Stormwater Report

229 Elm Ridge Road
Stonington, Connecticut
May 28, 2020

Prepared for:
Greenskies Clean Energy LLC
127 Washington Avenue
West Building, Garden Level
North Haven, Connecticut 06473

MMI #6763-10

Prepared by:
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MILONE & MACBROOM

ENGINEERING | PLANNING | LANDSCAPE ARCHITECTURE | ENVIRONMENTAL SCIENCE

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1.0 PROJECT OVERVIEW

Greenskies Clean Energy LLC (Greenskies) has retained Milone & MacBroom, Inc. (MMI) for engineering services and preparation of this Stormwater Report associated with the proposed solar facility located at 229 Elm Ridge Road in Stonington (Pawcatuck), Connecticut. The solar facility will be constructed in two sections on the existing Elmridge Golf Course property. The westerly solar array system (West Site) will be located on Parcel Number 39-1-9 (Assessor Map 039, Sheet 1, Parcel 9) off of North Anguilla Road, which is located in the Greenbelt Residential (GBR-130) zoning district. The easterly solar array system (East Site) will be located on the property containing Parcel Numbers 22-2-1 (Assessor Map 022, Sheets 1 & 2, Parcel 2) and 40-6-1 (Assessor Map 040, Sheet 2, Parcel 6) and is located in the Rural Residential (RR-80) zoning district. See Figure 2, Town of Stonington Geographic Information System (GIS) Zoning Map, for the location of each zoning district. The project involves the installation of several ground-mounted photovoltaic (PV) solar panel arrays supported by above-grade galvanized steel brackets to facilitate the required vertical angle and southerly exposure of the PV panels. The solar facility will include three equipment pads and other electrical equipment to support the facility. A 7-foot-high chain link security fence will entirely enclose both compounds. An underground electrical service will carry power from the facility to the points of interconnection east of the West Site to the existing electric service on North Anguilla Road and north of the East Site to the existing electric service on Elm Ridge Road.

This project also includes the construction of two stormwater management basins to provide peak-flow attenuation as a result of the land cover change associated with the project. Overall land cover consists mostly of grass field associated with the golf course with some wooded areas to the northerly and southerly sides of the West Site and on the westerly side of the East Site. The site will be stabilized with the application of a conservation seed mix on all disturbed areas.

The project site is shown on the United States Geological Survey (USGS) Site Location Map, Figure 1.

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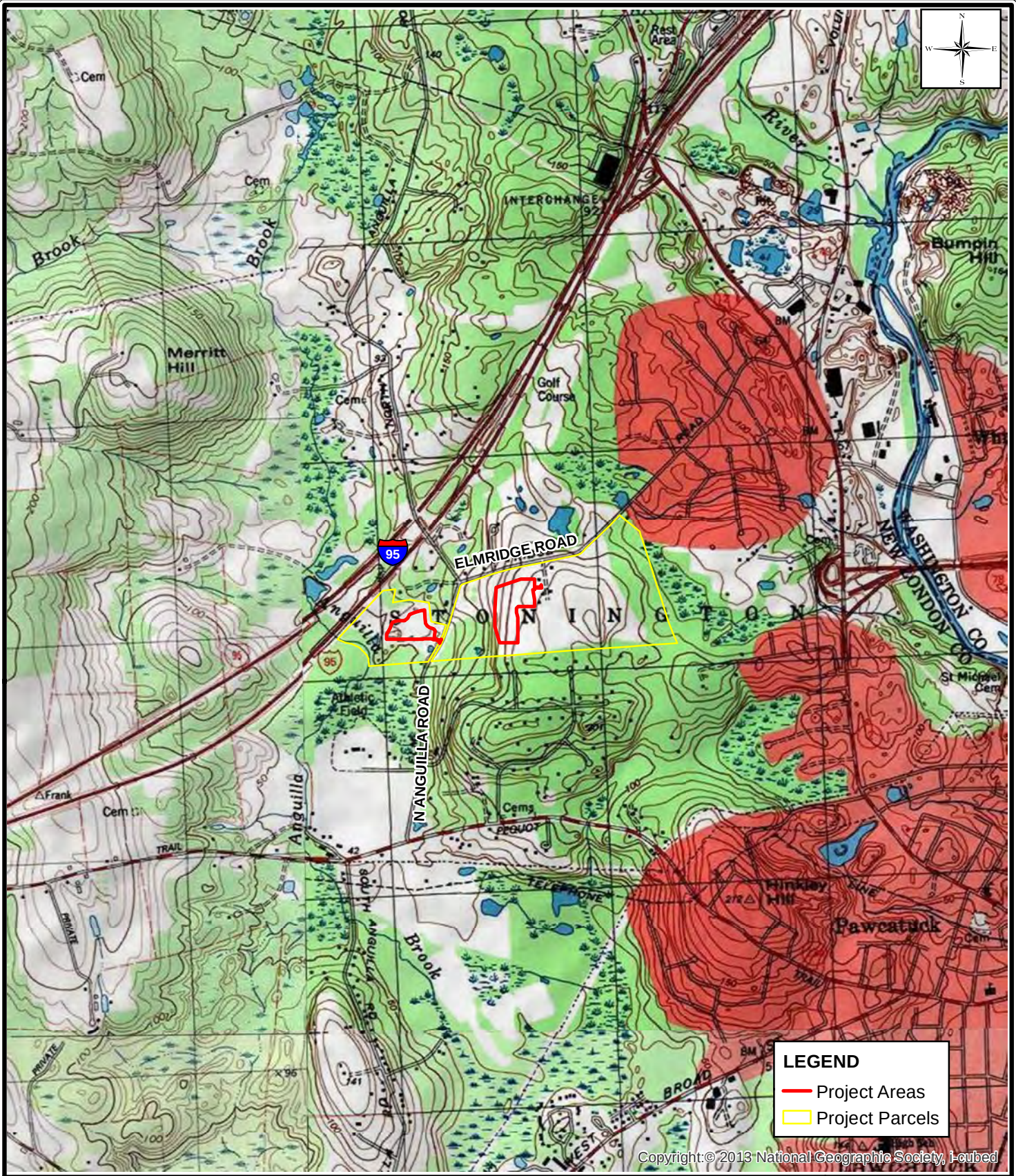

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USGS SITE LOCATION MAP

ELMRIDGE GOLF COURSE PV SOLAR FACILITY

229 ELM RIDGE ROAD
STONINGTON, CONNECTICUT

SOURCE: 2013, NATIONAL GEOGRAPHIC SOCIETY

DATE: DECEMBER 4, 2019		
SCALE: 1 " = 2,000 '		
PROJ. NO.: 6763-10		
DESIGNED AYO	DRAWN AYO	CHECKED MBR

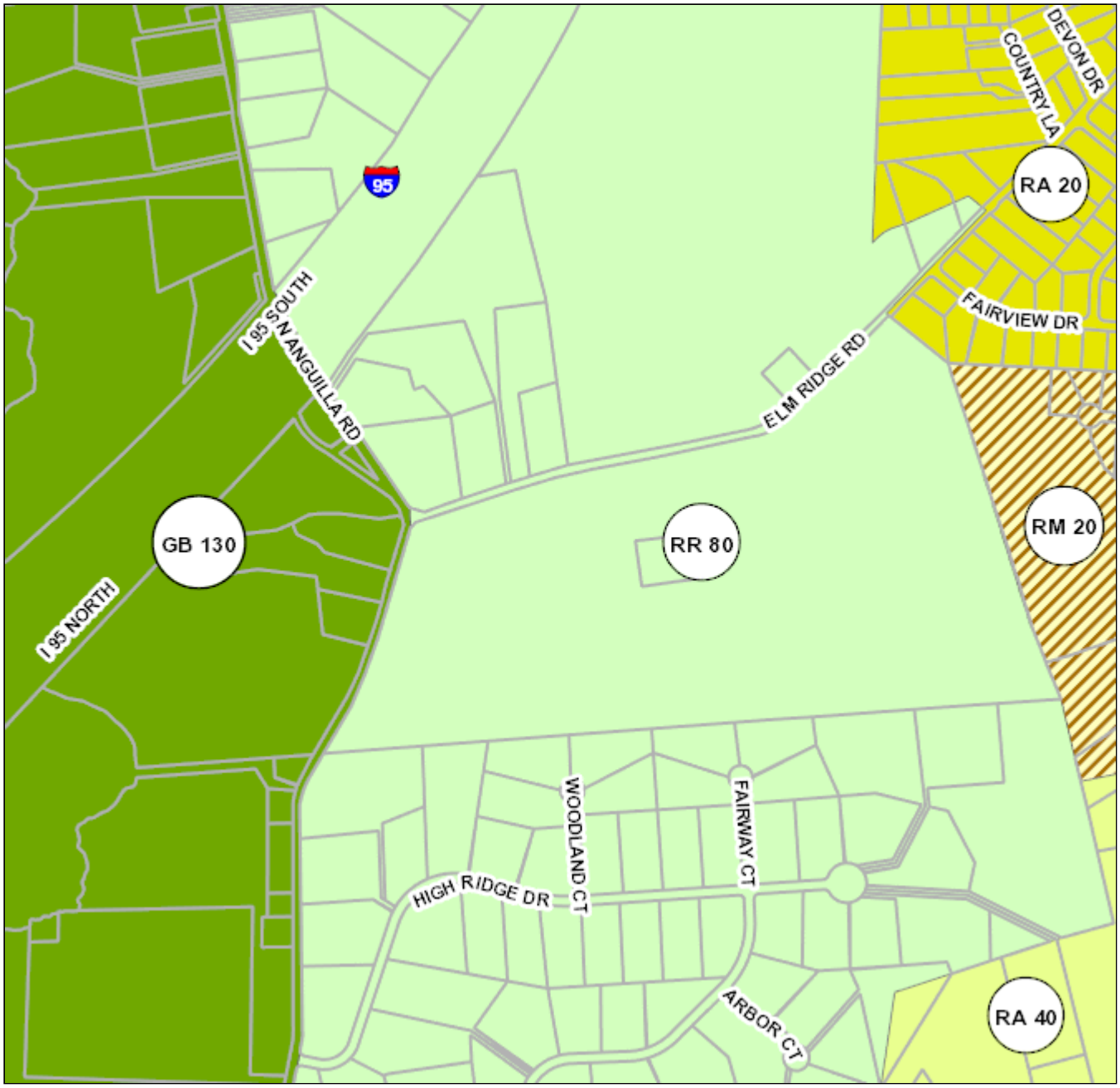
DRAWING NAME:

FIG. 1

Town of Stonington

Geographic Information System (GIS)

Date Printed: 2/3/2020



MAP DISCLAIMER - NOTICE OF LIABILITY

This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The Town of Stonington and its mapping contractors assume no legal responsibility for the information contained herein.

Approximate Scale: 1 inch = 800 feet

0 800 Feet

N W E S

2.0 SITE DESCRIPTION

2.1 Existing Conditions

The existing site contains three parcels: a 26.4-acre parcel west of North Anguilla Road and east of I-95; and two parcels totaling 89.1 acres south of Elm Ridge Road. All parcels are currently part of Elmridge Golf Course, located at 229 Elm Ridge Road in Stonington, Connecticut. Elmridge Golf Course is a 27-hole golf course that was first opened in 1966. The property was previously used as a dairy farm and has expanded from the original 9 course holes at its opening to the current 27-hole configuration. The golf course has a total site acreage of approximately 250-acres, but the 132-acre parcel north of Elm Ridge Road is outside of the limits of the proposed project.

The western parcel (West Site) is mostly maintained grass and contains three of the golf course's twenty-seven holes. The site is wooded on the northerly, easterly, and southerly sides of the parcel, and there is an intermittent stream leading to a manmade pond in the central area of the site. Site topography mainly consists of gentle slopes (2%-9%) with some undulating slopes (0.5%-2%) at the north end of the array area.

The eastern parcel (East Site) contains approximately 12 of the twenty-seven golf course holes as well as a paved drive off of Elm Ridge Road that leads to the Club House and parking area in the central area of the site. The East Site is mostly maintained grass with intermittent pockets of trees in the golf course areas, and there are undeveloped forested areas on the westerly, easterly, and southerly sides of the site. Site topography mainly consists of gentle slopes to the east with some moderate slopes (9%-15%) along the west side of the array area.

Elm Ridge Road runs along the northern property line, and North Anguilla Road runs along the western property line. A mix of undeveloped forested area and residential properties are located to the east and south of the property line. The site is shown on the USGS Site Locus Map, Figure 1. A paved path leads into the site from North Anguilla Road and provides golfers access to the site from the East Site to the east. Interstate 95 runs along the western property line and North Anguilla Road runs along the eastern property line. The area north of the property contains wooded area and residential properties, and the area south of the property line is wooded and contains Anguilla Brook.

2.2 Inland Wetland Resource Areas

On November 26, 2019, MMI wetland scientists completed a wetland delineation at the project site. Wetland areas associated with Anguilla Brook were found on the West Site and two wetland areas were found in the westerly wooded area on the East Site. Wetland areas consist of intermittent watercourse, wet meadow, a manmade pond, and inland wetland. In addition, two areas were identified as providing potential vernal pool habitat. An additional wetland delineation took place on January 13, 2020 to expand the study area on the East Site and two additional wetland areas were identified. Inland wetlands and watercourses were delineated in accordance with the Connecticut Inland Wetlands and Watercourses Act and Tidal Wetlands Act as well as Section 404 of the Clean Water Act and the Town of Stonington Inland Wetlands and Watercourse Regulations. Wetlands and watercourses were delineated using the methodology

provided in the United States Army Corps of Engineers (USACE) *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region.* Refer to the attached Wetland and Watercourse Delineation Report for a detailed description of wetland resource areas.

2.3 Natural Diversity Data Base

Based on the Connecticut Department of Energy & Environmental Protection's (CTDEEP) Natural Diversity Data Base (NDDB), the project area is outside of mapped Natural Diversity Areas; however, there is a mapped Natural Diversity Area on the eastern side of the Elmridge Golf Course property. A Request for NDDB State Listed Species Review was submitted to CTDEEP and a preliminary assessment letter was received from CTDEEP on November 8, 2019 recommending a survey of the site by a qualified biologist due to the presence of state-listed species in the vicinity of the project area to determine if the identified species are located within the project area. The NDDB area is shown on Figure 3, Detailed Site Map.

2.4 Farmland Soils

A portion of the site contains Prime Farmland Soils based on the available Farmland Soils layer provided by CTDEEP. Prime Farmland Soils are located on both the western and eastern sites at the location of the current golf course. Refer to Figure 4 for the location of Farmland Soils.

2.5 FEMA Floodplain and Coastal Boundary

There is Federal Emergency Management Agency (FEMA) floodway, 10- and 500-year floodplains associated with Anguilla Brook extending across the southerly side of the western property as shown on Figure 5, FEMA Map. All work proposed on this project will remain outside of FEMA floodplain and floodway areas.

The entirety of this project site is located outside of the coastal boundary area. Refer to Figure 6 for the location of the coastal boundary relative to the project area.

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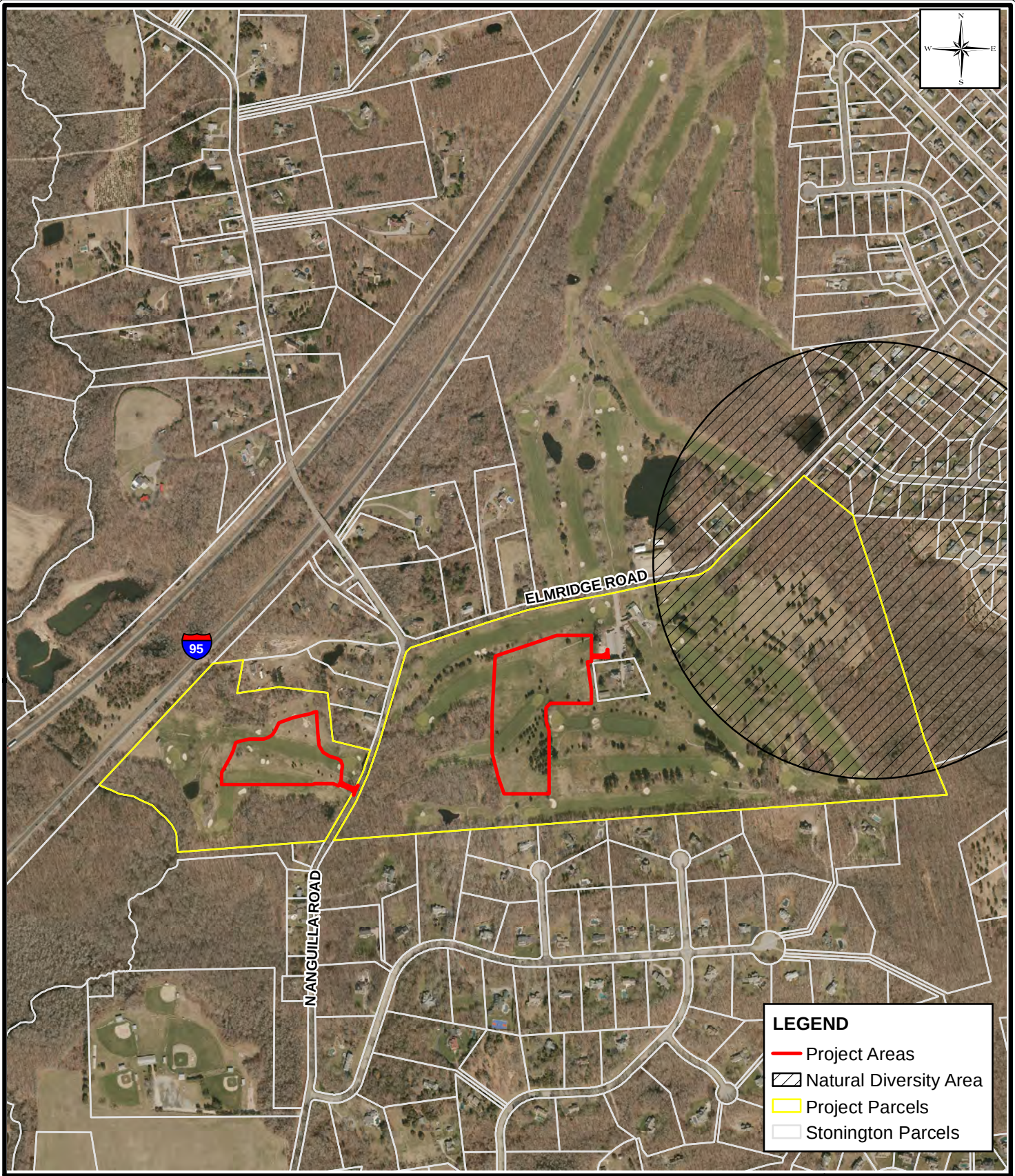

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DETAILED SITE MAP

ELMRIDGE GOLF COURSE PV SOLAR FACILITY

229 ELMRIDGE ROAD
STONINGTON, CONNECTICUT

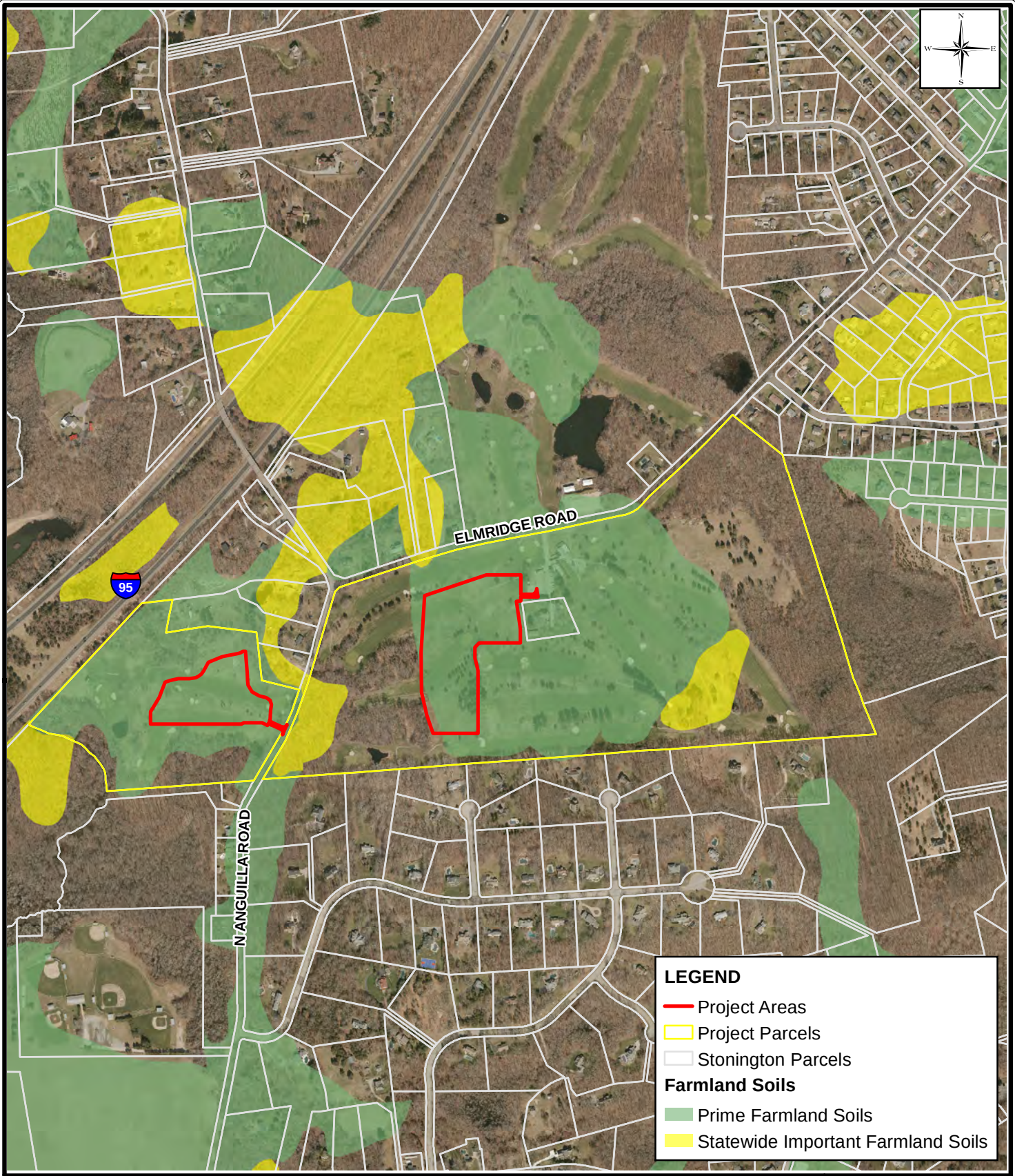
SOURCE: 2016 AERIAL PHOTO, CTDEEP

DATE: OCTOBER 29, 2019		
SCALE: 1 " = 800 '		
PROJ. NO.: 6763-10		
DESIGNED AYO	DRAWN AYO	CHECKED MBR

DRAWING NAME:

FIG. 3

MXD: X:\6763-10\Maps\ElmRidge_Farmland_Soils.mxd



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FARMLAND SOILS MAP

ELMRIDGE GOLF COURSE PV SOLAR FACILITY

229 ELMRIDGE ROAD
STONINGTON, CONNECTICUT

SOURCE: 2016 AERIAL PHOTO, CTDEEP

DATE: FEBRUARY 3, 2020		
SCALE: 1 " = 800 '		
PROJ. NO.: 6763-10		
DESIGNED HMM	DRAWN HMM	CHECKED MRG

DRAWING NAME:

FIG. 4

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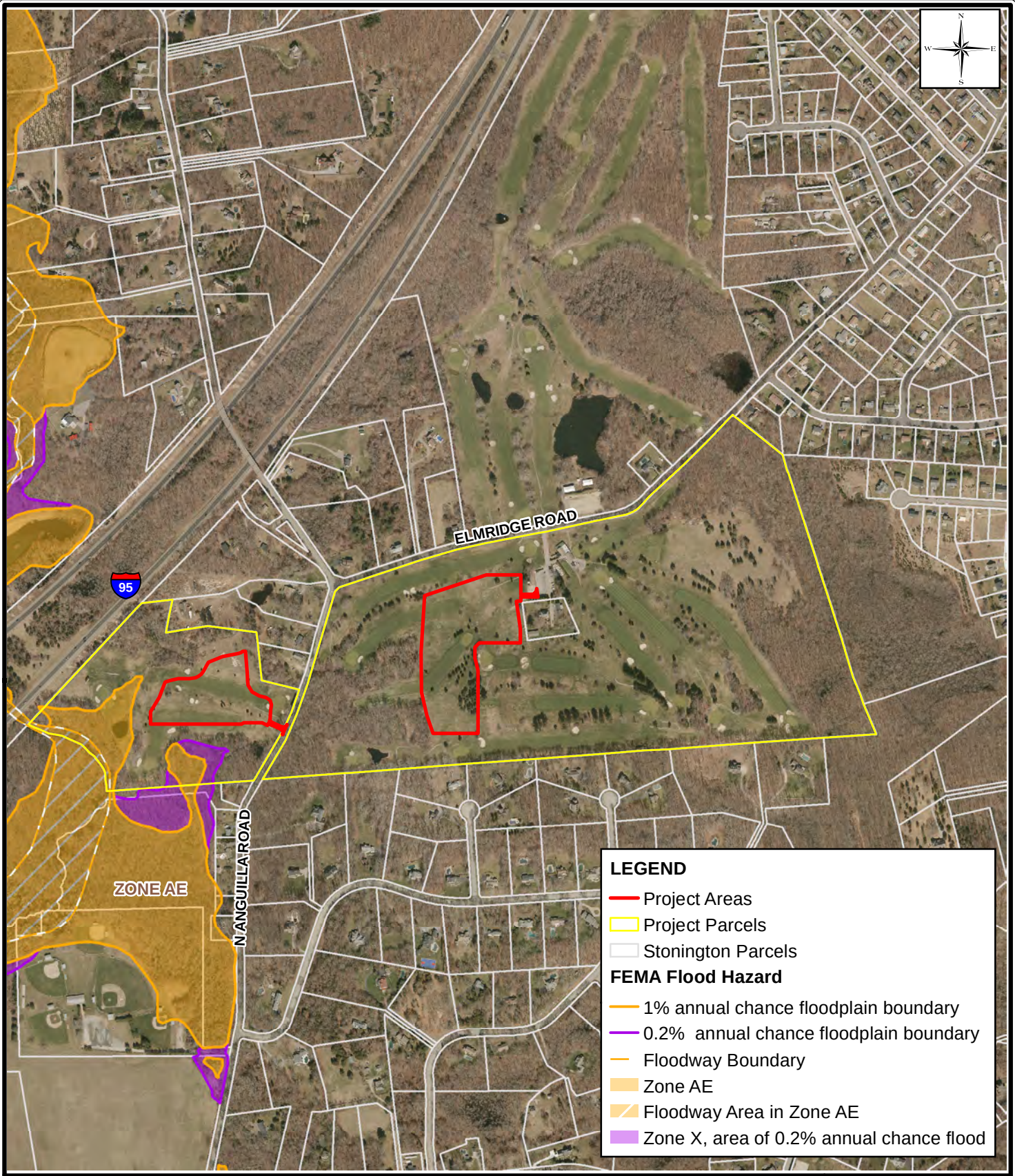

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FEMA MAP

ELMRIDGE GOLF COURSE PV SOLAR FACILITY

229 ELMRIDGE ROAD
STONINGTON, CONNECTICUT

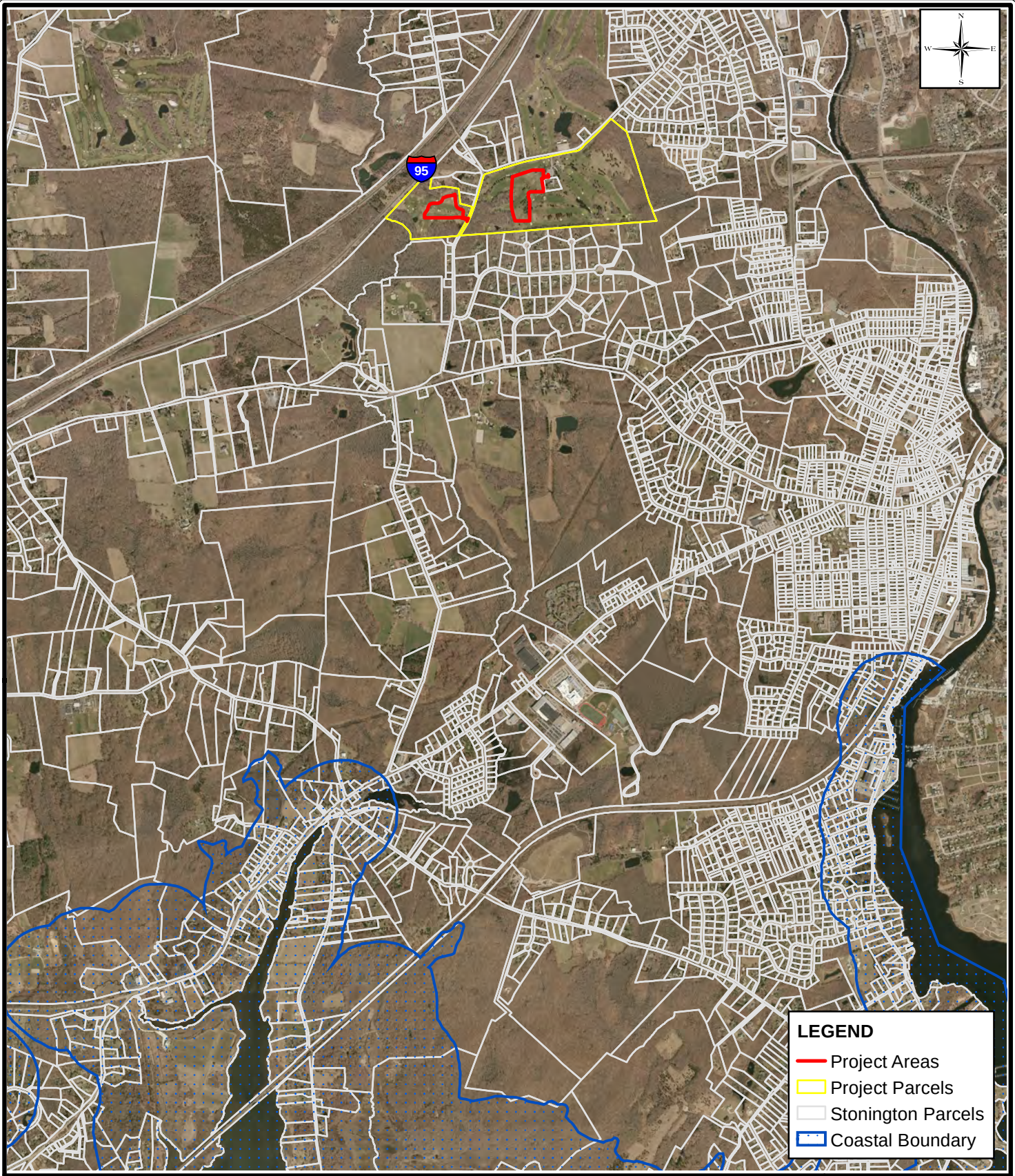
SOURCE: 2016 AERIAL PHOTO, CTDEEP

DATE: FEBRUARY 3, 2020		
SCALE: 1 " = 800 '		
PROJ. NO.: 6763-10		
DESIGNED HMM	DRAWN HMM	CHECKED MRG

DRAWING NAME:

FIG. 5

MXD: X:\6763-10\Maps\ElmRidge_Coastal_Boundary.mxd



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COASTAL BOUNDARY MAP

ELMRIDGE GOLF COURSE PV SOLAR FACILITY

229 ELMRIDGE ROAD
STONINGTON, CONNECTICUT

SOURCE: 2016 AERIAL PHOTO, CTDEEP

DATE: FEBRUARY 3, 2020		
SCALE: 1 " = 2,500 '		
PROJ. NO.: 6763-10		
DESIGNED HMM	DRAWN HMM	CHECKED MRG

DRAWING NAME:

FIG. 6

2.6 Natural Resources Conservation Service (NRCS) Hydrologic Soil Group (HSG)

Soil types within the watershed were obtained from the NRCS Web Soil Survey for New London County, Connecticut. The following soils are listed for the project area, which includes the proposed soil arrays and stormwater basins as depicted on Figure 1.

Soil Series	Description	Drainage Class	Hydrologic Group
Canton and Charlton	Fine sandy loam	Well drained	B
Haven	Silt loam	Well drained	B
Paxton & Montauk	Fine sandy loam	Well drained	C

The entirety of the solar array and stormwater basin located west of North Anguilla Road is mapped as the Haven silt loam series. The Haven series consists of very deep, well drained soils formed in loamy over sandy and gravelly outwash. The array and stormwater basin located east of North Anguilla Road is mapped mostly as Canton and Charlton fine sandy loam with the eastern third within the Paxton and Montauk fine sandy loam. Both of these soil series consist of very deep, well drained soils formed in a loamy mantle underlain by a sandy glacial till.

On November 26, 2019, MMI completed a field investigation to confirm the mapped soil series and verify the hydrologic soil group. A total of five test pits were dug by hand to depth of 24-inches or 2-feet below grade within project limits. The test pits were dug within the existing golf course layout where the proposed solar panels will be located.

The soil encountered within the eastern project area consisted of a thin Oi horizon overlying an A to 9 inches; dark grayish brown (10YR 3/2) fine sandy loam; strong fine granular structure; very friable with a clear distinct boundary; followed by a Bw1 horizon from 9 to 19-inches; yellowish brown (10YR 5/6) fine sandy loam; weak medium subangular blocky structure; 5 percent gravel; and Bw2 brownish yellow (10YR 6/6) sandy loam; massive; 5 percent gravel.

Test pits TP-4 and TP-5 were located within the western project area. The soil encountered within these test pits were consistent with NRCS mapping. In general, the soils consisted of a thin Oi overlying an A to 6-inches; dark grayish brown (10YR 4/2) loam; weak fine blocky structure; friable; followed by Bw1 from 6 to 13-inches; brown (7.5YR 4/4) loam; weak subangular blocky structure; 5 percent gravel; Bw2 from 13 to 24-inches strong brown (7.5YR 5/6) loam; weak subangular structure; 5 percent gravel.

In general, the soils encountered were consistent with NRCS mapping. The hydrologic groups designated for the soils within most of the project area is Group "B" with a relatively limited area in the eastern area designated Group "C". Soils designated Group "B" have moderately low runoff potential when thoroughly wet with water transmission through the soil unimpeded. A Group "C" soil is defined by the NRCS as soils having a slow infiltration rate when thoroughly wet and consist chiefly of soils with a layer that impedes downward movement of water or soils of moderately fine texture or fine texture.

Based on the test pits the mapped hydrologic group of "B" is consistent with the results of the field investigation. In general, the upper 12-inches of soil consists of fine sandy loam to loam texture within the active golf course layout (fairways or rough) underlain by loam to sandy loam

with approximately 5-percent gravel that would not impede downward movement of water. There were no observed or visual indications of semi-confining layers of silt or clay within the sub-soil that would impede downward flow through the soil profile within any of the test pits completed. For the purposes of the stormwater assessment, the soils were assigned a hydrologic soil group "C" for proposed conditions in accordance with recent CTDEEP policies regarding solar projects. CTDEEP require the hydrologic soil group be reduced by one step to account for soil compaction due to construction activity.

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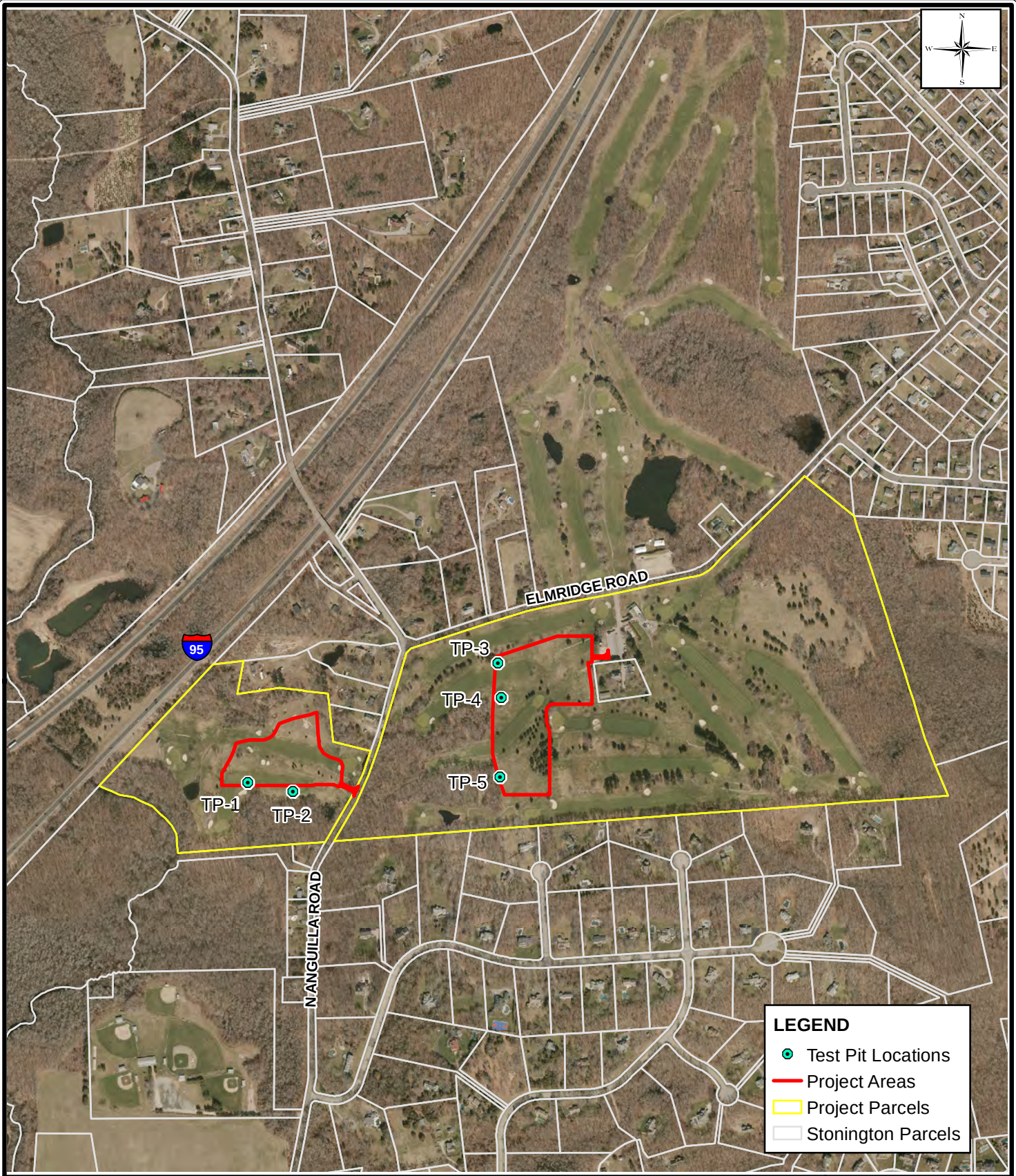

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TEST PIT LOCATIONS MAP

ELMRIDGE GOLF COURSE PV SOLAR FACILITY

229 ELMRIDGE ROAD
STONINGTON, CONNECTICUT

SOURCE: 2016 AERIAL PHOTO, CTDEEP

DATE: MAY 11, 2020		
SCALE: 1 " = 800 '		
PROJ. NO.: 6763-10		
DESIGNED HMM	DRAWN HMM	CHECKED MRG

DRAWING NAME:

FIG. 7

3.0 PROJECT DESCRIPTION

3.1 Proposed Conditions

Greenskies intends to construct a solar energy facility on the properties located at 229 Elm Ridge Road in Stonington, Connecticut. The solar energy facility will be split between two sites: the West Site located at the property between Interstate 95 and North Anguilla Road, and the East Site, located by the Elmridge Golf Course club house. The solar facility will be located on approximately 13.4 acres split between the two areas of the ±115.5-acre site. The West Site covers approximately 4.8 acres and will produce 1 MW (AC) power. The East Site covers approximately 9.1 acres and will produce approximately 2 MW (AC) power. The West Site will contain approximately one third of the solar panels and one equipment pad, as well as a gravel access road. The East Site will contain approximately two thirds of the solar panels, two equipment pads and a gravel access road. Access to the West Site is off of North Anguilla Road, and access to the East Site is via the existing parking area by the club house off of Elm Ridge Road. An underground electrical service will carry power from the facility to the points of interconnection east of the West Site to the existing electric service on North Anguilla Road and north of the East Site to the existing electric service on Elm Ridge Road. Some tree clearing will be required on the easterly site to construct the panels and fence and to prevent shading on the panels, but all clearing will be outside of the wetlands resource areas and their associated 100-foot buffer zone.

Existing site topography will be mainly retained for both array sites with some isolated grading to remove the various small hills created for the golf course and to construct the stormwater management basins. The existing grass cover will be retained wherever possible and over seeded with the conservation seed mix as specified on the drawings.

The solar facility will consist of several ground-mounted PV solar panel arrays; galvanized steel brackets will support the panel array above grade to facilitate the required panel orientation. A 7-foot-high chain link security fence will enclose the entire compound. Buffer plantings will be planted along the southerly and southeasterly sides of Site 2 to screen the facility from abutters to the south.

Proposed stormwater management improvements are designed to prevent an increase in the postdevelopment flows to off-site areas. Existing site drainage patterns are generally maintained for both sites. The westerly side of the West Site drains west to the intermittent stream in the center of the site, and the rest of the West Site drains south to the wetlands and potential vernal pool along the southerly property line. The East Site drains from east to west to the wetland and potential vernal pool area in the southwesterly region of the East Site. Proposed stormwater best management practices (BMPs) utilize nonstructural practices, including natural stormwater conveyances and the disconnection of impervious runoff from the PV solar panels. Runoff from the elevated PV solar arrays will drain directly onto the grass below where it can infiltrate and filter over the grassed area. Peak flow is attenuated by two stormwater management basins, one located south of the array panels of the West Site, and one located in the northwesterly corner of the East Site. The basin at the West Site is located to intercept runoff from a majority of the solar panel area from the north, and the basin at the East Site is located to intercept runoff from the northerly and central areas of the solar facility. Overall, peak flows for the site under

postdevelopment conditions are reduced for the 2-, 10-, 25-, 50- and 100-year storm events as shown in Table 4-5.

Five deep-hole test pits were dug on the site on March 31, 2020 in the vicinity of the proposed stormwater management basins. Test Pits 1 and 2 were dug on each end of the proposed basin at the West Site. No groundwater was observed in either Test Pit 1 or 2, which were dug to 5.4-feet and 5.5-feet, respectively. Test Pits 3, 4, and 5 were dug at the East Site. Test pits 3 and 4 were dug on each end of the proposed basin, and Test Pit 5 was dug farther to the south. Groundwater was found in Test Pits 3 and 5 at 5.5-feet and 1.7-feet, respectively. No groundwater was found in Test Pit 5, which was dug to a depth of 5.8-feet. Test pit logs and a location map can be found in the Appendix.

3.2 Activities within the Buffer Zone

The proposed improvements will not alter the wetlands on either site. Activities within the 100-foot buffer will be limited to the installation of the gravel access road on the West Site. All access to the site will require passing through buffer zone, which is located along the entire length of the property boundary with North Anguilla Road. The access road is approximately 0.03-acres and will cross through buffer zone associated with the wetlands on the other side of North Anguilla Road.

3.3 Erosion and Sediment Control

Erosion and sediment (E&S) controls will be installed and maintained throughout construction in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control*. Since this project will disturb more than 5-acres, the project will need to be registered with CTDEEP under the CTDEEP *General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities*. E&S controls will be installed and maintained for the duration of construction as shown on the drawings.

3.4 Construction Sequence and Schedule

Construction is anticipated to commence in summer 2020 and will last approximately 4 months. The general sequence of construction applies for both sites and is as follows:

1. Stake out the limit of work. No disturbance is to take place beyond the limits of work shown on the drawings.

2. Install E&S controls for site clearing activities as shown on the drawings.

3. Clear and grub the wooded area of the site within the limits shown on the plans.

4. Construct the stormwater management basin, outlet weir wall, and appurtenances.

5. Any disturbed slopes are to be established to finished grade with placement of topsoil before PV array racking installation. Stabilize all slopes outside of the PV array compound area with topsoil and seed. Install erosion control matting as shown on the drawings.

6. Install PV solar panel arrays, electrical components, conduit, and perimeter fencing.

7. Remove E&S controls once all disturbed areas have completely stabilized.

4.0 STORMWATER MANAGEMENT

4.1 Existing Conditions

The West Site is mostly open grass turf field associated with the golf course, with forested area to the north and south, and light woods to the east along the roadway. The East Site is also mostly open grass turf golf course with wooded forest area to the west and small groups of trees scattered throughout the golf course area. The topography of the West Site is mainly gentle to undulating in some areas on the north half of the site. The southern area of the site slopes towards the southeast, where it drains to the wetlands on the southerly side of the property, and the western half of the site drains to the intermittent stream to the west of the site.

The topography of the East Site is gentle to moderate and slopes to the west, where it drains towards the wetland located along the westerly side of the property. The site is divided into drainage areas based on site survey topography as shown in the appendix.

4.2 Proposed Conditions

Existing site drainage patterns will be maintained under proposed conditions. Two stormwater management basins will be constructed as depicted on the drawings to provide peak-flow reduction of site runoff as a result of the hydrologic soil group "step down" pursuant to the Stormwater Grant Program (SWGP). Swales will be constructed in the solar array field as shown on the drawings to direct runoff to the basins. Runoff from the site and stormwater basins will continue to drain toward off-site areas south and west of the sites, which is consistent with existing site drainage patterns. Under proposed conditions, the site is divided into the drainage areas as shown on the watershed mapping in the Appendix.

Proposed stormwater Best Management Practices (BMPs) utilize nonstructural practices consisting of disconnection of impervious runoff from the PV solar panels, grass swales, and stormwater basins. Runoff from the elevated PV solar panel arrays will drain directly onto the grass below where it can infiltrate and travel over the grassed area. No new connected impervious area is proposed in this project. Peak-flow attenuation and stormwater quality enhancements will be improved with the construction of the stormwater management basins. A conservation seed mix will be applied on all disturbed slopes.

4.3 Hydrologic Analysis

A hydrologic analysis was conducted to analyze predevelopment versus postdevelopment peak-flow rates from the project site. In order to analyze the peak rates of runoff from the site, four analysis points were chosen as shown on the existing and proposed drainage area maps. Runoff analysis points are chosen based on drainage patterns that drain toward similar points for existing and proposed conditions.

Watershed areas encompassing the project site were used to determine the peak-flow rates based on the topography and drainage patterns to develop the existing conditions hydrology model. Similar drainage areas were used for the proposed conditions model and were modified to reflect the proposed land cover, grading, and the stormwater management system. The total

drainage area is similar under both existing and proposed conditions. A drainage area map for both existing and proposed conditions is included in the Appendix.

Peak flows were determined using the National Resources Conservation Service (NRCS) hydrologic method. The *HydroCAD* computer program was used to conduct watershed modeling. Schematic watershed diagrams are provided for the hydrologic model as shown in the Appendix of this report. The *HydroCAD* computer program forecasts the rate of surface water runoff and runoff volume based upon several factors. The input data includes information on land use, hydrologic soil group, vegetative cover, contributing watershed area, time of concentration, rainfall data, storage volumes, and the hydraulic capacity of structures. The computer model predicts the amount of runoff as a function of time with the ability to include the attenuation effect due to natural storage effects. The input data for rainfall events with statistical recurrence frequencies of 1, 2, 10, 25, and 100 years was obtained from the Hydrometeorological Design Studies Center of the National Oceanic and Atmospheric Administration (NOAA) National Weather Service (NWS). It released updated precipitation frequency estimates for the northeastern states including Connecticut on September 30, 2015. The precipitation frequency estimates are published in NOAA Atlas 14, Volume 10: *Precipitation-Frequency Atlas of the United States, Northeastern States*. The NOAA Atlas 14 precipitation frequency estimates supersede the estimates published in NWS HYDRO-35 (1977), Technical Paper No. 40 (1961), Technical Paper No. 49 (1964), and General Memorandum No. 14-04 "Interim 24-hour Precipitation Rates." For analysis in New London County, Connecticut, the Type III rainfall pattern with a 24-hour duration is appropriate.

Land use and coverage for the analysis under existing and proposed conditions were determined from project base mapping, review of orthophotos of the project area, and past use of the site. Land use types used in the analysis included woods, open space, woods/grass combination, unpaved, pervious, and impervious gravel surface cover.

Soil types in the watershed were obtained from the NRCS Web Soil Survey for New London County, Connecticut. For this analysis, the study area was generally determined to contain fine sandy loams with some very stony areas on the eastern site and silt loam on the western site. A majority of the area has a hydrologic soil group of "B" and "C" according to the latest NRCS Web Soil Survey, with smaller areas of "A" soils. The hydrologic soil groups for the site were confirmed with a field investigation by MMI on November 26, 2019. Hydrologic soil group "C" and "D" was assumed for the proposed conditions in accordance with recent CTDEEP policies regarding solar projects that require the hydrologic soil group be reduced by one step to account for soil compaction due to construction activity.

Peak rates of runoff were obtained from the hydrologic model results at the site analysis points (AP) as shown on the watershed maps and as follows:

TABLE 4-1
Peak-Flow Rates at Analysis Point 1

Storm Frequency (years)	Peak-Flow Rates (cfs)				
	2	10	25	50	100
Predevelopment Conditions	7.78	22.90	36.86	50.94	68.45
Postdevelopment Conditions	6.77	22.17	37.22	52.54	71.53
Change in Peak-Flow Rate	-1.01	-0.73	0.36	1.60	3.08

cfs = cubic feet per second

TABLE 4-2
Peak-Flow Rates at Analysis Point 2

Storm Frequency (years)	Peak-Flow Rates (cfs)				
	2	10	25	50	100
Predevelopment Conditions	2.22	8.06	13.73	19.56	26.94
Postdevelopment Conditions	1.71	6.47	11.55	17.16	24.78
Change in Peak-Flow Rate	-0.51	-1.59	-2.18	-2.40	-2.16

cfs = cubic feet per second

TABLE 4-3
Peak-Flow Rates at Analysis Point 3

Storm Frequency (years)	Peak-Flow Rates (cfs)				
	2	10	25	50	100
Predevelopment Conditions	0.85	2.84	4.75	6.71	9.17
Postdevelopment Conditions	0.53	1.87	3.19	4.55	6.26
Change in Peak-Flow Rate	-0.32	-0.97	-1.56	-2.16	-2.91

cfs = cubic feet per second

TABLE 4-4
Peak-Flow Rates at Analysis Point 4

Storm Frequency (years)	Peak-Flow Rates (cfs)				
	2	10	25	50	100
Predevelopment Conditions	5.25	13.48	20.77	27.98	36.83
Postdevelopment Conditions	5.92	14.21	21.43	28.49	37.09
Change in Peak-Flow Rate	0.67	0.73	0.66	0.51	0.26

cfs = cubic feet per second

TABLE 4-5
Peak-Flow Rates – Total Site

Storm Frequency (years)	Peak-Flow Rates (cfs)				
	2	10	25	50	100
Predevelopment Conditions	16.10	47.28	76.11	105.19	141.39
Postdevelopment Conditions	14.93	44.72	73.39	102.74	139.66
Change in Peak-Flow Rate	-1.17	-2.56	-2.72	-2.45	-1.73
Percent Reduction	-7%	-5%	-4%	-2%	-1%

cfs = cubic feet per second

4.4 Peak-Flow Attenuation

The results of the hydrologic analysis show an overall reduction in peak flows from the project site for all storm events modeled. Peak-flow attenuation is attributed to installation of two stormwater basins. In addition, the PV solar panel arrays are unconnected impervious areas that allow runoff from each individual panel array to contact the ground directly below and dissipate over the surrounding grassed surface.

5.0 WATER QUALITY MANGEMENT

Water quality measures are included in the stormwater management design to maintain water quality both during construction and after completion of the project. A postconstruction Operation and Maintenance Plan is included herein for maintenance of stormwater BMPs that describes the required frequency of inspections and maintenance procedures to sustain long-term functionality. Implementation of these measures will enhance protection of areas downgradient of the site. The bottom of the trapezoidal weir notch outlet is 6-inches above the bottom of the basins to provide storage of sediment transported by runoff to the basins. Water quality volume computations are included in the Appendix, which show that there is adequate storage beneath the notch outlet to capture and treat the first inch of runoff per recommendations detailed in the *2004 Connecticut Stormwater Quality Manual*. The stormwater management basins will also be planted with grass to provide pollutant removal by filtering stormwater runoff and will absorb excess nutrients that may be present in the runoff. The basins will also help trap sediment and debris from the contributing drainage area both during and after construction.

6.0 EROSION AND SEDIMENT CONTROL PLAN

6.1 Erosion and Sediment Controls

An Erosion and Sediment (E&S) Control Plan has been developed to mitigate the short-term impacts of the site improvements during construction. The E&S Control Plan includes descriptive specifications concerning land grading, topsoiling, temporary vegetative cover, permanent vegetative cover, vegetative cover selection and mulching, and erosion checks. Details have been provided for all erosion controls with corresponding labels on the E&S Control Plan. In all cases, the E&S Control Plan shall be implemented in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control*.

6.2 Temporary Stabilization

Sediment control fencing and compost filter tubes shall be installed around the site as shown on the drawings. Sediment control fencing shall be "dug in" using a narrow ditch witch device. Sediment control fencing shall be reinforced with straw bale barriers as shown on the drawings. Prior to commencing any tree cutting or earthwork, a stabilized construction entrance shall be installed at the entrance into the site. This entrance shall be utilized as the exclusive construction entrance. Compost filter tubes shall be placed around stockpiles as shown on the drawings.

The stormwater management basins will be constructed prior to any upland grading activities. Erosion control matting shall be installed along the slopes of the stormwater management basins as shown on the drawings. The basins will be monitored throughout construction for the accumulation of sediment and debris. Sediment will be removed from the basin when the depth reaches 6 inches.

6.3 Permanent Stabilization

Disturbed areas of the project site where construction activities permanently cease shall be stabilized with permanent seed no later than 7 days after the last construction activity. The permanent seed mix shall be in accordance with the project specifications and plans. Construction and maintenance of E&S control measures are in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control*. Permanent stockpiles will be stabilized with permanent seed mix as specified on the drawings.

6.4 Sediment Tracking

A stabilized construction entrance shall be installed and maintained as necessary to help reduce vehicular tracking of sediment. The entrance shall be cleaned of sediment and redressed when voids in the crushed stone become filled and vehicular tracking of sediment is occurring. Dump trucks hauling materials to and from the construction project area shall be covered with a tarpaulin to reduce dust. Any sediment and debris tracked from the work area along roadways adjacent to the project shall be immediately removed with a street sweeper or equivalent sweeping method. The project engineer and contracting officer will establish inspection and removal protocols at the beginning of construction to ensure all materials tracked onto the roadway are removed daily for the duration of the project.

6.5 Maintenance of Controls

E&S controls will be installed and maintained throughout the construction in accordance with local, state, and federal requirements.

The E&S control measures shall be constructed prior to clearing or grading of any portion of the project. Once construction activity ceases permanently in an area, that area shall be stabilized with permanent measures. Any accumulated sediment shall be disposed of on-site in a location away from any wetlands and watercourses in a stable vegetated area and be permanently stabilized. Erosion control devices shall remain in place until disturbed areas are permanently stabilized.

If site inspections identify BMPs that are not operating effectively, maintenance must be performed as soon as possible and before the next storm event, whenever practicable, to maintain the continued effectiveness of stormwater controls. If existing BMPs need to be modified or if additional BMPs are necessary, implementation must be completed before the next storm event whenever practicable. If implementation before the next storm event is impractical, the situation must be documented, and alternative BMPs must be implemented as soon as possible.

7.0 STORMWATER CONSTRUCTION WASTE MANAGEMENT PLAN

7.1 Contact Information/Responsible Parties

Operator(s):
Greenskies Clean Energy LLC
P.O. Box 250
180 Johnson Street
Middletown, CT 06457

Project Manager(s) or Site Supervisor(s):
To be determined

7.2 Waste Management

No storage of waste or hazardous materials will generally be permitted by Greenskies Clean Energy LLC unless required. Storage of materials and handling will comply with the following requirements:

7.2.1 Foreign waste materials shall be collected and stored in a secured area until removal and disposal by a licensed solid waste management company. All trash and construction debris from the project shall be disposed of in a portable container unit. No foreign waste materials shall be buried in the project area.

7.2.2 All personnel shall be instructed regarding the correct procedure for waste disposal. Notices stating these practices shall be posted in the project trailer, and the operator will be responsible for ensuring that these procedures are followed.

7.2.3 Hazardous Waste – All hazardous waste materials shall be disposed of in a manner specified by local or state regulations or by the manufacturer. Project personnel shall be instructed in these practices, and the operator shall be responsible for ensuring that these practices are followed.

7.2.4 Sanitary Waste – Any sanitary waste from portable units shall be collected from the portable units by a licensed sanitary waste management contractor as required by the CDEEP regulations.

Generation of waste is not anticipated from the project after completion.

7.3 Staff Training Program

7.3.1 Personnel should meet the minimum training requirements to conduct the respective operation and maintenance tasks.

7.3.2 Personnel should have the required training to effectively carry out the responsibilities of their positions.

7.4 Spill Prevention and Control Plan

The following are the material management practices that shall be used to reduce the risk of spills or other accidental exposure of materials and substances to stormwater runoff:

7.5 Good Housekeeping

The following good housekeeping practices shall be followed within project areas during construction:

- An effort shall be made to store only enough products required to do the job.
- All materials stored within project areas shall be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure.
- Products shall be kept in their original containers with the original manufacturer's label.
- Substances shall not be mixed with one another unless recommended by the manufacturer.
- Whenever possible, all of a product shall be used up before disposing of the container.
- Manufacturers' recommendations for proper use and disposal shall be followed.
- The project superintendent shall inspect daily to ensure proper use and disposal of materials.

7.6 Hazardous Products

The following practices are used to reduce the risks associated with hazardous materials:

- Products shall be kept in original containers unless they are not resealable.
- Original labels and Material Safety Data Sheets shall be retained.
- If surplus product must be disposed of, manufacturers' or local-/state-recommended methods of proper disposal shall be followed.
- Material Safety Data Sheets for all hazardous products shall be available within the project area for the duration of construction.

7.7 Product-Specific Practices

The following product-specific practices shall be followed within the project areas:

Petroleum products – All project-related vehicles shall be monitored for leaks and receive regular preventative maintenance to reduce the chance of leakage. Petroleum products shall be stored in

tightly sealed containers that are clearly labeled. Fuel tanks should not be stored within 100 feet of any watercourse or wetland.

Fertilizers – Fertilizers used shall be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizers shall be worked into the soil to limit exposure to stormwater runoff and shall be stored in a covered or other contained area.

7.8 Spill Control Practices

The contractor will be responsible for preparing a project-area-specific spill control plan in accordance with local and CTDEEP regulations. The plan should describe procedures and practices for controlling fuel and hydraulic fluid spills. A spill kit consisting of absorbent materials should be available on site in a predesignated location during all phases of construction. At a minimum, this plan should do the following:

- Reduce stormwater contact if there is a spill.
- Contain the spill.
- Stop the source of the spill.
- Dispose of contaminated material in accordance with manufacturers' procedures and CTDEEP regulations.
- Identify responsible and trained personnel.
- Ensure that the spill area is well ventilated.

7.9 Nonstormwater Discharges

Allowable nonstormwater discharges that could occur during construction on this project include the following:

1. Discharges from firefighting activities
2. Water used to control, to the extent practicable, off-site vehicle tracking of sediments onto paved surfaces and the generation of dust
3. Uncontaminated air conditioning or compressor condensate
4. Uncontaminated groundwater or spring water
5. Foundation or footing drains where flows are not contaminated with process materials such as solvents
6. Uncontaminated excavation dewatering
7. Landscape irrigation

No other stormwater discharges are expected to exit the project area during construction.

8.0 POSTCONSTRUCTION STORMWATER MANAGEMENT OPERATION AND MANTENANCE PLAN

8.1 Contact Information/Responsible Parties

Operator(s):
Greenskies Clean Energy LLC
P.O. Box 251
180 Johnson Street
Middletown, CT 06457

Project Manager(s) or Site Supervisor(s):
To be determined

8.2 Good Housekeeping Practices

8.2.1 Material Handling and Waste Management

8.2.1.1 No storage of waste or hazardous materials will generally be permitted by Greenskies unless required for specific repairs or maintenance tasks of the facility. Storage of materials and handling will comply with the following requirements:

a) All materials shall be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure.
b) Products shall be kept in their original containers with the original manufacturer's label.
c) Substances shall not be mixed with one another unless recommended by the manufacturer.
d) Manufacturers' recommendations for proper use and disposal shall be followed.

8.2.1.2 Generation of waste is not anticipated from the project after completion.

8.2.2 Site Maintenance/Cleanup

8.2.2.1 The site will be reviewed biannually for any generation of trash or debris that has accumulated. These materials will be collected and disposed of in a proper manner.

8.2.2.2 Greenskies will be responsible for scheduling the activity each year.

8.2.3 Staff Training Program

8.2.3.1 Personnel should meet the minimum training requirements to conduct the respective operation and maintenance tasks.

8.2.3.2 Personnel should have the required training to effectively carry out the responsibilities of their positions.

8.3 Spill Prevention and Control Plan

8.3.1 Spill Prevention Control

The following provisions are the material management practices that shall be used to reduce the risk of spills or other accidental exposure of materials and substances to stormwater runoff. The site owner or designated contractor will be responsible for preparing a project-area-specific spill control plan in accordance with local and CTDEEP regulations. The plan should describe procedures and practices for controlling fuel and hydraulic fluids from machinery. A spill kit consisting of absorbent materials should be available on site in a predesignated location during site construction or for specific postconstruction activities that require the use of construction equipment. At a minimum, this plan should indicate or include the following:

- Reduce stormwater contact if there is a spill.
- Contain the spill.
- Stop the source of the spill.
- Dispose of contaminated material in accordance with manufacturers' procedures and CTDEEP regulations.
- Identify responsible and trained personnel.
- Ensure that the spill area is well ventilated.

8.3.2 Illicit Discharges

8.3.2.1 All illicit discharges to the stormwater management system are prohibited. These discharges include but are not limited to wastewater, stormwater contaminated by contact with process waste, raw materials, toxic pollutants, hazardous substances, oil, or grease. To my knowledge, there are no existing illicit discharges on the site.

I, _____ hereby certify that I have read and understand that any illicit discharges to the stormwater management system are prohibited.

Signature: _____ Date: _____

8.4 Schedule for Inspection and Maintenance

This inspection and maintenance schedule has been prepared to ensure that the BMPs continue to function properly and as designed.

During construction, stormwater management facilities will be cleaned/maintained as required based upon inspection. The cleaning and maintenance BMPs during construction include removing sediment, replacing or repairing any damaged structure or pipe, and ensuring that soil

erosion is kept to a minimum. The owner will be responsible for inspection and maintenance during construction.

Best Management Practices

Stormwater Management Basins

The stormwater management basins shall be inspected at least four times per year. Accumulated sediment shall be removed when the depth exceeds 6 inches, and grass shall be mowed to a height of 4 inches. Check for rills or gullies and repair as necessary. Remove the sediment by hand (i.e., a person with a shovel) so as not to disturb underlying vegetation and soils.

Grass Swales

The grass swales shall be inspected semiannually the first year and at least once a year thereafter. Site inspections shall also be conducted after major storm events (generally after storms greater than 3-inches in 24-hours). Inspect for sufficient grass growth, especially on the side slopes for signs of erosion or formation of rills or gullies. Remove accumulated trash or debris prior to mowing operations. Mow grass to a height no less than 4 inches, and mow on an as-needed basis to keep the height no more than 6 inches. Check on a yearly basis the amount of sediment buildup and remove on an as-needed basis. Remove the sediment by hand (i.e., a person with a shovel) so as not to disturb underlying vegetation and soils.

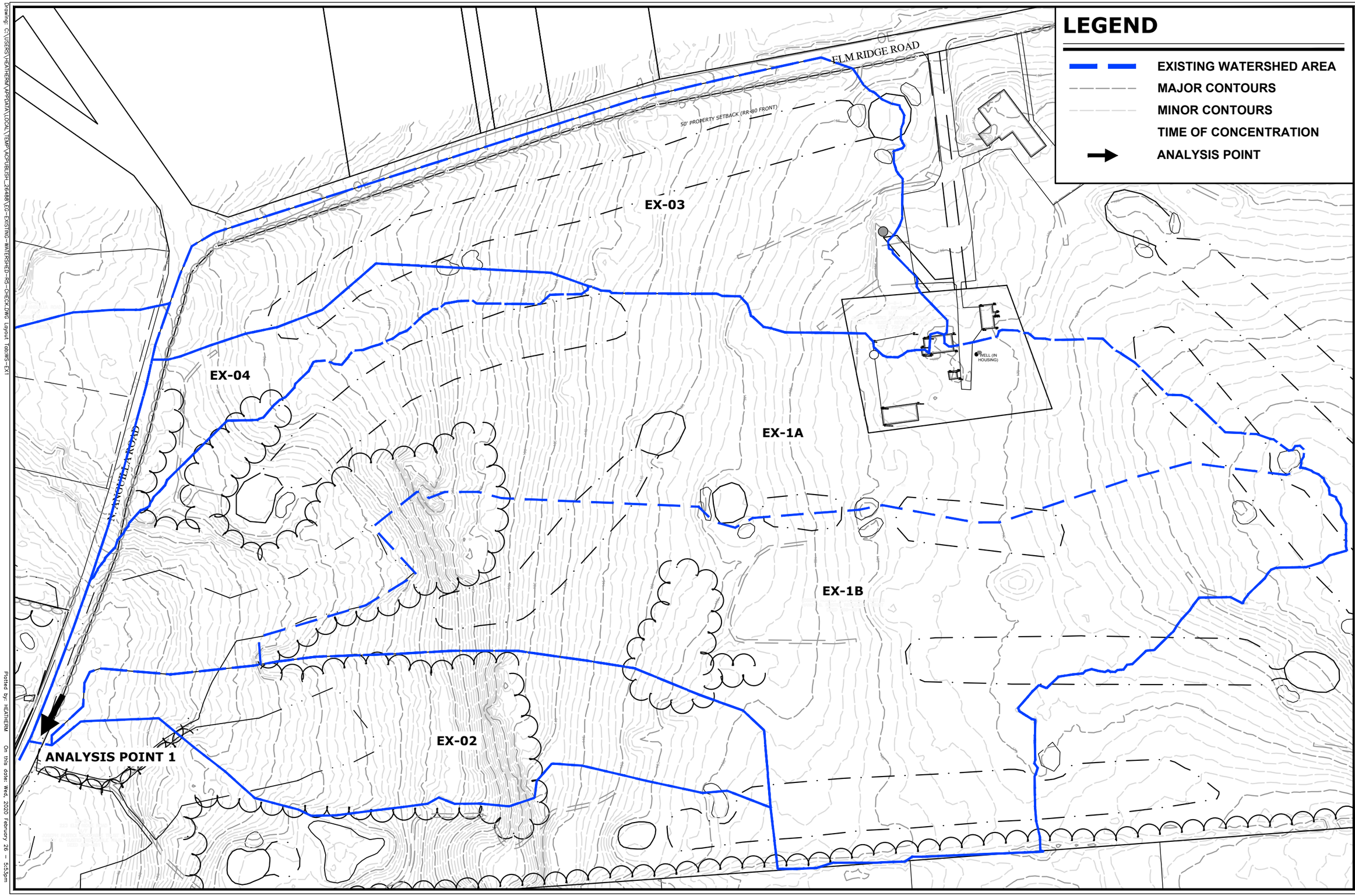
INSPECTION AND MAINTENANCE LOG

ITEM	DATE OF INSPECTION AND REQUIRED MAINTENANCE	MAINTENANCE TO BE PROVIDED/COMMENTS	DATE MAINTENANCE COMPLETE
Stormwater Management Basins			
Grass Swale			

Inspected by: _____ Date: _____

APPENDIX A

WATERSHED MAPS



MILONE & MACBROOM
1350 MAIN STREET, SUITE 1012
SPRINGFIELD, MA
413.781.1500
WWW.MMINC.COM

REVISIONS

WATERSHED MAP - EXISTING CONDITIONS - SITE 2

ELMRIDGE GOLF COURSE PV SOLAR FACILITY
GREENSKIES RENEWABLE ENERGY, LLC

229 ELMRIDGE ROAD
STONINGTON, CONNECTICUT

MRG	HMM	MRA
DESIGNED	DRAWN	CHECKED

SCALE: 1"=150'
DATE: FEB 26, 2020
PROJECT NO.: 6763-10

WS-EX1
SHEET NO.

Drawing: C:\USERS\HEATHERM\APPDATA\LOCAL\TEMP\ACPUBLISH_26488\EG~EXISTING~WATERSHED~RS~~CHECK.DWG Layout: TabWS~EX1
Plotted by: HEATHERM On: this date: Wed, 2020 February 26 – 5:53pm

LEGEND

- EXISTING WATERSHED AREA
- MAJOR CONTOURS
- MINOR CONTOURS
- TIME OF CONCENTRATION
- ANALYSIS POINT

EX-04

EX-07

EX-05

EX-06

N ANGELL A ROAD

ANALYSIS POINT 3

ANALYSIS POINT 1

ANALYSIS POINT 2

MILONE & MACBROOM
1350 MAIN STREET, SUITE 1012
SPRINGFIELD, MA
413.781.1150
WWW.MMINC.COM

REVISIONS

WATERSHED MAP - EXISTING CONDITIONS - SITE 1

ELMRIDGE GOLF COURSE PV SOLAR FACILITY
GREENSKIES RENEWABLE ENERGY, LLC

229 ELMRIDGE ROAD
STONINGTON, CONNECTICUT

MRG	HMM	MRA
DESIGNED	DRAWN	CHECKED

SCALE: 1"=150'

DATE: FEB 26, 2020

PROJECT NO.: 6763-10

SHEET NO.: WS-EX2

LEGEND

- PROPOSED WATERSHED AREA
- PROPOSED MAJOR CONTOURS
- PROPOSED MINOR CONTOURS
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- Tc — TIME OF CONCENTRATION
- ANALYSIS POINT

PR-04
PR-05
PR-07
PR-08
PR-06
PR-1B
ANALYSIS POINT 3
ANALYSIS POINT 2
ANALYSIS POINT 1
NEW LONDON ROAD
100-YR
500-YR
Tc

MILONE & MACBROOM
1350 MAIN STREET, SUITE 1012
SPRINGFIELD, MA
413.315.1550
WWW.MMINC.COM

REVISIONS

WATERSHED MAP - PROPOSED CONDITIONS - WEST SITE

ELMRIDGE GOLF COURSE PV SOLAR FACILITY
GREENSKIES CLEAN ENERGY LLC

229 ELMRIDGE ROAD
STONINGTON, CONNECTICUT

MRG	HMM	MRA
DESIGNED	DRAWN	CHECKED

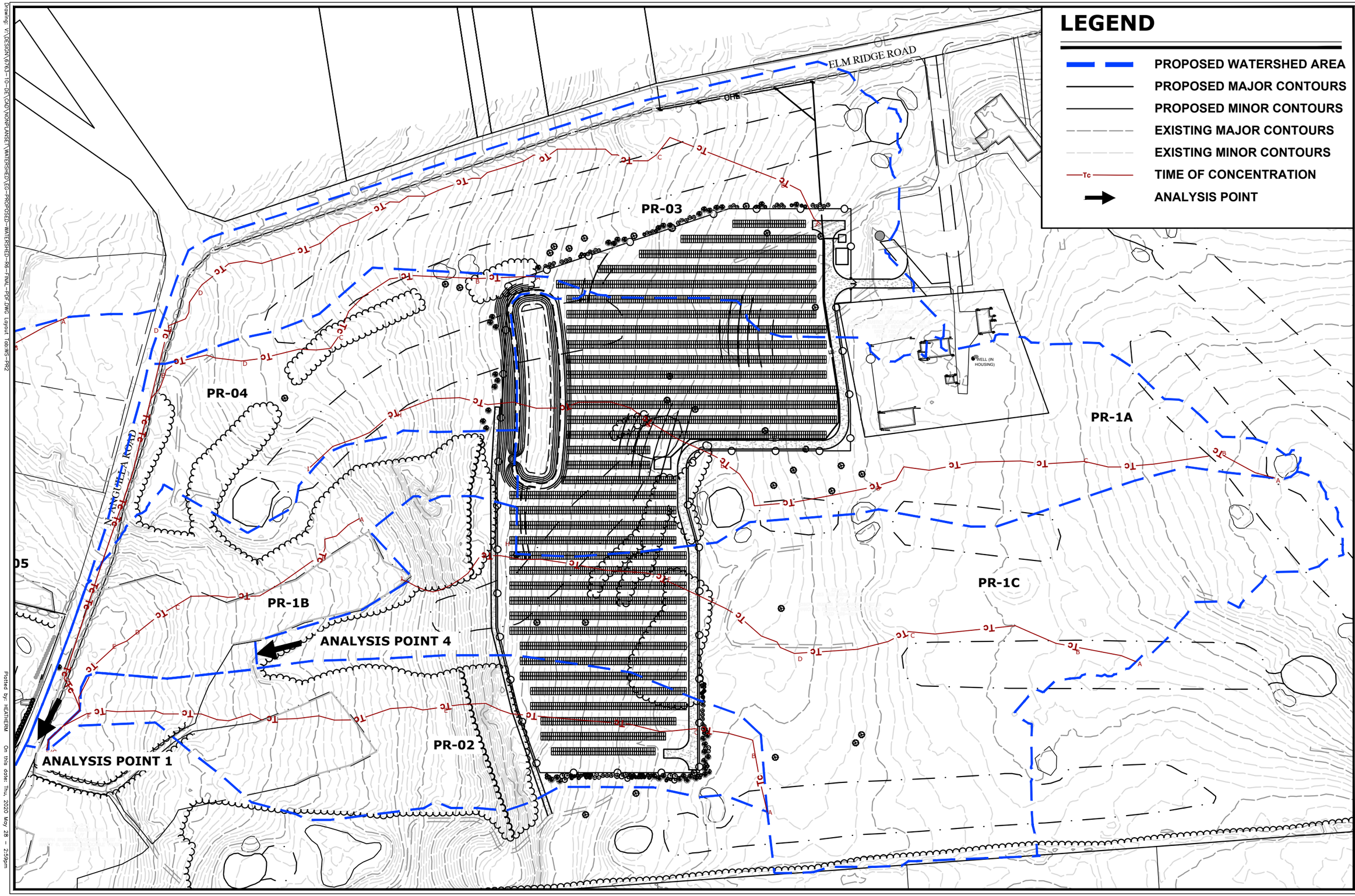
1"=150'
SCALE

MAY 1, 2020
DATE

6763-10
PROJECT NO.

WS-PR1
SHEET NO.

Drawing: V:\DESIGN\6763-10-DEV\CAD\NONFLANSE\WATERSHED\EG-PROPOSED-WATERSHED-R6-FINAL-PDF.DWG Layout: Tab:WS-PR1
Plotted by: HEATHERM On this date: Thu, 2020 May 28 - 2:59pm



LEGEND

- PROPOSED WATERSHED AREA
- PROPOSED MAJOR CONTOURS
- PROPOSED MINOR CONTOURS
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- TIME OF CONCENTRATION
- ANALYSIS POINT

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REVISIONS

WATERSHED MAP - PROPOSED CONDITIONS - EAST SITE

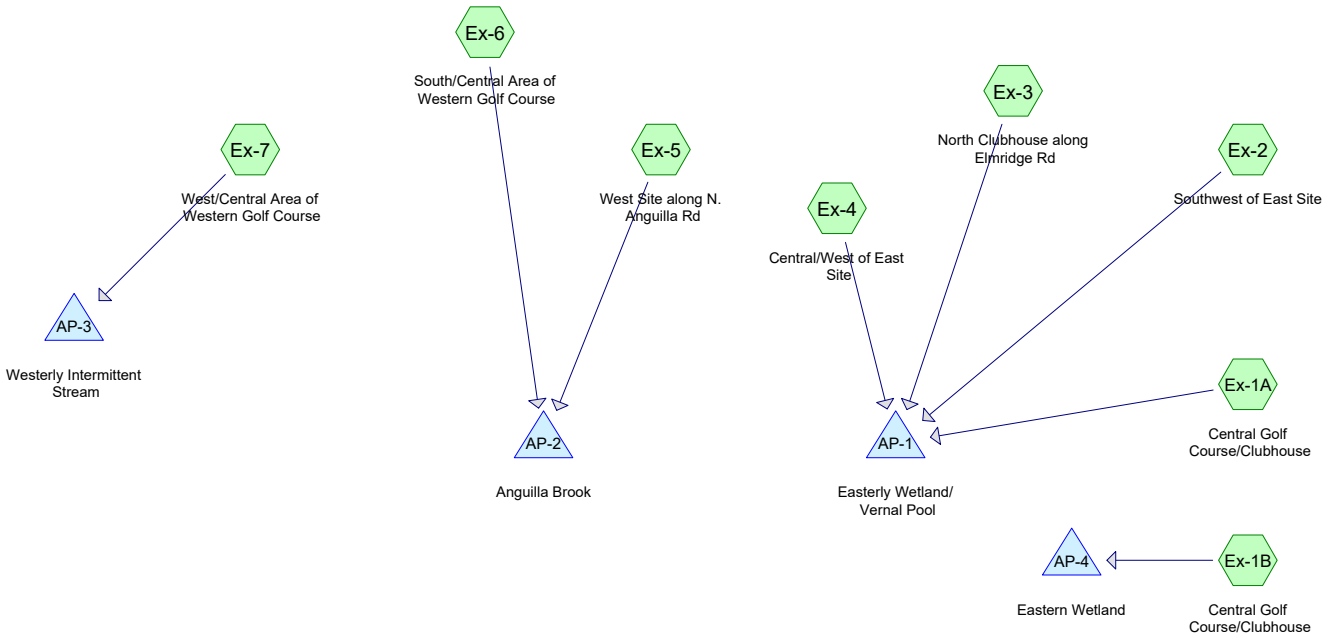
ELMRIDGE GOLF COURSE PV SOLAR FACILITY
GREENSKIES CLEAN ENERGY LLC
229 ELMRIDGE ROAD
STONINGTON, CONNECTICUT

MRG	HMM	MRA
DESIGNED	DRAWN	CHECKED

SCALE	1"=150'
DATE	MAY 1, 2020
PROJECT NO.	6763-10
SHEET NO.	WS-PR2

APPENDIX B

HYDROLOGIC MODELS



Subcat Reach Pond Link

Routing Diagram for EG-Existing-R3-Check
Prepared by Hewlett-Packard Company, Printed 5/11/2020

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	NRCC 24-hr	C	Default	24.00	1	2.60	2
2	2-Year	NRCC 24-hr	C	Default	24.00	1	3.11	2
3	5-Year	NRCC 24-hr	C	Default	24.00	1	3.89	2
4	10-Year	NRCC 24-hr	C	Default	24.00	1	4.60	2
5	25-Year	NRCC 24-hr	C	Default	24.00	1	5.74	2
6	50-Year	NRCC 24-hr	C	Default	24.00	1	6.80	2
7	100-Year	NRCC 24-hr	C	Default	24.00	1	8.05	2

Summary for Subcatchment Ex-1A: Central Golf Course/Clubhouse

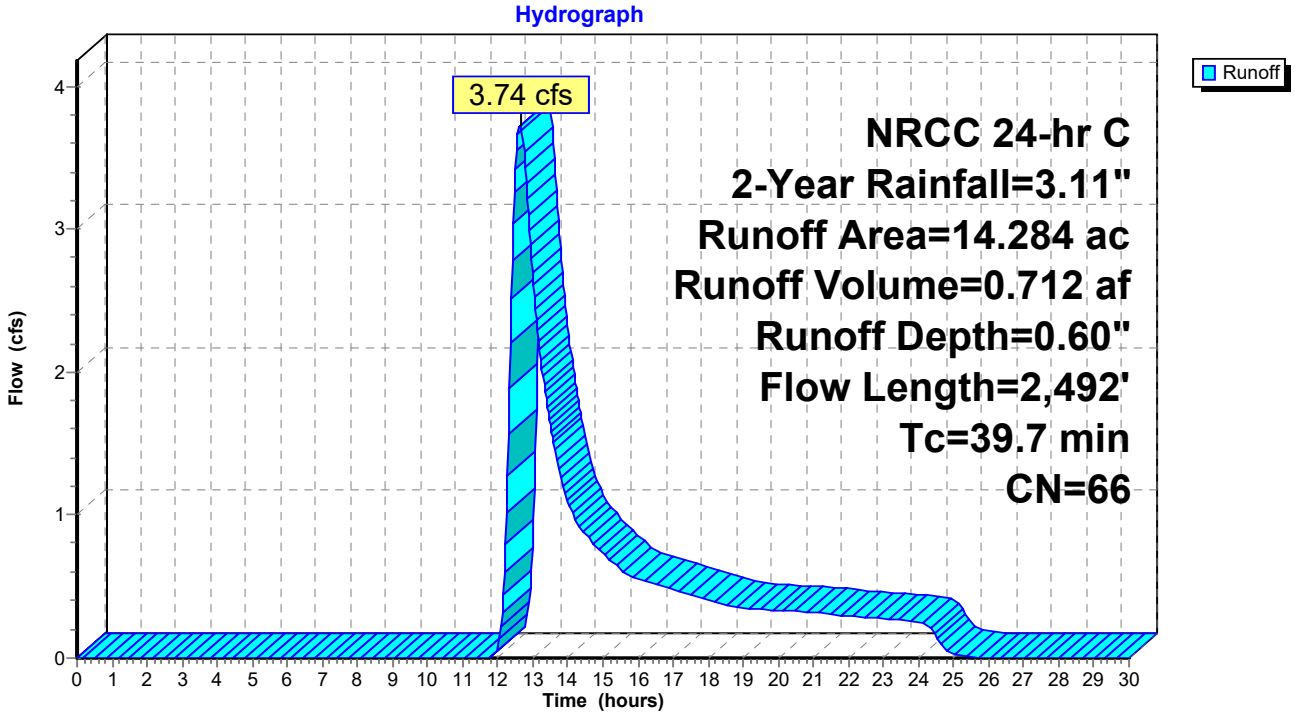
Runoff = 3.74 cfs @ 12.64 hrs, Volume= 0.712 af, Depth= 0.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 2-Year Rainfall=3.11"

Area (ac)	CN	Description
0.024	96	Gravel surface, HSG B
2.292	55	Woods, Good, HSG B
0.173	58	Woods/grass comb., Good, HSG B
0.112	98	Paved parking, HSG B
0.070	98	Roofs, HSG B
0.061	86	Fallow, bare soil, HSG B
1.896	69	50-75% Grass cover, Fair, HSG B
4.522	61	>75% Grass cover, Good, HSG B
0.008	96	Gravel surface, HSG C
0.937	70	Woods, Good, HSG C
0.467	72	Woods/grass comb., Good, HSG C
0.013	91	Fallow, bare soil, HSG C
0.255	79	50-75% Grass cover, Fair, HSG C
3.454	74	>75% Grass cover, Good, HSG C
14.284	66	Weighted Average
14.102		98.73% Pervious Area
0.182		1.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0260	0.19		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.8	235	0.0400	1.40		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
5.4	372	0.0270	1.15		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
5.5	448	0.0380	1.36		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
6.8	788	0.0770	1.94		**Shallow Concentrated Flow, E-F** Short Grass Pasture Kv= 7.0 fps
4.1	328	0.0700	1.32		**Shallow Concentrated Flow, F-G** Woodland Kv= 5.0 fps
6.2	221	0.0140	0.59		**Shallow Concentrated Flow, G-H** Woodland Kv= 5.0 fps
39.7	2,492	Total			

Subcatchment Ex-1A: Central Golf Course/Clubhouse



Summary for Subcatchment Ex-1B: Central Golf Course/Clubhouse

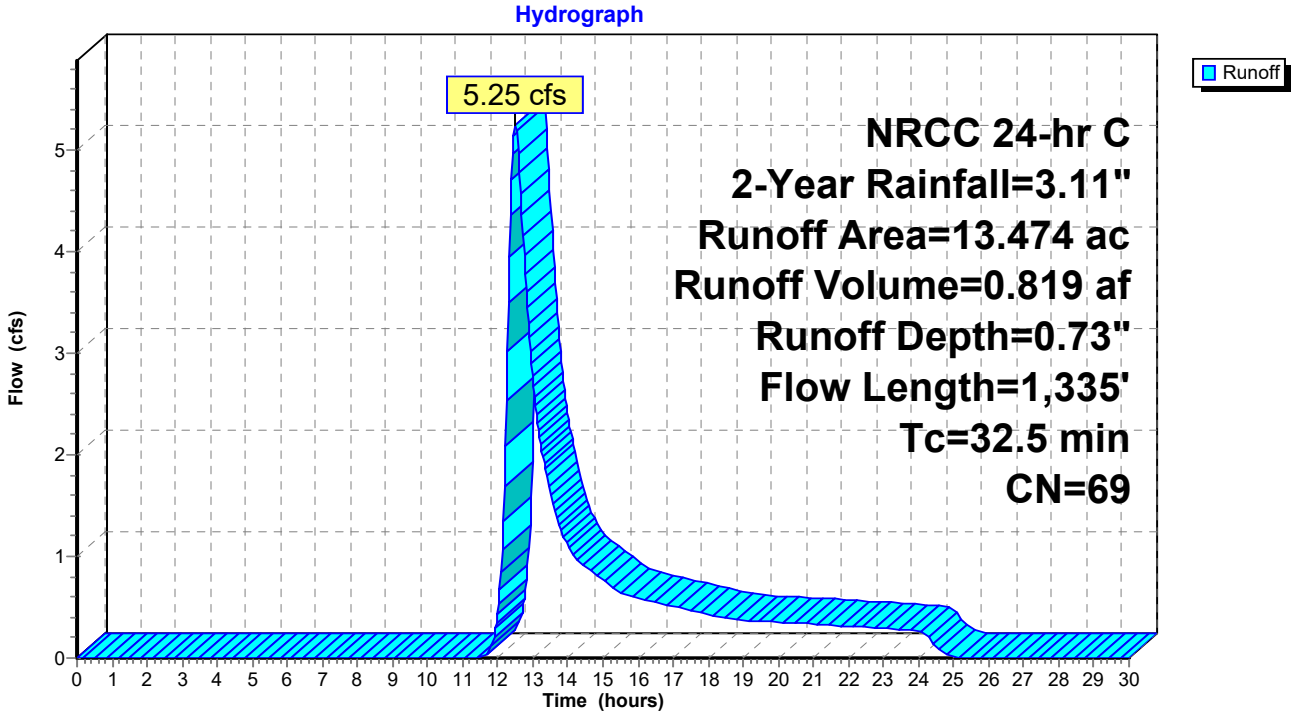
Runoff = 5.25 cfs @ 12.51 hrs, Volume= 0.819 af, Depth= 0.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 2-Year Rainfall=3.11"

Area (ac)	CN	Description
0.053	96	Gravel surface, HSG B
1.055	55	Woods, Good, HSG B
0.423	58	Woods/grass comb., Good, HSG B
0.028	86	Fallow, bare soil, HSG B
1.288	69	50-75% Grass cover, Fair, HSG B
3.252	61	>75% Grass cover, Good, HSG B
0.055	96	Gravel surface, HSG C
0.033	70	Woods, Good, HSG C
0.401	72	Woods/grass comb., Good, HSG C
0.043	91	Fallow, bare soil, HSG C
1.624	79	50-75% Grass cover, Fair, HSG C
5.219	74	>75% Grass cover, Good, HSG C
13.474	69	Weighted Average
13.474		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.1	100	0.0060	0.10		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
6.2	297	0.0130	0.80		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.2	200	0.0470	1.52		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
2.7	174	0.0240	1.08		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
1.3	79	0.0410	1.01		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
2.6	314	0.0830	2.02		**Shallow Concentrated Flow, F-G** Short Grass Pasture Kv= 7.0 fps
1.4	171	0.1650	2.03		**Shallow Concentrated Flow, G-H** Woodland Kv= 5.0 fps
32.5	1,335	Total			

Subcatchment Ex-1B: Central Golf Course/Clubhouse



Summary for Subcatchment Ex-2: Southwest of East Site

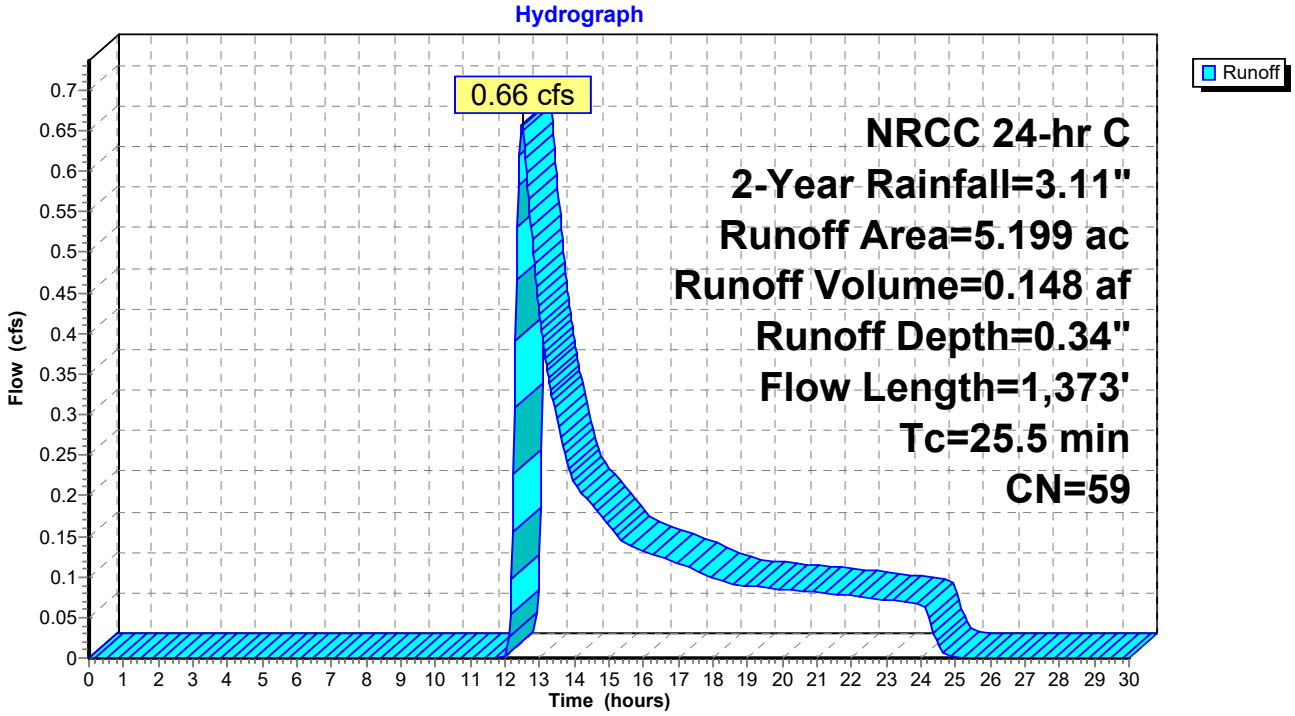
Runoff = 0.66 cfs @ 12.49 hrs, Volume= 0.148 af, Depth= 0.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 2-Year Rainfall=3.11"

Area (ac)	CN	Description
0.047	96	Gravel surface, HSG B
2.813	55	Woods, Good, HSG B
0.008	86	Fallow, bare soil, HSG B
0.027	69	50-75% Grass cover, Fair, HSG B
1.842	61	>75% Grass cover, Good, HSG B
0.425	70	Woods, Good, HSG C
0.030	74	>75% Grass cover, Good, HSG C
0.007	96	Gravel surface, HSG C
5.199	59	Weighted Average
5.199		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.0190	0.16		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
1.9	126	0.0250	1.11		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.6	305	0.0780	1.95		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
0.9	122	0.2150	2.32		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
7.8	624	0.0720	1.34		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
2.2	96	0.0210	0.72		**Shallow Concentrated Flow, F-G** Woodland Kv= 5.0 fps
25.5	1,373	Total			

Subcatchment Ex-2: Southwest of East Site



Summary for Subcatchment Ex-3: North Clubhouse along Elmridge Rd

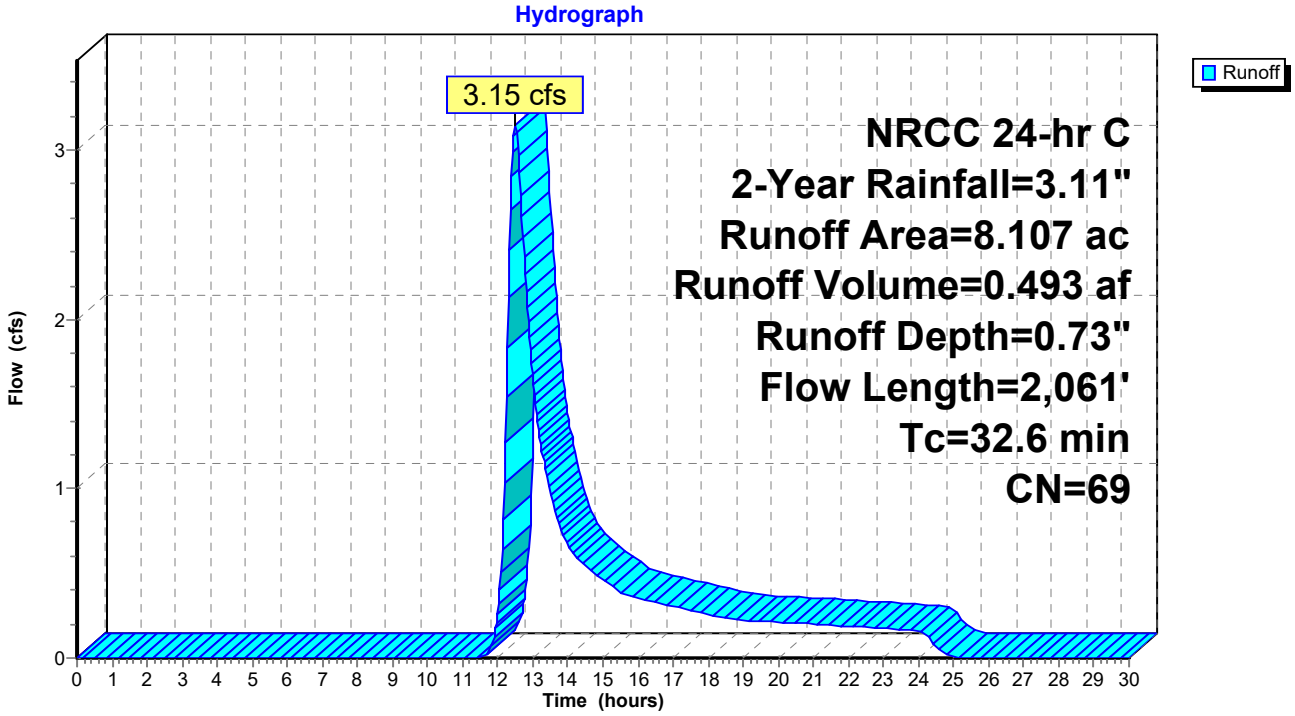
Runoff = 3.15 cfs @ 12.50 hrs, Volume= 0.493 af, Depth= 0.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 2-Year Rainfall=3.11"

Area (ac)	CN	Description
0.090	96	Gravel surface, HSG C
0.330	58	Woods/grass comb., Good, HSG B
0.426	98	Paved parking, HSG B
0.011	98	Roofs, HSG B
0.027	86	Fallow, bare soil, HSG B
1.598	69	50-75% Grass cover, Fair, HSG B
3.345	61	>75% Grass cover, Good, HSG B
0.081	72	Woods/grass comb., Good, HSG C
0.033	91	Fallow, bare soil, HSG C
0.303	79	50-75% Grass cover, Fair, HSG C
1.863	74	>75% Grass cover, Good, HSG C
8.107	69	Weighted Average
7.670		94.61% Pervious Area
0.437		5.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0160	0.15		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.6	245	0.0490	1.55		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
8.3	855	0.0600	1.71		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
10.8	861	0.0360	1.33		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
32.6	2,061	Total			

Subcatchment Ex-3: North Clubhouse along Elmridge Rd



Summary for Subcatchment Ex-4: Central/West of East Site

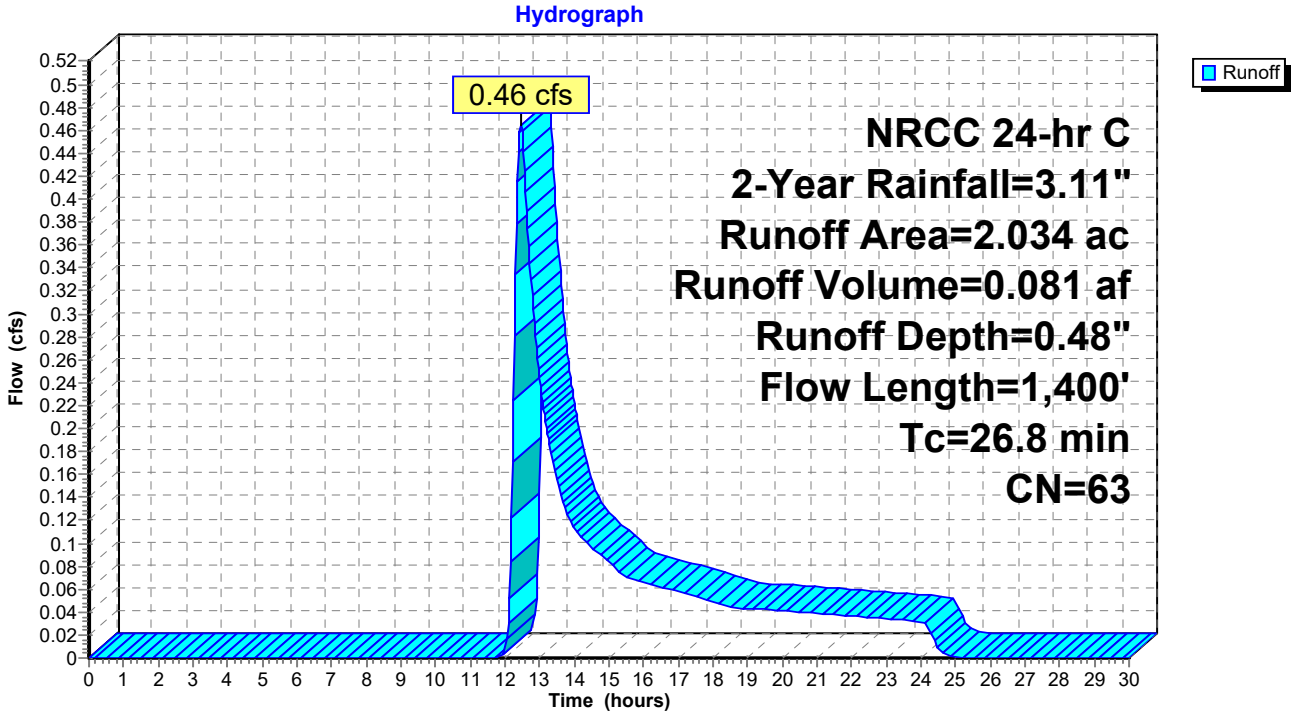
Runoff = 0.46 cfs @ 12.46 hrs, Volume= 0.081 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 2-Year Rainfall=3.11"

Area (ac)	CN	Description
0.028	96	Gravel surface, HSG B
0.212	55	Woods, Good, HSG B
0.270	58	Woods/grass comb., Good, HSG B
0.089	98	Paved parking, HSG B
0.010	86	Fallow, bare soil, HSG B
0.155	69	50-75% Grass cover, Fair, HSG B
1.270	61	>75% Grass cover, Good, HSG B
2.034	63	Weighted Average
1.945		95.62% Pervious Area
0.089		4.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0800	0.13		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.11"
2.7	283	0.0630	1.76		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.1	178	0.0390	1.38		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
1.4	143	0.0630	1.76		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
8.1	696	0.0420	1.43		**Shallow Concentrated Flow, E-F** Short Grass Pasture Kv= 7.0 fps
26.8	1,400	Total			

Subcatchment Ex-4: Central/West of East Site



Summary for Subcatchment Ex-5: West Site along N. Anguilla Rd

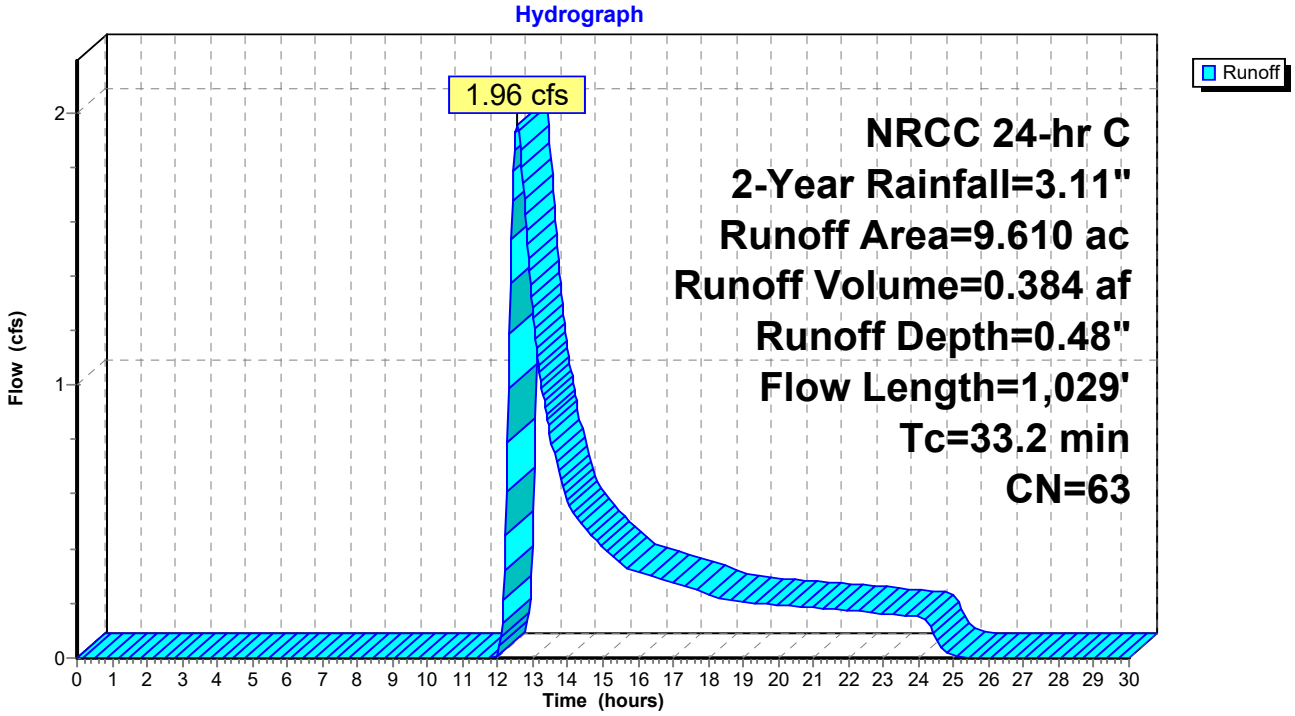
Runoff = 1.96 cfs @ 12.56 hrs, Volume= 0.384 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 2-Year Rainfall=3.11"

Area (ac)	CN	Description
0.370	30	Woods, Good, HSG A
0.052	96	Gravel surface, HSG B
1.888	55	Woods, Good, HSG B
0.089	58	Woods/grass comb., Good, HSG B
0.307	98	Paved parking, HSG B
0.101	98	Roofs, HSG B
0.039	86	Fallow, bare soil, HSG B
0.751	69	50-75% Grass cover, Fair, HSG B
4.718	61	>75% Grass cover, Good, HSG B
0.033	96	Gravel surface, HSG C
0.535	70	Woods, Good, HSG C
0.018	72	Woods/grass comb., Good, HSG C
0.709	74	>75% Grass cover, Good, HSG C
9.610	63	Weighted Average
9.202		95.75% Pervious Area
0.408		4.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.8	100	0.0330	0.09		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.11"
3.2	311	0.0530	1.61		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
5.9	210	0.0140	0.59		**Shallow Concentrated Flow, C-D** Woodland Kv= 5.0 fps
5.0	384	0.0340	1.29		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
1.3	24	0.0040	0.32		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
33.2	1,029	Total			

Subcatchment Ex-5: West Site along N. Anguilla Rd



Summary for Subcatchment Ex-6: South/Central Area of Western Golf Course

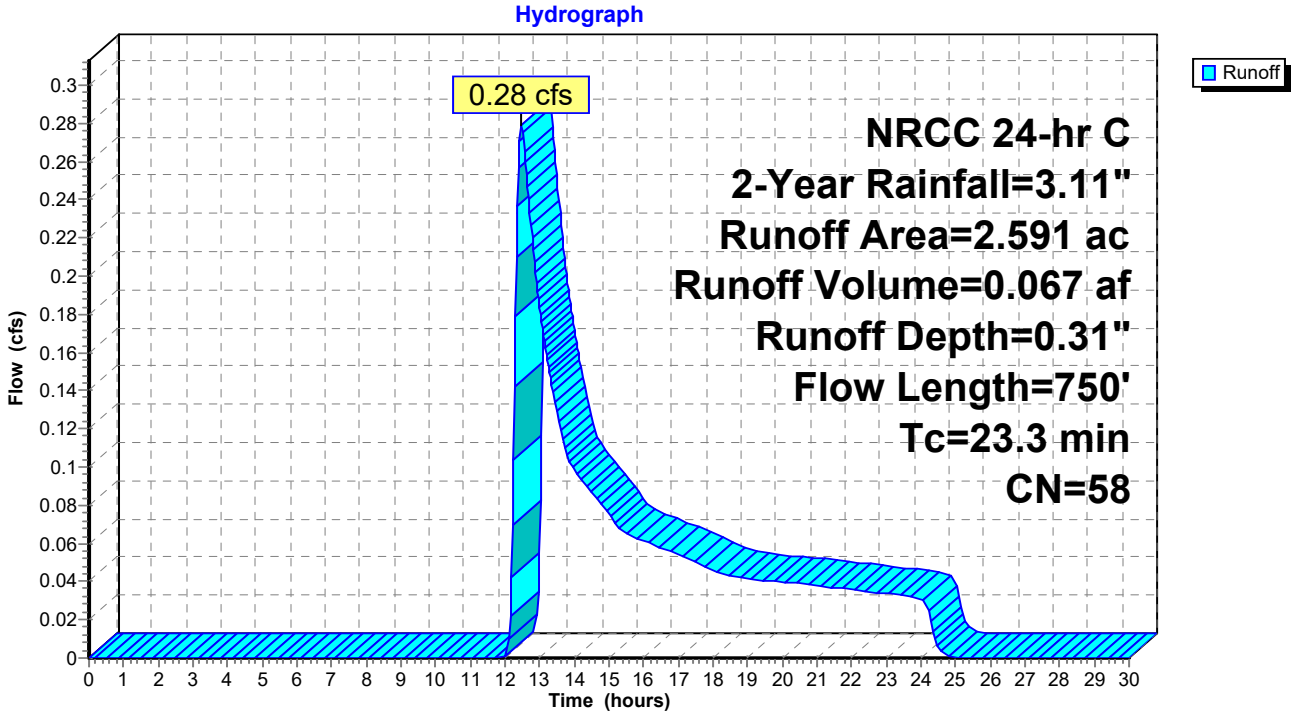
Runoff = 0.28 cfs @ 12.48 hrs, Volume= 0.067 af, Depth= 0.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 2-Year Rainfall=3.11"

Area (ac)	CN	Description
0.294	30	Woods, Good, HSG A
0.028	39	>75% Grass cover, Good, HSG A
0.415	55	Woods, Good, HSG B
0.028	86	Fallow, bare soil, HSG B
0.624	69	50-75% Grass cover, Fair, HSG B
1.190	61	>75% Grass cover, Good, HSG B
0.012	58	Woods/grass comb., Good, HSG B
2.591	58	Weighted Average
2.591		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2	100	0.0240	0.18		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.9	161	0.0170	0.91		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.2	210	0.0520	1.60		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
1.4	102	0.0600	1.22		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
7.6	177	0.0060	0.39		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
23.3	750	Total			

Subcatchment Ex-6: South/Central Area of Western Golf Course



Summary for Subcatchment Ex-7: West/Central Area of Western Golf Course

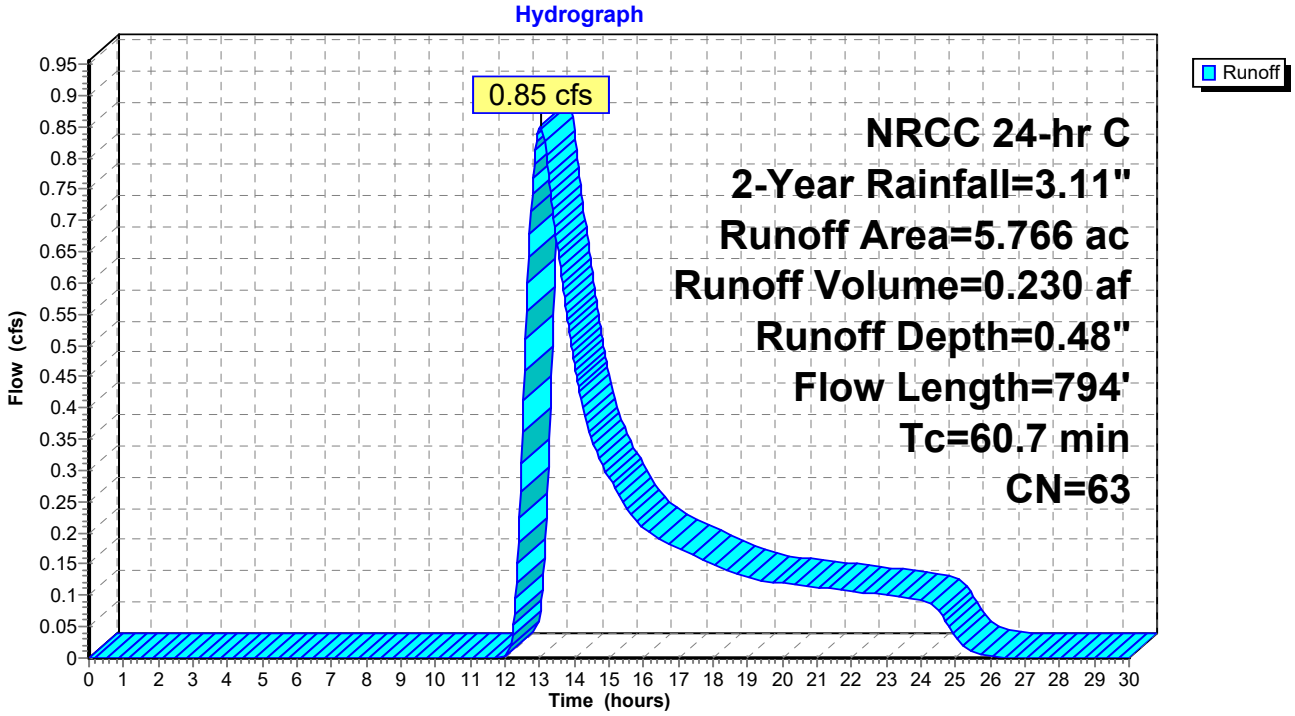
Runoff = 0.85 cfs @ 13.02 hrs, Volume= 0.230 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 2-Year Rainfall=3.11"

Area (ac)	CN	Description
0.024	30	Woods, Good, HSG A
0.045	96	Gravel surface, HSG B
0.535	55	Woods, Good, HSG B
0.159	58	Woods/grass comb., Good, HSG B
0.086	86	Fallow, bare soil, HSG B
1.197	69	50-75% Grass cover, Fair, HSG B
3.496	61	>75% Grass cover, Good, HSG B
0.008	96	Gravel surface, HSG C
0.056	70	Woods, Good, HSG C
0.160	74	>75% Grass cover, Good, HSG C
5.766	63	Weighted Average
5.766		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.5	100	0.0004	0.04		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.5	130	0.0150	0.86		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.3	34	0.0690	1.84		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
0.3	39	0.1960	2.21		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
5.5	203	0.0150	0.61		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
1.6	121	0.0330	1.27		**Shallow Concentrated Flow, F-G** Short Grass Pasture Kv= 7.0 fps
3.0	167	0.0180	0.94		**Shallow Concentrated Flow, G-H** Short Grass Pasture Kv= 7.0 fps
60.7	794	Total			

Subcatchment Ex-7: West/Central Area of Western Golf Course

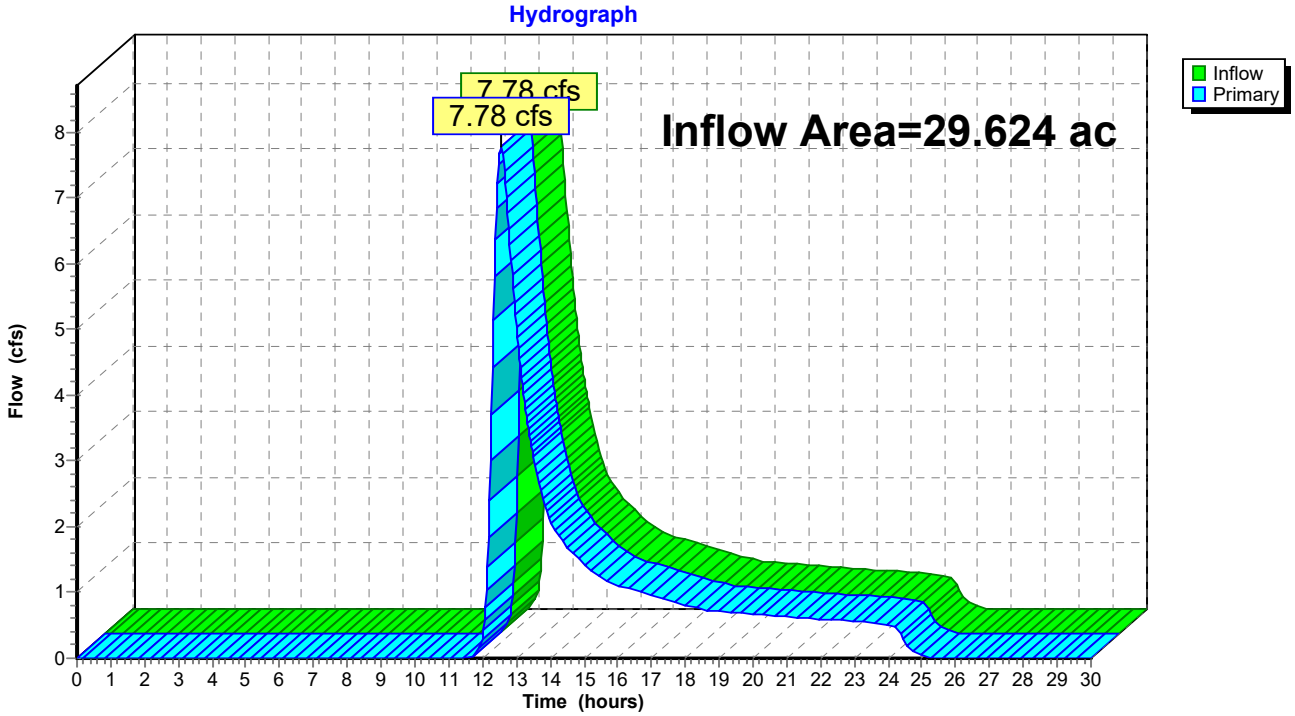


Summary for Pond AP-1: Easterly Wetland/ Vernal Pool

Inflow Area = 29.624 ac, 2.39% Impervious, Inflow Depth = 0.58" for 2-Year event
Inflow = 7.78 cfs @ 12.56 hrs, Volume= 1.434 af
Primary = 7.78 cfs @ 12.56 hrs, Volume= 1.434 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-1: Easterly Wetland/ Vernal Pool

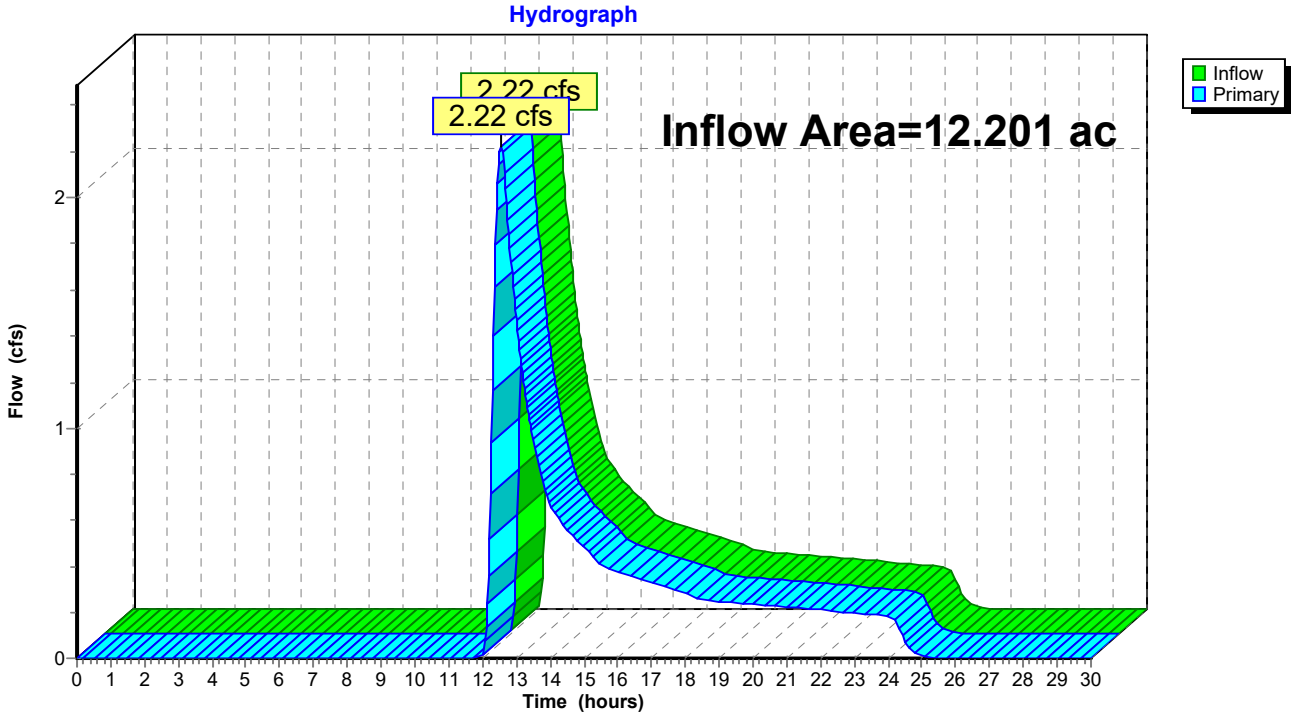


Summary for Pond AP-2: Anguilla Brook

Inflow Area = 12.201 ac, 3.34% Impervious, Inflow Depth = 0.44" for 2-Year event
Inflow = 2.22 cfs @ 12.56 hrs, Volume= 0.451 af
Primary = 2.22 cfs @ 12.56 hrs, Volume= 0.451 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-2: Anguilla Brook

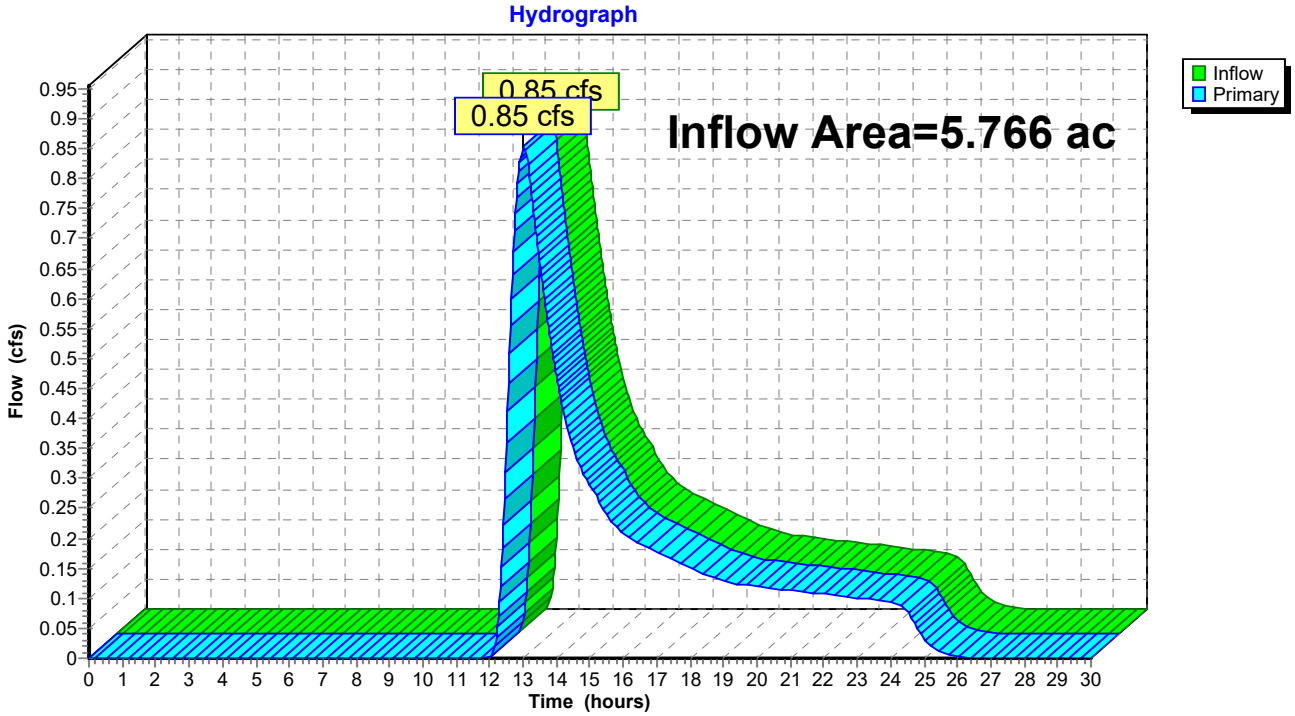


Summary for Pond AP-3: Westerly Intermittent Stream

Inflow Area = 5.766 ac, 0.00% Impervious, Inflow Depth = 0.48" for 2-Year event
Inflow = 0.85 cfs @ 13.02 hrs, Volume= 0.230 af
Primary = 0.85 cfs @ 13.02 hrs, Volume= 0.230 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-3: Westerly Intermittent Stream

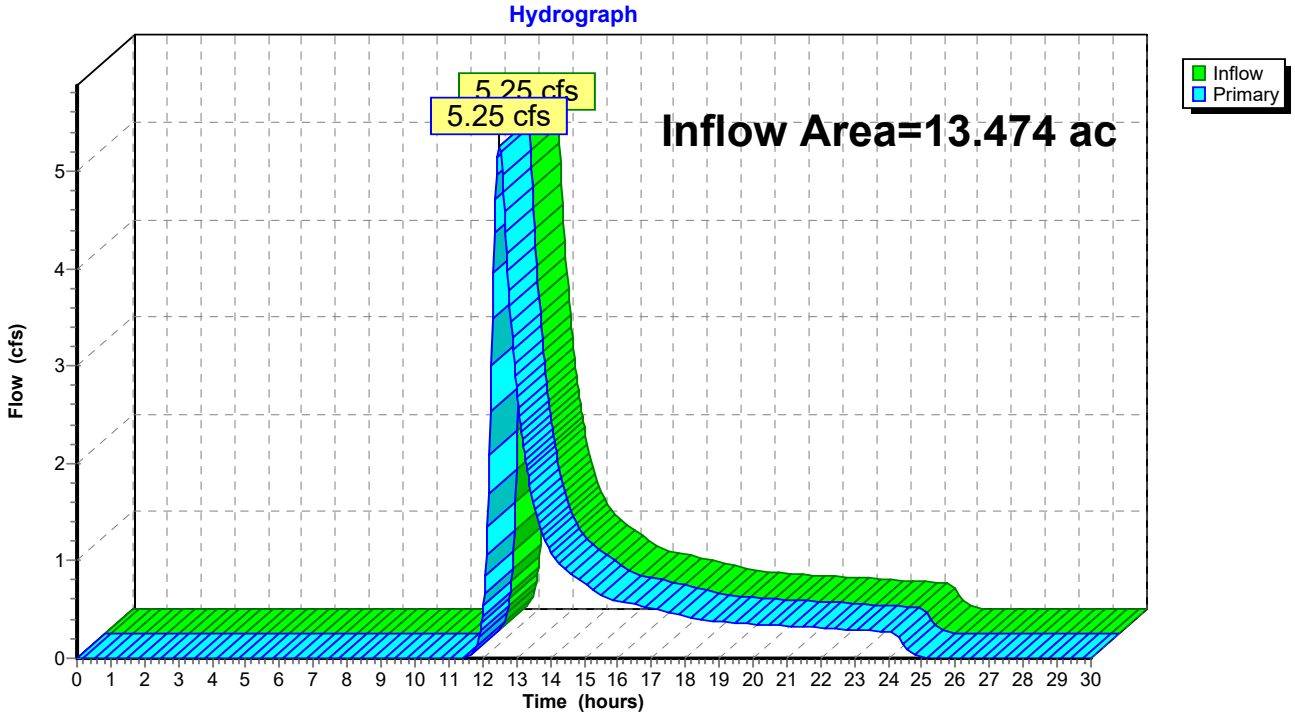


Summary for Pond AP-4: Eastern Wetland

Inflow Area = 13.474 ac, 0.00% Impervious, Inflow Depth = 0.73" for 2-Year event
Inflow = 5.25 cfs @ 12.51 hrs, Volume= 0.819 af
Primary = 5.25 cfs @ 12.51 hrs, Volume= 0.819 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-4: Eastern Wetland



Summary for Subcatchment Ex-1A: Central Golf Course/Clubhouse

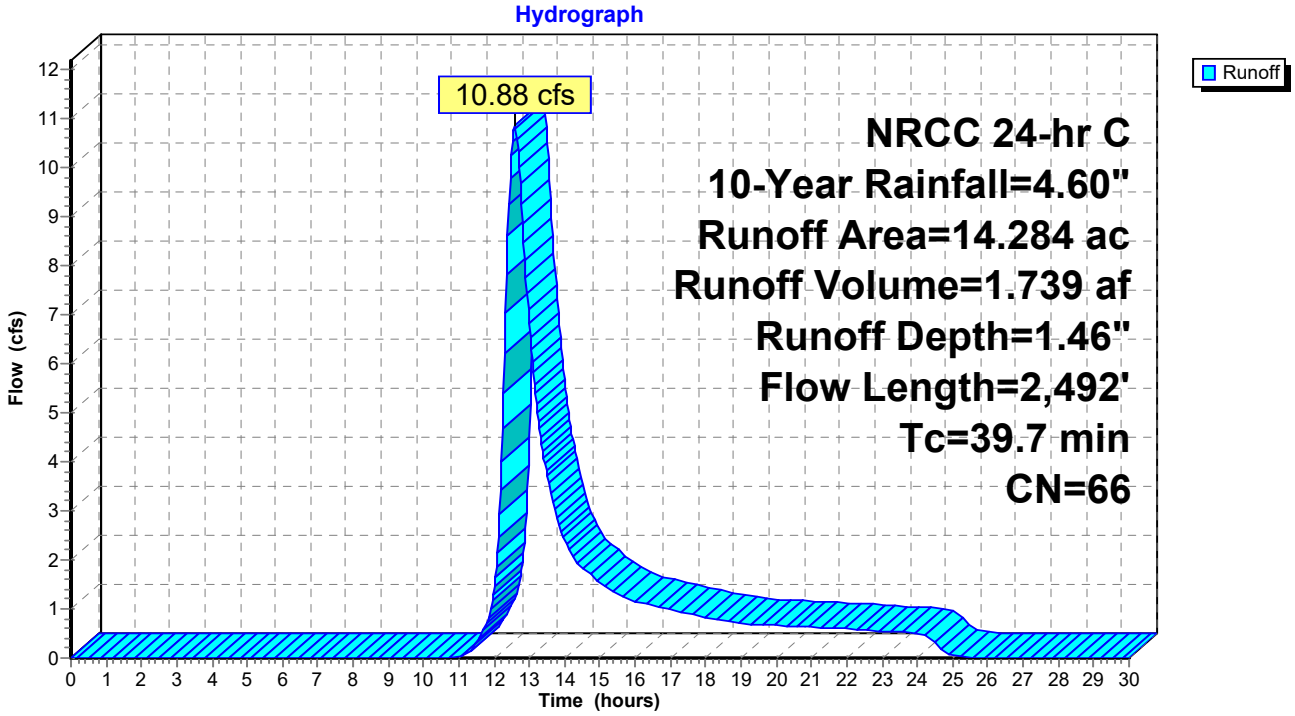
Runoff = 10.88 cfs @ 12.58 hrs, Volume= 1.739 af, Depth= 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 10-Year Rainfall=4.60"

Area (ac)	CN	Description
0.024	96	Gravel surface, HSG B
2.292	55	Woods, Good, HSG B
0.173	58	Woods/grass comb., Good, HSG B
0.112	98	Paved parking, HSG B
0.070	98	Roofs, HSG B
0.061	86	Fallow, bare soil, HSG B
1.896	69	50-75% Grass cover, Fair, HSG B
4.522	61	>75% Grass cover, Good, HSG B
0.008	96	Gravel surface, HSG C
0.937	70	Woods, Good, HSG C
0.467	72	Woods/grass comb., Good, HSG C
0.013	91	Fallow, bare soil, HSG C
0.255	79	50-75% Grass cover, Fair, HSG C
3.454	74	>75% Grass cover, Good, HSG C
14.284	66	Weighted Average
14.102		98.73% Pervious Area
0.182		1.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0260	0.19		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.8	235	0.0400	1.40		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
5.4	372	0.0270	1.15		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
5.5	448	0.0380	1.36		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
6.8	788	0.0770	1.94		**Shallow Concentrated Flow, E-F** Short Grass Pasture Kv= 7.0 fps
4.1	328	0.0700	1.32		**Shallow Concentrated Flow, F-G** Woodland Kv= 5.0 fps
6.2	221	0.0140	0.59		**Shallow Concentrated Flow, G-H** Woodland Kv= 5.0 fps
39.7	2,492	Total			

Subcatchment Ex-1A: Central Golf Course/Clubhouse



Summary for Subcatchment Ex-1B: Central Golf Course/Clubhouse

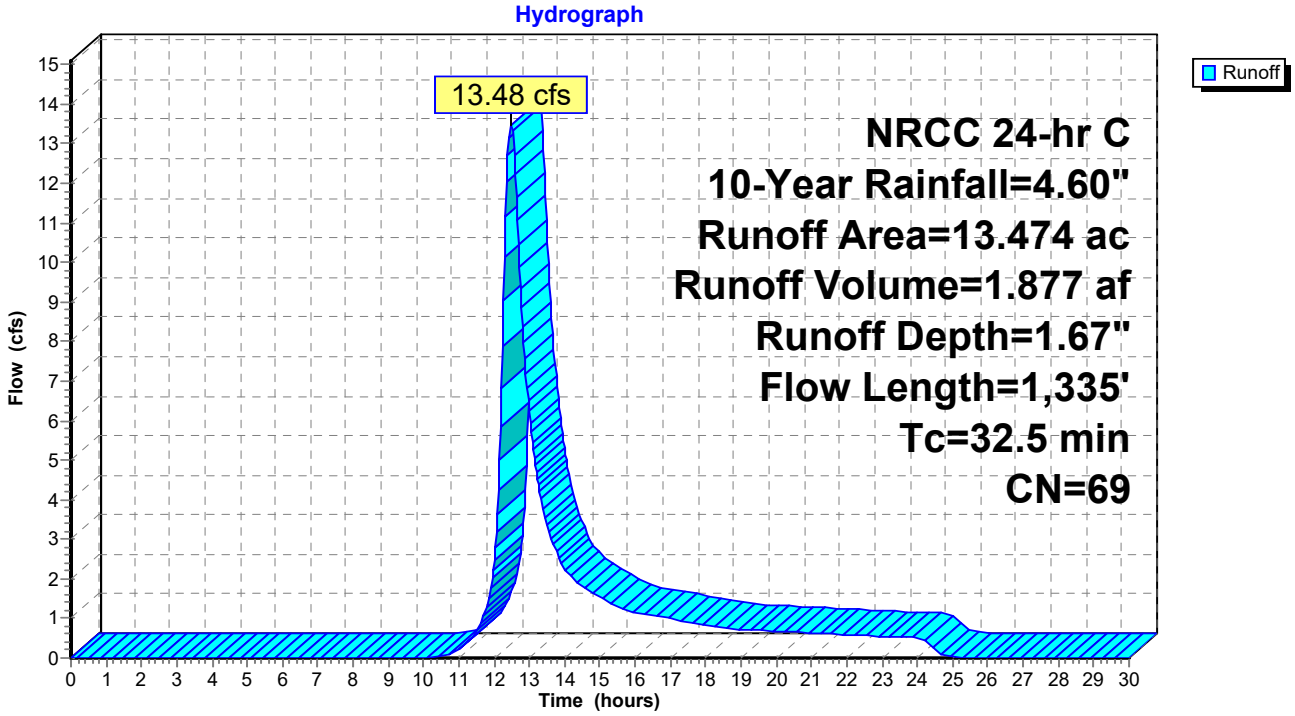
Runoff = 13.48 cfs @ 12.47 hrs, Volume= 1.877 af, Depth= 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 10-Year Rainfall=4.60"

Area (ac)	CN	Description
0.053	96	Gravel surface, HSG B
1.055	55	Woods, Good, HSG B
0.423	58	Woods/grass comb., Good, HSG B
0.028	86	Fallow, bare soil, HSG B
1.288	69	50-75% Grass cover, Fair, HSG B
3.252	61	>75% Grass cover, Good, HSG B
0.055	96	Gravel surface, HSG C
0.033	70	Woods, Good, HSG C
0.401	72	Woods/grass comb., Good, HSG C
0.043	91	Fallow, bare soil, HSG C
1.624	79	50-75% Grass cover, Fair, HSG C
5.219	74	>75% Grass cover, Good, HSG C
13.474	69	Weighted Average
13.474		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.1	100	0.0060	0.10		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
6.2	297	0.0130	0.80		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.2	200	0.0470	1.52		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
2.7	174	0.0240	1.08		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
1.3	79	0.0410	1.01		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
2.6	314	0.0830	2.02		**Shallow Concentrated Flow, F-G** Short Grass Pasture Kv= 7.0 fps
1.4	171	0.1650	2.03		**Shallow Concentrated Flow, G-H** Woodland Kv= 5.0 fps
32.5	1,335	Total			

Subcatchment Ex-1B: Central Golf Course/Clubhouse



Summary for Subcatchment Ex-2: Southwest of East Site

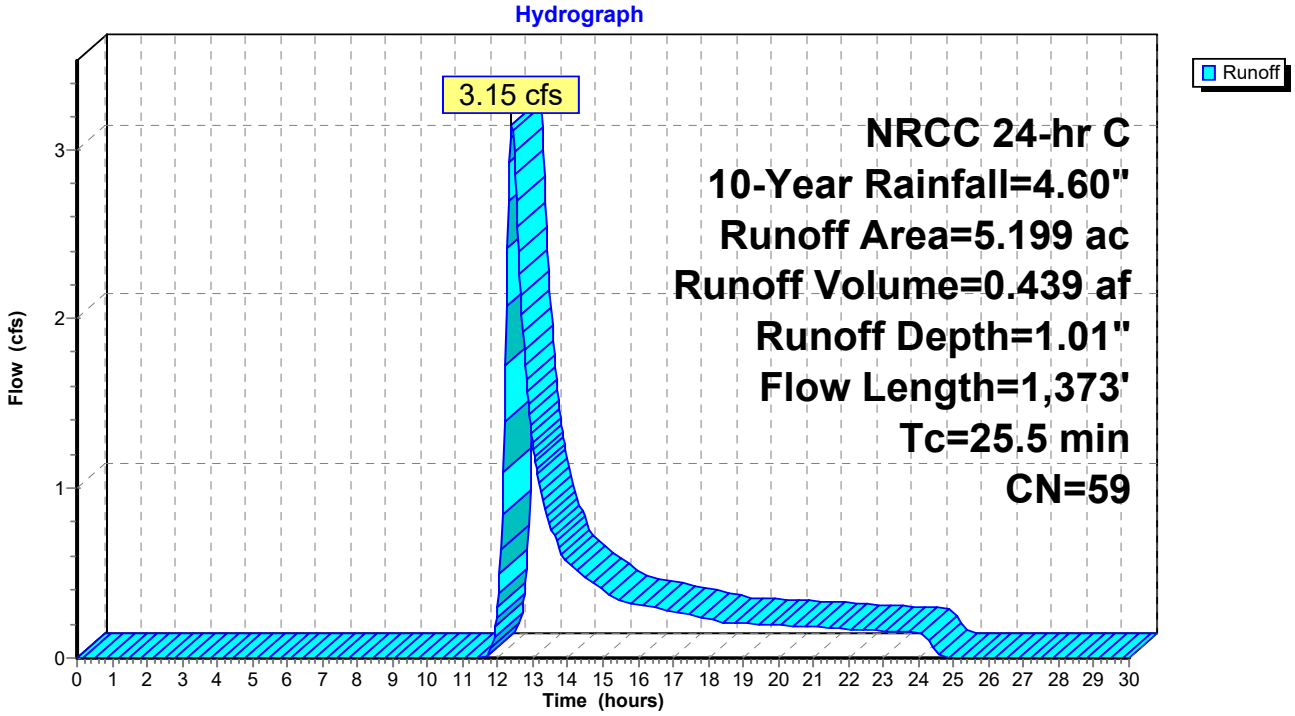
Runoff = 3.15 cfs @ 12.40 hrs, Volume= 0.439 af, Depth= 1.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 10-Year Rainfall=4.60"

Area (ac)	CN	Description
0.047	96	Gravel surface, HSG B
2.813	55	Woods, Good, HSG B
0.008	86	Fallow, bare soil, HSG B
0.027	69	50-75% Grass cover, Fair, HSG B
1.842	61	>75% Grass cover, Good, HSG B
0.425	70	Woods, Good, HSG C
0.030	74	>75% Grass cover, Good, HSG C
0.007	96	Gravel surface, HSG C
5.199	59	Weighted Average
5.199		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.0190	0.16		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
1.9	126	0.0250	1.11		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.6	305	0.0780	1.95		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
0.9	122	0.2150	2.32		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
7.8	624	0.0720	1.34		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
2.2	96	0.0210	0.72		**Shallow Concentrated Flow, F-G** Woodland Kv= 5.0 fps
25.5	1,373	Total			

Subcatchment Ex-2: Southwest of East Site



Summary for Subcatchment Ex-3: North Clubhouse along Elmridge Rd

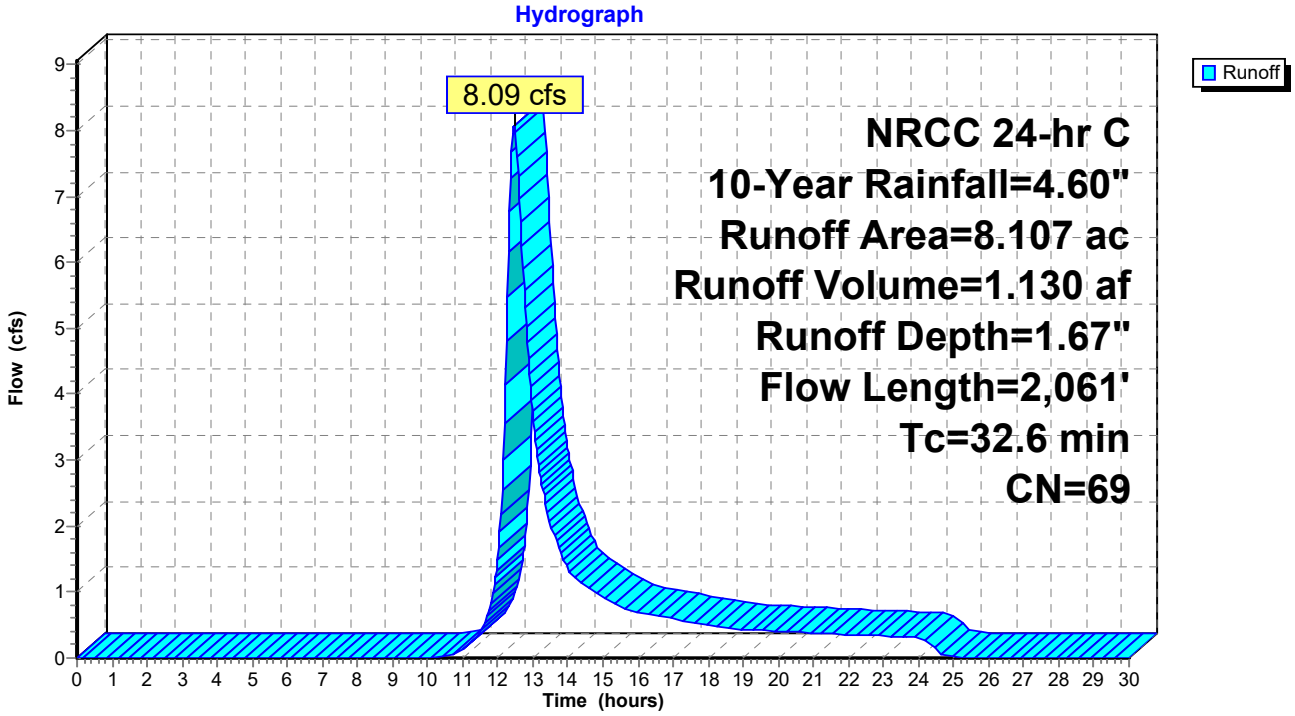
Runoff = 8.09 cfs @ 12.47 hrs, Volume= 1.130 af, Depth= 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 10-Year Rainfall=4.60"

Area (ac)	CN	Description
0.090	96	Gravel surface, HSG C
0.330	58	Woods/grass comb., Good, HSG B
0.426	98	Paved parking, HSG B
0.011	98	Roofs, HSG B
0.027	86	Fallow, bare soil, HSG B
1.598	69	50-75% Grass cover, Fair, HSG B
3.345	61	>75% Grass cover, Good, HSG B
0.081	72	Woods/grass comb., Good, HSG C
0.033	91	Fallow, bare soil, HSG C
0.303	79	50-75% Grass cover, Fair, HSG C
1.863	74	>75% Grass cover, Good, HSG C
8.107	69	Weighted Average
7.670		94.61% Pervious Area
0.437		5.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0160	0.15		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.6	245	0.0490	1.55		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
8.3	855	0.0600	1.71		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
10.8	861	0.0360	1.33		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
32.6	2,061	Total			

Subcatchment Ex-3: North Clubhouse along Elmridge Rd



Summary for Subcatchment Ex-4: Central/West of East Site

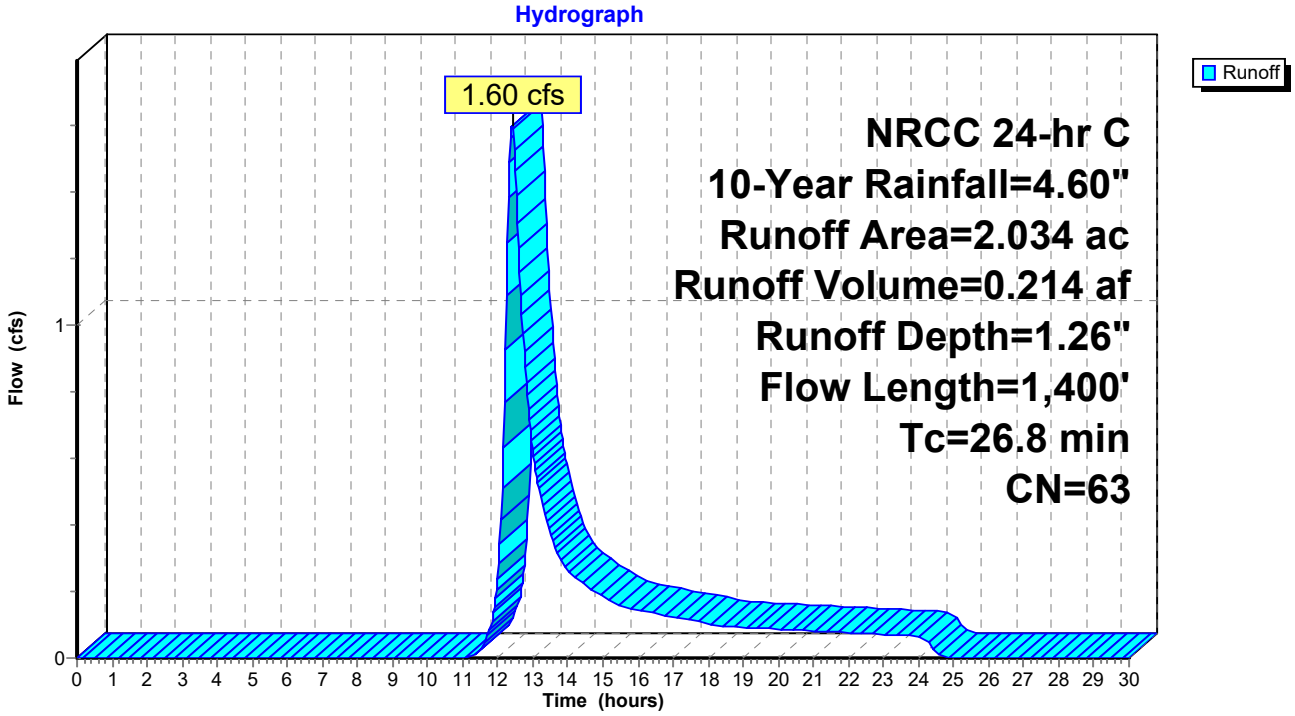
Runoff = 1.60 cfs @ 12.41 hrs, Volume= 0.214 af, Depth= 1.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 10-Year Rainfall=4.60"

Area (ac)	CN	Description
0.028	96	Gravel surface, HSG B
0.212	55	Woods, Good, HSG B
0.270	58	Woods/grass comb., Good, HSG B
0.089	98	Paved parking, HSG B
0.010	86	Fallow, bare soil, HSG B
0.155	69	50-75% Grass cover, Fair, HSG B
1.270	61	>75% Grass cover, Good, HSG B
2.034	63	Weighted Average
1.945		95.62% Pervious Area
0.089		4.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0800	0.13		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.11"
2.7	283	0.0630	1.76		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.1	178	0.0390	1.38		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
1.4	143	0.0630	1.76		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
8.1	696	0.0420	1.43		**Shallow Concentrated Flow, E-F** Short Grass Pasture Kv= 7.0 fps
26.8	1,400	Total			

Subcatchment Ex-4: Central/West of East Site



Summary for Subcatchment Ex-5: West Site along N. Anguilla Rd

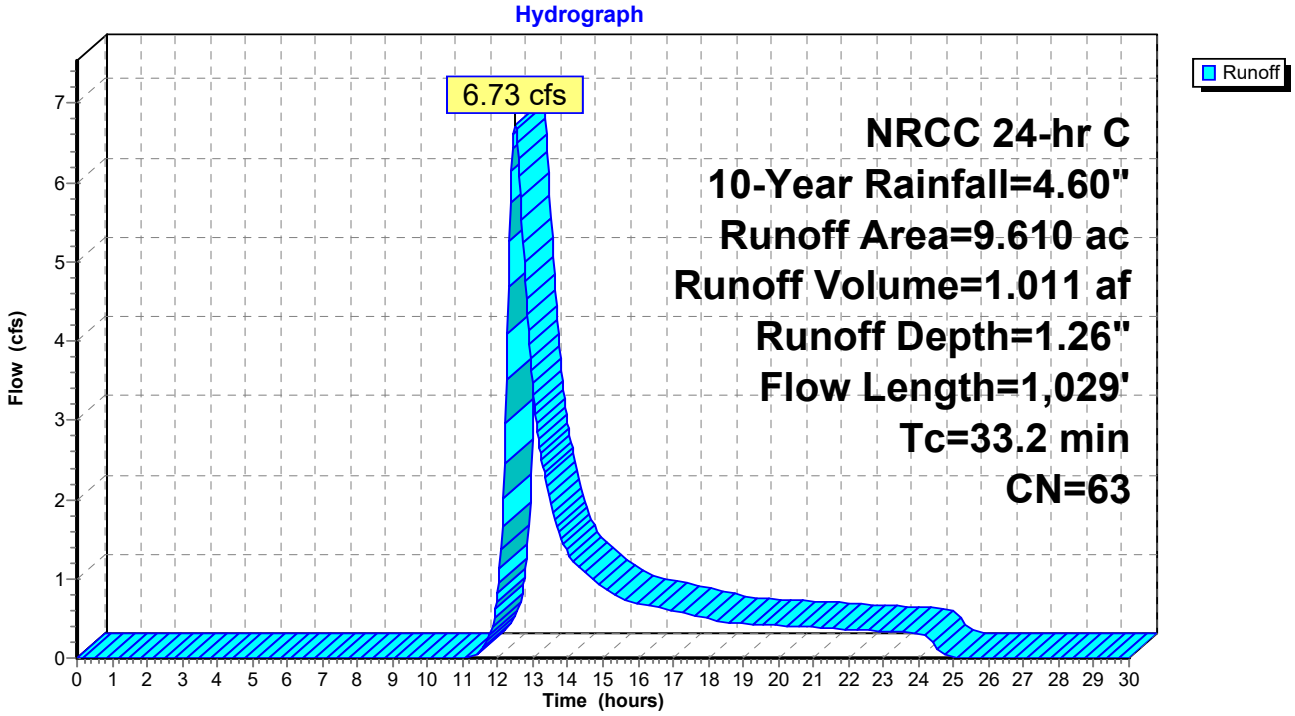
Runoff = 6.73 cfs @ 12.50 hrs, Volume= 1.011 af, Depth= 1.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 10-Year Rainfall=4.60"

Area (ac)	CN	Description
0.370	30	Woods, Good, HSG A
0.052	96	Gravel surface, HSG B
1.888	55	Woods, Good, HSG B
0.089	58	Woods/grass comb., Good, HSG B
0.307	98	Paved parking, HSG B
0.101	98	Roofs, HSG B
0.039	86	Fallow, bare soil, HSG B
0.751	69	50-75% Grass cover, Fair, HSG B
4.718	61	>75% Grass cover, Good, HSG B
0.033	96	Gravel surface, HSG C
0.535	70	Woods, Good, HSG C
0.018	72	Woods/grass comb., Good, HSG C
0.709	74	>75% Grass cover, Good, HSG C
9.610	63	Weighted Average
9.202		95.75% Pervious Area
0.408		4.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.8	100	0.0330	0.09		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.11"
3.2	311	0.0530	1.61		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
5.9	210	0.0140	0.59		**Shallow Concentrated Flow, C-D** Woodland Kv= 5.0 fps
5.0	384	0.0340	1.29		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
1.3	24	0.0040	0.32		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
33.2	1,029	Total			

Subcatchment Ex-5: West Site along N. Anguilla Rd



Summary for Subcatchment Ex-6: South/Central Area of Western Golf Course

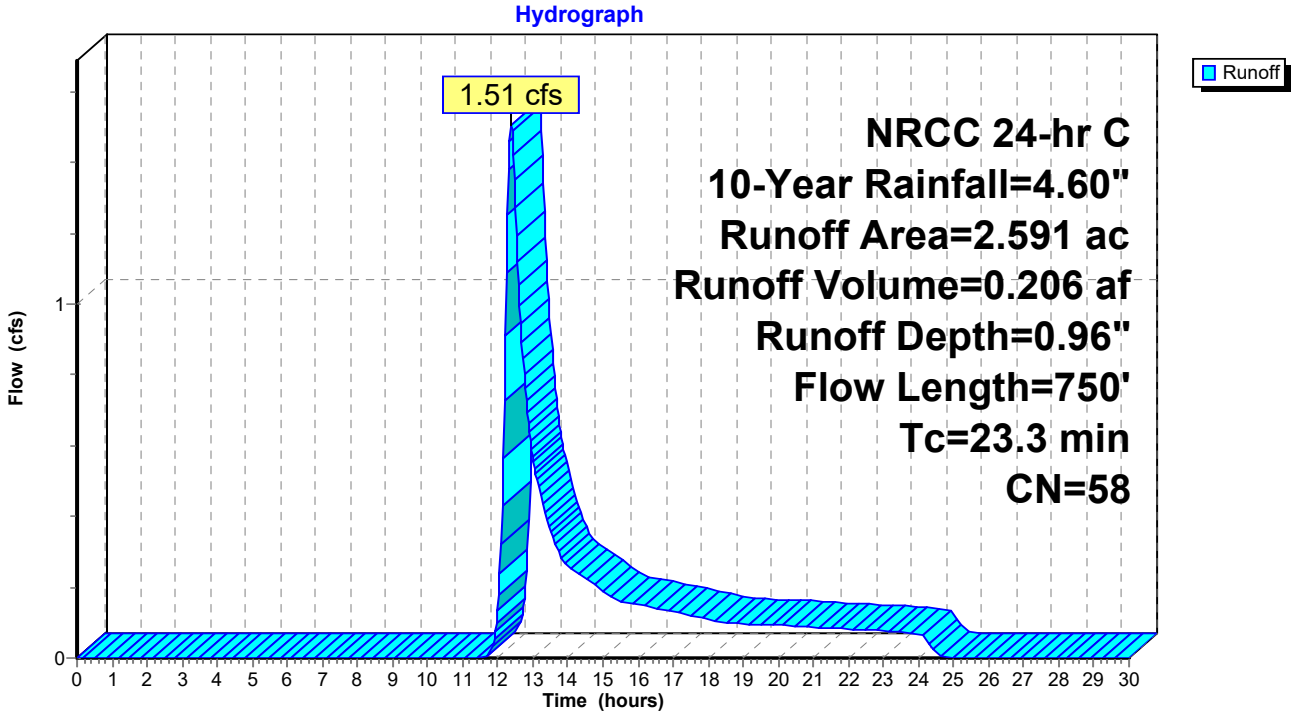
Runoff = 1.51 cfs @ 12.38 hrs, Volume= 0.206 af, Depth= 0.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 10-Year Rainfall=4.60"

Area (ac)	CN	Description
0.294	30	Woods, Good, HSG A
0.028	39	>75% Grass cover, Good, HSG A
0.415	55	Woods, Good, HSG B
0.028	86	Fallow, bare soil, HSG B
0.624	69	50-75% Grass cover, Fair, HSG B
1.190	61	>75% Grass cover, Good, HSG B
0.012	58	Woods/grass comb., Good, HSG B
2.591	58	Weighted Average
2.591		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2	100	0.0240	0.18		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.9	161	0.0170	0.91		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.2	210	0.0520	1.60		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
1.4	102	0.0600	1.22		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
7.6	177	0.0060	0.39		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
23.3	750	Total			

Subcatchment Ex-6: South/Central Area of Western Golf Course



Summary for Subcatchment Ex-7: West/Central Area of Western Golf Course

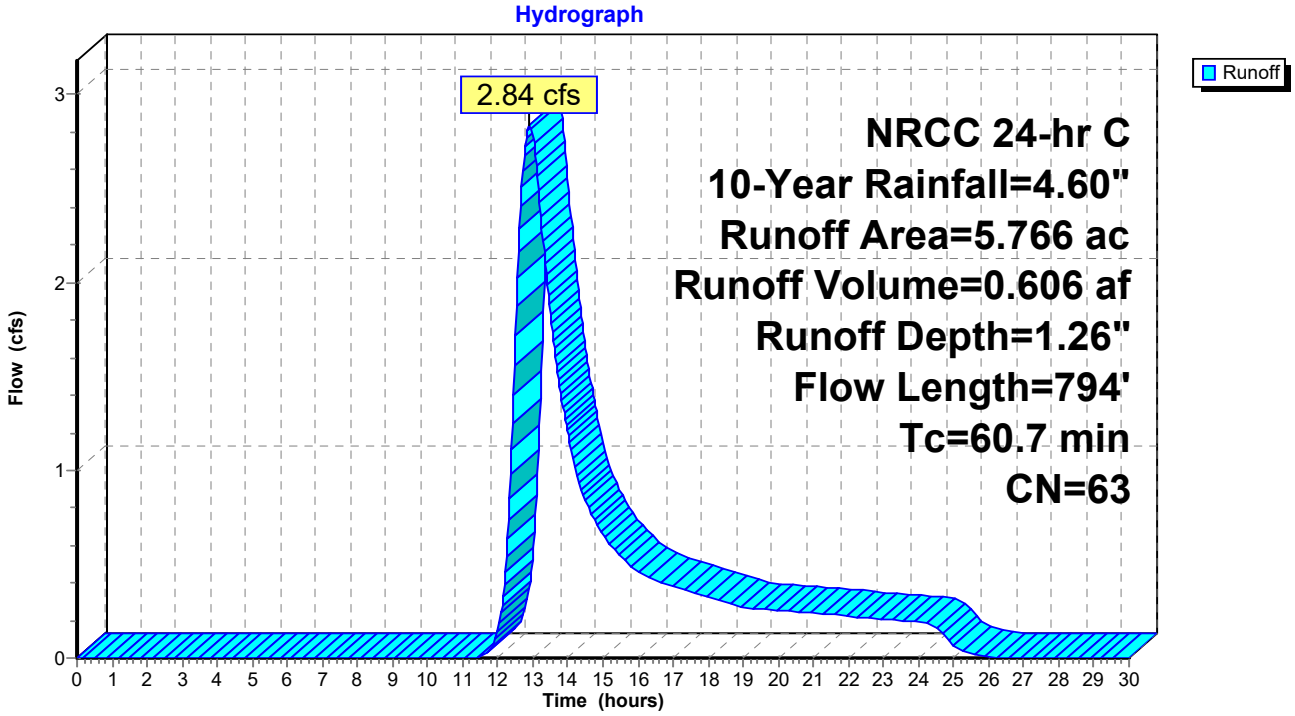
Runoff = 2.84 cfs @ 12.90 hrs, Volume= 0.606 af, Depth= 1.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 10-Year Rainfall=4.60"

Area (ac)	CN	Description
0.024	30	Woods, Good, HSG A
0.045	96	Gravel surface, HSG B
0.535	55	Woods, Good, HSG B
0.159	58	Woods/grass comb., Good, HSG B
0.086	86	Fallow, bare soil, HSG B
1.197	69	50-75% Grass cover, Fair, HSG B
3.496	61	>75% Grass cover, Good, HSG B
0.008	96	Gravel surface, HSG C
0.056	70	Woods, Good, HSG C
0.160	74	>75% Grass cover, Good, HSG C
5.766	63	Weighted Average
5.766		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.5	100	0.0004	0.04		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.5	130	0.0150	0.86		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.3	34	0.0690	1.84		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
0.3	39	0.1960	2.21		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
5.5	203	0.0150	0.61		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
1.6	121	0.0330	1.27		**Shallow Concentrated Flow, F-G** Short Grass Pasture Kv= 7.0 fps
3.0	167	0.0180	0.94		**Shallow Concentrated Flow, G-H** Short Grass Pasture Kv= 7.0 fps
60.7	794	Total			

Subcatchment Ex-7: West/Central Area of Western Golf Course

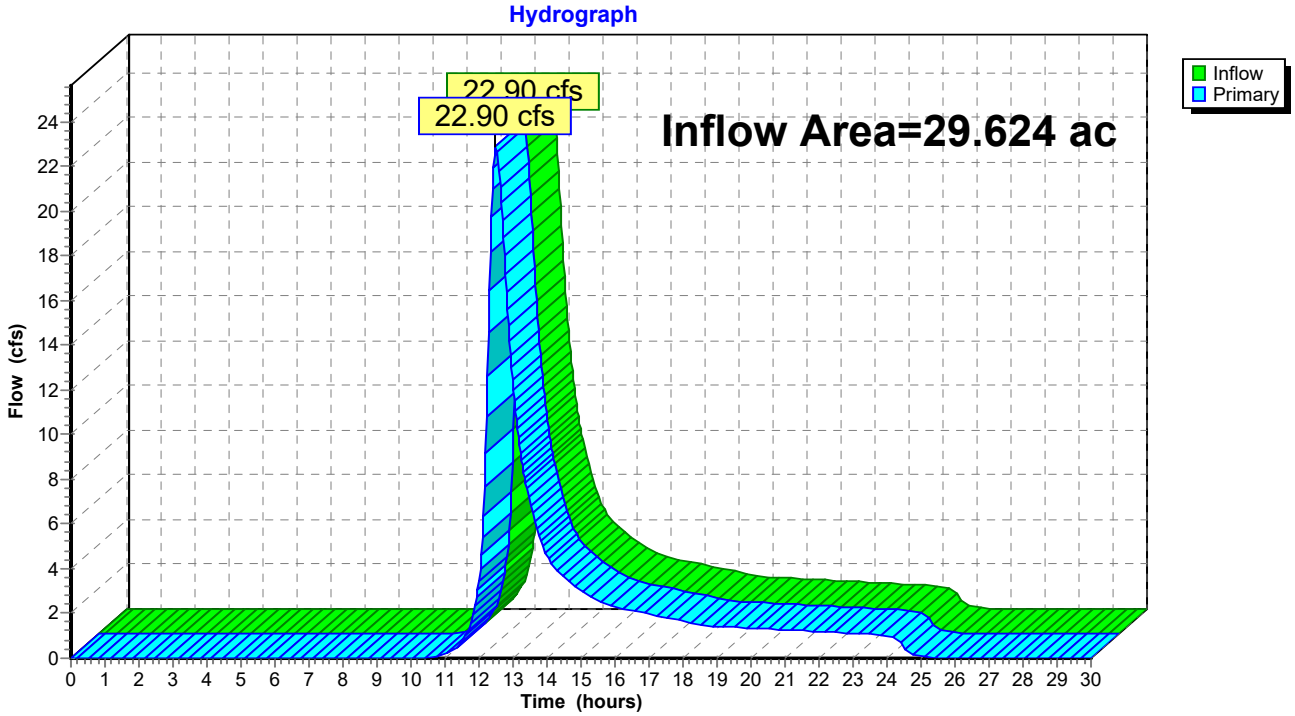


Summary for Pond AP-1: Easterly Wetland/ Vernal Pool

Inflow Area = 29.624 ac, 2.39% Impervious, Inflow Depth = 1.43" for 10-Year event
Inflow = 22.90 cfs @ 12.50 hrs, Volume= 3.522 af
Primary = 22.90 cfs @ 12.50 hrs, Volume= 3.522 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-1: Easterly Wetland/ Vernal Pool

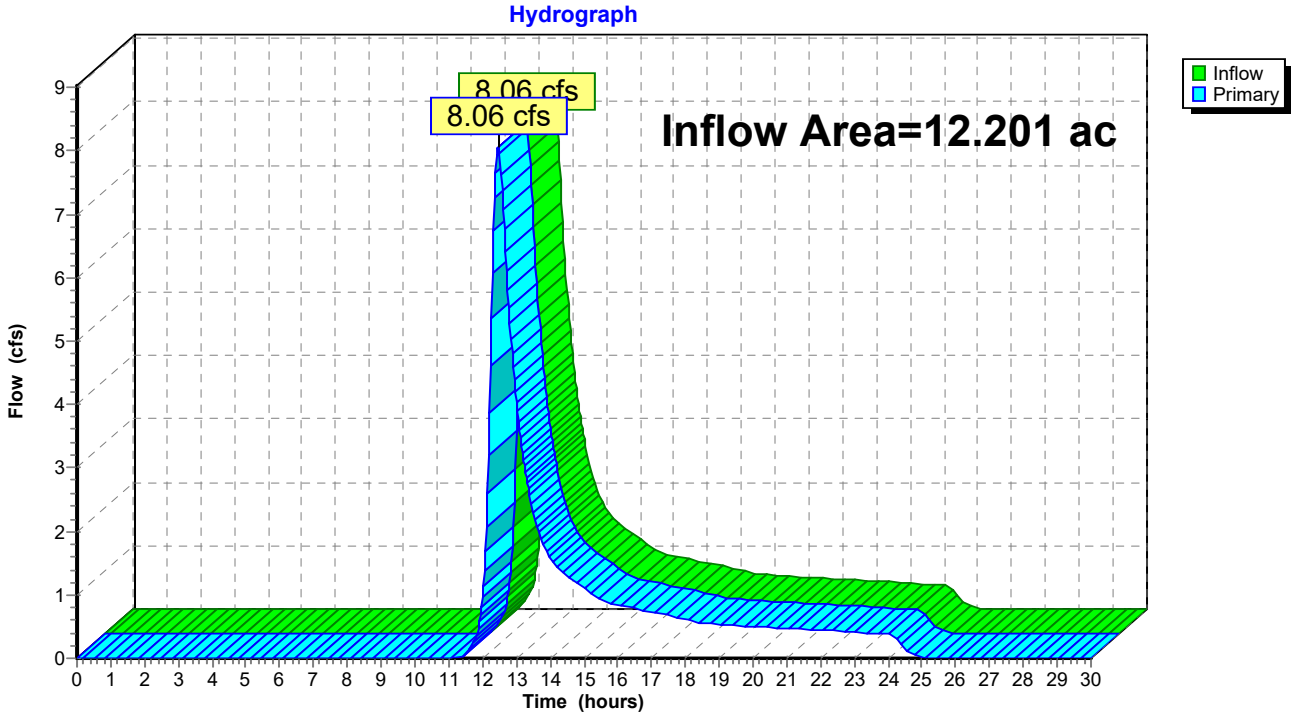


Summary for Pond AP-2: Anguilla Brook

Inflow Area = 12.201 ac, 3.34% Impervious, Inflow Depth = 1.20" for 10-Year event
Inflow = 8.06 cfs @ 12.47 hrs, Volume= 1.217 af
Primary = 8.06 cfs @ 12.47 hrs, Volume= 1.217 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-2: Anguilla Brook

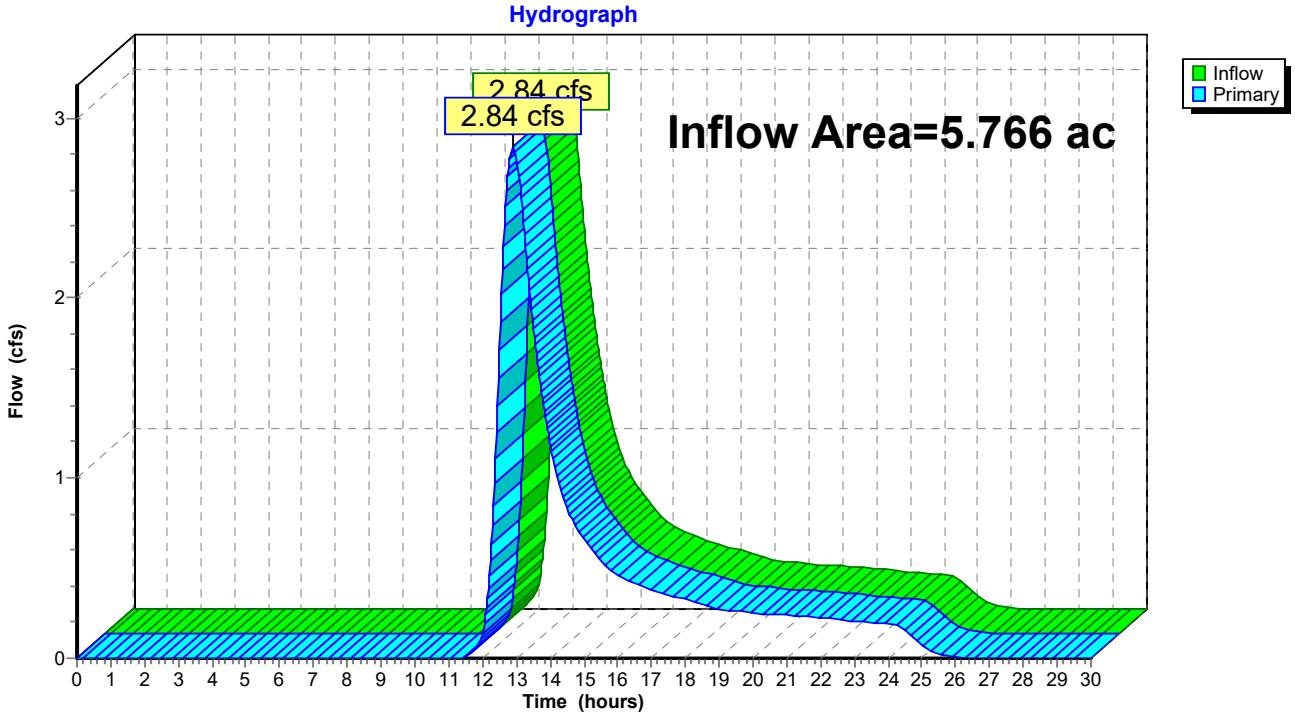


Summary for Pond AP-3: Westerly Intermittent Stream

Inflow Area = 5.766 ac, 0.00% Impervious, Inflow Depth = 1.26" for 10-Year event
Inflow = 2.84 cfs @ 12.90 hrs, Volume= 0.606 af
Primary = 2.84 cfs @ 12.90 hrs, Volume= 0.606 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-3: Westerly Intermittent Stream

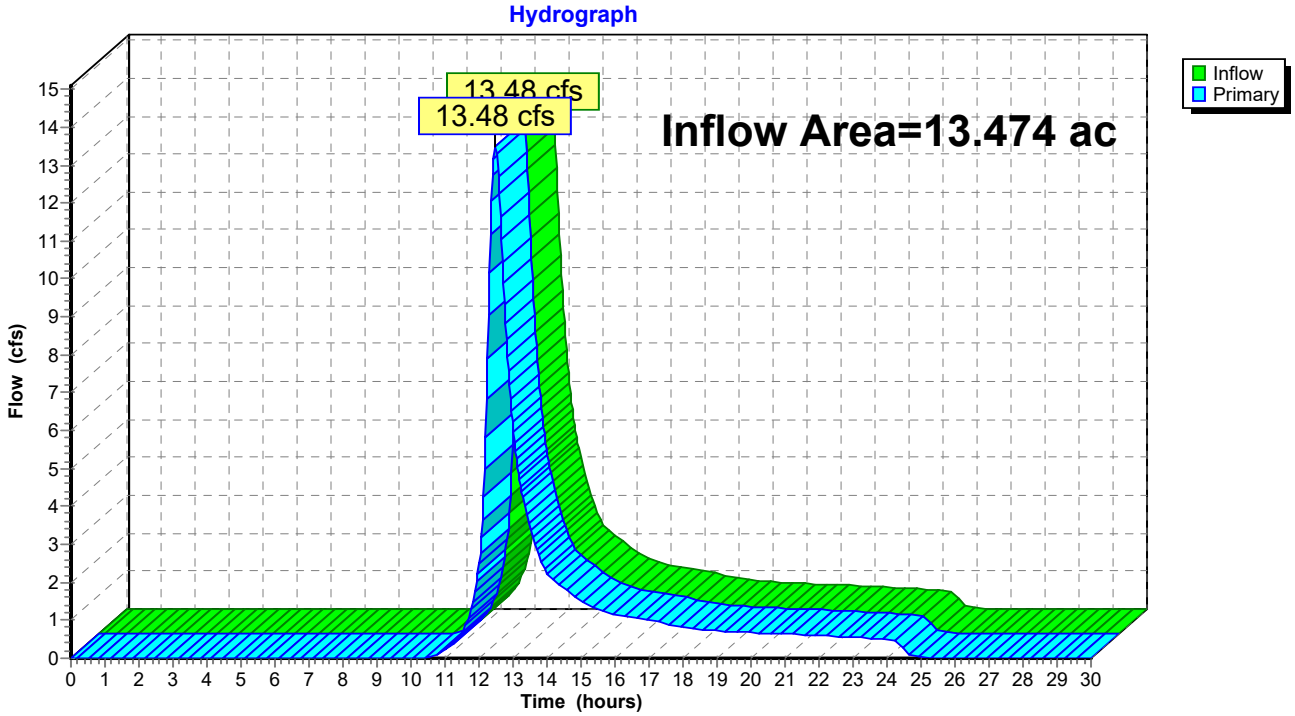


Summary for Pond AP-4: Eastern Wetland

Inflow Area = 13.474 ac, 0.00% Impervious, Inflow Depth = 1.67" for 10-Year event
Inflow = 13.48 cfs @ 12.47 hrs, Volume= 1.877 af
Primary = 13.48 cfs @ 12.47 hrs, Volume= 1.877 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-4: Eastern Wetland



Summary for Subcatchment Ex-1A: Central Golf Course/Clubhouse

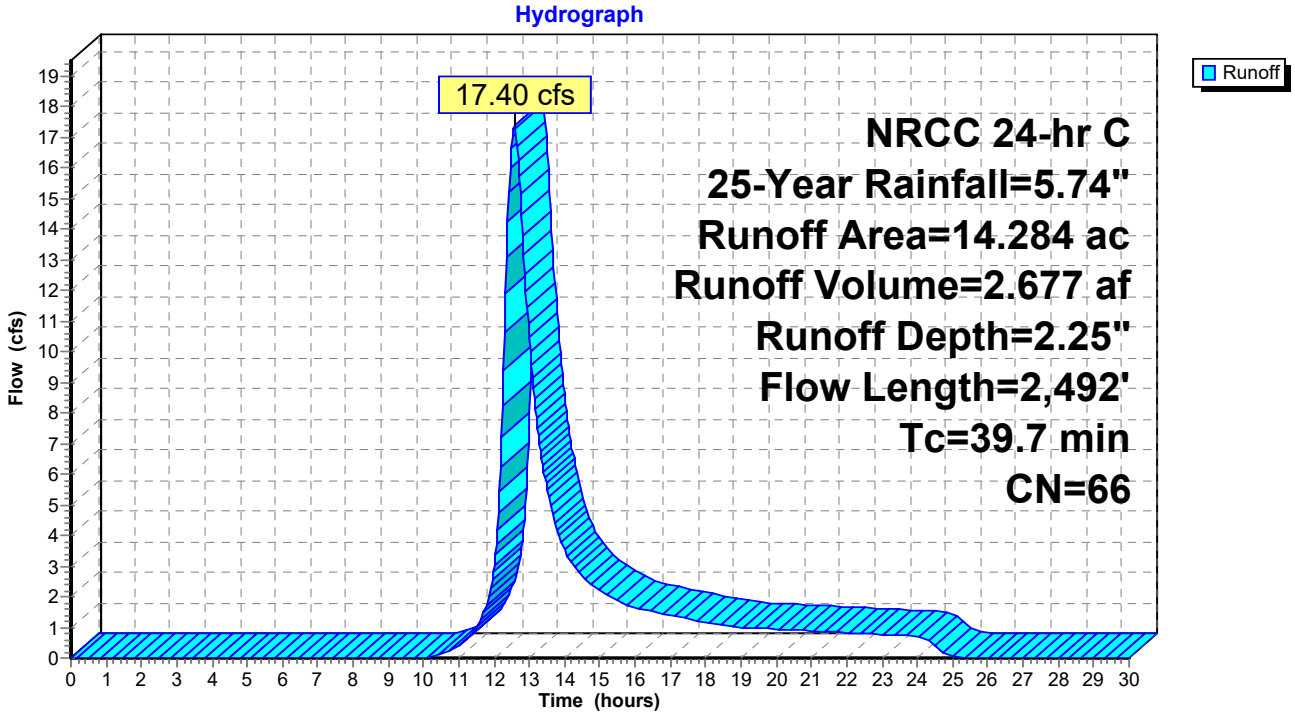
Runoff = 17.40 cfs @ 12.57 hrs, Volume= 2.677 af, Depth= 2.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 25-Year Rainfall=5.74"

Area (ac)	CN	Description
0.024	96	Gravel surface, HSG B
2.292	55	Woods, Good, HSG B
0.173	58	Woods/grass comb., Good, HSG B
0.112	98	Paved parking, HSG B
0.070	98	Roofs, HSG B
0.061	86	Fallow, bare soil, HSG B
1.896	69	50-75% Grass cover, Fair, HSG B
4.522	61	>75% Grass cover, Good, HSG B
0.008	96	Gravel surface, HSG C
0.937	70	Woods, Good, HSG C
0.467	72	Woods/grass comb., Good, HSG C
0.013	91	Fallow, bare soil, HSG C
0.255	79	50-75% Grass cover, Fair, HSG C
3.454	74	>75% Grass cover, Good, HSG C
14.284	66	Weighted Average
14.102		98.73% Pervious Area
0.182		1.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0260	0.19		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.8	235	0.0400	1.40		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
5.4	372	0.0270	1.15		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
5.5	448	0.0380	1.36		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
6.8	788	0.0770	1.94		**Shallow Concentrated Flow, E-F** Short Grass Pasture Kv= 7.0 fps
4.1	328	0.0700	1.32		**Shallow Concentrated Flow, F-G** Woodland Kv= 5.0 fps
6.2	221	0.0140	0.59		**Shallow Concentrated Flow, G-H** Woodland Kv= 5.0 fps
39.7	2,492	Total			

Subcatchment Ex-1A: Central Golf Course/Clubhouse



Summary for Subcatchment Ex-1B: Central Golf Course/Clubhouse

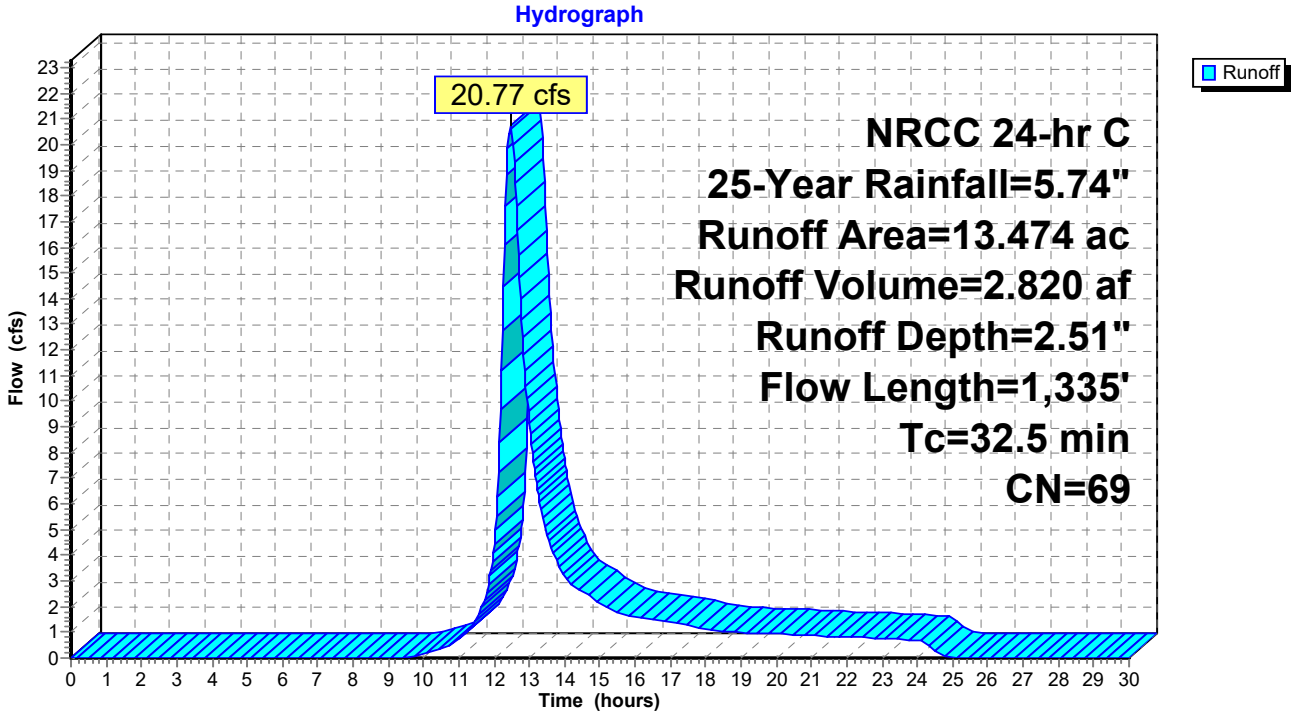
Runoff = 20.77 cfs @ 12.46 hrs, Volume= 2.820 af, Depth= 2.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 25-Year Rainfall=5.74"

Area (ac)	CN	Description
0.053	96	Gravel surface, HSG B
1.055	55	Woods, Good, HSG B
0.423	58	Woods/grass comb., Good, HSG B
0.028	86	Fallow, bare soil, HSG B
1.288	69	50-75% Grass cover, Fair, HSG B
3.252	61	>75% Grass cover, Good, HSG B
0.055	96	Gravel surface, HSG C
0.033	70	Woods, Good, HSG C
0.401	72	Woods/grass comb., Good, HSG C
0.043	91	Fallow, bare soil, HSG C
1.624	79	50-75% Grass cover, Fair, HSG C
5.219	74	>75% Grass cover, Good, HSG C
13.474	69	Weighted Average
13.474		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.1	100	0.0060	0.10		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
6.2	297	0.0130	0.80		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.2	200	0.0470	1.52		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
2.7	174	0.0240	1.08		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
1.3	79	0.0410	1.01		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
2.6	314	0.0830	2.02		**Shallow Concentrated Flow, F-G** Short Grass Pasture Kv= 7.0 fps
1.4	171	0.1650	2.03		**Shallow Concentrated Flow, G-H** Woodland Kv= 5.0 fps
32.5	1,335	Total			

Subcatchment Ex-1B: Central Golf Course/Clubhouse



Summary for Subcatchment Ex-2: Southwest of East Site

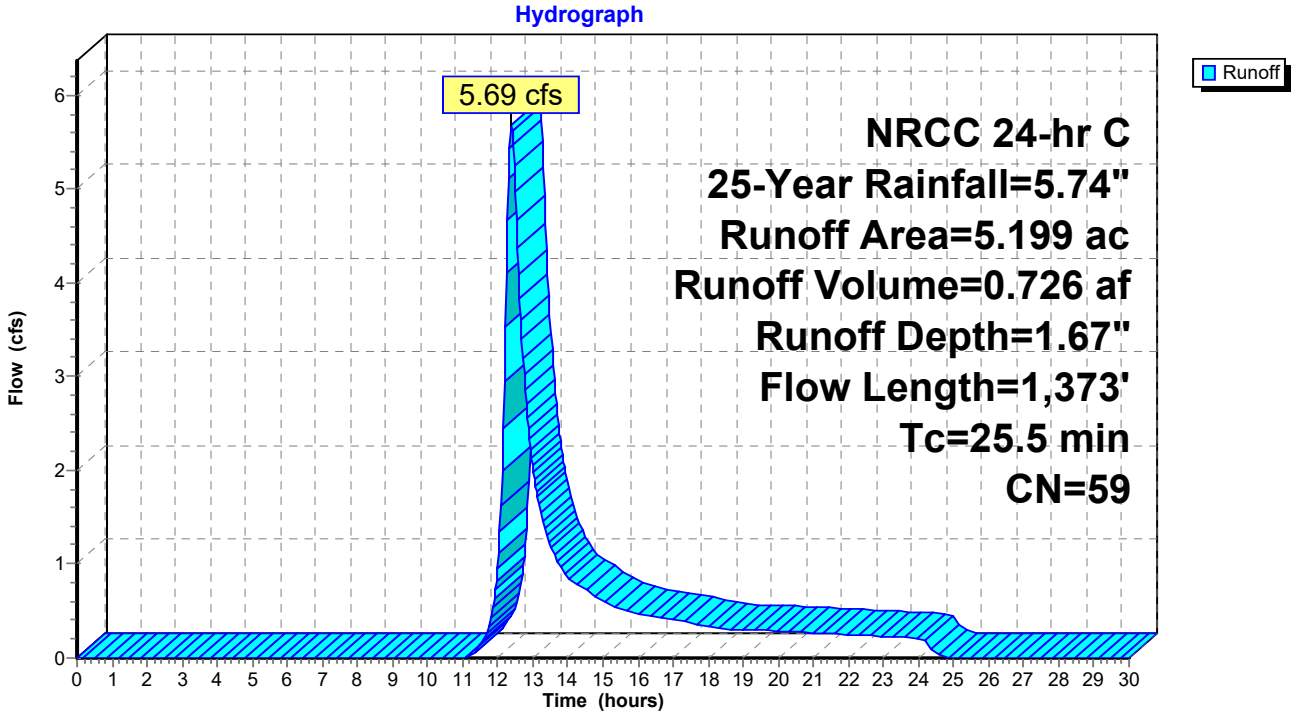
Runoff = 5.69 cfs @ 12.39 hrs, Volume= 0.726 af, Depth= 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 25-Year Rainfall=5.74"

Area (ac)	CN	Description
0.047	96	Gravel surface, HSG B
2.813	55	Woods, Good, HSG B
0.008	86	Fallow, bare soil, HSG B
0.027	69	50-75% Grass cover, Fair, HSG B
1.842	61	>75% Grass cover, Good, HSG B
0.425	70	Woods, Good, HSG C
0.030	74	>75% Grass cover, Good, HSG C
0.007	96	Gravel surface, HSG C
5.199	59	Weighted Average
5.199		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.0190	0.16		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
1.9	126	0.0250	1.11		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.6	305	0.0780	1.95		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
0.9	122	0.2150	2.32		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
7.8	624	0.0720	1.34		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
2.2	96	0.0210	0.72		**Shallow Concentrated Flow, F-G** Woodland Kv= 5.0 fps
25.5	1,373	Total			

Subcatchment Ex-2: Southwest of East Site



Summary for Subcatchment Ex-3: North Clubhouse along Elmridge Rd

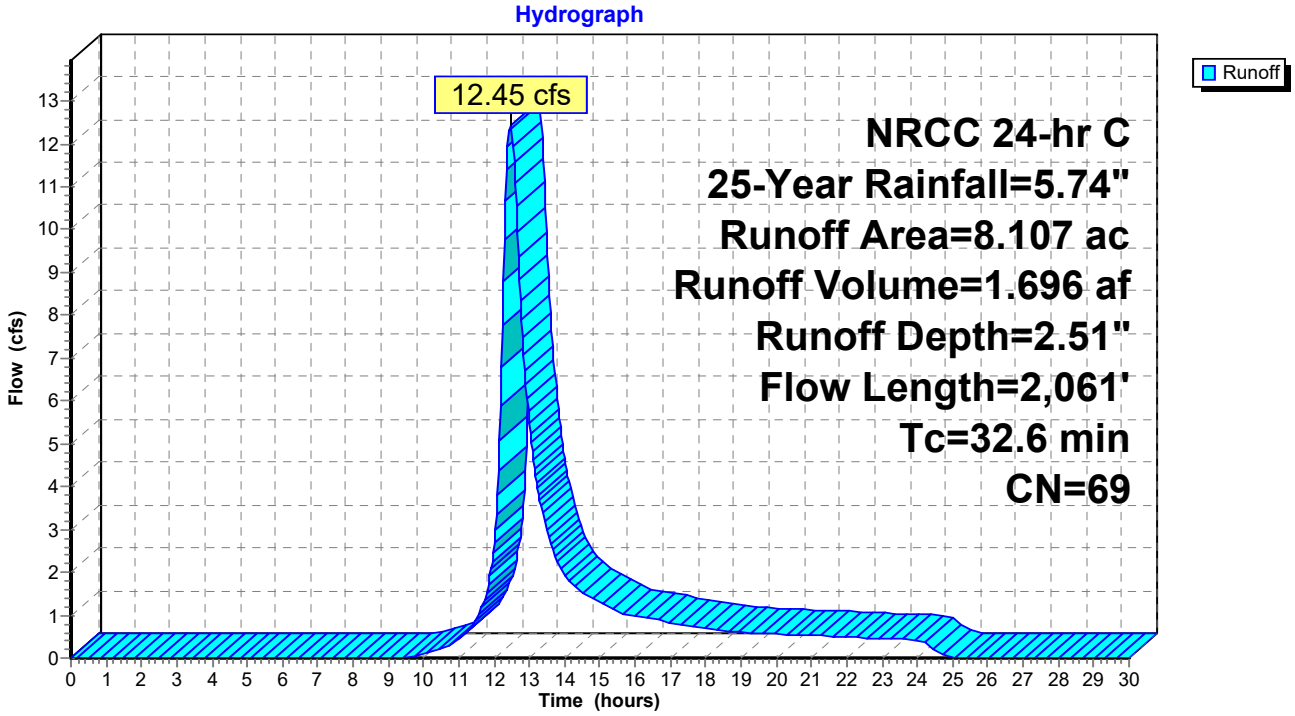
Runoff = 12.45 cfs @ 12.46 hrs, Volume= 1.696 af, Depth= 2.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 25-Year Rainfall=5.74"

Area (ac)	CN	Description
0.090	96	Gravel surface, HSG C
0.330	58	Woods/grass comb., Good, HSG B
0.426	98	Paved parking, HSG B
0.011	98	Roofs, HSG B
0.027	86	Fallow, bare soil, HSG B
1.598	69	50-75% Grass cover, Fair, HSG B
3.345	61	>75% Grass cover, Good, HSG B
0.081	72	Woods/grass comb., Good, HSG C
0.033	91	Fallow, bare soil, HSG C
0.303	79	50-75% Grass cover, Fair, HSG C
1.863	74	>75% Grass cover, Good, HSG C
8.107	69	Weighted Average
7.670		94.61% Pervious Area
0.437		5.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0160	0.15		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.6	245	0.0490	1.55		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
8.3	855	0.0600	1.71		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
10.8	861	0.0360	1.33		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
32.6	2,061	Total			

Subcatchment Ex-3: North Clubhouse along Elmridge Rd



Summary for Subcatchment Ex-4: Central/West of East Site

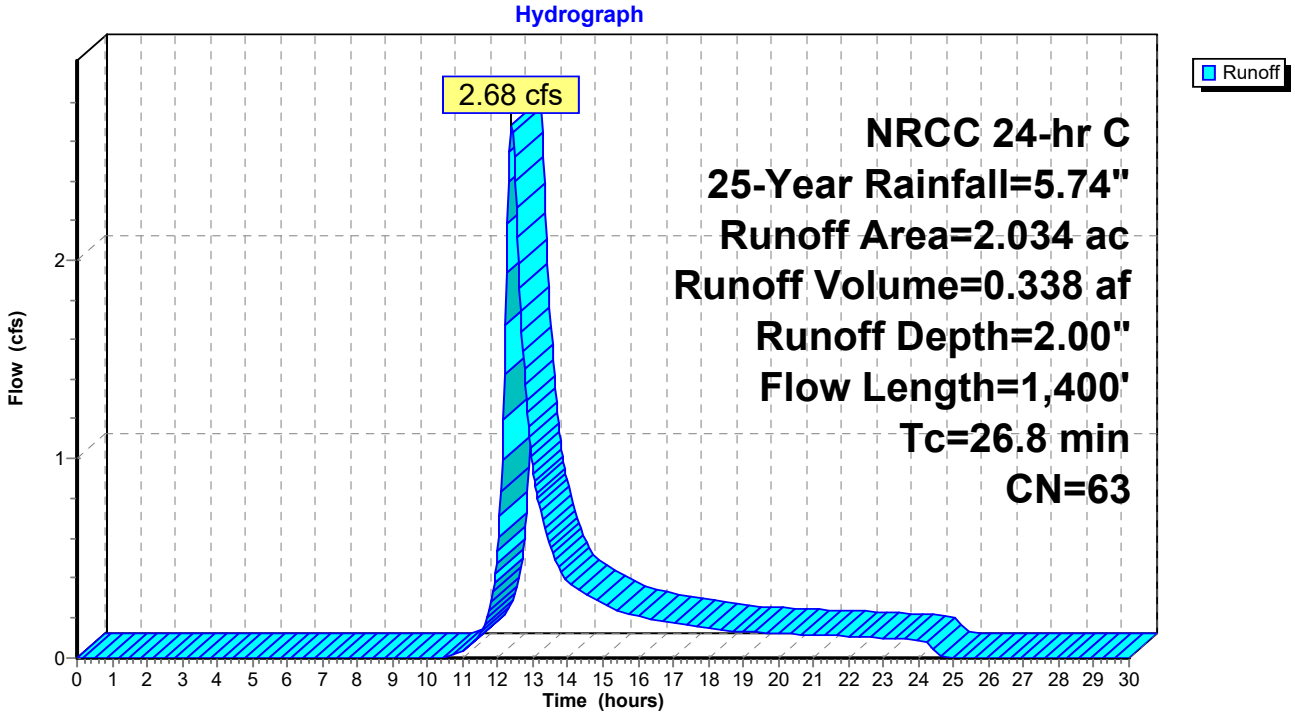
Runoff = 2.68 cfs @ 12.40 hrs, Volume= 0.338 af, Depth= 2.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 25-Year Rainfall=5.74"

Area (ac)	CN	Description
0.028	96	Gravel surface, HSG B
0.212	55	Woods, Good, HSG B
0.270	58	Woods/grass comb., Good, HSG B
0.089	98	Paved parking, HSG B
0.010	86	Fallow, bare soil, HSG B
0.155	69	50-75% Grass cover, Fair, HSG B
1.270	61	>75% Grass cover, Good, HSG B
2.034	63	Weighted Average
1.945		95.62% Pervious Area
0.089		4.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0800	0.13		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.11"
2.7	283	0.0630	1.76		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.1	178	0.0390	1.38		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
1.4	143	0.0630	1.76		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
8.1	696	0.0420	1.43		**Shallow Concentrated Flow, E-F** Short Grass Pasture Kv= 7.0 fps
26.8	1,400	Total			

Subcatchment Ex-4: Central/West of East Site



Summary for Subcatchment Ex-5: West Site along N. Anguilla Rd

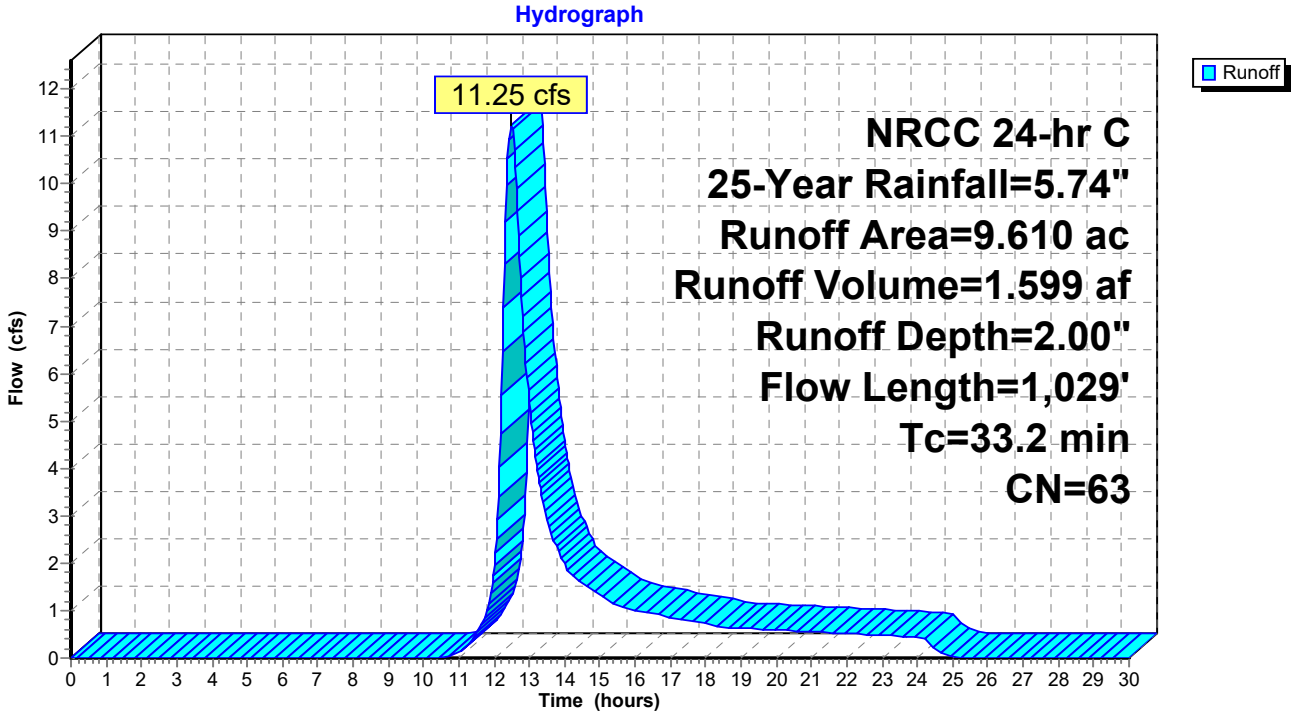
Runoff = 11.25 cfs @ 12.48 hrs, Volume= 1.599 af, Depth= 2.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 25-Year Rainfall=5.74"

Area (ac)	CN	Description
0.370	30	Woods, Good, HSG A
0.052	96	Gravel surface, HSG B
1.888	55	Woods, Good, HSG B
0.089	58	Woods/grass comb., Good, HSG B
0.307	98	Paved parking, HSG B
0.101	98	Roofs, HSG B
0.039	86	Fallow, bare soil, HSG B
0.751	69	50-75% Grass cover, Fair, HSG B
4.718	61	>75% Grass cover, Good, HSG B
0.033	96	Gravel surface, HSG C
0.535	70	Woods, Good, HSG C
0.018	72	Woods/grass comb., Good, HSG C
0.709	74	>75% Grass cover, Good, HSG C
9.610	63	Weighted Average
9.202		95.75% Pervious Area
0.408		4.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.8	100	0.0330	0.09		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.11"
3.2	311	0.0530	1.61		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
5.9	210	0.0140	0.59		**Shallow Concentrated Flow, C-D** Woodland Kv= 5.0 fps
5.0	384	0.0340	1.29		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
1.3	24	0.0040	0.32		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
33.2	1,029	Total			

Subcatchment Ex-5: West Site along N. Anguilla Rd



Summary for Subcatchment Ex-6: South/Central Area of Western Golf Course

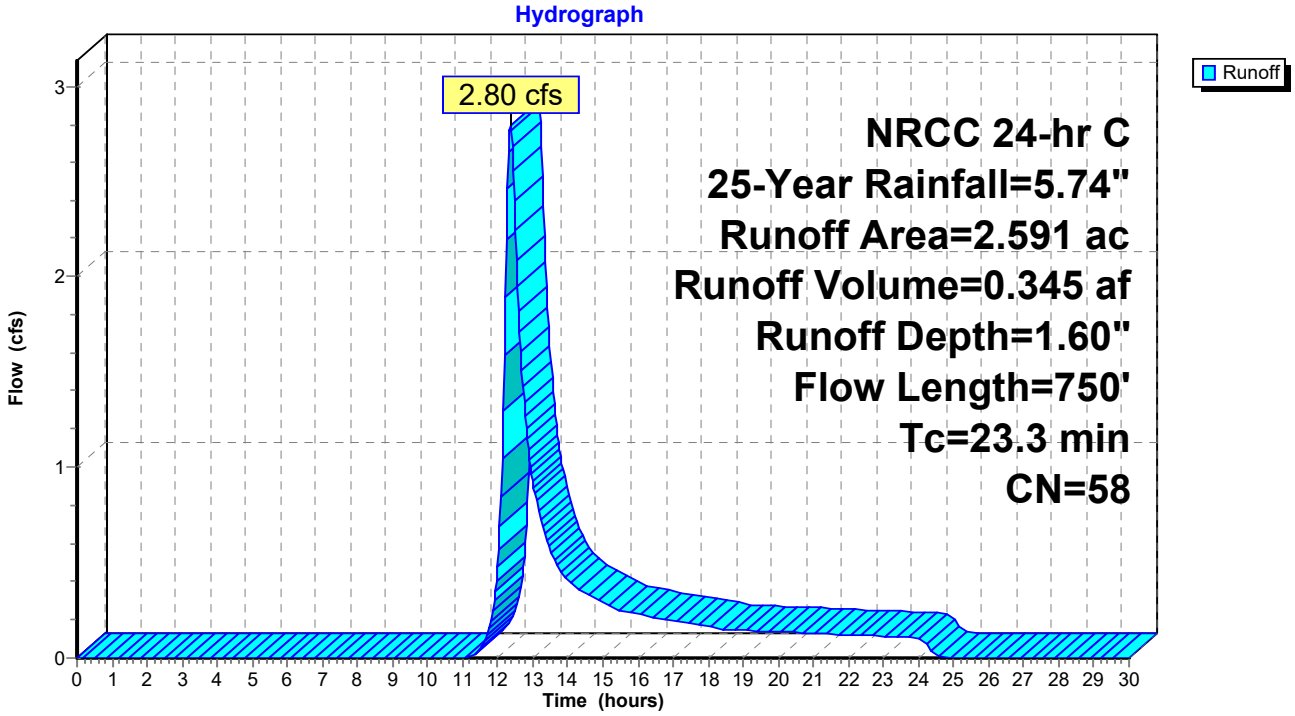
Runoff = 2.80 cfs @ 12.36 hrs, Volume= 0.345 af, Depth= 1.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 25-Year Rainfall=5.74"

Area (ac)	CN	Description
0.294	30	Woods, Good, HSG A
0.028	39	>75% Grass cover, Good, HSG A
0.415	55	Woods, Good, HSG B
0.028	86	Fallow, bare soil, HSG B
0.624	69	50-75% Grass cover, Fair, HSG B
1.190	61	>75% Grass cover, Good, HSG B
0.012	58	Woods/grass comb., Good, HSG B
2.591	58	Weighted Average
2.591		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2	100	0.0240	0.18		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.9	161	0.0170	0.91		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.2	210	0.0520	1.60		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
1.4	102	0.0600	1.22		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
7.6	177	0.0060	0.39		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
23.3	750	Total			

Subcatchment Ex-6: South/Central Area of Western Golf Course



Summary for Subcatchment Ex-7: West/Central Area of Western Golf Course

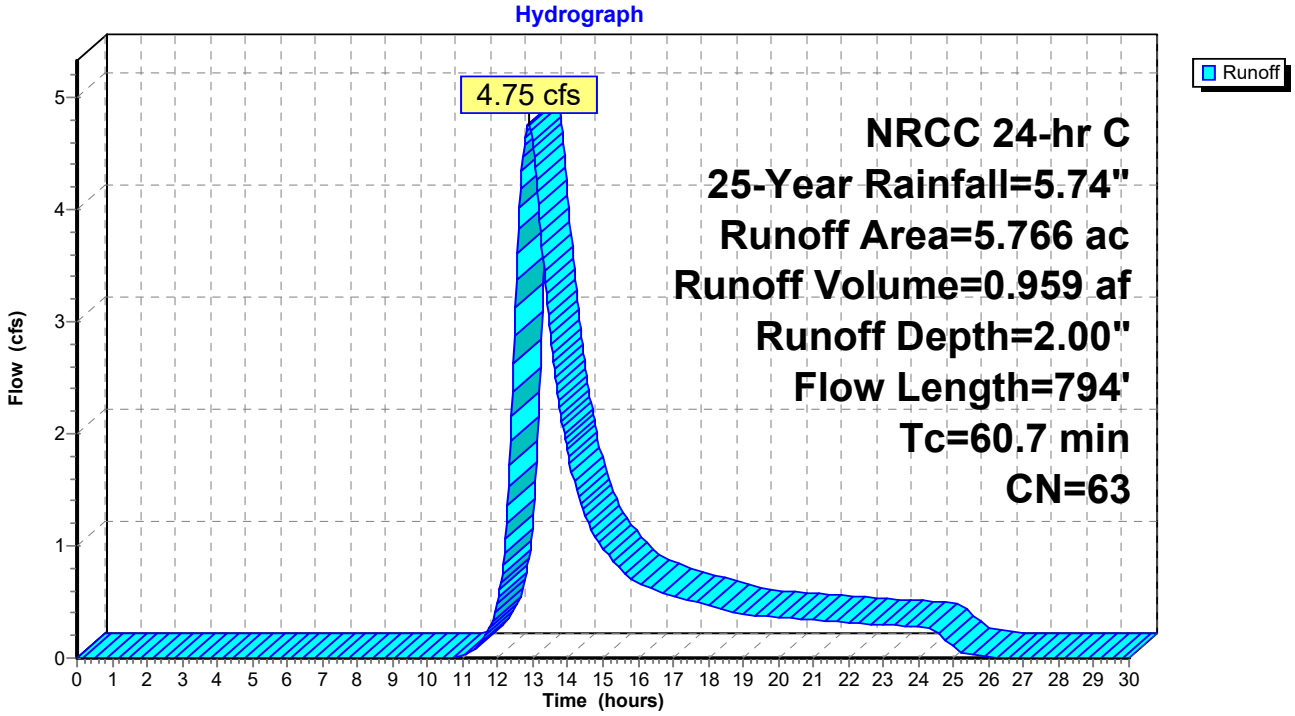
Runoff = 4.75 cfs @ 12.88 hrs, Volume= 0.959 af, Depth= 2.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 25-Year Rainfall=5.74"

Area (ac)	CN	Description
0.024	30	Woods, Good, HSG A
0.045	96	Gravel surface, HSG B
0.535	55	Woods, Good, HSG B
0.159	58	Woods/grass comb., Good, HSG B
0.086	86	Fallow, bare soil, HSG B
1.197	69	50-75% Grass cover, Fair, HSG B
3.496	61	>75% Grass cover, Good, HSG B
0.008	96	Gravel surface, HSG C
0.056	70	Woods, Good, HSG C
0.160	74	>75% Grass cover, Good, HSG C
5.766	63	Weighted Average
5.766		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.5	100	0.0004	0.04		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.5	130	0.0150	0.86		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.3	34	0.0690	1.84		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
0.3	39	0.1960	2.21		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
5.5	203	0.0150	0.61		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
1.6	121	0.0330	1.27		**Shallow Concentrated Flow, F-G** Short Grass Pasture Kv= 7.0 fps
3.0	167	0.0180	0.94		**Shallow Concentrated Flow, G-H** Short Grass Pasture Kv= 7.0 fps
60.7	794	Total			

Subcatchment Ex-7: West/Central Area of Western Golf Course

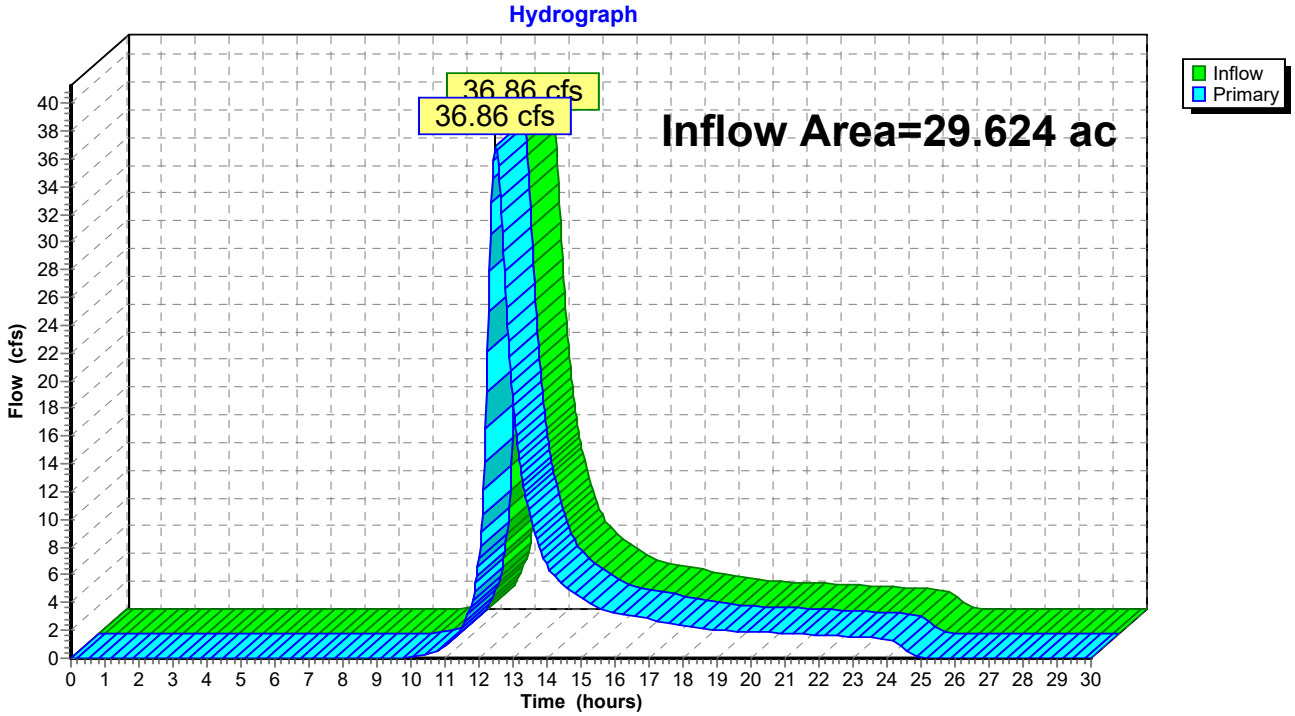


Summary for Pond AP-1: Easterly Wetland/ Vernal Pool

Inflow Area = 29.624 ac, 2.39% Impervious, Inflow Depth = 2.20" for 25-Year event
Inflow = 36.86 cfs @ 12.48 hrs, Volume= 5.438 af
Primary = 36.86 cfs @ 12.48 hrs, Volume= 5.438 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-1: Easterly Wetland/ Vernal Pool

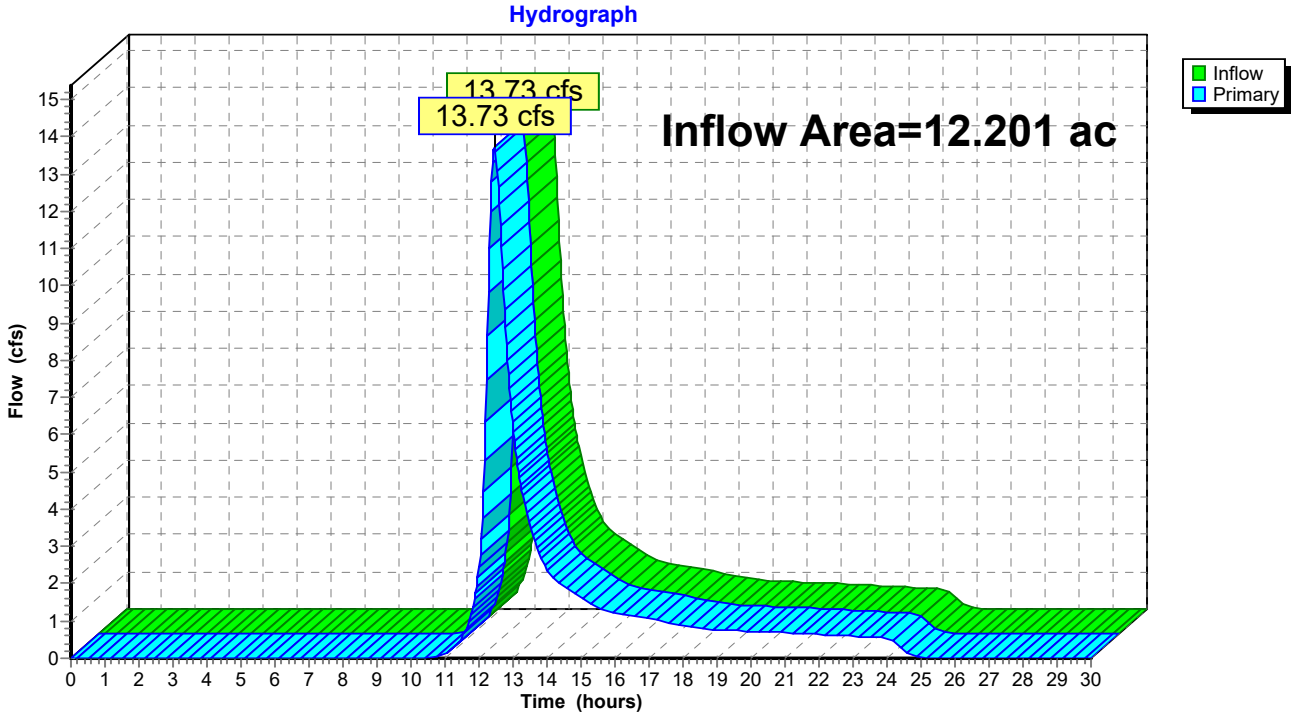


Summary for Pond AP-2: Anguilla Brook

Inflow Area = 12.201 ac, 3.34% Impervious, Inflow Depth = 1.91" for 25-Year event
Inflow = 13.73 cfs @ 12.45 hrs, Volume= 1.944 af
Primary = 13.73 cfs @ 12.45 hrs, Volume= 1.944 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-2: Anguilla Brook

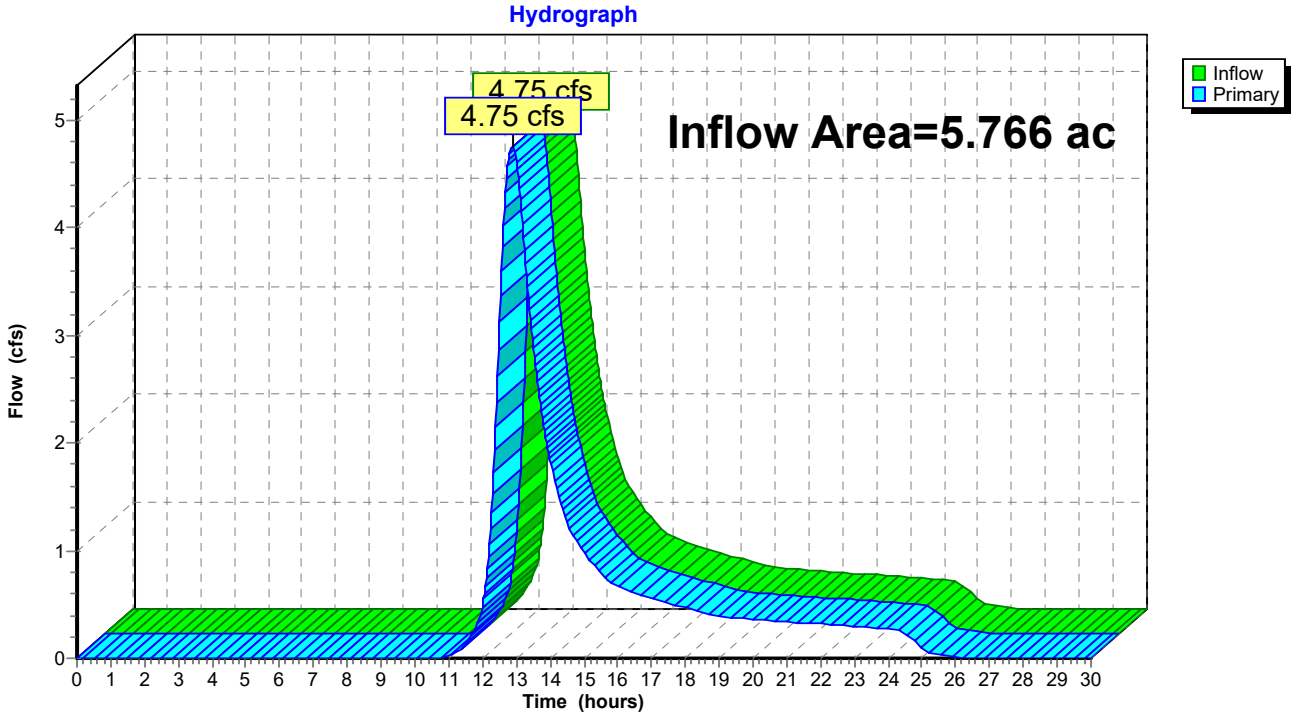


Summary for Pond AP-3: Westerly Intermittent Stream

Inflow Area = 5.766 ac, 0.00% Impervious, Inflow Depth = 2.00" for 25-Year event
Inflow = 4.75 cfs @ 12.88 hrs, Volume= 0.959 af
Primary = 4.75 cfs @ 12.88 hrs, Volume= 0.959 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-3: Westerly Intermittent Stream

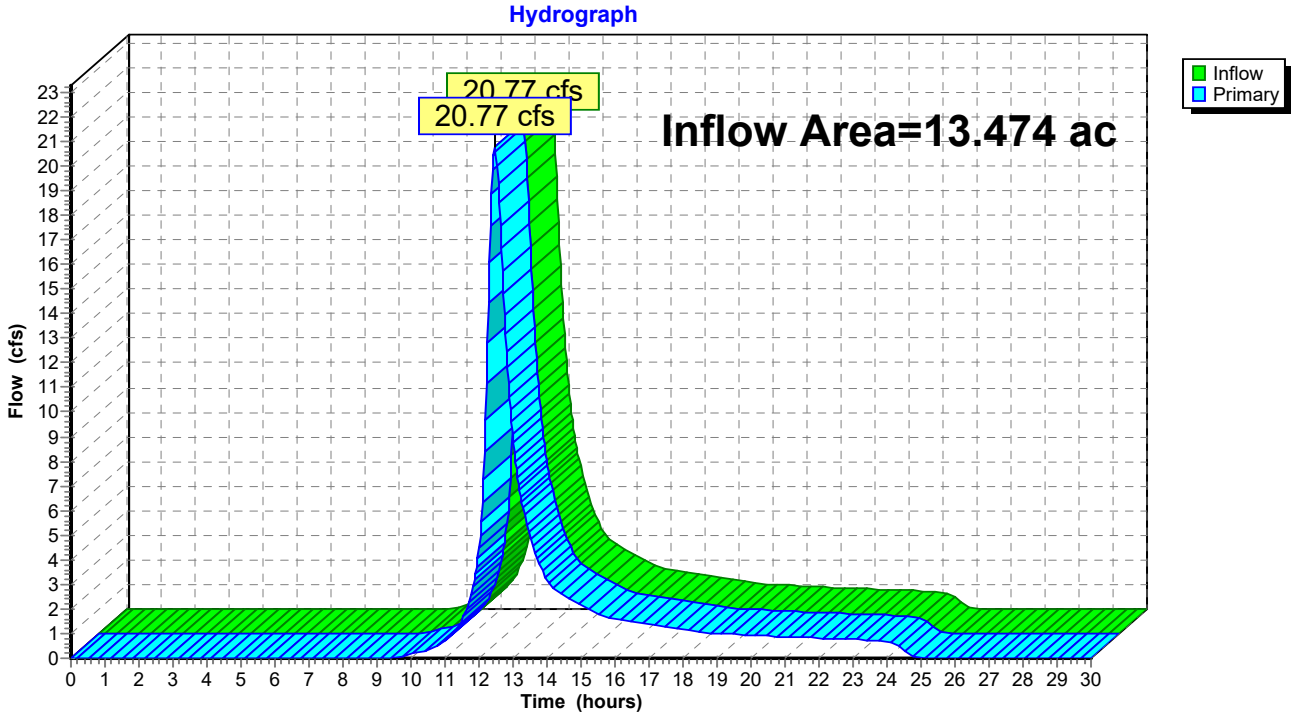


Summary for Pond AP-4: Eastern Wetland

Inflow Area = 13.474 ac, 0.00% Impervious, Inflow Depth = 2.51" for 25-Year event
Inflow = 20.77 cfs @ 12.46 hrs, Volume= 2.820 af
Primary = 20.77 cfs @ 12.46 hrs, Volume= 2.820 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-4: Eastern Wetland



Summary for Subcatchment Ex-1A: Central Golf Course/Clubhouse

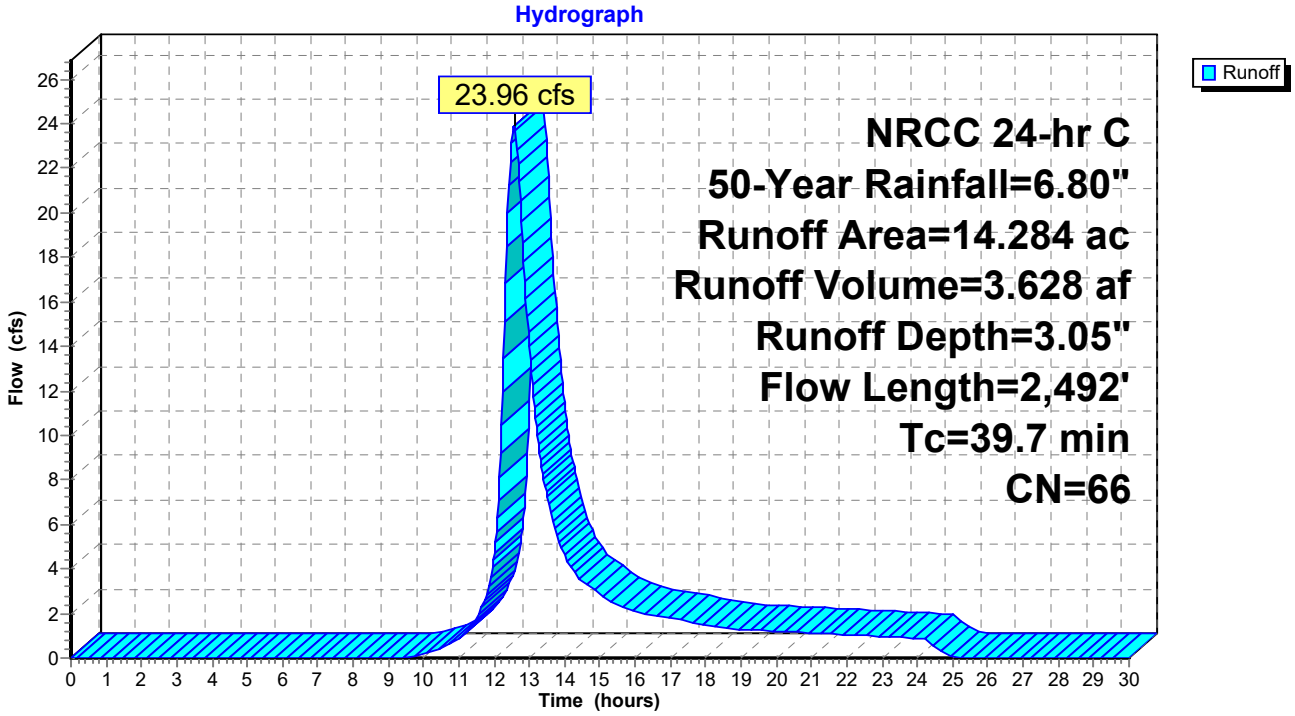
Runoff = 23.96 cfs @ 12.56 hrs, Volume= 3.628 af, Depth= 3.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 50-Year Rainfall=6.80"

Area (ac)	CN	Description
0.024	96	Gravel surface, HSG B
2.292	55	Woods, Good, HSG B
0.173	58	Woods/grass comb., Good, HSG B
0.112	98	Paved parking, HSG B
0.070	98	Roofs, HSG B
0.061	86	Fallow, bare soil, HSG B
1.896	69	50-75% Grass cover, Fair, HSG B
4.522	61	>75% Grass cover, Good, HSG B
0.008	96	Gravel surface, HSG C
0.937	70	Woods, Good, HSG C
0.467	72	Woods/grass comb., Good, HSG C
0.013	91	Fallow, bare soil, HSG C
0.255	79	50-75% Grass cover, Fair, HSG C
3.454	74	>75% Grass cover, Good, HSG C
14.284	66	Weighted Average
14.102		98.73% Pervious Area
0.182		1.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0260	0.19		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.8	235	0.0400	1.40		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
5.4	372	0.0270	1.15		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
5.5	448	0.0380	1.36		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
6.8	788	0.0770	1.94		**Shallow Concentrated Flow, E-F** Short Grass Pasture Kv= 7.0 fps
4.1	328	0.0700	1.32		**Shallow Concentrated Flow, F-G** Woodland Kv= 5.0 fps
6.2	221	0.0140	0.59		**Shallow Concentrated Flow, G-H** Woodland Kv= 5.0 fps
39.7	2,492	Total			

Subcatchment Ex-1A: Central Golf Course/Clubhouse



Summary for Subcatchment Ex-1B: Central Golf Course/Clubhouse

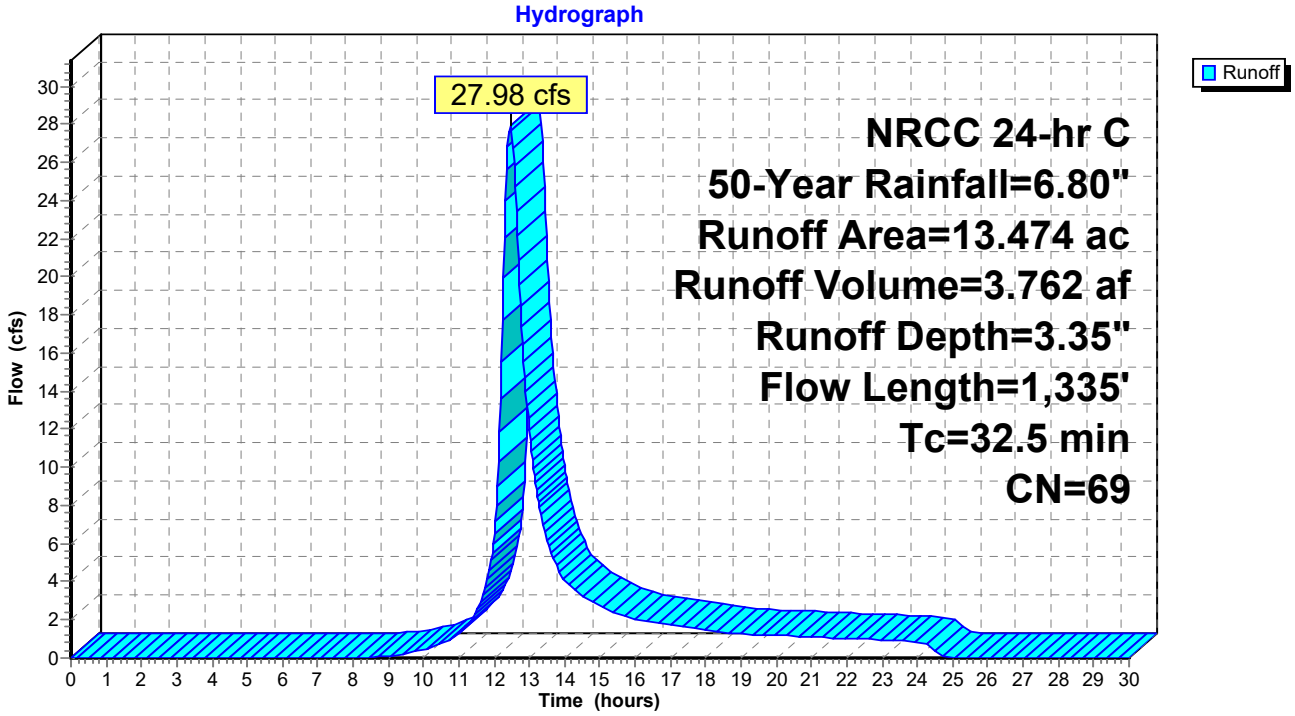
Runoff = 27.98 cfs @ 12.46 hrs, Volume= 3.762 af, Depth= 3.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 50-Year Rainfall=6.80"

Area (ac)	CN	Description
0.053	96	Gravel surface, HSG B
1.055	55	Woods, Good, HSG B
0.423	58	Woods/grass comb., Good, HSG B
0.028	86	Fallow, bare soil, HSG B
1.288	69	50-75% Grass cover, Fair, HSG B
3.252	61	>75% Grass cover, Good, HSG B
0.055	96	Gravel surface, HSG C
0.033	70	Woods, Good, HSG C
0.401	72	Woods/grass comb., Good, HSG C
0.043	91	Fallow, bare soil, HSG C
1.624	79	50-75% Grass cover, Fair, HSG C
5.219	74	>75% Grass cover, Good, HSG C
13.474	69	Weighted Average
13.474		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.1	100	0.0060	0.10		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
6.2	297	0.0130	0.80		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.2	200	0.0470	1.52		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
2.7	174	0.0240	1.08		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
1.3	79	0.0410	1.01		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
2.6	314	0.0830	2.02		**Shallow Concentrated Flow, F-G** Short Grass Pasture Kv= 7.0 fps
1.4	171	0.1650	2.03		**Shallow Concentrated Flow, G-H** Woodland Kv= 5.0 fps
32.5	1,335	Total			

Subcatchment Ex-1B: Central Golf Course/Clubhouse



Summary for Subcatchment Ex-2: Southwest of East Site

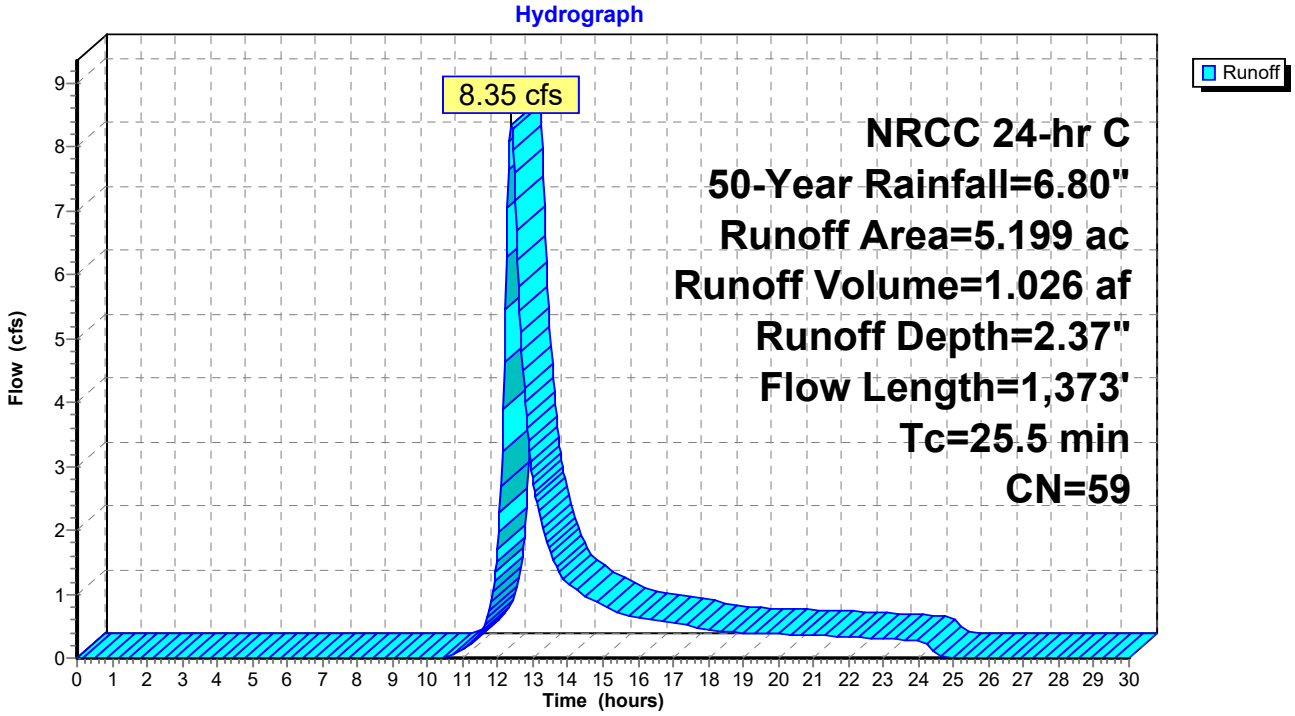
Runoff = 8.35 cfs @ 12.38 hrs, Volume= 1.026 af, Depth= 2.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 50-Year Rainfall=6.80"

Area (ac)	CN	Description
0.047	96	Gravel surface, HSG B
2.813	55	Woods, Good, HSG B
0.008	86	Fallow, bare soil, HSG B
0.027	69	50-75% Grass cover, Fair, HSG B
1.842	61	>75% Grass cover, Good, HSG B
0.425	70	Woods, Good, HSG C
0.030	74	>75% Grass cover, Good, HSG C
0.007	96	Gravel surface, HSG C
5.199	59	Weighted Average
5.199		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.0190	0.16		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
1.9	126	0.0250	1.11		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.6	305	0.0780	1.95		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
0.9	122	0.2150	2.32		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
7.8	624	0.0720	1.34		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
2.2	96	0.0210	0.72		**Shallow Concentrated Flow, F-G** Woodland Kv= 5.0 fps
25.5	1,373	Total			

Subcatchment Ex-2: Southwest of East Site



Summary for Subcatchment Ex-3: North Clubhouse along Elmridge Rd

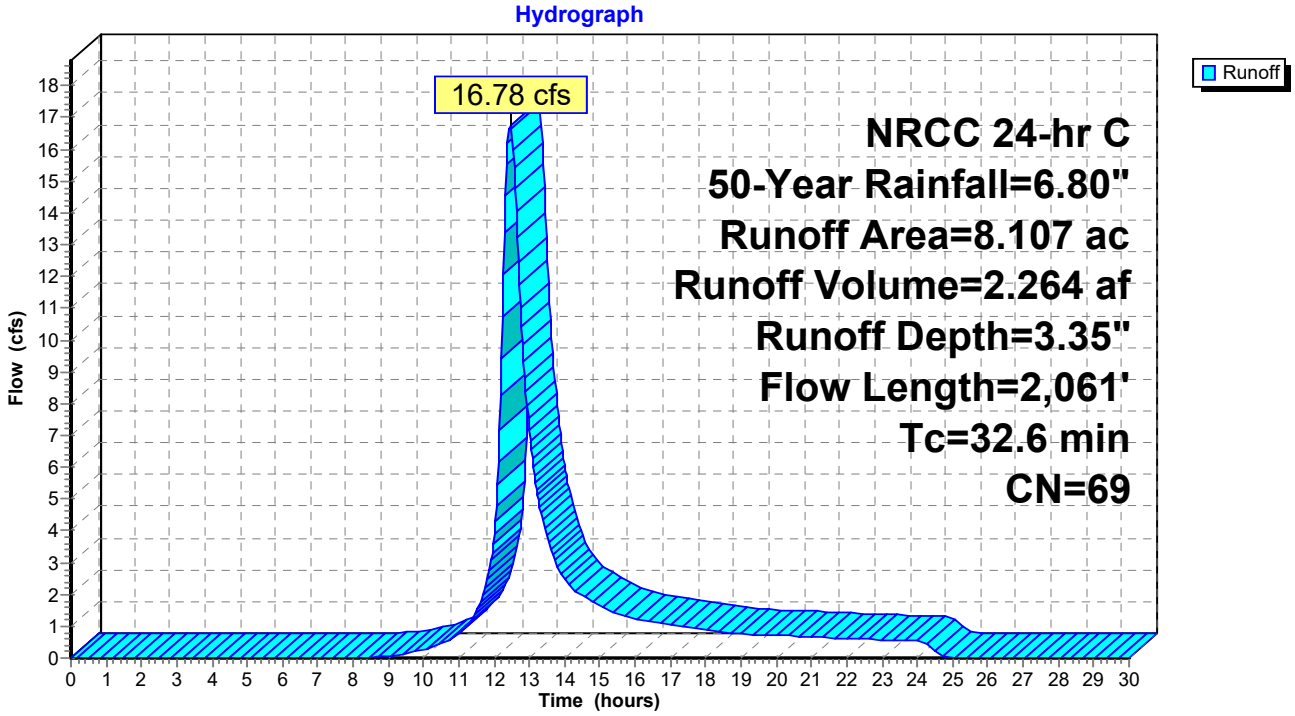
Runoff = 16.78 cfs @ 12.46 hrs, Volume= 2.264 af, Depth= 3.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 50-Year Rainfall=6.80"

Area (ac)	CN	Description
0.090	96	Gravel surface, HSG C
0.330	58	Woods/grass comb., Good, HSG B
0.426	98	Paved parking, HSG B
0.011	98	Roofs, HSG B
0.027	86	Fallow, bare soil, HSG B
1.598	69	50-75% Grass cover, Fair, HSG B
3.345	61	>75% Grass cover, Good, HSG B
0.081	72	Woods/grass comb., Good, HSG C
0.033	91	Fallow, bare soil, HSG C
0.303	79	50-75% Grass cover, Fair, HSG C
1.863	74	>75% Grass cover, Good, HSG C
8.107	69	Weighted Average
7.670		94.61% Pervious Area
0.437		5.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0160	0.15		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.6	245	0.0490	1.55		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
8.3	855	0.0600	1.71		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
10.8	861	0.0360	1.33		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
32.6	2,061	Total			

Subcatchment Ex-3: North Clubhouse along Elmridge Rd



Summary for Subcatchment Ex-4: Central/West of East Site

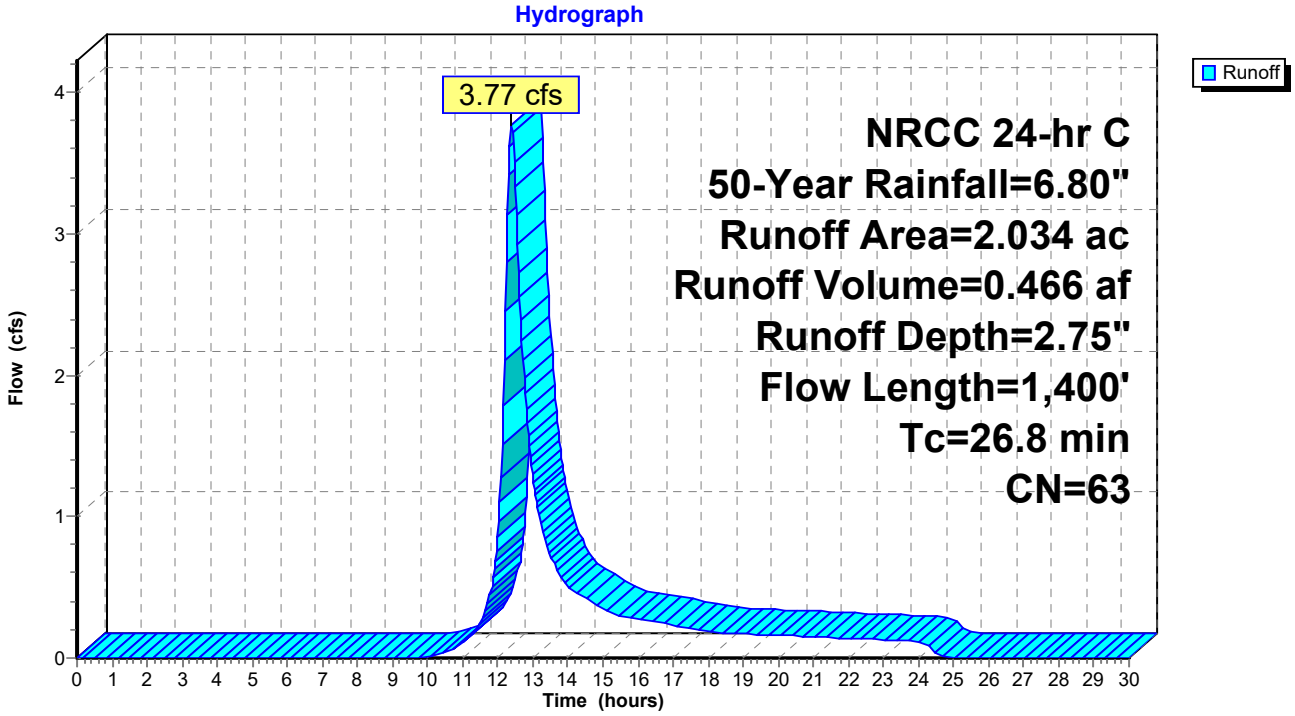
Runoff = 3.77 cfs @ 12.39 hrs, Volume= 0.466 af, Depth= 2.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 50-Year Rainfall=6.80"

Area (ac)	CN	Description
0.028	96	Gravel surface, HSG B
0.212	55	Woods, Good, HSG B
0.270	58	Woods/grass comb., Good, HSG B
0.089	98	Paved parking, HSG B
0.010	86	Fallow, bare soil, HSG B
0.155	69	50-75% Grass cover, Fair, HSG B
1.270	61	>75% Grass cover, Good, HSG B
2.034	63	Weighted Average
1.945		95.62% Pervious Area
0.089		4.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0800	0.13		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.11"
2.7	283	0.0630	1.76		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.1	178	0.0390	1.38		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
1.4	143	0.0630	1.76		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
8.1	696	0.0420	1.43		**Shallow Concentrated Flow, E-F** Short Grass Pasture Kv= 7.0 fps
26.8	1,400	Total			

Subcatchment Ex-4: Central/West of East Site



Summary for Subcatchment Ex-5: West Site along N. Anguilla Rd

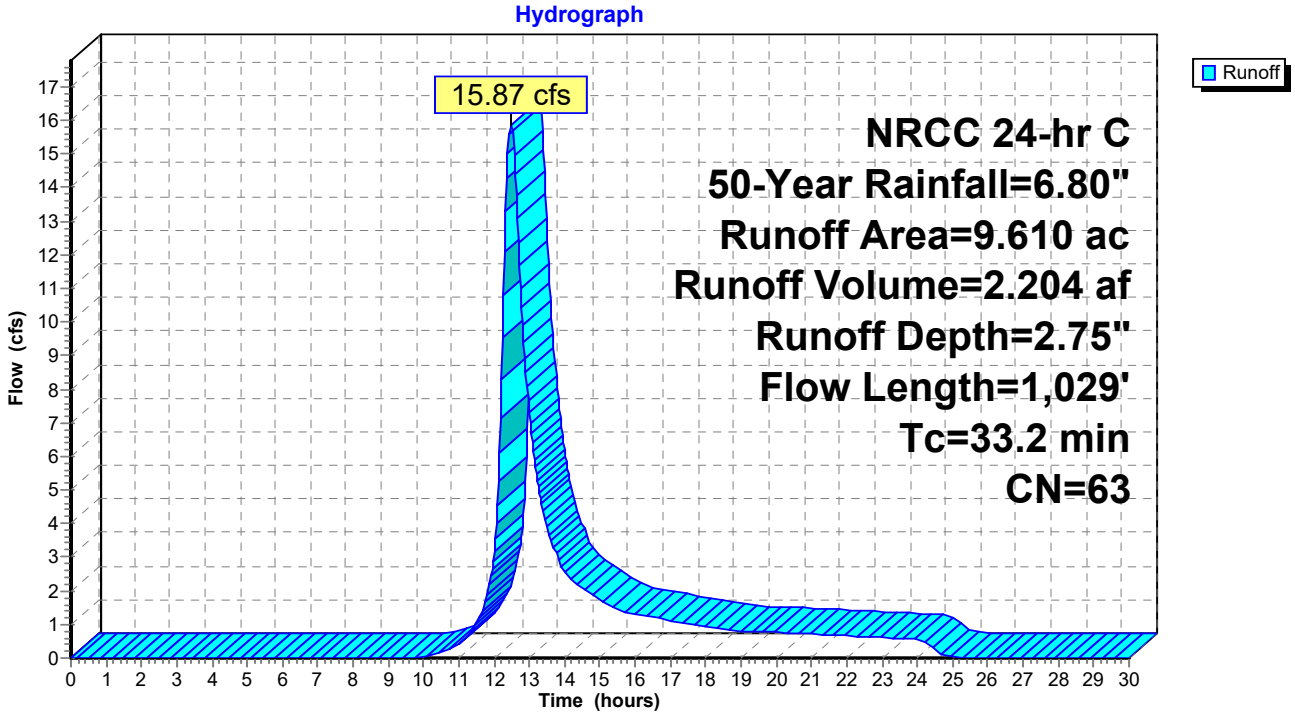
Runoff = 15.87 cfs @ 12.47 hrs, Volume= 2.204 af, Depth= 2.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 50-Year Rainfall=6.80"

Area (ac)	CN	Description
0.370	30	Woods, Good, HSG A
0.052	96	Gravel surface, HSG B
1.888	55	Woods, Good, HSG B
0.089	58	Woods/grass comb., Good, HSG B
0.307	98	Paved parking, HSG B
0.101	98	Roofs, HSG B
0.039	86	Fallow, bare soil, HSG B
0.751	69	50-75% Grass cover, Fair, HSG B
4.718	61	>75% Grass cover, Good, HSG B
0.033	96	Gravel surface, HSG C
0.535	70	Woods, Good, HSG C
0.018	72	Woods/grass comb., Good, HSG C
0.709	74	>75% Grass cover, Good, HSG C
9.610	63	Weighted Average
9.202		95.75% Pervious Area
0.408		4.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.8	100	0.0330	0.09		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.11"
3.2	311	0.0530	1.61		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
5.9	210	0.0140	0.59		**Shallow Concentrated Flow, C-D** Woodland Kv= 5.0 fps
5.0	384	0.0340	1.29		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
1.3	24	0.0040	0.32		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
33.2	1,029	Total			

Subcatchment Ex-5: West Site along N. Anguilla Rd



Summary for Subcatchment Ex-6: South/Central Area of Western Golf Course

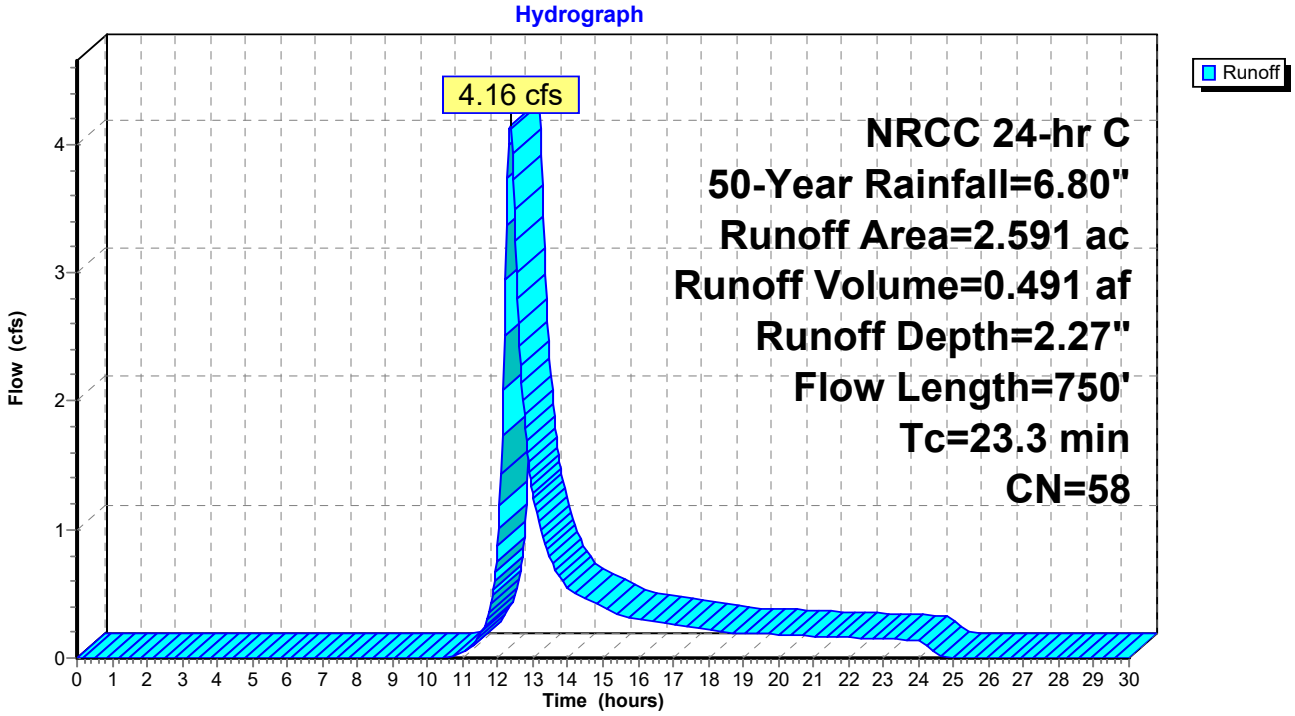
Runoff = 4.16 cfs @ 12.35 hrs, Volume= 0.491 af, Depth= 2.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 50-Year Rainfall=6.80"

Area (ac)	CN	Description
0.294	30	Woods, Good, HSG A
0.028	39	>75% Grass cover, Good, HSG A
0.415	55	Woods, Good, HSG B
0.028	86	Fallow, bare soil, HSG B
0.624	69	50-75% Grass cover, Fair, HSG B
1.190	61	>75% Grass cover, Good, HSG B
0.012	58	Woods/grass comb., Good, HSG B
2.591	58	Weighted Average
2.591		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2	100	0.0240	0.18		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.9	161	0.0170	0.91		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.2	210	0.0520	1.60		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
1.4	102	0.0600	1.22		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
7.6	177	0.0060	0.39		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
23.3	750	Total			

Subcatchment Ex-6: South/Central Area of Western Golf Course



Summary for Subcatchment Ex-7: West/Central Area of Western Golf Course

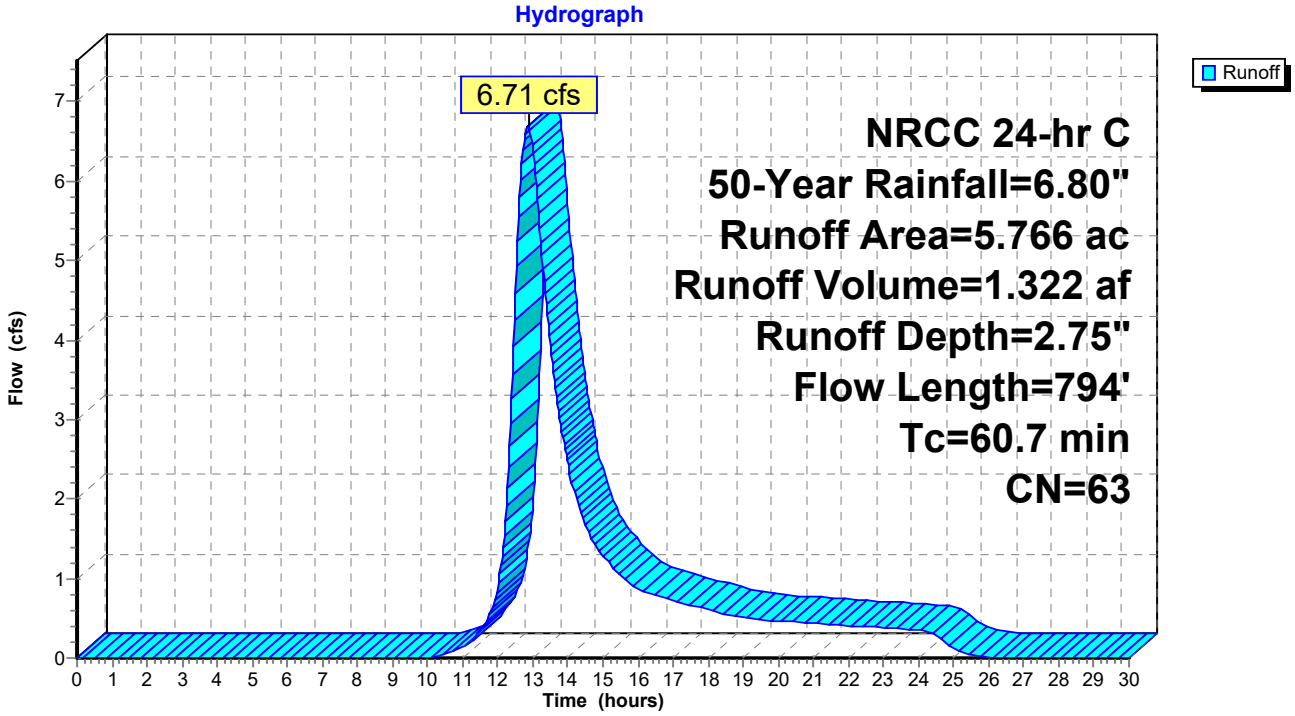
Runoff = 6.71 cfs @ 12.87 hrs, Volume= 1.322 af, Depth= 2.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 50-Year Rainfall=6.80"

Area (ac)	CN	Description
0.024	30	Woods, Good, HSG A
0.045	96	Gravel surface, HSG B
0.535	55	Woods, Good, HSG B
0.159	58	Woods/grass comb., Good, HSG B
0.086	86	Fallow, bare soil, HSG B
1.197	69	50-75% Grass cover, Fair, HSG B
3.496	61	>75% Grass cover, Good, HSG B
0.008	96	Gravel surface, HSG C
0.056	70	Woods, Good, HSG C
0.160	74	>75% Grass cover, Good, HSG C
5.766	63	Weighted Average
5.766		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.5	100	0.0004	0.04		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.5	130	0.0150	0.86		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.3	34	0.0690	1.84		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
0.3	39	0.1960	2.21		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
5.5	203	0.0150	0.61		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
1.6	121	0.0330	1.27		**Shallow Concentrated Flow, F-G** Short Grass Pasture Kv= 7.0 fps
3.0	167	0.0180	0.94		**Shallow Concentrated Flow, G-H** Short Grass Pasture Kv= 7.0 fps
60.7	794	Total			

Subcatchment Ex-7: West/Central Area of Western Golf Course

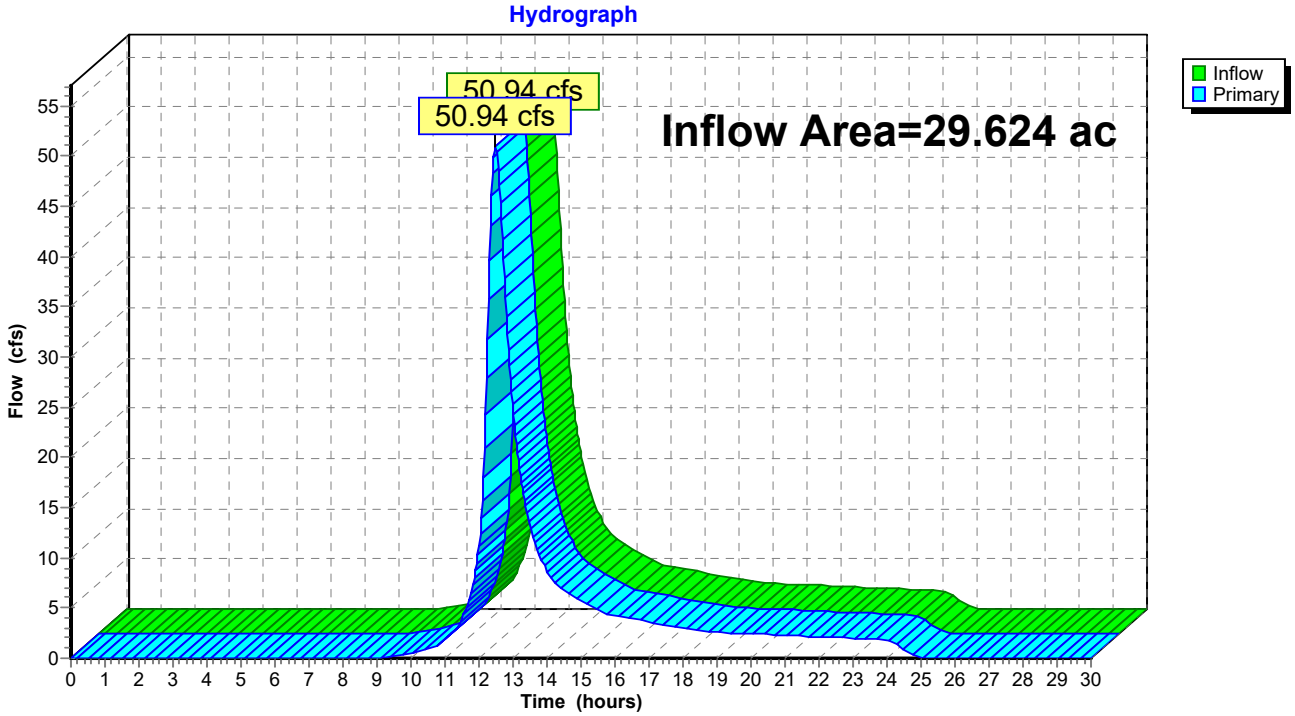


Summary for Pond AP-1: Easterly Wetland/ Vernal Pool

Inflow Area = 29.624 ac, 2.39% Impervious, Inflow Depth = 2.99" for 50-Year event
Inflow = 50.94 cfs @ 12.48 hrs, Volume= 7.384 af
Primary = 50.94 cfs @ 12.48 hrs, Volume= 7.384 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-1: Easterly Wetland/ Vernal Pool

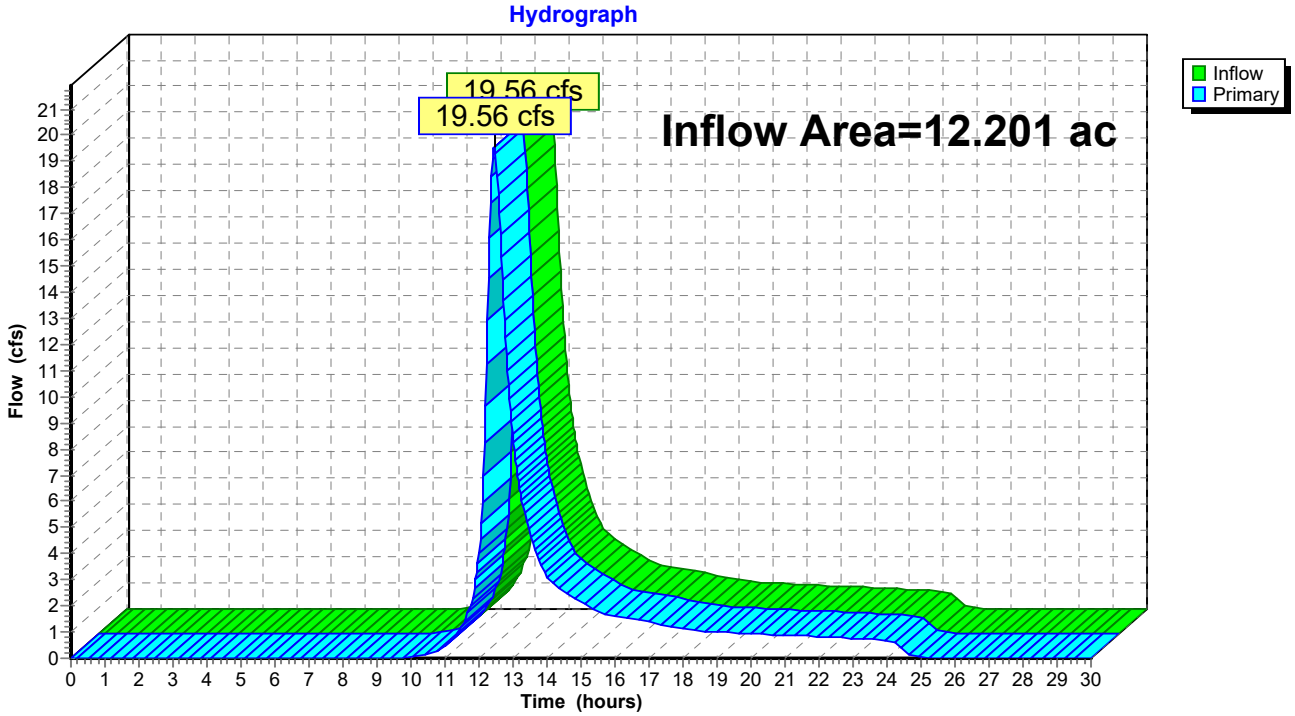


Summary for Pond AP-2: Anguilla Brook

Inflow Area = 12.201 ac, 3.34% Impervious, Inflow Depth = 2.65" for 50-Year event
Inflow = 19.56 cfs @ 12.44 hrs, Volume= 2.695 af
Primary = 19.56 cfs @ 12.44 hrs, Volume= 2.695 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-2: Anguilla Brook

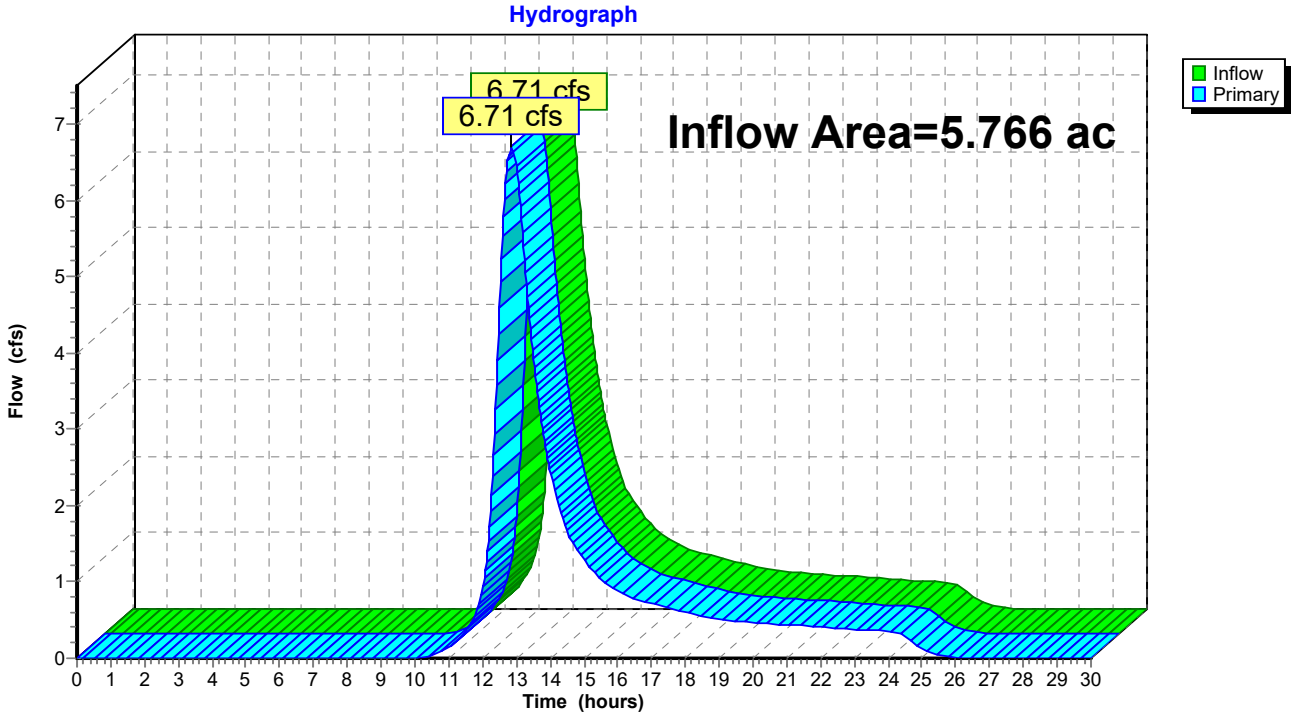


Summary for Pond AP-3: Westerly Intermittent Stream

Inflow Area = 5.766 ac, 0.00% Impervious, Inflow Depth = 2.75" for 50-Year event
Inflow = 6.71 cfs @ 12.87 hrs, Volume= 1.322 af
Primary = 6.71 cfs @ 12.87 hrs, Volume= 1.322 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-3: Westerly Intermittent Stream

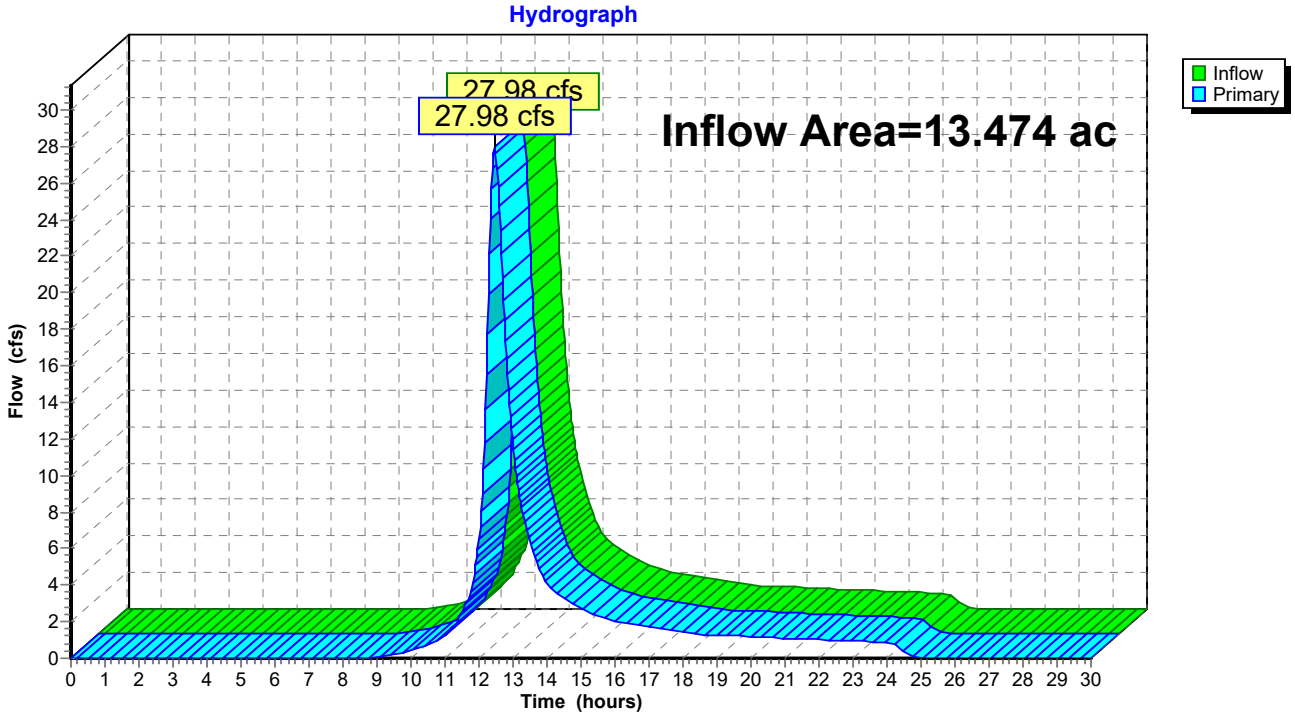


Summary for Pond AP-4: Eastern Wetland

Inflow Area = 13.474 ac, 0.00% Impervious, Inflow Depth = 3.35" for 50-Year event
Inflow = 27.98 cfs @ 12.46 hrs, Volume= 3.762 af
Primary = 27.98 cfs @ 12.46 hrs, Volume= 3.762 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-4: Eastern Wetland



Summary for Subcatchment Ex-1A: Central Golf Course/Clubhouse

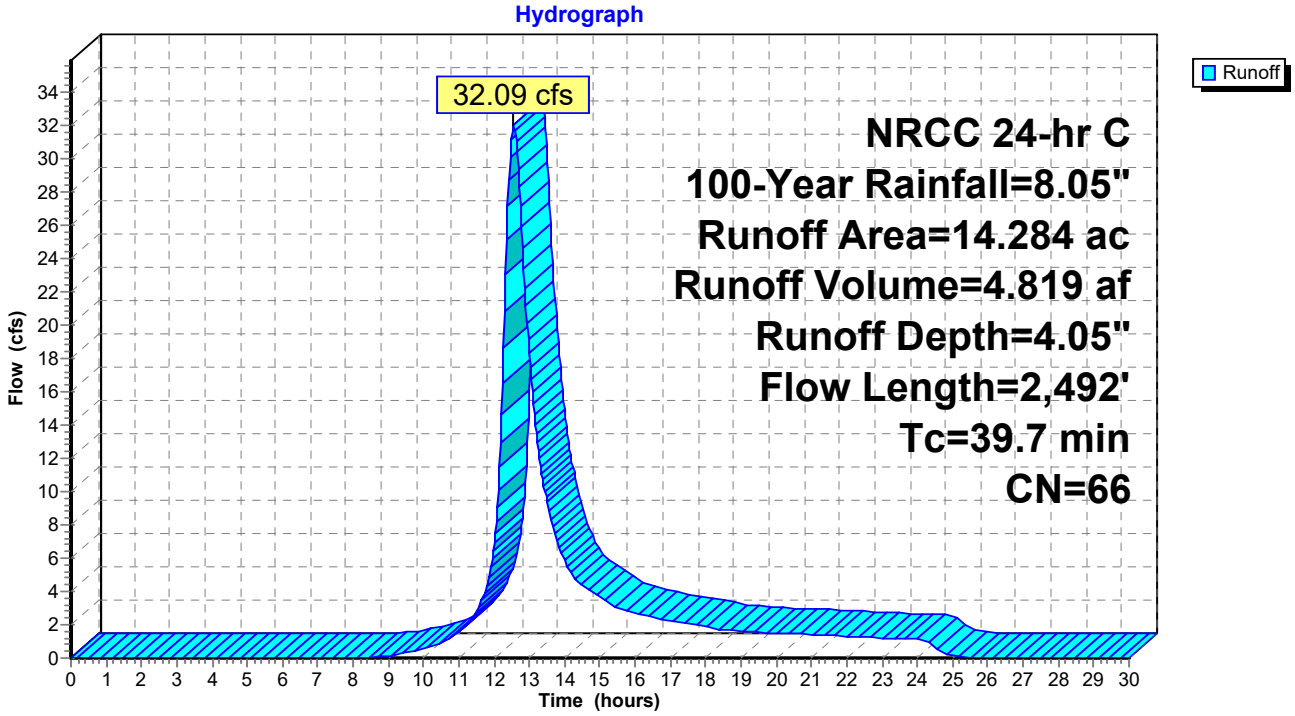
Runoff = 32.09 cfs @ 12.56 hrs, Volume= 4.819 af, Depth= 4.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 100-Year Rainfall=8.05"

Area (ac)	CN	Description
0.024	96	Gravel surface, HSG B
2.292	55	Woods, Good, HSG B
0.173	58	Woods/grass comb., Good, HSG B
0.112	98	Paved parking, HSG B
0.070	98	Roofs, HSG B
0.061	86	Fallow, bare soil, HSG B
1.896	69	50-75% Grass cover, Fair, HSG B
4.522	61	>75% Grass cover, Good, HSG B
0.008	96	Gravel surface, HSG C
0.937	70	Woods, Good, HSG C
0.467	72	Woods/grass comb., Good, HSG C
0.013	91	Fallow, bare soil, HSG C
0.255	79	50-75% Grass cover, Fair, HSG C
3.454	74	>75% Grass cover, Good, HSG C
14.284	66	Weighted Average
14.102		98.73% Pervious Area
0.182		1.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0260	0.19		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.8	235	0.0400	1.40		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
5.4	372	0.0270	1.15		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
5.5	448	0.0380	1.36		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
6.8	788	0.0770	1.94		**Shallow Concentrated Flow, E-F** Short Grass Pasture Kv= 7.0 fps
4.1	328	0.0700	1.32		**Shallow Concentrated Flow, F-G** Woodland Kv= 5.0 fps
6.2	221	0.0140	0.59		**Shallow Concentrated Flow, G-H** Woodland Kv= 5.0 fps
39.7	2,492	Total			

Subcatchment Ex-1A: Central Golf Course/Clubhouse



Summary for Subcatchment Ex-1B: Central Golf Course/Clubhouse

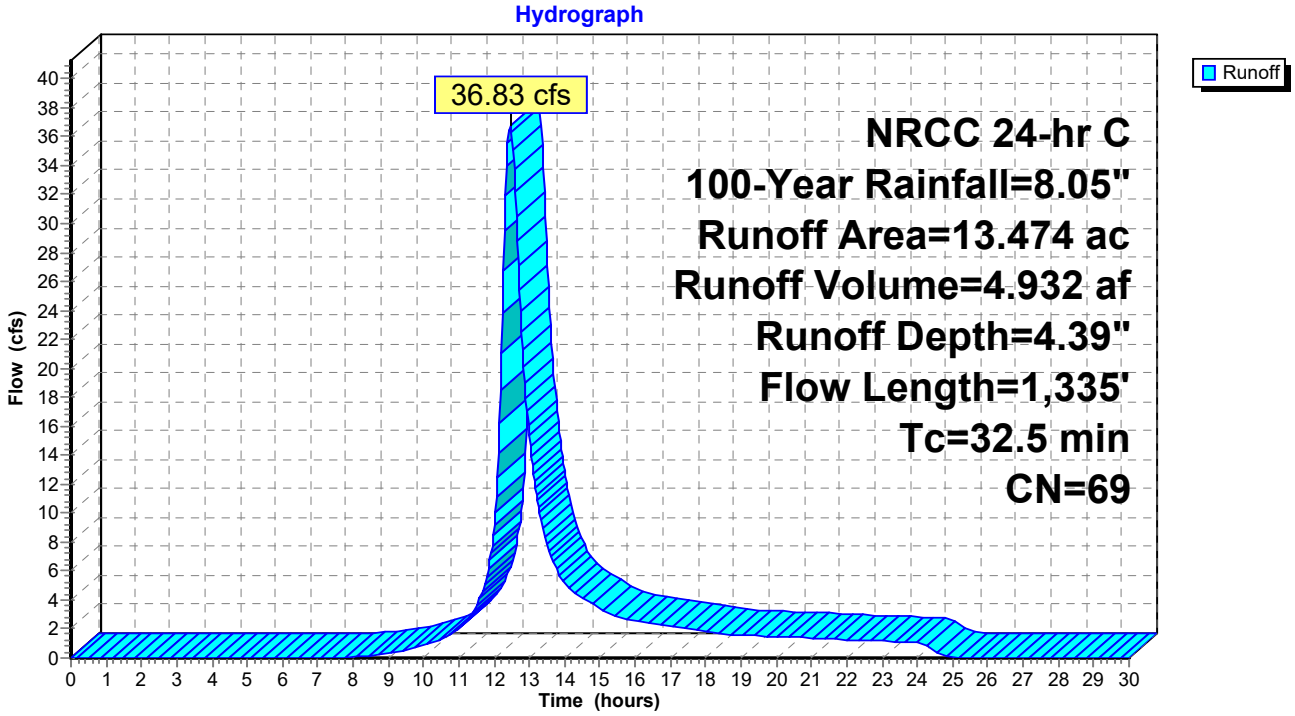
Runoff = 36.83 cfs @ 12.45 hrs, Volume= 4.932 af, Depth= 4.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 100-Year Rainfall=8.05"

Area (ac)	CN	Description
0.053	96	Gravel surface, HSG B
1.055	55	Woods, Good, HSG B
0.423	58	Woods/grass comb., Good, HSG B
0.028	86	Fallow, bare soil, HSG B
1.288	69	50-75% Grass cover, Fair, HSG B
3.252	61	>75% Grass cover, Good, HSG B
0.055	96	Gravel surface, HSG C
0.033	70	Woods, Good, HSG C
0.401	72	Woods/grass comb., Good, HSG C
0.043	91	Fallow, bare soil, HSG C
1.624	79	50-75% Grass cover, Fair, HSG C
5.219	74	>75% Grass cover, Good, HSG C
13.474	69	Weighted Average
13.474		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.1	100	0.0060	0.10		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
6.2	297	0.0130	0.80		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.2	200	0.0470	1.52		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
2.7	174	0.0240	1.08		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
1.3	79	0.0410	1.01		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
2.6	314	0.0830	2.02		**Shallow Concentrated Flow, F-G** Short Grass Pasture Kv= 7.0 fps
1.4	171	0.1650	2.03		**Shallow Concentrated Flow, G-H** Woodland Kv= 5.0 fps
32.5	1,335	Total			

Subcatchment Ex-1B: Central Golf Course/Clubhouse



Summary for Subcatchment Ex-2: Southwest of East Site

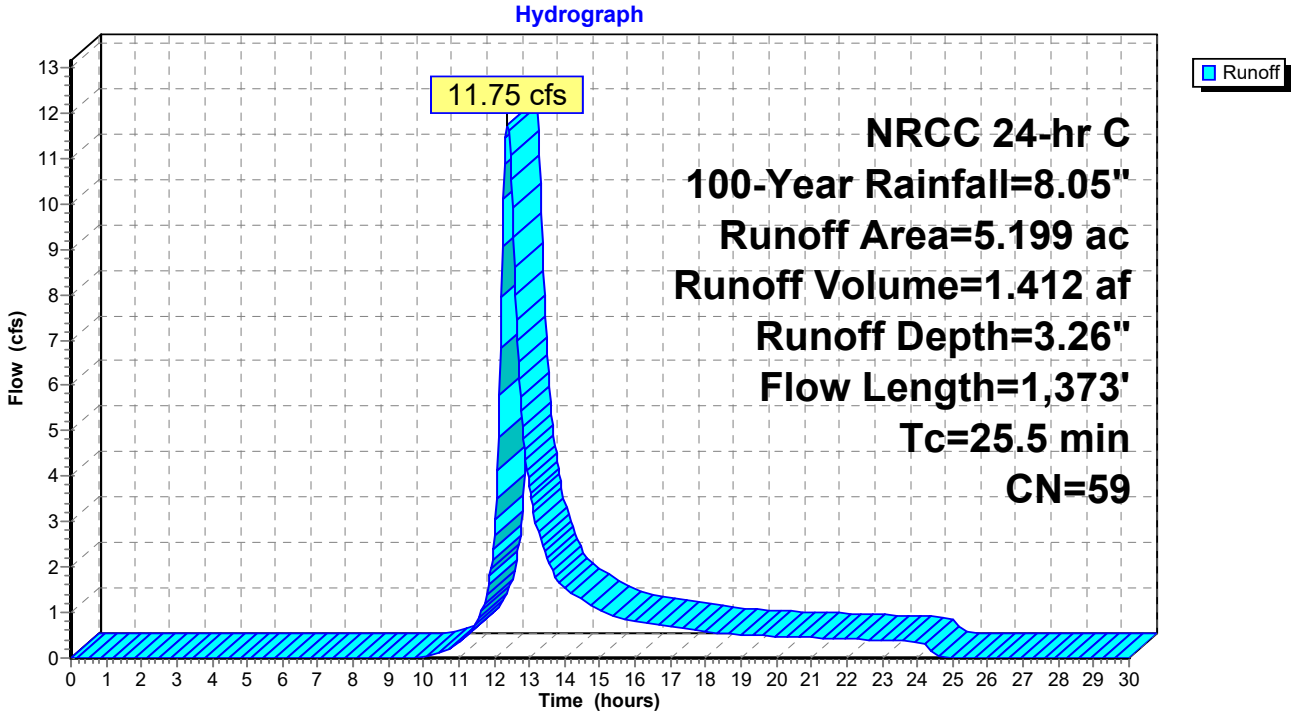
Runoff = 11.75 cfs @ 12.38 hrs, Volume= 1.412 af, Depth= 3.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 100-Year Rainfall=8.05"

Area (ac)	CN	Description
0.047	96	Gravel surface, HSG B
2.813	55	Woods, Good, HSG B
0.008	86	Fallow, bare soil, HSG B
0.027	69	50-75% Grass cover, Fair, HSG B
1.842	61	>75% Grass cover, Good, HSG B
0.425	70	Woods, Good, HSG C
0.030	74	>75% Grass cover, Good, HSG C
0.007	96	Gravel surface, HSG C
5.199	59	Weighted Average
5.199		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.0190	0.16		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
1.9	126	0.0250	1.11		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.6	305	0.0780	1.95		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
0.9	122	0.2150	2.32		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
7.8	624	0.0720	1.34		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
2.2	96	0.0210	0.72		**Shallow Concentrated Flow, F-G** Woodland Kv= 5.0 fps
25.5	1,373	Total			

Subcatchment Ex-2: Southwest of East Site



Summary for Subcatchment Ex-3: North Clubhouse along Elmridge Rd

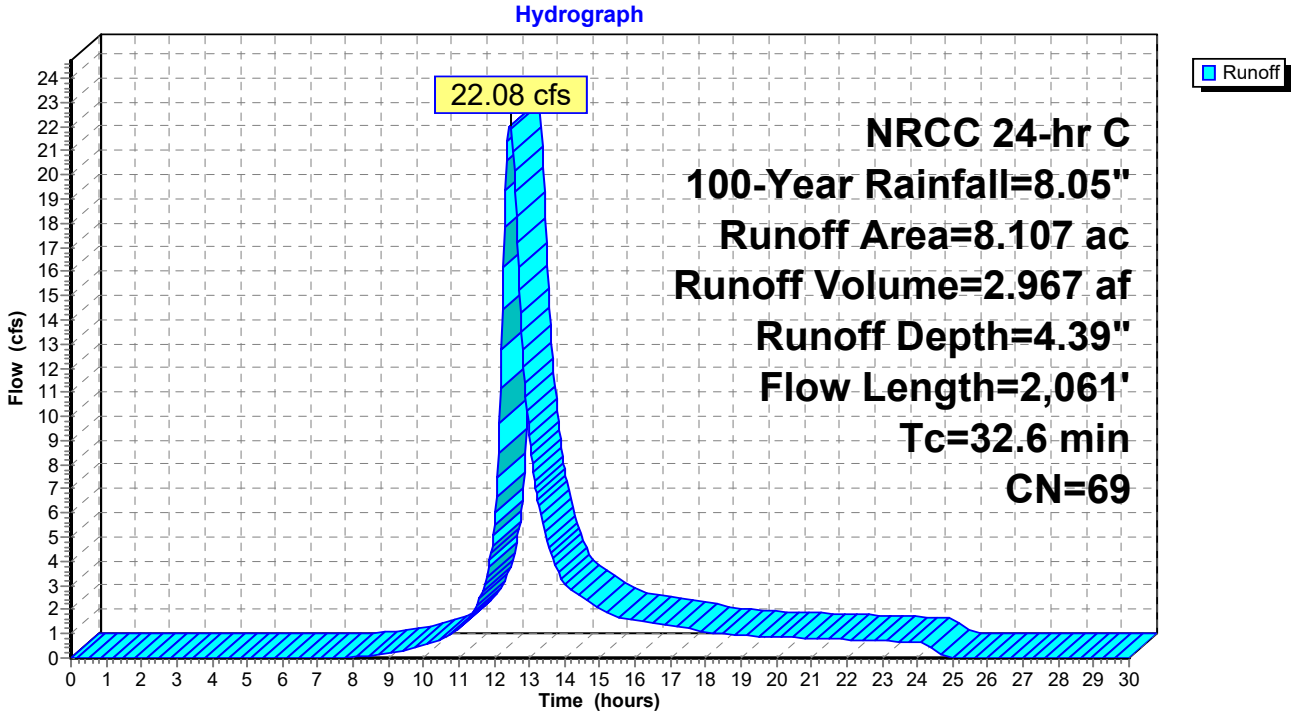
Runoff = 22.08 cfs @ 12.45 hrs, Volume= 2.967 af, Depth= 4.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 100-Year Rainfall=8.05"

Area (ac)	CN	Description
0.090	96	Gravel surface, HSG C
0.330	58	Woods/grass comb., Good, HSG B
0.426	98	Paved parking, HSG B
0.011	98	Roofs, HSG B
0.027	86	Fallow, bare soil, HSG B
1.598	69	50-75% Grass cover, Fair, HSG B
3.345	61	>75% Grass cover, Good, HSG B
0.081	72	Woods/grass comb., Good, HSG C
0.033	91	Fallow, bare soil, HSG C
0.303	79	50-75% Grass cover, Fair, HSG C
1.863	74	>75% Grass cover, Good, HSG C
8.107	69	Weighted Average
7.670		94.61% Pervious Area
0.437		5.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0160	0.15		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.6	245	0.0490	1.55		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
8.3	855	0.0600	1.71		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
10.8	861	0.0360	1.33		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
32.6	2,061	Total			

Subcatchment Ex-3: North Clubhouse along Elmridge Rd



Summary for Subcatchment Ex-4: Central/West of East Site

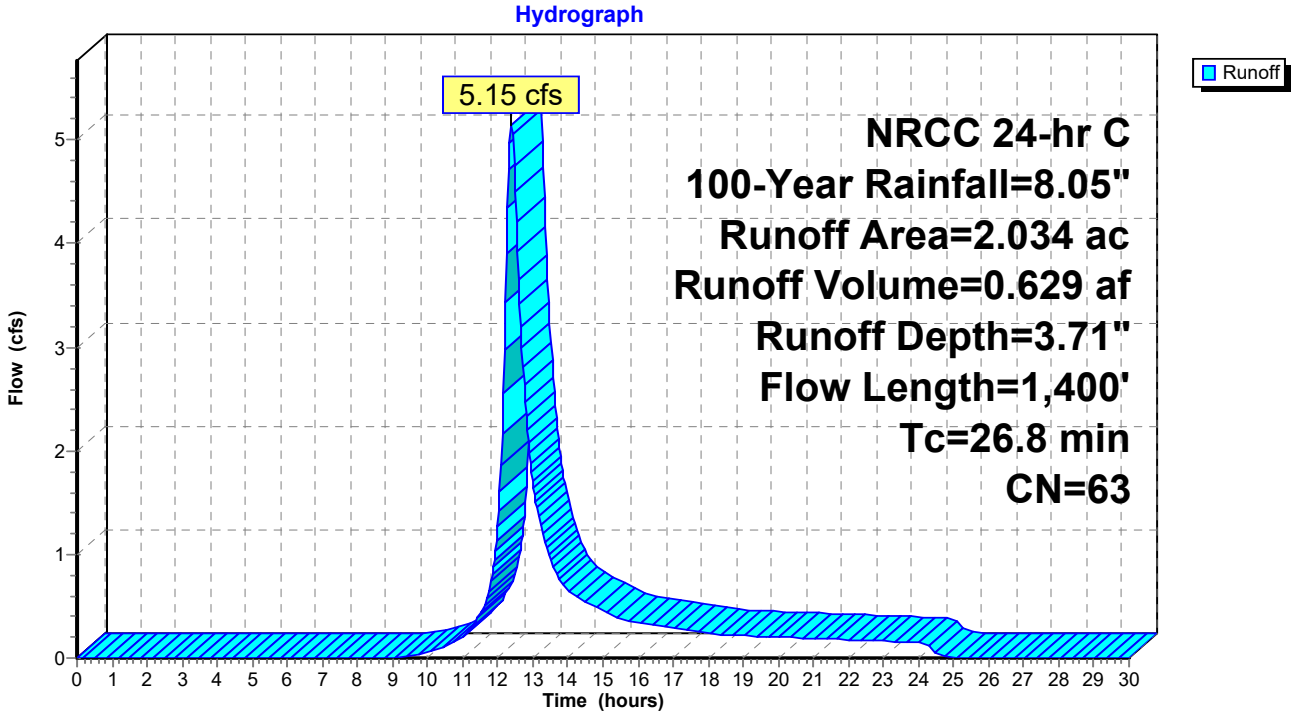
Runoff = 5.15 cfs @ 12.39 hrs, Volume= 0.629 af, Depth= 3.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 100-Year Rainfall=8.05"

Area (ac)	CN	Description
0.028	96	Gravel surface, HSG B
0.212	55	Woods, Good, HSG B
0.270	58	Woods/grass comb., Good, HSG B
0.089	98	Paved parking, HSG B
0.010	86	Fallow, bare soil, HSG B
0.155	69	50-75% Grass cover, Fair, HSG B
1.270	61	>75% Grass cover, Good, HSG B
2.034	63	Weighted Average
1.945		95.62% Pervious Area
0.089		4.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0800	0.13		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.11"
2.7	283	0.0630	1.76		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.1	178	0.0390	1.38		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
1.4	143	0.0630	1.76		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
8.1	696	0.0420	1.43		**Shallow Concentrated Flow, E-F** Short Grass Pasture Kv= 7.0 fps
26.8	1,400	Total			

Subcatchment Ex-4: Central/West of East Site



Summary for Subcatchment Ex-5: West Site along N. Anguilla Rd

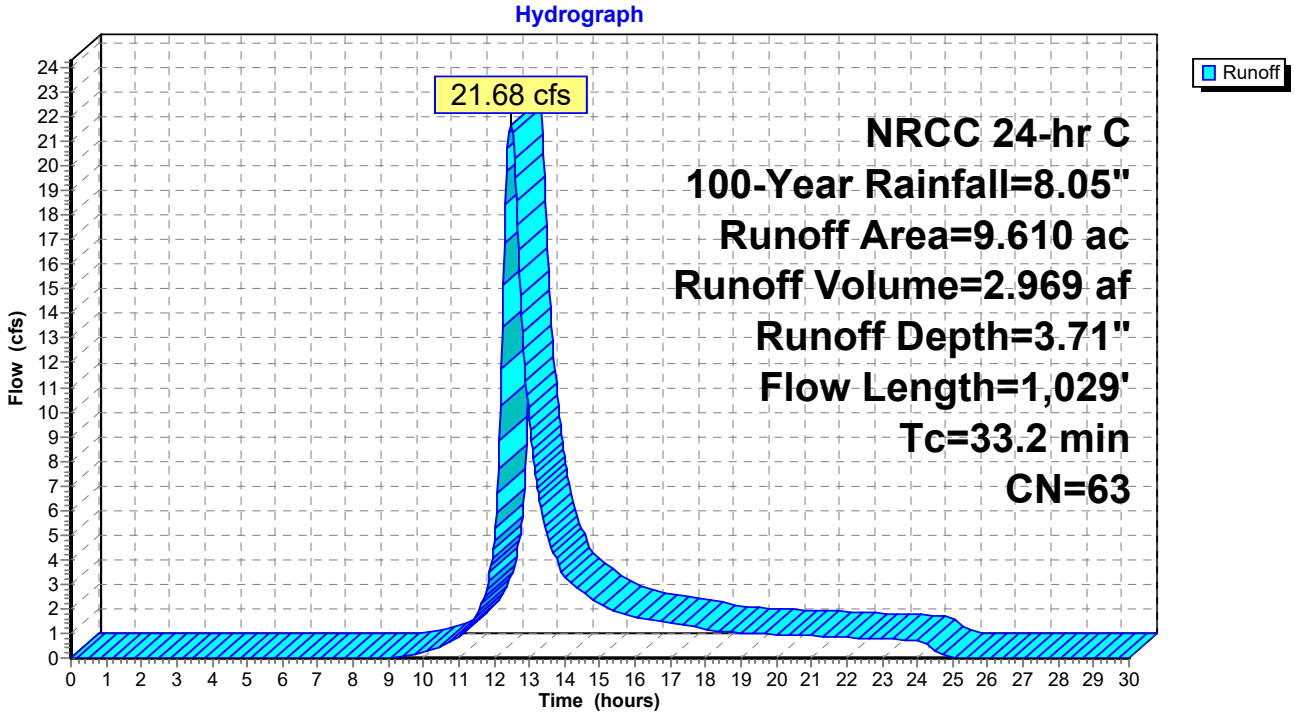
Runoff = 21.68 cfs @ 12.47 hrs, Volume= 2.969 af, Depth= 3.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 100-Year Rainfall=8.05"

Area (ac)	CN	Description
0.370	30	Woods, Good, HSG A
0.052	96	Gravel surface, HSG B
1.888	55	Woods, Good, HSG B
0.089	58	Woods/grass comb., Good, HSG B
0.307	98	Paved parking, HSG B
0.101	98	Roofs, HSG B
0.039	86	Fallow, bare soil, HSG B
0.751	69	50-75% Grass cover, Fair, HSG B
4.718	61	>75% Grass cover, Good, HSG B
0.033	96	Gravel surface, HSG C
0.535	70	Woods, Good, HSG C
0.018	72	Woods/grass comb., Good, HSG C
0.709	74	>75% Grass cover, Good, HSG C
9.610	63	Weighted Average
9.202		95.75% Pervious Area
0.408		4.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.8	100	0.0330	0.09		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.11"
3.2	311	0.0530	1.61		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
5.9	210	0.0140	0.59		**Shallow Concentrated Flow, C-D** Woodland Kv= 5.0 fps
5.0	384	0.0340	1.29		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
1.3	24	0.0040	0.32		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
33.2	1,029	Total			

Subcatchment Ex-5: West Site along N. Anguilla Rd



Summary for Subcatchment Ex-6: South/Central Area of Western Golf Course

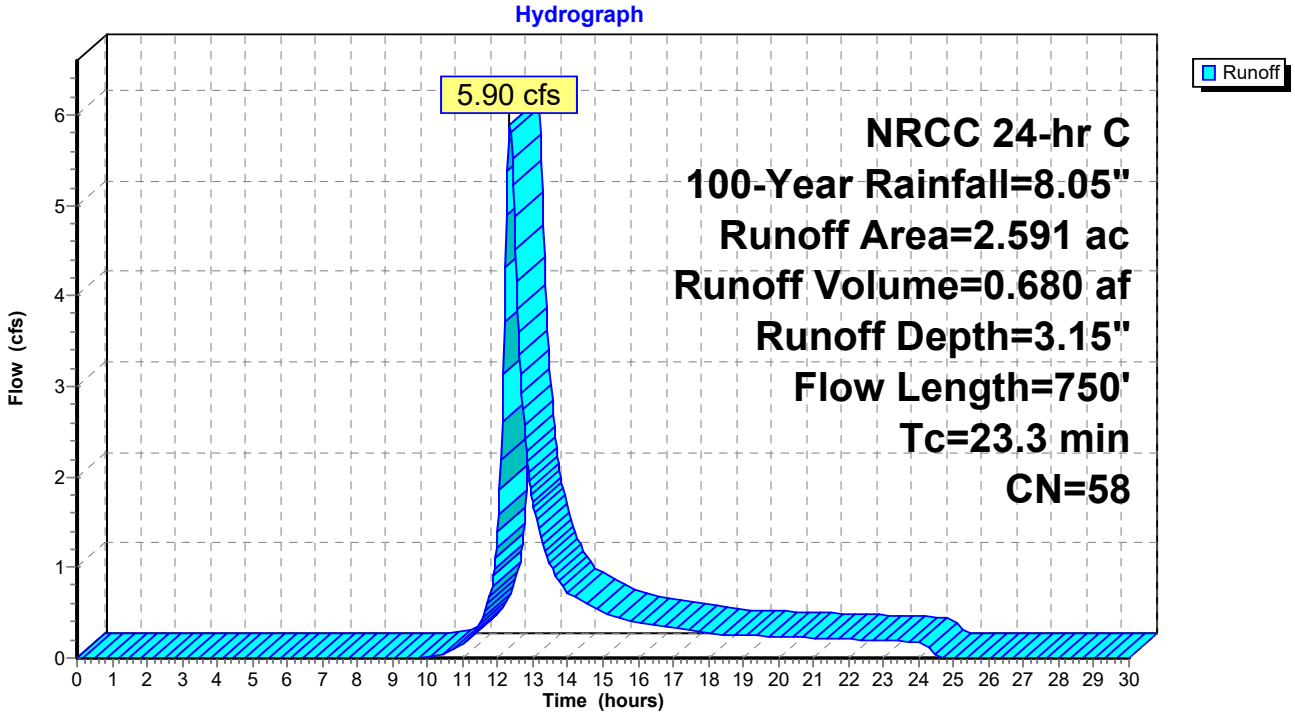
Runoff = 5.90 cfs @ 12.35 hrs, Volume= 0.680 af, Depth= 3.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 100-Year Rainfall=8.05"

Area (ac)	CN	Description
0.294	30	Woods, Good, HSG A
0.028	39	>75% Grass cover, Good, HSG A
0.415	55	Woods, Good, HSG B
0.028	86	Fallow, bare soil, HSG B
0.624	69	50-75% Grass cover, Fair, HSG B
1.190	61	>75% Grass cover, Good, HSG B
0.012	58	Woods/grass comb., Good, HSG B
2.591	58	Weighted Average
2.591		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2	100	0.0240	0.18		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.9	161	0.0170	0.91		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.2	210	0.0520	1.60		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
1.4	102	0.0600	1.22		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
7.6	177	0.0060	0.39		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
23.3	750	Total			

Subcatchment Ex-6: South/Central Area of Western Golf Course



Summary for Subcatchment Ex-7: West/Central Area of Western Golf Course

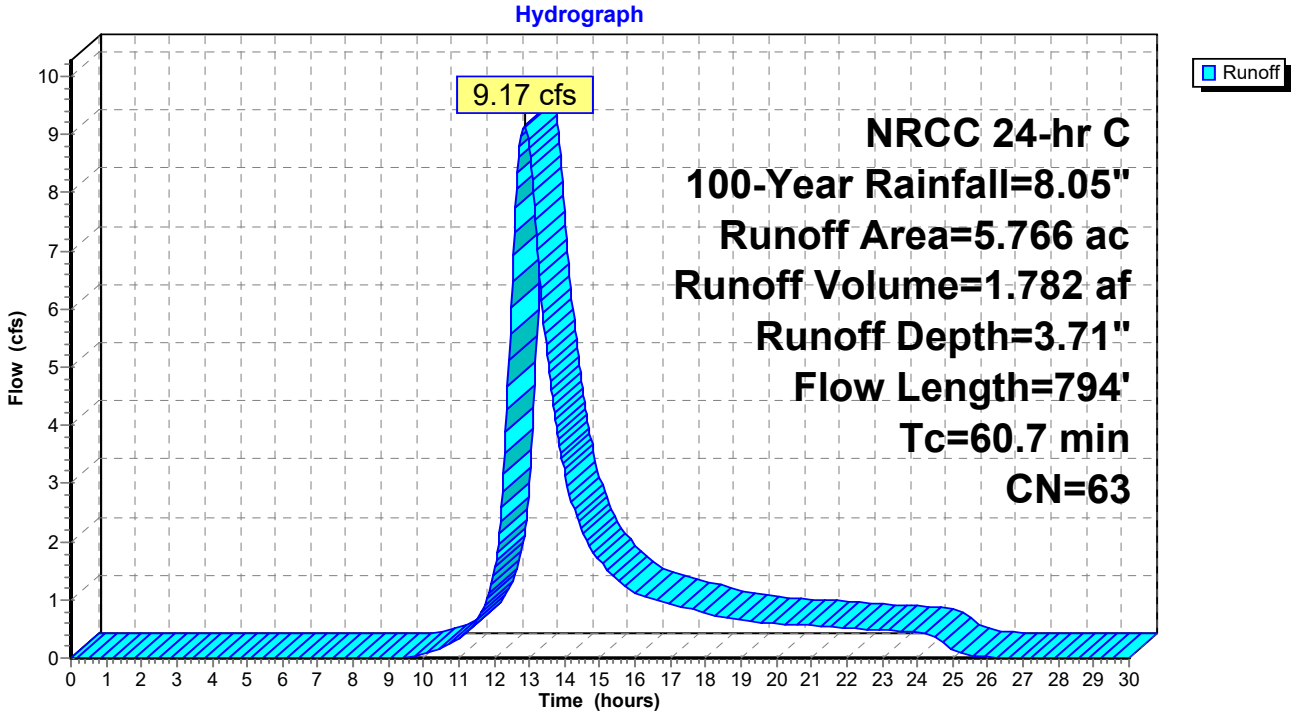
Runoff = 9.17 cfs @ 12.86 hrs, Volume= 1.782 af, Depth= 3.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 100-Year Rainfall=8.05"

Area (ac)	CN	Description
0.024	30	Woods, Good, HSG A
0.045	96	Gravel surface, HSG B
0.535	55	Woods, Good, HSG B
0.159	58	Woods/grass comb., Good, HSG B
0.086	86	Fallow, bare soil, HSG B
1.197	69	50-75% Grass cover, Fair, HSG B
3.496	61	>75% Grass cover, Good, HSG B
0.008	96	Gravel surface, HSG C
0.056	70	Woods, Good, HSG C
0.160	74	>75% Grass cover, Good, HSG C
5.766	63	Weighted Average
5.766		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.5	100	0.0004	0.04		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.5	130	0.0150	0.86		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.3	34	0.0690	1.84		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
0.3	39	0.1960	2.21		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
5.5	203	0.0150	0.61		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
1.6	121	0.0330	1.27		**Shallow Concentrated Flow, F-G** Short Grass Pasture Kv= 7.0 fps
3.0	167	0.0180	0.94		**Shallow Concentrated Flow, G-H** Short Grass Pasture Kv= 7.0 fps
60.7	794	Total			

Subcatchment Ex-7: West/Central Area of Western Golf Course

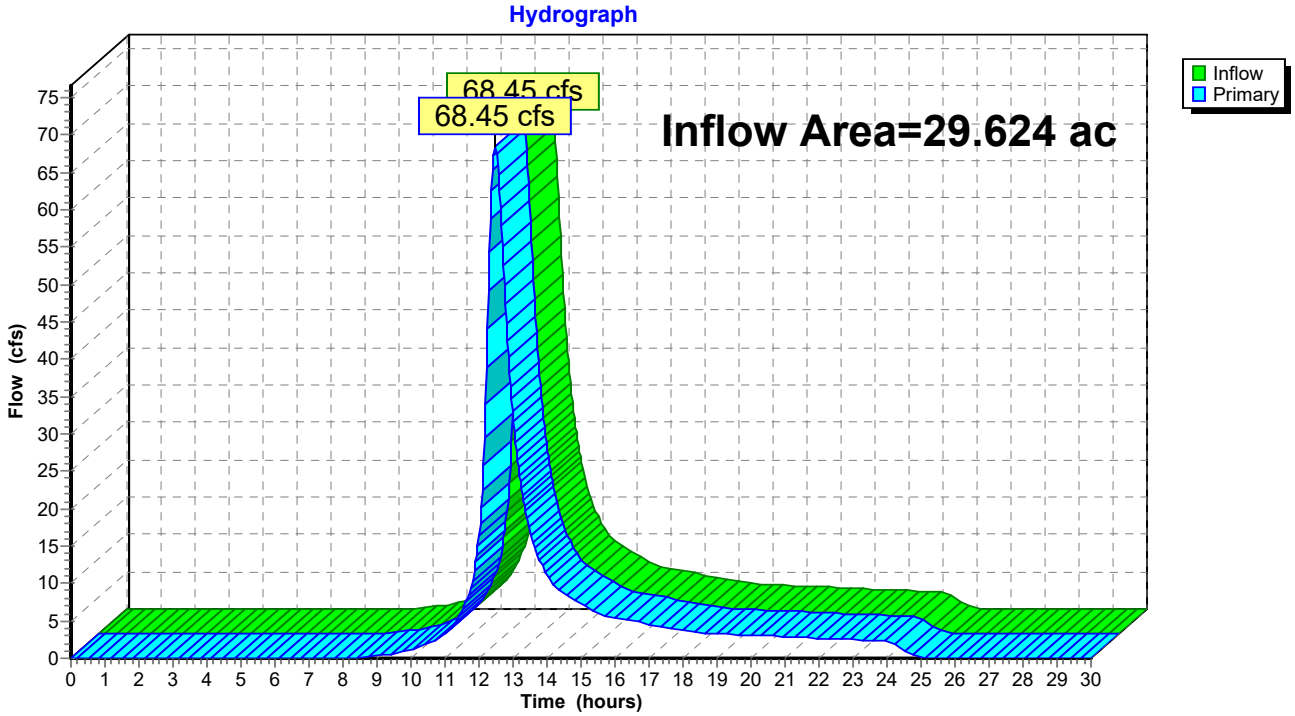


Summary for Pond AP-1: Easterly Wetland/ Vernal Pool

Inflow Area = 29.624 ac, 2.39% Impervious, Inflow Depth = 3.98" for 100-Year event
Inflow = 68.45 cfs @ 12.47 hrs, Volume= 9.827 af
Primary = 68.45 cfs @ 12.47 hrs, Volume= 9.827 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-1: Easterly Wetland/ Vernal Pool

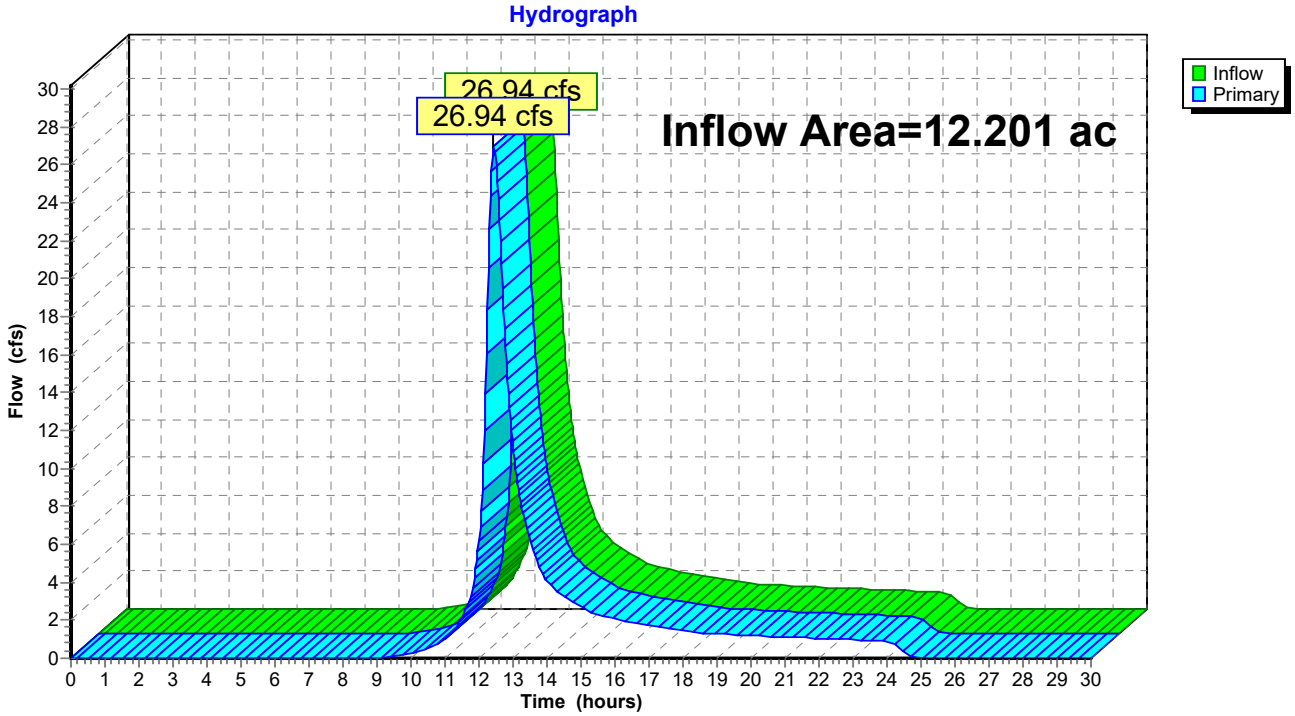


Summary for Pond AP-2: Anguilla Brook

Inflow Area = 12.201 ac, 3.34% Impervious, Inflow Depth = 3.59" for 100-Year event
Inflow = 26.94 cfs @ 12.43 hrs, Volume= 3.649 af
Primary = 26.94 cfs @ 12.43 hrs, Volume= 3.649 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-2: Anguilla Brook

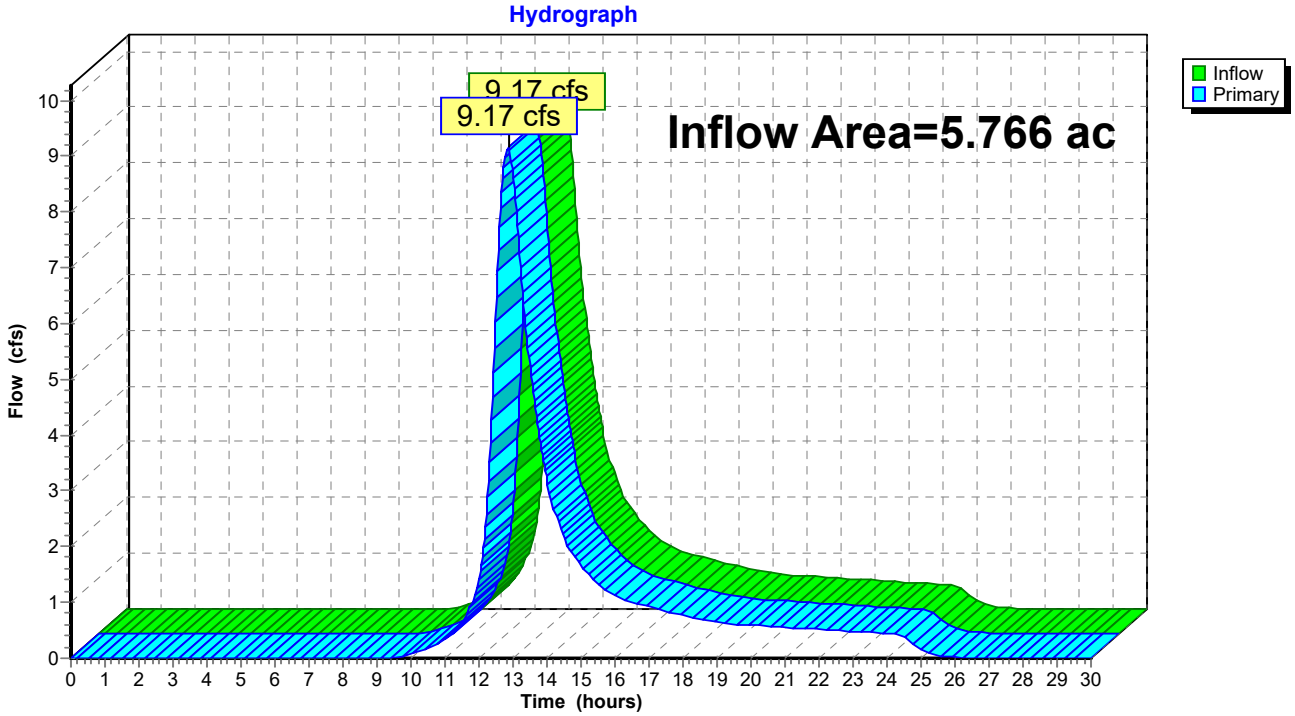


Summary for Pond AP-3: Westerly Intermittent Stream

Inflow Area = 5.766 ac, 0.00% Impervious, Inflow Depth = 3.71" for 100-Year event
Inflow = 9.17 cfs @ 12.86 hrs, Volume= 1.782 af
Primary = 9.17 cfs @ 12.86 hrs, Volume= 1.782 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-3: Westerly Intermittent Stream

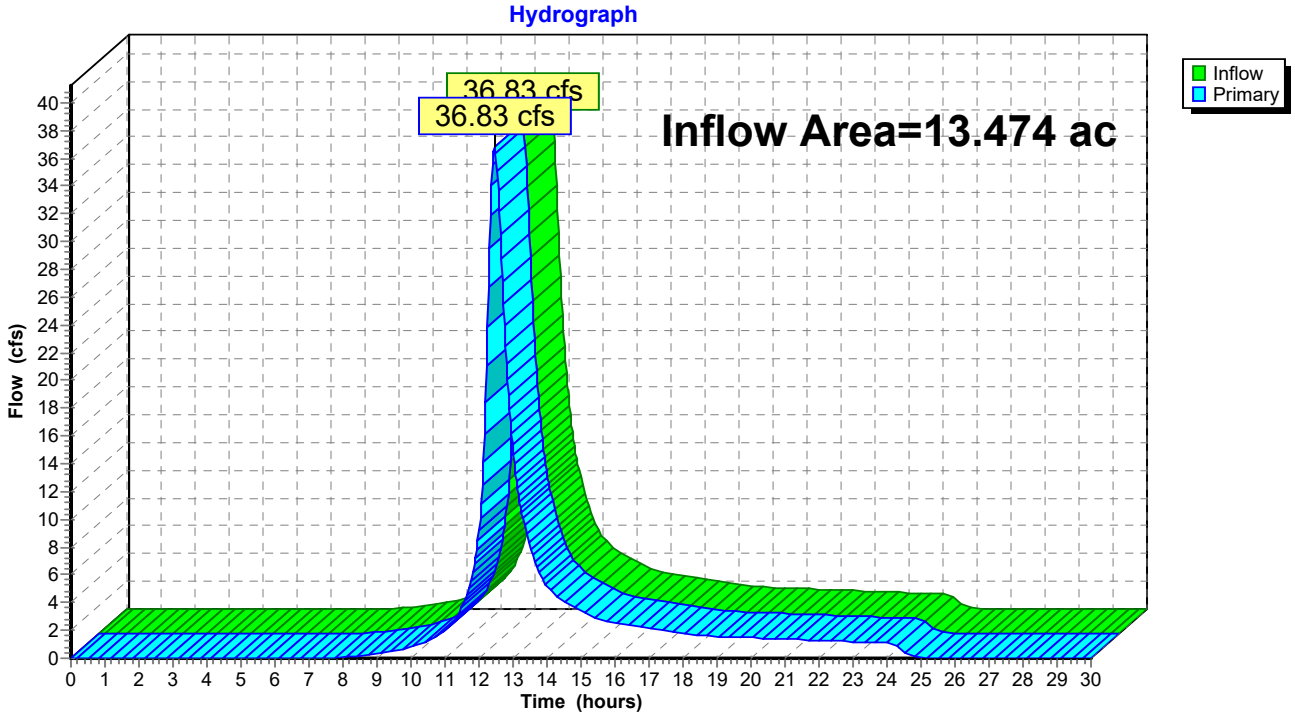


Summary for Pond AP-4: Eastern Wetland

Inflow Area = 13.474 ac, 0.00% Impervious, Inflow Depth = 4.39" for 100-Year event
Inflow = 36.83 cfs @ 12.45 hrs, Volume= 4.932 af
Primary = 36.83 cfs @ 12.45 hrs, Volume= 4.932 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-4: Eastern Wetland



EG-Existing-R3-Check
Prepared by Hewlett-Packard Company

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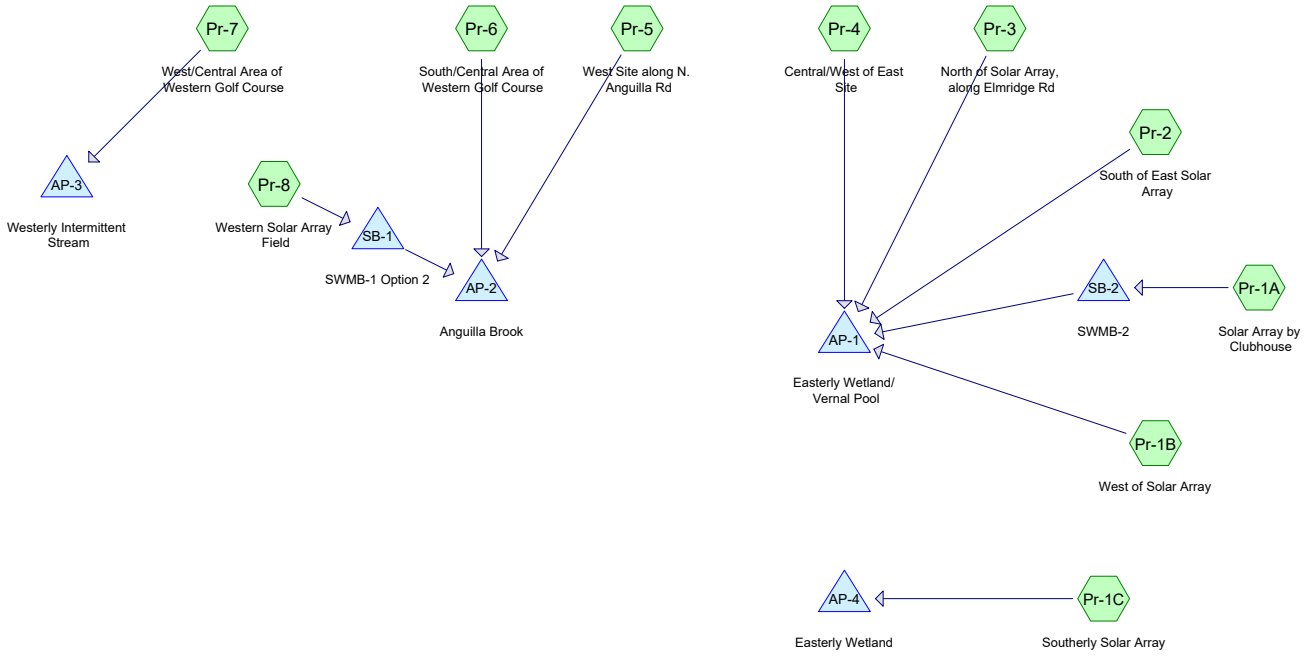
EG-Existing-R3-Check
Prepared by Hewlett-Packard Company

50-Year Event

100-Year Event



Subcat Reach Pond Link

Routing Diagram for EG-Prop-R6, Revised 2020-04-10
Prepared by Hewlett-Packard Company, Printed 5/11/2020
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Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	NRCC 24-hr	C	Default	24.00	1	2.60	2
2	2-Year	NRCC 24-hr	C	Default	24.00	1	3.11	2
3	10-Year	NRCC 24-hr	C	Default	24.00	1	4.60	2
4	25-Year	NRCC 24-hr	C	Default	24.00	1	5.74	2
5	50-Year	NRCC 24-hr	C	Default	24.00	1	6.80	2
6	100-Year	NRCC 24-hr	C	Default	24.00	1	8.05	2

Summary for Subcatchment Pr-1A: Solar Array by Clubhouse

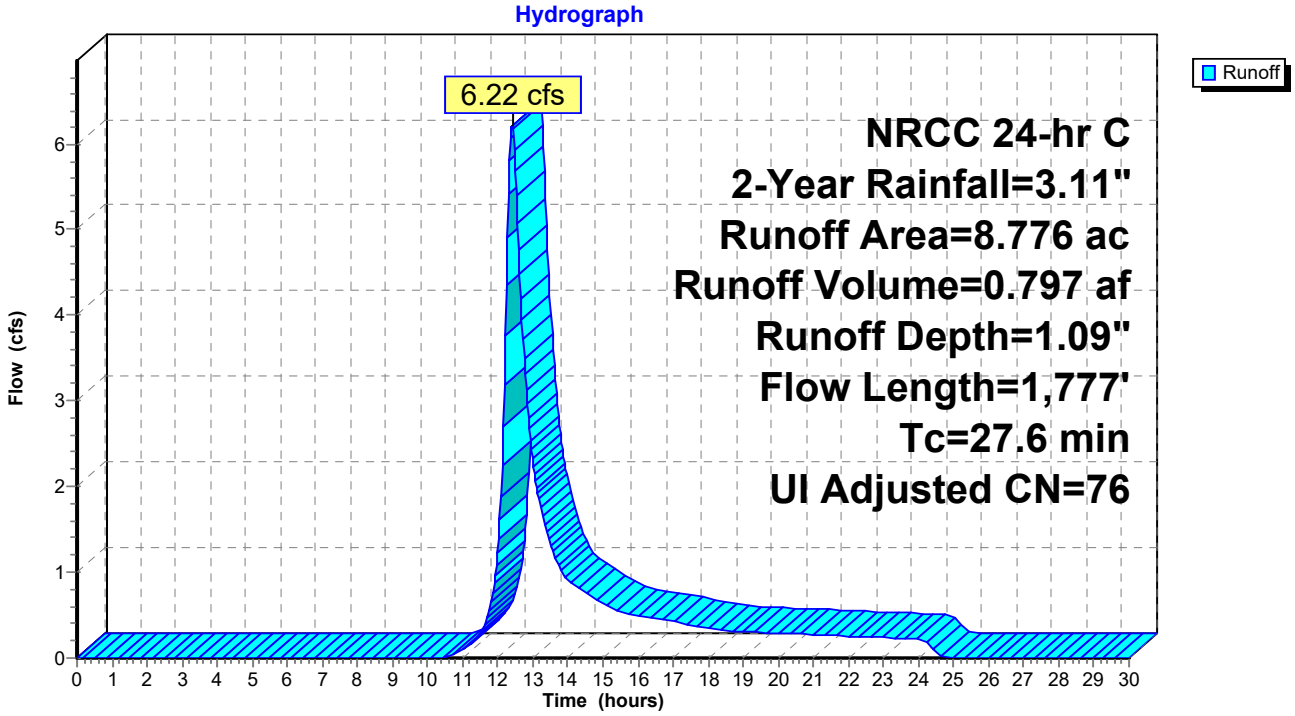
Runoff = 6.22 cfs @ 12.41 hrs, Volume= 0.797 af, Depth= 1.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 2-Year Rainfall=3.11"

Area (ac)	CN	Adj	Description
0.046	58		Woods/grass comb., Good, HSG B
0.034	98		Paved parking, HSG B
0.070	98		Roofs, HSG B
0.042	86		Fallow, bare soil, HSG B
0.910	61		>75% Grass cover, Good, HSG B
0.099	96		Gravel surface, HSG C
0.364	72		Woods/grass comb., Good, HSG C
0.013	91		Fallow, bare soil, HSG C
5.050	74		>75% Grass cover, Good, HSG C
1.637	98		Unconnected roofs, HSG C
0.395	80		>75% Grass cover, Good, HSG D
0.116	96		Gravel surface, HSG D
8.776	78	76	Weighted Average, UI Adjusted
7.035			80.16% Pervious Area
1.741			19.84% Impervious Area
1.637			94.03% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0260	0.19		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.8	235	0.0400	1.40		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
5.4	372	0.0270	1.15		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
3.9	304	0.0350	1.31		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
0.1	16	0.0780	4.50		**Shallow Concentrated Flow, E-F** Unpaved Kv= 16.1 fps
1.3	113	0.0450	1.48		**Shallow Concentrated Flow, F-G** Short Grass Pasture Kv= 7.0 fps
3.5	442	0.0900	2.10		**Shallow Concentrated Flow, G-H** Short Grass Pasture Kv= 7.0 fps
1.7	195	0.0750	1.92		**Shallow Concentrated Flow, H-I** Short Grass Pasture Kv= 7.0 fps
27.6	1,777	Total			

Subcatchment Pr-1A: Solar Array by Clubhouse



Summary for Subcatchment Pr-1B: West of Solar Array

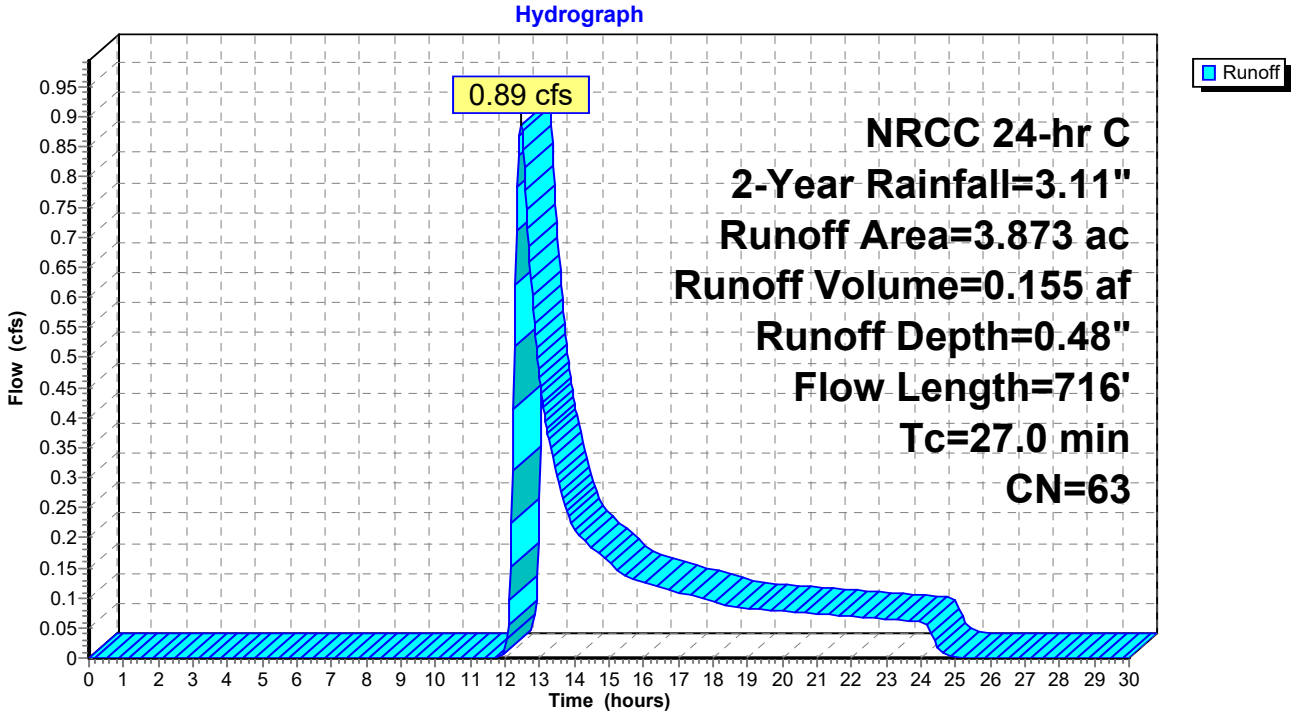
Runoff = 0.89 cfs @ 12.46 hrs, Volume= 0.155 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 2-Year Rainfall=3.11"

Area (ac)	CN	Description
0.009	96	Gravel surface, HSG B
1.800	55	Woods, Good, HSG B
0.008	58	Woods/grass comb., Good, HSG B
0.078	98	Paved parking, HSG B
0.545	61	>75% Grass cover, Good, HSG B
0.937	70	Woods, Good, HSG C
0.492	74	>75% Grass cover, Good, HSG C
0.004	98	Unconnected roofs, HSG C
3.873	63	Weighted Average
3.791		97.88% Pervious Area
0.082		2.12% Impervious Area
0.004		4.88% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.6	100	0.0460	0.11		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.11"
3.6	271	0.0640	1.26		**Shallow Concentrated Flow, B-C** Woodland Kv= 5.0 fps
0.9	78	0.0900	1.50		**Shallow Concentrated Flow, C-D** Woodland Kv= 5.0 fps
0.7	46	0.0430	1.04		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
6.2	221	0.0140	0.59		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
27.0	716	Total			

Subcatchment Pr-1B: West of Solar Array



Summary for Subcatchment Pr-1C: Southerly Solar Array

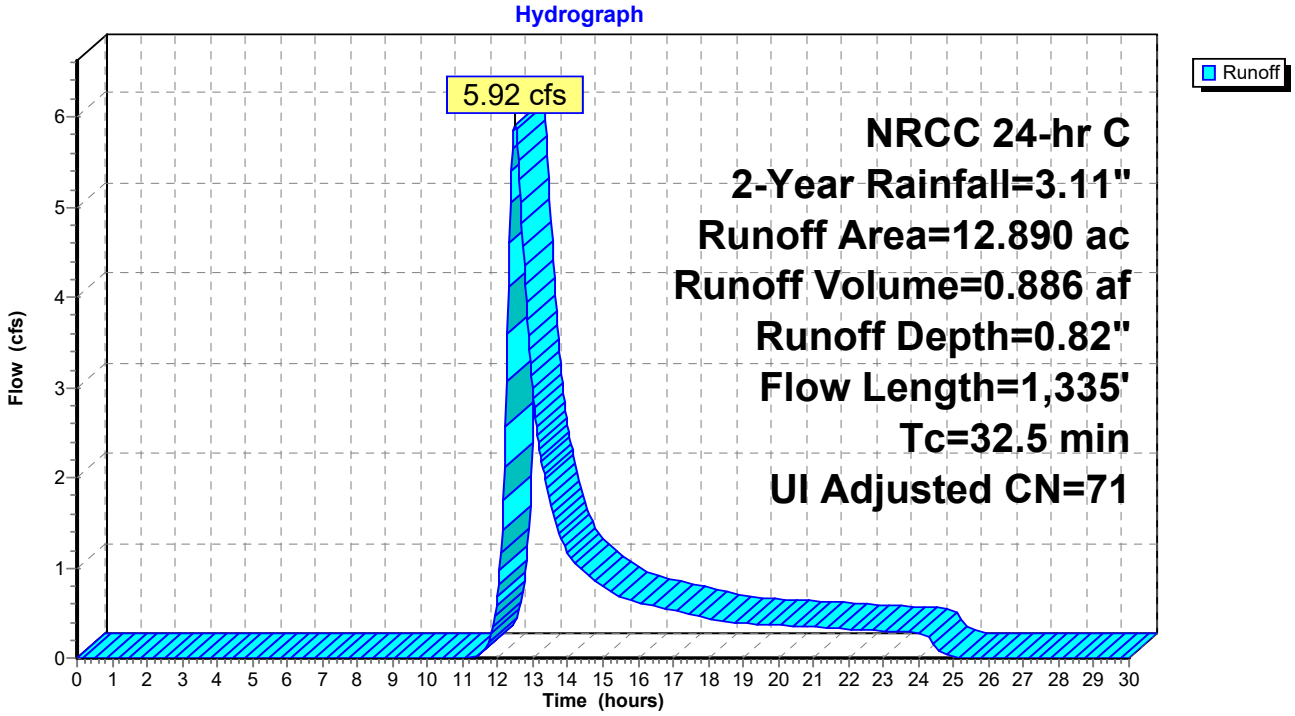
Runoff = 5.92 cfs @ 12.49 hrs, Volume= 0.886 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 2-Year Rainfall=3.11"

Area (ac)	CN	Adj	Description
0.048	96		Gravel surface, HSG B
0.467	55		Woods, Good, HSG B
0.136	58		Woods/grass comb., Good, HSG B
0.028	86		Fallow, bare soil, HSG B
2.897	61		>75% Grass cover, Good, HSG B
0.193	96		Gravel surface, HSG C
0.027	70		Woods, Good, HSG C
0.401	72		Woods/grass comb., Good, HSG C
0.043	91		Fallow, bare soil, HSG C
7.974	74		>75% Grass cover, Good, HSG C
0.676	98		Unconnected roofs, HSG C
12.890	72	71	Weighted Average, UI Adjusted
12.214			94.76% Pervious Area
0.676			5.24% Impervious Area
0.676			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.1	100	0.0060	0.10		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
6.2	297	0.0130	0.80		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.2	200	0.0470	1.52		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
2.7	174	0.0240	1.08		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
1.3	79	0.0410	1.01		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
0.7	67	0.0540	1.63		**Shallow Concentrated Flow, F-G** Short Grass Pasture Kv= 7.0 fps
0.1	15	0.0660	4.14		**Shallow Concentrated Flow, G-H** Unpaved Kv= 16.1 fps
1.8	232	0.0930	2.13		**Shallow Concentrated Flow, H-I** Short Grass Pasture Kv= 7.0 fps
1.4	171	0.1650	2.03		**Shallow Concentrated Flow, I-J** Woodland Kv= 5.0 fps
32.5	1,335	Total			

Subcatchment Pr-1C: Southerly Solar Array



Summary for Subcatchment Pr-2: South of East Solar Array

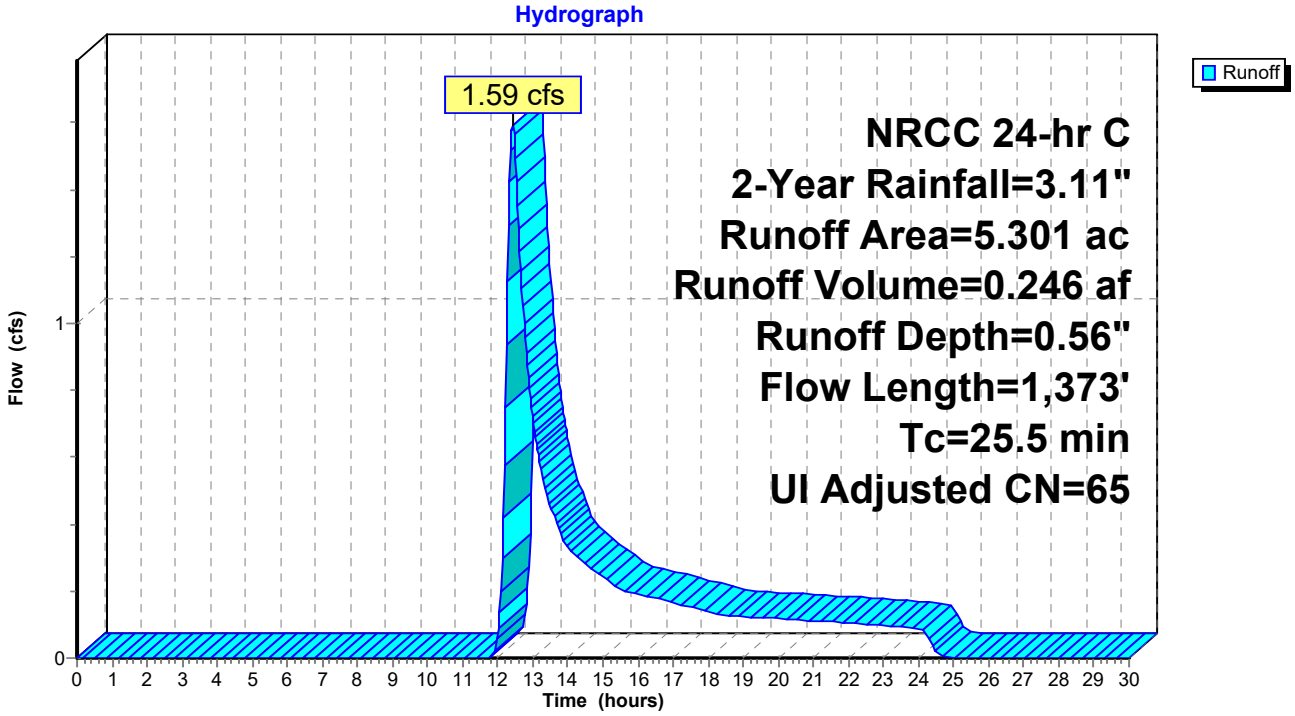
Runoff = 1.59 cfs @ 12.42 hrs, Volume= 0.246 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 2-Year Rainfall=3.11"

Area (ac)	CN	Adj	Description
2.391	55		Woods, Good, HSG B
0.008	86		Fallow, bare soil, HSG B
0.047	96		Gravel surface, HSG B
0.518	61		>75% Grass cover, Good, HSG B
0.425	70		Woods, Good, HSG C
1.408	74		>75% Grass cover, Good, HSG C
0.101	96		Gravel surface, HSG C
0.403	98		Unconnected roofs, HSG C
5.301	66	65	Weighted Average, UI Adjusted
4.898			92.40% Pervious Area
0.403			7.60% Impervious Area
0.403			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.0190	0.16		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
1.9	126	0.0250	1.11		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.6	305	0.0780	1.95		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
0.9	122	0.2150	2.32		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
7.8	624	0.0720	1.34		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
2.2	96	0.0210	0.72		**Shallow Concentrated Flow, F-G** Woodland Kv= 5.0 fps
25.5	1,373	Total			

Subcatchment Pr-2: South of East Solar Array



Summary for Subcatchment Pr-3: North of Solar Array, along Elmridge Rd

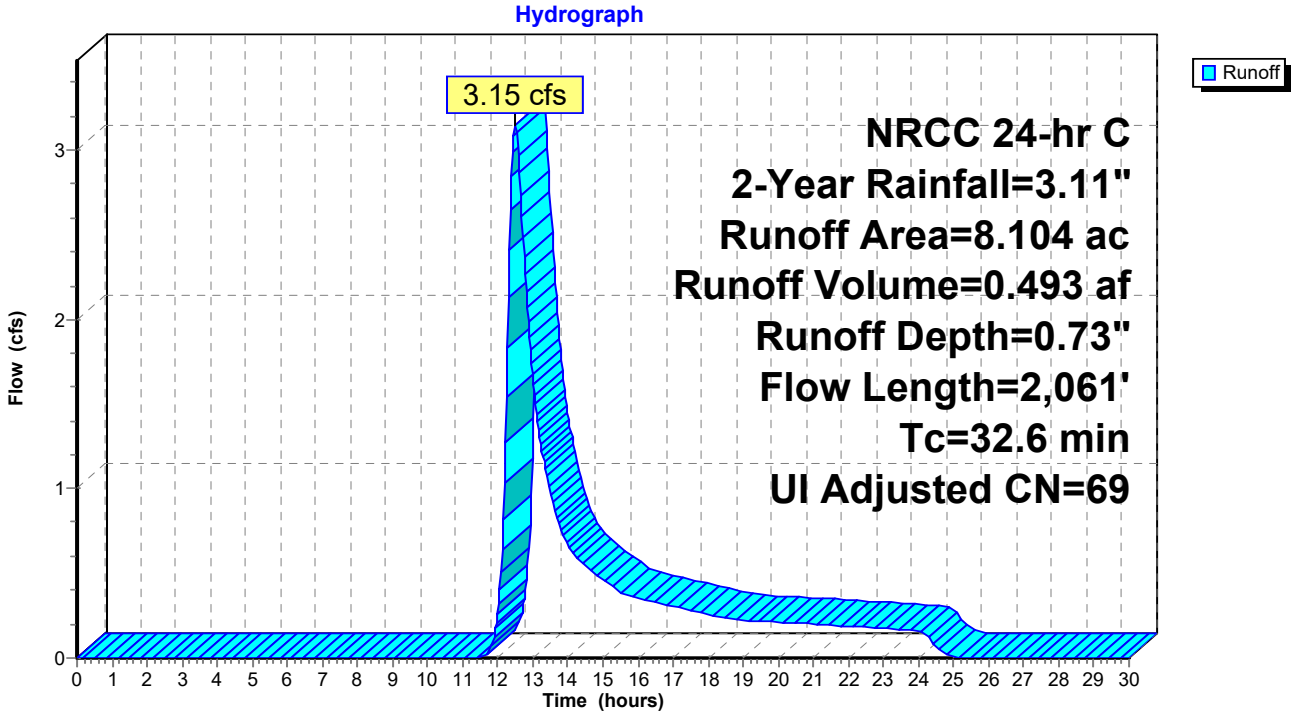
Runoff = 3.15 cfs @ 12.50 hrs, Volume= 0.493 af, Depth= 0.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 2-Year Rainfall=3.11"

Area (ac)	CN	Adj	Description
0.077	96		Gravel surface, HSG C
0.330	58		Woods/grass comb., Good, HSG B
0.358	98		Paved parking, HSG B
0.006	98		Roofs, HSG B
0.027	86		Fallow, bare soil, HSG B
4.223	61		>75% Grass cover, Good, HSG B
0.081	72		Woods/grass comb., Good, HSG C
0.033	91		Fallow, bare soil, HSG C
1.741	74		>75% Grass cover, Good, HSG C
0.564	98		Unconnected roofs, HSG C
0.518	80		>75% Grass cover, Good, HSG D
0.146	96		Gravel surface, HSG D
8.104	70	69	Weighted Average, UI Adjusted
7.176			88.55% Pervious Area
0.928			11.45% Impervious Area
0.564			60.78% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0160	0.15		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.6	245	0.0490	1.55		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
8.3	855	0.0600	1.71		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
10.8	861	0.0360	1.33		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
32.6	2,061	Total			

Subcatchment Pr-3: North of Solar Array, along Elmridge Rd



Summary for Subcatchment Pr-4: Central/West of East Site

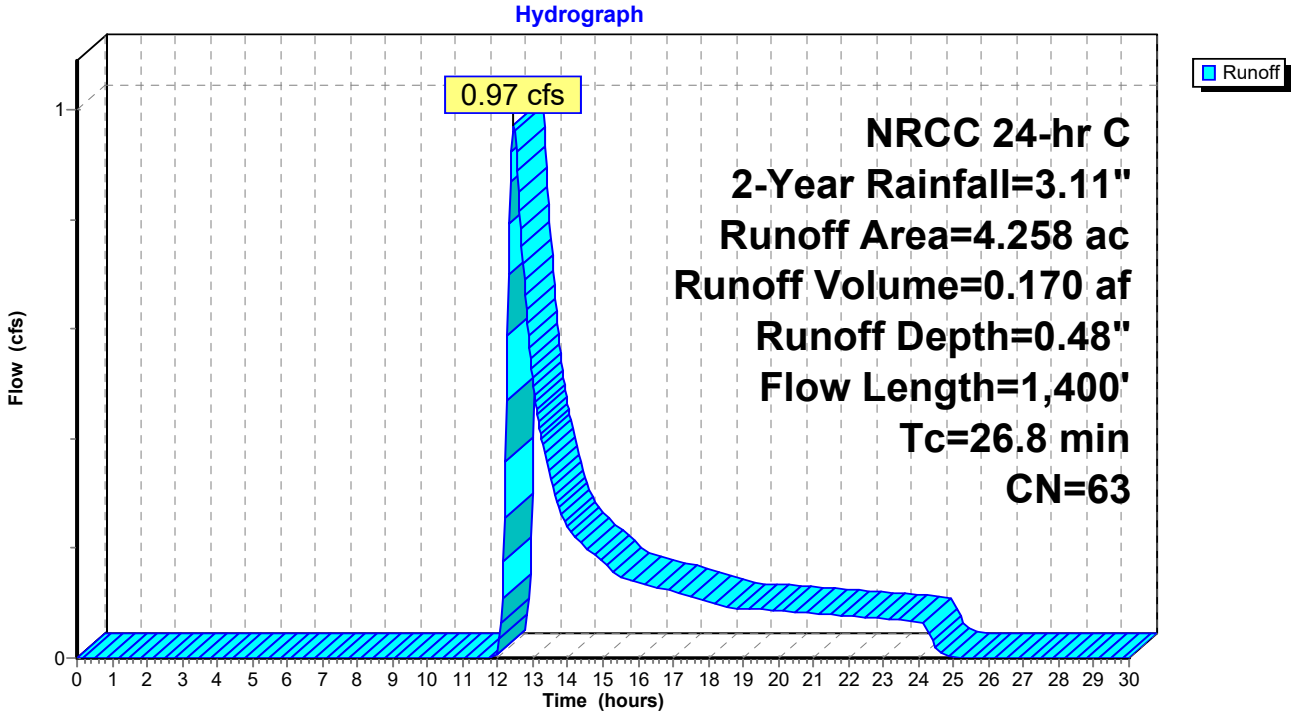
Runoff = 0.97 cfs @ 12.46 hrs, Volume= 0.170 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 2-Year Rainfall=3.11"

Area (ac)	CN	Description
0.043	96	Gravel surface, HSG B
0.212	55	Woods, Good, HSG B
0.181	58	Woods/grass comb., Good, HSG B
0.089	98	Paved parking, HSG B
0.010	86	Fallow, bare soil, HSG B
3.399	61	>75% Grass cover, Good, HSG B
0.309	74	>75% Grass cover, Good, HSG C
0.008	98	Unconnected roofs, HSG C
0.007	96	Gravel surface, HSG C
4.258	63	Weighted Average
4.161		97.72% Pervious Area
0.097		2.28% Impervious Area
0.008		8.25% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0800	0.13		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.11"
2.7	283	0.0630	1.76		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.1	178	0.0390	1.38		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
1.4	143	0.0630	1.76		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
8.1	696	0.0420	1.43		**Shallow Concentrated Flow, E-F** Short Grass Pasture Kv= 7.0 fps
26.8	1,400	Total			

Subcatchment Pr-4: Central/West of East Site



Summary for Subcatchment Pr-5: West Site along N. Anguilla Rd

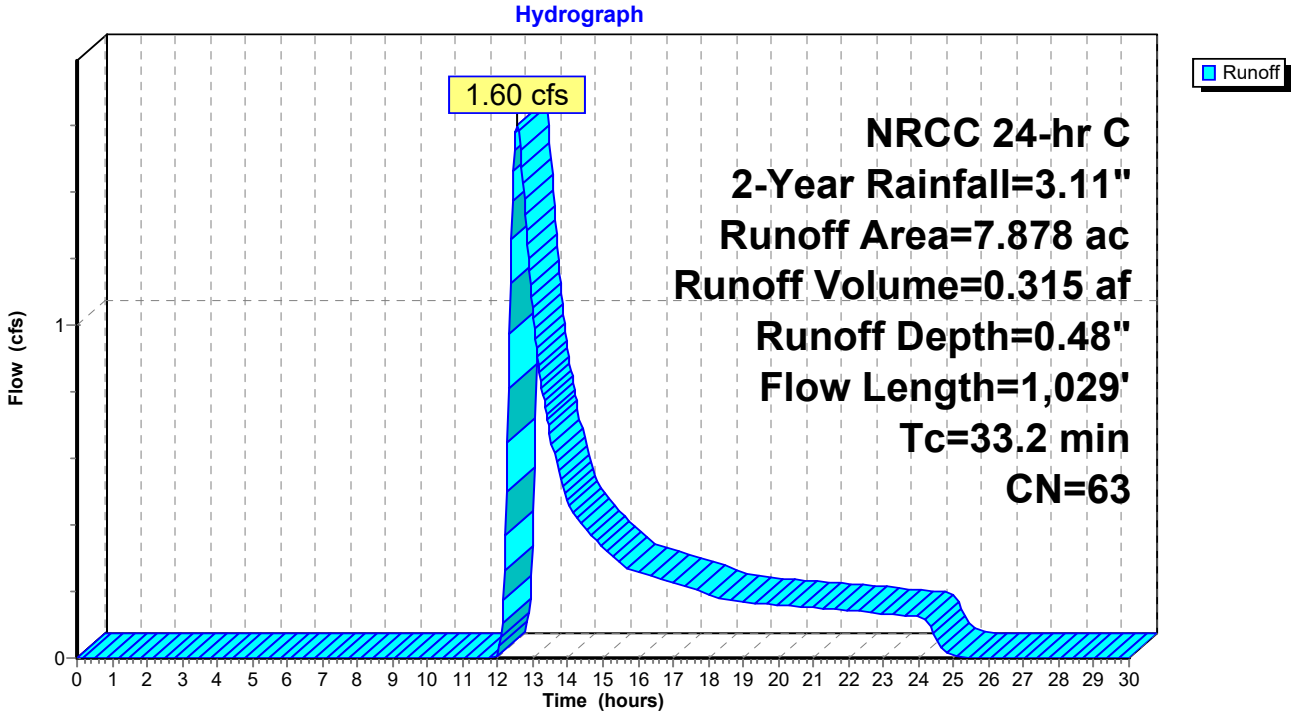
Runoff = 1.60 cfs @ 12.56 hrs, Volume= 0.315 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 2-Year Rainfall=3.11"

Area (ac)	CN	Description
0.370	30	Woods, Good, HSG A
0.052	96	Gravel surface, HSG B
1.888	55	Woods, Good, HSG B
0.089	58	Woods/grass comb., Good, HSG B
0.253	98	Paved parking, HSG B
0.101	98	Roofs, HSG B
0.025	86	Fallow, bare soil, HSG B
3.578	61	>75% Grass cover, Good, HSG B
0.118	96	Gravel surface, HSG C
0.535	70	Woods, Good, HSG C
0.018	72	Woods/grass comb., Good, HSG C
0.851	74	>75% Grass cover, Good, HSG C
7.878	63	Weighted Average
7.524		95.51% Pervious Area
0.354		4.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.8	100	0.0330	0.09		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.11"
3.2	311	0.0530	1.61		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
5.9	210	0.0140	0.59		**Shallow Concentrated Flow, C-D** Woodland Kv= 5.0 fps
5.0	384	0.0340	1.29		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
1.3	24	0.0040	0.32		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
33.2	1,029	Total			

Subcatchment Pr-5: West Site along N. Anguilla Rd



Summary for Subcatchment Pr-6: South/Central Area of Western Golf Course

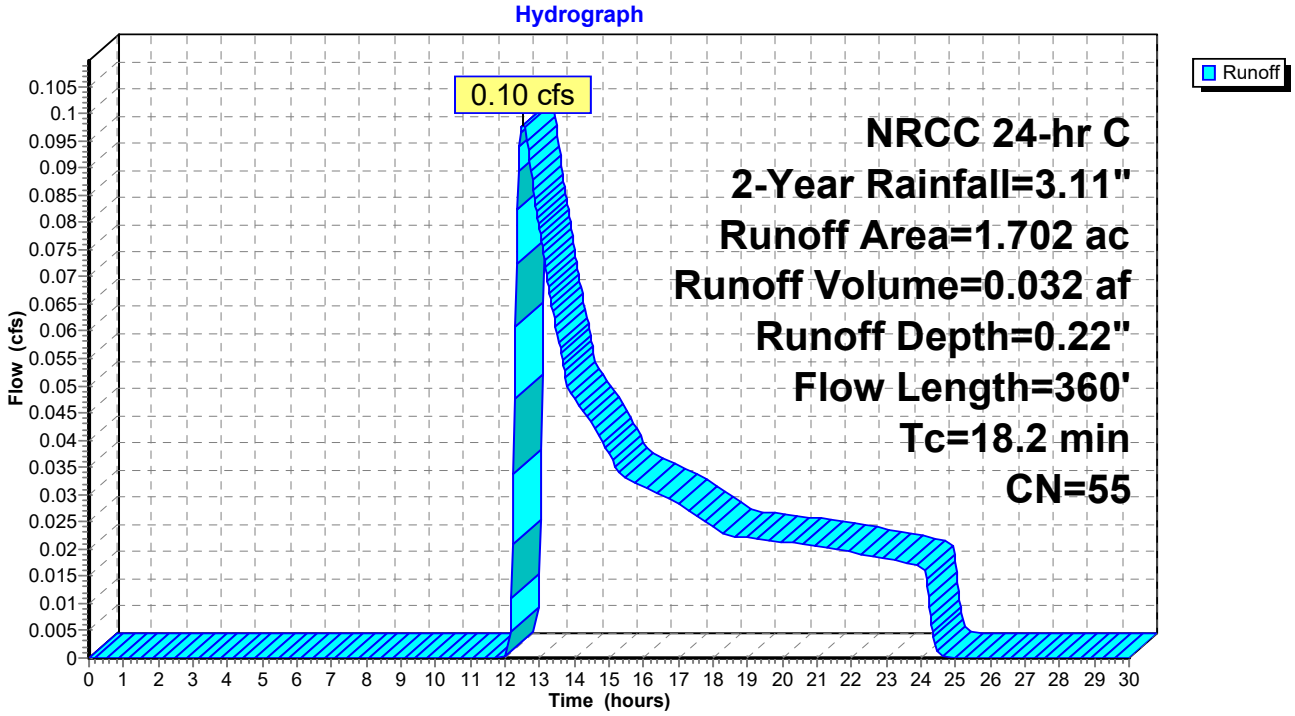
Runoff = 0.10 cfs @ 12.52 hrs, Volume= 0.032 af, Depth= 0.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 2-Year Rainfall=3.11"

Area (ac)	CN	Description
0.294	30	Woods, Good, HSG A
0.028	39	>75% Grass cover, Good, HSG A
0.415	55	Woods, Good, HSG B
0.028	86	Fallow, bare soil, HSG B
0.840	61	>75% Grass cover, Good, HSG B
0.097	74	>75% Grass cover, Good, HSG C
1.702	55	Weighted Average
1.702		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	100	0.0210	0.17		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
0.3	36	0.0730	1.89		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.6	47	0.0770	1.39		**Shallow Concentrated Flow, C-D** Woodland Kv= 5.0 fps
7.6	177	0.0060	0.39		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
18.2	360	Total			

Subcatchment Pr-6: South/Central Area of Western Golf Course



Summary for Subcatchment Pr-7: West/Central Area of Western Golf Course

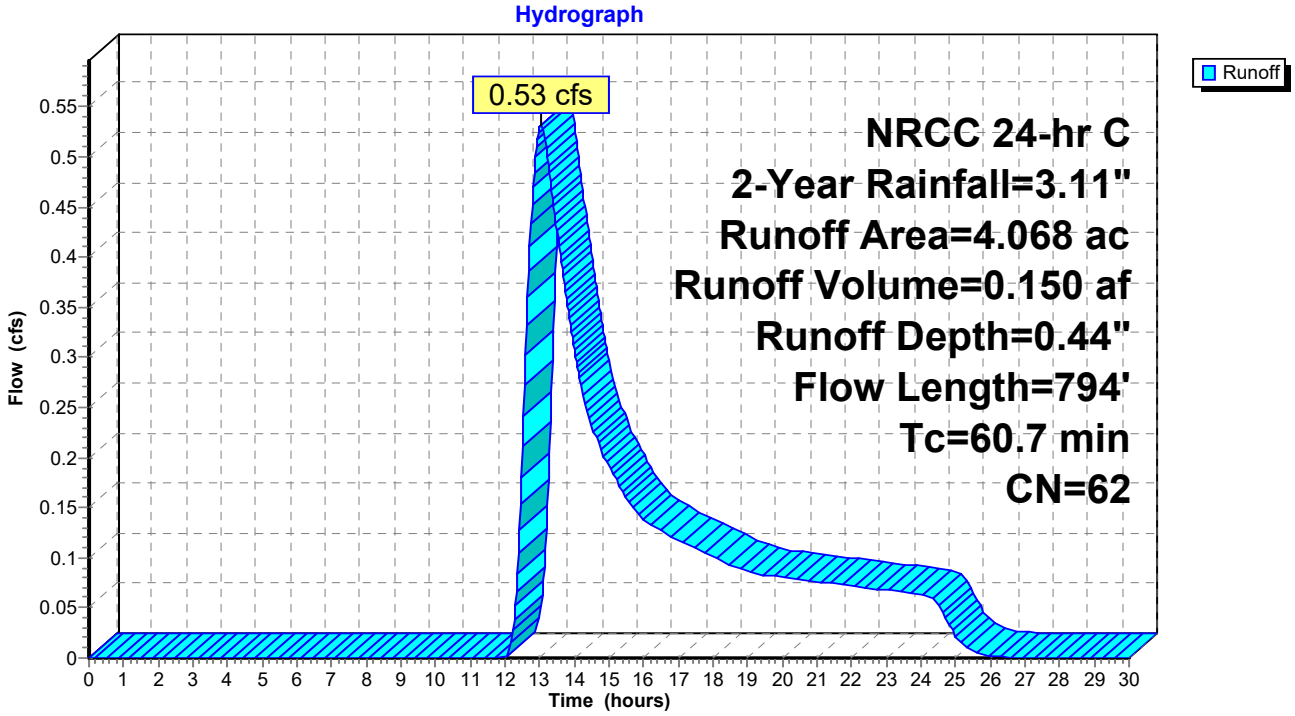
Runoff = 0.53 cfs @ 13.03 hrs, Volume= 0.150 af, Depth= 0.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 2-Year Rainfall=3.11"

Area (ac)	CN	Description
0.024	30	Woods, Good, HSG A
0.045	96	Gravel surface, HSG B
0.535	55	Woods, Good, HSG B
0.135	58	Woods/grass comb., Good, HSG B
0.044	86	Fallow, bare soil, HSG B
2.777	61	>75% Grass cover, Good, HSG B
0.008	96	Gravel surface, HSG C
0.056	70	Woods, Good, HSG C
0.444	74	>75% Grass cover, Good, HSG C
4.068	62	Weighted Average
4.068		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.5	100	0.0004	0.04		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.5	130	0.0150	0.86		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.3	34	0.0690	1.84		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
0.3	39	0.1960	2.21		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
5.5	203	0.0150	0.61		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
1.6	121	0.0330	1.27		**Shallow Concentrated Flow, F-G** Short Grass Pasture Kv= 7.0 fps
3.0	167	0.0180	0.94		**Shallow Concentrated Flow, G-H** Short Grass Pasture Kv= 7.0 fps
60.7	794	Total			

Subcatchment Pr-7: West/Central Area of Western Golf Course



Summary for Subcatchment Pr-8: Western Solar Array Field

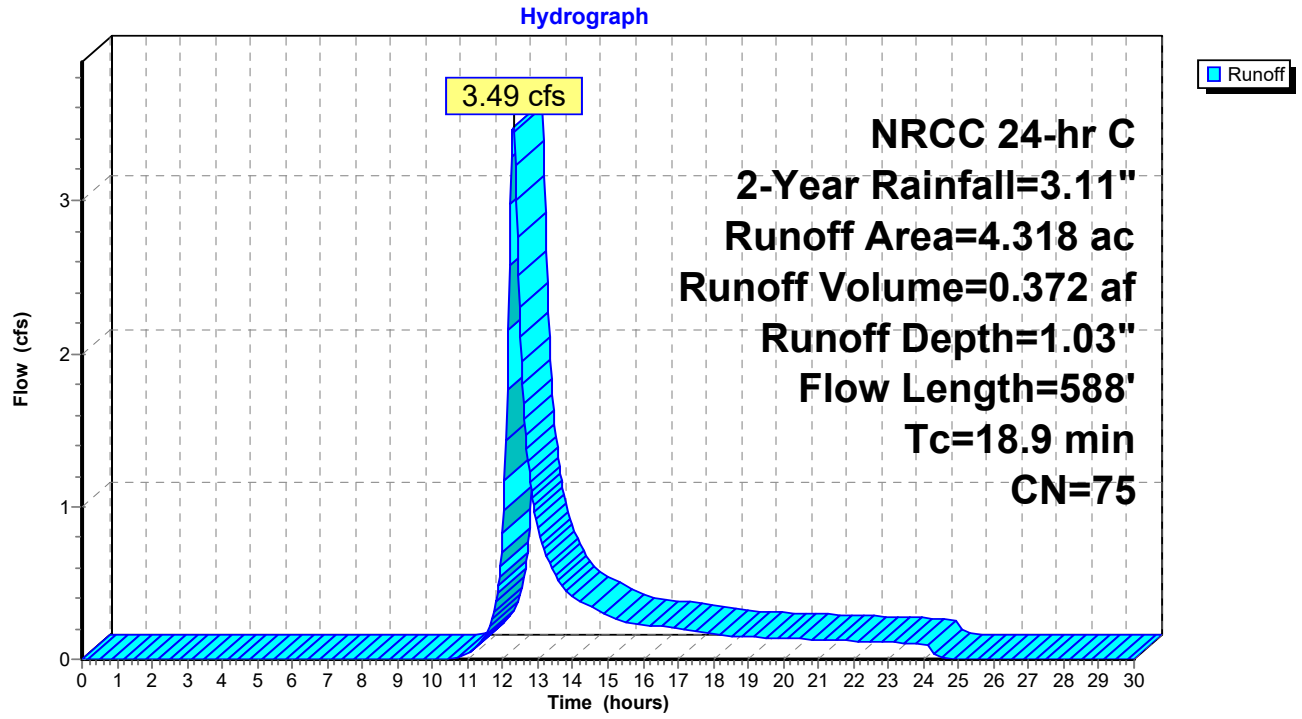
Runoff = 3.49 cfs @ 12.29 hrs, Volume= 0.372 af, Depth= 1.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 2-Year Rainfall=3.11"

Area (ac)	CN	Description
0.017	98	Unconnected roofs, HSG C
4.153	74	>75% Grass cover, Good, HSG C
0.148	96	Gravel surface, HSG C
4.318	75	Weighted Average
4.301		99.61% Pervious Area
0.017		0.39% Impervious Area
0.017		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.5	100	0.0300	0.20		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
5.5	254	0.0120	0.77		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
4.9	234	0.0130	0.80		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
18.9	588	Total			

Subcatchment Pr-8: Western Solar Array Field

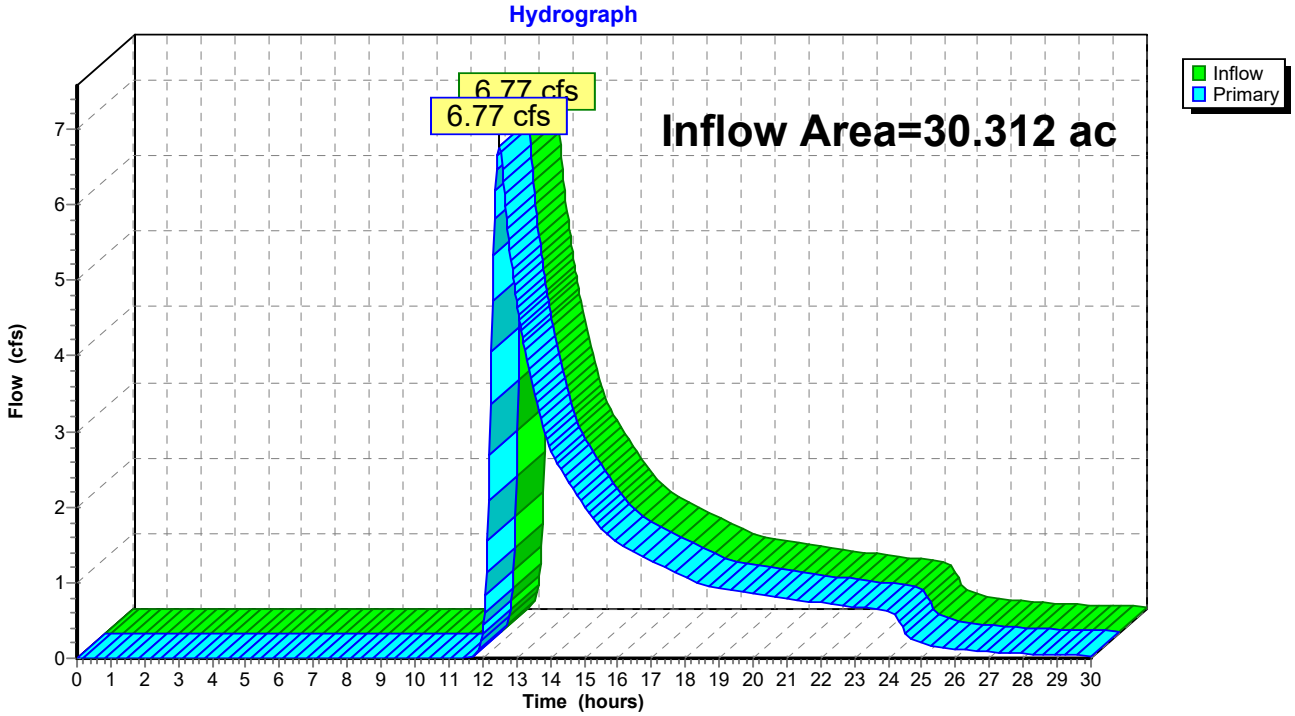


Summary for Pond AP-1: Easterly Wetland/ Vernal Pool

Inflow Area = 30.312 ac, 10.73% Impervious, Inflow Depth > 0.67" for 2-Year event
Inflow = 6.77 cfs @ 12.50 hrs, Volume= 1.703 af
Primary = 6.77 cfs @ 12.50 hrs, Volume= 1.703 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-1: Easterly Wetland/ Vernal Pool

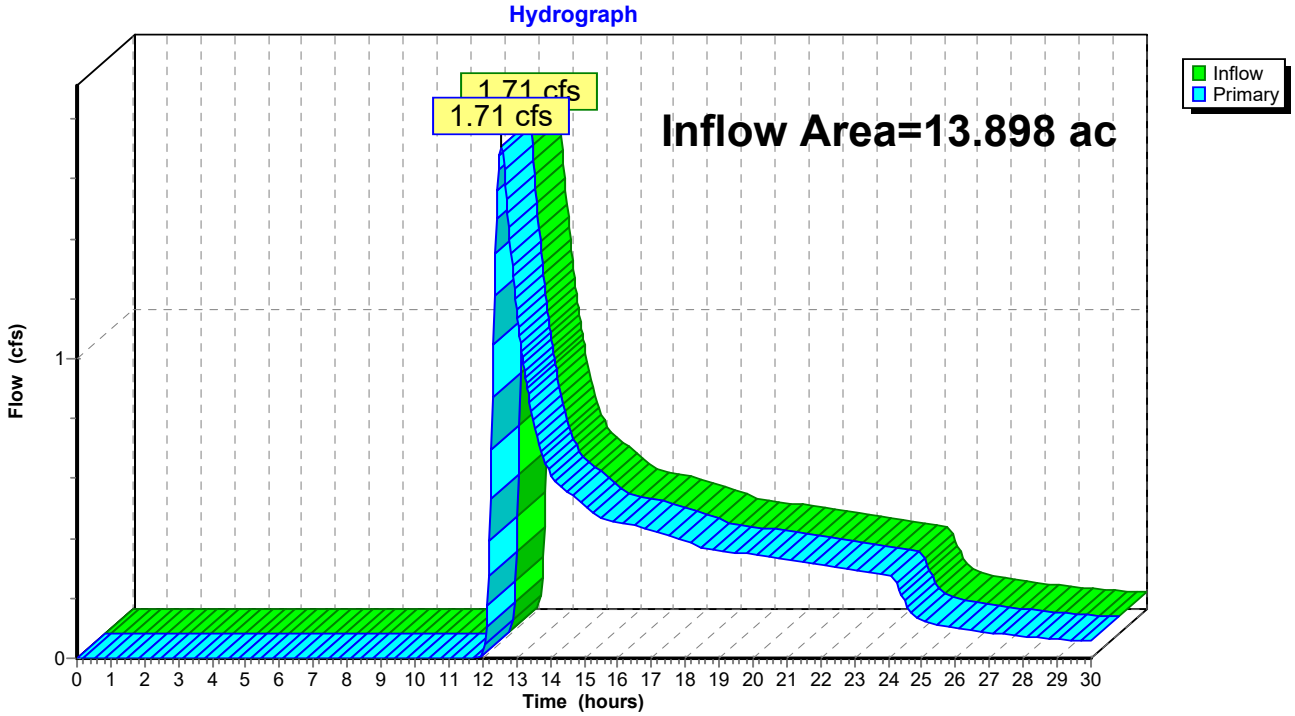


Summary for Pond AP-2: Anguilla Brook

Inflow Area = 13.898 ac, 2.67% Impervious, Inflow Depth > 0.46" for 2-Year event
Inflow = 1.71 cfs @ 12.57 hrs, Volume= 0.528 af
Primary = 1.71 cfs @ 12.57 hrs, Volume= 0.528 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-2: Anguilla Brook

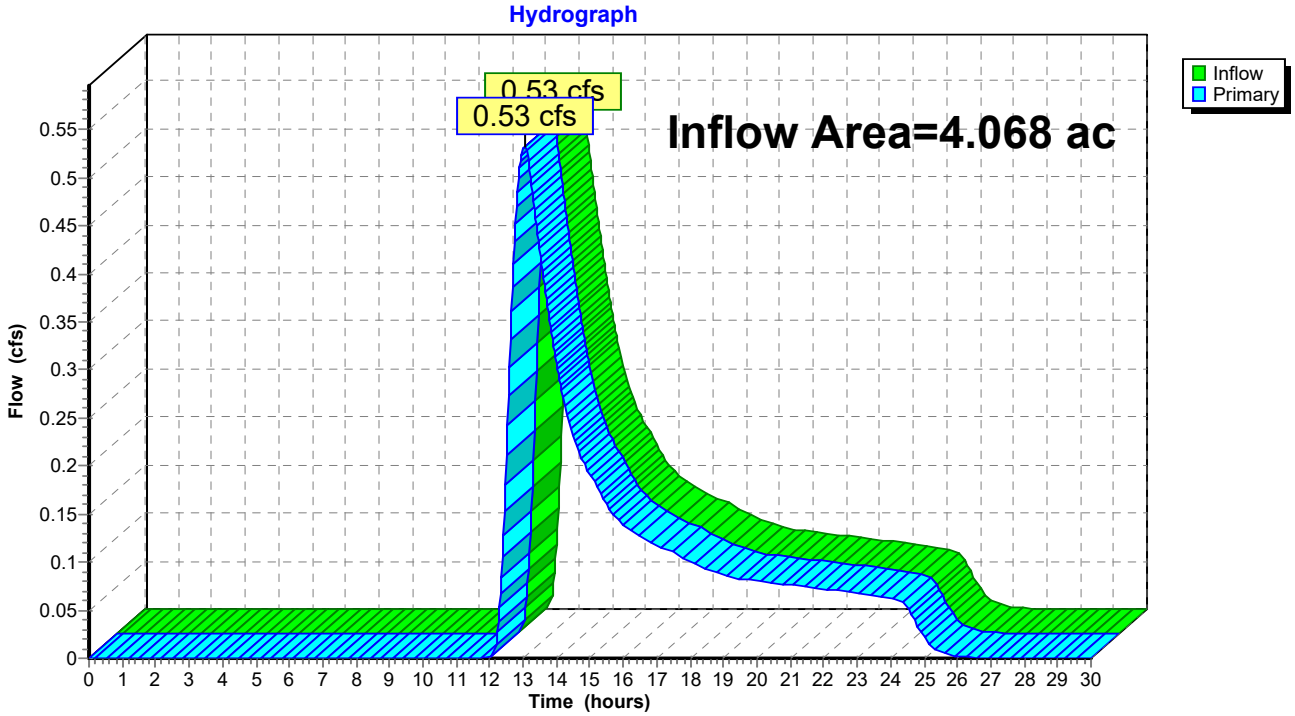


Summary for Pond AP-3: Westerly Intermittent Stream

Inflow Area = 4.068 ac, 0.00% Impervious, Inflow Depth = 0.44" for 2-Year event
Inflow = 0.53 cfs @ 13.03 hrs, Volume= 0.150 af
Primary = 0.53 cfs @ 13.03 hrs, Volume= 0.150 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-3: Westerly Intermittent Stream

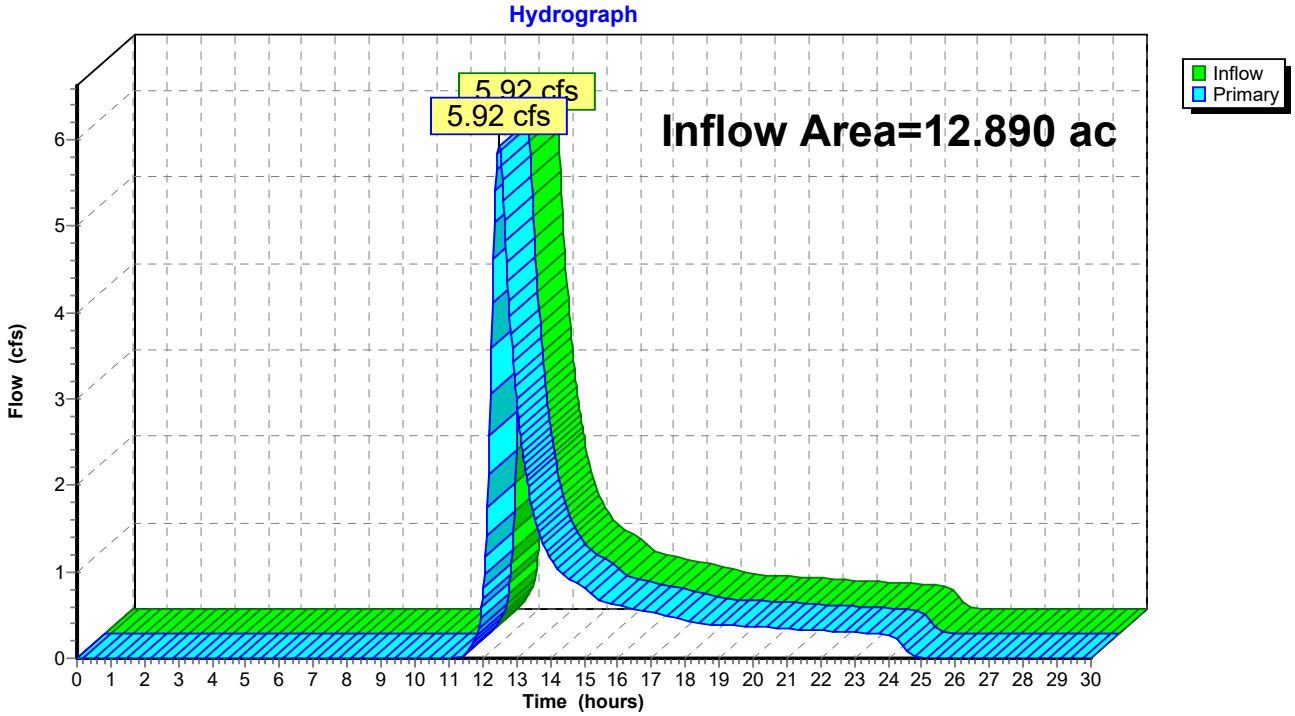


Summary for Pond AP-4: Easterly Wetland

Inflow Area = 12.890 ac, 5.24% Impervious, Inflow Depth = 0.82" for 2-Year event
Inflow = 5.92 cfs @ 12.49 hrs, Volume= 0.886 af
Primary = 5.92 cfs @ 12.49 hrs, Volume= 0.886 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-4: Easterly Wetland



Summary for Pond SB-1: SWMB-1 Option 2

Inflow Area = 4.318 ac, 0.39% Impervious, Inflow Depth = 1.03" for 2-Year event
Inflow = 3.49 cfs @ 12.29 hrs, Volume= 0.372 af
Outflow = 0.18 cfs @ 17.63 hrs, Volume= 0.181 af, Atten= 95%, Lag= 320.4 min
Primary = 0.18 cfs @ 17.63 hrs, Volume= 0.181 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Peak Elev= 53.57' @ 17.63 hrs Surf.Area= 12,085 sf Storage= 10,782 cf

Plug-Flow detention time= 497.1 min calculated for 0.181 af (49% of inflow)
Center-of-Mass det. time= 353.9 min (1,239.2 - 885.4)

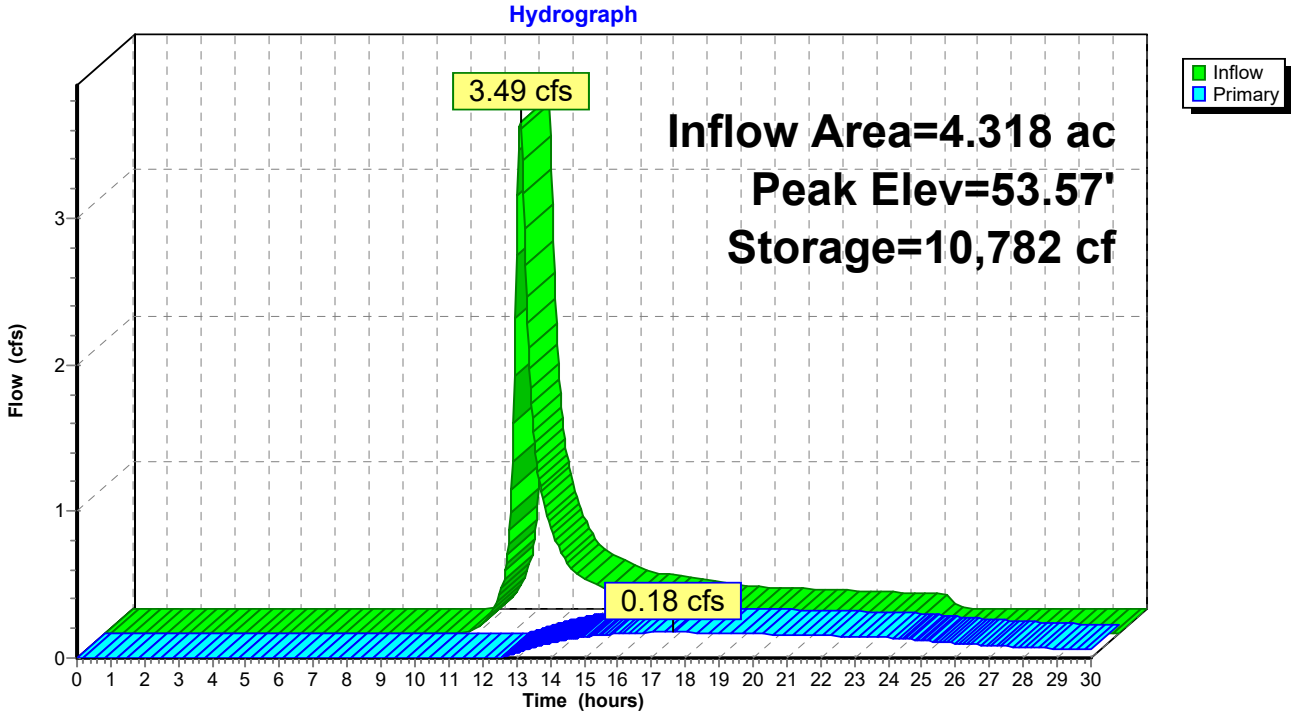
Volume	Invert	Avail.Storage	Storage Description
#1	52.50'	54,423 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
52.50	7,259	0	0
53.00	10,224	4,371	4,371
54.00	13,461	11,843	16,213
55.00	16,971	15,216	31,429
56.00	29,017	22,994	54,423

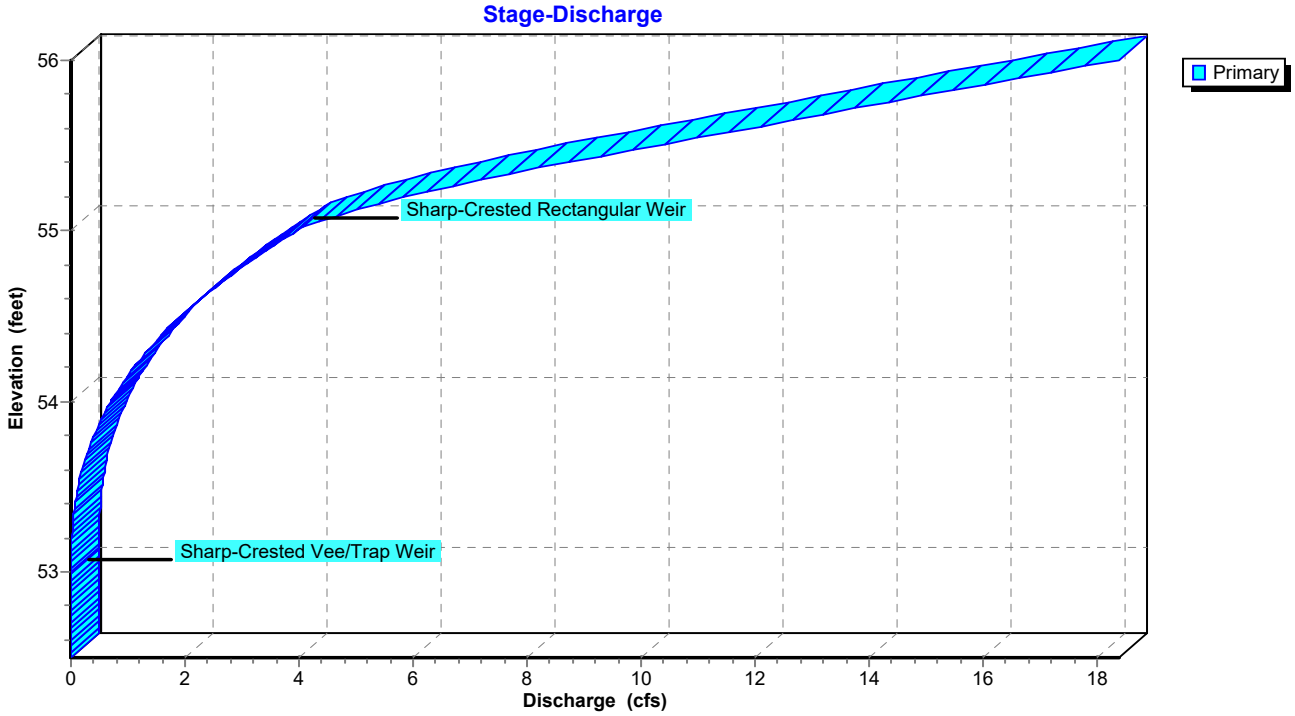
Device	Routing	Invert	Outlet Devices
#1	Primary	53.00'	**30.0 deg x 2.50' rise Sharp-Crested Vee/Trap Weir** Cv= 2.61 (C= 3.26)
#2	Primary	55.00'	**3.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=0.18 cfs @ 17.63 hrs HW=53.57' TW=0.00' (Dynamic Tailwater)
1=Sharp-Crested Vee/Trap Weir (Weir Controls 0.18 cfs @ 1.98 fps)
2=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

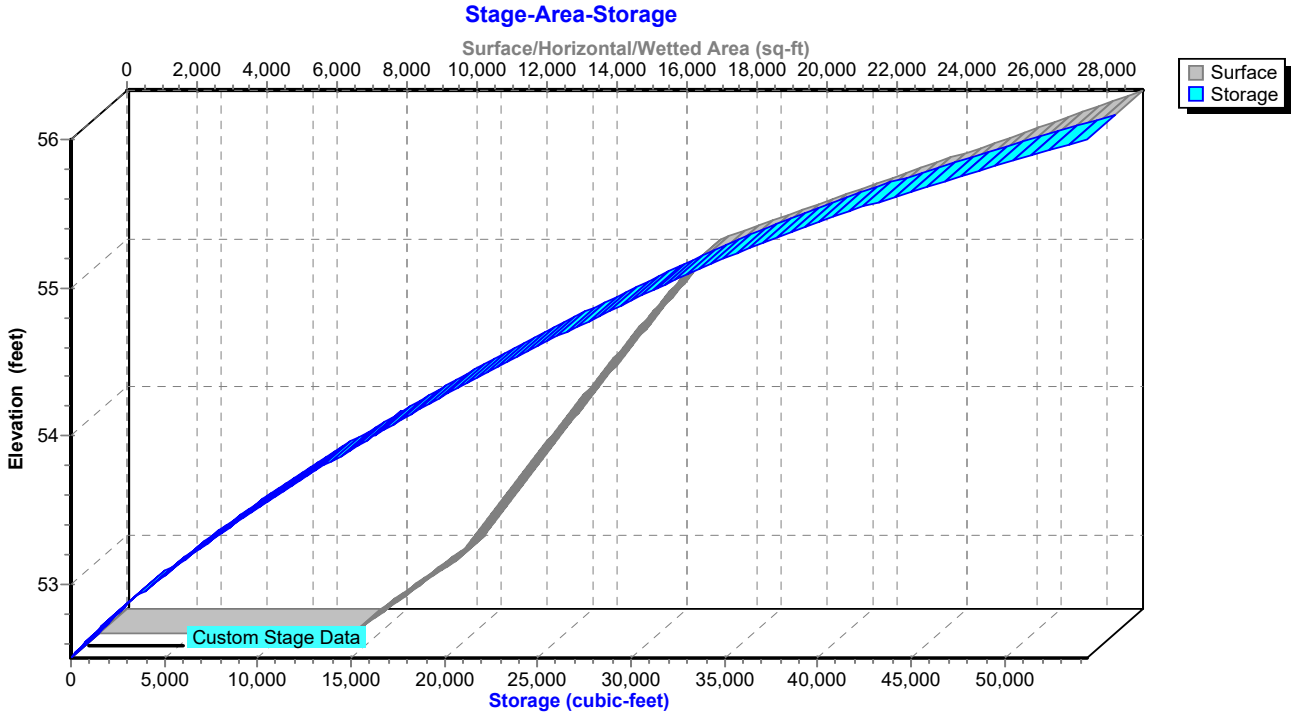
Pond SB-1: SWMB-1 Option 2



Pond SB-1: SWMB-1 Option 2



Pond SB-1: SWMB-1 Option 2



Summary for Pond SB-2: SWMB-2

Inflow Area = 8.776 ac, 19.84% Impervious, Inflow Depth = 1.09" for 2-Year event
Inflow = 6.22 cfs @ 12.41 hrs, Volume= 0.797 af
Outflow = 1.51 cfs @ 13.36 hrs, Volume= 0.639 af, Atten= 76%, Lag= 57.2 min
Primary = 1.51 cfs @ 13.36 hrs, Volume= 0.639 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Peak Elev= 131.55' @ 13.36 hrs Surf.Area= 15,500 sf Storage= 14,434 cf

Plug-Flow detention time= 229.2 min calculated for 0.639 af (80% of inflow)
Center-of-Mass det. time= 143.3 min (1,033.1 - 889.8)

Volume	Invert	Avail.Storage	Storage Description
#1	130.50'	69,267 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

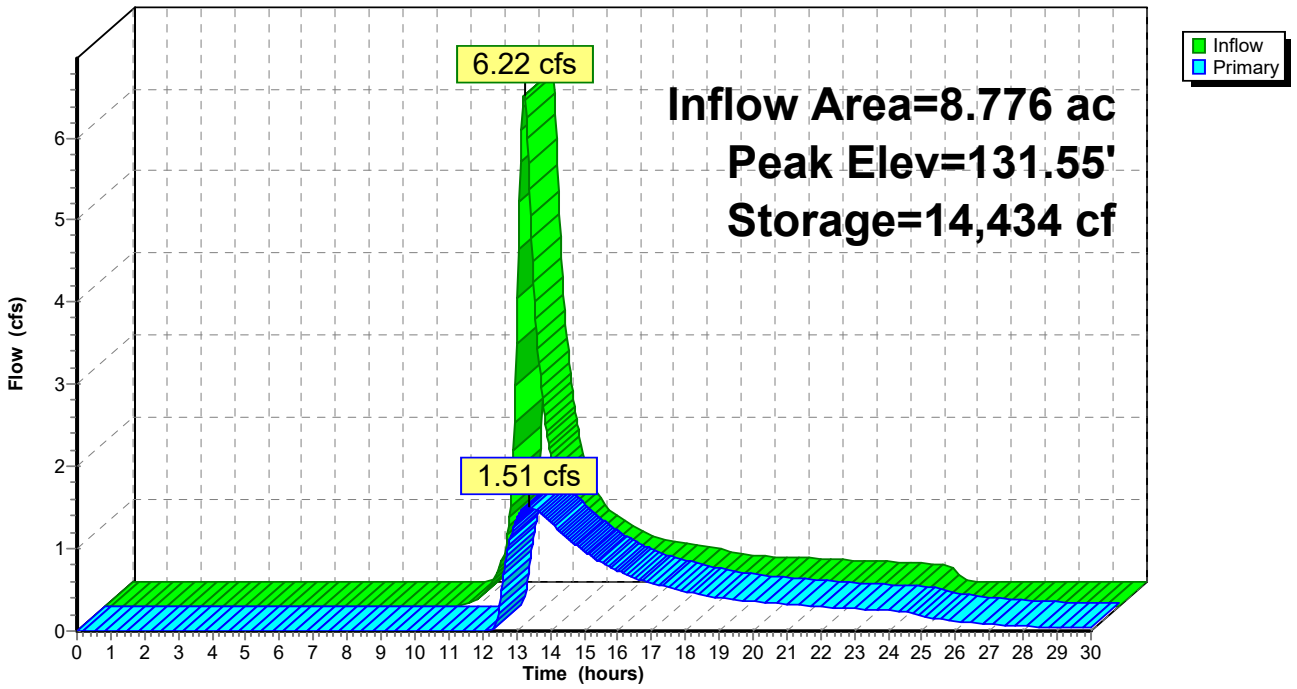
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
130.50	10,472	0	0
131.00	14,379	6,213	6,213
132.00	16,417	15,398	21,611
133.00	18,511	17,464	39,075
134.00	20,663	19,587	58,662
134.50	21,759	10,606	69,267

Device	Routing	Invert	Outlet Devices
#1	Primary	131.00'	**37.0 deg x 1.0' long x 2.50' rise Sharp-Crested Vee/Trap Weir** Cv= 2.58 (C= 3.23)
#2	Primary	133.50'	**5.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=1.51 cfs @ 13.36 hrs HW=131.55' TW=0.00' (Dynamic Tailwater)
↑—**1=Sharp-Crested Vee/Trap Weir** (Weir Controls 1.51 cfs @ 2.32 fps)
└—**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

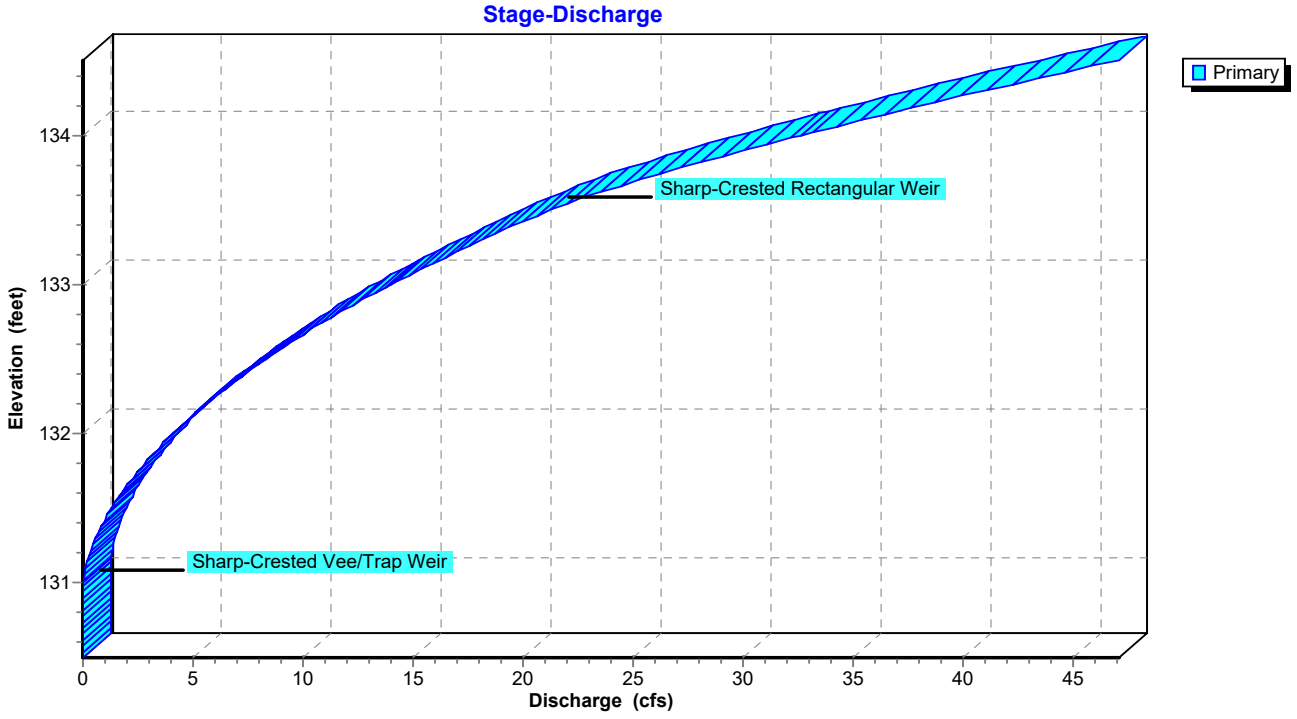
Pond SB-2: SWMB-2

Hydrograph

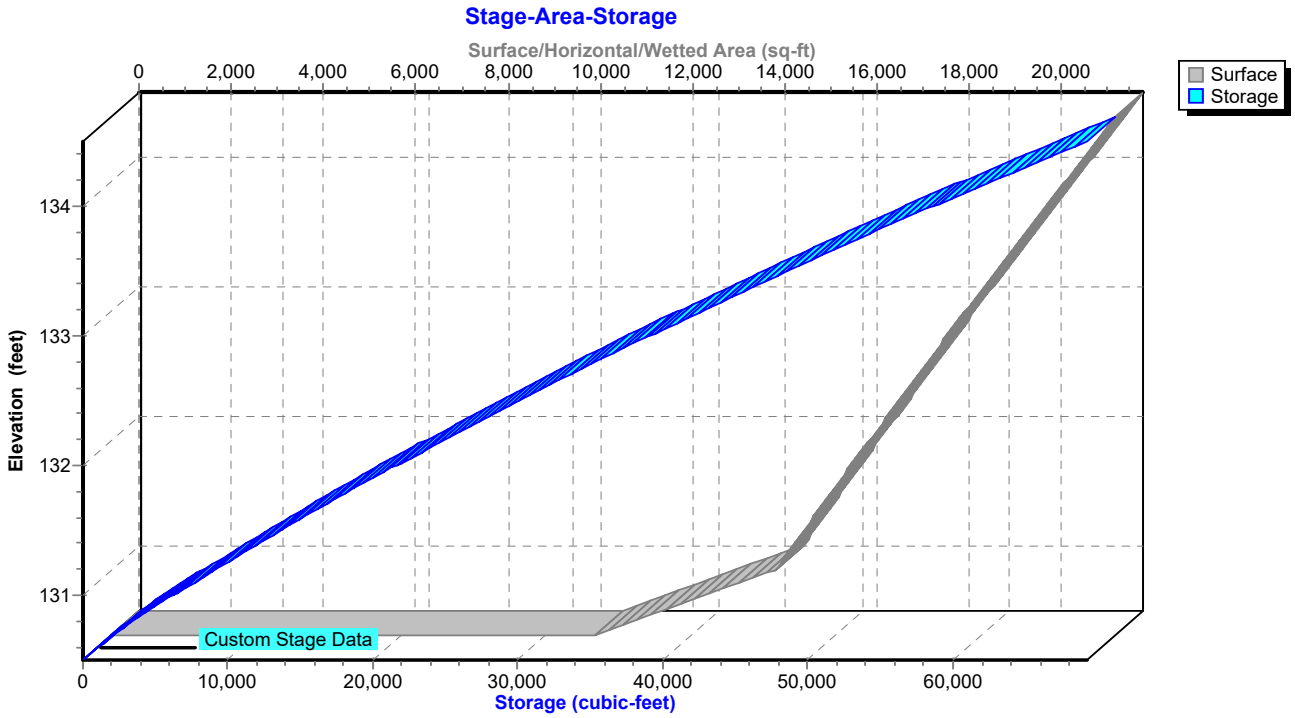


Pond SB-2: SWMB-2

Stage-Discharge



Pond SB-2: SWMB-2



Summary for Subcatchment Pr-1A: Solar Array by Clubhouse

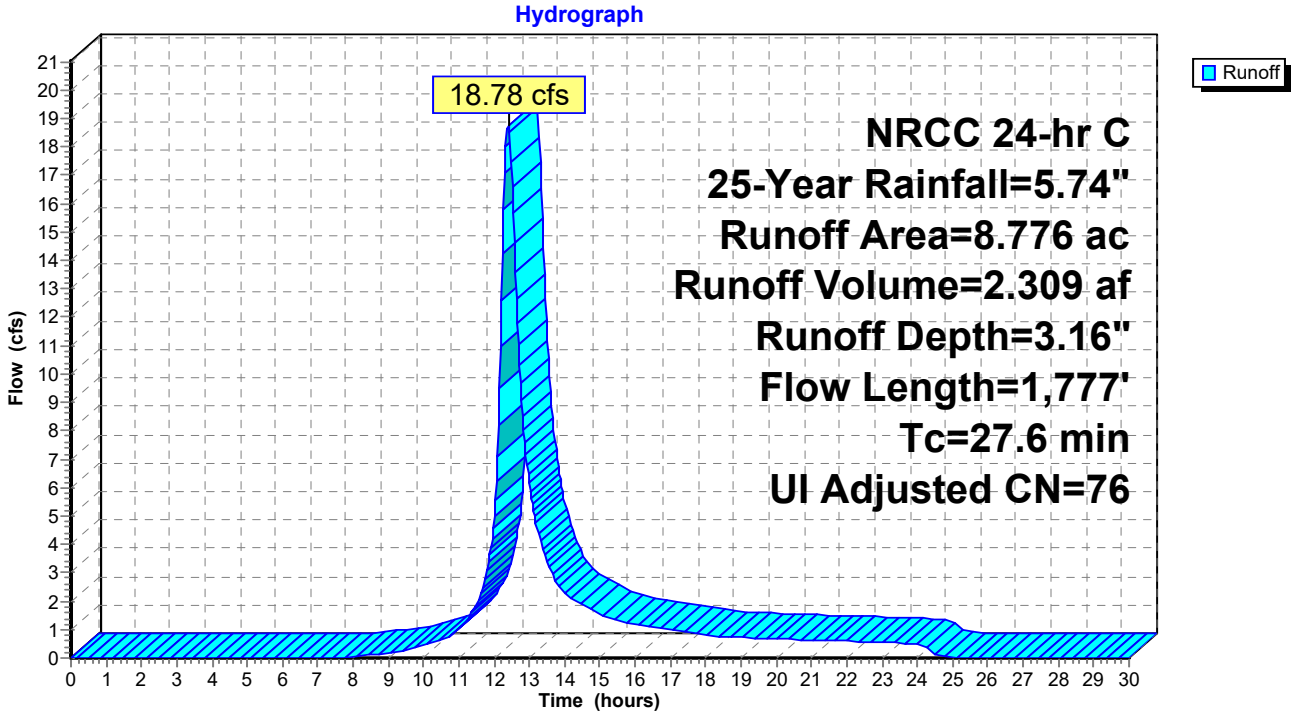
Runoff = 18.78 cfs @ 12.39 hrs, Volume= 2.309 af, Depth= 3.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 25-Year Rainfall=5.74"

Area (ac)	CN	Adj	Description
0.046	58		Woods/grass comb., Good, HSG B
0.034	98		Paved parking, HSG B
0.070	98		Roofs, HSG B
0.042	86		Fallow, bare soil, HSG B
0.910	61		>75% Grass cover, Good, HSG B
0.099	96		Gravel surface, HSG C
0.364	72		Woods/grass comb., Good, HSG C
0.013	91		Fallow, bare soil, HSG C
5.050	74		>75% Grass cover, Good, HSG C
1.637	98		Unconnected roofs, HSG C
0.395	80		>75% Grass cover, Good, HSG D
0.116	96		Gravel surface, HSG D
8.776	78	76	Weighted Average, UI Adjusted
7.035			80.16% Pervious Area
1.741			19.84% Impervious Area
1.637			94.03% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0260	0.19		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.8	235	0.0400	1.40		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
5.4	372	0.0270	1.15		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
3.9	304	0.0350	1.31		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
0.1	16	0.0780	4.50		**Shallow Concentrated Flow, E-F** Unpaved Kv= 16.1 fps
1.3	113	0.0450	1.48		**Shallow Concentrated Flow, F-G** Short Grass Pasture Kv= 7.0 fps
3.5	442	0.0900	2.10		**Shallow Concentrated Flow, G-H** Short Grass Pasture Kv= 7.0 fps
1.7	195	0.0750	1.92		**Shallow Concentrated Flow, H-I** Short Grass Pasture Kv= 7.0 fps
27.6	1,777	Total			

Subcatchment Pr-1A: Solar Array by Clubhouse



Summary for Subcatchment Pr-1B: West of Solar Array

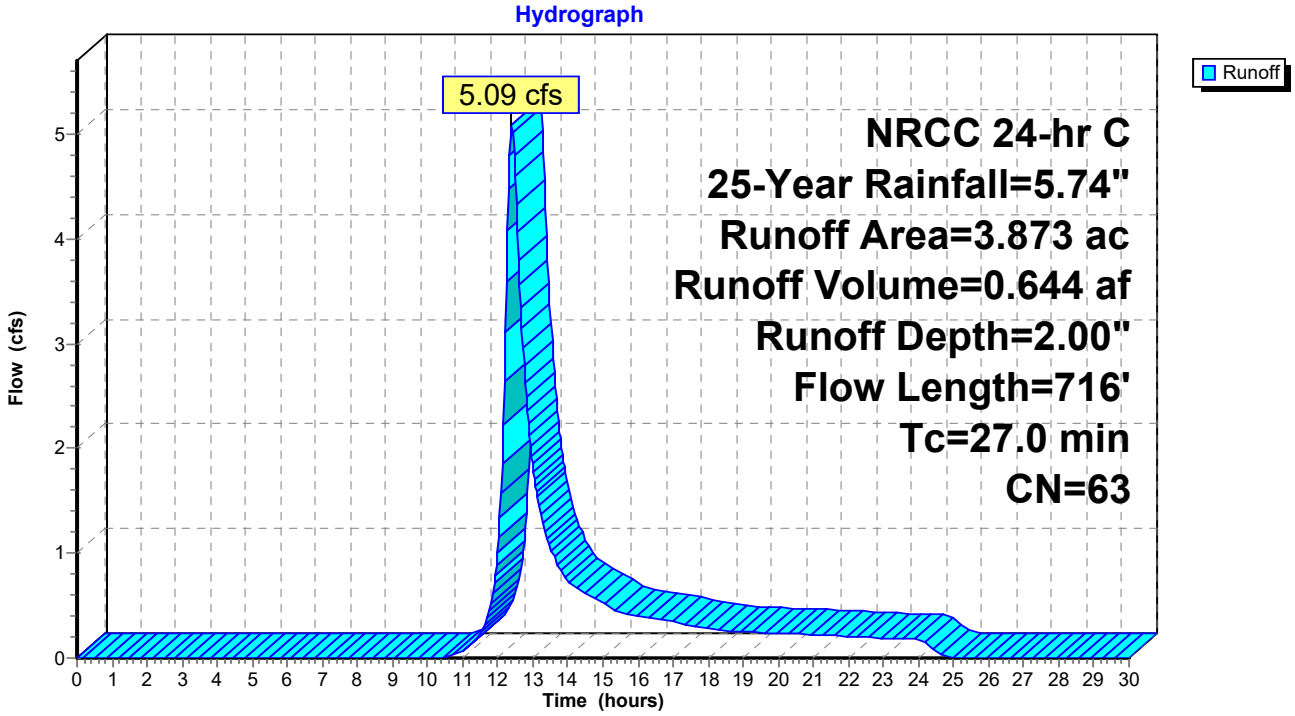
Runoff = 5.09 cfs @ 12.40 hrs, Volume= 0.644 af, Depth= 2.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 25-Year Rainfall=5.74"

Area (ac)	CN	Description
0.009	96	Gravel surface, HSG B
1.800	55	Woods, Good, HSG B
0.008	58	Woods/grass comb., Good, HSG B
0.078	98	Paved parking, HSG B
0.545	61	>75% Grass cover, Good, HSG B
0.937	70	Woods, Good, HSG C
0.492	74	>75% Grass cover, Good, HSG C
0.004	98	Unconnected roofs, HSG C
3.873	63	Weighted Average
3.791		97.88% Pervious Area
0.082		2.12% Impervious Area
0.004		4.88% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.6	100	0.0460	0.11		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.11"
3.6	271	0.0640	1.26		**Shallow Concentrated Flow, B-C** Woodland Kv= 5.0 fps
0.9	78	0.0900	1.50		**Shallow Concentrated Flow, C-D** Woodland Kv= 5.0 fps
0.7	46	0.0430	1.04		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
6.2	221	0.0140	0.59		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
27.0	716	Total			

Subcatchment Pr-1B: West of Solar Array



Summary for Subcatchment Pr-1C: Southerly Solar Array

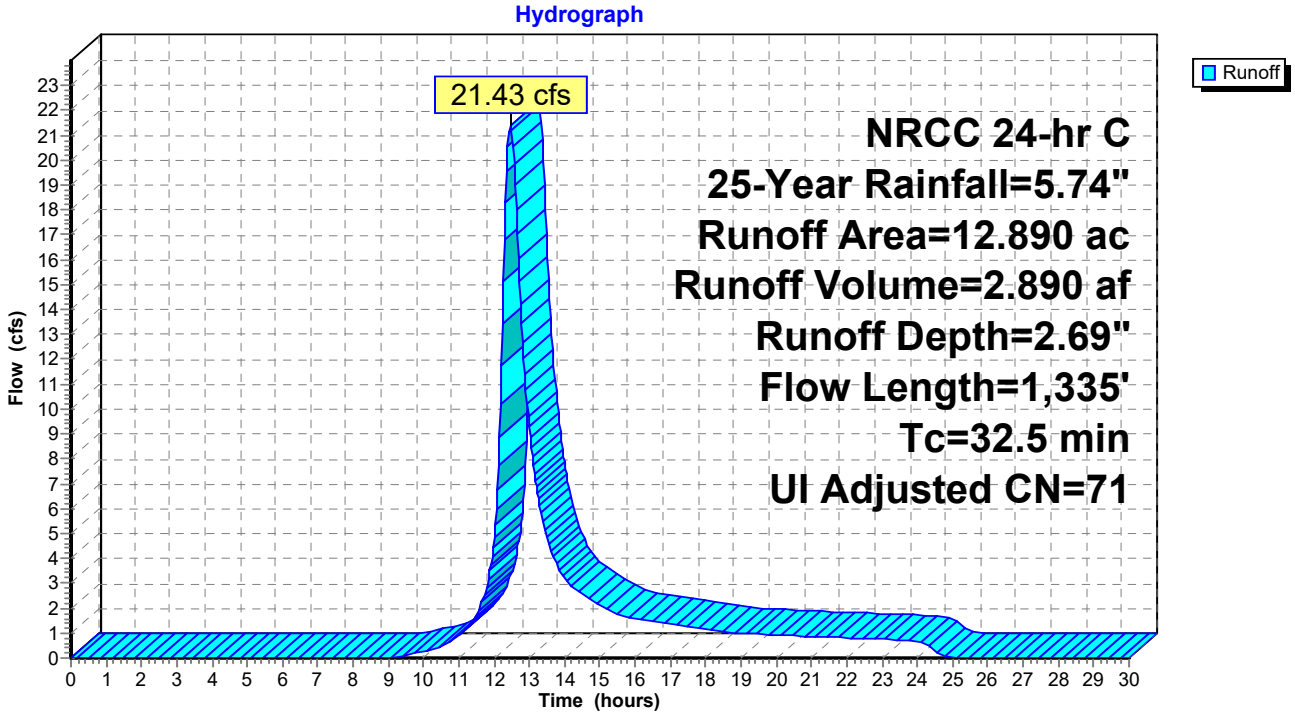
Runoff = 21.43 cfs @ 12.46 hrs, Volume= 2.890 af, Depth= 2.69"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 25-Year Rainfall=5.74"

Area (ac)	CN	Adj	Description
0.048	96		Gravel surface, HSG B
0.467	55		Woods, Good, HSG B
0.136	58		Woods/grass comb., Good, HSG B
0.028	86		Fallow, bare soil, HSG B
2.897	61		>75% Grass cover, Good, HSG B
0.193	96		Gravel surface, HSG C
0.027	70		Woods, Good, HSG C
0.401	72		Woods/grass comb., Good, HSG C
0.043	91		Fallow, bare soil, HSG C
7.974	74		>75% Grass cover, Good, HSG C
0.676	98		Unconnected roofs, HSG C
12.890	72	71	Weighted Average, UI Adjusted
12.214			94.76% Pervious Area
0.676			5.24% Impervious Area
0.676			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.1	100	0.0060	0.10		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
6.2	297	0.0130	0.80		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.2	200	0.0470	1.52		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
2.7	174	0.0240	1.08		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
1.3	79	0.0410	1.01		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
0.7	67	0.0540	1.63		**Shallow Concentrated Flow, F-G** Short Grass Pasture Kv= 7.0 fps
0.1	15	0.0660	4.14		**Shallow Concentrated Flow, G-H** Unpaved Kv= 16.1 fps
1.8	232	0.0930	2.13		**Shallow Concentrated Flow, H-I** Short Grass Pasture Kv= 7.0 fps
1.4	171	0.1650	2.03		**Shallow Concentrated Flow, I-J** Woodland Kv= 5.0 fps
32.5	1,335	Total			

Subcatchment Pr-1C: Southerly Solar Array



Summary for Subcatchment Pr-2: South of East Solar Array

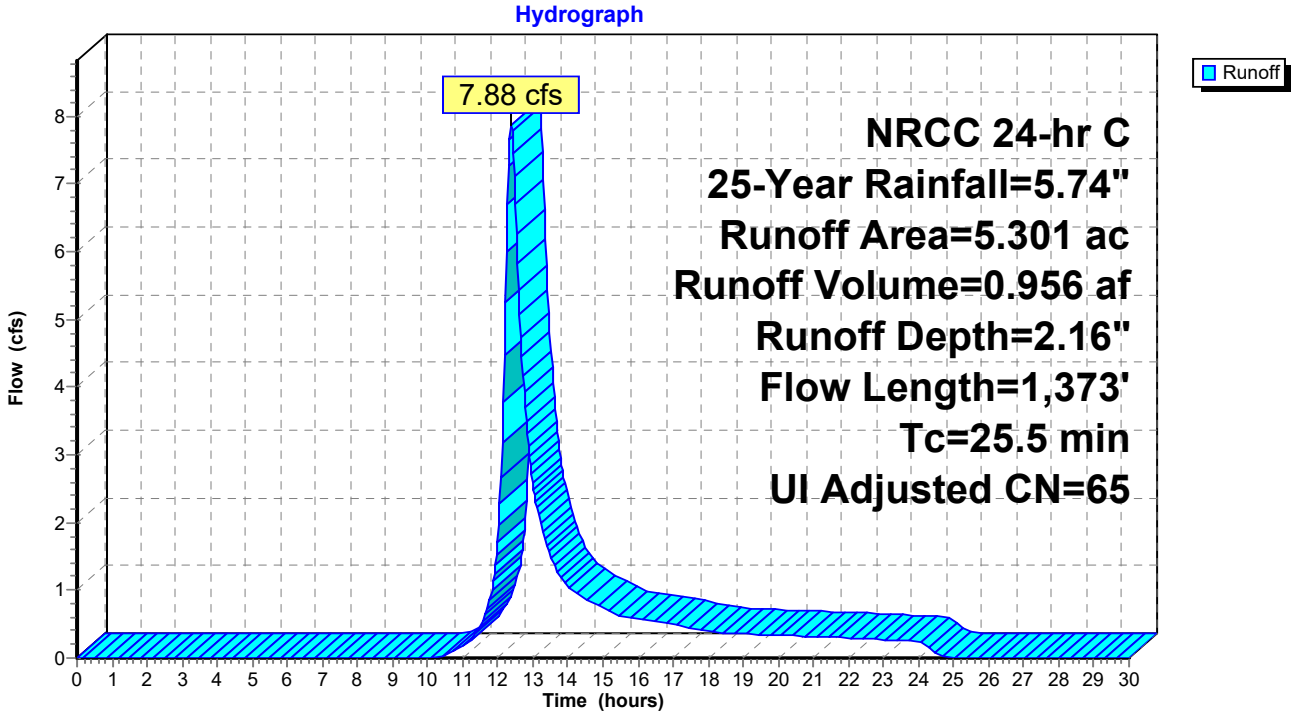
Runoff = 7.88 cfs @ 12.38 hrs, Volume= 0.956 af, Depth= 2.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 25-Year Rainfall=5.74"

Area (ac)	CN	Adj	Description
2.391	55		Woods, Good, HSG B
0.008	86		Fallow, bare soil, HSG B
0.047	96		Gravel surface, HSG B
0.518	61		>75% Grass cover, Good, HSG B
0.425	70		Woods, Good, HSG C
1.408	74		>75% Grass cover, Good, HSG C
0.101	96		Gravel surface, HSG C
0.403	98		Unconnected roofs, HSG C
5.301	66	65	Weighted Average, UI Adjusted
4.898			92.40% Pervious Area
0.403			7.60% Impervious Area
0.403			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.0190	0.16		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
1.9	126	0.0250	1.11		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.6	305	0.0780	1.95		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
0.9	122	0.2150	2.32		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
7.8	624	0.0720	1.34		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
2.2	96	0.0210	0.72		**Shallow Concentrated Flow, F-G** Woodland Kv= 5.0 fps
25.5	1,373	Total			

Subcatchment Pr-2: South of East Solar Array



Summary for Subcatchment Pr-3: North of Solar Array, along Elmridge Rd

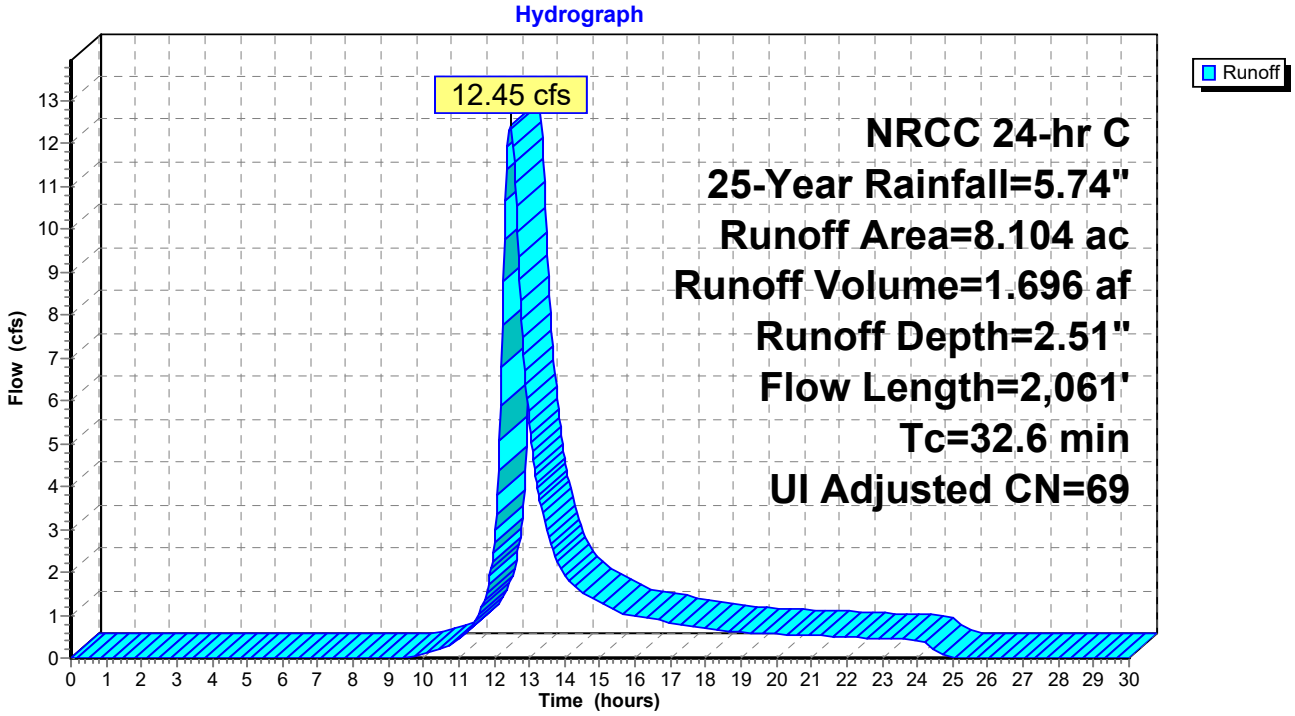
Runoff = 12.45 cfs @ 12.46 hrs, Volume= 1.696 af, Depth= 2.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 25-Year Rainfall=5.74"

Area (ac)	CN	Adj	Description
0.077	96		Gravel surface, HSG C
0.330	58		Woods/grass comb., Good, HSG B
0.358	98		Paved parking, HSG B
0.006	98		Roofs, HSG B
0.027	86		Fallow, bare soil, HSG B
4.223	61		>75% Grass cover, Good, HSG B
0.081	72		Woods/grass comb., Good, HSG C
0.033	91		Fallow, bare soil, HSG C
1.741	74		>75% Grass cover, Good, HSG C
0.564	98		Unconnected roofs, HSG C
0.518	80		>75% Grass cover, Good, HSG D
0.146	96		Gravel surface, HSG D
8.104	70	69	Weighted Average, UI Adjusted
7.176			88.55% Pervious Area
0.928			11.45% Impervious Area
0.564			60.78% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0160	0.15		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.6	245	0.0490	1.55		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
8.3	855	0.0600	1.71		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
10.8	861	0.0360	1.33		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
32.6	2,061	Total			

Subcatchment Pr-3: North of Solar Array, along Elmridge Rd



Summary for Subcatchment Pr-4: Central/West of East Site

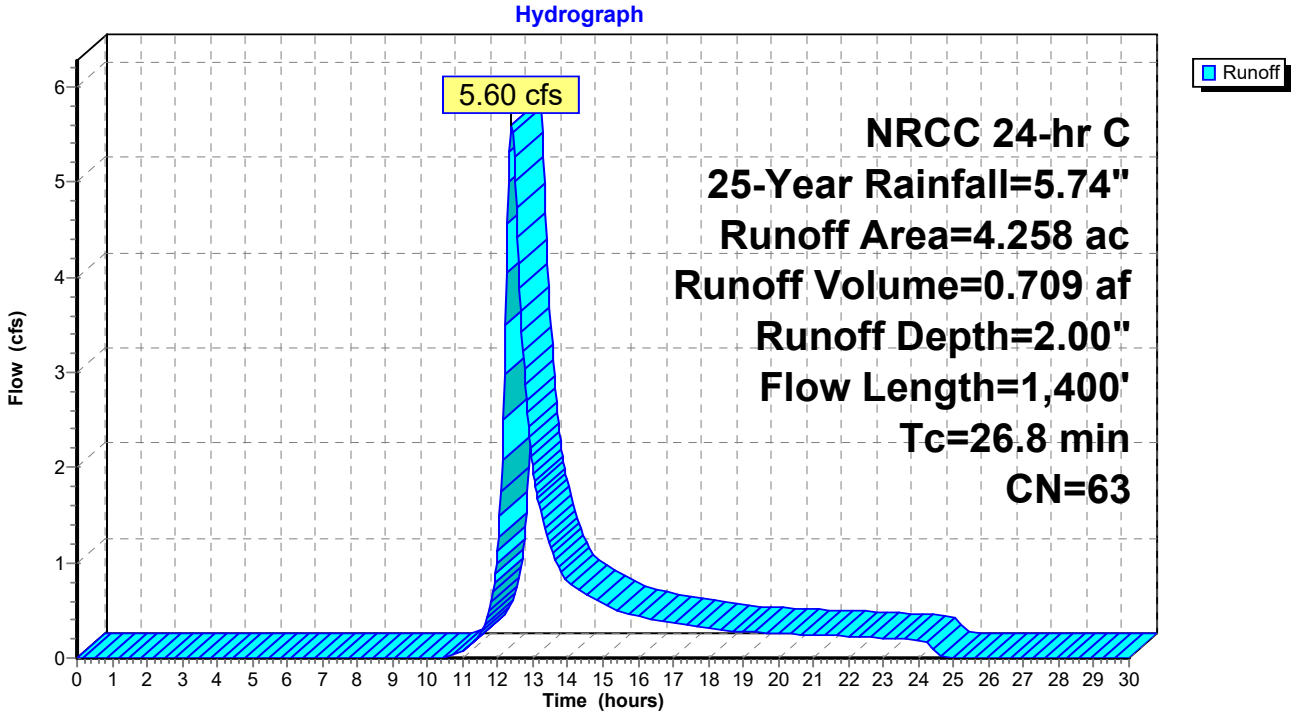
Runoff = 5.60 cfs @ 12.40 hrs, Volume= 0.709 af, Depth= 2.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 25-Year Rainfall=5.74"

Area (ac)	CN	Description
0.043	96	Gravel surface, HSG B
0.212	55	Woods, Good, HSG B
0.181	58	Woods/grass comb., Good, HSG B
0.089	98	Paved parking, HSG B
0.010	86	Fallow, bare soil, HSG B
3.399	61	>75% Grass cover, Good, HSG B
0.309	74	>75% Grass cover, Good, HSG C
0.008	98	Unconnected roofs, HSG C
0.007	96	Gravel surface, HSG C
4.258	63	Weighted Average
4.161		97.72% Pervious Area
0.097		2.28% Impervious Area
0.008		8.25% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0800	0.13		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.11"
2.7	283	0.0630	1.76		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.1	178	0.0390	1.38		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
1.4	143	0.0630	1.76		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
8.1	696	0.0420	1.43		**Shallow Concentrated Flow, E-F** Short Grass Pasture Kv= 7.0 fps
26.8	1,400	Total			

Subcatchment Pr-4: Central/West of East Site



Summary for Subcatchment Pr-5: West Site along N. Anguilla Rd

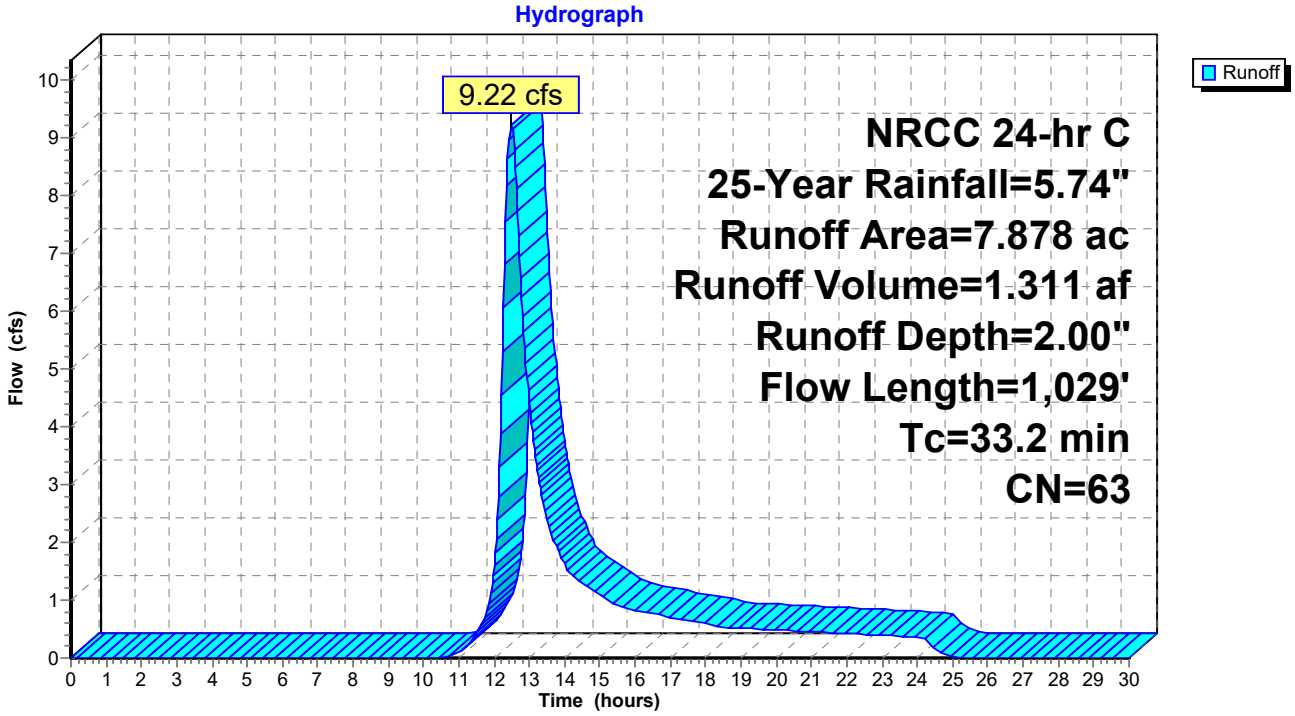
Runoff = 9.22 cfs @ 12.48 hrs, Volume= 1.311 af, Depth= 2.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 25-Year Rainfall=5.74"

Area (ac)	CN	Description
0.370	30	Woods, Good, HSG A
0.052	96	Gravel surface, HSG B
1.888	55	Woods, Good, HSG B
0.089	58	Woods/grass comb., Good, HSG B
0.253	98	Paved parking, HSG B
0.101	98	Roofs, HSG B
0.025	86	Fallow, bare soil, HSG B
3.578	61	>75% Grass cover, Good, HSG B
0.118	96	Gravel surface, HSG C
0.535	70	Woods, Good, HSG C
0.018	72	Woods/grass comb., Good, HSG C
0.851	74	>75% Grass cover, Good, HSG C
7.878	63	Weighted Average
7.524		95.51% Pervious Area
0.354		4.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.8	100	0.0330	0.09		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.11"
3.2	311	0.0530	1.61		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
5.9	210	0.0140	0.59		**Shallow Concentrated Flow, C-D** Woodland Kv= 5.0 fps
5.0	384	0.0340	1.29		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
1.3	24	0.0040	0.32		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
33.2	1,029	Total			

Subcatchment Pr-5: West Site along N. Anguilla Rd



Summary for Subcatchment Pr-6: South/Central Area of Western Golf Course

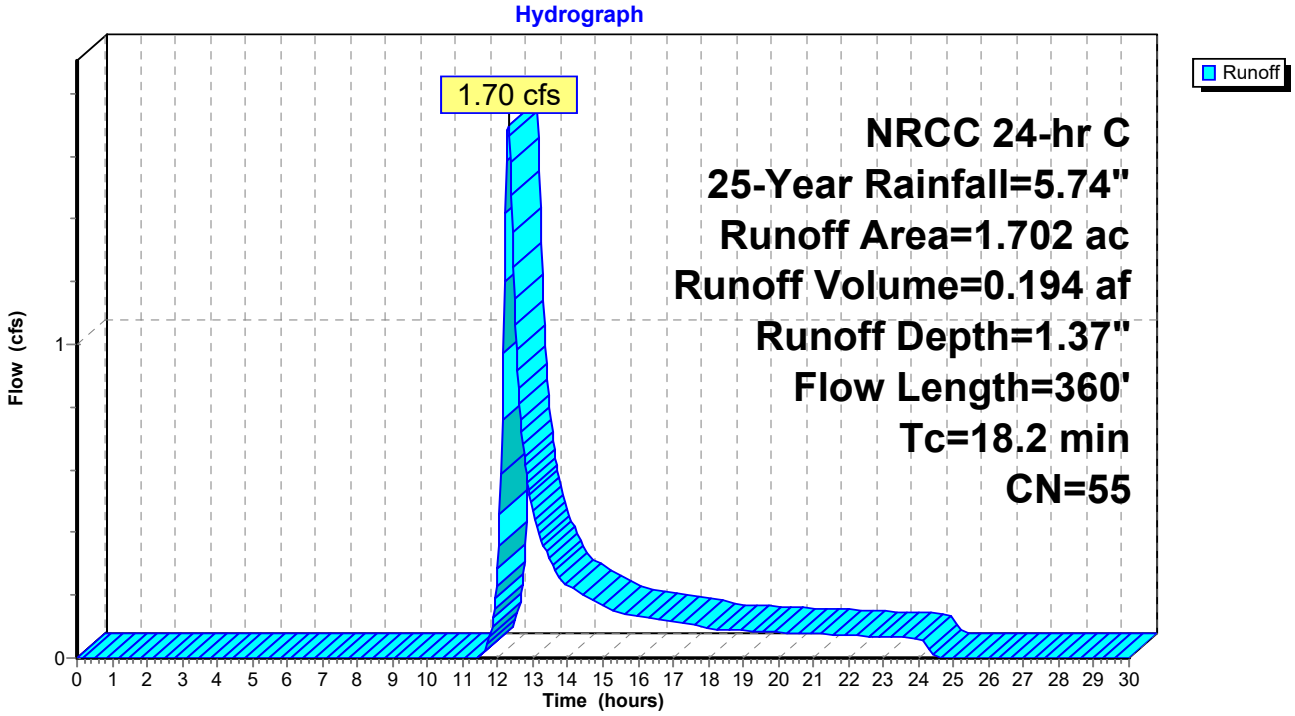
Runoff = 1.70 cfs @ 12.30 hrs, Volume= 0.194 af, Depth= 1.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 25-Year Rainfall=5.74"

Area (ac)	CN	Description
0.294	30	Woods, Good, HSG A
0.028	39	>75% Grass cover, Good, HSG A
0.415	55	Woods, Good, HSG B
0.028	86	Fallow, bare soil, HSG B
0.840	61	>75% Grass cover, Good, HSG B
0.097	74	>75% Grass cover, Good, HSG C
1.702	55	Weighted Average
1.702		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	100	0.0210	0.17		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
0.3	36	0.0730	1.89		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.6	47	0.0770	1.39		**Shallow Concentrated Flow, C-D** Woodland Kv= 5.0 fps
7.6	177	0.0060	0.39		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
18.2	360	Total			

Subcatchment Pr-6: South/Central Area of Western Golf Course



Summary for Subcatchment Pr-7: West/Central Area of Western Golf Course

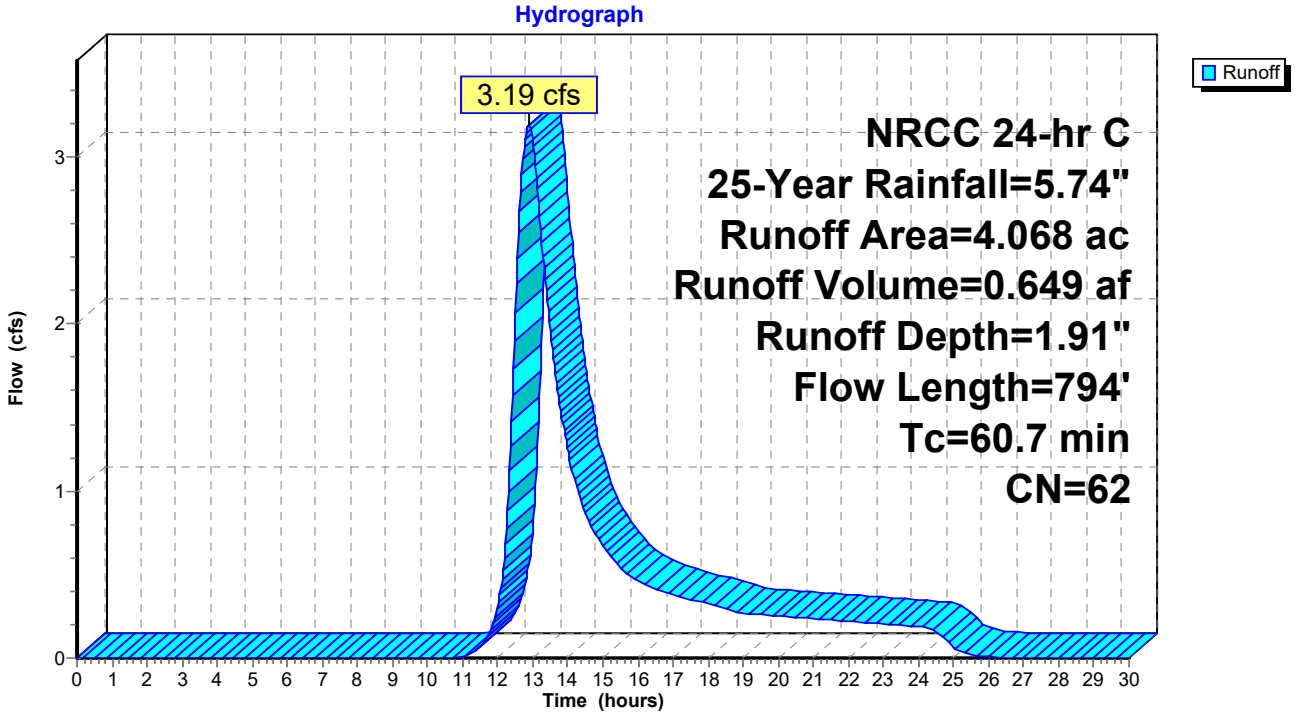
Runoff = 3.19 cfs @ 12.88 hrs, Volume= 0.649 af, Depth= 1.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 25-Year Rainfall=5.74"

Area (ac)	CN	Description
0.024	30	Woods, Good, HSG A
0.045	96	Gravel surface, HSG B
0.535	55	Woods, Good, HSG B
0.135	58	Woods/grass comb., Good, HSG B
0.044	86	Fallow, bare soil, HSG B
2.777	61	>75% Grass cover, Good, HSG B
0.008	96	Gravel surface, HSG C
0.056	70	Woods, Good, HSG C
0.444	74	>75% Grass cover, Good, HSG C
4.068	62	Weighted Average
4.068		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.5	100	0.0004	0.04		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.5	130	0.0150	0.86		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.3	34	0.0690	1.84		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
0.3	39	0.1960	2.21		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
5.5	203	0.0150	0.61		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
1.6	121	0.0330	1.27		**Shallow Concentrated Flow, F-G** Short Grass Pasture Kv= 7.0 fps
3.0	167	0.0180	0.94		**Shallow Concentrated Flow, G-H** Short Grass Pasture Kv= 7.0 fps
60.7	794	Total			

Subcatchment Pr-7: West/Central Area of Western Golf Course



Summary for Subcatchment Pr-8: Western Solar Array Field

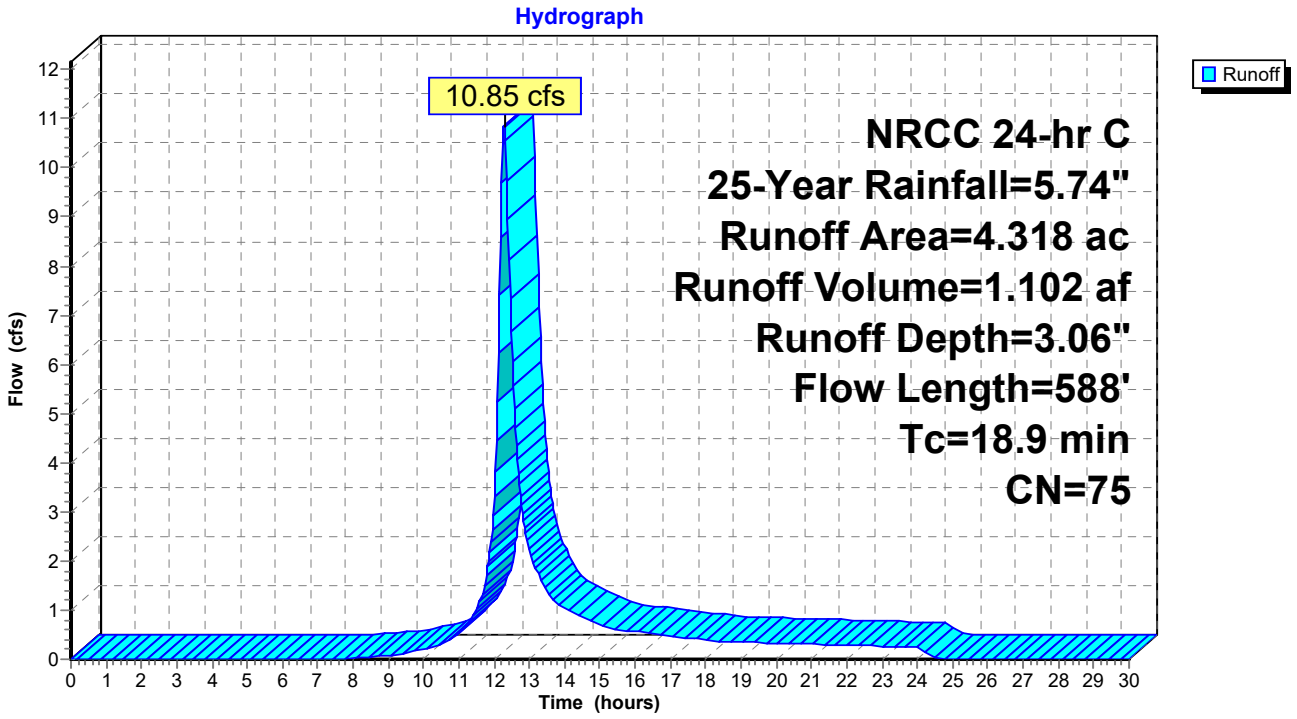
Runoff = 10.85 cfs @ 12.28 hrs, Volume= 1.102 af, Depth= 3.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 25-Year Rainfall=5.74"

Area (ac)	CN	Description
0.017	98	Unconnected roofs, HSG C
4.153	74	>75% Grass cover, Good, HSG C
0.148	96	Gravel surface, HSG C
4.318	75	Weighted Average
4.301		99.61% Pervious Area
0.017		0.39% Impervious Area
0.017		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.5	100	0.0300	0.20		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
5.5	254	0.0120	0.77		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
4.9	234	0.0130	0.80		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
18.9	588	Total			

Subcatchment Pr-8: Western Solar Array Field

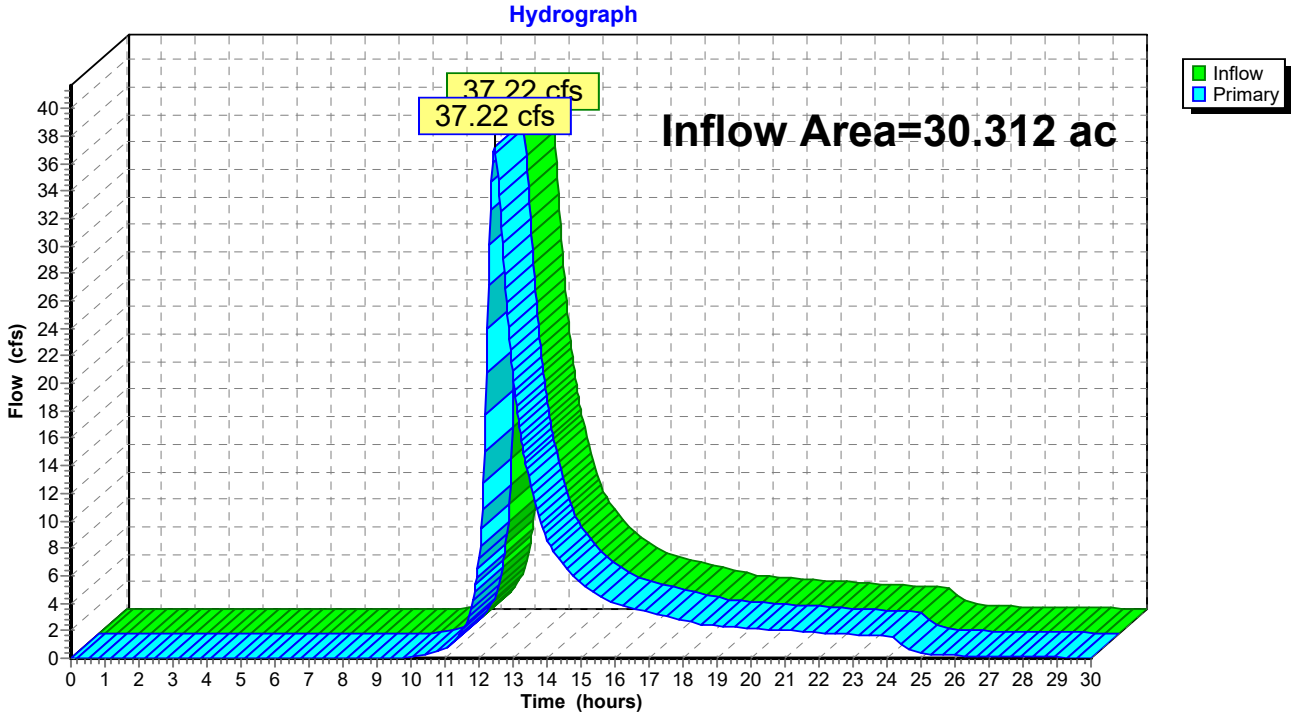


Summary for Pond AP-1: Easterly Wetland/ Vernal Pool

Inflow Area = 30.312 ac, 10.73% Impervious, Inflow Depth > 2.44" for 25-Year event
Inflow = 37.22 cfs @ 12.46 hrs, Volume= 6.152 af
Primary = 37.22 cfs @ 12.46 hrs, Volume= 6.152 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-1: Easterly Wetland/ Vernal Pool

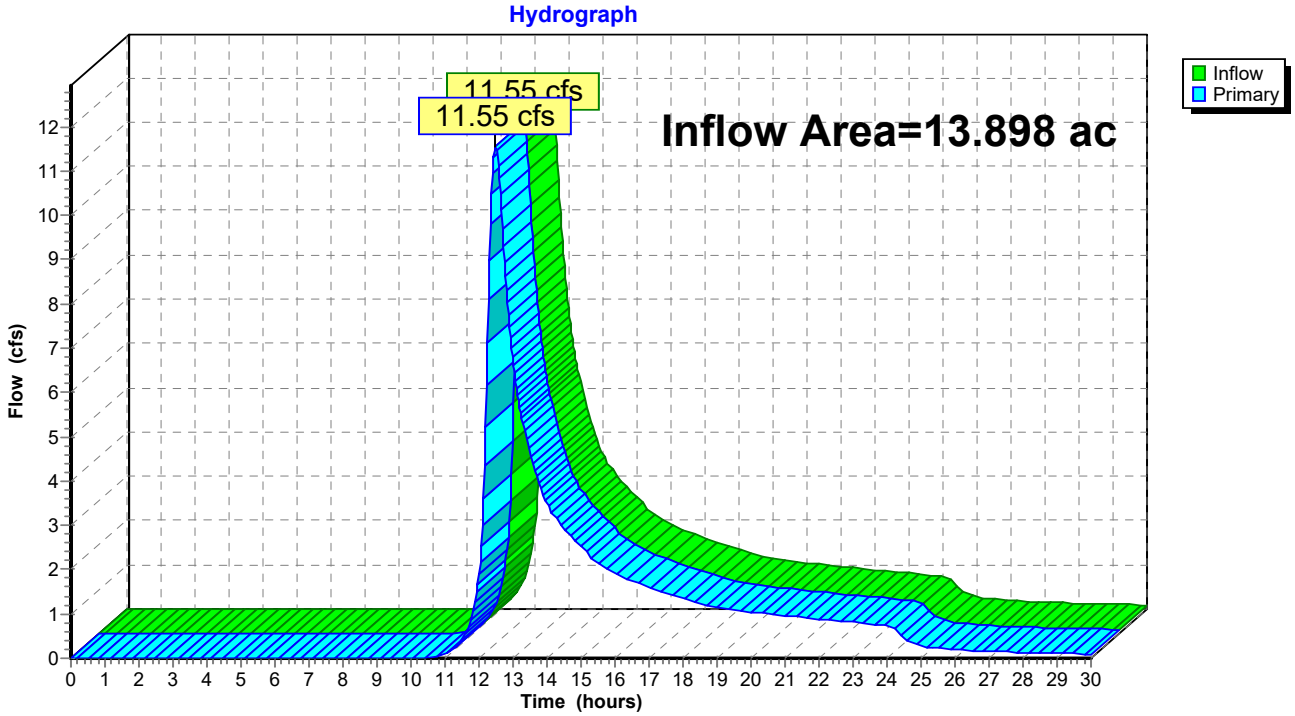


Summary for Pond AP-2: Anguilla Brook

Inflow Area = 13.898 ac, 2.67% Impervious, Inflow Depth > 2.07" for 25-Year event
Inflow = 11.55 cfs @ 12.49 hrs, Volume= 2.396 af
Primary = 11.55 cfs @ 12.49 hrs, Volume= 2.396 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-2: Anguilla Brook

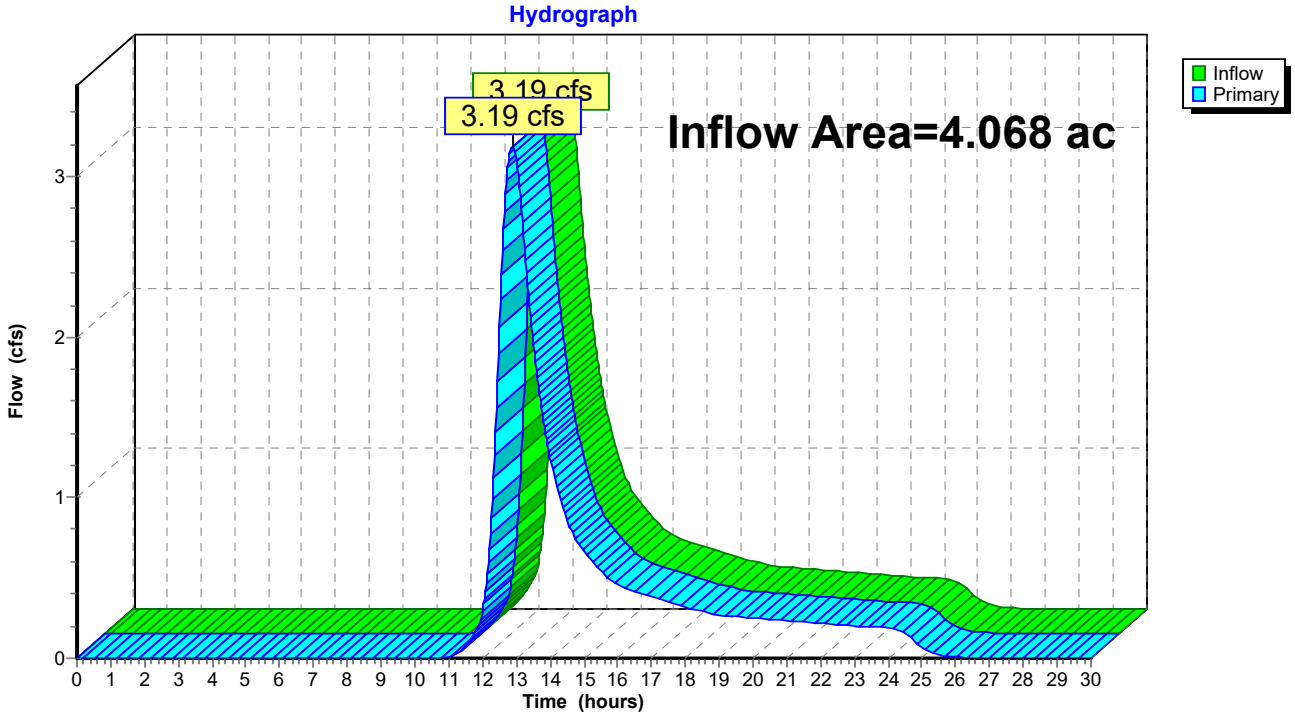


Summary for Pond AP-3: Westerly Intermittent Stream

Inflow Area = 4.068 ac, 0.00% Impervious, Inflow Depth = 1.91" for 25-Year event
Inflow = 3.19 cfs @ 12.88 hrs, Volume= 0.649 af
Primary = 3.19 cfs @ 12.88 hrs, Volume= 0.649 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-3: Westerly Intermittent Stream

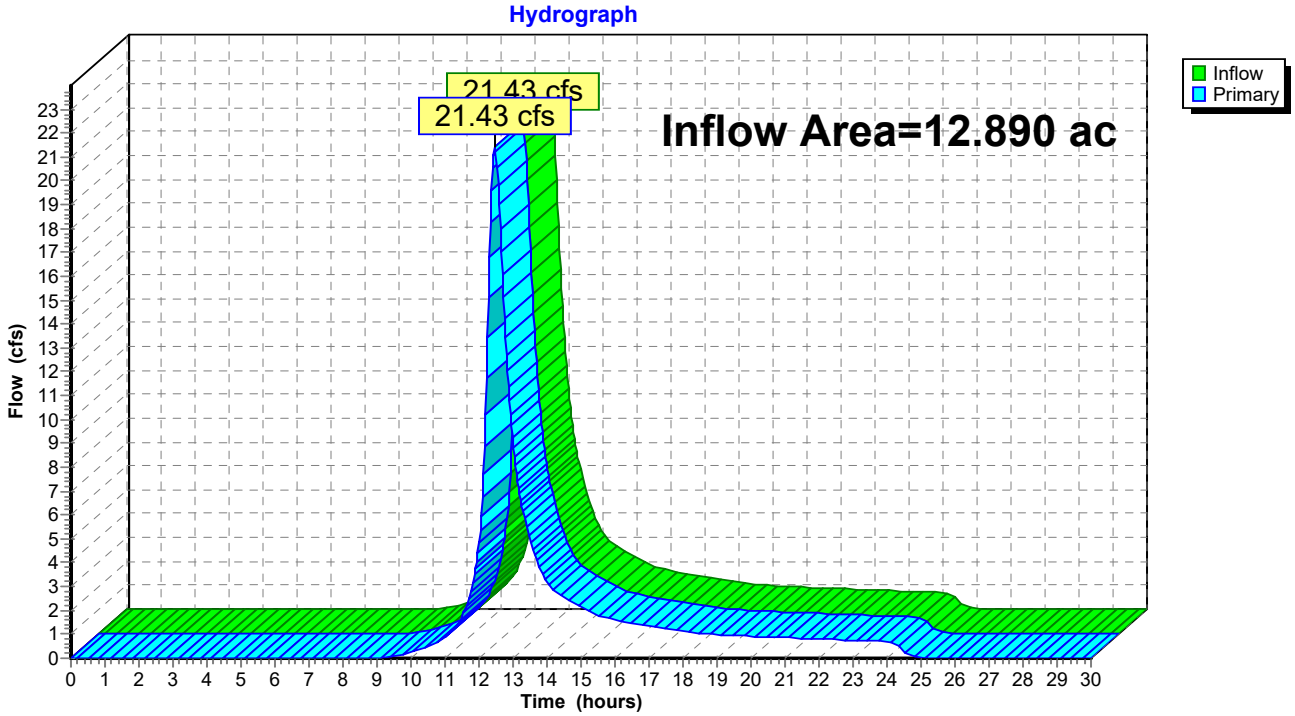


Summary for Pond AP-4: Easterly Wetland

Inflow Area = 12.890 ac, 5.24% Impervious, Inflow Depth = 2.69" for 25-Year event
Inflow = 21.43 cfs @ 12.46 hrs, Volume= 2.890 af
Primary = 21.43 cfs @ 12.46 hrs, Volume= 2.890 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-4: Easterly Wetland



Summary for Pond SB-1: SWMB-1 Option 2

Inflow Area = 4.318 ac, 0.39% Impervious, Inflow Depth = 3.06" for 25-Year event
Inflow = 10.85 cfs @ 12.28 hrs, Volume= 1.102 af
Outflow = 1.93 cfs @ 13.15 hrs, Volume= 0.890 af, Atten= 82%, Lag= 52.2 min
Primary = 1.93 cfs @ 13.15 hrs, Volume= 0.890 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Peak Elev= 54.50' @ 13.15 hrs Surf.Area= 15,215 sf Storage= 23,378 cf

Plug-Flow detention time= 270.5 min calculated for 0.890 af (81% of inflow)
Center-of-Mass det. time= 188.1 min (1,038.3 - 850.2)

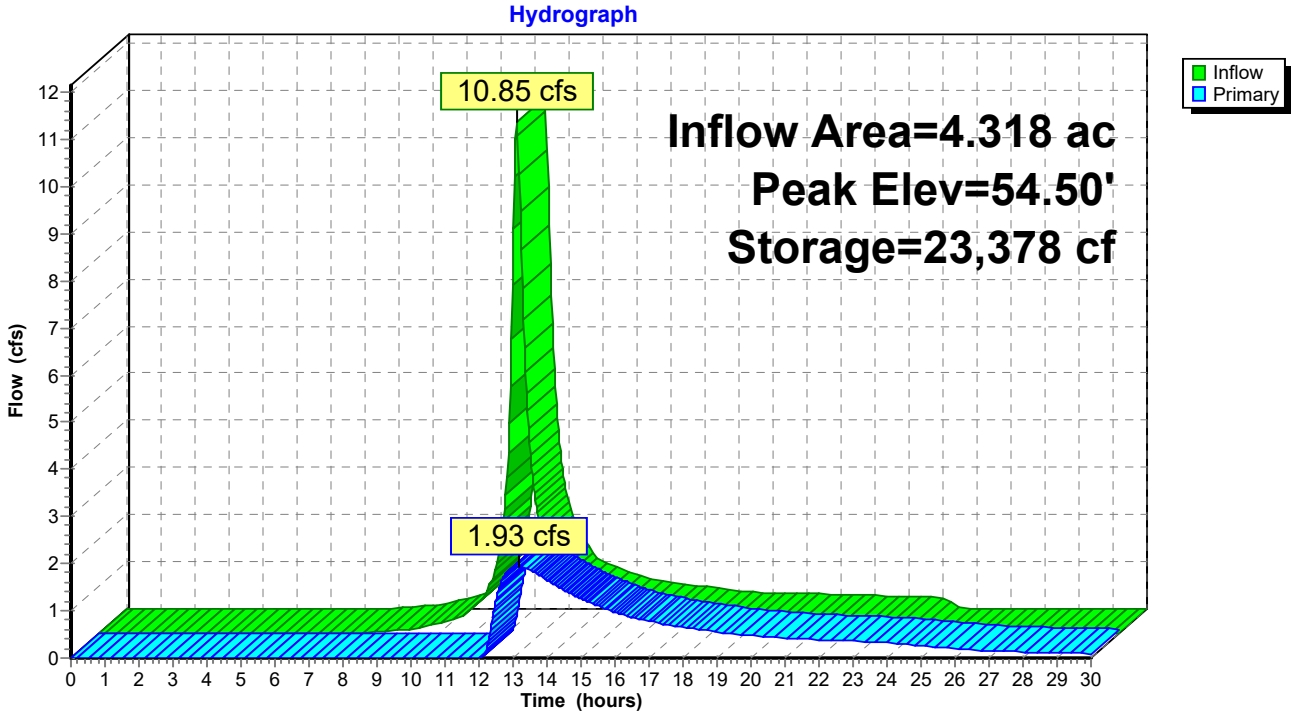
Volume	Invert	Avail.Storage	Storage Description
#1	52.50'	54,423 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
52.50	7,259	0	0
53.00	10,224	4,371	4,371
54.00	13,461	11,843	16,213
55.00	16,971	15,216	31,429
56.00	29,017	22,994	54,423

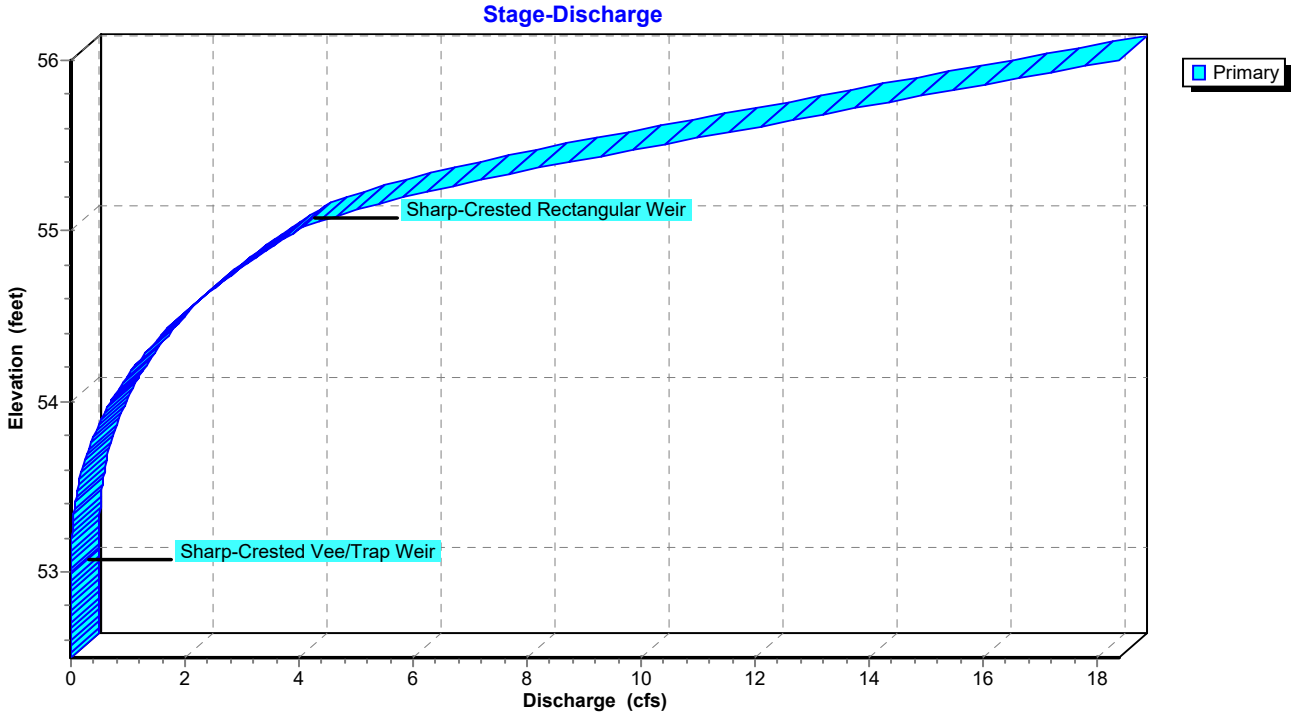
Device	Routing	Invert	Outlet Devices
#1	Primary	53.00'	**30.0 deg x 2.50' rise Sharp-Crested Vee/Trap Weir** Cv= 2.61 (C= 3.26)
#2	Primary	55.00'	**3.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=1.93 cfs @ 13.15 hrs HW=54.50' TW=0.00' (Dynamic Tailwater)
1=Sharp-Crested Vee/Trap Weir (Weir Controls 1.93 cfs @ 3.20 fps)
2=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

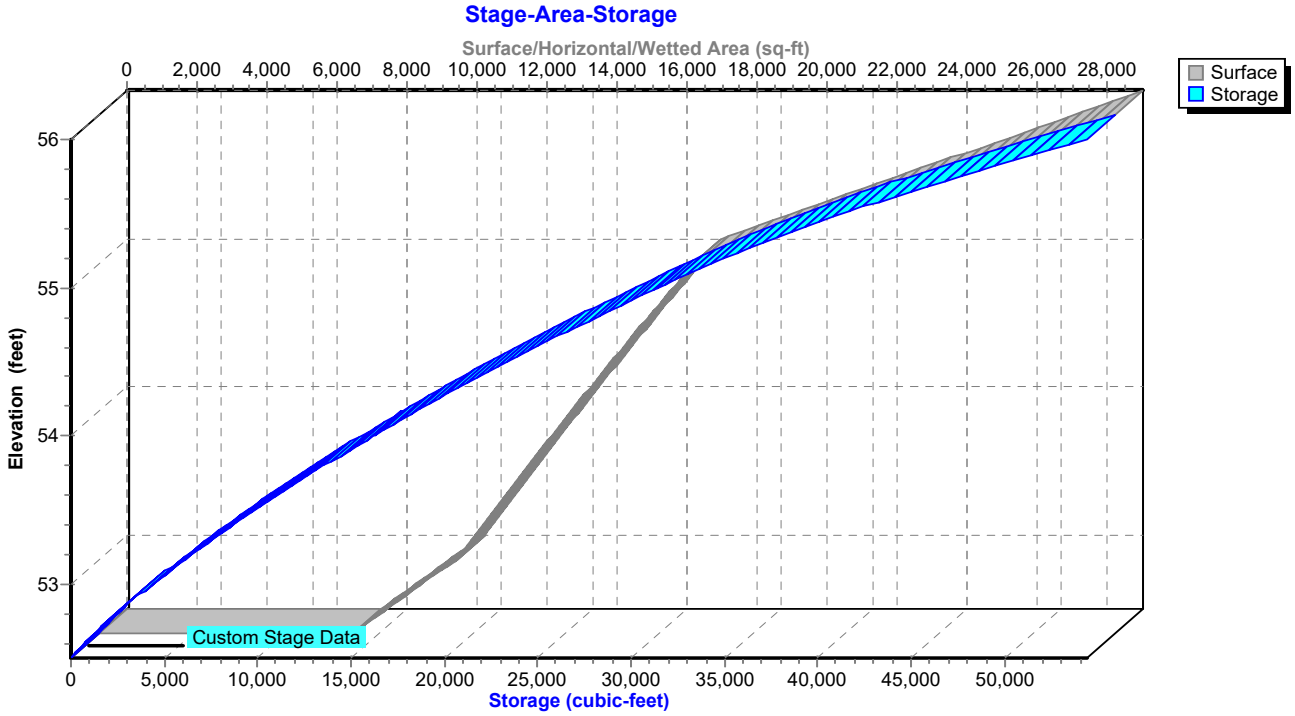
Pond SB-1: SWMB-1 Option 2



Pond SB-1: SWMB-1 Option 2



Pond SB-1: SWMB-1 Option 2



Summary for Pond SB-2: SWMB-2

Inflow Area = 8.776 ac, 19.84% Impervious, Inflow Depth = 3.16" for 25-Year event
Inflow = 18.78 cfs @ 12.39 hrs, Volume= 2.309 af
Outflow = 9.84 cfs @ 12.74 hrs, Volume= 2.147 af, Atten= 48%, Lag= 21.1 min
Primary = 9.84 cfs @ 12.74 hrs, Volume= 2.147 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Peak Elev= 132.65' @ 12.74 hrs Surf.Area= 17,775 sf Storage= 32,696 cf

Plug-Flow detention time= 121.3 min calculated for 2.145 af (93% of inflow)
Center-of-Mass det. time= 84.1 min (939.7 - 855.6)

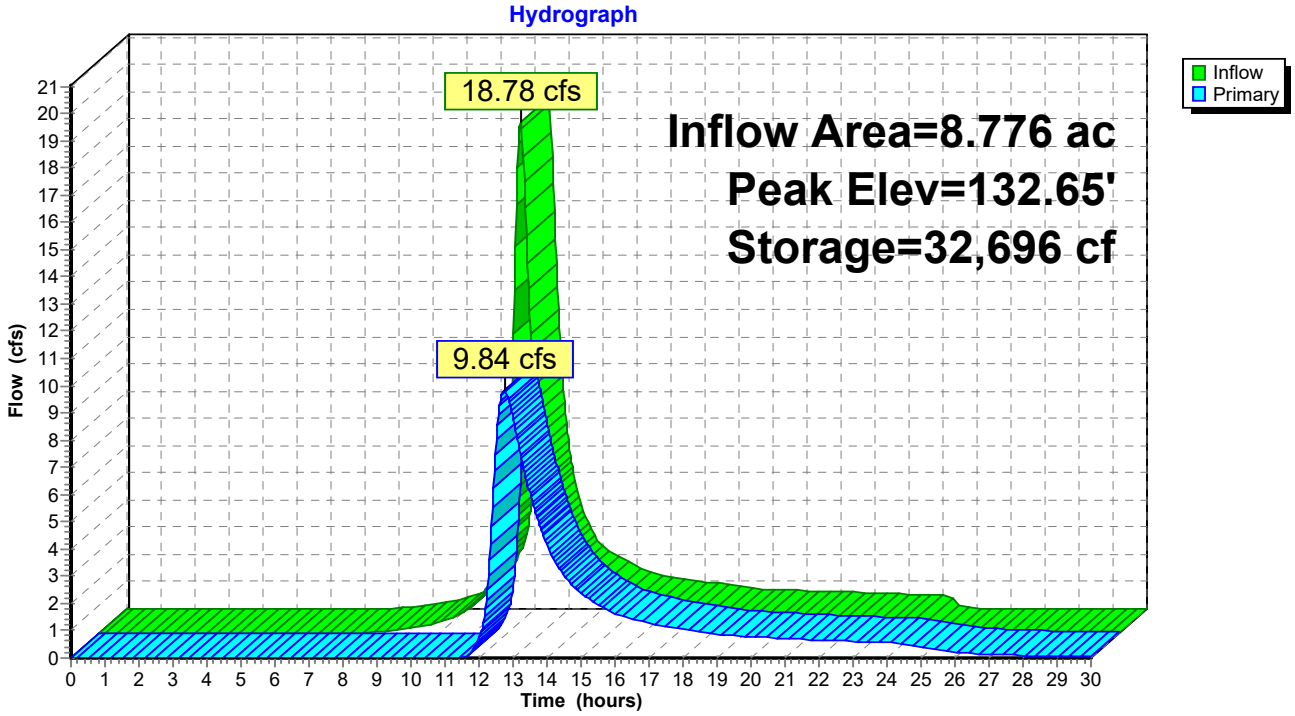
Volume	Invert	Avail.Storage	Storage Description
#1	130.50'	69,267 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
130.50	10,472	0	0
131.00	14,379	6,213	6,213
132.00	16,417	15,398	21,611
133.00	18,511	17,464	39,075
134.00	20,663	19,587	58,662
134.50	21,759	10,606	69,267

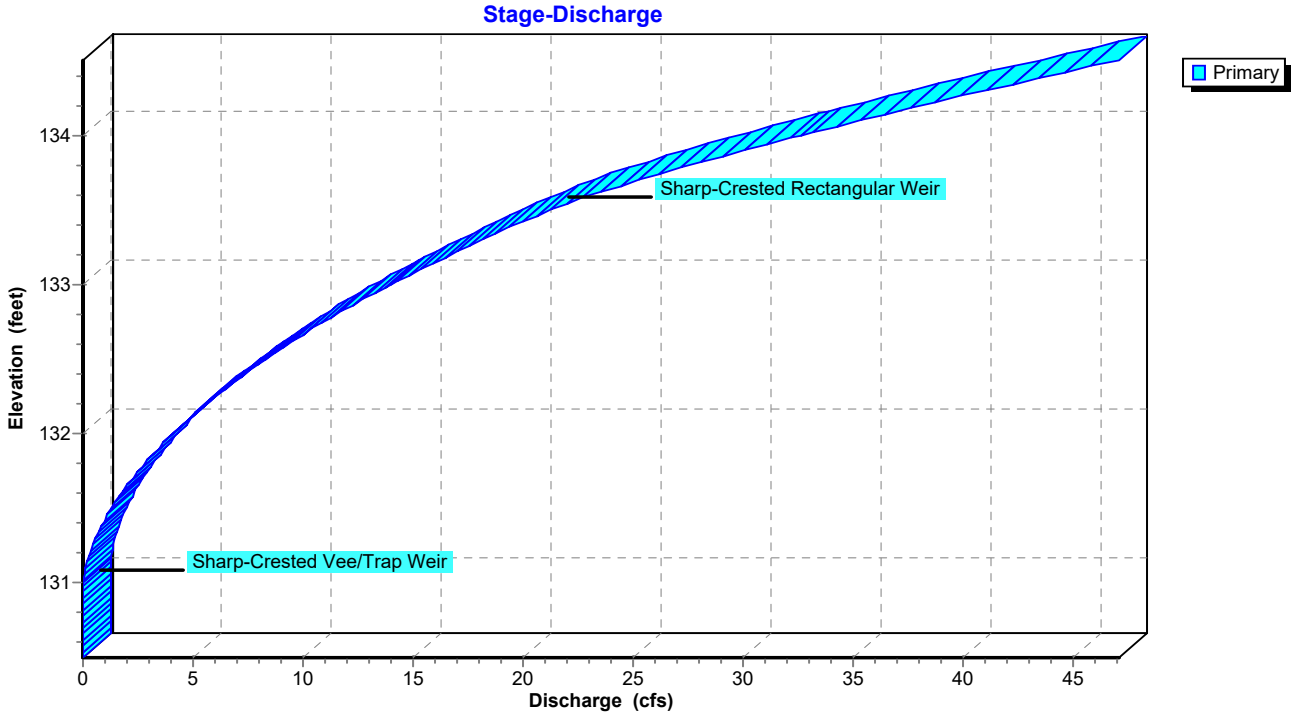
Device	Routing	Invert	Outlet Devices
#1	Primary	131.00'	**37.0 deg x 1.0' long x 2.50' rise Sharp-Crested Vee/Trap Weir** Cv= 2.58 (C= 3.23)
#2	Primary	133.50'	**5.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=9.83 cfs @ 12.74 hrs HW=132.65' TW=0.00' (Dynamic Tailwater)
↑—**1=Sharp-Crested Vee/Trap Weir** (Weir Controls 9.83 cfs @ 3.85 fps)
└—**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

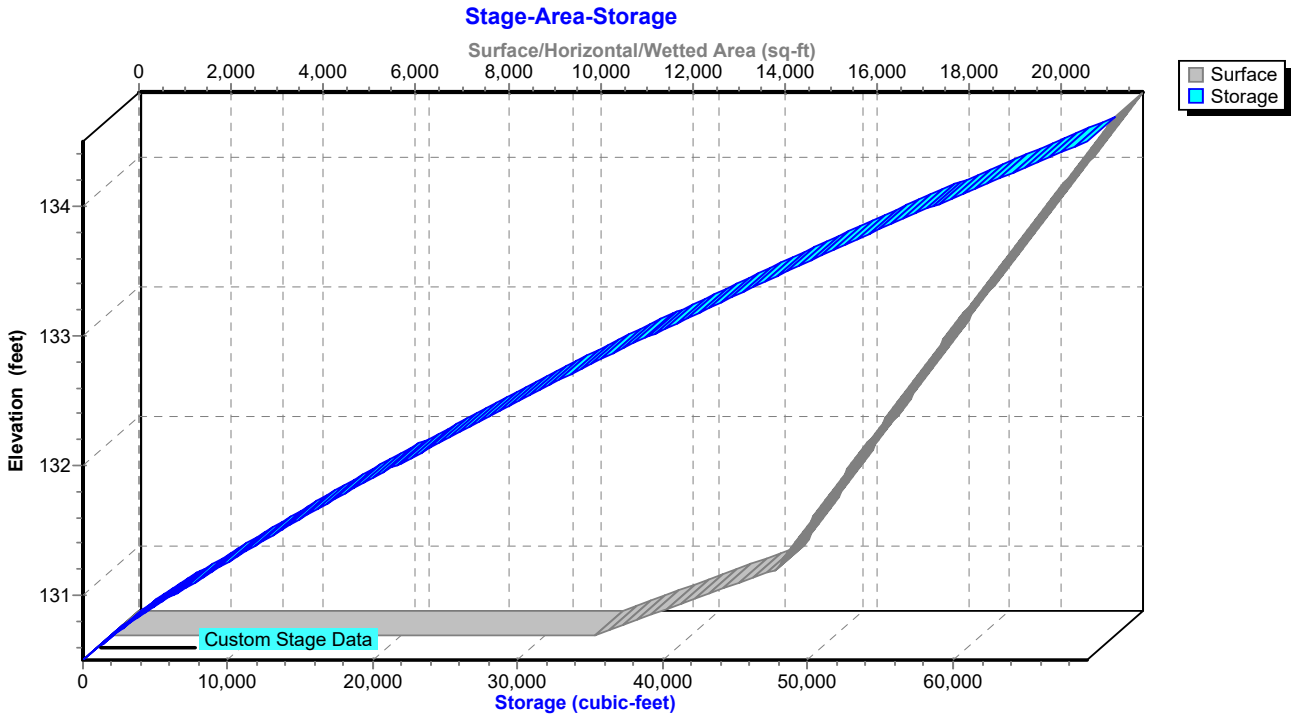
Pond SB-2: SWMB-2



Pond SB-2: SWMB-2



Pond SB-2: SWMB-2



Summary for Subcatchment Pr-1A: Solar Array by Clubhouse

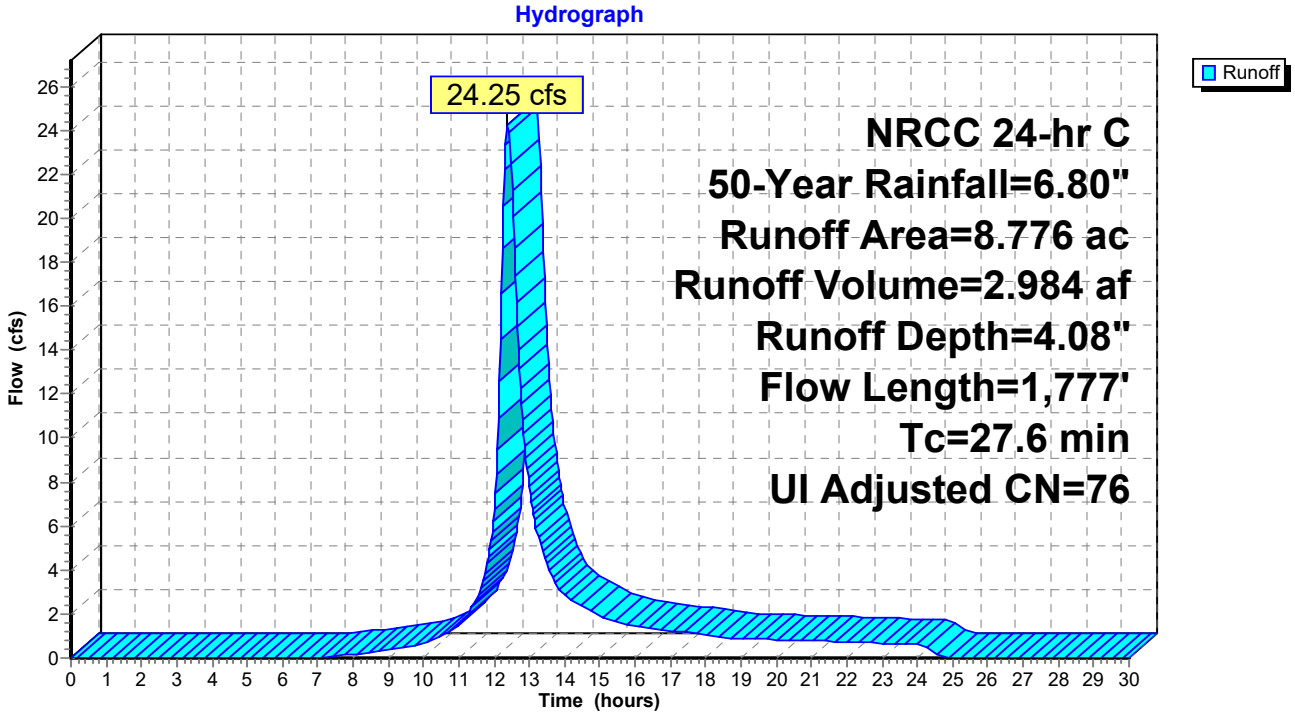
Runoff = 24.25 cfs @ 12.39 hrs, Volume= 2.984 af, Depth= 4.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 50-Year Rainfall=6.80"

Area (ac)	CN	Adj	Description
0.046	58		Woods/grass comb., Good, HSG B
0.034	98		Paved parking, HSG B
0.070	98		Roofs, HSG B
0.042	86		Fallow, bare soil, HSG B
0.910	61		>75% Grass cover, Good, HSG B
0.099	96		Gravel surface, HSG C
0.364	72		Woods/grass comb., Good, HSG C
0.013	91		Fallow, bare soil, HSG C
5.050	74		>75% Grass cover, Good, HSG C
1.637	98		Unconnected roofs, HSG C
0.395	80		>75% Grass cover, Good, HSG D
0.116	96		Gravel surface, HSG D
8.776	78	76	Weighted Average, UI Adjusted
7.035			80.16% Pervious Area
1.741			19.84% Impervious Area
1.637			94.03% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0260	0.19		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.8	235	0.0400	1.40		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
5.4	372	0.0270	1.15		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
3.9	304	0.0350	1.31		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
0.1	16	0.0780	4.50		**Shallow Concentrated Flow, E-F** Unpaved Kv= 16.1 fps
1.3	113	0.0450	1.48		**Shallow Concentrated Flow, F-G** Short Grass Pasture Kv= 7.0 fps
3.5	442	0.0900	2.10		**Shallow Concentrated Flow, G-H** Short Grass Pasture Kv= 7.0 fps
1.7	195	0.0750	1.92		**Shallow Concentrated Flow, H-I** Short Grass Pasture Kv= 7.0 fps
27.6	1,777	Total			

Subcatchment Pr-1A: Solar Array by Clubhouse



Summary for Subcatchment Pr-1B: West of Solar Array

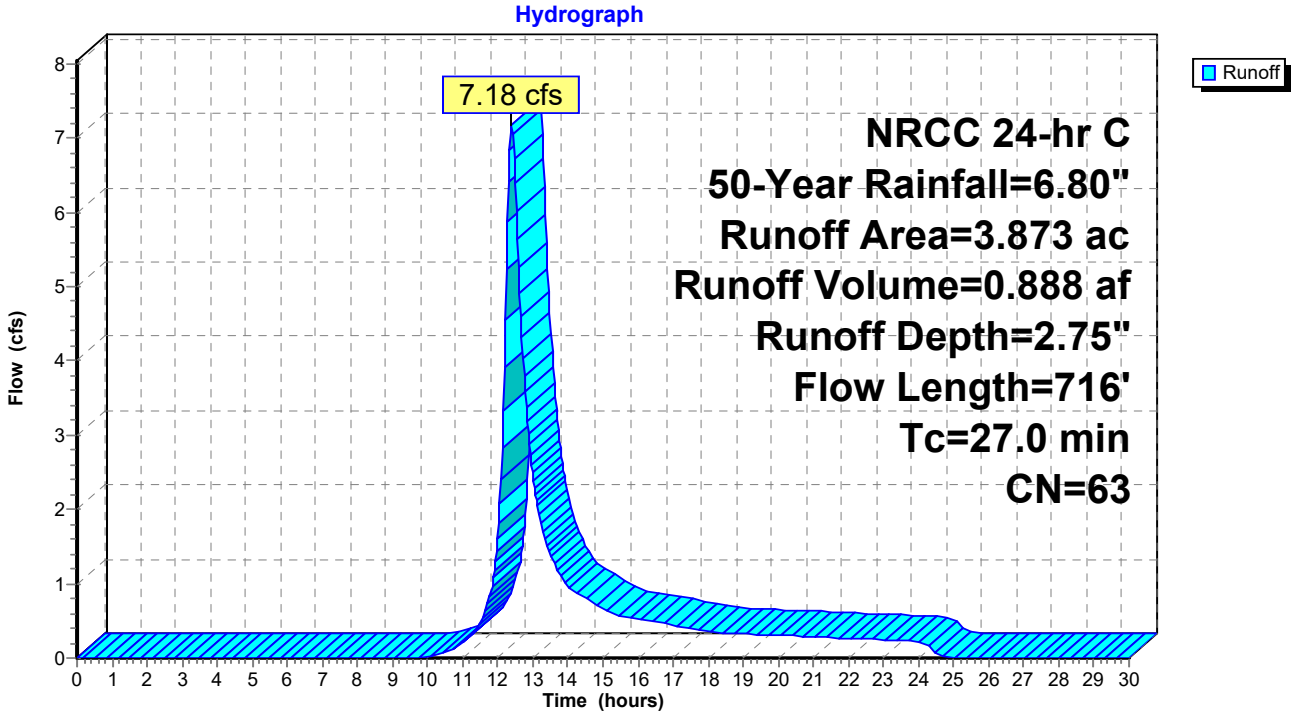
Runoff = 7.18 cfs @ 12.39 hrs, Volume= 0.888 af, Depth= 2.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 50-Year Rainfall=6.80"

Area (ac)	CN	Description
0.009	96	Gravel surface, HSG B
1.800	55	Woods, Good, HSG B
0.008	58	Woods/grass comb., Good, HSG B
0.078	98	Paved parking, HSG B
0.545	61	>75% Grass cover, Good, HSG B
0.937	70	Woods, Good, HSG C
0.492	74	>75% Grass cover, Good, HSG C
0.004	98	Unconnected roofs, HSG C
3.873	63	Weighted Average
3.791		97.88% Pervious Area
0.082		2.12% Impervious Area
0.004		4.88% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.6	100	0.0460	0.11		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.11"
3.6	271	0.0640	1.26		**Shallow Concentrated Flow, B-C** Woodland Kv= 5.0 fps
0.9	78	0.0900	1.50		**Shallow Concentrated Flow, C-D** Woodland Kv= 5.0 fps
0.7	46	0.0430	1.04		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
6.2	221	0.0140	0.59		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
27.0	716	Total			

Subcatchment Pr-1B: West of Solar Array



Summary for Subcatchment Pr-1C: Southerly Solar Array

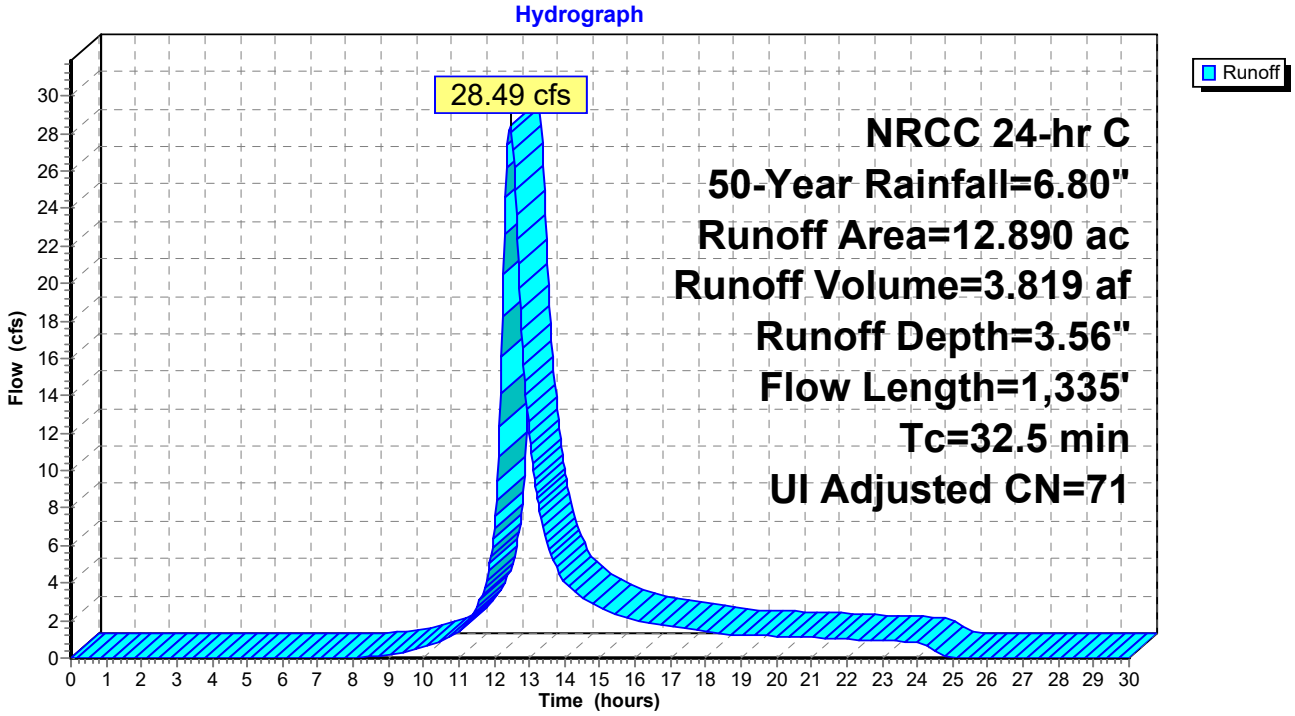
Runoff = 28.49 cfs @ 12.46 hrs, Volume= 3.819 af, Depth= 3.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 50-Year Rainfall=6.80"

Area (ac)	CN	Adj	Description
0.048	96		Gravel surface, HSG B
0.467	55		Woods, Good, HSG B
0.136	58		Woods/grass comb., Good, HSG B
0.028	86		Fallow, bare soil, HSG B
2.897	61		>75% Grass cover, Good, HSG B
0.193	96		Gravel surface, HSG C
0.027	70		Woods, Good, HSG C
0.401	72		Woods/grass comb., Good, HSG C
0.043	91		Fallow, bare soil, HSG C
7.974	74		>75% Grass cover, Good, HSG C
0.676	98		Unconnected roofs, HSG C
12.890	72	71	Weighted Average, UI Adjusted
12.214			94.76% Pervious Area
0.676			5.24% Impervious Area
0.676			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.1	100	0.0060	0.10		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
6.2	297	0.0130	0.80		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.2	200	0.0470	1.52		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
2.7	174	0.0240	1.08		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
1.3	79	0.0410	1.01		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
0.7	67	0.0540	1.63		**Shallow Concentrated Flow, F-G** Short Grass Pasture Kv= 7.0 fps
0.1	15	0.0660	4.14		**Shallow Concentrated Flow, G-H** Unpaved Kv= 16.1 fps
1.8	232	0.0930	2.13		**Shallow Concentrated Flow, H-I** Short Grass Pasture Kv= 7.0 fps
1.4	171	0.1650	2.03		**Shallow Concentrated Flow, I-J** Woodland Kv= 5.0 fps
32.5	1,335	Total			

Subcatchment Pr-1C: Southerly Solar Array



Summary for Subcatchment Pr-2: South of East Solar Array

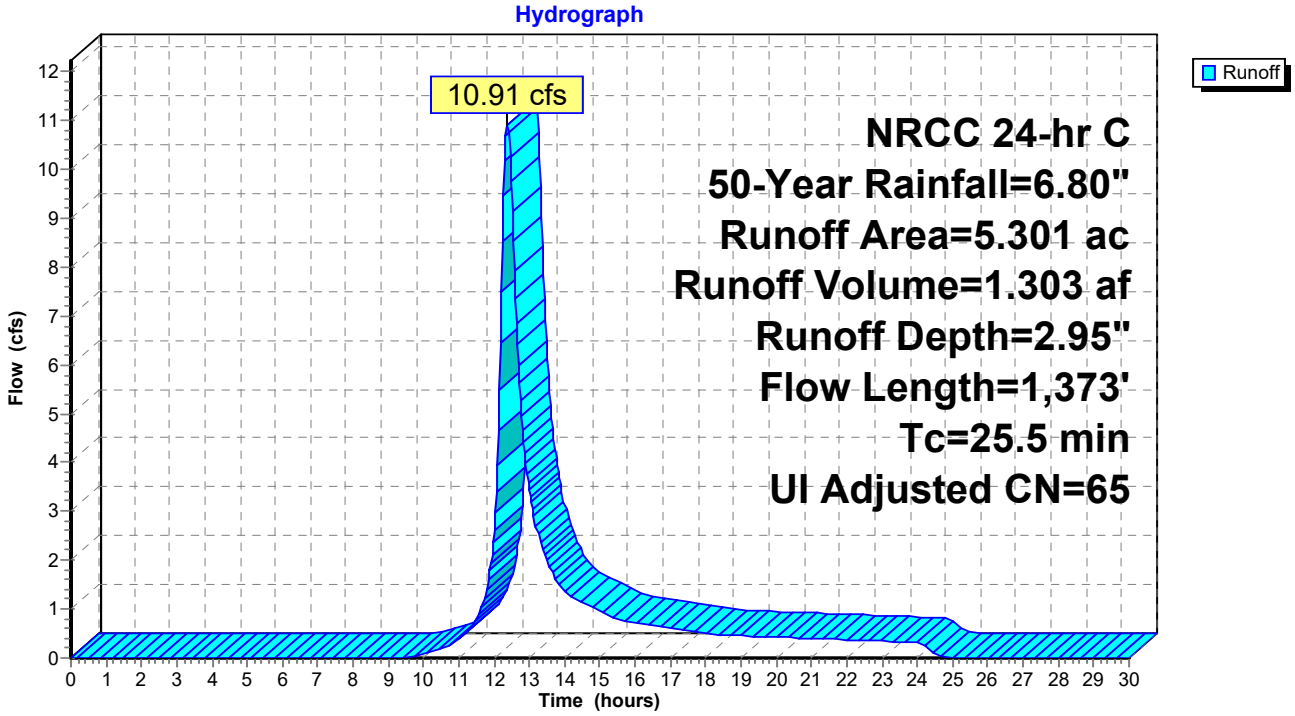
Runoff = 10.91 cfs @ 12.37 hrs, Volume= 1.303 af, Depth= 2.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 50-Year Rainfall=6.80"

Area (ac)	CN	Adj	Description
2.391	55		Woods, Good, HSG B
0.008	86		Fallow, bare soil, HSG B
0.047	96		Gravel surface, HSG B
0.518	61		>75% Grass cover, Good, HSG B
0.425	70		Woods, Good, HSG C
1.408	74		>75% Grass cover, Good, HSG C
0.101	96		Gravel surface, HSG C
0.403	98		Unconnected roofs, HSG C
5.301	66	65	Weighted Average, UI Adjusted
4.898			92.40% Pervious Area
0.403			7.60% Impervious Area
0.403			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.0190	0.16		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
1.9	126	0.0250	1.11		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.6	305	0.0780	1.95		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
0.9	122	0.2150	2.32		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
7.8	624	0.0720	1.34		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
2.2	96	0.0210	0.72		**Shallow Concentrated Flow, F-G** Woodland Kv= 5.0 fps
25.5	1,373	Total			

Subcatchment Pr-2: South of East Solar Array



Summary for Subcatchment Pr-3: North of Solar Array, along Elmridge Rd

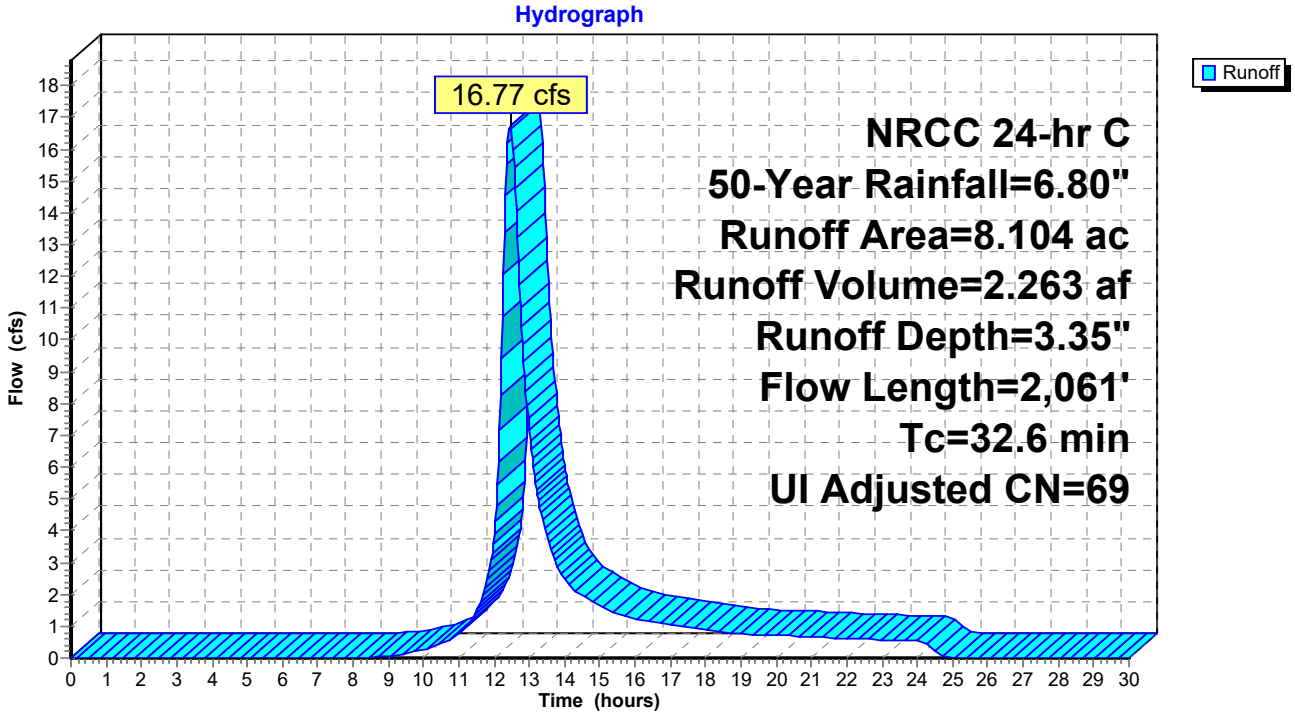
Runoff = 16.77 cfs @ 12.46 hrs, Volume= 2.263 af, Depth= 3.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 50-Year Rainfall=6.80"

Area (ac)	CN	Adj	Description
0.077	96		Gravel surface, HSG C
0.330	58		Woods/grass comb., Good, HSG B
0.358	98		Paved parking, HSG B
0.006	98		Roofs, HSG B
0.027	86		Fallow, bare soil, HSG B
4.223	61		>75% Grass cover, Good, HSG B
0.081	72		Woods/grass comb., Good, HSG C
0.033	91		Fallow, bare soil, HSG C
1.741	74		>75% Grass cover, Good, HSG C
0.564	98		Unconnected roofs, HSG C
0.518	80		>75% Grass cover, Good, HSG D
0.146	96		Gravel surface, HSG D
8.104	70	69	Weighted Average, UI Adjusted
7.176			88.55% Pervious Area
0.928			11.45% Impervious Area
0.564			60.78% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0160	0.15		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.6	245	0.0490	1.55		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
8.3	855	0.0600	1.71		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
10.8	861	0.0360	1.33		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
32.6	2,061	Total			

Subcatchment Pr-3: North of Solar Array, along Elmridge Rd



Summary for Subcatchment Pr-4: Central/West of East Site

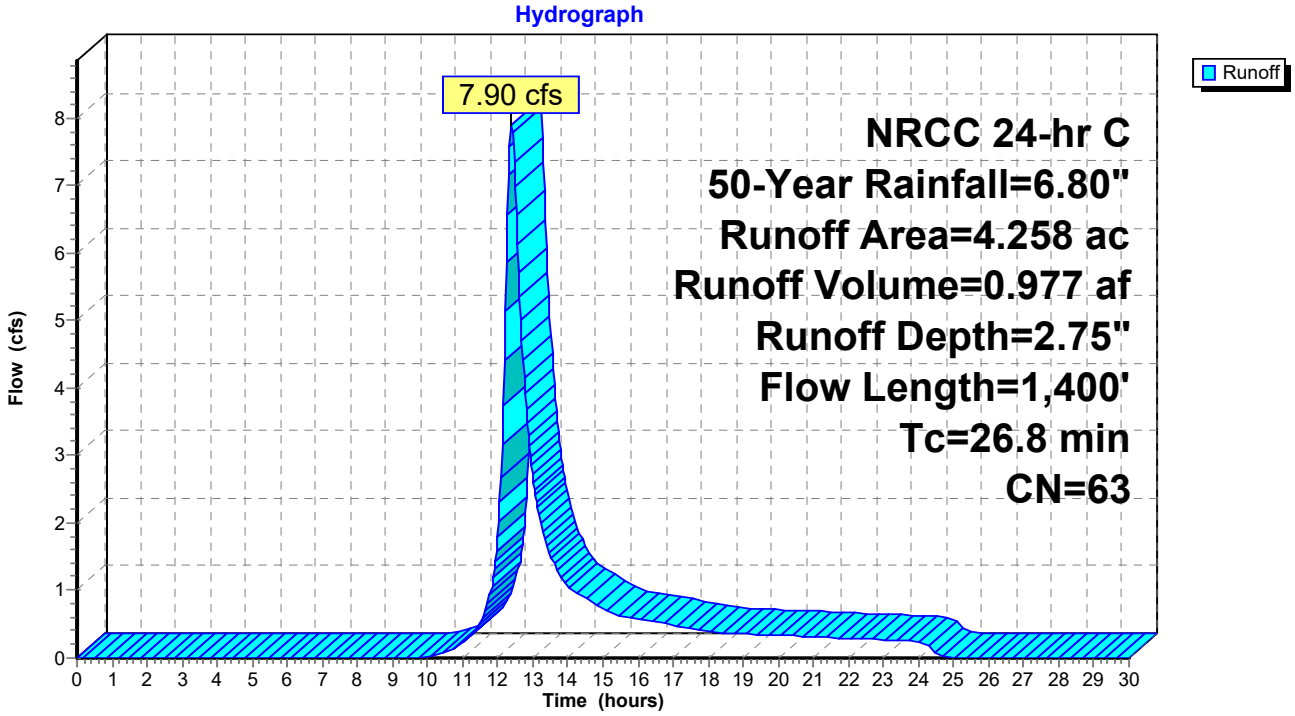
Runoff = 7.90 cfs @ 12.39 hrs, Volume= 0.977 af, Depth= 2.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 50-Year Rainfall=6.80"

Area (ac)	CN	Description
0.043	96	Gravel surface, HSG B
0.212	55	Woods, Good, HSG B
0.181	58	Woods/grass comb., Good, HSG B
0.089	98	Paved parking, HSG B
0.010	86	Fallow, bare soil, HSG B
3.399	61	>75% Grass cover, Good, HSG B
0.309	74	>75% Grass cover, Good, HSG C
0.008	98	Unconnected roofs, HSG C
0.007	96	Gravel surface, HSG C
4.258	63	Weighted Average
4.161		97.72% Pervious Area
0.097		2.28% Impervious Area
0.008		8.25% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0800	0.13		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.11"
2.7	283	0.0630	1.76		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.1	178	0.0390	1.38		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
1.4	143	0.0630	1.76		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
8.1	696	0.0420	1.43		**Shallow Concentrated Flow, E-F** Short Grass Pasture Kv= 7.0 fps
26.8	1,400	Total			

Subcatchment Pr-4: Central/West of East Site



Summary for Subcatchment Pr-5: West Site along N. Anguilla Rd

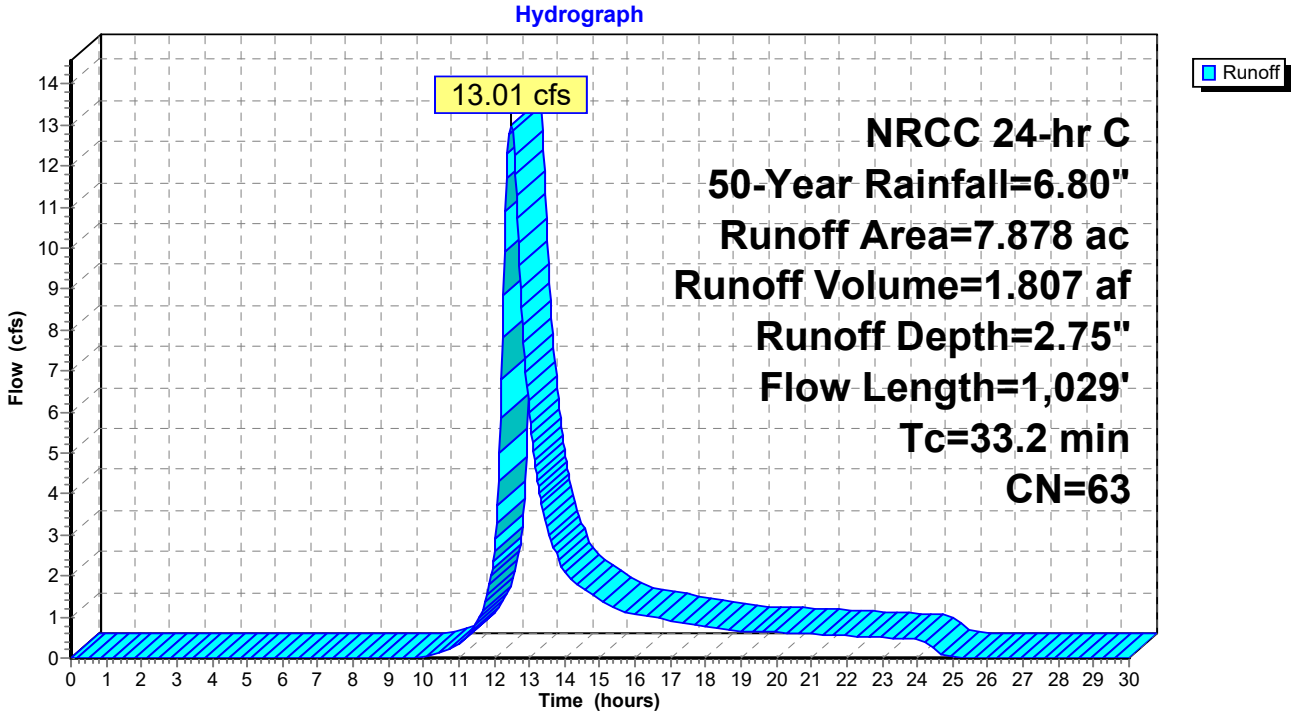
Runoff = 13.01 cfs @ 12.47 hrs, Volume= 1.807 af, Depth= 2.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 50-Year Rainfall=6.80"

Area (ac)	CN	Description
0.370	30	Woods, Good, HSG A
0.052	96	Gravel surface, HSG B
1.888	55	Woods, Good, HSG B
0.089	58	Woods/grass comb., Good, HSG B
0.253	98	Paved parking, HSG B
0.101	98	Roofs, HSG B
0.025	86	Fallow, bare soil, HSG B
3.578	61	>75% Grass cover, Good, HSG B
0.118	96	Gravel surface, HSG C
0.535	70	Woods, Good, HSG C
0.018	72	Woods/grass comb., Good, HSG C
0.851	74	>75% Grass cover, Good, HSG C
7.878	63	Weighted Average
7.524		95.51% Pervious Area
0.354		4.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.8	100	0.0330	0.09		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.11"
3.2	311	0.0530	1.61		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
5.9	210	0.0140	0.59		**Shallow Concentrated Flow, C-D** Woodland Kv= 5.0 fps
5.0	384	0.0340	1.29		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
1.3	24	0.0040	0.32		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
33.2	1,029	Total			

Subcatchment Pr-5: West Site along N. Anguilla Rd



Summary for Subcatchment Pr-6: South/Central Area of Western Golf Course

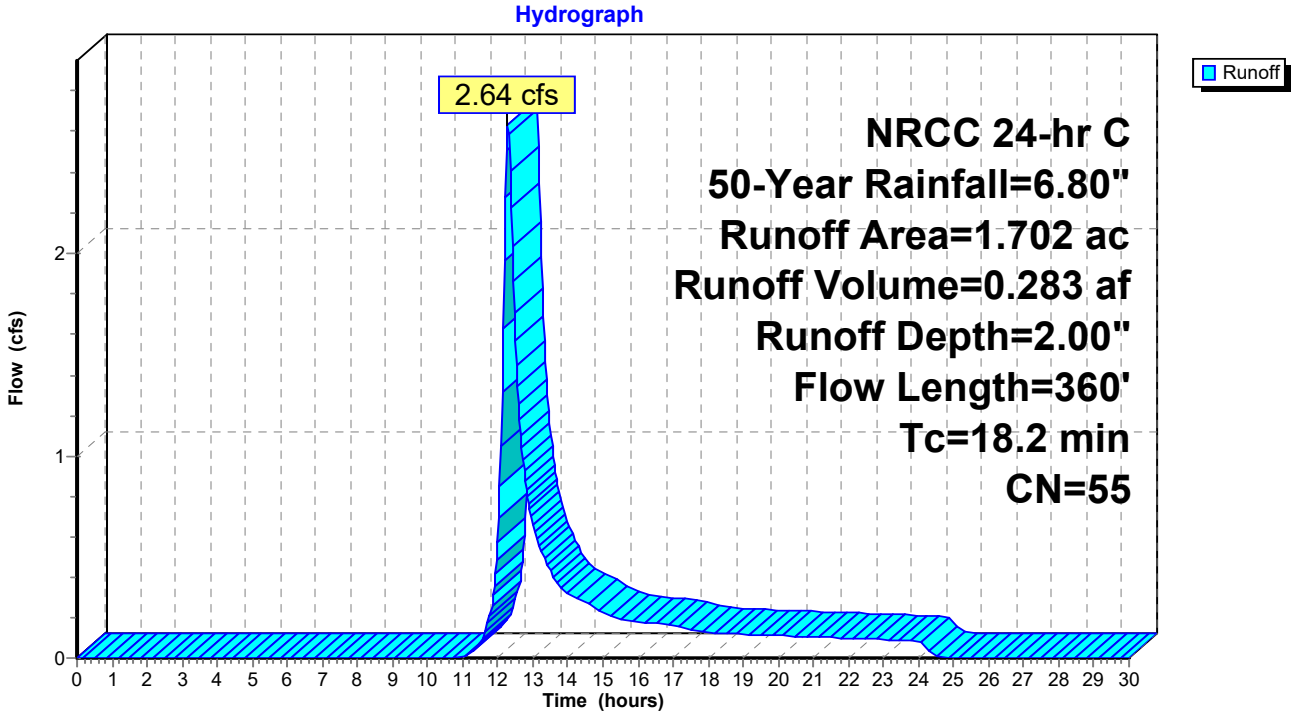
Runoff = 2.64 cfs @ 12.29 hrs, Volume= 0.283 af, Depth= 2.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 50-Year Rainfall=6.80"

Area (ac)	CN	Description
0.294	30	Woods, Good, HSG A
0.028	39	>75% Grass cover, Good, HSG A
0.415	55	Woods, Good, HSG B
0.028	86	Fallow, bare soil, HSG B
0.840	61	>75% Grass cover, Good, HSG B
0.097	74	>75% Grass cover, Good, HSG C
1.702	55	Weighted Average
1.702		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	100	0.0210	0.17		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
0.3	36	0.0730	1.89		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.6	47	0.0770	1.39		**Shallow Concentrated Flow, C-D** Woodland Kv= 5.0 fps
7.6	177	0.0060	0.39		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
18.2	360	Total			

Subcatchment Pr-6: South/Central Area of Western Golf Course



Summary for Subcatchment Pr-7: West/Central Area of Western Golf Course

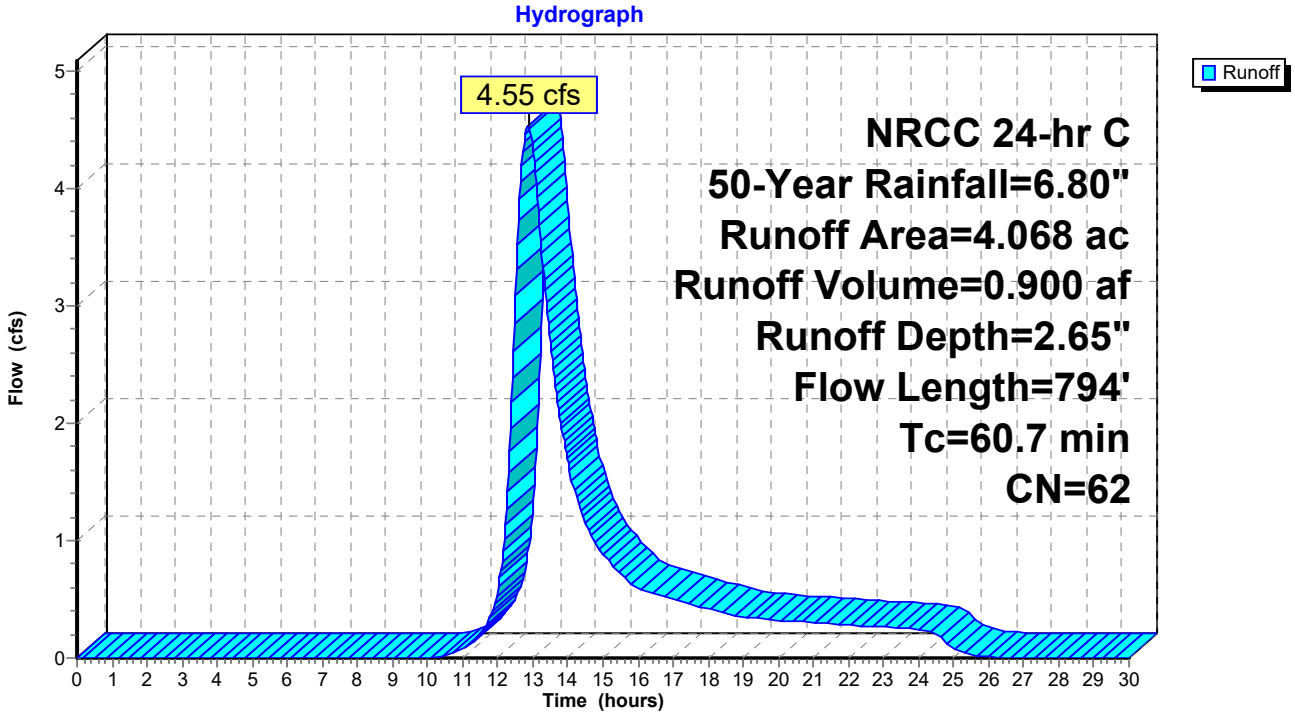
Runoff = 4.55 cfs @ 12.87 hrs, Volume= 0.900 af, Depth= 2.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 50-Year Rainfall=6.80"

Area (ac)	CN	Description
0.024	30	Woods, Good, HSG A
0.045	96	Gravel surface, HSG B
0.535	55	Woods, Good, HSG B
0.135	58	Woods/grass comb., Good, HSG B
0.044	86	Fallow, bare soil, HSG B
2.777	61	>75% Grass cover, Good, HSG B
0.008	96	Gravel surface, HSG C
0.056	70	Woods, Good, HSG C
0.444	74	>75% Grass cover, Good, HSG C
4.068	62	Weighted Average
4.068		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.5	100	0.0004	0.04		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.5	130	0.0150	0.86		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.3	34	0.0690	1.84		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
0.3	39	0.1960	2.21		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
5.5	203	0.0150	0.61		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
1.6	121	0.0330	1.27		**Shallow Concentrated Flow, F-G** Short Grass Pasture Kv= 7.0 fps
3.0	167	0.0180	0.94		**Shallow Concentrated Flow, G-H** Short Grass Pasture Kv= 7.0 fps
60.7	794	Total			

Subcatchment Pr-7: West/Central Area of Western Golf Course



Summary for Subcatchment Pr-8: Western Solar Array Field

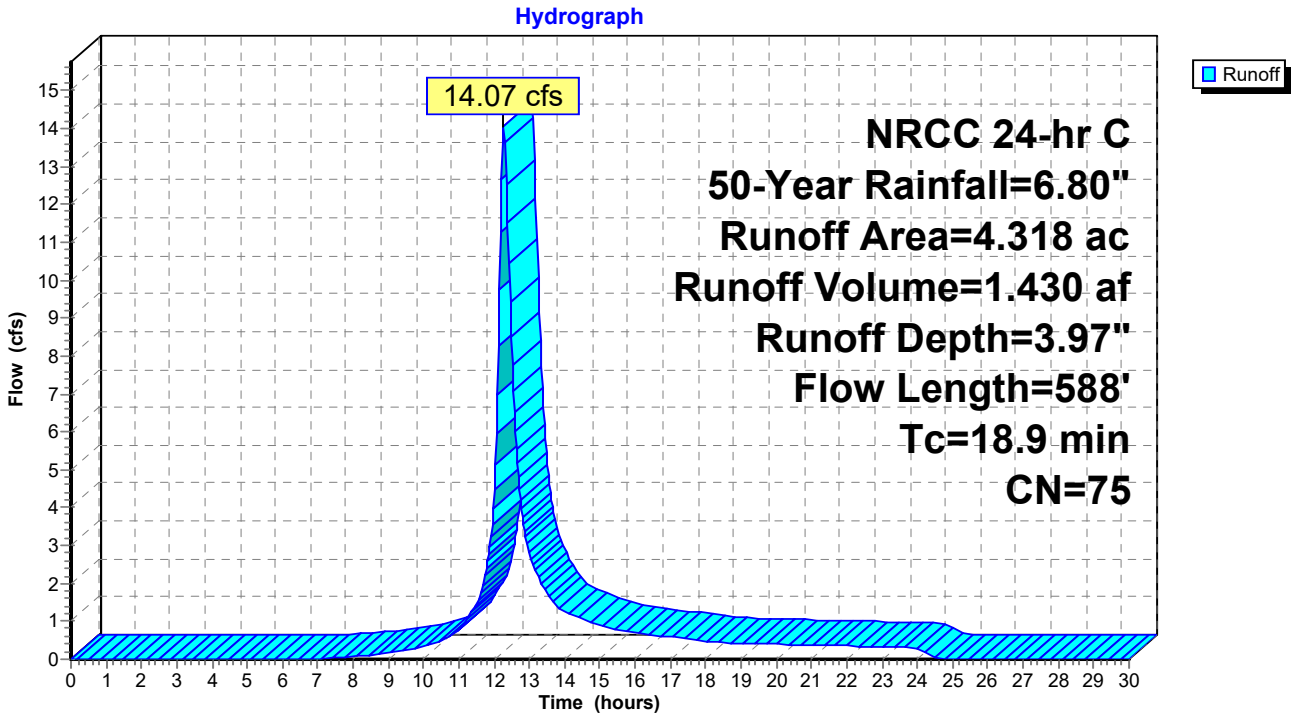
Runoff = 14.07 cfs @ 12.28 hrs, Volume= 1.430 af, Depth= 3.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 50-Year Rainfall=6.80"

Area (ac)	CN	Description
0.017	98	Unconnected roofs, HSG C
4.153	74	>75% Grass cover, Good, HSG C
0.148	96	Gravel surface, HSG C
4.318	75	Weighted Average
4.301		99.61% Pervious Area
0.017		0.39% Impervious Area
0.017		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.5	100	0.0300	0.20		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
5.5	254	0.0120	0.77		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
4.9	234	0.0130	0.80		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
18.9	588	Total			

Subcatchment Pr-8: Western Solar Array Field

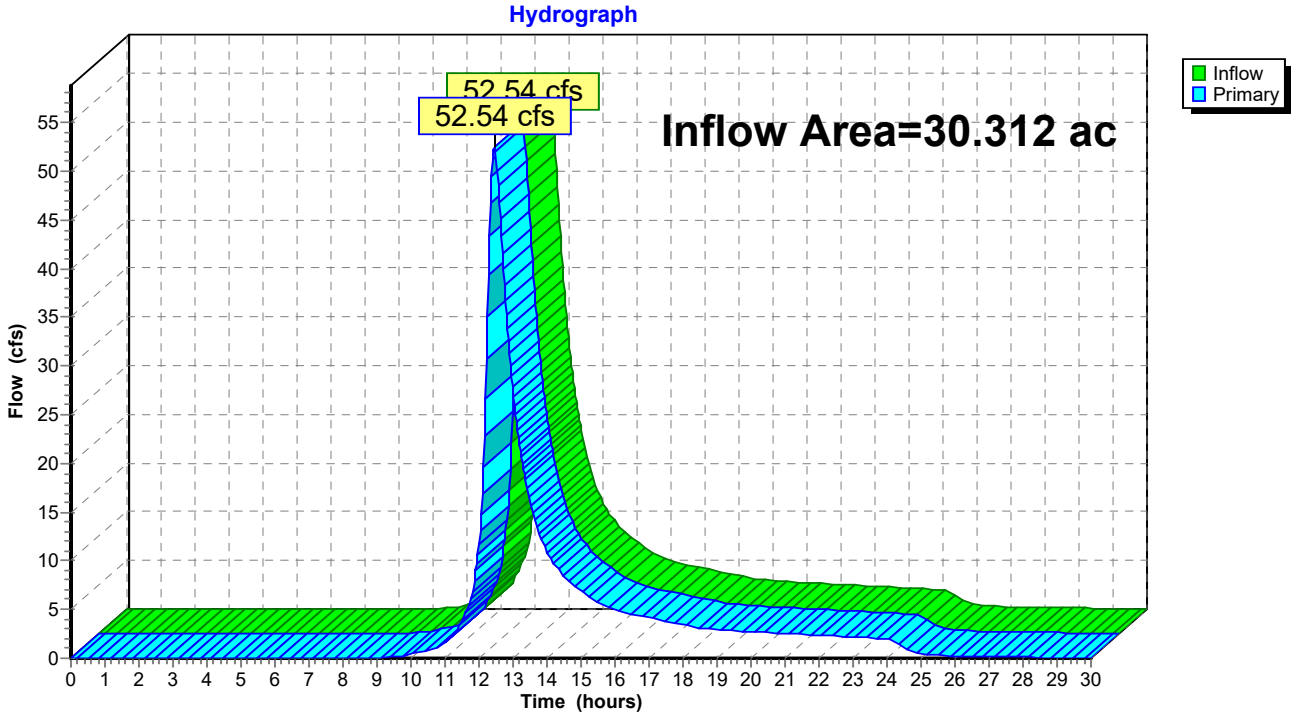


Summary for Pond AP-1: Easterly Wetland/ Vernal Pool

Inflow Area = 30.312 ac, 10.73% Impervious, Inflow Depth > 3.27" for 50-Year event
Inflow = 52.54 cfs @ 12.45 hrs, Volume= 8.251 af
Primary = 52.54 cfs @ 12.45 hrs, Volume= 8.251 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-1: Easterly Wetland/ Vernal Pool

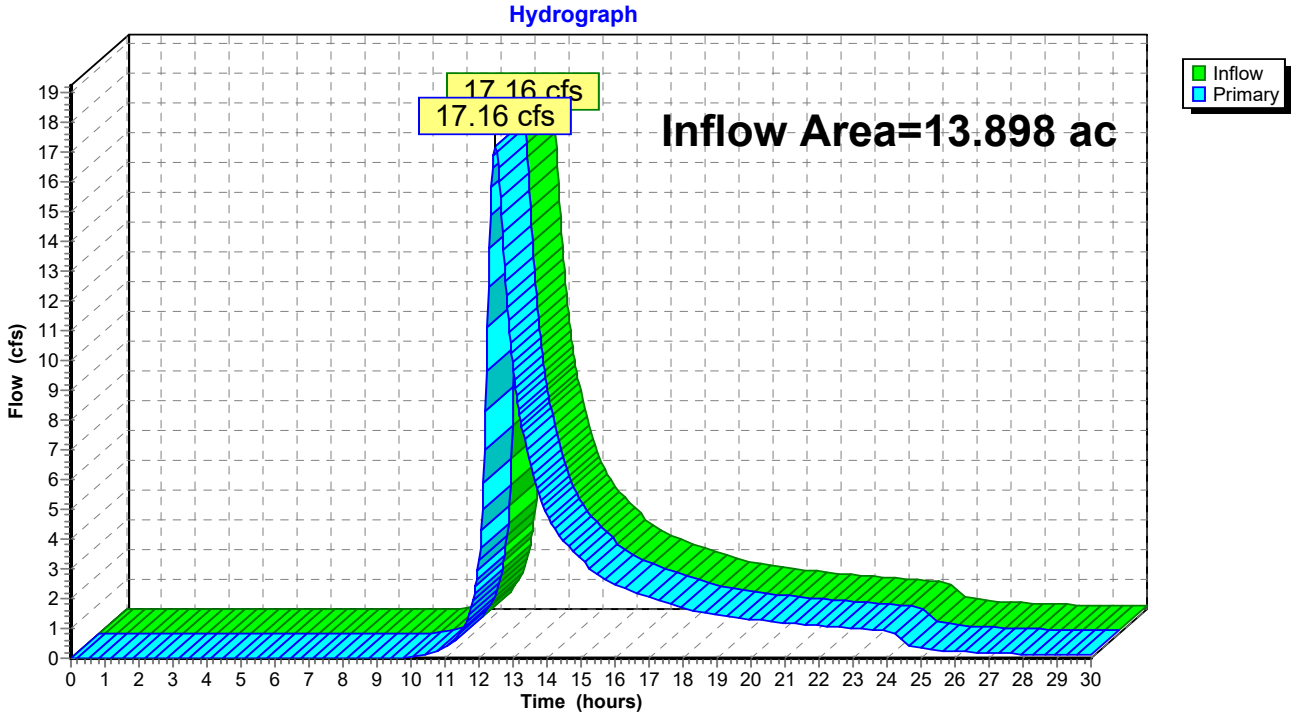


Summary for Pond AP-2: Anguilla Brook

Inflow Area = 13.898 ac, 2.67% Impervious, Inflow Depth > 2.85" for 50-Year event
Inflow = 17.16 cfs @ 12.48 hrs, Volume= 3.304 af
Primary = 17.16 cfs @ 12.48 hrs, Volume= 3.304 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-2: Anguilla Brook

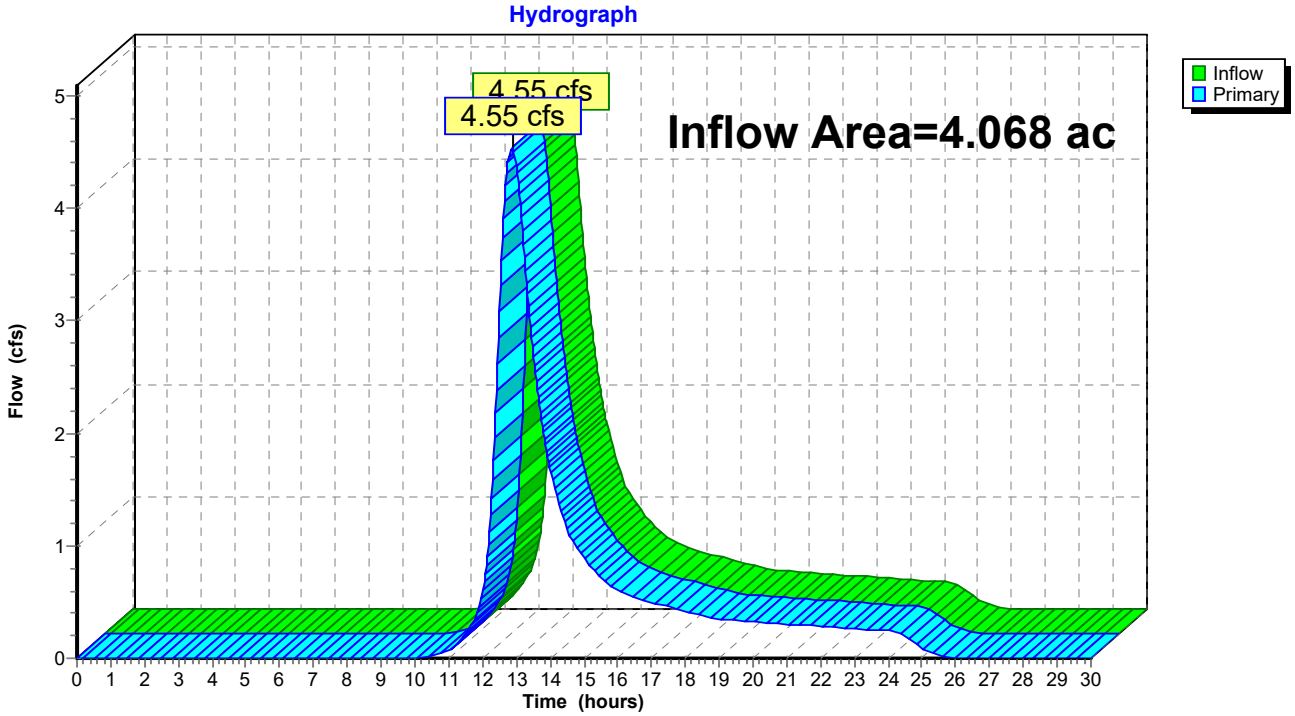


Summary for Pond AP-3: Westerly Intermittent Stream

Inflow Area = 4.068 ac, 0.00% Impervious, Inflow Depth = 2.65" for 50-Year event
Inflow = 4.55 cfs @ 12.87 hrs, Volume= 0.900 af
Primary = 4.55 cfs @ 12.87 hrs, Volume= 0.900 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-3: Westerly Intermittent Stream

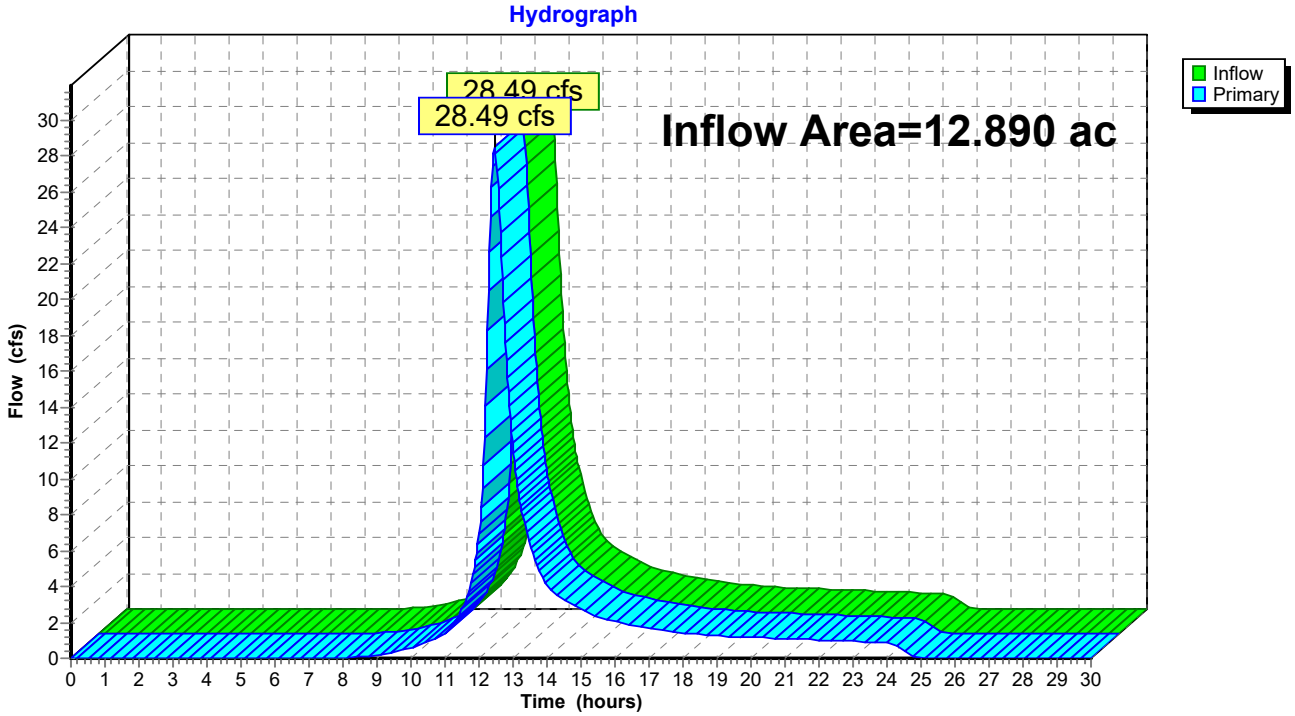


Summary for Pond AP-4: Easterly Wetland

Inflow Area = 12.890 ac, 5.24% Impervious, Inflow Depth = 3.56" for 50-Year event
Inflow = 28.49 cfs @ 12.46 hrs, Volume= 3.819 af
Primary = 28.49 cfs @ 12.46 hrs, Volume= 3.819 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-4: Easterly Wetland



Summary for Pond SB-1: SWMB-1 Option 2

Inflow Area = 4.318 ac, 0.39% Impervious, Inflow Depth = 3.97" for 50-Year event
Inflow = 14.07 cfs @ 12.28 hrs, Volume= 1.430 af
Outflow = 3.25 cfs @ 12.90 hrs, Volume= 1.214 af, Atten= 77%, Lag= 37.2 min
Primary = 3.25 cfs @ 12.90 hrs, Volume= 1.214 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Peak Elev= 54.85' @ 12.90 hrs Surf.Area= 16,442 sf Storage= 28,912 cf

Plug-Flow detention time= 233.8 min calculated for 1.213 af (85% of inflow)
Center-of-Mass det. time= 164.7 min (1,006.5 - 841.9)

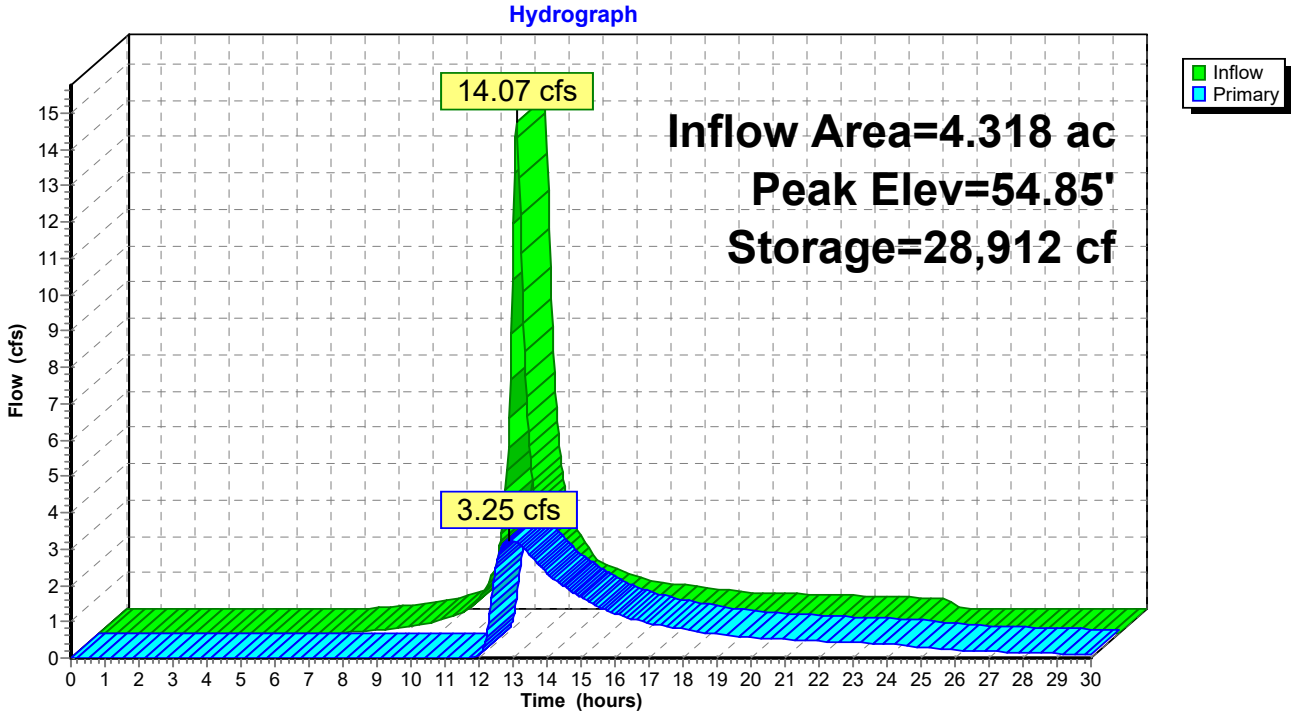
Volume	Invert	Avail.Storage	Storage Description
#1	52.50'	54,423 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
52.50	7,259	0	0
53.00	10,224	4,371	4,371
54.00	13,461	11,843	16,213
55.00	16,971	15,216	31,429
56.00	29,017	22,994	54,423

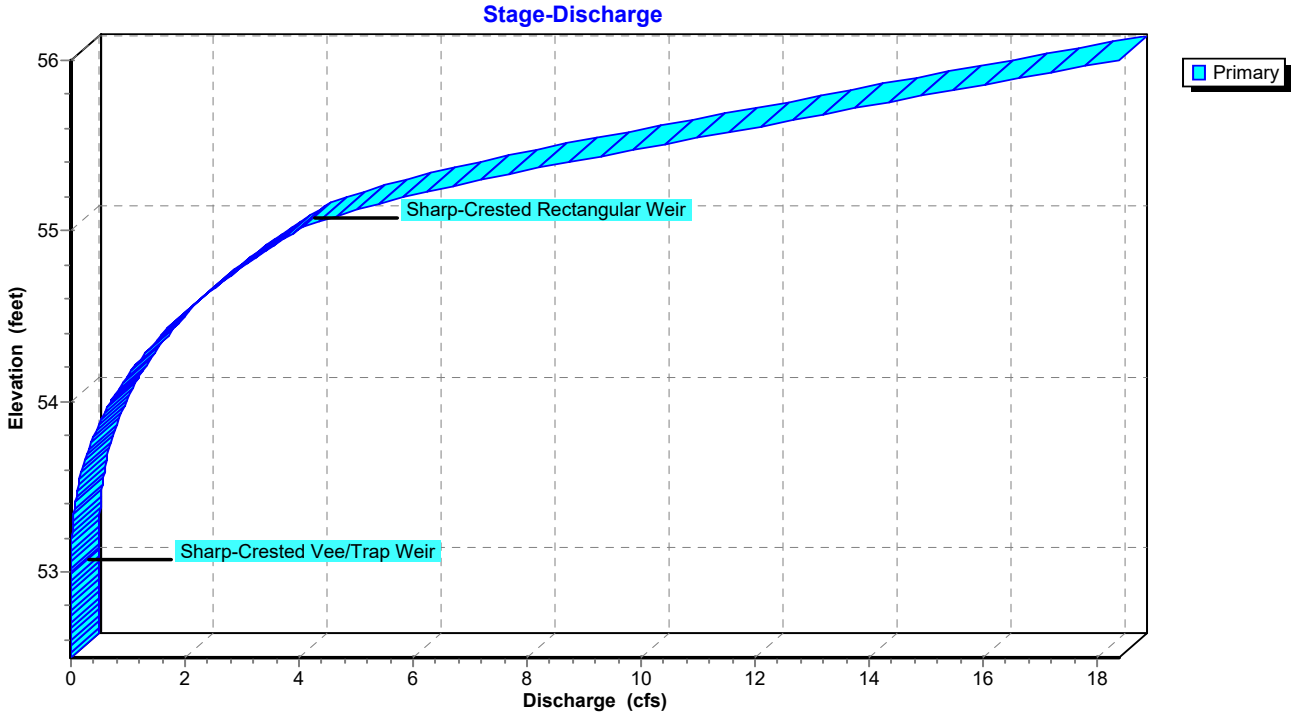
Device	Routing	Invert	Outlet Devices
#1	Primary	53.00'	**30.0 deg x 2.50' rise Sharp-Crested Vee/Trap Weir** Cv= 2.61 (C= 3.26)
#2	Primary	55.00'	**3.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=3.25 cfs @ 12.90 hrs HW=54.85' TW=0.00' (Dynamic Tailwater)
1=Sharp-Crested Vee/Trap Weir (Weir Controls 3.25 cfs @ 3.55 fps)
2=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

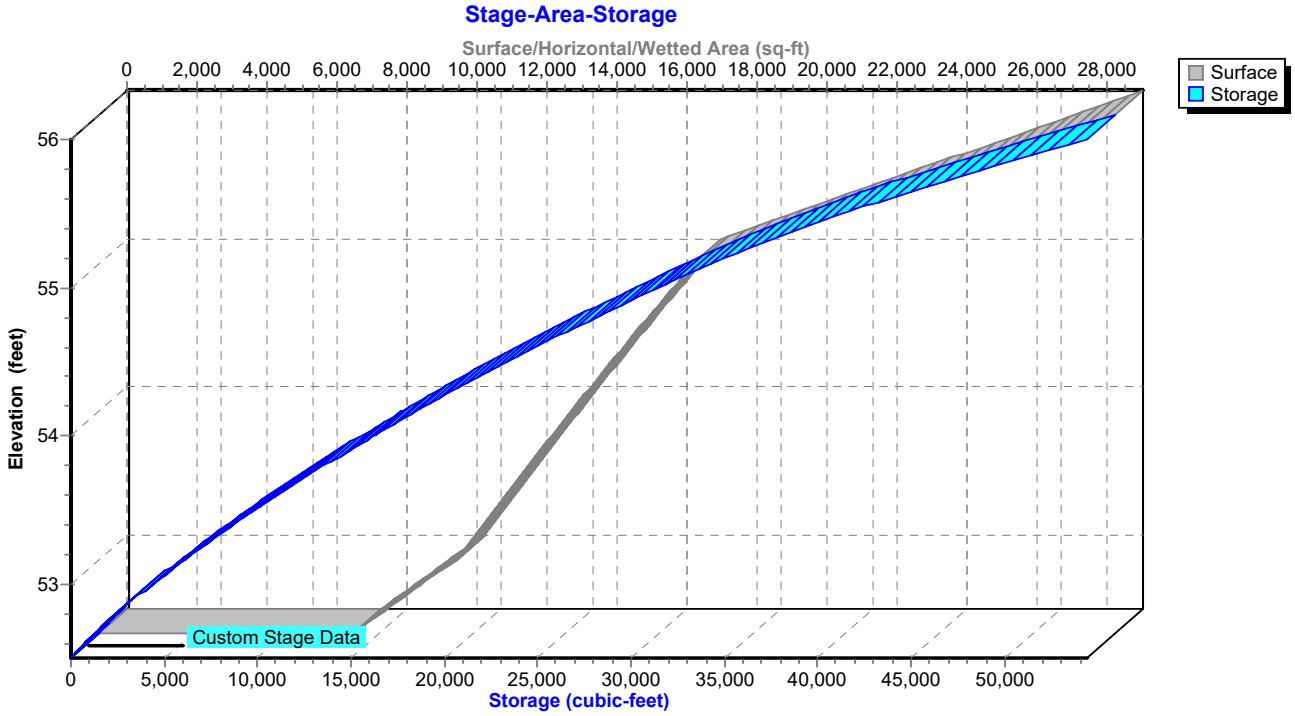
Pond SB-1: SWMB-1 Option 2



Pond SB-1: SWMB-1 Option 2



Pond SB-1: SWMB-1 Option 2



Summary for Pond SB-2: SWMB-2

Inflow Area = 8.776 ac, 19.84% Impervious, Inflow Depth = 4.08" for 50-Year event
Inflow = 24.25 cfs @ 12.39 hrs, Volume= 2.984 af
Outflow = 14.14 cfs @ 12.69 hrs, Volume= 2.821 af, Atten= 42%, Lag= 18.0 min
Primary = 14.14 cfs @ 12.69 hrs, Volume= 2.821 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Peak Elev= 133.01' @ 12.69 hrs Surf.Area= 18,533 sf Storage= 39,267 cf

Plug-Flow detention time= 106.5 min calculated for 2.821 af (95% of inflow)
Center-of-Mass det. time= 76.2 min (923.6 - 847.4)

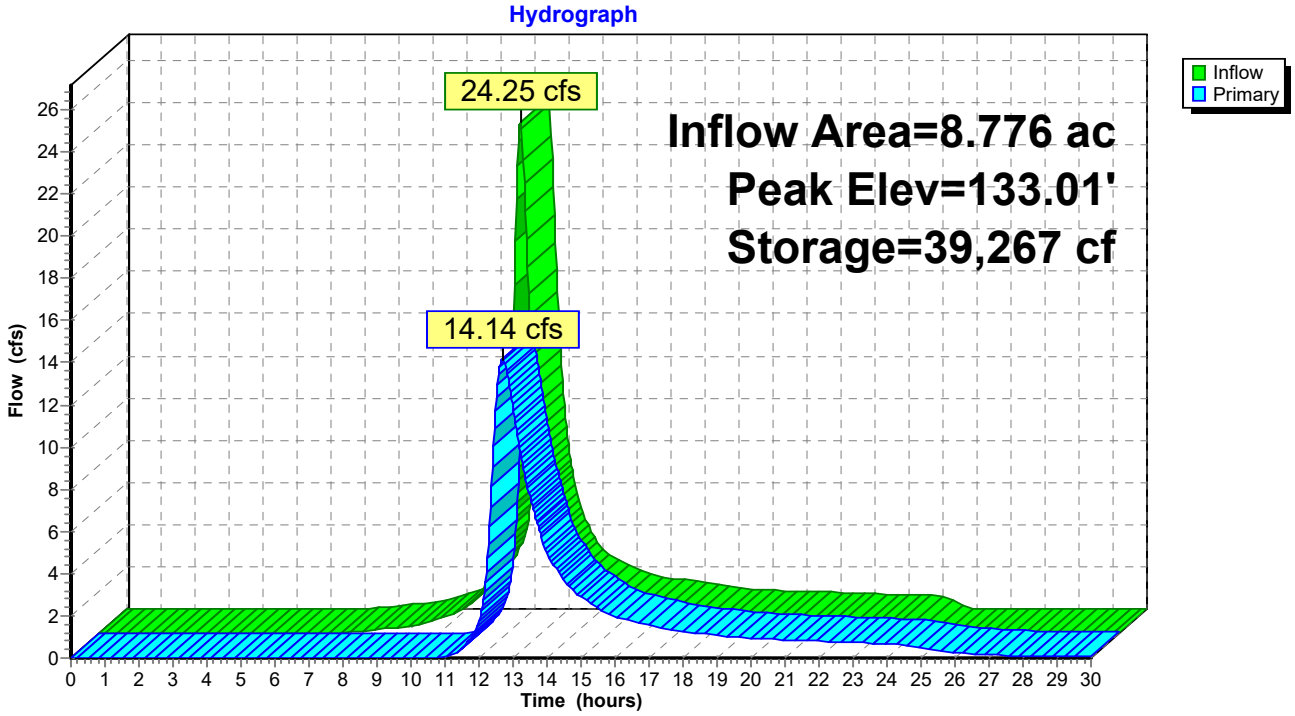
Volume	Invert	Avail.Storage	Storage Description
#1	130.50'	69,267 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
130.50	10,472	0	0
131.00	14,379	6,213	6,213
132.00	16,417	15,398	21,611
133.00	18,511	17,464	39,075
134.00	20,663	19,587	58,662
134.50	21,759	10,606	69,267

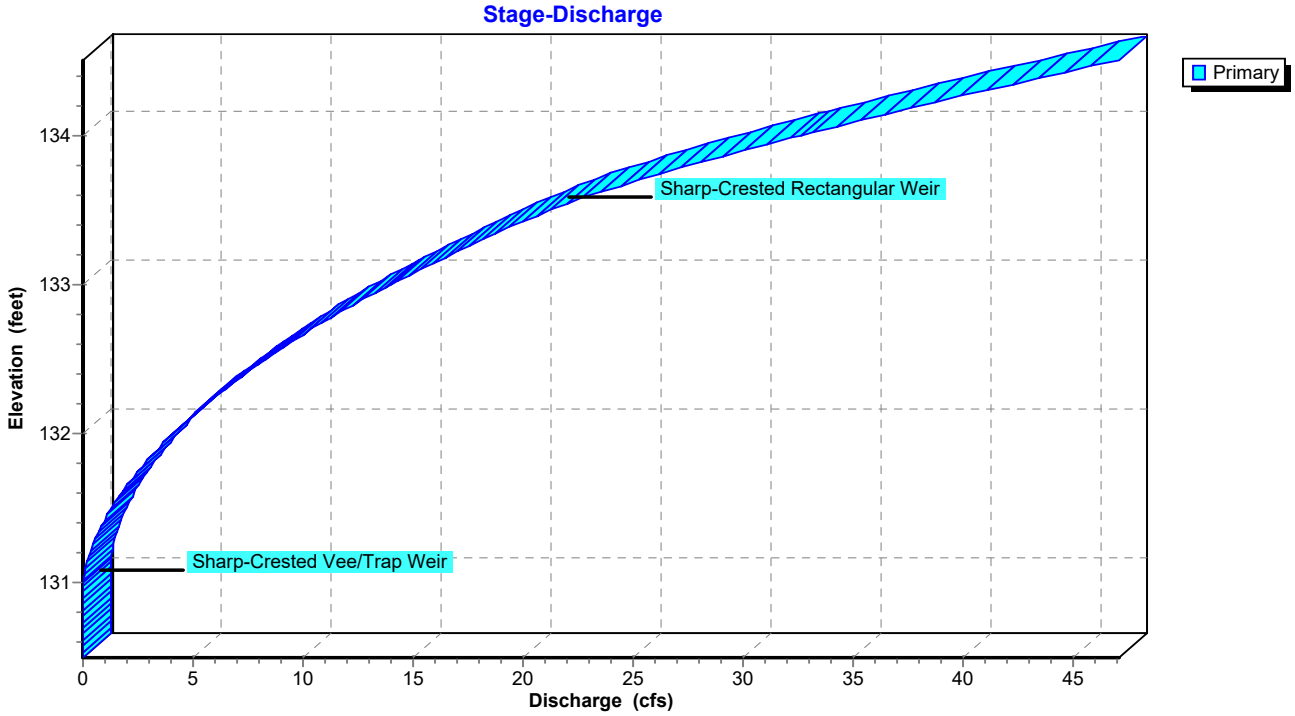
Device	Routing	Invert	Outlet Devices
#1	Primary	131.00'	**37.0 deg x 1.0' long x 2.50' rise Sharp-Crested Vee/Trap Weir** Cv= 2.58 (C= 3.23)
#2	Primary	133.50'	**5.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=14.14 cfs @ 12.69 hrs HW=133.01' TW=0.00' (Dynamic Tailwater)
1=Sharp-Crested Vee/Trap Weir (Weir Controls 14.14 cfs @ 4.20 fps)
2=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Pond SB-2: SWMB-2



Pond SB-2: SWMB-2



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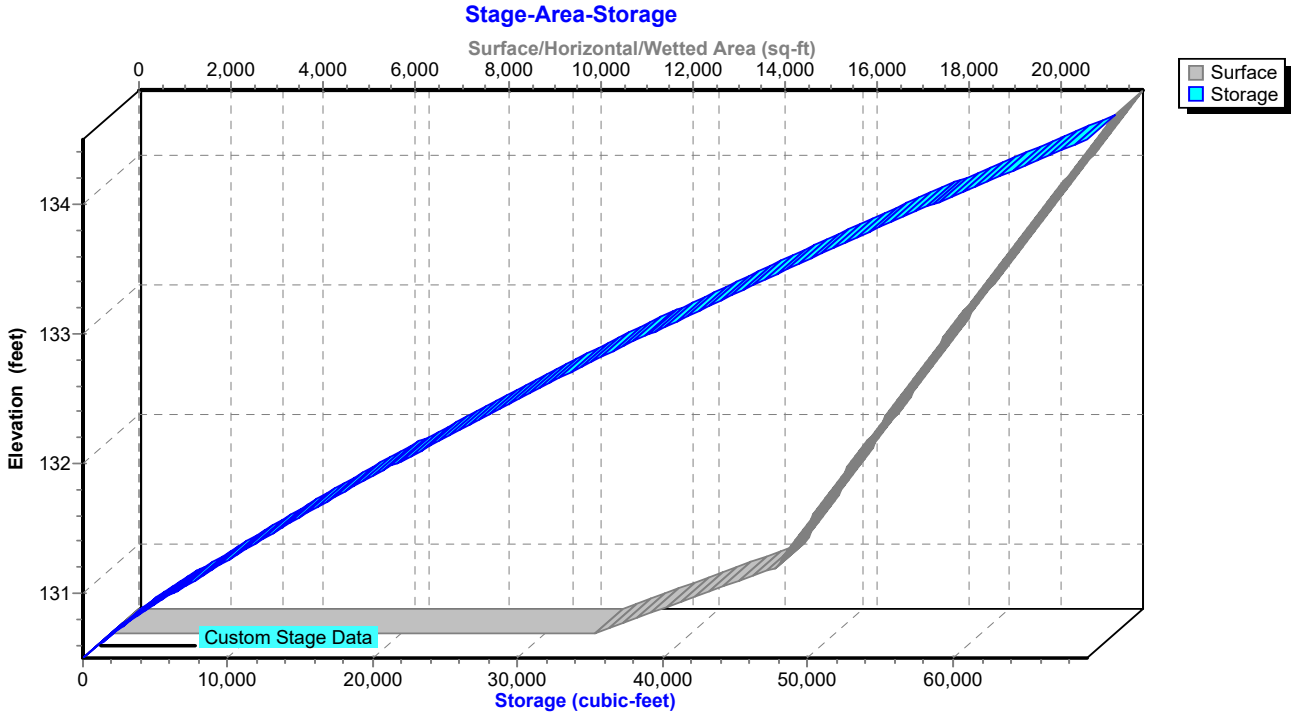


Summary for Subcatchment Pr-1A: Solar Array by Clubhouse

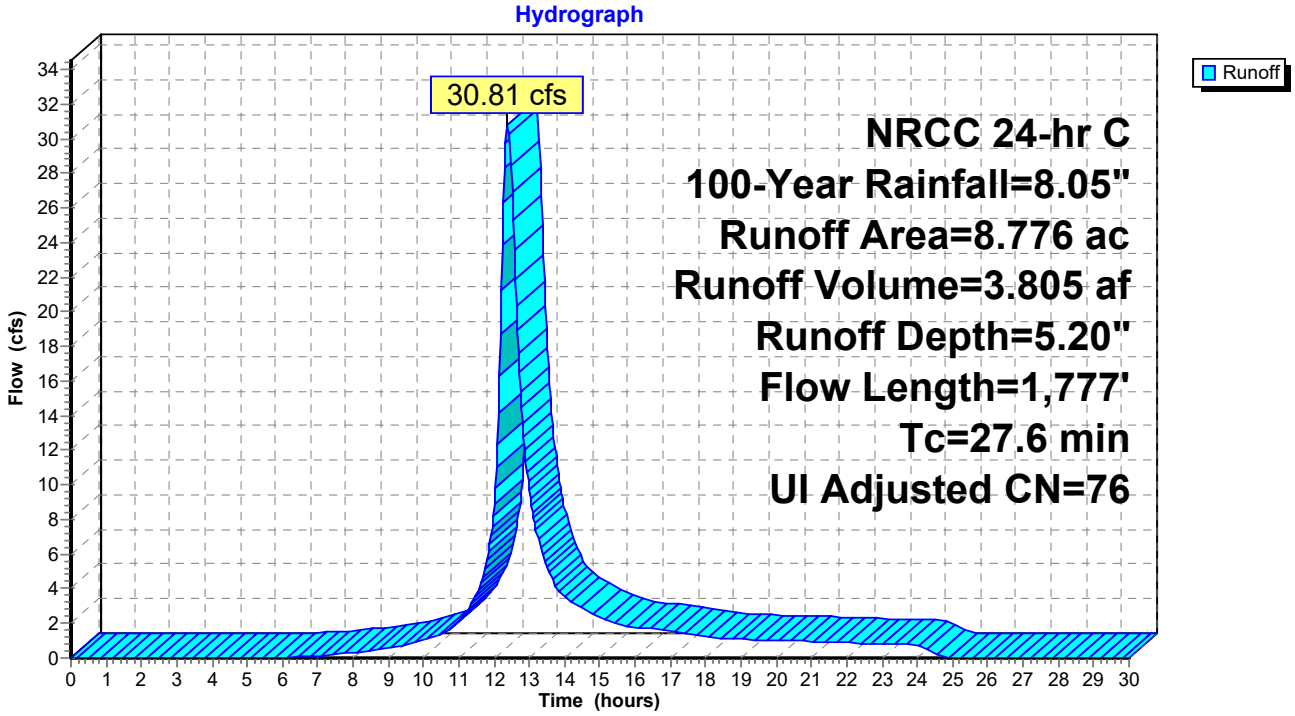
Runoff = 30.81 cfs @ 12.39 hrs, Volume= 3.805 af, Depth= 5.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 100-Year Rainfall=8.05"

Area (ac)	CN	Adj	Description
0.046	58		Woods/grass comb., Good, HSG B
0.034	98		Paved parking, HSG B
0.070	98		Roofs, HSG B
0.042	86		Fallow, bare soil, HSG B
0.910	61		>75% Grass cover, Good, HSG B
0.099	96		Gravel surface, HSG C
0.364	72		Woods/grass comb., Good, HSG C
0.013	91		Fallow, bare soil, HSG C
5.050	74		>75% Grass cover, Good, HSG C
1.637	98		Unconnected roofs, HSG C
0.395	80		>75% Grass cover, Good, HSG D
0.116	96		Gravel surface, HSG D
8.776	78	76	Weighted Average, UI Adjusted
7.035			80.16% Pervious Area
1.741			19.84% Impervious Area
1.637			94.03% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0260	0.19		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.8	235	0.0400	1.40		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
5.4	372	0.0270	1.15		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
3.9	304	0.0350	1.31		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
0.1	16	0.0780	4.50		**Shallow Concentrated Flow, E-F** Unpaved Kv= 16.1 fps
1.3	113	0.0450	1.48		**Shallow Concentrated Flow, F-G** Short Grass Pasture Kv= 7.0 fps
3.5	442	0.0900	2.10		**Shallow Concentrated Flow, G-H** Short Grass Pasture Kv= 7.0 fps
1.7	195	0.0750	1.92		**Shallow Concentrated Flow, H-I** Short Grass Pasture Kv= 7.0 fps
27.6	1,777	Total			

Subcatchment Pr-1A: Solar Array by Clubhouse



Summary for Subcatchment Pr-1B: West of Solar Array

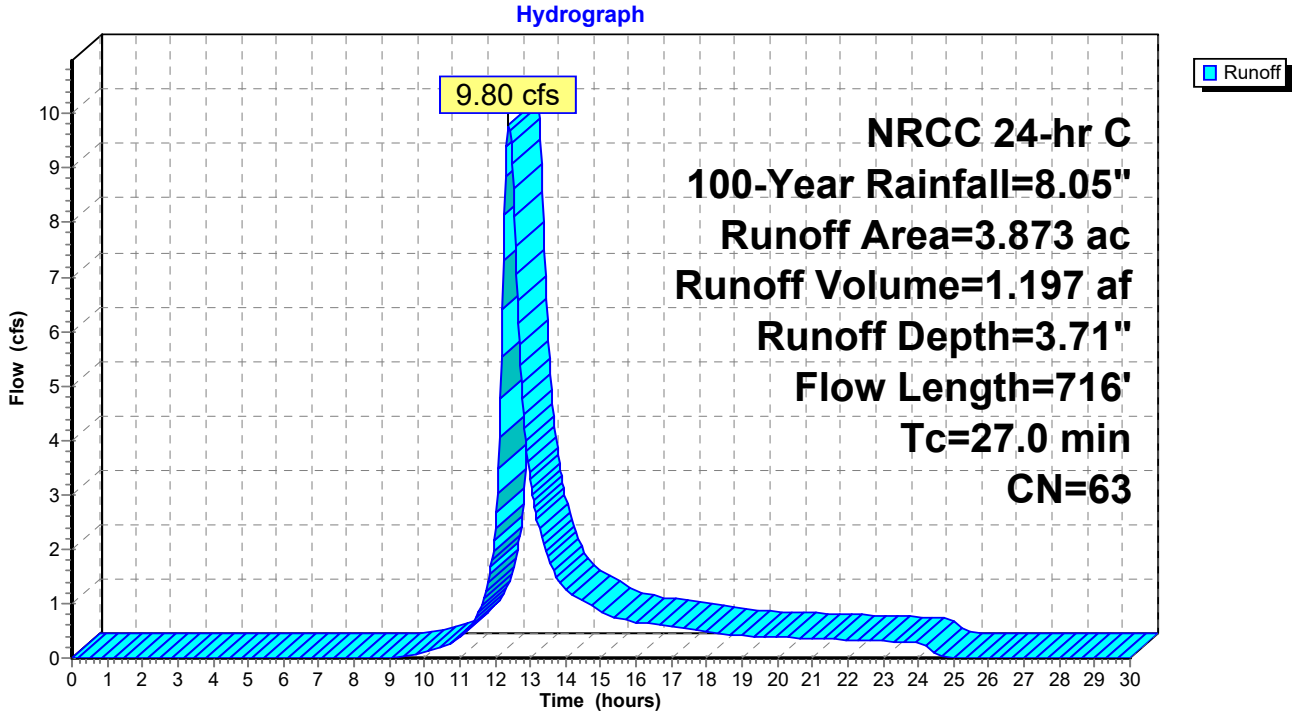
Runoff = 9.80 cfs @ 12.39 hrs, Volume= 1.197 af, Depth= 3.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 100-Year Rainfall=8.05"

Area (ac)	CN	Description
0.009	96	Gravel surface, HSG B
1.800	55	Woods, Good, HSG B
0.008	58	Woods/grass comb., Good, HSG B
0.078	98	Paved parking, HSG B
0.545	61	>75% Grass cover, Good, HSG B
0.937	70	Woods, Good, HSG C
0.492	74	>75% Grass cover, Good, HSG C
0.004	98	Unconnected roofs, HSG C
3.873	63	Weighted Average
3.791		97.88% Pervious Area
0.082		2.12% Impervious Area
0.004		4.88% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.6	100	0.0460	0.11		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.11"
3.6	271	0.0640	1.26		**Shallow Concentrated Flow, B-C** Woodland Kv= 5.0 fps
0.9	78	0.0900	1.50		**Shallow Concentrated Flow, C-D** Woodland Kv= 5.0 fps
0.7	46	0.0430	1.04		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
6.2	221	0.0140	0.59		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
27.0	716	Total			

Subcatchment Pr-1B: West of Solar Array



Summary for Subcatchment Pr-1C: Southerly Solar Array

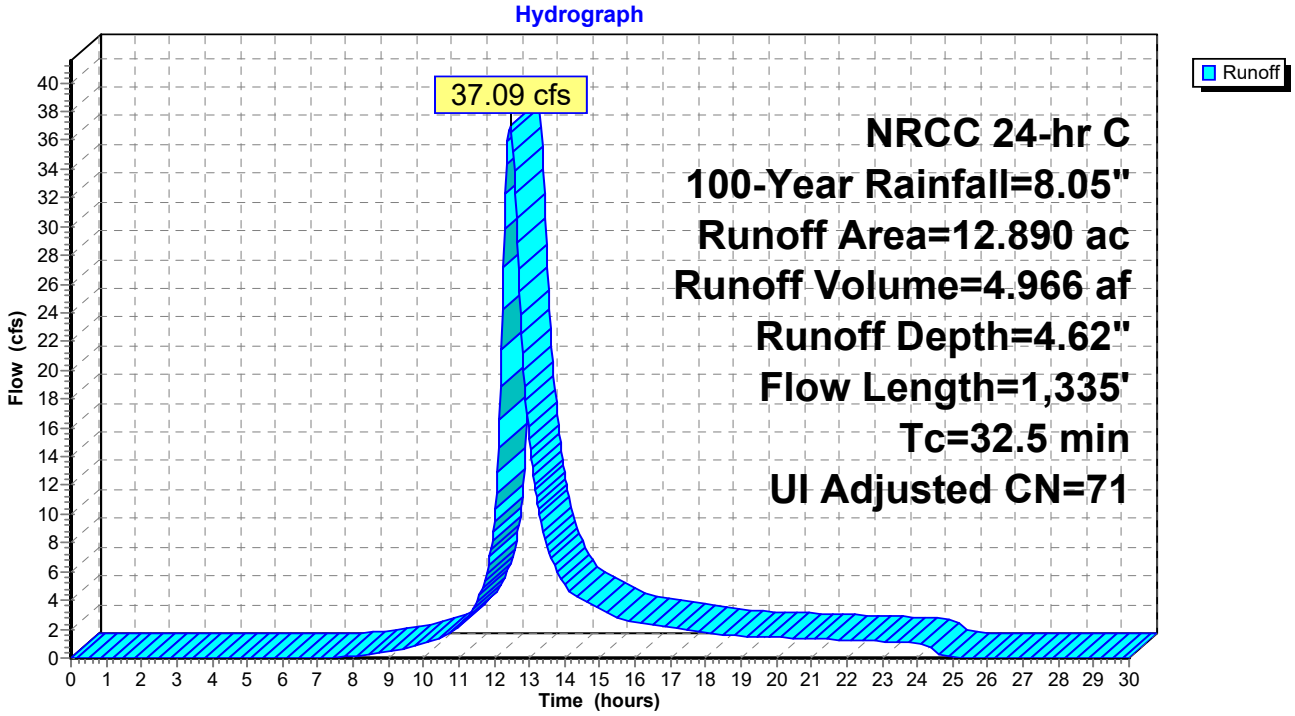
Runoff = 37.09 cfs @ 12.45 hrs, Volume= 4.966 af, Depth= 4.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 100-Year Rainfall=8.05"

Area (ac)	CN	Adj	Description
0.048	96		Gravel surface, HSG B
0.467	55		Woods, Good, HSG B
0.136	58		Woods/grass comb., Good, HSG B
0.028	86		Fallow, bare soil, HSG B
2.897	61		>75% Grass cover, Good, HSG B
0.193	96		Gravel surface, HSG C
0.027	70		Woods, Good, HSG C
0.401	72		Woods/grass comb., Good, HSG C
0.043	91		Fallow, bare soil, HSG C
7.974	74		>75% Grass cover, Good, HSG C
0.676	98		Unconnected roofs, HSG C
12.890	72	71	Weighted Average, UI Adjusted
12.214			94.76% Pervious Area
0.676			5.24% Impervious Area
0.676			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.1	100	0.0060	0.10		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
6.2	297	0.0130	0.80		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.2	200	0.0470	1.52		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
2.7	174	0.0240	1.08		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
1.3	79	0.0410	1.01		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
0.7	67	0.0540	1.63		**Shallow Concentrated Flow, F-G** Short Grass Pasture Kv= 7.0 fps
0.1	15	0.0660	4.14		**Shallow Concentrated Flow, G-H** Unpaved Kv= 16.1 fps
1.8	232	0.0930	2.13		**Shallow Concentrated Flow, H-I** Short Grass Pasture Kv= 7.0 fps
1.4	171	0.1650	2.03		**Shallow Concentrated Flow, I-J** Woodland Kv= 5.0 fps
32.5	1,335	Total			

Subcatchment Pr-1C: Southerly Solar Array



Summary for Subcatchment Pr-2: South of East Solar Array

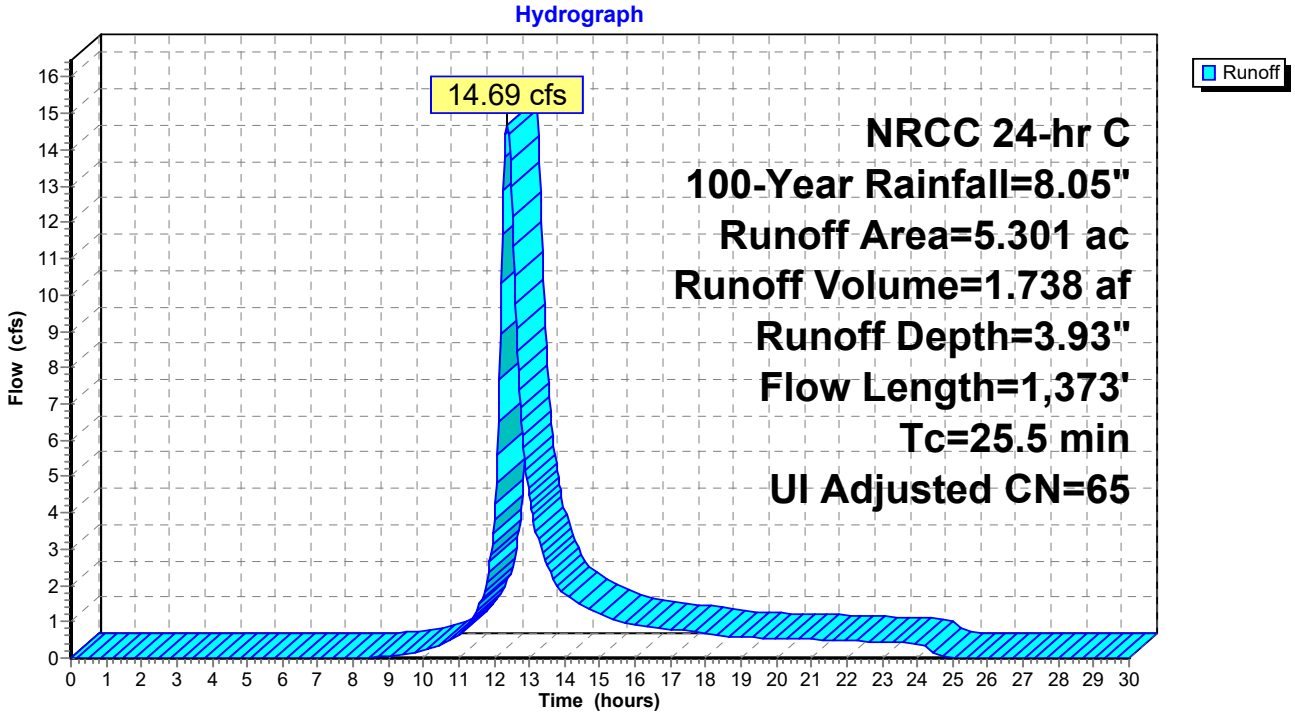
Runoff = 14.69 cfs @ 12.37 hrs, Volume= 1.738 af, Depth= 3.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 100-Year Rainfall=8.05"

Area (ac)	CN	Adj	Description
2.391	55		Woods, Good, HSG B
0.008	86		Fallow, bare soil, HSG B
0.047	96		Gravel surface, HSG B
0.518	61		>75% Grass cover, Good, HSG B
0.425	70		Woods, Good, HSG C
1.408	74		>75% Grass cover, Good, HSG C
0.101	96		Gravel surface, HSG C
0.403	98		Unconnected roofs, HSG C
5.301	66	65	Weighted Average, UI Adjusted
4.898			92.40% Pervious Area
0.403			7.60% Impervious Area
0.403			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.0190	0.16		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
1.9	126	0.0250	1.11		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.6	305	0.0780	1.95		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
0.9	122	0.2150	2.32		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
7.8	624	0.0720	1.34		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
2.2	96	0.0210	0.72		**Shallow Concentrated Flow, F-G** Woodland Kv= 5.0 fps
25.5	1,373	Total			

Subcatchment Pr-2: South of East Solar Array



Summary for Subcatchment Pr-3: North of Solar Array, along Elmridge Rd

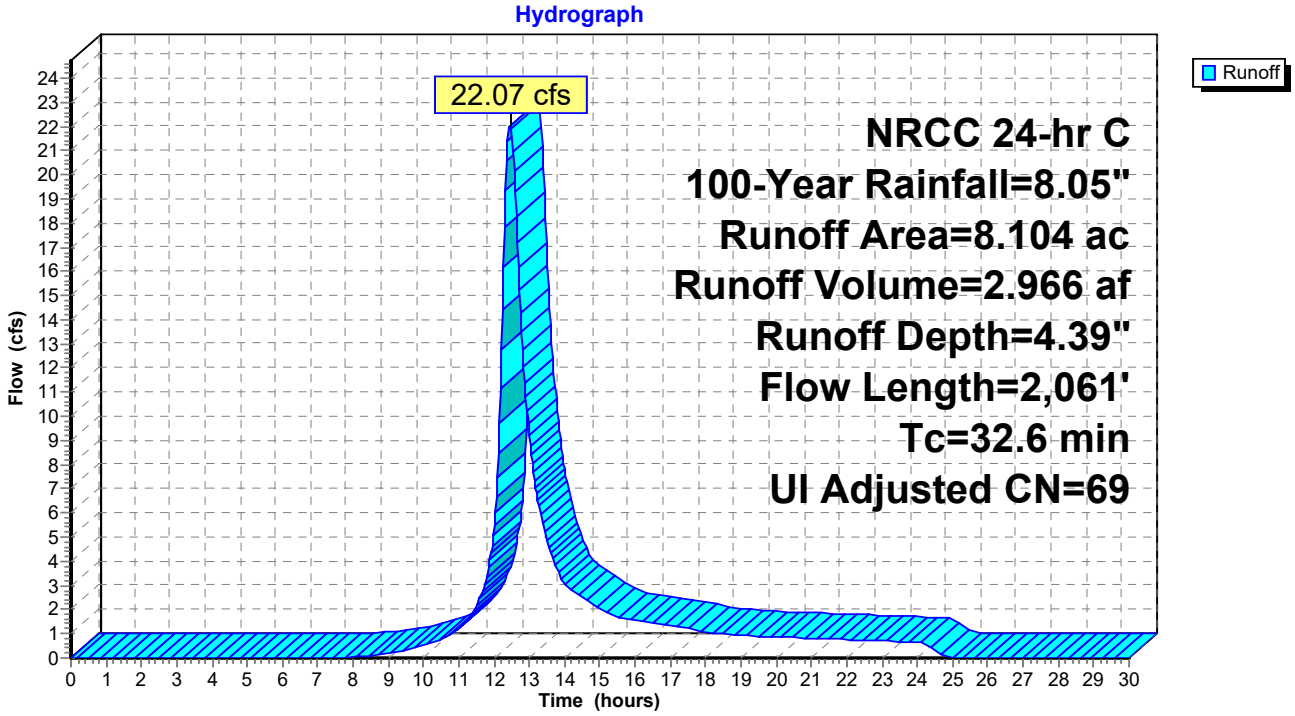
Runoff = 22.07 cfs @ 12.45 hrs, Volume= 2.966 af, Depth= 4.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 100-Year Rainfall=8.05"

Area (ac)	CN	Adj	Description
0.077	96		Gravel surface, HSG C
0.330	58		Woods/grass comb., Good, HSG B
0.358	98		Paved parking, HSG B
0.006	98		Roofs, HSG B
0.027	86		Fallow, bare soil, HSG B
4.223	61		>75% Grass cover, Good, HSG B
0.081	72		Woods/grass comb., Good, HSG C
0.033	91		Fallow, bare soil, HSG C
1.741	74		>75% Grass cover, Good, HSG C
0.564	98		Unconnected roofs, HSG C
0.518	80		>75% Grass cover, Good, HSG D
0.146	96		Gravel surface, HSG D
8.104	70	69	Weighted Average, UI Adjusted
7.176			88.55% Pervious Area
0.928			11.45% Impervious Area
0.564			60.78% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0160	0.15		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.6	245	0.0490	1.55		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
8.3	855	0.0600	1.71		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
10.8	861	0.0360	1.33		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
32.6	2,061	Total			

Subcatchment Pr-3: North of Solar Array, along Elmridge Rd



Summary for Subcatchment Pr-4: Central/West of East Site

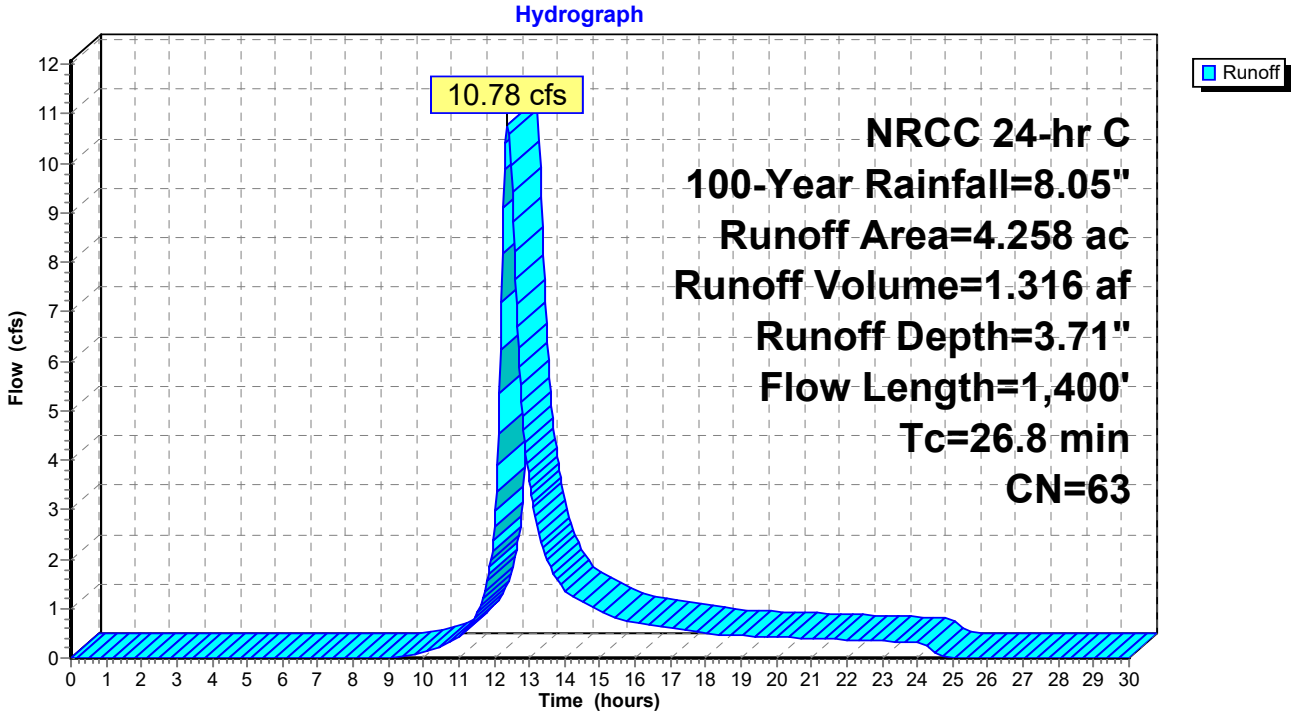
Runoff = 10.78 cfs @ 12.39 hrs, Volume= 1.316 af, Depth= 3.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 100-Year Rainfall=8.05"

Area (ac)	CN	Description
0.043	96	Gravel surface, HSG B
0.212	55	Woods, Good, HSG B
0.181	58	Woods/grass comb., Good, HSG B
0.089	98	Paved parking, HSG B
0.010	86	Fallow, bare soil, HSG B
3.399	61	>75% Grass cover, Good, HSG B
0.309	74	>75% Grass cover, Good, HSG C
0.008	98	Unconnected roofs, HSG C
0.007	96	Gravel surface, HSG C
4.258	63	Weighted Average
4.161		97.72% Pervious Area
0.097		2.28% Impervious Area
0.008		8.25% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0800	0.13		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.11"
2.7	283	0.0630	1.76		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
2.1	178	0.0390	1.38		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
1.4	143	0.0630	1.76		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
8.1	696	0.0420	1.43		**Shallow Concentrated Flow, E-F** Short Grass Pasture Kv= 7.0 fps
26.8	1,400	Total			

Subcatchment Pr-4: Central/West of East Site



Summary for Subcatchment Pr-5: West Site along N. Anguilla Rd

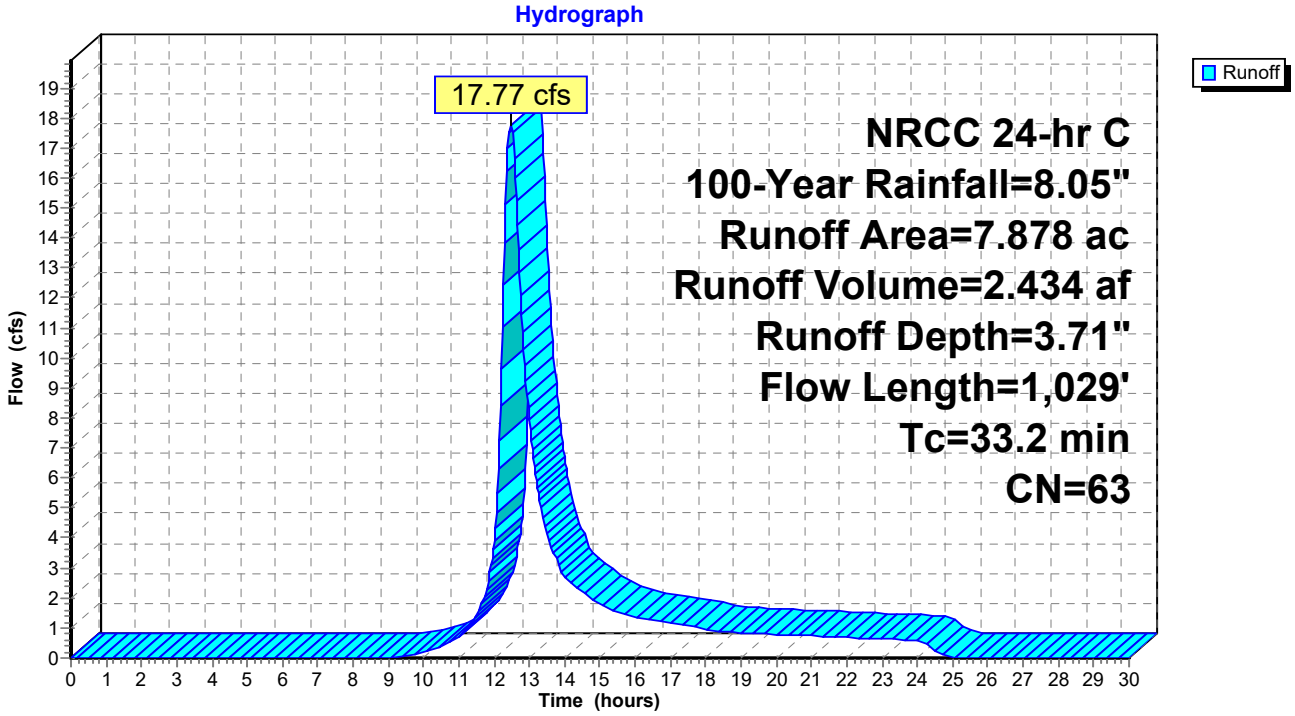
Runoff = 17.77 cfs @ 12.47 hrs, Volume= 2.434 af, Depth= 3.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 100-Year Rainfall=8.05"

Area (ac)	CN	Description
0.370	30	Woods, Good, HSG A
0.052	96	Gravel surface, HSG B
1.888	55	Woods, Good, HSG B
0.089	58	Woods/grass comb., Good, HSG B
0.253	98	Paved parking, HSG B
0.101	98	Roofs, HSG B
0.025	86	Fallow, bare soil, HSG B
3.578	61	>75% Grass cover, Good, HSG B
0.118	96	Gravel surface, HSG C
0.535	70	Woods, Good, HSG C
0.018	72	Woods/grass comb., Good, HSG C
0.851	74	>75% Grass cover, Good, HSG C
7.878	63	Weighted Average
7.524		95.51% Pervious Area
0.354		4.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.8	100	0.0330	0.09		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.11"
3.2	311	0.0530	1.61		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
5.9	210	0.0140	0.59		**Shallow Concentrated Flow, C-D** Woodland Kv= 5.0 fps
5.0	384	0.0340	1.29		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
1.3	24	0.0040	0.32		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
33.2	1,029	Total			

Subcatchment Pr-5: West Site along N. Anguilla Rd



Summary for Subcatchment Pr-6: South/Central Area of Western Golf Course

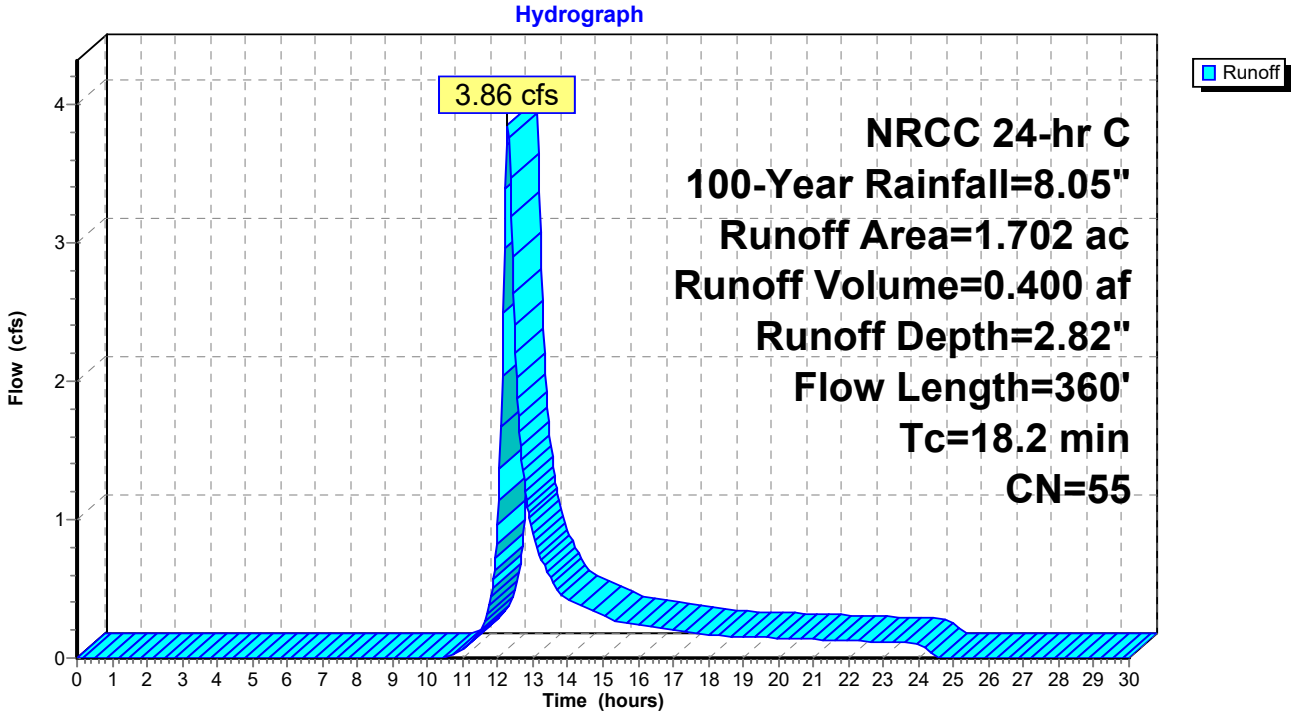
Runoff = 3.86 cfs @ 12.28 hrs, Volume= 0.400 af, Depth= 2.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 100-Year Rainfall=8.05"

Area (ac)	CN	Description
0.294	30	Woods, Good, HSG A
0.028	39	>75% Grass cover, Good, HSG A
0.415	55	Woods, Good, HSG B
0.028	86	Fallow, bare soil, HSG B
0.840	61	>75% Grass cover, Good, HSG B
0.097	74	>75% Grass cover, Good, HSG C
1.702	55	Weighted Average
1.702		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	100	0.0210	0.17		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
0.3	36	0.0730	1.89		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.6	47	0.0770	1.39		**Shallow Concentrated Flow, C-D** Woodland Kv= 5.0 fps
7.6	177	0.0060	0.39		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
18.2	360	Total			

Subcatchment Pr-6: South/Central Area of Western Golf Course



Summary for Subcatchment Pr-7: West/Central Area of Western Golf Course

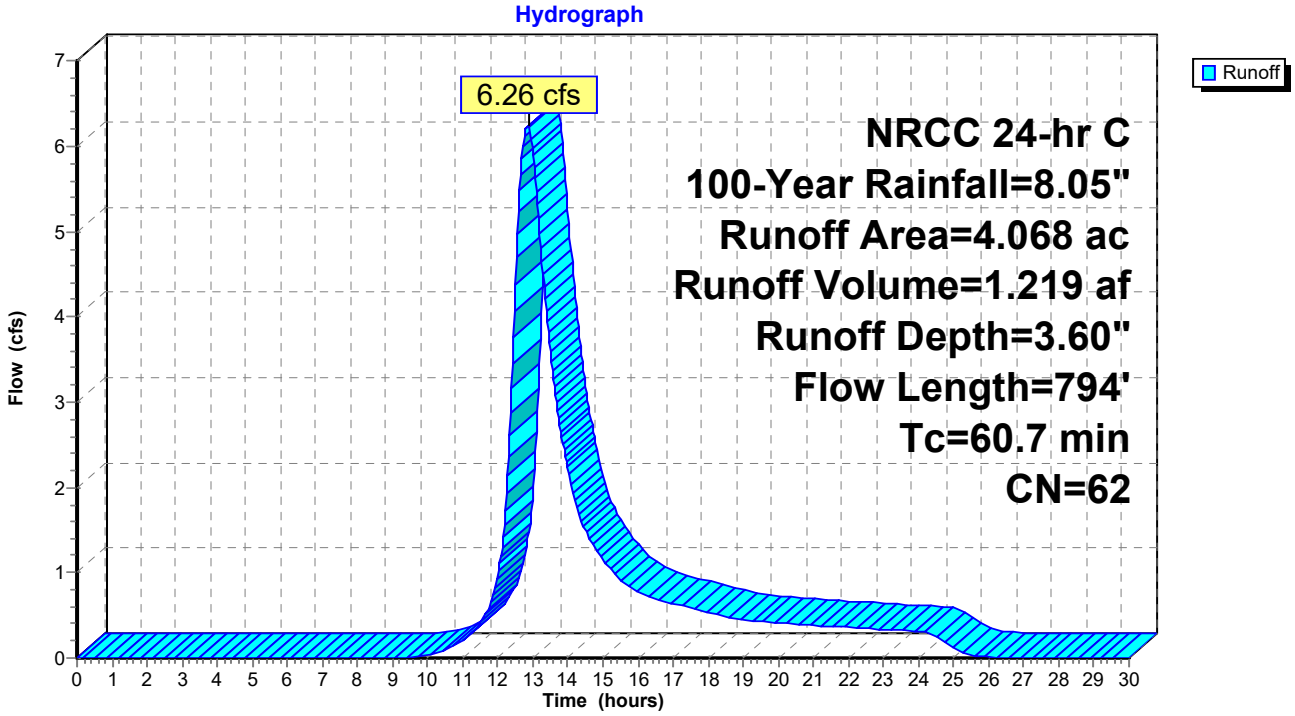
Runoff = 6.26 cfs @ 12.86 hrs, Volume= 1.219 af, Depth= 3.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 100-Year Rainfall=8.05"

Area (ac)	CN	Description
0.024	30	Woods, Good, HSG A
0.045	96	Gravel surface, HSG B
0.535	55	Woods, Good, HSG B
0.135	58	Woods/grass comb., Good, HSG B
0.044	86	Fallow, bare soil, HSG B
2.777	61	>75% Grass cover, Good, HSG B
0.008	96	Gravel surface, HSG C
0.056	70	Woods, Good, HSG C
0.444	74	>75% Grass cover, Good, HSG C
4.068	62	Weighted Average
4.068		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.5	100	0.0004	0.04		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
2.5	130	0.0150	0.86		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.3	34	0.0690	1.84		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
0.3	39	0.1960	2.21		**Shallow Concentrated Flow, D-E** Woodland Kv= 5.0 fps
5.5	203	0.0150	0.61		**Shallow Concentrated Flow, E-F** Woodland Kv= 5.0 fps
1.6	121	0.0330	1.27		**Shallow Concentrated Flow, F-G** Short Grass Pasture Kv= 7.0 fps
3.0	167	0.0180	0.94		**Shallow Concentrated Flow, G-H** Short Grass Pasture Kv= 7.0 fps
60.7	794	Total			

Subcatchment Pr-7: West/Central Area of Western Golf Course



Summary for Subcatchment Pr-8: Western Solar Array Field

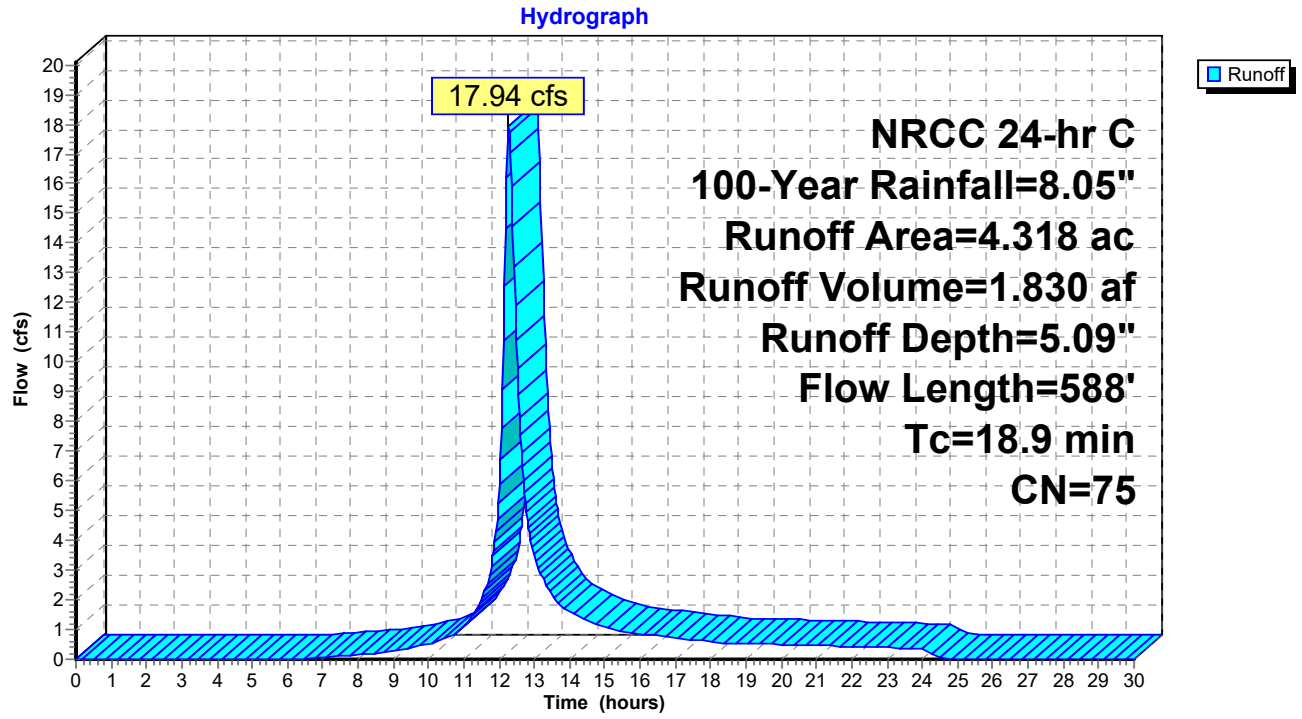
Runoff = 17.94 cfs @ 12.28 hrs, Volume= 1.830 af, Depth= 5.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NRCC 24-hr C 100-Year Rainfall=8.05"

Area (ac)	CN	Description
0.017	98	Unconnected roofs, HSG C
4.153	74	>75% Grass cover, Good, HSG C
0.148	96	Gravel surface, HSG C
4.318	75	Weighted Average
4.301		99.61% Pervious Area
0.017		0.39% Impervious Area
0.017		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.5	100	0.0300	0.20		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.11"
5.5	254	0.0120	0.77		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
4.9	234	0.0130	0.80		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
18.9	588	Total			

Subcatchment Pr-8: Western Solar Array Field

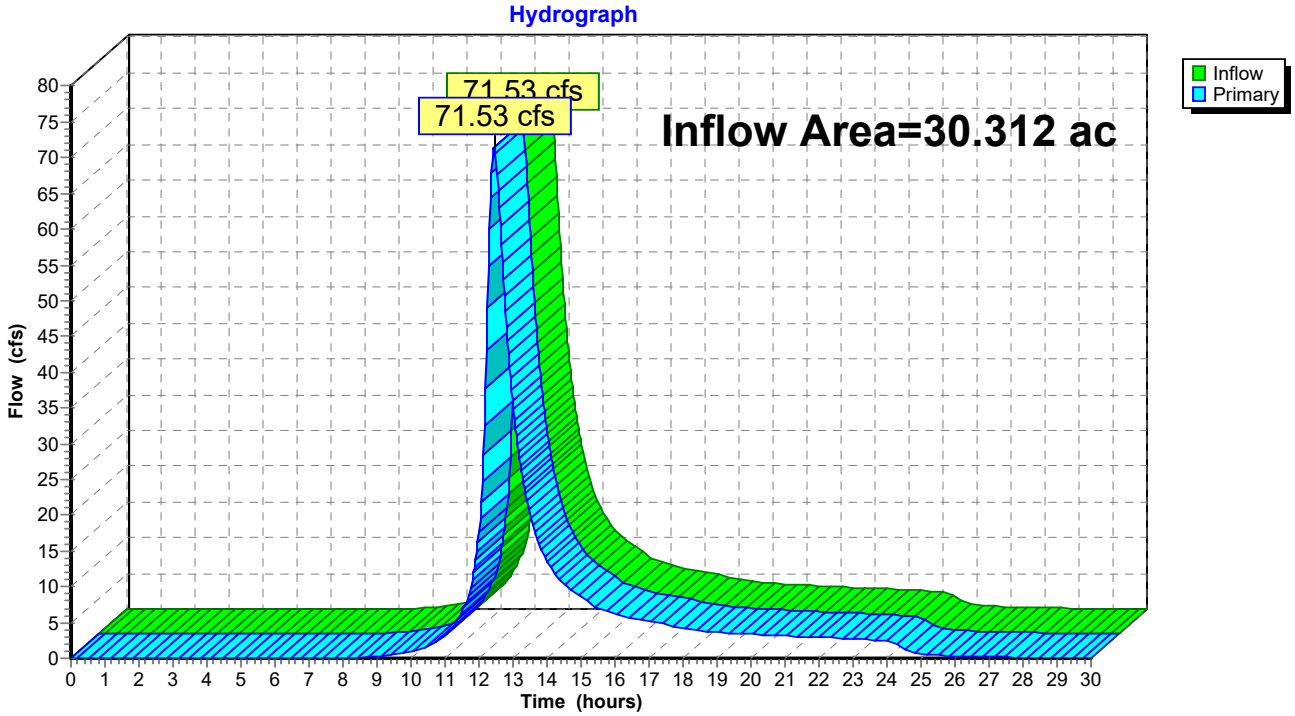


Summary for Pond AP-1: Easterly Wetland/ Vernal Pool

Inflow Area = 30.312 ac, 10.73% Impervious, Inflow Depth > 4.30" for 100-Year event
Inflow = 71.53 cfs @ 12.44 hrs, Volume= 10.858 af
Primary = 71.53 cfs @ 12.44 hrs, Volume= 10.858 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-1: Easterly Wetland/ Vernal Pool

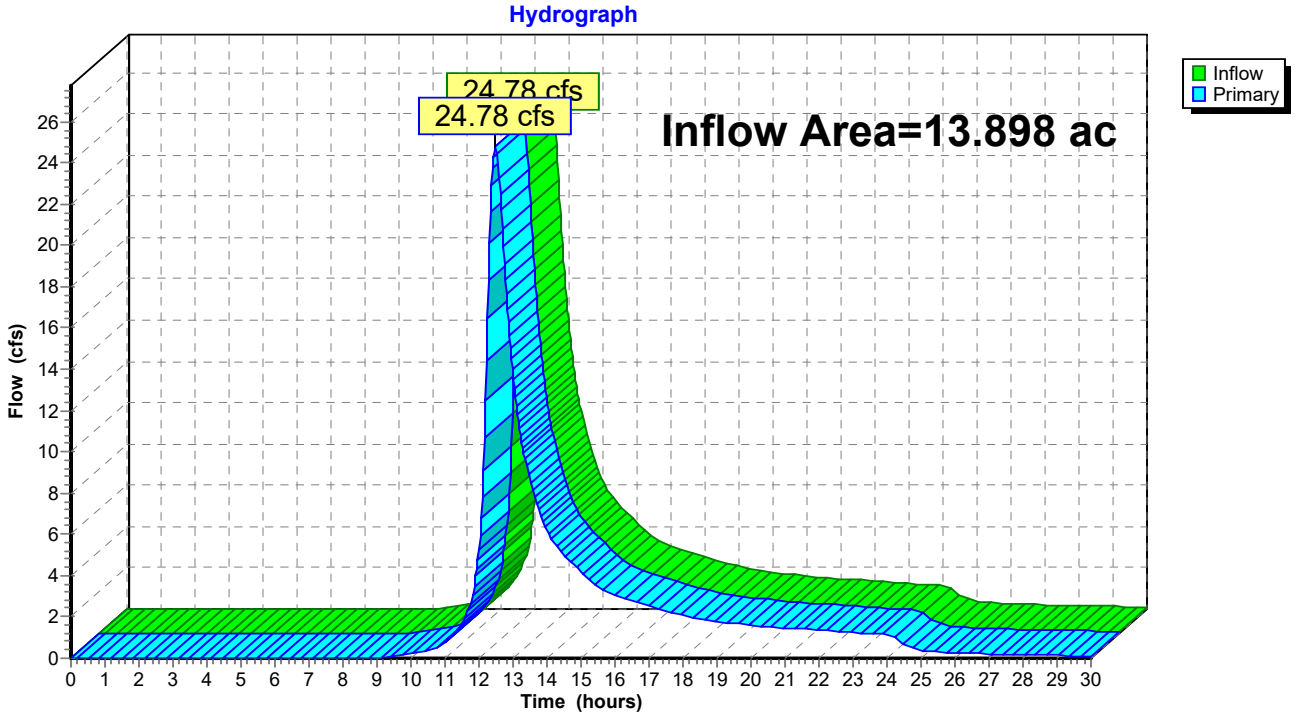


Summary for Pond AP-2: Anguilla Brook

Inflow Area = 13.898 ac, 2.67% Impervious, Inflow Depth > 3.84" for 100-Year event
Inflow = 24.78 cfs @ 12.49 hrs, Volume= 4.445 af
Primary = 24.78 cfs @ 12.49 hrs, Volume= 4.445 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-2: Anguilla Brook

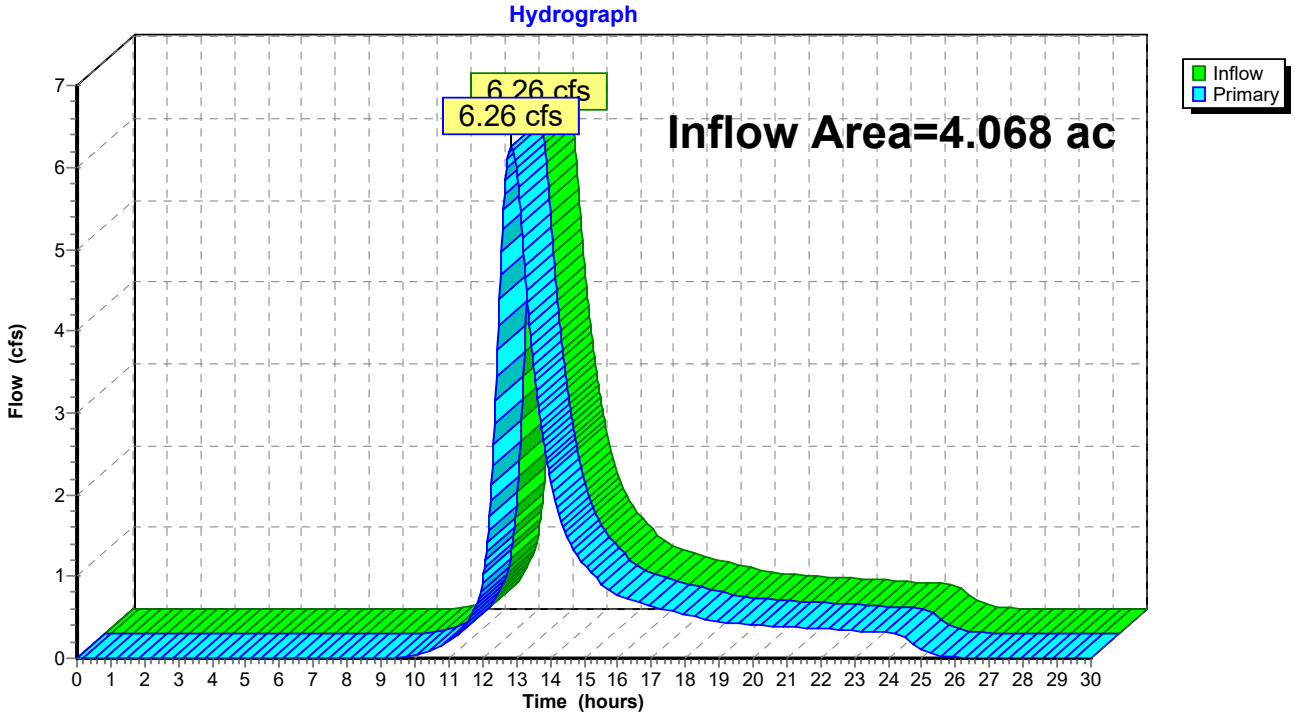


Summary for Pond AP-3: Westerly Intermittent Stream

Inflow Area = 4.068 ac, 0.00% Impervious, Inflow Depth = 3.60" for 100-Year event
Inflow = 6.26 cfs @ 12.86 hrs, Volume= 1.219 af
Primary = 6.26 cfs @ 12.86 hrs, Volume= 1.219 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-3: Westerly Intermittent Stream

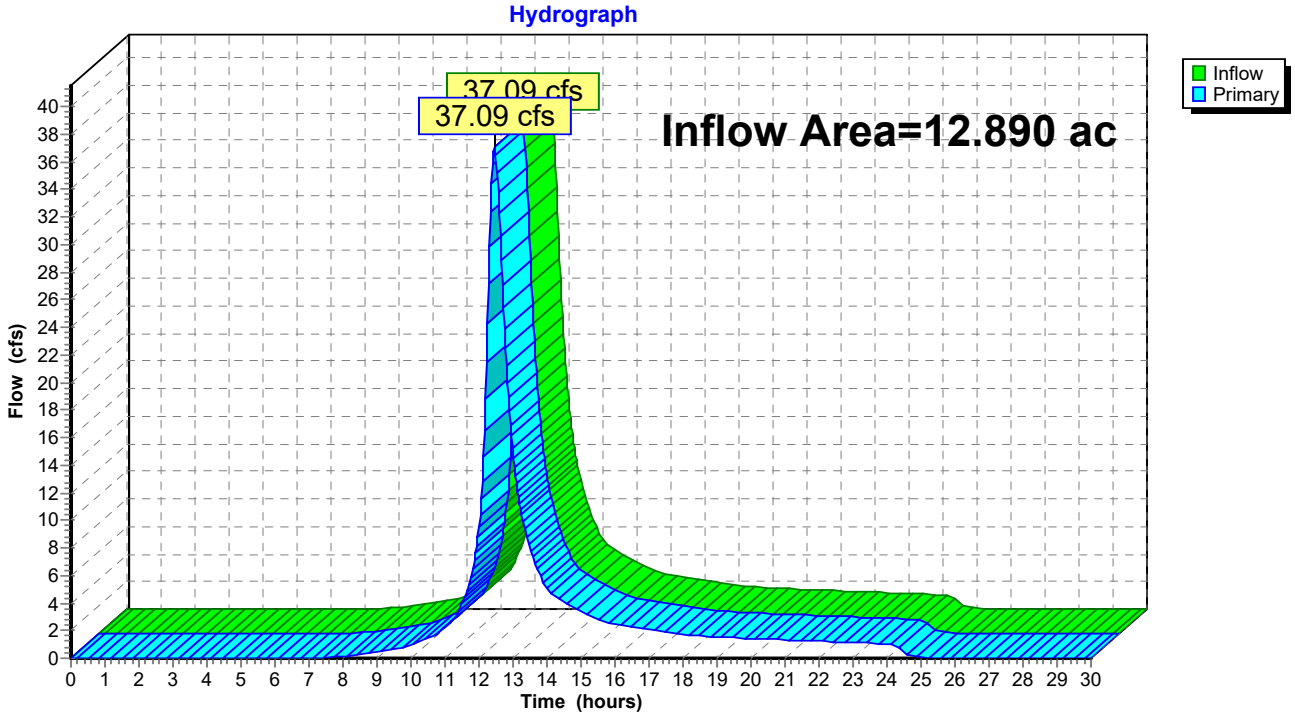


Summary for Pond AP-4: Easterly Wetland

Inflow Area = 12.890 ac, 5.24% Impervious, Inflow Depth = 4.62" for 100-Year event
Inflow = 37.09 cfs @ 12.45 hrs, Volume= 4.966 af
Primary = 37.09 cfs @ 12.45 hrs, Volume= 4.966 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Pond AP-4: Easterly Wetland



Summary for Pond SB-1: SWMB-1 Option 2

Inflow Area = 4.318 ac, 0.39% Impervious, Inflow Depth = 5.09" for 100-Year event
Inflow = 17.94 cfs @ 12.28 hrs, Volume= 1.830 af
Outflow = 5.77 cfs @ 12.71 hrs, Volume= 1.611 af, Atten= 68%, Lag= 26.0 min
Primary = 5.77 cfs @ 12.71 hrs, Volume= 1.611 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Peak Elev= 55.19' @ 12.71 hrs Surf.Area= 19,262 sf Storage= 34,874 cf

Plug-Flow detention time= 203.5 min calculated for 1.609 af (88% of inflow)
Center-of-Mass det. time= 145.1 min (979.2 - 834.1)

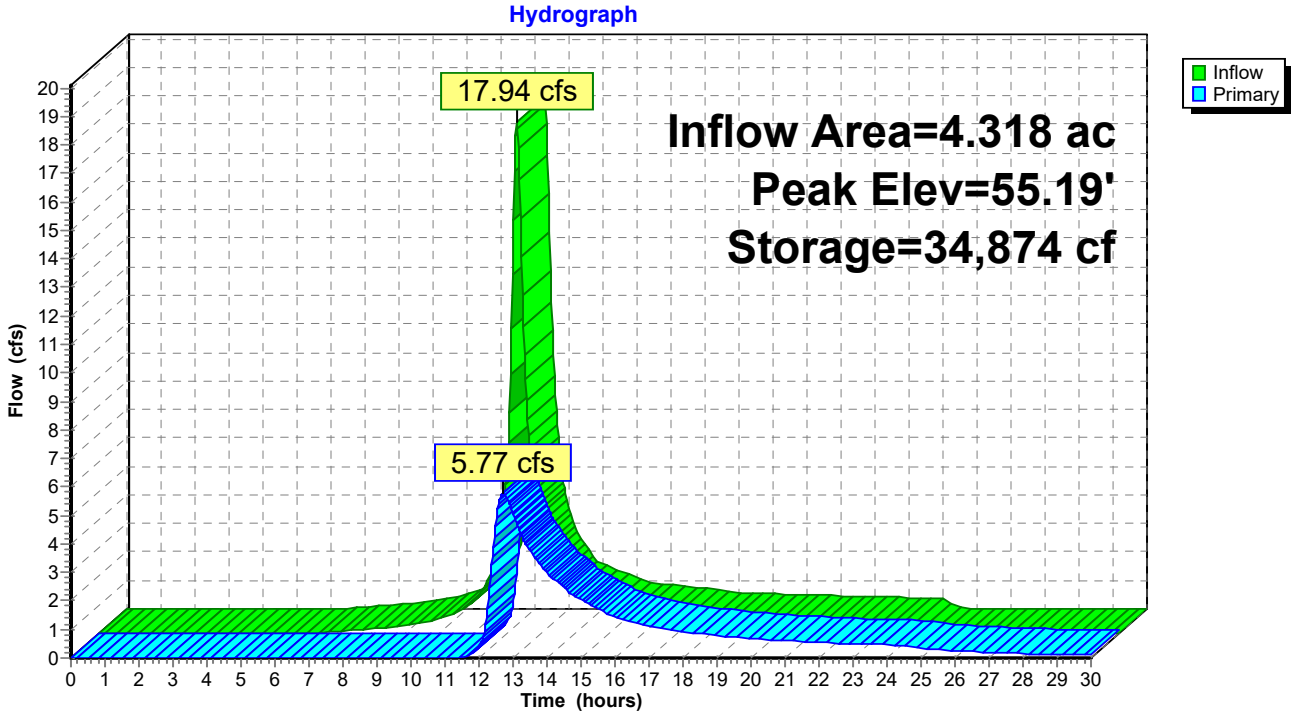
Volume	Invert	Avail.Storage	Storage Description
#1	52.50'	54,423 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
52.50	7,259	0	0
53.00	10,224	4,371	4,371
54.00	13,461	11,843	16,213
55.00	16,971	15,216	31,429
56.00	29,017	22,994	54,423

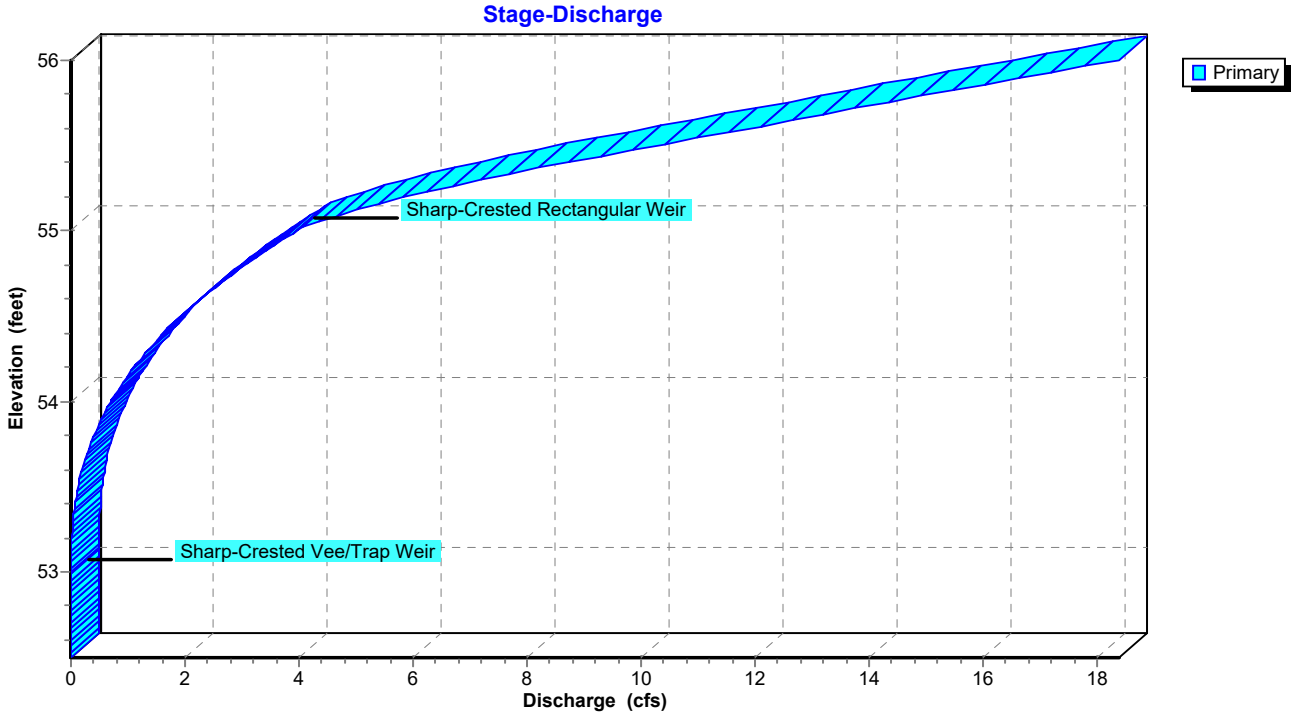
Device	Routing	Invert	Outlet Devices
#1	Primary	53.00'	**30.0 deg x 2.50' rise Sharp-Crested Vee/Trap Weir** Cv= 2.61 (C= 3.26)
#2	Primary	55.00'	**3.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=5.77 cfs @ 12.71 hrs HW=55.19' TW=0.00' (Dynamic Tailwater)
1=Sharp-Crested Vee/Trap Weir (Weir Controls 4.96 cfs @ 3.86 fps)
2=Sharp-Crested Rectangular Weir (Weir Controls 0.80 cfs @ 1.43 fps)

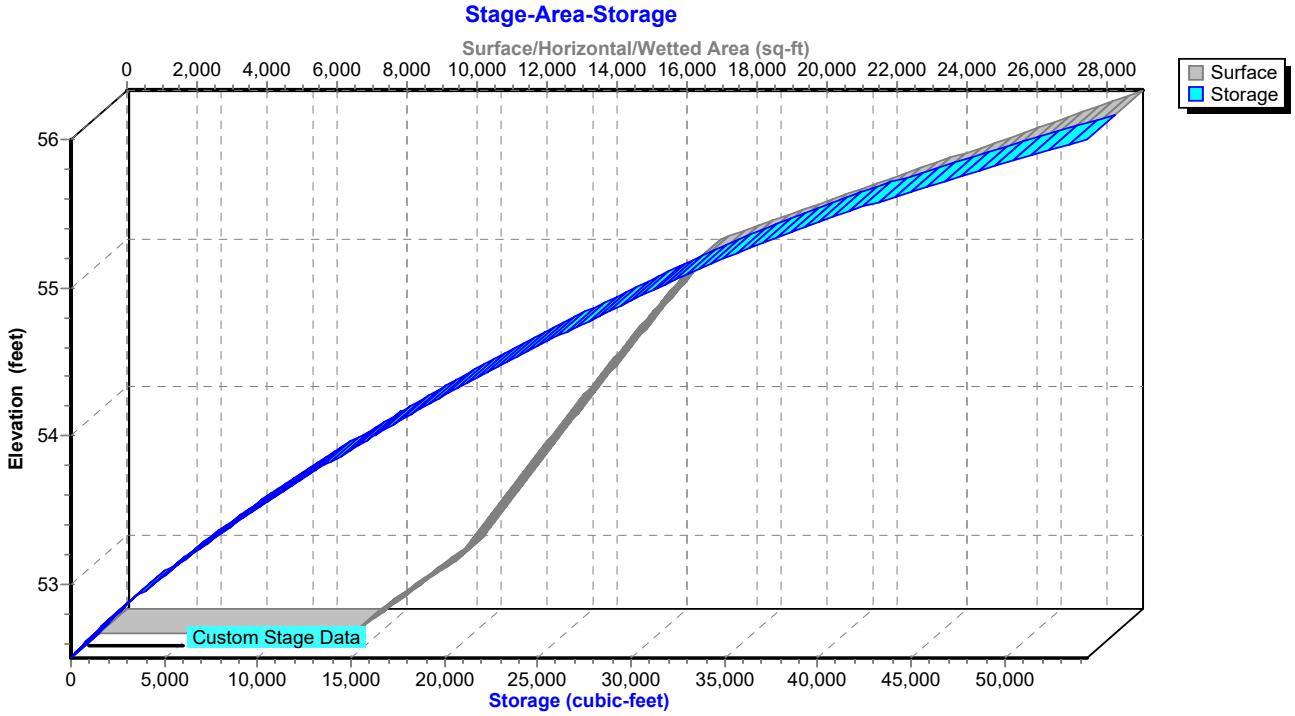
Pond SB-1: SWMB-1 Option 2



Pond SB-1: SWMB-1 Option 2



Pond SB-1: SWMB-1 Option 2



Summary for Pond SB-2: SWMB-2

Inflow Area = 8.776 ac, 19.84% Impervious, Inflow Depth = 5.20" for 100-Year event
Inflow = 30.81 cfs @ 12.39 hrs, Volume= 3.805 af
Outflow = 19.40 cfs @ 12.65 hrs, Volume= 3.641 af, Atten= 37%, Lag= 15.9 min
Primary = 19.40 cfs @ 12.65 hrs, Volume= 3.641 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Peak Elev= 133.38' @ 12.65 hrs Surf.Area= 19,332 sf Storage= 46,289 cf

Plug-Flow detention time= 94.1 min calculated for 3.638 af (96% of inflow)
Center-of-Mass det. time= 69.8 min (909.5 - 839.7)

Volume	Invert	Avail.Storage	Storage Description
#1	130.50'	69,267 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

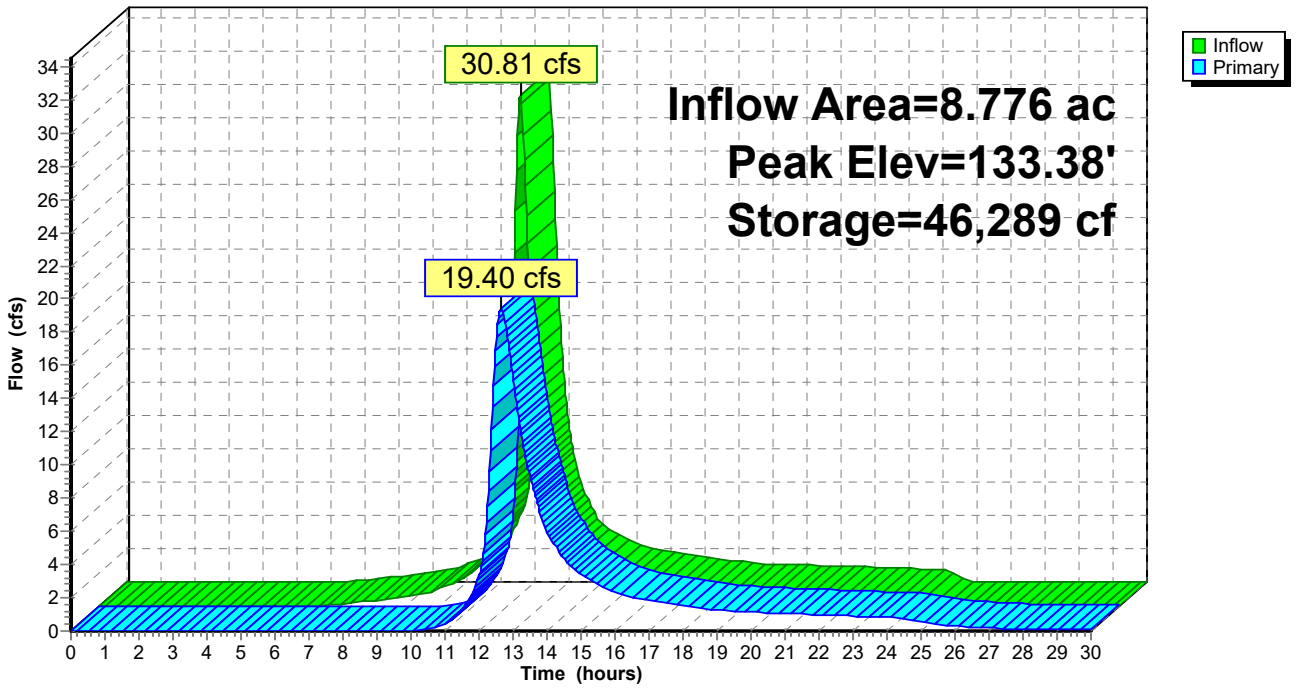
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
130.50	10,472	0	0
131.00	14,379	6,213	6,213
132.00	16,417	15,398	21,611
133.00	18,511	17,464	39,075
134.00	20,663	19,587	58,662
134.50	21,759	10,606	69,267

Device	Routing	Invert	Outlet Devices
#1	Primary	131.00'	**37.0 deg x 1.0' long x 2.50' rise Sharp-Crested Vee/Trap Weir** Cv= 2.58 (C= 3.23)
#2	Primary	133.50'	**5.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=19.39 cfs @ 12.65 hrs HW=133.38' TW=0.00' (Dynamic Tailwater)
↑—**1=Sharp-Crested Vee/Trap Weir** (Weir Controls 19.39 cfs @ 4.53 fps)
└—**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

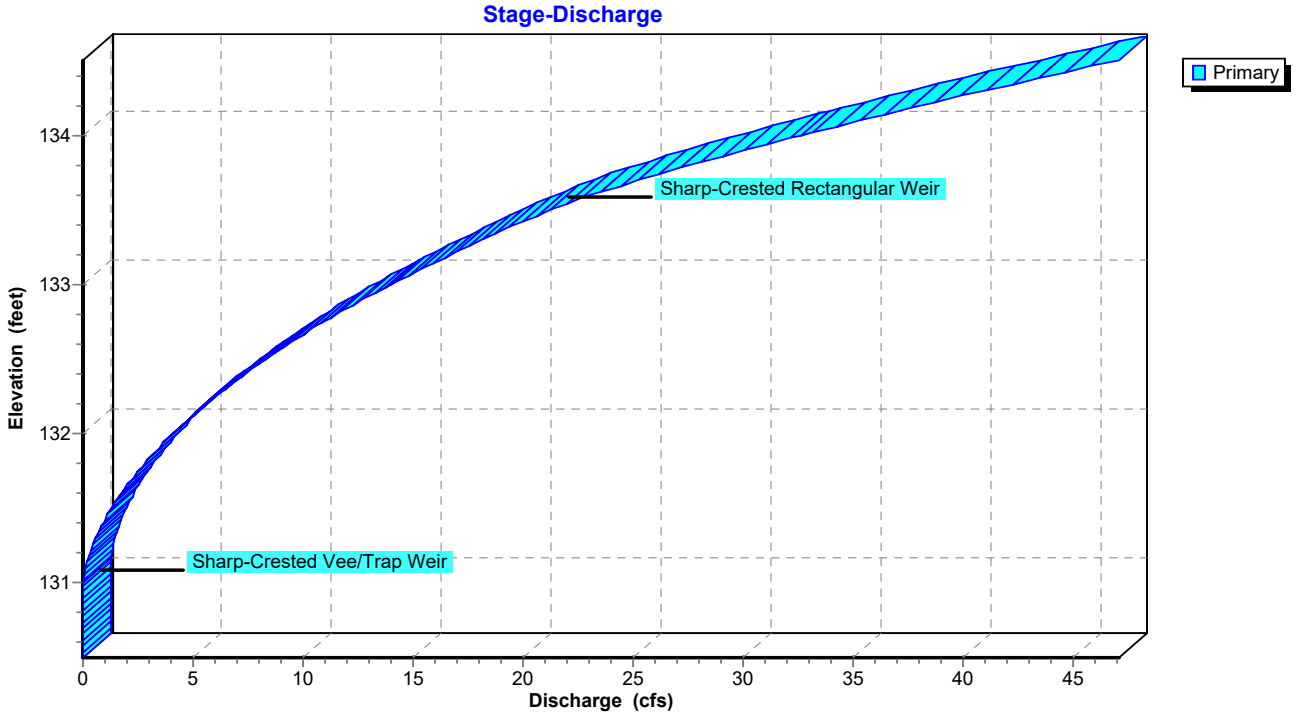
Pond SB-2: SWMB-2

Hydrograph

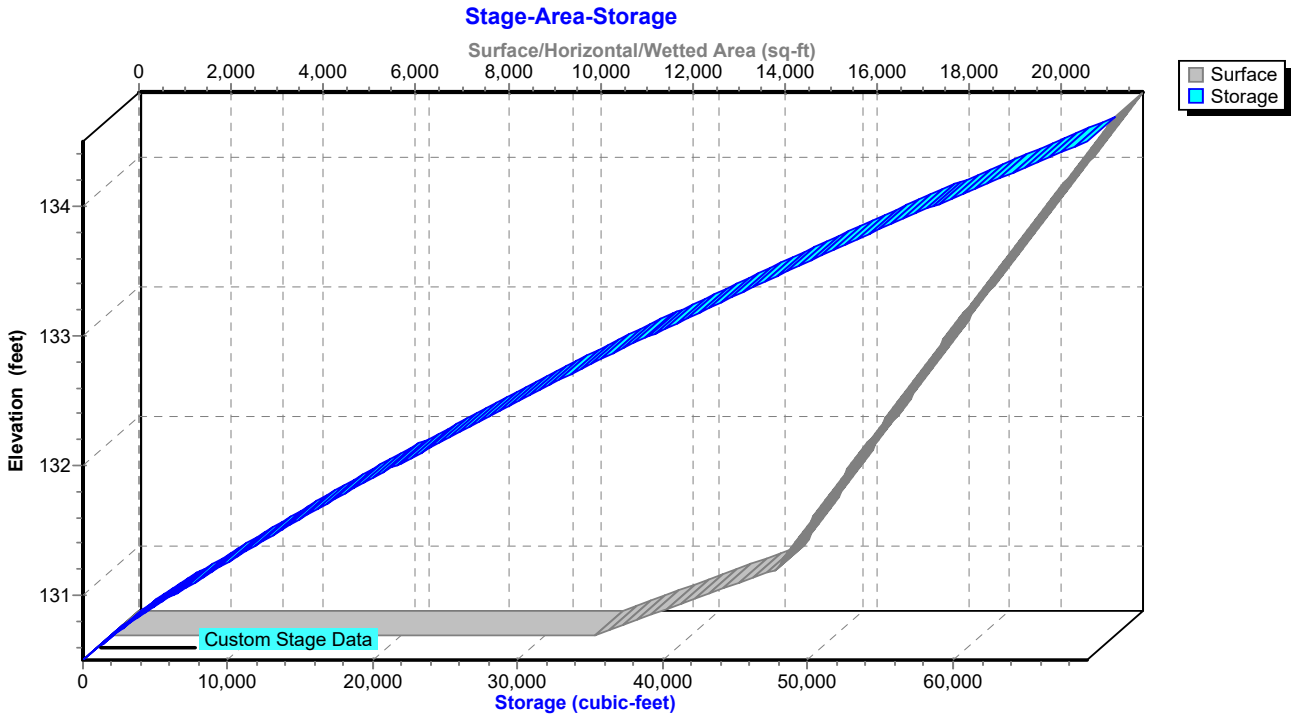


Pond SB-2: SWMB-2

Stage-Discharge



Pond SB-2: SWMB-2



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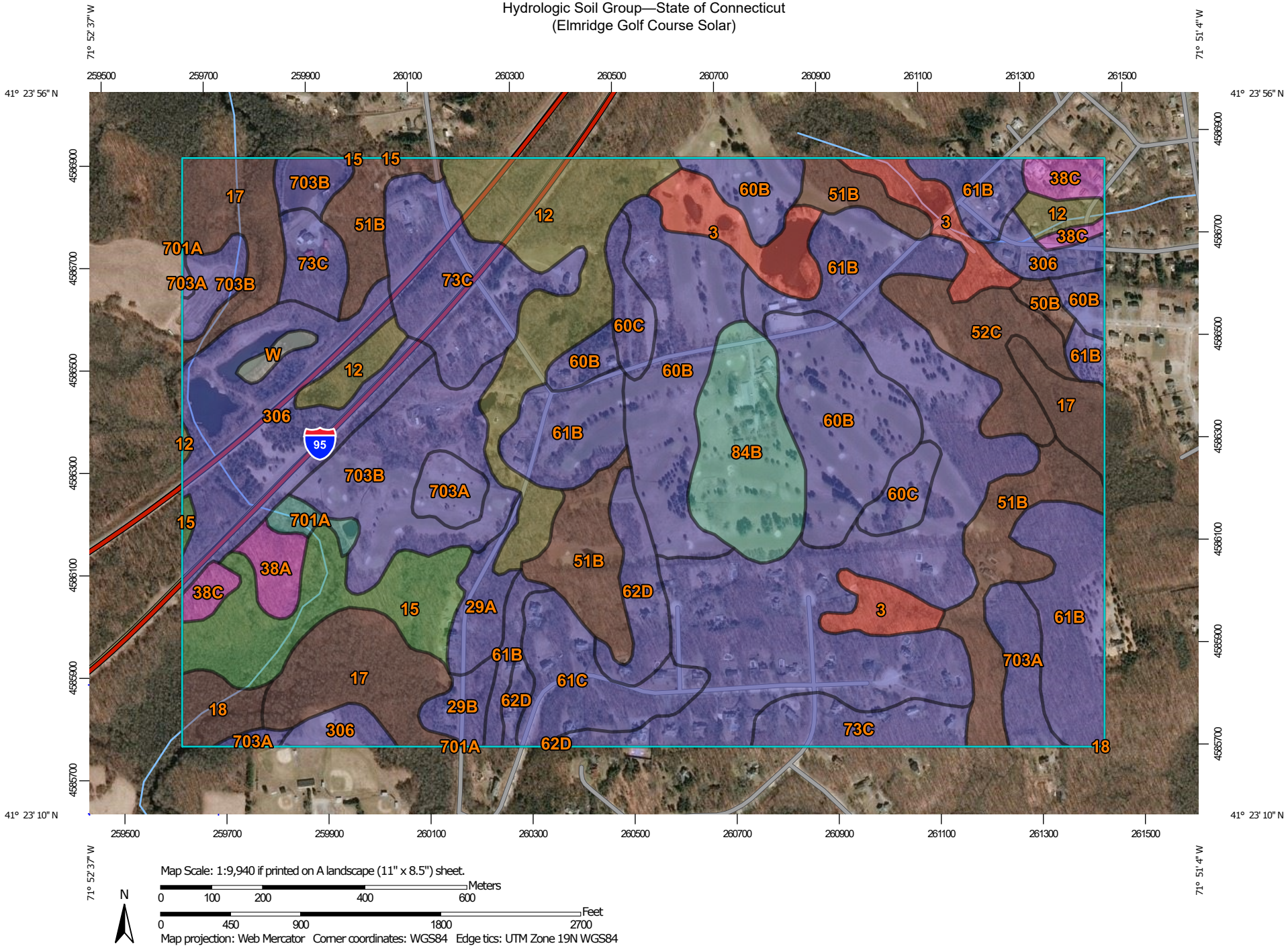
APPENDIX C

NRCS WEB SOIL SURVEY

Hydrologic Soil Group—State of Connecticut
(Elmridge Golf Course Solar)



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Soil Rating Lines

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Soil Rating Points

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Water Features

Streams and Canals

Transportation

Rails
Interstate Highways
US Routes
Major Roads
Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut
Survey Area Data: Version 19, Sep 13, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 20, 2019—Mar 27, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
3	Ridgebury, Leicester, and Whitman soils, 0 to 8 percent slopes, extremely stony	D	19.1	3.7%
12	Raypol silt loam	C/D	35.9	7.0%
15	Scarboro muck, 0 to 3 percent slopes	A/D	19.7	3.8%
17	Timakwa and Natchaug soils, 0 to 2 percent slopes	B/D	32.4	6.3%
18	Catden and Freetown soils, 0 to 2 percent slopes	B/D	4.7	0.9%
29A	Agawam fine sandy loam, 0 to 3 percent slopes	B	5.6	1.1%
29B	Agawam fine sandy loam, 3 to 8 percent slopes	B	3.8	0.7%
38A	Hinckley loamy sand, 0 to 3 percent slopes	A	4.0	0.8%
38C	Hinckley loamy sand, 3 to 15 percent slopes	A	6.0	1.2%
50B	Sutton fine sandy loam, 3 to 8 percent slopes	B/D	1.7	0.3%
51B	Sutton fine sandy loam, 0 to 8 percent slopes, very stony	B/D	36.5	7.1%
52C	Sutton fine sandy loam, 2 to 15 percent slopes, extremely stony	B/D	12.8	2.5%
60B	Canton and Charlton fine sandy loams, 3 to 8 percent slopes	B	55.6	10.8%
60C	Canton and Charlton fine sandy loams, 8 to 15 percent slopes	B	8.4	1.6%
61B	Canton and Charlton fine sandy loams, 0 to 8 percent slopes, very stony	B	108.2	21.0%
61C	Canton and Charlton fine sandy loams, 8 to 15 percent slopes, very stony	B	13.8	2.7%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
62D	Canton and Charlton fine sandy loams, 15 to 35 percent slopes, extremely stony	B	9.4	1.8%
73C	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	B	34.7	6.7%
84B	Paxton and Montauk fine sandy loams, 3 to 8 percent slopes	C	19.2	3.7%
306	Udorthents-Urban land complex	B	38.7	7.5%
701A	Ninigret fine sandy loam, 0 to 3 percent slopes	C	2.2	0.4%
703A	Haven silt loam, 0 to 3 percent slopes	B	11.9	2.3%
703B	Haven silt loam, 3 to 8 percent slopes	B	29.6	5.7%
W	Water		1.4	0.3%
Totals for Area of Interest			**515.5**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

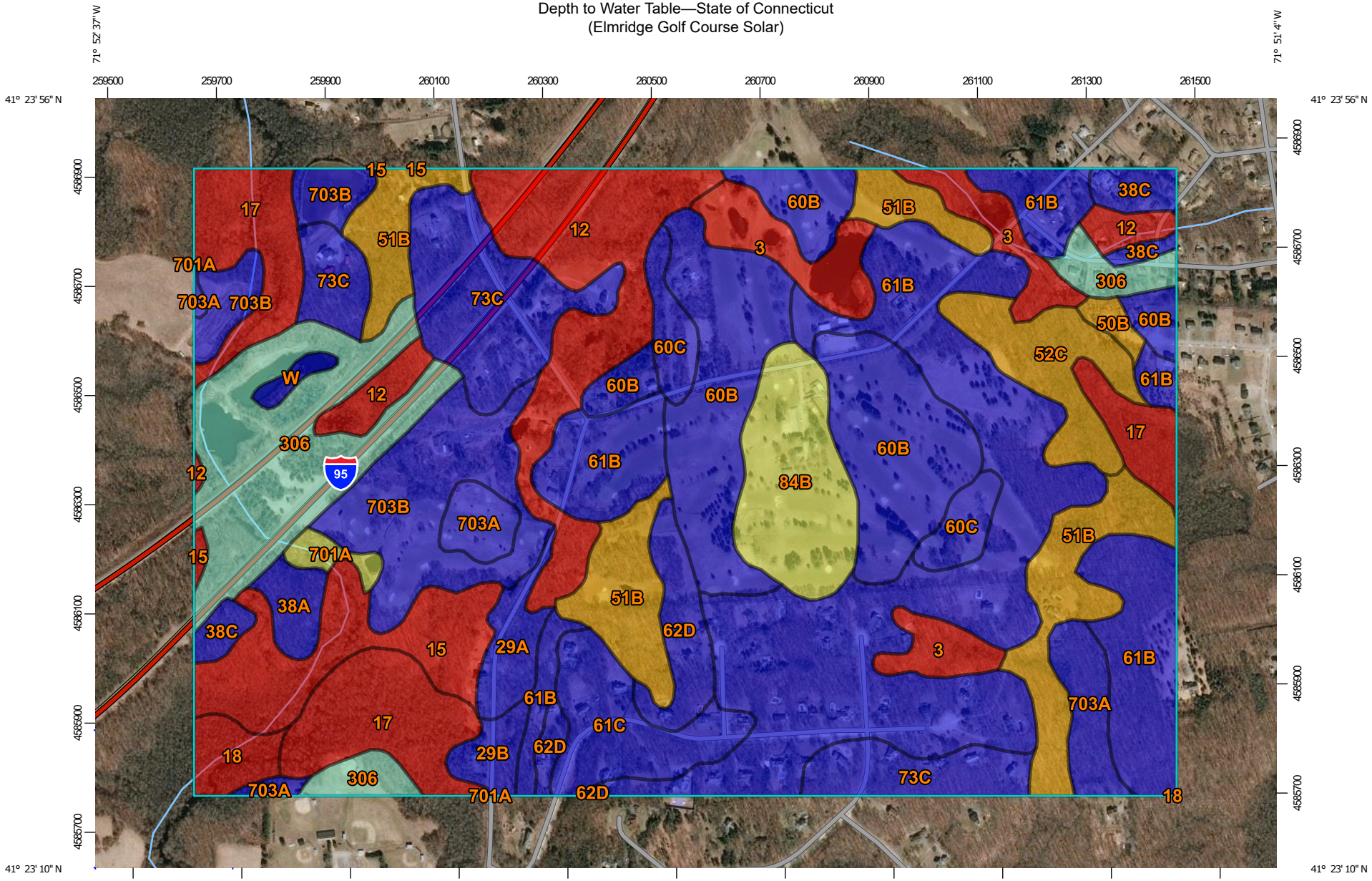
Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Depth to Water Table—State of Connecticut
(Elmridge Golf Course Solar)



Map Scale: 1:9,940 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 100 200 400 600

Feet
0 450 900 1800 2700

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 150
- 150 - 200
- > 200
- Not rated or not available

Soil Rating Lines

- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 150
- 150 - 200
- > 200
- Not rated or not available

Soil Rating Points

- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 150
- 150 - 200
- > 200
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut
Survey Area Data: Version 19, Sep 13, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 20, 2019—Mar 27, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
3	Ridgebury, Leicester, and Whitman soils, 0 to 8 percent slopes, extremely stony	8	19.1	3.7%
12	Raypol silt loam	15	35.9	7.0%
15	Scarboro muck, 0 to 3 percent slopes	0	19.7	3.8%
17	Timakwa and Natchaug soils, 0 to 2 percent slopes	0	32.4	6.3%
18	Catden and Freetown soils, 0 to 2 percent slopes	0	4.7	0.9%
29A	Agawam fine sandy loam, 0 to 3 percent slopes	>200	5.6	1.1%
29B	Agawam fine sandy loam, 3 to 8 percent slopes	>200	3.8	0.7%
38A	Hinckley loamy sand, 0 to 3 percent slopes	>200	4.0	0.8%
38C	Hinckley loamy sand, 3 to 15 percent slopes	>200	6.0	1.2%
50B	Sutton fine sandy loam, 3 to 8 percent slopes	43	1.7	0.3%
51B	Sutton fine sandy loam, 0 to 8 percent slopes, very stony	48	36.5	7.1%
52C	Sutton fine sandy loam, 2 to 15 percent slopes, extremely stony	48	12.8	2.5%
60B	Canton and Charlton fine sandy loams, 3 to 8 percent slopes	>200	55.6	10.8%
60C	Canton and Charlton fine sandy loams, 8 to 15 percent slopes	>200	8.4	1.6%
61B	Canton and Charlton fine sandy loams, 0 to 8 percent slopes, very stony	>200	108.2	21.0%
61C	Canton and Charlton fine sandy loams, 8 to 15 percent slopes, very stony	>200	13.8	2.7%

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
62D	Canton and Charlton fine sandy loams, 15 to 35 percent slopes, extremely stony	>200	9.4	1.8%
73C	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	>200	34.7	6.7%
84B	Paxton and Montauk fine sandy loams, 3 to 8 percent slopes	61	19.2	3.7%
306	Udorthents-Urban land complex	150	38.7	7.5%
701A	Ninigret fine sandy loam, 0 to 3 percent slopes	66	2.2	0.4%
703A	Haven silt loam, 0 to 3 percent slopes	>200	11.9	2.3%
703B	Haven silt loam, 3 to 8 percent slopes	>200	29.6	5.7%
W	Water	>200	1.4	0.3%
Totals for Area of Interest			**515.5**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

APPENDIX D

DEEP HOLE TEST PIT RESULTS

MILONE & MACBROOM

TEST PIT DATA RECORD

Project: Elmridge Golf PV Solar Facility
Date: March 31, 2020
Inspector: Mike Gagnon, P.E.
Elev. Of Ground Surface: 53.9

Job No.: 6763-10
Weather: Cloudy, 45°
Test Pit No.: 1 (West Site)

SOIL STRATUM ENCOUNTERED

From	To	Description of Soils
0.0	0.4	Turf and topsoil
0.4	2.6	Brown fine-medium sand, gravel and cobbles
2.6	3.7	Organic tree roots
3.7	5.4	Brown fine-medium sand, some silt

Depth to Ledge:	None found
Water Encountered at Depth:	None found
Installed Observation Well at Depth:	N/A

Comments:

MILONE & MACBROOM

TEST PIT DATA RECORD

Project:	Elmridge Golf PV Solar Facility	**Job No.:**	6763-10
Date:	March 31, 2020	**Weather:**	Cloudy, 45°
Inspector:	Mike Gagnon, P.E.	**Test Pit No.:**	2 (West Site)
Elev. Of Ground Surface:	56.0		

SOIL STRATUM ENCOUNTERED

From	To	Description of Soils
0.0	0.5	Turf and topsoil
0.5	5.5	Medium brown sand, gravel and cobbles

Depth to Ledge:	None found
Water Encountered at Depth:	None found
Installed Observation Well at Depth:	N/A

Comments: Infiltration test performed but determined to be greater than 8 in/hour due to soil type

MILONE & MACBROOM

TEST PIT DATA RECORD

Project:	Elmridge Golf PV Solar Facility	**Job No.:**	6763-10
Date:	March 31, 2020	**Weather:**	Cloudy, 45°
Inspector:	Mike Gagnon, P.E.	**Test Pit No.:**	3 (East Site)
Elev. Of Ground Surface:	129.7		

SOIL STRATUM ENCOUNTERED

From	To	Description of Soils
0.0	0.7	Turf and topsoil
0.7	2.0	Light brown fine-medium sand
2.0	5.5	Light gray fine-medium sand, some silt

Depth to Ledge:	None found
Water Encountered at Depth:	5.5
Installed Observation Well at Depth:	N/A

Comments: Bottom of proposed basin must be lifted 2' due to presence of groundwater

MILONE & MACBROOM

TEST PIT DATA RECORD

Project: Elmridge Golf PV Solar Facility
Date: March 31, 2020
Inspector: Mike Gagnon, P.E.
Elev. Of Ground Surface: 130.5

Job No.: 6763-10
Weather: Cloudy, 45°
Test Pit No.: 4 (East Site)

SOIL STRATUM ENCOUNTERED

From	To	Description of Soils
0.0	0.9	Turf and topsoil
0.9	3.2	Light brown fine sand, some silt
3.2	4.5	Light gray fine sand, silt

Depth to Ledge:	None found
Water Encountered at Depth:	1.7'
Installed Observation Well at Depth:	N/A

Comments:

MILONE & MACBROOM

TEST PIT DATA RECORD

Project: Elmridge Golf PV Solar Facility
Date: March 31, 2020
Inspector: Mike Gagnon, P.E.
Elev. Of Ground Surface: 134.8

Job No.: 6763-10
Weather: Cloudy, 45°
Test Pit No.: 5 (East Site)

SOIL STRATUM ENCOUNTERED

From	To	Description of Soils
0.0	0.5	Turf and topsoil
0.5	3.0	Light brown fine sand, some silt
3.0	5.8	Light gray fine sand, silt

Depth to Ledge:	None found
Water Encountered at Depth:	None found
Installed Observation Well at Depth:	N/A

Comments: Till and cobbles at bottom of test pit

APPENDIX E

WATER QUALITY COMPUTATIONS

CT Stormwater Quality Manual
Water Quality Volume (WQV) Computations - East Site

$$R = 0.05 + 0.009(I)$$

$$WQV = \frac{(1")(R)(A)}{12}$$

I =	6.1	%
A =	8.776	Ac
R =	**0.105**	
WQV =	**0.077**	Ac-ft
WQV =	**3,342**	CF

Water Quality Basin - WQV Provided

Basin Stage Elev at V-notch=	**131.0**	FT	
V_{WQ} *Provided*=	**6,213**	CF	OK-Min WQV Provided

*Water Quality Volume computations based on methods detailed in the *2004 Connecticut Stormwater Quality Manual,* Section 7.4.1 *Water Quality Volume (WQV)*

CT Stormwater Quality Manual
Water Quality Volume (WQV) Computations - West Site

$$R = 0.05 + 0.009(I)$$

$$WQV = \frac{(1")(R)(A)}{12}$$

I =	5.8	%
A =	4.318	Ac
R =	**0.102**	
WQV =	**0.037**	Ac-ft
WQV =	**1,602**	CF

Water Quality Basin - WQV Provided

Basin Stage Elev at V-notch=	**53.0**	FT	
V_{WQ} *Provided*=	**4,371**	CF	OK-Min WQV Provided

*Water Quality Volume computations based on methods detailed in the *2004 Connecticut Stormwater Quality Manual,* Section 7.4.1 *Water Quality Volume (WQV)*