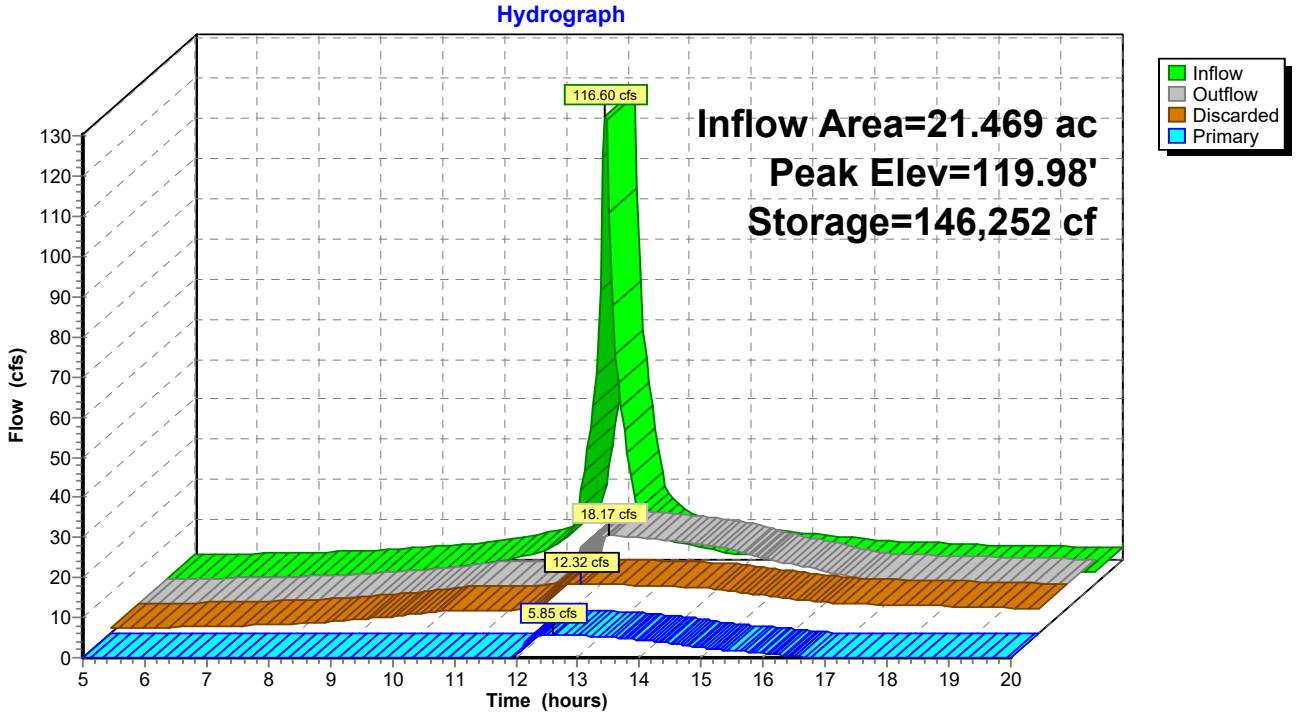
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
116.00	24,032	0	0
117.00	27,880	25,956	25,956
118.00	31,955	29,918	55,874
119.00	48,800	40,378	96,251
120.00	53,312	51,056	147,307
121.00	57,935	55,624	202,931

Device	Routing	Invert	Outlet Devices
#1	Primary	116.00'	**24.0" Round Culvert** L= 150.0' Ke= 1.000 Inlet / Outlet Invert= 116.00' / 114.00' S= 0.0133 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	117.90'	**6.0" Vert. Orifice/Grate X 3.00** C= 0.600 Limited to weir flow at low heads
#3	Device 1	118.60'	**6.0" Vert. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads
#4	Device 1	120.00'	**3.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#5	Discarded	116.00'	**10.000 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=12.32 cfs @ 12.61 hrs HW=119.98' (Free Discharge)
└**5=Exfiltration** (Exfiltration Controls 12.32 cfs)

Primary OutFlow Max=5.85 cfs @ 12.61 hrs HW=119.98' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 5.85 cfs of 19.58 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 3.84 cfs @ 6.51 fps)
  ├**3=Orifice/Grate** (Orifice Controls 2.01 cfs @ 5.12 fps)
  └**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond A1-2*: A1-2 Infiltration Basin



Hydrograph for Pond A1-2*: A1-2 Infiltration Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
5.00	1.31	0	116.00	1.31	1.31	0.00
5.50	1.39	0	116.00	1.39	1.39	0.00
6.00	1.50	0	116.00	1.50	1.50	0.00
6.50	1.66	0	116.00	1.66	1.66	0.00
7.00	1.86	0	116.00	1.86	1.86	0.00
7.50	2.10	0	116.00	2.10	2.10	0.00
8.00	2.38	0	116.00	2.38	2.38	0.00
8.50	2.83	0	116.00	2.83	2.83	0.00
9.00	3.42	0	116.00	3.42	3.42	0.00
9.50	4.10	0	116.00	4.10	4.10	0.00
10.00	4.87	1	116.00	4.87	4.87	0.00
10.50	6.15	253	116.01	5.57	5.57	0.00
11.00	7.71	2,606	116.11	5.66	5.66	0.00
11.50	12.25	9,671	116.39	5.91	5.91	0.00
12.00	**73.42**	54,253	117.95	7.37	7.35	0.02
12.50	**27.21**	**144,761**	**119.95**	**18.08**	**12.29**	**5.79**
13.00	11.97	**141,108**	**119.88**	**17.87**	**12.22**	**5.66**
13.50	9.63	128,477	119.64	17.11	11.97	5.15
14.00	8.09	114,447	119.37	16.17	11.68	4.49
14.50	7.19	100,004	119.08	15.01	11.38	3.64
15.00	6.45	86,913	118.80	13.04	10.52	2.52
15.50	5.69	75,986	118.55	11.33	9.54	1.79
16.00	4.93	66,551	118.31	9.72	8.60	1.12
16.50	4.52	59,038	118.10	8.10	7.77	0.32
17.00	4.19	53,203	117.92	7.32	7.32	0.00
17.50	3.86	47,427	117.73	7.14	7.14	0.00
18.00	3.52	41,378	117.53	6.96	6.96	0.00
18.50	3.38	35,218	117.32	6.76	6.76	0.00
19.00	3.28	29,223	117.12	6.56	6.56	0.00
19.50	3.18	23,401	116.91	6.37	6.37	0.00
20.00	3.08	17,738	116.70	6.19	6.19	0.00

Stage-Discharge for Pond A1-2*: A1-2 Infiltration Basin

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
116.00	0.00	0.00	0.00
116.05	5.61	5.61	0.00
116.10	5.65	5.65	0.00
116.15	5.70	5.70	0.00
116.20	5.74	5.74	0.00
116.25	5.79	5.79	0.00
116.30	5.83	5.83	0.00
116.35	5.87	5.87	0.00
116.40	5.92	5.92	0.00
116.45	5.96	5.96	0.00
116.50	6.01	6.01	0.00
116.55	6.05	6.05	0.00
116.60	6.10	6.10	0.00
116.65	6.14	6.14	0.00
116.70	6.19	6.19	0.00
116.75	6.23	6.23	0.00
116.80	6.28	6.28	0.00
116.85	6.32	6.32	0.00
116.90	6.36	6.36	0.00
116.95	6.41	6.41	0.00
117.00	6.45	6.45	0.00
117.05	6.50	6.50	0.00
117.10	6.55	6.55	0.00
117.15	6.60	6.60	0.00
117.20	6.64	6.64	0.00
117.25	6.69	6.69	0.00
117.30	6.74	6.74	0.00
117.35	6.78	6.78	0.00
117.40	6.83	6.83	0.00
117.45	6.88	6.88	0.00
117.50	6.93	6.93	0.00
117.55	6.97	6.97	0.00
117.60	7.02	7.02	0.00
117.65	7.07	7.07	0.00
117.70	7.11	7.11	0.00
117.75	7.16	7.16	0.00
117.80	7.21	7.21	0.00
117.85	7.26	7.26	0.00
117.90	7.30	7.30	0.00
117.95	7.37	7.35	0.02
118.00	7.49	7.40	0.09
118.05	7.79	7.59	0.20
118.10	8.12	7.79	0.34
118.15	8.48	7.98	0.50
118.20	8.87	8.18	0.69
118.25	9.26	8.37	0.89
118.30	9.65	8.57	1.09
118.35	10.04	8.76	1.28
118.40	10.37	8.96	1.42
118.45	10.71	9.15	1.55
118.50	11.02	9.35	1.68
118.55	11.34	9.54	1.79
118.60	11.64	9.74	1.90
118.65	11.95	9.93	2.02
118.70	12.29	10.13	2.16
118.75	12.65	10.32	2.33
118.80	13.03	10.52	2.51
118.85	13.42	10.71	2.71
118.90	13.82	10.91	2.92
118.95	14.23	11.10	3.13
119.00	14.64	11.30	3.34
119.05	14.89	11.35	3.54
119.10	15.11	11.40	3.71
119.15	15.32	11.45	3.87
119.20	15.53	11.51	4.02
119.25	15.73	11.56	4.17
119.30	15.92	11.61	4.31
119.35	16.11	11.66	4.44
119.40	16.29	11.71	4.57
119.45	16.46	11.77	4.70
119.50	16.64	11.82	4.82
119.55	16.81	11.87	4.94
119.60	16.98	11.92	5.05
119.65	17.14	11.98	5.16
119.70	17.30	12.03	5.27
119.75	17.46	12.08	5.38
119.80	17.62	12.13	5.49
119.85	17.77	12.18	5.59
119.90	17.93	12.24	5.69
119.95	18.08	12.29	5.79
120.00	18.23	12.34	5.89
120.05	18.48	12.39	6.09
120.10	18.83	12.45	6.38
120.15	19.23	12.50	6.73
120.20	19.68	12.55	7.12
120.25	20.16	12.61	7.55
120.30	20.68	12.66	8.02
120.35	21.22	12.72	8.51
120.40	21.79	12.77	9.02
120.45	22.39	12.82	9.57
120.50	23.01	12.88	10.13
120.55	23.64	12.93	10.71
120.60	24.30	12.98	11.32
120.65	24.98	13.04	11.94
120.70	25.67	13.09	12.58
120.75	26.38	13.14	13.23
120.80	27.10	13.20	13.90
120.85	27.84	13.25	14.59
120.90	28.59	13.30	15.28
120.95	29.35	13.36	15.99
121.00	**30.13**	**13.41**	**16.72**

Stage-Area-Storage for Pond A1-2*: A1-2 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
116.00	24,032	24,032	0
116.10	24,417	24,417	2,422
116.20	24,802	24,802	4,883
116.30	25,186	25,186	7,383
116.40	25,571	25,571	9,921
116.50	25,956	25,956	12,497
116.60	26,341	26,341	15,112
116.70	26,726	26,726	17,765
116.80	27,110	27,110	20,457
116.90	27,495	27,495	23,187
117.00	27,880	27,880	25,956
117.10	28,287	28,287	28,764
117.20	28,695	28,695	31,614
117.30	29,102	29,102	34,503
117.40	29,510	29,510	37,434
117.50	29,918	29,918	40,405
117.60	30,325	30,325	43,417
117.70	30,733	30,733	46,470
117.80	31,140	31,140	49,564
117.90	31,548	31,548	52,698
118.00	31,955	31,955	55,874
118.10	33,639	33,639	59,153
118.20	35,324	35,324	62,601
118.30	37,008	37,008	66,218
118.40	38,693	38,693	70,003
118.50	40,378	40,378	73,957
118.60	42,062	42,062	78,079
118.70	43,747	43,747	82,369
118.80	45,431	45,431	86,828
118.90	47,116	47,116	91,455
119.00	48,800	48,800	96,251
119.10	49,251	49,251	101,154
119.20	49,702	49,702	106,101
119.30	50,154	50,154	111,094
119.40	50,605	50,605	116,132
119.50	51,056	51,056	121,215
119.60	51,507	51,507	126,343
119.70	51,958	51,958	131,516
119.80	52,410	52,410	136,735
119.90	52,861	52,861	141,998
120.00	53,312	53,312	147,307
120.10	53,774	53,774	152,661
120.20	54,237	54,237	158,062
120.30	54,699	54,699	163,509
120.40	55,161	55,161	169,002
120.50	55,624	55,624	174,541
120.60	56,086	56,086	180,126
120.70	56,548	56,548	185,758
120.80	57,010	57,010	191,436
120.90	57,473	57,473	197,160
121.00	**57,935**	**57,935**	**202,931**

Summary for Pond A1-3*: A1-3 Infiltration Basin

Inflow Area = 31.975 ac, 77.29% Impervious, Inflow Depth > 5.33" for 50-yr event
Inflow = 189.44 cfs @ 12.09 hrs, Volume= 14.198 af
Outflow = 21.43 cfs @ 12.77 hrs, Volume= 10.640 af, Atten= 89%, Lag= 41.1 min
Discarded = 6.09 cfs @ 12.77 hrs, Volume= 5.193 af
Primary = 15.34 cfs @ 12.77 hrs, Volume= 5.447 af
Routed to Reach DP-A : DP-A

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 118.98' @ 12.77 hrs Surf.Area= 73,858 sf Storage= 319,932 cf

Plug-Flow detention time= 177.2 min calculated for 10.605 af (75% of inflow)
Center-of-Mass det. time= 114.4 min (868.1 - 753.7)

Volume	Invert	Avail.Storage	Storage Description
#1	113.00'	398,001 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

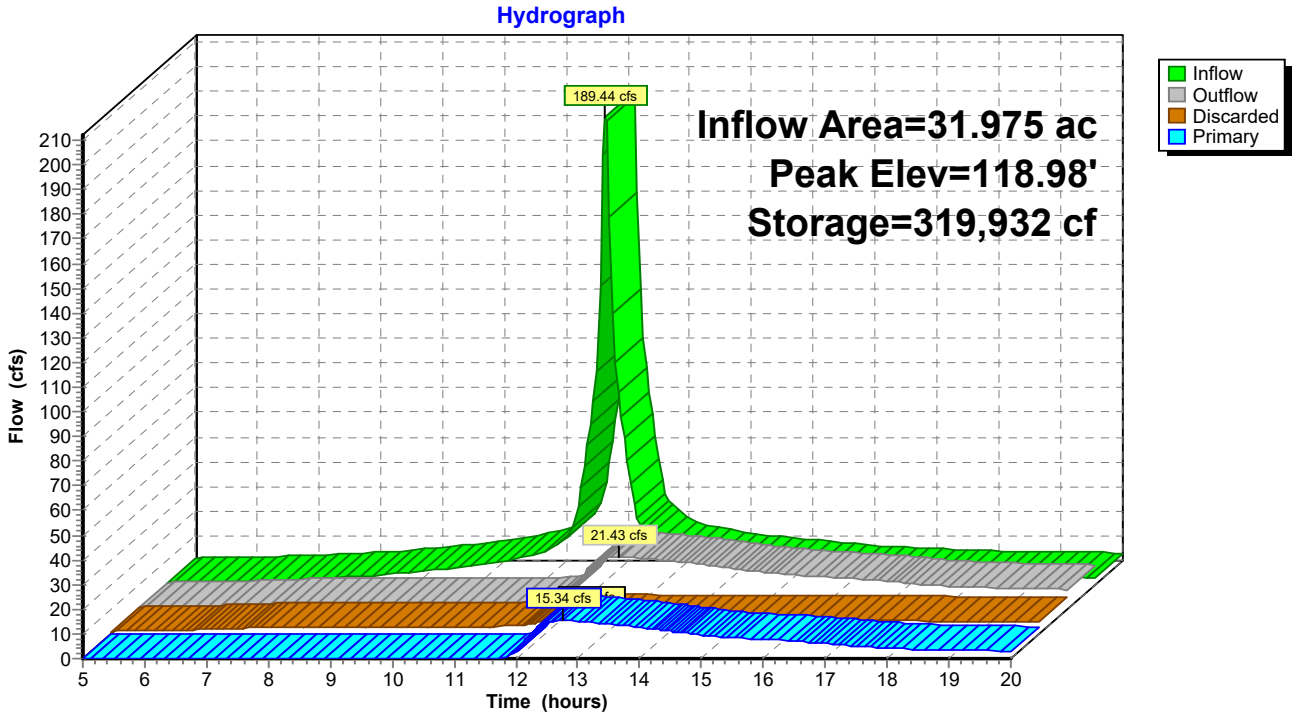
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
113.00	32,860	0	0
114.00	36,323	34,592	34,592
115.00	39,901	38,112	72,704
116.00	59,025	49,463	122,167
117.00	63,904	61,465	183,631
118.00	68,883	66,394	250,025
119.00	73,962	71,423	321,447
120.00	79,145	76,554	398,001

Device	Routing	Invert	Outlet Devices
#1	Primary	113.00'	**24.0" Round Culvert** L= 50.0' Ke= 1.000 Inlet / Outlet Invert= 113.00' / 111.00' S= 0.0400 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	115.40'	**8.0" Vert. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads
#3	Device 1	117.00'	**18.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	118.00'	**8.0" Vert. Orifice/Grate X 3.00** C= 0.600 Limited to weir flow at low heads
#5	Device 1	118.80'	**2.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#6	Discarded	113.00'	**3.560 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=6.09 cfs @ 12.77 hrs HW=118.98' (Free Discharge)
└**6=Exfiltration** (Exfiltration Controls 6.09 cfs)

Primary OutFlow Max=15.34 cfs @ 12.77 hrs HW=118.98' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 15.34 cfs of 25.32 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 6.06 cfs @ 8.67 fps)
  └**3=Orifice/Grate** (Orifice Controls 4.74 cfs @ 6.33 fps)
  └**4=Orifice/Grate** (Orifice Controls 4.05 cfs @ 3.87 fps)
  └**5=Sharp-Crested Rectangular Weir** (Weir Controls 0.49 cfs @ 1.38 fps)

Pond A1-3*: A1-3 Infiltration Basin



Hydrograph for Pond A1-3*: A1-3 Infiltration Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
5.00	1.05	0	113.00	1.05	1.05	0.00
5.50	1.27	0	113.00	1.27	1.27	0.00
6.00	1.49	0	113.00	1.49	1.49	0.00
6.50	1.84	0	113.00	1.84	1.84	0.00
7.00	2.28	0	113.00	2.28	2.28	0.00
7.50	2.76	24	113.00	2.69	2.69	0.00
8.00	3.29	590	113.02	2.71	2.71	0.00
8.50	4.20	2,368	113.07	2.73	2.73	0.00
9.00	5.29	5,955	113.18	2.76	2.76	0.00
9.50	6.49	11,544	113.35	2.81	2.81	0.00
10.00	7.78	19,269	113.57	2.87	2.87	0.00
10.50	9.96	29,840	113.87	2.96	2.96	0.00
11.00	12.50	44,612	114.27	3.07	3.07	0.00
11.50	20.23	67,526	114.87	3.25	3.25	0.00
12.00	**121.21**	152,803	116.51	8.03	5.07	2.96
12.50	**41.39**	**314,027**	**118.90**	**20.66**	**6.05**	**14.61**
13.00	17.15	**318,235**	**118.96**	**21.20**	**6.08**	**15.13**
13.50	13.42	307,808	118.81	19.94	6.02	13.92
14.00	10.97	294,928	118.64	18.72	5.94	12.78
14.50	9.55	281,041	118.44	17.01	5.86	11.15
15.00	8.37	268,056	118.26	15.40	5.78	9.61
15.50	7.19	255,493	118.08	14.20	5.71	8.49
16.00	6.00	242,511	117.89	13.44	5.63	7.81
16.50	5.36	229,172	117.69	12.63	5.55	7.08
17.00	4.84	216,449	117.50	11.67	5.47	6.19
17.50	4.32	204,751	117.33	10.54	5.40	5.14
18.00	3.81	193,927	117.16	9.66	5.33	4.32
18.50	3.58	183,750	117.00	9.05	5.27	3.79
19.00	3.43	174,031	116.85	8.76	5.21	3.55
19.50	3.27	164,578	116.70	8.45	5.14	3.30
20.00	3.12	155,414	116.55	8.12	5.09	3.04

Stage-Discharge for Pond A1-3*: A1-3 Infiltration Basin

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
113.00	0.00	0.00	0.00
113.10	2.74	2.74	0.00
113.20	2.76	2.76	0.00
113.30	2.79	2.79	0.00
113.40	2.82	2.82	0.00
113.50	2.85	2.85	0.00
113.60	2.88	2.88	0.00
113.70	2.91	2.91	0.00
113.80	2.94	2.94	0.00
113.90	2.96	2.96	0.00
114.00	2.99	2.99	0.00
114.10	3.02	3.02	0.00
114.20	3.05	3.05	0.00
114.30	3.08	3.08	0.00
114.40	3.11	3.11	0.00
114.50	3.14	3.14	0.00
114.60	3.17	3.17	0.00
114.70	3.20	3.20	0.00
114.80	3.23	3.23	0.00
114.90	3.26	3.26	0.00
115.00	3.29	3.29	0.00
115.10	3.45	3.45	0.00
115.20	3.60	3.60	0.00
115.30	3.76	3.76	0.00
115.40	3.92	3.92	0.00
115.50	4.15	4.08	0.07
115.60	4.50	4.23	0.27
115.70	4.96	4.39	0.57
115.80	5.49	4.55	0.94
115.90	6.06	4.71	1.35
116.00	6.61	4.86	1.75
116.10	6.94	4.90	2.04
116.20	7.24	4.94	2.30
116.30	7.52	4.98	2.53
116.40	7.77	5.02	2.74
116.50	8.01	5.07	2.94
116.60	8.23	5.11	3.13
116.70	8.45	5.15	3.30
116.80	8.66	5.19	3.47
116.90	8.86	5.23	3.63
117.00	9.05	5.27	3.78
117.10	9.39	5.31	4.08
117.20	9.85	5.35	4.50
117.30	10.39	5.39	5.00
117.40	10.99	5.43	5.56
117.50	11.64	5.47	6.17
117.60	12.19	5.51	6.68
117.70	12.66	5.55	7.10
117.80	13.08	5.59	7.49
117.90	13.48	5.64	7.84
118.00	13.85	5.68	8.17
118.10	14.31	5.72	8.59
118.20	14.95	5.76	9.19
118.30	15.73	5.80	9.93
118.40	16.61	5.84	10.77
118.50	17.54	5.89	11.65
118.60	18.43	5.93	12.50
118.70	19.16	5.97	13.19
118.80	19.83	6.01	13.82
118.90	20.67	6.05	14.62
119.00	21.63	6.10	15.54
119.10	22.67	6.14	16.53
119.20	23.76	6.18	17.58
119.30	24.89	6.22	18.67
119.40	26.06	6.27	19.79
119.50	27.25	6.31	20.95
119.60	28.47	6.35	22.12
119.70	29.71	6.39	23.32
119.80	30.97	6.44	24.54
119.90	32.24	6.48	25.76
120.00	**33.53**	**6.52**	**27.00**

Stage-Area-Storage for Pond A1-3*: A1-3 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
113.00	32,860	32,860	0
113.20	33,553	33,553	6,641
113.40	34,245	34,245	13,421
113.60	34,938	34,938	20,339
113.80	35,630	35,630	27,396
114.00	36,323	36,323	34,592
114.20	37,039	37,039	41,928
114.40	37,754	37,754	49,407
114.60	38,470	38,470	57,029
114.80	39,185	39,185	64,795
115.00	39,901	39,901	72,704
115.20	43,726	43,726	81,066
115.40	47,551	47,551	90,194
115.60	51,375	51,375	100,086
115.80	55,200	55,200	110,744
116.00	59,025	59,025	122,167
116.20	60,001	60,001	134,069
116.40	60,977	60,977	146,167
116.60	61,952	61,952	158,460
116.80	62,928	62,928	170,948
117.00	63,904	63,904	183,631
117.20	64,900	64,900	196,511
117.40	65,896	65,896	209,591
117.60	66,891	66,891	222,870
117.80	67,887	67,887	236,347
118.00	68,883	68,883	250,025
118.20	69,899	69,899	263,903
118.40	70,915	70,915	277,984
118.60	71,930	71,930	292,269
118.80	72,946	72,946	306,756
119.00	73,962	73,962	321,447
119.20	74,999	74,999	336,343
119.40	76,035	76,035	351,446
119.60	77,072	77,072	366,757
119.80	78,108	78,108	382,275
120.00	**79,145**	**79,145**	**398,001**

Summary for Pond A11-2*: A11-2 Infiltration Basin

Inflow Area = 34.745 ac, 45.43% Impervious, Inflow Depth > 3.70" for 50-yr event
Inflow = 65.14 cfs @ 12.79 hrs, Volume= 10.719 af
Outflow = 21.38 cfs @ 13.83 hrs, Volume= 10.716 af, Atten= 67%, Lag= 62.8 min
Discarded = 21.32 cfs @ 13.83 hrs, Volume= 10.714 af
Primary = 0.06 cfs @ 13.83 hrs, Volume= 0.002 af
Routed to Reach DP-A : DP-A

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 117.58' @ 13.83 hrs Surf.Area= 92,091 sf Storage= 138,726 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 53.2 min (878.5 - 825.2)

Volume	Invert	Avail.Storage	Storage Description
#1	116.00'	526,055 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

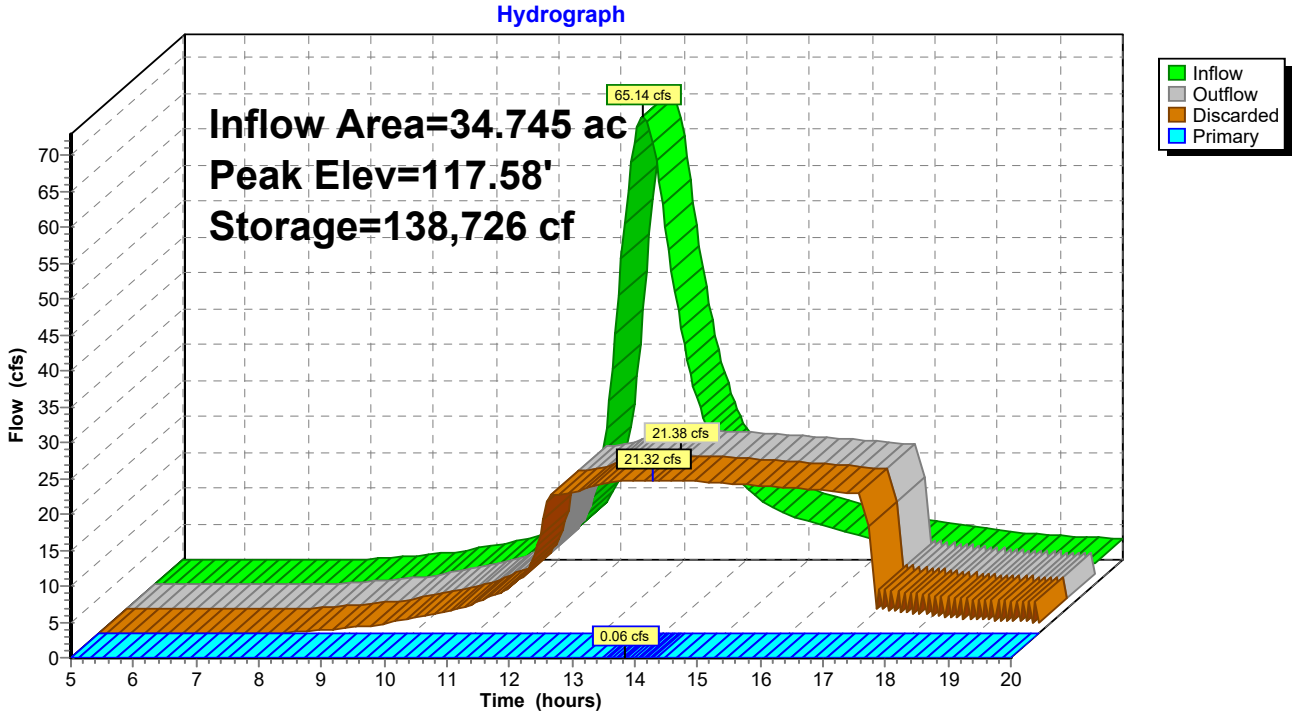
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
116.00	83,518	0	0
117.00	88,893	86,206	86,206
118.00	94,403	91,648	177,854
119.00	115,652	105,028	282,881
120.00	121,576	118,614	401,495
121.00	127,544	124,560	526,055

Device	Routing	Invert	Outlet Devices
#1	Primary	116.00'	**24.0" Round Culvert** L= 150.0' Ke= 1.000 Inlet / Outlet Invert= 116.00' / 114.00' S= 0.0133 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	117.50'	**6.0" Vert. Orifice/Grate X 3.00** C= 0.600 Limited to weir flow at low heads
#3	Device 1	118.50'	**24.0" W x 8.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	119.80'	**3.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#5	Discarded	116.00'	**10.000 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=21.32 cfs @ 13.83 hrs HW=117.58' (Free Discharge)
└**5=Exfiltration** (Exfiltration Controls 21.32 cfs)

Primary OutFlow Max=0.06 cfs @ 13.83 hrs HW=117.58' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 0.06 cfs of 8.55 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.06 cfs @ 0.96 fps)
  ├**3=Orifice/Grate** (Controls 0.00 cfs)
  └**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond A11-2*: A11-2 Infiltration Basin



Hydrograph for Pond A11-2*: A11-2 Infiltration Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
5.00	0.00	0	116.00	0.00	0.00	0.00
5.50	0.00	0	116.00	0.00	0.00	0.00
6.00	0.00	0	116.00	0.00	0.00	0.00
6.50	0.00	0	116.00	0.00	0.00	0.00
7.00	0.00	0	116.00	0.00	0.00	0.00
7.50	0.01	0	116.00	0.01	0.01	0.00
8.00	0.12	0	116.00	0.12	0.12	0.00
8.50	0.36	0	116.00	0.36	0.36	0.00
9.00	0.74	0	116.00	0.74	0.74	0.00
9.50	1.29	0	116.00	1.29	1.29	0.00
10.00	2.02	0	116.00	2.02	2.02	0.00
10.50	2.94	0	116.00	2.94	2.94	0.00
11.00	4.24	0	116.00	4.24	4.24	0.00
11.50	6.18	0	116.00	6.18	6.18	0.00
12.00	12.11	0	116.00	12.11	12.11	0.00
12.50	**50.37**	17,506	116.21	19.59	19.59	0.00
13.00	**59.05**	91,683	117.06	20.66	20.66	0.00
13.50	31.23	**133,393**	**117.52**	**21.25**	**21.24**	**0.00**
14.00	18.26	**137,749**	**117.57**	**21.35**	**21.30**	**0.04**
14.50	12.87	126,935	117.45	21.15	21.15	0.00
15.00	10.16	109,557	117.26	20.91	20.91	0.00
15.50	8.52	88,888	117.03	20.62	20.62	0.00
16.00	7.31	66,285	116.77	20.30	20.30	0.00
16.50	6.19	42,196	116.50	19.95	19.95	0.00
17.00	5.32	16,919	116.20	19.58	19.58	0.00
17.50	4.70	0	116.00	3.31	3.31	0.00
18.00	4.18	0	116.00	2.78	2.78	0.00
18.50	3.68	0	116.00	2.29	2.29	0.00
19.00	3.32	0	116.00	1.93	1.93	0.00
19.50	3.11	0	116.00	1.72	1.72	0.00
20.00	2.94	0	116.00	1.55	1.55	0.00

Stage-Discharge for Pond A11-2*: A11-2 Infiltration Basin

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
116.00	0.00	0.00	0.00
116.05	19.40	19.40	0.00
116.10	19.46	19.46	0.00
116.15	19.52	19.52	0.00
116.20	19.58	19.58	0.00
116.25	19.64	19.64	0.00
116.30	19.71	19.71	0.00
116.35	19.77	19.77	0.00
116.40	19.83	19.83	0.00
116.45	19.89	19.89	0.00
116.50	19.95	19.95	0.00
116.55	20.02	20.02	0.00
116.60	20.08	20.08	0.00
116.65	20.14	20.14	0.00
116.70	20.20	20.20	0.00
116.75	20.27	20.27	0.00
116.80	20.33	20.33	0.00
116.85	20.39	20.39	0.00
116.90	20.45	20.45	0.00
116.95	20.51	20.51	0.00
117.00	20.58	20.58	0.00
117.05	20.64	20.64	0.00
117.10	20.70	20.70	0.00
117.15	20.77	20.77	0.00
117.20	20.83	20.83	0.00
117.25	20.90	20.90	0.00
117.30	20.96	20.96	0.00
117.35	21.02	21.02	0.00
117.40	21.09	21.09	0.00
117.45	21.15	21.15	0.00
117.50	21.21	21.21	0.00
117.55	21.30	21.28	0.02
117.60	21.43	21.34	0.09
117.65	21.60	21.41	0.20
117.70	21.80	21.47	0.34
117.75	22.04	21.53	0.50
117.80	22.29	21.60	0.69
117.85	22.55	21.66	0.89
117.90	22.81	21.72	1.09
117.95	23.06	21.79	1.28
118.00	23.27	21.85	1.42
118.05	23.65	22.10	1.55
118.10	24.02	22.34	1.68
118.15	24.38	22.59	1.79
118.20	24.74	22.84	1.90
118.25	25.09	23.08	2.01
118.30	25.43	23.33	2.10
118.35	25.77	23.57	2.20
118.40	26.11	23.82	2.29
118.45	26.44	24.07	2.37
118.50	26.77	24.31	2.46
118.55	27.17	24.56	2.61
118.60	27.62	24.80	2.82
118.65	28.11	25.05	3.06
118.70	28.63	25.30	3.34
118.75	29.18	25.54	3.64
118.80	29.75	25.79	3.96
118.85	30.34	26.03	4.30
118.90	30.95	26.28	4.67
118.95	31.57	26.53	5.04
119.00	32.21	26.77	5.44
119.05	32.69	26.84	5.85
119.10	33.19	26.91	6.28
119.15	33.70	26.98	6.72
119.20	34.18	27.05	7.14
119.25	34.60	27.11	7.49
119.30	34.99	27.18	7.81
119.35	35.37	27.25	8.11
119.40	35.72	27.32	8.40
119.45	36.06	27.39	8.67
119.50	36.39	27.46	8.94
119.55	36.71	27.53	9.19
119.60	37.03	27.59	9.43
119.65	37.33	27.66	9.67
119.70	37.63	27.73	9.90
119.75	37.92	27.80	10.12
119.80	38.21	27.87	10.34
119.85	38.60	27.94	10.66
119.90	39.08	28.01	11.07
119.95	39.60	28.07	11.53
120.00	40.17	28.14	12.03
120.05	40.78	28.21	12.57
120.10	41.41	28.28	13.13
120.15	42.07	28.35	13.72
120.20	42.76	28.42	14.34
120.25	43.47	28.49	14.98
120.30	44.20	28.56	15.64
120.35	44.94	28.63	16.32
120.40	45.71	28.70	17.01
120.45	46.49	28.76	17.73
120.50	47.29	28.83	18.45
120.55	48.10	28.90	19.20
120.60	48.93	28.97	19.95
120.65	49.76	29.04	20.72
120.70	50.61	29.11	21.50
120.75	51.15	29.18	21.97
120.80	51.36	29.25	22.12
120.85	51.58	29.32	22.26
120.90	51.79	29.39	22.40
120.95	52.00	29.45	22.55
121.00	**52.21**	**29.52**	**22.69**

Stage-Area-Storage for Pond A11-2*: A11-2 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
116.00	83,518	83,518	0
116.10	84,055	84,055	8,379
116.20	84,593	84,593	16,811
116.30	85,130	85,130	25,297
116.40	85,668	85,668	33,837
116.50	86,206	86,206	42,431
116.60	86,743	86,743	51,078
116.70	87,281	87,281	59,779
116.80	87,818	87,818	68,534
116.90	88,356	88,356	77,343
117.00	88,893	88,893	86,206
117.10	89,444	89,444	95,122
117.20	89,995	89,995	104,094
117.30	90,546	90,546	113,121
117.40	91,097	91,097	122,204
117.50	91,648	91,648	131,341
117.60	92,199	92,199	140,533
117.70	92,750	92,750	149,781
117.80	93,301	93,301	159,083
117.90	93,852	93,852	168,441
118.00	94,403	94,403	177,854
118.10	96,528	96,528	187,400
118.20	98,653	98,653	197,159
118.30	100,778	100,778	207,131
118.40	102,903	102,903	217,315
118.50	105,028	105,028	227,711
118.60	107,152	107,152	238,320
118.70	109,277	109,277	249,142
118.80	111,402	111,402	260,176
118.90	113,527	113,527	271,422
119.00	115,652	115,652	282,881
119.10	116,244	116,244	294,476
119.20	116,837	116,837	306,130
119.30	117,429	117,429	317,843
119.40	118,022	118,022	329,616
119.50	118,614	118,614	341,448
119.60	119,206	119,206	353,339
119.70	119,799	119,799	365,289
119.80	120,391	120,391	377,298
119.90	120,984	120,984	389,367
120.00	121,576	121,576	401,495
120.10	122,173	122,173	413,682
120.20	122,770	122,770	425,930
120.30	123,366	123,366	438,236
120.40	123,963	123,963	450,603
120.50	124,560	124,560	463,029
120.60	125,157	125,157	475,515
120.70	125,754	125,754	488,060
120.80	126,350	126,350	500,666
120.90	126,947	126,947	513,330
121.00	**127,544**	**127,544**	**526,055**

Summary for Pond B1-2*: B1-2 Infiltration Basin

Inflow Area = 24.905 ac, 77.85% Impervious, Inflow Depth > 3.41" for 50-yr event
Inflow = 27.79 cfs @ 12.11 hrs, Volume= 7.076 af
Outflow = 10.00 cfs @ 14.84 hrs, Volume= 5.745 af, Atten= 64%, Lag= 164.2 min
Discarded = 6.38 cfs @ 14.84 hrs, Volume= 4.286 af
Primary = 3.62 cfs @ 14.84 hrs, Volume= 1.459 af
Routed to Reach DP-B : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 133.70' @ 14.84 hrs Surf.Area= 27,545 sf Storage= 88,269 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 64.2 min (938.8 - 874.5)

Volume	Invert	Avail.Storage	Storage Description
#1	129.00'	126,855 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

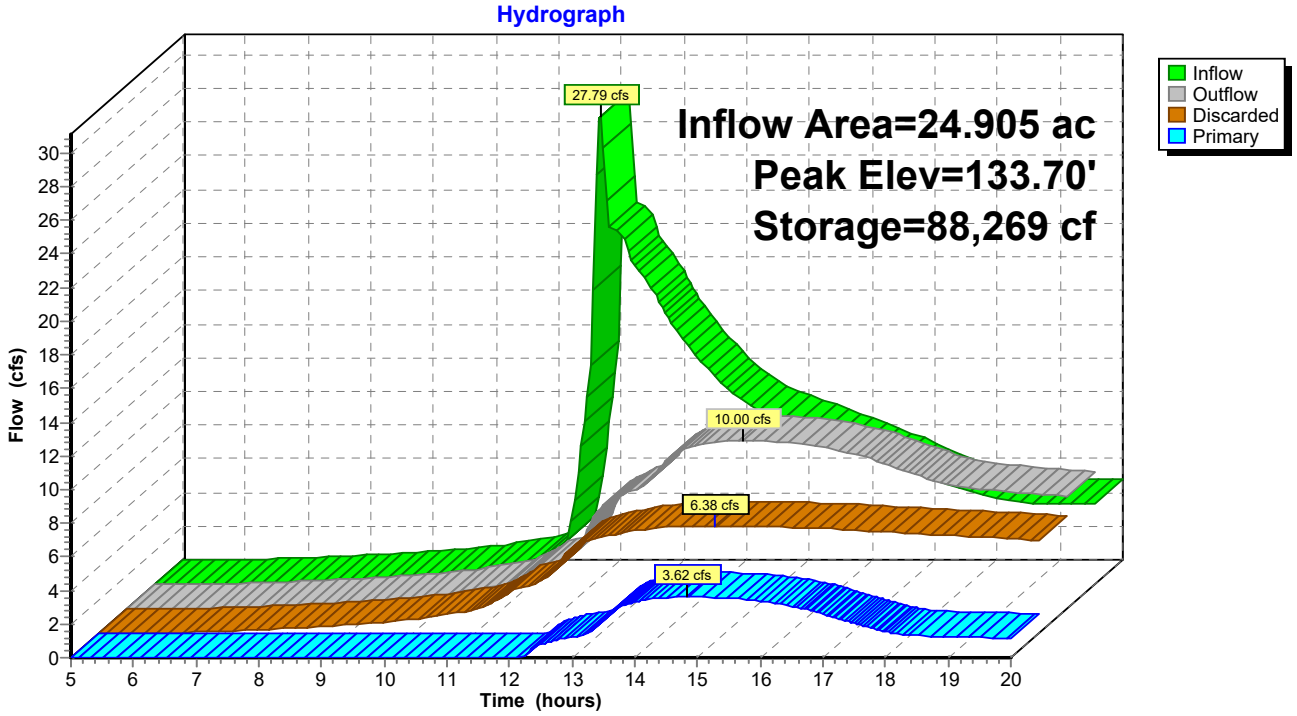
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
129.00	11,433	0	0
130.00	13,470	12,452	12,452
131.00	15,642	14,556	27,008
132.00	22,459	19,051	46,058
133.00	25,245	23,852	69,910
134.00	28,552	26,899	96,809
135.00	31,541	30,047	126,855

Device	Routing	Invert	Outlet Devices
#1	Primary	129.00'	**24.0" Round Culvert** L= 75.0' Ke= 1.000 Inlet / Outlet Invert= 129.00' / 129.00' S= 0.0000 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	130.80'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	133.00'	**18.0" W x 5.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	134.00'	**2.5' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#5	Discarded	129.00'	**10.000 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=6.38 cfs @ 14.84 hrs HW=133.70' (Free Discharge)
└**5=Exfiltration** (Exfiltration Controls 6.38 cfs)

Primary OutFlow Max=3.62 cfs @ 14.84 hrs HW=133.70' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 3.62 cfs of 21.81 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 1.54 cfs @ 7.83 fps)
  ├**3=Orifice/Grate** (Orifice Controls 2.08 cfs @ 3.33 fps)
  └**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond B1-2*: B1-2 Infiltration Basin



Hydrograph for Pond B1-2*: B1-2 Infiltration Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
5.00	0.00	0	129.00	0.00	0.00	0.00
5.50	0.01	0	129.00	0.01	0.01	0.00
6.00	0.03	0	129.00	0.03	0.03	0.00
6.50	0.07	0	129.00	0.07	0.07	0.00
7.00	0.13	0	129.00	0.13	0.13	0.00
7.50	0.20	0	129.00	0.20	0.20	0.00
8.00	0.27	0	129.00	0.27	0.27	0.00
8.50	0.37	0	129.00	0.37	0.37	0.00
9.00	0.50	0	129.00	0.50	0.50	0.00
9.50	0.65	0	129.00	0.65	0.65	0.00
10.00	0.83	0	129.00	0.83	0.83	0.00
10.50	1.09	0	129.00	1.09	1.09	0.00
11.00	1.42	0	129.00	1.42	1.42	0.00
11.50	2.30	0	129.00	2.29	2.29	0.00
12.00	**17.49**	8,249	129.68	2.97	2.97	0.00
12.50	**20.49**	41,488	131.79	5.68	4.87	0.81
13.00	17.14	63,336	132.74	6.90	5.67	1.23
13.50	14.24	77,967	133.31	8.35	6.08	2.26
14.00	12.12	85,192	133.58	9.61	6.29	3.32
14.50	10.64	**87,892**	**133.68**	**9.95**	**6.37**	**3.59**
15.00	9.80	**88,214**	**133.69**	**9.99**	**6.37**	**3.62**
15.50	9.13	87,347	133.66	9.89	6.35	3.54
16.00	8.42	85,545	133.60	9.66	6.30	3.36
16.50	7.73	82,989	133.50	9.30	6.23	3.07
17.00	6.96	79,946	133.39	8.75	6.14	2.61
17.50	6.14	76,557	133.26	8.08	6.04	2.04
18.00	5.51	73,014	133.12	7.50	5.94	1.57
18.50	5.09	69,396	132.98	7.14	5.83	1.31
19.00	4.83	65,576	132.83	6.99	5.73	1.26
19.50	4.78	61,746	132.67	6.83	5.63	1.20
20.00	4.76	58,177	132.52	6.68	5.54	1.15

Stage-Discharge for Pond B1-2*: B1-2 Infiltration Basin

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
129.00	0.00	0.00	0.00
129.10	2.69	2.69	0.00
129.20	2.74	2.74	0.00
129.30	2.79	2.79	0.00
129.40	2.84	2.84	0.00
129.50	2.88	2.88	0.00
129.60	2.93	2.93	0.00
129.70	2.98	2.98	0.00
129.80	3.02	3.02	0.00
129.90	3.07	3.07	0.00
130.00	3.12	3.12	0.00
130.10	3.17	3.17	0.00
130.20	3.22	3.22	0.00
130.30	3.27	3.27	0.00
130.40	3.32	3.32	0.00
130.50	3.37	3.37	0.00
130.60	3.42	3.42	0.00
130.70	3.47	3.47	0.00
130.80	3.52	3.52	0.00
130.90	3.60	3.57	0.03
131.00	3.73	3.62	0.11
131.10	4.01	3.78	0.23
131.20	4.30	3.94	0.36
131.30	4.57	4.09	0.47
131.40	4.81	4.25	0.56
131.50	5.04	4.41	0.63
131.60	5.27	4.57	0.70
131.70	5.49	4.73	0.76
131.80	5.70	4.88	0.82
131.90	5.91	5.04	0.87
132.00	6.12	5.20	0.92
132.10	6.23	5.26	0.97
132.20	6.34	5.33	1.01
132.30	6.45	5.39	1.06
132.40	6.56	5.46	1.10
132.50	6.66	5.52	1.14
132.60	6.76	5.59	1.18
132.70	6.86	5.65	1.21
132.80	6.97	5.71	1.25
132.90	7.07	5.78	1.29
133.00	7.16	5.84	1.32
133.10	7.43	5.92	1.51
133.20	7.81	6.00	1.82
133.30	8.28	6.07	2.21
133.40	8.82	6.15	2.67
133.50	9.29	6.23	3.07
133.60	9.67	6.30	3.37
133.70	10.01	6.38	3.63
133.80	10.33	6.46	3.87
133.90	10.62	6.53	4.09
134.00	10.90	6.61	4.29
134.10	11.42	6.68	4.74
134.20	12.14	6.75	5.39
134.30	12.97	6.82	6.15
134.40	13.90	6.89	7.01
134.50	14.90	6.96	7.95
134.60	15.97	7.02	8.95
134.70	17.09	7.09	10.00
134.80	18.26	7.16	11.10
134.90	19.48	7.23	12.24
135.00	**20.73**	**7.30**	**13.43**

Stage-Area-Storage for Pond B1-2*: B1-2 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
129.00	11,433	11,433	0
129.20	11,840	11,840	2,327
129.40	12,248	12,248	4,736
129.60	12,655	12,655	7,226
129.80	13,063	13,063	9,798
130.00	13,470	13,470	12,452
130.20	13,904	13,904	15,189
130.40	14,339	14,339	18,013
130.60	14,773	14,773	20,924
130.80	15,208	15,208	23,923
131.00	15,642	15,642	27,008
131.20	17,005	17,005	30,272
131.40	18,369	18,369	33,810
131.60	19,732	19,732	37,620
131.80	21,096	21,096	41,703
132.00	22,459	22,459	46,058
132.20	23,016	23,016	50,606
132.40	23,573	23,573	55,264
132.60	24,131	24,131	60,035
132.80	24,688	24,688	64,917
133.00	25,245	25,245	69,910
133.20	25,906	25,906	75,025
133.40	26,568	26,568	80,273
133.60	27,229	27,229	85,652
133.80	27,891	27,891	91,164
134.00	28,552	28,552	96,809
134.20	29,150	29,150	102,579
134.40	29,748	29,748	108,468
134.60	30,345	30,345	114,478
134.80	30,943	30,943	120,607
135.00	**31,541**	**31,541**	**126,855**

Summary for Pond B1-3*: B1-3 Dry Extended Basin with Micropool

Inflow Area = 20.504 ac, 83.49% Impervious, Inflow Depth > 5.36" for 50-yr event
Inflow = 124.24 cfs @ 12.09 hrs, Volume= 9.157 af
Outflow = 15.97 cfs @ 12.64 hrs, Volume= 5.580 af, Atten= 87%, Lag= 33.1 min
Primary = 15.97 cfs @ 12.64 hrs, Volume= 5.580 af
Routed to Pond B1-2* : B1-2 Infiltration Basin

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 136.00' @ 12.64 hrs Surf.Area= 53,363 sf Storage= 245,039 cf

Plug-Flow detention time= 228.6 min calculated for 5.579 af (61% of inflow)
Center-of-Mass det. time= 151.8 min (900.6 - 748.7)

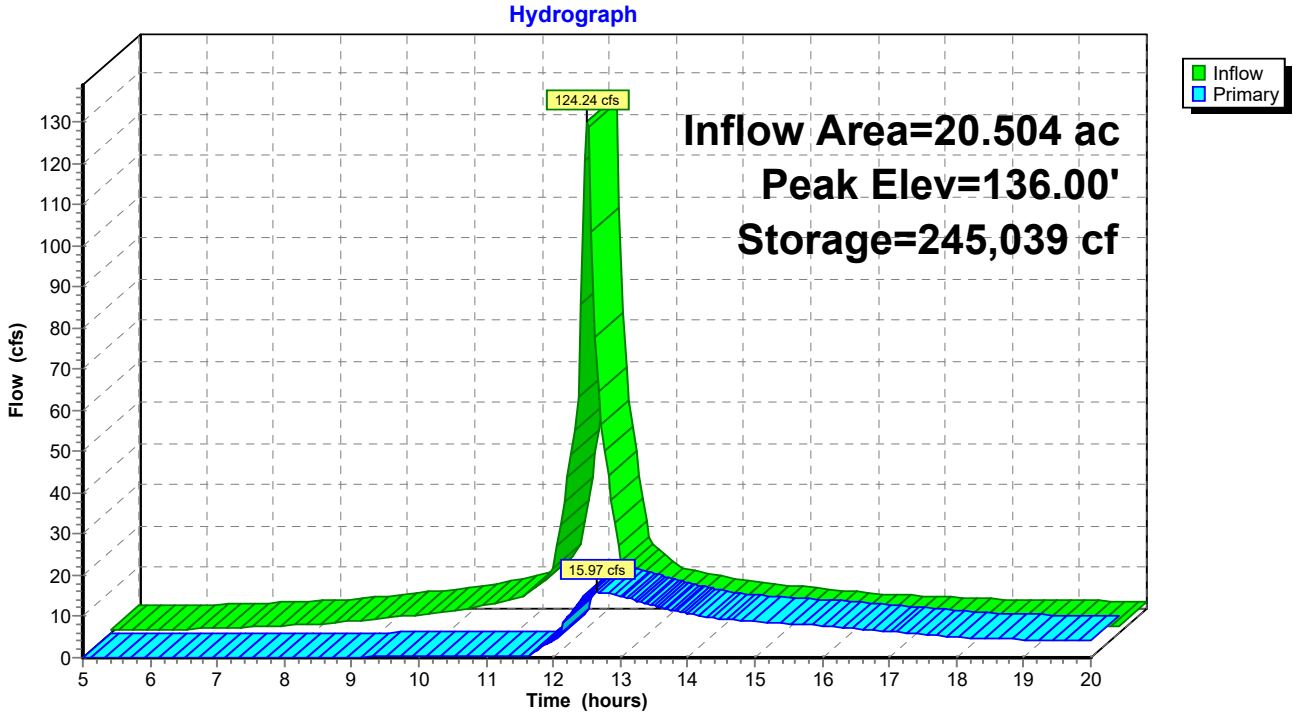
Volume	Invert	Avail.Storage	Storage Description
#1	129.50'	300,241 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
129.50	25,183	0	0
130.00	26,502	12,921	12,921
131.00	29,223	27,863	40,784
132.00	32,056	30,640	71,423
133.00	34,999	33,528	104,951
134.00	46,174	40,587	145,537
135.00	49,702	47,938	193,475
136.00	53,361	51,532	245,007
137.00	57,107	55,234	300,241

Device	Routing	Invert	Outlet Devices
#1	Primary	129.50'	**24.0" Round Culvert** L= 123.0' Ke= 1.000 Inlet / Outlet Invert= 129.50' / 129.12' S= 0.0031 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	129.50'	**3.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	132.40'	**24.0" W x 4.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	134.35'	**24.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Device 1	135.45'	**3.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=15.96 cfs @ 12.64 hrs HW=136.00' TW=132.10' (Dynamic Tailwater)
↑**1=Culvert** (Passes 15.96 cfs of 22.41 cfs potential flow)
↑**2=Orifice/Grate** (Orifice Controls 0.47 cfs @ 9.51 fps)
3=Orifice/Grate (Orifice Controls 5.95 cfs @ 8.92 fps)
4=Orifice/Grate (Orifice Controls 5.69 cfs @ 5.69 fps)
5=Sharp-Crested Rectangular Weir (Weir Controls 3.86 cfs @ 2.43 fps)

Pond B1-3*: B1-3 Dry Extended Basin with Micropool



Hydrograph for Pond B1-3*: B1-3 Dry Extended Basin with Micropool

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.65	58	129.50	0.00
5.50	0.80	1,360	129.55	0.01
6.00	0.96	2,916	129.62	0.03
6.50	1.21	4,774	129.69	0.06
7.00	1.52	7,088	129.78	0.09
7.50	1.85	9,926	129.89	0.12
8.00	2.21	13,338	130.02	0.15
8.50	2.84	17,546	130.17	0.17
9.00	3.58	22,973	130.37	0.20
9.50	4.38	29,733	130.61	0.24
10.00	5.21	37,906	130.90	0.27
10.50	6.65	47,975	131.24	0.30
11.00	8.31	60,859	131.67	0.34
11.50	13.43	79,210	132.24	0.38
12.00	**79.88**	138,033	133.83	4.10
12.50	**26.69**	**242,859**	**135.96**	**15.46**
13.00	10.89	**241,821**	**135.94**	**15.06**
13.50	8.46	233,850	135.79	12.61
14.00	6.87	226,672	135.65	10.79
14.50	5.95	219,940	135.52	9.48
15.00	5.18	213,605	135.40	8.79
15.50	4.41	206,881	135.27	8.27
16.00	3.64	199,739	135.13	7.71
16.50	3.22	192,536	134.98	7.09
17.00	2.89	185,876	134.85	6.39
17.50	2.55	179,986	134.73	5.63
18.00	2.22	174,664	134.62	5.08
18.50	2.07	169,744	134.51	4.68
19.00	1.97	165,200	134.42	4.44
19.50	1.87	160,730	134.33	4.41
20.00	1.77	156,061	134.23	4.41

Stage-Discharge for Pond B1-3*: B1-3 Dry Extended Basin with Micropool

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
129.50	0.00	132.05	0.37	134.60	5.91
129.55	0.01	132.10	0.37	134.65	6.22
129.60	0.02	132.15	0.38	134.70	6.55
129.65	0.04	132.20	0.38	134.75	6.90
129.70	0.06	132.25	0.38	134.80	7.27
129.75	0.08	132.30	0.39	134.85	7.66
129.80	0.10	132.35	0.39	134.90	7.99
129.85	0.11	132.40	0.39	134.95	8.28
129.90	0.12	132.45	0.47	135.00	8.55
129.95	0.13	132.50	0.60	135.05	8.79
130.00	0.14	132.55	0.78	135.10	9.03
130.05	0.15	132.60	0.98	135.15	9.25
130.10	0.16	132.65	1.21	135.20	9.47
130.15	0.17	132.70	1.47	135.25	9.68
130.20	0.18	132.75	1.73	135.30	9.88
130.25	0.19	132.80	1.93	135.35	10.07
130.30	0.19	132.85	2.11	135.40	10.26
130.35	0.20	132.90	2.26	135.45	10.44
130.40	0.21	132.95	2.40	135.50	10.73
130.45	0.21	133.00	2.53	135.55	11.11
130.50	0.22	133.05	2.66	135.60	11.53
130.55	0.23	133.10	2.78	135.65	12.00
130.60	0.23	133.15	2.89	135.70	12.51
130.65	0.24	133.20	2.99	135.75	13.04
130.70	0.25	133.25	3.10	135.80	13.61
130.75	0.25	133.30	3.20	135.85	14.20
130.80	0.26	133.35	3.29	135.90	14.81
130.85	0.26	133.40	3.38	135.95	15.44
130.90	0.27	133.45	3.47	136.00	16.09
130.95	0.27	133.50	3.56	136.05	16.76
131.00	0.28	133.55	3.65	136.10	17.44
131.05	0.28	133.60	3.73	136.15	18.14
131.10	0.29	133.65	3.81	136.20	18.86
131.15	0.29	133.70	3.89	136.25	19.59
131.20	0.30	133.75	3.97	136.30	20.34
131.25	0.30	133.80	4.05	136.35	21.09
131.30	0.31	133.85	4.12	136.40	21.86
131.35	0.31	133.90	4.19	136.45	22.64
131.40	0.31	133.95	4.26	136.50	23.43
131.45	0.32	134.00	4.34	136.55	24.23
131.50	0.32	134.05	4.40	136.60	25.05
131.55	0.33	134.10	4.47	136.65	25.87
131.60	0.33	134.15	4.54	136.70	26.70
131.65	0.34	134.20	4.61	136.75	27.53
131.70	0.34	134.25	4.67	136.80	28.38
131.75	0.34	134.30	4.74	136.85	28.59
131.80	0.35	134.35	4.80	136.90	28.70
131.85	0.35	134.40	4.93	136.95	28.81
131.90	0.36	134.45	5.13	137.00	**28.92**
131.95	0.36	134.50	5.36		
132.00	0.36	134.55	5.62		

Stage-Area-Storage for Pond B1-3*: B1-3 Dry Extended Basin with Micropool

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
129.50	25,183	0
129.60	25,447	2,531
129.70	25,711	5,089
129.80	25,974	7,674
129.90	26,238	10,284
130.00	26,502	12,921
130.10	26,774	15,585
130.20	27,046	18,276
130.30	27,318	20,994
130.40	27,590	23,740
130.50	27,863	26,512
130.60	28,135	29,312
130.70	28,407	32,139
130.80	28,679	34,994
130.90	28,951	37,875
131.00	29,223	40,784
131.10	29,506	43,720
131.20	29,790	46,685
131.30	30,073	49,678
131.40	30,356	52,700
131.50	30,640	55,749
131.60	30,923	58,827
131.70	31,206	61,934
131.80	31,489	65,069
131.90	31,773	68,232
132.00	32,056	71,423
132.10	32,350	74,644
132.20	32,645	77,893
132.30	32,939	81,172
132.40	33,233	84,481
132.50	33,528	87,819
132.60	33,822	91,187
132.70	34,116	94,583
132.80	34,410	98,010
132.90	34,705	101,466
133.00	34,999	104,951
133.10	36,116	108,507
133.20	37,234	112,174
133.30	38,352	115,953
133.40	39,469	119,844
133.50	40,587	123,847
133.60	41,704	127,962
133.70	42,821	132,188
133.80	43,939	136,526
133.90	45,057	140,976
134.00	46,174	145,537
134.10	46,527	150,172
134.20	46,880	154,843
134.30	47,232	159,548
134.40	47,585	164,289
134.50	47,938	169,065
134.60	48,291	173,877
134.70	48,644	178,723
134.80	48,996	183,605
134.90	49,349	188,523
135.00	49,702	193,475
135.10	50,068	198,464
135.20	50,434	203,489
135.30	50,800	208,551
135.40	51,166	213,649
135.50	51,532	218,784
135.60	51,897	223,955
135.70	52,263	229,163
135.80	52,629	234,408
135.90	52,995	239,689
136.00	53,361	245,007
136.10	53,736	250,362
136.20	54,110	255,754
136.30	54,485	261,184
136.40	54,859	266,651
136.50	55,234	272,156
136.60	55,609	277,698
136.70	55,983	283,277
136.80	56,358	288,894
136.90	56,732	294,549
137.00	**57,107**	**300,241**

Summary for Pond B3-2*: B3-2 Dry Extended Basin with Micropool

Inflow Area = 7.079 ac, 56.01% Impervious, Inflow Depth > 4.29" for 50-yr event
Inflow = 36.56 cfs @ 12.09 hrs, Volume= 2.531 af
Outflow = 0.50 cfs @ 20.00 hrs, Volume= 0.335 af, Atten= 99%, Lag= 474.6 min
Primary = 0.50 cfs @ 20.00 hrs, Volume= 0.335 af
Routed to Reach DP-B : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 128.07' @ 20.00 hrs Surf.Area= 31,127 sf Storage= 95,685 cf

Plug-Flow detention time= 327.7 min calculated for 0.334 af (13% of inflow)
Center-of-Mass det. time= 163.9 min (937.0 - 773.1)

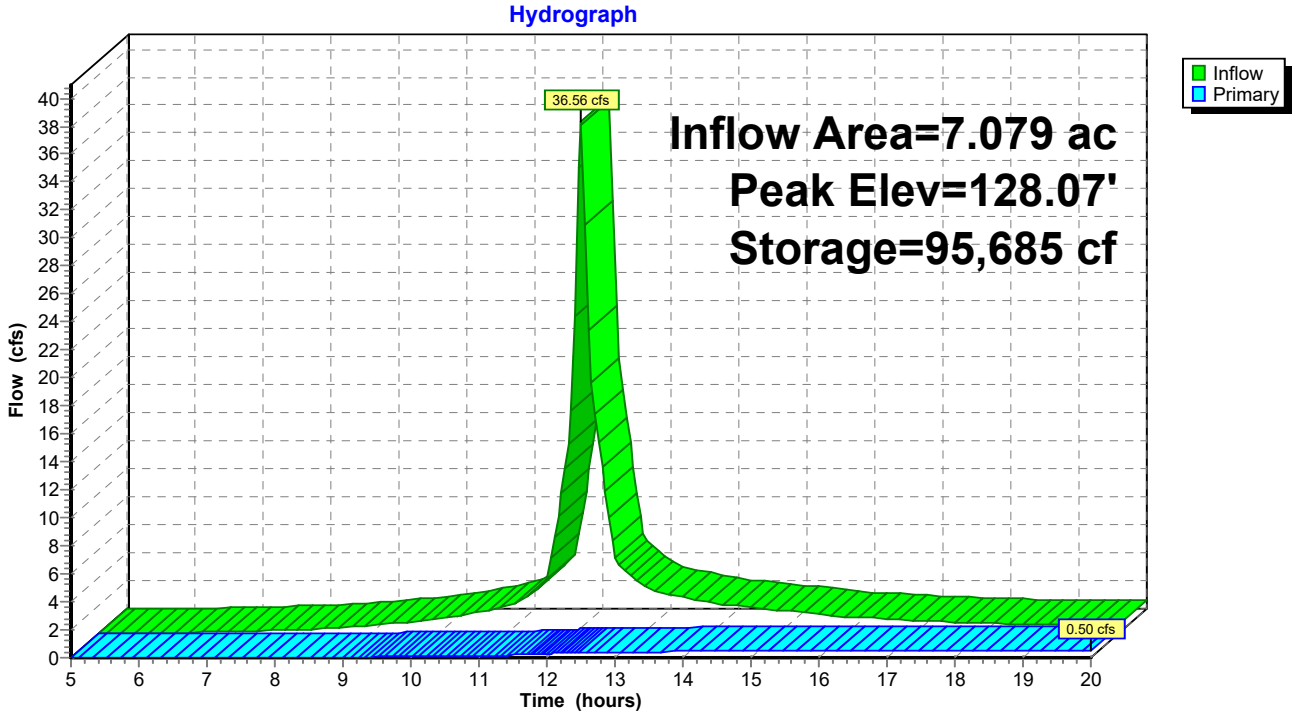
Volume	Invert	Avail.Storage	Storage Description
#1	124.00'	200,335 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
124.00	17,253	0	0
125.00	19,576	18,415	18,415
126.00	22,023	20,800	39,214
127.00	27,945	24,984	64,198
128.00	30,928	29,437	93,635
129.00	33,933	32,431	126,065
130.00	37,113	35,523	161,588
131.00	40,380	38,747	200,335

Device	Routing	Invert	Outlet Devices
#1	Primary	124.00'	**24.0" Round Culvert** L= 75.0' Ke= 1.000 Inlet / Outlet Invert= 124.00' / 123.00' S= 0.0133 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	124.00'	**3.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	128.00'	**6.0" Vert. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads
#4	Device 1	130.00'	**1.5' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=0.50 cfs @ 20.00 hrs HW=128.07' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 0.47 cfs of 19.87 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.47 cfs @ 9.56 fps)
  - **4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)
- **3=Orifice/Grate** (Orifice Controls 0.03 cfs @ 0.88 fps)

Pond B3-2*: B3-2 Dry Extended Basin with Micropool



Hydrograph for Pond B3-2*: B3-2 Dry Extended Basin with Micropool

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	124.00	0.00
5.50	0.00	0	124.00	0.00
6.00	0.02	9	124.00	0.00
6.50	0.06	79	124.00	0.00
7.00	0.12	238	124.01	0.00
7.50	0.19	511	124.03	0.00
8.00	0.27	918	124.05	0.01
8.50	0.41	1,502	124.09	0.02
9.00	0.58	2,344	124.13	0.03
9.50	0.79	3,490	124.20	0.06
10.00	1.03	4,987	124.28	0.09
10.50	1.43	6,983	124.39	0.12
11.00	1.92	9,744	124.54	0.15
11.50	3.34	14,008	124.77	0.19
12.00	**22.68**	30,295	125.59	0.29
12.50	**8.32**	66,563	127.08	0.41
13.00	3.44	74,345	127.36	0.42
13.50	2.69	78,901	127.51	0.43
14.00	2.19	82,500	127.63	0.44
14.50	1.90	85,346	127.73	0.45
15.00	1.66	87,741	127.81	0.45
15.50	1.42	89,693	127.87	0.46
16.00	1.17	91,199	127.92	0.46
16.50	1.04	92,341	127.96	0.46
17.00	0.93	93,282	127.99	0.46
17.50	0.83	94,028	128.01	0.47
18.00	0.72	94,571	128.03	0.47
18.50	0.67	94,955	128.04	0.48
19.00	0.64	95,267	128.05	0.49
19.50	0.61	95,509	128.06	0.49
20.00	0.58	**95,685**	**128.07**	**0.50**

Stage-Discharge for Pond B3-2*: B3-2 Dry Extended Basin with Micropool

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
124.00	0.00	126.55	0.37	129.10	2.27
124.05	0.01	126.60	0.37	129.15	2.32
124.10	0.02	126.65	0.38	129.20	2.38
124.15	0.04	126.70	0.38	129.25	2.43
124.20	0.06	126.75	0.38	129.30	2.48
124.25	0.08	126.80	0.39	129.35	2.52
124.30	0.10	126.85	0.39	129.40	2.57
124.35	0.11	126.90	0.39	129.45	2.62
124.40	0.12	126.95	0.40	129.50	2.66
124.45	0.13	127.00	0.40	129.55	2.71
124.50	0.14	127.05	0.40	129.60	2.75
124.55	0.15	127.10	0.41	129.65	2.79
124.60	0.16	127.15	0.41	129.70	2.83
124.65	0.17	127.20	0.41	129.75	2.88
124.70	0.18	127.25	0.42	129.80	2.92
124.75	0.19	127.30	0.42	129.85	2.96
124.80	0.19	127.35	0.42	129.90	3.00
124.85	0.20	127.40	0.43	129.95	3.04
124.90	0.21	127.45	0.43	130.00	3.07
124.95	0.21	127.50	0.43	130.05	3.17
125.00	0.22	127.55	0.44	130.10	3.30
125.05	0.23	127.60	0.44	130.15	3.47
125.10	0.23	127.65	0.44	130.20	3.65
125.15	0.24	127.70	0.45	130.25	3.85
125.20	0.25	127.75	0.45	130.30	4.07
125.25	0.25	127.80	0.45	130.35	4.30
125.30	0.26	127.85	0.46	130.40	4.54
125.35	0.26	127.90	0.46	130.45	4.79
125.40	0.27	127.95	0.46	130.50	5.05
125.45	0.27	128.00	0.47	130.55	5.32
125.50	0.28	128.05	0.48	130.60	5.60
125.55	0.28	128.10	0.53	130.65	5.88
125.60	0.29	128.15	0.60	130.70	6.17
125.65	0.29	128.20	0.70	130.75	6.47
125.70	0.30	128.25	0.81	130.80	6.77
125.75	0.30	128.30	0.94	130.85	7.07
125.80	0.31	128.35	1.08	130.90	7.38
125.85	0.31	128.40	1.21	130.95	7.69
125.90	0.31	128.45	1.34	131.00	**8.01**
125.95	0.32	128.50	1.44		
126.00	0.32	128.55	1.53		
126.05	0.33	128.60	1.62		
126.10	0.33	128.65	1.70		
126.15	0.34	128.70	1.77		
126.20	0.34	128.75	1.85		
126.25	0.34	128.80	1.91		
126.30	0.35	128.85	1.98		
126.35	0.35	128.90	2.04		
126.40	0.36	128.95	2.10		
126.45	0.36	129.00	2.16		
126.50	0.36	129.05	2.22		

Stage-Area-Storage for Pond B3-2*: B3-2 Dry Extended Basin with Micropool

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
124.00	17,253	0
124.10	17,485	1,737
124.20	17,718	3,497
124.30	17,950	5,280
124.40	18,182	7,087
124.50	18,415	8,917
124.60	18,647	10,770
124.70	18,879	12,646
124.80	19,111	14,546
124.90	19,344	16,469
125.00	19,576	18,415
125.10	19,821	20,384
125.20	20,065	22,379
125.30	20,310	24,397
125.40	20,555	26,441
125.50	20,800	28,508
125.60	21,044	30,601
125.70	21,289	32,717
125.80	21,534	34,858
125.90	21,778	37,024
126.00	22,023	39,214
126.10	22,615	41,446
126.20	23,207	43,737
126.30	23,800	46,087
126.40	24,392	48,497
126.50	24,984	50,966
126.60	25,576	53,494
126.70	26,168	56,081
126.80	26,761	58,727
126.90	27,353	61,433
127.00	27,945	64,198
127.10	28,243	67,007
127.20	28,542	69,847
127.30	28,840	72,716
127.40	29,138	75,615
127.50	29,437	78,543
127.60	29,735	81,502
127.70	30,033	84,490
127.80	30,331	87,509
127.90	30,630	90,557
128.00	30,928	93,635
128.10	31,228	96,742
128.20	31,529	99,880
128.30	31,830	103,048
128.40	32,130	106,246
128.50	32,431	109,474
128.60	32,731	112,732
128.70	33,031	116,020
128.80	33,332	119,339
128.90	33,633	122,687
129.00	33,933	126,065
129.10	34,251	129,474
129.20	34,569	132,915
129.30	34,887	136,388
129.40	35,205	139,893
129.50	35,523	143,429
129.60	35,841	146,997
129.70	36,159	150,597
129.80	36,477	154,229
129.90	36,795	157,893
130.00	37,113	161,588
130.10	37,440	165,316
130.20	37,766	169,076
130.30	38,093	172,869
130.40	38,420	176,695
130.50	38,747	180,553
130.60	39,073	184,444
130.70	39,400	188,368
130.80	39,727	192,324
130.90	40,053	196,313
131.00	**40,380**	**200,335**

Summary for Pond B5-2*: B5-2 Infiltration Basin

Inflow Area = 10.218 ac, 67.76% Impervious, Inflow Depth > 4.72" for 50-yr event
Inflow = 56.87 cfs @ 12.09 hrs, Volume= 4.021 af
Outflow = 2.99 cfs @ 14.30 hrs, Volume= 2.463 af, Atten= 95%, Lag= 132.7 min
Discarded = 2.99 cfs @ 14.30 hrs, Volume= 2.463 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Reach DP-B : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 136.83' @ 14.30 hrs Surf.Area= 36,325 sf Storage= 94,228 cf

Plug-Flow detention time= 180.7 min calculated for 2.463 af (61% of inflow)
Center-of-Mass det. time= 106.1 min (869.8 - 763.7)

Volume	Invert	Avail.Storage	Storage Description
#1	133.50'	139,649 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

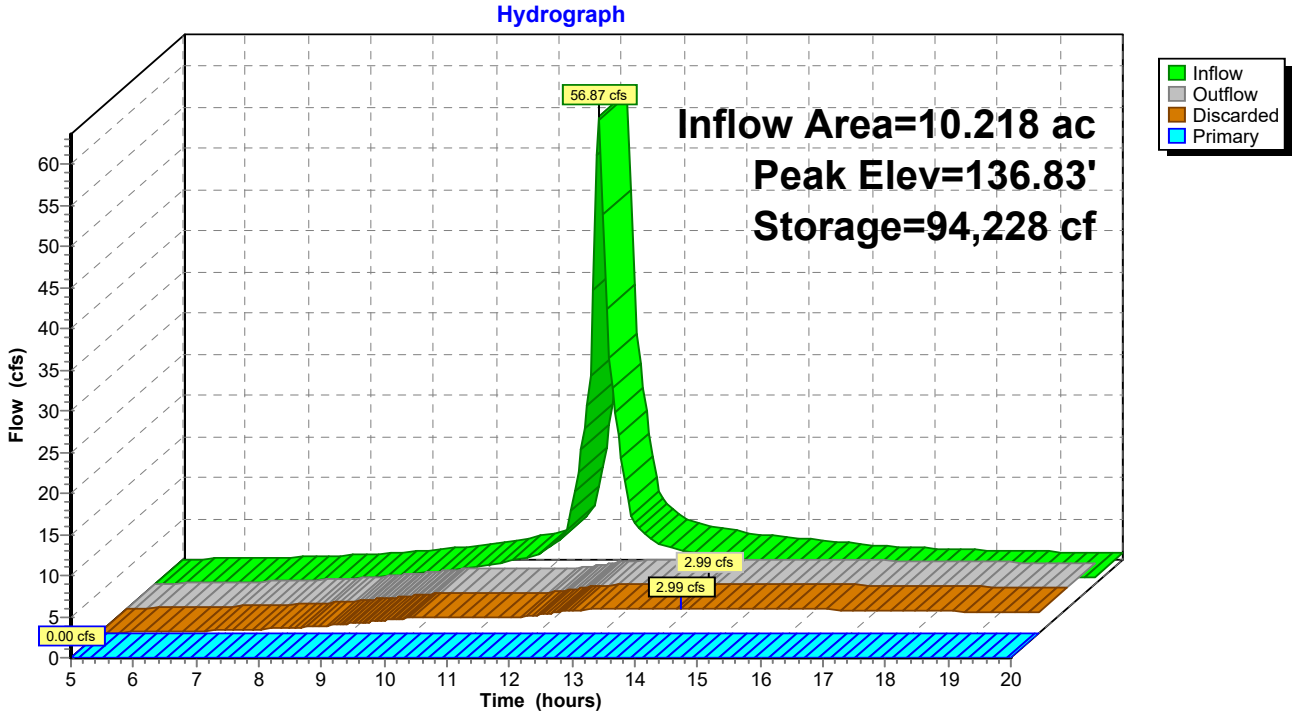
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
133.50	23,201	0	0
134.00	24,527	11,932	11,932
135.00	27,263	25,895	37,827
136.00	30,117	28,690	66,517
137.00	37,559	33,838	100,355
138.00	41,028	39,294	139,649

Device	Routing	Invert	Outlet Devices
#1	Primary	133.50'	**24.0" Round Culvert** L= 100.0' Ke= 1.000 Inlet / Outlet Invert= 133.50' / 132.00' S= 0.0150 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	137.00'	**1.5' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Discarded	133.50'	**3.560 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=2.99 cfs @ 14.30 hrs HW=136.83' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 2.99 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=133.50' TW=0.00' (Dynamic Tailwater)
↑**1=Culvert** (Controls 0.00 cfs)
↑**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond B5-2*: B5-2 Infiltration Basin



Hydrograph for Pond B5-2*: B5-2 Infiltration Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
5.00	0.05	0	133.50	0.05	0.05	**0.00**
5.50	0.11	0	133.50	0.11	0.11	0.00
6.00	0.17	0	133.50	0.17	0.17	0.00
6.50	0.25	0	133.50	0.25	0.25	0.00
7.00	0.36	0	133.50	0.36	0.36	0.00
7.50	0.49	0	133.50	0.49	0.49	0.00
8.00	0.63	0	133.50	0.63	0.63	0.00
8.50	0.87	0	133.50	0.87	0.87	0.00
9.00	1.18	0	133.50	1.18	1.18	0.00
9.50	1.53	0	133.50	1.52	1.52	0.00
10.00	1.91	9	133.50	1.88	1.88	0.00
10.50	2.55	539	133.52	1.92	1.92	0.00
11.00	3.32	2,348	133.60	1.93	1.93	0.00
11.50	5.59	6,597	133.78	1.97	1.97	0.00
12.00	**35.84**	29,949	134.71	2.18	2.18	0.00
12.50	**12.62**	82,425	136.50	2.79	2.79	0.00
13.00	5.18	90,157	136.72	2.92	2.92	0.00
13.50	4.04	92,872	136.80	2.97	2.97	0.00
14.00	3.28	**94,094**	**136.83**	**2.99**	**2.99**	0.00
14.50	2.85	**94,177**	**136.83**	**2.99**	**2.99**	0.00
15.00	2.49	93,599	136.82	2.98	2.98	0.00
15.50	2.12	92,391	136.78	2.96	2.96	0.00
16.00	1.75	90,568	136.73	2.93	2.93	0.00
16.50	1.55	88,273	136.67	2.89	2.89	0.00
17.00	1.39	85,757	136.60	2.85	2.85	0.00
17.50	1.23	83,036	136.52	2.80	2.80	0.00
18.00	1.07	80,116	136.43	2.74	2.74	0.00
18.50	1.00	77,074	136.34	2.69	2.69	0.00
19.00	0.95	74,044	136.24	2.63	2.63	0.00
19.50	0.90	71,031	136.15	2.57	2.57	0.00
20.00	0.86	68,038	136.05	2.51	2.51	0.00

Stage-Discharge for Pond B5-2*: B5-2 Infiltration Basin

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
133.50	0.00	0.00	0.00
133.55	1.92	1.92	0.00
133.60	1.93	1.93	0.00
133.65	1.94	1.94	0.00
133.70	1.96	1.96	0.00
133.75	1.97	1.97	0.00
133.80	1.98	1.98	0.00
133.85	1.99	1.99	0.00
133.90	2.00	2.00	0.00
133.95	2.01	2.01	0.00
134.00	2.02	2.02	0.00
134.05	2.03	2.03	0.00
134.10	2.04	2.04	0.00
134.15	2.06	2.06	0.00
134.20	2.07	2.07	0.00
134.25	2.08	2.08	0.00
134.30	2.09	2.09	0.00
134.35	2.10	2.10	0.00
134.40	2.11	2.11	0.00
134.45	2.12	2.12	0.00
134.50	2.13	2.13	0.00
134.55	2.15	2.15	0.00
134.60	2.16	2.16	0.00
134.65	2.17	2.17	0.00
134.70	2.18	2.18	0.00
134.75	2.19	2.19	0.00
134.80	2.20	2.20	0.00
134.85	2.21	2.21	0.00
134.90	2.22	2.22	0.00
134.95	2.24	2.24	0.00
135.00	2.25	2.25	0.00
135.05	2.26	2.26	0.00
135.10	2.27	2.27	0.00
135.15	2.28	2.28	0.00
135.20	2.29	2.29	0.00
135.25	2.31	2.31	0.00
135.30	2.32	2.32	0.00
135.35	2.33	2.33	0.00
135.40	2.34	2.34	0.00
135.45	2.35	2.35	0.00
135.50	2.36	2.36	0.00
135.55	2.38	2.38	0.00
135.60	2.39	2.39	0.00
135.65	2.40	2.40	0.00
135.70	2.41	2.41	0.00
135.75	2.42	2.42	0.00
135.80	2.43	2.43	0.00
135.85	2.45	2.45	0.00
135.90	2.46	2.46	0.00
135.95	2.47	2.47	0.00
136.00	2.48	2.48	0.00
136.05	2.51	2.51	0.00
136.10	2.54	2.54	0.00
136.15	2.57	2.57	0.00
136.20	2.60	2.60	0.00
136.25	2.64	2.64	0.00
136.30	2.67	2.67	0.00
136.35	2.70	2.70	0.00
136.40	2.73	2.73	0.00
136.45	2.76	2.76	0.00
136.50	2.79	2.79	0.00
136.55	2.82	2.82	0.00
136.60	2.85	2.85	0.00
136.65	2.88	2.88	0.00
136.70	2.91	2.91	0.00
136.75	2.94	2.94	0.00
136.80	2.97	2.97	0.00
136.85	3.00	3.00	0.00
136.90	3.03	3.03	0.00
136.95	3.06	3.06	0.00
137.00	3.10	3.10	0.00
137.05	3.16	3.11	0.05
137.10	3.28	3.12	0.15
137.15	3.42	3.14	0.28
137.20	3.58	3.15	0.43
137.25	3.76	3.17	0.59
137.30	3.95	3.18	0.77
137.35	4.16	3.20	0.97
137.40	4.38	3.21	1.17
137.45	4.62	3.22	1.39
137.50	4.86	3.24	1.62
137.55	5.11	3.25	1.85
137.60	5.36	3.27	2.10
137.65	5.63	3.28	2.35
137.70	5.90	3.30	2.60
137.75	6.18	3.31	2.87
137.80	6.46	3.32	3.14
137.85	6.75	3.34	3.41
137.90	7.04	3.35	3.69
137.95	7.33	3.37	3.97
138.00	**7.63**	**3.38**	**4.25**

Stage-Area-Storage for Pond B5-2*: B5-2 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
133.50	23,201	23,201	0
133.60	23,466	23,466	2,333
133.70	23,731	23,731	4,693
133.80	23,997	23,997	7,080
133.90	24,262	24,262	9,493
134.00	24,527	24,527	11,932
134.10	24,801	24,801	14,398
134.20	25,074	25,074	16,892
134.30	25,348	25,348	19,413
134.40	25,621	25,621	21,962
134.50	25,895	25,895	24,538
134.60	26,169	26,169	27,141
134.70	26,442	26,442	29,771
134.80	26,716	26,716	32,429
134.90	26,989	26,989	35,114
135.00	27,263	27,263	37,827
135.10	27,548	27,548	40,568
135.20	27,834	27,834	43,337
135.30	28,119	28,119	46,134
135.40	28,405	28,405	48,961
135.50	28,690	28,690	51,815
135.60	28,975	28,975	54,699
135.70	29,261	29,261	57,610
135.80	29,546	29,546	60,551
135.90	29,832	29,832	63,520
136.00	30,117	30,117	66,517
136.10	30,861	30,861	69,566
136.20	31,605	31,605	72,689
136.30	32,350	32,350	75,887
136.40	33,094	33,094	79,159
136.50	33,838	33,838	82,506
136.60	34,582	34,582	85,927
136.70	35,326	35,326	89,422
136.80	36,071	36,071	92,992
136.90	36,815	36,815	96,636
137.00	37,559	37,559	100,355
137.10	37,906	37,906	104,128
137.20	38,253	38,253	107,936
137.30	38,600	38,600	111,779
137.40	38,947	38,947	115,656
137.50	39,294	39,294	119,568
137.60	39,640	39,640	123,515
137.70	39,987	39,987	127,496
137.80	40,334	40,334	131,512
137.90	40,681	40,681	135,563
138.00	**41,028**	**41,028**	**139,649**

Summary for Pond B6-2*: B6-2 Infiltration Basin

Inflow Area = 39.110 ac, 51.21% Impervious, Inflow Depth > 4.32" for 50-yr event
Inflow = 104.61 cfs @ 12.48 hrs, Volume= 14.072 af
Outflow = 24.65 cfs @ 13.39 hrs, Volume= 9.410 af, Atten= 76%, Lag= 54.3 min
Discarded = 1.12 cfs @ 13.39 hrs, Volume= 0.908 af
Primary = 23.53 cfs @ 13.39 hrs, Volume= 8.502 af
Routed to Reach DP-B : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 133.00' @ 13.39 hrs Surf.Area= 117,687 sf Storage= 336,467 cf

Plug-Flow detention time= 194.0 min calculated for 9.378 af (67% of inflow)
Center-of-Mass det. time= 121.9 min (919.4 - 797.4)

Volume	Invert	Avail.Storage	Storage Description
#1	128.00'	458,168 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

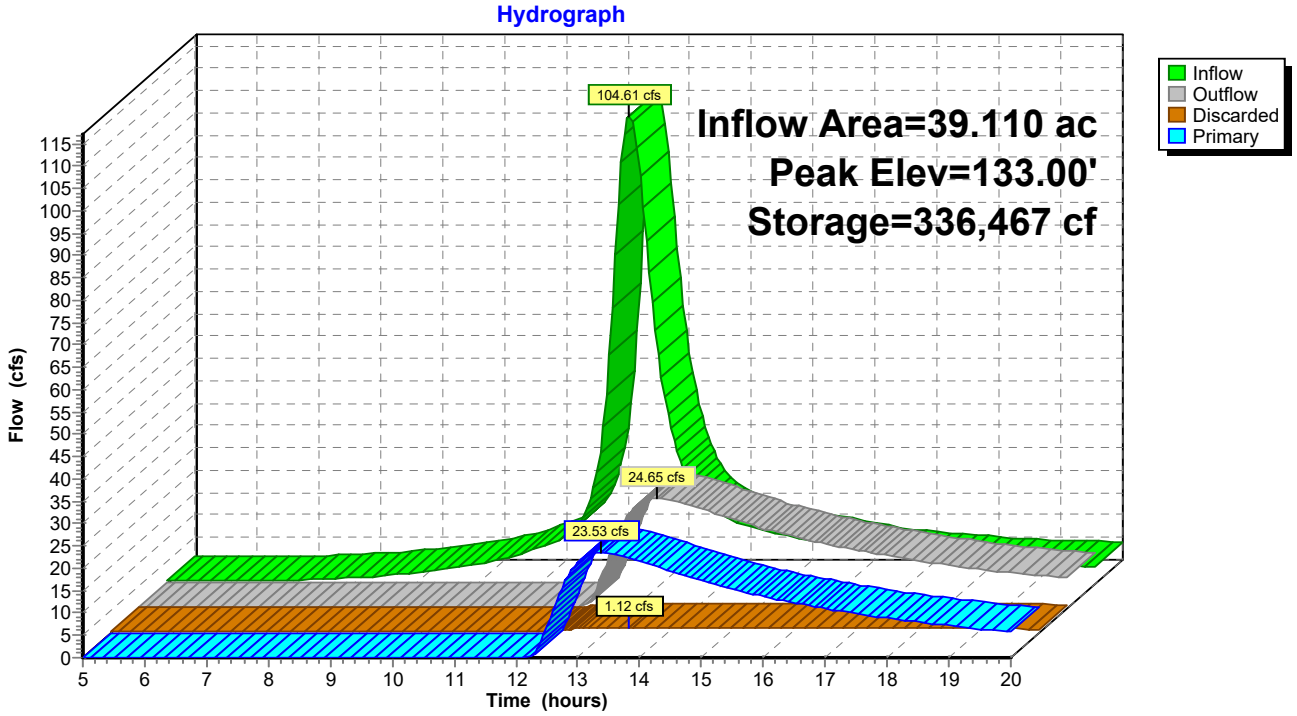
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
128.00	37,532	0	0
129.00	41,132	39,332	39,332
130.00	44,848	42,990	82,322
131.00	62,119	53,484	135,806
132.00	110,781	86,450	222,256
133.00	117,688	114,235	336,490
134.00	125,668	121,678	458,168

Device	Routing	Invert	Outlet Devices
#1	Primary	128.00'	**36.0" Round Culvert** L= 100.0' Ke= 1.000 Inlet / Outlet Invert= 128.00' / 126.00' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 7.07 sf
#2	Device 1	130.50'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	131.10'	**30.0" W x 16.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	132.45'	**3.5' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#5	Discarded	128.00'	**0.410 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=1.12 cfs @ 13.39 hrs HW=133.00' (Free Discharge)
└**5=Exfiltration** (Exfiltration Controls 1.12 cfs)

Primary OutFlow Max=23.53 cfs @ 13.39 hrs HW=133.00' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 23.53 cfs of 47.75 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 1.42 cfs @ 7.22 fps)
├**3=Orifice/Grate** (Orifice Controls 17.59 cfs @ 5.28 fps)
└**4=Sharp-Crested Rectangular Weir** (Weir Controls 4.52 cfs @ 2.42 fps)

Pond B6-2*: B6-2 Infiltration Basin



Hydrograph for Pond B6-2*: B6-2 Infiltration Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
5.00	0.72	33	128.00	0.36	0.36	0.00
5.50	0.72	687	128.02	0.36	0.36	0.00
6.00	0.72	1,340	128.04	0.36	0.36	0.00
6.50	0.72	1,993	128.05	0.36	0.36	0.00
7.00	0.85	2,734	128.07	0.36	0.36	0.00
7.50	1.11	3,839	128.10	0.36	0.36	0.00
8.00	1.46	5,498	128.15	0.36	0.36	0.00
8.50	1.91	7,860	128.21	0.36	0.36	0.00
9.00	2.59	11,221	128.29	0.37	0.37	0.00
9.50	3.49	15,999	128.42	0.37	0.37	0.00
10.00	4.58	22,560	128.58	0.38	0.38	0.00
10.50	5.96	31,281	128.80	0.38	0.38	0.00
11.00	8.06	43,101	129.09	0.39	0.39	0.00
11.50	11.42	59,458	129.48	0.41	0.41	0.00
12.00	29.56	89,494	130.16	0.45	0.45	0.00
12.50	**104.43**	214,453	131.93	8.10	1.02	7.08
13.00	46.16	**323,330**	**132.89**	**22.45**	**1.11**	**21.34**
13.50	21.61	**335,820**	**132.99**	**24.54**	**1.12**	**23.42**
14.00	15.33	325,316	132.90	22.78	1.11	21.67
14.50	12.50	311,179	132.78	20.48	1.10	19.38
15.00	10.91	297,281	132.66	18.32	1.09	17.23
15.50	9.58	284,471	132.55	16.44	1.09	15.35
16.00	8.27	272,429	132.45	14.84	1.08	13.76
16.50	7.05	260,746	132.34	13.40	1.07	12.32
17.00	6.32	249,827	132.25	12.08	1.07	11.01
17.50	5.72	239,969	132.16	10.93	1.06	9.87
18.00	5.14	230,999	132.08	9.92	1.06	8.86
18.50	4.62	222,728	132.00	9.01	1.05	7.96
19.00	4.36	215,313	131.94	8.19	1.02	7.17
19.50	4.17	208,897	131.88	7.48	0.99	6.49
20.00	4.00	203,342	131.82	6.88	0.97	5.91

Stage-Discharge for Pond B6-2*: B6-2 Infiltration Basin

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
128.00	0.00	0.00	0.00
128.10	0.36	0.36	0.00
128.20	0.36	0.36	0.00
128.30	0.37	0.37	0.00
128.40	0.37	0.37	0.00
128.50	0.37	0.37	0.00
128.60	0.38	0.38	0.00
128.70	0.38	0.38	0.00
128.80	0.38	0.38	0.00
128.90	0.39	0.39	0.00
129.00	0.39	0.39	0.00
129.10	0.39	0.39	0.00
129.20	0.40	0.40	0.00
129.30	0.40	0.40	0.00
129.40	0.40	0.40	0.00
129.50	0.41	0.41	0.00
129.60	0.41	0.41	0.00
129.70	0.42	0.42	0.00
129.80	0.42	0.42	0.00
129.90	0.42	0.42	0.00
130.00	0.43	0.43	0.00
130.10	0.44	0.44	0.00
130.20	0.46	0.46	0.00
130.30	0.47	0.47	0.00
130.40	0.49	0.49	0.00
130.50	0.51	0.51	0.00
130.60	0.55	0.52	0.03
130.70	0.65	0.54	0.11
130.80	0.79	0.56	0.23
130.90	0.94	0.57	0.36
131.00	1.06	0.59	0.47
131.10	1.20	0.64	0.56
131.20	1.57	0.68	0.89
131.30	2.15	0.73	1.42
131.40	2.86	0.77	2.08
131.50	3.67	0.82	2.85
131.60	4.58	0.87	3.71
131.70	5.56	0.91	4.65
131.80	6.63	0.96	5.67
131.90	7.76	1.01	6.76
132.00	8.96	1.05	7.91
132.10	10.18	1.06	9.12
132.20	11.46	1.06	10.40
132.30	12.80	1.07	11.73
132.40	14.19	1.08	13.11
132.50	15.62	1.08	14.53
132.60	17.23	1.09	16.14
132.70	18.96	1.10	17.87
132.80	20.79	1.10	19.68
132.90	22.68	1.11	21.57
133.00	24.65	1.12	23.53
133.10	26.68	1.12	25.55
133.20	28.76	1.13	27.63
133.30	30.89	1.14	29.75
133.40	33.07	1.15	31.93
133.50	35.29	1.15	34.14
133.60	37.55	1.16	36.39
133.70	39.85	1.17	38.68
133.80	42.18	1.18	41.00
133.90	44.54	1.19	43.35
134.00	**46.92**	**1.19**	**45.73**

Stage-Area-Storage for Pond B6-2*: B6-2 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
128.00	37,532	37,532	0
128.20	38,252	38,252	7,578
128.40	38,972	38,972	15,301
128.60	39,692	39,692	23,167
128.80	40,412	40,412	31,178
129.00	41,132	41,132	39,332
129.20	41,875	41,875	47,633
129.40	42,618	42,618	56,082
129.60	43,362	43,362	64,680
129.80	44,105	44,105	73,427
130.00	44,848	44,848	82,322
130.20	48,302	48,302	91,637
130.40	51,756	51,756	101,643
130.60	55,211	55,211	112,340
130.80	58,665	58,665	123,727
131.00	62,119	62,119	135,806
131.20	71,851	71,851	149,203
131.40	81,584	81,584	164,546
131.60	91,316	91,316	181,836
131.80	101,049	101,049	201,073
132.00	110,781	110,781	222,256
132.20	112,162	112,162	244,550
132.40	113,544	113,544	267,120
132.60	114,925	114,925	289,967
132.80	116,307	116,307	313,091
133.00	117,688	117,688	336,490
133.20	119,284	119,284	360,187
133.40	120,880	120,880	384,204
133.60	122,476	122,476	408,539
133.80	124,072	124,072	433,194
134.00	**125,668**	**125,668**	**458,168**

Summary for Link 1: MRN-3 // MDAN 1

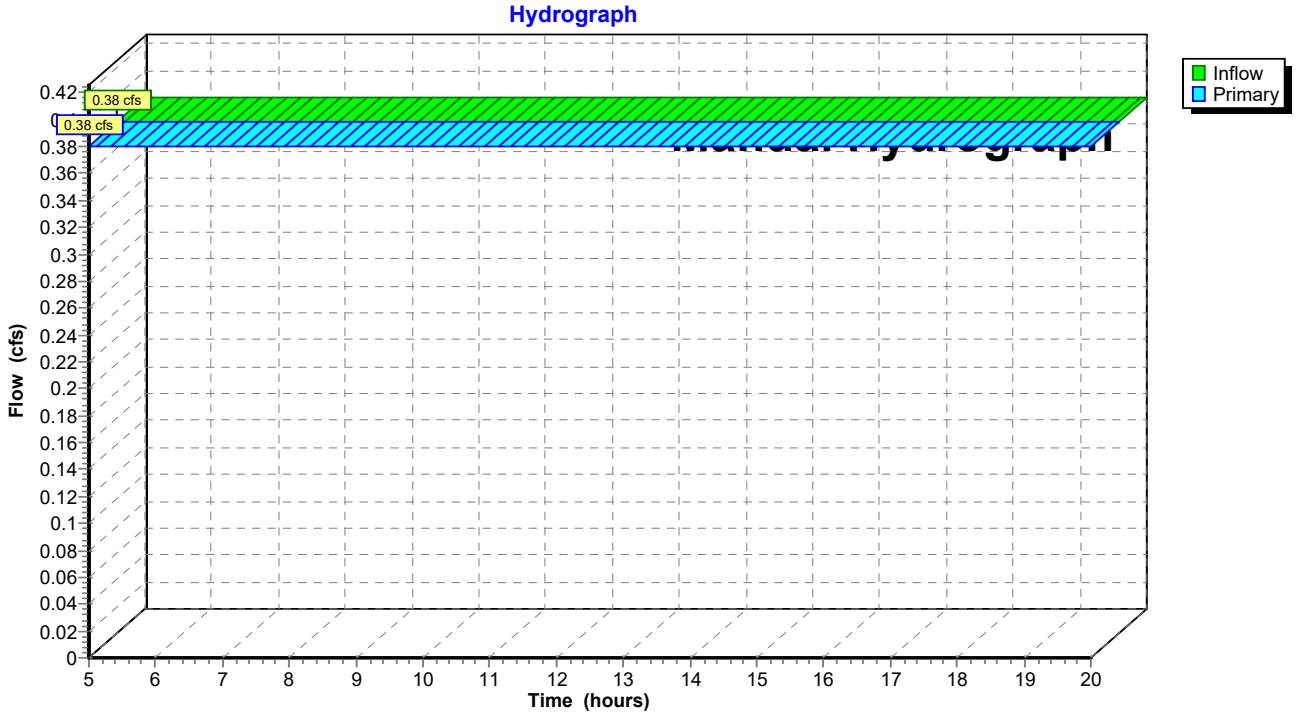
Inflow = 0.38 cfs @ 5.00 hrs, Volume= 0.473 af
Primary = 0.38 cfs @ 5.00 hrs, Volume= 0.473 af, Atten= 0%, Lag= 0.0 min
Routed to Pond A1-3* : A1-3 Infiltration Basin

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

25 Point manual hydrograph, To= 0.00 hrs, dt= 1.00 hrs, cfs =

0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
0.38	0.38	0.38	0.38	0.38					

Link 1: MRN-3 // MDAN 1



Hydrograph for Link 1: MRN-3 // MDAN 1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	**0.38**	**0.00**	**0.38**
5.25	0.38	0.00	0.38
5.50	0.38	0.00	0.38
5.75	0.38	0.00	0.38
6.00	0.38	0.00	0.38
6.25	0.38	0.00	0.38
6.50	0.38	0.00	0.38
6.75	0.38	0.00	0.38
7.00	0.38	0.00	0.38
7.25	0.38	0.00	0.38
7.50	0.38	0.00	0.38
7.75	0.38	0.00	0.38
8.00	0.38	0.00	0.38
8.25	0.38	0.00	0.38
8.50	0.38	0.00	0.38
8.75	0.38	0.00	0.38
9.00	0.38	0.00	0.38
9.25	0.38	0.00	0.38
9.50	0.38	0.00	0.38
9.75	0.38	0.00	0.38
10.00	0.38	0.00	0.38
10.25	0.38	0.00	0.38
10.50	0.38	0.00	0.38
10.75	0.38	0.00	0.38
11.00	0.38	0.00	0.38
11.25	0.38	0.00	0.38
11.50	0.38	0.00	0.38
11.75	0.38	0.00	0.38
12.00	0.38	0.00	0.38
12.25	0.38	0.00	0.38
12.50	0.38	0.00	0.38
12.75	0.38	0.00	0.38
13.00	0.38	0.00	0.38
13.25	0.38	0.00	0.38
13.50	0.38	0.00	0.38
13.75	0.38	0.00	0.38
14.00	0.38	0.00	0.38
14.25	0.38	0.00	0.38
14.50	0.38	0.00	0.38
14.75	0.38	0.00	0.38
15.00	0.38	0.00	0.38
15.25	0.38	0.00	0.38
15.50	0.38	0.00	0.38
15.75	0.38	0.00	0.38
16.00	0.38	0.00	0.38
16.25	0.38	0.00	0.38
16.50	0.38	0.00	0.38
16.75	0.38	0.00	0.38
17.00	0.38	0.00	0.38
17.25	0.38	0.00	0.38
17.50	0.38	0.00	0.38
17.75	0.38	0.00	0.38
18.00	0.38	0.00	0.38
18.25	0.38	0.00	0.38
18.50	0.38	0.00	0.38
18.75	0.38	0.00	0.38
19.00	0.38	0.00	0.38
19.25	0.38	0.00	0.38
19.50	0.38	0.00	0.38
19.75	0.38	0.00	0.38
20.00	0.38	0.00	0.38

Summary for Link 2: MRN-5 // MDAN 2

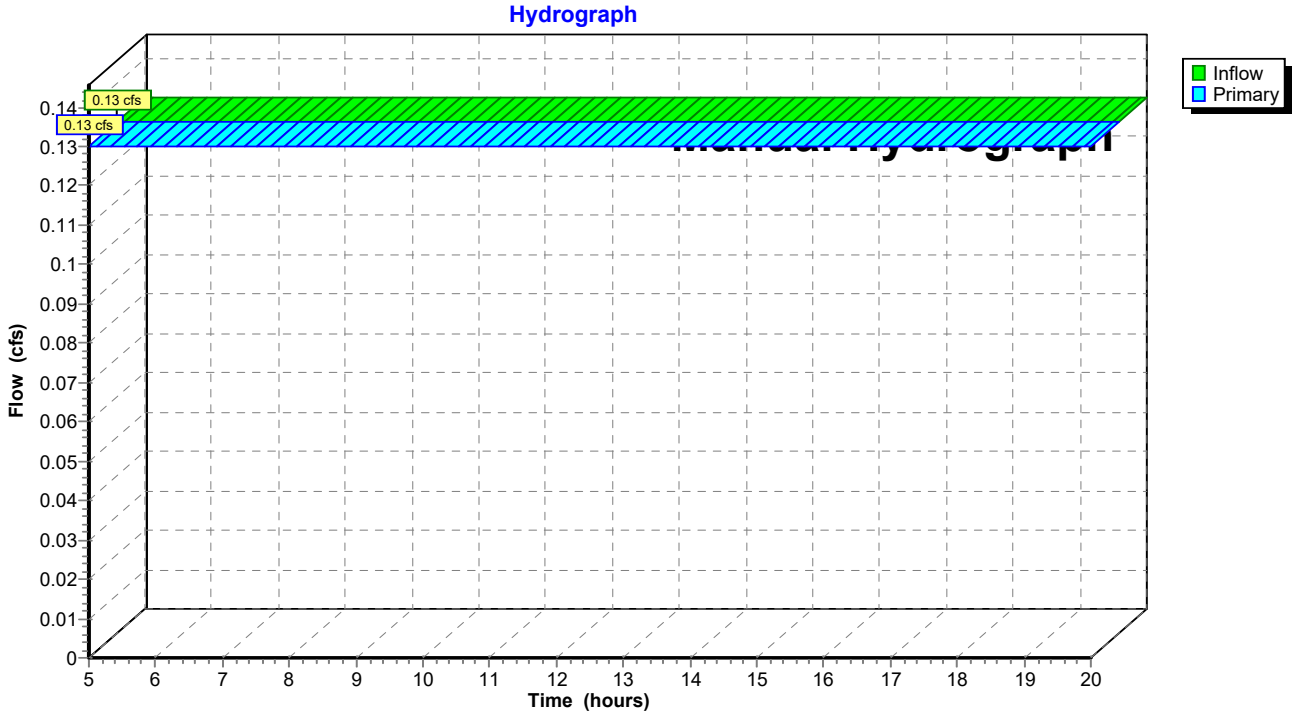
Inflow = 0.13 cfs @ 5.00 hrs, Volume= 0.162 af
Primary = 0.13 cfs @ 5.00 hrs, Volume= 0.162 af, Atten= 0%, Lag= 0.0 min
Routed to Pond A1-2* : A1-2 Infiltration Basin

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

25 Point manual hydrograph, To= 0.00 hrs, dt= 1.00 hrs, cfs =

0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
0.13	0.13	0.13	0.13	0.13					

Link 2: MRN-5 // MDAN 2



Hydrograph for Link 2: MRN-5 // MDAN 2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	**0.13**	**0.00**	**0.13**
5.25	0.13	0.00	0.13
5.50	0.13	0.00	0.13
5.75	0.13	0.00	0.13
6.00	0.13	0.00	0.13
6.25	0.13	0.00	0.13
6.50	0.13	0.00	0.13
6.75	0.13	0.00	0.13
7.00	0.13	0.00	0.13
7.25	0.13	0.00	0.13
7.50	0.13	0.00	0.13
7.75	0.13	0.00	0.13
8.00	0.13	0.00	0.13
8.25	0.13	0.00	0.13
8.50	0.13	0.00	0.13
8.75	0.13	0.00	0.13
9.00	0.13	0.00	0.13
9.25	0.13	0.00	0.13
9.50	0.13	0.00	0.13
9.75	0.13	0.00	0.13
10.00	0.13	0.00	0.13
10.25	0.13	0.00	0.13
10.50	0.13	0.00	0.13
10.75	0.13	0.00	0.13
11.00	0.13	0.00	0.13
11.25	0.13	0.00	0.13
11.50	0.13	0.00	0.13
11.75	0.13	0.00	0.13
12.00	0.13	0.00	0.13
12.25	0.13	0.00	0.13
12.50	0.13	0.00	0.13
12.75	0.13	0.00	0.13
13.00	0.13	0.00	0.13
13.25	0.13	0.00	0.13
13.50	0.13	0.00	0.13
13.75	0.13	0.00	0.13
14.00	0.13	0.00	0.13
14.25	0.13	0.00	0.13
14.50	0.13	0.00	0.13
14.75	0.13	0.00	0.13
15.00	0.13	0.00	0.13
15.25	0.13	0.00	0.13
15.50	0.13	0.00	0.13
15.75	0.13	0.00	0.13
16.00	0.13	0.00	0.13
16.25	0.13	0.00	0.13
16.50	0.13	0.00	0.13
16.75	0.13	0.00	0.13
17.00	0.13	0.00	0.13
17.25	0.13	0.00	0.13
17.50	0.13	0.00	0.13
17.75	0.13	0.00	0.13
18.00	0.13	0.00	0.13
18.25	0.13	0.00	0.13
18.50	0.13	0.00	0.13
18.75	0.13	0.00	0.13
19.00	0.13	0.00	0.13
19.25	0.13	0.00	0.13
19.50	0.13	0.00	0.13
19.75	0.13	0.00	0.13
20.00	0.13	0.00	0.13

Summary for Link 3A: MRN-6 // MDAN 3A

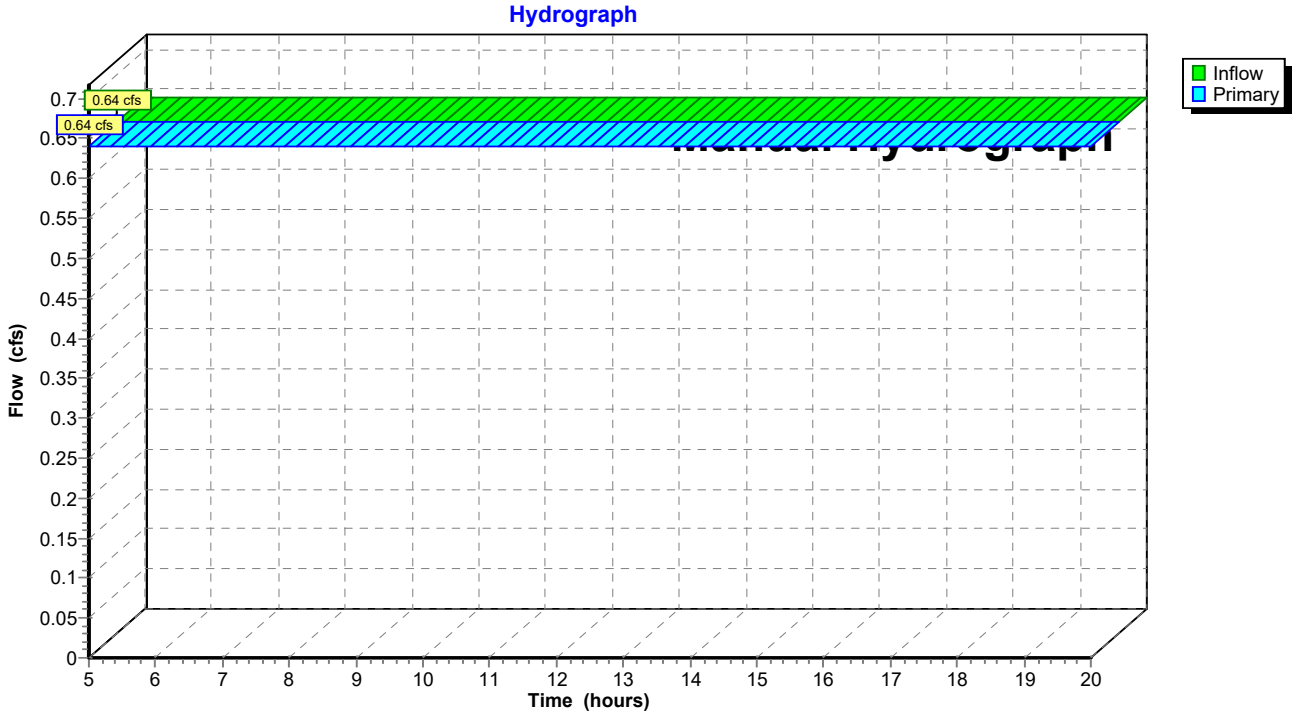
Inflow = 0.64 cfs @ 5.00 hrs, Volume= 0.796 af
Primary = 0.64 cfs @ 5.00 hrs, Volume= 0.796 af, Atten= 0%, Lag= 0.0 min
Routed to Pond A1-2* : A1-2 Infiltration Basin

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

25 Point manual hydrograph, To= 0.00 hrs, dt= 1.00 hrs, cfs =

0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
0.64	0.64	0.64	0.64	0.64					

Link 3A: MRN-6 // MDAN 3A



Hydrograph for Link 3A: MRN-6 // MDAN 3A

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	**0.64**	**0.00**	**0.64**
5.25	0.64	0.00	0.64
5.50	0.64	0.00	0.64
5.75	0.64	0.00	0.64
6.00	0.64	0.00	0.64
6.25	0.64	0.00	0.64
6.50	0.64	0.00	0.64
6.75	0.64	0.00	0.64
7.00	0.64	0.00	0.64
7.25	0.64	0.00	0.64
7.50	0.64	0.00	0.64
7.75	0.64	0.00	0.64
8.00	0.64	0.00	0.64
8.25	0.64	0.00	0.64
8.50	0.64	0.00	0.64
8.75	0.64	0.00	0.64
9.00	0.64	0.00	0.64
9.25	0.64	0.00	0.64
9.50	0.64	0.00	0.64
9.75	0.64	0.00	0.64
10.00	0.64	0.00	0.64
10.25	0.64	0.00	0.64
10.50	0.64	0.00	0.64
10.75	0.64	0.00	0.64
11.00	0.64	0.00	0.64
11.25	0.64	0.00	0.64
11.50	0.64	0.00	0.64
11.75	0.64	0.00	0.64
12.00	0.64	0.00	0.64
12.25	0.64	0.00	0.64
12.50	0.64	0.00	0.64
12.75	0.64	0.00	0.64
13.00	0.64	0.00	0.64
13.25	0.64	0.00	0.64
13.50	0.64	0.00	0.64
13.75	0.64	0.00	0.64
14.00	0.64	0.00	0.64
14.25	0.64	0.00	0.64
14.50	0.64	0.00	0.64
14.75	0.64	0.00	0.64
15.00	0.64	0.00	0.64
15.25	0.64	0.00	0.64
15.50	0.64	0.00	0.64
15.75	0.64	0.00	0.64
16.00	0.64	0.00	0.64
16.25	0.64	0.00	0.64
16.50	0.64	0.00	0.64
16.75	0.64	0.00	0.64
17.00	0.64	0.00	0.64
17.25	0.64	0.00	0.64
17.50	0.64	0.00	0.64
17.75	0.64	0.00	0.64
18.00	0.64	0.00	0.64
18.25	0.64	0.00	0.64
18.50	0.64	0.00	0.64
18.75	0.64	0.00	0.64
19.00	0.64	0.00	0.64
19.25	0.64	0.00	0.64
19.50	0.64	0.00	0.64
19.75	0.64	0.00	0.64
20.00	0.64	0.00	0.64

Summary for Link 3B: MRN-4 // MDAN 3B

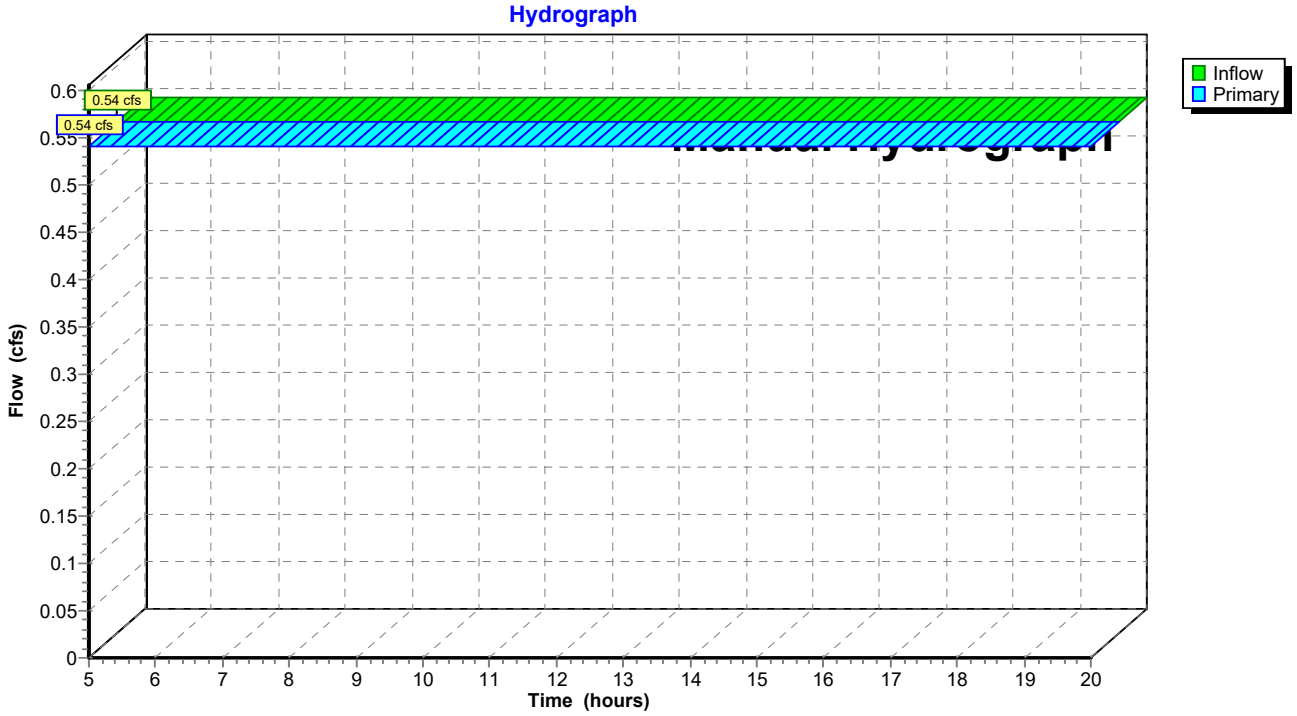
Inflow = 0.54 cfs @ 5.00 hrs, Volume= 0.672 af
Primary = 0.54 cfs @ 5.00 hrs, Volume= 0.672 af, Atten= 0%, Lag= 0.0 min
Routed to Pond A1-2* : A1-2 Infiltration Basin

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

25 Point manual hydrograph, To= 0.00 hrs, dt= 1.00 hrs, cfs =

0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
0.54	0.54	0.54	0.54	0.54					

Link 3B: MRN-4 // MDAN 3B



Hydrograph for Link 3B: MRN-4 // MDAN 3B

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	**0.54**	**0.00**	**0.54**
5.25	0.54	0.00	0.54
5.50	0.54	0.00	0.54
5.75	0.54	0.00	0.54
6.00	0.54	0.00	0.54
6.25	0.54	0.00	0.54
6.50	0.54	0.00	0.54
6.75	0.54	0.00	0.54
7.00	0.54	0.00	0.54
7.25	0.54	0.00	0.54
7.50	0.54	0.00	0.54
7.75	0.54	0.00	0.54
8.00	0.54	0.00	0.54
8.25	0.54	0.00	0.54
8.50	0.54	0.00	0.54
8.75	0.54	0.00	0.54
9.00	0.54	0.00	0.54
9.25	0.54	0.00	0.54
9.50	0.54	0.00	0.54
9.75	0.54	0.00	0.54
10.00	0.54	0.00	0.54
10.25	0.54	0.00	0.54
10.50	0.54	0.00	0.54
10.75	0.54	0.00	0.54
11.00	0.54	0.00	0.54
11.25	0.54	0.00	0.54
11.50	0.54	0.00	0.54
11.75	0.54	0.00	0.54
12.00	0.54	0.00	0.54
12.25	0.54	0.00	0.54
12.50	0.54	0.00	0.54
12.75	0.54	0.00	0.54
13.00	0.54	0.00	0.54
13.25	0.54	0.00	0.54
13.50	0.54	0.00	0.54
13.75	0.54	0.00	0.54
14.00	0.54	0.00	0.54
14.25	0.54	0.00	0.54
14.50	0.54	0.00	0.54
14.75	0.54	0.00	0.54
15.00	0.54	0.00	0.54
15.25	0.54	0.00	0.54
15.50	0.54	0.00	0.54
15.75	0.54	0.00	0.54
16.00	0.54	0.00	0.54
16.25	0.54	0.00	0.54
16.50	0.54	0.00	0.54
16.75	0.54	0.00	0.54
17.00	0.54	0.00	0.54
17.25	0.54	0.00	0.54
17.50	0.54	0.00	0.54
17.75	0.54	0.00	0.54
18.00	0.54	0.00	0.54
18.25	0.54	0.00	0.54
18.50	0.54	0.00	0.54
18.75	0.54	0.00	0.54
19.00	0.54	0.00	0.54
19.25	0.54	0.00	0.54
19.50	0.54	0.00	0.54
19.75	0.54	0.00	0.54
20.00	0.54	0.00	0.54

Summary for Link 4: MRN 1 // MDAN 4

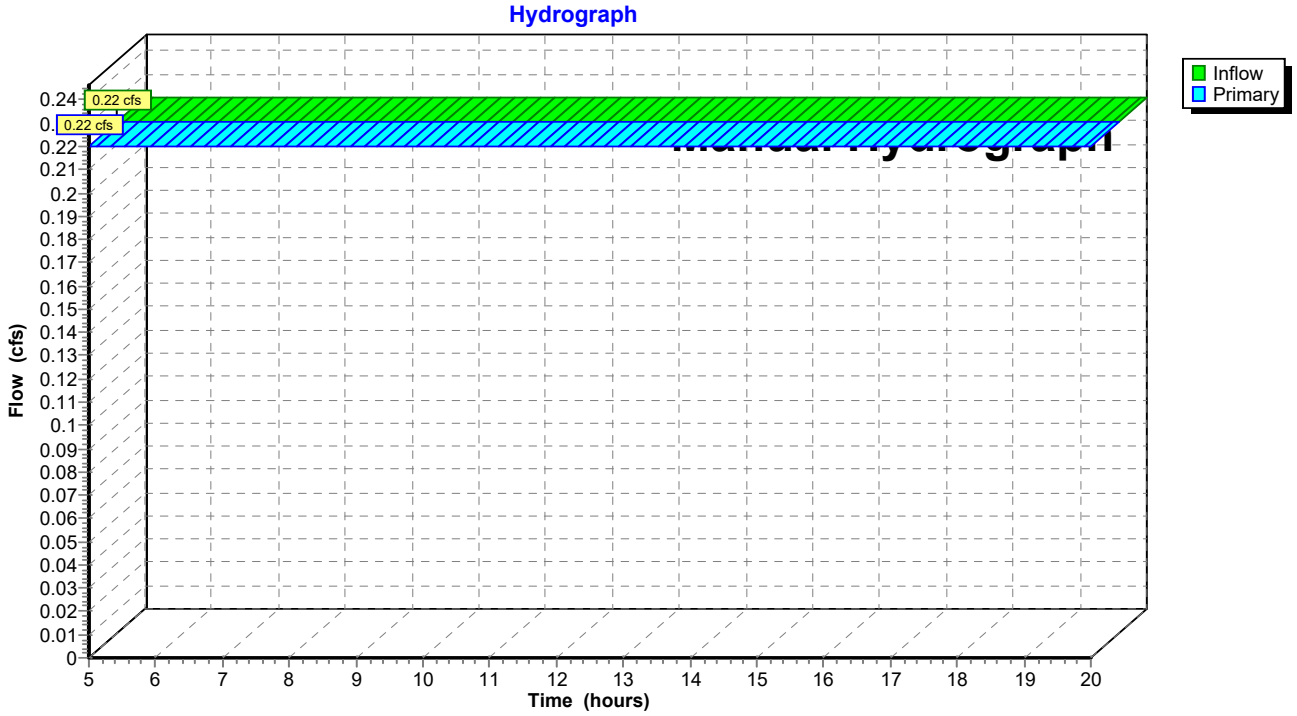
Inflow = 0.22 cfs @ 5.00 hrs, Volume= 0.274 af
Primary = 0.22 cfs @ 5.00 hrs, Volume= 0.274 af, Atten= 0%, Lag= 0.0 min
Routed to Pond B6-2* : B6-2 Infiltration Basin

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

25 Point manual hydrograph, To= 0.00 hrs, dt= 1.00 hrs, cfs =

0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
0.22	0.22	0.22	0.22	0.22					

Link 4: MRN 1 // MDAN 4



Hydrograph for Link 4: MRN 1 // MDAN 4

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	**0.22**	**0.00**	**0.22**
5.25	0.22	0.00	0.22
5.50	0.22	0.00	0.22
5.75	0.22	0.00	0.22
6.00	0.22	0.00	0.22
6.25	0.22	0.00	0.22
6.50	0.22	0.00	0.22
6.75	0.22	0.00	0.22
7.00	0.22	0.00	0.22
7.25	0.22	0.00	0.22
7.50	0.22	0.00	0.22
7.75	0.22	0.00	0.22
8.00	0.22	0.00	0.22
8.25	0.22	0.00	0.22
8.50	0.22	0.00	0.22
8.75	0.22	0.00	0.22
9.00	0.22	0.00	0.22
9.25	0.22	0.00	0.22
9.50	0.22	0.00	0.22
9.75	0.22	0.00	0.22
10.00	0.22	0.00	0.22
10.25	0.22	0.00	0.22
10.50	0.22	0.00	0.22
10.75	0.22	0.00	0.22
11.00	0.22	0.00	0.22
11.25	0.22	0.00	0.22
11.50	0.22	0.00	0.22
11.75	0.22	0.00	0.22
12.00	0.22	0.00	0.22
12.25	0.22	0.00	0.22
12.50	0.22	0.00	0.22
12.75	0.22	0.00	0.22
13.00	0.22	0.00	0.22
13.25	0.22	0.00	0.22
13.50	0.22	0.00	0.22
13.75	0.22	0.00	0.22
14.00	0.22	0.00	0.22
14.25	0.22	0.00	0.22
14.50	0.22	0.00	0.22
14.75	0.22	0.00	0.22
15.00	0.22	0.00	0.22
15.25	0.22	0.00	0.22
15.50	0.22	0.00	0.22
15.75	0.22	0.00	0.22
16.00	0.22	0.00	0.22
16.25	0.22	0.00	0.22
16.50	0.22	0.00	0.22
16.75	0.22	0.00	0.22
17.00	0.22	0.00	0.22
17.25	0.22	0.00	0.22
17.50	0.22	0.00	0.22
17.75	0.22	0.00	0.22
18.00	0.22	0.00	0.22
18.25	0.22	0.00	0.22
18.50	0.22	0.00	0.22
18.75	0.22	0.00	0.22
19.00	0.22	0.00	0.22
19.25	0.22	0.00	0.22
19.50	0.22	0.00	0.22
19.75	0.22	0.00	0.22
20.00	0.22	0.00	0.22

Summary for Link 5: MRN-2 // MDAN 5

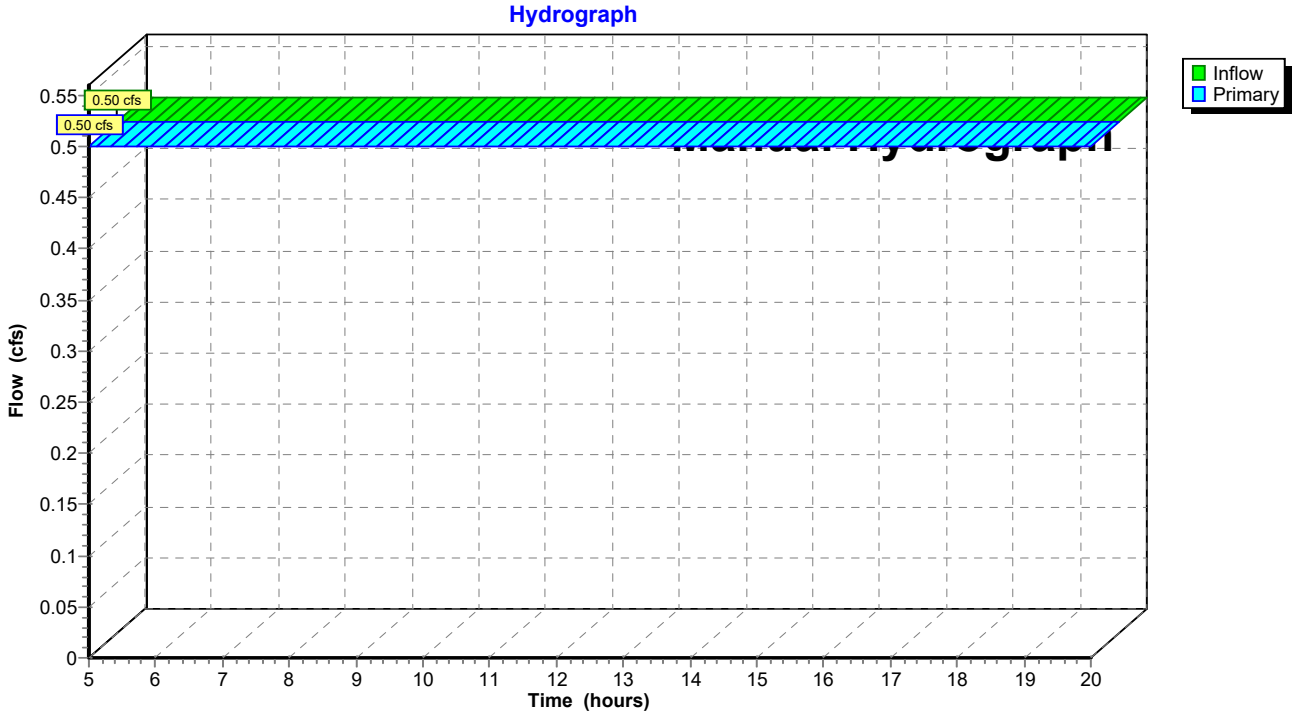
Inflow = 0.50 cfs @ 5.00 hrs, Volume= 0.622 af
Primary = 0.50 cfs @ 5.00 hrs, Volume= 0.622 af, Atten= 0%, Lag= 0.0 min
Routed to Pond B6-2* : B6-2 Infiltration Basin

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

25 Point manual hydrograph, To= 0.00 hrs, dt= 1.00 hrs, cfs =

0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.50	0.50	0.50	0.50	0.50					

Link 5: MRN-2 // MDAN 5



Hydrograph for Link 5: MRN-2 // MDAN 5

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	**0.50**	**0.00**	**0.50**
5.25	0.50	0.00	0.50
5.50	0.50	0.00	0.50
5.75	0.50	0.00	0.50
6.00	0.50	0.00	0.50
6.25	0.50	0.00	0.50
6.50	0.50	0.00	0.50
6.75	0.50	0.00	0.50
7.00	0.50	0.00	0.50
7.25	0.50	0.00	0.50
7.50	0.50	0.00	0.50
7.75	0.50	0.00	0.50
8.00	0.50	0.00	0.50
8.25	0.50	0.00	0.50
8.50	0.50	0.00	0.50
8.75	0.50	0.00	0.50
9.00	0.50	0.00	0.50
9.25	0.50	0.00	0.50
9.50	0.50	0.00	0.50
9.75	0.50	0.00	0.50
10.00	0.50	0.00	0.50
10.25	0.50	0.00	0.50
10.50	0.50	0.00	0.50
10.75	0.50	0.00	0.50
11.00	0.50	0.00	0.50
11.25	0.50	0.00	0.50
11.50	0.50	0.00	0.50
11.75	0.50	0.00	0.50
12.00	0.50	0.00	0.50
12.25	0.50	0.00	0.50
12.50	0.50	0.00	0.50
12.75	0.50	0.00	0.50
13.00	0.50	0.00	0.50
13.25	0.50	0.00	0.50
13.50	0.50	0.00	0.50
13.75	0.50	0.00	0.50
14.00	0.50	0.00	0.50
14.25	0.50	0.00	0.50
14.50	0.50	0.00	0.50
14.75	0.50	0.00	0.50
15.00	0.50	0.00	0.50
15.25	0.50	0.00	0.50
15.50	0.50	0.00	0.50
15.75	0.50	0.00	0.50
16.00	0.50	0.00	0.50
16.25	0.50	0.00	0.50
16.50	0.50	0.00	0.50
16.75	0.50	0.00	0.50
17.00	0.50	0.00	0.50
17.25	0.50	0.00	0.50
17.50	0.50	0.00	0.50
17.75	0.50	0.00	0.50
18.00	0.50	0.00	0.50
18.25	0.50	0.00	0.50
18.50	0.50	0.00	0.50
18.75	0.50	0.00	0.50
19.00	0.50	0.00	0.50
19.25	0.50	0.00	0.50
19.50	0.50	0.00	0.50
19.75	0.50	0.00	0.50
20.00	0.50	0.00	0.50

APPENDIX C

Stormwater Quality and Groundwater Recharge Calculations (NHDEDS BMP Worksheets)

LANGAN

INFILTRATION PRACTICE CRITERIA
(Env-Wq 1508.06)

Type/Node Name: **A1-2 Infiltration Basin**

Enter the type of infiltration practice (e.g., basin, trench) and the node name in the drainage analysis, if applicable

Yes		Have you reviewed Env-Wq 1508.06(a) to ensure that infiltration is allowed?	
21.47	ac	A = Area draining to the practice	
14.35	ac	A_I = Impervious area draining to the practice	
0.67	decimal	I = percent impervious area draining to the practice, in decimal form	
0.65	unitless	Rv = Runoff coefficient = 0.05 + (0.9 x I)	
13.99	ac-in	WQV= 1" x Rv x A	
50,778	cf	WQV conversion (ac-in x 43,560 sf/ac x 1ft/12")	
12,695	cf	25% x WQV (check calc for sediment forebay volume)	
Sed. Forebay		Method of pretreatment? (not required for clean or roof runoff)	
20,648	cf	V_{SED} = sediment forebay volume, if used for pretreatment	← ≥ 25%WQV
52,698	cf	V = volume[1] (attach a stage-storage table)	← ≥ WQV
24,032	sf	A_{SA} = surface area of the bottom of the pond	
10.00	iph	$Ksat_{DESIGN}$ = design infiltration rate[2]	
2.5	hours	T_{DRAIN} = drain time = V / (A_{SA} * I_{DESIGN})	← ≤ 72-hrs
116.00	feet	E_{BTM} = elevation of the bottom of the basin	
110.50	feet	E_{SHWT} = elevation of SHWT (if none found, enter the lowest elevation of the test pit)	
86.00	feet	E_{ROCK} = elevation of bedrock (if none found, enter the lowest elevation of the test pit)	
5.50	feet	D_{SHWT} = separation from SHWT	← ≥ *[3]
30.0	feet	D_{ROCK} = separation from bedrock	← ≥ *[3]
2.0	ft	D_{amend} = Depth of amended soil, if applicable due high infiltation rate	← ≥ 24"
	ft	D_T = depth of trench, if trench proposed	← 4 - 10 ft
	Yes/No	If a trench or underground system is proposed, observation well provided[4]	
		If a trench is proposed, material in trench	
On-site Soils		If a basin is proposed, basin floor material	
Yes	Yes/No	If a basin is proposed, the perimeter should be curvilinear, basin floor shall be flat.	
4.0	:1	If a basin is proposed, pond side slopes	← ≥3:1
118.83	ft	Peak elevation of the 10-year storm event (infiltration can be used in analysis)	
119.98	ft	Peak elevation of the 50-year storm event (infiltration can be used in analysis)	
121.00	ft	Elevation of the top of the practice (if a basin, this is the elevation of the berm)	
YES		10 peak elevation ≤ Elevation of the top of the trench?[5]	← yes
YES		If a basin is proposed, 50-year peak elevation ≤ Elevation of berm?	← yes

1. Volume below the lowest invert of the outlet structure and excludes forebay volume
2. $Ksat_{DESIGN}$ includes a factor of safety. See Env-Wq 1504.14 for requirements for determining the infiltr. rate
3. 1' separation if treatment not required; 4' for treatment in GPAs & WSIPAs; & 3' in all other areas.
4. Clean, washed well graded diameter of 1.5 to 3 inches above the in-situ soil.
5. If 50-year peak elevation exceeds top of trench, the overflow must be routed in HydroCAD as secondary discharge.

Designer's Notes:

Stage-Area-Storage for Pond A1-2*: A1-2 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
116.00	24,032	24,032	0
116.10	24,417	24,417	2,422
116.20	24,802	24,802	4,883
116.30	25,186	25,186	7,383
116.40	25,571	25,571	9,921
116.50	25,956	25,956	12,497
116.60	26,341	26,341	15,112
116.70	26,726	26,726	17,765
116.80	27,110	27,110	20,457
116.90	27,495	27,495	23,187
117.00	27,880	27,880	25,956
117.10	28,287	28,287	28,764
117.20	28,695	28,695	31,614
117.30	29,102	29,102	34,503
117.40	29,510	29,510	37,434
117.50	29,918	29,918	40,405
117.60	30,325	30,325	43,417
117.70	30,733	30,733	46,470
117.80	31,140	31,140	49,564
117.90	31,548	31,548	52,698
118.00	31,955	31,955	55,874
118.10	33,639	33,639	59,153
118.20	35,324	35,324	62,601
118.30	37,008	37,008	66,218
118.40	38,693	38,693	70,003
118.50	40,378	40,378	73,957
118.60	42,062	42,062	78,079
118.70	43,747	43,747	82,369
118.80	45,431	45,431	86,828
118.90	47,116	47,116	91,455
119.00	48,800	48,800	96,251
119.10	49,251	49,251	101,154
119.20	49,702	49,702	106,101
119.30	50,154	50,154	111,094
119.40	50,605	50,605	116,132
119.50	51,056	51,056	121,215
119.60	51,507	51,507	126,343
119.70	51,958	51,958	131,516
119.80	52,410	52,410	136,735
119.90	52,861	52,861	141,998
120.00	53,312	53,312	147,307
120.10	53,774	53,774	152,661
120.20	54,237	54,237	158,062
120.30	54,699	54,699	163,509
120.40	55,161	55,161	169,002
120.50	55,624	55,624	174,541
120.60	56,086	56,086	180,126
120.70	56,548	56,548	185,758
120.80	57,010	57,010	191,436
120.90	57,473	57,473	197,160
121.00	**57,935**	**57,935**	**202,931**

INFILTRATION PRACTICE CRITERIA
(Env-Wq 1508.06)

Type/Node Name: **A1-3 Infiltration Basin**

Enter the type of infiltration practice (e.g., basin, trench) and the node name in the drainage analysis, if applicable

Yes		Have you reviewed Env-Wq 1508.06(a) to ensure that infiltration is allowed?	
31.98	ac	A = Area draining to the practice	
24.71	ac	A_I = Impervious area draining to the practice	
0.77	decimal	I = percent impervious area draining to the practice, in decimal form	
0.75	unitless	Rv = Runoff coefficient = 0.05 + (0.9 x I)	
23.84	ac-in	WQV= 1" x Rv x A	
86,538	cf	WQV conversion (ac-in x 43,560 sf/ac x 1ft/12")	
21,634	cf	25% x WQV (check calc for sediment forebay volume)	
Sed. Forebay		Method of pretreatment? (not required for clean or roof runoff)	
21,386	cf	V_{SED} = sediment forebay volume, if used for pretreatment	← ≥ 25%WQV
90,194	cf	V = volume[1] (attach a stage-storage table)	← ≥ WQV
32,860	sf	A_{SA} = surface area of the bottom of the pond	
3.56	iph	$Ksat_{DESIGN}$ = design infiltration rate[2]	
8.9	hours	T_{DRAIN} = drain time = V / (A_{SA} * I_{DESIGN})	← ≤ 72-hrs
113.00	feet	E_{BTM} = elevation of the bottom of the basin	
106.20	feet	E_{SHWT} = elevation of SHWT (if none found, enter the lowest elevation of the test pit)	
103.00	feet	E_{ROCK} = elevation of bedrock (if none found, enter the lowest elevation of the test pit)	
6.80	feet	D_{SHWT} = separation from SHWT	← ≥ *[3]
10.0	feet	D_{ROCK} = separation from bedrock	← ≥ *[3]
	ft	D_{amend} = Depth of amended soil, if applicable due high infiltation rate	← ≥ 24"
	ft	D_T = depth of trench, if trench proposed	← 4 - 10 ft
	Yes/No	If a trench or underground system is proposed, observation well provided[4]	
		If a trench is proposed, material in trench	
On-site Soils		If a basin is proposed, basin floor material	
Yes	Yes/No	If a basin is proposed, the perimeter should be curvilinear, basin floor shall be flat.	
4.0	:1	If a basin is proposed, pond side slopes	← ≥3:1
117.48	ft	Peak elevation of the 10-year storm event (infiltration can be used in analysis)	
118.98	ft	Peak elevation of the 50-year storm event (infiltration can be used in analysis)	
120.00	ft	Elevation of the top of the practice (if a basin, this is the elevation of the berm)	
YES		10 peak elevation ≤ Elevation of the top of the trench?[5]	← yes
YES		If a basin is proposed, 50-year peak elevation ≤ Elevation of berm?	← yes

1. Volume below the lowest invert of the outlet structure and excludes forebay volume
2. $Ksat_{DESIGN}$ includes a factor of safety. See Env-Wq 1504.14 for requirements for determining the infiltr. rate
3. 1' separation if treatment not required; 4' for treatment in GPAs & WSIPAs; & 3' in all other areas.
4. Clean, washed well graded diameter of 1.5 to 3 inches above the in-situ soil.
5. If 50-year peak elevation exceeds top of trench, the overflow must be routed in HydroCAD as secondary discharge.

Designer's Notes:

Stage-Area-Storage for Pond A1-3*: A1-3 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
113.00	32,860	32,860	0
113.20	33,553	33,553	6,641
113.40	34,245	34,245	13,421
113.60	34,938	34,938	20,339
113.80	35,630	35,630	27,396
114.00	36,323	36,323	34,592
114.20	37,039	37,039	41,928
114.40	37,754	37,754	49,407
114.60	38,470	38,470	57,029
114.80	39,185	39,185	64,795
115.00	39,901	39,901	72,704
115.20	43,726	43,726	81,066
115.40	47,551	47,551	90,194
115.60	51,375	51,375	100,086
115.80	55,200	55,200	110,744
116.00	59,025	59,025	122,167
116.20	60,001	60,001	134,069
116.40	60,977	60,977	146,167
116.60	61,952	61,952	158,460
116.80	62,928	62,928	170,948
117.00	63,904	63,904	183,631
117.20	64,900	64,900	196,511
117.40	65,896	65,896	209,591
117.60	66,891	66,891	222,870
117.80	67,887	67,887	236,347
118.00	68,883	68,883	250,025
118.20	69,899	69,899	263,903
118.40	70,915	70,915	277,984
118.60	71,930	71,930	292,269
118.80	72,946	72,946	306,756
119.00	73,962	73,962	321,447
119.20	74,999	74,999	336,343
119.40	76,035	76,035	351,446
119.60	77,072	77,072	366,757
119.80	78,108	78,108	382,275
120.00	**79,145**	**79,145**	**398,001**

INFILTRATION PRACTICE CRITERIA
(Env-Wq 1508.06)

Type/Node Name: **A11-2 Infiltration Basin**

Enter the type of infiltration practice (e.g., basin, trench) and the node name in the drainage analysis, if applicable

Yes		Have you reviewed Env-Wq 1508.06(a) to ensure that infiltration is allowed?	
34.75	ac	A = Area draining to the practice	
15.79	ac	A_I = Impervious area draining to the practice	
0.45	decimal	I = percent impervious area draining to the practice, in decimal form	
0.46	unitless	Rv = Runoff coefficient = 0.05 + (0.9 x I)	
15.94	ac-in	WQV= 1" x Rv x A	
57,879	cf	WQV conversion (ac-in x 43,560 sf/ac x 1ft/12")	
14,470	cf	25% x WQV (check calc for sediment forebay volume)	
Sed. Forebay		Method of pretreatment? (not required for clean or roof runoff)	
26,038	cf	V_{SED} = sediment forebay volume, if used for pretreatment	← ≥ 25%WQV
131,341	cf	V = volume[1] (attach a stage-storage table)	← ≥ WQV
83,518	sf	A_{SA} = surface area of the bottom of the pond	
10.00	iph	$Ksat_{DESIGN}$ = design infiltration rate[2]	
0.8	hours	T_{DRAIN} = drain time = V / (A_{SA} * I_{DESIGN})	← ≤ 72-hrs
116.00	feet	E_{BTM} = elevation of the bottom of the basin	
92.00	feet	E_{SHWT} = elevation of SHWT (if none found, enter the lowest elevation of the test pit)	
91.00	feet	E_{ROCK} = elevation of bedrock (if none found, enter the lowest elevation of the test pit)	
24.00	feet	D_{SHWT} = separation from SHWT	← ≥ *[3]
25.0	feet	D_{ROCK} = separation from bedrock	← ≥ *[3]
2.0	ft	D_{amend} = Depth of amended soil, if applicable due high infiltation rate	← ≥ 24"
	ft	D_T = depth of trench, if trench proposed	← 4 - 10 ft
	Yes/No	If a trench or underground system is proposed, observation well provided[4]	
		If a trench is proposed, material in trench	
On-site Soils		If a basin is proposed, basin floor material	
Yes	Yes/No	If a basin is proposed, the perimeter should be curvilinear, basin floor shall be flat.	
4.0	:1	If a basin is proposed, pond side slopes	← ≥3:1
116.56	ft	Peak elevation of the 10-year storm event (infiltration can be used in analysis)	
117.58	ft	Peak elevation of the 50-year storm event (infiltration can be used in analysis)	
121.00	ft	Elevation of the top of the practice (if a basin, this is the elevation of the berm)	
YES		10 peak elevation ≤ Elevation of the top of the trench?[5]	← yes
YES		If a basin is proposed, 50-year peak elevation ≤ Elevation of berm?	← yes

1. Volume below the lowest invert of the outlet structure and excludes forebay volume
2. $Ksat_{DESIGN}$ includes a factor of safety. See Env-Wq 1504.14 for requirements for determining the infiltr. rate
3. 1' separation if treatment not required; 4' for treatment in GPAs & WSIPAs; & 3' in all other areas.
4. Clean, washed well graded diameter of 1.5 to 3 inches above the in-situ soil.
5. If 50-year peak elevation exceeds top of trench, the overflow must be routed in HydroCAD as secondary discharge.

Designer's Notes:

Stage-Area-Storage for Pond A11-2*: A11-2 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
116.00	83,518	83,518	0
116.10	84,055	84,055	8,379
116.20	84,593	84,593	16,811
116.30	85,130	85,130	25,297
116.40	85,668	85,668	33,837
116.50	86,206	86,206	42,431
116.60	86,743	86,743	51,078
116.70	87,281	87,281	59,779
116.80	87,818	87,818	68,534
116.90	88,356	88,356	77,343
117.00	88,893	88,893	86,206
117.10	89,444	89,444	95,122
117.20	89,995	89,995	104,094
117.30	90,546	90,546	113,121
117.40	91,097	91,097	122,204
117.50	91,648	91,648	131,341
117.60	92,199	92,199	140,533
117.70	92,750	92,750	149,781
117.80	93,301	93,301	159,083
117.90	93,852	93,852	168,441
118.00	94,403	94,403	177,854
118.10	96,528	96,528	187,400
118.20	98,653	98,653	197,159
118.30	100,778	100,778	207,131
118.40	102,903	102,903	217,315
118.50	105,028	105,028	227,711
118.60	107,152	107,152	238,320
118.70	109,277	109,277	249,142
118.80	111,402	111,402	260,176
118.90	113,527	113,527	271,422
119.00	115,652	115,652	282,881
119.10	116,244	116,244	294,476
119.20	116,837	116,837	306,130
119.30	117,429	117,429	317,843
119.40	118,022	118,022	329,616
119.50	118,614	118,614	341,448
119.60	119,206	119,206	353,339
119.70	119,799	119,799	365,289
119.80	120,391	120,391	377,298
119.90	120,984	120,984	389,367
120.00	121,576	121,576	401,495
120.10	122,173	122,173	413,682
120.20	122,770	122,770	425,930
120.30	123,366	123,366	438,236
120.40	123,963	123,963	450,603
120.50	124,560	124,560	463,029
120.60	125,157	125,157	475,515
120.70	125,754	125,754	488,060
120.80	126,350	126,350	500,666
120.90	126,947	126,947	513,330
121.00	**127,544**	**127,544**	**526,055**

INFILTRATION PRACTICE CRITERIA
(Env-Wq 1508.06)

Type/Node Name: **Infiltration Basin B1-2**

Enter the type of infiltration practice (e.g., basin, trench) and the node name in the drainage analysis, if applicable

Yes		Have you reviewed Env-Wq 1508.06(a) to ensure that infiltration is allowed?	
4.40	ac	A = Area draining to the practice	
2.27	ac	A_I = Impervious area draining to the practice	
0.52	decimal	I = percent impervious area draining to the practice, in decimal form	
0.51	unitless	Rv = Runoff coefficient = 0.05 + (0.9 x I)	
2.26	ac-in	WQV= 1" x Rv x A	
8,215	cf	WQV conversion (ac-in x 43,560 sf/ac x 1ft/12")	
2,054	cf	25% x WQV (check calc for sediment forebay volume)	
Sed. Forebay		Method of pretreatment? (not required for clean or roof runoff)	
6,029	cf	V_{SED} = sediment forebay volume, if used for pretreatment	← ≥ 25%WQV
23,923	cf	V = volume[1] (attach a stage-storage table)	← ≥ WQV
11,433	sf	A_{SA} = surface area of the bottom of the pond	
10.00	iph	$Ksat_{DESIGN}$ = design infiltration rate[2]	
0.9	hours	T_{DRAIN} = drain time = V / (A_{SA} * I_{DESIGN})	← ≤ 72-hrs
129.00	feet	E_{BTM} = elevation of the bottom of the basin	
126.00	feet	E_{SHWT} = elevation of SHWT (if none found, enter the lowest elevation of the test pit)	
122.50	feet	E_{ROCK} = elevation of bedrock (if none found, enter the lowest elevation of the test pit)	
3.00	feet	D_{SHWT} = separation from SHWT	← ≥ *[3]
6.5	feet	D_{ROCK} = separation from bedrock	← ≥ *[3]
2.0	ft	D_{amend} = Depth of amended soil, if applicable due high infiltation rate	← ≥ 24"
	ft	D_T = depth of trench, if trench proposed	← 4 - 10 ft
	Yes/No	If a trench or underground system is proposed, observation well provided[4]	
		If a trench is proposed, material in trench	
On-site Soils		If a basin is proposed, basin floor material	
Yes	Yes/No	If a basin is proposed, the perimeter should be curvilinear, basin floor shall be flat.	
4.0	:1	If a basin is proposed, pond side slopes	← ≥3:1
131.79	ft	Peak elevation of the 10-year storm event (infiltration can be used in analysis)	
133.66	ft	Peak elevation of the 50-year storm event (infiltration can be used in analysis)	
135.00	ft	Elevation of the top of the practice (if a basin, this is the elevation of the berm)	
YES		10 peak elevation ≤ Elevation of the top of the trench?[5]	← yes
YES		If a basin is proposed, 50-year peak elevation ≤ Elevation of berm?	← yes

1. Volume below the lowest invert of the outlet structure and excludes forebay volume
2. $Ksat_{DESIGN}$ includes a factor of safety. See Env-Wq 1504.14 for requirements for determining the infiltr. rate
3. 1' separation if treatment not required; 4' for treatment in GPAs & WSIPAs; & 3' in all other areas.
4. Clean, washed well graded diameter of 1.5 to 3 inches above the in-situ soil.
5. If 50-year peak elevation exceeds top of trench, the overflow must be routed in HydroCAD as secondary discharge.

Designer's Notes:

STORMWATER POND DESIGN CRITERIA
Env-Wq 1508.03

Type/Node Name: **B1-3 Dry Extended Detention Pond with Micro Pool**

Enter the type of stormwater pond (e.g., Wet Pond) and the node name in the drainage analysis, if applicable

20.50	ac	A = Area draining to the practice	
17.12	ac	A_I = Impervious area draining to the practice	
0.83	decimal	I = percent impervious area draining to the practice, in decimal form	
0.80	unitless	Rv = Runoff coefficient = 0.05 + (0.9 x I)	
16.43	ac-in	WQV= 1" x Rv x A	
59,646	cf	WQV conversion (ac-in x 43,560 sf/ac x 1ft/12")	
5,965	cf	10% x WQV (check calc for sediment forebay and micropool volume)	
29,823	cf	50% x WQV (check calc for extended detention volume)	
19,001	cf	V_{SED} = sediment forebay volume	← ≥ 10%WQV
6,340	cf	V_{PP} = permanent pool volume (volume below the lowest invert of the outlet structure) Attach stage-storage table.	
yes	cf	Extended Detention?[1]	← ≤ 50% WQV
53,306		V_{ED} = Volume of Extended detention (if "yes is given in box above)	
132.40		E_{ED} = elevation of WQV if "yes" is given in box above[2]	
1.23	cfs	$2Q_{avg}$ = 2* V_{ED} / 24 hrs * (1hr / 3600 sec) (used to check against Q_{EDmax} below)	
0.46	cfs	Q_{EDmax} = discharge at the E_{ED} (attach stage-discharge table)	← <$2Q_{avg}$
64.38	hours	T_{ED} = drawdown time of extended detention = $2V_{ED}/Q_{EDmax}$	← ≥ 24-hrs
4.00	:1	Pond side slopes	← ≥3:1
125.00	ft	Elevation of seasonal high water table	
129.50	ft	Elevation of lowest pond outlet	
120.00	ft	Max floor = maximum elevation of pond bottom (ft)	
117.00	ft	Minimum floor (to maintain depth at less than 8')	← ≤ 8 ft
129.50	ft	Elevation of pond floor[3]	← ≤ Max floor and > Min floor
268.00	ft	Length of the flow path between the inlet and outlet at mid-depth	
211.00	ft	Average Width ([average of the top width + average bottom width]/2)	
1.27	:1	Length to Average Width ratio	← ≥ 3:1
Yes	Yes/No	The perimeter should be curvilinear.	
Yes	Yes/No	The inlet and outlet should be located as far apart as possible.	
No	Yes/No	Is there a manually-controlled drain to dewater the pond over a 24hr period?	
If no state why:		Small & Shallow perminate pond.	
		What mechanism is proposed to prevent the outlet structure from clogging (applicable for orifices/weirs with a dimension of <6")?	
136.00	ft	Peak elevation of the 50-year storm event	
137.00	ft	Berm elevation of the pond	
YES		50 peak elevation ≤ the berm elevation?	← yes

1. If the entire WQV is stored in the perm. pool, there is no extended det., and the following five lines do not apply.
2. This is the elevation of WQV if the hydrologic analysis is set up to include the permanent pool storage in the node description.
3. If the pond floor elevation is above the max floor elev., a hydrologic budget must be submitted to demonstrate that a minimum depth of 3 feet can be maintained. (First check whether a revised "lowest pond outlet" elev. will resolve the issue.)

Designer's Notes:

Hydrograph for Pond B1-3*: B1-3 Dry Extended Basin with Micropool

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.65	58	129.50	0.00
5.50	0.80	1,360	129.55	0.01
6.00	0.96	2,916	129.62	0.03
6.50	1.21	4,774	129.69	0.06
7.00	1.52	7,088	129.78	0.09
7.50	1.85	9,926	129.89	0.12
8.00	2.21	13,338	130.02	0.15
8.50	2.84	17,546	130.17	0.17
9.00	3.58	22,973	130.37	0.20
9.50	4.38	29,733	130.61	0.24
10.00	5.21	37,906	130.90	0.27
10.50	6.65	47,975	131.24	0.30
11.00	8.31	60,859	131.67	0.34
11.50	13.43	79,210	132.24	0.38
12.00	**79.88**	138,033	133.83	4.10
12.50	**26.69**	**242,859**	**135.96**	**15.46**
13.00	10.89	**241,821**	**135.94**	**15.06**
13.50	8.46	233,850	135.79	12.61
14.00	6.87	226,672	135.65	10.79
14.50	5.95	219,940	135.52	9.48
15.00	5.18	213,605	135.40	8.79
15.50	4.41	206,881	135.27	8.27
16.00	3.64	199,739	135.13	7.71
16.50	3.22	192,536	134.98	7.09
17.00	2.89	185,876	134.85	6.39
17.50	2.55	179,986	134.73	5.63
18.00	2.22	174,664	134.62	5.08
18.50	2.07	169,744	134.51	4.68
19.00	1.97	165,200	134.42	4.44
19.50	1.87	160,730	134.33	4.41
20.00	1.77	156,061	134.23	4.41

STORMWATER POND DESIGN CRITERIA

Env-Wq 1508.03

Type/Node Name: **B3-2 Dry Extended Detention Pond with Micro Pool**

Enter the type of stormwater pond (e.g., Wet Pond) and the node name in the drainage analysis, if applicable.

7.08	ac	A = Area draining to the practice	
3.97	ac	A_I = Impervious area draining to the practice	
0.56	decimal	I = Percent impervious area draining to the practice, in decimal form	
0.55	unitless	Rv = Runoff coefficient = 0.05 + (0.9 x I)	
3.92	ac-in	WQV= 1" x Rv x A	
14,238	cf	WQV conversion (ac-in x 43,560 sf/ac x 1ft/12")	
1,424	cf	10% x WQV (check calc for sediment forebay and micropool volume)	
7,119	cf	50% x WQV (check calc for extended detention volume)	
4,362	cf	V_{SED} = Sediment forebay volume	**≥ 10%WQV**
1,950	cf	V_{PP} = Permanent pool volume (volume below the lowest invert of the outlet structure) Attach stage-storage table.	
yes	cf	Extended Detention?[1]	**≤ 50% WQV**
12,288		V_{ED} = Volume of extended detention (if "yes" is given in box above)	
128.00		E_{ED} = Elevation of WQV if "yes" is given in box above[2]	
0.28	cfs	$2Q_{avg} = 2* V_{ED} / 24$ hrs * (1hr / 3600 sec) (used to check against Q_{EDmax} below)	
0.47	cfs	Q_{EDmax} = Discharge at the E_{ED} (attach stage-discharge table)	**< $2Q_{avg}$**
14.53	hours	T_{ED} = Drawdown time of extended detention = $2V_{ED}/Q_{EDmax}$	**≥ 24-hrs**
4.00	:1	Pond side slopes	**≥3:1**
123.50	ft	Elevation of seasonal high water table	
124.00	ft	Elevation of lowest pond outlet	
118.50	ft	Max floor = Maximum elevation of pond bottom (ft)	
115.50	ft	Minimum floor (to maintain depth at less than 8')	**≤ 8 ft**
124.00	ft	Elevation of pond floor[3]	**≤ Max floor and > Min floor**
241.00	ft	Length of the flow path between the inlet and outlet at mid-depth	
114.05	ft	Average width ([average of the top width + average bottom width]/2)	
2.11	:1	Length to average width ratio	**≥ 3:1**
Yes	Yes/No	Is the perimeter curvilinear.	**← Yes**
Yes	Yes/No	Are the inlet and outlet located as far apart as possible.	**← Yes**
No	Yes/No	Is there a manually-controlled drain to dewater the pond over a 24hr period?	
If no state why:			
		What mechanism is proposed to prevent the outlet structure from clogging (applicable for orifices/weirs with a dimension of <6")?	
128.07	ft	Peak elevation of the 50-year storm event	
131.00	ft	Berm elevation of the pond	
YES		50 peak elevation ≤ the berm elevation?	**←yes**

1. If the entire WQV is stored in the perm. pool, there is no extended det., and the following five lines do not apply.

2. This is the elevation of WQV **if** the hydrologic analysis is set up to include the permanent pool storage in the node description.

3. If the pond floor elevation is above the max floor elev., a hydrologic budget must be submitted to demonstrate that a minimum depth of 3 feet can be maintained. (First check whether a revised "lowest pond outlet" elev. will resolve the issue.)

Designer's Notes:

Stage-Area-Storage for Pond B3-2*: B3-2 Dry Extended Basin with Micropool

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
124.00	17,253	0
124.10	17,485	1,737
124.20	17,718	3,497
124.30	17,950	5,280
124.40	18,182	7,087
124.50	18,415	8,917
124.60	18,647	10,770
124.70	18,879	12,646
124.80	19,111	14,546
124.90	19,344	16,469
125.00	19,576	18,415
125.10	19,821	20,384
125.20	20,065	22,379
125.30	20,310	24,397
125.40	20,555	26,441
125.50	20,800	28,508
125.60	21,044	30,601
125.70	21,289	32,717
125.80	21,534	34,858
125.90	21,778	37,024
126.00	22,023	39,214
126.10	22,615	41,446
126.20	23,207	43,737
126.30	23,800	46,087
126.40	24,392	48,497
126.50	24,984	50,966
126.60	25,576	53,494
126.70	26,168	56,081
126.80	26,761	58,727
126.90	27,353	61,433
127.00	27,945	64,198
127.10	28,243	67,007
127.20	28,542	69,847
127.30	28,840	72,716
127.40	29,138	75,615
127.50	29,437	78,543
127.60	29,735	81,502
127.70	30,033	84,490
127.80	30,331	87,509
127.90	30,630	90,557
128.00	30,928	93,635
128.10	31,228	96,742
128.20	31,529	99,880
128.30	31,830	103,048
128.40	32,130	106,246
128.50	32,431	109,474
128.60	32,731	112,732
128.70	33,031	116,020
128.80	33,332	119,339
128.90	33,633	122,687
129.00	33,933	126,065
129.10	34,251	129,474
129.20	34,569	132,915
129.30	34,887	136,388
129.40	35,205	139,893
129.50	35,523	143,429
129.60	35,841	146,997
129.70	36,159	150,597
129.80	36,477	154,229
129.90	36,795	157,893
130.00	37,113	161,588
130.10	37,440	165,316
130.20	37,766	169,076
130.30	38,093	172,869
130.40	38,420	176,695
130.50	38,747	180,553
130.60	39,073	184,444
130.70	39,400	188,368
130.80	39,727	192,324
130.90	40,053	196,313
131.00	**40,380**	**200,335**

INFILTRATION PRACTICE CRITERIA
(Env-Wq 1508.06)

Type/Node Name: **Infiltration Basin 5-2**

Enter the type of infiltration practice (e.g., basin, trench) and the node name in the drainage analysis, if applicable

Yes		Have you reviewed Env-Wq 1508.06(a) to ensure that infiltration is allowed?	
10.22	ac	A = Area draining to the practice	
6.92	ac	A_I = Impervious area draining to the practice	
0.68	decimal	I = percent impervious area draining to the practice, in decimal form	
0.66	unitless	Rv = Runoff coefficient = 0.05 + (0.9 x I)	
6.74	ac-in	WQV= 1" x Rv x A	
24,475	cf	WQV conversion (ac-in x 43,560 sf/ac x 1ft/12")	
6,119	cf	25% x WQV (check calc for sediment forebay volume)	
Sed. Forebay		Method of pretreatment? (not required for clean or roof runoff)	
6,751	cf	V_{SED} = sediment forebay volume, if used for pretreatment	← ≥ 25%WQV
40,568	cf	V = volume[1] (attach a stage-storage table)	← ≥ WQV
23,201	sf	A_{SA} = surface area of the bottom of the pond	
3.56	iph	$Ksat_{DESIGN}$ = design infiltration rate[2]	
3.6	hours	T_{DRAIN} = drain time = V / (A_{SA} * I_{DESIGN})	← ≤ 72-hrs
133.50	feet	E_{BTM} = elevation of the bottom of the basin	
127.50	feet	E_{SHWT} = elevation of SHWT (if none found, enter the lowest elevation of the test pit)	
126.00	feet	E_{ROCK} = elevation of bedrock (if none found, enter the lowest elevation of the test pit)	
6.00	feet	D_{SHWT} = separation from SHWT	← ≥ *[3]
7.5	feet	D_{ROCK} = separation from bedrock	← ≥ *[3]
	ft	D_{amend} = Depth of amended soil, if applicable due high infiltation rate	← ≥ 24"
	ft	D_T = depth of trench, if trench proposed	← 4 - 10 ft
	Yes/No	If a trench or underground system is proposed, observation well provided[4]	
		If a trench is proposed, material in trench	
On-site Soils		If a basin is proposed, basin floor material	
Yes	Yes/No	If a basin is proposed, the perimeter should be curvilinear, basin floor shall be flat.	
4.0	:1	If a basin is proposed, pond side slopes	← ≥3:1
135.62	ft	Peak elevation of the 10-year storm event (infiltration can be used in analysis)	
136.83	ft	Peak elevation of the 50-year storm event (infiltration can be used in analysis)	
138.00	ft	Elevation of the top of the practice (if a basin, this is the elevation of the berm)	
YES		10 peak elevation ≤ Elevation of the top of the trench?[5]	← yes
YES		If a basin is proposed, 50-year peak elevation ≤ Elevation of berm?	← yes

1. Volume below the lowest invert of the outlet structure and excludes forebay volume
2. $Ksat_{DESIGN}$ includes a factor of safety. See Env-Wq 1504.14 for requirements for determining the infiltr. rate
3. 1' separation if treatment not required; 4' for treatment in GPAs & WSIPAs; & 3' in all other areas.
4. Clean, washed well graded diameter of 1.5 to 3 inches above the in-situ soil.
5. If 50-year peak elevation exceeds top of trench, the overflow must be routed in HydroCAD as secondary discharge.

Designer's Notes:

Stage-Area-Storage for Pond B5-2*: B5-2 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
133.50	23,201	23,201	0
133.60	23,466	23,466	2,333
133.70	23,731	23,731	4,693
133.80	23,997	23,997	7,080
133.90	24,262	24,262	9,493
134.00	24,527	24,527	11,932
134.10	24,801	24,801	14,398
134.20	25,074	25,074	16,892
134.30	25,348	25,348	19,413
134.40	25,621	25,621	21,962
134.50	25,895	25,895	24,538
134.60	26,169	26,169	27,141
134.70	26,442	26,442	29,771
134.80	26,716	26,716	32,429
134.90	26,989	26,989	35,114
135.00	27,263	27,263	37,827
135.10	27,548	27,548	40,568
135.20	27,834	27,834	43,337
135.30	28,119	28,119	46,134
135.40	28,405	28,405	48,961
135.50	28,690	28,690	51,815
135.60	28,975	28,975	54,699
135.70	29,261	29,261	57,610
135.80	29,546	29,546	60,551
135.90	29,832	29,832	63,520
136.00	30,117	30,117	66,517
136.10	30,861	30,861	69,566
136.20	31,605	31,605	72,689
136.30	32,350	32,350	75,887
136.40	33,094	33,094	79,159
136.50	33,838	33,838	82,506
136.60	34,582	34,582	85,927
136.70	35,326	35,326	89,422
136.80	36,071	36,071	92,992
136.90	36,815	36,815	96,636
137.00	37,559	37,559	100,355
137.10	37,906	37,906	104,128
137.20	38,253	38,253	107,936
137.30	38,600	38,600	111,779
137.40	38,947	38,947	115,656
137.50	39,294	39,294	119,568
137.60	39,640	39,640	123,515
137.70	39,987	39,987	127,496
137.80	40,334	40,334	131,512
137.90	40,681	40,681	135,563
138.00	**41,028**	**41,028**	**139,649**

INFILTRATION PRACTICE CRITERIA
(Env-Wq 1508.06)

Type/Node Name: **Infiltration Basin B6-2**

Enter the type of infiltration practice (e.g., basin, trench) and the node name in the drainage analysis, if applicable

Yes		Have you reviewed Env-Wq 1508.06(a) to ensure that infiltration is allowed?	
39.11	ac	A = Area draining to the practice	
20.03	ac	A_I = Impervious area draining to the practice	
0.51	decimal	I = percent impervious area draining to the practice, in decimal form	
0.51	unitless	Rv = Runoff coefficient = 0.05 + (0.9 x I)	
19.98	ac-in	WQV= 1" x Rv x A	
72,530	cf	WQV conversion (ac-in x 43,560 sf/ac x 1ft/12")	
18,132	cf	25% x WQV (check calc for sediment forebay volume)	
Sed. Forebay		Method of pretreatment? (not required for clean or roof runoff)	
20,316	cf	V_{SED} = sediment forebay volume, if used for pretreatment	← ≥ 25%WQV
106,905	cf	V = volume[1] (attach a stage-storage table)	← ≥ WQV
37,532	sf	A_{SA} = surface area of the bottom of the pond	
0.41	iph	$Ksat_{DESIGN}$ = design infiltration rate[2]	
56.6	hours	T_{DRAIN} = drain time = V / (A_{SA} * I_{DESIGN})	← ≤ 72-hrs
128.00	feet	E_{BTM} = elevation of the bottom of the basin	
125.00	feet	E_{SHWT} = elevation of SHWT (if none found, enter the lowest elevation of the test pit)	
122.50	feet	E_{ROCK} = elevation of bedrock (if none found, enter the lowest elevation of the test pit)	
3.00	feet	D_{SHWT} = separation from SHWT	← ≥ *[3]
5.5	feet	D_{ROCK} = separation from bedrock	← ≥ *[3]
	ft	D_{amend} = Depth of amended soil, if applicable due high infiltation rate	← ≥ 24"
	ft	D_T = depth of trench, if trench proposed	← 4 - 10 ft
	Yes/No	If a trench or underground system is proposed, observation well provided[4]	
		If a trench is proposed, material in trench	
On-site Soils		If a basin is proposed, basin floor material	
Yes	Yes/No	If a basin is proposed, the perimeter should be curvilinear, basin floor shall be flat.	
4.0	:1	If a basin is proposed, pond side slopes	← ≥3:1
132.09	ft	Peak elevation of the 10-year storm event (infiltration can be used in analysis)	
133.00	ft	Peak elevation of the 50-year storm event (infiltration can be used in analysis)	
134.00	ft	Elevation of the top of the practice (if a basin, this is the elevation of the berm)	
YES		10 peak elevation ≤ Elevation of the top of the trench?[5]	← yes
YES		If a basin is proposed, 50-year peak elevation ≤ Elevation of berm?	← yes

1. Volume below the lowest invert of the outlet structure and excludes forebay volume
2. $Ksat_{DESIGN}$ includes a factor of safety. See Env-Wq 1504.14 for requirements for determining the infiltr. rate
3. 1' separation if treatment not required; 4' for treatment in GPAs & WSIPAs; & 3' in all other areas.
4. Clean, washed well graded diameter of 1.5 to 3 inches above the in-situ soil.
5. If 50-year peak elevation exceeds top of trench, the overflow must be routed in HydroCAD as secondary discharge.

Designer's Notes:

Stage-Area-Storage for Pond B6-2*: B6-2 Infiltration Basin

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
128.00	37,532	37,532	0
128.02	37,604	37,604	751
128.04	37,676	37,676	1,504
128.06	37,748	37,748	2,258
128.08	37,820	37,820	3,014
128.10	37,892	37,892	3,771
128.12	37,964	37,964	4,530
128.14	38,036	38,036	5,290
128.16	38,108	38,108	6,051
128.18	38,180	38,180	6,814
128.20	38,252	38,252	7,578
128.22	38,324	38,324	8,344
128.24	38,396	38,396	9,111
128.26	38,468	38,468	9,880
128.28	38,540	38,540	10,650
128.30	38,612	38,612	11,422
128.32	38,684	38,684	12,195
128.34	38,756	38,756	12,969
128.36	38,828	38,828	13,745
128.38	38,900	38,900	14,522
128.40	38,972	38,972	15,301
128.42	39,044	39,044	16,081
128.44	39,116	39,116	16,863
128.46	39,188	39,188	17,646
128.48	39,260	39,260	18,430
128.50	39,332	39,332	19,216
128.52	39,404	39,404	20,003
128.54	39,476	39,476	20,792
128.56	39,548	39,548	21,582
128.58	39,620	39,620	22,374
128.60	39,692	39,692	23,167
128.62	39,764	39,764	23,962
128.64	39,836	39,836	24,758
128.66	39,908	39,908	25,555
128.68	39,980	39,980	26,354
128.70	40,052	40,052	27,154
128.72	40,124	40,124	27,956
128.74	40,196	40,196	28,759
128.76	40,268	40,268	29,564
128.78	40,340	40,340	30,370
128.80	40,412	40,412	31,178
128.82	40,484	40,484	31,987
128.84	40,556	40,556	32,797
128.86	40,628	40,628	33,609
128.88	40,700	40,700	34,422
128.90	40,772	40,772	35,237
128.92	40,844	40,844	36,053
128.94	40,916	40,916	36,871
128.96	40,988	40,988	37,690
128.98	41,060	41,060	38,510
129.00	41,132	41,132	39,332
129.02	41,206	41,206	40,155

Stage-Area-Storage for Pond B6-2*: B6-2 Infiltration Basin (continued)

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
129.04	41,281	41,281	40,980
129.06	41,355	41,355	41,807
129.08	41,429	41,429	42,634
129.10	41,504	41,504	43,464
129.12	41,578	41,578	44,295
129.14	41,652	41,652	45,127
129.16	41,727	41,727	45,961
129.18	41,801	41,801	46,796
129.20	41,875	41,875	47,633
129.22	41,950	41,950	48,471
129.24	42,024	42,024	49,311
129.26	42,098	42,098	50,152
129.28	42,172	42,172	50,995
129.30	42,247	42,247	51,839
129.32	42,321	42,321	52,684
129.34	42,395	42,395	53,532
129.36	42,470	42,470	54,380
129.38	42,544	42,544	55,230
129.40	42,618	42,618	56,082
129.42	42,693	42,693	56,935
129.44	42,767	42,767	57,790
129.46	42,841	42,841	58,646
129.48	42,916	42,916	59,503
129.50	42,990	42,990	60,363
129.52	43,064	43,064	61,223
129.54	43,139	43,139	62,085
129.56	43,213	43,213	62,949
129.58	43,287	43,287	63,814
129.60	43,362	43,362	64,680
129.62	43,436	43,436	65,548
129.64	43,510	43,510	66,418
129.66	43,585	43,585	67,288
129.68	43,659	43,659	68,161
129.70	43,733	43,733	69,035
129.72	43,808	43,808	69,910
129.74	43,882	43,882	70,787
129.76	43,956	43,956	71,666
129.78	44,030	44,030	72,545
129.80	44,105	44,105	73,427
129.82	44,179	44,179	74,310
129.84	44,253	44,253	75,194
129.86	44,328	44,328	76,080
129.88	44,402	44,402	76,967
129.90	44,476	44,476	77,856
129.92	44,551	44,551	78,746
129.94	44,625	44,625	79,638
129.96	44,699	44,699	80,531
129.98	44,774	44,774	81,426
130.00	44,848	44,848	82,322
130.02	45,193	45,193	83,222
130.04	45,539	45,539	84,130
130.06	45,884	45,884	85,044

Stage-Area-Storage for Pond B6-2*: B6-2 Infiltration Basin (continued)

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
130.08	46,230	46,230	85,965
130.10	46,575	46,575	86,893
130.12	46,921	46,921	87,828
130.14	47,266	47,266	88,770
130.16	47,611	47,611	89,719
130.18	47,957	47,957	90,674
130.20	48,302	48,302	91,637
130.22	48,648	48,648	92,607
130.24	48,993	48,993	93,583
130.26	49,338	49,338	94,566
130.28	49,684	49,684	95,556
130.30	50,029	50,029	96,554
130.32	50,375	50,375	97,558
130.34	50,720	50,720	98,569
130.36	51,066	51,066	99,586
130.38	51,411	51,411	100,611
130.40	51,756	51,756	101,643
130.42	52,102	52,102	102,681
130.44	52,447	52,447	103,727
130.46	52,793	52,793	104,779
130.48	53,138	53,138	105,839
130.50	53,484	53,484	106,905
130.52	53,829	53,829	107,978
130.54	54,174	54,174	109,058
130.56	54,520	54,520	110,145
130.58	54,865	54,865	111,239
130.60	55,211	55,211	112,340
130.62	55,556	55,556	113,447
130.64	55,901	55,901	114,562
130.66	56,247	56,247	115,683
130.68	56,592	56,592	116,812
130.70	56,938	56,938	117,947
130.72	57,283	57,283	119,089
130.74	57,629	57,629	120,238
130.76	57,974	57,974	121,394
130.78	58,319	58,319	122,557
130.80	58,665	58,665	123,727
130.82	59,010	59,010	124,904
130.84	59,356	59,356	126,088
130.86	59,701	59,701	127,278
130.88	60,046	60,046	128,476
130.90	60,392	60,392	129,680
130.92	60,737	60,737	130,891
130.94	61,083	61,083	132,109
130.96	61,428	61,428	133,335
130.98	61,774	61,774	134,567
131.00	62,119	62,119	135,806
131.02	63,092	63,092	137,058
131.04	64,065	64,065	138,329
131.06	65,039	65,039	139,620
131.08	66,012	66,012	140,931
131.10	66,985	66,985	142,261

Stage-Area-Storage for Pond B6-2*: B6-2 Infiltration Basin (continued)

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
131.12	67,958	67,958	143,610
131.14	68,932	68,932	144,979
131.16	69,905	69,905	146,367
131.18	70,878	70,878	147,775
131.20	71,851	71,851	149,203
131.22	72,825	72,825	150,649
131.24	73,798	73,798	152,116
131.26	74,771	74,771	153,601
131.28	75,744	75,744	155,106
131.30	76,718	76,718	156,631
131.32	77,691	77,691	158,175
131.34	78,664	78,664	159,739
131.36	79,637	79,637	161,322
131.38	80,611	80,611	162,924
131.40	81,584	81,584	164,546
131.42	82,557	82,557	166,187
131.44	83,530	83,530	167,848
131.46	84,504	84,504	169,529
131.48	85,477	85,477	171,228
131.50	86,450	86,450	172,948
131.52	87,423	87,423	174,686
131.54	88,396	88,396	176,445
131.56	89,370	89,370	178,222
131.58	90,343	90,343	180,019
131.60	91,316	91,316	181,836
131.62	92,289	92,289	183,672
131.64	93,263	93,263	185,528
131.66	94,236	94,236	187,403
131.68	95,209	95,209	189,297
131.70	96,182	96,182	191,211
131.72	97,156	97,156	193,144
131.74	98,129	98,129	195,097
131.76	99,102	99,102	197,070
131.78	100,075	100,075	199,061
131.80	101,049	101,049	201,073
131.82	102,022	102,022	203,103
131.84	102,995	102,995	205,153
131.86	103,968	103,968	207,223
131.88	104,942	104,942	209,312
131.90	105,915	105,915	211,421
131.92	106,888	106,888	213,549
131.94	107,861	107,861	215,696
131.96	108,835	108,835	217,863
131.98	109,808	109,808	220,050
132.00	110,781	110,781	222,256
132.02	110,919	110,919	224,473
132.04	111,057	111,057	226,692
132.06	111,195	111,195	228,915
132.08	111,334	111,334	231,140
132.10	111,472	111,472	233,368
132.12	111,610	111,610	235,599
132.14	111,748	111,748	237,833

Stage-Area-Storage for Pond B6-2*: B6-2 Infiltration Basin (continued)

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
132.16	111,886	111,886	240,069
132.18	112,024	112,024	242,308
132.20	112,162	112,162	244,550
132.22	112,301	112,301	246,794
132.24	112,439	112,439	249,042
132.26	112,577	112,577	251,292
132.28	112,715	112,715	253,545
132.30	112,853	112,853	255,801
132.32	112,991	112,991	258,059
132.34	113,129	113,129	260,320
132.36	113,268	113,268	262,584
132.38	113,406	113,406	264,851
132.40	113,544	113,544	267,120
132.42	113,682	113,682	269,393
132.44	113,820	113,820	271,668
132.46	113,958	113,958	273,946
132.48	114,096	114,096	276,226
132.50	114,235	114,235	278,509
132.52	114,373	114,373	280,795
132.54	114,511	114,511	283,084
132.56	114,649	114,649	285,376
132.58	114,787	114,787	287,670
132.60	114,925	114,925	289,967
132.62	115,063	115,063	292,267
132.64	115,201	115,201	294,570
132.66	115,340	115,340	296,875
132.68	115,478	115,478	299,183
132.70	115,616	115,616	301,494
132.72	115,754	115,754	303,808
132.74	115,892	115,892	306,125
132.76	116,030	116,030	308,444
132.78	116,168	116,168	310,766
132.80	116,307	116,307	313,091
132.82	116,445	116,445	315,418
132.84	116,583	116,583	317,748
132.86	116,721	116,721	320,081
132.88	116,859	116,859	322,417
132.90	116,997	116,997	324,756
132.92	117,135	117,135	327,097
132.94	117,274	117,274	329,441
132.96	117,412	117,412	331,788
132.98	117,550	117,550	334,138
133.00	117,688	117,688	336,490
133.02	117,848	117,848	338,845
133.04	118,007	118,007	341,204
133.06	118,167	118,167	343,566
133.08	118,326	118,326	345,931
133.10	118,486	118,486	348,299
133.12	118,646	118,646	350,670
133.14	118,805	118,805	353,045
133.16	118,965	118,965	355,422
133.18	119,124	119,124	357,803

Stage-Area-Storage for Pond B6-2*: B6-2 Infiltration Basin (continued)

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
133.20	119,284	119,284	360,187
133.22	119,444	119,444	362,574
133.24	119,603	119,603	364,965
133.26	119,763	119,763	367,359
133.28	119,922	119,922	369,755
133.30	120,082	120,082	372,156
133.32	120,242	120,242	374,559
133.34	120,401	120,401	376,965
133.36	120,561	120,561	379,375
133.38	120,720	120,720	381,788
133.40	120,880	120,880	384,204
133.42	121,040	121,040	386,623
133.44	121,199	121,199	389,045
133.46	121,359	121,359	391,471
133.48	121,518	121,518	393,900
133.50	121,678	121,678	396,332
133.52	121,838	121,838	398,767
133.54	121,997	121,997	401,205
133.56	122,157	122,157	403,647
133.58	122,316	122,316	406,091
133.60	122,476	122,476	408,539
133.62	122,636	122,636	410,990
133.64	122,795	122,795	413,445
133.66	122,955	122,955	415,902
133.68	123,114	123,114	418,363
133.70	123,274	123,274	420,827
133.72	123,434	123,434	423,294
133.74	123,593	123,593	425,764
133.76	123,753	123,753	428,238
133.78	123,912	123,912	430,714
133.80	124,072	124,072	433,194
133.82	124,232	124,232	435,677
133.84	124,391	124,391	438,163
133.86	124,551	124,551	440,653
133.88	124,710	124,710	443,145
133.90	124,870	124,870	445,641
133.92	125,030	125,030	448,140
133.94	125,189	125,189	450,642
133.96	125,349	125,349	453,148
133.98	125,508	125,508	455,656
134.00	**125,668**	**125,668**	**458,168**

APPENDIX D

Stormwater Collection System Calculations

LANGAN

Project **HUDSON LOGISTICS CENTER** By **JMGM** Date **9/9/2022**

Location **LOWELL ROAD** Checked **RJS** Date **9/9/2022**

Circle one: Present (Developed) Job No. **151010101**

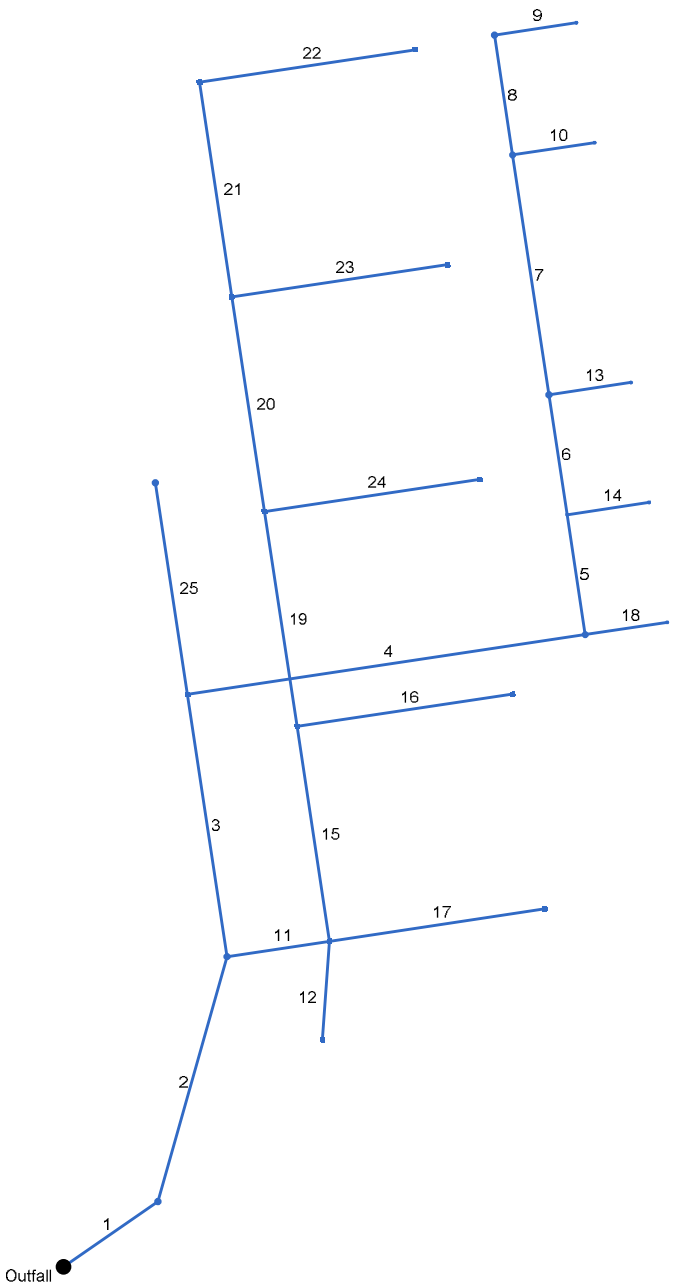
1. Rational 'C' Runoff Coefficient & Area Calculations

Catchment Area	Total Area		Impervious (C=.9)		Pervious (C=0.3)		Percent Impervious	C
	SF	AC	SF	AC	SF	AC		
CLCB-1 (A1-3)	31,698	0.728	28,550	0.655	3,148	0.072	90%	0.84
CCB-2 (A1-3)	24,313	0.558	13,647	0.313	10,666	0.245	56%	0.64
CCB-3 (A1-3)	14,553	0.334	8,795	0.202	5,758	0.132	60%	0.66
CCB-4 (A1-3)	20,433	0.469	8,446	0.194	11,987	0.275	41%	0.55
CCB-5 (A1-3)	10,783	0.248	10,555	0.242	228	0.005	98%	0.89
CLCB-6 (A1-3)	42,807	0.983	10,814	0.248	31,993	0.734	25%	0.45
CLCB-7 (A1-3)	27,875	0.640	19,047	0.437	8,828	0.203	68%	0.71
DOUBLE CLCB-8 (A1-3)	60,592	1.391	38,606	0.886	21,986	0.505	64%	0.68
DOUBLE CLCB-9 (A1-3)	53,014	1.217	38,417	0.882	14,597	0.335	72%	0.73
CLCB-10 (A1-3)	39,400	0.904	39,400	0.904	0	0.000	100%	0.90
CLCB-11 (A1-3)	39,400	0.904	39,400	0.904	0	0.000	100%	0.90
CLCB-12 (A1-3)	39,400	0.904	39,400	0.904	0	0.000	100%	0.90
CLCB-13 (A1-3)	39,400	0.904	39,400	0.904	0	0.000	100%	0.90
CLCB-14 (A1-3)	35,589	0.817	35,589	0.817	0	0.000	100%	0.90
CLCB-15 (A1-3)	36,861	0.846	36,861	0.846	0	0.000	100%	0.90
CLCB-16 (A1-3)	34,577	0.794	34,577	0.794	0	0.000	100%	0.90
CLCB-17 (A1-3)	30,136	0.692	30,136	0.692	0	0.000	100%	0.90
CLCB-18 (A1-3)	28,233	0.648	28,233	0.648	0	0.000	100%	0.90
CCB-19 (A1-3)	38,344	0.880	38,344	0.880	0	0.000	100%	0.90
DOUBLE CLCB-20 (A1-3)	54,211	1.245	50,901	1.169	3,310	0.076	94%	0.86
CLCB-21 (A1-3)	42,000	0.964	42,000	0.964	0	0.000	100%	0.90
CLCB-22 (A1-3)	42,000	0.964	42,000	0.964	0	0.000	100%	0.90
CLCB-23 (A1-3)	42,001	0.964	42,001	0.964	0	0.000	100%	0.90
CCB-24 (A1-3)	28,000	0.643	28,000	0.643	0	0.000	100%	0.90
CCB-25 (A1-3)	28,000	0.643	28,000	0.643	0	0.000	100%	0.90
CCB-26 (A1-3)	33,468	0.768	28,120	0.646	5,348	0.123	84%	0.80
RL-1 (A1-3)	3,437	0.079	3,437	0.079	0	0.000	100%	0.90
RL-2 (A1-3)	3,437	0.079	3,437	0.079	0	0.000	100%	0.90
RL-3 (A1-3)	3,437	0.079	3,437	0.079	0	0.000	100%	0.90
RL-4 (A1-3)	3,437	0.079	3,437	0.079	0	0.000	100%	0.90
RL-5 (A1-3)	22,960	0.527	22,960	0.527	0	0.000	100%	0.90
RL-6 (A1-3)	43,120	0.990	43,120	0.990	0	0.000	100%	0.90
RL-7 (A1-3)	22,960	0.527	22,960	0.527	0	0.000	100%	0.90
RL-8 (A1-3)	43,120	0.990	43,120	0.990	0	0.000	100%	0.90
RL-9 (A1-3)	22,960	0.527	22,960	0.527	0	0.000	100%	0.90
RL-10 (A1-3)	43,120	0.990	43,120	0.990	0	0.000	100%	0.90
RL-11 (A1-3)	22,960	0.527	22,960	0.527	0	0.000	100%	0.90
RL-12 (A1-3)	43,120	0.990	43,120	0.990	0	0.000	100%	0.90
CCB-1 (B6-2)	30,489	0.700	13,294	0.305	17,195	0.395	44%	0.56
CCB-2 (B6-2)	25,026	0.575	13,527	0.311	11,499	0.264	54%	0.62
CLCB-3 (B6-2)	33,104	0.760	18,581	0.427	14,523	0.333	56%	0.64
CLCB-4 (B6-2)	35,157	0.807	32,049	0.736	3,108	0.071	91%	0.85
CLCB-5 (B6-2)	35,299	0.810	31,216	0.717	4,083	0.094	88%	0.83
CLCB-6 (B6-2)	40,630	0.933	36,495	0.838	4,135	0.095	90%	0.84
CLCB-7 (B6-2)	40,846	0.938	36,585	0.840	4,261	0.098	90%	0.84
CLCB-8 (B6-2)	40,720	0.935	36,532	0.839	4,188	0.096	90%	0.84
CLCB-9 (B6-2)	36,571	0.840	33,056	0.759	3,515	0.081	90%	0.84
CLCB-10 (B6-2)	33,979	0.780	29,250	0.671	4,729	0.109	86%	0.82
CLCB-11 (B6-2)	34,597	0.794	32,854	0.754	1,743	0.040	95%	0.87
CCB-12 (B6-2)	15,749	0.362	8,322	0.191	7,427	0.171	53%	0.62

CCB-13 (B6-2)	42,709	0.980	8,279	0.190	34,430	0.790	19%	0.42
CCB-14 (B6-2)	28,389	0.652	12,886	0.296	15,503	0.356	45%	0.57
CCB-15 (B6-2)	19,888	0.457	7,723	0.177	12,165	0.279	39%	0.53
CCB-16 (B6-2)	6,392	0.147	6,221	0.143	171	0.004	97%	0.88
CCB-17 (B6-2)	16,056	0.369	9,178	0.211	6,878	0.158	57%	0.64
CCB-18 (B6-2)	23,990	0.551	17,358	0.398	6,632	0.152	72%	0.73
CLCB-19 (B6-2)	32,377	0.743	28,519	0.655	3,858	0.089	88%	0.83
CLCB-20 (B6-2)	48,994	1.125	39,856	0.915	9,138	0.210	81%	0.79
CCB-21 (B6-2)	33,724	0.774	21,424	0.492	12,300	0.282	64%	0.68
CCB-22 (B6-2)	49,131	1.128	13,768	0.316	35,363	0.812	28%	0.47
CCB-23 (B6-2)	63,099	1.449	10,690	0.245	52,409	1.203	17%	0.40
CCB-24 (B6-2)	12,836	0.295	5,440	0.125	7,396	0.170	42%	0.55
CCB-25 (B6-2)	20,209	0.464	8,717	0.200	11,492	0.264	43%	0.56
CCB-26 (B6-2)	20,244	0.465	8,205	0.188	12,039	0.276	41%	0.54
RL-1 (B6-2)	43,120	0.990	43,120	0.990	0	0.000	100%	0.90
RL-2 (B6-2)	22,960	0.527	22,960	0.527	0	0.000	100%	0.90
RL-3 (B6-2)	66,080	1.517	66,080	1.517	0	0.000	100%	0.90
RL-4 (B6-2)	43,120	0.990	43,120	0.990	0	0.000	100%	0.90
RL-5 (B6-2)	22,960	0.527	22,960	0.527	0	0.000	100%	0.90
RL-6 (B6-2)	22,960	0.527	22,960	0.527	0	0.000	100%	0.90
RL-7 (B6-2)	43,120	0.990	43,120	0.990	0	0.000	100%	0.90
RL-8 (B6-2)	22,960	0.527	22,960	0.527	0	0.000	100%	0.90
RL-9 (B6-2)	43,120	0.990	43,120	0.990	0	0.000	100%	0.90
RL-10 (B6-2)	22,960	0.527	22,960	0.527	0	0.000	100%	0.90
YD-1 (B6-2)	30,539	0.701	0	0.000	30,539	0.701	0%	0.30
YD-2 (B6-2)	12,153	0.279	0	0.000	12,153	0.279	0%	0.30
YD-3 (B6-2)	25,624	0.588	0	0.000	25,624	0.588	0%	0.30
YD-4 (B6-2)	41,408	0.951	0	0.000	41,408	0.951	0%	0.30
CCB-1 (B3-2)	6,285	0.144	6,285	0.144	0	0.000	100%	0.90
CCB-2 (B3-2)	16,345	0.375	13,030	0.299	3,315	0.076	80%	0.78
CCB-3 (B3-2)	13,489	0.310	10,004	0.230	3,485	0.080	74%	0.74
CCB-4 (B3-2)	8,768	0.201	6,425	0.147	2,343	0.054	73%	0.74
CCB-5 (B3-2)	12,754	0.293	9,755	0.224	2,999	0.069	76%	0.76
CCB-6 (B3-2)	11,752	0.270	9,861	0.226	1,891	0.043	84%	0.80
CCB-7 (B3-2)	7,303	0.168	5,494	0.126	1,809	0.042	75%	0.75
CCB-8 (B3-2)	8,855	0.203	7,031	0.161	1,824	0.042	79%	0.78
CCB-9 (B3-2)	9,533	0.219	6,926	0.159	2,607	0.060	73%	0.74
CCB-10 (B3-2)	12,450	0.286	8,871	0.204	3,579	0.082	71%	0.73
CCB-11 (B3-2)	8,716	0.200	6,659	0.153	2,057	0.047	76%	0.76
CCB-12 (B3-2)	4,294	0.099	3,072	0.071	1,222	0.028	72%	0.73
CCB-13 (B3-2)	5,558	0.128	3,943	0.091	1,615	0.037	71%	0.73
CCB-14 (B3-2)	10,313	0.237	7,859	0.180	2,454	0.056	76%	0.76
CCB-15 (B3-2)	12,962	0.298	10,181	0.234	2,781	0.064	79%	0.77
CCB-16 (B3-2)	36,301	0.833	16,327	0.375	19,974	0.459	45%	0.57
CCB-17 (B3-2)	19,485	0.447	11,273	0.259	8,212	0.189	58%	0.65
CCB-18 (B3-2)	64,477	1.480	22,984	0.528	41,493	0.953	36%	0.51
CLCB-1 (B5-2)	41,000	0.941	41,000	0.941	0	0.000	100%	0.90
DOUBLE CLCB-2 (B5-2)	54,057	1.241	40,774	0.936	13,283	0.305	75%	0.75
CLCB-3 (B5-2)	41,000	0.941	41,000	0.941	0	0.000	100%	0.90
RL-1 (B5-2)	43,120	0.990	43,120	0.990	0	0.000	100%	0.90
RL-2 (B5-2)	22,960	0.527	22,960	0.527	0	0.000	100%	0.90
RL-3 (B5-2)	43,120	0.990	43,120	0.990	0	0.000	100%	0.90
RL-4 (B5-2)	43,120	0.990	43,120	0.990	0	0.000	100%	0.90
RL-5 (B5-2)	22,960	0.527	22,960	0.527	0	0.000	100%	0.90
CCB-1 (B1-2)	14,145	0.325	9,038	0.207	5,107	0.117	64%	0.68
CCB-2 (B1-2)	17,387	0.399	7,338	0.168	10,049	0.231	42%	0.55
CCB-3 (B1-2)	37,854	0.869	12,783	0.293	25,071	0.576	34%	0.50
CCB-4 (B1-2)	10,038	0.230	3,836	0.088	6,202	0.142	38%	0.53
CCB-5 (B1-2)	10,946	0.251	9,401	0.216	1,545	0.035	86%	0.82
CCB-6 (B1-2)	14,607	0.335	12,560	0.288	2,047	0.047	86%	0.82
CCB-7 (B1-2)	7,585	0.174	6,343	0.146	1,242	0.029	84%	0.80
CCB-8 (B1-2)	5,192	0.119	3,985	0.091	1,207	0.028	77%	0.76
CCB-9 (B1-2)	16,313	0.374	13,149	0.302	3,164	0.073	81%	0.78
CCB-10 (B1-2)	16,434	0.377	14,457	0.332	1,977	0.045	88%	0.83
CCB-11 (B1-2)	6,347	0.146	5,951	0.137	396	0.009	94%	0.86

CCB-12 (B1-2)	15,948	0.366	3,926	0.090	12,022	0.276	25%	0.45
CLCB-1 (B1-3)	33,897	0.778	31,783	0.730	2,114	0.049	94%	0.86
CLCB-2 (B1-3)	41,067	0.943	41,067	0.943	0	0.000	100%	0.90
CLCB-3 (B1-3)	41,067	0.943	41,067	0.943	0	0.000	100%	0.90
CLCB-4 (B1-3)	41,067	0.943	41,067	0.943	0	0.000	100%	0.90
CLCB-5 (B1-3)	41,000	0.941	41,000	0.941	0	0.000	100%	0.90
CLCB-6 (B1-3)	41,000	0.941	41,000	0.941	0	0.000	100%	0.90
CLCB-7 (B1-3)	41,000	0.941	41,000	0.941	0	0.000	100%	0.90
DOUBLE CLCB-8 (B1-3)	45,941	1.055	38,415	0.882	7,526	0.173	84%	0.80
DOUBLE CLCB-9 (B1-3)	54,939	1.261	38,415	0.882	16,524	0.379	70%	0.72
CLCB-10 (B1-3)	39,400	0.904	39,400	0.904	0	0.000	100%	0.90
CLCB-11 (B1-3)	39,400	0.904	39,400	0.904	0	0.000	100%	0.90
CLCB-12 (B1-3)	39,400	0.904	39,400	0.904	0	0.000	100%	0.90
CLCB-13 (B1-3)	39,400	0.904	39,400	0.904	0	0.000	100%	0.90
CLCB-14 (B1-3)	39,400	0.904	39,400	0.904	0	0.000	100%	0.90
CLCB-15 (B1-3)	39,400	0.904	39,400	0.904	0	0.000	100%	0.90
RL-1 (B1-3)	22,960	0.527	22,960	0.527	0	0.000	100%	0.90
RL-2 (B1-3)	43,120	0.990	43,120	0.990	0	0.000	100%	0.90
RL-3 (B1-3)	89,040	2.044	89,040	2.044	0	0.000	100%	0.90
CCB-1 (A1-2)	33,485	0.769	29,602	0.680	3,883	0.089	88%	0.83
CCB-2 (A1-2)	32,600	0.748	29,748	0.683	2,852	0.065	91%	0.85
CCB-3 (A1-2)	28,003	0.643	28,003	0.643	0	0.000	100%	0.90
CLCB-4 (A1-2)	27,593	0.633	26,987	0.620	606	0.014	98%	0.89
CCB-5 (A1-2)	46,925	1.077	27,803	0.638	19,122	0.439	59%	0.66
CLCB-6 (A1-2)	42,002	0.964	42,002	0.964	0	0.000	100%	0.90
CLCB-7 (A1-2)	42,003	0.964	36,077	0.828	5,926	0.136	86%	0.82
CLCB-8 (A1-2)	42,000	0.964	41,067	0.943	933	0.021	98%	0.89
CLCB-9 (A1-2)	42,000	0.964	42,000	0.964	0	0.000	100%	0.90
CLCB-10 (A1-2)	42,000	0.964	42,000	0.964	0	0.000	100%	0.90
CLCB-11 (A1-2)	20,456	0.470	7,799	0.179	12,657	0.291	38%	0.53
DOUBLE CCB-12 (A1-2)	83,754	1.923	52,865	1.214	30,889	0.709	63%	0.68
CCB-13 (A1-2)	12,476	0.286	11,924	0.274	552	0.013	96%	0.87
RL-1 (A1-2)	43,120	0.990	43,120	0.990	0	0.000	100%	0.90
RL-2 (A1-2)	22,960	0.527	22,960	0.527	0	0.000	100%	0.90
RL-3 (A1-2)	66,080	1.517	66,080	1.517	0	0.000	100%	0.90
RL-4 (A1-2)	43,120	0.990	43,120	0.990	0	0.000	100%	0.90
RL-5 (A1-2)	22,960	0.527	22,960	0.527	0	0.000	100%	0.90
CCB-1 (A11-2)	46,308	1.063	22,476	0.516	23,832	0.547	49%	0.59
CCB-2 (A11-2)	22,145	0.508	21,227	0.487	918	0.021	96%	0.88
CCB-3 (A11-2)	31,821	0.731	5,531	0.127	26,290	0.604	17%	0.40
CCB-4 (A11-2)	40,566	0.931	40,263	0.924	303	0.007	99%	0.90
CCB-5 (A11-2)	43,730	1.004	40,015	0.919	3,715	0.085	92%	0.85
CLCB-6 (A11-2)	42,000	0.964	42,000	0.964	0	0.000	100%	0.90
CLCB-7 (A11-2)	40,189	0.923	40,189	0.923	0	0.000	100%	0.90
CCB-8 (A11-2)	25,830	0.593	20,618	0.473	5,212	0.120	80%	0.78
CLCB-9 (A11-2)	34,275	0.787	28,119	0.646	6,156	0.141	82%	0.79
CLCB-10 (A11-2)	30,400	0.698	24,247	0.557	6,153	0.141	80%	0.78
CCB-11 (A11-2)	7,762	0.178	5,993	0.138	1,769	0.041	77%	0.76
CLCB-12 (A11-2)	4,954	0.114	4,368	0.100	586	0.013	88%	0.83
CLCB-13 (A11-2)	31,945	0.733	28,105	0.645	3,840	0.088	88%	0.83
CLCB-14 (A11-2)	32,855	0.754	28,271	0.649	4,584	0.105	86%	0.82
CLCB-15 (A11-2)	49,535	1.137	40,312	0.925	9,223	0.212	81%	0.79
CLCB-16 (A11-2)	42,677	0.980	23,795	0.546	18,882	0.433	56%	0.63
CCB-17 (A11-2)	4,048	0.093	3,070	0.070	978	0.022	76%	0.76
CCB-18 (A11-2)	25,727	0.591	11,149	0.256	14,578	0.335	43%	0.56
CCB-19 (A11-2)	3,170	0.073	3,170	0.073	0	0.000	100%	0.90
CCB-20 (A11-2)	2,921	0.067	2,921	0.067	0	0.000	100%	0.90
RL-1 (A11-2)	43,120	0.990	43,120	0.990	0	0.000	100%	0.90
RL-2 (A11-2)	22,960	0.527	22,960	0.527	0	0.000	100%	0.90
RL-3 (A11-2)	43,120	0.990	43,120	0.990	0	0.000	100%	0.90
RL-4 (A11-2)	22,960	0.527	22,960	0.527	0	0.000	100%	0.90
RL-5 (A11-2)	43,120	0.990	43,120	0.990	0	0.000	100%	0.90
RL-6 (A11-2)	22,960	0.527	22,960	0.527	0	0.000	100%	0.90
RL-7 (A11-2)	43,120	0.990	43,120	0.990	0	0.000	100%	0.90

Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: Network A1-2.stm	Number of lines: 25	Date: 9/8/2022

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	105.427	-34.758	MH	0.00	0.00	0.00	0.0	116.00	0.50	116.53	72	Cir	0.012	0.69	134.95	PIPE-187
2	1	234.269	-39.525	MH	0.00	0.00	0.00	0.0	124.83	0.50	126.00	72	Cir	0.012	0.93	143.01	PIPE-246
3	2	244.168	-24.294	Grate	0.00	0.47	0.53	5.0	129.32	0.75	131.15	48	Cir	0.012	1.50	141.15	PIPE-284
4	3	369.000	90.000	MH	0.00	0.00	0.00	0.0	131.74	0.65	134.14	36	Cir	0.012	1.00	141.83	PIPE-263
5	4	111.666	-90.000	MH	0.00	0.00	0.00	0.0	134.14	0.65	134.87	30	Cir	0.012	1.00	141.83	PIPE-262
6	5	111.666	0.000	MH	0.00	0.00	0.00	0.0	134.87	0.64	135.59	30	Cir	0.012	1.00	141.83	PIPE-261
7	6	223.332	0.000	MH	0.00	0.00	0.00	0.0	135.59	0.75	137.27	24	Cir	0.012	1.00	141.83	PIPE-257
8	7	111.666	0.000	MH	0.00	0.00	0.00	0.0	137.27	0.75	138.11	18	Cir	0.012	1.00	141.78	PIPE-286
9	8	76.000	90.000	MH	0.00	0.99	0.90	5.0	138.11	2.49	140.00	10	Cir	0.012	1.00	143.00	PIPE-258
10	7	76.000	90.000	MH	0.00	0.53	0.90	5.0	137.27	3.59	140.00	8	Cir	0.012	1.00	143.00	PIPE-256
11	2	94.949	65.706	Comb	0.00	0.77	0.83	5.0	126.00	0.70	126.66	48	Cir	0.012	2.25	139.25	PIPE-194
12	11	90.632	102.716	Comb	0.00	0.29	0.87	5.0	136.00	0.75	136.68	12	Cir	0.012	1.00	141.38	PIPE-283
13	6	76.000	90.000	MH	0.00	1.52	0.90	5.0	135.59	5.80	140.00	12	Cir	0.012	1.00	143.00	PIPE-260
14	5	76.000	90.000	MH	0.00	0.99	0.90	5.0	134.76	6.89	140.00	10	Cir	0.012	1.00	143.00	PIPE-266
15	11	200.000	-89.995	Comb	0.00	0.75	0.85	5.0	126.67	0.75	128.17	48	Cir	0.012	1.50	139.25	PIPE-193
16	15	200.032	89.995	Grate	0.00	0.96	0.90	5.0	134.00	0.75	135.50	18	Cir	0.012	1.00	139.25	PIPE-180
17	11	200.051	0.000	Grate	0.00	0.96	0.90	5.0	134.00	0.75	135.50	18	Cir	0.012	1.00	139.25	PIPE-251
18	4	76.000	0.000	MH	0.00	0.53	0.90	5.0	133.92	8.00	140.00	8	Cir	0.012	1.00	143.00	PIPE-267
19	15	200.000	0.000	Comb	0.54	0.64	0.90	5.0	128.17	0.75	129.67	30	Cir	0.012	1.50	138.40	PIPE-192
20	19	200.000	0.004	Grate	0.00	0.63	0.89	5.0	130.15	0.75	131.65	24	Cir	0.012	1.50	138.40	PIPE-200
21	20	200.000	0.002	Comb	0.13	1.08	0.66	5.0	131.65	0.75	133.15	24	Cir	0.012	1.50	138.40	PIPE-199
22	21	200.000	89.997	Grate	0.00	0.96	0.90	5.0	133.15	0.75	134.65	18	Cir	0.012	1.00	139.25	PIPE-197
23	20	200.011	89.999	Grate	0.00	0.96	0.82	5.0	131.65	0.75	133.15	18	Cir	0.012	1.00	139.25	PIPE-198

Project File: Network A1-2.stm | Number of lines: 25 | Date: 9/8/2022

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	19	200.014	89.995	Grate	0.00	0.96	0.89	5.0	130.15	0.75	131.65	18	Cir	0.012	1.00	139.25	PIPE-179
25	3	197.110	0.000	MH	0.64	1.92	0.68	5.0	129.52	0.75	131.00	24	Cir	0.012	1.00	136.22	PIPE-196

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	PIPE-187	97.49	72	Cir	105.427	116.00	116.53	0.503	119.47	119.18	n/a	119.18	End	Manhole
2	PIPE-246	98.86	72	Cir	234.269	124.83	126.00	0.499	127.10	128.67	n/a	128.67	1	Manhole
3	PIPE-284	43.19	48	Cir	244.168	129.32	131.15	0.749	130.88	133.11	n/a	133.11	2	Grate
4	PIPE-263	31.72	36	Cir	369.000	131.74	134.14	0.650	133.32	135.97	0.77	135.97	3	Manhole
5	PIPE-262	28.29	30	Cir	111.666	134.14	134.87	0.654	135.97	136.68	n/a	136.68 j	4	Manhole
6	PIPE-261	21.57	30	Cir	111.666	134.87	135.59	0.645	136.68	137.17	n/a	137.17 j	5	Manhole
7	PIPE-257	11.09	24	Cir	223.332	135.59	137.27	0.752	137.17	138.46	n/a	138.46 j	6	Manhole
8	PIPE-286	7.32	18	Cir	111.666	137.27	138.11	0.752	138.46	139.16	n/a	139.16 j	7	Manhole
9	PIPE-258	7.35	10	Cir	76.000	138.11	140.00	2.487	139.16*	146.45*	2.82	149.27	8	Manhole
10	PIPE-256	3.93	8	Cir	76.000	137.27	140.00	3.592	138.46*	145.34*	1.97	147.31	7	Manhole
11	PIPE-194	57.04	48	Cir	94.949	126.00	126.66	0.695	128.67	128.93	n/a	128.93 j	2	Combination
12	PIPE-283	2.08	12	Cir	90.632	136.00	136.68	0.750	136.57	137.30	n/a	137.30	11	Combination
13	PIPE-260	11.28	12	Cir	76.000	135.59	140.00	5.803	137.17*	143.67*	3.21	146.88	6	Manhole
14	PIPE-266	7.35	10	Cir	76.000	134.76	140.00	6.895	136.68*	143.98*	2.82	146.80	5	Manhole
15	PIPE-193	44.79	48	Cir	200.000	126.67	128.17	0.750	128.93	130.17	n/a	130.17 j	11	Combination
16	PIPE-180	7.13	18	Cir	200.032	134.00	135.50	0.750	134.95	136.53	0.47	136.53	15	Grate
17	PIPE-251	7.13	18	Cir	200.051	134.00	135.50	0.750	134.95	136.53	0.47	136.53	11	Grate
18	PIPE-267	3.93	8	Cir	76.000	133.92	140.00	8.000	135.97*	142.84*	1.97	144.81	4	Manhole
19	PIPE-192	33.95	30	Cir	200.000	128.17	129.67	0.750	130.17	131.65	n/a	131.65 j	15	Combination
20	PIPE-200	22.83	24	Cir	200.000	130.15	131.65	0.750	132.15*	133.89*	1.23	135.12	19	Grate
21	PIPE-199	12.74	24	Cir	200.000	131.65	133.15	0.750	135.12*	135.66*	0.38	136.04	20	Combination
22	PIPE-197	7.13	18	Cir	200.000	133.15	134.65	0.750	136.04*	136.83*	0.25	137.08	21	Grate
23	PIPE-198	6.49	18	Cir	200.011	131.65	133.15	0.750	135.12*	135.77*	0.21	135.98	20	Grate
24	PIPE-179	7.05	18	Cir	200.014	130.15	131.65	0.750	131.65	132.68	n/a	132.68 j	19	Grate

Project File: Network A1-2.stm | Number of lines: 25 | Run Date: 9/8/2022

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
25	PIPE-196	11.41	24	Cir	197.110	129.52	131.00	0.751	133.11*	133.54*	0.20	133.75	3	Manhole

Project File: Network A1-2.stm | Number of lines: 25 | Run Date: 9/8/2022

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
1	End	105.427	0.00	15.91	0.00	0.00	13.27	0.0	8.7	7.2	97.49	325.4	6.92	72	0.50	116.00	116.53	119.47	119.18	122.42	134.95	PIPE-187
2	1	234.269	0.00	15.91	0.00	0.00	13.27	0.0	8.2	7.4	98.86	324.3	9.09	72	0.50	124.83	126.00	127.10	128.67	134.95	143.01	PIPE-246
3	2	244.168	0.47	6.95	0.53	0.25	5.66	5.0	7.6	7.5	43.19	134.7	8.29	48	0.75	129.32	131.15	130.88	133.11	143.01	141.15	PIPE-284
4	3	369.000	0.00	4.56	0.00	0.00	4.10	0.0	6.8	7.7	31.72	58.27	7.73	36	0.65	131.74	134.14	133.32	135.97	141.15	141.83	PIPE-263
5	4	111.666	0.00	4.03	0.00	0.00	3.63	0.0	6.5	7.8	28.29	35.92	7.40	30	0.65	134.14	134.87	135.97	136.68	141.83	141.83	PIPE-262
6	5	111.666	0.00	3.04	0.00	0.00	2.74	0.0	6.2	7.9	21.57	35.68	6.14	30	0.64	134.87	135.59	136.68	137.17	141.83	141.83	PIPE-261
7	6	223.332	0.00	1.52	0.00	0.00	1.37	0.0	5.5	8.1	11.09	21.25	4.92	24	0.75	135.59	137.27	137.17	138.46	141.83	141.83	PIPE-257
8	7	111.666	0.00	0.99	0.00	0.00	0.89	0.0	5.1	8.2	7.32	9.87	5.21	18	0.75	137.27	138.11	138.46	139.16	141.83	141.78	PIPE-286
9	8	76.000	0.99	0.99	0.90	0.89	0.89	5.0	5.0	8.2	7.35	3.74	13.47	10	2.49	138.11	140.00	139.16	146.45	141.78	143.00	PIPE-258
10	7	76.000	0.53	0.53	0.90	0.48	0.48	5.0	5.0	8.2	3.93	2.48	11.27	8	3.59	137.27	140.00	138.46	145.34	141.83	143.00	PIPE-256
11	2	94.949	0.77	8.96	0.83	0.64	7.61	5.0	8.0	7.4	57.04	129.7	7.07	48	0.70	126.00	126.66	128.67	128.93	143.01	139.25	PIPE-194
12	11	90.632	0.29	0.29	0.87	0.25	0.25	5.0	5.0	8.2	2.08	3.34	4.29	12	0.75	136.00	136.68	136.57	137.30	139.25	141.38	PIPE-283
13	6	76.000	1.52	1.52	0.90	1.37	1.37	5.0	5.0	8.2	11.28	9.29	14.37	12	5.80	135.59	140.00	137.17	143.67	141.83	143.00	PIPE-260
14	5	76.000	0.99	0.99	0.90	0.89	0.89	5.0	5.0	8.2	7.35	6.23	13.47	10	6.89	134.76	140.00	136.68	143.98	141.83	143.00	PIPE-266
15	11	200.000	0.75	6.94	0.85	0.64	5.86	5.0	7.5	7.5	44.79	134.8	6.62	48	0.75	126.67	128.17	128.93	130.17	139.25	139.25	PIPE-193
16	15	200.032	0.96	0.96	0.90	0.86	0.86	5.0	5.0	8.2	7.13	9.85	5.78	18	0.75	134.00	135.50	134.95	136.53	139.25	139.25	PIPE-180
17	11	200.051	0.96	0.96	0.90	0.86	0.86	5.0	5.0	8.2	7.13	9.85	5.78	18	0.75	134.00	135.50	134.95	136.53	139.25	139.25	PIPE-251
18	4	76.000	0.53	0.53	0.90	0.48	0.48	5.0	5.0	8.2	3.93	3.70	11.27	8	8.00	133.92	140.00	135.97	142.84	141.83	143.00	PIPE-267
19	15	200.000	0.64	5.23	0.90	0.58	4.36	5.0	7.1	7.6	33.95	38.48	8.10	30	0.75	128.17	129.67	130.17	131.65	139.25	138.40	PIPE-192
20	19	200.000	0.63	3.63	0.89	0.56	2.92	5.0	6.6	7.8	22.83	21.22	7.27	24	0.75	130.15	131.65	132.15	133.89	138.40	138.40	PIPE-200
21	20	200.000	1.08	2.04	0.66	0.71	1.58	5.0	5.8	8.0	12.74	21.22	4.05	24	0.75	131.65	133.15	135.12	135.66	138.40	138.40	PIPE-199
22	21	200.000	0.96	0.96	0.90	0.86	0.86	5.0	5.0	8.2	7.13	9.85	4.03	18	0.75	133.15	134.65	136.04	136.83	138.40	139.25	PIPE-197

Project File: Network A1-2.stm

Number of lines: 25

Run Date: 9/8/2022

NOTES:Intensity = 102.61 / (Inlet time + 16.50) ^ 0.82; Return period =Yrs. 25 ; c = cir e = ellip b = box

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
23	20	200.011	0.96	0.96	0.82	0.79	0.79	5.0	5.0	8.2	6.49	9.85	3.67	18	0.75	131.65	133.15	135.12	135.77	138.40	139.25	PIPE-198
24	19	200.014	0.96	0.96	0.89	0.85	0.85	5.0	5.0	8.2	7.05	9.85	4.73	18	0.75	130.15	131.65	131.65	132.68	138.40	139.25	PIPE-179
25	3	197.110	1.92	1.92	0.68	1.31	1.31	5.0	5.0	8.2	11.41	21.23	3.63	24	0.75	129.52	131.00	133.11	133.54	141.15	136.22	PIPE-196

Project File: Network A1-2.stm | Number of lines: 25 | Run Date: 9/8/2022

NOTES:Intensity = 102.61 / (Inlet time + 16.50) ^ 0.82; Return period =Yrs. 25 ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	72	97.49	116.00	119.47	3.47	12.06	5.75	1.02	120.49	0.000	105.427	116.53	119.18	2.65**	12.06	8.08	1.02	120.20	0.000	0.000	n/a	0.69	n/a
2	72	98.86	124.83	127.10	2.27*	9.83	10.06	1.02	128.13	0.000	234.269	126.00	128.67	2.67**	12.18	8.12	1.02	129.70	0.000	0.000	n/a	0.93	n/a
3	48	43.19	129.32	130.88	1.56*	4.53	9.53	0.77	131.65	0.000	244.168	131.15	133.11	1.96**	6.14	7.04	0.77	133.88	0.000	0.000	n/a	1.50	n/a
4	36	31.72	131.74	133.32	1.58*	3.77	8.42	0.77	134.09	0.000	369.000	134.14	135.97	1.83**	4.50	7.05	0.77	136.74	0.000	0.000	n/a	1.00	0.77
5	30	28.29	134.14	135.97	1.83	3.81	7.37	0.86	136.82	0.000	111.666	134.87	136.68 j	1.81**	3.81	7.42	0.86	137.54	0.000	0.000	n/a	1.00	0.86
6	30	21.57	134.87	136.68	1.81	3.26	5.66	0.68	137.36	0.000	111.666	135.59	137.17 j	1.58**	3.26	6.61	0.68	137.85	0.000	0.000	n/a	1.00	n/a
7	24	11.09	135.59	137.17	1.58	1.96	4.17	0.50	137.67	0.000	223.332	137.27	138.46 j	1.19**	1.96	5.67	0.50	138.96	0.000	0.000	n/a	1.00	n/a
8	18	7.32	137.27	138.46	1.19	1.32	4.86	0.48	138.94	0.000	111.666	138.11	139.16 j	1.05**	1.32	5.56	0.48	139.64	0.000	0.000	n/a	1.00	0.48
9	10	7.35	138.11	139.16	0.83	0.55	13.48	2.82	141.98	9.598	76.000	140.00	146.45	0.83**	0.55	13.47	2.82	149.27	9.595	9.596	7.293	1.00	2.82
10	8	3.93	137.27	138.46	0.67	0.35	11.27	1.98	140.44	9.045	76.000	140.00	145.34	0.67**	0.35	11.27	1.97	147.31	9.041	9.043	6.873	1.00	1.97
11	48	57.04	126.00	128.67	2.67	7.36	6.39	0.93	129.61	0.000	94.949	126.66	128.93 j	2.27**	7.36	7.75	0.93	129.86	0.000	0.000	n/a	2.25	n/a
12	12	2.08	136.00	136.57	0.57*	0.46	4.48	0.26	136.83	0.000	90.632	136.68	137.30	0.62**	0.51	4.10	0.26	137.56	0.000	0.000	n/a	1.00	n/a
13	12	11.28	135.59	137.17	1.00	0.79	14.37	3.21	140.38	8.556	76.000	140.00	143.67	1.00**	0.79	14.37	3.21	146.88	8.552	8.554	6.501	1.00	3.21
14	10	7.35	134.76	136.68	0.83	0.55	13.48	2.82	139.51	9.598	76.000	140.00	143.98	0.83**	0.55	13.47	2.82	146.80	9.595	9.596	7.293	1.00	2.82
15	48	44.79	126.67	128.93	2.26	6.29	6.12	0.79	129.72	0.000	200.000	128.17	130.17 j	2.00**	6.29	7.12	0.79	130.96	0.000	0.000	n/a	1.50	n/a
16	18	7.13	134.00	134.95	0.95*	1.17	6.07	0.47	135.41	0.000	200.032	135.50	136.53	1.03**	1.30	5.49	0.47	137.00	0.000	0.000	n/a	1.00	0.47
17	18	7.13	134.00	134.95	0.95*	1.17	6.07	0.47	135.41	0.000	200.051	135.50	136.53	1.03**	1.30	5.49	0.47	137.00	0.000	0.000	n/a	1.00	0.47
18	8	3.93	133.92	135.97	0.67	0.35	11.27	1.98	137.94	9.045	76.000	140.00	142.84	0.67**	0.35	11.27	1.97	144.81	9.041	9.043	6.873	1.00	1.97
19	30	33.95	128.17	130.17	2.00	4.17	8.06	1.03	131.20	0.000	200.000	129.67	131.65 j	1.98**	4.17	8.14	1.03	132.68	0.000	0.000	n/a	1.50	n/a
20	24	22.83	130.15	132.15	2.00*	3.14	7.27	0.82	132.97	0.869	200.000	131.65	133.89	2.00	3.14	7.27	0.82	134.71	0.868	0.868	1.737	1.50	1.23
21	24	12.74	131.65	135.12	2.00	3.14	4.06	0.26	135.37	0.270	200.000	133.15	135.66	2.00	3.14	4.05	0.26	135.91	0.270	0.270	0.541	1.50	0.38
22	18	7.13	133.15	136.04	1.50	1.77	4.03	0.25	136.30	0.392	200.000	134.65	136.83	1.50	1.77	4.03	0.25	137.08	0.392	0.392	0.785	1.00	0.25

Project File: Network A1-2.stm | Number of lines: 25 | Run Date: 9/8/2022

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

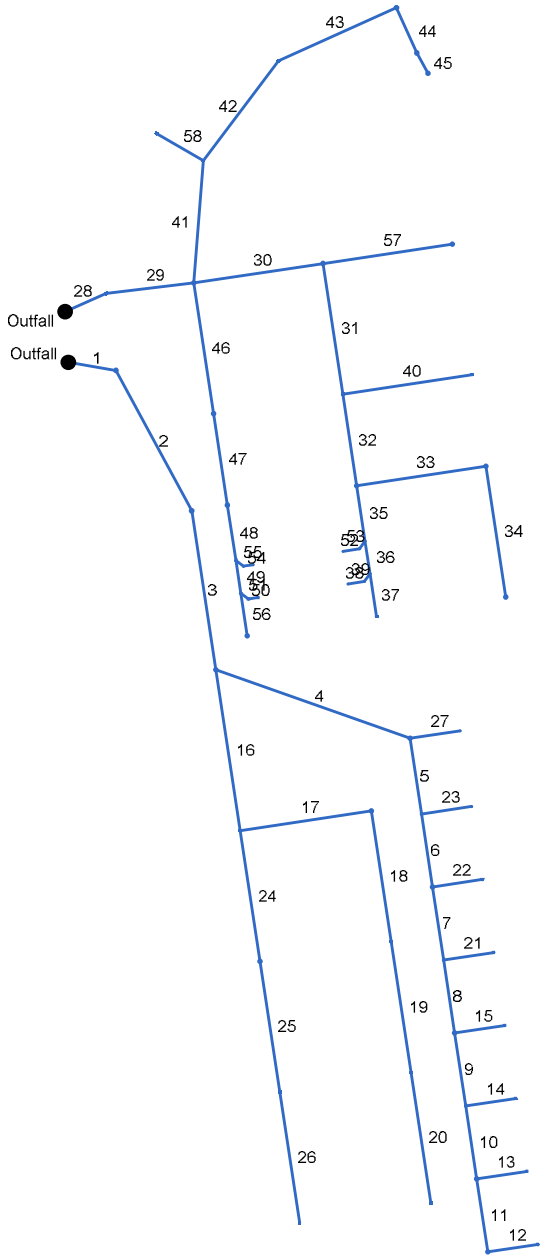
Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
23	18	6.49	131.65	135.12	1.50	1.77	3.67	0.21	135.33	0.326	200.011	133.15	135.77	1.50	1.77	3.67	0.21	135.98	0.326	0.326	0.652	1.00	0.21
24	18	7.05	130.15	131.65	1.50	1.29	3.99	0.46	132.11	0.000	200.014	131.65	132.68 j	1.03**	1.29	5.47	0.46	133.14	0.000	0.000	n/a	1.00	n/a
25	24	11.41	129.52	133.11	2.00	3.14	3.63	0.21	133.32	0.217	197.110	131.00	133.54	2.00	3.14	3.63	0.20	133.75	0.217	0.217	0.427	1.00	0.20

Project File: Network A1-2.stm | Number of lines: 25 | Run Date: 9/8/2022

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: Network A1-3.stm	Number of lines: 58	Date: 9/8/2022

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	73.112	9.575	MH	0.00	0.00	0.00	0.0	113.00	0.51	113.37	48	Cir	0.012	0.82	130.18	PIPE-291
2	1	241.161	52.210	MH	0.00	0.00	0.00	0.0	121.00	0.50	122.21	48	Cir	0.012	0.39	139.50	PIPE-278
3	2	243.302	19.638	MH	0.00	0.00	0.00	0.0	125.58	0.50	126.80	48	Cir	0.012	0.90	141.05	PIPE-285
4	3	310.552	-61.921	MH	0.00	0.00	0.00	0.0	127.40	0.75	129.73	30	Cir	0.012	0.90	141.86	PIPE-219
5	4	115.838	61.921	MH	0.00	0.00	0.00	0.0	131.86	0.75	132.73	30	Cir	0.012	1.00	141.86	PIPE-221
6	5	111.666	0.000	MH	0.00	0.00	0.00	0.0	132.73	0.75	133.57	30	Cir	0.012	1.00	141.83	PIPE-218
7	6	111.666	0.000	MH	0.00	0.00	0.00	0.0	133.56	0.75	134.40	30	Cir	0.012	1.00	141.83	PIPE-217
8	7	111.666	0.000	MH	0.00	0.00	0.00	0.0	134.40	0.75	135.24	30	Cir	0.012	1.00	141.83	PIPE-216
9	8	111.666	0.000	MH	0.00	0.00	0.00	0.0	135.24	0.75	136.08	24	Cir	0.012	1.00	141.83	PIPE-215
10	9	111.666	0.000	MH	0.00	0.00	0.00	0.0	136.08	0.74	136.91	24	Cir	0.012	1.00	141.83	PIPE-274
11	10	111.666	0.000	MH	0.00	0.00	0.00	0.0	136.91	0.75	137.75	18	Cir	0.012	1.00	141.83	PIPE-273
12	11	76.000	-90.000	MH	0.00	0.53	0.90	5.0	137.75	2.96	140.00	8	Cir	0.012	1.00	143.00	PIPE-272
13	10	76.000	-90.000	MH	0.00	0.99	0.90	5.0	136.91	4.07	140.00	10	Cir	0.012	1.00	143.00	PIPE-275
14	9	76.000	-90.000	MH	0.00	0.53	0.90	5.0	136.08	5.16	140.00	8	Cir	0.012	1.00	143.00	PIPE-214
15	8	76.000	-90.000	MH	0.00	0.99	0.90	5.0	135.24	6.26	140.00	10	Cir	0.012	1.00	143.00	PIPE-225
16	3	246.173	0.000	Comb	0.00	0.88	0.90	5.0	127.40	0.75	129.25	36	Cir	0.012	1.50	138.40	PIPE-163
17	16	200.000	-90.000	MH	0.00	1.24	0.86	5.0	129.25	0.75	130.75	36	Cir	0.012	1.00	140.62	PIPE-154
18	17	200.000	90.000	Grate	0.00	0.96	0.90	5.0	130.75	0.75	132.25	30	Cir	0.012	0.50	139.25	PIPE-153
19	18	200.000	0.000	Grate	0.00	0.96	0.90	5.0	132.25	0.75	133.75	24	Cir	0.012	0.50	139.25	PIPE-152
20	19	200.000	0.000	Grate	0.38	0.96	0.90	5.0	133.75	0.75	135.25	24	Cir	0.012	1.00	139.25	PIPE-151
21	7	76.000	-90.000	MH	0.00	0.53	0.90	5.0	134.40	7.37	140.00	8	Cir	0.012	1.00	143.00	PIPE-224
22	6	76.000	-90.000	MH	0.00	0.99	0.90	5.0	133.57	8.46	140.00	10	Cir	0.012	1.00	143.00	PIPE-223
23	5	76.000	-90.000	MH	0.00	0.53	0.90	5.0	132.73	9.57	140.00	8	Cir	0.012	1.00	143.00	PIPE-222

Project File: Network A1-3.stm | Number of lines: 58 | Date: 9/8/2022

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	16	200.002	0.000	Comb	0.00	0.64	0.90	5.0	129.25	0.75	130.75	24	Cir	0.012	0.50	138.40	PIPE-162
25	24	199.998	0.000	Comb	0.00	0.64	0.90	5.0	130.75	0.75	132.25	24	Cir	0.012	0.50	138.40	PIPE-161
26	25	200.000	0.000	Comb	0.00	0.77	0.80	5.0	132.25	0.75	133.75	18	Cir	0.012	1.00	138.40	PIPE-160
27	4	76.000	-28.079	MH	0.00	0.99	0.90	5.0	131.86	10.71	140.00	10	Cir	0.012	1.00	143.00	PIPE-220
28	End	67.781	-24.295	MH	0.00	0.00	0.00	0.0	113.00	0.50	113.34	60	Cir	0.012	0.35	132.40	PIPE-279
29	28	133.092	17.520	Grate	0.00	0.73	0.84	5.0	124.33	0.50	125.00	60	Cir	0.012	1.50	139.57	PIPE-171
30	29	197.000	-1.802	MH	0.00	1.39	0.68	5.0	128.50	0.75	129.97	48	Cir	0.012	1.00	139.57	PIPE-170
31	30	200.000	90.000	Grate	0.00	0.90	0.90	5.0	129.97	0.75	131.47	36	Cir	0.012	1.50	138.67	PIPE-168
32	31	140.000	0.000	Grate	0.00	0.82	0.90	5.0	131.47	0.75	132.52	30	Cir	0.012	1.50	138.67	PIPE-167
33	32	197.000	-90.000	Grate	0.00	0.90	0.90	5.0	132.52	0.75	134.00	24	Cir	0.012	1.50	138.67	PIPE-175
34	33	200.000	90.000	Grate	0.00	0.90	0.90	5.0	134.00	0.75	135.50	15	Cir	0.012	1.00	139.57	PIPE-177
35	32	84.982	0.000	MH	0.00	0.00	0.00	0.0	132.52	0.75	133.16	15	Cir	0.012	0.75	139.95	PIPE-169
36	35	50.000	0.000	MH	0.00	0.00	0.00	0.0	133.16	0.76	133.54	15	Cir	0.012	0.75	140.55	PIPE-295
37	36	65.018	0.000	Grate	0.00	0.85	0.90	5.0	133.54	0.74	134.02	15	Cir	0.012	1.00	139.57	PIPE-294
38	36	14.142	45.000	MH	0.00	0.00	0.00	0.0	133.54	0.99	133.68	8	Cir	0.012	0.75	140.55	PIPE-297
39	38	25.001	45.000	MH	0.00	0.08	0.90	5.0	133.68	9.28	136.00	8	Cir	0.012	1.00	140.92	PIPE-296
40	31	197.000	-90.000	Grate	0.00	0.90	0.90	5.0	133.12	0.75	134.60	18	Cir	0.012	1.00	138.67	PIPE-176
41	29	185.656	-78.809	Comb	0.00	0.56	0.64	5.0	128.50	0.75	129.89	24	Cir	0.012	1.38	141.80	PIPE-227
42	41	189.071	32.469	Comb	0.00	0.33	0.66	5.0	129.89	0.75	131.31	24	Cir	0.012	0.81	143.94	PIPE-228
43	42	194.929	28.854	Comb	0.00	0.47	0.55	5.0	131.31	0.75	132.77	18	Cir	0.012	1.50	145.89	PIPE-271
44	43	75.028	90.000	Comb	0.00	0.25	0.89	5.0	132.77	0.75	133.33	12	Cir	0.012	0.50	146.33	PIPE-229
45	44	35.055	-3.952	Grate	0.00	0.98	0.45	5.0	133.33	0.74	133.59	12	Cir	0.012	1.00	145.37	PIPE-290
46	29	200.000	88.198	Grate	0.00	0.79	0.90	5.0	128.50	0.75	130.00	30	Cir	0.012	0.50	138.67	PIPE-173

Project File: Network A1-3.stm | Number of lines: 58 | Date: 9/8/2022

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
47	46	140.000	0.000	Grate	0.00	0.69	0.90	5.0	130.00	0.75	131.05	18	Cir	0.012	0.50	138.67	PIPE-172
48	47	84.998	0.000	MH	0.00	0.00	0.00	0.0	131.05	0.74	131.68	15	Cir	0.012	0.75	139.95	PIPE-174
49	48	50.000	0.000	MH	0.00	0.00	0.00	0.0	131.68	0.76	132.06	15	Cir	0.012	0.75	140.55	PIPE-302
50	49	14.142	-45.000	MH	0.00	0.00	0.00	0.0	132.06	9.97	133.47	8	Cir	0.012	0.75	140.55	PIPE-304
51	50	14.500	-45.000	MH	0.00	0.08	0.90	5.0	133.47	17.45	136.00	8	Cir	0.012	1.00	140.77	PIPE-303
52	35	14.142	45.000	MH	0.00	0.00	0.00	0.0	133.16	0.99	133.30	8	Cir	0.012	0.75	140.25	PIPE-300
53	52	25.001	45.000	MH	0.00	0.08	0.90	5.0	133.30	10.80	136.00	8	Cir	0.012	1.00	140.62	PIPE-299
54	48	14.142	-45.000	MH	0.00	0.00	0.00	0.0	131.68	10.04	133.10	8	Cir	0.012	0.75	140.25	PIPE-306
55	54	14.500	-45.000	MH	0.00	0.08	0.90	5.0	133.10	20.00	136.00	8	Cir	0.012	1.00	140.47	PIPE-305
56	49	65.002	0.000	Grate	0.00	0.65	0.90	5.0	132.06	0.74	132.54	15	Cir	0.012	1.00	139.57	PIPE-301
57	30	197.000	0.000	MH	0.00	1.22	0.73	5.0	129.97	0.75	131.45	18	Cir	0.012	1.00	139.57	PIPE-178
58	41	81.840	-64.130	Grate	0.00	0.64	0.71	5.0	129.89	0.75	130.50	12	Cir	0.012	1.00	141.47	PIPE-226

Project File: Network A1-3.stm | Number of lines: 58 | Date: 9/8/2022

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	PIPE-291	84.64	48	Cir	73.112	113.00	113.37	0.506	118.38*	118.60*	0.58	119.17	End	Manhole
2	PIPE-278	85.83	48	Cir	241.161	121.00	122.21	0.502	123.65	125.02	n/a	125.02	1	Manhole
3	PIPE-285	87.05	48	Cir	243.302	125.58	126.80	0.501	128.26	129.63	n/a	129.63	2	Manhole
4	PIPE-219	41.43	30	Cir	310.552	127.40	129.73	0.750	129.90*	132.60*	1.00	133.59	3	Manhole
5	PIPE-221	34.95	30	Cir	115.838	131.86	132.73	0.751	133.73	134.74	1.07	134.74	4	Manhole
6	PIPE-218	31.58	30	Cir	111.666	132.73	133.57	0.752	134.74	135.48	n/a	135.48 j	5	Manhole
7	PIPE-217	24.97	30	Cir	111.666	133.56	134.40	0.752	135.48	136.10	n/a	136.10 j	6	Manhole
8	PIPE-216	21.49	30	Cir	111.666	134.40	135.24	0.752	136.10	136.81	n/a	136.81 j	7	Manhole
9	PIPE-215	14.66	24	Cir	111.666	135.24	136.08	0.752	136.81	137.46	n/a	137.46 j	8	Manhole
10	PIPE-274	11.01	24	Cir	111.666	136.08	136.91	0.743	137.46	138.10	n/a	138.10 j	9	Manhole
11	PIPE-273	3.92	18	Cir	111.666	136.91	137.75	0.752	138.10	138.51	n/a	138.51 j	10	Manhole
12	PIPE-272	3.93	8	Cir	76.000	137.75	140.00	2.961	138.51*	145.38*	1.97	147.35	11	Manhole
13	PIPE-275	7.35	10	Cir	76.000	136.91	140.00	4.066	138.10*	145.39*	2.82	148.22	10	Manhole
14	PIPE-214	3.93	8	Cir	76.000	136.08	140.00	5.158	137.46*	144.33*	1.97	146.31	9	Manhole
15	PIPE-225	7.35	10	Cir	76.000	135.24	140.00	6.263	136.81*	144.11*	2.82	146.93	8	Manhole
16	PIPE-163	47.26	36	Cir	246.173	127.40	129.25	0.752	129.63	131.49	n/a	131.49	3	Combination
17	PIPE-154	28.50	36	Cir	200.000	129.25	130.75	0.750	131.49	132.48	n/a	132.48 j	16	Manhole
18	PIPE-153	20.69	30	Cir	200.000	130.75	132.25	0.750	132.48	133.79	n/a	133.79 j	17	Grate
19	PIPE-152	14.21	24	Cir	200.000	132.25	133.75	0.750	133.79	135.11	n/a	135.11 j	18	Grate
20	PIPE-151	7.51	24	Cir	200.000	133.75	135.25	0.750	135.11	136.22	n/a	136.22 j	19	Grate
21	PIPE-224	3.93	8	Cir	76.000	134.40	140.00	7.368	136.10*	142.97*	1.97	144.95	7	Manhole
22	PIPE-223	7.35	10	Cir	76.000	133.57	140.00	8.461	135.48*	142.78*	2.82	145.60	6	Manhole
23	PIPE-222	3.93	8	Cir	76.000	132.73	140.00	9.566	134.74*	141.61*	1.97	143.58	5	Manhole
24	PIPE-162	13.80	24	Cir	200.002	129.25	130.75	0.750	131.49	132.09	n/a	132.09 j	16	Combination

Project File: Network A1-3.stm | Number of lines: 58 | Run Date: 9/8/2022

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
25	PIPE-161	9.54	24	Cir	199.998	130.75	132.25	0.750	132.09	133.35	n/a	133.35 j	24	Combination
26	PIPE-160	5.08	18	Cir	200.000	132.25	133.75	0.750	133.35	134.62	n/a	134.62 j	25	Combination
27	PIPE-220	7.35	10	Cir	76.000	131.86	140.00	10.711	133.59	140.83	2.82	143.66	4	Manhole
28	PIPE-279	85.03	60	Cir	67.781	113.00	113.34	0.502	118.38*	118.44*	0.10	118.54	End	Manhole
29	PIPE-171	85.75	60	Cir	133.092	124.33	125.00	0.503	126.62	127.62	1.57	127.62	28	Grate
30	PIPE-170	51.46	48	Cir	197.000	128.50	129.97	0.746	130.22	132.12	0.87	132.12	29	Manhole
31	PIPE-168	38.01	36	Cir	200.000	129.97	131.47	0.750	132.12	133.47	n/a	133.47 j	30	Grate
32	PIPE-167	25.74	30	Cir	140.000	131.47	132.52	0.750	133.47	134.25	n/a	134.25 j	31	Grate
33	PIPE-175	13.06	24	Cir	197.000	132.52	134.00	0.751	134.25	135.30	n/a	135.30 j	32	Grate
34	PIPE-177	6.68	15	Cir	200.000	134.00	135.50	0.750	135.30*	137.12*	0.46	137.58	33	Grate
35	PIPE-169	7.35	15	Cir	84.982	132.52	133.16	0.753	134.25*	135.19*	0.42	135.61	32	Manhole
36	PIPE-295	6.81	15	Cir	50.000	133.16	133.54	0.760	135.61*	136.08*	0.36	136.44	35	Manhole
37	PIPE-294	6.31	15	Cir	65.018	133.54	134.02	0.738	136.44*	136.97*	0.41	137.38	36	Grate
38	PIPE-297	0.59	8	Cir	14.142	133.54	133.68	0.990	136.44*	136.47*	0.03	136.50	36	Manhole
39	PIPE-296	0.59	8	Cir	25.001	133.68	136.00	9.280	136.50	136.54	0.06	136.60	38	Manhole
40	PIPE-176	6.68	18	Cir	197.000	133.12	134.60	0.751	134.03	135.60	n/a	135.60	31	Grate
41	PIPE-227	15.19	24	Cir	185.656	128.50	129.89	0.749	129.75	131.29	n/a	131.29	29	Combination
42	PIPE-228	9.09	24	Cir	189.071	129.89	131.31	0.751	131.29	132.39	n/a	132.39 j	41	Combination
43	PIPE-271	7.52	18	Cir	194.929	131.31	132.77	0.749	132.39	133.83	n/a	133.83 j	42	Combination
44	PIPE-229	5.45	12	Cir	75.028	132.77	133.33	0.746	133.83*	135.33*	0.37	135.70	43	Combination
45	PIPE-290	3.64	12	Cir	35.055	133.33	133.59	0.742	135.70*	136.01*	0.33	136.35	44	Grate
46	PIPE-173	16.29	30	Cir	200.000	128.50	130.00	0.750	129.64	131.36	n/a	131.36	29	Grate
47	PIPE-172	10.82	18	Cir	140.000	130.00	131.05	0.750	131.50*	132.77*	0.29	133.06	46	Grate
48	PIPE-174	5.91	15	Cir	84.998	131.05	131.68	0.741	133.06*	133.66*	0.27	133.94	47	Manhole

Project File: Network A1-3.stm | Number of lines: 58 | Run Date: 9/8/2022

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
49	PIPE-302	5.36	15	Cir	50.000	131.68	132.06	0.760	133.94*	134.23*	0.22	134.45	48	Manhole
50	PIPE-304	0.59	8	Cir	14.142	132.06	133.47	9.970	134.45*	134.48*	0.03	134.51	49	Manhole
51	PIPE-303	0.59	8	Cir	14.500	133.47	136.00	17.448	134.51	136.36	n/a	136.36 j	50	Manhole
52	PIPE-300	0.59	8	Cir	14.142	133.16	133.30	0.990	135.61*	135.63*	0.03	135.67	35	Manhole
53	PIPE-299	0.59	8	Cir	25.001	133.30	136.00	10.800	135.67	136.36	n/a	136.36 j	52	Manhole
54	PIPE-306	0.59	8	Cir	14.142	131.68	133.10	10.041	133.94*	133.96*	0.03	134.00	48	Manhole
55	PIPE-305	0.59	8	Cir	14.500	133.10	136.00	20.000	134.00	136.36	n/a	136.36 j	54	Manhole
56	PIPE-301	4.82	15	Cir	65.002	132.06	132.54	0.738	134.45*	134.76*	0.24	135.00	49	Grate
57	PIPE-178	7.35	18	Cir	197.000	129.97	131.45	0.751	132.12	132.88	0.28	133.16	30	Manhole
58	PIPE-226	3.75	12	Cir	81.840	129.89	130.50	0.745	131.29*	132.07*	0.35	132.42	41	Grate

Project File: Network A1-3.stm | Number of lines: 58 | Run Date: 9/8/2022

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
1	End	73.112	0.00	13.13	0.00	0.00	11.69	0.0	8.8	7.2	84.64	110.7	6.74	48	0.51	113.00	113.37	118.38	118.60	117.33	130.18	PIPE-291
2	1	241.161	0.00	13.13	0.00	0.00	11.69	0.0	8.4	7.3	85.83	110.2	9.40	48	0.50	121.00	122.21	123.65	125.02	130.18	139.50	PIPE-278
3	2	243.302	0.00	13.13	0.00	0.00	11.69	0.0	8.0	7.4	87.05	110.2	9.45	48	0.50	125.58	126.80	128.26	129.63	139.50	141.05	PIPE-285
4	3	310.552	0.00	6.08	0.00	0.00	5.47	0.0	7.4	7.6	41.43	38.48	8.44	30	0.75	127.40	129.73	129.90	132.60	141.05	141.86	PIPE-219
5	4	115.838	0.00	5.09	0.00	0.00	4.58	0.0	7.1	7.6	34.95	38.50	8.58	30	0.75	131.86	132.73	133.73	134.74	141.86	141.86	PIPE-221
6	5	111.666	0.00	4.56	0.00	0.00	4.10	0.0	6.9	7.7	31.58	38.53	7.66	30	0.75	132.73	133.57	134.74	135.48	141.86	141.83	PIPE-218
7	6	111.666	0.00	3.57	0.00	0.00	3.21	0.0	6.6	7.8	24.97	38.53	6.59	30	0.75	133.56	134.40	135.48	136.10	141.83	141.83	PIPE-217
8	7	111.666	0.00	3.04	0.00	0.00	2.74	0.0	6.3	7.9	21.49	38.53	6.32	30	0.75	134.40	135.24	136.10	136.81	141.83	141.83	PIPE-216
9	8	111.666	0.00	2.05	0.00	0.00	1.85	0.0	6.0	7.9	14.66	21.25	5.94	24	0.75	135.24	136.08	136.81	137.46	141.83	141.83	PIPE-215
10	9	111.666	0.00	1.52	0.00	0.00	1.37	0.0	5.6	8.0	11.01	21.12	5.21	24	0.74	136.08	136.91	137.46	138.10	141.83	141.83	PIPE-274
11	10	111.666	0.00	0.53	0.00	0.00	0.48	0.0	5.1	8.2	3.92	9.87	3.50	18	0.75	136.91	137.75	138.10	138.51	141.83	141.83	PIPE-273
12	11	76.000	0.53	0.53	0.90	0.48	0.48	5.0	5.0	8.2	3.93	2.25	11.27	8	2.96	137.75	140.00	138.51	145.38	141.83	143.00	PIPE-272
13	10	76.000	0.99	0.99	0.90	0.89	0.89	5.0	5.0	8.2	7.35	4.78	13.47	10	4.07	136.91	140.00	138.10	145.39	141.83	143.00	PIPE-275
14	9	76.000	0.53	0.53	0.90	0.48	0.48	5.0	5.0	8.2	3.93	2.97	11.27	8	5.16	136.08	140.00	137.46	144.33	141.83	143.00	PIPE-214
15	8	76.000	0.99	0.99	0.90	0.89	0.89	5.0	5.0	8.2	7.35	5.94	13.47	10	6.26	135.24	140.00	136.81	144.11	141.83	143.00	PIPE-225
16	3	246.173	0.88	7.05	0.90	0.79	6.22	5.0	7.5	7.5	47.26	62.63	8.38	36	0.75	127.40	129.25	129.63	131.49	141.05	138.40	PIPE-163
17	16	200.000	1.24	4.12	0.86	1.07	3.66	5.0	6.9	7.7	28.50	62.57	5.91	36	0.75	129.25	130.75	131.49	132.48	138.40	140.62	PIPE-154
18	17	200.000	0.96	2.88	0.90	0.86	2.59	5.0	6.4	7.8	20.69	38.48	6.11	30	0.75	130.75	132.25	132.48	133.79	140.62	139.25	PIPE-153
19	18	200.000	0.96	1.92	0.90	0.86	1.73	5.0	5.8	8.0	14.21	21.22	5.86	24	0.75	132.25	133.75	133.79	135.11	139.25	139.25	PIPE-152
20	19	200.000	0.96	0.96	0.90	0.86	0.86	5.0	5.0	8.2	7.51	21.22	4.13	24	0.75	133.75	135.25	135.11	136.22	139.25	139.25	PIPE-151
21	7	76.000	0.53	0.53	0.90	0.48	0.48	5.0	5.0	8.2	3.93	3.55	11.27	8	7.37	134.40	140.00	136.10	142.97	141.83	143.00	PIPE-224
22	6	76.000	0.99	0.99	0.90	0.89	0.89	5.0	5.0	8.2	7.35	6.90	13.47	10	8.46	133.57	140.00	135.48	142.78	141.83	143.00	PIPE-223

Project File: Network A1-3.stm

Number of lines: 58

Run Date: 9/8/2022

NOTES:Intensity = 102.61 / (Inlet time + 16.50) ^ 0.82; Return period =Yrs. 25 ; c = cir e = ellip b = box

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
23	5	76.000	0.53	0.53	0.90	0.48	0.48	5.0	5.0	8.2	3.93	4.05	11.27	8	9.57	132.73	140.00	134.74	141.61	141.86	143.00	PIPE-222
24	16	200.002	0.64	2.05	0.90	0.58	1.77	5.0	6.5	7.8	13.80	21.22	5.29	24	0.75	129.25	130.75	131.49	132.09	138.40	138.40	PIPE-162
25	24	199.998	0.64	1.41	0.90	0.58	1.19	5.0	5.8	8.0	9.54	21.22	4.82	24	0.75	130.75	132.25	132.09	133.35	138.40	138.40	PIPE-161
26	25	200.000	0.77	0.77	0.80	0.62	0.62	5.0	5.0	8.2	5.08	9.85	4.22	18	0.75	132.25	133.75	133.35	134.62	138.40	138.40	PIPE-160
27	4	76.000	0.99	0.99	0.90	0.89	0.89	5.0	5.0	8.2	7.35	7.76	13.47	10	10.71	131.86	140.00	133.59	140.83	141.86	143.00	PIPE-220
28	End	67.781	0.00	14.29	0.00	0.00	11.35	0.0	7.7	7.5	85.03	199.8	4.33	60	0.50	113.00	113.34	118.38	118.44	118.38	132.40	PIPE-279
29	28	133.092	0.73	14.29	0.84	0.61	11.35	5.0	7.4	7.6	85.75	200.2	9.01	60	0.50	124.33	125.00	126.62	127.62	132.40	139.57	PIPE-171
30	29	197.000	1.39	8.04	0.68	0.95	6.72	5.0	7.0	7.7	51.46	134.4	8.72	48	0.75	128.50	129.97	130.22	132.12	139.57	139.57	PIPE-170
31	30	200.000	0.90	5.43	0.90	0.81	4.89	5.0	6.6	7.8	38.01	62.57	7.29	36	0.75	129.97	131.47	132.12	133.47	139.57	138.67	PIPE-168
32	31	140.000	0.82	3.63	0.90	0.74	3.27	5.0	6.2	7.9	25.74	38.48	6.61	30	0.75	131.47	132.52	133.47	134.25	138.67	138.67	PIPE-167
33	32	197.000	0.90	1.80	0.90	0.81	1.62	5.0	5.6	8.1	13.06	21.24	5.29	24	0.75	132.52	134.00	134.25	135.30	138.67	138.67	PIPE-175
34	33	200.000	0.90	0.90	0.90	0.81	0.81	5.0	5.0	8.2	6.68	6.06	5.44	15	0.75	134.00	135.50	135.30	137.12	138.67	139.57	PIPE-177
35	32	84.982	0.00	1.01	0.00	0.00	0.91	0.0	5.5	8.1	7.35	6.07	5.99	15	0.75	132.52	133.16	134.25	135.19	138.67	139.95	PIPE-169
36	35	50.000	0.00	0.93	0.00	0.00	0.84	0.0	5.4	8.1	6.81	6.10	5.55	15	0.76	133.16	133.54	135.61	136.08	139.95	140.55	PIPE-295
37	36	65.018	0.85	0.85	0.90	0.77	0.77	5.0	5.0	8.2	6.31	6.01	5.14	15	0.74	133.54	134.02	136.44	136.97	140.55	139.57	PIPE-294
38	36	14.142	0.00	0.08	0.00	0.00	0.07	0.0	5.2	8.2	0.59	1.30	1.69	8	0.99	133.54	133.68	136.44	136.47	140.55	140.55	PIPE-297
39	38	25.001	0.08	0.08	0.90	0.07	0.07	5.0	5.0	8.2	0.59	3.99	1.84	8	9.28	133.68	136.00	136.50	136.54	140.55	140.92	PIPE-296
40	31	197.000	0.90	0.90	0.90	0.81	0.81	5.0	5.0	8.2	6.68	9.86	5.67	18	0.75	133.12	134.60	134.03	135.60	138.67	138.67	PIPE-176
41	29	185.656	0.56	3.23	0.64	0.36	1.95	5.0	6.6	7.8	15.19	21.20	6.89	24	0.75	128.50	129.89	129.75	131.29	139.57	141.80	PIPE-227
42	41	189.071	0.33	2.03	0.66	0.22	1.14	5.0	5.9	8.0	9.09	21.23	4.57	24	0.75	129.89	131.31	131.29	132.39	141.80	143.94	PIPE-228
43	42	194.929	0.47	1.70	0.55	0.26	0.92	5.0	5.3	8.2	7.52	9.85	5.58	18	0.75	131.31	132.77	132.39	133.83	143.94	145.89	PIPE-271
44	43	75.028	0.25	1.23	0.89	0.22	0.66	5.0	5.1	8.2	5.45	3.33	6.93	12	0.75	132.77	133.33	133.83	135.33	145.89	146.33	PIPE-229

Project File: Network A1-3.stm | Number of lines: 58 | Run Date: 9/8/2022

NOTES:Intensity = 102.61 / (Inlet time + 16.50) ^ 0.82; Return period =Yrs. 25 ; c = cir e = ellip b = box

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
45	44	35.055	0.98	0.98	0.45	0.44	0.44	5.0	5.0	8.2	3.64	3.32	4.63	12	0.74	133.33	133.59	135.70	136.01	146.33	145.37	PIPE-290
46	29	200.000	0.79	2.29	0.90	0.71	2.06	5.0	6.1	7.9	16.29	38.48	6.73	30	0.75	128.50	130.00	129.64	131.36	139.57	138.67	PIPE-173
47	46	140.000	0.69	1.50	0.90	0.62	1.35	5.0	5.8	8.0	10.82	9.85	6.12	18	0.75	130.00	131.05	131.50	132.77	138.67	138.67	PIPE-172
48	47	84.998	0.00	0.81	0.00	0.00	0.73	0.0	5.5	8.1	5.91	6.02	4.81	15	0.74	131.05	131.68	133.06	133.66	138.67	139.95	PIPE-174
49	48	50.000	0.00	0.73	0.00	0.00	0.66	0.0	5.3	8.2	5.36	6.10	4.37	15	0.76	131.68	132.06	133.94	134.23	139.95	140.55	PIPE-302
50	49	14.142	0.00	0.08	0.00	0.00	0.07	0.0	5.1	8.2	0.59	4.13	1.69	8	9.97	132.06	133.47	134.45	134.48	140.55	140.55	PIPE-304
51	50	14.500	0.08	0.08	0.90	0.07	0.07	5.0	5.0	8.2	0.59	5.47	2.38	8	17.45	133.47	136.00	134.51	136.36	140.55	140.77	PIPE-303
52	35	14.142	0.00	0.08	0.00	0.00	0.07	0.0	5.2	8.2	0.59	1.30	1.69	8	0.99	133.16	133.30	135.61	135.63	139.95	140.25	PIPE-300
53	52	25.001	0.08	0.08	0.90	0.07	0.07	5.0	5.0	8.2	0.59	4.30	2.38	8	10.80	133.30	136.00	135.67	136.36	140.25	140.62	PIPE-299
54	48	14.142	0.00	0.08	0.00	0.00	0.07	0.0	5.1	8.2	0.59	4.15	1.69	8	10.04	131.68	133.10	133.94	133.96	139.95	140.25	PIPE-306
55	54	14.500	0.08	0.08	0.90	0.07	0.07	5.0	5.0	8.2	0.59	5.85	2.38	8	20.00	133.10	136.00	134.00	136.36	140.25	140.47	PIPE-305
56	49	65.002	0.65	0.65	0.90	0.59	0.59	5.0	5.0	8.2	4.82	6.01	3.93	15	0.74	132.06	132.54	134.45	134.76	140.55	139.57	PIPE-301
57	30	197.000	1.22	1.22	0.73	0.89	0.89	5.0	5.0	8.2	7.35	9.86	4.19	18	0.75	129.97	131.45	132.12	132.88	139.57	139.57	PIPE-178
58	41	81.840	0.64	0.64	0.71	0.45	0.45	5.0	5.0	8.2	3.75	3.33	4.77	12	0.75	129.89	130.50	131.29	132.07	141.80	141.47	PIPE-226

Project File: Network A1-3.stm | Number of lines: 58 | Run Date: 9/8/2022

NOTES:Intensity = 102.61 / (Inlet time + 16.50) ^ 0.82; Return period =Yrs. 25 ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	48	84.64	113.00	118.38	4.00	12.56	6.74	0.71	119.09	0.296	73.112	113.37	118.60	4.00	12.57	6.74	0.71	119.30	0.296	0.296	0.216	0.82	0.58
2	48	85.83	121.00	123.65	2.65*	8.85	9.70	1.29	124.95	0.000	241.161	122.21	125.02	2.81**	9.42	9.11	1.29	126.31	0.000	0.000	n/a	0.39	n/a
3	48	87.05	125.58	128.26	2.68*	8.96	9.72	1.31	129.57	0.000	243.302	126.80	129.63	2.83**	9.49	9.17	1.31	130.93	0.000	0.000	n/a	0.90	n/a
4	30	41.43	127.40	129.90	2.50*	4.91	8.44	1.11	131.01	0.868	310.552	129.73	132.60	2.50	4.91	8.44	1.11	133.71	0.869	0.869	2.698	0.90	1.00
5	30	34.95	131.86	133.73	1.87*	3.93	8.89	1.07	134.79	0.000	115.838	132.73	134.74	2.01**	4.22	8.28	1.07	135.80	0.000	0.000	n/a	1.00	1.07
6	30	31.58	132.73	134.74	2.01	4.03	7.48	0.95	135.69	0.000	111.666	133.57	135.48 j	1.91**	4.03	7.84	0.95	136.44	0.000	0.000	n/a	1.00	n/a
7	30	24.97	133.56	135.48	1.92	3.56	6.16	0.77	136.25	0.000	111.666	134.40	136.10 j	1.70**	3.56	7.02	0.77	136.87	0.000	0.000	n/a	1.00	0.77
8	30	21.49	134.40	136.10	1.70	3.26	6.04	0.68	136.78	0.000	111.666	135.24	136.81 j	1.57**	3.26	6.60	0.68	137.49	0.000	0.000	n/a	1.00	0.68
9	24	14.66	135.24	136.81	1.57	2.31	5.52	0.63	137.44	0.000	111.666	136.08	137.46 j	1.38**	2.31	6.35	0.63	138.08	0.000	0.000	n/a	1.00	n/a
10	24	11.01	136.08	137.46	1.38	1.95	4.77	0.50	137.96	0.000	111.666	136.91	138.10 j	1.19**	1.95	5.66	0.50	138.60	0.000	0.000	n/a	1.00	0.50
11	18	3.92	136.91	138.10	1.19	0.89	2.61	0.30	138.40	0.000	111.666	137.75	138.51 j	0.76**	0.89	4.38	0.30	138.81	0.000	0.000	n/a	1.00	0.30
12	8	3.93	137.75	138.51	0.67	0.35	11.27	1.98	140.48	9.045	76.000	140.00	145.38	0.67**	0.35	11.27	1.97	147.35	9.041	9.043	6.873	1.00	1.97
13	10	7.35	136.91	138.10	0.83	0.55	13.48	2.82	140.92	9.598	76.000	140.00	145.39	0.83**	0.55	13.47	2.82	148.22	9.595	9.596	7.293	1.00	2.82
14	8	3.93	136.08	137.46	0.67	0.35	11.27	1.98	139.43	9.045	76.000	140.00	144.33	0.67**	0.35	11.27	1.97	146.31	9.041	9.043	6.873	1.00	1.97
15	10	7.35	135.24	136.81	0.83	0.55	13.48	2.82	139.64	9.598	76.000	140.00	144.11	0.83**	0.55	13.47	2.82	146.93	9.595	9.596	7.293	1.00	2.82
16	36	47.26	127.40	129.63	2.23	5.62	8.40	1.09	130.71	0.000	246.173	129.25	131.49	2.24**	5.65	8.36	1.09	132.57	0.000	0.000	n/a	1.50	n/a
17	36	28.50	129.25	131.49	2.24	4.21	5.04	0.71	132.20	0.000	200.000	130.75	132.48 j	1.73**	4.21	6.77	0.71	133.19	0.000	0.000	n/a	1.00	n/a
18	30	20.69	130.75	132.48	1.73	3.18	5.73	0.66	133.13	0.000	200.000	132.25	133.79 j	1.54**	3.18	6.50	0.66	134.45	0.000	0.000	n/a	0.50	0.33
19	24	14.21	132.25	133.79	1.54	2.27	5.46	0.61	134.40	0.000	200.000	133.75	135.11 j	1.36**	2.27	6.26	0.61	135.72	0.000	0.000	n/a	0.50	0.30
20	24	7.51	133.75	135.11	1.36	1.52	3.31	0.38	135.49	0.000	200.000	135.25	136.22 j	0.97**	1.52	4.95	0.38	136.60	0.000	0.000	n/a	1.00	0.38
21	8	3.93	134.40	136.10	0.67	0.35	11.27	1.98	138.08	9.045	76.000	140.00	142.97	0.67**	0.35	11.27	1.97	144.95	9.041	9.043	6.873	1.00	1.97
22	10	7.35	133.57	135.48	0.83	0.55	13.48	2.82	138.31	9.598	76.000	140.00	142.78	0.83**	0.55	13.47	2.82	145.60	9.595	9.596	7.293	1.00	2.82

Project File: Network A1-3.stm | Number of lines: 58 | Run Date: 9/8/2022

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
	(in)	(cfs)	Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	(ft)	Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	Ave Sf (%)	Enrgy loss (ft)	(K)	(ft)
23	8	3.93	132.73	134.74	0.67	0.35	11.27	1.98	136.71	9.045	76.000	140.00	141.61	0.67**	0.35	11.27	1.97	143.58	9.041	9.043	6.873	1.00	1.97
24	24	13.80	129.25	131.49	2.00	2.23	4.40	0.30	131.79	0.318	200.002	130.75	132.09 j	1.34**	2.23	6.19	0.59	132.68	0.513	0.415	n/a	0.50	n/a
25	24	9.54	130.75	132.09	1.34	1.78	4.28	0.45	132.54	0.000	199.998	132.25	133.35 j	1.10**	1.78	5.37	0.45	133.80	0.000	0.000	n/a	0.50	n/a
26	18	5.08	132.25	133.35	1.10	1.06	3.65	0.36	133.71	0.000	200.000	133.75	134.62 j	0.87**	1.06	4.80	0.36	134.98	0.000	0.000	n/a	1.00	0.36
27	10	7.35	131.86	133.59	0.83	0.55	13.48	2.82	136.42	9.598	76.000	140.00	140.83	0.83**	0.55	13.47	2.82	143.66	9.448	9.523	7.237	1.00	2.82
28	60	85.03	113.00	118.38	5.00	19.63	4.33	0.29	118.67	0.091	67.781	113.34	118.44	5.00	19.63	4.33	0.29	118.73	0.091	0.091	0.062	0.35	0.10
29	60	85.75	124.33	126.62	2.29*	8.75	9.80	1.05	127.67	0.000	133.092	125.00	127.62	2.62**	10.44	8.22	1.05	128.67	0.000	0.000	n/a	1.50	1.57
30	48	51.46	128.50	130.22	1.72*	5.16	9.98	0.87	131.08	0.000	197.000	129.97	132.12	2.15**	6.89	7.47	0.87	132.99	0.000	0.000	n/a	1.00	0.87
31	36	38.01	129.97	132.12	2.15	5.02	7.00	0.89	133.01	0.000	200.000	131.47	133.47 j	2.00**	5.02	7.57	0.89	134.37	0.000	0.000	n/a	1.50	n/a
32	30	25.74	131.47	133.47	2.00	3.62	6.10	0.79	134.26	0.000	140.000	132.52	134.25 j	1.73**	3.62	7.11	0.79	135.03	0.000	0.000	n/a	1.50	n/a
33	24	13.06	132.52	134.25	1.73	2.16	4.53	0.57	134.82	0.000	197.000	134.00	135.30 j	1.30**	2.16	6.04	0.57	135.87	0.000	0.000	n/a	1.50	n/a
34	15	6.68	134.00	135.30	1.25	1.23	5.44	0.46	135.76	0.912	200.000	135.50	137.12	1.25	1.23	5.44	0.46	137.58	0.912	0.912	1.824	1.00	0.46
35	15	7.35	132.52	134.25	1.25	1.23	5.99	0.56	134.81	1.105	84.982	133.16	135.19	1.25	1.23	5.99	0.56	135.74	1.105	1.105	0.939	0.75	0.42
36	15	6.81	133.16	135.61	1.25	1.23	5.55	0.48	136.08	0.947	50.000	133.54	136.08	1.25	1.23	5.55	0.48	136.56	0.947	0.947	0.474	0.75	0.36
37	15	6.31	133.54	136.44	1.25	1.23	5.14	0.41	136.85	0.814	65.018	134.02	136.97	1.25	1.23	5.14	0.41	137.38	0.813	0.814	0.529	1.00	0.41
38	8	0.59	133.54	136.44	0.67	0.35	1.69	0.04	136.48	0.203	14.142	133.68	136.47	0.67	0.35	1.69	0.04	136.51	0.202	0.203	0.029	0.75	0.03
39	8	0.59	133.68	136.50	0.67	0.35	1.70	0.05	136.54	0.206	25.001	136.00	136.54	0.54	0.30	1.97	0.06	136.60	0.213	0.210	0.052	1.00	0.06
40	18	6.68	133.12	134.03	0.90*	1.11	5.99	0.44	134.47	0.000	197.000	134.60	135.60	1.00**	1.25	5.34	0.44	136.04	0.000	0.000	n/a	1.00	n/a
41	24	15.19	128.50	129.75	1.25*	2.07	7.34	0.65	130.40	0.000	185.656	129.89	131.29	1.40**	2.36	6.45	0.65	131.94	0.000	0.000	n/a	1.38	n/a
42	24	9.09	129.89	131.29	1.40	1.72	3.86	0.43	131.73	0.000	189.071	131.31	132.39 j	1.08**	1.72	5.28	0.43	132.82	0.000	0.000	n/a	0.81	0.35
43	18	7.52	131.31	132.39	1.08	1.34	5.54	0.49	132.88	0.000	194.929	132.77	133.83 j	1.06**	1.34	5.62	0.49	134.32	0.000	0.000	n/a	1.50	0.74
44	12	5.45	132.77	133.83	1.00	0.79	6.94	0.75	134.58	1.993	75.028	133.33	135.33	1.00	0.79	6.93	0.75	136.07	1.993	1.993	1.495	0.50	0.37

Project File: Network A1-3.stm | Number of lines: 58 | Run Date: 9/8/2022

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

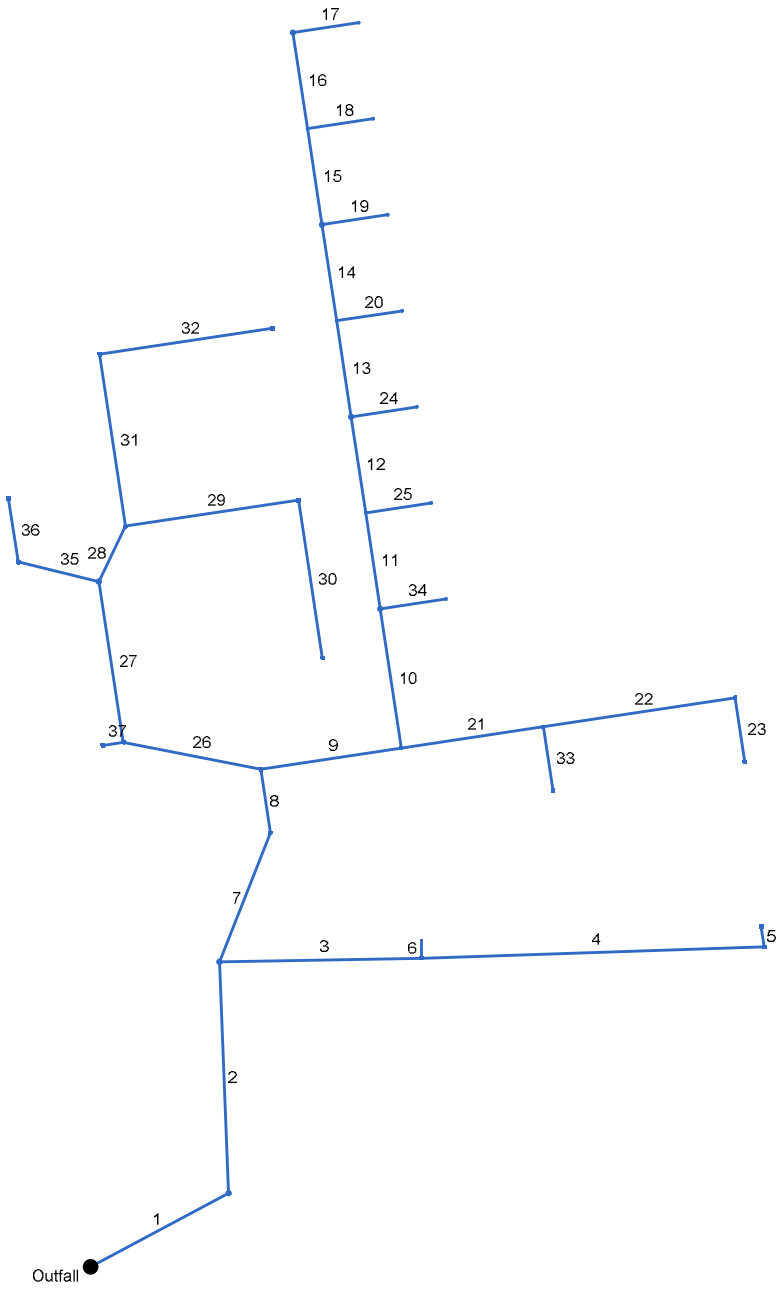
Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
	(in)	(cfs)	Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	(ft)	Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	Ave Sf (%)	Enrgy loss (ft)	(K)	(ft)
45	12	3.64	133.33	135.70	1.00	0.79	4.63	0.33	136.03	0.889	35.055	133.59	136.01	1.00	0.79	4.63	0.33	136.35	0.889	0.889	0.312	1.00	0.33
46	30	16.29	128.50	129.64	1.14*	2.17	7.51	0.55	130.19	0.000	200.000	130.00	131.36	1.36**	2.74	5.96	0.55	131.91	0.000	0.000	n/a	0.50	n/a
47	18	10.82	130.00	131.50	1.50*	1.77	6.12	0.58	132.08	0.905	140.000	131.05	132.77	1.50	1.77	6.12	0.58	133.35	0.905	0.905	1.267	0.50	0.29
48	15	5.91	131.05	133.06	1.25	1.23	4.81	0.36	133.42	0.713	84.998	131.68	133.66	1.25	1.23	4.81	0.36	134.03	0.713	0.713	0.606	0.75	0.27
49	15	5.36	131.68	133.94	1.25	1.23	4.37	0.30	134.23	0.588	50.000	132.06	134.23	1.25	1.23	4.37	0.30	134.53	0.588	0.588	0.294	0.75	0.22
50	8	0.59	132.06	134.45	0.67	0.35	1.69	0.04	134.50	0.204	14.142	133.47	134.48	0.67	0.35	1.69	0.04	134.53	0.204	0.204	0.029	0.75	0.03
51	8	0.59	133.47	134.51	0.67	0.19	1.70	0.05	134.56	0.206	14.500	136.00	136.36 j	0.36**	0.19	3.07	0.15	136.51	0.627	0.416	n/a	1.00	0.15
52	8	0.59	133.16	135.61	0.67	0.35	1.69	0.04	135.65	0.203	14.142	133.30	135.63	0.67	0.35	1.69	0.04	135.68	0.203	0.203	0.029	0.75	0.03
53	8	0.59	133.30	135.67	0.67	0.19	1.70	0.05	135.71	0.206	25.001	136.00	136.36 j	0.36**	0.19	3.07	0.15	136.51	0.627	0.416	n/a	1.00	0.15
54	8	0.59	131.68	133.94	0.67	0.35	1.69	0.04	133.98	0.204	14.142	133.10	133.96	0.67	0.35	1.69	0.04	134.01	0.204	0.204	0.029	0.75	0.03
55	8	0.59	133.10	134.00	0.67	0.19	1.70	0.05	134.04	0.206	14.500	136.00	136.36 j	0.36**	0.19	3.07	0.15	136.51	0.627	0.416	n/a	1.00	0.15
56	15	4.82	132.06	134.45	1.25	1.23	3.93	0.24	134.69	0.476	65.002	132.54	134.76	1.25	1.23	3.93	0.24	135.00	0.476	0.476	0.309	1.00	0.24
57	18	7.35	129.97	132.12	1.50	1.77	4.16	0.27	132.39	0.417	197.000	131.45	132.88	1.43	1.74	4.23	0.28	133.16	0.362	0.389	0.767	1.00	0.28
58	12	3.75	129.89	131.29	1.00	0.79	4.77	0.35	131.65	0.944	81.840	130.50	132.07	1.00	0.79	4.77	0.35	132.42	0.944	0.944	0.772	1.00	0.35

Project File: Network A1-3.stm | Number of lines: 58 | Run Date: 9/8/2022

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: Network A11-2.stm	Number of lines: 37	Date: 9/8/2022

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	179.428	-28.155	MH	0.00	0.00	0.00	0.0	116.00	0.50	116.90	60	Cir	0.012	0.92	136.12	PIPE-211
2	1	266.346	-64.120	MH	0.00	0.00	0.00	0.0	121.67	0.50	123.00	60	Cir	0.012	1.00	136.72	PIPE-210
3	2	231.419	91.276	Comb	0.00	0.09	0.76	5.0	130.00	0.75	131.74	30	Cir	0.012	1.50	148.55	PIPE-213
4	3	392.762	-0.904	Comb	0.00	0.59	0.56	5.0	142.83	1.00	146.76	18	Cir	0.012	1.50	152.95	PIPE-280
5	4	24.000	-96.674	Comb	0.00	0.07	0.90	5.0	146.76	1.00	147.00	12	Cir	0.012	1.00	152.47	PIPE-269
6	3	24.001	-89.000	Comb	0.00	0.07	0.90	5.0	142.83	1.00	143.07	12	Cir	0.012	1.00	148.08	PIPE-212
7	2	159.343	23.813	Comb	0.00	1.06	0.59	5.0	125.54	0.50	126.34	60	Cir	0.012	0.84	143.38	PIPE-209
8	7	74.000	-30.115	Comb	0.00	0.51	0.88	5.0	126.57	0.50	126.94	60	Cir	0.012	2.14	142.70	PIPE-205
9	8	162.664	90.000	Grate	0.00	0.11	0.83	5.0	127.06	0.69	128.19	36	Cir	0.012	1.50	144.33	PIPE-236
10	9	161.833	-90.000	MH	0.00	0.00	0.00	0.0	131.51	0.75	132.73	36	Cir	0.012	1.00	141.86	PIPE-240
11	10	111.666	0.000	MH	0.00	0.00	0.00	0.0	132.73	0.75	133.57	30	Cir	0.012	1.00	141.75	PIPE-239
12	11	111.666	0.000	MH	0.00	0.00	0.00	0.0	133.56	0.75	134.40	30	Cir	0.012	1.00	141.83	PIPE-238
13	12	111.666	0.000	MH	0.00	0.00	0.00	0.0	134.40	0.75	135.24	24	Cir	0.012	1.00	141.78	PIPE-282
14	13	111.666	0.000	MH	0.00	0.00	0.00	0.0	135.24	0.75	136.08	24	Cir	0.012	1.00	141.83	PIPE-232
15	14	111.666	0.000	MH	0.00	0.00	0.00	0.0	136.08	0.74	136.91	24	Cir	0.012	1.00	141.83	PIPE-231
16	15	111.666	0.000	MH	0.00	0.00	0.00	0.0	136.91	0.75	137.75	24	Cir	0.012	1.00	141.83	PIPE-277
17	16	76.000	90.000	MH	0.00	0.99	0.90	5.0	137.75	2.96	140.00	10	Cir	0.012	1.00	143.00	PIPE-276
18	15	76.000	90.000	MH	0.00	0.53	0.90	5.0	136.91	4.07	140.00	8	Cir	0.012	1.00	143.00	PIPE-230
19	14	76.000	90.000	MH	0.00	0.99	0.90	5.0	136.08	5.16	140.00	10	Cir	0.012	1.00	143.00	PIPE-243
20	13	76.000	90.000	MH	0.00	0.53	0.90	5.0	135.24	6.26	140.00	8	Cir	0.012	1.00	143.00	PIPE-250
21	9	164.336	0.000	Grate	0.00	0.73	0.83	5.0	131.51	0.75	132.75	30	Cir	0.012	1.50	143.75	PIPE-206
22	21	222.000	0.000	Grate	0.00	0.75	0.82	5.0	132.75	0.75	134.41	24	Cir	0.012	1.50	143.75	PIPE-204
23	22	74.000	90.000	Grate	0.00	1.14	0.79	5.0	134.41	0.76	134.97	12	Cir	0.012	1.00	144.43	PIPE-203

Project File: Network A11-2.stm | Number of lines: 37 | Date: 9/8/2022

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	12	76.000	90.000	MH	0.00	0.99	0.90	5.0	134.40	7.37	140.00	10	Cir	0.012	1.00	143.00	PIPE-237
25	11	76.000	90.000	MH	0.00	0.53	0.90	5.0	133.57	8.46	140.00	8	Cir	0.012	1.00	143.00	PIPE-242
26	8	160.681	-70.362	Comb	0.00	0.73	0.40	5.0	127.06	0.75	128.26	36	Cir	0.012	1.43	140.48	PIPE-208
27	26	186.920	70.362	MH	0.00	0.00	0.00	0.0	128.26	0.75	129.66	36	Cir	0.012	0.94	140.32	PIPE-281
28	27	70.625	34.205	Comb	0.00	0.93	0.90	5.0	129.66	0.75	130.19	24	Cir	0.012	1.38	140.25	PIPE-245
29	28	200.298	55.795	Grate	0.00	0.92	0.90	5.0	131.27	0.75	132.78	18	Cir	0.012	1.50	139.25	PIPE-235
30	29	183.329	90.000	Comb	0.00	0.59	0.78	5.0	132.78	0.75	134.15	18	Cir	0.012	1.00	139.83	PIPE-234
31	28	200.000	-34.145	Comb	0.00	1.00	0.85	5.0	131.20	0.75	132.70	24	Cir	0.012	1.50	139.25	PIPE-244
32	31	200.089	89.940	Grate	0.00	0.96	0.90	5.0	132.70	0.75	134.20	18	Cir	0.012	1.00	139.25	PIPE-233
33	21	74.000	90.000	Grate	0.00	0.98	0.63	5.0	132.75	0.74	133.30	12	Cir	0.012	1.00	144.43	PIPE-191
34	10	76.000	90.000	MH	0.00	0.99	0.90	5.0	132.73	9.57	140.00	10	Cir	0.012	1.00	143.00	PIPE-241
35	27	95.079	-67.751	Grate	0.00	0.79	0.79	5.0	129.66	0.99	130.60	24	Cir	0.012	1.41	138.46	PIPE-249
36	35	74.000	67.751	Grate	0.00	0.70	0.78	5.0	130.60	0.20	130.75	18	Cir	0.012	1.00	138.46	PIPE-248
37	26	24.000	-19.638	Comb	0.00	0.18	0.76	5.0	128.26	0.75	128.44	12	Cir	0.012	1.00	140.96	PIPE-207

Project File: Network A11-2.stm | Number of lines: 37 | Date: 9/8/2022

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	PIPE-211	106.7	60	Cir	179.428	116.00	116.90	0.502	118.60	119.84	1.13	119.84	End	Manhole
2	PIPE-210	108.3	60	Cir	266.346	121.67	123.00	0.499	124.30	125.97	1.24	125.97	1	Manhole
3	PIPE-213	4.08	30	Cir	231.419	130.00	131.74	0.752	130.55	132.40	0.36	132.40	2	Combination
4	PIPE-280	3.22	18	Cir	392.762	142.83	146.76	1.001	143.38	147.44	0.39	147.44	3	Combination
5	PIPE-269	0.52	12	Cir	24.000	146.76	147.00	1.000	147.44	147.30	0.11	147.30	4	Combination
6	PIPE-212	0.52	12	Cir	24.001	142.83	143.07	1.000	143.08	143.37	0.11	143.37	3	Combination
7	PIPE-209	105.5	60	Cir	159.343	125.54	126.34	0.502	128.12	129.26	1.02	129.26	2	Combination
8	PIPE-205	101.3	60	Cir	74.000	126.57	126.94	0.500	129.26	129.80	n/a	129.80	7	Combination
9	PIPE-236	58.41	36	Cir	162.664	127.06	128.19	0.695	129.80	130.66	2.05	130.66	8	Grate
10	PIPE-240	37.69	36	Cir	161.833	131.51	132.73	0.754	133.19	134.73	n/a	134.73	9	Manhole
11	PIPE-239	31.23	30	Cir	111.666	132.73	133.57	0.752	134.73	135.47	n/a	135.47 j	10	Manhole
12	PIPE-238	27.85	30	Cir	111.666	133.56	134.40	0.752	135.47	136.20	n/a	136.20 j	11	Manhole
13	PIPE-282	21.19	24	Cir	111.666	134.40	135.24	0.752	136.20	136.89	n/a	136.89	12	Manhole
14	PIPE-232	17.70	24	Cir	111.666	135.24	136.08	0.752	136.89	137.59	n/a	137.59 j	13	Manhole
15	PIPE-231	10.93	24	Cir	111.666	136.08	136.91	0.743	137.59	138.09	n/a	138.09 j	14	Manhole
16	PIPE-277	7.32	24	Cir	111.666	136.91	137.75	0.752	138.09	138.71	n/a	138.71 j	15	Manhole
17	PIPE-276	7.35	10	Cir	76.000	137.75	140.00	2.961	138.71*	146.00*	2.82	148.83	16	Manhole
18	PIPE-230	3.93	8	Cir	76.000	136.91	140.00	4.066	138.09*	144.97*	1.97	146.94	15	Manhole
19	PIPE-243	7.35	10	Cir	76.000	136.08	140.00	5.158	137.59*	144.89*	2.82	147.71	14	Manhole
20	PIPE-250	3.93	8	Cir	76.000	135.24	140.00	6.263	136.89*	143.76*	1.97	145.74	13	Manhole
21	PIPE-206	21.90	30	Cir	164.336	131.51	132.75	0.755	132.86	134.34	1.03	134.34	9	Grate
22	PIPE-204	12.44	24	Cir	222.000	132.75	134.41	0.748	134.34	135.68	n/a	135.68 j	21	Grate
23	PIPE-203	7.43	12	Cir	74.000	134.41	134.97	0.757	135.68*	138.42*	1.39	139.81	22	Grate
24	PIPE-237	7.35	10	Cir	76.000	134.40	140.00	7.368	136.20*	143.49*	2.82	146.31	12	Manhole

Project File: Network A11-2.stm | Number of lines: 37 | Run Date: 9/8/2022

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
25	PIPE-242	3.93	8	Cir	76.000	133.57	140.00	8.461	135.47*	142.35*	1.97	144.32	11	Manhole
26	PIPE-208	40.90	36	Cir	160.681	127.06	128.26	0.747	129.80	130.34	n/a	130.34 j	8	Combination
27	PIPE-281	38.22	36	Cir	186.920	128.26	129.66	0.749	130.34	131.67	n/a	131.67 j	26	Manhole
28	PIPE-245	29.42	24	Cir	70.625	129.66	130.19	0.750	131.67*	132.69*	1.88	134.57	27	Combination
29	PIPE-235	10.08	18	Cir	200.298	131.27	132.78	0.754	134.57*	136.14*	0.76	136.90	28	Grate
30	PIPE-234	3.80	18	Cir	183.329	132.78	134.15	0.747	136.90*	137.11*	0.07	137.18	29	Combination
31	PIPE-244	13.70	24	Cir	200.000	131.20	132.70	0.750	134.57*	135.20*	0.44	135.64	28	Combination
32	PIPE-233	7.13	18	Cir	200.089	132.70	134.20	0.750	135.64*	136.43*	0.25	136.68	31	Grate
33	PIPE-191	5.09	12	Cir	74.000	132.75	133.30	0.743	134.34*	135.63*	0.65	136.28	21	Grate
34	PIPE-241	7.35	10	Cir	76.000	132.73	140.00	9.566	134.73*	142.02*	2.82	144.84	10	Manhole
35	PIPE-249	9.51	24	Cir	95.079	129.66	130.60	0.989	131.67	131.70	n/a	131.70 j	27	Grate
36	PIPE-248	4.50	18	Cir	74.000	130.60	130.75	0.203	131.70	131.85	0.16	132.01	35	Grate
37	PIPE-207	1.13	12	Cir	24.000	128.26	128.44	0.750	130.34*	130.36*	0.03	130.39	26	Combination

Project File: Network A11-2.stm | Number of lines: 37 | Run Date: 9/8/2022

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
1	End	179.428	0.00	18.45	0.00	0.00	14.86	0.0	8.9	7.2	106.7	199.8	9.61	60	0.50	116.00	116.90	118.60	119.84	121.38	136.12	PIPE-211
2	1	266.346	0.00	18.45	0.00	0.00	14.86	0.0	8.5	7.3	108.3	199.4	9.65	60	0.50	121.67	123.00	124.30	125.97	136.12	136.72	PIPE-210
3	2	231.419	0.09	0.82	0.76	0.07	0.52	5.0	6.6	7.8	4.08	38.53	4.50	30	0.75	130.00	131.74	130.55	132.40	136.72	148.55	PIPE-213
4	3	392.762	0.59	0.66	0.56	0.33	0.39	5.0	5.2	8.2	3.22	11.38	4.82	18	1.00	142.83	146.76	143.38	147.44	148.55	152.95	PIPE-280
5	4	24.000	0.07	0.07	0.90	0.06	0.06	5.0	5.0	8.2	0.52	3.86	1.77	12	1.00	146.76	147.00	147.44	147.30	152.95	152.47	PIPE-269
6	3	24.001	0.07	0.07	0.90	0.06	0.06	5.0	5.0	8.2	0.52	3.86	3.03	12	1.00	142.83	143.07	143.08	143.37	148.55	148.08	PIPE-212
7	2	159.343	1.06	17.63	0.59	0.63	14.34	5.0	8.2	7.4	105.5	199.9	9.58	60	0.50	125.54	126.34	128.12	129.26	136.72	143.38	PIPE-209
8	7	74.000	0.51	16.57	0.88	0.45	13.71	5.0	8.1	7.4	101.3	199.5	9.05	60	0.50	126.57	126.94	129.26	129.80	143.38	142.70	PIPE-205
9	8	162.664	0.11	9.26	0.83	0.09	7.83	5.0	7.8	7.5	58.41	60.22	9.00	36	0.69	127.06	128.19	129.80	130.66	142.70	144.33	PIPE-236
10	9	161.833	0.00	5.55	0.00	0.00	4.99	0.0	7.5	7.5	37.69	62.73	8.41	36	0.75	131.51	132.73	133.19	134.73	144.33	141.86	PIPE-240
11	10	111.666	0.00	4.56	0.00	0.00	4.10	0.0	7.2	7.6	31.23	38.53	7.61	30	0.75	132.73	133.57	134.73	135.47	141.86	141.75	PIPE-239
12	11	111.666	0.00	4.03	0.00	0.00	3.63	0.0	7.0	7.7	27.85	38.53	7.14	30	0.75	133.56	134.40	135.47	136.20	141.75	141.83	PIPE-238
13	12	111.666	0.00	3.04	0.00	0.00	2.74	0.0	6.7	7.7	21.19	21.25	7.39	24	0.75	134.40	135.24	136.20	136.89	141.83	141.78	PIPE-282
14	13	111.666	0.00	2.51	0.00	0.00	2.26	0.0	6.4	7.8	17.70	21.25	6.67	24	0.75	135.24	136.08	136.89	137.59	141.78	141.83	PIPE-232
15	14	111.666	0.00	1.52	0.00	0.00	1.37	0.0	5.9	8.0	10.93	21.12	4.96	24	0.74	136.08	136.91	137.59	138.09	141.83	141.83	PIPE-231
16	15	111.666	0.00	0.99	0.00	0.00	0.89	0.0	5.1	8.2	7.32	21.25	4.35	24	0.75	136.91	137.75	138.09	138.71	141.83	141.83	PIPE-277
17	16	76.000	0.99	0.99	0.90	0.89	0.89	5.0	5.0	8.2	7.35	4.08	13.47	10	2.96	137.75	140.00	138.71	146.00	141.83	143.00	PIPE-276
18	15	76.000	0.53	0.53	0.90	0.48	0.48	5.0	5.0	8.2	3.93	2.64	11.27	8	4.07	136.91	140.00	138.09	144.97	141.83	143.00	PIPE-230
19	14	76.000	0.99	0.99	0.90	0.89	0.89	5.0	5.0	8.2	7.35	5.39	13.47	10	5.16	136.08	140.00	137.59	144.89	141.83	143.00	PIPE-243
20	13	76.000	0.53	0.53	0.90	0.48	0.48	5.0	5.0	8.2	3.93	3.27	11.27	8	6.26	135.24	140.00	136.89	143.76	141.78	143.00	PIPE-250
21	9	164.336	0.73	3.60	0.83	0.61	2.74	5.0	5.8	8.0	21.90	38.59	7.38	30	0.75	131.51	132.75	132.86	134.34	144.33	143.75	PIPE-206
22	21	222.000	0.75	1.89	0.82	0.62	1.52	5.0	5.1	8.2	12.44	21.19	5.29	24	0.75	132.75	134.41	134.34	135.68	143.75	143.75	PIPE-204

Project File: Network A11-2.stm | Number of lines: 37 | Run Date: 9/8/2022

NOTES:Intensity = 102.61 / (Inlet time + 16.50) ^ 0.82; Return period =Yrs. 25 ; c = cir e = ellip b = box

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
23	22	74.000	1.14	1.14	0.79	0.90	0.90	5.0	5.0	8.2	7.43	3.36	9.46	12	0.76	134.41	134.97	135.68	138.42	143.75	144.43	PIPE-203
24	12	76.000	0.99	0.99	0.90	0.89	0.89	5.0	5.0	8.2	7.35	6.44	13.47	10	7.37	134.40	140.00	136.20	143.49	141.83	143.00	PIPE-237
25	11	76.000	0.53	0.53	0.90	0.48	0.48	5.0	5.0	8.2	3.93	3.81	11.27	8	8.46	133.57	140.00	135.47	142.35	141.75	143.00	PIPE-242
26	8	160.681	0.73	6.80	0.40	0.29	5.44	5.0	7.6	7.5	40.90	62.44	6.93	36	0.75	127.06	128.26	129.80	130.34	142.70	140.48	PIPE-208
27	26	186.920	0.00	5.89	0.00	0.00	5.01	0.0	7.1	7.6	38.22	62.53	7.45	36	0.75	128.26	129.66	130.34	131.67	140.48	140.32	PIPE-281
28	27	70.625	0.93	4.40	0.90	0.84	3.84	5.0	7.0	7.7	29.42	21.23	9.37	24	0.75	129.66	130.19	131.67	132.69	140.32	140.25	PIPE-245
29	28	200.298	0.92	1.51	0.90	0.83	1.29	5.0	6.4	7.8	10.08	9.88	5.70	18	0.75	131.27	132.78	134.57	136.14	140.25	139.25	PIPE-235
30	29	183.329	0.59	0.59	0.78	0.46	0.46	5.0	5.0	8.2	3.80	9.83	2.15	18	0.75	132.78	134.15	136.90	137.11	139.25	139.83	PIPE-234
31	28	200.000	1.00	1.96	0.85	0.85	1.71	5.0	5.8	8.0	13.70	21.22	4.36	24	0.75	131.20	132.70	134.57	135.20	140.25	139.25	PIPE-244
32	31	200.089	0.96	0.96	0.90	0.86	0.86	5.0	5.0	8.2	7.13	9.85	4.03	18	0.75	132.70	134.20	135.64	136.43	139.25	139.25	PIPE-233
33	21	74.000	0.98	0.98	0.63	0.62	0.62	5.0	5.0	8.2	5.09	3.33	6.48	12	0.74	132.75	133.30	134.34	135.63	143.75	144.43	PIPE-191
34	10	76.000	0.99	0.99	0.90	0.89	0.89	5.0	5.0	8.2	7.35	7.34	13.47	10	9.57	132.73	140.00	134.73	142.02	141.86	143.00	PIPE-241
35	27	95.079	0.79	1.49	0.79	0.62	1.17	5.0	5.4	8.1	9.51	24.36	4.20	24	0.99	129.66	130.60	131.67	131.70	140.32	138.46	PIPE-249
36	35	74.000	0.70	0.70	0.78	0.55	0.55	5.0	5.0	8.2	4.50	5.12	3.25	18	0.20	130.60	130.75	131.70	131.85	138.46	138.46	PIPE-248
37	26	24.000	0.18	0.18	0.76	0.14	0.14	5.0	5.0	8.2	1.13	3.34	1.44	12	0.75	128.26	128.44	130.34	130.36	140.48	140.96	PIPE-207

Project File: Network A11-2.stm | Number of lines: 37 | Run Date: 9/8/2022

NOTES:Intensity = 102.61 / (Inlet time + 16.50) ^ 0.82; Return period =Yrs. 25 ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	60	106.7	116.00	118.60	2.60	10.32	10.34	1.23	119.83	0.000	179.428	116.90	119.84	2.94**	12.02	8.88	1.23	121.07	0.000	0.000	n/a	0.92	1.13
2	60	108.3	121.67	124.30	2.63*	10.46	10.36	1.24	125.54	0.000	266.346	123.00	125.97	2.97**	12.13	8.93	1.24	127.21	0.000	0.000	n/a	1.00	1.24
3	30	4.08	130.00	130.55	0.55*	0.80	5.10	0.24	130.79	0.000	231.419	131.74	132.40	0.66**	1.05	3.91	0.24	132.64	0.000	0.000	n/a	1.50	0.36
4	18	3.22	142.83	143.38	0.55*	0.58	5.54	0.26	143.64	0.000	392.762	146.76	147.44	0.68**	0.78	4.11	0.26	147.71	0.000	0.000	n/a	1.50	0.39
5	12	0.52	146.76	147.44	0.68	0.20	0.91	0.11	147.55	0.000	24.000	147.00	147.30	0.30**	0.20	2.64	0.11	147.41	0.000	0.000	n/a	1.00	0.11
6	12	0.52	142.83	143.08	0.25*	0.15	3.42	0.11	143.19	0.000	24.001	143.07	143.37	0.30**	0.20	2.64	0.11	143.48	0.000	0.000	n/a	1.00	0.11
7	60	105.5	125.54	128.12	2.58*	10.23	10.31	1.22	129.34	0.000	159.343	126.34	129.26	2.92**	11.93	8.84	1.22	130.48	0.000	0.000	n/a	0.84	1.02
8	60	101.3	126.57	129.26	2.69	10.79	9.39	1.18	130.44	0.000	74.000	126.94	129.80	2.86**	11.63	8.71	1.18	130.98	0.000	0.000	n/a	2.14	n/a
9	36	58.41	127.06	129.80	2.74	6.23	8.62	1.37	131.17	0.000	162.664	128.19	130.66	2.47**	6.23	9.38	1.37	132.03	0.000	0.000	n/a	1.50	2.05
10	36	37.69	131.51	133.19	1.68*	4.06	9.28	0.89	134.07	0.000	161.833	132.73	134.73	2.00**	4.99	7.55	0.89	135.61	0.000	0.000	n/a	1.00	n/a
11	30	31.23	132.73	134.73	2.00	4.01	7.43	0.94	135.67	0.000	111.666	133.57	135.47 j	1.90**	4.01	7.79	0.94	136.42	0.000	0.000	n/a	1.00	0.94
12	30	27.85	133.56	135.47	1.91	3.78	6.91	0.84	136.32	0.000	111.666	134.40	136.20 j	1.80**	3.78	7.37	0.84	137.04	0.000	0.000	n/a	1.00	n/a
13	24	21.19	134.40	136.20	1.80	2.77	7.12	0.91	137.11	0.680	111.666	135.24	136.89	1.65**	2.77	7.66	0.91	137.80	0.756	0.718	n/a	1.00	n/a
14	24	17.70	135.24	136.89	1.65	2.55	6.40	0.75	137.63	0.541	111.666	136.08	137.59 j	1.51**	2.55	6.93	0.75	138.34	0.540	0.541	n/a	1.00	n/a
15	24	10.93	136.08	137.59	1.51	1.94	4.28	0.49	138.09	0.204	111.666	136.91	138.09 j	1.18**	1.94	5.64	0.49	138.59	0.204	0.204	n/a	1.00	0.49
16	24	7.32	136.91	138.09	1.18	1.49	3.78	0.37	138.47	0.089	111.666	137.75	138.71 j	0.96**	1.49	4.91	0.37	139.09	0.084	0.087	n/a	1.00	n/a
17	10	7.35	137.75	138.71	0.83	0.55	13.48	2.82	141.53	9.598	76.000	140.00	146.00	0.83**	0.55	13.47	2.82	148.83	9.595	9.596	7.293	1.00	2.82
18	8	3.93	136.91	138.09	0.67	0.35	11.27	1.98	140.07	9.045	76.000	140.00	144.97	0.67**	0.35	11.27	1.97	146.94	9.041	9.043	6.873	1.00	1.97
19	10	7.35	136.08	137.59	0.83	0.55	13.48	2.82	140.42	9.598	76.000	140.00	144.89	0.83**	0.55	13.47	2.82	147.71	9.595	9.596	7.293	1.00	2.82
20	8	3.93	135.24	136.89	0.67	0.35	11.27	1.98	138.86	9.045	76.000	140.00	143.76	0.67**	0.35	11.27	1.97	145.74	9.041	9.043	6.873	1.00	1.97
21	30	21.90	131.51	132.86	1.35*	2.70	8.11	0.69	133.55	0.000	164.336	132.75	134.34	1.59**	3.29	6.65	0.69	135.03	0.000	0.000	n/a	1.50	1.03
22	24	12.44	132.75	134.34	1.59	2.10	4.65	0.55	134.89	0.000	222.000	134.41	135.68 j	1.27**	2.10	5.93	0.55	136.22	0.000	0.000	n/a	1.50	0.82

Project File: Network A11-2.stm | Number of lines: 37 | Run Date: 9/8/2022

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

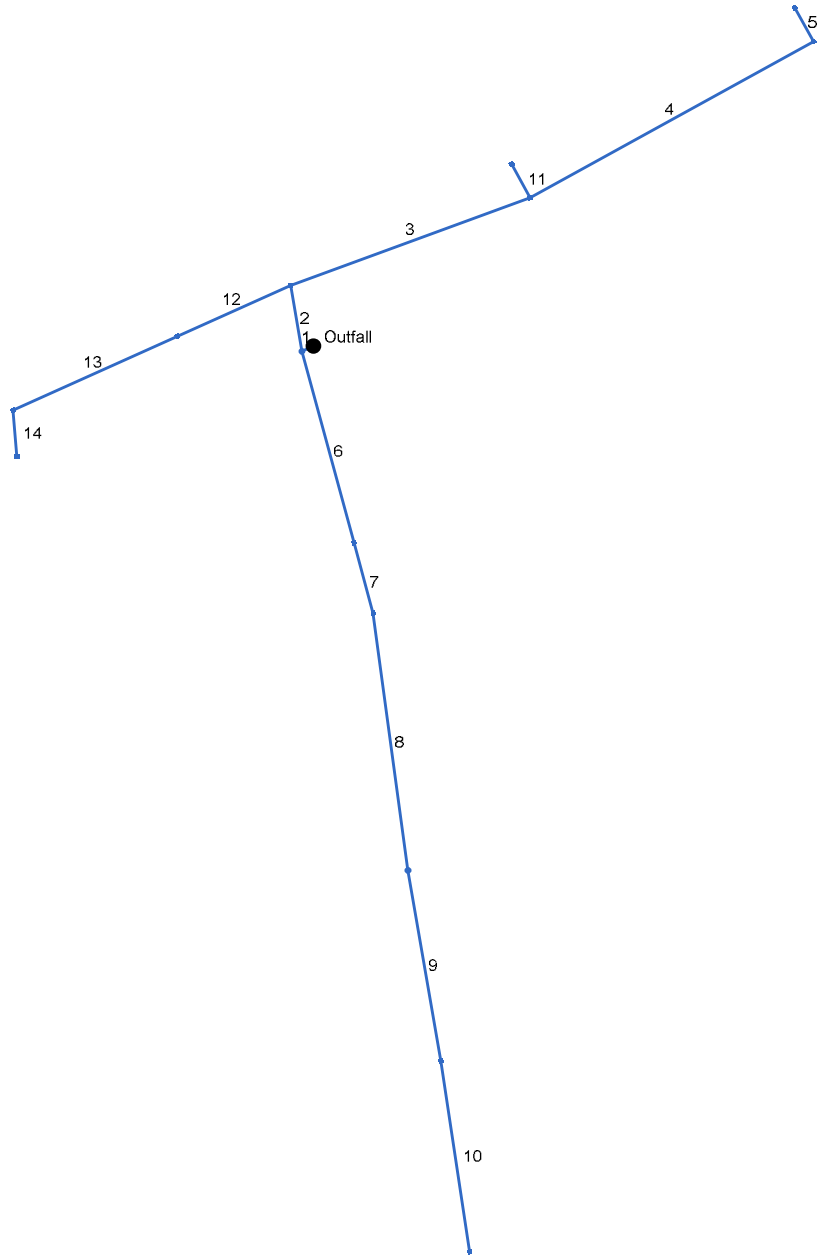
Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
23	12	7.43	134.41	135.68	1.00	0.79	9.46	1.39	137.07	3.708	74.000	134.97	138.42	1.00	0.79	9.46	1.39	139.81	3.707	3.707	2.743	1.00	1.39
24	10	7.35	134.40	136.20	0.83	0.55	13.48	2.82	139.02	9.598	76.000	140.00	143.49	0.83**	0.55	13.47	2.82	146.31	9.595	9.596	7.293	1.00	2.82
25	8	3.93	133.57	135.47	0.67	0.35	11.27	1.98	137.45	9.045	76.000	140.00	142.35	0.67**	0.35	11.27	1.97	144.32	9.041	9.043	6.873	1.00	1.97
26	36	40.90	127.06	129.80	2.74	5.23	6.03	0.95	130.75	0.000	160.681	128.26	130.34 j	2.08**	5.23	7.82	0.95	131.29	0.000	0.000	n/a	1.43	1.36
27	36	38.22	128.26	130.34	2.08	5.04	7.31	0.90	131.24	0.000	186.920	129.66	131.67 j	2.01**	5.04	7.59	0.90	132.57	0.000	0.000	n/a	0.94	n/a
28	24	29.42	129.66	131.67	2.00	3.14	9.37	1.36	133.03	1.443	70.625	130.19	132.69	2.00	3.14	9.37	1.36	134.05	1.442	1.442	1.019	1.38	1.88
29	18	10.08	131.27	134.57	1.50	1.77	5.70	0.51	135.08	0.785	200.298	132.78	136.14	1.50	1.77	5.70	0.51	136.65	0.785	0.785	1.573	1.50	0.76
30	18	3.80	132.78	136.90	1.50	1.77	2.15	0.07	136.97	0.111	183.329	134.15	137.11	1.50	1.77	2.15	0.07	137.18	0.111	0.111	0.204	1.00	0.07
31	24	13.70	131.20	134.57	2.00	3.14	4.36	0.30	134.87	0.313	200.000	132.70	135.20	2.00	3.14	4.36	0.30	135.49	0.313	0.313	0.626	1.50	0.44
32	18	7.13	132.70	135.64	1.50	1.77	4.03	0.25	135.89	0.392	200.089	134.20	136.43	1.50	1.77	4.03	0.25	136.68	0.392	0.392	0.785	1.00	0.25
33	12	5.09	132.75	134.34	1.00	0.79	6.48	0.65	134.99	1.743	74.000	133.30	135.63	1.00	0.79	6.48	0.65	136.28	1.742	1.742	1.289	1.00	0.65
34	10	7.35	132.73	134.73	0.83	0.55	13.48	2.82	137.55	9.598	76.000	140.00	142.02	0.83**	0.55	13.47	2.82	144.84	9.595	9.596	7.293	1.00	2.82
35	24	9.51	129.66	131.67	2.00	1.77	3.03	0.14	131.81	0.151	95.079	130.60	131.70 j	1.10**	1.77	5.36	0.45	132.15	0.437	0.294	n/a	1.41	0.63
36	18	4.50	130.60	131.70	1.10	1.39	3.24	0.16	131.86	0.198	74.000	130.75	131.85	1.10	1.38	3.25	0.16	132.01	0.200	0.199	0.147	1.00	0.16
37	12	1.13	128.26	130.34	1.00	0.79	1.44	0.03	130.37	0.086	24.000	128.44	130.36	1.00	0.79	1.44	0.03	130.39	0.086	0.086	0.021	1.00	0.03

Project File: Network A11-2.stm | Number of lines: 37 | Run Date: 9/8/2022

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: Network B1-2.stm	Number of lines: 14	Date: 9/8/2022

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	13.255	155.427	MH	11.66	0.00	0.00	0.0	129.00	0.91	129.12	48	Cir	0.012	1.00	135.00	PIPE-59
2	1	69.034	105.015	Comb	0.00	0.25	0.82	5.0	129.12	0.85	129.71	24	Cir	0.012	1.50	137.92	PIPE-120
3	2	263.148	79.324	Comb	0.00	0.34	0.82	5.0	129.71	0.95	132.20	18	Cir	0.012	1.50	135.17	PIPE-66
4	3	333.900	-8.720	Comb	0.00	0.17	0.80	5.0	132.20	0.75	134.70	12	Cir	0.012	1.50	138.51	PIPE-213
5	4	40.000	-89.999	Comb	0.00	0.12	0.76	5.0	134.70	0.75	135.00	12	Cir	0.012	1.00	138.81	PIPE-212
6	1	205.394	-80.590	Comb	0.00	0.32	0.68	5.0	129.12	0.64	130.44	24	Cir	0.012	0.50	135.32	PIPE-124
7	6	75.389	0.063	Comb	0.00	0.40	0.55	5.0	130.44	0.65	130.93	24	Cir	0.012	0.50	136.40	PIPE-60
8	7	268.740	7.375	MH	0.00	0.00	0.00	0.0	130.93	0.65	132.68	24	Cir	0.012	0.15	140.08	PIPE-65
9	8	200.040	-1.999	Comb	0.00	0.87	0.50	5.0	132.68	0.65	133.98	12	Cir	0.012	0.50	137.00	PIPE-125
10	9	200.000	1.146	Comb	0.00	0.23	0.53	5.0	133.98	0.75	135.48	12	Cir	0.012	1.00	140.00	PIPE-63
11	3	40.017	-98.719	Comb	0.00	0.37	0.78	5.0	132.20	0.75	132.50	18	Cir	0.012	1.00	135.17	PIPE-185
12	2	128.000	-104.703	Comb	0.00	0.38	0.83	5.0	129.71	2.68	133.14	12	Cir	0.012	0.50	140.16	PIPE-64
13	12	186.000	0.000	Comb	0.00	0.15	0.86	5.0	128.10	2.00	131.82	12	Cir	0.012	1.43	145.74	PIPE-58
14	13	47.760	-70.427	Comb	0.00	0.37	0.45	5.0	131.82	1.99	132.77	12	Cir	0.012	1.00	146.34	PIPE-61

Project File: Network B1-2.stm | Number of lines: 14 | Date: 9/8/2022

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	PIPE-59	28.38	48	Cir	13.255	129.00	129.12	0.905	133.16*	133.16*	0.08	133.24	End	Manhole
2	PIPE-120	11.62	24	Cir	69.034	129.12	129.71	0.855	133.24*	133.40*	0.32	133.72	1	Combination
3	PIPE-66	5.99	18	Cir	263.148	129.71	132.20	0.946	133.72*	134.45*	0.27	134.72	2	Combination
4	PIPE-213	1.85	12	Cir	333.900	132.20	134.70	0.749	134.72	135.48	0.18	135.67	3	Combination
5	PIPE-212	0.75	12	Cir	40.000	134.70	135.00	0.750	135.67	135.36	0.13	135.36	4	Combination
6	PIPE-124	6.69	24	Cir	205.394	129.12	130.44	0.643	133.24*	133.40*	0.04	133.43	1	Combination
7	PIPE-60	5.34	24	Cir	75.389	130.44	130.93	0.650	133.43*	133.47*	0.02	133.49	6	Combination
8	PIPE-65	4.10	24	Cir	268.740	130.93	132.68	0.651	133.49	133.62	0.02	133.64	7	Manhole
9	PIPE-125	4.19	12	Cir	200.040	132.68	133.98	0.650	133.68*	136.04*	0.22	136.26	8	Combination
10	PIPE-63	1.01	12	Cir	200.000	133.98	135.48	0.750	136.26	136.39	0.03	136.42	9	Combination
11	PIPE-185	2.38	18	Cir	40.017	132.20	132.50	0.750	134.72*	134.73*	0.03	134.76	3	Combination
12	PIPE-64	4.77	12	Cir	128.000	129.71	133.14	2.680	133.72*	135.68*	0.29	135.96	2	Combination
13	PIPE-58	2.40	12	Cir	186.000	128.10	131.82	2.000	135.96*	136.68*	0.21	136.89	12	Combination
14	PIPE-61	1.37	12	Cir	47.760	131.82	132.77	1.989	136.89*	136.95*	0.05	137.00	13	Combination

Project File: Network B1-2.stm | Number of lines: 14 | Run Date: 9/8/2022

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown).

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
1	End	13.255	0.00	3.97	0.00	0.00	2.61	0.0	12.7	6.4	28.38	148.1	2.26	48	0.91	129.00	129.12	133.16	133.16	133.33	135.00	PIPE-59
2	1	69.034	0.25	2.15	0.82	0.21	1.61	5.0	8.8	7.2	11.62	22.65	3.70	24	0.85	129.12	129.71	133.24	133.40	135.00	137.92	PIPE-120
3	2	263.148	0.34	1.00	0.82	0.28	0.79	5.0	7.5	7.5	5.99	11.07	3.39	18	0.95	129.71	132.20	133.72	134.45	137.92	135.17	PIPE-66
4	3	333.900	0.17	0.29	0.80	0.14	0.23	5.0	5.3	8.1	1.85	3.34	2.58	12	0.75	132.20	134.70	134.72	135.48	135.17	138.51	PIPE-213
5	4	40.000	0.12	0.12	0.76	0.09	0.09	5.0	5.0	8.2	0.75	3.34	1.95	12	0.75	134.70	135.00	135.67	135.36	138.51	138.81	PIPE-212
6	1	205.394	0.32	1.82	0.68	0.22	0.99	5.0	11.1	6.7	6.69	19.64	2.13	24	0.64	129.12	130.44	133.24	133.40	135.00	135.32	PIPE-124
7	6	75.389	0.40	1.50	0.55	0.22	0.78	5.0	10.3	6.9	5.34	19.75	1.70	24	0.65	130.44	130.93	133.43	133.47	135.32	136.40	PIPE-60
8	7	268.740	0.00	1.10	0.00	0.00	0.56	0.0	8.2	7.4	4.10	19.77	2.08	24	0.65	130.93	132.68	133.49	133.62	136.40	140.08	PIPE-65
9	8	200.040	0.87	1.10	0.50	0.44	0.56	5.0	7.5	7.5	4.19	3.11	5.34	12	0.65	132.68	133.98	133.68	136.04	140.08	137.00	PIPE-125
10	9	200.000	0.23	0.23	0.53	0.12	0.12	5.0	5.0	8.2	1.01	3.34	1.31	12	0.75	133.98	135.48	136.26	136.39	137.00	140.00	PIPE-63
11	3	40.017	0.37	0.37	0.78	0.29	0.29	5.0	5.0	8.2	2.38	9.85	1.35	18	0.75	132.20	132.50	134.72	134.73	135.17	135.17	PIPE-185
12	2	128.000	0.38	0.90	0.83	0.32	0.61	5.0	6.5	7.8	4.77	6.32	6.08	12	2.68	129.71	133.14	133.72	135.68	137.92	140.16	PIPE-64
13	12	186.000	0.15	0.52	0.86	0.13	0.30	5.0	5.5	8.1	2.40	5.46	3.05	12	2.00	128.10	131.82	135.96	136.68	140.16	145.74	PIPE-58
14	13	47.760	0.37	0.37	0.45	0.17	0.17	5.0	5.0	8.2	1.37	5.44	1.75	12	1.99	131.82	132.77	136.89	136.95	145.74	146.34	PIPE-61

Project File: Network B1-2.stm

Number of lines: 14

Run Date: 9/8/2022

NOTES:Intensity = 102.61 / (Inlet time + 16.50) ^ 0.82; Return period =Yrs. 25 ; c = cir e = ellip b = box

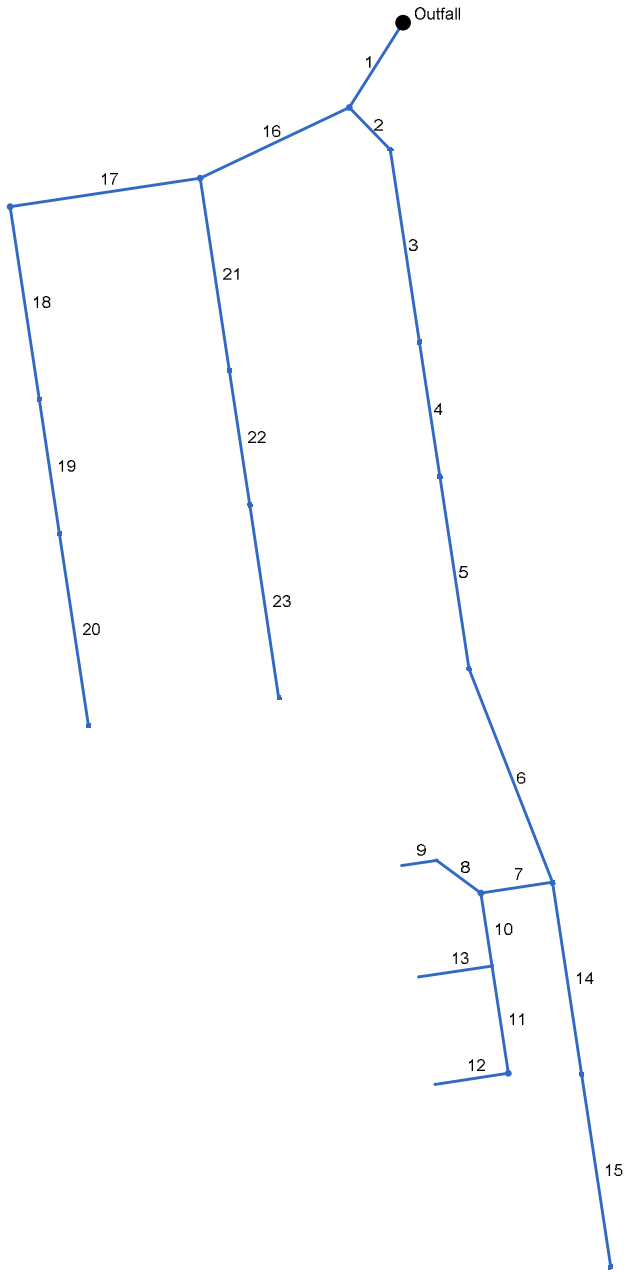
Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
	(in)	(cfs)	Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	(ft)	Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	Ave Sf (%)	Enrgy loss (ft)	(K)	(ft)
1	48	28.38	129.00	133.16	4.00	12.56	2.26	0.08	133.24	0.033	13.255	129.12	133.16	4.00	12.57	2.26	0.08	133.24	0.033	0.033	0.004	1.00	0.08
2	24	11.62	129.12	133.24	2.00	3.14	3.70	0.21	133.46	0.225	69.034	129.71	133.40	2.00	3.14	3.70	0.21	133.61	0.225	0.225	0.155	1.50	0.32
3	18	5.99	129.71	133.72	1.50	1.77	3.39	0.18	133.90	0.277	263.148	132.20	134.45	1.50	1.77	3.39	0.18	134.63	0.277	0.277	0.729	1.50	0.27
4	12	1.85	132.20	134.72	1.00	0.79	2.36	0.09	134.80	0.230	333.900	134.70	135.48	0.78	0.66	2.80	0.12	135.61	0.251	0.240	0.803	1.50	0.18
5	12	0.75	134.70	135.67	0.97	0.26	0.97	0.13	135.80	0.000	40.000	135.00	135.36	0.36**	0.26	2.93	0.13	135.50	0.000	0.000	n/a	1.00	0.13
6	24	6.69	129.12	133.24	2.00	3.14	2.13	0.07	133.31	0.075	205.394	130.44	133.40	2.00	3.14	2.13	0.07	133.47	0.075	0.075	0.153	0.50	0.04
7	24	5.34	130.44	133.43	2.00	3.14	1.70	0.04	133.48	0.048	75.389	130.93	133.47	2.00	3.14	1.70	0.04	133.51	0.048	0.048	0.036	0.50	0.02
8	24	4.10	130.93	133.49	2.00	3.14	1.31	0.03	133.52	0.028	268.740	132.68	133.62	0.94	1.44	2.84	0.13	133.74	0.141	0.084	0.227	0.15	0.02
9	12	4.19	132.68	133.68	1.00*	0.79	5.34	0.44	134.12	1.181	200.040	133.98	136.04	1.00	0.79	5.34	0.44	136.49	1.181	1.181	2.362	0.50	0.22
10	12	1.01	133.98	136.26	1.00	0.79	1.28	0.03	136.29	0.068	200.000	135.48	136.39	0.91	0.75	1.34	0.03	136.42	0.059	0.064	0.127	1.00	0.03
11	18	2.38	132.20	134.72	1.50	1.77	1.35	0.03	134.74	0.044	40.017	132.50	134.73	1.50	1.77	1.35	0.03	134.76	0.044	0.044	0.018	1.00	0.03
12	12	4.77	129.71	133.72	1.00	0.79	6.08	0.57	134.29	1.530	128.000	133.14	135.68	1.00	0.79	6.08	0.57	136.25	1.530	1.530	1.958	0.50	0.29
13	12	2.40	128.10	135.96	1.00	0.79	3.05	0.14	136.11	0.386	186.000	131.82	136.68	1.00	0.79	3.05	0.14	136.83	0.386	0.386	0.717	1.43	0.21
14	12	1.37	131.82	136.89	1.00	0.79	1.75	0.05	136.94	0.127	47.760	132.77	136.95	1.00	0.79	1.75	0.05	137.00	0.127	0.127	0.061	1.00	0.05

Project File: Network B1-2.stm | Number of lines: 14 | Run Date: 9/8/2022

Notes: * depth assumed; ** Critical depth. ; c = cir e = ellip b = box

Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: Network B1-3.stm	Number of lines: 23	Date: 9/8/2022

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	103.154	122.248	MH	0.00	0.00	0.00	0.0	129.50	0.40	129.91	60	Cir	0.012	0.98	140.83	PIPE-16
2	1	60.303	-76.334	Grate	0.00	0.78	0.86	5.0	129.93	0.50	130.23	60	Cir	0.012	0.95	139.57	PIPE-136
3	2	200.000	35.508	Grate	0.00	0.94	0.90	5.0	130.23	0.54	131.31	60	Cir	0.012	0.50	138.67	PIPE-15
4	3	140.000	0.000	Grate	0.00	0.94	0.90	5.0	131.31	0.54	132.07	48	Cir	0.012	0.50	138.67	PIPE-14
5	4	200.000	0.000	Grate	0.00	0.94	0.90	5.0	132.07	0.54	133.15	48	Cir	0.012	0.50	139.57	PIPE-13
6	5	235.769	-12.701	Grate	0.00	0.94	0.90	5.0	133.15	0.54	134.42	36	Cir	0.012	1.99	139.75	PIPE-30
7	6	74.000	102.701	MH	0.00	0.00	0.00	0.0	134.42	0.76	134.98	30	Cir	0.012	1.00	141.79	PIPE-70
8	7	56.565	45.000	MH	0.00	0.00	0.00	0.0	136.34	3.41	138.27	8	Cir	0.012	0.75	142.46	PIPE-117
9	8	36.003	-45.000	None	0.00	0.53	0.90	5.0	138.27	3.42	139.50	8	Cir	0.012	1.00	143.00	PIPE-72
10	7	75.840	-90.000	MH	0.00	0.00	0.00	0.0	136.34	0.75	136.91	24	Cir	0.012	1.00	141.83	PIPE-69
11	10	111.666	0.000	MH	0.00	0.00	0.00	0.0	136.91	0.75	137.75	24	Cir	0.012	1.00	141.83	PIPE-68
12	11	76.000	90.000	None	0.00	2.04	0.90	5.0	137.75	2.30	139.50	15	Cir	0.012	1.00	143.00	PIPE-67
13	10	76.000	90.000	None	0.00	0.99	0.90	5.0	136.91	3.41	139.50	10	Cir	0.012	1.00	143.00	PIPE-73
14	6	200.000	12.701	Grate	0.00	0.94	0.90	5.0	134.42	0.54	135.50	30	Cir	0.015	0.50	139.75	PIPE-29
15	14	200.000	0.000	Grate	0.00	0.94	0.90	5.0	135.50	0.50	136.50	24	Cir	0.015	1.00	139.75	PIPE-28
16	1	169.250	32.315	MH	0.00	1.05	0.80	5.0	130.41	0.65	131.51	48	Cir	0.012	0.96	139.57	PIPE-20
17	16	197.000	16.860	MH	0.00	1.26	0.72	5.0	131.51	0.65	132.79	36	Cir	0.012	1.00	139.57	PIPE-24
18	17	200.000	-90.000	Grate	0.00	0.90	0.90	5.0	132.79	0.65	134.09	30	Cir	0.012	0.50	138.67	PIPE-23
19	18	140.000	0.000	Grate	0.00	0.90	0.90	5.0	134.09	0.65	135.00	24	Cir	0.015	0.50	138.67	PIPE-22
20	19	200.000	0.000	Grate	0.00	0.90	0.90	5.0	135.00	0.65	136.30	18	Cir	0.015	1.00	139.57	PIPE-21
21	16	200.000	-73.140	Grate	0.00	0.90	0.90	5.0	131.51	0.65	132.81	24	Cir	0.012	0.50	138.67	PIPE-19
22	21	140.000	0.000	Grate	0.00	0.90	0.90	5.0	132.81	0.65	133.72	24	Cir	0.012	0.50	138.67	PIPE-18
23	22	200.000	0.000	Grate	0.00	0.90	0.90	5.0	133.72	0.65	135.02	18	Cir	0.012	1.00	139.57	PIPE-17

Project File: Network B1-3.stm | Number of lines: 23 | Date: 9/8/2022

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	PIPE-16	104.0	60	Cir	103.154	129.50	129.91	0.397	135.48*	135.62*	0.43	136.05	End	Manhole
2	PIPE-136	60.44	60	Cir	60.303	129.93	130.23	0.497	136.05*	136.08*	0.14	136.22	1	Grate
3	PIPE-15	57.88	60	Cir	200.000	130.23	131.31	0.540	136.22	136.30	0.07	136.37	2	Grate
4	PIPE-14	52.88	48	Cir	140.000	131.31	132.07	0.543	136.37*	136.53*	0.14	136.67	3	Grate
5	PIPE-13	48.18	48	Cir	200.000	132.07	133.15	0.540	136.67	136.83	0.12	136.95	4	Grate
6	PIPE-30	42.91	36	Cir	235.769	133.15	134.42	0.539	136.95*	137.78*	1.14	138.92	5	Grate
7	PIPE-70	25.77	30	Cir	74.000	134.42	134.98	0.757	138.92*	139.17*	0.43	139.60	6	Manhole
8	PIPE-117	3.93	8	Cir	56.565	136.34	138.27	3.412	139.60*	144.70*	1.48	146.17	7	Manhole
9	PIPE-72	3.93	8	Cir	36.003	138.27	139.50	3.416	146.17*	149.43*	1.97	151.40	8	None
10	PIPE-69	22.08	24	Cir	75.840	136.34	136.91	0.752	139.60*	140.22*	0.77	140.98	7	Manhole
11	PIPE-68	15.08	24	Cir	111.666	136.91	137.75	0.752	140.98*	141.41*	0.36	141.77	10	Manhole
12	PIPE-67	15.14	15	Cir	76.000	137.75	139.50	2.303	141.77*	145.33*	2.37	147.70	11	None
13	PIPE-73	7.35	10	Cir	76.000	136.91	139.50	3.408	140.98*	148.28*	2.82	151.10	10	None
14	PIPE-29	13.20	30	Cir	200.000	134.42	135.50	0.540	138.92*	139.20*	0.06	139.26	6	Grate
15	PIPE-28	6.98	24	Cir	200.000	135.50	136.50	0.500	139.26*	139.51*	0.08	139.59	14	Grate
16	PIPE-20	48.58	48	Cir	169.250	130.41	131.51	0.650	136.05*	136.21*	0.22	136.44	1	Manhole
17	PIPE-24	25.31	36	Cir	197.000	131.51	132.79	0.650	136.44*	136.68*	0.20	136.88	16	Manhole
18	PIPE-23	19.00	30	Cir	200.000	132.79	134.09	0.650	136.88*	137.24*	0.12	137.36	17	Grate
19	PIPE-22	12.93	24	Cir	140.000	134.09	135.00	0.650	137.36*	137.97*	0.13	138.10	18	Grate
20	PIPE-21	6.68	18	Cir	200.000	135.00	136.30	0.650	138.10*	139.18*	0.22	139.40	19	Grate
21	PIPE-19	19.00	24	Cir	200.000	131.51	132.81	0.650	136.44*	137.64*	0.28	137.92	16	Grate
22	PIPE-18	12.93	24	Cir	140.000	132.81	133.72	0.650	137.92*	138.31*	0.13	138.44	21	Grate
23	PIPE-17	6.68	18	Cir	200.000	133.72	135.02	0.650	138.44*	139.13*	0.22	139.36	22	Grate

Project File: Network B1-3.stm | Number of lines: 23 | Run Date: 9/8/2022

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown).

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
1	End	103.154	0.00	17.69	0.00	0.00	15.56	0.0	11.2	6.7	104.0	177.9	5.30	60	0.40	129.50	129.91	135.48	135.62	134.88	140.83	PIPE-16
2	1	60.303	0.78	9.98	0.86	0.67	8.95	5.0	10.9	6.8	60.44	199.0	3.08	60	0.50	129.93	130.23	136.05	136.08	140.83	139.57	PIPE-136
3	2	200.000	0.94	9.20	0.90	0.85	8.28	5.0	9.8	7.0	57.88	207.4	2.95	60	0.54	130.23	131.31	136.22	136.30	139.57	138.67	PIPE-15
4	3	140.000	0.94	8.26	0.90	0.85	7.43	5.0	9.2	7.1	52.88	114.7	4.21	48	0.54	131.31	132.07	136.37	136.53	138.67	138.67	PIPE-14
5	4	200.000	0.94	7.32	0.90	0.85	6.59	5.0	8.4	7.3	48.18	114.4	3.91	48	0.54	132.07	133.15	136.67	136.83	138.67	139.57	PIPE-13
6	5	235.769	0.94	6.38	0.90	0.85	5.74	5.0	7.7	7.5	42.91	53.03	6.07	36	0.54	133.15	134.42	136.95	137.78	139.57	139.75	PIPE-30
7	6	74.000	0.00	3.56	0.00	0.00	3.20	0.0	5.7	8.0	25.77	38.65	5.25	30	0.76	134.42	134.98	138.92	139.17	139.75	141.79	PIPE-70
8	7	56.565	0.00	0.53	0.00	0.00	0.48	0.0	5.1	8.2	3.93	2.42	11.25	8	3.41	136.34	138.27	139.60	144.70	141.79	142.46	PIPE-117
9	8	36.003	0.53	0.53	0.90	0.48	0.48	5.0	5.0	8.2	3.93	2.42	11.27	8	3.42	138.27	139.50	146.17	149.43	142.46	143.00	PIPE-72
10	7	75.840	0.00	3.03	0.00	0.00	2.73	0.0	5.5	8.1	22.08	21.24	7.03	24	0.75	136.34	136.91	139.60	140.22	141.79	141.83	PIPE-69
11	10	111.666	0.00	2.04	0.00	0.00	1.84	0.0	5.1	8.2	15.08	21.25	4.80	24	0.75	136.91	137.75	140.98	141.41	141.83	141.83	PIPE-68
12	11	76.000	2.04	2.04	0.90	1.84	1.84	5.0	5.0	8.2	15.14	10.62	12.34	15	2.30	137.75	139.50	141.77	145.33	141.83	143.00	PIPE-67
13	10	76.000	0.99	0.99	0.90	0.89	0.89	5.0	5.0	8.2	7.35	4.38	13.47	10	3.41	136.91	139.50	140.98	148.28	141.83	143.00	PIPE-73
14	6	200.000	0.94	1.88	0.90	0.85	1.69	5.0	6.5	7.8	13.20	26.12	2.69	30	0.54	134.42	135.50	138.92	139.20	139.75	139.75	PIPE-29
15	14	200.000	0.94	0.94	0.90	0.85	0.85	5.0	5.0	8.2	6.98	13.86	2.22	24	0.50	135.50	136.50	139.26	139.51	139.75	139.75	PIPE-28
16	1	169.250	1.05	7.71	0.80	0.84	6.61	5.0	8.2	7.4	48.58	125.5	3.87	48	0.65	130.41	131.51	136.05	136.21	140.83	139.57	PIPE-20
17	16	197.000	1.26	3.96	0.72	0.91	3.34	5.0	7.3	7.6	25.31	58.24	3.58	36	0.65	131.51	132.79	136.44	136.68	139.57	139.57	PIPE-24
18	17	200.000	0.90	2.70	0.90	0.81	2.43	5.0	6.4	7.8	19.00	35.82	3.87	30	0.65	132.79	134.09	136.88	137.24	139.57	138.67	PIPE-23
19	18	140.000	0.90	1.80	0.90	0.81	1.62	5.0	5.9	8.0	12.93	15.80	4.12	24	0.65	134.09	135.00	137.36	137.97	138.67	138.67	PIPE-22
20	19	200.000	0.90	0.90	0.90	0.81	0.81	5.0	5.0	8.2	6.68	7.34	3.78	18	0.65	135.00	136.30	138.10	139.18	138.67	139.57	PIPE-21
21	16	200.000	0.90	2.70	0.90	0.81	2.43	5.0	6.4	7.8	19.00	19.75	6.05	24	0.65	131.51	132.81	136.44	137.64	139.57	138.67	PIPE-19
22	21	140.000	0.90	1.80	0.90	0.81	1.62	5.0	5.9	8.0	12.93	19.75	4.12	24	0.65	132.81	133.72	137.92	138.31	138.67	138.67	PIPE-18

Project File: Network B1-3.stm | Number of lines: 23 | Run Date: 9/8/2022

NOTES:Intensity = 102.61 / (Inlet time + 16.50) ^ 0.82; Return period =Yrs. 25 ; c = cir e = ellip b = box

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
23	22	200.000	0.90	0.90	0.90	0.81	0.81	5.0	5.0	8.2	6.68	9.17	3.78	18	0.65	133.72	135.02	138.44	139.13	138.67	139.57	PIPE-17

Project File: Network B1-3.stm

Number of lines: 23

Run Date: 9/8/2022

NOTES:Intensity = 102.61 / (Inlet time + 16.50) ^ 0.82; Return period =Yrs. 25 ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	60	104.0	129.50	135.48	5.00	19.63	5.30	0.44	135.92	0.136	103.154	129.91	135.62	5.00	19.63	5.30	0.44	136.06	0.136	0.136	0.140	0.98	0.43
2	60	60.44	129.93	136.05	5.00	19.63	3.08	0.15	136.20	0.046	60.303	130.23	136.08	5.00	19.63	3.08	0.15	136.22	0.046	0.046	0.028	0.95	0.14
3	60	57.88	130.23	136.22	5.00	19.63	2.95	0.14	136.35	0.042	200.000	131.31	136.30	4.99	19.63	2.95	0.14	136.43	0.040	0.041	0.082	0.50	0.07
4	48	52.88	131.31	136.37	4.00	12.56	4.21	0.28	136.64	0.116	140.000	132.07	136.53	4.00	12.57	4.21	0.28	136.80	0.115	0.116	0.162	0.50	0.14
5	48	48.18	132.07	136.67	4.00	12.56	3.83	0.23	136.89	0.096	200.000	133.15	136.83	3.68	12.09	3.99	0.25	137.07	0.083	0.090	0.179	0.50	0.12
6	36	42.91	133.15	136.95	3.00	7.07	6.07	0.57	137.52	0.353	235.769	134.42	137.78	3.00	7.07	6.07	0.57	138.36	0.353	0.353	0.832	1.99	1.14
7	30	25.77	134.42	138.92	2.50	4.91	5.25	0.43	139.35	0.336	74.000	134.98	139.17	2.50	4.91	5.25	0.43	139.60	0.336	0.336	0.249	1.00	0.43
8	8	3.93	136.34	139.60	0.67	0.35	11.25	1.97	141.57	9.008	56.565	138.27	144.70	0.67**	0.35	11.25	1.97	146.66	9.004	9.006	5.094	0.75	1.48
9	8	3.93	138.27	146.17	0.67	0.35	11.27	1.98	148.15	9.045	36.003	139.50	149.43	0.67**	0.35	11.27	1.97	151.40	9.041	9.043	3.256	1.00	1.97
10	24	22.08	136.34	139.60	2.00	3.14	7.03	0.77	140.37	0.812	75.840	136.91	140.22	2.00	3.14	7.03	0.77	140.98	0.812	0.812	0.616	1.00	0.77
11	24	15.08	136.91	140.98	2.00	3.14	4.80	0.36	141.34	0.379	111.666	137.75	141.41	2.00	3.14	4.80	0.36	141.77	0.379	0.379	0.423	1.00	0.36
12	15	15.14	137.75	141.77	1.25	1.23	12.34	2.37	144.13	4.687	76.000	139.50	145.33	1.25	1.23	12.34	2.37	147.70	4.685	4.686	3.562	1.00	2.37
13	10	7.35	136.91	140.98	0.83	0.55	13.48	2.82	143.81	9.598	76.000	139.50	148.28	0.83**	0.55	13.47	2.82	151.10	9.595	9.596	7.293	1.00	2.82
14	30	13.20	134.42	138.92	2.50	4.91	2.69	0.11	139.04	0.138	200.000	135.50	139.20	2.50	4.91	2.69	0.11	139.31	0.138	0.138	0.276	0.50	0.06
15	24	6.98	135.50	139.26	2.00	3.14	2.22	0.08	139.33	0.127	200.000	136.50	139.51	2.00	3.14	2.22	0.08	139.59	0.127	0.127	0.253	1.00	0.08
16	48	48.58	130.41	136.05	4.00	12.56	3.87	0.23	136.28	0.097	169.250	131.51	136.21	4.00	12.57	3.87	0.23	136.45	0.097	0.097	0.165	0.96	0.22
17	36	25.31	131.51	136.44	3.00	7.07	3.58	0.20	136.64	0.123	197.000	132.79	136.68	3.00	7.07	3.58	0.20	136.88	0.123	0.123	0.242	1.00	0.20
18	30	19.00	132.79	136.88	2.50	4.91	3.87	0.23	137.11	0.183	200.000	134.09	137.24	2.50	4.91	3.87	0.23	137.48	0.183	0.183	0.366	0.50	0.12
19	24	12.93	134.09	137.36	2.00	3.14	4.12	0.26	137.62	0.435	140.000	135.00	137.97	2.00	3.14	4.11	0.26	138.23	0.435	0.435	0.609	0.50	0.13
20	18	6.68	135.00	138.10	1.50	1.77	3.78	0.22	138.32	0.539	200.000	136.30	139.18	1.50	1.77	3.78	0.22	139.40	0.539	0.539	1.078	1.00	0.22
21	24	19.00	131.51	136.44	2.00	3.14	6.05	0.57	137.00	0.601	200.000	132.81	137.64	2.00	3.14	6.05	0.57	138.21	0.601	0.601	1.202	0.50	0.28
22	24	12.93	132.81	137.92	2.00	3.14	4.12	0.26	138.19	0.278	140.000	133.72	138.31	2.00	3.14	4.11	0.26	138.58	0.278	0.278	0.390	0.50	0.13

Project File: Network B1-3.stm | Number of lines: 23 | Run Date: 9/8/2022

Notes: ; ** Critical depth. ; c = cir e = ellip b = box

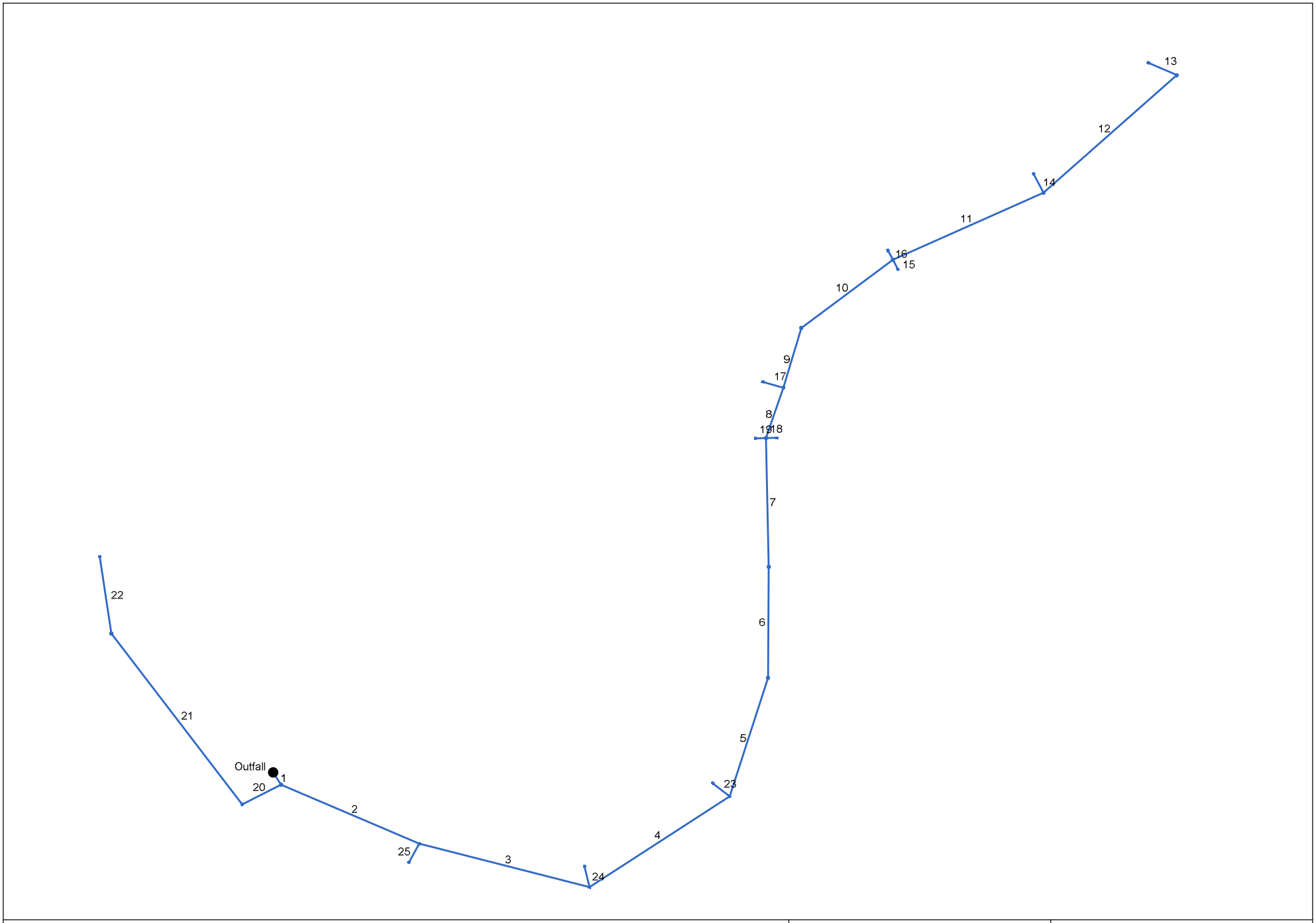
Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
23	18	6.68	133.72	138.44	1.50	1.77	3.78	0.22	138.67	0.345	200.000	135.02	139.13	1.50	1.77	3.78	0.22	139.36	0.345	0.345	0.690	1.00	0.22

Project File: Network B1-3.stm | Number of lines: 23 | Run Date: 9/8/2022

Notes: ; ** Critical depth. ; c = cir e = ellip b = box

Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: Network B3-2.stm	Number of lines: 25	Date: 9/8/2022

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	24.549	57.532	MH	0.00	0.00	0.00	0.0	124.00	0.49	124.12	36	Cir	0.012	1.00	130.21	PIPE-245 (31)
2	1	251.128	-34.348	Comb	0.00	0.14	0.90	5.0	124.12	0.44	125.23	36	Cir	0.012	1.50	133.69	PIPE-245 (34)
3	2	293.429	-8.813	Comb	0.00	0.38	0.78	5.0	125.23	0.44	126.53	24	Cir	0.012	1.50	130.19	PIPE-245 (8)
4	3	279.199	-47.440	Comb	0.00	0.31	0.74	5.0	126.53	0.45	127.78	24	Cir	0.012	1.50	132.71	PIPE-245 (7)
5	4	208.621	-39.020	MH	0.00	0.00	0.00	0.0	127.78	0.45	128.72	24	Cir	0.012	0.35	135.13	PIPE-245 (22)
6	5	186.155	-17.543	MH	0.00	0.00	0.00	0.0	128.72	0.45	129.56	24	Cir	0.012	0.15	136.99	PIPE-245 (21)
7	6	215.885	-1.579	MH	0.00	0.00	0.00	0.0	129.56	0.45	130.53	24	Cir	0.012	1.00	135.58	PIPE-245 (5)
8	7	89.286	20.143	Comb	0.00	0.20	0.74	5.0	130.53	0.45	130.93	24	Cir	0.012	1.50	134.51	PIPE-245 (4)
9	8	104.691	-2.380	MH	0.00	0.00	0.00	0.0	130.93	0.46	131.41	24	Cir	0.012	0.65	135.74	PIPE-245 (3)
10	9	190.919	36.706	MH	0.00	0.00	0.00	0.0	131.41	0.45	132.26	24	Cir	0.012	1.00	136.03	PIPE-245 (17)
11	10	275.589	12.675	Comb	0.00	0.29	0.76	5.0	132.26	0.99	135.00	18	Cir	0.012	1.50	138.72	PIPE-245 (2)
12	11	297.594	-17.448	Comb	0.00	0.27	0.80	5.0	135.00	3.18	144.47	18	Cir	0.012	1.50	149.78	PIPE-245 (1)
13	12	52.598	-115.334	Comb	0.00	0.17	0.75	5.0	144.47	1.01	145.00	12	Cir	0.012	1.00	150.12	PIPE-244
14	11	36.000	-93.745	Comb	0.00	0.20	0.78	5.0	135.00	1.00	135.36	12	Cir	0.012	1.00	138.72	PIPE-245 (19)
15	10	18.000	98.930	Comb	0.00	0.29	0.73	5.0	132.26	1.00	132.44	12	Cir	0.012	1.00	135.67	PIPE-245 (18)
16	10	18.000	-81.070	Grate	0.00	0.22	0.74	5.0	132.26	0.50	132.35	12	Cir	0.012	1.00	135.67	PIPE-245 (20)
17	8	36.000	-92.850	Comb	0.00	0.20	0.76	5.0	130.98	0.75	131.25	12	Cir	0.012	1.00	134.51	PIPE-245 (16)
18	7	18.000	90.000	Comb	0.00	0.13	0.73	5.0	130.53	1.00	130.71	12	Cir	0.012	1.00	135.22	PIPE-245 (15)
19	7	18.000	-90.000	Comb	0.00	0.10	0.73	5.0	130.53	1.00	130.71	12	Cir	0.012	1.00	135.22	PIPE-245 (14)
20	1	72.813	95.524	Comb	0.00	0.45	0.65	5.0	124.12	1.00	124.85	18	Cir	0.012	1.48	135.93	PIPE-245 (33)
21	20	360.157	79.615	MH	0.00	0.00	0.00	0.0	124.85	1.00	128.45	15	Cir	0.012	0.54	136.85	PIPE-245 (37)
22	21	130.714	28.751	Comb	0.00	1.48	0.51	5.0	128.45	1.00	129.76	15	Cir	0.012	1.00	134.54	PIPE-245 (36)
23	4	36.000	-109.510	Comb	0.00	0.24	0.76	5.0	127.78	1.00	128.14	12	Cir	0.012	1.00	132.71	PIPE-245 (13)

Project File: Network B3-2.stm

Number of lines: 25

Date: 9/8/2022

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	3	36.000	-117.930	Comb	0.00	0.30	0.77	5.0	126.53	1.00	126.89	15	Cir	0.012	1.00	130.19	PIPE-245 (12)
25	2	36.000	95.996	Comb	0.00	0.83	0.57	5.0	125.23	1.00	125.59	12	Cir	0.012	1.00	133.30	PIPE-245 (11)

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	PIPE-245 (31)	22.29	36	Cir	24.549	124.00	124.12	0.489	127.53*	127.55*	0.15	127.71	End	Manhole
2	PIPE-245 (34)	17.32	36	Cir	251.128	124.12	125.23	0.442	127.71	127.83	0.17	127.99	1	Combination
3	PIPE-245 (8)	14.33	24	Cir	293.429	125.23	126.53	0.443	128.09*	129.31*	n/a	129.90	2	Combination
4	PIPE-245 (7)	11.65	24	Cir	279.199	126.53	127.78	0.448	129.90*	130.67*	n/a	131.06	3	Combination
5	PIPE-245 (22)	9.49	24	Cir	208.621	127.78	128.72	0.451	131.06*	131.45*	n/a	131.51	4	Manhole
6	PIPE-245 (21)	9.73	24	Cir	186.155	128.72	129.56	0.451	131.51*	131.87*	n/a	131.90	5	Manhole
7	PIPE-245 (5)	10.02	24	Cir	215.885	129.56	130.53	0.449	131.90	132.29	n/a	132.51	6	Manhole
8	PIPE-245 (4)	9.07	24	Cir	89.286	130.53	130.93	0.448	132.51	132.06	n/a	132.06	7	Combination
9	PIPE-245 (3)	7.26	24	Cir	104.691	130.93	131.41	0.459	132.06	132.41	n/a	132.41	8	Manhole
10	PIPE-245 (17)	7.54	24	Cir	190.919	131.41	132.26	0.445	132.41	133.28	n/a	133.28	9	Manhole
11	PIPE-245 (2)	5.20	18	Cir	275.589	132.26	135.00	0.994	133.28	135.91	n/a	135.91	10	Combination
12	PIPE-245 (1)	2.76	18	Cir	297.594	135.00	144.47	3.182	135.91	145.10	n/a	145.10	11	Combination
13	PIPE-244	1.05	12	Cir	52.598	144.47	145.00	1.008	145.10	145.43	n/a	145.43	12	Combination
14	PIPE-245 (19)	1.29	12	Cir	36.000	135.00	135.36	1.000	135.91	135.84	n/a	135.84	11	Combination
15	PIPE-245 (18)	1.75	12	Cir	18.000	132.26	132.44	1.000	133.28	133.29	n/a	133.39	10	Combination
16	PIPE-245 (20)	1.34	12	Cir	18.000	132.26	132.35	0.500	133.28	133.29	n/a	133.34	10	Grate
17	PIPE-245 (16)	1.25	12	Cir	36.000	130.98	131.25	0.750	132.06	132.09	n/a	132.14	8	Combination
18	PIPE-245 (15)	0.78	12	Cir	18.000	130.53	130.71	1.000	132.51*	132.52*	n/a	132.54	7	Combination
19	PIPE-245 (14)	0.60	12	Cir	18.000	130.53	130.71	1.000	132.51*	132.52*	n/a	132.53	7	Combination
20	PIPE-245 (33)	8.13	18	Cir	72.813	124.12	124.85	1.003	127.75*	128.12*	n/a	128.61	1	Combination
21	PIPE-245 (37)	6.12	15	Cir	360.157	124.85	128.45	1.000	128.61*	131.37*	n/a	131.58	20	Manhole
22	PIPE-245 (36)	6.23	15	Cir	130.714	128.45	129.76	1.002	131.58*	132.61*	n/a	133.01	21	Combination
23	PIPE-245 (13)	1.50	12	Cir	36.000	127.78	128.14	1.000	131.06*	131.12*	n/a	131.18	4	Combination
24	PIPE-245 (12)	1.91	15	Cir	36.000	126.53	126.89	1.000	129.90*	129.93*	n/a	129.97	3	Combination

Project File: Network B3-2.stm | Number of lines: 25 | Run Date: 9/8/2022

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown).

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
25	PIPE-245 (11)	3.90	12	Cir	36.000	125.23	125.59	1.000	128.09*	128.46*	n/a	128.84	2	Combination

Project File: Network B3-2.stm | Number of lines: 25 | Run Date: 9/8/2022

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown).

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
1	End	24.549	0.00	6.20	0.00	0.00	4.15	0.0	19.7	5.4	22.29	50.52	3.15	36	0.49	124.00	124.12	127.53	127.55	127.33	130.21	PIPE-245 (31)
2	1	251.128	0.14	4.27	0.90	0.13	3.10	5.0	18.0	5.6	17.32	48.04	2.56	36	0.44	124.12	125.23	127.71	127.83	130.21	133.69	PIPE-245 (34)
3	2	293.429	0.38	3.30	0.78	0.30	2.50	5.0	17.0	5.7	14.33	0.00	5.03	24	0.44	125.23	126.53	128.09	129.31	133.69	130.19	PIPE-245 (8)
4	3	279.199	0.31	2.62	0.74	0.23	1.97	5.0	15.8	5.9	11.65	0.00	4.10	24	0.45	126.53	127.78	129.90	130.67	130.19	132.71	PIPE-245 (7)
5	4	208.621	0.00	2.07	0.00	0.00	1.56	0.0	14.7	6.1	9.49	0.00	3.34	24	0.45	127.78	128.72	131.06	131.45	132.71	135.13	PIPE-245 (22)
6	5	186.155	0.00	2.07	0.00	0.00	1.56	0.0	13.8	6.2	9.73	0.00	3.43	24	0.45	128.72	129.56	131.51	131.87	135.13	136.99	PIPE-245 (21)
7	6	215.885	0.00	2.07	0.00	0.00	1.56	0.0	12.7	6.4	10.02	0.00	3.67	24	0.45	129.56	130.53	131.90	132.29	136.99	135.58	PIPE-245 (5)
8	7	89.286	0.20	1.84	0.74	0.15	1.39	5.0	12.2	6.5	9.07	0.00	4.33	24	0.45	130.53	130.93	132.51	132.06	135.58	134.51	PIPE-245 (4)
9	8	104.691	0.00	1.44	0.00	0.00	1.09	0.0	11.5	6.6	7.26	0.00	4.70	24	0.46	130.93	131.41	132.06	132.41	134.51	135.74	PIPE-245 (3)
10	9	190.919	0.00	1.44	0.00	0.00	1.09	0.0	10.3	6.9	7.54	0.00	5.12	24	0.45	131.41	132.26	132.41	133.28	135.74	136.03	PIPE-245 (17)
11	10	275.589	0.29	0.93	0.76	0.22	0.72	5.0	8.8	7.2	5.20	0.00	4.66	18	0.99	132.26	135.00	133.28	135.91	136.03	138.72	PIPE-245 (2)
12	11	297.594	0.27	0.44	0.80	0.22	0.34	5.0	5.7	8.0	2.76	0.00	3.22	18	3.18	135.00	144.47	135.91	145.10	138.72	149.78	PIPE-245 (1)
13	12	52.598	0.17	0.17	0.75	0.13	0.13	5.0	5.0	8.2	1.05	0.00	2.62	12	1.01	144.47	145.00	145.10	145.43	149.78	150.12	PIPE-244
14	11	36.000	0.20	0.20	0.78	0.16	0.16	5.0	5.0	8.2	1.29	0.00	2.59	12	1.00	135.00	135.36	135.91	135.84	138.72	138.72	PIPE-245 (19)
15	10	18.000	0.29	0.29	0.73	0.21	0.21	5.0	5.0	8.2	1.75	0.00	2.33	12	1.00	132.26	132.44	133.28	133.29	136.03	135.67	PIPE-245 (18)
16	10	18.000	0.22	0.22	0.74	0.16	0.16	5.0	5.0	8.2	1.34	0.00	1.73	12	0.50	132.26	132.35	133.28	133.29	136.03	135.67	PIPE-245 (20)
17	8	36.000	0.20	0.20	0.76	0.15	0.15	5.0	5.0	8.2	1.25	0.00	1.69	12	0.75	130.98	131.25	132.06	132.09	134.51	134.51	PIPE-245 (16)
18	7	18.000	0.13	0.13	0.73	0.09	0.09	5.0	5.0	8.2	0.78	0.00	1.00	12	1.00	130.53	130.71	132.51	132.52	135.58	135.22	PIPE-245 (15)
19	7	18.000	0.10	0.10	0.73	0.07	0.07	5.0	5.0	8.2	0.60	0.00	0.77	12	1.00	130.53	130.71	132.51	132.52	135.58	135.22	PIPE-245 (14)
20	1	72.813	0.45	1.93	0.65	0.29	1.05	5.0	6.6	7.8	8.13	0.00	4.60	18	1.00	124.12	124.85	127.75	128.12	130.21	135.93	PIPE-245 (33)
21	20	360.157	0.00	1.48	0.00	0.00	0.75	0.0	5.4	8.1	6.12	0.00	4.99	15	1.00	124.85	128.45	128.61	131.37	135.93	136.85	PIPE-245 (37)
22	21	130.714	1.48	1.48	0.51	0.75	0.75	5.0	5.0	8.2	6.23	0.00	5.07	15	1.00	128.45	129.76	131.58	132.61	136.85	134.54	PIPE-245 (36)

Project File: Network B3-2.stm | Number of lines: 25 | Run Date: 9/8/2022

NOTES:Intensity = 102.61 / (Inlet time + 16.50) ^ 0.82; Return period =Yrs. 25 ; c = cir e = ellip b = box

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
23	4	36.000	0.24	0.24	0.76	0.18	0.18	5.0	5.0	8.2	1.50	0.00	1.92	12	1.00	127.78	128.14	131.06	131.12	132.71	132.71	PIPE-245 (13)
24	3	36.000	0.30	0.30	0.77	0.23	0.23	5.0	5.0	8.2	1.91	0.00	1.55	15	1.00	126.53	126.89	129.90	129.93	130.19	130.19	PIPE-245 (12)
25	2	36.000	0.83	0.83	0.57	0.47	0.47	5.0	5.0	8.2	3.90	0.00	4.97	12	1.00	125.23	125.59	128.09	128.46	133.69	133.30	PIPE-245 (11)

Project File: Network B3-2.stm | Number of lines: 25 | Run Date: 9/8/2022

NOTES:Intensity = 102.61 / (Inlet time + 16.50) ^ 0.82; Return period =Yrs. 25 ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	36	22.29	124.00	127.53	3.00	7.07	3.15	0.15	127.68	0.095	24.549	124.12	127.55	3.00	7.07	3.15	0.15	127.71	0.095	0.095	0.023	1.00	0.15
2	36	17.32	124.12	127.71	3.00	7.07	2.45	0.09	127.80	0.058	251.128	125.23	127.83	2.60	6.51	2.66	0.11	127.94	0.053	0.055	0.138	1.50	0.17
3	24	14.33	125.23	128.09	0.00	0.00	5.03	0.00	128.09	0.000	293.429	126.53	129.31	0.00**	0.00	5.03	0.00	129.31	0.000	0.000	0.000	1.50	n/a
4	24	11.65	126.53	129.90	0.00	0.00	4.10	0.00	129.90	0.000	279.199	127.78	130.67	0.00**	0.00	4.10	0.00	130.67	0.000	0.000	0.000	1.50	n/a
5	24	9.49	127.78	131.06	0.00	0.00	3.34	0.00	131.06	0.000	208.621	128.72	131.45	0.00**	0.00	3.34	0.00	131.45	0.000	0.000	0.000	0.35	n/a
6	24	9.73	128.72	131.51	0.00	0.00	3.44	0.00	131.51	0.000	186.155	129.56	131.87	0.00**	0.00	3.43	0.00	131.87	0.000	0.000	0.000	0.15	n/a
7	24	10.02	129.56	131.90	0.00	0.00	3.54	0.00	131.90	0.000	215.885	130.53	132.29	0.00**	0.00	3.80	0.00	132.29	0.000	0.000	0.000	1.00	n/a
8	24	9.07	130.53	132.51	0.00	0.00	3.20	0.00	132.51	0.000	89.286	130.93	132.06	0.00**	0.00	5.47	0.00	132.06	0.000	0.000	0.000	1.50	n/a
9	24	7.26	130.93	132.06	0.00	0.00	4.34	0.00	132.06	0.000	104.691	131.41	132.41	0.00**	0.00	5.05	0.00	132.41	0.000	0.000	0.000	0.65	n/a
10	24	7.54	131.41	132.41	0.00	0.00	5.15	0.00	132.41	0.000	190.919	132.26	133.28	0.00**	0.00	5.08	0.00	133.28	0.000	0.000	0.000	1.00	n/a
11	18	5.20	132.26	133.28	0.00	0.00	4.35	0.00	133.28	0.000	275.589	135.00	135.91	0.00**	0.00	4.96	0.00	135.91	0.000	0.000	0.000	1.50	n/a
12	18	2.76	135.00	135.91	0.00	0.00	2.50	0.00	135.91	0.000	297.594	144.47	145.10	0.00**	0.00	3.94	0.00	145.10	0.000	0.000	0.000	1.50	n/a
13	12	1.05	144.47	145.10	0.00	0.00	2.00	0.00	145.10	0.000	52.598	145.00	145.43	0.00**	0.00	3.25	0.00	145.43	0.000	0.000	0.000	1.00	n/a
14	12	1.29	135.00	135.91	0.00	0.00	1.72	0.00	135.91	0.000	36.000	135.36	135.84	0.00**	0.00	3.47	0.00	135.84	0.000	0.000	0.000	1.00	n/a
15	12	1.75	132.26	133.28	0.00	0.00	2.22	0.00	133.28	0.000	18.000	132.44	133.29	0.00**	0.00	2.44	0.00	133.29	0.000	0.000	0.000	1.00	n/a
16	12	1.34	132.26	133.28	0.00	0.00	1.71	0.00	133.28	0.000	18.000	132.35	133.29	0.00**	0.00	1.75	0.00	133.29	0.000	0.000	0.000	1.00	n/a
17	12	1.25	130.98	132.06	0.00	0.00	1.60	0.00	132.06	0.000	36.000	131.25	132.09	0.00**	0.00	1.78	0.00	132.09	0.000	0.000	0.000	1.00	n/a
18	12	0.78	130.53	132.51	0.00	0.00	1.00	0.00	132.51	0.000	18.000	130.71	132.52	0.00**	0.00	1.00	0.00	132.52	0.000	0.000	0.000	1.00	n/a
19	12	0.60	130.53	132.51	0.00	0.00	0.77	0.00	132.51	0.000	18.000	130.71	132.52	0.00**	0.00	0.77	0.00	132.52	0.000	0.000	0.000	1.00	n/a
20	18	8.13	124.12	127.75	0.00	0.00	4.60	0.00	127.75	0.000	72.813	124.85	128.12	0.00**	0.00	4.60	0.00	128.12	0.000	0.000	0.000	1.48	n/a
21	15	6.12	124.85	128.61	0.00	0.00	4.99	0.00	128.61	0.000	360.157	128.45	131.37	0.00**	0.00	4.99	0.00	131.37	0.000	0.000	0.000	0.54	n/a
22	15	6.23	128.45	131.58	0.00	0.00	5.07	0.00	131.58	0.000	130.714	129.76	132.61	0.00**	0.00	5.07	0.00	132.61	0.000	0.000	0.000	1.00	n/a

Project File: Network B3-2.stm | Number of lines: 25 | Run Date: 9/8/2022

Notes: ; ** Critical depth. ; c = cir e = ellip b = box

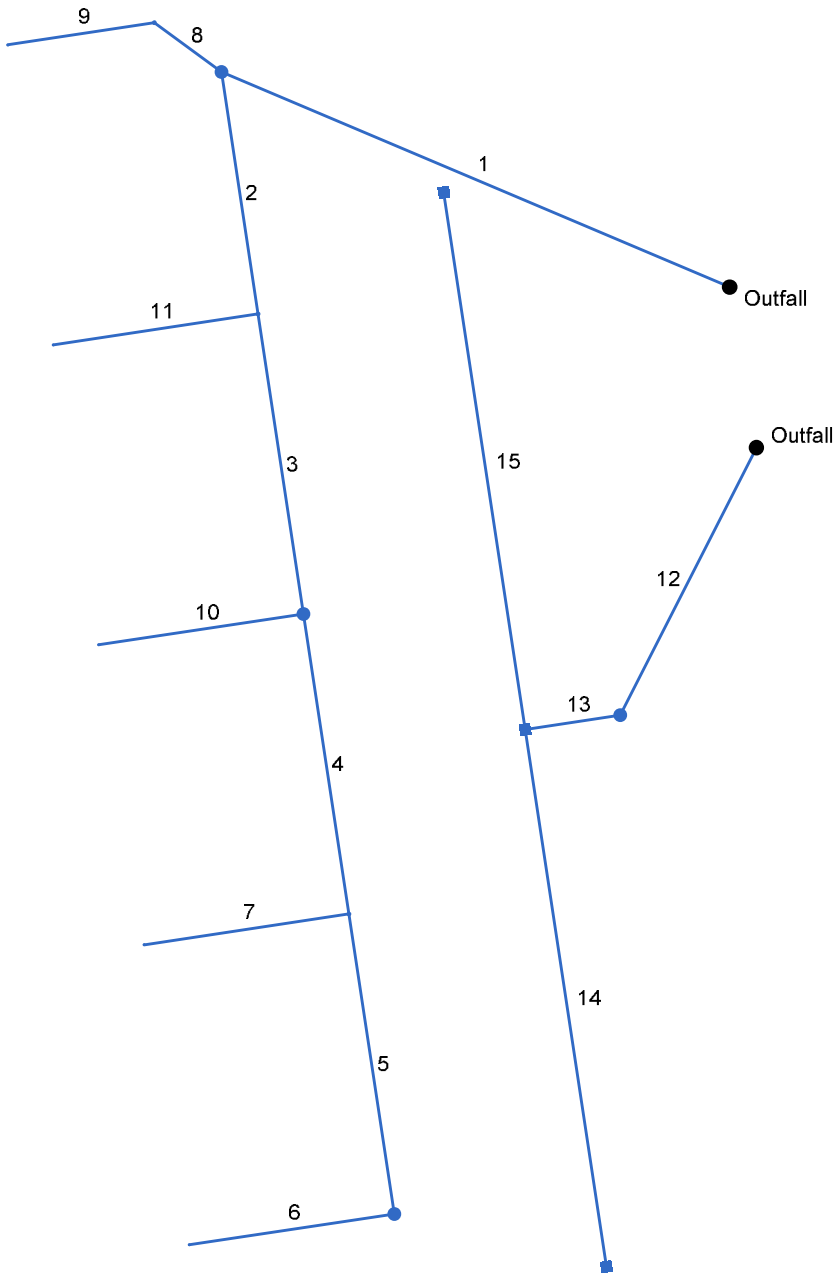
Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
23	12	1.50	127.78	131.06	0.00	0.00	1.92	0.00	131.06	0.000	36.000	128.14	131.12	0.00**	0.00	1.92	0.00	131.12	0.000	0.000	0.000	1.00	n/a
24	15	1.91	126.53	129.90	0.00	0.00	1.55	0.00	129.90	0.000	36.000	126.89	129.93	0.00**	0.00	1.55	0.00	129.93	0.000	0.000	0.000	1.00	n/a
25	12	3.90	125.23	128.09	0.00	0.00	4.97	0.00	128.09	0.000	36.000	125.59	128.46	0.00**	0.00	4.97	0.00	128.46	0.000	0.000	0.000	1.00	n/a

Project File: Network B3-2.stm | Number of lines: 25 | Run Date: 9/8/2022

Notes: ; ** Critical depth. ; c = cir e = ellip b = box

Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: Network B5-2.stm	Number of lines: 15	Date: 9/8/2022

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	202.404	-156.978	MH	0.00	0.00	0.00	0.0	133.50	0.75	135.02	36	Cir	0.012	1.00	141.83	PIPE-78
2	1	90.061	-121.599	MH	0.00	0.00	0.00	0.0	135.29	0.64	135.87	30	Cir	0.012	1.00	141.83	PIPE-80
3	2	111.666	0.000	MH	0.00	0.00	0.00	0.0	135.88	0.64	136.60	30	Cir	0.012	1.00	141.83	PIPE-77
4	3	111.666	0.000	MH	0.00	0.00	0.00	0.0	136.60	0.65	137.33	24	Cir	0.012	1.00	141.83	PIPE-76
5	4	111.666	0.000	MH	0.00	0.00	0.00	0.0	137.33	0.64	138.05	24	Cir	0.012	1.00	141.83	PIPE-75
6	5	76.000	90.000	None	0.00	0.99	0.90	5.0	138.05	2.57	140.00	10	Cir	0.012	1.00	143.00	PIPE-74
7	4	76.000	90.000	None	0.00	0.53	0.90	5.0	137.33	3.51	140.00	8	Cir	0.012	1.00	143.00	PIPE-102
8	1	30.554	13.401	MH	0.00	0.00	0.00	0.0	135.02	5.86	136.81	10	Cir	0.012	0.75	142.18	PIPE-133
9	8	54.395	-45.000	None	0.00	0.99	0.90	5.0	136.81	5.86	140.00	10	Cir	0.012	1.00	143.00	PIPE-79
10	3	76.000	90.000	None	0.00	0.99	0.90	5.0	136.60	4.47	140.00	10	Cir	0.012	1.00	143.00	PIPE-103
11	2	76.000	90.000	None	0.00	0.53	0.90	5.0	135.88	5.42	140.00	8	Cir	0.012	1.00	143.00	PIPE-104
12	End	110.296	116.864	MH	0.00	0.00	0.00	0.0	133.50	0.67	134.24	30	Cir	0.012	0.84	140.18	PIPE-54
13	12	35.315	54.437	Grate	0.00	0.94	0.90	5.0	134.24	0.74	134.50	30	Cir	0.012	1.50	139.75	PIPE-118
14	13	200.000	-89.879	Grate	0.00	1.24	0.75	5.0	134.50	0.75	136.00	18	Cir	0.012	1.00	139.75	PIPE-52
15	13	200.000	90.121	Grate	0.00	0.94	0.90	5.0	134.50	0.75	136.00	15	Cir	0.012	1.00	139.75	PIPE-53

Project File: Network B5-2.stm

Number of lines: 15

Date: 9/8/2022

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	PIPE-78	28.38	36	Cir	202.404	133.50	135.02	0.751	136.35	136.74	n/a	136.74 j	End	Manhole
2	PIPE-80	21.58	30	Cir	90.061	135.29	135.87	0.644	136.74	137.45	n/a	137.45	1	Manhole
3	PIPE-77	18.02	30	Cir	111.666	135.88	136.60	0.645	137.45	138.04	n/a	138.04 j	2	Manhole
4	PIPE-76	11.06	24	Cir	111.666	136.60	137.33	0.654	138.04	138.52	n/a	138.52 j	3	Manhole
5	PIPE-75	7.32	24	Cir	111.666	137.33	138.05	0.645	138.52	139.01	n/a	139.01 j	4	Manhole
6	PIPE-74	7.35	10	Cir	76.000	138.05	140.00	2.566	139.01*	146.30*	2.82	149.13	5	None
7	PIPE-102	3.93	8	Cir	76.000	137.33	140.00	3.513	138.52*	145.40*	1.97	147.37	4	None
8	PIPE-133	7.33	10	Cir	30.554	135.02	136.81	5.858	136.74*	139.66*	2.11	141.77	1	Manhole
9	PIPE-79	7.35	10	Cir	54.395	136.81	140.00	5.865	141.77*	146.99*	2.82	149.81	8	None
10	PIPE-103	7.35	10	Cir	76.000	136.60	140.00	4.474	138.04*	145.33*	2.82	148.15	3	None
11	PIPE-104	3.93	8	Cir	76.000	135.88	140.00	5.421	137.45*	144.32*	1.97	146.30	2	None
12	PIPE-54	20.90	30	Cir	110.296	133.50	134.24	0.671	136.35	136.56	0.25	136.81	End	Manhole
13	PIPE-118	21.01	30	Cir	35.315	134.24	134.50	0.736	136.81	136.87	0.44	137.32	12	Grate
14	PIPE-52	7.67	18	Cir	200.000	134.50	136.00	0.750	137.32*	138.23*	0.29	138.52	13	Grate
15	PIPE-53	6.98	15	Cir	200.000	134.50	136.00	0.750	137.32*	139.31*	0.50	139.81	13	Grate

Project File: Network B5-2.stm | Number of lines: 15 | Run Date: 9/8/2022

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
1	End	202.404	0.00	4.03	0.00	0.00	3.63	0.0	6.4	7.8	28.38	62.61	5.43	36	0.75	133.50	135.02	136.35	136.74	136.83	141.83	PIPE-78
2	1	90.061	0.00	3.04	0.00	0.00	2.74	0.0	6.2	7.9	21.58	35.65	6.95	30	0.64	135.29	135.87	136.74	137.45	141.83	141.83	PIPE-80
3	2	111.666	0.00	2.51	0.00	0.00	2.26	0.0	5.9	8.0	18.02	35.68	5.87	30	0.64	135.88	136.60	137.45	138.04	141.83	141.83	PIPE-77
4	3	111.666	0.00	1.52	0.00	0.00	1.37	0.0	5.5	8.1	11.06	19.81	5.12	24	0.65	136.60	137.33	138.04	138.52	141.83	141.83	PIPE-76
5	4	111.666	0.00	0.99	0.00	0.00	0.89	0.0	5.1	8.2	7.32	19.68	4.33	24	0.64	137.33	138.05	138.52	139.01	141.83	141.83	PIPE-75
6	5	76.000	0.99	0.99	0.90	0.89	0.89	5.0	5.0	8.2	7.35	3.80	13.47	10	2.57	138.05	140.00	139.01	146.30	141.83	143.00	PIPE-74
7	4	76.000	0.53	0.53	0.90	0.48	0.48	5.0	5.0	8.2	3.93	2.45	11.27	8	3.51	137.33	140.00	138.52	145.40	141.83	143.00	PIPE-102
8	1	30.554	0.00	0.99	0.00	0.00	0.89	0.0	5.1	8.2	7.33	5.74	13.44	10	5.86	135.02	136.81	136.74	139.66	141.83	142.18	PIPE-133
9	8	54.395	0.99	0.99	0.90	0.89	0.89	5.0	5.0	8.2	7.35	5.75	13.47	10	5.86	136.81	140.00	141.77	146.99	142.18	143.00	PIPE-79
10	3	76.000	0.99	0.99	0.90	0.89	0.89	5.0	5.0	8.2	7.35	5.02	13.47	10	4.47	136.60	140.00	138.04	145.33	141.83	143.00	PIPE-103
11	2	76.000	0.53	0.53	0.90	0.48	0.48	5.0	5.0	8.2	3.93	3.05	11.27	8	5.42	135.88	140.00	137.45	144.32	141.83	143.00	PIPE-104
12	End	110.296	0.00	3.12	0.00	0.00	2.62	0.0	5.9	8.0	20.90	36.39	4.33	30	0.67	133.50	134.24	136.35	136.56	136.33	140.18	PIPE-54
13	12	35.315	0.94	3.12	0.90	0.85	2.62	5.0	5.8	8.0	21.01	38.12	4.32	30	0.74	134.24	134.50	136.81	136.87	140.18	139.75	PIPE-118
14	13	200.000	1.24	1.24	0.75	0.93	0.93	5.0	5.0	8.2	7.67	9.85	4.34	18	0.75	134.50	136.00	137.32	138.23	139.75	139.75	PIPE-52
15	13	200.000	0.94	0.94	0.90	0.85	0.85	5.0	5.0	8.2	6.98	6.06	5.69	15	0.75	134.50	136.00	137.32	139.31	139.75	139.75	PIPE-53

Project File: Network B5-2.stm

Number of lines: 15

Run Date: 9/8/2022

NOTES:Intensity = 102.61 / (Inlet time + 16.50) ^ 0.82; Return period =Yrs. 25 ; c = cir e = ellip b = box

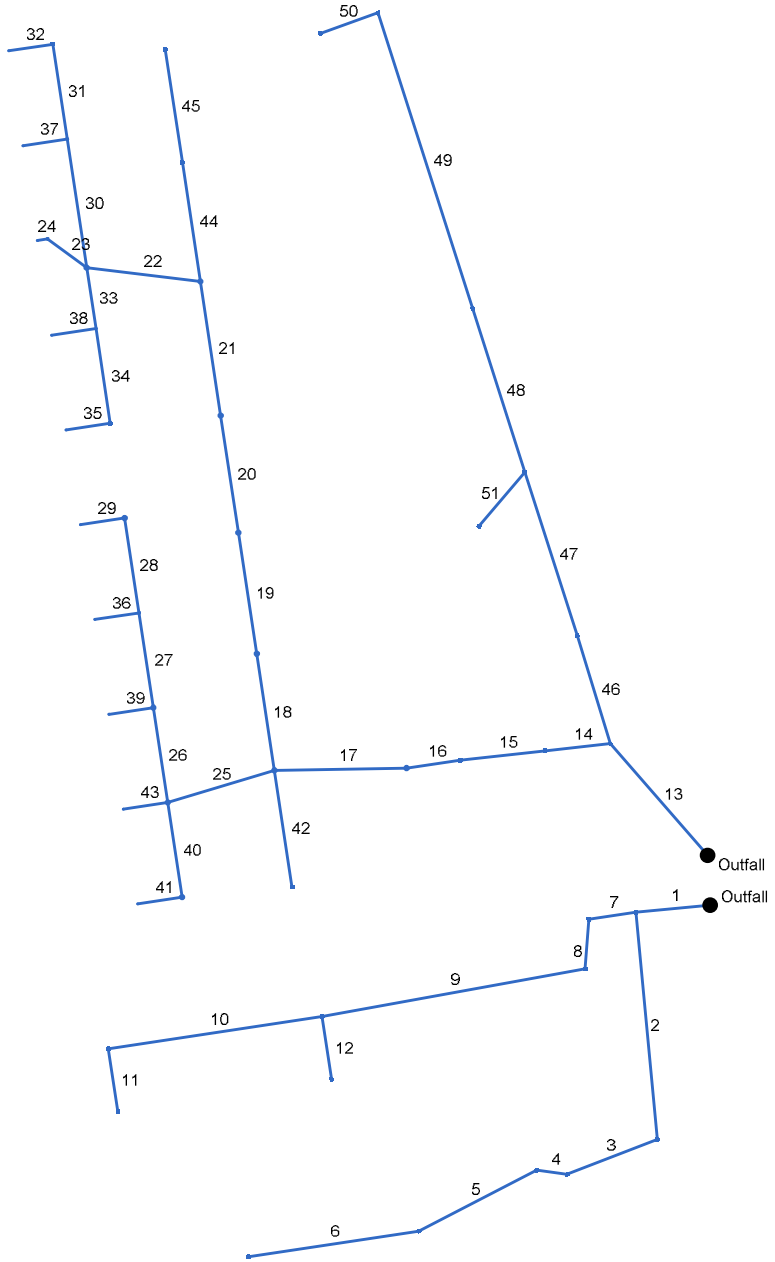
Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	36	28.38	133.50	136.35	2.85	4.20	4.09	0.71	137.06	0.000	202.404	135.02	136.74 j	1.72**	4.20	6.76	0.71	137.45	0.000	0.000	n/a	1.00	n/a
2	30	21.58	135.29	136.74	1.45	2.96	7.30	0.68	137.42	0.000	90.061	135.87	137.45	1.58**	3.26	6.61	0.68	138.13	0.000	0.000	n/a	1.00	n/a
3	30	18.02	135.88	137.45	1.57	2.92	5.56	0.59	138.04	0.000	111.666	136.60	138.04 j	1.44**	2.92	6.17	0.59	138.63	0.000	0.000	n/a	1.00	n/a
4	24	11.06	136.60	138.04	1.44	1.95	4.58	0.50	138.54	0.000	111.666	137.33	138.52 j	1.19**	1.95	5.67	0.50	139.02	0.000	0.000	n/a	1.00	0.50
5	24	7.32	137.33	138.52	1.19	1.49	3.75	0.37	138.90	0.000	111.666	138.05	139.01 j	0.96**	1.49	4.91	0.37	139.39	0.000	0.000	n/a	1.00	n/a
6	10	7.35	138.05	139.01	0.83	0.55	13.48	2.82	141.83	9.598	76.000	140.00	146.30	0.83**	0.55	13.47	2.82	149.13	9.595	9.596	7.293	1.00	2.82
7	8	3.93	137.33	138.52	0.67	0.35	11.27	1.98	140.50	9.045	76.000	140.00	145.40	0.67**	0.35	11.27	1.97	147.37	9.041	9.043	6.873	1.00	1.97
8	10	7.33	135.02	136.74	0.83	0.55	13.44	2.81	139.55	9.549	30.554	136.81	139.66	0.83**	0.55	13.44	2.81	142.47	9.545	9.547	2.917	0.75	2.11
9	10	7.35	136.81	141.77	0.83	0.55	13.48	2.82	144.59	9.598	54.395	140.00	146.99	0.83**	0.55	13.47	2.82	149.81	9.595	9.596	5.220	1.00	2.82
10	10	7.35	136.60	138.04	0.83	0.55	13.48	2.82	140.86	9.598	76.000	140.00	145.33	0.83**	0.55	13.47	2.82	148.15	9.595	9.596	7.293	1.00	2.82
11	8	3.93	135.88	137.45	0.67	0.35	11.27	1.98	139.42	9.045	76.000	140.00	144.32	0.67**	0.35	11.27	1.97	146.30	9.041	9.043	6.873	1.00	1.97
12	30	20.90	133.50	136.35	2.50	4.91	4.26	0.28	136.63	0.221	110.296	134.24	136.56	2.32	4.75	4.40	0.30	136.86	0.192	0.207	0.228	0.84	0.25
13	30	21.01	134.24	136.81	2.50	4.91	4.28	0.28	137.10	0.224	35.315	134.50	136.87	2.37	4.82	4.36	0.30	137.17	0.194	0.209	0.074	1.50	0.44
14	18	7.67	134.50	137.32	1.50	1.77	4.34	0.29	137.61	0.455	200.000	136.00	138.23	1.50	1.77	4.34	0.29	138.52	0.455	0.455	0.909	1.00	0.29
15	15	6.98	134.50	137.32	1.25	1.23	5.69	0.50	137.82	0.995	200.000	136.00	139.31	1.25	1.23	5.69	0.50	139.81	0.995	0.995	1.990	1.00	0.50

Project File: Network B5-2.stm | Number of lines: 15 | Run Date: 9/8/2022

Notes: ; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: Network B6-2.stm	Number of lines: 51	Date: 9/8/2022

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	86.740	174.582	Comb	0.00	0.15	0.88	5.0	128.00	0.50	128.43	36	Cir	0.012	1.77	137.34	PIPE-50
2	1	265.759	-90.000	Comb	0.00	1.13	0.47	5.0	128.43	0.83	130.64	24	Cir	0.012	1.45	138.27	PIPE-49
3	2	112.702	74.210	Comb	0.00	1.45	0.40	5.0	130.64	0.75	131.49	18	Cir	0.012	0.81	140.80	PIPE-46
4	3	35.440	29.021	Comb	0.00	0.29	0.55	5.0	131.49	0.51	131.67	12	Cir	0.012	0.95	140.95	PIPE-45
5	4	154.324	-35.294	Comb	0.00	0.46	0.56	5.0	137.69	3.63	143.29	12	Cir	0.012	0.56	146.01	PIPE-129
6	5	200.000	18.905	Comb	0.00	0.46	0.54	5.0	143.39	2.88	149.15	12	Cir	0.012	1.00	151.77	PIPE-128
7	1	55.000	-3.159	Comb	0.00	0.37	0.64	5.0	128.43	0.76	128.85	24	Cir	0.012	1.47	138.25	PIPE-119
8	7	58.024	-77.171	Grate	0.00	0.95	0.30	5.0	128.85	0.78	129.30	24	Cir	0.012	1.46	137.50	PIPE-131
9	8	310.259	75.430	Comb	0.00	0.55	0.73	5.0	129.30	0.75	131.64	24	Cir	0.012	1.50	142.93	PIPE-44
10	9	251.000	1.741	Grate	0.00	0.74	0.83	5.0	138.12	0.75	140.00	24	Cir	0.012	1.50	143.75	PIPE-33
11	10	74.000	-90.000	Grate	0.50	1.12	0.79	5.0	140.25	0.76	140.81	15	Cir	0.012	1.00	144.43	PIPE-34
12	9	74.000	-88.259	Comb	0.00	0.77	0.68	5.0	139.95	0.74	140.50	12	Cir	0.012	1.00	143.61	PIPE-43
13	End	172.278	-130.934	Comb	0.00	0.70	0.56	5.0	128.00	0.50	128.86	48	Cir	0.012	1.56	135.36	PIPE-47
14	13	76.062	-55.332	Grate	0.00	0.70	0.30	5.0	128.86	0.50	129.24	48	Cir	0.012	0.50	135.50	PIPE-130
15	14	99.081	0.000	Comb	0.00	0.57	0.62	5.0	129.24	0.50	129.74	48	Cir	0.012	0.50	138.79	PIPE-110
16	15	63.000	-2.312	Grate	0.00	0.66	0.64	5.0	130.61	0.49	130.92	48	Cir	0.012	0.50	141.10	PIPE-111
17	16	153.353	7.615	Grate	0.00	0.81	0.85	5.0	131.08	0.50	131.85	48	Cir	0.012	2.25	142.72	PIPE-41
18	17	137.333	82.385	Grate	0.00	0.81	0.83	5.0	132.23	0.50	132.92	48	Cir	0.012	0.50	142.72	PIPE-40
19	18	142.667	0.000	Grate	0.00	0.93	0.84	5.0	133.26	0.50	133.97	48	Cir	0.012	0.50	142.64	PIPE-39
20	19	138.000	0.000	Grate	0.00	0.94	0.84	5.0	134.33	0.75	135.36	48	Cir	0.012	0.50	142.49	PIPE-38
21	20	158.000	0.000	Grate	0.00	0.93	0.84	5.0	135.36	0.75	136.55	48	Cir	0.012	1.46	142.64	PIPE-37
22	21	132.831	-74.500	MH	0.00	0.00	0.00	0.0	138.03	0.75	139.03	36	Cir	0.012	1.00	145.52	PIPE-84
23	22	56.568	29.500	MH	0.00	0.00	0.00	0.0	139.46	4.00	141.72	10	Cir	0.012	0.75	146.78	PIPE-134

Project File: Network B6-2.stm

Number of lines: 51

Date: 9/8/2022

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	23	12.000	-45.000	None	0.00	0.99	0.90	5.0	141.72	4.00	142.20	10	Cir	0.012	1.00	147.00	PIPE-93
25	17	129.330	-15.840	MH	0.00	0.00	0.00	0.0	132.67	0.75	133.64	36	Cir	0.012	1.00	145.58	PIPE-91
26	25	111.666	98.224	MH	0.22	0.00	0.00	0.0	138.99	0.75	139.83	24	Cir	0.012	1.00	145.58	PIPE-89
27	26	111.666	0.000	MH	0.00	0.00	0.00	0.0	139.83	0.74	140.66	18	Cir	0.012	1.00	145.67	PIPE-88
28	27	111.666	0.000	MH	0.00	0.00	0.00	0.0	140.66	0.75	141.50	18	Cir	0.012	1.00	146.00	PIPE-87
29	28	52.000	-90.000	None	0.00	0.53	0.90	5.0	141.50	1.35	142.20	8	Cir	0.012	1.00	147.00	PIPE-96
30	22	151.666	74.500	MH	0.00	0.00	0.00	0.0	139.03	0.75	140.16	24	Cir	0.012	1.00	145.60	PIPE-83
31	30	111.666	0.000	MH	0.00	0.00	0.00	0.0	140.16	0.75	141.00	24	Cir	0.012	1.00	145.49	PIPE-82
32	31	52.000	-90.000	None	0.00	1.52	0.90	5.0	141.00	2.31	142.20	12	Cir	0.012	1.00	147.00	PIPE-81
33	22	71.666	-105.500	MH	0.00	0.00	0.00	0.0	139.63	0.74	140.16	24	Cir	0.012	1.00	145.48	PIPE-85
34	33	111.666	0.000	MH	0.00	0.00	0.00	0.0	140.16	0.75	141.00	24	Cir	0.012	1.00	146.00	PIPE-99
35	34	52.000	90.000	None	0.00	0.99	0.90	5.0	141.00	2.31	142.20	10	Cir	0.012	1.00	147.00	PIPE-95
36	27	52.000	-90.000	None	0.00	0.99	0.90	5.0	140.66	2.96	142.20	10	Cir	0.012	1.00	147.00	PIPE-97
37	30	52.000	-90.000	None	0.00	0.53	0.90	5.0	140.16	3.92	142.20	8	Cir	0.012	1.00	147.00	PIPE-92
38	33	52.000	90.000	None	0.00	0.53	0.90	5.0	140.16	3.92	142.20	8	Cir	0.012	1.00	147.00	PIPE-94
39	26	52.000	-90.000	None	0.00	0.53	0.90	5.0	139.83	4.56	142.20	8	Cir	0.012	1.00	147.00	PIPE-98
40	25	111.666	-81.776	MH	0.00	0.00	0.00	0.0	138.99	0.75	139.83	18	Cir	0.012	1.00	145.58	PIPE-90
41	40	52.000	90.000	None	0.00	0.53	0.90	5.0	139.83	4.56	142.20	8	Cir	0.012	1.00	147.00	PIPE-101
42	17	137.333	-97.615	Grate	0.00	0.79	0.87	5.0	138.72	0.75	139.75	18	Cir	0.012	1.00	142.72	PIPE-42
43	25	52.000	8.224	None	0.00	0.99	0.90	5.0	138.99	6.17	142.20	10	Cir	0.012	1.00	147.00	PIPE-100
44	21	140.500	0.000	Grate	0.00	0.84	0.84	5.0	136.55	0.75	137.60	30	Cir	0.012	0.50	142.75	PIPE-36
45	44	133.000	0.000	Grate	0.00	0.78	0.82	5.0	137.60	0.75	138.60	18	Cir	0.012	1.00	142.75	PIPE-35
46	13	131.414	24.003	Comb	0.00	0.36	0.62	5.0	129.29	0.75	130.28	36	Cir	0.012	0.50	136.64	PIPE-56

Project File: Network B6-2.stm | Number of lines: 51 | Date: 9/8/2022

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
47	46	200.000	-0.746	Comb	0.00	0.98	0.42	5.0	130.28	0.75	131.78	30	Cir	0.012	1.50	138.64	PIPE-55
48	47	200.000	0.000	Comb	0.00	0.65	0.57	5.0	131.78	0.75	133.28	24	Cir	0.012	0.50	140.64	PIPE-115
49	48	361.829	0.000	Comb	0.00	0.46	0.53	5.0	133.28	0.75	135.99	18	Cir	0.012	1.50	140.21	PIPE-114
50	49	70.904	-92.193	Grate	0.00	0.28	0.30	5.0	137.04	0.51	137.40	12	Cir	0.012	1.00	140.50	PIPE-135
51	47	82.368	-122.015	Grate	0.00	0.59	0.30	5.0	135.50	0.74	136.11	12	Cir	0.012	1.00	138.50	PIPE-132

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	PIPE-50	36.84	36	Cir	86.740	128.00	128.43	0.496	132.62*	132.85*	0.75	133.59	End	Combination
2	PIPE-49	13.78	24	Cir	265.759	128.43	130.64	0.832	133.59*	134.43*	0.43	134.87	1	Combination
3	PIPE-46	9.78	18	Cir	112.702	130.64	131.49	0.754	134.87*	135.70*	0.39	136.09	2	Combination
4	PIPE-45	5.24	12	Cir	35.440	131.49	131.67	0.508	136.09*	136.74*	0.66	137.40	3	Combination
5	PIPE-129	4.03	12	Cir	154.324	137.69	143.29	3.629	138.22	144.14	0.28	144.14	4	Combination
6	PIPE-128	2.05	12	Cir	200.000	143.39	149.15	2.880	144.14	149.76	n/a	149.76 j	5	Combination
7	PIPE-119	23.12	24	Cir	55.000	128.43	128.85	0.764	133.59*	134.08*	1.24	135.32	1	Combination
8	PIPE-131	21.41	24	Cir	58.024	128.85	129.30	0.776	135.32*	135.77*	1.05	136.82	7	Grate
9	PIPE-44	19.76	24	Cir	310.259	129.30	131.64	0.754	136.82*	138.84*	0.92	139.76	8	Combination
10	PIPE-33	12.77	24	Cir	251.000	138.12	140.00	0.749	139.76	141.28	n/a	141.28 j	9	Grate
11	PIPE-34	7.80	15	Cir	74.000	140.25	140.81	0.757	141.50*	142.42*	0.63	143.05	10	Grate
12	PIPE-43	4.32	12	Cir	74.000	139.95	140.50	0.743	140.95*	141.88*	0.47	142.35	9	Combination
13	PIPE-47	101.7	48	Cir	172.278	128.00	128.86	0.499	132.62*	133.36*	1.59	134.94	End	Combination
14	PIPE-130	98.64	48	Cir	76.062	128.86	129.24	0.500	134.94*	135.25*	0.48	135.73	13	Grate
15	PIPE-110	97.82	48	Cir	99.081	129.24	129.74	0.505	135.73*	136.12*	0.47	136.59	14	Combination
16	PIPE-111	95.74	48	Cir	63.000	130.61	130.92	0.492	136.59*	136.83*	0.45	137.28	15	Grate
17	PIPE-41	93.77	48	Cir	153.353	131.08	131.85	0.502	137.28*	137.84*	1.95	139.79	16	Grate
18	PIPE-40	61.62	48	Cir	137.333	132.23	132.92	0.502	139.79*	140.00*	0.19	140.19	17	Grate
19	PIPE-39	57.71	48	Cir	142.667	133.26	133.97	0.498	140.19*	140.39*	0.16	140.55	18	Grate
20	PIPE-38	52.90	48	Cir	138.000	134.33	135.36	0.746	140.55*	140.71*	0.14	140.85	19	Grate
21	PIPE-37	48.09	48	Cir	158.000	135.36	136.55	0.753	140.85*	141.00*	0.33	141.33	20	Grate
22	PIPE-84	32.48	36	Cir	132.831	138.03	139.03	0.753	141.33	141.50	0.42	141.92	21	Manhole
23	PIPE-134	7.34	10	Cir	56.568	139.46	141.72	3.995	141.92*	147.35*	2.11	149.46	22	Manhole
24	PIPE-93	7.35	10	Cir	12.000	141.72	142.20	4.000	149.46*	150.61*	2.82	153.44	23	None

Project File: Network B6-2.stm | Number of lines: 51 | Run Date: 9/8/2022

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
25	PIPE-91	25.30	36	Cir	129.330	132.67	133.64	0.750	139.79*	139.95*	0.20	140.14	17	Manhole
26	PIPE-89	14.76	24	Cir	111.666	138.99	139.83	0.752	140.22	141.21	n/a	141.21	25	Manhole
27	PIPE-88	10.90	18	Cir	111.666	139.83	140.66	0.743	141.33*	142.36*	0.59	142.95	26	Manhole
28	PIPE-87	3.92	18	Cir	111.666	140.66	141.50	0.752	142.95*	143.08*	0.08	143.16	27	Manhole
29	PIPE-96	3.93	8	Cir	52.000	141.50	142.20	1.346	143.16*	147.86*	1.97	149.83	28	None
30	PIPE-83	14.89	24	Cir	151.666	139.03	140.16	0.745	141.92*	142.48*	0.35	142.83	22	Manhole
31	PIPE-82	11.26	24	Cir	111.666	140.16	141.00	0.752	142.83*	143.07*	0.20	143.27	30	Manhole
32	PIPE-81	11.28	12	Cir	52.000	141.00	142.20	2.308	143.27*	147.72*	3.21	150.93	31	None
33	PIPE-85	10.98	24	Cir	71.666	139.63	140.16	0.740	141.92	142.05	0.20	142.25	22	Manhole
34	PIPE-99	7.33	24	Cir	111.666	140.16	141.00	0.752	142.25	142.29	0.18	142.47	33	Manhole
35	PIPE-95	7.35	10	Cir	52.000	141.00	142.20	2.308	142.47*	147.46*	2.82	150.28	34	None
36	PIPE-97	7.35	10	Cir	52.000	140.66	142.20	2.962	142.95*	147.94*	2.82	150.76	27	None
37	PIPE-92	3.93	8	Cir	52.000	140.16	142.20	3.923	142.83*	147.54*	1.97	149.51	30	None
38	PIPE-94	3.93	8	Cir	52.000	140.16	142.20	3.923	142.25*	146.95*	1.97	148.92	33	None
39	PIPE-98	3.93	8	Cir	52.000	139.83	142.20	4.558	141.21*	145.92*	1.97	147.89	26	None
40	PIPE-90	3.92	18	Cir	111.666	138.99	139.83	0.752	140.14	140.59	n/a	140.59 j	25	Manhole
41	PIPE-101	3.93	8	Cir	52.000	139.83	142.20	4.558	140.59*	145.29*	1.97	147.26	40	None
42	PIPE-42	5.67	18	Cir	137.333	138.72	139.75	0.750	139.79	140.67	n/a	140.67 j	17	Grate
43	PIPE-100	7.35	10	Cir	52.000	138.99	142.20	6.173	140.14*	145.14*	2.82	147.96	25	None
44	PIPE-36	10.79	30	Cir	140.500	136.55	137.60	0.747	141.33*	141.41*	0.04	141.45	21	Grate
45	PIPE-35	5.27	18	Cir	133.000	137.60	138.60	0.752	141.45*	141.74*	0.14	141.88	44	Grate
46	PIPE-56	10.04	36	Cir	131.414	129.29	130.28	0.753	134.94*	134.97*	0.02	134.98	13	Combination
47	PIPE-55	9.04	30	Cir	200.000	130.28	131.78	0.750	134.98*	135.07*	0.08	135.15	46	Combination
48	PIPE-115	5.23	24	Cir	200.000	131.78	133.28	0.750	135.15	135.23	0.02	135.25	47	Combination

Project File: Network B6-2.stm | Number of lines: 51 | Run Date: 9/8/2022

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
49	PIPE-114	2.66	18	Cir	361.829	133.28	135.99	0.749	135.25	136.61	n/a	136.61 j	48	Combination
50	PIPE-135	0.69	12	Cir	70.904	137.04	137.40	0.508	137.38	137.75	n/a	137.75	49	Grate
51	PIPE-132	1.46	12	Cir	82.368	135.50	136.11	0.741	135.96	136.62	n/a	136.62	47	Grate

Project File: Network B6-2.stm | Number of lines: 51 | Run Date: 9/8/2022

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
1	End	86.740	0.15	8.44	0.88	0.13	4.85	5.0	7.7	7.5	36.84	50.87	5.21	36	0.50	128.00	128.43	132.62	132.85	131.33	137.34	PIPE-50
2	1	265.759	1.13	3.79	0.47	0.53	1.78	5.0	6.7	7.8	13.78	22.34	4.39	24	0.83	128.43	130.64	133.59	134.43	137.34	138.27	PIPE-49
3	2	112.702	1.45	2.66	0.40	0.58	1.25	5.0	6.3	7.8	9.78	9.88	5.53	18	0.75	130.64	131.49	134.87	135.70	138.27	140.80	PIPE-46
4	3	35.440	0.29	1.21	0.55	0.16	0.67	5.0	6.2	7.9	5.24	2.75	6.67	12	0.51	131.49	131.67	136.09	136.74	140.80	140.95	PIPE-45
5	4	154.324	0.46	0.92	0.56	0.26	0.51	5.0	5.9	8.0	4.03	7.35	7.62	12	3.63	137.69	143.29	138.22	144.14	140.95	146.01	PIPE-129
6	5	200.000	0.46	0.46	0.54	0.25	0.25	5.0	5.0	8.2	2.05	6.55	3.66	12	2.88	143.39	149.15	144.14	149.76	146.01	151.77	PIPE-128
7	1	55.000	0.37	4.50	0.64	0.24	2.95	5.0	7.0	7.7	23.12	21.41	7.36	24	0.76	128.43	128.85	133.59	134.08	137.34	138.25	PIPE-119
8	7	58.024	0.95	4.13	0.30	0.29	2.71	5.0	6.8	7.7	21.41	21.58	6.81	24	0.78	128.85	129.30	135.32	135.77	138.25	137.50	PIPE-131
9	8	310.259	0.55	3.18	0.73	0.40	2.42	5.0	6.0	7.9	19.76	21.28	6.29	24	0.75	129.30	131.64	136.82	138.84	137.50	142.93	PIPE-44
10	9	251.000	0.74	1.86	0.83	0.61	1.50	5.0	5.2	8.2	12.77	21.21	5.31	24	0.75	138.12	140.00	139.76	141.28	142.93	143.75	PIPE-33
11	10	74.000	1.12	1.12	0.79	0.88	0.88	5.0	5.0	8.2	7.80	6.09	6.35	15	0.76	140.25	140.81	141.50	142.42	143.75	144.43	PIPE-34
12	9	74.000	0.77	0.77	0.68	0.52	0.52	5.0	5.0	8.2	4.32	3.33	5.50	12	0.74	139.95	140.50	140.95	141.88	142.93	143.61	PIPE-43
13	End	172.278	0.70	20.91	0.56	0.39	15.95	5.0	13.0	6.4	101.7	109.9	8.09	48	0.50	128.00	128.86	132.62	133.36	133.38	135.36	PIPE-47
14	13	76.062	0.70	16.89	0.30	0.21	14.05	5.0	9.7	7.0	98.64	110.0	7.85	48	0.50	128.86	129.24	134.94	135.25	135.36	135.50	PIPE-130
15	14	99.081	0.57	16.19	0.62	0.35	13.84	5.0	9.5	7.1	97.82	110.5	7.78	48	0.50	129.24	129.74	135.73	136.12	135.50	138.79	PIPE-110
16	15	63.000	0.66	15.62	0.64	0.42	13.48	5.0	9.4	7.1	95.74	109.2	7.62	48	0.49	130.61	130.92	136.59	136.83	138.79	141.10	PIPE-111
17	16	153.353	0.81	14.96	0.85	0.69	13.06	5.0	9.0	7.2	93.77	110.3	7.46	48	0.50	131.08	131.85	137.28	137.84	141.10	142.72	PIPE-41
18	17	137.333	0.81	9.79	0.83	0.67	8.47	5.0	8.6	7.3	61.62	110.3	4.90	48	0.50	132.23	132.92	139.79	140.00	142.72	142.72	PIPE-40
19	18	142.667	0.93	8.98	0.84	0.78	7.80	5.0	8.0	7.4	57.71	109.8	4.59	48	0.50	133.26	133.97	140.19	140.39	142.72	142.64	PIPE-39
20	19	138.000	0.94	8.05	0.84	0.79	7.02	5.0	7.5	7.5	52.90	134.4	4.21	48	0.75	134.33	135.36	140.55	140.71	142.64	142.49	PIPE-38
21	20	158.000	0.93	7.11	0.84	0.78	6.23	5.0	6.8	7.7	48.09	135.1	3.83	48	0.75	135.36	136.55	140.85	141.00	142.49	142.64	PIPE-37
22	21	132.831	0.00	4.56	0.00	0.00	4.10	0.0	6.1	7.9	32.48	62.69	4.91	36	0.75	138.03	139.03	141.33	141.50	142.64	145.52	PIPE-84

Project File: Network B6-2.stm

Number of lines: 51

Run Date: 9/8/2022

NOTES:Intensity = 102.61 / (Inlet time + 16.50) ^ 0.82; Return period =Yrs. 25 ; c = cir e = ellip b = box

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
23	22	56.568	0.00	0.99	0.00	0.00	0.89	0.0	5.0	8.2	7.34	4.74	13.47	10	4.00	139.46	141.72	141.92	147.35	145.52	146.78	PIPE-134
24	23	12.000	0.99	0.99	0.90	0.89	0.89	5.0	5.0	8.2	7.35	4.74	13.47	10	4.00	141.72	142.20	149.46	150.61	146.78	147.00	PIPE-93
25	17	129.330	0.00	3.57	0.00	0.00	3.21	0.0	6.5	7.8	25.30	62.57	3.58	36	0.75	132.67	133.64	139.79	139.95	142.72	145.58	PIPE-91
26	25	111.666	0.00	2.05	0.00	0.00	1.85	0.0	6.2	7.9	14.76	21.25	6.84	24	0.75	138.99	139.83	140.22	141.21	145.58	145.58	PIPE-89
27	26	111.666	0.00	1.52	0.00	0.00	1.37	0.0	5.9	8.0	10.90	9.81	6.17	18	0.74	139.83	140.66	141.33	142.36	145.58	145.67	PIPE-88
28	27	111.666	0.00	0.53	0.00	0.00	0.48	0.0	5.1	8.2	3.92	9.87	2.22	18	0.75	140.66	141.50	142.95	143.08	145.67	146.00	PIPE-87
29	28	52.000	0.53	0.53	0.90	0.48	0.48	5.0	5.0	8.2	3.93	1.52	11.27	8	1.35	141.50	142.20	143.16	147.86	146.00	147.00	PIPE-96
30	22	151.666	0.00	2.05	0.00	0.00	1.85	0.0	5.6	8.1	14.89	21.15	4.74	24	0.75	139.03	140.16	141.92	142.48	145.52	145.60	PIPE-83
31	30	111.666	0.00	1.52	0.00	0.00	1.37	0.0	5.1	8.2	11.26	21.25	3.58	24	0.75	140.16	141.00	142.83	143.07	145.60	145.49	PIPE-82
32	31	52.000	1.52	1.52	0.90	1.37	1.37	5.0	5.0	8.2	11.28	5.86	14.37	12	2.31	141.00	142.20	143.27	147.72	145.49	147.00	PIPE-81
33	22	71.666	0.00	1.52	0.00	0.00	1.37	0.0	5.7	8.0	10.98	21.07	3.54	24	0.74	139.63	140.16	141.92	142.05	145.52	145.48	PIPE-85
34	33	111.666	0.00	0.99	0.00	0.00	0.89	0.0	5.1	8.2	7.33	21.25	2.88	24	0.75	140.16	141.00	142.25	142.29	145.48	146.00	PIPE-99
35	34	52.000	0.99	0.99	0.90	0.89	0.89	5.0	5.0	8.2	7.35	3.60	13.47	10	2.31	141.00	142.20	142.47	147.46	146.00	147.00	PIPE-95
36	27	52.000	0.99	0.99	0.90	0.89	0.89	5.0	5.0	8.2	7.35	4.08	13.47	10	2.96	140.66	142.20	142.95	147.94	145.67	147.00	PIPE-97
37	30	52.000	0.53	0.53	0.90	0.48	0.48	5.0	5.0	8.2	3.93	2.59	11.27	8	3.92	140.16	142.20	142.83	147.54	145.60	147.00	PIPE-92
38	33	52.000	0.53	0.53	0.90	0.48	0.48	5.0	5.0	8.2	3.93	2.59	11.27	8	3.92	140.16	142.20	142.25	146.95	145.48	147.00	PIPE-94
39	26	52.000	0.53	0.53	0.90	0.48	0.48	5.0	5.0	8.2	3.93	2.79	11.27	8	4.56	139.83	142.20	141.21	145.92	145.58	147.00	PIPE-98
40	25	111.666	0.00	0.53	0.00	0.00	0.48	0.0	5.1	8.2	3.92	9.87	3.54	18	0.75	138.99	139.83	140.14	140.59	145.58	145.58	PIPE-90
41	40	52.000	0.53	0.53	0.90	0.48	0.48	5.0	5.0	8.2	3.93	2.79	11.27	8	4.56	139.83	142.20	140.59	145.29	145.58	147.00	PIPE-101
42	17	137.333	0.79	0.79	0.87	0.69	0.69	5.0	5.0	8.2	5.67	9.85	4.61	18	0.75	138.72	139.75	139.79	140.67	142.72	142.72	PIPE-42
43	25	52.000	0.99	0.99	0.90	0.89	0.89	5.0	5.0	8.2	7.35	5.89	13.47	10	6.17	138.99	142.20	140.14	145.14	145.58	147.00	PIPE-100
44	21	140.500	0.84	1.62	0.84	0.71	1.35	5.0	5.7	8.0	10.79	38.41	2.20	30	0.75	136.55	137.60	141.33	141.41	142.64	142.75	PIPE-36

Project File: Network B6-2.stm

Number of lines: 51

Run Date: 9/8/2022

NOTES:Intensity = 102.61 / (Inlet time + 16.50) ^ 0.82; Return period =Yrs. 25 ; c = cir e = ellip b = box

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
45	44	133.000	0.78	0.78	0.82	0.64	0.64	5.0	5.0	8.2	5.27	9.86	2.99	18	0.75	137.60	138.60	141.45	141.74	142.75	142.75	PIPE-35
46	13	131.414	0.36	3.32	0.62	0.22	1.51	5.0	11.5	6.6	10.04	62.71	1.42	36	0.75	129.29	130.28	134.94	134.97	135.36	136.64	PIPE-56
47	46	200.000	0.98	2.96	0.42	0.41	1.29	5.0	9.6	7.0	9.04	38.48	1.84	30	0.75	130.28	131.78	134.98	135.07	136.64	138.64	PIPE-55
48	47	200.000	0.65	1.39	0.57	0.37	0.70	5.0	7.6	7.5	5.23	21.22	1.67	24	0.75	131.78	133.28	135.15	135.23	138.64	140.64	PIPE-115
49	48	361.829	0.46	0.74	0.53	0.24	0.33	5.0	5.4	8.1	2.66	9.85	2.69	18	0.75	133.28	135.99	135.25	136.61	140.64	140.21	PIPE-114
50	49	70.904	0.28	0.28	0.30	0.08	0.08	5.0	5.0	8.2	0.69	2.75	2.89	12	0.51	137.04	137.40	137.38	137.75	140.21	140.50	PIPE-135
51	47	82.368	0.59	0.59	0.30	0.18	0.18	5.0	5.0	8.2	1.46	3.32	3.85	12	0.74	135.50	136.11	135.96	136.62	138.64	138.50	PIPE-132

Project File: Network B6-2.stm | Number of lines: 51 | Run Date: 9/8/2022

NOTES:Intensity = 102.61 / (Inlet time + 16.50) ^ 0.82; Return period =Yrs. 25 ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	36	36.84	128.00	132.62	3.00	7.07	5.21	0.42	133.04	0.260	86.740	128.43	132.85	3.00	7.07	5.21	0.42	133.27	0.260	0.260	0.226	1.77	0.75
2	24	13.78	128.43	133.59	2.00	3.14	4.39	0.30	133.89	0.316	265.759	130.64	134.43	2.00	3.14	4.38	0.30	134.73	0.316	0.316	0.840	1.45	0.43
3	18	9.78	130.64	134.87	1.50	1.77	5.53	0.48	135.34	0.739	112.702	131.49	135.70	1.50	1.77	5.53	0.48	136.18	0.738	0.739	0.832	0.81	0.39
4	12	5.24	131.49	136.09	1.00	0.79	6.67	0.69	136.78	1.845	35.440	131.67	136.74	1.00	0.79	6.67	0.69	137.43	1.845	1.845	0.654	0.95	0.66
5	12	4.03	137.69	138.22	0.53*	0.42	9.57	0.50	138.72	0.000	154.324	143.29	144.14	0.85**	0.71	5.67	0.50	144.64	0.000	0.000	n/a	0.56	0.28
6	12	2.05	143.39	144.14	0.75	0.50	3.24	0.26	144.40	0.000	200.000	149.15	149.76 j	0.61**	0.50	4.08	0.26	150.02	0.000	0.000	n/a	1.00	n/a
7	24	23.12	128.43	133.59	2.00	3.14	7.36	0.84	134.44	0.891	55.000	128.85	134.08	2.00	3.14	7.36	0.84	134.93	0.891	0.891	0.490	1.47	1.24
8	24	21.41	128.85	135.32	2.00	3.14	6.82	0.72	136.04	0.764	58.024	129.30	135.77	2.00	3.14	6.81	0.72	136.49	0.763	0.763	0.443	1.46	1.05
9	24	19.76	129.30	136.82	2.00	3.14	6.29	0.62	137.43	0.651	310.259	131.64	138.84	2.00	3.14	6.29	0.62	139.45	0.651	0.651	2.019	1.50	0.92
10	24	12.77	138.12	139.76	1.64	2.13	4.63	0.56	140.32	0.000	251.000	140.00	141.28 j	1.28**	2.13	5.99	0.56	141.84	0.000	0.000	n/a	1.50	0.84
11	15	7.80	140.25	141.50	1.25*	1.23	6.35	0.63	142.13	1.243	74.000	140.81	142.42	1.25	1.23	6.35	0.63	143.05	1.242	1.243	0.920	1.00	0.63
12	12	4.32	139.95	140.95	1.00*	0.79	5.50	0.47	141.42	1.253	74.000	140.50	141.88	1.00	0.79	5.50	0.47	142.35	1.253	1.253	0.927	1.00	0.47
13	48	101.7	128.00	132.62	4.00	12.56	8.09	1.02	133.64	0.427	172.278	128.86	133.36	4.00	12.57	8.09	1.02	134.37	0.427	0.427	0.735	1.56	1.59
14	48	98.64	128.86	134.94	4.00	12.56	7.85	0.96	135.90	0.402	76.062	129.24	135.25	4.00	12.57	7.85	0.96	136.21	0.402	0.402	0.306	0.50	0.48
15	48	97.82	129.24	135.73	4.00	12.56	7.79	0.94	136.67	0.395	99.081	129.74	136.12	4.00	12.57	7.78	0.94	137.06	0.395	0.395	0.392	0.50	0.47
16	48	95.74	130.61	136.59	4.00	12.56	7.62	0.90	137.49	0.379	63.000	130.92	136.83	4.00	12.57	7.62	0.90	137.73	0.379	0.379	0.239	0.50	0.45
17	48	93.77	131.08	137.28	4.00	12.56	7.46	0.87	138.15	0.363	153.353	131.85	137.84	4.00	12.57	7.46	0.87	138.70	0.363	0.363	0.557	2.25	1.95
18	48	61.62	132.23	139.79	4.00	12.56	4.90	0.37	140.16	0.157	137.333	132.92	140.00	4.00	12.57	4.90	0.37	140.38	0.157	0.157	0.215	0.50	0.19
19	48	57.71	133.26	140.19	4.00	12.56	4.59	0.33	140.52	0.138	142.667	133.97	140.39	4.00	12.57	4.59	0.33	140.71	0.138	0.138	0.196	0.50	0.16
20	48	52.90	134.33	140.55	4.00	12.56	4.21	0.28	140.82	0.116	138.000	135.36	140.71	4.00	12.57	4.21	0.28	140.98	0.116	0.116	0.160	0.50	0.14
21	48	48.09	135.36	140.85	4.00	12.56	3.83	0.23	141.07	0.096	158.000	136.55	141.00	4.00	12.57	3.83	0.23	141.23	0.095	0.096	0.151	1.46	0.33
22	36	32.48	138.03	141.33	3.00	7.07	4.60	0.33	141.66	0.202	132.831	139.03	141.50	2.47	6.23	5.21	0.42	141.92	0.200	0.201	0.267	1.00	0.42

Project File: Network B6-2.stm | Number of lines: 51 | Run Date: 9/8/2022

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
23	10	7.34	139.46	141.92	0.83	0.55	13.47	2.82	144.74	9.587	56.568	141.72	147.35	0.83**	0.55	13.47	2.82	150.17	9.584	9.585	5.422	0.75	2.11
24	10	7.35	141.72	149.46	0.83	0.55	13.48	2.82	152.28	9.598	12.000	142.20	150.61	0.83**	0.55	13.47	2.82	153.44	9.595	9.596	1.152	1.00	2.82
25	36	25.30	132.67	139.79	3.00	7.07	3.58	0.20	139.99	0.123	129.330	133.64	139.95	3.00	7.07	3.58	0.20	140.14	0.123	0.123	0.159	1.00	0.20
26	24	14.76	138.99	140.22	1.23*	2.02	7.30	0.63	140.85	0.000	111.666	139.83	141.21	1.38**	2.32	6.37	0.63	141.84	0.000	0.000	n/a	1.00	n/a
27	18	10.90	139.83	141.33	1.50*	1.77	6.17	0.59	141.92	0.919	111.666	140.66	142.36	1.50	1.77	6.17	0.59	142.95	0.918	0.919	1.026	1.00	0.59
28	18	3.92	140.66	142.95	1.50	1.77	2.22	0.08	143.02	0.119	111.666	141.50	143.08	1.50	1.77	2.22	0.08	143.16	0.119	0.119	0.133	1.00	0.08
29	8	3.93	141.50	143.16	0.67	0.35	11.27	1.98	145.13	9.045	52.000	142.20	147.86	0.67**	0.35	11.27	1.97	149.83	9.041	9.043	4.702	1.00	1.97
30	24	14.89	139.03	141.92	2.00	3.14	4.74	0.35	142.27	0.369	151.666	140.16	142.48	2.00	3.14	4.74	0.35	142.83	0.369	0.369	0.560	1.00	0.35
31	24	11.26	140.16	142.83	2.00	3.14	3.58	0.20	143.03	0.211	111.666	141.00	143.07	2.00	3.14	3.58	0.20	143.27	0.211	0.211	0.236	1.00	0.20
32	12	11.28	141.00	143.27	1.00	0.79	14.37	3.21	146.48	8.556	52.000	142.20	147.72	1.00**	0.79	14.37	3.21	150.93	8.552	8.554	4.448	1.00	3.21
33	24	10.98	139.63	141.92	2.00	3.14	3.50	0.19	142.11	0.201	71.666	140.16	142.05	1.89	3.07	3.57	0.20	142.25	0.174	0.187	0.134	1.00	0.20
34	24	7.33	140.16	142.25	2.00	3.14	2.33	0.08	142.33	0.090	111.666	141.00	142.29	1.29	2.14	3.43	0.18	142.47	0.161	0.125	0.140	1.00	0.18
35	10	7.35	141.00	142.47	0.83	0.55	13.48	2.82	145.29	9.598	52.000	142.20	147.46	0.83**	0.55	13.47	2.82	150.28	9.595	9.596	4.990	1.00	2.82
36	10	7.35	140.66	142.95	0.83	0.55	13.48	2.82	145.77	9.598	52.000	142.20	147.94	0.83**	0.55	13.47	2.82	150.76	9.595	9.596	4.990	1.00	2.82
37	8	3.93	140.16	142.83	0.67	0.35	11.27	1.98	144.81	9.045	52.000	142.20	147.54	0.67**	0.35	11.27	1.97	149.51	9.041	9.043	4.702	1.00	1.97
38	8	3.93	140.16	142.25	0.67	0.35	11.27	1.98	144.22	9.045	52.000	142.20	146.95	0.67**	0.35	11.27	1.97	148.92	9.041	9.043	4.702	1.00	1.97
39	8	3.93	139.83	141.21	0.67	0.35	11.27	1.98	143.19	9.045	52.000	142.20	145.92	0.67**	0.35	11.27	1.97	147.89	9.041	9.043	4.702	1.00	1.97
40	18	3.92	138.99	140.14	1.15	0.89	2.69	0.30	140.44	0.000	111.666	139.83	140.59 j	0.76**	0.89	4.39	0.30	140.89	0.000	0.000	n/a	1.00	n/a
41	8	3.93	139.83	140.59	0.67	0.35	11.27	1.98	142.56	9.045	52.000	142.20	145.29	0.67**	0.35	11.27	1.97	147.26	9.041	9.043	4.702	1.00	1.97
42	18	5.67	138.72	139.79	1.07	1.13	4.22	0.39	140.18	0.000	137.333	139.75	140.67 j	0.92**	1.13	5.00	0.39	141.06	0.000	0.000	n/a	1.00	0.39
43	10	7.35	138.99	140.14	0.83	0.55	13.48	2.82	142.97	9.598	52.000	142.20	145.14	0.83**	0.55	13.47	2.82	147.96	9.595	9.596	4.990	1.00	2.82
44	30	10.79	136.55	141.33	2.50	4.91	2.20	0.08	141.41	0.059	140.500	137.60	141.41	2.50	4.91	2.20	0.08	141.49	0.059	0.059	0.083	0.50	0.04

Project File: Network B6-2.stm | Number of lines: 51 | Run Date: 9/8/2022

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
	(in)	(cfs)	Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	(ft)	Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	Ave Sf (%)	Enrgy loss (ft)	(K)	(ft)
45	18	5.27	137.60	141.45	1.50	1.77	2.99	0.14	141.59	0.215	133.000	138.60	141.74	1.50	1.77	2.99	0.14	141.88	0.215	0.215	0.286	1.00	0.14
46	36	10.04	129.29	134.94	3.00	7.07	1.42	0.03	134.97	0.019	131.414	130.28	134.97	3.00	7.07	1.42	0.03	135.00	0.019	0.019	0.025	0.50	0.02
47	30	9.04	130.28	134.98	2.50	4.91	1.84	0.05	135.04	0.041	200.000	131.78	135.07	2.50	4.91	1.84	0.05	135.12	0.041	0.041	0.083	1.50	0.08
48	24	5.23	131.78	135.15	2.00	3.14	1.67	0.04	135.19	0.046	200.000	133.28	135.23	1.95	3.12	1.68	0.04	135.28	0.041	0.043	0.086	0.50	0.02
49	18	2.66	133.28	135.25	1.50	0.69	1.51	0.04	135.29	0.055	361.829	135.99	136.61 j	0.62**	0.69	3.88	0.23	136.84	0.433	0.244	n/a	1.50	0.35
50	12	0.69	137.04	137.38	0.34*	0.24	2.91	0.13	137.51	0.000	70.904	137.40	137.75	0.35**	0.24	2.86	0.13	137.87	0.000	0.000	n/a	1.00	n/a
51	12	1.46	135.50	135.96	0.46*	0.36	4.09	0.20	136.17	0.000	82.368	136.11	136.62	0.51**	0.40	3.61	0.20	136.82	0.000	0.000	n/a	1.00	n/a

Project File: Network B6-2.stm | Number of lines: 51 | Run Date: 9/8/2022

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

APPENDIX E

Inspection and Maintenance Manual

LANGAN

Inspection & Maintenance Schedule
Hudson Logistic Center – Hudson, NH

Regular inspection and maintenance of the stormwater management system and stormwater pond areas is necessary to ensure proper operation. Hillwood Enterprises, L.P. is the responsible party who will implement the required inspections and reporting. Responsibility will be transferred with the ownership of the property. Inspection and maintenance records must be provided to NHDES upon request. Inspections of the stormwater management system and pavement areas should be conducted monthly based on the following table:

Site Areas:

Inspection and Maintenance

Check for:	***Corrective Measure:***
Erosion	Install erosion control measures and provide stabilization measures
Spillage	Contain spill as close to source as possible with a dike of absorbent materials installed to protect drainage inlets, stormwater areas, or downstream wetlands and streams. All hazardous waste material, including absorbent materials must be disposed of by a licensed hazardous waste transporter and disposed of in an environmentally acceptable manner
Sediment Accumulation	Stabilize any disturbed areas uphill of where the sedimentation is occurring. Use temporary erosion control measures (i.e. silt fence, straw bales) to filter stormwater runoff.
Trash	Pick up and dispose of trash and litter in an environmentally acceptable manner.

At a minimum the following maintenance measures shall be provided at the frequency listed in the following table:

Routine Maintenance

Maintenance Measure:	***Frequency:***
Pavement Sweeping	Minimum two times per year: during spring cleanup (after last snow event) and during fall cleanup (to remove fallen leaves)
Pavement De-icing	Apply anti-icing treatment prior to storms according to the attached BMPs. Apply deicing treatments as needed during and after snow storms and mixed precipitation events to control ice and compact snow not removed during plowing.
Invasive Plants	Perform inspection activities and disposal procedures outlined in the attached "Methods for Disposing Non-Native Invasive Plants" a minimum of once per year.
Snow Disposal/ Chloride Management	See attached BMPs and environmental fact sheet titled "Snow Disposal Guidelines" developed by New Hampshire Department of Environmental Services for maintenance guidelines. Complete all bullet points included in the fact sheet. Only a New Hampshire Certified Green SnowPro Salt Applicator will be employed for winter snow and ice management activities.

Inspection & Maintenance Schedule
Hudson Logistic Center – Hudson, NH

Catch Basins, Pipe, Curb Leak-off, Conveyance Swales, Check Dams, Filter Strips, Oil/Water Separators:

Inspection and Maintenance

Check for:	***Corrective Measure:***
Trash, Sediment, and Debris at Grate	Remove trash, sediment, and debris and dispose of in an environmentally acceptable manner.
Trash, Sediment, and Debris in leak off, swale or filter strip	Remove sediment if depth impedes free low of run off or becomes deeper than 4 inches. Remove trash, sediment, and debris and dispose of in an environmentally acceptable manner.
Sediment & Trash Accumulation in Sump	Remove sediment from sumps if depth of deposits is greater than one-half the depth from the bottom of the catch basin to the invert of the lowest pipe in the basin.
Pipe blockages	Flush pipes to remove blockages. TV inspect as required.
Sediment and Floatables Oil/Water Separators	Inspect, at a minimum, immediately after completion of the site's construction, every 6 months for the first year of operation, and annually after the end of the first year. Remove sediment accumulation and floatables as required. Dispose of sediment and floatables in an environmentally acceptable manner

At a minimum the following maintenance measures shall be provided at the frequency listed in the following table:

Routine Maintenance

Maintenance Measure:	***Frequency:***
Sediment Removal	Minimum one time per year: Remove sediment and trash from catch basin sumps, hydrodynamic unit, curb leak offs, conveyance swales, inlet grates and pipe inverts. Dispose of sediment and trash in an environmentally acceptable manner.

Inspection & Maintenance Schedule
Hudson Logistic Center – Hudson, NH

Stormwater Ponds

(Infiltration basins, Dry extended detention pond with micro pools, sediment fore bays)

Inspection and Maintenance

Check for:	***Corrective Measure:***
Erosion / Scouring	Ensure the pond outfalls and inlets are operating as intended and that material is stabilized with no signs of deterioration. Upon identifying an issue, notify responsible parties for immediate repair.
Trash and Debris	Remove trash and debris and dispose of in an environmentally acceptable manner. Ensure Outlet Control Structures and all openings are free flowing.

At a minimum the following maintenance measures shall be provided at the frequency listed in the following table:

Routine Maintenance

Maintenance Measure:	***Frequency:***
Erosion / Scouring	Minimum once per year.
Trash and Debris	Minimum once per year.

*The shared Stormwater Ponds are a combined maintenance responsible of all property owners on the Hudson Logistic Center. Any deficiencies identified in the maintenance or performance of these ponds should be made known to Hillwood Enterprises, L.P., or subsequent owners, for corrective measures.

Spill Prevention and Response

Workers must follow basics for spill prevention, as well as specifics for certain materials. If a spill does occur, workers on site must follow procedures in this section.

1. Basics
    a. Quantity of Material - Only keep enough material on site that you need.
    b. Excavated Material – All soil not to be used for final grading/landscaping shall be removed from the site immediately, in accordance with applicable state and local law.
    c. Storage – All materials should be stored in appropriate containers and covered. If covering is not possible, the material must be covered with polyethylene or polypropylene sheeting.
    d. Label Products – Products will be stored with their original label from their manufacturer affixed in a legible way, to each container.
    e. Mixing – Products will only be mixed if recommended by manufacturer.

f. Disposal – Products will try to be used entirely from each container prior to the disposal of container. Manufacturer's recommendations for proper disposal will be followed.
g. Inspections – Site superintendent will do daily site inspections to insure proper storage, labeling and disposal of materials.

2. Specific Products
    a. Concrete – Concrete trucks will not wash out, discharge concrete, or drum wash water anywhere onside that could potentially reach a storm drainage system, waterway, or wetland. If washing occurs onsite, a sump basin is recommended and should be reinforced with silt fencing.
    b. Fertilizers – Fertilizer must be stored in a covered area, with any partially used bags stored in a sealed plastic bin. Fertilizer will only be applied in the minimum amounts based off manufacturer's recommendations, and will be worked into the soil when applied to avoid runoff.
    c. Paints – Containers will be clearly labeled, tightly sealed, and neatly stored. All extra paint will be disposed of based of manufacturer's recommendations.
    d. Petroleum Products – All vehicles onsite will be monitored for leaks and will regularly receive maintenance to reduce chance of leaks. Products must be labeled clearly and stored in tightly sealed containers or offsite. All asphalt substances used onsite will be applied according to the manufacturer's recommendations.
3. Spill Response

    a. Awareness and Materials – General contractor will inform all site personnel aware of all procedures, where all required materials are for clean-up. Required materials include shovels, brooms, rags, goggles, gloves, absorbent materials (sawdust, sand, etc.), and plastic/metal containers specifically there for this purpose. The materials needed will be present on site at all times.
    b. Response Time – Spills will be cleaned up immediately.
    c. Safety – The area the spill occurred in will be kept ventilated, and workers in the area will wear appropriate personal protective equipment.

Reporting – If the spill is toxic or hazardous, it must be reported to the appropriate state or local government agency, regardless of the size of the spill. The spill prevention plan will then change to prevent injury/contact with the toxic/hazardous substance.

Inspection & Maintenance Schedule
Hudson Logistic Center – Hudson, NH

STORMWATER MANAGEMENT SYSTEM INSPECTION AND MAINTENANCE CHECKLIST

Hudson Logistic Center - Hudson, NH Date: Date Since Last Precipitation Event:		Time:	Inspector: Site Conditions:
Inspection Item	**Satisfactory? Yes (Y) or No (N)**		**Comments or Corrective Measures Taken**
Site Areas			
Erosion	Y	N	
Spillage	Y	N	
Sediment Accumulation	Y	N	
Trash	Y	N	
Pavement Sweeping	Y	N	
Pavement De-icing	Y	N	
Invasive Plants	Y	N	
Snow Disposal/ Chloride Management	Y	N	
Catch Basins, Pipe, Curb Leak off, Conveyance Swale, Oil/Water Separator			
Trash, Sediment, and Debris at Inlet Grates	Y	N	
Sediment & Trash Accumulation in Sump	Y	N	
Pipe blockages	Y	N	
Sediment and Floatables in Oil/Water Separator	Y	N	
Stormwater Pond			
Erosion / Souring	Y	N	
Trash and Debris	Y	N	

Inspection & Maintenance Schedule
Hudson Logistic Center – Hudson, NH

STORMWATER MANAGEMENT SYSTEM INSPECTION AND MAINTENANCE LOG

Stormwater Management System Inspection & Maintenance Log Hudson Logistics Center - Hudson, NH				
Date	**Time**	**Inspector**	**Site Conditions**	**Days Since Last Precipitation Event**
	__:__ AM/PM			
	__:__ AM/PM			
	__:__ AM/PM			
	__:__ AM/PM			
	__:__ AM/PM			
	__:__ AM/PM			
	__:__ AM/PM			
	__:__ AM/PM			
	__:__ AM/PM			
	__:__ AM/PM			
	__:__ AM/PM			

Inspection & Maintenance Schedule
Hudson Logistic Center – Hudson, NH

DE-ICING LOG

De-Icing Log **Hudson Logistics Center - Hudson, NH**									
Name									
Date									
Time	____:____ AM/PM (Circle One)								
Air Temperature	_____°C/F (Circle one)	**Pavement Temperature**	_____°C/F (Circle one)	**Relative Humidity**		**Dew Point**		**Sky**	
Reason for Applying									
Chemical									
Application Time									
Application Amount									
Observation (first day)									
Observation (after event)									

STORMWATER TREATMENT FEATURES
SEDIMENT FOREBAYS
INFILTRATION BASINS WITH GRAVEL DRYWELLS
DRY EXTENDED DETENTION BASIN WITH MICROPOOL
PREFORMED SCOUR HOLES (PERMANENT OUTLET PROTECTION)
4FT DEEP SUMP CATCH BASINS (IN ALL PAVED AREAS)
HYDRODYNAMIC SEPARATOR (PROPRIETARY FLOW-THROUGH STRUCTURE)
STORMWATER CONVEYANCE PIPES
OIL WATER SEPARATORS
EMERGENCY SPILLWAYS

FOR PERMITTING ONLY, NOT FOR CONSTRUCTION

300 0 150 300
SCALE: 1 INCH = 300 FEET

Date	Description	No.
Revisions		

Signature Date

LANGAN
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Project

HUDSON LOGISTICS CENTER

MAP No. 239, LOT No. 1
HUDSON
HILLSBOROUGH NEW HAMPSHIRE

Drawing Title

OPERATIONS AND MAINTENANCE FIGURE

Project No.	Figure
151010101	FIG01
Date: 08-26-2022	
Drawn By: KBL	
Checked By: TDO	

LANGAN
Project No. 151010101

Date: 9/8/2022 Time: 11:15 User: sflower Style Table: Langan.stb Layout: CG104 Document Code: FG-151010101-0203-CG104-0102

ENVIRONMENTAL
Fact Sheet

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

29 Hazen Drive, Concord, New Hampshire 03301 • (603) 271-3503 • www.des.nh.gov

WMB-3 2015

Snow Disposal Guidelines

Introduction

Each winter, the Department of Environmental Services receives numerous complaints related to snow disposal into and/or near surface water. There are several different concerns regarding disposal of snow cleared from streets and parking lots ranging from aesthetic concerns, such as minimizing the visibility of debris and huge snow piles, to environmental concerns, such as protection of groundwater quality, drinking water supplies, surface water quality and aquatic life.

The environmental impacts of disposed snow result from high levels of salt, sand, debris and trash, along with contaminants from automobiles including oil and exhaust. The debris and contaminants that inevitably end up in plowed snow make it illegal to dump snow directly into water bodies. RSA 485-A:13,I(a) prohibits discharging wastes to surface waters without a permit. In addition to water quality impacts, snow disposed in open water can cause dangerous ice jams.

Manchester NH sign prohibiting snow dumping. Photo: Robert Robinson, City of Manchester

Groundwater is sensitive to snow dumping due to the high levels of chloride and automotive waste in plowed snow. RSA 485-C:12 prohibits the siting or operation of snow dumps within classified wellhead protection areas.

Refer to the following guidelines for siting legal snow dumps and protecting New Hampshire's water.

Recommended Guidelines for Snow Disposal

These guidelines will assist in identifying snow disposal sites that minimize impact to the environment. Please note that snow dumps are kept out of water bodies due to waste materials, such as litter and debris. Waste does not belong on the land surface either; after the snow melts, all waste must be collected and disposed of properly.

- Disposed snow should be stored near flowing surface waters, but at least 25 feet from the high water mark of the surface water and/or top of stream bank. If a site cannot be found near a flowing surface water, then upland sites further from surface waters are acceptable, provided they do not impact water supply sources as described below.
- A silt fence or equivalent barrier should be securely placed between the snow storage area and the high water mark and/or the top of stream bank with care taken not to exceed the barrier with over-piling. This area should also be accessible for post-melt cleanup. Note: silt fence must be installed prior to the ground freezing.

- The snow storage area should be at least 75 feet from any private water supply wells, at least 200 feet from any community water supply wells, and at least 400 feet from any municipal wells. (Note: Snow storage areas are prohibited in wellhead protection areas.)
- All debris in the snow storage area should be cleared from the site prior to snow storage.
- By May 15 of each year, all debris from active snow storage areas should be cleared and properly disposed of.

Snow Disposal Site Selection Procedures

Municipal public works officials should consider consulting with the local health officer and conservation commission to identify sites. Securing sites prior to the winter season will help to alleviate capacity problems during winters with heavy snowfall. NHDES is available to help municipal officials identify appropriate snow disposal sites. The following are guidelines for site selection:

- Estimate how much snow disposal capacity is needed for the season so that an adequate number of sites can be selected and prepared.
- Sites lacking mature tree growth are preferred; trees make collection of debris more difficult after the winter season.
- Identify sites that could potentially be used for snow disposal such as municipal open space, parks, recreation fields and parking areas. If no additional municipal sites are available, consider securing permission from landowners of non-municipally owned sites.

For more information about snow storage contact the NHDES Watershed Management Bureau at (603) 271-3398.

Deicing Application Rate Guidelines

24' of pavement (typcial two-lane road)

These rates are not fixed values, but rather the middle of a range to be selected and adjusted by an agency according to its local conditions and experience.

			Pounds per two-lane mile			
Pavement Temp. (°F) and Trend (↑↓)	Weather Condition	Maintenance Actions	Salt Prewetted / Pretreated with Salt Brine	Salt Prewetted / Pretreated with Other Blends	Dry Salt*	Winter Sand (abrasives)
> 30° ↑	Snow	Plow, treat intersections only	80	70	100*	Not recommended
	Freezing Rain	Apply Chemical	80 - 160	70 - 140	100 - 200*	Not recommended
30° ↓	Snow	Plow and apply chemical	80 - 160	70 - 140	100 - 200*	Not recommended
	Freezing Rain	Apply Chemical	150 - 200	130 - 180	180 - 240*	Not recommended
25° - 30° ↑	Snow	Plow and apply chemical	120 - 160	100 - 140	150 - 200*	Not recommended
	Freezing Rain	Apply Chemical	150 - 200	130 - 180	180 - 240*	Not recommended
25° - 30° ↓	Snow	Plow and apply chemical	120 - 160	100 - 140	150 - 200*	Not recommended
	Freezing Rain	Apply Chemical	160 - 240	140 - 210	200 - 300*	400
20° - 25° ↑	Snow or Freezing Rain	Plow and apply chemical	160 - 240	140 - 210	200 - 300*	400
20° - 25° ↓	Snow	Plow and apply chemical	200 - 280	175 - 250	250 - 350*	Not recommended
	Freezing Rain	Apply Chemical	240 - 320	210 - 280	300 - 400*	400
15° - 20° ↑	Snow	Plow and apply chemical	200 - 280	175 - 250	250 - 350*	Not recommended
	Freezing Rain	Apply Chemical	240 - 320	210 - 280	300 - 400*	400
15° - 20° ↓	Snow or Freezing Rain	Plow and apply chemical	240 - 320	210 - 280	300 - 400*	500 for freezing rain
0° - 15° ↑↓	Snow	Plow, treat with blends, sand hazardous areas	Not recommended	300 - 400	Not recommended	500 - 750 spot treatment as needed
< 0°	Snow	Plow, treat with blends, sand hazardous areas	Not recommended	400 - 600**	Not recommended	500 - 750 spot treatment as needed

* Dry salt is not recommended. It is likely to blow off the road before it melts ice.

** A blend of 6 - 8 gal/ton $MgCl_2$ or $CaCl_2$ added to NaCl can melt ice as low as -10°.

Figure 4-1. Deicing Application Rate Guidelines

Anti-icing Route Data Form				
Truck Station:				
Date:				
Air Temperature	Pavement Temperature	Relative Humidity	Dew Point	Sky
Reason for applying:				
Route:				
Chemical:				
Application Time:				
Application Amount:				
Observation (first day):				
Observation (after event):				
Observation (before next application):				
Name:				

Figure 4-2. Example Documentation Form for Anti-Icing

APPENDIX F

Infiltration Feasibility

LANGAN

Infiltration Feasibility Report

Hudson Logistic Center
Hudson, New Hampshire
September 2022
DRAFT
(Progress Report – Additional Geotechnical Investigation in progress)

TABLE OF CONTENTS:

LANGAN

The project proposes eleven systems that require infiltration to function properly. These systems are identified on the plans as Infiltration Basin A1-1, A1-2, A11-1, B1-2, B5-2, and B6-2.

In support of the design of these systems, extensive geotechnical investigations have taken place to categorize and assess the functionality of the on-site soils and define the subgrade profile. This document outlines the testing performed and the design criteria established from the investigation for the proposed infiltration features.

Geotechnical information was gathered between 06/2021 – 09/2022 by Langan Engineering and Environmental Services, Inc.

I. Location of the practice

Infiltration Basin A1-1 – This basin is located at the northwest corner of the site, to the east of Merrimack River.

Infiltration Basin A1-2 – This basin is located on the west side of the site, to the east of the Merrimack River and north of the existing southwestern pond.

Infiltration Basin A11-1 – This basin is located on the southwest side of the site, to the east of the Merrimack River and south of the existing southwestern pond.

Infiltration Basin B1-2 – This basin is located on the north side of the site, to the south of the secondary entrance drive and north of the truck court.

Infiltration Basin B5-2 – This basin is located near the center of the site, to the west of the main entrance drive and east of the truck court.

Infiltration Basin B6-2 – This basin is located on the southern side of the, northeast of the landscaped berm and west of the southern wetlands.

II. Existing topography at the location of the practice

Infiltration Basin A1-1 – The existing topography within the area of the infiltration basin is combination of grass and tree cover. The eastern side is steeply sloped at 20-50% and the western side is sloped mostly between 0-6%.

Infiltration Basin A1-2 – The existing topography within the area of the infiltration basin is mostly grass, with a sand trap and a few trees. The slope mostly ranges from 0-15%, but increases up to 40% at the southeastern edge of the basin.

Infiltration Basin A11-1 – The existing topography within the area of the infiltration basin is a mostly grass, with some impervious path areas, and a material pile. The slope is mostly 0-20%, however, at the northeastern corner of the basin, it increases up to 70%.

Infiltration Basin B1-2 – The existing topography within the area of the infiltration basin is a sloped 0-15%, with grass cover.

Infiltration Basin B5-2 – The existing topography within the area of the infiltration basin is grass, sloped mostly 0-3%. The northern portion is sloped up to 12%.

Infiltration Basin B6-2 – The existing topography within the area of the infiltration basin is mostly grass with some tree cover and is sloped mostly 0-5%, with a small portion in the east sloped 10-25%.

III. Test pit or boring locations

In accordance with Env-Wq 1504.12(c), NHDES requires that a minimum number of test pits or borings be dug or drilled in the location of the system, depending on the size of the proposed system. Test pit and boring locations can be found in the location figures attached below and the geotechnical investigation reports for the project.

Infiltration Basin A1-1 – This basin is roughly ±45,000 SF, therefore five test pits have been performed in the location of the proposed practice. These test pits are identified as A-S-TP-22 / A-IT-22, A-S-TP-37 / IT-A6-2(A), A-S-TP-38 / IT-A6-2(B), A-S-TP-39 / IT-A6-2(C), and A-S-TP-41 / IT-A6-2E shown in the attached figures below.

Infiltration Basin A1-2 – This basin is roughly ±35,900 SF, therefore X tests have been performed in the location of the proposed practice. The test pits are identified as XXX , which are shown in the attached figures below.

(Additional geotechnical testing in progress)

Infiltration Basin A11-1 – This basin is roughly ±98,600 SF, therefore ten tests have been performed in the location of the proposed practice. The test pits are identified as B-S-TP-23 / B-IT-23, B-S-TP-24 / IT-A11-2(A), B-S-TP-25 / IT-A11-2(B), B-S-TP-28 / IT-A11-2(E), B-S-TP-29 / IT-A11-2(F), B-S-TP-30 / IT-A11-2(G), B-S-TP-31 / IT-A11-2(H), and XXX which are shown in the attached figures below.

(Additional geotechnical testing in progress)

Infiltration Basin B5-2 – This basin is roughly ±27,800 SF, therefore three tests have been performed in the location of the proposed practice. The test pits are identified as A-S-TP-09 / A-IT-09, A-S-TP-29 / IT-A1-6(A) REV2, A-S-TP-30 / IT-A1-6(B) REV2, which are shown in the attached figures below.

Infiltration Basin B1-2 – This basin is roughly ±14,800 SF, therefore three test pits have been performed in the location of the proposed practice. The test pits are identified as A-S-TP-01 / A-IT-01, A-S-TP-27 / IT-B1-2(B), A-S-TP-28 / IT-B1-2(C), which

are shown in the attached figures below.

Infiltration Basin B6-2 – This basin is roughly ±104,000 SF, therefore nine test pits have been performed in the location of the proposed practice. The test pits are identified as C-S-TP-26 / IT-B6-4(B), and XXX, which are shown in the attached figures below.

(Additional geotechnical testing in progress)

IV. Seasonal high water table (SHWT) and bedrock elevations

Infiltration Basin A1-1

Bottom of Pond Elevation = 113.0

A-S-TP-22 / A-IT-22	Existing Surface Elevation of TP = 114.0 SHWT = Not Encountered BEDROCK = Not Encountered Deepest Elevation of TP = 106.5 Date Collected = 06/29/2020
A-S-TP-37 / IT-A6-2(A):	Existing Surface Elevation of TP = 114.0 SHWT = Not Encountered BEDROCK = Not Encountered Deepest Elevation of TP = 108.0 Date Collected = 06/30/2021
A-S-TP-38 / IT-A6-2(B):	Existing Surface Elevation of TP = 114.5 SHWT = Not Encountered BEDROCK = Not Encountered Deepest Elevation of TP = 108.0 Date Collected = 07/01/2021
A-S-TP-39 / IT-A6-2(C):	Existing Surface Elevation of TP = 113.0 SHWT = Not Encountered BEDROCK = Not Encountered Deepest Elevation of TP = 106.5 Date Collected = 07/12/2021
A-S-TP-41 / IT-A6-2E:	Existing Surface Elevation of TP = 115.0 SHWT = Not Encountered BEDROCK = Not Encountered Deepest Elevation of TP = 112.0 Date Collected = 01/26/2022

Infiltration Basin A1-2

Bottom of Pond Elevation = 116.0

XXX:	Existing Surface Elevation of TP = SHWT = BEDROCK = Deepest Elevation of TP = Date Collected =

Infiltration Basin A11-2

Bottom of Pond Elevation = 116.0

B-S-TP-23 / B-IT-23:	Existing Surface Elevation of TP = 115.5 SHWT = Not Encountered BEDROCK = Not Encountered Deepest Elevation of TP = 107.5 Date Collected = 06/30/2020
B-S-TP-24 / IT-A11-2(A):	Existing Surface Elevation of TP = 117.5 SHWT = Not Encountered BEDROCK = Not Encountered Deepest Elevation of TP = 109.5 Date Collected = 07/06/2021
B-S-TP-25 / IT-A11-2(B):	Existing Surface Elevation of TP = 120.5 SHWT = Not Encountered BEDROCK = Not Encountered Deepest Elevation of TP = 110.5 Date Collected = 07/06/2021
B-S-TP-28 / IT-A11-2(E):	Existing Surface Elevation of TP = 118.0 SHWT = Not Encountered BEDROCK = Not Encountered Deepest Elevation of TP = 110.0 Date Collected = 07/07/2021

B-S-TP-29 / IT-A11-2(F):	Existing Surface Elevation of TP = 118.0 SHWT = Not Encountered BEDROCK = Not Encountered Deepest Elevation of TP = 109.5 Date Collected = 07/06/2021
B-S-TP-30 / IT-A11-2(G):	Existing Surface Elevation of TP = 114.0 SHWT = Not Encountered BEDROCK = Not Encountered Deepest Elevation of TP = 108.0 Date Collected = 07/15/2021
B-S-TP-31 / IT-A11-2(H):	Existing Surface Elevation of TP = 115.0 SHWT = Not Encountered BEDROCK = Not Encountered Deepest Elevation of TP = 112.0 Date Collected = 01/26/2022
XXX:	Existing Surface Elevation of TP = SHWT = BEDROCK = Deepest Elevation of TP = Date Collected =

Infiltration Basin B6-2

Bottom of Pond Elevation = 128.0

C-S-TP-26 / IT-B6-4(B):	Existing Surface Elevation of TP = 129.0 SHWT = Not Encountered BEDROCK = Not Encountered Deepest Elevation of TP = 122.5 Date Collected = 06/28/2021
XXX:	Existing Surface Elevation of TP = SHWT = BEDROCK = Deepest Elevation of TP = Date Collected =

Infiltration Basin B5-2

Bottom of Pond Elevation = 133.5

A-S-TP-09 / A-IT-09:	Existing Surface Elevation of TP = 132.5 SHWT = 125.5 BEDROCK = Not Encountered Deepest Elevation of TP = 125.5 Date Collected = 06/23/2020
A-S-TP-29 / IT-A1-6(A) REV2:	Existing Surface Elevation of TP = 132.5 SHWT = 127.5 BEDROCK = 126.0 Deepest Elevation of TP = 126.0 Date Collected = 06/28/2021
A-S-TP-30 / IT-A1-6(B) REV2:	Existing Surface Elevation of TP = 133 SHWT = 127.0 BEDROCK = Not Encountered Deepest Elevation of TP = 124.5 Date Collected = 06/28/2021

Infiltration Basin B1-2

Bottom of Pond Elevation = 129.0

A-S-TP-01 / A-IT-01:	Existing Surface Elevation of TP = 133.5 SHWT = Not Encountered BEDROCK = Not Encountered Deepest Elevation of TP = 127.5 Date Collected = 06/25/2020
A-S-TP-27 / IT-B1-2(B):	Existing Surface Elevation of TP = 133.5 SHWT = Not Encountered BEDROCK = Not Encountered Deepest Elevation of TP = 127.0 Date Collected = 01/26/2022

A-S-TP-28 / IT-B1-2(C):	Existing Surface Elevation of TP = 133.5 SHWT = NA BEDROCK = NA Deepest Elevation of TP = 127.0 Date Collected = 01/26/2022

V. Profile descriptions

Test pits were performed at various locations and depths throughout the site. More detailed information can be found in the geotechnical investigation reports prepared for this project. Infiltration test locations and data collection can be found in the location figure and attached field reports below.

Infiltration Basin A1-1

A-IT-22:	Light brown SILT, some fine sand, Trace roots (moist)
IT-A6-2(A):	Tan silty fine SAND, trace coarse sand, trace roots (moist)
IT-A6-2(B):	Light brown fine SAND, some silt, trace roots (moist)
IT-A6-2(C):	Brown silty fine-medium SAND, trace roots (moist)
IT-A6-2E:	Brown fine to medium SAND, some silt

Infiltration Basin A1-2

XXX

Infiltration Basin A11-1

B-IT-23:	Light brown fine-medium SAND, some silt, Some roots, 9inch (dry)[TOPSOIL]
IT-A11-2(A):	Brown m-f SAND, some c-f gravel, trace silt (moist)
IT-A11-2(B):	Light brown m-f SAND, trace silt, trace fine gravel (dry)
IT-A11-2(E):	Dark brown gravelly m-f SAND, some fine gravel, trace silt (moist)
IT-A11-2(F):	Dark brown m-f SAND, some silt, some c-f gravel, trace wood (moist)[FILL]

IT-A11-2(G):	12" Dark brown SILT, some m-f sand, trace roots (moist)[TOPSOIL]
IT-A11-2(H):	Brown fine to coarse SAND, some fine gravel, trace silt

XXX

Infiltration Basin B6-2

IT-B6-4(B):	Orange brown SILT, trace fine sand, trace roots (moist)

XXX

Infiltration Basin B5-2

A-IT-09:	Dark brown fine-medium SAND, trace silt, Some roots (dry)[TOPSOIL]
IT-A1-6(A) REV2:	Light brown m-f SAND, trace silt (moist)
IT-A1-6(B) REV2:	Tan fine SAND, trace silt, trace cobbles (moist)

Infiltration Basin B1-2

A-IT-01:	Light brown fine SAND, trace silt
IT-B1-2(B):	Brown fine SAND, some silt, trace clay
IT-B1-2(C):	Brown fine SAND, some silt, trace clay

VI. Soil plan in the area of the proposed practice(s)

(See attached)

VII. Summary of [Default, Field Testing, or Lab Testing] data used to determine the infiltration rate

Infiltration testing was performed at various locations and in various soil types throughout the site.

Infiltration rates for each of the practices below were chosen based on field observed infiltration rates, soil characteristics, and the New Hampshire Soils, Society of Soil Scientist of Northern New England, Special Publication No.5.

Section VII to be completed upon final geotechnical investigation results. Design rates based on closest proximity and most similar soil condition, field obtained data to date

Infiltration Basin A1-1

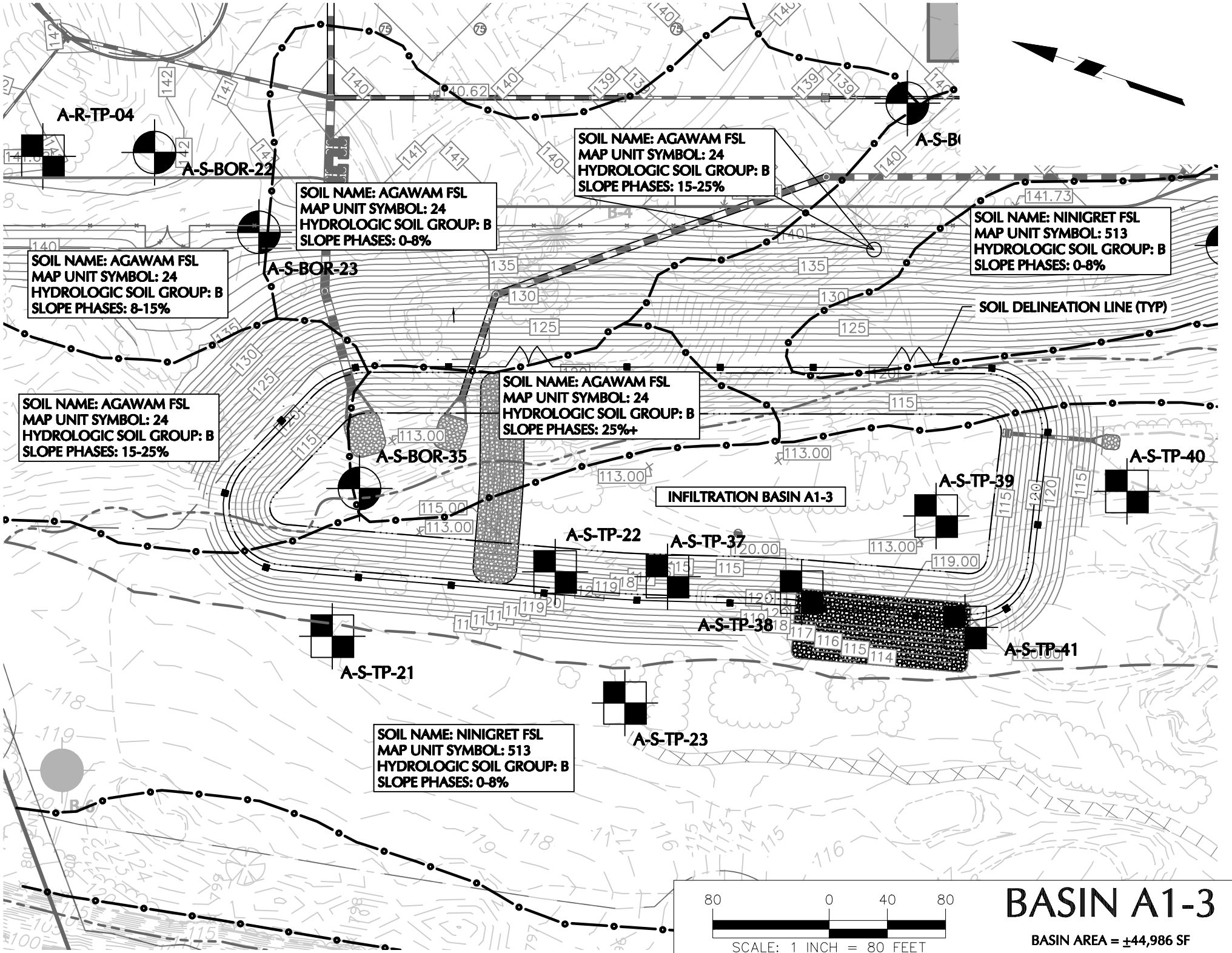
Infiltration Basin A1-2

Infiltration Basin A11-1

Infiltration Basin B1-6

Infiltration Basin B5-2

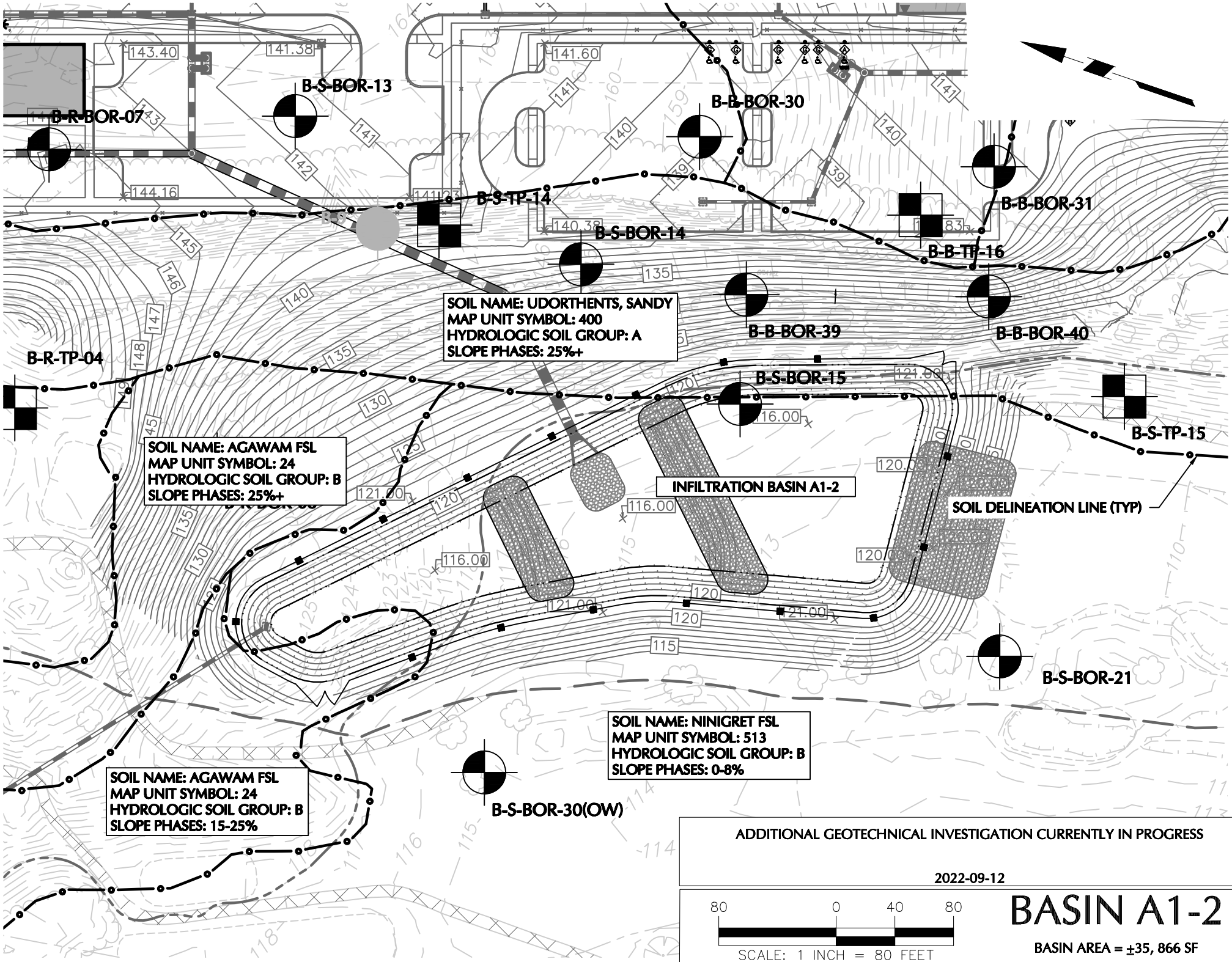
Infiltration Basin B1-2



BASIN A1-3

BASIN AREA = ±44,986 SF

TEST PITS REQUIRED = 5



ADDITIONAL GEOTECHNICAL INVESTIGATION CURRENTLY IN PROGRESS

2022-09-12

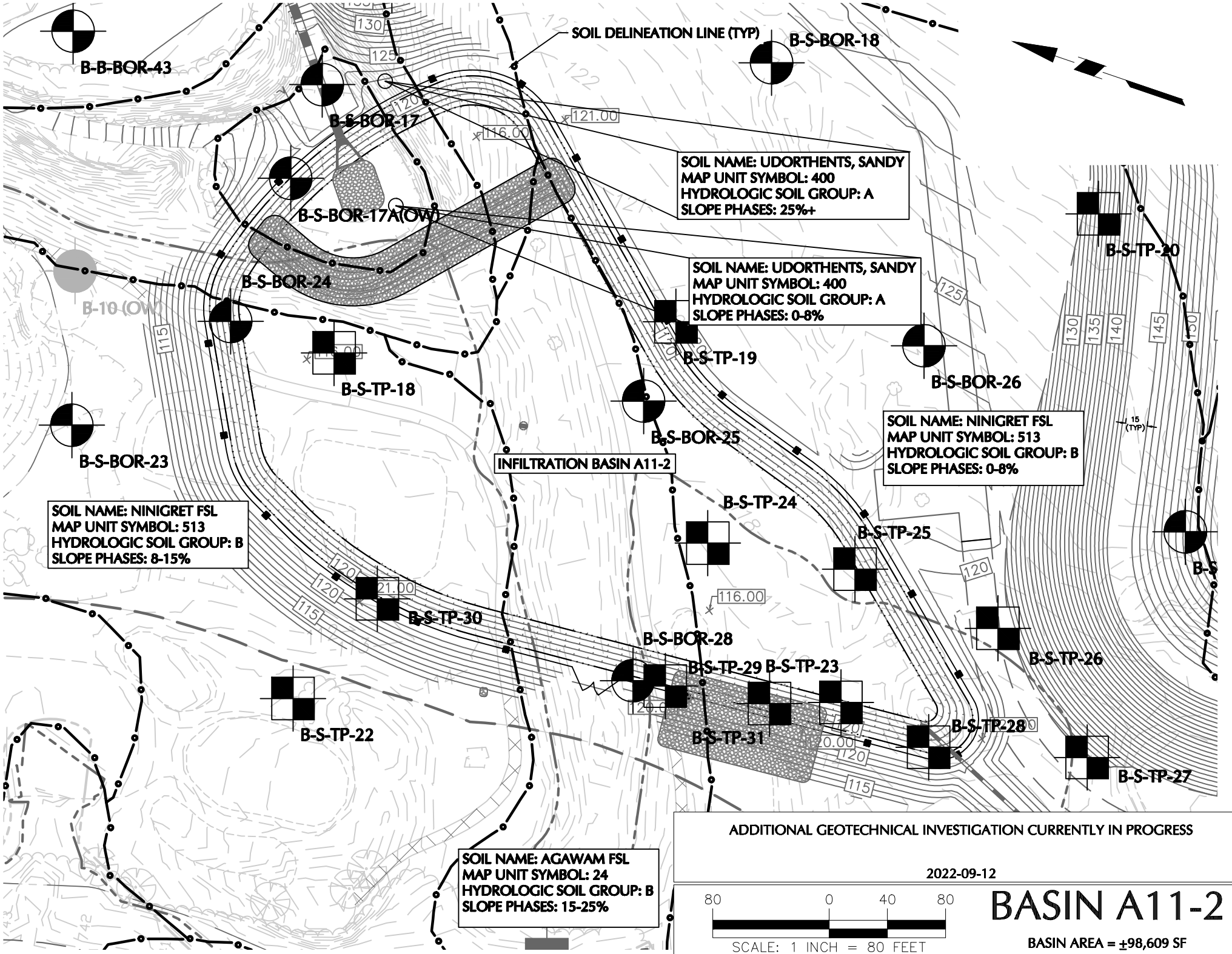
80 0 40 80

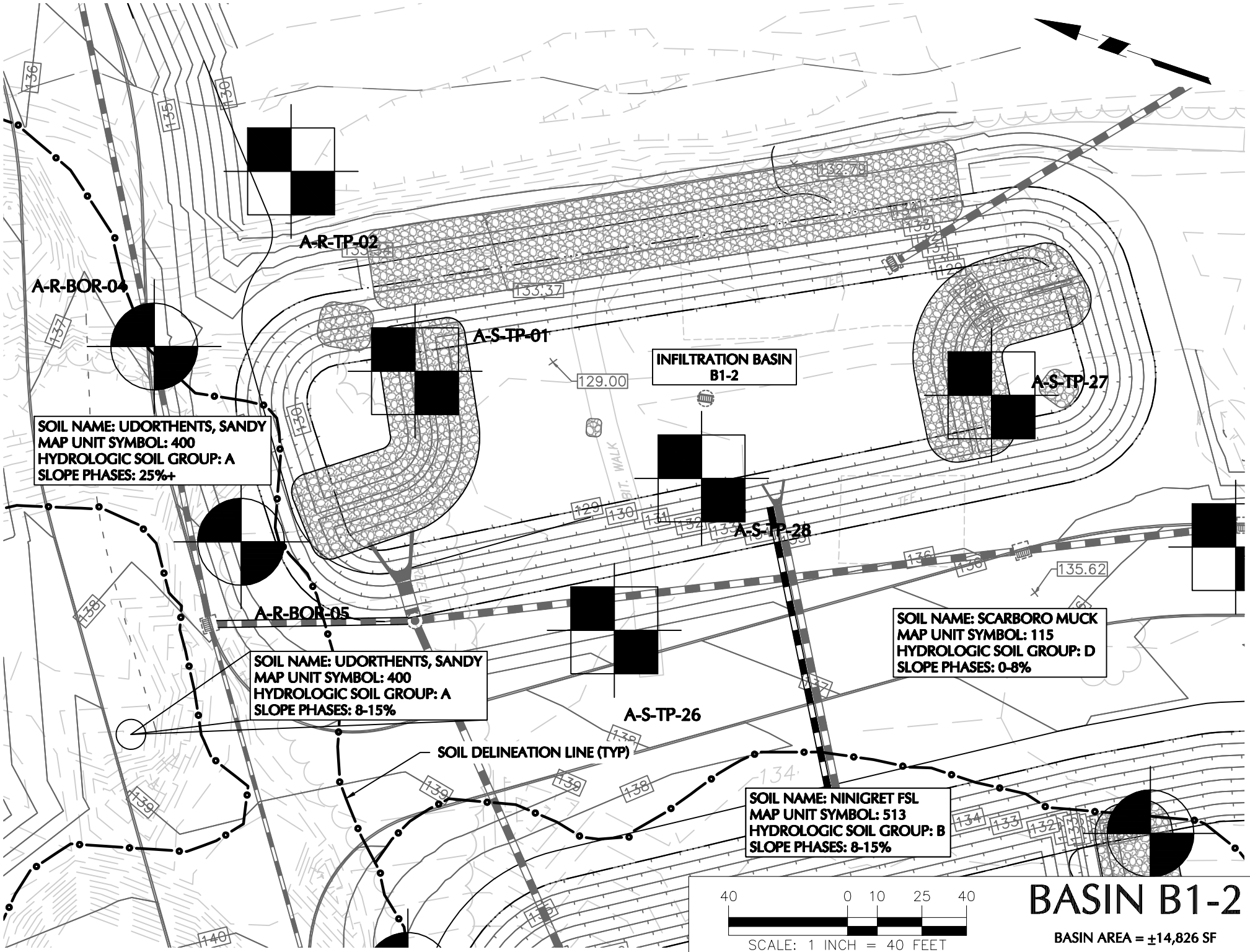
SCALE: 1 INCH = 80 FEET

BASIN A1-2

BASIN AREA = ±35, 866 SF

TEST PITS REQUIRED = 4

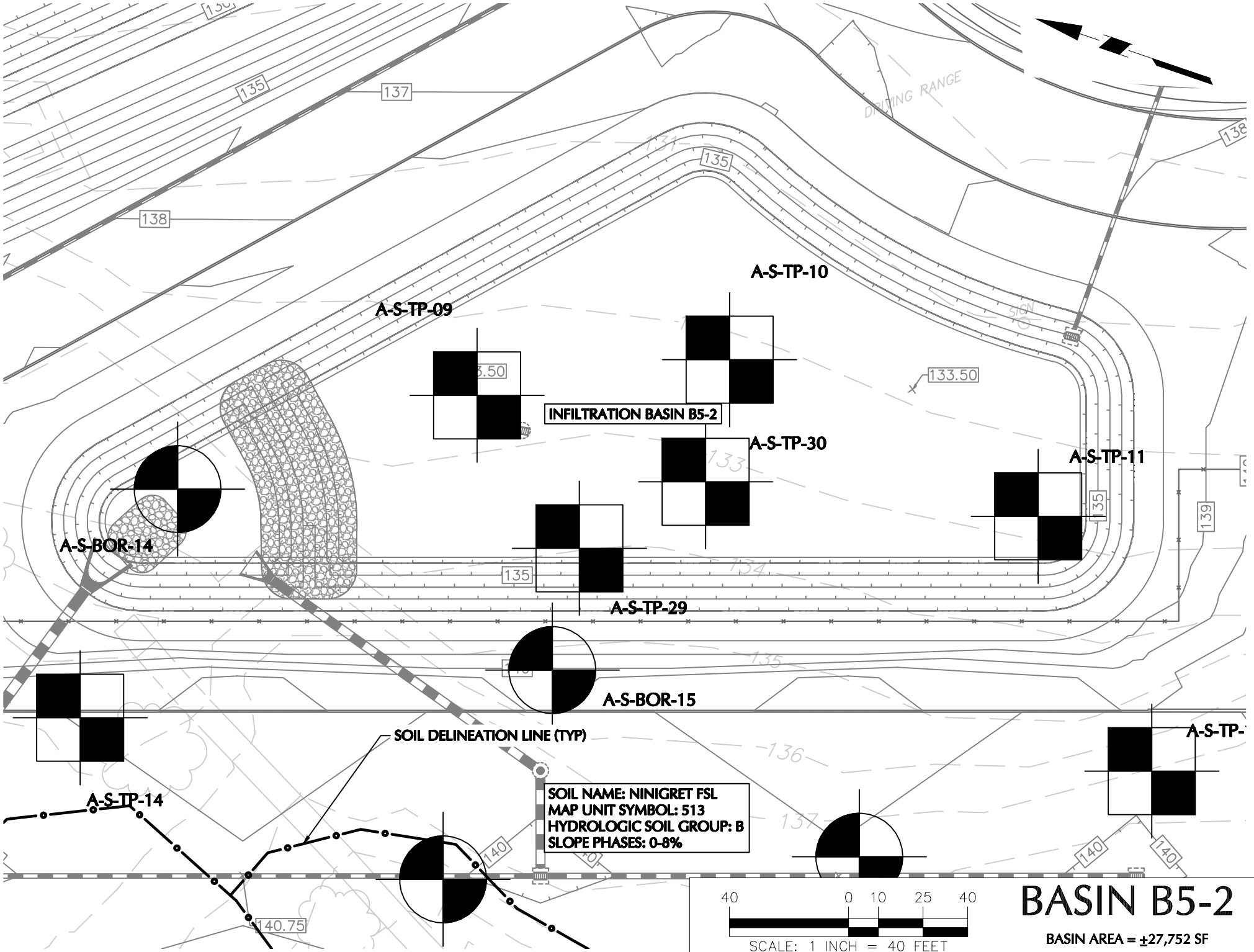

SOIL DELINEATION LINE (TYP)
B-B-BOR-43
B-S-BOR-18
B-S-BOR-17
B-S-BOR-17A(OW)
B-S-BOR-24
B-10 (OW)
B-S-TP-18
B-S-TP-19
B-S-BOR-26
B-S-BOR-25
B-S-BOR-23
INFILTRATION BASIN A11-2
B-S-TP-24
B-S-TP-25
B-S-TP-30
B-S-BOR-28
B-S-TP-29
B-S-TP-23
B-S-TP-31
B-S-TP-22
B-S-TP-28
B-S-TP-26
B-S-TP-27
B-S-TP-20
SOIL NAME: UDORTHENTS, SANDY
MAP UNIT SYMBOL: 400
HYDROLOGIC SOIL GROUP: A
SLOPE PHASES: 25%+
SOIL NAME: UDORTHENTS, SANDY
MAP UNIT SYMBOL: 400
HYDROLOGIC SOIL GROUP: A
SLOPE PHASES: 0-8%
SOIL NAME: NINIGRET FSL
MAP UNIT SYMBOL: 513
HYDROLOGIC SOIL GROUP: B
SLOPE PHASES: 0-8%
SOIL NAME: NINIGRET FSL
MAP UNIT SYMBOL: 513
HYDROLOGIC SOIL GROUP: B
SLOPE PHASES: 8-15%
SOIL NAME: AGAWAM FSL
MAP UNIT SYMBOL: 24
HYDROLOGIC SOIL GROUP: B
SLOPE PHASES: 15-25%
ADDITIONAL GEOTECHNICAL INVESTIGATION CURRENTLY IN PROGRESS
2022-09-12
80 0 40 80
SCALE: 1 INCH = 80 FEET
BASIN A11-2
BASIN AREA = ±98,609 SF
TEST PITS REQUIRED = 11



BASIN B1-2

BASIN AREA = ±14,826 SF

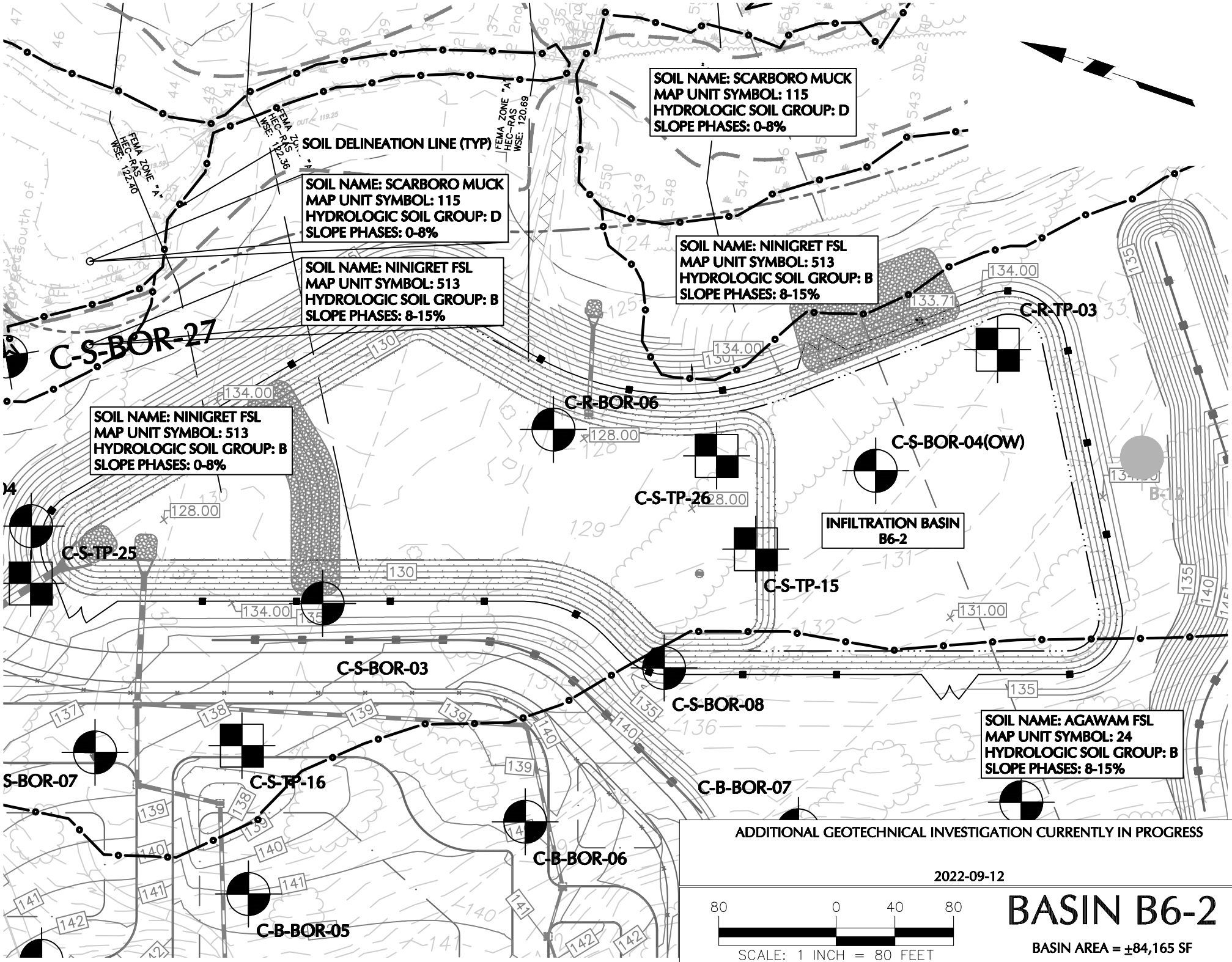
TEST PITS REQUIRED = 2



BASIN B5-2

BASIN AREA = ±27,752 SF

TEST PITS REQUIRED = 3



ADDITIONAL GEOTECHNICAL INVESTIGATION CURRENTLY IN PROGRESS

2022-09-12

80 0 40 80

SCALE: 1 INCH = 80 FEET

BASIN B6-2

BASIN AREA = ±84,165 SF

TEST PITS REQUIRED = 9

LANGAN

INFILTRATION TESTS

A-IT-22 performed in A-S-TP-22

PROJECT	Hudson Logistics Center	**PROJECT NO.**	151010102
LOCATION	59 Steele Road, Hudson, NH	**DATE**	6/29/2020
INSPECTOR	Taylor Sisti	**WEATHER**	Cloudy, 70s°F

PRESOAK	**TIME**	**DEPTH OF WATER IN HOLE (INCH)**
Start	9:07	24
End	9:27	0

ELEVATION AND DATUM			
Surface Elevation	Approx.	114	(NGVD29)
Top of Hole Elevation	Approx.	112.0	(NGVD29)
Bottom of Hole Elevation	Approx.	110.0	(NGVD29)

METHOD OF INFILTRATION TEST

A-S-TP-22 was advanced to a depth of about 2 feet below existing grade. An about 6-inch diameter, 24-inch deep hole was dug by hand with a post hole digger. The circumfrence of the hole was then lined with a 6-inch diameter, 30-inch long PVC pipe. Before running infiltration tests, the hole was presoaked with 24 inches of water and allowed to drain. For each infiltration test, the hole was filled with water to a predetermined depth of 24 inches. Then, the time was recorded after one hour or the time for the water to drain 24 inches was recorded. The tables below outline the calculations for determining the average rate in which the water dissipated. Test pit A-S-TP-22 was advanced to to termination depth following completion of the infiltration test.

	TIME (SEC)	DEPTH OF WATER (IN)	TIME INTERVAL (SEC)	RATE (IN/MIN)	RATE (IN/HOUR)	SOIL CONDITIONS
TEST 1	0	24	-	-	-	Light brown sandy SILT
	1665	0	1665	0.86	51.89	
				Average Rate:	**51.9**	**inches/hour**

	TIME (SEC)	DEPTH OF WATER (IN)	TIME INTERVAL (SEC)	RATE (IN/MIN)	RATE (IN/HOUR)	SOIL CONDITIONS
TEST 2	0	24	-	-	-	Light brown sandy SILT
	2065	0	2065	0.70	41.84	
				Average Rate:	**41.8**	**inches/hour**

	TIME (SEC)	DEPTH OF WATER (IN)	TIME INTERVAL (SEC)	RATE (IN/MIN)	RATE (IN/HOUR)	SOIL CONDITIONS
TEST 3	0	24	-	-	-	Light brown sandy SILT
	2557	0	2557	0.56	33.79	
				Average Rate:	**33.8**	**inches/hour**

	TIME (SEC)	DEPTH OF WATER (IN)	TIME INTERVAL (SEC)	RATE (IN/MIN)	RATE (IN/HOUR)	SOIL CONDITIONS
TEST 4	0	24	-	-	-	Light brown sandy SILT
	2902	0	2902	0.50	29.77	
				Average Rate:	**29.8**	**inches/hour**

Lowest Average Rate:	**29.8**	**inches/hour**

LANGAN

INFILTRATION TEST RESULTS

IT-A6-2(A) performed in A-S-TP-37

PROJECT	Hudson Logistics Center	**PROJECT NO.**	151010102
LOCATION	Hudson, NH	**DATE**	June 30, 2021
INSPECTOR	Alex Macon & Amy Blomeke, P.E.	**WEATHER**	Sunny 90s

TEST NUMBER	STATIC HEAD (CM)
1	6
2	12
3	18

DEPTHS & ELEVATIONS			
Ground Surface Elevation (el)	Approx.	114.0	(NGVD29)
Test Pit Depth (ft)	Approx.	1.0	
Bottom of Test Pit Elevation (el)	Approx.	113.0	(NGVD29)
Depth of Infiltration Test Hole (in)	Approx.	11.0	
Bottom of Infiltration Test Elevation (el)	Approx.	112.1	(NGVD29)

METHOD OF INFILTRATION TEST

A 3-centimeter-radius hole was advanced using a hand auger. The hole was cleaned using a well prep brush and a sizing auger. The infiltration test was performed using a Guelph Permeameter at three seperate heads (noted above). Both inner and outher reservoirs were used. At regular intervals the height of the water was measured to calculate the total drop of water. The table below summarizes the field data and the resulting field saturated hydraulic conductivity.

TEST 1

TIME (MIN)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	1.0	-	-	-
30	4.4	3.4	2.7	160.8
60	6.2	1.8	1.4	85.1
90	7.8	1.6	1.3	75.6
120	9.1	1.3	1.0	61.5
150	10.5	1.4	1.1	66.2
180	11.9	1.4	1.1	66.2
210	13.3	1.4	1.1	66.2
			Steady State Rate =	66.2

Steady State Rate = 66.2 in/hr
2.80 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 1.19E-03 cm/sec

TEST 2

TIME (MIN)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	1.0	-	-	-
30	8.5	7.5	5.9	354.6
60	10.6	2.1	1.7	99.3
90	12.4	1.8	1.4	85.1
120	14.3	1.9	1.5	89.8
150	16.2	1.9	1.5	89.8
180	17.8	1.6	1.3	75.6
210	19.6	1.8	1.4	85.1
240	21.2	1.6	1.3	75.6
270	23.0	1.8	1.4	85.1
300	24.6	1.6	1.3	75.6
330	26.4	1.8	1.4	85.1
360	28.0	1.6	1.3	75.6
390	29.6	1.6	1.3	75.6
420	31.2	1.6	1.3	75.6
			Steady State Rate =	82.0

Steady State Rate = 82.0 in/hr
3.47 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 1.03E-03 cm/sec

TEST 3

TIME (MIN)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	1.0	-	-	-
30	12.8	11.8	9.3	557.9
60	14.8	2	1.6	94.6
90	17.8	3	2.4	141.8
120	18.8	1	0.8	47.3
150	20.8	2	1.6	94.6
180	22.5	1.7	1.3	80.4
210	24.5	2	1.6	94.6
240	26.2	1.7	1.3	80.4
270	28.1	1.9	1.5	89.8
300	29.9	1.8	1.4	85.1
330	31.8	1.9	1.5	89.8
354	33.6	1.8	1.8	106.4
390	35.4	1.8	1.2	70.9
420	37.2	1.8	1.4	85.1
			Steady State Rate =	87.5

Steady State Rate = 87.5 in/hr
3.70 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 7.95E-04 cm/sec

LANGAN

INFILTRATION TEST RESULTS

IT-A6-2(B) performed in A-S-TP-38

PROJECT	Hudson Logistics Center	**PROJECT NO.**	151010102
LOCATION	Hudson, NH	**DATE**	July 1, 2021
INSPECTOR	Alex Macon & Amy Blomeke, P.E.	**WEATHER**	Cloudy 90s

TEST NUMBER	STATIC HEAD (CM)
1	4
2	8
3	10

DEPTHS & ELEVATIONS			
Ground Surface Elevation (el)	Approx.	114.5	(NGVD29)
Test Pit Depth (ft)	Approx.	1.0	
Bottom of Test Pit Elevation (el)	Approx.	113.5	(NGVD29)
Depth of Infiltration Test Hole (in)	Approx.	6.0	
Bottom of Infiltration Test Elevation (el)	Approx.	113.0	(NGVD29)

METHOD OF INFILTRATION TEST

A 3-centimeter-radius hole was advanced using a hand auger. The hole was cleaned using a well prep brush and a sizing auger. The infiltration test was performed using a Guelph Permeameter at three seperate heads (noted above). Both inner and outher reservoirs were used. At regular intervals the height of the water was measured to calculate the total drop of water. The table below summarizes the field data and the resulting field saturated hydraulic conductivity.

TEST 1

TIME (SEC)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	1.0	-	-	-
30	3.7	2.7	2.1	127.7
60	5.9	2.2	1.7	104.0
90	7.9	2.0	1.6	94.6
120	9.9	2.0	1.6	94.6
150	11.9	2.0	1.6	94.6
180	13.9	2.0	1.6	94.6
			Steady State Rate =	94.6

Steady State Rate = 94.6 in/hr
4.00 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 2.12E-03 cm/sec

TEST 2

TIME (SEC)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	1.0	-	-	-
30	8.9	7.9	6.2	373.5
60	11.7	2.8	2.2	132.4
90	14.4	2.7	2.1	127.7
120	16.9	2.5	2.0	118.2
150	19.4	2.5	2.0	118.2
180	22.0	2.6	2.0	122.9
210	24.6	2.6	2.0	122.9
240	27.2	2.6	2.0	122.9
270	29.8	2.6	2.0	122.9
			Steady State Rate =	122.9

Steady State Rate = 122.9 in/hr
5.20 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 2.04E-03 cm/sec

TEST 3

TIME (SEC)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	1.0	-	-	-
30	8.5	7.5	5.9	354.6
60	11.4	2.9	2.3	137.1
90	14.2	2.8	2.2	132.4
120	17.0	2.8	2.2	132.4
150	19.8	2.8	2.2	132.4
180	22.4	2.6	2.0	122.9
			Steady State Rate =	132.4

Steady State Rate = 132.4 in/hr
5.60 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 1.90E-03 cm/sec

LANGAN

INFILTRATION TEST RESULTS

IT-A6-2(C) performed in A-S-TP-39

PROJECT	Hudson Logistics Center	**PROJECT NO.**	151010102
LOCATION	Hudson, NH	**DATE**	July 12, 2021
INSPECTOR	Alex Macon & Amy Blomeke, P.E.	**WEATHER**	Rain, 60 degrees

TEST NUMBER	STATIC HEAD (CM)
1	3
2	5
3	7

DEPTHS & ELEVATIONS			
Ground Surface Elevation (el)	Approx.	113.0	(NGVD29)
Test Pit Depth (ft)	Approx.	1.5	
Bottom of Test Pit Elevation (el)	Approx.	111.5	(NGVD29)
Depth of Infiltration Test Hole (in)	Approx.	6.0	
Bottom of Infiltration Test Elevation (el)	Approx.	111.0	(NGVD29)

METHOD OF INFILTRATION TEST

A 3-centimeter-radius hole was advanced using a hand auger. The hole was cleaned using a well prep brush and a sizing auger. The infiltration test was performed using a Guelph Permeameter at three seperate heads (noted above). Both inner and outher reservoirs were used. At regular intervals the height of the water was measured to calculate the total drop of water. The table below summarizes the field data and the resulting field saturated hydraulic conductivity.

TEST 1

TIME (SEC)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	0.0	-	-	-
30	5.0	5	3.9	236.4
60	6.5	1.5	1.2	70.9
90	7.0	0.5	0.4	23.6
120	7.5	0.5	0.4	23.6
150	7.7	0.2	0.2	9.5
180	8.0	0.3	0.2	14.2
210	8.5	0.5	0.4	23.6
240	9.0	0.5	0.4	23.6
270	9.1	0.1	0.1	4.7
300	9.5	0.4	0.3	18.9
330	9.9	0.4	0.3	18.9
360	10.3	0.4	0.3	18.9
			Steady State Rate =	18.9

steady state rate = 18.9 in/hr
0.80 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 5.22E-04 cm/sec

TEST 2

TIME (MIN)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	10.5	-	-	-
1	13.5	3	1.2	70.9
2	14.5	1	0.4	23.6
3	15.5	1	0.4	23.6
4	16.5	1	0.4	23.6
			Steady State Rate =	23.6

steady state rate = 23.6 in/hr
0.999 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 5.11E-04 cm/sec

TEST 3

TIME (MIN)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	16.5	-	-	-
1	20.0	3.5	1.4	82.7
2	21.5	1.5	0.6	35.5
3	22.7	1.2	0.5	28.4
4	24.0	1.3	0.5	30.7
5	25.4	1.4	0.6	33.1
6	24.0	-1.4	-0.6	-33.1
7	26.6	2.6	1.0	61.5
8	28.0	1.4	0.6	33.1
9	29.4	1.4	0.6	33.1
10	30.5	1.1	0.4	26.0
11	32.0	1.5	0.6	35.5
12	33.0	1	0.4	23.6
13	34.5	1.5	0.6	35.5
14	32.0	-2.5	-1.0	-59.1
15	33.0	1	0.4	23.6
16	34.5	1.5	0.6	35.5
17	37.0	2.5	1.0	59.1
18	38.5	1.5	0.6	35.5
19	39.5	1	0.4	23.6
20	40.8	1.3	0.5	30.7
21	42.1	1.3	0.5	30.7
22	43.4	1.3	0.5	30.7
			Steady State Rate =	30.7

steady state rate = 30.7 in/hr
1.30 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 5.52E-04 cm/sec

LANGAN

INFILTRATION TESTS

IT-A6-2E performed in A-S-TP-41

PROJECT	Hudson Logistics Center	**PROJECT NO.**	151010102
LOCATION	59 Steele Road, Hudson, NH	**DATE**	January 26, 2022
INSPECTOR	Zachery Roller	**WEATHER**	Clear, 10 degrees

PRESOAK	**TIME**	**DEPTH OF WATER IN HOLE (IN)**
Start	11:05	24
End	11:20	0

ELEVATION AND DATUM			
Surface Elevation	Approx.	115	(NGVD29)
Top of Hole Elevation	Approx.	114.0	(NGVD29)
Bottom of Hole Elevation	Approx.	112.0	(NGVD29)

METHOD OF INFILTRATION TEST

A 6 inch PVC pipe was installed with hand digging methods (pick axe, shovel, post hole diggers). The pipe was then presoaked with 2.0ft of water. For each infiltration test, the hole was filled with water to a predetermined depth of 24 inches. Then, the time was recorded after one hour or the time for the water to drain 24 inches was recorded.The tables below outline the calculations for determining the average rate in which the water dissipated. This test was performed four times.

	TIME (MIN)	**DEPTH OF WATER (IN)**	**TIME INTERVAL (MIN)**	**RATE (IN/MIN)**	**RATE (IN/HOUR)**	**SOIL CONDITIONS**
TEST 1	0	24	-	-	-	Fine-medium SAND, some silt
	25	0	25	0.96	57.60	
				Average Rate:	**57.6**	**inches/hour**

	TIME (MIN)	**DEPTH OF WATER (IN)**	**TIME INTERVAL (MIN)**	**RATE (IN/MIN)**	**RATE (IN/HOUR)**	**SOIL CONDITIONS**
TEST 2	0	24	-	-	-	Fine-medium SAND, some silt
	30	0	30	0.80	48.00	
				Average Rate:	**48.0**	**inches/hour**

	TIME (MIN)	**DEPTH OF WATER (IN)**	**TIME INTERVAL (MIN)**	**RATE (IN/MIN)**	**RATE (IN/HOUR)**	**SOIL CONDITIONS**
TEST 3	0	24	-	-	-	Fine-medium SAND, some silt
	30	0	30	0.80	48.00	
				Average Rate:	**48.0**	**inches/hour**

	TIME (MIN)	**DEPTH OF WATER (IN)**	**TIME INTERVAL (MIN)**	**RATE (IN/MIN)**	**RATE (IN/HOUR)**	**SOIL CONDITIONS**
TEST 4	0	24	-	-	-	Fine-medium SAND, some silt
	42	0	42	0.57	34.29	
				Average Rate:	**34.3**	**inches/hour**

Lowest Average Rate:	**34.3**	**inches/hour**

LANGAN

INFILTRATION TESTS

B-IT-23 performed in B-S-TP-23

PROJECT	Hudson Logistics Center	**PROJECT NO.**	151010102
LOCATION	59 Steele Road, Hudson, NH	**DATE**	6/29/2020
INSPECTOR	Olivia Chasse	**WEATHER**	Cloudy, 70s°F

PRESOAK	**TIME**	**DEPTH OF WATER IN HOLE (INCH)**	**ELEVATION AND DATUM**			
Start	12:40	24	**Surface Elevation**	Approx.	115.5	(NGVD29)
End	12:50	0	**Top of Hole Elevation**	Approx.	115.5	(NGVD29)
			Bottom of Hole Elevation	Approx.	113.5	(NGVD29)

METHOD OF INFILTRATION TEST

An about 6-inch diameter, 24-inch deep hole was dug below surface grade, by hand with a post hole digger. The circumfrence of the hole was then lined with a 6-inch diameter, 30-inch long PVC pipe. Before running infiltration tests, the hole was presoaked with 24 inches of water and allowed to drain. For each infiltration test, the hole was filled with water to a predetermined depth of 24 inches. Then, the time was recorded after one hour or the time for the water to drain 24 inches was recorded. The tables below outline the calculations for determining the average rate in which the water dissipated. Test pit B-S-TP-23 was advanced to to termination depth following completion of the infiltration test.

	TIME (SEC)	DEPTH OF WATER (IN)	TIME INTERVAL (SEC)	RATE (IN/MIN)	RATE (IN/HOUR)	SOIL CONDITIONS
TEST 1	0	24	-	-	-	Light brown fine to coarse SAND, trace silt, trace fine gravel
	960	0	960	1.50	90.00	
				Average Rate:	**90.0**	**inches/hour**

	TIME (SEC)	DEPTH OF WATER (IN)	TIME INTERVAL (SEC)	RATE (IN/MIN)	RATE (IN/HOUR)	SOIL CONDITIONS
TEST 2	0	24	-	-	-	Light brown fine to coarse SAND, trace silt, trace fine gravel
	1320	0	1320	1.09	65.45	
				Average Rate:	**65.5**	**inches/hour**

	TIME (SEC)	DEPTH OF WATER (IN)	TIME INTERVAL (SEC)	RATE (IN/MIN)	RATE (IN/HOUR)	SOIL CONDITIONS
TEST 3	0	24	-	-	-	Light brown fine to coarse SAND, trace silt, trace fine gravel
	1080	0	1080	1.33	80.00	
				Average Rate:	**80.0**	**inches/hour**

	TIME (SEC)	DEPTH OF WATER (IN)	TIME INTERVAL (SEC)	RATE (IN/MIN)	RATE (IN/HOUR)	SOIL CONDITIONS
TEST 4	0	24	-	-	-	Light brown fine to coarse SAND, trace silt, trace fine gravel
	1200	0	1200	1.20	72.00	
				Average Rate:	**72.0**	**inches/hour**

Lowest Average Rate:	**65.5**	**inches/hour**

LANGAN

INFILTRATION TESTS

A-IT-09 performed in A-S-TP-09

PROJECT	Hudson Logistics Center	**PROJECT NO.**	151010102
LOCATION	59 Steele Road, Hudson, NH	**DATE**	06/23/2020
INSPECTOR	Olivia Chasse	**WEATHER**	Sunny, 80s°F

PRESOAK	**TIME**	**DEPTH OF WATER IN HOLE (INCH)**	**ELEVATION AND DATUM**			
Start	10:09	24	**Surface Elevation**	Approx.	132.5	(NGVD29)
End	10:19	5	**Top of Hole Elevation**	Approx.	132.5	(NGVD29)
	*presoak stopped at 5 inches due to silting at bottom		**Bottom of Hole Elevation**	Approx.	130.5	(NGVD29)

METHOD OF INFILTRATION TEST

An about 6-inch diameter, 24-inch deep hole was dug below surface grade, by hand with a post hole digger. The circumfrence of the hole was then lined with a 6-inch diameter, 30-inch long PVC pipe. Before running infiltration tests, the hole was presoakedwith 24 inches of water and allowed to drain. For each infiltration test, the hole was filled with water to a predetermined depth of 24 inches. Then, the time was recorded after one hour or the time for the water to drain all 24 inches was recorded.The tables below outline the calculations for determining the average rate in which the water dissipated. Test pit A-S-TP-09 was advanced to to termination depth following completion of the infiltration test.

	TIME (SEC)	**DEPTH OF WATER (IN)**	**TIME INTERVAL (SEC)**	**RATE (IN/MIN)**	**RATE (IN/HOUR)**	**SOIL CONDITIONS**
TEST 1	0	24	-	-	-	Grayish brown fine to medium SAND, some silt, trace fine gravel
	960	0	960	1.50	90.00	
				Average Rate:	**90.0**	**inches/hour**

	TIME (SEC)	**DEPTH OF WATER (IN)**	**TIME INTERVAL (SEC)**	**RATE (IN/MIN)**	**RATE (IN/HOUR)**	**SOIL CONDITIONS**
TEST 2	0	24	-	-	-	Grayish brown fine to medium SAND, some silt, trace fine gravel
	1260	0	1260	1.14	68.57	
				Average Rate:	**68.6**	**inches/hour**

	TIME (SEC)	**DEPTH OF WATER (IN)**	**TIME INTERVAL (SEC)**	**RATE (IN/MIN)**	**RATE (IN/HOUR)**	**SOIL CONDITIONS**
TEST 3	0	24	-	-	-	Grayish brown fine to medium SAND, some silt, trace fine gravel
	1380	0	1380	1.04	62.61	
				Average Rate:	**62.6**	**inches/hour**

	TIME (SEC)	**DEPTH OF WATER (IN)**	**TIME INTERVAL (SEC)**	**RATE (IN/MIN)**	**RATE (IN/HOUR)**	**SOIL CONDITIONS**
TEST 4	0	24	-	-	-	Grayish brown fine to medium SAND, some silt, trace fine gravel
	1680	0	1680	0.86	51.43	
				Average Rate:	**51.4**	**inches/hour**

Lowest Average Rate:	**51.4**	**inches/hour**

LANGAN

INFILTRATION TEST RESULTS

IT-A11-2(A) performed in B-S-TP-24

PROJECT	Hudson Logistics Center	**PROJECT NO.**	151010102
LOCATION	Hudson, NH	**DATE**	July 6, 2021
INSPECTOR	Alex Macon & Amy Blomeke, P.E.	**WEATHER**	Cloudy, 60-70 degrees

TEST NUMBER	STATIC HEAD (CM)
1	2
2	4
3	6

DEPTHS & ELEVATIONS			
Ground Surface Elevation (el)	Approx.	117.5	(NGVD29)
Test Pit Depth (ft)	Approx.	2.5	
Bottom of Test Pit Elevation (el)	Approx.	115.0	(NGVD29)
Depth of Infiltration Test Hole (in)	Approx.	6.0	
Bottom of Infiltration Test Elevation (el)	Approx.	114.5	(NGVD29)

METHOD OF INFILTRATION TEST

A 3-centimeter-radius hole was advanced using a hand auger. The hole was cleaned using a well prep brush and a sizing auger. The infiltration test was performed using a Guelph Permeameter at three seperate heads (noted above). Both inner and outher reservoirs were used. At regular intervals the height of the water was measured to calculate the total drop of water. The table below summarizes the field data and the resulting field saturated hydraulic conductivity.

TEST 1

TIME (SEC)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	4.0	-	-	-
30	6.0	2.0	1.6	94.6
60	6.5	0.5	0.4	23.6
90	7.5	1.0	0.8	47.3
120	8.0	0.5	0.4	23.6
150	9.0	1.0	0.8	47.3
180	9.5	0.5	0.4	23.6
210	10.0	0.5	0.4	23.6
240	10.5	0.5	0.4	23.6
			Steady State Rate =	23.6

Steady State Rate = 23.6 in/hr
1.00 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 1.72E-03 cm/sec

TEST 2

TIME (SEC)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	11.5	-	-	-
30	15.0	3.5	2.8	165.5
60	15.5	0.5	0.4	23.6
90	16.0	0.5	0.4	23.6
120	17.0	1.0	0.8	47.3
150	17.5	0.5	0.4	23.6
180	18.0	0.5	0.4	23.6
210	19.0	1.0	0.8	47.3
240	19.5	0.5	0.4	23.6
270	20.0	0.5	0.4	23.6
300	21.0	1.0	0.8	47.3
330	21.5	0.5	0.4	23.6
360	22.5	1.0	0.8	47.3
390	23.0	0.5	0.4	23.6
420	23.5	0.5	0.4	23.6
450	24.5	1.0	0.8	47.3
480	25.5	1.0	0.8	47.3
510	26.0	0.5	0.4	23.6
540	27.0	1.0	0.8	47.3
570	27.5	0.5	0.4	23.6
600	28.5	1.0	0.8	47.3
630	29.0	0.5	0.4	23.6
660	30.0	1.0	0.8	47.3
690	31.0	1.0	0.8	47.3
720	32.0	1.0	0.8	47.3
			Steady State Rate =	47.3

Steady State Rate = 47.3 in/hr
2.00 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 2.45E-03 cm/sec

LANGAN

INFILTRATION TEST RESULTS

IT-A11-2(A) performed in B-S-TP-24

TEST 3

TIME (SEC)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	32.0	-	-	-
30	36.0	4.0	3.2	189.1
60	37.0	1.0	0.8	47.3
90	38.0	1.0	0.8	47.3
120	38.5	0.5	0.4	23.6
150	39.0	0.5	0.4	23.6
180	40.0	1.0	0.8	47.3
210	41.0	1.0	0.8	47.3
240	41.5	0.5	0.4	23.6
270	42.5	1.0	0.8	47.3
300	43.0	0.5	0.4	23.6
330	44.0	1.0	0.8	47.3
360	44.5	0.5	0.4	23.6
390	45.0	0.5	0.4	23.6
420	45.5	0.5	0.4	23.6
			Steady State Rate =	23.6

Steady State Rate = 23.6 in/hr

1.00 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 9.46E-04 cm/sec

LANGAN

INFILTRATION TEST RESULTS

IT-A11-2(B) performed in B-S-TP-25

PROJECT	Hudson Logistics Center	**PROJECT NO.**	151010102
LOCATION	Hudson, NH	**DATE**	July 30, 2021
INSPECTOR	Alex Macon & Amy Blomeke, P.E.	**WEATHER**	Sunny 90s

TEST NUMBER	STATIC HEAD (CM)
1	2
2	4
3	6

DEPTHS & ELEVATIONS			
Ground Surface Elevation (el)	Approx.	120.5	(NGVD29)
Test Pit Depth (ft)	Approx.	4.5	
Bottom of Test Pit Elevation (el)	Approx.	116.0	(NGVD29)
Depth of Infiltration Test Hole (in)	Approx.	6.0	
Bottom of Infiltration Test Elevation (el)	Approx.	115.5	(NGVD29)

METHOD OF INFILTRATION TEST

A 3-centimeter-radius hole was advanced using a hand auger. The hole was cleaned using a well prep brush and a sizing auger. The infiltration test was performed using a Guelph Permeameter at three seperate heads (noted above). Both inner and outher reservoirs were used. At regular intervals the height of the water was measured to calculate the total drop of water. The table below summarizes the field data and the resulting field saturated hydraulic conductivity.

TEST 1

TIME (SEC)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	2.5	-	-	-
30	4.5	2.0	1.6	94.6
60	5.0	0.5	0.4	23.6
90	5.5	0.5	0.4	23.6
120	6.0	0.5	0.4	23.6
			Steady State Rate =	23.6

Steady State Rate = 23.6 in/hr
1.00 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 1.72E-03 cm/sec

TEST 2

TIME (SEC)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	4.0	-	-	-
30	9.0	5.0	3.9	236.4
60	9.5	0.5	0.4	23.6
90	10.5	1.0	0.8	47.3
120	11.5	1.0	0.8	47.3
150	12.5	1.0	0.8	47.3
			Steady State Rate =	47.3

Steady State Rate = 47.3 in/hr
2.00 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 2.45E-03 cm/sec

TEST 3

TIME (SEC)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	12.5	-	-	-
30	17.5	5.0	3.9	236.4
60	19.0	1.5	1.2	70.9
90	20.0	1.0	0.8	47.3
120	21.5	1.5	1.2	70.9
150	23.0	1.5	1.2	70.9
180	24.5	1.5	1.2	70.9
			Steady State Rate =	70.9

Steady State Rate = 70.9 in/hr
3.00 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 2.84E-03 cm/sec

LANGAN

INFILTRATION TEST RESULTS

IT-A11-2(E) performed in B-S-TP-28

PROJECT	Hudson Logistics Center	**PROJECT NO.**	151010102
LOCATION	Hudson, NH	**DATE**	July 7, 2021
INSPECTOR	Alex Macon & Amy Blomeke, P.E.	**WEATHER**	Sunny 90s

TEST NUMBER	STATIC HEAD (CM)
1	4
2	5
3	6

DEPTHS & ELEVATIONS			
Ground Surface Elevation (el)	Approx.	118.0	(NGVD29)
Test Pit Depth (ft)	Approx.	2.5	
Bottom of Test Pit Elevation (el)	Approx.	115.5	(NGVD29)
Depth of Infiltration Test Hole (in)	Approx.	6.0	
Bottom of Infiltration Test Elevation (el)	Approx.	115.0	(NGVD29)

METHOD OF INFILTRATION TEST

A 3-centimeter-radius hole was advanced using a hand auger. The hole was cleaned using a well prep brush and a sizing auger. The infiltration test was performed using a Guelph Permeameter at three seperate heads (noted above). Both inner and outher reservoirs were used. At regular intervals the height of the water was measured to calculate the total drop of water. The table below summarizes the field data and the resulting field saturated hydraulic conductivity.

TEST 1

TIME (SEC)	HEIGHT OF WATER (CM)	DROP (CM)	ATE (IN/MIN	RATE (IN/HOUR)
0	3.0	-	-	-
30	9.0	6	4.7	283.7
60	12.0	3	2.4	141.8
90	15.0	3	2.4	141.8
120	18.0	3	2.4	141.8
			Steady State Rate =	141.8

steady state rate = 70.9 in/hr
3.00 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 3.67E-03 cm/sec

TEST 2

TIME (MIN)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	19.0	-	-	-
30	26.0	7	5.5	331.0
60	29.0	3	2.4	141.8
90	32.0	3	2.4	141.8
120	35.5	3.5	2.8	165.5
150	38.5	3	2.4	141.8
180	41.5	3	2.4	141.8
210	44.5	3	2.4	141.8
			Steady State Rate =	141.8

steady state rate = 70.9 in/hr
3.00 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 3.20E-03 cm/sec

TEST 3

TIME (MIN)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	31.0	-	-	-
30	39.0	8	6.3	378.2
60	42.0	3	2.4	141.8
90	44.0	2	1.6	94.6
120	47.0	3	2.4	141.8
150	49.0	2	1.6	94.6
180	52.0	3	2.4	110.3
210	54.0	2	1.6	115.6
240	57.0	3	2.4	106.8
270	59.0	2	1.6	110.9
300	62.0	3	2.4	111.1
330	64.0	2	1.6	109.6
360	66.0	2	1.6	110.5
390	69.0	3	2.4	110.4
420	71.5	2.5	2.0	110.2
450	74.0	2.5	2.0	110.4
480	76.5	2.5	2.0	110.3
			Steady State Rate =	110.3

steady state rate = 110.3 in/hr
4.67 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 4.42E-03 cm/sec

LANGAN

INFILTRATION TEST RESULTS

IT-A11-2(F) performed in B-S-TP-29

PROJECT	Hudson Logistics Center	**PROJECT NO.**	151010102
LOCATION	Hudson, NH	**DATE**	July 6, 2021
INSPECTOR	Alex Macon & Amy Blomeke, P.E.	**WEATHER**	Cloudy 60-70 degrees

TEST NUMBER	STATIC HEAD (CM)
1	3
2	6
3	9

DEPTHS & ELEVATIONS			
Ground Surface Elevation (el)	Approx.	118.0	(NGVD29)
Test Pit Depth (ft)	Approx.	4.5	
Bottom of Test Pit Elevation (el)	Approx.	113.5	(NGVD29)
Depth of Infiltration Test Hole (in)	Approx.	6.0	
Bottom of Infiltration Test Elevation (el)	Approx.	113.0	(NGVD29)

METHOD OF INFILTRATION TEST

A 3-centimeter-radius hole was advanced using a hand auger. The hole was cleaned using a well prep brush and a sizing auger. The infiltration test was performed using a Guelph Permeameter at three seperate heads (noted above). Both inner and outher reservoirs were used. At regular intervals the height of the water was measured to calculate the total drop of water. The table below summarizes the field data and the resulting field saturated hydraulic conductivity.

TEST 1

TIME (SEC)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	1.5	-	-	-
30	7.0	5.5	4.3	260.0
60	9.5	2.5	2.0	118.2
90	12.5	3.0	2.4	141.8
120	14.5	2.0	1.6	94.6
150	17.0	2.5	2.0	118.2
180	19.5	2.5	2.0	118.2
210	22.0	2.5	2.0	118.2
			Steady State Rate =	118.2

Steady State Rate = 118.2 in/hr
5.00 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 7.14E-03 cm/sec

TEST 2

TIME (SEC)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	23.0	-	-	-
30	32.5	9.5	7.5	449.2
60	36.5	4.0	3.2	189.1
90	40.5	4.0	3.2	189.1
120	44.5	4.0	3.2	189.1
			Steady State Rate =	189.1

Steady State Rate = 189.1 in/hr
8.01 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 7.57E-03 cm/sec

TEST 3

TIME (SEC)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	24.5	-	-	-
30	46.5	22.0	17.3	1040.2
60	55.0	8.5	6.7	401.9
90	63.5	8.5	6.7	401.9
120	72.0	8.5	6.7	401.9
150	76.0	4.0	3.2	189.1
			Steady State Rate =	401.9

Steady State Rate = 401.9 in/hr
17.01 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 1.18E-02 cm/sec

LANGAN

INFILTRATION TEST RESULTS

IT-A11-2(G) performed in B-S-TP-30

PROJECT	Hudson Logistics Center	**PROJECT NO.**	151010102
LOCATION	Hudson, NH	**DATE**	July 15, 2021
INSPECTOR	Alex Macon & Amy Blomeke, P.E.	**WEATHER**	Sunny 90s

TEST NUMBER	STATIC HEAD (CM)
1	3
2	6
3	9

DEPTHS & ELEVATIONS			
Ground Surface Elevation (el)	Approx.	114.0	(NGVD29)
Test Pit Depth (ft)	Approx.	1.0	
Bottom of Test Pit Elevation (el)	Approx.	113.0	(NGVD29)
Depth of Infiltration Test Hole (in)	Approx.	6.0	
Bottom of Infiltration Test Elevation (el)	Approx.	112.5	(NGVD29)

METHOD OF INFILTRATION TEST

A 3-centimeter-radius hole was advanced using a hand auger. The hole was cleaned using a well prep brush and a sizing auger. The infiltration test was performed using a Guelph Permeameter at three seperate heads (noted above). Both inner and outher reservoirs were used. At regular intervals the height of the water was measured to calculate the total drop of water. The table below summarizes the field data and the resulting field saturated hydraulic conductivity.

TEST 1

TIME (MIN)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	0.0	-	-	-
1	1.4	1.4	0.6	33.1
2	2.0	0.6	0.2	14.2
3	2.4	0.4	0.2	9.5
4	3.0	0.6	0.2	14.2
5	3.4	0.4	0.2	9.5
6	3.8	0.4	0.2	9.5
7	4.2	0.4	0.2	9.5
			Steady State Rate =	9.5

steady state rate = 9.5 in/hr
0.40 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 5.71E-04 cm/sec

TEST 2

TIME (MIN)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	4.2	-	-	-
1	7.5	3.3	1.3	78.0
2	8.2	0.7	0.3	16.5
3	9.0	0.8	0.3	18.9
4	9.8	0.8	0.3	18.9
5	10.6	0.8	0.3	18.9
			Steady State Rate =	18.9

steady state rate = 18.9 in/hr
0.80 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 7.56E-04 cm/sec

TEST 3

TIME (MIN)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	11.0	-	-	-
1	15.5	4.5	1.8	106.4
2	16.0	0.5	0.2	11.8
3	16.5	0.5	0.2	11.8
4	17.3	0.8	0.3	18.9
5	18.1	0.8	0.3	18.9
6	19.6	1.5	0.6	35.5
7	20.4	0.8	0.3	18.9
8	21.2	0.8	0.3	18.9
9	22.0	0.8	0.3	18.9
			Steady State Rate =	18.9

steady state rate = 18.9 in/hr
0.80 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 5.56E-04 cm/sec

LANGAN

INFILTRATION TESTS

IT-A11-2(H) performed in B-S-TP-31

PROJECT	Hudson Logistics Center	**PROJECT NO.**	151010102
LOCATION	59 Steele Road, Hudson, NH	**DATE**	January 26, 2022
INSPECTOR	Zachery Roller	**WEATHER**	Clear, 10 degrees

PRESOAK	**TIME**	**DEPTH OF WATER IN HOLE (INCH)**
Start	15:00	24
End	15:08	0

ELEVATION AND DATUM			
Surface Elevation	Approx.	115	(NGVD29)
Top of Hole Elevation	Approx.	114.0	(NGVD29)
Bottom of Hole Elevation	Approx.	112.0	(NGVD29)

METHOD OF INFILTRATION TEST

A 6 inch PVC pipe was installed with hand digging methods (pick axe, shovel, post hole diggers). The pipe was then presoaked with 2.0ft of water. For each infiltration test, the hole was filled with water to a predetermined depth of 24 inches. Then, the time was recorded after one hour or the time for the water to drain 24 inches was recorded.The tables below outline the calculations for determining the average rate in which the water dissipated. This test was performed four times.

	TIME (MIN)	**DEPTH OF WATER (IN)**	**TIME INTERVAL (MIN)**	**RATE (IN/MIN)**	**RATE (IN/HOUR)**	**SOIL CONDITIONS**
TEST 1	0	24	-	-	-	Fine to coarse SAND, some fine gravel, trace silt
	15	0	15	1.60	96.00	
				Average Rate:	**96.0**	**inches/hour**

	TIME (MIN)	**DEPTH OF WATER (IN)**	**TIME INTERVAL (MIN)**	**RATE (IN/MIN)**	**RATE (IN/HOUR)**	**SOIL CONDITIONS**
TEST 2	0	24	-	-	-	Fine to coarse SAND, some fine gravel, trace silt
	14	0	14	1.71	102.86	
				Average Rate:	**102.9**	**inches/hour**

	TIME (MIN)	**DEPTH OF WATER (IN)**	**TIME INTERVAL (MIN)**	**RATE (IN/MIN)**	**RATE (IN/HOUR)**	**SOIL CONDITIONS**
TEST 3	0	24	-	-	-	Fine to coarse SAND, some fine gravel, trace silt
	10	0	10	2.40	144.00	
				Average Rate:	**144.0**	**inches/hour**

	TIME (MIN)	**DEPTH OF WATER (IN)**	**TIME INTERVAL (MIN)**	**RATE (IN/MIN)**	**RATE (IN/HOUR)**	**SOIL CONDITIONS**
TEST 4	0	24	-	-	-	Fine to coarse SAND, some fine gravel, trace silt
	10	0	10	2.40	144.00	
				Average Rate:	**144.0**	**inches/hour**

Lowest Average Rate:	**96.0**	**inches/hour**

LANGAN

INFILTRATION TEST RESULTS

IT-B6-4(B) performed in C-S-TP-26

PROJECT	Hudson Logistics Center	**PROJECT NO.**	151010102
LOCATION	Hudson, NH	**DATE**	June 28 2021
INSPECTOR	Alex Macon & Amy Blomeke, P.E.	**WEATHER**	Sunny, 90 degrees

TEST NUMBER	STATIC HEAD (CM)
1	5
2	10
3	12

DEPTHS & ELEVATIONS			
Ground Surface Elevation (el)	Approx.	129.0	(NGVD29)
Test Pit Depth (ft)	Approx.	1.5	
Bottom of Test Pit Elevation (el)	Approx.	127.5	(NGVD29)
Depth of Infiltration Test Hole (in)	Approx.	9.0	
Bottom of Infiltration Test Elevation (el)	Approx.	126.8	(NGVD29)

METHOD OF INFILTRATION TEST

A 3-centimeter-radius hole was advanced using a hand auger. The hole was cleaned using a well prep brush and a sizing auger. The infiltration test was performed using a Guelph Permeameter at three seperate heads (noted above). Both inner and outher reservoirs were used. At regular intervals the height of the water was measured to calculate the total drop of water. The table below summarizes the field data and the resulting field saturated hydraulic conductivity.

TEST 1

TIME (SEC)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	1.0	-	-	-
30	8.0	7.0	5.5	331.0
60	9.4	1.4	1.1	66.2
90	10.6	1.2	0.9	56.7
120	12.0	1.4	1.1	66.2
150	13.2	1.2	0.9	56.7
180	14.4	1.2	0.9	56.7
210	15.7	1.3	1.0	61.5
240	17.0	1.3	1.0	61.5
270	18.3	1.3	1.0	61.5
			Steady State Rate =	61.5

Steady State Rate = 61.5 in/hr
2.60 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 1.33E-03 cm/sec

TEST 2

TIME (SEC)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	1.0	-	-	-
30	10.2	9.2	7.2	435.0
60	12.3	2.1	1.7	99.3
90	14.2	1.9	1.5	89.8
120	16.1	1.9	1.5	89.8
150	18.1	2.0	1.6	94.6
180	19.8	1.7	1.3	80.4
210	21.6	1.8	1.4	85.1
240	23.3	1.7	1.3	80.4
270	25.1	1.8	1.4	85.1
300	26.9	1.8	1.4	85.1
330	28.7	1.8	1.4	85.1
			Steady State Rate =	85.1

Steady State Rate = 85.1 in/hr
3.60 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 1.22E-03 cm/sec

TEST 3

TIME (SEC)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	1.0	-	-	-
30	10.0	9.0	7.1	425.5
60	12.1	2.1	1.7	99.3
90	14.2	2.1	1.7	99.3
120	16.1	1.9	1.5	89.8
150	18.0	1.9	1.5	89.8
180	19.9	1.9	1.5	89.8
210	21.8	1.9	1.5	89.8
240	24.0	2.2	1.7	104.0
270	27.0	3.0	2.4	141.8
			Steady State Rate =	89.8

Steady State Rate = 89.8 in/hr
3.80 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 1.13E-03 cm/sec

LANGAN

INFILTRATION TESTS

A-IT-09 performed in A-S-TP-09

PROJECT	Hudson Logistics Center	**PROJECT NO.**	151010102
LOCATION	59 Steele Road, Hudson, NH	**DATE**	06/23/2020
INSPECTOR	Olivia Chasse	**WEATHER**	Sunny, 80s°F

PRESOAK	**TIME**	**DEPTH OF WATER IN HOLE (INCH)**	**ELEVATION AND DATUM**			
Start	10:09	24	**Surface Elevation**	Approx.	132.5	(NGVD29)
End	10:19	5	**Top of Hole Elevation**	Approx.	132.5	(NGVD29)
	*presoak stopped at 5 inches due to silting at bottom		**Bottom of Hole Elevation**	Approx.	130.5	(NGVD29)

METHOD OF INFILTRATION TEST

An about 6-inch diameter, 24-inch deep hole was dug below surface grade, by hand with a post hole digger. The circumfrence of the hole was then lined with a 6-inch diameter, 30-inch long PVC pipe. Before running infiltration tests, the hole was presoakedwith 24 inches of water and allowed to drain. For each infiltration test, the hole was filled with water to a predetermined depth of 24 inches. Then, the time was recorded after one hour or the time for the water to drain all 24 inches was recorded.The tables below outline the calculations for determining the average rate in which the water dissipated. Test pit A-S-TP-09 was advanced to to termination depth following completion of the infiltration test.

	TIME (SEC)	**DEPTH OF WATER (IN)**	**TIME INTERVAL (SEC)**	**RATE (IN/MIN)**	**RATE (IN/HOUR)**	**SOIL CONDITIONS**
TEST 1	0	24	-	-	-	Grayish brown fine to medium SAND, some silt, trace fine gravel
	960	0	960	1.50	90.00	
				Average Rate:	**90.0**	**inches/hour**

	TIME (SEC)	**DEPTH OF WATER (IN)**	**TIME INTERVAL (SEC)**	**RATE (IN/MIN)**	**RATE (IN/HOUR)**	**SOIL CONDITIONS**
TEST 2	0	24	-	-	-	Grayish brown fine to medium SAND, some silt, trace fine gravel
	1260	0	1260	1.14	68.57	
				Average Rate:	**68.6**	**inches/hour**

	TIME (SEC)	**DEPTH OF WATER (IN)**	**TIME INTERVAL (SEC)**	**RATE (IN/MIN)**	**RATE (IN/HOUR)**	**SOIL CONDITIONS**
TEST 3	0	24	-	-	-	Grayish brown fine to medium SAND, some silt, trace fine gravel
	1380	0	1380	1.04	62.61	
				Average Rate:	**62.6**	**inches/hour**

	TIME (SEC)	**DEPTH OF WATER (IN)**	**TIME INTERVAL (SEC)**	**RATE (IN/MIN)**	**RATE (IN/HOUR)**	**SOIL CONDITIONS**
TEST 4	0	24	-	-	-	Grayish brown fine to medium SAND, some silt, trace fine gravel
	1680	0	1680	0.86	51.43	
				Average Rate:	**51.4**	**inches/hour**

Lowest Average Rate:	**51.4**	**inches/hour**

LANGAN

INFILTRATION TEST RESULTS

IT-A1-6(A) REV2 performed in A-S-TP-29

PROJECT	Hudson Logistics Center	**PROJECT NO.**	151010102
LOCATION	Hudson, NH	**DATE**	July 8, 2021
INSPECTOR	Alex Macon & Amy Blomeke, P.E.	**WEATHER**	Sunny 90s

TEST NUMBER	STATIC HEAD (CM)
1	3
2	4
3	5

DEPTHS & ELEVATIONS			
Ground Surface Elevation (el)	Approx.	134.0	(NGVD29)
Test Pit Depth (ft)	Approx.	3.5	
Bottom of Test Pit Elevation (el)	Approx.	130.5	(NGVD29)
Depth of Infiltration Test Hole (in)	Approx.	6.0	
Bottom of Infiltration Test Elevation (el)	Approx.	130.0	(NGVD29)

METHOD OF INFILTRATION TEST

A 3-centimeter-radius hole was advanced using a hand auger. The hole was cleaned using a well prep brush and a sizing auger. The infiltration test was performed using a Guelph Permeameter at three seperate heads (noted above). Both inner and outher reservoirs were used. At regular intervals the height of the water was measured to calculate the total drop of water. The table below summarizes the field data and the resulting field saturated hydraulic conductivity.

TEST 1

TIME (SEC)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	2.0	-	-	-
30	7.5	5.5	4.3	260.0
60	10.0	2.5	2.0	118.2
90	13.0	3	2.4	141.8
120	16.0	3	2.4	141.8
150	19.0	3	2.4	141.8
			Steady State Rate =	141.8

Steady state rate = 141.80 in/hr
6.00 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 8.57E-03 cm/sec

TEST 2 (B)

TIME (SEC)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	19.5	-	-	-
30	26.0	6.5	5.1	307.3
60	30.0	4	3.2	189.1
90	34.0	4	3.2	189.1
120	37.0	3	2.4	141.8
150	41.0	4	3.2	189.1
180	45.0	4	3.2	189.1
210	48.0	3	2.4	141.8
240	52.0	4	3.2	189.1
270	55.0	3	2.4	141.8
300	58.0	3	2.4	141.8
330	61.0	3	2.4	141.8
			Steady State Rate =	141.8

Steady state rate = 141.8 in/hr
6.00 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 7.34E-03 cm/sec

TEST 3 (C)

TIME (SEC)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	14.0	-	-	-
30	22.0	8	6.3	378.2
60	25.0	3	2.4	141.8
90	28.5	3.5	2.8	165.5
120	31.5	3	2.4	141.8
150	35.0	3.5	2.8	165.5
180	39.0	4	3.2	189.1
210	42.0	3	2.4	141.8
240	45.0	3	2.4	141.8
270	48.0	3	2.4	141.8
			Steady State Rate =	141.8

Steady state rate = 141.80 in/hr
6.00 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 6.41E-03 cm/sec

LANGAN

INFILTRATION TEST RESULTS

IT-A1-6(B) REV2 performed in A-S-TP-30

PROJECT	Hudson Logistics Center	**PROJECT NO.**	151010102
LOCATION	Hudson, NH	**DATE**	8-Jul-21
INSPECTOR	Alex Macon & Amy Blomeke, P.E.	**WEATHER**	Sunny 90s

TEST NUMBER	STATIC HEAD (CM)
1	3
2	4
3	5

DEPTHS & ELEVATIONS			
Ground Surface Elevation (el)	Approx.	133.5	(NGVD29)
Test Pit Depth (ft)	Approx.	3.5	
Bottom of Test Pit Elevation (el)	Approx.	130.0	(NGVD29)
Depth of Infiltration Test Hole (in)	Approx.	6.0	
Bottom of Infiltration Test Elevation (el)	Approx.	129.5	(NGVD29)

METHOD OF INFILTRATION TEST

A 3-centimeter-radius hole was advanced using a hand auger. The hole was cleaned using a well prep brush and a sizing auger. The infiltration test was performed using a Guelph Permeameter at three seperate heads (noted above). Both inner and outher reservoirs were used. At regular intervals the height of the water was measured to calculate the total drop of water. The table below summarizes the field data and the resulting field saturated hydraulic conductivity.

TEST 1

TIME (MIN)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	3.5	-	-	-
1	3.5	0	0.0	0.0
2	3.5	0	0.0	0.0
3	3.5	0	0.0	0.0
4	3.8	0.25	0.1	5.9
5	4.0	0.25	0.1	5.9
6	4.3	0.25	0.1	5.9
			Steady State Rate =	5.9

Steady state rate = 5.9 in/hr
0.25 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 3.57E-04 cm/sec

TEST 2

TIME (MIN)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	4.3	-	-	-
1	5.3	1	0.4	23.6
2	5.5	0.25	0.1	5.9
3	5.8	0.25	0.1	5.9
4	6.0	0.25	0.1	5.9
			Steady State Rate =	5.9

Steady State Rate = 5.9 in/hr
0.25 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 3.06E-04 cm/sec

TEST 3

TIME (MIN)	HEIGHT OF WATER (CM)	DROP (CM)	RATE (IN/MIN)	RATE (IN/HOUR)
0	6.0	-	-	-
1	7.0	1	0.4	23.6
2	7.5	0.5	0.2	11.8
3	7.8	0.25	0.1	5.9
4	8.0	0.25	0.1	5.9
5	8.5	0.5	0.2	11.8
6	9.0	0.5	0.2	11.8
7	9.25	0.25	0.10	5.9
8	9.50	0.25	0.10	5.9
9	9.8	0.25	0.1	5.9
			Steady State Rate =	5.9

Steady State Rate = 5.9 in/hr
0.25 cm/min

FIELD SATURATED HYDRAULIC CONDUCTIVITY = 2.67E-04 cm/sec

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INFILTRATION TESTS

A-IT-01 performed in A-S-TP-01

PROJECT	Hudson Logistics Center	**PROJECT NO.**	151010102
LOCATION	59 Steele Road, Hudson, NH	**DATE**	6/24/2020 to 6/25/2020
INSPECTOR	Olivia Chasse	**WEATHER**	Rain, 70s°F/Sunny, 80s°F

PRESOAK	**TIME**	**DEPTH OF WATER IN HOLE (INCH)**	**ELEVATION AND DATUM**			
Start	14:10	24	**Surface Elevation**	Approx.	135.5	(NGVD29)
End	14:36	2	**Top of Hole Elevation**	Approx.	130.5	(NGVD29)
	*presoak timing stopped at 2 inches due to heavy rain		**Bottom of Hole Elevation**	Approx.	128.5	(NGVD29)

METHOD OF INFILTRATION TEST

A-S-TP-01 was advanced to a depth of about 5 feet below existing grade. An about 6-inch diameter, 24-inch deep hole was dug by hand with a post hole digger. The circumfrence of the hole was then lined with a 6-inch diameter, 30-inch long PVC pipe. Before running infiltration tests, the hole was presoaked with 24 inches of water and allowed to drain overnight. Timing for the presoak was stopped due to heavy rainfall and the infiltration testing hole was free of water the following morning prior to starting infiltration testing. For each infiltration test, the hole was filled with water to a predetermined depth of 24 inches. Then, the time was recorded after one hour or the time for the water to drain 24 inches was recorded.The tables below outline the calculations for determining the average rate in which the water dissipated. Test pit A-S-TP-01 was advanced to to termination depth following completion of the infiltration test.

	TIME (SEC)	DEPTH OF WATER (IN)	TIME INTERVAL (SEC)	RATE (IN/MIN)	RATE (IN/HOUR)	SOIL CONDITIONS
TEST 1	0	24	-	-	-	Light brown fine SAND, trace silt
	2460	0	2460	0.59	35.12	
				Average Rate:	**35.1**	**inches/hour**

	TIME (SEC)	DEPTH OF WATER (IN)	TIME INTERVAL (SEC)	RATE (IN/MIN)	RATE (IN/HOUR)	SOIL CONDITIONS
TEST 2	0	24	-	-	-	Light brown fine SAND, trace silt
	3240	0	3240	0.44	26.67	
				Average Rate:	**26.7**	**inches/hour**

	TIME (SEC)	DEPTH OF WATER (IN)	TIME INTERVAL (SEC)	RATE (IN/MIN)	RATE (IN/HOUR)	SOIL CONDITIONS
TEST 3	0	24	-	-	-	Light brown fine SAND, trace silt
	2460	0	2460	0.59	35.12	
				Average Rate:	**35.1**	**inches/hour**

	TIME (SEC)	DEPTH OF WATER (IN)	TIME INTERVAL (SEC)	RATE (IN/MIN)	RATE (IN/HOUR)	SOIL CONDITIONS
TEST 4	0	24	-	-	-	Light brown fine SAND, trace silt
	2880	0	2880	0.50	30.00	
				Average Rate:	**30.0**	**inches/hour**

Lowest Average Rate:	**26.7**	**inches/hour**

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INFILTRATION TESTS

IT-B1-2(B) performed in A-S-TP-27

PROJECT	Hudson Logistics Center	**PROJECT NO.**	151010102
LOCATION	59 Steele Road, Hudson, NH	**DATE**	January 26, 2022
INSPECTOR	Zachery Roller	**WEATHER**	Clear, 10 degrees

PRESOAK	**TIME**	**DEPTH OF WATER IN HOLE (IN)**
Start	9:30	24
End	10:05	0

ELEVATION AND DATUM			
Surface Elevation	Approx.	133.5	(NGVD29)
Top of Hole Elevation	Approx.	129.0	(NGVD29)
Bottom of Hole Elevation	Approx.	127.0	(NGVD29)

METHOD OF INFILTRATION TEST

A 6 inch PVC pipe was installed with hand digging methods (pick axe, shovel, post hole diggers). The pipe was then presoaked with 2.0ft of water. For each infiltration test, the hole was filled with water to a predetermined depth of 24 inches. Then, the time was recorded after one hour or the time for the water to drain 24 inches was recorded.The tables below outline the calculations for determining the average rate in which the water dissipated. This test was performed four times.

	TIME (MIN)	**DEPTH OF WATER (IN)**	**TIME INTERVAL (MIN)**	**RATE (IN/MIN)**	**RATE (IN/HOUR)**	**SOIL CONDITIONS**
TEST 1	0	24	-	-	-	Fine SAND, some silt, trace clay
	20	0	20	1.20	72.00	
				Average Rate:	**72.0**	**inches/hour**

	TIME (MIN)	**DEPTH OF WATER (IN)**	**TIME INTERVAL (MIN)**	**RATE (IN/MIN)**	**RATE (IN/HOUR)**	**SOIL CONDITIONS**
TEST 2	0	24	-	-	-	Fine SAND, some silt, trace clay
	18	0	18	1.33	80.00	
				Average Rate:	**80.0**	**inches/hour**

	TIME (MIN)	**DEPTH OF WATER (IN)**	**TIME INTERVAL (MIN)**	**RATE (IN/MIN)**	**RATE (IN/HOUR)**	**SOIL CONDITIONS**
TEST 3	0	24	-	-	-	Fine SAND, some silt, trace clay
	20	0	20	1.20	72.00	
				Average Rate:	**72.0**	**inches/hour**

	TIME (MIN)	**DEPTH OF WATER (IN)**	**TIME INTERVAL (MIN)**	**RATE (IN/MIN)**	**RATE (IN/HOUR)**	**SOIL CONDITIONS**
TEST 4	0	24	-	-	-	Fine SAND, some silt, trace clay
	28	0	28	0.86	51.43	
				Average Rate:	**51.4**	**inches/hour**

Lowest Average Rate:	**51.4**	**inches/hour**

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INFILTRATION TESTS

IT-B1-2(C) performed in A-S-TP-28

PROJECT	Hudson Logistics Center	**PROJECT NO.**	151010102
LOCATION	59 Steele Road, Hudson, NH	**DATE**	January 26, 2022
INSPECTOR	Zachery Roller	**WEATHER**	Clear, 10 degrees

PRESOAK	**TIME**	**DEPTH OF WATER IN HOLE (IN)**
Start	13:45	24
End	14:20	0

ELEVATION AND DATUM			
Surface Elevation	Approx.	133.5	(NGVD29)
Top of Hole Elevation	Approx.	129.0	(NGVD29)
Bottom of Hole Elevation	Approx.	127.0	(NGVD29)

METHOD OF INFILTRATION TEST

A 6 inch PVC pipe was installed with hand digging methods (pick axe, shovel, post hole diggers). The pipe was then presoaked with 2.0ft of water. For each infiltration test, the hole was filled with water to a predetermined depth of 24 inches. Then, the time was recorded after one hour or the time for the water to drain 24 inches was recorded.The tables below outline the calculations for determining the average rate in which the water dissipated. This test was performed four times.

	TIME (MIN)	**DEPTH OF WATER (IN)**	**TIME INTERVAL (MIN)**	**RATE (IN/MIN)**	**RATE (IN/HOUR)**	**SOIL CONDITIONS**
TEST 1	0	24	-	-	-	Fine SAND, some silt, trace clay
	40	0	40	0.60	36.00	
				Average Rate:	**36.0**	**inches/hour**

	TIME (MIN)	**DEPTH OF WATER (IN)**	**TIME INTERVAL (MIN)**	**RATE (IN/MIN)**	**RATE (IN/HOUR)**	**SOIL CONDITIONS**
TEST 2	0	24	-	-	-	Fine SAND, some silt, trace clay
	40	0	40	0.60	36.00	
				Average Rate:	**36.0**	**inches/hour**

	TIME (MIN)	**DEPTH OF WATER (IN)**	**TIME INTERVAL (MIN)**	**RATE (IN/MIN)**	**RATE (IN/HOUR)**	**SOIL CONDITIONS**
TEST 3	0	24	-	-	-	Fine SAND, some silt, trace clay
	45	0	45	0.53	32.00	
				Average Rate:	**32.0**	**inches/hour**

	TIME (MIN)	**DEPTH OF WATER (IN)**	**TIME INTERVAL (MIN)**	**RATE (IN/MIN)**	**RATE (IN/HOUR)**	**SOIL CONDITIONS**
TEST 4	0	24	-	-	-	Fine SAND, some silt, trace clay
	50	0	50	0.48	28.80	
				Average Rate:	**28.8**	**inches/hour**

Lowest Average Rate:	**28.8**	**inches/hour**

APPENDIX G

Geotechnical Engineering Study
(Under Separate Cover)

LANGAN

APPENDIX H

Site-Specific Soil Survey Report

LANGAN

SITE-SPECIFIC SOIL SURVEY REPORT
HUDSON LOGISTICS CENTER
LOWELL AND STEEL ROADS
HUDSON, NH
GES # 2019216

1. MAPPING STANDARDS

Site-Specific Soil Mapping Standards for New Hampshire and Vermont. SSSNNE Special Publication No. 3, Version 5.0, December 2017. This map product is within the technical standards of the National Cooperative Soil Survey. It is a special product, intended for the submission to NH DES Alteration of Terrain. It was produced by a professional soil scientist and is not a product of the USDA Natural Resource Conservation Service.

The site specific soil survey was produced May 4, 2020, and was prepared by James P. Gove, CSS # 004, Gove Environmental Services, Inc. The location of the soil survey is at Lowell and Steele Roads in Hudson, NH.

Soils were identified with the New Hampshire State-wide Numerical Soils Legend, USDA NRCS, Durham, NH. Issue # 10, January 2011.

High Intensity Soil Survey (HISS) conversion is determined by the soil properties identified in "High Intensity Soil Mapping Standard for NH", SSSNNE Special Publication Number 1, December, 2017.

Hydrologic Soil Groups are determined from SSSNNE Special Publication Number 5, "Ksat Values for New Hampshire Soils", September, 2009.

2. DATE SOIL MAP PRODUCED

May 4, 2020

3. GEOGRAPHIC LOCATION AND SIZE OF SITE

Approximately 300 acres was soil mapped. Tax map 234, Lots 5, 34 & 35 and Tax Map 239, Lot 1. The site is located in Hudson, NH.

4. PURPOSE OF THE SOIL MAP

The preparation of this map was requested by LANGAN. The purpose was to meet the requirements of NH Alteration of Terrain.

8 Continental Dr Bldg 2 Unit H, Exeter, NH 03833-7526
Ph (603) 778 0644 / *Fax* (603) 778 0654
info@gesinc.biz
www.gesinc.biz

5. SOIL IDENTIFICATION LEGEND

SOIL SYMBOL	SOIL MAP UNIT NAME	HISS CONVERSION	HSG
4	POOTATUCK VFSL	371	B
24	AGAWAM FSL	211	B
115	SCARBORO MUCK	611	D
400	UDORTHENTS, SANDY	211	A
513	NINIGRET FSL	311	B
540	RAYPOL LFS	511	D
699	URBAN LAND	N/A	IMPERVIOUS
917	NINIGRET VARIANT (swpd)	411	C
PONDS	OPEN WATER	N/A	N/A

SLOPE PHASES: 0-8% = B 8-15% = C 15-25% = D 25%+ = E

6. SOIL MAP UNIT DESCRIPTIONS

4 POOTATUCK VERY FINE SANDY LOAM occurs on flood plains that flood sporadically. These are fine textured soils that are moderately well drained. In this case, the Pootatuck series is found adjacent the Merrimac River.

24 AGAWAM FINE SANDY LOAM occurs on glacial outwash plains and alluvial deposits. The Agawam series has a fine sandy loam topsoil and subsoil, then becomes loamy sand in the substratum. This is a well-drained soil with estimated seasonal high water tables deeper than 40 inches. While this soil map unit is in a golf course that has undergone significant grading, the essential soil characteristics are present to identify the soil series. Common inclusions in depressions and swales is the soil series Ninigret.

115 SCARBORO MUCK occurs in the wetlands on the site. Scarboro is very poorly drained and has an organic topsoil. Common inclusions are the poorly drained Raypol series and the Borohemists that have deeper organic deposits.

400 UDORTHENTS, SANDY represent areas on the site where excavation and filling have occurred to the extent that no soil characteristics remain to classify as a soil series. These are typically sandy or gravelly areas that are well to excessively drained.

513 NINIGRET FINE SANDY LOAM is the moderately well drained analog of the Agawam soil series. This is a moderately well drained soil that has an estimated seasonal high water table 20 to 30 inches below the soil surface. Like Agawam, the topsoil is fine sandy loam, the subsoil is fine sandy loam, and the substratum becomes coarser such as loamy sand or fine sand. It occurs on the same glacial outwash landforms as Agawam,

but is found more in the flat areas, drainage ways and swales. Inclusions are Deerfield loamy sand and the Ninigret Variant.

917 NINIGRET VARIANT (SOMEWHAT POORLY DRAINED) is the wetter analog of the Ninigret series. This is a somewhat poorly drained soil that has a seasonal high water table from 0 to 15 inches below the soil surface, but has high chroma matrices that do not make the soil hydric. This most occurs on this site as an inclusion to the Ninigret map unit.

540 RAYPOL LOAMY FINE SAND is a hydric soil that is found on glacial outwash plains. It is found in conjunction with Agawam, Ninigret and Ninigret variant. It is found between the upland moderately well drained and somewhat poorly drained soils and the very poorly drained Scarboro muck. It is typically identified as wetlands.

699 URBAN LAND is a map unit that represents impervious areas of buildings, pavement and packed gravel parking areas.

7. RESPONSIBLE SOIL SCIENTIST

James P. Gove, C.S.S. #004

8. OTHER DISTINGUISHING FEATURES OF SITE

It is clear that a significant amount of soil disturbance took place on the site. In addition to greens being constructed, as well as sand traps, there has been significant grading of some of the fairways,

9. MAXIMUM SIZE OF LIMITING INCLUSIONS

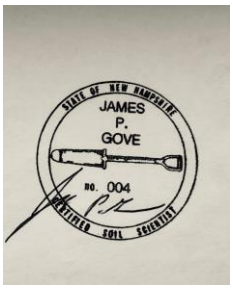
Scitico may have up to 15% inclusions of very poorly drained Maybid.

Filled areas of Udorthents commonly have inclusions of 15 to 40%.

Eldridge may have up to 15% inclusions of Newfields.

10. SPECIAL FEATURE SYMBOLS

Open water areas were identified as ponds.


STATE OF NEW HAMPSHIRE
JAMES
P.
GOVE
NO. 004
CERTIFIED SOIL SCIENTIST

May 5, 2020

APPENDIX I

Groundwater Model

LANGAN

LANGAN

Technical Memorandum

888 Boylston Street, Suite 510 Boston, MA 02199 T: 617.824.9100 F: 617.824.9101

Date: 27 July 2022

Re: Groundwater Discharge Calculations
Hillwood, Hudson, NH
Langan Project No.: 150010102

To aid in the design of a drainage system at the Hudson, New Hampshire facility a numerical groundwater model was constructed using the United States Geological Survey's MODFLOW computer code. The drainage system will be used to manage post-construction groundwater water seepage that may occur due to limited portions to the proposed final grade being at or below the current water table surface. Therefore, the purpose of the drainage system is to depress and maintain the water table surface below final grade.

The numerical MODFLOW model (model) was used for this evaluation because it can simulate drainage system designs that may have overlapping zones of influence. The model constructed for this evaluation is a "box-type" model designed to conservatively approximate local groundwater flow and aquifer conditions to estimate discharge. The model incorporates several simplifying assumptions that are similar to those found in analytical models. These assumptions are:

- The soil beneath the site is homogenous
- The saturated thickness is uniform
- The initial water table is flat

These assumptions are used in conjunction with conservative hydrogeological input values (soil hydraulic conductivity and initial water table elevations) to estimate discharge. The model was constructed such that:

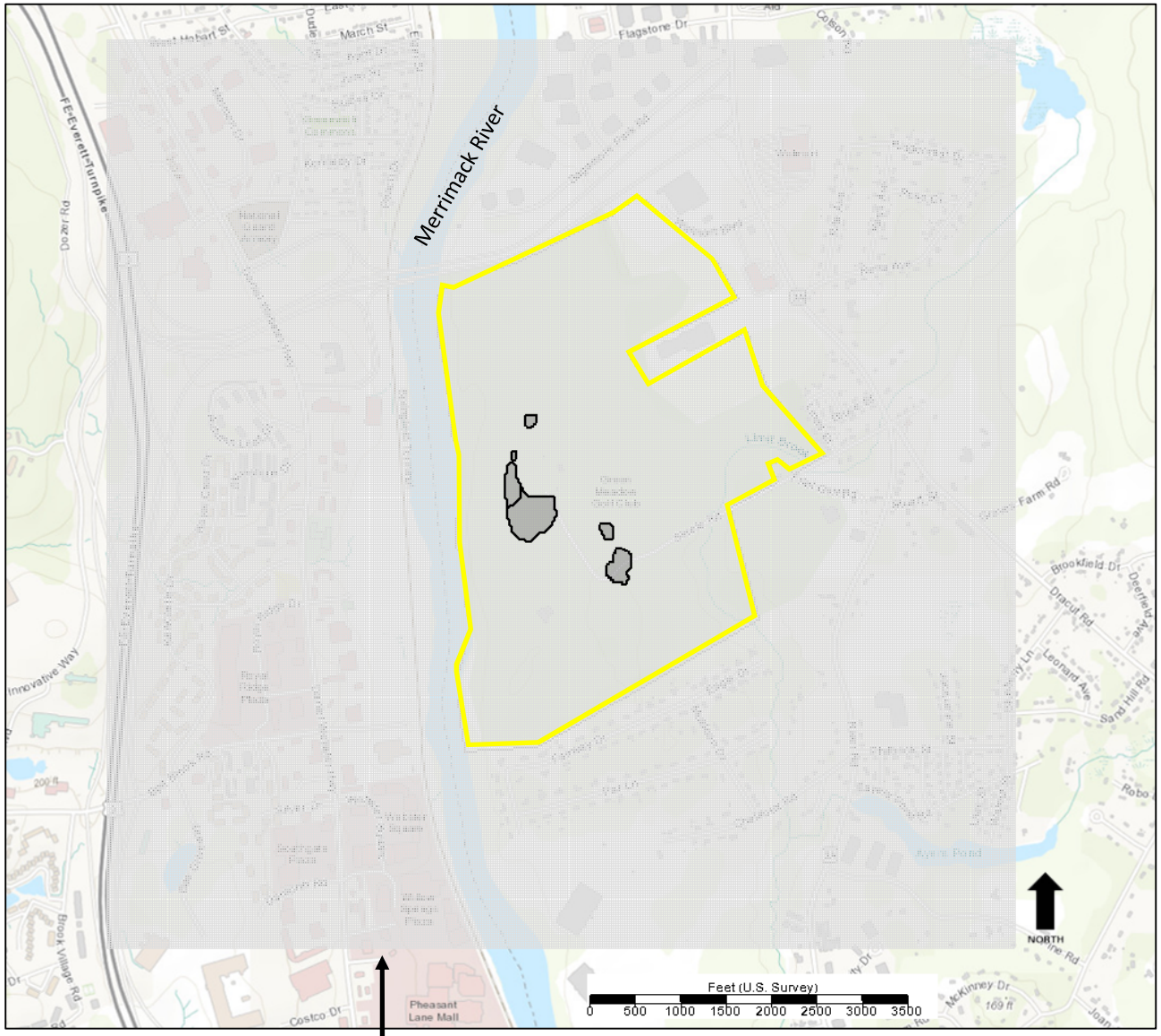
- The model grid covers an area three miles by three miles with 160,000, 25-foot-square model cells (Figure 1).
- The elevation of the top of the model grid is 150 feet (all elevations in this evaluation are relative to NAVD88) which is about equal to the maximum design grade elevation where groundwater seepage might occur in the building areas.
- The bottom elevation is 85 feet which is the lowest elevation of bedrock in the building area (Langan Geotechnical Report 2020A, 2020B, and 2020C).
- The model has two layers that are 32.5 feet in thickness each, for a total thickness of 65 feet. This is conservative in that the maximum bedrock depth, observed or inferred, is about 43 feet below grade (Langan Geotechnical Report 2020A, 2020B, and 2020C)
- The hydraulic boundaries of the model grid are constant head cells on all four sides. The assigned water table elevation for the constant head boundary cells was set to 149 feet; this values was derived from the observed range of water table elevations in the formerly proposed building areas (Langan Geotechnical Report 2020A, 2020B, and 2020C). Based on these parameter values the initial aquifer saturated thickness in the model is 64 feet.

- The assigned hydraulic conductivity of the water-bearing zone in the model is 50 feet per day which was derived from Weiss, et al., (1982) based on hydraulic conductivity values assigned to driller terms for stratified drift containing fine to coarse sand.

The local aquifer underlying the property was simulated as continuous to the west where the Merrimack River is located. The Merrimack River was not simulated because in the vicinity of the property its typical stage is less than 100 feet elevation (Nashua South Quadrangle Map, USGS, 2021); while the lowest simulated drain elevation is 130 feet which makes it unlikely any drainage would come from the river.

The purpose of the drainage system is to depress and maintain the water table surface below final grade at five different locations spanning the property (Figure 1). The drainage system was represented in the model by the MODFLOW drain package. Drains in the model function such that they discharge groundwater as long as they are below the water table; drains that are above the water will have a discharge of zero. In the drain package the user assigns a drain elevation and a drain conductance. Drain elevations in the model were assigned to be five feet below the lowest design grade for each drain area (Figure 2) resulting in drain elevation ranging from 130 feet to 142 feet. All drains were assigned a conductance of 10,000 $feet^2$/day/foot indicating a high rate of conductance. Design grade elevation, drain elevation, and simulated discharge rate for all five drain area locations can be found in Figure 2.

Six steady-state model runs were created, each run focusing on progressively deeper drains (Figures 3 through 8). The analysis was performed in this manner because when the model is run with all drains active, the drains with the lowest elevations create a water table cone of depression causing the shallower drains to be above the water table and shut off. To generate a final system-wide drainage discharge estimate discharge from each drain the results of each simulation were then summed. The simulation results (Figure 2 and Table 1) indicate that groundwater discharge to the drainage system will be on the order of 1,080 gpm or about 2.4 cubic feet per second. Calculated discharge ranges from 58 gpm at Drain 2 to 288 gpm at Drain 3A.



Model Grid Boundary

LEGEND

Target areas for drainage where water table elevation may exceed design grade

Property Boundary

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan International LLC

Collectively known as Langan

Project

HILLWOOD

HUDSON

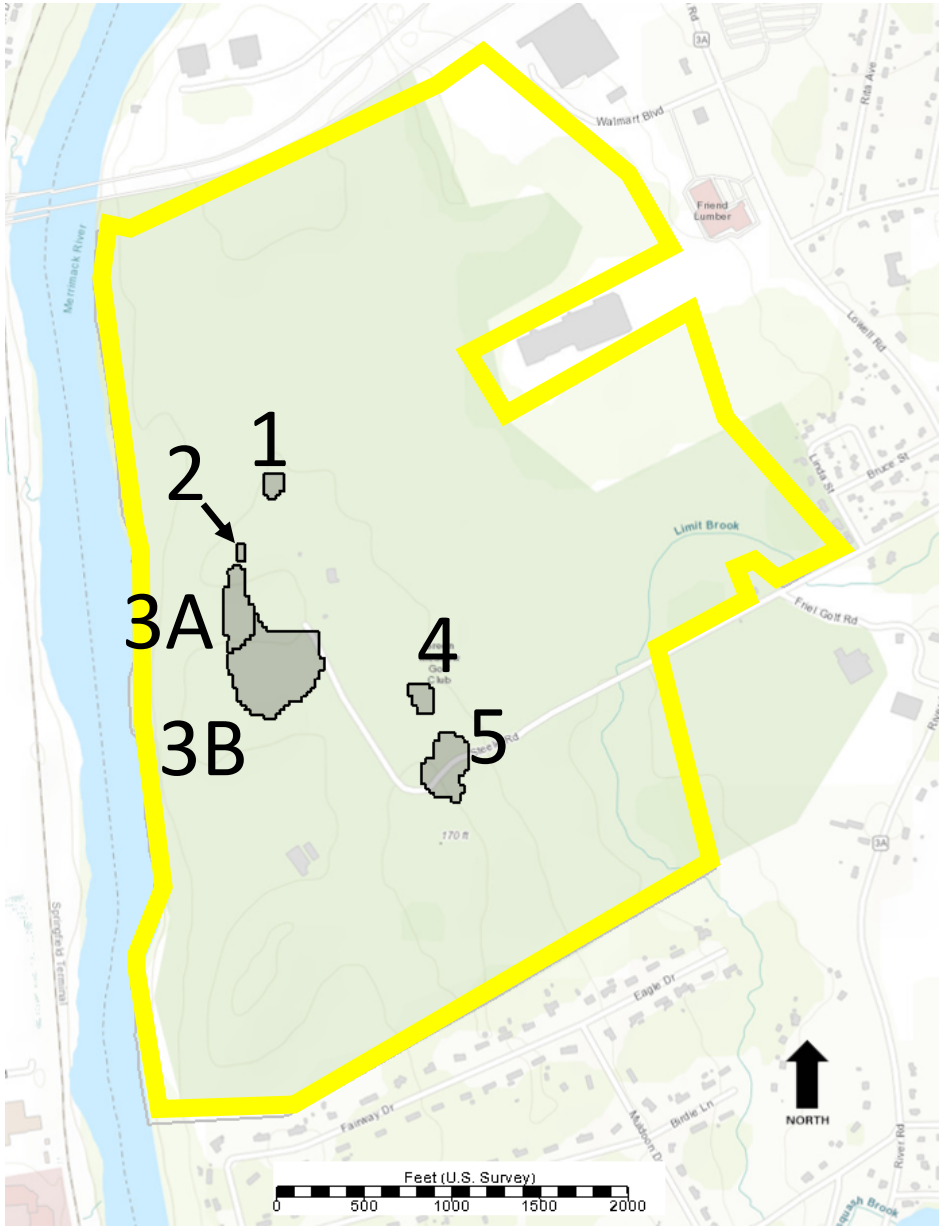
HILLSBOROUGH COUNTY **NEW HAMPSHIRE**

Drawing Title

MODFLOW Model Grid Extent

Project No.	151010102
Date	7/27/22
Scale	as indicated
Drawn By	TS
Submission Date	

Figure **1**



Model Run Number	Model Drain Area Number	Minimum Design Grade	MODFLOW Drain Elevation	Simulated Discharge	
		feet-mean sea level		Cubic feet per Day	Gallons per Minute
1	4	147	142	19,094	99
2	5	143	138	42,875	223
3	1	140	135	33,176	172
4	3B	140	135	46,225	240
5	2	139	134	11,221	58
6	3A	135	130	55,346	288
			TOTAL	207,937	1,080

Target areas for drainage where water table elevation may exceed design grade

Property Boundary

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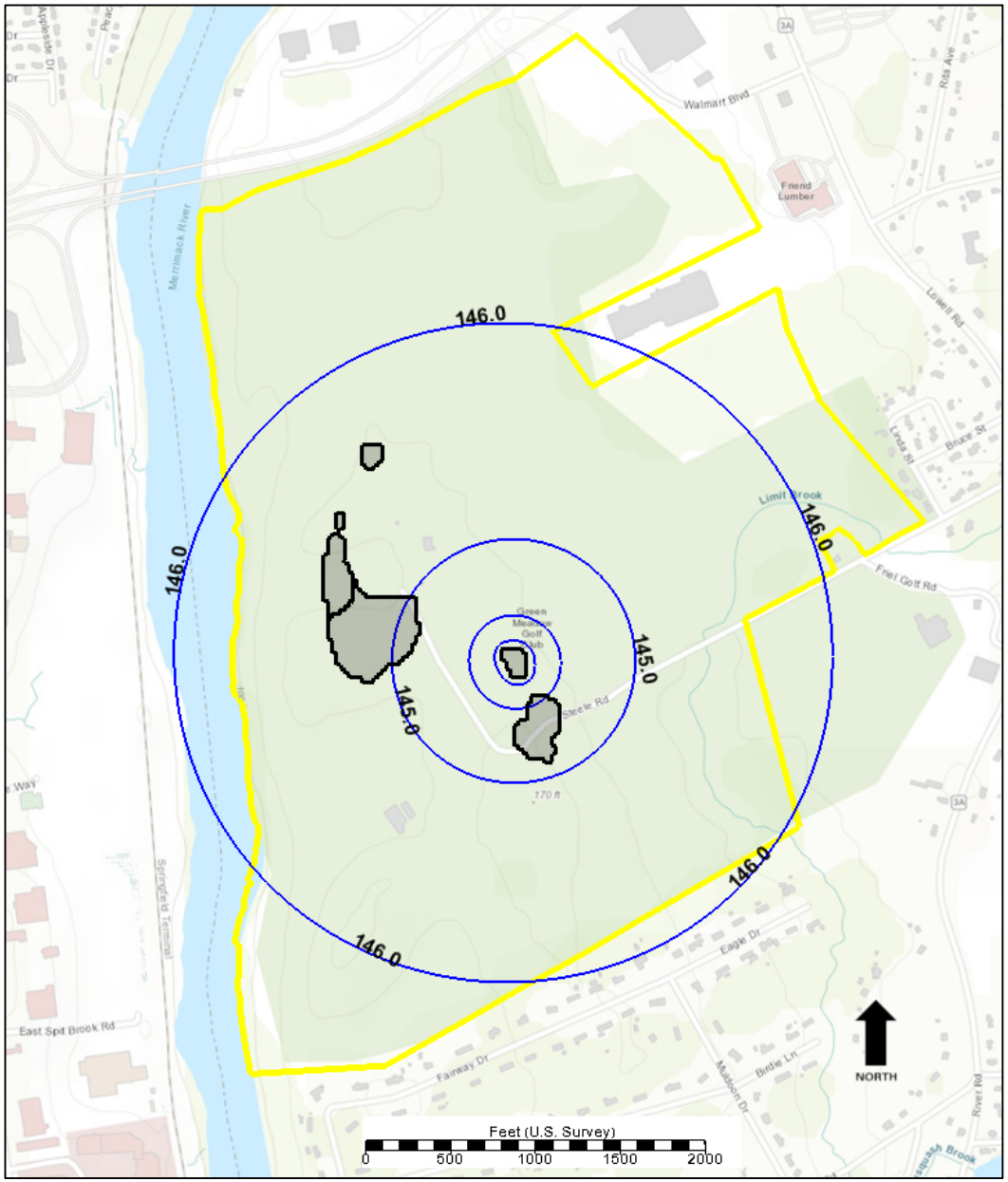
HUDSON
HILLSBOROUGH COUNTY NEW HAMPSHIRE

Drawing Title
MODFLOW Drain Elevations & Simulated Discharge Results

Project No. 151010102
Date 7/27/22
Scale as indicated
Drawn By TS
Submission Date

Figure
2



HLC_07REV.gpr

LEGEND

Target areas for drainage where water table elevation may exceed design grade

Simulated groundwater elevation contours (interval = 1 foot)

Property Boundary

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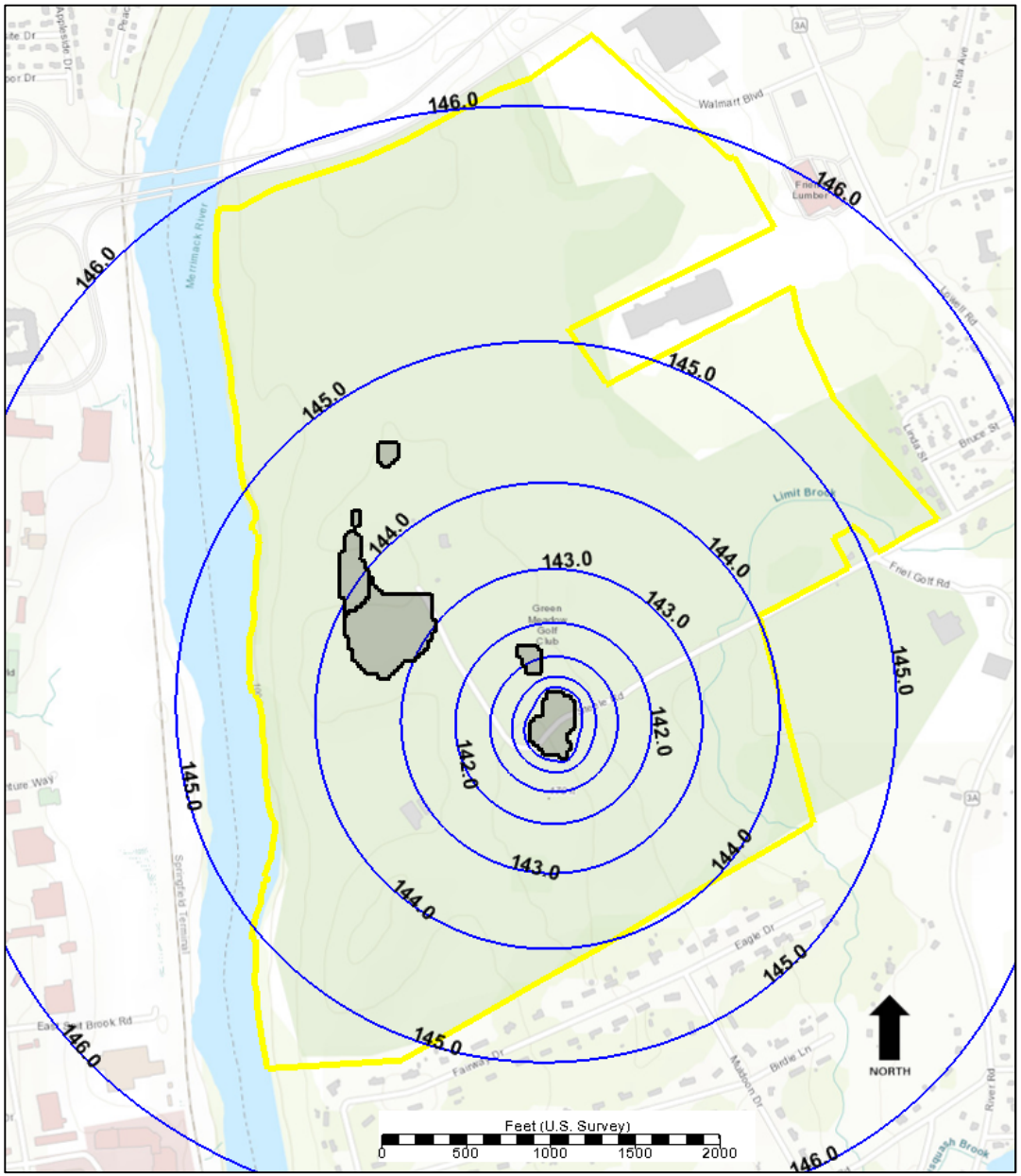
Drawing Title

Predicted Water Table Depression Simulation 1

Project No	151010102
Date	7/27/22
Scale	as indicated
Drawn By	TS
Submission Date	

Figure

3



LEGEND

Target areas for drainage where water table elevation may exceed design grade

Simulated groundwater elevation contours (interval = 1 foot)

Property Boundary

HLC_08REV.gpr

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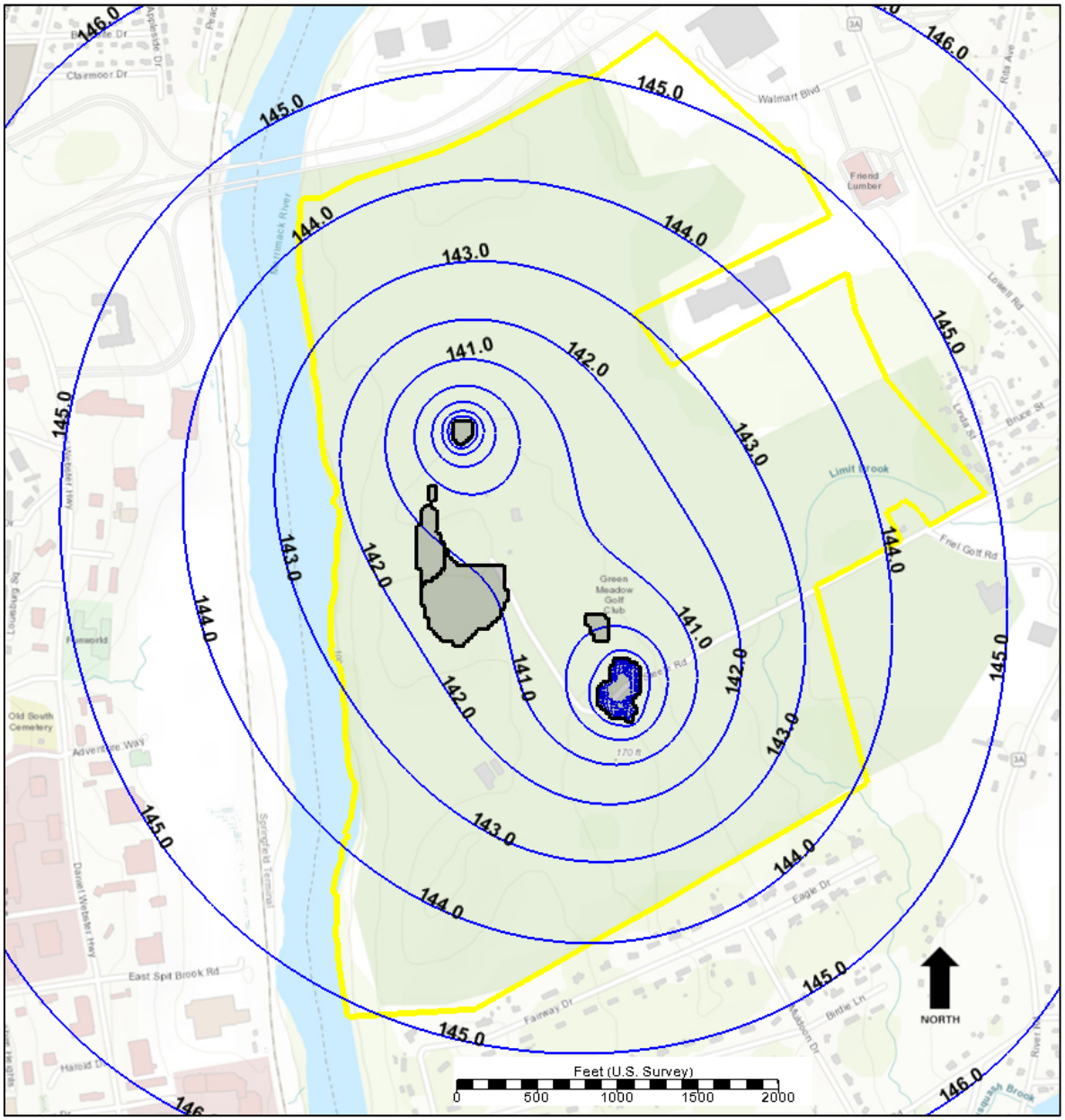
Drawing Title

Predicted Water Table Depression Simulation 2

Project No.	151010102
Date	7/27/22
Scale	as indicated
Drawn By	TS
Submission Date	

Figure **4**



LEGEND

Target areas for drainage where water table elevation may exceed design grade

Simulated groundwater elevation contours (interval = 1 foot)

Property Boundary

HLC_09REV.gpr

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HILLSBOROUGH COUNTY NEW HAMPSHIRE

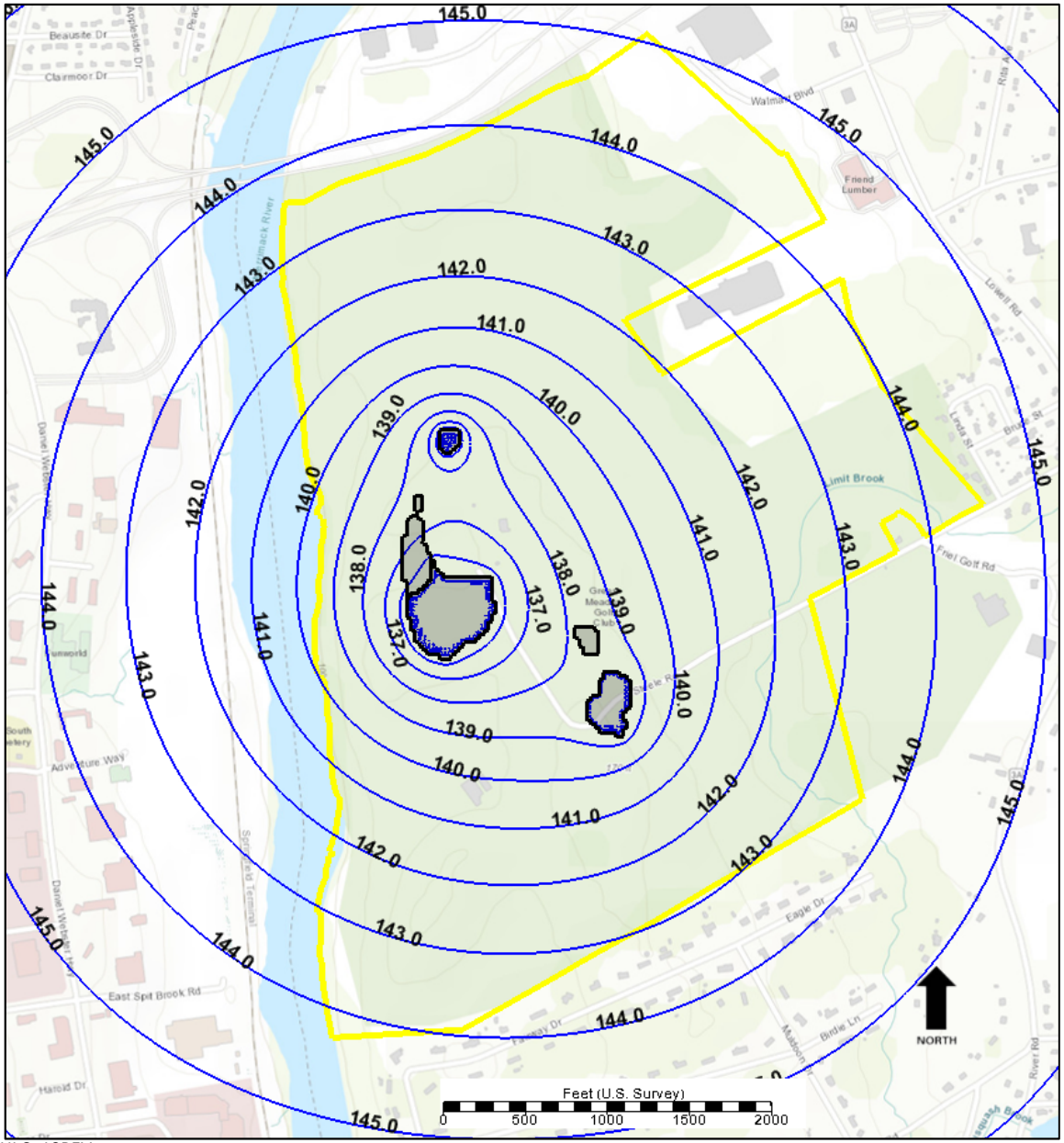
Drawing Title

Predicted Water Table Depression Simulation 3

Project No.	151010102
Date	7/27/22
Scale	as indicated
Drawn By	TS
Submission Date	

Figure

5



LEGEND

Target areas for drainage where water table elevation may exceed design grade

Simulated groundwater elevation contours (interval = 1 foot)

Property Boundary

HLC_10REV.gpr

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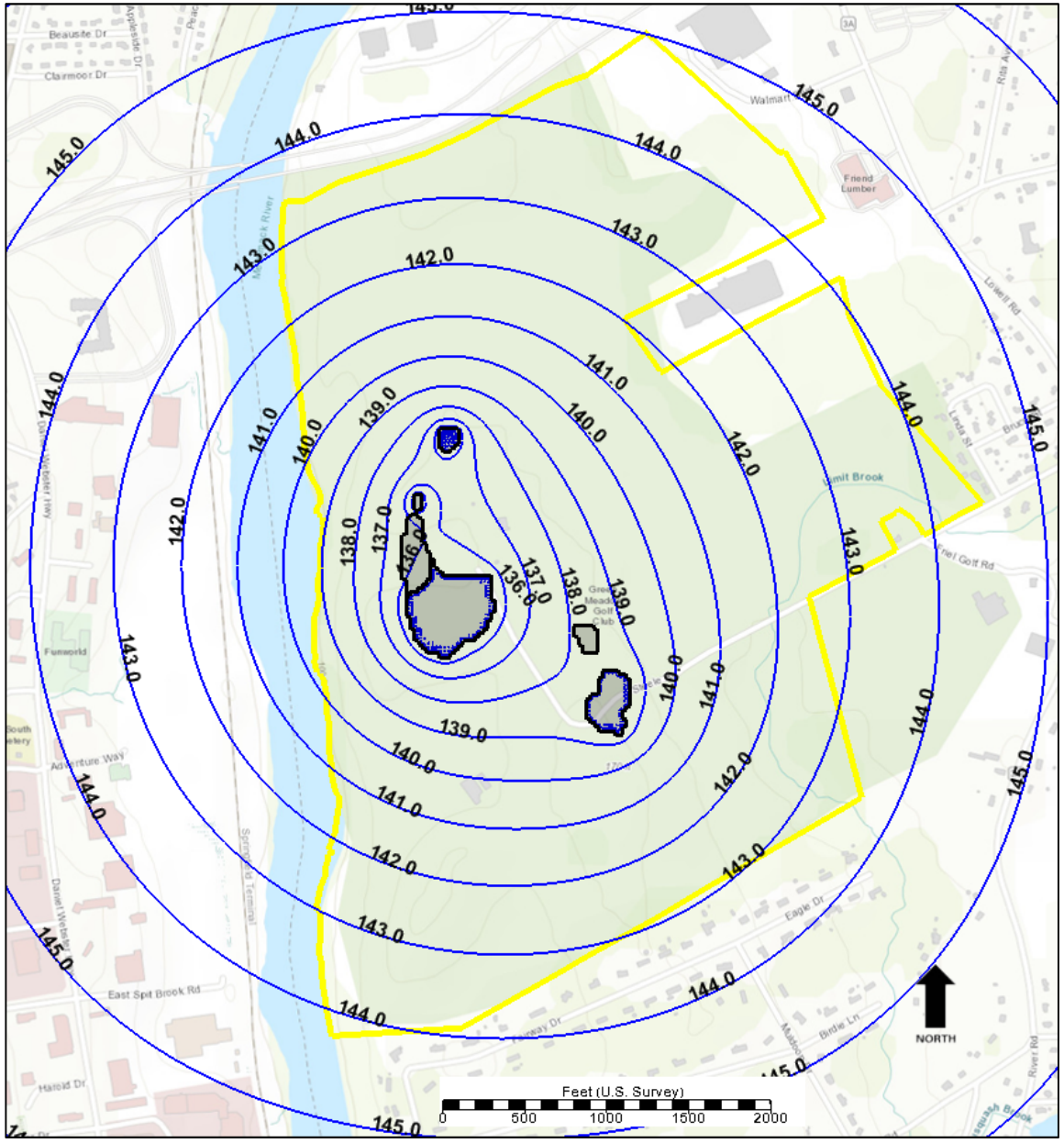
HILLSBOROUGH COUNTY NEW HAMPSHIRE

Drawing Title

Predicted Water Table Depression Simulation 4

Project No.	151010102
Date	7/27/22
Scale	as indicated
Drawn By	TS
Submission Date	

Figure **6**



HLC_11REV.gpr

LEGEND

Target areas for drainage where water table elevation may exceed design grade

Simulated groundwater elevation contours (interval = 1 foot)

Property Boundary

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HUDSON

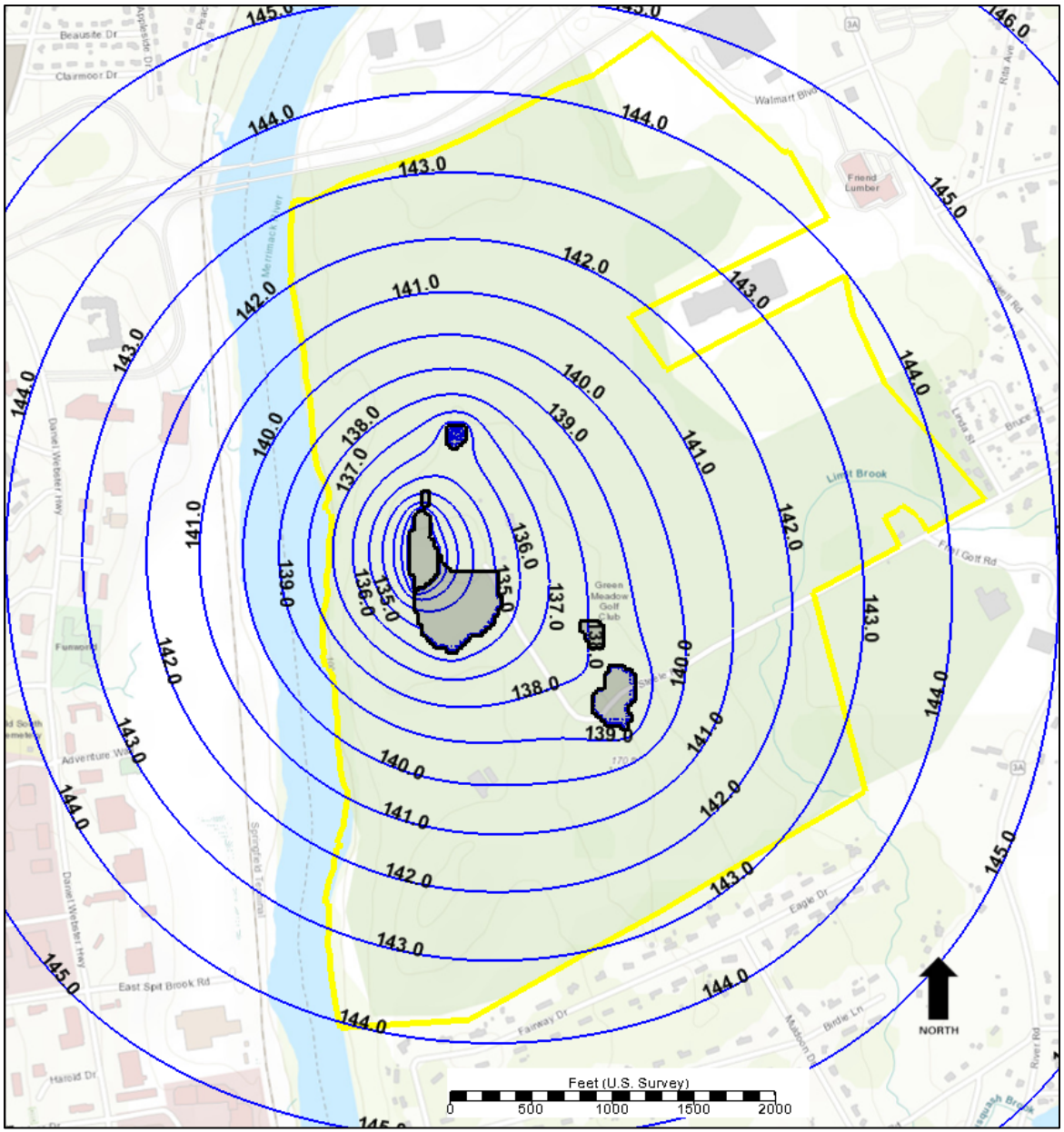
HILLSBOROUGH COUNTY NEW HAMPSHIRE

Drawing Title

Predicted Water Table Depression Simulation 5

Project No.	151010102
Date	7/27/22
Scale	as indicated
Drawn By	TS
Submission Date	

Figure 7



HLC_12REV.gpr

LEGEND

Target areas for drainage where water table elevation may exceed design grade

Simulated groundwater elevation contours (interval = 1 foot)

Property Boundary

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HILLWOOD

HUDSON

HILLSBOROUGH COUNTY NEW HAMPSHIRE

Drawing Title

Predicted Water Table Depression Simulation 6

Project No.	151010102
Date	7/27/22
Scale	as indicated
Drawn By	TS
Submission Date	

Figure **8**

Table 1
Simulated Drain System Input and Output Summary
Hudson Logistics Center
Hudson, New Hampshire

SIM #	Drain Area ID (1)	Minimum Grade Elevation in Drain Area	Maximum Grade Elevation in Drain Area	Drain Elevation	Drain Area		SIM 1	SIM 2	SIM 3	SIM 4	SIM 5	SIM 6
		feet (2)	feet	feet	square feet	acre	gallons/minute					
1	4	147	147	142	20,430	0.47	99	0	0	0	0	0
2	5	143	147.5	138	76,170	1.75	--	223	174	92	90	80
3	1	140	142.2	135	14,957	0.34	--	--	172	115	96	66
4	3B	140	148.4	135	207,782	4.77	--	--	--	240	213	59
5	2	139	140.6	134	4,720	0.11	--	--	--	--	58	1
6	3A	135	143.7	130	62,630	1.44	--	--	--	--	--	288
												1,080

NOTES:
1 - Listed in order of decreasing drain elevation
2 - all elevations in this table are relative to NAVD88
= predicted discharge of lowest elevation drain in each simulation
= Total drain system discharge is the sum of lowest elevation drain discharge in each simulation
-- = drain not simulated in this area

APPENDIX J

FEMA Flood Zone A Elevation Determination

LANGAN

LANGAN

888 Boylston Street, Suite 510 Boston, MA 02199 T: 617.824.9100 F: 617.824.9101

Technical Memorandum

Date: October 27, 2020

Re: FEMA Zone "A" – WSE Determination
Hudson Logistics Center
43 Lowell Road, Hudson, NH
Alteration of Terrain Permit Application #200630-092
Langan Project No.: 151010101

This appendix presents Langan's hydraulic analysis for the FEMA Zone-A designated stream channel, located at the southeast corner of the subject property, as per comment #5 of the Request for More Information (RFMI) from the State of New Hampshire Department of Environmental Services (NHDES), dated August 5, 2020.

The methodology employed for addressing this comment included determination of the contributing 100-year peak flow rate using the streamstats.usgs.gov website, and the preparation of a computer model using the US Army Corp of Engineers HEC-RAS river analysis system. Cross-sectional data input into the model was referenced from the Town of Hudson, NH GIS, with estimated roughness coefficients based on available photos of the property and aerial imagery maps.

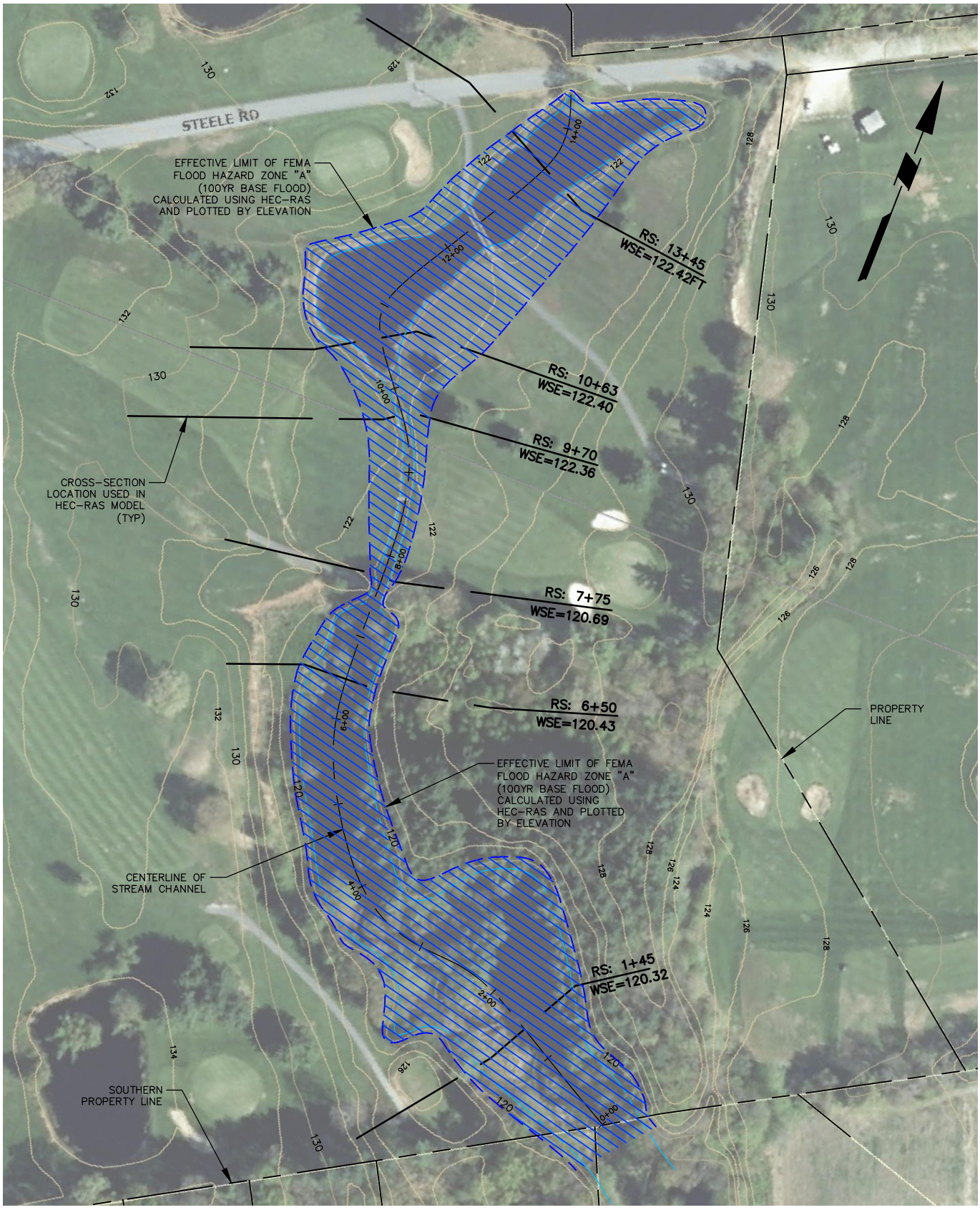
The resulting 100-year flood elevations for the on-site portions of the Zone-A designated stream channel are presented below in Table 1.

River Station (ft)*	100-Yr Peak Flow Rate (ft^3/s)	100-Yr Water Surface Elevation (ft)
13+45	159	122.42
10+63	159	122.40
9+70	159	122.36
7+75	159	120.69
6+50	159	120.43
1+45	159	120.32

Table 1: 100-year flood elevations for the on-site Zone-A designated stream channel.

* River stationing hereon represents the distance in feet along the centerline of the stream channel, between that cross-section and the property's downstream southern boundary.

Based on the results of the HEC-RAS Model, computed water surface elevations for the Zone-A designated stream channel range from 122.42ft upstream at Steel Road to 120.32ft at the downstream southern property line. Since the proposed grading in this area begins at elevation 124ft +/-, development of the site in this location will not impact hydraulic conditions of the existing watercourse. Refer to page 2 of this section for a Cross-Section Location Map, pages 3 - 11 for the HEC-RAS model results, and pages 12 - 14 for associated peak flow rate data.



LANGAN

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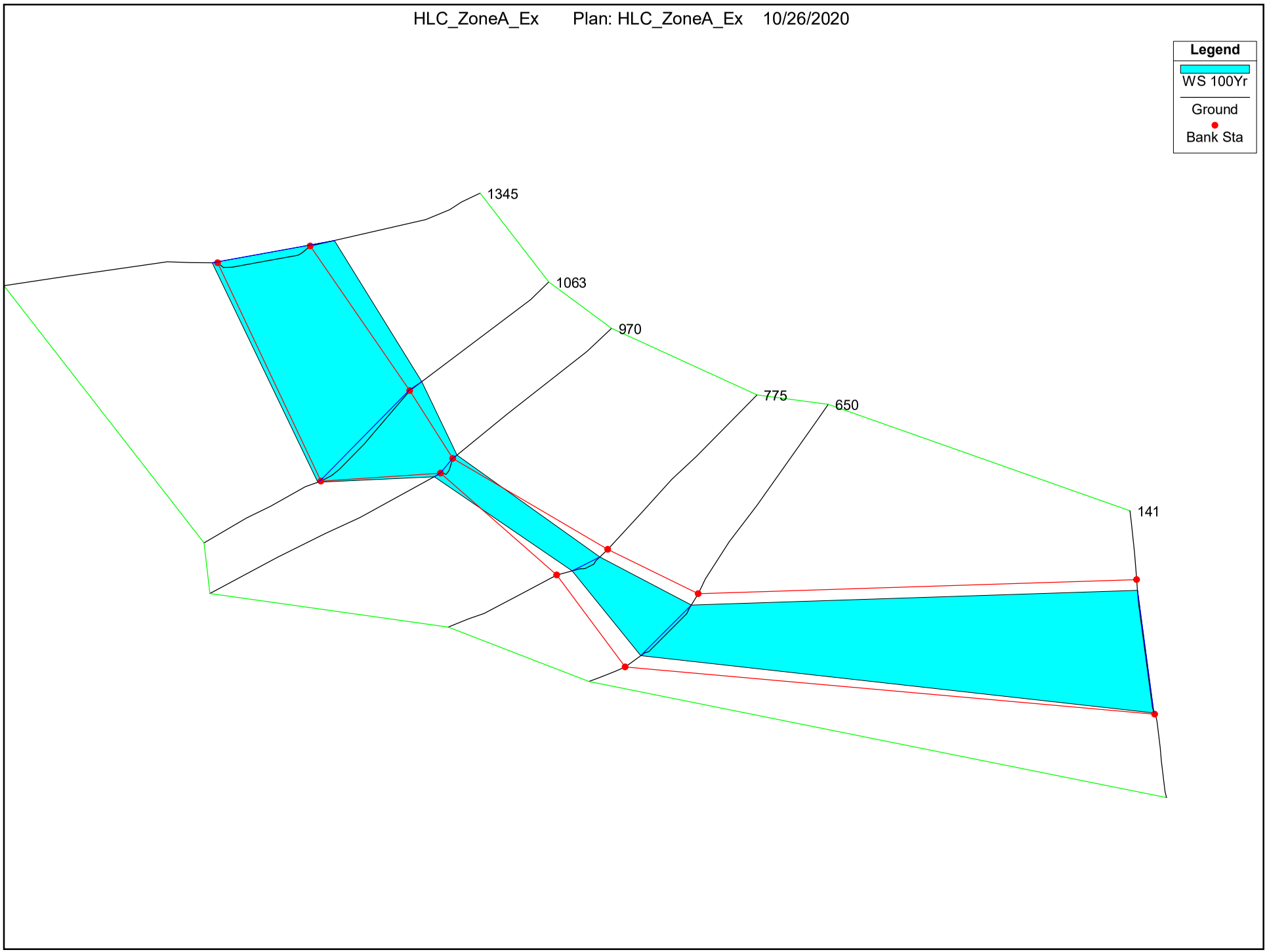
Project
HUDSON LOGISTICS CENTER
BLOCK No. 239, LOT No. 1
HUDSON
HILLSBOROUGH NEW HAMPSHIRE

Drawing Title
LIMIT BROOK CROSS-SECTION LOCATION MAP

Project No.	151010101
Date	10/27/2020
Drawn By	JKH
Checked By	TDO

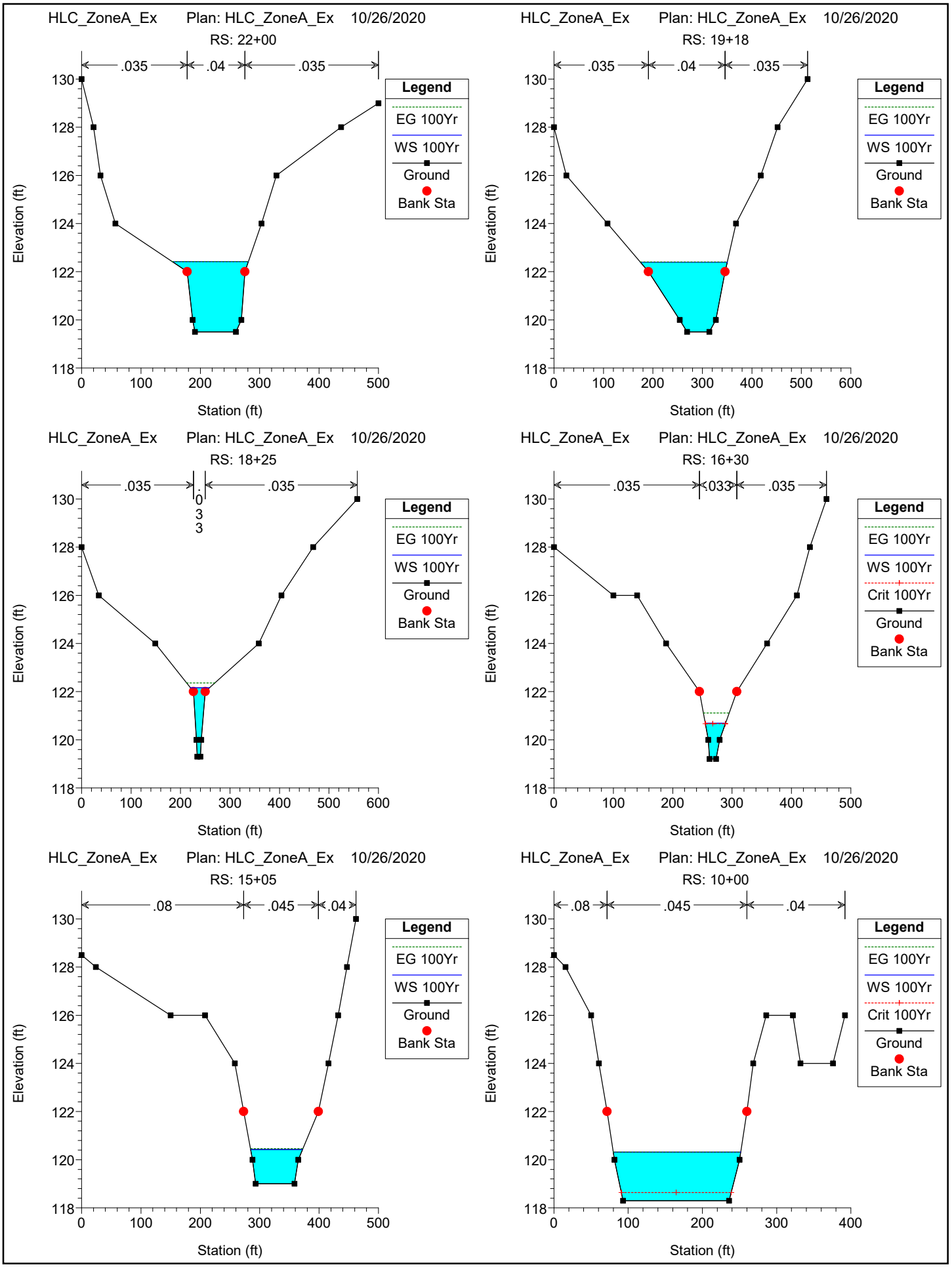
Drawing No.
SK-1
Sheet 1 of 1

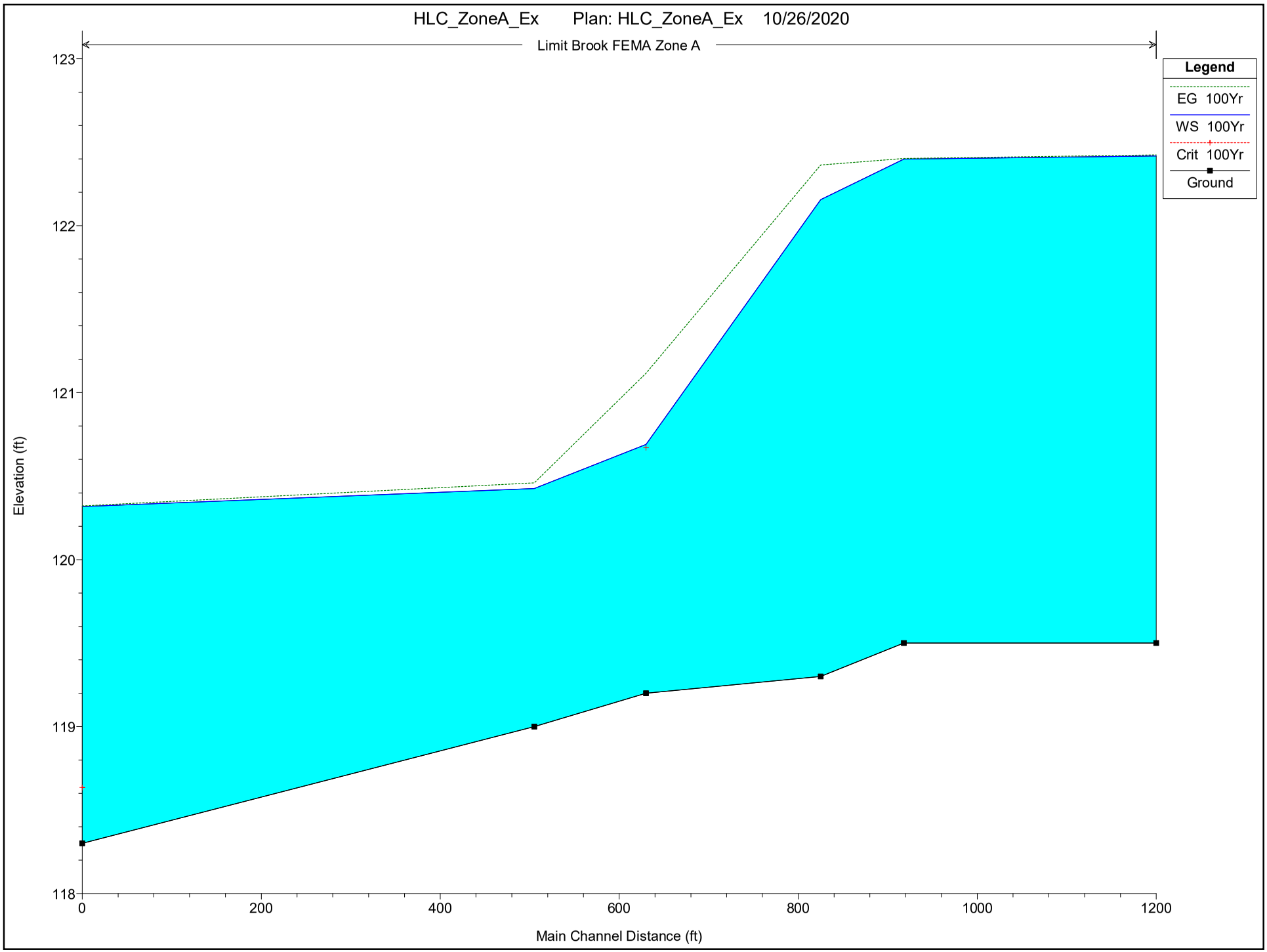
Filename: C:\Users\Jhannant\Documents\Projects\NH, Hudson - HLC\Dwgs\HEC-RAS Location Map.dwg Date: 11/5/2020 Time: 17:19 User: jhannant Style Table: Langan.stb Layout: 8.5x11


HLC_ZoneA_Ex Plan: HLC_ZoneA_Ex 10/26/2020
Legend
WS 100Yr
Ground
Bank Sta
1345
1063
970
775
650
141

HEC-RAS Plan: HLC_ZoneA_Ex River: Limit Brook Reach: FEMA Zone A Profile: 100Yr

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
FEMA Zone A	1345	100Yr	159.00	119.50	122.42		122.42	0.000075	0.61	263.77	128.12	0.07
FEMA Zone A	1063	100Yr	159.00	119.50	122.40		122.40	0.000068	0.50	323.52	175.95	0.06
FEMA Zone A	970	100Yr	159.00	119.30	122.16		122.36	0.003135	3.66	44.47	38.43	0.48
FEMA Zone A	775	100Yr	159.00	119.20	120.69	120.67	121.12	0.016064	5.24	30.33	34.17	0.98
FEMA Zone A	650	100Yr	159.00	119.00	120.43		120.46	0.001590	1.50	106.22	87.42	0.24
FEMA Zone A	141	100Yr	159.00	118.30	120.32	118.64	120.32	0.000100	0.50	318.82	171.68	0.06


HLC_ZoneA_Ex Plan: HLC_ZoneA_Ex 10/26/2020
RS: 22+00
.035
.04
.035
Legend
EG 100Yr
WS 100Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
HLC_ZoneA_Ex Plan: HLC_ZoneA_Ex 10/26/2020
RS: 19+18
.035
.04
.035
Legend
EG 100Yr
WS 100Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
HLC_ZoneA_Ex Plan: HLC_ZoneA_Ex 10/26/2020
RS: 18+25
.035
.033
.035
Legend
EG 100Yr
WS 100Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
HLC_ZoneA_Ex Plan: HLC_ZoneA_Ex 10/26/2020
RS: 16+30
.035
.033
.035
Legend
EG 100Yr
WS 100Yr
Crit 100Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
HLC_ZoneA_Ex Plan: HLC_ZoneA_Ex 10/26/2020
RS: 15+05
.08
.045
.04
Legend
EG 100Yr
WS 100Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
HLC_ZoneA_Ex Plan: HLC_ZoneA_Ex 10/26/2020
RS: 10+00
.08
.045
.04
Legend
EG 100Yr
WS 100Yr
Crit 100Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)


HLC_ZoneA_Ex Plan: HLC_ZoneA_Ex 10/26/2020
Limit Brook FEMA Zone A
Legend
EG 100Yr
WS 100Yr
Crit 100Yr
Ground
Elevation (ft)
123
122
121
120
119
118
0
200
400
600
800
1000
1200
Main Channel Distance (ft)

HEC-RAS HEC-RAS 5.0.7 March 2019
U.S. Army Corps of Engineers
Hydrologic Engineering Center
609 Second Street
Davis, California

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X      X   X     X  X    X
X     X  X        X           X   X    X    X   X
XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
X     X  X        X           X  X     X    X        X
X     X  X        X    X      X   X    X    X        X
X     X  XXXXXX    XXXX       X    X   X    X   XXXXX
```

****

PROJECT DATA
Project Title: HLC_ZoneA_Ex
Project File : HLC_ZoneA_Ex.prj
Run Date and Time: 10/27/2020 12:22:11 PM

Project in English units

****

PLAN DATA

Plan Title: HLC_ZoneA_Ex
Plan File : HLC_ZoneA_Ex.p01

Geometry Title: HLC_ZoneA_Ex
Geometry File : HLC_ZoneA_Ex.g01

Flow Title : HLC_ZoneA_Ex
Flow File : HLC_ZoneA_Ex.f01

Plan Summary Information:
Number of: Cross Sections = 6 Multiple Openings = 0
Culverts = 0 Inline Structures = 0
Bridges = 0 Lateral Structures = 0

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculation tolerance = 0.01
Maximum number of iterations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Subcritical Flow

```
*****************************************************************************

FLOW DATA

Flow Title: HLC_ZoneA_Ex
Flow File : HLC_ZoneA_Ex.f01

Flow Data (cfs)
*************************************************************
* River           Reach           RS      *           100Yr *
* Limit Brook     FEMA Zone A     1345    *             159 *
*************************************************************

Boundary Conditions
*****************************************************************************
* River         Reach         Profile    *     Upstream          Downstream    *
*****************************************************************************
* Limit Brook   FEMA Zone A   100Yr      *                   Normal S = 0.0001 *
*****************************************************************************

*****************************************************************************

GEOMETRY DATA

Geometry Title: HLC_ZoneA_Ex
Geometry File : HLC_ZoneA_Ex.g01

CROSS SECTION


RIVER: Limit Brook
REACH: FEMA Zone A        RS: 1345

INPUT
Description: RS: 22+00
Station Elevation Data    num=      14
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
       0     130      20     128      32     126      57     124     178     122
     187     120     191   119.5     260   119.5     269     120     275     122
     303     124     328     126     437     128     500     129

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*******************************************
       0    .035     178     .04     275    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           178     275              282     282     282             .1       .3

CROSS SECTION


RIVER: Limit Brook
REACH: FEMA Zone A        RS: 1063

INPUT
Description: RS: 19+18
```

```
Station Elevation Data    num=      13
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*********************************************************************************
       0     128      25     126     108     124     191     122     254     120
     269   119.5     314   119.5     327     120     346     122     368     124
     418     126     452     128   512.5     130

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
       0    .035     191     .04     346    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           191     346              93      93      93             .1       .3

CROSS SECTION


RIVER: Limit Brook
REACH: FEMA Zone A        RS: 970

INPUT
Description: RS: 18+25
Station Elevation Data    num=      13
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*********************************************************************************
       0     128      35     126     149     124     226     122     232     120
     234   119.3     240   119.3     242     120     250     122     358     124
     404     126     468     128     557     130

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
       0    .035     226    .033     250    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           226     250             195     195     195             .3       .5

CROSS SECTION


RIVER: Limit Brook
REACH: FEMA Zone A        RS: 775

INPUT
Description: RS: 16+30
Station Elevation Data    num=      14
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*********************************************************************************
       0     128     100     126     140     126     189     124     245     122
     260     120     262   119.2     273   119.2     279     120     308     122
     359     124     409     126     431     128     459     130

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
       0    .035     245    .033     308    .035
```

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           245     308              125     125     125             .3       .5

CROSS SECTION


RIVER: Limit Brook
REACH: FEMA Zone A        RS: 650

INPUT
Description: RS: 15+05
Station Elevation Data    num=      15
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*********************************************************************************
       0   128.5      24     128     150     126     208     126     258     124
     273     122     288     120     293     119   358.5     119     365     120
     399     122     416     124     432     126     447     128     462     130

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
       0     .08     273    .045     399     .04

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           273     399              505     505     505             .1       .3

CROSS SECTION


RIVER: Limit Brook
REACH: FEMA Zone A        RS: 141

INPUT
Description: RS: 10+00
Station Elevation Data    num=      16
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*********************************************************************************
       0   128.5    15.7     128      50     126    60.5     124    71.5     122
    81.5     120      93   118.3     236   118.3     250     120     260     122
   268.5     124     286     126     322     126     332     124     376     124
     392     126

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
       0     .08    71.5    .045     260     .04

Bank Sta: Left   Right    Coeff Contr.   Expan.
          71.5     260             .1       .3

*********************************************************************************

SUMMARY OF MANNING'S N VALUES

River:Limit Brook
*************************************************************
*     Reach      *   River Sta.   *   n1    *   n2    *   n3    *
*************************************************************
```

*FEMA Zone A	*	1345	*	.035*	.04*	.035*
*FEMA Zone A	*	1063	*	.035*	.04*	.035*
*FEMA Zone A	*	970	*	.035*	.033*	.035*
*FEMA Zone A	*	775	*	.035*	.033*	.035*
*FEMA Zone A	*	650	*	.08*	.045*	.04*
*FEMA Zone A	*	141	*	.08*	.045*	.04*

SUMMARY OF REACH LENGTHS

River: Limit Brook

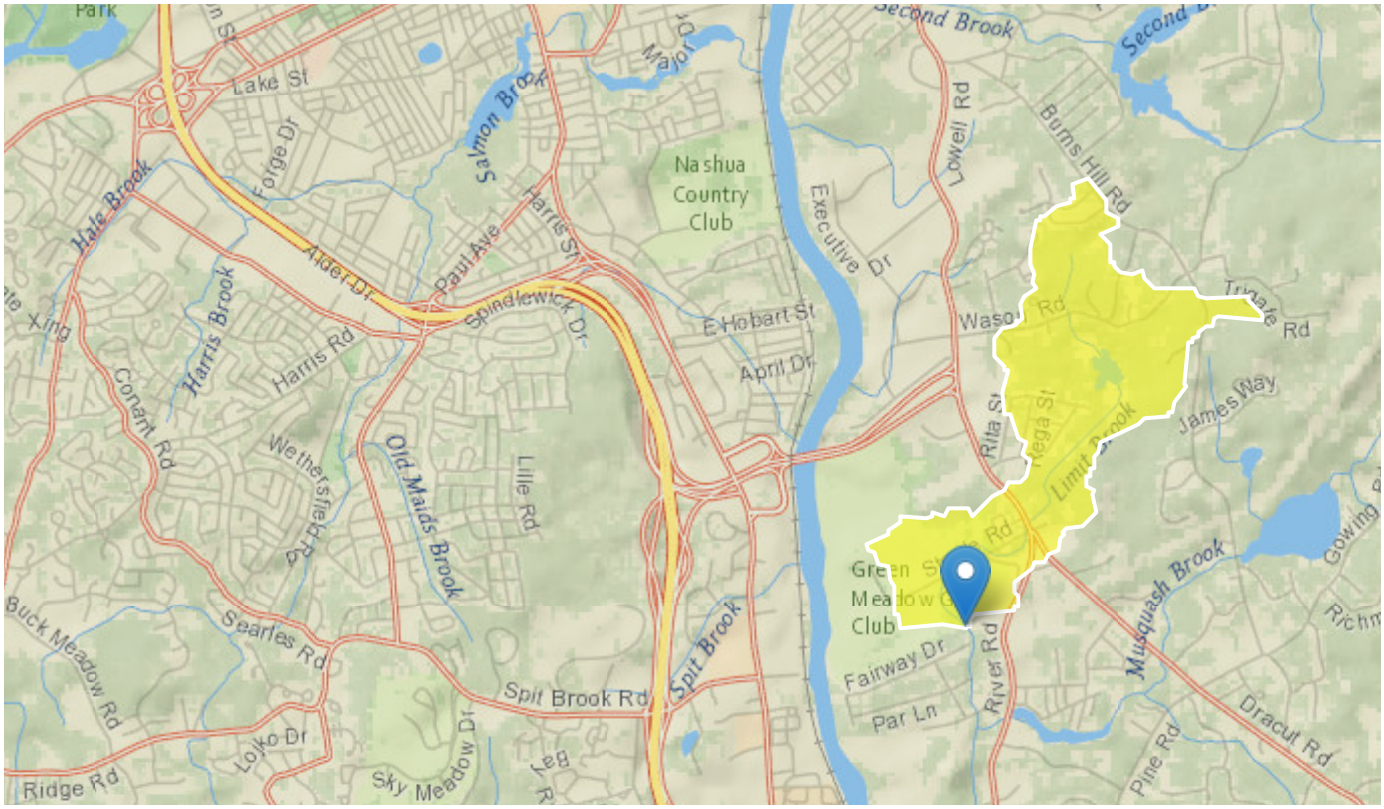
Reach	River Sta.	Left	Channel	Right
*FEMA Zone A	* 1345	* 282*	282*	282*
*FEMA Zone A	* 1063	* 93*	93*	93*
*FEMA Zone A	* 970	* 195*	195*	195*
*FEMA Zone A	* 775	* 125*	125*	125*
*FEMA Zone A	* 650	* 505*	505*	505*
*FEMA Zone A	* 141	*	*	*

SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS
River: Limit Brook

Reach	River Sta.	Contr.	Expan.
*FEMA Zone A	* 1345	* .1*	.3*
*FEMA Zone A	* 1063	* .1*	.3*
*FEMA Zone A	* 970	* .3*	.5*
*FEMA Zone A	* 775	* .3*	.5*
*FEMA Zone A	* 650	* .1*	.3*
*FEMA Zone A	* 141	* .1*	.3*

StreamStats Report

Region ID: NH
Workspace ID: NH20201020201335930000
Clicked Point (Latitude, Longitude): 42.71349, -71.42431
Time: 2020-10-20 16:13:53 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	1.09	square miles
APRAVPRE	Mean April Precipitation	3.91	inches
WETLAND	Percentage of Wetlands	7.5282	percent
CSL10_85	Change in elevation divided by length between points 10 and 85 percent of distance along main channel to basin divide - main channel method not known	48.3	feet per mi

Peak-Flow Statistics Parameters[Peak Flow Statewide SIR2008 5206]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1.09	square miles	0.7	1290
APRAVPRE	Mean April Precipitation	3.91	inches	2.79	6.23
WETLAND	Percent Wetlands	7.5282	percent	0	21.8
CSL10_85	Stream Slope 10 and 85 Method	48.3	feet per mi	5.43	543

Peak-Flow Statistics Flow Report[Peak Flow Statewide SIR2008 5206]

PIl: Prediction Interval-Lower, PIu: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PIl	PIu	SEp	Equiv. Yrs.
2 Year Peak Flood	31.6	ft^3/s	19.2	51.9	30.1	3.2
5 Year Peak Flood	54.9	ft^3/s	32.9	91.5	31.1	4.7
10 Year Peak Flood	75.2	ft^3/s	44.2	128	32.3	6.2
25 Year Peak Flood	104	ft^3/s	58.9	184	34.3	8
50 Year Peak Flood	129	ft^3/s	70.9	235	36.4	9
100 Year Peak Flood	159	ft^3/s	84.3	300	38.6	9.8
500 Year Peak Flood	236	ft^3/s	115	484	44.1	11

Peak-Flow Statistics Citations

Olson, S.A.,2009, Estimation of flood discharges at selected recurrence intervals for streams in New Hampshire: U.S.Geological Survey Scientific Investigations Report 2008-5206, 57 p. (http://pubs.usgs.gov/sir/2008/5206/)

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Application Version: 4.4.0