C-TEC Solar Thompson

77 Pompeo Road
Thompson, Connecticut

PREPARED FOR

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August 2024

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Project Summary

Project Description

The Petitioner is proposing to construct a ±3 MW solar farm on an undeveloped wooded site along with all associated utilities, access paths, fencing, and landscaping to support this use (the Project). When the Project reaches the end of its life cycle, the improvements constructed as part of this petition will be removed and the land will be restored in accordance with the decommissioning plan.

Site Description

The Project Site will be located on ±19 acres of an approximately 164-acre parcel on Pompeo Road, (Map, Block, Lot: 81-48-17) in Thompson, Connecticut. The site is bounded by woodland to the north, south and east. Pompeo Road is to the west.

The majority of the project area under existing conditions the site generally drains to the south, typically flowing to the wetlands located south to the project area. The eastern/northeastern portions of the project drain to the east/northeast. There are two (2) design points that the water flows towards.

Based on the hydrologic soil group confirmation, the majority of on-Site soils within the Project area belong to the Hydrologic Soil Group "B", indicating that the soils have a moderately fast infiltration rate when thoroughly wet. See Appendix B for NRCS Web Soil Survey output.

According to available CTDEEP Groundwater Classification maps, groundwater at the site is GA (see Appendix A). The CTDEEP Aquifer Protection Areas Mapping website does not show the property as being within an Aquifer Protection Area.

Methodology

The Project was designed to incorporate measures provided in the Connecticut Stormwater Quality Manual (CTDEEP 2024) as well as the CTDEEP Stormwater General Permit. The conclusion of this analysis is that the proposed improvements will not increase the post-development peak runoff rates in comparison to existing pre-development rates at any of the critical design points analyzed and the quality of stormwater runoff leaving the Site will be improved prior to discharge from the Site.

Figure 1: Site Location Map

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Existing Drainage Conditions

Summary

Under existing conditions, the majority of runoff from the project area generally flows south to the wetland systems located off site. There are two (2) design points that the water flows towards: a watercourse to the south/southwest of the project area towards Buckley Hill Road, and to the east towards Stoud Brook.

The Site is generally at its highest elevation along a ridgeline in the north. The entirety of the Project area is comprised of previously timber harvested woodland. Terrain slopes in the Project area range from 2% to approximately 15%.

Hydrologic Information

For the existing conditions hydrologic analysis, the Site has been divided into five (5) watershed areas, which have been identified as areas within the project that discharge to various locations. Table 1 provides a summary of the existing conditions hydrologic data. Figure 2 illustrates the existing drainage patterns on the Site. All portions of the Project site have been considered in the hydrologic analysis discharging to the Design Point.

Drainage Area 1A - This ±3.8-acre area is located at the western side of the Site. Untreated stormwater in this area generally flows to the southwest along Pompeo Rd. Stormwater ultimately travels through a depressed area at the end of the road and to the wetland system adjacent to the roadway (Design Point 1).

Drainage Area 1B - This ±7.9 acre area is located at the central portion of the Site. Untreated stormwater in this area flows to the wetlands to the south/southwest (Design Point 1).

Drainage Area 1C- This ±4.5-acre area is located at the southeastern portion of the site. Stormwater in this area flows untreated to the wetlands to the southeast (Design Point 1).

Drainage Area 2A - This ±2.0-acre area is located at the northern portion of the site. Stormwater in this area flows untreated to the wetlands to the northeast (Design Point 2).

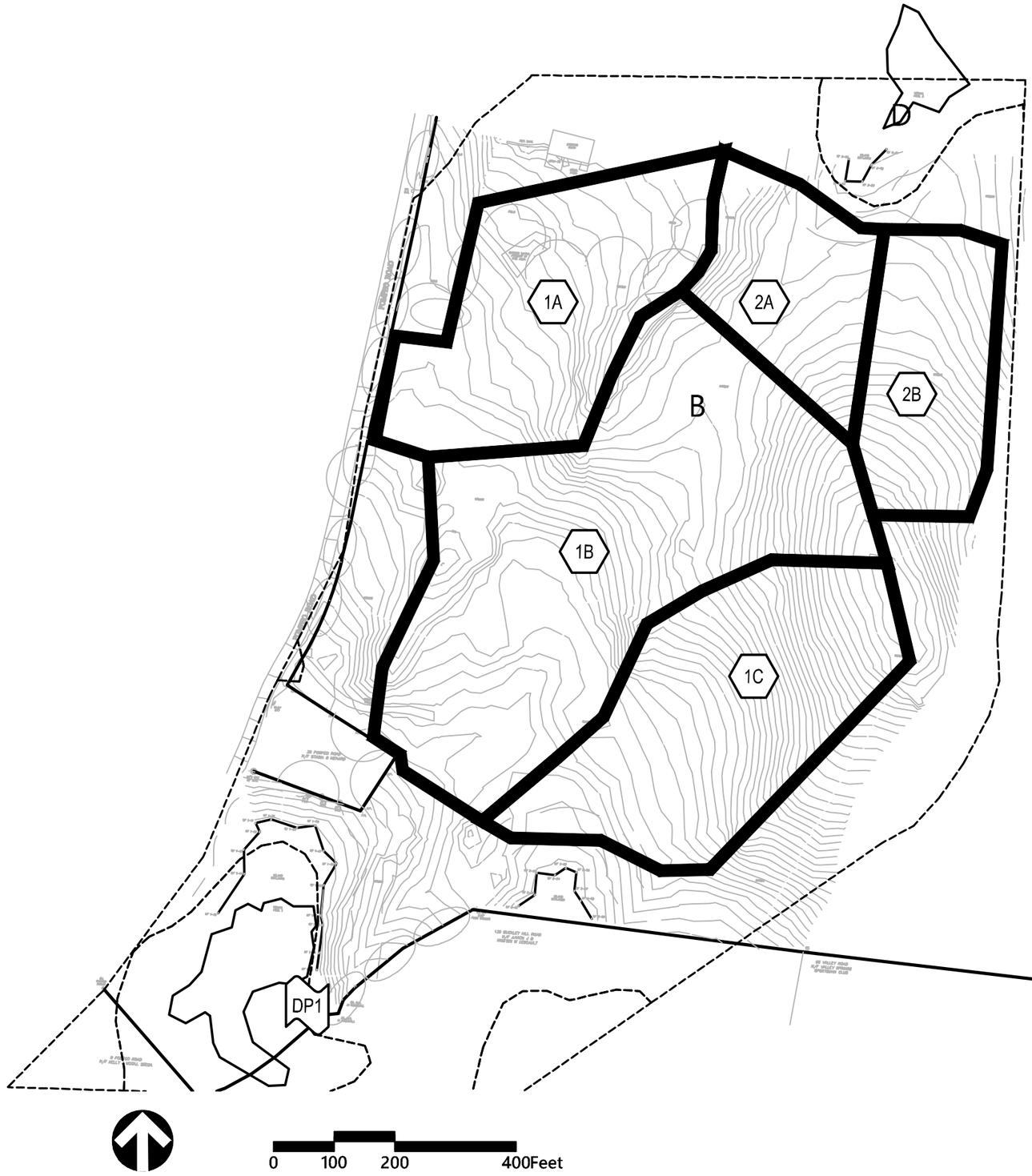
Drainage Area 2B - This ±2.2-acre area is located at the northeastern portion of the site. Stormwater in this area flows untreated to the east towards Stoud Brook (Design Point 2).

Table 1 summarizes the key hydrologic parameters for each drainage area used in the existing conditions analysis.

Table 1 Existing Conditions Hydrologic Data

Drainage Area	*Discharge Location*	*Area (acres)*	*Curve Number*	*Time of Concentration (min)*
1A	Near Pompeo Road	3.8	63	15
1B	Wetlands	7.9	60	15
1C	Wetlands	4.5	60	15
2A	Wetlands	2.0	60	15
2B	Stoud Brook	2.2	60	15

Figure 2: Existing Drainage Areas



Legend

SYMBOLS

- X — **DESIGN POINT**
- X — **DRAINAGE AREA DESIGNATION**
- XP — **PERMANENT STORMWATER BASIN**

LINETYPES

- **DRAINAGE AREA BOUNDARY**
- **HSG BOUNDARY**
- **WETLAND BOUNDARY**

Existing Drainage Conditions
CTEC Thompson Solar
Pompeo Road
Thompson, Connecticut

Figure 2

August 2024

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Proposed Drainage Conditions

Summary

The Site has been designed to maintain existing topography and mimic existing drainage patterns to the maximum extents feasible. In the majority of the on-Site areas, the Project proposes to install permanent turf-forming grasses to help stabilize the topsoil from erosion, sequester nutrients and pollutants, and lower runoff rates from the facility to the surrounding discharge points. Mature vegetation has been preserved to the maximum extents practicable and no tree clearing is proposed. As a result, the Project will have minimal impact to surrounding ecologically sensitive areas.

The only impervious surfaces proposed to be constructed are access roads and small concrete pads for utility equipment. Once operational, vehicular access to the Project will be limited to infrequent maintenance visits. The vegetated buffers will provide water quality treatment in all portions of the Site.

Hydrologic Information

Natural drainage patterns will be maintained throughout the Site so that the proposed hydrologic conditions will closely match existing conditions. The proposed conditions analysis utilizes the same overall watershed from existing conditions, divided into five (5) drainage areas. In accordance with the CTDEEP Stormwater General Permit, a reduction in Hydrologic Soil Group of half a step has been considered in the proposed conditions hydrologic model for developed portions of the site that are classified as Hydrologic Soil Group 'B'.

Drainage Area 1A - This ±3.8-acre area is located at the northwestern portion of the Site. Stormwater in this area will generally flow under the solar panels towards the edge of the road and to Stormwater Basin 1A (Design Point 1)

Drainage Area 1B - This ±7.9-acre area is located at the central portion of the Site. Stormwater in this area flows to a depression along the north side of the proposed

access road, through Basin 1B, and eventually discharges to the wetlands to the south. (Design Point 1).

Drainage Area 1C - This ±4.5-acre area is located at the southeastern portion of the Site. Stormwater in this area flows to the south to Stormwater Basin 1C which subsequently discharges to the wetlands to the south/southwest. (Design Point 1).

Drainage Area 2A - This ±2.0-acre is located at the northern portion of the site. Stormwater in this area flows to the southeast to Stormwater Basin 2A which discharges to the wetlands to the north.

Drainage Area 2B - This ±2.2-acre area is located at the northeastern portion of the site. Stormwater in this area flows to the north to Stormwater Basin 2B that eventually discharges towards Stoud Brook to the east.

Table 2 summarizes the key hydrologic parameters for each drainage area used in the proposed conditions analysis.

Table 2 Proposed Conditions Hydrologic Data

Drainage Area	*Discharge Location*	*Area (acres)*	*Curve Number*	*Time of Concentration (min)*
1A	Stormwater Basin 1A	3.8	74	15
1B	Stormwater Basin 1B	7.9	74	15
1C	Stormwater Basin 1C	4.5	71	15
2A	Stormwater Basin 2A	2.0	73	15
2B	Stormwater Basin 2B	2.2	74	15

Figure 3: Proposed Drainage Areas

Legend

SYMBOLS

- X — **DESIGN POINT**
- X — **DRAINAGE AREA DESIGNATION**
- XP — **PERMANENT STORMWATER BASIN**

LINETYPES

- **DRAINAGE AREA BOUNDARY**
- **HSG BOUNDARY**
- **WETLAND BOUNDARY**

Proposed Drainage Conditions
CTEC Thompson Solar
Pompeo Road
Thompson, Connecticut

Figure 3

August 2024

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Hydrologic Analysis

Hydrologic Analysis

The rainfall-runoff was evaluated for the 2-, 25-, 50-, and 100-year storm recurrence. Rainfall volumes used for this analysis were based on the National Weather Service NOAA Hydrometeorological Design Studies Center, Type D storm event for the Site. Rainfall depths were 3.33, 6.24, 7.07, 7.96 inches respectively. Runoff coefficients for the pre- and post- development conditions provided in the tables below were determined using NRCS Technical Release 55 (TR-55) methodology as provided in the HydroCAD reports found in Appendix D.

In accordance with the guidance of CTDEEP's Stormwater General Permit, the proposed conditions have been modelled with a loss of one-half class of Hydrologic Soil Group to conservatively estimate the effects of compaction during construction. The results of the pre- and post-development hydrologic models indicate that peak runoff rates from the Site will be reduced at all design points for all design storms with the implementation of the proposed permanent stormwater basins.

Table 3 presents a summary of the existing and proposed conditions peak discharge rates where stormwater basins are proposed.

Table 3 Peak Discharge Rates (cfs*)

Watershed	2-year	25-year	50-year	100-year
Design Point 1				
Existing	4.1	27.0	35.0	43.8
Proposed	0.0	10.2	21.6	37.1
Design Point 2				
Existing	1.0	6.8	8.9	11.2
Proposed	0.0	0.9	2.1	5.0

* Expressed in cubic feet per second

Floodplain Information / Analysis

No portions of the Site lie within any Federal Emergency Management Agency (FEMA) mapped Special Flood Hazard Areas as shown on the FEMA Flood Insurance Rate Map No. 09015C0132F, dated September 7, 2023 (included in Appendix A).

Water Quality Volume

Water Quality Volume (WQV) is based upon the first inch of rainfall, or a 1.3-inch rainfall event, over the acreage of proposed impervious surfaces for the development. Neither the solar panels nor the concrete equipment pads will be subject to vehicular access nor will they produce any pollutants to stormwater runoff. The gravel access paths will be trafficked infrequently and the grassy meadows downstream of the paths will provide residence time of stormwater runoff to remove the small amount of sediment from runoff. The ground coverage ratio of the solar panel array is less than 50% and therefore does not require water quality treatment per CTDEEP Stormwater General Permit.

Water Quality Flow

Water Quality Flow (WQF) is a rate of stormwater runoff based upon the first inch of rainfall, or a 1.3-inch rainfall event. This regulation is generally followed for "flow-through" treatment devices. As the proposed development does not incorporate any "flow-through" water quality treatment devices, WQF is not applicable to this project.

Appendix A:

FEMA Flood Insurance Rate Map

NOAA Rainfall Depth Estimates

CTDEEP Groundwater Classification Map

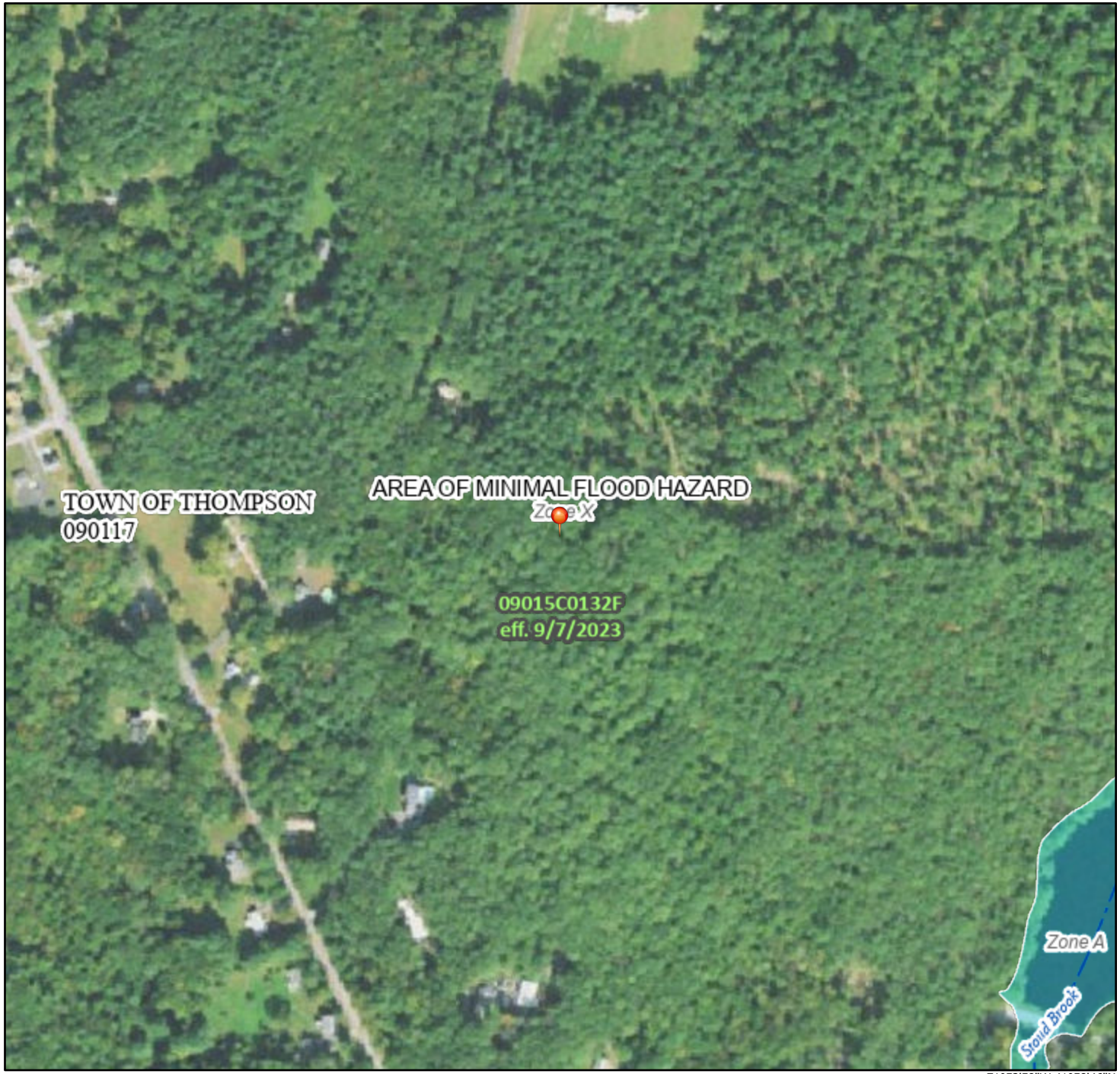
Aquifer Protection Area Map

FEMA Flood Insurance Rate Map

National Flood Hazard Layer FIRMette

FEMA

71°53'36"W 41°59'12"N



71°52'58"W 41°58'46"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/26/2024 at 7:55 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

NOAA Rainfall Depth Estimates

NOAA Atlas 14, Volume 10, Version 3
Location name: North Grosvenordale, Connecticut, USA*
Latitude: 41.9975°, Longitude: -71.8841°
Elevation: m/ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

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

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

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

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.330** (0.260-0.414)	**0.392** (0.309-0.493)	**0.494** (0.388-0.623)	**0.579** (0.452-0.734)	**0.696** (0.524-0.922)	**0.784** (0.578-1.06)	**0.875** (0.625-1.23)	**0.976** (0.660-1.41)	**1.12** (0.726-1.68)	**1.23** (0.781-1.89)
10-min	**0.467** (0.369-0.586)	**0.556** (0.438-0.698)	**0.701** (0.551-0.884)	**0.821** (0.641-1.04)	**0.986** (0.743-1.31)	**1.11** (0.818-1.50)	**1.24** (0.885-1.74)	**1.38** (0.935-2.00)	**1.58** (1.03-2.38)	**1.75** (1.11-2.68)
15-min	**0.550** (0.434-0.689)	**0.654** (0.515-0.821)	**0.824** (0.647-1.04)	**0.966** (0.753-1.22)	**1.16** (0.874-1.54)	**1.31** (0.963-1.77)	**1.46** (1.04-2.05)	**1.63** (1.10-2.35)	**1.86** (1.21-2.80)	**2.06** (1.30-3.15)
30-min	**0.765** (0.604-0.960)	**0.910** (0.717-1.14)	**1.15** (0.900-1.44)	**1.34** (1.05-1.70)	**1.62** (1.22-2.14)	**1.82** (1.34-2.47)	**2.03** (1.45-2.86)	**2.27** (1.53-3.28)	**2.60** (1.69-3.90)	**2.87** (1.81-4.39)
60-min	**0.981** (0.774-1.23)	**1.17** (0.919-1.46)	**1.47** (1.16-1.85)	**1.72** (1.34-2.18)	**2.07** (1.56-2.75)	**2.33** (1.72-3.16)	**2.61** (1.86-3.67)	**2.91** (1.97-4.20)	**3.33** (2.16-5.00)	**3.68** (2.33-5.63)
2-hr	**1.26** (1.00-1.57)	**1.49** (1.18-1.86)	**1.87** (1.48-2.34)	**2.19** (1.72-2.75)	**2.62** (1.99-3.46)	**2.94** (2.19-3.98)	**3.29** (2.38-4.64)	**3.70** (2.51-5.32)	**4.32** (2.81-6.44)	**4.85** (3.08-7.38)
3-hr	**1.45** (1.16-1.80)	**1.72** (1.37-2.14)	**2.16** (1.71-2.69)	**2.52** (1.99-3.16)	**3.02** (2.31-3.98)	**3.39** (2.54-4.58)	**3.79** (2.76-5.36)	**4.28** (2.91-6.14)	**5.04** (3.29-7.49)	**5.70** (3.63-8.64)
6-hr	**1.84** (1.48-2.27)	**2.20** (1.76-2.71)	**2.77** (2.22-3.44)	**3.25** (2.58-4.05)	**3.91** (3.01-5.13)	**4.40** (3.31-5.92)	**4.93** (3.62-6.94)	**5.59** (3.81-7.95)	**6.62** (4.33-9.77)	**7.52** (4.80-11.3)
12-hr	**2.30** (1.86-2.82)	**2.78** (2.24-3.40)	**3.55** (2.86-4.36)	**4.19** (3.35-5.18)	**5.07** (3.92-6.61)	**5.72** (4.34-7.64)	**6.43** (4.74-8.98)	**7.30** (5.00-10.3)	**8.64** (5.67-12.7)	**9.79** (6.26-14.6)
24-hr	**2.73** (2.22-3.32)	**3.33** (2.71-4.05)	**4.31** (3.49-5.26)	**5.12** (4.12-6.29)	**6.24** (4.86-8.07)	**7.07** (5.38-9.37)	**7.96** (5.89-11.0)	**9.06** (6.23-12.7)	**10.7** (7.06-15.6)	**12.2** (7.80-18.1)
2-day	**3.08** (2.53-3.72)	**3.79** (3.11-4.58)	**4.94** (4.04-6.00)	**5.90** (4.79-7.20)	**7.22** (5.66-9.29)	**8.19** (6.28-10.8)	**9.26** (6.89-12.8)	**10.6** (7.29-14.7)	**12.6** (8.30-18.2)	**14.3** (9.21-21.1)
3-day	**3.34** (2.76-4.02)	**4.11** (3.38-4.94)	**5.36** (4.40-6.48)	**6.40** (5.21-7.78)	**7.83** (6.16-10.0)	**8.88** (6.84-11.7)	**10.0** (7.50-13.8)	**11.5** (7.93-15.9)	**13.6** (9.04-19.7)	**15.5** (10.0-22.8)
4-day	**3.58** (2.96-4.29)	**4.39** (3.63-5.27)	**5.72** (4.70-6.89)	**6.82** (5.57-8.26)	**8.33** (6.57-10.6)	**9.45** (7.29-12.4)	**10.7** (7.99-14.6)	**12.2** (8.44-16.9)	**14.5** (9.62-20.8)	**16.5** (10.7-24.2)
7-day	**4.24** (3.53-5.06)	**5.15** (4.28-6.15)	**6.63** (5.49-7.95)	**7.86** (6.46-9.48)	**9.56** (7.58-12.1)	**10.8** (8.37-14.1)	**12.2** (9.14-16.6)	**13.8** (9.64-19.0)	**16.4** (10.9-23.4)	**18.6** (12.1-27.1)
10-day	**4.92** (4.11-5.84)	**5.88** (4.90-6.99)	**7.45** (6.18-8.89)	**8.75** (7.22-10.5)	**10.5** (8.38-13.3)	**11.9** (9.21-15.4)	**13.3** (9.99-18.0)	**15.0** (10.5-20.6)	**17.7** (11.8-25.1)	**19.9** (12.9-28.9)
20-day	**7.04** (5.93-8.31)	**8.07** (6.78-9.53)	**9.74** (8.15-11.5)	**11.1** (9.25-13.3)	**13.0** (10.4-16.2)	**14.5** (11.3-18.4)	**16.0** (11.9-21.1)	**17.6** (12.4-23.9)	**19.9** (13.4-28.1)	**21.8** (14.2-31.4)
30-day	**8.83** (7.46-10.4)	**9.88** (8.34-11.6)	**11.6** (9.74-13.7)	**13.0** (10.9-15.4)	**15.0** (12.0-18.5)	**16.5** (12.8-20.7)	**18.0** (13.4-23.4)	**19.5** (13.8-26.3)	**21.5** (14.5-30.1)	**23.0** (15.0-33.0)
45-day	**11.0** (9.38-12.9)	**12.1** (10.3-14.2)	**13.9** (11.7-16.3)	**15.3** (12.8-18.1)	**17.3** (13.9-21.2)	**18.9** (14.7-23.6)	**20.4** (15.2-26.2)	**21.8** (15.5-29.3)	**23.5** (15.9-32.8)	**24.7** (16.1-35.3)
60-day	**12.9** (11.0-15.0)	**14.0** (11.9-16.3)	**15.8** (13.4-18.5)	**17.3** (14.5-20.3)	**19.3** (15.5-23.5)	**21.0** (16.3-26.0)	**22.5** (16.7-28.7)	**23.8** (16.9-31.8)	**25.3** (17.1-35.2)	**26.3** (17.2-37.4)

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

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

Please refer to NOAA Atlas 14 document for more information.

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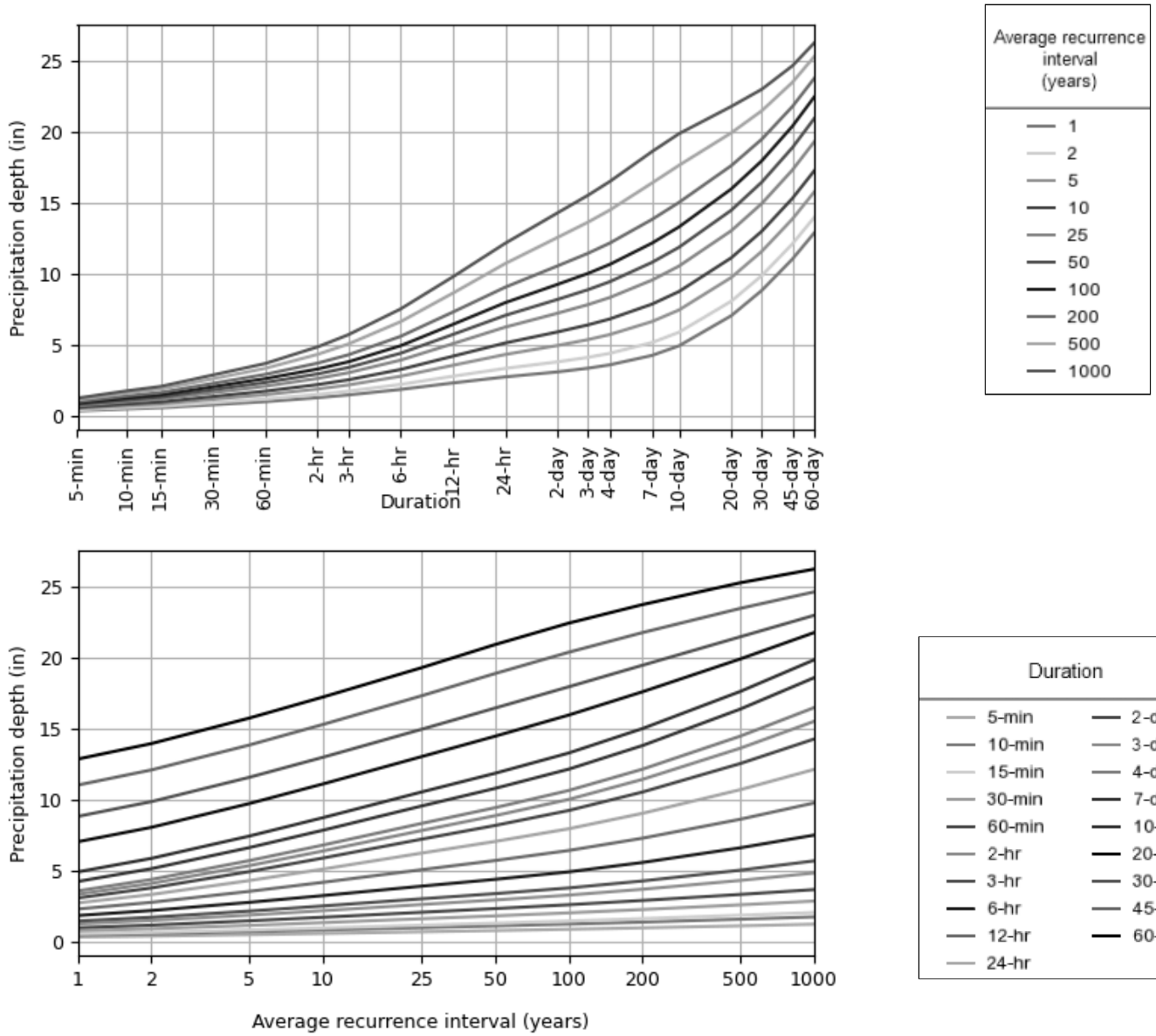
PF graphical

PDS-based depth-duration-frequency (DDF) curves
Latitude: 41.9975°, Longitude: -71.8841°



NOAA Atlas 14, Volume 10, Version 3

Created (GMT): Thu Mar 14 16:23:48 2024

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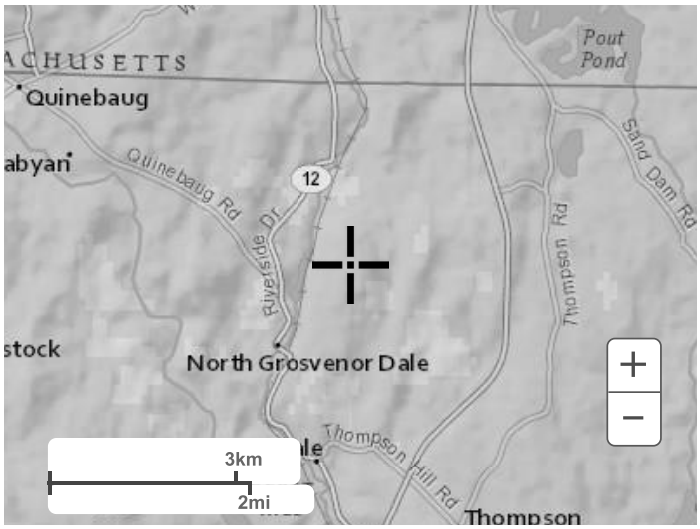
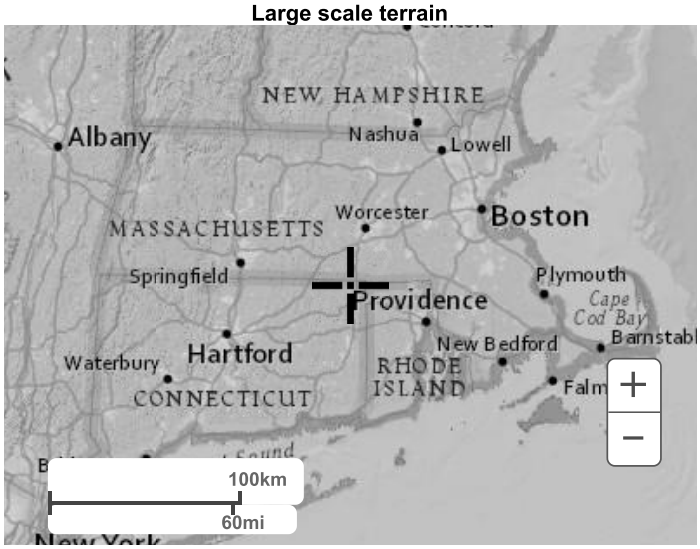
Maps & aerials

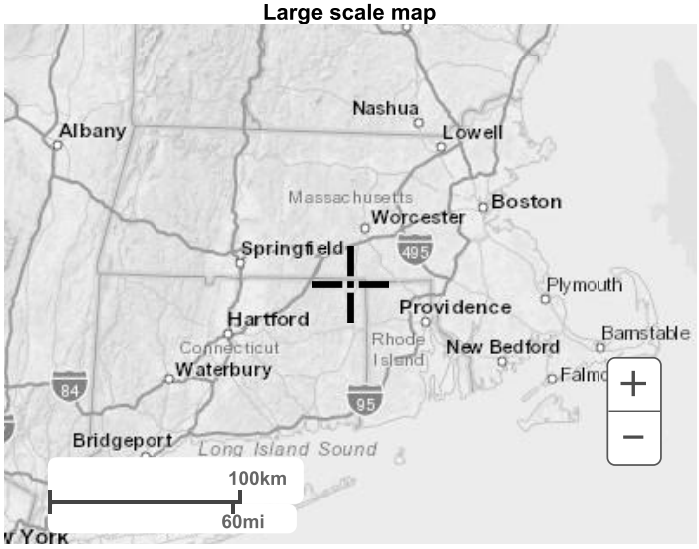
Small scale terrain



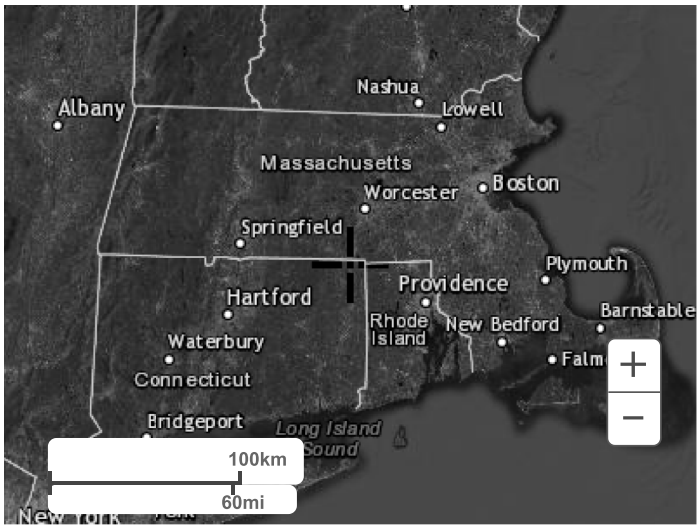
Large scale terrain



Large scale map



Large scale aerial



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US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

CTDEEP Groundwater Classification Map

WATER QUALITY CLASSIFICATIONS
THOMPSON, CT

SURFACE WATER QUALITY CLASSES

A	A
AA	AA
B, B*	B, B*
SA	SA
SB	SB

NOTES:
Surface Water Classifications beginning with S refer to Coastal and Marine Surface Water.
B* is a subset of Class B where no direct wastewater discharges are allowed other than those consistent with Class AA, A and SA surface waters.

GROUND WATER QUALITY CLASSES

GA (white background)
GAA, GAAs
GA, GAA may not meet current standards
GB
GC
Area of Contribution to Public Supply Well

Final Aquifer Protection Area (Level A)
Major Basin Boundary

EXPLANATION

WATER QUALITY CLASSIFICATIONS (WQC) MAPS are one of the elements of the Water Quality Standards (WQS) for the State of Connecticut. The WQS are a part of Connecticut's clean water program and are essential for protecting and improving water quality. The WQS follow the principles of Connecticut's Clean Water Act which is in Chapter 446K of the Connecticut General Statutes. The WQS provide policy guidance in many areas, for example decisions on acceptable discharges to water resources, siting of landfills, remediation or prioritization of municipal sewerage system projects. The first two elements of the WQS are the Standards, which set an overall policy for management of water quality, and the Criteria, which are descriptive and numerical standards that describe the allowable parameters and goals for various water quality classifications. A discussion of these two elements is found in the Water Quality Standards document available on the CT DEEP website. The third element is the Classifications and the Water Quality Classification Maps which show the Classification assigned to each surface and groundwater resource throughout the State. The WQS are adopted using a public participation process. The WQC maps are also adopted using a public participation process but go through hearings separately from the Standards and Criteria hearings. Revision and adoption of the WQC data occurs in accordance with the public participation procedures contained in Section 22a-426 of the Connecticut General Statutes. Ground WQC is subject to Connecticut regulation and changes must be reviewed and adopted. All changes to the Surface WQC require an adoption process which is subject to federal review and approval in addition to CT regulation. The adoption dates for the WQC by major drainage basin are: Housatonic River, Hudson River and Southwest Coastal Basins - March 1999; Connecticut River and South Central Coastal Basins - February 1993; Thames River, Pawcatuck River and Southeast Coastal Basins - December 1986. Surface Water Classifications do not change after the adoption date until the next major revision. Ground Water Classifications may change after the adoption date under specific circumstances. The map may have more than one WQC adoption date because a town may be in more than one major drainage basin.

SURFACE WATERS in Connecticut are divided into freshwater classified as AA, A, B or B* and saline waters classified as SA or SB. Class AA designated uses are existing or proposed drinking water supplies; habitat for fish and other aquatic life and wildlife; recreation; and water supply for industry and agriculture. Class A designated uses are habitat for fish and other aquatic life and wildlife; potential drinking water supplies; recreation; navigation; and water supply for industry and agriculture. Class SA designated uses are habitat for marine fish, other aquatic life and wildlife; shellfish harvesting for direct human consumption; recreation; industrial water supply; and navigation. Class B designated uses are habitat for fish and aquatic life and wildlife; recreation; navigation; and industrial and agricultural water supply. Class B*, applicable to Candlewood Lake, is a subset of Class B and is identical in all ways to the designated uses, criteria and standards for Class B waters except for the restriction on direct discharges. Class SB designated uses are habitat for marine fish and aquatic life and wildlife; commercial shellfish harvesting; recreation; industrial water supply; and navigation.

Surface waters which are not specifically classified shall be considered as Class A or Class AA. Surface waters in GA ground water areas are assumed Class A or Class SA unless otherwise indicated. Surface waters in GAA ground water areas are assumed Class AA unless otherwise indicated.

On the WQC map a surface water quality goal of A is represented by blue colored water bodies. Surface water quality goal of AA is represented by purple colored water bodies. Surface water quality goal of B is represented by gold colored water bodies.

GROUND WATERS in Connecticut are classified as GAA, GA, GB and GC. Class GAA designated uses are existing or potential public supply of water suitable for drinking without treatment and baseflow for hydraulically-connected surface water bodies. The Class GAAs is a subclass of GAA for ground water that is tributary to a public water supply reservoir. The area of contribution to a public water supply well is represented by a 500-foot radius around the well and is assumed to be Class GAA unless otherwise classified. Class GA designated uses are existing private and potential public or private supplies of water suitable for drinking without treatment and baseflow for hydraulically-connected surface water bodies. All ground waters not specifically classified are considered as Class GA. Class GB designated uses are industrial process water and cooling waters and baseflow for hydraulically-connected water bodies and is presumed not suitable for human consumption without treatment. Class GC designated uses are assimilation of discharges authorized by the Commissioner pursuant to Section 22a-430 of the General Statutes.

On the WQC map GA is represented by white colored land areas. Class GAA and class GAAs are represented by blue colored land areas. The area of contribution to a public water supply well is shown by a blue cross-hatch overprint. A notation of GAA followed by a state abbreviation indicates a watershed that contributes to the public water supply for a state other than Connecticut. Class GA or Class GAA areas that currently may not be meeting the GA or GAA standards are represented on the WQC maps by tan colored land areas. Class GB is represented by green colored land areas. Class GC is represented by magenta colored land areas.

FINAL AQUIFER PROTECTION AREAS (Level A) are included on the WQC maps for informational purposes. These areas are anticipated to be reclassified GAA during the next major basin updates, subject to public participation. The Aquifer Protection Program helps protect Connecticut's public drinking water resources by delineating aquifer protection areas (also called wellhead protection areas) for public supply wells and establishing land use regulations within these areas. These areas represent the land area contributing ground water to active public water supply wells or well fields that serve more than 1000 people and are set in sand and gravel aquifers (stratified drift deposits).

DATA SOURCES

WATER QUALITY CLASSIFICATIONS DATA – Water quality classifications shown on this map are based on information from the following digital spatial datasets that are typically shown together – Ground Water Quality Classifications Poly, Surface Water Quality Classifications Line, and Surface Water Quality Classifications Poly. The map legend above reflects the content of these three data sources. These WQC data were initially compiled on 1:24,000-scale 7.5 minute USGS topographic quadrangle maps and later digitized at 1:24,000 scale. For example, the Surface Water Quality Classifications Line and Surface Water Quality Classifications Poly digital data assigns surface water quality classifications to water bodies such as rivers, streams, reservoirs, lakes, ponds and coves found in 1:24,000-scale hydrography data available from CT DEEP. The hydrography may not include all the waterbodies in Connecticut. The Ground Water Quality Classifications Poly data assigns ground water quality classifications, at 1:24,000 scale, to the remaining land areas in Connecticut.

AQUIFER PROTECTION AREA DATA – Aquifer Protection Areas shown on this map are from the Aquifer Protection Area digital dataset which contains polygon data intended to be used at 1:24,000 scale. The dataset contains regulated areas classified as Level A Aquifer Protection Area (Final) and Level B Aquifer Protection Area (Preliminary). The Level B areas are not shown on the WQC maps. The data was collected from 1991 to the present and is actively updated as Final area mapping replaces earlier Preliminary areas. The Aquifer Protection Areas are delineated by the individual water companies owning the well fields and submitted to the CT DEEP for approval. Preliminary mapping provides a general estimate of the area contributing ground water to the well field. Final mapping is based on extensive, site-specific, detailed modeling of the ground water flow system. CT DEEP may adjust Final area boundaries to be consistent with 1:24,000 scale topography and base map data where appropriate during the approval process.

MAJOR DRAINAGE BASIN DATA – Major drainage basins shown on this map are from Major Basin Line data developed by CT DEEP and intended to be used at 1:24,000 scale.

BASE MAP DATA - Based on data originally from 1:24,000-scale USGS 7.5 minute topographic quadrangle maps published between 1969 and 1992. It includes political boundaries, railroads, airports, hydrography, geographic names and geographic places. Streets and street names are from Tele Atlas® copyrighted data. Base map information is neither current nor complete.

RELATED INFORMATION
This map is intended to be printed at its original dimensions in order to maintain the 1:24,000 scale (1 inch = 2000 feet).
WATER QUALITY STANDARDS - Go to the CT DEEP website for a summary and the full text of the "Water Quality Standards" and for other information on water quality.
AQUIFER PROTECTION AREAS - Go to the CT DEEP website for more information.

ADOPTED DATES

Water Quality Standards
February 25, 2011

Thames River, Pawcatuck River and Southeast Coastal Basins: December 1986

Connecticut River and South Central Coastal Basins: February 1993

Housatonic River, Hudson River and Southwest Coastal Basins: March 1999

MAJOR BASINS

1 Pawcatuck
2 Southeast Coast
3 Thames
4 Connecticut
5 South Central Coast
6 Housatonic
7 Southwest Coast
8 Hudson

MAP LOCATION

State Plane Coordinate System of 1983, Zone 3526
Lambert Conformal Conic Projection
North American Datum of 1983

SCALE 1:24,000 (1 inch = 2000 feet) when map is printed at original size

STATE OF CONNECTICUT
DEPARTMENT OF
ENERGY & ENVIRONMENTAL PROTECTION
79 Elm Street
Hartford, CT 06106-5127

Map created by CT DEEP
October 2018

Map is not colorfast
Protect from light and moisture

Aquifer Protection Area Mapping

AQUIFER PROTECTION AREAS

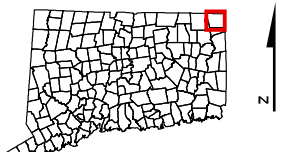
Thompson, CT

December 23, 2021

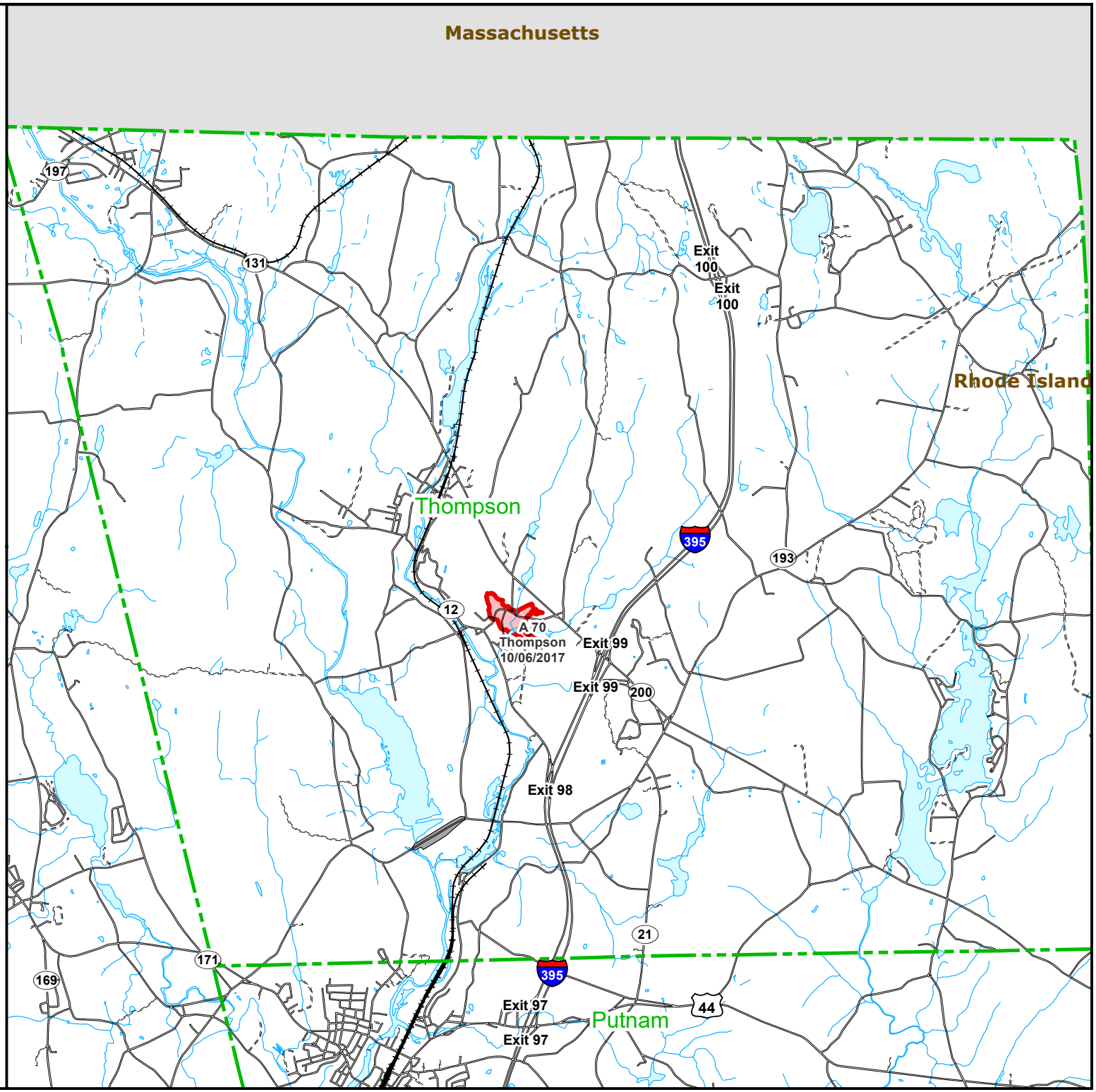
- Level A APA (Final Adopted)
- Level A APA (Final)
- Level B APA (Preliminary)
- Town Boundary

NOTE: The Aquifer Protection Areas were delineated through Connecitcut's Level A and Level B Mapping Processes. Aquifer Protection Areas are delineated for active public water supply wells in stratified drift that serve more than 1000 people, in accordance with Sections 22a-354c and 22a-354z of the Connecticut General Statutes. Level B Mapping delineates a preliminary aquifer protection area, providing an estimate of the land area from which the well draws its water. Level A Mapping delineates the final Aquifer Protection Area, which becomes the regulatory boundary for land use controls designed to protect the well from contamination. As Level A Mapping is completed for each well field and approved by DEEP, it replaces the Level B Mapping. Final Adopted Level A Areas are those where towns have land use regulations for them. Masschusetts and Rhode Island Wellhead Protection Areas may be shown for informational purposes.

QUESTIONS:
Bureau of Water Protection and Land Reuse
Planning and Standards Division
Phone: (860) 424-3020
www.ct.gov/deep/aquiferprotection



STATE OF CONNECTICUT
DEPARTMENT OF
ENERGY & ENVIRONMENTAL PROTECTION
79 Elm Street
Hartford, CT 06106-5127

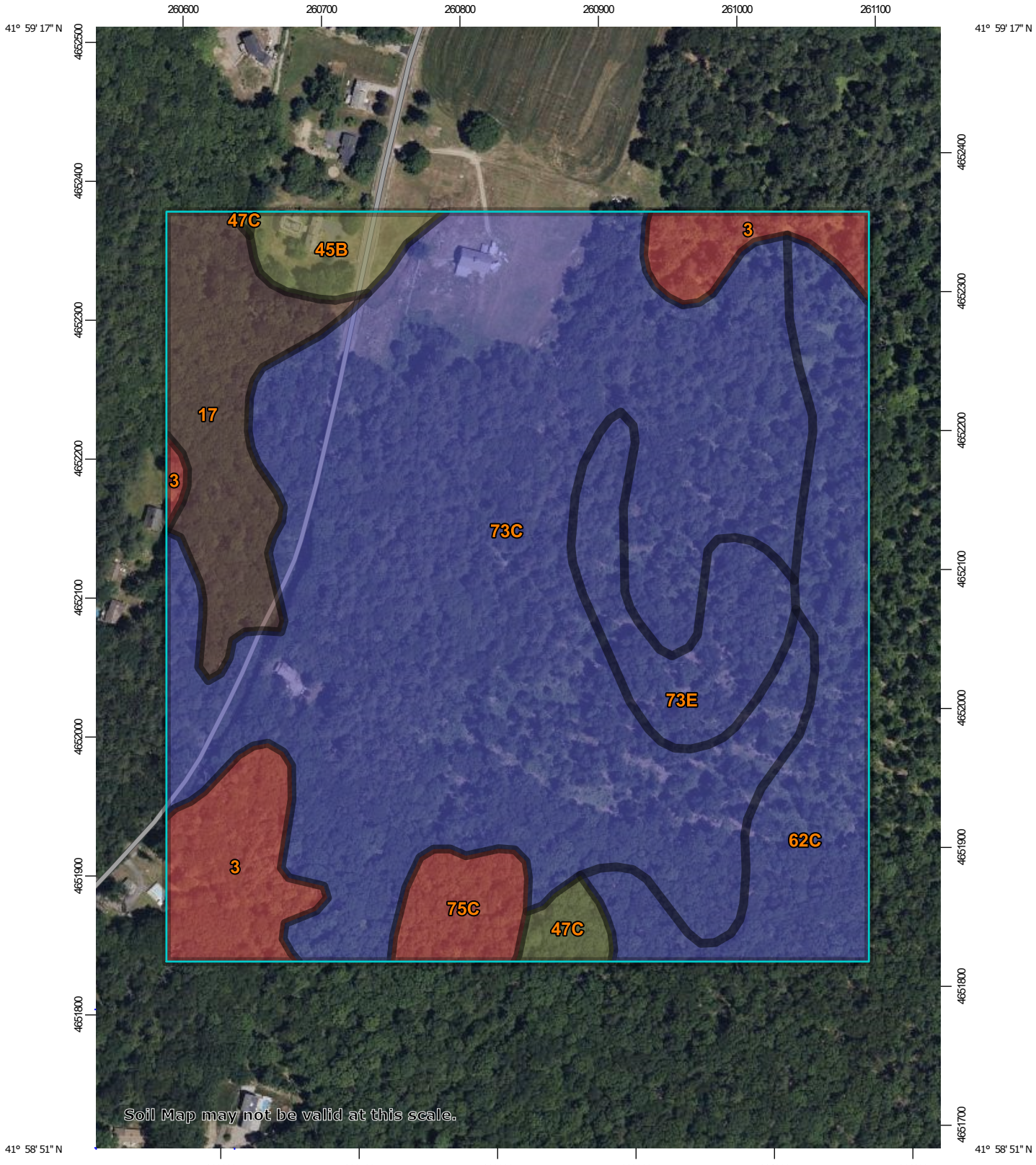


Appendix B:

NRCS Soil Survey Information

NRCS Soil Survey Information

Hydrologic Soil Group—State of Connecticut, Eastern Part



Map Scale: 1:3,930 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 150 300 600 900

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

- 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.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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, Eastern Part
Survey Area Data: Version 1, Sep 15, 2023

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

Date(s) aerial images were photographed: Jun 14, 2022—Jul 1, 2022

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	4.9	7.3%
17	Timakwa and Natchaug soils, 0 to 2 percent slopes	B/D	5.4	8.0%
45B	Woodbridge fine sandy loam, 3 to 8 percent slopes	C/D	1.6	2.3%
47C	Woodbridge fine sandy loam, 3 to 15 percent slopes, extremely stony	C/D	0.8	1.2%
62C	Canton and Charlton fine sandy loams, 3 to 15 percent slopes, extremely stony	B	8.4	12.4%
73C	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	B	40.9	60.3%
73E	Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky	B	4.1	6.0%
75C	Hollis-Chatfield-Rock outcrop complex, 3 to 15 percent slopes	D	1.7	2.5%
Totals for Area of Interest			**67.9**	**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

Appendix C:

Erosion and Sedimentation Control Checklist
Long Term Stormwater Operation and Maintenance Measures

Erosion and Sedimentation Control Checklist

CTEC Thompson Solar – Thompson, CT – Pompeo Road

Best Management Practices – Maintenance/ Evaluation Checklist

Construction Practices

Best Management Practice	Inspection Frequency	Date Inspected	Inspector	Minimum Maintenance and Key Items to Check	Cleaning/Repair Needed ☐yes ☐no (List Items)	Date of Cleaning/Repair	Performed by
Silt Fencing	Once per week or after a 0.5″ or greater storm event						
Compost Filter Sock	Once per week or after a 0.5″ or greater storm event						
Straw Wattles	Once per week or after a 0.5″ or greater storm event						
Stabilized Construction Exit	Once per week or after a 0.5″ or greater storm event						
Temporary Sediment Trap & Diversion Swales	Once per week or after a 0.5″ or greater storm event						
Vegetated Slope Stabilization	Once per week or after a 0.5″ or greater storm event						
Energy Dissipators	Once per week or after a 0.5″ or greater storm event						

Stormwater Control Manager _____

Long Term Stormwater Operation and Maintenance Measures

CTEC Thompson Solar – Thompson, CT – Pompeo Road

Best Management Practices – Maintenance/ Evaluation Checklist

Long Term Practices

Best Management Practice	Inspection Frequency	Date Inspected	Inspector	Minimum Maintenance and Key Items to Check	Cleaning/Repair Needed ☐yes ☐no (List Items)	Date of Cleaning/Repair	Performed by
Trash/Litter	Routinely pick up and remove litter from entire property as required.						
Stormwater Basin	Inspect bi-annually. Check stabilized riprap spillway, side slopes, and clean accumulated sediment if infiltration is impeded.						
Vegetated Areas	Inspect bi-annually. Replant bare areas upon identification.						

Stormwater Control Manager _____

Project Information

Site

Project Name:	C-TEC Solar Thompson
Address or Locus:	77 Pompeo Road
City, State & Zip:	Thompson, CT 06255

Developer

Client Name:	C-TEC Solar, LLC
Client Address:	1 Griffin Rd S, #200
Client City, State & Zip:	Bloomfield, CT 06002
Client Telephone No.:	(888) 527-6527
Client Cell Phone:	
Client E-Mail:	

Site Supervisor

Site Manager Name:	To be determined
Site Manager Address:	
Site Manager City, State & Zip:	
Site Manager Telephone No.:	
Site Manager Cell Phone:	
Site Manager E-Mail:	

Appendix D:

Sediment Trap Sizing
HydroCAD: Existing Conditions
HydroCAD: Proposed Conditions

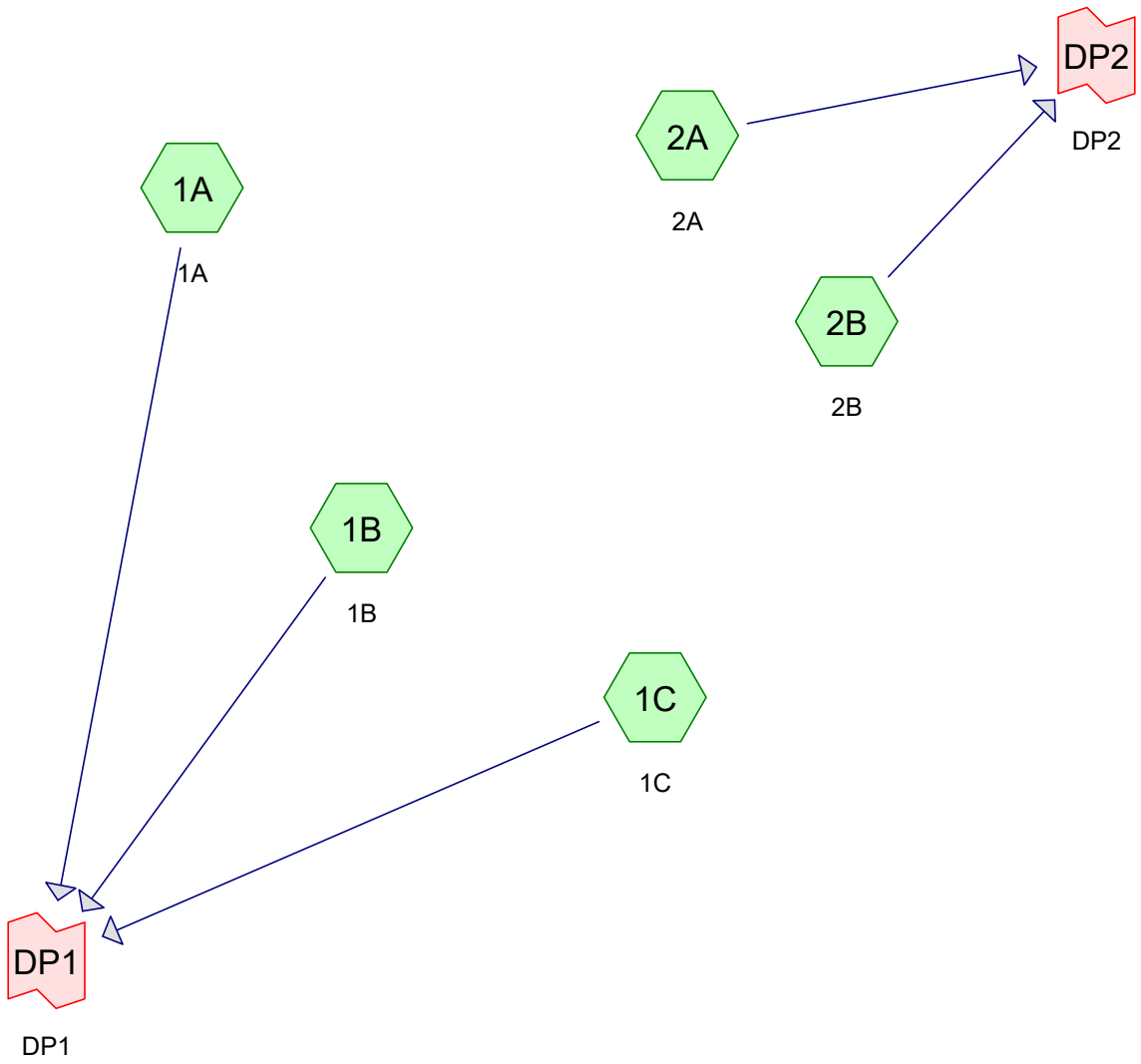
Sediment Trap Sizing

Sediment Trap Sizing
CTEC Pompeo - Thompson
August 2024

TST #	Tributary Acreage, ac	*(134 cy / acre)** Volume Required Below Top of Spillway, cf	Volume Provided in Permanent Basin Below Top of Spillway, cf
1A	3.8	13,748	31,799
1B	8.0	28,944	48,569
1C	4.7	17,005	27,966
2A	2.0	7,236	21,388
2B	2.2	7,960	23,479

* Per 2024 Connecticut Guidelines for Soil Erosion and Sediment Control

HydroCAD Analysis: Existing Conditions



Subcat Reach Pond Link

Routing Diagram for EX Drainage NEW
Prepared by VHB, Inc, Printed 8/26/2024

Project Notes

Defined 4 rainfall events from CT - Thompson IDF
Copied 4 events from CT - Thompson 24-hr S1 storm

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-yr	CT - Thompson 24-hr S1	2-yr	Default	24.00	1	3.33	2
2	25-yr	CT - Thompson 24-hr S1	25-yr	Default	24.00	1	6.24	2
3	50-yr	CT - Thompson 24-hr S1	50-yr	Default	24.00	1	7.07	2
4	100-yr	CT - Thompson 24-hr S1	100-yr	Default	24.00	1	7.96	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.230	69	50-75% Grass cover, Fair, HSG B (1A)
19.180	60	Woods, Fair, HSG B (1A, 1B, 1C, 2A, 2B)
20.410	**61**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
20.410	HSG B	1A, 1B, 1C, 2A, 2B
0.000	HSG C	
0.000	HSG D	
0.000	Other	
20.410		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	1.230	0.000	0.000	0.000	1.230	50-75% Grass cover, Fair	1A
0.000	19.180	0.000	0.000	0.000	19.180	Woods, Fair	1A, 1B, 1C, 2A, 2B
0.000	**20.410**	**0.000**	**0.000**	**0.000**	**20.410**	**TOTAL AREA**	

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

Subcatchment1A: 1A Runoff Area=3.810 ac 0.00% Impervious Runoff Depth>0.48"
Tc=15.0 min CN=63 Runoff=1.33 cfs 0.152 af

Subcatchment1B: 1B Runoff Area=7.890 ac 0.00% Impervious Runoff Depth>0.37"
Tc=15.0 min CN=60 Runoff=1.77 cfs 0.246 af

Subcatchment1C: 1C Runoff Area=4.470 ac 0.00% Impervious Runoff Depth>0.37"
Tc=15.0 min CN=60 Runoff=1.00 cfs 0.139 af

Subcatchment2A: 2A Runoff Area=2.020 ac 0.00% Impervious Runoff Depth>0.37"
Tc=15.0 min CN=60 Runoff=0.45 cfs 0.063 af

Subcatchment2B: 2B Runoff Area=2.220 ac 0.00% Impervious Runoff Depth>0.37"
Tc=15.0 min CN=60 Runoff=0.50 cfs 0.069 af

Link DP1: DP1 Inflow=4.09 cfs 0.537 af
Primary=4.09 cfs 0.537 af

Link DP2: DP2 Inflow=0.95 cfs 0.132 af
Primary=0.95 cfs 0.132 af

Total Runoff Area = 20.410 ac Runoff Volume = 0.669 af Average Runoff Depth = 0.39"
100.00% Pervious = 20.410 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 1A: 1A

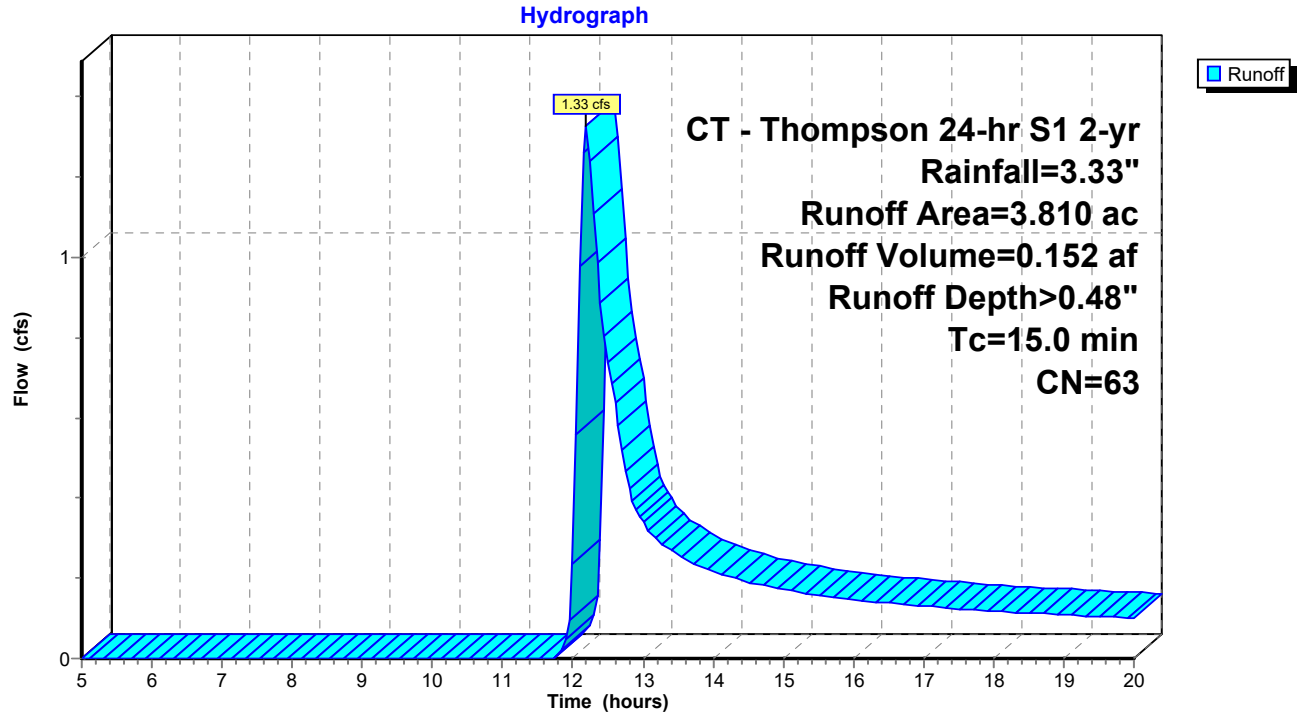
Runoff = 1.33 cfs @ 12.20 hrs, Volume= 0.152 af, Depth> 0.48"
Routed to Link DP1 : DP1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 2-yr Rainfall=3.33"

Area (ac)	CN	Description
1.230	69	50-75% Grass cover, Fair, HSG B
2.580	60	Woods, Fair, HSG B
3.810	63	Weighted Average
3.810		100.00% Pervious Area

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

Subcatchment 1A: 1A



Summary for Subcatchment 1B: 1B

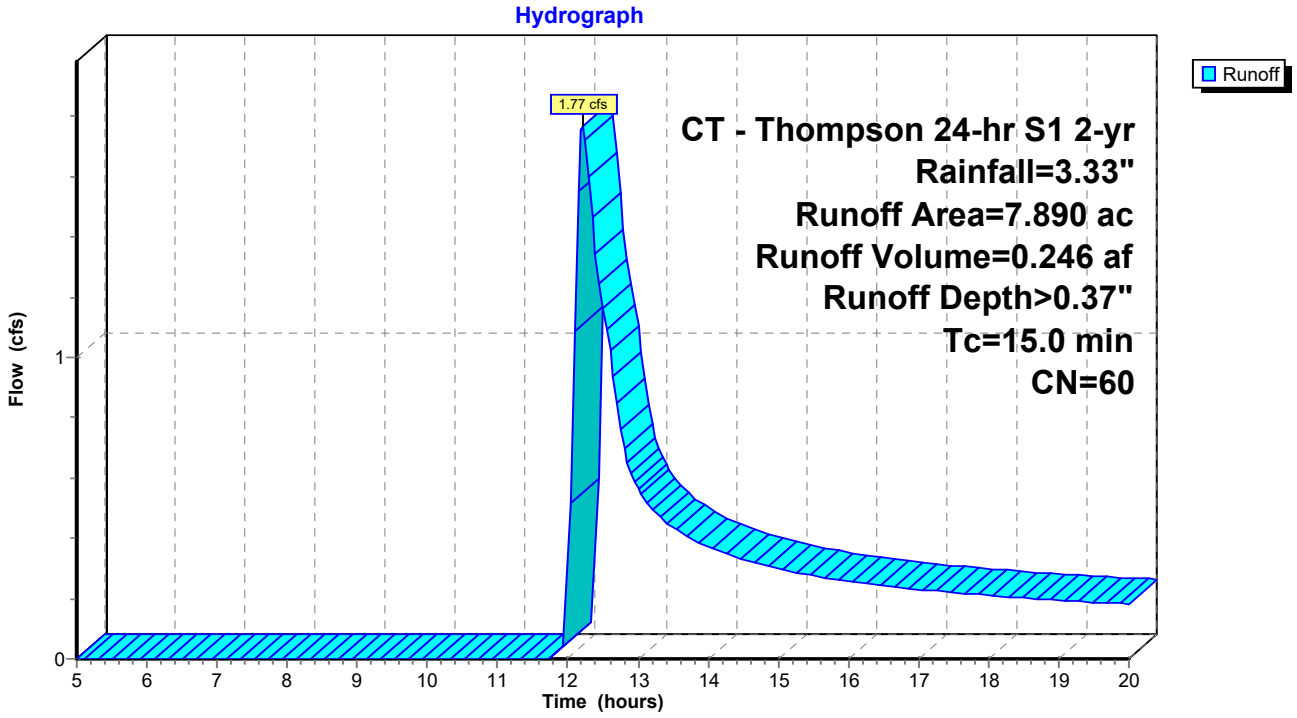
Runoff = 1.77 cfs @ 12.22 hrs, Volume= 0.246 af, Depth> 0.37"
Routed to Link DP1 : DP1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 2-yr Rainfall=3.33"

Area (ac)	CN	Description
7.890	60	Woods, Fair, HSG B
7.890		100.00% Pervious Area

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

Subcatchment 1B: 1B



Summary for Subcatchment 1C: 1C

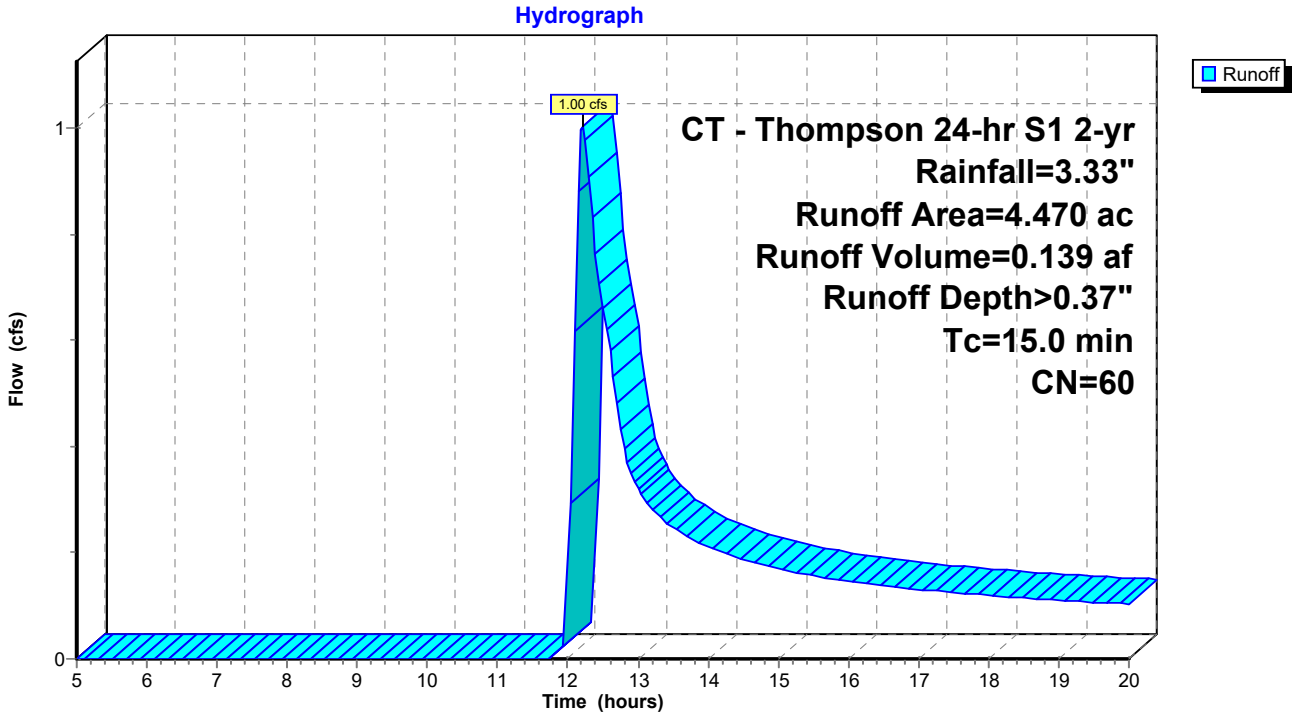
Runoff = 1.00 cfs @ 12.22 hrs, Volume= 0.139 af, Depth> 0.37"
Routed to Link DP1 : DP1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 2-yr Rainfall=3.33"

Area (ac)	CN	Description
4.470	60	Woods, Fair, HSG B
4.470		100.00% Pervious Area

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

Subcatchment 1C: 1C



Summary for Subcatchment 2A: 2A

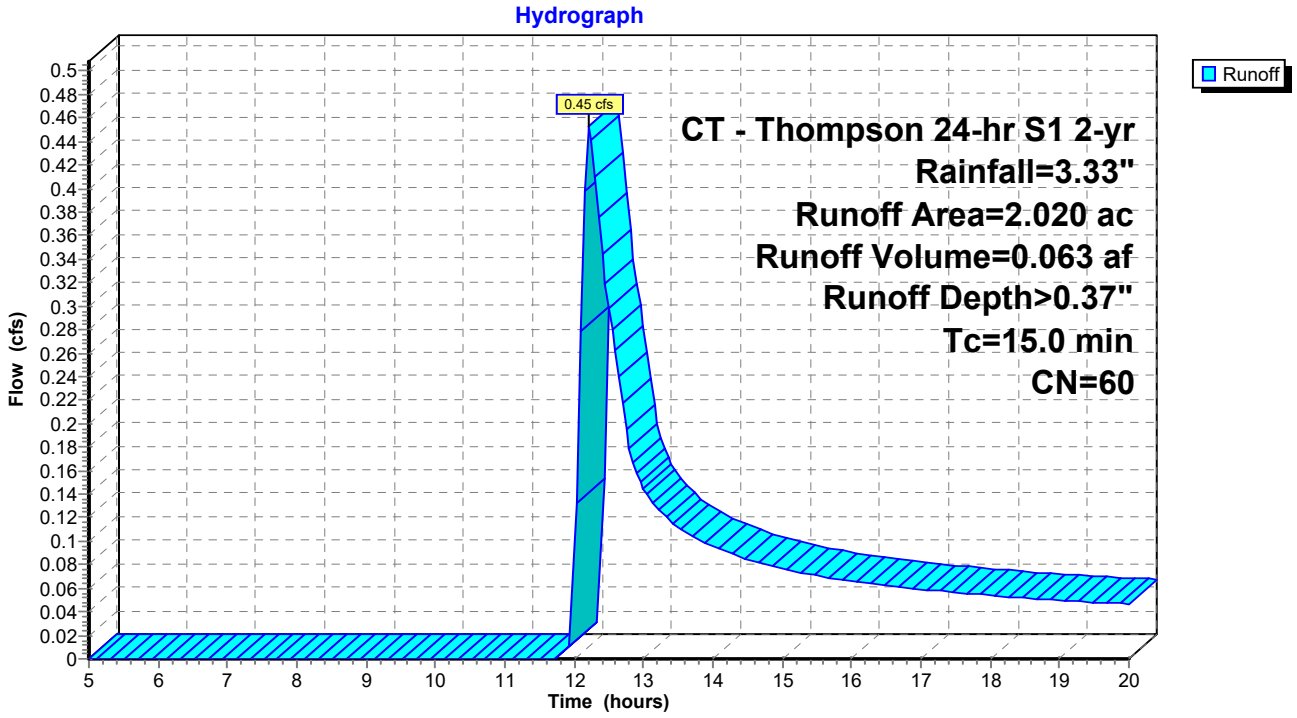
Runoff = 0.45 cfs @ 12.22 hrs, Volume= 0.063 af, Depth> 0.37"
Routed to Link DP2 : DP2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 2-yr Rainfall=3.33"

Area (ac)	CN	Description
2.020	60	Woods, Fair, HSG B
2.020		100.00% Pervious Area

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

Subcatchment 2A: 2A



Summary for Subcatchment 2B: 2B

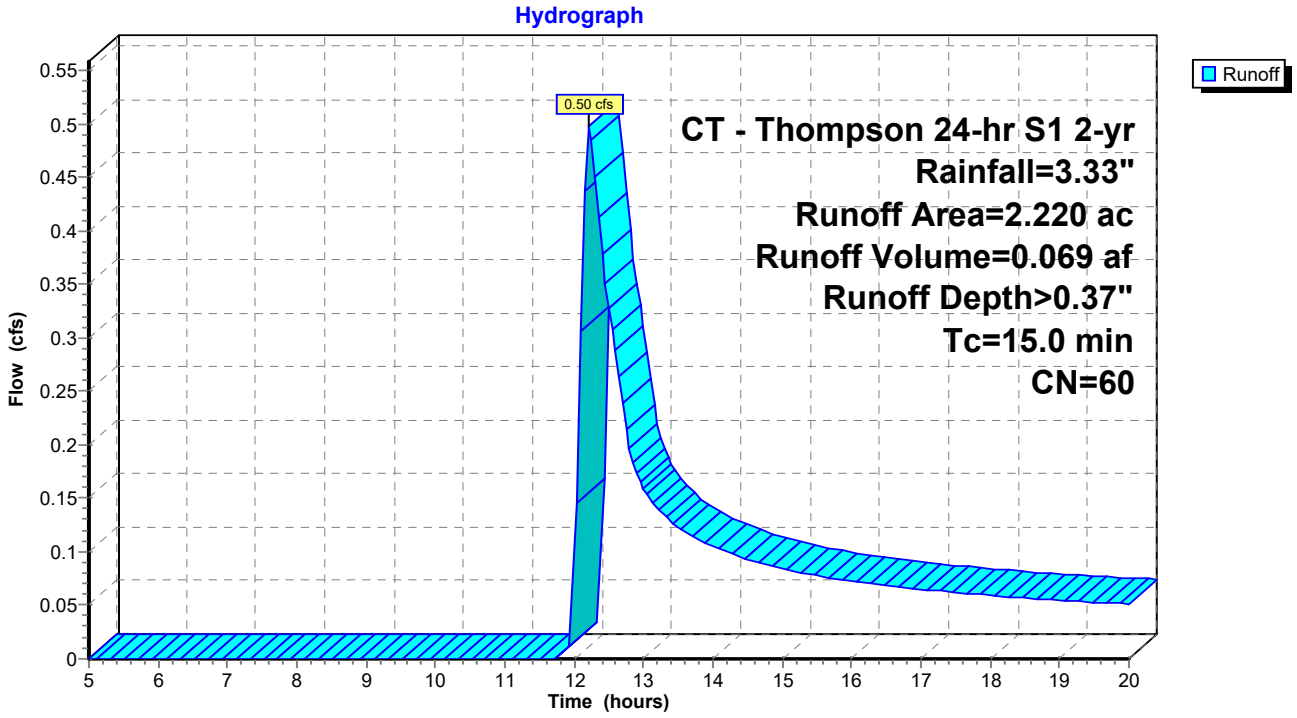
Runoff = 0.50 cfs @ 12.22 hrs, Volume= 0.069 af, Depth> 0.37"
Routed to Link DP2 : DP2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 2-yr Rainfall=3.33"

Area (ac)	CN	Description
2.220	60	Woods, Fair, HSG B
2.220		100.00% Pervious Area

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

Subcatchment 2B: 2B

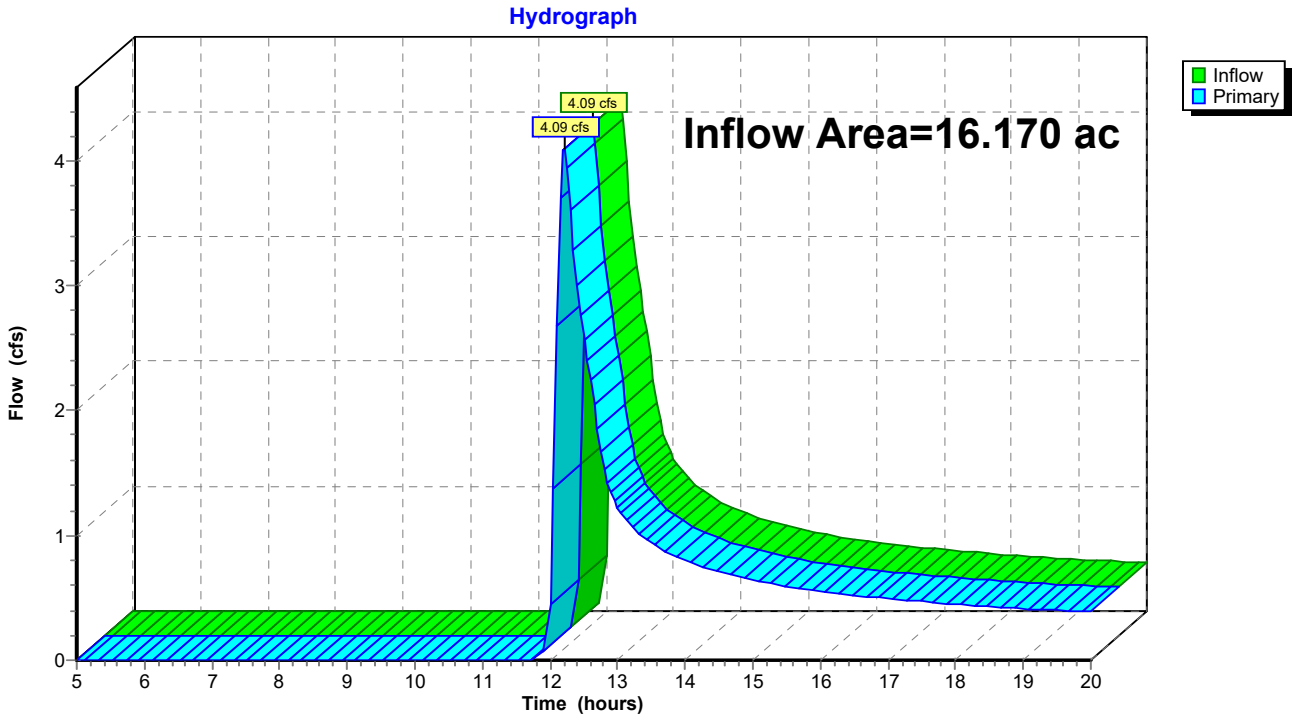


Summary for Link DP1: DP1

Inflow Area = 16.170 ac, 0.00% Impervious, Inflow Depth > 0.40" for 2-yr event
Inflow = 4.09 cfs @ 12.21 hrs, Volume= 0.537 af
Primary = 4.09 cfs @ 12.21 hrs, Volume= 0.537 af, Atten= 0%, Lag= 0.0 min

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

Link DP1: DP1

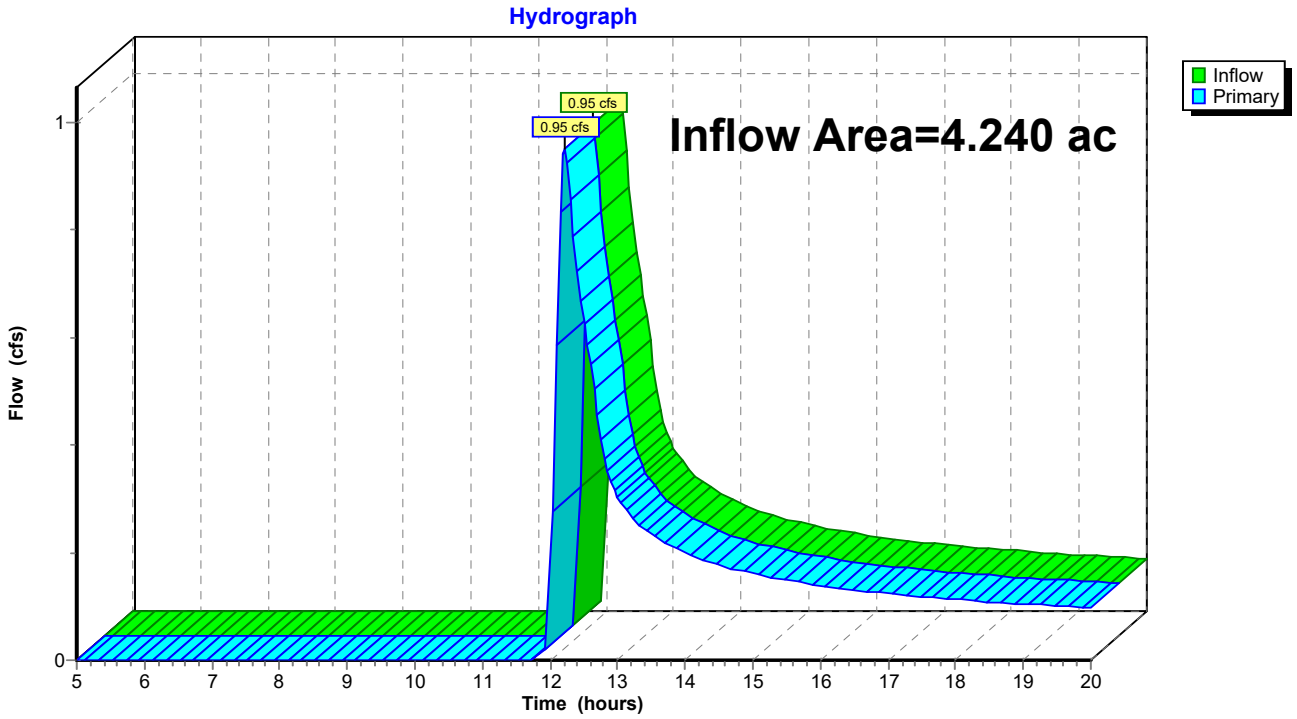


Summary for Link DP2: DP2

Inflow Area = 4.240 ac, 0.00% Impervious, Inflow Depth > 0.37" for 2-yr event
Inflow = 0.95 cfs @ 12.22 hrs, Volume= 0.132 af
Primary = 0.95 cfs @ 12.22 hrs, Volume= 0.132 af, Atten= 0%, Lag= 0.0 min

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

Link DP2: DP2



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

Subcatchment1A: 1A Runoff Area=3.810 ac 0.00% Impervious Runoff Depth>2.04"
Tc=15.0 min CN=63 Runoff=7.10 cfs 0.648 af

Subcatchment1B: 1B Runoff Area=7.890 ac 0.00% Impervious Runoff Depth>1.80"
Tc=15.0 min CN=60 Runoff=12.72 cfs 1.181 af

Subcatchment1C: 1C Runoff Area=4.470 ac 0.00% Impervious Runoff Depth>1.80"
Tc=15.0 min CN=60 Runoff=7.21 cfs 0.669 af

Subcatchment2A: 2A Runoff Area=2.020 ac 0.00% Impervious Runoff Depth>1.80"
Tc=15.0 min CN=60 Runoff=3.26 cfs 0.302 af

Subcatchment2B: 2B Runoff Area=2.220 ac 0.00% Impervious Runoff Depth>1.80"
Tc=15.0 min CN=60 Runoff=3.58 cfs 0.332 af

Link DP1: DP1 Inflow=27.03 cfs 2.498 af
Primary=27.03 cfs 2.498 af

Link DP2: DP2 Inflow=6.83 cfs 0.635 af
Primary=6.83 cfs 0.635 af

Total Runoff Area = 20.410 ac Runoff Volume = 3.133 af Average Runoff Depth = 1.84"
100.00% Pervious = 20.410 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 1A: 1A

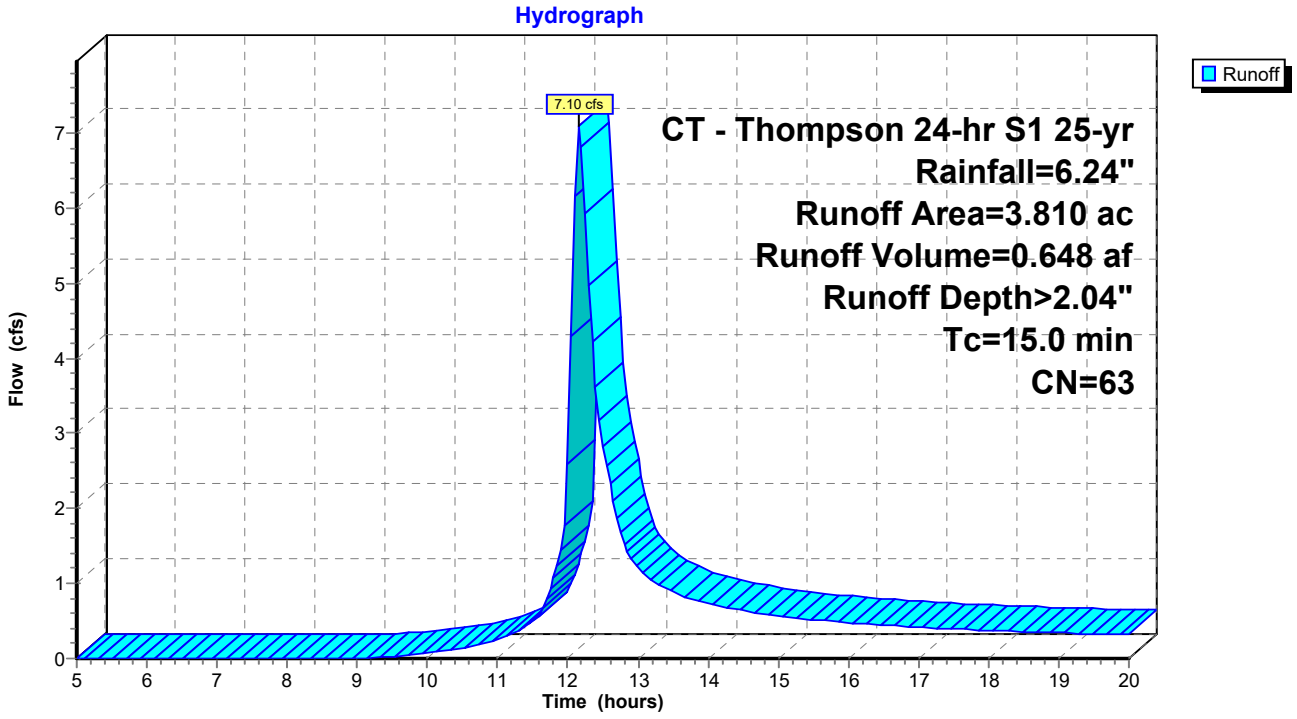
Runoff = 7.10 cfs @ 12.16 hrs, Volume= 0.648 af, Depth> 2.04"
Routed to Link DP1 : DP1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 25-yr Rainfall=6.24"

Area (ac)	CN	Description
1.230	69	50-75% Grass cover, Fair, HSG B
2.580	60	Woods, Fair, HSG B
3.810	63	Weighted Average
3.810		100.00% Pervious Area

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

Subcatchment 1A: 1A



Summary for Subcatchment 1B: 1B

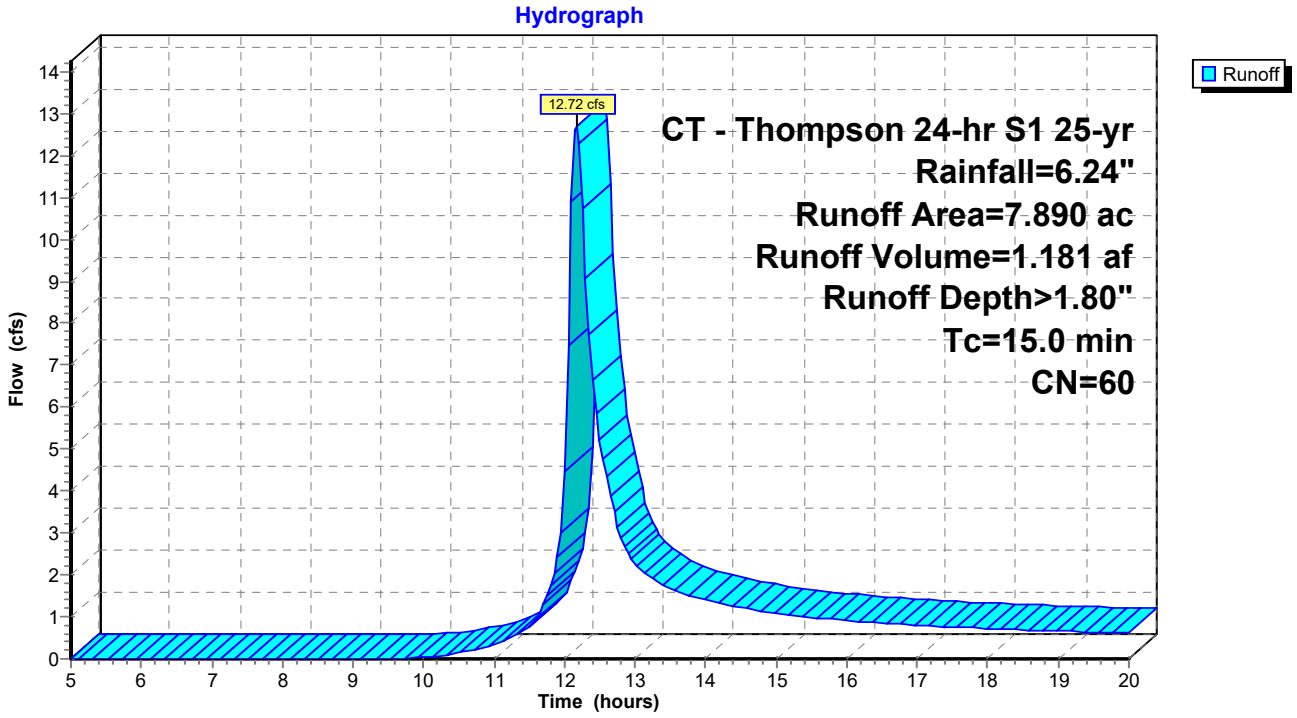
Runoff = 12.72 cfs @ 12.17 hrs, Volume= 1.181 af, Depth> 1.80"
Routed to Link DP1 : DP1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 25-yr Rainfall=6.24"

Area (ac)	CN	Description
7.890	60	Woods, Fair, HSG B
7.890		100.00% Pervious Area

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

Subcatchment 1B: 1B



Summary for Subcatchment 1C: 1C

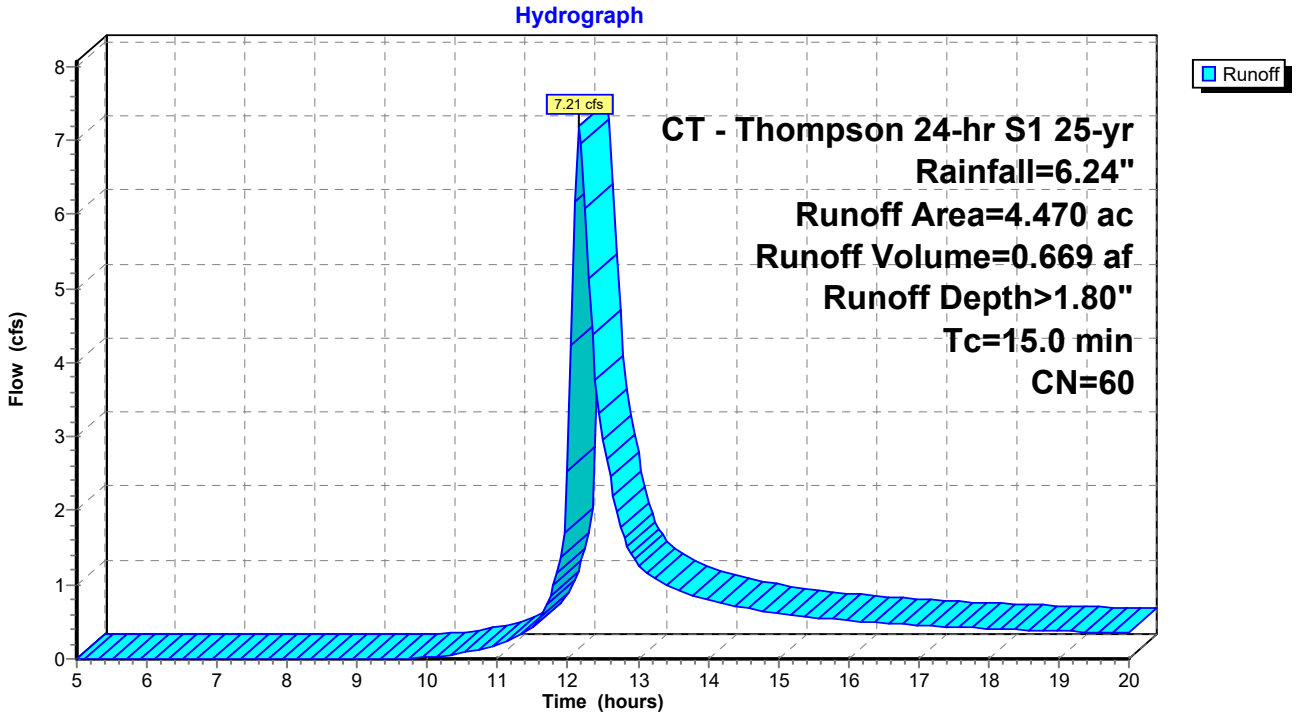
Runoff = 7.21 cfs @ 12.17 hrs, Volume= 0.669 af, Depth> 1.80"
Routed to Link DP1 : DP1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 25-yr Rainfall=6.24"

Area (ac)	CN	Description
4.470	60	Woods, Fair, HSG B
4.470		100.00% Pervious Area

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

Subcatchment 1C: 1C



Summary for Subcatchment 2A: 2A

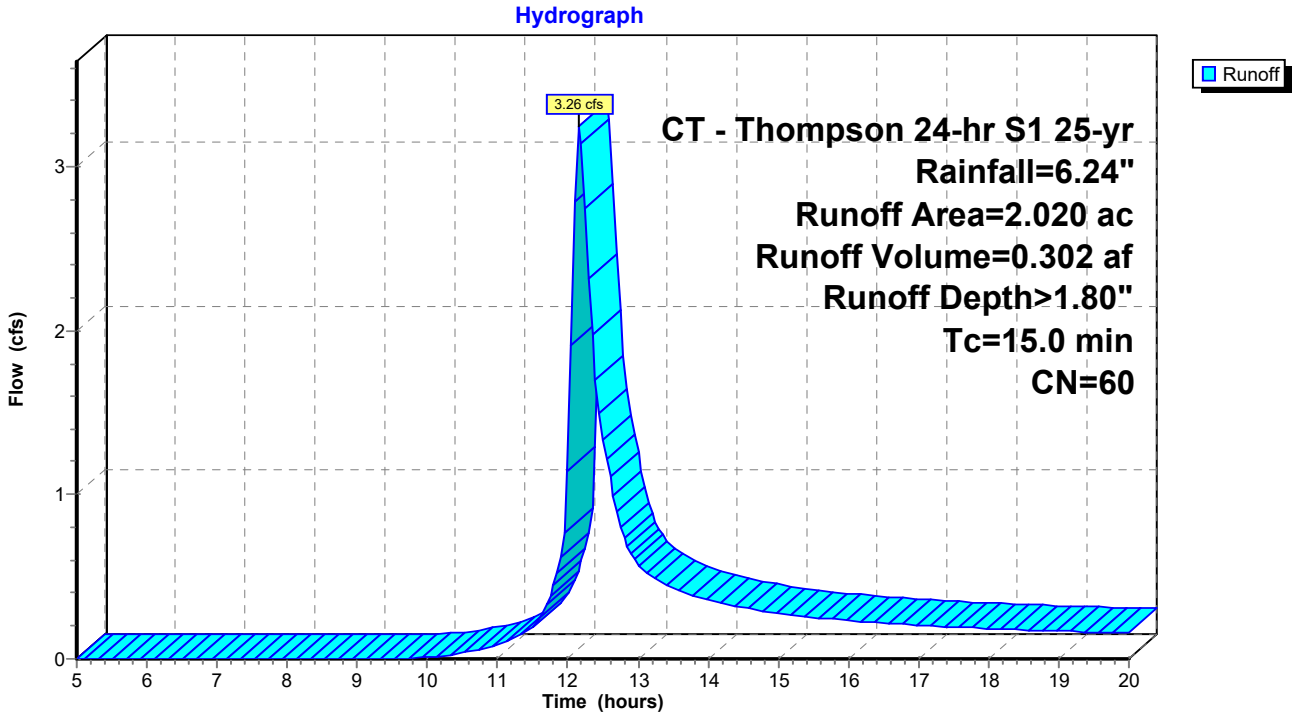
Runoff = 3.26 cfs @ 12.17 hrs, Volume= 0.302 af, Depth> 1.80"
Routed to Link DP2 : DP2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 25-yr Rainfall=6.24"

Area (ac)	CN	Description
2.020	60	Woods, Fair, HSG B
2.020		100.00% Pervious Area

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

Subcatchment 2A: 2A



Summary for Subcatchment 2B: 2B

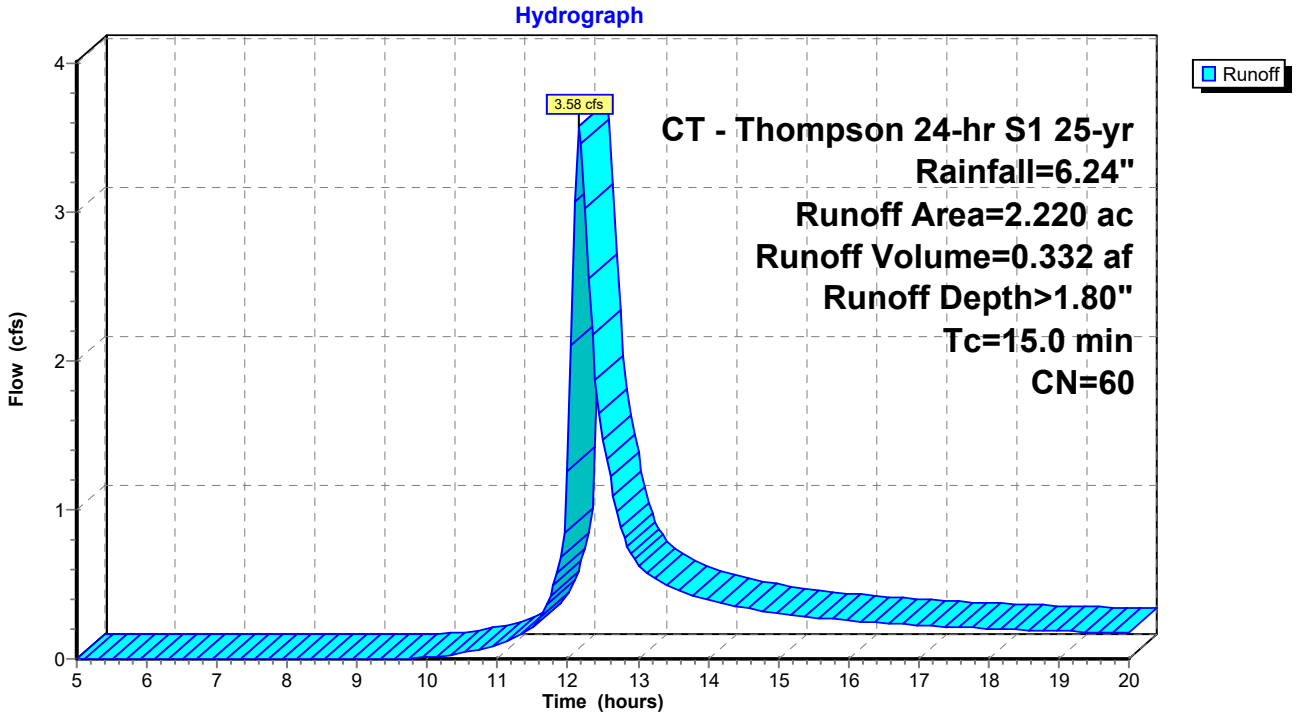
Runoff = 3.58 cfs @ 12.17 hrs, Volume= 0.332 af, Depth> 1.80"
Routed to Link DP2 : DP2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 25-yr Rainfall=6.24"

Area (ac)	CN	Description
2.220	60	Woods, Fair, HSG B
2.220		100.00% Pervious Area

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

Subcatchment 2B: 2B

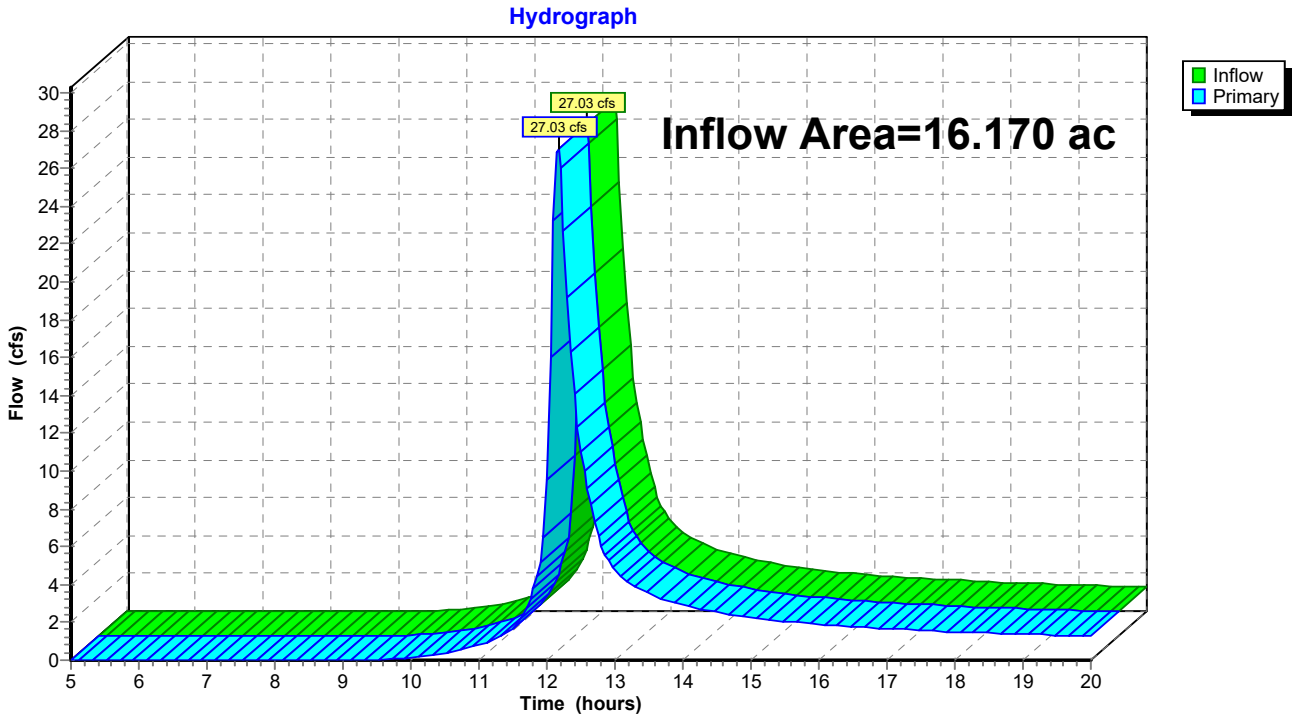


Summary for Link DP1: DP1

Inflow Area = 16.170 ac, 0.00% Impervious, Inflow Depth > 1.85" for 25-yr event
Inflow = 27.03 cfs @ 12.17 hrs, Volume= 2.498 af
Primary = 27.03 cfs @ 12.17 hrs, Volume= 2.498 af, Atten= 0%, Lag= 0.0 min

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

Link DP1: DP1

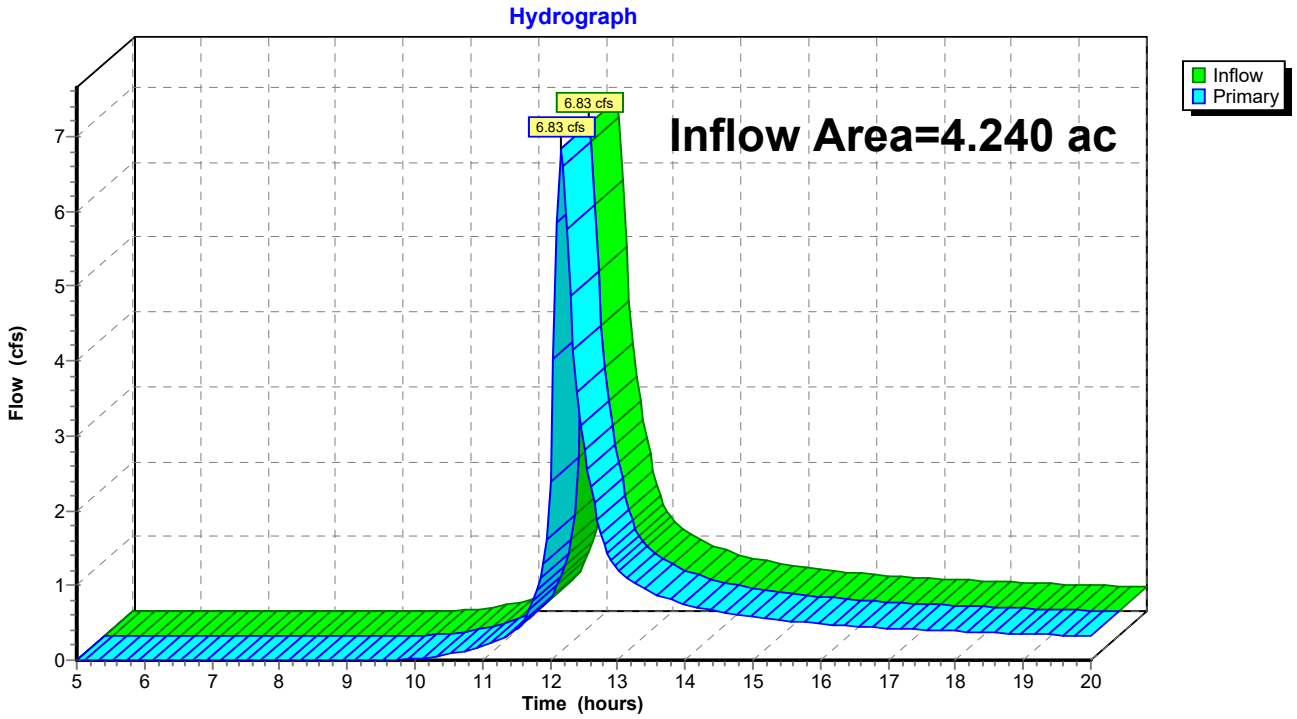


Summary for Link DP2: DP2

Inflow Area = 4.240 ac, 0.00% Impervious, Inflow Depth > 1.80" for 25-yr event
Inflow = 6.83 cfs @ 12.17 hrs, Volume= 0.635 af
Primary = 6.83 cfs @ 12.17 hrs, Volume= 0.635 af, Atten= 0%, Lag= 0.0 min

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

Link DP2: DP2



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

Subcatchment1A: 1A Runoff Area=3.810 ac 0.00% Impervious Runoff Depth>2.59"
Tc=15.0 min CN=63 Runoff=9.05 cfs 0.822 af

Subcatchment1B: 1B Runoff Area=7.890 ac 0.00% Impervious Runoff Depth>2.31"
Tc=15.0 min CN=60 Runoff=16.54 cfs 1.517 af

Subcatchment1C: 1C Runoff Area=4.470 ac 0.00% Impervious Runoff Depth>2.31"
Tc=15.0 min CN=60 Runoff=9.37 cfs 0.860 af

Subcatchment2A: 2A Runoff Area=2.020 ac 0.00% Impervious Runoff Depth>2.31"
Tc=15.0 min CN=60 Runoff=4.23 cfs 0.389 af

Subcatchment2B: 2B Runoff Area=2.220 ac 0.00% Impervious Runoff Depth>2.31"
Tc=15.0 min CN=60 Runoff=4.65 cfs 0.427 af

Link DP1: DP1 Inflow=34.95 cfs 3.199 af
Primary=34.95 cfs 3.199 af

Link DP2: DP2 Inflow=8.89 cfs 0.815 af
Primary=8.89 cfs 0.815 af

Total Runoff Area = 20.410 ac Runoff Volume = 4.014 af Average Runoff Depth = 2.36"
100.00% Pervious = 20.410 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 1A: 1A

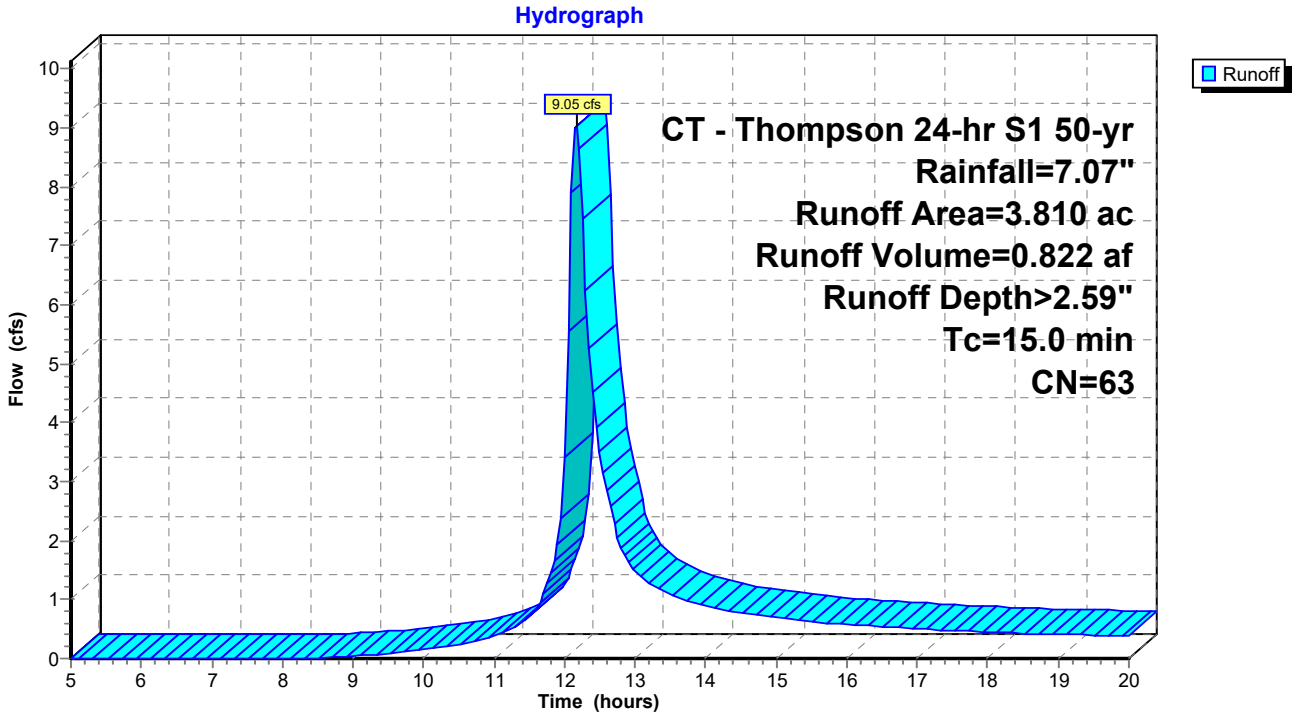
Runoff = 9.05 cfs @ 12.16 hrs, Volume= 0.822 af, Depth> 2.59"
Routed to Link DP1 : DP1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 50-yr Rainfall=7.07"

Area (ac)	CN	Description
1.230	69	50-75% Grass cover, Fair, HSG B
2.580	60	Woods, Fair, HSG B
3.810	63	Weighted Average
3.810		100.00% Pervious Area

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

Subcatchment 1A: 1A



Summary for Subcatchment 1B: 1B

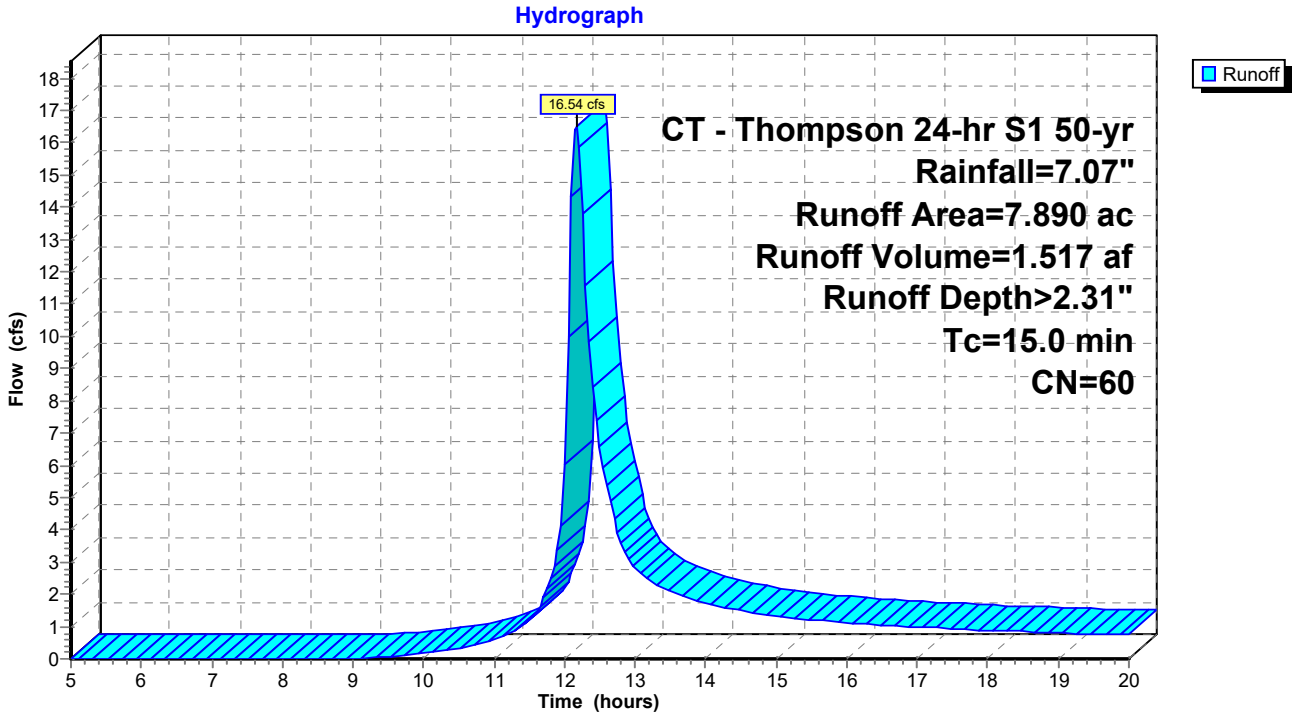
Runoff = 16.54 cfs @ 12.16 hrs, Volume= 1.517 af, Depth> 2.31"
Routed to Link DP1 : DP1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 50-yr Rainfall=7.07"

Area (ac)	CN	Description
7.890	60	Woods, Fair, HSG B
7.890		100.00% Pervious Area

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

Subcatchment 1B: 1B



Summary for Subcatchment 1C: 1C

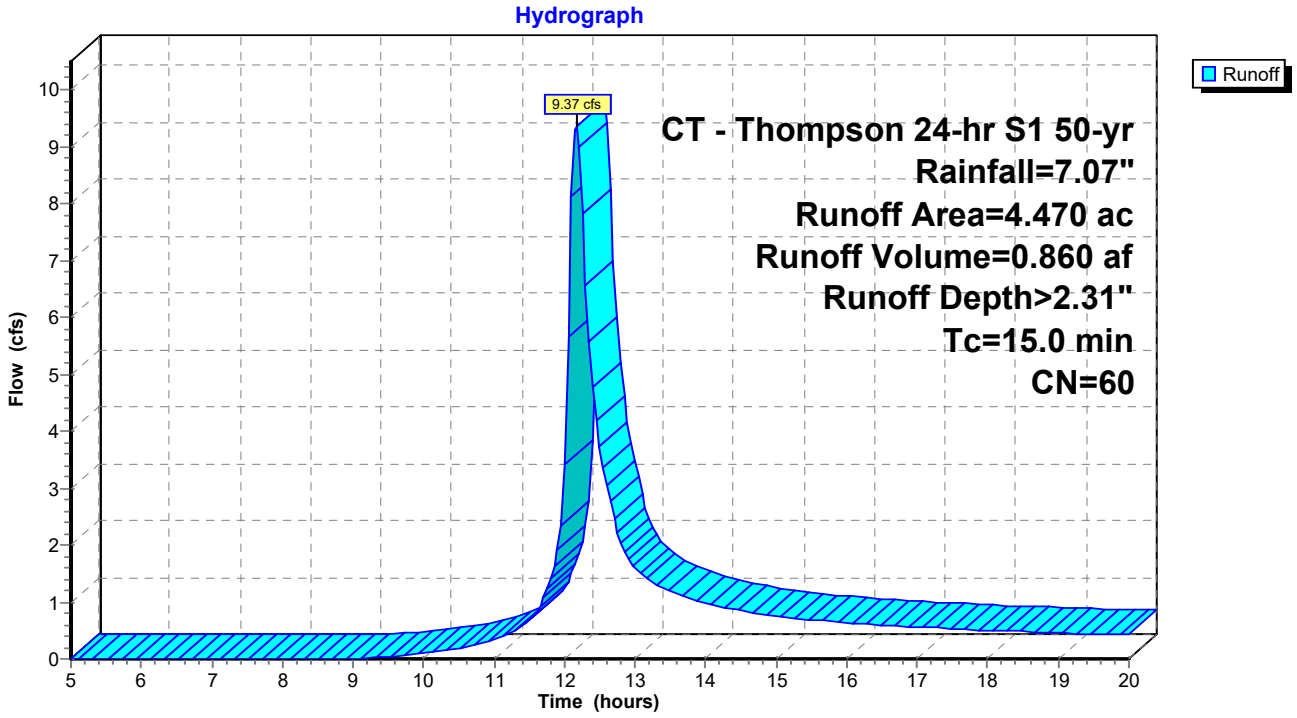
Runoff = 9.37 cfs @ 12.16 hrs, Volume= 0.860 af, Depth> 2.31"
Routed to Link DP1 : DP1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 50-yr Rainfall=7.07"

Area (ac)	CN	Description
4.470	60	Woods, Fair, HSG B
4.470		100.00% Pervious Area

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

Subcatchment 1C: 1C



Summary for Subcatchment 2A: 2A

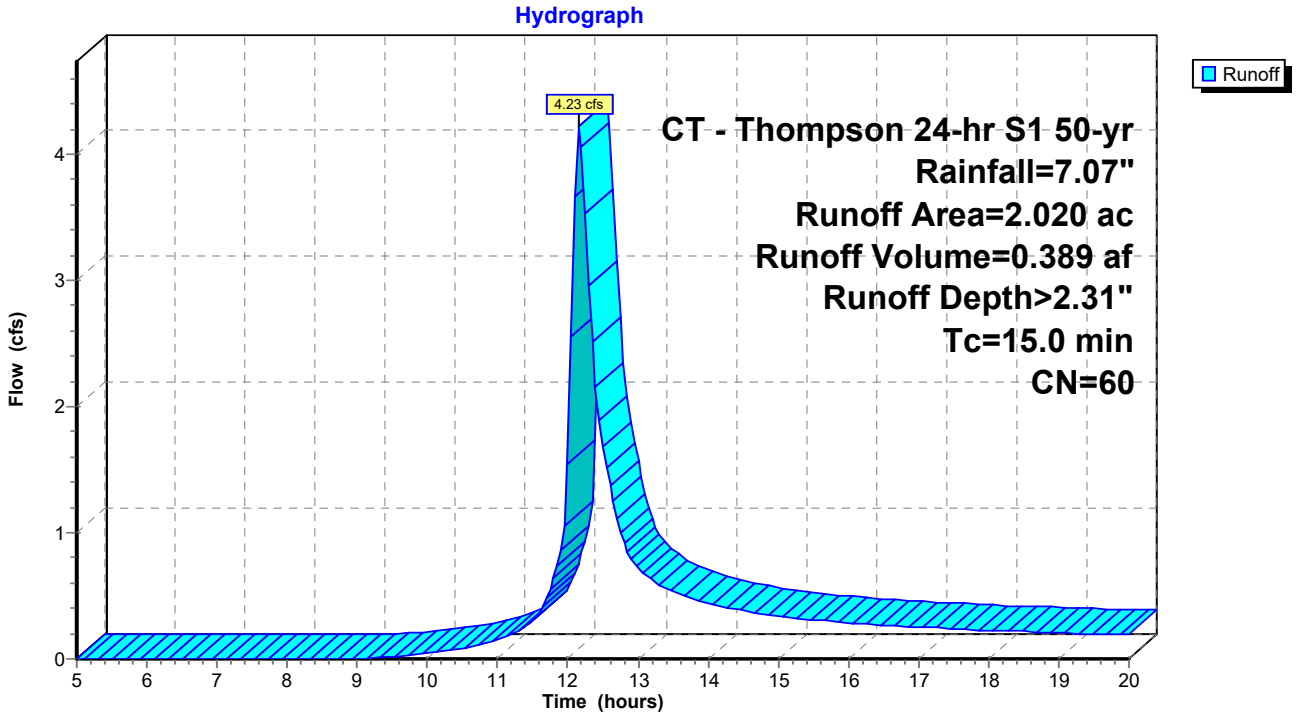
Runoff = 4.23 cfs @ 12.16 hrs, Volume= 0.389 af, Depth> 2.31"
Routed to Link DP2 : DP2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 50-yr Rainfall=7.07"

Area (ac)	CN	Description
2.020	60	Woods, Fair, HSG B
2.020		100.00% Pervious Area

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

Subcatchment 2A: 2A



Summary for Subcatchment 2B: 2B

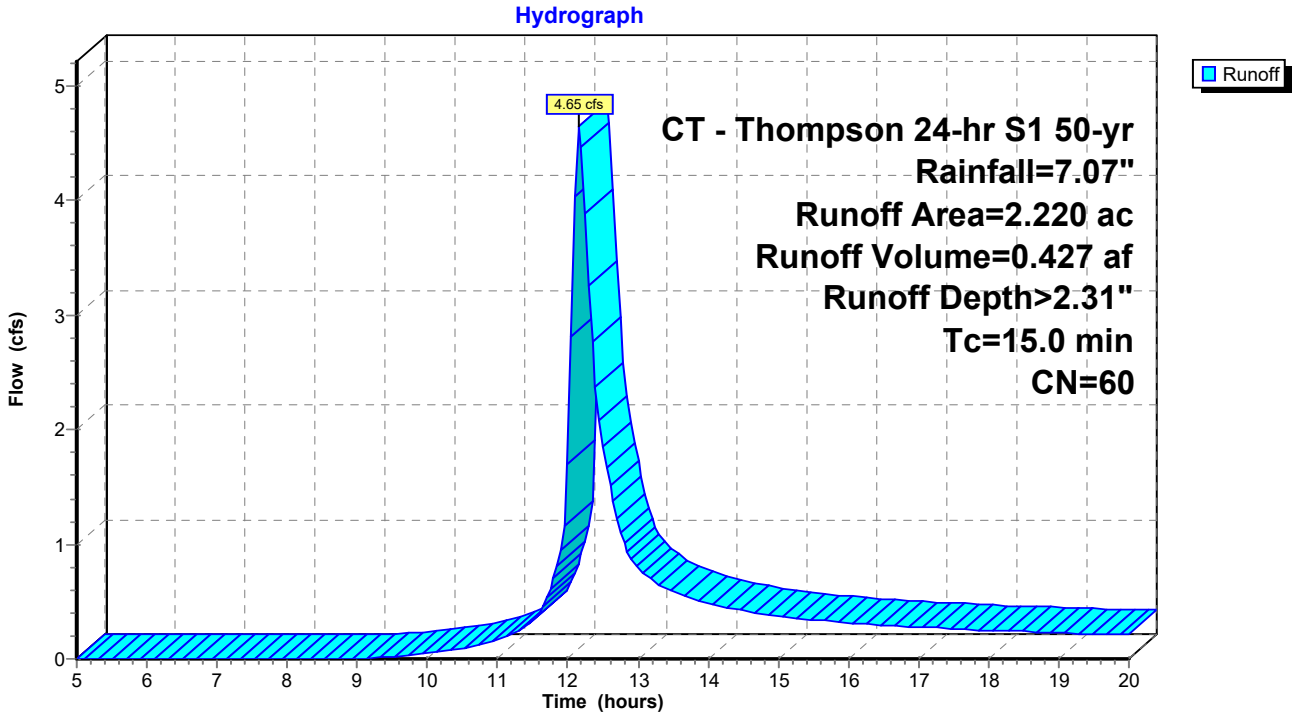
Runoff = 4.65 cfs @ 12.16 hrs, Volume= 0.427 af, Depth> 2.31"
Routed to Link DP2 : DP2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 50-yr Rainfall=7.07"

Area (ac)	CN	Description
2.220	60	Woods, Fair, HSG B
2.220		100.00% Pervious Area

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

Subcatchment 2B: 2B

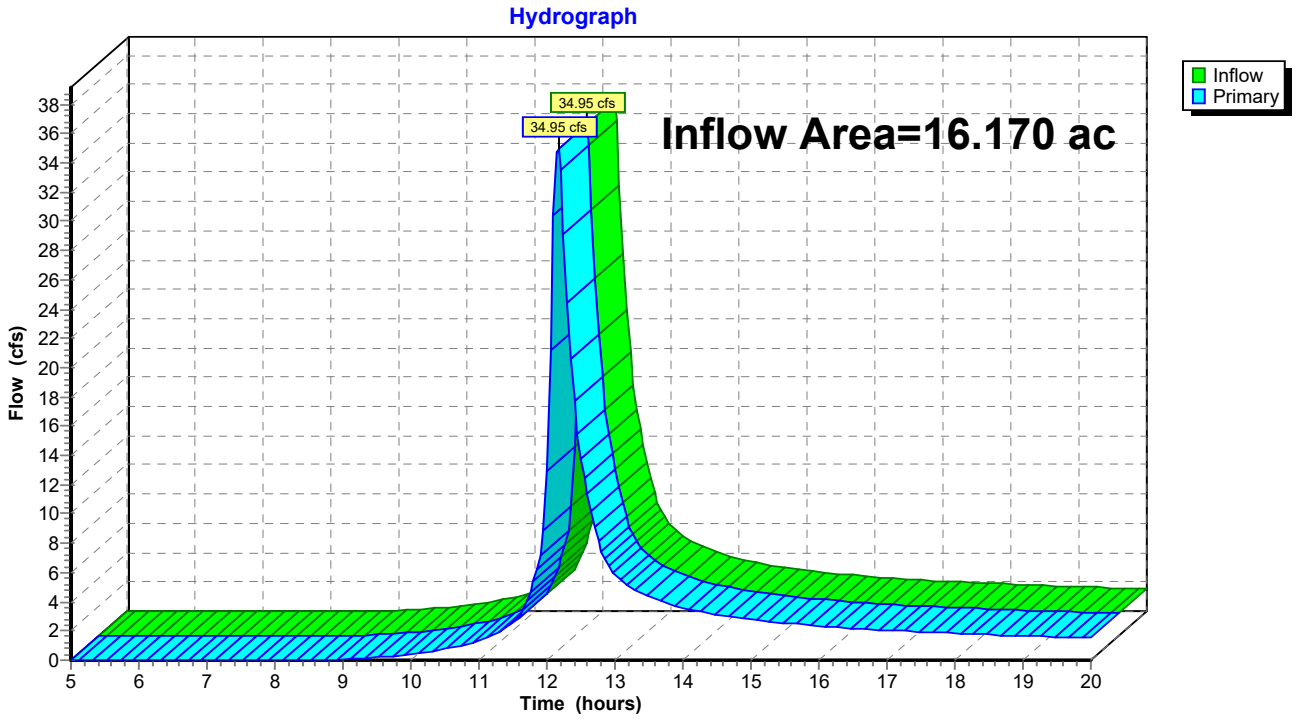


Summary for Link DP1: DP1

Inflow Area = 16.170 ac, 0.00% Impervious, Inflow Depth > 2.37" for 50-yr event
Inflow = 34.95 cfs @ 12.16 hrs, Volume= 3.199 af
Primary = 34.95 cfs @ 12.16 hrs, Volume= 3.199 af, Atten= 0%, Lag= 0.0 min

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

Link DP1: DP1

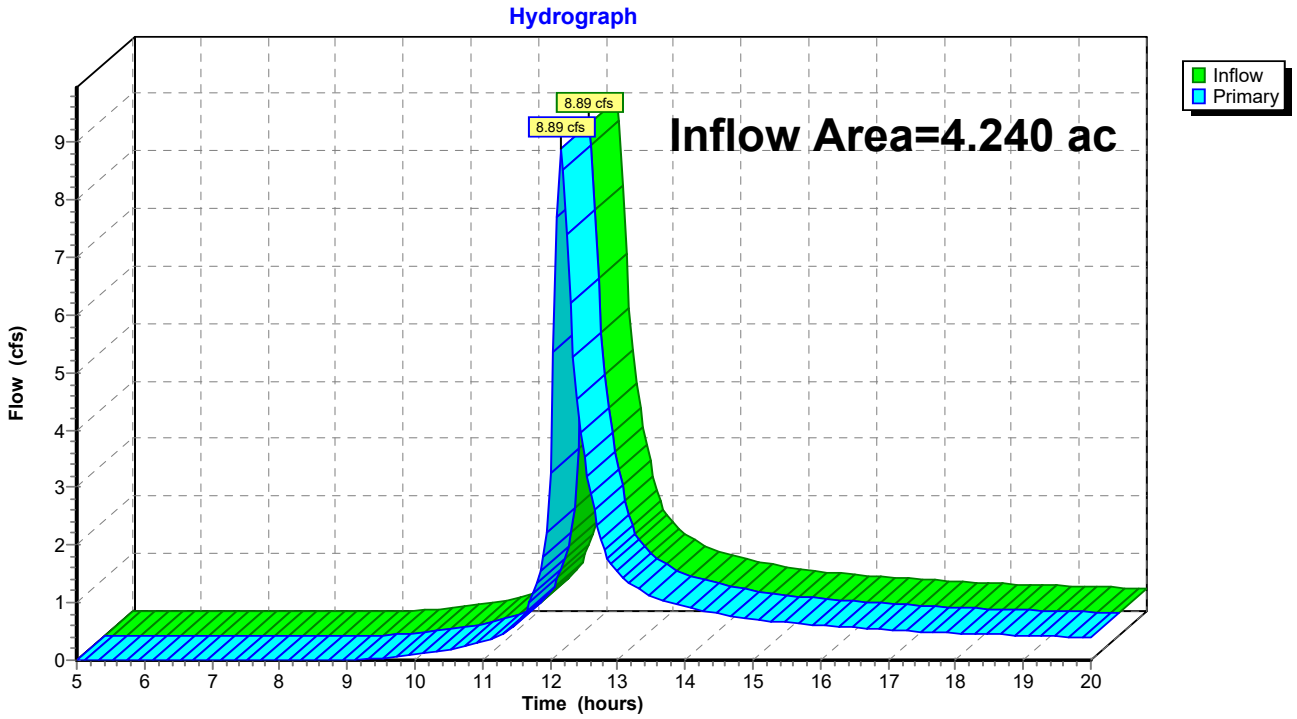


Summary for Link DP2: DP2

Inflow Area = 4.240 ac, 0.00% Impervious, Inflow Depth > 2.31" for 50-yr event
Inflow = 8.89 cfs @ 12.16 hrs, Volume= 0.815 af
Primary = 8.89 cfs @ 12.16 hrs, Volume= 0.815 af, Atten= 0%, Lag= 0.0 min

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

Link DP2: DP2



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

Subcatchment1A: 1A Runoff Area=3.810 ac 0.00% Impervious Runoff Depth>3.20"
Tc=15.0 min CN=63 Runoff=11.19 cfs 1.017 af

Subcatchment1B: 1B Runoff Area=7.890 ac 0.00% Impervious Runoff Depth>2.89"
Tc=15.0 min CN=60 Runoff=20.79 cfs 1.901 af

Subcatchment1C: 1C Runoff Area=4.470 ac 0.00% Impervious Runoff Depth>2.89"
Tc=15.0 min CN=60 Runoff=11.78 cfs 1.077 af

Subcatchment2A: 2A Runoff Area=2.020 ac 0.00% Impervious Runoff Depth>2.89"
Tc=15.0 min CN=60 Runoff=5.32 cfs 0.487 af

Subcatchment2B: 2B Runoff Area=2.220 ac 0.00% Impervious Runoff Depth>2.89"
Tc=15.0 min CN=60 Runoff=5.85 cfs 0.535 af

Link DP1: DP1 Inflow=43.76 cfs 3.996 af
Primary=43.76 cfs 3.996 af

Link DP2: DP2 Inflow=11.17 cfs 1.022 af
Primary=11.17 cfs 1.022 af

Total Runoff Area = 20.410 ac Runoff Volume = 5.017 af Average Runoff Depth = 2.95"
100.00% Pervious = 20.410 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 1A: 1A

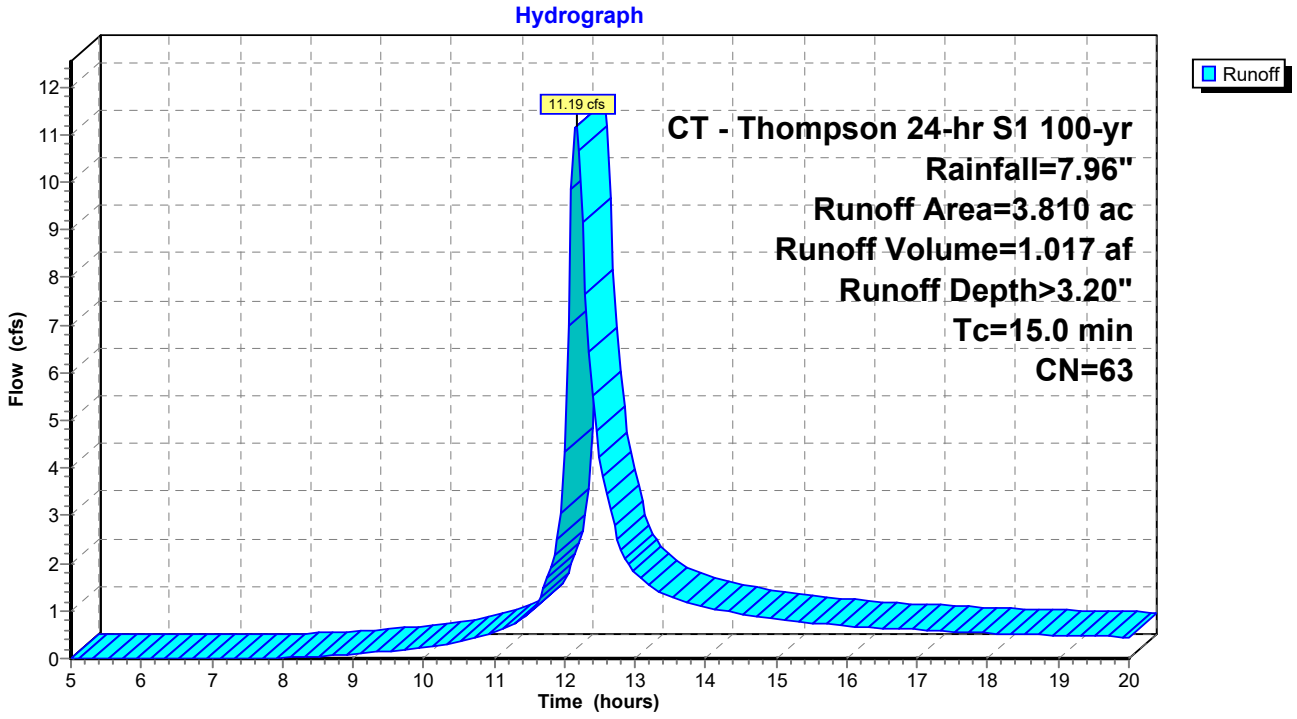
Runoff = 11.19 cfs @ 12.16 hrs, Volume= 1.017 af, Depth> 3.20"
Routed to Link DP1 : DP1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 100-yr Rainfall=7.96"

Area (ac)	CN	Description
1.230	69	50-75% Grass cover, Fair, HSG B
2.580	60	Woods, Fair, HSG B
3.810	63	Weighted Average
3.810		100.00% Pervious Area

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

Subcatchment 1A: 1A



Summary for Subcatchment 1B: 1B

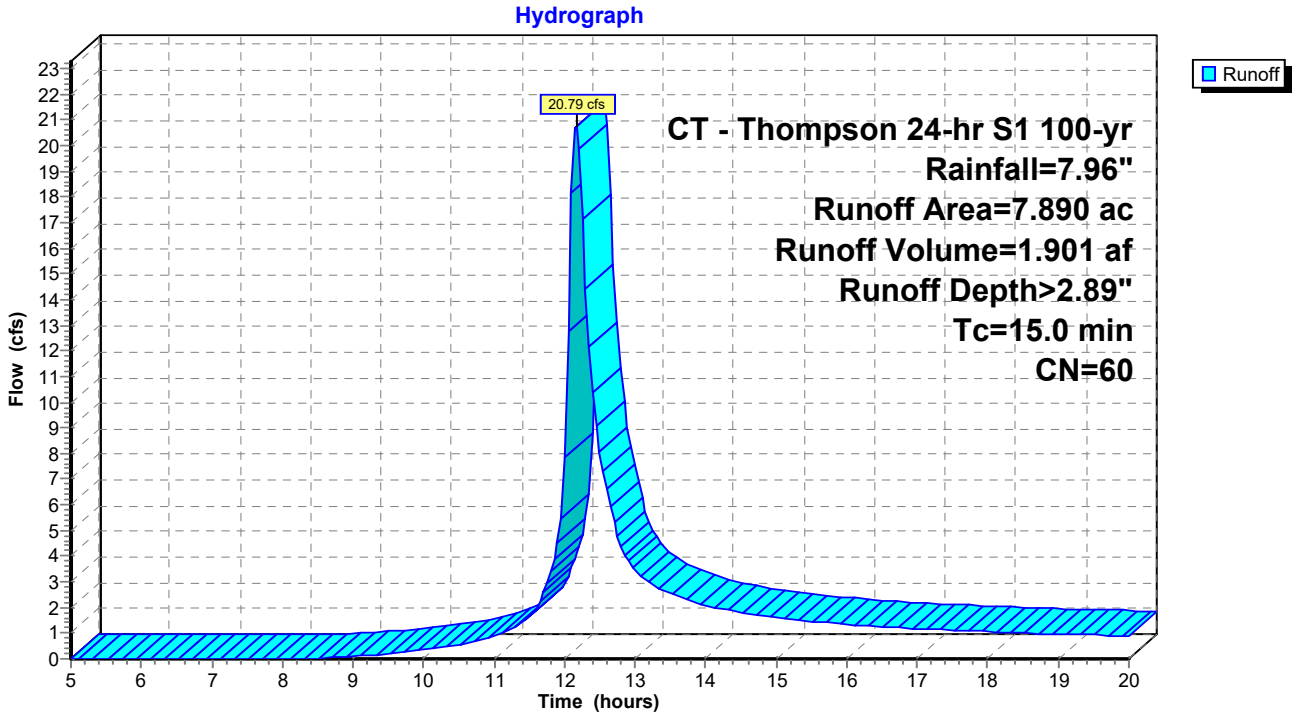
Runoff = 20.79 cfs @ 12.16 hrs, Volume= 1.901 af, Depth> 2.89"
Routed to Link DP1 : DP1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 100-yr Rainfall=7.96"

Area (ac)	CN	Description
7.890	60	Woods, Fair, HSG B
7.890		100.00% Pervious Area

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

Subcatchment 1B: 1B



Summary for Subcatchment 1C: 1C

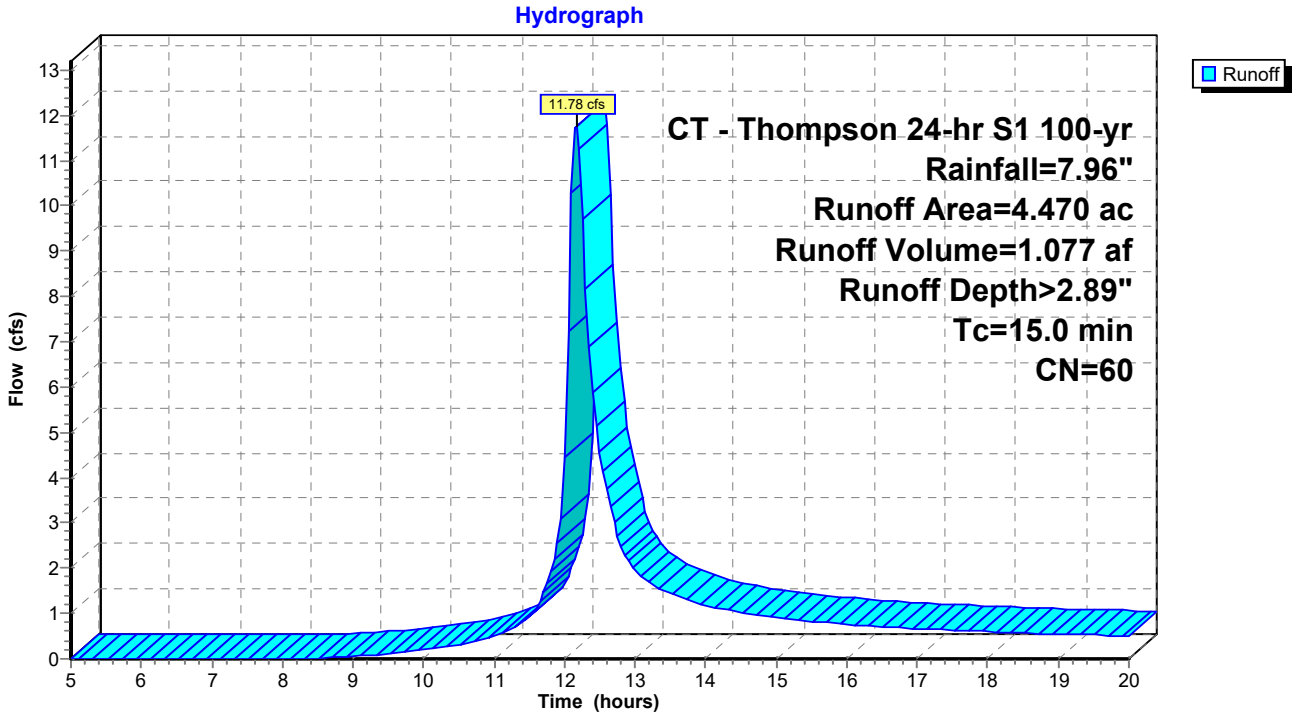
Runoff = 11.78 cfs @ 12.16 hrs, Volume= 1.077 af, Depth> 2.89"
Routed to Link DP1 : DP1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 100-yr Rainfall=7.96"

Area (ac)	CN	Description
4.470	60	Woods, Fair, HSG B
4.470		100.00% Pervious Area

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

Subcatchment 1C: 1C



Summary for Subcatchment 2A: 2A

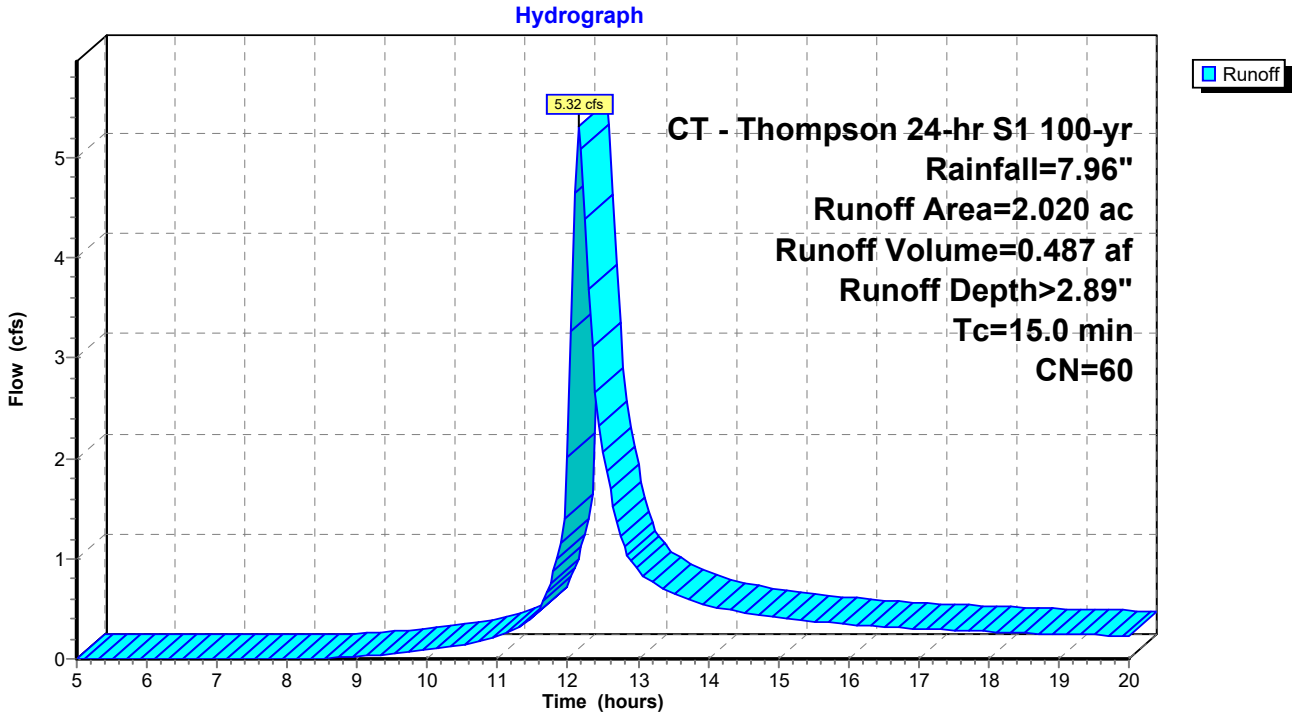
Runoff = 5.32 cfs @ 12.16 hrs, Volume= 0.487 af, Depth> 2.89"
Routed to Link DP2 : DP2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 100-yr Rainfall=7.96"

Area (ac)	CN	Description
2.020	60	Woods, Fair, HSG B
2.020		100.00% Pervious Area

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

Subcatchment 2A: 2A



Summary for Subcatchment 2B: 2B

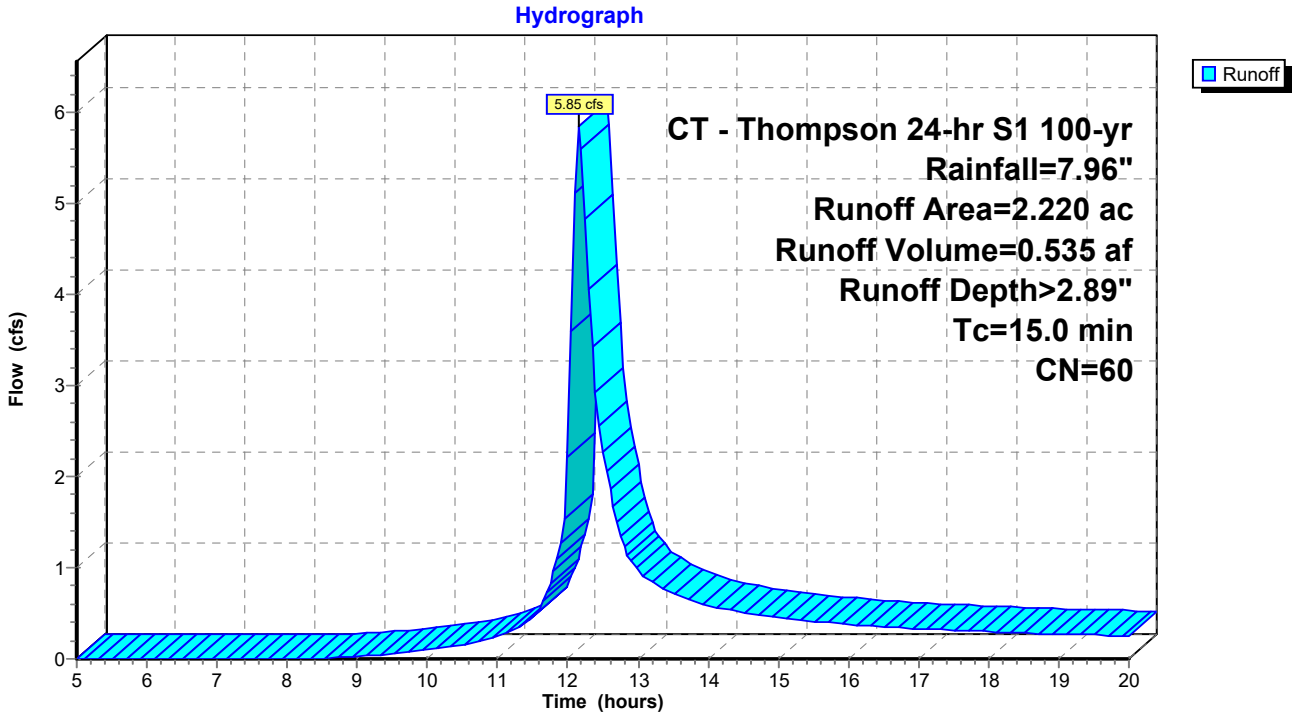
Runoff = 5.85 cfs @ 12.16 hrs, Volume= 0.535 af, Depth> 2.89"
Routed to Link DP2 : DP2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 100-yr Rainfall=7.96"

Area (ac)	CN	Description
2.220	60	Woods, Fair, HSG B
2.220		100.00% Pervious Area

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

Subcatchment 2B: 2B

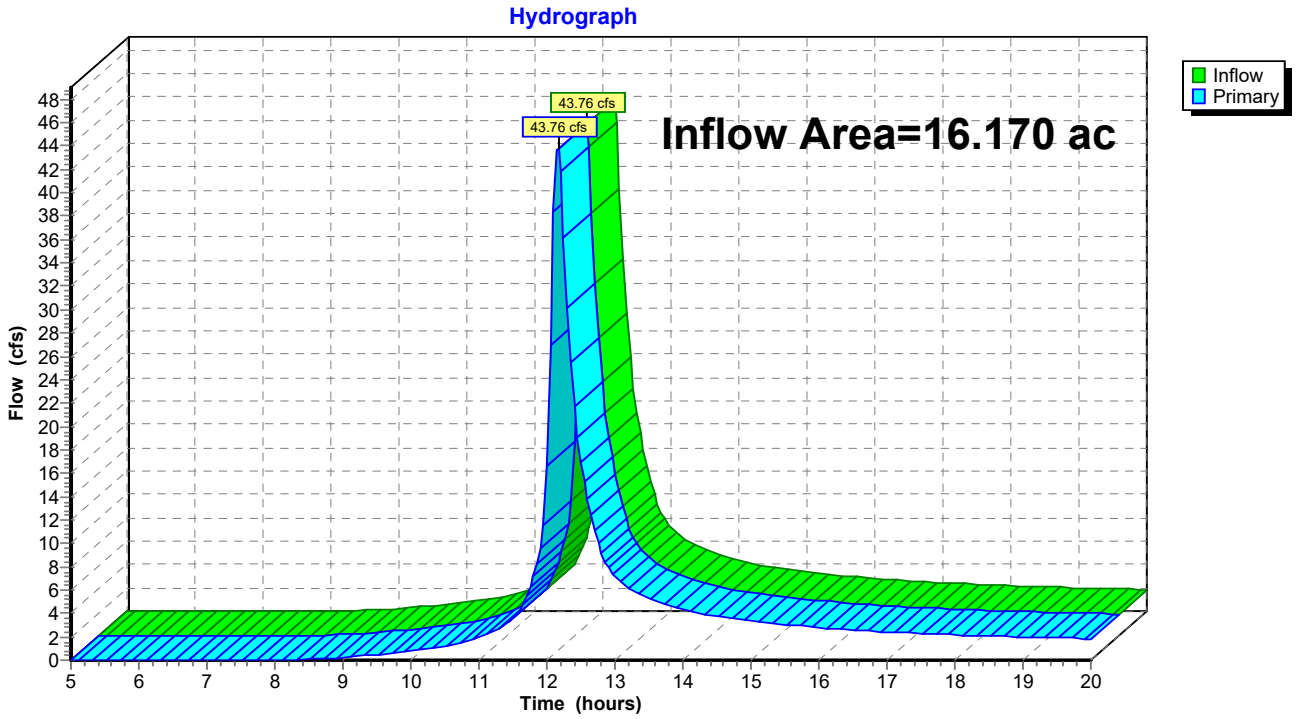


Summary for Link DP1: DP1

Inflow Area = 16.170 ac, 0.00% Impervious, Inflow Depth > 2.97" for 100-yr event
Inflow = 43.76 cfs @ 12.16 hrs, Volume= 3.996 af
Primary = 43.76 cfs @ 12.16 hrs, Volume= 3.996 af, Atten= 0%, Lag= 0.0 min

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

Link DP1: DP1

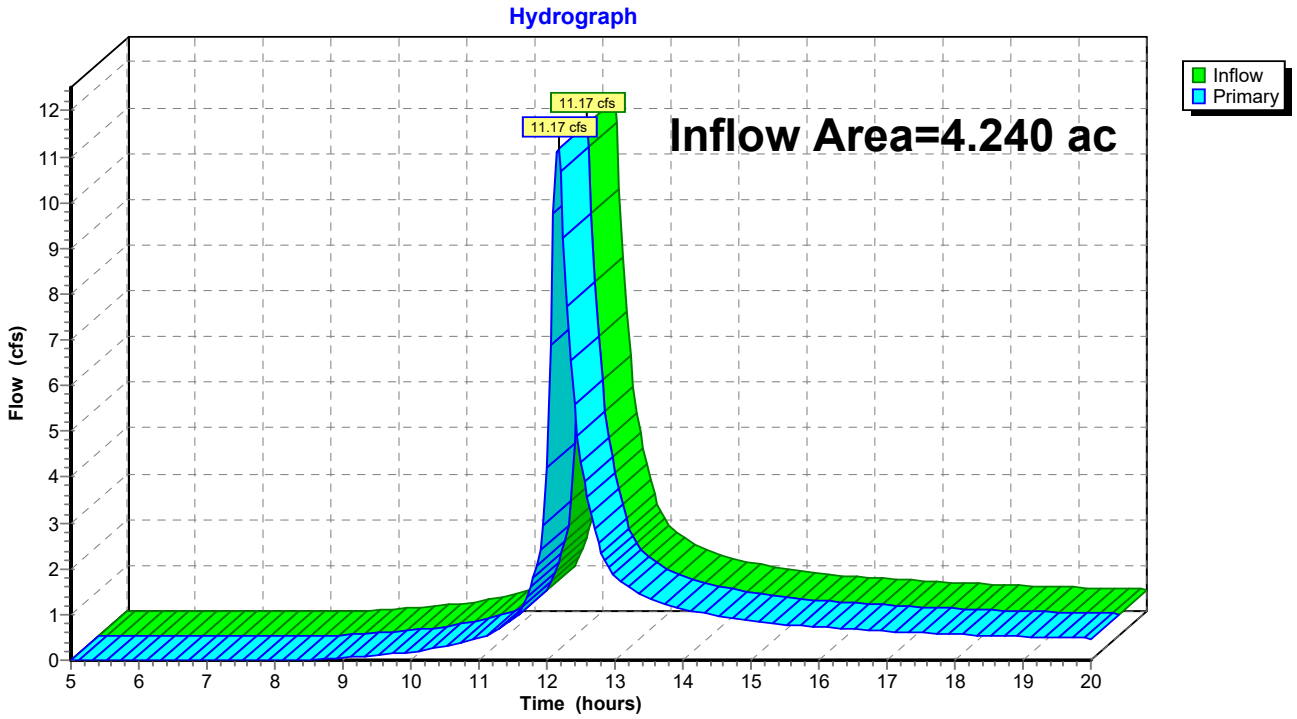


Summary for Link DP2: DP2

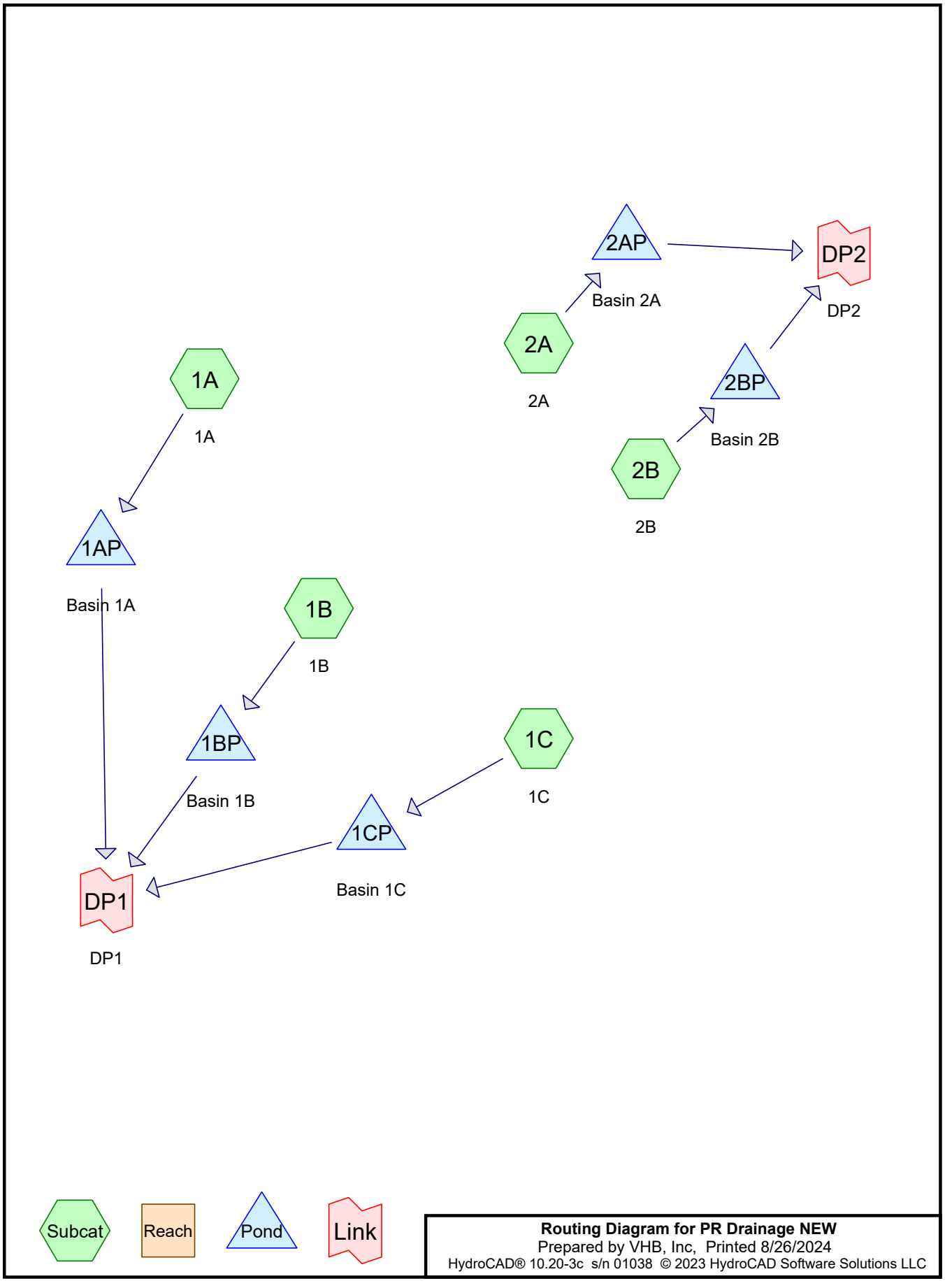
Inflow Area = 4.240 ac, 0.00% Impervious, Inflow Depth > 2.89" for 100-yr event
Inflow = 11.17 cfs @ 12.16 hrs, Volume= 1.022 af
Primary = 11.17 cfs @ 12.16 hrs, Volume= 1.022 af, Atten= 0%, Lag= 0.0 min

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

Link DP2: DP2



HydroCAD Analysis: Proposed Conditions



Routing Diagram for PR Drainage NEW
Prepared by VHB, Inc, Printed 8/26/2024

Project Notes

Defined 4 rainfall events from CT - Thompson IDF
Copied 4 events from CT - Thompson 24-hr S1 storm

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-yr	CT - Thompson 24-hr S1	2-yr	Default	24.00	1	3.33	2
2	25-yr	CT - Thompson 24-hr S1	25-yr	Default	24.00	1	6.24	2
3	50-yr	CT - Thompson 24-hr S1	50-yr	Default	24.00	1	7.07	2
4	100-yr	CT - Thompson 24-hr S1	100-yr	Default	24.00	1	7.96	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.380	69	50-75% Grass cover, Fair, HSG B (1A)
18.030	74	50-75% Grass cover, Fair, HSG B-C (1A, 1B, 1C, 2A, 2B)
0.100	98	Paved parking, HSG B (1B)
1.900	66	Woods, Poor, HSG B (1B, 1C, 2A)
20.410	**73**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
20.410	HSG B	1A, 1B, 1C, 2A, 2B
0.000	HSG C	
0.000	HSG D	
0.000	Other	
20.410		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	18.410	0.000	0.000	0.000	18.410	50-75% Grass cover, Fair	1A, 1B, 1C, 2A, 2B
0.000	0.100	0.000	0.000	0.000	0.100	Paved parking	1B
0.000	1.900	0.000	0.000	0.000	1.900	Woods, Poor	1B, 1C, 2A
0.000	**20.410**	**0.000**	**0.000**	**0.000**	**20.410**	**TOTAL AREA**	

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

Subcatchment1A: 1A Runoff Area=3.810 ac 0.00% Impervious Runoff Depth>0.98"
Tc=15.0 min CN=74 Runoff=3.51 cfs 0.311 af

Subcatchment1B: 1B Runoff Area=7.890 ac 1.27% Impervious Runoff Depth>0.98"
Tc=15.0 min CN=74 Runoff=7.27 cfs 0.643 af

Subcatchment1C: 1C Runoff Area=4.470 ac 0.00% Impervious Runoff Depth>0.82"
Tc=15.0 min CN=71 Runoff=3.36 cfs 0.307 af

Subcatchment2A: 2A Runoff Area=2.020 ac 0.00% Impervious Runoff Depth>0.93"
Tc=15.0 min CN=73 Runoff=1.74 cfs 0.156 af

Subcatchment2B: 2B Runoff Area=2.220 ac 0.00% Impervious Runoff Depth>0.98"
Tc=15.0 min CN=74 Runoff=2.04 cfs 0.181 af

Pond 1AP: Basin 1A Peak Elev=2.01' Storage=0.310 af Inflow=3.51 cfs 0.311 af
Outflow=0.00 cfs 0.000 af

Pond 1BP: Basin 1B Peak Elev=2.52' Storage=0.643 af Inflow=7.27 cfs 0.643 af
Outflow=0.00 cfs 0.000 af

Pond 1CP: Basin 1C Peak Elev=2.21' Storage=0.307 af Inflow=3.36 cfs 0.307 af
Outflow=0.00 cfs 0.000 af

Pond 2AP: Basin 2A Peak Elev=1.59' Storage=0.156 af Inflow=1.74 cfs 0.156 af
Outflow=0.00 cfs 0.000 af

Pond 2BP: Basin 2B Peak Elev=1.77' Storage=0.181 af Inflow=2.04 cfs 0.181 af
Outflow=0.00 cfs 0.000 af

Link DP1: DP1 Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af

Link DP2: DP2 Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af

Total Runoff Area = 20.410 ac Runoff Volume = 1.598 af Average Runoff Depth = 0.94"
99.51% Pervious = 20.310 ac 0.49% Impervious = 0.100 ac

Summary for Subcatchment 1A: 1A

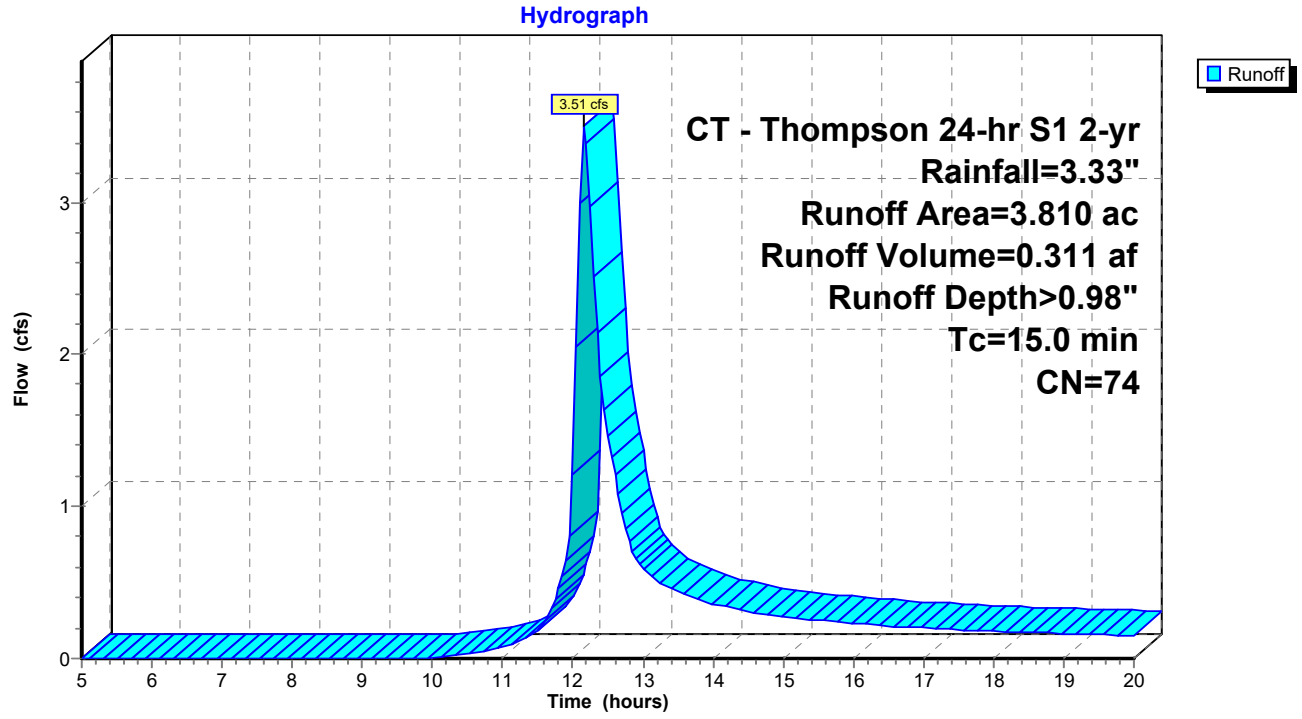
Runoff = 3.51 cfs @ 12.17 hrs, Volume= 0.311 af, Depth> 0.98"
Routed to Pond 1AP : Basin 1A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 2-yr Rainfall=3.33"

	Area (ac)	CN	Description
	0.380	69	50-75% Grass cover, Fair, HSG B
*	3.430	74	50-75% Grass cover, Fair, HSG B-C
	3.810	74	Weighted Average
	3.810		100.00% Pervious Area

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

Subcatchment 1A: 1A



Summary for Subcatchment 1B: 1B

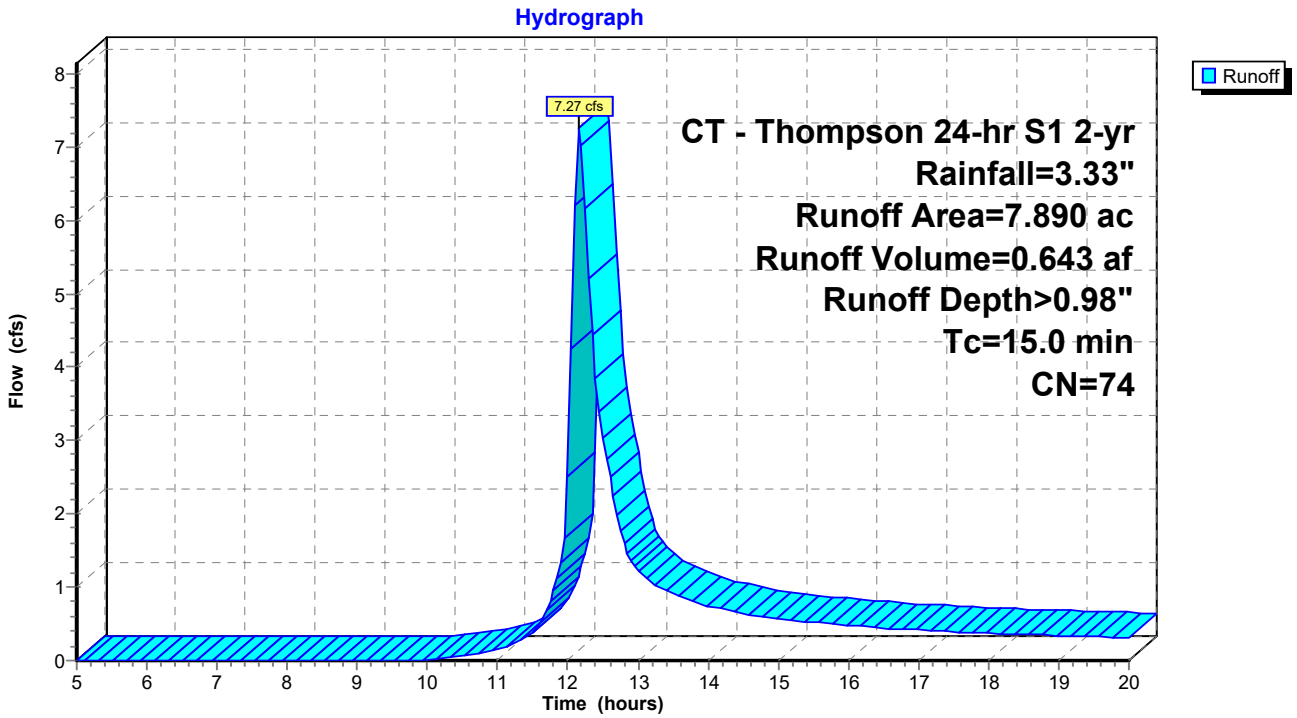
Runoff = 7.27 cfs @ 12.17 hrs, Volume= 0.643 af, Depth> 0.98"
Routed to Pond 1BP : Basin 1B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 2-yr Rainfall=3.33"

	Area (ac)	CN	Description
	0.300	66	Woods, Poor, HSG B
*	7.490	74	50-75% Grass cover, Fair, HSG B-C
	0.100	98	Paved parking, HSG B
	7.890	74	Weighted Average
	7.790		98.73% Pervious Area
	0.100		1.27% Impervious Area

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

Subcatchment 1B: 1B



Summary for Subcatchment 1C: 1C

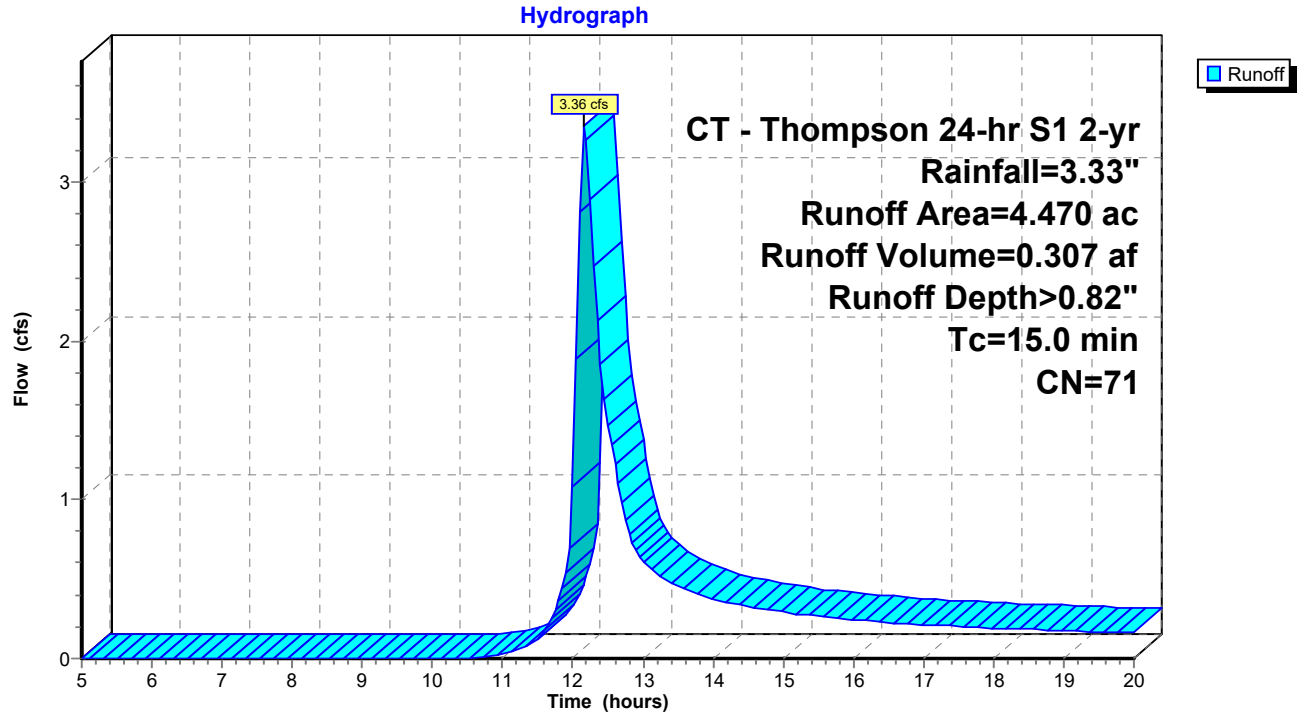
Runoff = 3.36 cfs @ 12.17 hrs, Volume= 0.307 af, Depth> 0.82"
Routed to Pond 1CP : Basin 1C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 2-yr Rainfall=3.33"

	Area (ac)	CN	Description
	1.400	66	Woods, Poor, HSG B
*	3.070	74	50-75% Grass cover, Fair, HSG B-C
	4.470	71	Weighted Average
	4.470		100.00% Pervious Area

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

Subcatchment 1C: 1C



Summary for Subcatchment 2A: 2A

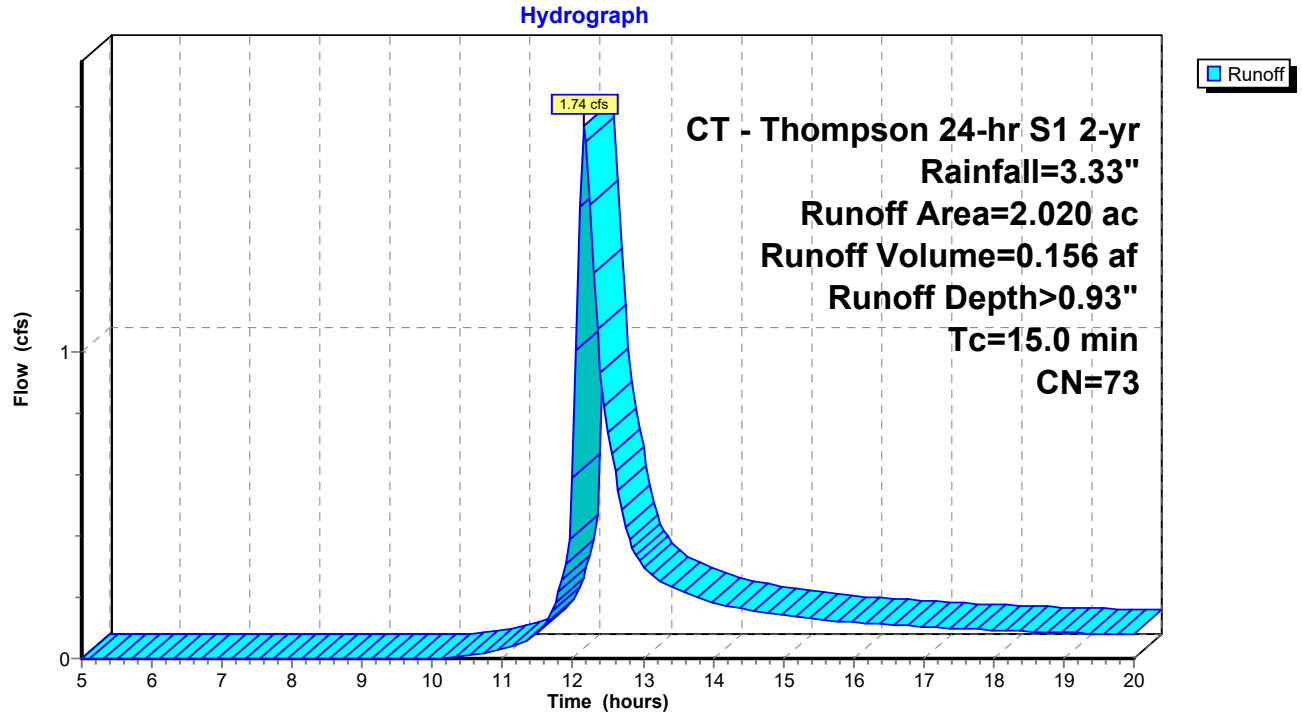
Runoff = 1.74 cfs @ 12.17 hrs, Volume= 0.156 af, Depth> 0.93"
Routed to Pond 2AP : Basin 2A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 2-yr Rainfall=3.33"

	Area (ac)	CN	Description
	0.200	66	Woods, Poor, HSG B
*	1.820	74	50-75% Grass cover, Fair, HSG B-C
	2.020	73	Weighted Average
	2.020		100.00% Pervious Area

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

Subcatchment 2A: 2A



Summary for Subcatchment 2B: 2B

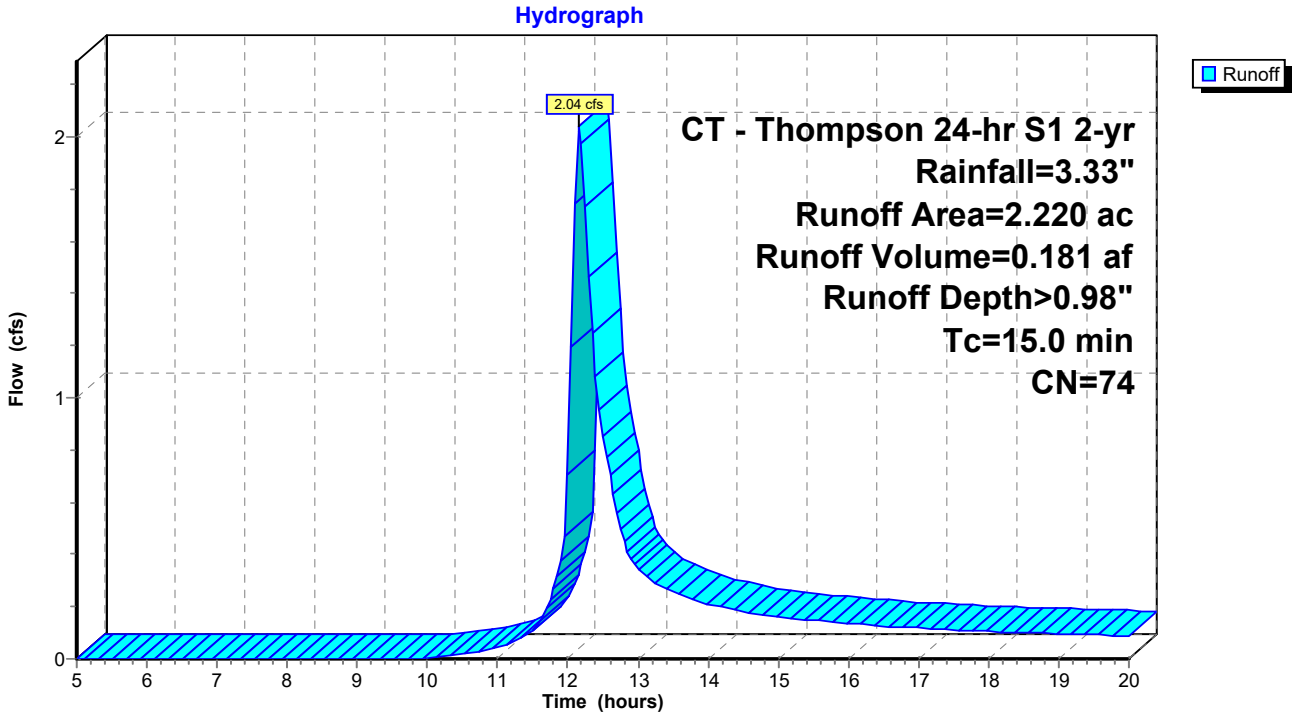
Runoff = 2.04 cfs @ 12.17 hrs, Volume= 0.181 af, Depth> 0.98"
Routed to Pond 2BP : Basin 2B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 2-yr Rainfall=3.33"

	Area (ac)	CN	Description
*	2.220	74	50-75% Grass cover, Fair, HSG B-C
	2.220		100.00% Pervious Area

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

Subcatchment 2B: 2B



Summary for Pond 1AP: Basin 1A

Inflow Area = 3.810 ac, 0.00% Impervious, Inflow Depth > 0.98" for 2-yr event
Inflow = 3.51 cfs @ 12.17 hrs, Volume= 0.311 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Link DP1 : DP1

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 2.01' @ 20.00 hrs Surf.Area= 0.182 ac Storage= 0.310 af

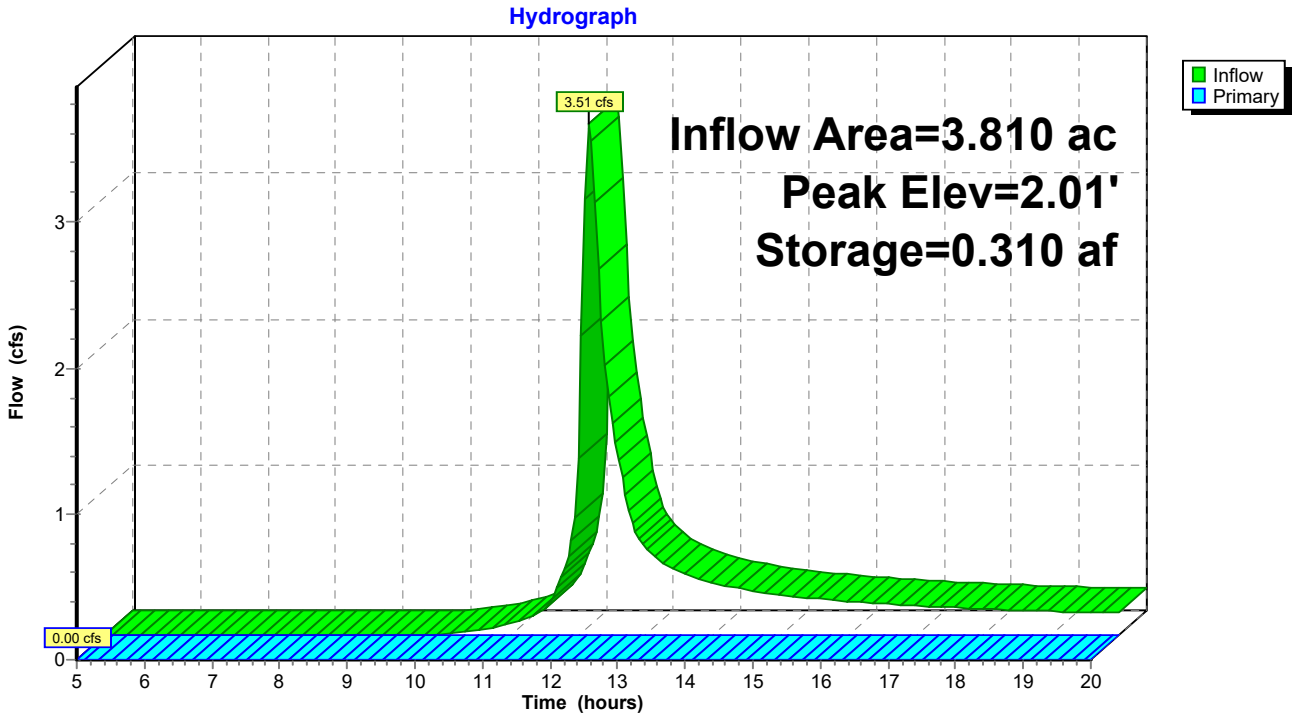
Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	0.730 af	**140.00'W x 40.00'L x 4.00'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	3.00'	**8.0' long + 1.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=0.00' (Free Discharge)
↑—**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1AP: Basin 1A



Summary for Pond 1BP: Basin 1B

Inflow Area = 7.890 ac, 1.27% Impervious, Inflow Depth > 0.98" for 2-yr event
Inflow = 7.27 cfs @ 12.17 hrs, Volume= 0.643 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Link DP1 : DP1

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 2.52' @ 20.00 hrs Surf.Area= 0.295 ac Storage= 0.643 af

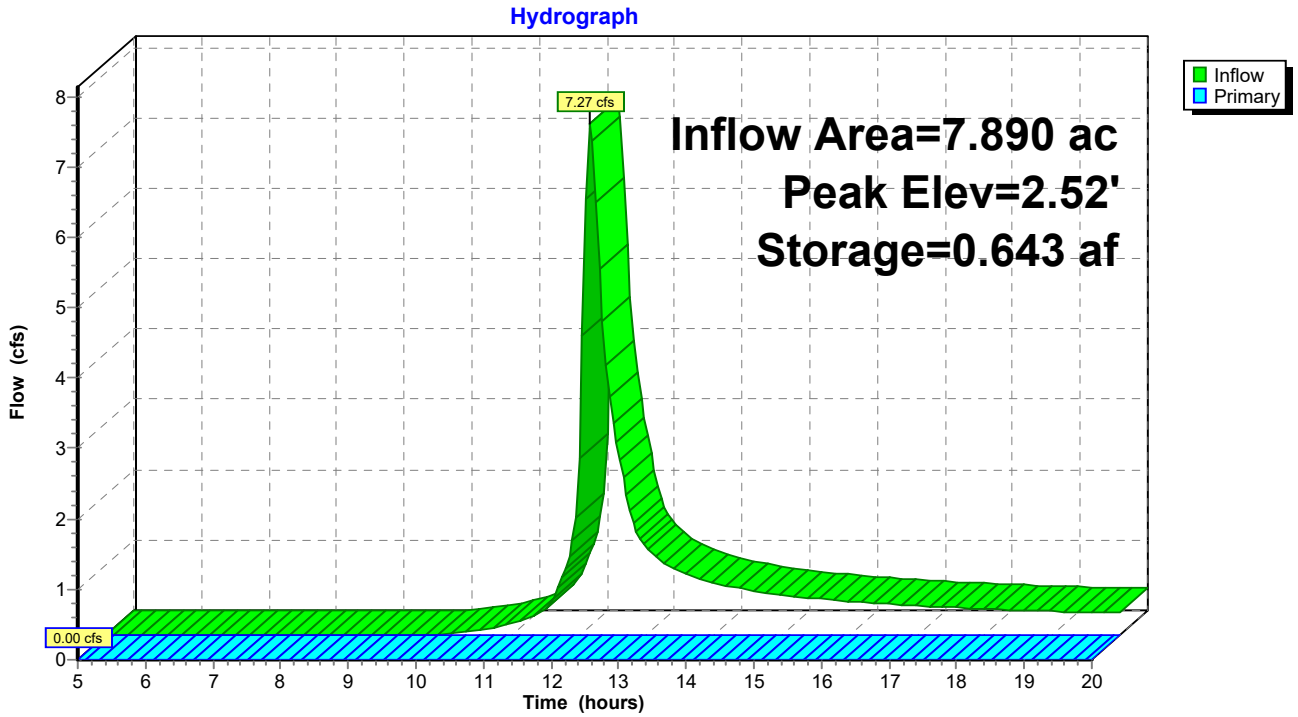
Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	1.115 af	**145.00'W x 65.00'L x 4.00'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	3.00'	**8.0' long + 1.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=0.00' (Free Discharge)
1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 1BP: Basin 1B



Summary for Pond 1CP: Basin 1C

Inflow Area = 4.470 ac, 0.00% Impervious, Inflow Depth > 0.82" for 2-yr event
Inflow = 3.36 cfs @ 12.17 hrs, Volume= 0.307 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Link DP1 : DP1

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 2.21' @ 20.00 hrs Surf.Area= 0.164 ac Storage= 0.307 af

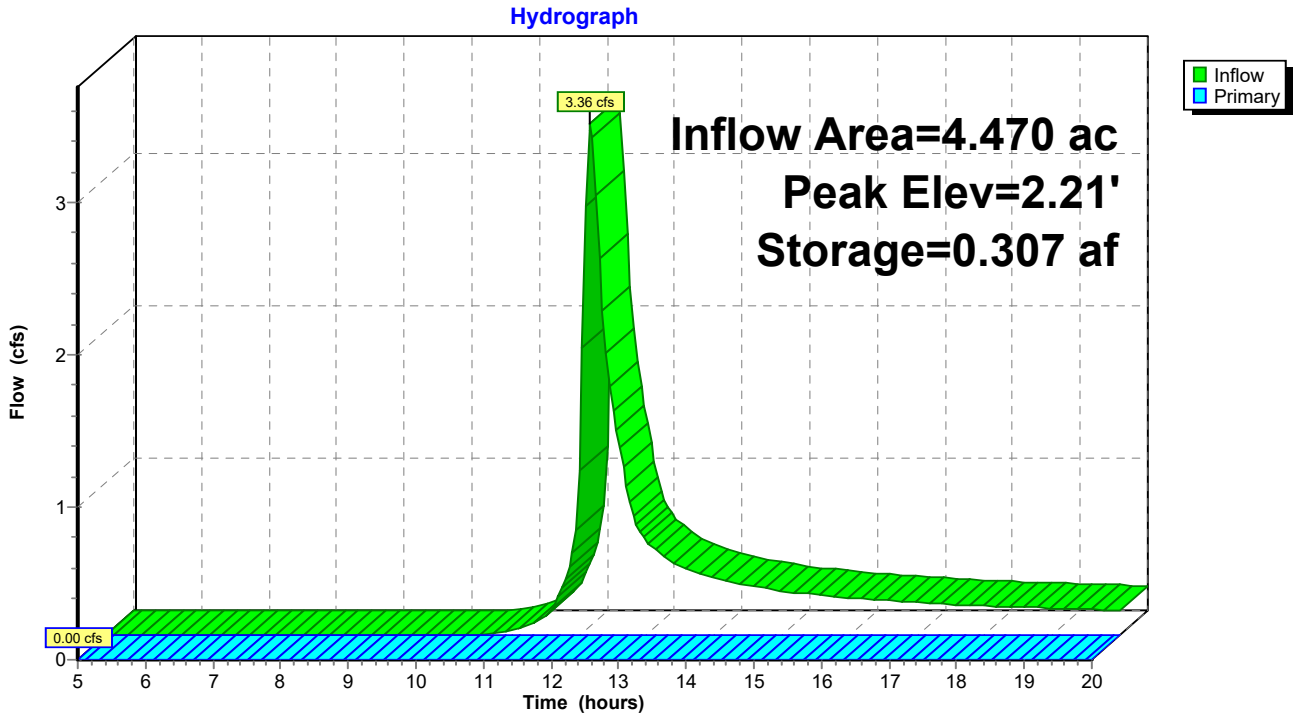
Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	0.642 af	**100.00'W x 50.00'L x 4.00'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	3.00'	**8.0' long + 1.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=0.00' (Free Discharge)
1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 1CP: Basin 1C



Summary for Pond 2AP: Basin 2A

Inflow Area = 2.020 ac, 0.00% Impervious, Inflow Depth > 0.93" for 2-yr event
Inflow = 1.74 cfs @ 12.17 hrs, Volume= 0.156 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Link DP2 : DP2

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 1.59' @ 20.00 hrs Surf.Area= 0.113 ac Storage= 0.156 af

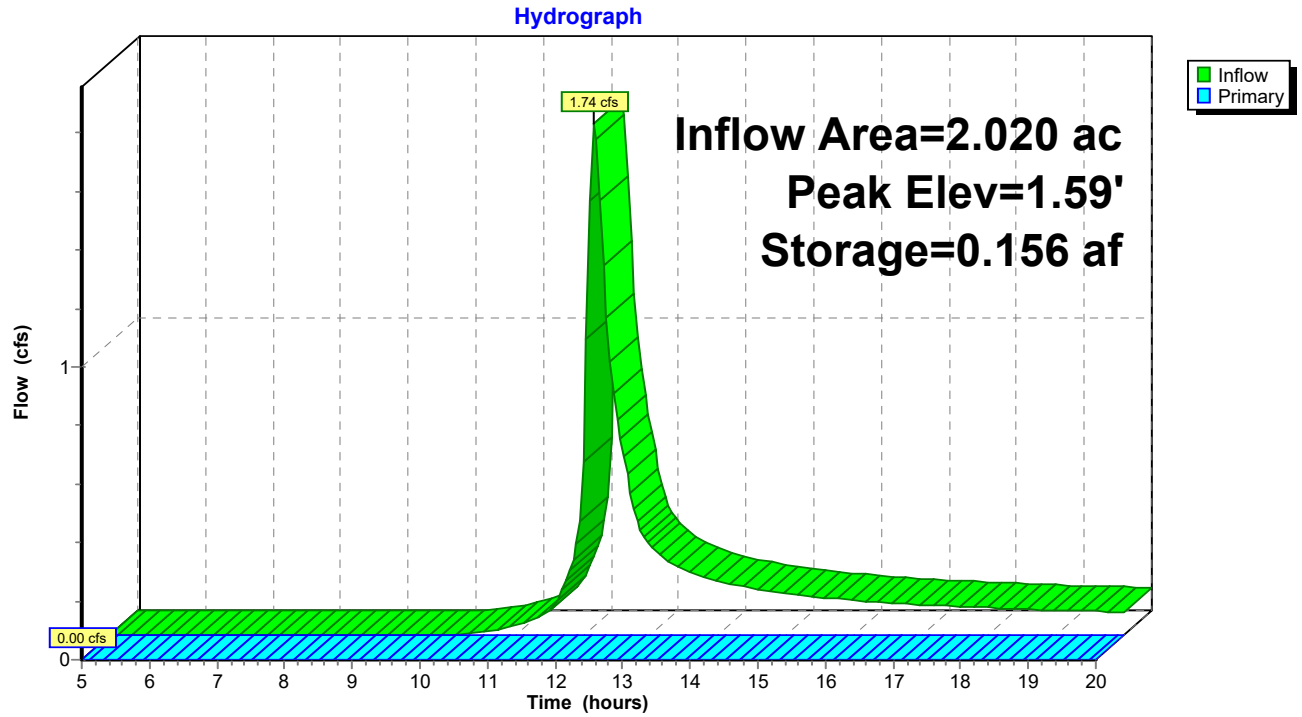
Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	0.491 af	**90.00'W x 40.00'L x 4.00'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	3.00'	**8.0' long + 1.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=0.00' (Free Discharge)
1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 2AP: Basin 2A



Summary for Pond 2BP: Basin 2B

Inflow Area = 2.220 ac, 0.00% Impervious, Inflow Depth > 0.98" for 2-yr event
Inflow = 2.04 cfs @ 12.17 hrs, Volume= 0.181 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Link DP2 : DP2

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 1.77' @ 20.00 hrs Surf.Area= 0.127 ac Storage= 0.181 af

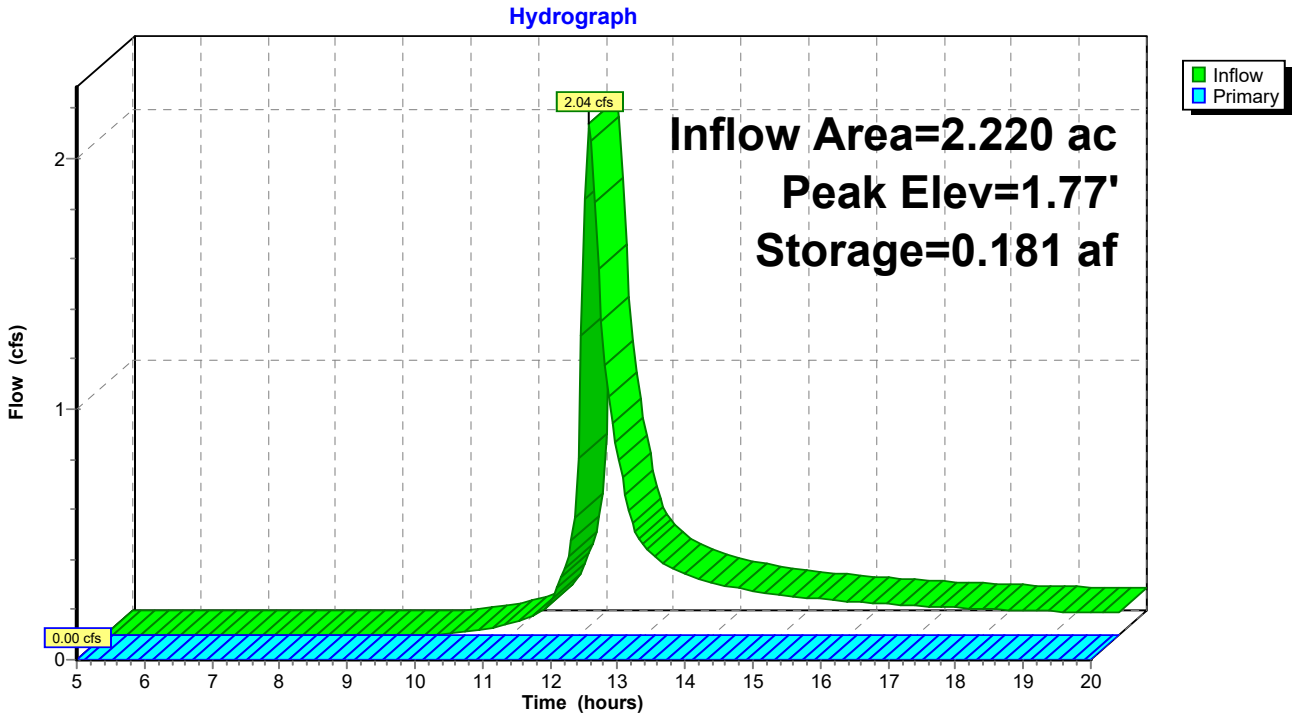
Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	0.539 af	**170.00'W x 20.00'L x 4.00'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	3.00'	**8.0' long + 1.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=0.00' (Free Discharge)
1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 2BP: Basin 2B

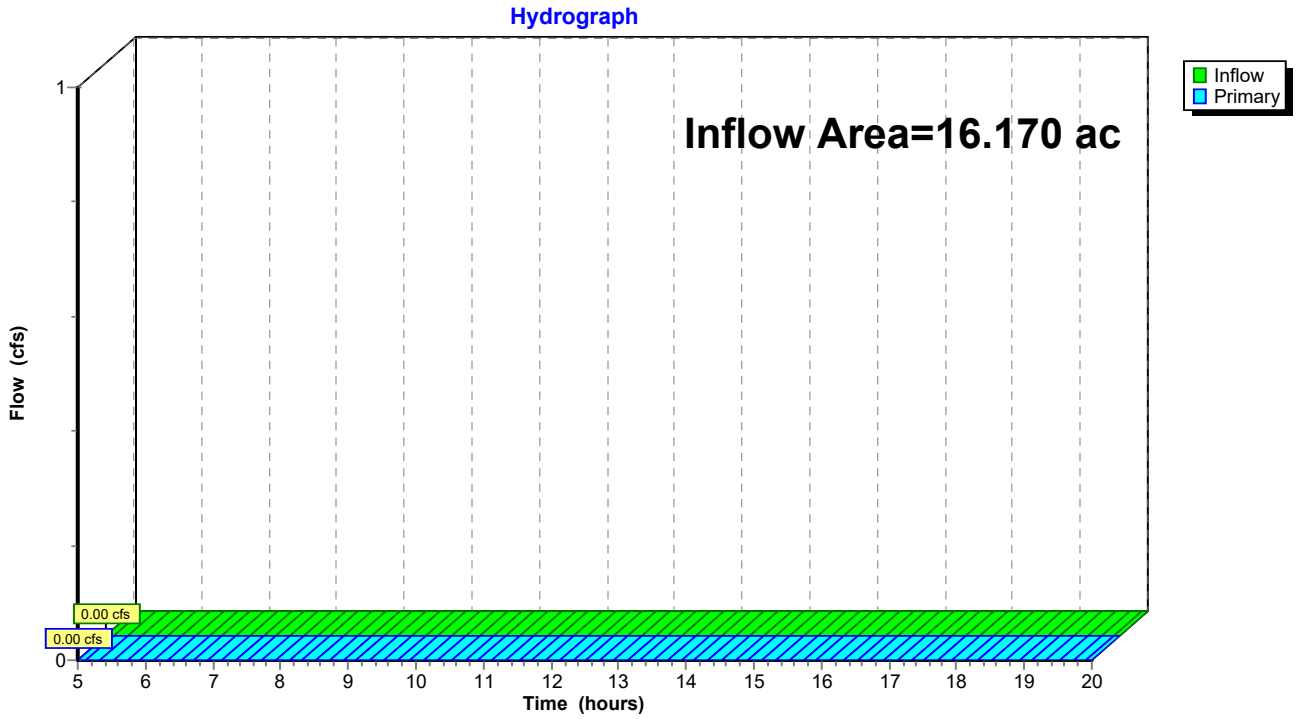


Summary for Link DP1: DP1

Inflow Area = 16.170 ac, 0.62% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

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

Link DP1: DP1

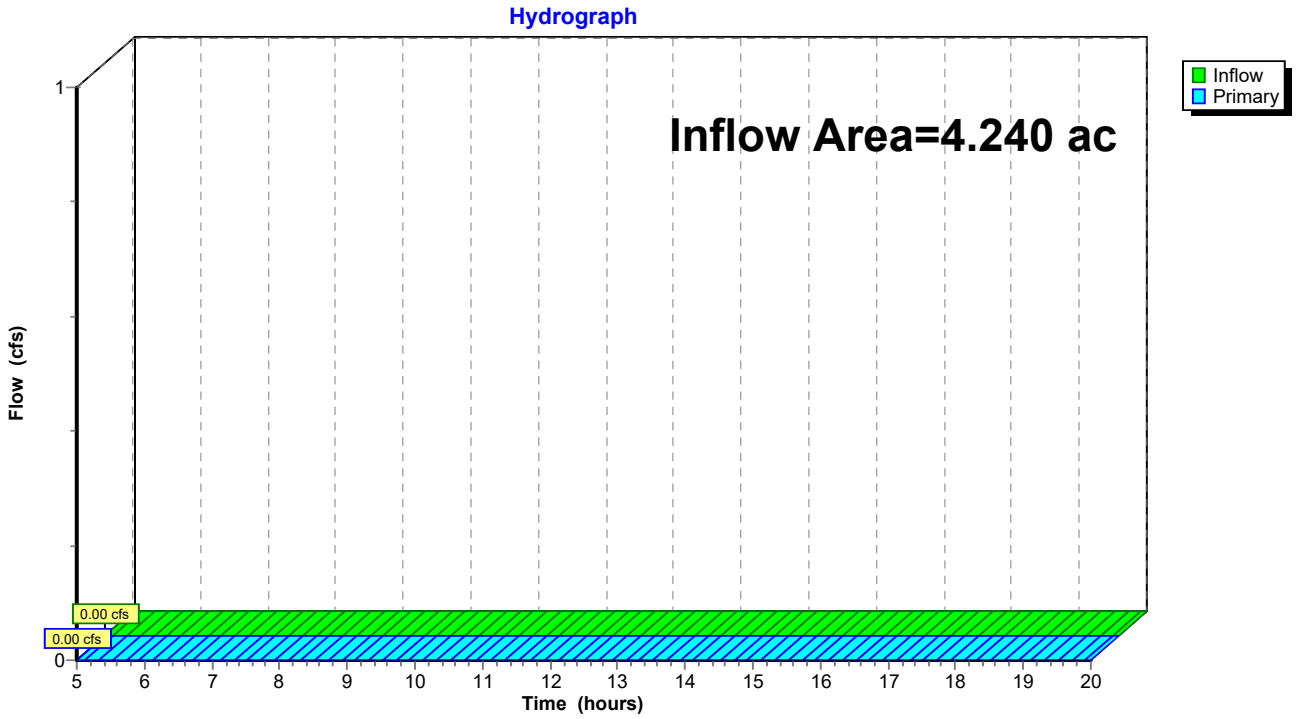


Summary for Link DP2: DP2

Inflow Area = 4.240 ac, 0.00% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

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

Link DP2: DP2



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

Subcatchment1A: 1A Runoff Area=3.810 ac 0.00% Impervious Runoff Depth>3.02"
Tc=15.0 min CN=74 Runoff=10.70 cfs 0.960 af

Subcatchment1B: 1B Runoff Area=7.890 ac 1.27% Impervious Runoff Depth>3.02"
Tc=15.0 min CN=74 Runoff=22.15 cfs 1.987 af

Subcatchment1C: 1C Runoff Area=4.470 ac 0.00% Impervious Runoff Depth>2.74"
Tc=15.0 min CN=71 Runoff=11.40 cfs 1.022 af

Subcatchment2A: 2A Runoff Area=2.020 ac 0.00% Impervious Runoff Depth>2.93"
Tc=15.0 min CN=73 Runoff=5.50 cfs 0.493 af

Subcatchment2B: 2B Runoff Area=2.220 ac 0.00% Impervious Runoff Depth>3.02"
Tc=15.0 min CN=74 Runoff=6.23 cfs 0.559 af

Pond 1AP: Basin 1A Peak Elev=3.19' Storage=0.545 af Inflow=10.70 cfs 0.960 af
Outflow=1.60 cfs 0.439 af

Pond 1BP: Basin 1B Peak Elev=3.47' Storage=0.936 af Inflow=22.15 cfs 1.987 af
Outflow=6.92 cfs 1.162 af

Pond 1CP: Basin 1C Peak Elev=3.28' Storage=0.498 af Inflow=11.40 cfs 1.022 af
Outflow=2.99 cfs 0.562 af

Pond 2AP: Basin 2A Peak Elev=3.08' Storage=0.347 af Inflow=5.50 cfs 0.493 af
Outflow=0.42 cfs 0.150 af

Pond 2BP: Basin 2B Peak Elev=3.09' Storage=0.375 af Inflow=6.23 cfs 0.559 af
Outflow=0.55 cfs 0.191 af

Link DP1: DP1 Inflow=10.23 cfs 2.164 af
Primary=10.23 cfs 2.164 af

Link DP2: DP2 Inflow=0.94 cfs 0.342 af
Primary=0.94 cfs 0.342 af

Total Runoff Area = 20.410 ac Runoff Volume = 5.021 af Average Runoff Depth = 2.95"
99.51% Pervious = 20.310 ac 0.49% Impervious = 0.100 ac

Summary for Subcatchment 1A: 1A

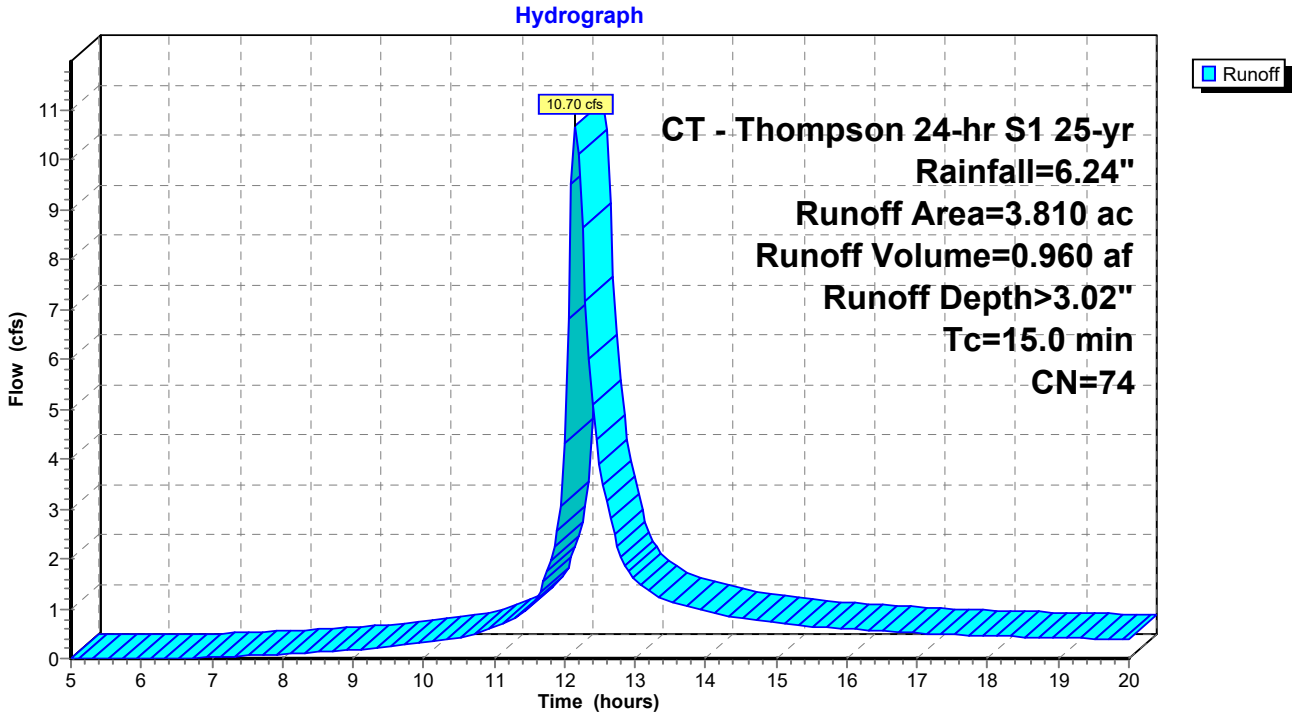
Runoff = 10.70 cfs @ 12.16 hrs, Volume= 0.960 af, Depth> 3.02"
Routed to Pond 1AP : Basin 1A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 25-yr Rainfall=6.24"

	Area (ac)	CN	Description
	0.380	69	50-75% Grass cover, Fair, HSG B
*	3.430	74	50-75% Grass cover, Fair, HSG B-C
	3.810	74	Weighted Average
	3.810		100.00% Pervious Area

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

Subcatchment 1A: 1A



Summary for Subcatchment 1B: 1B

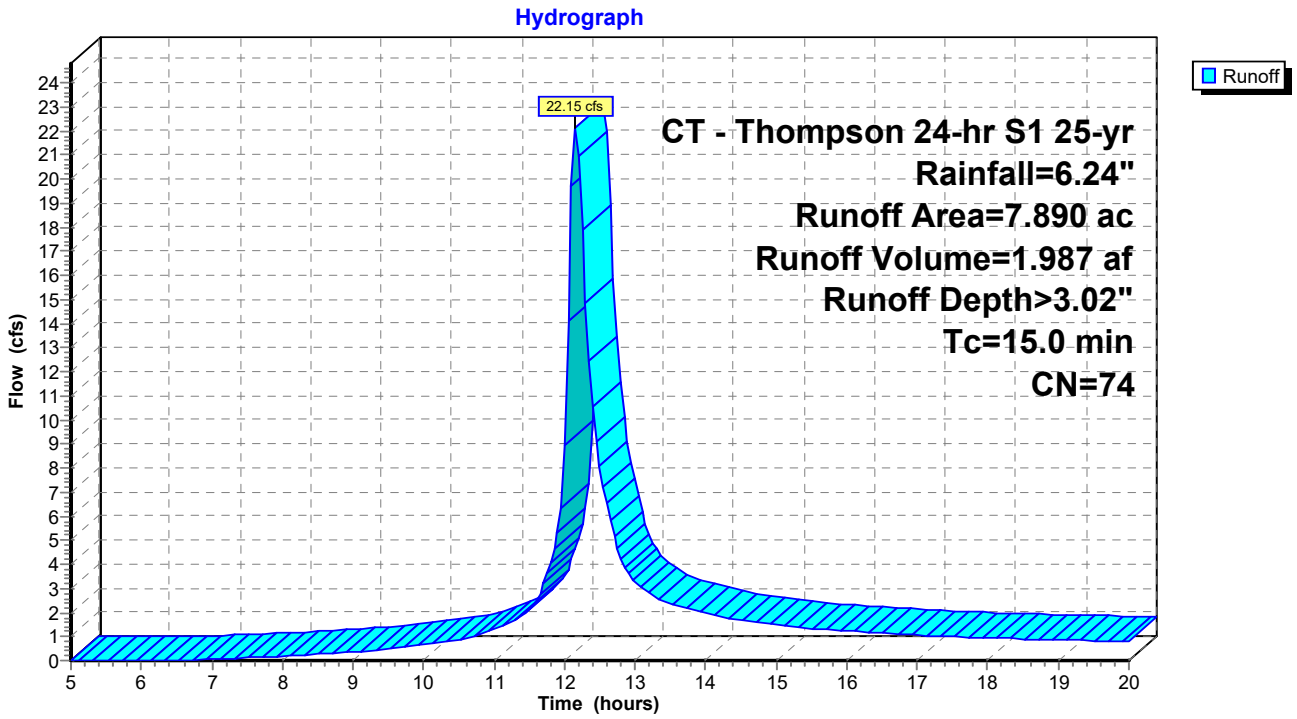
Runoff = 22.15 cfs @ 12.16 hrs, Volume= 1.987 af, Depth> 3.02"
Routed to Pond 1BP : Basin 1B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 25-yr Rainfall=6.24"

	Area (ac)	CN	Description
	0.300	66	Woods, Poor, HSG B
*	7.490	74	50-75% Grass cover, Fair, HSG B-C
	0.100	98	Paved parking, HSG B
	7.890	74	Weighted Average
	7.790		98.73% Pervious Area
	0.100		1.27% Impervious Area

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

Subcatchment 1B: 1B



Summary for Subcatchment 1C: 1C

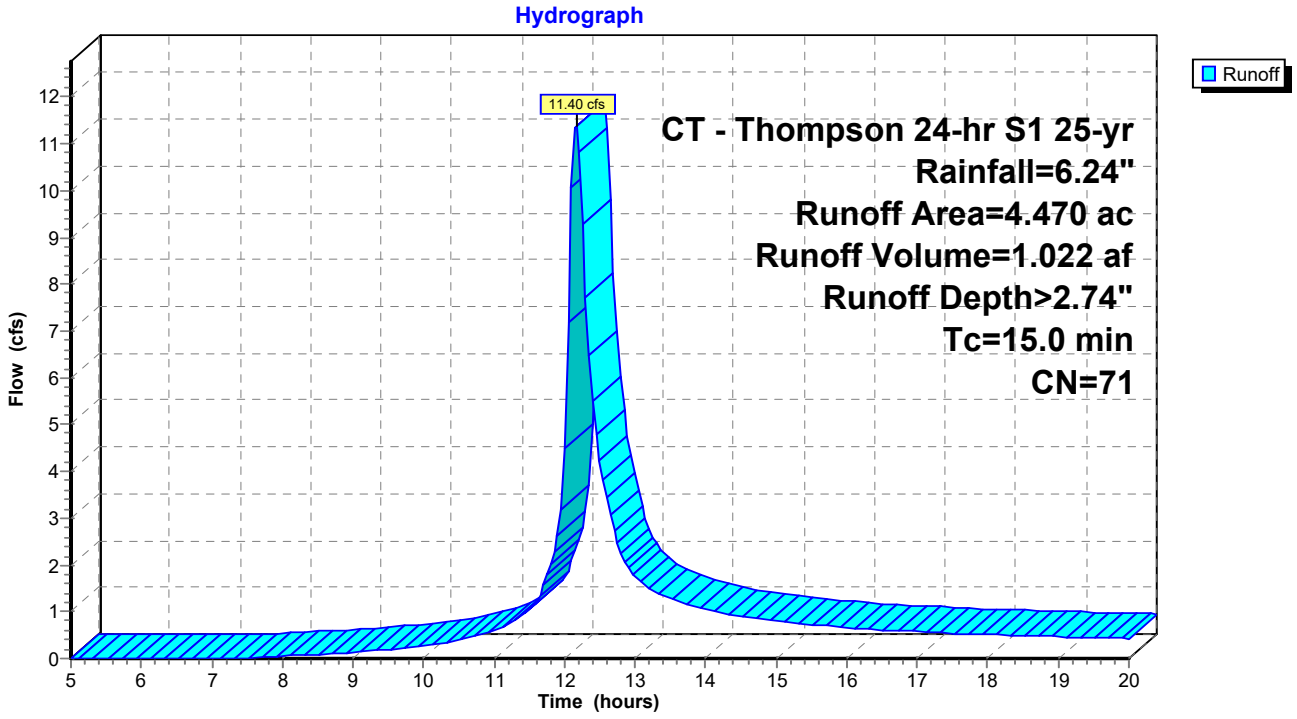
Runoff = 11.40 cfs @ 12.16 hrs, Volume= 1.022 af, Depth> 2.74"
Routed to Pond 1CP : Basin 1C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 25-yr Rainfall=6.24"

	Area (ac)	CN	Description
	1.400	66	Woods, Poor, HSG B
*	3.070	74	50-75% Grass cover, Fair, HSG B-C
	4.470	71	Weighted Average
	4.470		100.00% Pervious Area

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

Subcatchment 1C: 1C



Summary for Subcatchment 2A: 2A

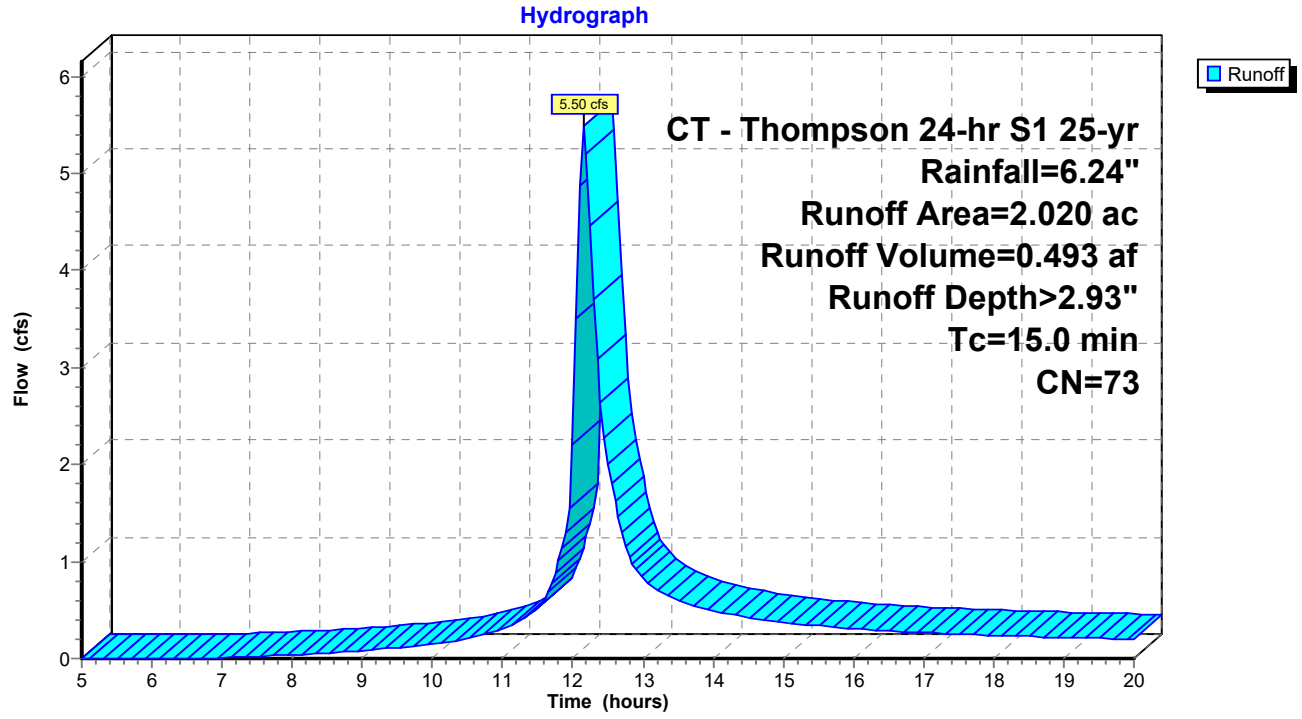
Runoff = 5.50 cfs @ 12.16 hrs, Volume= 0.493 af, Depth> 2.93"
Routed to Pond 2AP : Basin 2A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 25-yr Rainfall=6.24"

	Area (ac)	CN	Description
	0.200	66	Woods, Poor, HSG B
*	1.820	74	50-75% Grass cover, Fair, HSG B-C
	2.020	73	Weighted Average
	2.020		100.00% Pervious Area

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

Subcatchment 2A: 2A



Summary for Subcatchment 2B: 2B

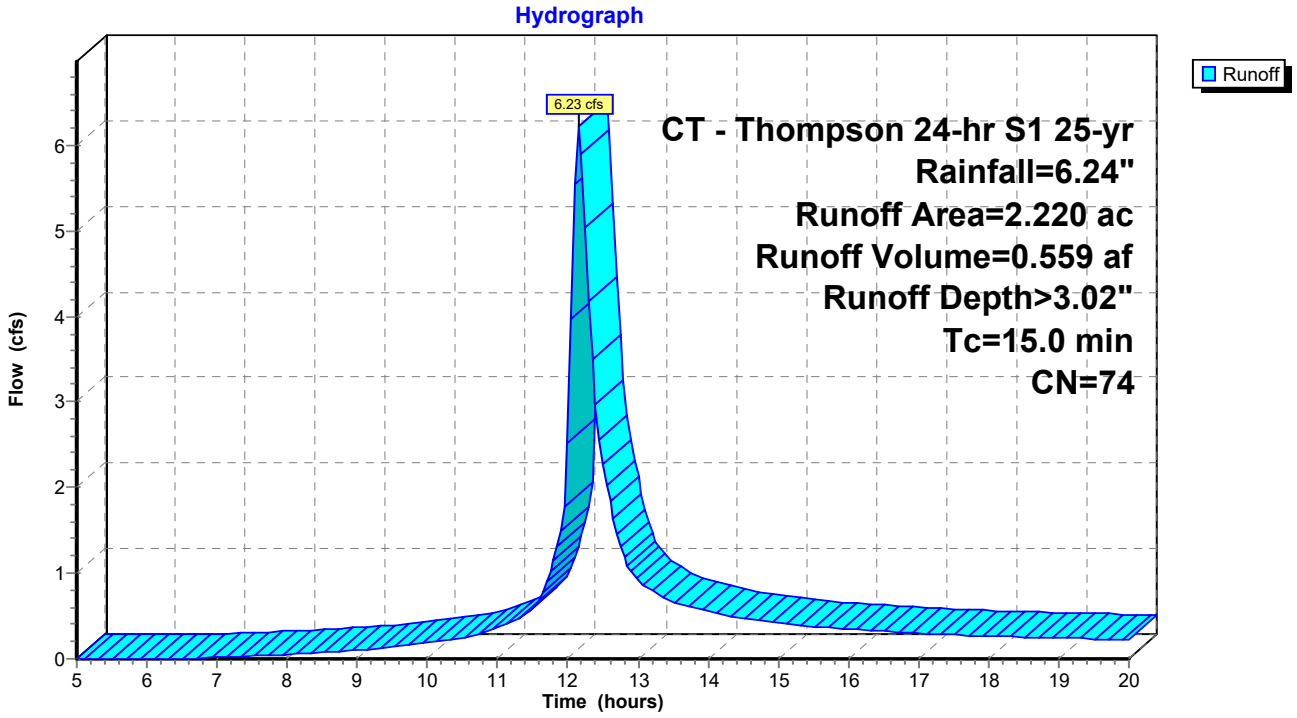
Runoff = 6.23 cfs @ 12.16 hrs, Volume= 0.559 af, Depth> 3.02"
Routed to Pond 2BP : Basin 2B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 25-yr Rainfall=6.24"

	Area (ac)	CN	Description
*	2.220	74	50-75% Grass cover, Fair, HSG B-C
	2.220		100.00% Pervious Area

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

Subcatchment 2B: 2B



Summary for Pond 1AP: Basin 1A

Inflow Area = 3.810 ac, 0.00% Impervious, Inflow Depth > 3.02" for 25-yr event
Inflow = 10.70 cfs @ 12.16 hrs, Volume= 0.960 af
Outflow = 1.60 cfs @ 13.00 hrs, Volume= 0.439 af, Atten= 85%, Lag= 50.3 min
Primary = 1.60 cfs @ 13.00 hrs, Volume= 0.439 af
Routed to Link DP1 : DP1

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 3.19' @ 13.00 hrs Surf.Area= 0.216 ac Storage= 0.545 af

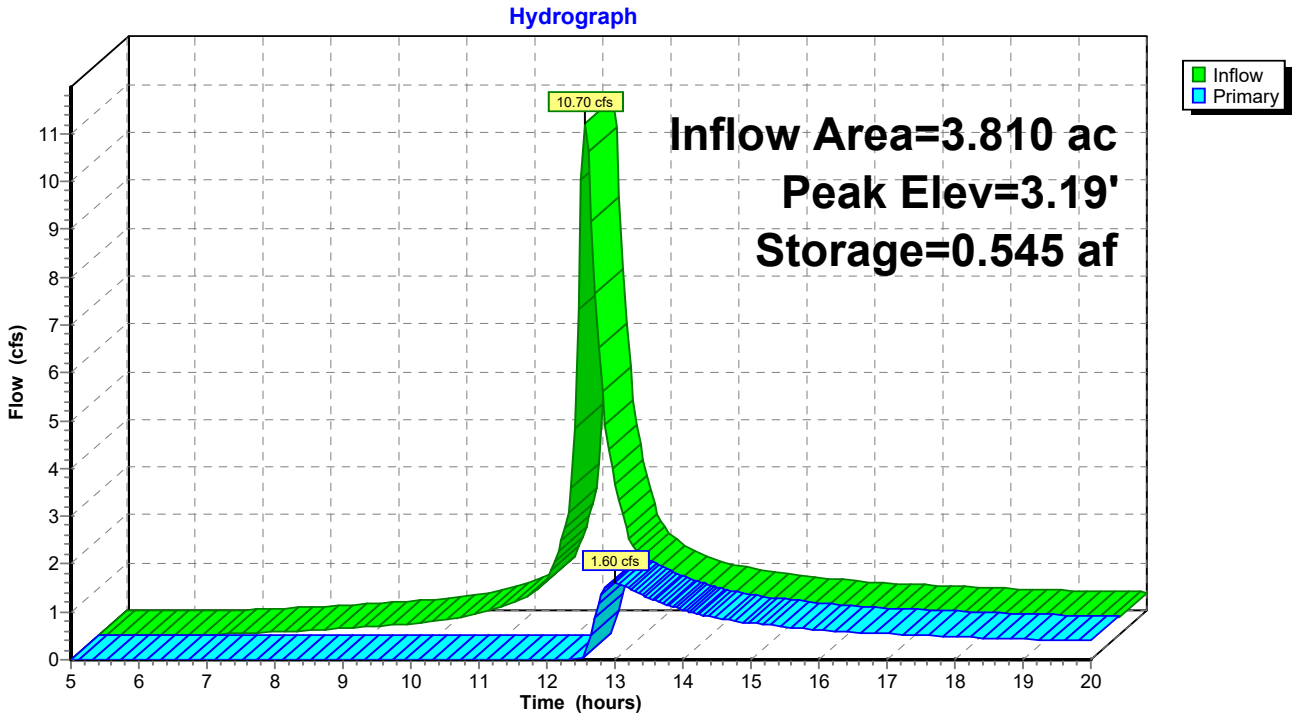
Plug-Flow detention time= 226.6 min calculated for 0.438 af (46% of inflow)
Center-of-Mass det. time= 122.8 min (927.2 - 804.4)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	0.730 af	**140.00'W x 40.00'L x 4.00'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	3.00'	**8.0' long + 1.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=1.59 cfs @ 13.00 hrs HW=3.19' (Free Discharge)
1=Broad-Crested Rectangular Weir (Weir Controls 1.59 cfs @ 1.02 fps)

Pond 1AP: Basin 1A



Summary for Pond 1BP: Basin 1B

Inflow Area = 7.890 ac, 1.27% Impervious, Inflow Depth > 3.02" for 25-yr event
Inflow = 22.15 cfs @ 12.16 hrs, Volume= 1.987 af
Outflow = 6.92 cfs @ 12.57 hrs, Volume= 1.162 af, Atten= 69%, Lag= 24.9 min
Primary = 6.92 cfs @ 12.57 hrs, Volume= 1.162 af
Routed to Link DP1 : DP1

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 3.47' @ 12.57 hrs Surf.Area= 0.327 ac Storage= 0.936 af

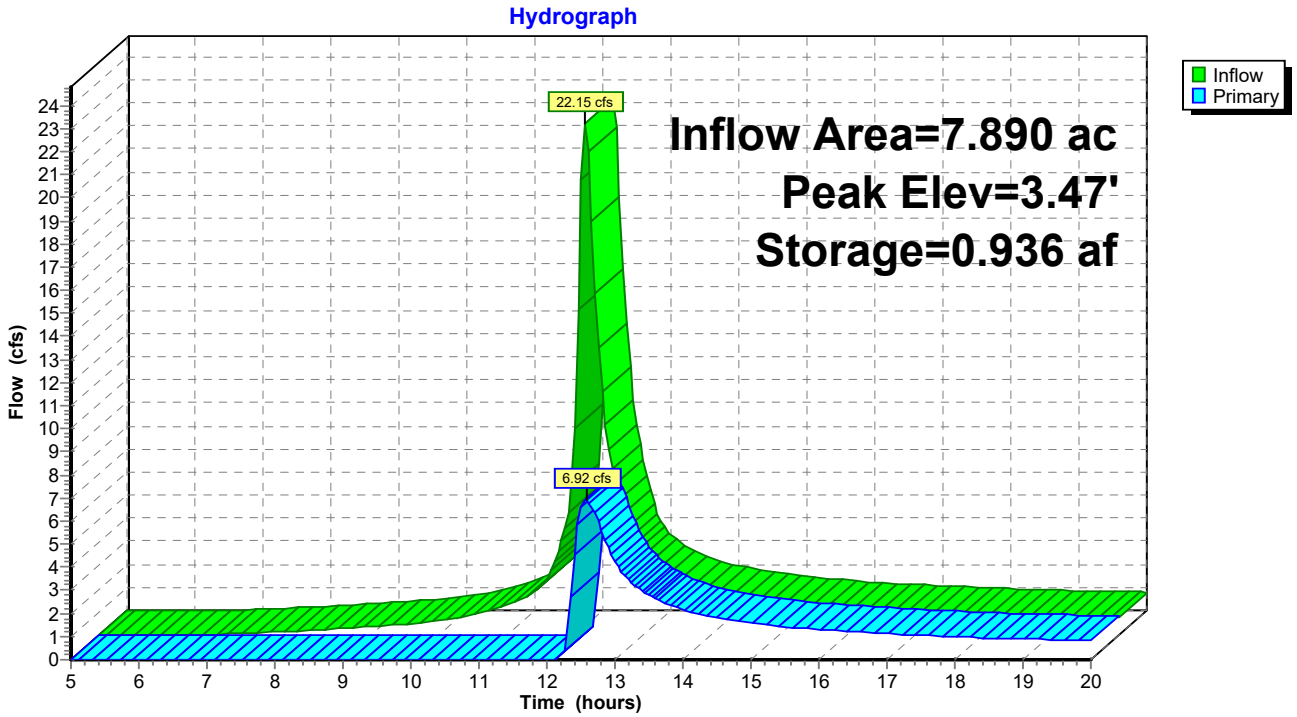
Plug-Flow detention time= 179.6 min calculated for 1.162 af (58% of inflow)
Center-of-Mass det. time= 86.9 min (891.3 - 804.4)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	1.115 af	**145.00'W x 65.00'L x 4.00'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	3.00'	**8.0' long + 1.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=6.87 cfs @ 12.57 hrs HW=3.47' (Free Discharge)
1=Broad-Crested Rectangular Weir (Weir Controls 6.87 cfs @ 1.74 fps)

Pond 1BP: Basin 1B



Summary for Pond 1CP: Basin 1C

Inflow Area = 4.470 ac, 0.00% Impervious, Inflow Depth > 2.74" for 25-yr event
Inflow = 11.40 cfs @ 12.16 hrs, Volume= 1.022 af
Outflow = 2.99 cfs @ 12.67 hrs, Volume= 0.562 af, Atten= 74%, Lag= 30.5 min
Primary = 2.99 cfs @ 12.67 hrs, Volume= 0.562 af
Routed to Link DP1 : DP1

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 3.28' @ 12.67 hrs Surf.Area= 0.192 ac Storage= 0.498 af

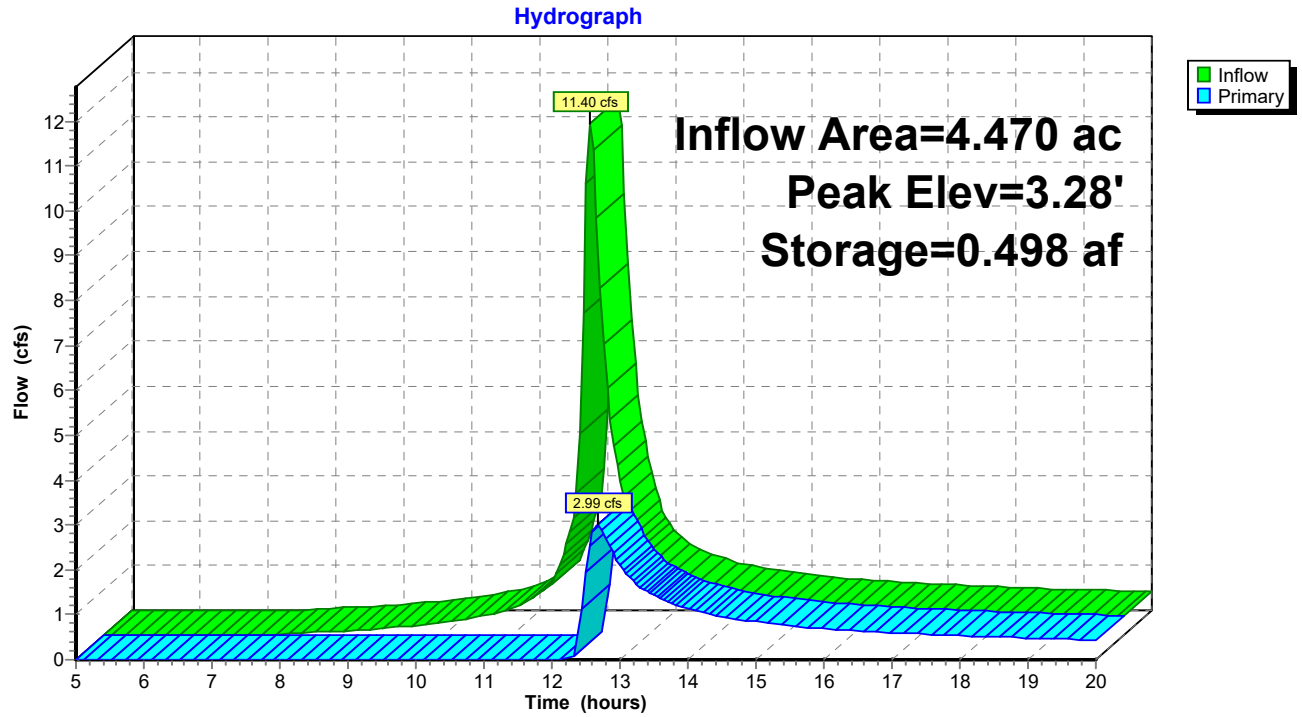
Plug-Flow detention time= 189.4 min calculated for 0.562 af (55% of inflow)
Center-of-Mass det. time= 93.0 min (904.7 - 811.7)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	0.642 af	**100.00'W x 50.00'L x 4.00'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	3.00'	**8.0' long + 1.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=2.97 cfs @ 12.67 hrs HW=3.28' (Free Discharge)
1=Broad-Crested Rectangular Weir (Weir Controls 2.97 cfs @ 1.27 fps)

Pond 1CP: Basin 1C



Summary for Pond 2AP: Basin 2A

Inflow Area = 2.020 ac, 0.00% Impervious, Inflow Depth > 2.93" for 25-yr event
Inflow = 5.50 cfs @ 12.16 hrs, Volume= 0.493 af
Outflow = 0.42 cfs @ 14.49 hrs, Volume= 0.150 af, Atten= 92%, Lag= 139.7 min
Primary = 0.42 cfs @ 14.49 hrs, Volume= 0.150 af
Routed to Link DP2 : DP2

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 3.08' @ 14.49 hrs Surf.Area= 0.146 ac Storage= 0.347 af

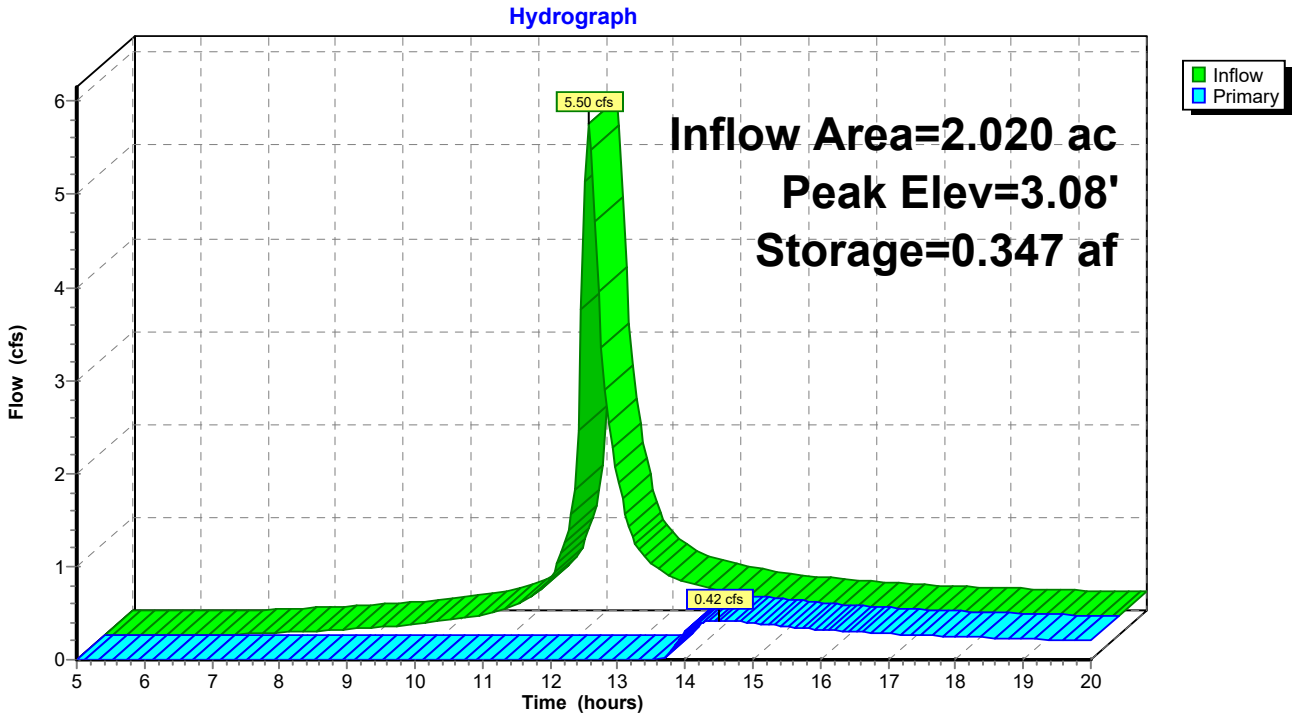
Plug-Flow detention time= 308.0 min calculated for 0.150 af (30% of inflow)
Center-of-Mass det. time= 186.5 min (993.4 - 806.9)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	0.491 af	**90.00'W x 40.00'L x 4.00'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	3.00'	**8.0' long + 1.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.42 cfs @ 14.49 hrs HW=3.08' (Free Discharge)
1=Broad-Crested Rectangular Weir (Weir Controls 0.42 cfs @ 0.66 fps)

Pond 2AP: Basin 2A



Summary for Pond 2BP: Basin 2B

Inflow Area = 2.220 ac, 0.00% Impervious, Inflow Depth > 3.02" for 25-yr event
Inflow = 6.23 cfs @ 12.16 hrs, Volume= 0.559 af
Outflow = 0.55 cfs @ 13.99 hrs, Volume= 0.191 af, Atten= 91%, Lag= 109.8 min
Primary = 0.55 cfs @ 13.99 hrs, Volume= 0.191 af
Routed to Link DP2 : DP2

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 3.09' @ 13.99 hrs Surf.Area= 0.167 ac Storage= 0.375 af

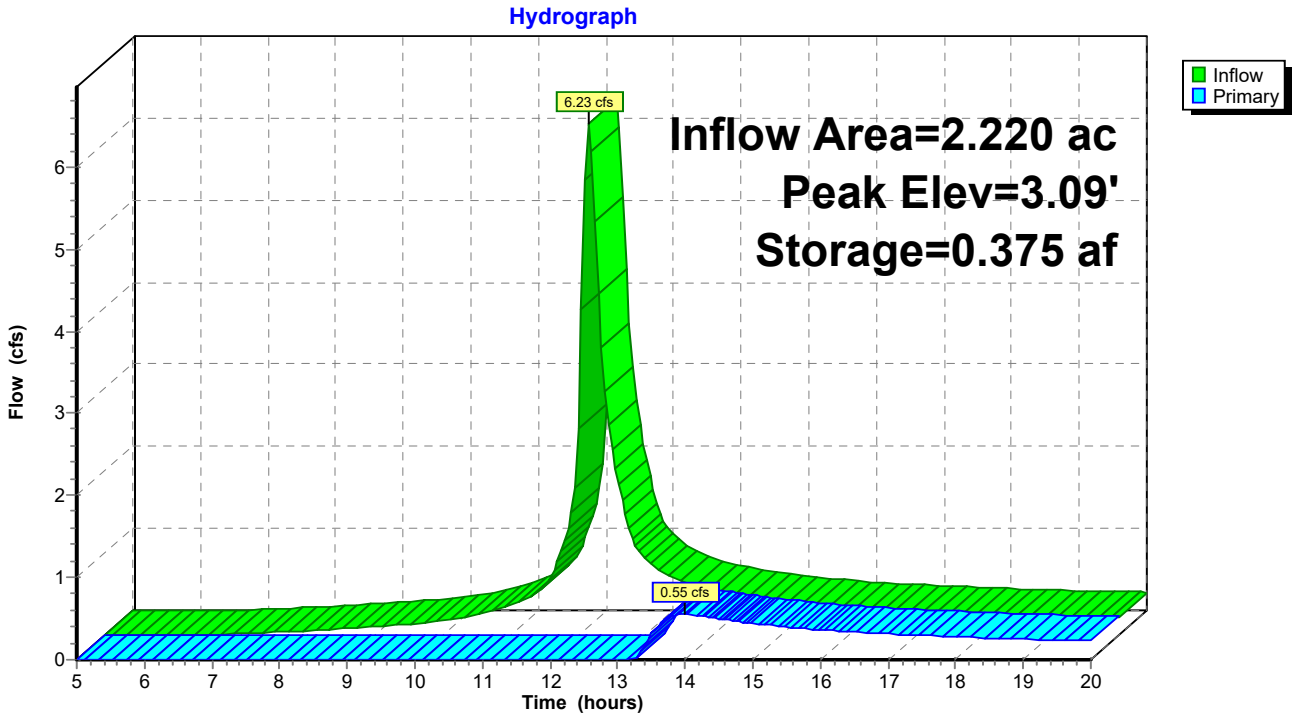
Plug-Flow detention time= 285.5 min calculated for 0.191 af (34% of inflow)
Center-of-Mass det. time= 168.9 min (973.3 - 804.4)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	0.539 af	**170.00'W x 20.00'L x 4.00'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	3.00'	**8.0' long + 1.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.54 cfs @ 13.99 hrs HW=3.09' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 0.54 cfs @ 0.71 fps)

Pond 2BP: Basin 2B

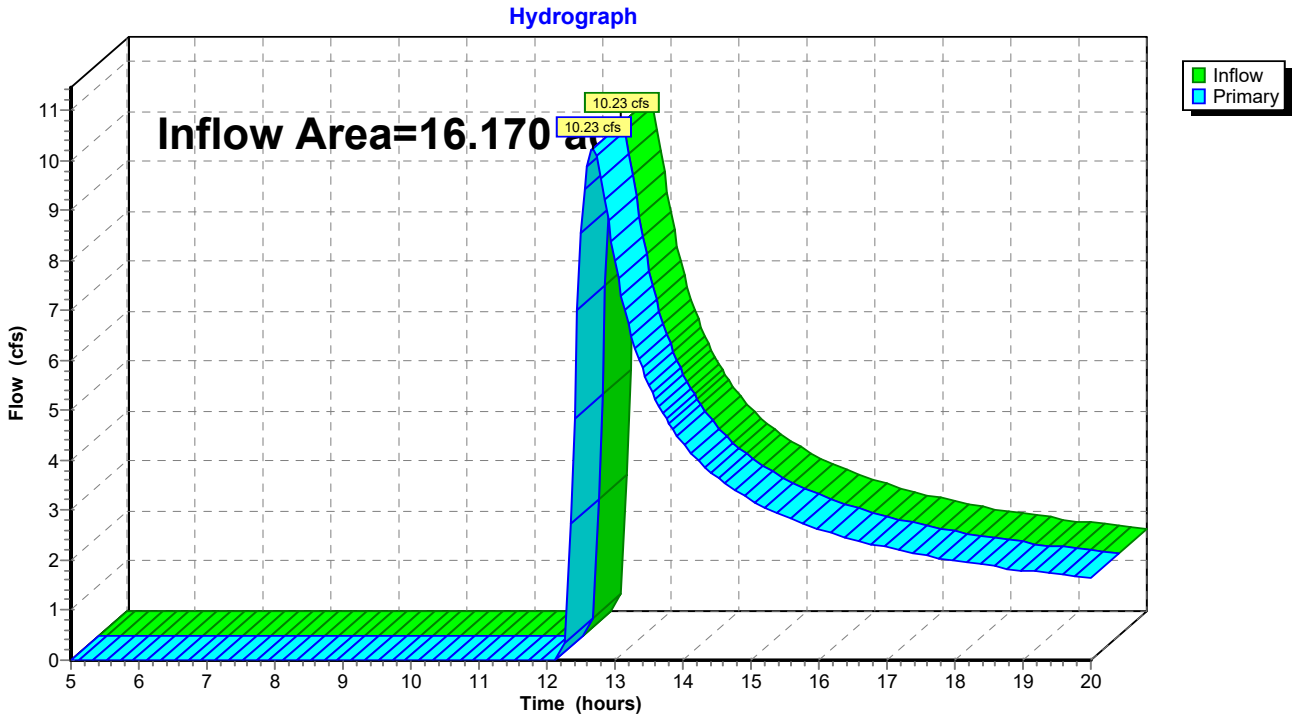


Summary for Link DP1: DP1

Inflow Area = 16.170 ac, 0.62% Impervious, Inflow Depth > 1.61" for 25-yr event
Inflow = 10.23 cfs @ 12.68 hrs, Volume= 2.164 af
Primary = 10.23 cfs @ 12.68 hrs, Volume= 2.164 af, Atten= 0%, Lag= 0.0 min

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

Link DP1: DP1

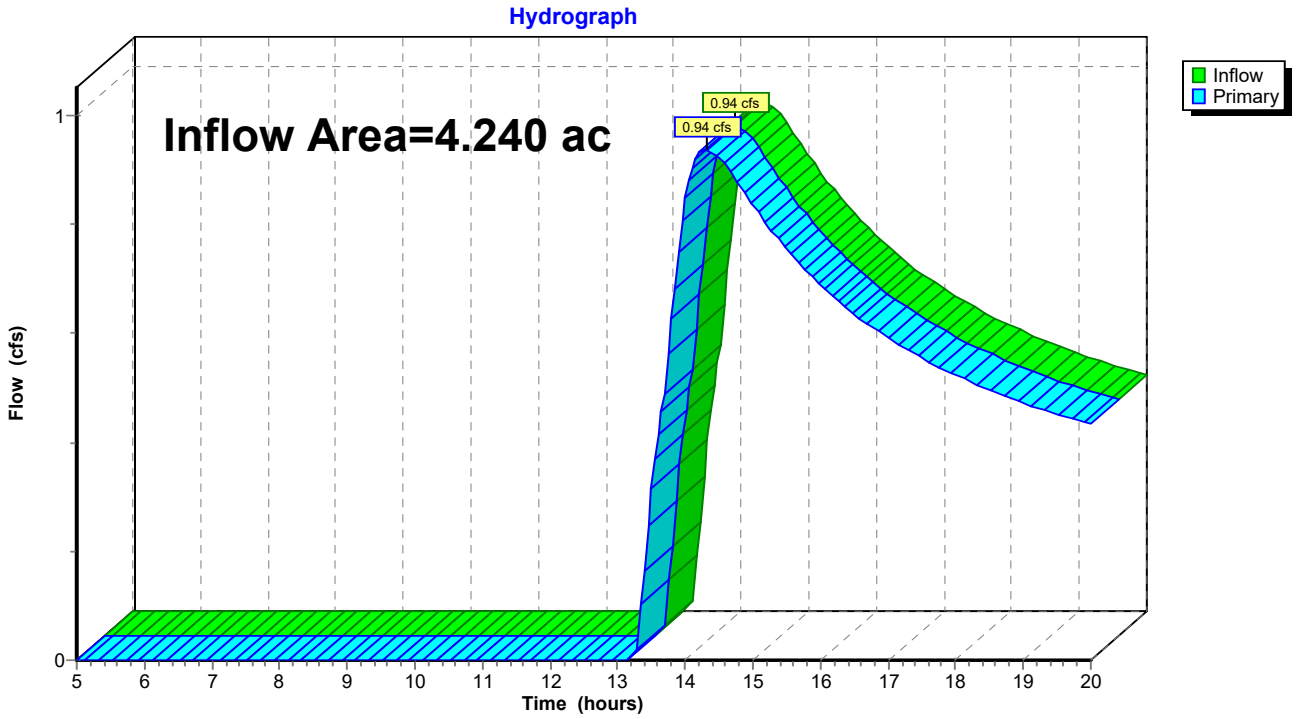


Summary for Link DP2: DP2

Inflow Area = 4.240 ac, 0.00% Impervious, Inflow Depth > 0.97" for 25-yr event
Inflow = 0.94 cfs @ 14.31 hrs, Volume= 0.342 af
Primary = 0.94 cfs @ 14.31 hrs, Volume= 0.342 af, Atten= 0%, Lag= 0.0 min

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

Link DP2: DP2



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

Subcatchment1A: 1A Runoff Area=3.810 ac 0.00% Impervious Runoff Depth>3.67"
Tc=15.0 min CN=74 Runoff=12.90 cfs 1.167 af

Subcatchment1B: 1B Runoff Area=7.890 ac 1.27% Impervious Runoff Depth>3.67"
Tc=15.0 min CN=74 Runoff=26.71 cfs 2.416 af

Subcatchment1C: 1C Runoff Area=4.470 ac 0.00% Impervious Runoff Depth>3.37"
Tc=15.0 min CN=71 Runoff=13.92 cfs 1.255 af

Subcatchment2A: 2A Runoff Area=2.020 ac 0.00% Impervious Runoff Depth>3.57"
Tc=15.0 min CN=73 Runoff=6.66 cfs 0.601 af

Subcatchment2B: 2B Runoff Area=2.220 ac 0.00% Impervious Runoff Depth>3.67"
Tc=15.0 min CN=74 Runoff=7.52 cfs 0.680 af

Pond 1AP: Basin 1A Peak Elev=3.33' Storage=0.576 af Inflow=12.90 cfs 1.167 af
Outflow=3.87 cfs 0.644 af

Pond 1BP: Basin 1B Peak Elev=3.68' Storage=1.005 af Inflow=26.71 cfs 2.416 af
Outflow=12.79 cfs 1.587 af

Pond 1CP: Basin 1C Peak Elev=3.44' Storage=0.528 af Inflow=13.92 cfs 1.255 af
Outflow=6.13 cfs 0.794 af

Pond 2AP: Basin 2A Peak Elev=3.13' Storage=0.355 af Inflow=6.66 cfs 0.601 af
Outflow=0.91 cfs 0.258 af

Pond 2BP: Basin 2B Peak Elev=3.16' Storage=0.386 af Inflow=7.52 cfs 0.680 af
Outflow=1.25 cfs 0.311 af

Link DP1: DP1 Inflow=21.64 cfs 3.025 af
Primary=21.64 cfs 3.025 af

Link DP2: DP2 Inflow=2.10 cfs 0.569 af
Primary=2.10 cfs 0.569 af

Total Runoff Area = 20.410 ac Runoff Volume = 6.119 af Average Runoff Depth = 3.60"
99.51% Pervious = 20.310 ac 0.49% Impervious = 0.100 ac

Summary for Subcatchment 1A: 1A

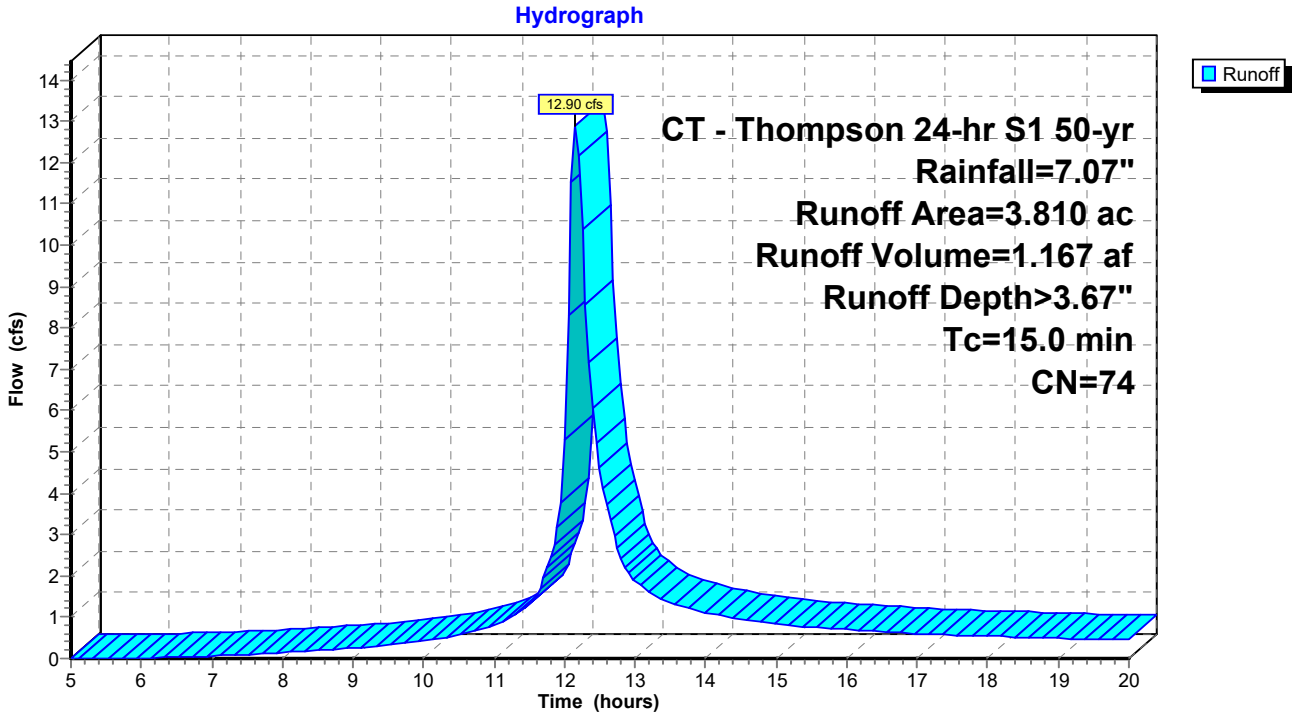
Runoff = 12.90 cfs @ 12.16 hrs, Volume= 1.167 af, Depth> 3.67"
Routed to Pond 1AP : Basin 1A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 50-yr Rainfall=7.07"

	Area (ac)	CN	Description
	0.380	69	50-75% Grass cover, Fair, HSG B
*	3.430	74	50-75% Grass cover, Fair, HSG B-C
	3.810	74	Weighted Average
	3.810		100.00% Pervious Area

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

Subcatchment 1A: 1A



Summary for Subcatchment 1B: 1B

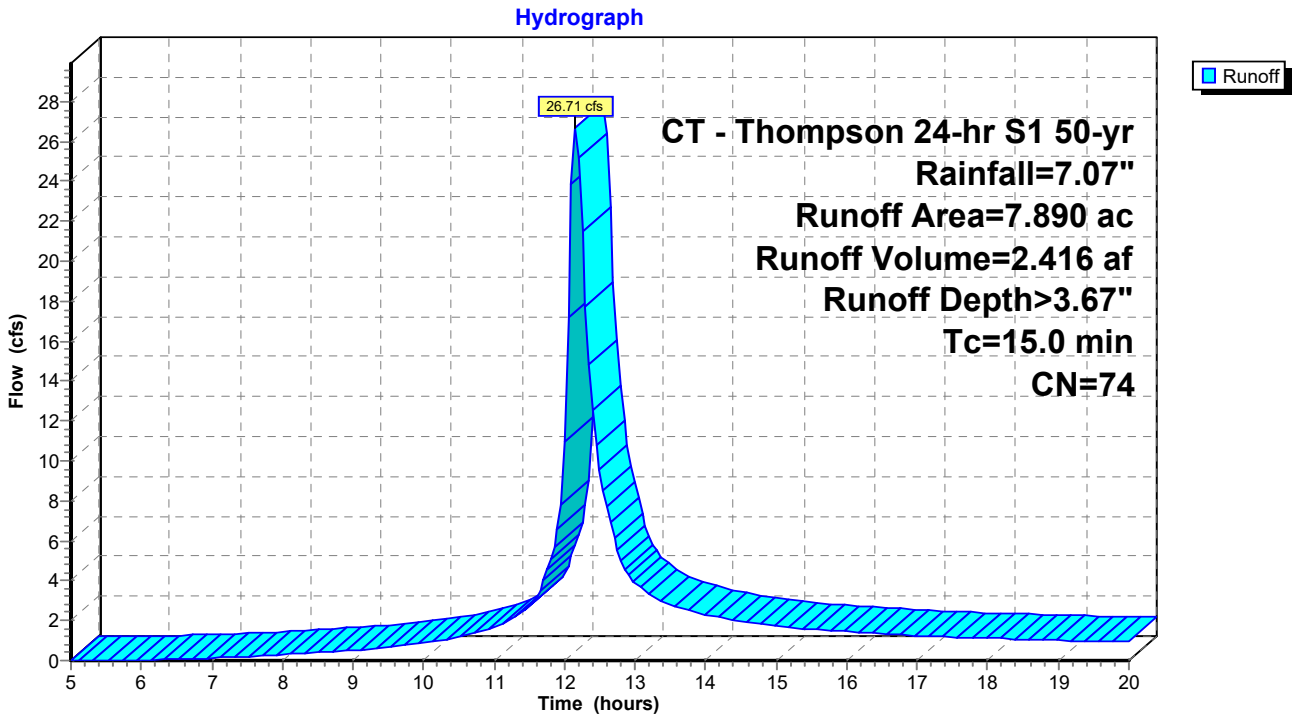
Runoff = 26.71 cfs @ 12.16 hrs, Volume= 2.416 af, Depth> 3.67"
Routed to Pond 1BP : Basin 1B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 50-yr Rainfall=7.07"

	Area (ac)	CN	Description
	0.300	66	Woods, Poor, HSG B
*	7.490	74	50-75% Grass cover, Fair, HSG B-C
	0.100	98	Paved parking, HSG B
	7.890	74	Weighted Average
	7.790		98.73% Pervious Area
	0.100		1.27% Impervious Area

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

Subcatchment 1B: 1B



Summary for Subcatchment 1C: 1C

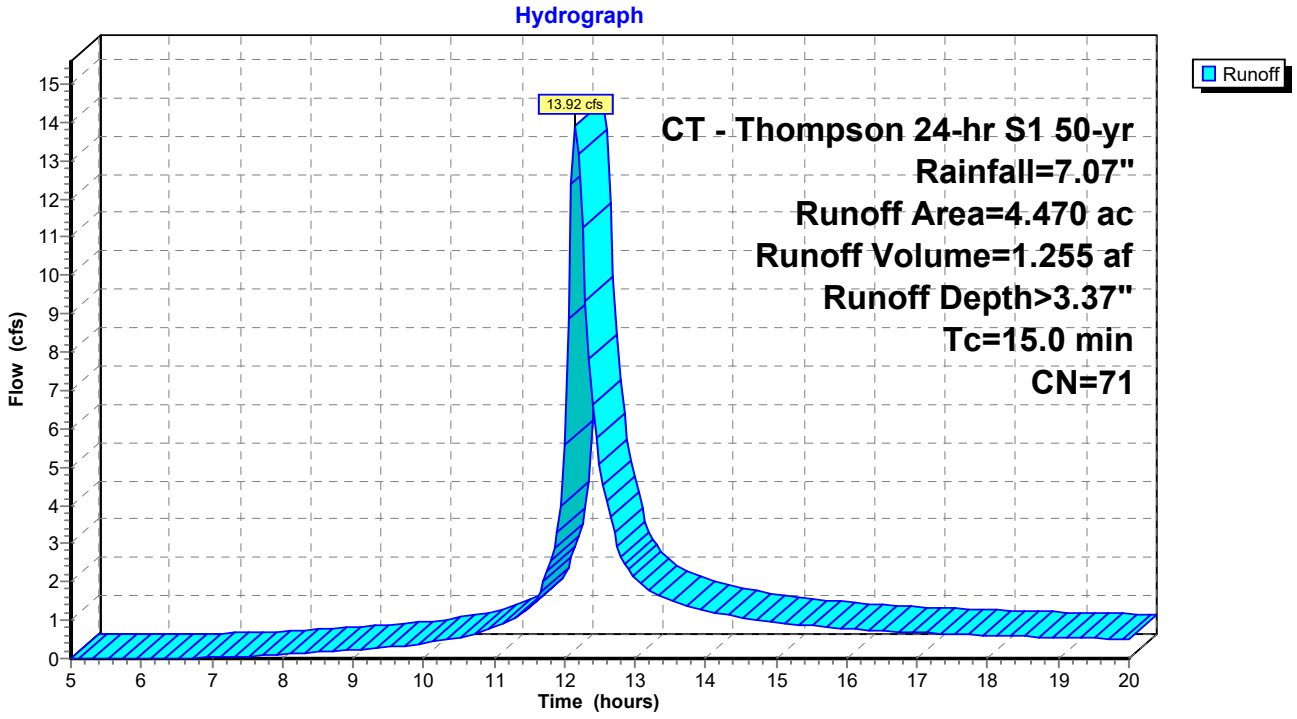
Runoff = 13.92 cfs @ 12.16 hrs, Volume= 1.255 af, Depth> 3.37"
Routed to Pond 1CP : Basin 1C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 50-yr Rainfall=7.07"

	Area (ac)	CN	Description
	1.400	66	Woods, Poor, HSG B
*	3.070	74	50-75% Grass cover, Fair, HSG B-C
	4.470	71	Weighted Average
	4.470		100.00% Pervious Area

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

Subcatchment 1C: 1C



Summary for Subcatchment 2A: 2A

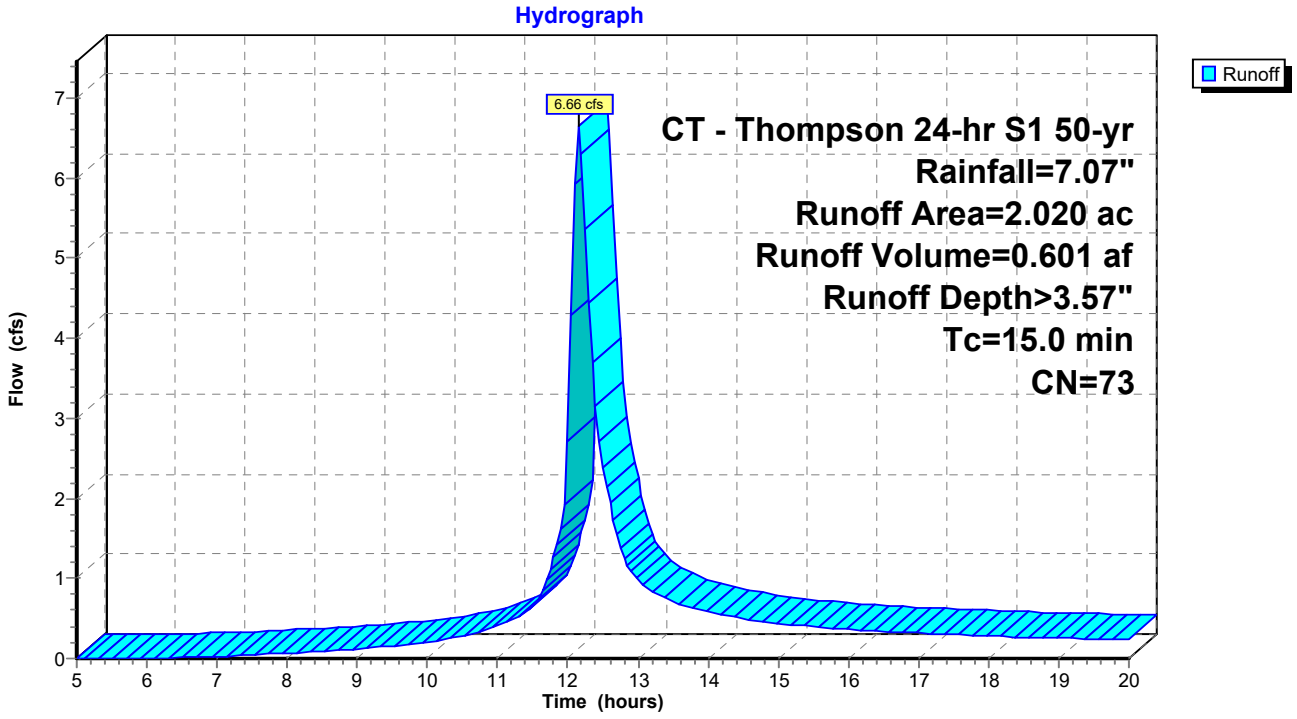
Runoff = 6.66 cfs @ 12.16 hrs, Volume= 0.601 af, Depth> 3.57"
Routed to Pond 2AP : Basin 2A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 50-yr Rainfall=7.07"

	Area (ac)	CN	Description
	0.200	66	Woods, Poor, HSG B
*	1.820	74	50-75% Grass cover, Fair, HSG B-C
	2.020	73	Weighted Average
	2.020		100.00% Pervious Area

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

Subcatchment 2A: 2A



Summary for Subcatchment 2B: 2B

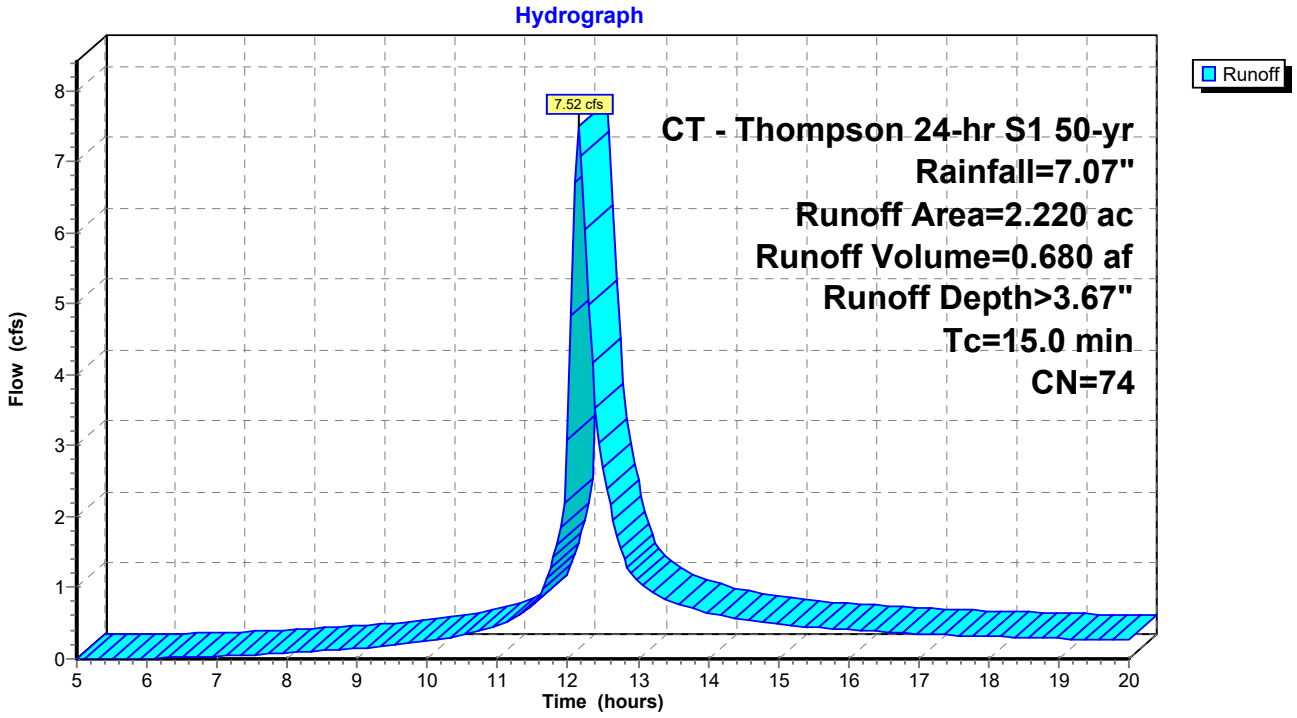
Runoff = 7.52 cfs @ 12.16 hrs, Volume= 0.680 af, Depth> 3.67"
Routed to Pond 2BP : Basin 2B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 50-yr Rainfall=7.07"

	Area (ac)	CN	Description
*	2.220	74	50-75% Grass cover, Fair, HSG B-C
	2.220		100.00% Pervious Area

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

Subcatchment 2B: 2B



Summary for Pond 1AP: Basin 1A

Inflow Area = 3.810 ac, 0.00% Impervious, Inflow Depth > 3.67" for 50-yr event
Inflow = 12.90 cfs @ 12.16 hrs, Volume= 1.167 af
Outflow = 3.87 cfs @ 12.59 hrs, Volume= 0.644 af, Atten= 70%, Lag= 25.7 min
Primary = 3.87 cfs @ 12.59 hrs, Volume= 0.644 af
Routed to Link DP1 : DP1

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 3.33' @ 12.59 hrs Surf.Area= 0.220 ac Storage= 0.576 af

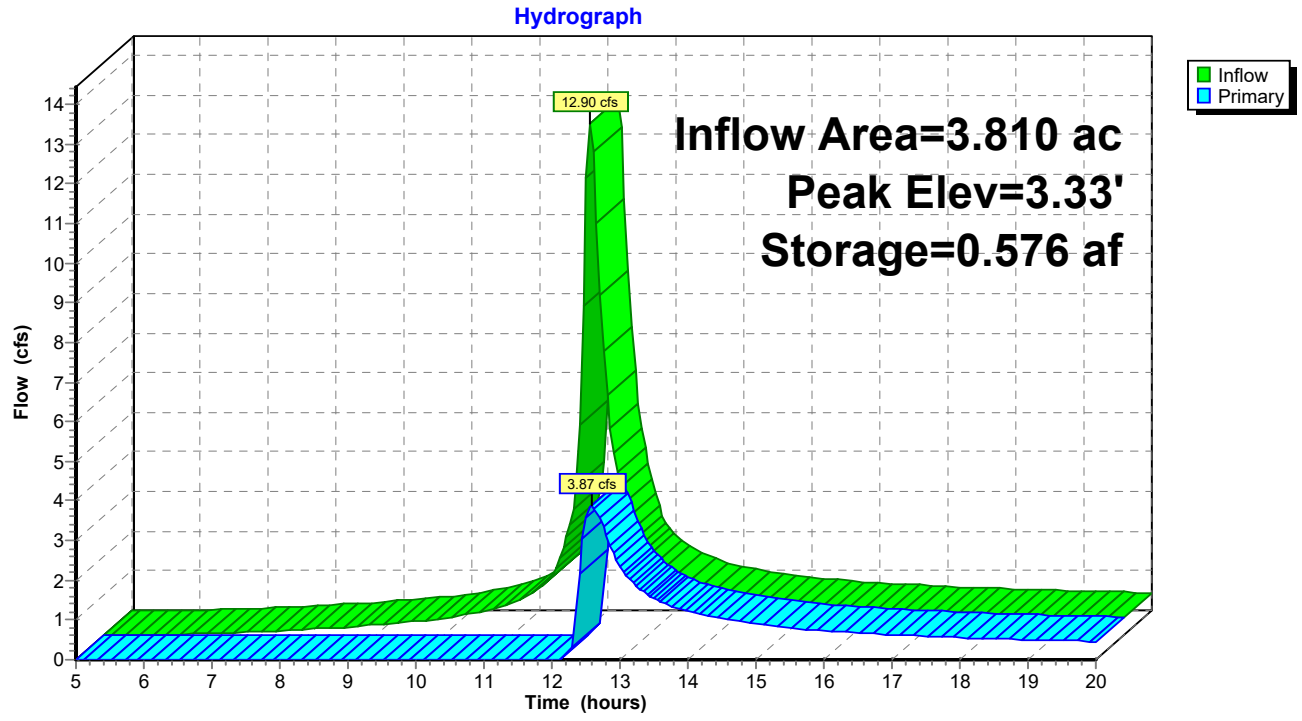
Plug-Flow detention time= 191.2 min calculated for 0.644 af (55% of inflow)
Center-of-Mass det. time= 94.9 min (893.5 - 798.6)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	0.730 af	**140.00'W x 40.00'L x 4.00'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	3.00'	**8.0' long + 1.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=3.85 cfs @ 12.59 hrs HW=3.33' (Free Discharge)
1=Broad-Crested Rectangular Weir (Weir Controls 3.85 cfs @ 1.40 fps)

Pond 1AP: Basin 1A



Summary for Pond 1BP: Basin 1B

Inflow Area = 7.890 ac, 1.27% Impervious, Inflow Depth > 3.67" for 50-yr event
Inflow = 26.71 cfs @ 12.16 hrs, Volume= 2.416 af
Outflow = 12.79 cfs @ 12.40 hrs, Volume= 1.587 af, Atten= 52%, Lag= 14.6 min
Primary = 12.79 cfs @ 12.40 hrs, Volume= 1.587 af
Routed to Link DP1 : DP1

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 3.68' @ 12.40 hrs Surf.Area= 0.334 ac Storage= 1.005 af

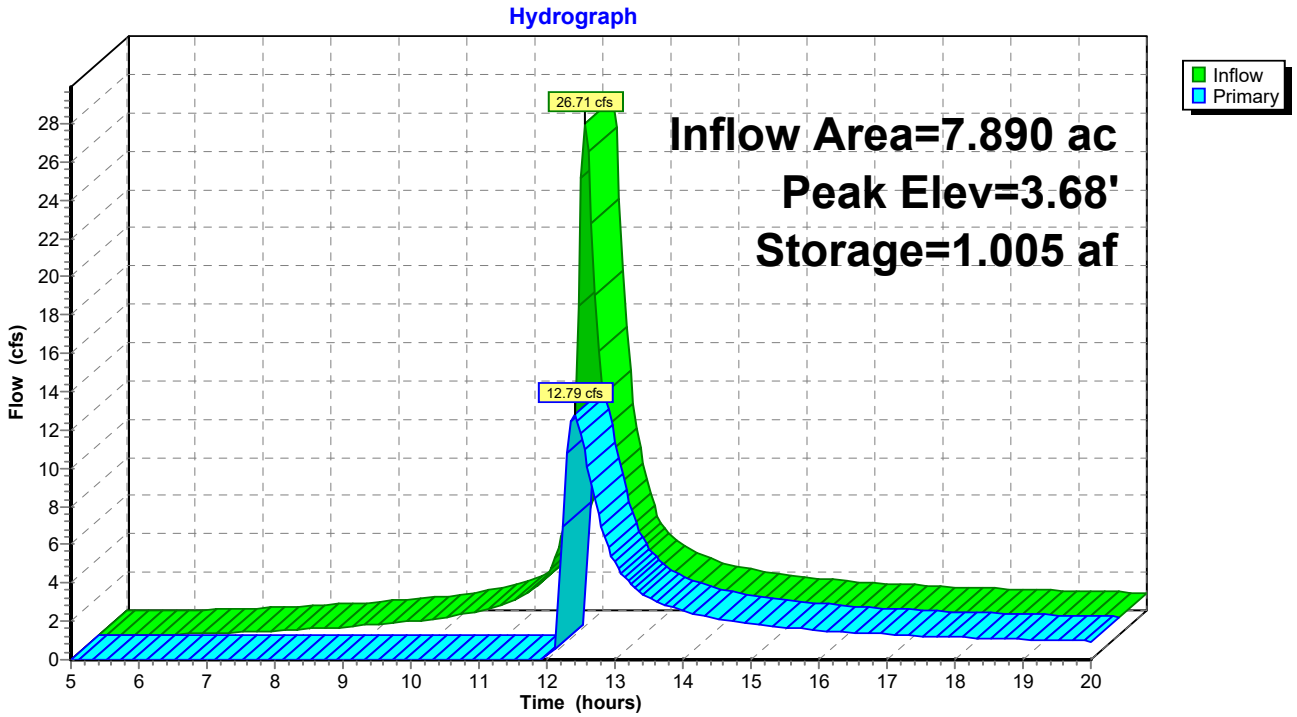
Plug-Flow detention time= 156.7 min calculated for 1.587 af (66% of inflow)
Center-of-Mass det. time= 72.0 min (870.6 - 798.6)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	1.115 af	**145.00'W x 65.00'L x 4.00'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	3.00'	**8.0' long + 1.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=12.78 cfs @ 12.40 hrs HW=3.68' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 12.78 cfs @ 2.18 fps)

Pond 1BP: Basin 1B



Summary for Pond 1CP: Basin 1C

Inflow Area = 4.470 ac, 0.00% Impervious, Inflow Depth > 3.37" for 50-yr event
Inflow = 13.92 cfs @ 12.16 hrs, Volume= 1.255 af
Outflow = 6.13 cfs @ 12.43 hrs, Volume= 0.794 af, Atten= 56%, Lag= 16.4 min
Primary = 6.13 cfs @ 12.43 hrs, Volume= 0.794 af
Routed to Link DP1 : DP1

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 3.44' @ 12.43 hrs Surf.Area= 0.196 ac Storage= 0.528 af

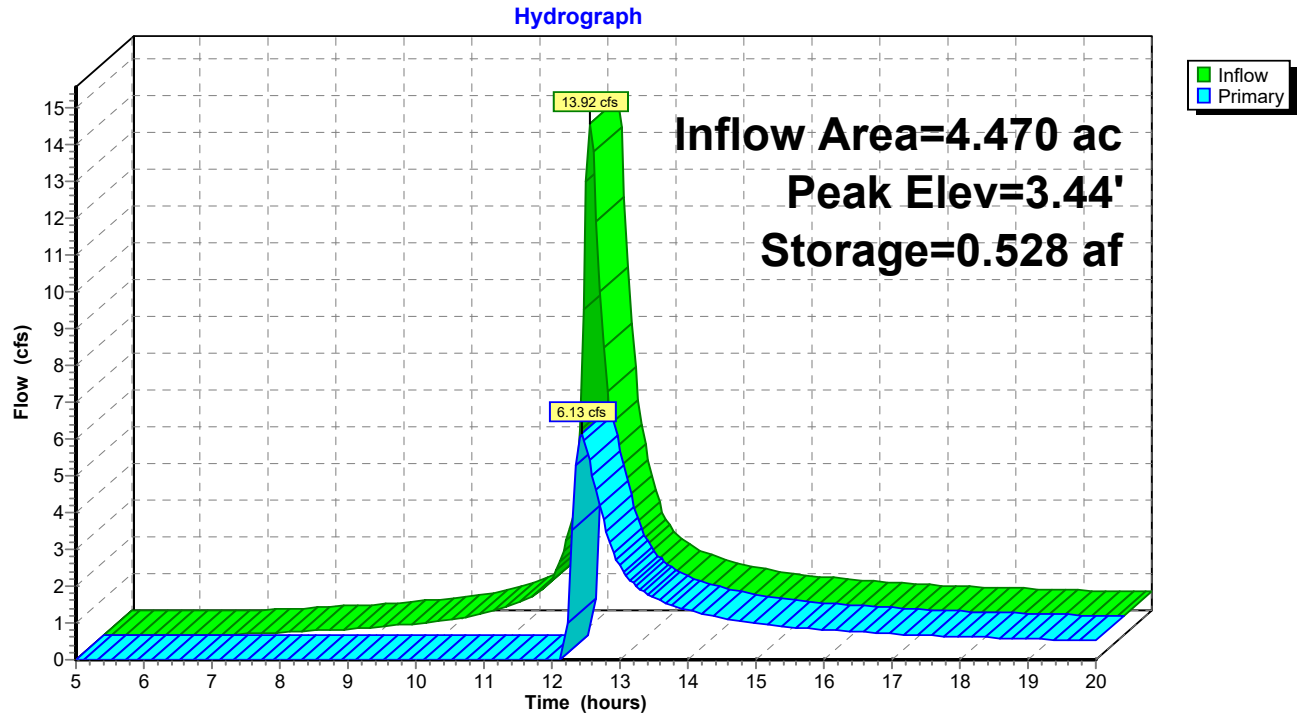
Plug-Flow detention time= 160.5 min calculated for 0.791 af (63% of inflow)
Center-of-Mass det. time= 73.4 min (879.2 - 805.8)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	0.642 af	**100.00'W x 50.00'L x 4.00'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	3.00'	**8.0' long + 1.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=6.09 cfs @ 12.43 hrs HW=3.44' (Free Discharge)
1=Broad-Crested Rectangular Weir (Weir Controls 6.09 cfs @ 1.66 fps)

Pond 1CP: Basin 1C



Summary for Pond 2AP: Basin 2A

Inflow Area = 2.020 ac, 0.00% Impervious, Inflow Depth > 3.57" for 50-yr event
Inflow = 6.66 cfs @ 12.16 hrs, Volume= 0.601 af
Outflow = 0.91 cfs @ 13.09 hrs, Volume= 0.258 af, Atten= 86%, Lag= 55.7 min
Primary = 0.91 cfs @ 13.09 hrs, Volume= 0.258 af
Routed to Link DP2 : DP2

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 3.13' @ 13.09 hrs Surf.Area= 0.147 ac Storage= 0.355 af

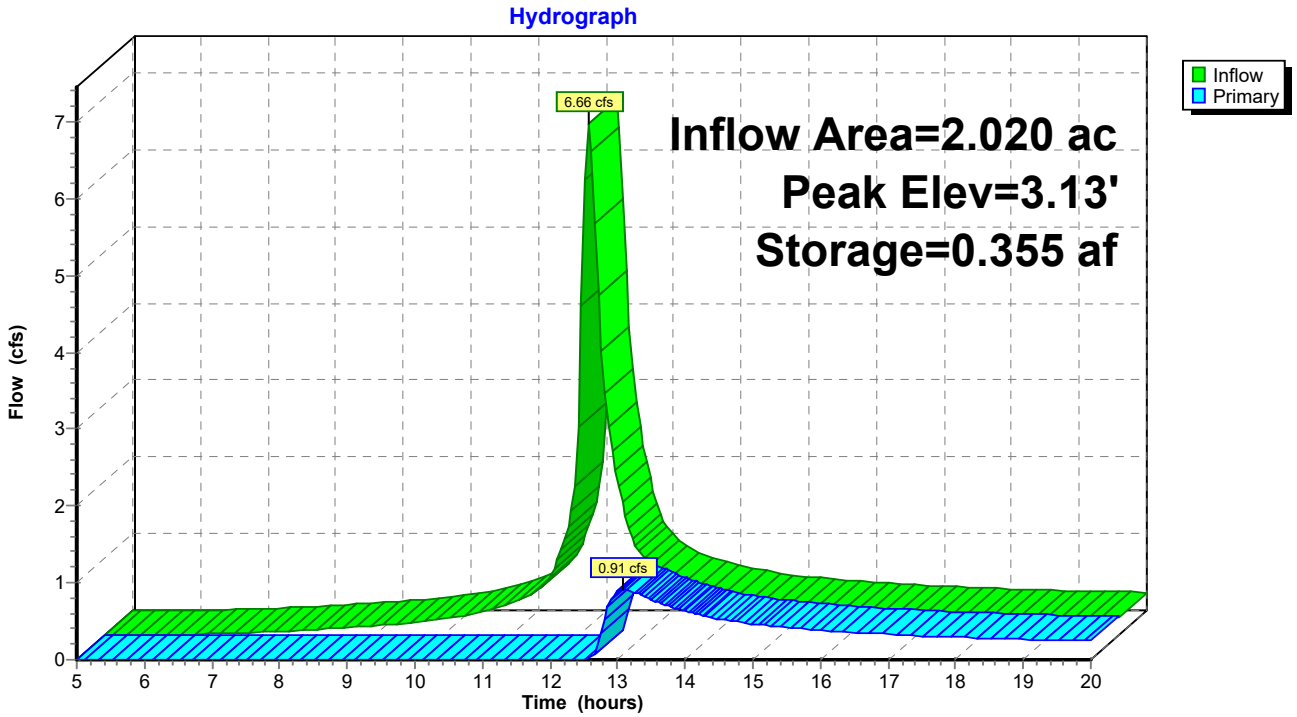
Plug-Flow detention time= 240.3 min calculated for 0.257 af (43% of inflow)
Center-of-Mass det. time= 132.5 min (933.6 - 801.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	0.491 af	**90.00'W x 40.00'L x 4.00'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	3.00'	**8.0' long + 1.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.91 cfs @ 13.09 hrs HW=3.13' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 0.91 cfs @ 0.85 fps)

Pond 2AP: Basin 2A



Summary for Pond 2BP: Basin 2B

Inflow Area = 2.220 ac, 0.00% Impervious, Inflow Depth > 3.67" for 50-yr event
Inflow = 7.52 cfs @ 12.16 hrs, Volume= 0.680 af
Outflow = 1.25 cfs @ 12.88 hrs, Volume= 0.311 af, Atten= 83%, Lag= 43.6 min
Primary = 1.25 cfs @ 12.88 hrs, Volume= 0.311 af
Routed to Link DP2 : DP2

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 3.16' @ 12.88 hrs Surf.Area= 0.169 ac Storage= 0.386 af

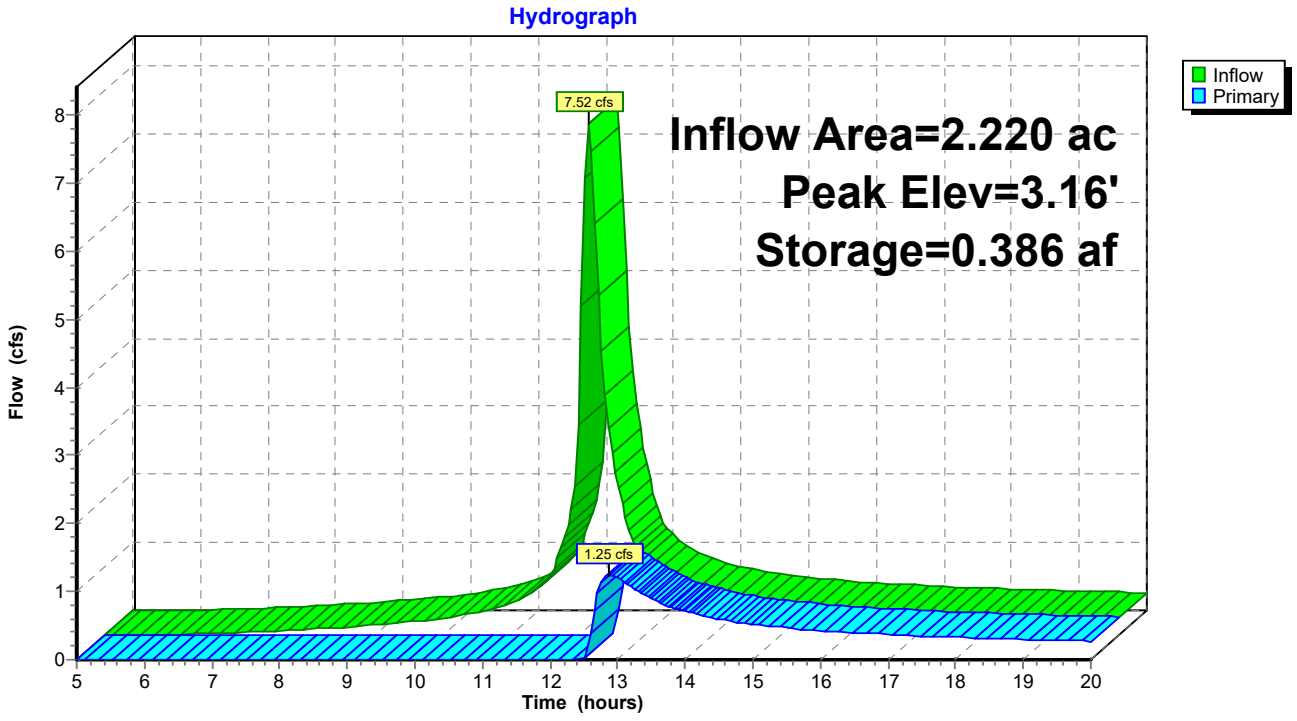
Plug-Flow detention time= 228.0 min calculated for 0.310 af (46% of inflow)
Center-of-Mass det. time= 123.0 min (921.6 - 798.6)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	0.539 af	**170.00'W x 20.00'L x 4.00'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	3.00'	**8.0' long + 1.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=1.24 cfs @ 12.88 hrs HW=3.16' (Free Discharge)
1=Broad-Crested Rectangular Weir (Weir Controls 1.24 cfs @ 0.94 fps)

Pond 2BP: Basin 2B

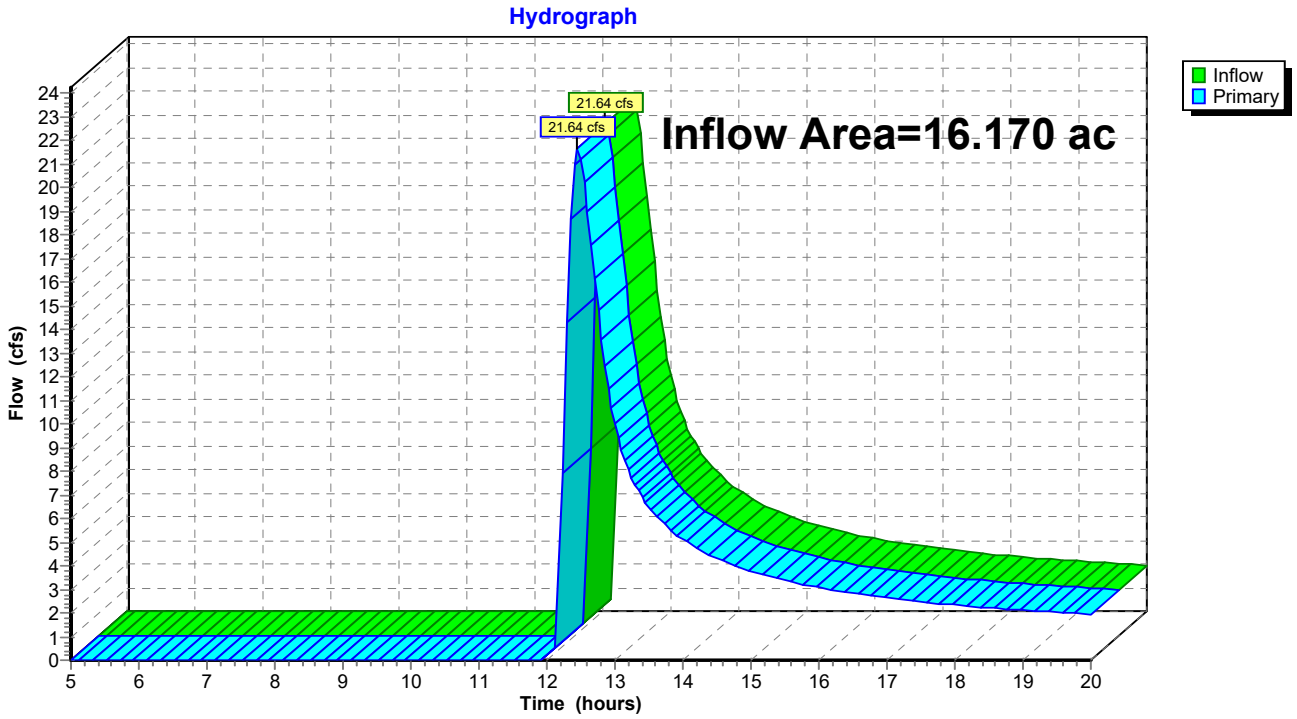


Summary for Link DP1: DP1

Inflow Area = 16.170 ac, 0.62% Impervious, Inflow Depth > 2.24" for 50-yr event
Inflow = 21.64 cfs @ 12.45 hrs, Volume= 3.025 af
Primary = 21.64 cfs @ 12.45 hrs, Volume= 3.025 af, Atten= 0%, Lag= 0.0 min

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

Link DP1: DP1

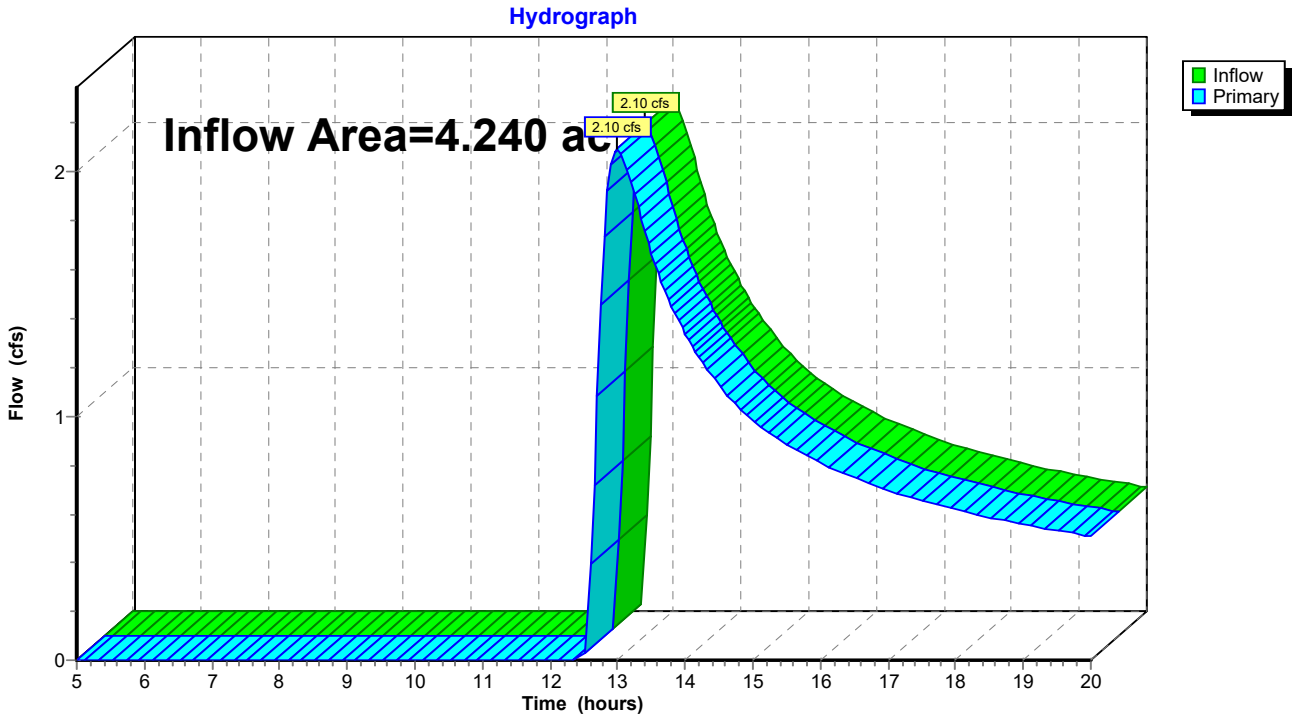


Summary for Link DP2: DP2

Inflow Area = 4.240 ac, 0.00% Impervious, Inflow Depth > 1.61" for 50-yr event
Inflow = 2.10 cfs @ 13.00 hrs, Volume= 0.569 af
Primary = 2.10 cfs @ 13.00 hrs, Volume= 0.569 af, Atten= 0%, Lag= 0.0 min

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

Link DP2: DP2



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

Subcatchment1A: 1A Runoff Area=3.810 ac 0.00% Impervious Runoff Depth>4.39"
Tc=15.0 min CN=74 Runoff=15.25 cfs 1.395 af

Subcatchment1B: 1B Runoff Area=7.890 ac 1.27% Impervious Runoff Depth>4.39"
Tc=15.0 min CN=74 Runoff=31.59 cfs 2.889 af

Subcatchment1C: 1C Runoff Area=4.470 ac 0.00% Impervious Runoff Depth>4.06"
Tc=15.0 min CN=71 Runoff=16.64 cfs 1.514 af

Subcatchment2A: 2A Runoff Area=2.020 ac 0.00% Impervious Runoff Depth>4.28"
Tc=15.0 min CN=73 Runoff=7.90 cfs 0.721 af

Subcatchment2B: 2B Runoff Area=2.220 ac 0.00% Impervious Runoff Depth>4.39"
Tc=15.0 min CN=74 Runoff=8.89 cfs 0.813 af

Pond 1AP: Basin 1A Peak Elev=3.48' Storage=0.610 af Inflow=15.25 cfs 1.395 af
Outflow=7.26 cfs 0.871 af

Pond 1BP: Basin 1B Peak Elev=3.90' Storage=1.081 af Inflow=31.59 cfs 2.889 af
Outflow=20.08 cfs 2.055 af

Pond 1CP: Basin 1C Peak Elev=3.60' Storage=0.561 af Inflow=16.64 cfs 1.514 af
Outflow=10.77 cfs 1.051 af

Pond 2AP: Basin 2A Peak Elev=3.24' Storage=0.371 af Inflow=7.90 cfs 0.721 af
Outflow=2.23 cfs 0.377 af

Pond 2BP: Basin 2B Peak Elev=3.27' Storage=0.405 af Inflow=8.89 cfs 0.813 af
Outflow=2.83 cfs 0.443 af

Link DP1: DP1 Inflow=37.11 cfs 3.977 af
Primary=37.11 cfs 3.977 af

Link DP2: DP2 Inflow=5.02 cfs 0.820 af
Primary=5.02 cfs 0.820 af

Total Runoff Area = 20.410 ac Runoff Volume = 7.332 af Average Runoff Depth = 4.31"
99.51% Pervious = 20.310 ac 0.49% Impervious = 0.100 ac

Summary for Subcatchment 1A: 1A

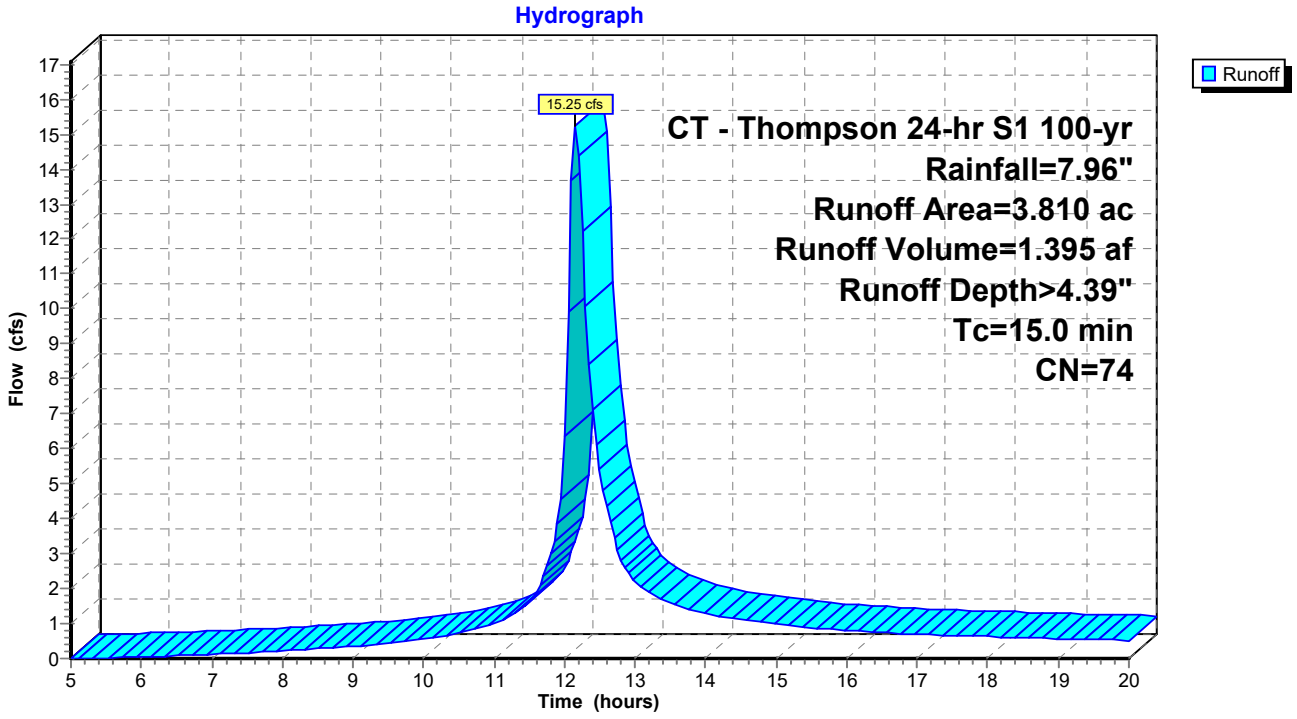
Runoff = 15.25 cfs @ 12.16 hrs, Volume= 1.395 af, Depth> 4.39"
Routed to Pond 1AP : Basin 1A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 100-yr Rainfall=7.96"

	Area (ac)	CN	Description
	0.380	69	50-75% Grass cover, Fair, HSG B
*	3.430	74	50-75% Grass cover, Fair, HSG B-C
	3.810	74	Weighted Average
	3.810		100.00% Pervious Area

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

Subcatchment 1A: 1A



Summary for Subcatchment 1B: 1B

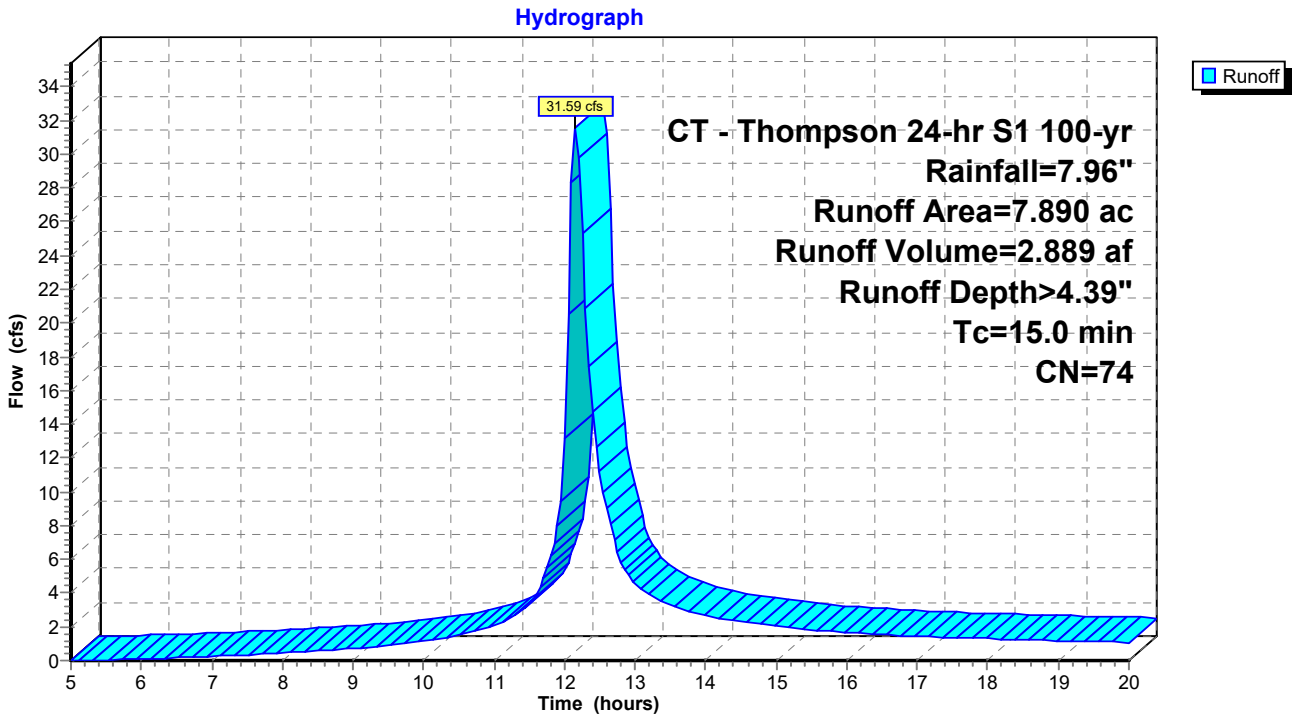
Runoff = 31.59 cfs @ 12.16 hrs, Volume= 2.889 af, Depth> 4.39"
Routed to Pond 1BP : Basin 1B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 100-yr Rainfall=7.96"

	Area (ac)	CN	Description
	0.300	66	Woods, Poor, HSG B
*	7.490	74	50-75% Grass cover, Fair, HSG B-C
	0.100	98	Paved parking, HSG B
	7.890	74	Weighted Average
	7.790		98.73% Pervious Area
	0.100		1.27% Impervious Area

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

Subcatchment 1B: 1B



Summary for Subcatchment 1C: 1C

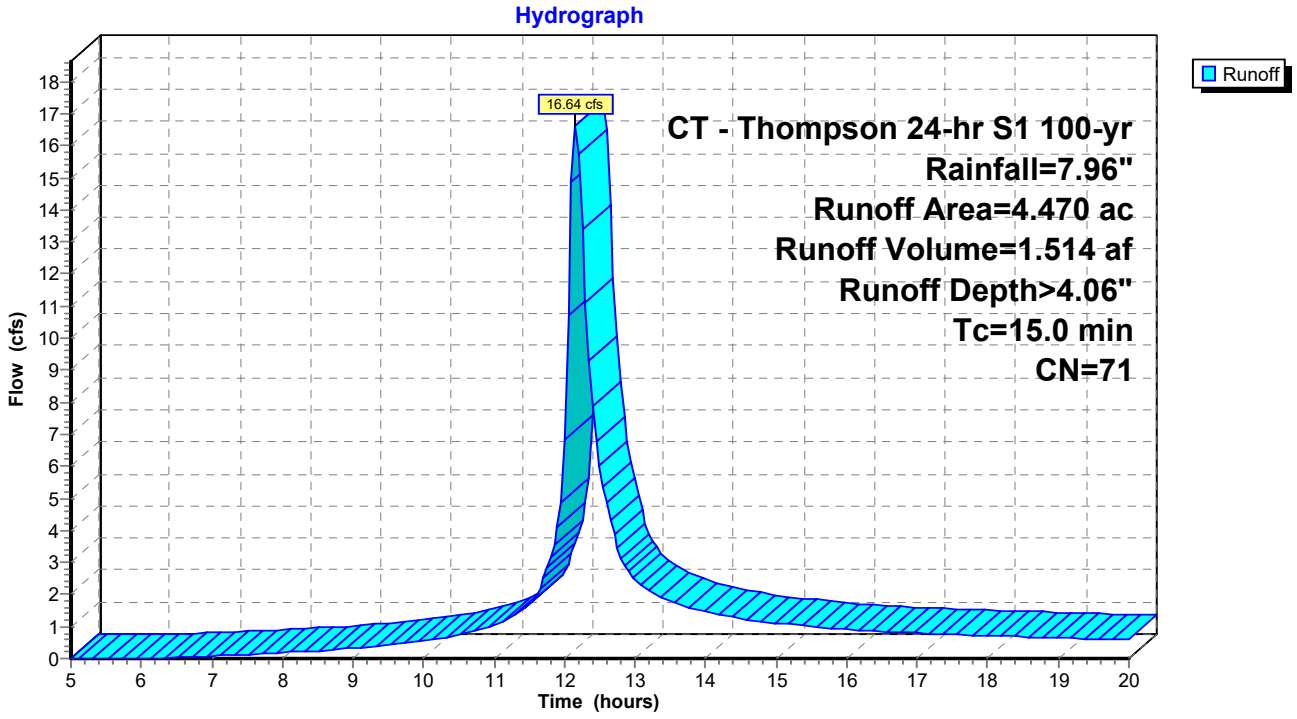
Runoff = 16.64 cfs @ 12.16 hrs, Volume= 1.514 af, Depth> 4.06"
Routed to Pond 1CP : Basin 1C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 100-yr Rainfall=7.96"

	Area (ac)	CN	Description
	1.400	66	Woods, Poor, HSG B
*	3.070	74	50-75% Grass cover, Fair, HSG B-C
	4.470	71	Weighted Average
	4.470		100.00% Pervious Area

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

Subcatchment 1C: 1C



Summary for Subcatchment 2A: 2A

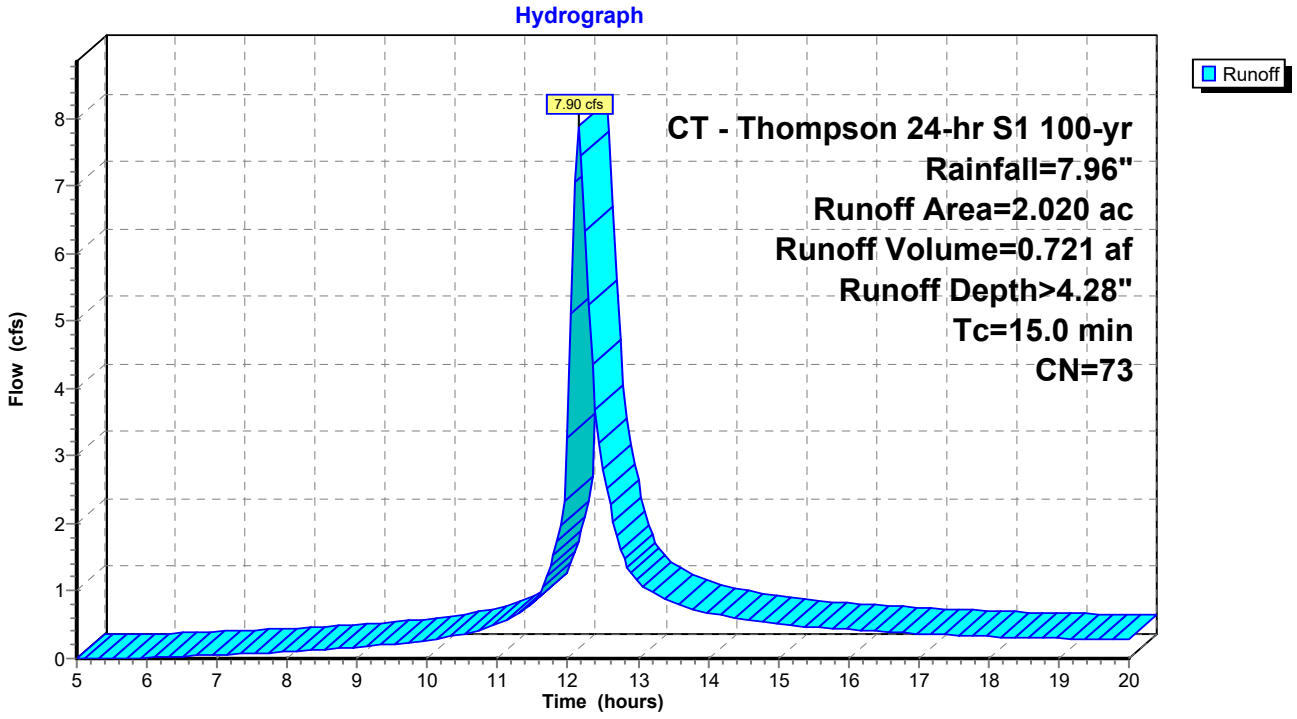
Runoff = 7.90 cfs @ 12.16 hrs, Volume= 0.721 af, Depth> 4.28"
Routed to Pond 2AP : Basin 2A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 100-yr Rainfall=7.96"

	Area (ac)	CN	Description
	0.200	66	Woods, Poor, HSG B
*	1.820	74	50-75% Grass cover, Fair, HSG B-C
	2.020	73	Weighted Average
	2.020		100.00% Pervious Area

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

Subcatchment 2A: 2A



Summary for Subcatchment 2B: 2B

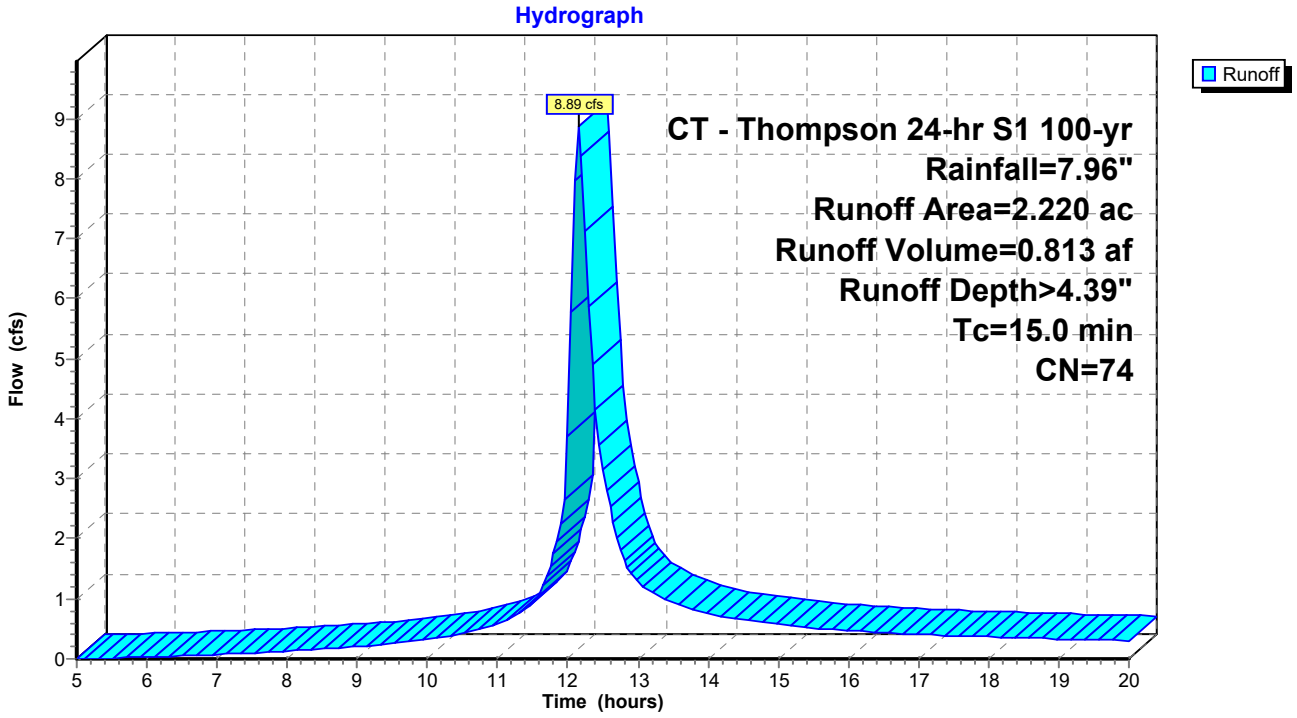
Runoff = 8.89 cfs @ 12.16 hrs, Volume= 0.813 af, Depth> 4.39"
Routed to Pond 2BP : Basin 2B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
CT - Thompson 24-hr S1 100-yr Rainfall=7.96"

	Area (ac)	CN	Description
*	2.220	74	50-75% Grass cover, Fair, HSG B-C
	2.220		100.00% Pervious Area

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

Subcatchment 2B: 2B



Summary for Pond 1AP: Basin 1A

Inflow Area = 3.810 ac, 0.00% Impervious, Inflow Depth > 4.39" for 100-yr event
Inflow = 15.25 cfs @ 12.16 hrs, Volume= 1.395 af
Outflow = 7.26 cfs @ 12.40 hrs, Volume= 0.871 af, Atten= 52%, Lag= 14.7 min
Primary = 7.26 cfs @ 12.40 hrs, Volume= 0.871 af
Routed to Link DP1 : DP1

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 3.48' @ 12.40 hrs Surf.Area= 0.225 ac Storage= 0.610 af

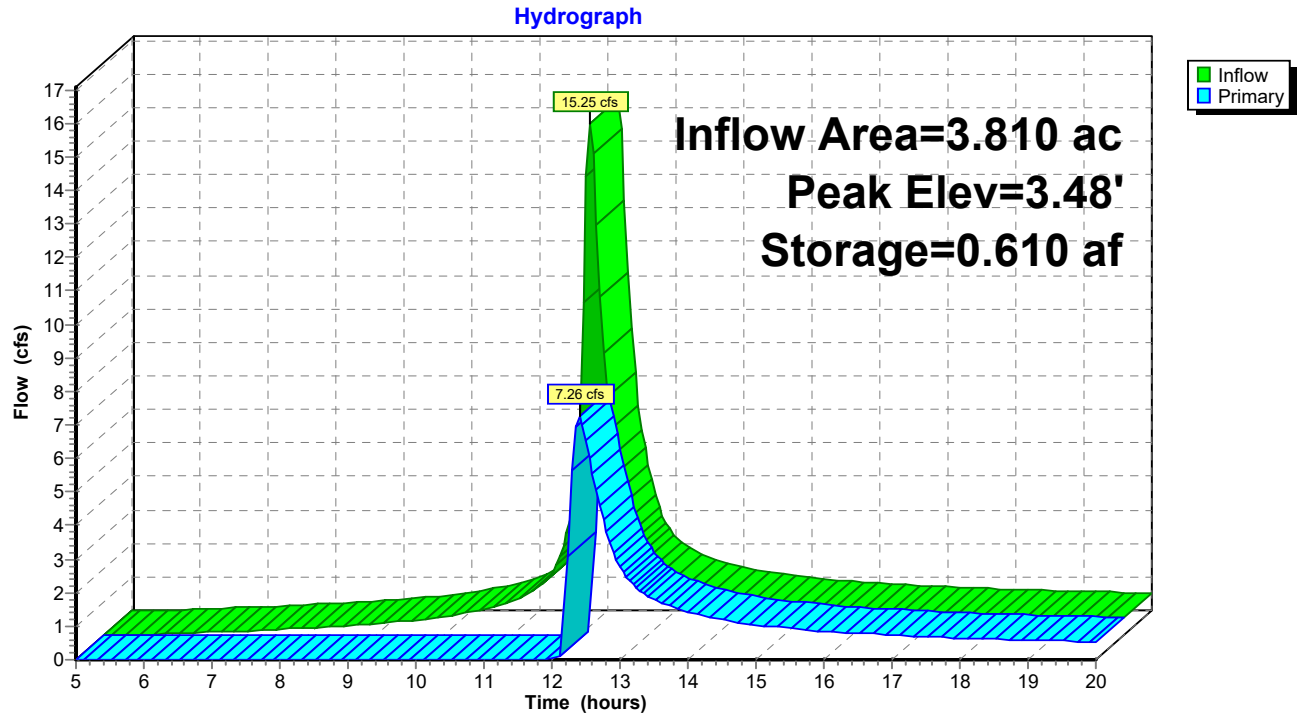
Plug-Flow detention time= 168.1 min calculated for 0.871 af (62% of inflow)
Center-of-Mass det. time= 79.1 min (872.2 - 793.1)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	0.730 af	**140.00'W x 40.00'L x 4.00'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	3.00'	**8.0' long + 1.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=7.24 cfs @ 12.40 hrs HW=3.48' (Free Discharge)
1=Broad-Crested Rectangular Weir (Weir Controls 7.24 cfs @ 1.77 fps)

Pond 1AP: Basin 1A



Summary for Pond 1BP: Basin 1B

Inflow Area = 7.890 ac, 1.27% Impervious, Inflow Depth > 4.39" for 100-yr event
Inflow = 31.59 cfs @ 12.16 hrs, Volume= 2.889 af
Outflow = 20.08 cfs @ 12.32 hrs, Volume= 2.055 af, Atten= 36%, Lag= 9.6 min
Primary = 20.08 cfs @ 12.32 hrs, Volume= 2.055 af
Routed to Link DP1 : DP1

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 3.90' @ 12.32 hrs Surf.Area= 0.342 ac Storage= 1.081 af

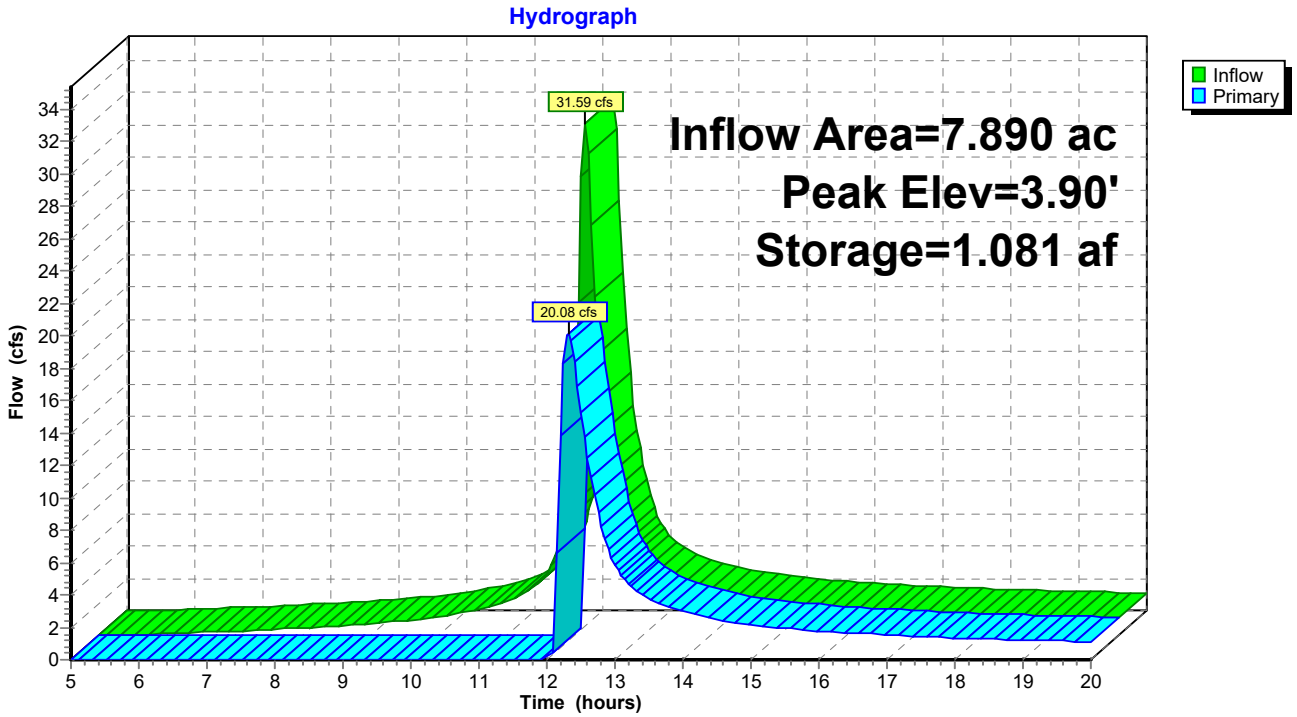
Plug-Flow detention time= 139.7 min calculated for 2.049 af (71% of inflow)
Center-of-Mass det. time= 63.3 min (856.4 - 793.1)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	1.115 af	**145.00'W x 65.00'L x 4.00'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	3.00'	**8.0' long + 1.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=19.86 cfs @ 12.32 hrs HW=3.90' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 19.86 cfs @ 2.49 fps)

Pond 1BP: Basin 1B



Summary for Pond 1CP: Basin 1C

Inflow Area = 4.470 ac, 0.00% Impervious, Inflow Depth > 4.06" for 100-yr event
Inflow = 16.64 cfs @ 12.16 hrs, Volume= 1.514 af
Outflow = 10.77 cfs @ 12.32 hrs, Volume= 1.051 af, Atten= 35%, Lag= 9.6 min
Primary = 10.77 cfs @ 12.32 hrs, Volume= 1.051 af
Routed to Link DP1 : DP1

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 3.60' @ 12.32 hrs Surf.Area= 0.200 ac Storage= 0.561 af

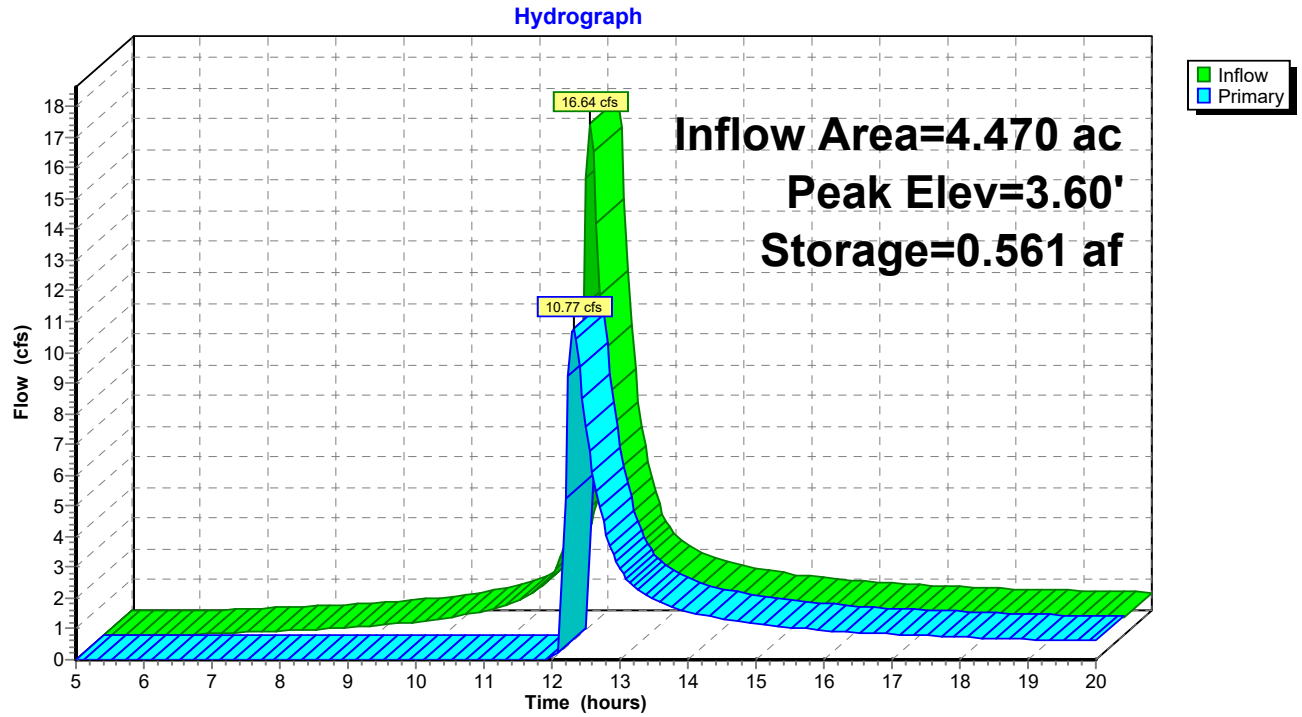
Plug-Flow detention time= 142.0 min calculated for 1.051 af (69% of inflow)
Center-of-Mass det. time= 62.2 min (862.4 - 800.2)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	0.642 af	**100.00'W x 50.00'L x 4.00'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	3.00'	**8.0' long + 1.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=10.58 cfs @ 12.32 hrs HW=3.60' (Free Discharge)
1=Broad-Crested Rectangular Weir (Weir Controls 10.58 cfs @ 2.06 fps)

Pond 1CP: Basin 1C



Summary for Pond 2AP: Basin 2A

Inflow Area = 2.020 ac, 0.00% Impervious, Inflow Depth > 4.28" for 100-yr event
Inflow = 7.90 cfs @ 12.16 hrs, Volume= 0.721 af
Outflow = 2.23 cfs @ 12.61 hrs, Volume= 0.377 af, Atten= 72%, Lag= 27.3 min
Primary = 2.23 cfs @ 12.61 hrs, Volume= 0.377 af
Routed to Link DP2 : DP2

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 3.24' @ 12.61 hrs Surf.Area= 0.149 ac Storage= 0.371 af

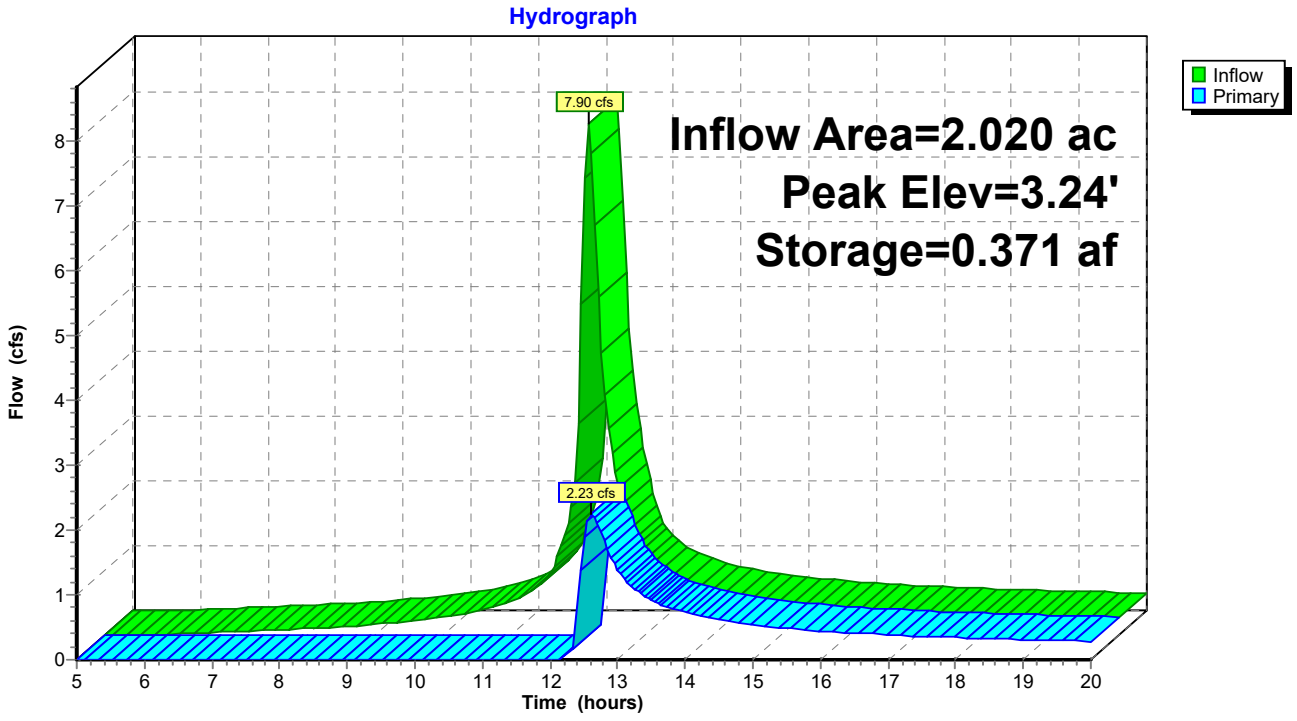
Plug-Flow detention time= 202.4 min calculated for 0.377 af (52% of inflow)
Center-of-Mass det. time= 102.6 min (898.1 - 795.5)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	0.491 af	**90.00'W x 40.00'L x 4.00'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	3.00'	**8.0' long + 1.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=2.22 cfs @ 12.61 hrs HW=3.24' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 2.22 cfs @ 1.14 fps)

Pond 2AP: Basin 2A



Summary for Pond 2BP: Basin 2B

Inflow Area = 2.220 ac, 0.00% Impervious, Inflow Depth > 4.39" for 100-yr event
Inflow = 8.89 cfs @ 12.16 hrs, Volume= 0.813 af
Outflow = 2.83 cfs @ 12.55 hrs, Volume= 0.443 af, Atten= 68%, Lag= 23.9 min
Primary = 2.83 cfs @ 12.55 hrs, Volume= 0.443 af
Routed to Link DP2 : DP2

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 3.27' @ 12.55 hrs Surf.Area= 0.173 ac Storage= 0.405 af

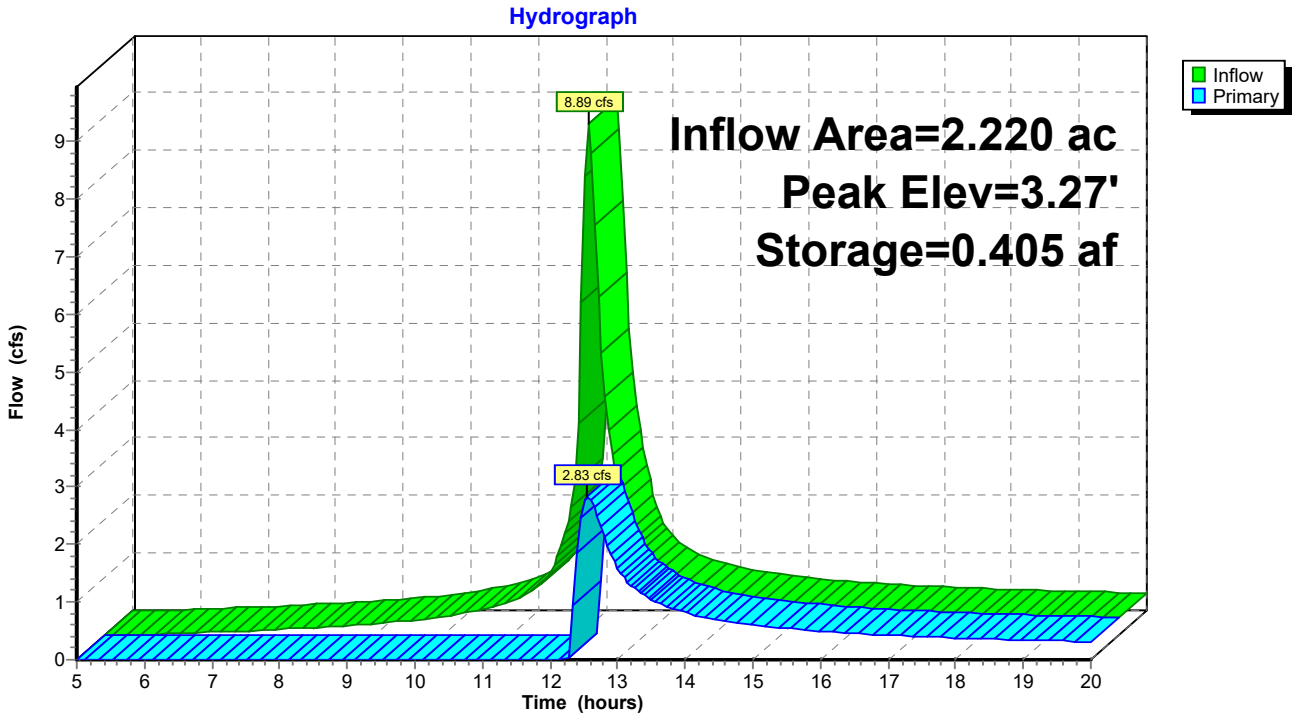
Plug-Flow detention time= 195.1 min calculated for 0.443 af (55% of inflow)
Center-of-Mass det. time= 97.5 min (890.6 - 793.1)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	0.539 af	**170.00'W x 20.00'L x 4.00'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	3.00'	**8.0' long + 1.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=2.82 cfs @ 12.55 hrs HW=3.27' (Free Discharge)
1=Broad-Crested Rectangular Weir (Weir Controls 2.82 cfs @ 1.25 fps)

Pond 2BP: Basin 2B

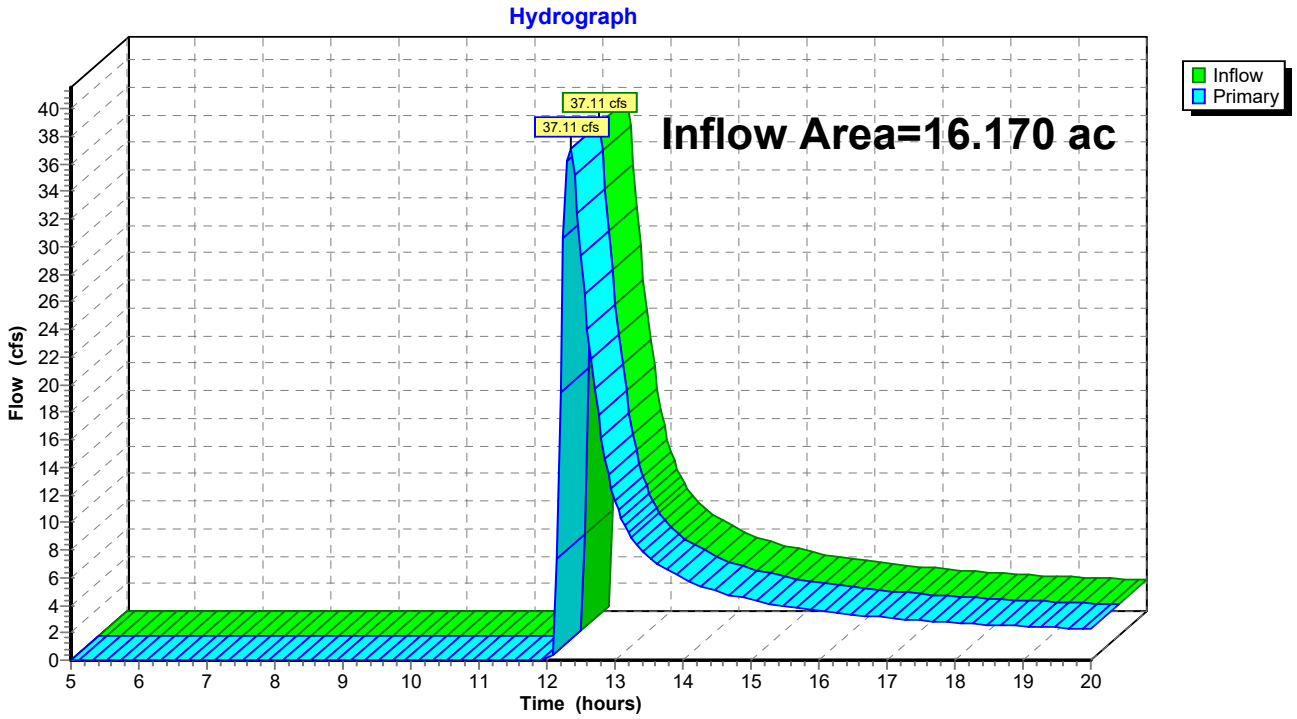


Summary for Link DP1: DP1

Inflow Area = 16.170 ac, 0.62% Impervious, Inflow Depth > 2.95" for 100-yr event
Inflow = 37.11 cfs @ 12.34 hrs, Volume= 3.977 af
Primary = 37.11 cfs @ 12.34 hrs, Volume= 3.977 af, Atten= 0%, Lag= 0.0 min

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

Link DP1: DP1



Summary for Link DP2: DP2

Inflow Area = 4.240 ac, 0.00% Impervious, Inflow Depth > 2.32" for 100-yr event
Inflow = 5.02 cfs @ 12.58 hrs, Volume= 0.820 af
Primary = 5.02 cfs @ 12.58 hrs, Volume= 0.820 af, Atten= 0%, Lag= 0.0 min

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

Link DP2: DP2