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Stormwater Management Report

For the Proposed:

16.78 MW Photovoltaic Solar Array

Located at:

117 Oil Mill Road

Waterford, Connecticut

Prepared for Submission to:

Public Utilities Regulatory Authority
Connecticut Siting Council

June 8th, 2018

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Executive Summary

This report has been prepared in support of a Petition for a Declaratory Ruling for a Renewable Energy Facility to the Connecticut Siting Council by Greenskies Renewable Energy LLC, for the installation of a proposed photovoltaic solar array at 117 Oil Mill Road in Waterford, CT. The subject property is comprised of one tax parcels, containing approximately 152.23 acres of undeveloped land. The existing site consist of native wooded areas, minor dirt access roads, and clear-cut areas associated with the existing transmission power lines.

The subject property proposed for this development is located within the RU120 Rural Residential Zoning District. The RU120 district extends from the eastern and southern property lines of the parcel to the north. This zoning district extends throughout the subject parcel and into the properties to the north and west of the proposed development. All properties south and east of the property are within the Zoning District I-G General Industrial. The subject parcel is bordered to the northeast by a series of single-family residential properties; to the north by multifamily residential units, a single-family home, and vacant, wooded land; to the east and south by vacant, wooded land; and to the west by vacant, wooded land and single-family homes. Access to the property is provided by an existing dirt road from Oil Mill Road, located at the northwest corner of the site.

In general, the topography of the land consists of elevations ranging from 92 feet to 254 feet with a highpoint ridgeline located on the eastern half of the property and extending from north to south. This ridgeline divides the property into two major watersheds; one to the east and one to the west. A third major watershed has also been delineated along the southern property. This southern watershed continues to the south and eventually discharges into the eastern watershed. Within these watersheds, four distinct designated inland wetland areas were identified on site, including three vernal pools.

The site's wetlands and vernal pools were delineated by a report prepared by Davison Environmental, LLC. The first wetland is located at the head of a small tributary of Oil Mill Brook, located at the northwest corner of the property. This wetland area consists of the largest wetland, totaling approximately 11.56 acres in size. A vernal pool was also identified within this wetland area which is located north of the existing wetland crossing. The delineated vernal pool is noted as Vernal Pool 3. The second and third wetland areas, totaling approximately 1.39 acres, are located along the northwestern property line, adjacent to Oil Mill Brook. Each wetland contains one vernal pool and is noted as Vernal Pool 1 and 2. Vernal Pool 1 is located north of Vernal Pool 2. A copy of the Proposed Drainage Map noting these locations has been provided in the appendices of this report.

The remaining wetland area is approximately 0.14 acres and is located at the center of the eastern property line. To preserve the existing wetlands and promote future wetland habit, a buffer of 50'-100' has been provided around each wetland under the recommendation of Davison Environmental, LLC. Within this zone, all existing tree and forest ground cover is to be preserved. To provide additional protection from the potential impact of the proposed development, an additional 100' buffer (150'-200' buffer from the existing delineated wetland) will be provided. This outermost buffer includes planting materials such as shrubs and grasses that will mimic the existing forest groundcover and provide supporting habitat for wetland and vernal pool species.

For the purposes of this analysis, the proposed site consists of three major drainage areas as defined by the nomenclature of a 100 Series, 200 Series, and 300 Series. These major drainage basins have further been divided into sub-basins, with the last two digits of each series representing the name of each sub-basin. For example, drainage area EDA-201 shall mean sub-basin 1 of the major drainage area 200 series.

As described above, the existing hydrology of the site consists of three major watersheds that are defined by an existing highpoint located in the southwest-central portion of the site. Runoff from the site is directed west toward Oil Mill Brook (200 Series), south toward Parkway North and Stony Brook (100 Series) and east toward Stony Brook (300 Series). The western drainage area (200 Series) collects overland and shallow concentrated runoff and discharges into an existing tributary of Oil Mill Brook and associated wetlands at the northeastern property line. The eastern drainage area (300 Series) collects overland and shallow concentrated runoff and discharge offsite. This runoff continues toward the southeast, eventually into the Stony Brook. And the southern drainage area (100 Series) collects overland and shallow concentrated runoff, discharging off-site to the south. Runoff from this basin combines with runoff from the eastern drainage area and eventually into Stony Brook to the south. All runoff from the central, western, and northwestern portion of the site discharges to Oil Mill Brook and all runoff from the east and southern property lines discharge to Stony Brook.

The subject property is located within the Southeast Coast Major Basin, Niantic River (Stony Brook), and Oil Mill Brook basins.

The proposed stormwater management system is designed to be in compliance with the 2002 State of Connecticut Guidelines for Soil Erosion and Sediment Control and the 2004 State of Connecticut Stormwater Quality Manual.

A HydroCAD model, using TR-55 methodology, was developed to evaluate the existing and proposed drainage conditions of the property. The results of the analysis demonstrate that the pre-developed stormwater peak runoff rates are maintained or reduced in the post-developed conditions. Per the Town of Waterford planning and zoning regulations, the proposed stormwater detention ponds and supporting infrastructure has been designed per the 10-, 25-, and 100-year storm events.

Per the stormwater regulations of Connecticut, all stormwater runoff from the proposed development for all intensities and durations of rainfall up to the 100-year have been adequately designed to maintain or improve the property's historical conditions. In order achieve this in the proposed design, a series of detention ponds have been located throughout the site. As the existing topography of the site generates multiple point discharges, either into the existing wetlands or offsite, the proposed stormwater design focuses on maintaining stormwater close to the source. This has been achieved by attenuating the 10-, 25-, and 100-year storm events within each sub-drainage with the use of above ground detention ponds. Runoff within each sub-basin is controlled by a series of orifices within each outlet structure and discharge through a stormwater pipe. These stormwater pipe outfall discharge into either protective riprap and overland flow or level spreaders. Level spreaders have been placed upgradient of sensitive areas such as wetlands and vernal pools. The level spreaders are designed to dissipate the point discharge, to better match historical conditions in type of flow and temperature of the water. In combination with the proposed level spreaders, each outfall has been strategically placed to ensure the greatest travel time from the pond to any sensitive areas receiving this runoff.

The proposed stormwater detention ponds are less than six feet deep, include an emergency spillway (traditional spillway or emergency grate), and an impervious core within each berm surrounding the pond. In the proposed conditions, stormwater runoff sheet flow across the existing surface before being intercepted by existing drainage swales created by the natural topography and/or proposed drainage swales. Where conditions allowed, historical flows patterns and discharges were maintained. In areas where this could not be achieved, due the proposed improvements, altered runoff was directed to the nearest sub-drainage area or allowed to free release offsite. If the free-released flows did not match historical conditions, additional detention was provided within the upgradient pond to account for the increased flows. All runoff leaving the property to each major design point (DP-1, DP-2, and DP-3) maintain or improve the existing hydrological conditions. Infiltration for the proposed detention systems were not included in this analysis.

Due to absence of impervious surfaces in the proposed improvements, it is recommended that traditional stormwater quality requirements shall be waived for this project. However, a series of Sediment and Erosion Control Best Management Practices (BMPs) have been incorporated into the project's stormwater design to aid in removing any protentional suspended sedimentation. This includes the installation of rock check dams within the existing drainage swales, silt fence around each phased perimeter, a stone construction entrance, and temporary sediment stockpiles during construction. Post-construction measures that will aid in maintaining water quality will include establishing grassed-lined swales, installing the proposed detention ponds located within each developed sub-basin, providing a 50'-100' buffer that shall be undisturbed from the existing wetlands, and providing a 100' buffer outside of the undisturbed wetland buffer that will be reestablished with shrubs and grasses to mimic the existing forest ground cover. Additional consideration for time of travel and distances from each stormwater pond to the existing wetlands has been provided best mimic historical discharge patterns into the wetlands.

Existing Site Conditions and Hydrologic Conditions

General Site Information

The existing subject property is approximately 152.23 acres in size and is classified as vacant, wooded land. As described above, the existing site contains four delineated wetlands and three vernal pools.

The site soil identified by the United States Department of Agriculture (USDA) Natural Resources Conservation Services (NRCS) is predominately Canton and Charlton fine sandy loams, found on 0-8 percent slopes and very stone, as well as Charlton-Chatfield complex, 0-15 percent slopes and extremely stony. A notable portion of the site also consists of Hollis-Chatfield-Rock outcrop complex, found on 3 to 15 percent slopes. Per the USDA the NRCS Hydrologic Soil Group the soil ratings within the project area are B, C, and D. The predominant Manchester soil group is classified as hydrologic group B. A copy of the USDA NRCS Hydrologic Soil Group Map is included in Appendix A for reference.

Per the FEMA Flood Insurance Rate Map Number 09011C0343G for New London County, Connecticut, Town of North Waterford 090107 map effective date: July 18, 2011, the site resides in FEMA Flood Hazard Zone X (Unshaded) and Zone A (Shaded). Zone X (Unshaded) is defined as areas of minimal flood hazard and encompasses the majority of the subject parcel. Zone A (Shaded) includes a small area south of Oil Mill Brook and along the northern property line. Zone A (Shaded) is defined as an area that is subject to

flooding by the 1% annual chance flood (100-year flood). No base flood elevation is known for Oil Mill Brook. A copy of the FEMA Flood insurance rate map is included in Appendix A for reference.

Existing Hydrologic Conditions

The existing site drainage areas, totaling 172.37 acres, have been analyzed by identifying watershed boundaries and existing flow paths throughout the site. In general, stormwater runoff within the site drains from a regional highpoint to the east, west, and south, and is considered shallow concentrated flow at each discharge point.

Historically, the land has remained undisturbed as vacant, wooded land with minor improvements such as establishing dirt access roads and clearing for the installation of electrical transmission lines across the property. Currently, the land is considered as vacant, heavily wooded land. The hydrologic condition for the site can be described as fair based on site observation. As a baseline for this analysis, the wetland areas are defined as wooded areas.

The following is a brief analysis of the existing design points as shown on the enclosed Existing Drainage Plan (ED-1) Map, in Appendix E.

For this analysis, all stormwater runoff leaving the southern property line has been noted as DP-1. DP-1 includes the total discharged runoff from EDA-100 and EDA-101.

Existing Drainage Area 100 (EDA-100): Located along the southern property line, drainage area EDA-100 consists of approximately 12.69 acres and is comprised mainly of native wooded lands. The resulting imperviousness is 0.0%. Stormwater runoff from this drainage area sheet flows, following the existing topography to the south, before combining into shallow concentrated flows and discharging offsite at Design Point 100 (DP-100). All runoff from EDA-100 continues to the south and eventually discharges into Stony Brook.

Existing Drainage Area 101 (EDA-101): Located in the southeast corner of the site, drainage area EDA-101 consists of approximately 3.17 acres and is comprised mainly of native wooded lands. The resulting imperviousness is 0.0%. Stormwater runoff from this drainage area sheet flows, following the existing topography before combining into shallow concentrated flows and discharging offsite at Design Point 101 (DP-101). All runoff from EDA-101 continues to the south and eventually discharges into Stony Brook.

For this analysis, all stormwater runoff leaving the western property line has been noted as DP-2. DP-2 includes the total discharged runoff from EDA-200, EDA-201, EDA-202, EDA-203, EDA-204, EDA-205, EDA-206, EDA-207, EDA-208, EDA-209, EDA-210, EDA-211, EDA-212, and EDA-213.

Existing Drainage Area 200 (EDA-200): Located in the southwest corner of the site, drainage area EDA-200 consists of approximately 4.66 acres and is comprised of native wooded areas. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the west before becoming a shallow concentrated flow and discharging offsite at Design Point 200. All runoff from EDA-200 flows to the west and eventually into Oil Mill Brook.

Existing Drainage Area 201 (EDA-201): Located in the southwest corner, north of EDA-200, drainage area EDA-201 consists of approximately 2.36 acres and is comprised of native wooded areas. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the west before becoming a shallow concentrated flow and discharging offsite at Design Point 201. All runoff from EDA-201 flows to the west and eventually into Oil Mill Brook.

Existing Drainage Area 202 (EDA-202): Located in the south-central portion of the site and north of EDA-100, drainage area EDA-202 consists of approximately 10.34 acres and is comprised of native wooded areas. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the north before becoming a shallow concentrated flow and discharging into the existing central wetland at Design Point 202. All runoff from EDA-202 flows to the north and west into the existing wetland, eventually discharging offsite at DP-211. This analysis includes the routing of EDA-202 stormwater runoff through drainage areas EDA-207, EDA-208, and EDA-211.

Existing Drainage Area 203 (EDA-203): Located north of the subject parcel, drainage area EDA-203 consists of approximately 18.40 acres and is comprised of native wooded areas. The resulting imperviousness is 0.0%. Stormwater runoff generated within this offsite drainage area sheet flows to the south before becoming a shallow concentrated flow and discharging into EDA-205. All stormwater runoff from EDA-203 is routed through EDA-205 and discharged into the existing wetland at DP-205. All runoff from EDA-203 continues through EDA-205 and eventually offsite at DP-211. This analysis includes the routing of EDA-203 stormwater runoff through drainage areas EDA-205, EDA-208, and EDA-211.

Existing Drainage Area 204 (EDA-204): Located north of the subject parcel and west of EDA-203, drainage area EDA-204 consists of approximately 1.09 acres and is comprised of native wooded areas. The resulting imperviousness is 0.0%. Stormwater runoff generated within this offsite drainage area sheet flows to the south before becoming a shallow concentrated flow and discharging into EDA-205. All stormwater runoff from EDA-204 is routed through EDA-205 and discharged into the existing wetland at DP-205. All runoff from EDA-204 continues through EDA-205 and eventually discharges offsite at DP-211. This analysis includes the routing of EDA-204 stormwater runoff through drainage areas EDA-205, EDA-208, and EDA-211.

Existing Drainage Area 205 (EDA-205): Located in the northern portion of the site and south of EDA-203, drainage area EDA-205 consists of approximately 13.69 acres and is comprised of native wooded areas, a portion of the existing central wetland, a portion of the access dirt roadway, and a portion of the existing utility easement. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the west before becoming a shallow concentrated flow and discharging into the existing central wetland at DP-205. All runoff from EDA-205, including the tributary areas described above, flows to the south and west through the existing wetland to DP-211. This analysis includes the routing of EDA-205 stormwater runoff through drainage areas EDA-208 and EDA-211.

Existing Drainage Area 206 (EDA-206): Located in the east-central portion of the site and south of EDA-205, drainage area EDA-206 consists of approximately 13.92 acres and is comprised of native wooded areas, a portion of the existing central wetland, a portion of the existing access road, and a portion of the existing utility easement. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the west before becoming a shallow concentrated flow and discharging into the existing central wetland at DP-206. All runoff from EDA-206 flows to the west through the existing wetland to DP-211. This analysis includes the routing of EDA-206 stormwater runoff through drainage areas EDA-208 and EDA-211.

Existing Drainage Area 207 (EDA-207): Located in the central portion of the site and west of EDA-206, drainage area EDA-207 consists of approximately 17.56 acres and is comprised of native wooded areas, a portion of the existing central wetland, and a portion of the existing utility easement. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the northwest before becoming a shallow concentrated flow and discharging into the existing central wetland at DP-207. All

runoff from EDA-207, including the tributary areas described above, flows to the west through the existing wetland to DP-211. This analysis includes the routing of EDA-207 stormwater runoff through drainage areas EDA-208 and EDA-211.

Existing Drainage Area 208 (EDA-208): Located in the north-central portion of the site, drainage area EDA-208 consists of approximately 13.96 acres and is comprised of native wooded areas, a portion of the existing central wetland, a portion of the exiting access road, and a portion of the existing utility easement. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the west before becoming a shallow concentrated flow and discharging into the existing central wetland at DP-208. All runoff from EDA-208, including the tributary areas as described above, flows to west through the existing wetland to DP-211. This analysis includes the routing of EDA-208 stormwater runoff through the drainage area EDA-211.

Existing Drainage Area 209 (EDA-209): Located in the western portion of the site, drainage area EDA-209 consists of approximately 17.75 acres and is comprised of native wooded areas, a portion of the existing central wetland, and a portion of the existing utility easement. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the northwest before becoming a shallow concentrated flow and discharging into the existing central wetland at DP-209. All runoff from EDA-209, including the tributary areas routed through this basin as described above, discharges offsite toward Oil Mill Brook.

Existing Drainage Area 210 (EDA-210): Located west of the proposed site, drainage area EDA-210 consists of approximately 0.67 acres and is comprised of native, wooded areas. The resulting imperviousness is 0.0%. Stormwater runoff generated within this offsite drainage area sheet flows to the south before becoming a shallow concentrated flow and discharging into drainage area EDA-210. All runoff from EDA-210, is routed through EDA-211 and discharges offsite toward Oil Mill Brook at DP-211.

Existing Drainage Area 211 (EDA-211): Located in the western portion of the site, drainage area EDA-211 consists of approximately 3.82 acres and is comprised of native wooded areas and a portion of the existing central wetland. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the west before becoming a shallow concentrated flow and discharging into the existing central wetland at DP-211. All runoff from EDA-211, including the tributary areas routed through this basin as described above, discharges offsite toward Oil Mill Brook at DP-211.

Existing Drainage Area 212 (EDA-212): Located in the northern portion of the site, drainage area EDA-212 consists of approximately 2.23 acres and is comprised of native wooded areas. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the west before becoming a shallow concentrated flow and discharging offsite at DP-212. All runoff from EDA-212 discharges offsite toward Oil Mill Brook.

Existing Drainage Area 213 (EDA-213): Located in the northern portion of the site, drainage area EDA-213 consists of approximately 5.34 acres and is comprised of native wooded areas and a portion of the existing dirt access road. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the southwest before becoming a shallow concentrated flow and discharging offsite at DP-213. All runoff from EDA-213 discharges offsite toward Oil Mill Brook.

For this analysis, all stormwater runoff leaving the eastern property line has been noted as DP-3. DP-3 includes the total discharged runoff from EDA-300, EDA-301, EDA-302, EDA-303, EDA-304, and EDA-305.

Existing Drainage Area 300 (EDA-300): Located in the southeastern corner of the site, drainage area EDA-300 consists of approximately 2.73 acres and is comprised mainly of native wooded lands and rock ledge. Due the existing rock ledge promoting forest and ground cover growth, the rock ledge impact on the stormwater analysis is considered negligible and pervious. The resulting imperviousness is 0.0%. Stormwater runoff from this drainage area sheet flows, following the existing topography to the east before combining into shallow concentrated flows and discharging offsite at Design Point 300 (DP-300). All runoff from EDA-300 continues to the southeast and eventually discharges into Stony Brook.

Existing Drainage Area 301 (EDA-301): Located in the southeastern corner of the site and north of EDA-300, drainage area EDA-301 consists of approximately 2.27 acres and is comprised mainly of native wooded lands and rock ledge. Due the existing rock ledge promoting forest and ground cover growth, the rock ledge impact on the stormwater analysis is considered negligible and pervious. The resulting imperviousness is 0.0%. Stormwater runoff from this drainage area sheet flows, following the existing topography to the east before combining into shallow concentrated flows and discharging offsite at Design Point 301 (DP-301). All runoff from EDA-301 continues to the southeast, eventually discharging into Stony Brook.

Existing Drainage Area 302 (EDA-302): Located in the south-central portion of the site and north of EDA-301, drainage area EDA-302 consists of 6.54 acres and is comprised mainly of native wooded lands and rock ledge. Due the existing rock ledge promoting forest and ground cover growth, the rock ledge impact on the stormwater analysis is considered negligible and pervious. The resulting imperviousness is 0.0%. Stormwater runoff from this drainage area sheet flows, following the existing topography to the east before combining into shallow concentrated flows and discharging offsite at Design Point 302 (DP-302). All runoff from EDA-302 continues to the east, eventually discharging into Stony Brook.

Existing Drainage Area 303 (EDA-303): Located in the south-central portion of the site and north of EDA-302, drainage area EDA-303 consists of 10.05 acres and is comprised mainly of native wooded lands, an existing wetland, and rock ledge. Due the existing rock ledge promoting forest and ground cover growth, the rock ledge impact on the stormwater analysis is considered negligible and pervious. The resulting imperviousness is 0.0%. Stormwater runoff from this drainage area sheet flows, following the existing topography to the east before combining into shallow concentrated flows and discharging offsite at Design Point 303 (DP-303). All runoff from EDA-303 continues to the east, eventually discharging into Stony Brook.

Existing Drainage Area 304 (EDA-304): Located in the northeast corner of the site and north of EDA-303, drainage area EDA-304 consists of 3.98 acres and is comprised mainly of native wooded lands and rock ledge. Due the existing rock ledge promoting forest and ground cover growth, the rock ledge impact on the stormwater analysis is considered negligible and pervious. The resulting imperviousness is 0.0%. Stormwater runoff from this drainage area sheet flows, following the existing topography to the east before combining into shallow concentrated flows and discharging offsite at Design Point 304 (DP-304). All runoff from EDA-304 continues to the east, eventually discharging into Stony Brook.

Existing Drainage Area 305 (EDA-305): Located in the northeast corner of the site and north of EDA-304, drainage area EDA-305 consists of 5.14 acres and is comprised mainly of native wooded lands and rock ledge. Due the existing rock ledge promoting forest and ground cover growth, the rock ledge impact on the stormwater analysis is considered negligible and pervious. The resulting imperviousness is 0.0%. Stormwater runoff from this drainage area sheet flows, following the existing topography to the east before combining into shallow concentrated flows and discharging offsite at Design Point 305

(DP-305). All runoff from EDA-305 continues to the east, eventually discharging into Stony Brook.

Table 1 – Pre-Development (Existing Conditions) Drainage Characteristics

Drainage Area	Area (square feet)	Composite Curve Number	Impervious Cover (%)	Time of Concentration (minutes)
EDA-100	552,980	60	0.00	27.4
EDA-101	137,916	68	0.00	17.7
EDA-200	203,118	60	0.00	17.4
EDA-201	102,943	60	0.00	18.4
EDA-202	450,456	60	0.00	19.9
EDA-203	801,310	69	0.00	26.0
EDA-204	47,524	60	0.00	16.7
EDA-205	596,493	67	0.00	28.8
EDA-206	606,548	64	0.00	36.7
EDA-207	764,871	62	0.00	26.8
EDA-208	608,292	66	0.00	39.5
EDA-209	773,358	63	0.00	40.8
EDA-210	29,356	70	0.00	23.8
EDA-211	166,352	75	0.00	21.9
EDA-212	97,138	61	0.00	22.0
EDA-213	232,559	68	0.00	18.7
EDA-300	118,942	78	0.00	10.8
EDA-301	98,859	76	0.00	20.6
EDA-302	284,755	71	0.00	18.5
EDA-303	437,598	76	0.00	30.2
EDA-304	173,414	76	0.00	34.7
EDA-305	223,863	75	0.00	25.9

Table 2 – Pre-Development Conditions Peak Flows

Analysis Point	Peak Flows (cfs)		
	10-year	25-year	100-year
DP-100	9.91	15.57	25.34
DP-101	4.86	6.95	10.38
DP-1	13.68	21.01	33.5
DP-200	4.62	7.27	11.82
DP-201	2.28	3.59	5.84
DP-202	9.57	15.06	24.5
DP-205	39.8	57.33	86.22
DP-206	11.84	17.60	27.33
DP-207	20.8	33.87	56.45
DP-208	77.14	116.71	183.77
DP-209	13.48	20.23	31.64
DP-210	0.98	1.37	2.01
DP-211	79.7	120.62	190.12
DP-212	2.09	3.23	5.19
DP-213	7.98	11.41	17.07
DP-2	97.56	148.89	236.35
DP-300	7.96	10.56	14.65
DP-301	4.48	6.02	8.46
DP-302	11.22	15.64	22.79
DP-303	16.14	21.66	30.41
DP-304	5.93	7.95	11.18
DP-305	8.65	11.7	16.59
DP-3	47.11	63.79	90.47

Developed Site Conditions and Hydrologic Conditions

General Site Information

The proposed site development consists of the installation of a solar array, gravel access road, and supporting electrical equipment. The hydrologic analysis below assumes that all rainfall that is intercepted by each solar panel will not directly impact the travel times and hydrological classifications of the land. The analysis of the proposed conditions included in this report assumes that the generated runoff will not be increased directly by the installation of the solar panels. This assumption shall be supported by the installation of a gravel drip strip along the leading edge of each panel that will intercept runoff and disperse it across the adjacent land through a splashing effect. This effect is intended to disperse any potential concentrated runoff into sheet flow and thereby matching existing conditions.

Proposed Hydrologic Conditions

The proposed drainage area included within this analysis is approximately 172.37 acres and is considered 0.00% impervious. The drainage area included in this analysis includes areas that are located offsite as well as within the limits of the property. The intent of the proposed site drainage design is to mimic existing drainage patterns to the maximum extent practical. The proposed site will provide the required stormwater detention through the installation of surface detention ponds strategically located throughout the site and within each disturbed sub-drainage areas. If a sub-basin with increased runoff flows could not be capture due to site constraints, the stormwater runoff has been routed to the nearest sub-drainage basin and detained within a detention pond or allowed to free-release. In event that runoff impacted by the development is allowed to free-release offsite, the upgradient detention pond has been increased in size to over-detain for these flows. Each detention pond has been adequately designed to match or reduce historic peak runoff rates for the 10-, 25-, and 100-year design storms at DP-1, DP-2, and DP-3. For the purposes of this analysis and ultimate use of the facility, all improvements have been considered as pervious and do not require stormwater quality per the State of Connecticut Water Quality Manual. However, additional BMP's have been prescribed to reduce the possibility of suspended solids being discharged offsite or into sensitive areas. This includes the installation of rock check dams within the existing drainage swale, silt fence around each phased perimeter, a stone construction entrance, and temporary sediment stockpiles during construction. Post-construction measures that will aid in maintaining water quality will include establishing grassed-lined swales, installing

proposed detention ponds located within each developed sub-basin, providing a 50'-100' buffer that shall remain undisturbed around each existing wetland, and an additional 100' buffer that will be reestablished with shrubs and grasses to mimic the existing forest ground cover. Additional consideration for time of travel and distances from each stormwater pond to the existing wetlands has been given to provide adequate time for runoff to mimic historical discharges into the existing wetlands.

For the proposed hydrologic analysis, the developed site maintains the same Design Points as described in the existing analysis above. All proposed areas associated with the installation of the photovoltaic array system have been considered as meadow, non-grazed. The existing forested areas to remain have been determined as Woods (fair). The existing utility easement has been defined as <50% grass, cover (poor). And the proposed gravel access roadway has been defined as gravel roads. The following drainage areas were developed to model the proposed site conditions:

For this analysis, all stormwater runoff leaving the southern property line has been noted as DP-1. DP-1 includes the total discharged runoff from PDA-100.1. PDA-100.2, PDA-101.1, and PDA-101.2.

Proposed Drainage Area 100.1 (PDA-100.1): Located in the southwestern corner of the site, drainage area PDA-100.1 consists of approximately 11.95 acres and is comprised of meadow grasses, gravel access roads, photovoltaic solar panel arrays, and Pond DP-100.1. The resulting imperviousness is 0.0%. Stormwater runoff from this drainage area sheet flows, following the existing topography before combining into shallow concentrated flows, and discharging into the proposed pond. All stormwater runoff within this basin and proposed detention pond is routed through PDA-100.2 and discharges at DP-100 to match or reduce the existing peak runoff rates for the designed storms noted above. All runoff from PDA-100.1 continues to the south and eventually discharges into Stony Brook.

Proposed Drainage Area 100.2 (PDA-100.2): Located in the southwestern corner of the site, drainage area PDA-100.2 consists of approximately 0.75 acres and is comprised of meadow grasses and a gravel access road. The resulting imperviousness is 0.0%. Stormwater runoff from this drainage area sheet flows to the south combining into shallow concentrated flows, and discharging offsite at DP-100. Due to site constraints, the proposed drainage area cannot be captured and thus generates an increased runoff for the basin. However, the increased stormwater runoff from this basin has been over-detained and accounted for in the design of Pond DP-100.1. All stormwater runoff within this basin combined with the outfall of Pond DP-100.1 matches or reduces the existing

peak runoff rates for the designed storms noted above. All runoff from PDA-100.2, including the tributary areas noted above, continues to the south and eventually discharges into Stony Brook.

Proposed Drainage Area 101.1 (PDA-101.1): Located in the southeast corner of the site, drainage area PDA-101.1 consists of approximately 1.98 acres and is comprised of meadow grasses, photovoltaic solar panel arrays, and Pond DP-101.1. The resulting imperviousness is 0.0%. Stormwater runoff from this drainage area sheet flows, following the existing topography before combining into shallow concentrated flows, and discharging into the proposed pond. All stormwater runoff within this basin and proposed detention pond is routed through PDA-101.2 and discharges offsite at DP-101, matching or reducing historic rates. All runoff from PDA-101.1 continues to the south and eventually discharges into Stony Brook.

Proposed Drainage Area 101.2 (PDA-101.2): Located in the southeast corner of the site, drainage area PDA-101.2 consists of approximately 1.09 acres and is comprised of meadow grasses. The resulting imperviousness is 0.0%. Stormwater runoff from this drainage area sheet flows, following the existing topography before combining into shallow concentrated flows, and discharge offsite at DP-101. Due to site constraints, the proposed drainage area cannot be captured and thus generates an increased runoff for the basin. However, the increased stormwater runoff from this basin has been over-detained and accounted for in the design of Pond DP-101.1. All stormwater runoff within this basin combined with the outfall of Pond DP-101.1 matches or reduces the existing peak runoff rates for the designed storms noted above. All runoff from PDA-101.2, including the tributary areas noted above, continues to the south and eventually discharges into Stony Brook.

For this analysis, all stormwater runoff leaving the western property line has been noted as DP-2. DP-2 includes the total discharged runoff from PDA-200.1, PDA-200.2, PDA-201.1, PDA-201.2, PDA-202, PDA-203, PDA-204, PDA-205.1, PDA-205.2, PDA-206.1, PDA-206.2, PDA-207.1, PDA-207.2, PDA-208.1, PDA-208.2, PDA-209.1, PDA-209.2, PDA-210, PDA-211, PDA-212.1, PDA-212.2,and PDA-213.

Proposed Drainage Area 200.1 (PDA-200.1): Located in the southwest corner of the site, drainage area EDA-200.1 consists of approximately 2.96 acres and is comprised of meadow grasses, gravel access roads, photovoltaic solar panel arrays, and Pond DP-200.1. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the west before becoming a shallow concentrated flow and

discharging into the proposed pond. All stormwater runoff within this basin and proposed detention pond is routed through PDA-200.2 and discharges at DP-200 to match or reduce the existing peak runoff rates for the designed storms noted above. All runoff from PDA-200.1 continues to the west and eventually discharges into Oil Mill Brook.

Proposed Drainage Area 200.2 (PDA-200.2): Located in the southwest corner of the site, drainage area PDA-200.2 consists of approximately 1.70 acres and is comprised of meadow grasses and gravel access roads. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the west before becoming a shallow concentrated flow and discharging offsite at DP-200. Due to site constraints, the proposed drainage area cannot be captured and thus generates an increased runoff for the basin. However, the increased stormwater runoff from this basin has been over-detained and accounted for in the design of Pond DP-200.1. All stormwater runoff within this basin combined with the outfall of Pond DP-200.1 matches or reduces the existing peak runoff rates for the designed storms noted above. All runoff from PDA-200.2, including the tributary area note above, continues to the west and eventually discharges into Oil Mill Brook.

Proposed Drainage Area 201.1 (PDA-201.1): Located in the southwest corner, north of PDA-201.1, drainage area PDA-201.1 consists of approximately 1.91 acres and is comprised of meadow grasses, gravel access roads, photovoltaic solar panel arrays, and Pond DP-201.1. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the west before becoming a shallow concentrated flow and discharging into the proposed pond. All stormwater runoff within this basin and proposed detention pond is routed through PDA-201.2 and discharges at DP-201 to match or reduce the existing peak runoff rates for the designed storms noted above. All runoff from PDA-200.1 continues to the west and eventually discharges into Oil Mill Brook.

Proposed Drainage Area 201.2 (PDA-201.2): Located in the southwest corner, north of PDA-201.1, drainage area PDA-201.2 consists of approximately 0.45 acres and is comprised of meadow grasses. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the west before becoming a shallow concentrated flow and discharging offsite at DP-201. Due to site constraints, the proposed drainage area cannot be captured and thus generates an increased runoff for the basin. However, the increased stormwater runoff from this basin has been over-detained and accounted for in the design of Pond DP-201.1. All stormwater runoff within this basin combined with the outfall of Pond DP-201.1 matches or reduces the existing peak runoff rates for the designed storms noted above. All runoff from PDA-201.2, including the

tributary area note above, continues to the west and eventually discharges into Oil Mill Brook.

Proposed Drainage Area 202 (PDA-202): Located in the south-central portion of the site and north of PDA-100.1, drainage area PDA-202 consists of approximately 10.34 acres and is comprised of meadow grasses, gravel access roads, photovoltaic solar panel arrays, and Pond DP-202.1. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the north before becoming a shallow concentrated flow and discharging into the proposed pond. All stormwater runoff within this basin and proposed detention pond discharges into the existing central wetland at DP-202 and is routed through PDA-207.2, PDA-208.2, PDA-211 to DP-211. All proposed peaks flows have been designed to match or reduce the existing peak runoff rates for the designed storms noted above. All runoff from PDA-202 continues to the west and eventually discharges into Oil Mill Brook.

Proposed Drainage Area 203 (PDA-203): Located north of the subject parcel, drainage area PDA-203 consists of approximately 18.40 acres and is comprised of undisturbed, native wooded areas. The resulting imperviousness is 0.0%. Stormwater runoff generated within this offsite drainage area sheet flows to the south before becoming a shallow concentrated flow and discharging into PDA-205.3. All stormwater runoff from PDA-203 is routed through PDA-205.3 and discharged into the existing wetland at DP-205. All runoff from PDA-203 continues through PDA-205.3 and eventually discharges offsite at DP-211. This analysis includes the routing of PDA-203 stormwater runoff through drainage areas PDA-205.3, PDA-208.2, and EDA-211.

Proposed Drainage Area 204 (PDA-204): Located north of the subject parcel and west of PDA-203, drainage area PDA-204 consists of approximately 1.09 acres and is comprised of undisturbed, native wooded areas. The resulting imperviousness is 0.0%. Stormwater runoff generated within this offsite drainage area sheet flows to the south before becoming a shallow concentrated flow and discharging into PDA-205.3. All stormwater runoff from PDA-204 is routed through PDA-205.3 and discharged into the existing wetland at DP-205. All runoff from PDA-204 continues through PDA-205.3 and eventually discharges offsite at DP-211. This analysis includes the routing of PDA-204 stormwater runoff through drainage areas PDA-205.3, PDA-208.2, and PDA-211.

Proposed Drainage Area 205.1 (PDA-205.1): Located in the northern portion of the site and south of PDA-205.3, drainage area EDA-205.1 consists of approximately 3.37 acres and is comprised of meadow grasses, gravel access roads, and photovoltaic solar panel

arrays. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the southwest before becoming a shallow concentrated flow within a proposed diversion ditch. Drainage area PDA-205.1 has been rerouted to PDA-206.1 and discharges into Pond DP-206.1. All stormwater runoff within this basin and proposed Pond DP-206.1 is routed through the existing wetland to DP-211 and matches or reduces the existing peak runoff rates for the designed storms noted above. All runoff from PDA-205.1 continues to the south and west and eventually discharges into Oil Mill Brook. This analysis includes the routing of PDA-205.1 stormwater runoff through drainage areas PDA-208.2 and PDA-211.

Proposed Drainage Area 205.2 (PDA-205.2): Located in the northern portion of the site and south of EDA-203, drainage area PDA-205.2 consists of approximately 4.94 acres and is comprised of meadow grasses, gravel access roads, photovoltaic solar panel arrays, access dirt roadway, and a portion of the existing utility easement. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the west, undetailed, before becoming a shallow concentrated flow. This concentrated flow is routed through PDA-205.3 and discharges into the existing central wetland at DP-205. All runoff from PDA-205.2 flows to the south and west through the existing wetland to DP-211. This analysis includes the routing of PDA-205.2 stormwater runoff through drainage areas PDA-205.3, PDA-208.2 and PDA-211.

Proposed Drainage Area 205.3 (PDA-205.3): Located in the northern portion of the site and south of PDA-203, drainage area PDA-205.3 consists of approximately 5.39 acres and is comprised of restored forest ground cover, meadow grasses, a portion of the existing central wetland, a portion of the access dirt roadway, and a portion of the existing utility easement. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the west before becoming a shallow concentrated flow and discharging into the existing central wetland at DP-205. All runoff from PDA-205.3, including the tributary areas described above, flows to the south and west through the existing wetland to DP-211. This analysis includes the routing of PDA-205.3 stormwater runoff through drainage areas PDA-208.2 and PDA-211.

Proposed Drainage Area 206.1 (PDA-206.1): Located in the east-central portion of the site and south of PDA-205.3, drainage area PDA-206.1 consists of approximately 11.05 acres and is comprised of meadow grasses, gravel access roads, photovoltaic solar panel arrays, and Pond DP-206.1. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the west before becoming a shallow concentrated flow and discharging into the proposed pond. All stormwater runoff within

this basin, including the tributary areas described above and PDA-207.1 and proposed detention pond, discharges into PDA-206.2 and into the existing central wetland at DP-206. All stormwater peak runoff rates at DP-206 matches or reduces the existing peak runoff rates for the designed storms noted above. All runoff from PDA-206.1 continues to the west toward DP-211 and eventually discharges into Oil Mill Brook. This analysis includes the routing of PDA-206.1 stormwater runoff through drainage areas PDA-206.2, PDA-208.2 and PDA-211.

Proposed Drainage Area 206.2 (PDA-206.2): Located in the east-central portion of the site and south of PDA-205.3, drainage area PDA-206.2 consists of approximately 2.87 acres and is comprised of meadow grasses, gravel access road, a portion of the existing central wetland, a portion of the existing access road, and a portion of the existing utility easement. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the west before becoming a shallow concentrated flow and discharging into the existing wetland at DP-206. Due to site constraints, the proposed drainage area cannot be captured and thus generates an increased runoff for the basin. However, the increased stormwater runoff from this basin has been over-detained and accounted for in the design of Pond DP-206.1. All stormwater runoff within this basin, including the outfall of the proposed Pond DP-206.1, is routed through the existing wetland to DP-211 and matches or reduces the existing peak runoff rates for the designed storms noted above. All runoff from PDA-206.2 continues to the south and west and eventually discharges into Oil Mill Brook. This analysis includes the routing of PDA-206.2 stormwater runoff through drainage areas PDA-208.2 and PDA-211.

Proposed Drainage Area 207.1 (PDA-207.1): Located in the central portion of the site and west of PDA-206.1, drainage area PDA-207.1 consists of approximately 0.23 acres and is comprised of meadow grasses and photovoltaic installation. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the northwest before becoming a shallow concentrated flow within a proposed diversion swale. This diversion swale reroutes runoff with this basin through PDA-206.1 and into Pond DP-206.1. All runoff from PDA-207.1 is detained within the proposed pond and discharges as described within PDA-206.1.

Proposed Drainage Area 207.2 (PDA-207.2): Located in the central portion of the site and west of PDA-206.1, drainage area PDA-207.2 consists of approximately 7.76 acres and is comprised of meadow grasses, gravel access roads, and Pond DP-207.2. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the northwest before becoming a shallow concentrated flow within a

diversion ditch and discharging into the proposed pond. All stormwater runoff within this basin and proposed detention pond, discharges into PDA-207.3 and into the existing central wetland at DP-207. All stormwater peak runoff rates at DP-207 match or reduce the existing peak runoff rates for the designed storms noted above. All runoff from PDA-207.2 continues to the west toward DP-211 and eventually discharges into Oil Mill Brook. This analysis includes the routing of PDA-207.2 stormwater runoff through drainage areas PDA-207.2, PDA-208.2 and PDA-211.

Proposed Drainage Area 207.3 (PDA-207.3): Located in the central portion of the site and west of PDA-206.2, drainage area PDA-207.3 consists of approximately 9.56 acres and is comprised of meadow grasses, gravel access roads, photovoltaic installations, a portion of the existing central wetland, and a portion of the existing utility easement. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the northwest before becoming a shallow concentrated flow and discharging into the existing central wetland at DP-207. Due to site constraints, the proposed drainage area cannot be captured and thus generates an increased runoff for the basin. However, the increased stormwater runoff from this basin has been over-detained and accounted for in the design of Pond DP-207.2. All stormwater runoff within this basin, including the outfall of the proposed pond, has been routed through the existing wetland to DP-211 and matches or reduces the existing peak runoff rates for the designed storms noted above. All runoff from PDA-207.3, including the tributary areas described above, flows to the west through the existing wetland to DP-211. This analysis includes the routing of PDA-206.2 stormwater runoff through drainage areas PDA-208.2 and PDA-211.

Proposed Drainage Area 208.1 (PDA-208.1): Located in the north-central portion of the site, drainage area EDA-208 consists of approximately 0.34 acres and is comprised of meadow grasses and photovoltaic installations. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the west before becoming a shallow concentrated flow within the proposed diversion swale. All runoff from this basin is rerouted through PDA-212.1 and discharges in Pond DP-212.1. Refer Proposed Drainage Area 212.1 for additional information.

Proposed Drainage Area 208.2 (PDA-208.2): Located in the north-central portion of the site, drainage area PDA-208 consists of approximately 13.63 acres and is comprised of native wooded areas, a portion of the existing central wetland, a portion of the exiting access road, gravel access road, and a portion of the existing utility easement. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area

sheet flows to the west before becoming a shallow concentrated flow and discharging into the existing central wetland at DP-208. All runoff from PDA-208, including the tributary areas as described above, flows to west through the existing wetland to DP-211. This analysis includes the routing of PDA-208.2 stormwater runoff through the drainage area EDA-211.

Proposed Drainage Area 209.1 (PDA-209.1): Located in the western portion of the site, drainage area PDA-209.1 consists of approximately 7.07 acres and is comprised of meadow grasses, gravel access roads, photovoltaic installations, and Pond DP-209.1. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the northwest before becoming a shallow concentrated flow with a proposed diversion ditch and discharging into the proposed pond. All stormwater runoff within this basin and proposed detention pond, discharges into PDA-209.2 and into the existing central wetland at DP-209. All stormwater peak runoff rates at DP-209 match or reduce the existing peak runoff rates for the designed storms noted above. All runoff from PDA-209.1 discharges offsite toward Oil Mill Brook.

Proposed Drainage Area 209.2 (PDA-209.2): Located in the western portion of the site and north of PDA-209.1, drainage area PDA-209.2 consists of approximately 10.68 acres and is comprised of native wooded areas, a portion of the existing central wetland, and a portion of the existing utility easement. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the northwest before becoming a shallow concentrated flow and discharging into the existing central wetland at DP-209. All runoff from PDA-209.2, including the tributary areas and pond outfall as described above, flows offsite toward the Oil Mill Brook at DP-209.

Proposed Drainage Area 210 (PDA-210): Located west of the proposed site, drainage area PDA-210 consists of approximately 0.67 acres and is comprised of native wooded areas. The resulting imperviousness is 0.0%. Stormwater runoff generated within this offsite drainage area sheet flows to the south before becoming a shallow concentrated flow and discharging into drainage area PDA-210. All runoff from PDA-210, is routed through PDA-211 and discharges offsite toward Oil Mill Brook at DP-211.

Proposed Drainage Area 211 (PDA-211): Located in the western portion of the site, drainage area PDA-211 consists of approximately 3.82 acres and is comprised of native wooded areas and a portion of the existing central wetland. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the west before becoming a shallow concentrated flow and discharging into the existing central

wetland at DP-211. All runoff from PDA-211, including the tributary areas routed through this basin as described above, discharges offsite toward Oil Mill Brook at DP-211.

Proposed Drainage Area 212.1 (PDA-212.1): Located in the northern portion of the site, drainage area PDA-212 consists of approximately 1.87 acres and is comprised of meadow grasses, photovoltaic installations, and Pond DP-212.1. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the west before becoming a shallow concentrated flow and discharging into the proposed pond. All stormwater runoff within this basin and proposed detention pond, discharges into PDA-212.2 and offsite at DP-212. All stormwater peak runoff rates at DP-212 match or reduce the existing peak runoff rates for the designed storms noted above. All runoff from PDA-212.1 discharges offsite toward Oil Mill Brook.

Proposed Drainage Area 212.2 (PDA-212.2): Located in the northern portion of the site, drainage area PDA-212.2 consists of approximately 0.36 acres and is comprised of restored forest ground cover and meadow grasses. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the west before becoming a shallow concentrated flow and discharging offsite at DP-212. All runoff from PDA-21.2, including the tributary areas and pond outfall as described above, flows offsite toward the Oil Mill Brook at DP-212.

Proposed Drainage Area 213 (PDA-213): Located in the northern portion of the site, drainage area PDA-213 consists of approximately 5.34 acres and is comprised of native wooded areas and a portion of the existing dirt access road restored with gravel. The resulting imperviousness is 0.0%. Stormwater runoff generated within this drainage area sheet flows to the southwest before becoming a shallow concentrated flow and discharging offsite at DP-213. All runoff from EDA-213 discharges offsite toward Oil Mill Brook.

Proposed Drainage Area 300.1 (PDA-300.1): Located in the southeastern corner of the site, drainage area PDA-300.1 consists of approximately 0.70 acres and is comprised mainly of meadow grasses, photovoltaic installations, Pond DP-300.1 and rock ledge. Due the existing rock ledge promoting forest and ground cover growth, the rock ledge impact on the stormwater analysis is considered negligible and pervious. The resulting imperviousness is 0.0%. Stormwater runoff from this drainage area sheet flows, following the existing topography to the east before combining into shallow concentrated flows and discharging into the proposed pond. All stormwater runoff within this basin and proposed detention pond, discharges into PDA-300.2 offsite at DP-300. All stormwater peak runoff

rates at DP-300 match or reduce the existing peak runoff rates for the designed storms noted above. Runoff from PDA-300.1 continues to the southeast and eventually discharges into Stony Brook.

For this analysis, all stormwater runoff leaving the eastern property line has been noted as DP-3. DP-3 includes the total discharged runoff from PDA-300.1, PDA-300.2, PDA-301.1, PDA-301.2, PDA-302.1, PDA-302.2, PDA-303.1, PDA-303.2, PDA-304.1, PDA-304.2, PDA-305.1, and PDA-305.2.

Proposed Drainage Area 300.2 (PDA-300.2): Located in the southeastern corner of the site, drainage area PDA-300.2 consists of approximately 2.03 acres and is comprised mainly of restored forest ground cover and rock ledge. Due the existing rock ledge promoting forest and ground cover growth, the rock ledge impact on the stormwater analysis is considered negligible and pervious. The resulting imperviousness is 0.0%. Stormwater runoff from this drainage area sheet flows, following the existing topography to the east before combining into shallow concentrated flows and discharging offsite at Design Point 300 (DP-300). All runoff from EDA-300, including the tributary and proposed outfall described above, continues to the southeast and eventually discharges into Stony Brook.

Proposed Drainage Area 301.1 (PDA-301.1): Located in the southeastern corner of the site and north of PDA-300.1, drainage area PDA-301.1 consists of approximately 1.27 acres and is comprised mainly meadow grasses, photovoltaic installation, and rock ledge. Due the existing rock ledge promoting forest and ground cover growth, the rock ledge impact on the stormwater analysis is considered negligible and pervious. The resulting imperviousness is 0.0%. Stormwater runoff from this drainage area sheet flows, following the existing topography to the east before combining into shallow concentrated flows with the diversion swale. This diversion swale reroutes runoff with the basin through PDA-302.1 and into Pond DP-302.1. All runoff from PDA-302.1 is detained within the proposed pond and discharges as described within PDA-302.1.

Proposed Drainage Area 301.2 (PDA-301.2): Located in the southeastern corner of the site and east of PDA-301.1, drainage area PDA-301.2 consists of approximately 1.00 acres and is comprised mainly of meadow grasses and rock ledge. Due the existing rock ledge promoting forest and ground cover growth, the rock ledge impact on the stormwater analysis is considered negligible and pervious. The resulting imperviousness is 0.0%. Stormwater runoff from this drainage area sheet flows, following the existing topography to the east before combining into shallow concentrated flows and discharging offsite at

Design Point 301 (DP-301). All runoff from PDA-301.2 continues to the southeast, eventually discharging into Stony Brook.

Proposed Drainage Area 302.1 (PDA-302.1): Located in the south-central portion of the site and north of PDA-301.1, drainage area PDA-302.1 consists of 4.34 acres and is comprised mainly of meadow grasses, photovoltaic installation, gravel access roads, Pond DP-302.1, and rock ledge. Due the existing rock ledge promoting forest and ground cover growth, the rock ledge impact on the stormwater analysis is considered negligible and pervious. The resulting imperviousness is 0.0%. Stormwater runoff from this drainage area sheet flows, following the existing topography to the east before combining into shallow concentrated flows and discharging into the proposed pond. All stormwater runoff within this basin and proposed detention pond is routed through PDA-302.2 and discharges offsite at DP-302. All stormwater peak runoff rates at DP-302 match or reduce the existing peak runoff rates for the designed storms noted above. All runoff from PDA-302.1 continues to the east, eventually discharging into Stony Brook.

Proposed Drainage Area 302.2 (PDA-302.2): Located in the south-central portion of the site and east of PDA-302.2, drainage area PDA-302.2 consists of 2.20 acres and is comprised mainly of meadow grasses and rock ledge. Due the existing rock ledge promoting forest and ground cover growth, the rock ledge impact on the stormwater analysis is considered negligible and pervious. The resulting imperviousness is 0.0%. Stormwater runoff from this drainage area sheet flows, following the existing topography to the east before combining into shallow concentrated flows and discharging offsite at Design Point 302 (DP-302). Due to site constraints, the proposed drainage area cannot be captured and thus generates an increased runoff for the basin. However, the increased stormwater runoff from this basin has been over-detained and accounted for in the design of Pond DP-302.1. All stormwater runoff within this basin, including the outfall of the proposed Pond DP-302.1 matches or reduces the existing peak runoff rates for the designed storms noted above. All runoff from PDA-302.2 continues to the east, eventually discharging into Stony Brook.

Proposed Drainage Area 303.1 (PDA-303.1): Located in the south-central portion of the site and north of PDA-302.1, drainage area PDA-303.1 consists of 6.71 acres and is comprised mainly of meadow grasses, photovoltaic installation, gravel access road, Pond DP-303.1, an existing wetland, and rock ledge. Due the existing rock ledge promoting forest and ground cover growth, the rock ledge impact on the stormwater analysis is considered negligible and pervious. The resulting imperviousness is 0.0%. Stormwater runoff from this drainage area sheet flows, following the existing topography to the east

before combining into shallow concentrated flows and discharging into the proposed pond. All stormwater runoff within this basin and proposed detention pond is routed through PDA-303.2 and discharges offsite at DP-303. All stormwater peak runoff rates at DP-303 match or reduce the existing peak runoff rates for the designed storms noted above. All runoff from PDA-303.1 continues to the east, eventually discharging into Stony Brook.

Proposed Drainage Area 303.2 (PDA-303.2): Located in the south-central portion of the site and north of PDA-302.2, drainage area PDA-303.2 consists of 3.34 acres and is comprised mainly meadow grasses, existing wooded wetland area, and rock ledge. Due the existing rock ledge promoting forest and ground cover growth, the rock ledge impact on the stormwater analysis is considered negligible and pervious. The resulting imperviousness is 0.0%. Stormwater runoff from this drainage area sheet flows, following the existing topography to the east before combining into shallow concentrated flows and discharging offsite at Design Point 303 (DP-303). Due to site constraints, the proposed drainage area cannot be captured and thus generates an increased runoff for the basin. However, the increased stormwater runoff from this basin has been over-detained and accounted for in the design of Pond DP-303.1. All stormwater runoff within this basin, including the outfall of the proposed Pond DP-303.1 matches or reduces the existing peak runoff rates for the designed storms noted above. All runoff from PDA-303.2 continues to the east, eventually discharging into Stony Brook.

Proposed Drainage Area 304.1 (PDA-304.1): Located in the northeast corner of the site and north of PDA-303.1, drainage area PDA-304.1 consists of 2.43 acres and is comprised meadow grasses, photovoltaic installation, Pond DP-304.1, and rock ledge. Due the existing rock ledge promoting forest and ground cover growth, the rock ledge impact on the stormwater analysis is considered negligible and pervious. The resulting imperviousness is 0.0%. Stormwater runoff from this drainage area sheet flows, following the existing topography to the east before combining into shallow concentrated flows and discharging into the proposed pond. All stormwater runoff within this basin, including PDA-305.1 and the proposed detention pond outfall, is routed through PDA-304.2 and discharges offsite at DP-304. All stormwater peak runoff rates at DP-304 match or reduce the existing peak runoff rates for the designed storms noted above. All runoff from PDA-304.1 continues to the east, eventually discharging into Stony Brook.

Proposed Drainage Area 304.2 (PDA-304.2): Located in the northeast corner of the site and east of PDA-304.1, drainage area PDA-304.2 consists of 1.55 acres and is comprised

mainly of restored forest ground cover and rock ledge. Due the existing rock ledge promoting forest and ground cover growth, the rock ledge impact on the stormwater analysis is considered negligible and pervious. The resulting imperviousness is 0.0%. Stormwater runoff from this drainage area sheet flows, following the existing topography to the east before combining into shallow concentrated flows and discharging offsite at Design Point 304 (DP-304). Due to site constraints, the proposed drainage area cannot be captured and thus generates an increased runoff for the basin. However, at DP-3, the overall total runoff leaving the site has been reduced to pre-developed conditions. The increased runoff for this basin is a localized increased and is directly offset by the reduction in runoff from Drainage Area PDA-305.2, which is located adjacent to PDA-304.2 and within the major drainage basin. All runoff from PDA-304.2 continues to the east, eventually discharging into Stony Brook.

Proposed Drainage Area 305.1 (PDA-305.1): Located in the northeast corner of the site and north of PDA-304.1, drainage area PDA-305.1 consists of 3.44 acres and is comprised mainly of meadow grasses, photovoltaic installation, gravel access roads, and rock ledge. Due the existing rock ledge promoting forest and ground cover growth, the rock ledge impact on the stormwater analysis is considered negligible and pervious. The resulting imperviousness is 0.0%. Stormwater runoff from this drainage area sheet flows, following the existing topography to the east before combining into shallow concentrated flows within a diversion swale. This runoff is rerouted toward PDA-304.1 and into the proposed pond. Refer to the Proposed Drainage Area 304.1 for additional information.

Proposed Drainage Area 305.2 (PDA-305.2): Located in the northeast corner of the site and northeast of PDA-305.1, drainage area PDA-305.2 consists of 1.70 acres and is comprised mainly of meadow grasses, gravel access roads, and rock ledge. Due the existing rock ledge promoting forest and ground cover growth, the rock ledge impact on the stormwater analysis is considered negligible and pervious. The resulting imperviousness is 0.0%. Stormwater runoff from this drainage area sheet flows, following the existing topography to the east before combining into shallow concentrated flows and discharging offsite at Design Point 305 (DP-305). All runoff from PDA-305.2 continues to the east, eventually discharging into Stony Brook.

The hydrological analysis for each proposed drainage area is summarized in Table 3, below. For a complete analysis of the proposed conditions and supporting documentation used for this summary, please refer to Appendix C.

Table 3 – Post Development Drainage Characteristics

Drainage Area	Area (square feet)	Composite Curve Number	Impervious Cover (%)	Time of Concentration (minutes)
PDA-100.1	520,481	60	0.00%	18.0
PDA-100.2	32,550	58	0.00%	6.1
PDA-101.1	90,361	63	0.00%	12.1
PDA-101.2	47,554	76	0.00%	11.2
PDA-200.1	128,991	63	0.00%	12.9
PDA-200.2	74,126	61	0.00%	11.7
PDA-201.1	83,227	60	0.00%	13.0
PDA-201.2	19,716	58	0.00%	13.0
PDA-202	450,459	61	0.00%	13.8
PDA-203	801,310	69	0.00%	26.0
PDA-204	47,524	60	0.00%	16.7
PDA-205.1	146,606	65	0.00%	13.8
PDA-205.2	215,116	67	0.00%	13.4
PDA-205.3	234,811	66	0.00%	9.3
PDA-206.1	481,525	62	0.00%	19.5
PDA-206.2	124,905	70	0.00%	10.0
PDA-207.1	10,073	58	0.00%	13.8
PDA-207.2	338,199	59	0.00%	10.6
PDA-207.3	416,598	63	0.00%	17.0
PDA-208.1	14,791	58	0.00%	8.6
PDA-208.2	593,566	66	0.00%	36.6
PDA-209.1	308,082	59	0.00%	22.4
PDA-209.2	465,264	60	0.00%	21.0
PDA-210	29,356	70	0.00%	23.8
PDA-211	166,352	75	0.00%	21.9
PDA-212.1	81,563	58	0.00%	20.6
PDA-212.2	15,574	62	0.00%	8.2
PDA-213	232,262	69	0.00%	20.5
PDA-300.1	30,322	75	0.00%	9.2
PDA-300.2	88,620	77	0.00%	6.3
PDA-301.1	55,382	73	0.00%	10.5

Drainage Area	Area (square feet)	Composite Curve Number	Impervious Cover (%)	Time of Concentration (minutes)
PDA-301.2	43,476	77	0.00%	5.3
PDA-302.1	189,109	66	0.00%	10.1
PDA-302.2	95,647	75	0.00%	8.8
PDA-303.1	292,331	73	0.00%	13.7
PDA-303.2	145,287	78	0.00%	10.2
PDA-304.1	106,009	72	0.00%	18.9
PDA-304.2	67,405	73	0.00%	8.7
PDA-305.1	149,887	73	0.00%	19.3
PDA-305.2	73,928	74	0.00%	5.0

Table 4 – Post-Development Conditions Peak Flows

Analysis Point	Peak Flows (cfs)		
	10-year	25-year	100-year
DP-100	9.88	15.52	25.17
DP-101	4.71	6.95	10.37
DP-1	13.42	20.5	32.69
DP-200	4.61	7.27	11.80
DP-201	1.99	3.08	5.82
DP-202	9.56	14.99	21.65
DP-205	34.14	49.02	73.66
DP-206	11.72	17.00	27.24
DP-207	19.42	31.29	51.21
DP-208	71.06	106.69	166.34
DP-209	12.82	19.7	31.58
DP-210	0.98	1.37	2.01
DP-211	74.08	111.27	173.62
DP-212	1.98	3.17	4.94
DP-213	7.96	11.29	16.74
DP-2	89.31	135.91	213.81

Analysis Point	Peak Flows (cfs)		
	10-year	25-year	100-year
DP-300	7.88	10.39	14.3
DP-301	3.7	4.93	6.87
DP-302	10.74	13.6	19.71
DP-303	13.22	17.56	24.03
DP-304	7.81	10.64	16.92
DP-305	5.76	7.84	11.15
DP-3	45.01	59.3	82.05

Table 4a – Post-Development Detention Pond Summary Table

Analysis Point (Pond)	Max. Peak Elevation (100-year) (FT)	Max Storage Volume (100-year) (CY)
DP-100.1	173.89	10,186
DP-101.1	232.42	1,651
DP-200.1	181.93	3,282
DP-201.1	164.45	1,747
DP-202.1	193.06	10,429
DP-206.1	201.15	26,605
DP-207.1	174.22	7,789
DP-209.1	150.97	10,553
DP-212.1	123.87	508
DP-300.1	231.73	1,247
DP-302.1	213.27	10,060
DP-303.1	188.17	23,537
DP-304.1	208.22	12,995

Table 5 – Existing vs Proposed Peak Rates of Runoff

	Peak Flow (cfs)		
Drainage Area	**10-yr**	**25-yr**	**100-yr**
DP-100			
Existing	9.91	15.57	25.34
Proposed	9.88	15.52	25.17
Percent Change	-0.30%	-0.32%	-0.67%
DP-101			
Existing	4.86	6.95	10.38
Proposed	4.71	6.95	10.37
Percent Change	-3.09%	0.00%	-0.10%
DP-1			
Existing	13.68	21.01	33.5
Proposed	13.42	20.5	32.69
Percent Change	-1.90%	-2.43%	-2.42%
DP-200			
Existing	4.62	7.27	11.82
Proposed	4.61	7.27	11.8
Percent Change	-0.22%	0.00%	-0.17%
DP-201			
Existing	2.28	3.59	5.84
Proposed	1.99	3.08	5.82
Percent Change	-12.72%	-14.21%	-0.34%
DP-202			
Existing	9.57	15.06	24.5
Proposed	9.56	14.99	21.65
Percent Change	-0.10%	-0.46%	-11.63%
DP-205			
Existing	39.8	57.33	86.22
Proposed	34.14	49.02	73.66
Percent Change	-14.22%	-14.50%	-14.57%
DP-206			
Existing	11.84	17.6	27.33

	Peak Flow (cfs)		
Drainage Area	**10-yr**	**25-yr**	**100-yr**
Proposed	11.72	17	27.24
Percent Change	-1.01%	-3.41%	-0.33%
DP-207			
Existing	20.8	33.87	56.45
Proposed	19.42	31.29	51.21
Percent Change	-6.63%	-7.62%	-9.28%
DP-208			
Existing	77.14	116.71	183.77
Proposed	71.06	106.69	166.34
Percent Change	-7.88%	-8.59%	-9.48%
DP-209			
Existing	13.48	20.23	31.64
Proposed	12.82	19.7	31.58
Percent Change	-4.90%	-2.62%	-0.19%
DP-210			
Existing	0.98	1.37	2.01
Proposed	0.98	1.37	2.01
Percent Change	0.00%	0.00%	0.00%
DP-211			
Existing	79.7	120.62	190.12
Proposed	74.08	111.27	173.62
Percent Change	-7.05%	-7.75%	-8.68%
DP-212			
Existing	2.09	3.23	5.19
Proposed	1.98	3.17	4.94
Percent Change	-5.26%	-1.86%	-4.82%
DP-213			
Existing	7.98	11.41	17.07
Proposed	7.96	11.29	16.74
Percent Change	-0.25%	-1.05%	-1.93%
DP-2			
Existing	97.56	148.89	236.35

	Peak Flow (cfs)		
Drainage Area	**10-yr**	**25-yr**	**100-yr**
Proposed	89.31	135.91	213.81
Percent Change	-8.46%	-8.72%	-9.54%
DP-300			
Existing	7.96	10.56	14.65
Proposed	7.88	10.39	14.3
Percent Change	-1.01%	-1.61%	-2.39%
DP-301			
Existing	4.48	6.02	8.46
Proposed	3.7	4.93	6.87
Percent Change	-17.41%	-18.11%	-18.79%
DP-302			
Existing	11.22	15.64	22.79
Proposed	10.74	13.6	19.71
Percent Change	-4.28%	-13.04%	-13.51%
DP-303			
Existing	16.14	21.66	30.41
Proposed	13.22	17.56	24.03
Percent Change	-18.09%	-18.93%	-20.98%
DP-304			
Existing	5.93	7.95	11.18
Proposed	7.81	10.64	16.92
Percent Change	31.70%	33.84%	51.34%
DP-305			
Existing	8.65	11.7	16.59
Proposed	5.76	7.84	11.15
Percent Change	-33.41%	-32.99%	-32.79%
DP-3			
Existing	47.11	63.79	90.47
Proposed	45.01	59.3	82.05
Percent Change	-4.46%	-7.04%	-9.31%

Stormwater Management

Hydrologic Modeling of the Entire Site

The hydrologic analysis to determine peak stormwater discharge rates was performed using the HydroCAD stormwater modeling system computer program, version 10.00 developed by HydroCAD Software Solutions, LLC. Hydrographs for each watershed were developed using the SCS Synthetic Unit Hydrograph Method. Rainfall depths and distribution per the NOAA Atlas 14 for Waterford, CT were used for the calculation of peak flow rates and are listed in Table 6. The drainage areas, or subcatchments as labeled by the program, are depicted by hexagons on the attached drainage diagrams. Pre-development HydroCAD output can be found in Appendix B and Post-development HydroCAD output can be found in Appendix C.

Table 6 – Rainfall Depths per NOAA Atlas 14
Appendix B - 24-hour Rainfall Data

Return Period	24-hour Rainfall Depth
10-year	5.15”
25-year	6.24”
100-year	7.84”

Stormwater Quality

The site has been designed to incorporate best management practices for stormwater quality in lieu of the recommended water quality per the CTDEEP 2004 Connecticut Stormwater Quality Manual which is based on impervious surfaces only. As the proposed condition for the project includes meadow grasses, preserved wetland areas, restored forest ground cover, and loose gravel access roadway, the proposed site does not contain any impervious surfaces. It is our recommendation for the water quality volume and attenuation to be waived for the proposed project. Perimeter areas of the site outside of the solar array system include a 20-ft wide grass stirp to enhance pollutant removal and provide buffering to the adjacent wetland. In addition to this buffer, an additional buffer of restored forest ground cover is proposed between the 20-ft wide grass strip and 50’-100’ wetland buffer. The 50’-100’ upland review area buffer shall remain as is with undisturbed forested land.

In addition to the measures described above, the proposed project will utilize the best management practices (BMP’s) of grass-lined swales and detention ponds for post-construction to improve water quality of the stormwater runoff.

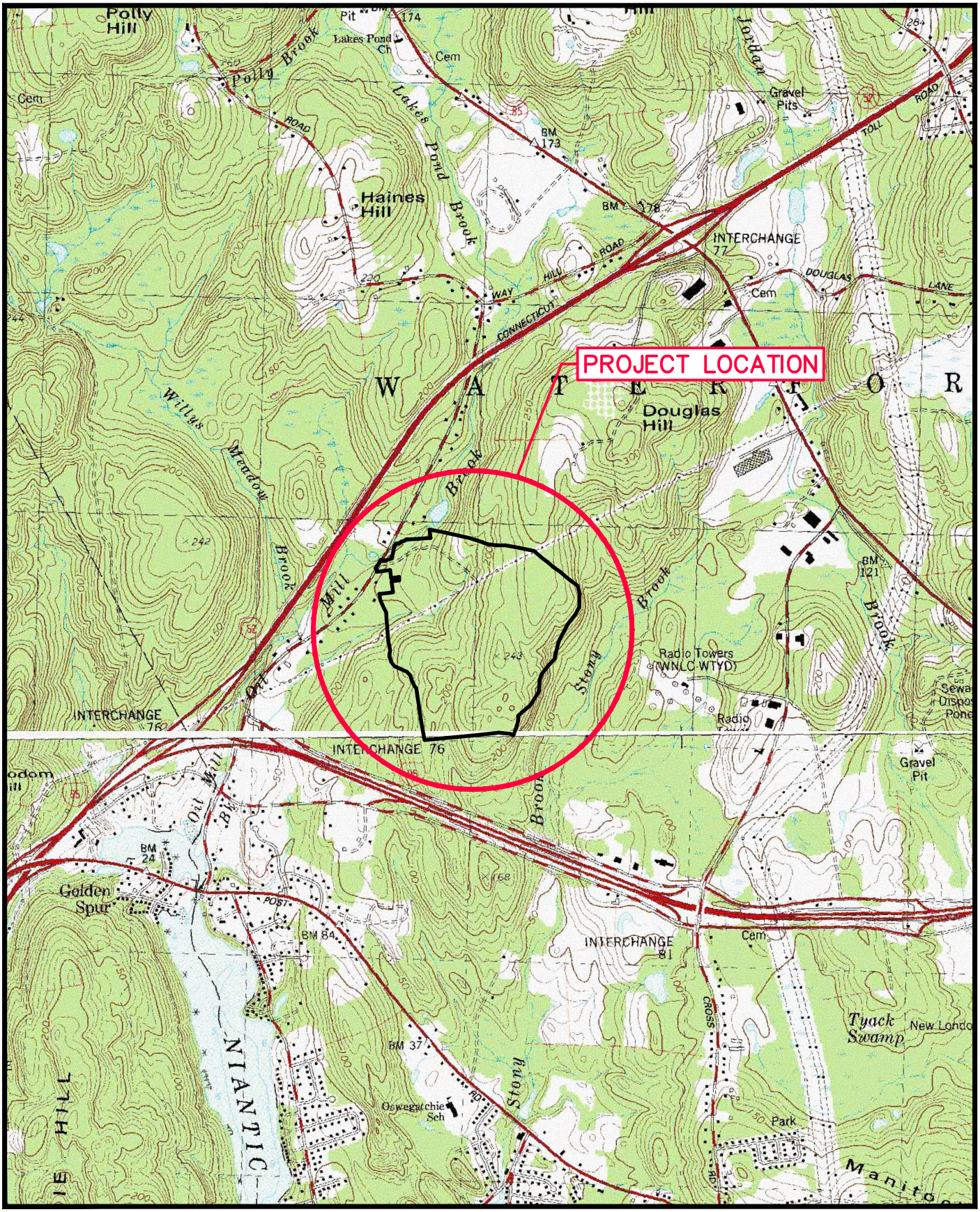
Summary

This report demonstrates that a comprehensive stormwater management strategy has been developed resulting in post-development peak discharge rates for the total developed site that will be maintained or decreased for all storm events. (See Table 5 – Existing vs. Proposed Peak Rates of Runoff). All post-development stormwater discharged from the site has been designed to mimic existing drainage patterns to the greatest extent practical. The proposed design also provides additional protection of adjacent inland wetlands and preserves or enhances existing buffer areas. Stormwater quality is being addressed by above ground BMPs including rock check dams, a natural grass lined swale, and vegetated filter strips. The proposed stormwater management system will meet the stormwater quality requirements of the State of Connecticut, and will safely collect and convey post-development runoff.

APPENDIX A

LOCATION MAPS

Figure 1: USGS Location Map
Figure 2: Aerial Location Map
Figure 3: NRCS Soil Survey Map with Hydrologic Soil Group Data
Figure 4: FEMA Federal Insurance Rate Map
Figure 5: NOAA Atlas 14 Storm Data
Figure 6: Vicinity Map
Figure 7: Aquifer Protection Area Map
Figure 8: Water Quality Classifications Map
Figure 9: Natural Diversity Data Base Areas



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PROPOSED
PHOTOVOLTAIC INSTALLATION
OIL MILL ROAD
WATERFORD, CONNECTICUT

Designed	H.J.L.
Drawn	H.J.L.
Checked	M.P.S.
Approved	M.P.S.
Scale	1"=2,000'
Project No.	17D3515
Date	04/02/2018
CAD File	LOC17D351501

FIGURE 1
USGS LOCATION MAP

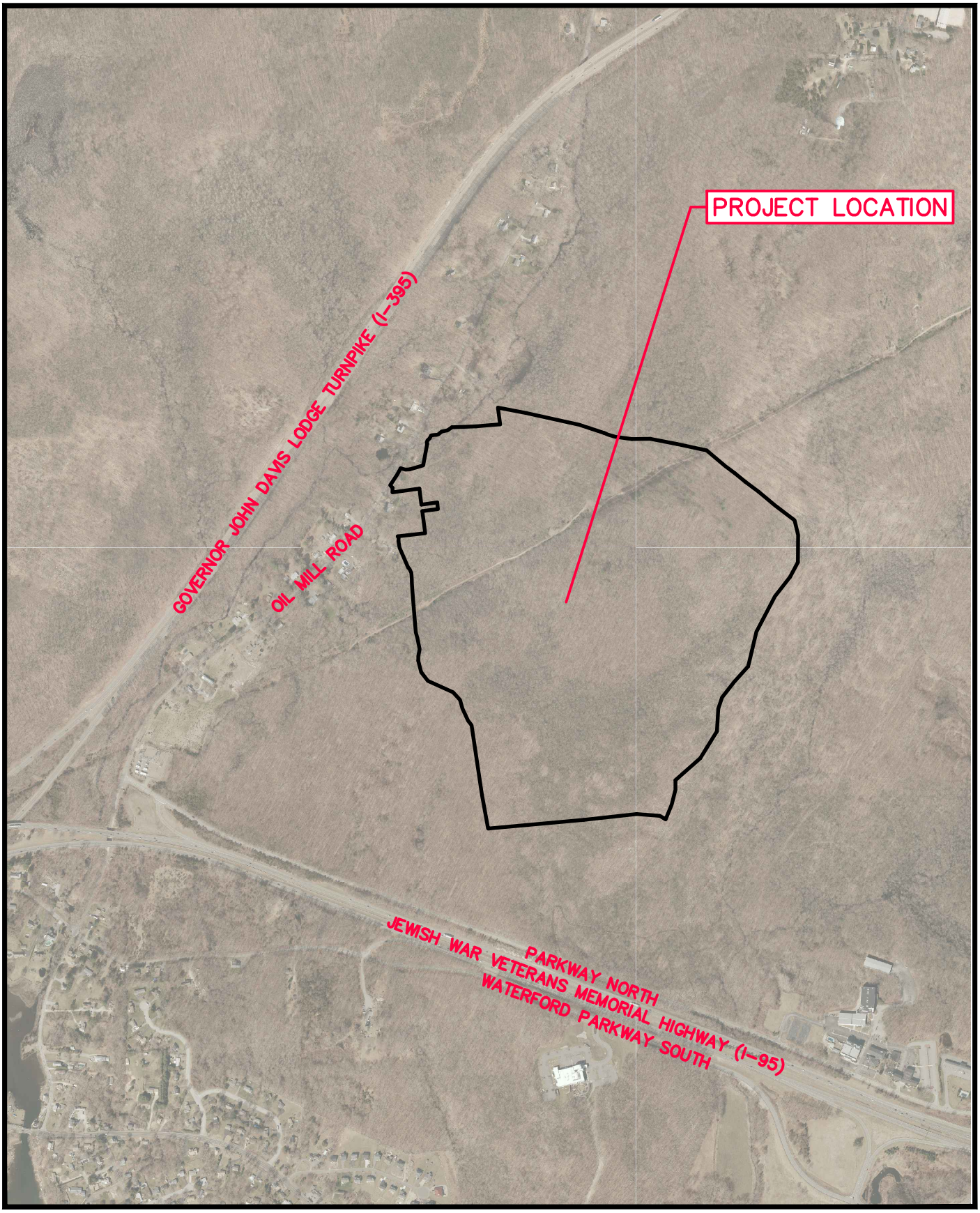

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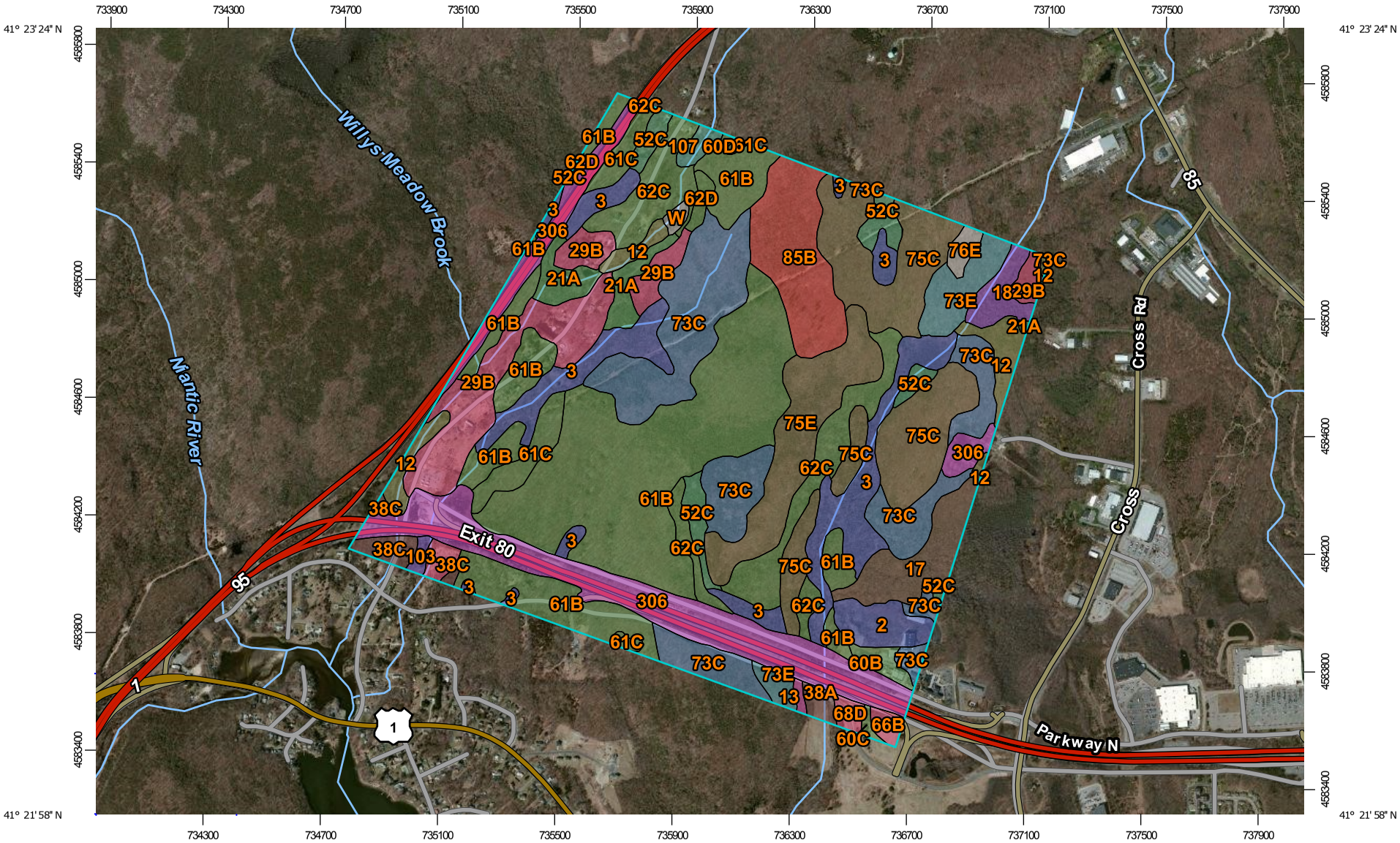
FIGURE 2
AERIAL LOCATION MAP

Custom Soil Resource Report
Map—Soil Taxonomy Classification



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

Coarse-loamy over sandy or sandy-skeletal, mixed, active, acid, mesic Aeric Endoaquepts

Coarse-loamy over sandy or sandy-skeletal, mixed, active, mesic Aquic Dystrudepts

Coarse-loamy over sandy or sandy-skeletal, mixed, active, mesic Typic Dystrudepts

Coarse-loamy over sandy or sandy-skeletal, mixed, semiactive, mesic Typic Dystrudepts

Coarse-loamy over sandy or sandy-skeletal, mixed, superactive, mesic Typic Dystrudepts

Coarse-loamy, mixed, active, mesic Aquic Dystrudepts

Coarse-loamy, mixed, active, mesic Oxyaquic Dystrudepts

Coarse-loamy, mixed, active, mesic Typic Dystrudepts

Coarse-loamy, mixed, superactive, mesic Typic Dystrudepts

Coarse-loamy, mixed, superactive, nonacid, mesic Fluvaquentic Endoaquepts

Coarse-silty, mixed, active, nonacid, mesic Fluvaquentic Endoaquepts

Dysic, mesic Typic Haplosaprists

Loamy, mixed, active, mesic Lithic Dystrudepts

Loamy, mixed, superactive, acid, mesic, shallow Aeric Endoaquepts

Sandy or sandy-skeletal, mixed, euic, mesic Terric Haplosaprists

Sandy, mixed, mesic Aeric Endoaquepts

Sandy-skeletal, mixed, mesic Typic Udorthents

Udorthents

Not rated or not available

Soil Rating Lines

Coarse-loamy over sandy or sandy-skeletal, mixed, active, acid, mesic Aeric Endoaquepts

Coarse-loamy over sandy or sandy-skeletal, mixed, active, mesic Aquic Dystrudepts

Coarse-loamy over sandy or sandy-skeletal, mixed, active, mesic Typic Dystrudepts

Coarse-loamy over sandy or sandy-skeletal, mixed, semiactive, mesic Typic Dystrudepts

Coarse-loamy over sandy or sandy-skeletal, mixed, superactive, mesic Typic Dystrudepts

Coarse-loamy, mixed, active, mesic Aquic Dystrudepts

Coarse-loamy, mixed, active, mesic Oxyaquic Dystrudepts

Coarse-loamy, mixed, active, mesic Typic Dystrudepts

Coarse-loamy, mixed, superactive, mesic Typic Dystrudepts

Coarse-loamy, mixed, superactive, nonacid, mesic Fluvaquentic Endoaquepts

Coarse-silty, mixed, active, nonacid, mesic Fluvaquentic Endoaquepts

Dysic, mesic Typic Haplosaprists

Loamy, mixed, active, mesic Lithic Dystrudepts

Loamy, mixed, superactive, acid, mesic, shallow Aeric Endoaquepts

Sandy or sandy-skeletal, mixed, euic, mesic Terric Haplosaprists

Sandy, mixed, mesic Aeric Endoaquepts

Sandy-skeletal, mixed, mesic Typic Udorthents

Udorthents

Not rated or not available

Soil Rating Points

Coarse-loamy over sandy or sandy-skeletal, mixed, active, acid, mesic Aeric Endoaquepts

Coarse-loamy over sandy or sandy-skeletal, mixed, active, mesic Aquic Dystrudepts

Coarse-loamy over sandy or sandy-skeletal, mixed, active, mesic Typic Dystrudepts

MAP INFORMATION

- Coarse-loamy over sandy or sandy-skeletal, mixed, semiactive, mesic Typic Dystrudepts
- Coarse-loamy over sandy or sandy-skeletal, mixed, superactive, mesic Typic Dystrudepts
- Coarse-loamy, mixed, active, mesic Aquic Dystrudepts
- Coarse-loamy, mixed, active, mesic Oxyaquic Dystrudepts
- Coarse-loamy, mixed, active, mesic Typic Dystrudepts
- Coarse-loamy, mixed, superactive, mesic Typic Dystrudepts
- Coarse-loamy, mixed, superactive, nonacid, mesic Fluvaquentic Endoaquepts
- Coarse-silty, mixed, active, nonacid, mesic Fluvaquentic Endoaquepts
- Dysic, mesic Typic Haplosaprists
- Loamy, mixed, active, mesic Lithic Dystrudepts
- Loamy, mixed, superactive, acid, mesic, shallow Aeric Endoaquepts
- Sandy or sandy-skeletal, mixed, euic, mesic Terric Haplosaprists
- Sandy, mixed, mesic Aeric Endoaquepts
- Sandy-skeletal, mixed, mesic Typic Udorthents
- Udorthents
- Not rated or not available

Water Features

- Streams and Canals

Transportation

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

Background

- Aerial Photography

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

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

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

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

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

Soil Survey Area: State of Connecticut
Survey Area Data: Version 16, Sep 15, 2017

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

Date(s) aerial images were photographed: Mar 28, 2011—May 12, 2011

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

Table—Soil Taxonomy Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
2	Ridgebury fine sandy loam, 0 to 3 percent slopes	Loamy, mixed, superactive, acid, mesic, shallow Aeric Endoaquepts	10.7	1.4%
3	Ridgebury, Leicester, and Whitman soils, 0 to 8 percent slopes, extremely stony	Loamy, mixed, superactive, acid, mesic, shallow Aeric Endoaquepts	57.3	7.4%
12	Raypol silt loam	Coarse-loamy over sandy or sandy-skeletal, mixed, active, acid, mesic Aeric Endoaquepts	15.6	2.0%
13	Walpole sandy loam, 0 to 3 percent slopes	Sandy, mixed, mesic Aeric Endoaquepts	0.9	0.1%
17	Timakwa and Natchaug soils, 0 to 2 percent slopes	Sandy or sandy-skeletal, mixed, euic, mesic Terric Haplosaprists	19.0	2.5%
18	Catden and Freetown soils, 0 to 2 percent slopes	Dysic, mesic Typic Haplosaprists	7.8	1.0%
21A	Ninigret and Tisbury soils, 0 to 5 percent slopes	Coarse-loamy over sandy or sandy-skeletal, mixed, active, mesic Aquic Dystrudepts	12.6	1.6%
29B	Agawam fine sandy loam, 3 to 8 percent slopes	Coarse-loamy over sandy or sandy-skeletal, mixed, active, mesic Typic Dystrudepts	51.3	6.6%
38A	Hinckley loamy sand, 0 to 3 percent slopes	Sandy-skeletal, mixed, mesic Typic Udorthents	2.8	0.4%
38C	Hinckley loamy sand, 3 to 15 percent slopes	Sandy-skeletal, mixed, mesic Typic Udorthents	5.9	0.8%
52C	Sutton fine sandy loam, 2 to 15 percent slopes, extremely stony	Coarse-loamy, mixed, active, mesic Aquic Dystrudepts	15.1	1.9%
60B	Canton and Charlton fine sandy loams, 3 to 8 percent slopes	Coarse-loamy over sandy or sandy-skeletal, mixed, superactive, mesic Typic Dystrudepts	3.9	0.5%
60C	Canton and Charlton fine sandy loams, 8 to 15 percent slopes	Coarse-loamy over sandy or sandy-skeletal, mixed, superactive, mesic Typic Dystrudepts	1.0	0.1%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
60D	Canton and Charlton soils, 15 to 25 percent slopes	Coarse-loamy over sandy or sandy-skeletal, mixed, semiactive, mesic Typic Dystrudepts	0.6	0.1%
61B	Canton and Charlton fine sandy loams, 0 to 8 percent slopes, very stony	Coarse-loamy over sandy or sandy-skeletal, mixed, superactive, mesic Typic Dystrudepts	174.4	22.5%
61C	Canton and Charlton fine sandy loams, 8 to 15 percent slopes, very stony	Coarse-loamy over sandy or sandy-skeletal, mixed, superactive, mesic Typic Dystrudepts	15.4	2.0%
62C	Canton and Charlton fine sandy loams, 3 to 15 percent slopes, extremely stony	Coarse-loamy over sandy or sandy-skeletal, mixed, superactive, mesic Typic Dystrudepts	46.5	6.0%
62D	Canton and Charlton fine sandy loams, 15 to 35 percent slopes, extremely stony	Coarse-loamy over sandy or sandy-skeletal, mixed, superactive, mesic Typic Dystrudepts	2.7	0.3%
66B	Narragansett silt loam, 2 to 8 percent slopes	Coarse-loamy over sandy or sandy-skeletal, mixed, active, mesic Typic Dystrudepts	2.5	0.3%
68D	Narragansett silt loam, 15 to 25 percent slopes, extremely stony	Coarse-loamy over sandy or sandy-skeletal, mixed, active, mesic Typic Dystrudepts	2.5	0.3%
73C	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	Coarse-loamy, mixed, superactive, mesic Typic Dystrudepts	87.0	11.2%
73E	Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky	Coarse-loamy, mixed, active, mesic Typic Dystrudepts	15.7	2.0%
75C	Hollis-Chatfield-Rock outcrop complex, 3 to 15 percent slopes	Loamy, mixed, active, mesic Lithic Dystrudepts	70.2	9.1%
75E	Hollis-Chatfield-Rock outcrop complex, 15 to 45 percent slopes	Loamy, mixed, active, mesic Lithic Dystrudepts	36.7	4.7%
76E	Rock outcrop-Hollis complex, 3 to 45 percent slopes		3.0	0.4%
85B	Paxton and Montauk fine sandy loams, 3 to 8 percent slopes, very stony	Coarse-loamy, mixed, active, mesic Oxyaquic Dystrudepts	33.8	4.4%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
103	Rippowam fine sandy loam	Coarse-loamy, mixed, superactive, nonacid, mesic Fluvaquentic Endoaquepts	1.5	0.2%
107	Limerick and Lim soils	Coarse-silty, mixed, active, nonacid, mesic Fluvaquentic Endoaquepts	2.9	0.4%
306	Udorthents-Urban land complex	Udorthents	74.7	9.6%
W	Water		1.5	0.2%
Totals for Area of Interest			**775.4**	**100.0%**

Rating Options—Soil Taxonomy Classification

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) Report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS Report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study Report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study Report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Connecticut State Plane Zone (FIPS zone 0600). The **horizontal datum** was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713- 3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from digital orthophotography provided by the Connecticut Deptarment of Environmental Planning. This information was created from photography dated 2000, 2004 and 2005.

The **profile baselines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the **profile baseline**, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

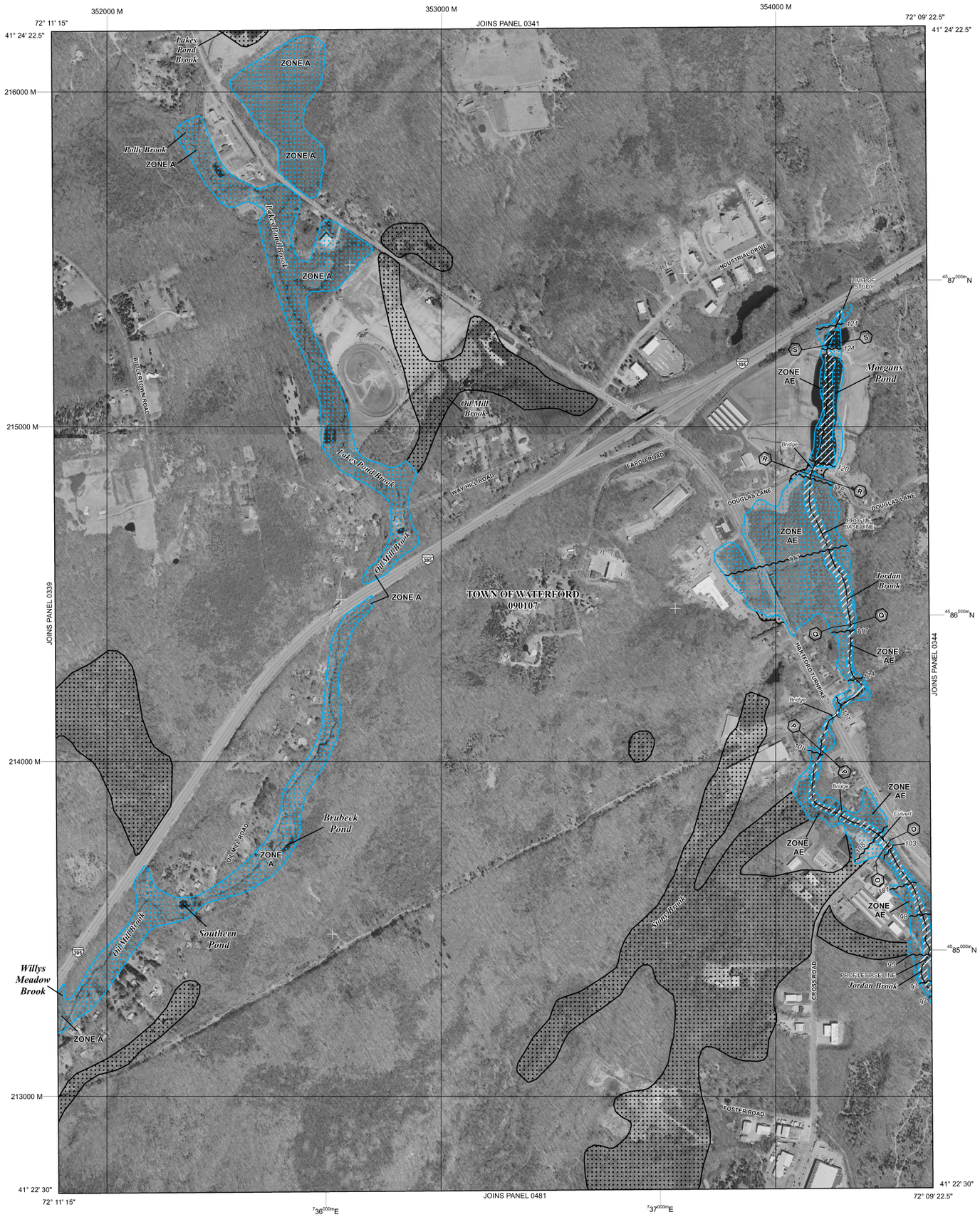
Based on updated topographic information, this map reflects more detailed and up-to-date **stream channel configurations and floodplain delineations** than those shown on the previous FIRM for this jurisdiction. As a result, the Flood Profiles and Floodway Data tables for multiple streams in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on the map. Also, the road to floodplain relationships for unrevised streams may differ from what is shown on previous maps.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information on available products associated with this FIRM visit the **Map Service Center (MSC)** website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have **questions about this map,** how to order products, or the National Flood Insurance Program in general, please call the **FEMA Map Information eXchange (FMIX)** at **1-877-FEMA-MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

	1% Annual Chance Floodplain Boundary
	0.2% Annual Chance Floodplain Boundary
	Floodway boundary
	Zone D boundary
	CBRS and OPA boundary
	Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
513	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

A — A	Cross section line
23 - - - 23	Transect line
	Culvert
	Bridge
45° 02' 08", 93° 02' 12"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere
4989000 M	1000-meter ticks: Connecticut State Plane Zone (FIPS Zone 0600), Lambert Conformal Conic projection
$^{49}89^{000m}$ N	1000-meter Universal Transverse Mercator grid values, zone 18N
DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
• M1.5	River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
July 18, 2011

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET
150 0 150 300 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0343G

FIRM

FLOOD INSURANCE RATE MAP

NEW LONDON COUNTY, CONNECTICUT

ALL JURISDICTIONS

PANEL 343 OF 554

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
WATERFORD, TOWN OF	090107	0343	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
09011C0343G

EFFECTIVE DATE
JULY 18, 2011

Federal Emergency Management Agency

NOAA Atlas 14, Volume 10, Version 2
Location name: Waterford, Connecticut, USA*
Latitude: 41.3689°, Longitude: -72.1923°
Elevation: 9.67 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	0.337 (0.262-0.422)	0.403 (0.313-0.505)	0.512 (0.396-0.642)	0.601 (0.463-0.759)	0.725 (0.541-0.950)	0.820 (0.600-1.09)	0.915 (0.652-1.26)	1.04 (0.699-1.45)	1.20 (0.779-1.73)	1.33 (0.840-1.94)
10-min	0.478 (0.371-0.598)	0.571 (0.444-0.716)	0.725 (0.561-0.910)	0.852 (0.656-1.08)	1.03 (0.766-1.35)	1.16 (0.850-1.55)	1.30 (0.923-1.79)	1.47 (0.991-2.06)	1.70 (1.10-2.45)	1.88 (1.19-2.75)
15-min	0.562 (0.437-0.703)	0.672 (0.522-0.842)	0.853 (0.660-1.07)	1.00 (0.771-1.26)	1.21 (0.902-1.58)	1.37 (1.00-1.82)	1.53 (1.09-2.10)	1.73 (1.17-2.42)	2.01 (1.30-2.88)	2.21 (1.40-3.24)
30-min	0.794 (0.618-0.994)	0.950 (0.738-1.19)	1.20 (0.932-1.51)	1.42 (1.09-1.79)	1.71 (1.27-2.23)	1.93 (1.41-2.57)	2.15 (1.53-2.97)	2.44 (1.64-3.41)	2.83 (1.83-4.06)	3.11 (1.97-4.55)
60-min	1.03 (0.798-1.29)	1.23 (0.954-1.54)	1.56 (1.21-1.95)	1.83 (1.41-2.31)	2.20 (1.65-2.89)	2.49 (1.82-3.32)	2.78 (1.98-3.83)	3.15 (2.12-4.41)	3.64 (2.36-5.24)	4.01 (2.54-5.87)
2-hr	1.35 (1.06-1.68)	1.61 (1.26-2.01)	2.04 (1.60-2.55)	2.40 (1.86-3.01)	2.90 (2.18-3.77)	3.27 (2.42-4.34)	3.65 (2.62-5.00)	4.16 (2.82-5.76)	4.83 (3.15-6.88)	5.34 (3.39-7.73)
3-hr	1.57 (1.24-1.94)	1.87 (1.47-2.32)	2.37 (1.86-2.94)	2.79 (2.17-3.47)	3.36 (2.54-4.34)	3.79 (2.81-5.00)	4.23 (3.05-5.77)	4.83 (3.28-6.65)	5.61 (3.66-7.95)	6.21 (3.96-8.93)
6-hr	1.99 (1.58-2.44)	2.37 (1.89-2.92)	3.00 (2.37-3.70)	3.52 (2.77-4.35)	4.23 (3.22-5.43)	4.78 (3.57-6.25)	5.33 (3.87-7.20)	6.08 (4.15-8.29)	7.06 (4.63-9.89)	7.81 (4.99-11.1)
12-hr	2.46 (1.98-3.00)	2.93 (2.35-3.58)	3.70 (2.95-4.52)	4.33 (3.44-5.32)	5.21 (3.99-6.63)	5.88 (4.42-7.61)	6.55 (4.78-8.76)	7.45 (5.11-10.1)	8.63 (5.69-12.0)	9.53 (6.12-13.4)
24-hr	2.88 (2.33-3.49)	3.45 (2.79-4.18)	4.38 (3.52-5.31)	5.15 (4.12-6.27)	6.21 (4.80-7.84)	7.02 (5.32-9.03)	7.84 (5.76-10.4)	8.95 (6.18-12.0)	10.4 (6.90-14.3)	11.5 (7.44-16.1)
2-day	3.22 (2.63-3.87)	3.90 (3.18-4.68)	5.00 (4.06-6.03)	5.92 (4.78-7.16)	7.18 (5.61-9.02)	8.15 (6.23-10.4)	9.13 (6.78-12.1)	10.5 (7.30-13.9)	12.4 (8.23-16.8)	13.8 (8.94-19.0)
3-day	3.50 (2.87-4.18)	4.22 (3.46-5.05)	5.42 (4.42-6.49)	6.41 (5.20-7.71)	7.77 (6.09-9.71)	8.82 (6.77-11.2)	9.87 (7.36-13.0)	11.4 (7.92-15.0)	13.4 (8.93-18.1)	14.9 (9.70-20.5)
4-day	3.75 (3.09-4.47)	4.51 (3.71-5.38)	5.76 (4.72-6.89)	6.80 (5.53-8.16)	8.23 (6.47-10.2)	9.32 (7.18-11.8)	10.4 (7.79-13.6)	12.0 (8.37-15.7)	14.1 (9.42-19.0)	15.7 (10.2-21.4)
7-day	4.47 (3.71-5.30)	5.30 (4.39-6.28)	6.65 (5.49-7.90)	7.78 (6.37-9.27)	9.32 (7.37-11.5)	10.5 (8.13-13.2)	11.7 (8.77-15.1)	13.4 (9.36-17.4)	15.5 (10.4-20.7)	17.2 (11.2-23.2)
10-day	5.18 (4.32-6.11)	6.05 (5.03-7.14)	7.46 (6.18-8.82)	8.63 (7.11-10.2)	10.2 (8.13-12.6)	11.5 (8.90-14.3)	12.7 (9.54-16.3)	14.4 (10.1-18.6)	16.5 (11.1-21.9)	18.2 (11.9-24.4)
20-day	7.36 (6.19-8.62)	8.29 (6.96-9.71)	9.80 (8.20-11.5)	11.1 (9.18-13.0)	12.8 (10.2-15.4)	14.1 (11.0-17.3)	15.4 (11.6-19.4)	16.9 (12.0-21.6)	18.9 (12.8-24.7)	20.3 (13.4-27.0)
30-day	9.18 (7.76-10.7)	10.1 (8.56-11.8)	11.7 (9.86-13.7)	13.0 (10.9-15.3)	14.8 (11.9-17.8)	16.2 (12.7-19.7)	17.6 (13.2-21.8)	18.9 (13.5-24.1)	20.7 (14.1-26.9)	22.1 (14.5-29.1)
45-day	11.4 (9.72-13.3)	12.4 (10.6-14.4)	14.1 (11.9-16.4)	15.5 (13.0-18.1)	17.4 (14.0-20.7)	18.9 (14.8-22.7)	20.3 (15.2-24.9)	21.5 (15.4-27.2)	23.1 (15.8-29.8)	24.3 (16.1-31.9)
60-day	13.3 (11.4-15.4)	14.4 (12.3-16.6)	16.1 (13.7-18.7)	17.6 (14.8-20.4)	19.6 (15.8-23.2)	21.1 (16.6-25.3)	22.7 (16.9-27.5)	23.8 (17.1-29.8)	25.3 (17.3-32.4)	26.4 (17.5-34.4)

[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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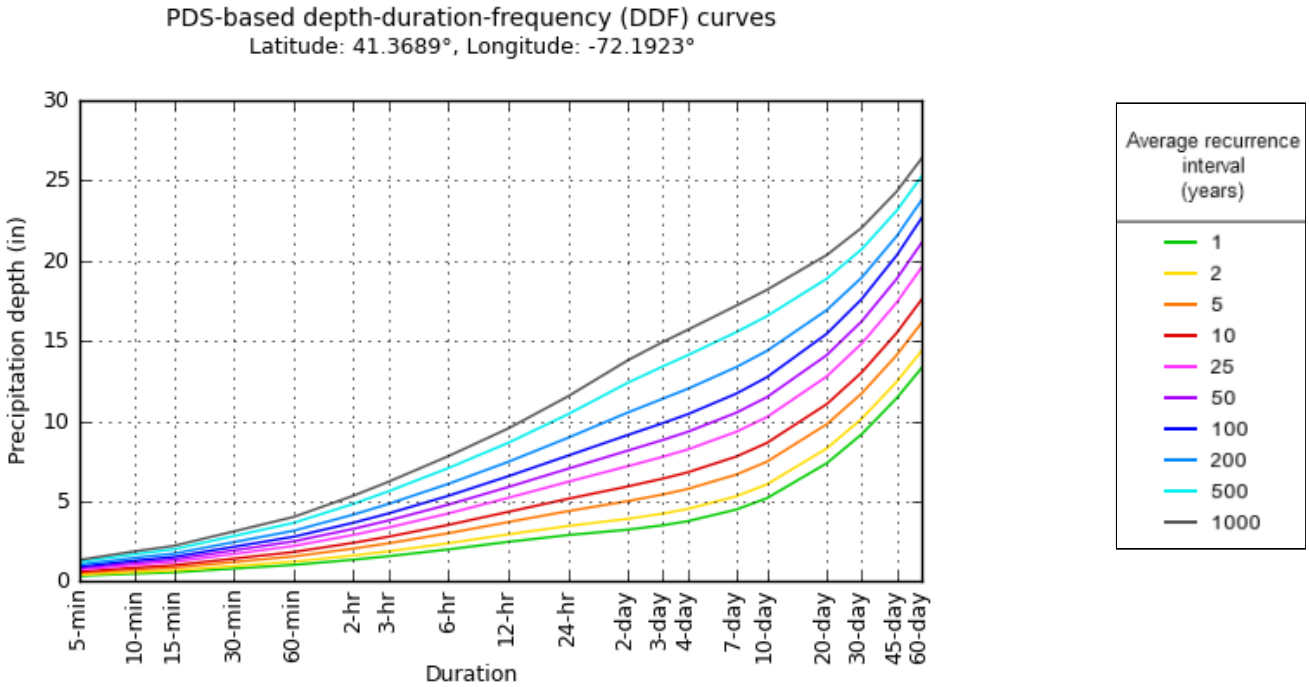
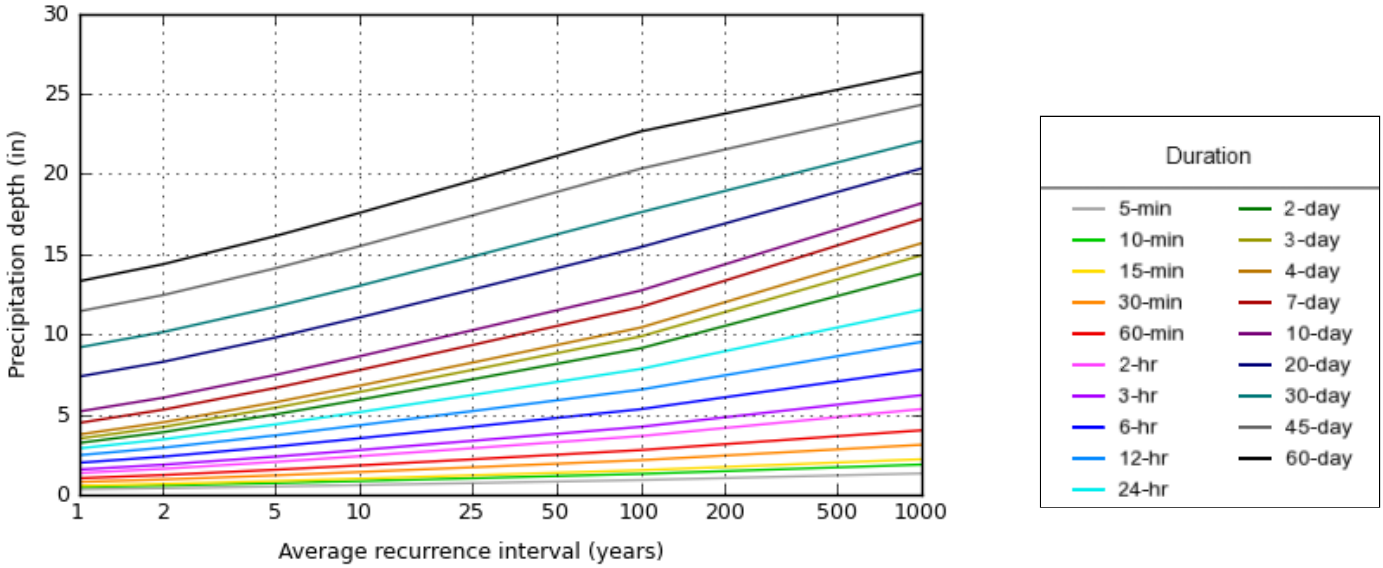
PF graphical





NOAA Atlas 14, Volume 10, Version 2 Created (GMT): Thu Mar 22 11:54:40 2018

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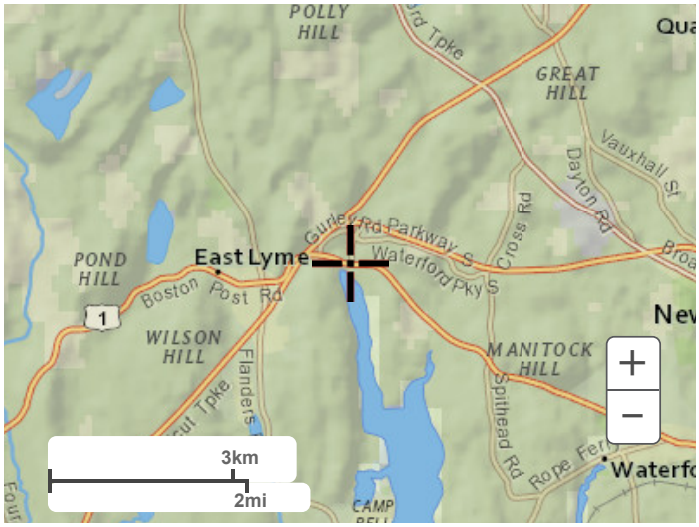
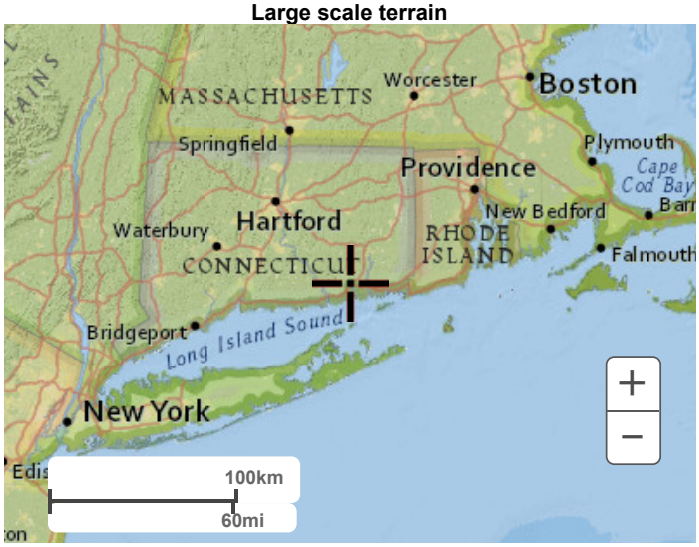
Maps & aerials

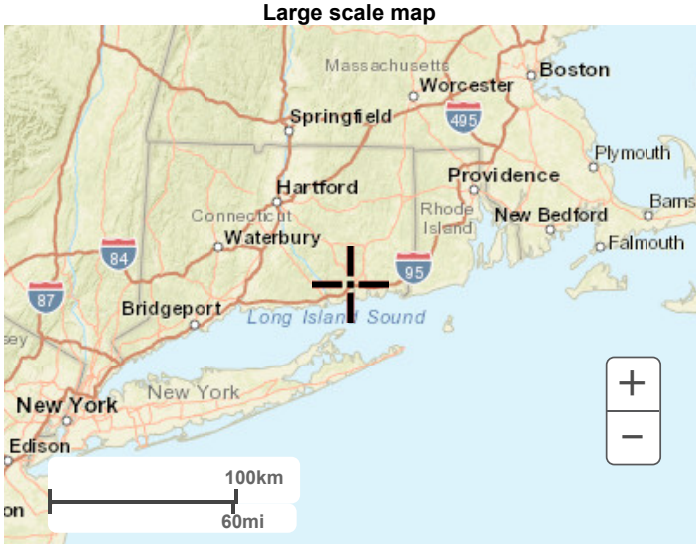
Small scale terrain



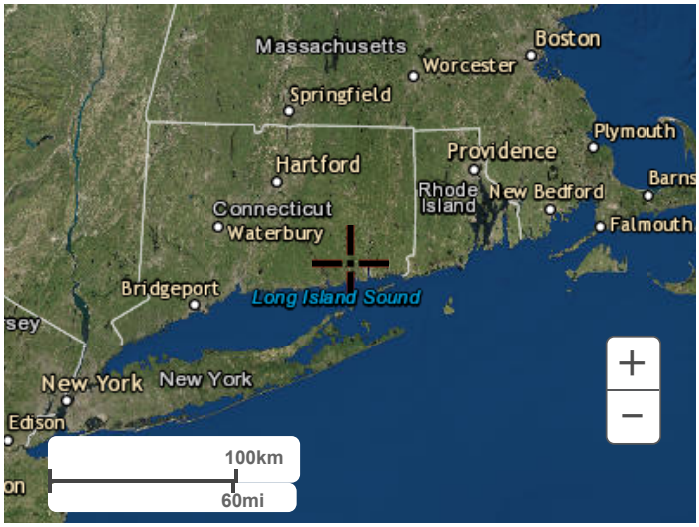
Large scale terrain



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

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GRAPHIC SCALE
400 200 0 400
SCALE IN FEET

Architecture
Engineering
Environmental
Land Surveying

BL Companies

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PHOTOVOLTAIC INSTALLATION

OIL MILL ROAD
WATERFORD, CONNECTICUT

REVISIONS

No.	Date	Desc.

Designed	H.J.L.
Drawn	H.J.L.
Reviewed	M.P.S.
Scale	1"=400'
Project No.	17D3515
Date	02/28/2018
CAD File:	SP17D351501

Title

VICINITY MAP

Sheet No.

VM-1

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AQUIFER PROTECTION AREAS

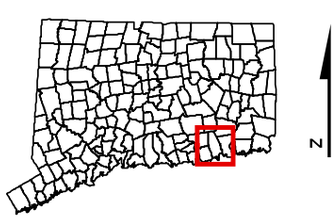
East Lyme, CT

September 6, 2017

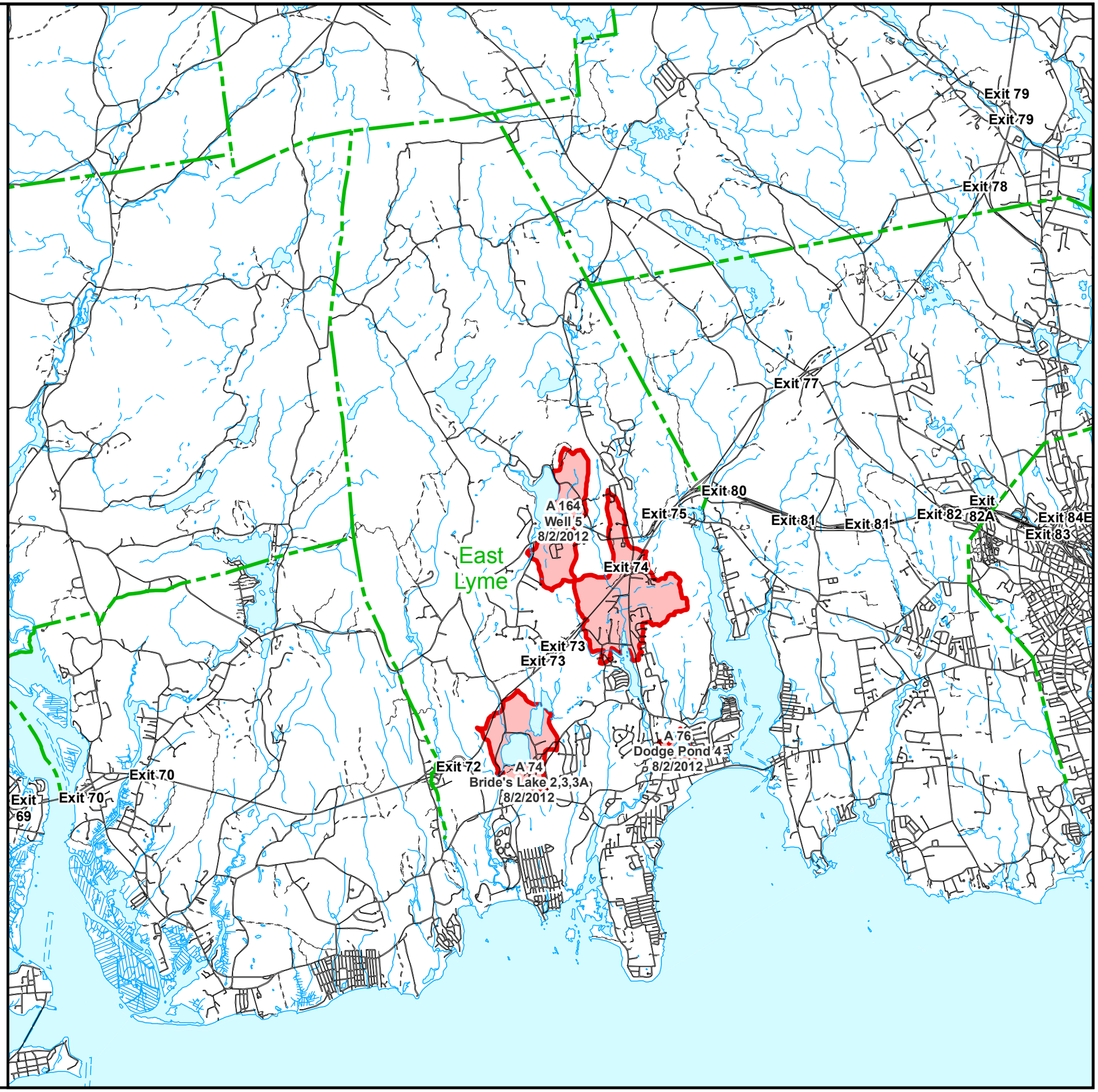
- Level A APA (Final Adopted)
- Level A APA (Final)
- Level B APA (Preliminary)
- Town Boundary

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



WATER QUALITY CLASSIFICATIONS
WATERFORD, 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

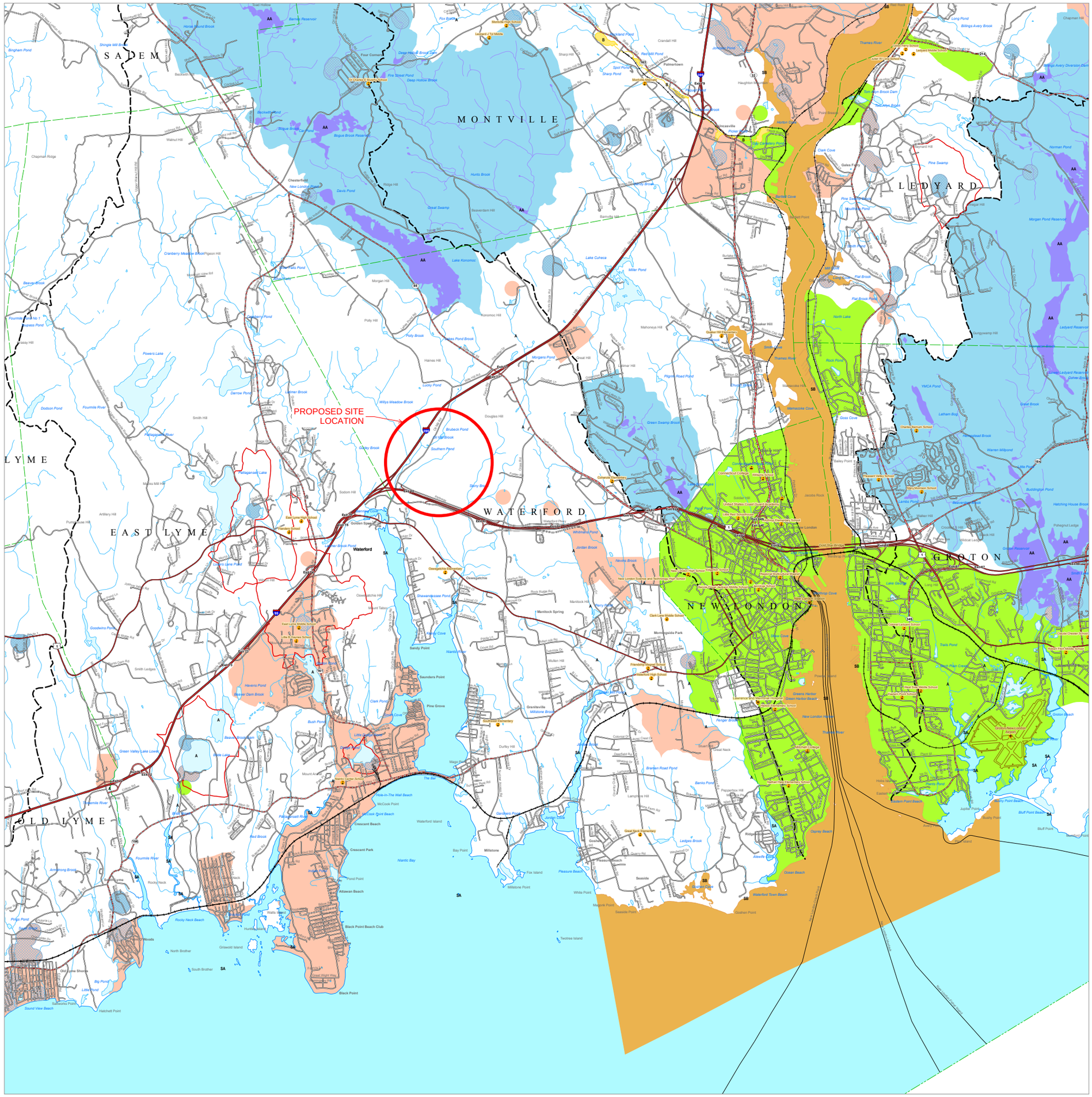
State Plane Coordinate System of 1983, Zone 3526
Lambert Conformal Conic Projection
North American Datum of 1983

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 2017

Map is not colorfast
Protect from light and moisture



Natural Diversity Data Base Areas

WATERFORD, CT

December 2017

State and Federal Listed Species & Significant Natural Communities

Town Boundary

NOTE: This map shows general locations of State and Federal Listed Species and Significant Natural Communities. Information on listed species is collected and compiled by the Natural Diversity Data Base (NDDB) from a number of data sources . Exact locations of species have been buffered to produce the general locations. Exact locations of species and communities occur somewhere in the shaded areas, not necessarily in the center. A new mapping format is being employed that more accurately models important riparian and aquatic areas and eliminates the need for the upstream/downstream searches required in previous versions.

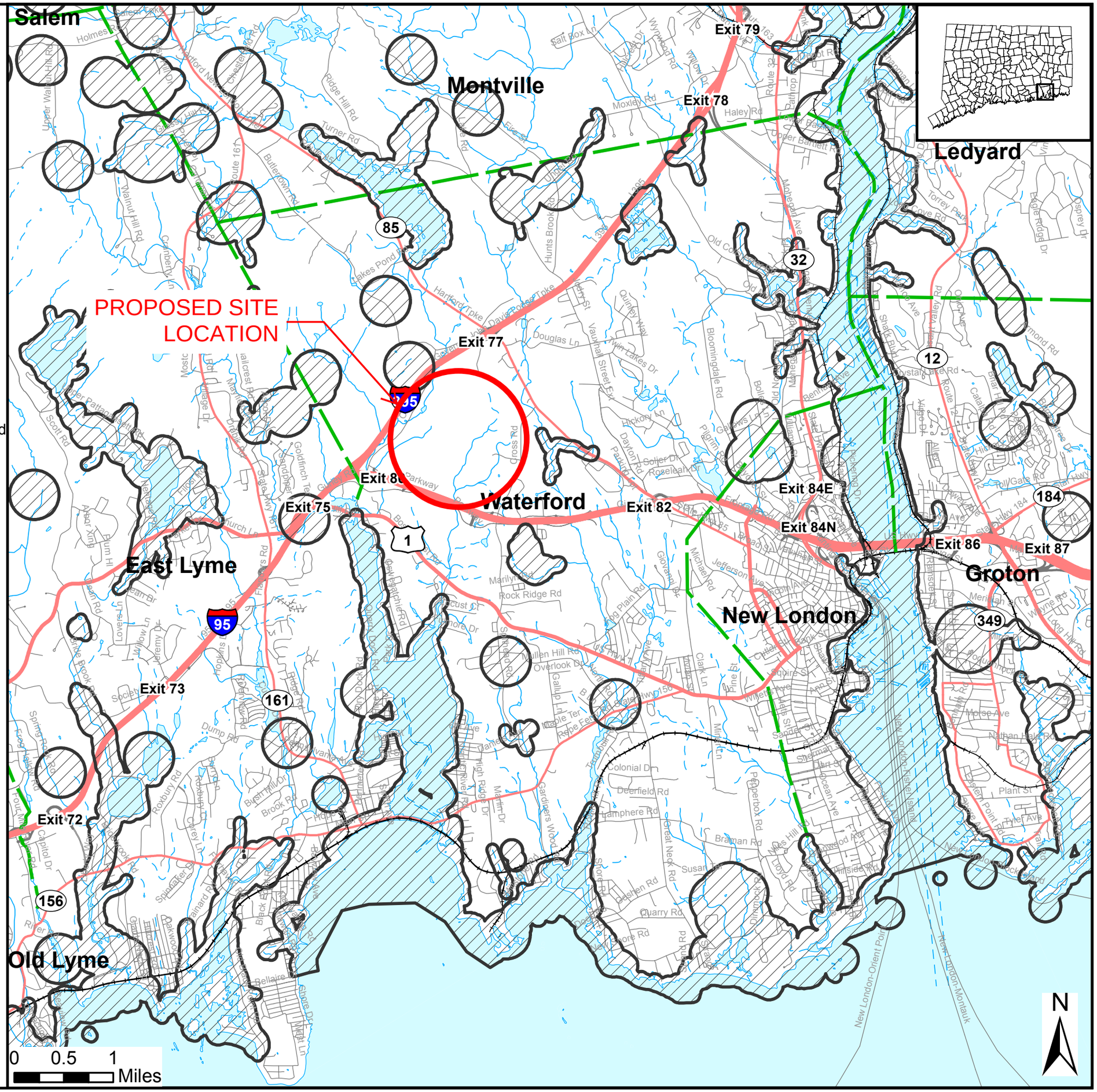
This map is intended for use as a preliminary screening tool for conducting a Natural Diversity Data Base Review Request. To use the map, locate the project boundaries and any additional affected areas. If the project is within a shaded area there may be a potential conflict with a listed species. For more information, complete a Request for Natural Diversity Data Base State Listed Species Review form (DEP-APP-007), and submit it to the NDDB along with the required maps and information. More detailed instructions are provided with the request form on our website.

www.ct.gov/deep/nddbrequest

Use the CTECO Interactive Map Viewers at www.cteco.uconn.edu to more precisely search for and locate a site and to view aerial imagery with NDDB Areas.

QUESTIONS: Department of Energy and Environmental Protection (DEEP)
79 Elm St., Hartford CT 06106
Phone (860) 424-3011

Connecticut Department of Energy & Environmental Protection
Bureau of Natural Resources
Wildlife Division



APPENDIX B

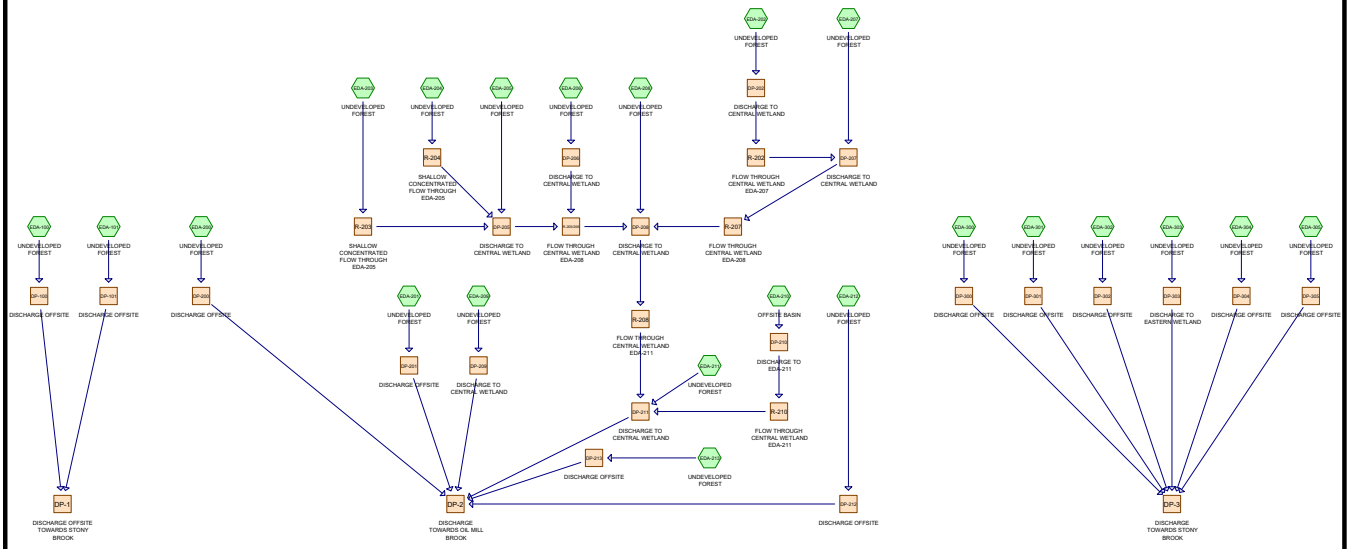
PRE-DEVELOPMENT HYDROLOGY

Existing Drainage Area Calculations
Existing Hydrology Report

Design Point			Dirt	Ex. Easement	Woods (Fair)	Total Impervious	Total Pervious	Total Area	%	Tc	CN	Impervious (AC)	Pervious (AC)	Total (AC)	DA
EDA-100	Totals	552,980	**0**	**0**	**552,980**	**0**	**552,980**	**552,980**	0.0%	27.40	60	0.00	12.69	12.69	EDA-100
	B	552,980			552,980		552,980								
	C	0					0								
	D	0					0								
EDA-101	Totals	137,916	**0**	**0**	**137,916**	**0**	**137,916**	**137,916**	0.0%	17.7	68	0.00	3.17	3.17	EDA-101
	B	77,701			77,701		77,701								
	C	0			0		0								
	D	60,214			60,214		60,214								
EDA-200	Totals	203,118	**0**	**0**	**203,118**	**0**	**203,118**	**203,118**	0.0%	17.4	60	0.00	4.66	4.66	EDA-200
	B	203,118			203,118		203,118								
	C	0					0								
	D	0					0								
EDA-201	Totals	102,943	**0**	**0**	**102,943**	**0**	**102,943**	**102,943**	0.0%	18.40	60	0.00	2.36	2.36	EDA-201
	B	102,943			102,943		102,943								
	C	0					0								
	D	0					0								
EDA-202	Totals	450,456	**0**	**0**	**450,456**	**0**	**450,456**	**450,456**	0.0%	19.9	60	0.00	10.34	10.34	EDA-202
	B	450,456			450,456		450,456								
	C	0					0								
	D	0					0								
EDA-203	Totals	801,310	**423**	**5,581**	**795,305**	**0**	**801,310**	**801,310**	0.0%	26.0	69	0.00	18.40	18.40	EDA-203
	B	239,831	423		239,408		239,831								
	C	561,479		5,581	555,898		561,479								
	D	0					0								
EDA-204	Totals	47,524	**0**	**0**	**47,524**	**0**	**47,524**	**47,524**	0.0%	16.70	60	0.00	1.09	1.09	EDA-204
	B	47,524			47,524		47,524								
	C	0					0								
	D	0					0								
EDA-205	Totals	596,493	**10,860**	**101,565**	**484,067**	**0**	**596,493**	**596,493**	0.0%	28.8	67	0.00	13.69	13.69	EDA-205
	B	429,199	8,159	64,278	356,763										
	C	167,294	2,702	37,288	127,304										
	D	0													
EDA-206	Totals	606,548	**6,857**	**40,840**	**558,851**	**0**	**606,548**	**606,548**	0.0%	36.7	64	0.00	13.92	13.92	EDA-206
	B	509,405	6,857	40,840	461,709		509,405								
	C	55,195			55,195		55,195								
	D	41,947			41,947		41,947								
EDA-207	Totals	764,871	**2,809**	**41,875**	**720,187**	**0**	**764,871**	**764,871**	0.0%	26.80	62	0.00	17.56	17.56	EDA-207
	B	737,088	2,716	31,851	702,521		737,088								
	C	0					0								
	D	27,783	93	10,024	17,665		27,783								
EDA-208	Totals	608,292	**9,810**	**36,873**	**561,609**	**0**	**608,292**	**608,292**	0.0%	39.5	66	0.00	13.96	13.96	EDA-208
	B	465,474	8,865	29,846	426,763		465,474								
	C	0					0								

Design Point			Dirt	Ex. Easement	Woods (Fair)	Total Impervious	Total Pervious	Total Area	%	Tc	CN	Impervious (AC)	Pervious (AC)	Total (AC)	DA
	D	142,818	945	7,027	134,846		142,818								
EDA-209	Totals	773,358	**4,465**	**66,963**	**701,930**	**0**	**773,358**	**773,358**	0.0%	40.8	63	0.00	17.75	17.75	EDA-209
	B	714,148	3,720	54,222	656,206		714,148								
	C	0					0								
	D	59,210	744	12,742	45,724		59,210								
EDA-210	Totals	29,356	**0**	**0**	**29,356**	**0**	**29,356**	**29,356**	0.0%	23.80	70	0.00	0.67	0.67	EDA-210
	B	7,157			7,157		7,157								
	C	22,199			22,199		22,199								
	D	0					0								
EDA-211	Totals	166,352	**0**	**0**	**166,352**	**0**	**166,352**	**166,352**	0.0%	21.9	75	0.00	3.82	3.82	EDA-211
	B	13,831			13,831		13,831								
	C	63,994			63,994		63,994								
	D	88,527			88,527		88,527								
EDA-212	Totals	97,138	**26**	**0**	**97,112**	**0**	**97,138**	**97,138**	0.0%	22.0	61	0.00	2.23	2.23	EDA-212
	B	92,525	26		92,499		92,525								
	C	4,612			4,612		4,612								
	D	0					0								
EDA-213	Totals	232,559	**6,588**	**0**	**225,971**	**0**	**232,559**	**232,559**	0.0%	18.70	68	0.00	5.34	5.34	EDA-213
	B	96,951	2,223		94,728		96,951								
	C	135,608	4,365		131,244		135,608								
	D	0					0								
EDA-300	Totals	118,942	**0**	**0**	**118,942**	**0**	**118,942**	**118,942**	0.0%	10.8	78	0.00	2.73	2.73	EDA-300
	B	4,127			4,127										
	C	0													
	D	114,815			114,815										
EDA-301	Totals	98,859	**0**	**0**	**98,859**	**0**	**98,859**	**98,859**	0.0%	20.6	76	0.00	2.27	2.27	EDA-301
	B	15,090			15,090										
	C	0													
	D	83,769			83,769										
EDA-302	Totals	284,755	**0**	**0**	**284,755**	**0**	**284,755**	**284,755**	0.0%	18.50	71	0.00	6.54	6.54	EDA-302
	B	116,779			116,779										
	C	0													
	D	167,976			167,976										
EDA-303	Totals	437,598	**0**	**0**	**437,598**	**0**	**437,598**	**437,598**	0.0%	30.2	76	0.00	10.05	10.05	EDA-303
	B	35,606			35,606										
	C	114,707			114,707										
	D	287,285			287,285										
EDA-304	Totals	173,414	**0**	**0**	**173,414**	**0**	**173,414**	**173,414**	0.0%	34.7	76	0.00	3.98	3.98	EDA-304
	B	0													
	C	89,702			89,702										
	D	83,713			83,713										
EDA-305	Totals	223,863	**22**	**658**	**223,182**	**0**	**223,863**	**223,863**	0.0%	25.90	75	0.00	5.14	5.14	EDA-305

Design Point			Dirt	Ex. Easement	Woods (Fair)	Total Impervious	Total Pervious	Total Area	%	Tc	CN	Impervious (AC)	Pervious (AC)	Total (AC)	DA
	B	0													
	C	145,155	22	658	144,475										
	D	78,707			78,707										
OVERALL	Totals	7,508,646	35,272	294,356	6,743,339	0	7,508,646	**7,508,646**	0.00%			0.00	172.37	172.37	OVERALL
	B	4,911,936	32,989	221,036	4,657,911	0	4,911,936								
	C	1,359,946	7,089	43,527	1,309,330	0	1,359,946								
	D	1,236,764	1,783	29,793	1,205,188	0	1,236,764								
						0.00	100.00								



Subcat Reach Pond Link

Routing Diagram for C-DAT-17D3515-EXISTING DRAINAGE
Prepared by Microsoft, Printed 6/6/2018
HydroCAD® 10.00-21 s/n 01334 © 2018 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
5.074	79	<50% Grass cover, Poor, HSG B (EDA-205, EDA-206, EDA-207, EDA-208, EDA-209)
0.999	86	<50% Grass cover, Poor, HSG C (EDA-203, EDA-205, EDA-305)
0.684	89	<50% Grass cover, Poor, HSG D (EDA-207, EDA-208, EDA-209)
0.757	82	Dirt roads, HSG B (EDA-203, EDA-205, EDA-206, EDA-207, EDA-208, EDA-209, EDA-212, EDA-213)
0.163	87	Dirt roads, HSG C (EDA-205, EDA-213, EDA-305)
0.041	89	Dirt roads, HSG D (EDA-207, EDA-208, EDA-209)
106.931	60	Woods, Fair, HSG B (EDA-100, EDA-101, EDA-200, EDA-201, EDA-202, EDA-203, EDA-204, EDA-205, EDA-206, EDA-207, EDA-208, EDA-209, EDA-210, EDA-211, EDA-212, EDA-213, EDA-300, EDA-301, EDA-302, EDA-303)
30.058	73	Woods, Fair, HSG C (EDA-203, EDA-205, EDA-206, EDA-210, EDA-211, EDA-212, EDA-213, EDA-303, EDA-304, EDA-305)
27.667	79	Woods, Fair, HSG D (EDA-101, EDA-206, EDA-207, EDA-208, EDA-209, EDA-211, EDA-300, EDA-301, EDA-302, EDA-303, EDA-304, EDA-305)
172.375	**66**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
112.763	HSG B	EDA-100, EDA-101, EDA-200, EDA-201, EDA-202, EDA-203, EDA-204, EDA-205, EDA-206, EDA-207, EDA-208, EDA-209, EDA-210, EDA-211, EDA-212, EDA-213, EDA-300, EDA-301, EDA-302, EDA-303
31.220	HSG C	EDA-203, EDA-205, EDA-206, EDA-210, EDA-211, EDA-212, EDA-213, EDA-303, EDA-304, EDA-305
28.392	HSG D	EDA-101, EDA-206, EDA-207, EDA-208, EDA-209, EDA-211, EDA-300, EDA-301, EDA-302, EDA-303, EDA-304, EDA-305
0.000	Other	
172.375		**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	5.074	0.999	0.684	0.000	6.758	<50% Grass cover, Poor	EDA-203, EDA-205, EDA-206, EDA-207, EDA-208, EDA-209, EDA-305
0.000	0.757	0.163	0.041	0.000	0.961	Dirt roads	EDA-203, EDA-205, EDA-206, EDA-207, EDA-208, EDA-209, EDA-212, EDA-213, EDA-305
0.000	106.931	30.058	27.667	0.000	164.656	Woods, Fair	EDA-100, EDA-101, EDA-200, EDA-201, EDA-202, EDA-203, EDA-204, EDA-205, EDA-206,

Ground Covers (all nodes) (continued)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	**112.763**	**31.220**	**28.392**	**0.000**	**172.375**	**TOTAL AREA**	

Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment EDA-100: UNDEVELOPED Runoff Area=552,980 sf 0.00% Impervious Runoff Depth=1.39"
Flow Length=960' Tc=27.4 min CN=60 Runoff=9.91 cfs 1.470 af

Subcatchment EDA-101: UNDEVELOPED Runoff Area=137,915 sf 0.00% Impervious Runoff Depth=1.99"
Flow Length=415' Tc=17.7 min CN=68 Runoff=4.86 cfs 0.524 af

Subcatchment EDA-200: UNDEVELOPED Runoff Area=203,118 sf 0.00% Impervious Runoff Depth=1.39"
Flow Length=420' Tc=17.4 min CN=60 Runoff=4.62 cfs 0.540 af

Subcatchment EDA-201: UNDEVELOPED Runoff Area=102,943 sf 0.00% Impervious Runoff Depth=1.39"
Flow Length=430' Tc=18.4 min CN=60 Runoff=2.28 cfs 0.274 af

Subcatchment EDA-202: UNDEVELOPED Runoff Area=450,456 sf 0.00% Impervious Runoff Depth=1.39"
Flow Length=905' Tc=19.9 min CN=60 Runoff=9.57 cfs 1.197 af

Subcatchment EDA-203: UNDEVELOPED Runoff Area=801,310 sf 0.00% Impervious Runoff Depth=2.07"
Flow Length=1,598' Tc=26.0 min CN=69 Runoff=24.29 cfs 3.169 af

Subcatchment EDA-204: UNDEVELOPED Runoff Area=47,524 sf 0.00% Impervious Runoff Depth=1.39"
Flow Length=486' Tc=16.7 min CN=60 Runoff=1.10 cfs 0.126 af

Subcatchment EDA-205: UNDEVELOPED Runoff Area=596,494 sf 0.00% Impervious Runoff Depth=1.91"
Flow Length=1,208' Tc=28.8 min CN=67 Runoff=15.57 cfs 2.178 af

Subcatchment EDA-206: UNDEVELOPED Runoff Area=606,548 sf 0.00% Impervious Runoff Depth=1.68"
Flow Length=1,690' Tc=36.7 min CN=64 Runoff=11.84 cfs 1.948 af

Subcatchment EDA-207: UNDEVELOPED Runoff Area=764,870 sf 0.00% Impervious Runoff Depth=1.53"
Flow Length=1,370' Tc=26.8 min CN=62 Runoff=15.81 cfs 2.241 af

Subcatchment EDA-208: UNDEVELOPED Runoff Area=608,292 sf 0.00% Impervious Runoff Depth=1.83"
Flow Length=1,670' Tc=39.5 min CN=66 Runoff=12.71 cfs 2.130 af

Subcatchment EDA-209: UNDEVELOPED Runoff Area=773,358 sf 0.00% Impervious Runoff Depth=1.60"
Flow Length=2,186' Tc=40.8 min CN=63 Runoff=13.48 cfs 2.374 af

Subcatchment EDA-210: OFFSITE BASIN Runoff Area=29,356 sf 0.00% Impervious Runoff Depth=2.15"
Flow Length=321' Tc=23.8 min CN=70 Runoff=0.98 cfs 0.121 af

Subcatchment EDA-211: UNDEVELOPED Runoff Area=166,352 sf 0.00% Impervious Runoff Depth=2.57"
Flow Length=579' Tc=21.9 min CN=75 Runoff=7.02 cfs 0.818 af

Subcatchment EDA-212: UNDEVELOPED Runoff Area=97,137 sf 0.00% Impervious Runoff Depth=1.46"
Flow Length=687' Tc=22.0 min CN=61 Runoff=2.09 cfs 0.271 af

Subcatchment EDA-213: UNDEVELOPED Runoff Area=232,560 sf 0.00% Impervious Runoff Depth=1.99"
Flow Length=638' Tc=18.7 min CN=68 Runoff=7.98 cfs 0.884 af

Subcatchment EDA-300: UNDEVELOPED Runoff Area=118,942 sf 0.00% Impervious Runoff Depth=2.84"
Flow Length=447' Tc=10.8 min CN=78 Runoff=7.96 cfs 0.646 af

Subcatchment EDA-301: UNDEVELOPED Runoff Area=98,859 sf 0.00% Impervious Runoff Depth=2.66"
Flow Length=728' Tc=20.6 min CN=76 Runoff=4.48 cfs 0.503 af

Subcatchment EDA-302: UNDEVELOPED Runoff Area=284,755 sf 0.00% Impervious Runoff Depth=2.23"
Flow Length=889' Tc=18.5 min CN=71 Runoff=11.22 cfs 1.215 af

Subcatchment EDA-303: UNDEVELOPED Runoff Area=437,598 sf 0.00% Impervious Runoff Depth=2.66"
Flow Length=1,180' Tc=30.2 min CN=76 Runoff=16.14 cfs 2.227 af

Subcatchment EDA-304: UNDEVEL0PED Runoff Area=173,415 sf 0.00% Impervious Runoff Depth=2.66"
Flow Length=1,052' Tc=34.7 min CN=76 Runoff=5.93 cfs 0.882 af

Subcatchment EDA-305: UNDEVELOPED Runoff Area=223,862 sf 0.00% Impervious Runoff Depth=2.57"
Flow Length=525' Tc=25.9 min CN=75 Runoff=8.65 cfs 1.101 af

Reach DP-1: DISCHARGE OFFSITE TOWARDS STONY BROOK Inflow=13.68 cfs 1.994 af
Outflow=13.68 cfs 1.994 af

Reach DP-100: DISCHARGE OFFSITE Inflow=9.91 cfs 1.470 af
Outflow=9.91 cfs 1.470 af

Reach DP-101: DISCHARGE OFFSITE Inflow=4.86 cfs 0.524 af
Outflow=4.86 cfs 0.524 af

Reach DP-2: DISCHARGE TOWARDS OIL MILL BROOK Inflow=97.56 cfs 18.271 af
Outflow=97.56 cfs 18.271 af

Reach DP-200: DISCHARGE OFFSITE Inflow=4.62 cfs 0.540 af
Outflow=4.62 cfs 0.540 af

Reach DP-201: DISCHARGE OFFSITE Inflow=2.28 cfs 0.274 af
Outflow=2.28 cfs 0.274 af

Reach DP-202: DISCHARGE TO CENTRAL WETLAND Inflow=9.57 cfs 1.197 af
Outflow=9.57 cfs 1.197 af

Reach DP-205: DISCHARGE TO CENTRAL WETLAND Inflow=39.80 cfs 5.473 af
Outflow=39.80 cfs 5.473 af

Reach DP-206: DISCHARGE TO CENTRAL WETLAND Inflow=11.84 cfs 1.948 af
Outflow=11.84 cfs 1.948 af

Reach DP-207: DISCHARGE TO CENTRAL WETLAND Inflow=20.80 cfs 3.439 af
Outflow=20.80 cfs 3.439 af

Reach DP-208: DISCHARGE TO CENTRAL WETLAND Inflow=77.14 cfs 12.989 af
Outflow=77.14 cfs 12.989 af

Reach DP-209: DISCHARGE TO CENTRAL WETLAND Inflow=13.48 cfs 2.374 af
Outflow=13.48 cfs 2.374 af

Reach DP-210: DISCHARGE TO EDA-211 Inflow=0.98 cfs 0.121 af
Outflow=0.98 cfs 0.121 af

Reach DP-211: DISCHARGE TO CENTRAL WETLAND Inflow=79.70 cfs 13.928 af
Outflow=79.70 cfs 13.928 af

Reach DP-212: DISCHARGE OFFSITE Inflow=2.09 cfs 0.271 af
Outflow=2.09 cfs 0.271 af

Reach DP-213: DISCHARGE OFFSITE Inflow=7.98 cfs 0.884 af
Outflow=7.98 cfs 0.884 af

Reach DP-3: DISCHARGE TOWARDS STONY BROOK Inflow=47.11 cfs 6.574 af
Outflow=47.11 cfs 6.574 af

Reach DP-300: DISCHARGE OFFSITE Inflow=7.96 cfs 0.646 af
Outflow=7.96 cfs 0.646 af

Reach DP-301: DISCHARGE OFFSITE Inflow=4.48 cfs 0.503 af
Outflow=4.48 cfs 0.503 af

Reach DP-302: DISCHARGE OFFSITE Inflow=11.22 cfs 1.215 af
Outflow=11.22 cfs 1.215 af

Reach DP-303: DISCHARGE TO EASTERN WETLAND Inflow=16.14 cfs 2.227 af
Outflow=16.14 cfs 2.227 af

Reach DP-304: DISCHARGE OFFSITE Inflow=5.93 cfs 0.882 af
Outflow=5.93 cfs 0.882 af

Reach DP-305: DISCHARGE OFFSITE Inflow=8.65 cfs 1.101 af
Outflow=8.65 cfs 1.101 af

Reach R-202: FLOW THROUGH Avg. Flow Depth=0.26' Max Vel=1.54 fps Inflow=9.57 cfs 1.197 af
n=0.080 L=1,032.8' S=0.0697 '/' Capacity=617.17 cfs Outflow=7.69 cfs 1.197 af

Reach R-203: SHALLOW Avg. Flow Depth=0.56' Max Vel=2.22 fps Inflow=24.29 cfs 3.169 af
n=0.080 L=434.0' S=0.0527 '/' Capacity=597.69 cfs Outflow=23.89 cfs 3.169 af

Reach R-204: SHALLOW Avg. Flow Depth=0.08' Max Vel=0.59 fps Inflow=1.10 cfs 0.126 af
n=0.080 L=446.0' S=0.0499 '/' Capacity=5.78 cfs Outflow=0.82 cfs 0.126 af

Reach R-205/206: FLOW THROUGH Avg. Flow Depth=0.48' Max Vel=1.81 fps Inflow=51.26 cfs 7.421 af
n=0.080 L=1,050.0' S=0.0431 '/' Capacity=4,524.76 cfs Outflow=46.14 cfs 7.421 af

Reach R-207: FLOW THROUGH Avg. Flow Depth=0.27' Max Vel=1.03 fps Inflow=20.80 cfs 3.439 af
n=0.080 L=292.0' S=0.0298 '/' Capacity=179.76 cfs Outflow=20.40 cfs 3.439 af

Reach R-208: FLOW THROUGH Avg. Flow Depth=0.41' Max Vel=1.33 fps Inflow=77.14 cfs 12.989 af
n=0.080 L=250.0' S=0.0287 '/' Capacity=634.06 cfs Outflow=76.51 cfs 12.989 af

Reach R-210: FLOW THROUGH Avg. Flow Depth=0.10' Max Vel=0.30 fps Inflow=0.98 cfs 0.121 af
n=0.080 L=170.0' S=0.0105 '/' Capacity=284.60 cfs Outflow=0.85 cfs 0.121 af

Total Runoff Area = 172.375 ac Runoff Volume = 26.840 af Average Runoff Depth = 1.87"
100.00% Pervious = 172.375 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment EDA-100: UNDEVELOPED FOREST

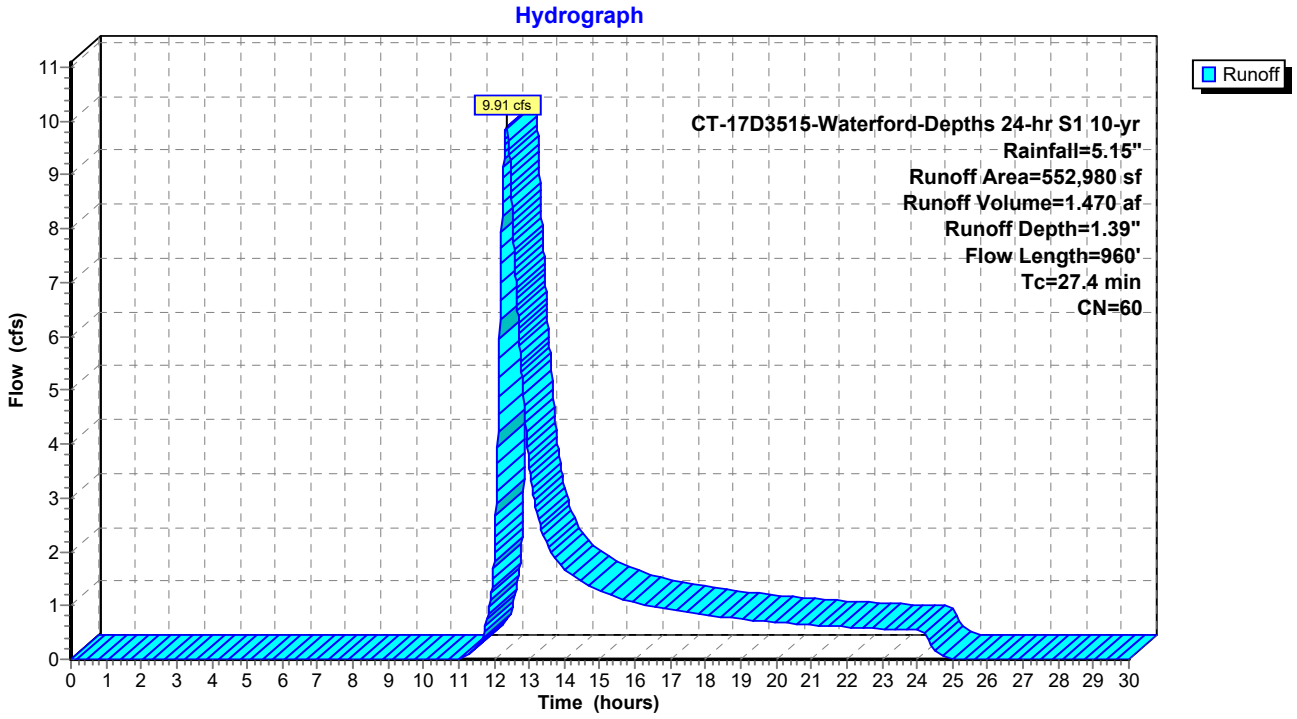
Runoff = 9.91 cfs @ 12.36 hrs, Volume= 1.470 af, Depth= 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
552,980	60	Woods, Fair, HSG B
552,980	60	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0768	0.14		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
15.3	860	0.0351	0.94		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
27.4	960	Total			

Subcatchment EDA-100: UNDEVELOPED FOREST



Summary for Subcatchment EDA-101: UNDEVELOPED FOREST

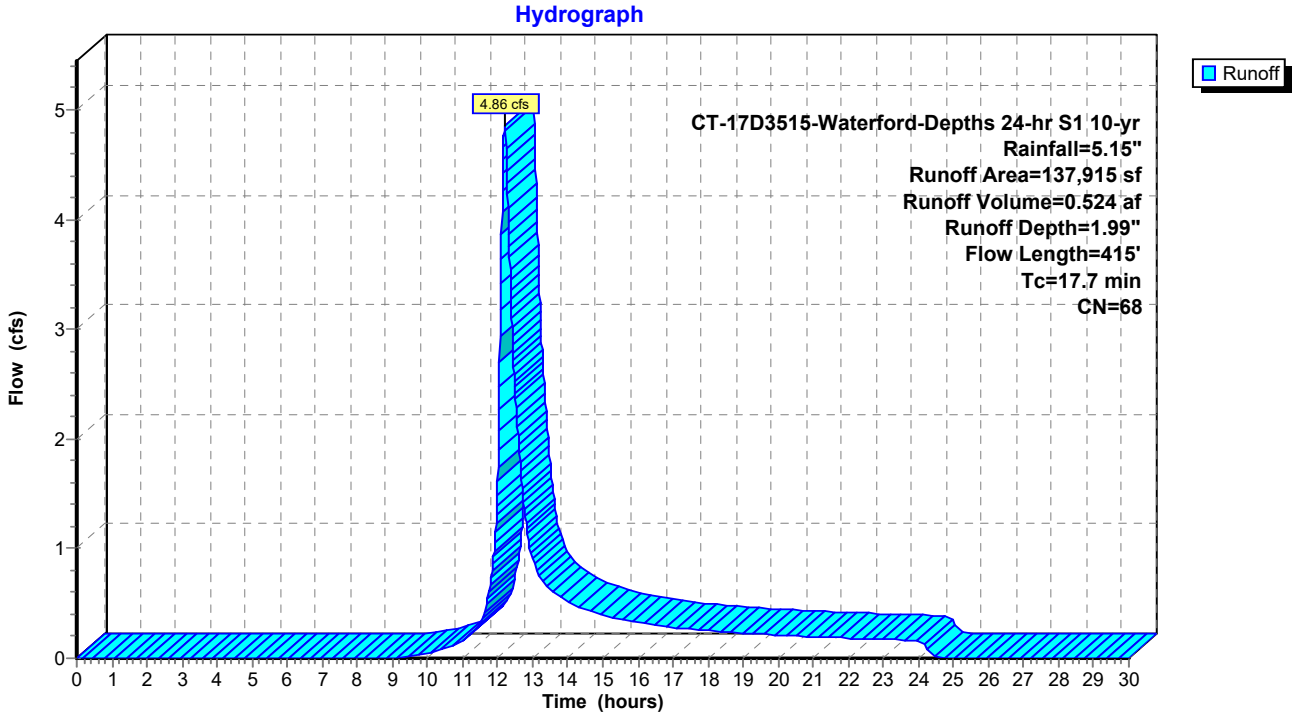
Runoff = 4.86 cfs @ 12.21 hrs, Volume= 0.524 af, Depth= 1.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
77,701	60	Woods, Fair, HSG B
60,214	79	Woods, Fair, HSG D
137,915	68	Weighted Average
137,915	68	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.3	100	0.0726	0.13		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
5.4	315	0.0374	0.97		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
17.7	415	Total			

Subcatchment EDA-101: UNDEVELOPED FOREST



Summary for Subcatchment EDA-200: UNDEVELOPED FOREST

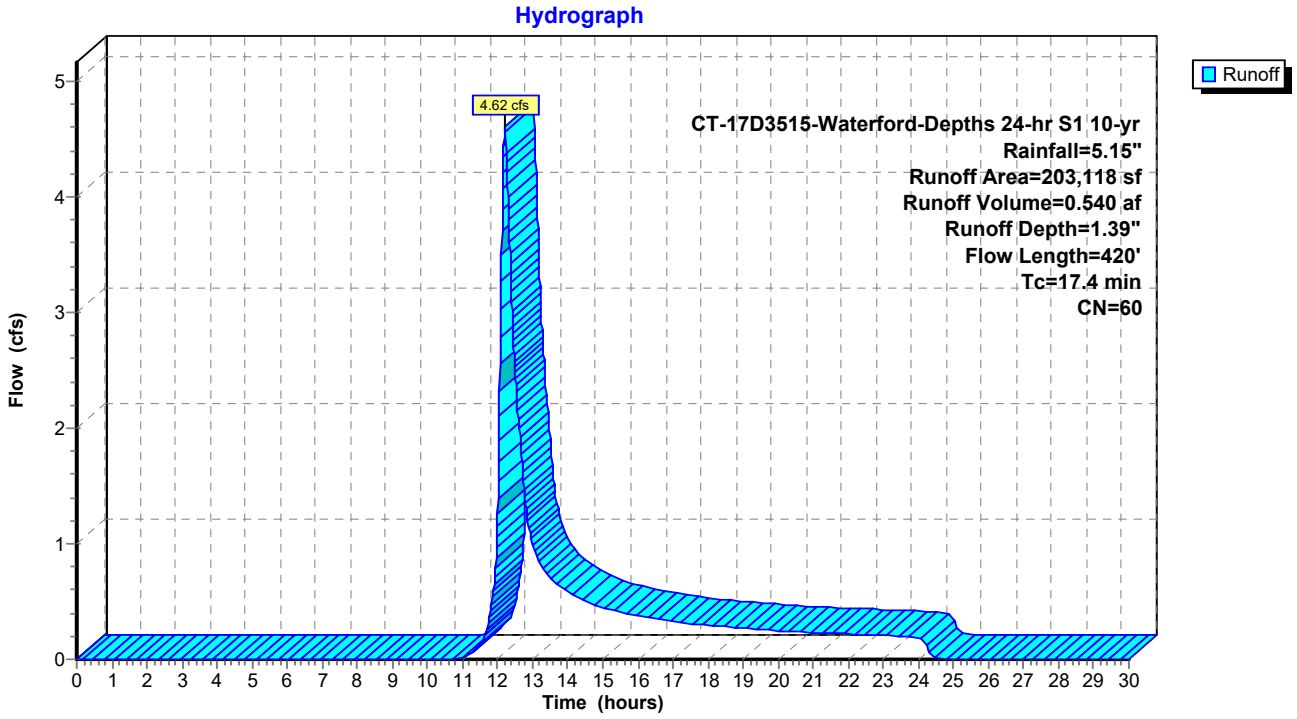
Runoff = 4.62 cfs @ 12.21 hrs, Volume= 0.540 af, Depth= 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
203,118	60	Woods, Fair, HSG B
203,118	60	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	100	0.0557	0.12		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
3.7	320	0.0841	1.45		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
17.4	420	Total			

Subcatchment EDA-200: UNDEVELOPED FOREST



Summary for Subcatchment EDA-201: UNDEVELOPED FOREST

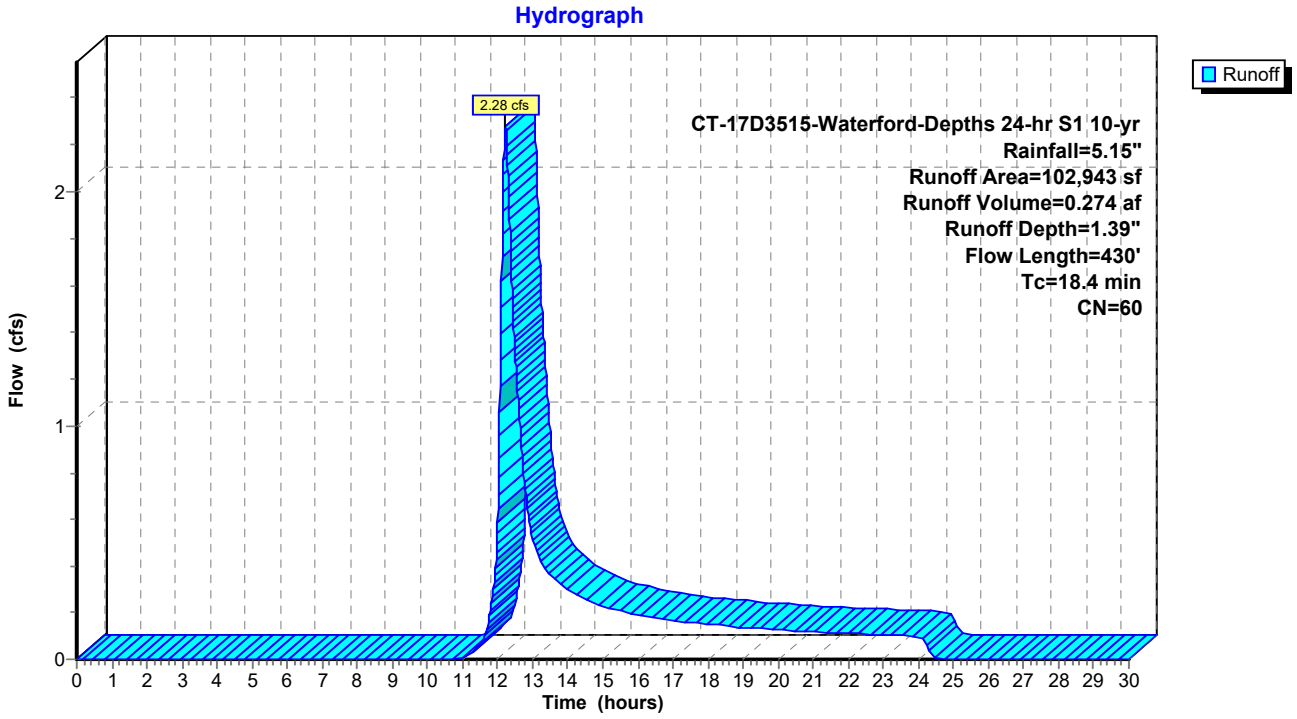
Runoff = 2.28 cfs @ 12.23 hrs, Volume= 0.274 af, Depth= 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
102,943	60	Woods, Fair, HSG B
102,943	60	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.9	100	0.0451	0.11		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
3.5	330	0.1015	1.59		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
18.4	430	Total			

Subcatchment EDA-201: UNDEVELOPED FOREST



Summary for Subcatchment EDA-202: UNDEVELOPED FOREST

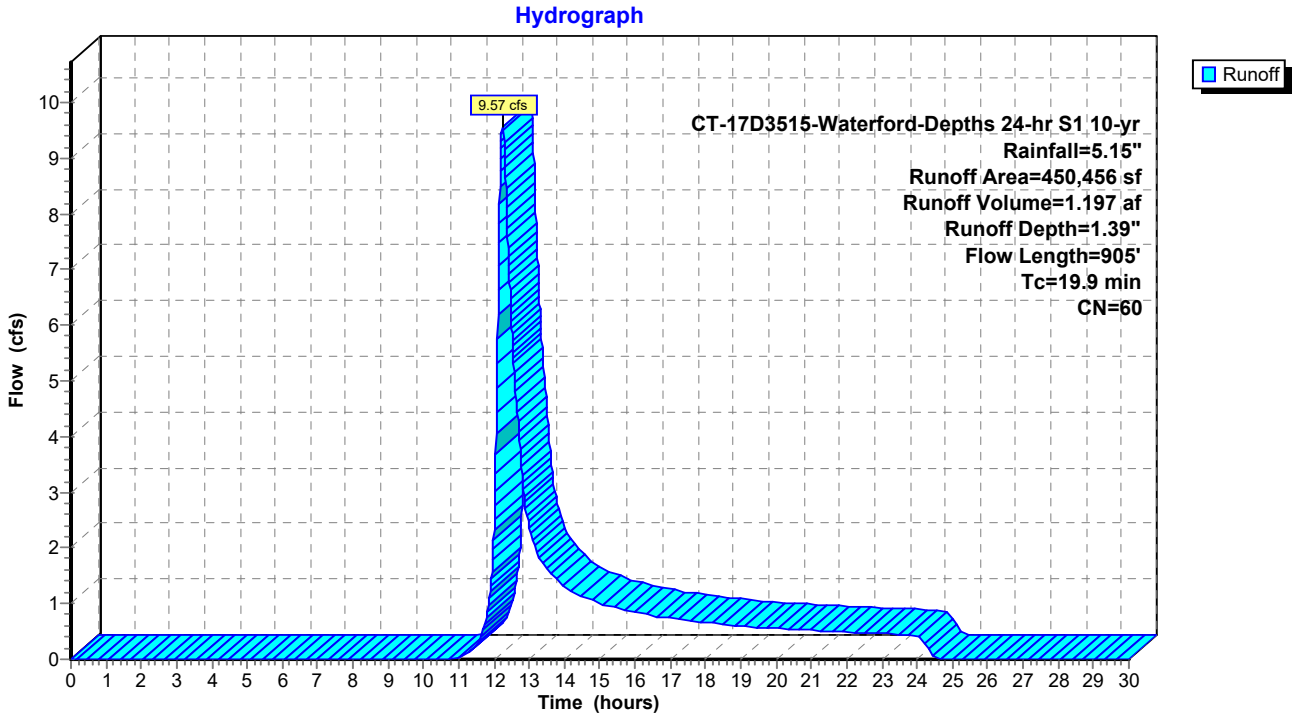
Runoff = 9.57 cfs @ 12.25 hrs, Volume= 1.197 af, Depth= 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
450,456	60	Woods, Fair, HSG B
450,456	60	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	100	0.1350	0.17		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
10.3	805	0.0678	1.30		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
19.9	905	Total			

Subcatchment EDA-202: UNDEVELOPED FOREST



Summary for Subcatchment EDA-203: UNDEVELOPED FOREST

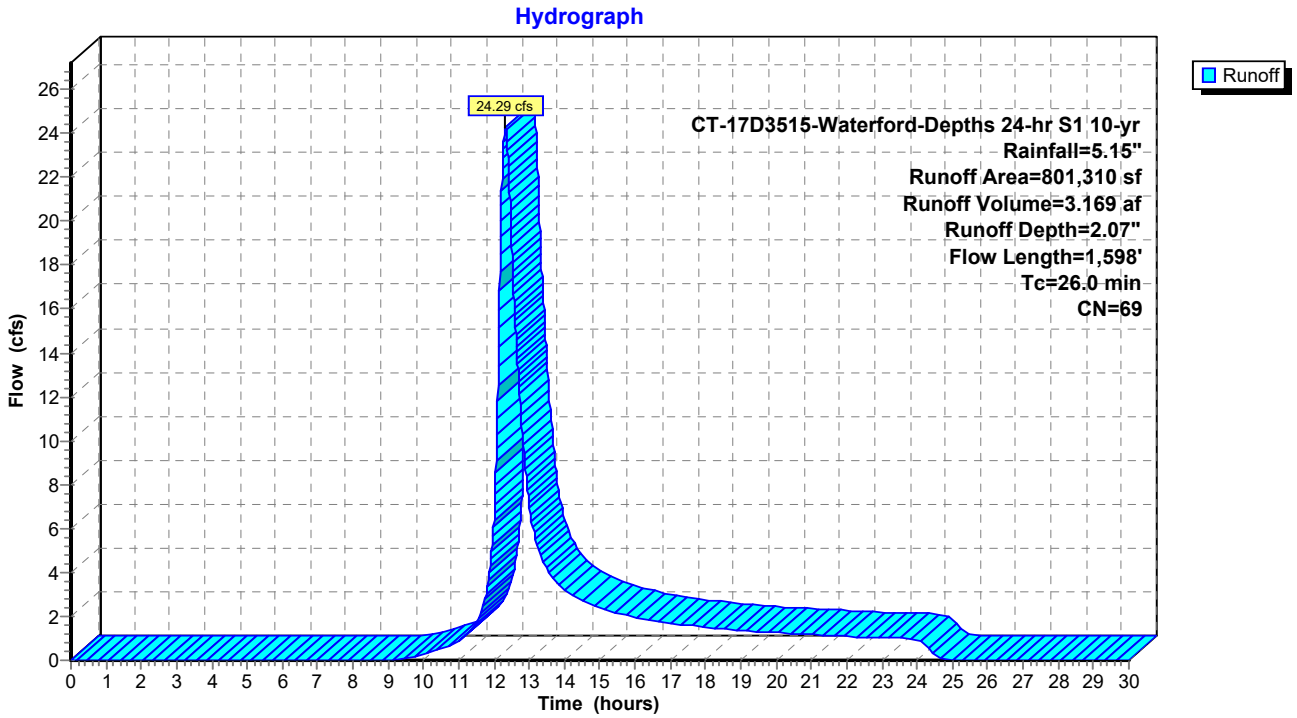
Runoff = 24.29 cfs @ 12.33 hrs, Volume= 3.169 af, Depth= 2.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
239,408	60	Woods, Fair, HSG B
555,898	73	Woods, Fair, HSG C
5,581	86	<50% Grass cover, Poor, HSG C
423	82	Dirt roads, HSG B
801,310	69	Weighted Average
801,310	69	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	100	1.0000	0.39		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
21.7	1,498	0.0530	1.15		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
26.0	1,598	Total			

Subcatchment EDA-203: UNDEVELOPED FOREST



Summary for Subcatchment EDA-204: UNDEVELOPED FOREST

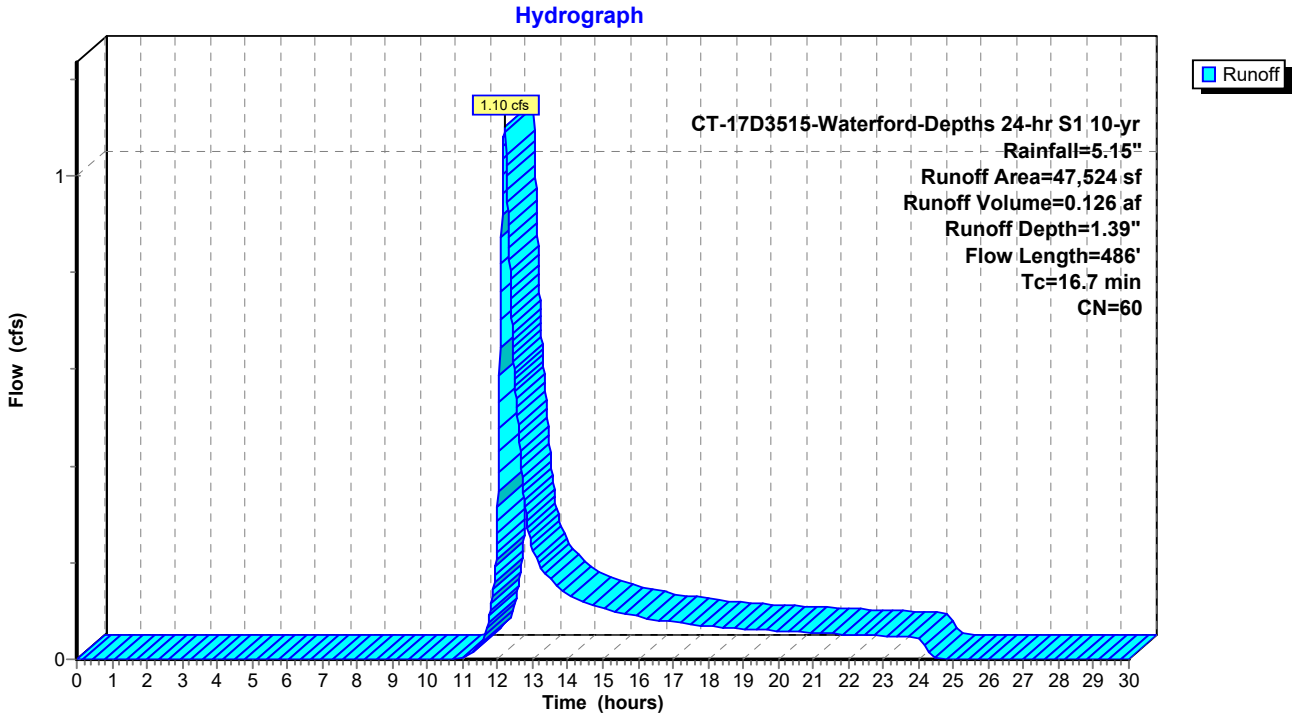
Runoff = 1.10 cfs @ 12.20 hrs, Volume= 0.126 af, Depth= 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
47,524	60	Woods, Fair, HSG B
47,524	60	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0	100	0.0786	0.14		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
4.7	386	0.0753	1.37		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
16.7	486	Total			

Subcatchment EDA-204: UNDEVELOPED FOREST



Summary for Subcatchment EDA-205: UNDEVELOPED FOREST

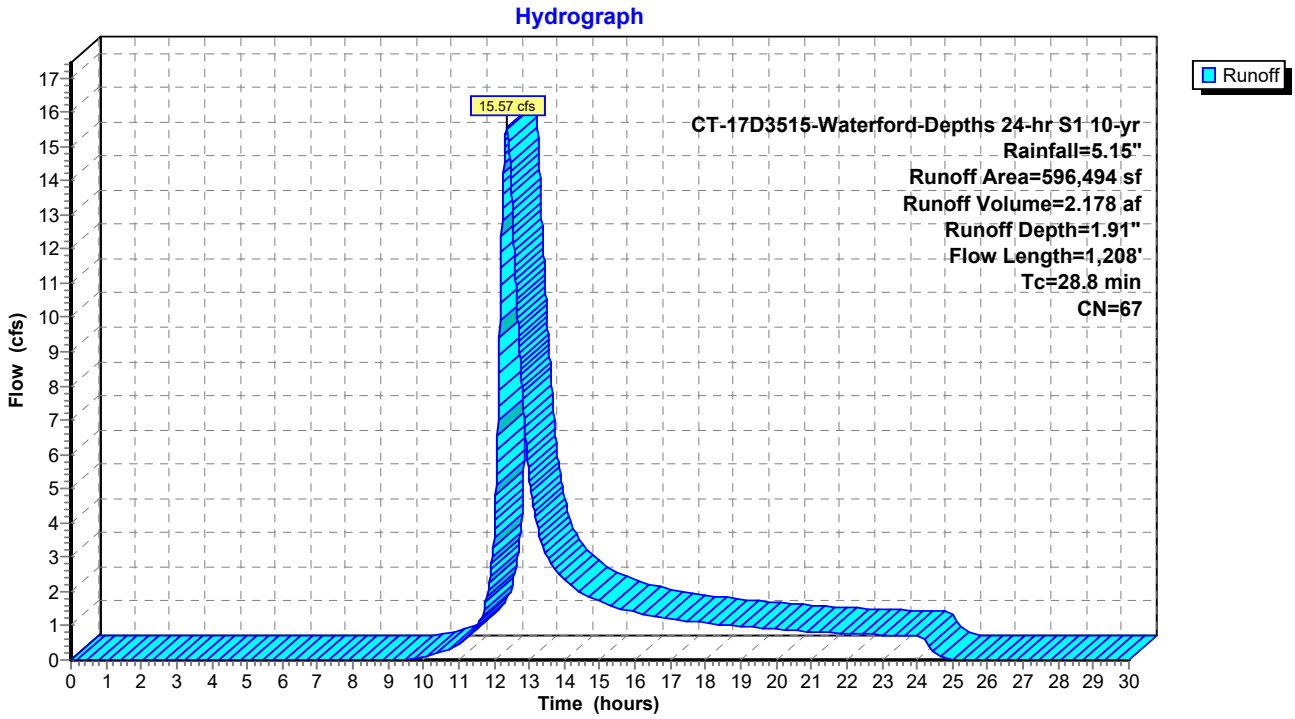
Runoff = 15.57 cfs @ 12.38 hrs, Volume= 2.178 af, Depth= 1.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
356,763	60	Woods, Fair, HSG B
127,304	73	Woods, Fair, HSG C
8,159	82	Dirt roads, HSG B
2,702	87	Dirt roads, HSG C
64,278	79	<50% Grass cover, Poor, HSG B
37,288	86	<50% Grass cover, Poor, HSG C
596,494	67	Weighted Average
596,494	67	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.8	100	0.0394	0.11		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
13.0	1,108	0.0809	1.42		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
28.8	1,208	Total			

Subcatchment EDA-205: UNDEVELOPED FOREST



Summary for Subcatchment EDA-206: UNDEVELOPED FOREST

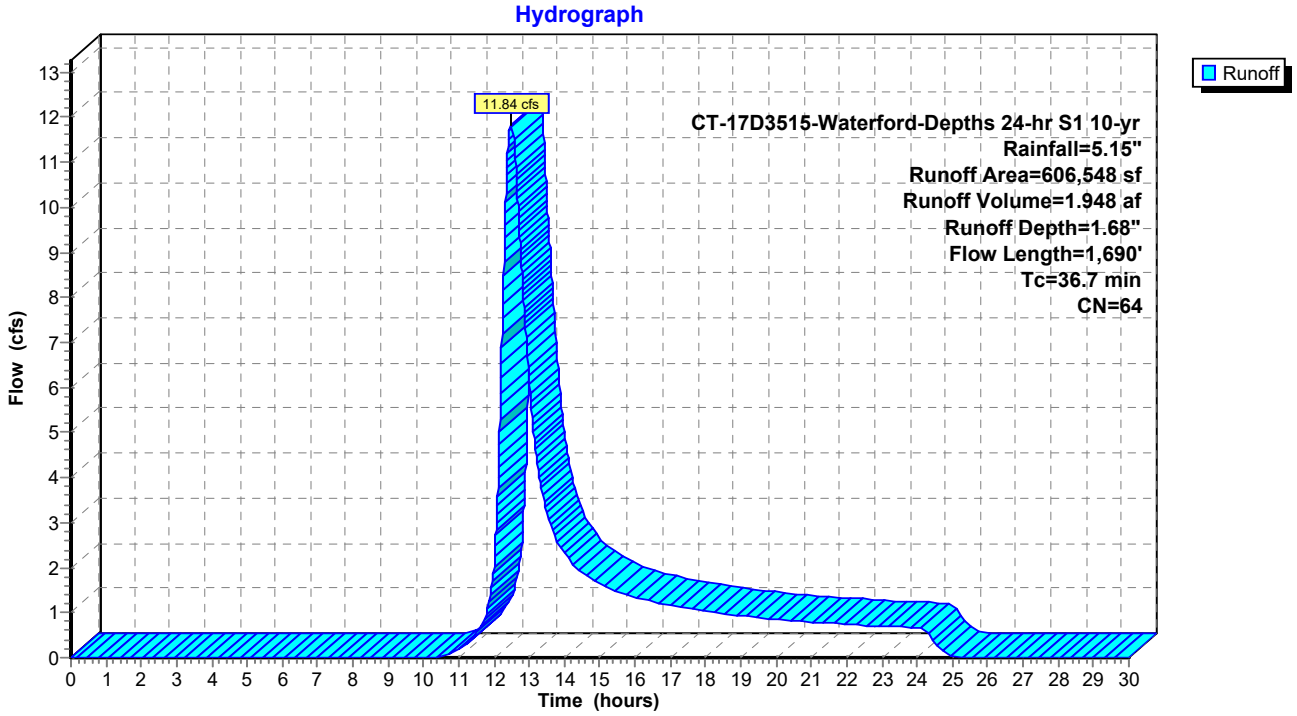
Runoff = 11.84 cfs @ 12.48 hrs, Volume= 1.948 af, Depth= 1.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
461,709	60	Woods, Fair, HSG B
55,195	73	Woods, Fair, HSG C
41,947	79	Woods, Fair, HSG D
6,857	82	Dirt roads, HSG B
40,840	79	<50% Grass cover, Poor, HSG B
606,548	64	Weighted Average
606,548	64	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0680	0.13		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
24.0	1,590	0.0486	1.10		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
36.7	1,690	Total			

Subcatchment EDA-206: UNDEVELOPED FOREST



Summary for Subcatchment EDA-207: UNDEVELOPED FOREST

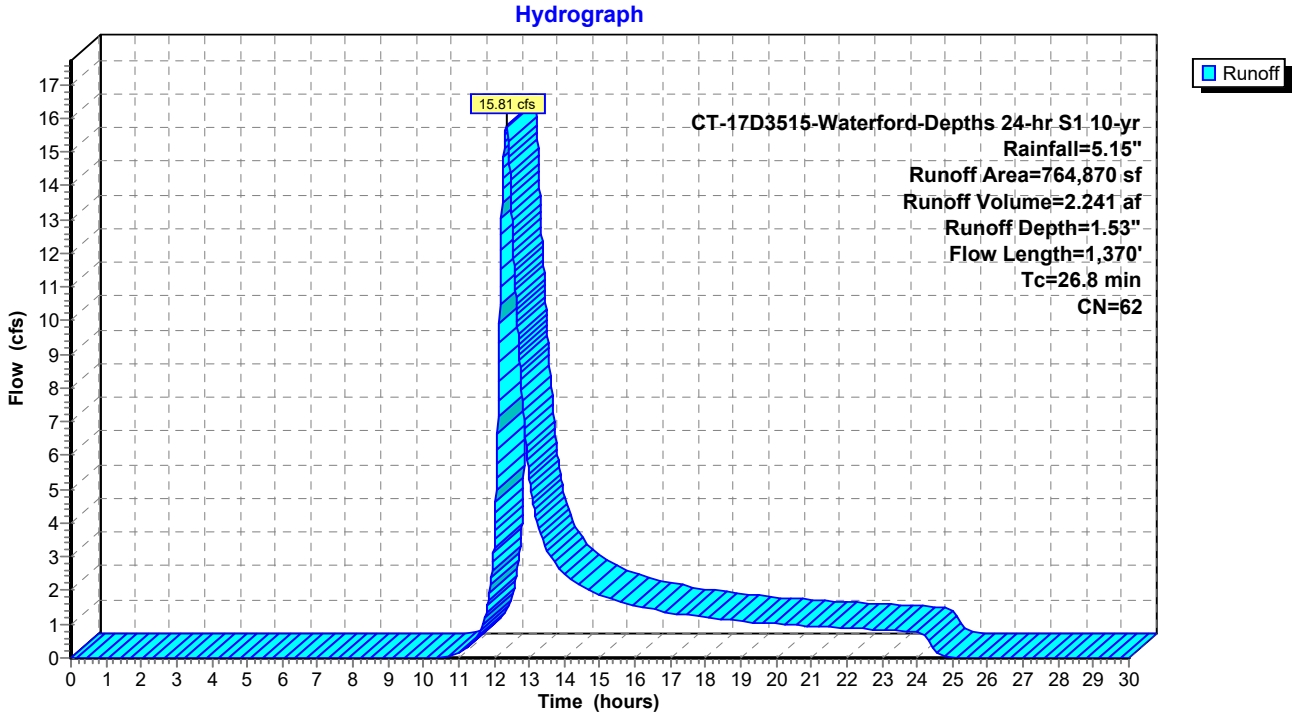
Runoff = 15.81 cfs @ 12.35 hrs, Volume= 2.241 af, Depth= 1.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
702,521	60	Woods, Fair, HSG B
17,665	79	Woods, Fair, HSG D
2,716	82	Dirt roads, HSG B
93	89	Dirt roads, HSG D
31,851	79	<50% Grass cover, Poor, HSG B
10,024	89	<50% Grass cover, Poor, HSG D
764,870	62	Weighted Average
764,870	62	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.2	100	0.0610	0.13		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
13.6	1,270	0.0968	1.56		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
26.8	1,370	Total			

Subcatchment EDA-207: UNDEVELOPED FOREST



Summary for Subcatchment EDA-208: UNDEVELOPED FOREST

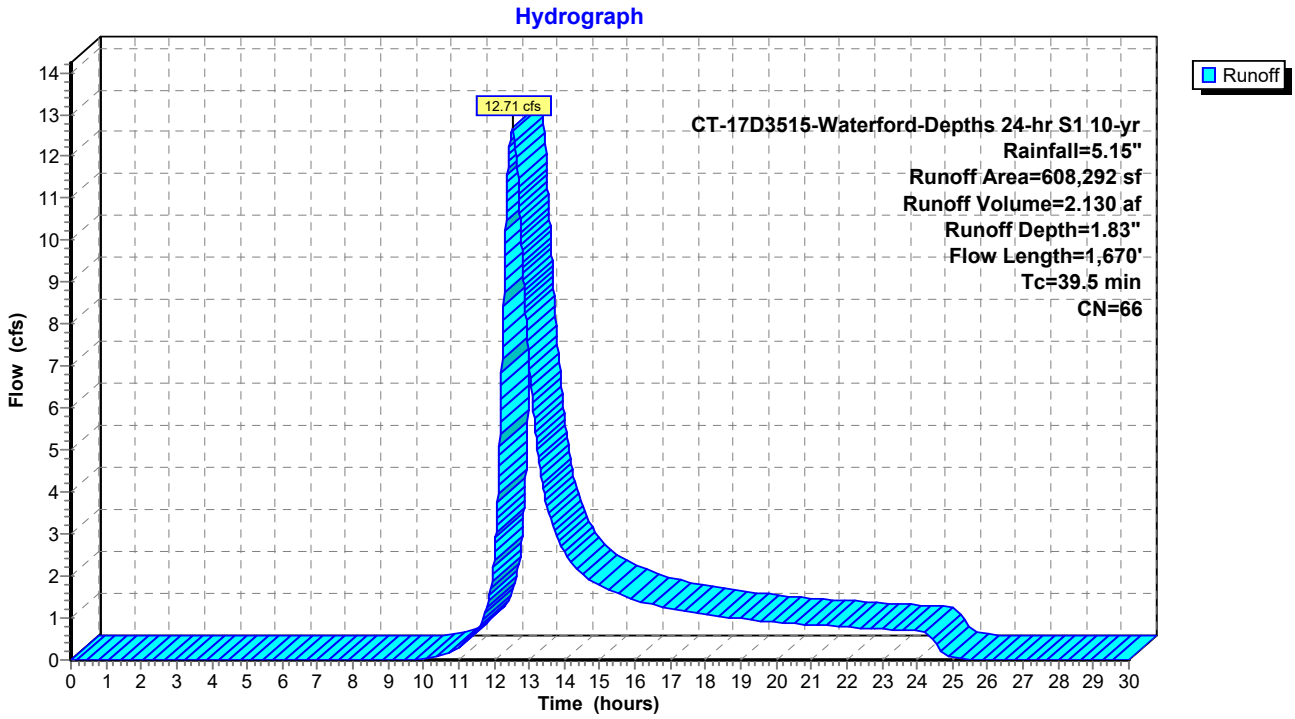
Runoff = 12.71 cfs @ 12.51 hrs, Volume= 2.130 af, Depth= 1.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
426,763	60	Woods, Fair, HSG B
134,846	79	Woods, Fair, HSG D
8,865	82	Dirt roads, HSG B
945	89	Dirt roads, HSG D
29,846	79	<50% Grass cover, Poor, HSG B
7,027	89	<50% Grass cover, Poor, HSG D
608,292	66	Weighted Average
608,292	66	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.3	100	0.0739	0.14		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
27.2	1,570	0.0371	0.96		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
39.5	1,670	Total			

Subcatchment EDA-208: UNDEVELOPED FOREST



Summary for Subcatchment EDA-209: UNDEVELOPED FOREST

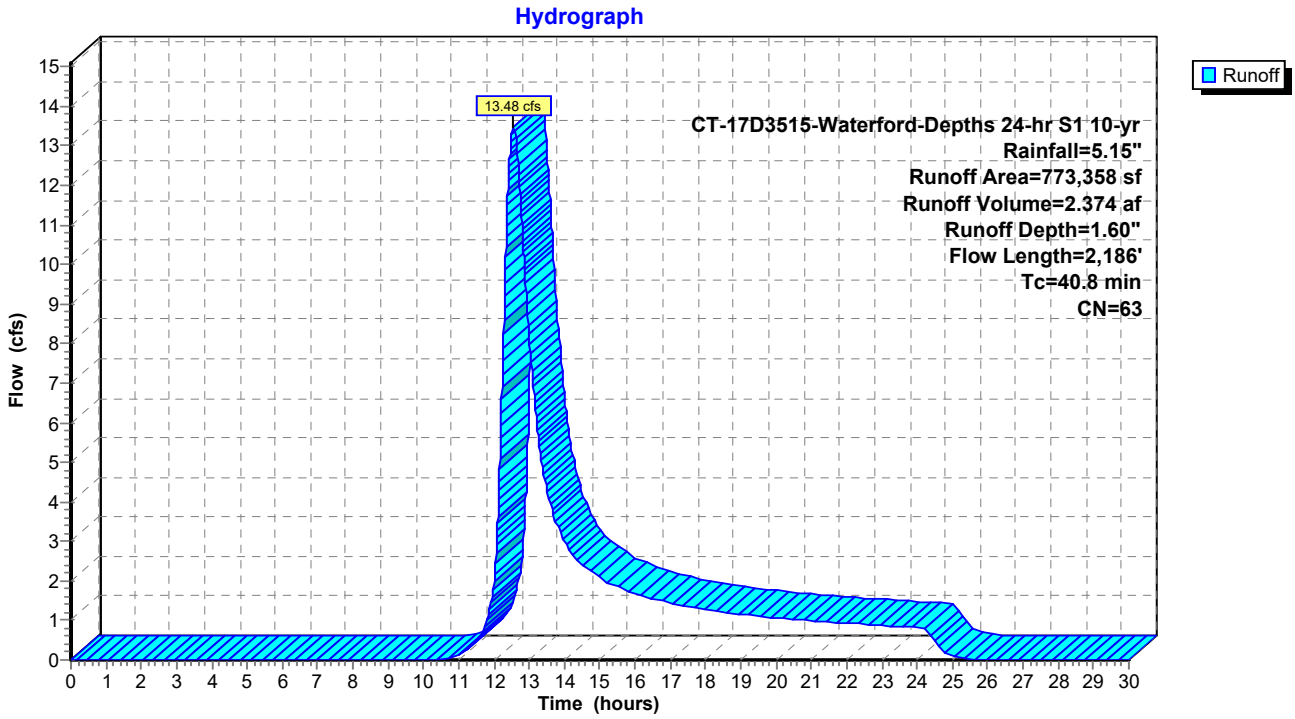
Runoff = 13.48 cfs @ 12.56 hrs, Volume= 2.374 af, Depth= 1.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
656,206	60	Woods, Fair, HSG B
45,724	79	Woods, Fair, HSG D
3,720	82	Dirt roads, HSG B
744	89	Dirt roads, HSG D
54,222	79	<50% Grass cover, Poor, HSG B
12,742	89	<50% Grass cover, Poor, HSG D
773,358	63	Weighted Average
773,358	63	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	100	0.0957	0.15		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
29.7	2,086	0.0549	1.17		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
40.8	2,186	Total			

Subcatchment EDA-209: UNDEVELOPED FOREST



Summary for Subcatchment EDA-210: OFFSITE BASIN

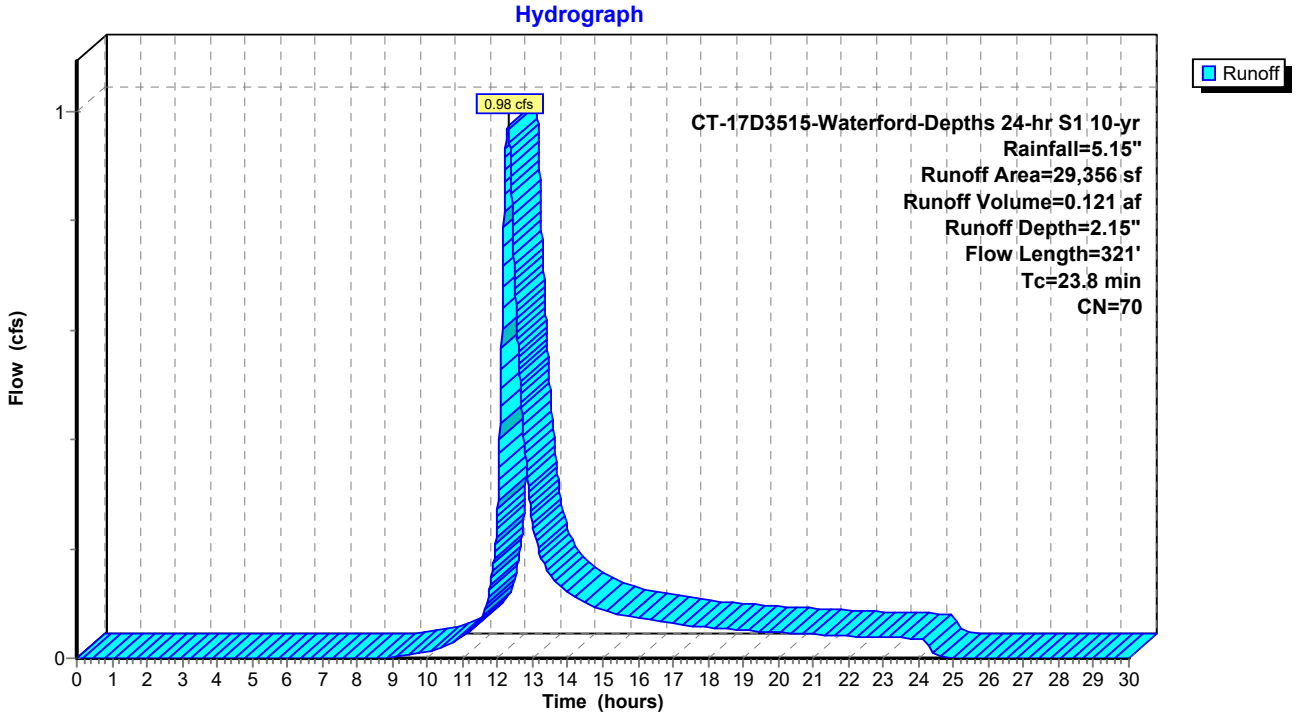
Runoff = 0.98 cfs @ 12.29 hrs, Volume= 0.121 af, Depth= 2.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
7,157	60	Woods, Fair, HSG B
22,199	73	Woods, Fair, HSG C
29,356	70	Weighted Average
29,356	70	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.2	100	0.0187	0.08		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
2.6	221	0.0830	1.44		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
23.8	321	Total			

Subcatchment EDA-210: OFFSITE BASIN



Summary for Subcatchment EDA-211: UNDEVELOPED FOREST

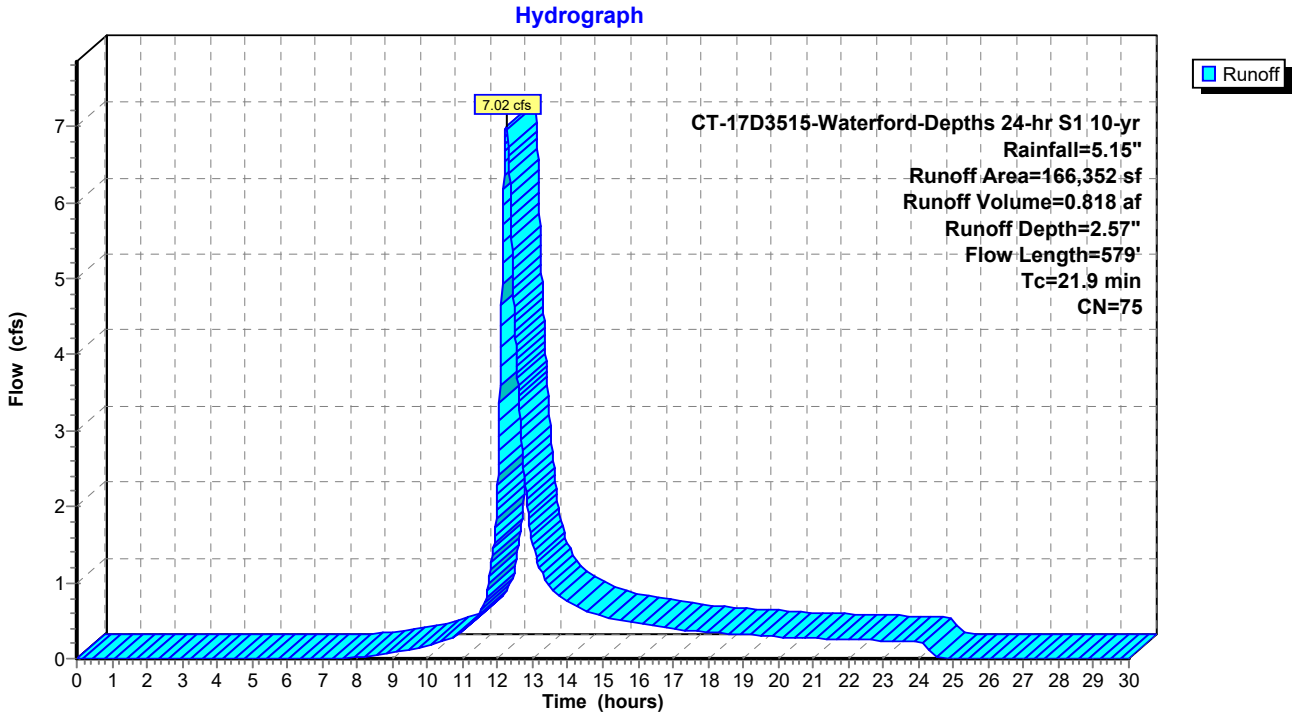
Runoff = 7.02 cfs @ 12.25 hrs, Volume= 0.818 af, Depth= 2.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
13,831	60	Woods, Fair, HSG B
63,994	73	Woods, Fair, HSG C
88,527	79	Woods, Fair, HSG D
166,352	75	Weighted Average
166,352	75	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.7	100	0.0824	0.14		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
10.2	479	0.0244	0.78		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
21.9	579	Total			

Subcatchment EDA-211: UNDEVELOPED FOREST



Summary for Subcatchment EDA-212: UNDEVELOPED FOREST

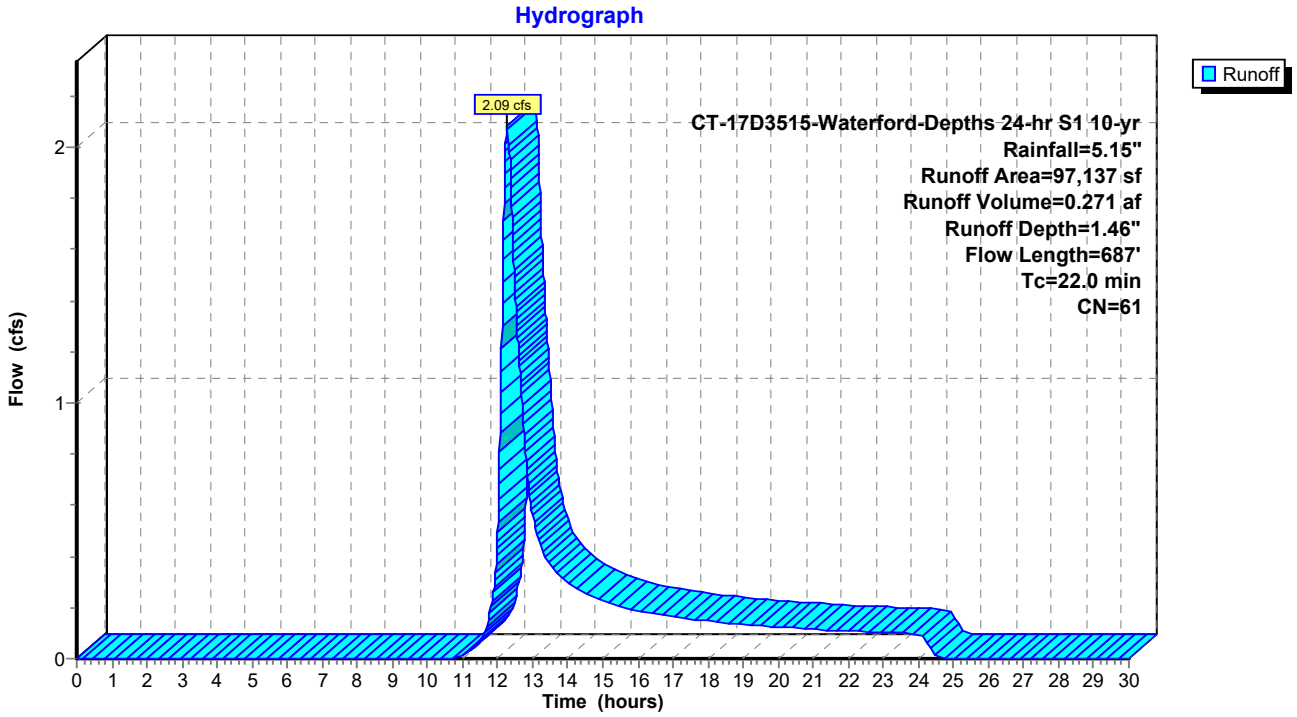
Runoff = 2.09 cfs @ 12.27 hrs, Volume= 0.271 af, Depth= 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
92,499	60	Woods, Fair, HSG B
4,612	73	Woods, Fair, HSG C
26	82	Dirt roads, HSG B
97,137	61	Weighted Average
97,137	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.5	100	0.0408	0.11		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
6.5	587	0.0902	1.50		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
22.0	687	Total			

Subcatchment EDA-212: UNDEVELOPED FOREST



Summary for Subcatchment EDA-213: UNDEVELOPED FOREST

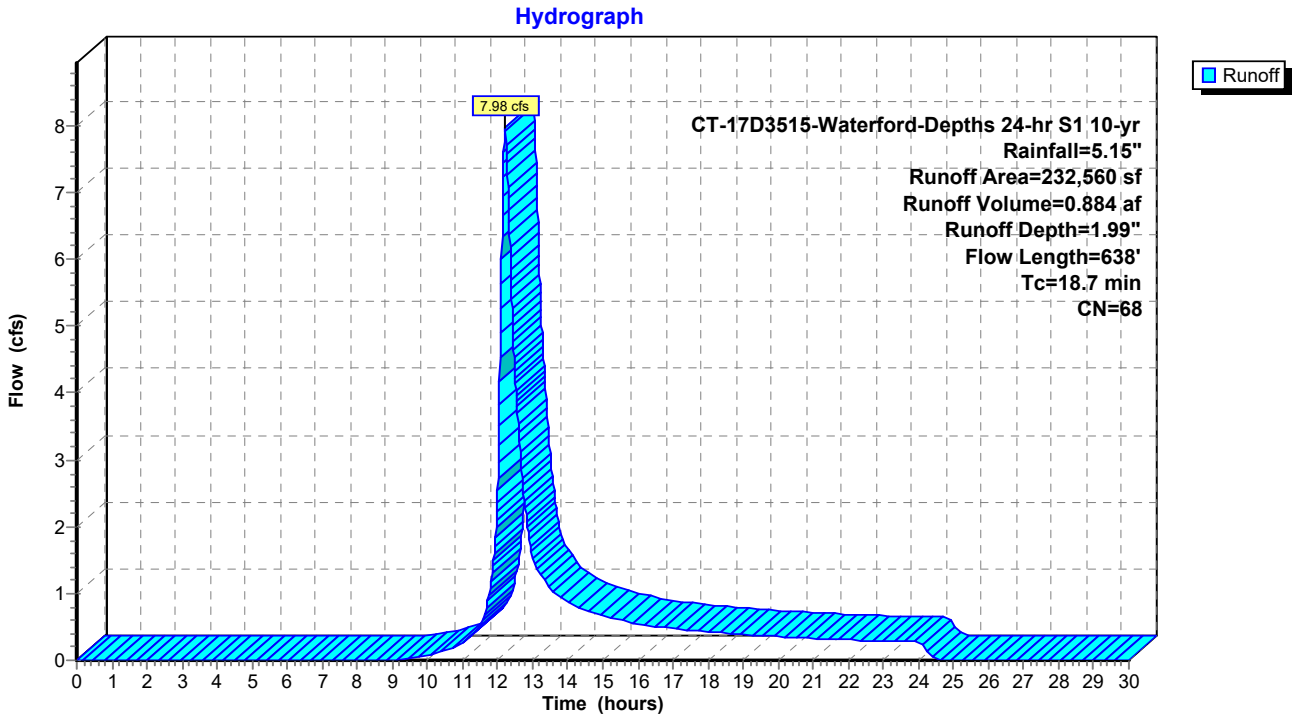
Runoff = 7.98 cfs @ 12.22 hrs, Volume= 0.884 af, Depth= 1.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
94,728	60	Woods, Fair, HSG B
131,244	73	Woods, Fair, HSG C
2,223	82	Dirt roads, HSG B
4,365	87	Dirt roads, HSG C
232,560	68	Weighted Average
232,560	68	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	100	0.1921	0.20		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
10.3	538	0.0303	0.87		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
18.7	638	Total			

Subcatchment EDA-213: UNDEVELOPED FOREST



Summary for Subcatchment EDA-300: UNDEVELOPED FOREST

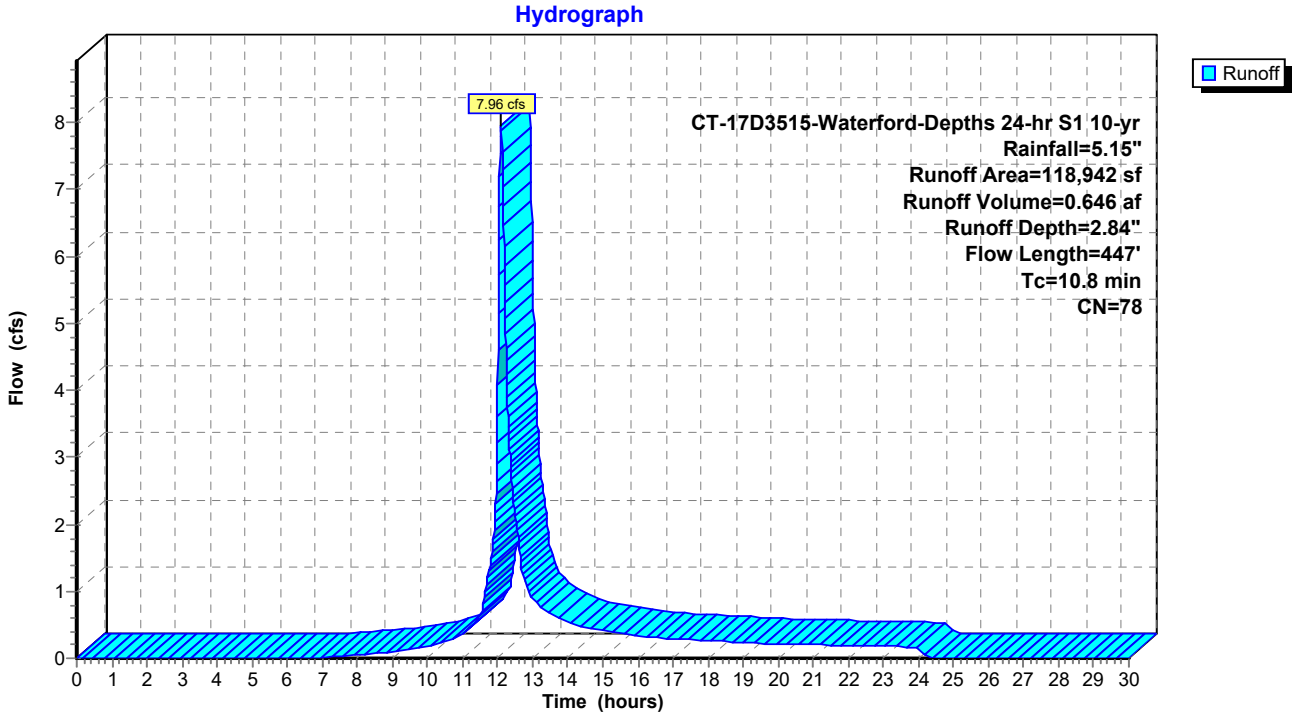
Runoff = 7.96 cfs @ 12.10 hrs, Volume= 0.646 af, Depth= 2.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
4,127	60	Woods, Fair, HSG B
114,815	79	Woods, Fair, HSG D
118,942	78	Weighted Average
118,942	78	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2	100	0.1500	0.18		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
1.6	347	0.5200	3.61		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
10.8	447	Total			

Subcatchment EDA-300: UNDEVELOPED FOREST



Summary for Subcatchment EDA-301: UNDEVELOPED FOREST

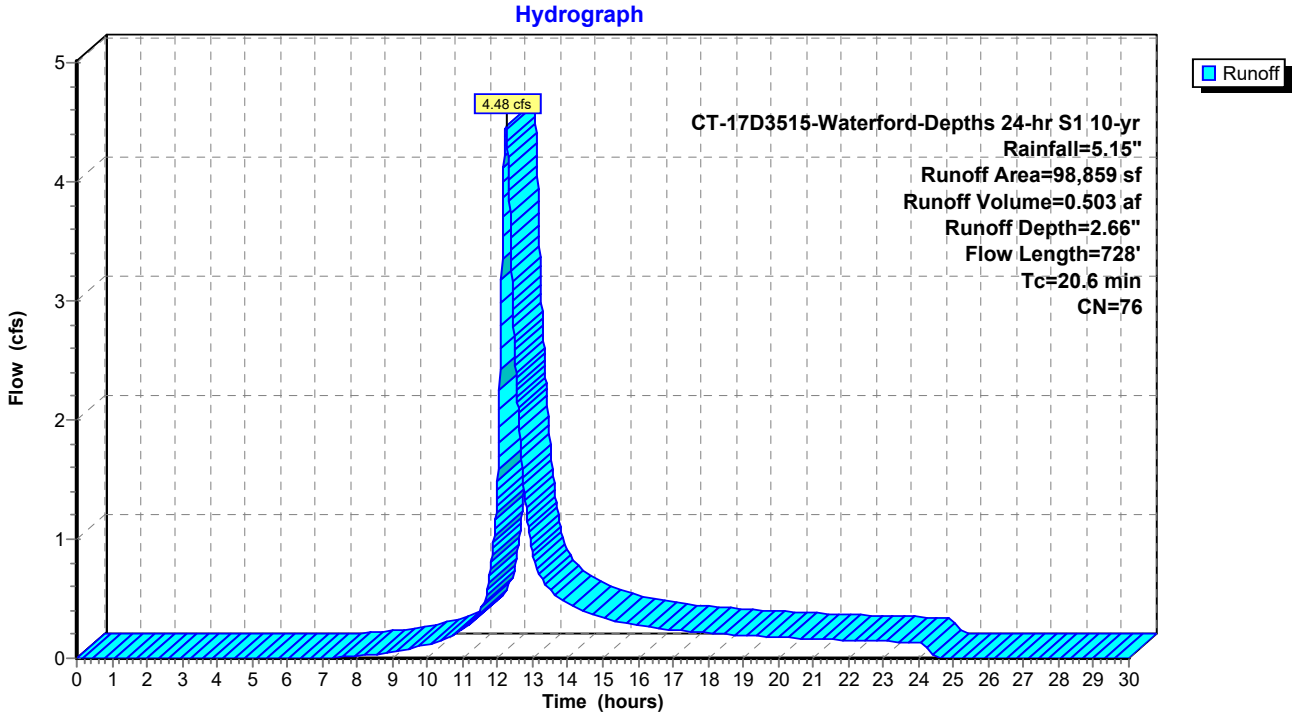
Runoff = 4.48 cfs @ 12.24 hrs, Volume= 0.503 af, Depth= 2.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
15,090	60	Woods, Fair, HSG B
83,769	79	Woods, Fair, HSG D
98,859	76	Weighted Average
98,859	76	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.6	100	0.0403	0.11		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
5.0	628	0.1723	2.08		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
20.6	728	Total			

Subcatchment EDA-301: UNDEVELOPED FOREST



Summary for Subcatchment EDA-302: UNDEVELOPED FOREST

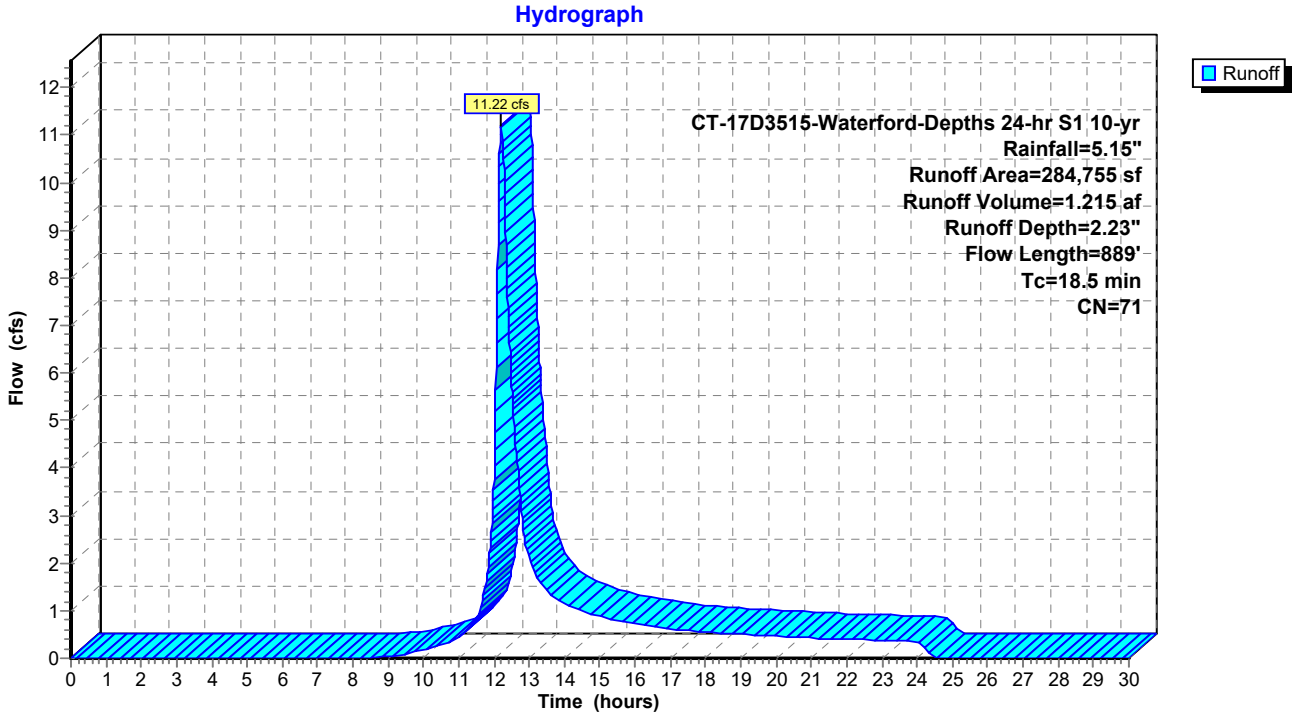
Runoff = 11.22 cfs @ 12.21 hrs, Volume= 1.215 af, Depth= 2.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
116,779	60	Woods, Fair, HSG B
167,976	79	Woods, Fair, HSG D
284,755	71	Weighted Average
284,755	71	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	100	0.0845	0.14		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
6.9	789	0.1439	1.90		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
18.5	889	Total			

Subcatchment EDA-302: UNDEVELOPED FOREST



Summary for Subcatchment EDA-303: UNDEVELOPED FOREST

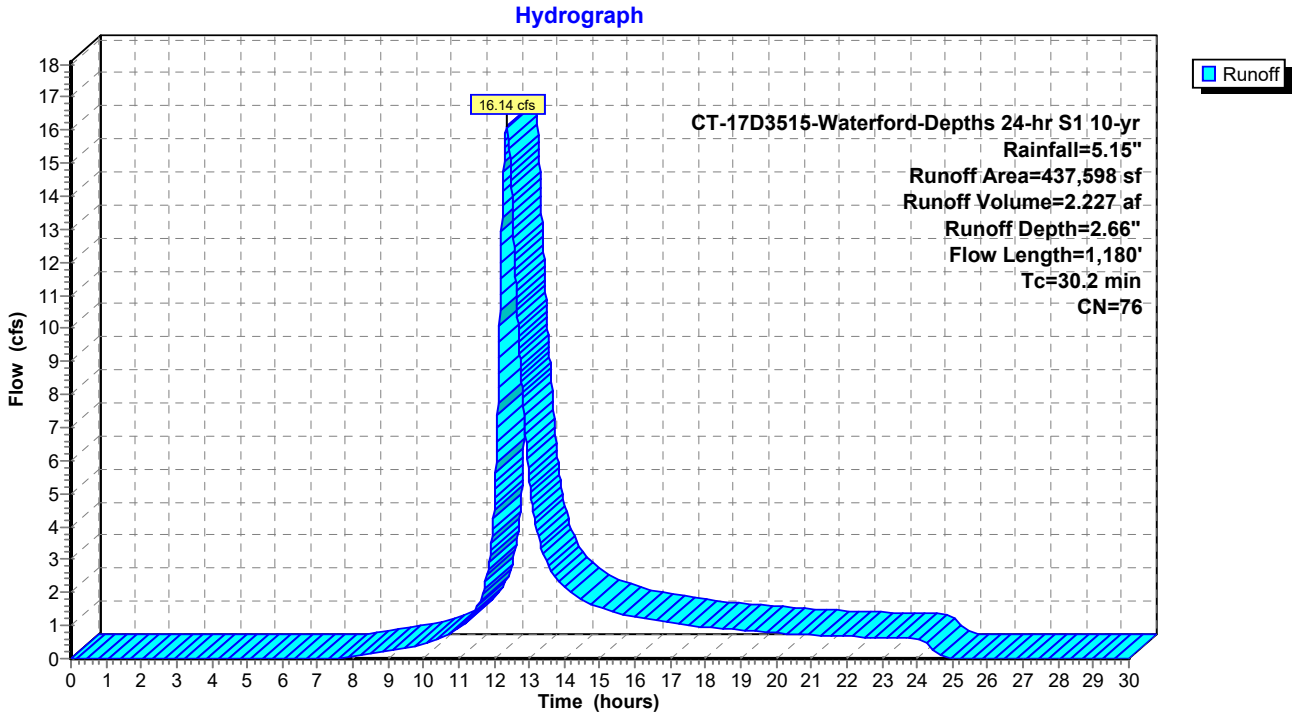
Runoff = 16.14 cfs @ 12.38 hrs, Volume= 2.227 af, Depth= 2.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
35,606	60	Woods, Fair, HSG B
114,707	73	Woods, Fair, HSG C
287,285	79	Woods, Fair, HSG D
437,598	76	Weighted Average
437,598	76	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.3	100	0.0239	0.09		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
10.9	1,080	0.1087	1.65		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
30.2	1,180	Total			

Subcatchment EDA-303: UNDEVELOPED FOREST



Summary for Subcatchment EDA-304: UNDEVEL0PED FOREST

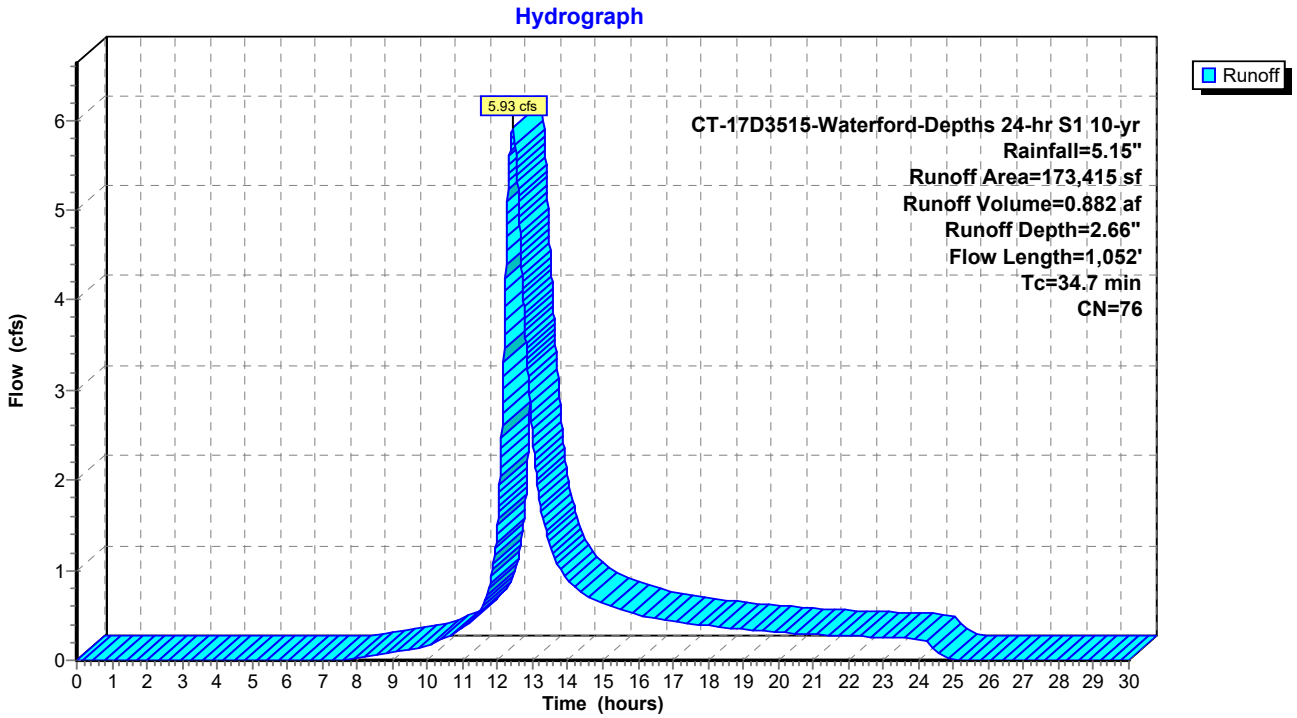
Runoff = 5.93 cfs @ 12.45 hrs, Volume= 0.882 af, Depth= 2.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
89,702	73	Woods, Fair, HSG C
83,713	79	Woods, Fair, HSG D
173,415	76	Weighted Average
173,415	76	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.1	100	0.0136	0.07		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
9.7	822	0.0800	1.41		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
0.9	130	0.2100	2.29		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
34.7	1,052	Total			

Subcatchment EDA-304: UNDEVEL0PED FOREST



Summary for Subcatchment EDA-305: UNDEVELOPED FOREST

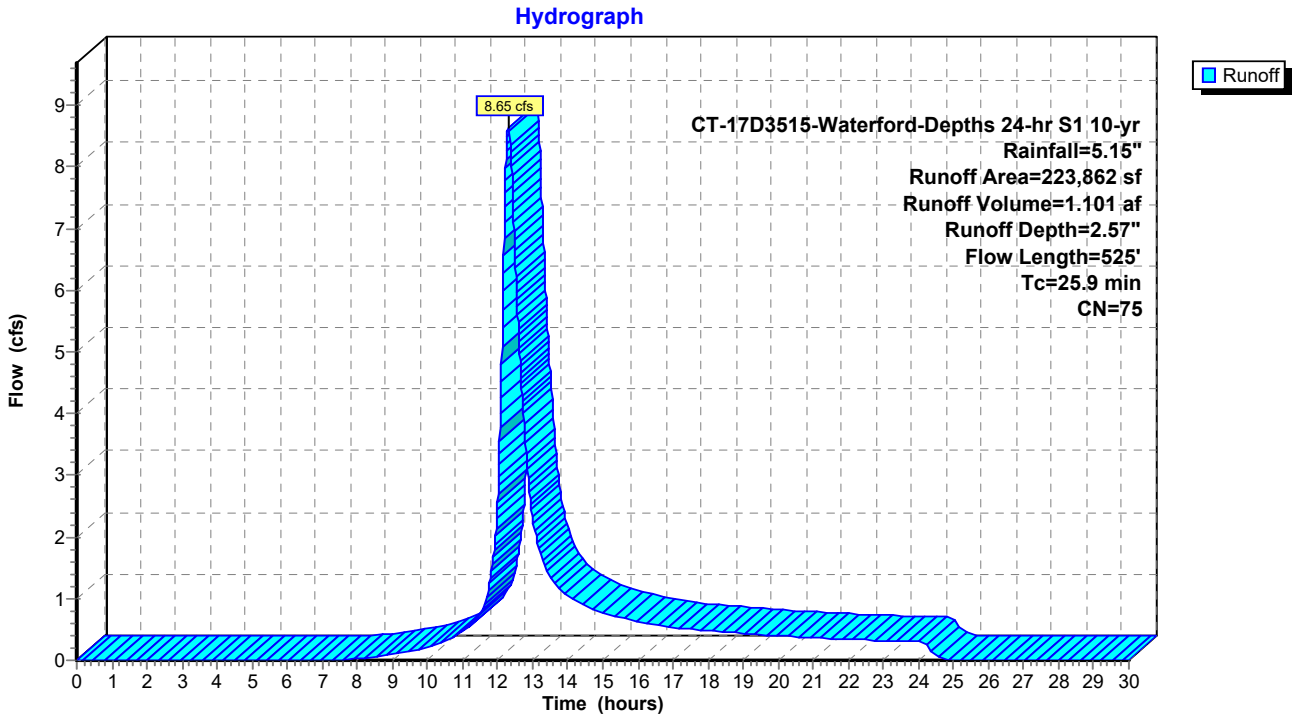
Runoff = 8.65 cfs @ 12.31 hrs, Volume= 1.101 af, Depth= 2.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
144,475	73	Woods, Fair, HSG C
78,707	79	Woods, Fair, HSG D
658	86	<50% Grass cover, Poor, HSG C
22	87	Dirt roads, HSG C
223,862	75	Weighted Average
223,862	75	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.8	100	0.0197	0.08		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
5.1	425	0.0760	1.38		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
25.9	525	Total			

Subcatchment EDA-305: UNDEVELOPED FOREST

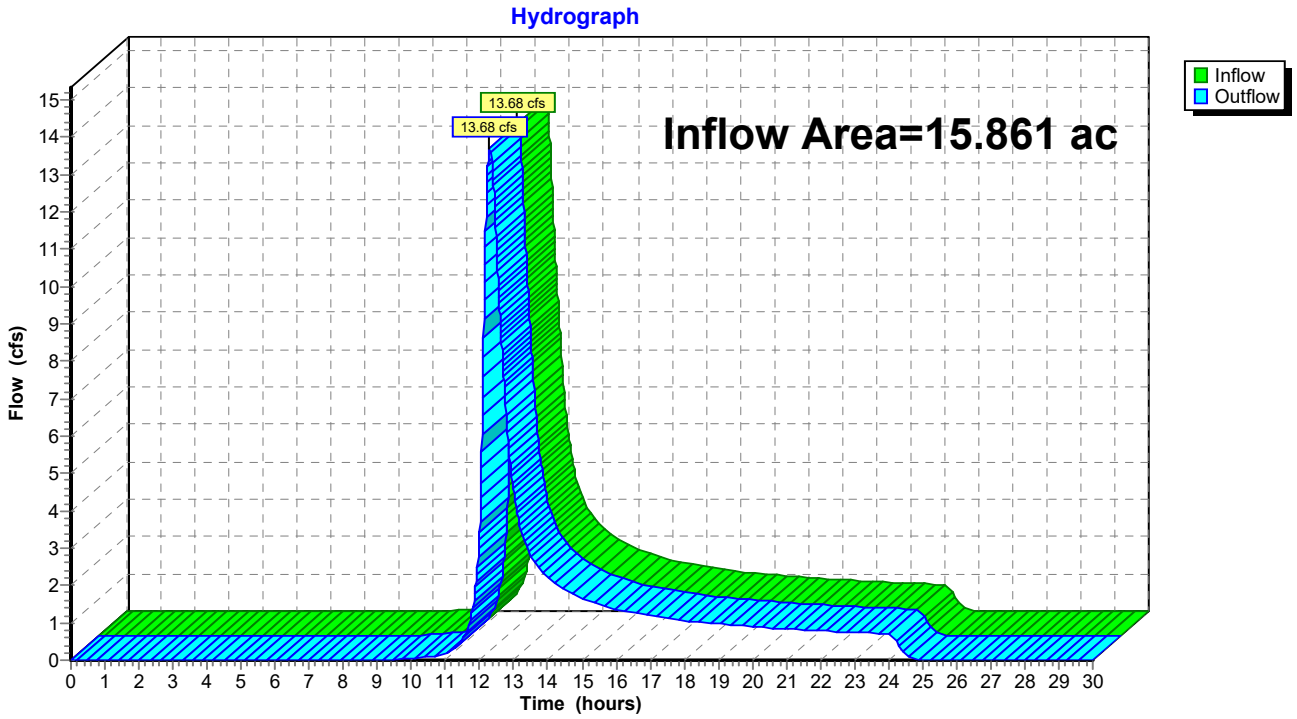


Summary for Reach DP-1: DISCHARGE OFFSITE TOWARDS STONY BROOK

Inflow Area = 15.861 ac, 0.00% Impervious, Inflow Depth = 1.51" for 10-yr event
Inflow = 13.68 cfs @ 12.30 hrs, Volume= 1.994 af
Outflow = 13.68 cfs @ 12.30 hrs, Volume= 1.994 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-1: DISCHARGE OFFSITE TOWARDS STONY BROOK

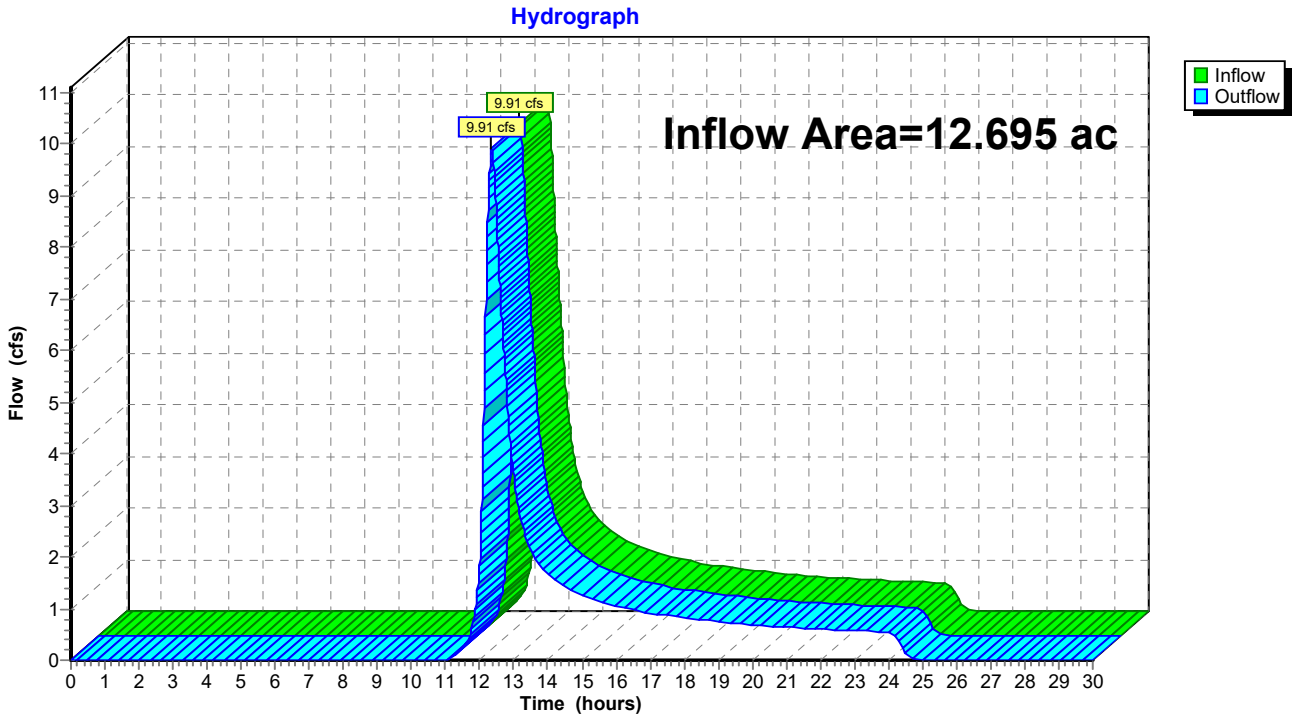


Summary for Reach DP-100: DISCHARGE OFFSITE

Inflow Area = 12.695 ac, 0.00% Impervious, Inflow Depth = 1.39" for 10-yr event
Inflow = 9.91 cfs @ 12.36 hrs, Volume= 1.470 af
Outflow = 9.91 cfs @ 12.36 hrs, Volume= 1.470 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-100: DISCHARGE OFFSITE

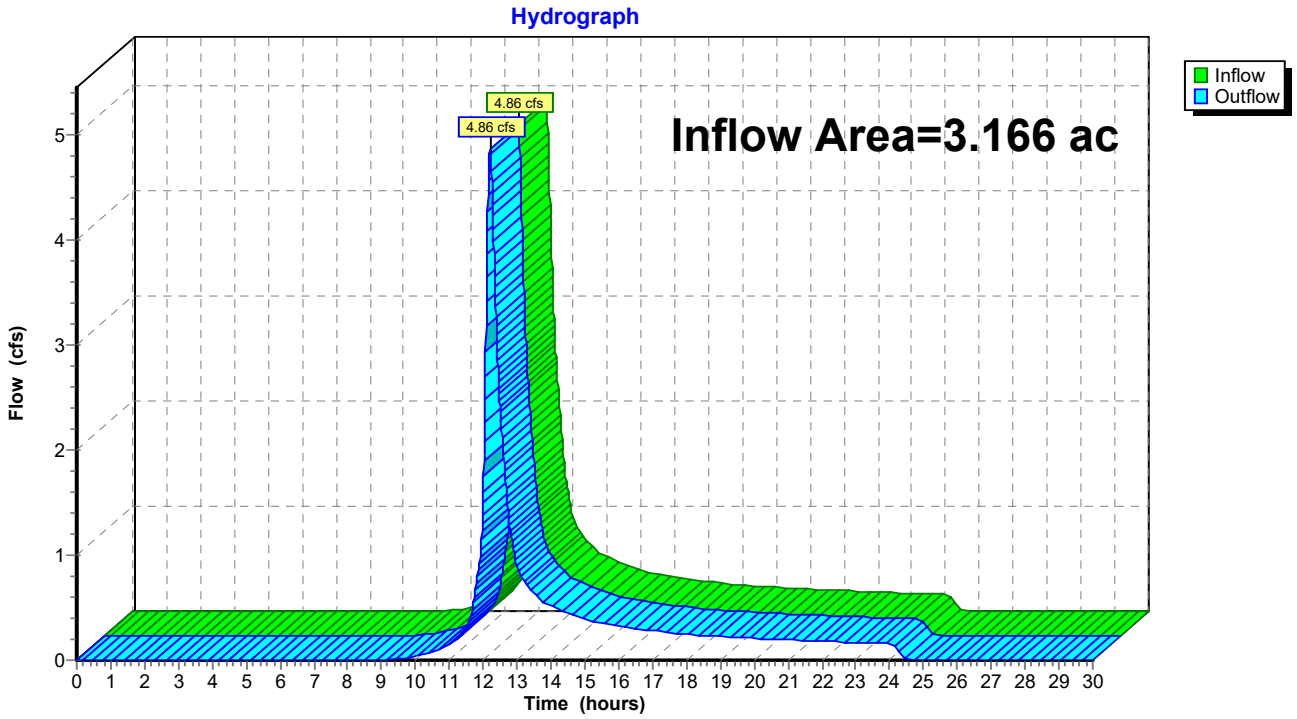


Summary for Reach DP-101: DISCHARGE OFFSITE

Inflow Area = 3.166 ac, 0.00% Impervious, Inflow Depth = 1.99" for 10-yr event
Inflow = 4.86 cfs @ 12.21 hrs, Volume= 0.524 af
Outflow = 4.86 cfs @ 12.21 hrs, Volume= 0.524 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-101: DISCHARGE OFFSITE

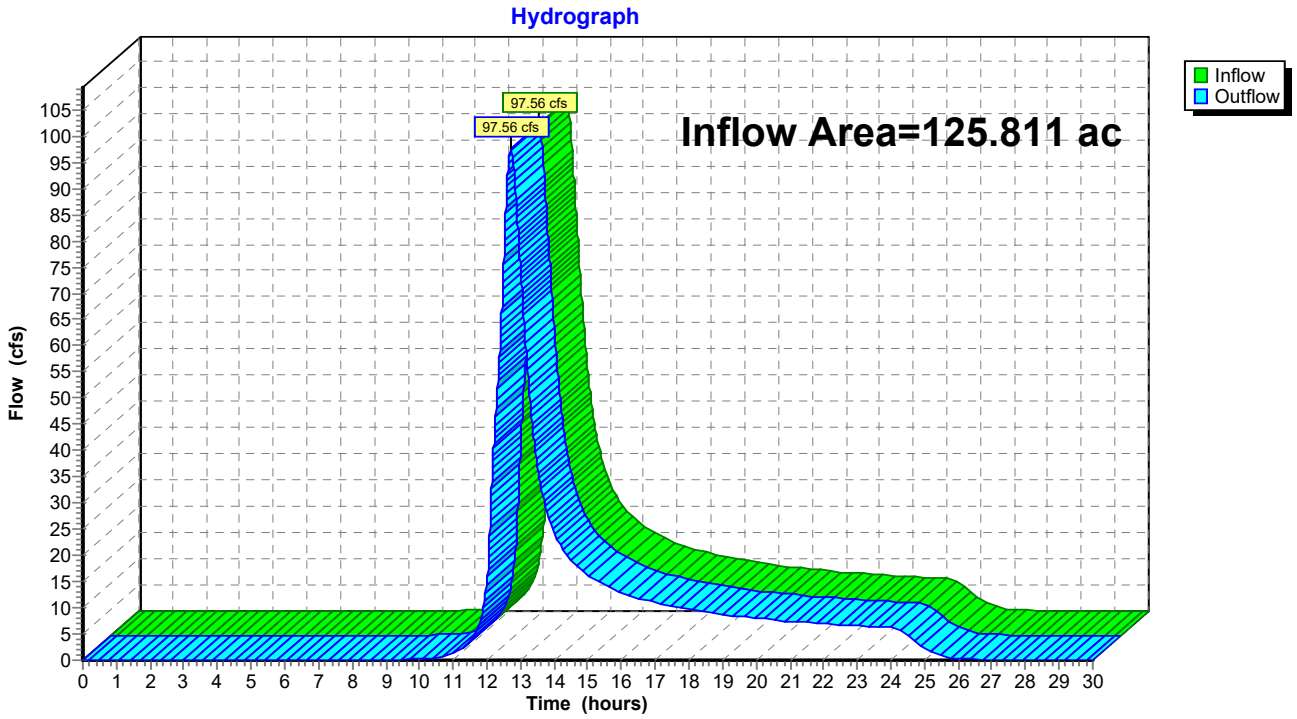


Summary for Reach DP-2: DISCHARGE TOWARDS OIL MILL BROOK

Inflow Area = 125.811 ac, 0.00% Impervious, Inflow Depth = 1.74" for 10-yr event
Inflow = 97.56 cfs @ 12.71 hrs, Volume= 18.271 af
Outflow = 97.56 cfs @ 12.71 hrs, Volume= 18.271 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-2: DISCHARGE TOWARDS OIL MILL BROOK

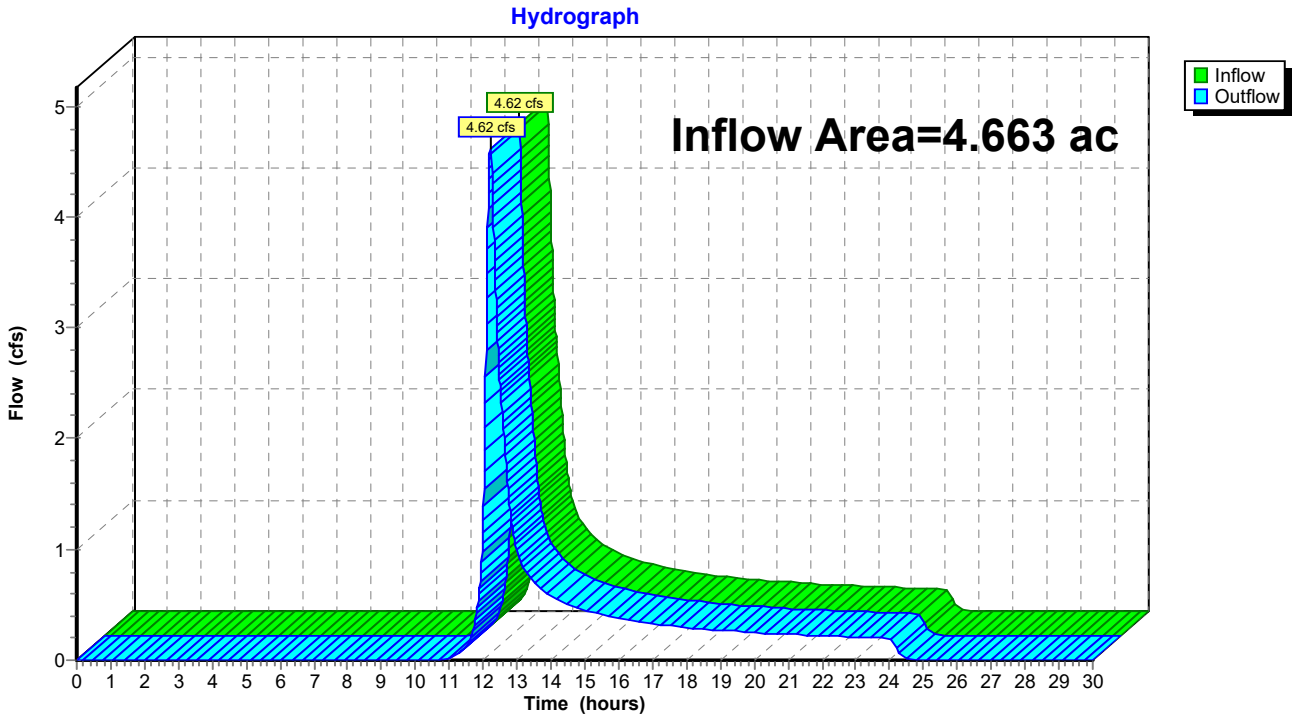


Summary for Reach DP-200: DISCHARGE OFFSITE

Inflow Area = 4.663 ac, 0.00% Impervious, Inflow Depth = 1.39" for 10-yr event
Inflow = 4.62 cfs @ 12.21 hrs, Volume= 0.540 af
Outflow = 4.62 cfs @ 12.21 hrs, Volume= 0.540 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-200: DISCHARGE OFFSITE

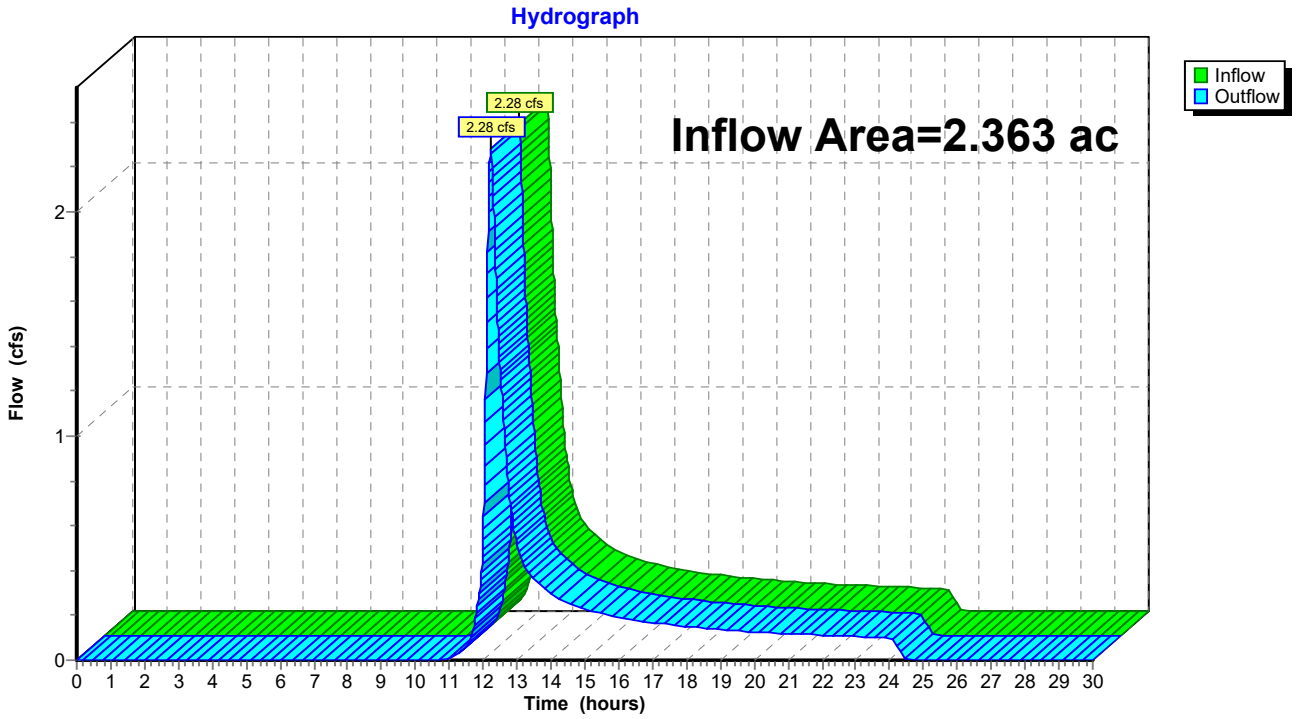


Summary for Reach DP-201: DISCHARGE OFFSITE

Inflow Area = 2.363 ac, 0.00% Impervious, Inflow Depth = 1.39" for 10-yr event
Inflow = 2.28 cfs @ 12.23 hrs, Volume= 0.274 af
Outflow = 2.28 cfs @ 12.23 hrs, Volume= 0.274 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-201: DISCHARGE OFFSITE

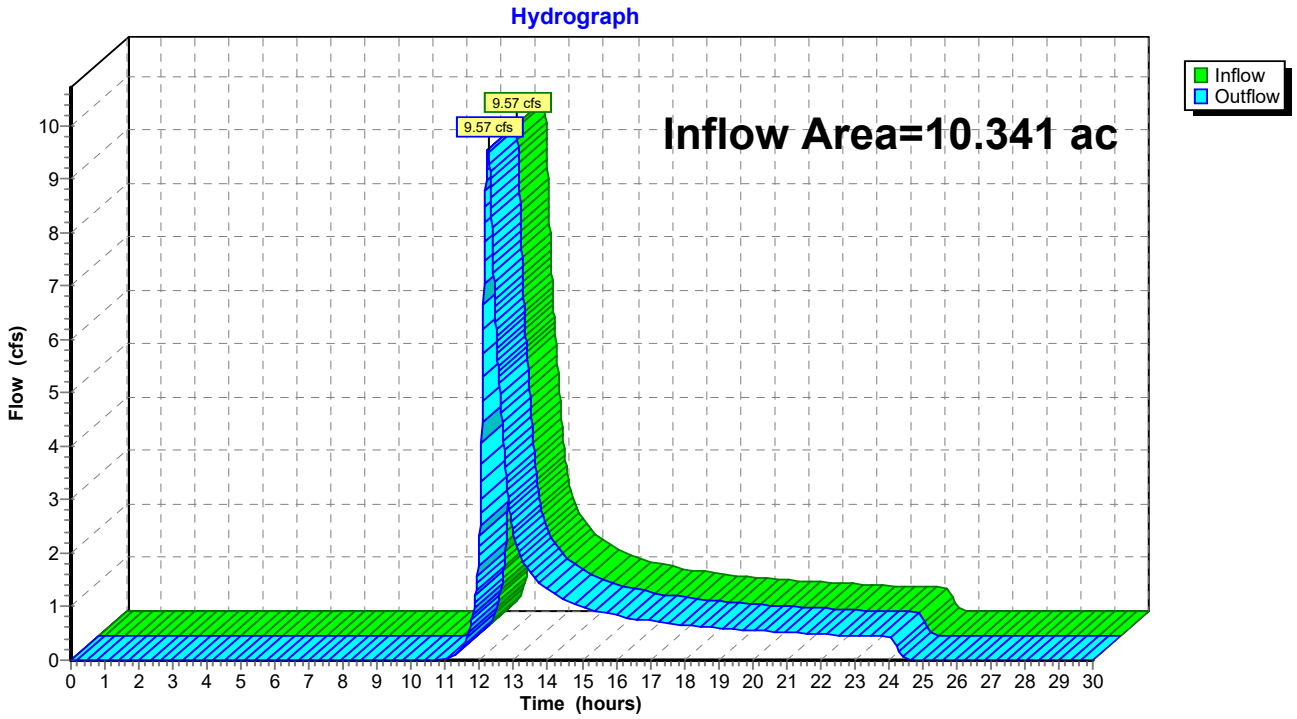


Summary for Reach DP-202: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 10.341 ac, 0.00% Impervious, Inflow Depth = 1.39" for 10-yr event
Inflow = 9.57 cfs @ 12.25 hrs, Volume= 1.197 af
Outflow = 9.57 cfs @ 12.25 hrs, Volume= 1.197 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-202: DISCHARGE TO CENTRAL WETLAND

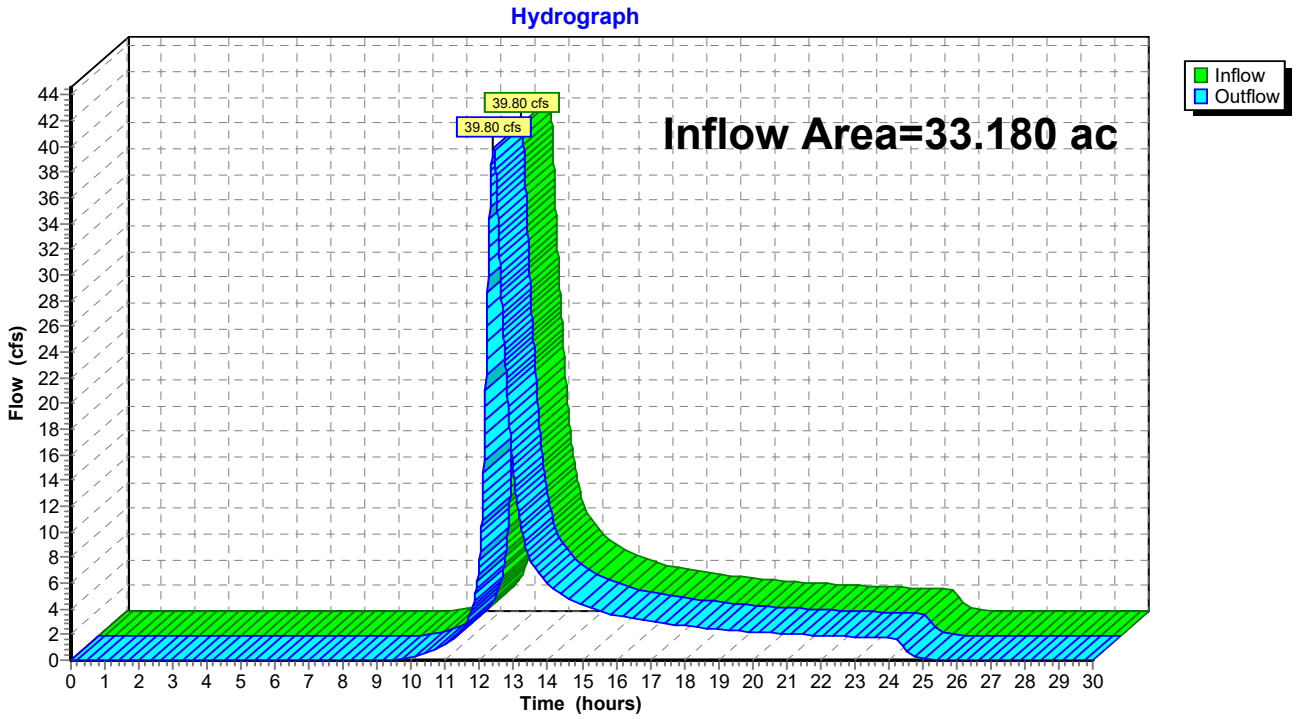


Summary for Reach DP-205: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 33.180 ac, 0.00% Impervious, Inflow Depth = 1.98" for 10-yr event
Inflow = 39.80 cfs @ 12.40 hrs, Volume= 5.473 af
Outflow = 39.80 cfs @ 12.40 hrs, Volume= 5.473 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-205: DISCHARGE TO CENTRAL WETLAND

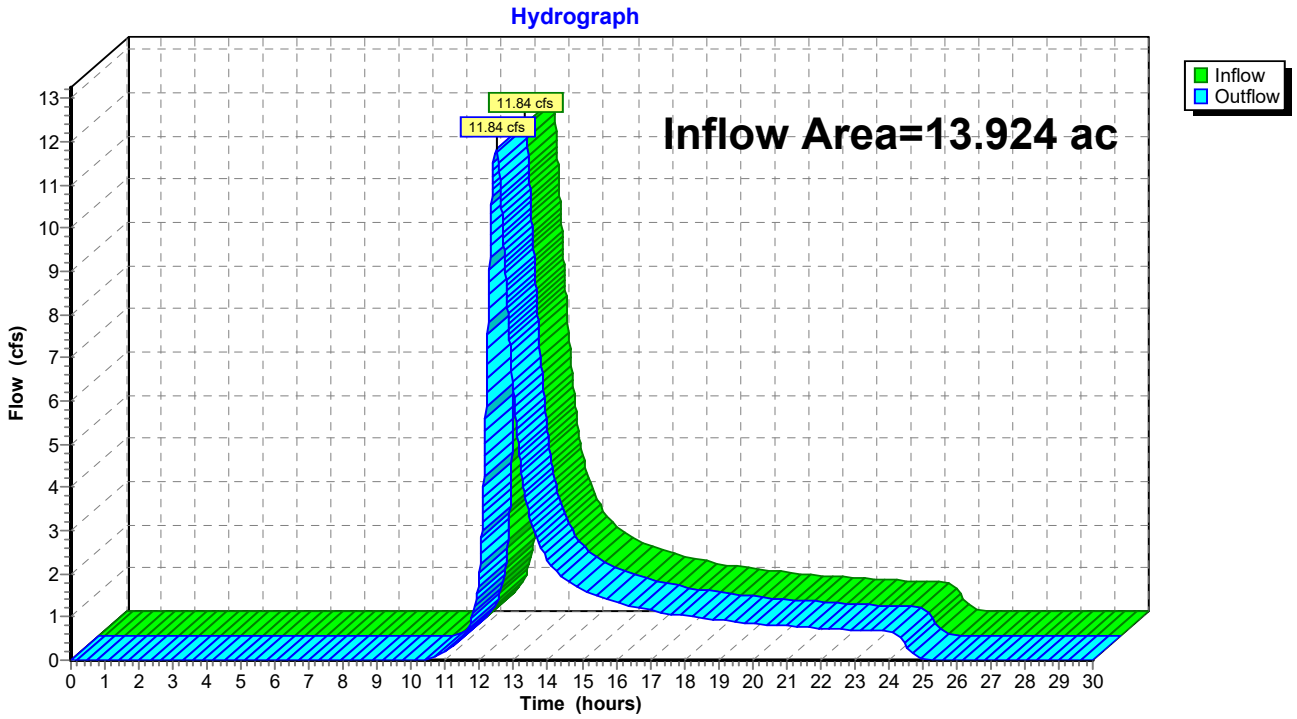


Summary for Reach DP-206: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 13.924 ac, 0.00% Impervious, Inflow Depth = 1.68" for 10-yr event
Inflow = 11.84 cfs @ 12.48 hrs, Volume= 1.948 af
Outflow = 11.84 cfs @ 12.48 hrs, Volume= 1.948 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-206: DISCHARGE TO CENTRAL WETLAND

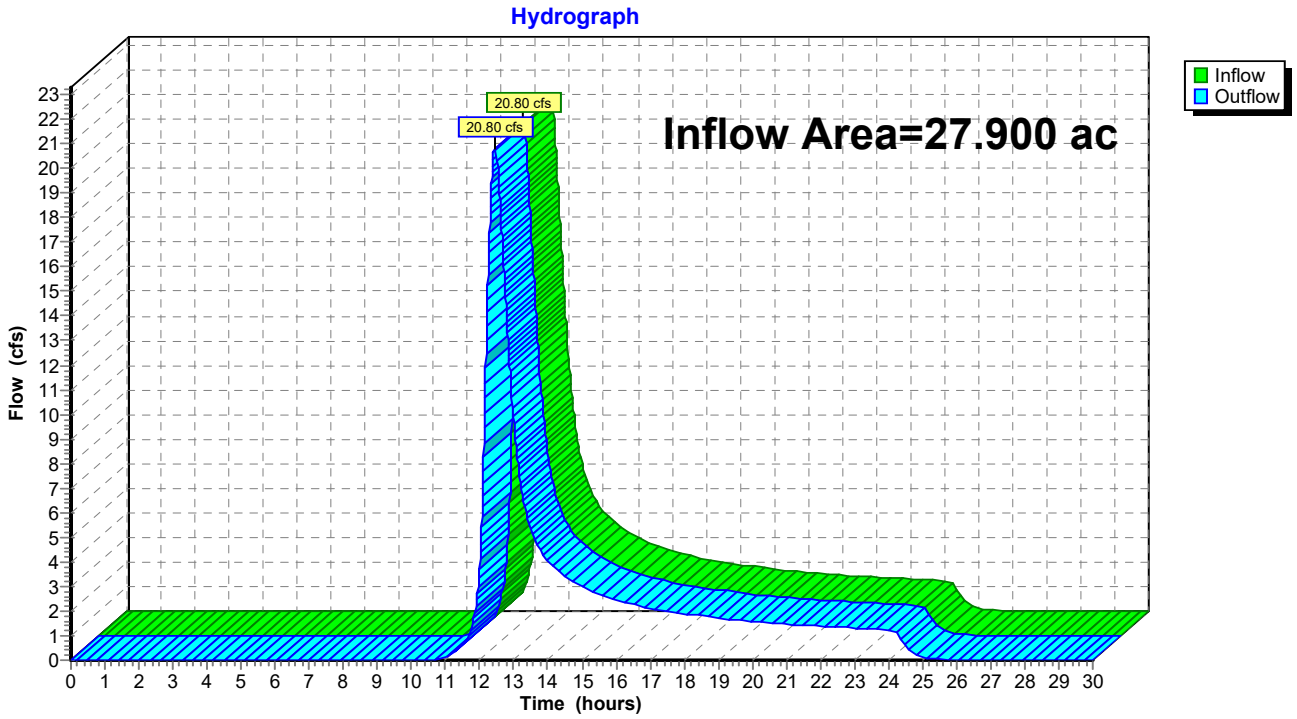


Summary for Reach DP-207: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 27.900 ac, 0.00% Impervious, Inflow Depth = 1.48" for 10-yr event
Inflow = 20.80 cfs @ 12.45 hrs, Volume= 3.439 af
Outflow = 20.80 cfs @ 12.45 hrs, Volume= 3.439 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-207: DISCHARGE TO CENTRAL WETLAND

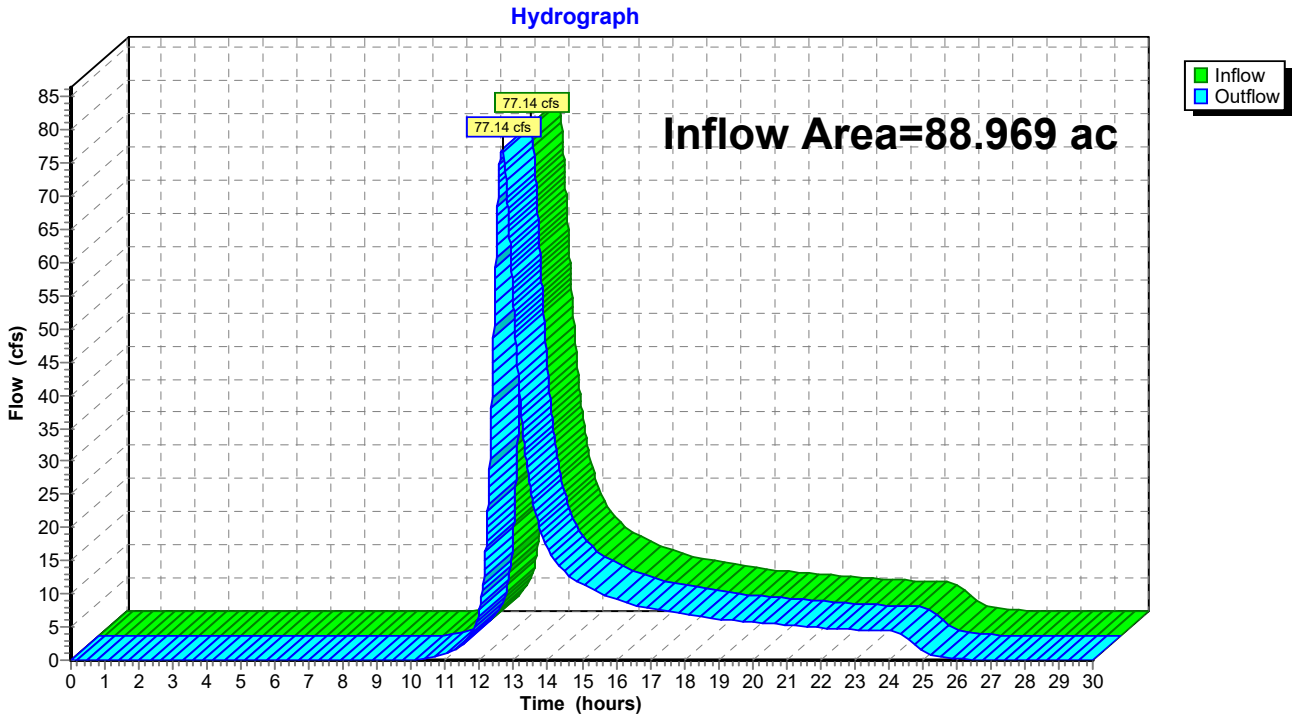


Summary for Reach DP-208: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 88.969 ac, 0.00% Impervious, Inflow Depth = 1.75" for 10-yr event
Inflow = 77.14 cfs @ 12.66 hrs, Volume= 12.989 af
Outflow = 77.14 cfs @ 12.66 hrs, Volume= 12.989 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-208: DISCHARGE TO CENTRAL WETLAND

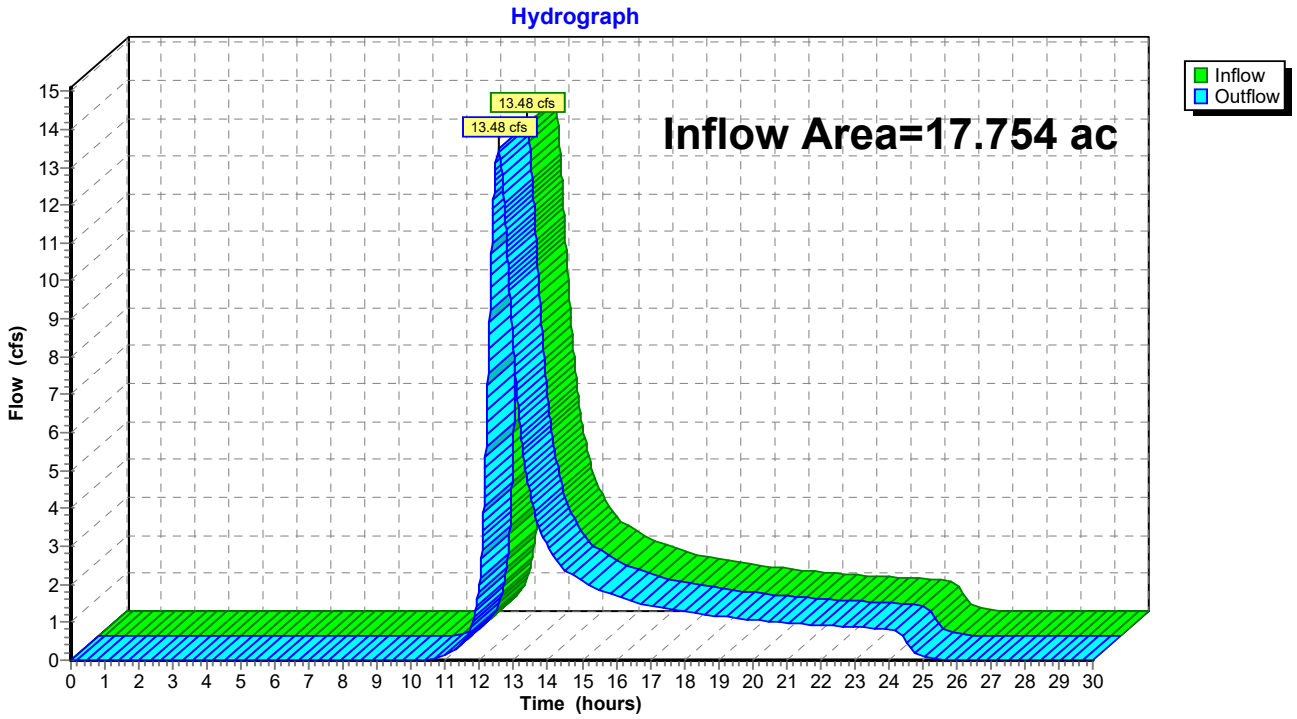


Summary for Reach DP-209: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 17.754 ac, 0.00% Impervious, Inflow Depth = 1.60" for 10-yr event
Inflow = 13.48 cfs @ 12.56 hrs, Volume= 2.374 af
Outflow = 13.48 cfs @ 12.56 hrs, Volume= 2.374 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-209: DISCHARGE TO CENTRAL WETLAND

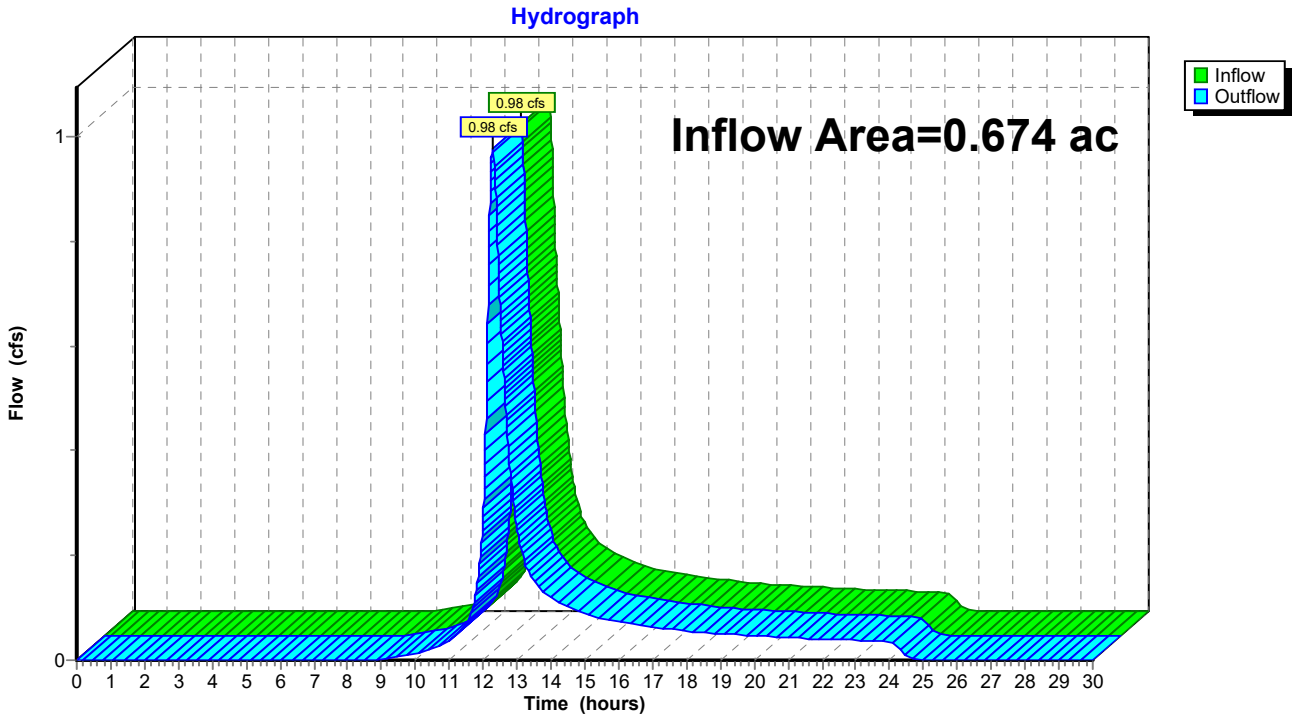


Summary for Reach DP-210: DISCHARGE TO EDA-211

Inflow Area = 0.674 ac, 0.00% Impervious, Inflow Depth = 2.15" for 10-yr event
Inflow = 0.98 cfs @ 12.29 hrs, Volume= 0.121 af
Outflow = 0.98 cfs @ 12.29 hrs, Volume= 0.121 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-210: DISCHARGE TO EDA-211

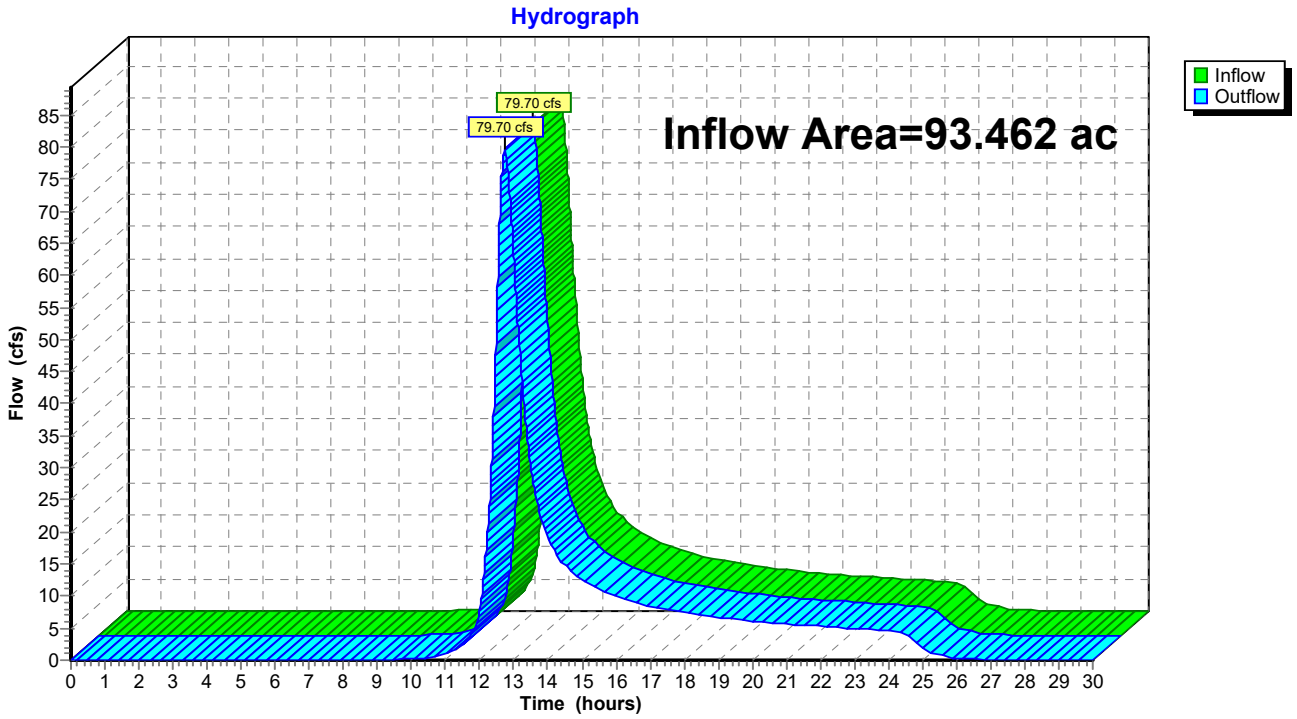


Summary for Reach DP-211: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 93.462 ac, 0.00% Impervious, Inflow Depth > 1.79" for 10-yr event
Inflow = 79.70 cfs @ 12.74 hrs, Volume= 13.928 af
Outflow = 79.70 cfs @ 12.74 hrs, Volume= 13.928 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-211: DISCHARGE TO CENTRAL WETLAND

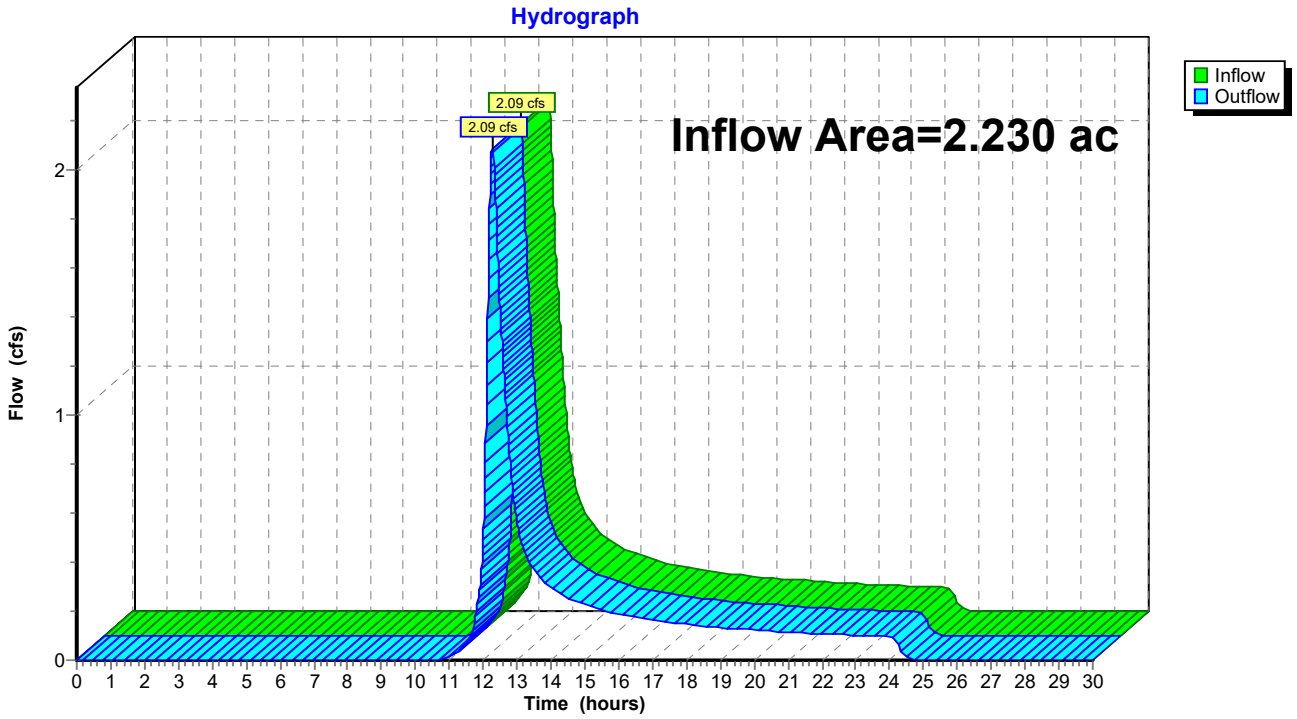


Summary for Reach DP-212: DISCHARGE OFFSITE

Inflow Area = 2.230 ac, 0.00% Impervious, Inflow Depth = 1.46" for 10-yr event
Inflow = 2.09 cfs @ 12.27 hrs, Volume= 0.271 af
Outflow = 2.09 cfs @ 12.27 hrs, Volume= 0.271 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-212: DISCHARGE OFFSITE

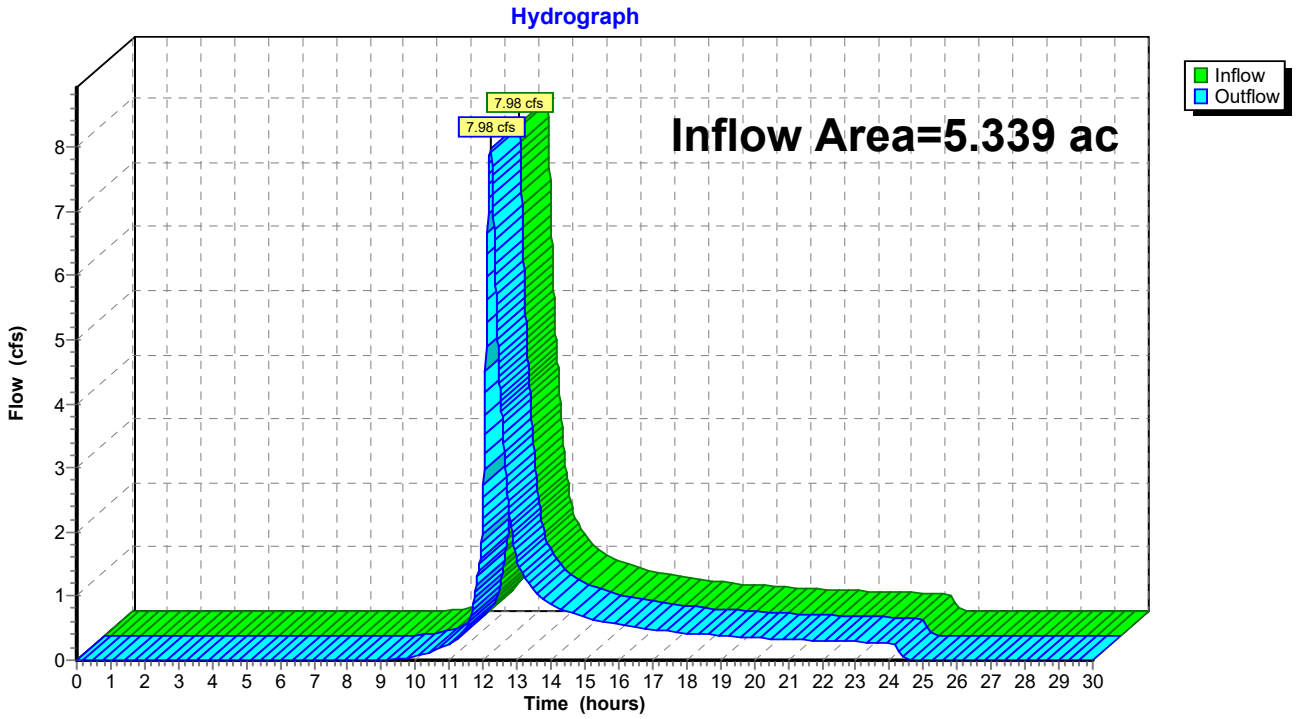


Summary for Reach DP-213: DISCHARGE OFFSITE

Inflow Area = 5.339 ac, 0.00% Impervious, Inflow Depth = 1.99" for 10-yr event
Inflow = 7.98 cfs @ 12.22 hrs, Volume= 0.884 af
Outflow = 7.98 cfs @ 12.22 hrs, Volume= 0.884 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-213: DISCHARGE OFFSITE

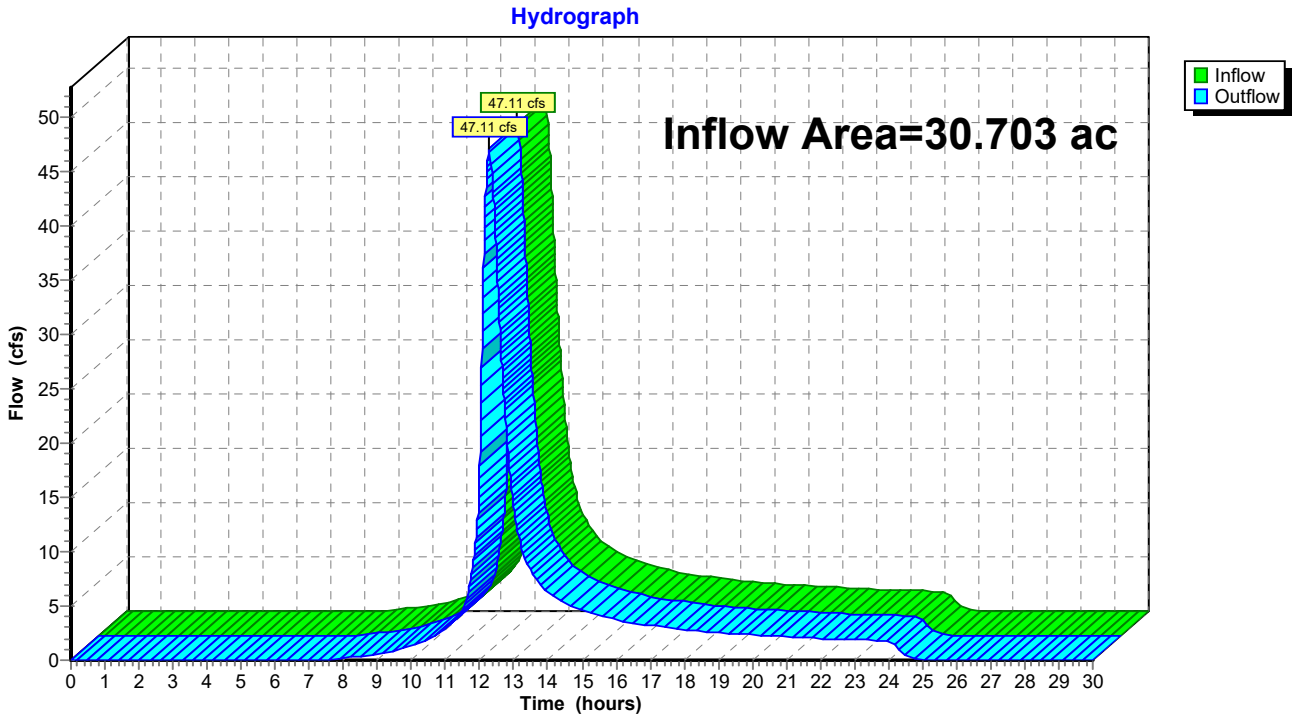


Summary for Reach DP-3: DISCHARGE TOWARDS STONY BROOK

Inflow Area = 30.703 ac, 0.00% Impervious, Inflow Depth = 2.57" for 10-yr event
Inflow = 47.11 cfs @ 12.28 hrs, Volume= 6.574 af
Outflow = 47.11 cfs @ 12.28 hrs, Volume= 6.574 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-3: DISCHARGE TOWARDS STONY BROOK

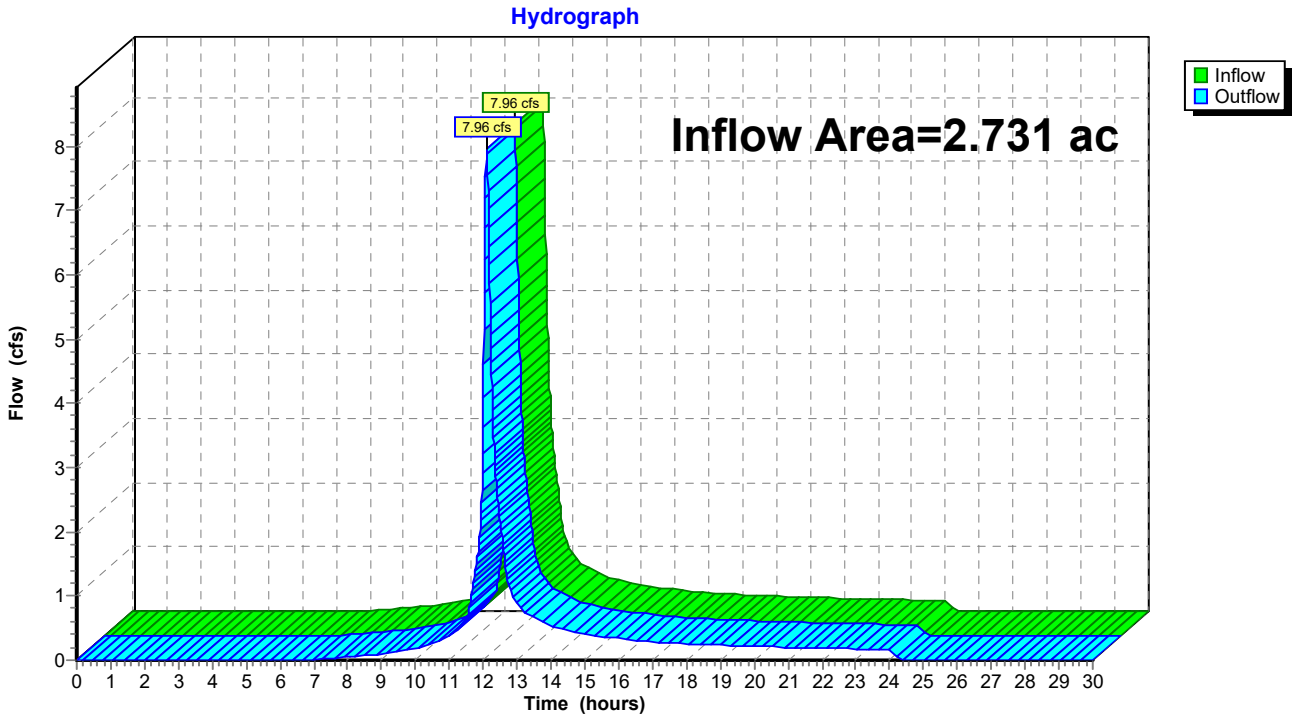


Summary for Reach DP-300: DISCHARGE OFFSITE

Inflow Area = 2.731 ac, 0.00% Impervious, Inflow Depth = 2.84" for 10-yr event
Inflow = 7.96 cfs @ 12.10 hrs, Volume= 0.646 af
Outflow = 7.96 cfs @ 12.10 hrs, Volume= 0.646 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-300: DISCHARGE OFFSITE

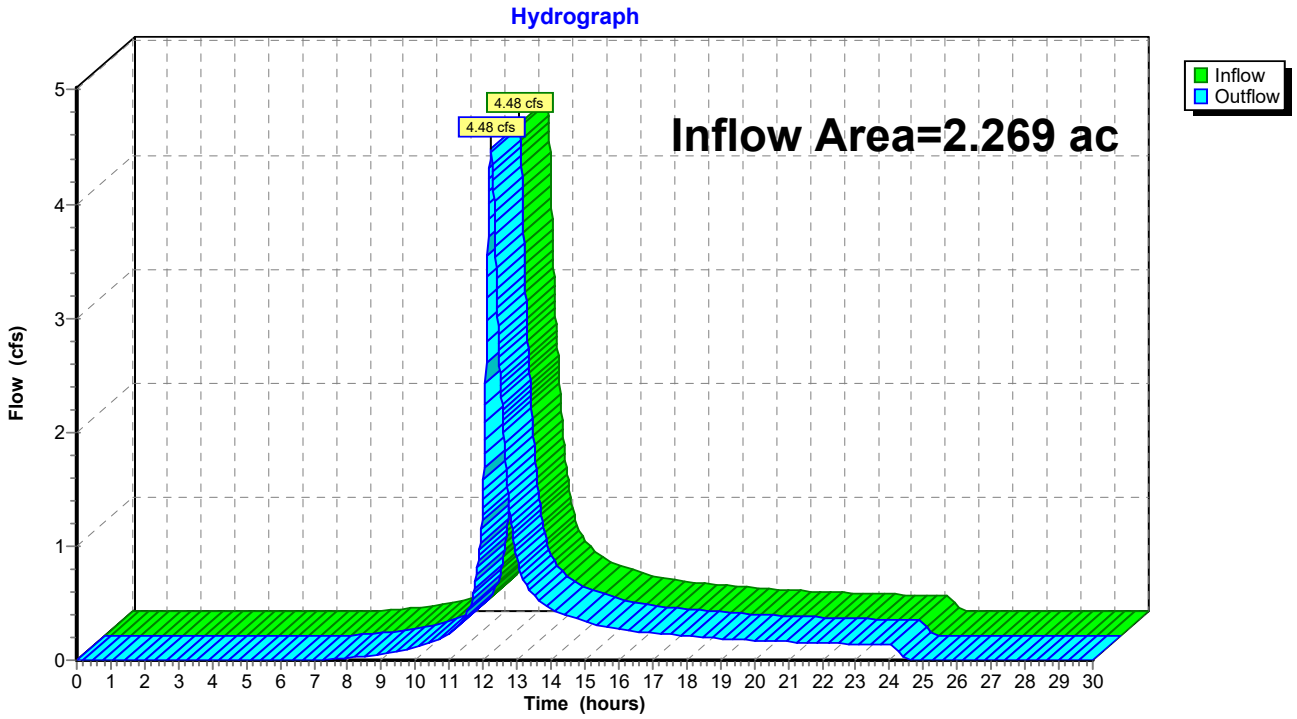


Summary for Reach DP-301: DISCHARGE OFFSITE

Inflow Area = 2.269 ac, 0.00% Impervious, Inflow Depth = 2.66" for 10-yr event
Inflow = 4.48 cfs @ 12.24 hrs, Volume= 0.503 af
Outflow = 4.48 cfs @ 12.24 hrs, Volume= 0.503 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-301: DISCHARGE OFFSITE

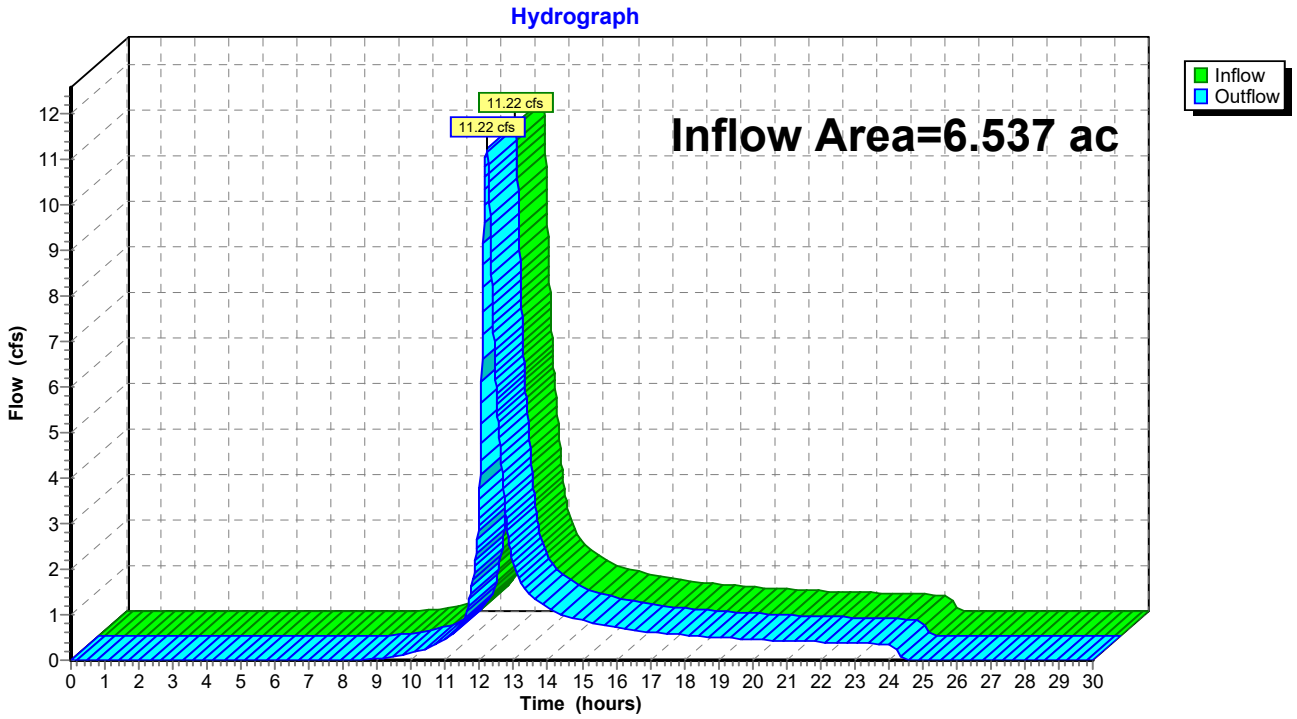


Summary for Reach DP-302: DISCHARGE OFFSITE

Inflow Area = 6.537 ac, 0.00% Impervious, Inflow Depth = 2.23" for 10-yr event
Inflow = 11.22 cfs @ 12.21 hrs, Volume= 1.215 af
Outflow = 11.22 cfs @ 12.21 hrs, Volume= 1.215 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-302: DISCHARGE OFFSITE

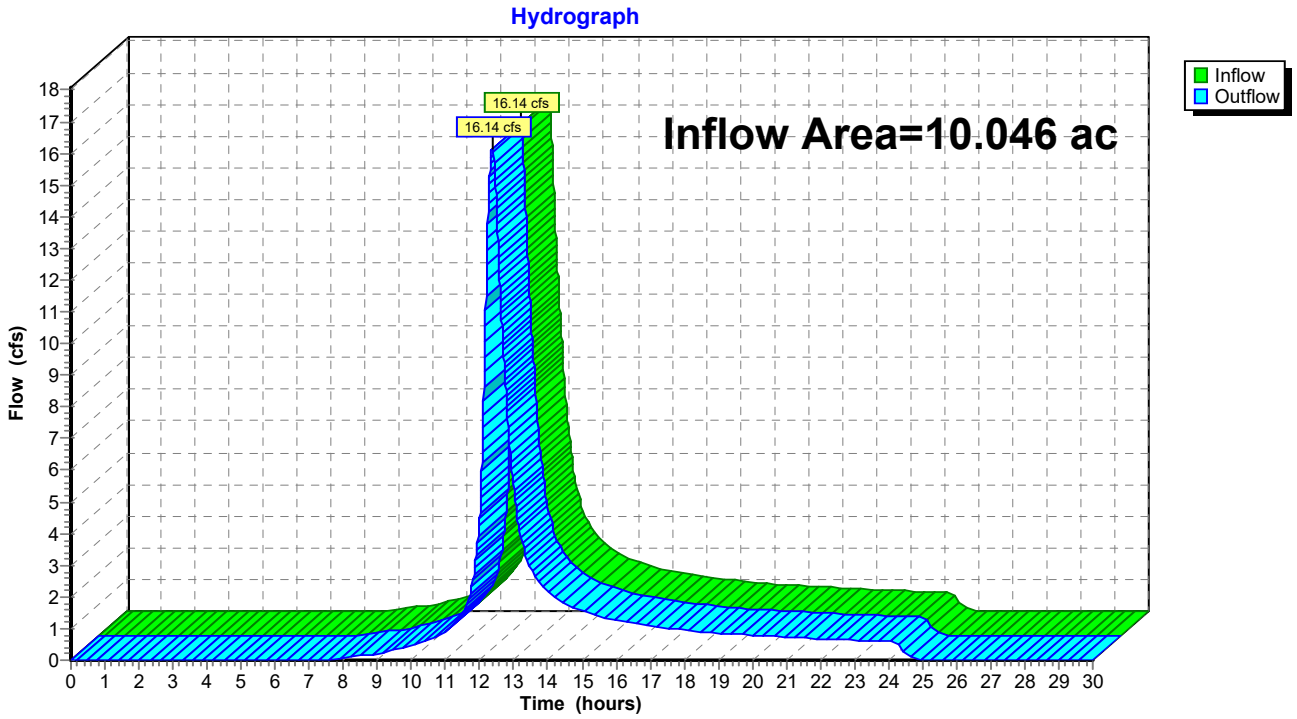


Summary for Reach DP-303: DISCHARGE TO EASTERN WETLAND

Inflow Area = 10.046 ac, 0.00% Impervious, Inflow Depth = 2.66" for 10-yr event
Inflow = 16.14 cfs @ 12.38 hrs, Volume= 2.227 af
Outflow = 16.14 cfs @ 12.38 hrs, Volume= 2.227 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-303: DISCHARGE TO EASTERN WETLAND

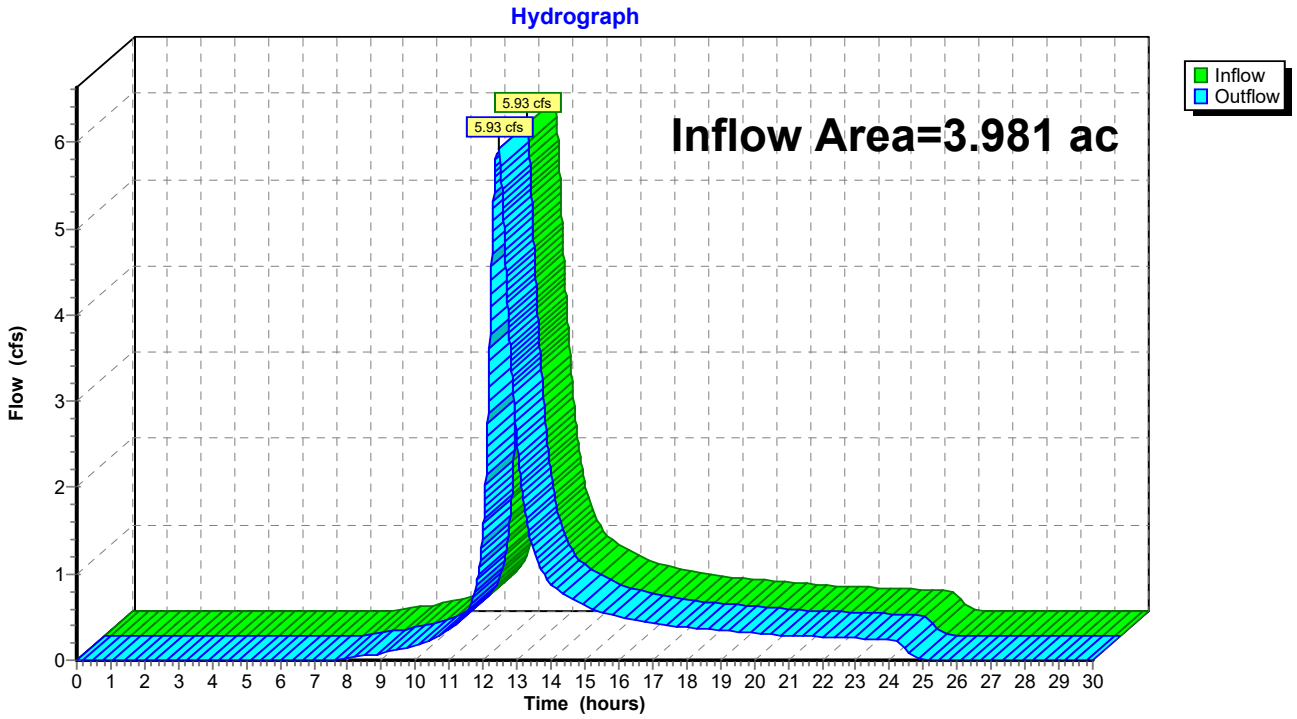


Summary for Reach DP-304: DISCHARGE OFFSITE

Inflow Area = 3.981 ac, 0.00% Impervious, Inflow Depth = 2.66" for 10-yr event
Inflow = 5.93 cfs @ 12.45 hrs, Volume= 0.882 af
Outflow = 5.93 cfs @ 12.45 hrs, Volume= 0.882 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-304: DISCHARGE OFFSITE

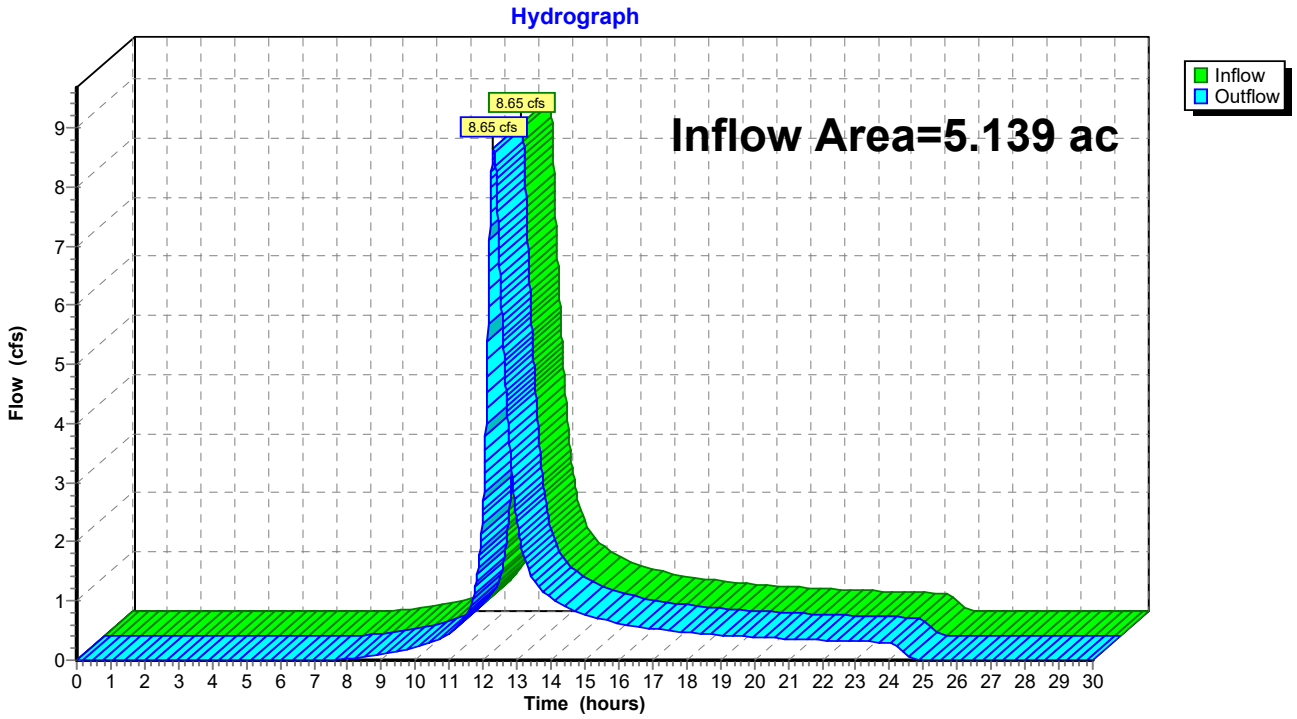


Summary for Reach DP-305: DISCHARGE OFFSITE

Inflow Area = 5.139 ac, 0.00% Impervious, Inflow Depth = 2.57" for 10-yr event
Inflow = 8.65 cfs @ 12.31 hrs, Volume= 1.101 af
Outflow = 8.65 cfs @ 12.31 hrs, Volume= 1.101 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-305: DISCHARGE OFFSITE



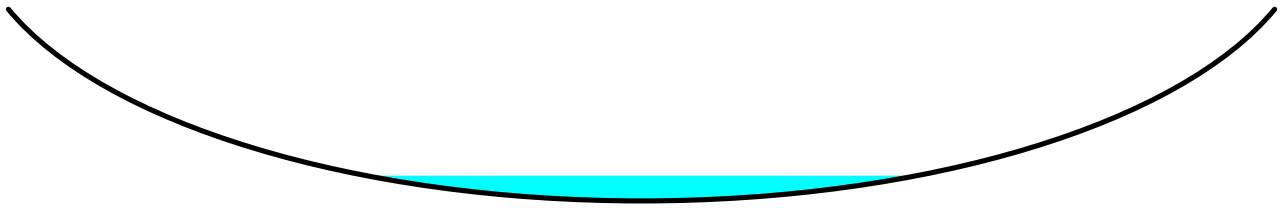
Summary for Reach R-202: FLOW THROUGH CENTRAL WETLAND EDA-207

Inflow Area = 10.341 ac, 0.00% Impervious, Inflow Depth = 1.39" for 10-yr event
Inflow = 9.57 cfs @ 12.25 hrs, Volume= 1.197 af
Outflow = 7.69 cfs @ 12.57 hrs, Volume= 1.197 af, Atten= 20%, Lag= 19.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.54 fps, Min. Travel Time= 11.2 min
Avg. Velocity = 0.63 fps, Avg. Travel Time= 27.3 min

Peak Storage= 5,156 cf @ 12.38 hrs
Average Depth at Peak Storage= 0.26'
Bank-Full Depth= 2.00' Flow Area= 104.0 sf, Capacity= 617.17 cfs

78.00' x 2.00' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 1,032.8' Slope= 0.0697 '/'
Inlet Invert= 188.00', Outlet Invert= 116.00'



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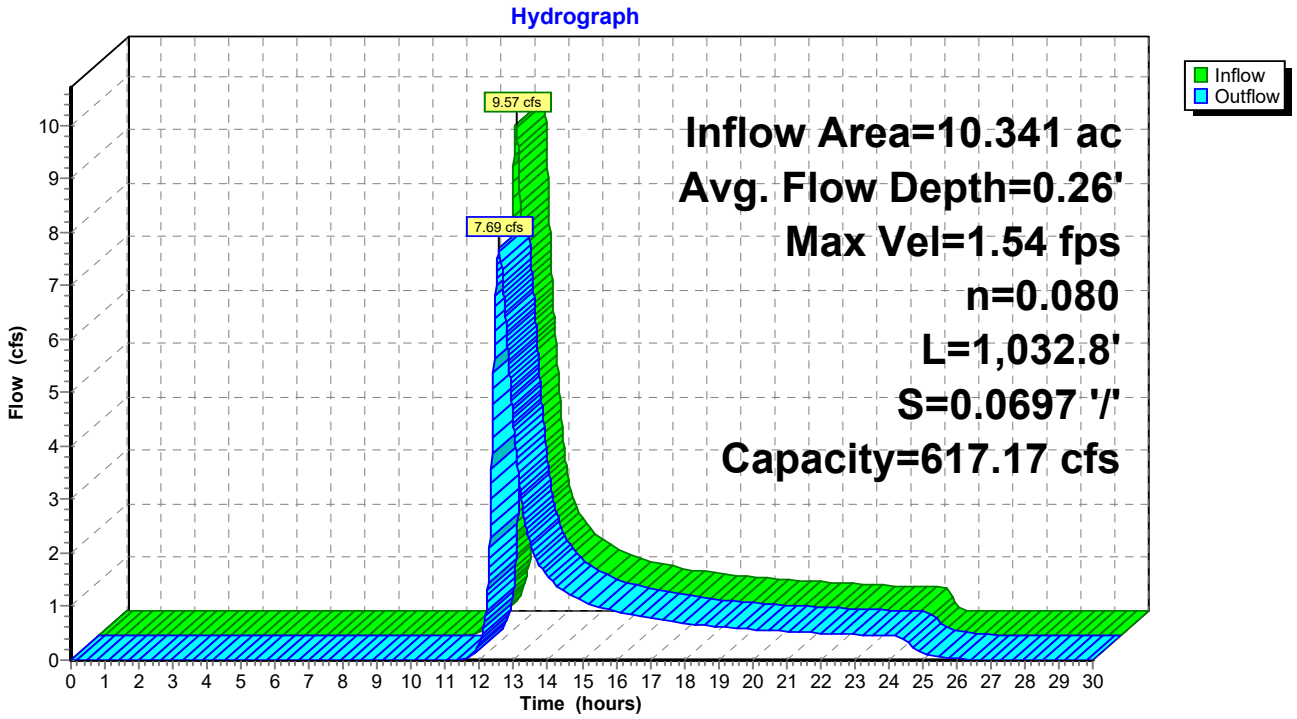
Reach R-202: FLOW THROUGH CENTRAL WETLAND EDA-207



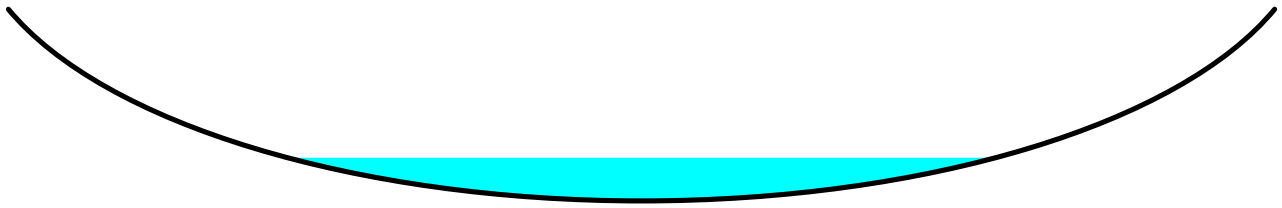
Summary for Reach R-203: SHALLOW CONCENTRATED FLOW THROUGH EDA-205

Inflow Area = 18.396 ac, 0.00% Impervious, Inflow Depth = 2.07" for 10-yr event
Inflow = 24.29 cfs @ 12.33 hrs, Volume= 3.169 af
Outflow = 23.89 cfs @ 12.42 hrs, Volume= 3.169 af, Atten= 2%, Lag= 5.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.22 fps, Min. Travel Time= 3.3 min
Avg. Velocity = 0.85 fps, Avg. Travel Time= 8.5 min

Peak Storage= 4,663 cf @ 12.36 hrs
Average Depth at Peak Storage= 0.56'
Bank-Full Depth= 2.50' Flow Area= 100.0 sf, Capacity= 597.69 cfs

60.00' x 2.50' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 434.0' Slope= 0.0527 '/'
Inlet Invert= 178.88', Outlet Invert= 156.00'



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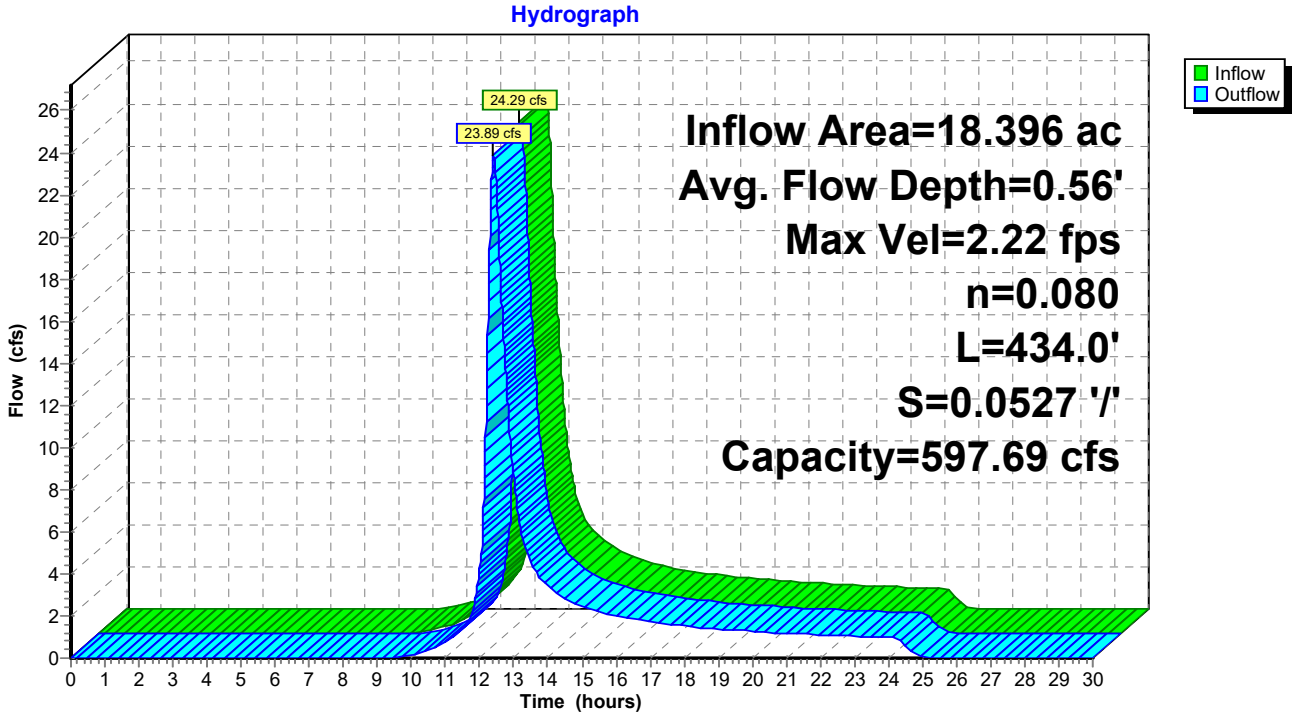
Reach R-203: SHALLOW CONCENTRATED FLOW THROUGH EDA-205



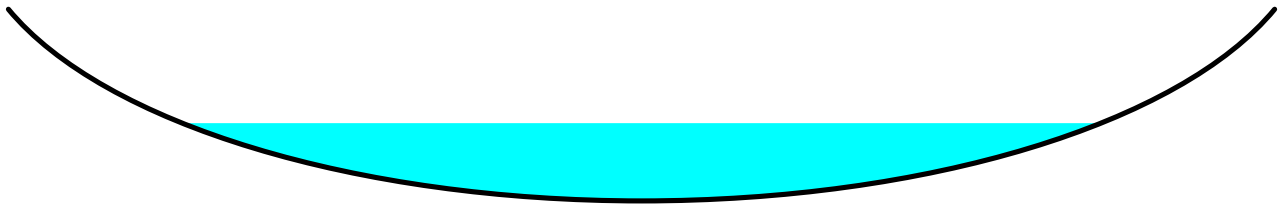
Summary for Reach R-204: SHALLOW CONCENTRATED FLOW THROUGH EDA-205

Inflow Area = 1.091 ac, 0.00% Impervious, Inflow Depth = 1.39" for 10-yr event
Inflow = 1.10 cfs @ 12.20 hrs, Volume= 0.126 af
Outflow = 0.82 cfs @ 12.55 hrs, Volume= 0.126 af, Atten= 26%, Lag= 21.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Max. Velocity= 0.59 fps, Min. Travel Time= 12.5 min
Avg. Velocity = 0.23 fps, Avg. Travel Time= 32.1 min

Peak Storage= 615 cf @ 12.34 hrs
Average Depth at Peak Storage= 0.08'
Bank-Full Depth= 0.20' Flow Area= 5.3 sf, Capacity= 5.78 cfs

40.00' x 0.20' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 446.0' Slope= 0.0499 '/'
Inlet Invert= 178.27', Outlet Invert= 156.00'



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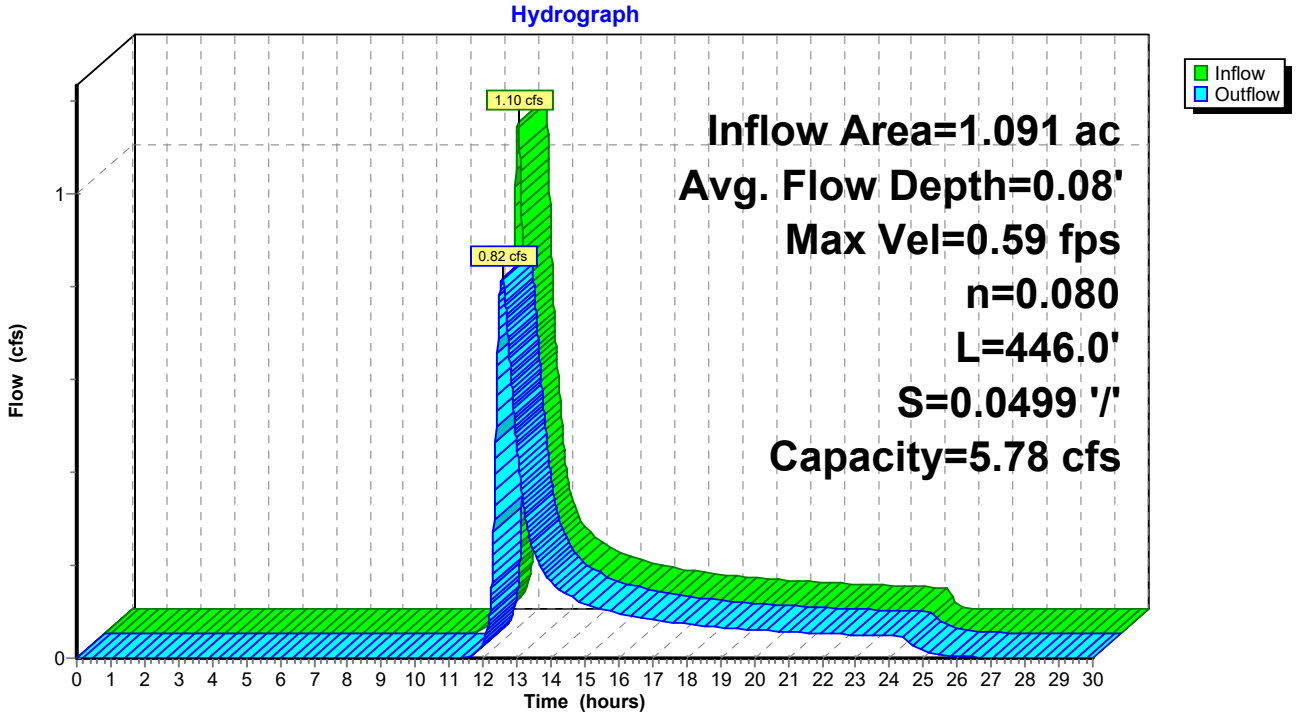
Reach R-204: SHALLOW CONCENTRATED FLOW THROUGH EDA-205



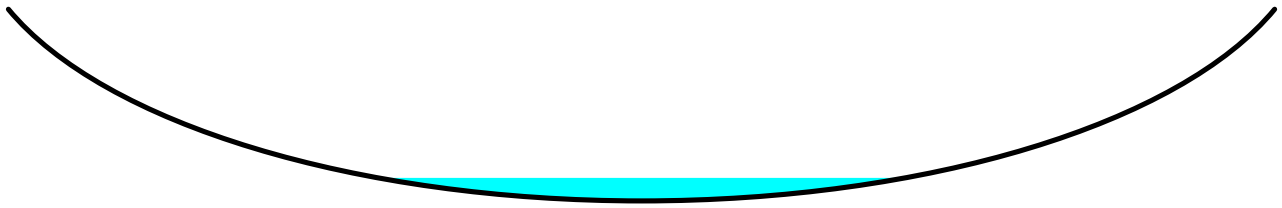
Summary for Reach R-205/206: FLOW THROUGH CENTRAL WETLAND EDA-208

Inflow Area = 47.105 ac, 0.00% Impervious, Inflow Depth = 1.89" for 10-yr event
Inflow = 51.26 cfs @ 12.42 hrs, Volume= 7.421 af
Outflow = 46.14 cfs @ 12.70 hrs, Volume= 7.421 af, Atten= 10%, Lag= 16.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.81 fps, Min. Travel Time= 9.7 min
Avg. Velocity = 0.72 fps, Avg. Travel Time= 24.2 min

Peak Storage= 26,797 cf @ 12.54 hrs
Average Depth at Peak Storage= 0.48'
Bank-Full Depth= 4.00' Flow Area= 610.7 sf, Capacity= 4,524.76 cfs

229.00' x 4.00' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 1,050.0' Slope= 0.0431 '/'
Inlet Invert= 148.40', Outlet Invert= 103.17'



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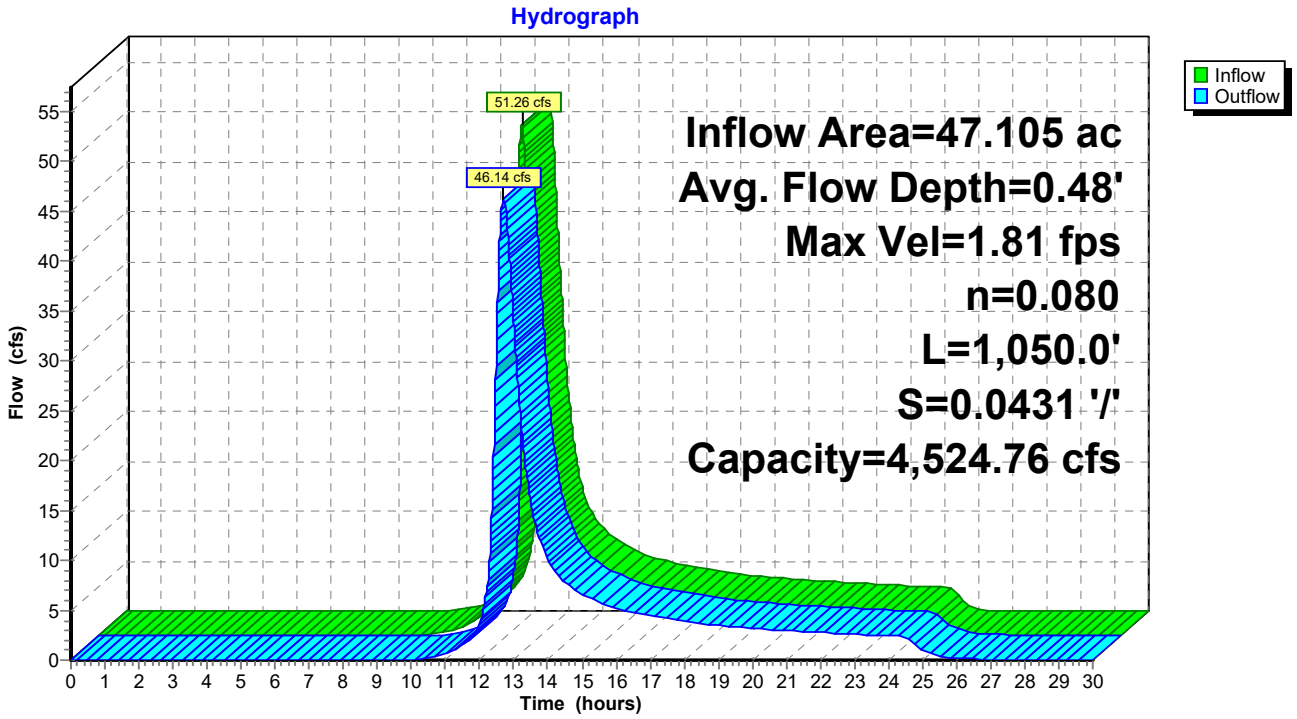
Reach R-205/206: FLOW THROUGH CENTRAL WETLAND EDA-208



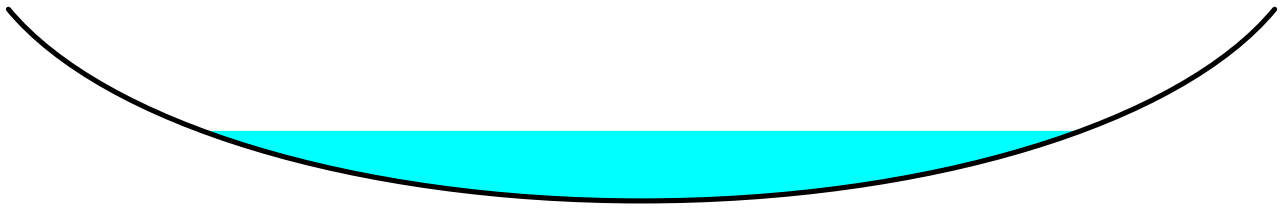
Summary for Reach R-207: FLOW THROUGH CENTRAL WETLAND EDA-208

Inflow Area = 27.900 ac, 0.00% Impervious, Inflow Depth = 1.48" for 10-yr event
Inflow = 20.80 cfs @ 12.45 hrs, Volume= 3.439 af
Outflow = 20.40 cfs @ 12.59 hrs, Volume= 3.439 af, Atten= 2%, Lag= 8.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.03 fps, Min. Travel Time= 4.7 min
Avg. Velocity = 0.41 fps, Avg. Travel Time= 11.9 min

Peak Storage= 5,760 cf @ 12.51 hrs
Average Depth at Peak Storage= 0.27'
Bank-Full Depth= 0.75' Flow Area= 89.0 sf, Capacity= 179.76 cfs

178.00' x 0.75' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 292.0' Slope= 0.0298 '/'
Inlet Invert= 111.87', Outlet Invert= 103.17'



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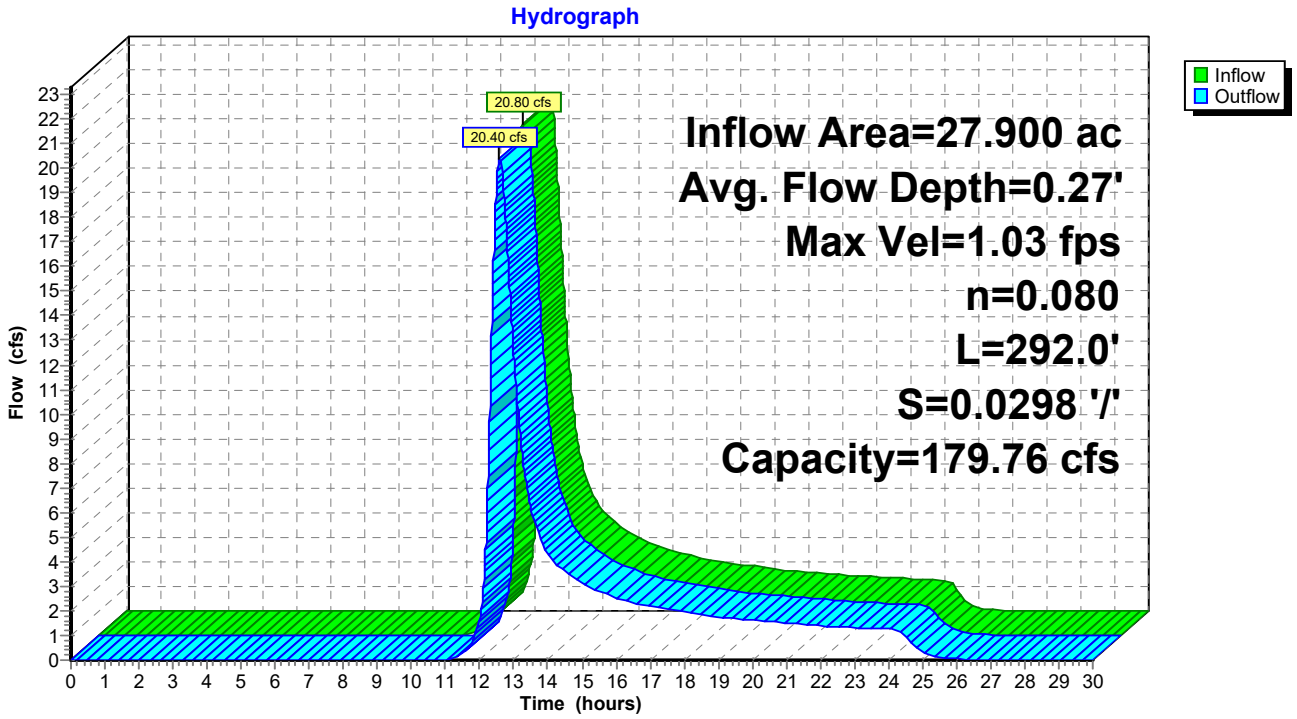
Reach R-207: FLOW THROUGH CENTRAL WETLAND EDA-208



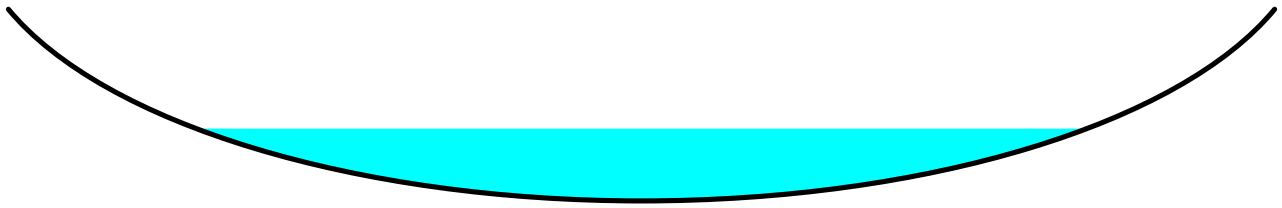
Summary for Reach R-208: FLOW THROUGH CENTRAL WETLAND EDA-211

Inflow Area = 88.969 ac, 0.00% Impervious, Inflow Depth = 1.75" for 10-yr event
Inflow = 77.14 cfs @ 12.66 hrs, Volume= 12.989 af
Outflow = 76.51 cfs @ 12.75 hrs, Volume= 12.989 af, Atten= 1%, Lag= 5.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.33 fps, Min. Travel Time= 3.1 min
Avg. Velocity = 0.52 fps, Avg. Travel Time= 8.1 min

Peak Storage= 14,333 cf @ 12.70 hrs
Average Depth at Peak Storage= 0.41'
Bank-Full Depth= 1.10' Flow Area= 247.9 sf, Capacity= 634.06 cfs

338.00' x 1.10' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 250.0' Slope= 0.0287 '/'
Inlet Invert= 103.17', Outlet Invert= 96.00'



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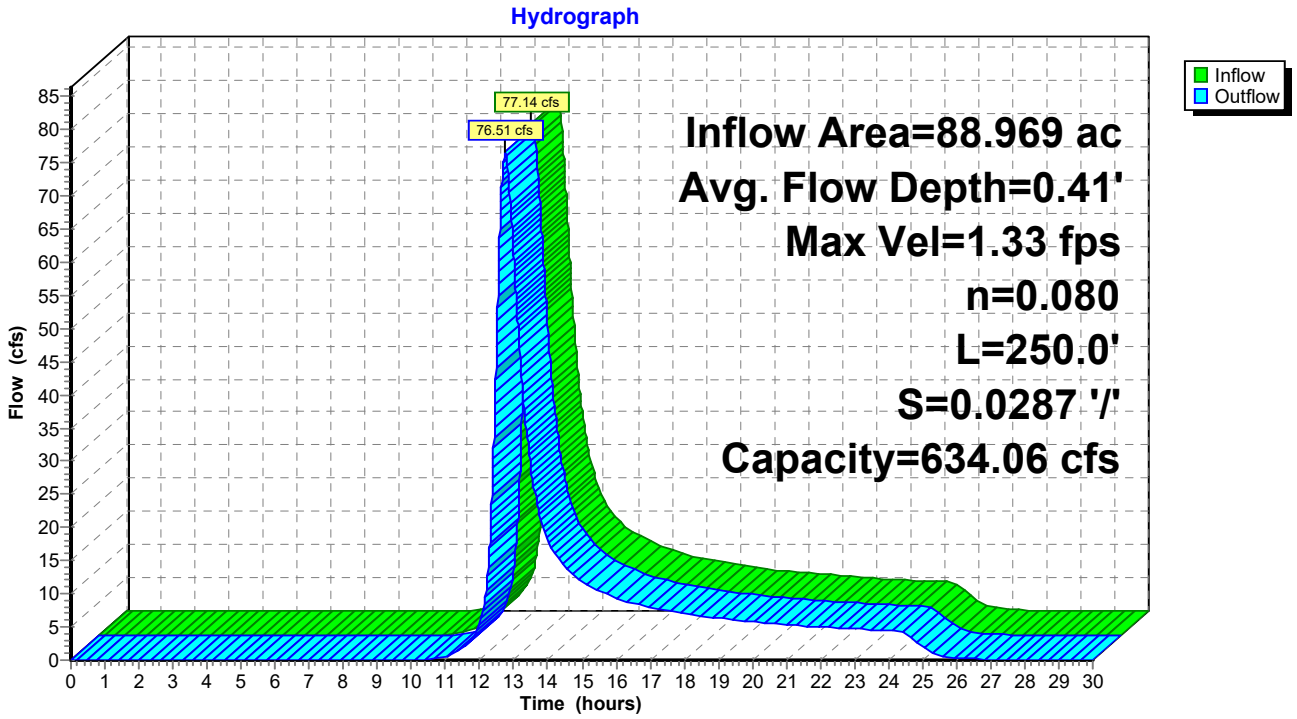
Reach R-208: FLOW THROUGH CENTRAL WETLAND EDA-211



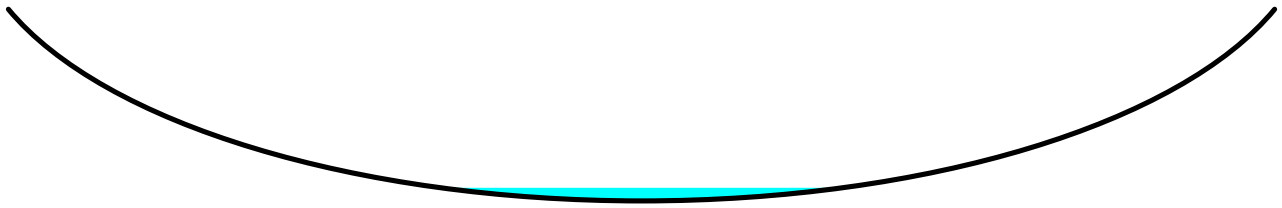
Summary for Reach R-210: FLOW THROUGH CENTRAL WETLAND EDA-211

Inflow Area = 0.674 ac, 0.00% Impervious, Inflow Depth = 2.15" for 10-yr event
Inflow = 0.98 cfs @ 12.29 hrs, Volume= 0.121 af
Outflow = 0.85 cfs @ 12.55 hrs, Volume= 0.121 af, Atten= 13%, Lag= 15.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Max. Velocity= 0.30 fps, Min. Travel Time= 9.3 min
Avg. Velocity = 0.13 fps, Avg. Travel Time= 22.1 min

Peak Storage= 477 cf @ 12.40 hrs
Average Depth at Peak Storage= 0.10'
Bank-Full Depth= 1.40' Flow Area= 156.8 sf, Capacity= 284.60 cfs

168.00' x 1.40' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 170.0' Slope= 0.0105 '/'
Inlet Invert= 97.78', Outlet Invert= 96.00'



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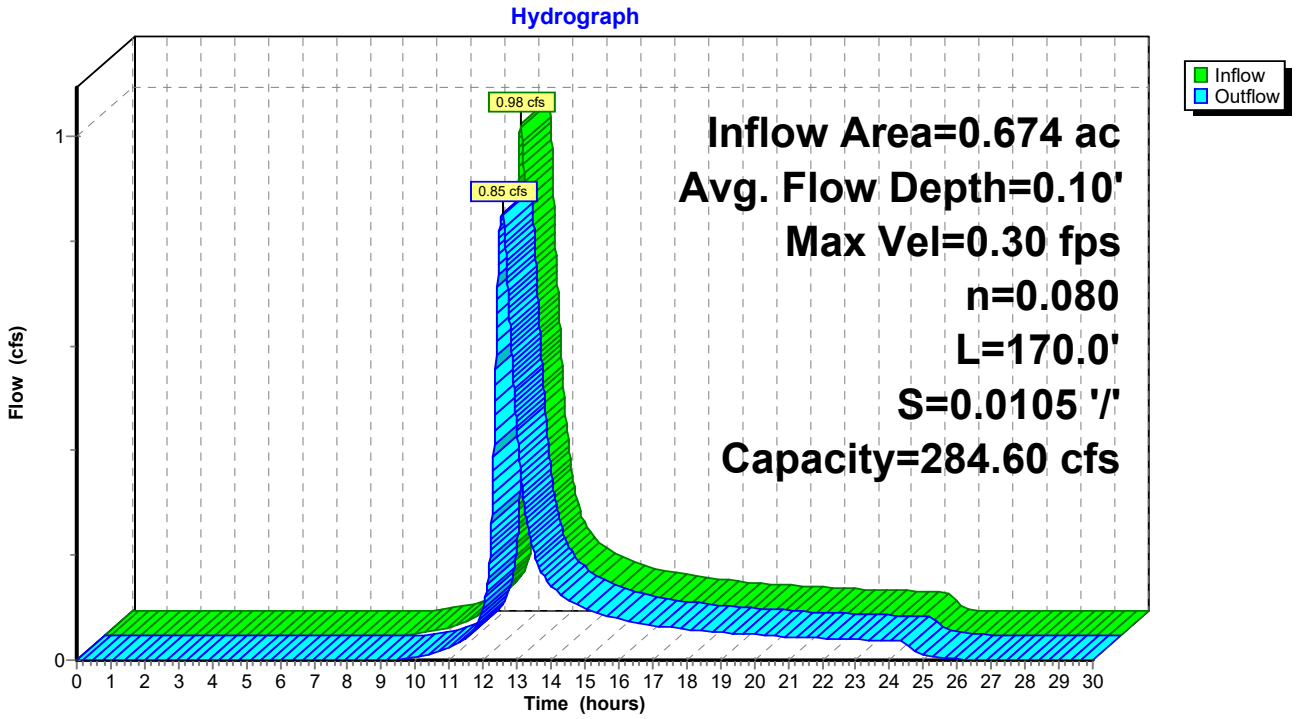
Reach R-210: FLOW THROUGH CENTRAL WETLAND EDA-211



Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment EDA-100: UNDEVELOPED Runoff Area=552,980 sf 0.00% Impervious Runoff Depth=2.06"
Flow Length=960' Tc=27.4 min CN=60 Runoff=15.57 cfs 2.179 af

Subcatchment EDA-101: UNDEVELOPED Runoff Area=137,915 sf 0.00% Impervious Runoff Depth=2.78"
Flow Length=415' Tc=17.7 min CN=68 Runoff=6.95 cfs 0.734 af

Subcatchment EDA-200: UNDEVELOPED Runoff Area=203,118 sf 0.00% Impervious Runoff Depth=2.06"
Flow Length=420' Tc=17.4 min CN=60 Runoff=7.27 cfs 0.801 af

Subcatchment EDA-201: UNDEVELOPED Runoff Area=102,943 sf 0.00% Impervious Runoff Depth=2.06"
Flow Length=430' Tc=18.4 min CN=60 Runoff=3.59 cfs 0.406 af

Subcatchment EDA-202: UNDEVELOPED Runoff Area=450,456 sf 0.00% Impervious Runoff Depth=2.06"
Flow Length=905' Tc=19.9 min CN=60 Runoff=15.06 cfs 1.775 af

Subcatchment EDA-203: UNDEVELOPED Runoff Area=801,310 sf 0.00% Impervious Runoff Depth=2.88"
Flow Length=1,598' Tc=26.0 min CN=69 Runoff=34.37 cfs 4.411 af

Subcatchment EDA-204: UNDEVELOPED Runoff Area=47,524 sf 0.00% Impervious Runoff Depth=2.06"
Flow Length=486' Tc=16.7 min CN=60 Runoff=1.74 cfs 0.187 af

Subcatchment EDA-205: UNDEVELOPED Runoff Area=596,494 sf 0.00% Impervious Runoff Depth=2.69"
Flow Length=1,208' Tc=28.8 min CN=67 Runoff=22.45 cfs 3.069 af

Subcatchment EDA-206: UNDEVELOPED Runoff Area=606,548 sf 0.00% Impervious Runoff Depth=2.41"
Flow Length=1,690' Tc=36.7 min CN=64 Runoff=17.60 cfs 2.801 af

Subcatchment EDA-207: UNDEVELOPED Runoff Area=764,870 sf 0.00% Impervious Runoff Depth=2.24"
Flow Length=1,370' Tc=26.8 min CN=62 Runoff=24.10 cfs 3.271 af

Subcatchment EDA-208: UNDEVELOPED Runoff Area=608,292 sf 0.00% Impervious Runoff Depth=2.60"
Flow Length=1,670' Tc=39.5 min CN=66 Runoff=18.49 cfs 3.022 af

Subcatchment EDA-209: UNDEVELOPED Runoff Area=773,358 sf 0.00% Impervious Runoff Depth=2.32"
Flow Length=2,186' Tc=40.8 min CN=63 Runoff=20.23 cfs 3.439 af

Subcatchment EDA-210: OFFSITE BASIN Runoff Area=29,356 sf 0.00% Impervious Runoff Depth=2.97"
Flow Length=321' Tc=23.8 min CN=70 Runoff=1.37 cfs 0.167 af

Subcatchment EDA-211: UNDEVELOPED Runoff Area=166,352 sf 0.00% Impervious Runoff Depth=3.46"
Flow Length=579' Tc=21.9 min CN=75 Runoff=9.50 cfs 1.102 af

Subcatchment EDA-212: UNDEVELOPED Runoff Area=97,137 sf 0.00% Impervious Runoff Depth=2.15"
Flow Length=687' Tc=22.0 min CN=61 Runoff=3.23 cfs 0.399 af

Subcatchment EDA-213: UNDEVELOPED Runoff Area=232,560 sf 0.00% Impervious Runoff Depth=2.78"
Flow Length=638' Tc=18.7 min CN=68 Runoff=11.41 cfs 1.238 af

Subcatchment EDA-300: UNDEVELOPED Runoff Area=118,942 sf 0.00% Impervious Runoff Depth=3.77"
Flow Length=447' Tc=10.8 min CN=78 Runoff=10.56 cfs 0.857 af

Subcatchment EDA-301: UNDEVELOPED Runoff Area=98,859 sf 0.00% Impervious Runoff Depth=3.56"
Flow Length=728' Tc=20.6 min CN=76 Runoff=6.02 cfs 0.674 af

Subcatchment EDA-302: UNDEVELOPED Runoff Area=284,755 sf 0.00% Impervious Runoff Depth=3.07"
Flow Length=889' Tc=18.5 min CN=71 Runoff=15.64 cfs 1.672 af

Subcatchment EDA-303: UNDEVELOPED Runoff Area=437,598 sf 0.00% Impervious Runoff Depth=3.56"
Flow Length=1,180' Tc=30.2 min CN=76 Runoff=21.66 cfs 2.982 af

Subcatchment EDA-304: UNDEVEL0PED Runoff Area=173,415 sf 0.00% Impervious Runoff Depth=3.56"
Flow Length=1,052' Tc=34.7 min CN=76 Runoff=7.95 cfs 1.182 af

Subcatchment EDA-305: UNDEVELOPED Runoff Area=223,862 sf 0.00% Impervious Runoff Depth=3.46"
Flow Length=525' Tc=25.9 min CN=75 Runoff=11.70 cfs 1.483 af

Reach DP-1: DISCHARGE OFFSITE TOWARDS STONY BROOK Inflow=21.01 cfs 2.914 af
Outflow=21.01 cfs 2.914 af

Reach DP-100: DISCHARGE OFFSITE Inflow=15.57 cfs 2.179 af
Outflow=15.57 cfs 2.179 af

Reach DP-101: DISCHARGE OFFSITE Inflow=6.95 cfs 0.734 af
Outflow=6.95 cfs 0.734 af

Reach DP-2: DISCHARGE TOWARDS OIL MILL BROOK Inflow=148.89 cfs 26.088 af
Outflow=148.89 cfs 26.088 af

Reach DP-200: DISCHARGE OFFSITE Inflow=7.27 cfs 0.801 af
Outflow=7.27 cfs 0.801 af

Reach DP-201: DISCHARGE OFFSITE Inflow=3.59 cfs 0.406 af
Outflow=3.59 cfs 0.406 af

Reach DP-202: DISCHARGE TO CENTRAL WETLAND Inflow=15.06 cfs 1.775 af
Outflow=15.06 cfs 1.775 af

Reach DP-205: DISCHARGE TO CENTRAL WETLAND Inflow=57.33 cfs 7.668 af
Outflow=57.33 cfs 7.668 af

Reach DP-206: DISCHARGE TO CENTRAL WETLAND Inflow=17.60 cfs 2.801 af
Outflow=17.60 cfs 2.801 af

Reach DP-207: DISCHARGE TO CENTRAL WETLAND Inflow=33.87 cfs 5.046 af
Outflow=33.87 cfs 5.046 af

Reach DP-208: DISCHARGE TO CENTRAL WETLAND Inflow=116.71 cfs 18.537 af
Outflow=116.71 cfs 18.537 af

Reach DP-209: DISCHARGE TO CENTRAL WETLAND Inflow=20.23 cfs 3.439 af
Outflow=20.23 cfs 3.439 af

Reach DP-210: DISCHARGE TO EDA-211 Inflow=1.37 cfs 0.167 af
Outflow=1.37 cfs 0.167 af

Reach DP-211: DISCHARGE TO CENTRAL WETLAND Inflow=120.62 cfs 19.805 af
Outflow=120.62 cfs 19.805 af

Reach DP-212: DISCHARGE OFFSITE Inflow=3.23 cfs 0.399 af
Outflow=3.23 cfs 0.399 af

Reach DP-213: DISCHARGE OFFSITE Inflow=11.41 cfs 1.238 af
Outflow=11.41 cfs 1.238 af

Reach DP-3: DISCHARGE TOWARDS STONY BROOK Inflow=63.79 cfs 8.848 af
Outflow=63.79 cfs 8.848 af

Reach DP-300: DISCHARGE OFFSITE Inflow=10.56 cfs 0.857 af
Outflow=10.56 cfs 0.857 af

Reach DP-301: DISCHARGE OFFSITE Inflow=6.02 cfs 0.674 af
Outflow=6.02 cfs 0.674 af

Reach DP-302: DISCHARGE OFFSITE Inflow=15.64 cfs 1.672 af
Outflow=15.64 cfs 1.672 af

Reach DP-303: DISCHARGE TO EASTERN WETLAND Inflow=21.66 cfs 2.982 af
Outflow=21.66 cfs 2.982 af

Reach DP-304: DISCHARGE OFFSITE Inflow=7.95 cfs 1.182 af
Outflow=7.95 cfs 1.182 af

Reach DP-305: DISCHARGE OFFSITE Inflow=11.70 cfs 1.483 af
Outflow=11.70 cfs 1.483 af

Reach R-202: FLOW THROUGH Avg. Flow Depth=0.33' Max Vel=1.80 fps Inflow=15.06 cfs 1.775 af
n=0.080 L=1,032.8' S=0.0697 '/' Capacity=617.17 cfs Outflow=12.64 cfs 1.775 af

Reach R-203: SHALLOW Avg. Flow Depth=0.66' Max Vel=2.48 fps Inflow=34.37 cfs 4.411 af
n=0.080 L=434.0' S=0.0527 '/' Capacity=597.69 cfs Outflow=33.94 cfs 4.411 af

Reach R-204: SHALLOW Avg. Flow Depth=0.10' Max Vel=0.69 fps Inflow=1.74 cfs 0.187 af
n=0.080 L=446.0' S=0.0499 '/' Capacity=5.78 cfs Outflow=1.36 cfs 0.187 af

Reach R-205/206: FLOW THROUGH Avg. Flow Depth=0.58' Max Vel=2.04 fps Inflow=74.28 cfs 10.469 af
n=0.080 L=1,050.0' S=0.0431 '/' Capacity=4,524.76 cfs Outflow=68.12 cfs 10.469 af

Reach R-207: FLOW THROUGH Avg. Flow Depth=0.34' Max Vel=1.20 fps Inflow=33.87 cfs 5.046 af
n=0.080 L=292.0' S=0.0298 '/' Capacity=179.76 cfs Outflow=33.17 cfs 5.046 af

Reach R-208: FLOW THROUGH Avg. Flow Depth=0.50' Max Vel=1.52 fps Inflow=116.71 cfs 18.537 af
n=0.080 L=250.0' S=0.0287 '/' Capacity=634.06 cfs Outflow=115.85 cfs 18.537 af

Reach R-210: FLOW THROUGH Avg. Flow Depth=0.11' Max Vel=0.34 fps Inflow=1.37 cfs 0.167 af
n=0.080 L=170.0' S=0.0105 '/' Capacity=284.60 cfs Outflow=1.23 cfs 0.167 af

Total Runoff Area = 172.375 ac Runoff Volume = 37.851 af Average Runoff Depth = 2.63"
100.00% Pervious = 172.375 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment EDA-100: UNDEVELOPED FOREST

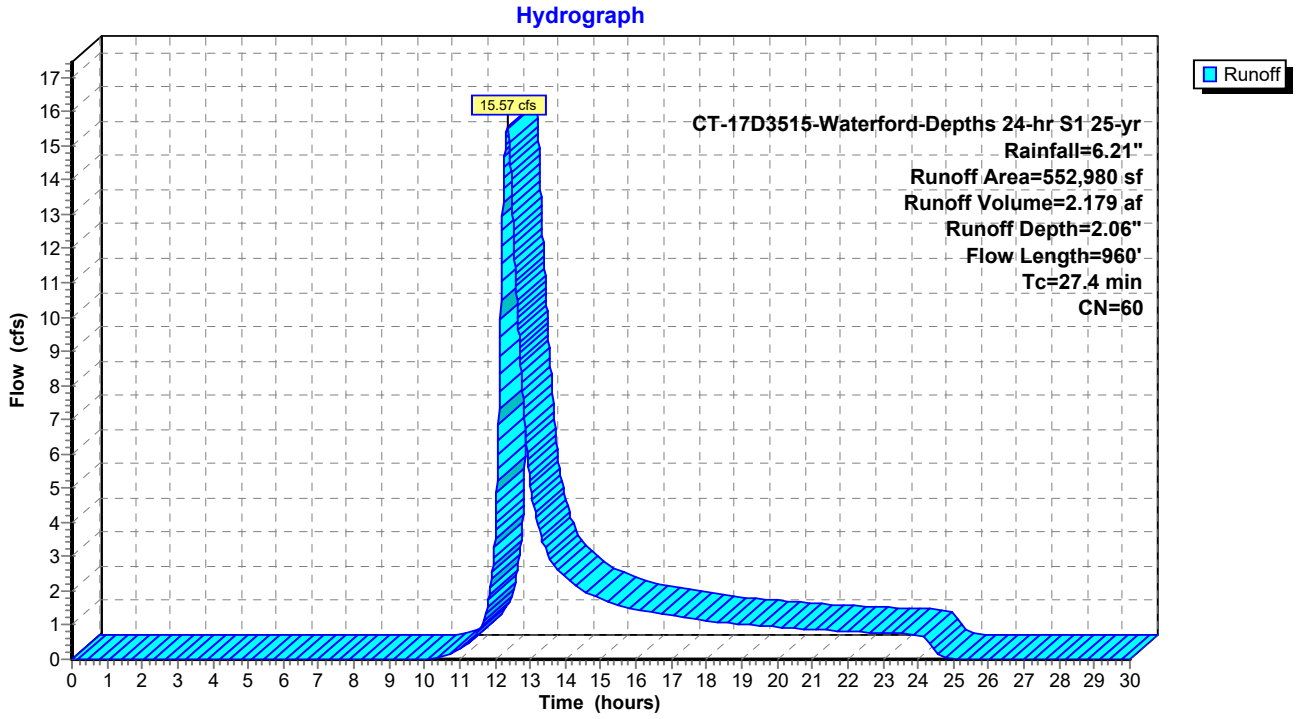
Runoff = 15.57 cfs @ 12.33 hrs, Volume= 2.179 af, Depth= 2.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
552,980	60	Woods, Fair, HSG B
552,980	60	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0768	0.14		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
15.3	860	0.0351	0.94		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
27.4	960	Total			

Subcatchment EDA-100: UNDEVELOPED FOREST



Summary for Subcatchment EDA-101: UNDEVELOPED FOREST

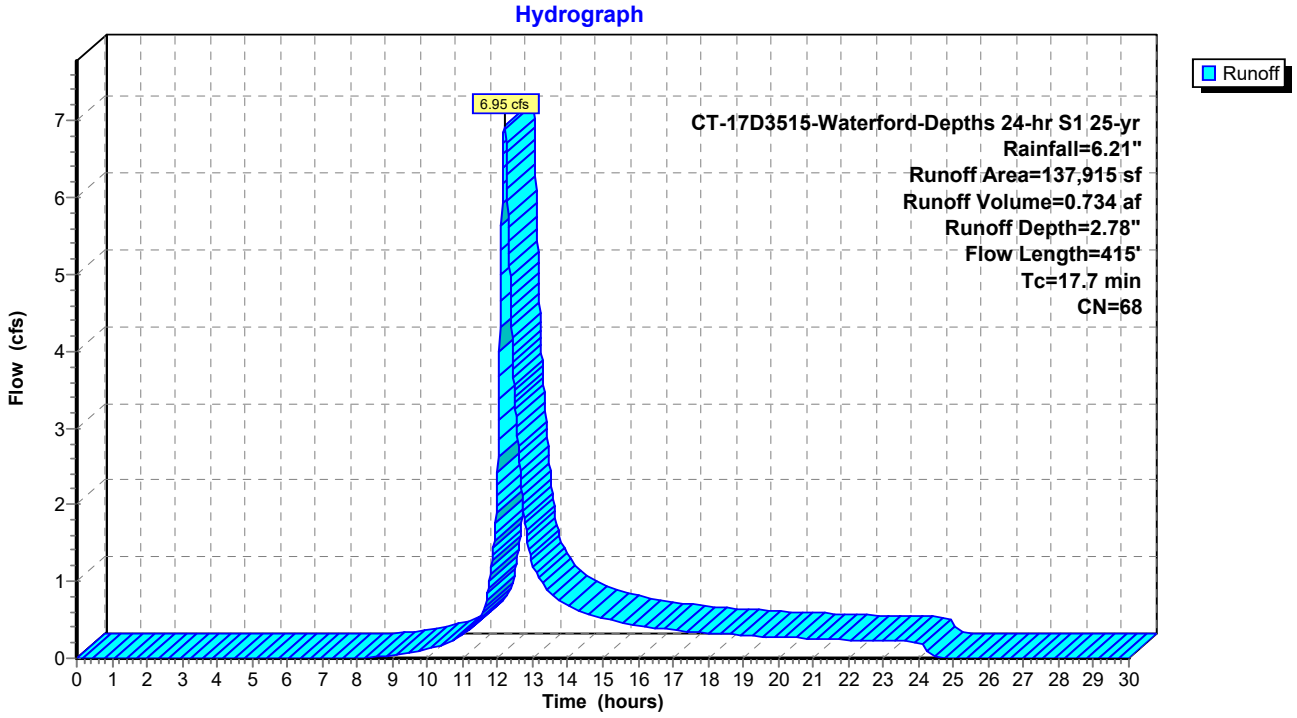
Runoff = 6.95 cfs @ 12.20 hrs, Volume= 0.734 af, Depth= 2.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
77,701	60	Woods, Fair, HSG B
60,214	79	Woods, Fair, HSG D
137,915	68	Weighted Average
137,915	68	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.3	100	0.0726	0.13		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
5.4	315	0.0374	0.97		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
17.7	415	Total			

Subcatchment EDA-101: UNDEVELOPED FOREST



Summary for Subcatchment EDA-200: UNDEVELOPED FOREST

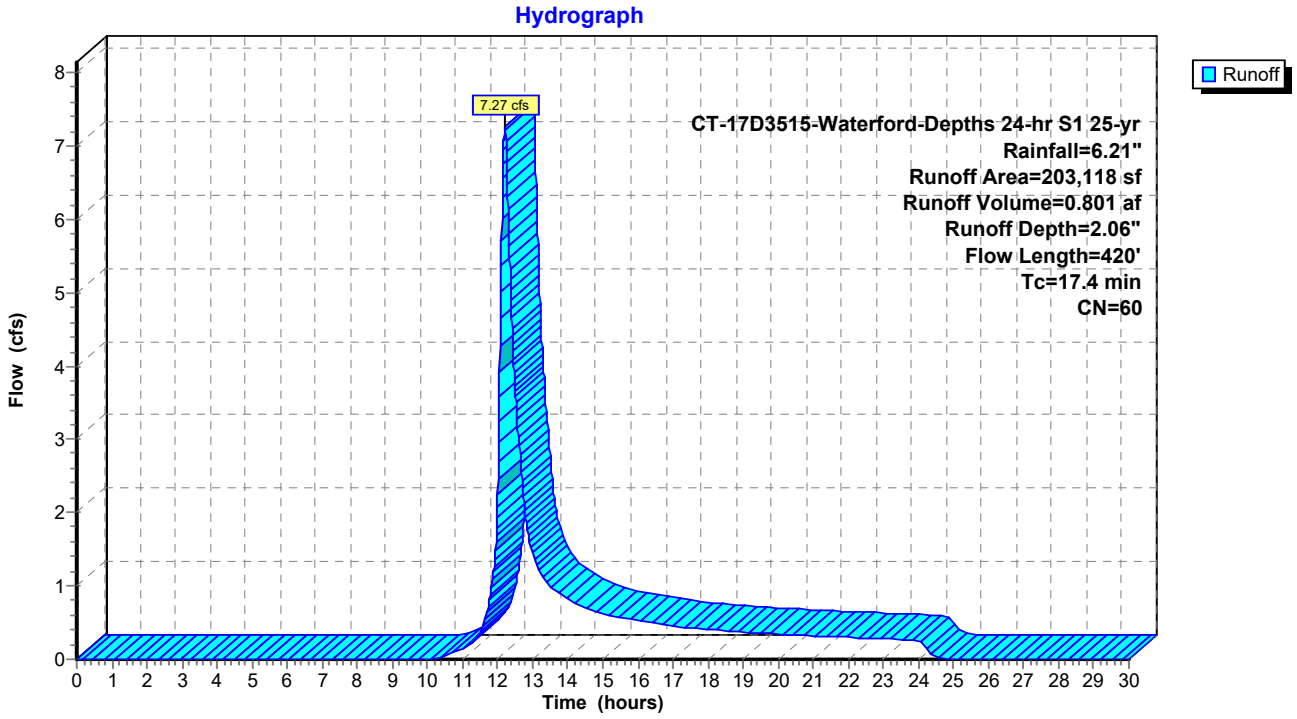
Runoff = 7.27 cfs @ 12.20 hrs, Volume= 0.801 af, Depth= 2.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
203,118	60	Woods, Fair, HSG B
203,118	60	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	100	0.0557	0.12		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
3.7	320	0.0841	1.45		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
17.4	420	Total			

Subcatchment EDA-200: UNDEVELOPED FOREST



Summary for Subcatchment EDA-201: UNDEVELOPED FOREST

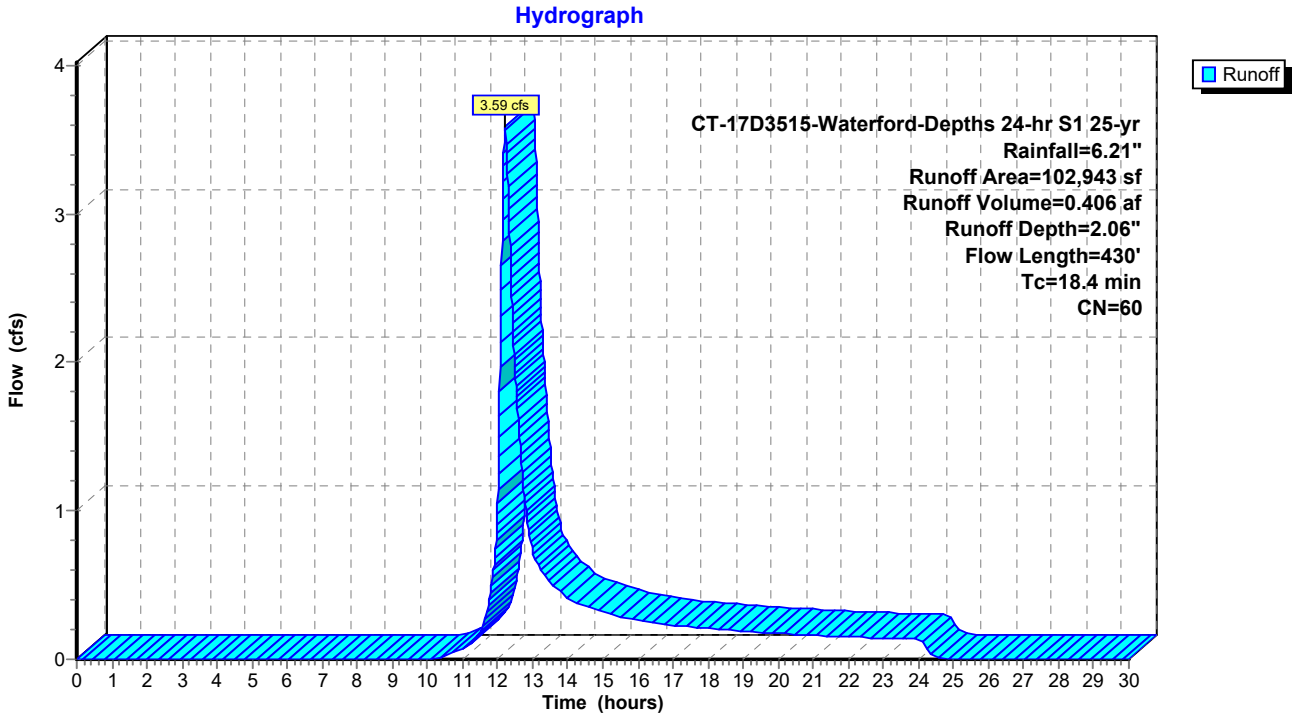
Runoff = 3.59 cfs @ 12.21 hrs, Volume= 0.406 af, Depth= 2.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
102,943	60	Woods, Fair, HSG B
102,943	60	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.9	100	0.0451	0.11		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
3.5	330	0.1015	1.59		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
18.4	430	Total			

Subcatchment EDA-201: UNDEVELOPED FOREST



Summary for Subcatchment EDA-202: UNDEVELOPED FOREST

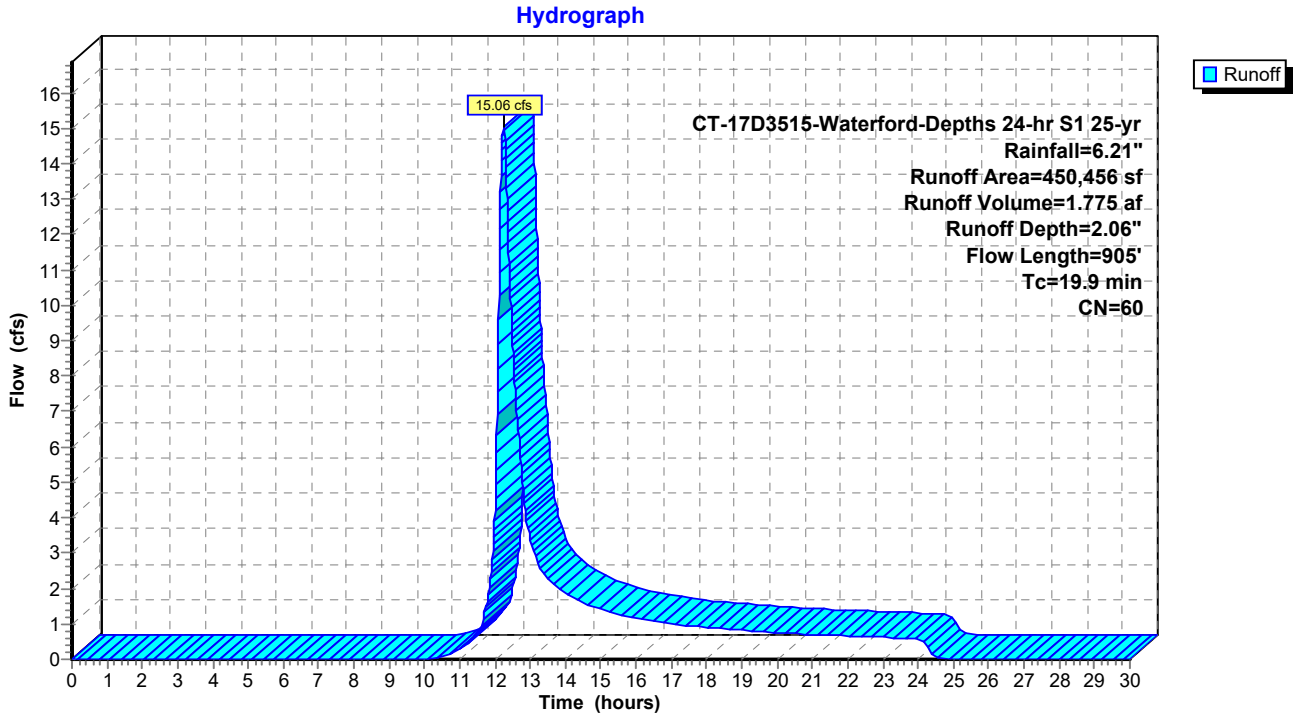
Runoff = 15.06 cfs @ 12.23 hrs, Volume= 1.775 af, Depth= 2.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
450,456	60	Woods, Fair, HSG B
450,456	60	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	100	0.1350	0.17		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
10.3	805	0.0678	1.30		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
19.9	905	Total			

Subcatchment EDA-202: UNDEVELOPED FOREST



Summary for Subcatchment EDA-203: UNDEVELOPED FOREST

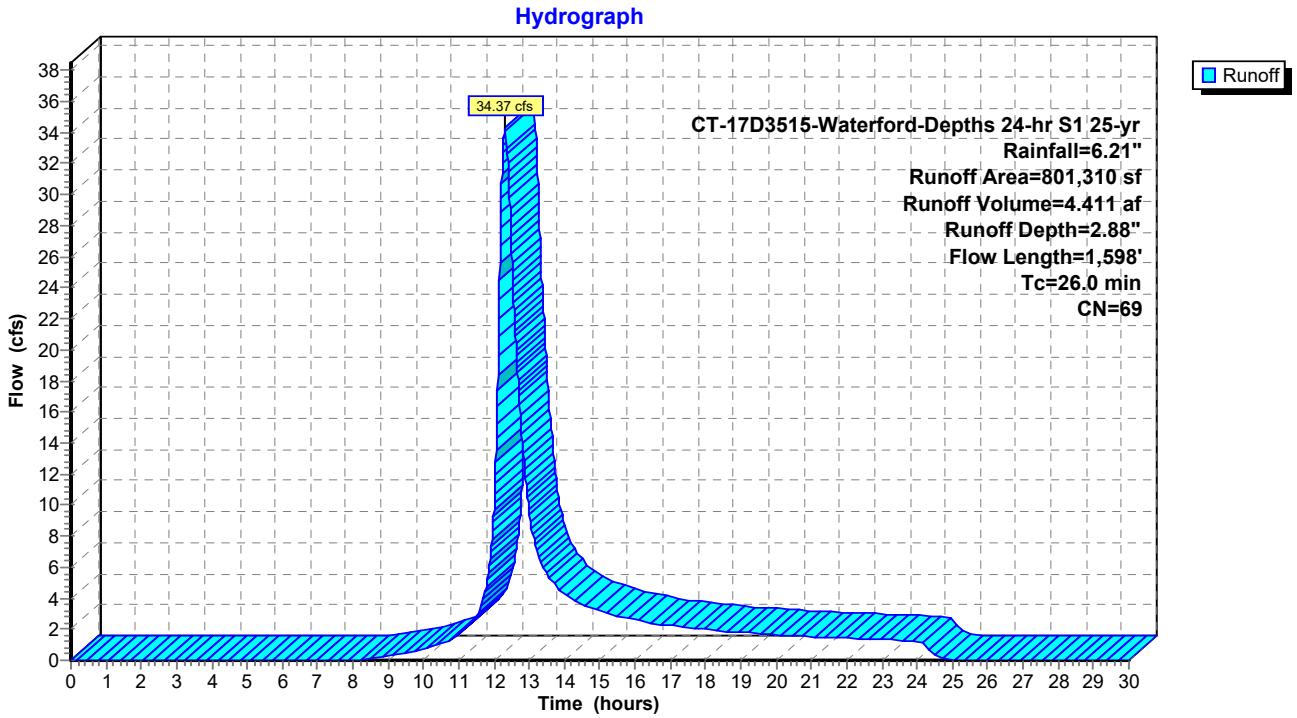
Runoff = 34.37 cfs @ 12.31 hrs, Volume= 4.411 af, Depth= 2.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
239,408	60	Woods, Fair, HSG B
555,898	73	Woods, Fair, HSG C
5,581	86	<50% Grass cover, Poor, HSG C
423	82	Dirt roads, HSG B
801,310	69	Weighted Average
801,310	69	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	100	1.0000	0.39		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
21.7	1,498	0.0530	1.15		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
26.0	1,598	Total			

Subcatchment EDA-203: UNDEVELOPED FOREST



Summary for Subcatchment EDA-204: UNDEVELOPED FOREST

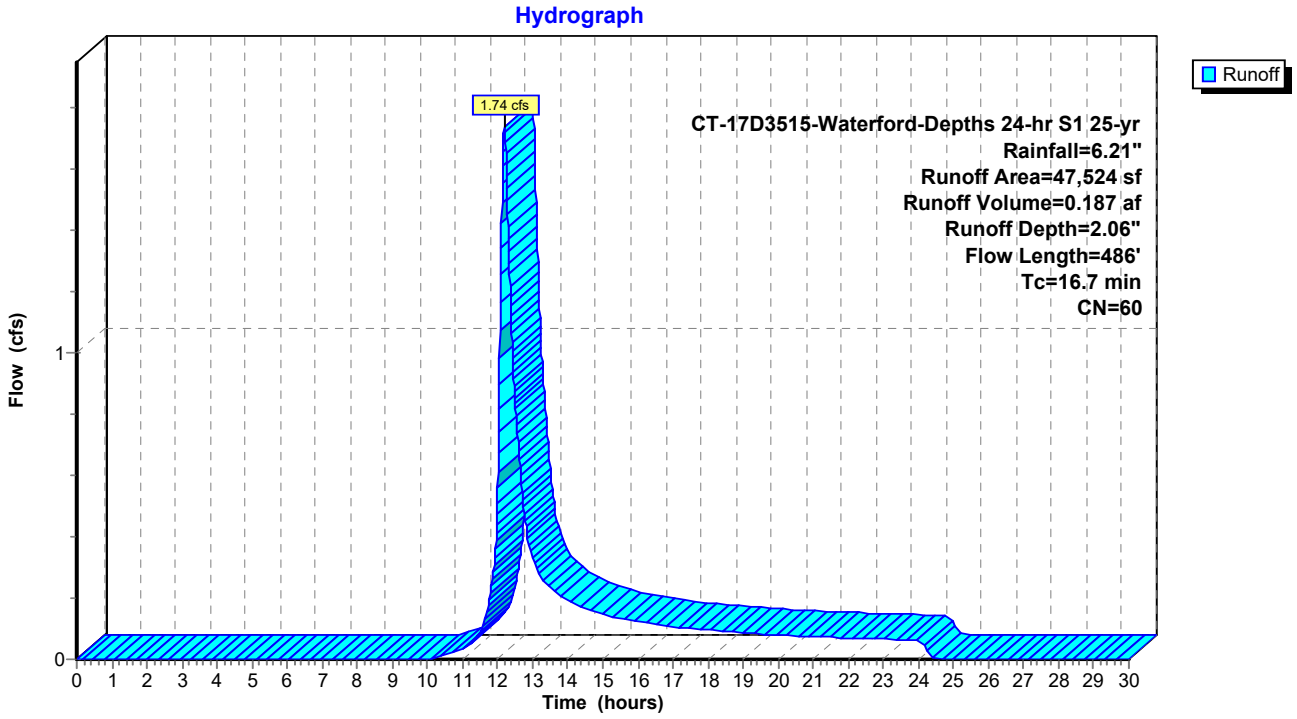
Runoff = 1.74 cfs @ 12.19 hrs, Volume= 0.187 af, Depth= 2.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
47,524	60	Woods, Fair, HSG B
47,524	60	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0	100	0.0786	0.14		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
4.7	386	0.0753	1.37		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
16.7	486	Total			

Subcatchment EDA-204: UNDEVELOPED FOREST



Summary for Subcatchment EDA-205: UNDEVELOPED FOREST

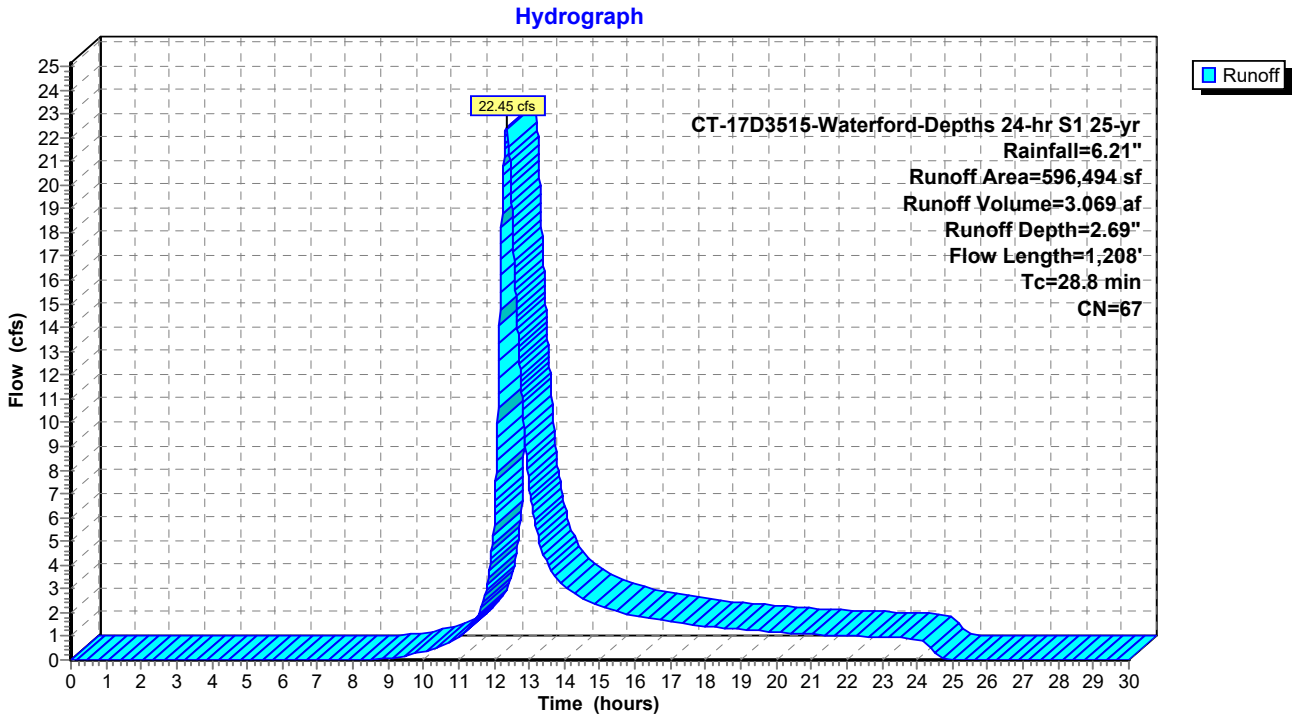
Runoff = 22.45 cfs @ 12.35 hrs, Volume= 3.069 af, Depth= 2.69"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
356,763	60	Woods, Fair, HSG B
127,304	73	Woods, Fair, HSG C
8,159	82	Dirt roads, HSG B
2,702	87	Dirt roads, HSG C
64,278	79	<50% Grass cover, Poor, HSG B
37,288	86	<50% Grass cover, Poor, HSG C
596,494	67	Weighted Average
596,494	67	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.8	100	0.0394	0.11		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
13.0	1,108	0.0809	1.42		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
28.8	1,208	Total			

Subcatchment EDA-205: UNDEVELOPED FOREST



Summary for Subcatchment EDA-206: UNDEVELOPED FOREST

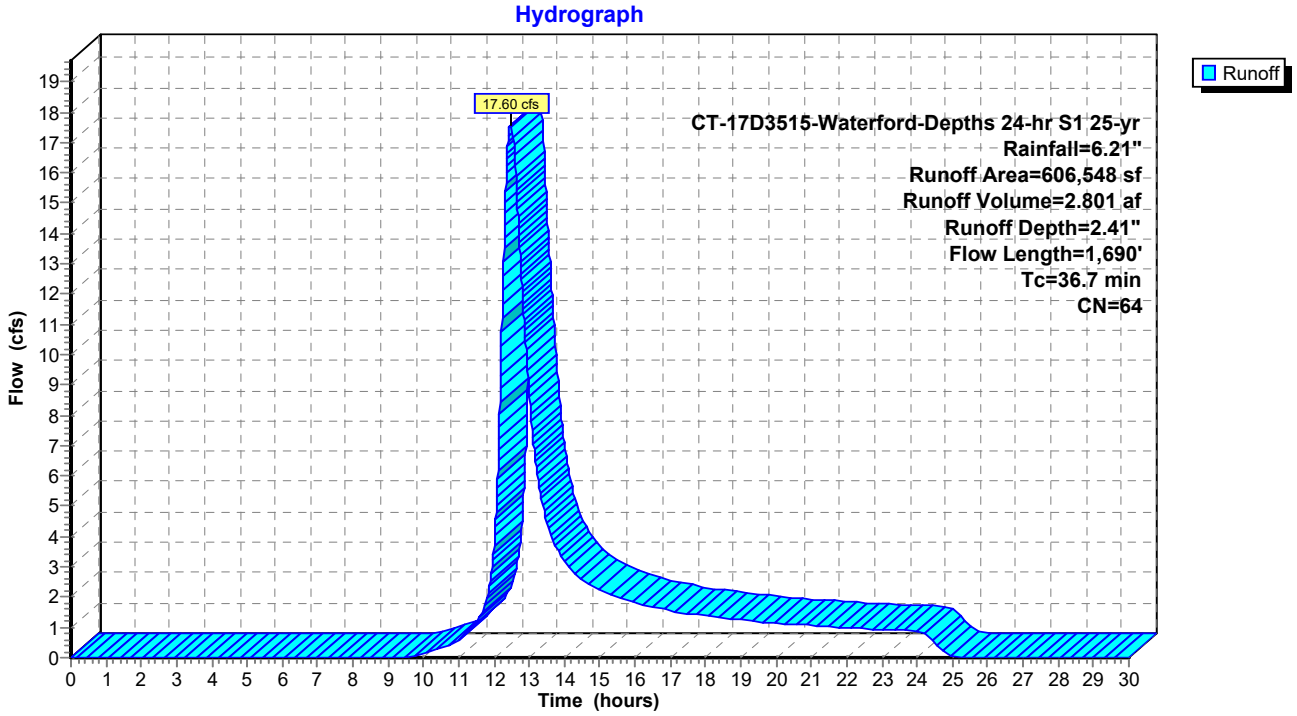
Runoff = 17.60 cfs @ 12.48 hrs, Volume= 2.801 af, Depth= 2.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
461,709	60	Woods, Fair, HSG B
55,195	73	Woods, Fair, HSG C
41,947	79	Woods, Fair, HSG D
6,857	82	Dirt roads, HSG B
40,840	79	<50% Grass cover, Poor, HSG B
606,548	64	Weighted Average
606,548	64	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0680	0.13		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
24.0	1,590	0.0486	1.10		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
36.7	1,690	Total			

Subcatchment EDA-206: UNDEVELOPED FOREST



Summary for Subcatchment EDA-207: UNDEVELOPED FOREST

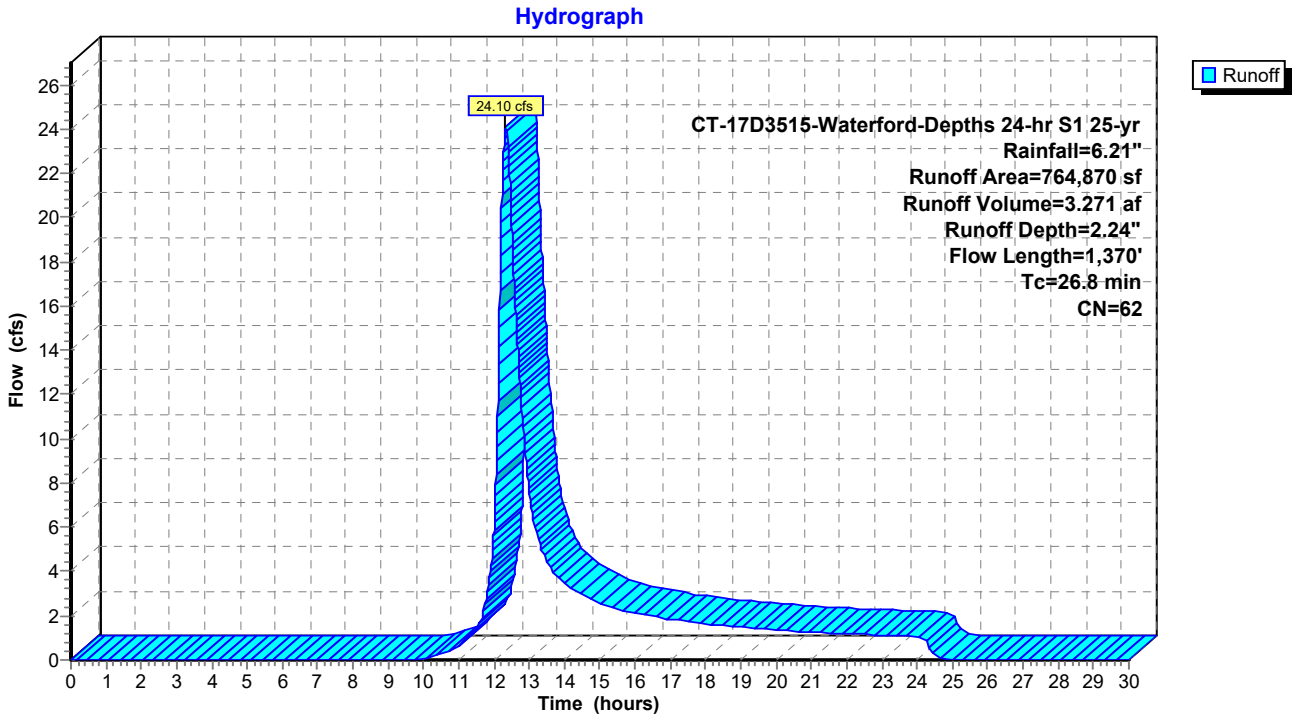
Runoff = 24.10 cfs @ 12.33 hrs, Volume= 3.271 af, Depth= 2.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
702,521	60	Woods, Fair, HSG B
17,665	79	Woods, Fair, HSG D
2,716	82	Dirt roads, HSG B
93	89	Dirt roads, HSG D
31,851	79	<50% Grass cover, Poor, HSG B
10,024	89	<50% Grass cover, Poor, HSG D
764,870	62	Weighted Average
764,870	62	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.2	100	0.0610	0.13		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
13.6	1,270	0.0968	1.56		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
26.8	1,370	Total			

Subcatchment EDA-207: UNDEVELOPED FOREST



Summary for Subcatchment EDA-208: UNDEVELOPED FOREST

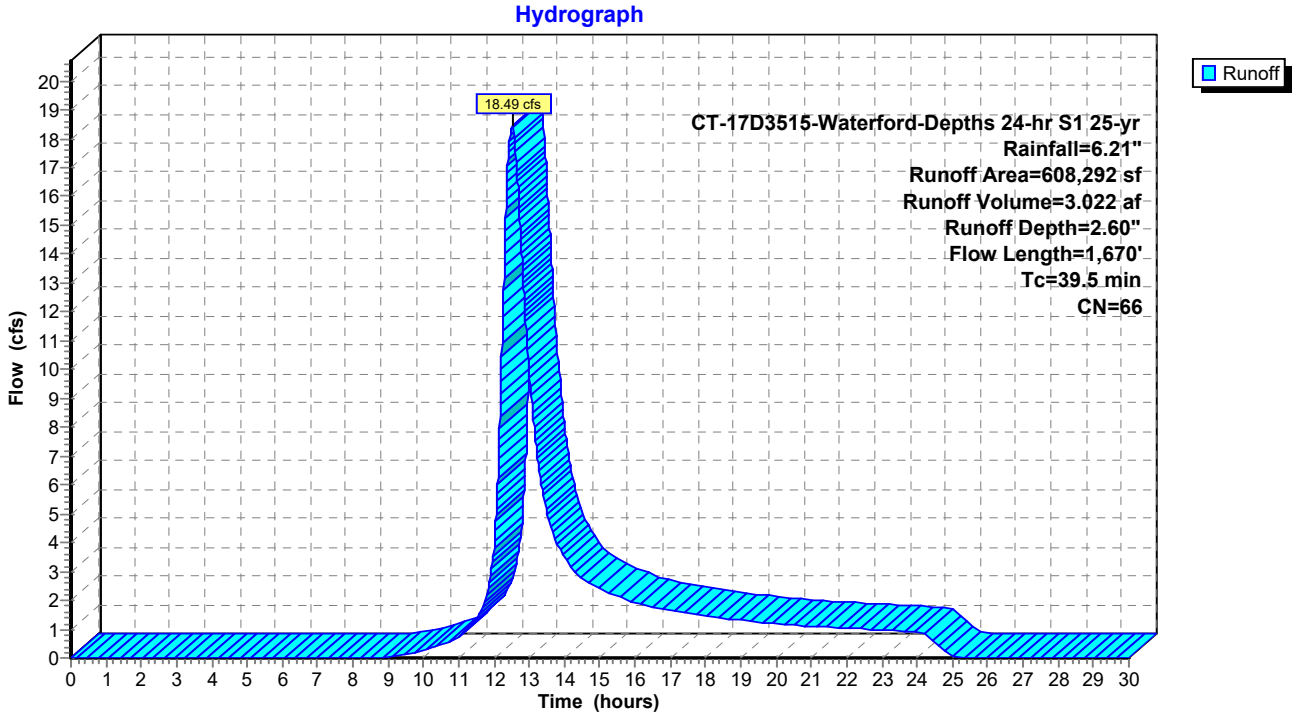
Runoff = 18.49 cfs @ 12.51 hrs, Volume= 3.022 af, Depth= 2.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
426,763	60	Woods, Fair, HSG B
134,846	79	Woods, Fair, HSG D
8,865	82	Dirt roads, HSG B
945	89	Dirt roads, HSG D
29,846	79	<50% Grass cover, Poor, HSG B
7,027	89	<50% Grass cover, Poor, HSG D
608,292	66	Weighted Average
608,292	66	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.3	100	0.0739	0.14		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
27.2	1,570	0.0371	0.96		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
39.5	1,670	Total			

Subcatchment EDA-208: UNDEVELOPED FOREST



Summary for Subcatchment EDA-209: UNDEVELOPED FOREST

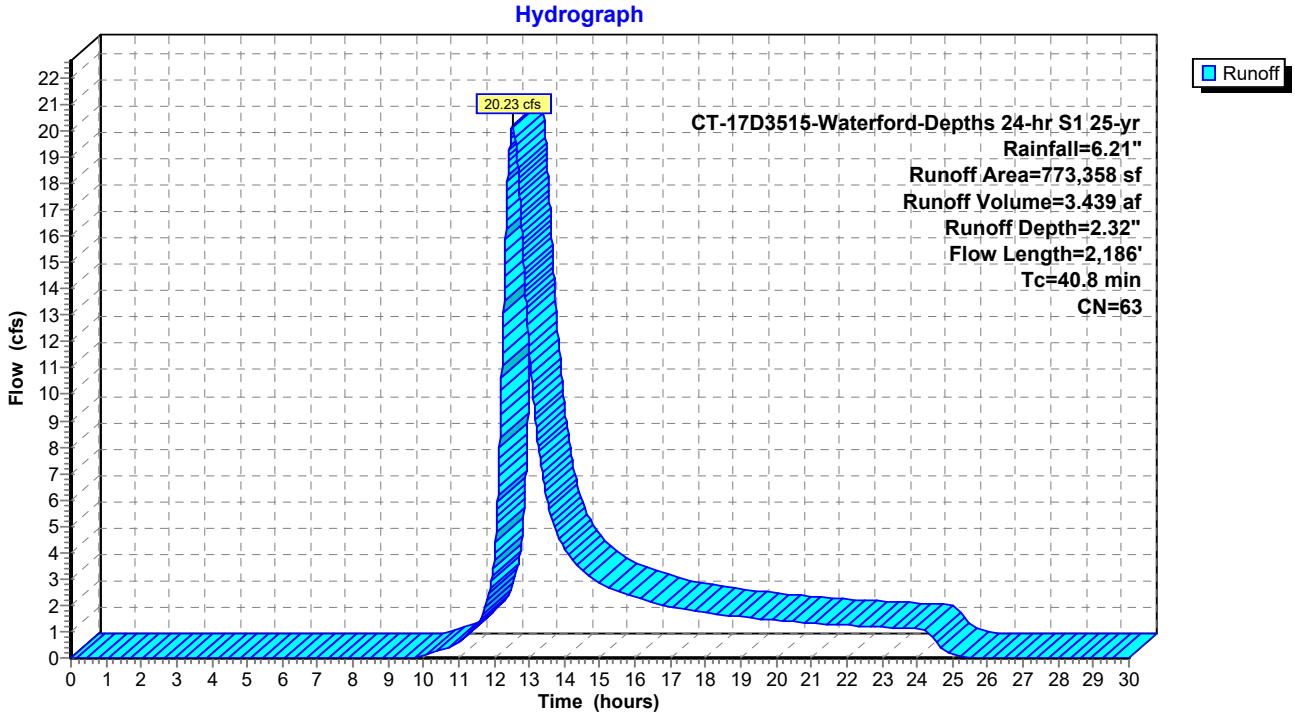
Runoff = 20.23 cfs @ 12.55 hrs, Volume= 3.439 af, Depth= 2.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
656,206	60	Woods, Fair, HSG B
45,724	79	Woods, Fair, HSG D
3,720	82	Dirt roads, HSG B
744	89	Dirt roads, HSG D
54,222	79	<50% Grass cover, Poor, HSG B
12,742	89	<50% Grass cover, Poor, HSG D
773,358	63	Weighted Average
773,358	63	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	100	0.0957	0.15		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
29.7	2,086	0.0549	1.17		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
40.8	2,186	Total			

Subcatchment EDA-209: UNDEVELOPED FOREST



Summary for Subcatchment EDA-210: OFFSITE BASIN

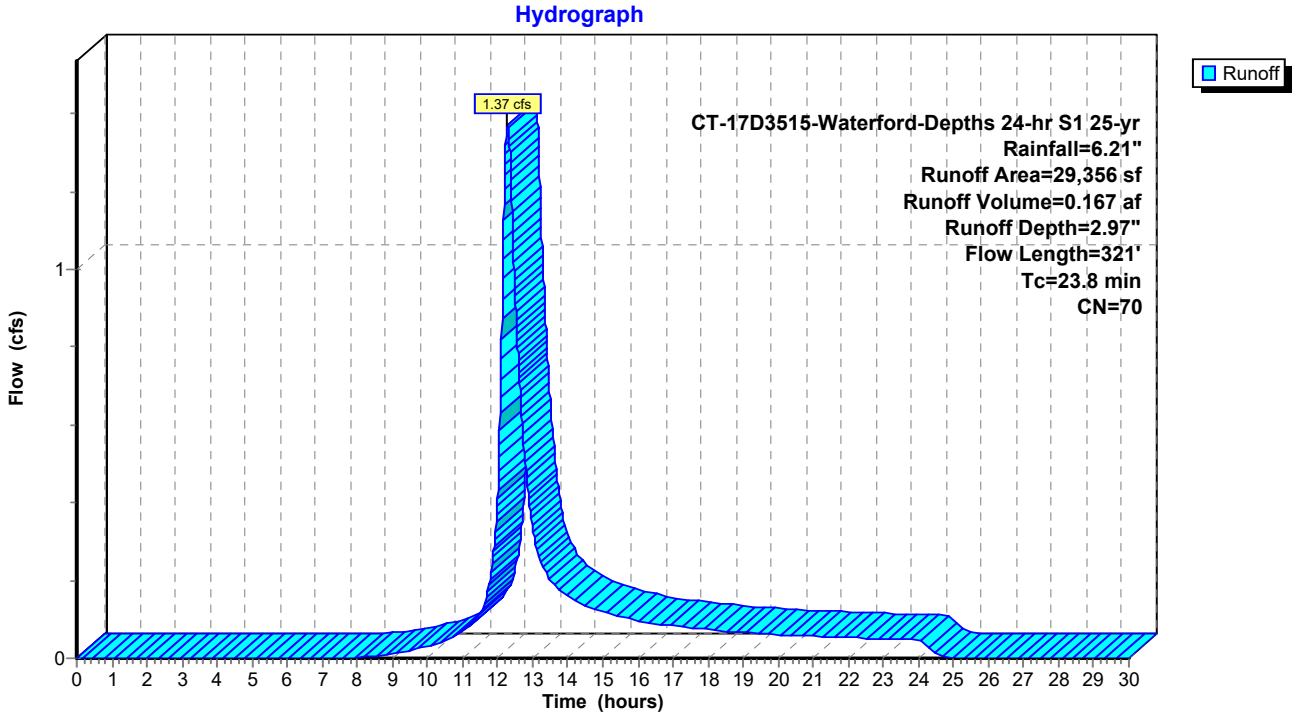
Runoff = 1.37 cfs @ 12.29 hrs, Volume= 0.167 af, Depth= 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
7,157	60	Woods, Fair, HSG B
22,199	73	Woods, Fair, HSG C
29,356	70	Weighted Average
29,356	70	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.2	100	0.0187	0.08		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
2.6	221	0.0830	1.44		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
23.8	321	Total			

Subcatchment EDA-210: OFFSITE BASIN



Summary for Subcatchment EDA-211: UNDEVELOPED FOREST

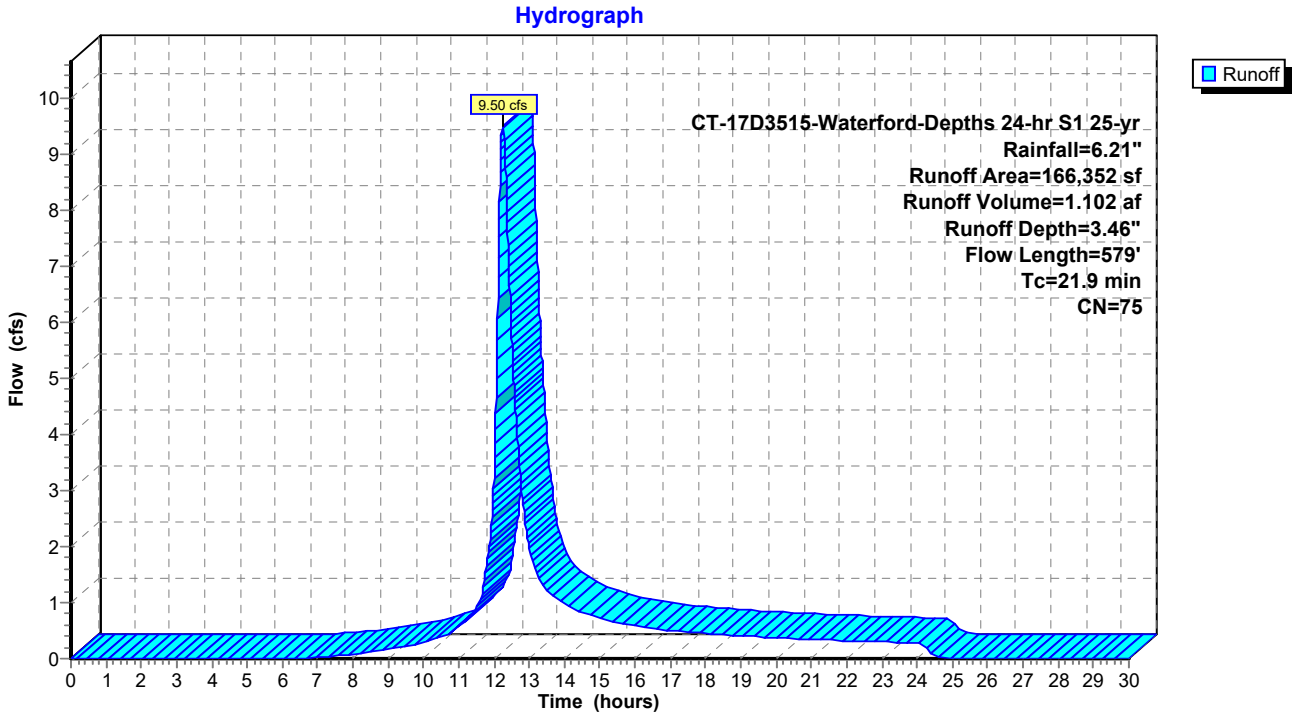
Runoff = 9.50 cfs @ 12.24 hrs, Volume= 1.102 af, Depth= 3.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
13,831	60	Woods, Fair, HSG B
63,994	73	Woods, Fair, HSG C
88,527	79	Woods, Fair, HSG D
166,352	75	Weighted Average
166,352	75	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.7	100	0.0824	0.14		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
10.2	479	0.0244	0.78		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
21.9	579	Total			

Subcatchment EDA-211: UNDEVELOPED FOREST



Summary for Subcatchment EDA-212: UNDEVELOPED FOREST

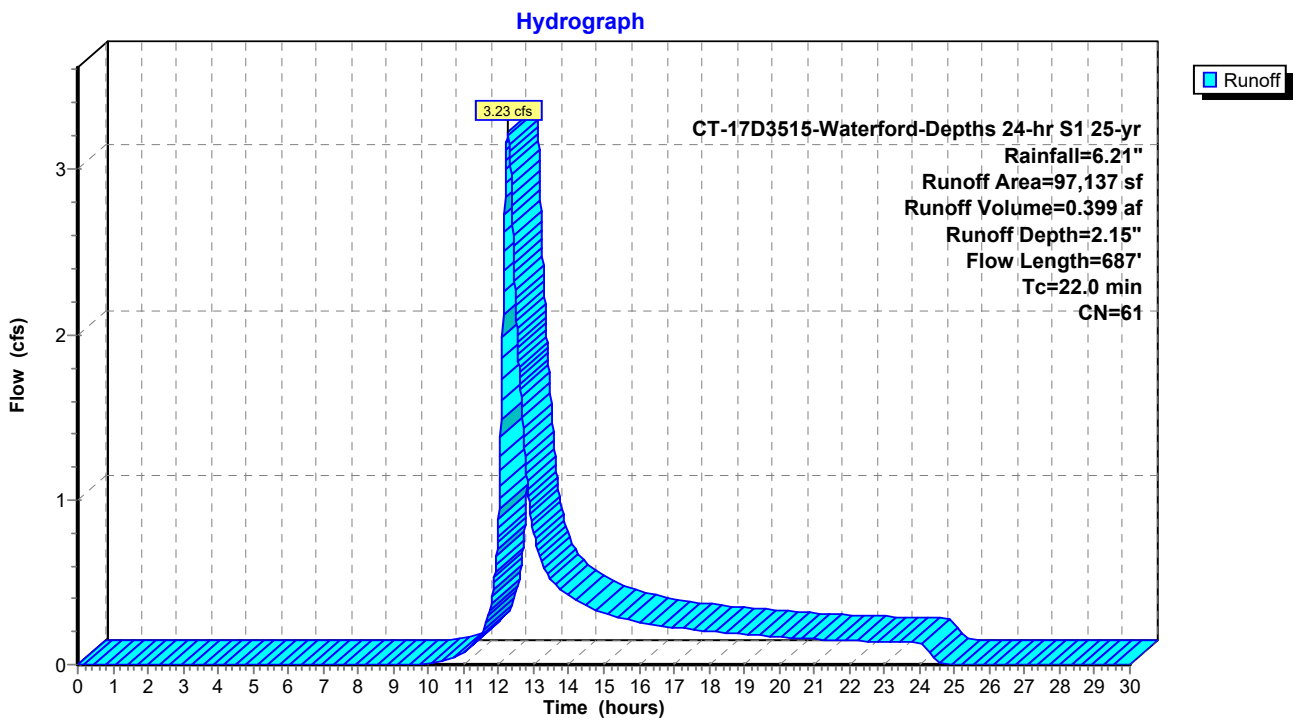
Runoff = 3.23 cfs @ 12.27 hrs, Volume= 0.399 af, Depth= 2.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
92,499	60	Woods, Fair, HSG B
4,612	73	Woods, Fair, HSG C
26	82	Dirt roads, HSG B
97,137	61	Weighted Average
97,137	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.5	100	0.0408	0.11		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
6.5	587	0.0902	1.50		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
22.0	687	Total			

Subcatchment EDA-212: UNDEVELOPED FOREST



Summary for Subcatchment EDA-213: UNDEVELOPED FOREST

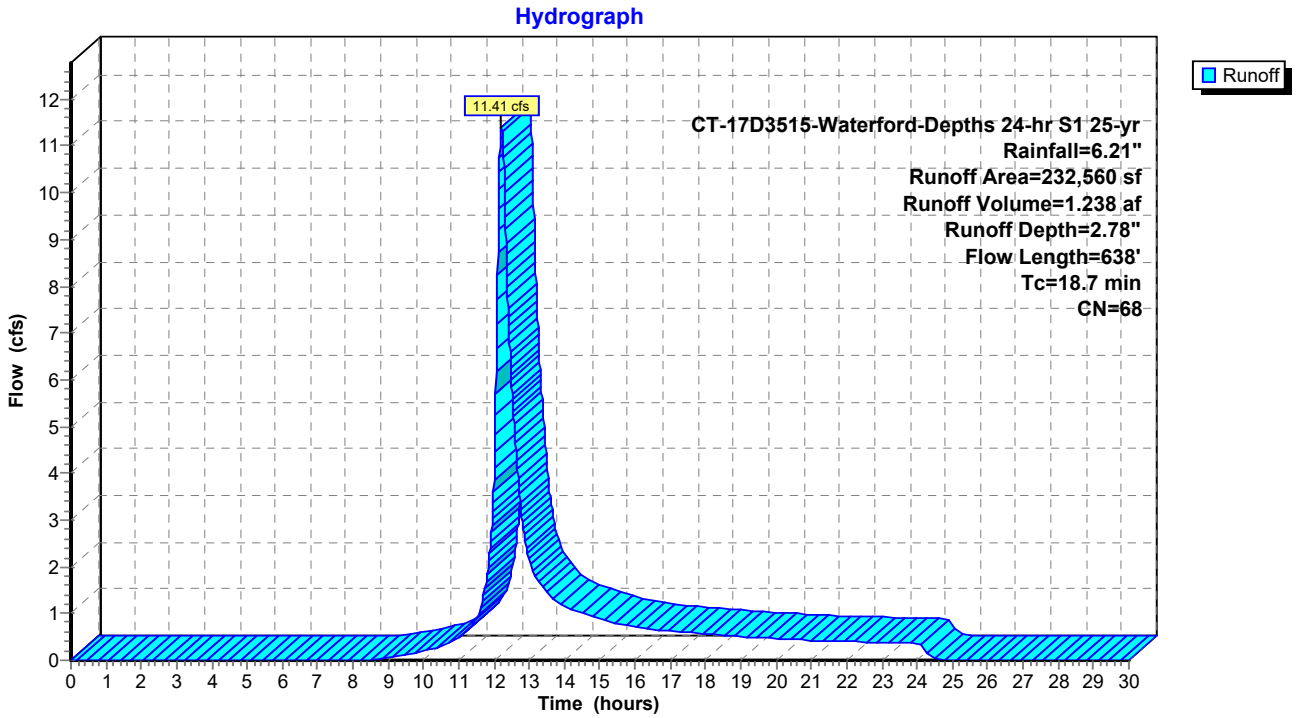
Runoff = 11.41 cfs @ 12.21 hrs, Volume= 1.238 af, Depth= 2.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
94,728	60	Woods, Fair, HSG B
131,244	73	Woods, Fair, HSG C
2,223	82	Dirt roads, HSG B
4,365	87	Dirt roads, HSG C
232,560	68	Weighted Average
232,560	68	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	100	0.1921	0.20		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
10.3	538	0.0303	0.87		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
18.7	638	Total			

Subcatchment EDA-213: UNDEVELOPED FOREST



Summary for Subcatchment EDA-300: UNDEVELOPED FOREST

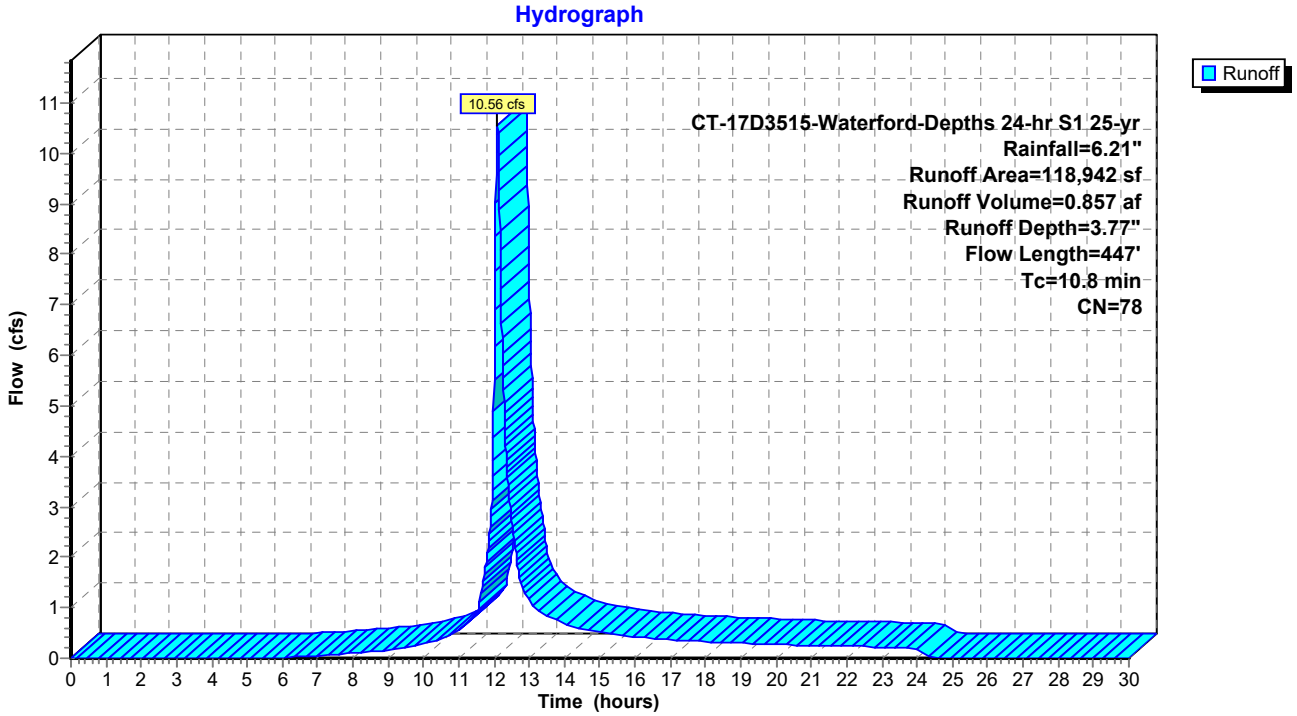
Runoff = 10.56 cfs @ 12.10 hrs, Volume= 0.857 af, Depth= 3.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
4,127	60	Woods, Fair, HSG B
114,815	79	Woods, Fair, HSG D
118,942	78	Weighted Average
118,942	78	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2	100	0.1500	0.18		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
1.6	347	0.5200	3.61		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
10.8	447	Total			

Subcatchment EDA-300: UNDEVELOPED FOREST



Summary for Subcatchment EDA-301: UNDEVELOPED FOREST

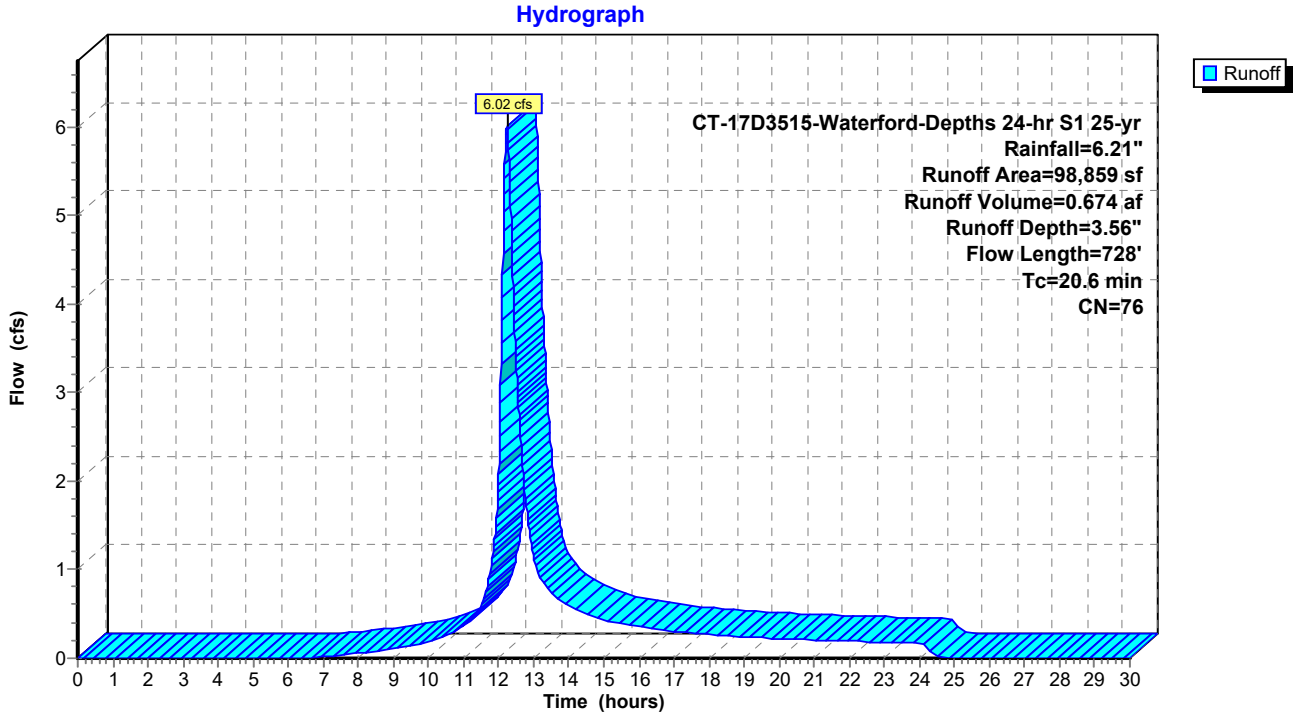
Runoff = 6.02 cfs @ 12.24 hrs, Volume= 0.674 af, Depth= 3.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
15,090	60	Woods, Fair, HSG B
83,769	79	Woods, Fair, HSG D
98,859	76	Weighted Average
98,859	76	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.6	100	0.0403	0.11		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
5.0	628	0.1723	2.08		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
20.6	728	Total			

Subcatchment EDA-301: UNDEVELOPED FOREST



Summary for Subcatchment EDA-302: UNDEVELOPED FOREST

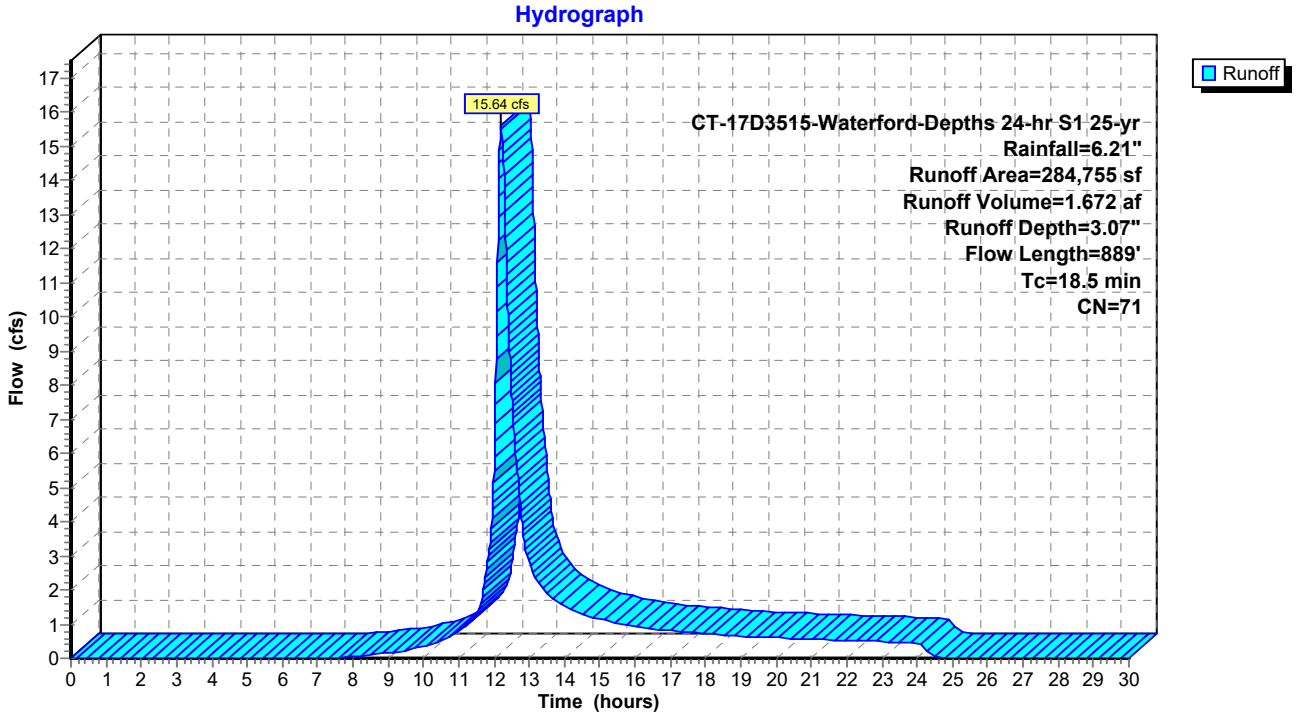
Runoff = 15.64 cfs @ 12.21 hrs, Volume= 1.672 af, Depth= 3.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
116,779	60	Woods, Fair, HSG B
167,976	79	Woods, Fair, HSG D
284,755	71	Weighted Average
284,755	71	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	100	0.0845	0.14		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
6.9	789	0.1439	1.90		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
18.5	889	Total			

Subcatchment EDA-302: UNDEVELOPED FOREST



Summary for Subcatchment EDA-303: UNDEVELOPED FOREST

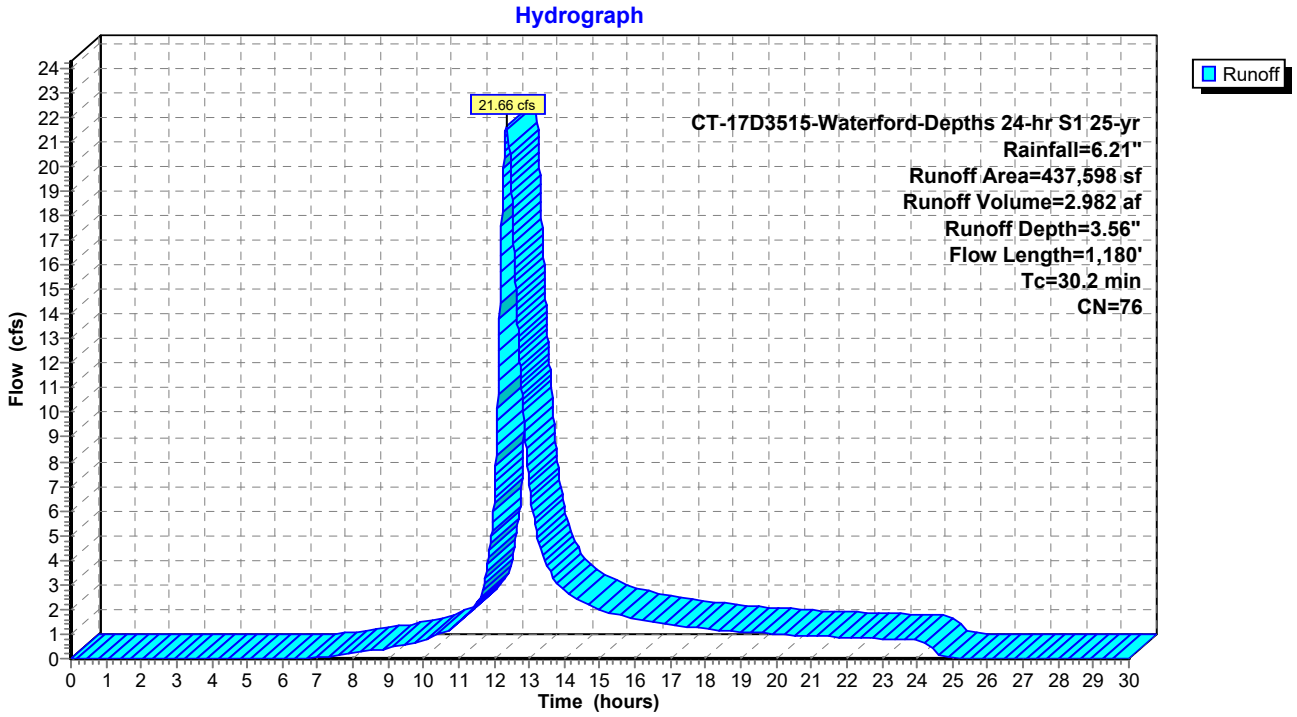
Runoff = 21.66 cfs @ 12.38 hrs, Volume= 2.982 af, Depth= 3.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
35,606	60	Woods, Fair, HSG B
114,707	73	Woods, Fair, HSG C
287,285	79	Woods, Fair, HSG D
437,598	76	Weighted Average
437,598	76	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.3	100	0.0239	0.09		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
10.9	1,080	0.1087	1.65		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
30.2	1,180	Total			

Subcatchment EDA-303: UNDEVELOPED FOREST



Summary for Subcatchment EDA-304: UNDEVEL0PED FOREST

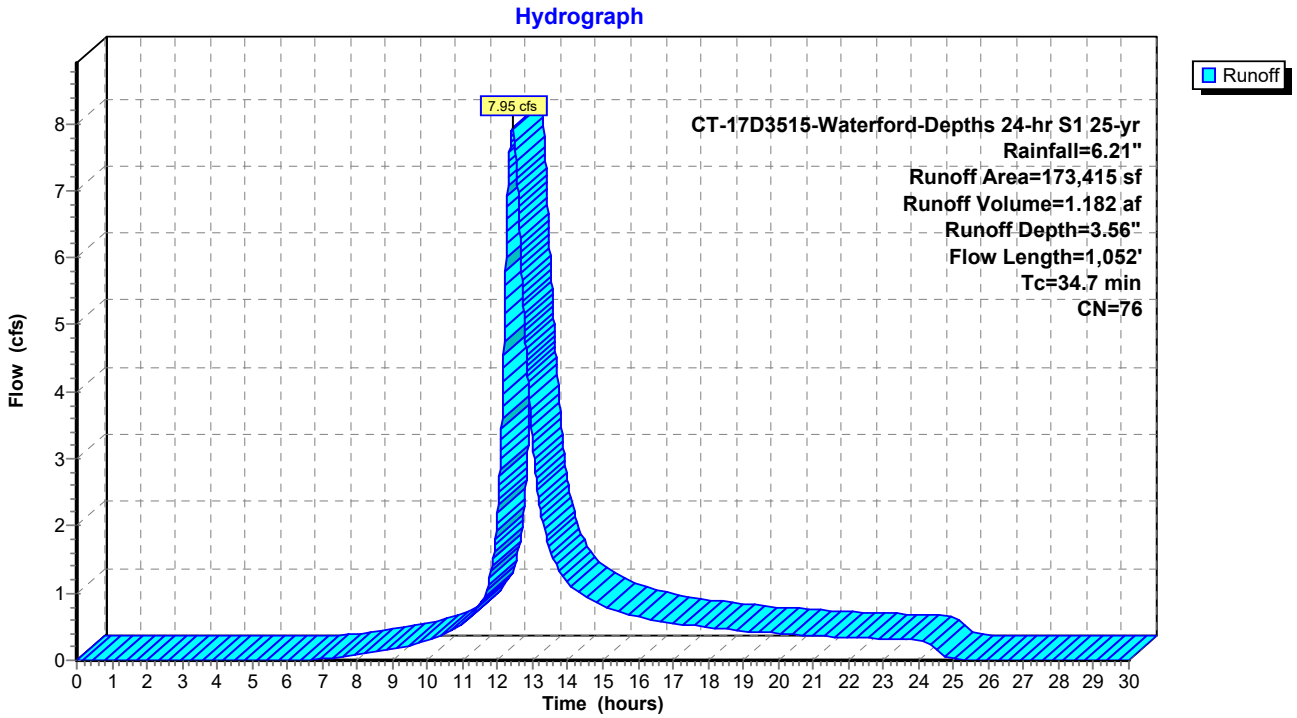
Runoff = 7.95 cfs @ 12.42 hrs, Volume= 1.182 af, Depth= 3.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
89,702	73	Woods, Fair, HSG C
83,713	79	Woods, Fair, HSG D
173,415	76	Weighted Average
173,415	76	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.1	100	0.0136	0.07		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
9.7	822	0.0800	1.41		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
0.9	130	0.2100	2.29		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
34.7	1,052	Total			

Subcatchment EDA-304: UNDEVEL0PED FOREST



Summary for Subcatchment EDA-305: UNDEVELOPED FOREST

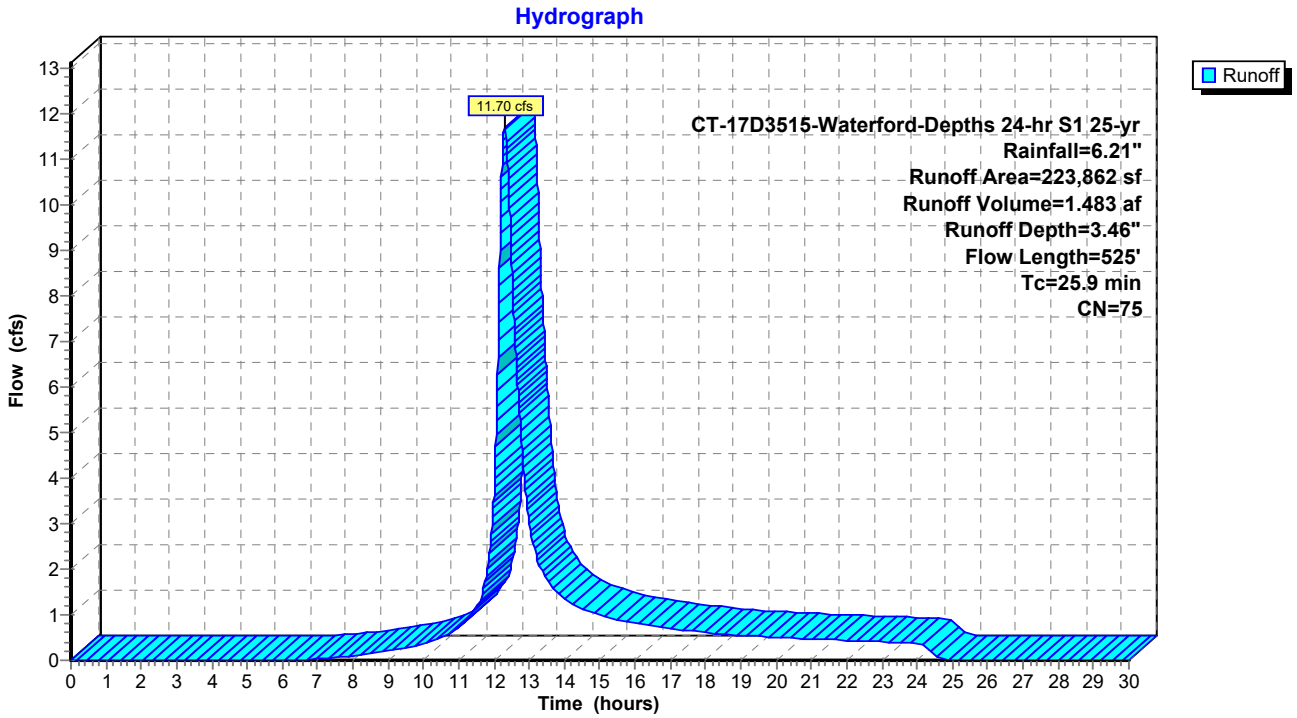
Runoff = 11.70 cfs @ 12.29 hrs, Volume= 1.483 af, Depth= 3.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
144,475	73	Woods, Fair, HSG C
78,707	79	Woods, Fair, HSG D
658	86	<50% Grass cover, Poor, HSG C
22	87	Dirt roads, HSG C
223,862	75	Weighted Average
223,862	75	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.8	100	0.0197	0.08		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
5.1	425	0.0760	1.38		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
25.9	525	Total			

Subcatchment EDA-305: UNDEVELOPED FOREST

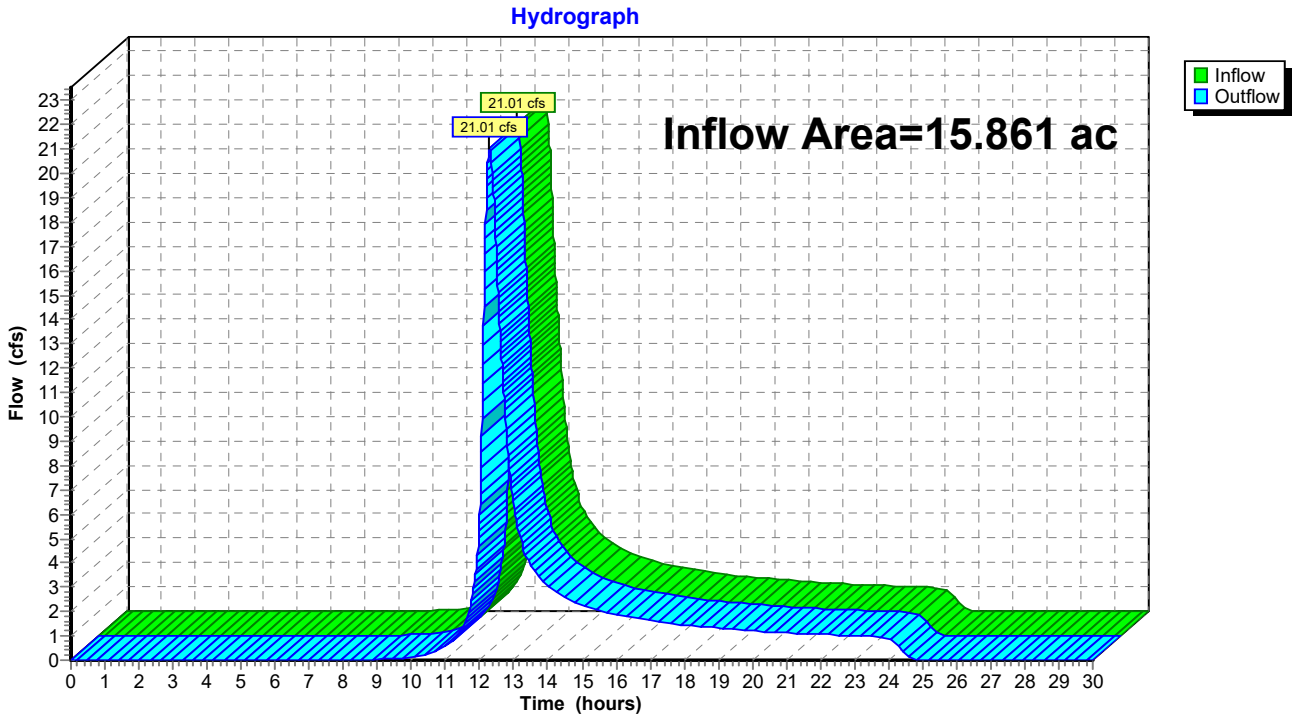


Summary for Reach DP-1: DISCHARGE OFFSITE TOWARDS STONY BROOK

Inflow Area = 15.861 ac, 0.00% Impervious, Inflow Depth = 2.20" for 25-yr event
Inflow = 21.01 cfs @ 12.29 hrs, Volume= 2.914 af
Outflow = 21.01 cfs @ 12.29 hrs, Volume= 2.914 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-1: DISCHARGE OFFSITE TOWARDS STONY BROOK

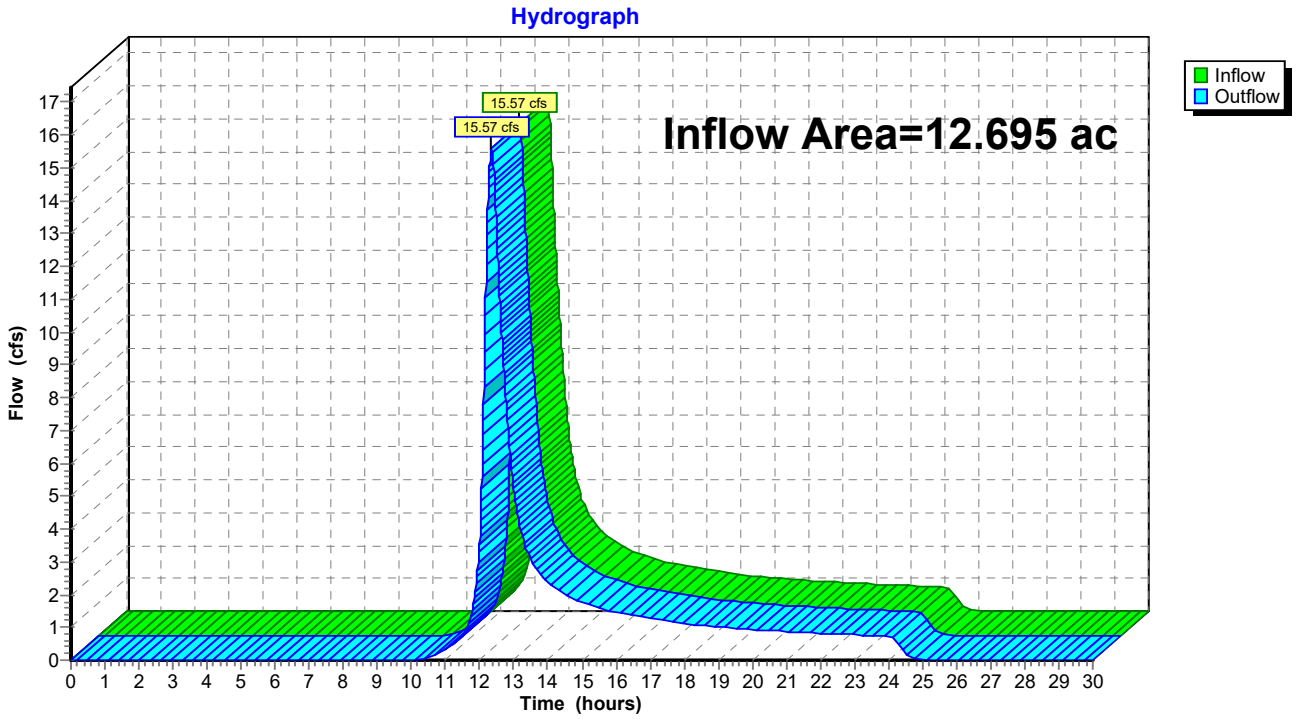


Summary for Reach DP-100: DISCHARGE OFFSITE

Inflow Area = 12.695 ac, 0.00% Impervious, Inflow Depth = 2.06" for 25-yr event
Inflow = 15.57 cfs @ 12.33 hrs, Volume= 2.179 af
Outflow = 15.57 cfs @ 12.33 hrs, Volume= 2.179 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-100: DISCHARGE OFFSITE

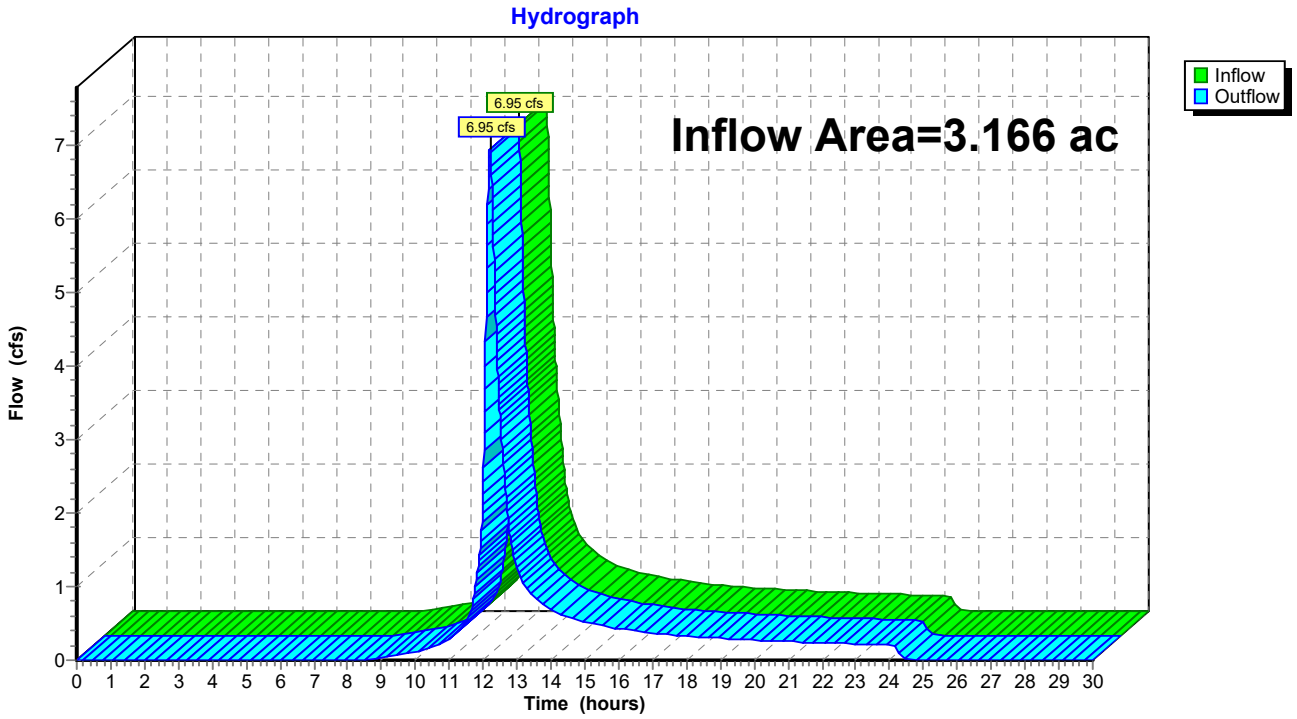


Summary for Reach DP-101: DISCHARGE OFFSITE

Inflow Area = 3.166 ac, 0.00% Impervious, Inflow Depth = 2.78" for 25-yr event
Inflow = 6.95 cfs @ 12.20 hrs, Volume= 0.734 af
Outflow = 6.95 cfs @ 12.20 hrs, Volume= 0.734 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-101: DISCHARGE OFFSITE

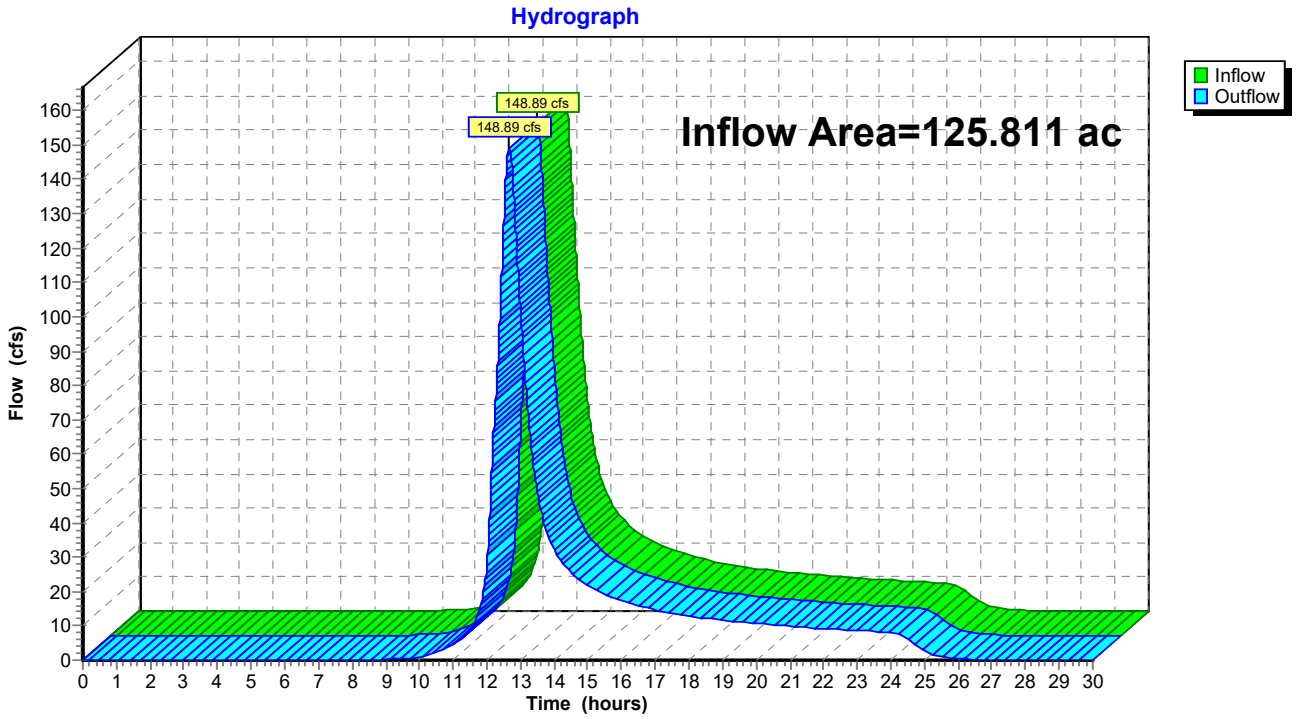


Summary for Reach DP-2: DISCHARGE TOWARDS OIL MILL BROOK

Inflow Area = 125.811 ac, 0.00% Impervious, Inflow Depth = 2.49" for 25-yr event
Inflow = 148.89 cfs @ 12.66 hrs, Volume= 26.088 af
Outflow = 148.89 cfs @ 12.66 hrs, Volume= 26.088 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-2: DISCHARGE TOWARDS OIL MILL BROOK

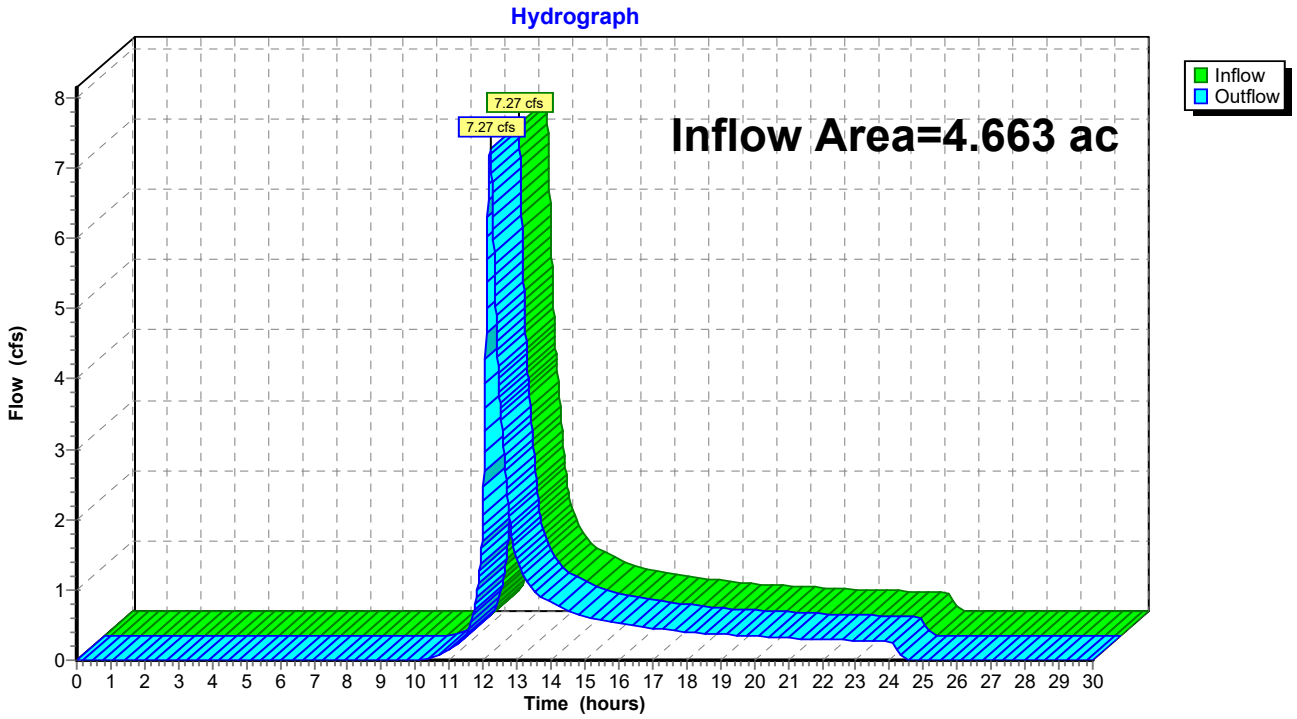


Summary for Reach DP-200: DISCHARGE OFFSITE

Inflow Area = 4.663 ac, 0.00% Impervious, Inflow Depth = 2.06" for 25-yr event
Inflow = 7.27 cfs @ 12.20 hrs, Volume= 0.801 af
Outflow = 7.27 cfs @ 12.20 hrs, Volume= 0.801 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-200: DISCHARGE OFFSITE

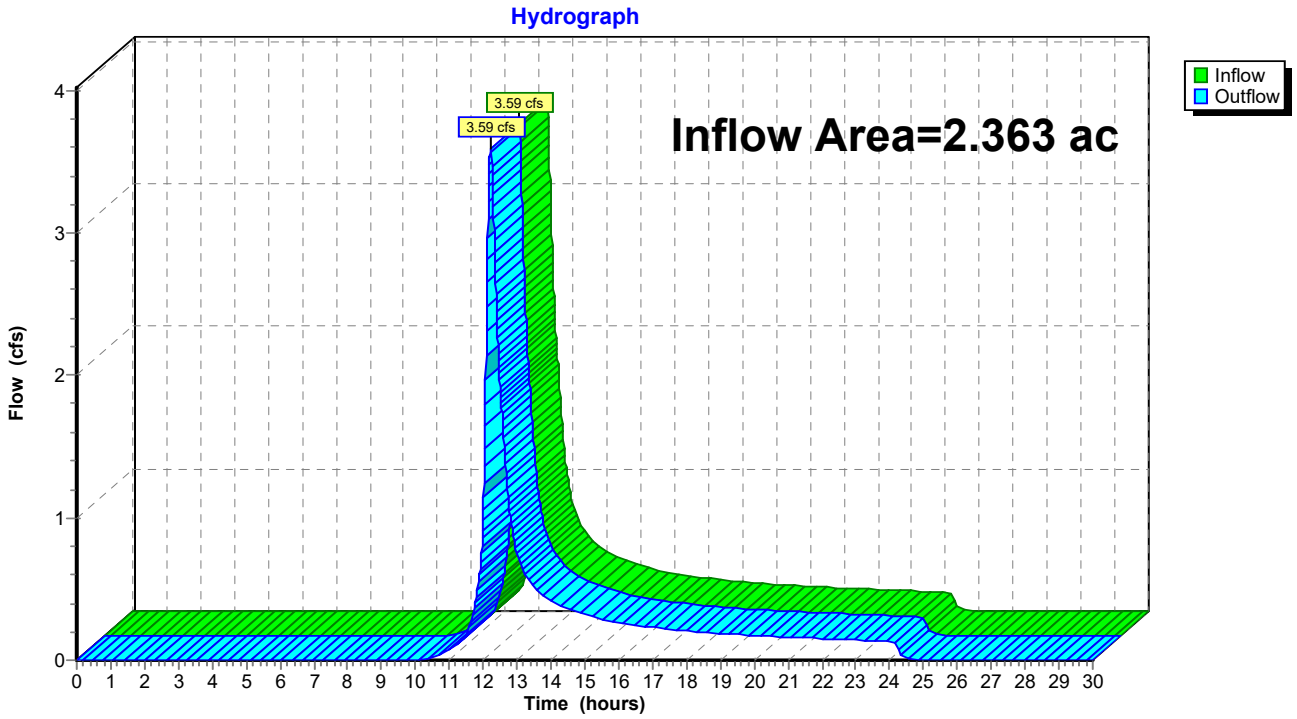


Summary for Reach DP-201: DISCHARGE OFFSITE

Inflow Area = 2.363 ac, 0.00% Impervious, Inflow Depth = 2.06" for 25-yr event
Inflow = 3.59 cfs @ 12.21 hrs, Volume= 0.406 af
Outflow = 3.59 cfs @ 12.21 hrs, Volume= 0.406 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-201: DISCHARGE OFFSITE

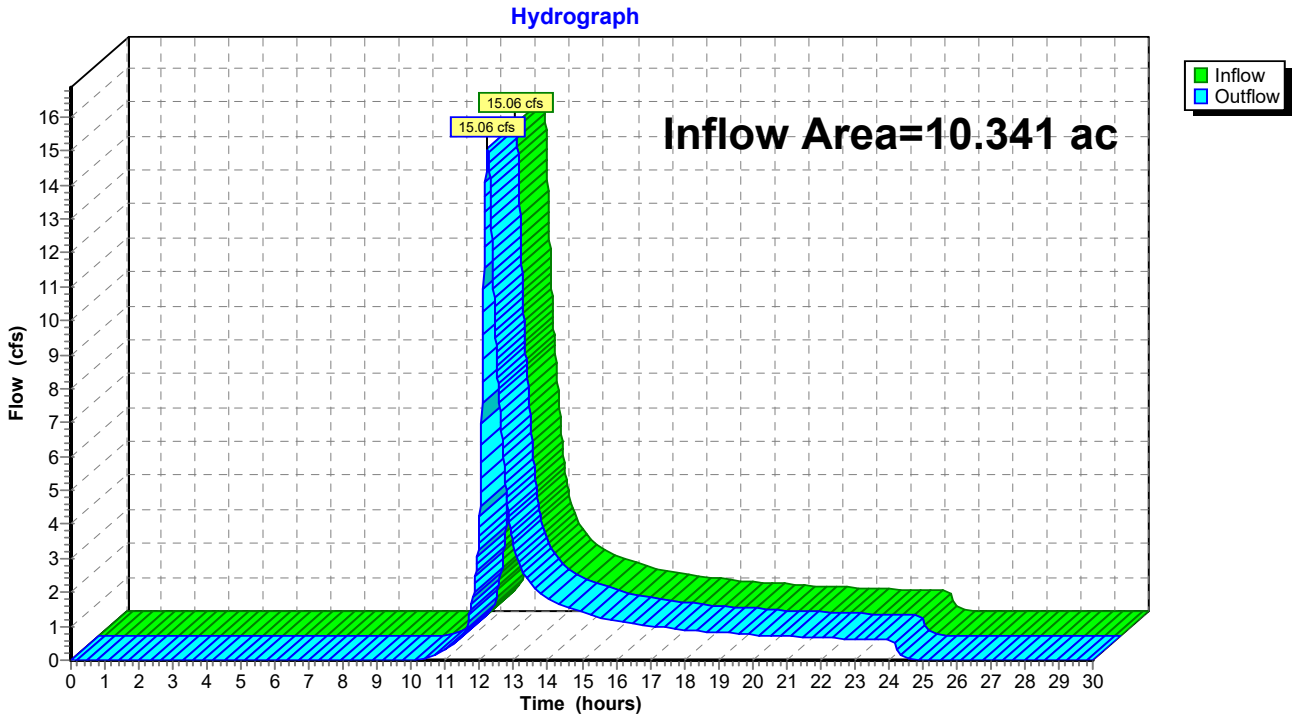


Summary for Reach DP-202: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 10.341 ac, 0.00% Impervious, Inflow Depth = 2.06" for 25-yr event
Inflow = 15.06 cfs @ 12.23 hrs, Volume= 1.775 af
Outflow = 15.06 cfs @ 12.23 hrs, Volume= 1.775 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-202: DISCHARGE TO CENTRAL WETLAND

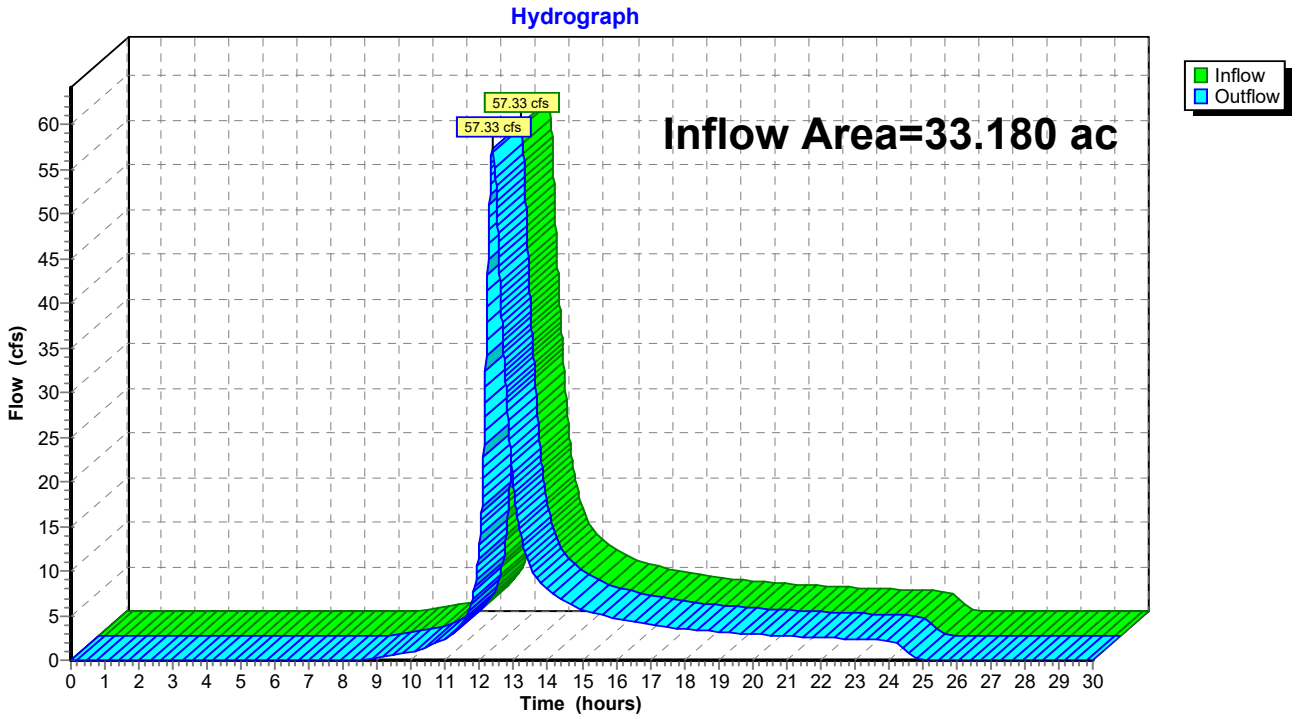


Summary for Reach DP-205: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 33.180 ac, 0.00% Impervious, Inflow Depth = 2.77" for 25-yr event
Inflow = 57.33 cfs @ 12.39 hrs, Volume= 7.668 af
Outflow = 57.33 cfs @ 12.39 hrs, Volume= 7.668 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-205: DISCHARGE TO CENTRAL WETLAND

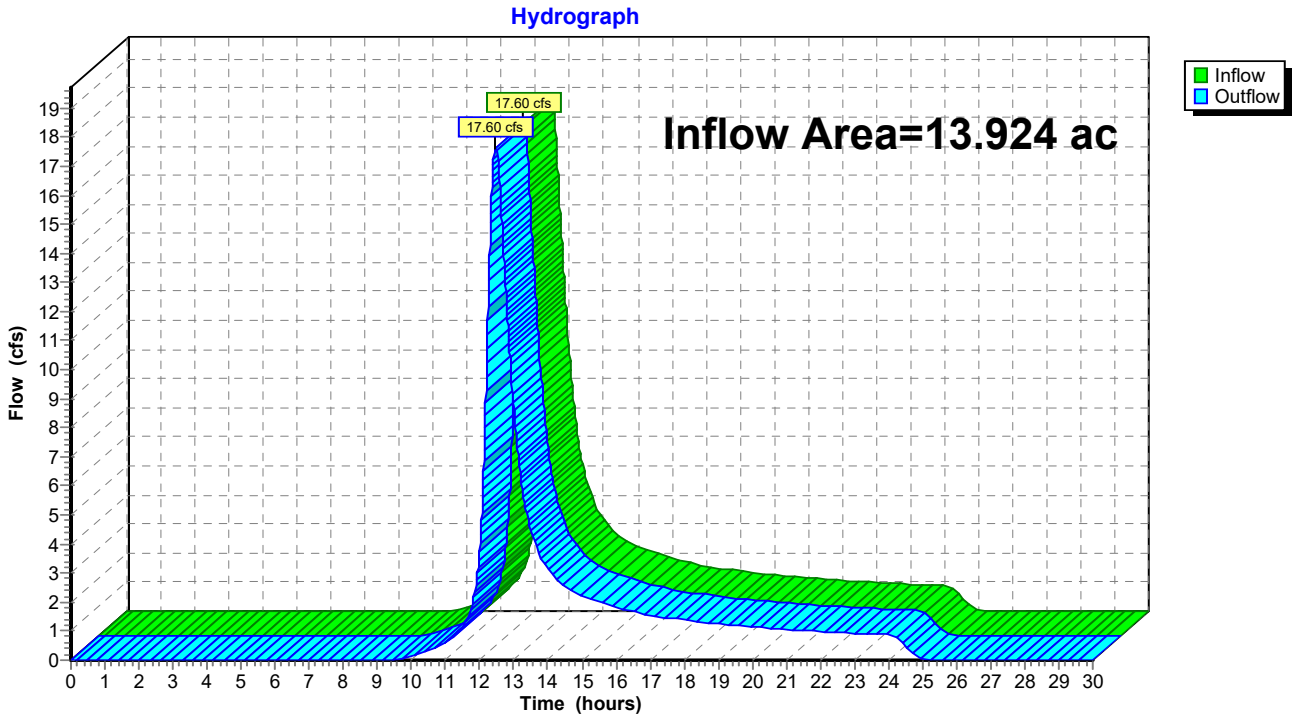


Summary for Reach DP-206: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 13.924 ac, 0.00% Impervious, Inflow Depth = 2.41" for 25-yr event
Inflow = 17.60 cfs @ 12.48 hrs, Volume= 2.801 af
Outflow = 17.60 cfs @ 12.48 hrs, Volume= 2.801 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-206: DISCHARGE TO CENTRAL WETLAND

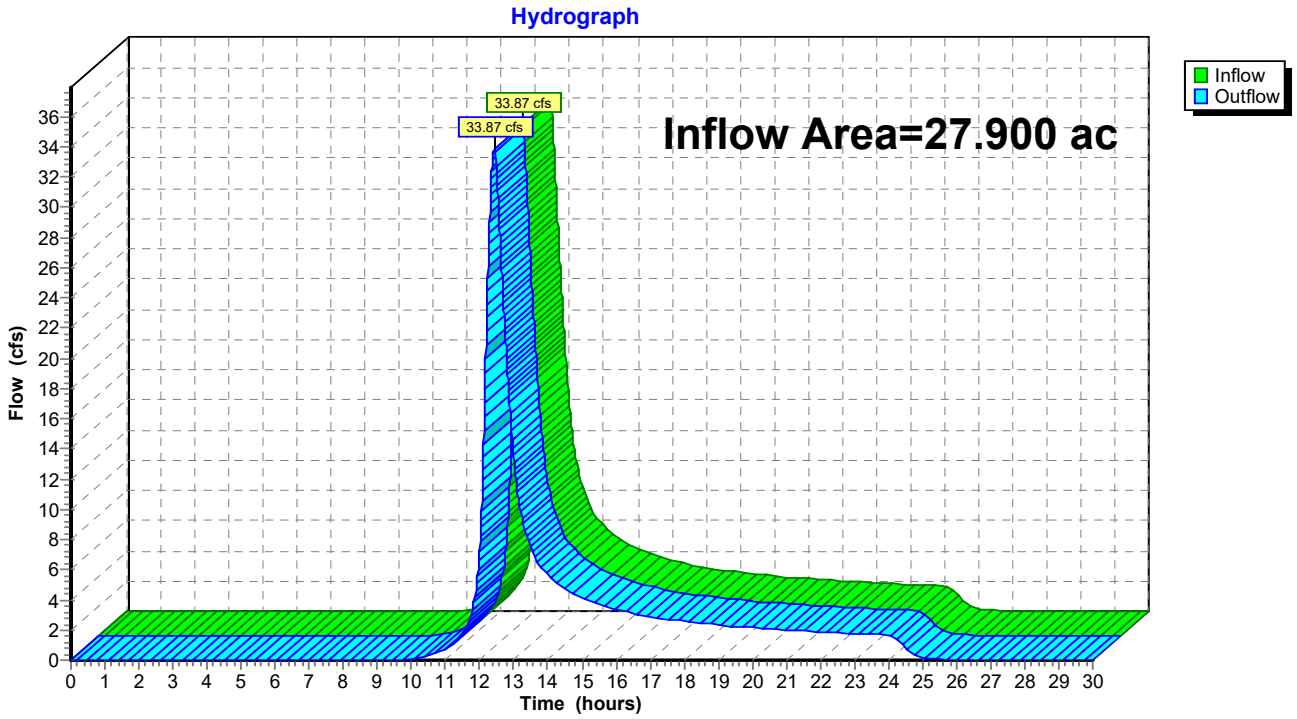


Summary for Reach DP-207: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 27.900 ac, 0.00% Impervious, Inflow Depth = 2.17" for 25-yr event
Inflow = 33.87 cfs @ 12.42 hrs, Volume= 5.046 af
Outflow = 33.87 cfs @ 12.42 hrs, Volume= 5.046 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-207: DISCHARGE TO CENTRAL WETLAND

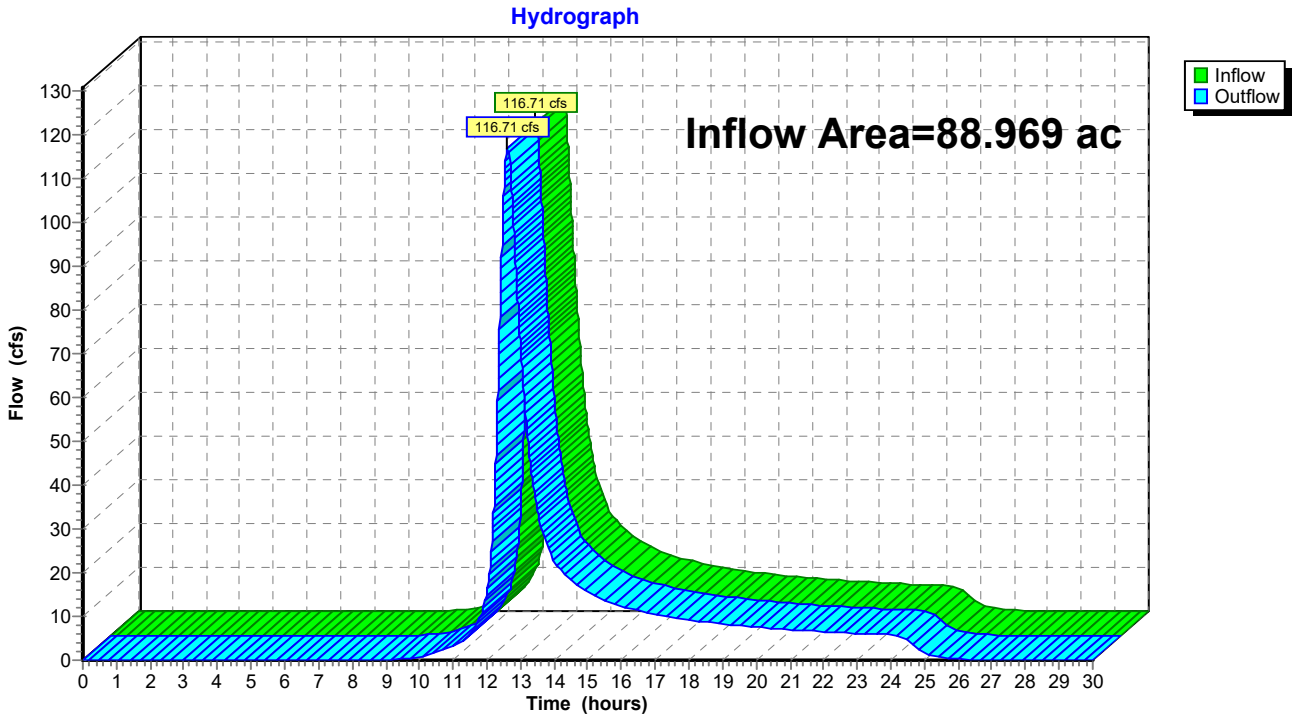


Summary for Reach DP-208: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 88.969 ac, 0.00% Impervious, Inflow Depth = 2.50" for 25-yr event
Inflow = 116.71 cfs @ 12.61 hrs, Volume= 18.537 af
Outflow = 116.71 cfs @ 12.61 hrs, Volume= 18.537 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-208: DISCHARGE TO CENTRAL WETLAND

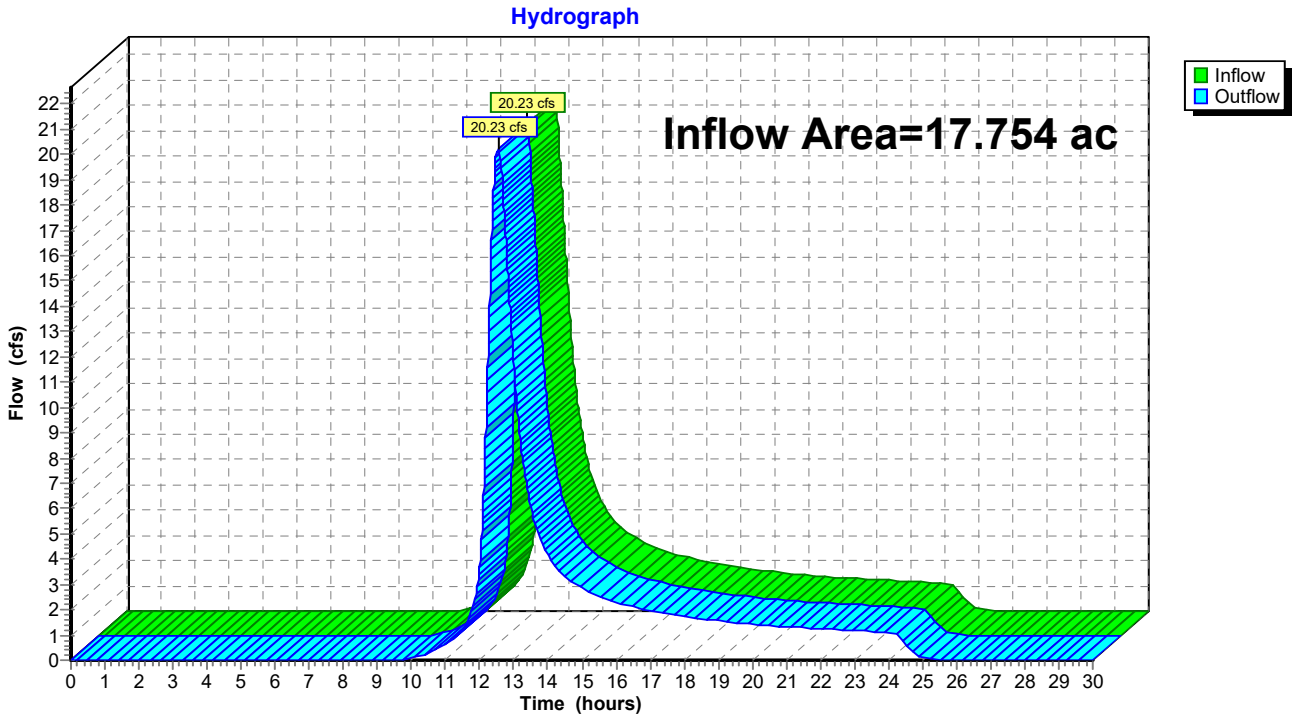


Summary for Reach DP-209: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 17.754 ac, 0.00% Impervious, Inflow Depth = 2.32" for 25-yr event
Inflow = 20.23 cfs @ 12.55 hrs, Volume= 3.439 af
Outflow = 20.23 cfs @ 12.55 hrs, Volume= 3.439 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-209: DISCHARGE TO CENTRAL WETLAND

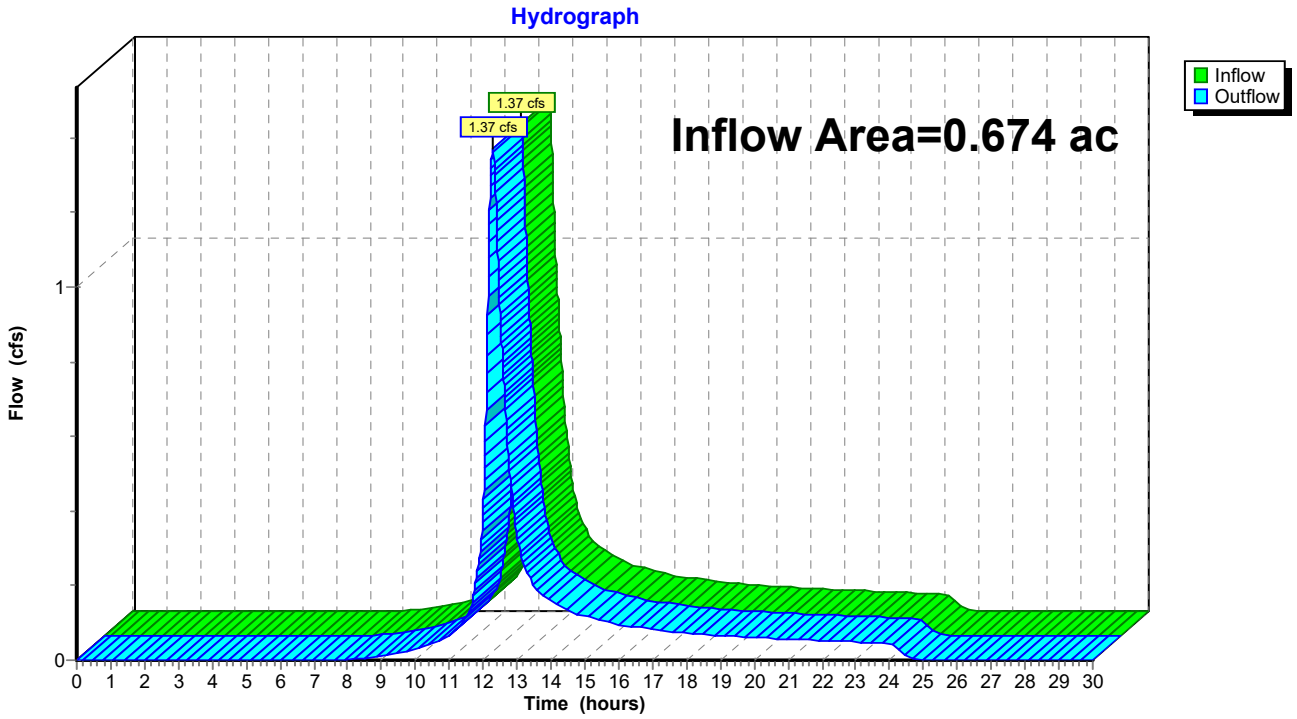


Summary for Reach DP-210: DISCHARGE TO EDA-211

Inflow Area = 0.674 ac, 0.00% Impervious, Inflow Depth = 2.97" for 25-yr event
Inflow = 1.37 cfs @ 12.29 hrs, Volume= 0.167 af
Outflow = 1.37 cfs @ 12.29 hrs, Volume= 0.167 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-210: DISCHARGE TO EDA-211

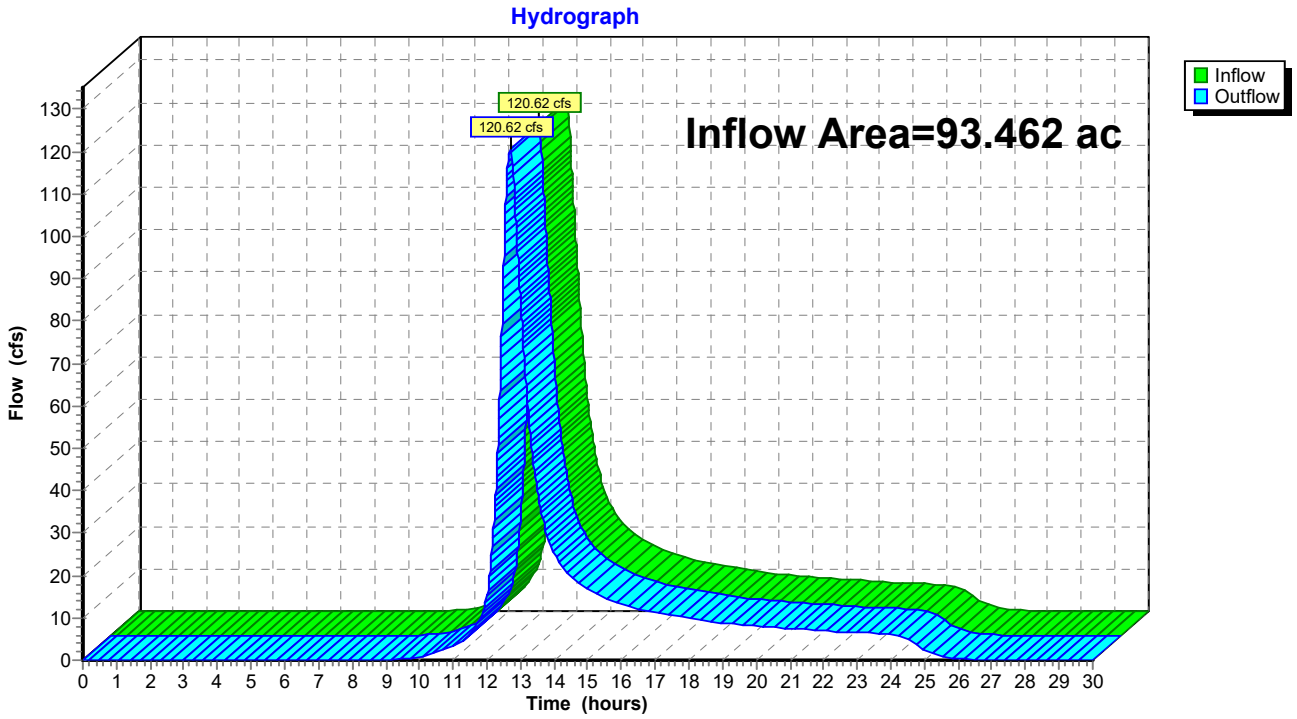


Summary for Reach DP-211: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 93.462 ac, 0.00% Impervious, Inflow Depth = 2.54" for 25-yr event
Inflow = 120.62 cfs @ 12.68 hrs, Volume= 19.805 af
Outflow = 120.62 cfs @ 12.68 hrs, Volume= 19.805 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-211: DISCHARGE TO CENTRAL WETLAND

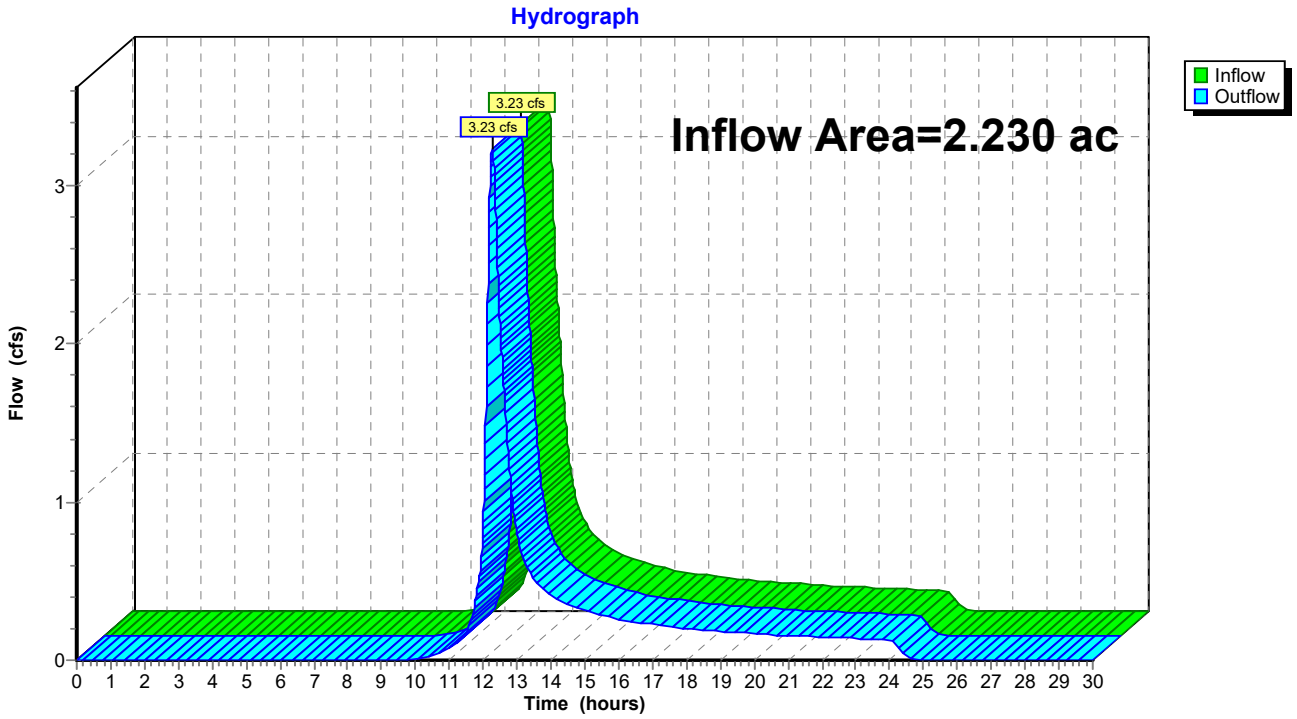


Summary for Reach DP-212: DISCHARGE OFFSITE

Inflow Area = 2.230 ac, 0.00% Impervious, Inflow Depth = 2.15" for 25-yr event
Inflow = 3.23 cfs @ 12.27 hrs, Volume= 0.399 af
Outflow = 3.23 cfs @ 12.27 hrs, Volume= 0.399 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-212: DISCHARGE OFFSITE

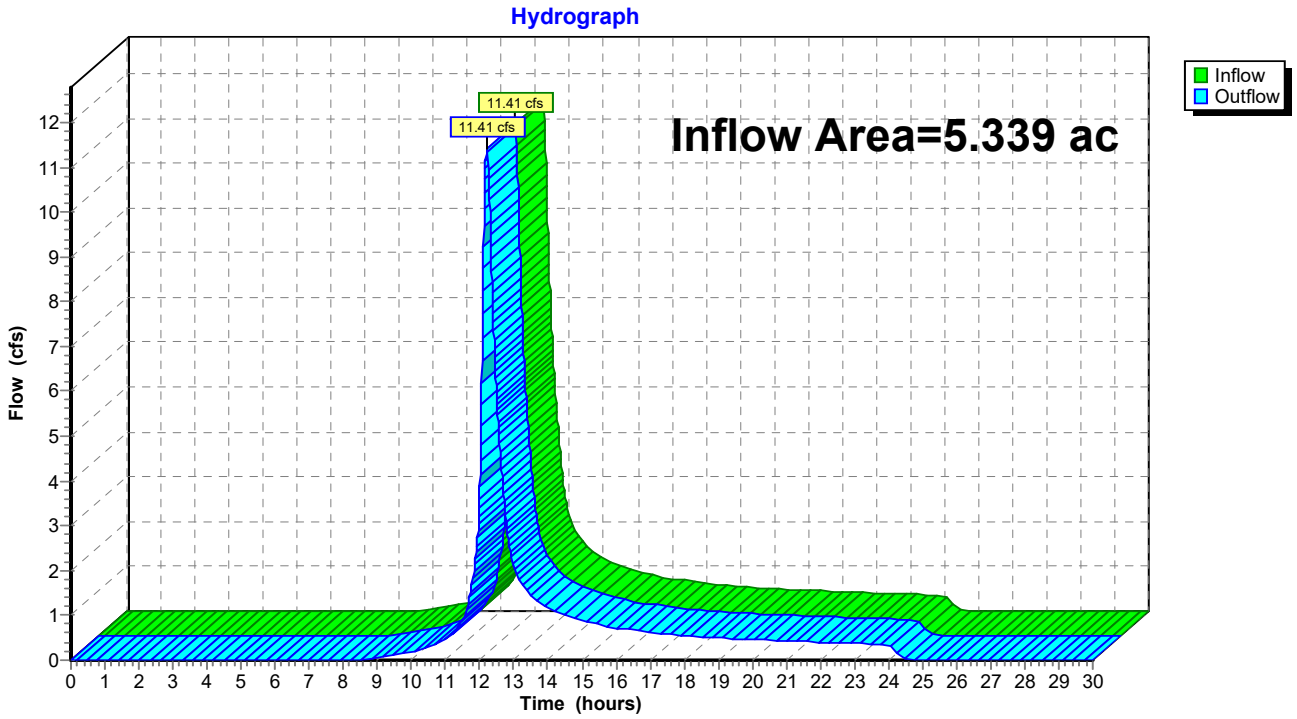


Summary for Reach DP-213: DISCHARGE OFFSITE

Inflow Area = 5.339 ac, 0.00% Impervious, Inflow Depth = 2.78" for 25-yr event
Inflow = 11.41 cfs @ 12.21 hrs, Volume= 1.238 af
Outflow = 11.41 cfs @ 12.21 hrs, Volume= 1.238 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-213: DISCHARGE OFFSITE

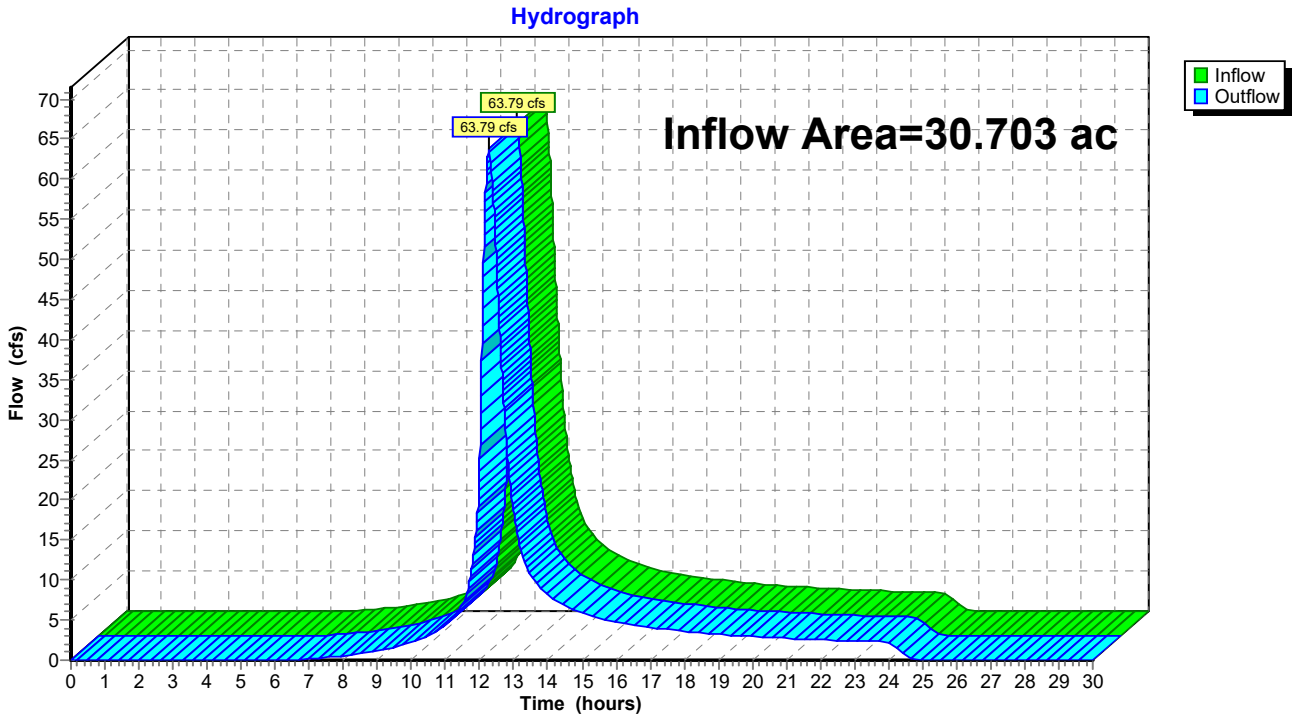


Summary for Reach DP-3: DISCHARGE TOWARDS STONY BROOK

Inflow Area = 30.703 ac, 0.00% Impervious, Inflow Depth = 3.46" for 25-yr event
Inflow = 63.79 cfs @ 12.28 hrs, Volume= 8.848 af
Outflow = 63.79 cfs @ 12.28 hrs, Volume= 8.848 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-3: DISCHARGE TOWARDS STONY BROOK

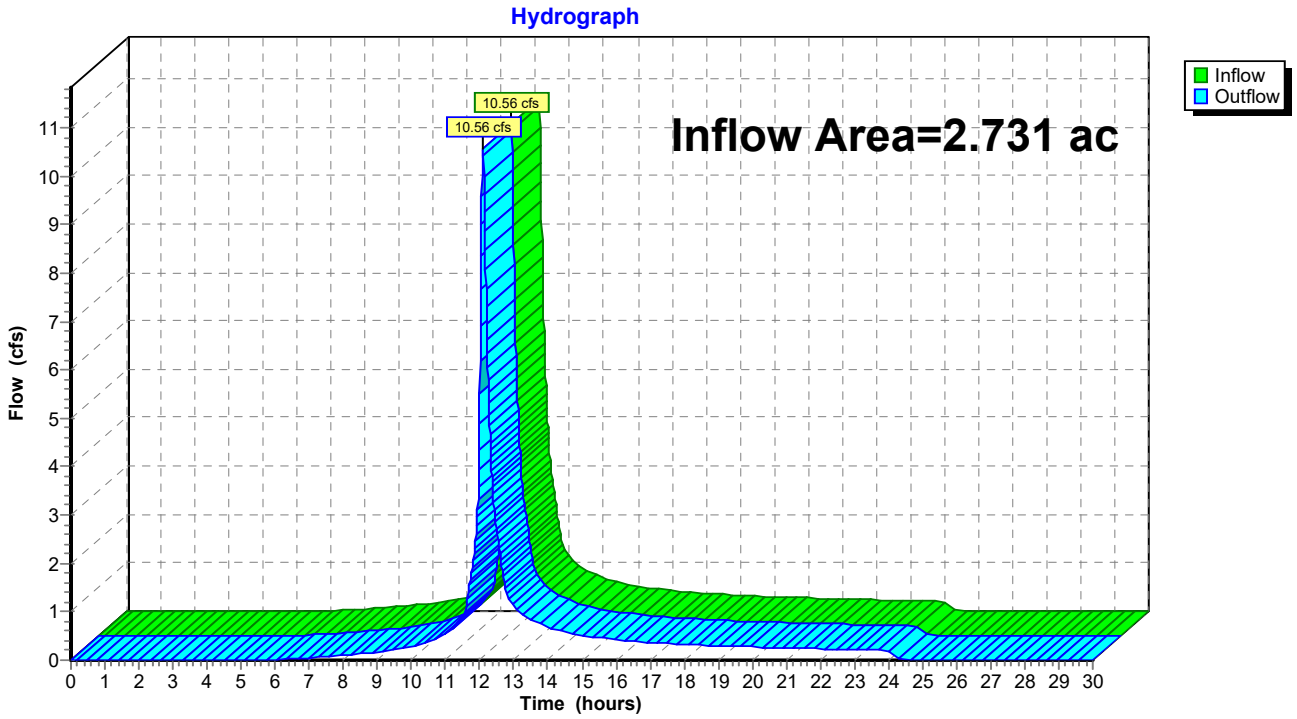


Summary for Reach DP-300: DISCHARGE OFFSITE

Inflow Area = 2.731 ac, 0.00% Impervious, Inflow Depth = 3.77" for 25-yr event
Inflow = 10.56 cfs @ 12.10 hrs, Volume= 0.857 af
Outflow = 10.56 cfs @ 12.10 hrs, Volume= 0.857 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-300: DISCHARGE OFFSITE

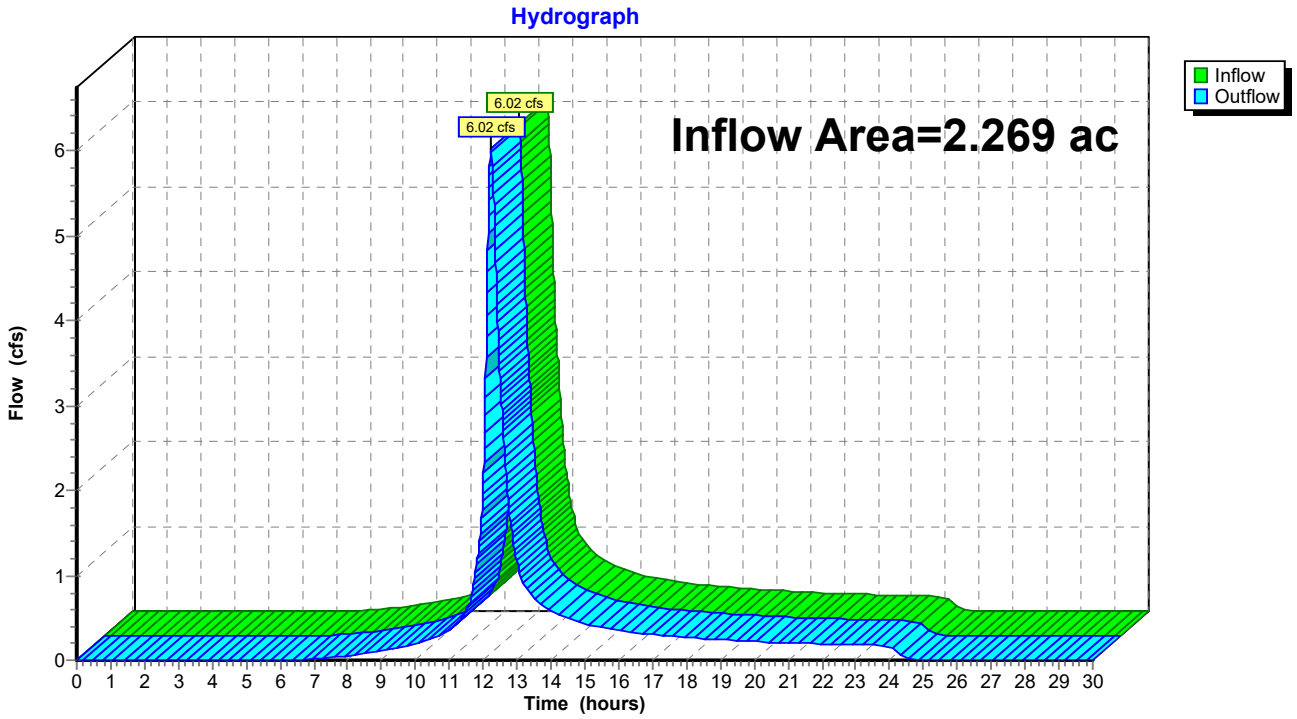


Summary for Reach DP-301: DISCHARGE OFFSITE

Inflow Area = 2.269 ac, 0.00% Impervious, Inflow Depth = 3.56" for 25-yr event
Inflow = 6.02 cfs @ 12.24 hrs, Volume= 0.674 af
Outflow = 6.02 cfs @ 12.24 hrs, Volume= 0.674 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-301: DISCHARGE OFFSITE

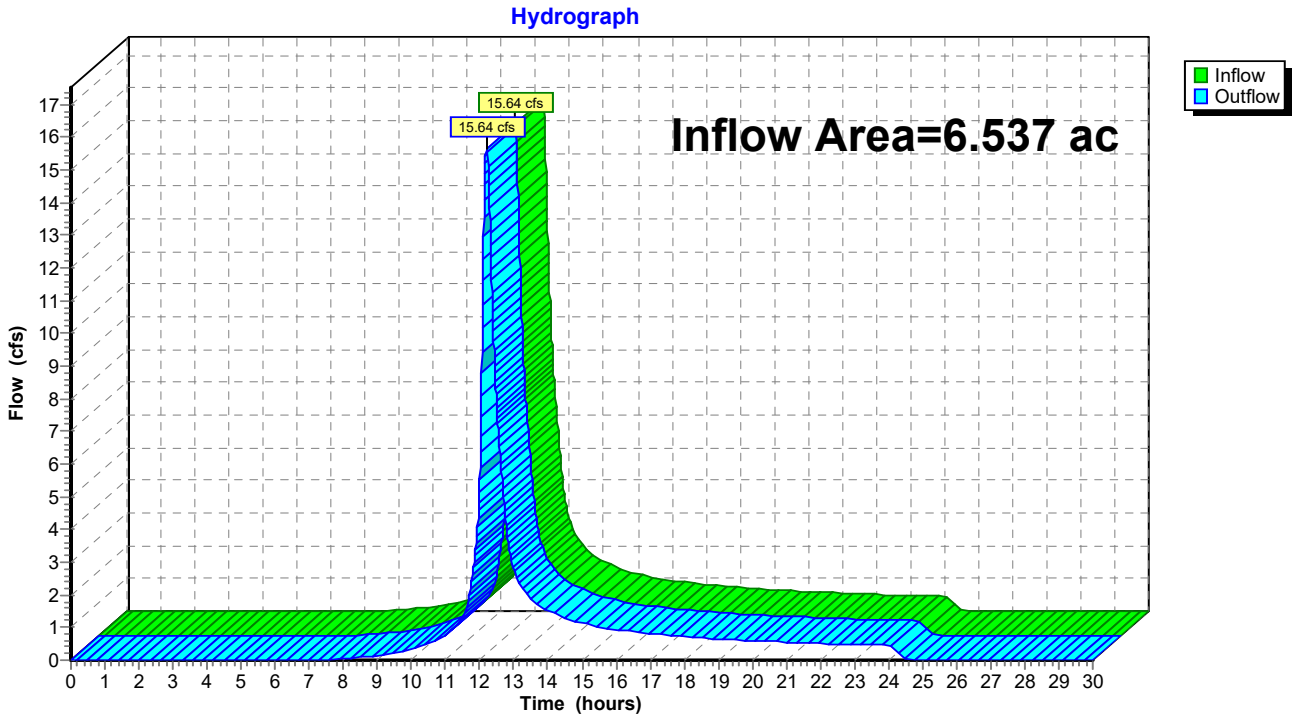


Summary for Reach DP-302: DISCHARGE OFFSITE

Inflow Area = 6.537 ac, 0.00% Impervious, Inflow Depth = 3.07" for 25-yr event
Inflow = 15.64 cfs @ 12.21 hrs, Volume= 1.672 af
Outflow = 15.64 cfs @ 12.21 hrs, Volume= 1.672 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-302: DISCHARGE OFFSITE

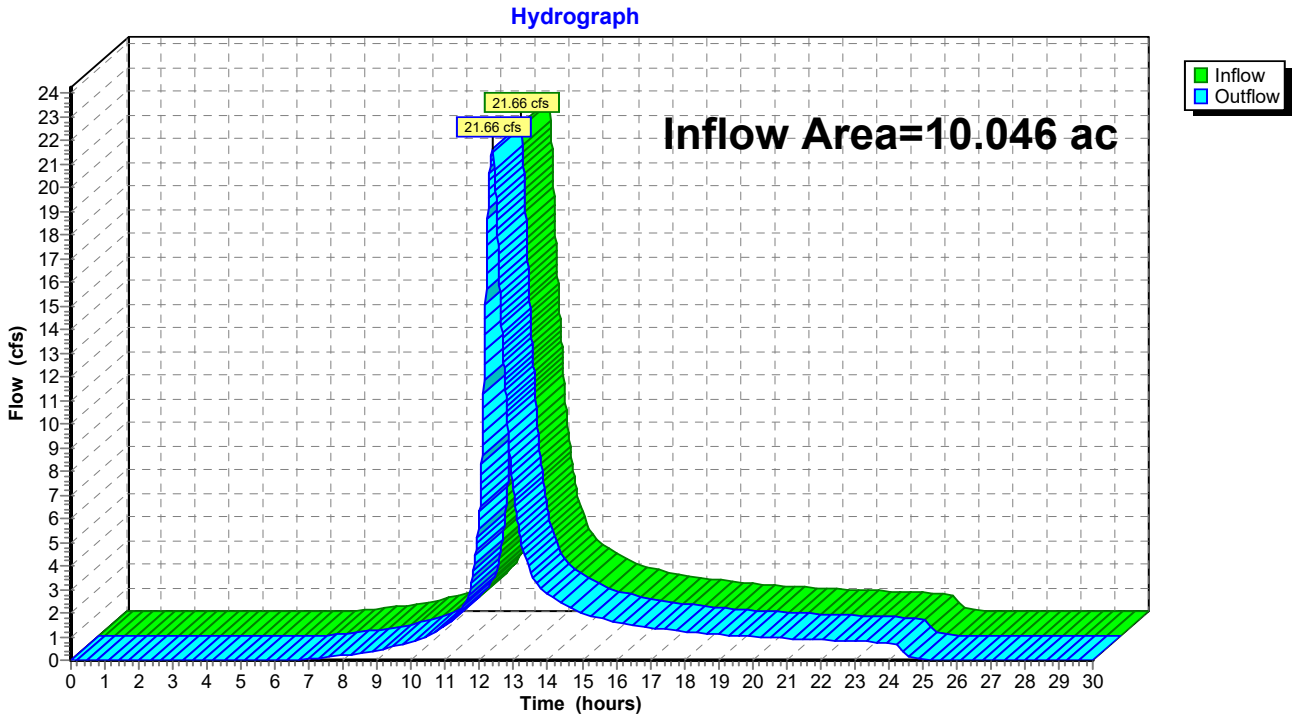


Summary for Reach DP-303: DISCHARGE TO EASTERN WETLAND

Inflow Area = 10.046 ac, 0.00% Impervious, Inflow Depth = 3.56" for 25-yr event
Inflow = 21.66 cfs @ 12.38 hrs, Volume= 2.982 af
Outflow = 21.66 cfs @ 12.38 hrs, Volume= 2.982 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-303: DISCHARGE TO EASTERN WETLAND

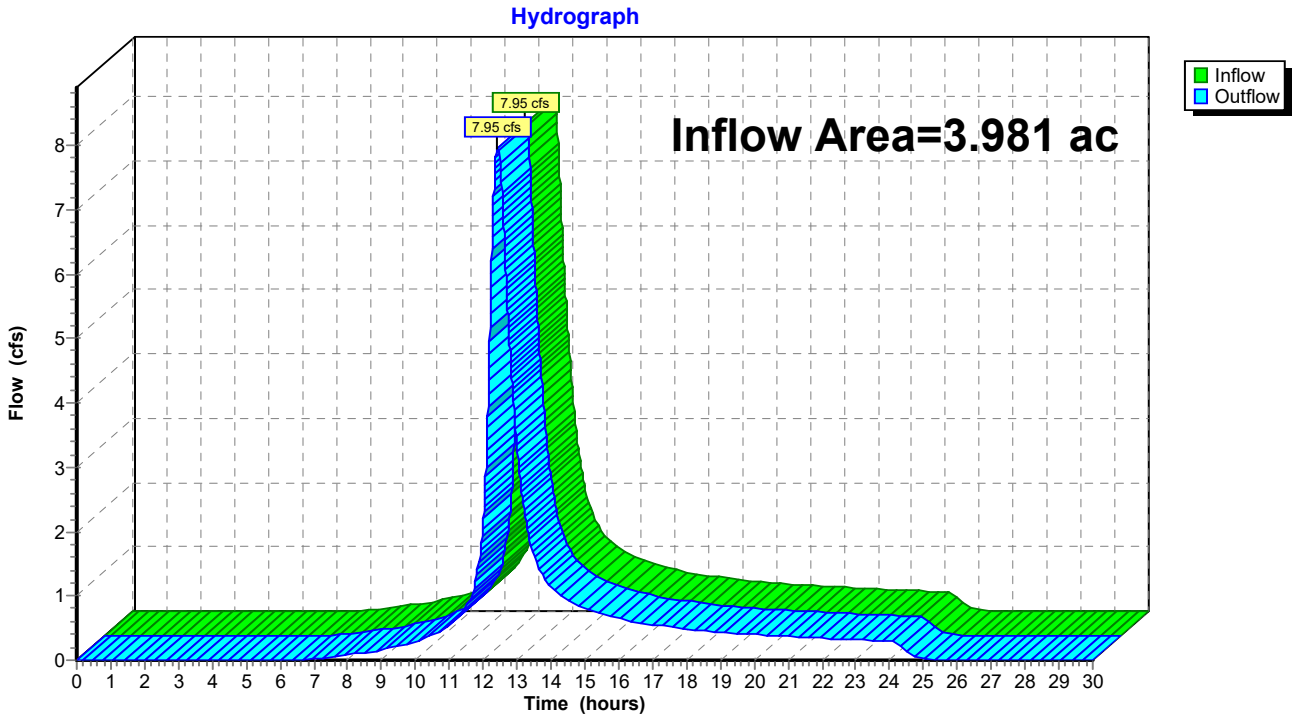


Summary for Reach DP-304: DISCHARGE OFFSITE

Inflow Area = 3.981 ac, 0.00% Impervious, Inflow Depth = 3.56" for 25-yr event
Inflow = 7.95 cfs @ 12.42 hrs, Volume= 1.182 af
Outflow = 7.95 cfs @ 12.42 hrs, Volume= 1.182 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-304: DISCHARGE OFFSITE

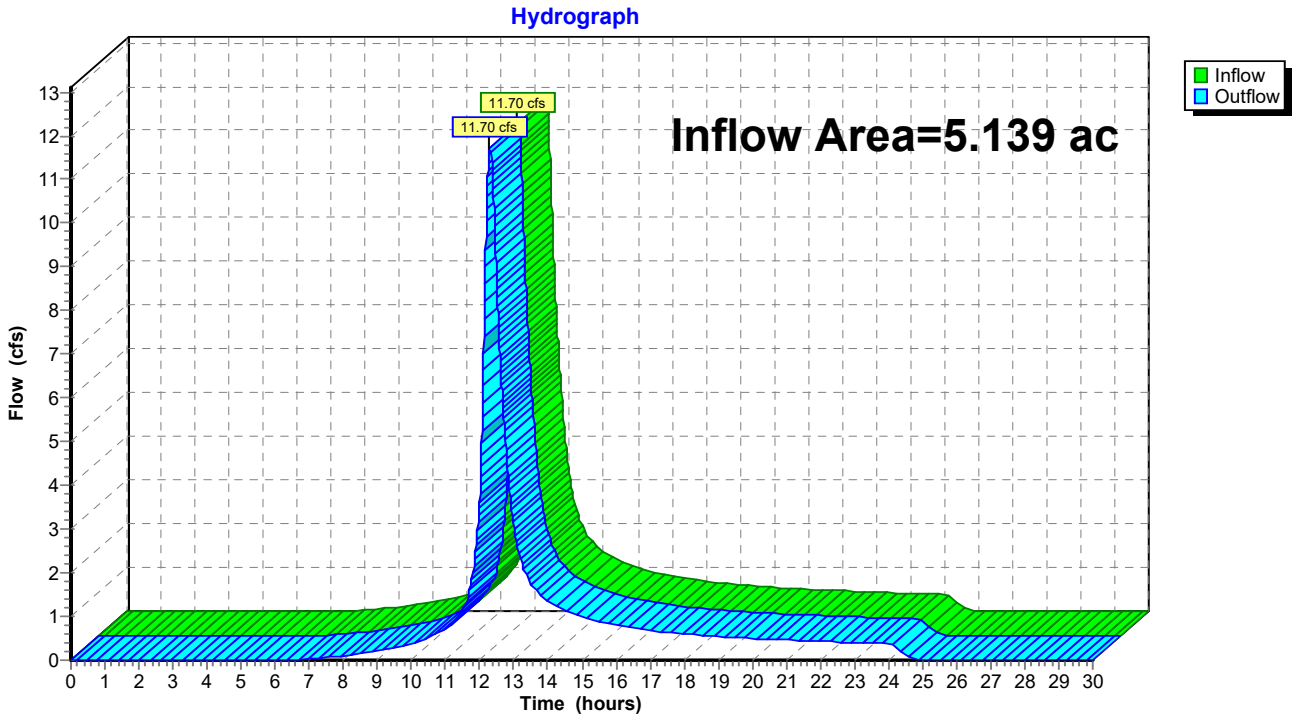


Summary for Reach DP-305: DISCHARGE OFFSITE

Inflow Area = 5.139 ac, 0.00% Impervious, Inflow Depth = 3.46" for 25-yr event
Inflow = 11.70 cfs @ 12.29 hrs, Volume= 1.483 af
Outflow = 11.70 cfs @ 12.29 hrs, Volume= 1.483 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-305: DISCHARGE OFFSITE



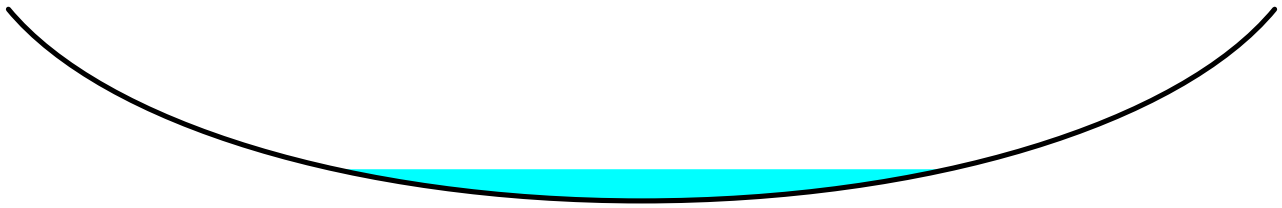
Summary for Reach R-202: FLOW THROUGH CENTRAL WETLAND EDA-207

Inflow Area = 10.341 ac, 0.00% Impervious, Inflow Depth = 2.06" for 25-yr event
Inflow = 15.06 cfs @ 12.23 hrs, Volume= 1.775 af
Outflow = 12.64 cfs @ 12.51 hrs, Volume= 1.775 af, Atten= 16%, Lag= 16.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.80 fps, Min. Travel Time= 9.6 min
Avg. Velocity = 0.69 fps, Avg. Travel Time= 25.1 min

Peak Storage= 7,269 cf @ 12.35 hrs
Average Depth at Peak Storage= 0.33'
Bank-Full Depth= 2.00' Flow Area= 104.0 sf, Capacity= 617.17 cfs

78.00' x 2.00' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 1,032.8' Slope= 0.0697 '/'
Inlet Invert= 188.00', Outlet Invert= 116.00'



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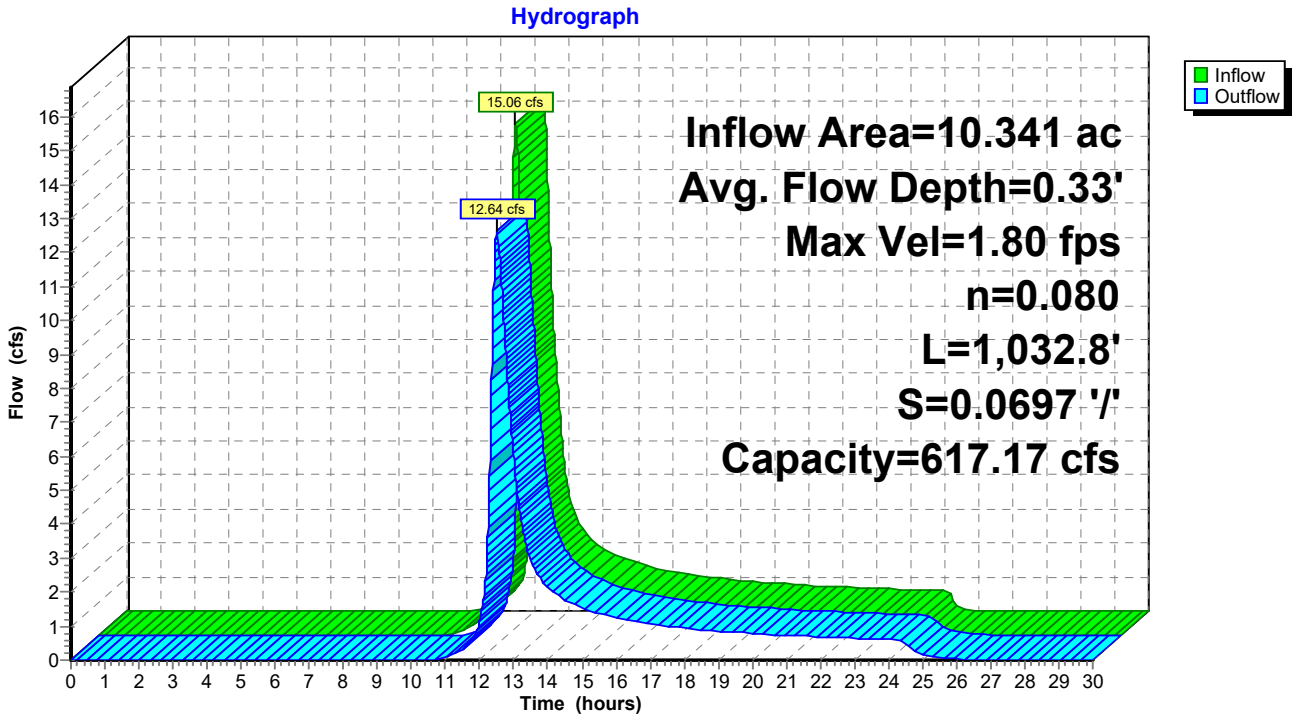
Reach R-202: FLOW THROUGH CENTRAL WETLAND EDA-207



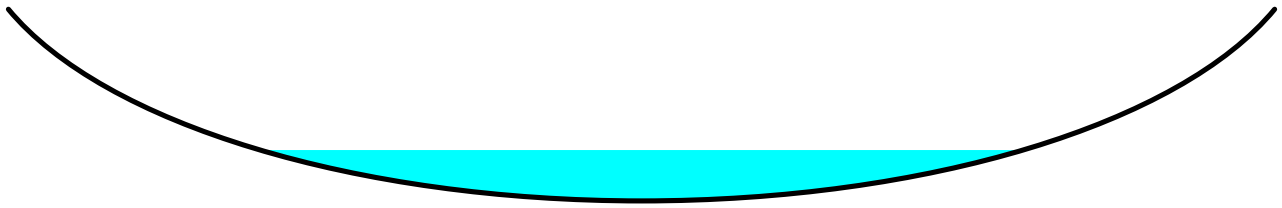
Summary for Reach R-203: SHALLOW CONCENTRATED FLOW THROUGH EDA-205

Inflow Area = 18.396 ac, 0.00% Impervious, Inflow Depth = 2.88" for 25-yr event
Inflow = 34.37 cfs @ 12.31 hrs, Volume= 4.411 af
Outflow = 33.94 cfs @ 12.40 hrs, Volume= 4.411 af, Atten= 1%, Lag= 5.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.48 fps, Min. Travel Time= 2.9 min
Avg. Velocity = 0.91 fps, Avg. Travel Time= 7.9 min

Peak Storage= 5,947 cf @ 12.35 hrs
Average Depth at Peak Storage= 0.66'
Bank-Full Depth= 2.50' Flow Area= 100.0 sf, Capacity= 597.69 cfs

60.00' x 2.50' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 434.0' Slope= 0.0527 '/'
Inlet Invert= 178.88', Outlet Invert= 156.00'



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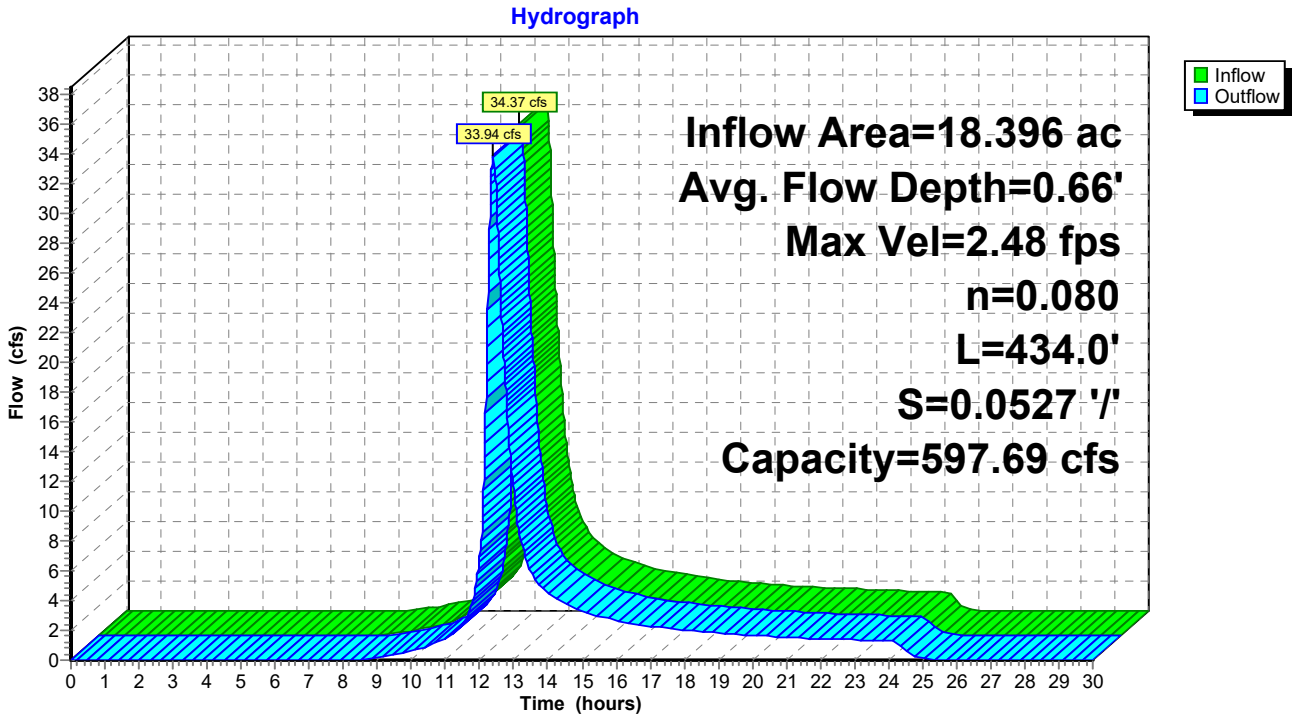
Reach R-203: SHALLOW CONCENTRATED FLOW THROUGH EDA-205



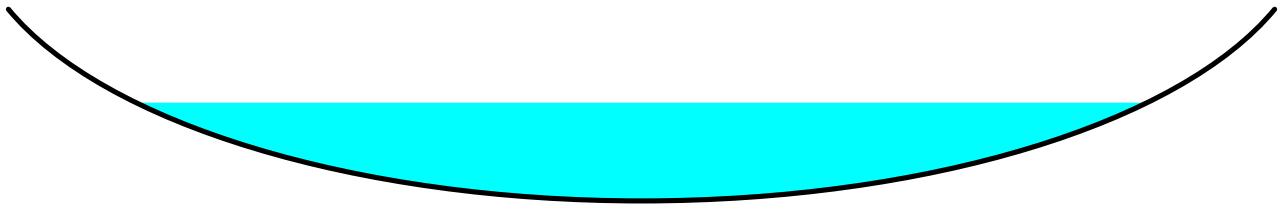
Summary for Reach R-204: SHALLOW CONCENTRATED FLOW THROUGH EDA-205

Inflow Area = 1.091 ac, 0.00% Impervious, Inflow Depth = 2.06" for 25-yr event
Inflow = 1.74 cfs @ 12.19 hrs, Volume= 0.187 af
Outflow = 1.36 cfs @ 12.49 hrs, Volume= 0.187 af, Atten= 22%, Lag= 17.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Max. Velocity= 0.69 fps, Min. Travel Time= 10.7 min
Avg. Velocity = 0.25 fps, Avg. Travel Time= 29.3 min

Peak Storage= 874 cf @ 12.31 hrs
Average Depth at Peak Storage= 0.10'
Bank-Full Depth= 0.20' Flow Area= 5.3 sf, Capacity= 5.78 cfs

40.00' x 0.20' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 446.0' Slope= 0.0499 '/'
Inlet Invert= 178.27', Outlet Invert= 156.00'



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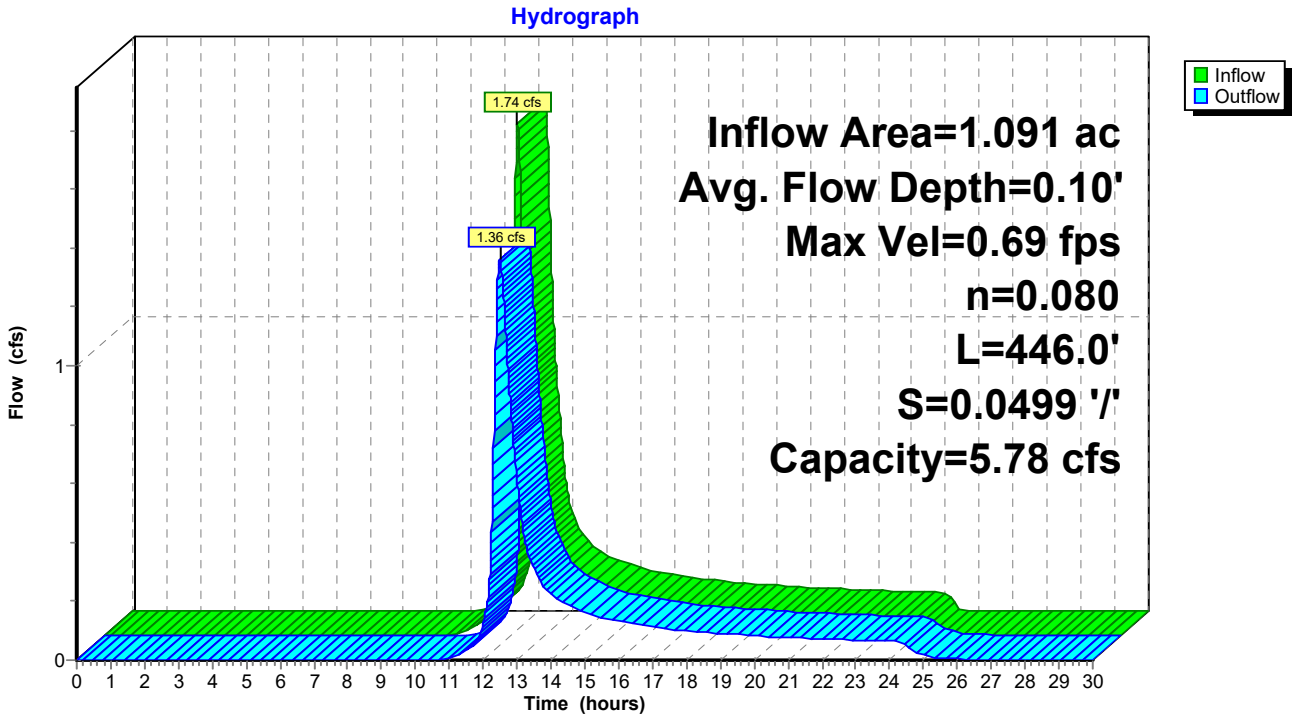
Reach R-204: SHALLOW CONCENTRATED FLOW THROUGH EDA-205



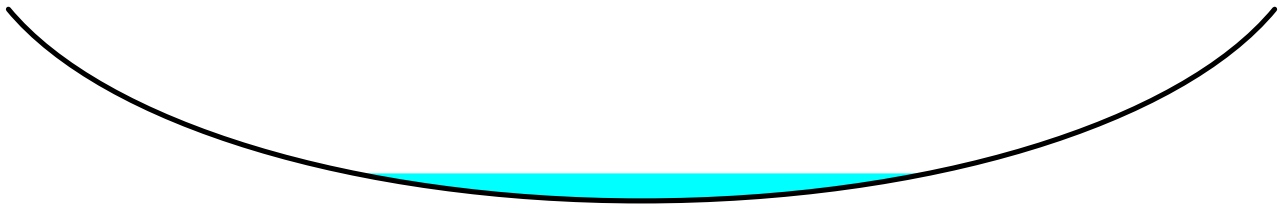
Summary for Reach R-205/206: FLOW THROUGH CENTRAL WETLAND EDA-208

Inflow Area = 47.105 ac, 0.00% Impervious, Inflow Depth = 2.67" for 25-yr event
Inflow = 74.28 cfs @ 12.40 hrs, Volume= 10.469 af
Outflow = 68.12 cfs @ 12.65 hrs, Volume= 10.469 af, Atten= 8%, Lag= 15.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.04 fps, Min. Travel Time= 8.6 min
Avg. Velocity = 0.78 fps, Avg. Travel Time= 22.5 min

Peak Storage= 35,080 cf @ 12.51 hrs
Average Depth at Peak Storage= 0.58'
Bank-Full Depth= 4.00' Flow Area= 610.7 sf, Capacity= 4,524.76 cfs

229.00' x 4.00' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 1,050.0' Slope= 0.0431 '/'
Inlet Invert= 148.40', Outlet Invert= 103.17'



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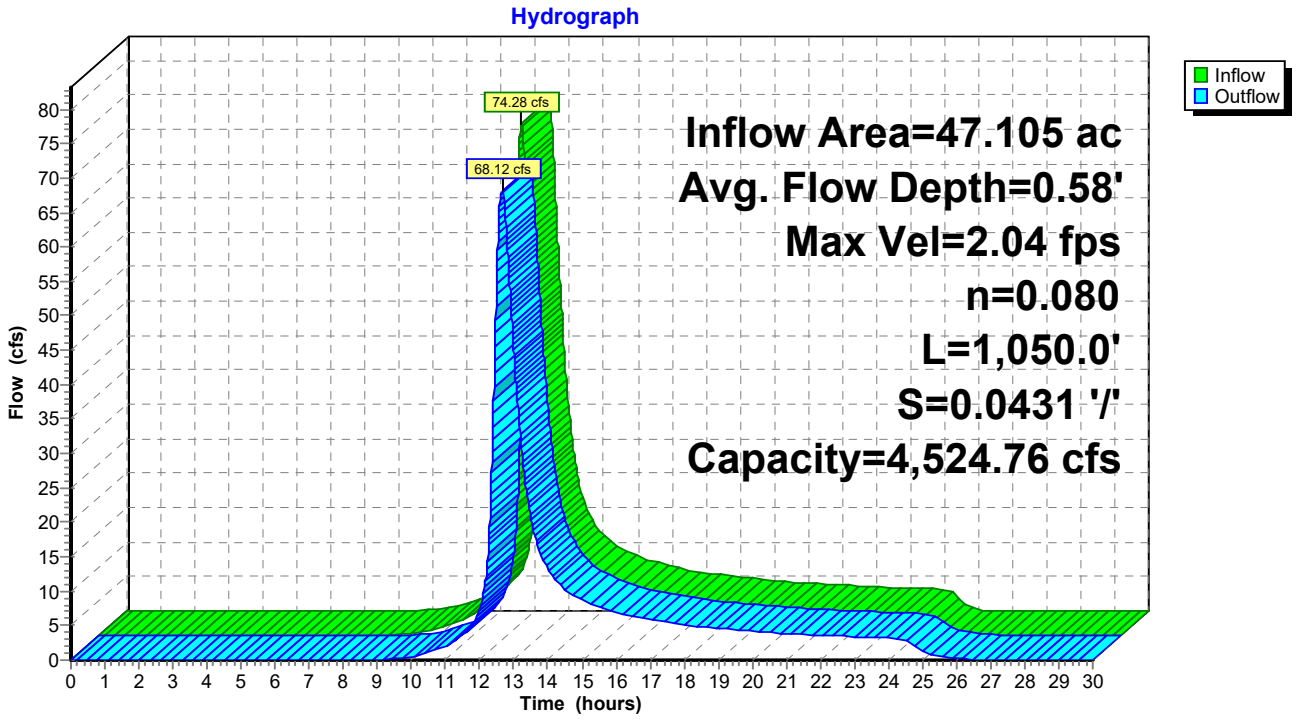
Reach R-205/206: FLOW THROUGH CENTRAL WETLAND EDA-208



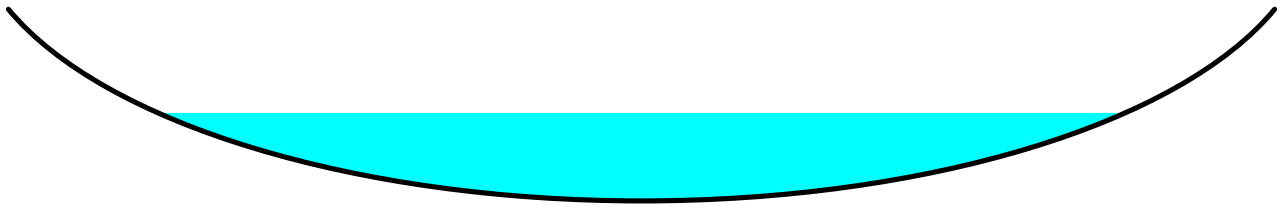
Summary for Reach R-207: FLOW THROUGH CENTRAL WETLAND EDA-208

Inflow Area = 27.900 ac, 0.00% Impervious, Inflow Depth = 2.17" for 25-yr event
Inflow = 33.87 cfs @ 12.42 hrs, Volume= 5.046 af
Outflow = 33.17 cfs @ 12.54 hrs, Volume= 5.046 af, Atten= 2%, Lag= 7.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.20 fps, Min. Travel Time= 4.1 min
Avg. Velocity = 0.45 fps, Avg. Travel Time= 10.9 min

Peak Storage= 8,066 cf @ 12.47 hrs
Average Depth at Peak Storage= 0.34'
Bank-Full Depth= 0.75' Flow Area= 89.0 sf, Capacity= 179.76 cfs

178.00' x 0.75' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 292.0' Slope= 0.0298 '/'
Inlet Invert= 111.87', Outlet Invert= 103.17'



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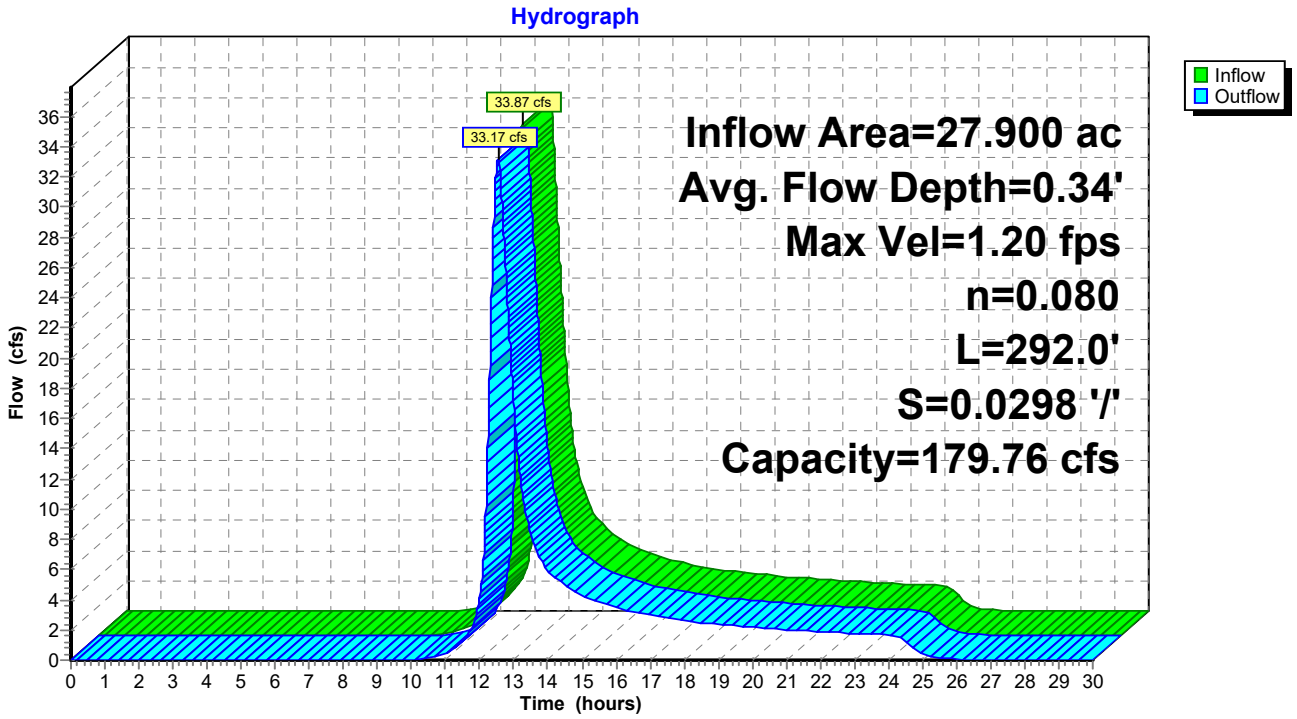
Reach R-207: FLOW THROUGH CENTRAL WETLAND EDA-208



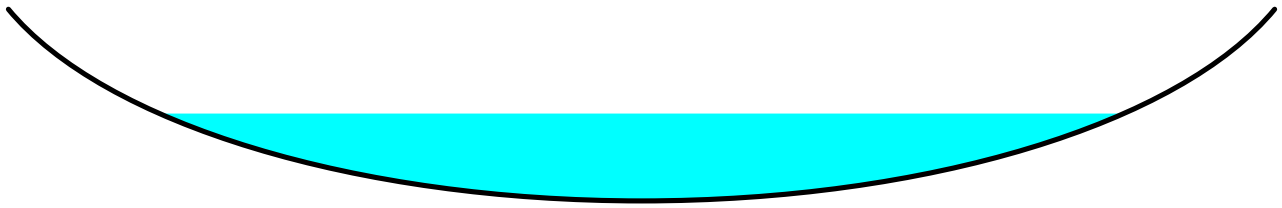
Summary for Reach R-208: FLOW THROUGH CENTRAL WETLAND EDA-211

Inflow Area = 88.969 ac, 0.00% Impervious, Inflow Depth = 2.50" for 25-yr event
Inflow = 116.71 cfs @ 12.61 hrs, Volume= 18.537 af
Outflow = 115.85 cfs @ 12.69 hrs, Volume= 18.537 af, Atten= 1%, Lag= 4.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.52 fps, Min. Travel Time= 2.7 min
Avg. Velocity = 0.56 fps, Avg. Travel Time= 7.5 min

Peak Storage= 19,103 cf @ 12.65 hrs
Average Depth at Peak Storage= 0.50'
Bank-Full Depth= 1.10' Flow Area= 247.9 sf, Capacity= 634.06 cfs

338.00' x 1.10' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 250.0' Slope= 0.0287 '/'
Inlet Invert= 103.17', Outlet Invert= 96.00'



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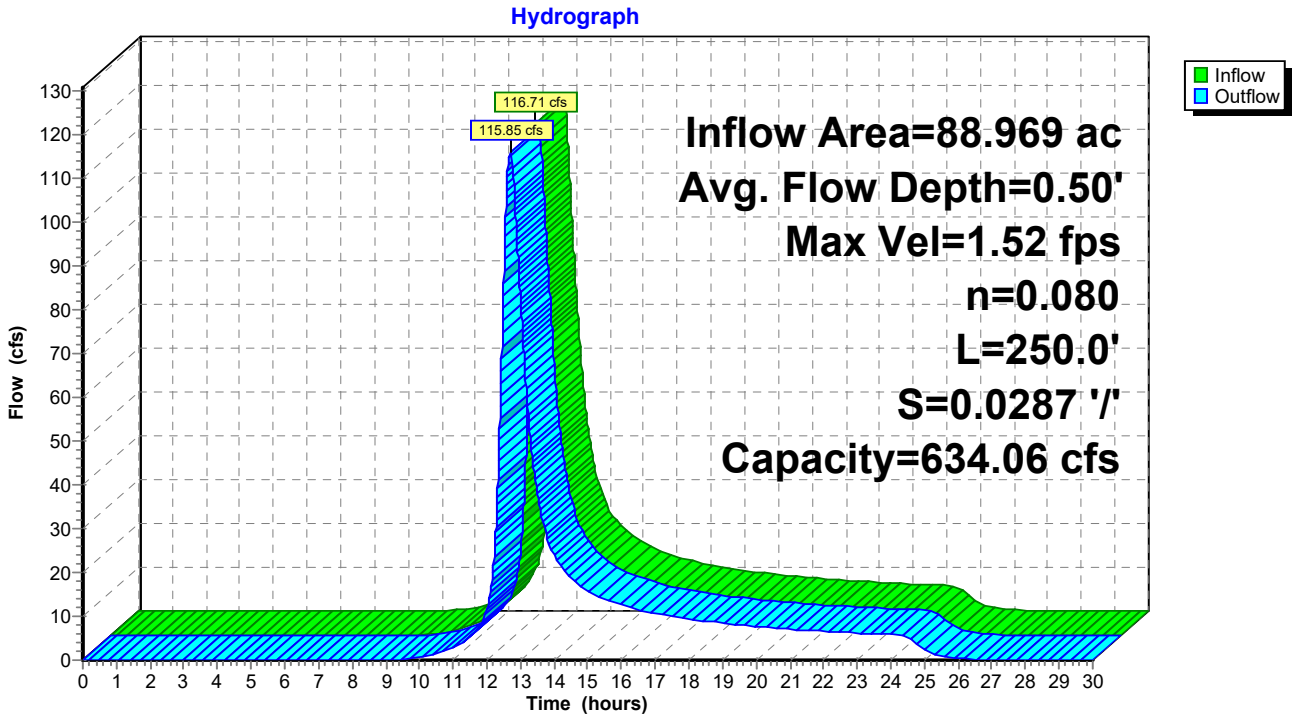
Reach R-208: FLOW THROUGH CENTRAL WETLAND EDA-211



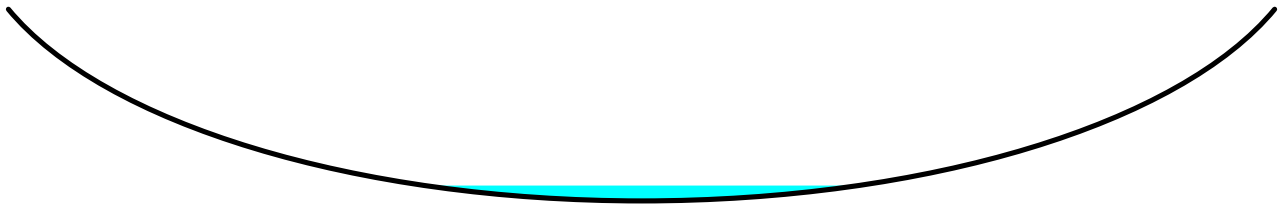
Summary for Reach R-210: FLOW THROUGH CENTRAL WETLAND EDA-211

Inflow Area = 0.674 ac, 0.00% Impervious, Inflow Depth = 2.97" for 25-yr event
Inflow = 1.37 cfs @ 12.29 hrs, Volume= 0.167 af
Outflow = 1.23 cfs @ 12.52 hrs, Volume= 0.167 af, Atten= 11%, Lag= 13.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Max. Velocity= 0.34 fps, Min. Travel Time= 8.3 min
Avg. Velocity = 0.14 fps, Avg. Travel Time= 20.9 min

Peak Storage= 613 cf @ 12.38 hrs
Average Depth at Peak Storage= 0.11'
Bank-Full Depth= 1.40' Flow Area= 156.8 sf, Capacity= 284.60 cfs

168.00' x 1.40' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 170.0' Slope= 0.0105 '/'
Inlet Invert= 97.78', Outlet Invert= 96.00'



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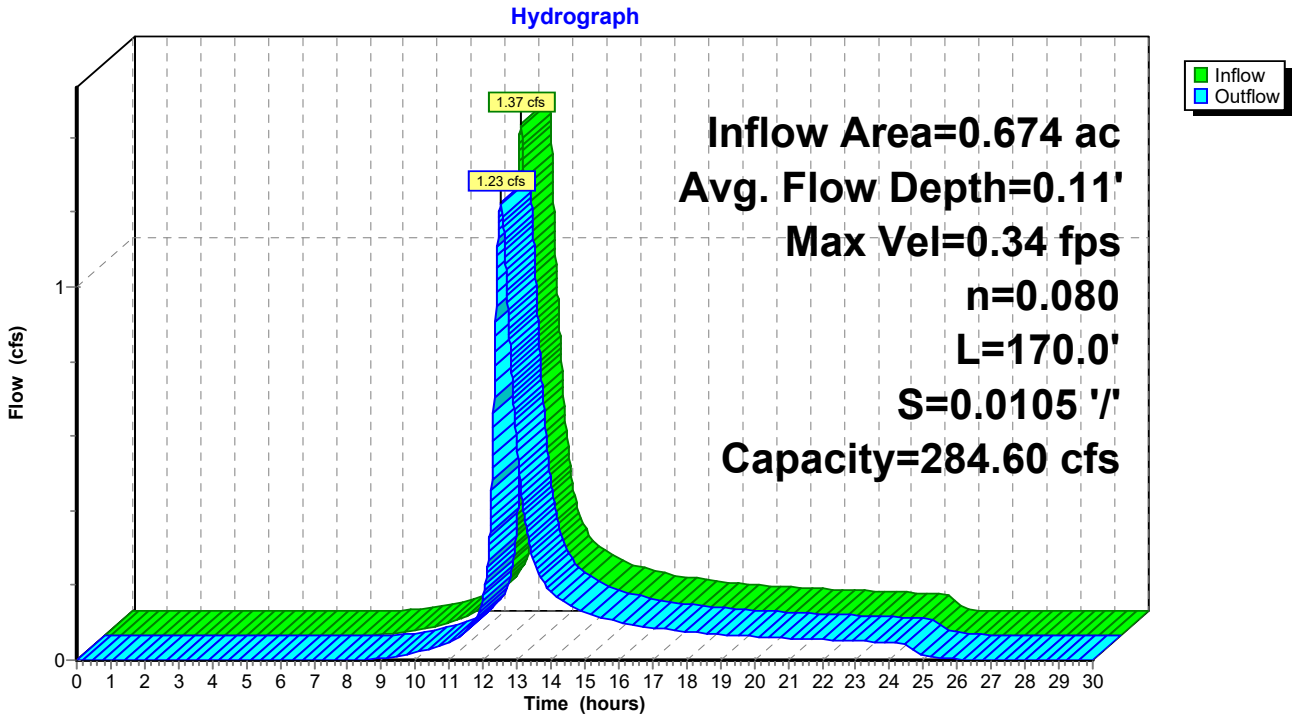
Reach R-210: FLOW THROUGH CENTRAL WETLAND EDA-211



Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment EDA-100: UNDEVELOPED Runoff Area=552,980 sf 0.00% Impervious Runoff Depth=3.21"
Flow Length=960' Tc=27.4 min CN=60 Runoff=25.34 cfs 3.400 af

Subcatchment EDA-101: UNDEVELOPED Runoff Area=137,915 sf 0.00% Impervious Runoff Depth=4.10"
Flow Length=415' Tc=17.7 min CN=68 Runoff=10.38 cfs 1.082 af

Subcatchment EDA-200: UNDEVELOPED Runoff Area=203,118 sf 0.00% Impervious Runoff Depth=3.21"
Flow Length=420' Tc=17.4 min CN=60 Runoff=11.82 cfs 1.249 af

Subcatchment EDA-201: UNDEVELOPED Runoff Area=102,943 sf 0.00% Impervious Runoff Depth=3.21"
Flow Length=430' Tc=18.4 min CN=60 Runoff=5.84 cfs 0.633 af

Subcatchment EDA-202: UNDEVELOPED Runoff Area=450,456 sf 0.00% Impervious Runoff Depth=3.21"
Flow Length=905' Tc=19.9 min CN=60 Runoff=24.50 cfs 2.770 af

Subcatchment EDA-203: UNDEVELOPED Runoff Area=801,310 sf 0.00% Impervious Runoff Depth=4.21"
Flow Length=1,598' Tc=26.0 min CN=69 Runoff=50.91 cfs 6.460 af

Subcatchment EDA-204: UNDEVELOPED Runoff Area=47,524 sf 0.00% Impervious Runoff Depth=3.21"
Flow Length=486' Tc=16.7 min CN=60 Runoff=2.82 cfs 0.292 af

Subcatchment EDA-205: UNDEVELOPED Runoff Area=596,494 sf 0.00% Impervious Runoff Depth=3.99"
Flow Length=1,208' Tc=28.8 min CN=67 Runoff=33.85 cfs 4.552 af

Subcatchment EDA-206: UNDEVELOPED Runoff Area=606,548 sf 0.00% Impervious Runoff Depth=3.65"
Flow Length=1,690' Tc=36.7 min CN=64 Runoff=27.33 cfs 4.240 af

Subcatchment EDA-207: UNDEVELOPED Runoff Area=764,870 sf 0.00% Impervious Runoff Depth=3.43"
Flow Length=1,370' Tc=26.8 min CN=62 Runoff=38.21 cfs 5.023 af

Subcatchment EDA-208: UNDEVELOPED Runoff Area=608,292 sf 0.00% Impervious Runoff Depth=3.88"
Flow Length=1,670' Tc=39.5 min CN=66 Runoff=28.10 cfs 4.512 af

Subcatchment EDA-209: UNDEVELOPED Runoff Area=773,358 sf 0.00% Impervious Runoff Depth=3.54"
Flow Length=2,186' Tc=40.8 min CN=63 Runoff=31.64 cfs 5.242 af

Subcatchment EDA-210: OFFSITE BASIN Runoff Area=29,356 sf 0.00% Impervious Runoff Depth=4.33"
Flow Length=321' Tc=23.8 min CN=70 Runoff=2.01 cfs 0.243 af

Subcatchment EDA-211: UNDEVELOPED Runoff Area=166,352 sf 0.00% Impervious Runoff Depth=4.90"
Flow Length=579' Tc=21.9 min CN=75 Runoff=13.45 cfs 1.559 af

Subcatchment EDA-212: UNDEVELOPED Runoff Area=97,137 sf 0.00% Impervious Runoff Depth=3.32"
Flow Length=687' Tc=22.0 min CN=61 Runoff=5.19 cfs 0.618 af

Subcatchment EDA-213: UNDEVELOPED Runoff Area=232,560 sf 0.00% Impervious Runoff Depth=4.10"
Flow Length=638' Tc=18.7 min CN=68 Runoff=17.07 cfs 1.825 af

Subcatchment EDA-300: UNDEVELOPED Runoff Area=118,942 sf 0.00% Impervious Runoff Depth=5.24"
Flow Length=447' Tc=10.8 min CN=78 Runoff=14.65 cfs 1.193 af

Subcatchment EDA-301: UNDEVELOPED Runoff Area=98,859 sf 0.00% Impervious Runoff Depth=5.01"
Flow Length=728' Tc=20.6 min CN=76 Runoff=8.46 cfs 0.948 af

Subcatchment EDA-302: UNDEVELOPED Runoff Area=284,755 sf 0.00% Impervious Runoff Depth=4.44"
Flow Length=889' Tc=18.5 min CN=71 Runoff=22.79 cfs 2.419 af

Subcatchment EDA-303: UNDEVELOPED Runoff Area=437,598 sf 0.00% Impervious Runoff Depth=5.01"
Flow Length=1,180' Tc=30.2 min CN=76 Runoff=30.41 cfs 4.196 af

Subcatchment EDA-304: UNDEVEL0PED Runoff Area=173,415 sf 0.00% Impervious Runoff Depth=5.01"
Flow Length=1,052' Tc=34.7 min CN=76 Runoff=11.18 cfs 1.663 af

Subcatchment EDA-305: UNDEVELOPED Runoff Area=223,862 sf 0.00% Impervious Runoff Depth=4.90"
Flow Length=525' Tc=25.9 min CN=75 Runoff=16.59 cfs 2.097 af

Reach DP-1: DISCHARGE OFFSITE TOWARDS STONY BROOK Inflow=33.50 cfs 4.482 af
Outflow=33.50 cfs 4.482 af

Reach DP-100: DISCHARGE OFFSITE Inflow=25.34 cfs 3.400 af
Outflow=25.34 cfs 3.400 af

Reach DP-101: DISCHARGE OFFSITE Inflow=10.38 cfs 1.082 af
Outflow=10.38 cfs 1.082 af

Reach DP-2: DISCHARGE TOWARDS OIL MILL BROOK Inflow=236.35 cfs 39.215 af
Outflow=236.35 cfs 39.215 af

Reach DP-200: DISCHARGE OFFSITE Inflow=11.82 cfs 1.249 af
Outflow=11.82 cfs 1.249 af

Reach DP-201: DISCHARGE OFFSITE Inflow=5.84 cfs 0.633 af
Outflow=5.84 cfs 0.633 af

Reach DP-202: DISCHARGE TO CENTRAL WETLAND Inflow=24.50 cfs 2.770 af
Outflow=24.50 cfs 2.770 af

Reach DP-205: DISCHARGE TO CENTRAL WETLAND Inflow=86.22 cfs 11.304 af
Outflow=86.22 cfs 11.304 af

Reach DP-206: DISCHARGE TO CENTRAL WETLAND Inflow=27.33 cfs 4.240 af
Outflow=27.33 cfs 4.240 af

Reach DP-207: DISCHARGE TO CENTRAL WETLAND Inflow=56.45 cfs 7.793 af
Outflow=56.45 cfs 7.793 af

Reach DP-208: DISCHARGE TO CENTRAL WETLAND Inflow=183.77 cfs 27.848 af
Outflow=183.77 cfs 27.848 af

Reach DP-209: DISCHARGE TO CENTRAL WETLAND Inflow=31.64 cfs 5.242 af
Outflow=31.64 cfs 5.242 af

Reach DP-210: DISCHARGE TO EDA-211 Inflow=2.01 cfs 0.243 af
Outflow=2.01 cfs 0.243 af

Reach DP-211: DISCHARGE TO CENTRAL WETLAND Inflow=190.12 cfs 29.649 af
Outflow=190.12 cfs 29.649 af

Reach DP-212: DISCHARGE OFFSITE Inflow=5.19 cfs 0.618 af
Outflow=5.19 cfs 0.618 af

Reach DP-213: DISCHARGE OFFSITE Inflow=17.07 cfs 1.825 af
Outflow=17.07 cfs 1.825 af

Reach DP-3: DISCHARGE TOWARDS STONY BROOK Inflow=90.47 cfs 12.517 af
Outflow=90.47 cfs 12.517 af

Reach DP-300: DISCHARGE OFFSITE Inflow=14.65 cfs 1.193 af
Outflow=14.65 cfs 1.193 af

Reach DP-301: DISCHARGE OFFSITE Inflow=8.46 cfs 0.948 af
Outflow=8.46 cfs 0.948 af

Reach DP-302: DISCHARGE OFFSITE Inflow=22.79 cfs 2.419 af
Outflow=22.79 cfs 2.419 af

Reach DP-303: DISCHARGE TO EASTERN WETLAND Inflow=30.41 cfs 4.196 af
Outflow=30.41 cfs 4.196 af

Reach DP-304: DISCHARGE OFFSITE Inflow=11.18 cfs 1.663 af
Outflow=11.18 cfs 1.663 af

Reach DP-305: DISCHARGE OFFSITE Inflow=16.59 cfs 2.097 af
Outflow=16.59 cfs 2.097 af

Reach R-202: FLOW THROUGH Avg. Flow Depth=0.42' Max Vel=2.11 fps Inflow=24.50 cfs 2.770 af
n=0.080 L=1,032.8' S=0.0697 '/' Capacity=617.17 cfs Outflow=21.33 cfs 2.769 af

Reach R-203: SHALLOW Avg. Flow Depth=0.80' Max Vel=2.80 fps Inflow=50.91 cfs 6.460 af
n=0.080 L=434.0' S=0.0527 '/' Capacity=597.69 cfs Outflow=50.41 cfs 6.460 af

Reach R-204: SHALLOW Avg. Flow Depth=0.13' Max Vel=0.82 fps Inflow=2.82 cfs 0.292 af
n=0.080 L=446.0' S=0.0499 '/' Capacity=5.78 cfs Outflow=2.32 cfs 0.292 af

Reach R-205/206: FLOW THROUGH Avg. Flow Depth=0.70' Max Vel=2.33 fps Inflow=112.48 cfs 15.544 af
n=0.080 L=1,050.0' S=0.0431 '/' Capacity=4,524.76 cfs Outflow=104.91 cfs 15.544 af

Reach R-207: FLOW THROUGH Avg. Flow Depth=0.44' Max Vel=1.41 fps Inflow=56.45 cfs 7.793 af
n=0.080 L=292.0' S=0.0298 '/' Capacity=179.76 cfs Outflow=55.52 cfs 7.793 af

Reach R-208: FLOW THROUGH Avg. Flow Depth=0.62' Max Vel=1.74 fps Inflow=183.77 cfs 27.848 af
n=0.080 L=250.0' S=0.0287 '/' Capacity=634.06 cfs Outflow=182.72 cfs 27.848 af

Reach R-210: FLOW THROUGH Avg. Flow Depth=0.14' Max Vel=0.39 fps Inflow=2.01 cfs 0.243 af
n=0.080 L=170.0' S=0.0105 '/' Capacity=284.60 cfs Outflow=1.84 cfs 0.243 af

Total Runoff Area = 172.375 ac Runoff Volume = 56.215 af Average Runoff Depth = 3.91"
100.00% Pervious = 172.375 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment EDA-100: UNDEVELOPED FOREST

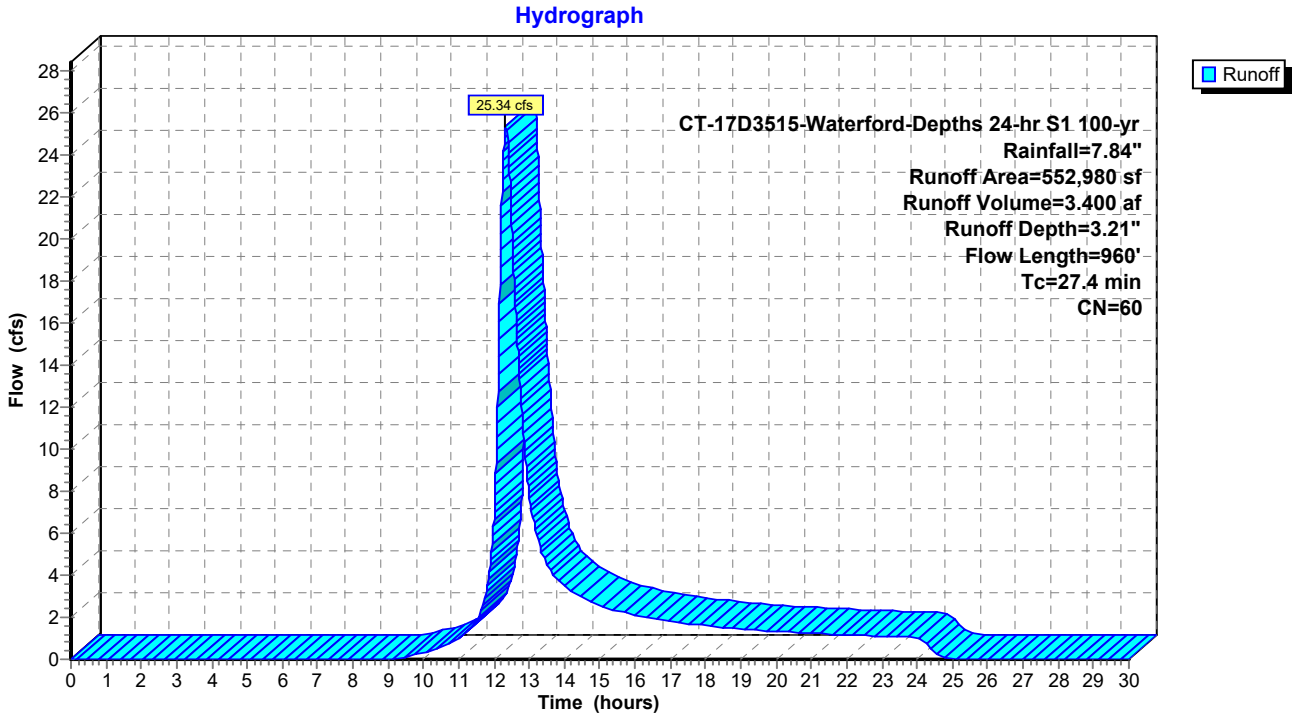
Runoff = 25.34 cfs @ 12.33 hrs, Volume= 3.400 af, Depth= 3.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
552,980	60	Woods, Fair, HSG B
552,980	60	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0768	0.14		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
15.3	860	0.0351	0.94		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
27.4	960	Total			

Subcatchment EDA-100: UNDEVELOPED FOREST



Summary for Subcatchment EDA-101: UNDEVELOPED FOREST

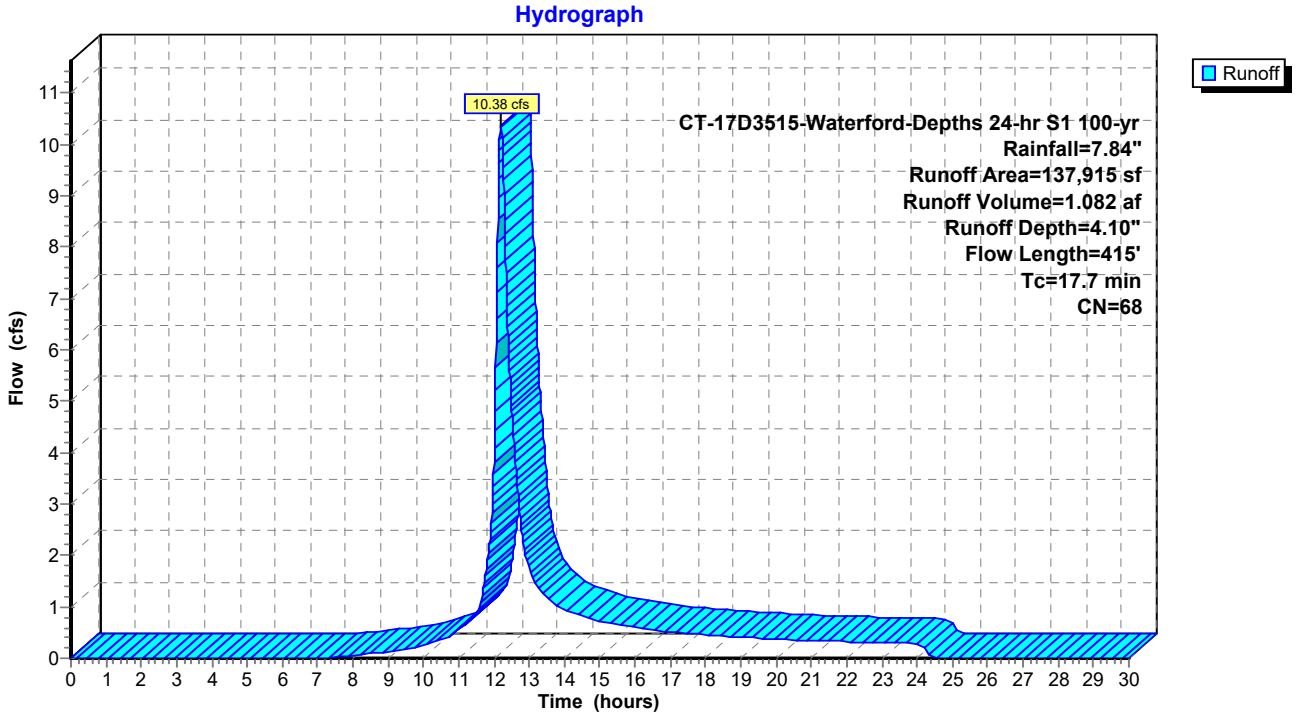
Runoff = 10.38 cfs @ 12.19 hrs, Volume= 1.082 af, Depth= 4.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
77,701	60	Woods, Fair, HSG B
60,214	79	Woods, Fair, HSG D
137,915	68	Weighted Average
137,915	68	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.3	100	0.0726	0.13		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
5.4	315	0.0374	0.97		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
17.7	415	Total			

Subcatchment EDA-101: UNDEVELOPED FOREST



Summary for Subcatchment EDA-200: UNDEVELOPED FOREST

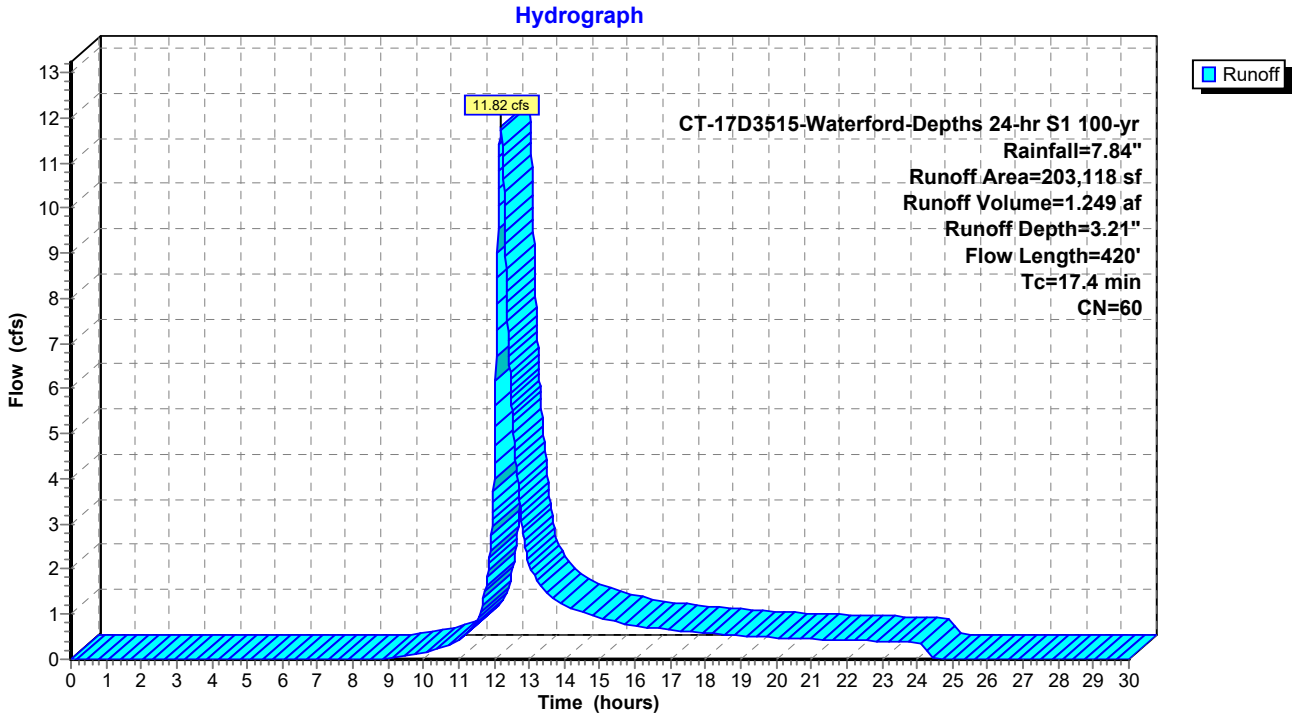
Runoff = 11.82 cfs @ 12.20 hrs, Volume= 1.249 af, Depth= 3.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
203,118	60	Woods, Fair, HSG B
203,118	60	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	100	0.0557	0.12		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
3.7	320	0.0841	1.45		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
17.4	420	Total			

Subcatchment EDA-200: UNDEVELOPED FOREST



Summary for Subcatchment EDA-201: UNDEVELOPED FOREST

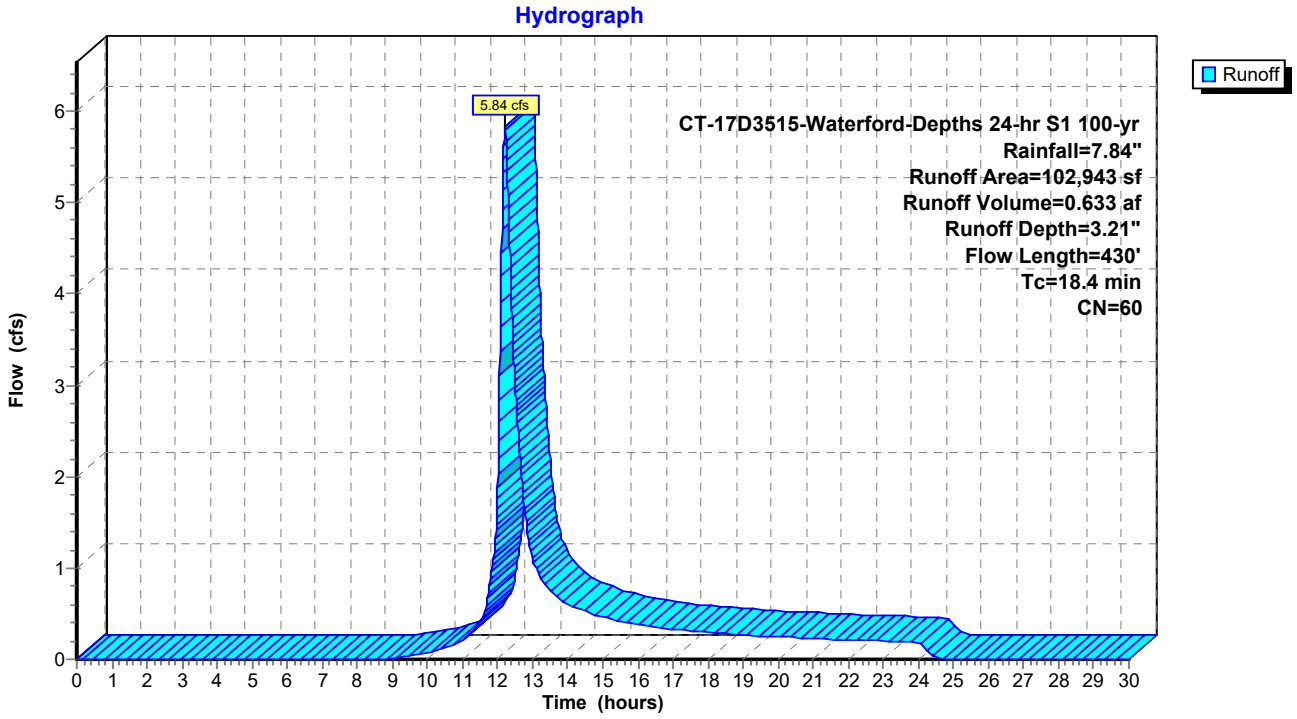
Runoff = 5.84 cfs @ 12.21 hrs, Volume= 0.633 af, Depth= 3.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
102,943	60	Woods, Fair, HSG B
102,943	60	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.9	100	0.0451	0.11		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
3.5	330	0.1015	1.59		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
18.4	430	Total			

Subcatchment EDA-201: UNDEVELOPED FOREST



Summary for Subcatchment EDA-202: UNDEVELOPED FOREST

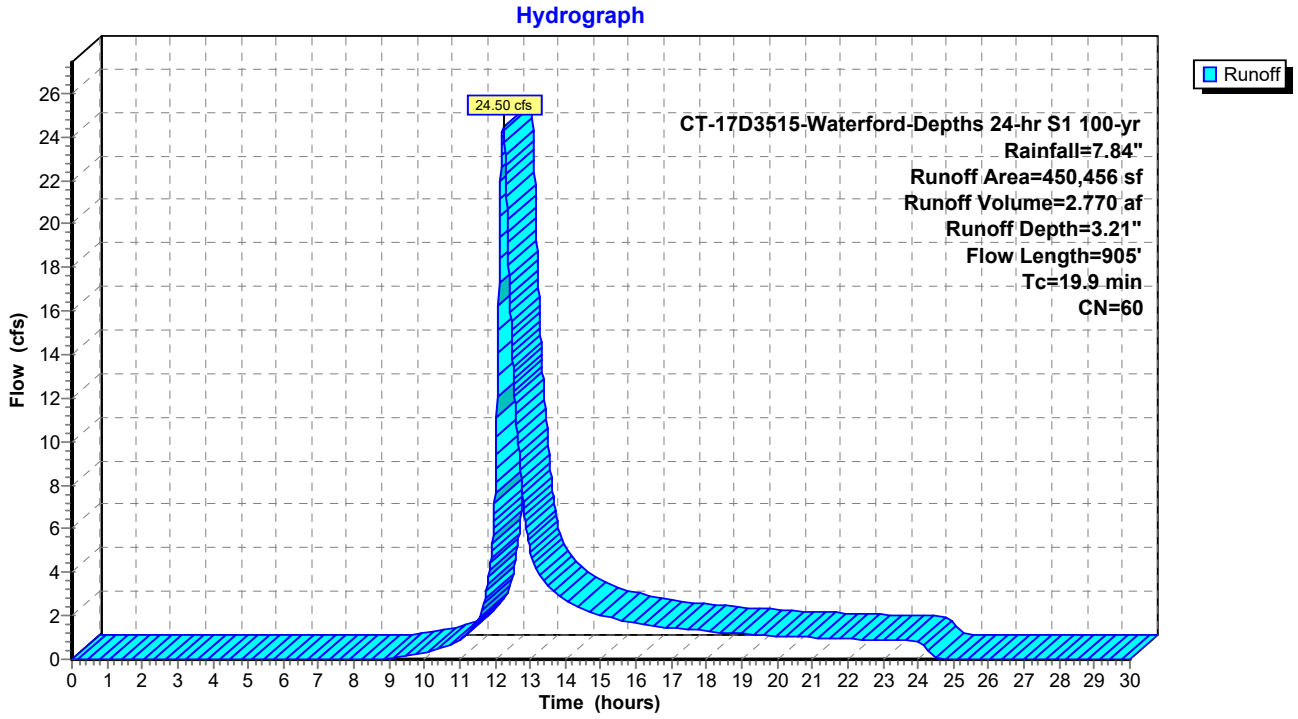
Runoff = 24.50 cfs @ 12.23 hrs, Volume= 2.770 af, Depth= 3.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
450,456	60	Woods, Fair, HSG B
450,456	60	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	100	0.1350	0.17		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
10.3	805	0.0678	1.30		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
19.9	905	Total			

Subcatchment EDA-202: UNDEVELOPED FOREST



Summary for Subcatchment EDA-203: UNDEVELOPED FOREST

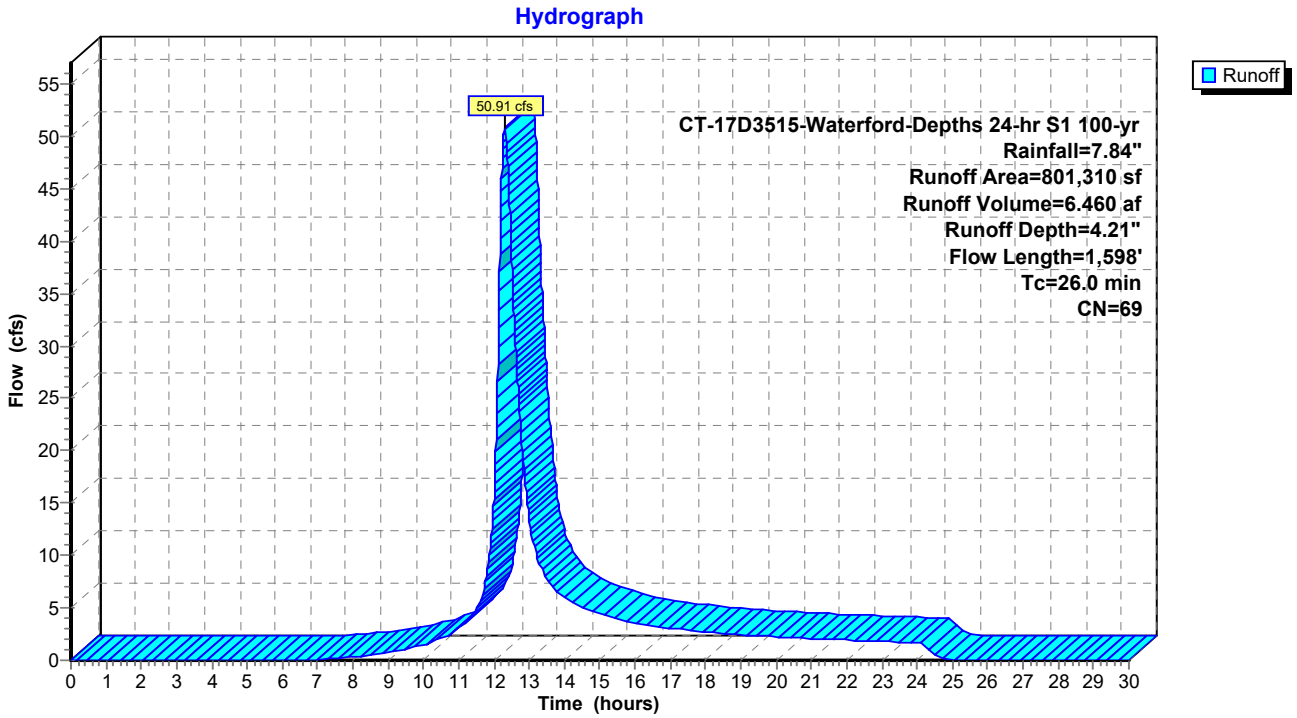
Runoff = 50.91 cfs @ 12.31 hrs, Volume= 6.460 af, Depth= 4.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
239,408	60	Woods, Fair, HSG B
555,898	73	Woods, Fair, HSG C
5,581	86	<50% Grass cover, Poor, HSG C
423	82	Dirt roads, HSG B
801,310	69	Weighted Average
801,310	69	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	100	1.0000	0.39		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
21.7	1,498	0.0530	1.15		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
26.0	1,598	Total			

Subcatchment EDA-203: UNDEVELOPED FOREST



Summary for Subcatchment EDA-204: UNDEVELOPED FOREST

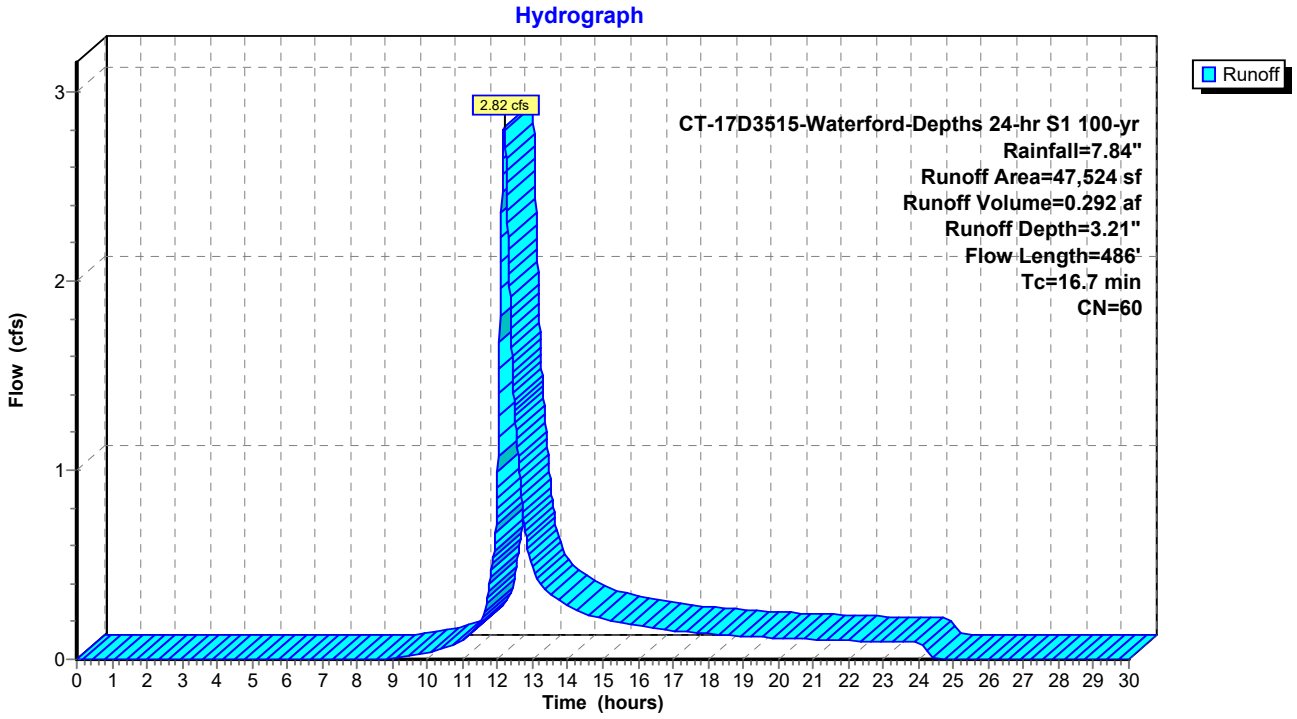
Runoff = 2.82 cfs @ 12.19 hrs, Volume= 0.292 af, Depth= 3.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
47,524	60	Woods, Fair, HSG B
47,524	60	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0	100	0.0786	0.14		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
4.7	386	0.0753	1.37		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
16.7	486	Total			

Subcatchment EDA-204: UNDEVELOPED FOREST



Summary for Subcatchment EDA-205: UNDEVELOPED FOREST

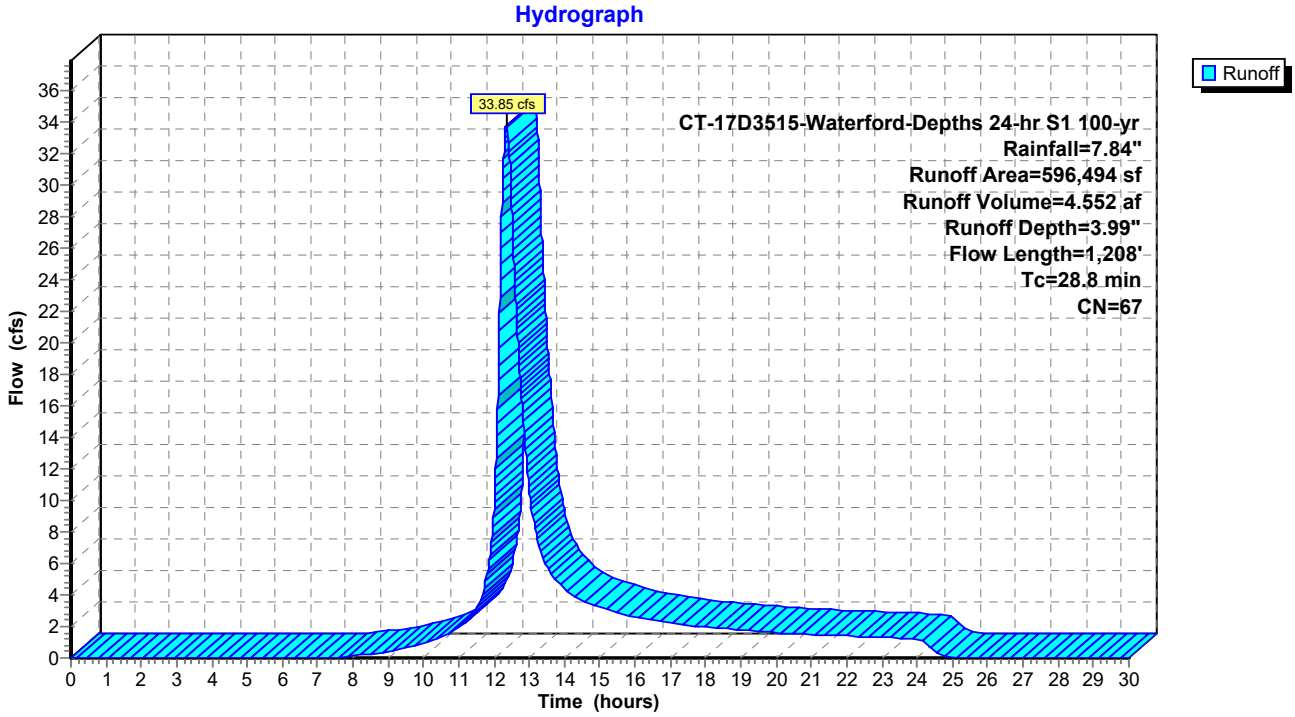
Runoff = 33.85 cfs @ 12.35 hrs, Volume= 4.552 af, Depth= 3.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
356,763	60	Woods, Fair, HSG B
127,304	73	Woods, Fair, HSG C
8,159	82	Dirt roads, HSG B
2,702	87	Dirt roads, HSG C
64,278	79	<50% Grass cover, Poor, HSG B
37,288	86	<50% Grass cover, Poor, HSG C
596,494	67	Weighted Average
596,494	67	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.8	100	0.0394	0.11		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
13.0	1,108	0.0809	1.42		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
28.8	1,208	Total			

Subcatchment EDA-205: UNDEVELOPED FOREST



Summary for Subcatchment EDA-206: UNDEVELOPED FOREST

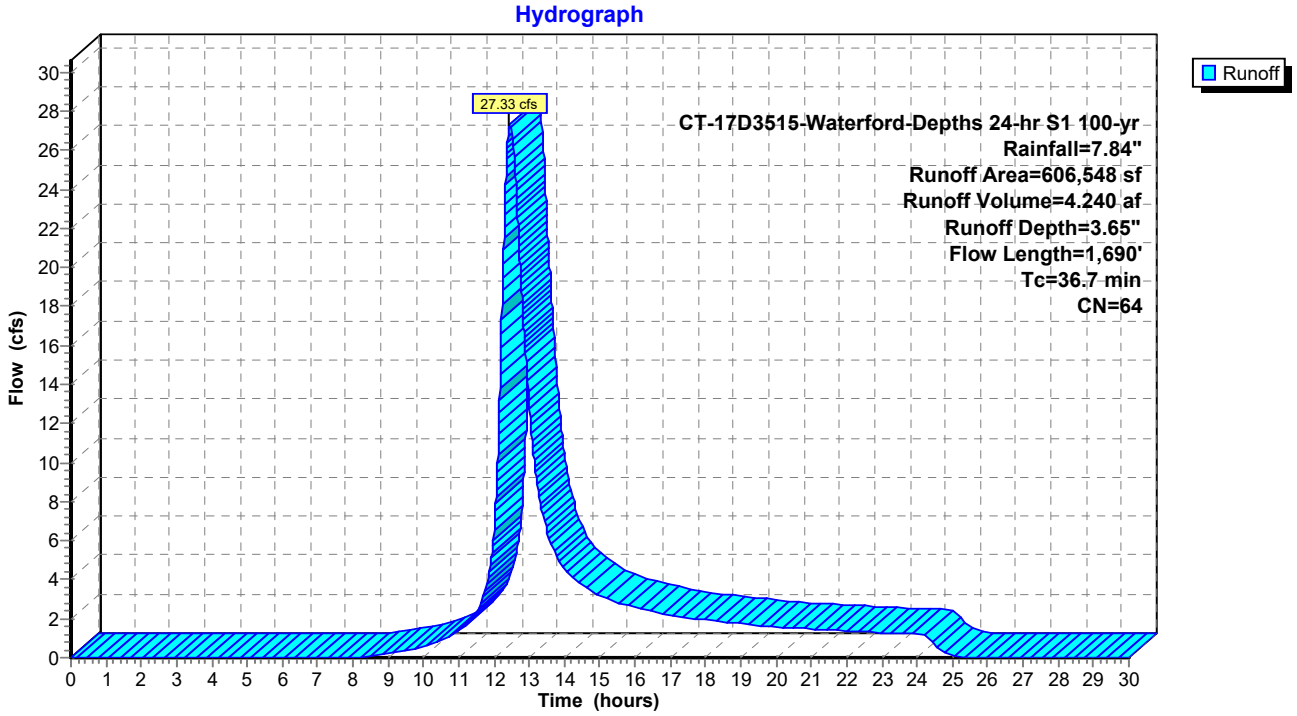
Runoff = 27.33 cfs @ 12.44 hrs, Volume= 4.240 af, Depth= 3.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
461,709	60	Woods, Fair, HSG B
55,195	73	Woods, Fair, HSG C
41,947	79	Woods, Fair, HSG D
6,857	82	Dirt roads, HSG B
40,840	79	<50% Grass cover, Poor, HSG B
606,548	64	Weighted Average
606,548	64	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0680	0.13		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
24.0	1,590	0.0486	1.10		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
36.7	1,690	Total			

Subcatchment EDA-206: UNDEVELOPED FOREST



Summary for Subcatchment EDA-207: UNDEVELOPED FOREST

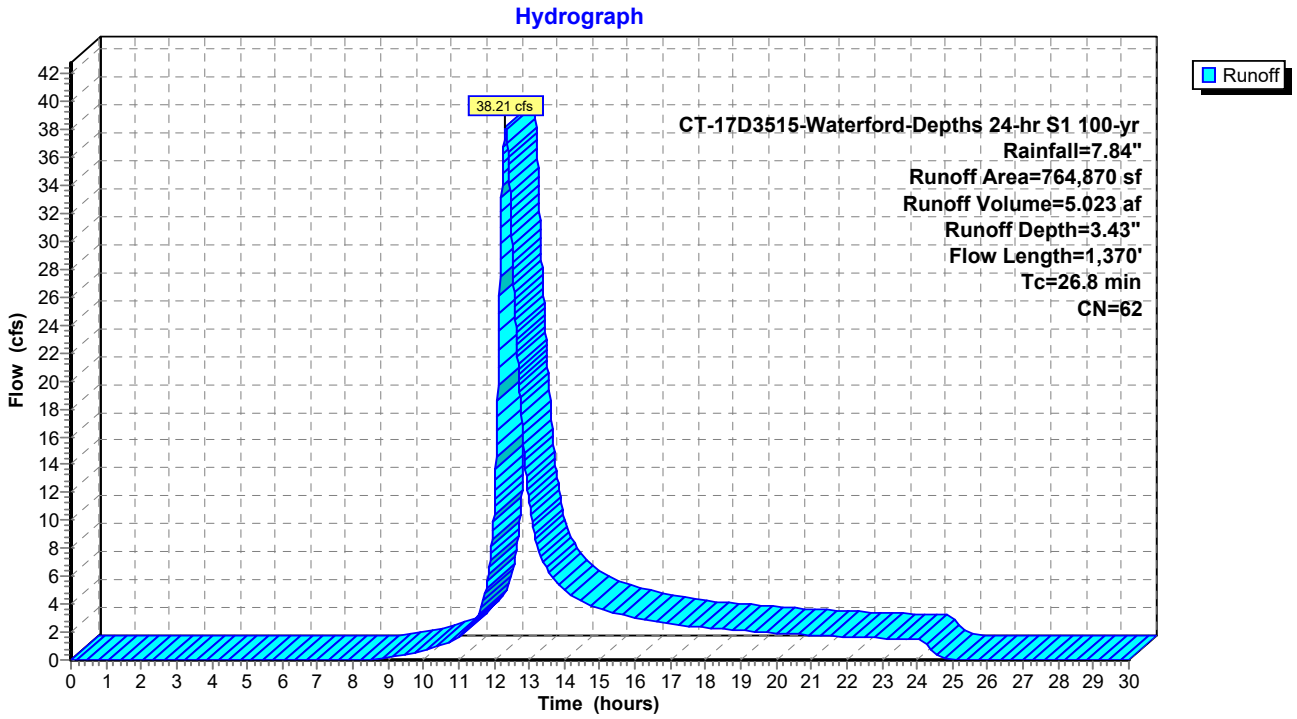
Runoff = 38.21 cfs @ 12.33 hrs, Volume= 5.023 af, Depth= 3.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
702,521	60	Woods, Fair, HSG B
17,665	79	Woods, Fair, HSG D
2,716	82	Dirt roads, HSG B
93	89	Dirt roads, HSG D
31,851	79	<50% Grass cover, Poor, HSG B
10,024	89	<50% Grass cover, Poor, HSG D
764,870	62	Weighted Average
764,870	62	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.2	100	0.0610	0.13		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
13.6	1,270	0.0968	1.56		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
26.8	1,370	Total			

Subcatchment EDA-207: UNDEVELOPED FOREST



Summary for Subcatchment EDA-208: UNDEVELOPED FOREST

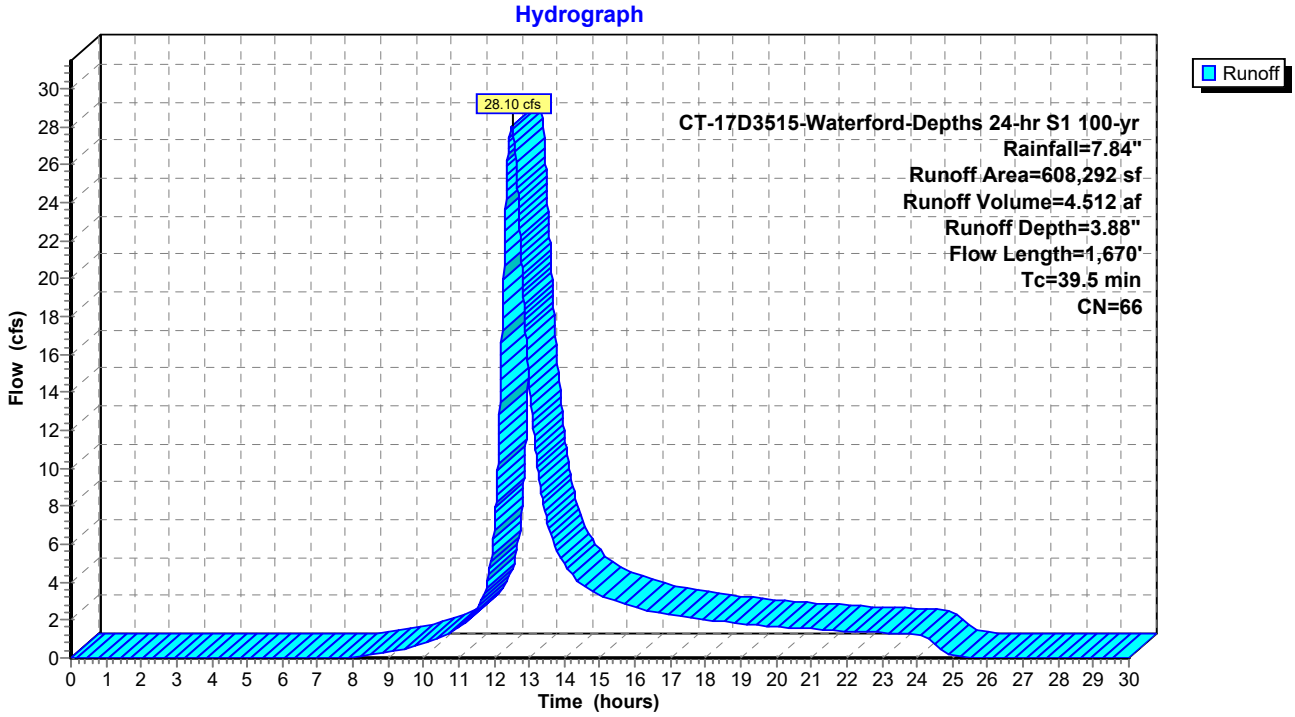
Runoff = 28.10 cfs @ 12.51 hrs, Volume= 4.512 af, Depth= 3.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
426,763	60	Woods, Fair, HSG B
134,846	79	Woods, Fair, HSG D
8,865	82	Dirt roads, HSG B
945	89	Dirt roads, HSG D
29,846	79	<50% Grass cover, Poor, HSG B
7,027	89	<50% Grass cover, Poor, HSG D
608,292	66	Weighted Average
608,292	66	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.3	100	0.0739	0.14		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
27.2	1,570	0.0371	0.96		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
39.5	1,670	Total			

Subcatchment EDA-208: UNDEVELOPED FOREST



Summary for Subcatchment EDA-209: UNDEVELOPED FOREST

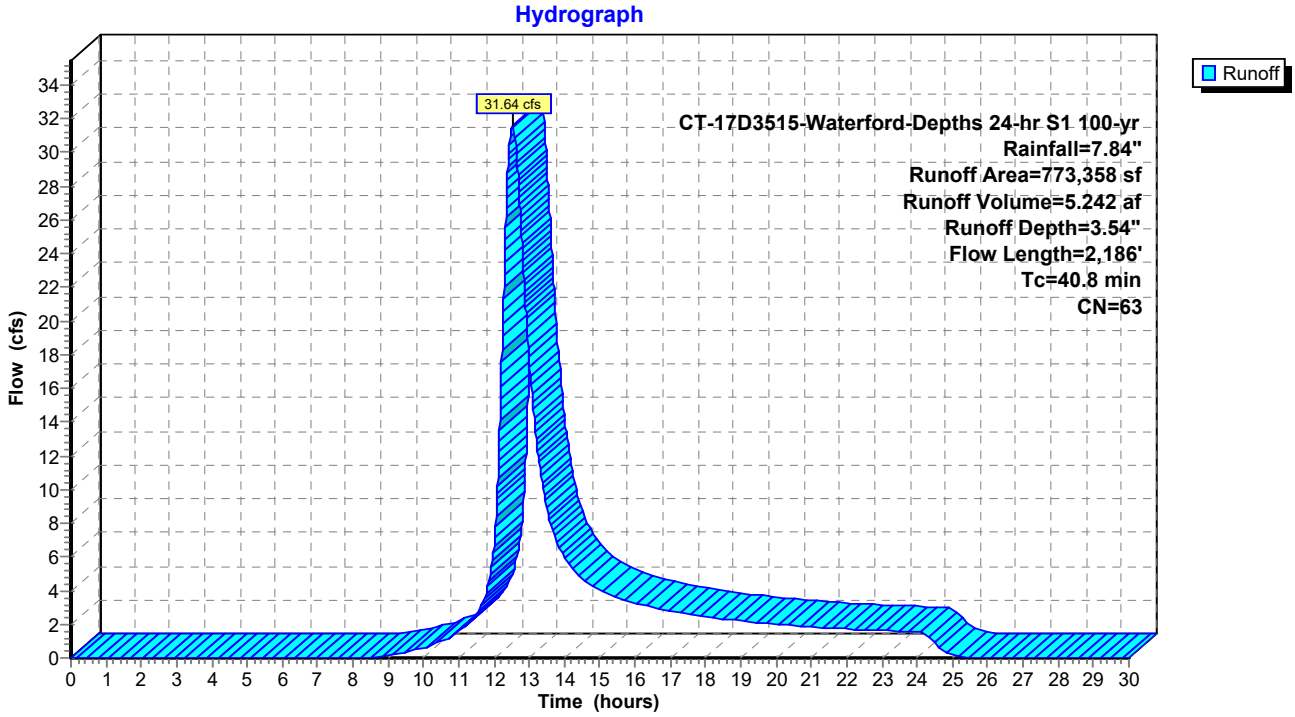
Runoff = 31.64 cfs @ 12.52 hrs, Volume= 5.242 af, Depth= 3.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
656,206	60	Woods, Fair, HSG B
45,724	79	Woods, Fair, HSG D
3,720	82	Dirt roads, HSG B
744	89	Dirt roads, HSG D
54,222	79	<50% Grass cover, Poor, HSG B
12,742	89	<50% Grass cover, Poor, HSG D
773,358	63	Weighted Average
773,358	63	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	100	0.0957	0.15		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
29.7	2,086	0.0549	1.17		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
40.8	2,186	Total			

Subcatchment EDA-209: UNDEVELOPED FOREST



Summary for Subcatchment EDA-210: OFFSITE BASIN

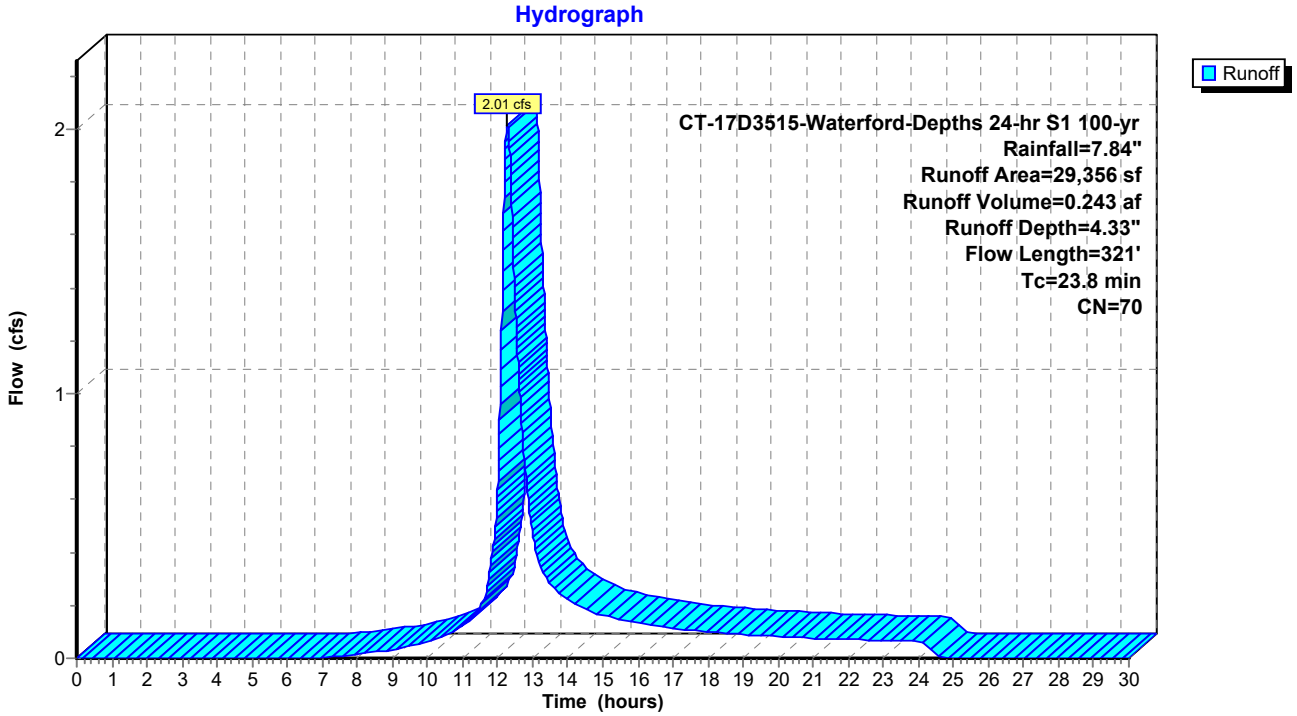
Runoff = 2.01 cfs @ 12.28 hrs, Volume= 0.243 af, Depth= 4.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
7,157	60	Woods, Fair, HSG B
22,199	73	Woods, Fair, HSG C
29,356	70	Weighted Average
29,356	70	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.2	100	0.0187	0.08		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
2.6	221	0.0830	1.44		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
23.8	321	Total			

Subcatchment EDA-210: OFFSITE BASIN



Summary for Subcatchment EDA-211: UNDEVELOPED FOREST

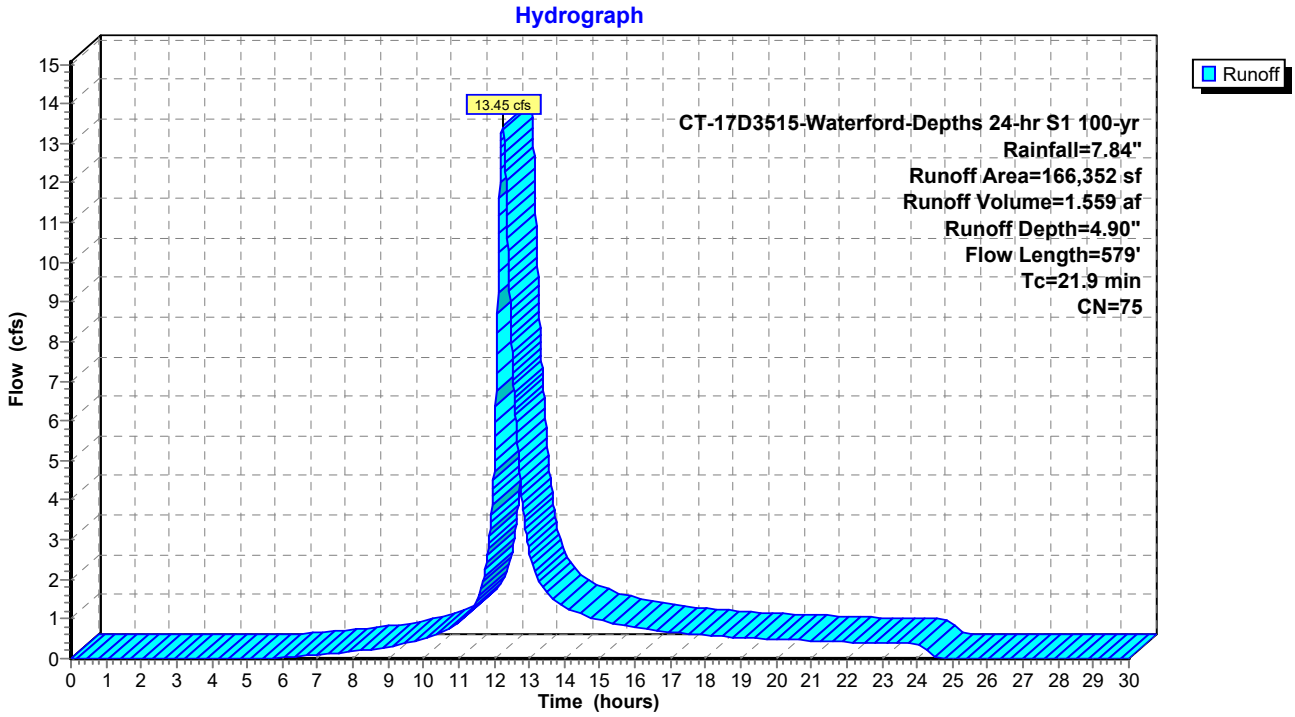
Runoff = 13.45 cfs @ 12.24 hrs, Volume= 1.559 af, Depth= 4.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
13,831	60	Woods, Fair, HSG B
63,994	73	Woods, Fair, HSG C
88,527	79	Woods, Fair, HSG D
166,352	75	Weighted Average
166,352	75	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.7	100	0.0824	0.14		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
10.2	479	0.0244	0.78		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
21.9	579	Total			

Subcatchment EDA-211: UNDEVELOPED FOREST



Summary for Subcatchment EDA-212: UNDEVELOPED FOREST

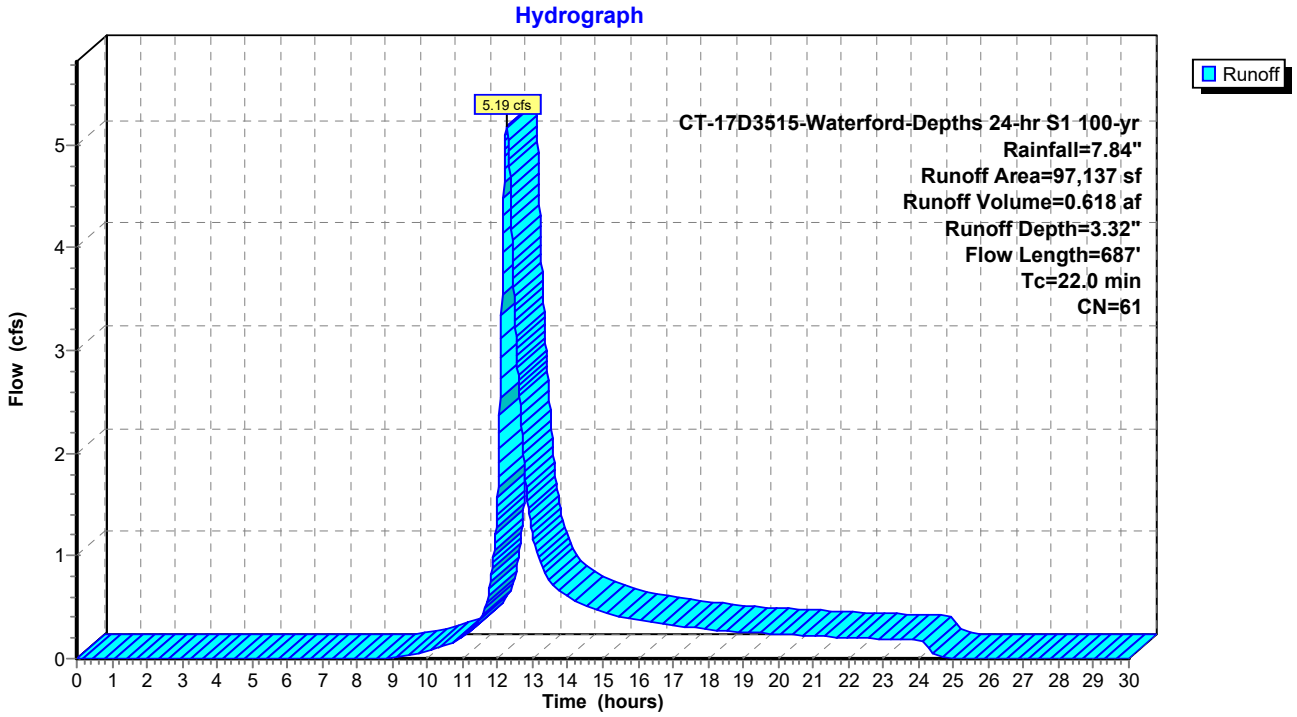
Runoff = 5.19 cfs @ 12.25 hrs, Volume= 0.618 af, Depth= 3.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
92,499	60	Woods, Fair, HSG B
4,612	73	Woods, Fair, HSG C
26	82	Dirt roads, HSG B
97,137	61	Weighted Average
97,137	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.5	100	0.0408	0.11		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
6.5	587	0.0902	1.50		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
22.0	687	Total			

Subcatchment EDA-212: UNDEVELOPED FOREST



Summary for Subcatchment EDA-213: UNDEVELOPED FOREST

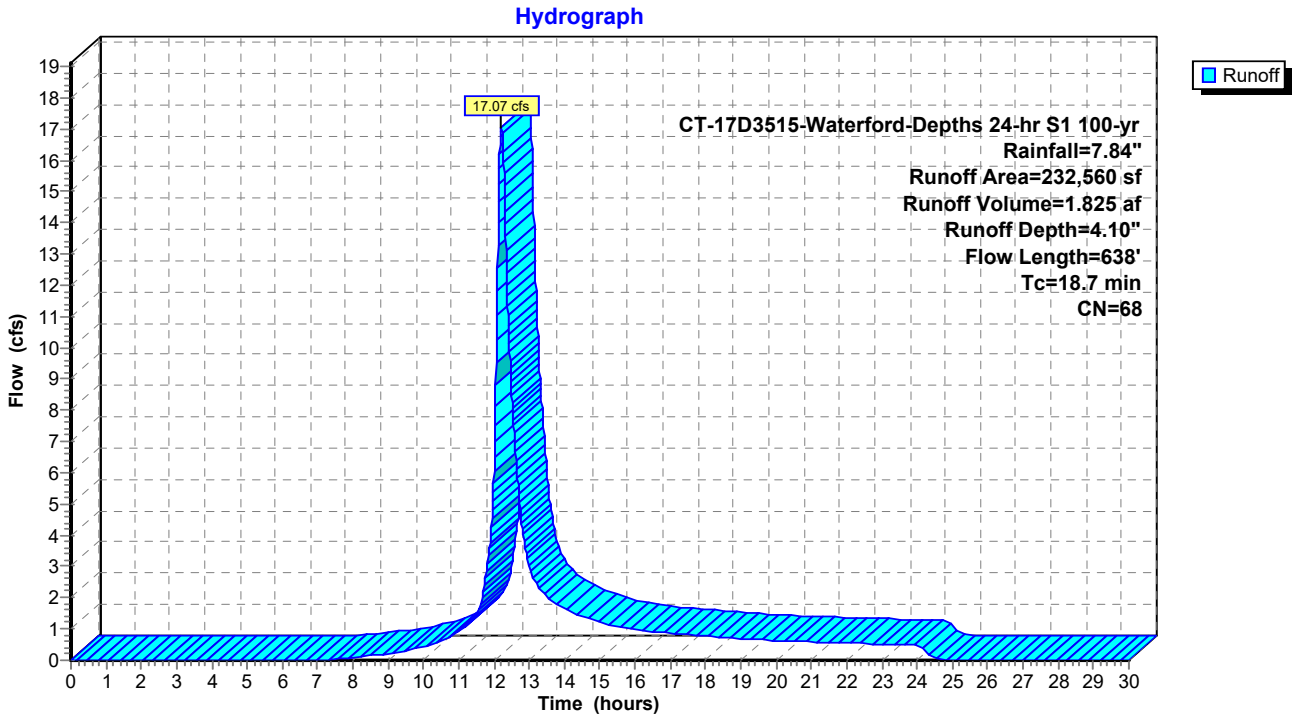
Runoff = 17.07 cfs @ 12.20 hrs, Volume= 1.825 af, Depth= 4.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
94,728	60	Woods, Fair, HSG B
131,244	73	Woods, Fair, HSG C
2,223	82	Dirt roads, HSG B
4,365	87	Dirt roads, HSG C
232,560	68	Weighted Average
232,560	68	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	100	0.1921	0.20		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
10.3	538	0.0303	0.87		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
18.7	638	Total			

Subcatchment EDA-213: UNDEVELOPED FOREST



Summary for Subcatchment EDA-300: UNDEVELOPED FOREST

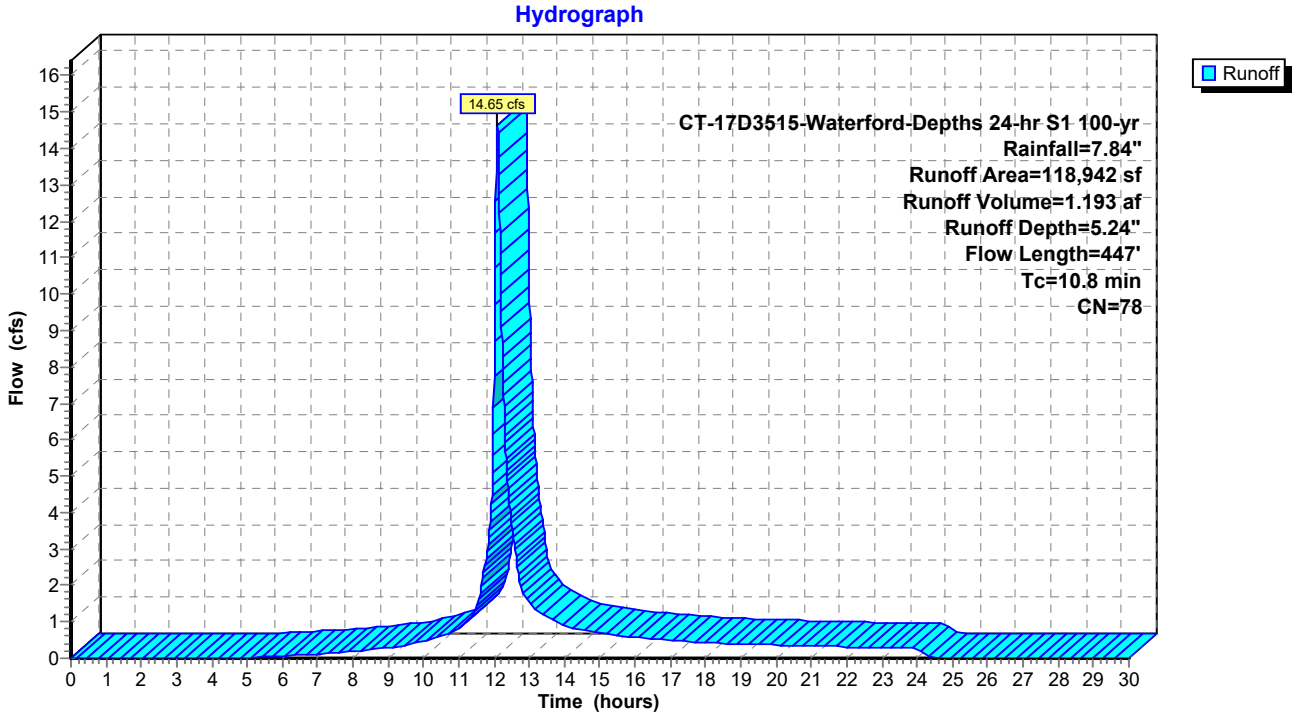
Runoff = 14.65 cfs @ 12.10 hrs, Volume= 1.193 af, Depth= 5.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
4,127	60	Woods, Fair, HSG B
114,815	79	Woods, Fair, HSG D
118,942	78	Weighted Average
118,942	78	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2	100	0.1500	0.18		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
1.6	347	0.5200	3.61		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
10.8	447	Total			

Subcatchment EDA-300: UNDEVELOPED FOREST



Summary for Subcatchment EDA-301: UNDEVELOPED FOREST

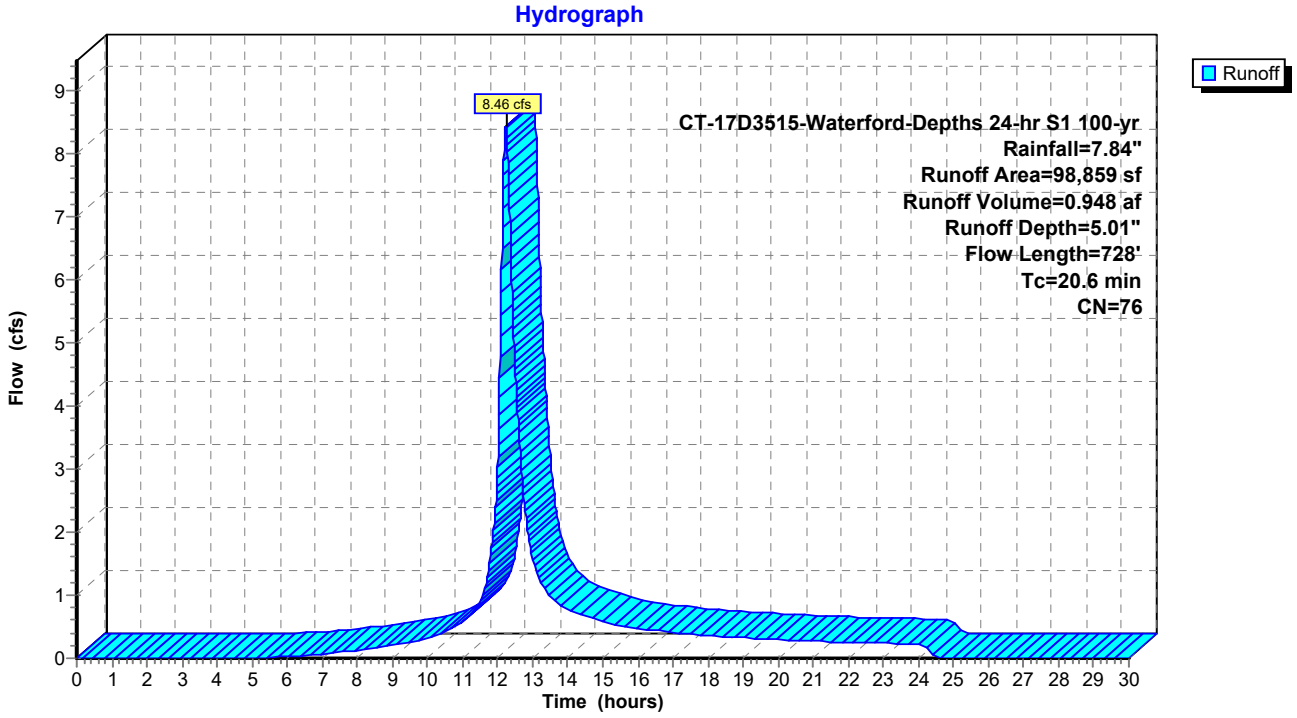
Runoff = 8.46 cfs @ 12.24 hrs, Volume= 0.948 af, Depth= 5.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
15,090	60	Woods, Fair, HSG B
83,769	79	Woods, Fair, HSG D
98,859	76	Weighted Average
98,859	76	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.6	100	0.0403	0.11		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
5.0	628	0.1723	2.08		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
20.6	728	Total			

Subcatchment EDA-301: UNDEVELOPED FOREST



Summary for Subcatchment EDA-302: UNDEVELOPED FOREST

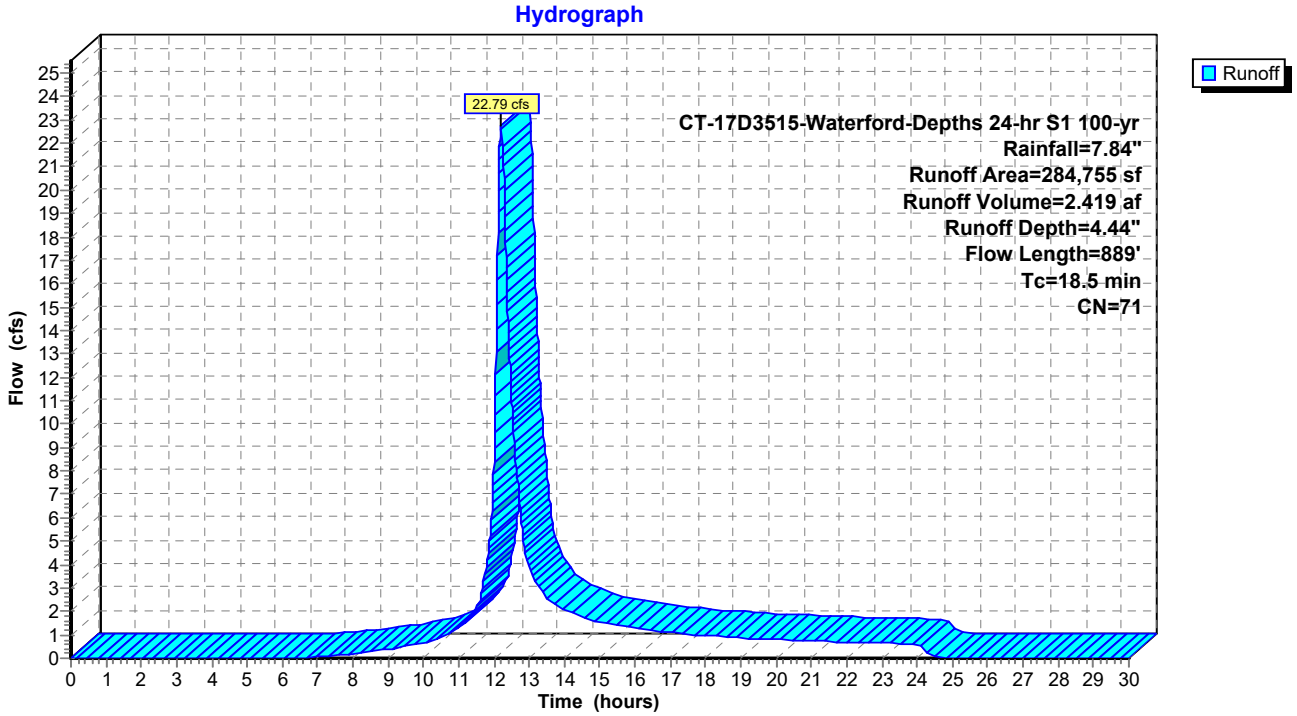
Runoff = 22.79 cfs @ 12.20 hrs, Volume= 2.419 af, Depth= 4.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
116,779	60	Woods, Fair, HSG B
167,976	79	Woods, Fair, HSG D
284,755	71	Weighted Average
284,755	71	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	100	0.0845	0.14		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
6.9	789	0.1439	1.90		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
18.5	889	Total			

Subcatchment EDA-302: UNDEVELOPED FOREST



Summary for Subcatchment EDA-303: UNDEVELOPED FOREST

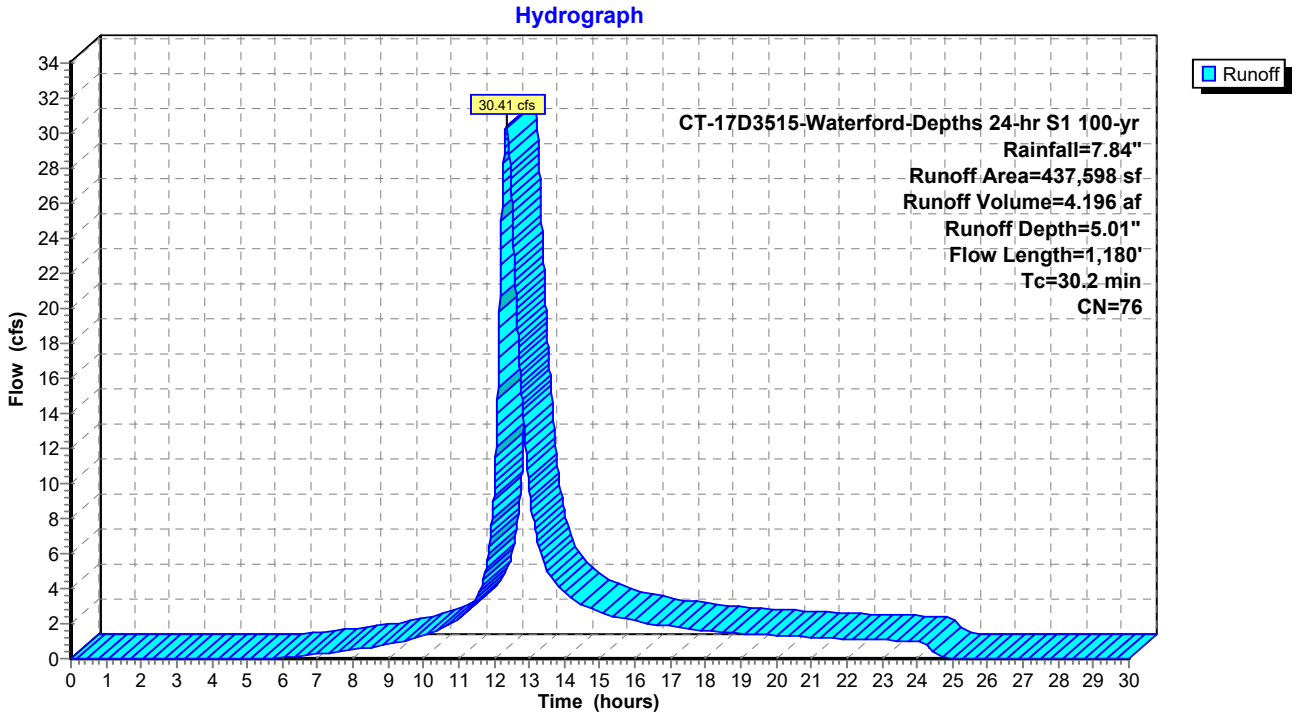
Runoff = 30.41 cfs @ 12.36 hrs, Volume= 4.196 af, Depth= 5.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
35,606	60	Woods, Fair, HSG B
114,707	73	Woods, Fair, HSG C
287,285	79	Woods, Fair, HSG D
437,598	76	Weighted Average
437,598	76	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.3	100	0.0239	0.09		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
10.9	1,080	0.1087	1.65		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
30.2	1,180	Total			

Subcatchment EDA-303: UNDEVELOPED FOREST



Summary for Subcatchment EDA-304: UNDEVEL0PED FOREST

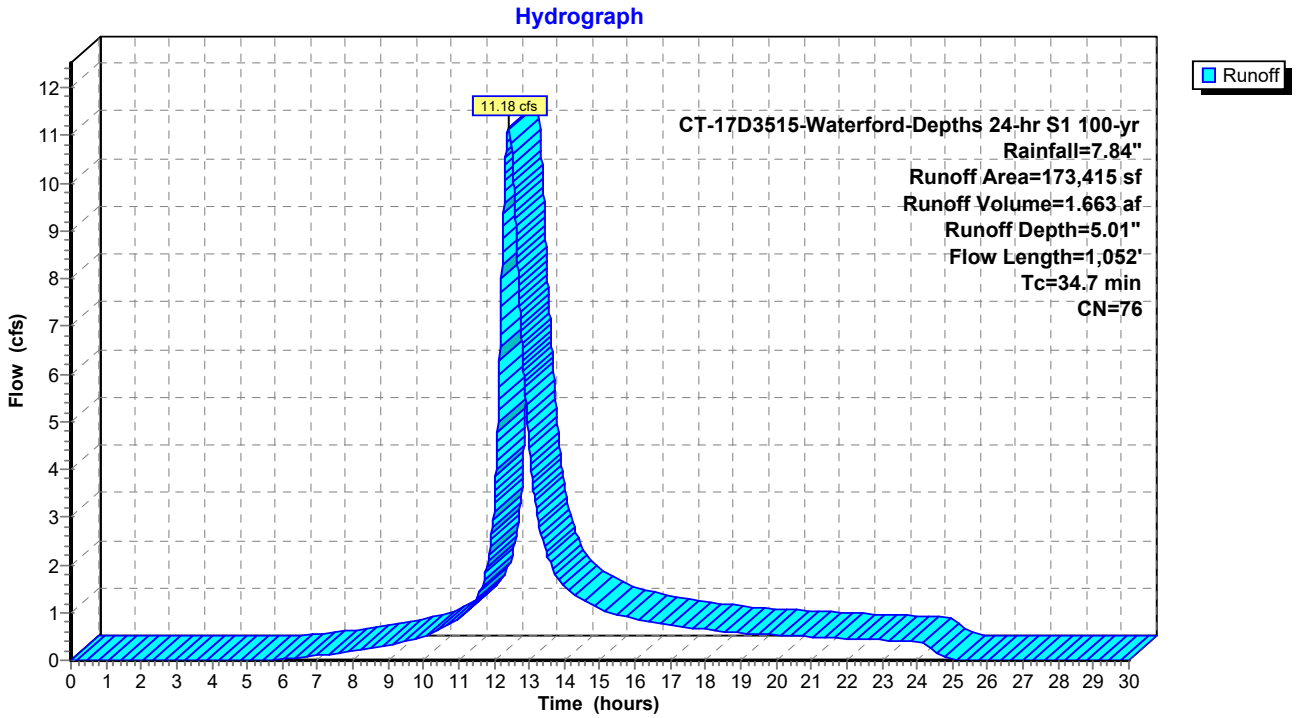
Runoff = 11.18 cfs @ 12.42 hrs, Volume= 1.663 af, Depth= 5.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
89,702	73	Woods, Fair, HSG C
83,713	79	Woods, Fair, HSG D
173,415	76	Weighted Average
173,415	76	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.1	100	0.0136	0.07		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
9.7	822	0.0800	1.41		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
0.9	130	0.2100	2.29		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
34.7	1,052	Total			

Subcatchment EDA-304: UNDEVEL0PED FOREST



Summary for Subcatchment EDA-305: UNDEVELOPED FOREST

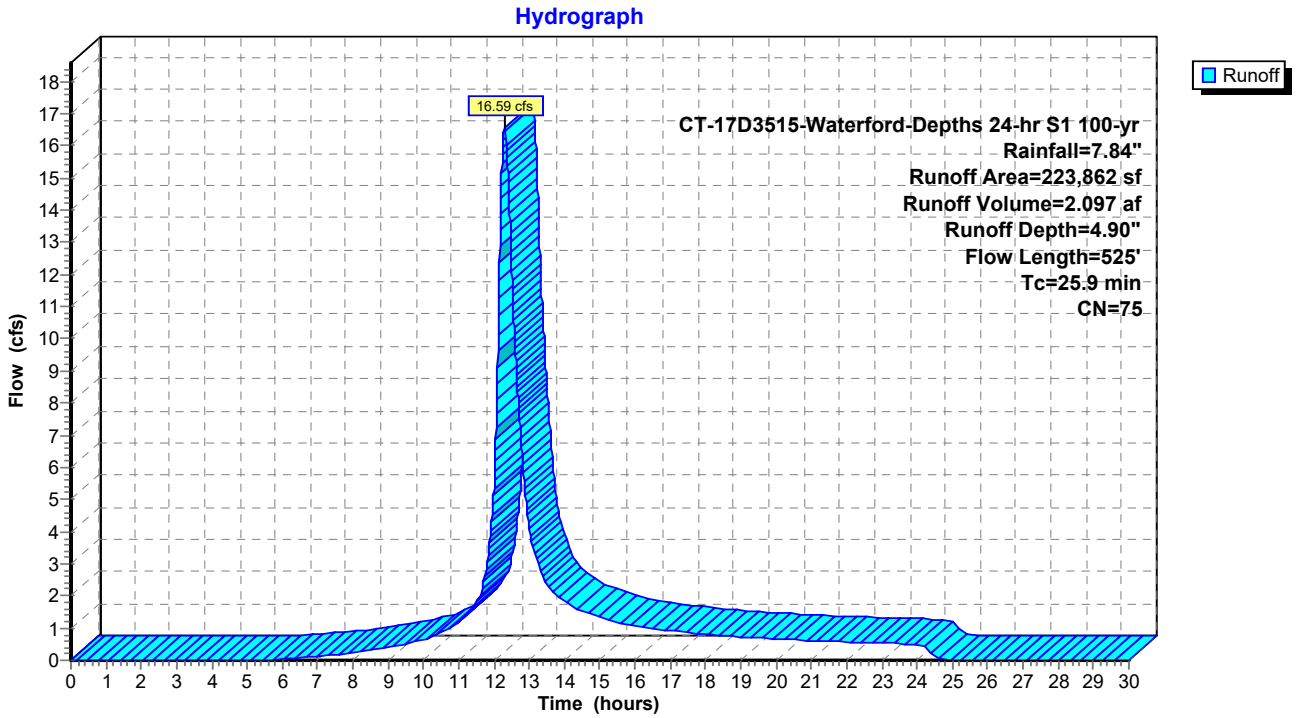
Runoff = 16.59 cfs @ 12.29 hrs, Volume= 2.097 af, Depth= 4.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
144,475	73	Woods, Fair, HSG C
78,707	79	Woods, Fair, HSG D
658	86	<50% Grass cover, Poor, HSG C
22	87	Dirt roads, HSG C
223,862	75	Weighted Average
223,862	75	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.8	100	0.0197	0.08		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
5.1	425	0.0760	1.38		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
25.9	525	Total			

Subcatchment EDA-305: UNDEVELOPED FOREST

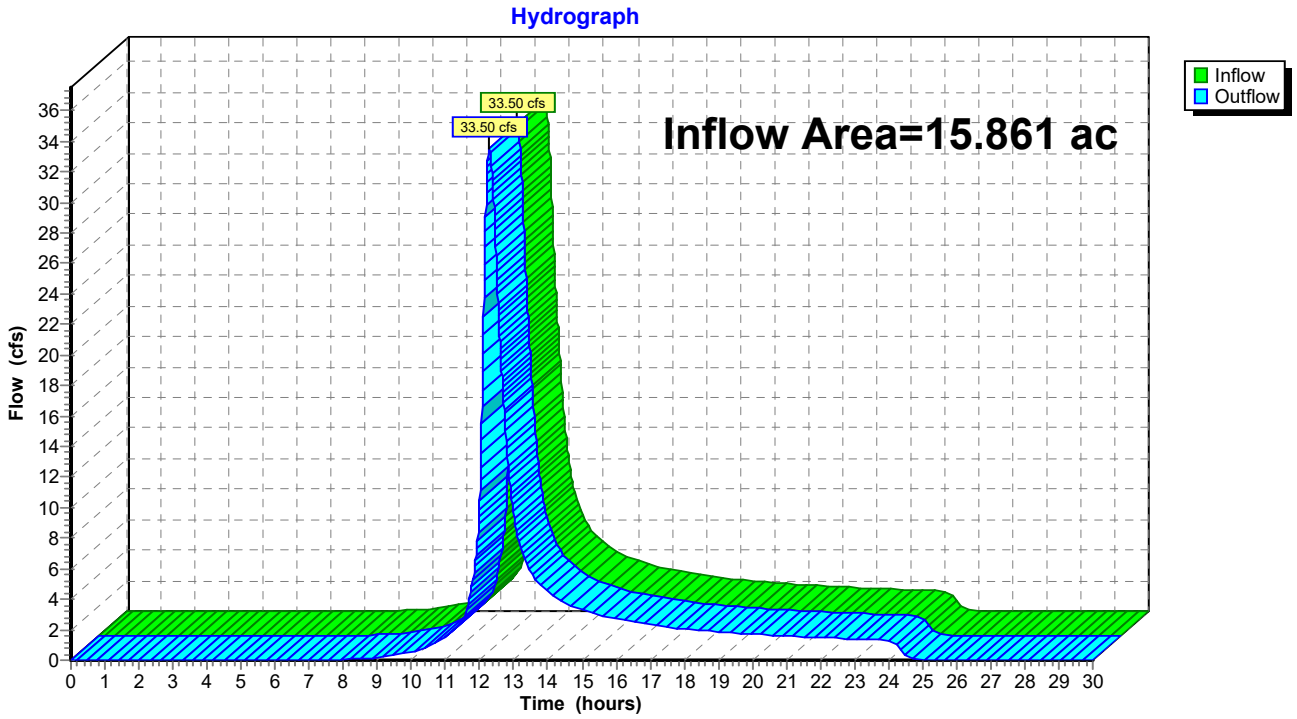


Summary for Reach DP-1: DISCHARGE OFFSITE TOWARDS STONY BROOK

Inflow Area = 15.861 ac, 0.00% Impervious, Inflow Depth = 3.39" for 100-yr event
Inflow = 33.50 cfs @ 12.28 hrs, Volume= 4.482 af
Outflow = 33.50 cfs @ 12.28 hrs, Volume= 4.482 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-1: DISCHARGE OFFSITE TOWARDS STONY BROOK

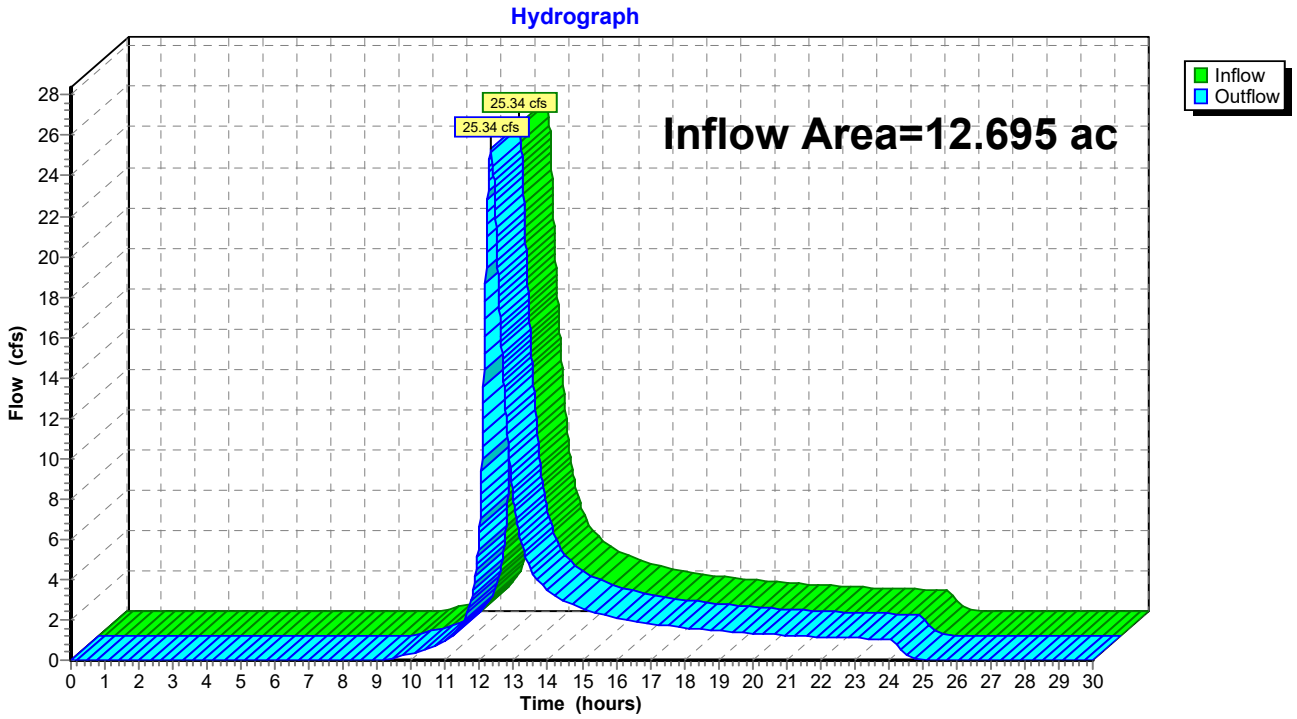


Summary for Reach DP-100: DISCHARGE OFFSITE

Inflow Area = 12.695 ac, 0.00% Impervious, Inflow Depth = 3.21" for 100-yr event
Inflow = 25.34 cfs @ 12.33 hrs, Volume= 3.400 af
Outflow = 25.34 cfs @ 12.33 hrs, Volume= 3.400 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-100: DISCHARGE OFFSITE

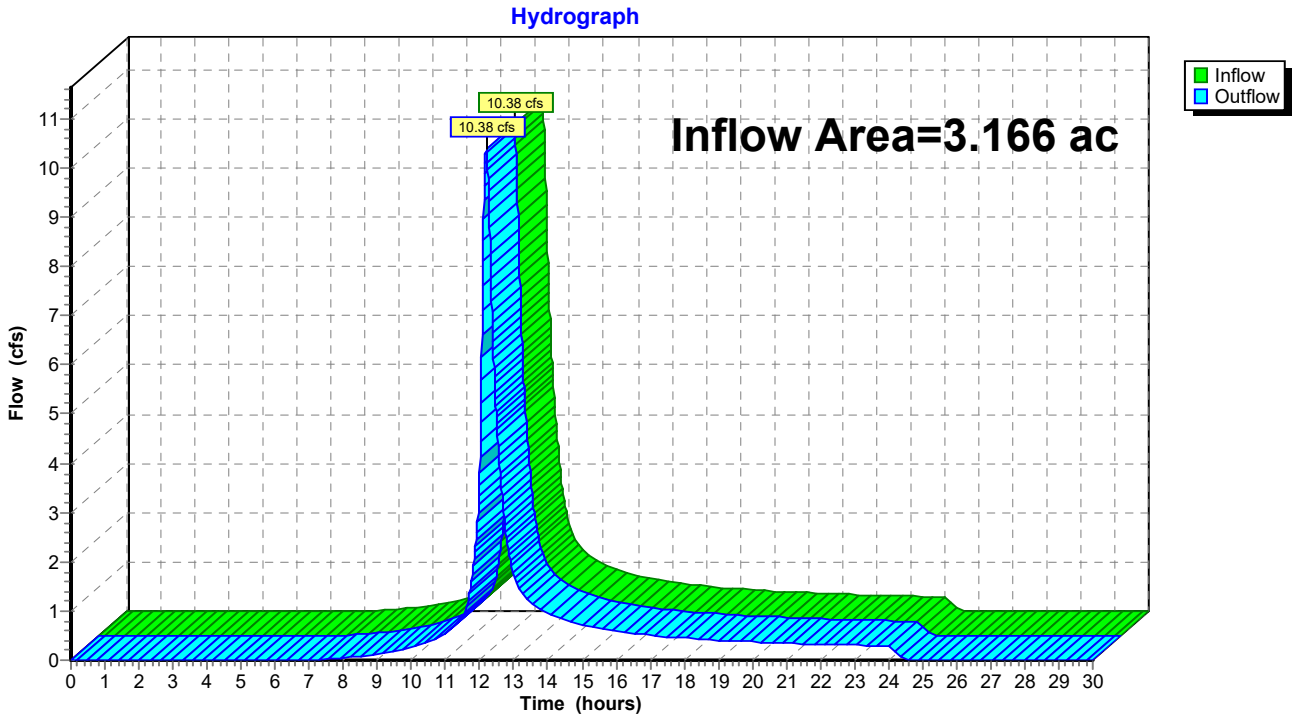


Summary for Reach DP-101: DISCHARGE OFFSITE

Inflow Area = 3.166 ac, 0.00% Impervious, Inflow Depth = 4.10" for 100-yr event
Inflow = 10.38 cfs @ 12.19 hrs, Volume= 1.082 af
Outflow = 10.38 cfs @ 12.19 hrs, Volume= 1.082 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-101: DISCHARGE OFFSITE

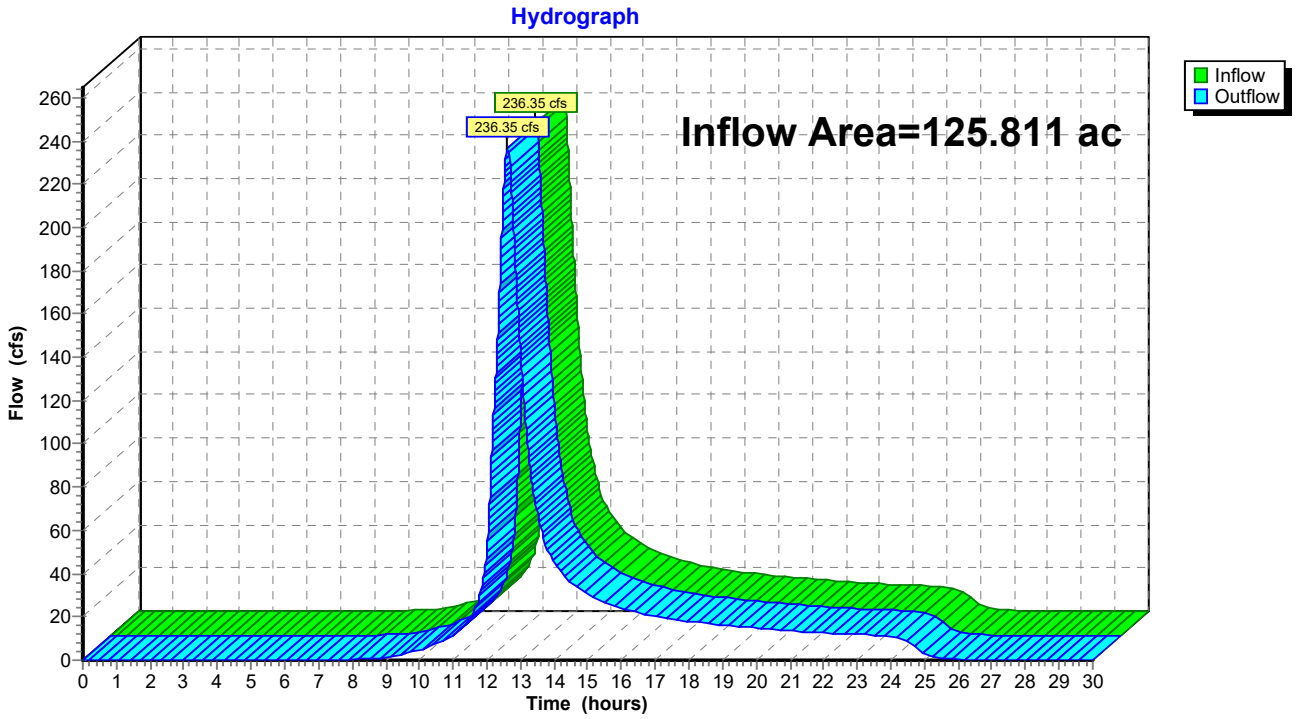


Summary for Reach DP-2: DISCHARGE TOWARDS OIL MILL BROOK

Inflow Area = 125.811 ac, 0.00% Impervious, Inflow Depth = 3.74" for 100-yr event
Inflow = 236.35 cfs @ 12.61 hrs, Volume= 39.215 af
Outflow = 236.35 cfs @ 12.61 hrs, Volume= 39.215 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-2: DISCHARGE TOWARDS OIL MILL BROOK

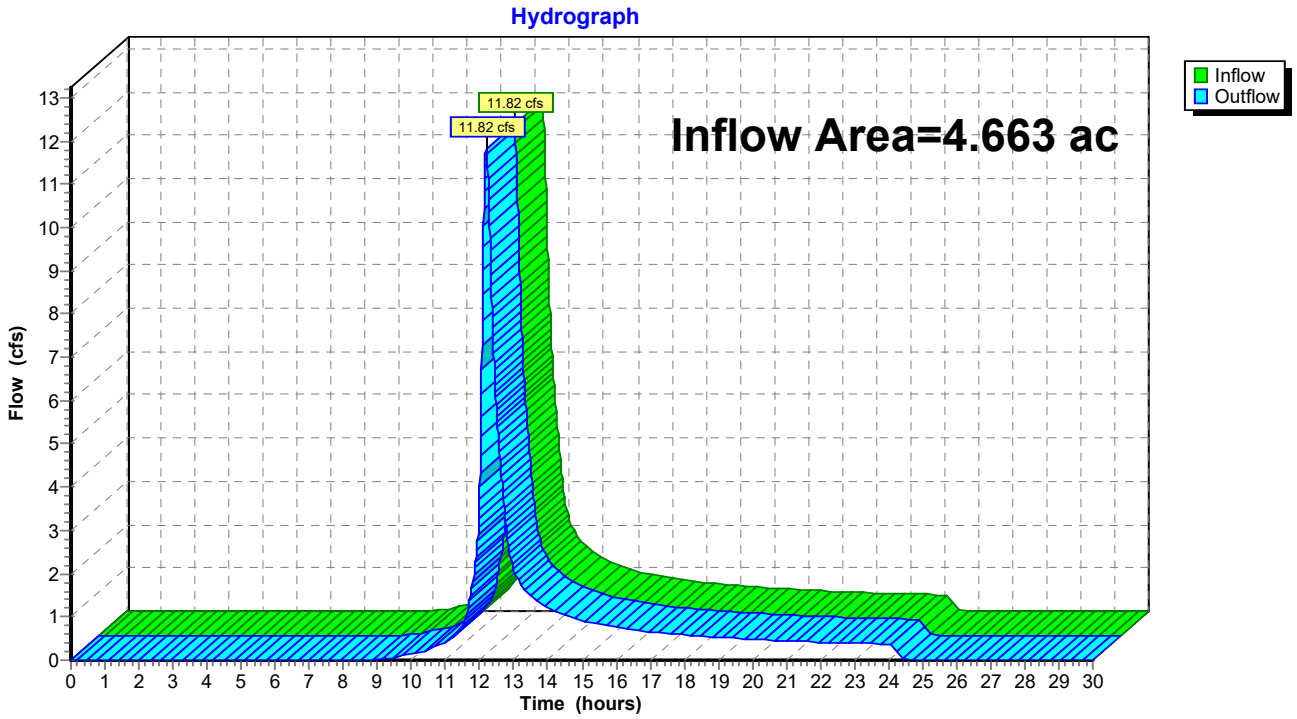


Summary for Reach DP-200: DISCHARGE OFFSITE

Inflow Area = 4.663 ac, 0.00% Impervious, Inflow Depth = 3.21" for 100-yr event
Inflow = 11.82 cfs @ 12.20 hrs, Volume= 1.249 af
Outflow = 11.82 cfs @ 12.20 hrs, Volume= 1.249 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-200: DISCHARGE OFFSITE

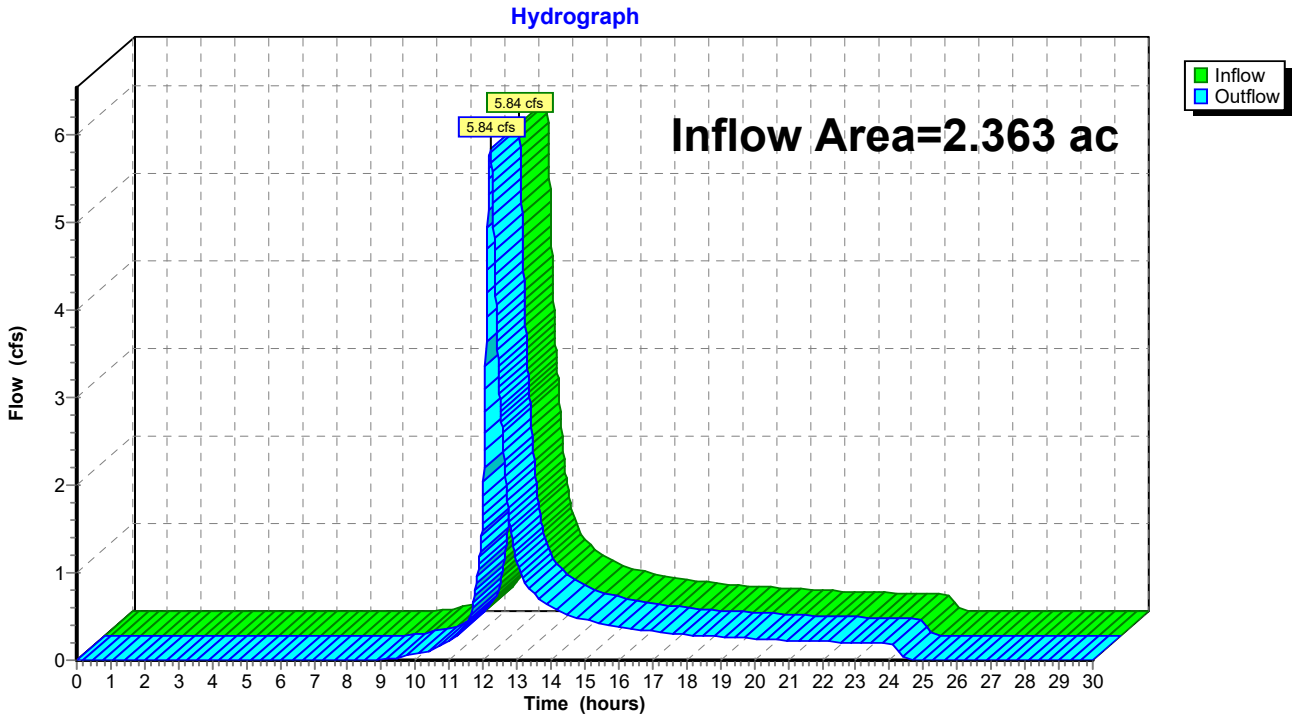


Summary for Reach DP-201: DISCHARGE OFFSITE

Inflow Area = 2.363 ac, 0.00% Impervious, Inflow Depth = 3.21" for 100-yr event
Inflow = 5.84 cfs @ 12.21 hrs, Volume= 0.633 af
Outflow = 5.84 cfs @ 12.21 hrs, Volume= 0.633 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-201: DISCHARGE OFFSITE

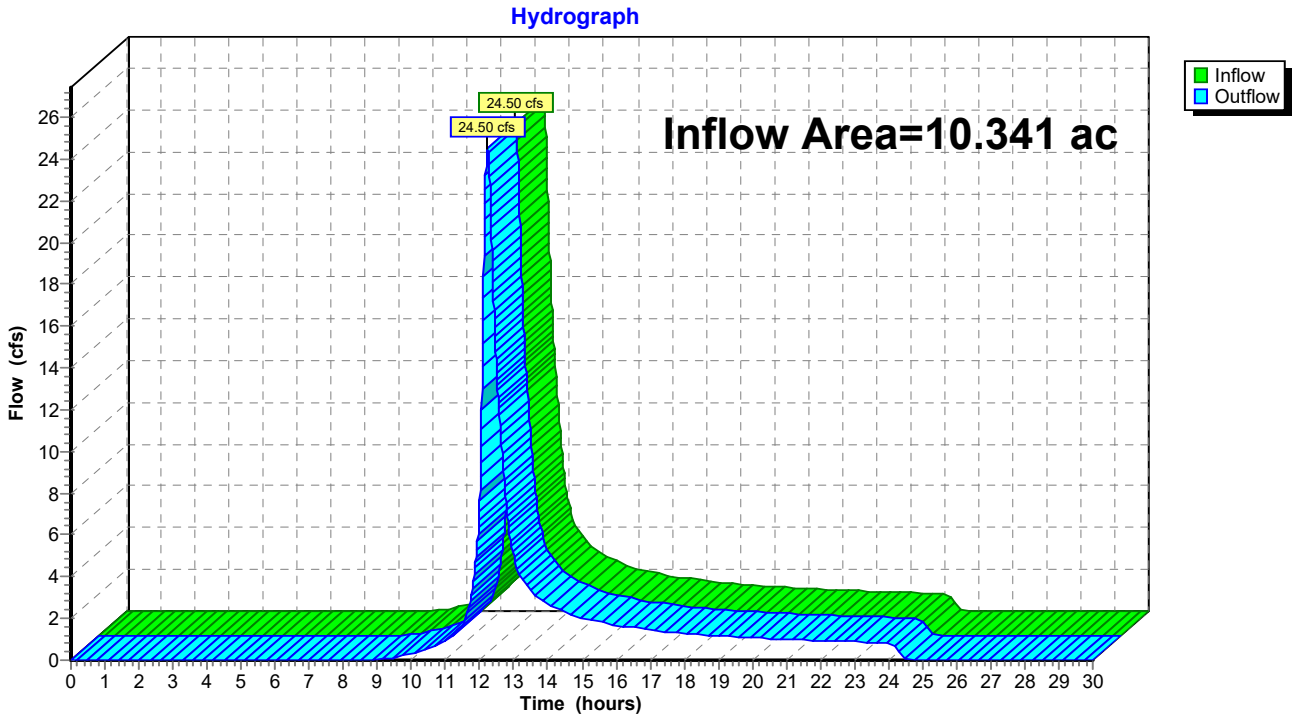


Summary for Reach DP-202: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 10.341 ac, 0.00% Impervious, Inflow Depth = 3.21" for 100-yr event
Inflow = 24.50 cfs @ 12.23 hrs, Volume= 2.770 af
Outflow = 24.50 cfs @ 12.23 hrs, Volume= 2.770 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-202: DISCHARGE TO CENTRAL WETLAND

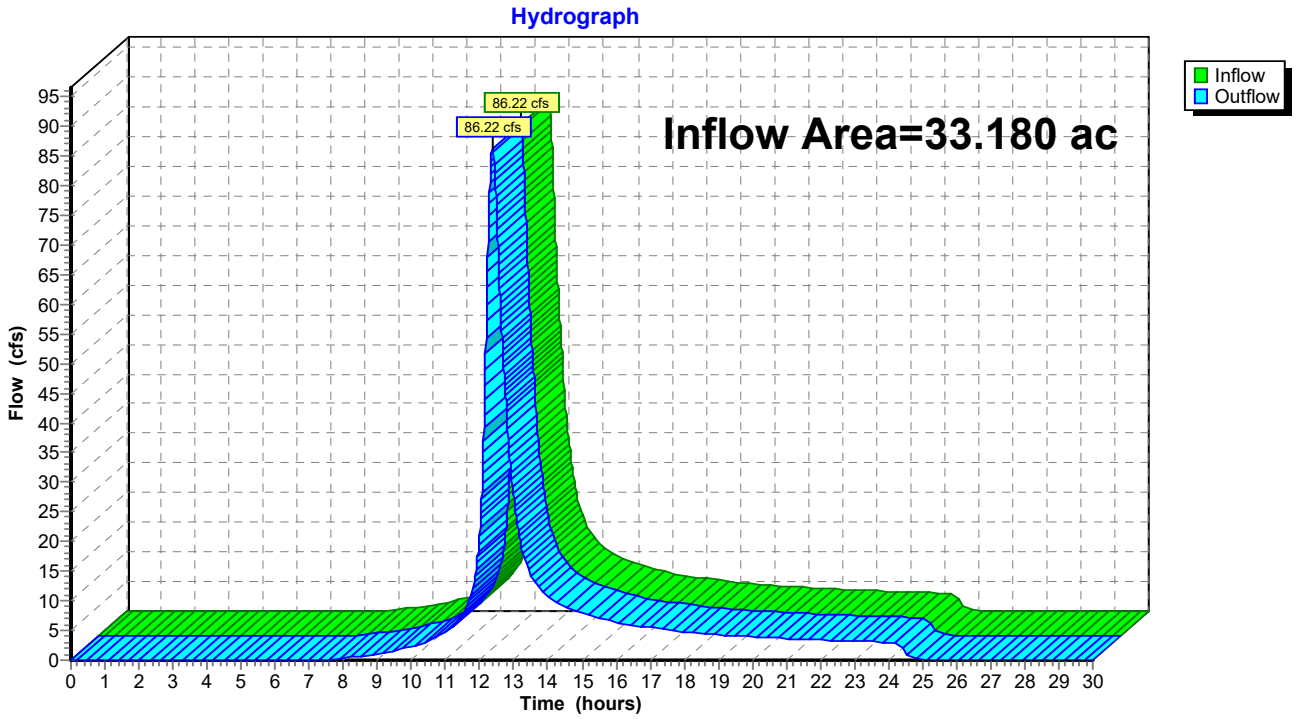


Summary for Reach DP-205: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 33.180 ac, 0.00% Impervious, Inflow Depth = 4.09" for 100-yr event
Inflow = 86.22 cfs @ 12.38 hrs, Volume= 11.304 af
Outflow = 86.22 cfs @ 12.38 hrs, Volume= 11.304 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-205: DISCHARGE TO CENTRAL WETLAND

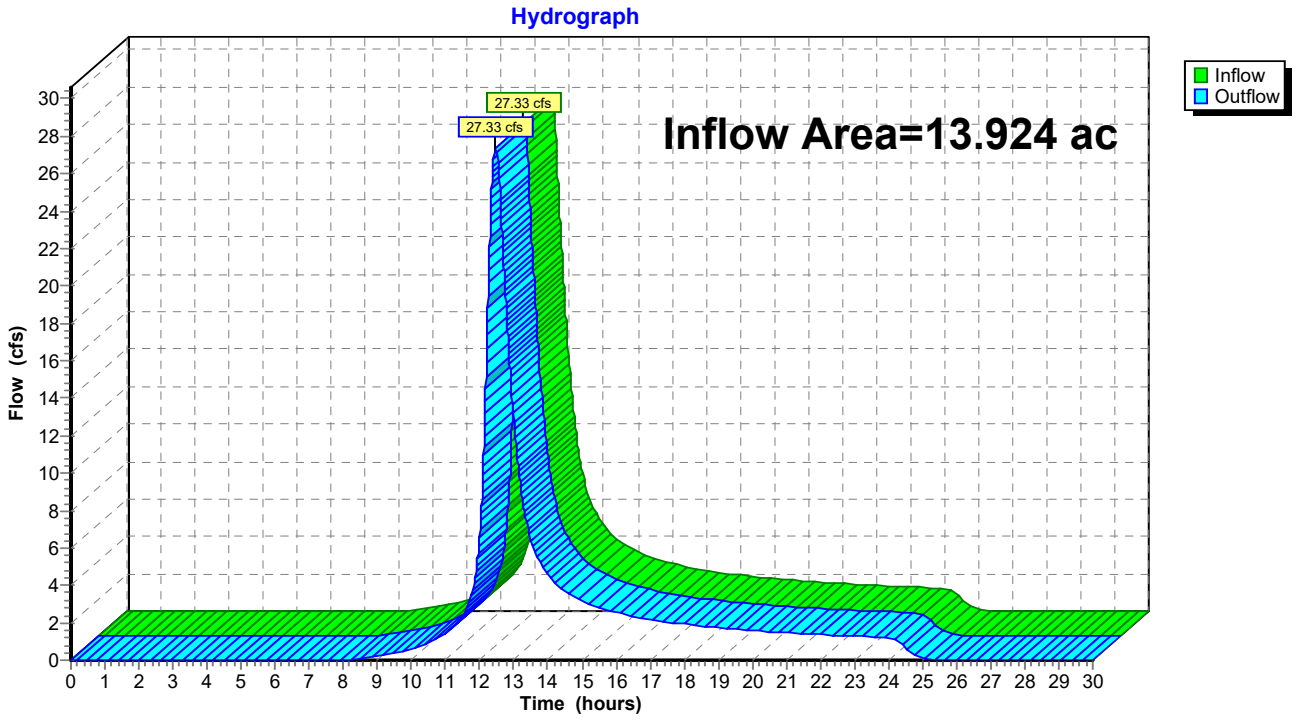


Summary for Reach DP-206: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 13.924 ac, 0.00% Impervious, Inflow Depth = 3.65" for 100-yr event
Inflow = 27.33 cfs @ 12.44 hrs, Volume= 4.240 af
Outflow = 27.33 cfs @ 12.44 hrs, Volume= 4.240 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-206: DISCHARGE TO CENTRAL WETLAND

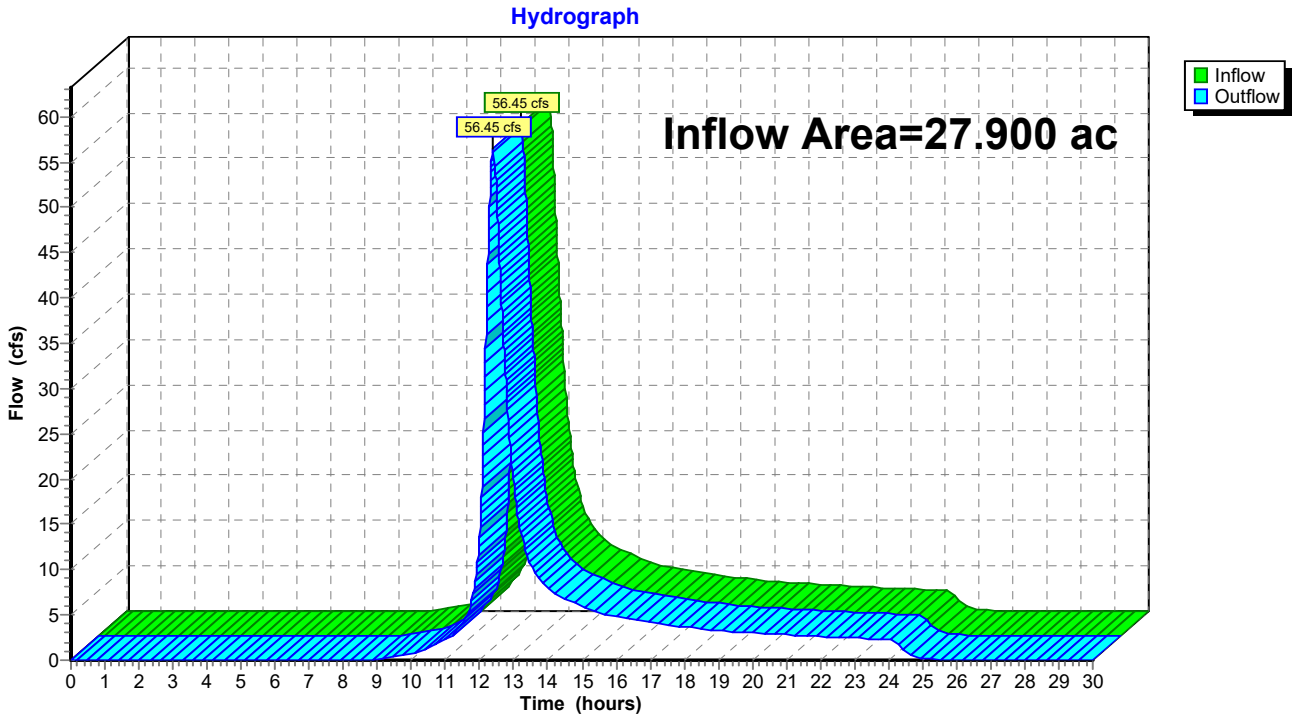


Summary for Reach DP-207: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 27.900 ac, 0.00% Impervious, Inflow Depth = 3.35" for 100-yr event
Inflow = 56.45 cfs @ 12.40 hrs, Volume= 7.793 af
Outflow = 56.45 cfs @ 12.40 hrs, Volume= 7.793 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-207: DISCHARGE TO CENTRAL WETLAND

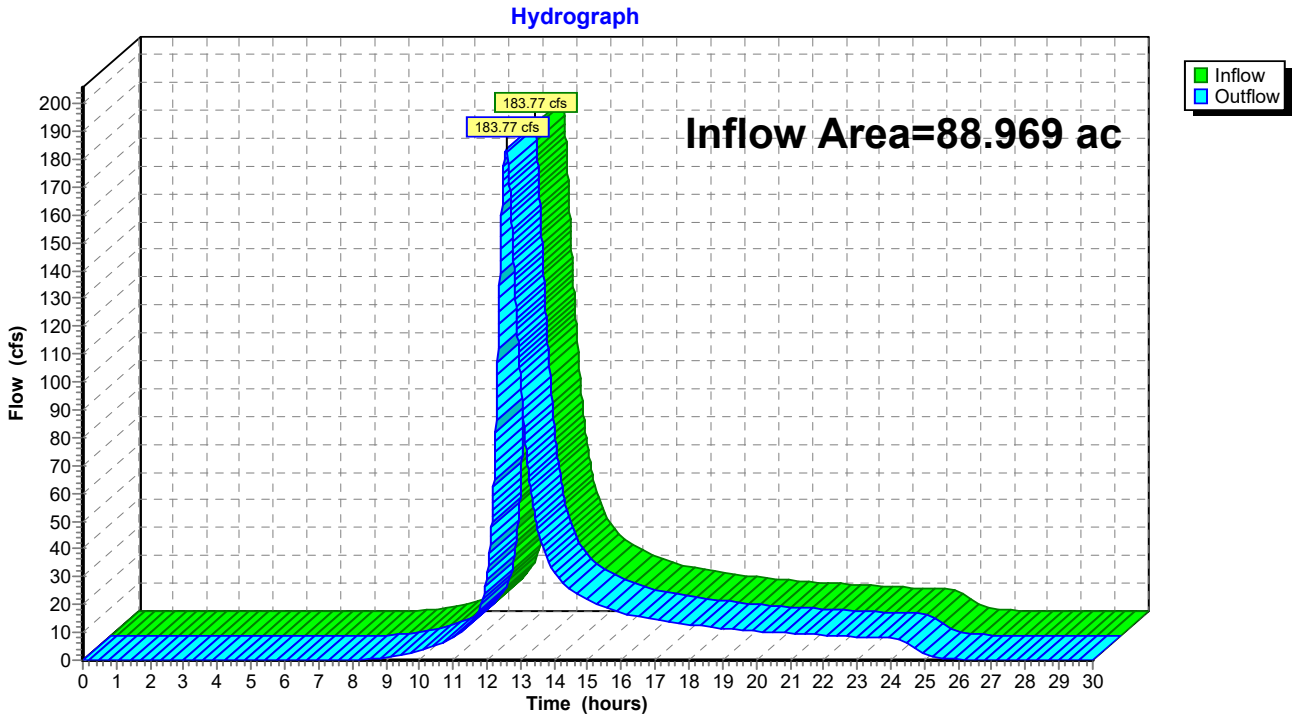


Summary for Reach DP-208: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 88.969 ac, 0.00% Impervious, Inflow Depth = 3.76" for 100-yr event
Inflow = 183.77 cfs @ 12.57 hrs, Volume= 27.848 af
Outflow = 183.77 cfs @ 12.57 hrs, Volume= 27.848 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-208: DISCHARGE TO CENTRAL WETLAND

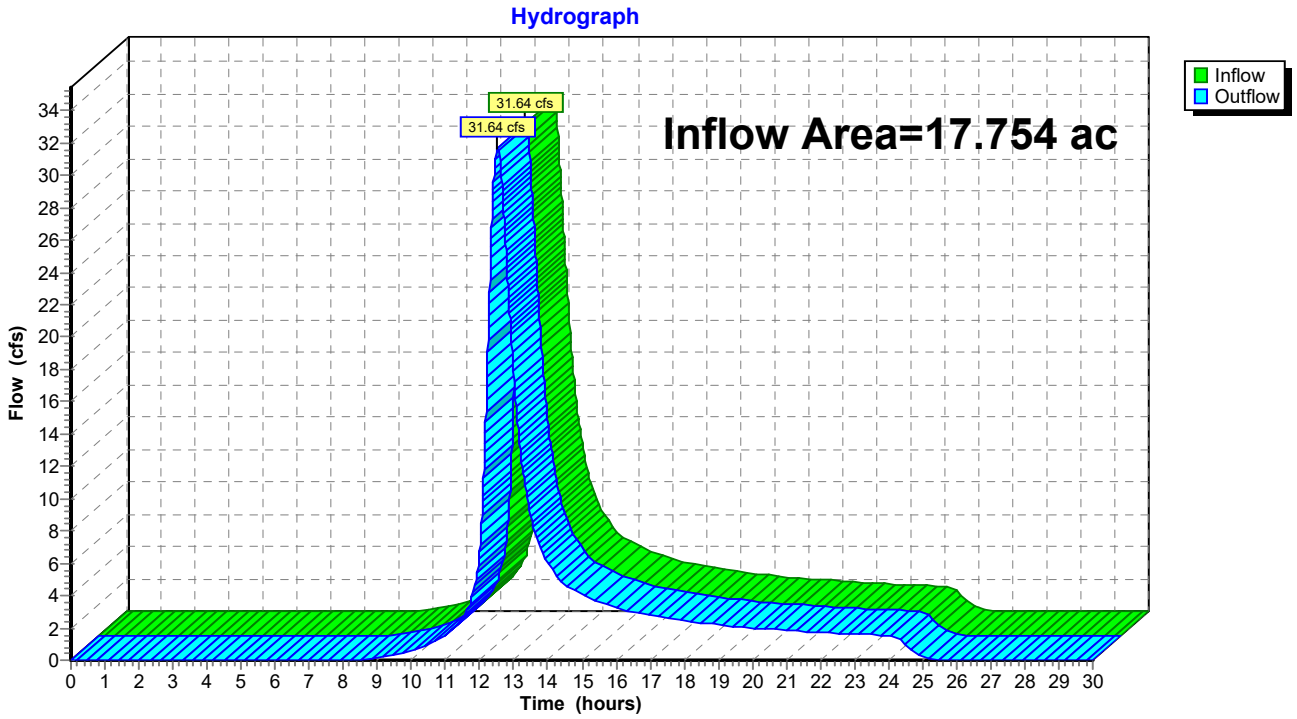


Summary for Reach DP-209: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 17.754 ac, 0.00% Impervious, Inflow Depth = 3.54" for 100-yr event
Inflow = 31.64 cfs @ 12.52 hrs, Volume= 5.242 af
Outflow = 31.64 cfs @ 12.52 hrs, Volume= 5.242 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-209: DISCHARGE TO CENTRAL WETLAND

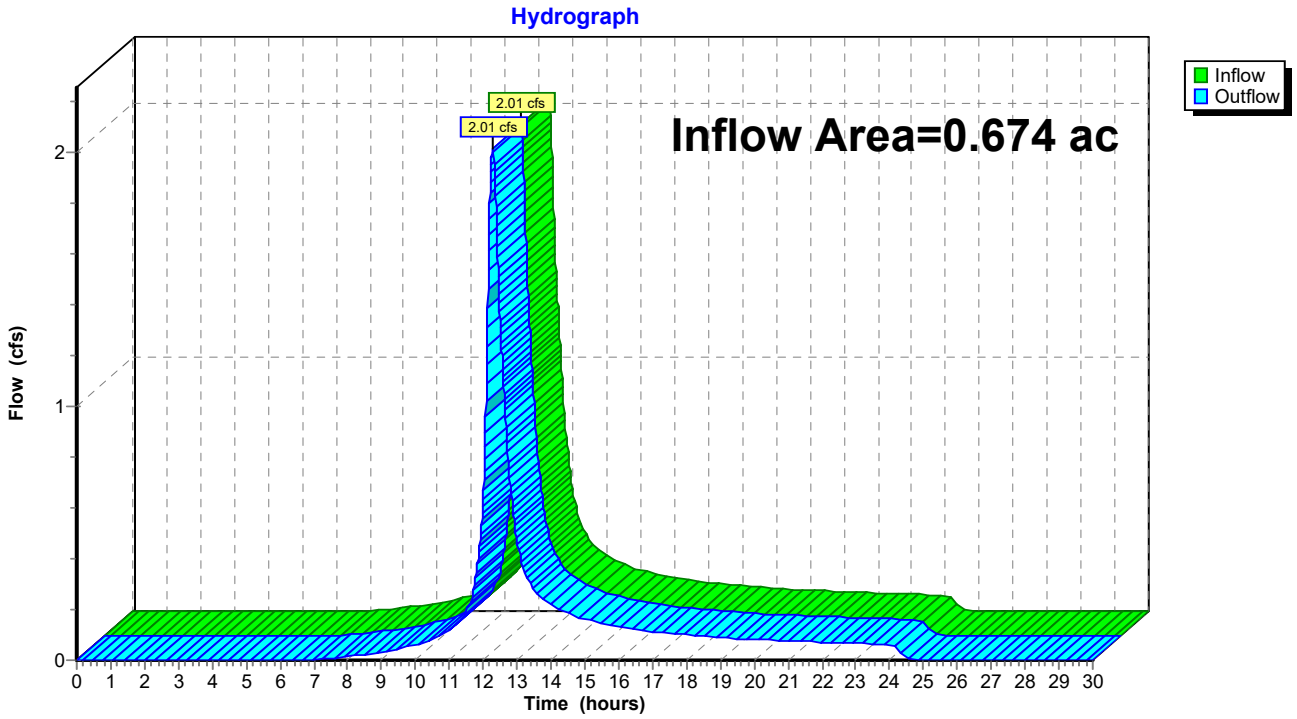


Summary for Reach DP-210: DISCHARGE TO EDA-211

Inflow Area = 0.674 ac, 0.00% Impervious, Inflow Depth = 4.33" for 100-yr event
Inflow = 2.01 cfs @ 12.28 hrs, Volume= 0.243 af
Outflow = 2.01 cfs @ 12.28 hrs, Volume= 0.243 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-210: DISCHARGE TO EDA-211

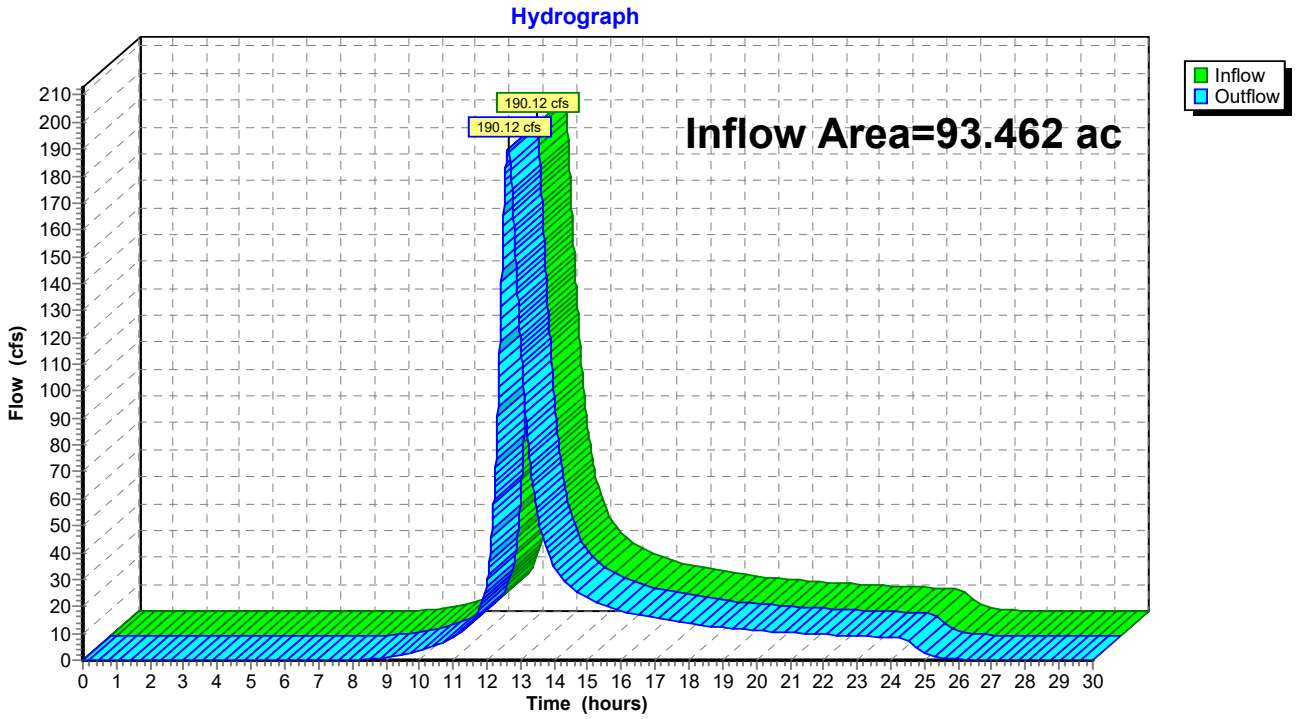


Summary for Reach DP-211: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 93.462 ac, 0.00% Impervious, Inflow Depth = 3.81" for 100-yr event
Inflow = 190.12 cfs @ 12.63 hrs, Volume= 29.649 af
Outflow = 190.12 cfs @ 12.63 hrs, Volume= 29.649 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-211: DISCHARGE TO CENTRAL WETLAND

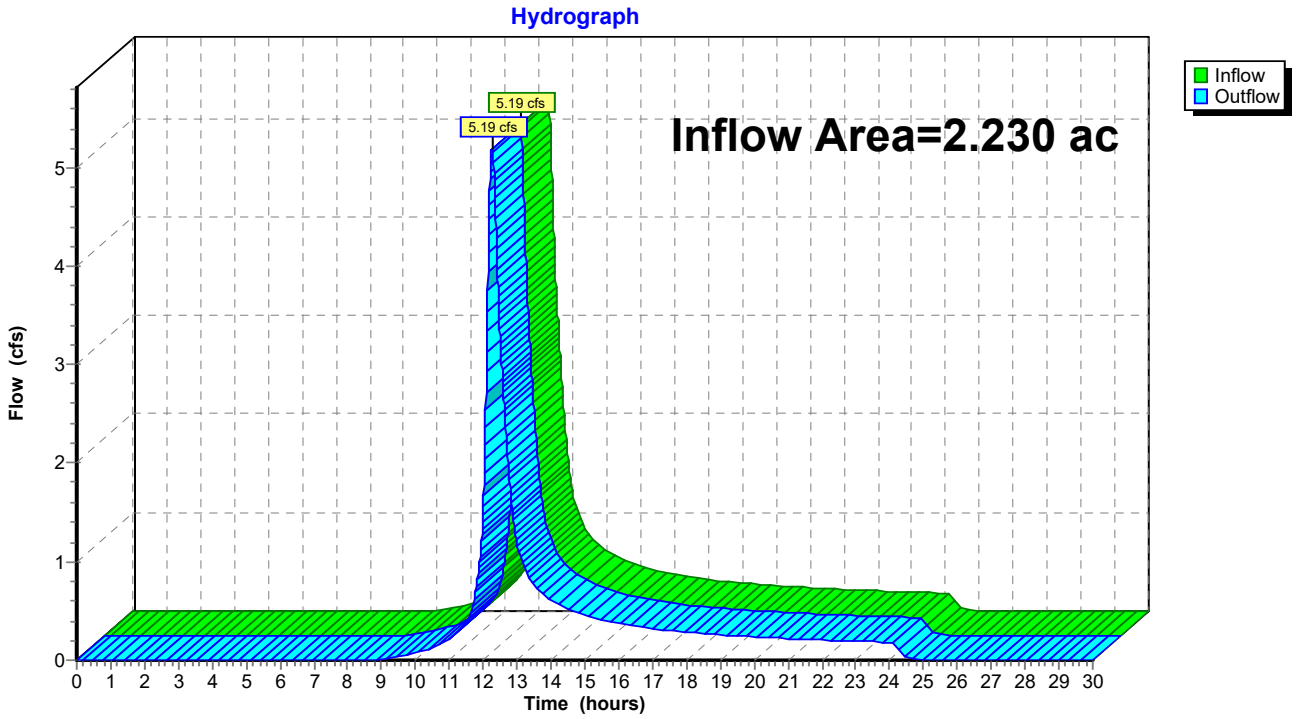


Summary for Reach DP-212: DISCHARGE OFFSITE

Inflow Area = 2.230 ac, 0.00% Impervious, Inflow Depth = 3.32" for 100-yr event
Inflow = 5.19 cfs @ 12.25 hrs, Volume= 0.618 af
Outflow = 5.19 cfs @ 12.25 hrs, Volume= 0.618 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-212: DISCHARGE OFFSITE

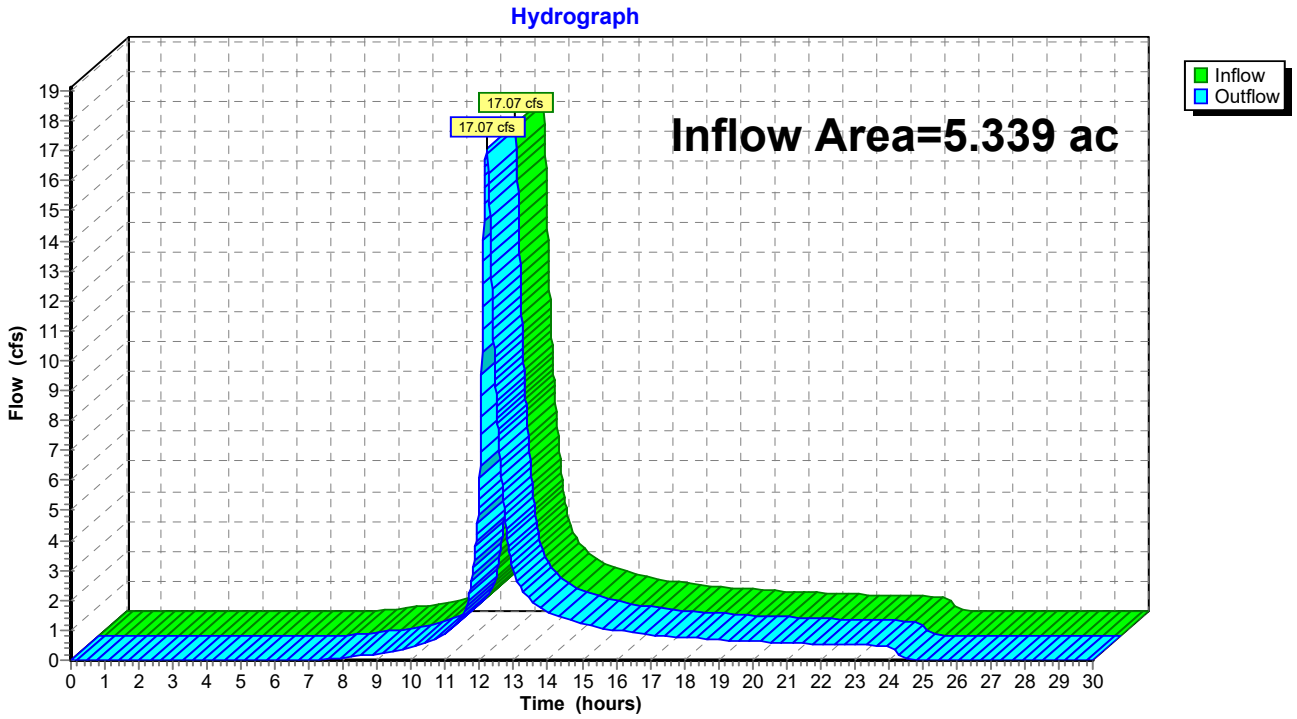


Summary for Reach DP-213: DISCHARGE OFFSITE

Inflow Area = 5.339 ac, 0.00% Impervious, Inflow Depth = 4.10" for 100-yr event
Inflow = 17.07 cfs @ 12.20 hrs, Volume= 1.825 af
Outflow = 17.07 cfs @ 12.20 hrs, Volume= 1.825 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-213: DISCHARGE OFFSITE

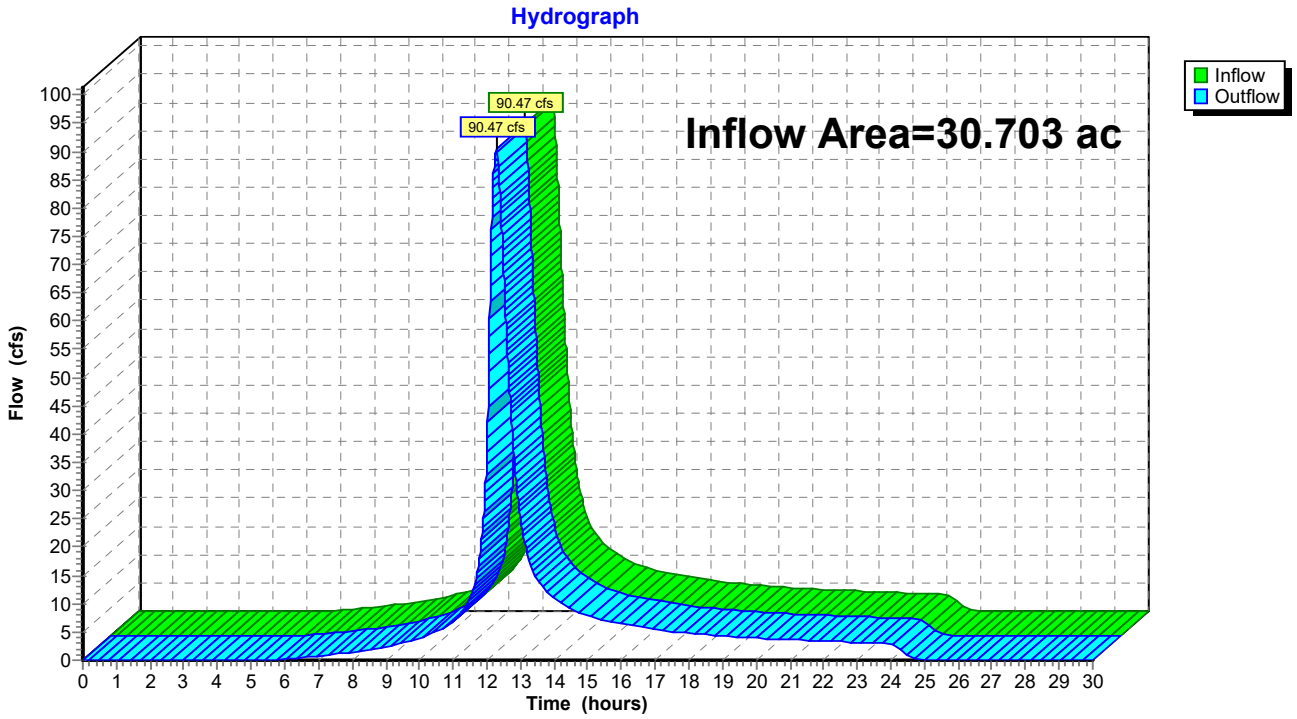


Summary for Reach DP-3: DISCHARGE TOWARDS STONY BROOK

Inflow Area = 30.703 ac, 0.00% Impervious, Inflow Depth = 4.89" for 100-yr event
Inflow = 90.47 cfs @ 12.27 hrs, Volume= 12.517 af
Outflow = 90.47 cfs @ 12.27 hrs, Volume= 12.517 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-3: DISCHARGE TOWARDS STONY BROOK

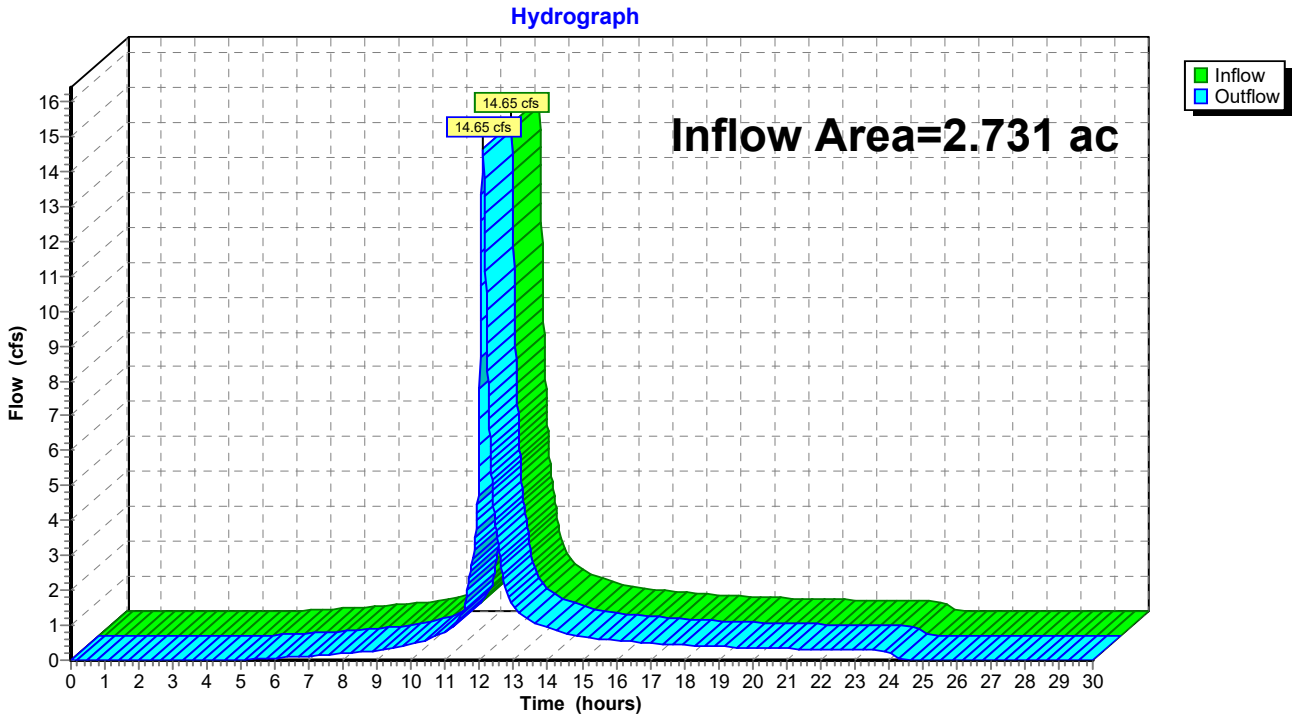


Summary for Reach DP-300: DISCHARGE OFFSITE

Inflow Area = 2.731 ac, 0.00% Impervious, Inflow Depth = 5.24" for 100-yr event
Inflow = 14.65 cfs @ 12.10 hrs, Volume= 1.193 af
Outflow = 14.65 cfs @ 12.10 hrs, Volume= 1.193 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-300: DISCHARGE OFFSITE

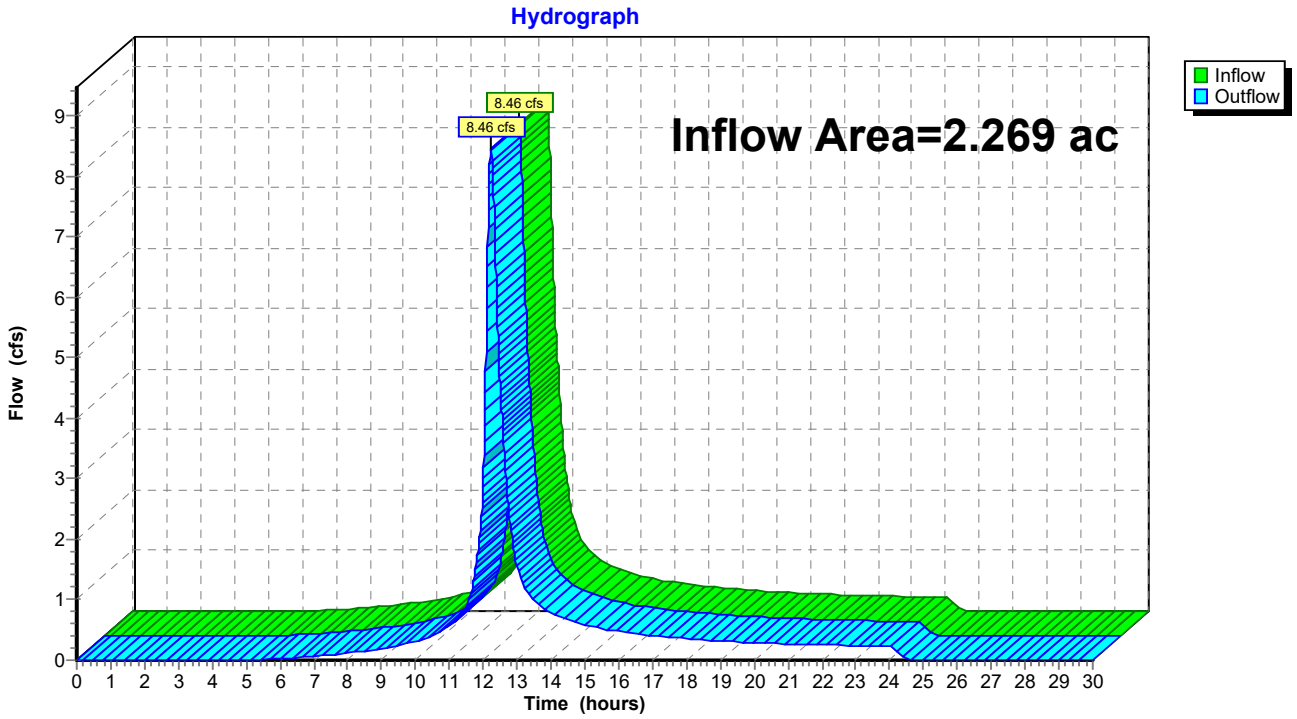


Summary for Reach DP-301: DISCHARGE OFFSITE

Inflow Area = 2.269 ac, 0.00% Impervious, Inflow Depth = 5.01" for 100-yr event
Inflow = 8.46 cfs @ 12.24 hrs, Volume= 0.948 af
Outflow = 8.46 cfs @ 12.24 hrs, Volume= 0.948 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-301: DISCHARGE OFFSITE

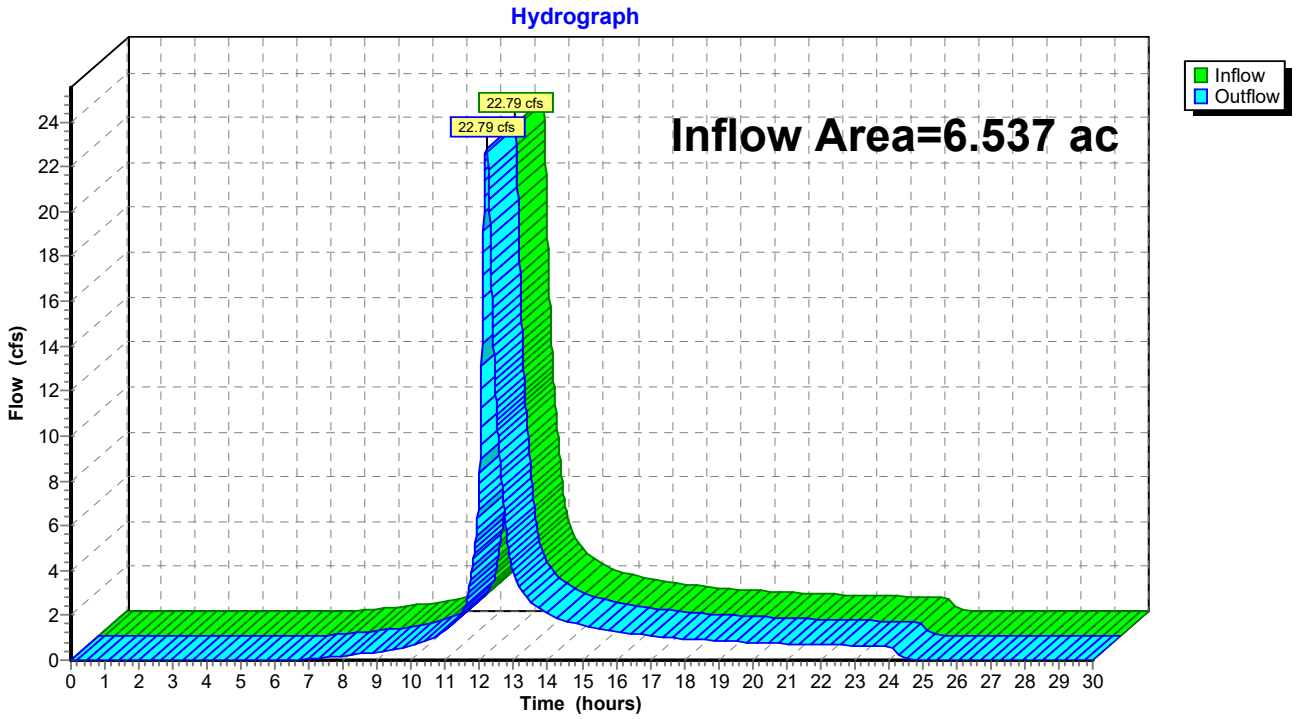


Summary for Reach DP-302: DISCHARGE OFFSITE

Inflow Area = 6.537 ac, 0.00% Impervious, Inflow Depth = 4.44" for 100-yr event
Inflow = 22.79 cfs @ 12.20 hrs, Volume= 2.419 af
Outflow = 22.79 cfs @ 12.20 hrs, Volume= 2.419 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-302: DISCHARGE OFFSITE

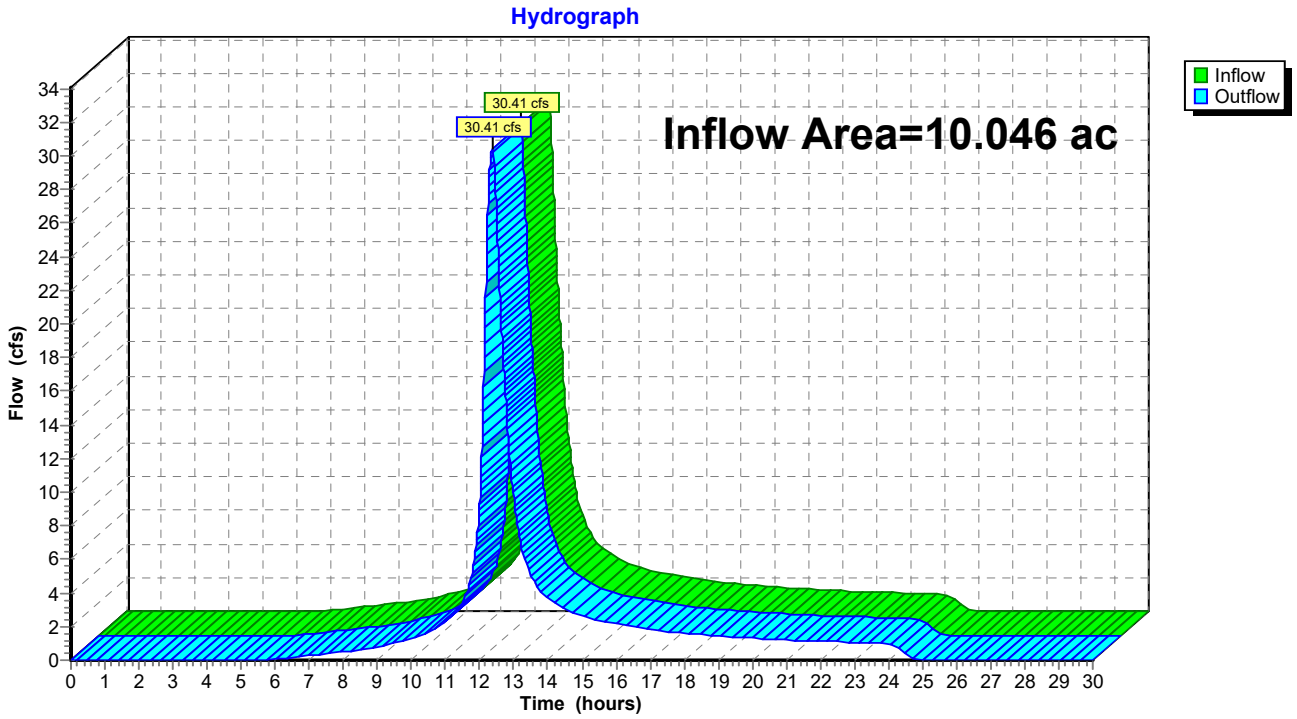


Summary for Reach DP-303: DISCHARGE TO EASTERN WETLAND

Inflow Area = 10.046 ac, 0.00% Impervious, Inflow Depth = 5.01" for 100-yr event
Inflow = 30.41 cfs @ 12.36 hrs, Volume= 4.196 af
Outflow = 30.41 cfs @ 12.36 hrs, Volume= 4.196 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-303: DISCHARGE TO EASTERN WETLAND

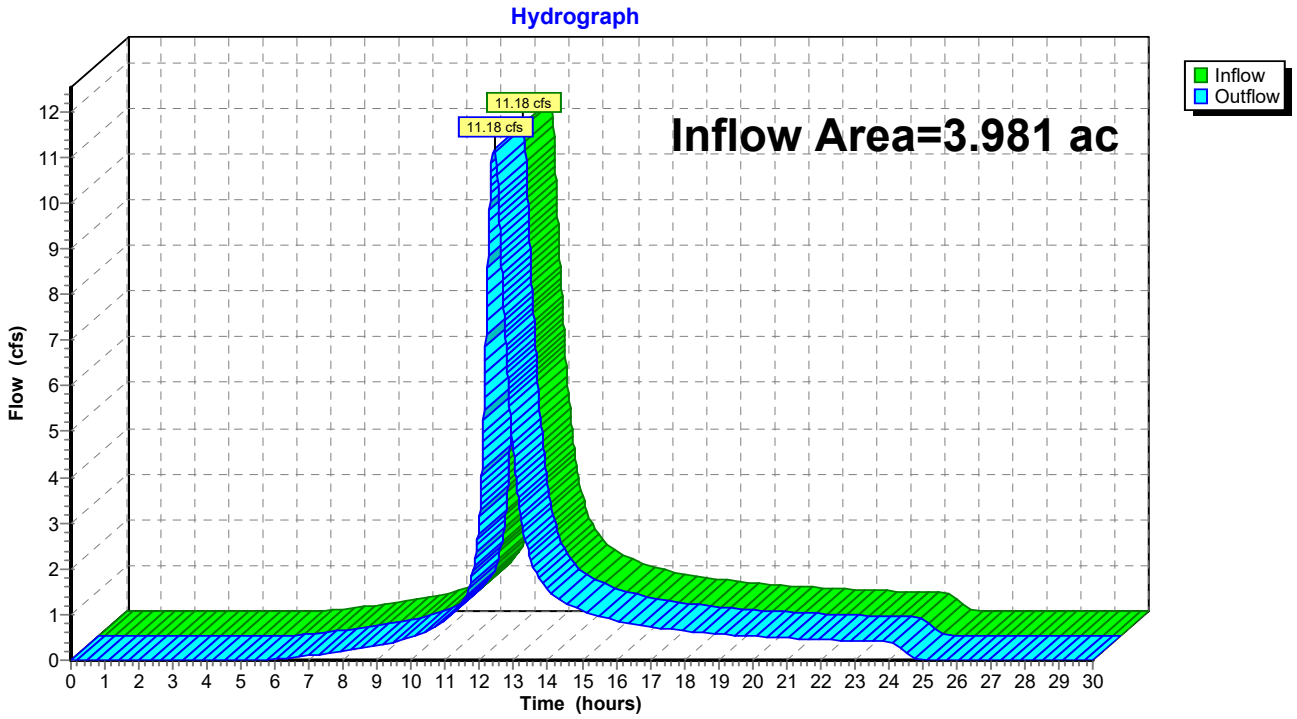


Summary for Reach DP-304: DISCHARGE OFFSITE

Inflow Area = 3.981 ac, 0.00% Impervious, Inflow Depth = 5.01" for 100-yr event
Inflow = 11.18 cfs @ 12.42 hrs, Volume= 1.663 af
Outflow = 11.18 cfs @ 12.42 hrs, Volume= 1.663 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-304: DISCHARGE OFFSITE

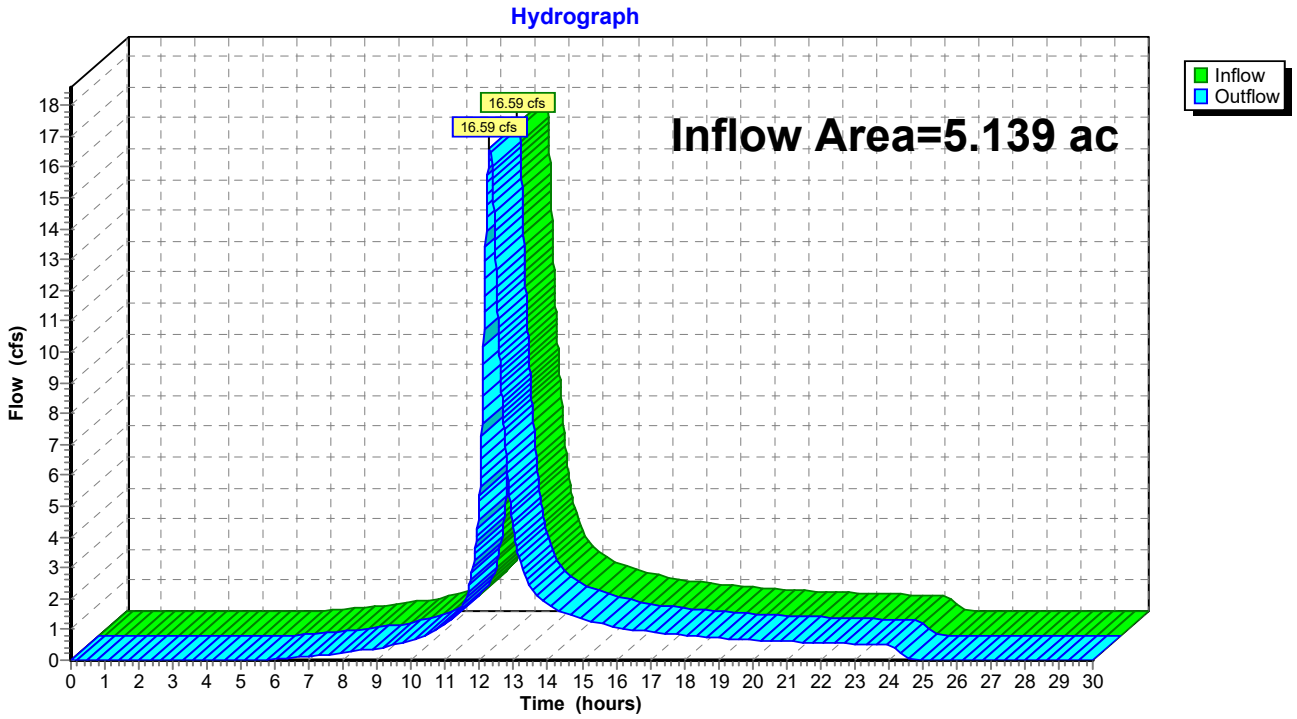


Summary for Reach DP-305: DISCHARGE OFFSITE

Inflow Area = 5.139 ac, 0.00% Impervious, Inflow Depth = 4.90" for 100-yr event
Inflow = 16.59 cfs @ 12.29 hrs, Volume= 2.097 af
Outflow = 16.59 cfs @ 12.29 hrs, Volume= 2.097 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Reach DP-305: DISCHARGE OFFSITE



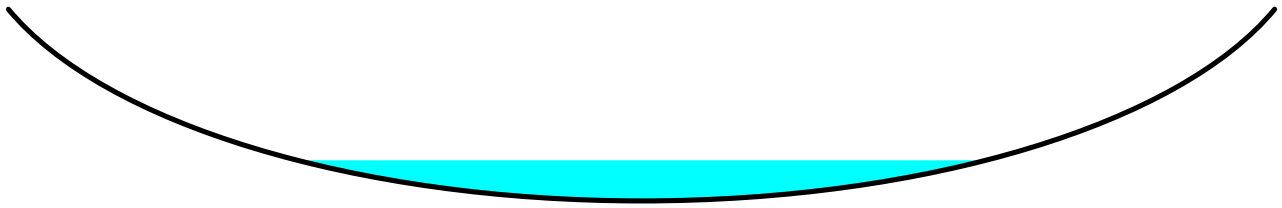
Summary for Reach R-202: FLOW THROUGH CENTRAL WETLAND EDA-207

Inflow Area = 10.341 ac, 0.00% Impervious, Inflow Depth = 3.21" for 100-yr event
Inflow = 24.50 cfs @ 12.23 hrs, Volume= 2.770 af
Outflow = 21.33 cfs @ 12.46 hrs, Volume= 2.769 af, Atten= 13%, Lag= 14.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.11 fps, Min. Travel Time= 8.2 min
Avg. Velocity = 0.76 fps, Avg. Travel Time= 22.8 min

Peak Storage= 10,447 cf @ 12.33 hrs
Average Depth at Peak Storage= 0.42'
Bank-Full Depth= 2.00' Flow Area= 104.0 sf, Capacity= 617.17 cfs

78.00' x 2.00' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 1,032.8' Slope= 0.0697 '/'
Inlet Invert= 188.00', Outlet Invert= 116.00'



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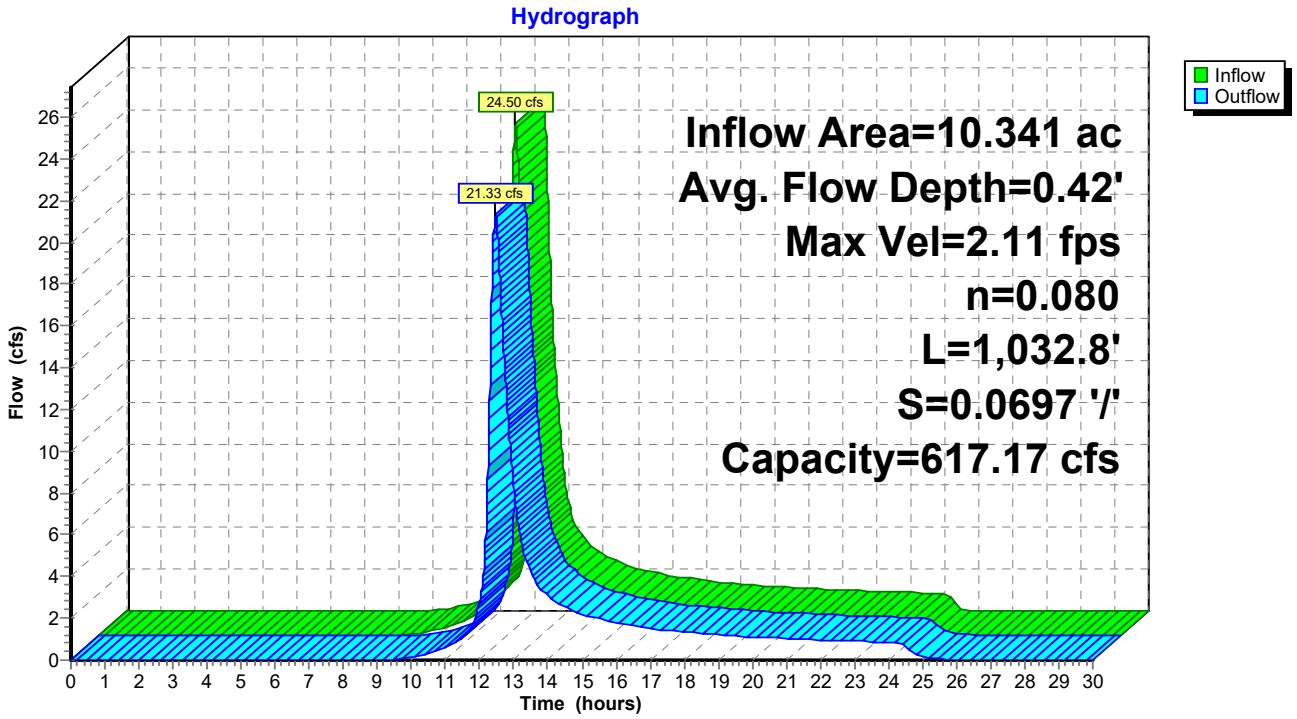
Reach R-202: FLOW THROUGH CENTRAL WETLAND EDA-207



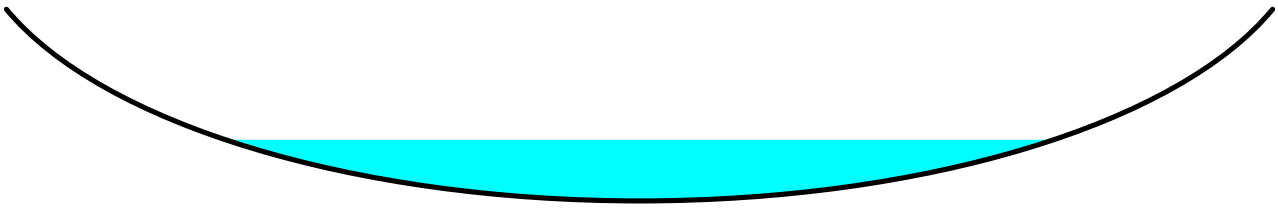
Summary for Reach R-203: SHALLOW CONCENTRATED FLOW THROUGH EDA-205

Inflow Area = 18.396 ac, 0.00% Impervious, Inflow Depth = 4.21" for 100-yr event
Inflow = 50.91 cfs @ 12.31 hrs, Volume= 6.460 af
Outflow = 50.41 cfs @ 12.39 hrs, Volume= 6.460 af, Atten= 1%, Lag= 4.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.80 fps, Min. Travel Time= 2.6 min
Avg. Velocity = 1.00 fps, Avg. Travel Time= 7.3 min

Peak Storage= 7,824 cf @ 12.34 hrs
Average Depth at Peak Storage= 0.80'
Bank-Full Depth= 2.50' Flow Area= 100.0 sf, Capacity= 597.69 cfs

60.00' x 2.50' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 434.0' Slope= 0.0527 '/'
Inlet Invert= 178.88', Outlet Invert= 156.00'



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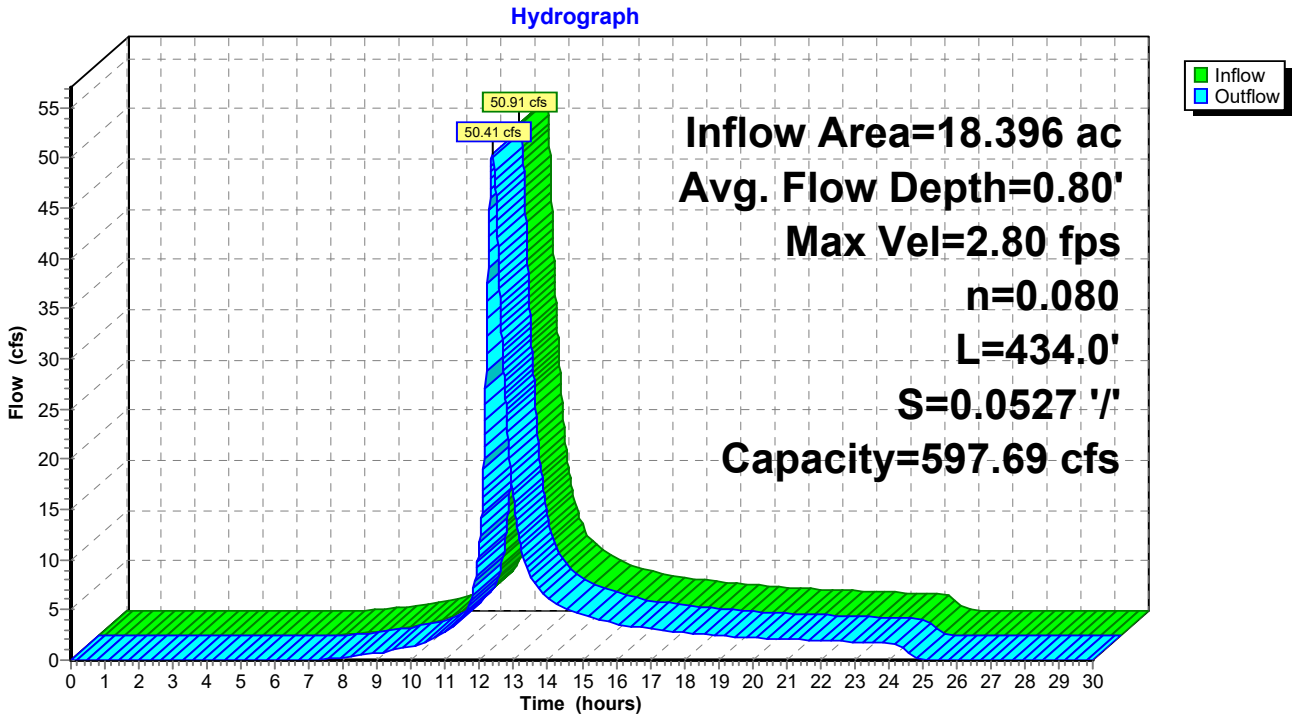
Reach R-203: SHALLOW CONCENTRATED FLOW THROUGH EDA-205



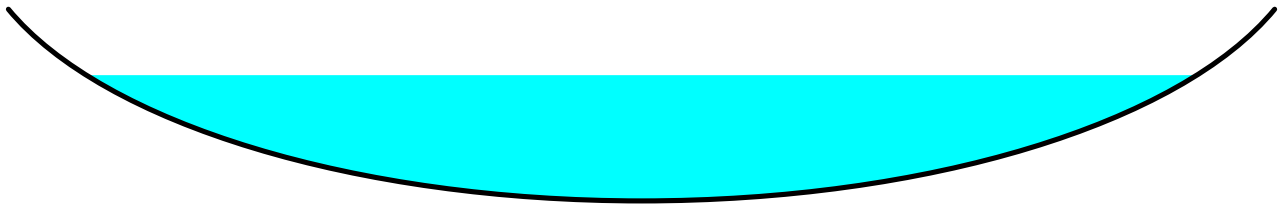
Summary for Reach R-204: SHALLOW CONCENTRATED FLOW THROUGH EDA-205

Inflow Area = 1.091 ac, 0.00% Impervious, Inflow Depth = 3.21" for 100-yr event
Inflow = 2.82 cfs @ 12.19 hrs, Volume= 0.292 af
Outflow = 2.32 cfs @ 12.44 hrs, Volume= 0.292 af, Atten= 18%, Lag= 15.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Max. Velocity= 0.82 fps, Min. Travel Time= 9.1 min
Avg. Velocity = 0.28 fps, Avg. Travel Time= 26.4 min

Peak Storage= 1,265 cf @ 12.29 hrs
Average Depth at Peak Storage= 0.13'
Bank-Full Depth= 0.20' Flow Area= 5.3 sf, Capacity= 5.78 cfs

40.00' x 0.20' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 446.0' Slope= 0.0499 '/'
Inlet Invert= 178.27', Outlet Invert= 156.00'



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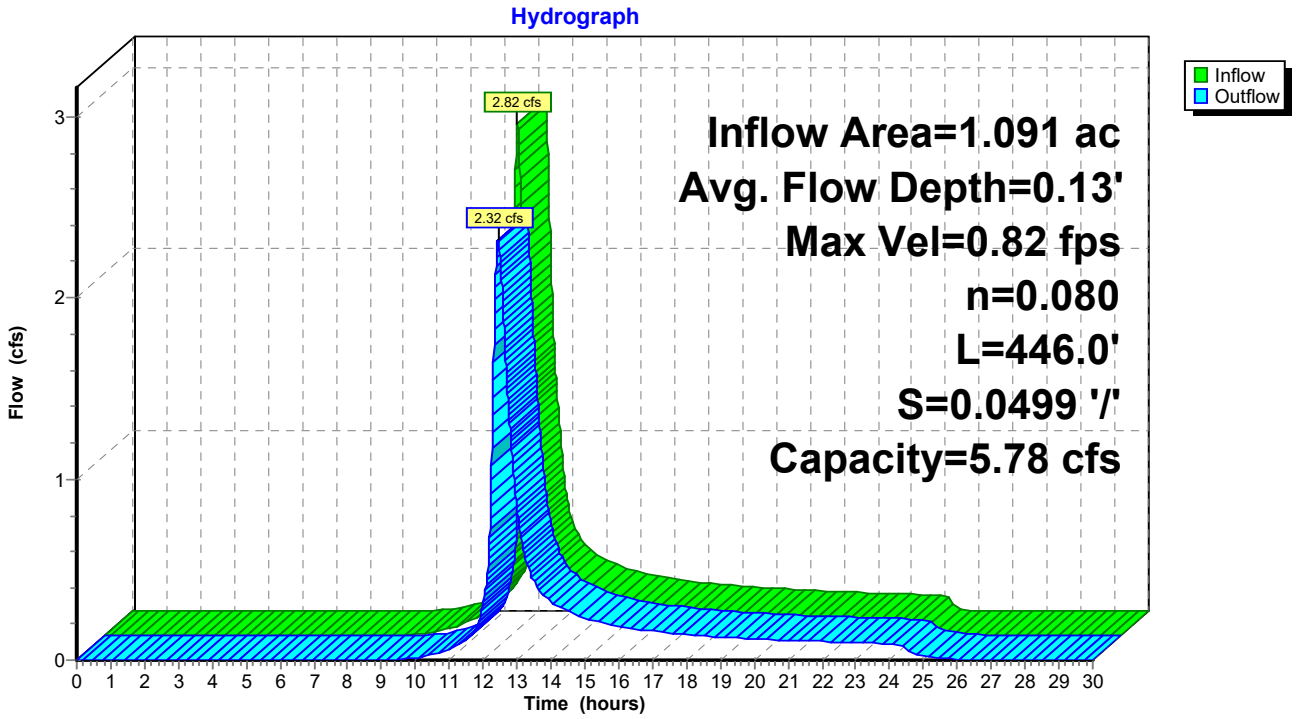
Reach R-204: SHALLOW CONCENTRATED FLOW THROUGH EDA-205



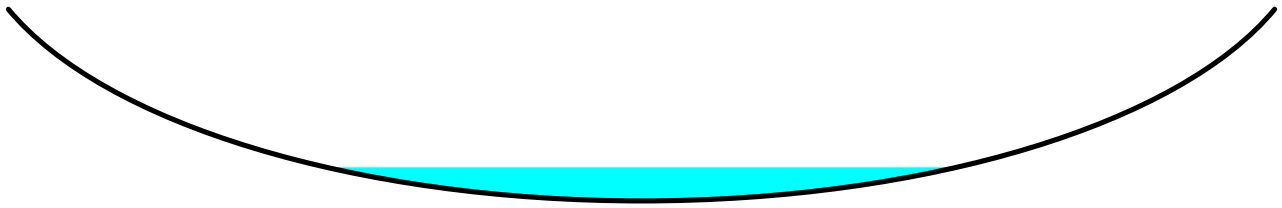
Summary for Reach R-205/206: FLOW THROUGH CENTRAL WETLAND EDA-208

Inflow Area = 47.105 ac, 0.00% Impervious, Inflow Depth = 3.96" for 100-yr event
Inflow = 112.48 cfs @ 12.39 hrs, Volume= 15.544 af
Outflow = 104.91 cfs @ 12.61 hrs, Volume= 15.544 af, Atten= 7%, Lag= 13.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.33 fps, Min. Travel Time= 7.5 min
Avg. Velocity = 0.85 fps, Avg. Travel Time= 20.6 min

Peak Storage= 47,314 cf @ 12.48 hrs
Average Depth at Peak Storage= 0.70'
Bank-Full Depth= 4.00' Flow Area= 610.7 sf, Capacity= 4,524.76 cfs

229.00' x 4.00' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 1,050.0' Slope= 0.0431 '/'
Inlet Invert= 148.40', Outlet Invert= 103.17'



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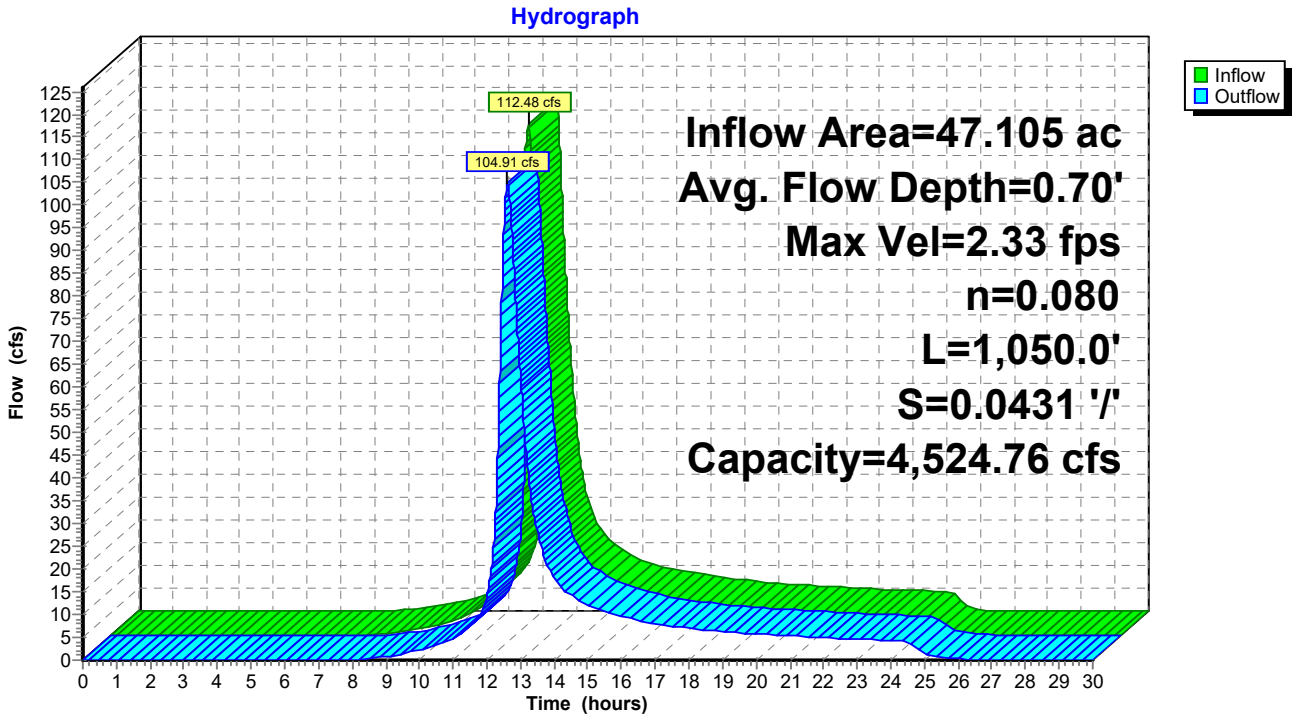
Reach R-205/206: FLOW THROUGH CENTRAL WETLAND EDA-208



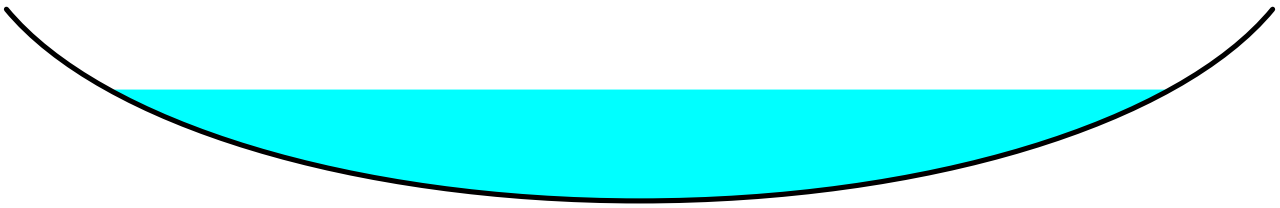
Summary for Reach R-207: FLOW THROUGH CENTRAL WETLAND EDA-208

Inflow Area = 27.900 ac, 0.00% Impervious, Inflow Depth = 3.35" for 100-yr event
Inflow = 56.45 cfs @ 12.40 hrs, Volume= 7.793 af
Outflow = 55.52 cfs @ 12.49 hrs, Volume= 7.793 af, Atten= 2%, Lag= 5.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.41 fps, Min. Travel Time= 3.5 min
Avg. Velocity = 0.49 fps, Avg. Travel Time= 9.9 min

Peak Storage= 11,524 cf @ 12.44 hrs
Average Depth at Peak Storage= 0.44'
Bank-Full Depth= 0.75' Flow Area= 89.0 sf, Capacity= 179.76 cfs

178.00' x 0.75' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 292.0' Slope= 0.0298 '/'
Inlet Invert= 111.87', Outlet Invert= 103.17'



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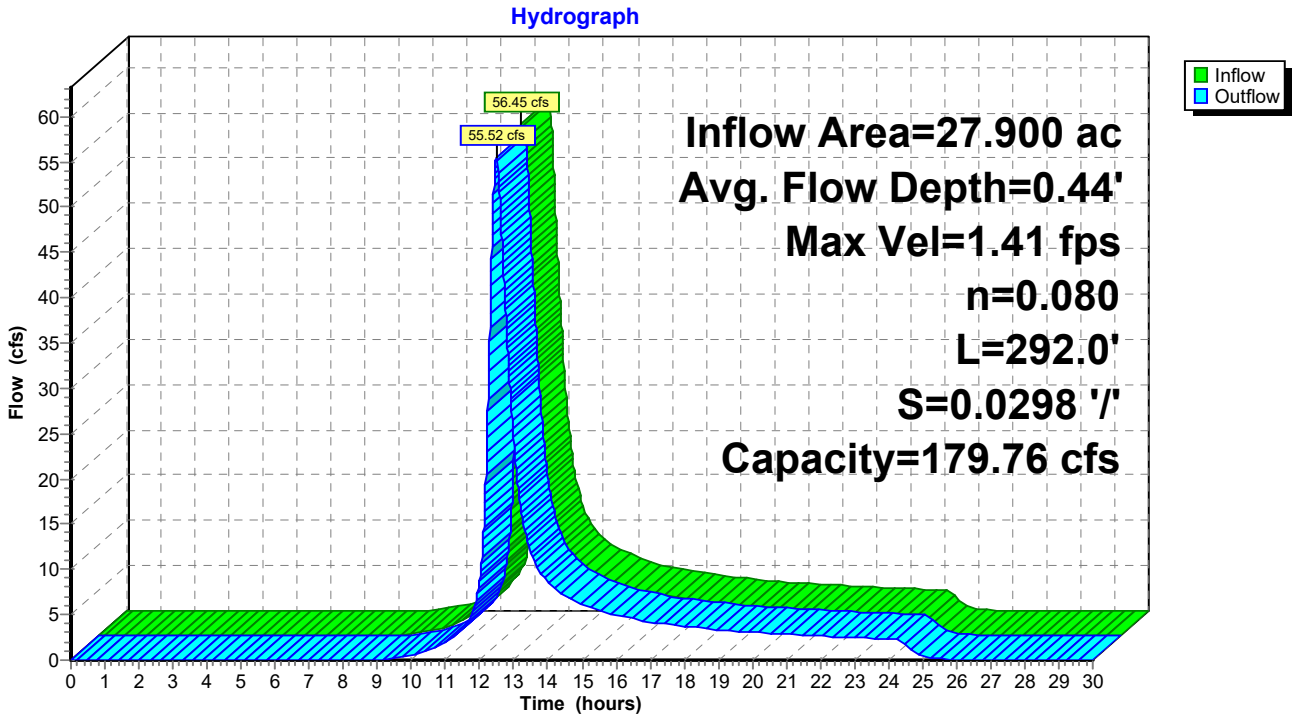
Reach R-207: FLOW THROUGH CENTRAL WETLAND EDA-208



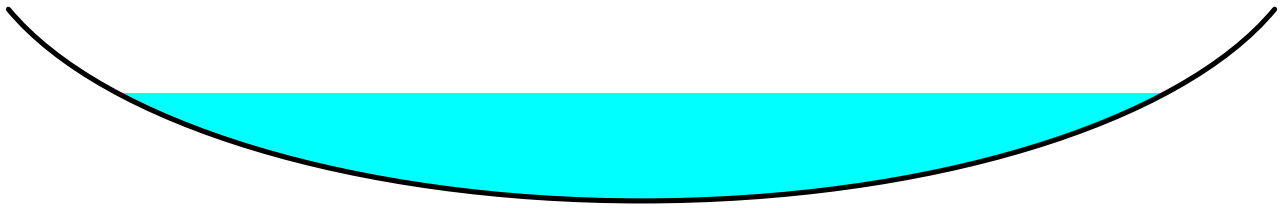
Summary for Reach R-208: FLOW THROUGH CENTRAL WETLAND EDA-211

Inflow Area = 88.969 ac, 0.00% Impervious, Inflow Depth = 3.76" for 100-yr event
Inflow = 183.77 cfs @ 12.57 hrs, Volume= 27.848 af
Outflow = 182.72 cfs @ 12.64 hrs, Volume= 27.848 af, Atten= 1%, Lag= 4.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.74 fps, Min. Travel Time= 2.4 min
Avg. Velocity = 0.62 fps, Avg. Travel Time= 6.8 min

Peak Storage= 26,185 cf @ 12.60 hrs
Average Depth at Peak Storage= 0.62'
Bank-Full Depth= 1.10' Flow Area= 247.9 sf, Capacity= 634.06 cfs

338.00' x 1.10' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 250.0' Slope= 0.0287 '/'
Inlet Invert= 103.17', Outlet Invert= 96.00'



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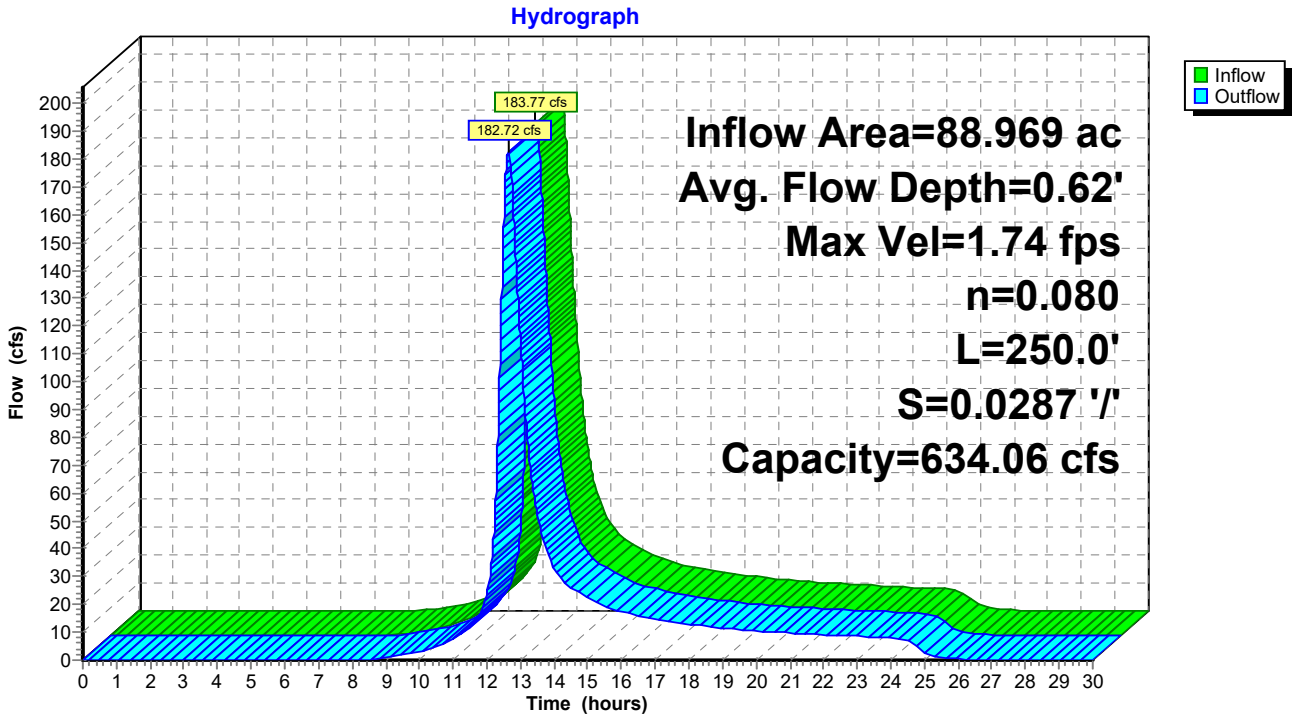
Reach R-208: FLOW THROUGH CENTRAL WETLAND EDA-211



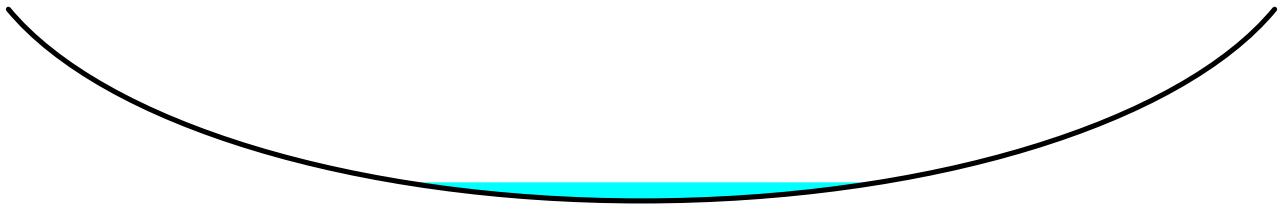
Summary for Reach R-210: FLOW THROUGH CENTRAL WETLAND EDA-211

Inflow Area = 0.674 ac, 0.00% Impervious, Inflow Depth = 4.33" for 100-yr event
Inflow = 2.01 cfs @ 12.28 hrs, Volume= 0.243 af
Outflow = 1.84 cfs @ 12.49 hrs, Volume= 0.243 af, Atten= 9%, Lag= 12.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Max. Velocity= 0.39 fps, Min. Travel Time= 7.4 min
Avg. Velocity = 0.15 fps, Avg. Travel Time= 19.4 min

Peak Storage= 812 cf @ 12.37 hrs
Average Depth at Peak Storage= 0.14'
Bank-Full Depth= 1.40' Flow Area= 156.8 sf, Capacity= 284.60 cfs

168.00' x 1.40' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 170.0' Slope= 0.0105 '/'
Inlet Invert= 97.78', Outlet Invert= 96.00'



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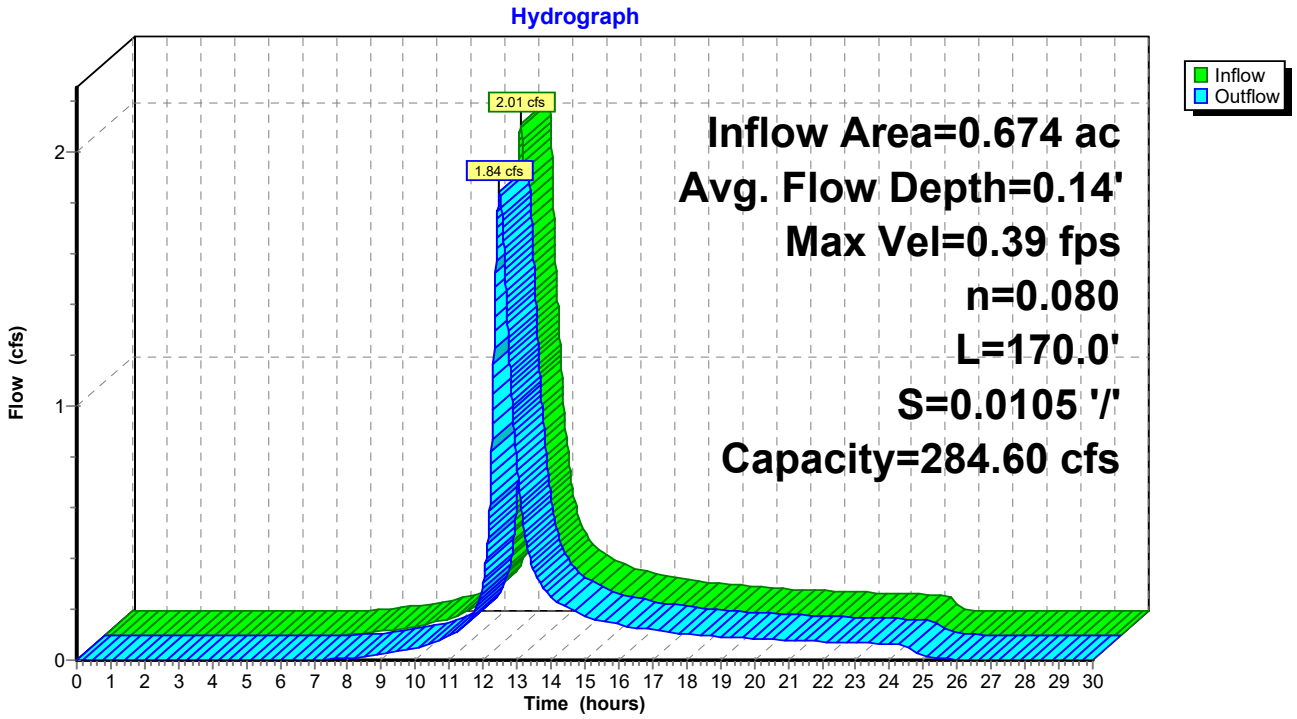
Reach R-210: FLOW THROUGH CENTRAL WETLAND EDA-211



APPENDIX C

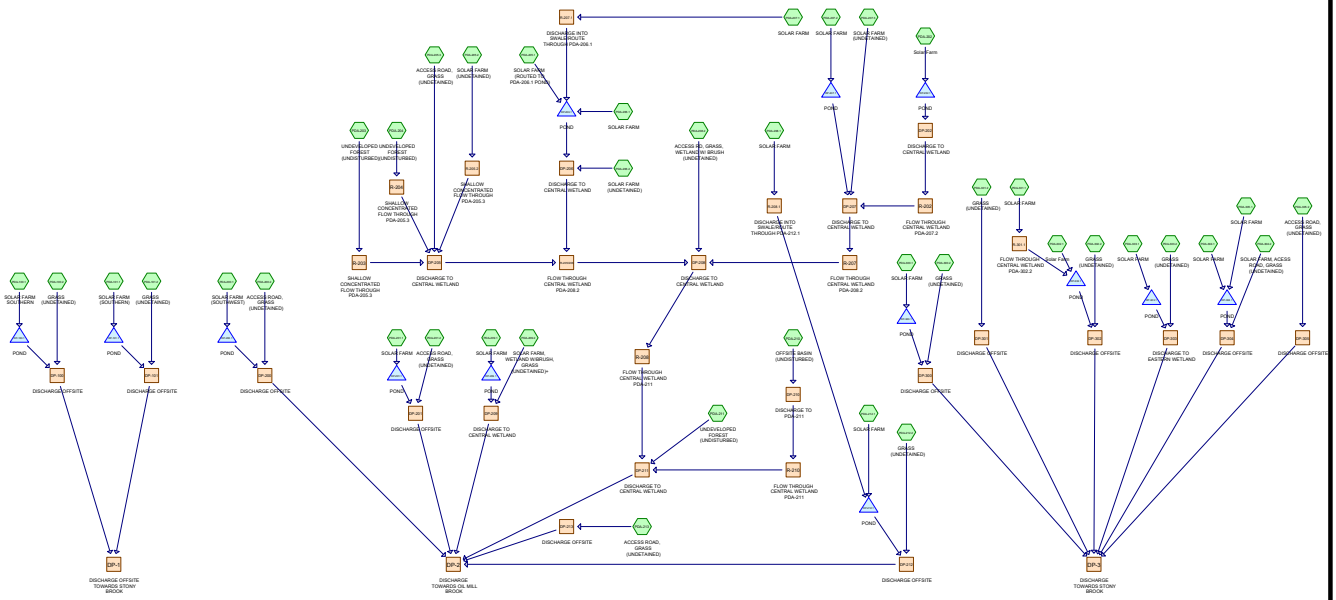
POST-DEVELOPMENT HYDROLOGY HYDRAULICS

Proposed Drainage Area Calculations
Proposed Hydrology Report

Design Point			Easement Path (Dirt)	Pr. Gravel Access Road	Ex. Easement (Poor <50% Grass)	Solar Farm (Meadow)	Proposed Brush (Fair)	Proposed Brush (Good)	Water Surface	Woods (Fair)	Total Impervious	Total Pervious	Total Area	%	Tc	CN	Impervious (AC)	Pervious (AC)	Total (AC)	DA
PDA-100.1	Totals	520,481	**0**	**22,588**	**0**	**490,685**	**0**	**0**	**7,208**	**0**	**7,208**	**513,273**	**520,481**	1.4%	18.00	60	0.17	11.78	11.95	PDA-100.1
	B	490,685				490,685					0	490,685								
	C	22,588		22,588							0	22,588								
	D	7,208							7,208		7,208	0								
PDA-100.2	Totals	32,550	**0**	**0**	**0**	**32,550**	**0**	**0**	**0**	**0**	**0**	**32,550**	**32,550**	0.0%	6.10	58	0.00	0.75	0.75	PDA-100.2
	B	32,550				32,550					0	32,550								
	C	0									0	0								
	D	0									0	0								
PDA-101.1	Totals	90,361	**0**	**0**	**0**	**86,309**	**0**	**0**	**4,052**	**0**	**4,052**	**86,309**	**90,361**	4.5%	12.1	63	0.09	1.98	2.07	PDA-101.1
	B	73,780				71,575			2,205		2,205	71,575								
	C	0									0	0								
	D	16,581				14,734			1,847		1,847	14,734								
PDA-101.2	Totals	47,554	**0**	**0**	**0**	**47,554**	**0**	**0**	**0**	**0**	**0**	**47,554**	**47,554**	0.0%	11.2	76	0.00	1.09	1.09	PDA-101.2
	B	3,921				3,921					0	3,921								
	C	0									0	0								
	D	43,633				43,633					0	43,633								
PDA-200.1	Totals	128,991	**0**	**16,101**	**0**	**109,000**	**0**	**0**	**3,890**	**0**	**3,890**	**125,101**	**128,991**	3.0%	12.9	63	0.09	2.87	2.96	PDA-200.1
	B	128,991		16,101		109,000			3,890		3,890	125,101								
	C	0									0	0								
	D	0									0	0								
PDA-200.2	Totals	74,126	**0**	**6,434**	**0**	**67,692**	**0**	**0**	**0**	**0**	**0**	**74,126**	**74,126**	0.0%	11.7	61	0.00	1.70	1.70	PDA-200.2
	B	74,126		6,434		67,692					0	74,126								
	C	0									0	0								
	D	0									0	0								
PDA-201.1	Totals	83,227	**0**	**4,685**	**0**	**76,925**	**0**	**0**	**1,617**	**0**	**1,617**	**81,610**	**83,227**	1.9%	13.00	60	0.04	1.87	1.91	PDA-201.1
	B	83,227		4,685		76,925			1,617		1,617	81,610								
	C	0									0	0								
	D	0									0	0								
PDA-201.2	Totals	19,716	**0**	**0**	**0**	**19,716**	**0**	**0**	**0**	**0**	**0**	**19,716**	**19,716**	0.0%	13.00	58	0.00	0.45	0.45	PDA-201.2
	B	19,716				19,716					0	19,716								
	C	0									0	0								
	D	0									0	0								
PDA-202	Totals	450,459	**0**	**33,532**	**0**	**405,959**	**0**	**0**	**10,968**	**0**	**10,968**	**439,491**	**450,459**	2.4%	13.8	61	0.25	10.09	10.34	PDA-202
	B	450,459		33,532		405,959			10,968		10,968	439,491								
	C	0									0	0								
	D	0									0	0								
PDA-203	Totals	801,310	**423**	**0**	**5,581**	**0**	**0**	**0**	**0**	**795,306**	**0**	**801,310**	**801,310**	0.0%	26.0	69	0.00	18.40	18.40	PDA-203
	B	239,831	423							239,408	0	239,831								
	C	561,479			5,581					555,898	0	561,479								
	D	0									0	0								
PDA-204	Totals	47,524	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**47,524**	**0**	**47,524**	**47,524**	0.0%	16.70	60	0.00	1.09	1.09	PDA-204
	B	47,524								47,524	0	47,524								
	C	0									0	0								
	D	0									0	0								
PDA-205.1	Totals	146,606	**0**	**6,045**	**0**	**140,561**	**0**	**0**	**0**	**0**	**0**	**146,606**	**146,606**	0.0%	13.8	65	0.00	3.37	3.37	PDA-205.1
	B	71,491				71,491					0	71,491								
	C	75,115		6,045		69,070					0	75,115								
	D	0									0	0								
PDA-205.2	Totals	215,116	**4,140**	**1,588**	**45,979**	**163,409**	**0**	**0**	**0**	**0**	**0**	**215,116**	**215,116**	0.0%	13.4	67	0.00	4.94	4.94	PDA-205.2
	B	136,150	1,438		14,555	120,157					0	136,150								
	C	78,966	2,702	1,588	31,424	43,252					0	78,966								
	D	0									0	0								
PDA-205.3	Totals	234,811	**8,238**	**12,963**	**55,587**	**6,965**	**74,632**	**0**	**0**	**76,426**	**0**	**234,811**	**234,811**	0.0%	9.3	66	0.00	5.39	5.39	PDA-205.3
	B	221,572	8,238	8,573	49,723	4,943	74,632			75,463	0	221,572								
	C	13,239		4,390	5,864	2,022				963	0	13,239								
	D	0									0	0								
PDA-206.1	Totals	481,525	**0**	**24,014**	**0**	**457,511**	**0**	**0**	**0**	**0**	**0**	**481,525**	**481,525**	0.0%	19.5	62	0.00	11.05	11.05	PDA-206.1
	B	384,382		11,122		373,260					0	384,382								

Design Point			Easement Path (Dirt)	Pr. Gravel Access Road	Ex. Easement (Poor <50% Grass)	Solar Farm (Meadow)	Proposed Brush (Fair)	Proposed Brush (Good)	Water Surface	Woods (Fair)	Total Impervious	Total Pervious	Total Area	%	Tc	CN	Impervious (AC)	Pervious (AC)	Total (AC)	DA
	C	55,196		3,979		51,217					0	55,196								
	D	41,947		8,913		33,034					0	41,947								
PDA-206.2	Totals	124,905	**3,856**	**17,360**	**38,588**	**31,779**	**0**	**0**	**0**	**33,322**	**0**	**124,905**	**124,905**	0.0%	10.0	70	0.00	2.87	2.87	PDA-206.2
	B	124,905	3,856	17,360	38,588	31,779				33,322	0	124,905								
	C	0									0	0								
	D	0									0	0								
PDA-207.1	Totals	10,073	**0**	**0**	**0**	**10,073**	**0**	**0**	**0**	**0**	**0**	**10,073**	**10,073**	0.0%	13.80	58	0.00	0.23	0.23	PDA-207.1
	B	10,073				10,073					0	10,073								
	C	0									0	0								
	D	0									0	0								
PDA-207.2	Totals	338,199	**0**	**17,066**	**0**	**321,133**	**0**	**0**	**0**	**0**	**0**	**338,199**	**338,199**	0.0%	10.60	59	0.00	7.76	7.76	PDA-207.2
	B	338,199		17,066		321,133					0	338,199								
	C	0									0	0								
	D	0									0	0								
PDA-207.3	Totals	416,598	**2,809**	**8,664**	**41,875**	**208,282**	**0**	**0**	**0**	**154,968**	**0**	**416,598**	**416,598**	0.0%	17.00	63	0.00	9.56	9.56	PDA-207.3
	B	388,816	2,716	8,664	31,851	208,282				137,303	0	388,816								
	C	0									0	0								
	D	27,782	93		10,024					17,665	0	27,782								
PDA-208.1	Totals	14,791	**0**	**0**	**0**	**14,791**	**0**	**0**	**0**	**0**	**0**	**14,791**	**14,791**	0.0%	8.6	58	0.00	0.34	0.34	PDA-208.1
	B	14,791				14,791					0	14,791								
	C	0									0	0								
	D	0									0	0								
PDA-208.2	Totals	593,566	**3,751**	**6,791**	**36,873**	**152,056**	**0**	**0**	**0**	**394,095**	**0**	**593,566**	**593,566**	0.0%	36.6	66	0.00	13.63	13.63	PDA-208.2
	B	450,748	2,806	6,791	29,846	152,056				259,249	0	450,748								
	C	0									0	0								
	D	142,818	945		7,027					134,846	0	142,818								
PDA-209.1	Totals	308,082	**0**	**15,477**	**0**	**292,605**	**0**	**0**	**0**	**0**	**0**	**308,082**	**308,082**	0.0%	22.4	59	0.00	7.07	7.07	PDA-209.1
	B	308,082		15,477		292,605					0	308,082								
	C	0									0	0								
	D	0									0	0								
PDA-209.2	Totals	465,264	**4,464**	**0**	**66,964**	**0**	**0**	**212,359**	**0**	**181,477**	**0**	**465,264**	**465,264**	0.0%	21.0	60	0.00	10.68	10.68	PDA-209.2
	B	406,054	3,720		54,222			212,359		135,753	0	406,054								
	C	45,724								45,724	0	45,724								
	D	13,486	744		12,742						0	13,486								
PDA-210	Totals	29,356	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**29,356**	**0**	**29,356**	**29,356**	0.0%	23.80	70	0.00	0.67	0.67	PDA-210
	B	7,157								7,157	0	7,157								
	C	22,199								22,199	0	22,199								
	D	0									0	0								
PDA-211	Totals	166,352	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**166,352**	**0**	**166,352**	**166,352**	0.0%	21.9	75	0.00	3.82	3.82	PDA-211
	B	13,831								13,831	0	13,831								
	C	63,994								63,994	0	63,994								
	D	88,527								88,527	0	88,527								
PDA-212.1	Totals	81,563	**0**	**26**	**0**	**81,537**	**0**	**0**	**0**	**0**	**0**	**81,563**	**81,563**	0.0%	20.6	58	0.00	1.87	1.87	PDA-212.1
	B	81,224				81,224					0	81,224								
	C	339		26		313					0	339								
	D	0									0	0								
PDA-212.2	Totals	15,574	**0**	**0**	**0**	**15,574**	**0**	**0**	**0**	**0**	**0**	**15,574**	**15,574**	0.0%	8.2	62	0.00	0.36	0.36	PDA-212.2
	B	11,275				11,275					0	11,275								
	C	4,299				4,299					0	4,299								
	D	0									0	0								
PDA-213	Totals	232,262	**0**	**13,889**	**0**	**0**	**0**	**0**	**0**	**218,373**	**0**	**232,262**	**232,262**	0.0%	20.50	69	0.00	5.33	5.33	PDA-213
	B	96,951		5,026						91,925	0	96,951								
	C	135,311		8,863						126,448	0	135,311								
	D	0									0	0								
PDA-300.1	Totals	30,322	**0**	**0**	**0**	**30,322**	**0**	**0**	**0**	**0**	**0**	**30,322**	**30,322**	0.0%	9.2	75	0.00	0.70	0.70	PDA-300.1
	B	4,127				4,127					0	4,127								
	C	0									0	0								
	D	26,195				26,195					0	26,195								

Design Point				Easement Path (Dirt)	Pr. Gravel Access Road	Ex. Easement (Poor <50% Grass)	Solar Farm (Meadow)	Proposed Brush (Fair)	Proposed Brush (Good)	Water Surface	Woods (Fair)	Total Impervious	Total Pervious	Total Area	%	Tc	CN	Impervious (AC)	Pervious (AC)	Total (AC)	DA
PDA-300.2	Totals	88,620		**0**	**0**	**0**	**0**	**88,620**	**0**	**0**	**0**	**0**	**88,620**	**88,620**	0.0%	6.3	77	0.00	2.03	2.03	PDA-300.2
	B	0										0	0								
	C	0										0	0								
	D	88,620						88,620				0	88,620								
PDA-301.1	Totals	55,382		**0**	**632**	**0**	**54,750**	**0**	**0**	**0**	**0**	**0**	**55,382**	**55,382**	0.0%	10.5	73	0.00	1.27	1.27	PDA-301.1
	B	15,089			378		14,711					0	15,089								
	C	0										0	0								
	D	40,293			254		40,039					0	40,293								
PDA-301.2	Totals	43,476		**0**	**0**	**0**	**0**	**43,476**	**0**	**0**	**0**	**0**	**43,476**	**43,476**	0.0%	5.3	77	0.00	1.00	1.00	PDA-301.2
	B	0										0	0								
	C	0										0	0								
	D	43,476						43,476				0	43,476								
PDA-302.1	Totals	189,109		**0**	**0**	**0**	**189,109**	**0**	**0**	**0**	**0**	**0**	**189,109**	**189,109**	0.0%	10.10	66	0.00	4.34	4.34	PDA-302.1
	B	109,756					109,756					0	109,756								
	C	0										0	0								
	D	79,353					79,353					0	79,353								
PDA-302.2	Totals	95,647		**0**	**0**	**0**	**0**	**95,647**	**0**	**0**	**0**	**0**	**95,647**	**95,647**	0.0%	8.80	75	0.00	2.20	2.20	PDA-302.2
	B	7,023						7,023				0	7,023								
	C	82,142						82,142				0	82,142								
	D	6,482						6,482				0	6,482								
PDA-303.1	Totals	292,331		**0**	**0**	**0**	**292,331**	**0**	**0**	**0**	**0**	**0**	**292,331**	**292,331**	0.0%	13.7	73	0.00	6.71	6.71	PDA-303.1
	B	30,997					30,997					0	30,997								
	C	114,707					114,707					0	114,707								
	D	146,627					146,627					0	146,627								
PDA-303.2	Totals	145,287		**0**	**0**	**0**	**0**	**39,811**	**0**	**0**	**105,476**	**0**	**145,287**	**145,287**	0.0%	10.2	78	0.00	3.34	3.34	PDA-303.2
	B	4,609						4,609				0	4,609								
	C	0										0	0								
	D	140,678						35,202			105,476	0	140,678								
PDA-304.1	Totals	106,009		**0**	**0**	**0**	**106,009**	**0**	**0**	**0**	**0**	**0**	**106,009**	**106,009**	0.0%	18.9	72	0.00	2.43	2.43	PDA-304.1
	B	0										0	0								
	C	89,702					89,702					0	89,702								
	D	16,307					16,307					0	16,307								
PDA-304.2	Totals	67,405		**0**	**0**	**0**	**0**	**0**	**67,405**	**0**	**0**	**0**	**67,405**	**67,405**	0.0%	8.7	73	0.00	1.55	1.55	PDA-304.2
	B	0										0	0								
	C	0										0	0								
	D	67,405							67,405			0	67,405								
PDA-305.1	Totals	149,887		**0**	**9,836**	**0**	**140,051**	**0**	**0**	**0**	**0**	**0**	**149,887**	**149,887**	0.0%	19.30	73	0.00	3.44	3.44	PDA-305.1
	B	0										0	0								
	C	118,692					118,692					0	118,692								
	D	31,195			9,836		21,359					0	31,195								
PDA-305.2	Totals	73,928		**0**	**9,827**	**658**	**0**	**0**	**63,443**	**0**	**0**	**0**	**73,928**	**73,928**	0.0%	5.00	74	0.00	1.70	1.70	PDA-305.2
	B	0										0	0								
	C	16,605			540	658			15,407			0	16,605								
	D	57,323			9,287				48,036			0	57,323								
OVERALL	Totals	7,508,345		27,681	227,518	292,105	4,045,238	342,186	343,207	27,735	2,202,675	27,735	7,480,610	**7,508,345**	0.00%		66	0.64	171.73	172.37	OVERALL
	B		4,882,112	23,197	151,209	218,785	3,130,683	86,264	212,359	18,680	1,040,935	18,680	4,863,432								
	C		1,500,297	2,702	48,019	43,527	493,274	82,142	15,407	0	815,226	0	1,500,297								
	D		1,125,936	1,782	28,290	29,793	421,281	173,780	115,441	9,055	346,514	9,055	1,116,881								
												0.37	99.63								



Subcat Reach Pond Link

Routing Diagram for C-DAT-17D3515-PROPOSED DRAINAGE
Prepared by Microsoft, Printed 6/6/2018
HydroCAD® 10.00-21 s/n 01334 © 2018 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
5.023	79	<50% Grass cover, Poor, HSG B (PDA-205.2, PDA-205.3, PDA-206.2, PDA-207.3, PDA-208.2, PDA-209.2)
0.999	86	<50% Grass cover, Poor, HSG C (PDA-203, PDA-205.2, PDA-205.3, PDA-305.2)
0.684	89	<50% Grass cover, Poor, HSG D (PDA-207.3, PDA-208.2, PDA-209.2)
1.980	56	Brush, Fair, HSG B (PDA-205.3, PDA-302.2, PDA-303.2)
5.875	77	Brush, Fair, HSG D (PDA-300.2, PDA-301.2, PDA-302.2, PDA-303.2)
4.875	48	Brush, Good, HSG B (PDA-209.2)
0.354	65	Brush, Good, HSG C (PDA-305.2)
2.650	73	Brush, Good, HSG D (PDA-304.2, PDA-305.2)
0.533	82	Dirt roads, HSG B (PDA-203, PDA-205.2, PDA-205.3, PDA-206.2, PDA-207.3, PDA-208.2, PDA-209.2)
0.062	87	Dirt roads, HSG C (PDA-205.2)
0.041	89	Dirt roads, HSG D (PDA-207.3, PDA-208.2, PDA-209.2)
3.843	85	Gravel roads, HSG B (PDA-100.1, PDA-200.1, PDA-201.1, PDA-202, PDA-205.3, PDA-206.1, PDA-206.2, PDA-207.2, PDA-207.3, PDA-208.2, PDA-209.1, PDA-212.1, PDA-213, PDA-301.1)
0.809	89	Gravel roads, HSG C (PDA-205.1, PDA-205.2, PDA-205.3, PDA-206.1, PDA-213, PDA-305.1, PDA-305.2)
0.424	91	Gravel roads, HSG D (PDA-206.1, PDA-301.1, PDA-305.2)
0.148	96	Gravel surface, HSG B (PDA-200.2)
71.871	58	Meadow, non-grazed, HSG B (PDA-100.1, PDA-100.2, PDA-101.1, PDA-101.2, PDA-200.1, PDA-200.2, PDA-201.1, PDA-201.2, PDA-202, PDA-205.1, PDA-205.2, PDA-205.3, PDA-206.1, PDA-206.2, PDA-207.1, PDA-207.2, PDA-207.3, PDA-208.1, PDA-208.2, PDA-209.1, PDA-212.1, PDA-212.2, PDA-300.1, PDA-301.1, PDA-302.1, PDA-303.1)
11.324	71	Meadow, non-grazed, HSG C (PDA-205.1, PDA-205.2, PDA-205.3, PDA-206.1, PDA-212.1, PDA-212.2, PDA-303.1, PDA-304.1, PDA-305.1)
9.671	78	Meadow, non-grazed, HSG D (PDA-101.1, PDA-101.2, PDA-206.1, PDA-300.1, PDA-301.1, PDA-302.1, PDA-303.1, PDA-304.1, PDA-305.1)
0.594	98	Water Surface, HSG B (PDA-100.1, PDA-101.1, PDA-200.1, PDA-201.1, PDA-202)
0.042	98	Water Surface, HSG D (PDA-101.1)
23.897	60	Woods, Fair, HSG B (PDA-203, PDA-204, PDA-205.3, PDA-206.2, PDA-207.3, PDA-208.2, PDA-209.2, PDA-210, PDA-211, PDA-213)
17.665	73	Woods, Fair, HSG C (PDA-203, PDA-205.3, PDA-210, PDA-211, PDA-213)
9.005	79	Woods, Fair, HSG D (PDA-207.3, PDA-208.2, PDA-209.2, PDA-211, PDA-303.2)
172.368	**65**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
112.762	HSG B	PDA-100.1, PDA-100.2, PDA-101.1, PDA-101.2, PDA-200.1, PDA-200.2, PDA-201.1, PDA-201.2, PDA-202, PDA-203, PDA-204, PDA-205.1, PDA-205.2, PDA-205.3, PDA-206.1, PDA-206.2, PDA-207.1, PDA-207.2, PDA-207.3, PDA-208.1, PDA-208.2, PDA-209.1, PDA-209.2, PDA-210, PDA-211, PDA-212.1, PDA-212.2, PDA-213, PDA-300.1, PDA-301.1, PDA-302.1, PDA-302.2, PDA-303.1, PDA-303.2
31.213	HSG C	PDA-203, PDA-205.1, PDA-205.2, PDA-205.3, PDA-206.1, PDA-210, PDA-211, PDA-212.1, PDA-212.2, PDA-213, PDA-303.1, PDA-304.1, PDA-305.1, PDA-305.2
28.392	HSG D	PDA-101.1, PDA-101.2, PDA-206.1, PDA-207.3, PDA-208.2, PDA-209.2, PDA-211, PDA-300.1, PDA-300.2, PDA-301.1, PDA-301.2, PDA-302.1, PDA-302.2, PDA-303.1, PDA-303.2, PDA-304.1, PDA-304.2, PDA-305.1, PDA-305.2
0.000	Other	
172.368		**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	5.023	0.999	0.684	0.000	6.706	<50% Grass cover, Poor	PDA-203, PDA-205.2, PDA-205.3, PDA-206.2, PDA-207.3, PDA-208.2, PDA-209.2, PDA-305.2
0.000	1.980	0.000	5.875	0.000	7.856	Brush, Fair	PDA-205.3, PDA-300.2, PDA-301.2, PDA-302.2, PDA-303.2
0.000	4.875	0.354	2.650	0.000	7.879	Brush, Good	PDA-209.2, PDA-304.2, PDA-305.2
0.000	0.533	0.062	0.041	0.000	0.635	Dirt roads	PDA-203, PDA-205.2, PDA-205.3, PDA-206.2, PDA-207.3, PDA-208.2, PDA-209.2

Ground Covers (all nodes) (continued)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	3.843	0.809	0.424	0.000	5.075	Gravel roads	PDA-100.1, PDA-200.1, PDA-201.1, PDA-202, PDA-205.1, PDA-205.2, PDA-205.3, PDA-206.1, PDA-206.2, PDA-207.2, PDA-207.3, PDA-208.2, PDA-209.1, PDA-212.1, PDA-213, PDA-301.1, PDA-305.1, PDA-305.2
0.000	0.148	0.000	0.000	0.000	0.148	Gravel surface	PDA-200.2
0.000	71.871	11.324	9.671	0.000	92.866	Meadow, non-grazed	PDA-100.1, PDA-100.2, PDA-101.1, PDA-101.2,

Ground Covers (all nodes) (continued)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.594	0.000	0.042	0.000	0.637	Water Surface	PDA-100.1, PDA-101.1, PDA-200.1, PDA-201.1, PDA-202
0.000	23.897	17.665	9.005	0.000	50.566	Woods, Fair	PDA-203, PDA-204, PDA-205.3, PDA-206.2, PDA-207.3, PDA-208.2, PDA-209.2, PDA-210, PDA-211, PDA-213, PDA-303.2
0.000	**112.762**	**31.213**	**28.392**	**0.000**	**172.368**	**TOTAL AREA**	

Time span=0.00-60.00 hrs, dt=0.01 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment PDA-100.1: SOLAR FARM Runoff Area=520,481 sf 1.38% Impervious Runoff Depth=1.39"
Flow Length=941' Tc=18.0 min CN=60 Runoff=11.63 cfs 1.384 af

Subcatchment PDA-100.2: GRASS Runoff Area=32,550 sf 0.00% Impervious Runoff Depth=1.25"
Flow Length=58' Slope=0.0510 '/' Tc=6.1 min CN=58 Runoff=1.02 cfs 0.078 af

Subcatchment PDA-101.1: SOLAR FARM Runoff Area=90,361 sf 4.48% Impervious Runoff Depth=1.60"
Flow Length=410' Tc=12.1 min CN=63 Runoff=2.95 cfs 0.277 af

Subcatchment PDA-101.2: GRASS Runoff Area=47,554 sf 0.00% Impervious Runoff Depth=2.66"
Flow Length=164' Slope=0.0400 '/' Tc=11.2 min CN=76 Runoff=2.92 cfs 0.242 af

Subcatchment PDA-200.1: SOLAR FARM Runoff Area=128,991 sf 3.02% Impervious Runoff Depth=1.60"
Flow Length=440' Tc=12.9 min CN=63 Runoff=4.10 cfs 0.396 af

Subcatchment PDA-200.2: ACCESS ROAD, Runoff Area=74,126 sf 0.00% Impervious Runoff Depth=1.46"
Flow Length=420' Tc=11.7 min CN=61 Runoff=2.17 cfs 0.207 af

Subcatchment PDA-201.1: SOLAR FARM Runoff Area=83,227 sf 1.94% Impervious Runoff Depth=1.39"
Flow Length=506' Tc=13.0 min CN=60 Runoff=2.18 cfs 0.221 af

Subcatchment PDA-201.2: ACCESS ROAD, Runoff Area=19,716 sf 0.00% Impervious Runoff Depth=1.25"
Flow Length=506' Tc=13.0 min CN=58 Runoff=0.45 cfs 0.047 af

Subcatchment PDA-202: Solar Farm Runoff Area=450,459 sf 2.43% Impervious Runoff Depth=1.46"
Flow Length=905' Tc=13.8 min CN=61 Runoff=12.26 cfs 1.258 af

Subcatchment PDA-203: UNDEVELOPED Runoff Area=801,310 sf 0.00% Impervious Runoff Depth=2.07"
Flow Length=1,598' Tc=26.0 min CN=69 Runoff=24.29 cfs 3.169 af

Subcatchment PDA-204: UNDEVELOPED Runoff Area=47,524 sf 0.00% Impervious Runoff Depth=1.39"
Flow Length=486' Tc=16.7 min CN=60 Runoff=1.10 cfs 0.126 af

Subcatchment PDA-205.1: SOLAR FARM Runoff Area=146,606 sf 0.00% Impervious Runoff Depth=1.75"
Flow Length=811' Tc=13.8 min CN=65 Runoff=5.04 cfs 0.492 af

Subcatchment PDA-205.2: SOLAR FARM Runoff Area=215,116 sf 0.00% Impervious Runoff Depth=1.91"
Flow Length=854' Tc=13.4 min CN=67 Runoff=8.31 cfs 0.785 af

Subcatchment PDA-205.3: ACCESS ROAD, Runoff Area=234,811 sf 0.00% Impervious Runoff Depth=1.83"
Flow Length=436' Tc=9.3 min CN=66 Runoff=10.22 cfs 0.822 af

Subcatchment PDA-206.1: SOLAR FARM Runoff Area=481,525 sf 0.00% Impervious Runoff Depth=1.53"
Flow Length=1,181' Tc=19.5 min CN=62 Runoff=11.76 cfs 1.411 af

Subcatchment PDA-206.2: SOLAR FARM Runoff Area=124,905 sf 0.00% Impervious Runoff Depth=2.15"
Flow Length=660' Tc=10.0 min CN=70 Runoff=6.37 cfs 0.513 af

Subcatchment PDA-207.1: SOLAR FARM Runoff Area=10,073 sf 0.00% Impervious Runoff Depth=1.25"
Flow Length=315' Tc=13.8 min CN=58 Runoff=0.22 cfs 0.024 af

Subcatchment PDA-207.2: SOLAR FARM Runoff Area=338,199 sf 0.00% Impervious Runoff Depth=1.32"
Flow Length=674' Tc=10.6 min CN=59 Runoff=9.04 cfs 0.854 af

Subcatchment PDA-207.3: SOLAR FARM Runoff Area=416,598 sf 0.00% Impervious Runoff Depth=1.60"
Flow Length=1,175' Tc=17.0 min CN=63 Runoff=11.59 cfs 1.279 af

Subcatchment PDA-208.1: SOLAR FARM Runoff Area=14,791 sf 0.00% Impervious Runoff Depth=1.25"
Flow Length=148' Tc=8.6 min CN=58 Runoff=0.40 cfs 0.035 af

Subcatchment PDA-208.2: ACCESS RD, Runoff Area=593,566 sf 0.00% Impervious Runoff Depth=1.83"
Flow Length=1,357' Tc=36.6 min CN=66 Runoff=12.94 cfs 2.079 af

Subcatchment PDA-209.1: SOLAR FARM Runoff Area=308,082 sf 0.00% Impervious Runoff Depth=1.32"
Flow Length=1,570' Tc=22.4 min CN=59 Runoff=5.75 cfs 0.778 af

Subcatchment PDA-209.2: SOLAR FARM, Runoff Area=465,264 sf 0.00% Impervious Runoff Depth=1.39"
Flow Length=1,525' Tc=21.0 min CN=60 Runoff=9.63 cfs 1.237 af

Subcatchment PDA-210: OFFSITE BASIN Runoff Area=29,356 sf 0.00% Impervious Runoff Depth=2.15"
Flow Length=321' Tc=23.8 min CN=70 Runoff=0.98 cfs 0.121 af

Subcatchment PDA-211: UNDEVELOPED Runoff Area=166,352 sf 0.00% Impervious Runoff Depth=2.57"
Flow Length=579' Tc=21.9 min CN=75 Runoff=7.02 cfs 0.818 af

Subcatchment PDA-212.1: SOLAR FARM Runoff Area=81,563 sf 0.00% Impervious Runoff Depth=1.25"
Flow Length=556' Tc=20.6 min CN=58 Runoff=1.47 cfs 0.195 af

Subcatchment PDA-212.2: GRASS Runoff Area=15,574 sf 0.00% Impervious Runoff Depth=1.53"
Flow Length=67' Slope=0.0902 '/' Tc=8.2 min CN=62 Runoff=0.57 cfs 0.046 af

Subcatchment PDA-213: ACCESS ROAD, Runoff Area=232,262 sf 0.00% Impervious Runoff Depth=2.07"
Flow Length=638' Tc=20.5 min CN=69 Runoff=7.96 cfs 0.918 af

Subcatchment PDA-300.1: SOLAR FARM Runoff Area=30,322 sf 0.00% Impervious Runoff Depth=2.57"
Flow Length=351' Tc=9.2 min CN=75 Runoff=1.97 cfs 0.149 af

Subcatchment PDA-300.2: GRASS Runoff Area=88,620 sf 0.00% Impervious Runoff Depth=2.75"
Flow Length=200' Tc=6.3 min CN=77 Runoff=7.15 cfs 0.466 af

Subcatchment PDA-301.1: SOLAR FARM Runoff Area=55,382 sf 0.00% Impervious Runoff Depth=2.40"
Flow Length=468' Tc=10.5 min CN=73 Runoff=3.13 cfs 0.254 af

Subcatchment PDA-301.2: GRASS Runoff Area=43,476 sf 0.00% Impervious Runoff Depth=2.75"
Flow Length=293' Tc=5.3 min CN=77 Runoff=3.70 cfs 0.229 af

Subcatchment PDA-302.1: Solar Farm Runoff Area=189,109 sf 0.00% Impervious Runoff Depth=1.83"
Flow Length=355' Tc=10.1 min CN=66 Runoff=7.92 cfs 0.662 af

Subcatchment PDA-302.2: GRASS Runoff Area=95,647 sf 0.00% Impervious Runoff Depth=2.57"
Flow Length=375' Tc=8.8 min CN=75 Runoff=6.29 cfs 0.471 af

Subcatchment PDA-303.1: SOLAR FARM Runoff Area=292,331 sf 0.00% Impervious Runoff Depth=2.40"
Flow Length=775' Tc=13.7 min CN=73 Runoff=14.53 cfs 1.341 af

Subcatchment PDA-303.2: GRASS Runoff Area=145,287 sf 0.00% Impervious Runoff Depth=2.84"
Flow Length=643' Tc=10.2 min CN=78 Runoff=9.97 cfs 0.789 af

Subcatchment PDA-304.1: SOLAR FARM Runoff Area=106,009 sf 0.00% Impervious Runoff Depth=2.31"
Flow Length=789' Tc=18.9 min CN=72 Runoff=4.31 cfs 0.469 af

Subcatchment PDA-304.2: SOLAR FARM, Runoff Area=67,405 sf 0.00% Impervious Runoff Depth=2.40"
Flow Length=228' Slope=0.3300 '/' Tc=8.7 min CN=73 Runoff=4.13 cfs 0.309 af

Subcatchment PDA-305.1: SOLAR FARM Runoff Area=149,887 sf 0.00% Impervious Runoff Depth=2.40"
Flow Length=936' Tc=19.3 min CN=73 Runoff=6.27 cfs 0.688 af

Subcatchment PDA-305.2: ACCESS ROAD, Runoff Area=73,928 sf 0.00% Impervious Runoff Depth=2.48"
Flow Length=100' Slope=0.3300 '/' Tc=5.0 min CN=74 Runoff=5.76 cfs 0.351 af

Reach DP-1: DISCHARGE OFFSITE TOWARDS STONY BROOK Inflow=13.42 cfs 1.981 af
Outflow=13.42 cfs 1.981 af

Reach DP-100: DISCHARGE OFFSITE Inflow=9.88 cfs 1.462 af
Outflow=9.88 cfs 1.462 af

Reach DP-101: DISCHARGE OFFSITE Inflow=4.71 cfs 0.519 af
Outflow=4.71 cfs 0.519 af

Reach DP-2: DISCHARGE TOWARDS OIL MILL BROOK Inflow=89.52 cfs 17.834 af
Outflow=89.52 cfs 17.834 af

Reach DP-200: DISCHARGE OFFSITE Inflow=4.61 cfs 0.603 af
Outflow=4.61 cfs 0.603 af

Reach DP-201: DISCHARGE OFFSITE Inflow=1.99 cfs 0.268 af
Outflow=1.99 cfs 0.268 af

Reach DP-202: DISCHARGE TO CENTRAL WETLAND Inflow=9.56 cfs 1.258 af
Outflow=9.56 cfs 1.258 af

Reach DP-205: DISCHARGE TO CENTRAL WETLAND Inflow=34.14 cfs 4.903 af
Outflow=34.14 cfs 4.903 af

Reach DP-206: DISCHARGE TO CENTRAL WETLAND Inflow=11.72 cfs 2.440 af
Outflow=11.72 cfs 2.440 af

Reach DP-207: DISCHARGE TO CENTRAL WETLAND Inflow=19.72 cfs 3.391 af
Outflow=19.72 cfs 3.391 af

Reach DP-208: DISCHARGE TO CENTRAL WETLAND Inflow=71.06 cfs 12.813 af
Outflow=71.06 cfs 12.813 af

Reach DP-209: DISCHARGE TO CENTRAL WETLAND Inflow=12.82 cfs 2.015 af
Outflow=12.82 cfs 2.015 af

Reach DP-210: DISCHARGE TO PDA-211 Inflow=0.98 cfs 0.121 af
Outflow=0.98 cfs 0.121 af

Reach DP-211: DISCHARGE TO CENTRAL WETLAND Inflow=74.08 cfs 13.752 af
Outflow=74.08 cfs 13.752 af

Reach DP-212: DISCHARGE OFFSITE Inflow=1.98 cfs 0.276 af
Outflow=1.98 cfs 0.276 af

Reach DP-213: DISCHARGE OFFSITE Inflow=7.96 cfs 0.918 af
Outflow=7.96 cfs 0.918 af

Reach DP-3: DISCHARGE TOWARDS STONY BROOK Inflow=45.01 cfs 6.179 af
Outflow=45.01 cfs 6.179 af

Reach DP-300: DISCHARGE OFFSITE Inflow=7.88 cfs 0.615 af
Outflow=7.88 cfs 0.615 af

Reach DP-301: DISCHARGE OFFSITE Inflow=3.70 cfs 0.229 af
Outflow=3.70 cfs 0.229 af

Reach DP-302: DISCHARGE OFFSITE Inflow=10.74 cfs 1.387 af
Outflow=10.74 cfs 1.387 af

Reach DP-303: DISCHARGE TO EASTERN WETLAND Inflow=13.22 cfs 2.131 af
Outflow=13.22 cfs 2.131 af

Reach DP-304: DISCHARGE OFFSITE Inflow=7.81 cfs 1.466 af
Outflow=7.81 cfs 1.466 af

Reach DP-305: DISCHARGE OFFSITE Inflow=5.76 cfs 0.351 af
Outflow=5.76 cfs 0.351 af

Reach R-202: FLOW THROUGH Avg. Flow Depth=0.27' Max Vel=1.58 fps Inflow=9.56 cfs 1.258 af
n=0.080 L=1,032.8' S=0.0697 '/' Capacity=617.17 cfs Outflow=8.27 cfs 1.258 af

Reach R-203: SHALLOW Avg. Flow Depth=0.56' Max Vel=2.22 fps Inflow=24.29 cfs 3.169 af
n=0.080 L=434.0' S=0.0527 '/' Capacity=597.69 cfs Outflow=23.89 cfs 3.169 af

Reach R-204: SHALLOW Avg. Flow Depth=0.08' Max Vel=0.59 fps Inflow=1.10 cfs 0.126 af
n=0.080 L=446.0' S=0.0499 '/' Capacity=5.78 cfs Outflow=0.82 cfs 0.126 af

Reach R-205.2: SHALLOW Avg. Flow Depth=0.21' Max Vel=1.21 fps Inflow=8.31 cfs 0.785 af
n=0.080 L=446.0' S=0.0600 '/' Capacity=30.16 cfs Outflow=7.15 cfs 0.785 af

Reach R-205/206: FLOW THROUGH Avg. Flow Depth=0.46' Max Vel=1.76 fps Inflow=45.84 cfs 7.343 af
n=0.080 L=1,050.0' S=0.0431 '/' Capacity=4,524.76 cfs Outflow=42.17 cfs 7.343 af

Reach R-207: FLOW THROUGH Avg. Flow Depth=0.26' Max Vel=1.01 fps Inflow=19.72 cfs 3.391 af
n=0.080 L=292.0' S=0.0298 '/' Capacity=179.76 cfs Outflow=18.73 cfs 3.391 af

Reach R-207.1: DISCHARGE INTO Avg. Flow Depth=0.05' Max Vel=2.01 fps Inflow=0.22 cfs 0.024 af
n=0.030 L=183.8' S=0.0925 '/' Capacity=84.66 cfs Outflow=0.22 cfs 0.024 af

Reach R-208: FLOW THROUGH Avg. Flow Depth=0.40' Max Vel=1.30 fps Inflow=71.06 cfs 12.813 af
n=0.080 L=250.0' S=0.0287 '/' Capacity=634.06 cfs Outflow=70.63 cfs 12.813 af

Reach R-208.1: DISCHARGE INTO Avg. Flow Depth=0.15' Max Vel=2.57 fps Inflow=0.40 cfs 0.035 af
n=0.030 L=226.0' S=0.0856 '/' Capacity=131.22 cfs Outflow=0.39 cfs 0.035 af

Reach R-210: FLOW THROUGH Avg. Flow Depth=0.10' Max Vel=0.30 fps Inflow=0.98 cfs 0.121 af
n=0.080 L=170.0' S=0.0105 '/' Capacity=284.60 cfs Outflow=0.85 cfs 0.121 af

Reach R-301.1: FLOW THROUGH Avg. Flow Depth=0.21' Max Vel=1.08 fps Inflow=3.13 cfs 0.254 af
n=0.080 L=211.0' S=0.0474 '/' Capacity=209.28 cfs Outflow=2.88 cfs 0.254 af

Pond DP-100.1: POND Peak Elev=172.75' Storage=2,762 cf Inflow=11.63 cfs 1.384 af
Outflow=9.55 cfs 1.384 af

Pond DP-101.1: POND Peak Elev=231.92' Storage=595 cf Inflow=2.95 cfs 0.277 af
Outflow=2.22 cfs 0.277 af

Pond DP-200.1: POND Peak Elev=180.84' Storage=1,254 cf Inflow=4.10 cfs 0.396 af
Outflow=2.81 cfs 0.396 af

Pond DP-201.1: POND Peak Elev=163.23' Storage=500 cf Inflow=2.18 cfs 0.221 af
Outflow=1.63 cfs 0.221 af

Pond DP-202.1: POND Peak Elev=191.88' Storage=3,053 cf Inflow=12.26 cfs 1.258 af
Outflow=9.56 cfs 1.258 af

Pond DP-206.1: POND Peak Elev=199.58' Storage=10,687 cf Inflow=16.38 cfs 1.927 af
Outflow=9.68 cfs 1.927 af

Pond DP-207.1: POND Peak Elev=173.15' Storage=2,510 cf Inflow=9.04 cfs 0.854 af
Outflow=6.54 cfs 0.854 af

Pond DP-209.1: POND Peak Elev=149.67' Storage=2,794 cf Inflow=5.75 cfs 0.778 af
Outflow=3.97 cfs 0.778 af

Pond DP-212.1: POND Peak Elev=123.37' Storage=84 cf Inflow=1.73 cfs 0.231 af
Outflow=1.72 cfs 0.231 af

Pond DP-300.1: POND Peak Elev=231.20' Storage=652 cf Inflow=1.97 cfs 0.149 af
Outflow=0.99 cfs 0.149 af

Pond DP-302.1: POND Peak Elev=212.12' Storage=3,614 cf Inflow=9.76 cfs 0.916 af
Outflow=5.57 cfs 0.916 af

Pond DP-303.1: POND Peak Elev=187.31' Storage=10,839 cf Inflow=14.53 cfs 1.341 af
Outflow=5.69 cfs 1.341 af

Pond DP-304.1: POND Peak Elev=207.02' Storage=5,749 cf Inflow=10.58 cfs 1.157 af
Outflow=6.65 cfs 1.157 af

Total Runoff Area = 172.368 ac Runoff Volume = 25.994 af Average Runoff Depth = 1.81"
99.63% Pervious = 171.731 ac 0.37% Impervious = 0.637 ac

Summary for Subcatchment PDA-100.1: SOLAR FARM SOUTHERN

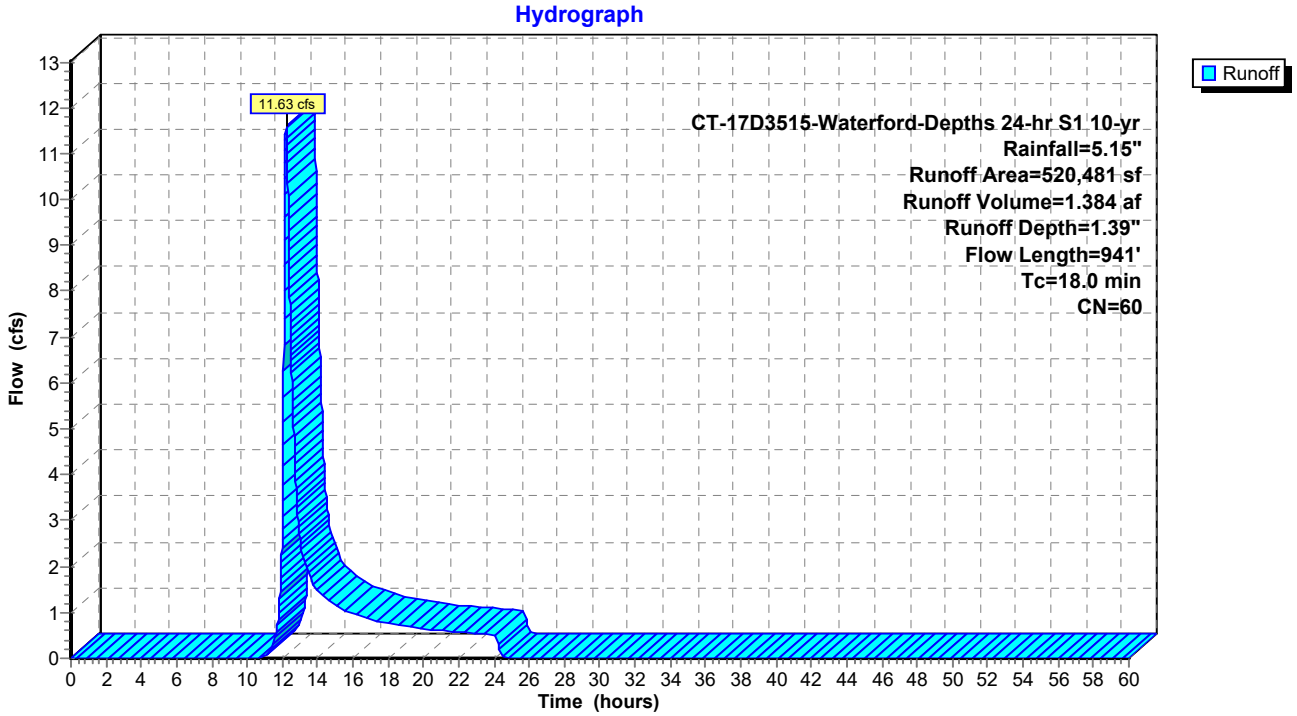
Runoff = 11.63 cfs @ 12.22 hrs, Volume= 1.384 af, Depth= 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
490,685	58	Meadow, non-grazed, HSG B
22,588	85	Gravel roads, HSG B
7,208	98	Water Surface, HSG B
520,481	60	Weighted Average
513,273	59	98.62% Pervious Area
7,208	98	1.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.0768	0.21		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
10.0	841	0.0402	1.40		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
18.0	941	Total			

Subcatchment PDA-100.1: SOLAR FARM SOUTHERN



Summary for Subcatchment PDA-100.2: GRASS (UNDETAINED)

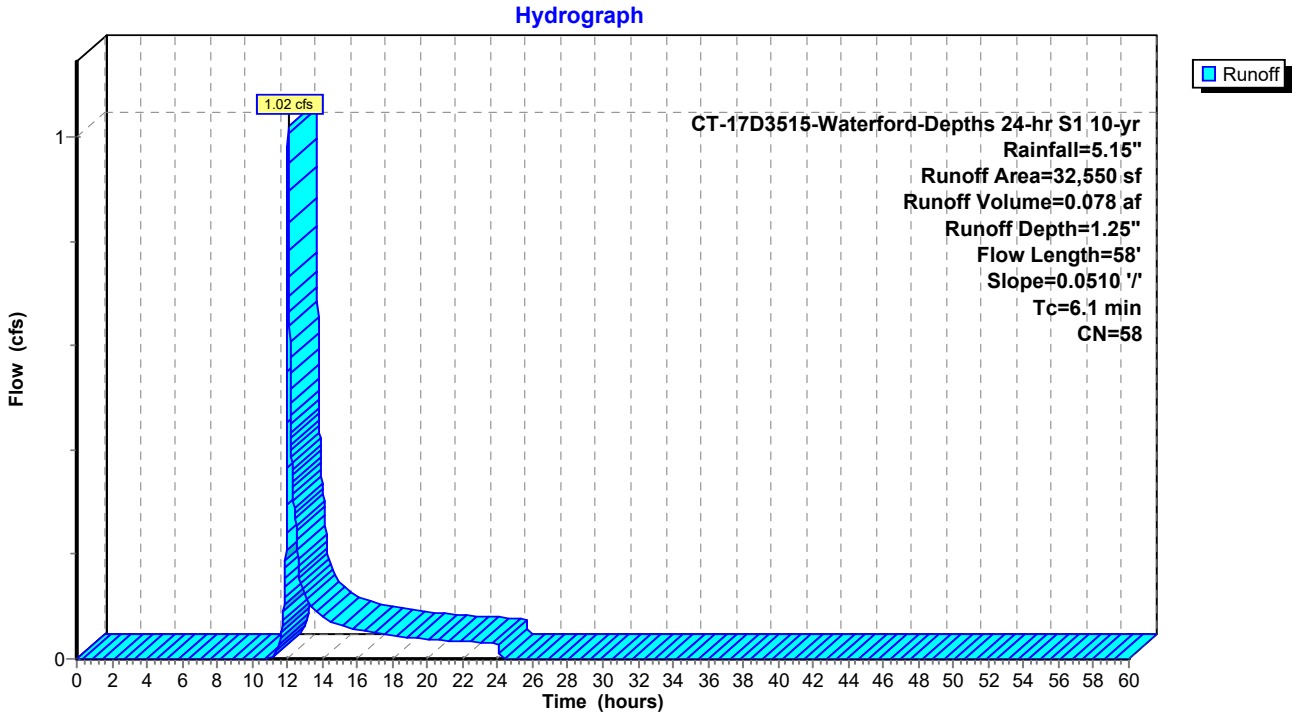
Runoff = 1.02 cfs @ 12.05 hrs, Volume= 0.078 af, Depth= 1.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
32,550	58	Meadow, non-grazed, HSG B
32,550	58	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	58	0.0510	0.16		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"

Subcatchment PDA-100.2: GRASS (UNDETAINED)



Summary for Subcatchment PDA-101.1: SOLAR FARM (SOUTHERN)

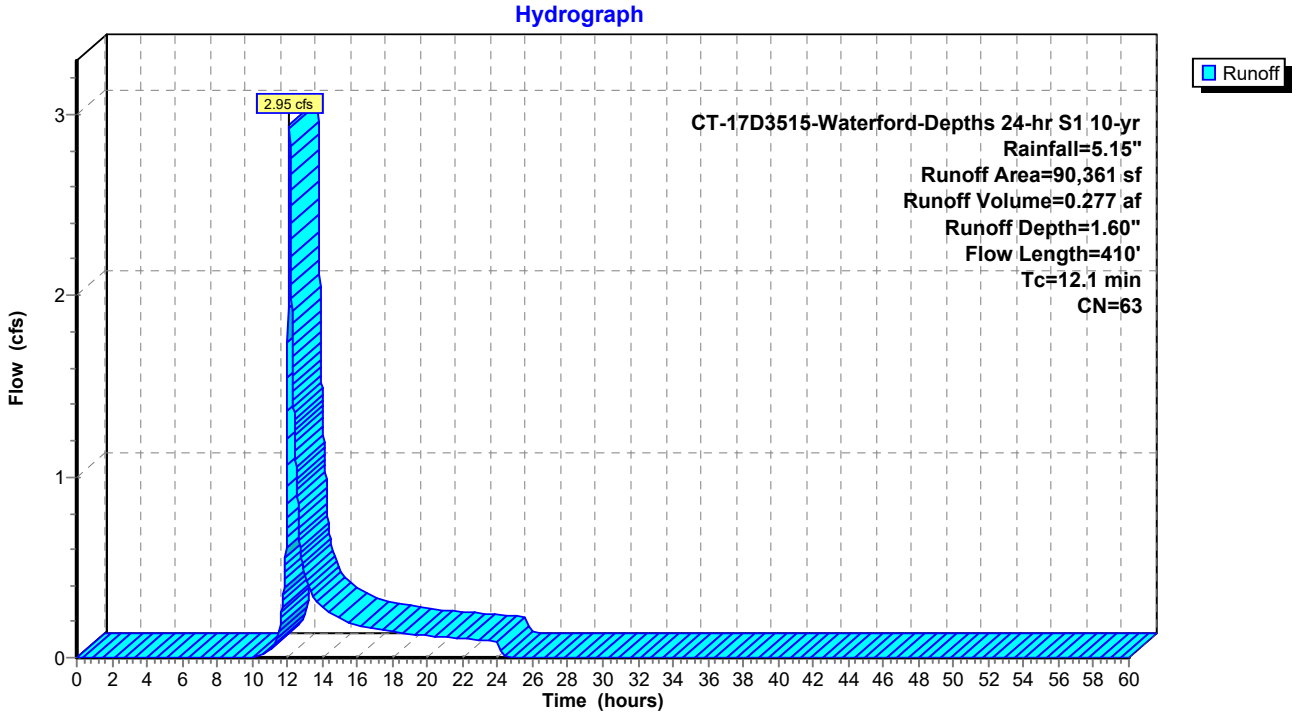
Runoff = 2.95 cfs @ 12.13 hrs, Volume= 0.277 af, Depth= 1.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
71,575	58	Meadow, non-grazed, HSG B
14,734	78	Meadow, non-grazed, HSG D
2,205	98	Water Surface, HSG B
1,847	98	Water Surface, HSG D
90,361	63	Weighted Average
86,309	61	95.52% Pervious Area
4,052	98	4.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0726	0.20		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
3.9	310	0.0355	1.32		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
12.1	410	Total			

Subcatchment PDA-101.1: SOLAR FARM (SOUTHERN)



Summary for Subcatchment PDA-101.2: GRASS (UNDETAINED)

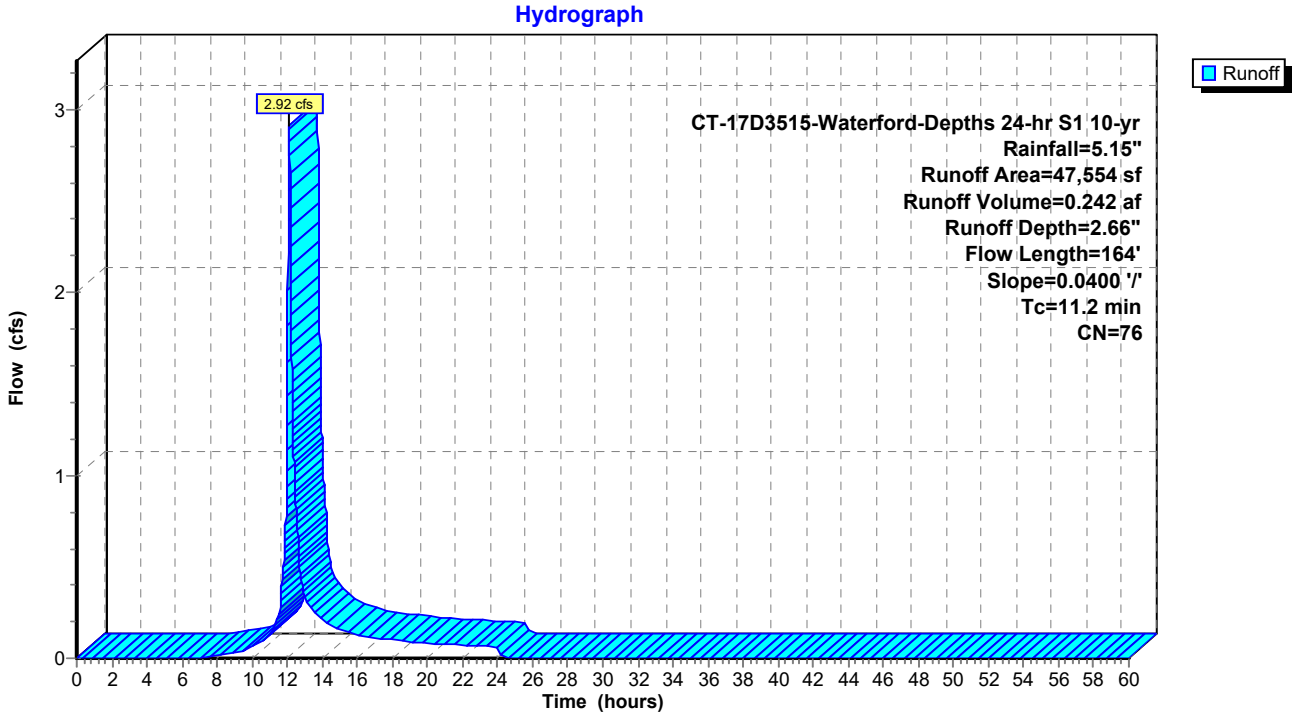
Runoff = 2.92 cfs @ 12.11 hrs, Volume= 0.242 af, Depth= 2.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
3,921	58	Meadow, non-grazed, HSG B
43,633	78	Meadow, non-grazed, HSG D
47,554	76	Weighted Average
47,554	76	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.0400	0.16		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
0.8	64	0.0400	1.40		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
11.2	164	Total			

Subcatchment PDA-101.2: GRASS (UNDETAINED)



Summary for Subcatchment PDA-200.1: SOLAR FARM (SOUTHWEST)

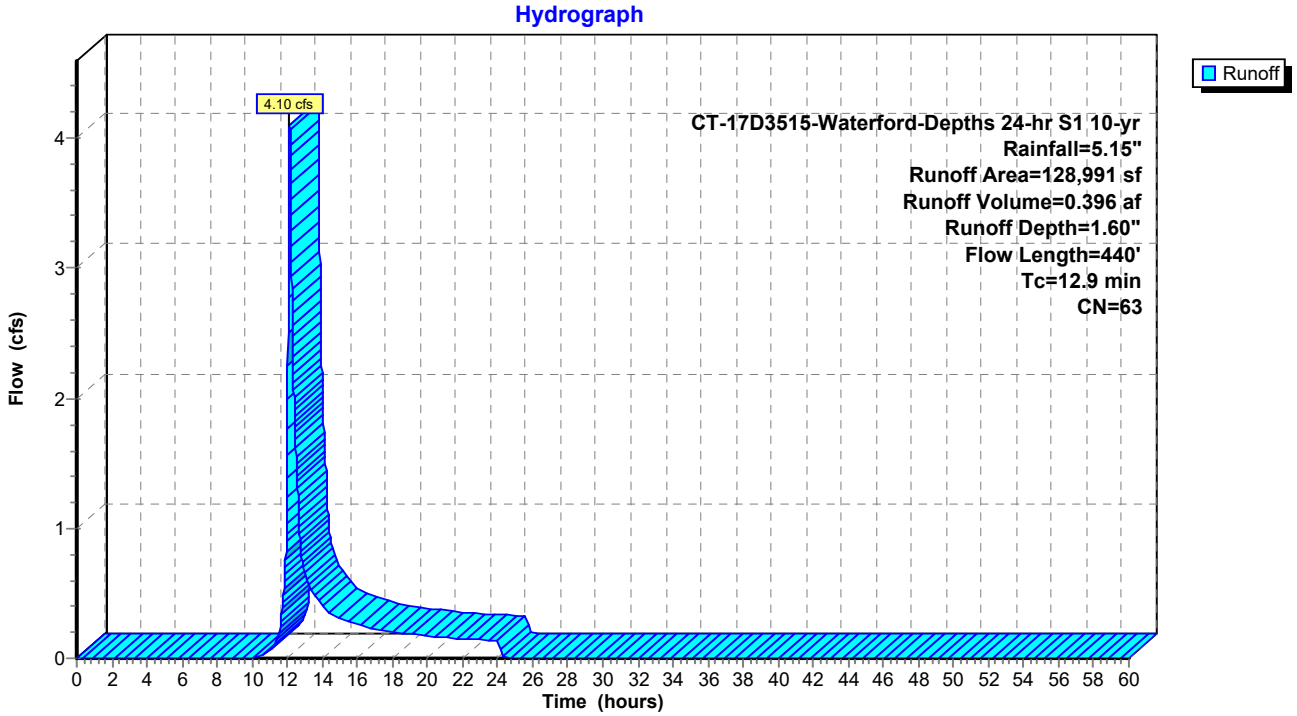
Runoff = 4.10 cfs @ 12.14 hrs, Volume= 0.396 af, Depth= 1.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
109,000	58	Meadow, non-grazed, HSG B
16,101	85	Gravel roads, HSG B
3,890	98	Water Surface, HSG B
128,991	63	Weighted Average
125,101	61	96.98% Pervious Area
3,890	98	3.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	100	0.0366	0.15		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
2.1	340	0.1554	2.76		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
12.9	440	Total			

Subcatchment PDA-200.1: SOLAR FARM (SOUTHWEST)



Summary for Subcatchment PDA-200.2: ACCESS ROAD, GRASS (UNDETAINED)

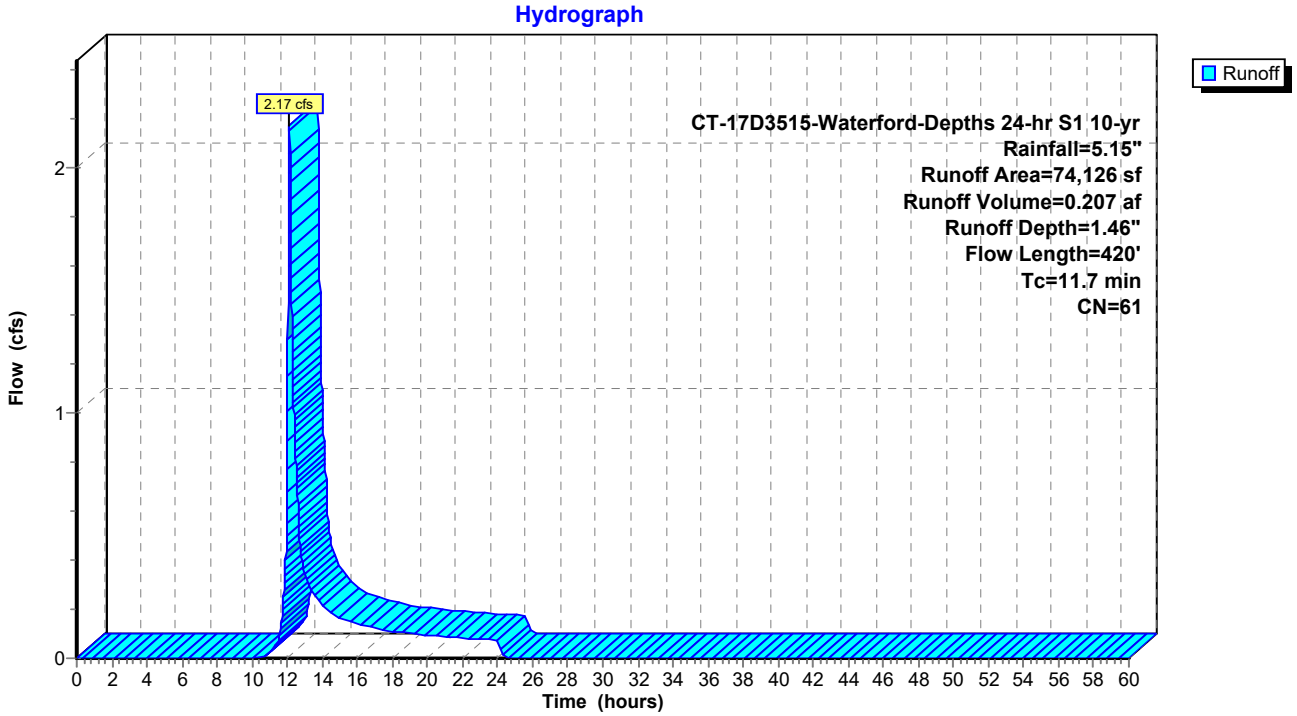
Runoff = 2.17 cfs @ 12.12 hrs, Volume= 0.207 af, Depth= 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
67,692	58	Meadow, non-grazed, HSG B
6,434	96	Gravel surface, HSG B
74,126	61	Weighted Average
74,126	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.1	100	0.0557	0.18		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
2.6	320	0.0841	2.03		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
11.7	420	Total			

Subcatchment PDA-200.2: ACCESS ROAD, GRASS (UNDETAINED)



Summary for Subcatchment PDA-201.1: SOLAR FARM

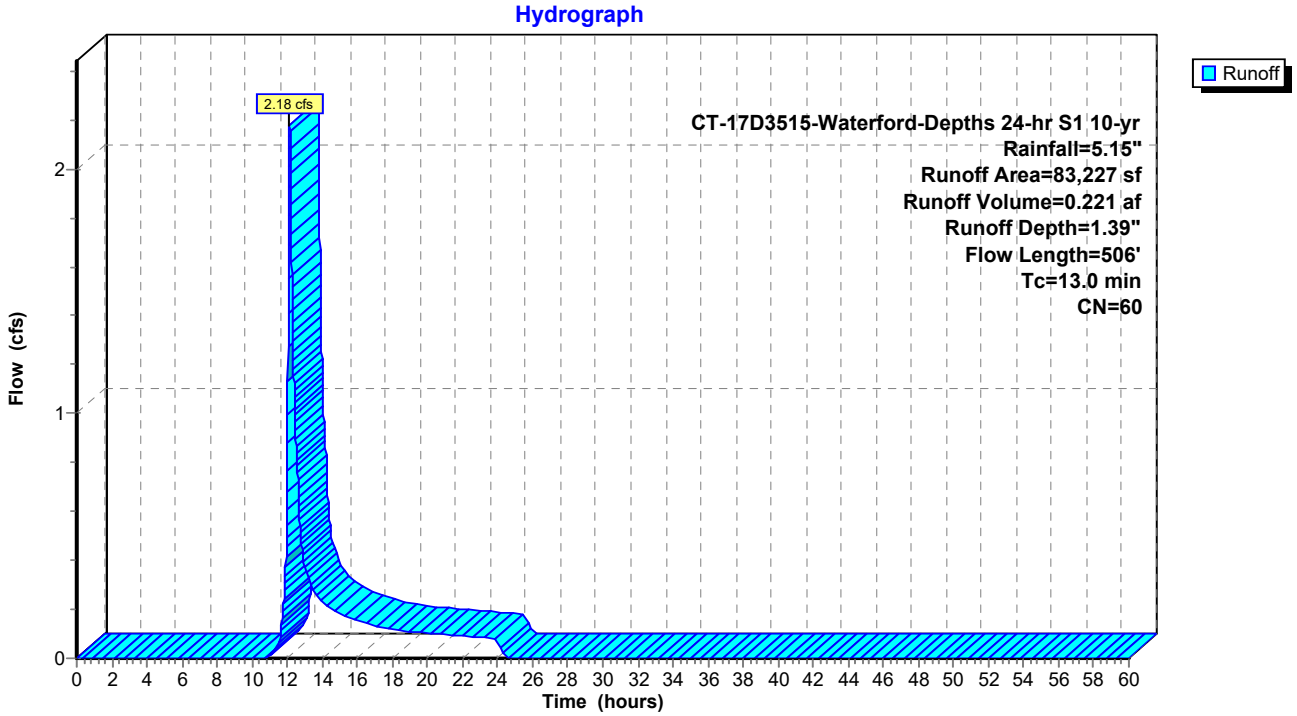
Runoff = 2.18 cfs @ 12.14 hrs, Volume= 0.221 af, Depth= 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
76,925	58	Meadow, non-grazed, HSG B
4,685	85	Gravel roads, HSG B
1,617	98	Water Surface, HSG B
83,227	60	Weighted Average
81,610	60	98.06% Pervious Area
1,617	98	1.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	100	0.0451	0.17		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
3.1	406	0.0973	2.18		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
13.0	506	Total			

Subcatchment PDA-201.1: SOLAR FARM



Summary for Subcatchment PDA-201.2: ACCESS ROAD, GRASS (UNDETAINED)

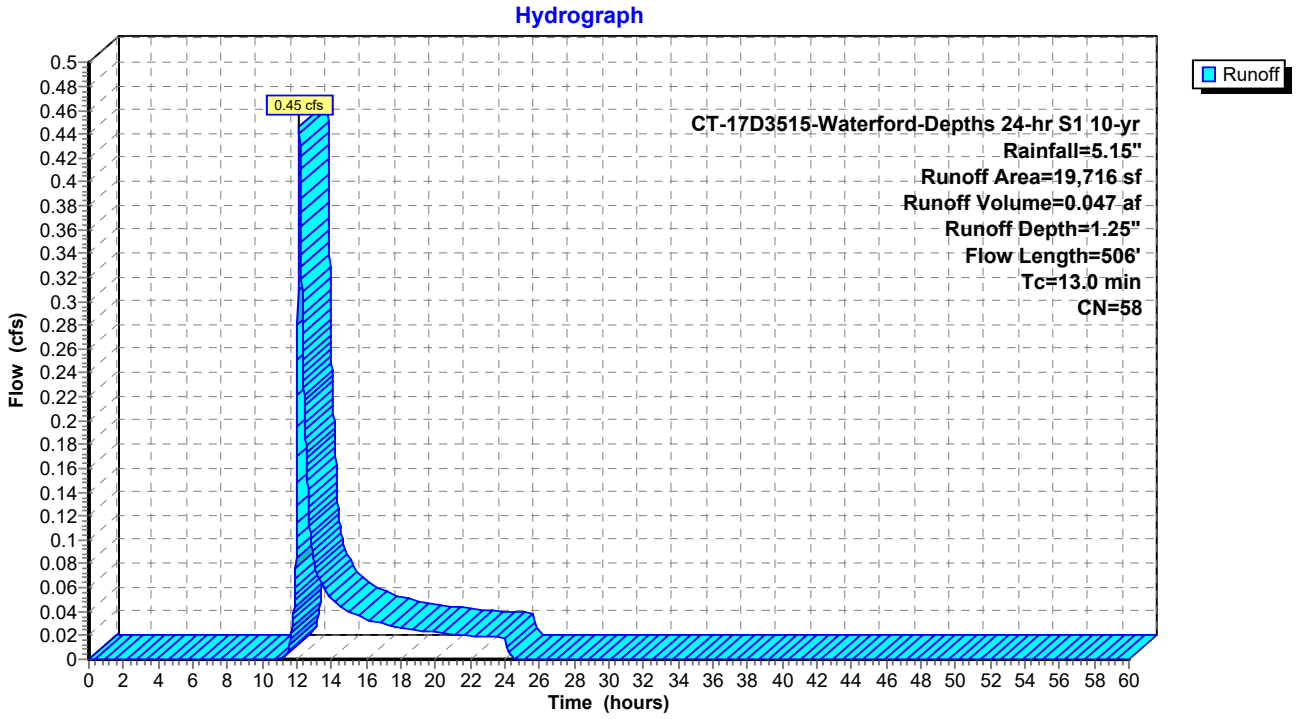
Runoff = 0.45 cfs @ 12.15 hrs, Volume= 0.047 af, Depth= 1.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
19,716	58	Meadow, non-grazed, HSG B
19,716	58	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	100	0.0451	0.17		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
3.1	406	0.0973	2.18		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
13.0	506	Total			

Subcatchment PDA-201.2: ACCESS ROAD, GRASS (UNDETAINED)



Summary for Subcatchment PDA-202: Solar Farm

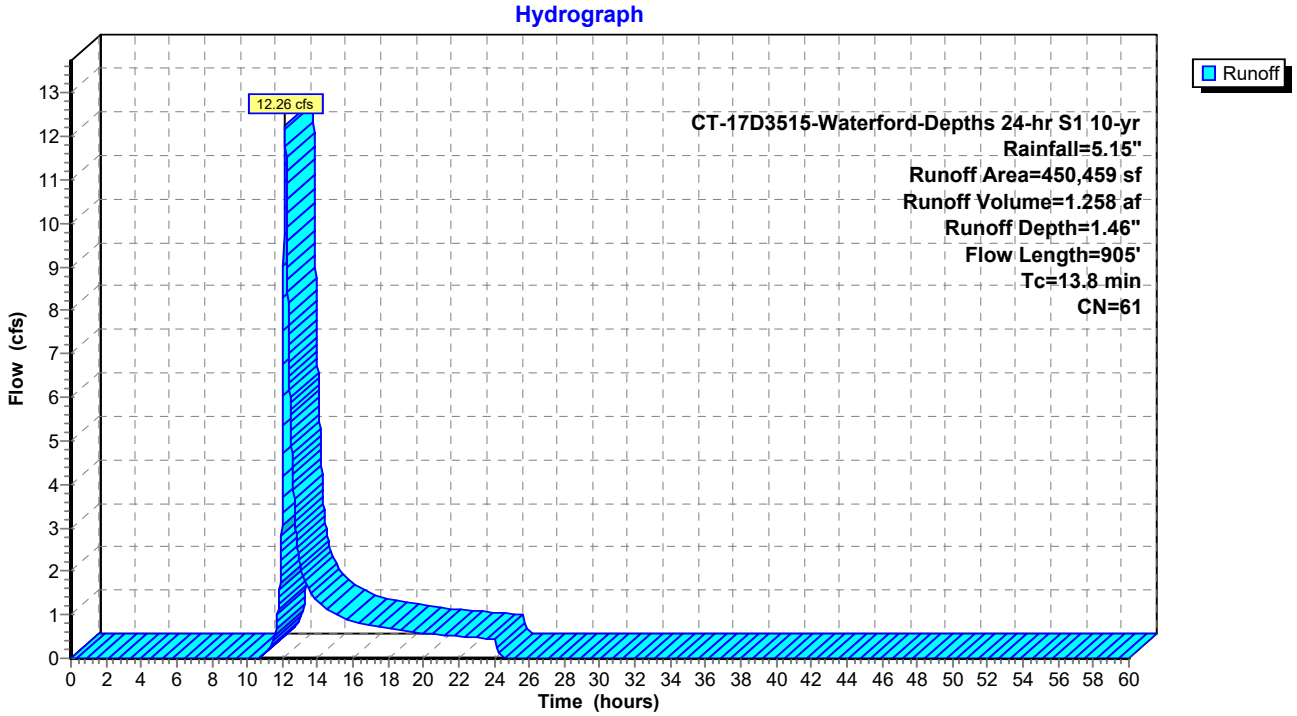
Runoff = 12.26 cfs @ 12.16 hrs, Volume= 1.258 af, Depth= 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
405,959	58	Meadow, non-grazed, HSG B
33,532	85	Gravel roads, HSG B
10,968	98	Water Surface, HSG B
450,459	61	Weighted Average
439,491	60	97.57% Pervious Area
10,968	98	2.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	100	0.1350	0.26		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
7.4	805	0.0678	1.82		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
13.8	905	Total			

Subcatchment PDA-202: Solar Farm



Summary for Subcatchment PDA-203: UNDEVELOPED FOREST (UNDISTURBED)

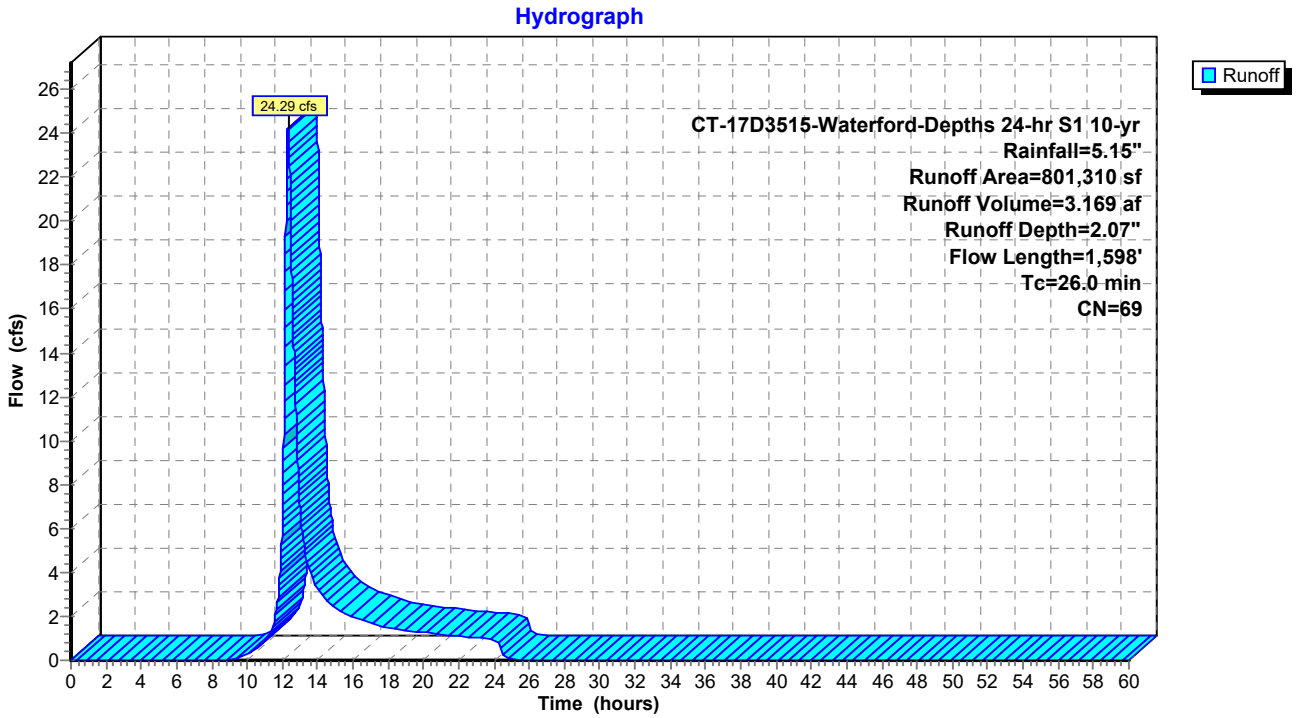
Runoff = 24.29 cfs @ 12.33 hrs, Volume= 3.169 af, Depth= 2.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
239,408	60	Woods, Fair, HSG B
555,898	73	Woods, Fair, HSG C
5,581	86	<50% Grass cover, Poor, HSG C
423	82	Dirt roads, HSG B
801,310	69	Weighted Average
801,310	69	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	100	1.0000	0.39		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
21.7	1,498	0.0530	1.15		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
26.0	1,598	Total			

Subcatchment PDA-203: UNDEVELOPED FOREST (UNDISTURBED)



Summary for Subcatchment PDA-204: UNDEVELOPED FOREST (UNDISTURBED)

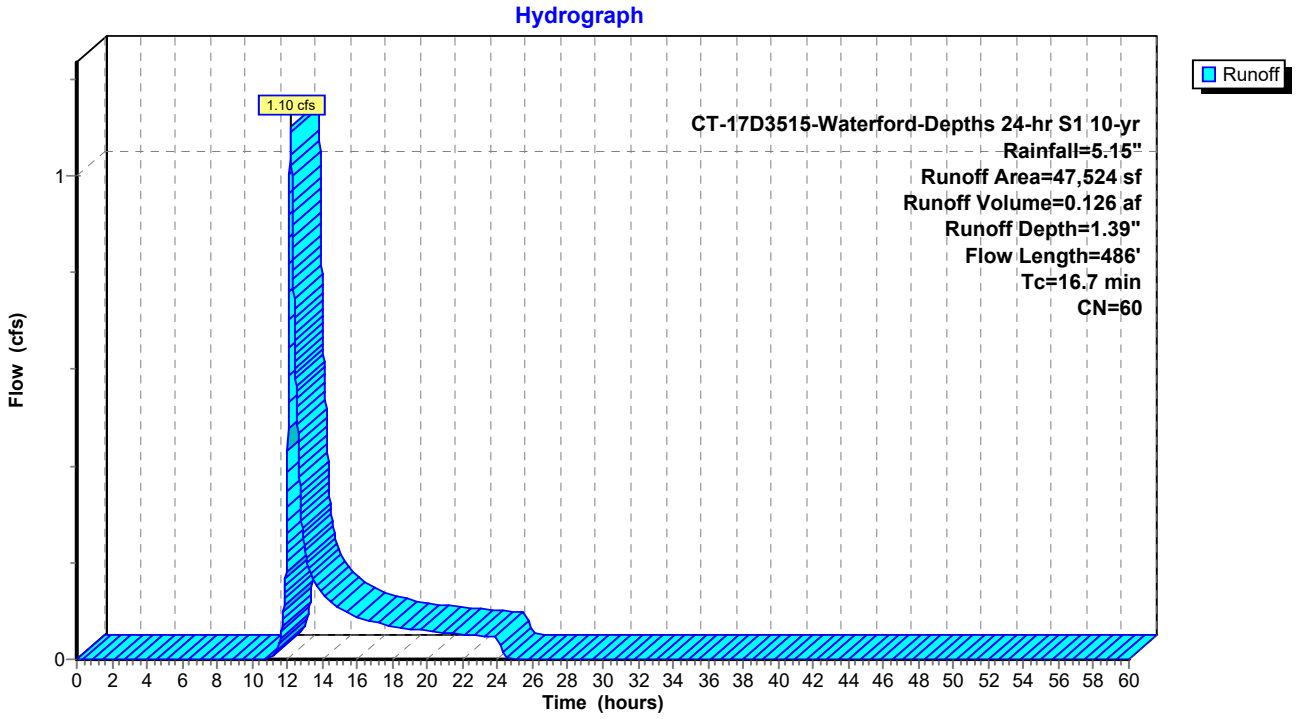
Runoff = 1.10 cfs @ 12.20 hrs, Volume= 0.126 af, Depth= 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
47,524	60	Woods, Fair, HSG B
47,524	60	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0	100	0.0786	0.14		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
4.7	386	0.0753	1.37		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
16.7	486	Total			

Subcatchment PDA-204: UNDEVELOPED FOREST (UNDISTURBED)



Summary for Subcatchment PDA-205.1: SOLAR FARM (ROUTED TO PDA-206.1 POND)

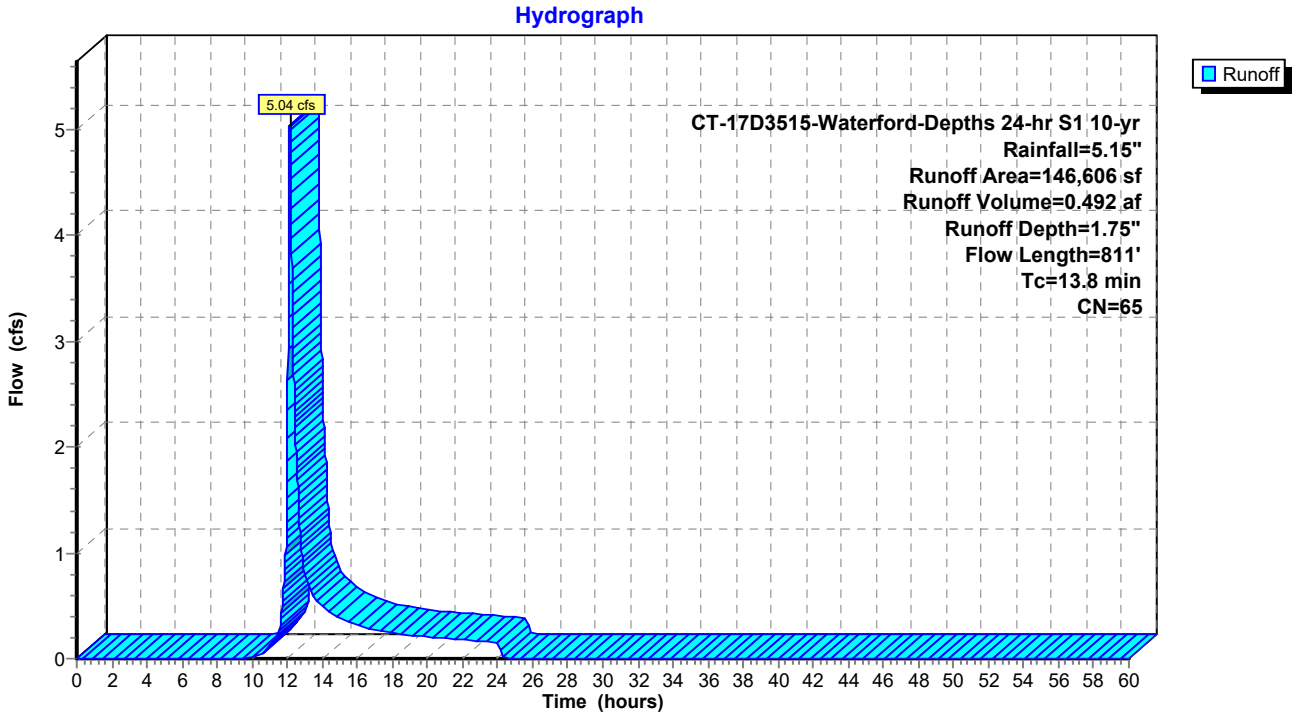
Runoff = 5.04 cfs @ 12.15 hrs, Volume= 0.492 af, Depth= 1.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
71,491	58	Meadow, non-grazed, HSG B
69,070	71	Meadow, non-grazed, HSG C
6,045	89	Gravel roads, HSG C
146,606	65	Weighted Average
146,606	65	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.0394	0.23		**Sheet Flow, SOLAR FARM** Grass: Short n= 0.150 P2= 3.45"
6.6	711	0.0654	1.79		**Shallow Concentrated Flow, Solar Farm - Swale** Short Grass Pasture Kv= 7.0 fps
13.8	811	Total			

Subcatchment PDA-205.1: SOLAR FARM (ROUTED TO PDA-206.1 POND)



Summary for Subcatchment PDA-205.2: SOLAR FARM (UNDETAINED)

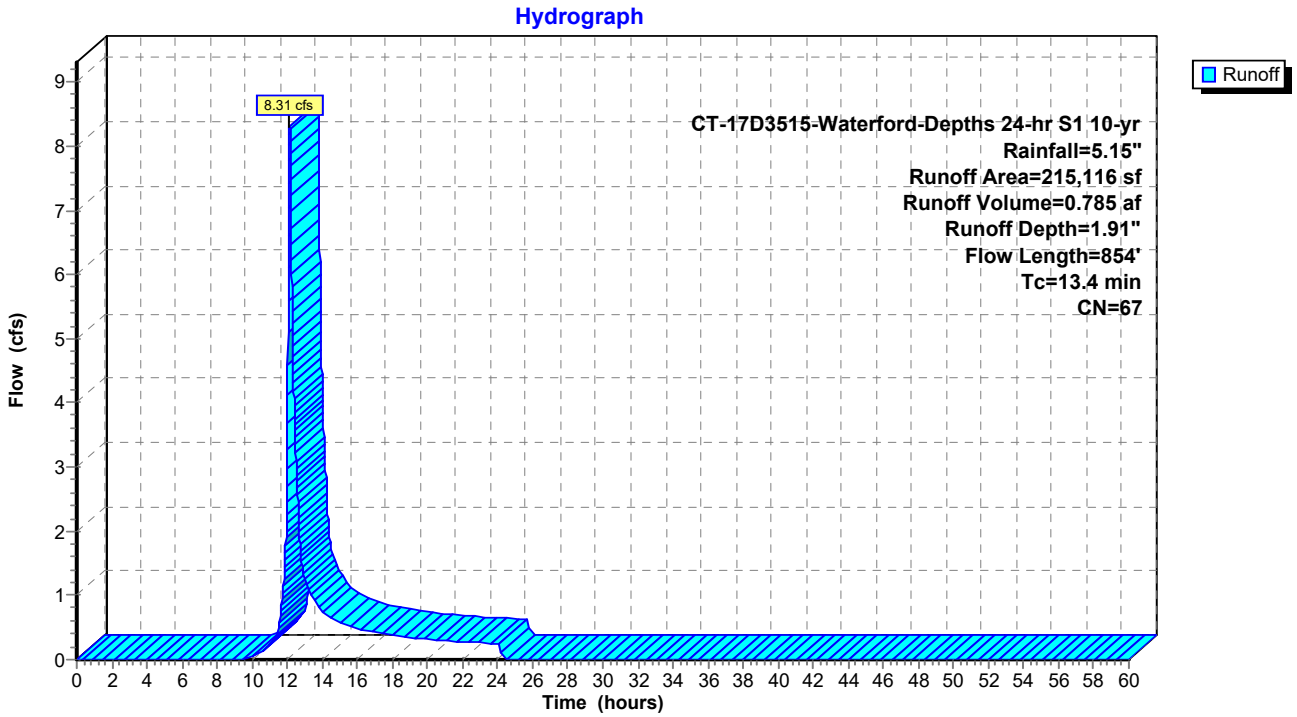
Runoff = 8.31 cfs @ 12.14 hrs, Volume= 0.785 af, Depth= 1.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
120,157	58	Meadow, non-grazed, HSG B
43,252	71	Meadow, non-grazed, HSG C
1,438	82	Dirt roads, HSG B
2,702	87	Dirt roads, HSG C
1,588	89	Gravel roads, HSG C
14,555	79	<50% Grass cover, Poor, HSG B
31,424	86	<50% Grass cover, Poor, HSG C
215,116	67	Weighted Average
215,116	67	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.0394	0.23		**Sheet Flow, Solar Farm** Grass: Short n= 0.150 P2= 3.45"
6.2	754	0.0840	2.03		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
13.4	854	Total			

Subcatchment PDA-205.2: SOLAR FARM (UNDETAINED)



Summary for Subcatchment PDA-205.3: ACCESS ROAD, GRASS (UNDETAINED)

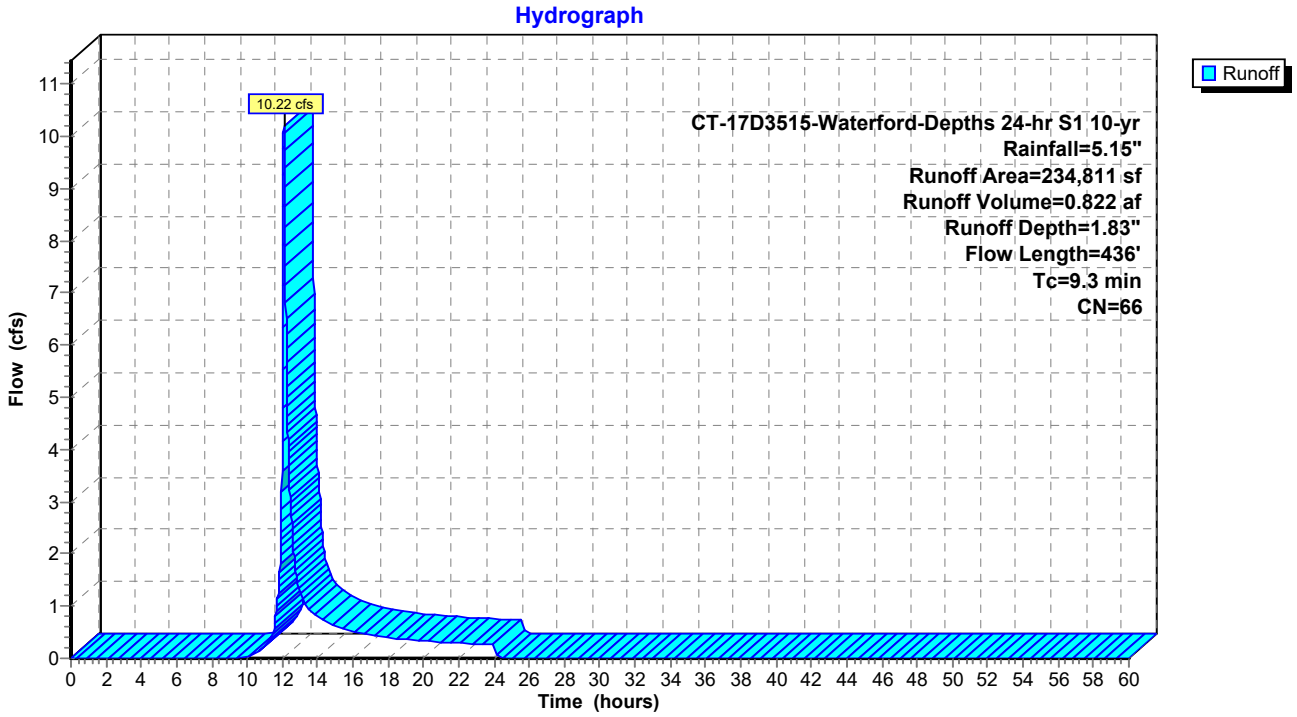
Runoff = 10.22 cfs @ 12.08 hrs, Volume= 0.822 af, Depth= 1.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
75,463	60	Woods, Fair, HSG B
4,943	58	Meadow, non-grazed, HSG B
74,632	56	Brush, Fair, HSG B
963	73	Woods, Fair, HSG C
2,022	71	Meadow, non-grazed, HSG C
8,238	82	Dirt roads, HSG B
49,723	79	<50% Grass cover, Poor, HSG B
5,864	86	<50% Grass cover, Poor, HSG C
8,573	85	Gravel roads, HSG B
4,390	89	Gravel roads, HSG C
234,811	66	Weighted Average
234,811	66	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	100	0.0621	0.28		**Sheet Flow, Brush** Grass: Short n= 0.150 P2= 3.45"
3.3	336	0.0590	1.70		**Shallow Concentrated Flow, Brush Wetland** Short Grass Pasture Kv= 7.0 fps
9.3	436	Total			

Subcatchment PDA-205.3: ACCESS ROAD, GRASS (UNDETAINED)



Summary for Subcatchment PDA-206.1: SOLAR FARM

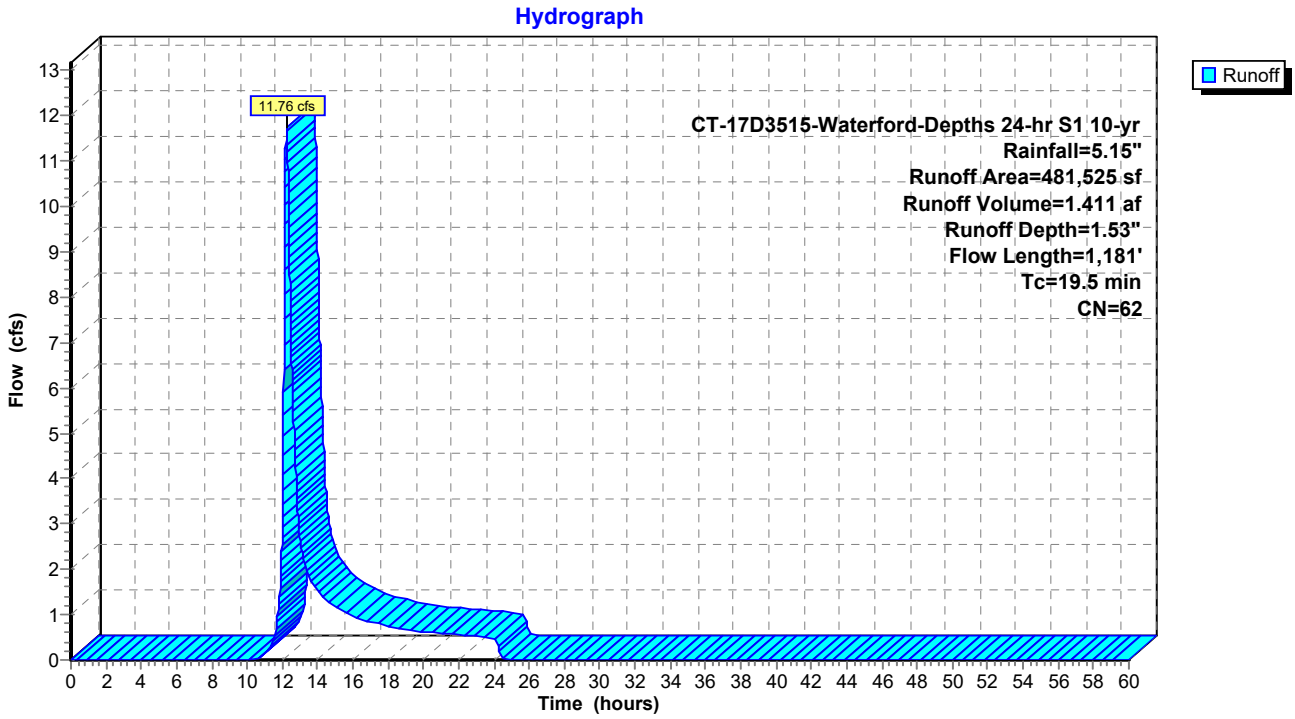
Runoff = 11.76 cfs @ 12.24 hrs, Volume= 1.411 af, Depth= 1.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
373,260	58	Meadow, non-grazed, HSG B
51,217	71	Meadow, non-grazed, HSG C
33,034	78	Meadow, non-grazed, HSG D
11,122	85	Gravel roads, HSG B
3,979	89	Gravel roads, HSG C
8,913	91	Gravel roads, HSG D
481,525	62	Weighted Average
481,525	62	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.0680	0.29		**Sheet Flow, Solar Farm** Grass: Short n= 0.150 P2= 3.45"
13.7	1,081	0.0352	1.31		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
19.5	1,181	Total			

Subcatchment PDA-206.1: SOLAR FARM



Summary for Subcatchment PDA-206.2: SOLAR FARM (UNDETAINED)

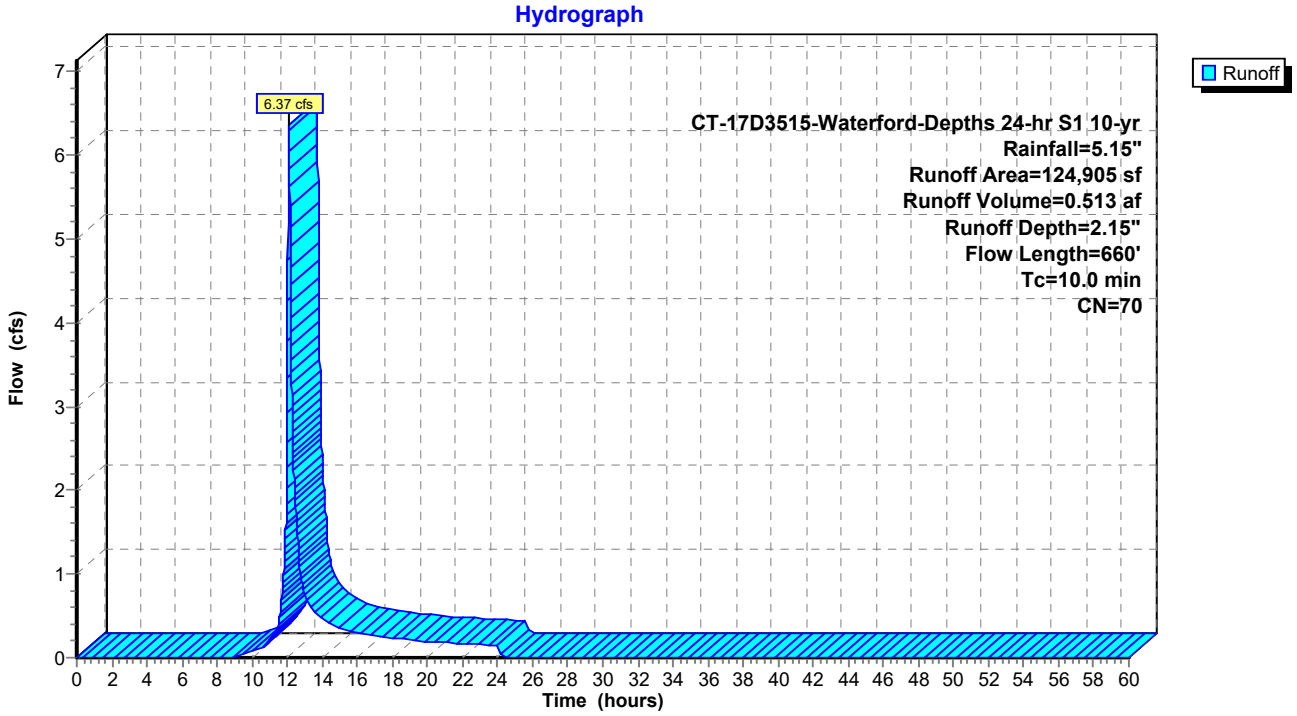
Runoff = 6.37 cfs @ 12.09 hrs, Volume= 0.513 af, Depth= 2.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
33,322	60	Woods, Fair, HSG B
31,779	58	Meadow, non-grazed, HSG B
3,856	82	Dirt roads, HSG B
17,360	85	Gravel roads, HSG B
38,588	79	<50% Grass cover, Poor, HSG B
124,905	70	Weighted Average
124,905	70	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.9	100	0.0650	0.28		**Sheet Flow, Solar Farm** Grass: Short n= 0.150 P2= 3.45"
4.1	560	0.1063	2.28		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
10.0	660	Total			

Subcatchment PDA-206.2: SOLAR FARM (UNDETAINED)



Summary for Subcatchment PDA-207.1: SOLAR FARM

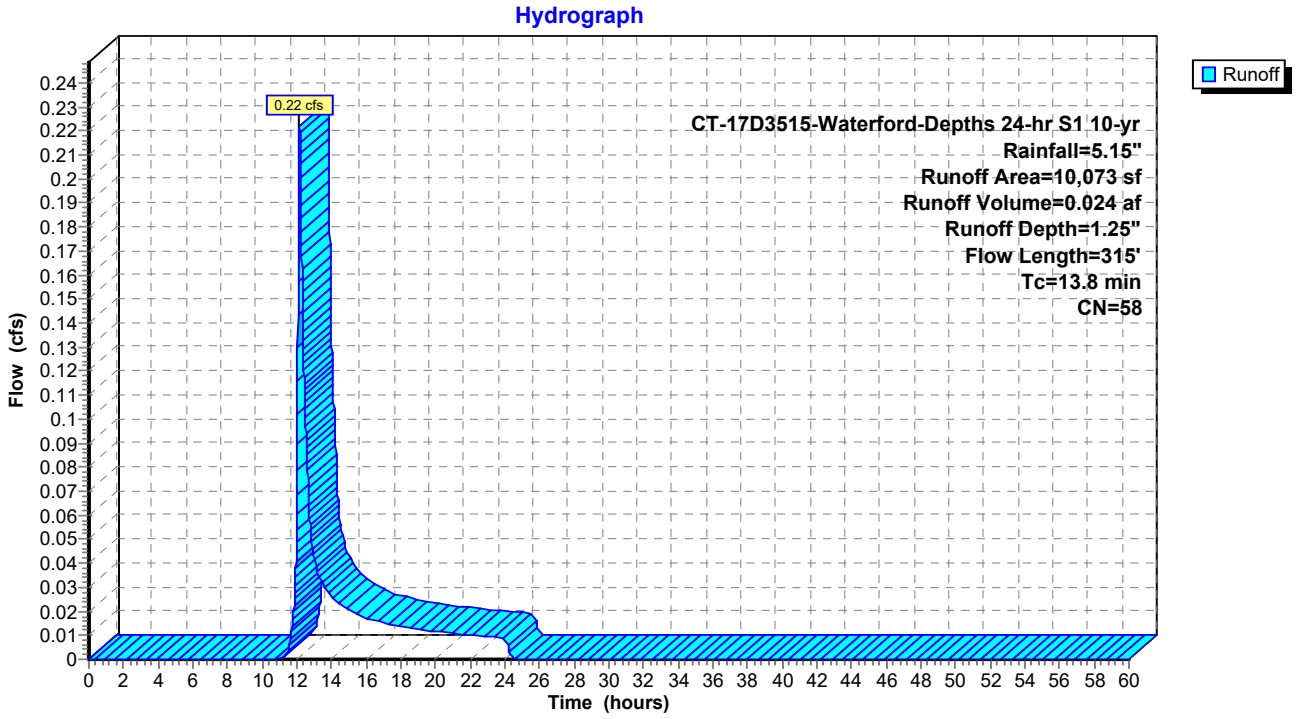
Runoff = 0.22 cfs @ 12.16 hrs, Volume= 0.024 af, Depth= 1.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
10,073	58	Meadow, non-grazed, HSG B
10,073	58	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.5	100	0.0310	0.14		**Sheet Flow, SOLAR FARM** Grass: Dense n= 0.240 P2= 3.45"
2.3	215	0.0507	1.58		**Shallow Concentrated Flow, SOLAR FARM** Short Grass Pasture Kv= 7.0 fps
13.8	315	Total			

Subcatchment PDA-207.1: SOLAR FARM



Summary for Subcatchment PDA-207.2: SOLAR FARM

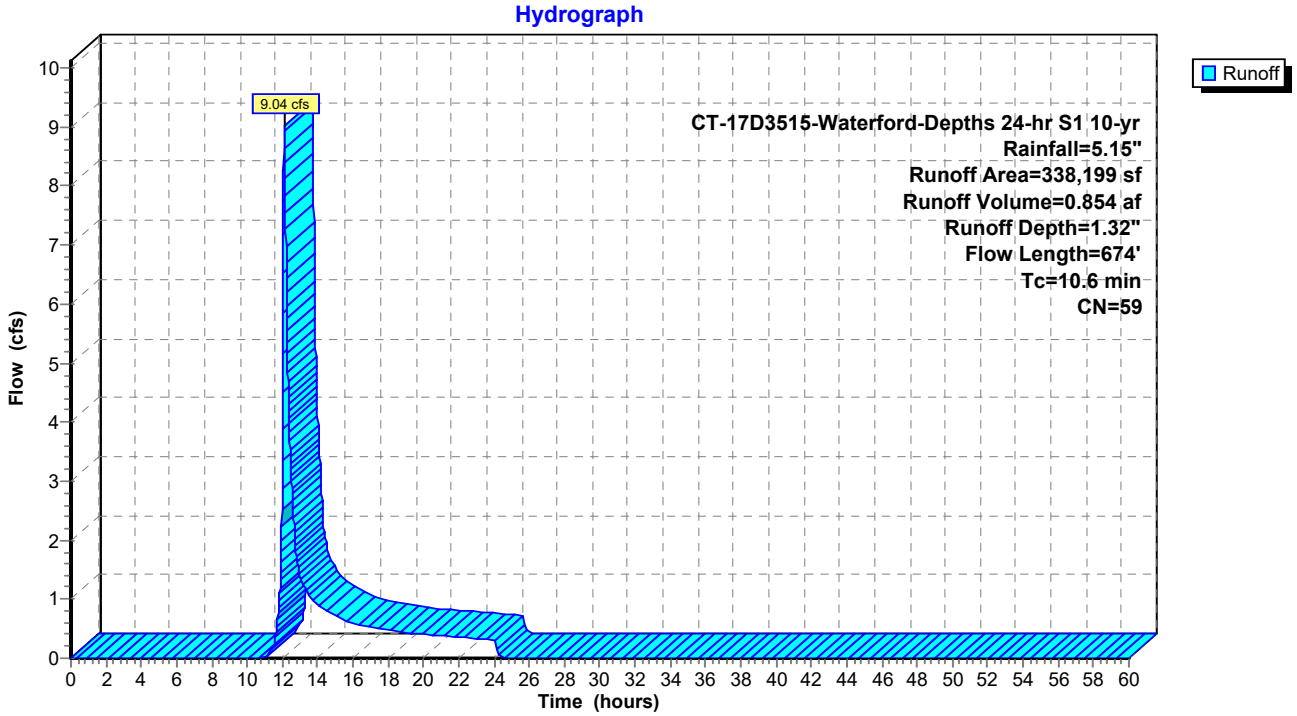
Runoff = 9.04 cfs @ 12.11 hrs, Volume= 0.854 af, Depth= 1.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
321,133	58	Meadow, non-grazed, HSG B
17,066	85	Gravel roads, HSG B
338,199	59	Weighted Average
338,199	59	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.1493	0.27		**Sheet Flow, SOLAR FARM** Grass: Dense n= 0.240 P2= 3.45"
4.4	574	0.0968	2.18		**Shallow Concentrated Flow, SOLAR FARM** Short Grass Pasture Kv= 7.0 fps
10.6	674	Total			

Subcatchment PDA-207.2: SOLAR FARM



Summary for Subcatchment PDA-207.3: SOLAR FARM (UNDETAINED)

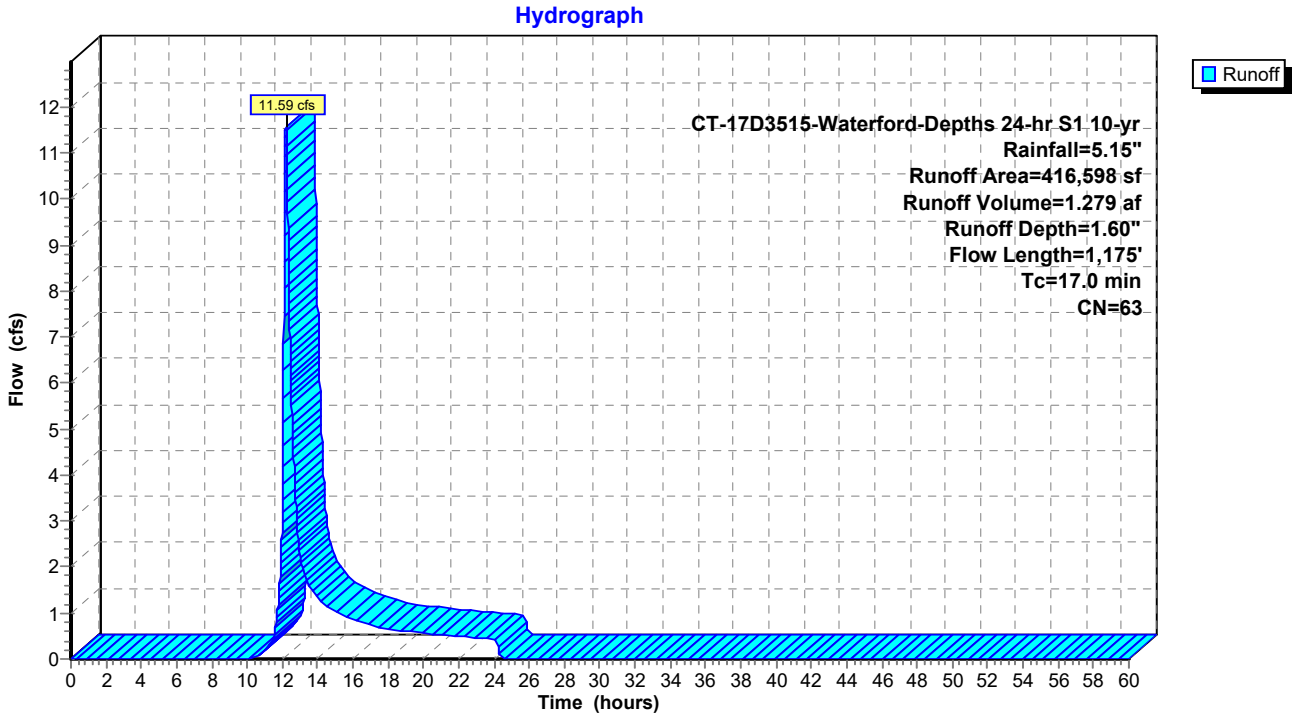
Runoff = 11.59 cfs @ 12.20 hrs, Volume= 1.279 af, Depth= 1.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
208,282	58	Meadow, non-grazed, HSG B
137,303	60	Woods, Fair, HSG B
17,665	79	Woods, Fair, HSG D
2,716	82	Dirt roads, HSG B
8,664	85	Gravel roads, HSG B
93	89	Dirt roads, HSG D
31,851	79	<50% Grass cover, Poor, HSG B
10,024	89	<50% Grass cover, Poor, HSG D
416,598	63	Weighted Average
416,598	63	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.8	100	0.0610	0.19		**Sheet Flow, SOLAR FARM** Grass: Dense n= 0.240 P2= 3.45"
8.2	1,075	0.0968	2.18		**Shallow Concentrated Flow, SOLAR FARM** Short Grass Pasture Kv= 7.0 fps
17.0	1,175	Total			

Subcatchment PDA-207.3: SOLAR FARM (UNDETAINED)



Summary for Subcatchment PDA-208.1: SOLAR FARM

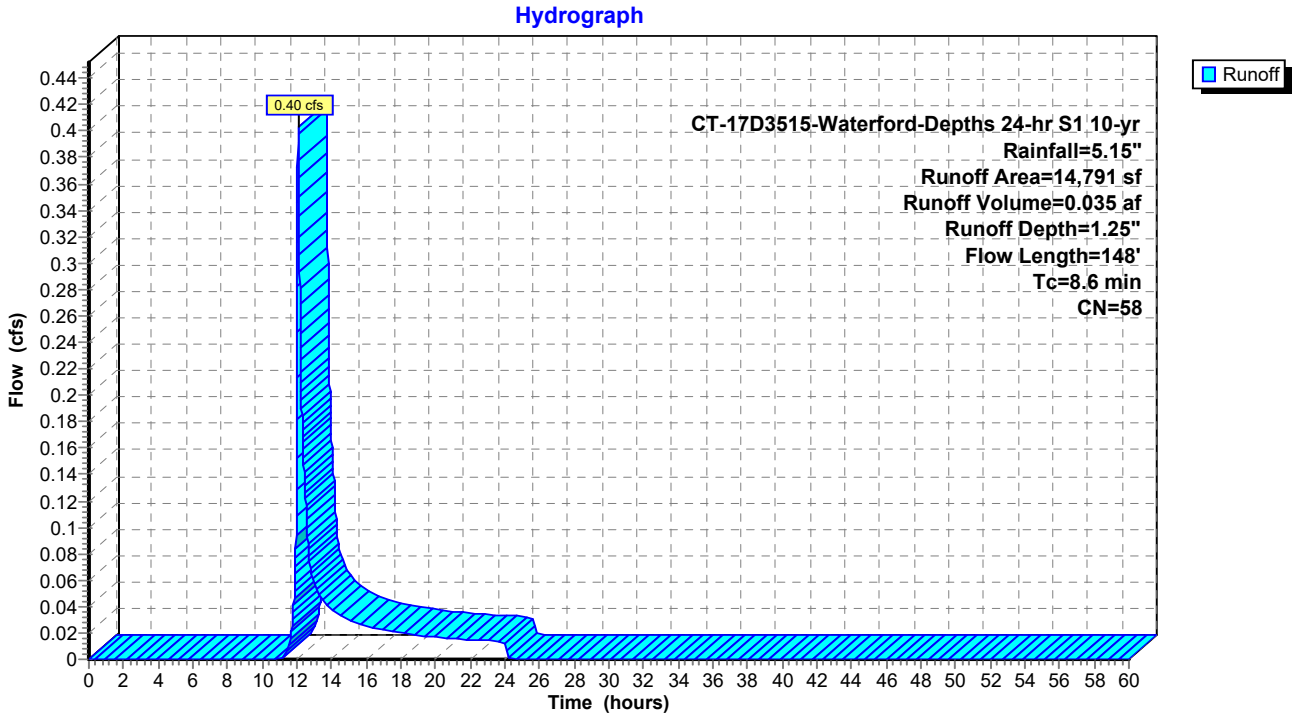
Runoff = 0.40 cfs @ 12.08 hrs, Volume= 0.035 af, Depth= 1.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
14,791	58	Meadow, non-grazed, HSG B
14,791	58	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.2000	0.20		**Sheet Flow, Solar Farm** Woods: Light underbrush n= 0.400 P2= 3.45"
0.4	48	0.0856	2.05		**Shallow Concentrated Flow, Solar Farm Sale** Short Grass Pasture Kv= 7.0 fps
8.6	148	Total			

Subcatchment PDA-208.1: SOLAR FARM



Summary for Subcatchment PDA-208.2: ACCESS RD, GRASS, WETLAND W/ BRUSH (UNDETAINED

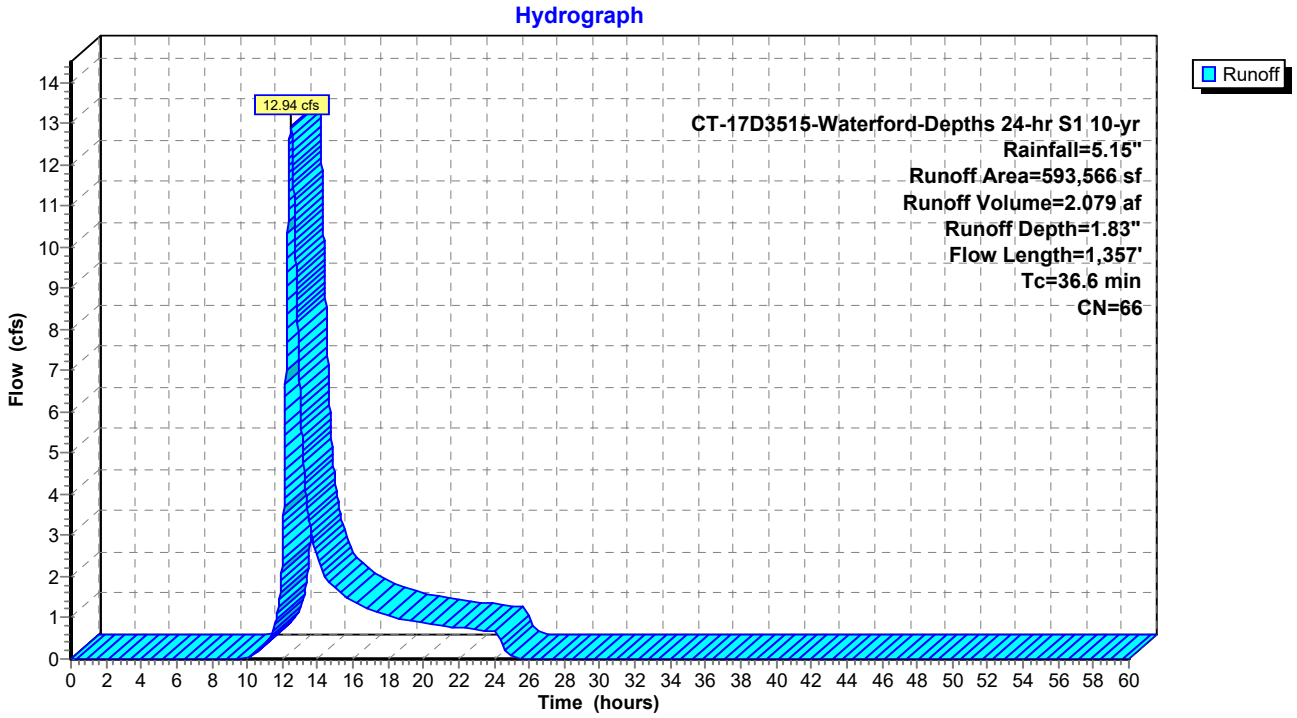
Runoff = 12.94 cfs @ 12.48 hrs, Volume= 2.079 af, Depth= 1.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
152,056	58	Meadow, non-grazed, HSG B
259,249	60	Woods, Fair, HSG B
134,846	79	Woods, Fair, HSG D
2,806	82	Dirt roads, HSG B
6,791	85	Gravel roads, HSG B
945	89	Dirt roads, HSG D
29,846	79	<50% Grass cover, Poor, HSG B
7,027	89	<50% Grass cover, Poor, HSG D
593,566	66	Weighted Average
593,566	66	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.8	100	0.0462	0.11		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
21.8	1,257	0.0371	0.96		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
36.6	1,357	Total			

Subcatchment PDA-208.2: ACCESS RD, GRASS, WETLAND W/ BRUSH (UNDETAINED)



Summary for Subcatchment PDA-209.1: SOLAR FARM

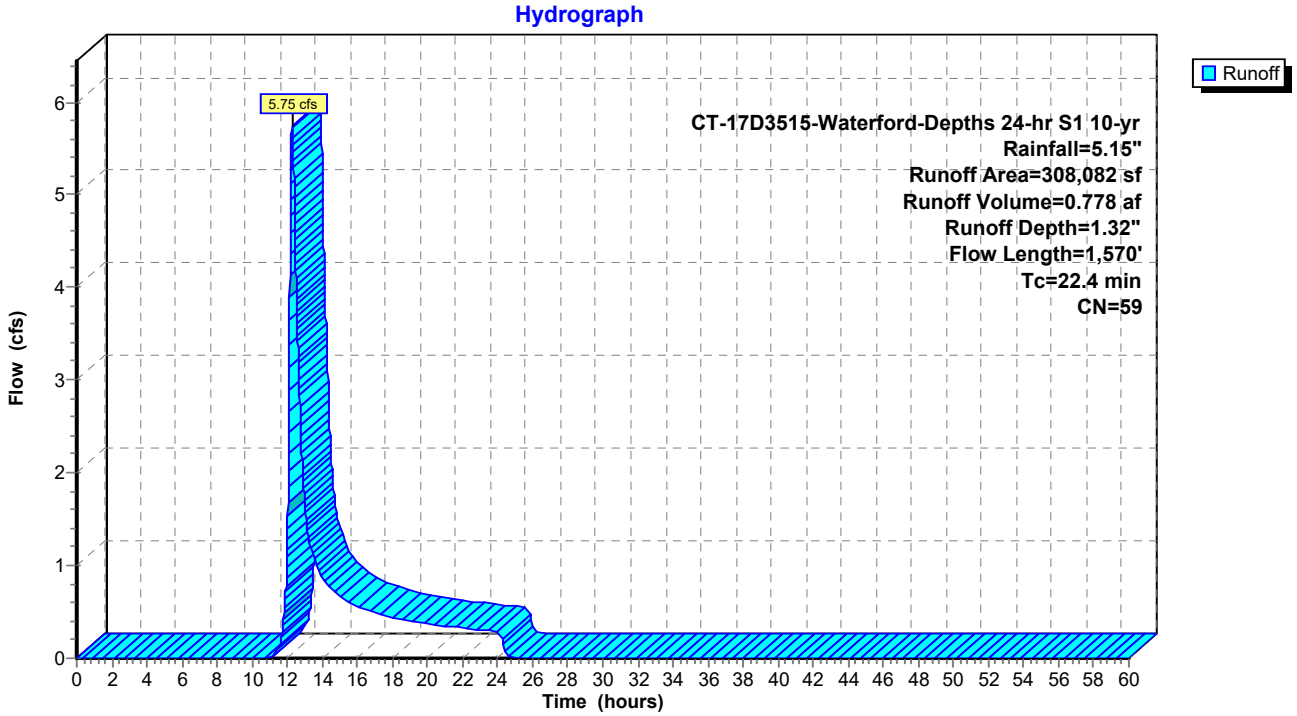
Runoff = 5.75 cfs @ 12.28 hrs, Volume= 0.778 af, Depth= 1.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
292,605	58	Meadow, non-grazed, HSG B
15,477	85	Gravel roads, HSG B
308,082	59	Weighted Average
308,082	59	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.1486	0.27		**Sheet Flow, SOLAR FARM** Grass: Dense n= 0.240 P2= 3.45"
16.2	1,470	0.0464	1.51		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
22.4	1,570	Total			

Subcatchment PDA-209.1: SOLAR FARM



Summary for Subcatchment PDA-209.2: SOLAR FARM, WETLAND W/BRUSH, GRASS (UNDETAINED

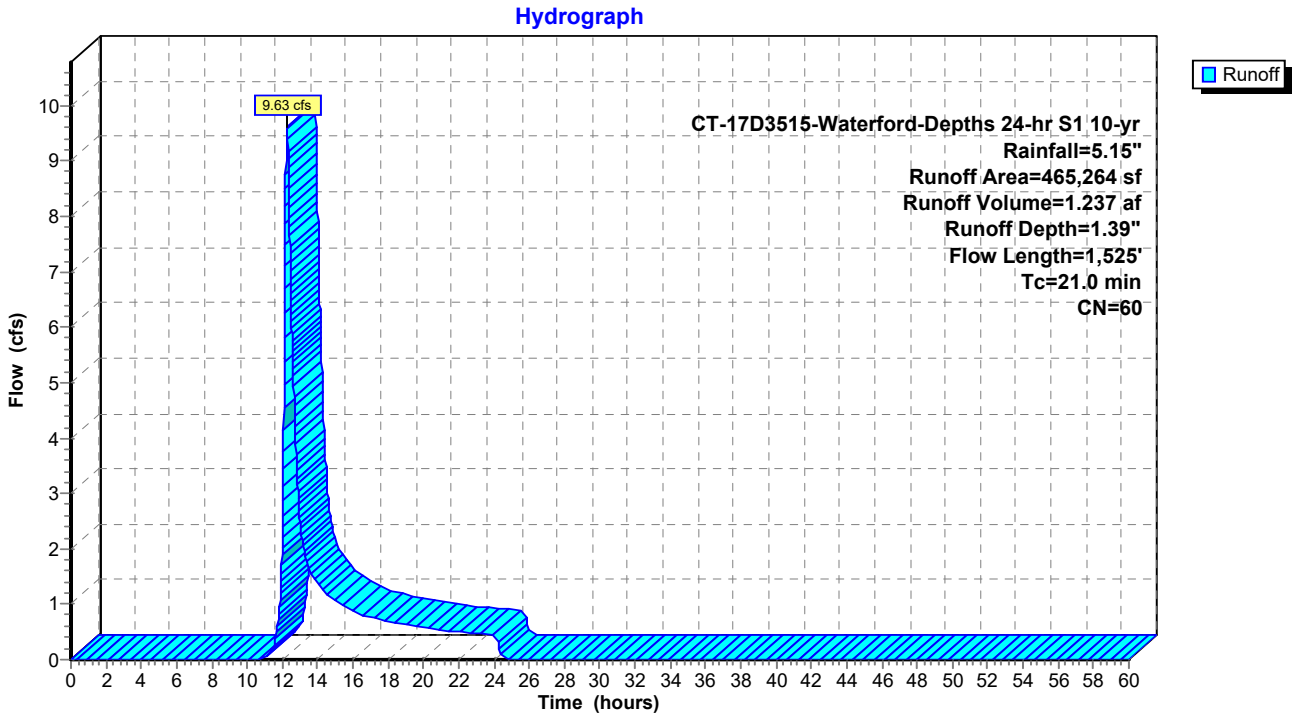
Runoff = 9.63 cfs @ 12.26 hrs, Volume= 1.237 af, Depth= 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
212,359	48	Brush, Good, HSG B
135,753	60	Woods, Fair, HSG B
45,724	79	Woods, Fair, HSG D
3,720	82	Dirt roads, HSG B
744	89	Dirt roads, HSG D
54,222	79	<50% Grass cover, Poor, HSG B
12,742	89	<50% Grass cover, Poor, HSG D
465,264	60	Weighted Average
465,264	60	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	100	0.1175	0.25		**Sheet Flow, SOLAR FARM** Grass: Dense n= 0.240 P2= 3.45"
14.2	1,425	0.0568	1.67		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
21.0	1,525	Total			

Subcatchment PDA-209.2: SOLAR FARM, WETLAND W/BRUSH, GRASS (UNDETAINED)+



Summary for Subcatchment PDA-210: OFFSITE BASIN (UNDISTURBED)

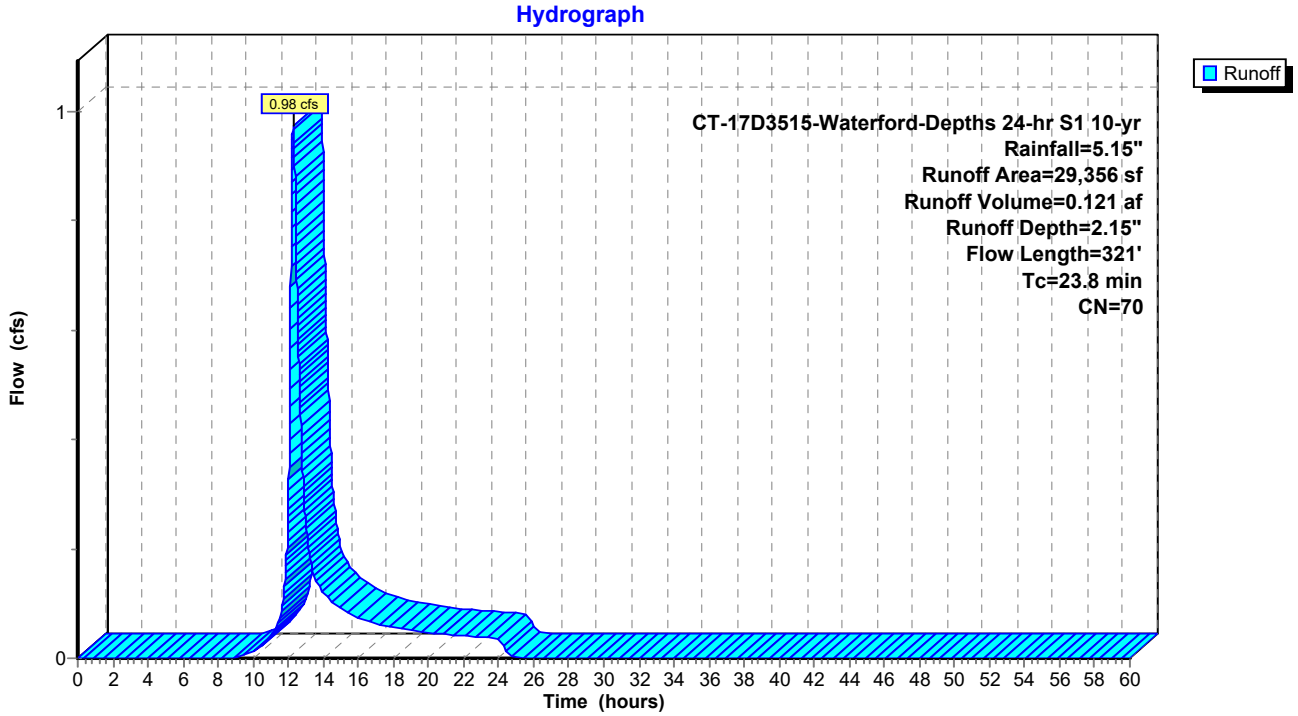
Runoff = 0.98 cfs @ 12.29 hrs, Volume= 0.121 af, Depth= 2.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
7,157	60	Woods, Fair, HSG B
22,199	73	Woods, Fair, HSG C
29,356	70	Weighted Average
29,356	70	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.2	100	0.0187	0.08		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
2.6	221	0.0830	1.44		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
23.8	321	Total			

Subcatchment PDA-210: OFFSITE BASIN (UNDISTURBED)



Summary for Subcatchment PDA-211: UNDEVELOPED FOREST (UNDISTURBED)

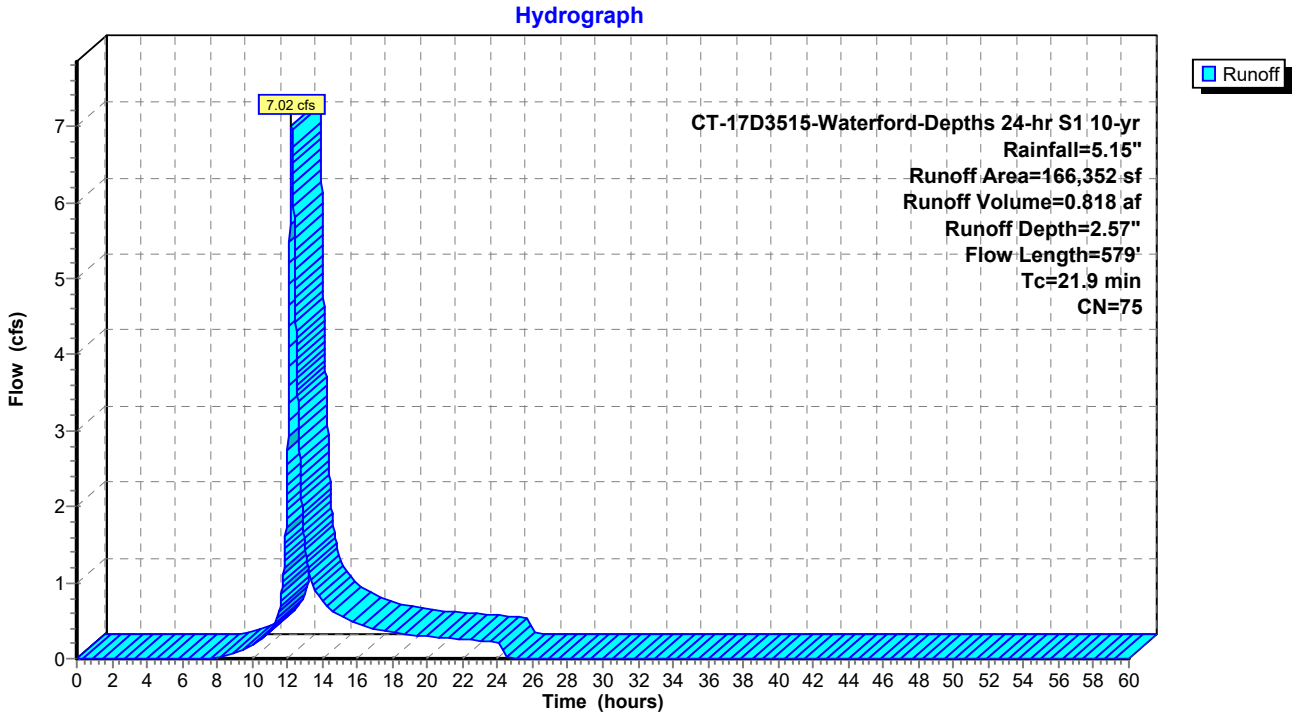
Runoff = 7.02 cfs @ 12.25 hrs, Volume= 0.818 af, Depth= 2.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
13,831	60	Woods, Fair, HSG B
63,994	73	Woods, Fair, HSG C
88,527	79	Woods, Fair, HSG D
166,352	75	Weighted Average
166,352	75	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.7	100	0.0824	0.14		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
10.2	479	0.0244	0.78		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
21.9	579	Total			

Subcatchment PDA-211: UNDEVELOPED FOREST (UNDISTURBED)



Summary for Subcatchment PDA-212.1: SOLAR FARM

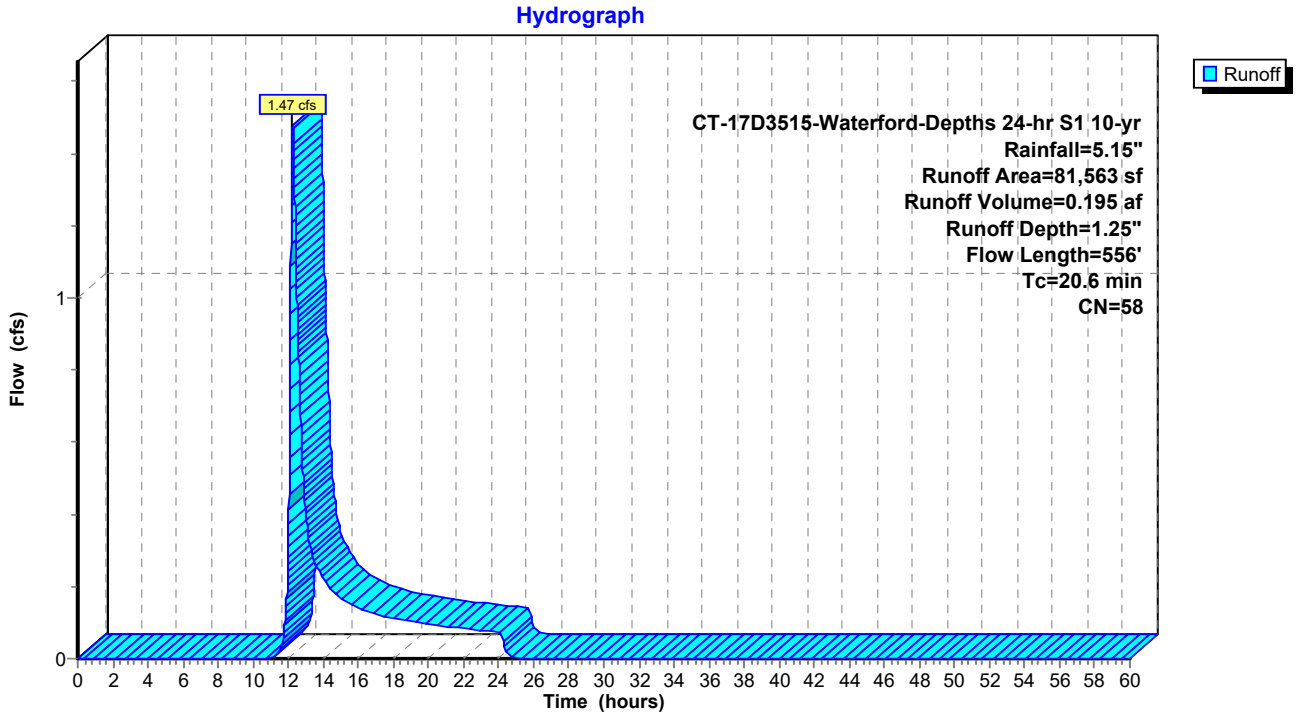
Runoff = 1.47 cfs @ 12.26 hrs, Volume= 0.195 af, Depth= 1.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
81,224	58	Meadow, non-grazed, HSG B
313	71	Meadow, non-grazed, HSG C
26	85	Gravel roads, HSG B
81,563	58	Weighted Average
81,563	58	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.5	100	0.0408	0.11		**Sheet Flow, Solar Farm** Woods: Light underbrush n= 0.400 P2= 3.45"
5.1	456	0.0902	1.50		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
20.6	556	Total			

Subcatchment PDA-212.1: SOLAR FARM



Summary for Subcatchment PDA-212.2: GRASS (UNDETAINED)

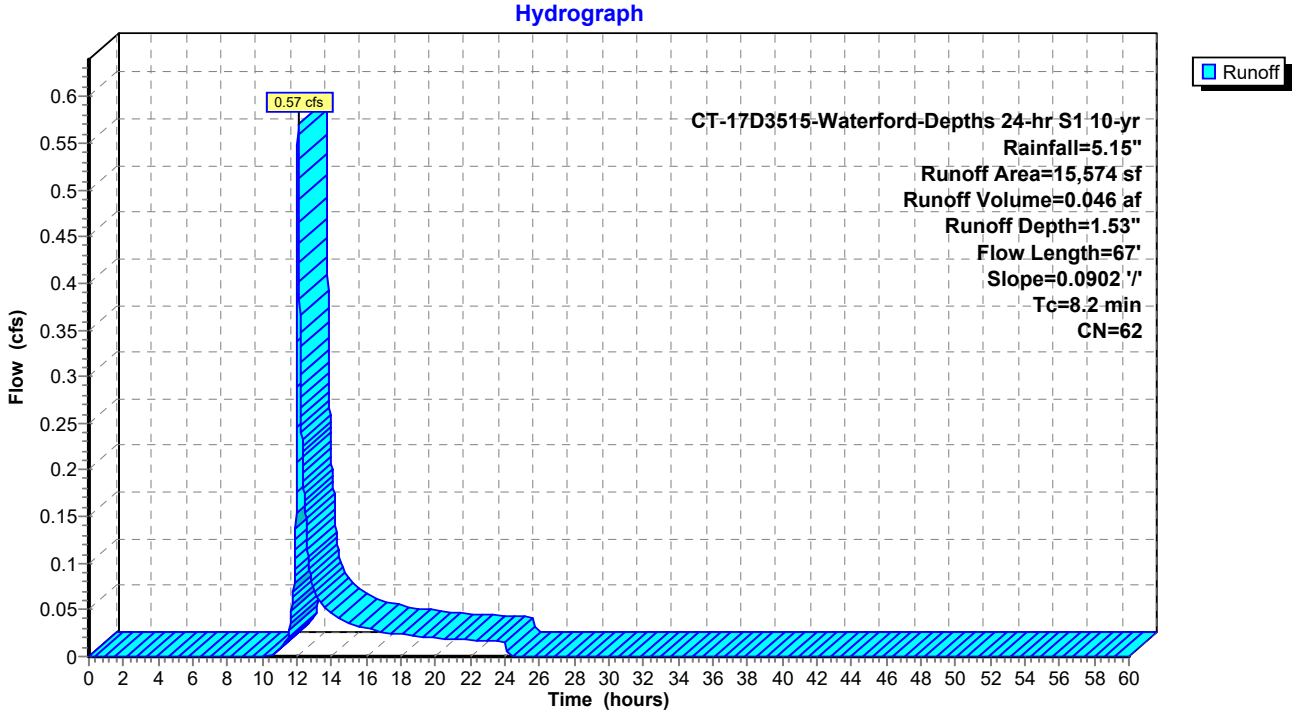
Runoff = 0.57 cfs @ 12.07 hrs, Volume= 0.046 af, Depth= 1.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
11,275	58	Meadow, non-grazed, HSG B
4,299	71	Meadow, non-grazed, HSG C
15,574	62	Weighted Average
15,574	62	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	67	0.0902	0.14		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"

Subcatchment PDA-212.2: GRASS (UNDETAINED)



Summary for Subcatchment PDA-213: ACCESS ROAD, GRASS (UNDETAINED)

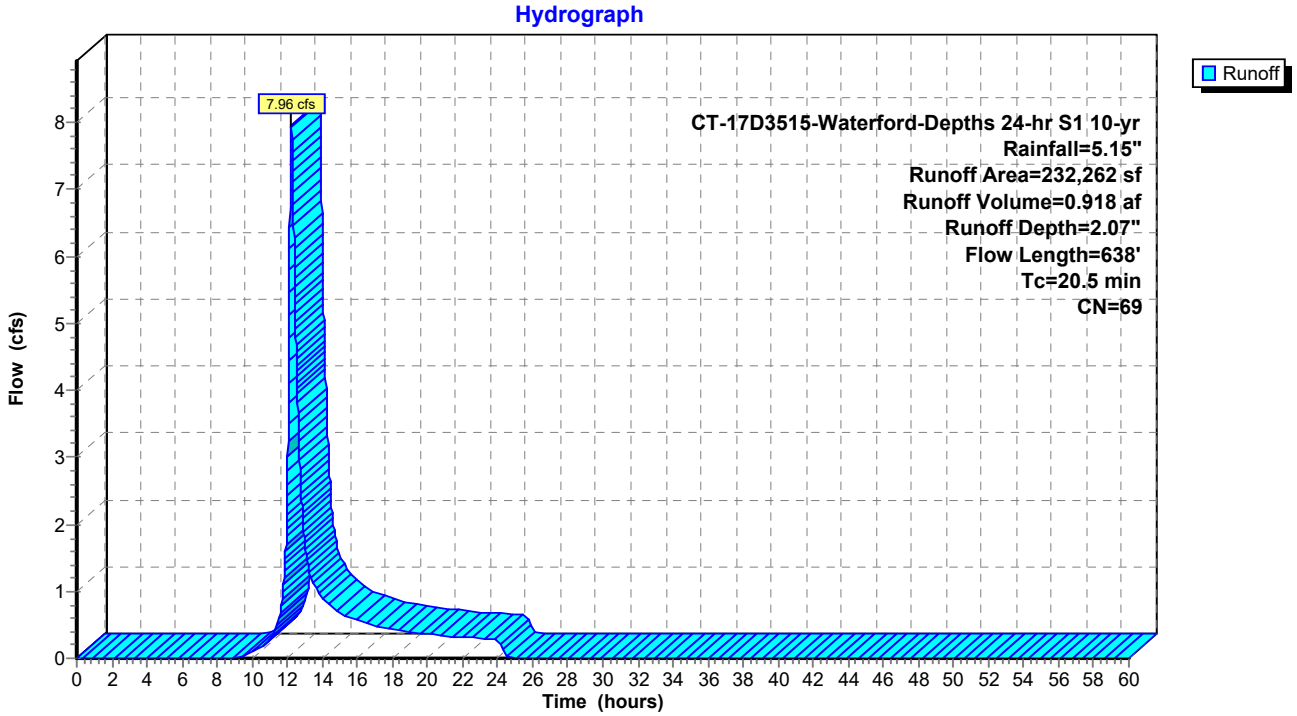
Runoff = 7.96 cfs @ 12.24 hrs, Volume= 0.918 af, Depth= 2.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
91,925	60	Woods, Fair, HSG B
126,448	73	Woods, Fair, HSG C
5,026	85	Gravel roads, HSG B
8,863	89	Gravel roads, HSG C
232,262	69	Weighted Average
232,262	69	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	100	0.1921	0.20		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
12.1	538	0.0220	0.74		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
20.5	638	Total			

Subcatchment PDA-213: ACCESS ROAD, GRASS (UNDETAINED)



Summary for Subcatchment PDA-300.1: SOLAR FARM

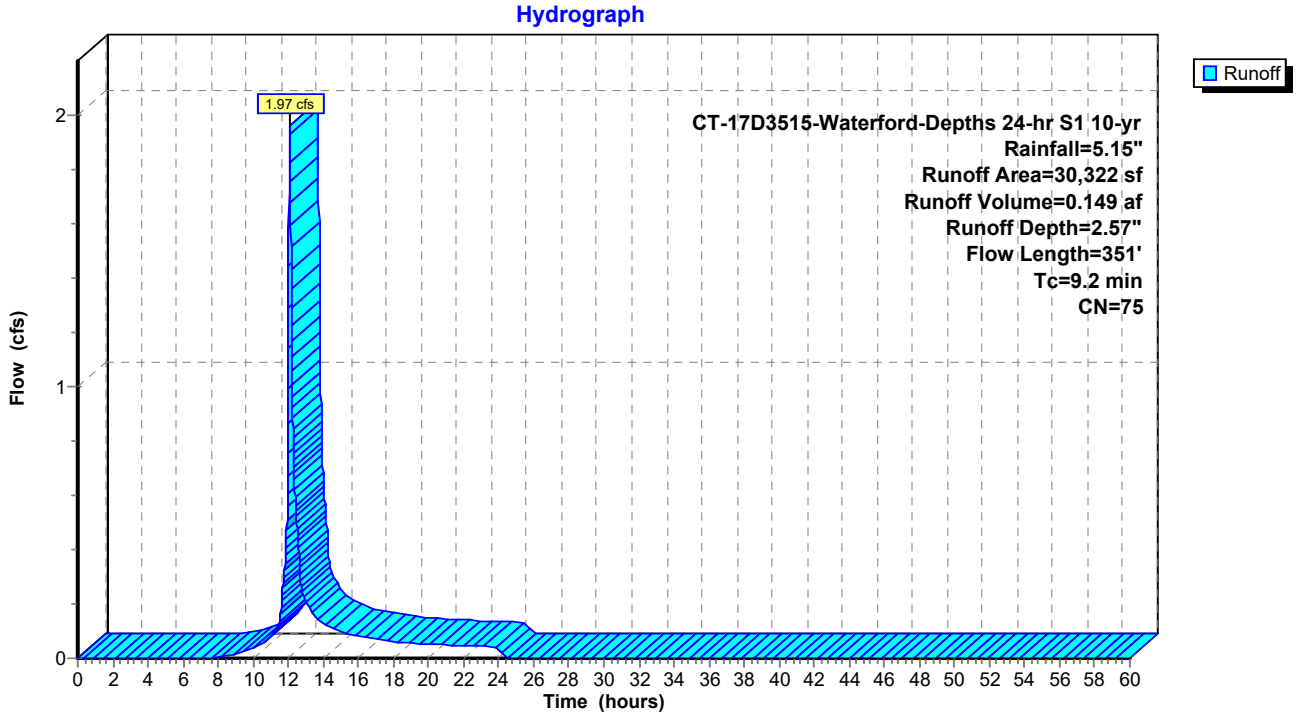
Runoff = 1.97 cfs @ 12.08 hrs, Volume= 0.149 af, Depth= 2.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
4,127	58	Meadow, non-grazed, HSG B
26,195	78	Meadow, non-grazed, HSG D
30,322	75	Weighted Average
30,322	75	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	100	0.0420	0.24		**Sheet Flow, Solar Farm** Grass: Short n= 0.150 P2= 3.45"
2.2	251	0.0750	1.92		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
9.2	351	Total			

Subcatchment PDA-300.1: SOLAR FARM



Summary for Subcatchment PDA-300.2: GRASS (UNDETAINED)

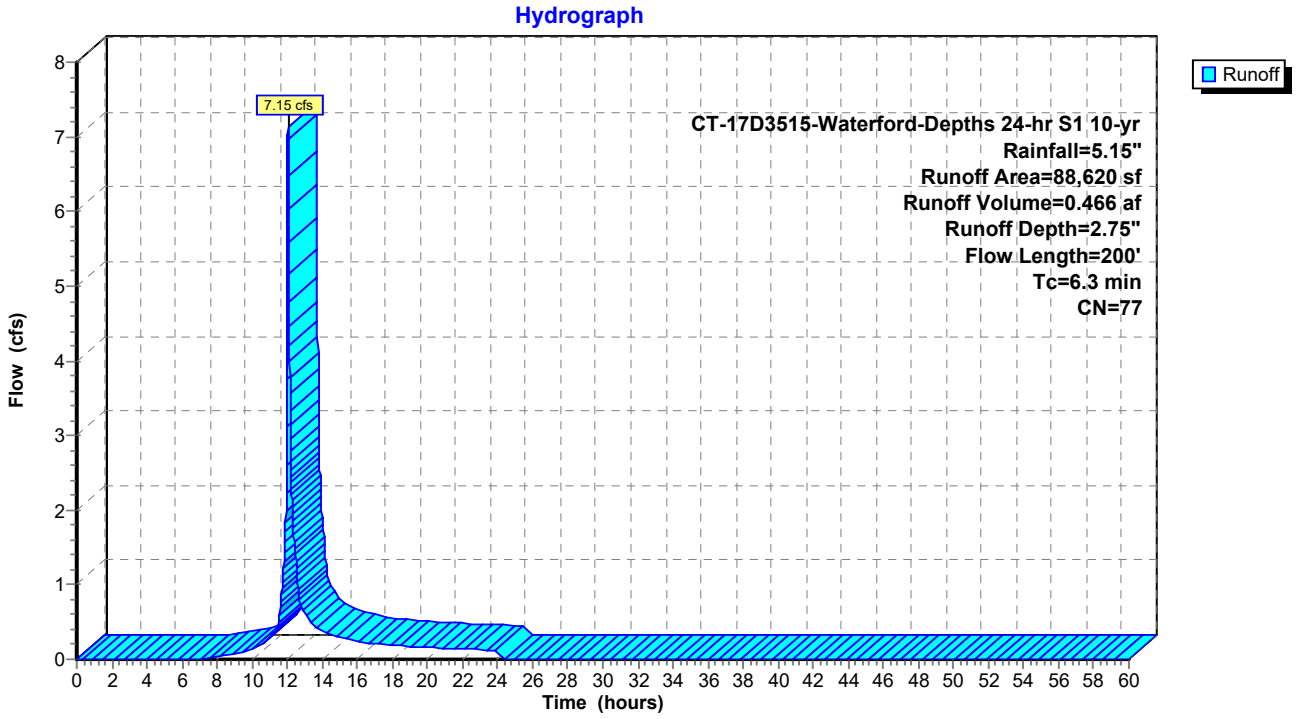
Runoff = 7.15 cfs @ 12.04 hrs, Volume= 0.466 af, Depth= 2.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
88,620	77	Brush, Fair, HSG D
88,620	77	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.1737	0.29		**Sheet Flow, Forest Brush** Grass: Dense n= 0.240 P2= 3.45"
0.5	100	0.5200	3.61		**Shallow Concentrated Flow, Forest Brush** Woodland Kv= 5.0 fps
6.3	200	Total			

Subcatchment PDA-300.2: GRASS (UNDETAINED)



Summary for Subcatchment PDA-301.1: SOLAR FARM

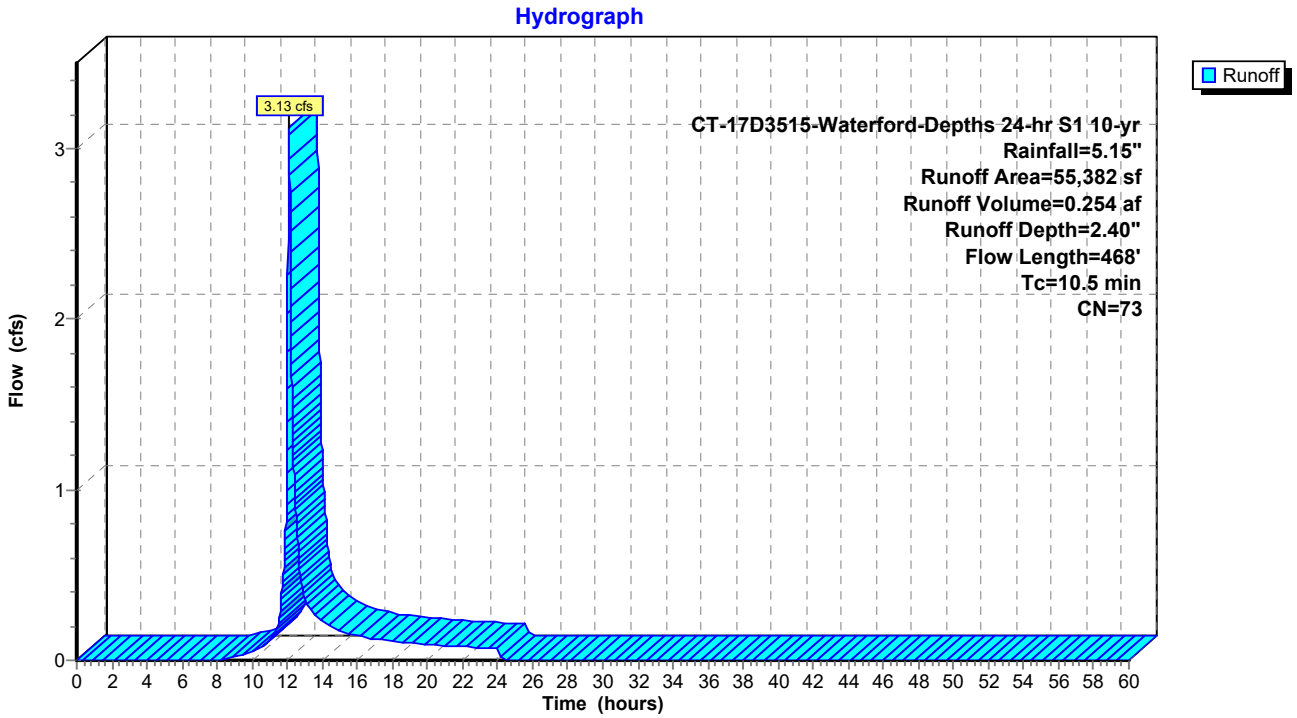
Runoff = 3.13 cfs @ 12.10 hrs, Volume= 0.254 af, Depth= 2.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
14,711	58	Meadow, non-grazed, HSG B
378	85	Gravel roads, HSG B
40,039	78	Meadow, non-grazed, HSG D
254	91	Gravel roads, HSG D
55,382	73	Weighted Average
55,382	73	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	100	0.0403	0.23		**Sheet Flow, SOLAR FARM** Grass: Short n= 0.150 P2= 3.45"
3.4	368	0.0652	1.79		**Shallow Concentrated Flow, SOLAR FARM** Short Grass Pasture Kv= 7.0 fps
10.5	468	Total			

Subcatchment PDA-301.1: SOLAR FARM



Summary for Subcatchment PDA-301.2: GRASS (UNDETAINED)

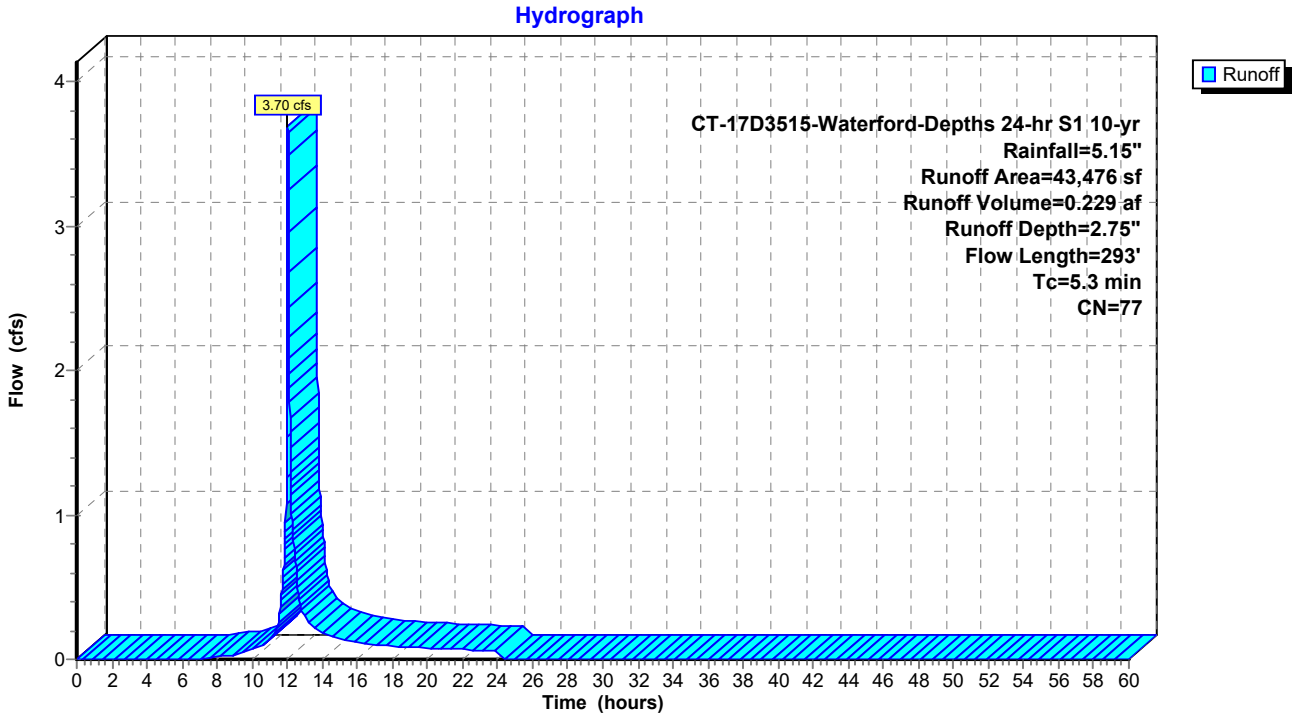
Runoff = 3.70 cfs @ 12.03 hrs, Volume= 0.229 af, Depth= 2.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
43,476	77	Brush, Fair, HSG D
43,476	77	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	100	0.3310	0.37		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
0.8	193	0.3300	4.02		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
5.3	293	Total			

Subcatchment PDA-301.2: GRASS (UNDETAINED)



Summary for Subcatchment PDA-302.1: Solar Farm

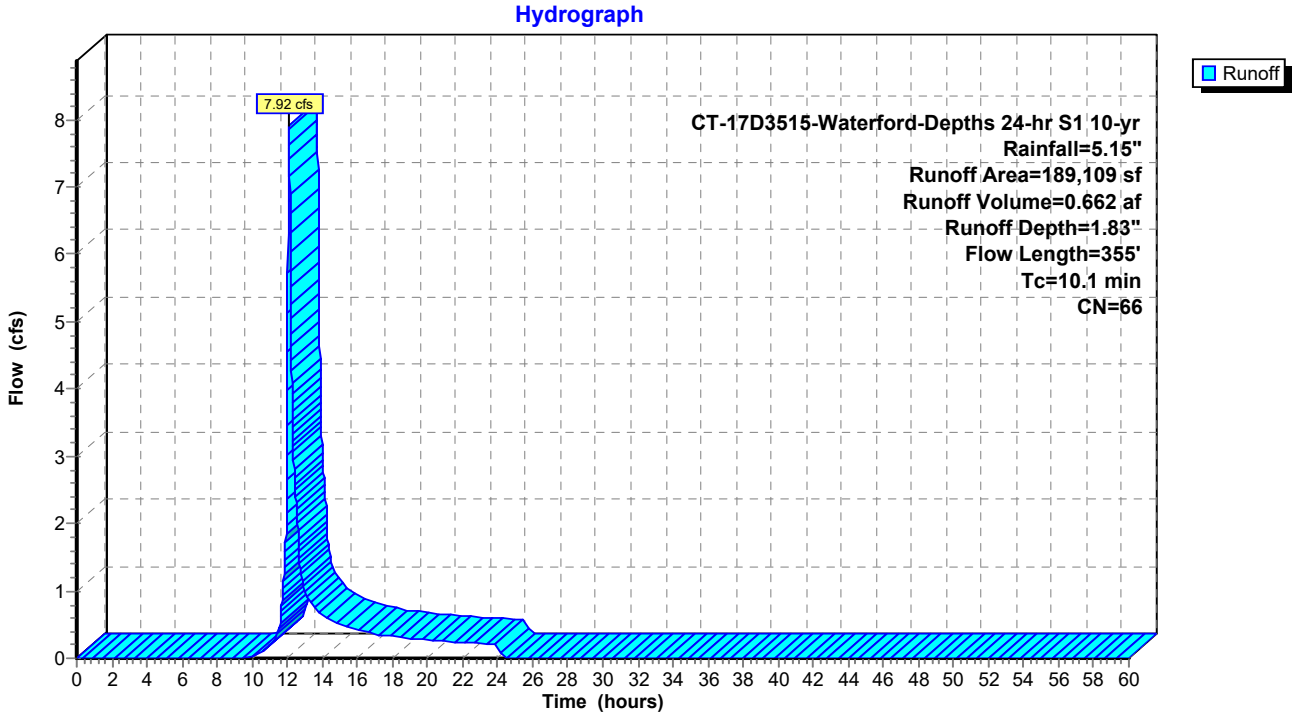
Runoff = 7.92 cfs @ 12.09 hrs, Volume= 0.662 af, Depth= 1.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
109,756	58	Meadow, non-grazed, HSG B
79,353	78	Meadow, non-grazed, HSG D
189,109	66	Weighted Average
189,109	66	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	100	0.0346	0.22		**Sheet Flow, Solar Farm** Grass: Short n= 0.150 P2= 3.45"
2.5	255	0.0603	1.72		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
10.1	355	Total			

Subcatchment PDA-302.1: Solar Farm



Summary for Subcatchment PDA-302.2: GRASS (UNDETAINED)

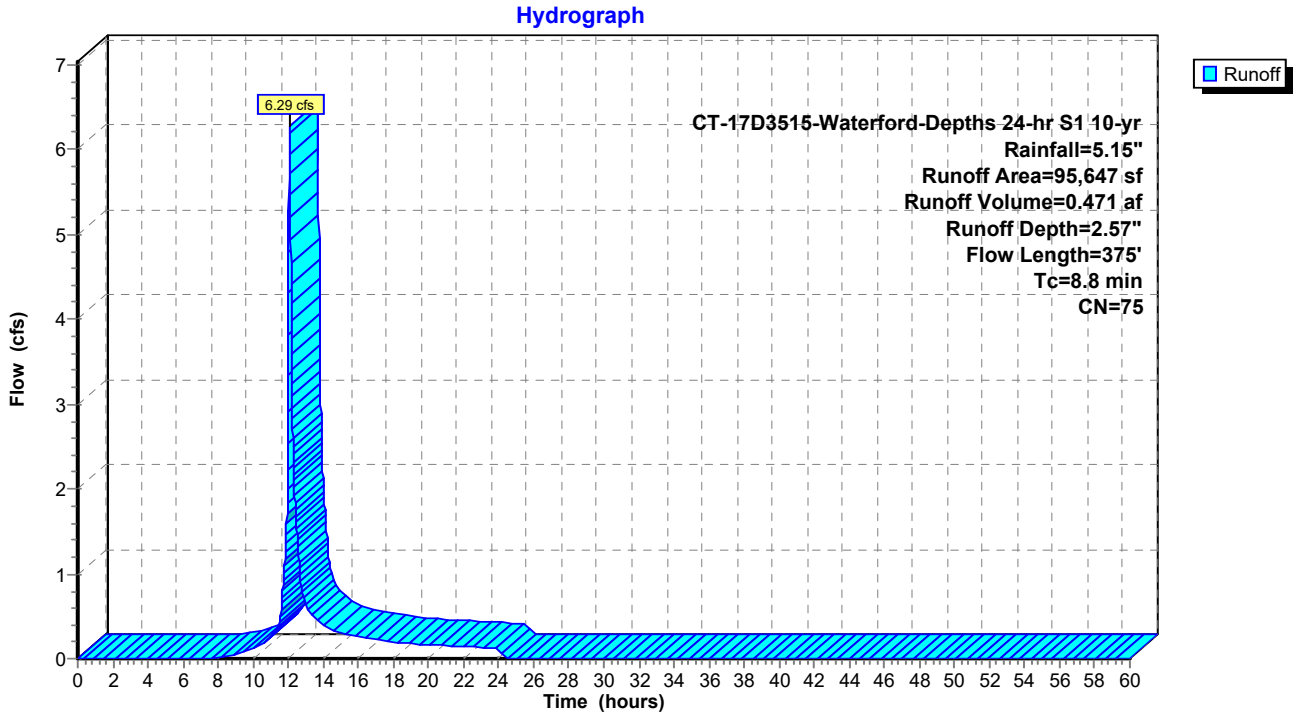
Runoff = 6.29 cfs @ 12.07 hrs, Volume= 0.471 af, Depth= 2.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
7,023	56	Brush, Fair, HSG B
82,142	77	Brush, Fair, HSG D
6,482	77	Brush, Fair, HSG D
95,647	75	Weighted Average
95,647	75	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.0333	0.22		**Sheet Flow, Solar Farm** Grass: Short n= 0.150 P2= 3.45"
1.1	275	0.3413	4.09		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
8.8	375	Total			

Subcatchment PDA-302.2: GRASS (UNDETAINED)



Summary for Subcatchment PDA-303.1: SOLAR FARM

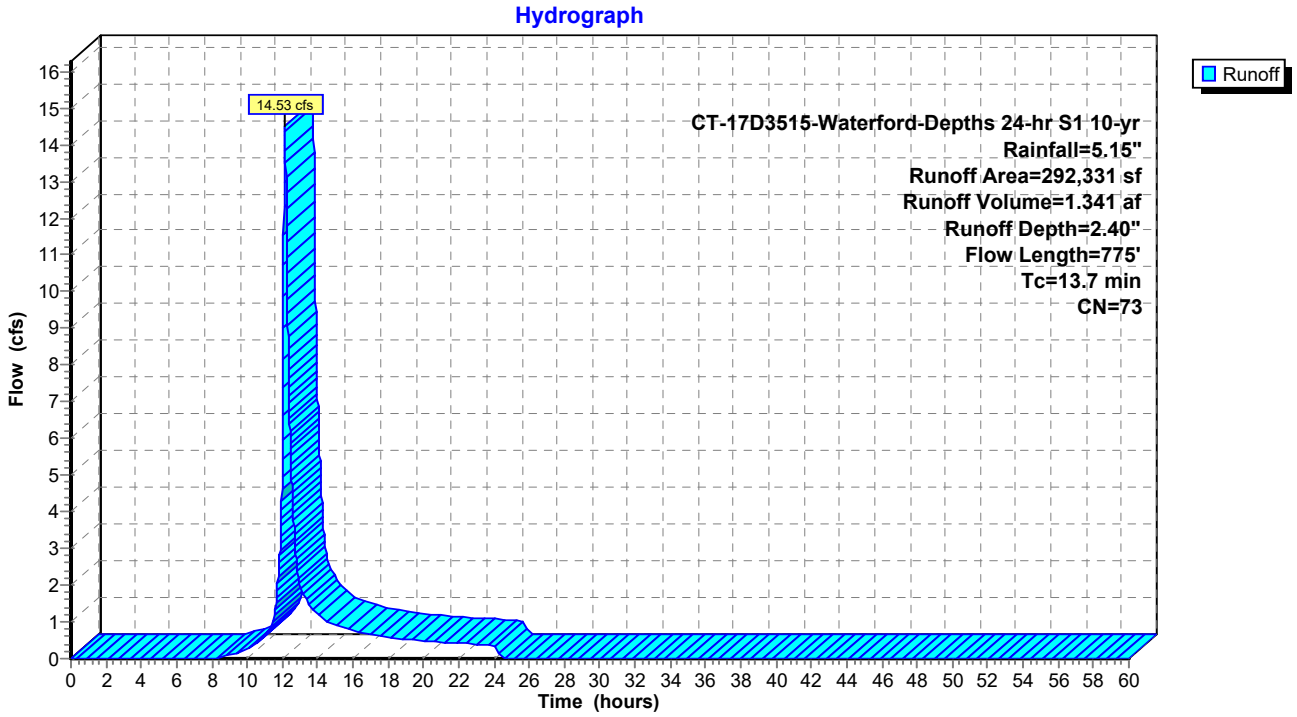
Runoff = 14.53 cfs @ 12.14 hrs, Volume= 1.341 af, Depth= 2.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
30,997	58	Meadow, non-grazed, HSG B
114,707	71	Meadow, non-grazed, HSG C
146,627	78	Meadow, non-grazed, HSG D
292,331	73	Weighted Average
292,331	73	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.8	100	0.0239	0.19		**Sheet Flow, SOLAR FARM** Grass: Short n= 0.150 P2= 3.45"
4.9	675	0.1087	2.31		**Shallow Concentrated Flow, SOLAR FARM** Short Grass Pasture Kv= 7.0 fps
13.7	775	Total			

Subcatchment PDA-303.1: SOLAR FARM



Summary for Subcatchment PDA-303.2: GRASS (UNDETAINED)

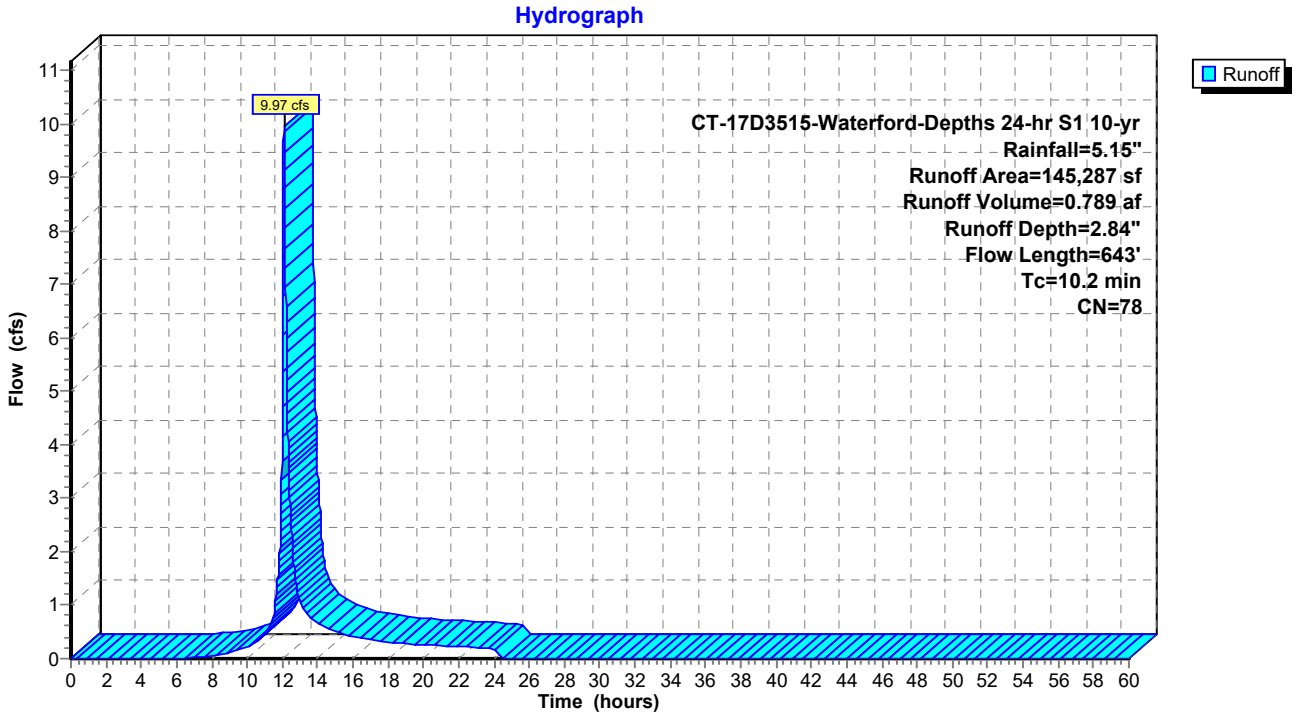
Runoff = 9.97 cfs @ 12.09 hrs, Volume= 0.789 af, Depth= 2.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
4,609	56	Brush, Fair, HSG B
35,202	77	Brush, Fair, HSG D
105,476	79	Woods, Fair, HSG D
145,287	78	Weighted Average
145,287	78	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	100	0.1777	0.29		**Sheet Flow, SOLAR FARM** Grass: Dense n= 0.240 P2= 3.45"
4.5	543	0.1639	2.02		**Shallow Concentrated Flow, SOLAR FARM** Woodland Kv= 5.0 fps
10.2	643	Total			

Subcatchment PDA-303.2: GRASS (UNDETAINED)



Summary for Subcatchment PDA-304.1: SOLAR FARM

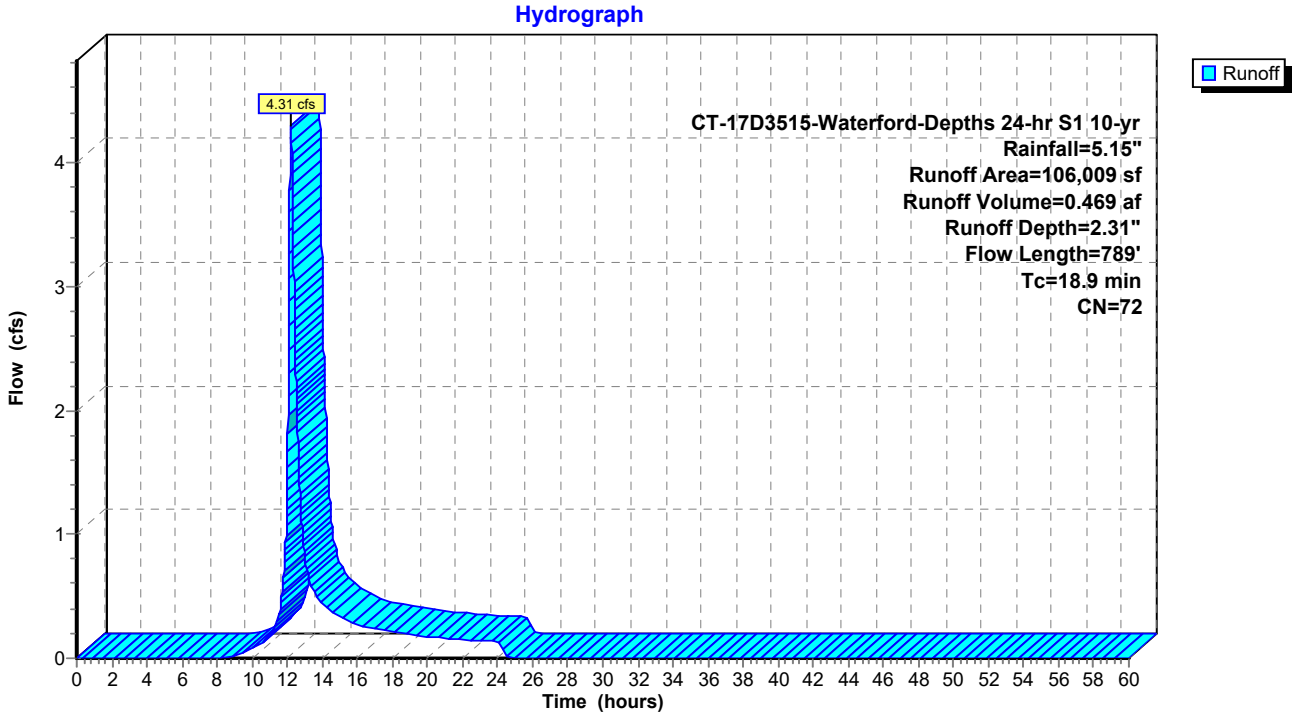
Runoff = 4.31 cfs @ 12.22 hrs, Volume= 0.469 af, Depth= 2.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
89,702	71	Meadow, non-grazed, HSG C
16,307	78	Meadow, non-grazed, HSG D
106,009	72	Weighted Average
106,009	72	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	100	0.0136	0.15		**Sheet Flow, SOLAR FARM** Grass: Short n= 0.150 P2= 3.45"
7.9	689	0.0431	1.45		**Shallow Concentrated Flow, SOLAR FARM** Short Grass Pasture Kv= 7.0 fps
18.9	789	Total			

Subcatchment PDA-304.1: SOLAR FARM



Summary for Subcatchment PDA-304.2: SOLAR FARM, ACESS ROAD, GRASS (UNDETAINED)

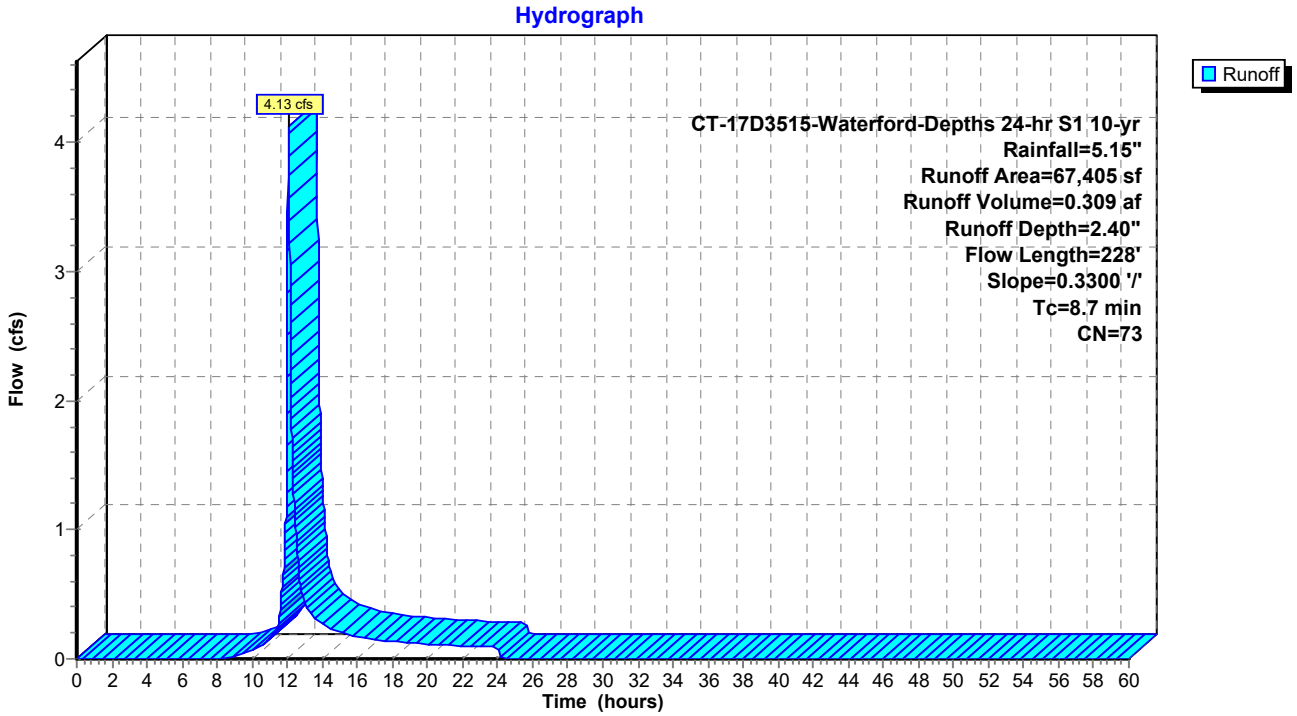
Runoff = 4.13 cfs @ 12.07 hrs, Volume= 0.309 af, Depth= 2.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
67,405	73	Brush, Good, HSG D
67,405	73	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	228	0.3300	0.44		**Sheet Flow, SOLAR FARM** Grass: Dense n= 0.240 P2= 3.45"

Subcatchment PDA-304.2: SOLAR FARM, ACESS ROAD, GRASS (UNDETAINED)



Summary for Subcatchment PDA-305.1: SOLAR FARM

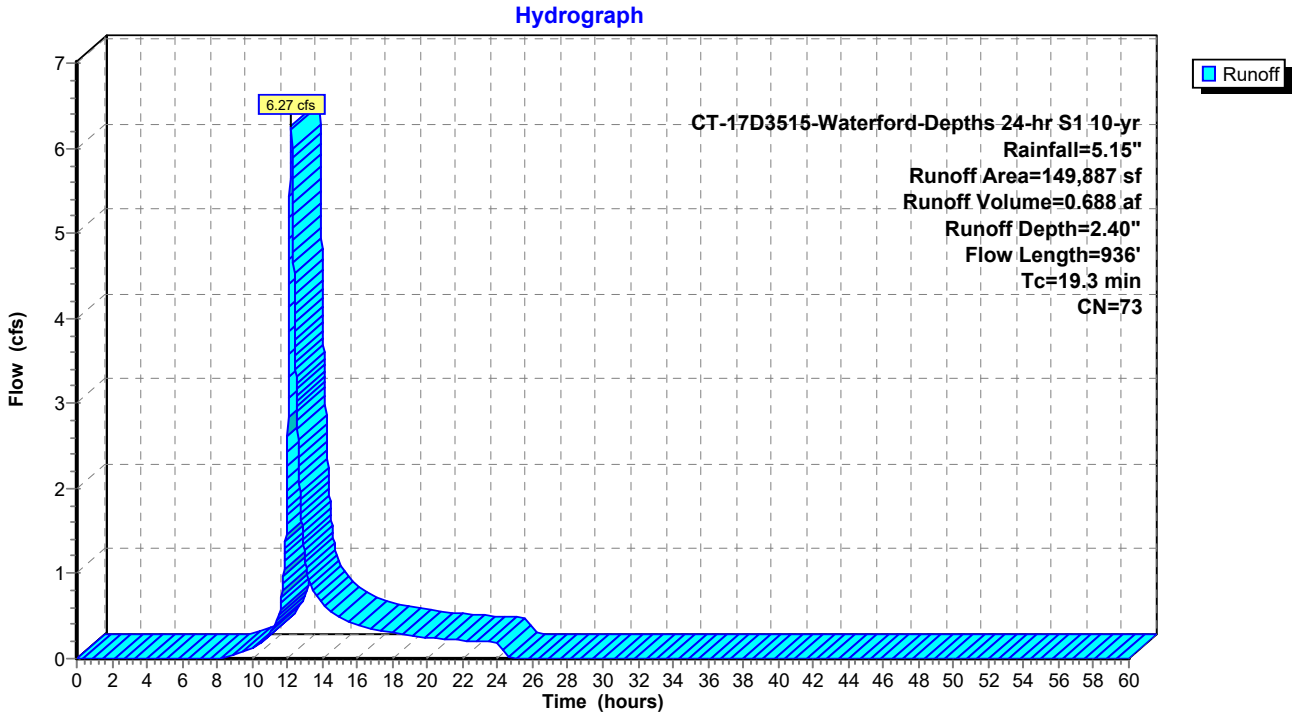
Runoff = 6.27 cfs @ 12.22 hrs, Volume= 0.688 af, Depth= 2.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
118,692	71	Meadow, non-grazed, HSG C
21,359	78	Meadow, non-grazed, HSG D
9,836	89	Gravel roads, HSG C
149,887	73	Weighted Average
149,887	73	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0197	0.18		**Sheet Flow, SOLAR FARM** Grass: Short n= 0.150 P2= 3.45"
9.8	836	0.0415	1.43		**Shallow Concentrated Flow, SOLAR FARM** Short Grass Pasture Kv= 7.0 fps
19.3	936	Total			

Subcatchment PDA-305.1: SOLAR FARM



Summary for Subcatchment PDA-305.2: ACCESS ROAD, GRASS (UNDETAINED)

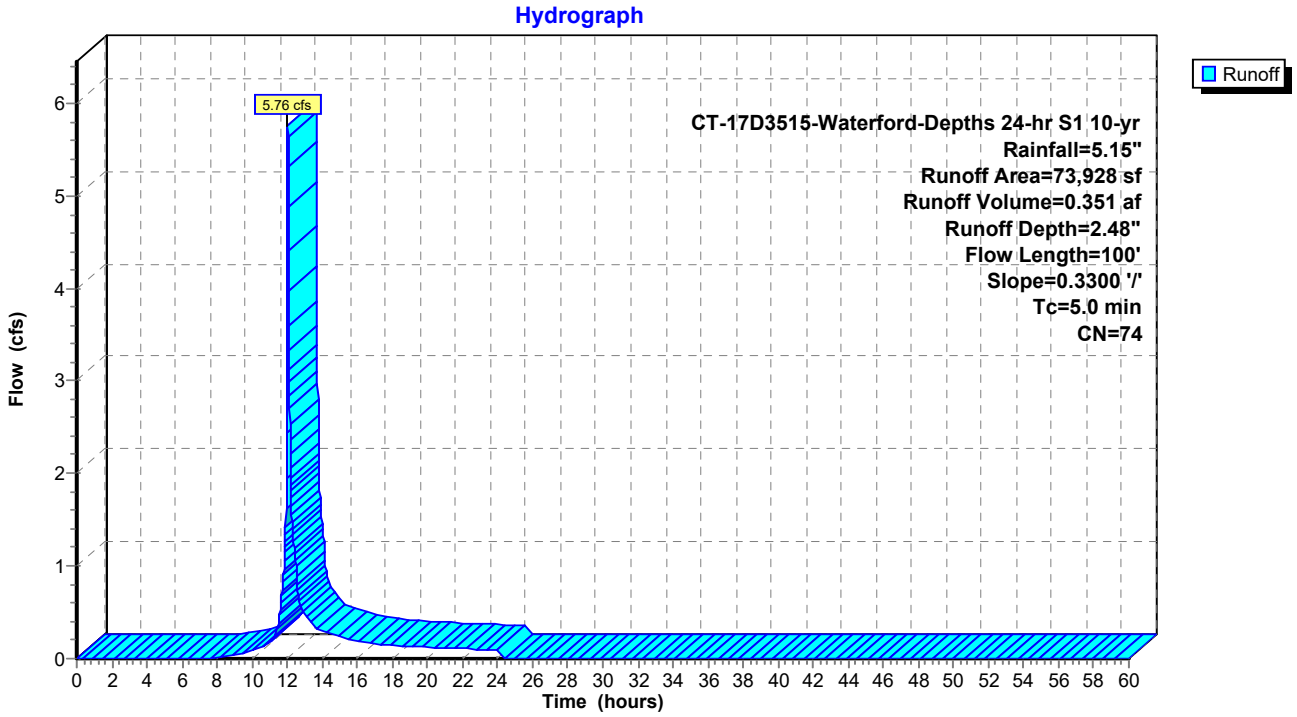
Runoff = 5.76 cfs @ 12.03 hrs, Volume= 0.351 af, Depth= 2.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 10-yr Rainfall=5.15"

Area (sf)	CN	Description
15,407	65	Brush, Good, HSG C
48,036	73	Brush, Good, HSG D
658	86	<50% Grass cover, Poor, HSG C
540	89	Gravel roads, HSG C
9,287	91	Gravel roads, HSG D
73,928	74	Weighted Average
73,928	74	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	100	0.3300	0.37		**Sheet Flow, SOLAR FARM** Grass: Dense n= 0.240 P2= 3.45"
4.5	100	Total, Increased to minimum Tc = 5.0 min			

Subcatchment PDA-305.2: ACCESS ROAD, GRASS (UNDETAINED)

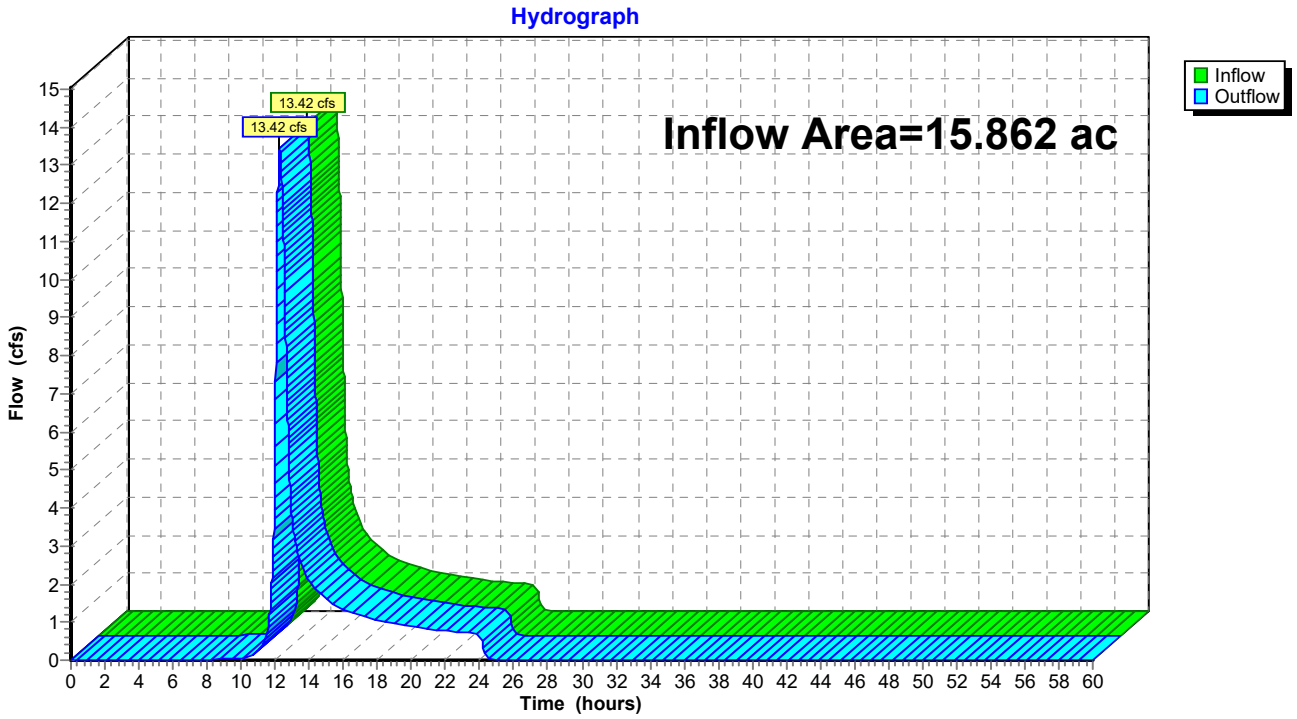


Summary for Reach DP-1: DISCHARGE OFFSITE TOWARDS STONY BROOK

Inflow Area = 15.862 ac, 1.63% Impervious, Inflow Depth = 1.50" for 10-yr event
Inflow = 13.42 cfs @ 12.26 hrs, Volume= 1.981 af
Outflow = 13.42 cfs @ 12.26 hrs, Volume= 1.981 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-1: DISCHARGE OFFSITE TOWARDS STONY BROOK

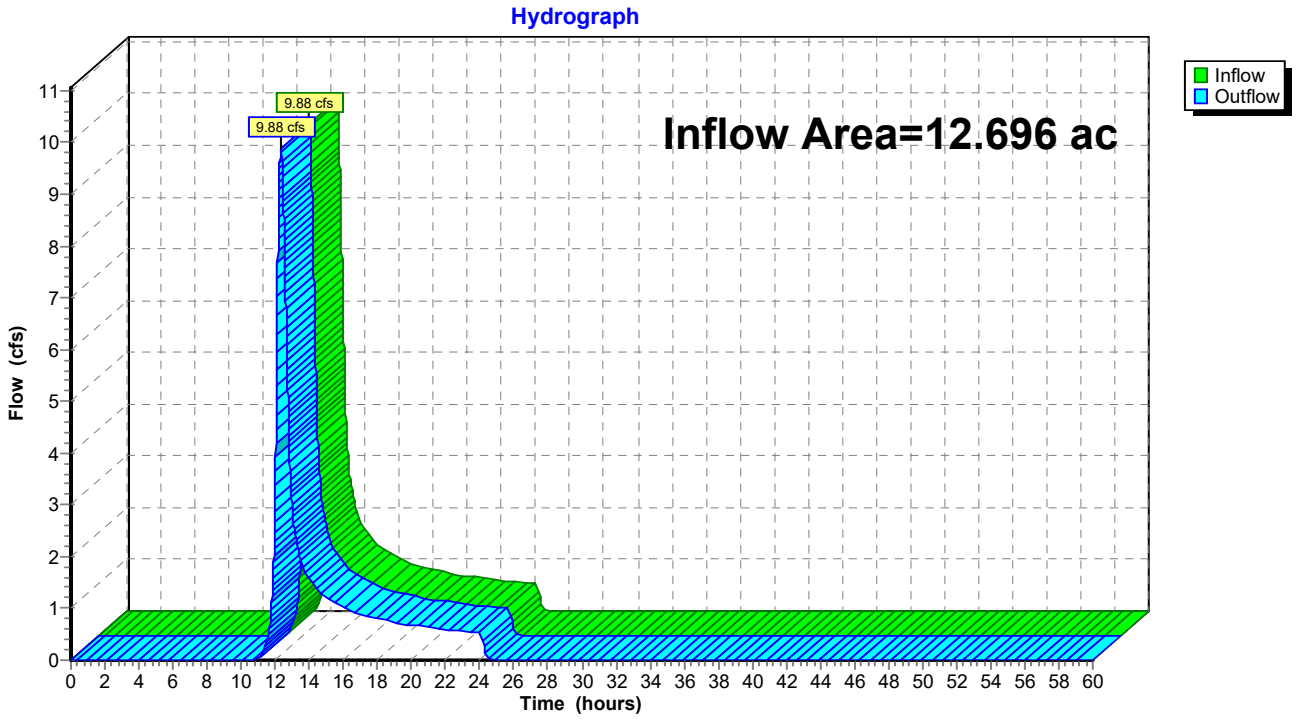


Summary for Reach DP-100: DISCHARGE OFFSITE

Inflow Area = 12.696 ac, 1.30% Impervious, Inflow Depth = 1.38" for 10-yr event
Inflow = 9.88 cfs @ 12.33 hrs, Volume= 1.462 af
Outflow = 9.88 cfs @ 12.33 hrs, Volume= 1.462 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-100: DISCHARGE OFFSITE

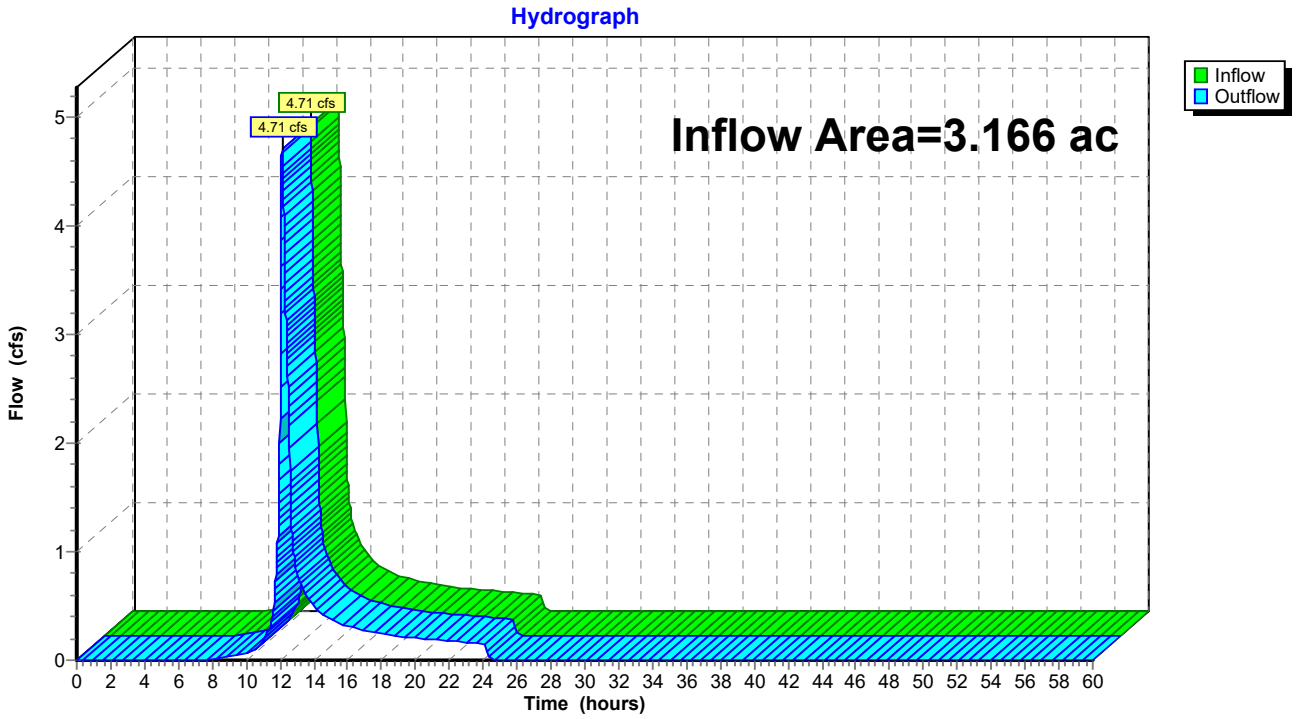


Summary for Reach DP-101: DISCHARGE OFFSITE

Inflow Area = 3.166 ac, 2.94% Impervious, Inflow Depth = 1.97" for 10-yr event
Inflow = 4.71 cfs @ 12.12 hrs, Volume= 0.519 af
Outflow = 4.71 cfs @ 12.12 hrs, Volume= 0.519 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-101: DISCHARGE OFFSITE

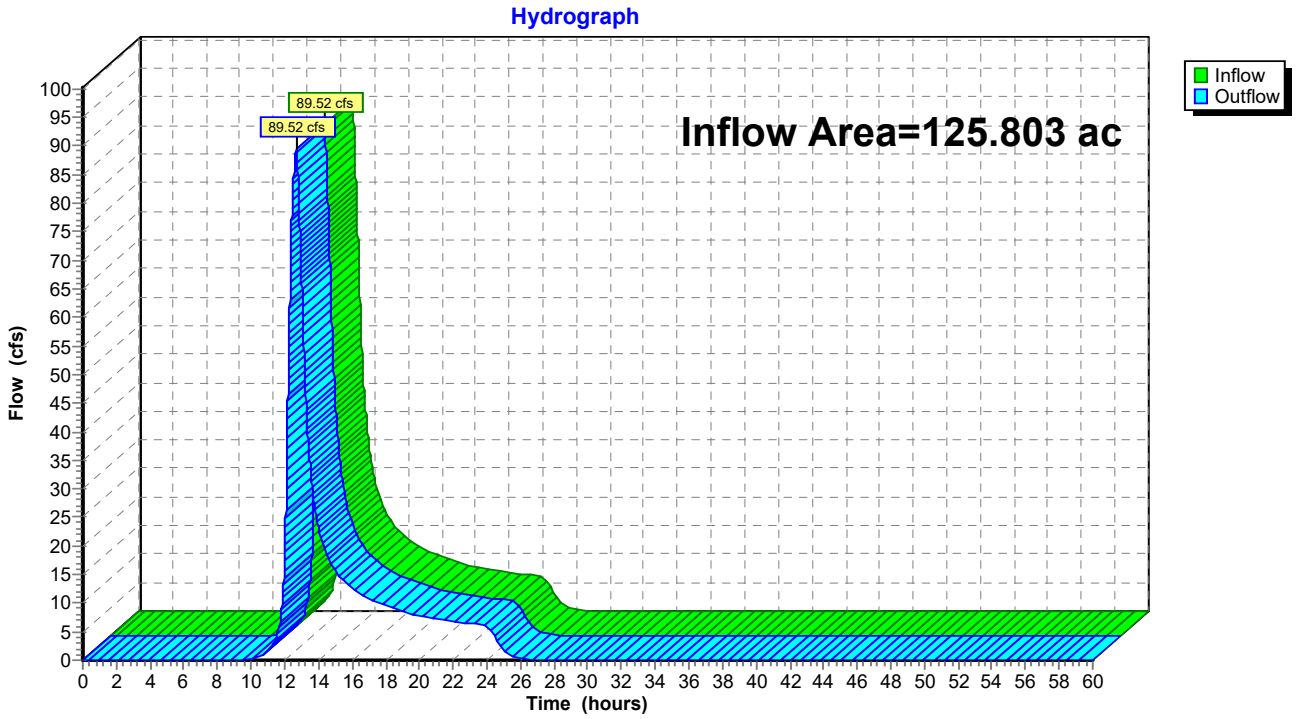


Summary for Reach DP-2: DISCHARGE TOWARDS OIL MILL BROOK

Inflow Area = 125.803 ac, 0.30% Impervious, Inflow Depth = 1.70" for 10-yr event
Inflow = 89.52 cfs @ 12.66 hrs, Volume= 17.834 af
Outflow = 89.52 cfs @ 12.66 hrs, Volume= 17.834 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-2: DISCHARGE TOWARDS OIL MILL BROOK

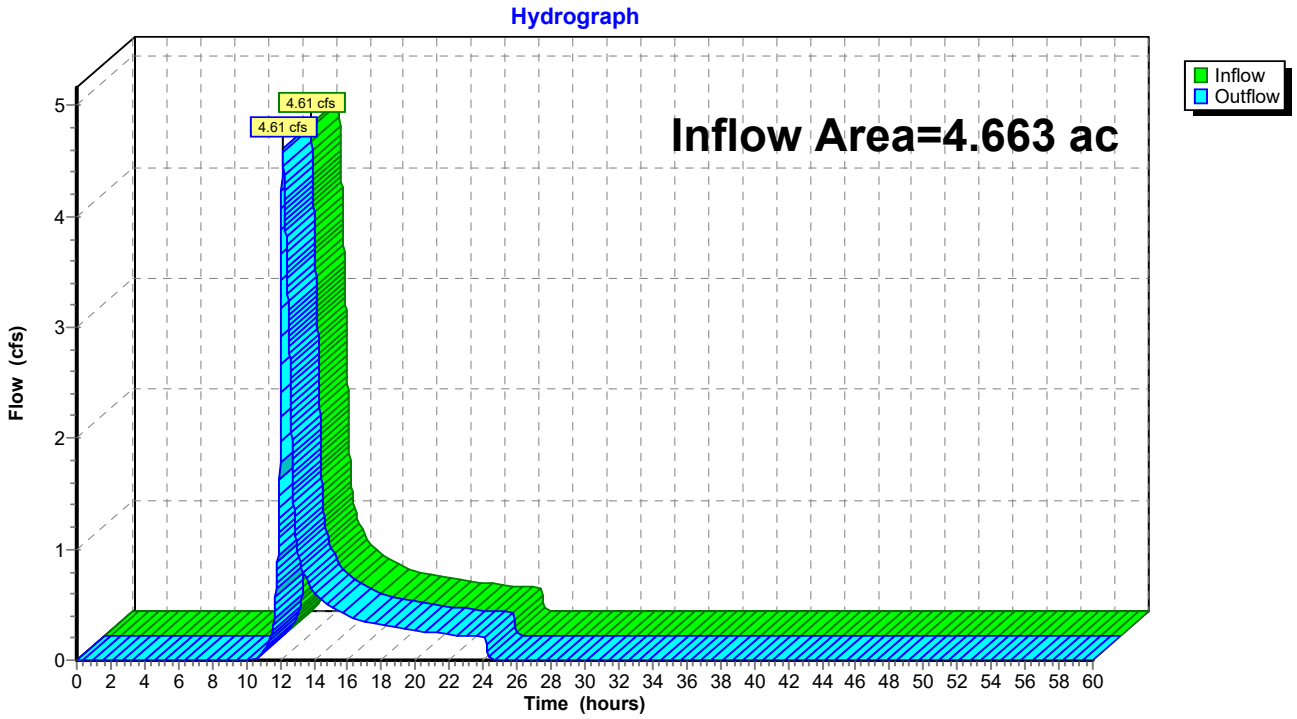


Summary for Reach DP-200: DISCHARGE OFFSITE

Inflow Area = 4.663 ac, 1.92% Impervious, Inflow Depth = 1.55" for 10-yr event
Inflow = 4.61 cfs @ 12.16 hrs, Volume= 0.603 af
Outflow = 4.61 cfs @ 12.16 hrs, Volume= 0.603 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-200: DISCHARGE OFFSITE

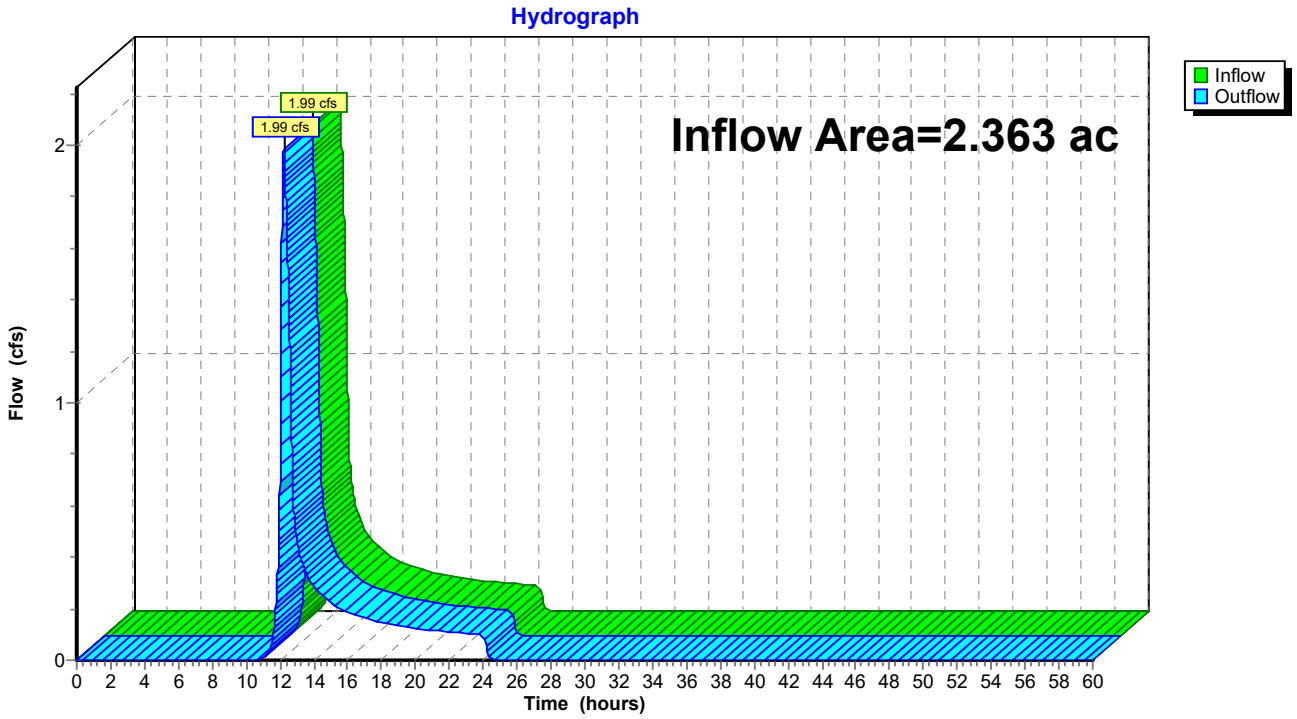


Summary for Reach DP-201: DISCHARGE OFFSITE

Inflow Area = 2.363 ac, 1.57% Impervious, Inflow Depth = 1.36" for 10-yr event
Inflow = 1.99 cfs @ 12.23 hrs, Volume= 0.268 af
Outflow = 1.99 cfs @ 12.23 hrs, Volume= 0.268 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-201: DISCHARGE OFFSITE

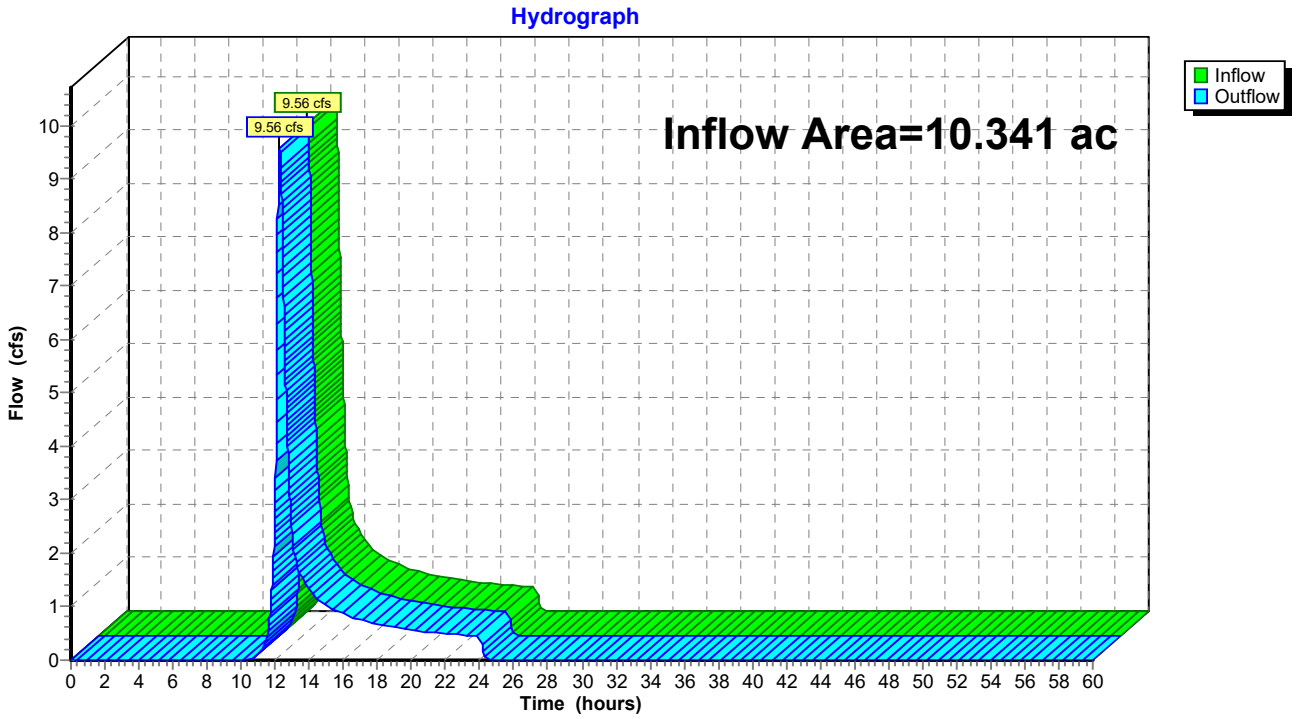


Summary for Reach DP-202: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 10.341 ac, 2.43% Impervious, Inflow Depth = 1.46" for 10-yr event
Inflow = 9.56 cfs @ 12.26 hrs, Volume= 1.258 af
Outflow = 9.56 cfs @ 12.26 hrs, Volume= 1.258 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-202: DISCHARGE TO CENTRAL WETLAND

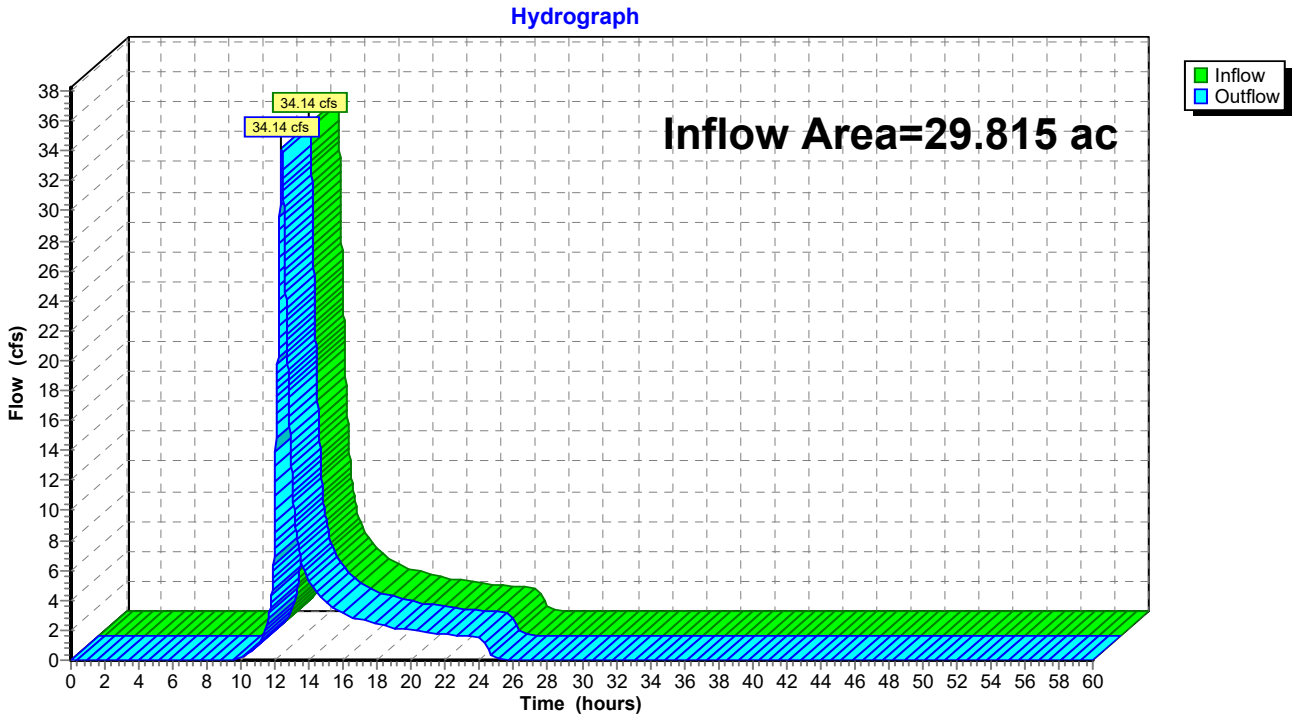


Summary for Reach DP-205: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 29.815 ac, 0.00% Impervious, Inflow Depth = 1.97" for 10-yr event
Inflow = 34.14 cfs @ 12.38 hrs, Volume= 4.903 af
Outflow = 34.14 cfs @ 12.38 hrs, Volume= 4.903 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-205: DISCHARGE TO CENTRAL WETLAND

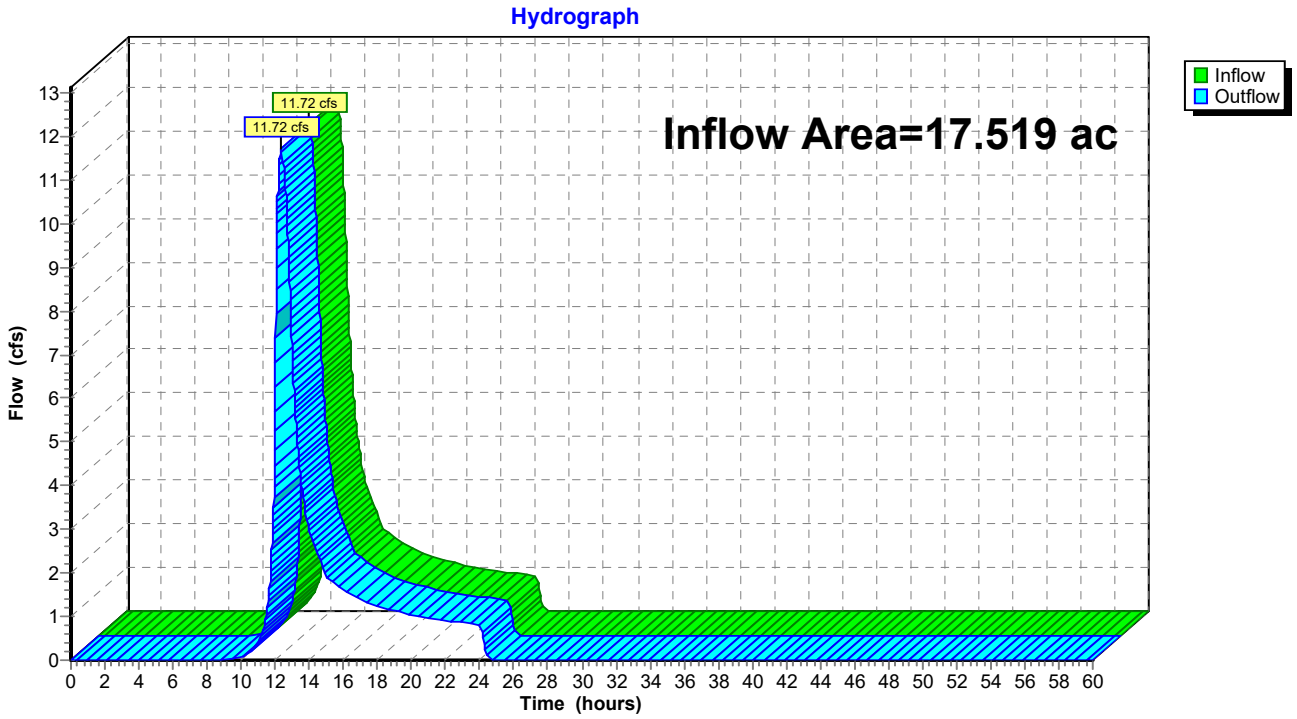


Summary for Reach DP-206: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 17.519 ac, 0.00% Impervious, Inflow Depth = 1.67" for 10-yr event
Inflow = 11.72 cfs @ 12.35 hrs, Volume= 2.440 af
Outflow = 11.72 cfs @ 12.35 hrs, Volume= 2.440 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-206: DISCHARGE TO CENTRAL WETLAND

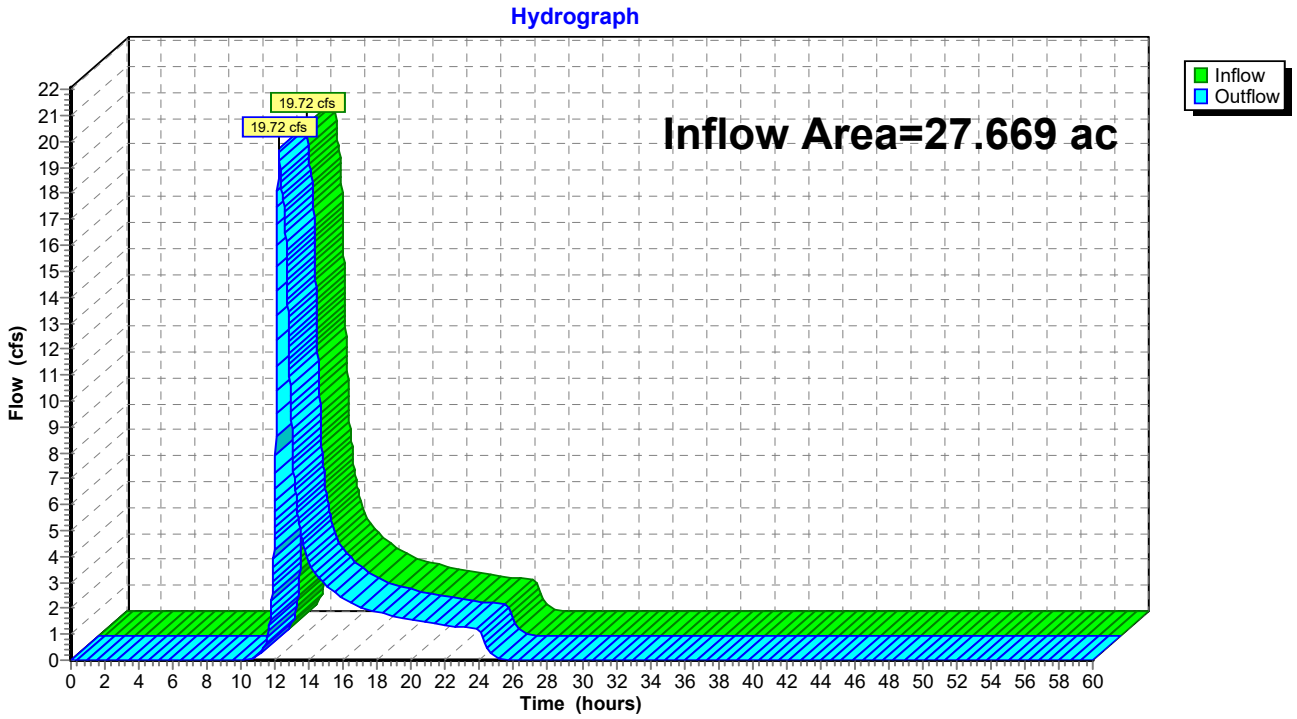


Summary for Reach DP-207: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 27.669 ac, 0.91% Impervious, Inflow Depth = 1.47" for 10-yr event
Inflow = 19.72 cfs @ 12.22 hrs, Volume= 3.391 af
Outflow = 19.72 cfs @ 12.22 hrs, Volume= 3.391 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-207: DISCHARGE TO CENTRAL WETLAND

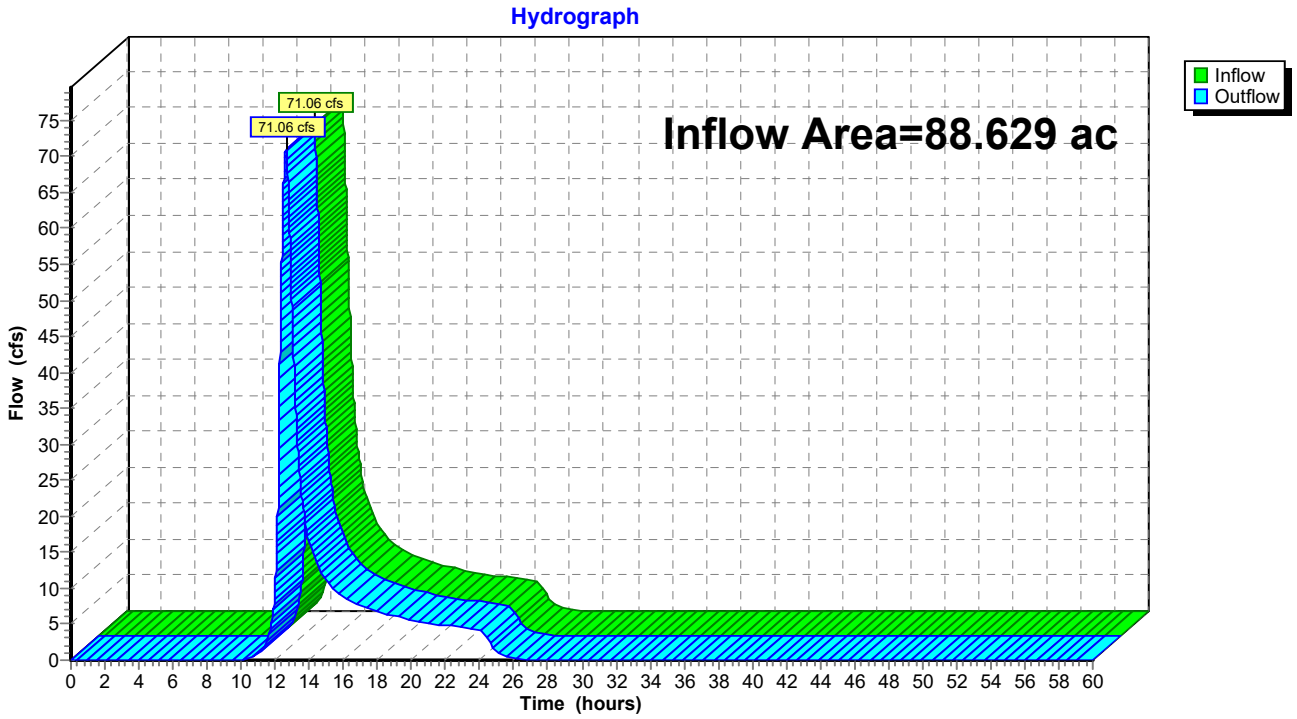


Summary for Reach DP-208: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 88.629 ac, 0.28% Impervious, Inflow Depth = 1.73" for 10-yr event
Inflow = 71.06 cfs @ 12.62 hrs, Volume= 12.813 af
Outflow = 71.06 cfs @ 12.62 hrs, Volume= 12.813 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-208: DISCHARGE TO CENTRAL WETLAND

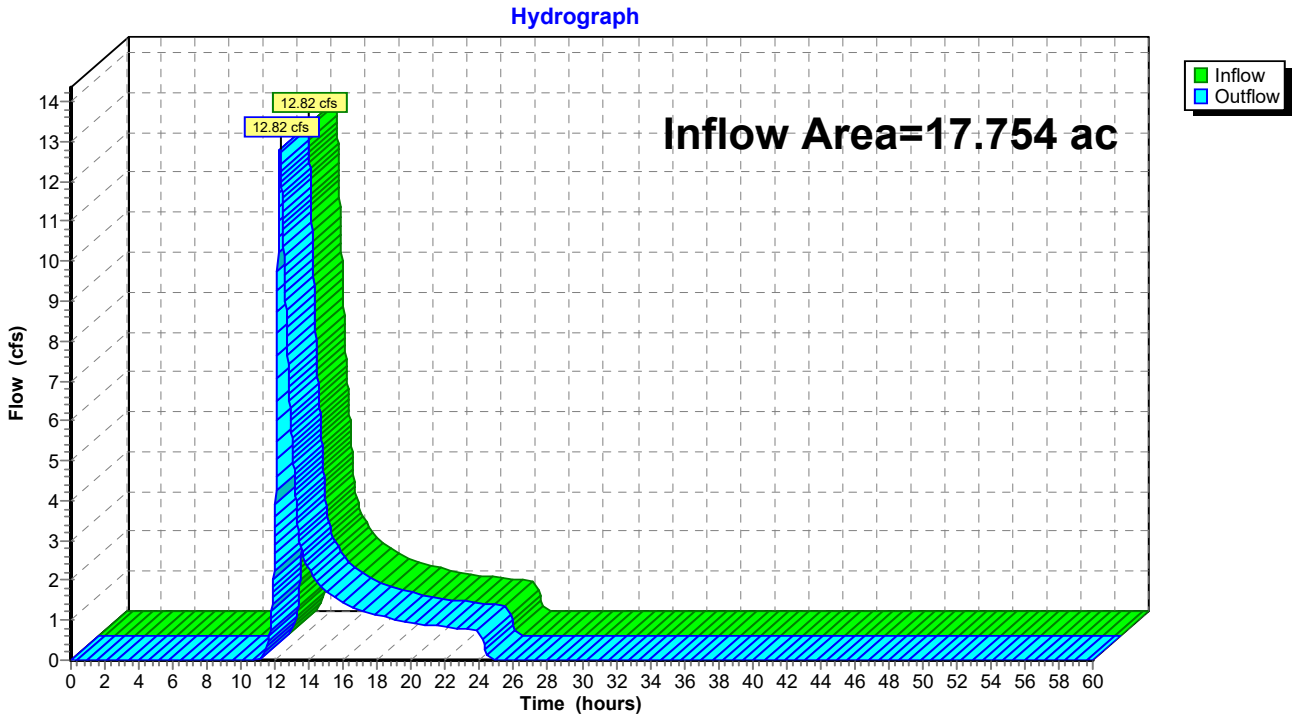


Summary for Reach DP-209: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 17.754 ac, 0.00% Impervious, Inflow Depth = 1.36" for 10-yr event
Inflow = 12.82 cfs @ 12.28 hrs, Volume= 2.015 af
Outflow = 12.82 cfs @ 12.28 hrs, Volume= 2.015 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-209: DISCHARGE TO CENTRAL WETLAND

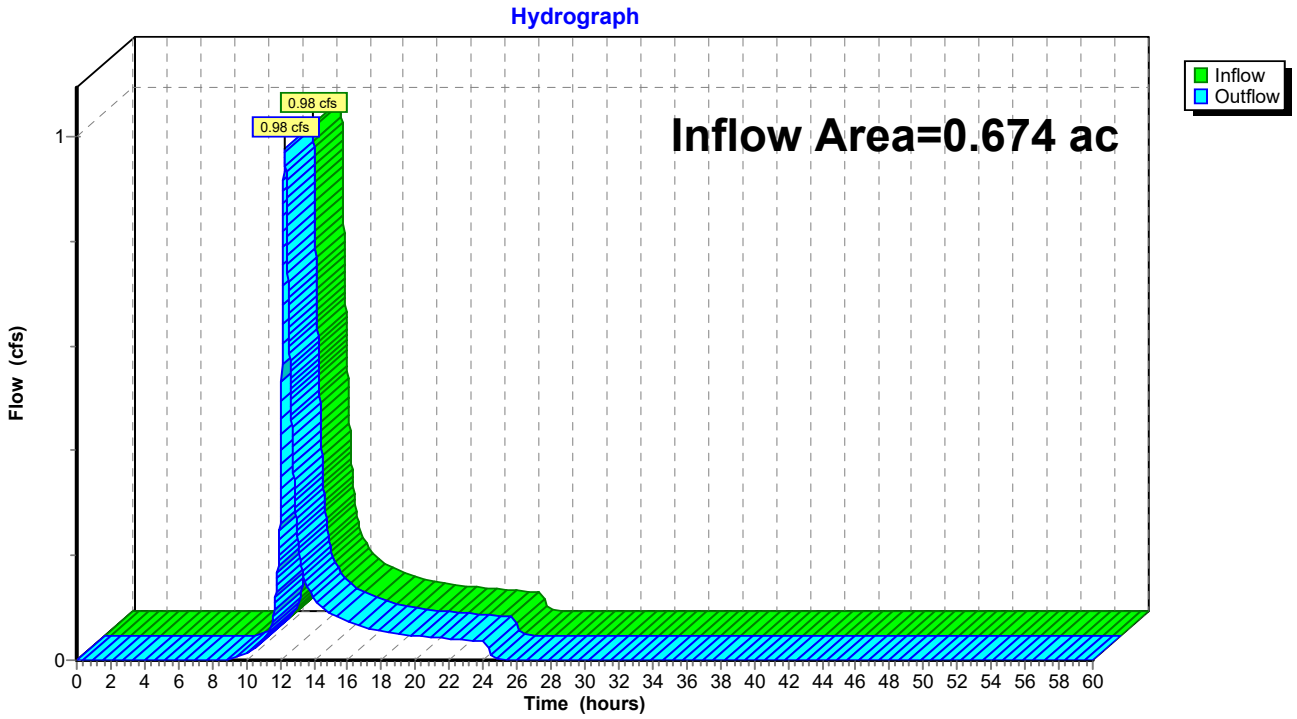


Summary for Reach DP-210: DISCHARGE TO PDA-211

Inflow Area = 0.674 ac, 0.00% Impervious, Inflow Depth = 2.15" for 10-yr event
Inflow = 0.98 cfs @ 12.29 hrs, Volume= 0.121 af
Outflow = 0.98 cfs @ 12.29 hrs, Volume= 0.121 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-210: DISCHARGE TO PDA-211

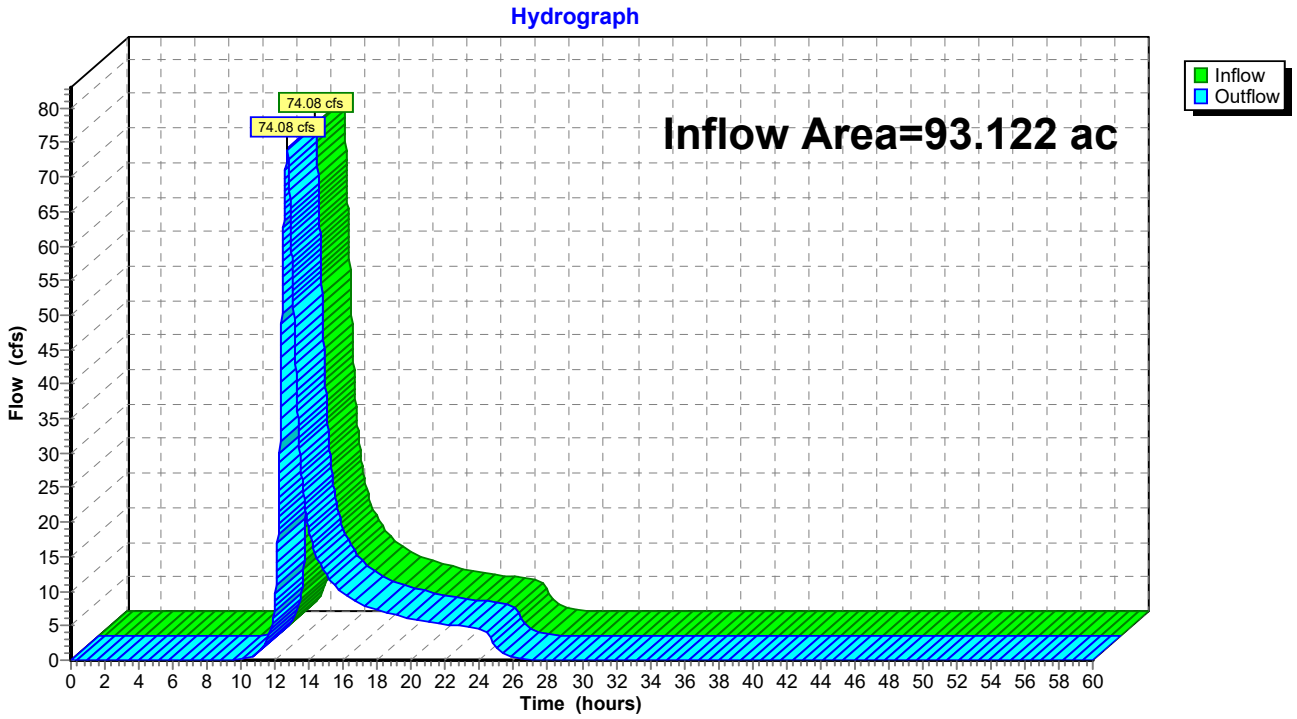


Summary for Reach DP-211: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 93.122 ac, 0.27% Impervious, Inflow Depth = 1.77" for 10-yr event
Inflow = 74.08 cfs @ 12.70 hrs, Volume= 13.752 af
Outflow = 74.08 cfs @ 12.70 hrs, Volume= 13.752 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-211: DISCHARGE TO CENTRAL WETLAND

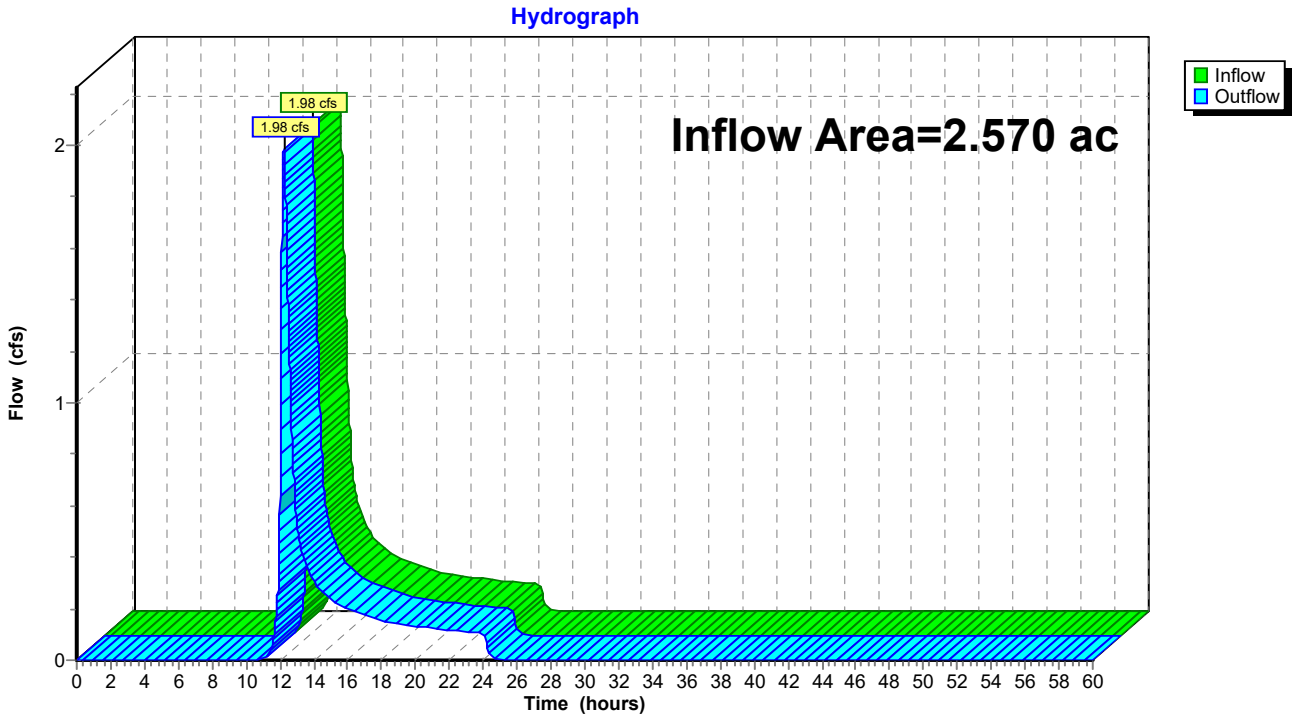


Summary for Reach DP-212: DISCHARGE OFFSITE

Inflow Area = 2.570 ac, 0.00% Impervious, Inflow Depth = 1.29" for 10-yr event
Inflow = 1.98 cfs @ 12.24 hrs, Volume= 0.276 af
Outflow = 1.98 cfs @ 12.24 hrs, Volume= 0.276 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-212: DISCHARGE OFFSITE

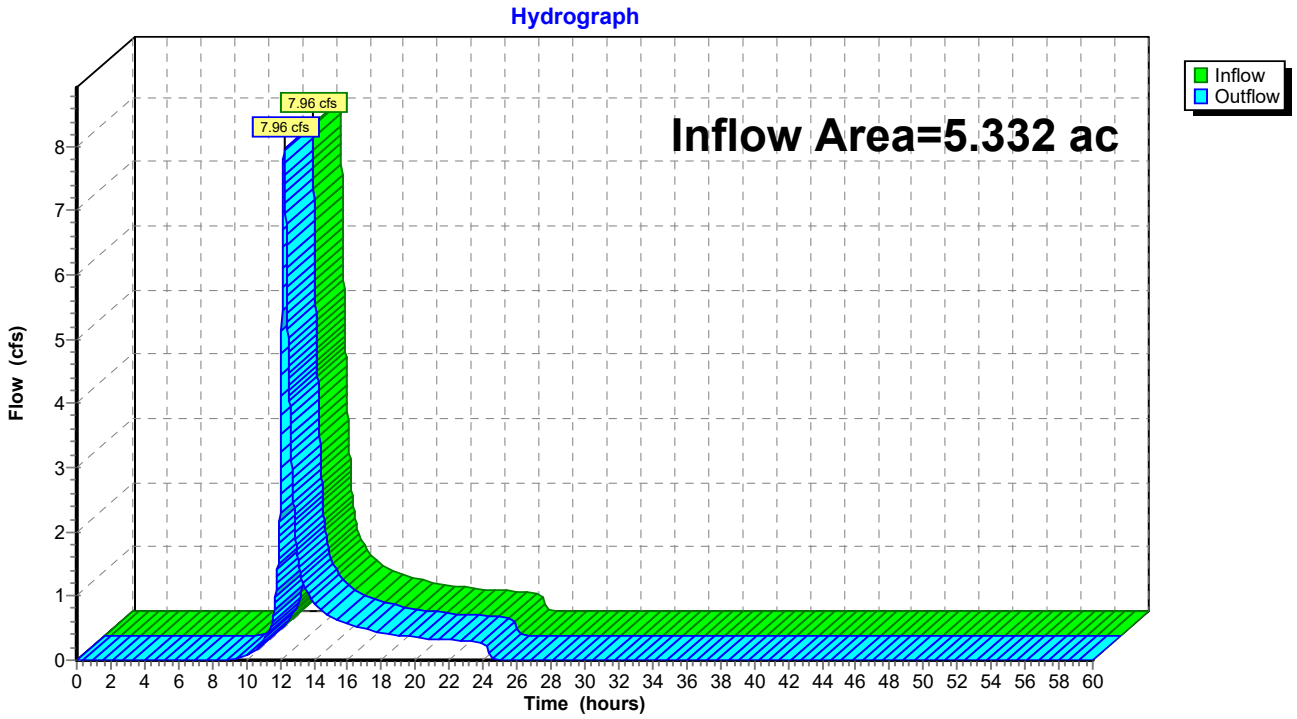


Summary for Reach DP-213: DISCHARGE OFFSITE

Inflow Area = 5.332 ac, 0.00% Impervious, Inflow Depth = 2.07" for 10-yr event
Inflow = 7.96 cfs @ 12.24 hrs, Volume= 0.918 af
Outflow = 7.96 cfs @ 12.24 hrs, Volume= 0.918 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-213: DISCHARGE OFFSITE

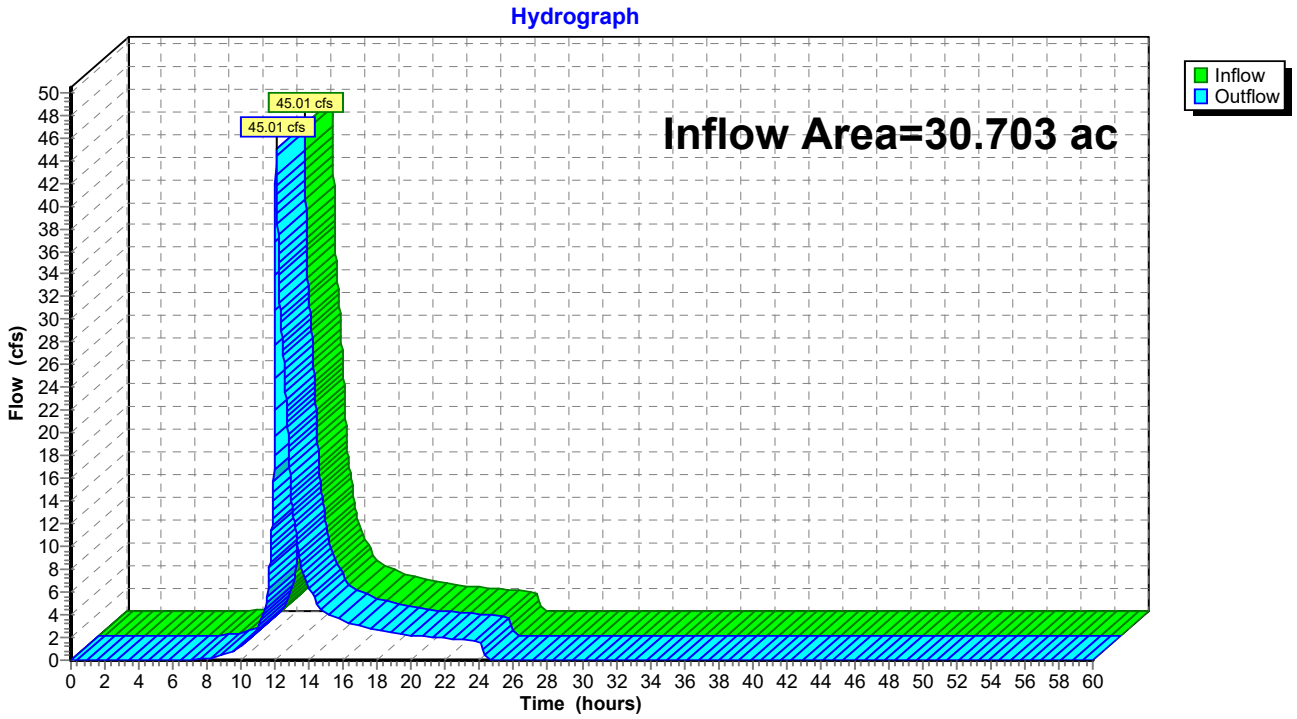


Summary for Reach DP-3: DISCHARGE TOWARDS STONY BROOK

Inflow Area = 30.703 ac, 0.00% Impervious, Inflow Depth = 2.42" for 10-yr event
Inflow = 45.01 cfs @ 12.06 hrs, Volume= 6.179 af
Outflow = 45.01 cfs @ 12.06 hrs, Volume= 6.179 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-3: DISCHARGE TOWARDS STONY BROOK

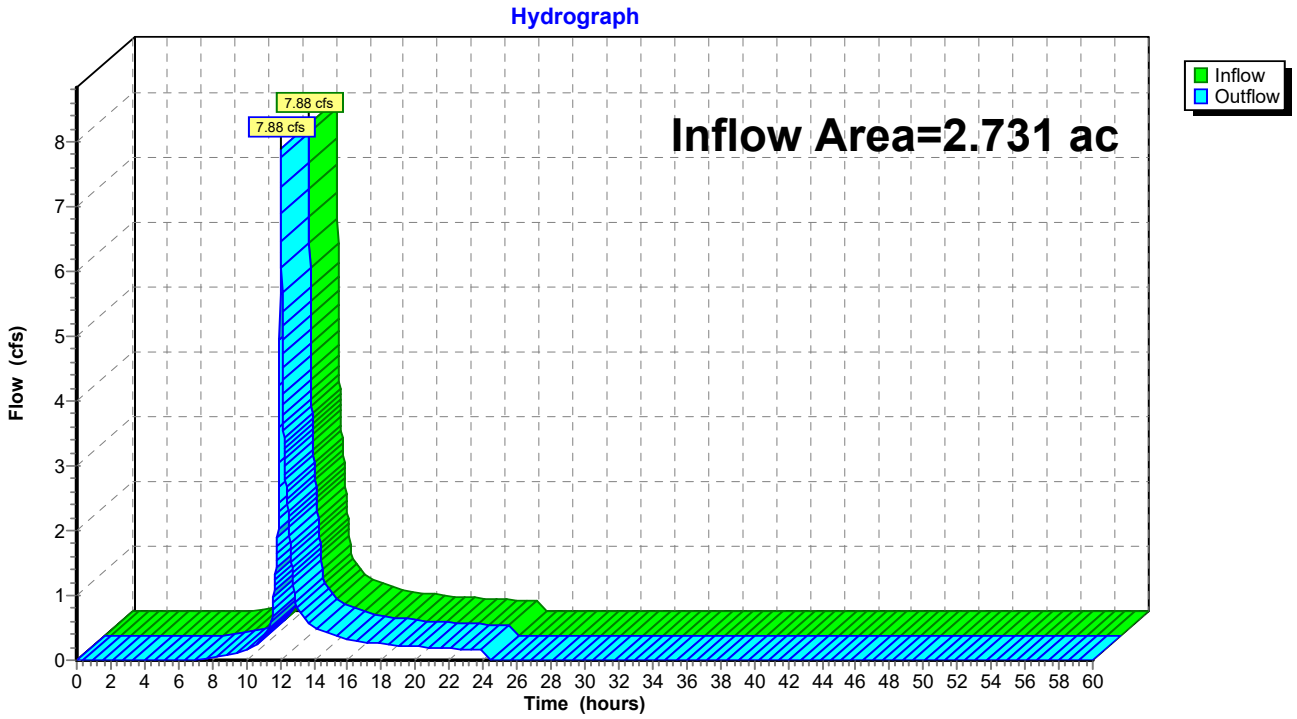


Summary for Reach DP-300: DISCHARGE OFFSITE

Inflow Area = 2.731 ac, 0.00% Impervious, Inflow Depth = 2.70" for 10-yr event
Inflow = 7.88 cfs @ 12.04 hrs, Volume= 0.615 af
Outflow = 7.88 cfs @ 12.04 hrs, Volume= 0.615 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-300: DISCHARGE OFFSITE

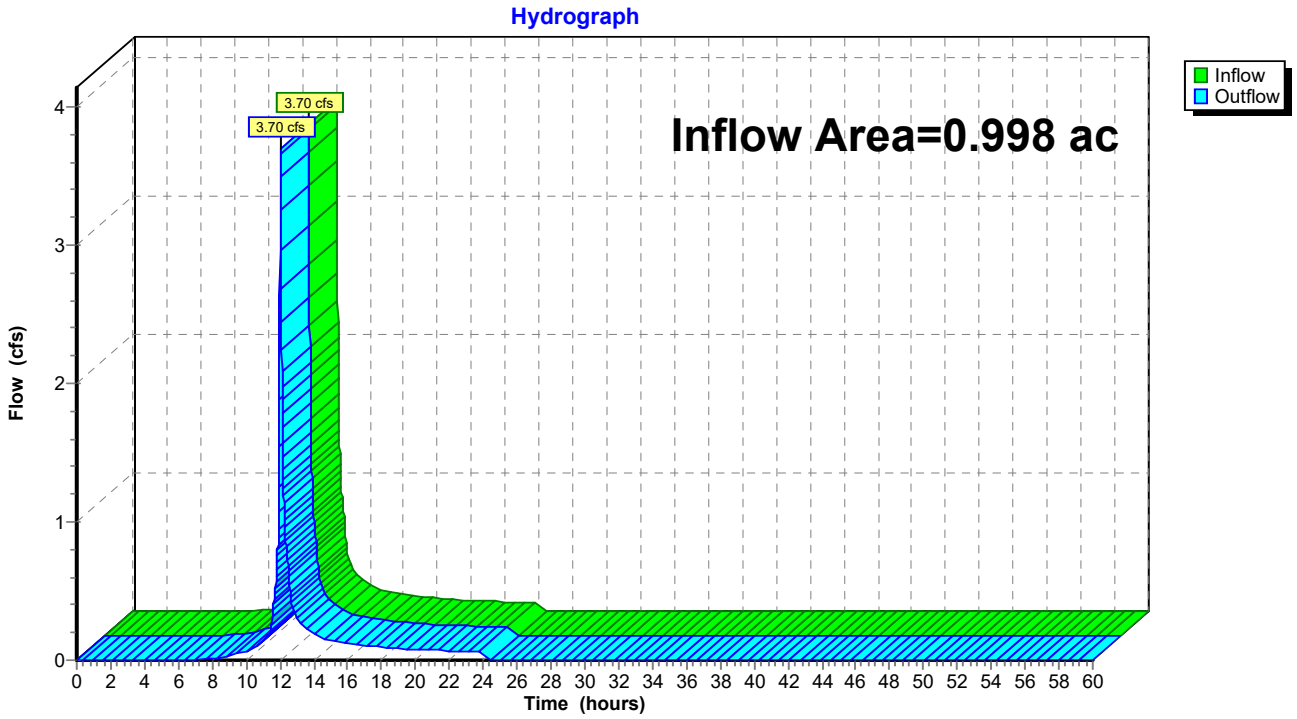


Summary for Reach DP-301: DISCHARGE OFFSITE

Inflow Area = 0.998 ac, 0.00% Impervious, Inflow Depth = 2.75" for 10-yr event
Inflow = 3.70 cfs @ 12.03 hrs, Volume= 0.229 af
Outflow = 3.70 cfs @ 12.03 hrs, Volume= 0.229 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-301: DISCHARGE OFFSITE

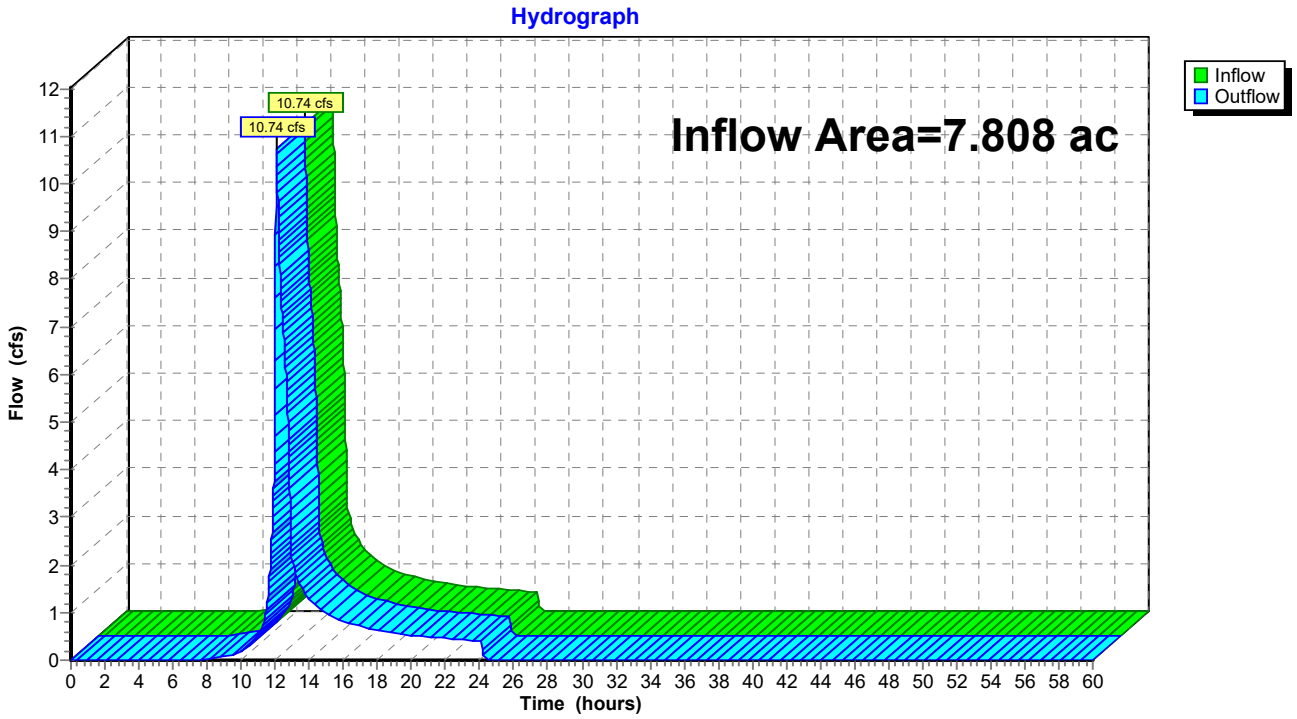


Summary for Reach DP-302: DISCHARGE OFFSITE

Inflow Area = 7.808 ac, 0.00% Impervious, Inflow Depth = 2.13" for 10-yr event
Inflow = 10.74 cfs @ 12.09 hrs, Volume= 1.387 af
Outflow = 10.74 cfs @ 12.09 hrs, Volume= 1.387 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-302: DISCHARGE OFFSITE

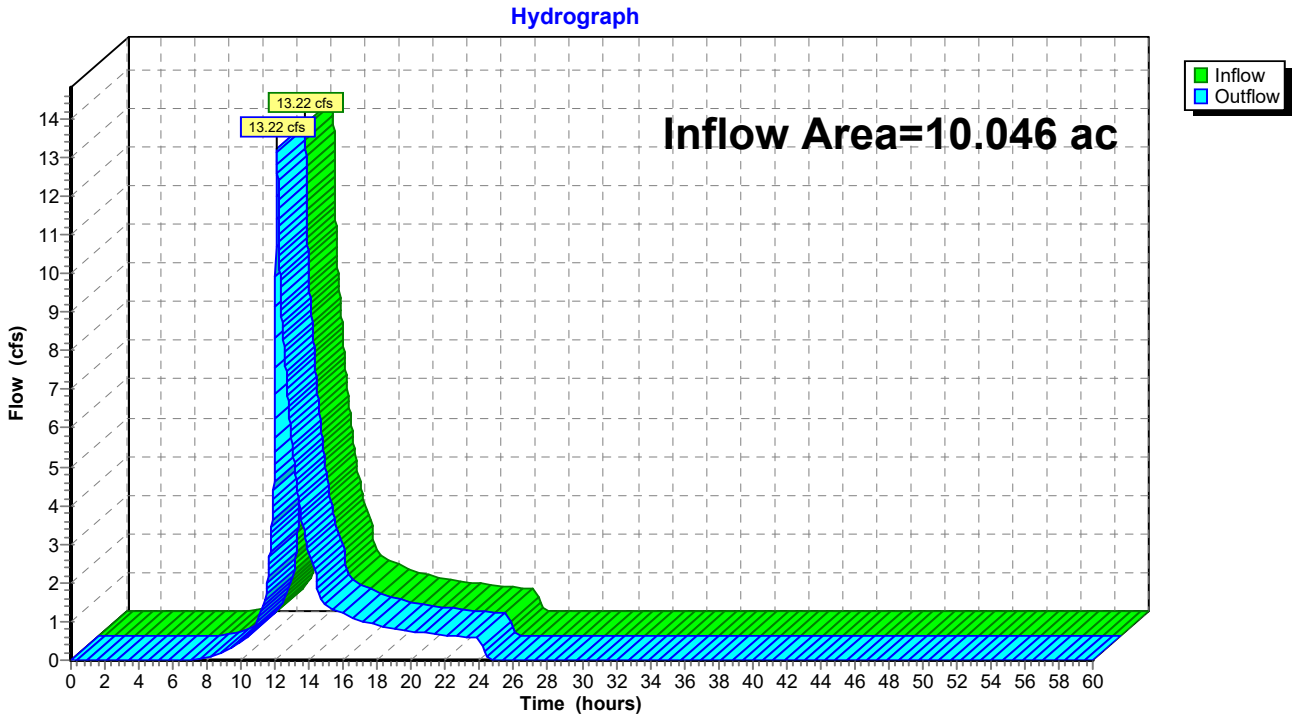


Summary for Reach DP-303: DISCHARGE TO EASTERN WETLAND

Inflow Area = 10.046 ac, 0.00% Impervious, Inflow Depth = 2.55" for 10-yr event
Inflow = 13.22 cfs @ 12.10 hrs, Volume= 2.131 af
Outflow = 13.22 cfs @ 12.10 hrs, Volume= 2.131 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-303: DISCHARGE TO EASTERN WETLAND

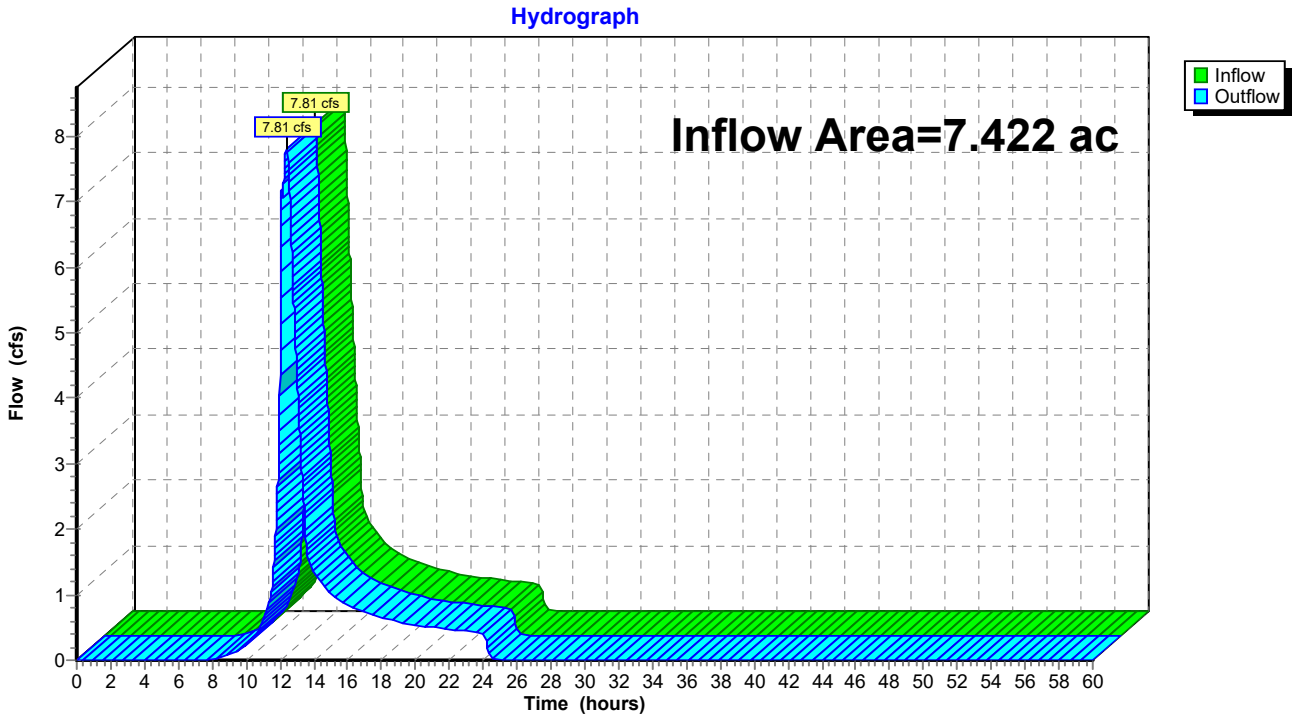


Summary for Reach DP-304: DISCHARGE OFFSITE

Inflow Area = 7.422 ac, 0.00% Impervious, Inflow Depth = 2.37" for 10-yr event
Inflow = 7.81 cfs @ 12.38 hrs, Volume= 1.466 af
Outflow = 7.81 cfs @ 12.38 hrs, Volume= 1.466 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-304: DISCHARGE OFFSITE

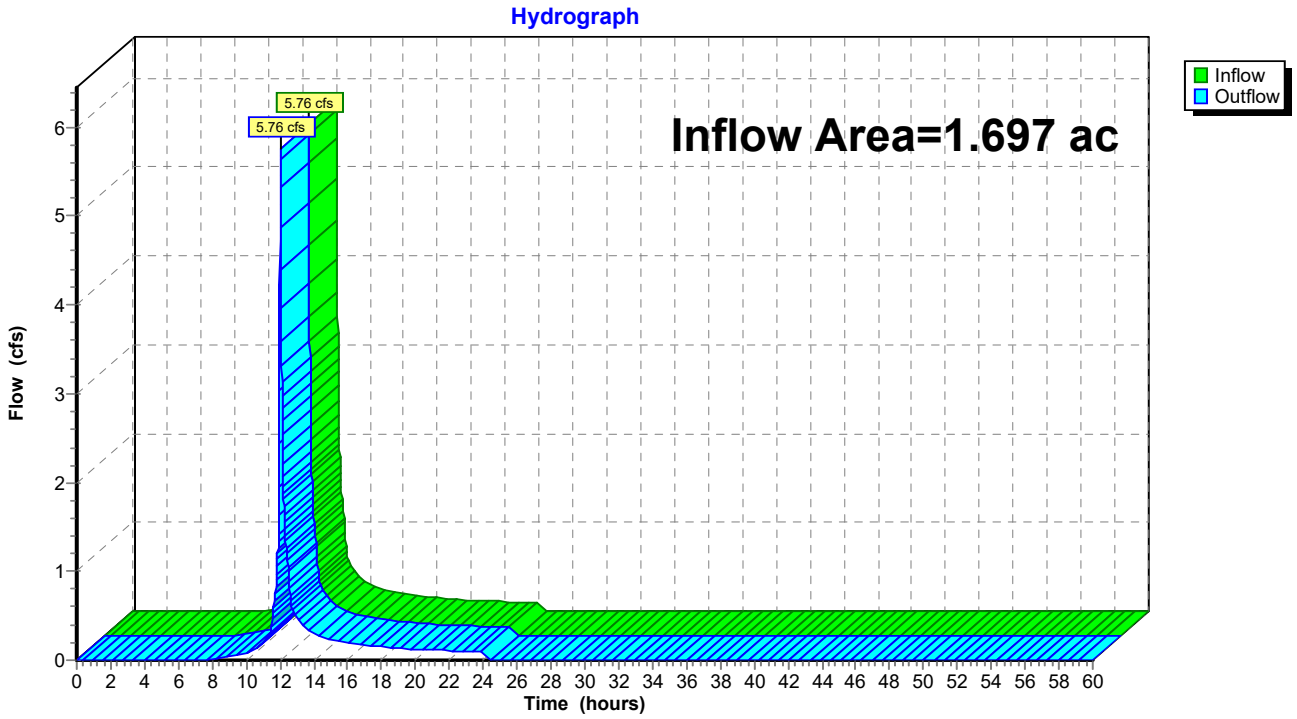


Summary for Reach DP-305: DISCHARGE OFFSITE

Inflow Area = 1.697 ac, 0.00% Impervious, Inflow Depth = 2.48" for 10-yr event
Inflow = 5.76 cfs @ 12.03 hrs, Volume= 0.351 af
Outflow = 5.76 cfs @ 12.03 hrs, Volume= 0.351 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-305: DISCHARGE OFFSITE



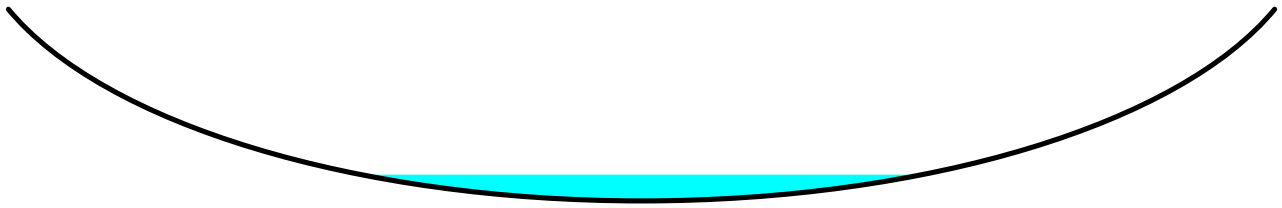
Summary for Reach R-202: FLOW THROUGH CENTRAL WETLAND PDA-207.2

Inflow Area = 10.341 ac, 2.43% Impervious, Inflow Depth = 1.46" for 10-yr event
Inflow = 9.56 cfs @ 12.26 hrs, Volume= 1.258 af
Outflow = 8.27 cfs @ 12.59 hrs, Volume= 1.258 af, Atten= 13%, Lag= 20.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.58 fps, Min. Travel Time= 10.9 min
Avg. Velocity = 0.59 fps, Avg. Travel Time= 29.2 min

Peak Storage= 5,419 cf @ 12.41 hrs
Average Depth at Peak Storage= 0.27'
Bank-Full Depth= 2.00' Flow Area= 104.0 sf, Capacity= 617.17 cfs

78.00' x 2.00' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 1,032.8' Slope= 0.0697 '/'
Inlet Invert= 188.00', Outlet Invert= 116.00'



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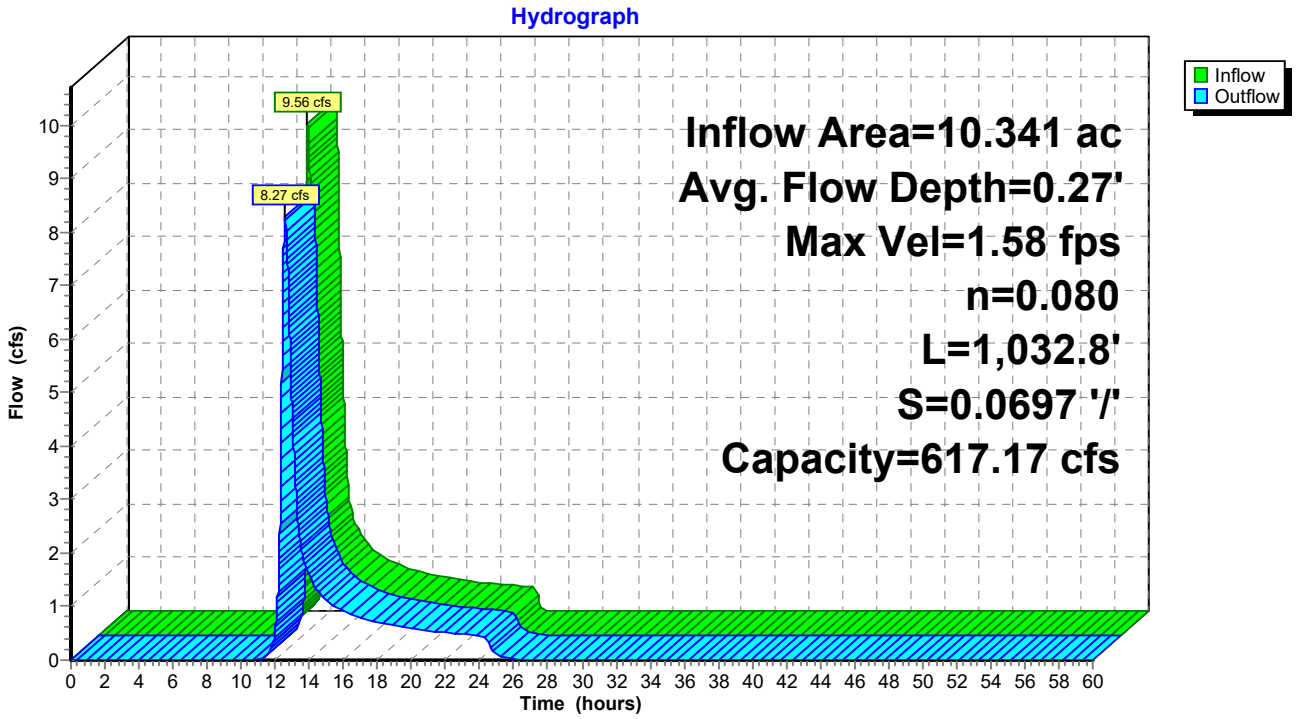
Reach R-202: FLOW THROUGH CENTRAL WETLAND PDA-207.2



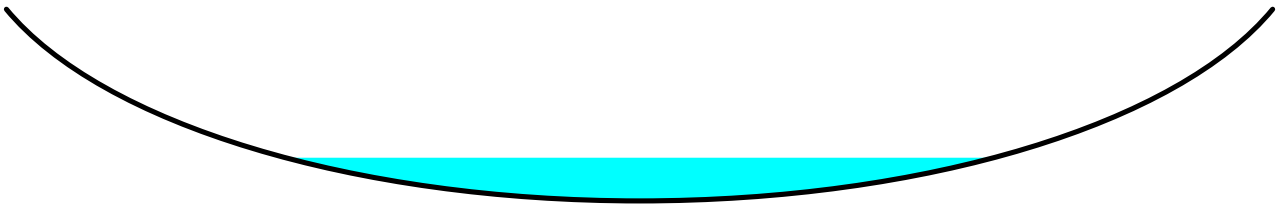
Summary for Reach R-203: SHALLOW CONCENTRATED FLOW THROUGH PDA-205.3

Inflow Area = 18.396 ac, 0.00% Impervious, Inflow Depth = 2.07" for 10-yr event
Inflow = 24.29 cfs @ 12.33 hrs, Volume= 3.169 af
Outflow = 23.89 cfs @ 12.42 hrs, Volume= 3.169 af, Atten= 2%, Lag= 5.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.22 fps, Min. Travel Time= 3.3 min
Avg. Velocity = 0.85 fps, Avg. Travel Time= 8.5 min

Peak Storage= 4,663 cf @ 12.36 hrs
Average Depth at Peak Storage= 0.56'
Bank-Full Depth= 2.50' Flow Area= 100.0 sf, Capacity= 597.69 cfs

60.00' x 2.50' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 434.0' Slope= 0.0527 '/'
Inlet Invert= 178.88', Outlet Invert= 156.00'



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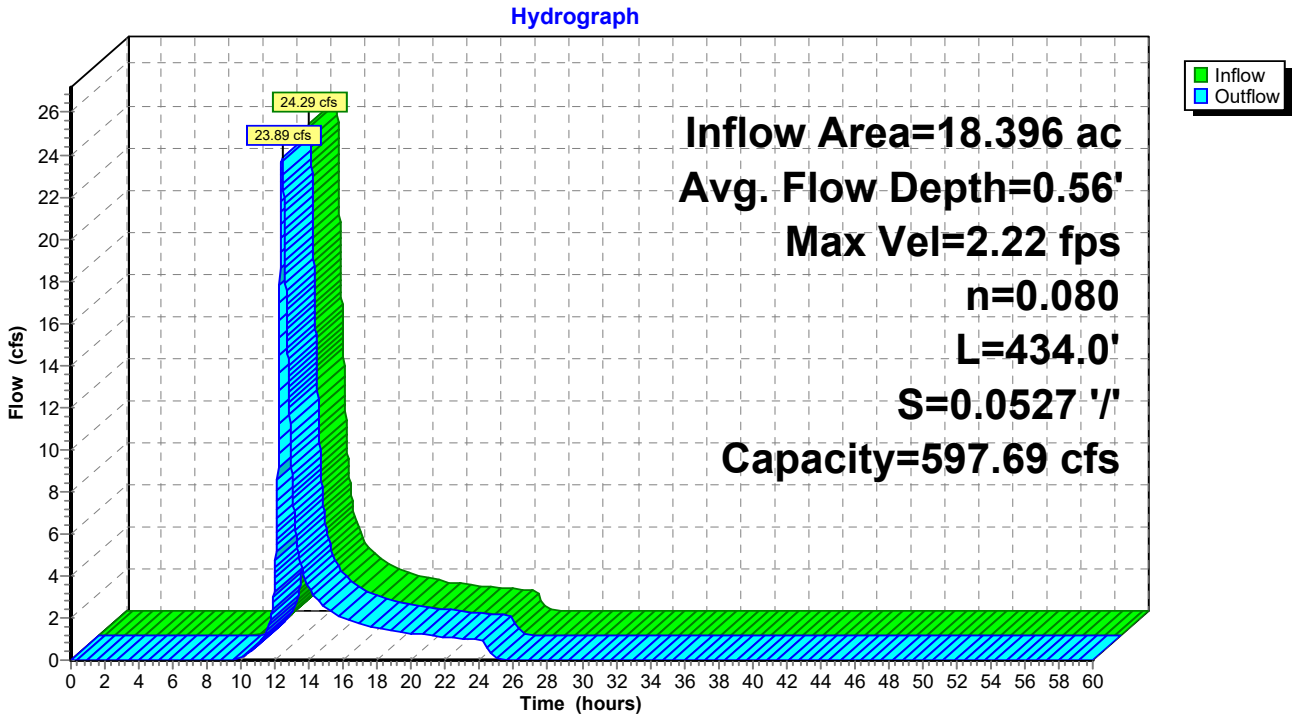
Reach R-203: SHALLOW CONCENTRATED FLOW THROUGH PDA-205.3



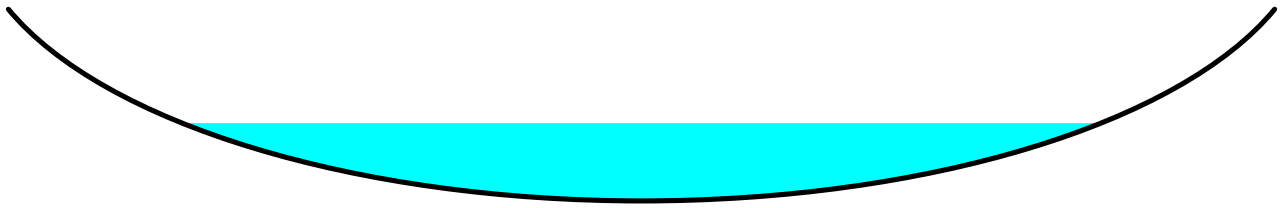
Summary for Reach R-204: SHALLOW CONCENTRATED FLOW THROUGH PDA-205.3

Inflow Area = 1.091 ac, 0.00% Impervious, Inflow Depth = 1.39" for 10-yr event
Inflow = 1.10 cfs @ 12.20 hrs, Volume= 0.126 af
Outflow = 0.82 cfs @ 12.55 hrs, Volume= 0.126 af, Atten= 26%, Lag= 21.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 0.59 fps, Min. Travel Time= 12.5 min
Avg. Velocity = 0.18 fps, Avg. Travel Time= 42.1 min

Peak Storage= 615 cf @ 12.34 hrs
Average Depth at Peak Storage= 0.08'
Bank-Full Depth= 0.20' Flow Area= 5.3 sf, Capacity= 5.78 cfs

40.00' x 0.20' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 446.0' Slope= 0.0499 '/'
Inlet Invert= 178.27', Outlet Invert= 156.00'



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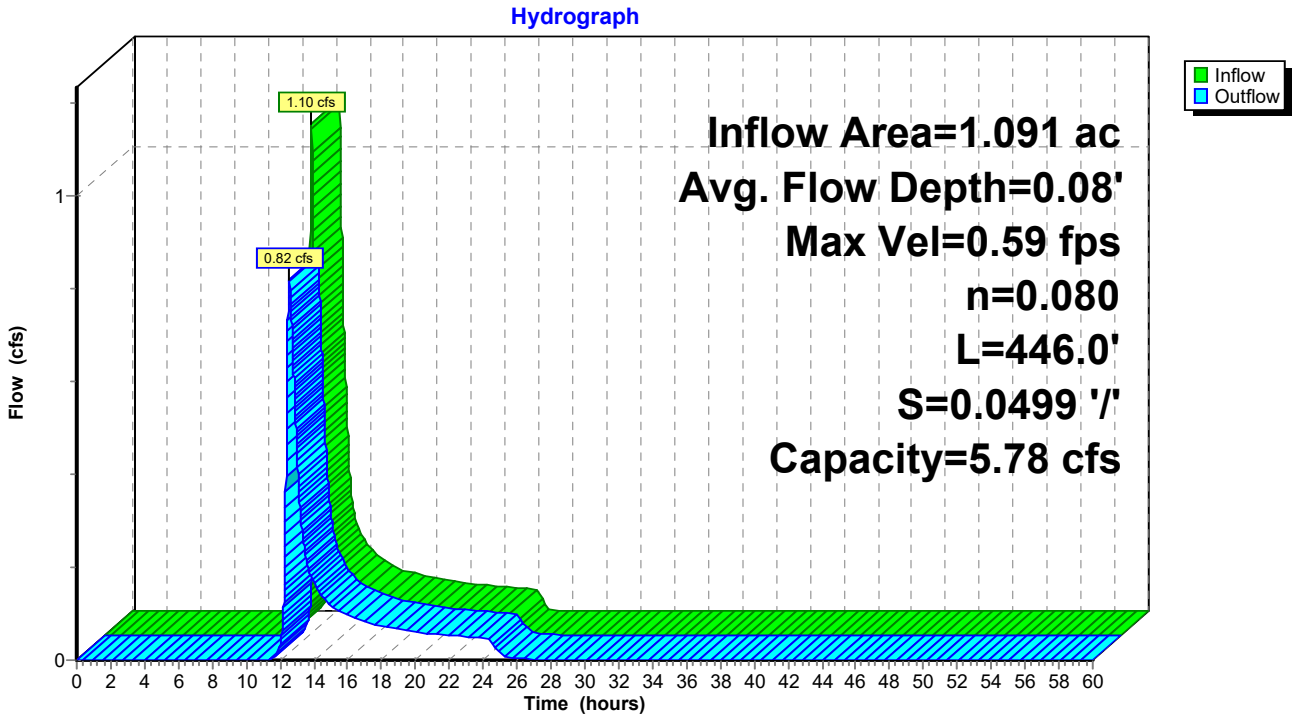
Reach R-204: SHALLOW CONCENTRATED FLOW THROUGH PDA-205.3



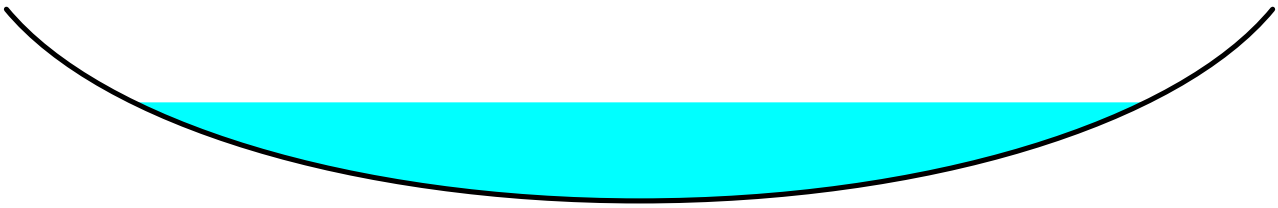
Summary for Reach R-205.2: SHALLOW CONCENTRATED FLOW THROUGH PDA-205.3

Inflow Area = 4.938 ac, 0.00% Impervious, Inflow Depth = 1.91" for 10-yr event
Inflow = 8.31 cfs @ 12.14 hrs, Volume= 0.785 af
Outflow = 7.15 cfs @ 12.32 hrs, Volume= 0.785 af, Atten= 14%, Lag= 10.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.21 fps, Min. Travel Time= 6.1 min
Avg. Velocity = 0.35 fps, Avg. Travel Time= 21.2 min

Peak Storage= 2,635 cf @ 12.21 hrs
Average Depth at Peak Storage= 0.21'
Bank-Full Depth= 0.40' Flow Area= 16.0 sf, Capacity= 30.16 cfs

60.00' x 0.40' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 446.0' Slope= 0.0600 '/'
Inlet Invert= 178.27', Outlet Invert= 151.51'



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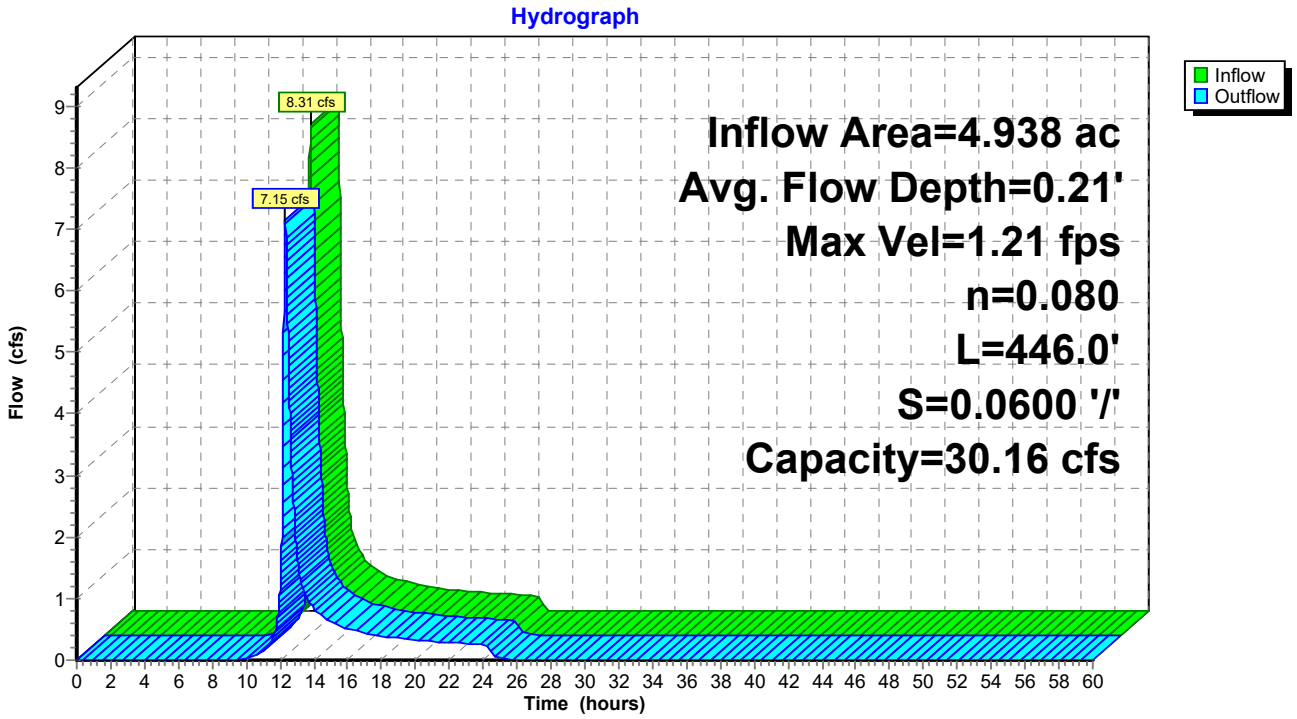
Reach R-205.2: SHALLOW CONCENTRATED FLOW THROUGH PDA-205.3



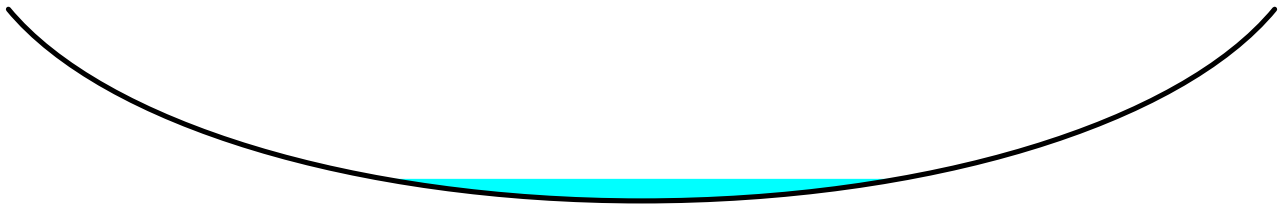
Summary for Reach R-205/206: FLOW THROUGH CENTRAL WETLAND PDA-208.2

Inflow Area = 47.334 ac, 0.00% Impervious, Inflow Depth = 1.86" for 10-yr event
Inflow = 45.84 cfs @ 12.38 hrs, Volume= 7.343 af
Outflow = 42.17 cfs @ 12.67 hrs, Volume= 7.343 af, Atten= 8%, Lag= 17.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.76 fps, Min. Travel Time= 9.9 min
Avg. Velocity = 0.64 fps, Avg. Travel Time= 27.4 min

Peak Storage= 25,157 cf @ 12.50 hrs
Average Depth at Peak Storage= 0.46'
Bank-Full Depth= 4.00' Flow Area= 610.7 sf, Capacity= 4,524.76 cfs

229.00' x 4.00' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 1,050.0' Slope= 0.0431 '/'
Inlet Invert= 148.40', Outlet Invert= 103.17'



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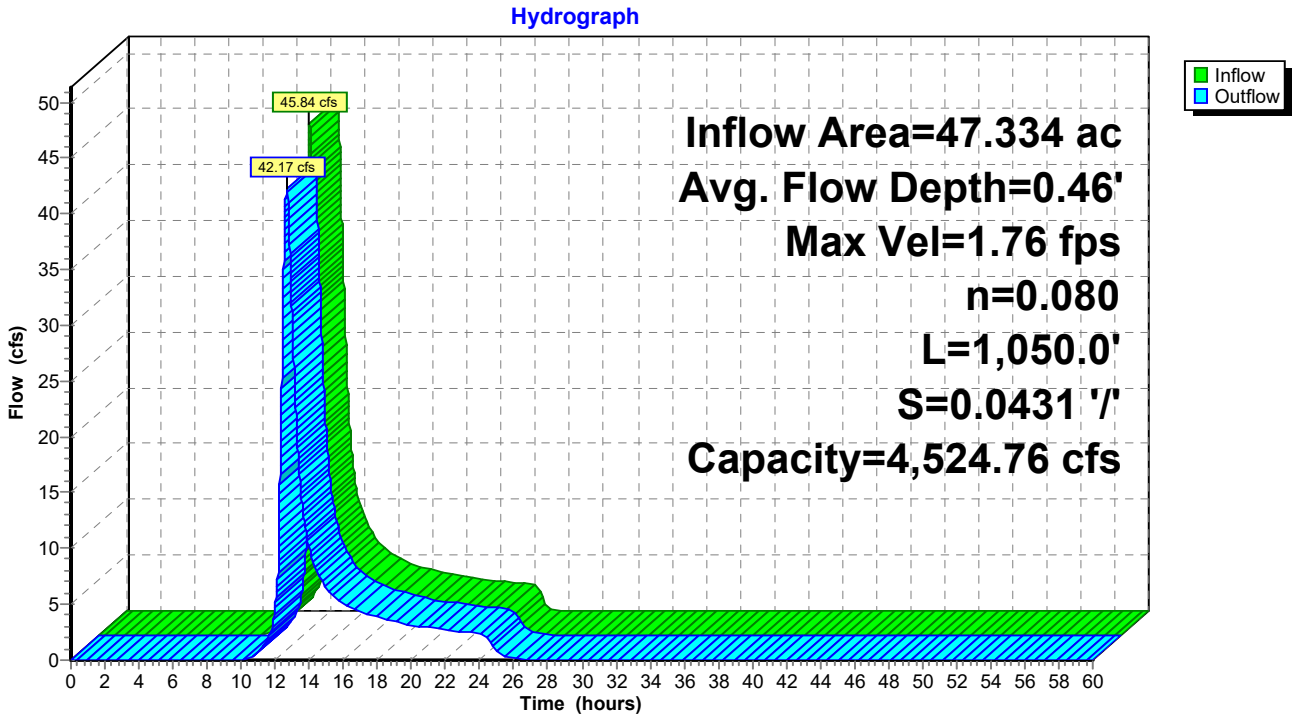
Reach R-205/206: FLOW THROUGH CENTRAL WETLAND PDA-208.2



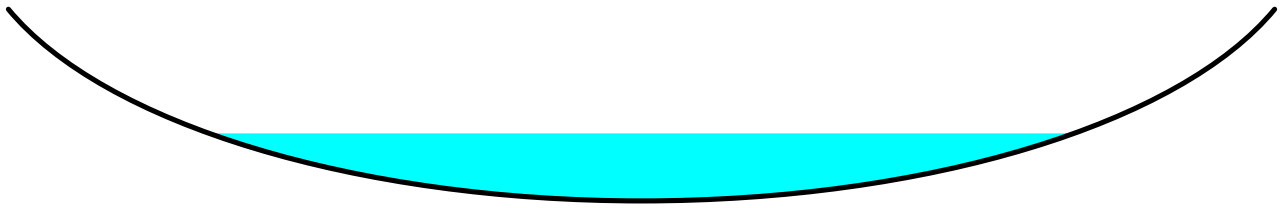
Summary for Reach R-207: FLOW THROUGH CENTRAL WETLAND PDA-208.2

Inflow Area = 27.669 ac, 0.91% Impervious, Inflow Depth = 1.47" for 10-yr event
Inflow = 19.72 cfs @ 12.22 hrs, Volume= 3.391 af
Outflow = 18.73 cfs @ 12.38 hrs, Volume= 3.391 af, Atten= 5%, Lag= 9.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.01 fps, Min. Travel Time= 4.8 min
Avg. Velocity = 0.33 fps, Avg. Travel Time= 14.6 min

Peak Storage= 5,429 cf @ 12.30 hrs
Average Depth at Peak Storage= 0.26'
Bank-Full Depth= 0.75' Flow Area= 89.0 sf, Capacity= 179.76 cfs

178.00' x 0.75' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 292.0' Slope= 0.0298 '/'
Inlet Invert= 111.87', Outlet Invert= 103.17'



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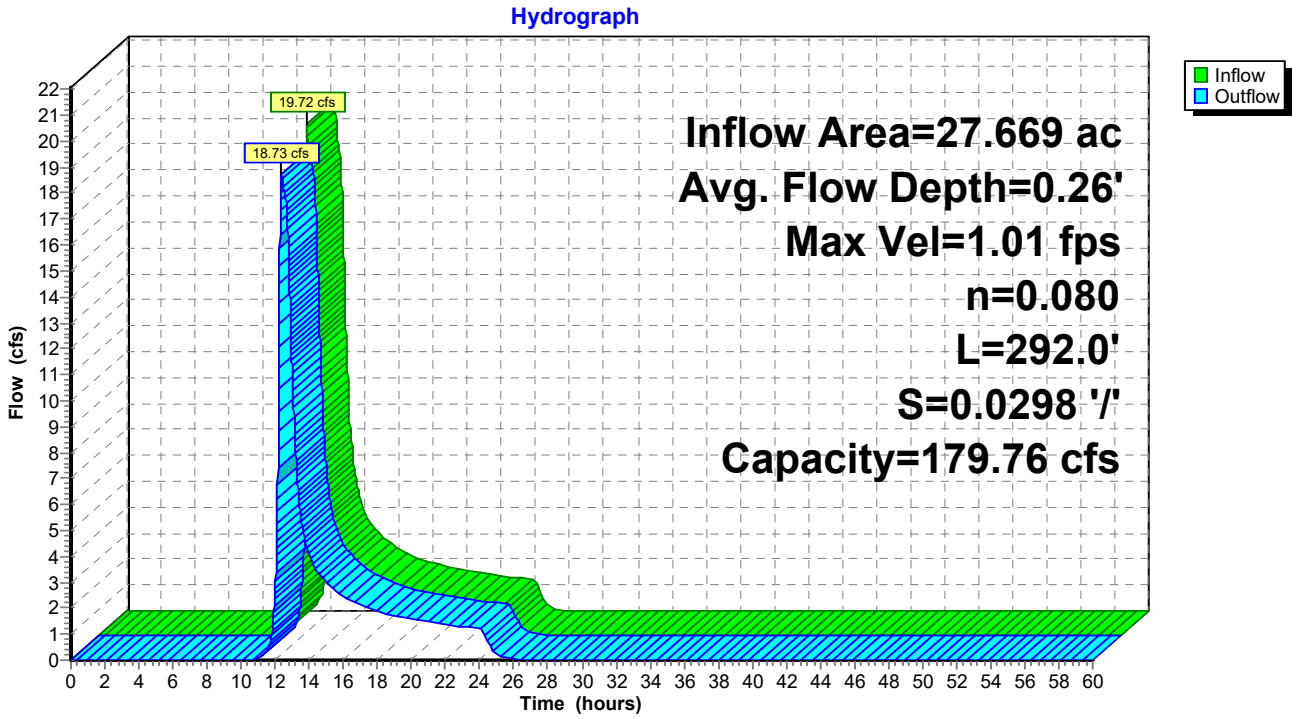
Reach R-207: FLOW THROUGH CENTRAL WETLAND PDA-208.2



Summary for Reach R-207.1: DISCHARGE INTO SWALE/ROUTE THROUGH PDA-206.1

Inflow Area = 0.231 ac, 0.00% Impervious, Inflow Depth = 1.25" for 10-yr event
Inflow = 0.22 cfs @ 12.16 hrs, Volume= 0.024 af
Outflow = 0.22 cfs @ 12.20 hrs, Volume= 0.024 af, Atten= 1%, Lag= 2.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.01 fps, Min. Travel Time= 1.5 min
Avg. Velocity = 0.90 fps, Avg. Travel Time= 3.4 min

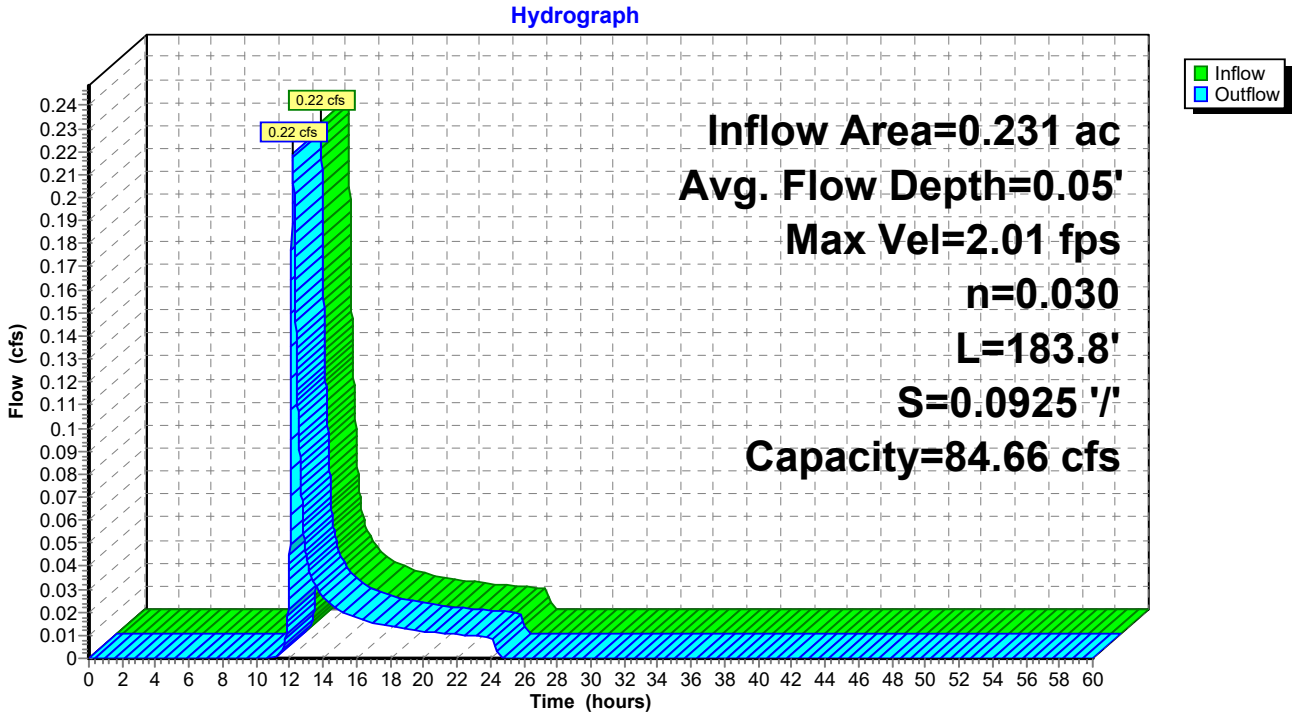
Peak Storage= 20 cf @ 12.18 hrs
Average Depth at Peak Storage= 0.05'
Bank-Full Depth= 1.33' Flow Area= 6.7 sf, Capacity= 84.66 cfs

Custom cross-section, Length= 183.8' Slope= 0.0925 '/'
Constant n= 0.030 Short grass
Inlet Invert= 215.11', Outlet Invert= 198.10'

Offset (feet)	Elevation (feet)	Chan.Depth (feet)
-4.00	1.33	0.00
-1.00	0.00	1.33
1.00	0.00	1.33
4.00	1.33	0.00

Depth (feet)	End Area (sq-ft)	Perim. (feet)	Storage (cubic-feet)	Discharge (cfs)
0.00	0.0	2.0	0	0.00
1.33	6.7	8.6	1,222	84.66

Reach R-207.1: DISCHARGE INTO SWALE/ROUTE THROUGH PDA-206.1



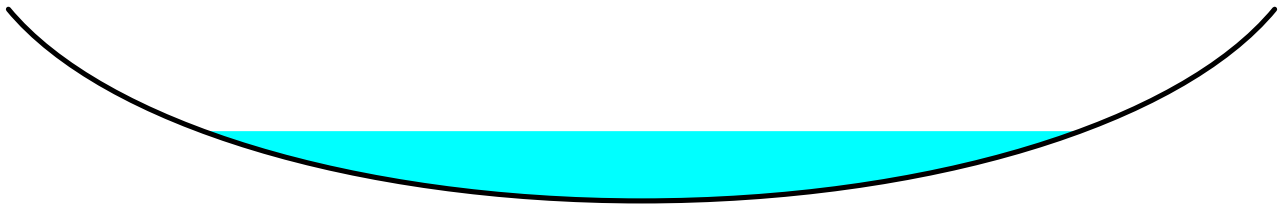
Summary for Reach R-208: FLOW THROUGH CENTRAL WETLAND PDA-211

Inflow Area = 88.629 ac, 0.28% Impervious, Inflow Depth = 1.73" for 10-yr event
Inflow = 71.06 cfs @ 12.62 hrs, Volume= 12.813 af
Outflow = 70.63 cfs @ 12.71 hrs, Volume= 12.813 af, Atten= 1%, Lag= 5.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.30 fps, Min. Travel Time= 3.2 min
Avg. Velocity = 0.39 fps, Avg. Travel Time= 10.7 min

Peak Storage= 13,560 cf @ 12.66 hrs
Average Depth at Peak Storage= 0.40'
Bank-Full Depth= 1.10' Flow Area= 247.9 sf, Capacity= 634.06 cfs

338.00' x 1.10' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 250.0' Slope= 0.0287 '/'
Inlet Invert= 103.17', Outlet Invert= 96.00'



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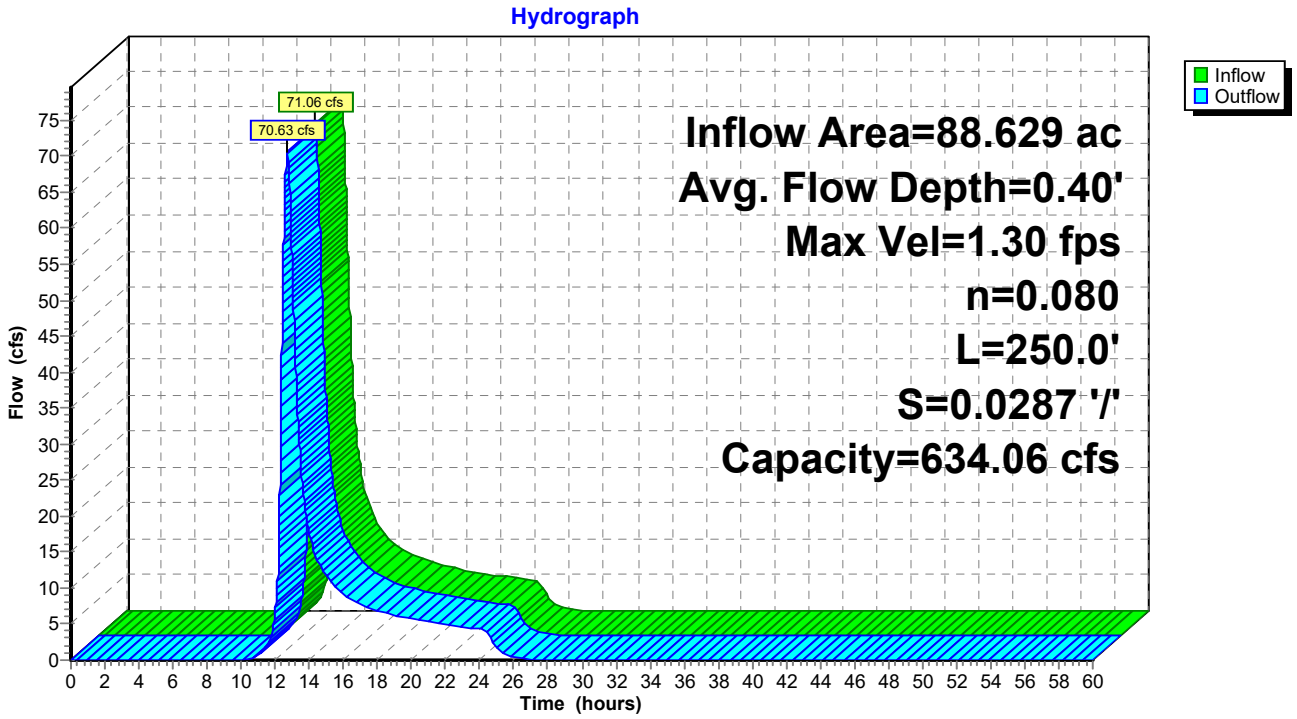
Reach R-208: FLOW THROUGH CENTRAL WETLAND PDA-211



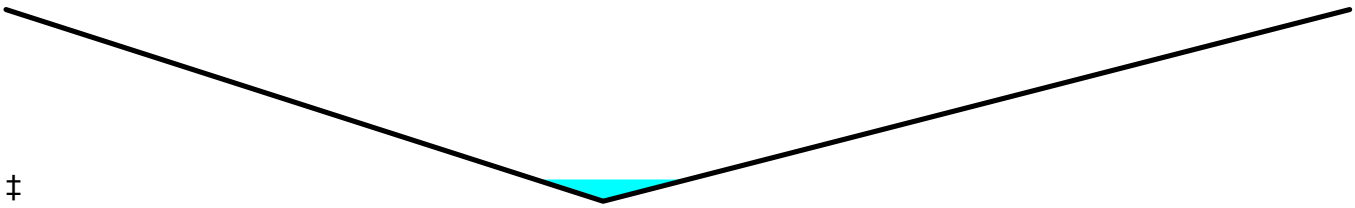
Summary for Reach R-208.1: DISCHARGE INTO SWALE/ROUTE THROUGH PDA-212.1

Inflow Area = 0.340 ac, 0.00% Impervious, Inflow Depth = 1.25" for 10-yr event
Inflow = 0.40 cfs @ 12.08 hrs, Volume= 0.035 af
Outflow = 0.39 cfs @ 12.12 hrs, Volume= 0.035 af, Atten= 3%, Lag= 2.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.57 fps, Min. Travel Time= 1.5 min
Avg. Velocity = 1.27 fps, Avg. Travel Time= 3.0 min

Peak Storage= 35 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.15'
Bank-Full Depth= 1.33' Flow Area= 12.0 sf, Capacity= 131.22 cfs

Custom cross-section, Length= 226.0' Slope= 0.0856 '/'
Constant n= 0.030 Short grass
Inlet Invert= 155.00', Outlet Invert= 135.65'



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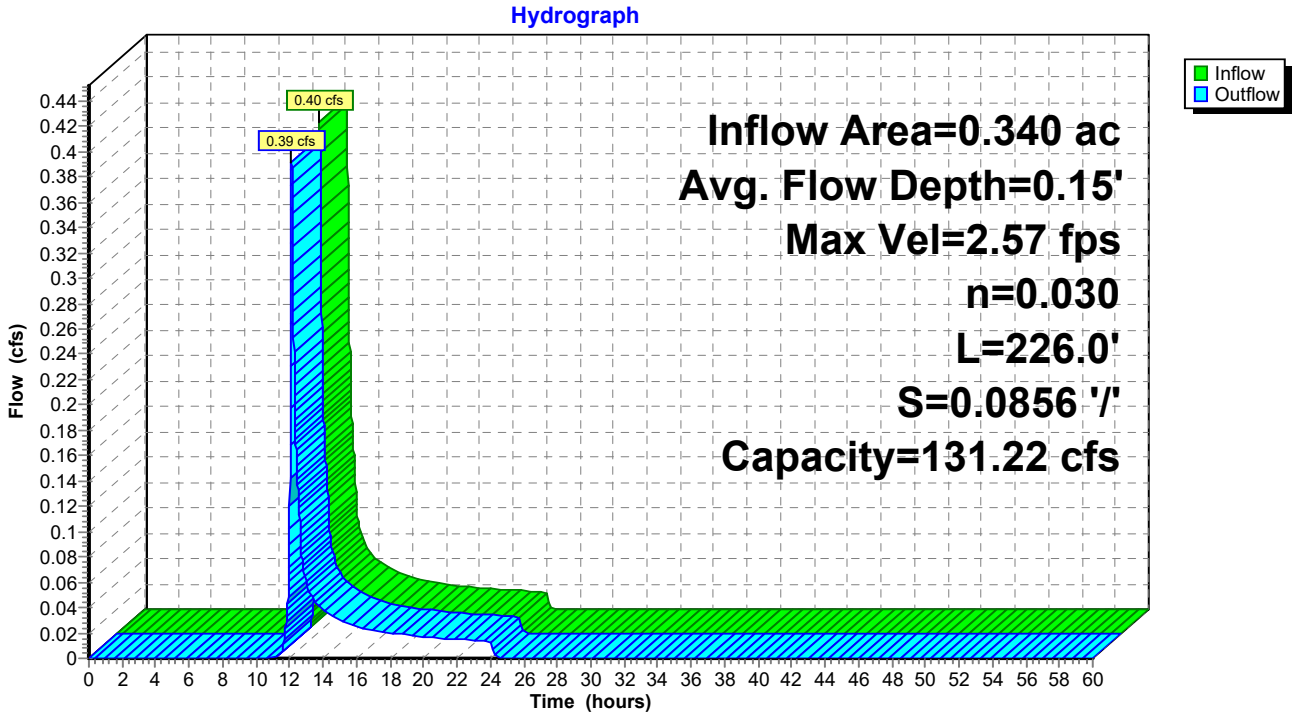
Offset (feet)	Elevation (feet)	Chan.Depth (feet)
-9.00	1.33	0.00
-1.00	0.00	1.33
9.00	1.33	0.00

Depth (feet)	End Area (sq-ft)	Perim. (feet)	Storage (cubic-feet)	Discharge (cfs)
0.00	0.0	0.0	0	0.00
1.33	12.0	18.2	2,705	131.22

Reach R-208.1: DISCHARGE INTO SWALE/ROUTE THROUGH PDA-212.1



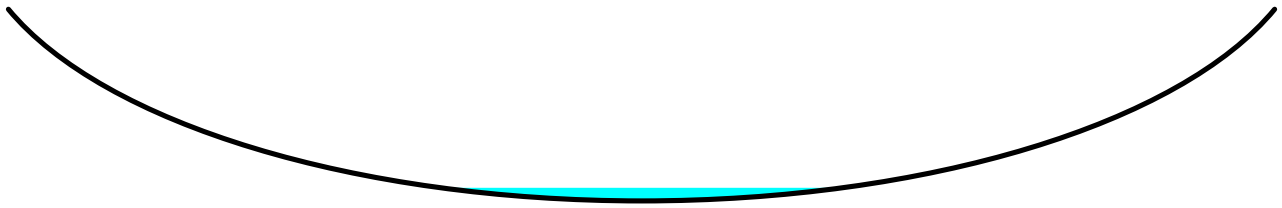
Summary for Reach R-210: FLOW THROUGH CENTRAL WETLAND PDA-211

Inflow Area = 0.674 ac, 0.00% Impervious, Inflow Depth = 2.15" for 10-yr event
Inflow = 0.98 cfs @ 12.29 hrs, Volume= 0.121 af
Outflow = 0.85 cfs @ 12.55 hrs, Volume= 0.121 af, Atten= 13%, Lag= 15.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 0.30 fps, Min. Travel Time= 9.3 min
Avg. Velocity = 0.13 fps, Avg. Travel Time= 22.1 min

Peak Storage= 477 cf @ 12.40 hrs
Average Depth at Peak Storage= 0.10'
Bank-Full Depth= 1.40' Flow Area= 156.8 sf, Capacity= 284.60 cfs

168.00' x 1.40' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 170.0' Slope= 0.0105 '/'
Inlet Invert= 97.78', Outlet Invert= 96.00'



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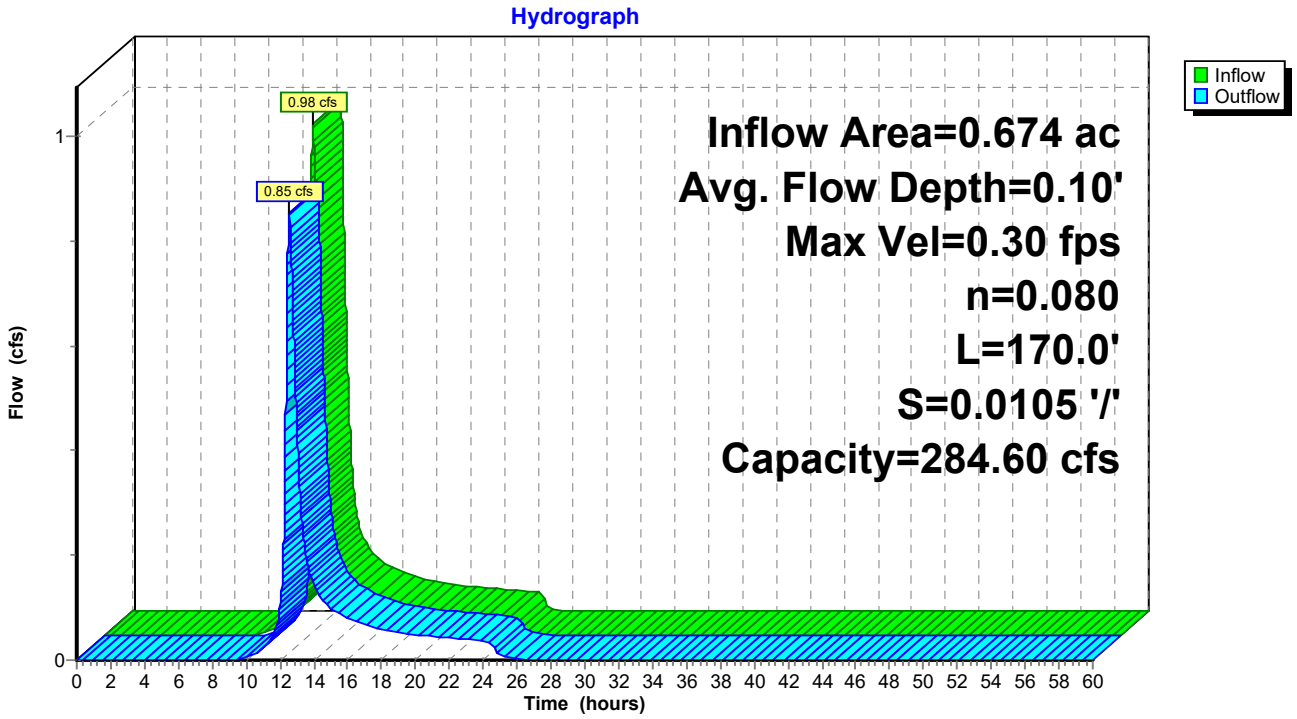
Reach R-210: FLOW THROUGH CENTRAL WETLAND PDA-211



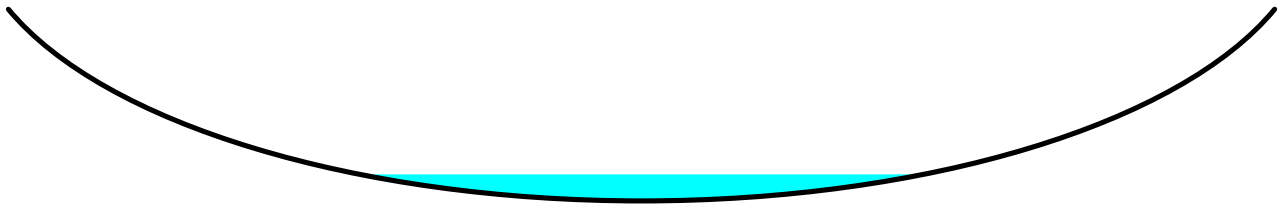
Summary for Reach R-301.1: FLOW THROUGH CENTRAL WETLAND PDA-302.2

Inflow Area = 1.271 ac, 0.00% Impervious, Inflow Depth = 2.40" for 10-yr event
Inflow = 3.13 cfs @ 12.10 hrs, Volume= 0.254 af
Outflow = 2.88 cfs @ 12.19 hrs, Volume= 0.254 af, Atten= 8%, Lag= 5.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.08 fps, Min. Travel Time= 3.3 min
Avg. Velocity = 0.39 fps, Avg. Travel Time= 9.1 min

Peak Storage= 562 cf @ 12.14 hrs
Average Depth at Peak Storage= 0.21'
Bank-Full Depth= 1.50' Flow Area= 51.8 sf, Capacity= 209.28 cfs

51.83' x 1.50' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 211.0' Slope= 0.0474 '/'
Inlet Invert= 220.00', Outlet Invert= 210.00'



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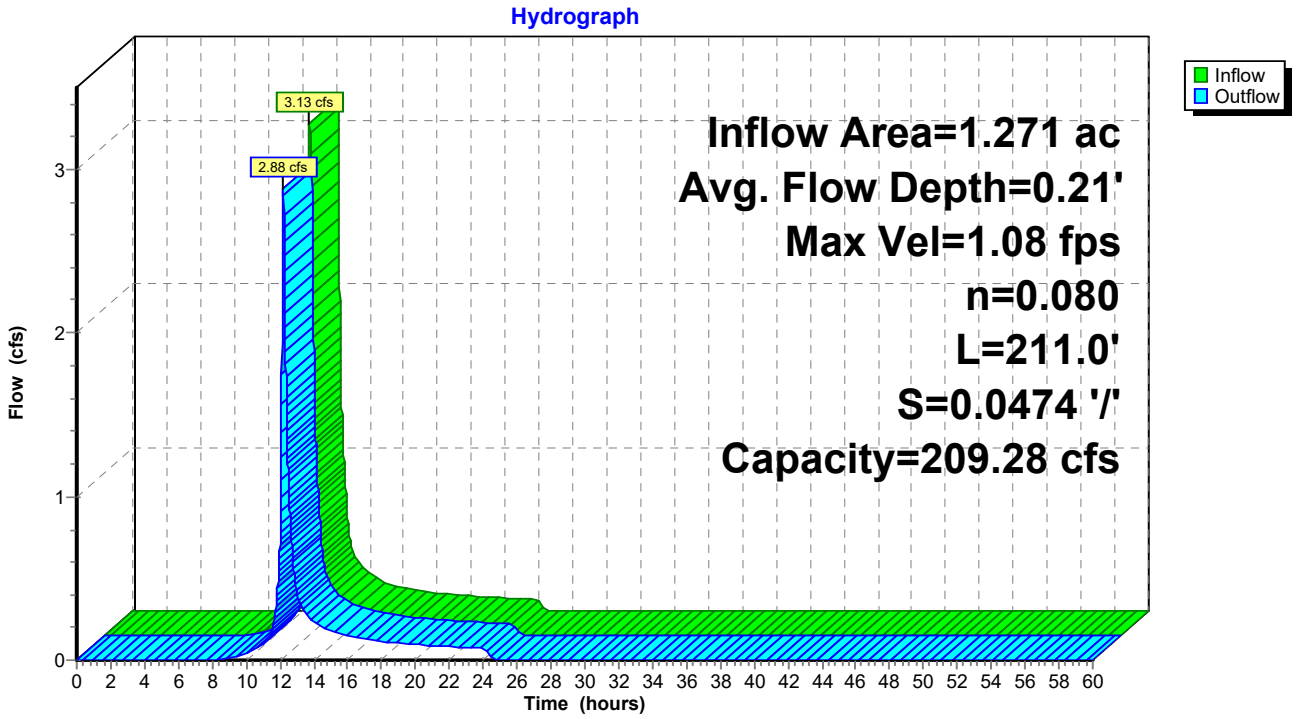
Reach R-301.1: FLOW THROUGH CENTRAL WETLAND PDA-302.2



Summary for Pond DP-100.1: POND

Inflow Area = 11.949 ac, 1.38% Impervious, Inflow Depth = 1.39" for 10-yr event
Inflow = 11.63 cfs @ 12.22 hrs, Volume= 1.384 af
Outflow = 9.55 cfs @ 12.33 hrs, Volume= 1.384 af, Atten= 18%, Lag= 6.7 min
Primary = 9.55 cfs @ 12.33 hrs, Volume= 1.384 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 172.75' @ 12.33 hrs Surf.Area= 5,495 sf Storage= 2,762 cf

Plug-Flow detention time= 1.5 min calculated for 1.383 af (100% of inflow)
Center-of-Mass det. time= 1.5 min (916.8 - 915.3)

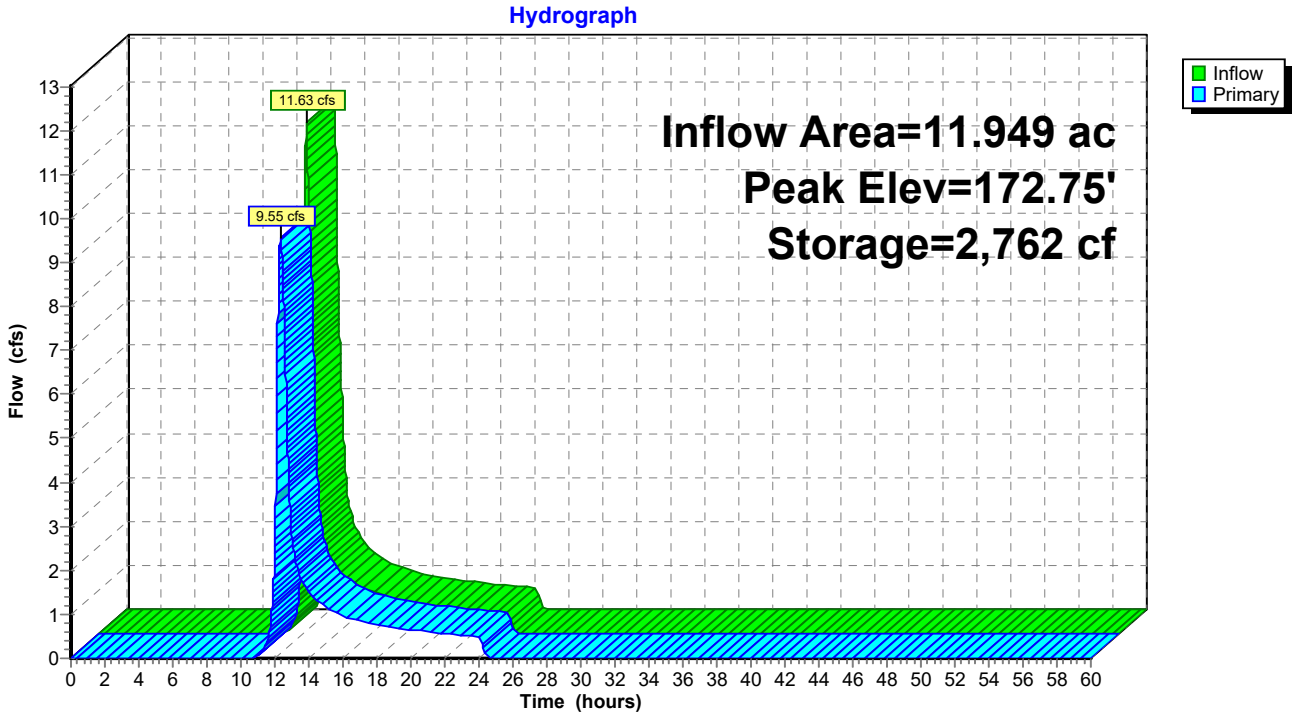
Volume	Invert	Avail.Storage	Storage Description
#1	172.00'	14,696 cf	**Detention Pond (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
172.00	1,198	0	0
172.50	4,783	1,495	1,495
173.00	6,227	2,753	4,248
173.50	6,712	3,235	7,483
174.00	7,208	3,480	10,963
174.50	7,724	3,733	14,696

Device	Routing	Invert	Outlet Devices
#1	Primary	171.74'	**22.0" W x 8.0" H Vert. Rect. Orifice 1 - 10 YR** C= 0.600
#2	Primary	171.74'	**22.0" W x 8.0" H Vert. Rect. Orifice 2 - 10 YR** C= 0.600
#3	Primary	172.75'	**18.0" W x 5.0" H Vert. Rect. Orifice 1 - 25 YR** C= 0.600
#4	Primary	172.75'	**18.0" W x 5.0" H Vert. Rect. Orifice 2 - 25 YR** C= 0.600
#5	Primary	173.70'	**24.0" x 36.0" Horiz. Horiz. Inlet - 100 YR** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=9.55 cfs @ 12.33 hrs HW=172.75' (Free Discharge)
- **1=Rect. Orifice 1 - 10 YR** (Orifice Controls 4.78 cfs @ 3.91 fps)
- **2=Rect. Orifice 2 - 10 YR** (Orifice Controls 4.78 cfs @ 3.91 fps)
- **3=Rect. Orifice 1 - 25 YR** (Controls 0.00 cfs)
- **4=Rect. Orifice 2 - 25 YR** (Controls 0.00 cfs)
- **5=Horiz. Inlet - 100 YR** (Controls 0.00 cfs)

Pond DP-100.1: POND



Summary for Pond DP-101.1: POND

Inflow Area = 2.074 ac, 4.48% Impervious, Inflow Depth = 1.60" for 10-yr event
Inflow = 2.95 cfs @ 12.13 hrs, Volume= 0.277 af
Outflow = 2.22 cfs @ 12.23 hrs, Volume= 0.277 af, Atten= 25%, Lag= 6.3 min
Primary = 2.22 cfs @ 12.23 hrs, Volume= 0.277 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 231.92' @ 12.23 hrs Surf.Area= 1,813 sf Storage= 595 cf

Plug-Flow detention time= 1.4 min calculated for 0.277 af (100% of inflow)
Center-of-Mass det. time= 1.4 min (900.7 - 899.3)

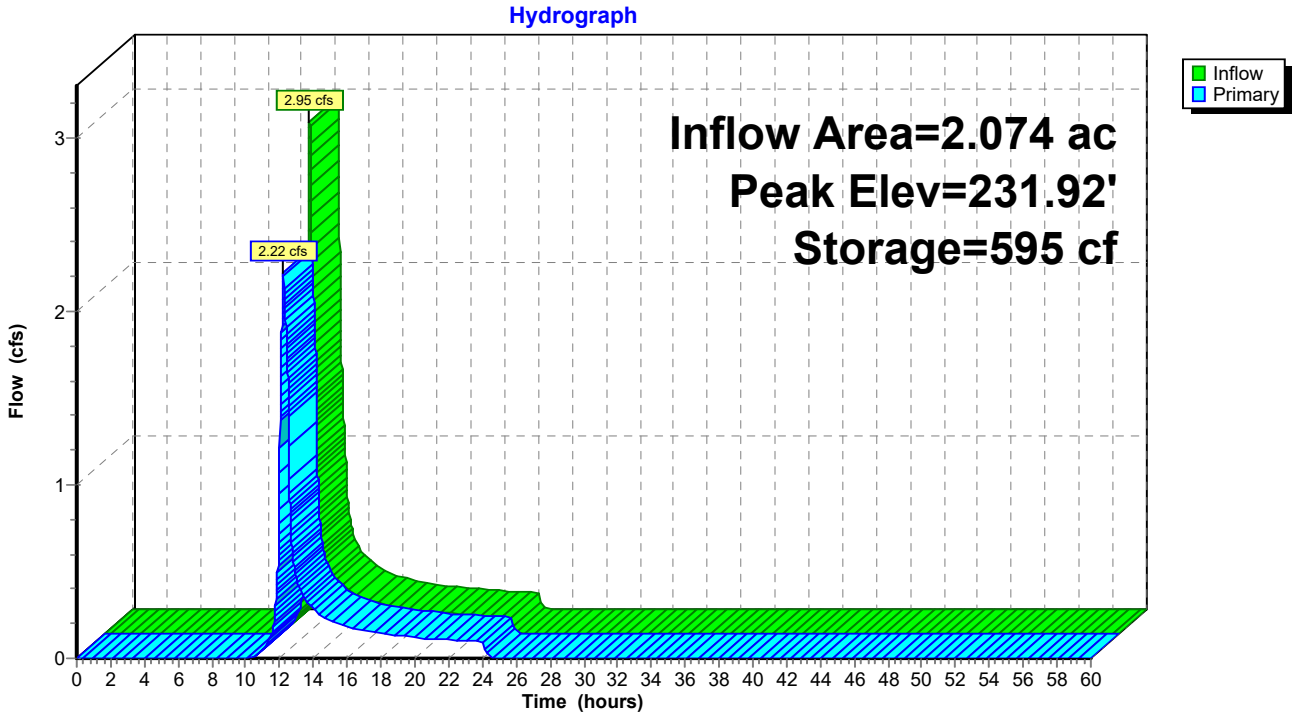
Volume	Invert	Avail.Storage	Storage Description
#1	231.50'	6,647 cf	**Detention Pond (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
231.50	1,030	0	0
232.00	1,965	749	749
232.50	2,417	1,096	1,844
233.00	2,911	1,332	3,176
233.50	3,459	1,593	4,769
234.00	4,052	1,878	6,647

Device	Routing	Invert	Outlet Devices
#1	Primary	231.08'	**9.5" W x 4.0" H Vert. Rect. Orifice 1 -10 YR** C= 0.600
#2	Primary	231.08'	**9.5" W x 4.0" H Vert. Rect. Orifice 2 -10 YR** C= 0.600
#3	Primary	231.87'	**22.0" W x 3.0" H Vert. Rect. Orifice 1-25 YR** C= 0.600
#4	Primary	231.87'	**22.0" W x 3.0" H Vert. Rect. Orifice 2 -25 YR** C= 0.600
#5	Primary	233.38'	**24.0" W x 36.0" H Vert. EMERGENCY SPILLWAY** C= 0.600

Primary OutFlow Max=2.20 cfs @ 12.23 hrs HW=231.92' (Free Discharge)
- **1=Rect. Orifice 1 -10 YR** (Orifice Controls 1.04 cfs @ 3.94 fps)
- **2=Rect. Orifice 2 -10 YR** (Orifice Controls 1.04 cfs @ 3.94 fps)
- **3=Rect. Orifice 1-25 YR** (Orifice Controls 0.06 cfs @ 0.71 fps)
- **4=Rect. Orifice 2 -25 YR** (Orifice Controls 0.06 cfs @ 0.71 fps)
- **5=EMERGENCY SPILLWAY** (Controls 0.00 cfs)

Pond DP-101.1: POND



Summary for Pond DP-200.1: POND

Inflow Area = 2.961 ac, 3.02% Impervious, Inflow Depth = 1.60" for 10-yr event
Inflow = 4.10 cfs @ 12.14 hrs, Volume= 0.396 af
Outflow = 2.81 cfs @ 12.27 hrs, Volume= 0.396 af, Atten= 31%, Lag= 8.1 min
Primary = 2.81 cfs @ 12.27 hrs, Volume= 0.396 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 180.84' @ 12.27 hrs Surf.Area= 1,417 sf Storage= 1,254 cf

Plug-Flow detention time= 3.8 min calculated for 0.396 af (100% of inflow)
Center-of-Mass det. time= 3.8 min (903.8 - 900.0)

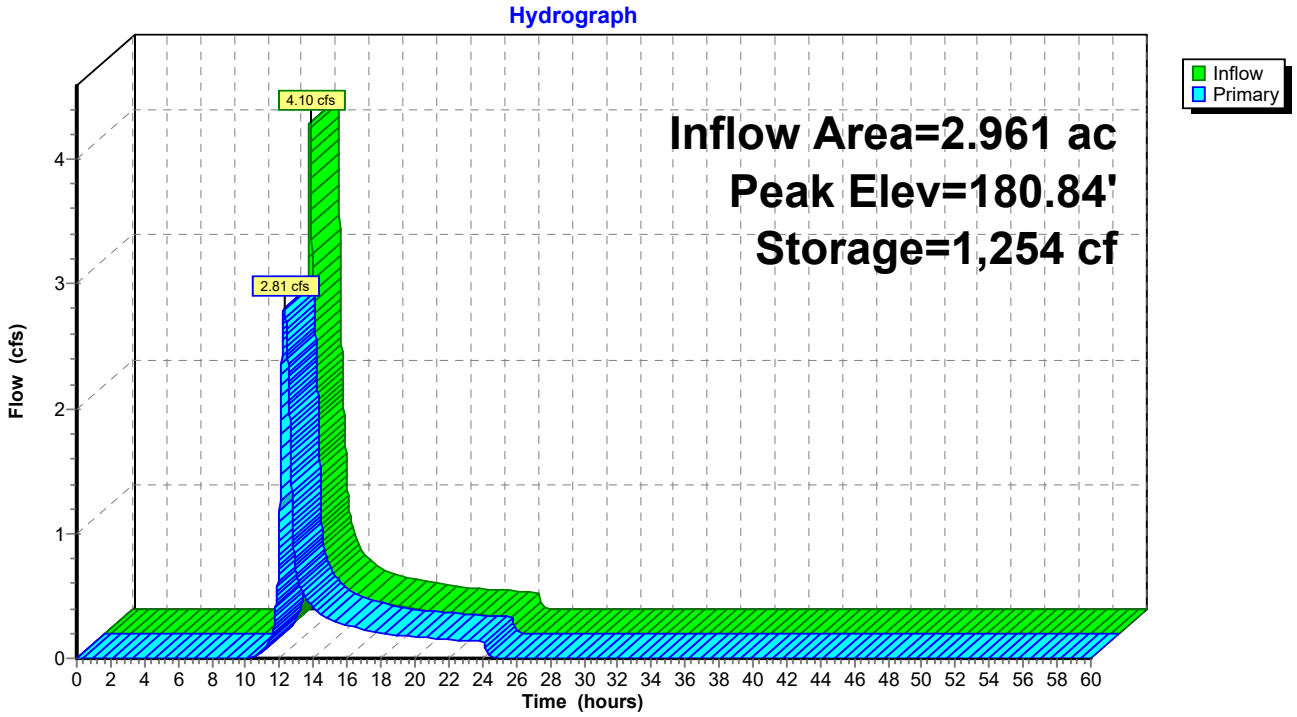
Volume	Invert	Avail.Storage	Storage Description
#1	179.50'	10,531 cf	**Detention Pond (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
179.50	477	0	0
180.00	809	322	322
180.50	1,158	492	813
181.00	1,536	674	1,487
181.50	1,942	870	2,356
182.00	2,378	1,080	3,436
182.50	2,848	1,307	4,743
183.00	3,351	1,550	6,293
183.50	3,895	1,812	8,104
184.00	5,811	2,427	10,531

Device	Routing	Invert	Outlet Devices
#1	Primary	179.45'	**19.0" W x 4.0" H Vert. Rect. Orifice-10-YR** C= 0.600
#2	Primary	180.84'	**16.5" W x 5.0" H Vert. Rect. Orifice-25-YR** C= 0.600
#3	Primary	181.82'	**24.0" x 36.0" Horiz. Rect. Orifice-100-YR** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=2.81 cfs @ 12.27 hrs HW=180.84' (Free Discharge)
- **1=Rect. Orifice-10-YR** (Orifice Controls 2.81 cfs @ 5.33 fps)
- **2=Rect. Orifice-25-YR** (Orifice Controls 0.00 cfs @ 0.14 fps)
- **3=Rect. Orifice-100-YR** (Controls 0.00 cfs)

Pond DP-200.1: POND



Summary for Pond DP-201.1: POND

Inflow Area = 1.911 ac, 1.94% Impervious, Inflow Depth = 1.39" for 10-yr event
Inflow = 2.18 cfs @ 12.14 hrs, Volume= 0.221 af
Outflow = 1.63 cfs @ 12.26 hrs, Volume= 0.221 af, Atten= 25%, Lag= 6.8 min
Primary = 1.63 cfs @ 12.26 hrs, Volume= 0.221 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 163.23' @ 12.26 hrs Surf.Area= 726 sf Storage= 500 cf

Plug-Flow detention time= 1.5 min calculated for 0.221 af (100% of inflow)
Center-of-Mass det. time= 1.5 min (912.2 - 910.7)

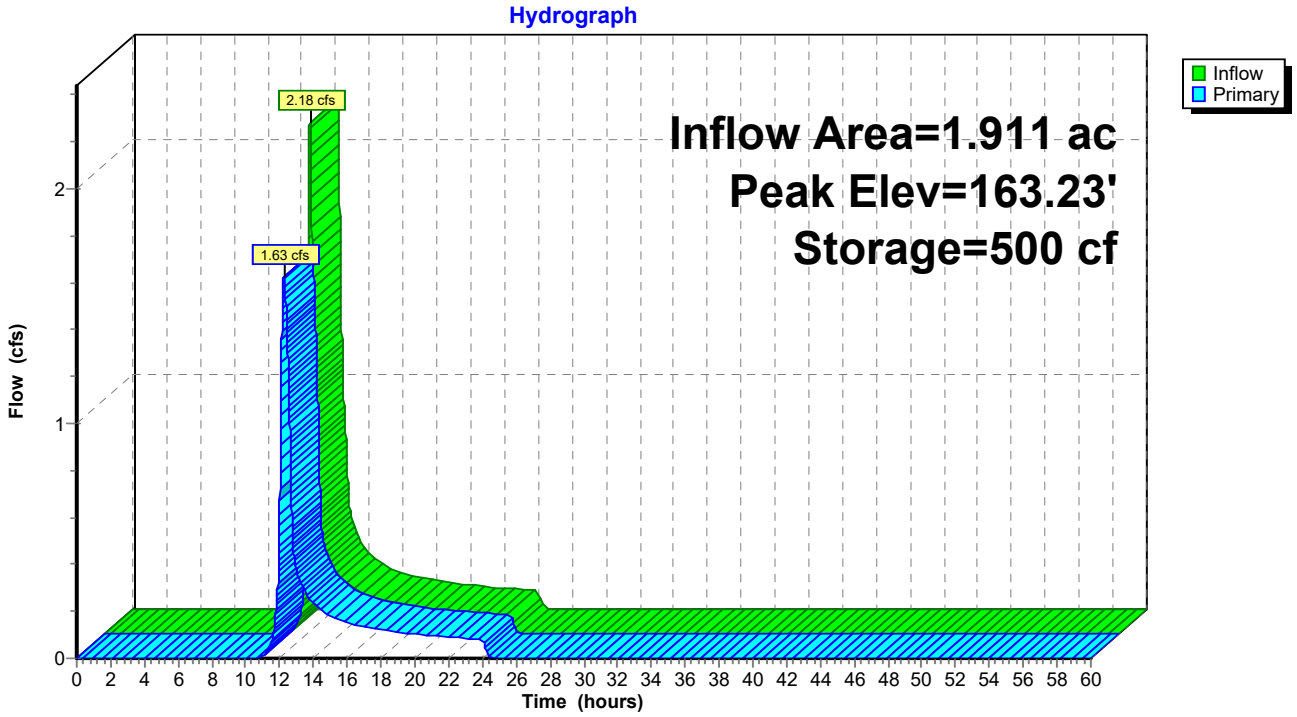
Volume	Invert	Avail.Storage	Storage Description
#1	162.00'	2,549 cf	**DETENTION POND (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
162.00	2	0	0
162.50	381	96	96
163.00	611	248	344
163.50	858	367	711
164.00	1,093	488	1,199
164.50	1,346	610	1,809
165.00	1,617	741	2,549

Device	Routing	Invert	Outlet Devices
#1	Primary	161.98'	**15.0" W x 3.0" H Vert. Circular Orifice-10-YR** C= 0.600
#2	Primary	163.16'	**6.0" W x 4.0" H Vert. Rect. Orifice-25 YR** C= 0.600
#3	Primary	164.32'	**24.0" x 36.0" Horiz. Hoiz. InletGrate -100-YR** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.63 cfs @ 12.26 hrs HW=163.23' (Free Discharge)
└─**1=Circular Orifice-10-YR** (Orifice Controls 1.60 cfs @ 5.11 fps)
└─**2=Rect. Orifice-25 YR** (Orifice Controls 0.03 cfs @ 0.87 fps)
└─**3=Hoiz. InletGrate -100-YR** (Controls 0.00 cfs)

Pond DP-201.1: POND



Summary for Pond DP-202.1: POND

Inflow Area = 10.341 ac, 2.43% Impervious, Inflow Depth = 1.46" for 10-yr event
Inflow = 12.26 cfs @ 12.16 hrs, Volume= 1.258 af
Outflow = 9.56 cfs @ 12.26 hrs, Volume= 1.258 af, Atten= 22%, Lag= 6.3 min
Primary = 9.56 cfs @ 12.26 hrs, Volume= 1.258 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 191.88' @ 12.26 hrs Surf.Area= 4,597 sf Storage= 3,053 cf

Plug-Flow detention time= 2.1 min calculated for 1.258 af (100% of inflow)
Center-of-Mass det. time= 2.1 min (909.9 - 907.8)

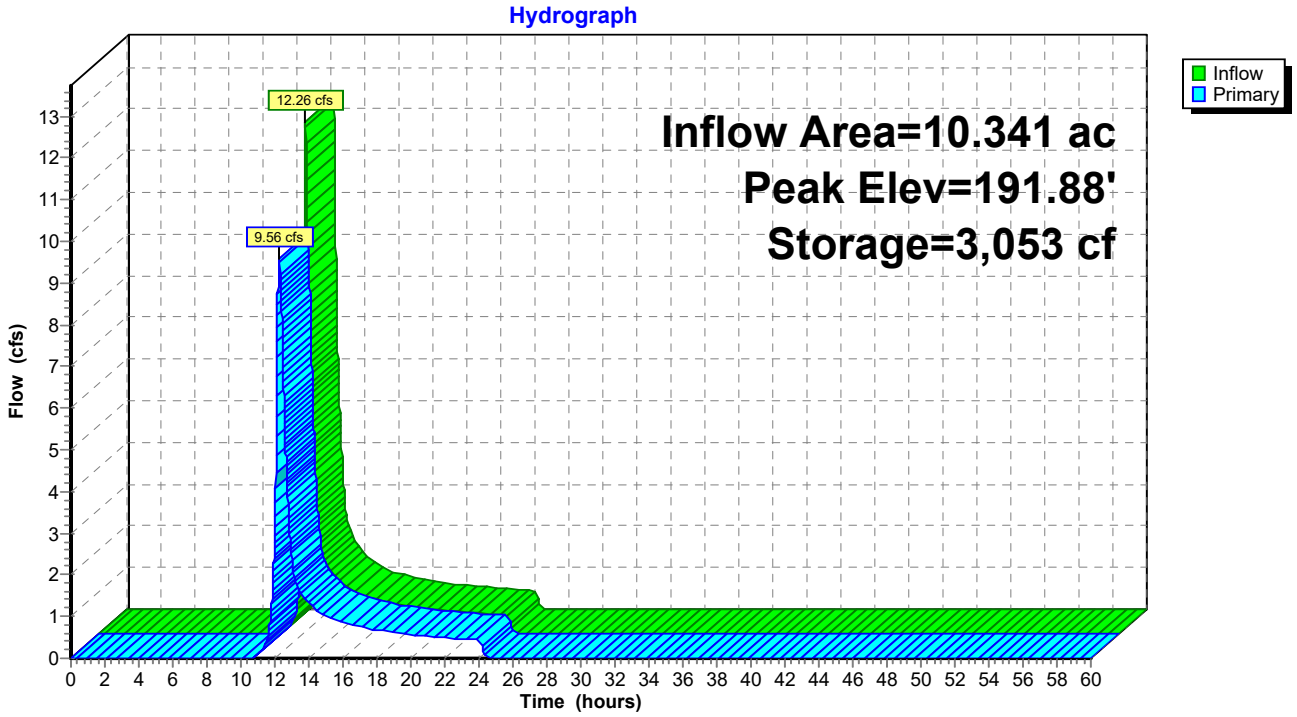
Volume	Invert	Avail.Storage	Storage Description
#1	191.00'	14,687 cf	**Detention Pond (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
191.00	2,433	0	0
191.50	3,606	1,510	1,510
192.00	4,922	2,132	3,642
192.50	6,317	2,810	6,452
193.00	7,828	3,536	9,988
193.50	10,968	4,699	14,687

Device	Routing	Invert	Outlet Devices
#1	Primary	190.57'	**13.5" W x 12.0" H Vert. Rect. Orifice -10-YR** C= 0.600
#2	Primary	190.57'	**13.5" W x 12.0" H Vert. Rect. Orifice -10-YR** C= 0.600
#3	Primary	191.88'	**24.0" W x 3.5" H Vert. Orifice/Grate -25-YR** C= 0.600
#4	Primary	191.88'	**24.0" W x 3.5" H Vert. Orifice/Grate -25-YR** C= 0.600
#5	Primary	192.82'	**24.0" W x 36.0" H Vert. Horiz. Grate - 100-yr** C= 0.600

Primary OutFlow Max=9.56 cfs @ 12.26 hrs HW=191.88' (Free Discharge)
- **1=Rect. Orifice -10-YR** (Orifice Controls 4.78 cfs @ 4.25 fps)
- **2=Rect. Orifice -10-YR** (Orifice Controls 4.78 cfs @ 4.25 fps)
- **3=Orifice/Grate -25-YR** (Controls 0.00 cfs)
- **4=Orifice/Grate -25-YR** (Controls 0.00 cfs)
- **5=Horiz. Grate - 100-yr** (Controls 0.00 cfs)

Pond DP-202.1: POND



Summary for Pond DP-206.1: POND

Inflow Area = 14.651 ac, 0.00% Impervious, Inflow Depth = 1.58" for 10-yr event
Inflow = 16.38 cfs @ 12.20 hrs, Volume= 1.927 af
Outflow = 9.68 cfs @ 12.47 hrs, Volume= 1.927 af, Atten= 41%, Lag= 15.9 min
Primary = 9.68 cfs @ 12.47 hrs, Volume= 1.927 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 199.58' @ 12.47 hrs Surf.Area= 10,963 sf Storage= 10,687 cf

Plug-Flow detention time= 9.5 min calculated for 1.927 af (100% of inflow)
Center-of-Mass det. time= 9.5 min (915.3 - 905.8)

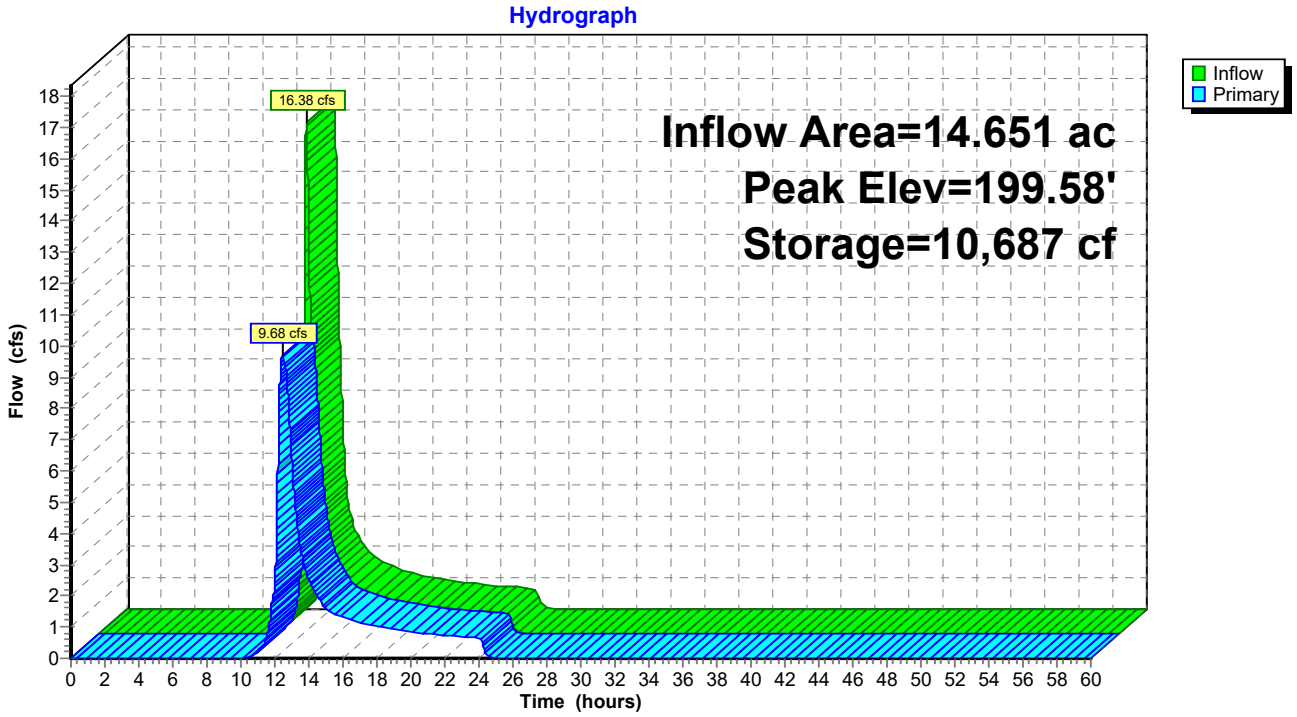
Volume	Invert	Avail.Storage	Storage Description
#1	198.50'	56,643 cf	**Detention Pond (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
198.50	7,995	0	0
199.00	10,200	4,549	4,549
199.50	10,854	5,264	9,812
200.00	11,532	5,597	15,409
200.50	12,233	5,941	21,350
201.00	12,959	6,298	27,648
201.50	13,707	6,667	34,315
202.00	14,480	7,047	41,361
202.50	15,276	7,439	48,800
203.00	16,096	7,843	56,643

Device	Routing	Invert	Outlet Devices
#1	Primary	198.08'	**22.0" W x 14.0" H Vert. Rect. Orifice -10-YR** C= 0.600
#2	Primary	199.58'	**16.0" W x 5.0" H Vert. Rect. Orifice -25-YR** C= 0.600
#3	Primary	200.90'	**24.0" x 36.0" Horiz. Horiz. Inlet -100-YR** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=9.68 cfs @ 12.47 hrs HW=199.58' (Free Discharge)
└─**1=Rect. Orifice -10-YR** (Orifice Controls 9.68 cfs @ 4.53 fps)
├─**2=Rect. Orifice -25-YR** (Orifice Controls 0.00 cfs @ 0.04 fps)
└─**3=Horiz. Inlet -100-YR** (Controls 0.00 cfs)

Pond DP-206.1: POND



Summary for Pond DP-207.1: POND

Inflow Area = 7.764 ac, 0.00% Impervious, Inflow Depth = 1.32" for 10-yr event
Inflow = 9.04 cfs @ 12.11 hrs, Volume= 0.854 af
Outflow = 6.54 cfs @ 12.22 hrs, Volume= 0.854 af, Atten= 28%, Lag= 6.6 min
Primary = 6.54 cfs @ 12.22 hrs, Volume= 0.854 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 173.15' @ 12.22 hrs Surf.Area= 4,252 sf Storage= 2,510 cf

Plug-Flow detention time= 2.7 min calculated for 0.854 af (100% of inflow)
Center-of-Mass det. time= 2.7 min (914.9 - 912.2)

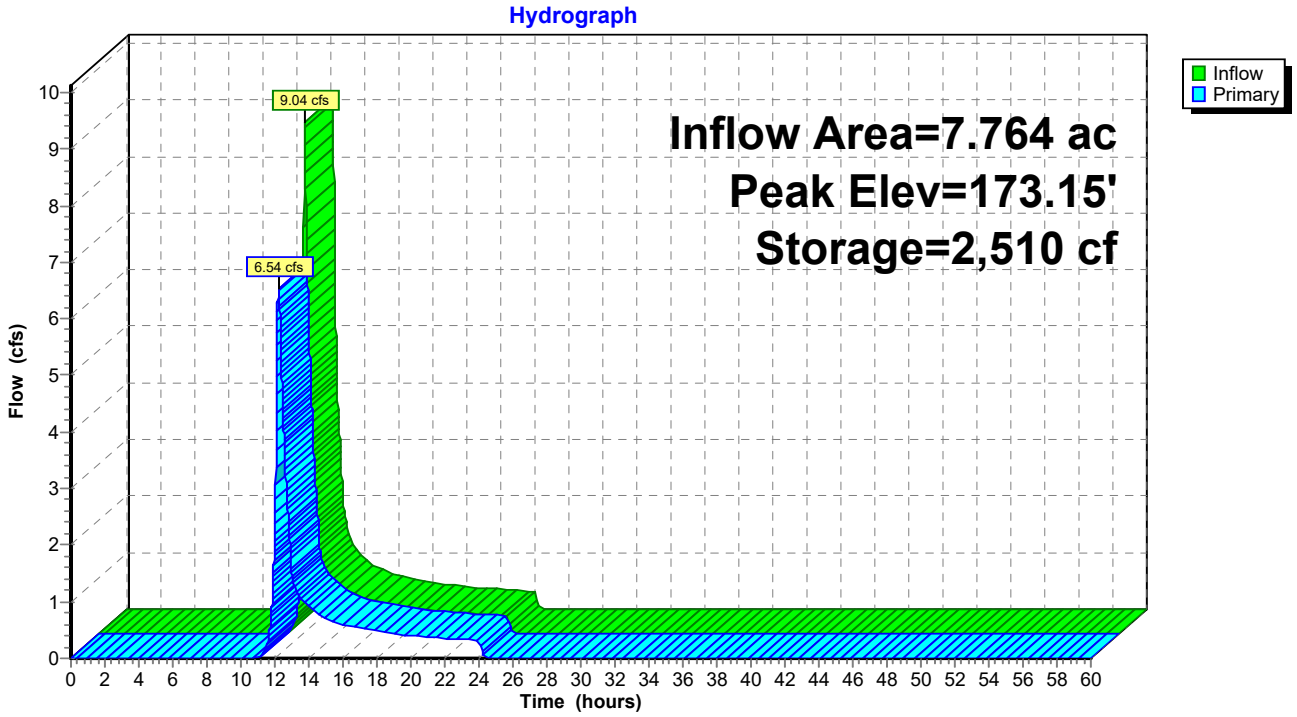
Volume	Invert	Avail.Storage	Storage Description
#1	172.50'	20,548 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
172.50	3,454	0	0
173.00	4,055	1,877	1,877
173.50	4,702	2,189	4,067
174.00	5,395	2,524	6,591
174.50	6,133	2,882	9,473
175.00	6,916	3,262	12,735
175.50	7,745	3,665	16,400
176.00	8,847	4,148	20,548

Device	Routing	Invert	Outlet Devices
#1	Primary	172.08'	**22.0" W x 13.0" H Vert. Rect. Orifice - 10 YR** C= 0.600
#2	Primary	173.16'	**22.0" W x 5.0" H Vert. Rect. Orifice - 25 YR** C= 0.600
#3	Primary	174.06'	**24.0" x 36.0" Horiz. Orifice/Grate -100-YR** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=6.53 cfs @ 12.22 hrs HW=173.15' (Free Discharge)
- **1=Rect. Orifice - 10 YR** (Orifice Controls 6.53 cfs @ 3.32 fps)
- **2=Rect. Orifice - 25 YR** (Controls 0.00 cfs)
- **3=Orifice/Grate -100-YR** (Controls 0.00 cfs)

Pond DP-207.1: POND



Summary for Pond DP-209.1: POND

Inflow Area = 7.073 ac, 0.00% Impervious, Inflow Depth = 1.32" for 10-yr event
Inflow = 5.75 cfs @ 12.28 hrs, Volume= 0.778 af
Outflow = 3.97 cfs @ 12.52 hrs, Volume= 0.778 af, Atten= 31%, Lag= 14.2 min
Primary = 3.97 cfs @ 12.52 hrs, Volume= 0.778 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 149.67' @ 12.52 hrs Surf.Area= 4,211 sf Storage= 2,794 cf

Plug-Flow detention time= 4.1 min calculated for 0.778 af (100% of inflow)
Center-of-Mass det. time= 4.1 min (927.2 - 923.1)

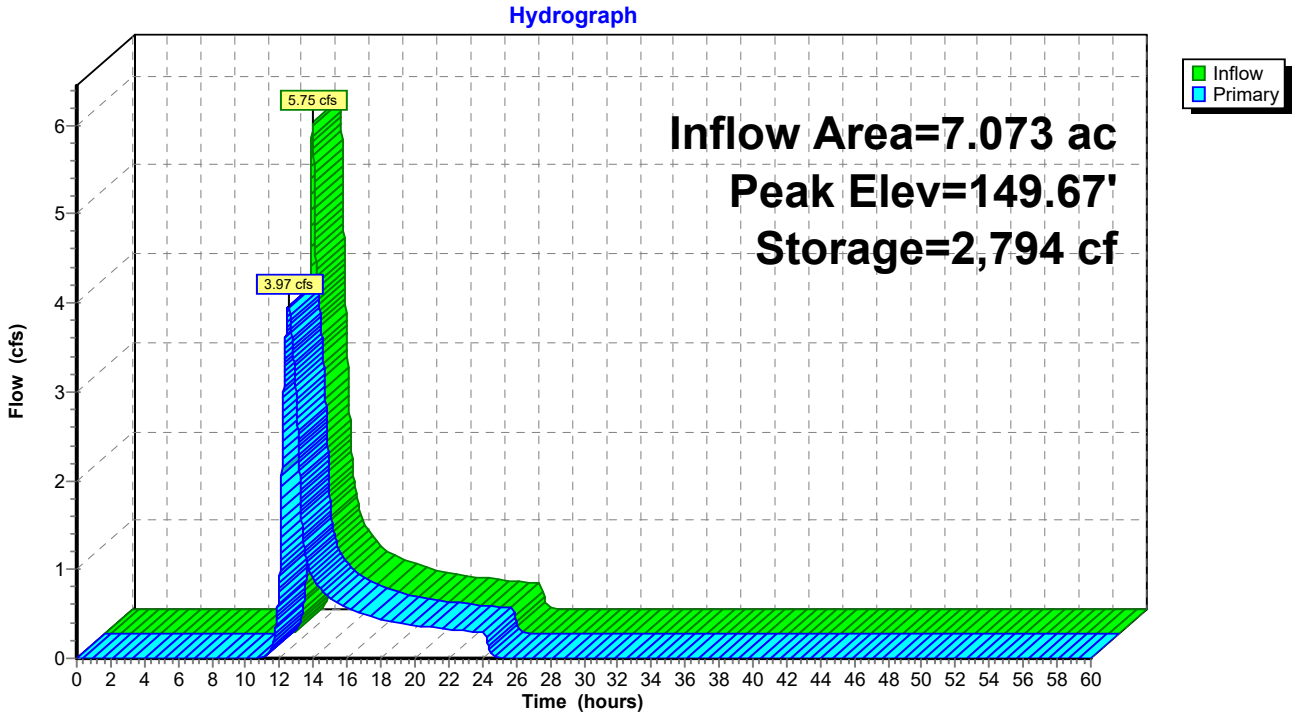
Volume	Invert	Avail.Storage	Storage Description
#1	148.50'	23,724 cf	**Detention Pond (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
148.50	699	0	0
149.00	2,087	697	697
149.50	3,631	1,430	2,126
150.00	5,333	2,241	4,367
150.50	6,516	2,962	7,329
151.00	7,334	3,463	10,792
151.50	8,177	3,878	14,670
152.00	9,045	4,306	18,975
152.50	9,952	4,749	23,724

Device	Routing	Invert	Outlet Devices
#1	Primary	148.17'	**13.0" W x 8.0" H Vert. Rect. Orifice -10-YR** C= 0.600
#2	Primary	149.51'	**13.0" W x 7.0" H Vert. Rect. Orifice -25-YR** C= 0.600
#3	Primary	150.91'	**24.0" x 36.0" Horiz. Emergency Orifice/Grate** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=3.97 cfs @ 12.52 hrs HW=149.67' (Free Discharge)
- **1=Rect. Orifice -10-YR** (Orifice Controls 3.74 cfs @ 5.18 fps)
- **2=Rect. Orifice -25-YR** (Orifice Controls 0.22 cfs @ 1.29 fps)
- **3=Emergency Orifice/Grate** (Controls 0.00 cfs)

Pond DP-209.1: POND



Summary for Pond DP-212.1: POND

Inflow Area = 2.212 ac, 0.00% Impervious, Inflow Depth = 1.25" for 10-yr event
Inflow = 1.73 cfs @ 12.24 hrs, Volume= 0.231 af
Outflow = 1.72 cfs @ 12.26 hrs, Volume= 0.231 af, Atten= 1%, Lag= 1.1 min
Primary = 1.72 cfs @ 12.26 hrs, Volume= 0.231 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 123.37' @ 12.26 hrs Surf.Area= 458 sf Storage= 84 cf

Plug-Flow detention time= 0.3 min calculated for 0.231 af (100% of inflow)
Center-of-Mass det. time= 0.3 min (924.5 - 924.2)

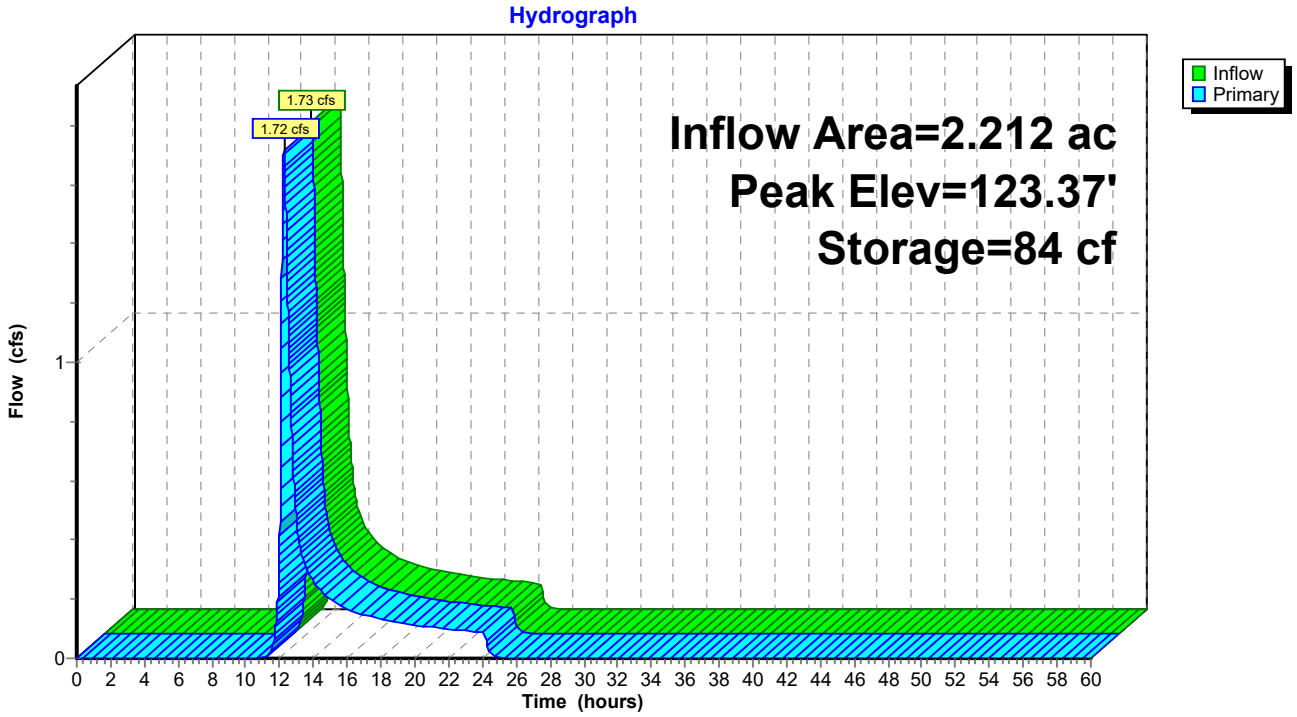
Volume	Invert	Avail.Storage	Storage Description
#1	123.00'	5,399 cf	**DETENTION POND (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
123.00	3	0	0
123.50	626	157	157
124.00	1,505	533	690
124.50	1,887	848	1,538
125.00	2,313	1,050	2,588
125.50	2,795	1,277	3,865
126.00	3,342	1,534	5,399

Device	Routing	Invert	Outlet Devices
#1	Primary	122.95'	**24.0" W x 5.0" H Vert. Rect. Orifice -10YR** C= 0.600
#2	Primary	123.37'	**24.0" W x 2.0" H Vert. Rect. Orifice - 25-yr** C= 0.600
#3	Primary	124.50'	**24.0" x 36.0" Horiz. Emergency Spillway** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.72 cfs @ 12.26 hrs HW=123.37' (Free Discharge)
- **1=Rect. Orifice -10YR** (Orifice Controls 1.72 cfs @ 2.07 fps)
- **2=Rect. Orifice - 25-yr** (Controls 0.00 cfs)
- **3=Emergency Spillway** (Controls 0.00 cfs)

Pond DP-212.1: POND



Summary for Pond DP-300.1: POND

Inflow Area = 0.696 ac, 0.00% Impervious, Inflow Depth = 2.57" for 10-yr event
Inflow = 1.97 cfs @ 12.08 hrs, Volume= 0.149 af
Outflow = 0.99 cfs @ 12.24 hrs, Volume= 0.149 af, Atten= 50%, Lag= 9.5 min
Primary = 0.99 cfs @ 12.24 hrs, Volume= 0.149 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 231.20' @ 12.24 hrs Surf.Area= 932 sf Storage= 652 cf

Plug-Flow detention time= 3.0 min calculated for 0.149 af (100% of inflow)
Center-of-Mass det. time= 3.0 min (861.1 - 858.1)

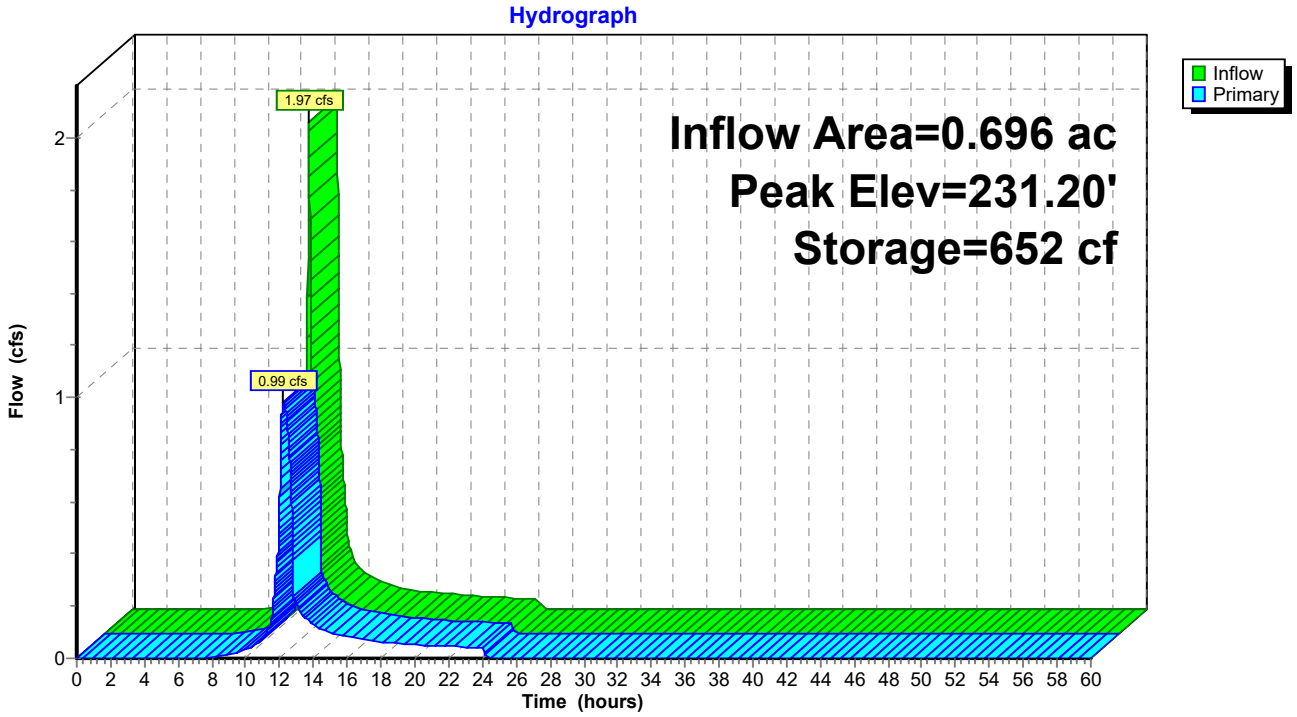
Volume	Invert	Avail.Storage	Storage Description
#1	230.00'	3,592 cf	**Detention Pond (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
230.00	195	0	0
230.50	469	166	166
231.00	789	315	481
231.50	1,147	484	965
232.00	1,543	673	1,637
232.50	1,943	872	2,509
233.00	2,389	1,083	3,592

Device	Routing	Invert	Outlet Devices
#1	Primary	229.60'	**5.0" W x 5.0" H Vert. Rect. Orifice - 10-YR** C= 0.600
#2	Primary	231.26'	**24.0" W x 3.0" H Vert. Rect. Orifice - 25-YR** C= 0.600
#3	Primary	231.97'	**24.0" x 36.0" Horiz. Horiz. Inlet-Emergency** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.98 cfs @ 12.24 hrs HW=231.20' (Free Discharge)
- **1=Rect. Orifice - 10-YR** (Orifice Controls 0.98 cfs @ 5.67 fps)
- **2=Rect. Orifice - 25-YR** (Controls 0.00 cfs)
- **3=Horiz. Inlet-Emergency** (Controls 0.00 cfs)

Pond DP-300.1: POND



Summary for Pond DP-302.1: POND

Inflow Area = 5.613 ac, 0.00% Impervious, Inflow Depth = 1.96" for 10-yr event
Inflow = 9.76 cfs @ 12.12 hrs, Volume= 0.916 af
Outflow = 5.57 cfs @ 12.31 hrs, Volume= 0.916 af, Atten= 43%, Lag= 11.5 min
Primary = 5.57 cfs @ 12.31 hrs, Volume= 0.916 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 212.12' @ 12.31 hrs Surf.Area= 4,253 sf Storage= 3,614 cf

Plug-Flow detention time= 2.9 min calculated for 0.916 af (100% of inflow)
Center-of-Mass det. time= 2.9 min (887.0 - 884.1)

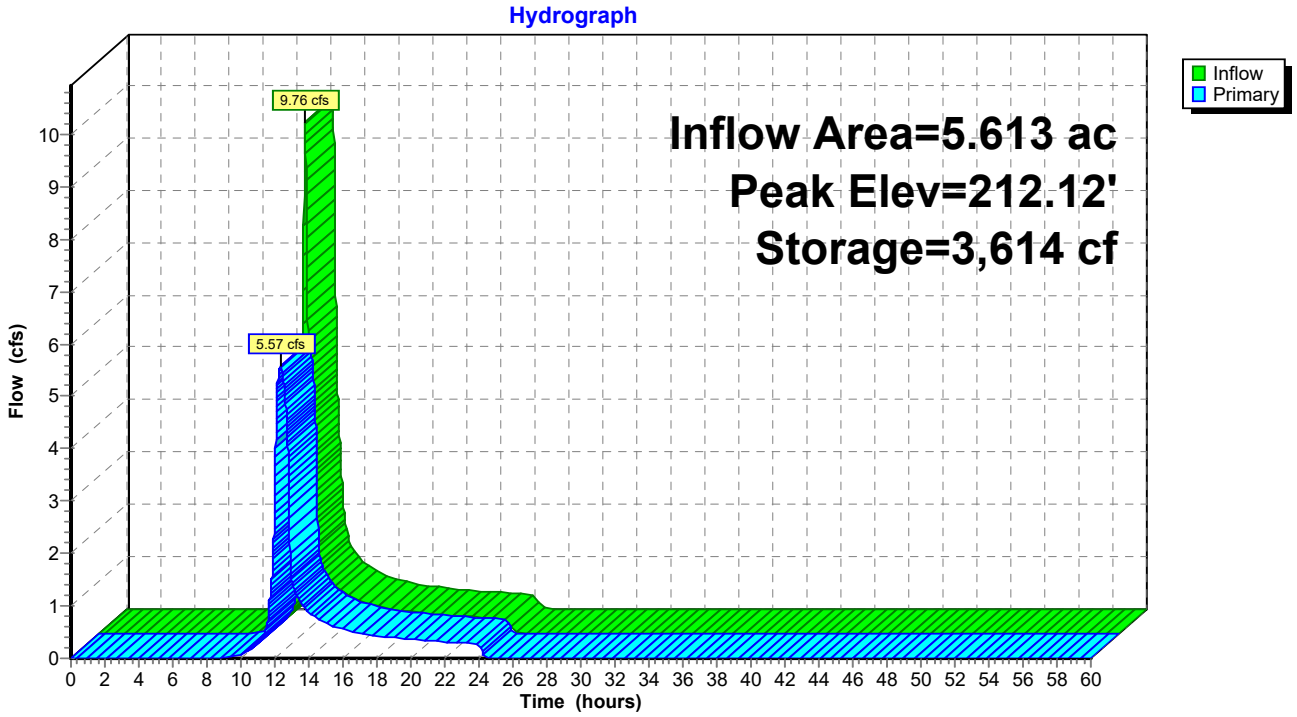
Volume	Invert	Avail.Storage	Storage Description
#1	210.00'	43,312 cf	**Detention Basin (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
210.00	76	0	0
210.50	485	140	140
211.00	1,270	439	579
211.50	2,439	927	1,506
212.00	3,998	1,609	3,116
212.50	5,055	2,263	5,379
213.00	6,355	2,853	8,231
213.50	7,968	3,581	11,812
214.00	10,041	4,502	16,314
214.50	11,678	5,430	21,744
215.00	13,494	6,293	28,037
215.50	15,488	7,246	35,283
216.00	16,629	8,029	43,312

Device	Routing	Invert	Outlet Devices
#1	Primary	209.78'	**22.0" W x 5.2" H Vert. Rect. Orifice - 10-YR** C= 0.600
#2	Primary	212.12'	**24.0" W x 6.0" H Vert. Rect. Orifice - 25-yr** C= 0.600
#3	Primary	213.13'	**24.0" x 36.0" Horiz. Orifice/Grate -100-YR** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=5.57 cfs @ 12.31 hrs HW=212.12' (Free Discharge)
- **1=Rect. Orifice - 10-YR** (Orifice Controls 5.57 cfs @ 7.01 fps)
- **2=Rect. Orifice - 25-yr** (Orifice Controls 0.00 cfs @ 0.09 fps)
- **3=Orifice/Grate -100-YR** (Controls 0.00 cfs)

Pond DP-302.1: POND



Summary for Pond DP-303.1: POND

Inflow Area = 6.711 ac, 0.00% Impervious, Inflow Depth = 2.40" for 10-yr event
Inflow = 14.53 cfs @ 12.14 hrs, Volume= 1.341 af
Outflow = 5.69 cfs @ 12.45 hrs, Volume= 1.341 af, Atten= 61%, Lag= 18.8 min
Primary = 5.69 cfs @ 12.45 hrs, Volume= 1.341 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 187.31' @ 12.45 hrs Surf.Area= 14,246 sf Storage= 10,839 cf

Plug-Flow detention time= 15.1 min calculated for 1.341 af (100% of inflow)
Center-of-Mass det. time= 15.1 min (883.7 - 868.6)

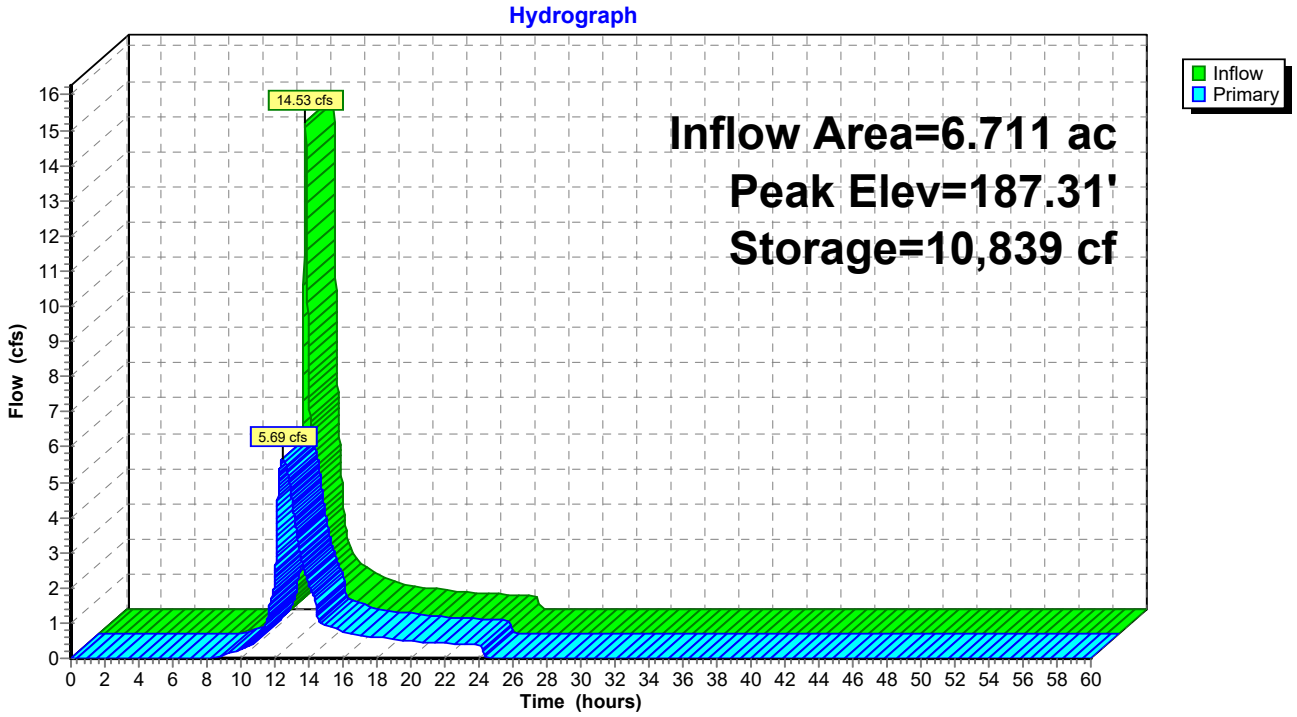
Volume	Invert	Avail.Storage	Storage Description
#1	186.50'	54,389 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
186.50	11,996	0	0
187.00	13,809	6,451	6,451
187.50	14,507	7,079	13,530
188.00	15,221	7,432	20,962
188.50	15,950	7,793	28,755
189.00	16,696	8,162	36,917
189.50	17,466	8,541	45,457
190.00	18,260	8,932	54,389

Device	Routing	Invert	Outlet Devices
#1	Primary	186.00'	**16.0" W x 12.0" H Vert. Rect. Orifice -10-YR** C= 0.600
#2	Primary	187.31'	**18.0" W x 4.0" H Vert. Rect. Orifice - 25-yr** C= 0.600
#3	Primary	188.00'	**24.0" x 36.0" Horiz. Orifice/Grate -100-YR** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=5.69 cfs @ 12.45 hrs HW=187.31' (Free Discharge)
- **1=Rect. Orifice -10-YR** (Orifice Controls 5.69 cfs @ 4.27 fps)
- **2=Rect. Orifice - 25-yr** (Orifice Controls 0.00 cfs @ 0.17 fps)
- **3=Orifice/Grate -100-YR** (Controls 0.00 cfs)

Pond DP-303.1: POND



Summary for Pond DP-304.1: POND

Inflow Area = 5.875 ac, 0.00% Impervious, Inflow Depth = 2.36" for 10-yr event
Inflow = 10.58 cfs @ 12.22 hrs, Volume= 1.157 af
Outflow = 6.65 cfs @ 12.43 hrs, Volume= 1.157 af, Atten= 37%, Lag= 12.6 min
Primary = 6.65 cfs @ 12.43 hrs, Volume= 1.157 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 207.02' @ 12.43 hrs Surf.Area= 5,492 sf Storage= 5,749 cf

Plug-Flow detention time= 5.9 min calculated for 1.157 af (100% of inflow)
Center-of-Mass det. time= 5.9 min (880.9 - 874.9)

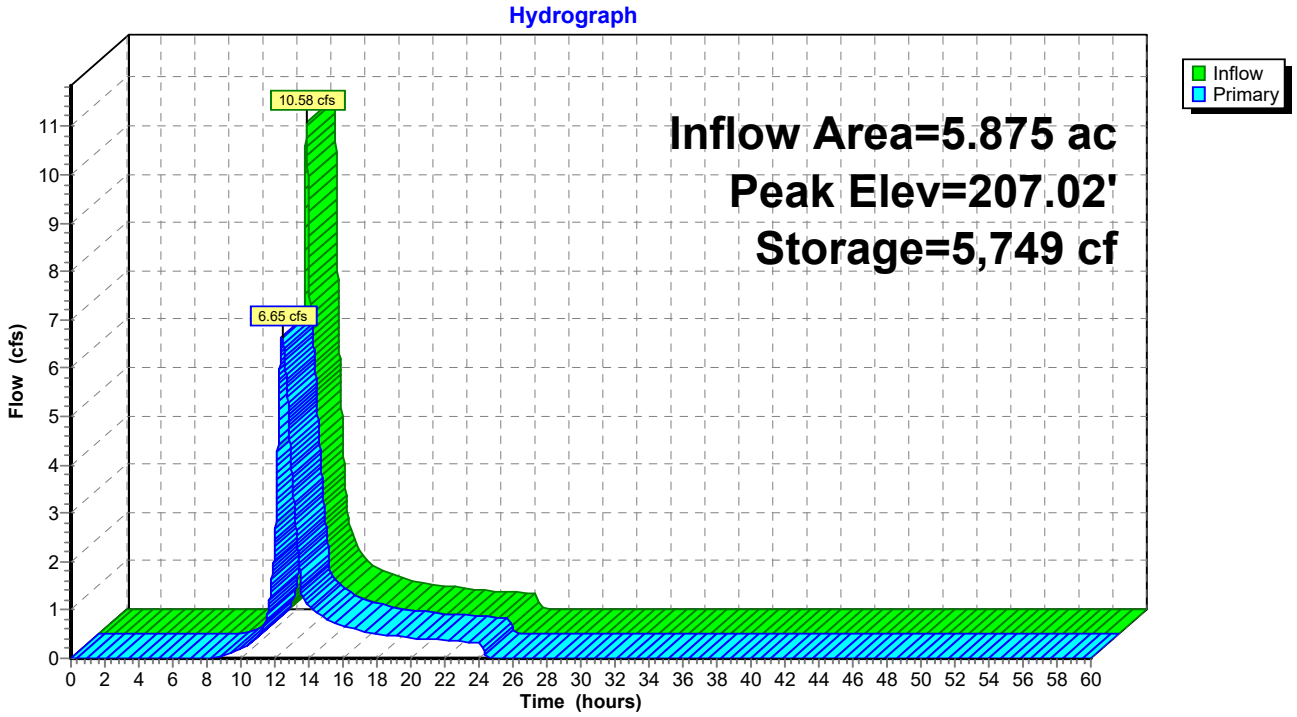
Volume	Invert	Avail.Storage	Storage Description
#1	205.50'	22,334 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
205.50	3,830	0	0
206.00	4,604	2,109	2,109
206.50	2,033	1,659	3,768
207.00	5,474	1,877	5,645
207.50	5,934	2,852	8,497
208.00	6,408	3,086	11,582
208.50	6,900	3,327	14,909
209.00	7,417	3,579	18,488
209.50	7,965	3,846	22,334

Device	Routing	Invert	Outlet Devices
#1	Primary	205.00'	**17.0" W x 8.5" H Vert. Rect. Orifice - 10-YR** C= 0.600
#2	Primary	206.79'	**14.5" W x 6.0" H Vert. Rect. Orifice - 25-YR** C= 0.600
#3	Primary	208.00'	**24.0" x 36.0" Horiz. Horiz. Inlet - Emergency Inlet** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=6.65 cfs @ 12.43 hrs HW=207.02' (Free Discharge)
- **1=Rect. Orifice - 10-YR** (Orifice Controls 6.22 cfs @ 6.20 fps)
- **2=Rect. Orifice - 25-YR** (Orifice Controls 0.43 cfs @ 1.54 fps)
- **3=Horiz. Inlet - Emergency Inlet** (Controls 0.00 cfs)

Pond DP-304.1: POND



Time span=0.00-60.00 hrs, dt=0.01 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment PDA-100.1: SOLAR FARM Runoff Area=520,481 sf 1.38% Impervious Runoff Depth=2.06"
Flow Length=941' Tc=18.0 min CN=60 Runoff=18.26 cfs 2.051 af

Subcatchment PDA-100.2: GRASS Runoff Area=32,550 sf 0.00% Impervious Runoff Depth=1.89"
Flow Length=58' Slope=0.0510 '/' Tc=6.1 min CN=58 Runoff=1.67 cfs 0.118 af

Subcatchment PDA-101.1: SOLAR FARM Runoff Area=90,361 sf 4.48% Impervious Runoff Depth=2.32"
Flow Length=410' Tc=12.1 min CN=63 Runoff=4.46 cfs 0.402 af

Subcatchment PDA-101.2: GRASS Runoff Area=47,554 sf 0.00% Impervious Runoff Depth=3.56"
Flow Length=164' Slope=0.0400 '/' Tc=11.2 min CN=76 Runoff=3.92 cfs 0.324 af

Subcatchment PDA-200.1: SOLAR FARM Runoff Area=128,991 sf 3.02% Impervious Runoff Depth=2.32"
Flow Length=440' Tc=12.9 min CN=63 Runoff=6.20 cfs 0.574 af

Subcatchment PDA-200.2: ACCESS ROAD, Runoff Area=74,126 sf 0.00% Impervious Runoff Depth=2.15"
Flow Length=420' Tc=11.7 min CN=61 Runoff=3.37 cfs 0.305 af

Subcatchment PDA-201.1: SOLAR FARM Runoff Area=83,227 sf 1.94% Impervious Runoff Depth=2.06"
Flow Length=506' Tc=13.0 min CN=60 Runoff=3.43 cfs 0.328 af

Subcatchment PDA-201.2: ACCESS ROAD, Runoff Area=19,716 sf 0.00% Impervious Runoff Depth=1.89"
Flow Length=506' Tc=13.0 min CN=58 Runoff=0.73 cfs 0.071 af

Subcatchment PDA-202: Solar Farm Runoff Area=450,459 sf 2.43% Impervious Runoff Depth=2.15"
Flow Length=905' Tc=13.8 min CN=61 Runoff=19.01 cfs 1.850 af

Subcatchment PDA-203: UNDEVELOPED Runoff Area=801,310 sf 0.00% Impervious Runoff Depth=2.88"
Flow Length=1,598' Tc=26.0 min CN=69 Runoff=34.37 cfs 4.411 af

Subcatchment PDA-204: UNDEVELOPED Runoff Area=47,524 sf 0.00% Impervious Runoff Depth=2.06"
Flow Length=486' Tc=16.7 min CN=60 Runoff=1.74 cfs 0.187 af

Subcatchment PDA-205.1: SOLAR FARM Runoff Area=146,606 sf 0.00% Impervious Runoff Depth=2.51"
Flow Length=811' Tc=13.8 min CN=65 Runoff=7.43 cfs 0.703 af

Subcatchment PDA-205.2: SOLAR FARM Runoff Area=215,116 sf 0.00% Impervious Runoff Depth=2.69"
Flow Length=854' Tc=13.4 min CN=67 Runoff=12.01 cfs 1.107 af

Subcatchment PDA-205.3: ACCESS ROAD, Runoff Area=234,811 sf 0.00% Impervious Runoff Depth=2.60"
Flow Length=436' Tc=9.3 min CN=66 Runoff=14.93 cfs 1.167 af

Subcatchment PDA-206.1: SOLAR FARM Runoff Area=481,525 sf 0.00% Impervious Runoff Depth=2.24"
Flow Length=1,181' Tc=19.5 min CN=62 Runoff=17.94 cfs 2.059 af

Subcatchment PDA-206.2: SOLAR FARM Runoff Area=124,905 sf 0.00% Impervious Runoff Depth=2.97"
Flow Length=660' Tc=10.0 min CN=70 Runoff=8.96 cfs 0.710 af

Subcatchment PDA-207.1: SOLAR FARM Runoff Area=10,073 sf 0.00% Impervious Runoff Depth=1.89"
Flow Length=315' Tc=13.8 min CN=58 Runoff=0.36 cfs 0.036 af

Subcatchment PDA-207.2: SOLAR FARM Runoff Area=338,199 sf 0.00% Impervious Runoff Depth=1.97"
Flow Length=674' Tc=10.6 min CN=59 Runoff=14.52 cfs 1.277 af

Subcatchment PDA-207.3: SOLAR FARM Runoff Area=416,598 sf 0.00% Impervious Runoff Depth=2.32"
Flow Length=1,175' Tc=17.0 min CN=63 Runoff=17.49 cfs 1.852 af

Subcatchment PDA-208.1: SOLAR FARM Runoff Area=14,791 sf 0.00% Impervious Runoff Depth=1.89"
Flow Length=148' Tc=8.6 min CN=58 Runoff=0.66 cfs 0.053 af

Subcatchment PDA-208.2: ACCESS RD, Runoff Area=593,566 sf 0.00% Impervious Runoff Depth=2.60"
Flow Length=1,357' Tc=36.6 min CN=66 Runoff=18.81 cfs 2.949 af

Subcatchment PDA-209.1: SOLAR FARM Runoff Area=308,082 sf 0.00% Impervious Runoff Depth=1.97"
Flow Length=1,570' Tc=22.4 min CN=59 Runoff=9.21 cfs 1.164 af

Subcatchment PDA-209.2: SOLAR FARM, Runoff Area=465,264 sf 0.00% Impervious Runoff Depth=2.06"
Flow Length=1,525' Tc=21.0 min CN=60 Runoff=15.17 cfs 1.834 af

Subcatchment PDA-210: OFFSITE BASIN Runoff Area=29,356 sf 0.00% Impervious Runoff Depth=2.97"
Flow Length=321' Tc=23.8 min CN=70 Runoff=1.37 cfs 0.167 af

Subcatchment PDA-211: UNDEVELOPED Runoff Area=166,352 sf 0.00% Impervious Runoff Depth=3.46"
Flow Length=579' Tc=21.9 min CN=75 Runoff=9.50 cfs 1.102 af

Subcatchment PDA-212.1: SOLAR FARM Runoff Area=81,563 sf 0.00% Impervious Runoff Depth=1.89"
Flow Length=556' Tc=20.6 min CN=58 Runoff=2.40 cfs 0.295 af

Subcatchment PDA-212.2: GRASS Runoff Area=15,574 sf 0.00% Impervious Runoff Depth=2.24"
Flow Length=67' Slope=0.0902 '/' Tc=8.2 min CN=62 Runoff=0.88 cfs 0.067 af

Subcatchment PDA-213: ACCESS ROAD, Runoff Area=232,262 sf 0.00% Impervious Runoff Depth=2.88"
Flow Length=638' Tc=20.5 min CN=69 Runoff=11.29 cfs 1.279 af

Subcatchment PDA-300.1: SOLAR FARM Runoff Area=30,322 sf 0.00% Impervious Runoff Depth=3.46"
Flow Length=351' Tc=9.2 min CN=75 Runoff=2.66 cfs 0.201 af

Subcatchment PDA-300.2: GRASS Runoff Area=88,620 sf 0.00% Impervious Runoff Depth=3.66"
Flow Length=200' Tc=6.3 min CN=77 Runoff=9.54 cfs 0.621 af

Subcatchment PDA-301.1: SOLAR FARM Runoff Area=55,382 sf 0.00% Impervious Runoff Depth=3.26"
Flow Length=468' Tc=10.5 min CN=73 Runoff=4.30 cfs 0.346 af

Subcatchment PDA-301.2: GRASS Runoff Area=43,476 sf 0.00% Impervious Runoff Depth=3.66"
Flow Length=293' Tc=5.3 min CN=77 Runoff=4.93 cfs 0.305 af

Subcatchment PDA-302.1: Solar Farm Runoff Area=189,109 sf 0.00% Impervious Runoff Depth=2.60"
Flow Length=355' Tc=10.1 min CN=66 Runoff=11.58 cfs 0.940 af

Subcatchment PDA-302.2: GRASS Runoff Area=95,647 sf 0.00% Impervious Runoff Depth=3.46"
Flow Length=375' Tc=8.8 min CN=75 Runoff=8.51 cfs 0.633 af

Subcatchment PDA-303.1: SOLAR FARM Runoff Area=292,331 sf 0.00% Impervious Runoff Depth=3.26"
Flow Length=775' Tc=13.7 min CN=73 Runoff=19.95 cfs 1.825 af

Subcatchment PDA-303.2: GRASS Runoff Area=145,287 sf 0.00% Impervious Runoff Depth=3.77"
Flow Length=643' Tc=10.2 min CN=78 Runoff=13.23 cfs 1.046 af

Subcatchment PDA-304.1: SOLAR FARM Runoff Area=106,009 sf 0.00% Impervious Runoff Depth=3.17"
Flow Length=789' Tc=18.9 min CN=72 Runoff=5.96 cfs 0.642 af

Subcatchment PDA-304.2: SOLAR FARM, Runoff Area=67,405 sf 0.00% Impervious Runoff Depth=3.26"
Flow Length=228' Slope=0.3300 '/' Tc=8.7 min CN=73 Runoff=5.67 cfs 0.421 af

Subcatchment PDA-305.1: SOLAR FARM Runoff Area=149,887 sf 0.00% Impervious Runoff Depth=3.26"
Flow Length=936' Tc=19.3 min CN=73 Runoff=8.61 cfs 0.936 af

Subcatchment PDA-305.2: ACCESS ROAD, Runoff Area=73,928 sf 0.00% Impervious Runoff Depth=3.36"
Flow Length=100' Slope=0.3300 '/' Tc=5.0 min CN=74 Runoff=7.84 cfs 0.476 af

Reach DP-1: DISCHARGE OFFSITE TOWARDS STONY BROOK Inflow=20.50 cfs 2.895 af
Outflow=20.50 cfs 2.895 af

Reach DP-100: DISCHARGE OFFSITE Inflow=15.52 cfs 2.169 af
Outflow=15.52 cfs 2.169 af

Reach DP-101: DISCHARGE OFFSITE Inflow=6.95 cfs 0.726 af
Outflow=6.95 cfs 0.726 af

Reach DP-2: DISCHARGE TOWARDS OIL MILL BROOK Inflow=136.24 cfs 25.546 af
Outflow=136.24 cfs 25.546 af

Reach DP-200: DISCHARGE OFFSITE Inflow=7.27 cfs 0.878 af
Outflow=7.27 cfs 0.878 af

Reach DP-201: DISCHARGE OFFSITE Inflow=3.08 cfs 0.399 af
Outflow=3.08 cfs 0.399 af

Reach DP-202: DISCHARGE TO CENTRAL WETLAND Inflow=14.99 cfs 1.850 af
Outflow=14.99 cfs 1.850 af

Reach DP-205: DISCHARGE TO CENTRAL WETLAND Inflow=49.02 cfs 6.872 af
Outflow=49.02 cfs 6.872 af

Reach DP-206: DISCHARGE TO CENTRAL WETLAND Inflow=17.00 cfs 3.509 af
Outflow=17.00 cfs 3.509 af

Reach DP-207: DISCHARGE TO CENTRAL WETLAND Inflow=31.29 cfs 4.980 af
Outflow=31.29 cfs 4.980 af

Reach DP-208: DISCHARGE TO CENTRAL WETLAND Inflow=106.69 cfs 18.309 af
Outflow=106.69 cfs 18.309 af

Reach DP-209: DISCHARGE TO CENTRAL WETLAND Inflow=19.70 cfs 2.997 af
Outflow=19.70 cfs 2.997 af

Reach DP-210: DISCHARGE TO PDA-211 Inflow=1.37 cfs 0.167 af
Outflow=1.37 cfs 0.167 af

Reach DP-211: DISCHARGE TO CENTRAL WETLAND Inflow=111.27 cfs 19.578 af
Outflow=111.27 cfs 19.578 af

Reach DP-212: DISCHARGE OFFSITE Inflow=3.17 cfs 0.415 af
Outflow=3.17 cfs 0.415 af

Reach DP-213: DISCHARGE OFFSITE Inflow=11.29 cfs 1.279 af
Outflow=11.29 cfs 1.279 af

Reach DP-3: DISCHARGE TOWARDS STONY BROOK Inflow=59.30 cfs 8.391 af
Outflow=59.30 cfs 8.391 af

Reach DP-300: DISCHARGE OFFSITE Inflow=10.39 cfs 0.822 af
Outflow=10.39 cfs 0.822 af

Reach DP-301: DISCHARGE OFFSITE Inflow=4.93 cfs 0.305 af
Outflow=4.93 cfs 0.305 af

Reach DP-302: DISCHARGE OFFSITE Inflow=13.60 cfs 1.919 af
Outflow=13.60 cfs 1.919 af

Reach DP-303: DISCHARGE TO EASTERN WETLAND Inflow=17.56 cfs 2.872 af
Outflow=17.56 cfs 2.872 af

Reach DP-304: DISCHARGE OFFSITE Inflow=10.64 cfs 1.999 af
Outflow=10.64 cfs 1.999 af

Reach DP-305: DISCHARGE OFFSITE Inflow=7.84 cfs 0.476 af
Outflow=7.84 cfs 0.476 af

Reach R-202: FLOW THROUGH Avg. Flow Depth=0.34' Max Vel=1.81 fps Inflow=14.99 cfs 1.850 af
n=0.080 L=1,032.8' S=0.0697 '/' Capacity=617.17 cfs Outflow=12.99 cfs 1.850 af

Reach R-203: SHALLOW Avg. Flow Depth=0.66' Max Vel=2.48 fps Inflow=34.37 cfs 4.411 af
n=0.080 L=434.0' S=0.0527 '/' Capacity=597.69 cfs Outflow=33.94 cfs 4.411 af

Reach R-204: SHALLOW Avg. Flow Depth=0.10' Max Vel=0.69 fps Inflow=1.74 cfs 0.187 af
n=0.080 L=446.0' S=0.0499 '/' Capacity=5.78 cfs Outflow=1.36 cfs 0.187 af

Reach R-205.2: SHALLOW Avg. Flow Depth=0.25' Max Vel=1.37 fps Inflow=12.01 cfs 1.107 af
n=0.080 L=446.0' S=0.0600 '/' Capacity=30.16 cfs Outflow=10.59 cfs 1.107 af

Reach R-205/206: FLOW THROUGH Avg. Flow Depth=0.55' Max Vel=1.98 fps Inflow=66.02 cfs 10.380 af
n=0.080 L=1,050.0' S=0.0431 '/' Capacity=4,524.76 cfs Outflow=61.58 cfs 10.380 af

Reach R-207: FLOW THROUGH Avg. Flow Depth=0.33' Max Vel=1.17 fps Inflow=31.29 cfs 4.980 af
n=0.080 L=292.0' S=0.0298 '/' Capacity=179.76 cfs Outflow=30.15 cfs 4.980 af

Reach R-207.1: DISCHARGE INTO Avg. Flow Depth=0.07' Max Vel=2.41 fps Inflow=0.36 cfs 0.036 af
n=0.030 L=183.8' S=0.0925 '/' Capacity=84.66 cfs Outflow=0.36 cfs 0.036 af

Reach R-208: FLOW THROUGH Avg. Flow Depth=0.48' Max Vel=1.48 fps Inflow=106.69 cfs 18.309 af
n=0.080 L=250.0' S=0.0287 '/' Capacity=634.06 cfs Outflow=106.08 cfs 18.309 af

Reach R-208.1: DISCHARGE INTO Avg. Flow Depth=0.18' Max Vel=2.91 fps Inflow=0.66 cfs 0.053 af
n=0.030 L=226.0' S=0.0856 '/' Capacity=131.22 cfs Outflow=0.64 cfs 0.053 af

Reach R-210: FLOW THROUGH Avg. Flow Depth=0.11' Max Vel=0.34 fps Inflow=1.37 cfs 0.167 af
n=0.080 L=170.0' S=0.0105 '/' Capacity=284.60 cfs Outflow=1.23 cfs 0.167 af

Reach R-301.1: FLOW THROUGH Avg. Flow Depth=0.24' Max Vel=1.20 fps Inflow=4.30 cfs 0.346 af
n=0.080 L=211.0' S=0.0474 '/' Capacity=209.28 cfs Outflow=4.01 cfs 0.346 af

Pond DP-100.1: POND Peak Elev=173.18' Storage=5,380 cf Inflow=18.26 cfs 2.051 af
Outflow=15.02 cfs 2.051 af

Pond DP-101.1: POND Peak Elev=232.11' Storage=969 cf Inflow=4.46 cfs 0.402 af
Outflow=3.73 cfs 0.402 af

Pond DP-200.1: POND Peak Elev=181.31' Storage=2,000 cf Inflow=6.20 cfs 0.574 af
Outflow=4.67 cfs 0.574 af

Pond DP-201.1: POND Peak Elev=163.79' Storage=976 cf Inflow=3.43 cfs 0.328 af
Outflow=2.49 cfs 0.328 af

Pond DP-202.1: POND Peak Elev=192.31' Storage=5,329 cf Inflow=19.01 cfs 1.850 af
Outflow=14.99 cfs 1.850 af

Pond DP-206.1: POND Peak Elev=200.18' Storage=17,524 cf Inflow=24.85 cfs 2.798 af
Outflow=14.26 cfs 2.798 af

Pond DP-207.1: POND Peak Elev=173.55' Storage=4,321 cf Inflow=14.52 cfs 1.277 af
Outflow=10.55 cfs 1.277 af

Pond DP-209.1: POND Peak Elev=150.16' Storage=5,242 cf Inflow=9.21 cfs 1.164 af
Outflow=6.22 cfs 1.164 af

Pond DP-212.1: POND Peak Elev=123.52' Storage=172 cf Inflow=2.80 cfs 0.348 af
Outflow=2.78 cfs 0.348 af

Pond DP-300.1: POND Peak Elev=231.46' Storage=920 cf Inflow=2.66 cfs 0.201 af
Outflow=1.65 cfs 0.201 af

Pond DP-302.1: POND Peak Elev=212.63' Storage=6,052 cf Inflow=14.30 cfs 1.285 af
Outflow=8.52 cfs 1.285 af

Pond DP-303.1: POND Peak Elev=187.66' Storage=15,843 cf Inflow=19.95 cfs 1.825 af
Outflow=7.83 cfs 1.825 af

Pond DP-304.1: POND Peak Elev=207.51' Storage=8,583 cf Inflow=14.56 cfs 1.578 af
Outflow=9.07 cfs 1.578 af

Total Runoff Area = 172.368 ac Runoff Volume = 36.832 af Average Runoff Depth = 2.56"
99.63% Pervious = 171.731 ac 0.37% Impervious = 0.637 ac

Summary for Subcatchment PDA-100.1: SOLAR FARM SOUTHERN

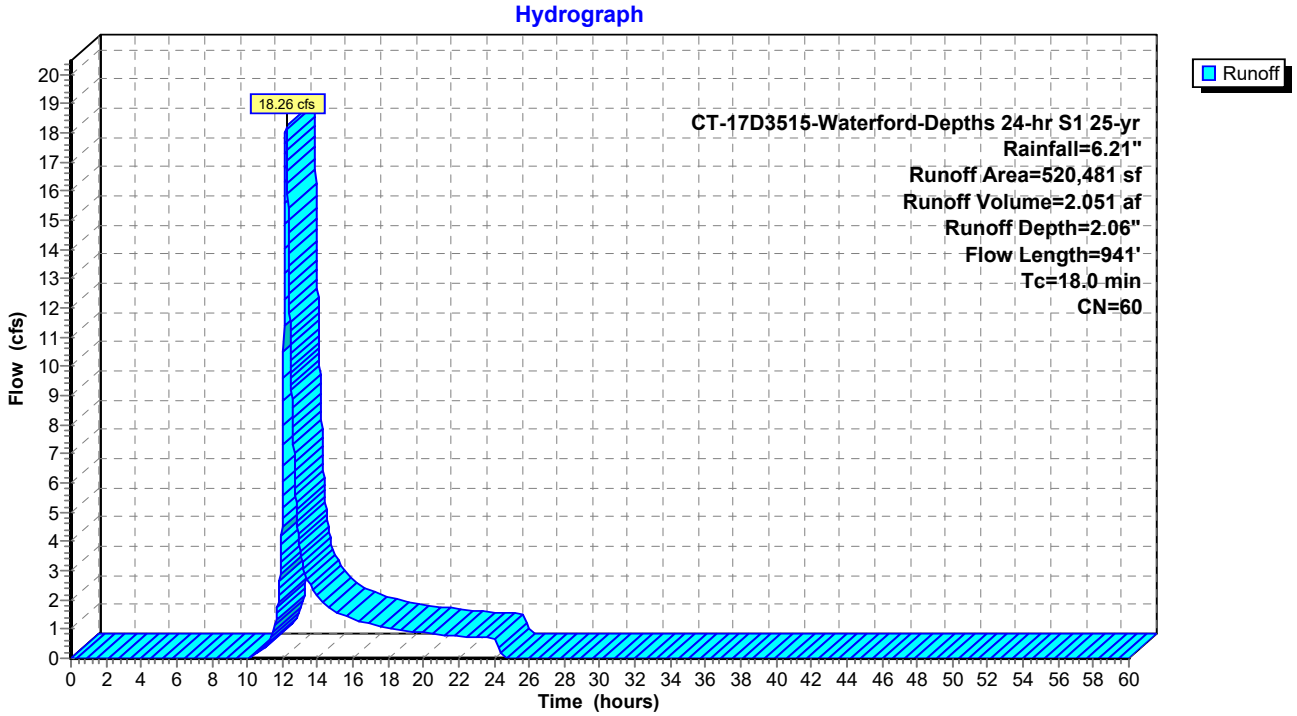
Runoff = 18.26 cfs @ 12.21 hrs, Volume= 2.051 af, Depth= 2.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
490,685	58	Meadow, non-grazed, HSG B
22,588	85	Gravel roads, HSG B
7,208	98	Water Surface, HSG B
520,481	60	Weighted Average
513,273	59	98.62% Pervious Area
7,208	98	1.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.0768	0.21		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
10.0	841	0.0402	1.40		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
18.0	941	Total			

Subcatchment PDA-100.1: SOLAR FARM SOUTHERN



Summary for Subcatchment PDA-100.2: GRASS (UNDETAINED)

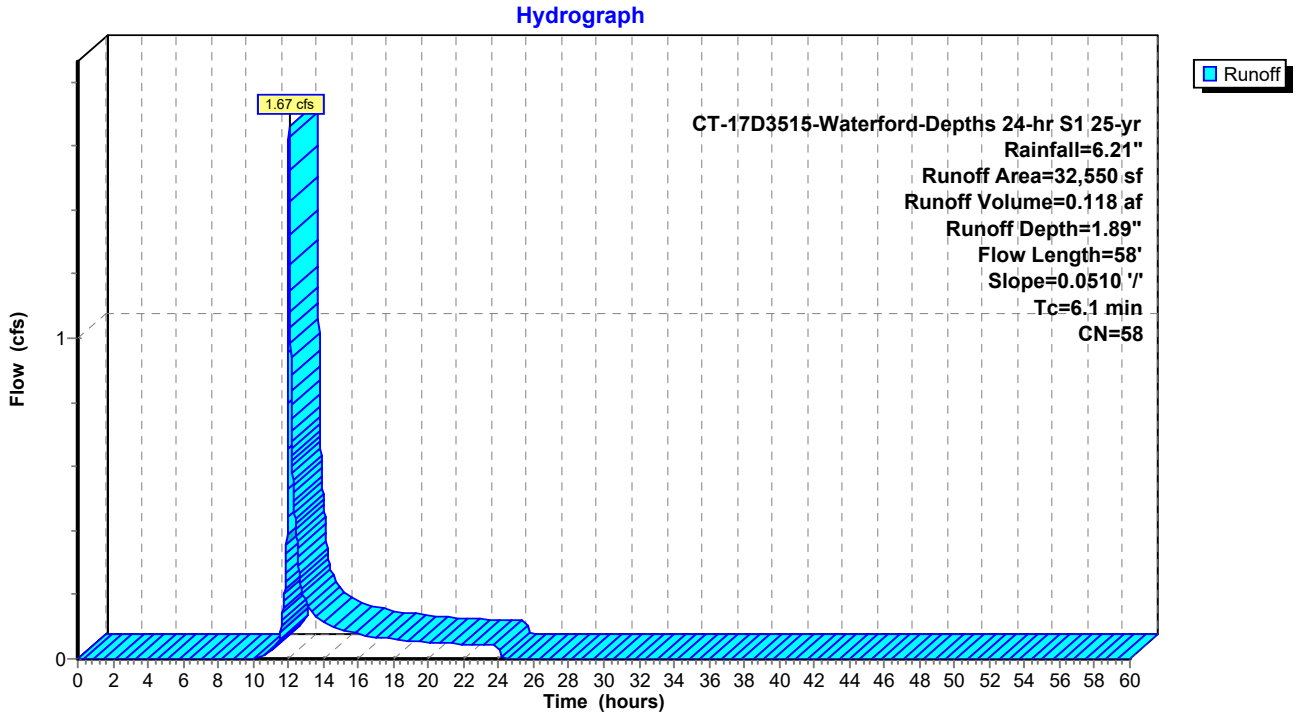
Runoff = 1.67 cfs @ 12.04 hrs, Volume= 0.118 af, Depth= 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
32,550	58	Meadow, non-grazed, HSG B
32,550	58	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	58	0.0510	0.16		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"

Subcatchment PDA-100.2: GRASS (UNDETAINED)



Summary for Subcatchment PDA-101.1: SOLAR FARM (SOUTHERN)

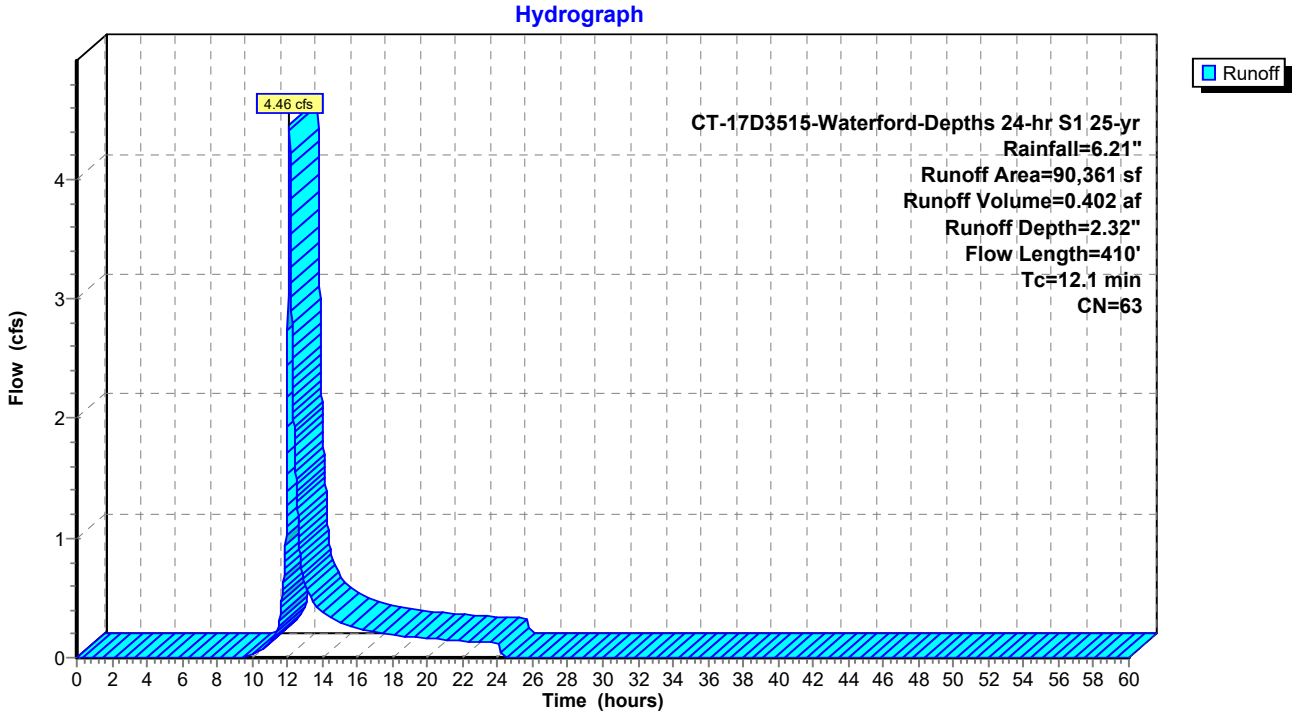
Runoff = 4.46 cfs @ 12.12 hrs, Volume= 0.402 af, Depth= 2.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
71,575	58	Meadow, non-grazed, HSG B
14,734	78	Meadow, non-grazed, HSG D
2,205	98	Water Surface, HSG B
1,847	98	Water Surface, HSG D
90,361	63	Weighted Average
86,309	61	95.52% Pervious Area
4,052	98	4.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0726	0.20		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
3.9	310	0.0355	1.32		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
12.1	410	Total			

Subcatchment PDA-101.1: SOLAR FARM (SOUTHERN)



Summary for Subcatchment PDA-101.2: GRASS (UNDETAINED)

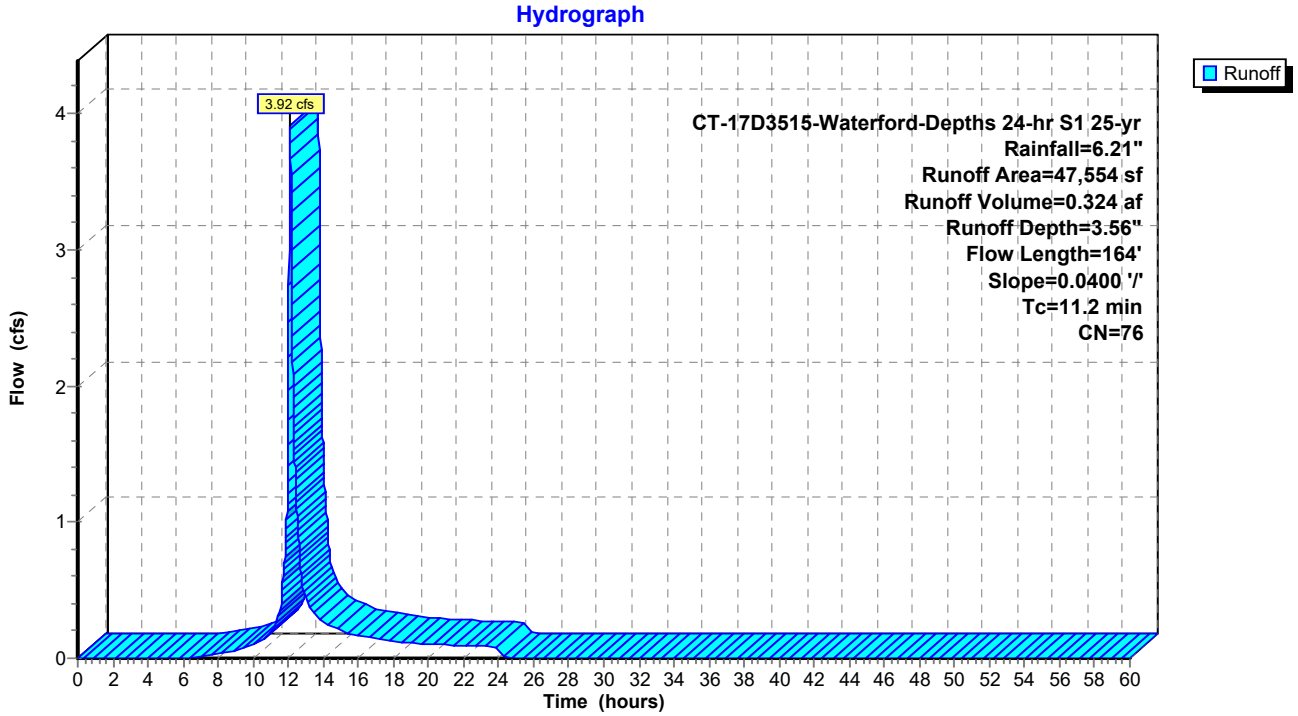
Runoff = 3.92 cfs @ 12.10 hrs, Volume= 0.324 af, Depth= 3.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
3,921	58	Meadow, non-grazed, HSG B
43,633	78	Meadow, non-grazed, HSG D
47,554	76	Weighted Average
47,554	76	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.0400	0.16		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
0.8	64	0.0400	1.40		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
11.2	164	Total			

Subcatchment PDA-101.2: GRASS (UNDETAINED)



Summary for Subcatchment PDA-200.1: SOLAR FARM (SOUTHWEST)

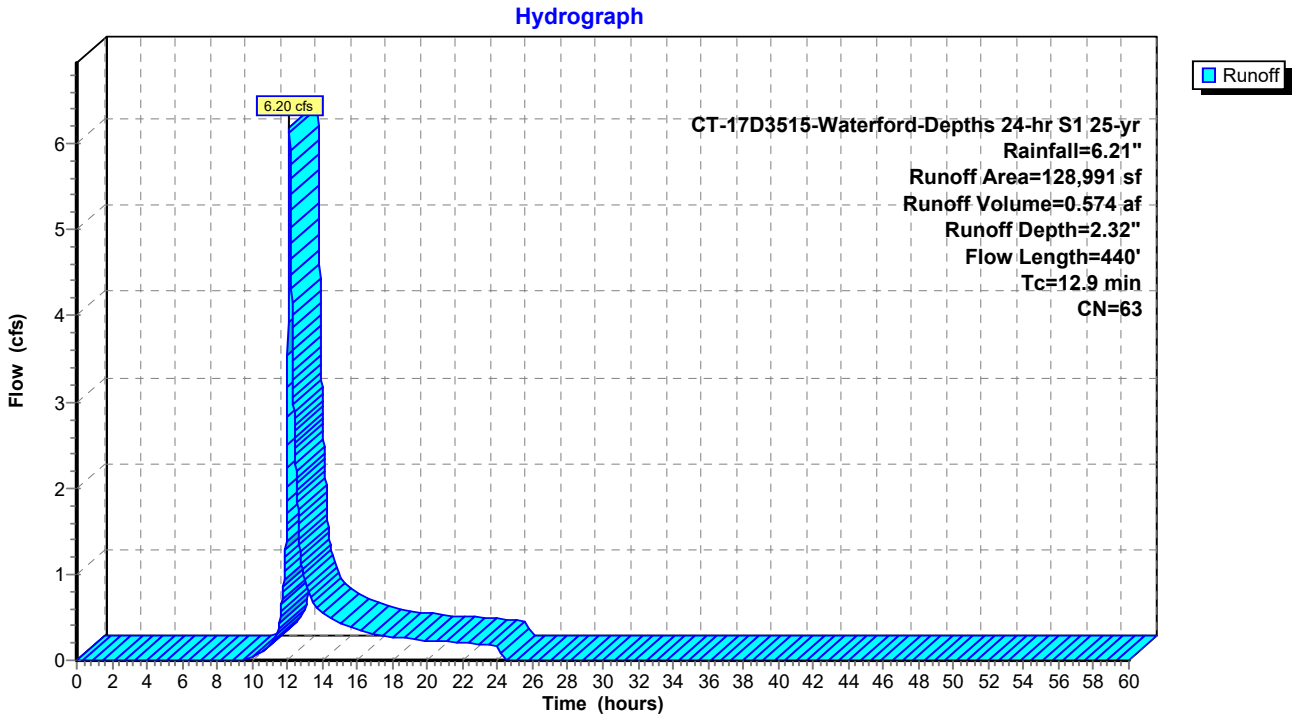
Runoff = 6.20 cfs @ 12.14 hrs, Volume= 0.574 af, Depth= 2.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
109,000	58	Meadow, non-grazed, HSG B
16,101	85	Gravel roads, HSG B
3,890	98	Water Surface, HSG B
128,991	63	Weighted Average
125,101	61	96.98% Pervious Area
3,890	98	3.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	100	0.0366	0.15		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
2.1	340	0.1554	2.76		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
12.9	440	Total			

Subcatchment PDA-200.1: SOLAR FARM (SOUTHWEST)



Summary for Subcatchment PDA-200.2: ACCESS ROAD, GRASS (UNDETAINED)

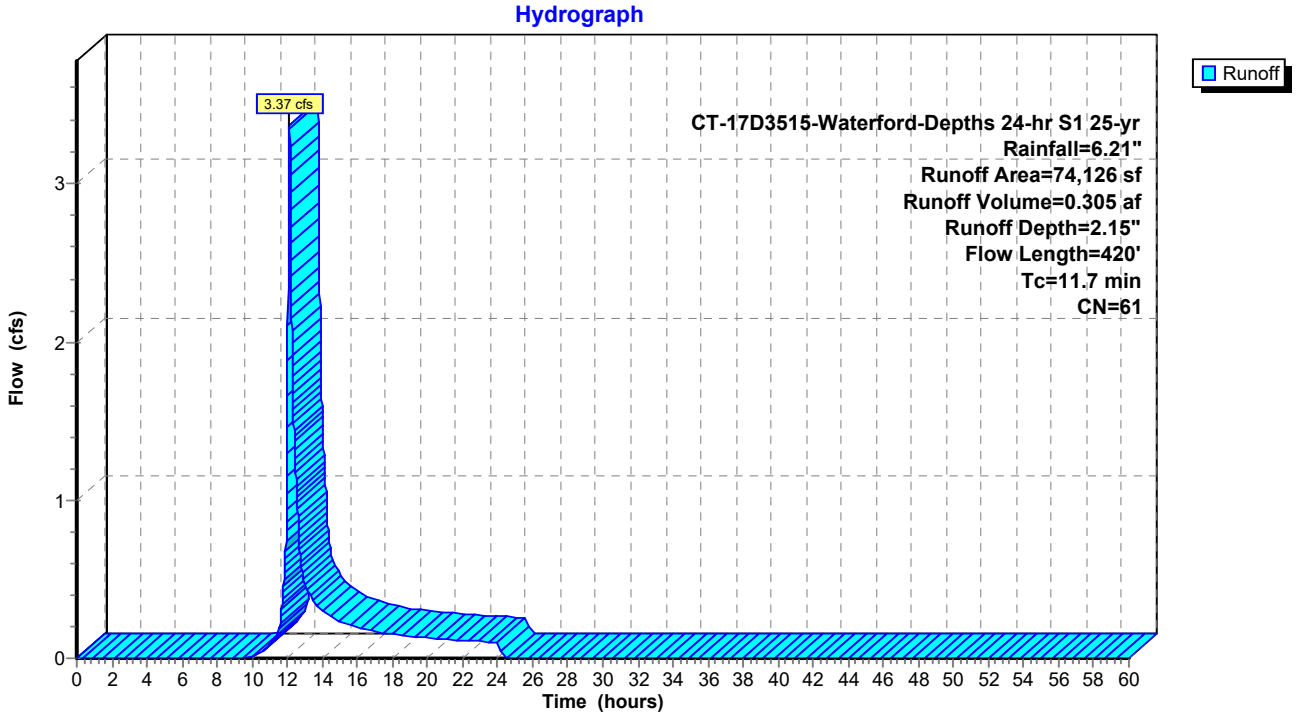
Runoff = 3.37 cfs @ 12.12 hrs, Volume= 0.305 af, Depth= 2.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
67,692	58	Meadow, non-grazed, HSG B
6,434	96	Gravel surface, HSG B
74,126	61	Weighted Average
74,126	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.1	100	0.0557	0.18		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
2.6	320	0.0841	2.03		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
11.7	420	Total			

Subcatchment PDA-200.2: ACCESS ROAD, GRASS (UNDETAINED)



Summary for Subcatchment PDA-201.1: SOLAR FARM

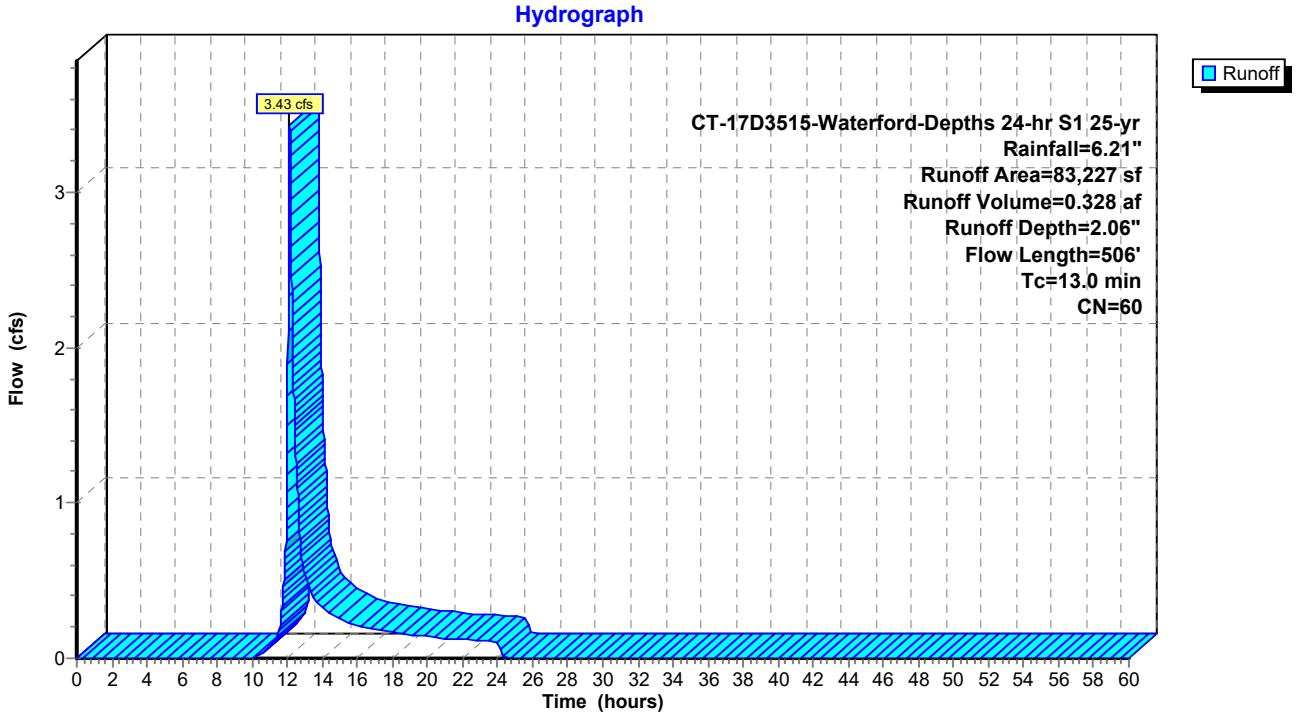
Runoff = 3.43 cfs @ 12.14 hrs, Volume= 0.328 af, Depth= 2.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
76,925	58	Meadow, non-grazed, HSG B
4,685	85	Gravel roads, HSG B
1,617	98	Water Surface, HSG B
83,227	60	Weighted Average
81,610	60	98.06% Pervious Area
1,617	98	1.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	100	0.0451	0.17		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
3.1	406	0.0973	2.18		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
13.0	506	Total			

Subcatchment PDA-201.1: SOLAR FARM



Summary for Subcatchment PDA-201.2: ACCESS ROAD, GRASS (UNDETAINED)

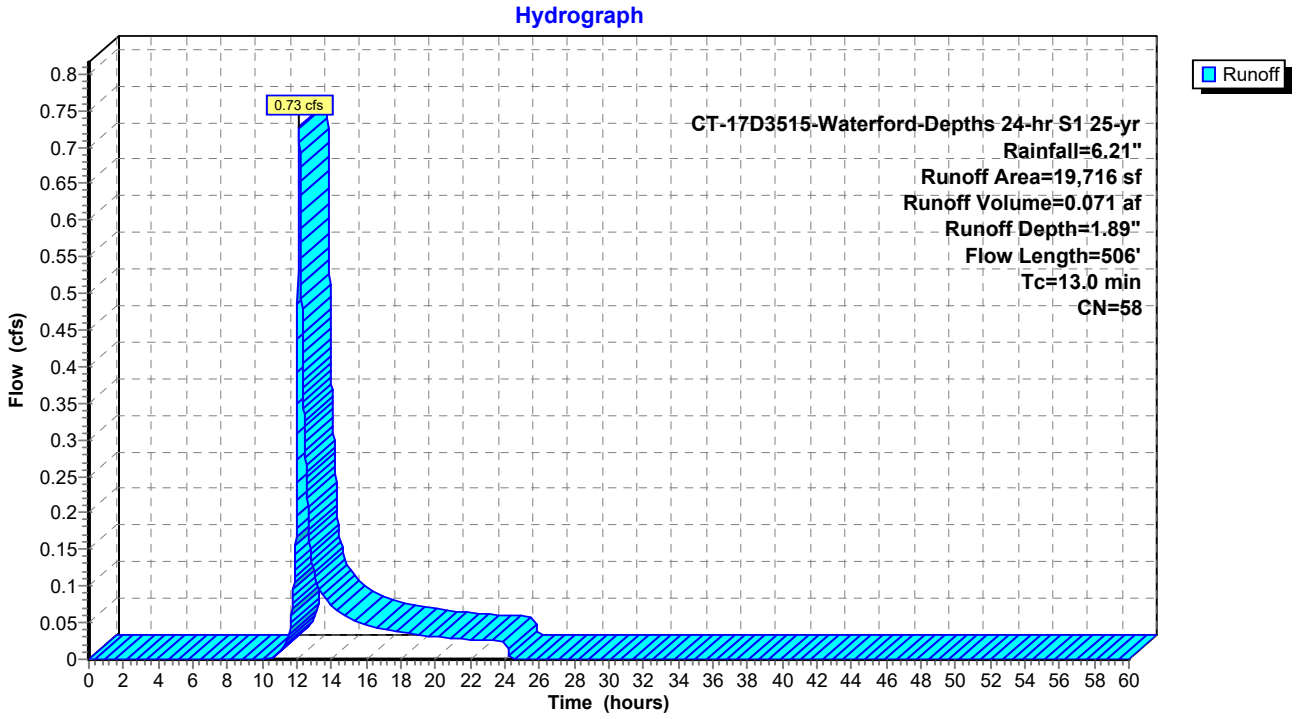
Runoff = 0.73 cfs @ 12.14 hrs, Volume= 0.071 af, Depth= 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
19,716	58	Meadow, non-grazed, HSG B
19,716	58	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	100	0.0451	0.17		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
3.1	406	0.0973	2.18		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
13.0	506	Total			

Subcatchment PDA-201.2: ACCESS ROAD, GRASS (UNDETAINED)



Summary for Subcatchment PDA-202: Solar Farm

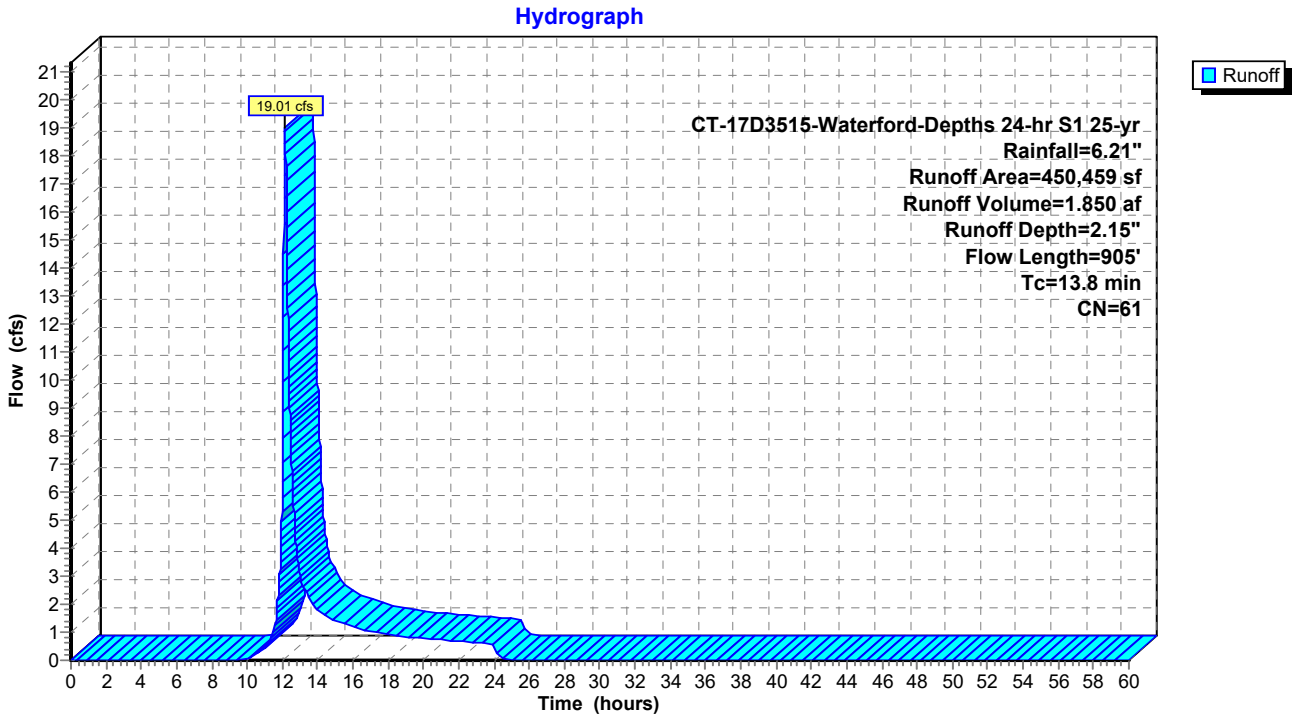
Runoff = 19.01 cfs @ 12.15 hrs, Volume= 1.850 af, Depth= 2.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
405,959	58	Meadow, non-grazed, HSG B
33,532	85	Gravel roads, HSG B
10,968	98	Water Surface, HSG B
450,459	61	Weighted Average
439,491	60	97.57% Pervious Area
10,968	98	2.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	100	0.1350	0.26		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
7.4	805	0.0678	1.82		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
13.8	905	Total			

Subcatchment PDA-202: Solar Farm



Summary for Subcatchment PDA-203: UNDEVELOPED FOREST (UNDISTURBED)

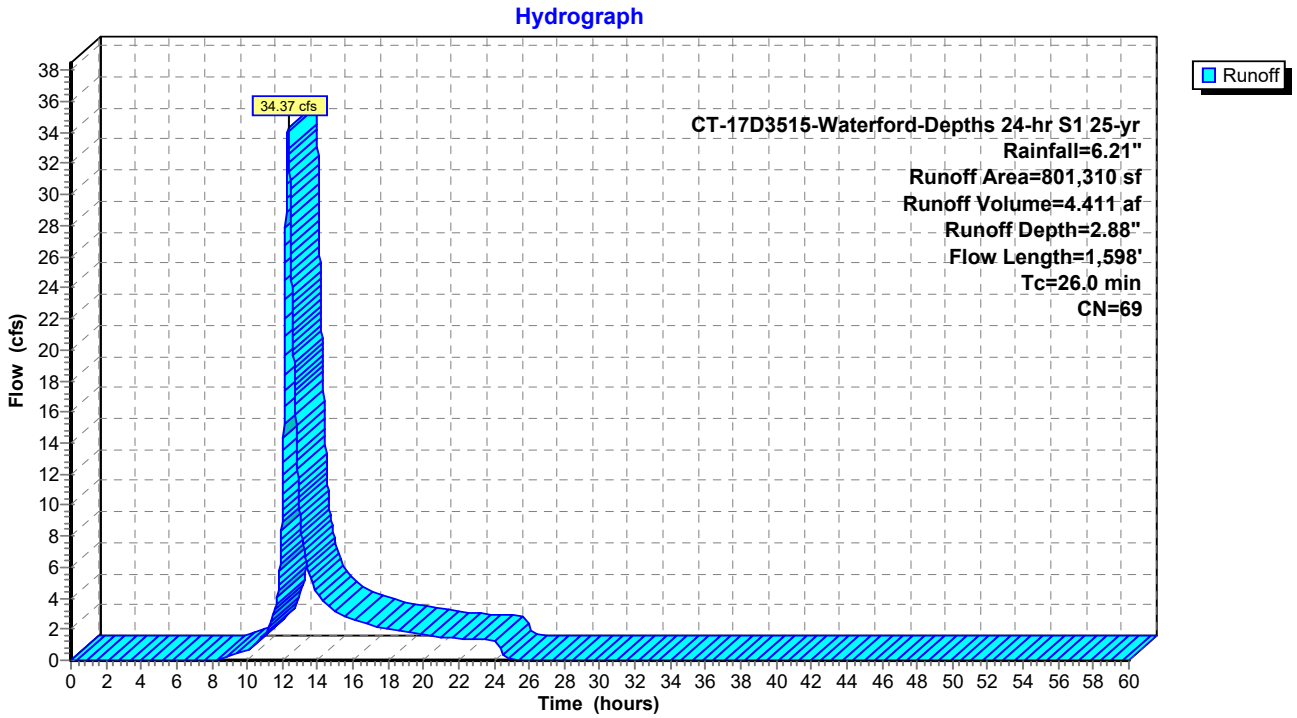
Runoff = 34.37 cfs @ 12.31 hrs, Volume= 4.411 af, Depth= 2.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
239,408	60	Woods, Fair, HSG B
555,898	73	Woods, Fair, HSG C
5,581	86	<50% Grass cover, Poor, HSG C
423	82	Dirt roads, HSG B
801,310	69	Weighted Average
801,310	69	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	100	1.0000	0.39		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
21.7	1,498	0.0530	1.15		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
26.0	1,598	Total			

Subcatchment PDA-203: UNDEVELOPED FOREST (UNDISTURBED)



Summary for Subcatchment PDA-204: UNDEVELOPED FOREST (UNDISTURBED)

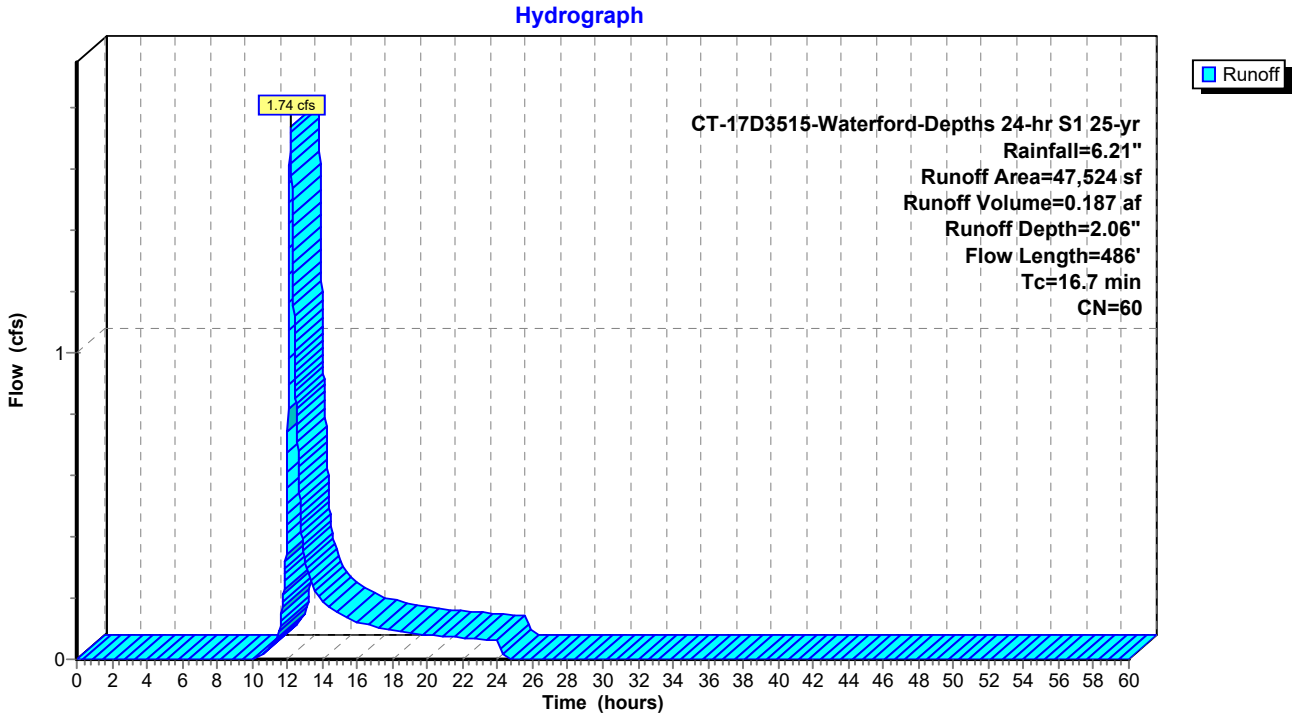
Runoff = 1.74 cfs @ 12.19 hrs, Volume= 0.187 af, Depth= 2.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
47,524	60	Woods, Fair, HSG B
47,524	60	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0	100	0.0786	0.14		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
4.7	386	0.0753	1.37		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
16.7	486	Total			

Subcatchment PDA-204: UNDEVELOPED FOREST (UNDISTURBED)



Summary for Subcatchment PDA-205.1: SOLAR FARM (ROUTED TO PDA-206.1 POND)

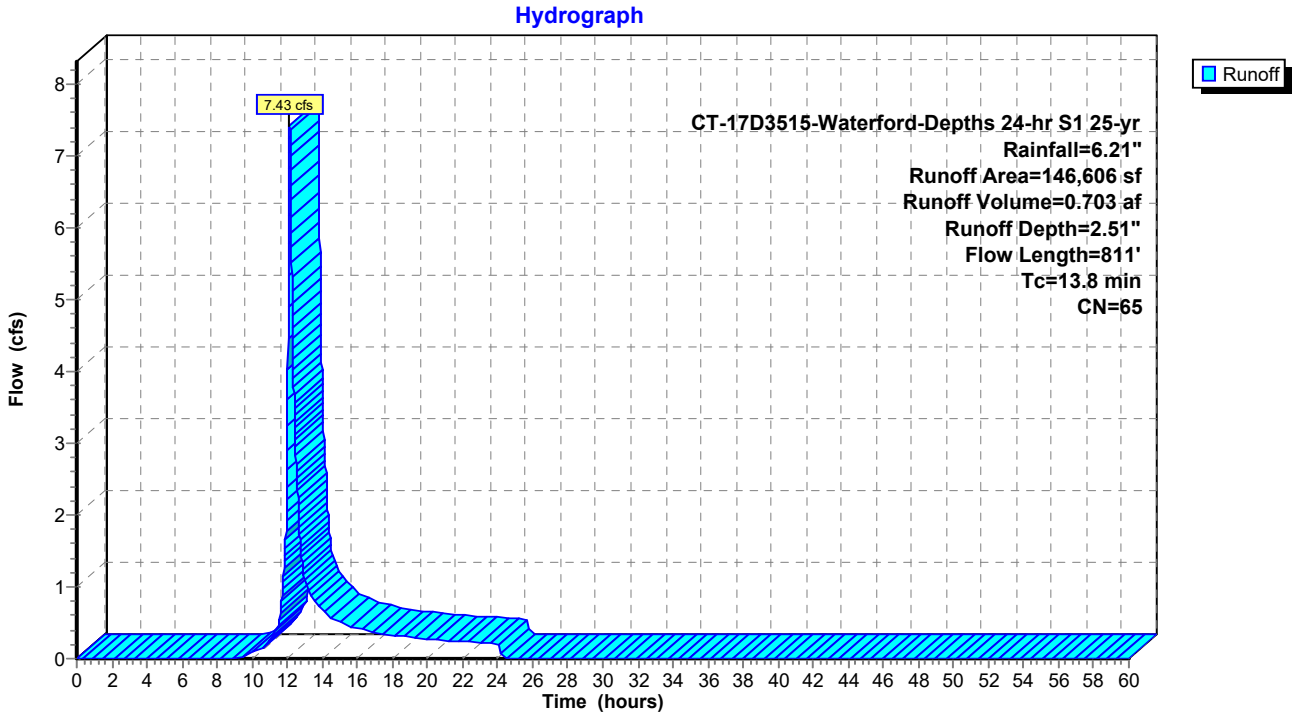
Runoff = 7.43 cfs @ 12.15 hrs, Volume= 0.703 af, Depth= 2.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
71,491	58	Meadow, non-grazed, HSG B
69,070	71	Meadow, non-grazed, HSG C
6,045	89	Gravel roads, HSG C
146,606	65	Weighted Average
146,606	65	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.0394	0.23		**Sheet Flow, SOLAR FARM** Grass: Short n= 0.150 P2= 3.45"
6.6	711	0.0654	1.79		**Shallow Concentrated Flow, Solar Farm - Swale** Short Grass Pasture Kv= 7.0 fps
13.8	811	Total			

Subcatchment PDA-205.1: SOLAR FARM (ROUTED TO PDA-206.1 POND)



Summary for Subcatchment PDA-205.2: SOLAR FARM (UNDETAINED)

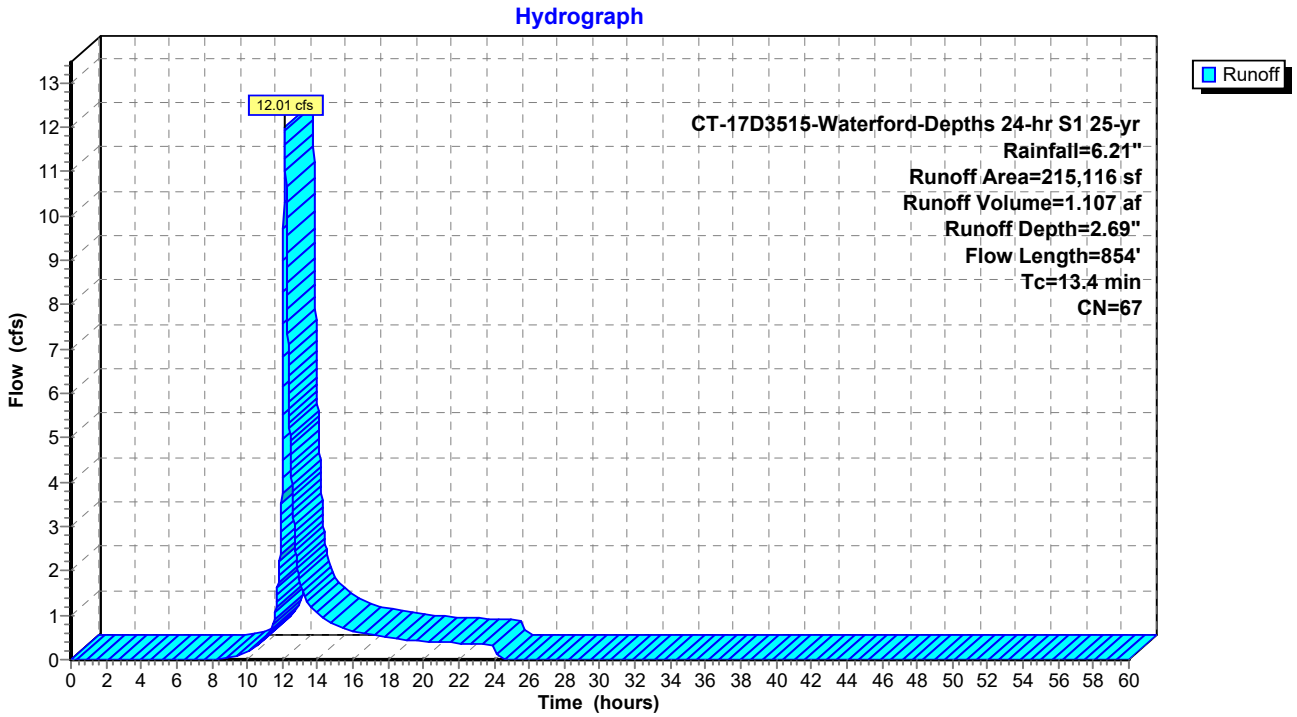
Runoff = 12.01 cfs @ 12.14 hrs, Volume= 1.107 af, Depth= 2.69"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
120,157	58	Meadow, non-grazed, HSG B
43,252	71	Meadow, non-grazed, HSG C
1,438	82	Dirt roads, HSG B
2,702	87	Dirt roads, HSG C
1,588	89	Gravel roads, HSG C
14,555	79	<50% Grass cover, Poor, HSG B
31,424	86	<50% Grass cover, Poor, HSG C
215,116	67	Weighted Average
215,116	67	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.0394	0.23		**Sheet Flow, Solar Farm** Grass: Short n= 0.150 P2= 3.45"
6.2	754	0.0840	2.03		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
13.4	854	Total			

Subcatchment PDA-205.2: SOLAR FARM (UNDETAINED)



Summary for Subcatchment PDA-205.3: ACCESS ROAD, GRASS (UNDETAINED)

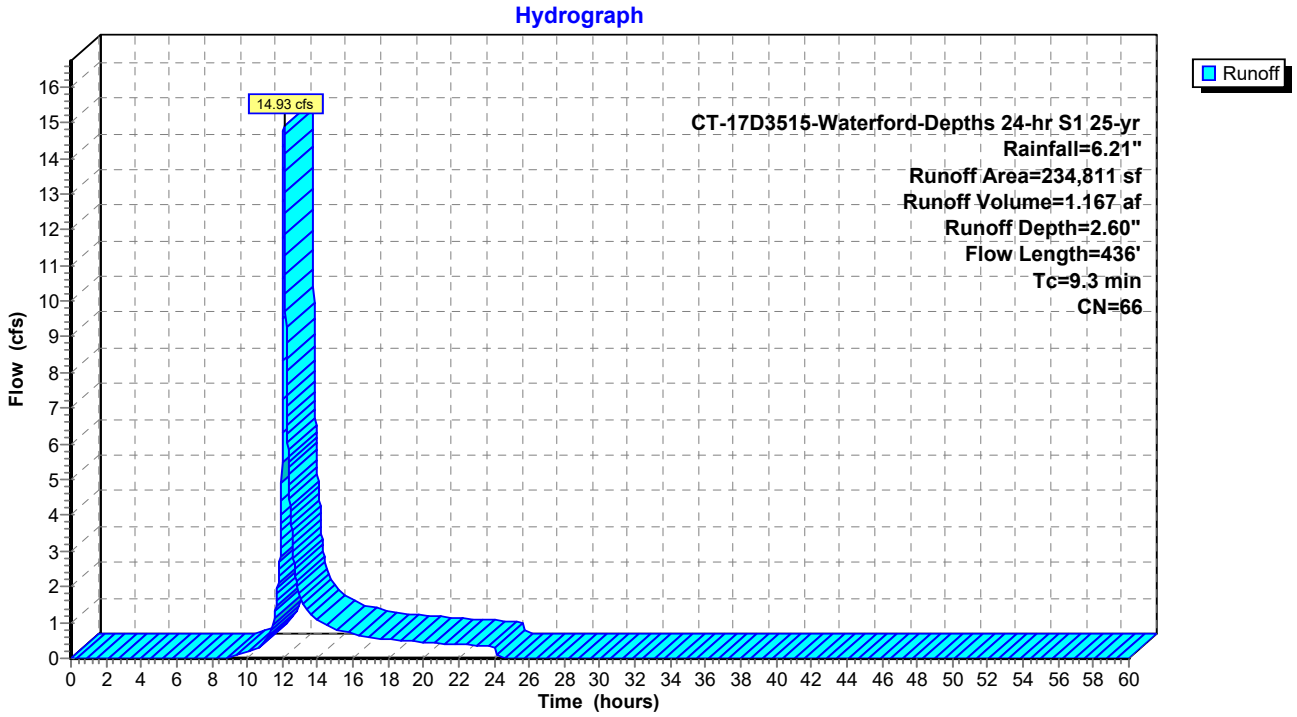
Runoff = 14.93 cfs @ 12.08 hrs, Volume= 1.167 af, Depth= 2.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
75,463	60	Woods, Fair, HSG B
4,943	58	Meadow, non-grazed, HSG B
74,632	56	Brush, Fair, HSG B
963	73	Woods, Fair, HSG C
2,022	71	Meadow, non-grazed, HSG C
8,238	82	Dirt roads, HSG B
49,723	79	<50% Grass cover, Poor, HSG B
5,864	86	<50% Grass cover, Poor, HSG C
8,573	85	Gravel roads, HSG B
4,390	89	Gravel roads, HSG C
234,811	66	Weighted Average
234,811	66	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	100	0.0621	0.28		**Sheet Flow, Brush** Grass: Short n= 0.150 P2= 3.45"
3.3	336	0.0590	1.70		**Shallow Concentrated Flow, Brush Wetland** Short Grass Pasture Kv= 7.0 fps
9.3	436	Total			

Subcatchment PDA-205.3: ACCESS ROAD, GRASS (UNDETAINED)



Summary for Subcatchment PDA-206.1: SOLAR FARM

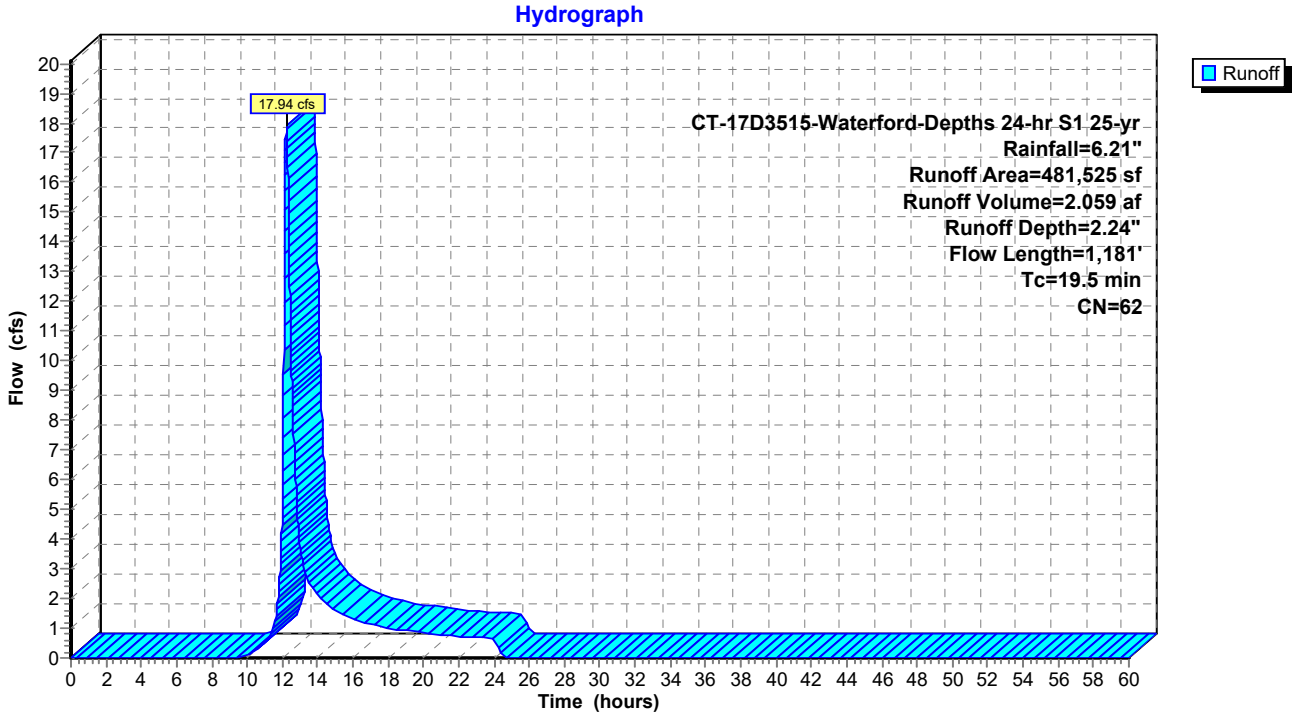
Runoff = 17.94 cfs @ 12.24 hrs, Volume= 2.059 af, Depth= 2.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
373,260	58	Meadow, non-grazed, HSG B
51,217	71	Meadow, non-grazed, HSG C
33,034	78	Meadow, non-grazed, HSG D
11,122	85	Gravel roads, HSG B
3,979	89	Gravel roads, HSG C
8,913	91	Gravel roads, HSG D
481,525	62	Weighted Average
481,525	62	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.0680	0.29		**Sheet Flow, Solar Farm** Grass: Short n= 0.150 P2= 3.45"
13.7	1,081	0.0352	1.31		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
19.5	1,181	Total			

Subcatchment PDA-206.1: SOLAR FARM



Summary for Subcatchment PDA-206.2: SOLAR FARM (UNDETAINED)

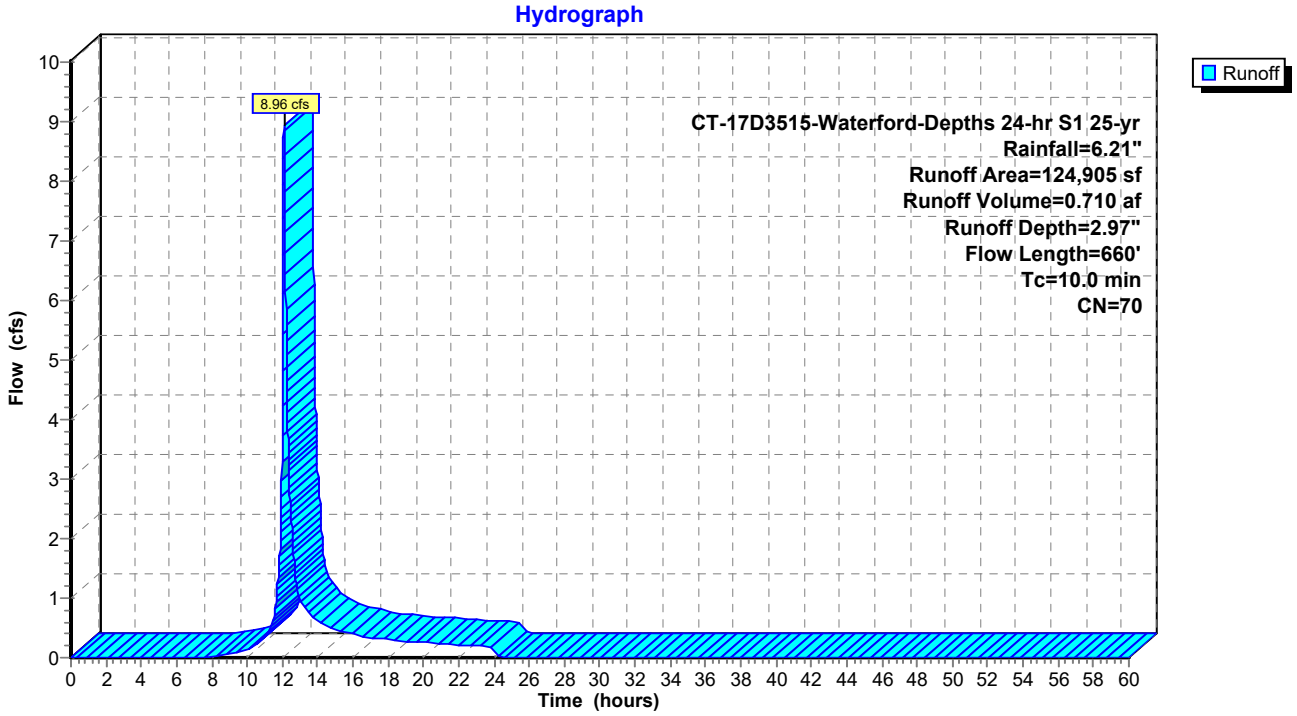
Runoff = 8.96 cfs @ 12.09 hrs, Volume= 0.710 af, Depth= 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
33,322	60	Woods, Fair, HSG B
31,779	58	Meadow, non-grazed, HSG B
3,856	82	Dirt roads, HSG B
17,360	85	Gravel roads, HSG B
38,588	79	<50% Grass cover, Poor, HSG B
124,905	70	Weighted Average
124,905	70	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.9	100	0.0650	0.28		**Sheet Flow, Solar Farm** Grass: Short n= 0.150 P2= 3.45"
4.1	560	0.1063	2.28		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
10.0	660	Total			

Subcatchment PDA-206.2: SOLAR FARM (UNDETAINED)



Summary for Subcatchment PDA-207.1: SOLAR FARM

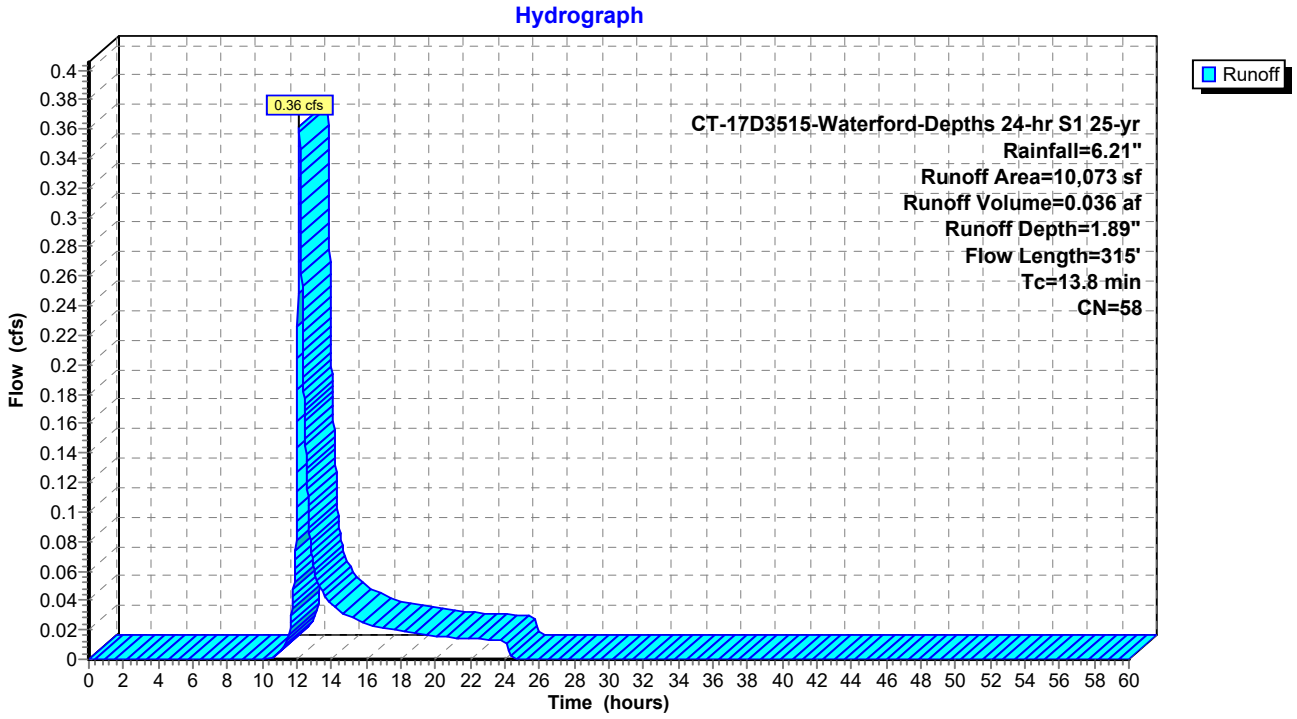
Runoff = 0.36 cfs @ 12.15 hrs, Volume= 0.036 af, Depth= 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
10,073	58	Meadow, non-grazed, HSG B
10,073	58	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.5	100	0.0310	0.14		**Sheet Flow, SOLAR FARM** Grass: Dense n= 0.240 P2= 3.45"
2.3	215	0.0507	1.58		**Shallow Concentrated Flow, SOLAR FARM** Short Grass Pasture Kv= 7.0 fps
13.8	315	Total			

Subcatchment PDA-207.1: SOLAR FARM



Summary for Subcatchment PDA-207.2: SOLAR FARM

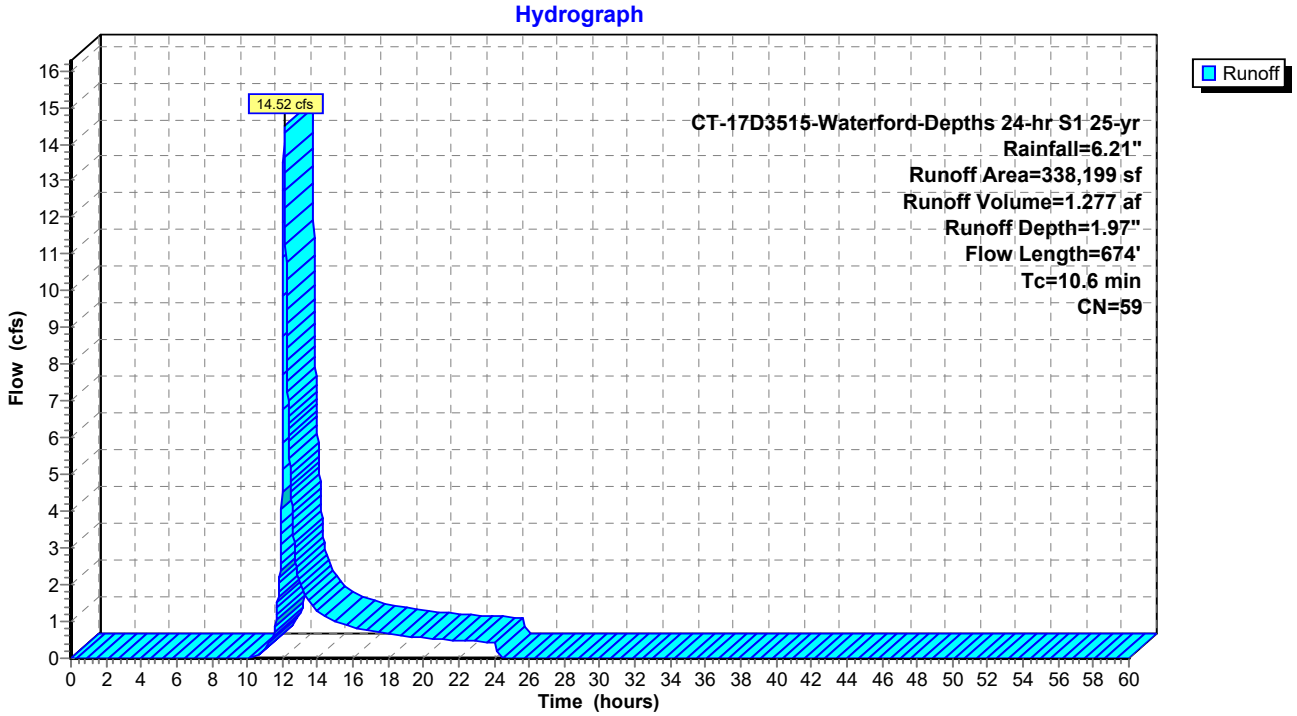
Runoff = 14.52 cfs @ 12.10 hrs, Volume= 1.277 af, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
321,133	58	Meadow, non-grazed, HSG B
17,066	85	Gravel roads, HSG B
338,199	59	Weighted Average
338,199	59	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.1493	0.27		**Sheet Flow, SOLAR FARM** Grass: Dense n= 0.240 P2= 3.45"
4.4	574	0.0968	2.18		**Shallow Concentrated Flow, SOLAR FARM** Short Grass Pasture Kv= 7.0 fps
10.6	674	Total			

Subcatchment PDA-207.2: SOLAR FARM



Summary for Subcatchment PDA-207.3: SOLAR FARM (UNDETAINED)

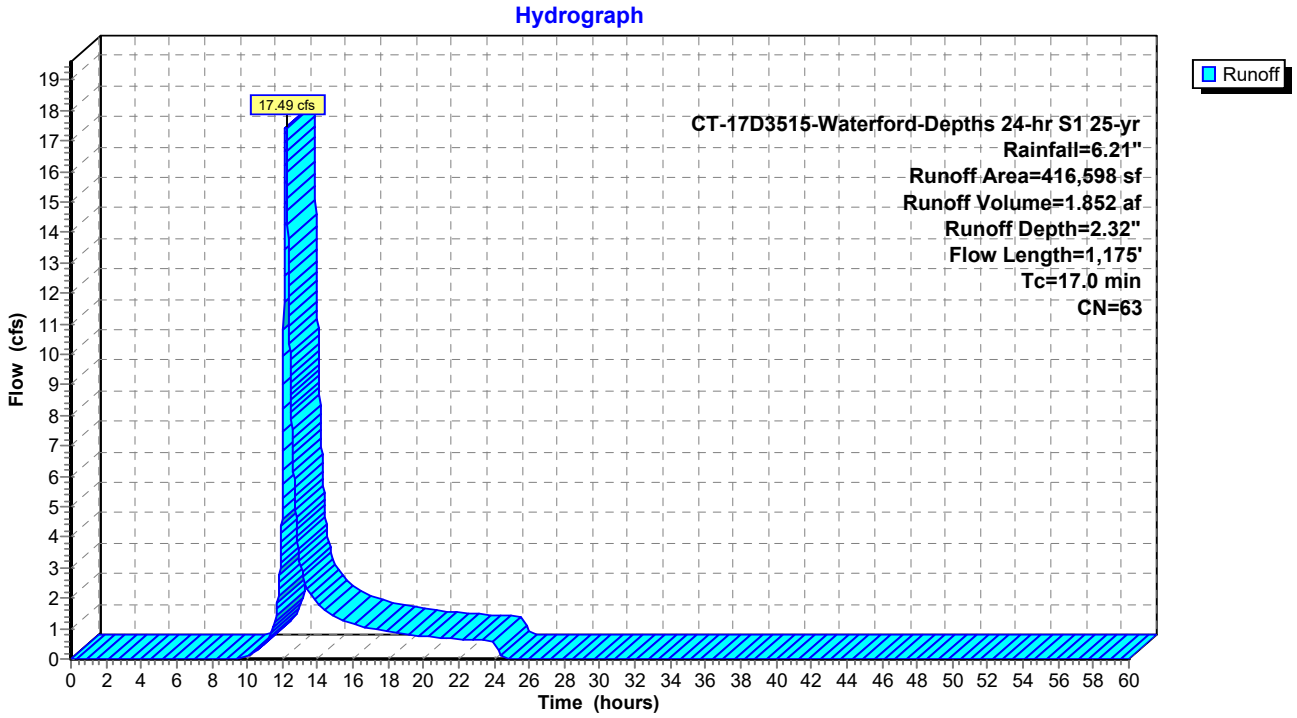
Runoff = 17.49 cfs @ 12.19 hrs, Volume= 1.852 af, Depth= 2.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
208,282	58	Meadow, non-grazed, HSG B
137,303	60	Woods, Fair, HSG B
17,665	79	Woods, Fair, HSG D
2,716	82	Dirt roads, HSG B
8,664	85	Gravel roads, HSG B
93	89	Dirt roads, HSG D
31,851	79	<50% Grass cover, Poor, HSG B
10,024	89	<50% Grass cover, Poor, HSG D
416,598	63	Weighted Average
416,598	63	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.8	100	0.0610	0.19		**Sheet Flow, SOLAR FARM** Grass: Dense n= 0.240 P2= 3.45"
8.2	1,075	0.0968	2.18		**Shallow Concentrated Flow, SOLAR FARM** Short Grass Pasture Kv= 7.0 fps
17.0	1,175	Total			

Subcatchment PDA-207.3: SOLAR FARM (UNDETAINED)



Summary for Subcatchment PDA-208.1: SOLAR FARM

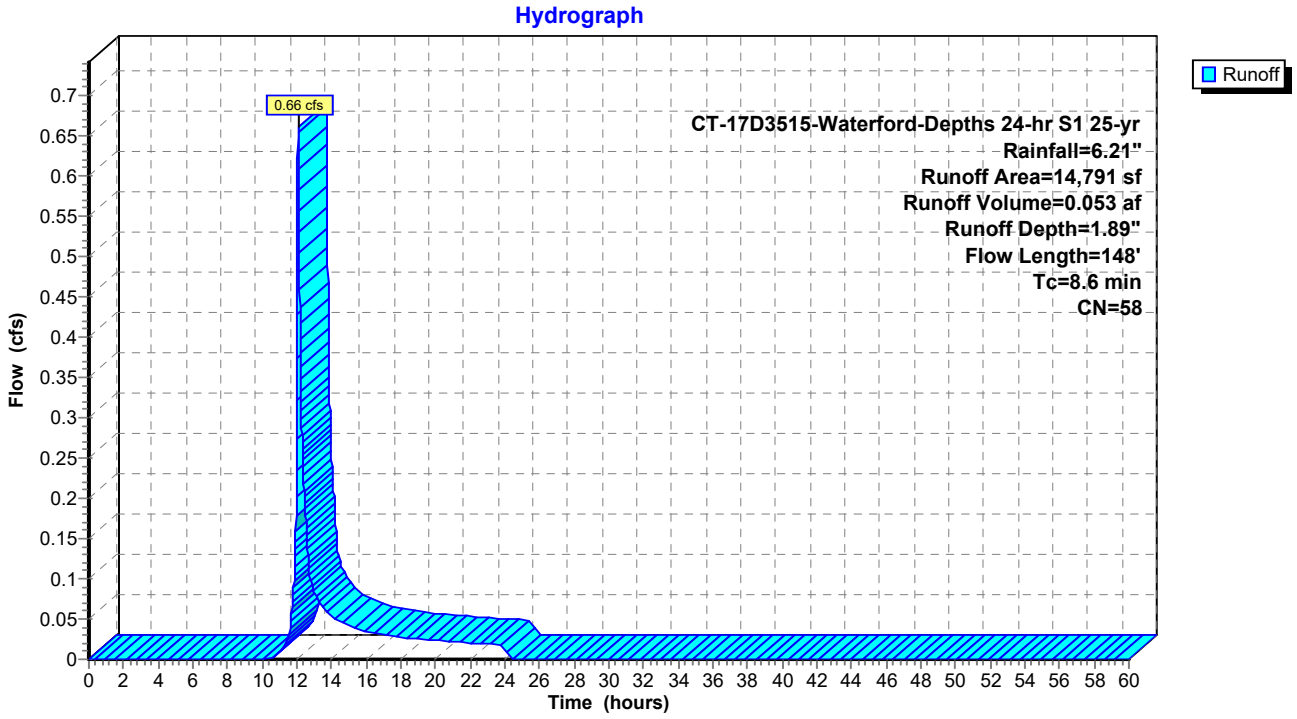
Runoff = 0.66 cfs @ 12.07 hrs, Volume= 0.053 af, Depth= 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
14,791	58	Meadow, non-grazed, HSG B
14,791	58	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.2000	0.20		**Sheet Flow, Solar Farm** Woods: Light underbrush n= 0.400 P2= 3.45"
0.4	48	0.0856	2.05		**Shallow Concentrated Flow, Solar Farm Sale** Short Grass Pasture Kv= 7.0 fps
8.6	148	Total			

Subcatchment PDA-208.1: SOLAR FARM



Summary for Subcatchment PDA-208.2: ACCESS RD, GRASS, WETLAND W/ BRUSH (UNDETAINED

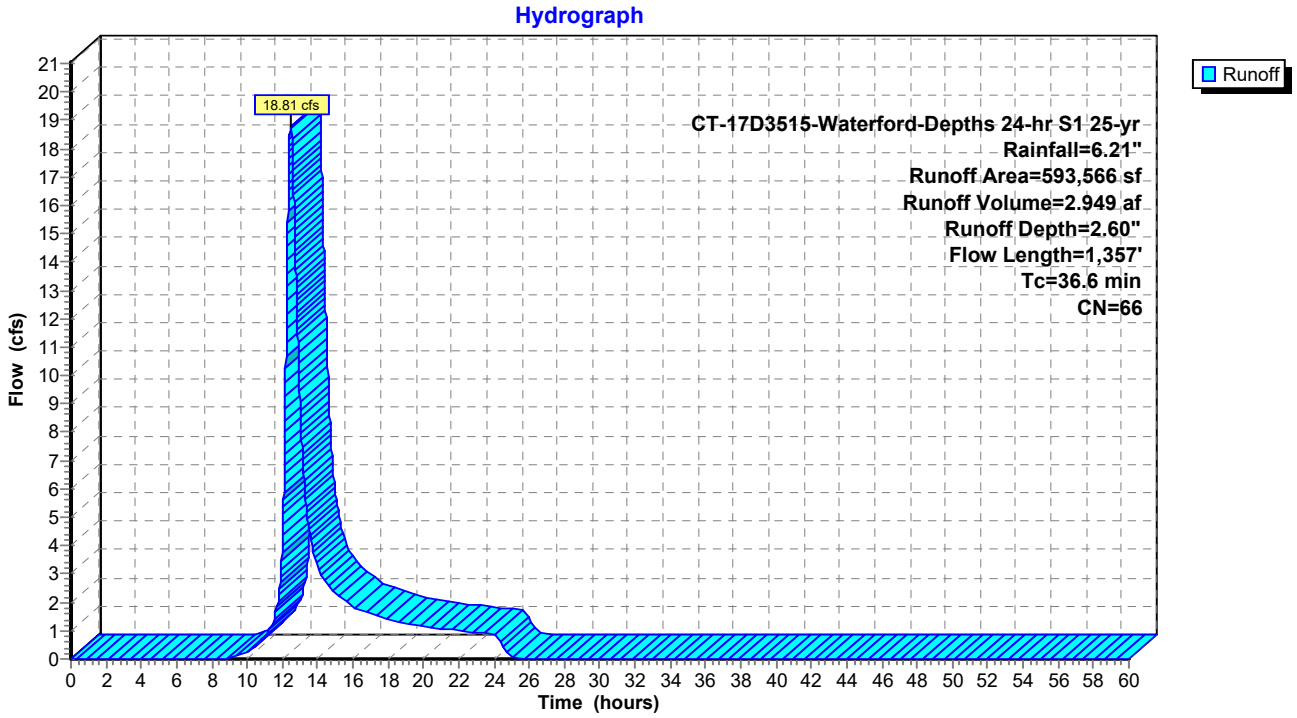
Runoff = 18.81 cfs @ 12.48 hrs, Volume= 2.949 af, Depth= 2.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
152,056	58	Meadow, non-grazed, HSG B
259,249	60	Woods, Fair, HSG B
134,846	79	Woods, Fair, HSG D
2,806	82	Dirt roads, HSG B
6,791	85	Gravel roads, HSG B
945	89	Dirt roads, HSG D
29,846	79	<50% Grass cover, Poor, HSG B
7,027	89	<50% Grass cover, Poor, HSG D
593,566	66	Weighted Average
593,566	66	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.8	100	0.0462	0.11		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
21.8	1,257	0.0371	0.96		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
36.6	1,357	Total			

Subcatchment PDA-208.2: ACCESS RD, GRASS, WETLAND W/ BRUSH (UNDETAINED)



Summary for Subcatchment PDA-209.1: SOLAR FARM

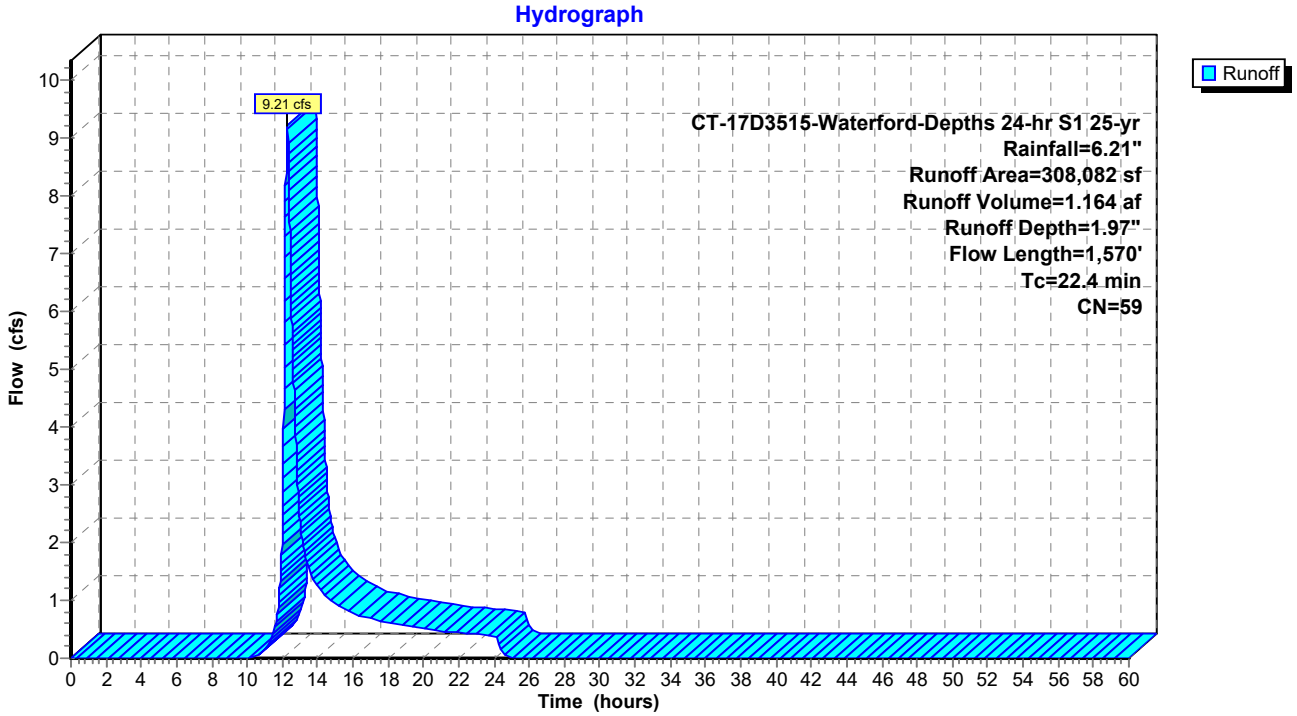
Runoff = 9.21 cfs @ 12.27 hrs, Volume= 1.164 af, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
292,605	58	Meadow, non-grazed, HSG B
15,477	85	Gravel roads, HSG B
308,082	59	Weighted Average
308,082	59	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.1486	0.27		**Sheet Flow, SOLAR FARM** Grass: Dense n= 0.240 P2= 3.45"
16.2	1,470	0.0464	1.51		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
22.4	1,570	Total			

Subcatchment PDA-209.1: SOLAR FARM



Summary for Subcatchment PDA-209.2: SOLAR FARM, WETLAND W/BRUSH, GRASS (UNDETAINED

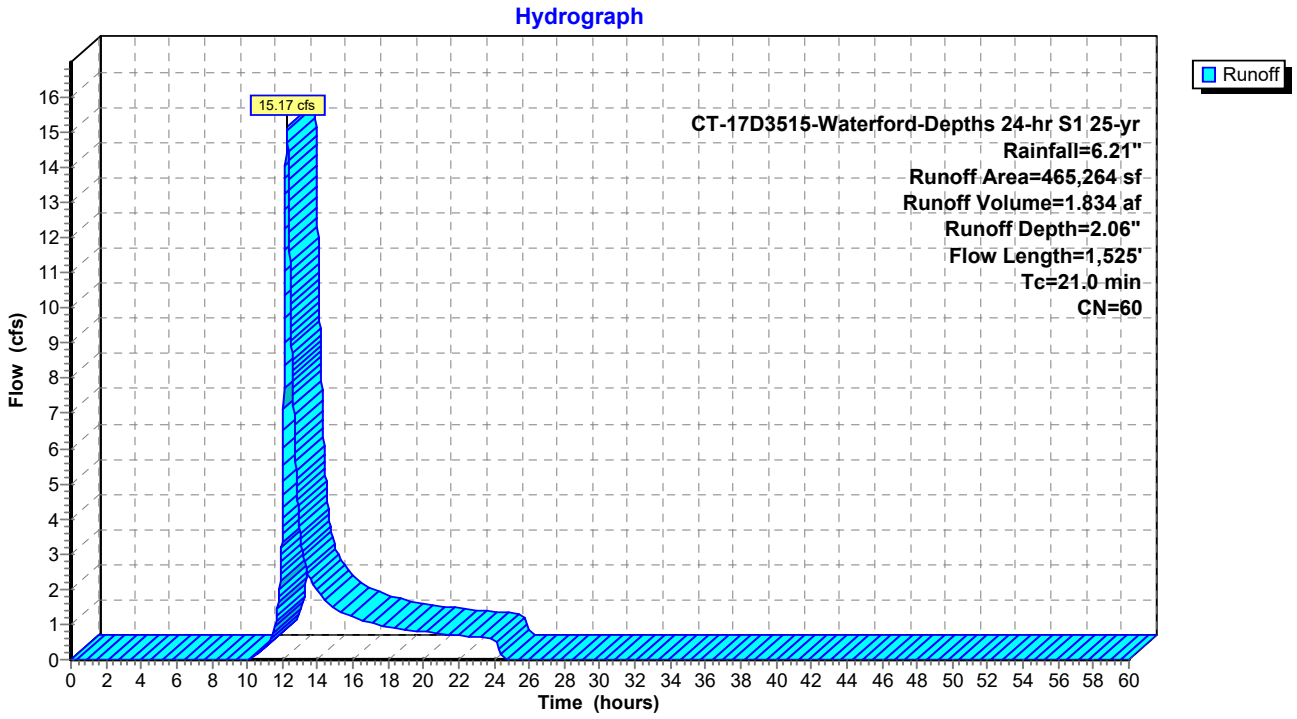
Runoff = 15.17 cfs @ 12.25 hrs, Volume= 1.834 af, Depth= 2.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
212,359	48	Brush, Good, HSG B
135,753	60	Woods, Fair, HSG B
45,724	79	Woods, Fair, HSG D
3,720	82	Dirt roads, HSG B
744	89	Dirt roads, HSG D
54,222	79	<50% Grass cover, Poor, HSG B
12,742	89	<50% Grass cover, Poor, HSG D
465,264	60	Weighted Average
465,264	60	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	100	0.1175	0.25		**Sheet Flow, SOLAR FARM** Grass: Dense n= 0.240 P2= 3.45"
14.2	1,425	0.0568	1.67		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
21.0	1,525	Total			

Subcatchment PDA-209.2: SOLAR FARM, WETLAND W/BRUSH, GRASS (UNDETAINED)+



Summary for Subcatchment PDA-210: OFFSITE BASIN (UNDISTURBED)

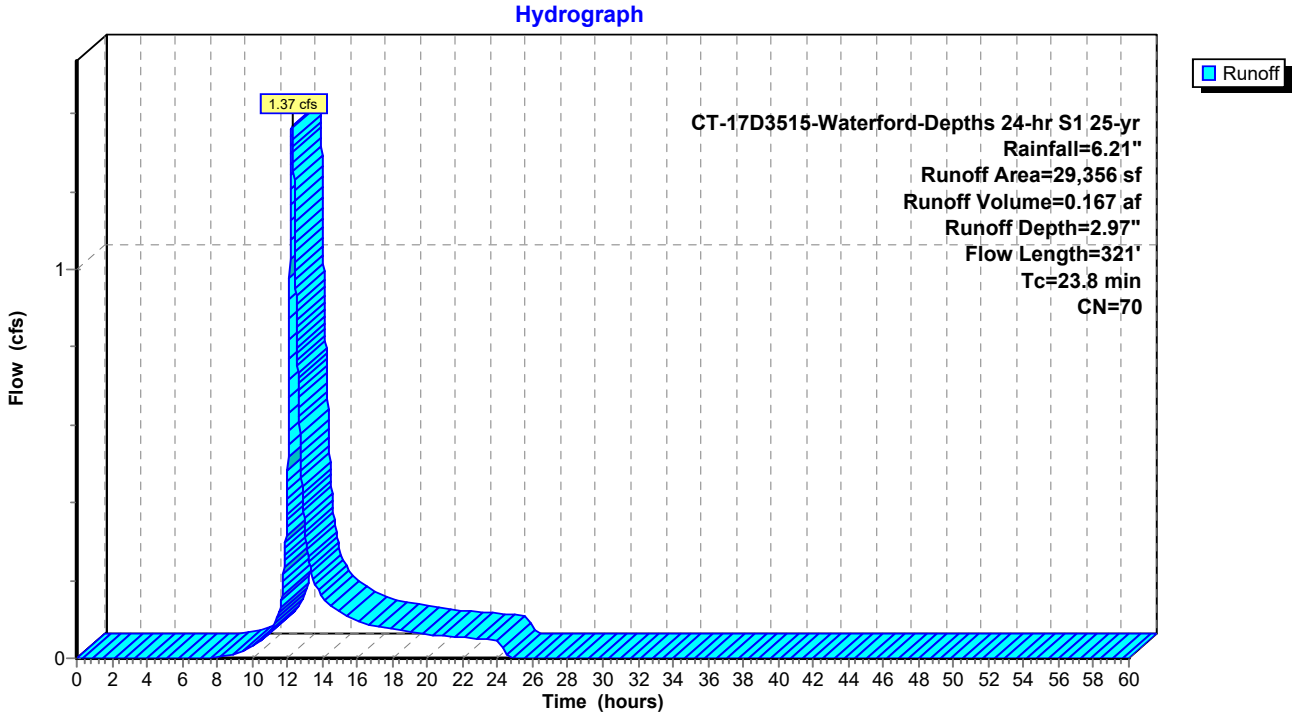
Runoff = 1.37 cfs @ 12.29 hrs, Volume= 0.167 af, Depth= 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
7,157	60	Woods, Fair, HSG B
22,199	73	Woods, Fair, HSG C
29,356	70	Weighted Average
29,356	70	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.2	100	0.0187	0.08		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
2.6	221	0.0830	1.44		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
23.8	321	Total			

Subcatchment PDA-210: OFFSITE BASIN (UNDISTURBED)



Summary for Subcatchment PDA-211: UNDEVELOPED FOREST (UNDISTURBED)

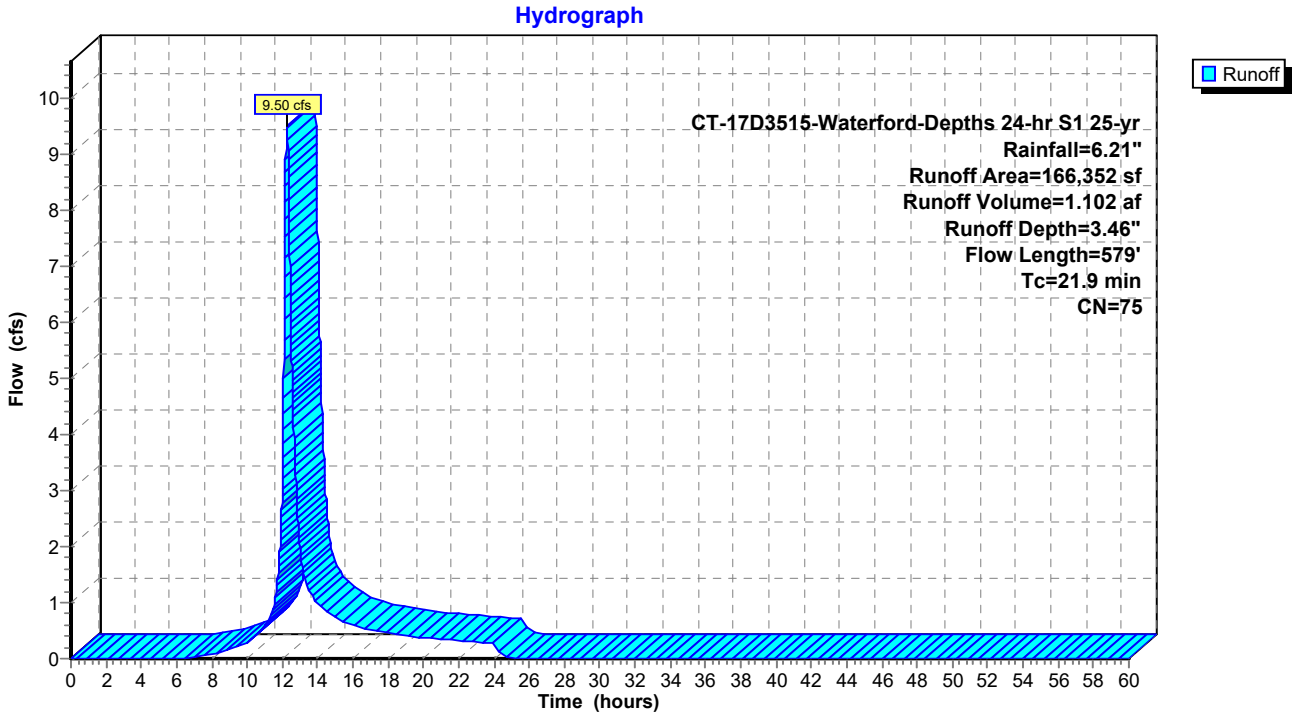
Runoff = 9.50 cfs @ 12.24 hrs, Volume= 1.102 af, Depth= 3.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
13,831	60	Woods, Fair, HSG B
63,994	73	Woods, Fair, HSG C
88,527	79	Woods, Fair, HSG D
166,352	75	Weighted Average
166,352	75	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.7	100	0.0824	0.14		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
10.2	479	0.0244	0.78		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
21.9	579	Total			

Subcatchment PDA-211: UNDEVELOPED FOREST (UNDISTURBED)



Summary for Subcatchment PDA-212.1: SOLAR FARM

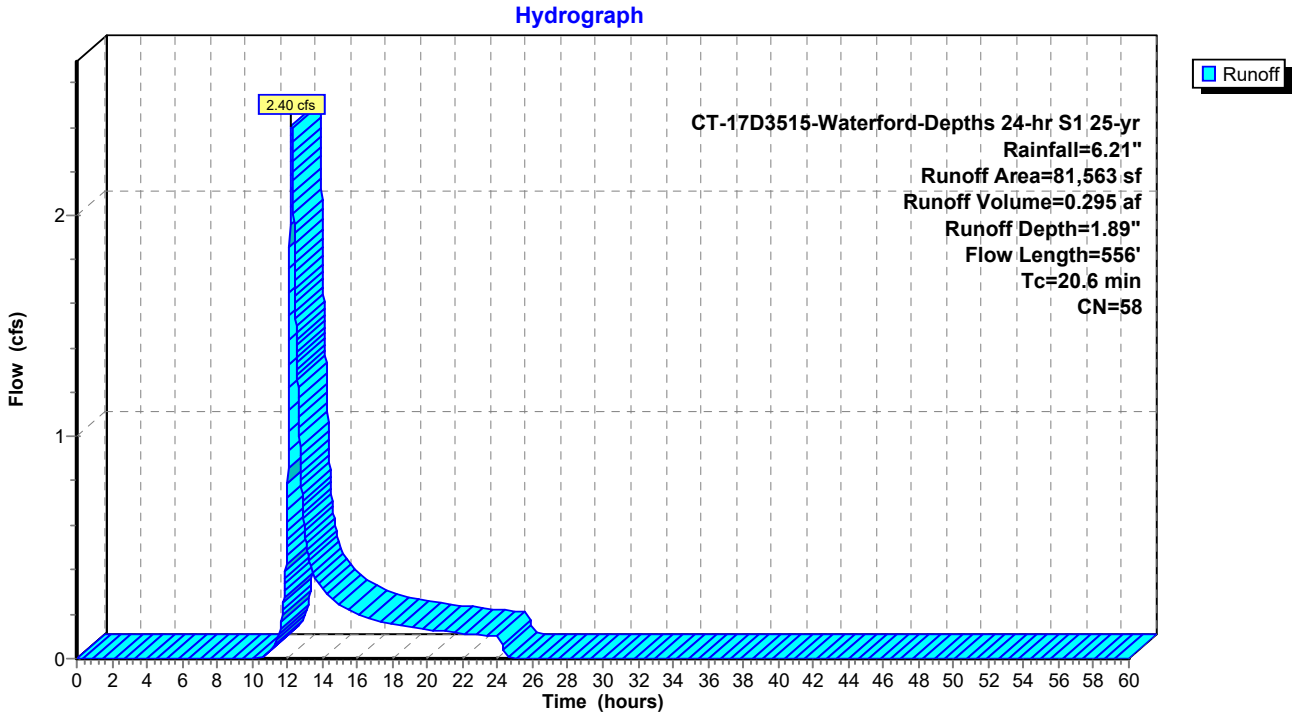
Runoff = 2.40 cfs @ 12.25 hrs, Volume= 0.295 af, Depth= 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
81,224	58	Meadow, non-grazed, HSG B
313	71	Meadow, non-grazed, HSG C
26	85	Gravel roads, HSG B
81,563	58	Weighted Average
81,563	58	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.5	100	0.0408	0.11		**Sheet Flow, Solar Farm** Woods: Light underbrush n= 0.400 P2= 3.45"
5.1	456	0.0902	1.50		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
20.6	556	Total			

Subcatchment PDA-212.1: SOLAR FARM



Summary for Subcatchment PDA-212.2: GRASS (UNDETAINED)

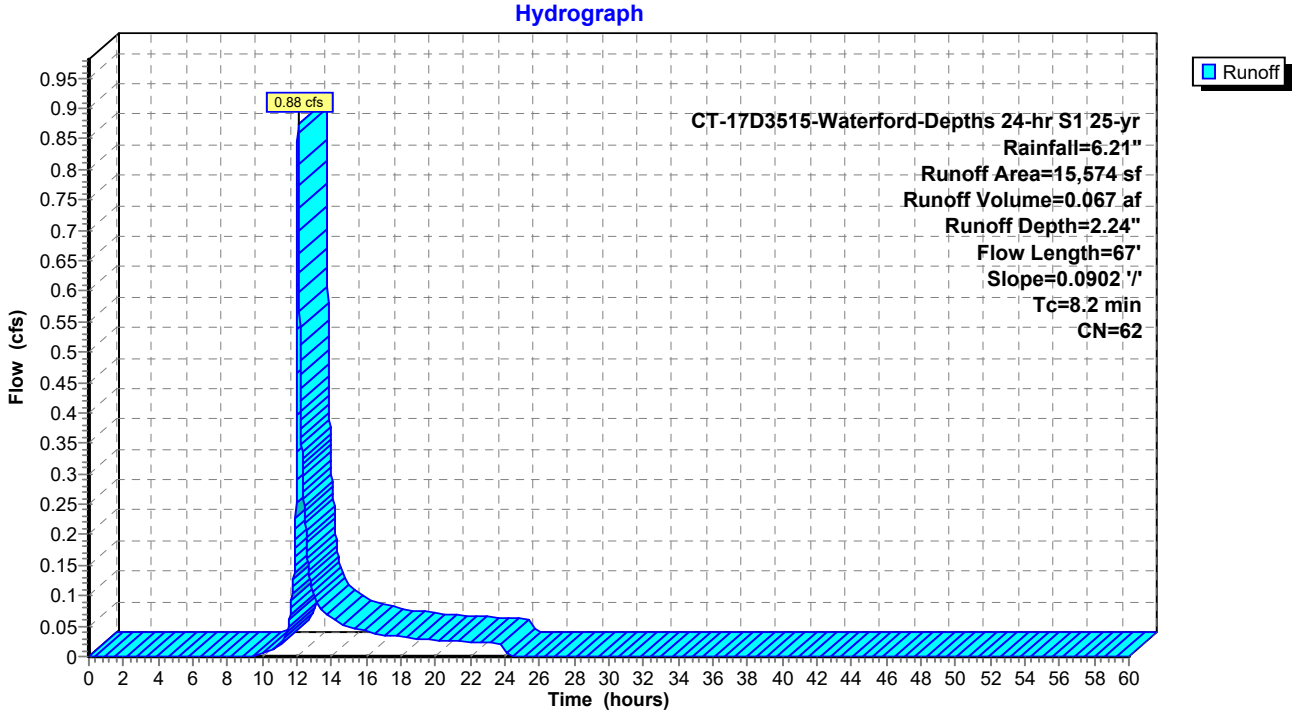
Runoff = 0.88 cfs @ 12.07 hrs, Volume= 0.067 af, Depth= 2.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
11,275	58	Meadow, non-grazed, HSG B
4,299	71	Meadow, non-grazed, HSG C
15,574	62	Weighted Average
15,574	62	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	67	0.0902	0.14		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"

Subcatchment PDA-212.2: GRASS (UNDETAINED)



Summary for Subcatchment PDA-213: ACCESS ROAD, GRASS (UNDETAINED)

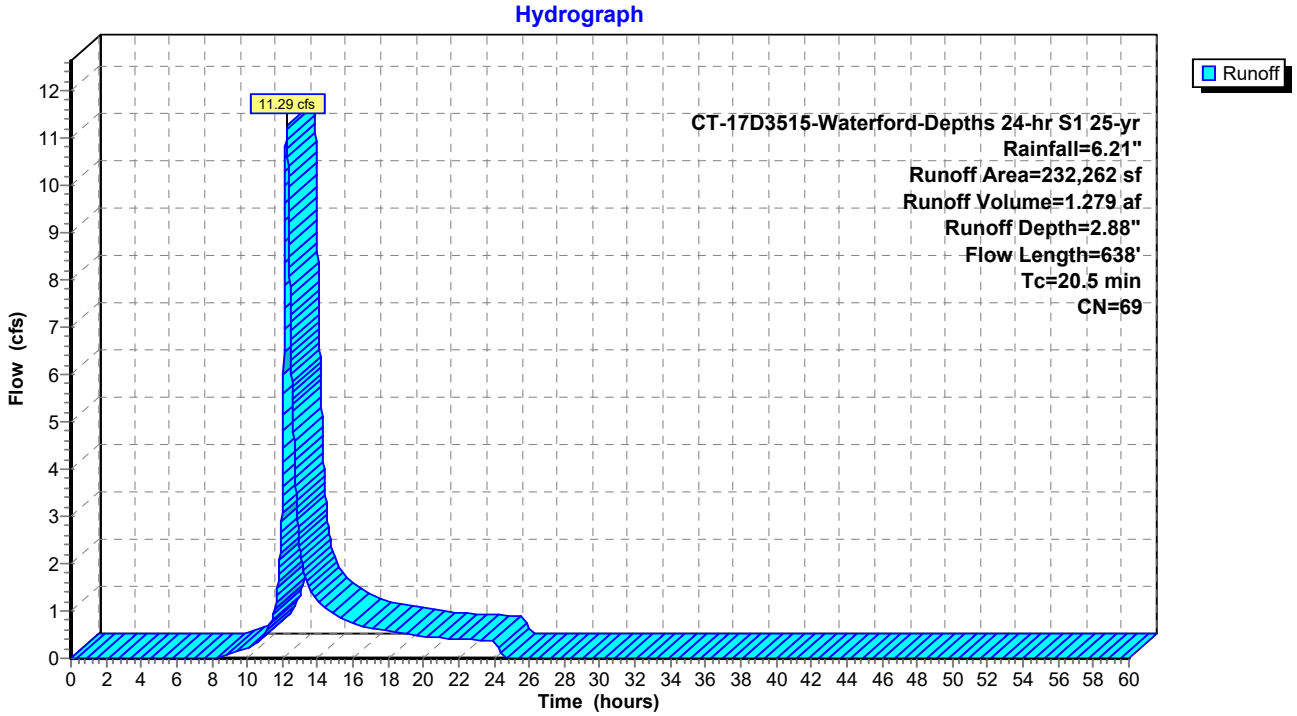
Runoff = 11.29 cfs @ 12.23 hrs, Volume= 1.279 af, Depth= 2.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
91,925	60	Woods, Fair, HSG B
126,448	73	Woods, Fair, HSG C
5,026	85	Gravel roads, HSG B
8,863	89	Gravel roads, HSG C
232,262	69	Weighted Average
232,262	69	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	100	0.1921	0.20		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
12.1	538	0.0220	0.74		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
20.5	638	Total			

Subcatchment PDA-213: ACCESS ROAD, GRASS (UNDETAINED)



Summary for Subcatchment PDA-300.1: SOLAR FARM

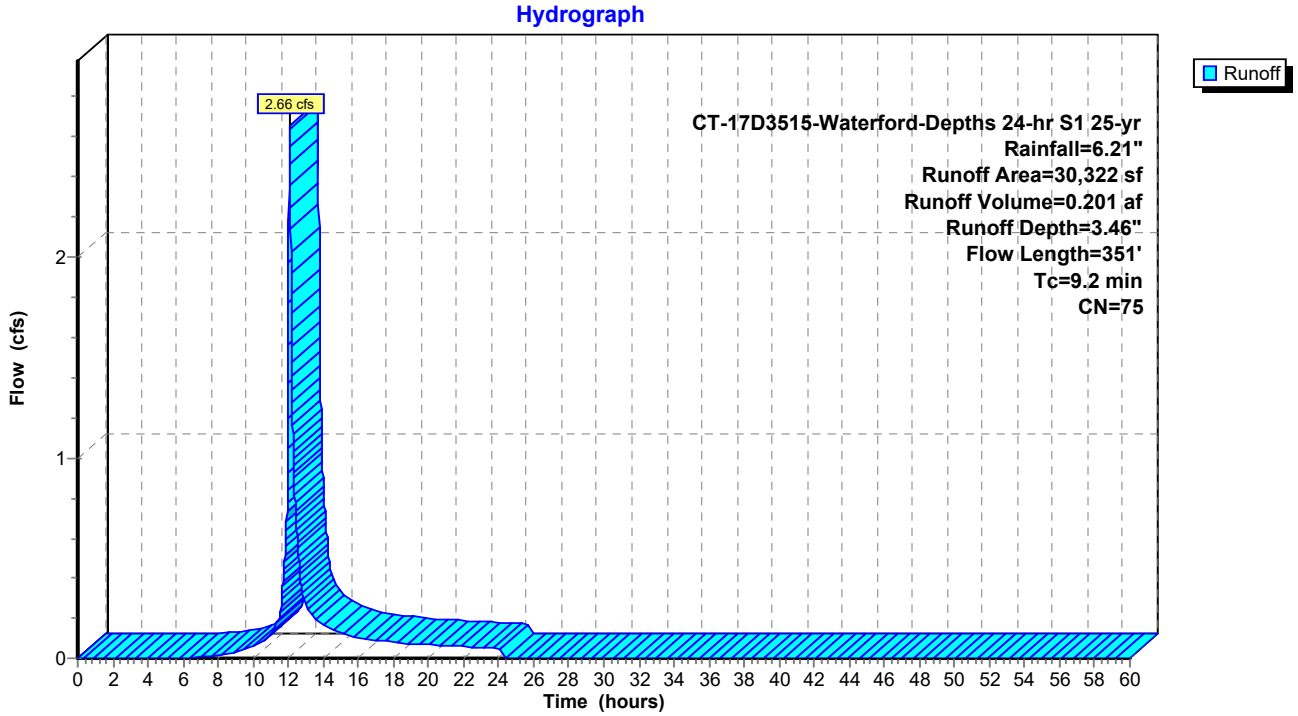
Runoff = 2.66 cfs @ 12.08 hrs, Volume= 0.201 af, Depth= 3.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
4,127	58	Meadow, non-grazed, HSG B
26,195	78	Meadow, non-grazed, HSG D
30,322	75	Weighted Average
30,322	75	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	100	0.0420	0.24		**Sheet Flow, Solar Farm** Grass: Short n= 0.150 P2= 3.45"
2.2	251	0.0750	1.92		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
9.2	351	Total			

Subcatchment PDA-300.1: SOLAR FARM



Summary for Subcatchment PDA-300.2: GRASS (UNDETAINED)

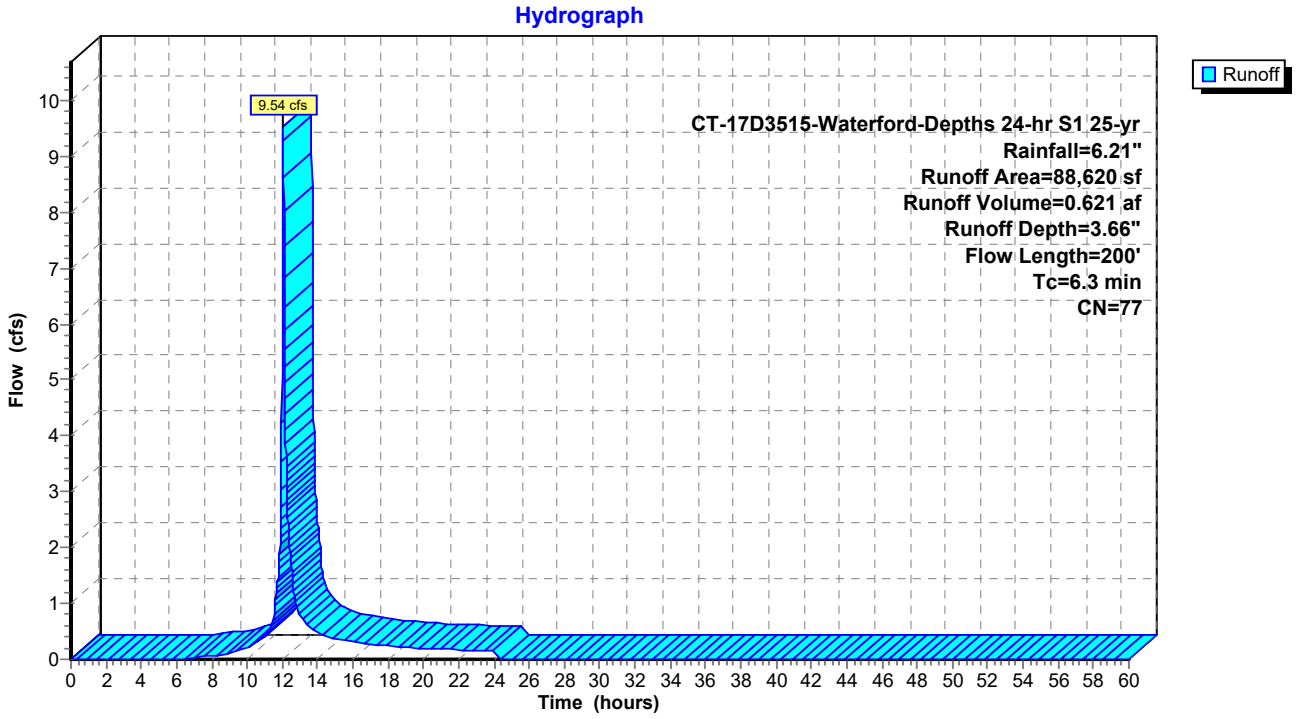
Runoff = 9.54 cfs @ 12.04 hrs, Volume= 0.621 af, Depth= 3.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
88,620	77	Brush, Fair, HSG D
88,620	77	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.1737	0.29		**Sheet Flow, Forest Brush** Grass: Dense n= 0.240 P2= 3.45"
0.5	100	0.5200	3.61		**Shallow Concentrated Flow, Forest Brush** Woodland Kv= 5.0 fps
6.3	200	Total			

Subcatchment PDA-300.2: GRASS (UNDETAINED)



Summary for Subcatchment PDA-301.1: SOLAR FARM

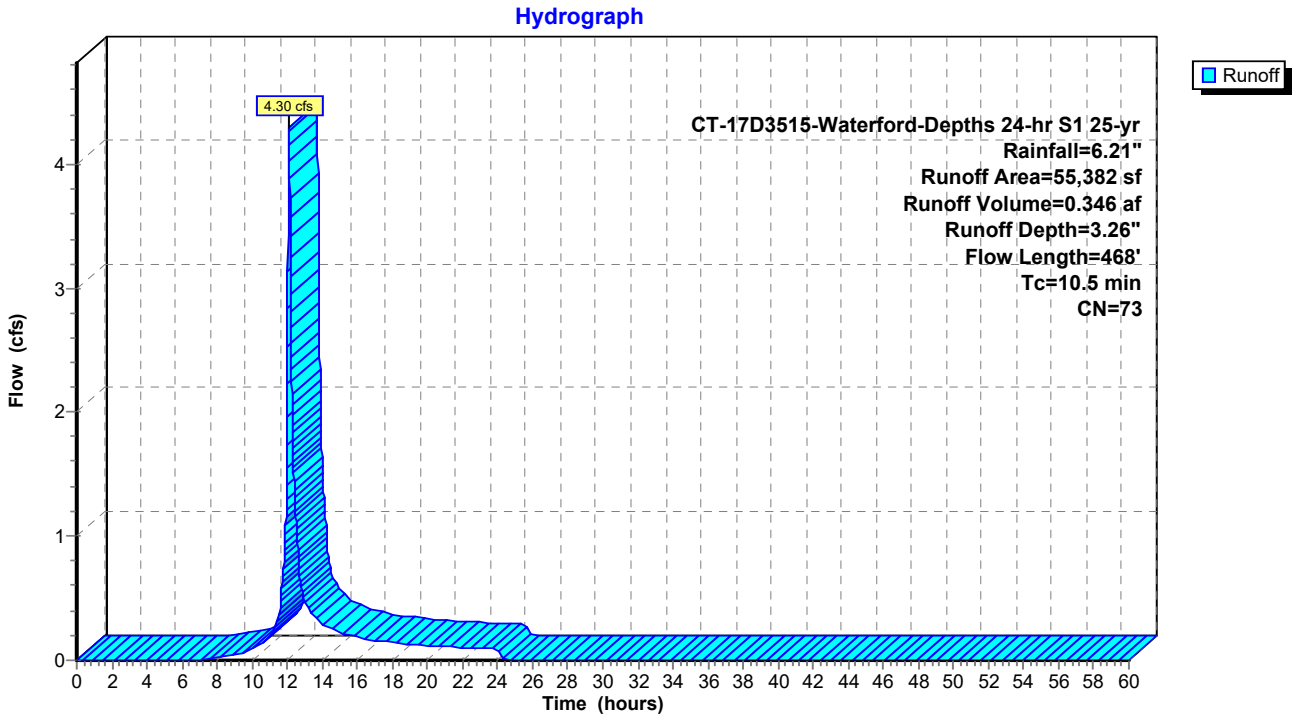
Runoff = 4.30 cfs @ 12.10 hrs, Volume= 0.346 af, Depth= 3.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
14,711	58	Meadow, non-grazed, HSG B
378	85	Gravel roads, HSG B
40,039	78	Meadow, non-grazed, HSG D
254	91	Gravel roads, HSG D
55,382	73	Weighted Average
55,382	73	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	100	0.0403	0.23		**Sheet Flow, SOLAR FARM** Grass: Short n= 0.150 P2= 3.45"
3.4	368	0.0652	1.79		**Shallow Concentrated Flow, SOLAR FARM** Short Grass Pasture Kv= 7.0 fps
10.5	468	Total			

Subcatchment PDA-301.1: SOLAR FARM



Summary for Subcatchment PDA-301.2: GRASS (UNDETAINED)

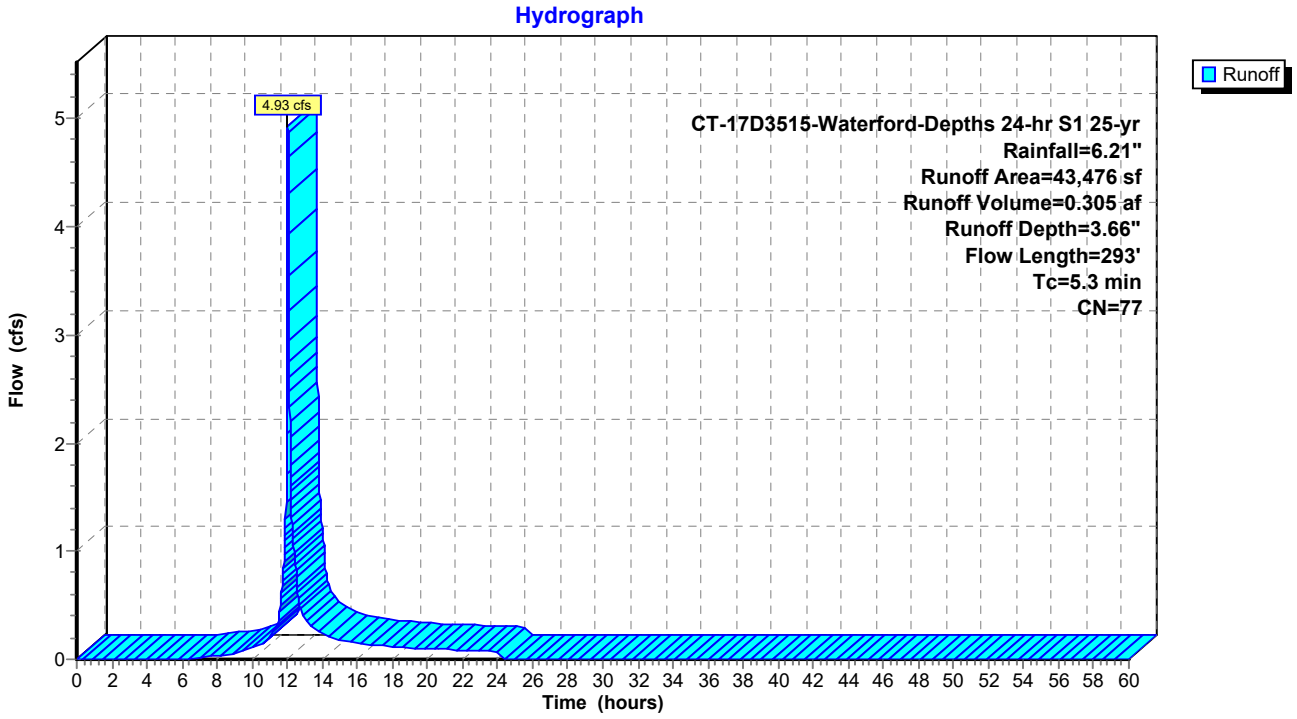
Runoff = 4.93 cfs @ 12.03 hrs, Volume= 0.305 af, Depth= 3.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
43,476	77	Brush, Fair, HSG D
43,476	77	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	100	0.3310	0.37		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
0.8	193	0.3300	4.02		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
5.3	293	Total			

Subcatchment PDA-301.2: GRASS (UNDETAINED)



Summary for Subcatchment PDA-302.1: Solar Farm

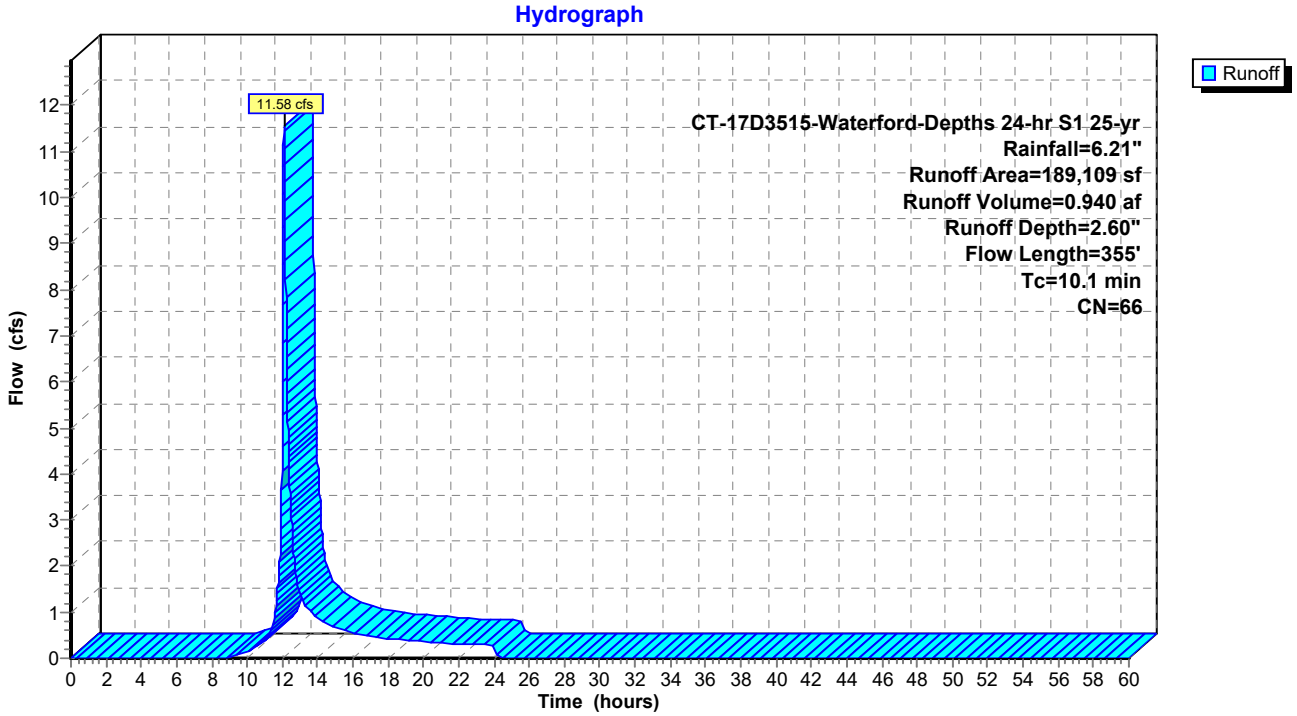
Runoff = 11.58 cfs @ 12.09 hrs, Volume= 0.940 af, Depth= 2.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
109,756	58	Meadow, non-grazed, HSG B
79,353	78	Meadow, non-grazed, HSG D
189,109	66	Weighted Average
189,109	66	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	100	0.0346	0.22		**Sheet Flow, Solar Farm** Grass: Short n= 0.150 P2= 3.45"
2.5	255	0.0603	1.72		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
10.1	355	Total			

Subcatchment PDA-302.1: Solar Farm



Summary for Subcatchment PDA-302.2: GRASS (UNDETAINED)

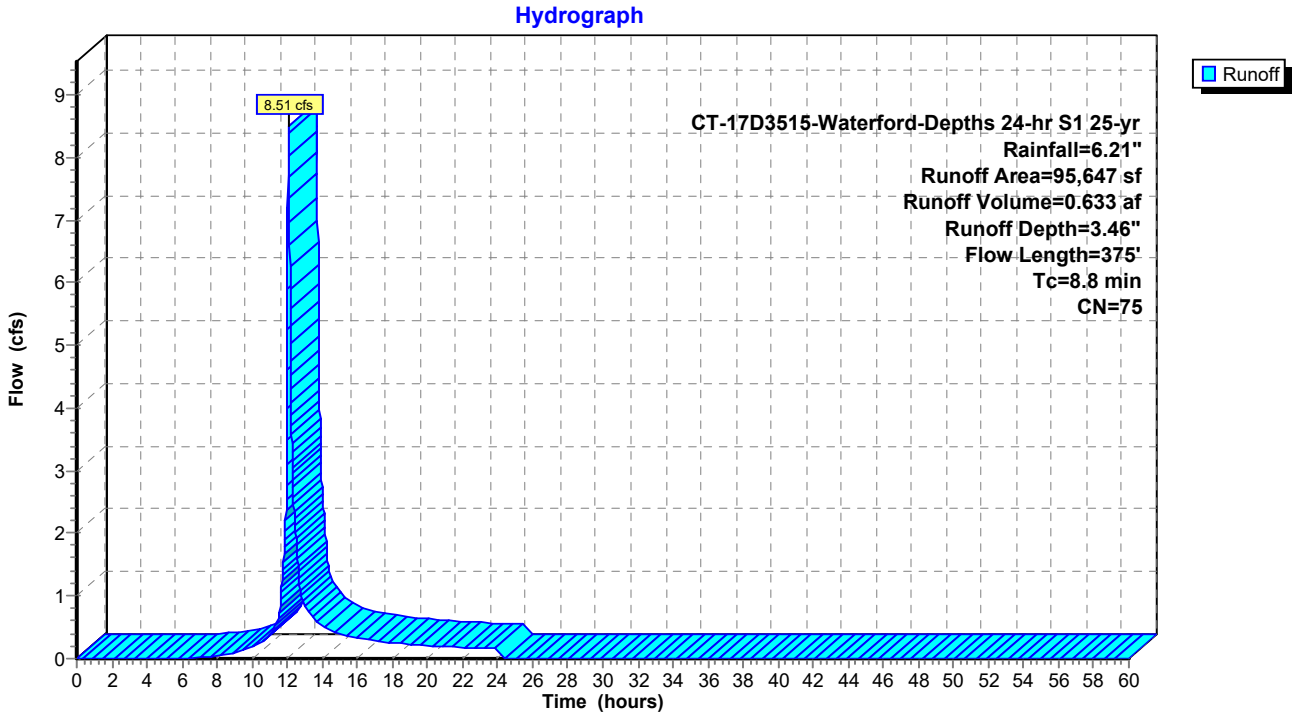
Runoff = 8.51 cfs @ 12.07 hrs, Volume= 0.633 af, Depth= 3.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
7,023	56	Brush, Fair, HSG B
82,142	77	Brush, Fair, HSG D
6,482	77	Brush, Fair, HSG D
95,647	75	Weighted Average
95,647	75	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.0333	0.22		**Sheet Flow, Solar Farm** Grass: Short n= 0.150 P2= 3.45"
1.1	275	0.3413	4.09		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
8.8	375	Total			

Subcatchment PDA-302.2: GRASS (UNDETAINED)



Summary for Subcatchment PDA-303.1: SOLAR FARM

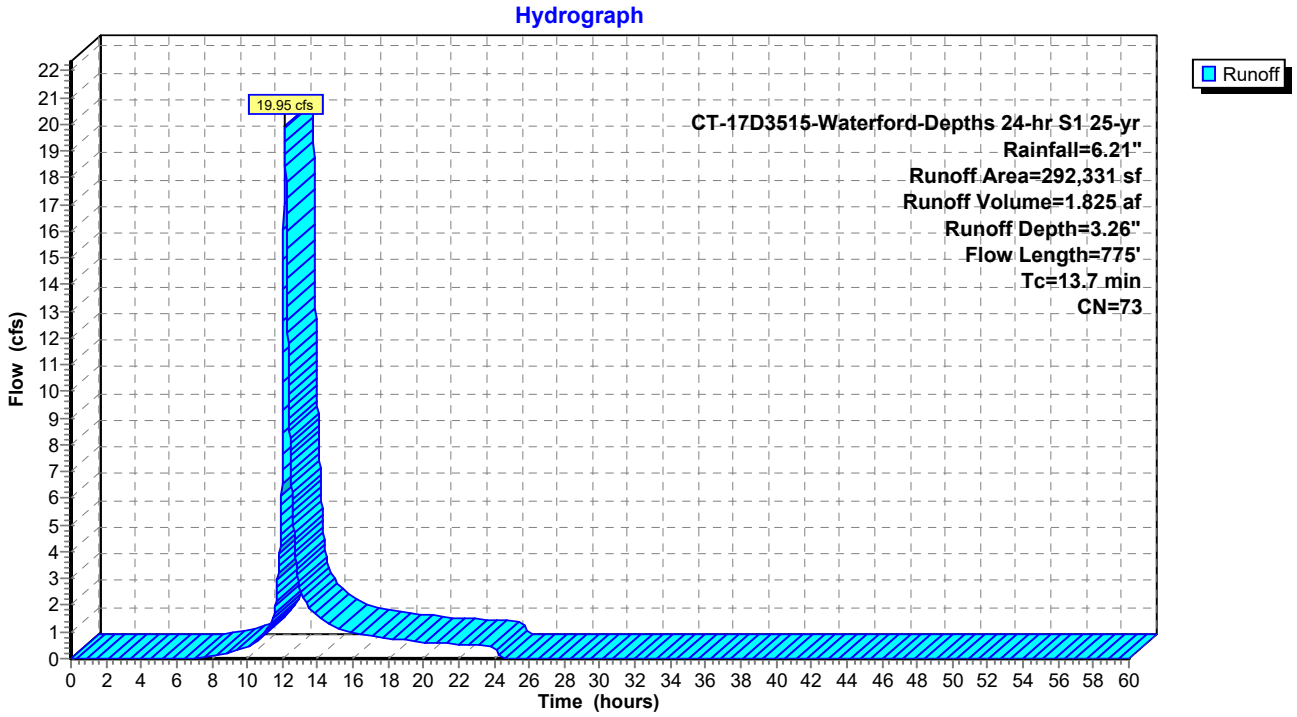
Runoff = 19.95 cfs @ 12.14 hrs, Volume= 1.825 af, Depth= 3.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
30,997	58	Meadow, non-grazed, HSG B
114,707	71	Meadow, non-grazed, HSG C
146,627	78	Meadow, non-grazed, HSG D
292,331	73	Weighted Average
292,331	73	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.8	100	0.0239	0.19		**Sheet Flow, SOLAR FARM** Grass: Short n= 0.150 P2= 3.45"
4.9	675	0.1087	2.31		**Shallow Concentrated Flow, SOLAR FARM** Short Grass Pasture Kv= 7.0 fps
13.7	775	Total			

Subcatchment PDA-303.1: SOLAR FARM



Summary for Subcatchment PDA-303.2: GRASS (UNDETAINED)

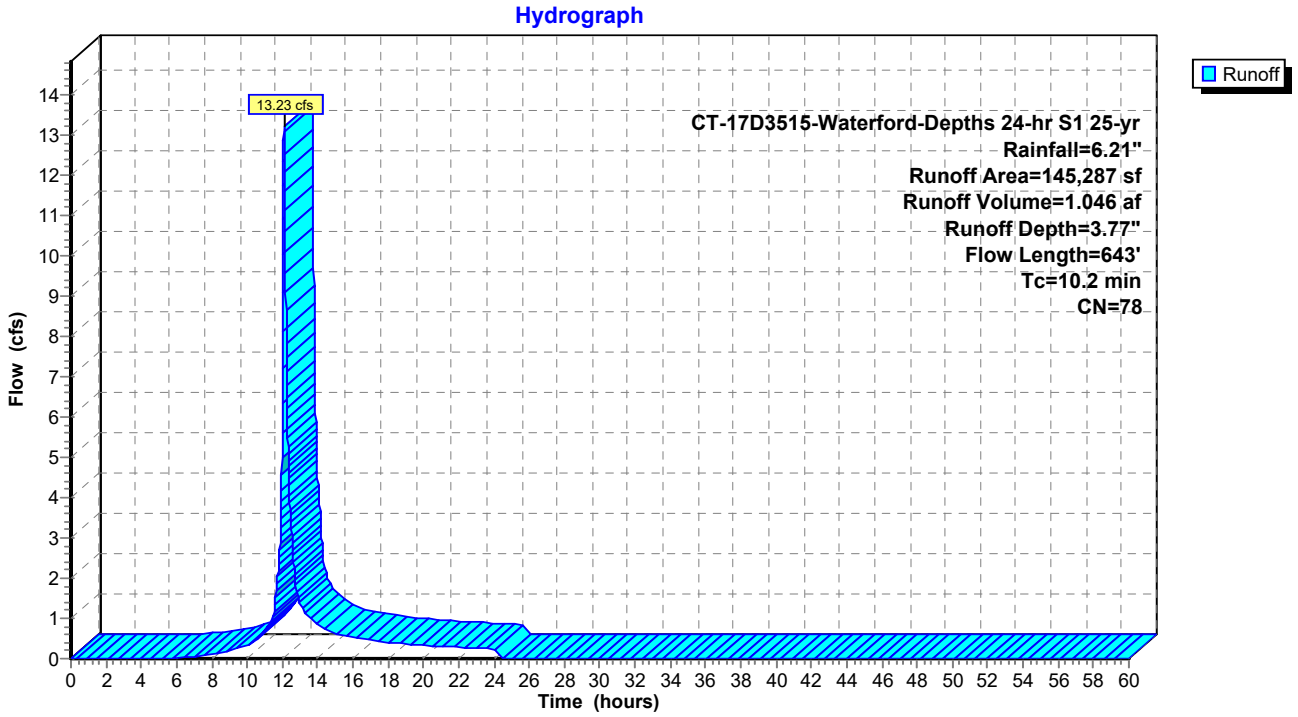
Runoff = 13.23 cfs @ 12.09 hrs, Volume= 1.046 af, Depth= 3.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
4,609	56	Brush, Fair, HSG B
35,202	77	Brush, Fair, HSG D
105,476	79	Woods, Fair, HSG D
145,287	78	Weighted Average
145,287	78	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	100	0.1777	0.29		**Sheet Flow, SOLAR FARM** Grass: Dense n= 0.240 P2= 3.45"
4.5	543	0.1639	2.02		**Shallow Concentrated Flow, SOLAR FARM** Woodland Kv= 5.0 fps
10.2	643	Total			

Subcatchment PDA-303.2: GRASS (UNDETAINED)



Summary for Subcatchment PDA-304.1: SOLAR FARM

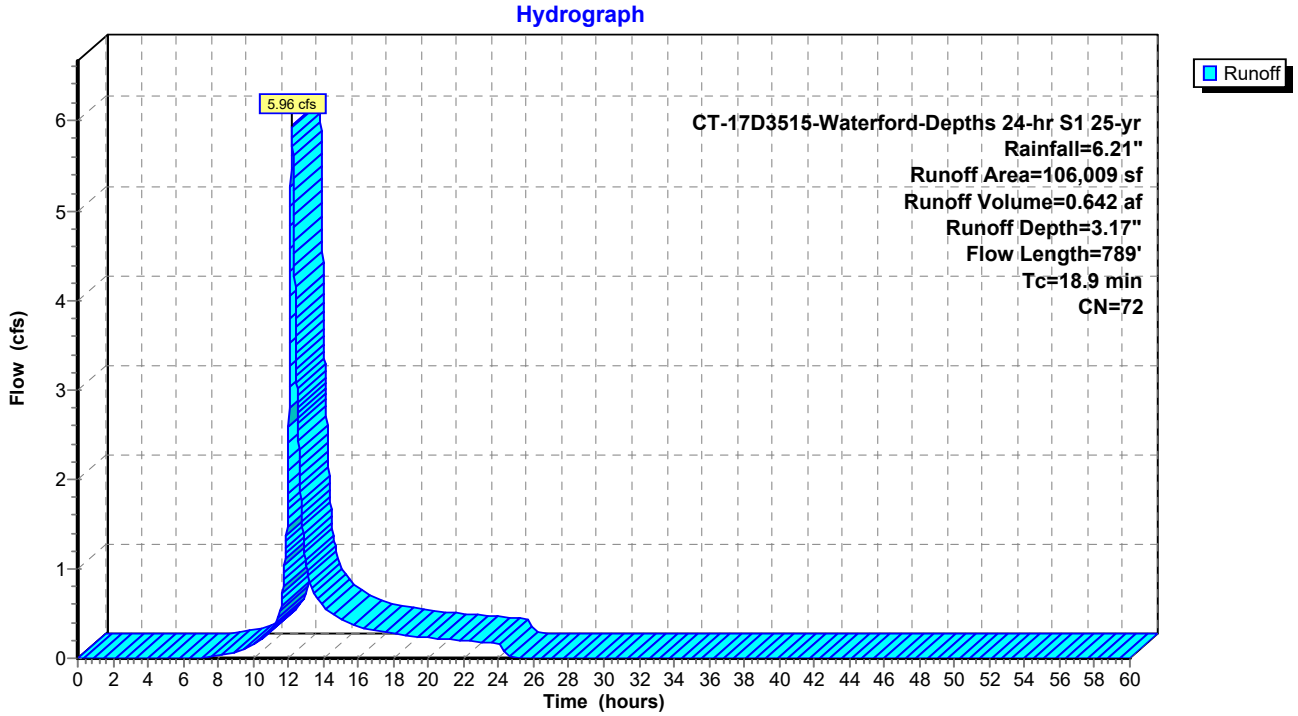
Runoff = 5.96 cfs @ 12.21 hrs, Volume= 0.642 af, Depth= 3.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
89,702	71	Meadow, non-grazed, HSG C
16,307	78	Meadow, non-grazed, HSG D
106,009	72	Weighted Average
106,009	72	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	100	0.0136	0.15		**Sheet Flow, SOLAR FARM** Grass: Short n= 0.150 P2= 3.45"
7.9	689	0.0431	1.45		**Shallow Concentrated Flow, SOLAR FARM** Short Grass Pasture Kv= 7.0 fps
18.9	789	Total			

Subcatchment PDA-304.1: SOLAR FARM



Summary for Subcatchment PDA-304.2: SOLAR FARM, ACESS ROAD, GRASS (UNDETAINED)

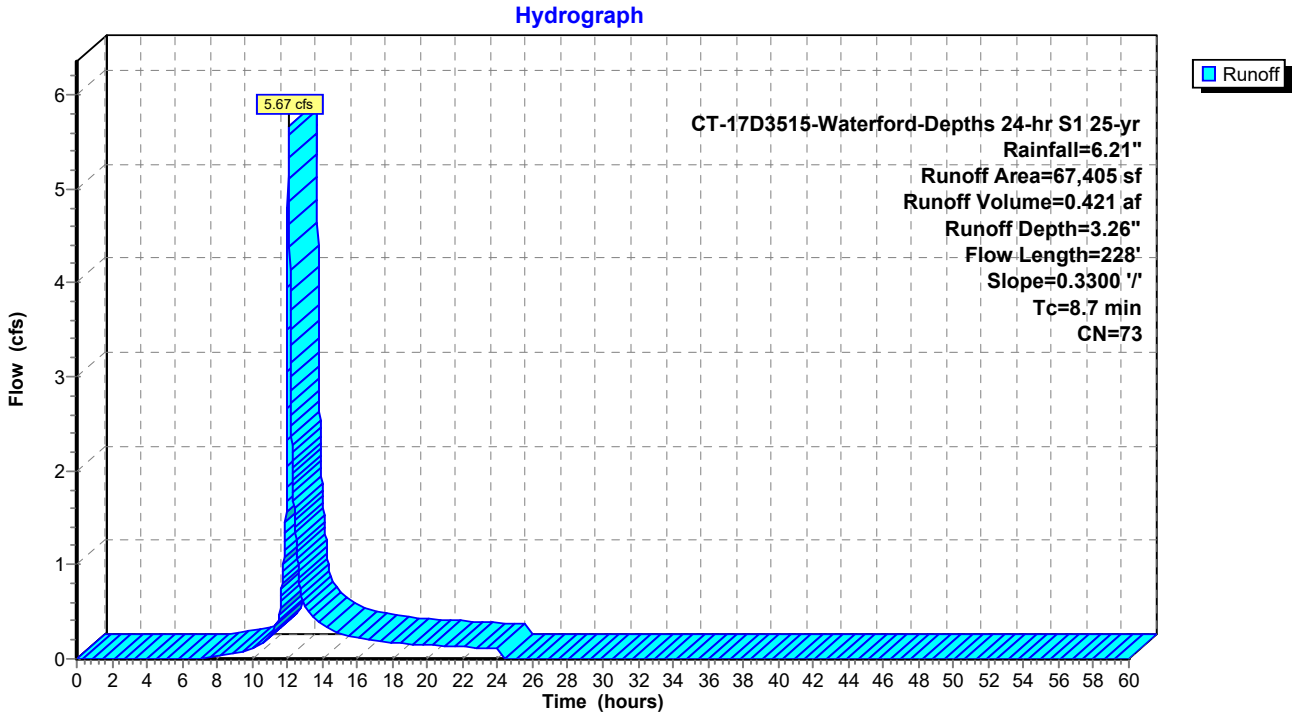
Runoff = 5.67 cfs @ 12.07 hrs, Volume= 0.421 af, Depth= 3.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
67,405	73	Brush, Good, HSG D
67,405	73	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	228	0.3300	0.44		**Sheet Flow, SOLAR FARM** Grass: Dense n= 0.240 P2= 3.45"

Subcatchment PDA-304.2: SOLAR FARM, ACESS ROAD, GRASS (UNDETAINED)



Summary for Subcatchment PDA-305.1: SOLAR FARM

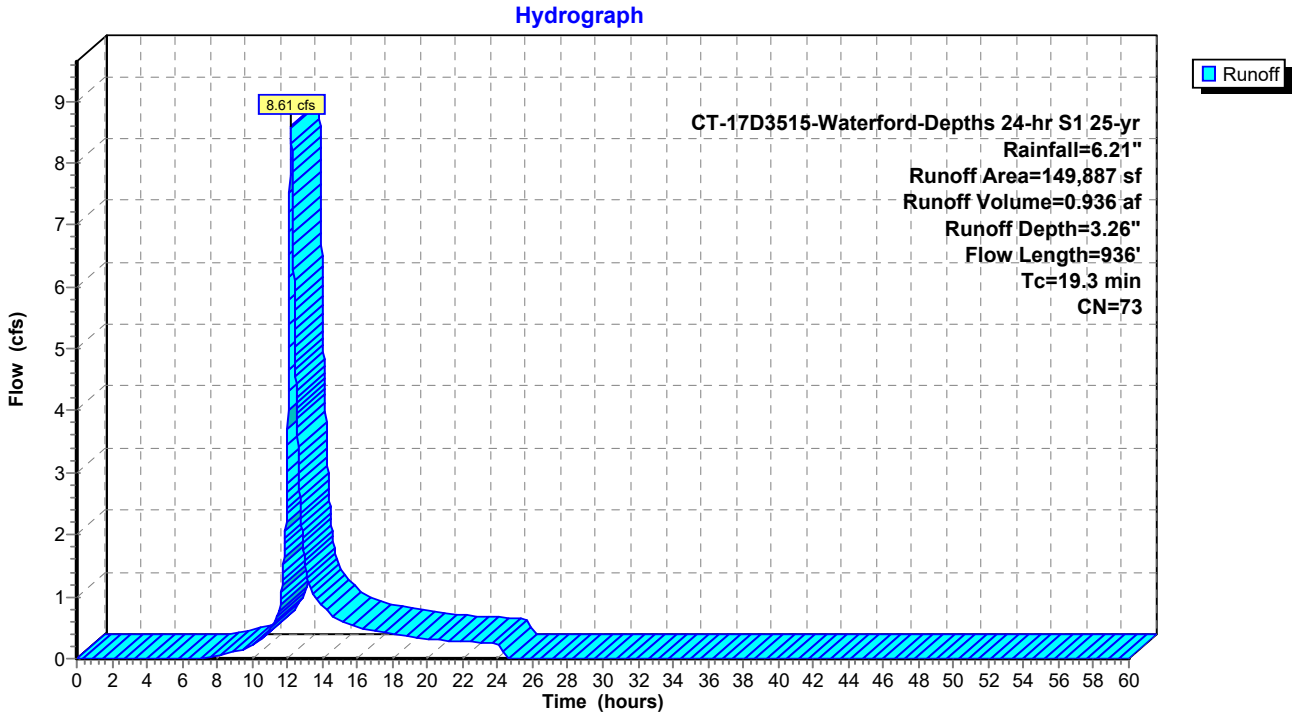
Runoff = 8.61 cfs @ 12.22 hrs, Volume= 0.936 af, Depth= 3.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
118,692	71	Meadow, non-grazed, HSG C
21,359	78	Meadow, non-grazed, HSG D
9,836	89	Gravel roads, HSG C
149,887	73	Weighted Average
149,887	73	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0197	0.18		**Sheet Flow, SOLAR FARM** Grass: Short n= 0.150 P2= 3.45"
9.8	836	0.0415	1.43		**Shallow Concentrated Flow, SOLAR FARM** Short Grass Pasture Kv= 7.0 fps
19.3	936	Total			

Subcatchment PDA-305.1: SOLAR FARM



Summary for Subcatchment PDA-305.2: ACCESS ROAD, GRASS (UNDETAINED)

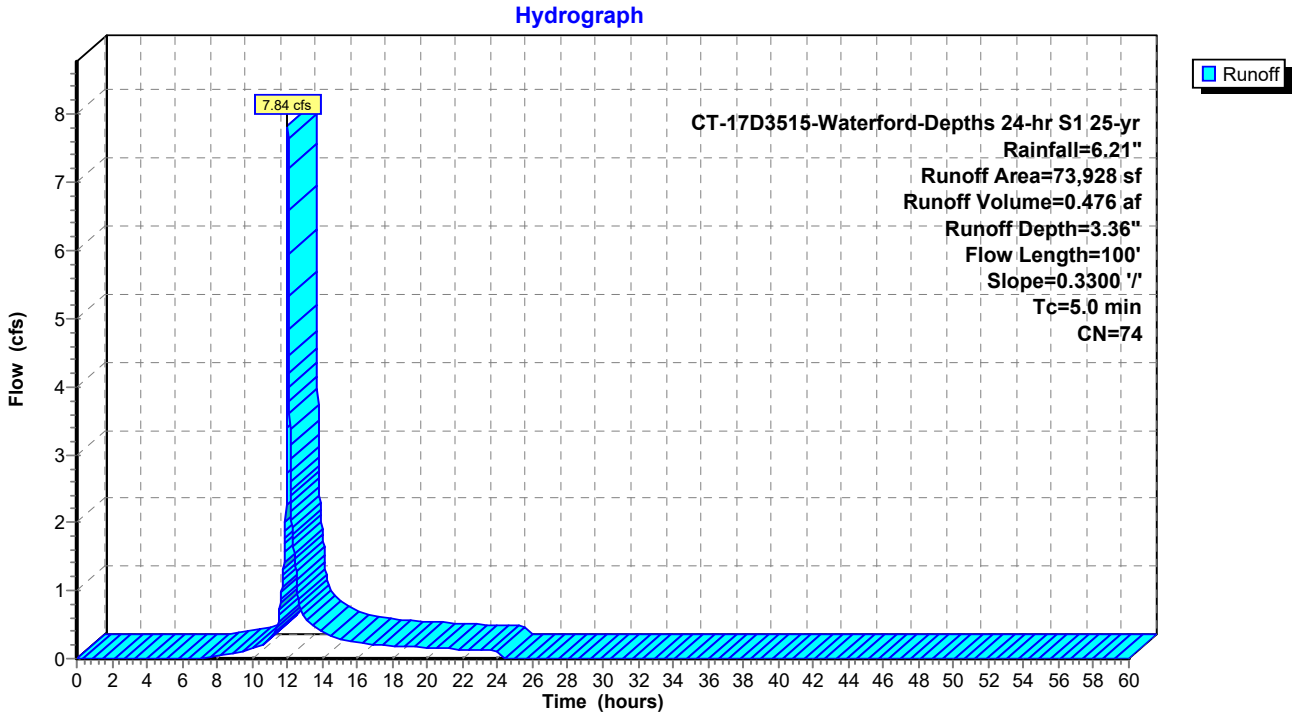
Runoff = 7.84 cfs @ 12.03 hrs, Volume= 0.476 af, Depth= 3.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 25-yr Rainfall=6.21"

Area (sf)	CN	Description
15,407	65	Brush, Good, HSG C
48,036	73	Brush, Good, HSG D
658	86	<50% Grass cover, Poor, HSG C
540	89	Gravel roads, HSG C
9,287	91	Gravel roads, HSG D
73,928	74	Weighted Average
73,928	74	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	100	0.3300	0.37		**Sheet Flow, SOLAR FARM** Grass: Dense n= 0.240 P2= 3.45"
4.5	100	Total, Increased to minimum Tc = 5.0 min			

Subcatchment PDA-305.2: ACCESS ROAD, GRASS (UNDETAINED)

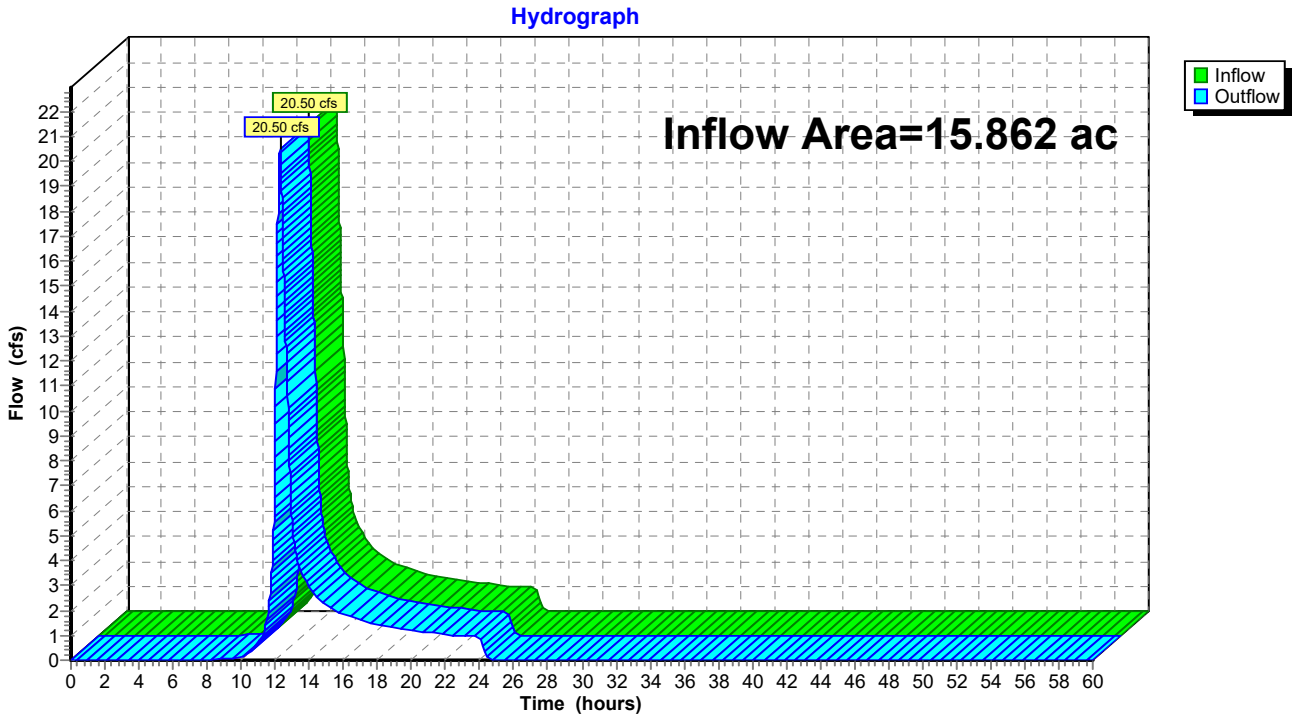


Summary for Reach DP-1: DISCHARGE OFFSITE TOWARDS STONY BROOK

Inflow Area = 15.862 ac, 1.63% Impervious, Inflow Depth = 2.19" for 25-yr event
Inflow = 20.50 cfs @ 12.27 hrs, Volume= 2.895 af
Outflow = 20.50 cfs @ 12.27 hrs, Volume= 2.895 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-1: DISCHARGE OFFSITE TOWARDS STONY BROOK

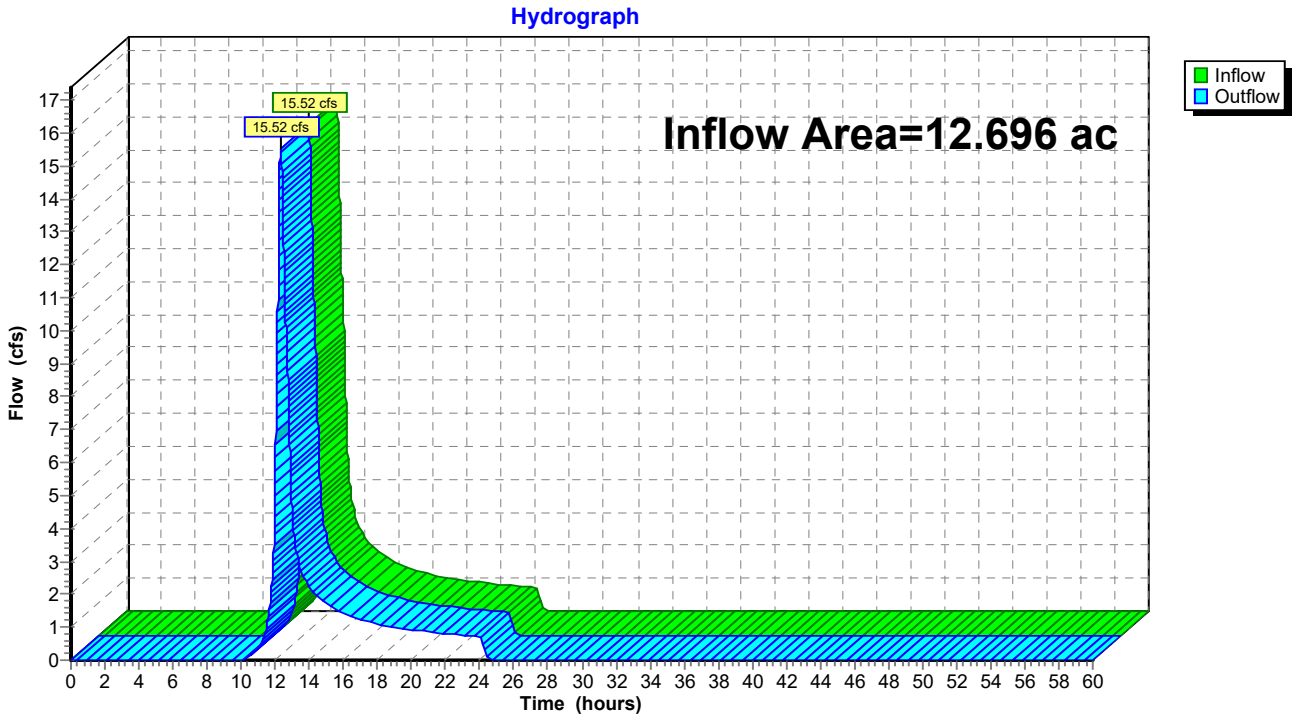


Summary for Reach DP-100: DISCHARGE OFFSITE

Inflow Area = 12.696 ac, 1.30% Impervious, Inflow Depth = 2.05" for 25-yr event
Inflow = 15.52 cfs @ 12.32 hrs, Volume= 2.169 af
Outflow = 15.52 cfs @ 12.32 hrs, Volume= 2.169 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-100: DISCHARGE OFFSITE

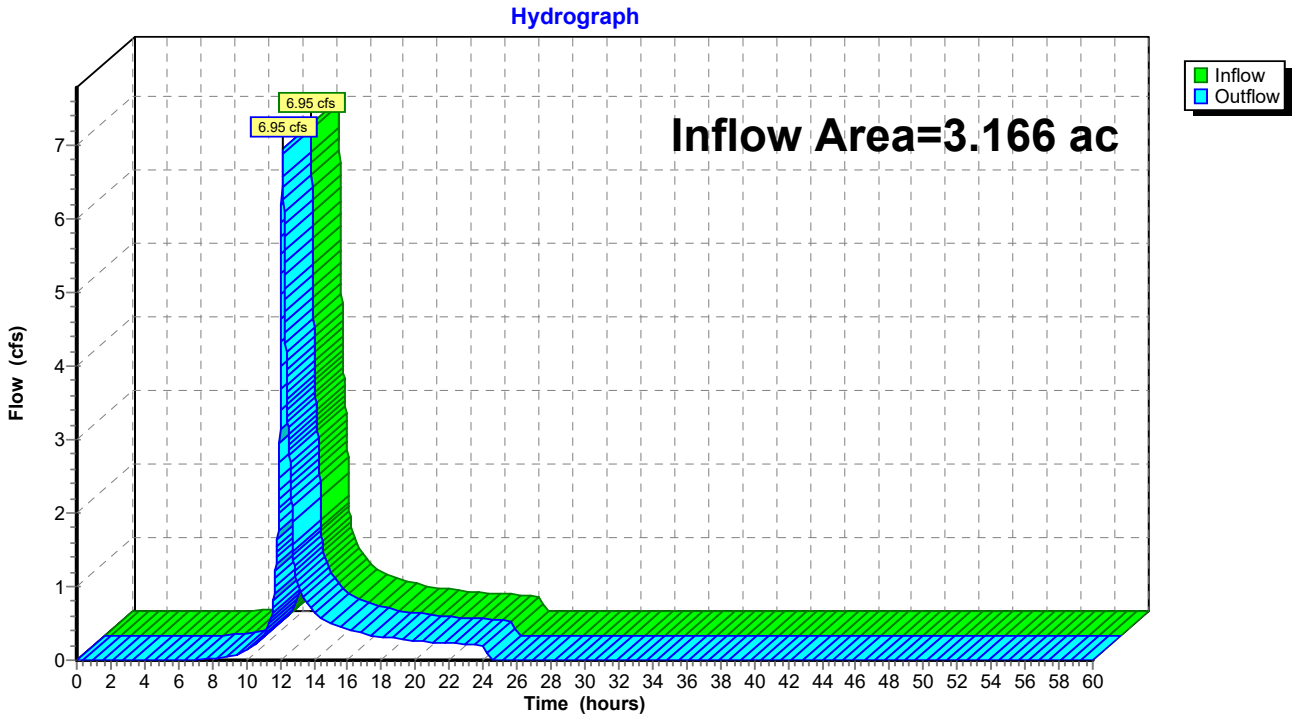


Summary for Reach DP-101: DISCHARGE OFFSITE

Inflow Area = 3.166 ac, 2.94% Impervious, Inflow Depth = 2.75" for 25-yr event
Inflow = 6.95 cfs @ 12.16 hrs, Volume= 0.726 af
Outflow = 6.95 cfs @ 12.16 hrs, Volume= 0.726 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-101: DISCHARGE OFFSITE

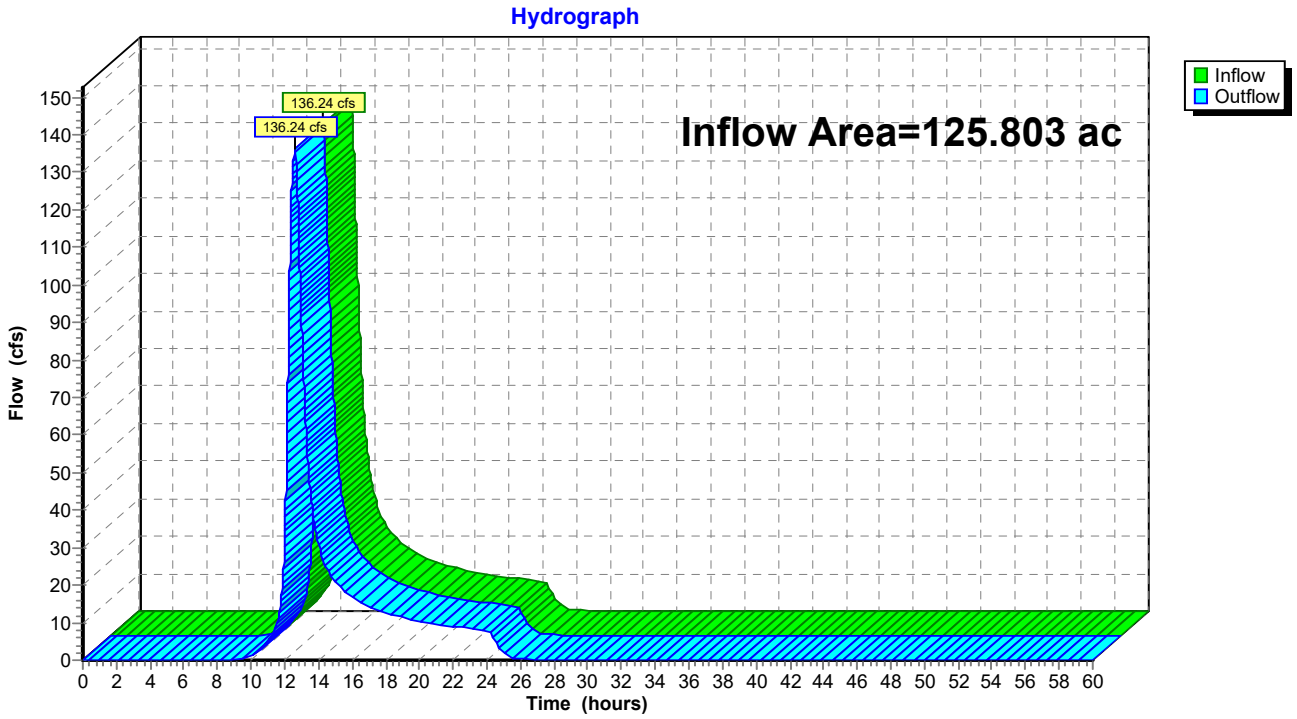


Summary for Reach DP-2: DISCHARGE TOWARDS OIL MILL BROOK

Inflow Area = 125.803 ac, 0.30% Impervious, Inflow Depth = 2.44" for 25-yr event
Inflow = 136.24 cfs @ 12.61 hrs, Volume= 25.546 af
Outflow = 136.24 cfs @ 12.61 hrs, Volume= 25.546 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-2: DISCHARGE TOWARDS OIL MILL BROOK

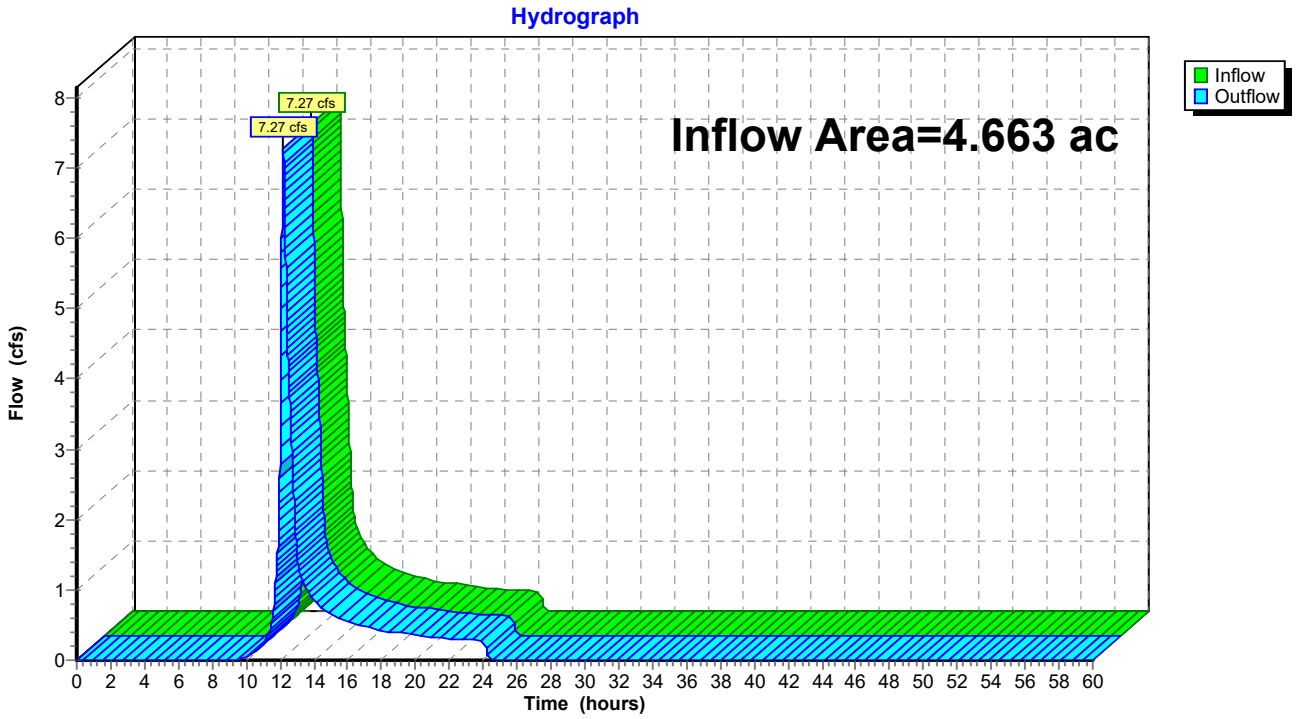


Summary for Reach DP-200: DISCHARGE OFFSITE

Inflow Area = 4.663 ac, 1.92% Impervious, Inflow Depth = 2.26" for 25-yr event
Inflow = 7.27 cfs @ 12.19 hrs, Volume= 0.878 af
Outflow = 7.27 cfs @ 12.19 hrs, Volume= 0.878 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-200: DISCHARGE OFFSITE

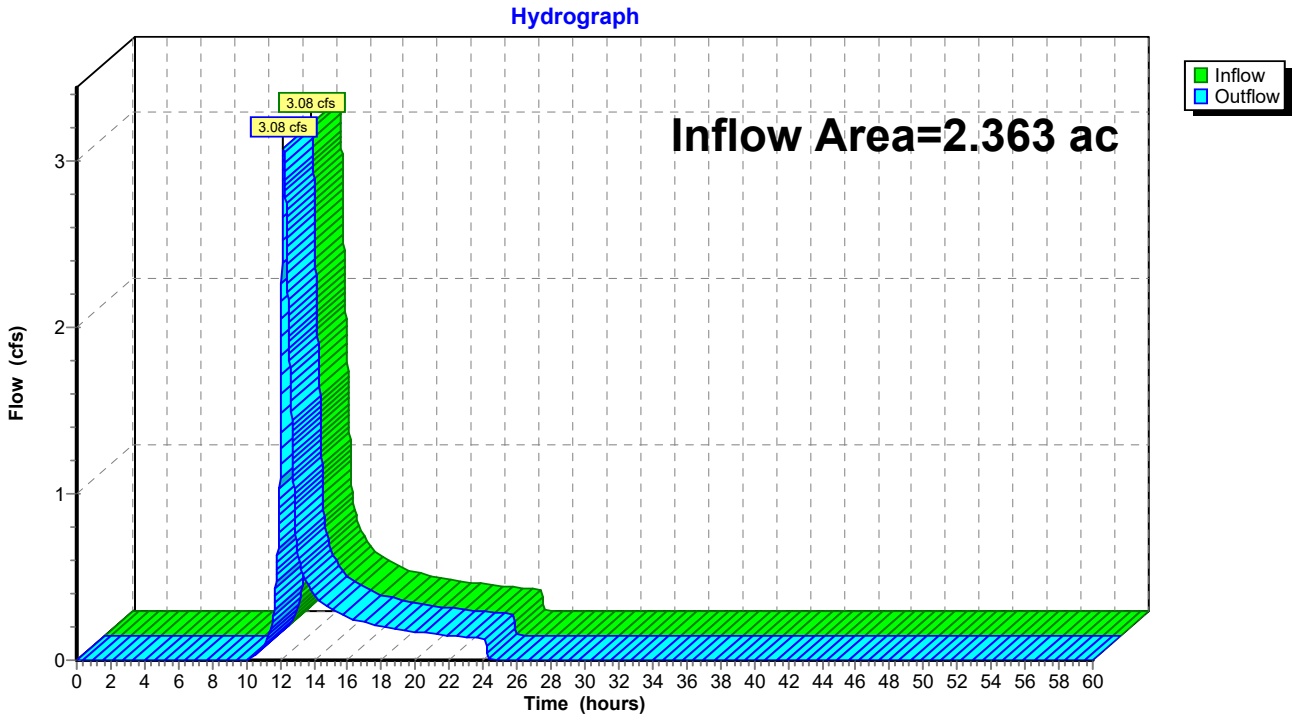


Summary for Reach DP-201: DISCHARGE OFFSITE

Inflow Area = 2.363 ac, 1.57% Impervious, Inflow Depth = 2.03" for 25-yr event
Inflow = 3.08 cfs @ 12.21 hrs, Volume= 0.399 af
Outflow = 3.08 cfs @ 12.21 hrs, Volume= 0.399 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-201: DISCHARGE OFFSITE

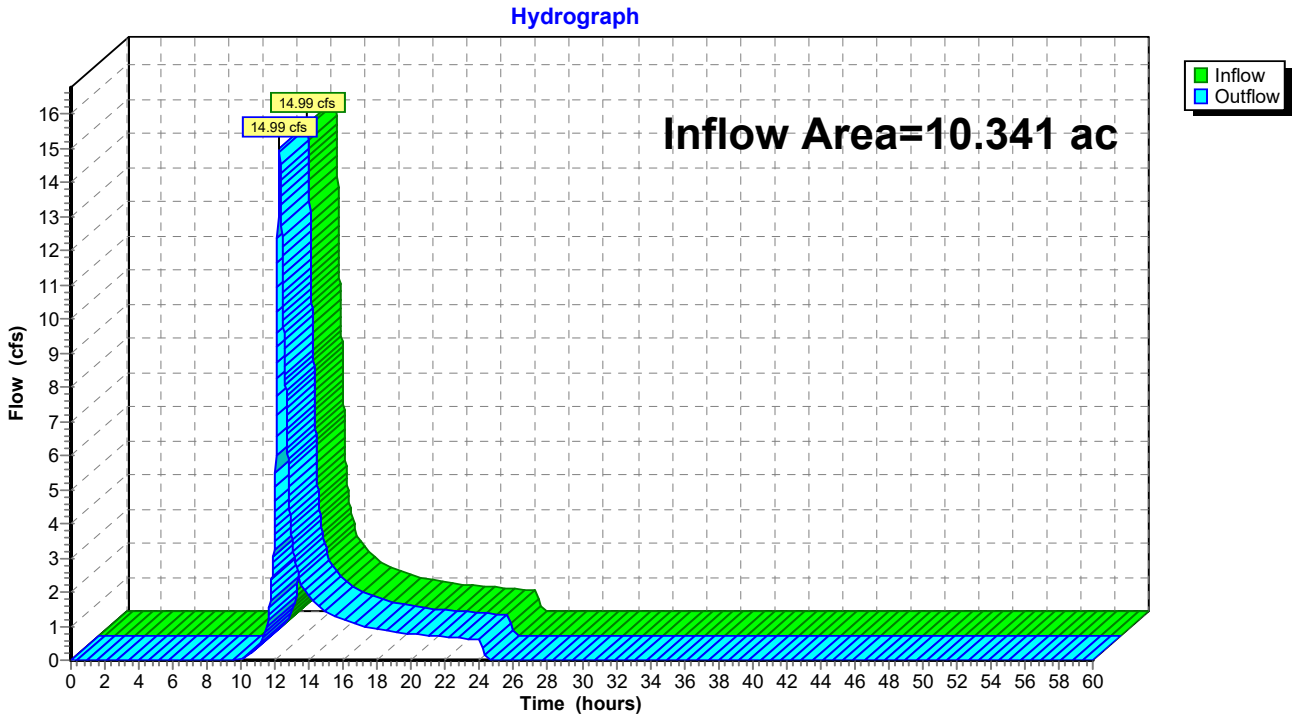


Summary for Reach DP-202: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 10.341 ac, 2.43% Impervious, Inflow Depth = 2.15" for 25-yr event
Inflow = 14.99 cfs @ 12.25 hrs, Volume= 1.850 af
Outflow = 14.99 cfs @ 12.25 hrs, Volume= 1.850 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-202: DISCHARGE TO CENTRAL WETLAND

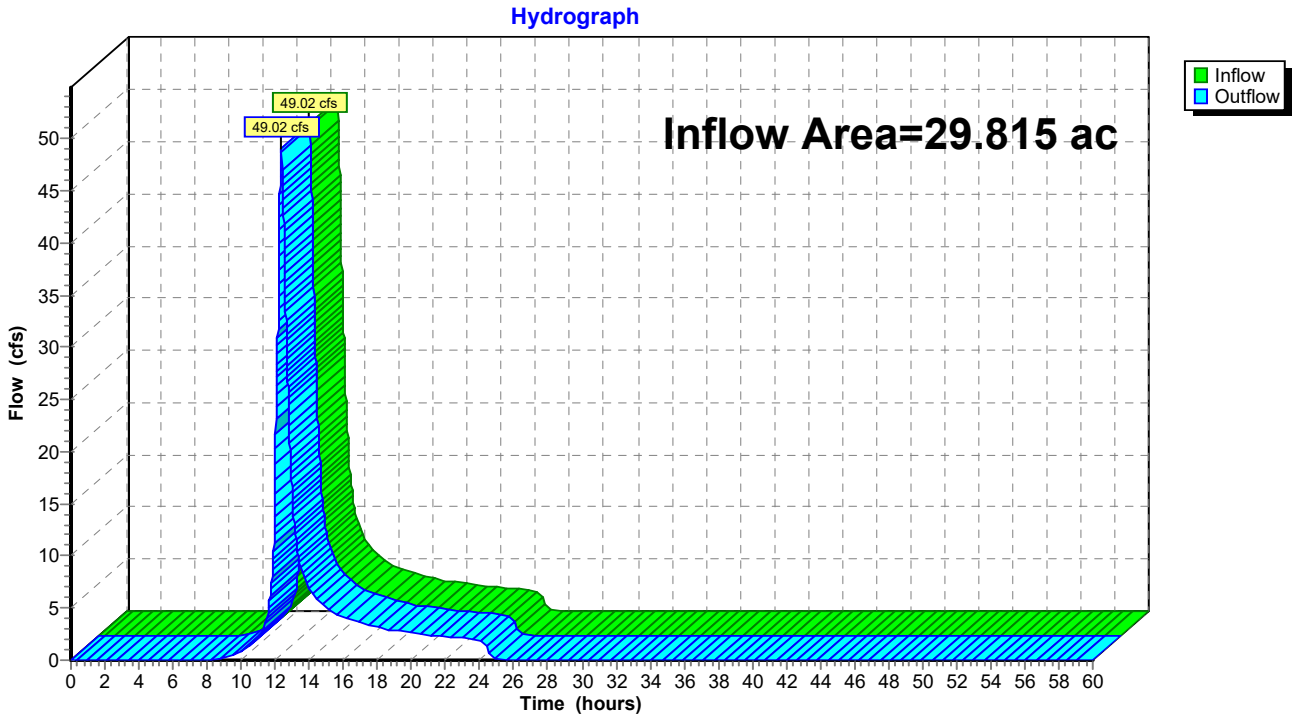


Summary for Reach DP-205: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 29.815 ac, 0.00% Impervious, Inflow Depth = 2.77" for 25-yr event
Inflow = 49.02 cfs @ 12.36 hrs, Volume= 6.872 af
Outflow = 49.02 cfs @ 12.36 hrs, Volume= 6.872 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-205: DISCHARGE TO CENTRAL WETLAND

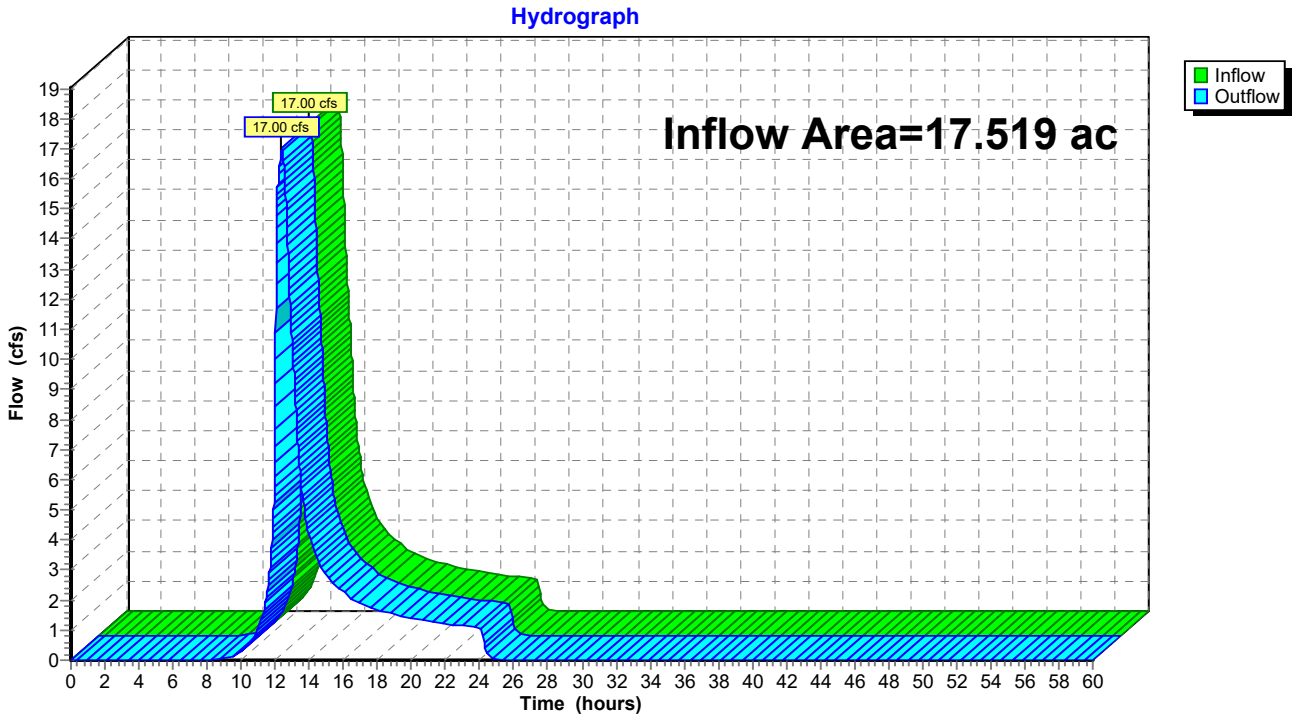


Summary for Reach DP-206: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 17.519 ac, 0.00% Impervious, Inflow Depth = 2.40" for 25-yr event
Inflow = 17.00 cfs @ 12.37 hrs, Volume= 3.509 af
Outflow = 17.00 cfs @ 12.37 hrs, Volume= 3.509 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-206: DISCHARGE TO CENTRAL WETLAND

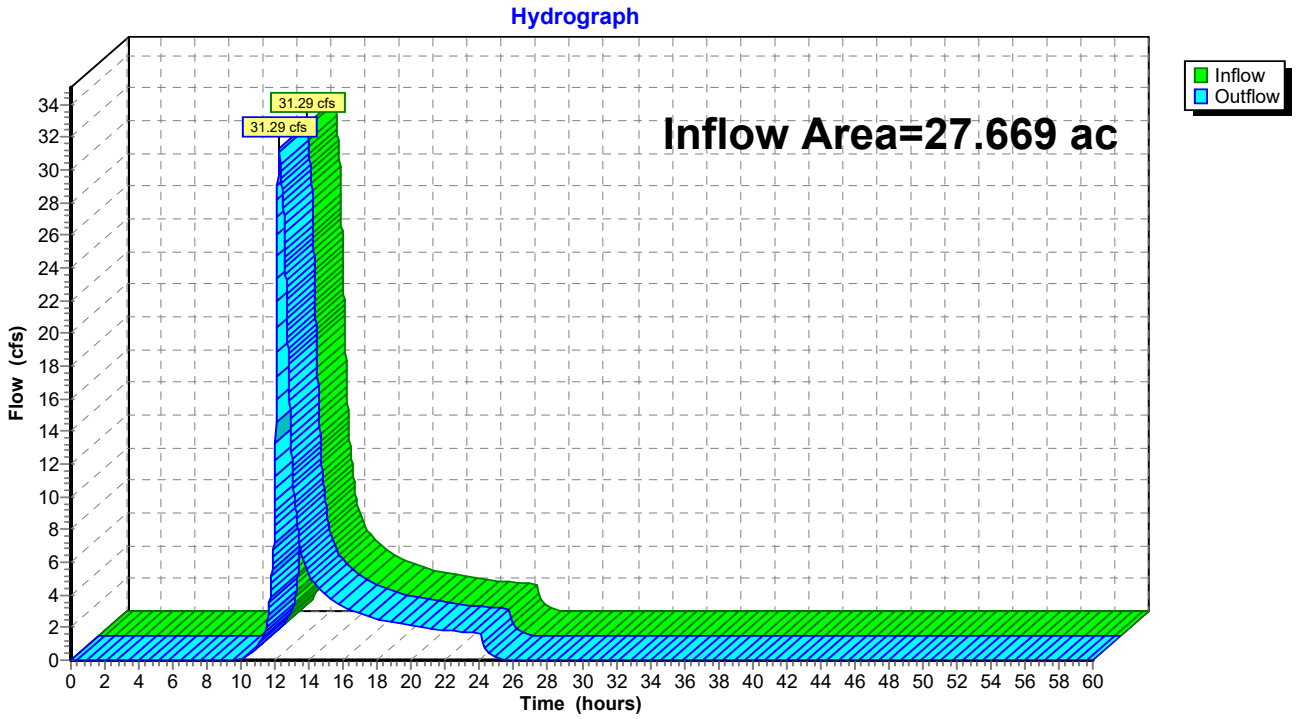


Summary for Reach DP-207: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 27.669 ac, 0.91% Impervious, Inflow Depth = 2.16" for 25-yr event
Inflow = 31.29 cfs @ 12.22 hrs, Volume= 4.980 af
Outflow = 31.29 cfs @ 12.22 hrs, Volume= 4.980 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-207: DISCHARGE TO CENTRAL WETLAND

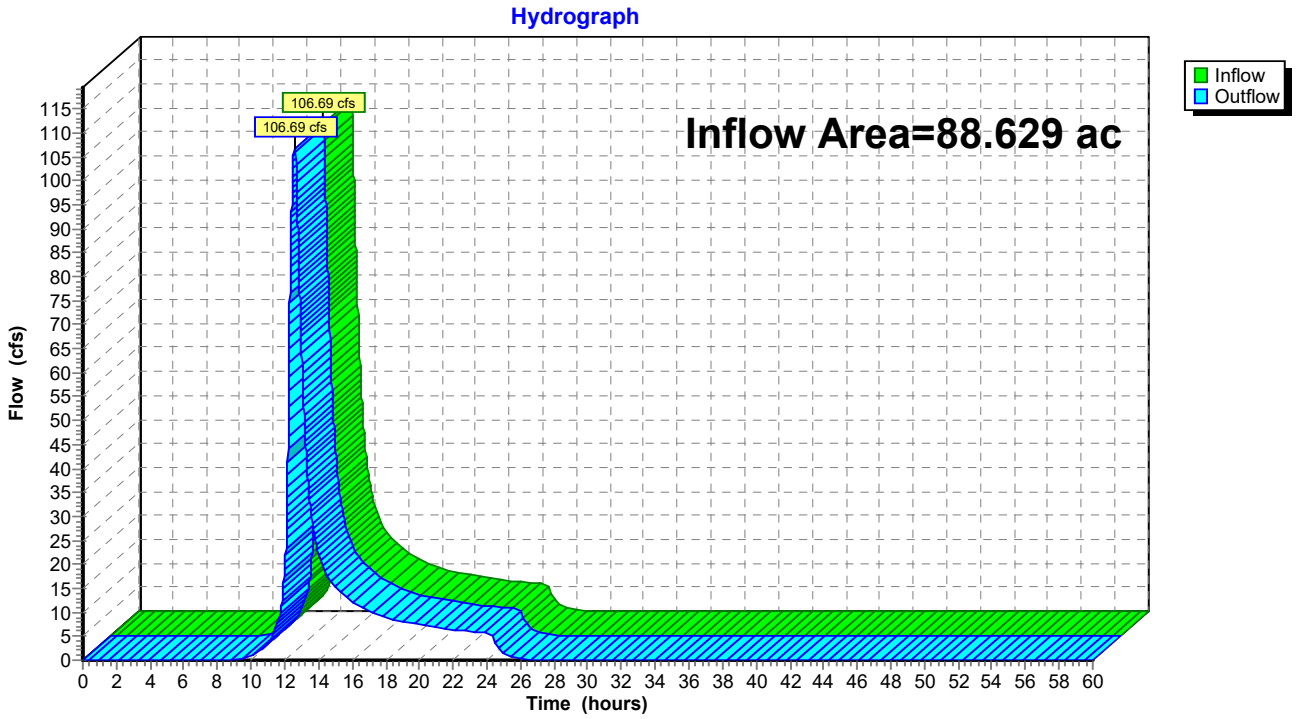


Summary for Reach DP-208: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 88.629 ac, 0.28% Impervious, Inflow Depth = 2.48" for 25-yr event
Inflow = 106.69 cfs @ 12.57 hrs, Volume= 18.309 af
Outflow = 106.69 cfs @ 12.57 hrs, Volume= 18.309 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-208: DISCHARGE TO CENTRAL WETLAND

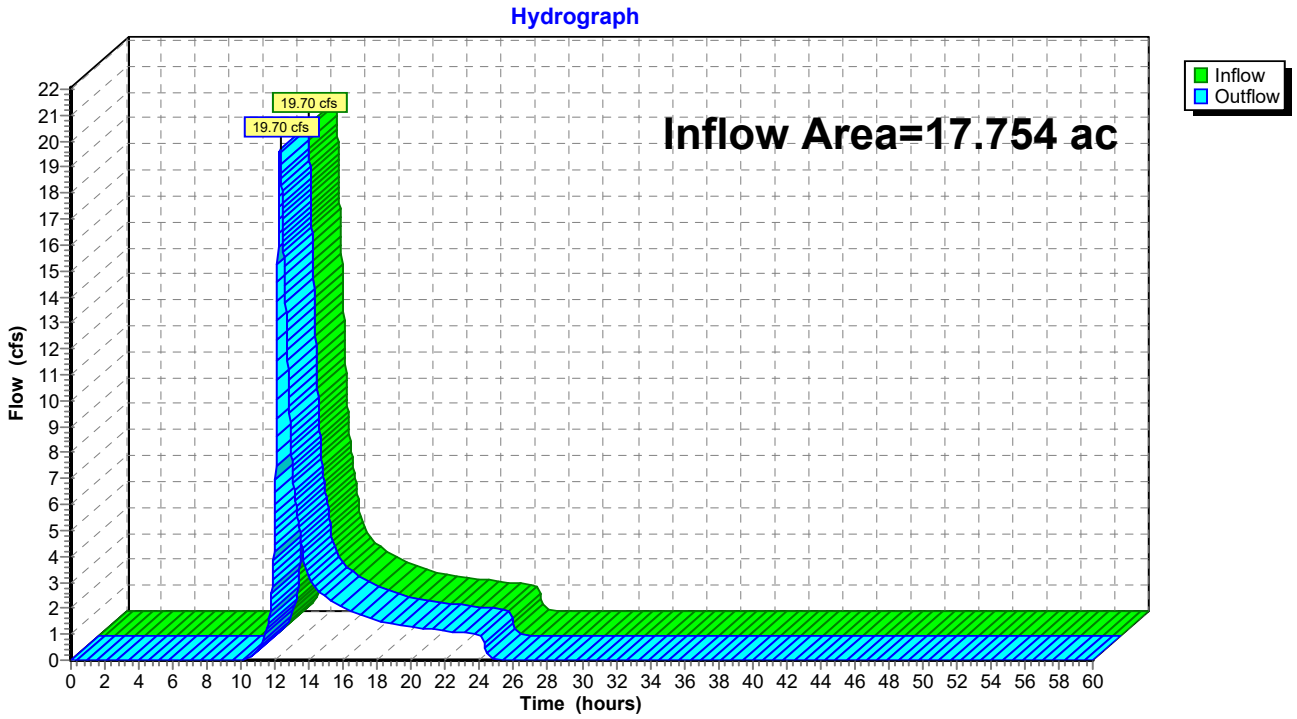


Summary for Reach DP-209: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 17.754 ac, 0.00% Impervious, Inflow Depth = 2.03" for 25-yr event
Inflow = 19.70 cfs @ 12.29 hrs, Volume= 2.997 af
Outflow = 19.70 cfs @ 12.29 hrs, Volume= 2.997 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-209: DISCHARGE TO CENTRAL WETLAND

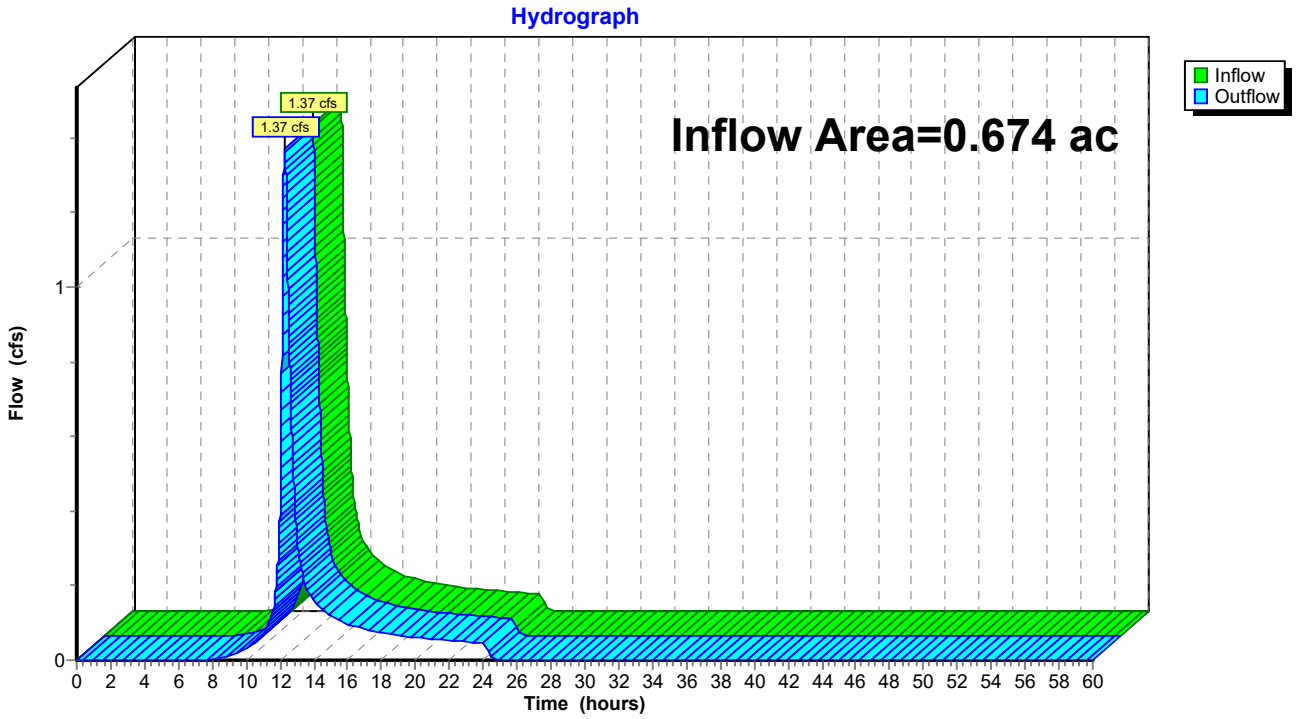


Summary for Reach DP-210: DISCHARGE TO PDA-211

Inflow Area = 0.674 ac, 0.00% Impervious, Inflow Depth = 2.97" for 25-yr event
Inflow = 1.37 cfs @ 12.29 hrs, Volume= 0.167 af
Outflow = 1.37 cfs @ 12.29 hrs, Volume= 0.167 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-210: DISCHARGE TO PDA-211

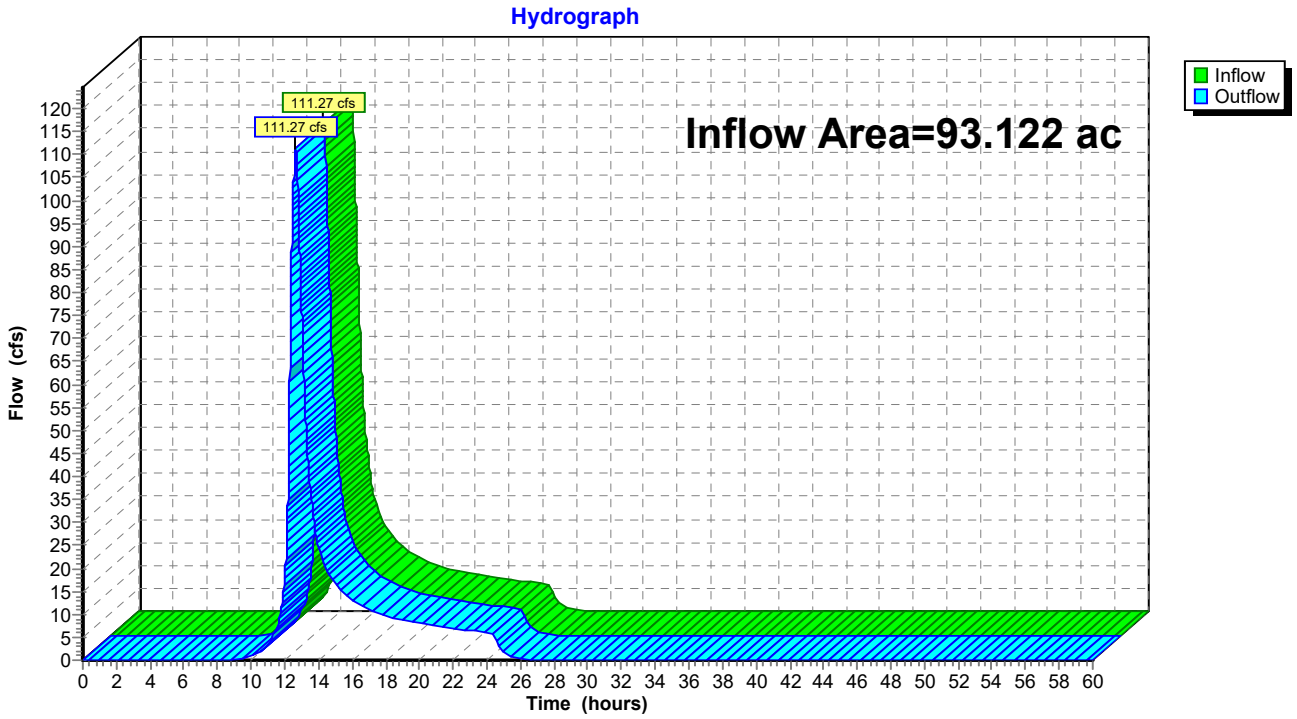


Summary for Reach DP-211: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 93.122 ac, 0.27% Impervious, Inflow Depth = 2.52" for 25-yr event
Inflow = 111.27 cfs @ 12.64 hrs, Volume= 19.578 af
Outflow = 111.27 cfs @ 12.64 hrs, Volume= 19.578 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-211: DISCHARGE TO CENTRAL WETLAND

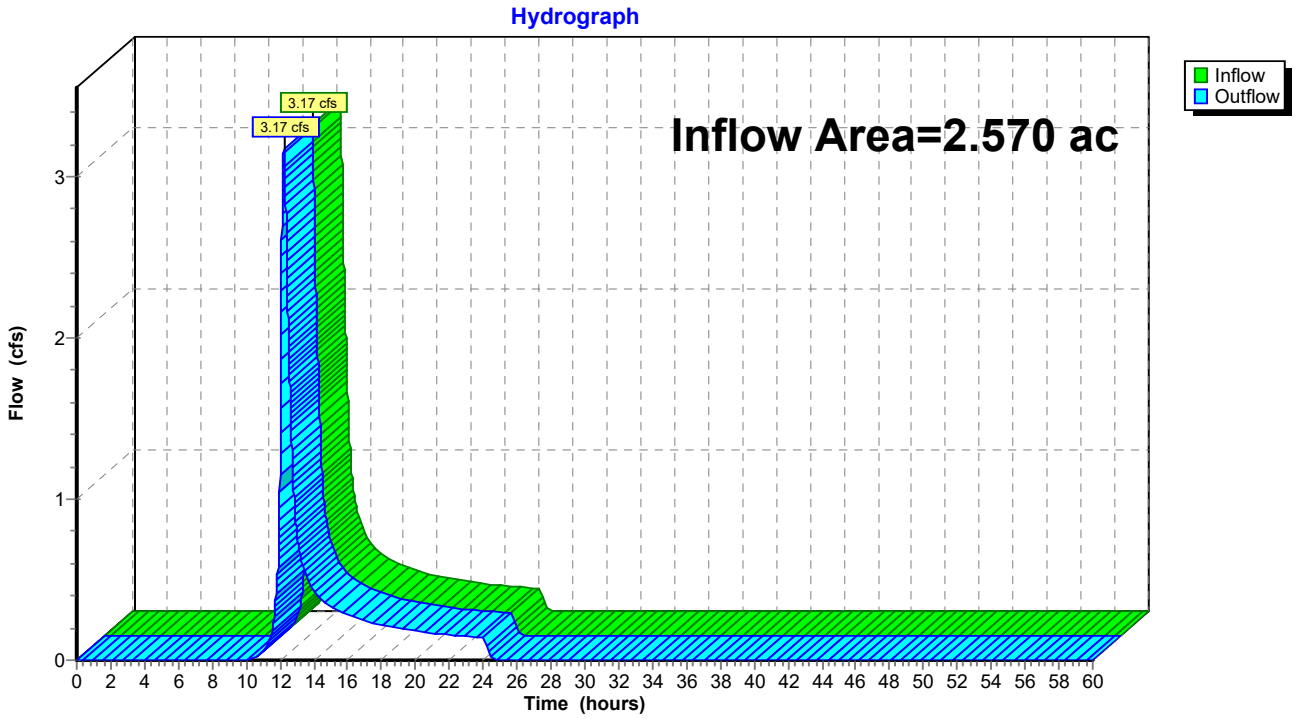


Summary for Reach DP-212: DISCHARGE OFFSITE

Inflow Area = 2.570 ac, 0.00% Impervious, Inflow Depth = 1.94" for 25-yr event
Inflow = 3.17 cfs @ 12.23 hrs, Volume= 0.415 af
Outflow = 3.17 cfs @ 12.23 hrs, Volume= 0.415 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-212: DISCHARGE OFFSITE

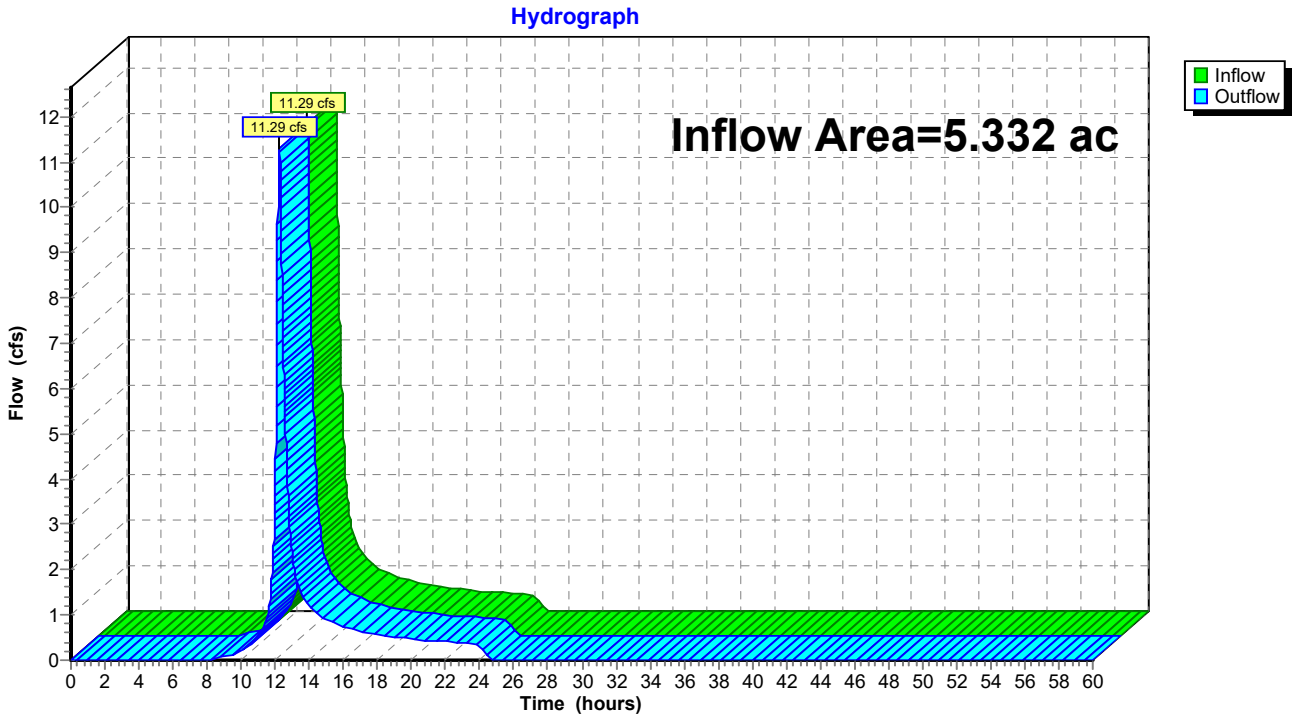


Summary for Reach DP-213: DISCHARGE OFFSITE

Inflow Area = 5.332 ac, 0.00% Impervious, Inflow Depth = 2.88" for 25-yr event
Inflow = 11.29 cfs @ 12.23 hrs, Volume= 1.279 af
Outflow = 11.29 cfs @ 12.23 hrs, Volume= 1.279 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-213: DISCHARGE OFFSITE

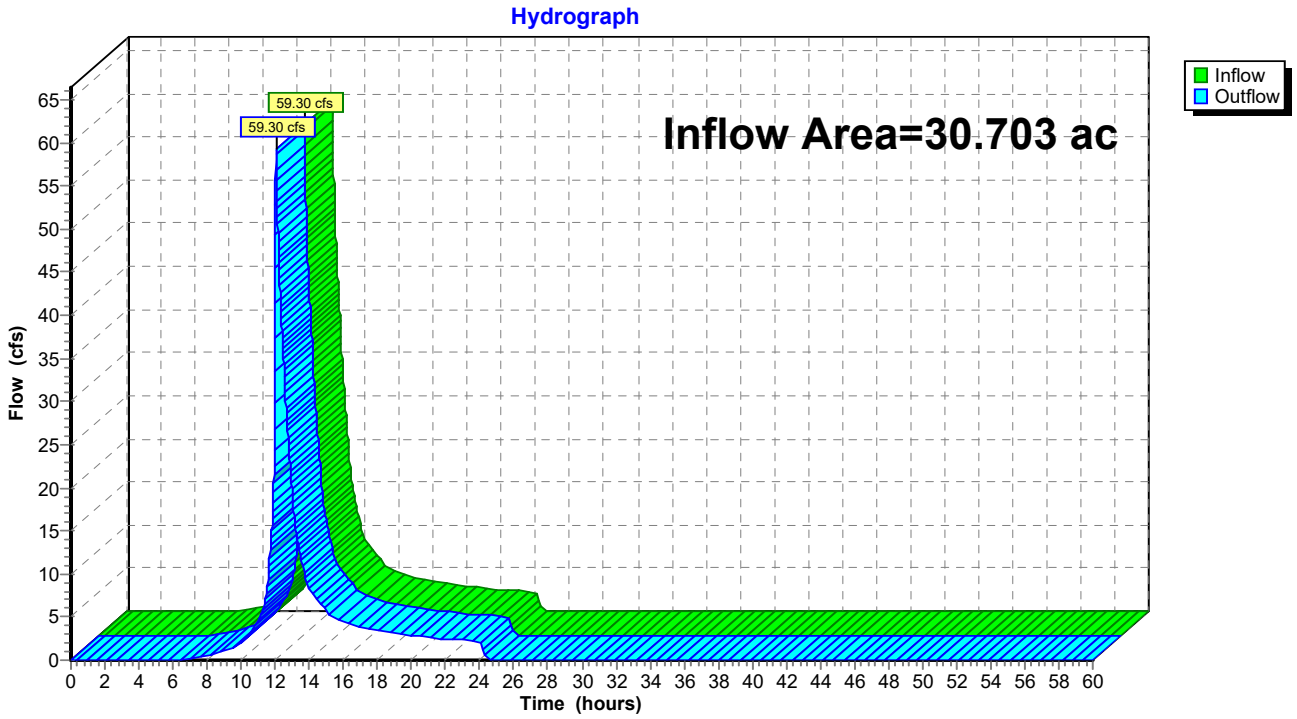


Summary for Reach DP-3: DISCHARGE TOWARDS STONY BROOK

Inflow Area = 30.703 ac, 0.00% Impervious, Inflow Depth = 3.28" for 25-yr event
Inflow = 59.30 cfs @ 12.06 hrs, Volume= 8.391 af
Outflow = 59.30 cfs @ 12.06 hrs, Volume= 8.391 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-3: DISCHARGE TOWARDS STONY BROOK

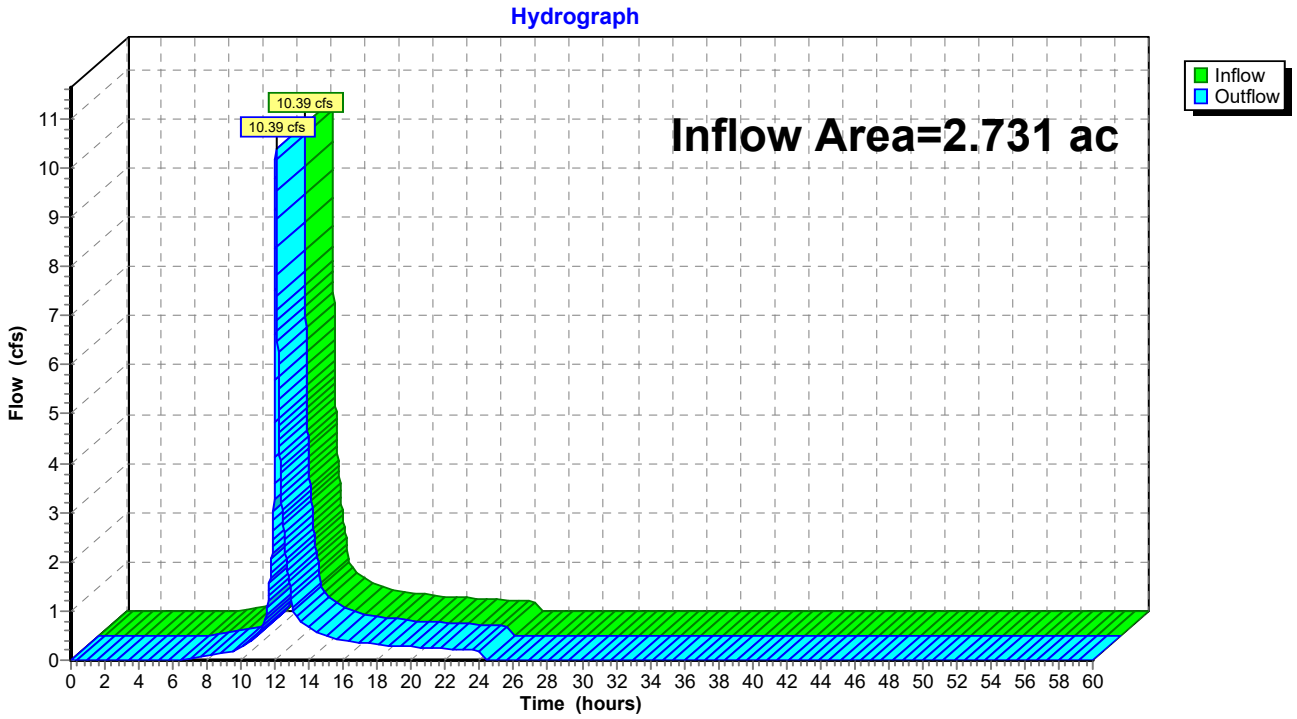


Summary for Reach DP-300: DISCHARGE OFFSITE

Inflow Area = 2.731 ac, 0.00% Impervious, Inflow Depth = 3.61" for 25-yr event
Inflow = 10.39 cfs @ 12.04 hrs, Volume= 0.822 af
Outflow = 10.39 cfs @ 12.04 hrs, Volume= 0.822 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-300: DISCHARGE OFFSITE

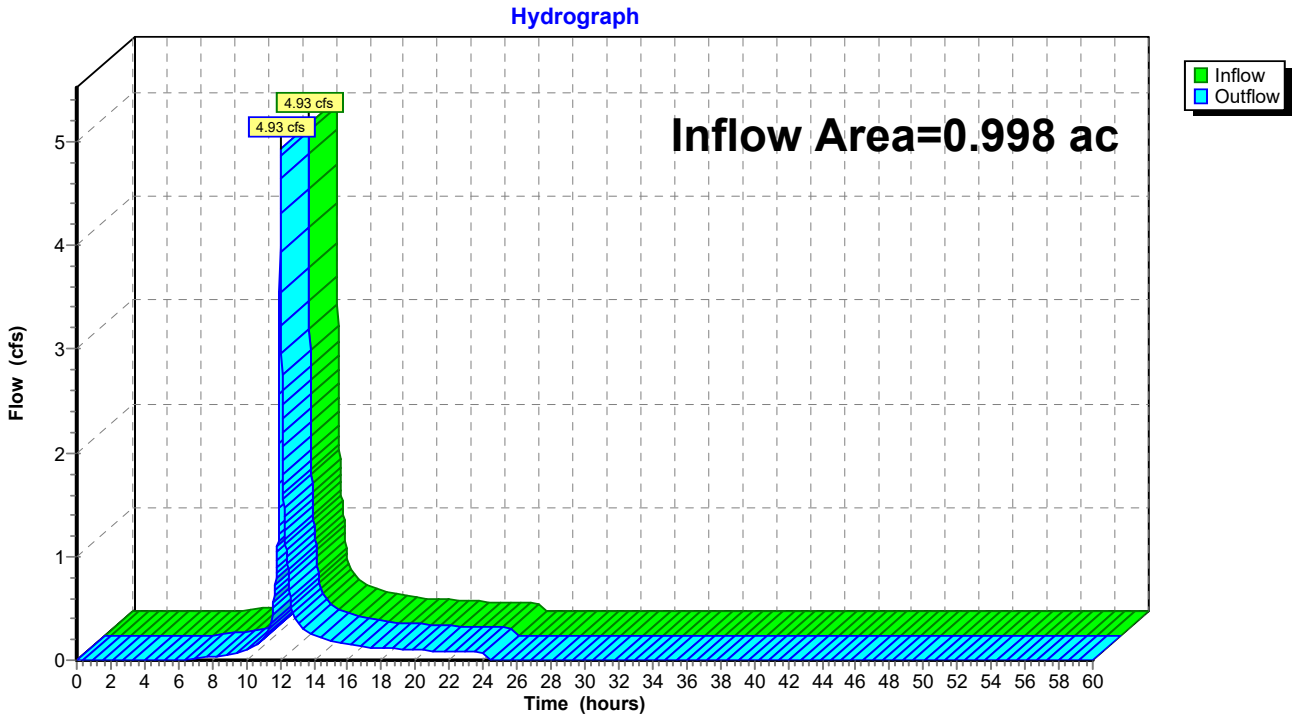


Summary for Reach DP-301: DISCHARGE OFFSITE

Inflow Area = 0.998 ac, 0.00% Impervious, Inflow Depth = 3.66" for 25-yr event
Inflow = 4.93 cfs @ 12.03 hrs, Volume= 0.305 af
Outflow = 4.93 cfs @ 12.03 hrs, Volume= 0.305 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-301: DISCHARGE OFFSITE

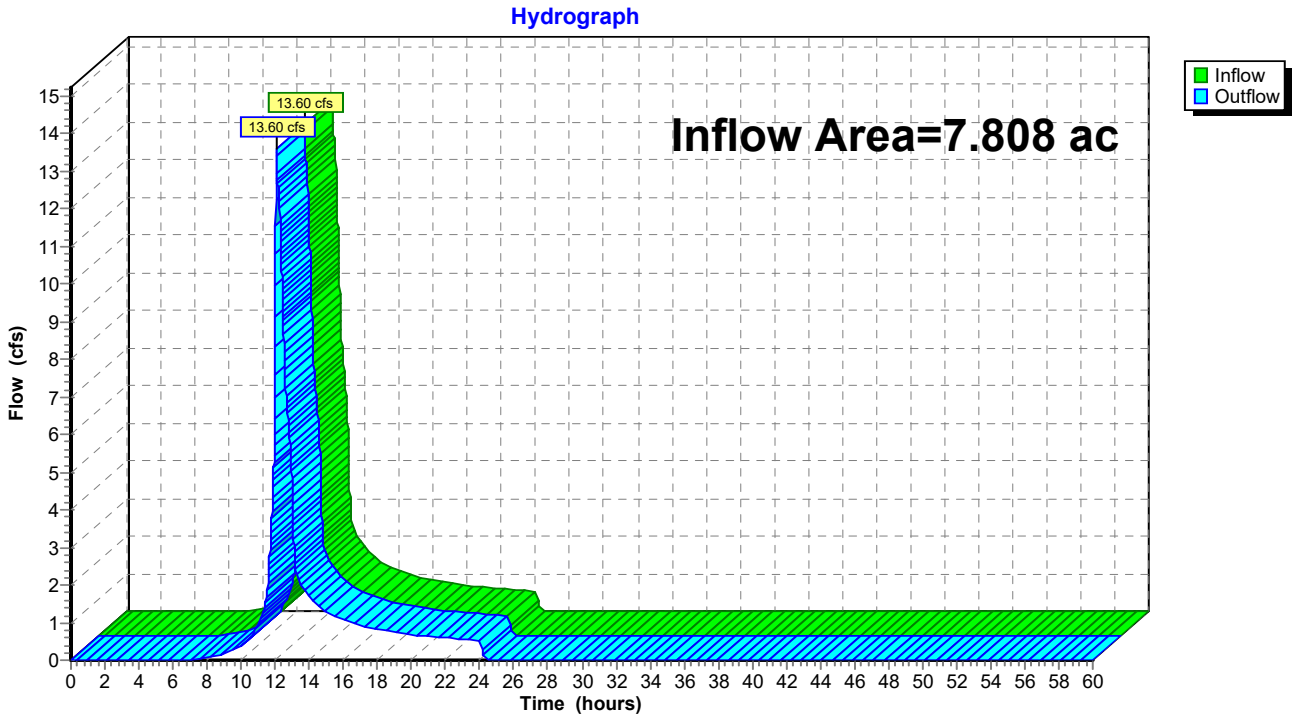


Summary for Reach DP-302: DISCHARGE OFFSITE

Inflow Area = 7.808 ac, 0.00% Impervious, Inflow Depth = 2.95" for 25-yr event
Inflow = 13.60 cfs @ 12.08 hrs, Volume= 1.919 af
Outflow = 13.60 cfs @ 12.08 hrs, Volume= 1.919 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-302: DISCHARGE OFFSITE

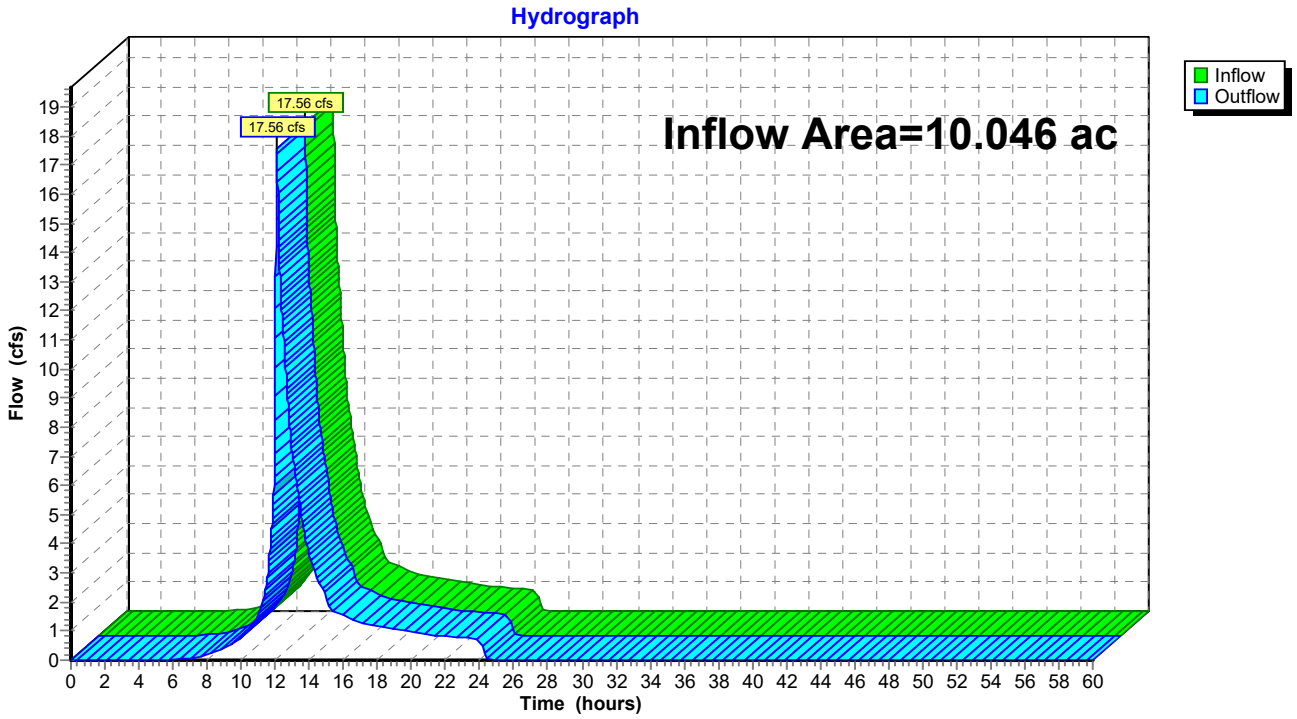


Summary for Reach DP-303: DISCHARGE TO EASTERN WETLAND

Inflow Area = 10.046 ac, 0.00% Impervious, Inflow Depth = 3.43" for 25-yr event
Inflow = 17.56 cfs @ 12.10 hrs, Volume= 2.872 af
Outflow = 17.56 cfs @ 12.10 hrs, Volume= 2.872 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-303: DISCHARGE TO EASTERN WETLAND

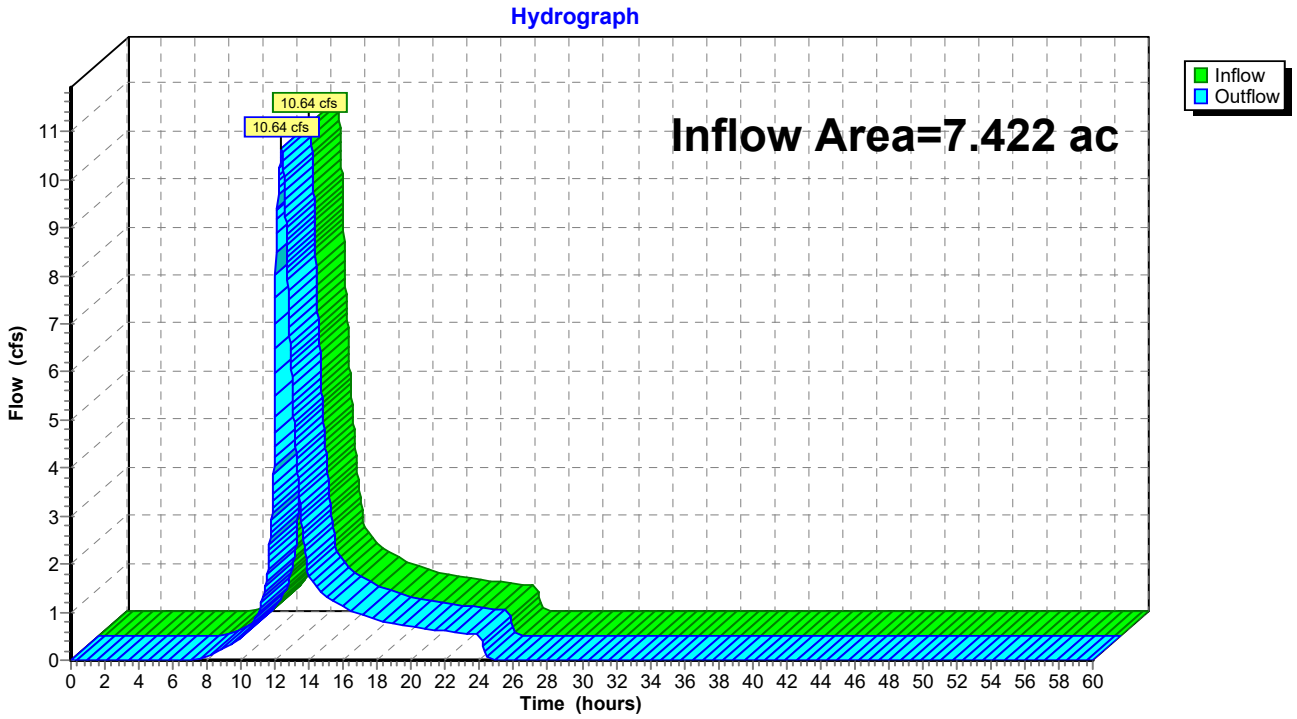


Summary for Reach DP-304: DISCHARGE OFFSITE

Inflow Area = 7.422 ac, 0.00% Impervious, Inflow Depth = 3.23" for 25-yr event
Inflow = 10.64 cfs @ 12.36 hrs, Volume= 1.999 af
Outflow = 10.64 cfs @ 12.36 hrs, Volume= 1.999 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-304: DISCHARGE OFFSITE

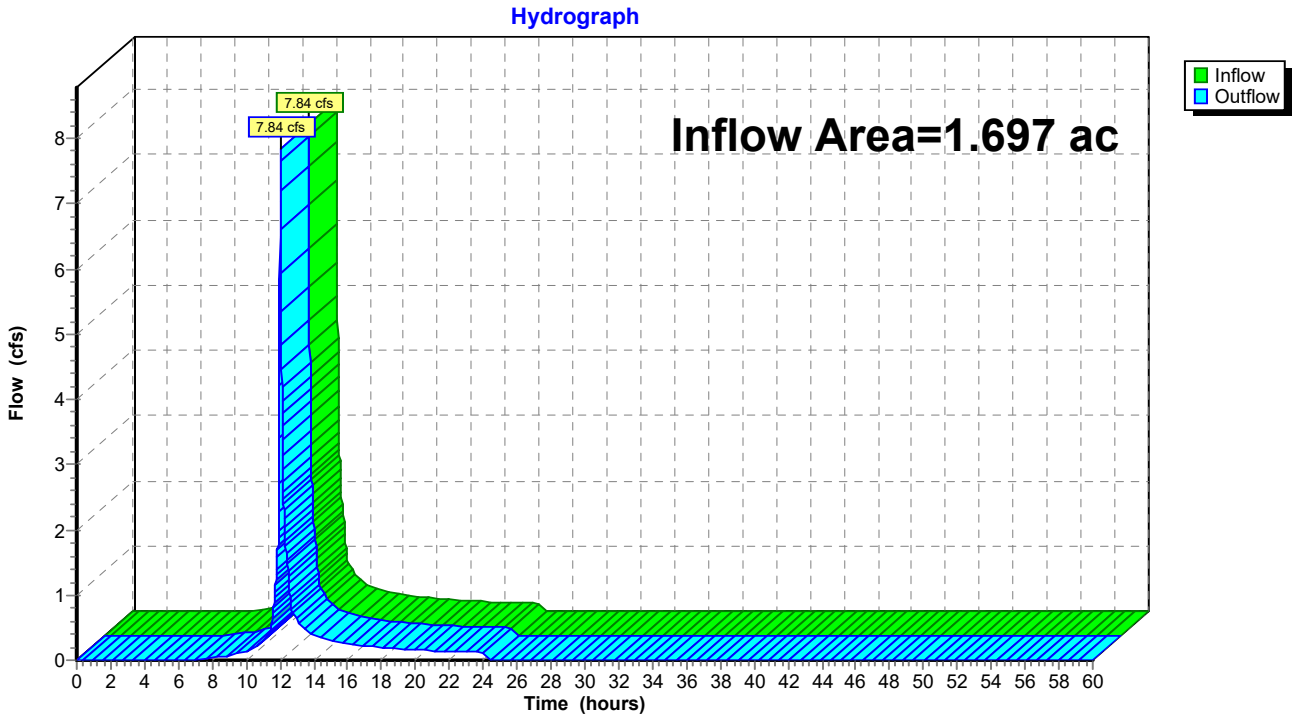


Summary for Reach DP-305: DISCHARGE OFFSITE

Inflow Area = 1.697 ac, 0.00% Impervious, Inflow Depth = 3.36" for 25-yr event
Inflow = 7.84 cfs @ 12.03 hrs, Volume= 0.476 af
Outflow = 7.84 cfs @ 12.03 hrs, Volume= 0.476 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-305: DISCHARGE OFFSITE



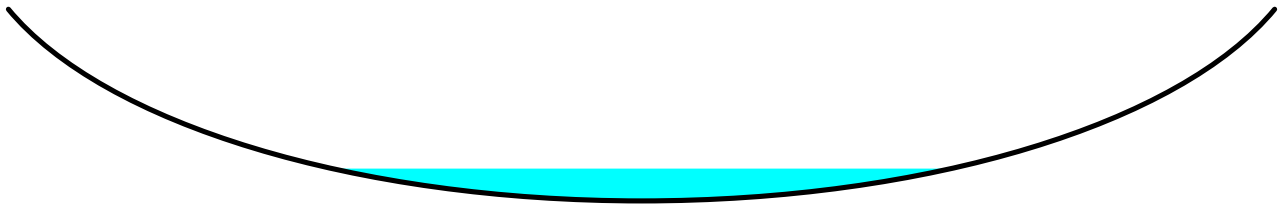
Summary for Reach R-202: FLOW THROUGH CENTRAL WETLAND PDA-207.2

Inflow Area = 10.341 ac, 2.43% Impervious, Inflow Depth = 2.15" for 25-yr event
Inflow = 14.99 cfs @ 12.25 hrs, Volume= 1.850 af
Outflow = 12.99 cfs @ 12.53 hrs, Volume= 1.850 af, Atten= 13%, Lag= 16.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.81 fps, Min. Travel Time= 9.5 min
Avg. Velocity = 0.64 fps, Avg. Travel Time= 27.0 min

Peak Storage= 7,410 cf @ 12.37 hrs
Average Depth at Peak Storage= 0.34'
Bank-Full Depth= 2.00' Flow Area= 104.0 sf, Capacity= 617.17 cfs

78.00' x 2.00' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 1,032.8' Slope= 0.0697 '/'
Inlet Invert= 188.00', Outlet Invert= 116.00'



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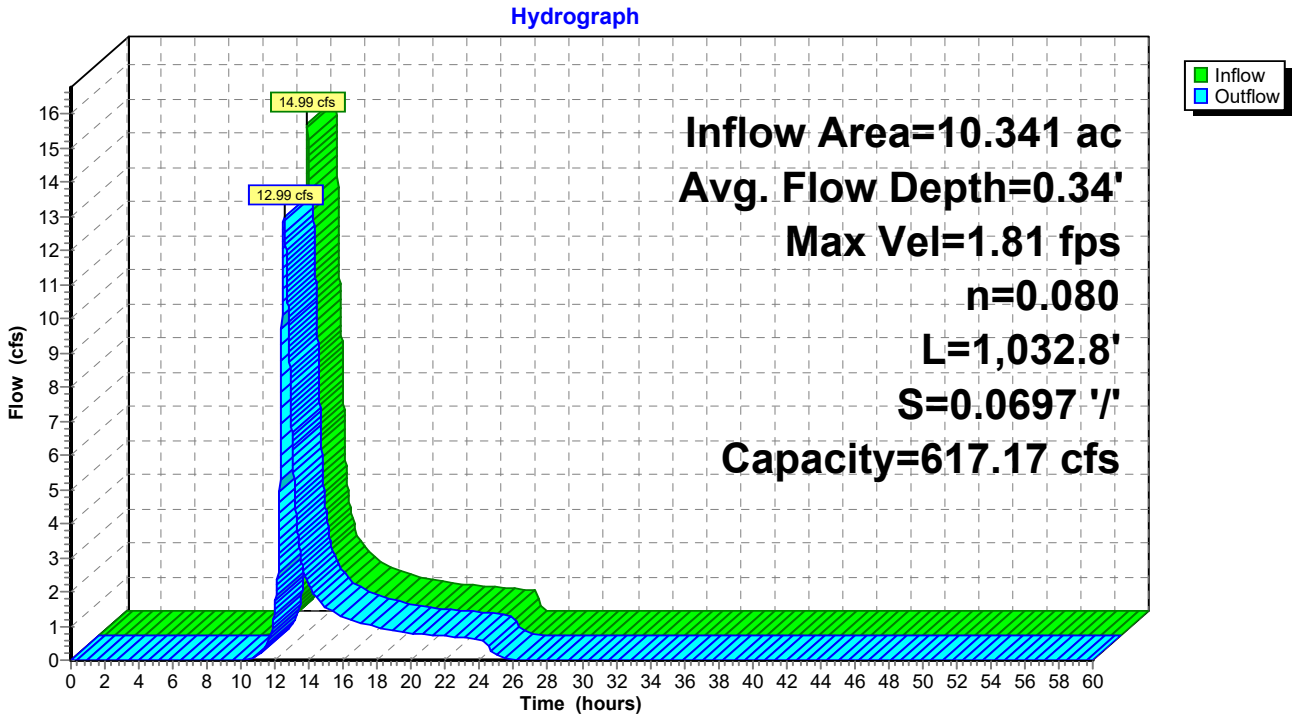
Reach R-202: FLOW THROUGH CENTRAL WETLAND PDA-207.2



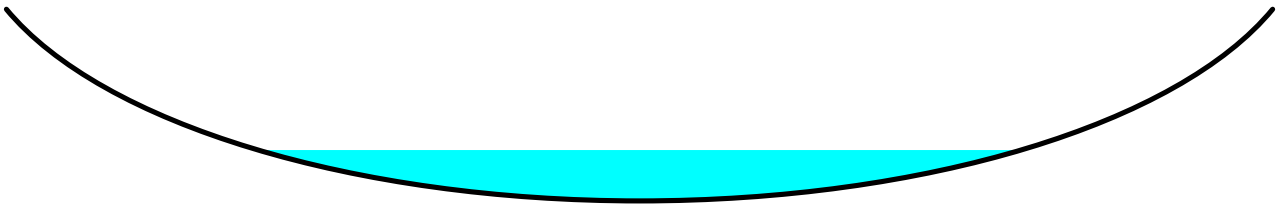
Summary for Reach R-203: SHALLOW CONCENTRATED FLOW THROUGH PDA-205.3

Inflow Area = 18.396 ac, 0.00% Impervious, Inflow Depth = 2.88" for 25-yr event
Inflow = 34.37 cfs @ 12.31 hrs, Volume= 4.411 af
Outflow = 33.94 cfs @ 12.40 hrs, Volume= 4.411 af, Atten= 1%, Lag= 5.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.48 fps, Min. Travel Time= 2.9 min
Avg. Velocity = 0.91 fps, Avg. Travel Time= 7.9 min

Peak Storage= 5,947 cf @ 12.35 hrs
Average Depth at Peak Storage= 0.66'
Bank-Full Depth= 2.50' Flow Area= 100.0 sf, Capacity= 597.69 cfs

60.00' x 2.50' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 434.0' Slope= 0.0527 '/'
Inlet Invert= 178.88', Outlet Invert= 156.00'



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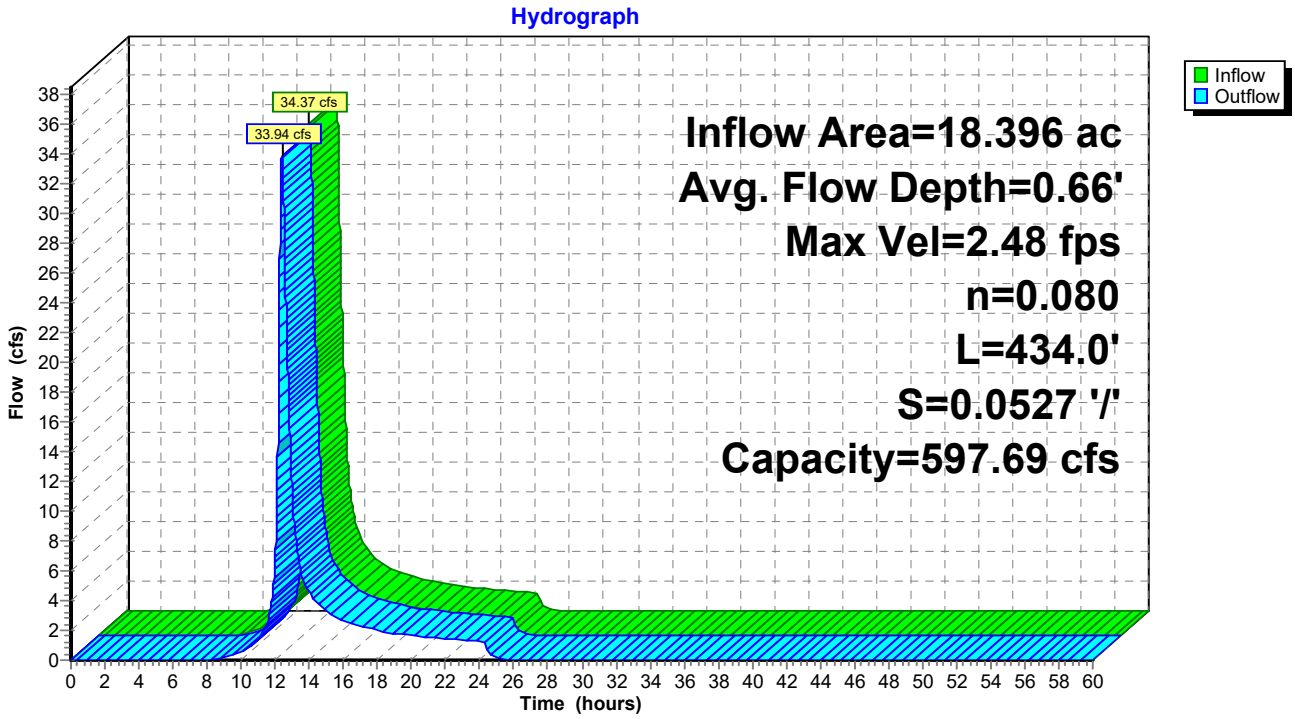
Reach R-203: SHALLOW CONCENTRATED FLOW THROUGH PDA-205.3



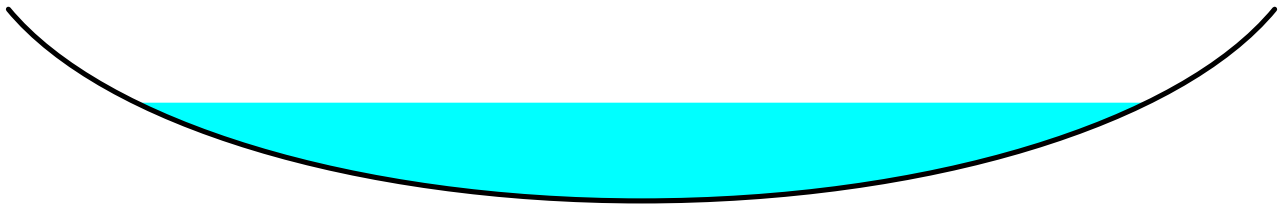
Summary for Reach R-204: SHALLOW CONCENTRATED FLOW THROUGH PDA-205.3

Inflow Area = 1.091 ac, 0.00% Impervious, Inflow Depth = 2.06" for 25-yr event
Inflow = 1.74 cfs @ 12.19 hrs, Volume= 0.187 af
Outflow = 1.36 cfs @ 12.49 hrs, Volume= 0.187 af, Atten= 22%, Lag= 17.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 0.69 fps, Min. Travel Time= 10.7 min
Avg. Velocity = 0.19 fps, Avg. Travel Time= 38.5 min

Peak Storage= 874 cf @ 12.31 hrs
Average Depth at Peak Storage= 0.10'
Bank-Full Depth= 0.20' Flow Area= 5.3 sf, Capacity= 5.78 cfs

40.00' x 0.20' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 446.0' Slope= 0.0499 '/'
Inlet Invert= 178.27', Outlet Invert= 156.00'



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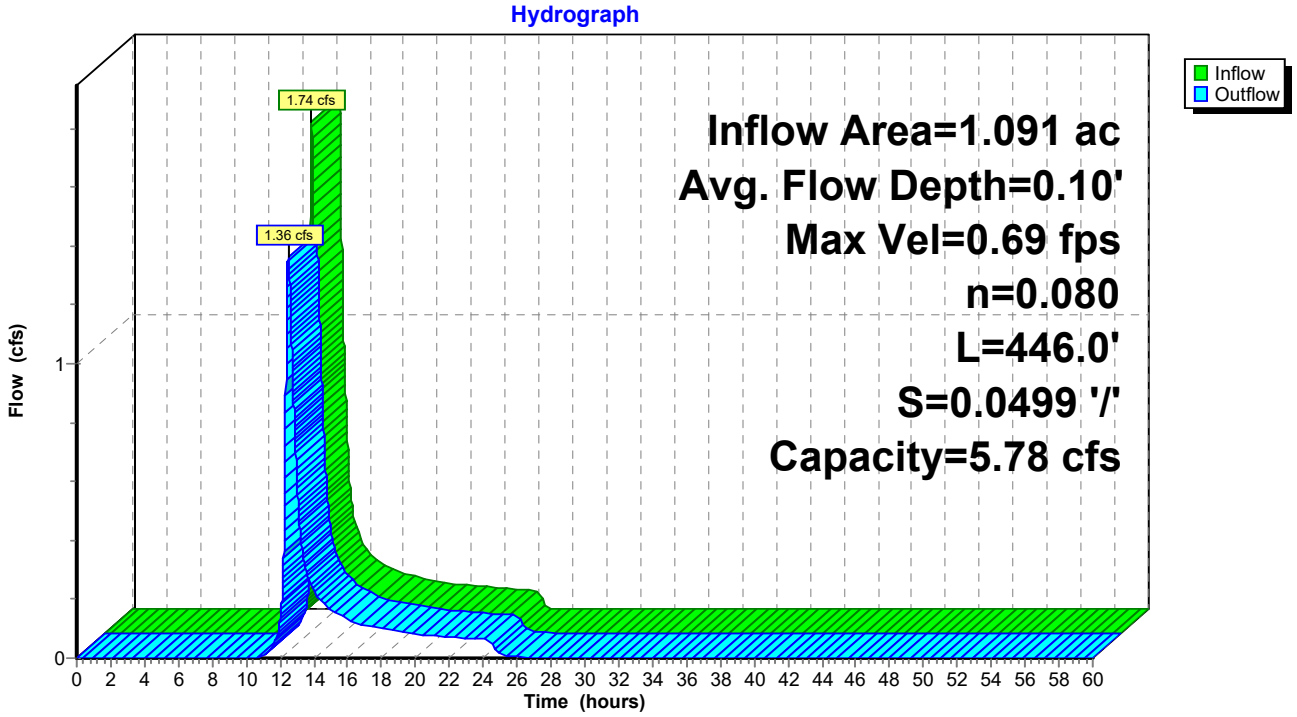
Reach R-204: SHALLOW CONCENTRATED FLOW THROUGH PDA-205.3



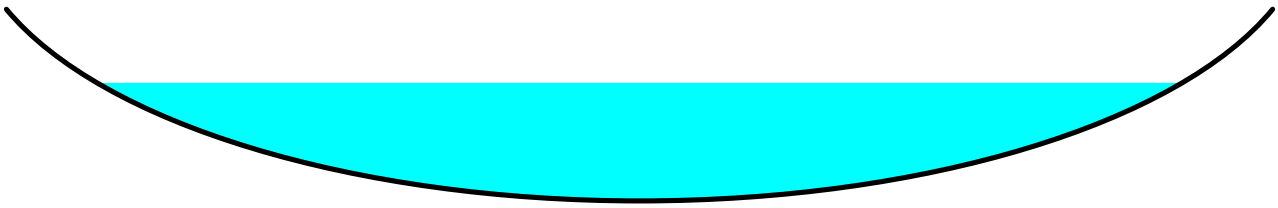
Summary for Reach R-205.2: SHALLOW CONCENTRATED FLOW THROUGH PDA-205.3

Inflow Area = 4.938 ac, 0.00% Impervious, Inflow Depth = 2.69" for 25-yr event
Inflow = 12.01 cfs @ 12.14 hrs, Volume= 1.107 af
Outflow = 10.59 cfs @ 12.29 hrs, Volume= 1.107 af, Atten= 12%, Lag= 9.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.37 fps, Min. Travel Time= 5.4 min
Avg. Velocity = 0.38 fps, Avg. Travel Time= 19.5 min

Peak Storage= 3,457 cf @ 12.20 hrs
Average Depth at Peak Storage= 0.25'
Bank-Full Depth= 0.40' Flow Area= 16.0 sf, Capacity= 30.16 cfs

60.00' x 0.40' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 446.0' Slope= 0.0600 '/'
Inlet Invert= 178.27', Outlet Invert= 151.51'



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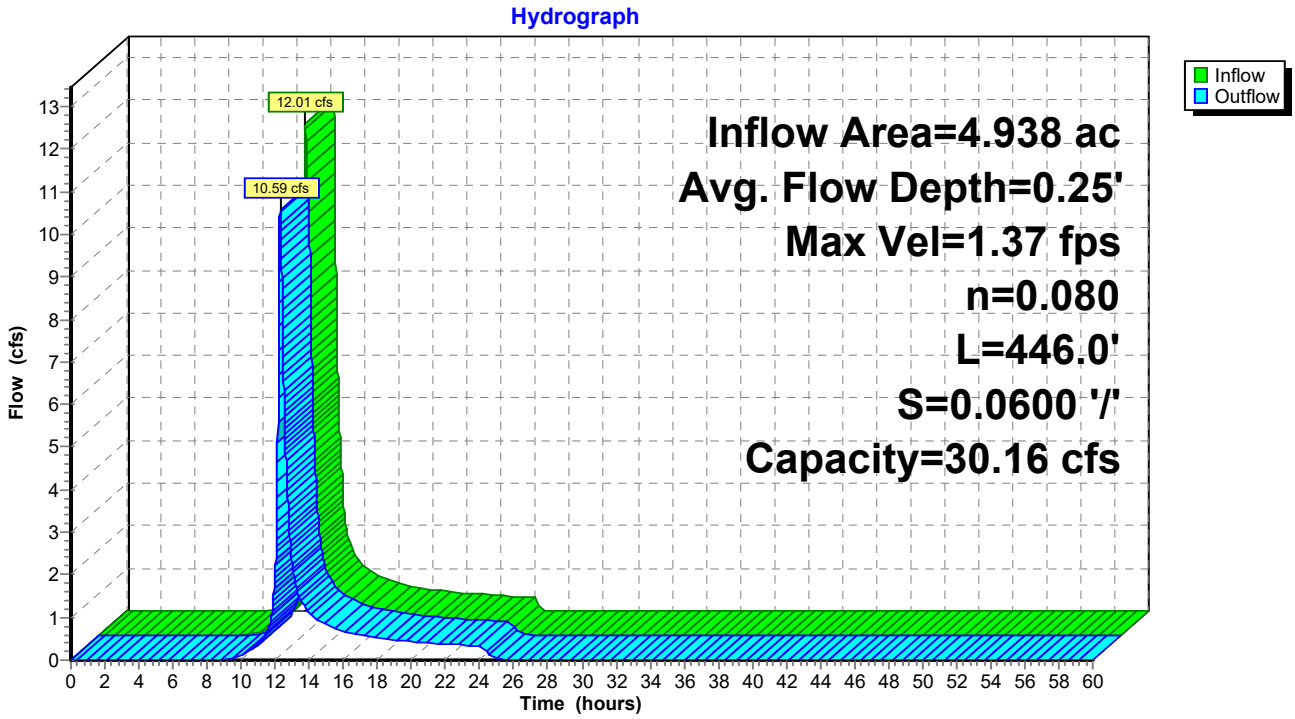
Reach R-205.2: SHALLOW CONCENTRATED FLOW THROUGH PDA-205.3



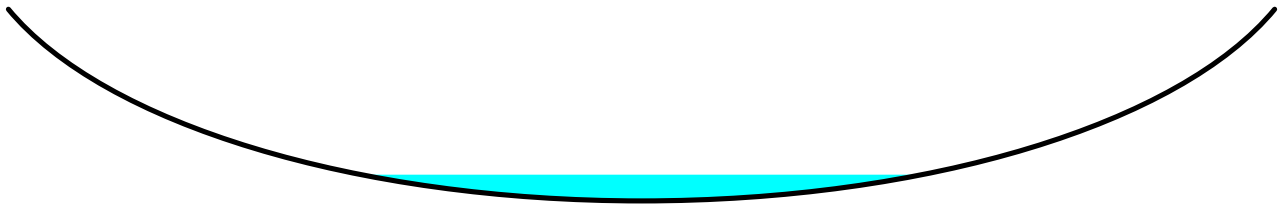
Summary for Reach R-205/206: FLOW THROUGH CENTRAL WETLAND PDA-208.2

Inflow Area = 47.334 ac, 0.00% Impervious, Inflow Depth = 2.63" for 25-yr event
Inflow = 66.02 cfs @ 12.36 hrs, Volume= 10.380 af
Outflow = 61.58 cfs @ 12.62 hrs, Volume= 10.380 af, Atten= 7%, Lag= 15.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.98 fps, Min. Travel Time= 8.9 min
Avg. Velocity = 0.68 fps, Avg. Travel Time= 25.6 min

Peak Storage= 32,713 cf @ 12.47 hrs
Average Depth at Peak Storage= 0.55'
Bank-Full Depth= 4.00' Flow Area= 610.7 sf, Capacity= 4,524.76 cfs

229.00' x 4.00' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 1,050.0' Slope= 0.0431 '/'
Inlet Invert= 148.40', Outlet Invert= 103.17'



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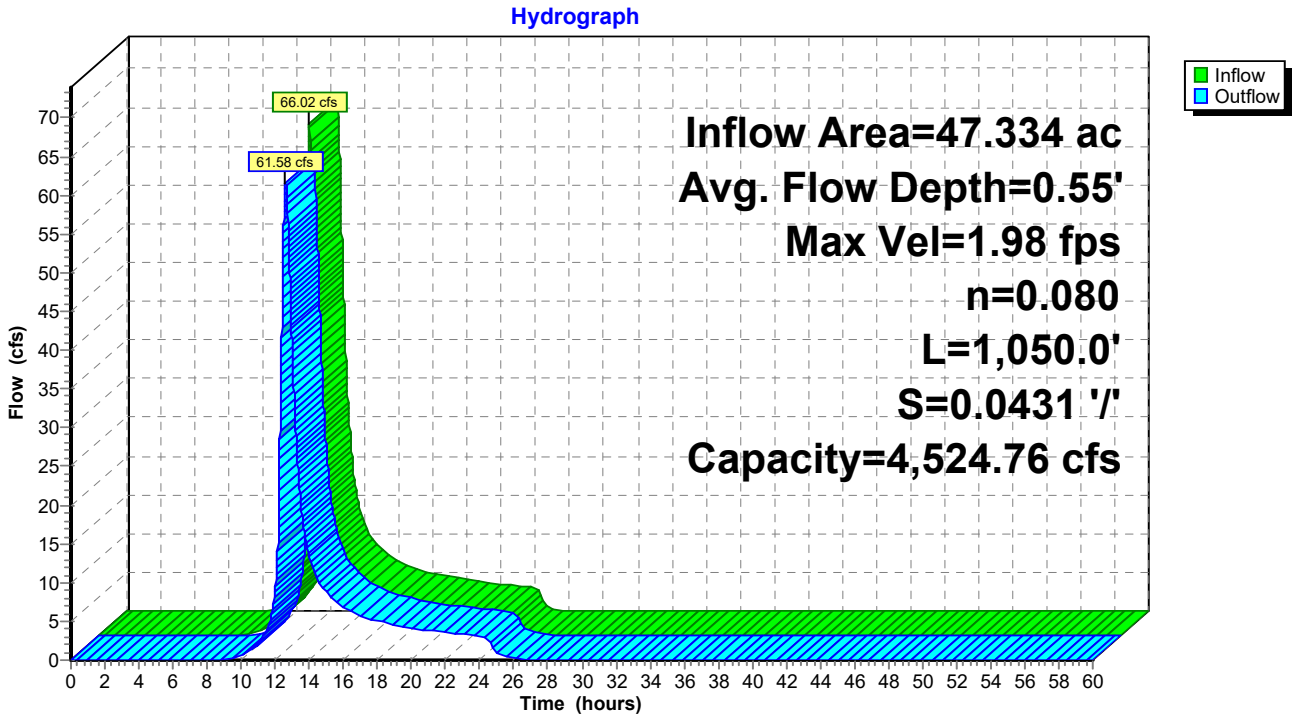
Reach R-205/206: FLOW THROUGH CENTRAL WETLAND PDA-208.2



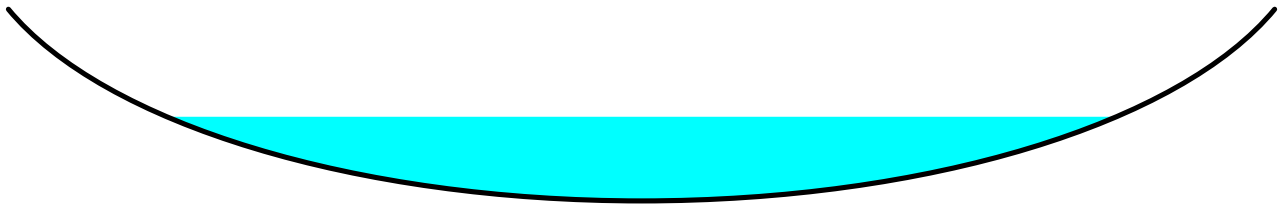
Summary for Reach R-207: FLOW THROUGH CENTRAL WETLAND PDA-208.2

Inflow Area = 27.669 ac, 0.91% Impervious, Inflow Depth = 2.16" for 25-yr event
Inflow = 31.29 cfs @ 12.22 hrs, Volume= 4.980 af
Outflow = 30.15 cfs @ 12.35 hrs, Volume= 4.980 af, Atten= 4%, Lag= 8.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.17 fps, Min. Travel Time= 4.2 min
Avg. Velocity = 0.36 fps, Avg. Travel Time= 13.4 min

Peak Storage= 7,550 cf @ 12.28 hrs
Average Depth at Peak Storage= 0.33'
Bank-Full Depth= 0.75' Flow Area= 89.0 sf, Capacity= 179.76 cfs

178.00' x 0.75' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 292.0' Slope= 0.0298 '/'
Inlet Invert= 111.87', Outlet Invert= 103.17'



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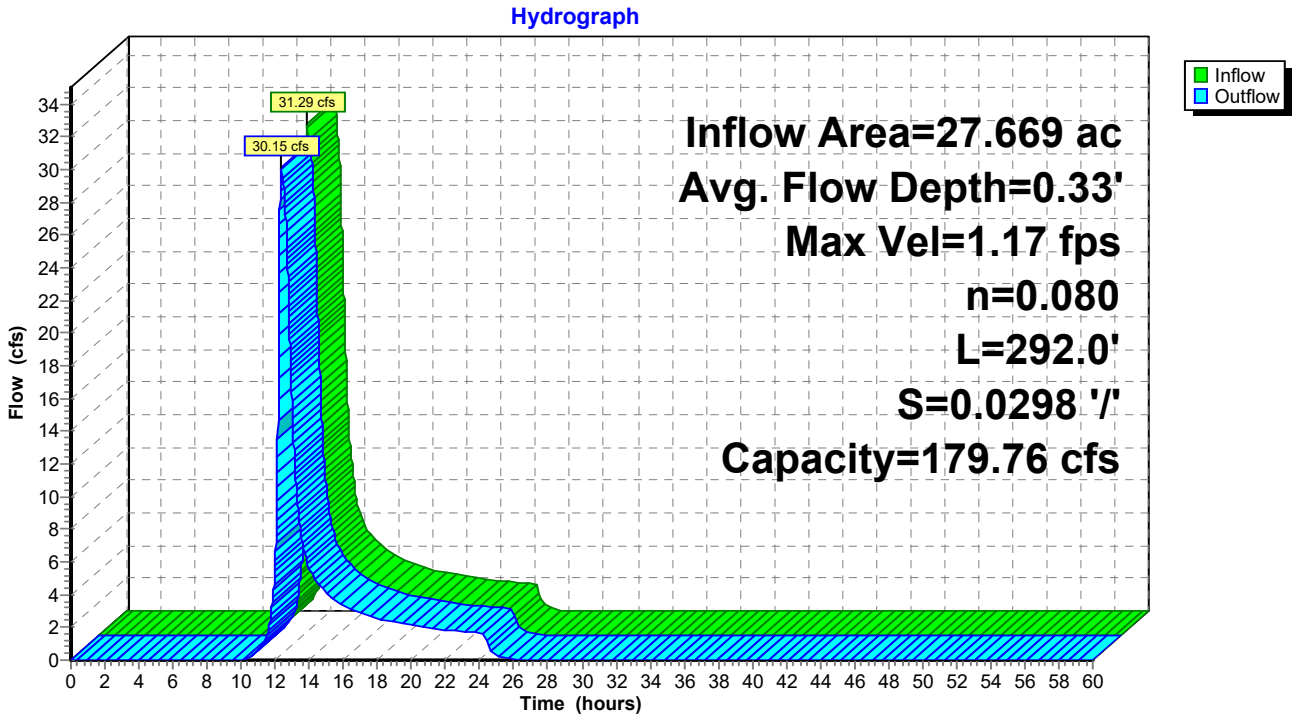
Reach R-207: FLOW THROUGH CENTRAL WETLAND PDA-208.2



Summary for Reach R-207.1: DISCHARGE INTO SWALE/ROUTE THROUGH PDA-206.1

Inflow Area = 0.231 ac, 0.00% Impervious, Inflow Depth = 1.89" for 25-yr event
Inflow = 0.36 cfs @ 12.15 hrs, Volume= 0.036 af
Outflow = 0.36 cfs @ 12.19 hrs, Volume= 0.036 af, Atten= 1%, Lag= 2.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.41 fps, Min. Travel Time= 1.3 min
Avg. Velocity = 0.95 fps, Avg. Travel Time= 3.2 min

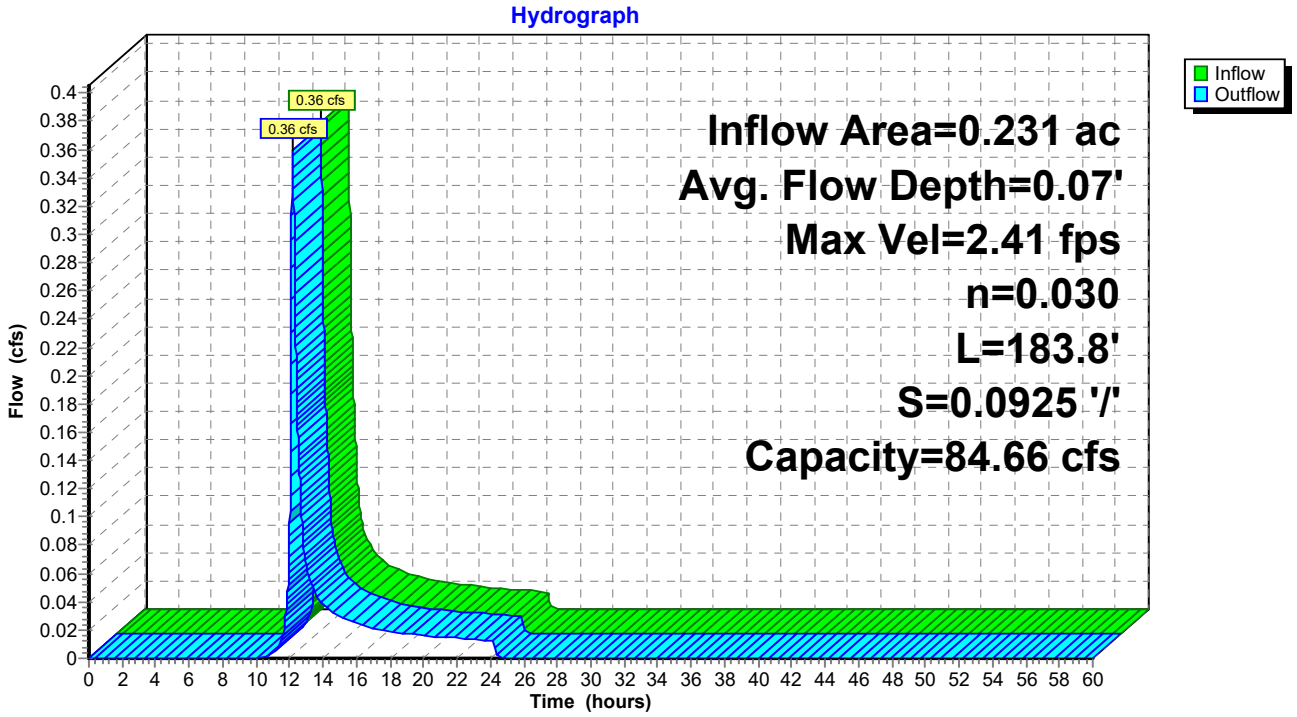
Peak Storage= 27 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.07'
Bank-Full Depth= 1.33' Flow Area= 6.7 sf, Capacity= 84.66 cfs

Custom cross-section, Length= 183.8' Slope= 0.0925 '/'
Constant n= 0.030 Short grass
Inlet Invert= 215.11', Outlet Invert= 198.10'

Offset (feet)	Elevation (feet)	Chan.Depth (feet)
-4.00	1.33	0.00
-1.00	0.00	1.33
1.00	0.00	1.33
4.00	1.33	0.00

Depth (feet)	End Area (sq-ft)	Perim. (feet)	Storage (cubic-feet)	Discharge (cfs)
0.00	0.0	2.0	0	0.00
1.33	6.7	8.6	1,222	84.66

Reach R-207.1: DISCHARGE INTO SWALE/ROUTE THROUGH PDA-206.1



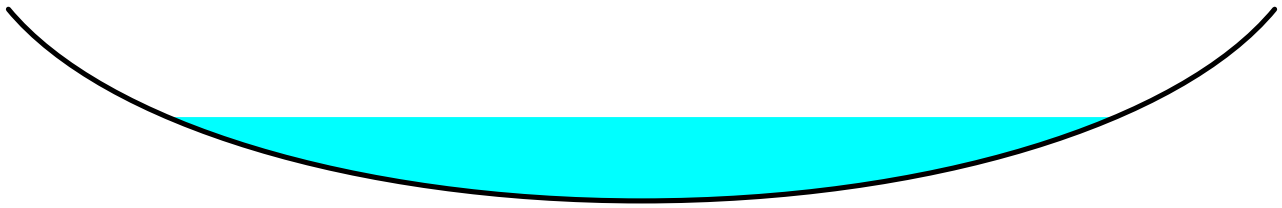
Summary for Reach R-208: FLOW THROUGH CENTRAL WETLAND PDA-211

Inflow Area = 88.629 ac, 0.28% Impervious, Inflow Depth = 2.48" for 25-yr event
Inflow = 106.69 cfs @ 12.57 hrs, Volume= 18.309 af
Outflow = 106.08 cfs @ 12.65 hrs, Volume= 18.309 af, Atten= 1%, Lag= 4.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.48 fps, Min. Travel Time= 2.8 min
Avg. Velocity = 0.42 fps, Avg. Travel Time= 9.8 min

Peak Storage= 17,972 cf @ 12.61 hrs
Average Depth at Peak Storage= 0.48'
Bank-Full Depth= 1.10' Flow Area= 247.9 sf, Capacity= 634.06 cfs

338.00' x 1.10' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 250.0' Slope= 0.0287 '/'
Inlet Invert= 103.17', Outlet Invert= 96.00'



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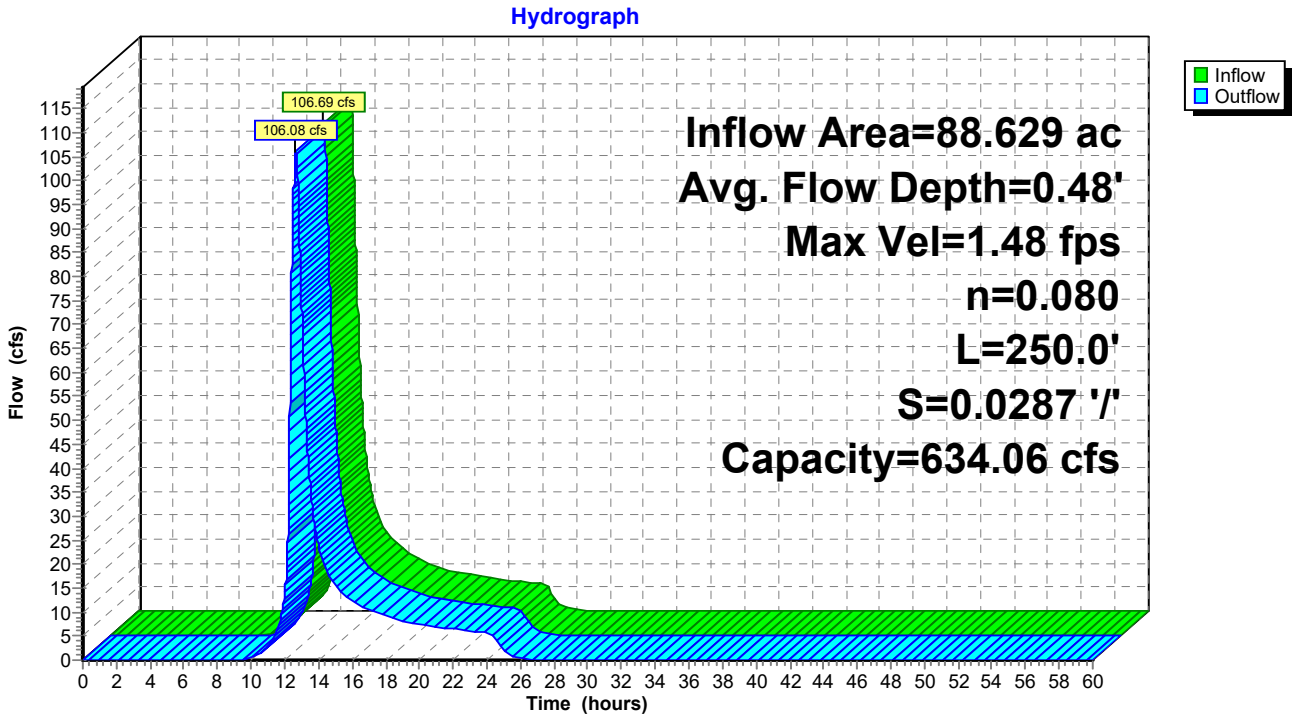
Reach R-208: FLOW THROUGH CENTRAL WETLAND PDA-211



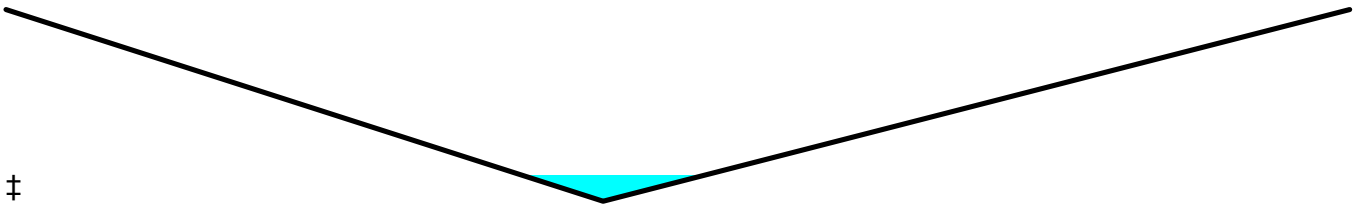
Summary for Reach R-208.1: DISCHARGE INTO SWALE/ROUTE THROUGH PDA-212.1

Inflow Area = 0.340 ac, 0.00% Impervious, Inflow Depth = 1.89" for 25-yr event
Inflow = 0.66 cfs @ 12.07 hrs, Volume= 0.053 af
Outflow = 0.64 cfs @ 12.11 hrs, Volume= 0.053 af, Atten= 3%, Lag= 2.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.91 fps, Min. Travel Time= 1.3 min
Avg. Velocity = 1.36 fps, Avg. Travel Time= 2.8 min

Peak Storage= 50 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.18'
Bank-Full Depth= 1.33' Flow Area= 12.0 sf, Capacity= 131.22 cfs

Custom cross-section, Length= 226.0' Slope= 0.0856 '/'
Constant n= 0.030 Short grass
Inlet Invert= 155.00', Outlet Invert= 135.65'



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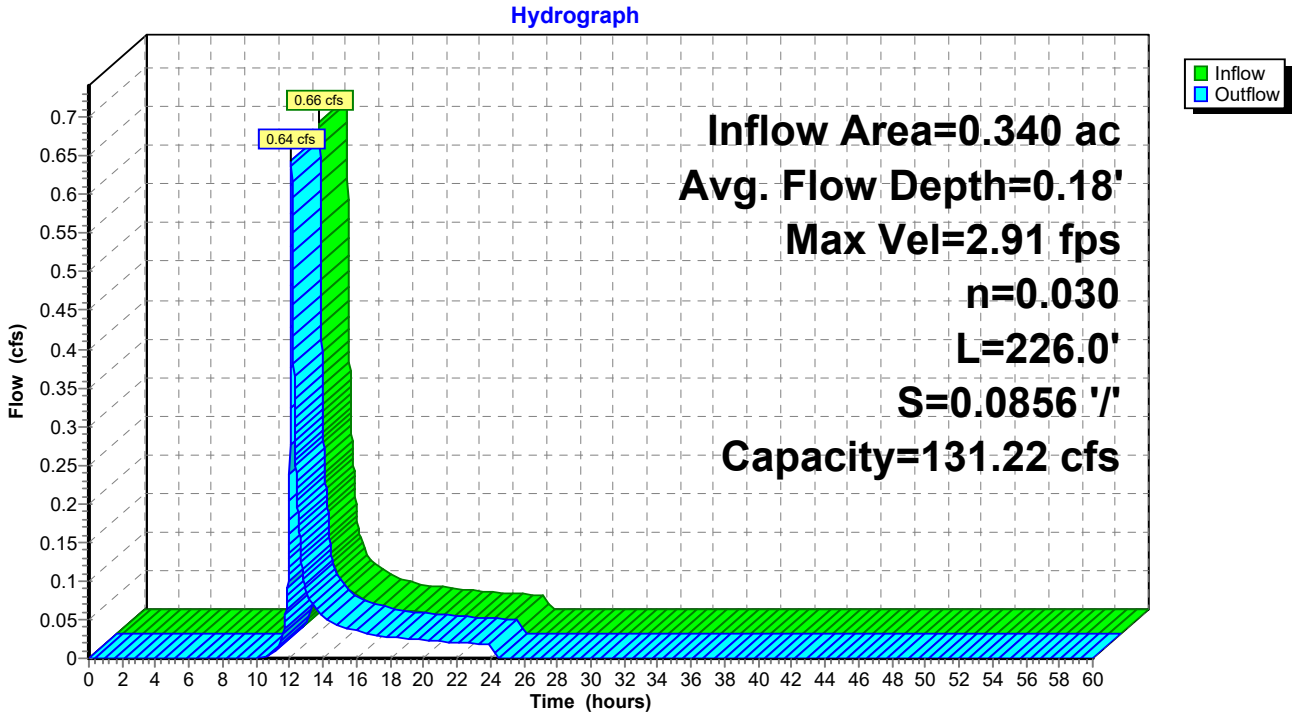
Offset (feet)	Elevation (feet)	Chan.Depth (feet)
-9.00	1.33	0.00
-1.00	0.00	1.33
9.00	1.33	0.00

Depth (feet)	End Area (sq-ft)	Perim. (feet)	Storage (cubic-feet)	Discharge (cfs)
0.00	0.0	0.0	0	0.00
1.33	12.0	18.2	2,705	131.22

Reach R-208.1: DISCHARGE INTO SWALE/ROUTE THROUGH PDA-212.1



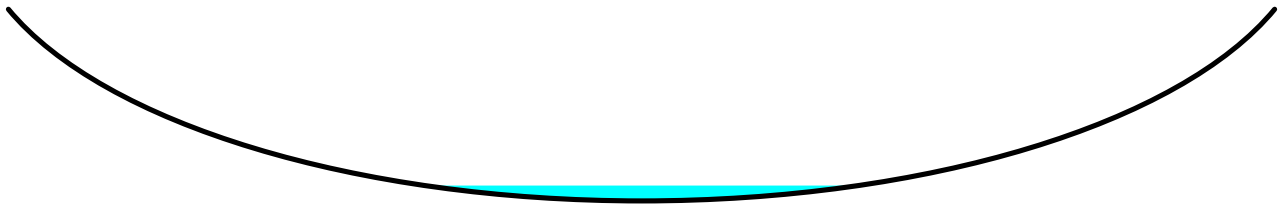
Summary for Reach R-210: FLOW THROUGH CENTRAL WETLAND PDA-211

Inflow Area = 0.674 ac, 0.00% Impervious, Inflow Depth = 2.97" for 25-yr event
Inflow = 1.37 cfs @ 12.29 hrs, Volume= 0.167 af
Outflow = 1.23 cfs @ 12.52 hrs, Volume= 0.167 af, Atten= 11%, Lag= 13.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 0.34 fps, Min. Travel Time= 8.3 min
Avg. Velocity = 0.14 fps, Avg. Travel Time= 20.9 min

Peak Storage= 613 cf @ 12.38 hrs
Average Depth at Peak Storage= 0.11'
Bank-Full Depth= 1.40' Flow Area= 156.8 sf, Capacity= 284.60 cfs

168.00' x 1.40' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 170.0' Slope= 0.0105 '/'
Inlet Invert= 97.78', Outlet Invert= 96.00'



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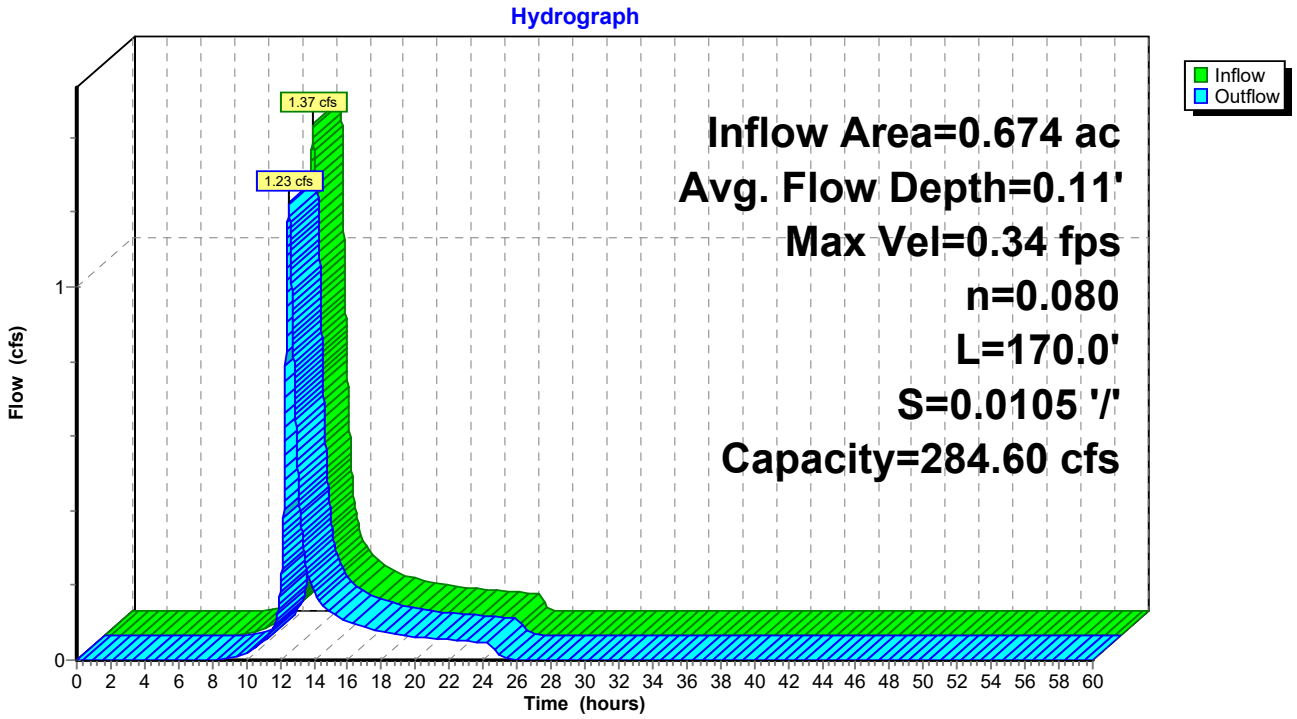
Reach R-210: FLOW THROUGH CENTRAL WETLAND PDA-211



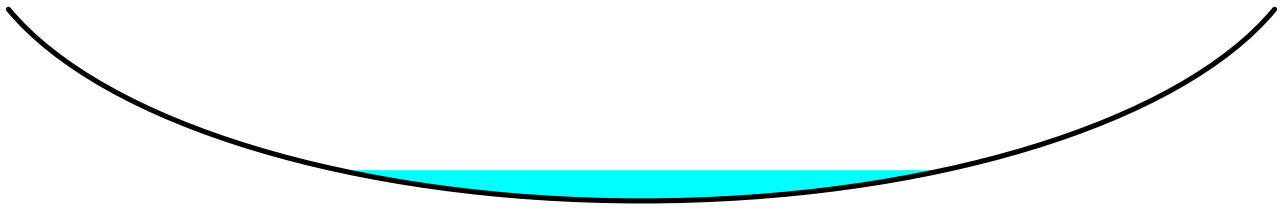
Summary for Reach R-301.1: FLOW THROUGH CENTRAL WETLAND PDA-302.2

Inflow Area = 1.271 ac, 0.00% Impervious, Inflow Depth = 3.26" for 25-yr event
Inflow = 4.30 cfs @ 12.10 hrs, Volume= 0.346 af
Outflow = 4.01 cfs @ 12.18 hrs, Volume= 0.346 af, Atten= 7%, Lag= 5.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.20 fps, Min. Travel Time= 2.9 min
Avg. Velocity = 0.41 fps, Avg. Travel Time= 8.5 min

Peak Storage= 707 cf @ 12.13 hrs
Average Depth at Peak Storage= 0.24'
Bank-Full Depth= 1.50' Flow Area= 51.8 sf, Capacity= 209.28 cfs

51.83' x 1.50' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 211.0' Slope= 0.0474 '/'
Inlet Invert= 220.00', Outlet Invert= 210.00'



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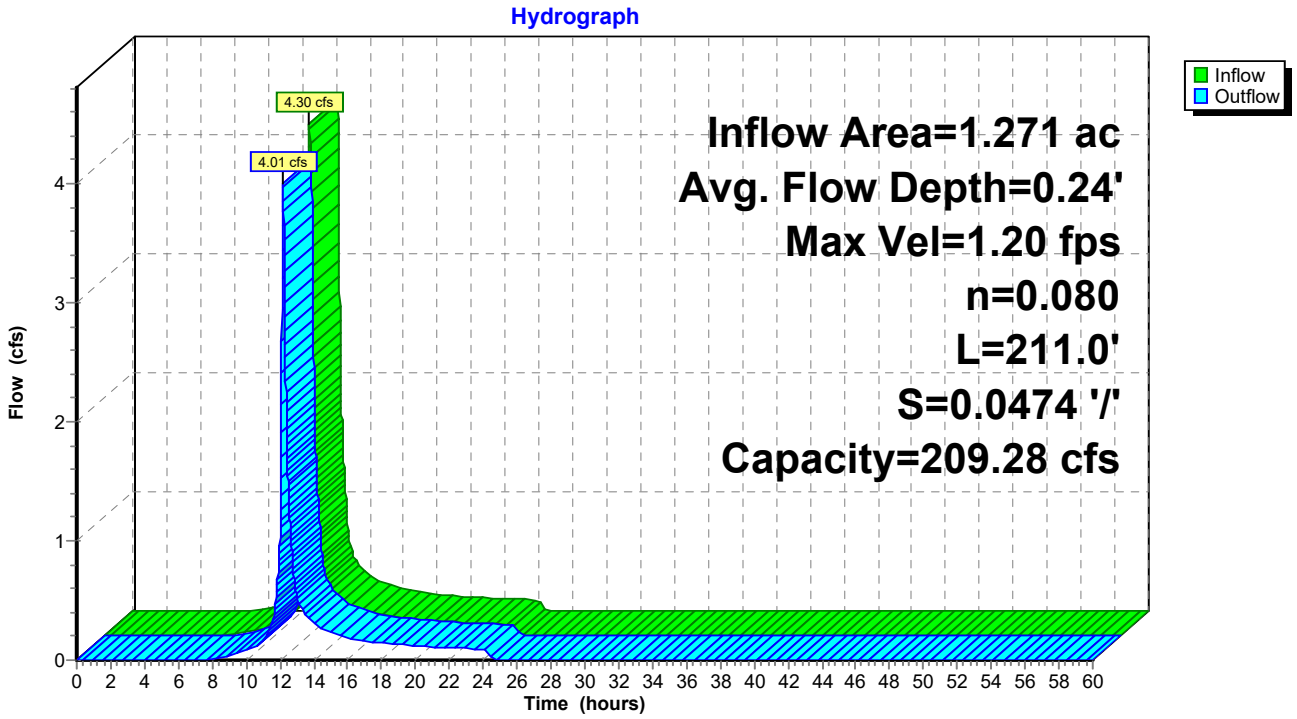
Reach R-301.1: FLOW THROUGH CENTRAL WETLAND PDA-302.2



Summary for Pond DP-100.1: POND

Inflow Area = 11.949 ac, 1.38% Impervious, Inflow Depth = 2.06" for 25-yr event
Inflow = 18.26 cfs @ 12.21 hrs, Volume= 2.051 af
Outflow = 15.02 cfs @ 12.32 hrs, Volume= 2.051 af, Atten= 18%, Lag= 6.4 min
Primary = 15.02 cfs @ 12.32 hrs, Volume= 2.051 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 173.18' @ 12.32 hrs Surf.Area= 6,401 sf Storage= 5,380 cf

Plug-Flow detention time= 2.2 min calculated for 2.051 af (100% of inflow)
Center-of-Mass det. time= 2.2 min (902.6 - 900.3)

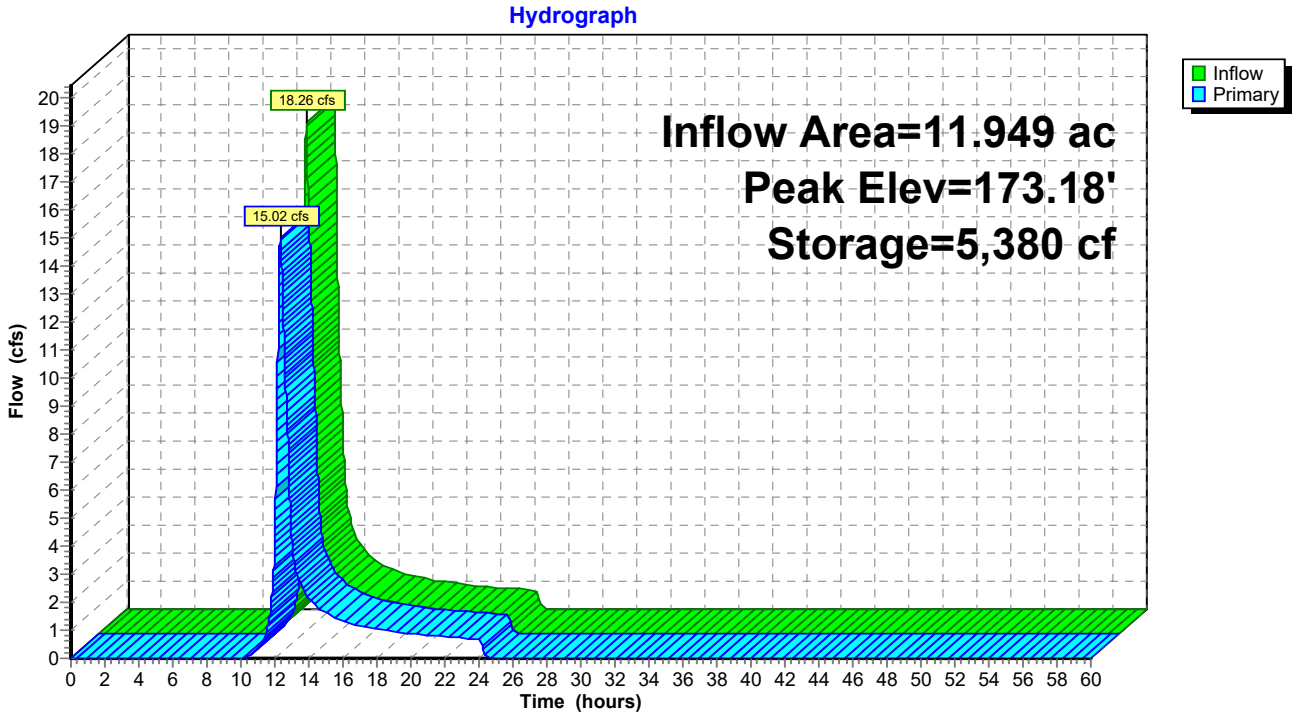
Volume	Invert	Avail.Storage	Storage Description
#1	172.00'	14,696 cf	**Detention Pond (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
172.00	1,198	0	0
172.50	4,783	1,495	1,495
173.00	6,227	2,753	4,248
173.50	6,712	3,235	7,483
174.00	7,208	3,480	10,963
174.50	7,724	3,733	14,696

Device	Routing	Invert	Outlet Devices
#1	Primary	171.74'	**22.0" W x 8.0" H Vert. Rect. Orifice 1 - 10 YR** C= 0.600
#2	Primary	171.74'	**22.0" W x 8.0" H Vert. Rect. Orifice 2 - 10 YR** C= 0.600
#3	Primary	172.75'	**18.0" W x 5.0" H Vert. Rect. Orifice 1 - 25 YR** C= 0.600
#4	Primary	172.75'	**18.0" W x 5.0" H Vert. Rect. Orifice 2 - 25 YR** C= 0.600
#5	Primary	173.70'	**24.0" x 36.0" Horiz. Horiz. Inlet - 100 YR** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=15.03 cfs @ 12.32 hrs HW=173.18' (Free Discharge)
- **1=Rect. Orifice 1 - 10 YR** (Orifice Controls 6.17 cfs @ 5.04 fps)
- **2=Rect. Orifice 2 - 10 YR** (Orifice Controls 6.17 cfs @ 5.04 fps)
- **3=Rect. Orifice 1 - 25 YR** (Orifice Controls 1.35 cfs @ 2.16 fps)
- **4=Rect. Orifice 2 - 25 YR** (Orifice Controls 1.35 cfs @ 2.16 fps)
- **5=Horiz. Inlet - 100 YR** (Controls 0.00 cfs)

Pond DP-100.1: POND



Summary for Pond DP-101.1: POND

Inflow Area = 2.074 ac, 4.48% Impervious, Inflow Depth = 2.32" for 25-yr event
Inflow = 4.46 cfs @ 12.12 hrs, Volume= 0.402 af
Outflow = 3.73 cfs @ 12.20 hrs, Volume= 0.402 af, Atten= 16%, Lag= 4.6 min
Primary = 3.73 cfs @ 12.20 hrs, Volume= 0.402 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 232.11' @ 12.20 hrs Surf.Area= 2,064 sf Storage= 969 cf

Plug-Flow detention time= 1.8 min calculated for 0.402 af (100% of inflow)
Center-of-Mass det. time= 1.8 min (887.3 - 885.6)

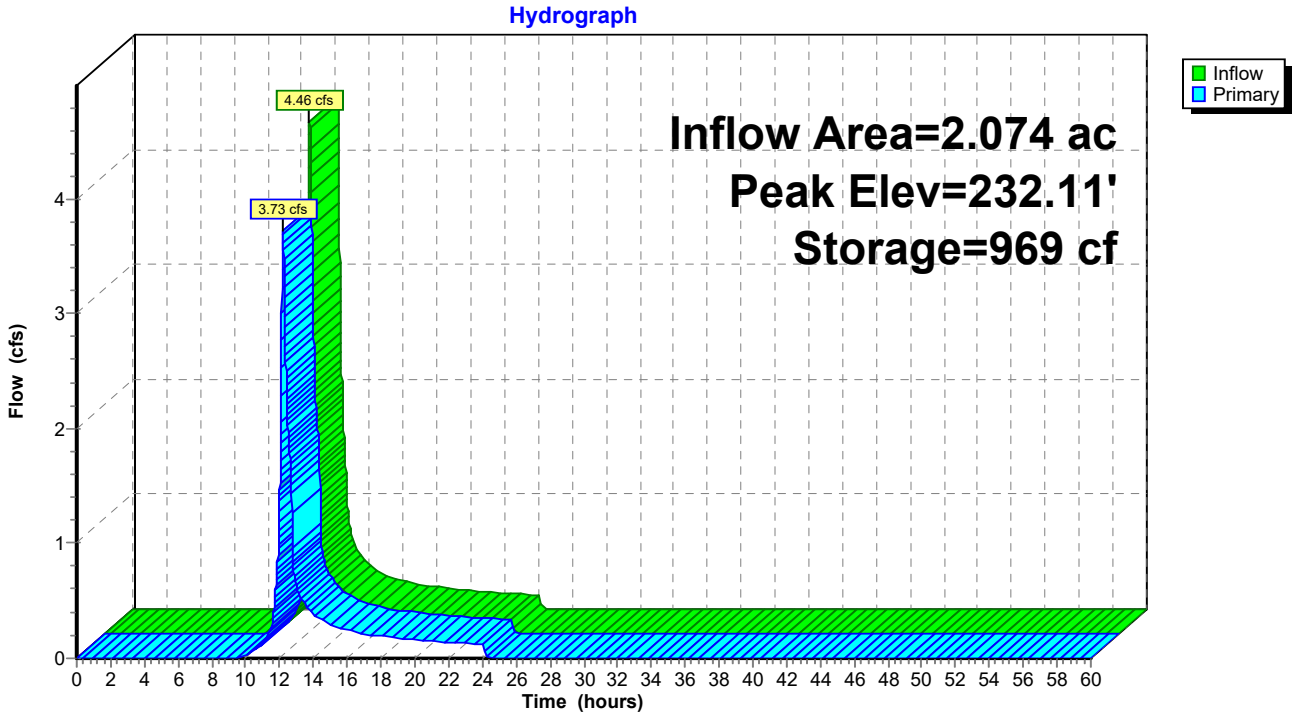
Volume	Invert	Avail.Storage	Storage Description
#1	231.50'	6,647 cf	**Detention Pond (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
231.50	1,030	0	0
232.00	1,965	749	749
232.50	2,417	1,096	1,844
233.00	2,911	1,332	3,176
233.50	3,459	1,593	4,769
234.00	4,052	1,878	6,647

Device	Routing	Invert	Outlet Devices
#1	Primary	231.08'	**9.5" W x 4.0" H Vert. Rect. Orifice 1 -10 YR** C= 0.600
#2	Primary	231.08'	**9.5" W x 4.0" H Vert. Rect. Orifice 2 -10 YR** C= 0.600
#3	Primary	231.87'	**22.0" W x 3.0" H Vert. Rect. Orifice 1-25 YR** C= 0.600
#4	Primary	231.87'	**22.0" W x 3.0" H Vert. Rect. Orifice 2 -25 YR** C= 0.600
#5	Primary	233.38'	**24.0" W x 36.0" H Vert. EMERGENCY SPILLWAY** C= 0.600

Primary OutFlow Max=3.73 cfs @ 12.20 hrs HW=232.11' (Free Discharge)
- **1=Rect. Orifice 1 -10 YR** (Orifice Controls 1.18 cfs @ 4.46 fps)
- **2=Rect. Orifice 2 -10 YR** (Orifice Controls 1.18 cfs @ 4.46 fps)
- **3=Rect. Orifice 1-25 YR** (Orifice Controls 0.69 cfs @ 1.57 fps)
- **4=Rect. Orifice 2 -25 YR** (Orifice Controls 0.69 cfs @ 1.57 fps)
- **5=EMERGENCY SPILLWAY** (Controls 0.00 cfs)

Pond DP-101.1: POND



Summary for Pond DP-200.1: POND

Inflow Area = 2.961 ac, 3.02% Impervious, Inflow Depth = 2.32" for 25-yr event
Inflow = 6.20 cfs @ 12.14 hrs, Volume= 0.574 af
Outflow = 4.67 cfs @ 12.24 hrs, Volume= 0.574 af, Atten= 25%, Lag= 6.2 min
Primary = 4.67 cfs @ 12.24 hrs, Volume= 0.574 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 181.31' @ 12.24 hrs Surf.Area= 1,787 sf Storage= 2,000 cf

Plug-Flow detention time= 4.3 min calculated for 0.573 af (100% of inflow)
Center-of-Mass det. time= 4.3 min (890.6 - 886.3)

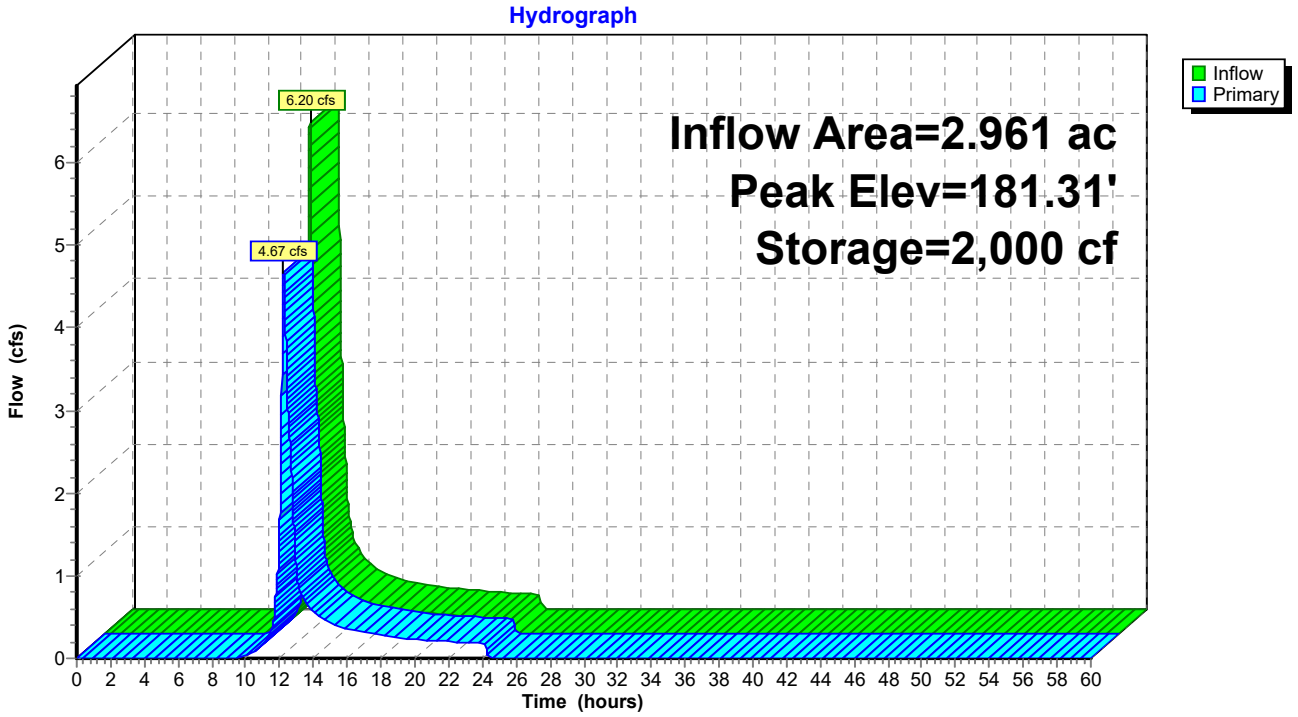
Volume	Invert	Avail.Storage	Storage Description
#1	179.50'	10,531 cf	**Detention Pond (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
179.50	477	0	0
180.00	809	322	322
180.50	1,158	492	813
181.00	1,536	674	1,487
181.50	1,942	870	2,356
182.00	2,378	1,080	3,436
182.50	2,848	1,307	4,743
183.00	3,351	1,550	6,293
183.50	3,895	1,812	8,104
184.00	5,811	2,427	10,531

Device	Routing	Invert	Outlet Devices
#1	Primary	179.45'	**19.0" W x 4.0" H Vert. Rect. Orifice-10-YR** C= 0.600
#2	Primary	180.84'	**16.5" W x 5.0" H Vert. Rect. Orifice-25-YR** C= 0.600
#3	Primary	181.82'	**24.0" x 36.0" Horiz. Rect. Orifice-100-YR** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=4.67 cfs @ 12.24 hrs HW=181.31' (Free Discharge)
- **1=Rect. Orifice-10-YR** (Orifice Controls 3.30 cfs @ 6.26 fps)
- **2=Rect. Orifice-25-YR** (Orifice Controls 1.36 cfs @ 2.38 fps)
- **3=Rect. Orifice-100-YR** (Controls 0.00 cfs)

Pond DP-200.1: POND



Summary for Pond DP-201.1: POND

Inflow Area = 1.911 ac, 1.94% Impervious, Inflow Depth = 2.06" for 25-yr event
Inflow = 3.43 cfs @ 12.14 hrs, Volume= 0.328 af
Outflow = 2.49 cfs @ 12.26 hrs, Volume= 0.328 af, Atten= 27%, Lag= 7.0 min
Primary = 2.49 cfs @ 12.26 hrs, Volume= 0.328 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 163.79' @ 12.26 hrs Surf.Area= 993 sf Storage= 976 cf

Plug-Flow detention time= 2.2 min calculated for 0.328 af (100% of inflow)
Center-of-Mass det. time= 2.2 min (897.9 - 895.7)

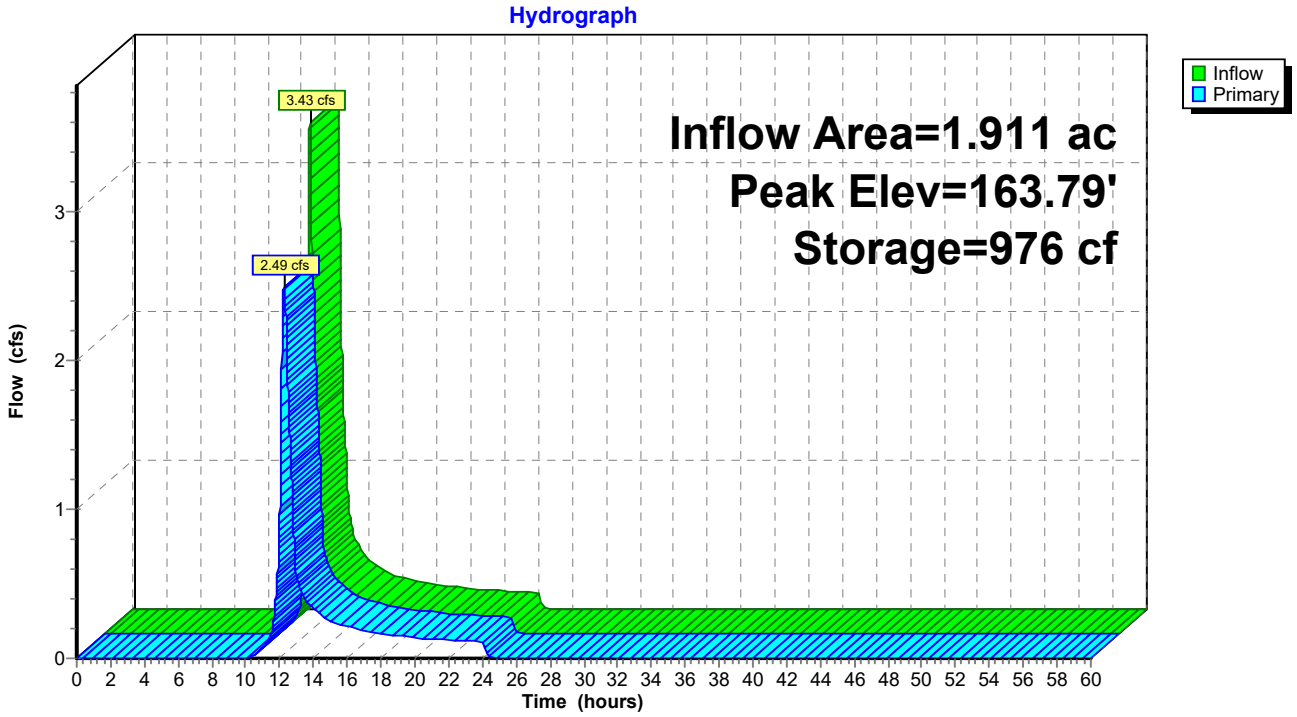
Volume	Invert	Avail.Storage	Storage Description
#1	162.00'	2,549 cf	**DETENTION POND (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
162.00	2	0	0
162.50	381	96	96
163.00	611	248	344
163.50	858	367	711
164.00	1,093	488	1,199
164.50	1,346	610	1,809
165.00	1,617	741	2,549

Device	Routing	Invert	Outlet Devices
#1	Primary	161.98'	**15.0" W x 3.0" H Vert. Circular Orifice-10-YR** C= 0.600
#2	Primary	163.16'	**6.0" W x 4.0" H Vert. Rect. Orifice-25 YR** C= 0.600
#3	Primary	164.32'	**24.0" x 36.0" Horiz. Hoiz. InletGrate -100-YR** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=2.49 cfs @ 12.26 hrs HW=163.79' (Free Discharge)
└─**1=Circular Orifice-10-YR** (Orifice Controls 1.95 cfs @ 6.24 fps)
└─**2=Rect. Orifice-25 YR** (Orifice Controls 0.54 cfs @ 3.25 fps)
└─**3=Hoiz. InletGrate -100-YR** (Controls 0.00 cfs)

Pond DP-201.1: POND



Summary for Pond DP-202.1: POND

Inflow Area = 10.341 ac, 2.43% Impervious, Inflow Depth = 2.15" for 25-yr event
Inflow = 19.01 cfs @ 12.15 hrs, Volume= 1.850 af
Outflow = 14.99 cfs @ 12.25 hrs, Volume= 1.850 af, Atten= 21%, Lag= 5.9 min
Primary = 14.99 cfs @ 12.25 hrs, Volume= 1.850 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 192.31' @ 12.25 hrs Surf.Area= 5,800 sf Storage= 5,329 cf

Plug-Flow detention time= 2.6 min calculated for 1.850 af (100% of inflow)
Center-of-Mass det. time= 2.6 min (895.9 - 893.3)

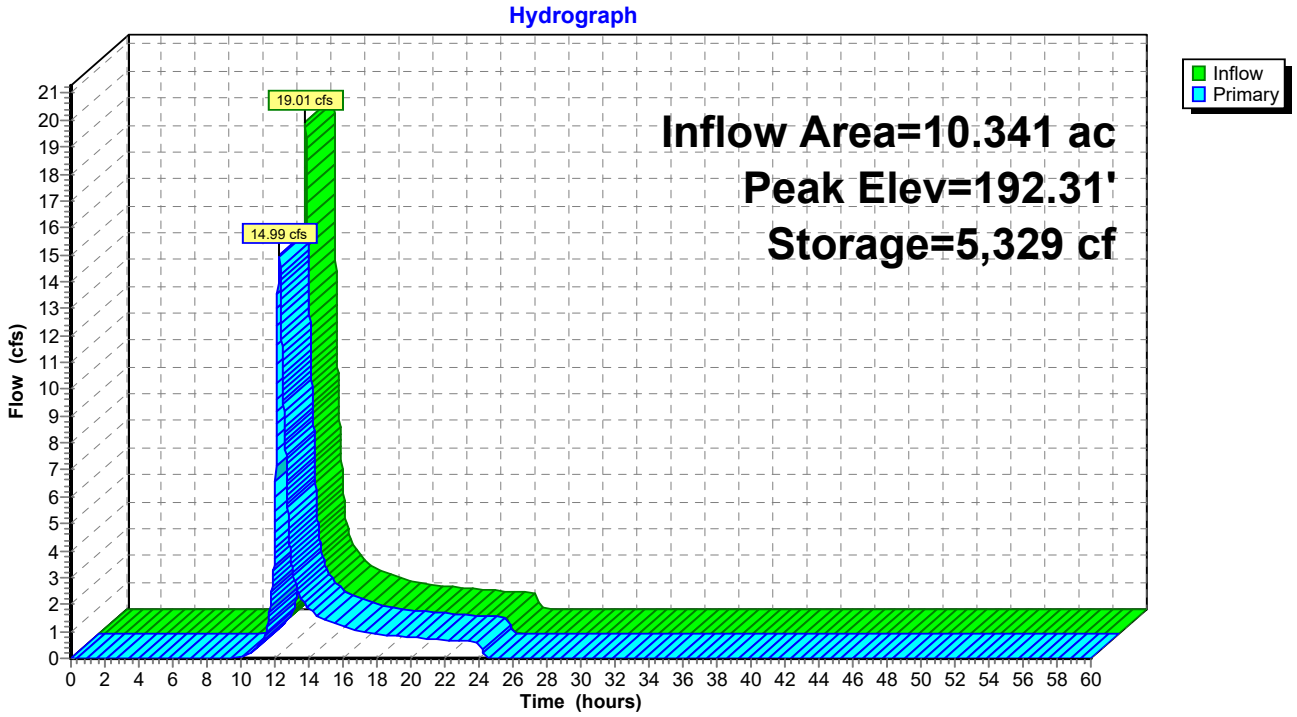
Volume	Invert	Avail.Storage	Storage Description
#1	191.00'	14,687 cf	**Detention Pond (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
191.00	2,433	0	0
191.50	3,606	1,510	1,510
192.00	4,922	2,132	3,642
192.50	6,317	2,810	6,452
193.00	7,828	3,536	9,988
193.50	10,968	4,699	14,687

Device	Routing	Invert	Outlet Devices
#1	Primary	190.57'	**13.5" W x 12.0" H Vert. Rect. Orifice -10-YR** C= 0.600
#2	Primary	190.57'	**13.5" W x 12.0" H Vert. Rect. Orifice -10-YR** C= 0.600
#3	Primary	191.88'	**24.0" W x 3.5" H Vert. Orifice/Grate -25-YR** C= 0.600
#4	Primary	191.88'	**24.0" W x 3.5" H Vert. Orifice/Grate -25-YR** C= 0.600
#5	Primary	192.82'	**24.0" W x 36.0" H Vert. Horiz. Grate - 100-yr** C= 0.600

Primary OutFlow Max=14.99 cfs @ 12.25 hrs HW=192.31' (Free Discharge)
- **1=Rect. Orifice -10-YR** (Orifice Controls 6.00 cfs @ 5.33 fps)
- **2=Rect. Orifice -10-YR** (Orifice Controls 6.00 cfs @ 5.33 fps)
- **3=Orifice/Grate -25-YR** (Orifice Controls 1.49 cfs @ 2.56 fps)
- **4=Orifice/Grate -25-YR** (Orifice Controls 1.49 cfs @ 2.56 fps)
- **5=Horiz. Grate - 100-yr** (Controls 0.00 cfs)

Pond DP-202.1: POND



Summary for Pond DP-206.1: POND

Inflow Area = 14.651 ac, 0.00% Impervious, Inflow Depth = 2.29" for 25-yr event
Inflow = 24.85 cfs @ 12.20 hrs, Volume= 2.798 af
Outflow = 14.26 cfs @ 12.46 hrs, Volume= 2.798 af, Atten= 43%, Lag= 15.6 min
Primary = 14.26 cfs @ 12.46 hrs, Volume= 2.798 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 200.18' @ 12.46 hrs Surf.Area= 11,786 sf Storage= 17,524 cf

Plug-Flow detention time= 11.4 min calculated for 2.798 af (100% of inflow)
Center-of-Mass det. time= 11.4 min (903.4 - 892.0)

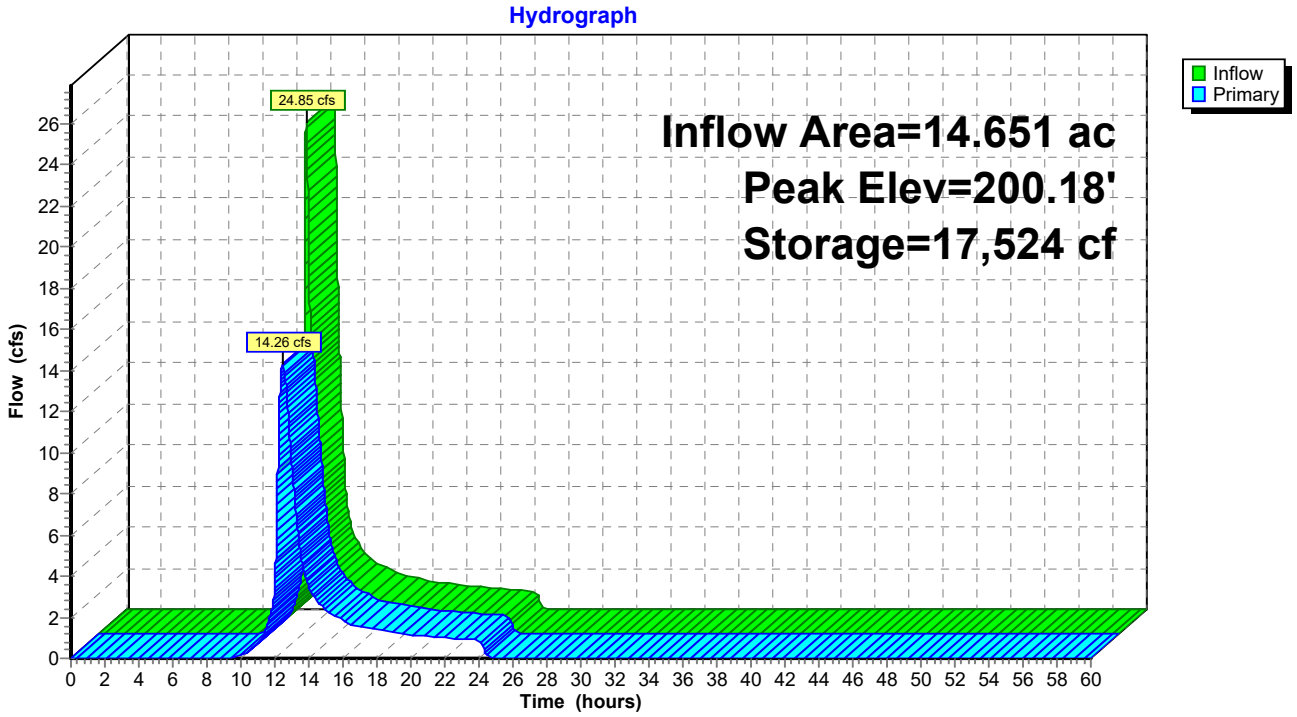
Volume	Invert	Avail.Storage	Storage Description
#1	198.50'	56,643 cf	**Detention Pond (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
198.50	7,995	0	0
199.00	10,200	4,549	4,549
199.50	10,854	5,264	9,812
200.00	11,532	5,597	15,409
200.50	12,233	5,941	21,350
201.00	12,959	6,298	27,648
201.50	13,707	6,667	34,315
202.00	14,480	7,047	41,361
202.50	15,276	7,439	48,800
203.00	16,096	7,843	56,643

Device	Routing	Invert	Outlet Devices
#1	Primary	198.08'	**22.0" W x 14.0" H Vert. Rect. Orifice -10-YR** C= 0.600
#2	Primary	199.58'	**16.0" W x 5.0" H Vert. Rect. Orifice -25-YR** C= 0.600
#3	Primary	200.90'	**24.0" x 36.0" Horiz. Horiz. Inlet -100-YR** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=14.26 cfs @ 12.46 hrs HW=200.18' (Free Discharge)
- **1=Rect. Orifice -10-YR** (Orifice Controls 12.61 cfs @ 5.89 fps)
- **2=Rect. Orifice -25-YR** (Orifice Controls 1.66 cfs @ 2.98 fps)
- **3=Horiz. Inlet -100-YR** (Controls 0.00 cfs)

Pond DP-206.1: POND



Summary for Pond DP-207.1: POND

Inflow Area = 7.764 ac, 0.00% Impervious, Inflow Depth = 1.97" for 25-yr event
Inflow = 14.52 cfs @ 12.10 hrs, Volume= 1.277 af
Outflow = 10.55 cfs @ 12.21 hrs, Volume= 1.277 af, Atten= 27%, Lag= 6.2 min
Primary = 10.55 cfs @ 12.21 hrs, Volume= 1.277 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 173.55' @ 12.21 hrs Surf.Area= 4,776 sf Storage= 4,321 cf

Plug-Flow detention time= 3.2 min calculated for 1.277 af (100% of inflow)
Center-of-Mass det. time= 3.2 min (899.9 - 896.7)

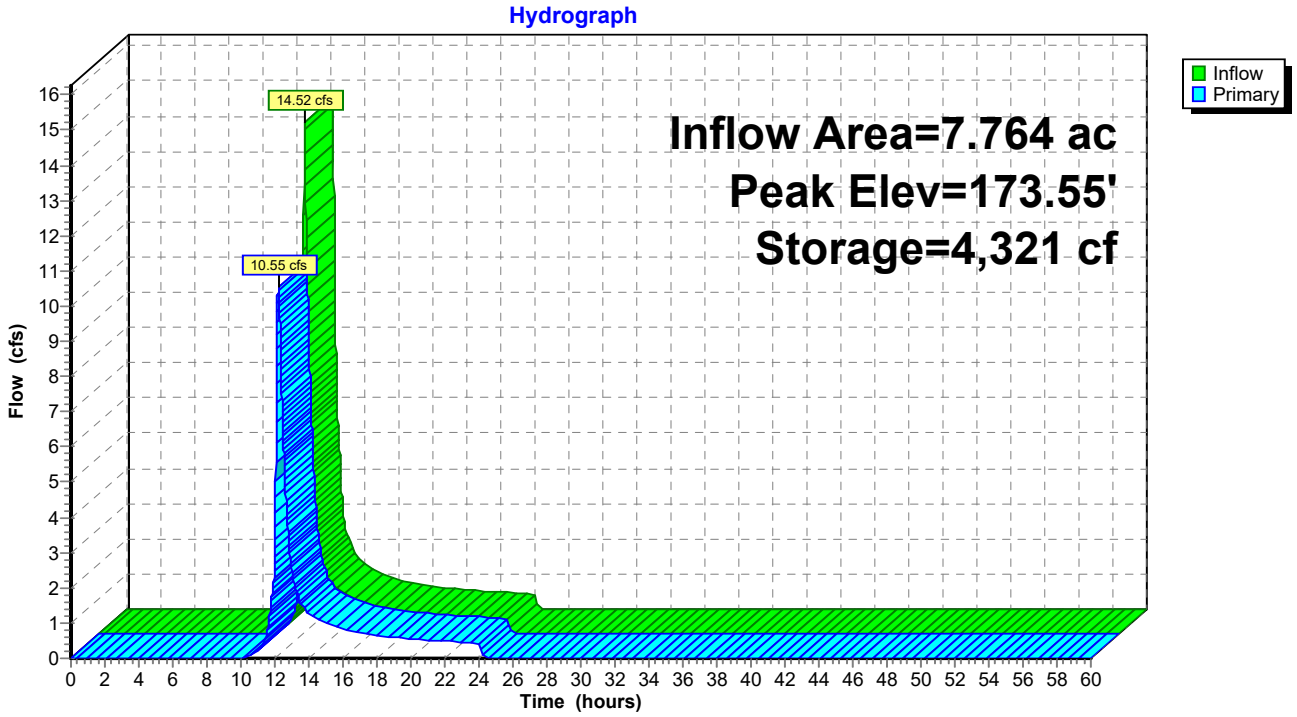
Volume	Invert	Avail.Storage	Storage Description
#1	172.50'	20,548 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
172.50	3,454	0	0
173.00	4,055	1,877	1,877
173.50	4,702	2,189	4,067
174.00	5,395	2,524	6,591
174.50	6,133	2,882	9,473
175.00	6,916	3,262	12,735
175.50	7,745	3,665	16,400
176.00	8,847	4,148	20,548

Device	Routing	Invert	Outlet Devices
#1	Primary	172.08'	**22.0" W x 13.0" H Vert. Rect. Orifice - 10 YR** C= 0.600
#2	Primary	173.16'	**22.0" W x 5.0" H Vert. Rect. Orifice - 25 YR** C= 0.600
#3	Primary	174.06'	**24.0" x 36.0" Horiz. Orifice/Grate -100-YR** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=10.54 cfs @ 12.21 hrs HW=173.55' (Free Discharge)
- **1=Rect. Orifice - 10 YR** (Orifice Controls 9.09 cfs @ 4.58 fps)
- **2=Rect. Orifice - 25 YR** (Orifice Controls 1.45 cfs @ 2.01 fps)
- **3=Orifice/Grate -100-YR** (Controls 0.00 cfs)

Pond DP-207.1: POND



Summary for Pond DP-209.1: POND

Inflow Area = 7.073 ac, 0.00% Impervious, Inflow Depth = 1.97" for 25-yr event
Inflow = 9.21 cfs @ 12.27 hrs, Volume= 1.164 af
Outflow = 6.22 cfs @ 12.50 hrs, Volume= 1.164 af, Atten= 32%, Lag= 13.7 min
Primary = 6.22 cfs @ 12.50 hrs, Volume= 1.164 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 150.16' @ 12.50 hrs Surf.Area= 5,708 sf Storage= 5,242 cf

Plug-Flow detention time= 5.8 min calculated for 1.163 af (100% of inflow)
Center-of-Mass det. time= 5.8 min (913.4 - 907.6)

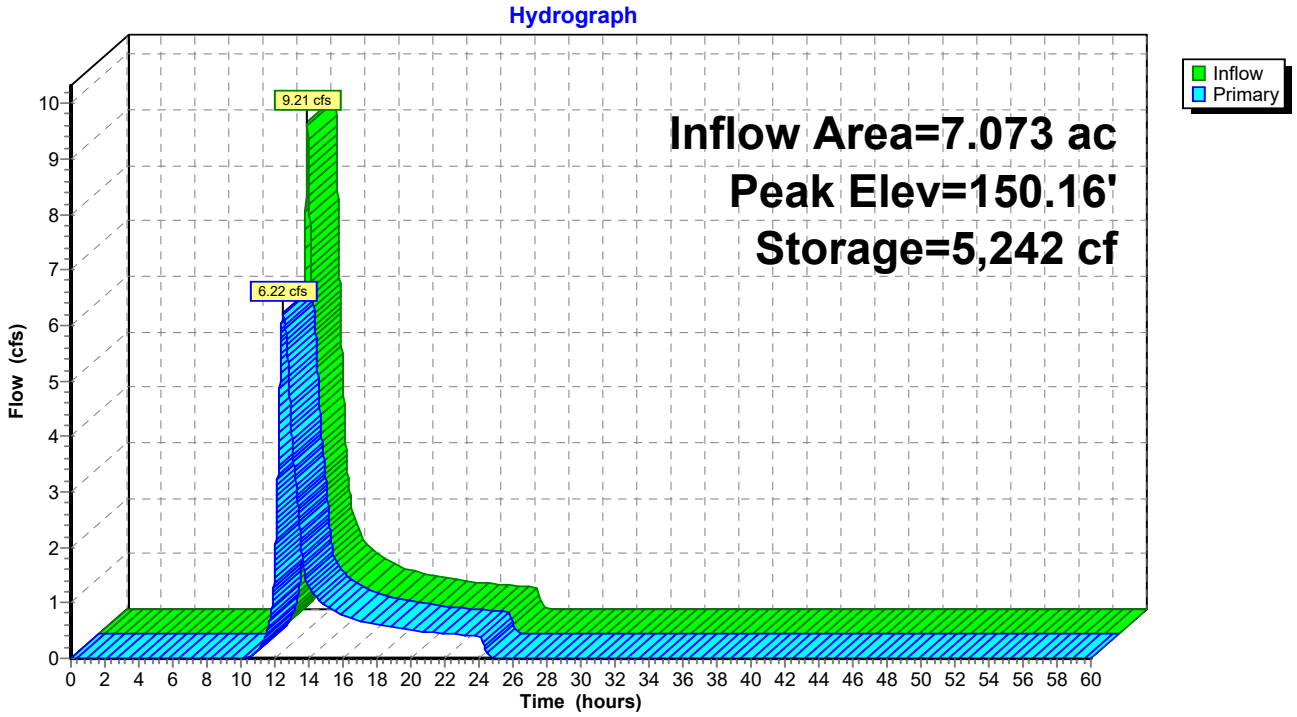
Volume	Invert	Avail.Storage	Storage Description
#1	148.50'	23,724 cf	**Detention Pond (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
148.50	699	0	0
149.00	2,087	697	697
149.50	3,631	1,430	2,126
150.00	5,333	2,241	4,367
150.50	6,516	2,962	7,329
151.00	7,334	3,463	10,792
151.50	8,177	3,878	14,670
152.00	9,045	4,306	18,975
152.50	9,952	4,749	23,724

Device	Routing	Invert	Outlet Devices
#1	Primary	148.17'	**13.0" W x 8.0" H Vert. Rect. Orifice -10-YR** C= 0.600
#2	Primary	149.51'	**13.0" W x 7.0" H Vert. Rect. Orifice -25-YR** C= 0.600
#3	Primary	150.91'	**24.0" x 36.0" Horiz. Emergency Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=6.22 cfs @ 12.50 hrs HW=150.16' (Free Discharge)
- **1=Rect. Orifice -10-YR** (Orifice Controls 4.47 cfs @ 6.18 fps)
- **2=Rect. Orifice -25-YR** (Orifice Controls 1.76 cfs @ 2.78 fps)
- **3=Emergency Orifice/Grate** (Controls 0.00 cfs)

Pond DP-209.1: POND



Summary for Pond DP-212.1: POND

Inflow Area = 2.212 ac, 0.00% Impervious, Inflow Depth = 1.89" for 25-yr event
Inflow = 2.80 cfs @ 12.23 hrs, Volume= 0.348 af
Outflow = 2.78 cfs @ 12.25 hrs, Volume= 0.348 af, Atten= 1%, Lag= 1.4 min
Primary = 2.78 cfs @ 12.25 hrs, Volume= 0.348 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 123.52' @ 12.25 hrs Surf.Area= 667 sf Storage= 172 cf

Plug-Flow detention time= 0.4 min calculated for 0.348 af (100% of inflow)
Center-of-Mass det. time= 0.4 min (908.5 - 908.1)

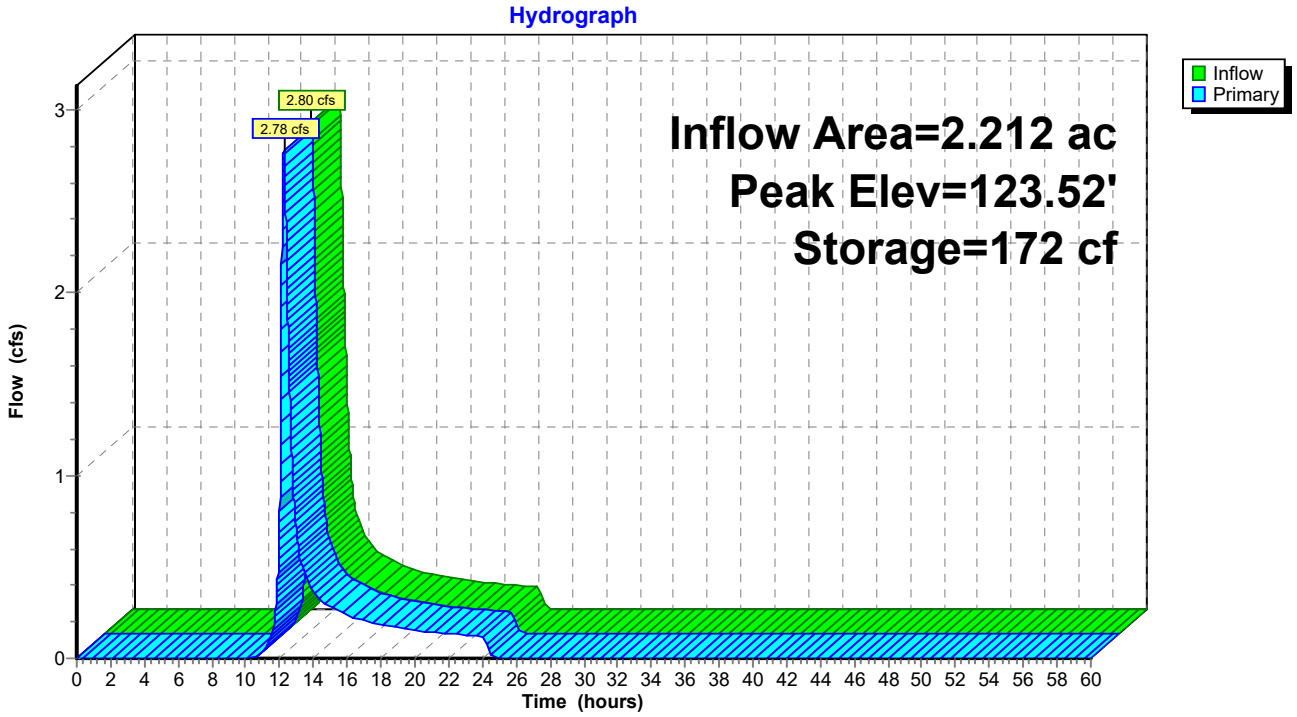
Volume	Invert	Avail.Storage	Storage Description
#1	123.00'	5,399 cf	**DETENTION POND (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
123.00	3	0	0
123.50	626	157	157
124.00	1,505	533	690
124.50	1,887	848	1,538
125.00	2,313	1,050	2,588
125.50	2,795	1,277	3,865
126.00	3,342	1,534	5,399

Device	Routing	Invert	Outlet Devices
#1	Primary	122.95'	**24.0" W x 5.0" H Vert. Rect. Orifice -10YR** C= 0.600
#2	Primary	123.37'	**24.0" W x 2.0" H Vert. Rect. Orifice - 25-yr** C= 0.600
#3	Primary	124.50'	**24.0" x 36.0" Horiz. Emergency Spillway** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=2.77 cfs @ 12.25 hrs HW=123.52' (Free Discharge)
- **1=Rect. Orifice -10YR** (Orifice Controls 2.39 cfs @ 2.87 fps)
- **2=Rect. Orifice - 25-yr** (Orifice Controls 0.39 cfs @ 1.26 fps)
- **3=Emergency Spillway** (Controls 0.00 cfs)

Pond DP-212.1: POND



Summary for Pond DP-300.1: POND

Inflow Area = 0.696 ac, 0.00% Impervious, Inflow Depth = 3.46" for 25-yr event
Inflow = 2.66 cfs @ 12.08 hrs, Volume= 0.201 af
Outflow = 1.65 cfs @ 12.19 hrs, Volume= 0.201 af, Atten= 38%, Lag= 6.8 min
Primary = 1.65 cfs @ 12.19 hrs, Volume= 0.201 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 231.46' @ 12.19 hrs Surf.Area= 1,119 sf Storage= 920 cf

Plug-Flow detention time= 3.6 min calculated for 0.201 af (100% of inflow)
Center-of-Mass det. time= 3.6 min (851.1 - 847.5)

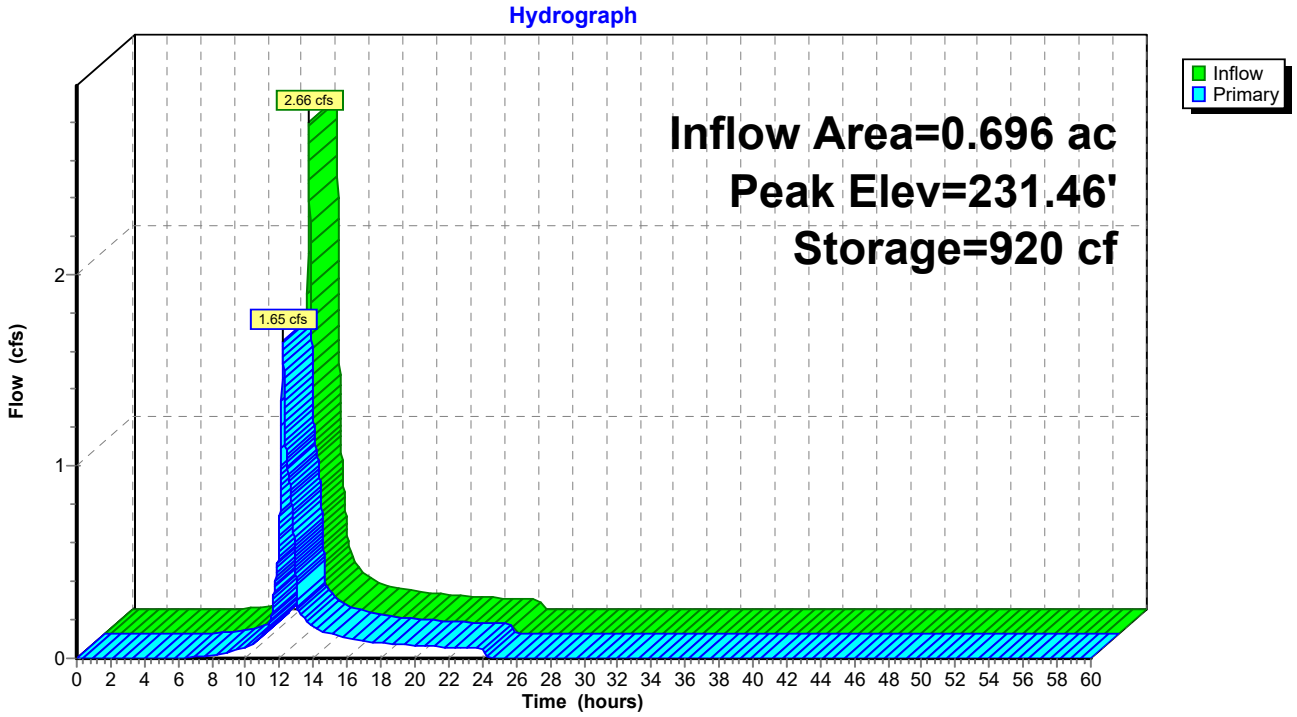
Volume	Invert	Avail.Storage	Storage Description
#1	230.00'	3,592 cf	**Detention Pond (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
230.00	195	0	0
230.50	469	166	166
231.00	789	315	481
231.50	1,147	484	965
232.00	1,543	673	1,637
232.50	1,943	872	2,509
233.00	2,389	1,083	3,592

Device	Routing	Invert	Outlet Devices
#1	Primary	229.60'	**5.0" W x 5.0" H Vert. Rect. Orifice - 10-YR** C= 0.600
#2	Primary	231.26'	**24.0" W x 3.0" H Vert. Rect. Orifice - 25-YR** C= 0.600
#3	Primary	231.97'	**24.0" x 36.0" Horiz. Horiz. Inlet-Emergency** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=1.65 cfs @ 12.19 hrs HW=231.46' (Free Discharge)
- **1=Rect. Orifice - 10-YR** (Orifice Controls 1.07 cfs @ 6.19 fps)
- **2=Rect. Orifice - 25-YR** (Orifice Controls 0.58 cfs @ 1.44 fps)
- **3=Horiz. Inlet-Emergency** (Controls 0.00 cfs)

Pond DP-300.1: POND



Summary for Pond DP-302.1: POND

Inflow Area = 5.613 ac, 0.00% Impervious, Inflow Depth = 2.75" for 25-yr event
Inflow = 14.30 cfs @ 12.11 hrs, Volume= 1.285 af
Outflow = 8.52 cfs @ 12.28 hrs, Volume= 1.285 af, Atten= 40%, Lag= 10.1 min
Primary = 8.52 cfs @ 12.28 hrs, Volume= 1.285 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 212.63' @ 12.28 hrs Surf.Area= 5,390 sf Storage= 6,052 cf

Plug-Flow detention time= 4.0 min calculated for 1.285 af (100% of inflow)
Center-of-Mass det. time= 4.0 min (875.8 - 871.8)

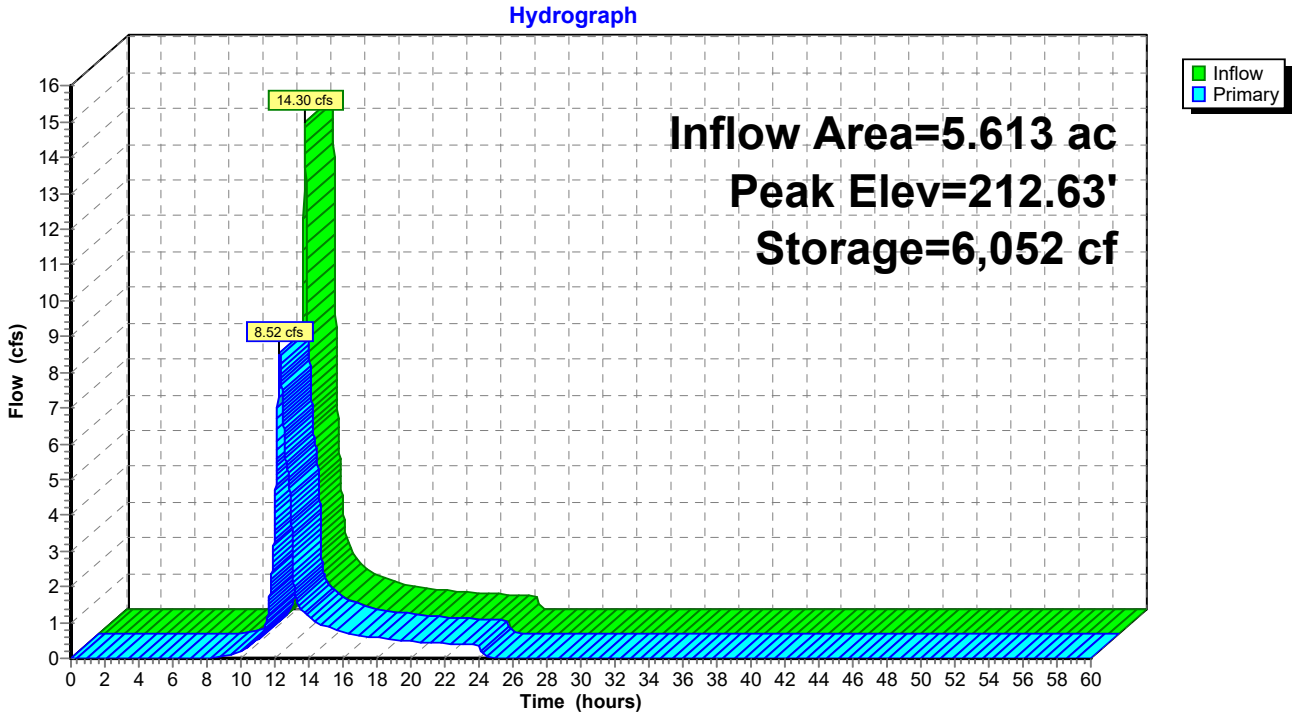
Volume	Invert	Avail.Storage	Storage Description
#1	210.00'	43,312 cf	**Detention Basin (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
210.00	76	0	0
210.50	485	140	140
211.00	1,270	439	579
211.50	2,439	927	1,506
212.00	3,998	1,609	3,116
212.50	5,055	2,263	5,379
213.00	6,355	2,853	8,231
213.50	7,968	3,581	11,812
214.00	10,041	4,502	16,314
214.50	11,678	5,430	21,744
215.00	13,494	6,293	28,037
215.50	15,488	7,246	35,283
216.00	16,629	8,029	43,312

Device	Routing	Invert	Outlet Devices
#1	Primary	209.78'	**22.0" W x 5.2" H Vert. Rect. Orifice - 10-YR** C= 0.600
#2	Primary	212.12'	**24.0" W x 6.0" H Vert. Rect. Orifice - 25-yr** C= 0.600
#3	Primary	213.13'	**24.0" x 36.0" Horiz. Orifice/Grate -100-YR** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=8.53 cfs @ 12.28 hrs HW=212.63' (Free Discharge)
- **1=Rect. Orifice - 10-YR** (Orifice Controls 6.20 cfs @ 7.81 fps)
- **2=Rect. Orifice - 25-yr** (Orifice Controls 2.32 cfs @ 2.32 fps)
- **3=Orifice/Grate -100-YR** (Controls 0.00 cfs)

Pond DP-302.1: POND



Summary for Pond DP-303.1: POND

Inflow Area = 6.711 ac, 0.00% Impervious, Inflow Depth = 3.26" for 25-yr event
Inflow = 19.95 cfs @ 12.14 hrs, Volume= 1.825 af
Outflow = 7.83 cfs @ 12.44 hrs, Volume= 1.825 af, Atten= 61%, Lag= 18.1 min
Primary = 7.83 cfs @ 12.44 hrs, Volume= 1.825 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 187.66' @ 12.44 hrs Surf.Area= 14,733 sf Storage= 15,843 cf

Plug-Flow detention time= 17.6 min calculated for 1.825 af (100% of inflow)
Center-of-Mass det. time= 17.6 min (875.3 - 857.6)

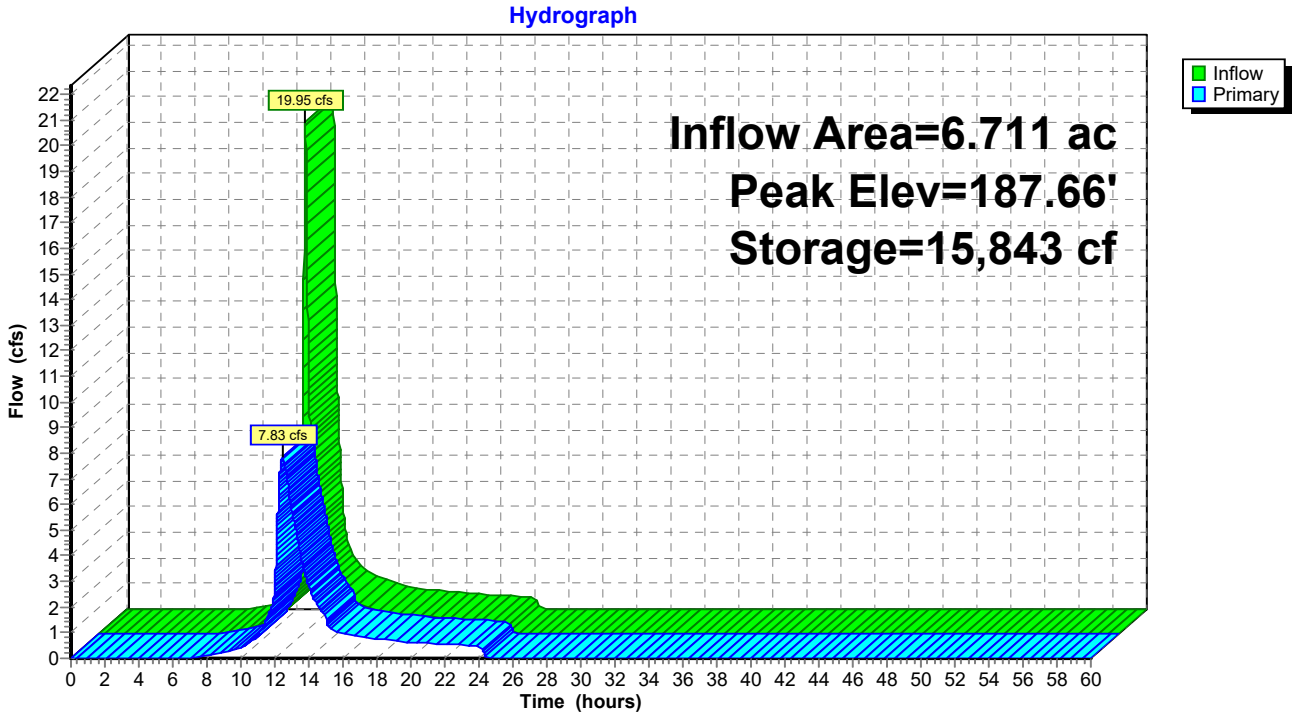
Volume	Invert	Avail.Storage	Storage Description
#1	186.50'	54,389 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
186.50	11,996	0	0
187.00	13,809	6,451	6,451
187.50	14,507	7,079	13,530
188.00	15,221	7,432	20,962
188.50	15,950	7,793	28,755
189.00	16,696	8,162	36,917
189.50	17,466	8,541	45,457
190.00	18,260	8,932	54,389

Device	Routing	Invert	Outlet Devices
#1	Primary	186.00'	**16.0" W x 12.0" H Vert. Rect. Orifice -10-YR** C= 0.600
#2	Primary	187.31'	**18.0" W x 4.0" H Vert. Rect. Orifice - 25-yr** C= 0.600
#3	Primary	188.00'	**24.0" x 36.0" Horiz. Orifice/Grate -100-YR** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=7.83 cfs @ 12.44 hrs HW=187.66' (Free Discharge)
- **1=Rect. Orifice -10-YR** (Orifice Controls 6.85 cfs @ 5.14 fps)
- **2=Rect. Orifice - 25-yr** (Orifice Controls 0.98 cfs @ 1.96 fps)
- **3=Orifice/Grate -100-YR** (Controls 0.00 cfs)

Pond DP-303.1: POND



Summary for Pond DP-304.1: POND

Inflow Area = 5.875 ac, 0.00% Impervious, Inflow Depth = 3.22" for 25-yr event
Inflow = 14.56 cfs @ 12.21 hrs, Volume= 1.578 af
Outflow = 9.07 cfs @ 12.42 hrs, Volume= 1.578 af, Atten= 38%, Lag= 12.6 min
Primary = 9.07 cfs @ 12.42 hrs, Volume= 1.578 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 207.51' @ 12.42 hrs Surf.Area= 5,948 sf Storage= 8,583 cf

Plug-Flow detention time= 7.0 min calculated for 1.578 af (100% of inflow)
Center-of-Mass det. time= 7.0 min (870.9 - 863.9)

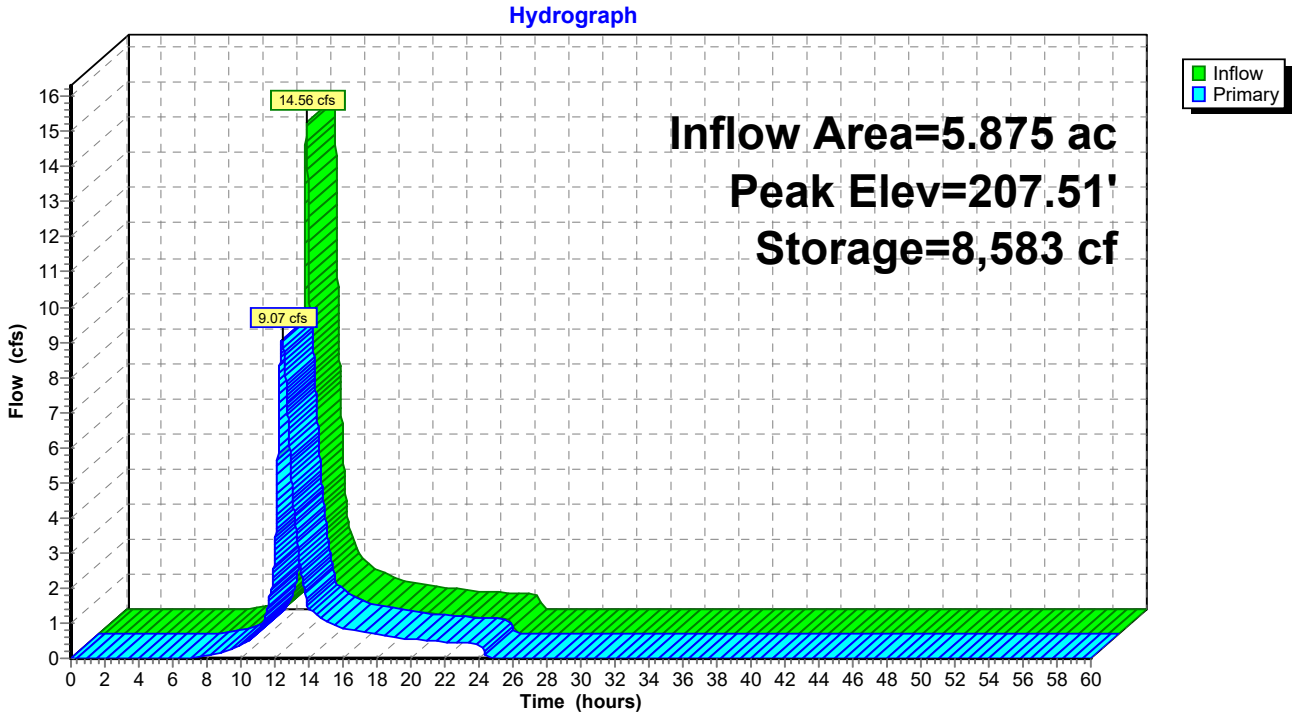
Volume	Invert	Avail.Storage	Storage Description
#1	205.50'	22,334 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
205.50	3,830	0	0
206.00	4,604	2,109	2,109
206.50	2,033	1,659	3,768
207.00	5,474	1,877	5,645
207.50	5,934	2,852	8,497
208.00	6,408	3,086	11,582
208.50	6,900	3,327	14,909
209.00	7,417	3,579	18,488
209.50	7,965	3,846	22,334

Device	Routing	Invert	Outlet Devices
#1	Primary	205.00'	**17.0" W x 8.5" H Vert. Rect. Orifice - 10-YR** C= 0.600
#2	Primary	206.79'	**14.5" W x 6.0" H Vert. Rect. Orifice - 25-YR** C= 0.600
#3	Primary	208.00'	**24.0" x 36.0" Horiz. Horiz. Inlet - Emergency Inlet** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=9.07 cfs @ 12.42 hrs HW=207.51' (Free Discharge)
- **1=Rect. Orifice - 10-YR** (Orifice Controls 7.09 cfs @ 7.07 fps)
- **2=Rect. Orifice - 25-YR** (Orifice Controls 1.98 cfs @ 3.28 fps)
- **3=Horiz. Inlet - Emergency Inlet** (Controls 0.00 cfs)

Pond DP-304.1: POND



Time span=0.00-60.00 hrs, dt=0.01 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment PDA-100.1: SOLAR FARM Runoff Area=520,481 sf 1.38% Impervious Runoff Depth=3.21"
Flow Length=941' Tc=18.0 min CN=60 Runoff=29.69 cfs 3.200 af

Subcatchment PDA-100.2: GRASS Runoff Area=32,550 sf 0.00% Impervious Runoff Depth=3.00"
Flow Length=58' Slope=0.0510 '/' Tc=6.1 min CN=58 Runoff=2.78 cfs 0.187 af

Subcatchment PDA-101.1: SOLAR FARM Runoff Area=90,361 sf 4.48% Impervious Runoff Depth=3.54"
Flow Length=410' Tc=12.1 min CN=63 Runoff=7.00 cfs 0.613 af

Subcatchment PDA-101.2: GRASS Runoff Area=47,554 sf 0.00% Impervious Runoff Depth=5.01"
Flow Length=164' Slope=0.0400 '/' Tc=11.2 min CN=76 Runoff=5.51 cfs 0.456 af

Subcatchment PDA-200.1: SOLAR FARM Runoff Area=128,991 sf 3.02% Impervious Runoff Depth=3.54"
Flow Length=440' Tc=12.9 min CN=63 Runoff=9.72 cfs 0.874 af

Subcatchment PDA-200.2: ACCESS ROAD, Runoff Area=74,126 sf 0.00% Impervious Runoff Depth=3.32"
Flow Length=420' Tc=11.7 min CN=61 Runoff=5.42 cfs 0.471 af

Subcatchment PDA-201.1: SOLAR FARM Runoff Area=83,227 sf 1.94% Impervious Runoff Depth=3.21"
Flow Length=506' Tc=13.0 min CN=60 Runoff=5.58 cfs 0.512 af

Subcatchment PDA-201.2: ACCESS ROAD, Runoff Area=19,716 sf 0.00% Impervious Runoff Depth=3.00"
Flow Length=506' Tc=13.0 min CN=58 Runoff=1.22 cfs 0.113 af

Subcatchment PDA-202: Solar Farm Runoff Area=450,459 sf 2.43% Impervious Runoff Depth=3.32"
Flow Length=905' Tc=13.8 min CN=61 Runoff=30.53 cfs 2.864 af

Subcatchment PDA-203: UNDEVELOPED Runoff Area=801,310 sf 0.00% Impervious Runoff Depth=4.21"
Flow Length=1,598' Tc=26.0 min CN=69 Runoff=50.91 cfs 6.460 af

Subcatchment PDA-204: UNDEVELOPED Runoff Area=47,524 sf 0.00% Impervious Runoff Depth=3.21"
Flow Length=486' Tc=16.7 min CN=60 Runoff=2.82 cfs 0.292 af

Subcatchment PDA-205.1: SOLAR FARM Runoff Area=146,606 sf 0.00% Impervious Runoff Depth=3.77"
Flow Length=811' Tc=13.8 min CN=65 Runoff=11.43 cfs 1.056 af

Subcatchment PDA-205.2: SOLAR FARM Runoff Area=215,116 sf 0.00% Impervious Runoff Depth=3.99"
Flow Length=854' Tc=13.4 min CN=67 Runoff=18.13 cfs 1.642 af

Subcatchment PDA-205.3: ACCESS ROAD, Runoff Area=234,811 sf 0.00% Impervious Runoff Depth=3.88"
Flow Length=436' Tc=9.3 min CN=66 Runoff=22.74 cfs 1.742 af

Subcatchment PDA-206.1: SOLAR FARM Runoff Area=481,525 sf 0.00% Impervious Runoff Depth=3.43"
Flow Length=1,181' Tc=19.5 min CN=62 Runoff=28.44 cfs 3.162 af

Subcatchment PDA-206.2: SOLAR FARM Runoff Area=124,905 sf 0.00% Impervious Runoff Depth=4.33"
Flow Length=660' Tc=10.0 min CN=70 Runoff=13.17 cfs 1.034 af

Subcatchment PDA-207.1: SOLAR FARM Runoff Area=10,073 sf 0.00% Impervious Runoff Depth=3.00"
Flow Length=315' Tc=13.8 min CN=58 Runoff=0.61 cfs 0.058 af

Subcatchment PDA-207.2: SOLAR FARM Runoff Area=338,199 sf 0.00% Impervious Runoff Depth=3.10"
Flow Length=674' Tc=10.6 min CN=59 Runoff=23.98 cfs 2.009 af

Subcatchment PDA-207.3: SOLAR FARM Runoff Area=416,598 sf 0.00% Impervious Runoff Depth=3.54"
Flow Length=1,175' Tc=17.0 min CN=63 Runoff=27.45 cfs 2.824 af

Subcatchment PDA-208.1: SOLAR FARM Runoff Area=14,791 sf 0.00% Impervious Runoff Depth=3.00"
Flow Length=148' Tc=8.6 min CN=58 Runoff=1.11 cfs 0.085 af

Subcatchment PDA-208.2: ACCESS RD, Runoff Area=593,566 sf 0.00% Impervious Runoff Depth=3.88"
Flow Length=1,357' Tc=36.6 min CN=66 Runoff=28.56 cfs 4.402 af

Subcatchment PDA-209.1: SOLAR FARM Runoff Area=308,082 sf 0.00% Impervious Runoff Depth=3.10"
Flow Length=1,570' Tc=22.4 min CN=59 Runoff=15.18 cfs 1.830 af

Subcatchment PDA-209.2: SOLAR FARM, Runoff Area=465,264 sf 0.00% Impervious Runoff Depth=3.21"
Flow Length=1,525' Tc=21.0 min CN=60 Runoff=24.66 cfs 2.861 af

Subcatchment PDA-210: OFFSITE BASIN Runoff Area=29,356 sf 0.00% Impervious Runoff Depth=4.33"
Flow Length=321' Tc=23.8 min CN=70 Runoff=2.01 cfs 0.243 af

Subcatchment PDA-211: UNDEVELOPED Runoff Area=166,352 sf 0.00% Impervious Runoff Depth=4.90"
Flow Length=579' Tc=21.9 min CN=75 Runoff=13.45 cfs 1.559 af

Subcatchment PDA-212.1: SOLAR FARM Runoff Area=81,563 sf 0.00% Impervious Runoff Depth=3.00"
Flow Length=556' Tc=20.6 min CN=58 Runoff=4.02 cfs 0.468 af

Subcatchment PDA-212.2: GRASS Runoff Area=15,574 sf 0.00% Impervious Runoff Depth=3.43"
Flow Length=67' Slope=0.0902 '/' Tc=8.2 min CN=62 Runoff=1.39 cfs 0.102 af

Subcatchment PDA-213: ACCESS ROAD, Runoff Area=232,262 sf 0.00% Impervious Runoff Depth=4.21"
Flow Length=638' Tc=20.5 min CN=69 Runoff=16.74 cfs 1.872 af

Subcatchment PDA-300.1: SOLAR FARM Runoff Area=30,322 sf 0.00% Impervious Runoff Depth=4.90"
Flow Length=351' Tc=9.2 min CN=75 Runoff=3.77 cfs 0.284 af

Subcatchment PDA-300.2: GRASS Runoff Area=88,620 sf 0.00% Impervious Runoff Depth=5.13"
Flow Length=200' Tc=6.3 min CN=77 Runoff=13.31 cfs 0.869 af

Subcatchment PDA-301.1: SOLAR FARM Runoff Area=55,382 sf 0.00% Impervious Runoff Depth=4.67"
Flow Length=468' Tc=10.5 min CN=73 Runoff=6.17 cfs 0.495 af

Subcatchment PDA-301.2: GRASS Runoff Area=43,476 sf 0.00% Impervious Runoff Depth=5.13"
Flow Length=293' Tc=5.3 min CN=77 Runoff=6.87 cfs 0.426 af

Subcatchment PDA-302.1: Solar Farm Runoff Area=189,109 sf 0.00% Impervious Runoff Depth=3.88"
Flow Length=355' Tc=10.1 min CN=66 Runoff=17.63 cfs 1.403 af

Subcatchment PDA-302.2: GRASS Runoff Area=95,647 sf 0.00% Impervious Runoff Depth=4.90"
Flow Length=375' Tc=8.8 min CN=75 Runoff=12.04 cfs 0.896 af

Subcatchment PDA-303.1: SOLAR FARM Runoff Area=292,331 sf 0.00% Impervious Runoff Depth=4.67"
Flow Length=775' Tc=13.7 min CN=73 Runoff=28.66 cfs 2.611 af

Subcatchment PDA-303.2: GRASS Runoff Area=145,287 sf 0.00% Impervious Runoff Depth=5.24"
Flow Length=643' Tc=10.2 min CN=78 Runoff=18.35 cfs 1.457 af

Subcatchment PDA-304.1: SOLAR FARM Runoff Area=106,009 sf 0.00% Impervious Runoff Depth=4.55"
Flow Length=789' Tc=18.9 min CN=72 Runoff=8.62 cfs 0.924 af

Subcatchment PDA-304.2: SOLAR FARM, Runoff Area=67,405 sf 0.00% Impervious Runoff Depth=4.67"
Flow Length=228' Slope=0.3300 '/' Tc=8.7 min CN=73 Runoff=8.14 cfs 0.602 af

Subcatchment PDA-305.1: SOLAR FARM Runoff Area=149,887 sf 0.00% Impervious Runoff Depth=4.67"
Flow Length=936' Tc=19.3 min CN=73 Runoff=12.36 cfs 1.339 af

Subcatchment PDA-305.2: ACCESS ROAD, Runoff Area=73,928 sf 0.00% Impervious Runoff Depth=4.78"
Flow Length=100' Slope=0.3300 '/' Tc=5.0 min CN=74 Runoff=11.15 cfs 0.676 af

Reach DP-1: DISCHARGE OFFSITE TOWARDS STONY BROOK Inflow=32.69 cfs 4.455 af
Outflow=32.69 cfs 4.455 af

Reach DP-100: DISCHARGE OFFSITE Inflow=25.17 cfs 3.387 af
Outflow=25.17 cfs 3.387 af

Reach DP-101: DISCHARGE OFFSITE Inflow=10.37 cfs 1.069 af
Outflow=10.37 cfs 1.069 af

Reach DP-2: DISCHARGE TOWARDS OIL MILL BROOK Inflow=214.40 cfs 38.534 af
Outflow=214.40 cfs 38.534 af

Reach DP-200: DISCHARGE OFFSITE Inflow=11.80 cfs 1.346 af
Outflow=11.80 cfs 1.346 af

Reach DP-201: DISCHARGE OFFSITE Inflow=5.82 cfs 0.625 af
Outflow=5.82 cfs 0.625 af

Reach DP-202: DISCHARGE TO CENTRAL WETLAND Inflow=21.65 cfs 2.864 af
Outflow=21.65 cfs 2.864 af

Reach DP-205: DISCHARGE TO CENTRAL WETLAND Inflow=73.66 cfs 10.135 af
Outflow=73.66 cfs 10.135 af

Reach DP-206: DISCHARGE TO CENTRAL WETLAND Inflow=27.24 cfs 5.310 af
Outflow=27.24 cfs 5.310 af

Reach DP-207: DISCHARGE TO CENTRAL WETLAND Inflow=51.21 cfs 7.697 af
Outflow=51.21 cfs 7.697 af

Reach DP-208: DISCHARGE TO CENTRAL WETLAND Inflow=166.34 cfs 27.544 af
Outflow=166.34 cfs 27.544 af

Reach DP-209: DISCHARGE TO CENTRAL WETLAND Inflow=31.58 cfs 4.691 af
Outflow=31.58 cfs 4.691 af

Reach DP-210: DISCHARGE TO PDA-211 Inflow=2.01 cfs 0.243 af
Outflow=2.01 cfs 0.243 af

Reach DP-211: DISCHARGE TO CENTRAL WETLAND Inflow=173.62 cfs 29.346 af
Outflow=173.62 cfs 29.346 af

Reach DP-212: DISCHARGE OFFSITE Inflow=4.94 cfs 0.655 af
Outflow=4.94 cfs 0.655 af

Reach DP-213: DISCHARGE OFFSITE Inflow=16.74 cfs 1.872 af
Outflow=16.74 cfs 1.872 af

Reach DP-3: DISCHARGE TOWARDS STONY BROOK Inflow=82.05 cfs 11.982 af
Outflow=82.05 cfs 11.982 af

Reach DP-300: DISCHARGE OFFSITE Inflow=14.30 cfs 1.153 af
Outflow=14.30 cfs 1.153 af

Reach DP-301: DISCHARGE OFFSITE Inflow=6.87 cfs 0.426 af
Outflow=6.87 cfs 0.426 af

Reach DP-302: DISCHARGE OFFSITE Inflow=19.71 cfs 2.793 af
Outflow=19.71 cfs 2.793 af

Reach DP-303: DISCHARGE TO EASTERN WETLAND Inflow=24.03 cfs 4.068 af
Outflow=24.03 cfs 4.068 af

Reach DP-304: DISCHARGE OFFSITE Inflow=16.92 cfs 2.864 af
Outflow=16.92 cfs 2.864 af

Reach DP-305: DISCHARGE OFFSITE Inflow=11.15 cfs 0.676 af
Outflow=11.15 cfs 0.676 af

Reach R-202: FLOW THROUGH Avg. Flow Depth=0.41' Max Vel=2.06 fps Inflow=21.65 cfs 2.864 af
n=0.080 L=1,032.8' S=0.0697 '/' Capacity=617.17 cfs Outflow=19.87 cfs 2.864 af

Reach R-203: SHALLOW Avg. Flow Depth=0.80' Max Vel=2.80 fps Inflow=50.91 cfs 6.460 af
n=0.080 L=434.0' S=0.0527 '/' Capacity=597.69 cfs Outflow=50.41 cfs 6.460 af

Reach R-204: SHALLOW Avg. Flow Depth=0.13' Max Vel=0.82 fps Inflow=2.82 cfs 0.292 af
n=0.080 L=446.0' S=0.0499 '/' Capacity=5.78 cfs Outflow=2.32 cfs 0.292 af

Reach R-205.2: SHALLOW Avg. Flow Depth=0.30' Max Vel=1.56 fps Inflow=18.13 cfs 1.642 af
n=0.080 L=446.0' S=0.0600 '/' Capacity=30.16 cfs Outflow=16.34 cfs 1.642 af

Reach R-205/206: FLOW THROUGH Avg. Flow Depth=0.67' Max Vel=2.26 fps Inflow=99.87 cfs 15.445 af
n=0.080 L=1,050.0' S=0.0431 '/' Capacity=4,524.76 cfs Outflow=94.63 cfs 15.445 af

Reach R-207: FLOW THROUGH Avg. Flow Depth=0.41' Max Vel=1.36 fps Inflow=51.21 cfs 7.697 af
n=0.080 L=292.0' S=0.0298 '/' Capacity=179.76 cfs Outflow=49.69 cfs 7.697 af

Reach R-207.1: DISCHARGE INTO Avg. Flow Depth=0.09' Max Vel=2.90 fps Inflow=0.61 cfs 0.058 af
n=0.030 L=183.8' S=0.0925 '/' Capacity=84.66 cfs Outflow=0.60 cfs 0.058 af

Reach R-208: FLOW THROUGH Avg. Flow Depth=0.59' Max Vel=1.69 fps Inflow=166.34 cfs 27.544 af
n=0.080 L=250.0' S=0.0287 '/' Capacity=634.06 cfs Outflow=165.65 cfs 27.544 af

Reach R-208.1: DISCHARGE INTO Avg. Flow Depth=0.22' Max Vel=3.31 fps Inflow=1.11 cfs 0.085 af
n=0.030 L=226.0' S=0.0856 '/' Capacity=131.22 cfs Outflow=1.09 cfs 0.085 af

Reach R-210: FLOW THROUGH Avg. Flow Depth=0.14' Max Vel=0.39 fps Inflow=2.01 cfs 0.243 af
n=0.080 L=170.0' S=0.0105 '/' Capacity=284.60 cfs Outflow=1.84 cfs 0.243 af

Reach R-301.1: FLOW THROUGH Avg. Flow Depth=0.29' Max Vel=1.34 fps Inflow=6.17 cfs 0.495 af
n=0.080 L=211.0' S=0.0474 '/' Capacity=209.28 cfs Outflow=5.82 cfs 0.495 af

Pond DP-100.1: POND Peak Elev=173.89' Storage=10,186 cf Inflow=29.69 cfs 3.200 af
Outflow=24.39 cfs 3.200 af

Pond DP-101.1: POND Peak Elev=232.42' Storage=1,651 cf Inflow=7.00 cfs 0.613 af
Outflow=5.61 cfs 0.613 af

Pond DP-200.1: POND Peak Elev=181.93' Storage=3,282 cf Inflow=9.72 cfs 0.874 af
Outflow=7.73 cfs 0.874 af

Pond DP-201.1: POND Peak Elev=164.45' Storage=1,747 cf Inflow=5.58 cfs 0.512 af
Outflow=4.77 cfs 0.512 af

Pond DP-202.1: POND Peak Elev=193.06' Storage=10,429 cf Inflow=30.53 cfs 2.864 af
Outflow=21.65 cfs 2.864 af

Pond DP-206.1: POND Peak Elev=201.15' Storage=29,605 cf Inflow=39.17 cfs 4.276 af
Outflow=23.41 cfs 4.276 af

Pond DP-207.1: POND Peak Elev=174.22' Storage=7,789 cf Inflow=23.98 cfs 2.009 af
Outflow=17.40 cfs 2.009 af

Pond DP-209.1: POND Peak Elev=150.97' Storage=10,553 cf Inflow=15.18 cfs 1.830 af
Outflow=9.20 cfs 1.830 af

Pond DP-212.1: POND Peak Elev=123.87' Storage=508 cf Inflow=4.66 cfs 0.552 af
Outflow=4.40 cfs 0.552 af

Pond DP-300.1: POND Peak Elev=231.73' Storage=1,247 cf Inflow=3.77 cfs 0.284 af
Outflow=2.56 cfs 0.284 af

Pond DP-302.1: POND Peak Elev=213.27' Storage=10,060 cf Inflow=21.85 cfs 1.897 af
Outflow=13.20 cfs 1.897 af

Pond DP-303.1: POND Peak Elev=188.17' Storage=23,537 cf Inflow=28.66 cfs 2.611 af
Outflow=12.51 cfs 2.611 af

Pond DP-304.1: POND Peak Elev=208.22' Storage=12,995 cf Inflow=20.98 cfs 2.262 af
Outflow=14.63 cfs 2.262 af

Total Runoff Area = 172.368 ac Runoff Volume = 54.971 af Average Runoff Depth = 3.83"
99.63% Pervious = 171.731 ac 0.37% Impervious = 0.637 ac

Summary for Subcatchment PDA-100.1: SOLAR FARM SOUTHERN

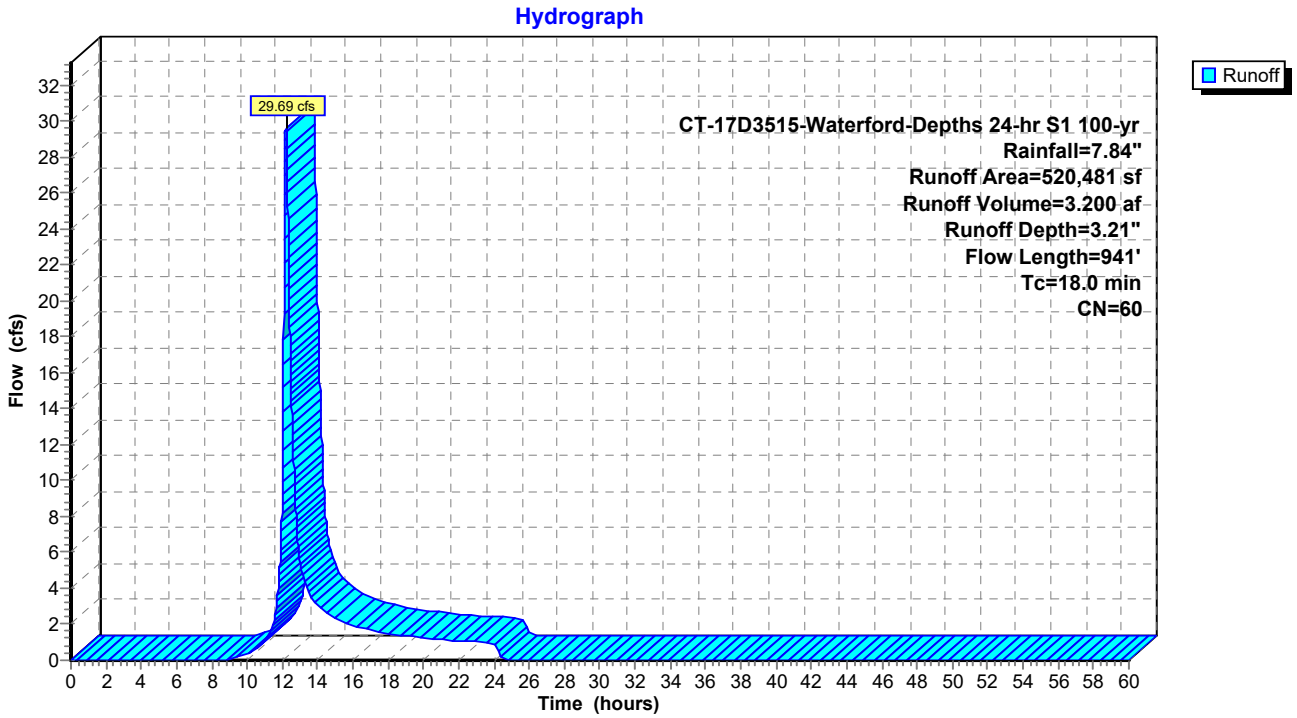
Runoff = 29.69 cfs @ 12.20 hrs, Volume= 3.200 af, Depth= 3.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
490,685	58	Meadow, non-grazed, HSG B
22,588	85	Gravel roads, HSG B
7,208	98	Water Surface, HSG B
520,481	60	Weighted Average
513,273	59	98.62% Pervious Area
7,208	98	1.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.0768	0.21		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
10.0	841	0.0402	1.40		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
18.0	941	Total			

Subcatchment PDA-100.1: SOLAR FARM SOUTHERN



Summary for Subcatchment PDA-100.2: GRASS (UNDETAINED)

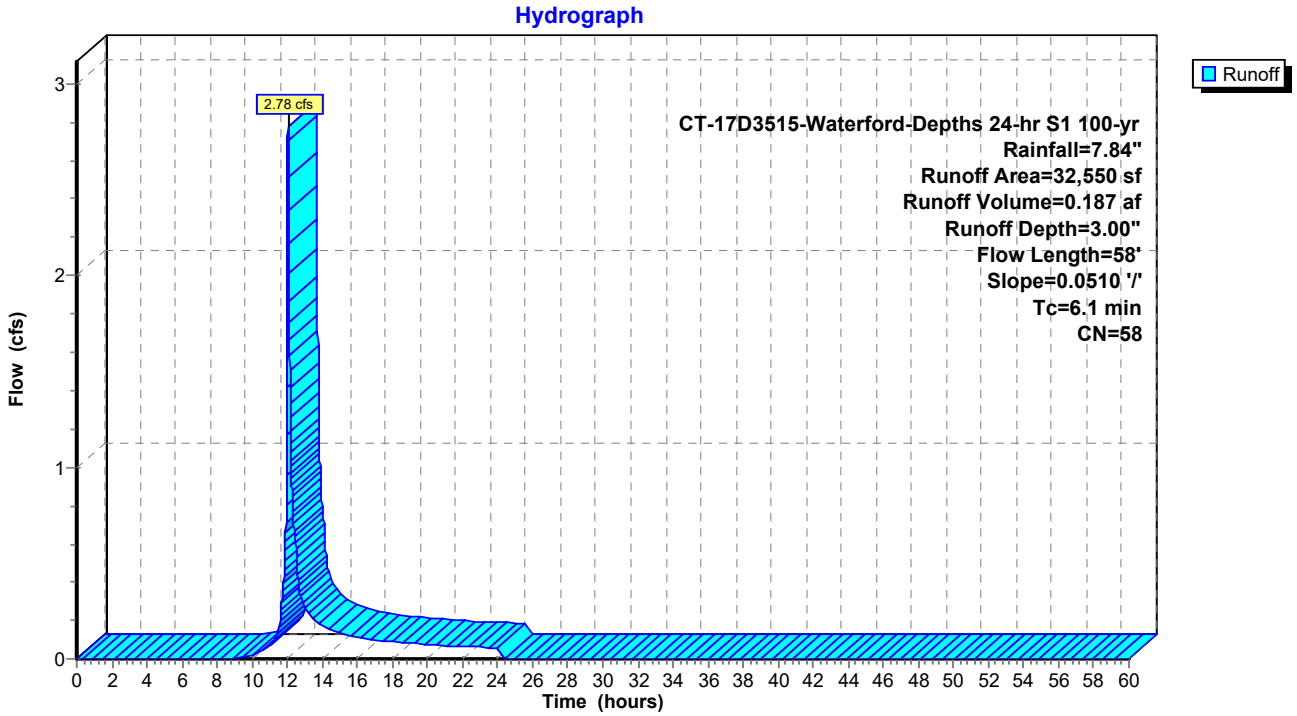
Runoff = 2.78 cfs @ 12.04 hrs, Volume= 0.187 af, Depth= 3.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
32,550	58	Meadow, non-grazed, HSG B
32,550	58	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	58	0.0510	0.16		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"

Subcatchment PDA-100.2: GRASS (UNDETAINED)



Summary for Subcatchment PDA-101.1: SOLAR FARM (SOUTHERN)

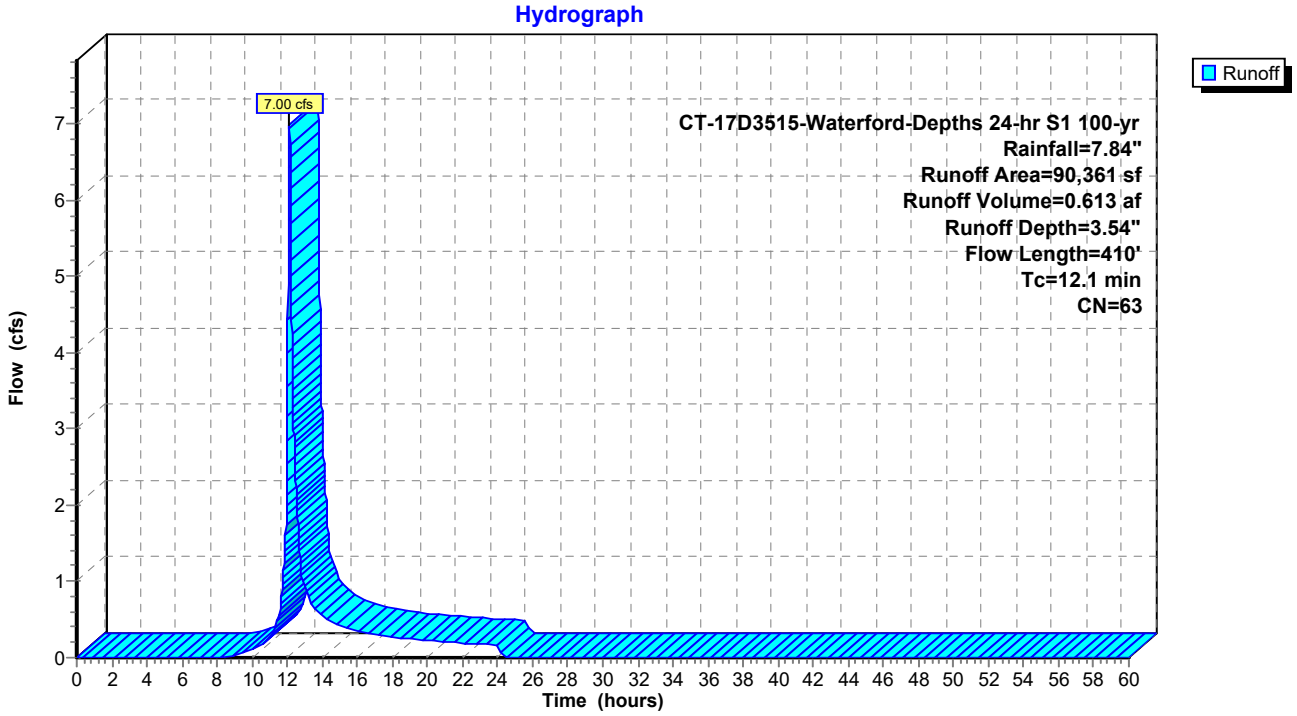
Runoff = 7.00 cfs @ 12.12 hrs, Volume= 0.613 af, Depth= 3.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
71,575	58	Meadow, non-grazed, HSG B
14,734	78	Meadow, non-grazed, HSG D
2,205	98	Water Surface, HSG B
1,847	98	Water Surface, HSG D
90,361	63	Weighted Average
86,309	61	95.52% Pervious Area
4,052	98	4.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0726	0.20		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
3.9	310	0.0355	1.32		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
12.1	410	Total			

Subcatchment PDA-101.1: SOLAR FARM (SOUTHERN)



Summary for Subcatchment PDA-101.2: GRASS (UNDETAINED)

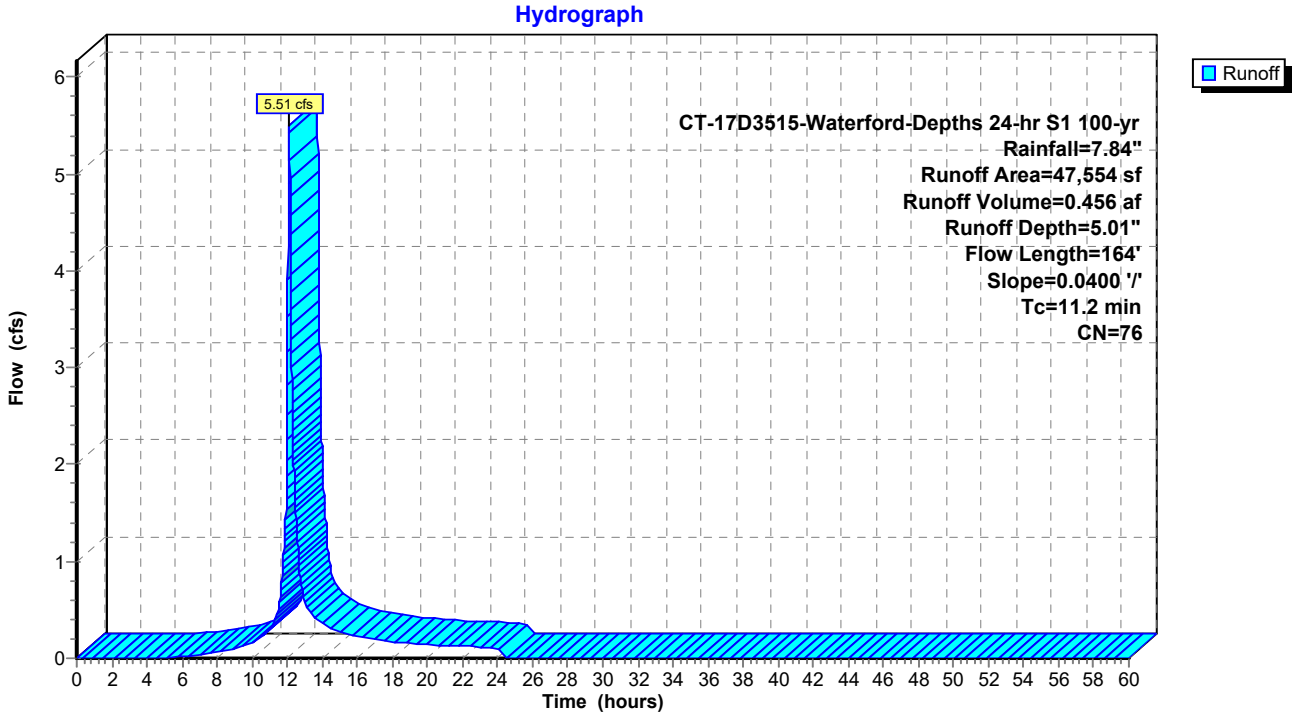
Runoff = 5.51 cfs @ 12.10 hrs, Volume= 0.456 af, Depth= 5.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
3,921	58	Meadow, non-grazed, HSG B
43,633	78	Meadow, non-grazed, HSG D
47,554	76	Weighted Average
47,554	76	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.0400	0.16		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
0.8	64	0.0400	1.40		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
11.2	164	Total			

Subcatchment PDA-101.2: GRASS (UNDETAINED)



Summary for Subcatchment PDA-200.1: SOLAR FARM (SOUTHWEST)

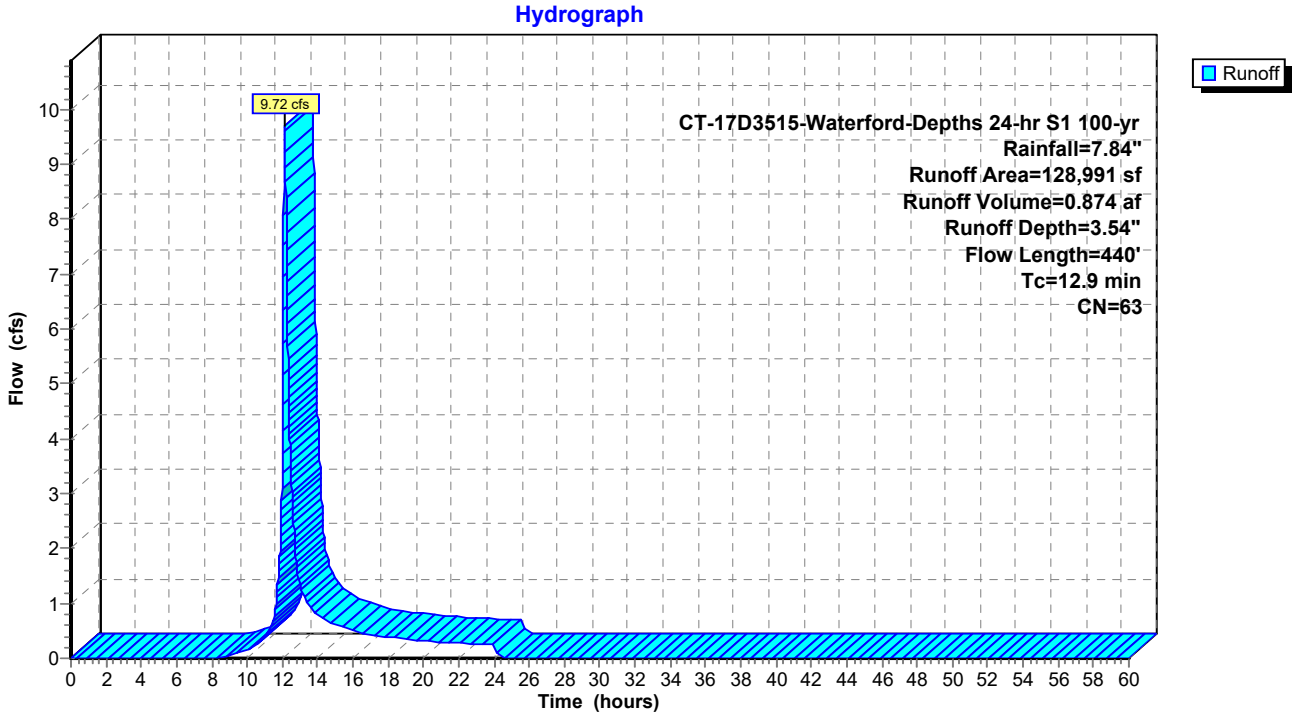
Runoff = 9.72 cfs @ 12.13 hrs, Volume= 0.874 af, Depth= 3.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
109,000	58	Meadow, non-grazed, HSG B
16,101	85	Gravel roads, HSG B
3,890	98	Water Surface, HSG B
128,991	63	Weighted Average
125,101	61	96.98% Pervious Area
3,890	98	3.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	100	0.0366	0.15		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
2.1	340	0.1554	2.76		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
12.9	440	Total			

Subcatchment PDA-200.1: SOLAR FARM (SOUTHWEST)



Summary for Subcatchment PDA-200.2: ACCESS ROAD, GRASS (UNDETAINED)

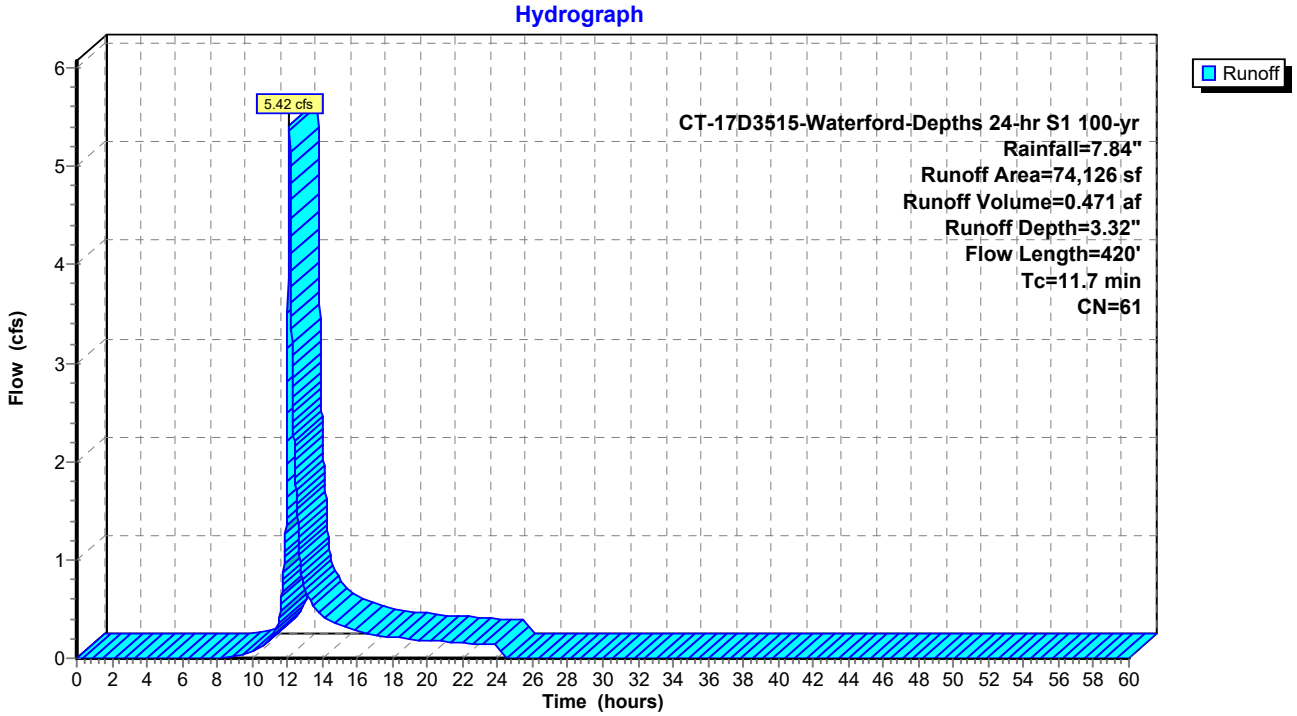
Runoff = 5.42 cfs @ 12.11 hrs, Volume= 0.471 af, Depth= 3.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
67,692	58	Meadow, non-grazed, HSG B
6,434	96	Gravel surface, HSG B
74,126	61	Weighted Average
74,126	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.1	100	0.0557	0.18		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
2.6	320	0.0841	2.03		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
11.7	420	Total			

Subcatchment PDA-200.2: ACCESS ROAD, GRASS (UNDETAINED)



Summary for Subcatchment PDA-201.1: SOLAR FARM

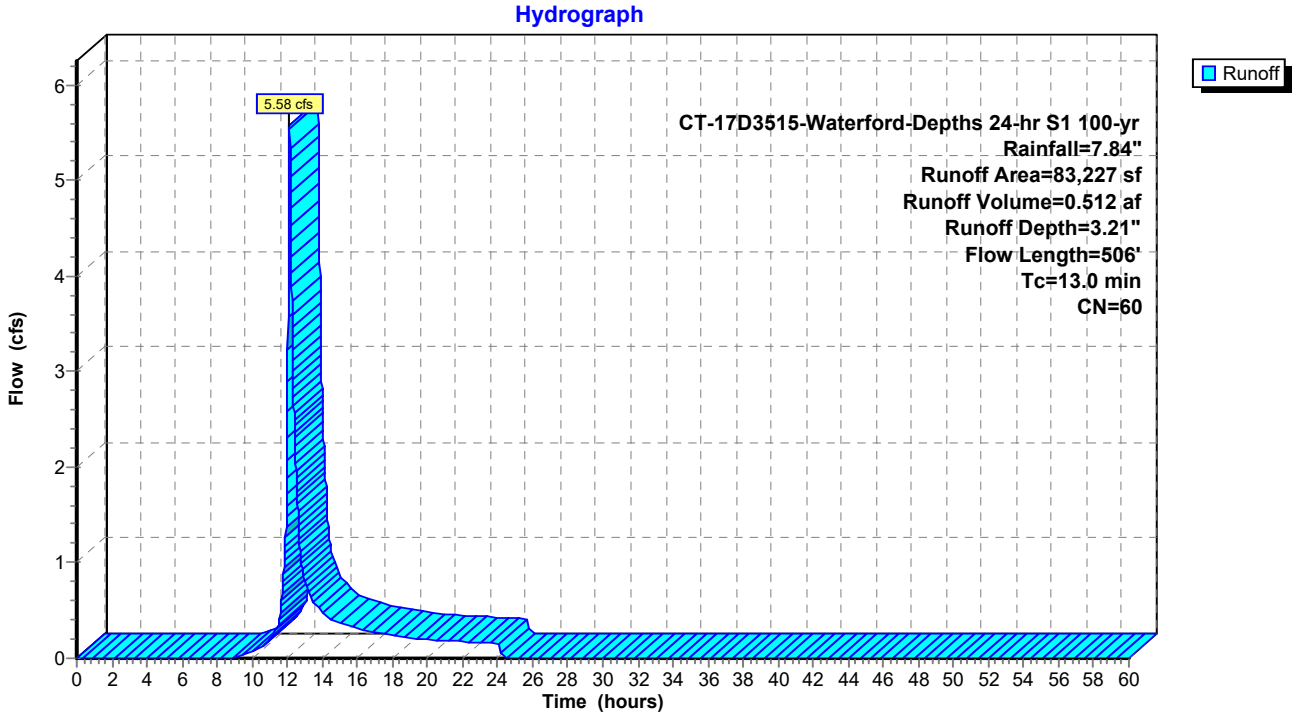
Runoff = 5.58 cfs @ 12.13 hrs, Volume= 0.512 af, Depth= 3.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
76,925	58	Meadow, non-grazed, HSG B
4,685	85	Gravel roads, HSG B
1,617	98	Water Surface, HSG B
83,227	60	Weighted Average
81,610	60	98.06% Pervious Area
1,617	98	1.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	100	0.0451	0.17		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
3.1	406	0.0973	2.18		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
13.0	506	Total			

Subcatchment PDA-201.1: SOLAR FARM



Summary for Subcatchment PDA-201.2: ACCESS ROAD, GRASS (UNDETAINED)

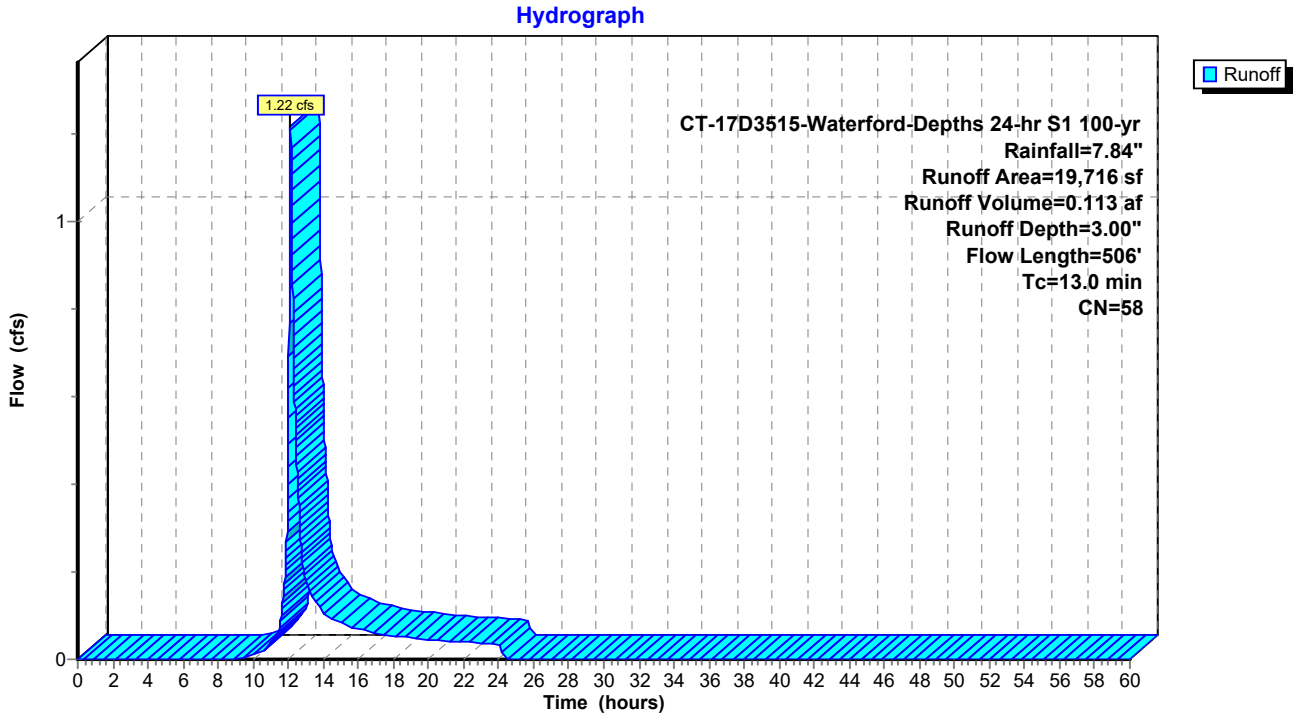
Runoff = 1.22 cfs @ 12.14 hrs, Volume= 0.113 af, Depth= 3.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
19,716	58	Meadow, non-grazed, HSG B
19,716	58	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	100	0.0451	0.17		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
3.1	406	0.0973	2.18		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
13.0	506	Total			

Subcatchment PDA-201.2: ACCESS ROAD, GRASS (UNDETAINED)



Summary for Subcatchment PDA-202: Solar Farm

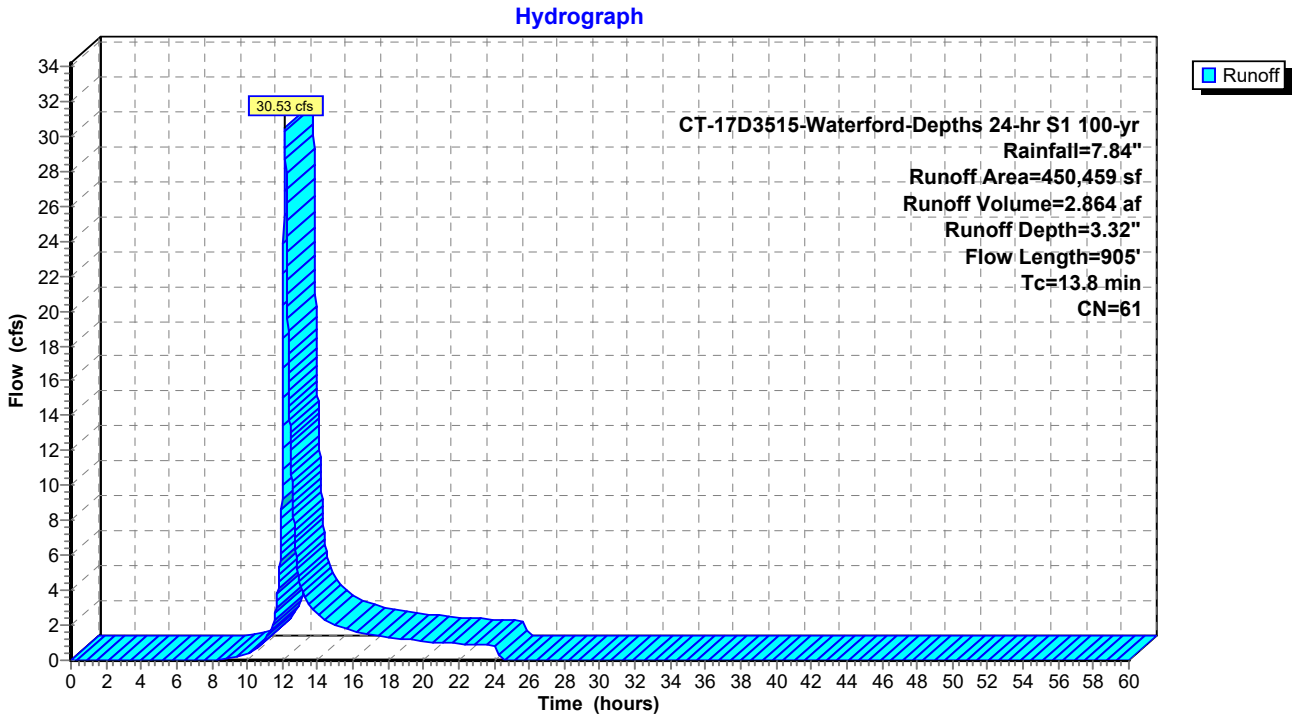
Runoff = 30.53 cfs @ 12.15 hrs, Volume= 2.864 af, Depth= 3.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
405,959	58	Meadow, non-grazed, HSG B
33,532	85	Gravel roads, HSG B
10,968	98	Water Surface, HSG B
450,459	61	Weighted Average
439,491	60	97.57% Pervious Area
10,968	98	2.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	100	0.1350	0.26		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
7.4	805	0.0678	1.82		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
13.8	905	Total			

Subcatchment PDA-202: Solar Farm



Summary for Subcatchment PDA-203: UNDEVELOPED FOREST (UNDISTURBED)

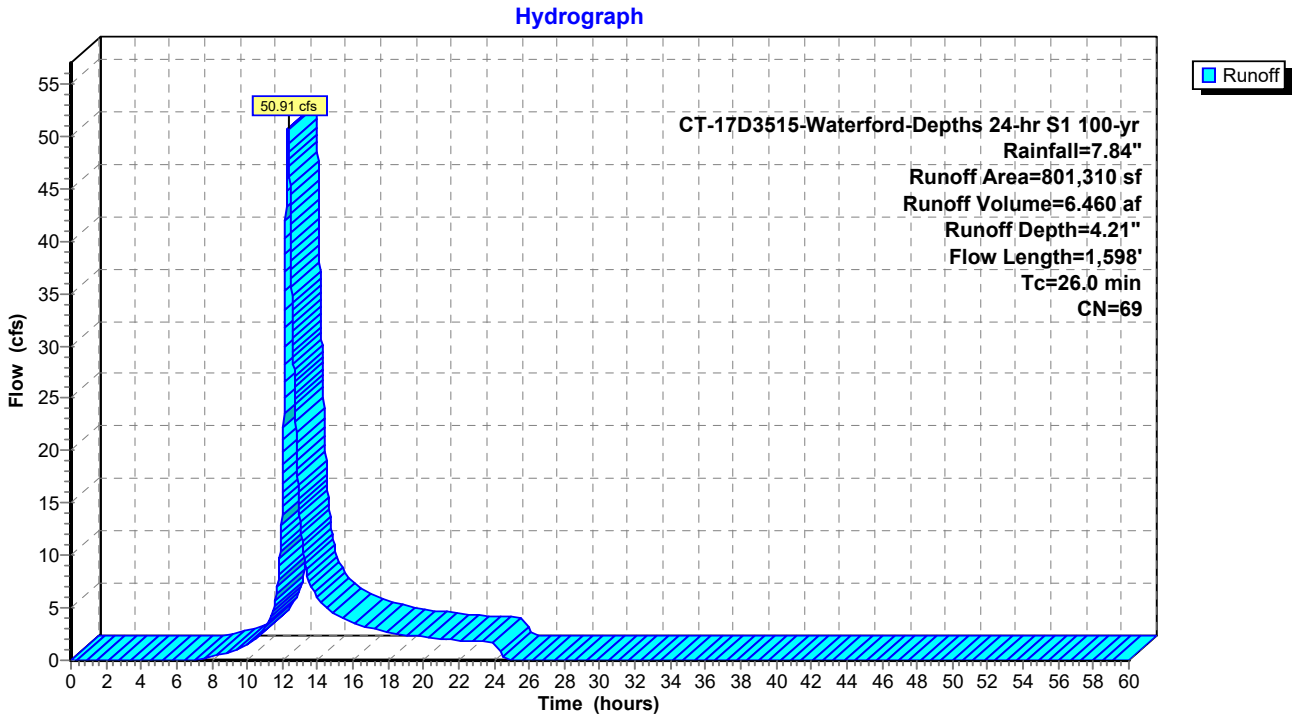
Runoff = 50.91 cfs @ 12.31 hrs, Volume= 6.460 af, Depth= 4.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
239,408	60	Woods, Fair, HSG B
555,898	73	Woods, Fair, HSG C
5,581	86	<50% Grass cover, Poor, HSG C
423	82	Dirt roads, HSG B
801,310	69	Weighted Average
801,310	69	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	100	1.0000	0.39		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
21.7	1,498	0.0530	1.15		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
26.0	1,598	Total			

Subcatchment PDA-203: UNDEVELOPED FOREST (UNDISTURBED)



Summary for Subcatchment PDA-204: UNDEVELOPED FOREST (UNDISTURBED)

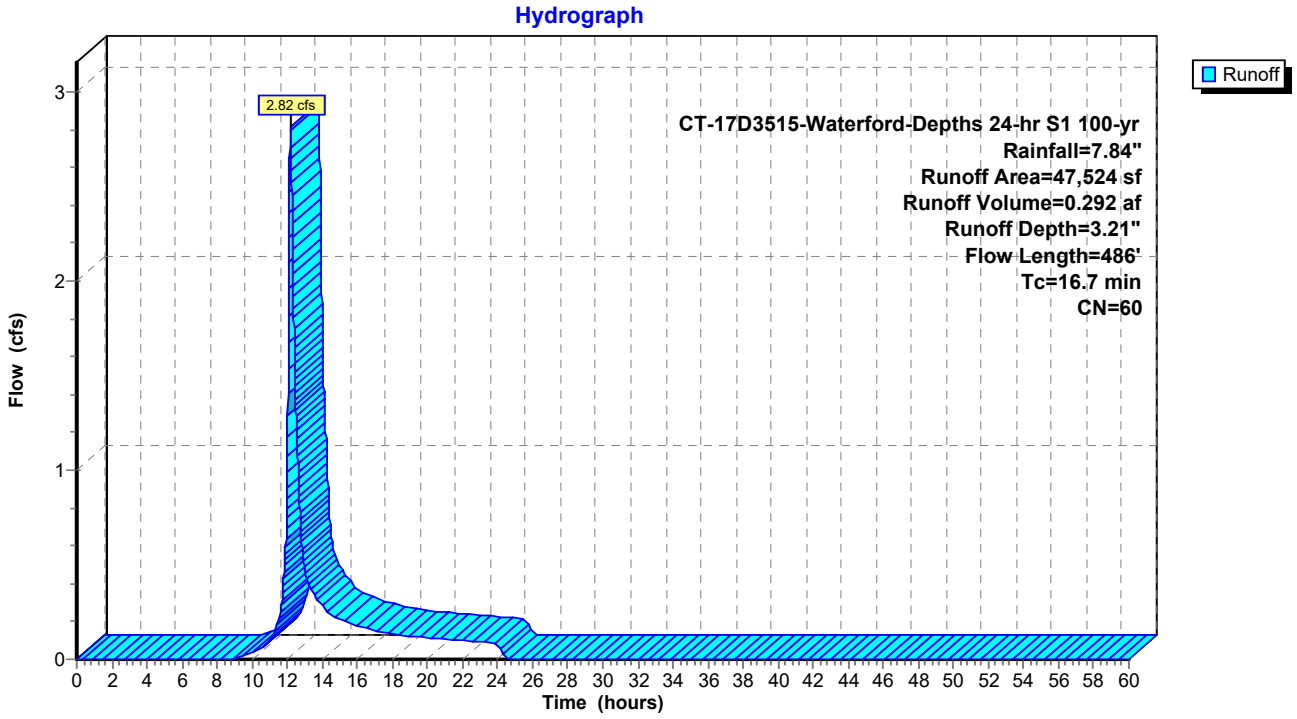
Runoff = 2.82 cfs @ 12.19 hrs, Volume= 0.292 af, Depth= 3.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
47,524	60	Woods, Fair, HSG B
47,524	60	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0	100	0.0786	0.14		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
4.7	386	0.0753	1.37		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
16.7	486	Total			

Subcatchment PDA-204: UNDEVELOPED FOREST (UNDISTURBED)



Summary for Subcatchment PDA-205.1: SOLAR FARM (ROUTED TO PDA-206.1 POND)

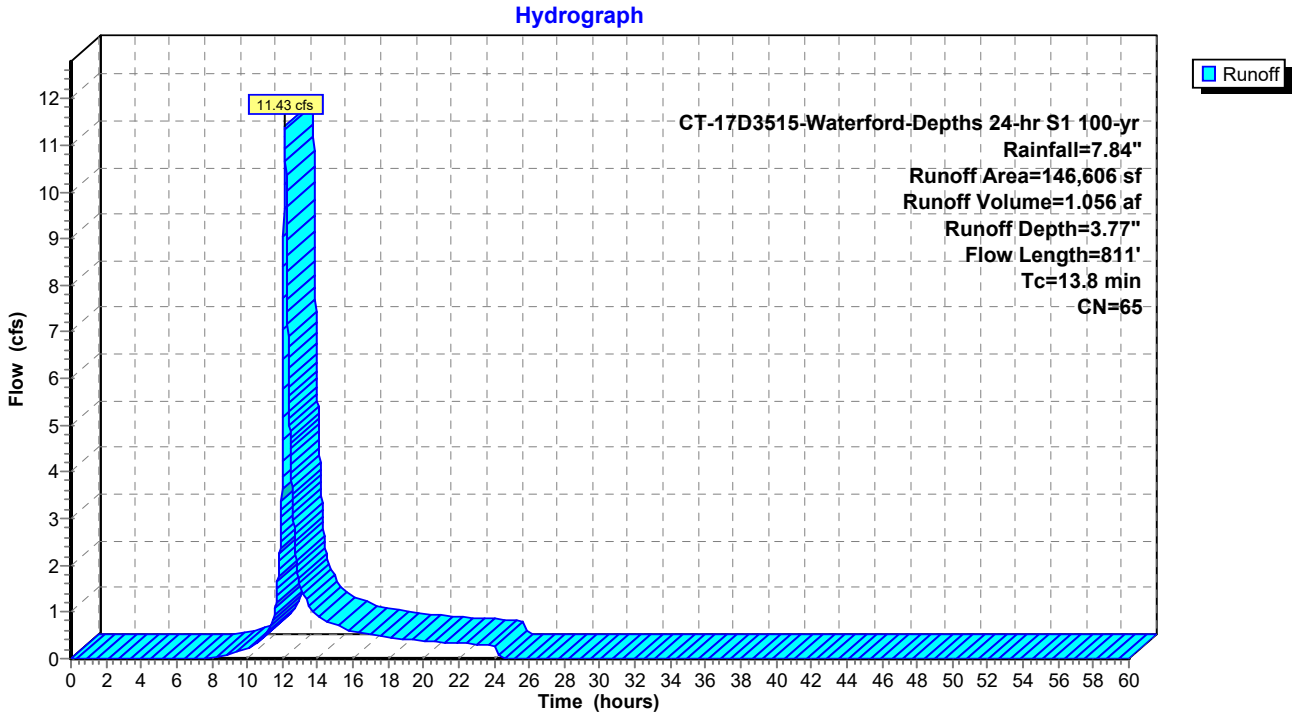
Runoff = 11.43 cfs @ 12.14 hrs, Volume= 1.056 af, Depth= 3.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
71,491	58	Meadow, non-grazed, HSG B
69,070	71	Meadow, non-grazed, HSG C
6,045	89	Gravel roads, HSG C
146,606	65	Weighted Average
146,606	65	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.0394	0.23		**Sheet Flow, SOLAR FARM** Grass: Short n= 0.150 P2= 3.45"
6.6	711	0.0654	1.79		**Shallow Concentrated Flow, Solar Farm - Swale** Short Grass Pasture Kv= 7.0 fps
13.8	811	Total			

Subcatchment PDA-205.1: SOLAR FARM (ROUTED TO PDA-206.1 POND)



Summary for Subcatchment PDA-205.2: SOLAR FARM (UNDETAINED)

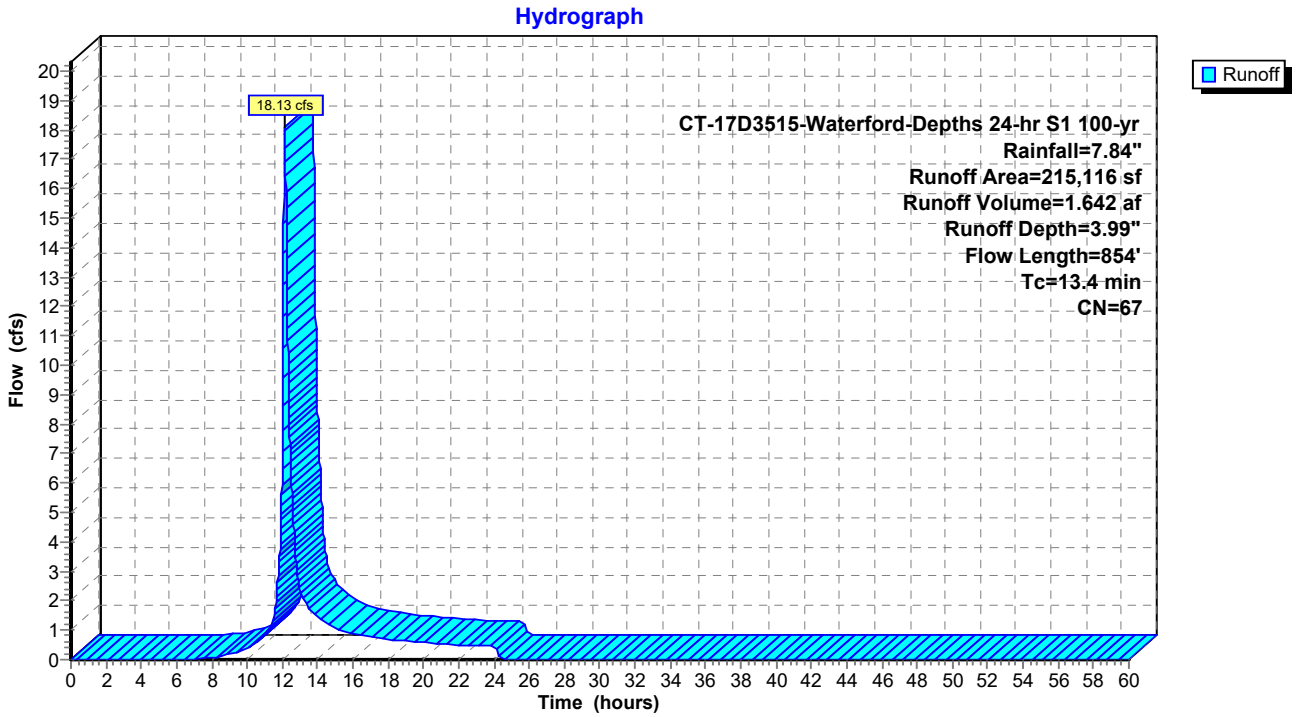
Runoff = 18.13 cfs @ 12.13 hrs, Volume= 1.642 af, Depth= 3.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
120,157	58	Meadow, non-grazed, HSG B
43,252	71	Meadow, non-grazed, HSG C
1,438	82	Dirt roads, HSG B
2,702	87	Dirt roads, HSG C
1,588	89	Gravel roads, HSG C
14,555	79	<50% Grass cover, Poor, HSG B
31,424	86	<50% Grass cover, Poor, HSG C
215,116	67	Weighted Average
215,116	67	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.0394	0.23		**Sheet Flow, Solar Farm** Grass: Short n= 0.150 P2= 3.45"
6.2	754	0.0840	2.03		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
13.4	854	Total			

Subcatchment PDA-205.2: SOLAR FARM (UNDETAINED)



Summary for Subcatchment PDA-205.3: ACCESS ROAD, GRASS (UNDETAINED)

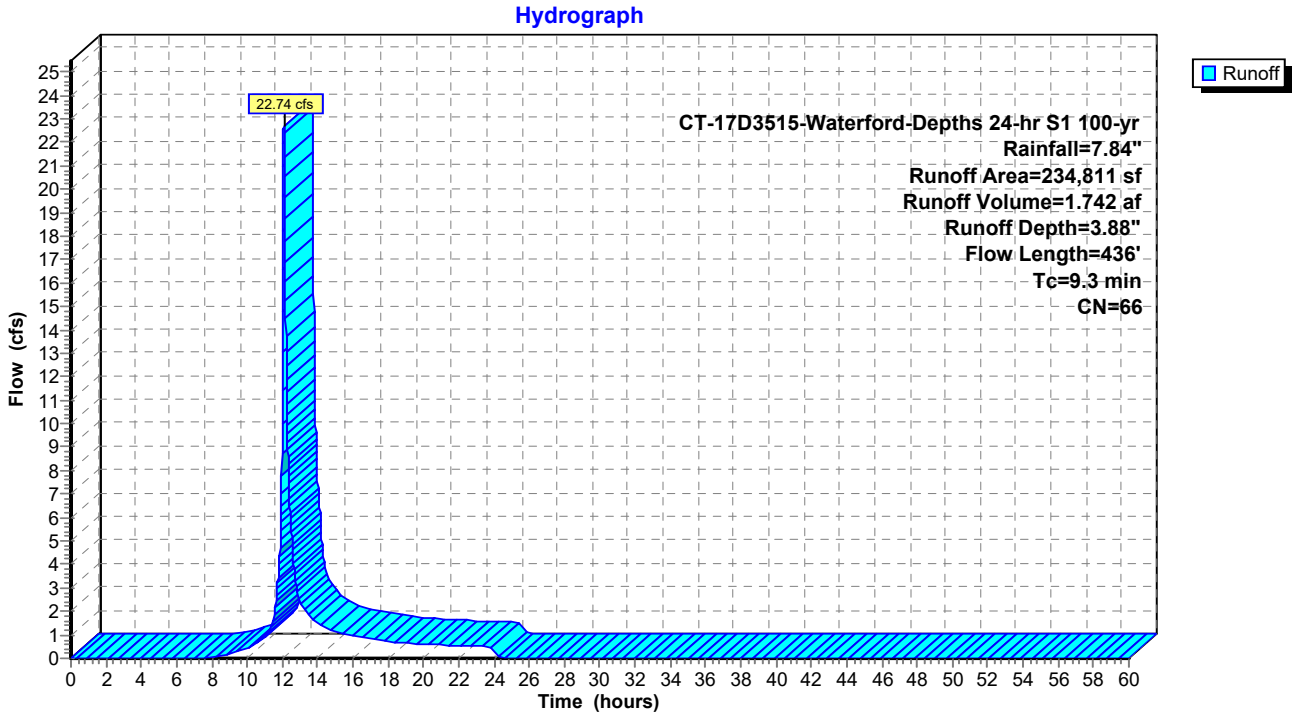
Runoff = 22.74 cfs @ 12.08 hrs, Volume= 1.742 af, Depth= 3.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
75,463	60	Woods, Fair, HSG B
4,943	58	Meadow, non-grazed, HSG B
74,632	56	Brush, Fair, HSG B
963	73	Woods, Fair, HSG C
2,022	71	Meadow, non-grazed, HSG C
8,238	82	Dirt roads, HSG B
49,723	79	<50% Grass cover, Poor, HSG B
5,864	86	<50% Grass cover, Poor, HSG C
8,573	85	Gravel roads, HSG B
4,390	89	Gravel roads, HSG C
234,811	66	Weighted Average
234,811	66	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	100	0.0621	0.28		**Sheet Flow, Brush** Grass: Short n= 0.150 P2= 3.45"
3.3	336	0.0590	1.70		**Shallow Concentrated Flow, Brush Wetland** Short Grass Pasture Kv= 7.0 fps
9.3	436	Total			

Subcatchment PDA-205.3: ACCESS ROAD, GRASS (UNDETAINED)



Summary for Subcatchment PDA-206.1: SOLAR FARM

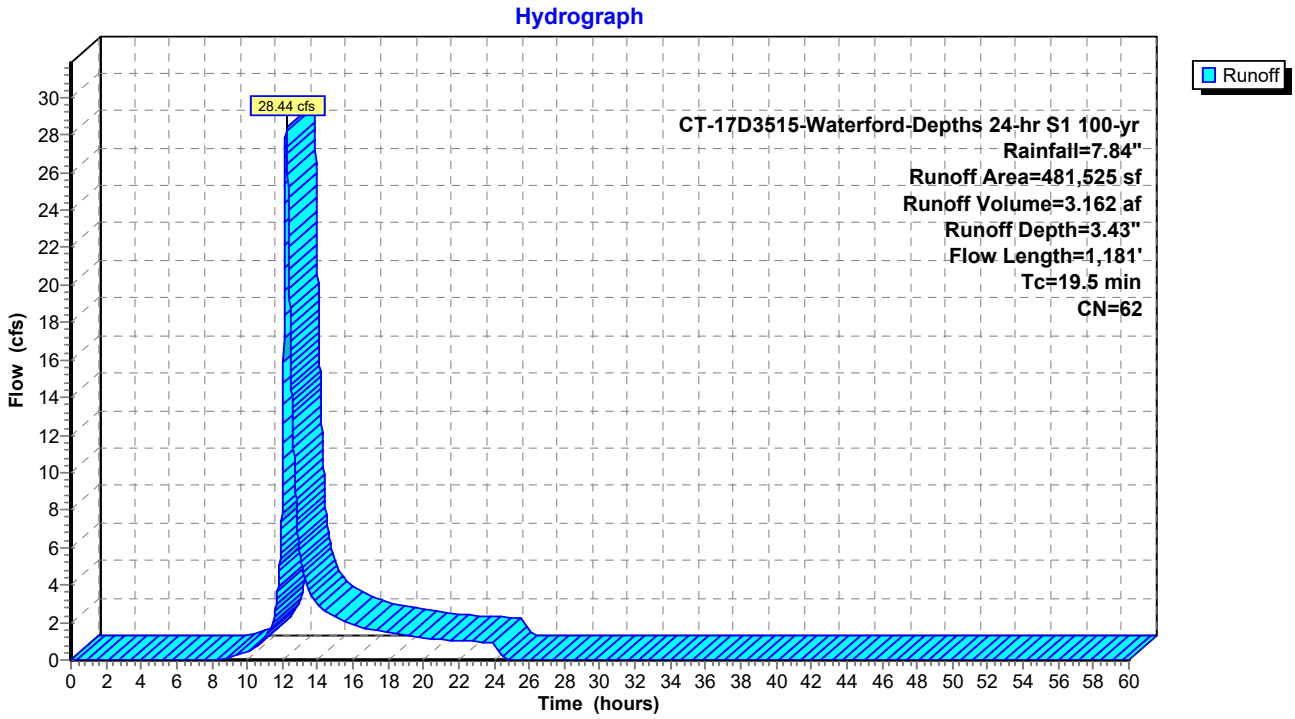
Runoff = 28.44 cfs @ 12.22 hrs, Volume= 3.162 af, Depth= 3.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
373,260	58	Meadow, non-grazed, HSG B
51,217	71	Meadow, non-grazed, HSG C
33,034	78	Meadow, non-grazed, HSG D
11,122	85	Gravel roads, HSG B
3,979	89	Gravel roads, HSG C
8,913	91	Gravel roads, HSG D
481,525	62	Weighted Average
481,525	62	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.0680	0.29		**Sheet Flow, Solar Farm** Grass: Short n= 0.150 P2= 3.45"
13.7	1,081	0.0352	1.31		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
19.5	1,181	Total			

Subcatchment PDA-206.1: SOLAR FARM



Summary for Subcatchment PDA-206.2: SOLAR FARM (UNDETAINED)

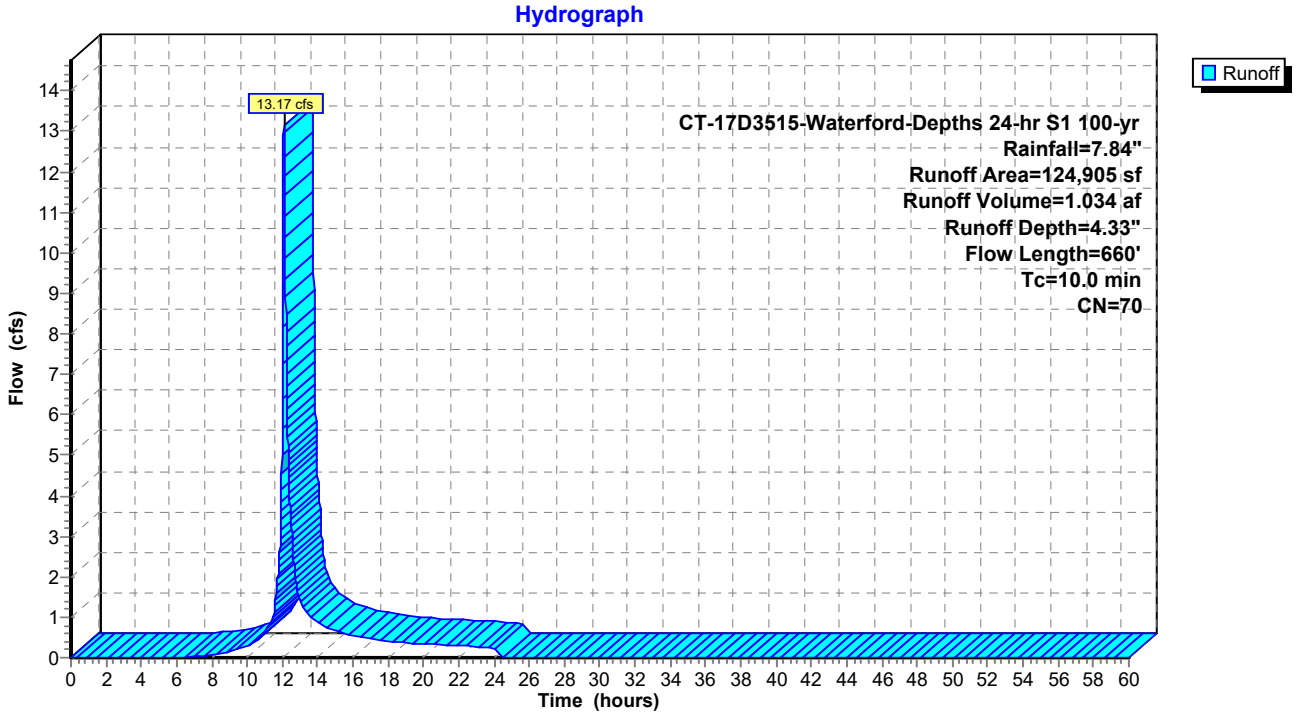
Runoff = 13.17 cfs @ 12.09 hrs, Volume= 1.034 af, Depth= 4.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
33,322	60	Woods, Fair, HSG B
31,779	58	Meadow, non-grazed, HSG B
3,856	82	Dirt roads, HSG B
17,360	85	Gravel roads, HSG B
38,588	79	<50% Grass cover, Poor, HSG B
124,905	70	Weighted Average
124,905	70	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.9	100	0.0650	0.28		**Sheet Flow, Solar Farm** Grass: Short n= 0.150 P2= 3.45"
4.1	560	0.1063	2.28		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
10.0	660	Total			

Subcatchment PDA-206.2: SOLAR FARM (UNDETAINED)



Summary for Subcatchment PDA-207.1: SOLAR FARM

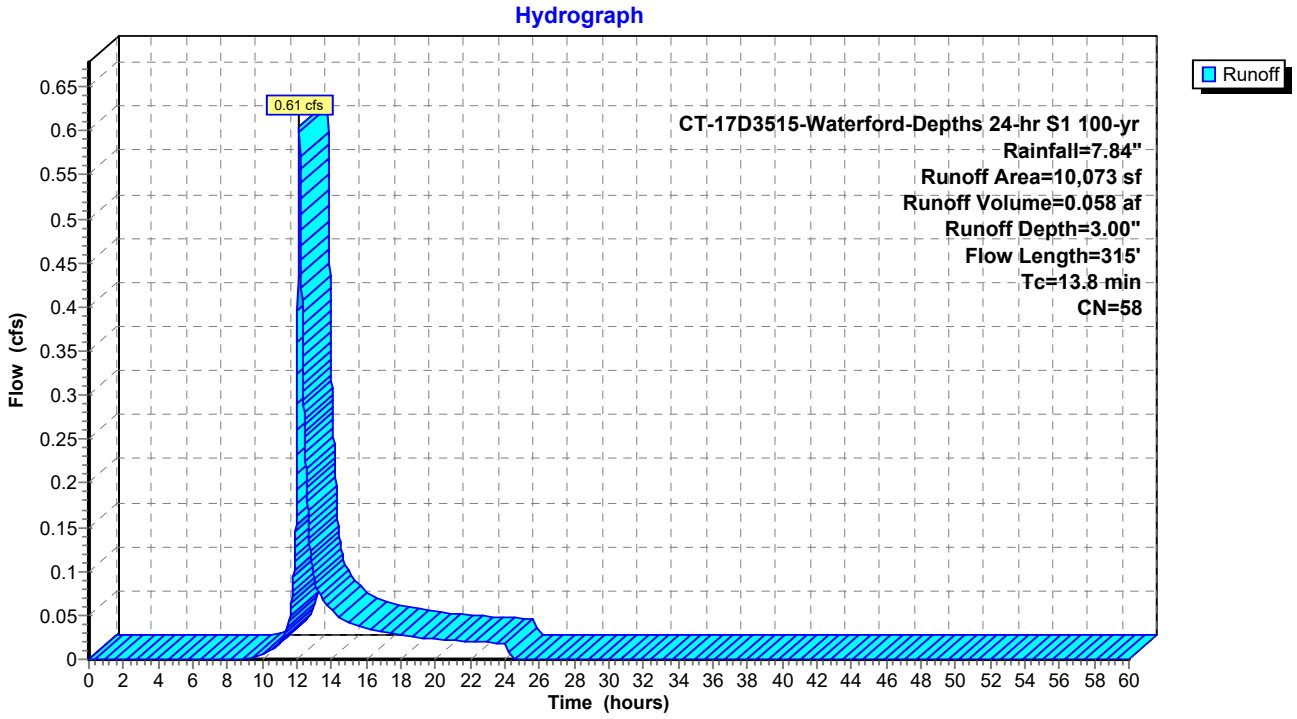
Runoff = 0.61 cfs @ 12.15 hrs, Volume= 0.058 af, Depth= 3.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
10,073	58	Meadow, non-grazed, HSG B
10,073	58	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.5	100	0.0310	0.14		**Sheet Flow, SOLAR FARM** Grass: Dense n= 0.240 P2= 3.45"
2.3	215	0.0507	1.58		**Shallow Concentrated Flow, SOLAR FARM** Short Grass Pasture Kv= 7.0 fps
13.8	315	Total			

Subcatchment PDA-207.1: SOLAR FARM



Summary for Subcatchment PDA-207.2: SOLAR FARM

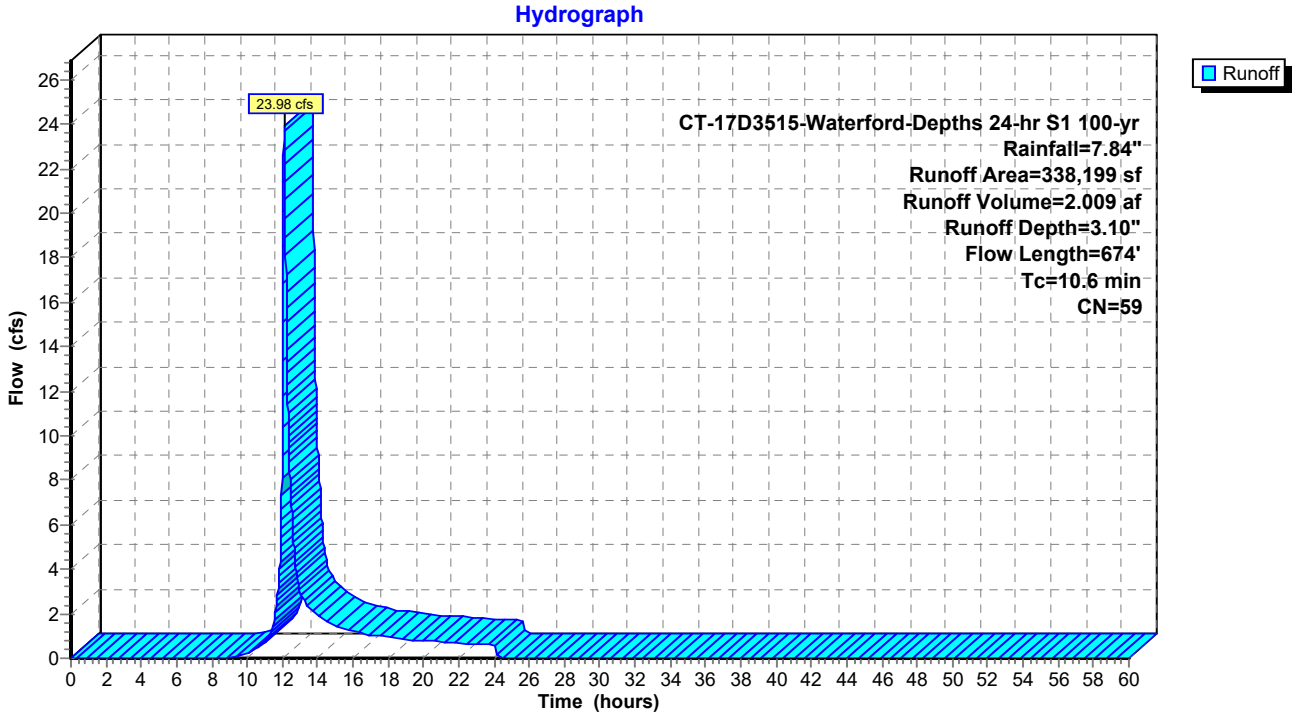
Runoff = 23.98 cfs @ 12.10 hrs, Volume= 2.009 af, Depth= 3.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
321,133	58	Meadow, non-grazed, HSG B
17,066	85	Gravel roads, HSG B
338,199	59	Weighted Average
338,199	59	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.1493	0.27		**Sheet Flow, SOLAR FARM** Grass: Dense n= 0.240 P2= 3.45"
4.4	574	0.0968	2.18		**Shallow Concentrated Flow, SOLAR FARM** Short Grass Pasture Kv= 7.0 fps
10.6	674	Total			

Subcatchment PDA-207.2: SOLAR FARM



Summary for Subcatchment PDA-207.3: SOLAR FARM (UNDETAINED)

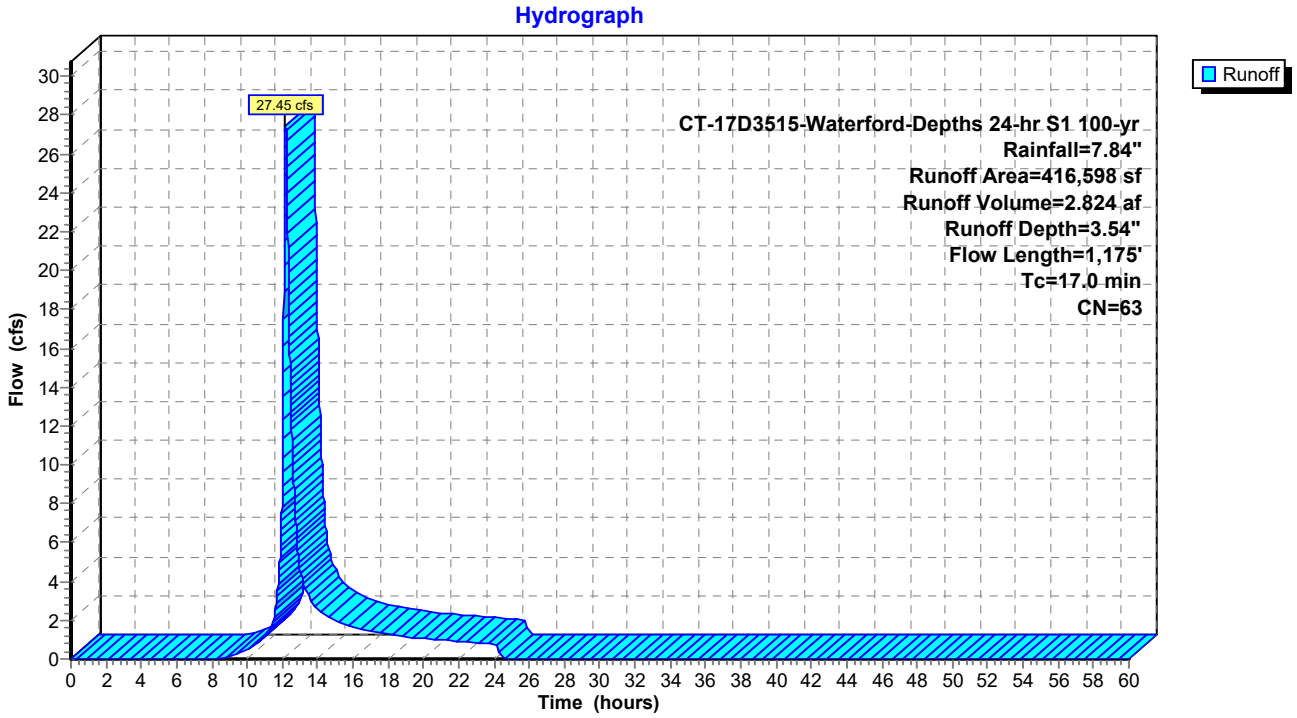
Runoff = 27.45 cfs @ 12.19 hrs, Volume= 2.824 af, Depth= 3.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
208,282	58	Meadow, non-grazed, HSG B
137,303	60	Woods, Fair, HSG B
17,665	79	Woods, Fair, HSG D
2,716	82	Dirt roads, HSG B
8,664	85	Gravel roads, HSG B
93	89	Dirt roads, HSG D
31,851	79	<50% Grass cover, Poor, HSG B
10,024	89	<50% Grass cover, Poor, HSG D
416,598	63	Weighted Average
416,598	63	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.8	100	0.0610	0.19		**Sheet Flow, SOLAR FARM** Grass: Dense n= 0.240 P2= 3.45"
8.2	1,075	0.0968	2.18		**Shallow Concentrated Flow, SOLAR FARM** Short Grass Pasture Kv= 7.0 fps
17.0	1,175	Total			

Subcatchment PDA-207.3: SOLAR FARM (UNDETAINED)



Summary for Subcatchment PDA-208.1: SOLAR FARM

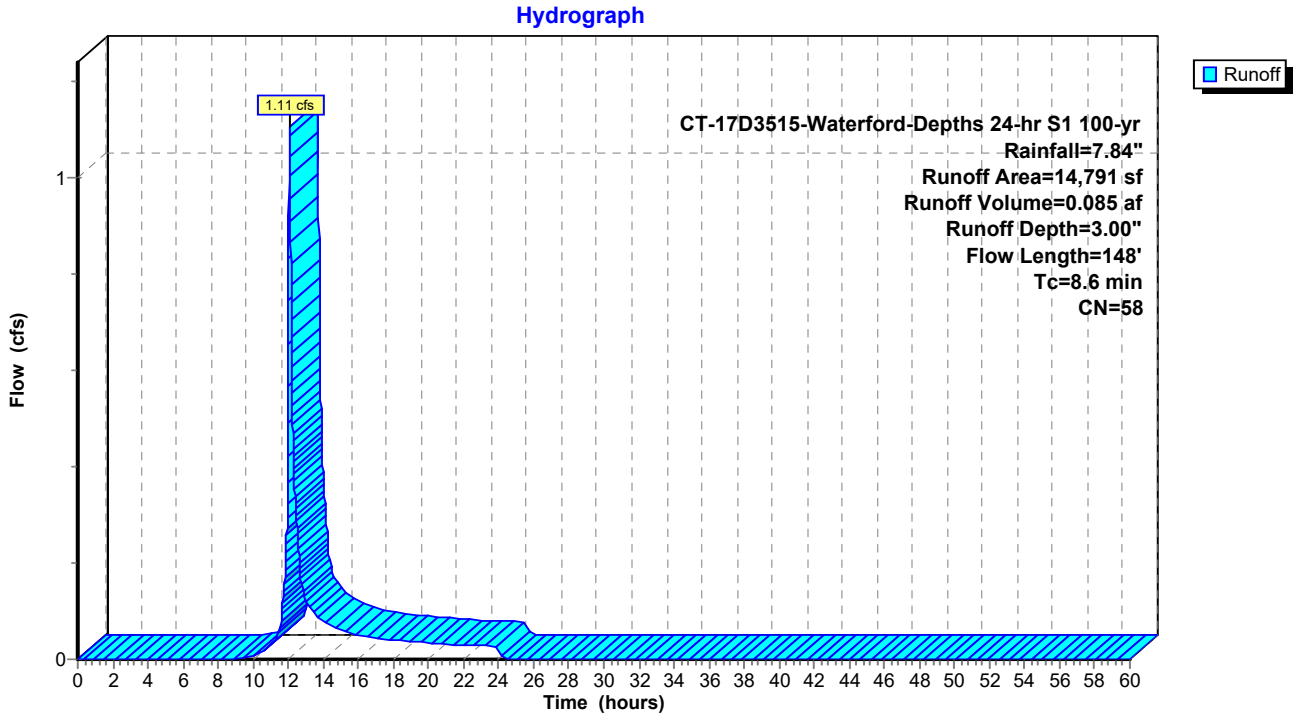
Runoff = 1.11 cfs @ 12.07 hrs, Volume= 0.085 af, Depth= 3.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
14,791	58	Meadow, non-grazed, HSG B
14,791	58	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.2000	0.20		**Sheet Flow, Solar Farm** Woods: Light underbrush n= 0.400 P2= 3.45"
0.4	48	0.0856	2.05		**Shallow Concentrated Flow, Solar Farm Sale** Short Grass Pasture Kv= 7.0 fps
8.6	148	Total			

Subcatchment PDA-208.1: SOLAR FARM



Summary for Subcatchment PDA-208.2: ACCESS RD, GRASS, WETLAND W/ BRUSH (UNDETAINED

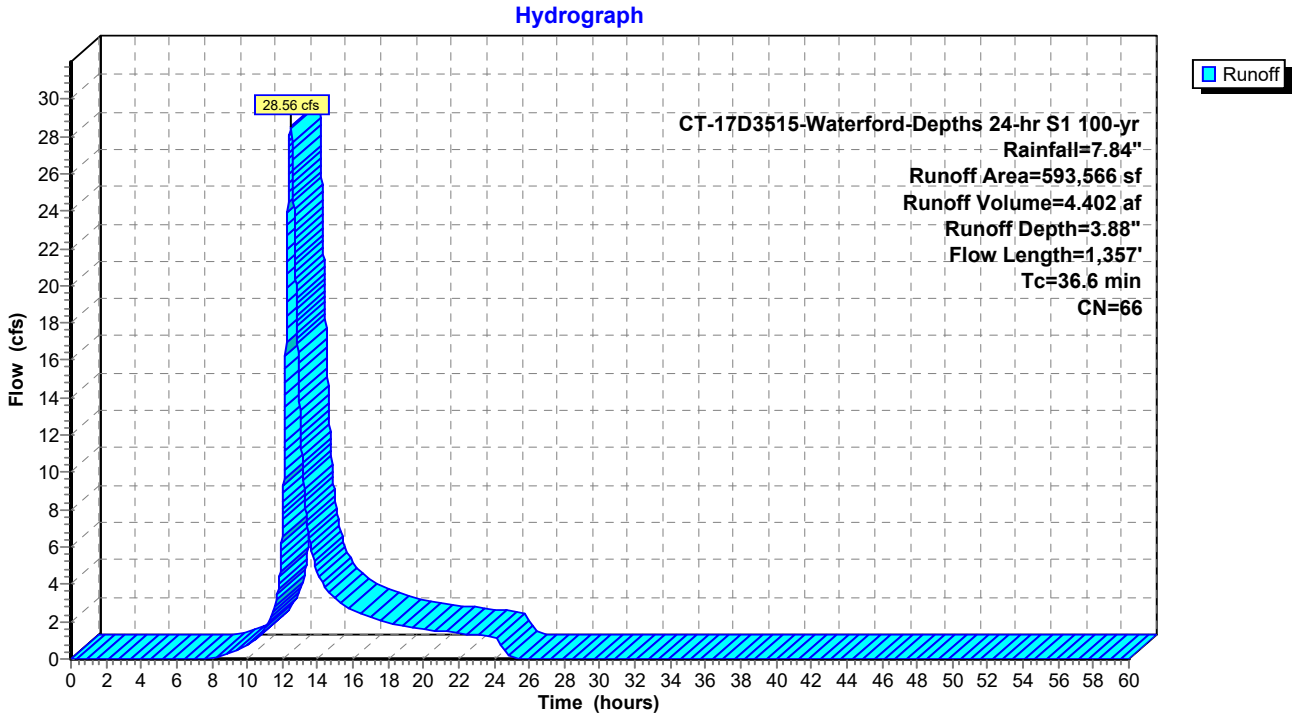
Runoff = 28.56 cfs @ 12.48 hrs, Volume= 4.402 af, Depth= 3.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
152,056	58	Meadow, non-grazed, HSG B
259,249	60	Woods, Fair, HSG B
134,846	79	Woods, Fair, HSG D
2,806	82	Dirt roads, HSG B
6,791	85	Gravel roads, HSG B
945	89	Dirt roads, HSG D
29,846	79	<50% Grass cover, Poor, HSG B
7,027	89	<50% Grass cover, Poor, HSG D
593,566	66	Weighted Average
593,566	66	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.8	100	0.0462	0.11		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
21.8	1,257	0.0371	0.96		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
36.6	1,357	Total			

Subcatchment PDA-208.2: ACCESS RD, GRASS, WETLAND W/ BRUSH (UNDETAINED)



Summary for Subcatchment PDA-209.1: SOLAR FARM

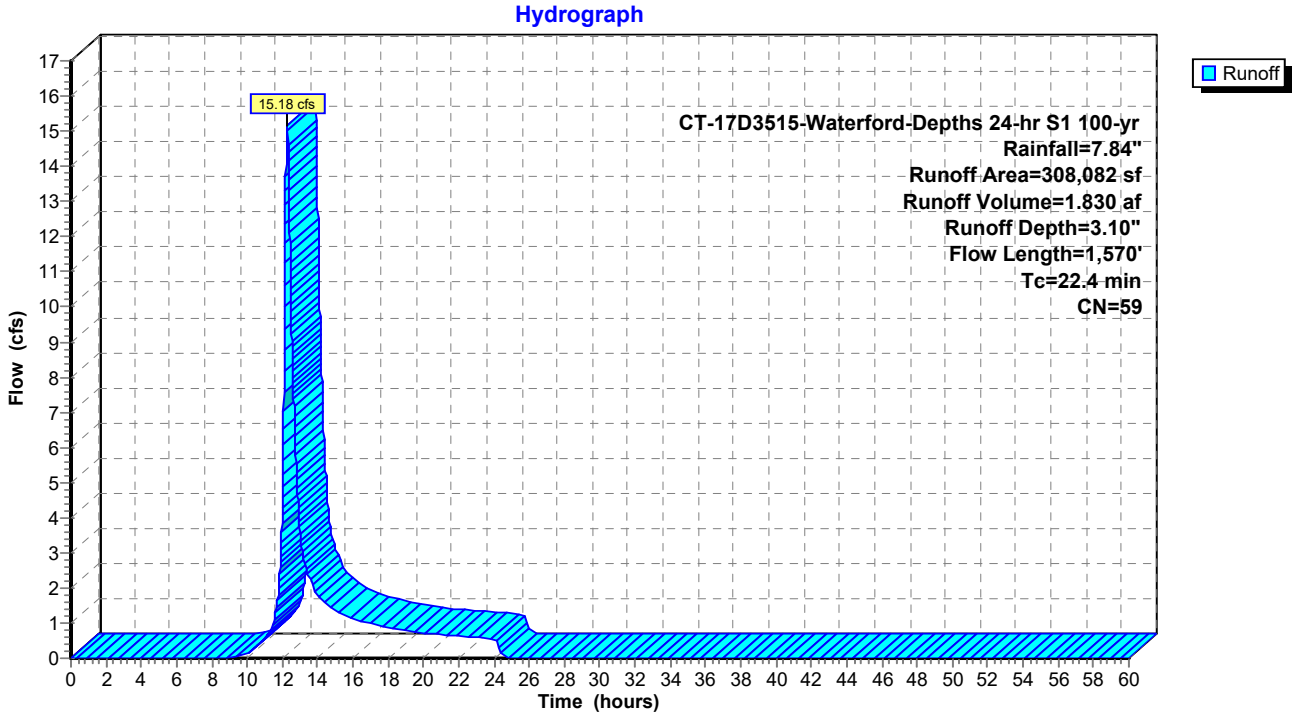
Runoff = 15.18 cfs @ 12.27 hrs, Volume= 1.830 af, Depth= 3.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
292,605	58	Meadow, non-grazed, HSG B
15,477	85	Gravel roads, HSG B
308,082	59	Weighted Average
308,082	59	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.1486	0.27		**Sheet Flow, SOLAR FARM** Grass: Dense n= 0.240 P2= 3.45"
16.2	1,470	0.0464	1.51		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
22.4	1,570	Total			

Subcatchment PDA-209.1: SOLAR FARM



Summary for Subcatchment PDA-209.2: SOLAR FARM, WETLAND W/BRUSH, GRASS (UNDETAINED

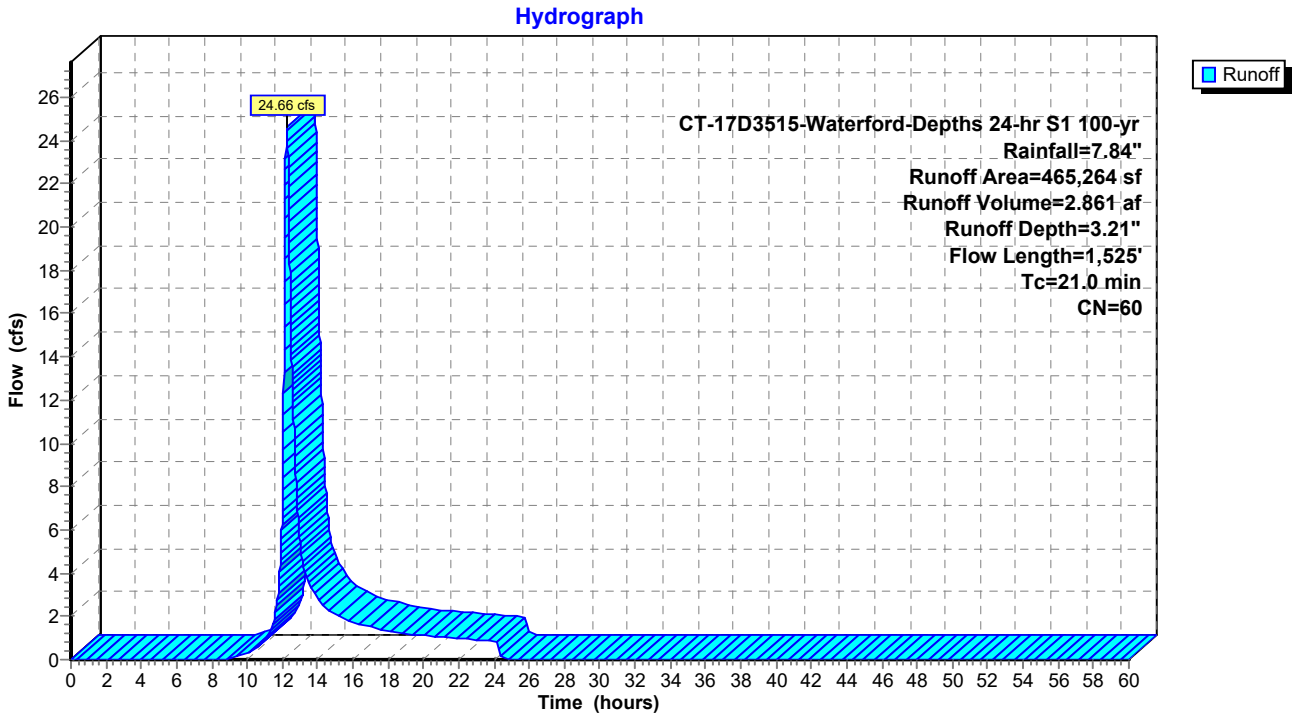
Runoff = 24.66 cfs @ 12.25 hrs, Volume= 2.861 af, Depth= 3.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
212,359	48	Brush, Good, HSG B
135,753	60	Woods, Fair, HSG B
45,724	79	Woods, Fair, HSG D
3,720	82	Dirt roads, HSG B
744	89	Dirt roads, HSG D
54,222	79	<50% Grass cover, Poor, HSG B
12,742	89	<50% Grass cover, Poor, HSG D
465,264	60	Weighted Average
465,264	60	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	100	0.1175	0.25		**Sheet Flow, SOLAR FARM** Grass: Dense n= 0.240 P2= 3.45"
14.2	1,425	0.0568	1.67		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
21.0	1,525	Total			

Subcatchment PDA-209.2: SOLAR FARM, WETLAND W/BRUSH, GRASS (UNDETAINED)+



Summary for Subcatchment PDA-210: OFFSITE BASIN (UNDISTURBED)

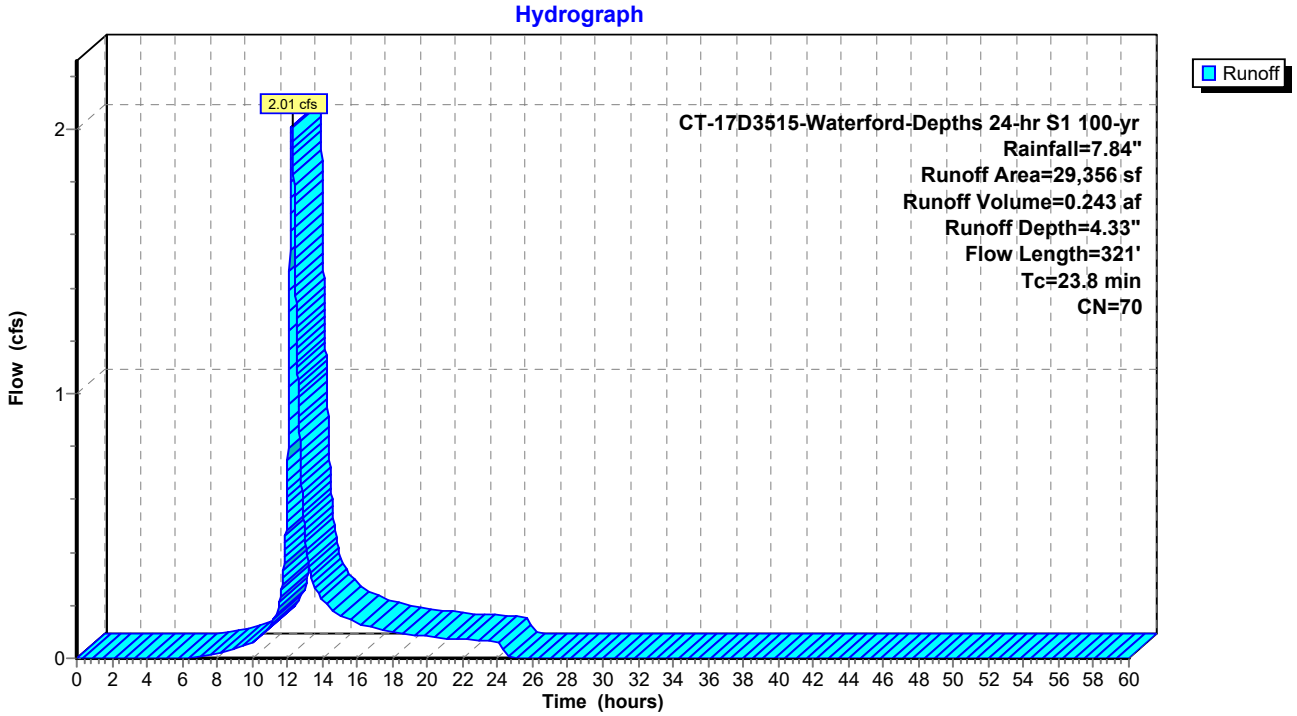
Runoff = 2.01 cfs @ 12.28 hrs, Volume= 0.243 af, Depth= 4.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
7,157	60	Woods, Fair, HSG B
22,199	73	Woods, Fair, HSG C
29,356	70	Weighted Average
29,356	70	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.2	100	0.0187	0.08		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
2.6	221	0.0830	1.44		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
23.8	321	Total			

Subcatchment PDA-210: OFFSITE BASIN (UNDISTURBED)



Summary for Subcatchment PDA-211: UNDEVELOPED FOREST (UNDISTURBED)

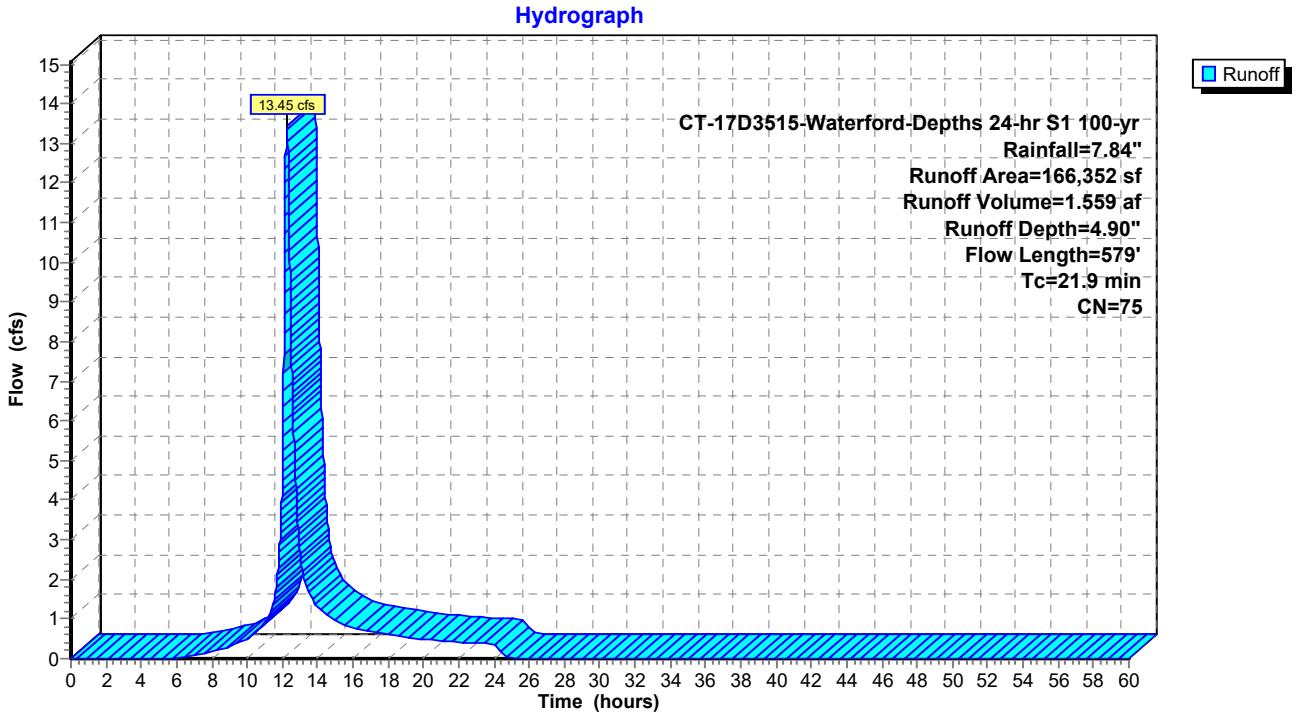
Runoff = 13.45 cfs @ 12.24 hrs, Volume= 1.559 af, Depth= 4.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
13,831	60	Woods, Fair, HSG B
63,994	73	Woods, Fair, HSG C
88,527	79	Woods, Fair, HSG D
166,352	75	Weighted Average
166,352	75	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.7	100	0.0824	0.14		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
10.2	479	0.0244	0.78		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
21.9	579	Total			

Subcatchment PDA-211: UNDEVELOPED FOREST (UNDISTURBED)



Summary for Subcatchment PDA-212.1: SOLAR FARM

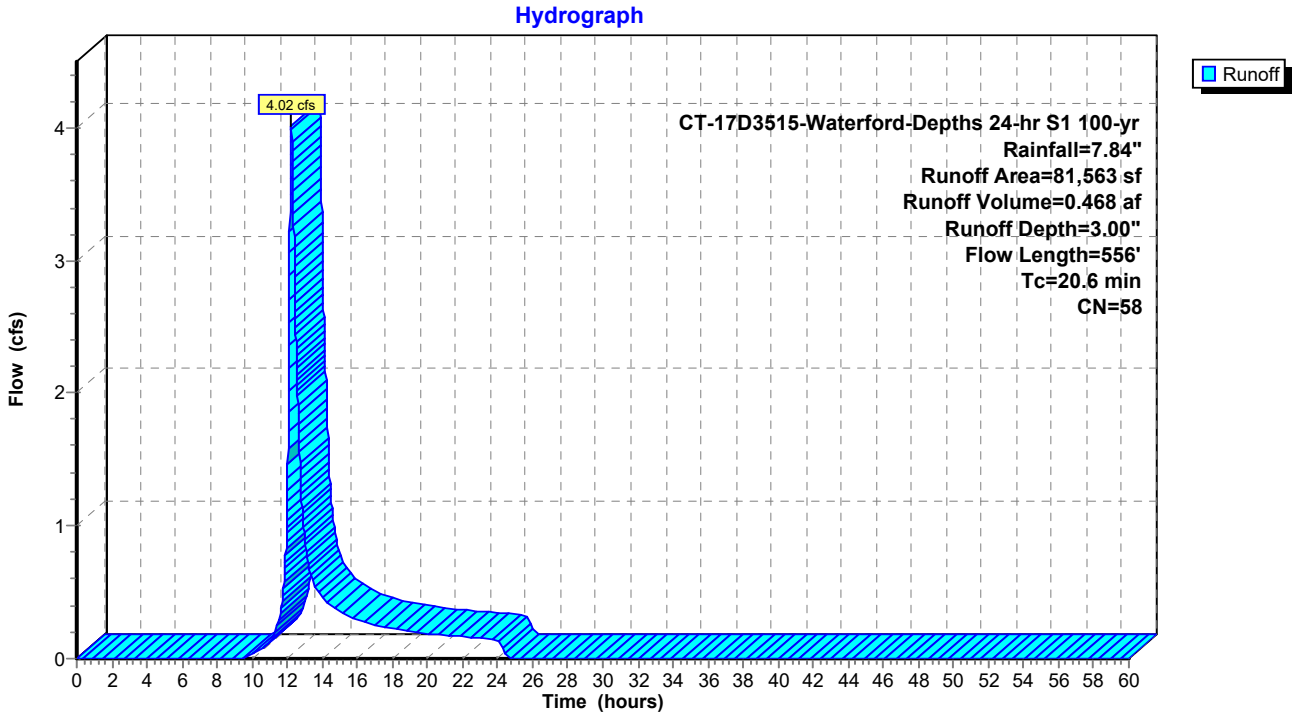
Runoff = 4.02 cfs @ 12.25 hrs, Volume= 0.468 af, Depth= 3.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
81,224	58	Meadow, non-grazed, HSG B
313	71	Meadow, non-grazed, HSG C
26	85	Gravel roads, HSG B
81,563	58	Weighted Average
81,563	58	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.5	100	0.0408	0.11		**Sheet Flow, Solar Farm** Woods: Light underbrush n= 0.400 P2= 3.45"
5.1	456	0.0902	1.50		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
20.6	556	Total			

Subcatchment PDA-212.1: SOLAR FARM



Summary for Subcatchment PDA-212.2: GRASS (UNDETAINED)

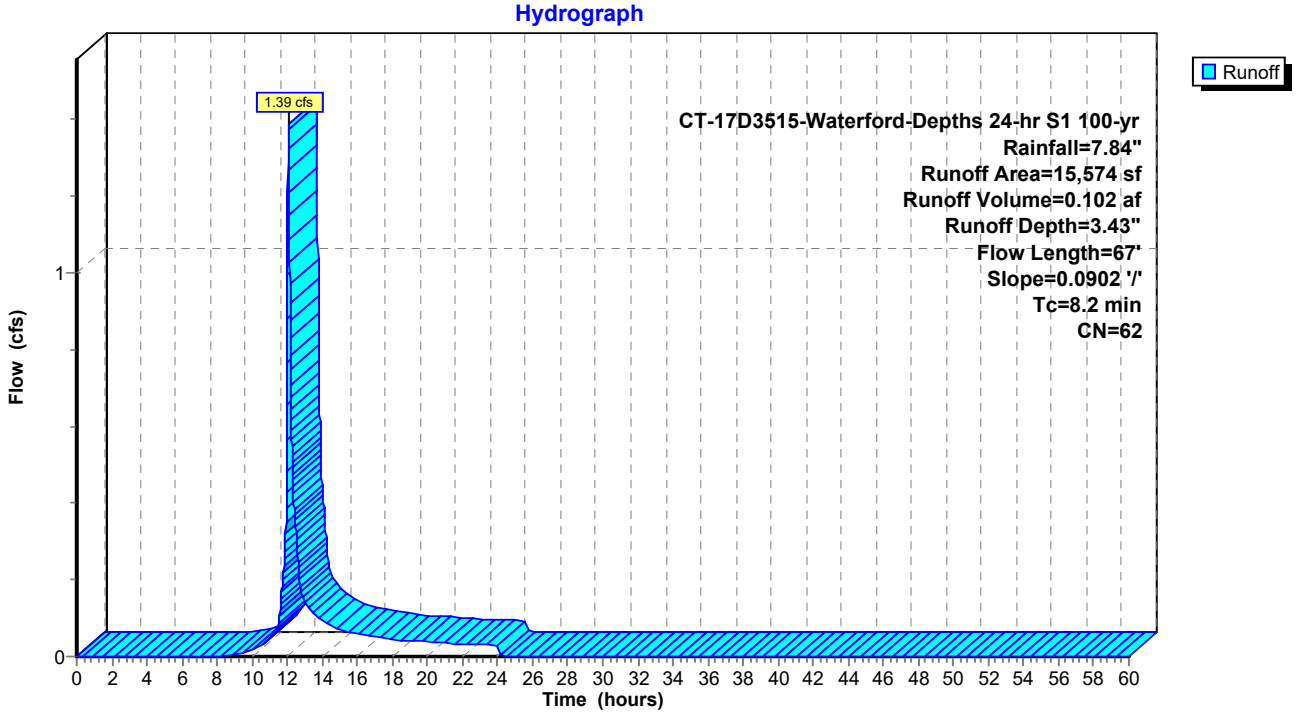
Runoff = 1.39 cfs @ 12.07 hrs, Volume= 0.102 af, Depth= 3.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
11,275	58	Meadow, non-grazed, HSG B
4,299	71	Meadow, non-grazed, HSG C
15,574	62	Weighted Average
15,574	62	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	67	0.0902	0.14		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"

Subcatchment PDA-212.2: GRASS (UNDETAINED)



Summary for Subcatchment PDA-213: ACCESS ROAD, GRASS (UNDETAINED)

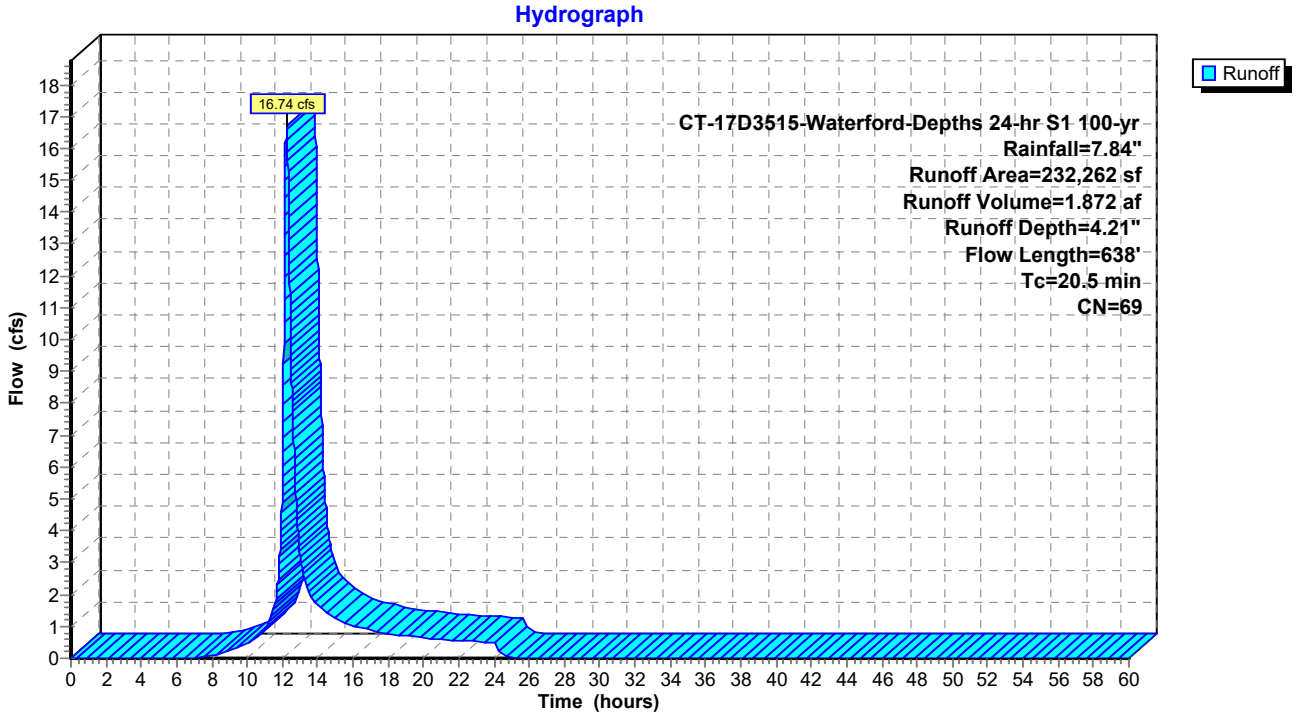
Runoff = 16.74 cfs @ 12.23 hrs, Volume= 1.872 af, Depth= 4.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
91,925	60	Woods, Fair, HSG B
126,448	73	Woods, Fair, HSG C
5,026	85	Gravel roads, HSG B
8,863	89	Gravel roads, HSG C
232,262	69	Weighted Average
232,262	69	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	100	0.1921	0.20		**Sheet Flow, Woods** Woods: Light underbrush n= 0.400 P2= 3.45"
12.1	538	0.0220	0.74		**Shallow Concentrated Flow, Woods** Woodland Kv= 5.0 fps
20.5	638	Total			

Subcatchment PDA-213: ACCESS ROAD, GRASS (UNDETAINED)



Summary for Subcatchment PDA-300.1: SOLAR FARM

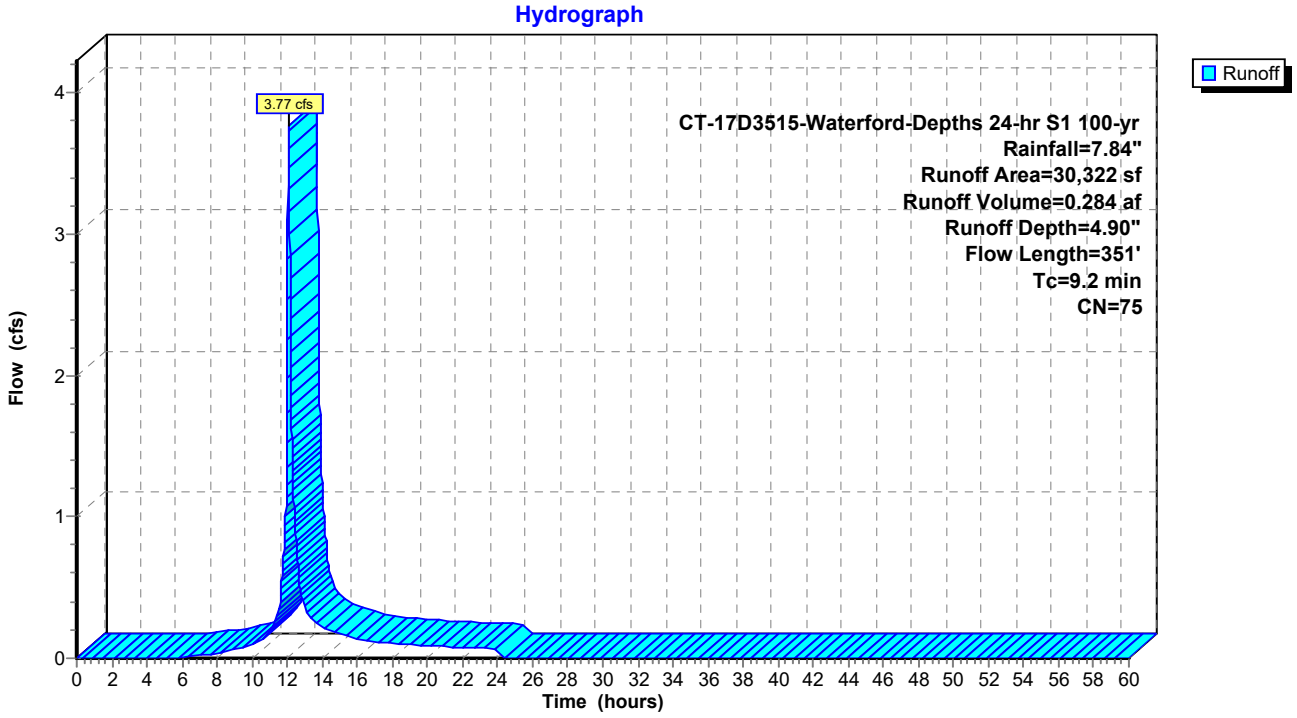
Runoff = 3.77 cfs @ 12.07 hrs, Volume= 0.284 af, Depth= 4.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
4,127	58	Meadow, non-grazed, HSG B
26,195	78	Meadow, non-grazed, HSG D
30,322	75	Weighted Average
30,322	75	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	100	0.0420	0.24		**Sheet Flow, Solar Farm** Grass: Short n= 0.150 P2= 3.45"
2.2	251	0.0750	1.92		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
9.2	351	Total			

Subcatchment PDA-300.1: SOLAR FARM



Summary for Subcatchment PDA-300.2: GRASS (UNDETAINED)

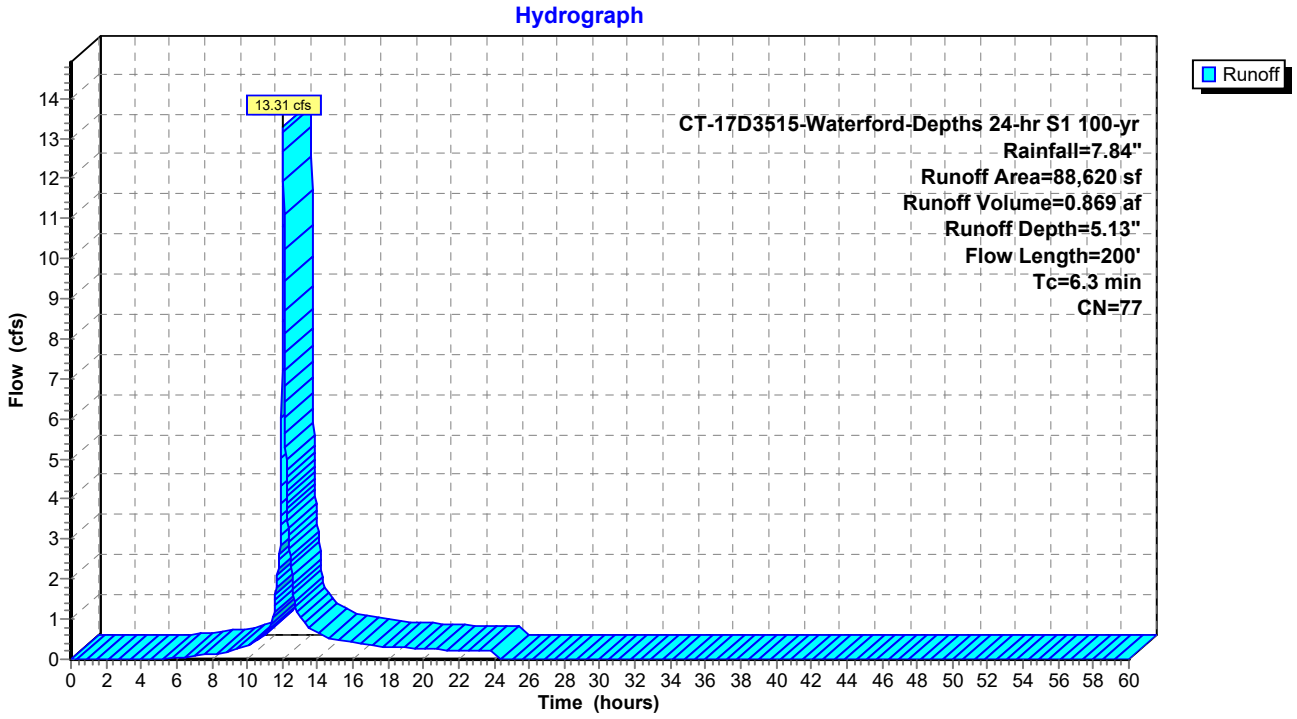
Runoff = 13.31 cfs @ 12.04 hrs, Volume= 0.869 af, Depth= 5.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
88,620	77	Brush, Fair, HSG D
88,620	77	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.1737	0.29		**Sheet Flow, Forest Brush** Grass: Dense n= 0.240 P2= 3.45"
0.5	100	0.5200	3.61		**Shallow Concentrated Flow, Forest Brush** Woodland Kv= 5.0 fps
6.3	200	Total			

Subcatchment PDA-300.2: GRASS (UNDETAINED)



Summary for Subcatchment PDA-301.1: SOLAR FARM

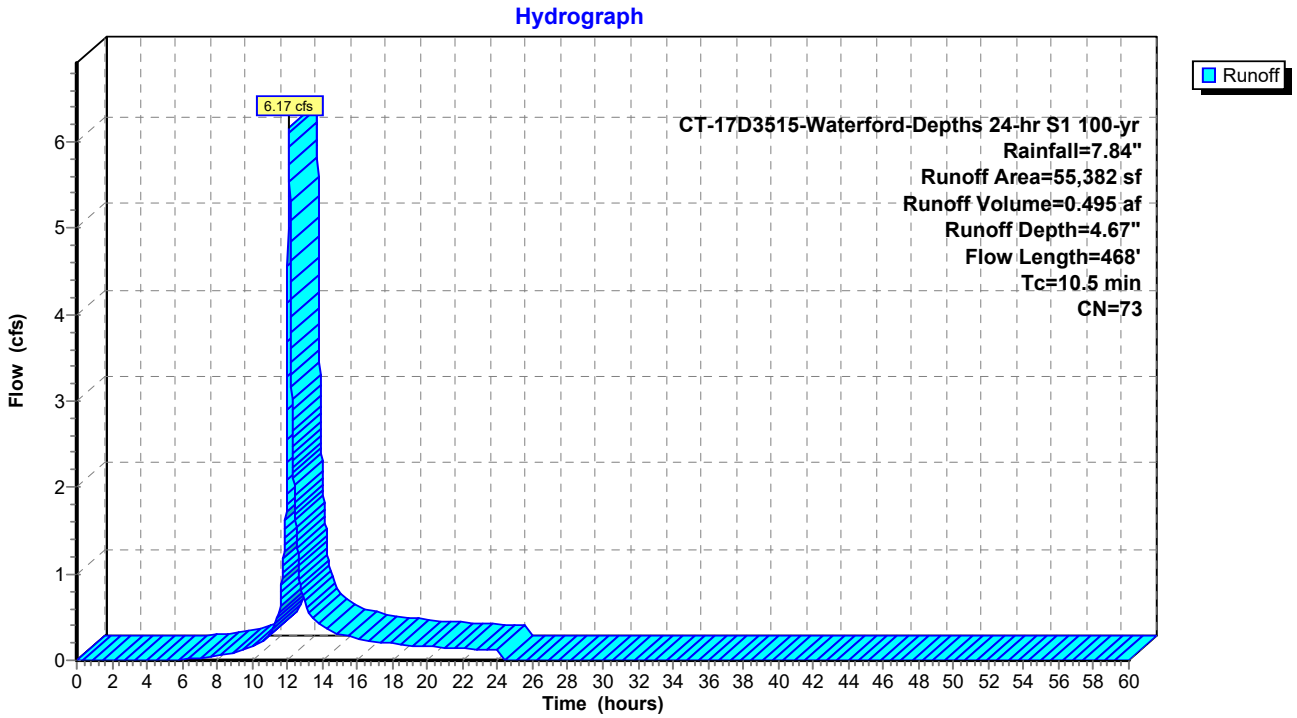
Runoff = 6.17 cfs @ 12.09 hrs, Volume= 0.495 af, Depth= 4.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
14,711	58	Meadow, non-grazed, HSG B
378	85	Gravel roads, HSG B
40,039	78	Meadow, non-grazed, HSG D
254	91	Gravel roads, HSG D
55,382	73	Weighted Average
55,382	73	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	100	0.0403	0.23		**Sheet Flow, SOLAR FARM** Grass: Short n= 0.150 P2= 3.45"
3.4	368	0.0652	1.79		**Shallow Concentrated Flow, SOLAR FARM** Short Grass Pasture Kv= 7.0 fps
10.5	468	Total			

Subcatchment PDA-301.1: SOLAR FARM



Summary for Subcatchment PDA-301.2: GRASS (UNDETAINED)

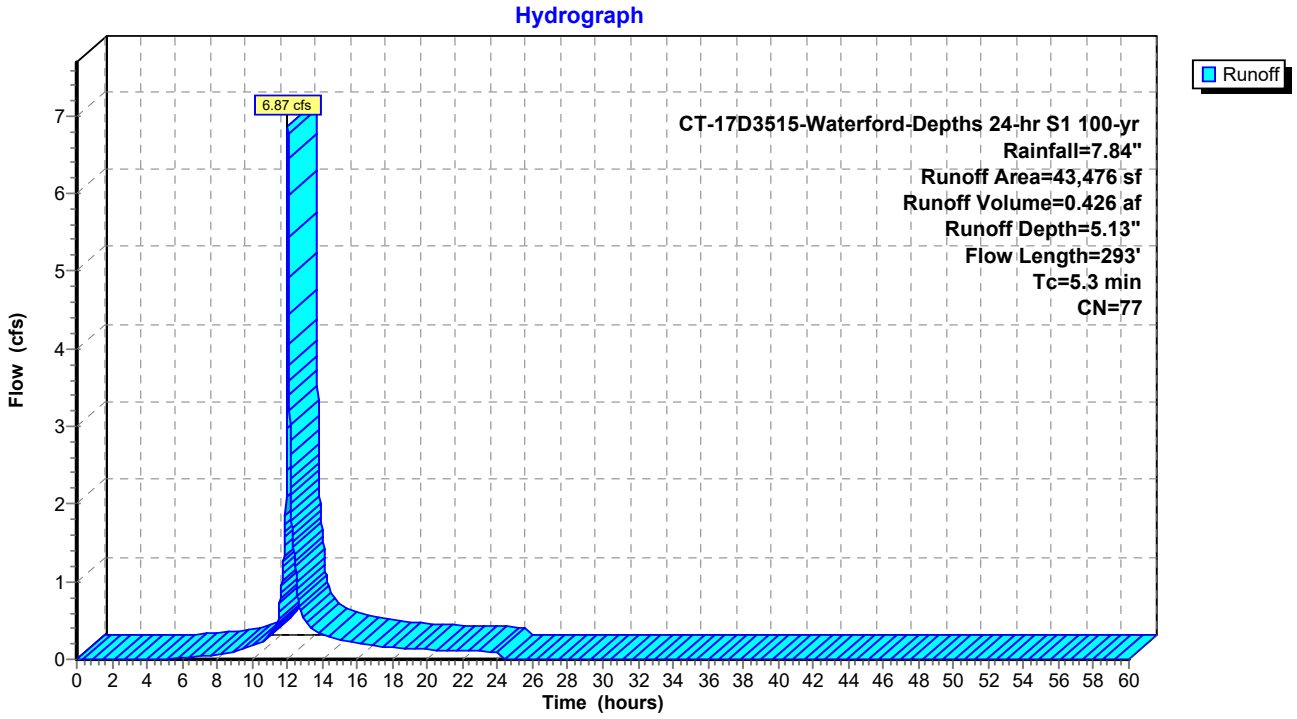
Runoff = 6.87 cfs @ 12.03 hrs, Volume= 0.426 af, Depth= 5.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
43,476	77	Brush, Fair, HSG D
43,476	77	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	100	0.3310	0.37		**Sheet Flow, Solar Farm** Grass: Dense n= 0.240 P2= 3.45"
0.8	193	0.3300	4.02		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
5.3	293	Total			

Subcatchment PDA-301.2: GRASS (UNDETAINED)



Summary for Subcatchment PDA-302.1: Solar Farm

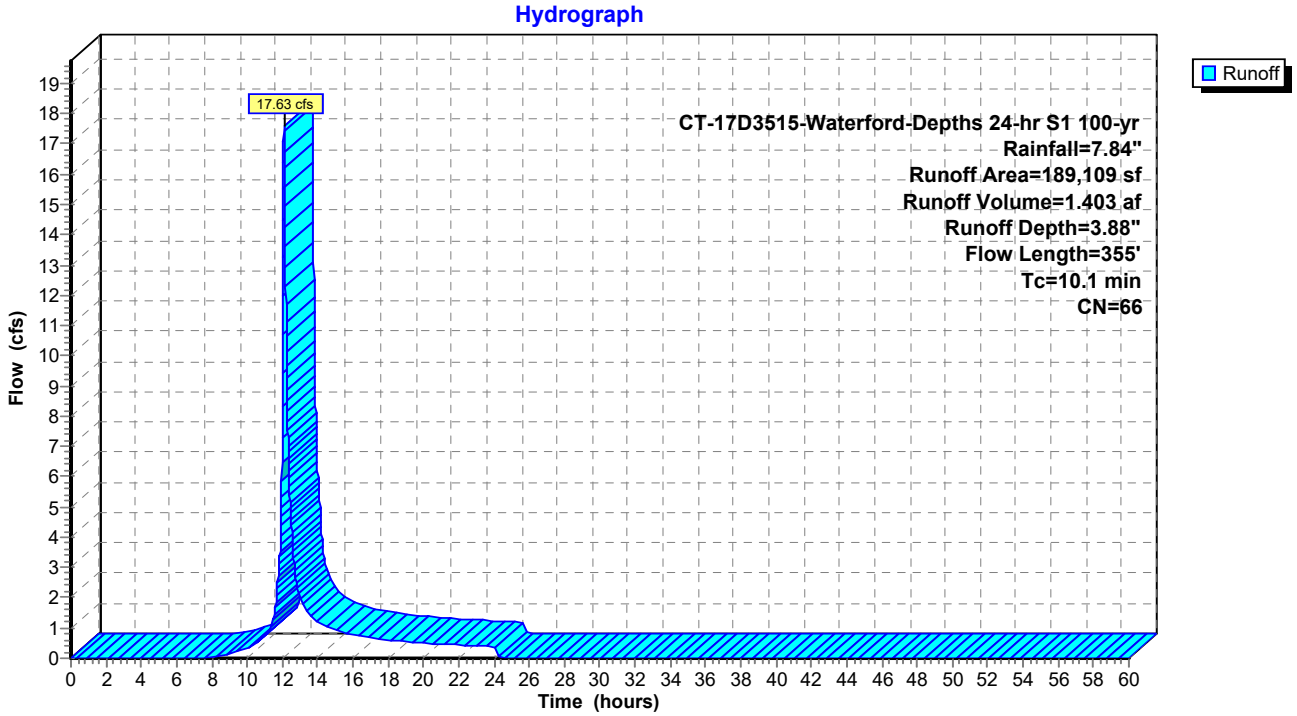
Runoff = 17.63 cfs @ 12.09 hrs, Volume= 1.403 af, Depth= 3.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
109,756	58	Meadow, non-grazed, HSG B
79,353	78	Meadow, non-grazed, HSG D
189,109	66	Weighted Average
189,109	66	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	100	0.0346	0.22		**Sheet Flow, Solar Farm** Grass: Short n= 0.150 P2= 3.45"
2.5	255	0.0603	1.72		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
10.1	355	Total			

Subcatchment PDA-302.1: Solar Farm



Summary for Subcatchment PDA-302.2: GRASS (UNDETAINED)

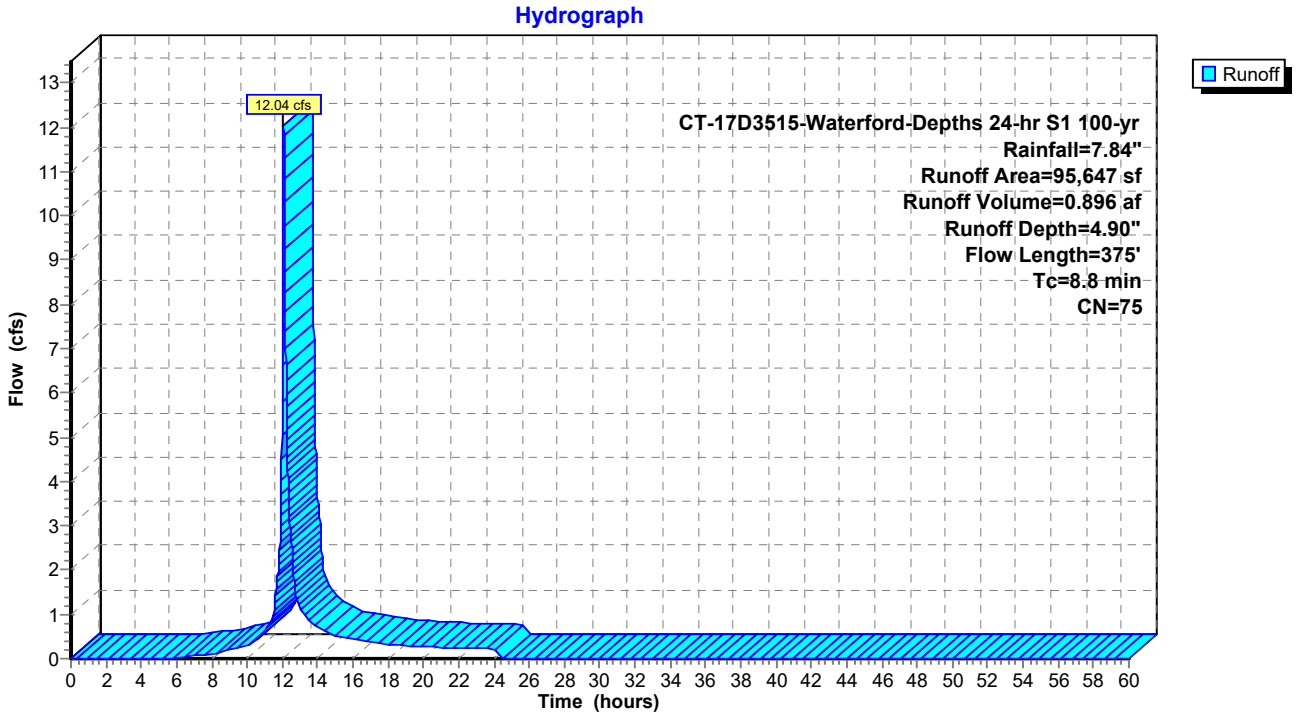
Runoff = 12.04 cfs @ 12.07 hrs, Volume= 0.896 af, Depth= 4.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
7,023	56	Brush, Fair, HSG B
82,142	77	Brush, Fair, HSG D
6,482	77	Brush, Fair, HSG D
95,647	75	Weighted Average
95,647	75	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.0333	0.22		**Sheet Flow, Solar Farm** Grass: Short n= 0.150 P2= 3.45"
1.1	275	0.3413	4.09		**Shallow Concentrated Flow, Solar Farm** Short Grass Pasture Kv= 7.0 fps
8.8	375	Total			

Subcatchment PDA-302.2: GRASS (UNDETAINED)



Summary for Subcatchment PDA-303.1: SOLAR FARM

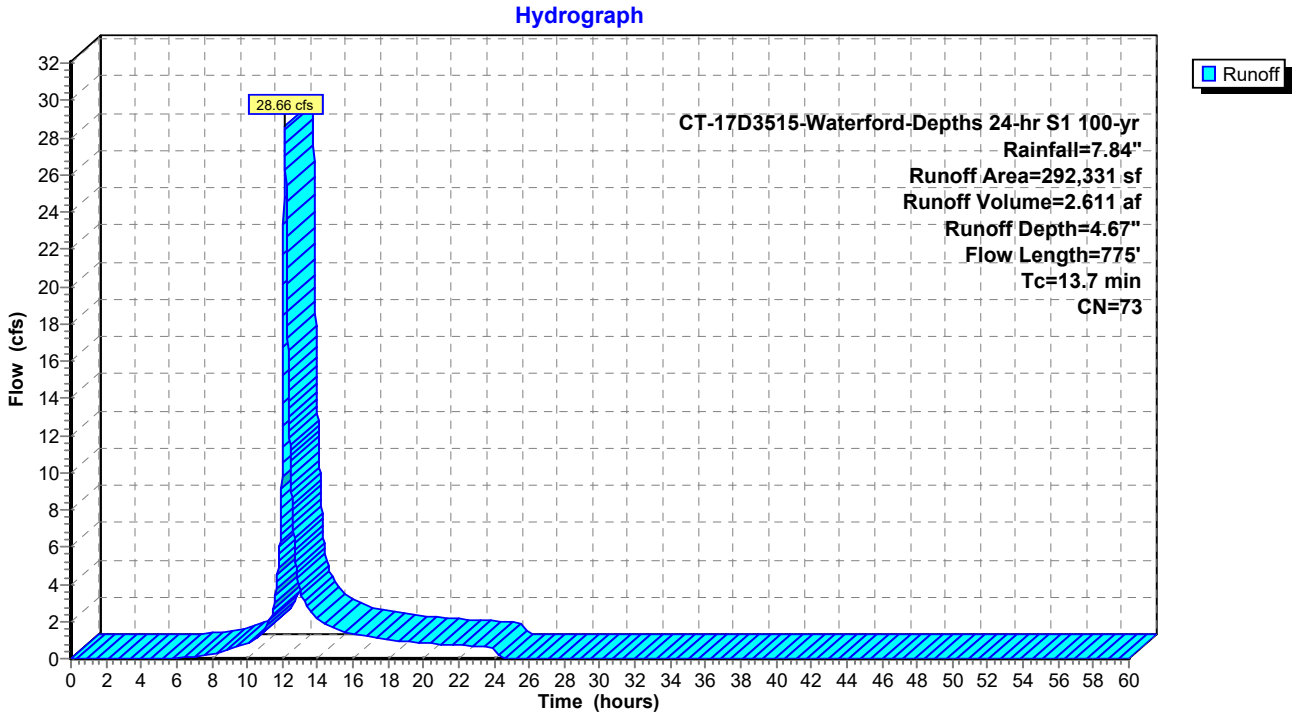
Runoff = 28.66 cfs @ 12.14 hrs, Volume= 2.611 af, Depth= 4.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
30,997	58	Meadow, non-grazed, HSG B
114,707	71	Meadow, non-grazed, HSG C
146,627	78	Meadow, non-grazed, HSG D
292,331	73	Weighted Average
292,331	73	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.8	100	0.0239	0.19		**Sheet Flow, SOLAR FARM** Grass: Short n= 0.150 P2= 3.45"
4.9	675	0.1087	2.31		**Shallow Concentrated Flow, SOLAR FARM** Short Grass Pasture Kv= 7.0 fps
13.7	775	Total			

Subcatchment PDA-303.1: SOLAR FARM



Summary for Subcatchment PDA-303.2: GRASS (UNDETAINED)

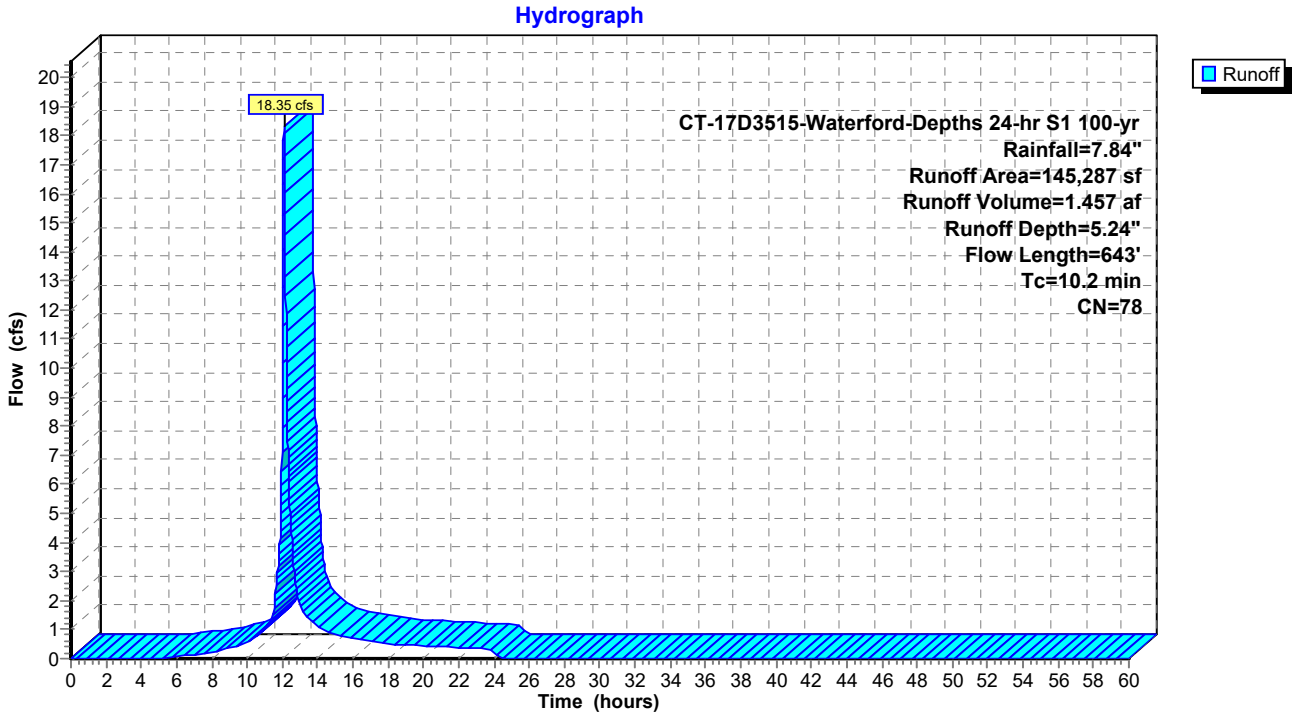
Runoff = 18.35 cfs @ 12.09 hrs, Volume= 1.457 af, Depth= 5.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
4,609	56	Brush, Fair, HSG B
35,202	77	Brush, Fair, HSG D
105,476	79	Woods, Fair, HSG D
145,287	78	Weighted Average
145,287	78	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	100	0.1777	0.29		**Sheet Flow, SOLAR FARM** Grass: Dense n= 0.240 P2= 3.45"
4.5	543	0.1639	2.02		**Shallow Concentrated Flow, SOLAR FARM** Woodland Kv= 5.0 fps
10.2	643	Total			

Subcatchment PDA-303.2: GRASS (UNDETAINED)



Summary for Subcatchment PDA-304.1: SOLAR FARM

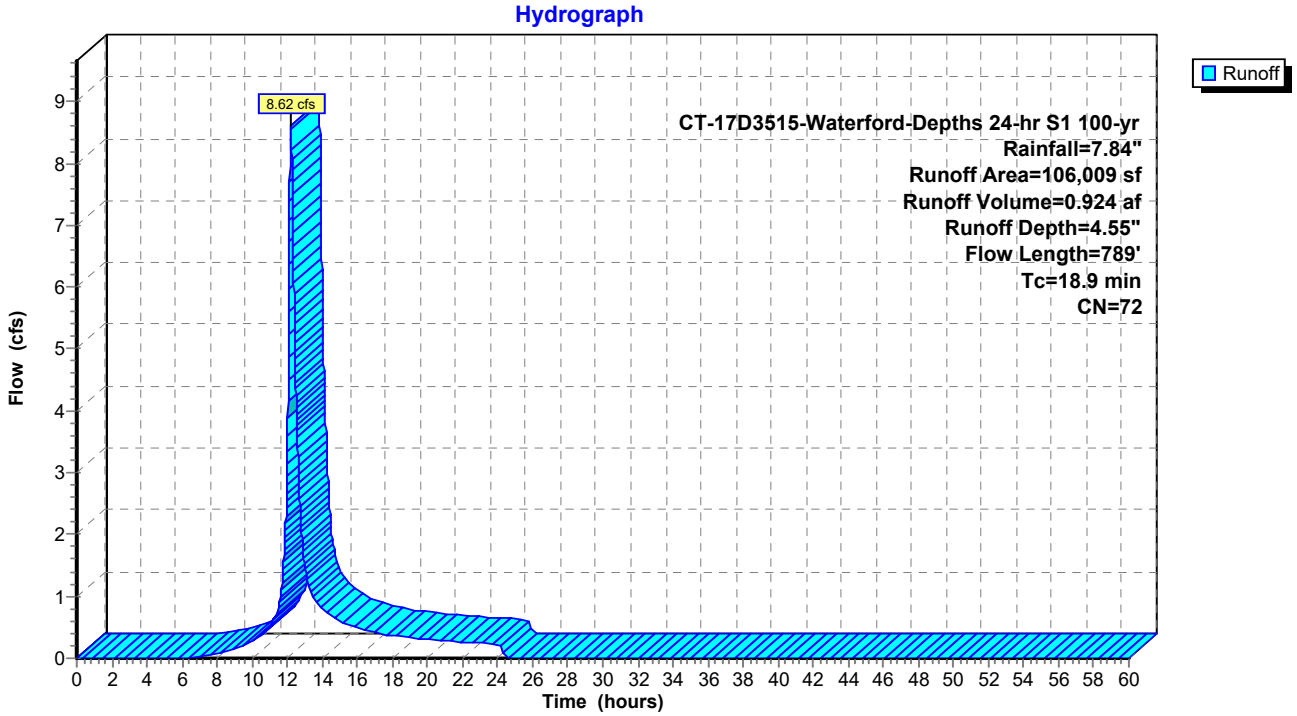
Runoff = 8.62 cfs @ 12.21 hrs, Volume= 0.924 af, Depth= 4.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
89,702	71	Meadow, non-grazed, HSG C
16,307	78	Meadow, non-grazed, HSG D
106,009	72	Weighted Average
106,009	72	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	100	0.0136	0.15		**Sheet Flow, SOLAR FARM** Grass: Short n= 0.150 P2= 3.45"
7.9	689	0.0431	1.45		**Shallow Concentrated Flow, SOLAR FARM** Short Grass Pasture Kv= 7.0 fps
18.9	789	Total			

Subcatchment PDA-304.1: SOLAR FARM



Summary for Subcatchment PDA-304.2: SOLAR FARM, ACESS ROAD, GRASS (UNDETAINED)

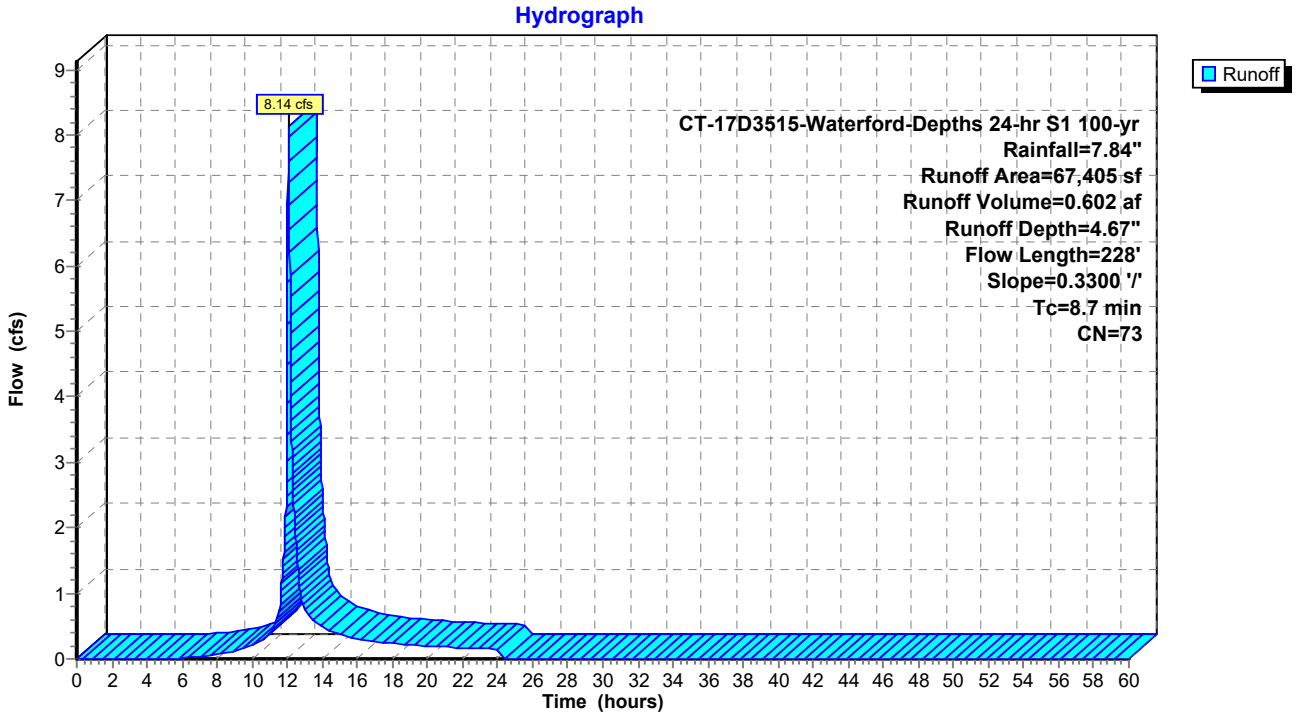
Runoff = 8.14 cfs @ 12.07 hrs, Volume= 0.602 af, Depth= 4.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
67,405	73	Brush, Good, HSG D
67,405	73	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	228	0.3300	0.44		**Sheet Flow, SOLAR FARM** Grass: Dense n= 0.240 P2= 3.45"

Subcatchment PDA-304.2: SOLAR FARM, ACESS ROAD, GRASS (UNDETAINED)



Summary for Subcatchment PDA-305.1: SOLAR FARM

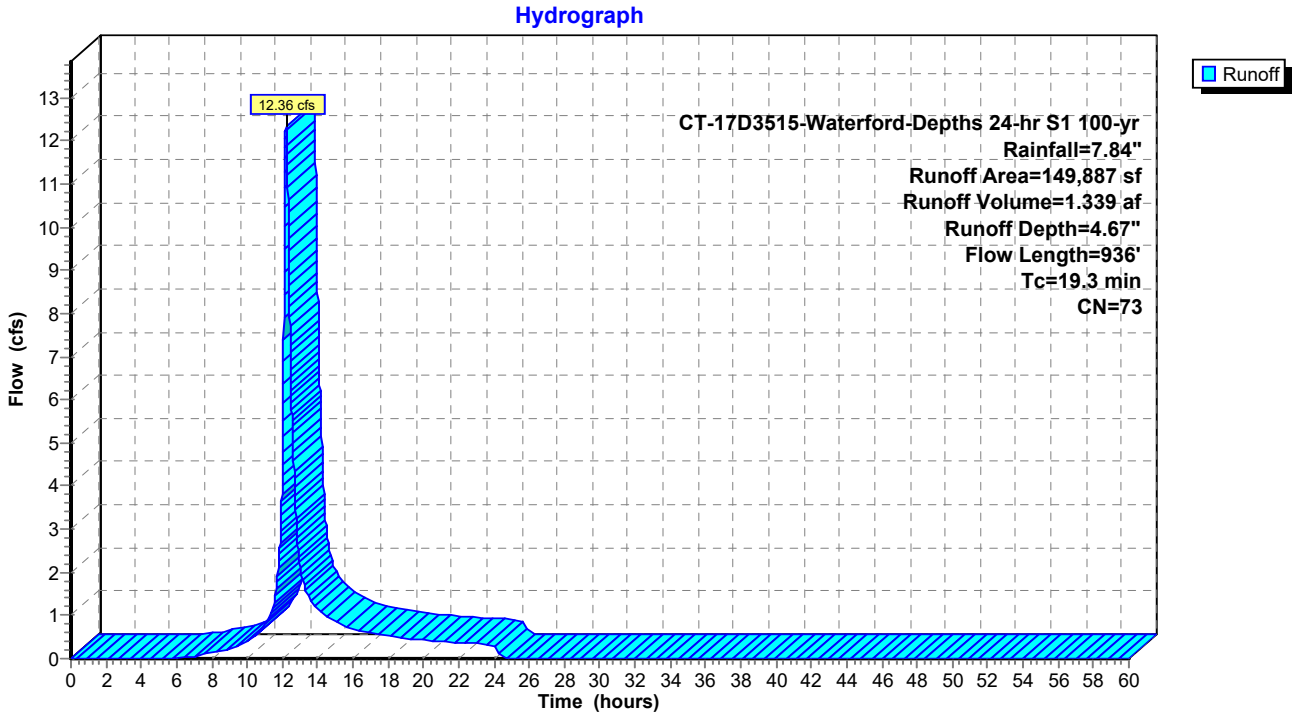
Runoff = 12.36 cfs @ 12.21 hrs, Volume= 1.339 af, Depth= 4.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
118,692	71	Meadow, non-grazed, HSG C
21,359	78	Meadow, non-grazed, HSG D
9,836	89	Gravel roads, HSG C
149,887	73	Weighted Average
149,887	73	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0197	0.18		**Sheet Flow, SOLAR FARM** Grass: Short n= 0.150 P2= 3.45"
9.8	836	0.0415	1.43		**Shallow Concentrated Flow, SOLAR FARM** Short Grass Pasture Kv= 7.0 fps
19.3	936	Total			

Subcatchment PDA-305.1: SOLAR FARM



Summary for Subcatchment PDA-305.2: ACCESS ROAD, GRASS (UNDETAINED)

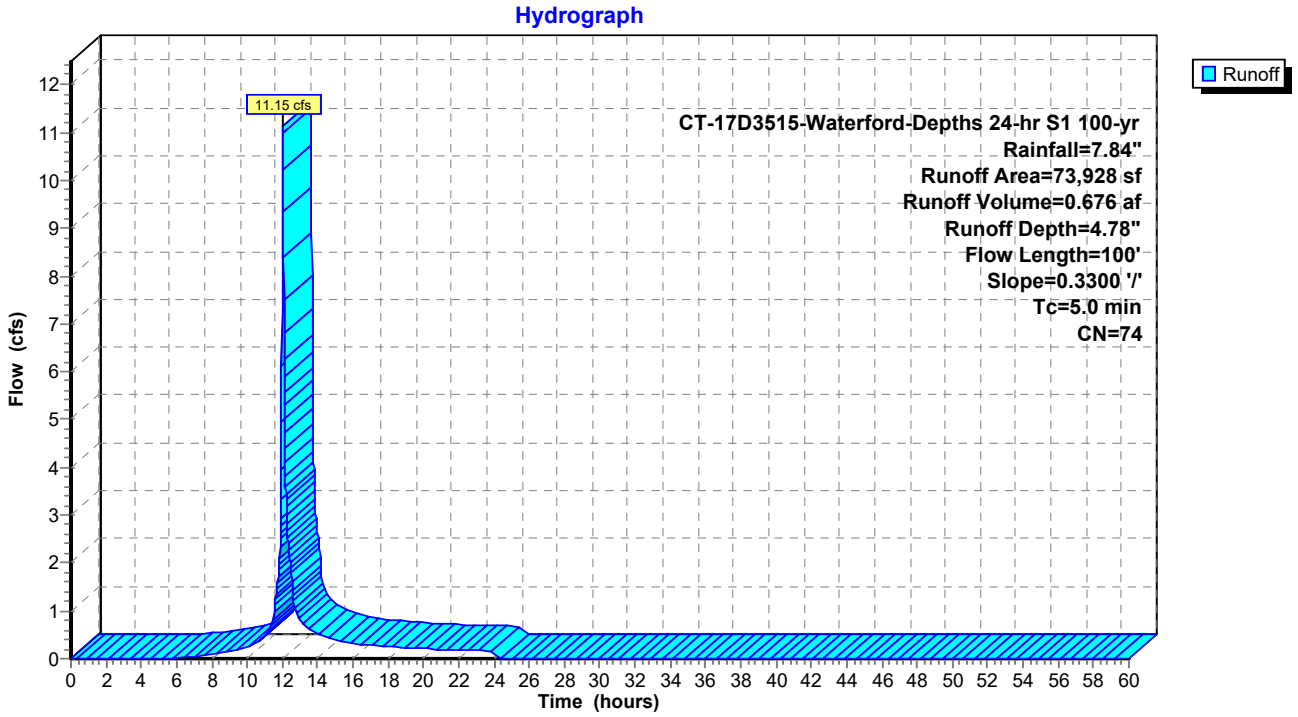
Runoff = 11.15 cfs @ 12.03 hrs, Volume= 0.676 af, Depth= 4.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
CT-17D3515-Waterford-Depths 24-hr S1 100-yr Rainfall=7.84"

Area (sf)	CN	Description
15,407	65	Brush, Good, HSG C
48,036	73	Brush, Good, HSG D
658	86	<50% Grass cover, Poor, HSG C
540	89	Gravel roads, HSG C
9,287	91	Gravel roads, HSG D
73,928	74	Weighted Average
73,928	74	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	100	0.3300	0.37		**Sheet Flow, SOLAR FARM** Grass: Dense n= 0.240 P2= 3.45"
4.5	100	Total, Increased to minimum Tc = 5.0 min			

Subcatchment PDA-305.2: ACCESS ROAD, GRASS (UNDETAINED)

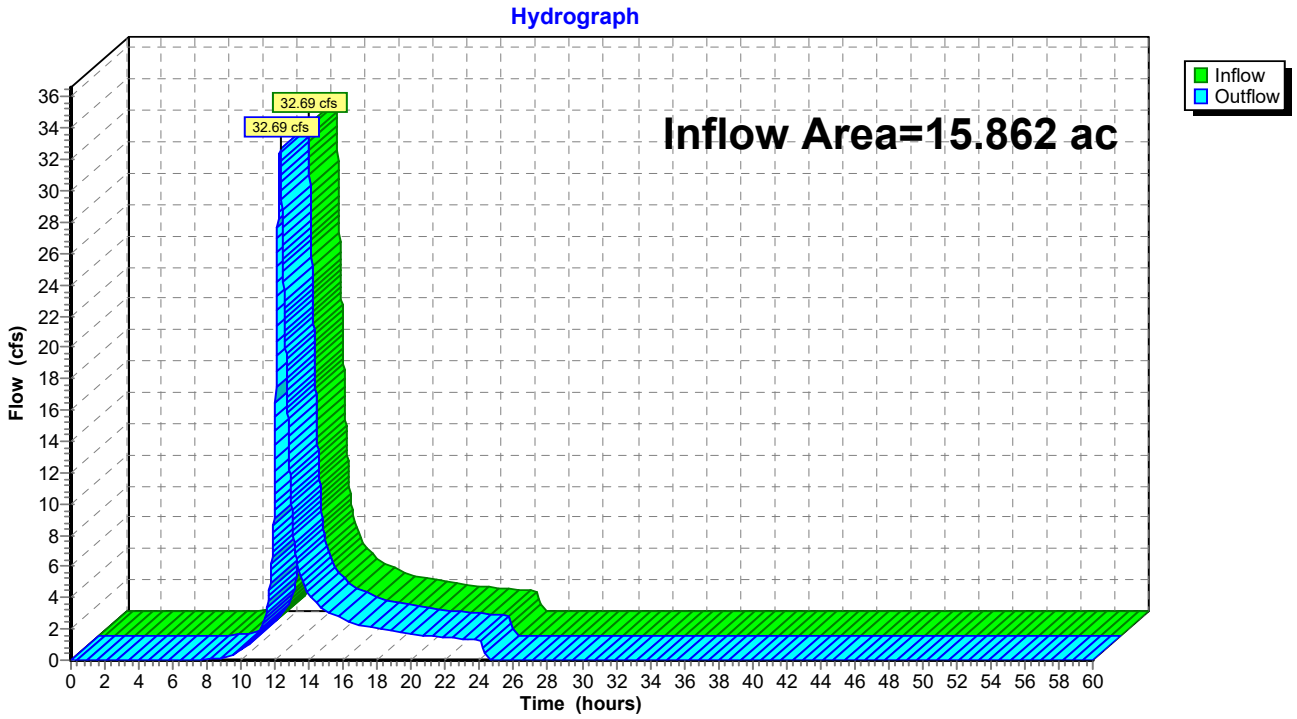


Summary for Reach DP-1: DISCHARGE OFFSITE TOWARDS STONY BROOK

Inflow Area = 15.862 ac, 1.63% Impervious, Inflow Depth = 3.37" for 100-yr event
Inflow = 32.69 cfs @ 12.29 hrs, Volume= 4.455 af
Outflow = 32.69 cfs @ 12.29 hrs, Volume= 4.455 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-1: DISCHARGE OFFSITE TOWARDS STONY BROOK

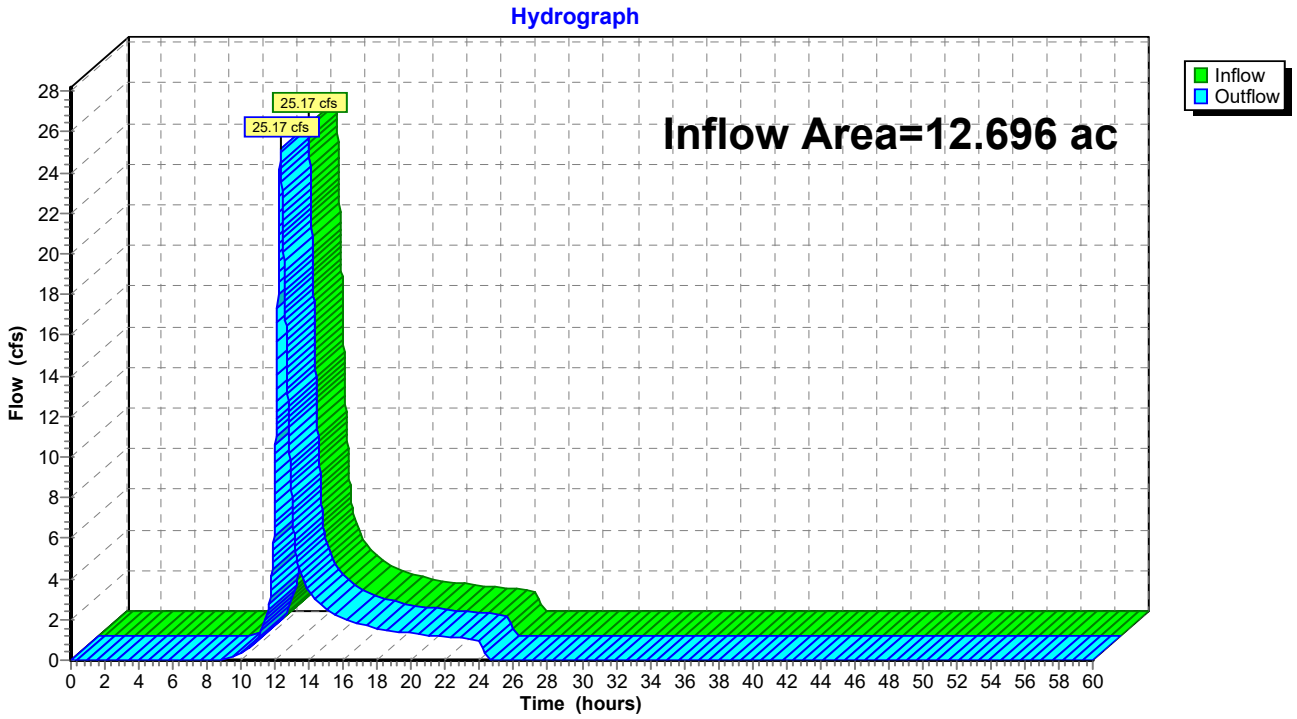


Summary for Reach DP-100: DISCHARGE OFFSITE

Inflow Area = 12.696 ac, 1.30% Impervious, Inflow Depth = 3.20" for 100-yr event
Inflow = 25.17 cfs @ 12.31 hrs, Volume= 3.387 af
Outflow = 25.17 cfs @ 12.31 hrs, Volume= 3.387 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-100: DISCHARGE OFFSITE

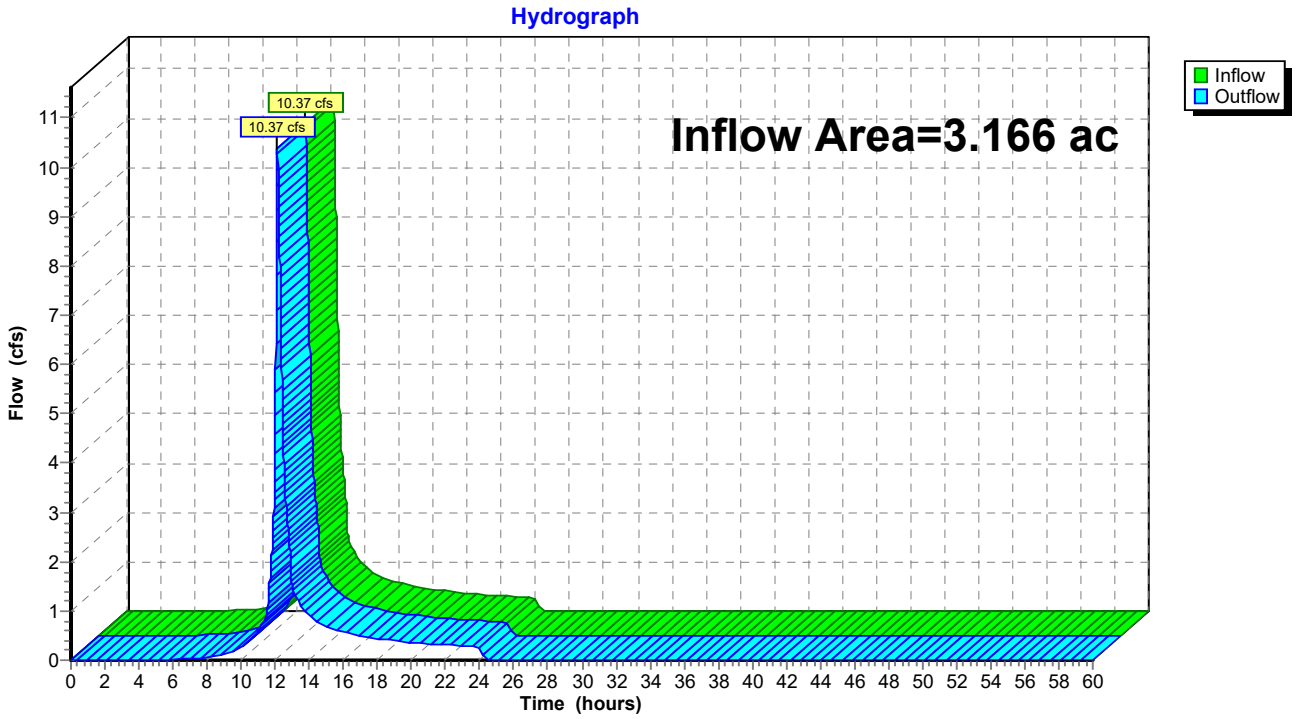


Summary for Reach DP-101: DISCHARGE OFFSITE

Inflow Area = 3.166 ac, 2.94% Impervious, Inflow Depth = 4.05" for 100-yr event
Inflow = 10.37 cfs @ 12.13 hrs, Volume= 1.069 af
Outflow = 10.37 cfs @ 12.13 hrs, Volume= 1.069 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-101: DISCHARGE OFFSITE

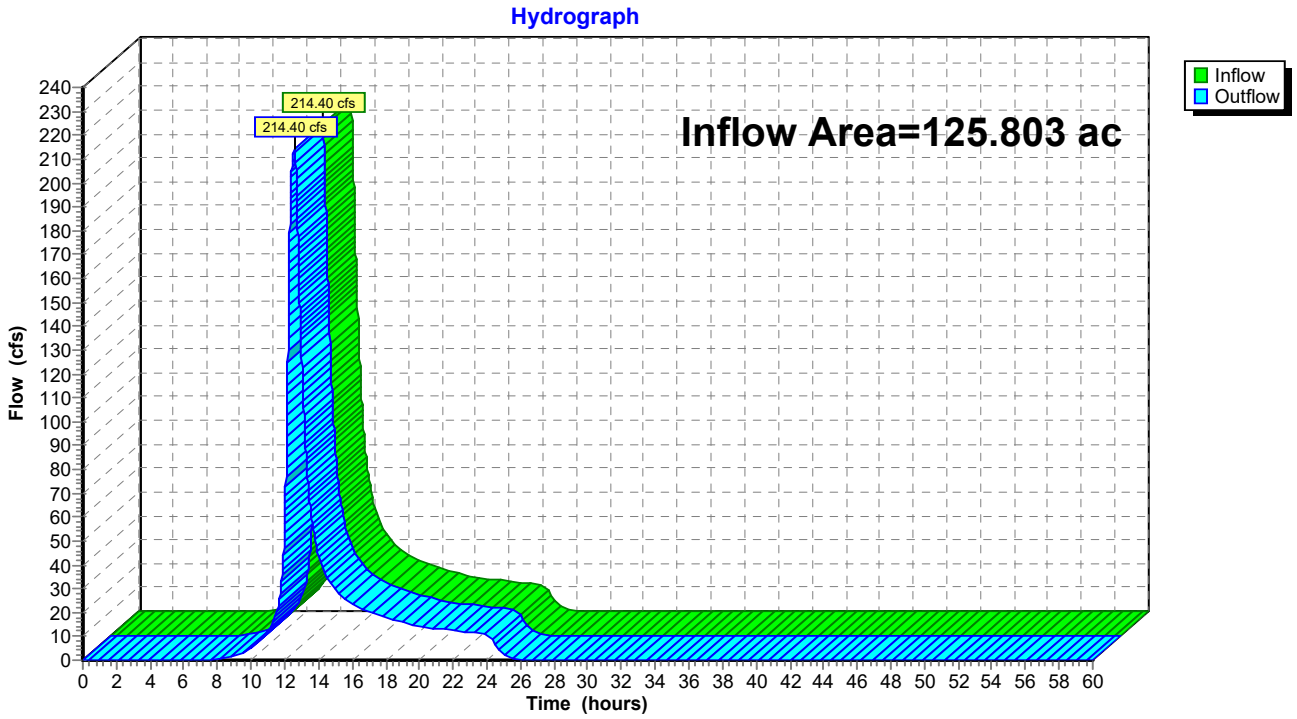


Summary for Reach DP-2: DISCHARGE TOWARDS OIL MILL BROOK

Inflow Area = 125.803 ac, 0.30% Impervious, Inflow Depth = 3.68" for 100-yr event
Inflow = 214.40 cfs @ 12.54 hrs, Volume= 38.534 af
Outflow = 214.40 cfs @ 12.54 hrs, Volume= 38.534 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-2: DISCHARGE TOWARDS OIL MILL BROOK

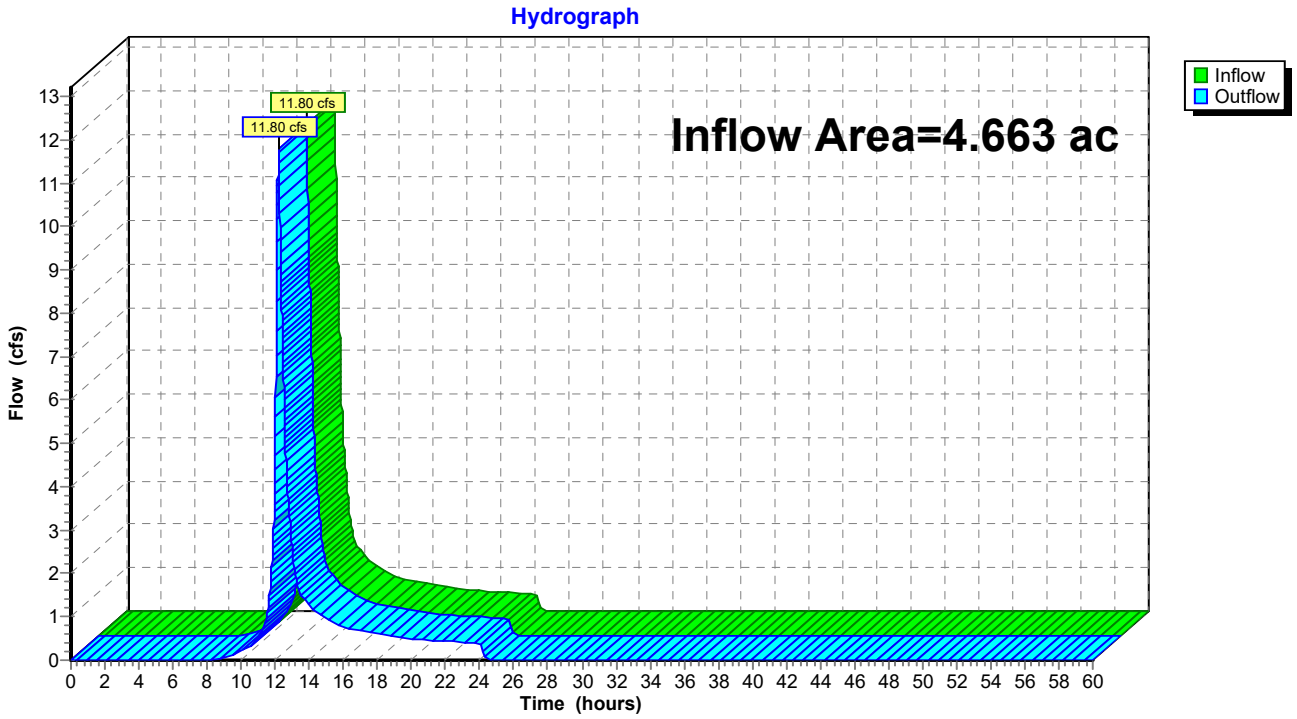


Summary for Reach DP-200: DISCHARGE OFFSITE

Inflow Area = 4.663 ac, 1.92% Impervious, Inflow Depth = 3.46" for 100-yr event
Inflow = 11.80 cfs @ 12.20 hrs, Volume= 1.346 af
Outflow = 11.80 cfs @ 12.20 hrs, Volume= 1.346 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-200: DISCHARGE OFFSITE

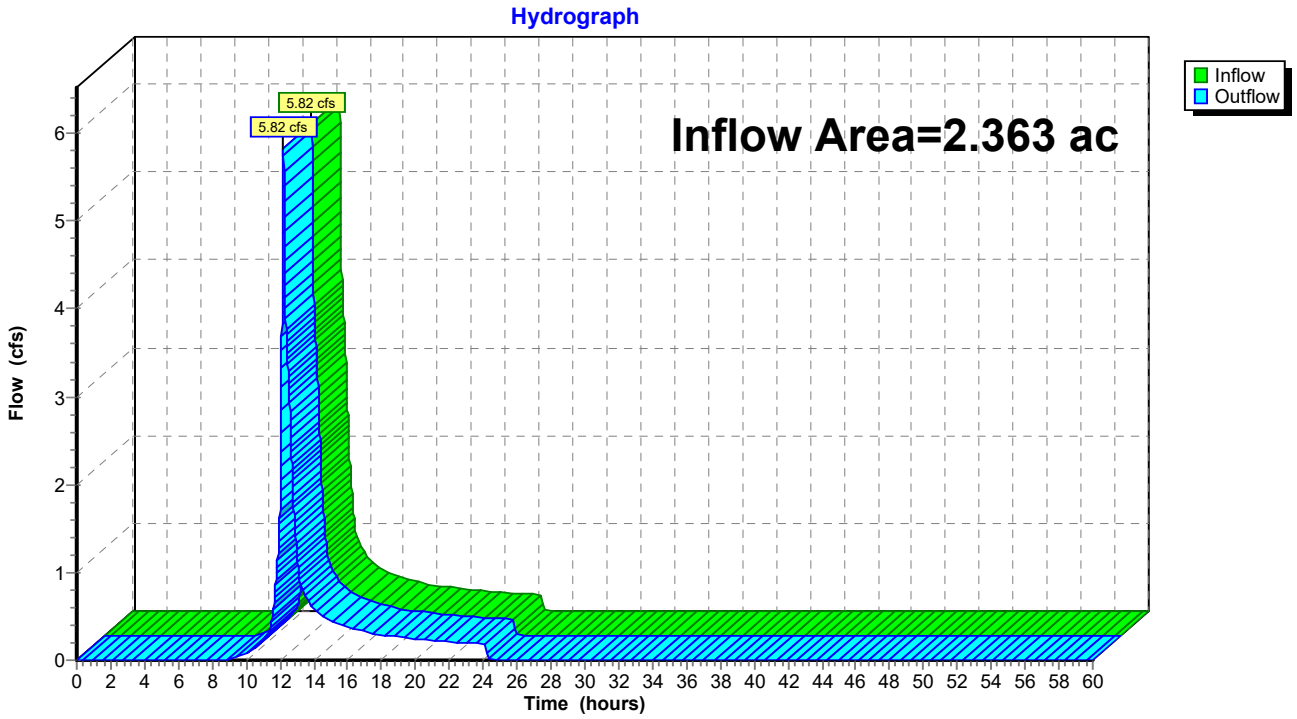


Summary for Reach DP-201: DISCHARGE OFFSITE

Inflow Area = 2.363 ac, 1.57% Impervious, Inflow Depth = 3.17" for 100-yr event
Inflow = 5.82 cfs @ 12.20 hrs, Volume= 0.625 af
Outflow = 5.82 cfs @ 12.20 hrs, Volume= 0.625 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-201: DISCHARGE OFFSITE

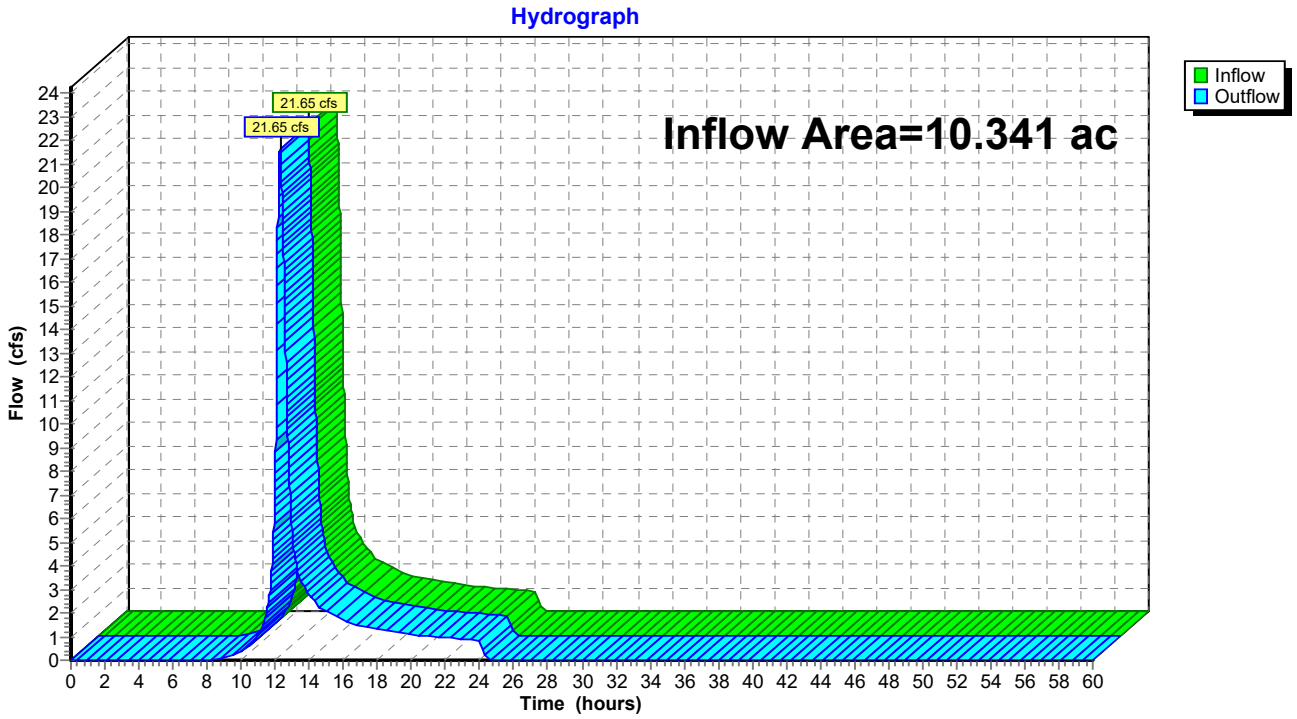


Summary for Reach DP-202: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 10.341 ac, 2.43% Impervious, Inflow Depth = 3.32" for 100-yr event
Inflow = 21.65 cfs @ 12.27 hrs, Volume= 2.864 af
Outflow = 21.65 cfs @ 12.27 hrs, Volume= 2.864 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-202: DISCHARGE TO CENTRAL WETLAND

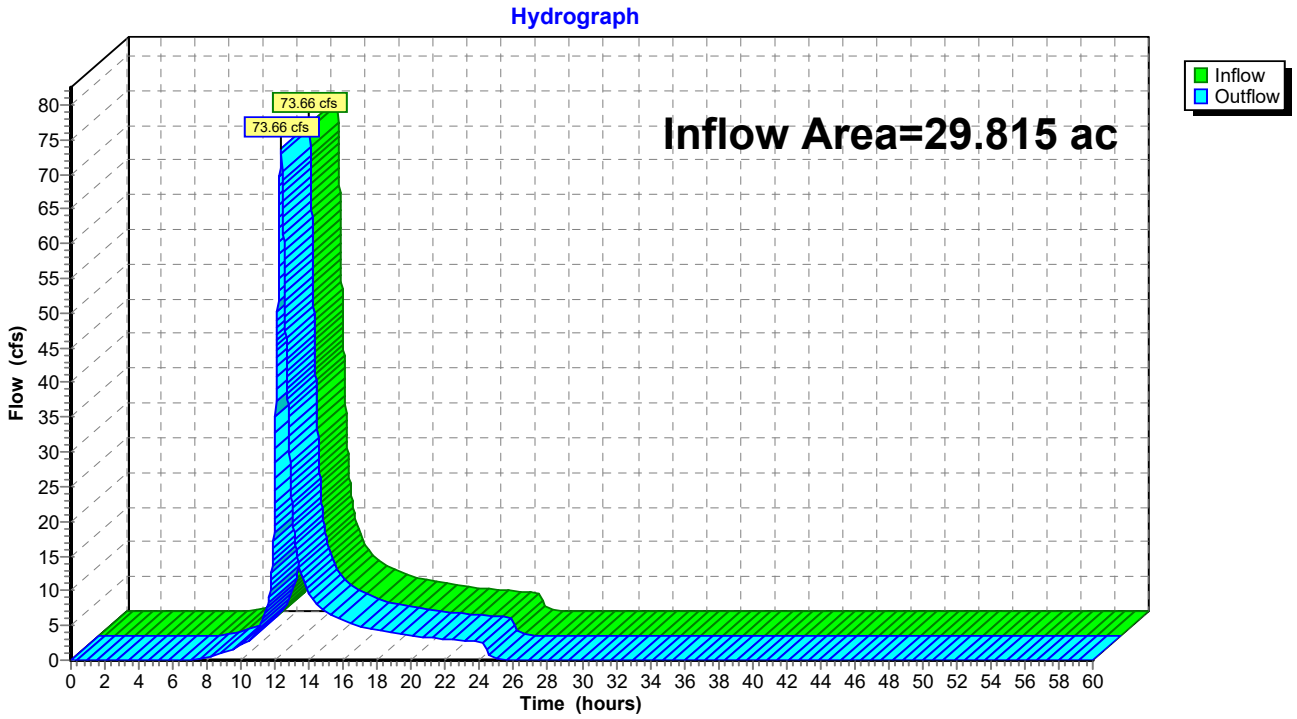


Summary for Reach DP-205: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 29.815 ac, 0.00% Impervious, Inflow Depth = 4.08" for 100-yr event
Inflow = 73.66 cfs @ 12.34 hrs, Volume= 10.135 af
Outflow = 73.66 cfs @ 12.34 hrs, Volume= 10.135 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-205: DISCHARGE TO CENTRAL WETLAND

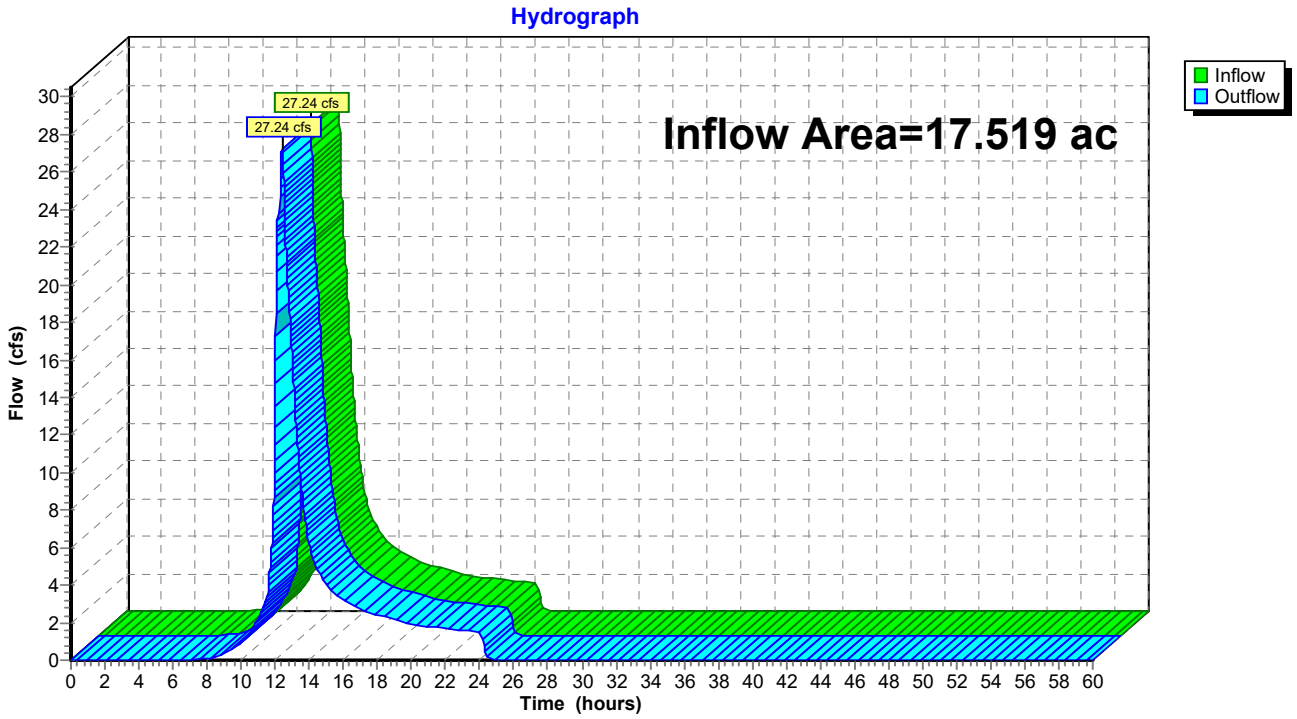


Summary for Reach DP-206: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 17.519 ac, 0.00% Impervious, Inflow Depth = 3.64" for 100-yr event
Inflow = 27.24 cfs @ 12.41 hrs, Volume= 5.310 af
Outflow = 27.24 cfs @ 12.41 hrs, Volume= 5.310 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-206: DISCHARGE TO CENTRAL WETLAND

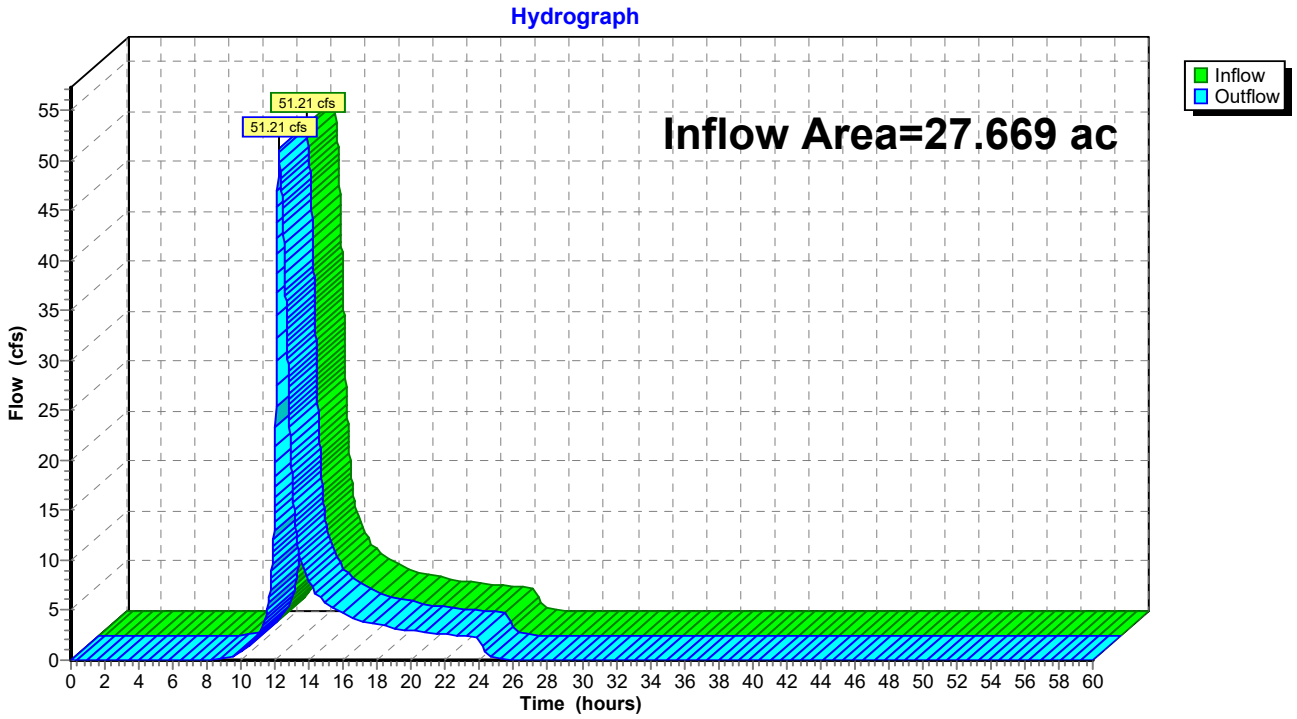


Summary for Reach DP-207: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 27.669 ac, 0.91% Impervious, Inflow Depth = 3.34" for 100-yr event
Inflow = 51.21 cfs @ 12.22 hrs, Volume= 7.697 af
Outflow = 51.21 cfs @ 12.22 hrs, Volume= 7.697 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-207: DISCHARGE TO CENTRAL WETLAND

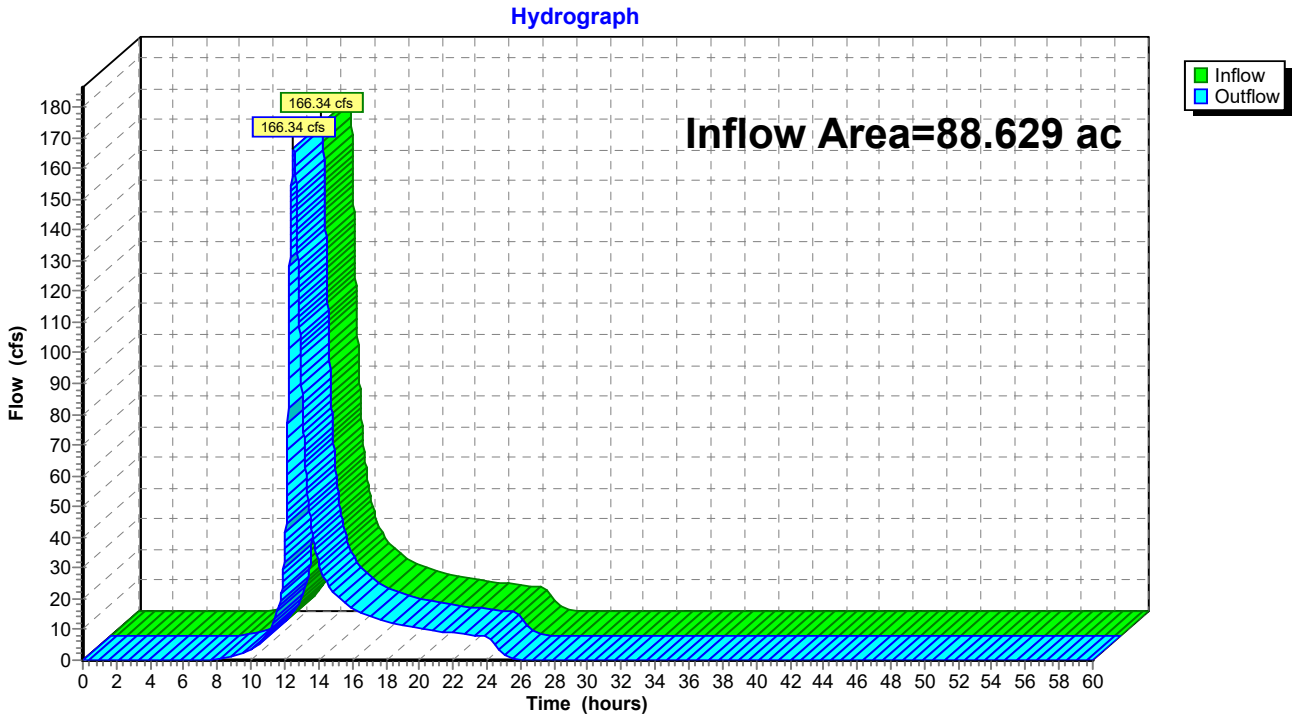


Summary for Reach DP-208: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 88.629 ac, 0.28% Impervious, Inflow Depth = 3.73" for 100-yr event
Inflow = 166.34 cfs @ 12.53 hrs, Volume= 27.544 af
Outflow = 166.34 cfs @ 12.53 hrs, Volume= 27.544 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-208: DISCHARGE TO CENTRAL WETLAND

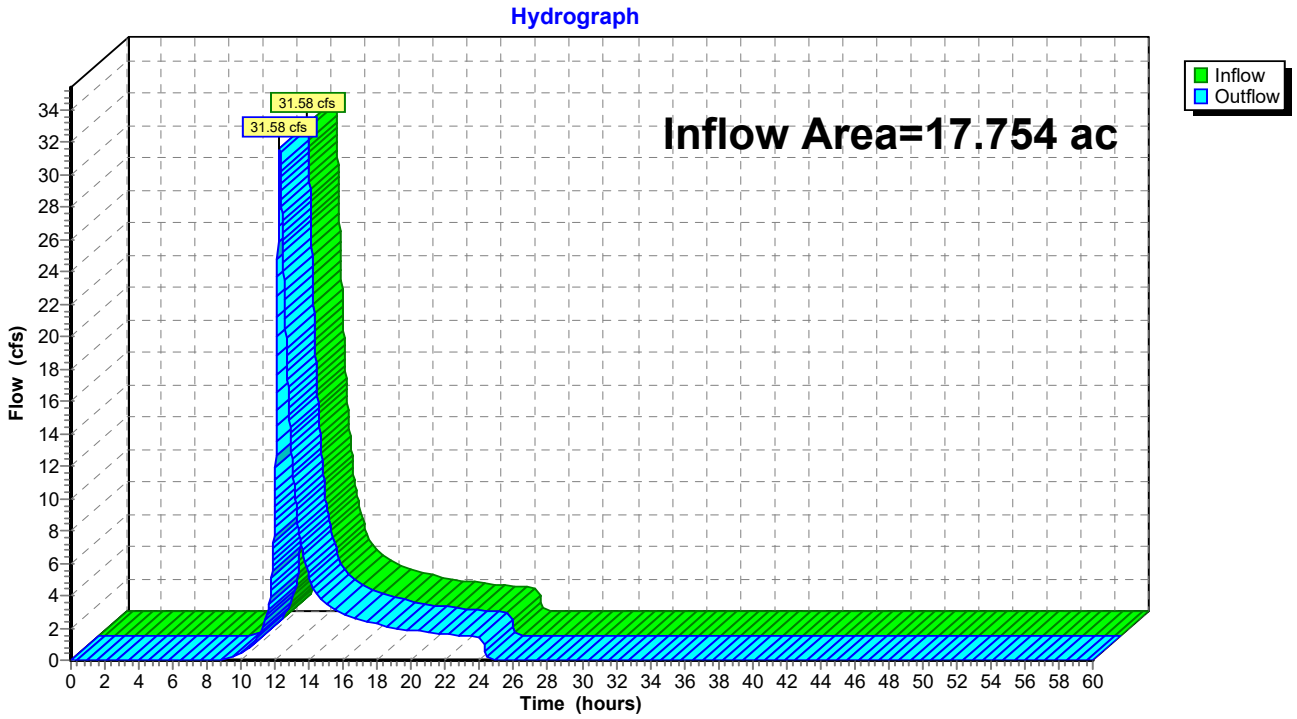


Summary for Reach DP-209: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 17.754 ac, 0.00% Impervious, Inflow Depth = 3.17" for 100-yr event
Inflow = 31.58 cfs @ 12.27 hrs, Volume= 4.691 af
Outflow = 31.58 cfs @ 12.27 hrs, Volume= 4.691 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-209: DISCHARGE TO CENTRAL WETLAND

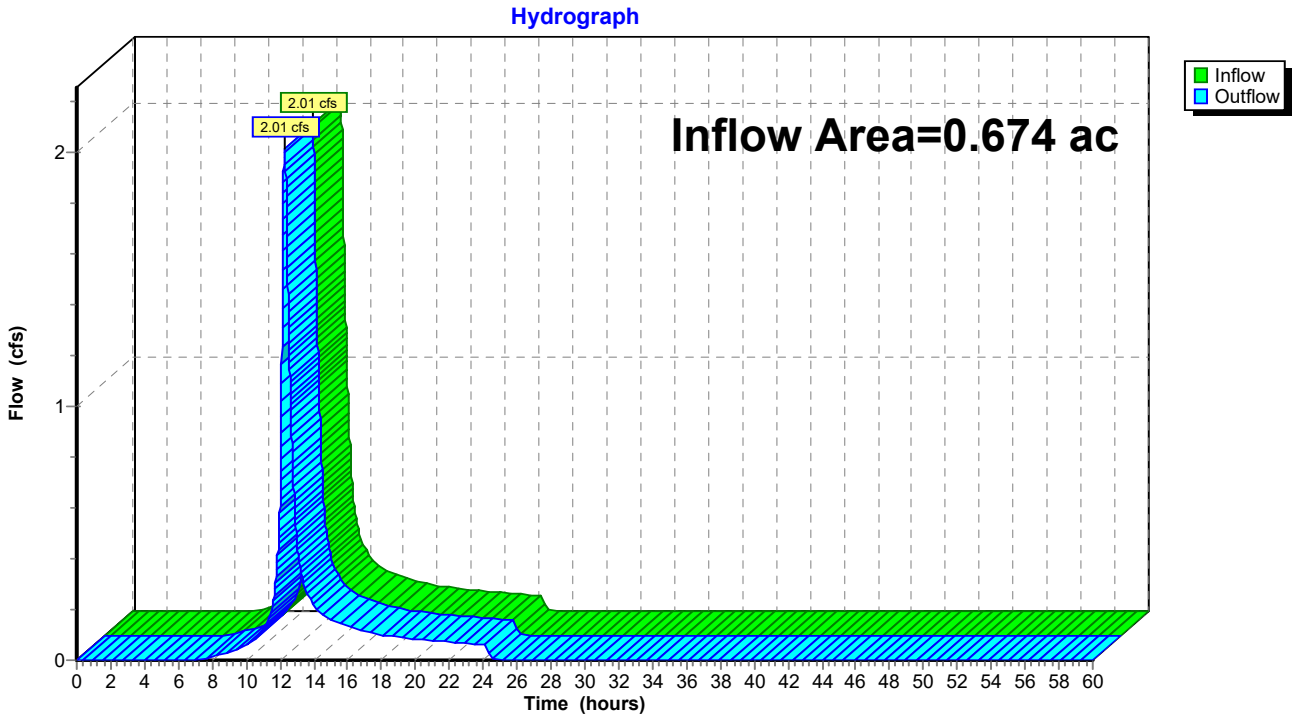


Summary for Reach DP-210: DISCHARGE TO PDA-211

Inflow Area = 0.674 ac, 0.00% Impervious, Inflow Depth = 4.33" for 100-yr event
Inflow = 2.01 cfs @ 12.28 hrs, Volume= 0.243 af
Outflow = 2.01 cfs @ 12.28 hrs, Volume= 0.243 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-210: DISCHARGE TO PDA-211

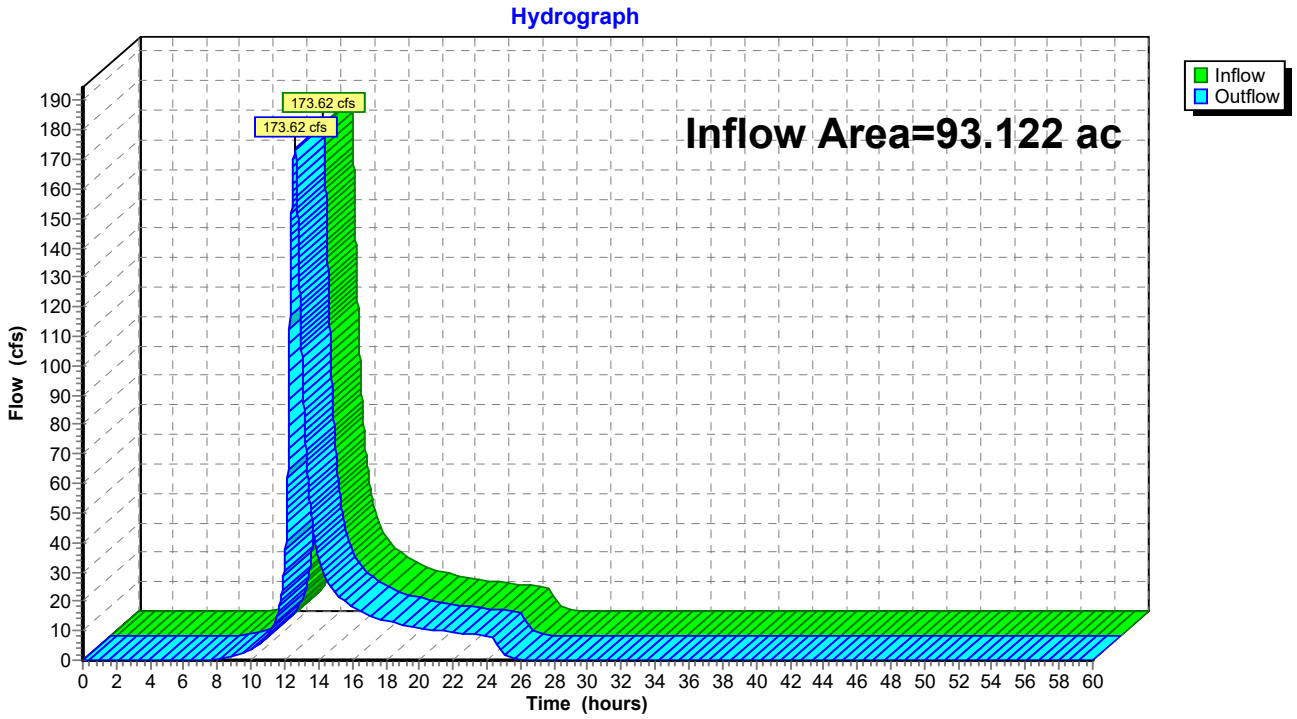


Summary for Reach DP-211: DISCHARGE TO CENTRAL WETLAND

Inflow Area = 93.122 ac, 0.27% Impervious, Inflow Depth = 3.78" for 100-yr event
Inflow = 173.62 cfs @ 12.59 hrs, Volume= 29.346 af
Outflow = 173.62 cfs @ 12.59 hrs, Volume= 29.346 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-211: DISCHARGE TO CENTRAL WETLAND

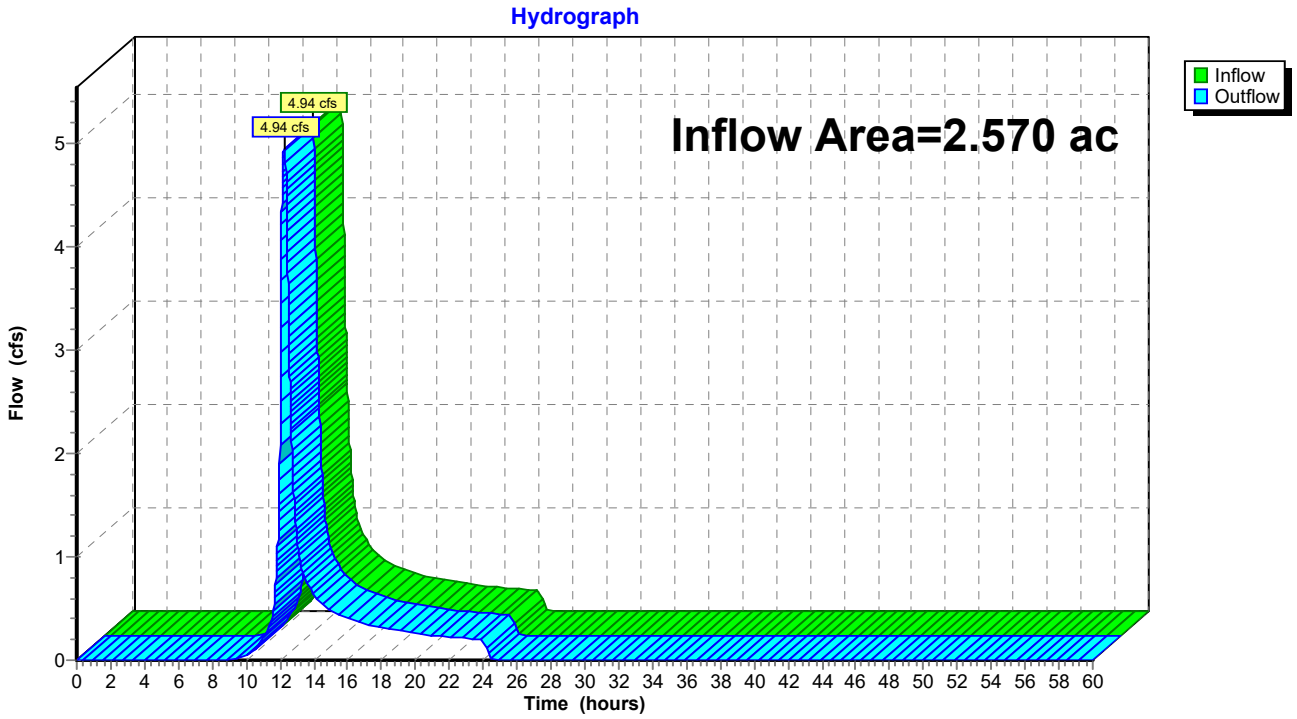


Summary for Reach DP-212: DISCHARGE OFFSITE

Inflow Area = 2.570 ac, 0.00% Impervious, Inflow Depth = 3.06" for 100-yr event
Inflow = 4.94 cfs @ 12.26 hrs, Volume= 0.655 af
Outflow = 4.94 cfs @ 12.26 hrs, Volume= 0.655 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-212: DISCHARGE OFFSITE

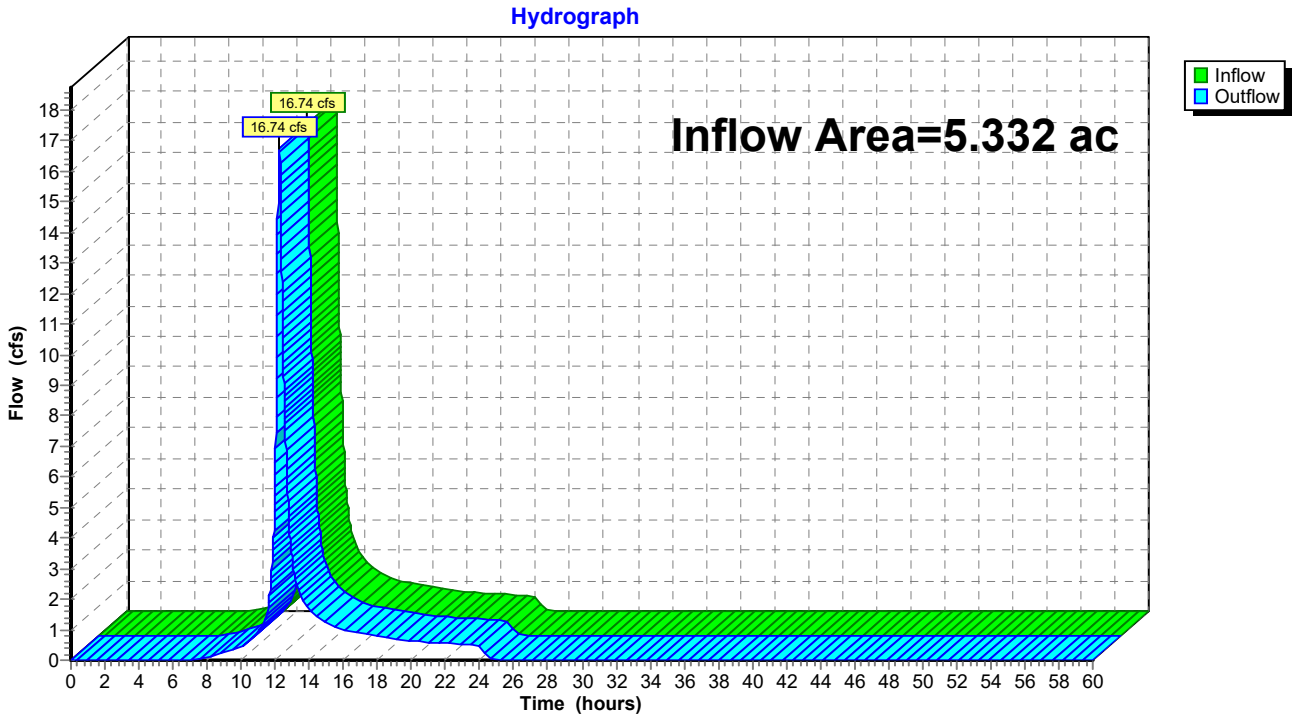


Summary for Reach DP-213: DISCHARGE OFFSITE

Inflow Area = 5.332 ac, 0.00% Impervious, Inflow Depth = 4.21" for 100-yr event
Inflow = 16.74 cfs @ 12.23 hrs, Volume= 1.872 af
Outflow = 16.74 cfs @ 12.23 hrs, Volume= 1.872 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-213: DISCHARGE OFFSITE

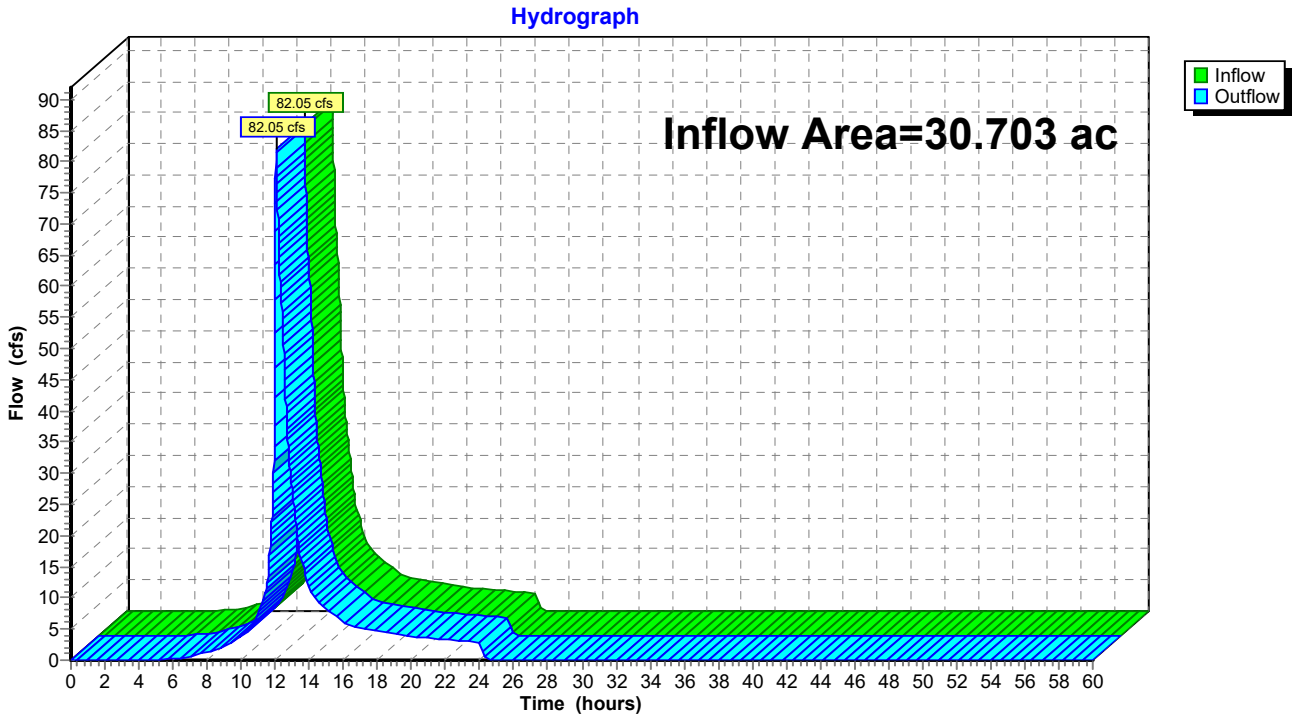


Summary for Reach DP-3: DISCHARGE TOWARDS STONY BROOK

Inflow Area = 30.703 ac, 0.00% Impervious, Inflow Depth = 4.68" for 100-yr event
Inflow = 82.05 cfs @ 12.06 hrs, Volume= 11.982 af
Outflow = 82.05 cfs @ 12.06 hrs, Volume= 11.982 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-3: DISCHARGE TOWARDS STONY BROOK

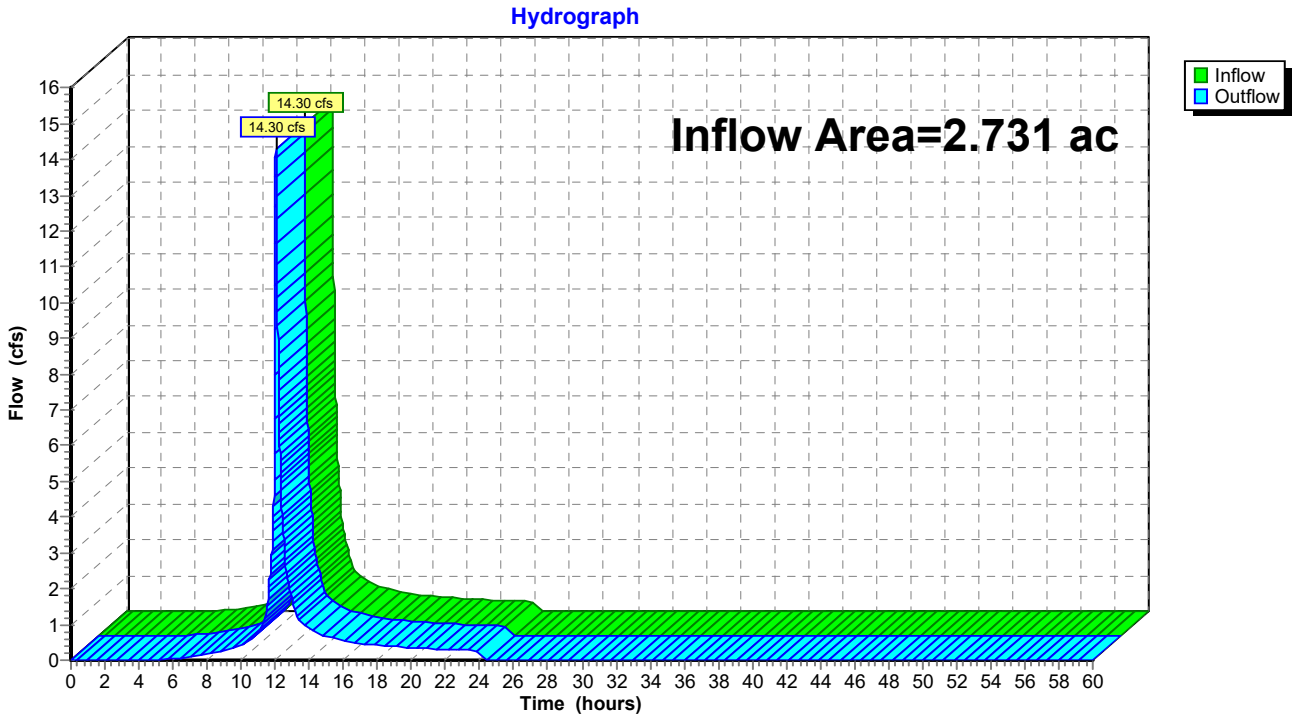


Summary for Reach DP-300: DISCHARGE OFFSITE

Inflow Area = 2.731 ac, 0.00% Impervious, Inflow Depth = 5.07" for 100-yr event
Inflow = 14.30 cfs @ 12.04 hrs, Volume= 1.153 af
Outflow = 14.30 cfs @ 12.04 hrs, Volume= 1.153 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-300: DISCHARGE OFFSITE

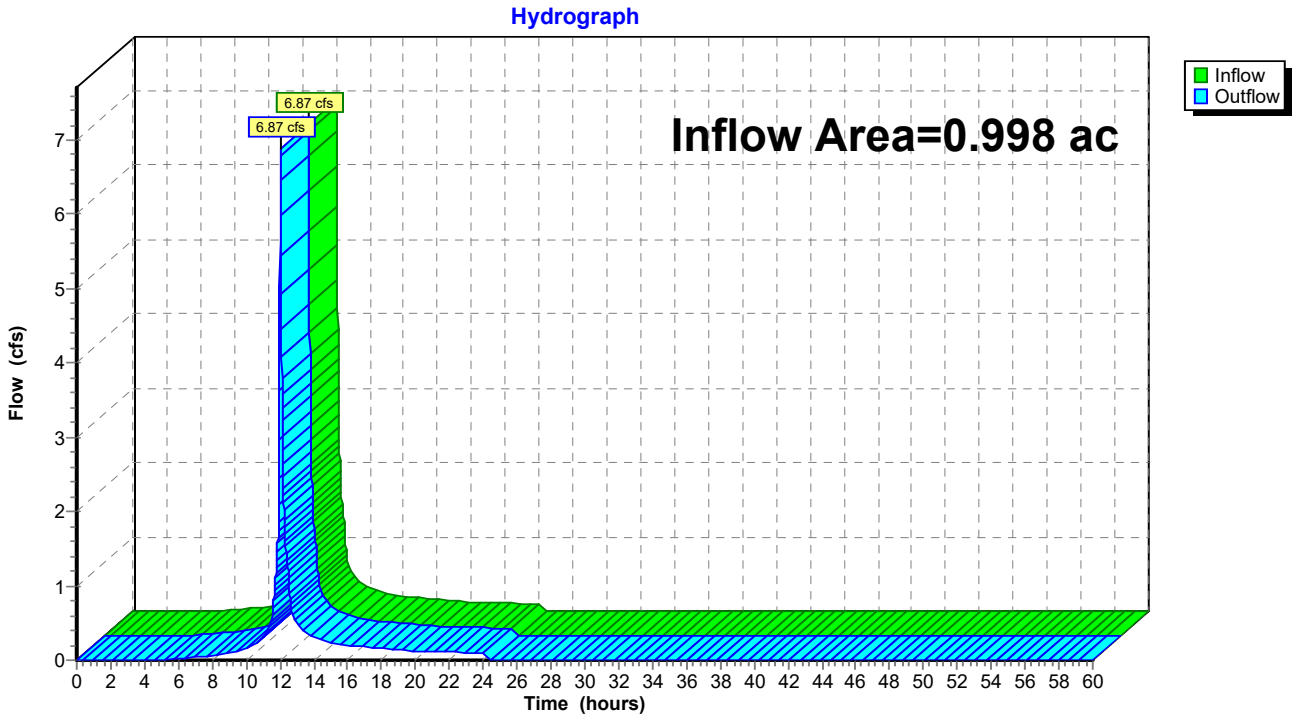


Summary for Reach DP-301: DISCHARGE OFFSITE

Inflow Area = 0.998 ac, 0.00% Impervious, Inflow Depth = 5.13" for 100-yr event
Inflow = 6.87 cfs @ 12.03 hrs, Volume= 0.426 af
Outflow = 6.87 cfs @ 12.03 hrs, Volume= 0.426 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-301: DISCHARGE OFFSITE

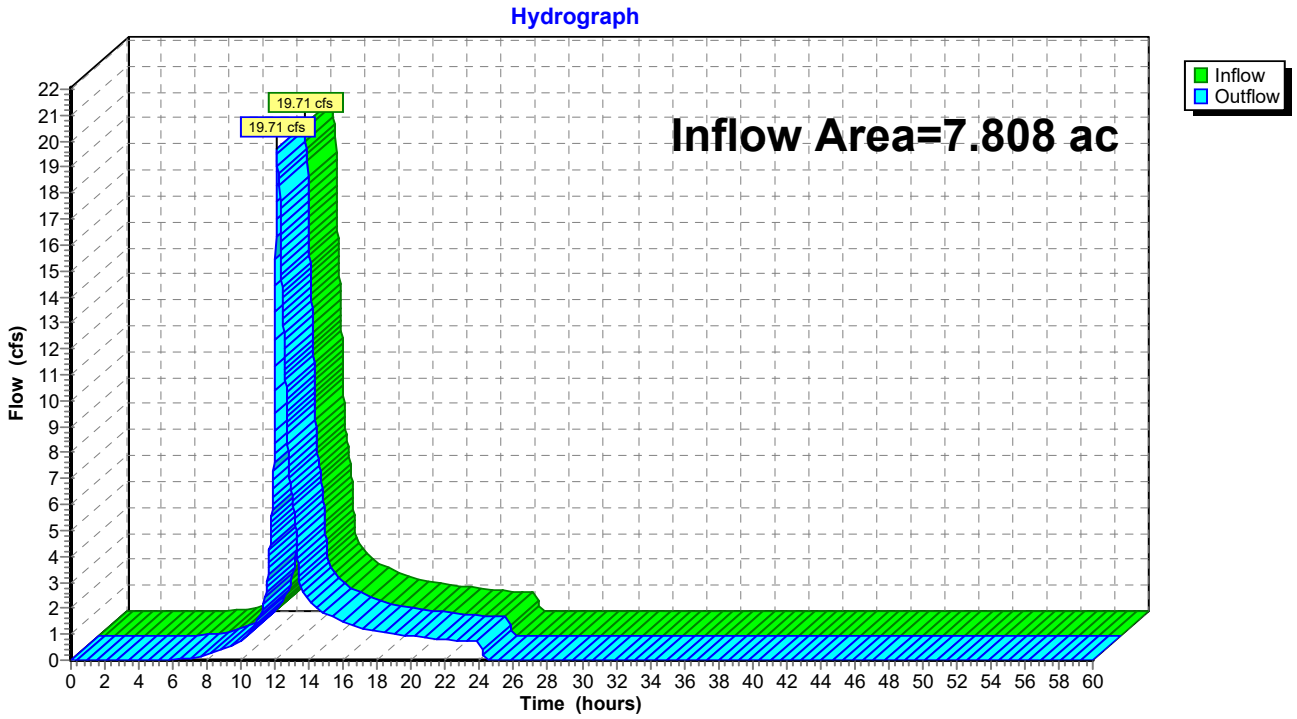


Summary for Reach DP-302: DISCHARGE OFFSITE

Inflow Area = 7.808 ac, 0.00% Impervious, Inflow Depth = 4.29" for 100-yr event
Inflow = 19.71 cfs @ 12.11 hrs, Volume= 2.793 af
Outflow = 19.71 cfs @ 12.11 hrs, Volume= 2.793 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-302: DISCHARGE OFFSITE

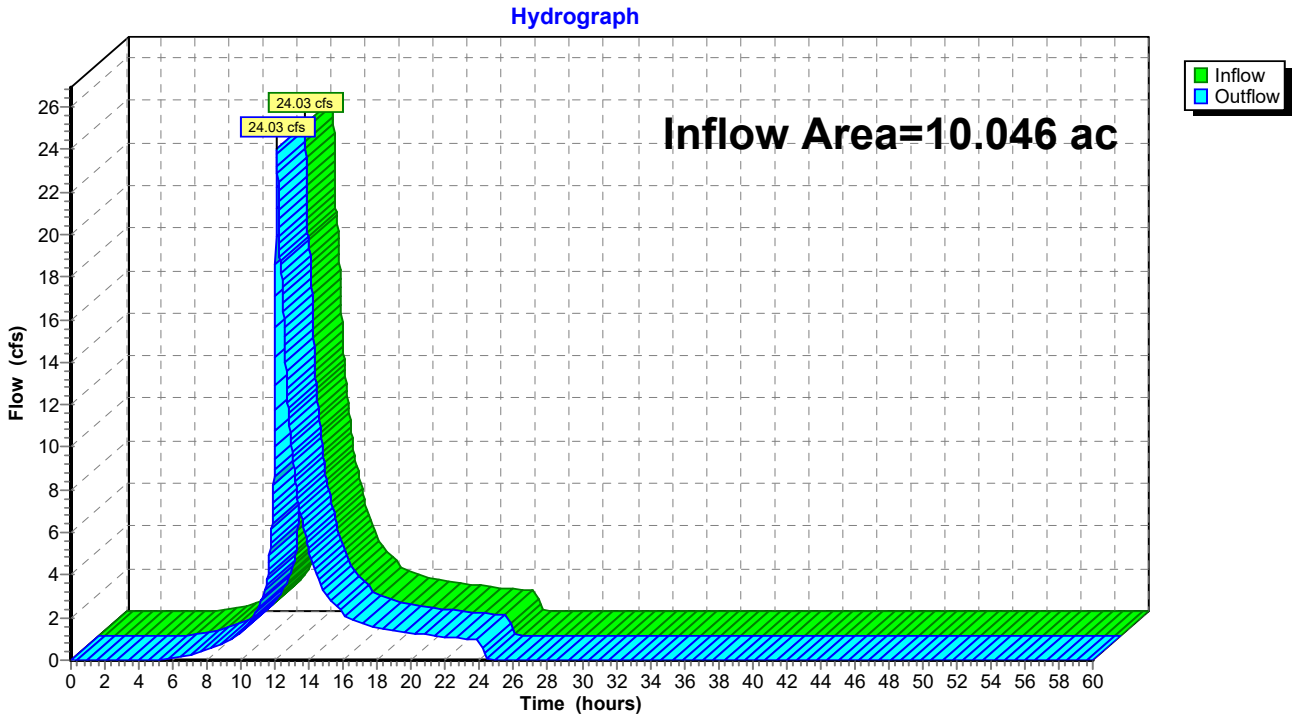


Summary for Reach DP-303: DISCHARGE TO EASTERN WETLAND

Inflow Area = 10.046 ac, 0.00% Impervious, Inflow Depth = 4.86" for 100-yr event
Inflow = 24.03 cfs @ 12.10 hrs, Volume= 4.068 af
Outflow = 24.03 cfs @ 12.10 hrs, Volume= 4.068 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-303: DISCHARGE TO EASTERN WETLAND

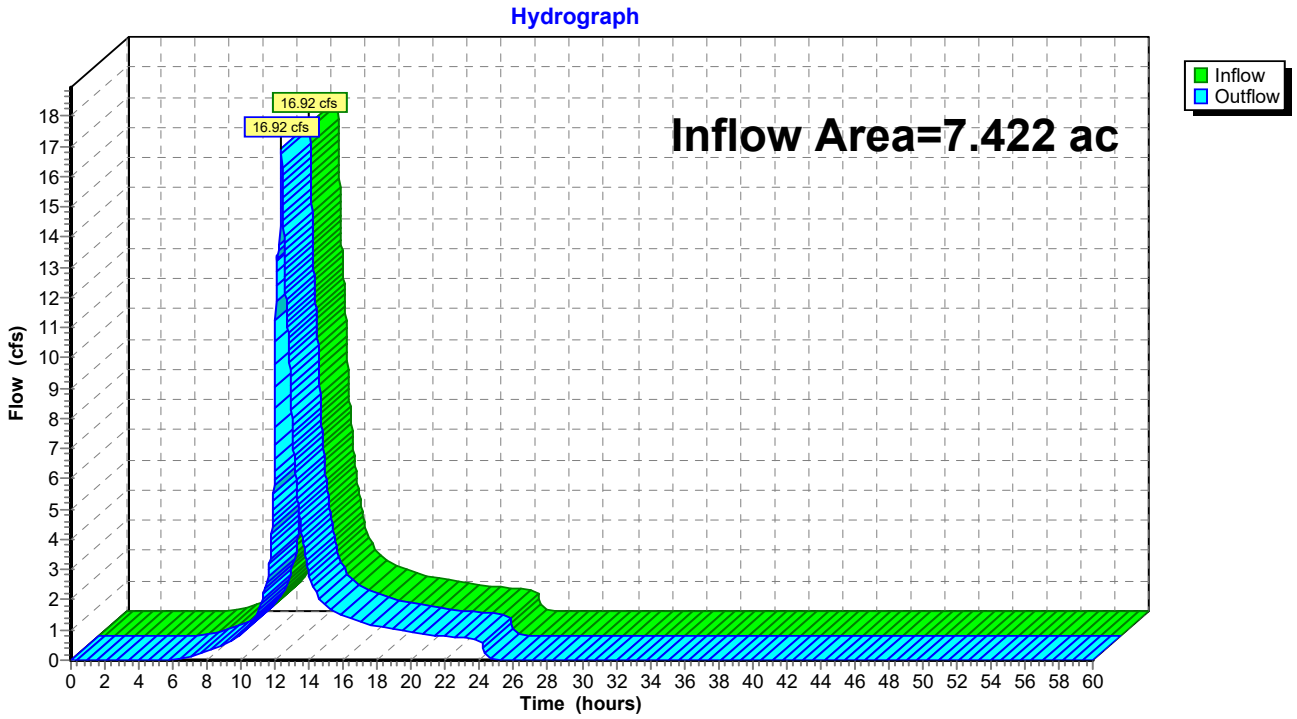


Summary for Reach DP-304: DISCHARGE OFFSITE

Inflow Area = 7.422 ac, 0.00% Impervious, Inflow Depth = 4.63" for 100-yr event
Inflow = 16.92 cfs @ 12.37 hrs, Volume= 2.864 af
Outflow = 16.92 cfs @ 12.37 hrs, Volume= 2.864 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-304: DISCHARGE OFFSITE

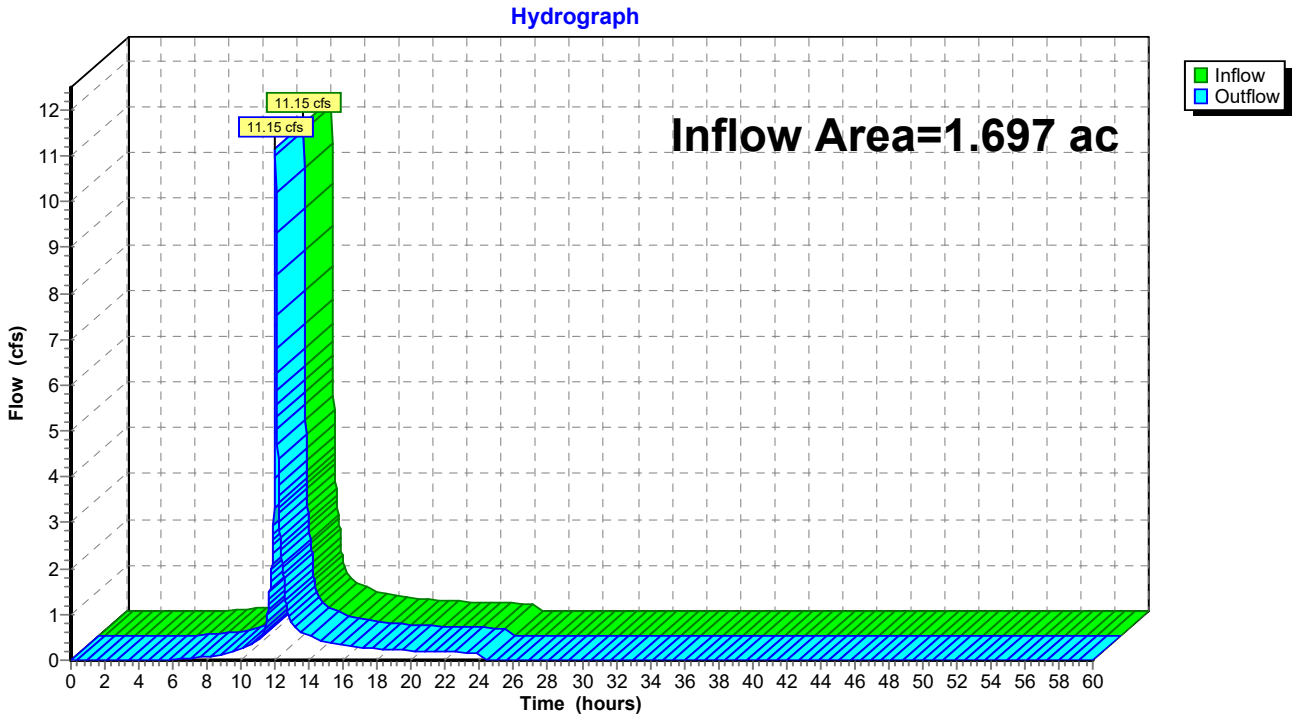


Summary for Reach DP-305: DISCHARGE OFFSITE

Inflow Area = 1.697 ac, 0.00% Impervious, Inflow Depth = 4.78" for 100-yr event
Inflow = 11.15 cfs @ 12.03 hrs, Volume= 0.676 af
Outflow = 11.15 cfs @ 12.03 hrs, Volume= 0.676 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Reach DP-305: DISCHARGE OFFSITE



Summary for Reach R-202: FLOW THROUGH CENTRAL WETLAND PDA-207.2

Inflow Area = 10.341 ac, 2.43% Impervious, Inflow Depth = 3.32" for 100-yr event
Inflow = 21.65 cfs @ 12.27 hrs, Volume= 2.864 af
Outflow = 19.87 cfs @ 12.53 hrs, Volume= 2.864 af, Atten= 8%, Lag= 15.3 min

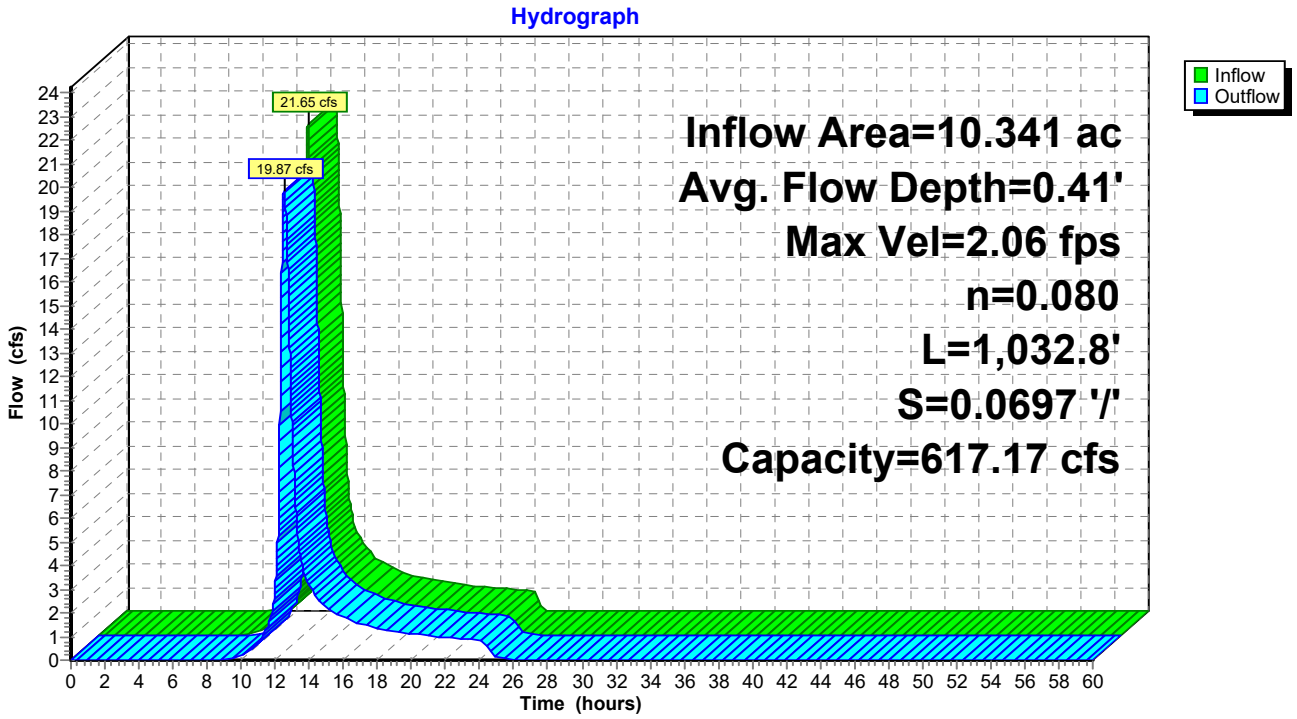
Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.06 fps, Min. Travel Time= 8.3 min
Avg. Velocity = 0.70 fps, Avg. Travel Time= 24.6 min

Peak Storage= 9,944 cf @ 12.39 hrs
Average Depth at Peak Storage= 0.41'
Bank-Full Depth= 2.00' Flow Area= 104.0 sf, Capacity= 617.17 cfs

78.00' x 2.00' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 1,032.8' Slope= 0.0697 '/'
Inlet Invert= 188.00', Outlet Invert= 116.00'

‡

Reach R-202: FLOW THROUGH CENTRAL WETLAND PDA-207.2



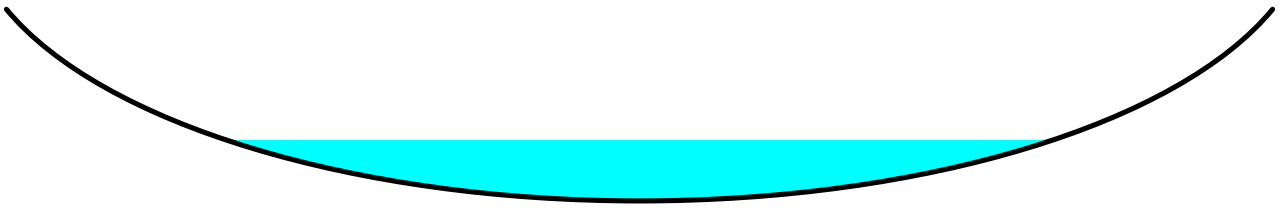
Summary for Reach R-203: SHALLOW CONCENTRATED FLOW THROUGH PDA-205.3

Inflow Area = 18.396 ac, 0.00% Impervious, Inflow Depth = 4.21" for 100-yr event
Inflow = 50.91 cfs @ 12.31 hrs, Volume= 6.460 af
Outflow = 50.41 cfs @ 12.39 hrs, Volume= 6.460 af, Atten= 1%, Lag= 4.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.80 fps, Min. Travel Time= 2.6 min
Avg. Velocity = 1.00 fps, Avg. Travel Time= 7.3 min

Peak Storage= 7,824 cf @ 12.34 hrs
Average Depth at Peak Storage= 0.80'
Bank-Full Depth= 2.50' Flow Area= 100.0 sf, Capacity= 597.69 cfs

60.00' x 2.50' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 434.0' Slope= 0.0527 '/'
Inlet Invert= 178.88', Outlet Invert= 156.00'



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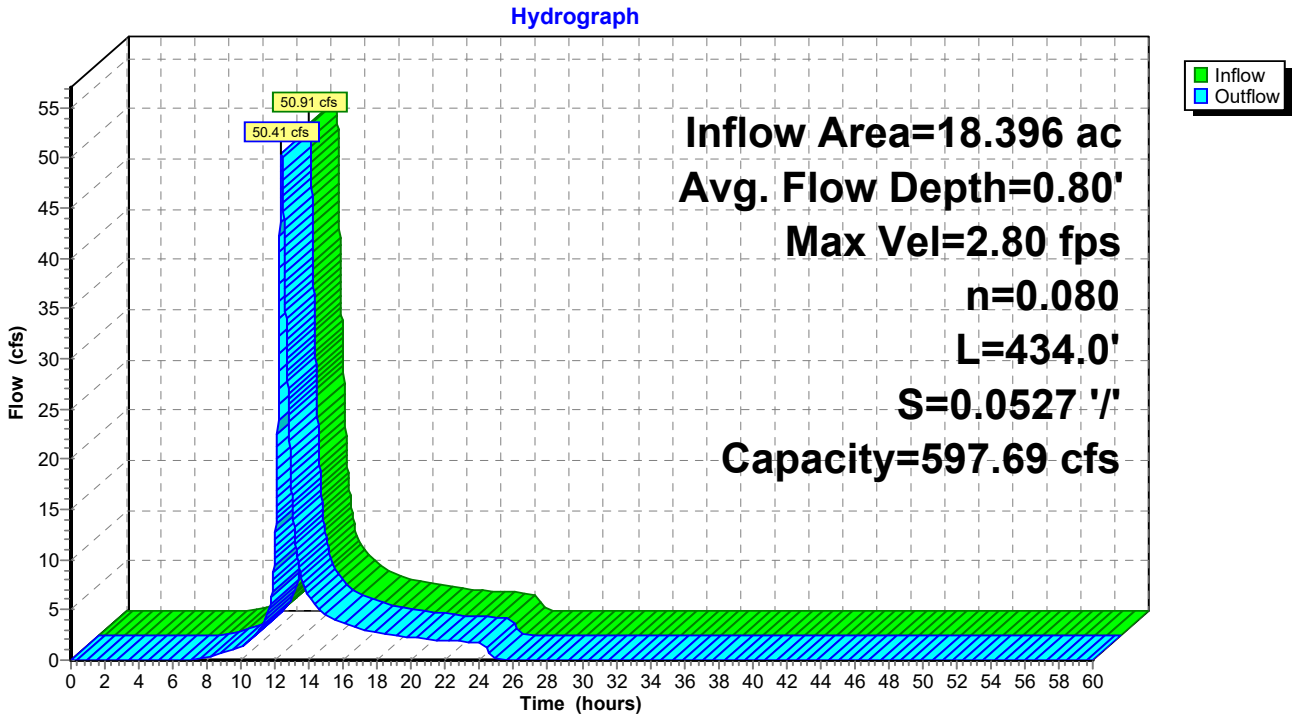
Reach R-203: SHALLOW CONCENTRATED FLOW THROUGH PDA-205.3



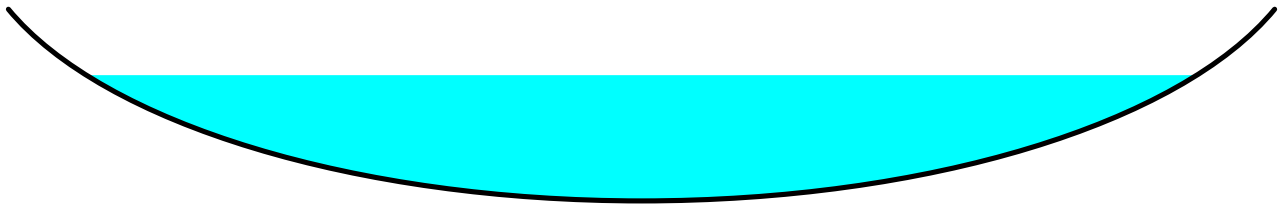
Summary for Reach R-204: SHALLOW CONCENTRATED FLOW THROUGH PDA-205.3

Inflow Area = 1.091 ac, 0.00% Impervious, Inflow Depth = 3.21" for 100-yr event
Inflow = 2.82 cfs @ 12.19 hrs, Volume= 0.292 af
Outflow = 2.32 cfs @ 12.44 hrs, Volume= 0.292 af, Atten= 18%, Lag= 15.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 0.82 fps, Min. Travel Time= 9.1 min
Avg. Velocity = 0.21 fps, Avg. Travel Time= 34.6 min

Peak Storage= 1,265 cf @ 12.29 hrs
Average Depth at Peak Storage= 0.13'
Bank-Full Depth= 0.20' Flow Area= 5.3 sf, Capacity= 5.78 cfs

40.00' x 0.20' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 446.0' Slope= 0.0499 '/'
Inlet Invert= 178.27', Outlet Invert= 156.00'



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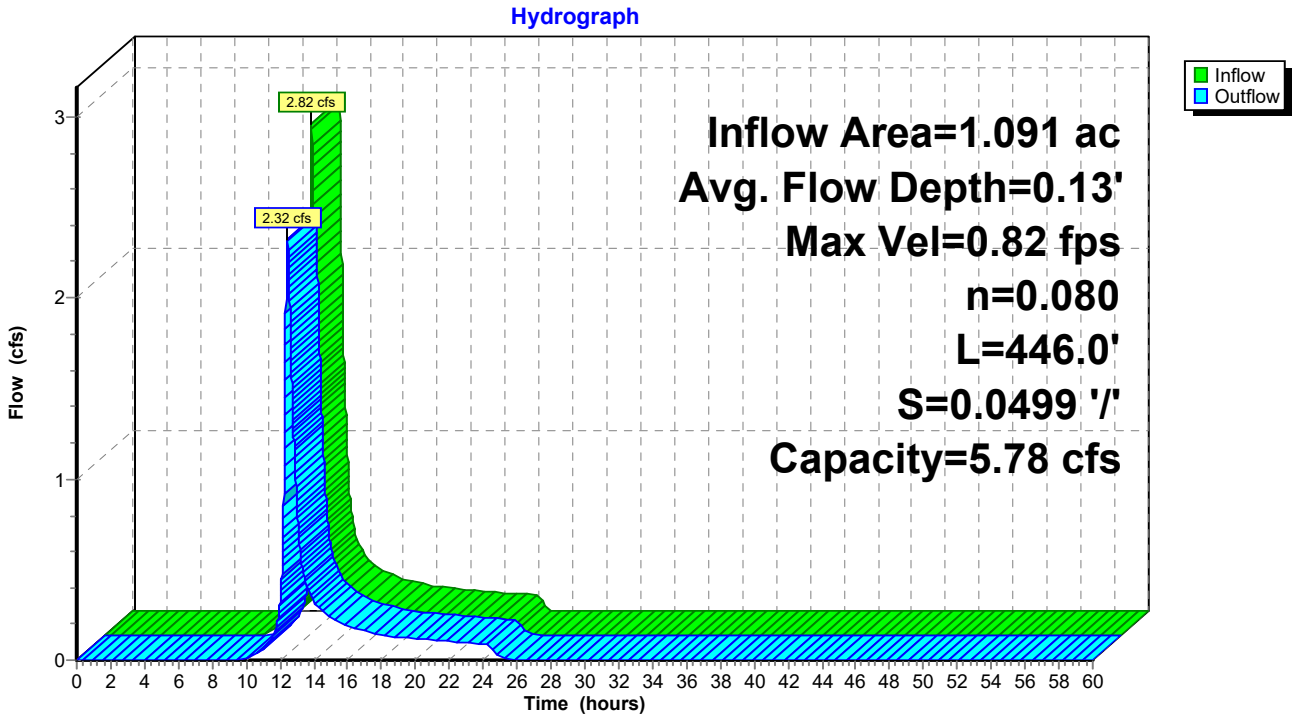
Reach R-204: SHALLOW CONCENTRATED FLOW THROUGH PDA-205.3



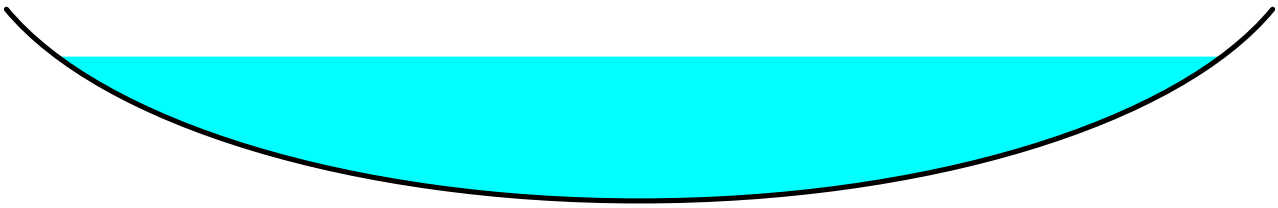
Summary for Reach R-205.2: SHALLOW CONCENTRATED FLOW THROUGH PDA-205.3

Inflow Area = 4.938 ac, 0.00% Impervious, Inflow Depth = 3.99" for 100-yr event
Inflow = 18.13 cfs @ 12.13 hrs, Volume= 1.642 af
Outflow = 16.34 cfs @ 12.27 hrs, Volume= 1.642 af, Atten= 10%, Lag= 8.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.56 fps, Min. Travel Time= 4.8 min
Avg. Velocity = 0.42 fps, Avg. Travel Time= 17.7 min

Peak Storage= 4,669 cf @ 12.19 hrs
Average Depth at Peak Storage= 0.30'
Bank-Full Depth= 0.40' Flow Area= 16.0 sf, Capacity= 30.16 cfs

60.00' x 0.40' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 446.0' Slope= 0.0600 '/'
Inlet Invert= 178.27', Outlet Invert= 151.51'



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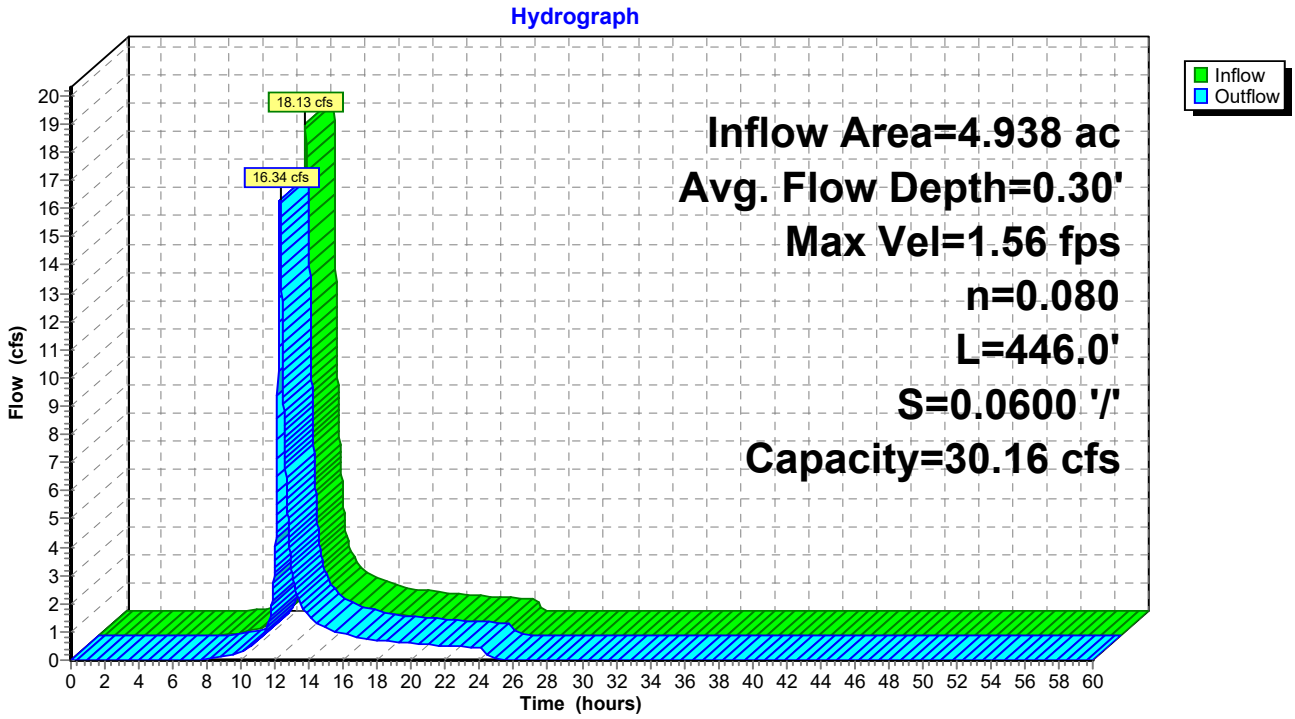
Reach R-205.2: SHALLOW CONCENTRATED FLOW THROUGH PDA-205.3



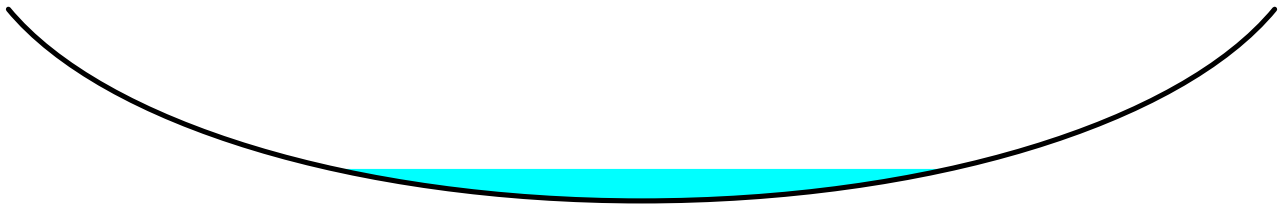
Summary for Reach R-205/206: FLOW THROUGH CENTRAL WETLAND PDA-208.2

Inflow Area = 47.334 ac, 0.00% Impervious, Inflow Depth = 3.92" for 100-yr event
Inflow = 99.87 cfs @ 12.36 hrs, Volume= 15.445 af
Outflow = 94.63 cfs @ 12.58 hrs, Volume= 15.445 af, Atten= 5%, Lag= 12.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.26 fps, Min. Travel Time= 7.8 min
Avg. Velocity = 0.74 fps, Avg. Travel Time= 23.5 min

Peak Storage= 44,051 cf @ 12.45 hrs
Average Depth at Peak Storage= 0.67'
Bank-Full Depth= 4.00' Flow Area= 610.7 sf, Capacity= 4,524.76 cfs

229.00' x 4.00' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 1,050.0' Slope= 0.0431 '/'
Inlet Invert= 148.40', Outlet Invert= 103.17'



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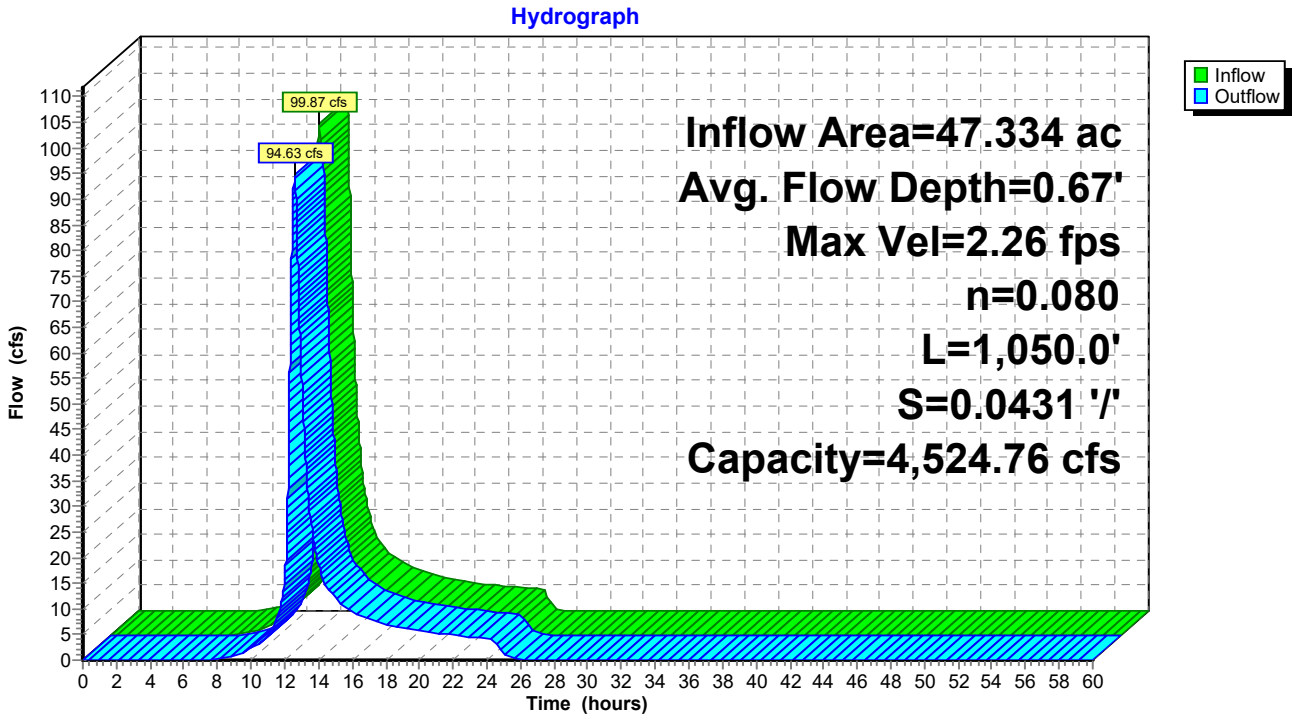
Reach R-205/206: FLOW THROUGH CENTRAL WETLAND PDA-208.2



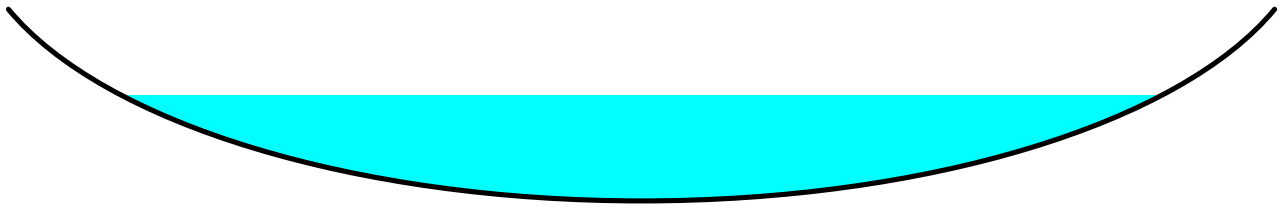
Summary for Reach R-207: FLOW THROUGH CENTRAL WETLAND PDA-208.2

Inflow Area = 27.669 ac, 0.91% Impervious, Inflow Depth = 3.34" for 100-yr event
Inflow = 51.21 cfs @ 12.22 hrs, Volume= 7.697 af
Outflow = 49.69 cfs @ 12.33 hrs, Volume= 7.697 af, Atten= 3%, Lag= 6.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.36 fps, Min. Travel Time= 3.6 min
Avg. Velocity = 0.40 fps, Avg. Travel Time= 12.0 min

Peak Storage= 10,670 cf @ 12.27 hrs
Average Depth at Peak Storage= 0.41'
Bank-Full Depth= 0.75' Flow Area= 89.0 sf, Capacity= 179.76 cfs

178.00' x 0.75' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 292.0' Slope= 0.0298 '/'
Inlet Invert= 111.87', Outlet Invert= 103.17'



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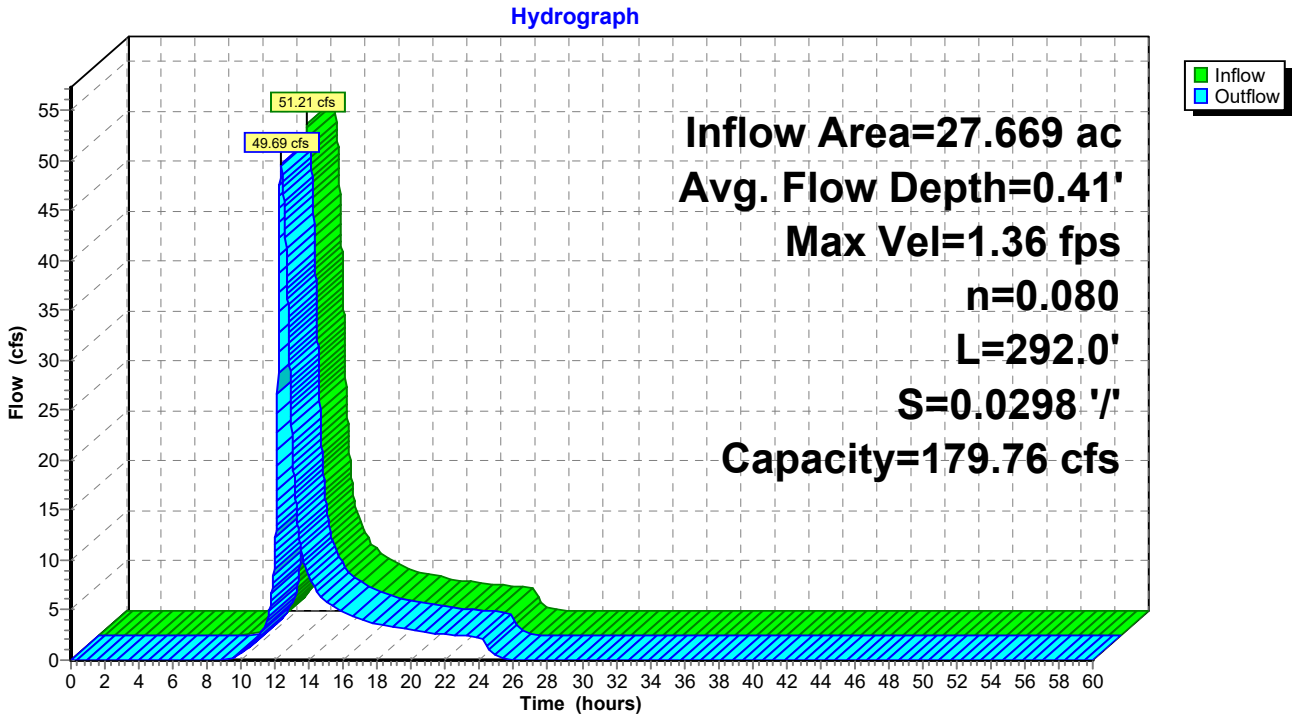
Reach R-207: FLOW THROUGH CENTRAL WETLAND PDA-208.2



Summary for Reach R-207.1: DISCHARGE INTO SWALE/ROUTE THROUGH PDA-206.1

Inflow Area = 0.231 ac, 0.00% Impervious, Inflow Depth = 3.00" for 100-yr event
Inflow = 0.61 cfs @ 12.15 hrs, Volume= 0.058 af
Outflow = 0.60 cfs @ 12.18 hrs, Volume= 0.058 af, Atten= 0%, Lag= 1.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.90 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 1.03 fps, Avg. Travel Time= 3.0 min

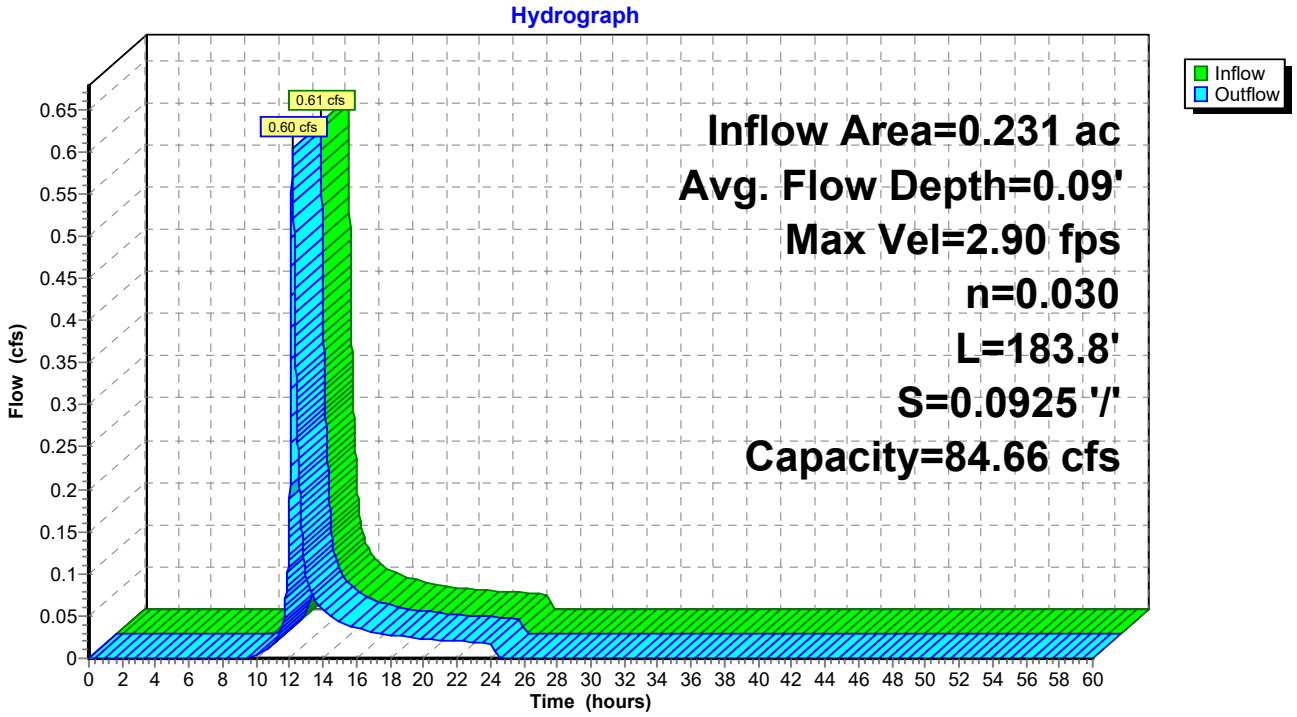
Peak Storage= 38 cf @ 12.16 hrs
Average Depth at Peak Storage= 0.09'
Bank-Full Depth= 1.33' Flow Area= 6.7 sf, Capacity= 84.66 cfs

Custom cross-section, Length= 183.8' Slope= 0.0925 '/'
Constant n= 0.030 Short grass
Inlet Invert= 215.11', Outlet Invert= 198.10'

Offset (feet)	Elevation (feet)	Chan.Depth (feet)
-4.00	1.33	0.00
-1.00	0.00	1.33
1.00	0.00	1.33
4.00	1.33	0.00

Depth (feet)	End Area (sq-ft)	Perim. (feet)	Storage (cubic-feet)	Discharge (cfs)
0.00	0.0	2.0	0	0.00
1.33	6.7	8.6	1,222	84.66

Reach R-207.1: DISCHARGE INTO SWALE/ROUTE THROUGH PDA-206.1



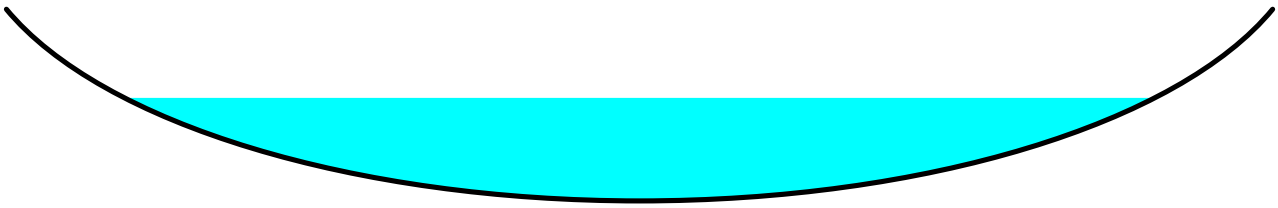
Summary for Reach R-208: FLOW THROUGH CENTRAL WETLAND PDA-211

Inflow Area = 88.629 ac, 0.28% Impervious, Inflow Depth = 3.73" for 100-yr event
Inflow = 166.34 cfs @ 12.53 hrs, Volume= 27.544 af
Outflow = 165.65 cfs @ 12.60 hrs, Volume= 27.544 af, Atten= 0%, Lag= 4.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.69 fps, Min. Travel Time= 2.5 min
Avg. Velocity = 0.47 fps, Avg. Travel Time= 8.9 min

Peak Storage= 24,467 cf @ 12.56 hrs
Average Depth at Peak Storage= 0.59'
Bank-Full Depth= 1.10' Flow Area= 247.9 sf, Capacity= 634.06 cfs

338.00' x 1.10' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 250.0' Slope= 0.0287 '/'
Inlet Invert= 103.17', Outlet Invert= 96.00'



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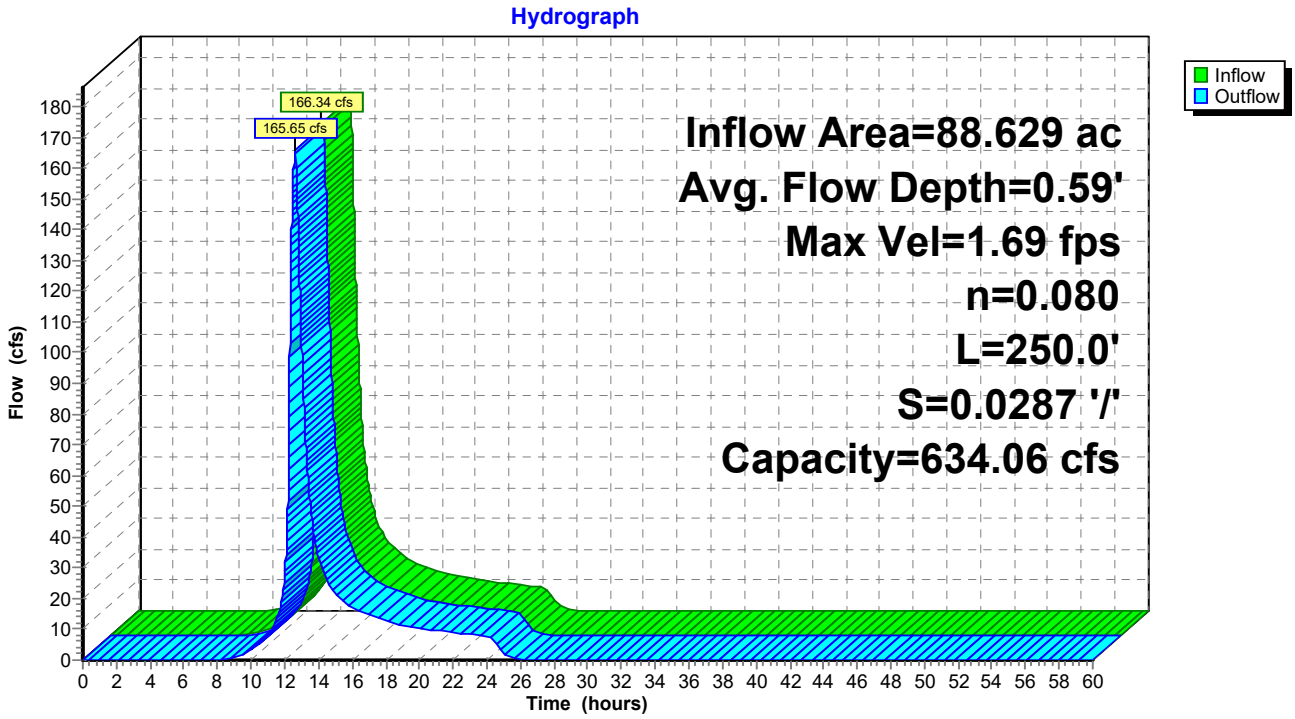
Reach R-208: FLOW THROUGH CENTRAL WETLAND PDA-211



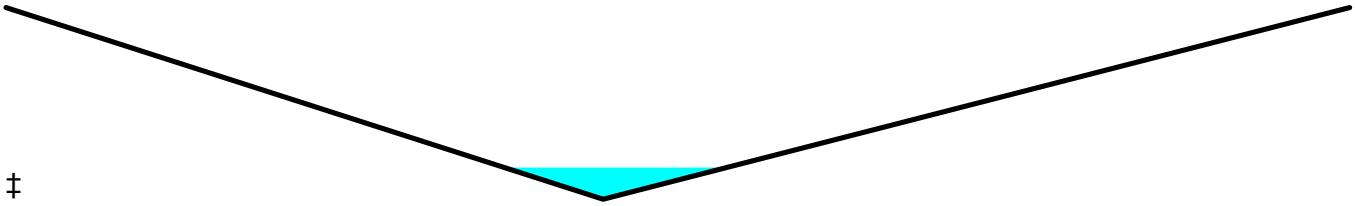
Summary for Reach R-208.1: DISCHARGE INTO SWALE/ROUTE THROUGH PDA-212.1

Inflow Area = 0.340 ac, 0.00% Impervious, Inflow Depth = 3.00" for 100-yr event
Inflow = 1.11 cfs @ 12.07 hrs, Volume= 0.085 af
Outflow = 1.09 cfs @ 12.11 hrs, Volume= 0.085 af, Atten= 2%, Lag= 2.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.31 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 1.47 fps, Avg. Travel Time= 2.6 min

Peak Storage= 74 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.22'
Bank-Full Depth= 1.33' Flow Area= 12.0 sf, Capacity= 131.22 cfs

Custom cross-section, Length= 226.0' Slope= 0.0856 '/'
Constant n= 0.030 Short grass
Inlet Invert= 155.00', Outlet Invert= 135.65'



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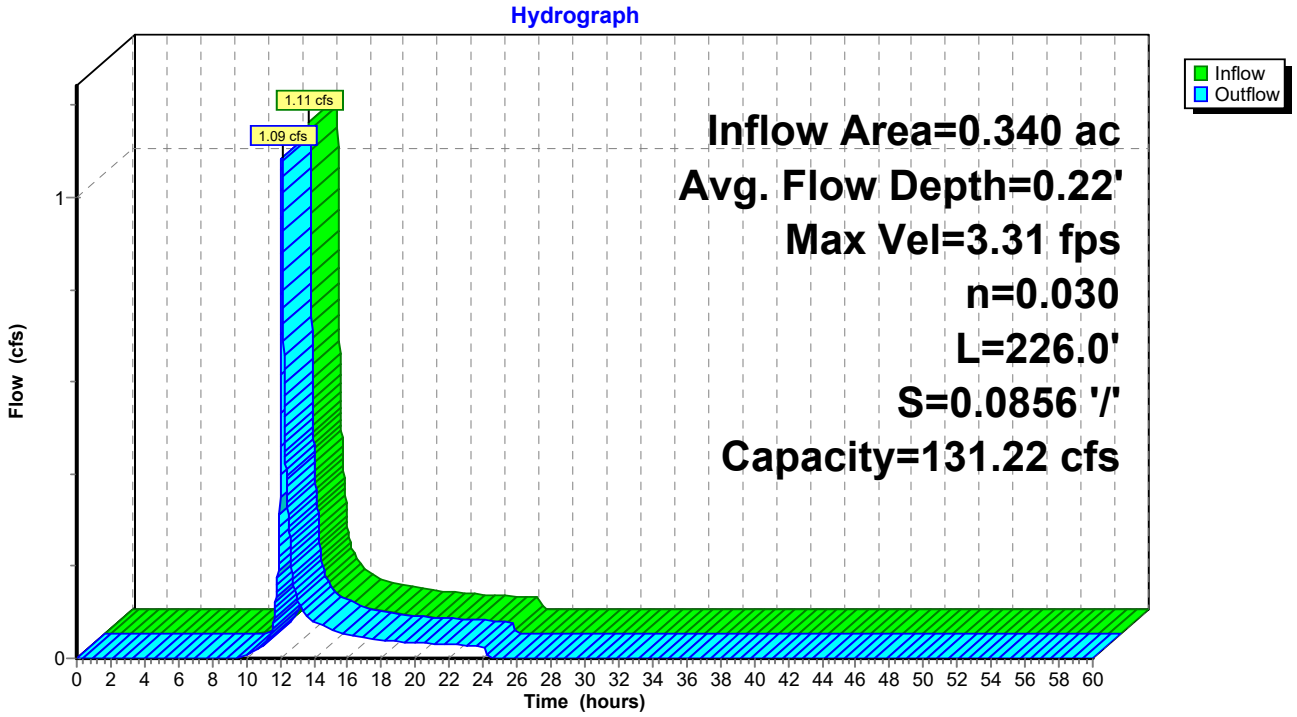
Offset (feet)	Elevation (feet)	Chan.Depth (feet)
-9.00	1.33	0.00
-1.00	0.00	1.33
9.00	1.33	0.00

Depth (feet)	End Area (sq-ft)	Perim. (feet)	Storage (cubic-feet)	Discharge (cfs)
0.00	0.0	0.0	0	0.00
1.33	12.0	18.2	2,705	131.22

Reach R-208.1: DISCHARGE INTO SWALE/ROUTE THROUGH PDA-212.1



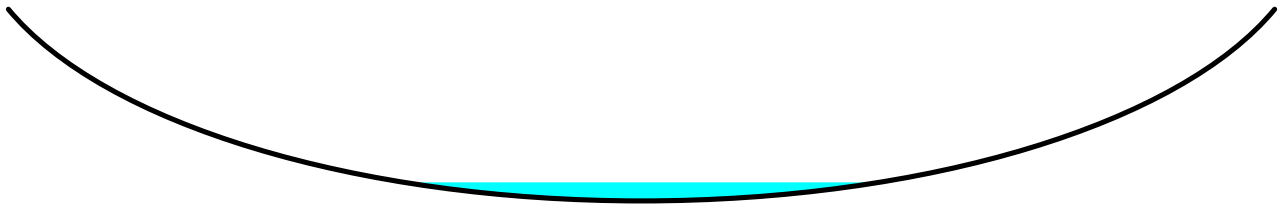
Summary for Reach R-210: FLOW THROUGH CENTRAL WETLAND PDA-211

Inflow Area = 0.674 ac, 0.00% Impervious, Inflow Depth = 4.33" for 100-yr event
Inflow = 2.01 cfs @ 12.28 hrs, Volume= 0.243 af
Outflow = 1.84 cfs @ 12.49 hrs, Volume= 0.243 af, Atten= 9%, Lag= 12.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 0.39 fps, Min. Travel Time= 7.4 min
Avg. Velocity = 0.15 fps, Avg. Travel Time= 19.4 min

Peak Storage= 812 cf @ 12.37 hrs
Average Depth at Peak Storage= 0.14'
Bank-Full Depth= 1.40' Flow Area= 156.8 sf, Capacity= 284.60 cfs

168.00' x 1.40' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 170.0' Slope= 0.0105 '/'
Inlet Invert= 97.78', Outlet Invert= 96.00'



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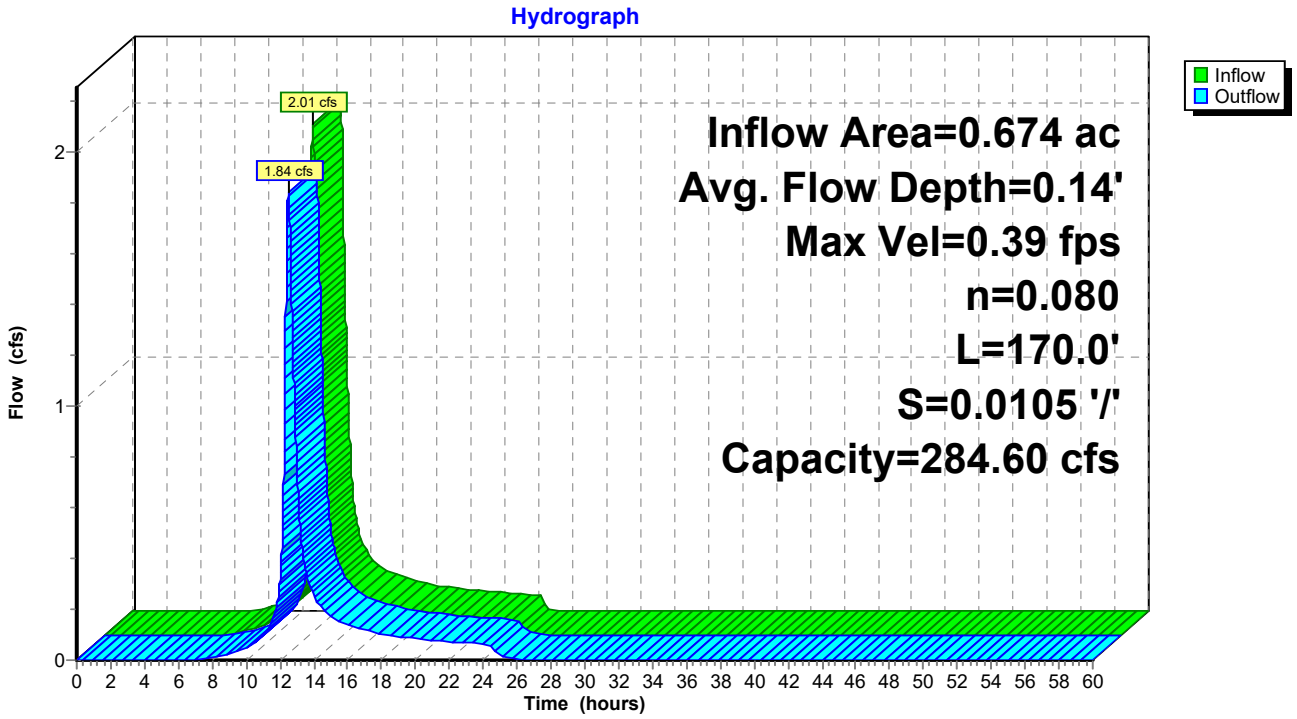
Reach R-210: FLOW THROUGH CENTRAL WETLAND PDA-211



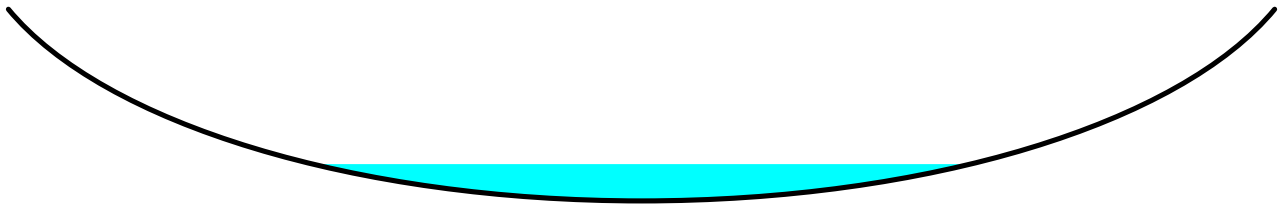
Summary for Reach R-301.1: FLOW THROUGH CENTRAL WETLAND PDA-302.2

Inflow Area = 1.271 ac, 0.00% Impervious, Inflow Depth = 4.67" for 100-yr event
Inflow = 6.17 cfs @ 12.09 hrs, Volume= 0.495 af
Outflow = 5.82 cfs @ 12.17 hrs, Volume= 0.495 af, Atten= 6%, Lag= 4.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.34 fps, Min. Travel Time= 2.6 min
Avg. Velocity = 0.45 fps, Avg. Travel Time= 7.8 min

Peak Storage= 916 cf @ 12.13 hrs
Average Depth at Peak Storage= 0.29'
Bank-Full Depth= 1.50' Flow Area= 51.8 sf, Capacity= 209.28 cfs

51.83' x 1.50' deep Parabolic Channel, n= 0.080 Heavy timber, flow below branches
Length= 211.0' Slope= 0.0474 '/'
Inlet Invert= 220.00', Outlet Invert= 210.00'



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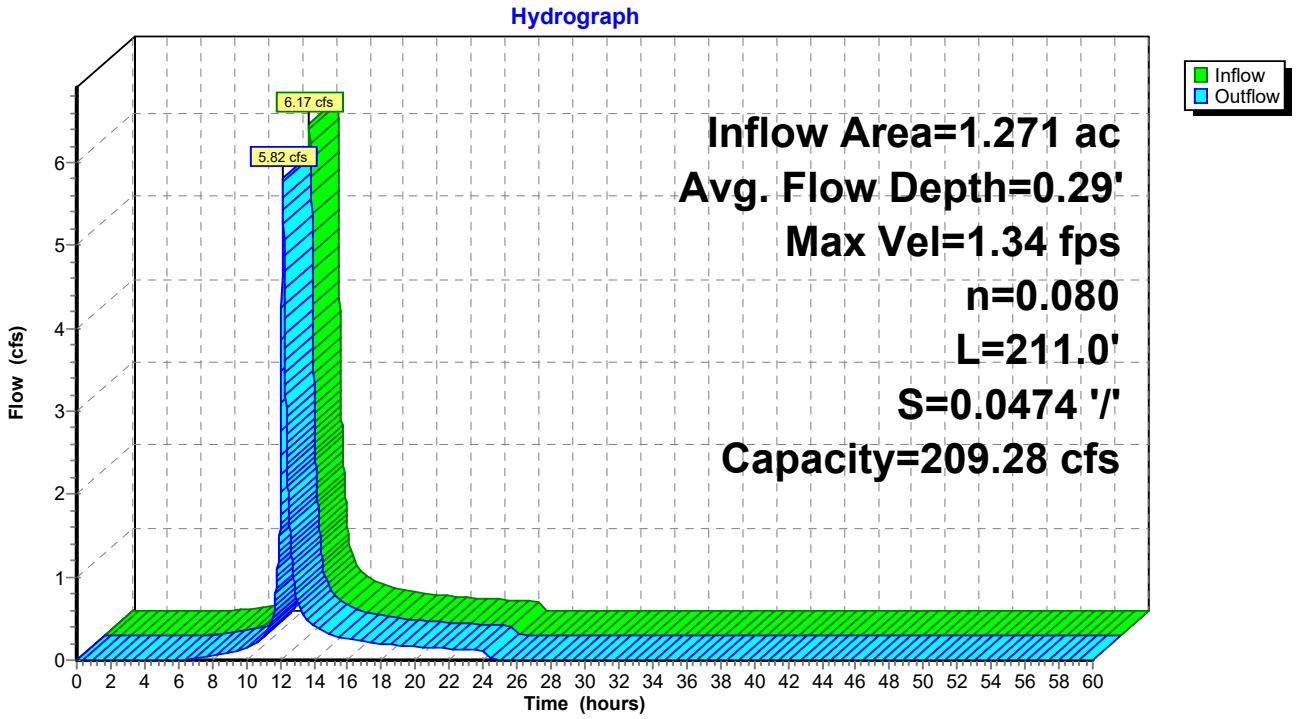
Reach R-301.1: FLOW THROUGH CENTRAL WETLAND PDA-302.2



Summary for Pond DP-100.1: POND

Inflow Area = 11.949 ac, 1.38% Impervious, Inflow Depth = 3.21" for 100-yr event
Inflow = 29.69 cfs @ 12.20 hrs, Volume= 3.200 af
Outflow = 24.39 cfs @ 12.31 hrs, Volume= 3.200 af, Atten= 18%, Lag= 6.5 min
Primary = 24.39 cfs @ 12.31 hrs, Volume= 3.200 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 173.89' @ 12.31 hrs Surf.Area= 7,100 sf Storage= 10,186 cf

Plug-Flow detention time= 3.0 min calculated for 3.200 af (100% of inflow)
Center-of-Mass det. time= 3.0 min (886.7 - 883.7)

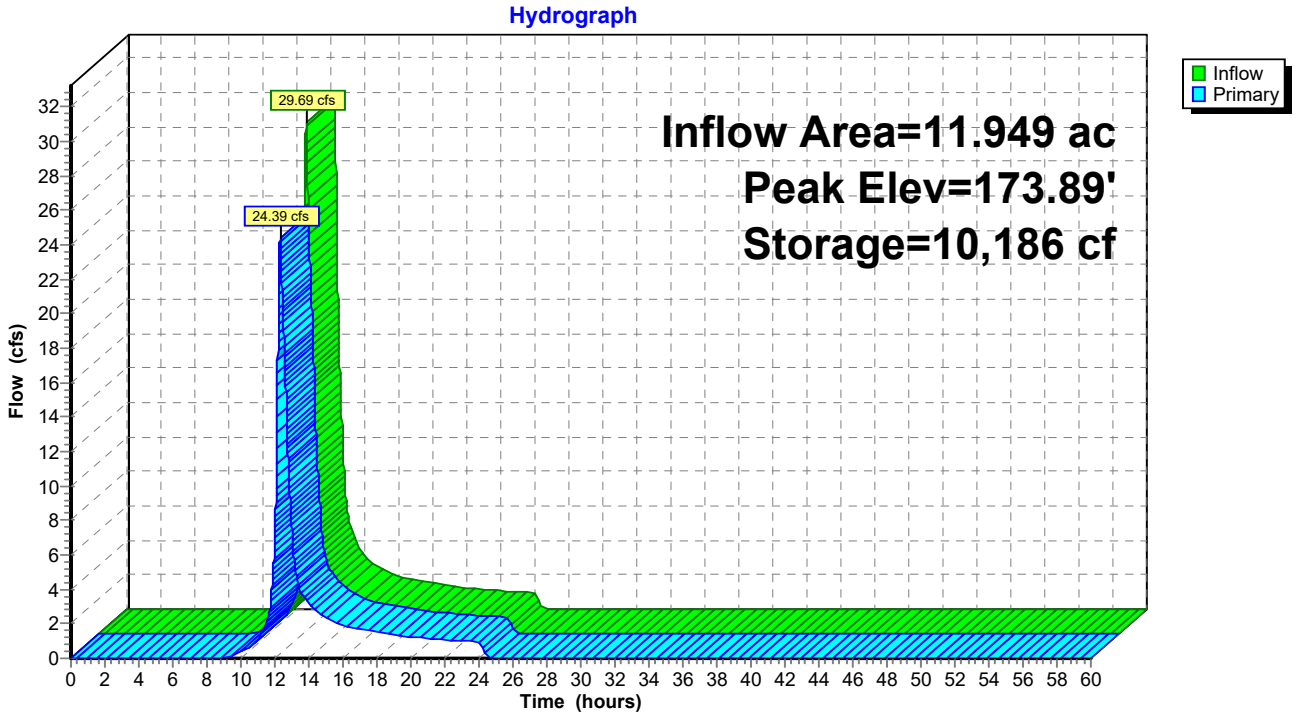
Volume	Invert	Avail.Storage	Storage Description
#1	172.00'	14,696 cf	**Detention Pond (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
172.00	1,198	0	0
172.50	4,783	1,495	1,495
173.00	6,227	2,753	4,248
173.50	6,712	3,235	7,483
174.00	7,208	3,480	10,963
174.50	7,724	3,733	14,696

Device	Routing	Invert	Outlet Devices
#1	Primary	171.74'	**22.0" W x 8.0" H Vert. Rect. Orifice 1 - 10 YR** C= 0.600
#2	Primary	171.74'	**22.0" W x 8.0" H Vert. Rect. Orifice 2 - 10 YR** C= 0.600
#3	Primary	172.75'	**18.0" W x 5.0" H Vert. Rect. Orifice 1 - 25 YR** C= 0.600
#4	Primary	172.75'	**18.0" W x 5.0" H Vert. Rect. Orifice 2 - 25 YR** C= 0.600
#5	Primary	173.70'	**24.0" x 36.0" Horiz. Horiz. Inlet - 100 YR** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=24.38 cfs @ 12.31 hrs HW=173.89' (Free Discharge)
- **1=Rect. Orifice 1 - 10 YR** (Orifice Controls 7.92 cfs @ 6.48 fps)
- **2=Rect. Orifice 2 - 10 YR** (Orifice Controls 7.92 cfs @ 6.48 fps)
- **3=Rect. Orifice 1 - 25 YR** (Orifice Controls 2.90 cfs @ 4.64 fps)
- **4=Rect. Orifice 2 - 25 YR** (Orifice Controls 2.90 cfs @ 4.64 fps)
- **5=Horiz. Inlet - 100 YR** (Weir Controls 2.73 cfs @ 1.43 fps)

Pond DP-100.1: POND



Summary for Pond DP-101.1: POND

Inflow Area = 2.074 ac, 4.48% Impervious, Inflow Depth = 3.54" for 100-yr event
Inflow = 7.00 cfs @ 12.12 hrs, Volume= 0.613 af
Outflow = 5.61 cfs @ 12.20 hrs, Volume= 0.613 af, Atten= 20%, Lag= 5.1 min
Primary = 5.61 cfs @ 12.20 hrs, Volume= 0.613 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 232.42' @ 12.20 hrs Surf.Area= 2,344 sf Storage= 1,651 cf

Plug-Flow detention time= 2.1 min calculated for 0.612 af (100% of inflow)
Center-of-Mass det. time= 2.1 min (872.0 - 870.0)

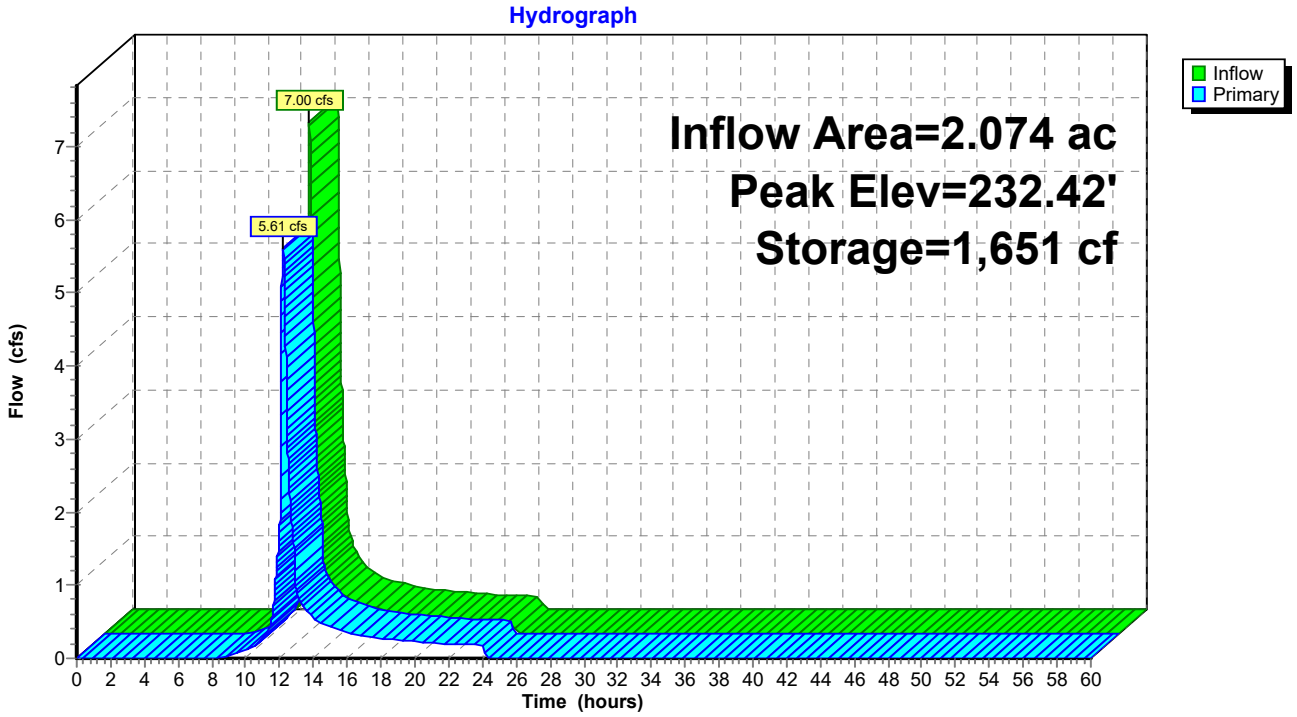
Volume	Invert	Avail.Storage	Storage Description
#1	231.50'	6,647 cf	**Detention Pond (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
231.50	1,030	0	0
232.00	1,965	749	749
232.50	2,417	1,096	1,844
233.00	2,911	1,332	3,176
233.50	3,459	1,593	4,769
234.00	4,052	1,878	6,647

Device	Routing	Invert	Outlet Devices
#1	Primary	231.08'	**9.5" W x 4.0" H Vert. Rect. Orifice 1 -10 YR** C= 0.600
#2	Primary	231.08'	**9.5" W x 4.0" H Vert. Rect. Orifice 2 -10 YR** C= 0.600
#3	Primary	231.87'	**22.0" W x 3.0" H Vert. Rect. Orifice 1-25 YR** C= 0.600
#4	Primary	231.87'	**22.0" W x 3.0" H Vert. Rect. Orifice 2 -25 YR** C= 0.600
#5	Primary	233.38'	**24.0" W x 36.0" H Vert. EMERGENCY SPILLWAY** C= 0.600

Primary OutFlow Max=5.61 cfs @ 12.20 hrs HW=232.42' (Free Discharge)
- **1=Rect. Orifice 1 -10 YR** (Orifice Controls 1.37 cfs @ 5.21 fps)
- **2=Rect. Orifice 2 -10 YR** (Orifice Controls 1.37 cfs @ 5.21 fps)
- **3=Rect. Orifice 1-25 YR** (Orifice Controls 1.43 cfs @ 3.12 fps)
- **4=Rect. Orifice 2 -25 YR** (Orifice Controls 1.43 cfs @ 3.12 fps)
- **5=EMERGENCY SPILLWAY** (Controls 0.00 cfs)

Pond DP-101.1: POND



Summary for Pond DP-200.1: POND

Inflow Area = 2.961 ac, 3.02% Impervious, Inflow Depth = 3.54" for 100-yr event
Inflow = 9.72 cfs @ 12.13 hrs, Volume= 0.874 af
Outflow = 7.73 cfs @ 12.22 hrs, Volume= 0.874 af, Atten= 20%, Lag= 5.3 min
Primary = 7.73 cfs @ 12.22 hrs, Volume= 0.874 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 181.93' @ 12.22 hrs Surf.Area= 2,321 sf Storage= 3,282 cf

Plug-Flow detention time= 4.7 min calculated for 0.874 af (100% of inflow)
Center-of-Mass det. time= 4.6 min (875.4 - 870.7)

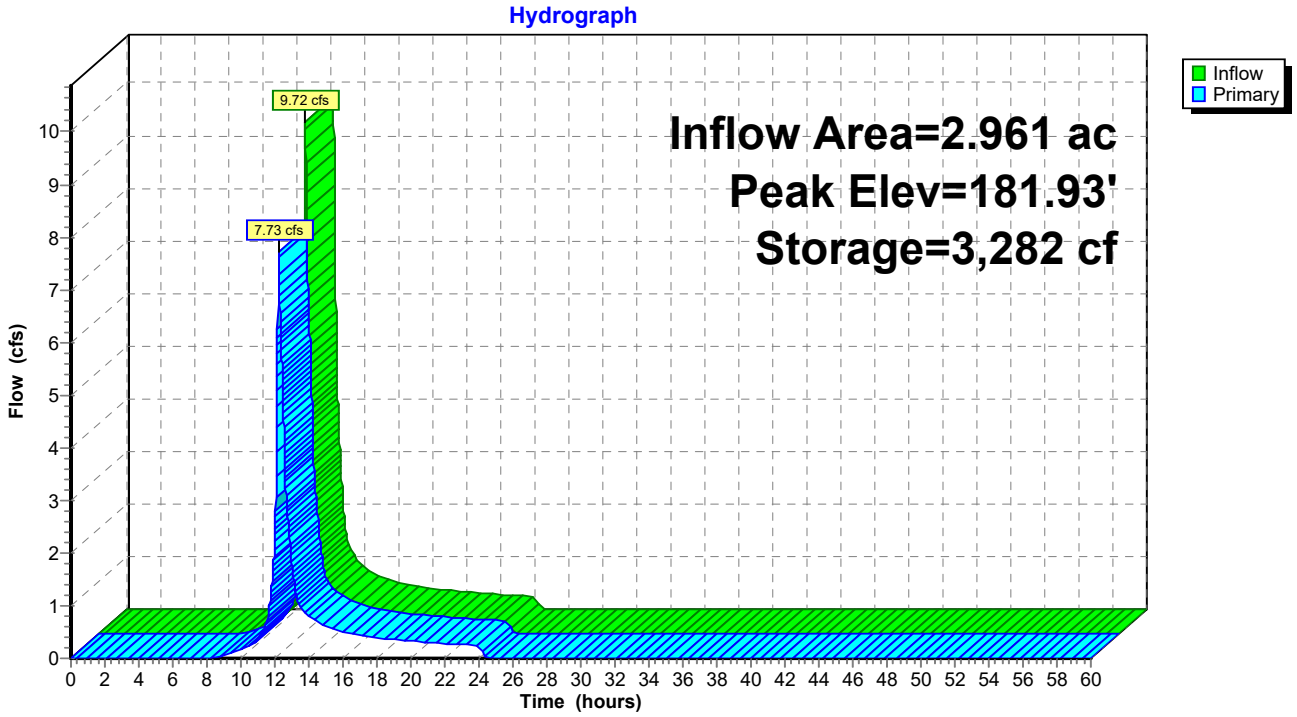
Volume	Invert	Avail.Storage	Storage Description
#1	179.50'	10,531 cf	**Detention Pond (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
179.50	477	0	0
180.00	809	322	322
180.50	1,158	492	813
181.00	1,536	674	1,487
181.50	1,942	870	2,356
182.00	2,378	1,080	3,436
182.50	2,848	1,307	4,743
183.00	3,351	1,550	6,293
183.50	3,895	1,812	8,104
184.00	5,811	2,427	10,531

Device	Routing	Invert	Outlet Devices
#1	Primary	179.45'	**19.0" W x 4.0" H Vert. Rect. Orifice-10-YR** C= 0.600
#2	Primary	180.84'	**16.5" W x 5.0" H Vert. Rect. Orifice-25-YR** C= 0.600
#3	Primary	181.82'	**24.0" x 36.0" Horiz. Rect. Orifice-100-YR** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=7.72 cfs @ 12.22 hrs HW=181.93' (Free Discharge)
- **1=Rect. Orifice-10-YR** (Orifice Controls 3.87 cfs @ 7.33 fps)
- **2=Rect. Orifice-25-YR** (Orifice Controls 2.59 cfs @ 4.52 fps)
- **3=Rect. Orifice-100-YR** (Weir Controls 1.26 cfs @ 1.10 fps)

Pond DP-200.1: POND



Summary for Pond DP-201.1: POND

Inflow Area = 1.911 ac, 1.94% Impervious, Inflow Depth = 3.21" for 100-yr event
Inflow = 5.58 cfs @ 12.13 hrs, Volume= 0.512 af
Outflow = 4.77 cfs @ 12.21 hrs, Volume= 0.512 af, Atten= 15%, Lag= 4.4 min
Primary = 4.77 cfs @ 12.21 hrs, Volume= 0.512 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 164.45' @ 12.21 hrs Surf.Area= 1,323 sf Storage= 1,747 cf

Plug-Flow detention time= 3.0 min calculated for 0.512 af (100% of inflow)
Center-of-Mass det. time= 3.0 min (882.1 - 879.0)

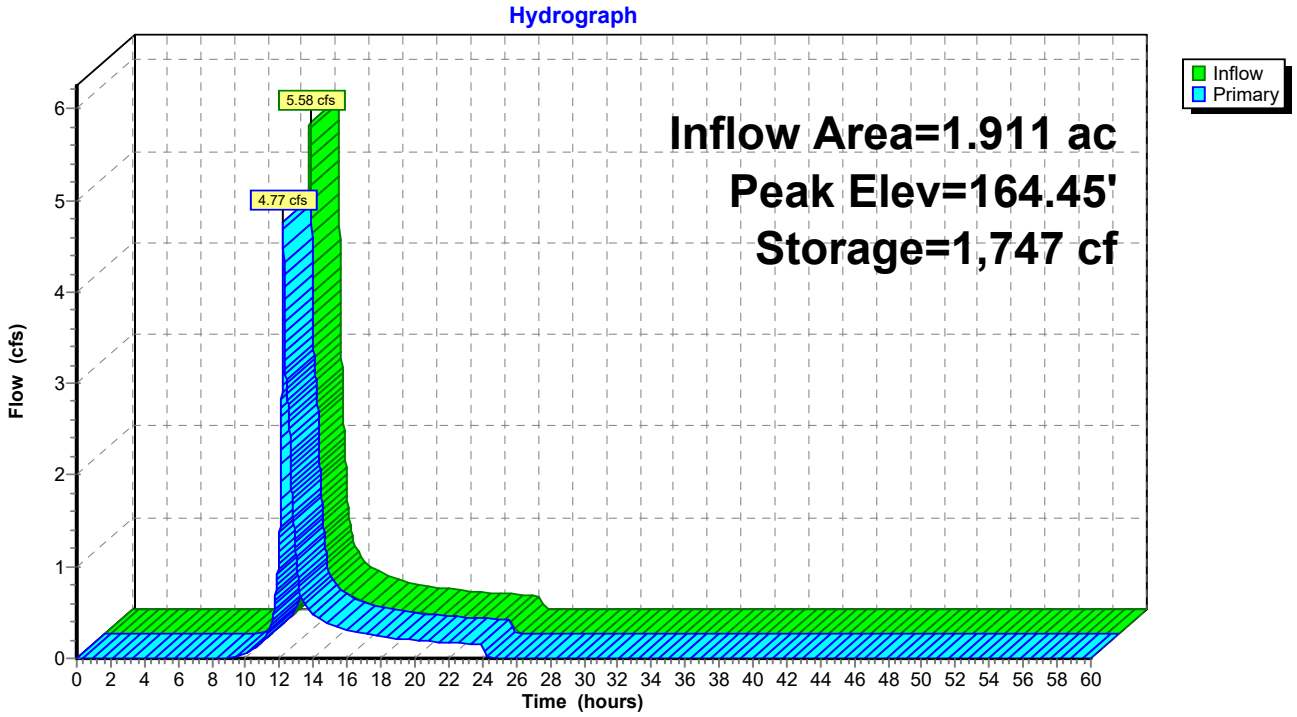
Volume	Invert	Avail.Storage	Storage Description
#1	162.00'	2,549 cf	**DETENTION POND (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
162.00	2	0	0
162.50	381	96	96
163.00	611	248	344
163.50	858	367	711
164.00	1,093	488	1,199
164.50	1,346	610	1,809
165.00	1,617	741	2,549

Device	Routing	Invert	Outlet Devices
#1	Primary	161.98'	**15.0" W x 3.0" H Vert. Circular Orifice-10-YR** C= 0.600
#2	Primary	163.16'	**6.0" W x 4.0" H Vert. Rect. Orifice-25 YR** C= 0.600
#3	Primary	164.32'	**24.0" x 36.0" Horiz. Hoiz. InletGrate -100-YR** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=4.75 cfs @ 12.21 hrs HW=164.45' (Free Discharge)
└─**1=Circular Orifice-10-YR** (Orifice Controls 2.31 cfs @ 7.38 fps)
└─**2=Rect. Orifice-25 YR** (Orifice Controls 0.85 cfs @ 5.11 fps)
└─**3=Hoiz. InletGrate -100-YR** (Weir Controls 1.60 cfs @ 1.20 fps)

Pond DP-201.1: POND



Summary for Pond DP-202.1: POND

Inflow Area = 10.341 ac, 2.43% Impervious, Inflow Depth = 3.32" for 100-yr event
Inflow = 30.53 cfs @ 12.15 hrs, Volume= 2.864 af
Outflow = 21.65 cfs @ 12.27 hrs, Volume= 2.864 af, Atten= 29%, Lag= 7.5 min
Primary = 21.65 cfs @ 12.27 hrs, Volume= 2.864 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 193.06' @ 12.27 hrs Surf.Area= 8,175 sf Storage= 10,429 cf

Plug-Flow detention time= 3.4 min calculated for 2.863 af (100% of inflow)
Center-of-Mass det. time= 3.4 min (880.4 - 877.0)

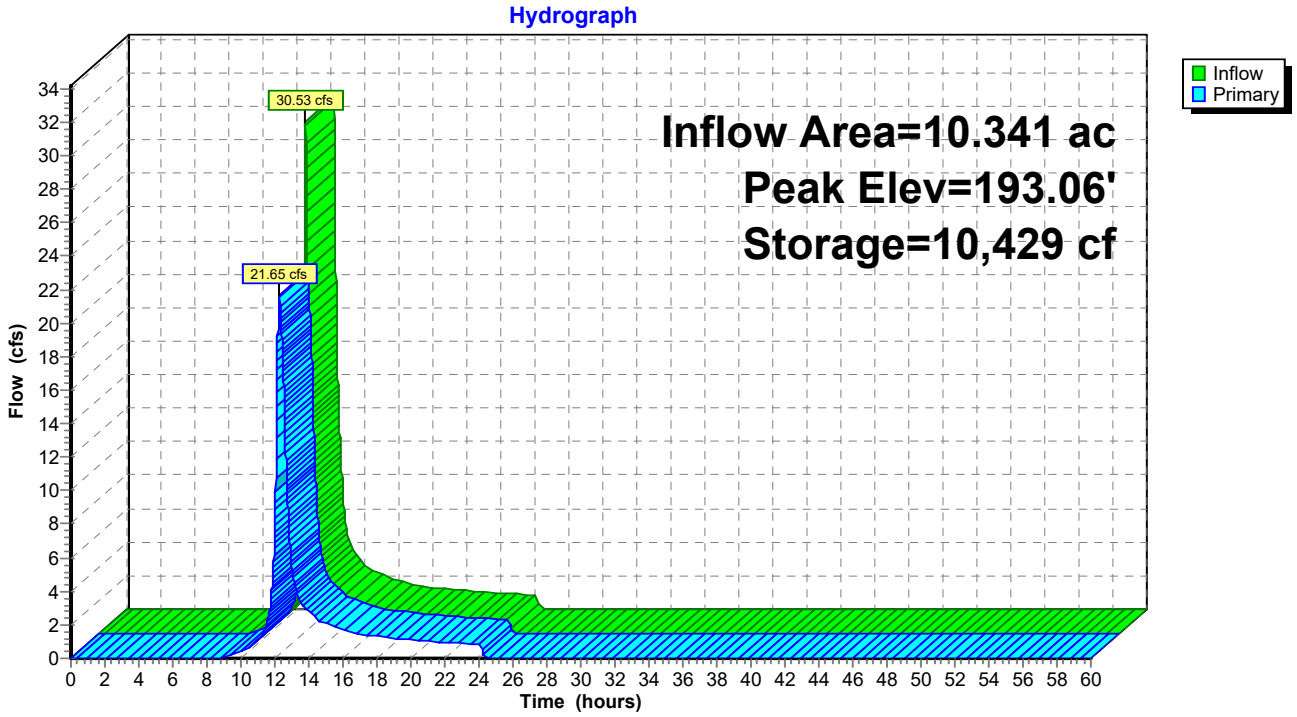
Volume	Invert	Avail.Storage	Storage Description
#1	191.00'	14,687 cf	**Detention Pond (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
191.00	2,433	0	0
191.50	3,606	1,510	1,510
192.00	4,922	2,132	3,642
192.50	6,317	2,810	6,452
193.00	7,828	3,536	9,988
193.50	10,968	4,699	14,687

Device	Routing	Invert	Outlet Devices
#1	Primary	190.57'	**13.5" W x 12.0" H Vert. Rect. Orifice -10-YR** C= 0.600
#2	Primary	190.57'	**13.5" W x 12.0" H Vert. Rect. Orifice -10-YR** C= 0.600
#3	Primary	191.88'	**24.0" W x 3.5" H Vert. Orifice/Grate -25-YR** C= 0.600
#4	Primary	191.88'	**24.0" W x 3.5" H Vert. Orifice/Grate -25-YR** C= 0.600
#5	Primary	192.82'	**24.0" W x 36.0" H Vert. Horiz. Grate - 100-yr** C= 0.600

Primary OutFlow Max=21.65 cfs @ 12.27 hrs HW=193.06' (Free Discharge)
- **1=Rect. Orifice -10-YR** (Orifice Controls 7.61 cfs @ 6.77 fps)
- **2=Rect. Orifice -10-YR** (Orifice Controls 7.61 cfs @ 6.77 fps)
- **3=Orifice/Grate -25-YR** (Orifice Controls 2.85 cfs @ 4.88 fps)
- **4=Orifice/Grate -25-YR** (Orifice Controls 2.85 cfs @ 4.88 fps)
- **5=Horiz. Grate - 100-yr** (Orifice Controls 0.73 cfs @ 1.56 fps)

Pond DP-202.1: POND



Summary for Pond DP-206.1: POND

Inflow Area = 14.651 ac, 0.00% Impervious, Inflow Depth = 3.50" for 100-yr event
Inflow = 39.17 cfs @ 12.20 hrs, Volume= 4.276 af
Outflow = 23.41 cfs @ 12.43 hrs, Volume= 4.276 af, Atten= 40%, Lag= 13.9 min
Primary = 23.41 cfs @ 12.43 hrs, Volume= 4.276 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 201.15' @ 12.43 hrs Surf.Area= 13,183 sf Storage= 29,605 cf

Plug-Flow detention time= 13.9 min calculated for 4.276 af (100% of inflow)
Center-of-Mass det. time= 13.9 min (890.2 - 876.4)

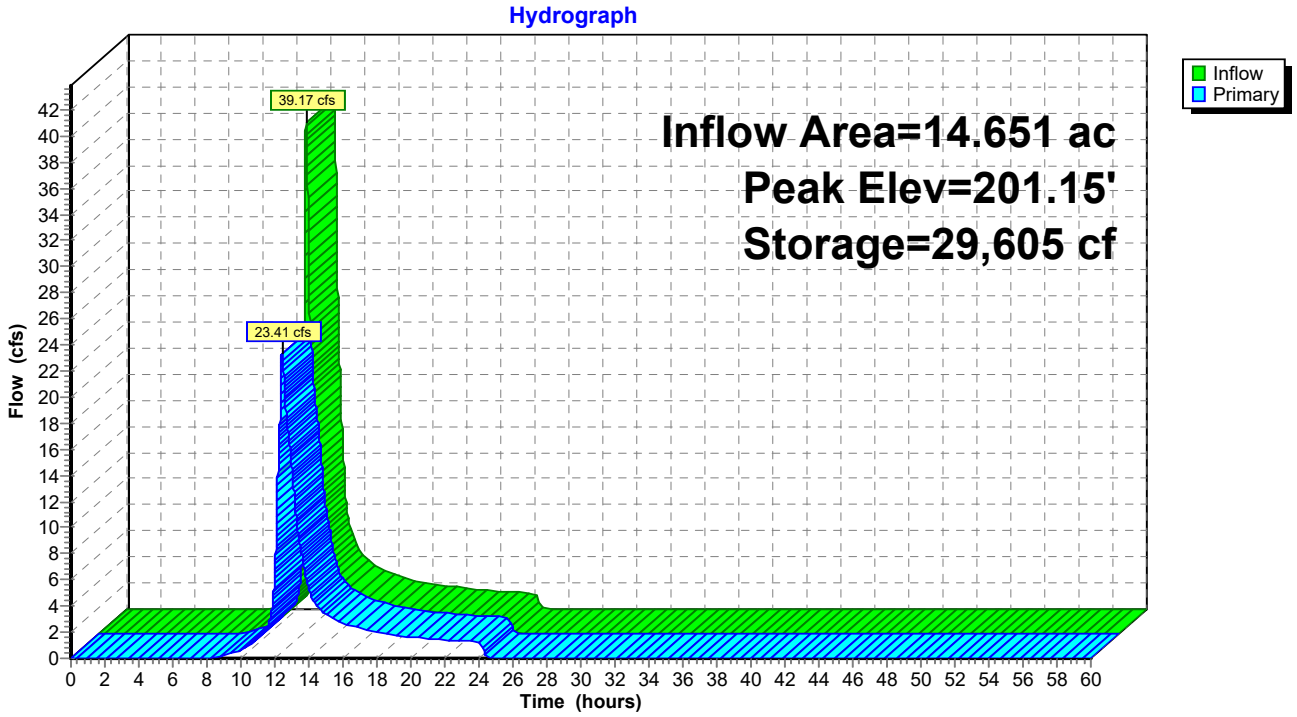
Volume	Invert	Avail.Storage	Storage Description
#1	198.50'	56,643 cf	**Detention Pond (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
198.50	7,995	0	0
199.00	10,200	4,549	4,549
199.50	10,854	5,264	9,812
200.00	11,532	5,597	15,409
200.50	12,233	5,941	21,350
201.00	12,959	6,298	27,648
201.50	13,707	6,667	34,315
202.00	14,480	7,047	41,361
202.50	15,276	7,439	48,800
203.00	16,096	7,843	56,643

Device	Routing	Invert	Outlet Devices
#1	Primary	198.08'	**22.0" W x 14.0" H Vert. Rect. Orifice -10-YR** C= 0.600
#2	Primary	199.58'	**16.0" W x 5.0" H Vert. Rect. Orifice -25-YR** C= 0.600
#3	Primary	200.90'	**24.0" x 36.0" Horiz. Horiz. Inlet -100-YR** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=23.40 cfs @ 12.43 hrs HW=201.15' (Free Discharge)
- **1=Rect. Orifice -10-YR** (Orifice Controls 16.20 cfs @ 7.57 fps)
- **2=Rect. Orifice -25-YR** (Orifice Controls 3.12 cfs @ 5.61 fps)
- **3=Horiz. Inlet -100-YR** (Weir Controls 4.08 cfs @ 1.63 fps)

Pond DP-206.1: POND



Summary for Pond DP-207.1: POND

Inflow Area = 7.764 ac, 0.00% Impervious, Inflow Depth = 3.10" for 100-yr event
Inflow = 23.98 cfs @ 12.10 hrs, Volume= 2.009 af
Outflow = 17.40 cfs @ 12.20 hrs, Volume= 2.009 af, Atten= 27%, Lag= 6.0 min
Primary = 17.40 cfs @ 12.20 hrs, Volume= 2.009 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 174.22' @ 12.20 hrs Surf.Area= 5,713 sf Storage= 7,789 cf

Plug-Flow detention time= 3.9 min calculated for 2.009 af (100% of inflow)
Center-of-Mass det. time= 3.9 min (883.5 - 879.6)

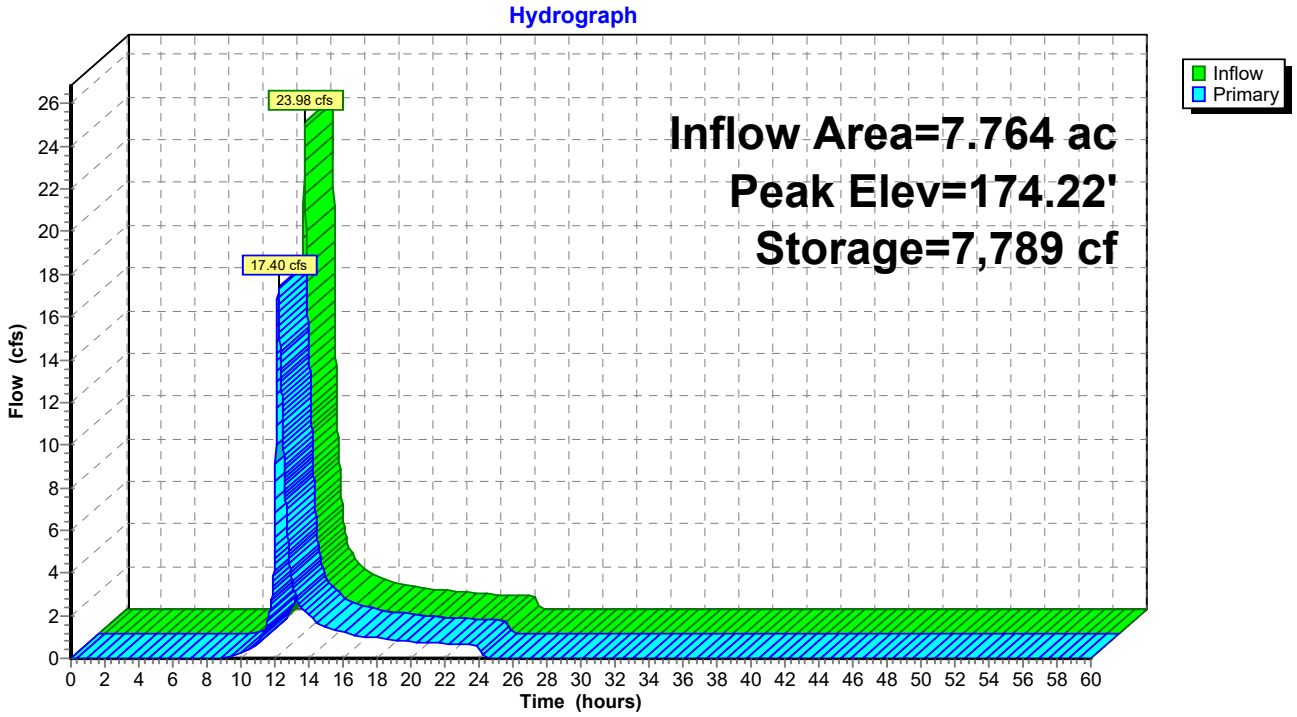
Volume	Invert	Avail.Storage	Storage Description
#1	172.50'	20,548 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
172.50	3,454	0	0
173.00	4,055	1,877	1,877
173.50	4,702	2,189	4,067
174.00	5,395	2,524	6,591
174.50	6,133	2,882	9,473
175.00	6,916	3,262	12,735
175.50	7,745	3,665	16,400
176.00	8,847	4,148	20,548

Device	Routing	Invert	Outlet Devices
#1	Primary	172.08'	**22.0" W x 13.0" H Vert. Rect. Orifice - 10 YR** C= 0.600
#2	Primary	173.16'	**22.0" W x 5.0" H Vert. Rect. Orifice - 25 YR** C= 0.600
#3	Primary	174.06'	**24.0" x 36.0" Horiz. Orifice/Grate -100-YR** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=17.40 cfs @ 12.20 hrs HW=174.22' (Free Discharge)
- **1=Rect. Orifice - 10 YR** (Orifice Controls 12.01 cfs @ 6.05 fps)
- **2=Rect. Orifice - 25 YR** (Orifice Controls 3.38 cfs @ 4.42 fps)
- **3=Orifice/Grate -100-YR** (Weir Controls 2.01 cfs @ 1.29 fps)

Pond DP-207.1: POND



Summary for Pond DP-209.1: POND

Inflow Area = 7.073 ac, 0.00% Impervious, Inflow Depth = 3.10" for 100-yr event
Inflow = 15.18 cfs @ 12.27 hrs, Volume= 1.830 af
Outflow = 9.20 cfs @ 12.53 hrs, Volume= 1.830 af, Atten= 39%, Lag= 15.8 min
Primary = 9.20 cfs @ 12.53 hrs, Volume= 1.830 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 150.97' @ 12.53 hrs Surf.Area= 7,281 sf Storage= 10,553 cf

Plug-Flow detention time= 8.6 min calculated for 1.830 af (100% of inflow)
Center-of-Mass det. time= 8.6 min (899.1 - 890.5)

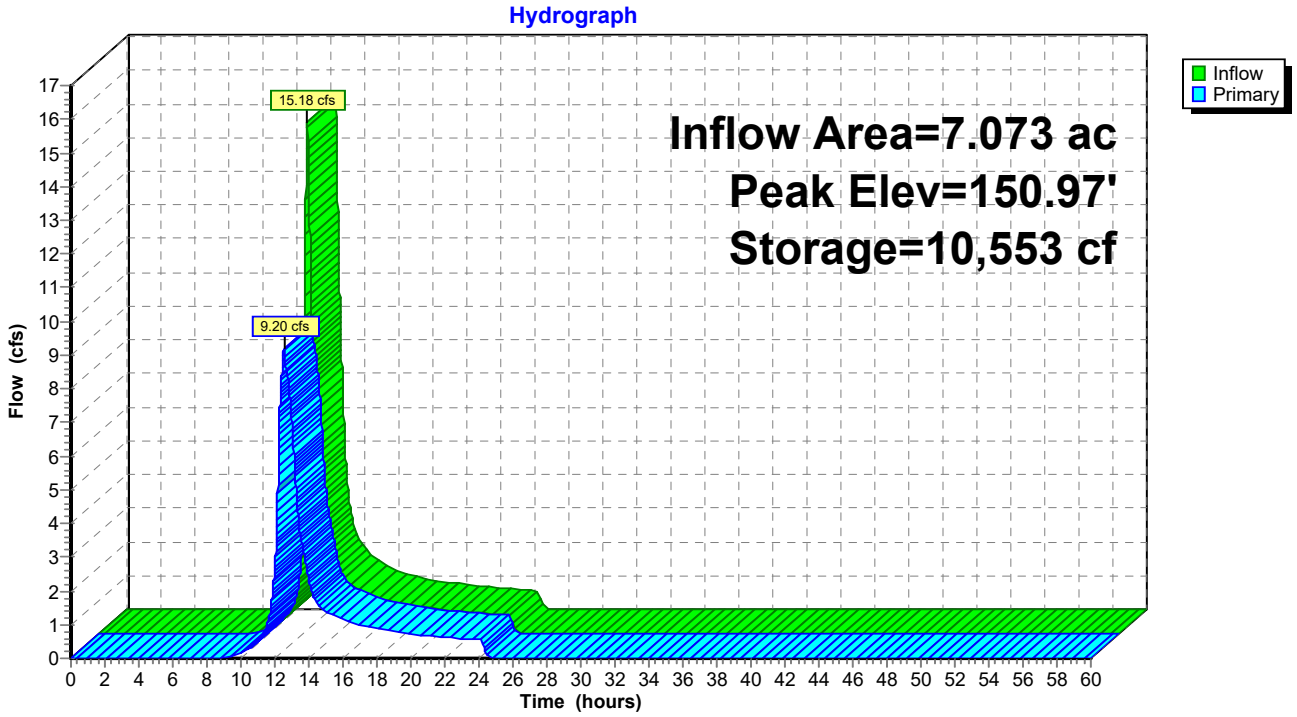
Volume	Invert	Avail.Storage	Storage Description
#1	148.50'	23,724 cf	**Detention Pond (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
148.50	699	0	0
149.00	2,087	697	697
149.50	3,631	1,430	2,126
150.00	5,333	2,241	4,367
150.50	6,516	2,962	7,329
151.00	7,334	3,463	10,792
151.50	8,177	3,878	14,670
152.00	9,045	4,306	18,975
152.50	9,952	4,749	23,724

Device	Routing	Invert	Outlet Devices
#1	Primary	148.17'	**13.0" W x 8.0" H Vert. Rect. Orifice -10-YR** C= 0.600
#2	Primary	149.51'	**13.0" W x 7.0" H Vert. Rect. Orifice -25-YR** C= 0.600
#3	Primary	150.91'	**24.0" x 36.0" Horiz. Emergency Orifice/Grate** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=9.18 cfs @ 12.53 hrs HW=150.97' (Free Discharge)
- **1=Rect. Orifice -10-YR** (Orifice Controls 5.45 cfs @ 7.55 fps)
- **2=Rect. Orifice -25-YR** (Orifice Controls 3.28 cfs @ 5.18 fps)
- **3=Emergency Orifice/Grate** (Weir Controls 0.45 cfs @ 0.78 fps)

Pond DP-209.1: POND



Summary for Pond DP-212.1: POND

Inflow Area = 2.212 ac, 0.00% Impervious, Inflow Depth = 3.00" for 100-yr event
Inflow = 4.66 cfs @ 12.22 hrs, Volume= 0.552 af
Outflow = 4.40 cfs @ 12.29 hrs, Volume= 0.552 af, Atten= 6%, Lag= 4.2 min
Primary = 4.40 cfs @ 12.29 hrs, Volume= 0.552 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 123.87' @ 12.29 hrs Surf.Area= 1,274 sf Storage= 508 cf

Plug-Flow detention time= 0.7 min calculated for 0.552 af (100% of inflow)
Center-of-Mass det. time= 0.7 min (891.2 - 890.5)

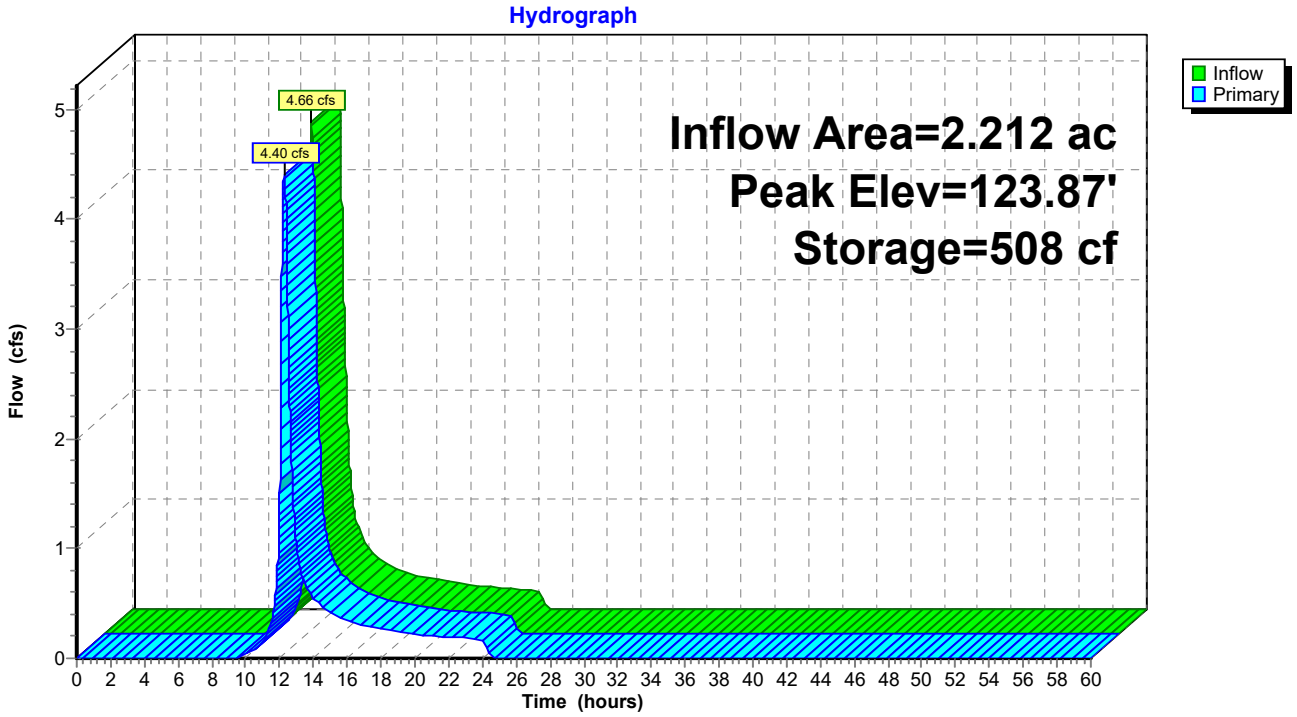
Volume	Invert	Avail.Storage	Storage Description
#1	123.00'	5,399 cf	**DETENTION POND (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
123.00	3	0	0
123.50	626	157	157
124.00	1,505	533	690
124.50	1,887	848	1,538
125.00	2,313	1,050	2,588
125.50	2,795	1,277	3,865
126.00	3,342	1,534	5,399

Device	Routing	Invert	Outlet Devices
#1	Primary	122.95'	**24.0" W x 5.0" H Vert. Rect. Orifice -10YR** C= 0.600
#2	Primary	123.37'	**24.0" W x 2.0" H Vert. Rect. Orifice - 25-yr** C= 0.600
#3	Primary	124.50'	**24.0" x 36.0" Horiz. Emergency Spillway** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=4.40 cfs @ 12.29 hrs HW=123.87' (Free Discharge)
└─**1=Rect. Orifice -10YR** (Orifice Controls 3.37 cfs @ 4.04 fps)
└─**2=Rect. Orifice - 25-yr** (Orifice Controls 1.03 cfs @ 3.10 fps)
└─**3=Emergency Spillway** (Controls 0.00 cfs)

Pond DP-212.1: POND



Summary for Pond DP-300.1: POND

Inflow Area = 0.696 ac, 0.00% Impervious, Inflow Depth = 4.90" for 100-yr event
Inflow = 3.77 cfs @ 12.07 hrs, Volume= 0.284 af
Outflow = 2.56 cfs @ 12.17 hrs, Volume= 0.284 af, Atten= 32%, Lag= 5.7 min
Primary = 2.56 cfs @ 12.17 hrs, Volume= 0.284 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 231.73' @ 12.17 hrs Surf.Area= 1,328 sf Storage= 1,247 cf

Plug-Flow detention time= 3.8 min calculated for 0.284 af (100% of inflow)
Center-of-Mass det. time= 3.8 min (838.6 - 834.8)

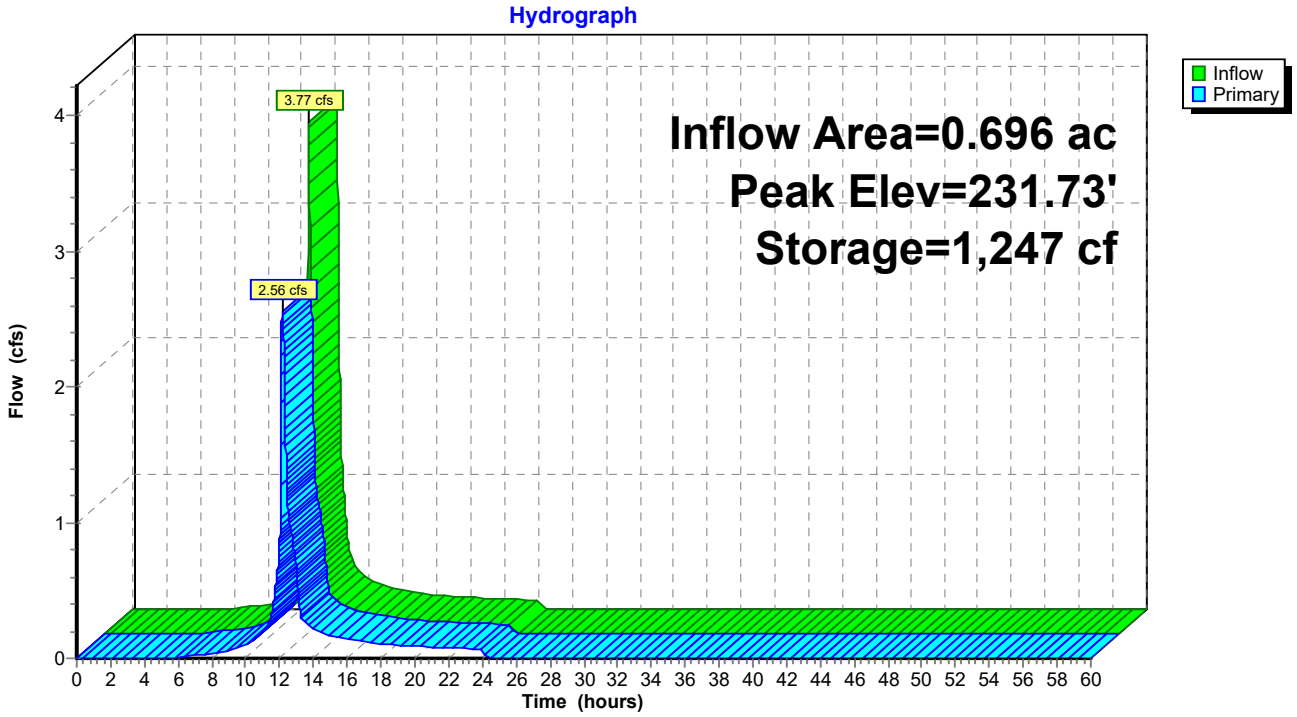
Volume	Invert	Avail.Storage	Storage Description
#1	230.00'	3,592 cf	**Detention Pond (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
230.00	195	0	0
230.50	469	166	166
231.00	789	315	481
231.50	1,147	484	965
232.00	1,543	673	1,637
232.50	1,943	872	2,509
233.00	2,389	1,083	3,592

Device	Routing	Invert	Outlet Devices
#1	Primary	229.60'	**5.0" W x 5.0" H Vert. Rect. Orifice - 10-YR** C= 0.600
#2	Primary	231.26'	**24.0" W x 3.0" H Vert. Rect. Orifice - 25-YR** C= 0.600
#3	Primary	231.97'	**24.0" x 36.0" Horiz. Horiz. Inlet-Emergency** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=2.56 cfs @ 12.17 hrs HW=231.73' (Free Discharge)
- **1=Rect. Orifice - 10-YR** (Orifice Controls 1.16 cfs @ 6.67 fps)
- **2=Rect. Orifice - 25-YR** (Orifice Controls 1.40 cfs @ 2.80 fps)
- **3=Horiz. Inlet-Emergency** (Controls 0.00 cfs)

Pond DP-300.1: POND



Summary for Pond DP-302.1: POND

Inflow Area = 5.613 ac, 0.00% Impervious, Inflow Depth = 4.06" for 100-yr event
Inflow = 21.85 cfs @ 12.11 hrs, Volume= 1.897 af
Outflow = 13.20 cfs @ 12.26 hrs, Volume= 1.897 af, Atten= 40%, Lag= 9.2 min
Primary = 13.20 cfs @ 12.26 hrs, Volume= 1.897 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 213.27' @ 12.26 hrs Surf.Area= 7,224 sf Storage= 10,060 cf

Plug-Flow detention time= 5.1 min calculated for 1.897 af (100% of inflow)
Center-of-Mass det. time= 5.1 min (862.5 - 857.3)

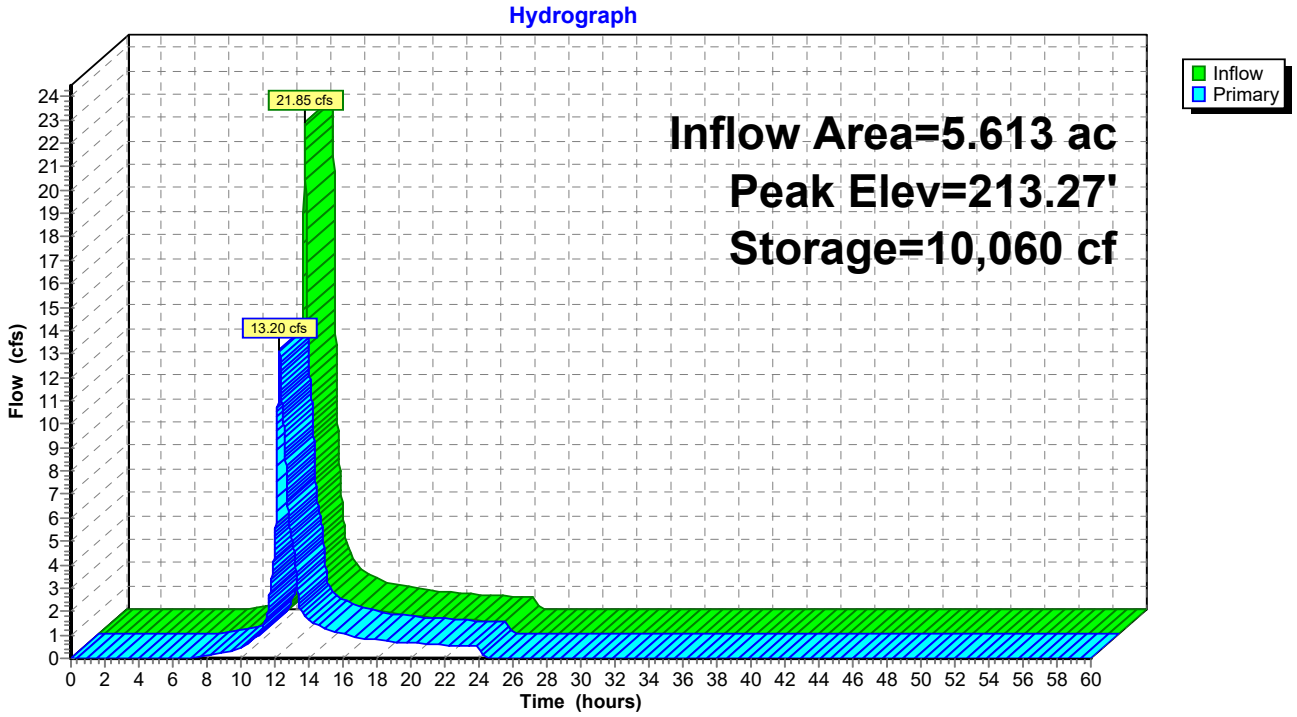
Volume	Invert	Avail.Storage	Storage Description
#1	210.00'	43,312 cf	**Detention Basin (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
210.00	76	0	0
210.50	485	140	140
211.00	1,270	439	579
211.50	2,439	927	1,506
212.00	3,998	1,609	3,116
212.50	5,055	2,263	5,379
213.00	6,355	2,853	8,231
213.50	7,968	3,581	11,812
214.00	10,041	4,502	16,314
214.50	11,678	5,430	21,744
215.00	13,494	6,293	28,037
215.50	15,488	7,246	35,283
216.00	16,629	8,029	43,312

Device	Routing	Invert	Outlet Devices
#1	Primary	209.78'	**22.0" W x 5.2" H Vert. Rect. Orifice - 10-YR** C= 0.600
#2	Primary	212.12'	**24.0" W x 6.0" H Vert. Rect. Orifice - 25-yr** C= 0.600
#3	Primary	213.13'	**24.0" x 36.0" Horiz. Orifice/Grate -100-YR** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=13.16 cfs @ 12.26 hrs HW=213.27' (Free Discharge)
- **1=Rect. Orifice - 10-YR** (Orifice Controls 6.92 cfs @ 8.71 fps)
- **2=Rect. Orifice - 25-yr** (Orifice Controls 4.55 cfs @ 4.55 fps)
- **3=Orifice/Grate -100-YR** (Weir Controls 1.69 cfs @ 1.22 fps)

Pond DP-302.1: POND



Summary for Pond DP-303.1: POND

Inflow Area = 6.711 ac, 0.00% Impervious, Inflow Depth = 4.67" for 100-yr event
Inflow = 28.66 cfs @ 12.14 hrs, Volume= 2.611 af
Outflow = 12.51 cfs @ 12.39 hrs, Volume= 2.611 af, Atten= 56%, Lag= 15.4 min
Primary = 12.51 cfs @ 12.39 hrs, Volume= 2.611 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 188.17' @ 12.39 hrs Surf.Area= 15,466 sf Storage= 23,537 cf

Plug-Flow detention time= 20.0 min calculated for 2.610 af (100% of inflow)
Center-of-Mass det. time= 20.0 min (864.5 - 844.5)

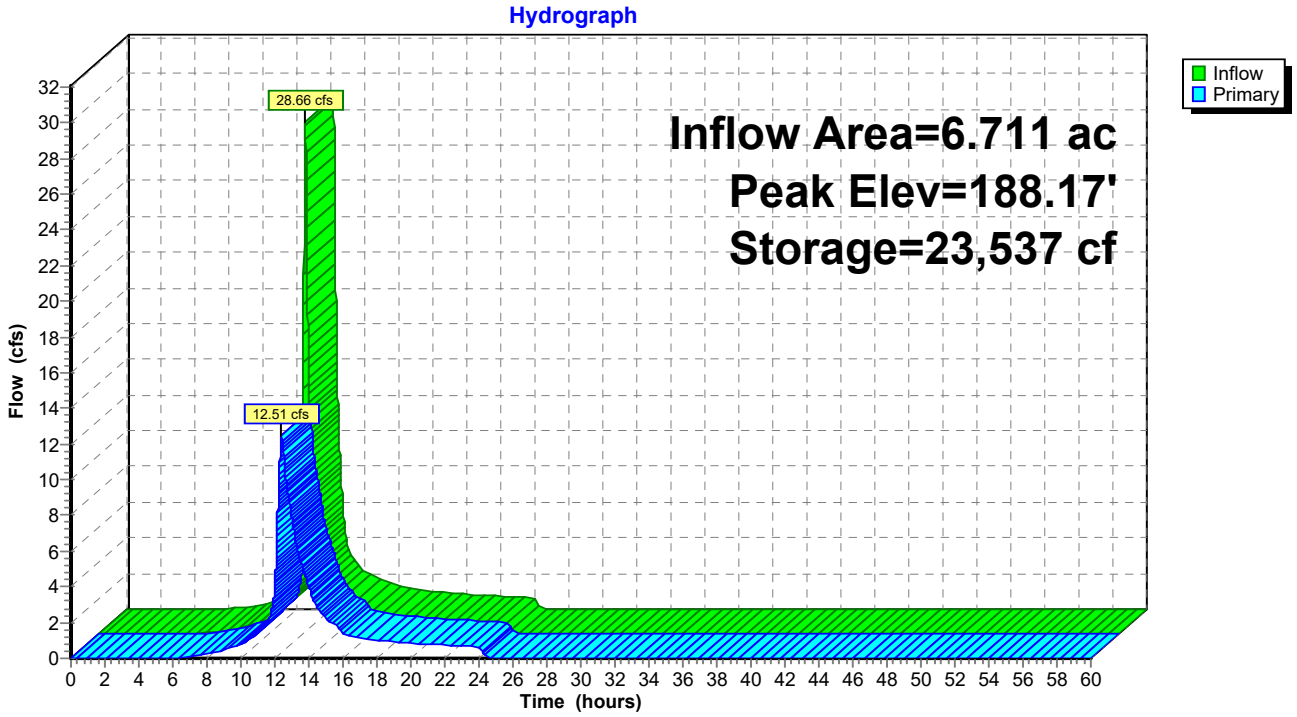
Volume	Invert	Avail.Storage	Storage Description
#1	186.50'	54,389 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
186.50	11,996	0	0
187.00	13,809	6,451	6,451
187.50	14,507	7,079	13,530
188.00	15,221	7,432	20,962
188.50	15,950	7,793	28,755
189.00	16,696	8,162	36,917
189.50	17,466	8,541	45,457
190.00	18,260	8,932	54,389

Device	Routing	Invert	Outlet Devices
#1	Primary	186.00'	**16.0" W x 12.0" H Vert. Rect. Orifice -10-YR** C= 0.600
#2	Primary	187.31'	**18.0" W x 4.0" H Vert. Rect. Orifice - 25-yr** C= 0.600
#3	Primary	188.00'	**24.0" x 36.0" Horiz. Orifice/Grate -100-YR** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=12.50 cfs @ 12.39 hrs HW=188.17' (Free Discharge)
- **1=Rect. Orifice -10-YR** (Orifice Controls 8.26 cfs @ 6.19 fps)
- **2=Rect. Orifice - 25-yr** (Orifice Controls 2.00 cfs @ 3.99 fps)
- **3=Orifice/Grate -100-YR** (Weir Controls 2.25 cfs @ 1.34 fps)

Pond DP-303.1: POND



Summary for Pond DP-304.1: POND

Inflow Area = 5.875 ac, 0.00% Impervious, Inflow Depth = 4.62" for 100-yr event
Inflow = 20.98 cfs @ 12.21 hrs, Volume= 2.262 af
Outflow = 14.63 cfs @ 12.38 hrs, Volume= 2.262 af, Atten= 30%, Lag= 10.1 min
Primary = 14.63 cfs @ 12.38 hrs, Volume= 2.262 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 208.22' @ 12.38 hrs Surf.Area= 6,621 sf Storage= 12,995 cf

Plug-Flow detention time= 8.2 min calculated for 2.262 af (100% of inflow)
Center-of-Mass det. time= 8.2 min (858.9 - 850.7)

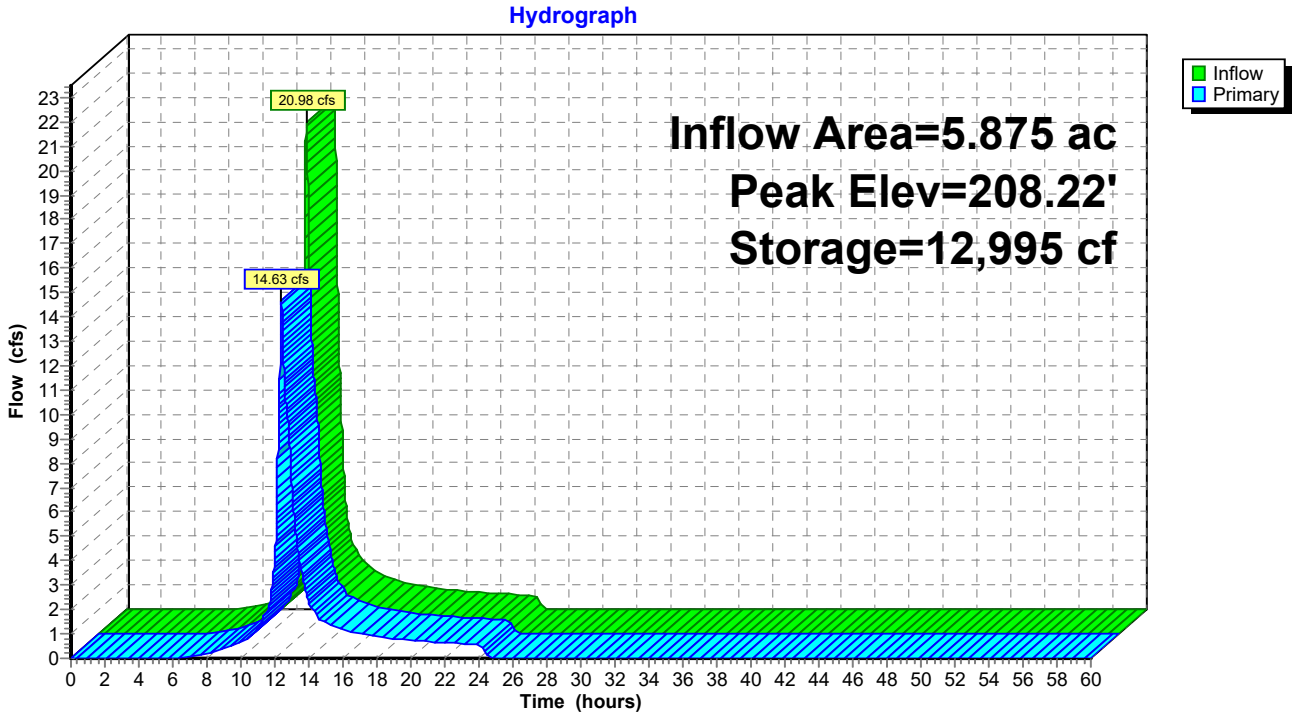
Volume	Invert	Avail.Storage	Storage Description
#1	205.50'	22,334 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
205.50	3,830	0	0
206.00	4,604	2,109	2,109
206.50	2,033	1,659	3,768
207.00	5,474	1,877	5,645
207.50	5,934	2,852	8,497
208.00	6,408	3,086	11,582
208.50	6,900	3,327	14,909
209.00	7,417	3,579	18,488
209.50	7,965	3,846	22,334

Device	Routing	Invert	Outlet Devices
#1	Primary	205.00'	**17.0" W x 8.5" H Vert. Rect. Orifice - 10-YR** C= 0.600
#2	Primary	206.79'	**14.5" W x 6.0" H Vert. Rect. Orifice - 25-YR** C= 0.600
#3	Primary	208.00'	**24.0" x 36.0" Horiz. Horiz. Inlet - Emergency Inlet** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=14.62 cfs @ 12.38 hrs HW=208.22' (Free Discharge)
- **1=Rect. Orifice - 10-YR** (Orifice Controls 8.17 cfs @ 8.14 fps)
- **2=Rect. Orifice - 25-YR** (Orifice Controls 3.15 cfs @ 5.21 fps)
- **3=Horiz. Inlet - Emergency Inlet** (Weir Controls 3.30 cfs @ 1.52 fps)

Pond DP-304.1: POND



APPENDIX D

DRAINAGE MAPS

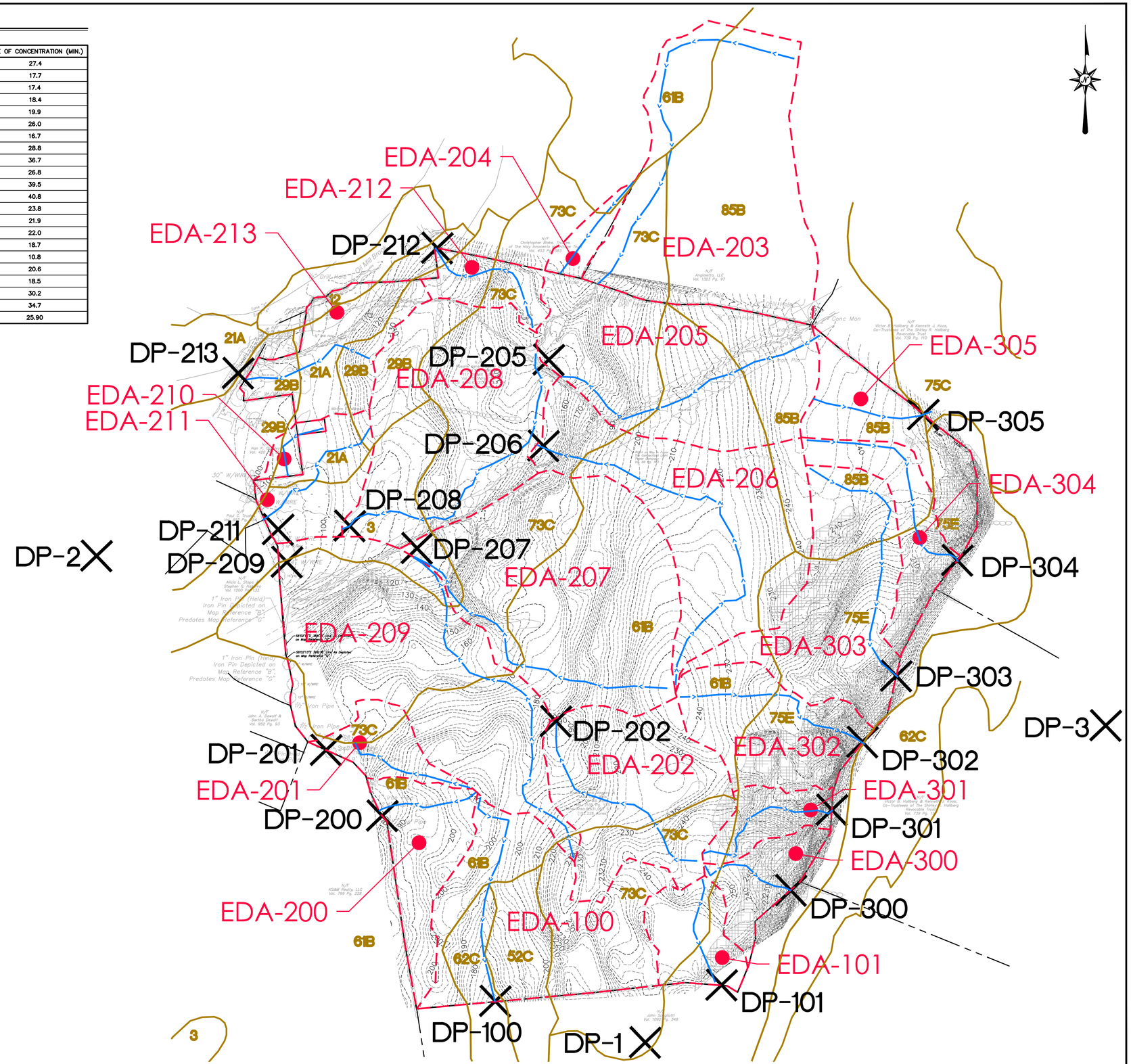
ED-1 – Existing Drainage Mapping
PD-1 – Proposed Drainage Mapping

EXISTING HYDROLOGY INFORMATION

DRAINAGE AREA	TOTAL AREA (S.F.)	IMPERVIOUS AREA (S.F.)	PERVIOUS AREA (S.F.)	PERCENT IMPERVIOUS (%)	CN	TIME OF CONCENTRATION (MIN.)
EDA-100	552,980	0	552,980	0.0%	60	27.4
EDA-101	137,916	0	137,916	0.0%	68	17.7
EDA-200	203,118	0	203,118	0.0%	60	17.4
EDA-201	102,943	0	102,943	0.0%	60	18.4
EDA-202	450,456	0	450,456	0.0%	60	19.9
EDA-203	801,310	0	801,310	0.0%	69	26.0
EDA-204	47,524	0	47,524	0.0%	60	16.7
EDA-205	596,493	0	596,493	0.0%	67	28.8
EDA-206	606,548	0	606,548	0.0%	64	36.7
EDA-207	764,871	0	764,871	0.0%	62	26.8
EDA-208	608,292	0	608,292	0.0%	66	39.5
EDA-209	773,358	0	773,358	0.0%	63	40.8
EDA-210	29,356	0	29,356	0.0%	70	23.8
EDA-211	166,352	0	166,352	0.0%	75	21.9
EDA-212	97,138	0	97,138	0.0%	61	22.0
EDA-213	232,559	0	232,559	0.0%	68	18.7
EDA-300	118,942	0	118,942	0.0%	78	10.8
EDA-301	98,859	0	98,859	0.0%	76	20.6
EDA-302	284,755	0	284,755	0.0%	71	18.5
EDA-303	437,598	0	437,598	0.0%	76	30.2
EDA-304	173,414	0	173,414	0.0%	76	34.7
EDA-305	223,863	0	223,863	0.0%	75	25.90

LEGEND

- PROPERTY LINE
- DRAINAGE AREA BOUNDARY
- TIME OF CONCENTRATION FLOW PATH
- SOIL TYPE BOUNDARY
- 61B — SOIL TYPE DESIGNATION



REFER TO SHEET GN-1 FOR SITEWORK GENERAL NOTES

FOR PERMITTING PURPOSES ONLY NOT RELEASED FOR CONSTRUCTION

GRAPHIC SCALE
200 100 0 200
SCALE IN FEET

Architecture Engineering Environmental Land Surveying
BL Companies
355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PHOTOVOLTAIC INSTALLATION
117 OIL MILL ROAD
WATERFORD, CONNECTICUT

REVISIONS

No.	Date	Desc.

Designed	H.J.L.
Drawn	H.J.L.
Reviewed	M.P.S.
Scale	1"=200'
Project No.	17D3515
Date	06/08/2018
CAD File:	ED17D3515 01

Title
EXISTING DRAINAGE PLAN

Sheet No.
ED-1

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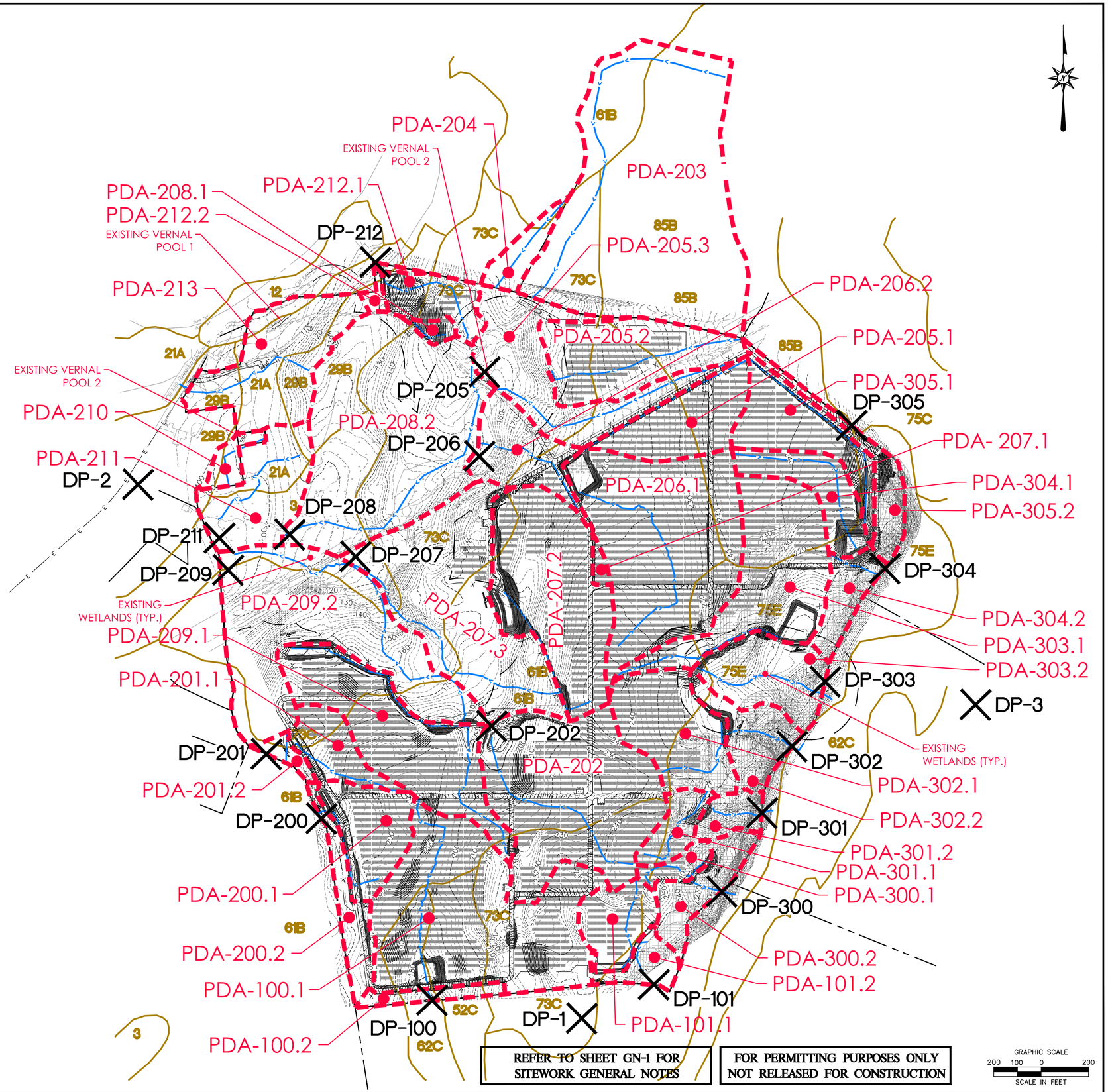
PROPOSED HYDROLOGY INFORMATION

DRAINAGE AREA	TOTAL AREA (S.F.)	IMPERVIOUS AREA** (S.F.)	PERVIOUS AREA (S.F.)	PERCENT IMPERVIOUS (%)	CN	TIME OF CONCENTRATION (MIN.)
PDA-100.1	520,481	0	520,481	0.0%	60	18.0
PDA-100.2	32,550	0	32,550	0.0%	58	6.10
PDA-101.1	90,361	0	90,361	0.0%	63	12.1
PDA-101.2	47,554	0	47,554	0.0%	76	11.2
PDA-200.1	128,991	0	128,991	0.0%	63	12.9
PDA-200.2	74,126	0	74,126	0.0%	61	11.7
PDA-201.1	83,227	0	83,227	0.0%	60	13.0
PDA-201.2	19,716	0	19,716	0.0%	58	13.0
PDA-202	450,459	0	450,459	0.0%	61	13.8
PDA-203	801,310	0	801,310	0.0%	69	26.0
PDA-204	47,524	0	47,524	0.0%	60	16.7
PDA-205.1	146,606	0	146,606	0.0%	65	13.8
PDA-205.2	215,116	0	215,116	0.0%	67	13.4
PDA-205.3	234,811	0	234,811	0.0%	66	9.3
PDA-206.1	481,525	0	481,525	0.0%	62	19.5
PDA-206.2	124,905	0	124,905	0.0%	70	10.0
PDA-207.1	10,073	0	10,073	0.0%	58	13.8
PDA-207.2	338,199	0	338,199	0.0%	59	10.6
PDA-207.3	416,598	0	416,598	0.0%	63	17.0
PDA-208.1	14,791	0	14,791	0.0%	58	8.6
PDA-208.2	593,566	0	593,566	0.0%	66	36.6
PDA-209.1	308,082	0	308,082	0.0%	59	22.4
PDA-209.2	465,264	0	465,264	0.0%	60	21.0
PDA-210	29,356	0	29,356	0.0%	70	23.8
PDA-211	166,352	0	166,352	0.0%	75	21.9
PDA-212.1	81,563	0	81,563	0.0%	58	20.6
PDA-212.2	15,574	0	15,574	0.0%	62	8.2
PDA-213	232,262	0	232,262	0.0%	69	20.5
PDA-300.1	30,322	0	30,322	0.0%	75	9.2
PDA-300.2	88,620	0	88,620	0.0%	77	5.0
PDA-301.1	55,382	0	55,382	0.0%	73	10.5
PDA-301.2	43,476	0	43,476	0.0%	77	5.3
PDA-302.1	189,109	0	189,109	0.0%	66	10.1
PDA-302.2	95,647	0	95,647	0.0%	75	8.8
PDA-303.1	292,331	0	292,331	0.0%	73	13.7
PDA-303.2	145,287	0	145,287	0.0%	78	10.2
PDA-304.1	106,009	0	106,009	0.0%	72	18.9
PDA-304.2	67,405	0	67,405	0.0%	73	8.7
PDA-305.1	149,887	0	149,887	0.0%	73	19.3
PDA-305.2	73,928	0	73,928	0.0%	74	5.0

**NOTE: FOR THE PURPOSES OF THIS DRAINAGE ANALYSIS, THE WATER SURFACE AREA OF EACH POND WAS NOT INCLUDED WITHIN THE IMPERVIOUS CALCULATIONS SHOWN.

LEGEND

- PROPERTY LINE
- DRAINAGE AREA BOUNDARY
- TIME OF CONCENTRATION FLOW PATH
- SOIL TYPE BOUNDARY
- 61B — SOIL TYPE DESIGNATION



REFER TO SHEET GN-1 FOR SITEWORK GENERAL NOTES

FOR PERMITTING PURPOSES ONLY NOT RELEASED FOR CONSTRUCTION

GRAPHIC SCALE
200 100 0 200
SCALE IN FEET

Architecture Engineering Environmental Land Surveying
BL Companies
355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PHOTOVOLTAIC INSTALLATION
117 OIL MILL ROAD
WATERFORD, CONNECTICUT

REVISIONS
No. Date Desc.

Designed	H.J.L.
Drawn	H.J.L.
Reviewed	M.P.S.
Scale	1"=200'
Project No.	17D3515
Date	06/08/2018
CAD File:	PD17D3515.01

Title
PROPOSED DRAINAGE PLAN

Sheet No.
PD-1

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APPENDIX E

STORMWATER SYSTEM
OPERATION AND MAINTENANCE MANUAL

Appendix F:

Stormwater System Operations and Maintenance Plan

For the Proposed:

16.78 MW Photovoltaic Installation

Located at:

117 Oil Mill Road
Waterford, Connecticut

Prepared for Submission to:

Public Utilities Regulatory Authority
Connecticut Siting Council

June 8th, 2018

Prepared for:

Greenskies Renewable Energy
180 Johnson Street
Middletown, Connecticut

Prepared by:

Architecture
Engineering
Environmental
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BL Project Number: 17D3515

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General Overview

The property, located at 117 Oil Mill Road in Waterford, CT is approximately 152.23 acres in size. The site is currently undeveloped forested land, including a clear-cut utility easement and a dirt access drive. The proposed condition will consist of a 16.78 MW Photovoltaic Solar Array facility with supporting gravel access roads, a small parking area, and supporting electrical equipment such as solar panels, cabinets, etc. The proposed solar panels will general follow the existing grade of the land. The site demolition will include clearing and grubbing, removal of debris, if encountered, and general earthwork to prepare for the installation of detention basins, swales, and gravel access roads. It is anticipated that the existing forested areas outside of the wetland will be cleared and replanted with grasses and shrubs as specified within the landscape plans. To ensure that all existing hydrologic conditions are maintained, a series of detention ponds have been designed with each sub-drainage area throughout the site. Due to the existing topography, some of the sub-drainage areas impacted by the development have been allowed to free release offsite undetained. To mitigate this potential increase in stormwater runoff, the nearest detention pond has been increased in size to over detain and account for these free-released flows. As this development does not include any impervious surfaces, water quality volume and release rates have been omitted from this report. A copy of the Proposed Drainage Plan (PD-01) has been included in the appendices of this report and shall be used in conjunction with this report.

Per the FEMA Flood Insurance Rate Map Number 09011C0343G for New London County, Connecticut, Town of North Waterford 090107 map effective date: July 18, 2011, the site resides in FEMA Flood Hazard Zone X (Unshaded) and Zone A (Shaded). Zone X (Unshaded) is defined as areas of minimal flood hazard and encompasses the majority of the subject parcel. Zone A (Shaded) includes a small area south of Oil Mill Brook and along the northern property line. Zone A (Shaded) and is defined as an area that is subject to flooding by the 1% annual chance flood (100-year flood). No base flood elevation is known for Oil Mill Brook.

The following Operations and Maintenance Plan was prepared specifically for this proposed development in the Town of Waterford, Connecticut. The Plan was developed to satisfy the requirements of the Connecticut Department of Energy and Environmental Protection's 2002 Connecticut Guidelines for Soil Erosion and Sediment Control.

Purpose & Goals

The purpose of this Manual is to ensure that the stormwater management components are operated in accordance with all approvals and permits. The primary goal is to inform all the property managers about how the system operates and what maintenance items are necessary to protect downstream wetlands and watercourses. The secondary goal is to provide a practical, efficient means of maintenance planning and record keeping verifying permit compliance.

Responsible Parties

Greenskies Renewable Energy, LLC will be responsible for implementing the Plan on the entire property. The party will be responsible for overseeing all maintenance associated with the proposed solar field development.

Maintenance inspections shall be performed by a qualified professional.

Some utilities located on the site will be owned and maintained by various utility companies in accordance with their standards. The property owner may maintain the service connections.

List of Permits & Special Conditions

The project will receive several permits, which may contain special conditions that require compliance by the property owner and maintenance contractors. This permit may include the following:

- Connecticut Sitting Council
- Connecticut General Permit for the Discharge of Stormwater Associated with Construction Activity

Maintenance Logs and Checklists

The property owner will keep a record of all maintenance procedures performed, date of inspection/ cleanings, etc. Copies of inspection reports and maintenance records shall be kept on-site.

Forms

The following forms will be developed for annual maintenance. Copies of the forms will be kept on-site as part of the Storm Water Management Plan.

- Annual Checklist
- Quarterly Checklist
- Monthly Checklist

Employee Training

The necessary Greenskies Renewable Energy, LLC employees will take part in an employee-training program, with annual up-dates, to ensure that the qualified employees charged with maintaining the BMP's and grounds do so in accordance with the approved permit conditions. All employees that have maintenance duties will be adequately informed of their responsibilities. All sub-contractors (snowplowing, etc.) will be informed of special requirements and responsibilities, if required.

Spill Control

Greenskies Renewable Energy, LLC will have a spill control program. That program will be updated annually and incorporated into the employee-training program. In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and clean-up:

- Manufacturer's recommended methods for spill clean-up will be clearly posted and site personnel will be made aware of the procedures and the location of the information and clean-up supplies.
- Materials and equipment necessary for spill clean-up will be kept in the material storage area on-site. Equipment and materials will include but not be limited to: absorbent booms or mats, brooms, dust pans, mops, rags, gloves, goggles, sand, and plastic and metal trash containers specifically for this purpose.
- All spills will be cleaned immediately after discovery.
- The spill area will be kept well-ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with hazardous substance.
- Spills of toxic or hazardous material, regardless of size, will be reported to the appropriate State or local government agency.
- If a spill occurs, this plan will be adjusted to include measures to prevent this type of spill from reoccurring and how to clean the spill if there is another one. A description of the spill, the cause, and the remediation measures will also be included.

A spill report shall be prepared by the Greenskies Renewable Energy, LLC following each occurrence. The spill report shall present a description of the release, including quantity and type of material, date of spill, circumstances leading to the release, location of spill, response actions and personnel, documentation of notifications and corrective measures implemented to prevent reoccurrence.

Greenskies Renewable Energy, LLC shall identify an appropriately qualified and trained site employee involved with day-to-day site operations to be the spill prevention and clean-up coordinator. The name(s) of responsible spill personnel shall be posted on-site. Each employee shall be instructed that all spills are to be reported to the spill prevention and clean-up coordinator.

Storm Water Management

System Components

The storm water management system has several components that are shown on the Grading and Drainage Plan (GD-1), that performs various functions in collecting storm water runoff. They are as follows:

Pond Outlet Structure

Each Pond Outlet Structure shall be inspected every four months, with one inspection occurring during the month of April. Any debris occurring within one foot from the bottom of each sump or impeding flow shall be removed by Vacuum "Vactor" type of maintenance equipment.

Detention Area/Sediment Forebay

Detention area and the sediment forebay shall be checked for and cleaned of trash, excessive sediment, other debris and erosion. A detailed maintenance logbook shall be kept with information including, but not be limited to, the date of inspection, record of grit depth, condition of vegetation, observation of any floatables, and date of cleaning performed.

For the first year of operation following construction, inspect the detention area and sediment forebay each month for the months of June, July, August and September, and once every six months thereafter. After the first year of operation, the detention area and sediment forebay shall be inspected a minimum of two times yearly with one inspection occurring in the month of April. Any accumulations found to be occurring within one foot of the inlet/outlet pipes shall be removed from the detention area and sediment forebay, and properly disposed off-site. Also, any floating material discovered during inspections shall be removed from the basin.

A detailed maintenance logbook shall be kept for the detention area and sediment forebay. Information is to include, but not be limited to, the date of inspection, condition of the inlet pipe(s), condition of outlet control pipes, observation of any floatables, and date of cleaning performed.

Regular inspection/maintenance for the detention area and sediment forebay include:

- removing debris and excess sediment from the detention area and sediment forebay
- checking that the storm inlet into the basin is clear and functioning properly,
- checking that the outlet control pipe is clear and the outlet is functioning properly,
- checking that the emergency spillway is clear and functioning properly,
- checking that the outlet channel from the sediment forebay is clear and not eroding,
- removing paper and debris from inside of the sediment forebay
- mowing the crest of the basin for maintenance access
- removing invasive plant species from of the basin
- checking slopes for any dips or settlement that might indicate seepage

Outlet Protection

Greenskies Renewable Energy, LLC is responsible for maintaining the proposed stormwater outfalls, including but not limited to culverts, level spreaders, flared-end sections, and rip rap. A Connecticut licensed hauler shall clean the inlet and outlet of each outlet and dispose of removed sediment legally. As part of the hauling contract, the hauler shall notify Greenskies

Renewable Energy, LLC where the material is being disposed. Additional maintenance may be required for each cross to include, but not limited to, repairing and modifying rip rap at outlet and inlet of each culvert, installing additional gravel to access road as a result of erosion from a major storm event, and installation of additional BMPs to prevent future erosion.

Each stormwater outfall shall be visually inspected every four months, with one inspection occurring during the month of April. Any debris impeding flows into our out of each crossing shall be removed and disposed of per industry standards. This includes trash, excessive sediment, vegetation, erosion, and other debris.

Swales

Grassed drainage swales shall be checked for and cleaned of trash, excessive sediment, and other debris monthly. Each swale throughout the property shall be maintained as meadow during the growing season. A detailed maintenance record shall be kept with information including, but not limited to, the date of inspections, record of grit depth within the swale, condition of the vegetation, observation of any floatables, and date of cleaning performed.

Site Maintenance

Parking Areas

Parking areas shall be kept in operable conditions and maintained as necessary by the Greenskies Renewable Energy, LLC to be clear of trash, sediments, and other debris that would inhibit use. Additional installation of gravel and BMPs may be required periodically to ensure proper function.

Landscaping

The management company retained by Greenskies Renewable Energy, LLC will maintain landscaped areas. Normally the landscaping maintenance will consist of pruning, mulching, planting, mowing lawns, raking leaves, etc. The lawn areas, once established, will be maintained at a typical height of 3-1/2”. This will allow the grass to be maintained with minimal impact from weeds and/or pests. The low-maintenance areas will be maintained as a meadow or allowed to revert to natural conditions. Use of fertilizers and pesticides will be prohibited as the proposed development resides within a sensitive area and is near wetlands

Topsoil, brush, leaves, clippings, woodchips, mulch, equipment, and other material shall be stored off site.

Outdoor Storage

There will be no outdoor storage of hazardous chemicals, de-icing agents, fertilizer, pesticides, or herbicides anywhere within the subject property.

Deicing and Snow Removal & Storage

If required, the use of clean sand may be used to aid traction in conjunction with salt and/or chemicals for deicing, snow melting and other related winter weather management. Snow shall be shoveled and plowed from access drive entrances and parking areas as soon as practical during and after winter storms. Sand accumulation shall be removed from the site at the end of the winter season or appropriate time when seasonal snow has melted. Alternative deicing methods must be submitted prior to use onsite for review to the Town of North Haven for approval.

POND OUTLET STRUCTUTRE INSPECTION LOG

Name of Inspector: Date:

OUTLET ID	Condition (circle one)		Debris above 1' within sump? (If yes then catch basin is to be cleaned)		Date of Outlet Structure Cleaning (if debris is greater than 1')		Condition of Hood (if applicable)	Comments:
	Excellent							
	Fair	Poor	Yes	No	Yes	No		
	Excellent							
	Fair	Poor	Yes	No	Yes	No		
	Excellent							
	Fair	Poor	Yes	No	Yes	No		
	Excellent							
	Fair	Poor	Yes	No	Yes	No		
	Excellent							
	Fair	Poor	Yes	No	Yes	No		
	Excellent							
	Fair	Poor	Yes	No	Yes	No		
	Excellent							
	Fair	Poor	Yes	No	Yes	No		
	Excellent							
	Fair	Poor	Yes	No	Yes	No		

	Excellent							
	Fair	Poor	Yes	No	Yes	No		
	Excellent							
	Fair	Poor	Yes	No	Yes	No		
	Excellent							
	Fair	Poor	Yes	No	Yes	No		
	Excellent							
	Fair	Poor	Yes	No	Yes	No		
	Excellent							
	Fair	Poor	Yes	No	Yes	No		
	Excellent							
	Fair	Poor	Yes	No	Yes	No		
	Excellent							
	Fair	Poor	Yes	No	Yes	No		
	Excellent							
	Fair	Poor	Yes	No	Yes	No		
	Excellent							
	Fair	Poor	Yes	No	Yes	No		
	Excellent							
	Fair	Poor	Yes	No	Yes	No		
	Excellent							
	Fair	Poor	Yes	No	Yes	No		

	Excellent						

On-site Procedures for Inspection and Maintenance of Catch Basin Inserts

• Secure traffic and pedestrian traffic with cones, barrels, etc.

• Clean surface area around each catch basin

• Remove grates and set aside

• Clean grates, remove litter and debris that may be trapped within the grate

• Remove by vactor hose the debris that has been trapped in the trough area. Dispose of in accordance with local, state and federal regulatory agency requirements. Most debris that is captured in the trough or sump area will fall into the non-hazardous waste category.

• Visually inspect and check the condition of the trough area.

• Replace grate and lockdown as needed.

• Un-secure traffic control area.

• Complete service report and submit to facility owner.

MAINTENANCE SCHEDULE

During the First Year of Operation:		
Task:	Completion Date:	Manager's Initials:
JANUARY:		
Employee Training Program with Spill Program		
*Subsurface Detention System		
FEBRUARY:		
* Subsurface Detention System		
MARCH:		
* Subsurface Detention System		
APRIL:		
*Catch Basin/Yard Drain		
* Subsurface Detention System		
*Sanitary Inspection		
Shrub Fertilization		
Lawn Limbing (if necessary)		
AUGUST:		
*Catch Basin/Yard Drain		
* Subsurface Detention System		
OCTOBER:		
* Subsurface Detention System		
Tree and Lawn Fertilization		
DECEMBER:		
*Catch Basin/Yard Drain		
* Subsurface Detention System		

*NOTE: Use appropriate worksheet found in this plan to conduct the inspection.

After the First Year of Operation:			
FOR YEAR_____			
Task:		Completion Date:	Manager's Initials:
JANUARY:			
Employee Training Program with Spill Program			
APRIL:			
*Catch Basin/Yard Drain			
* Subsurface Detention System			
*Sanitary Inspection			
Shrub Fertilization			
Lawn Limbing (if necessary)			
AUGUST:			
*Catch Basin/Yard Drain			
OCTOBER:			
* Subsurface Detention System			
Tree and Lawn Fertilization			
DECEMBER:			
*Catch Basin/Yard Drain			

*NOTE: Use appropriate worksheet found in this plan to conduct the inspection.

APPENDIX F

WEB SOIL SURVEY REPORT

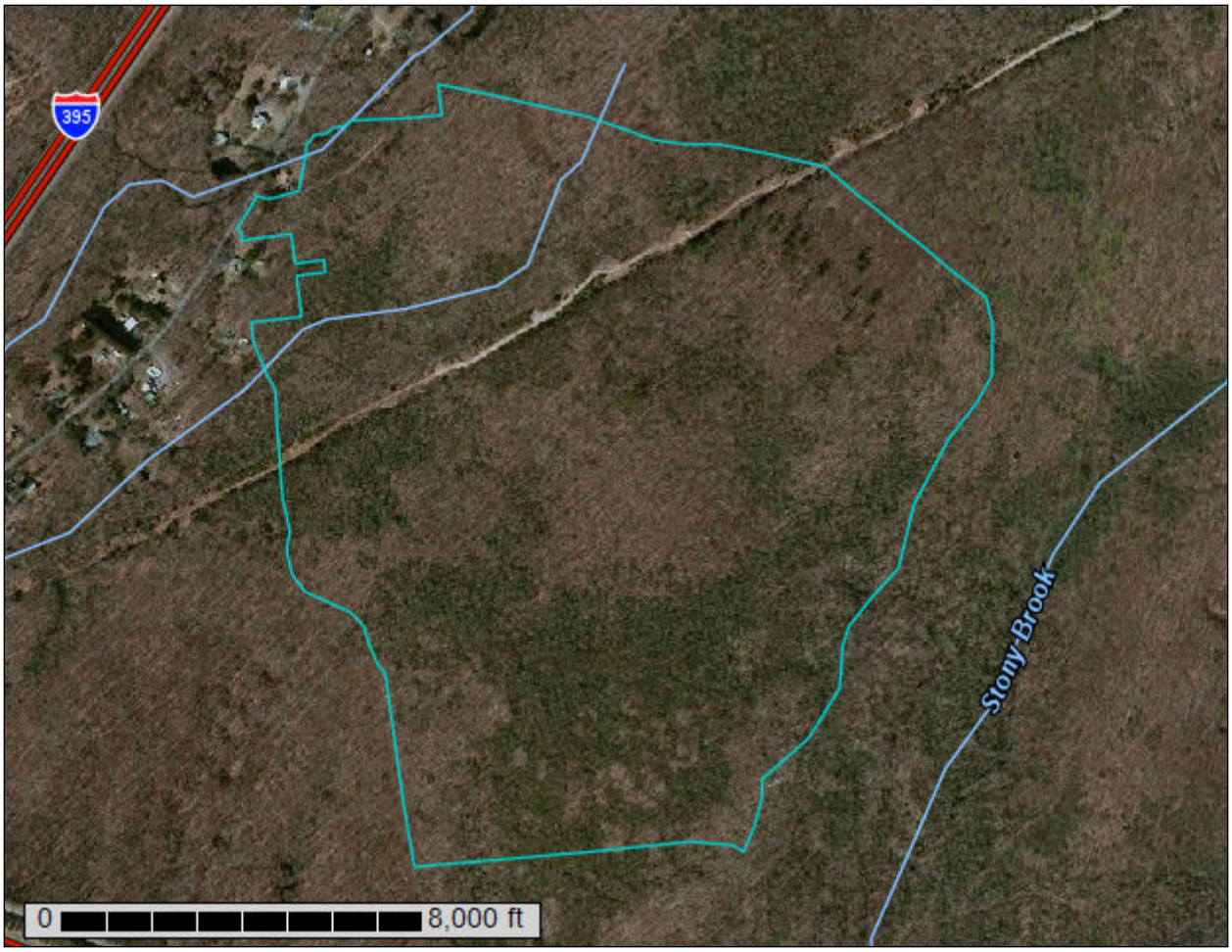
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for State of Connecticut



April 24, 2018

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

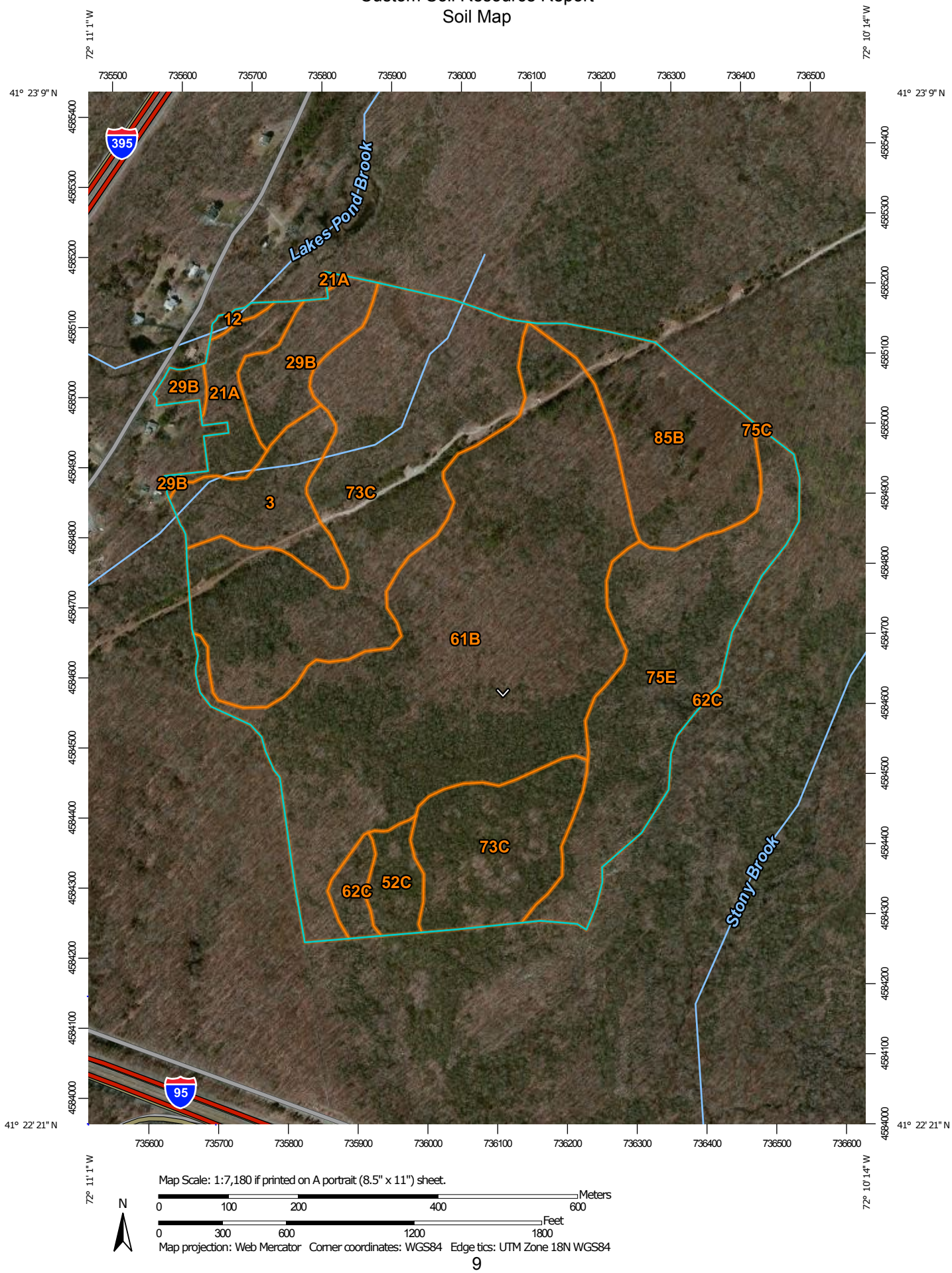
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

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

Background

- Aerial Photography

MAP INFORMATION

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

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

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

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

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

Soil Survey Area: State of Connecticut
Survey Area Data: Version 16, Sep 15, 2017

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

Date(s) aerial images were photographed: Mar 28, 2011—May 12, 2011

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
3	Ridgebury, Leicester, and Whitman soils, 0 to 8 percent slopes, extremely stony	7.3	4.8%
12	Raypol silt loam	0.4	0.3%
21A	Ninigret and Tisbury soils, 0 to 5 percent slopes	4.3	2.8%
29B	Agawam fine sandy loam, 3 to 8 percent slopes	6.0	4.0%
52C	Sutton fine sandy loam, 2 to 15 percent slopes, extremely stony	2.6	1.7%
61B	Canton and Charlton fine sandy loams, 0 to 8 percent slopes, very stony	52.2	34.3%
62C	Canton and Charlton fine sandy loams, 3 to 15 percent slopes, extremely stony	1.6	1.1%
73C	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	43.6	28.7%
75C	Hollis-Chatfield-Rock outcrop complex, 3 to 15 percent slopes	0.0	0.0%
75E	Hollis-Chatfield-Rock outcrop complex, 15 to 45 percent slopes	21.1	13.8%
85B	Paxton and Montauk fine sandy loams, 3 to 8 percent slopes, very stony	13.1	8.6%
Totals for Area of Interest		**152.2**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without

including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

State of Connecticut

3—Ridgebury, Leicester, and Whitman soils, 0 to 8 percent slopes, extremely stony

Map Unit Setting

National map unit symbol: 2t2qt
Elevation: 0 to 1,480 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Ridgebury, extremely stony, and similar soils: 40 percent
Leicester, extremely stony, and similar soils: 35 percent
Whitman, extremely stony, and similar soils: 17 percent
Minor components: 8 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ridgebury, Extremely Stony

Setting

Landform: Drumlins, ground moraines, drainageways, hills, depressions
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Coarse-loamy lodgment till derived from gneiss, granite, and/or schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 6 inches: fine sandy loam
Bw - 6 to 10 inches: sandy loam
Bg - 10 to 19 inches: gravelly sandy loam
Cd - 19 to 66 inches: gravelly sandy loam

Properties and qualities

Slope: 0 to 8 percent
Percent of area covered with surface fragments: 9.0 percent
Depth to restrictive feature: 15 to 35 inches to densic material
Natural drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water storage in profile: Low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D
Hydric soil rating: Yes

Description of Leicester, Extremely Stony

Setting

Landform: Drainageways, hills, depressions, ground moraines
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear, concave
Across-slope shape: Concave
Parent material: Coarse-loamy melt-out till derived from gneiss, granite, and/or schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 7 inches: fine sandy loam
Bg - 7 to 18 inches: fine sandy loam
BC - 18 to 24 inches: fine sandy loam
C1 - 24 to 39 inches: gravelly fine sandy loam
C2 - 39 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 0 to 8 percent
Percent of area covered with surface fragments: 9.0 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water storage in profile: High (about 9.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: B/D
Hydric soil rating: Yes

Description of Whitman, Extremely Stony

Setting

Landform: Depressions, drumlins, ground moraines, drainageways, hills
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Coarse-loamy lodgment till derived from gneiss, granite, and/or schist

Typical profile

Oi - 0 to 1 inches: peat
A - 1 to 10 inches: fine sandy loam
Bg - 10 to 17 inches: gravelly fine sandy loam

Cdg - 17 to 61 inches: fine sandy loam

Properties and qualities

Slope: 0 to 3 percent
Percent of area covered with surface fragments: 9.0 percent
Depth to restrictive feature: 7 to 38 inches to densic material
Natural drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water storage in profile: Low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Hydric soil rating: Yes

Minor Components

Woodbridge, extremely stony

Percent of map unit: 6 percent
Landform: Hills, drumlins, ground moraines
Landform position (two-dimensional): Backslope, footslope, summit
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Swansea

Percent of map unit: 2 percent
Landform: Bogs, swamps
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

12—Raypol silt loam

Map Unit Setting

National map unit symbol: 9ljx
Elevation: 0 to 1,200 feet
Mean annual precipitation: 43 to 54 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 140 to 185 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Raypol and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Raypol

Setting

Landform: Depressions, drainageways
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Coarse-loamy eolian deposits over sandy and gravelly glaciofluvial deposits derived from granite and/or schist and/or gneiss

Typical profile

Ap - 0 to 8 inches: silt loam
Bg1 - 8 to 12 inches: very fine sandy loam
Bg2 - 12 to 20 inches: silt loam
Bw1 - 20 to 26 inches: silt loam
Bw2 - 26 to 29 inches: very fine sandy loam
2C1 - 29 to 52 inches: stratified very gravelly coarse sand to loamy fine sand
2C2 - 52 to 65 inches: stratified very gravelly coarse sand to loamy fine sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: C/D
Hydric soil rating: Yes

Minor Components

Haven

Percent of map unit: 5 percent
Landform: Outwash plains, terraces
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Enfield

Percent of map unit: 5 percent
Landform: Terraces, outwash plains
Down-slope shape: Convex
Across-slope shape: Linear

Hydric soil rating: No

Ninigret

Percent of map unit: 3 percent
Landform: Outwash plains, terraces
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

Tisbury

Percent of map unit: 2 percent
Landform: Outwash plains, terraces
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Walpole

Percent of map unit: 2 percent
Landform: Drainageways on terraces, depressions on terraces
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Scarboro

Percent of map unit: 2 percent
Landform: Depressions, terraces, drainageways
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Unnamed, loamy substratum

Percent of map unit: 1 percent

21A—Ninigret and Tisbury soils, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2tx07
Elevation: 0 to 1,260 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Ninigret and similar soils: 60 percent
Tisbury and similar soils: 25 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ninigret

Setting

Landform: Outwash plains, outwash terraces, drainageways, moraines, depressions, kames, kame terraces
Landform position (two-dimensional): Backslope, shoulder, footslope, summit
Landform position (three-dimensional): Side slope, crest, tread, rise, dip
Down-slope shape: Convex, linear, concave
Across-slope shape: Convex, concave
Parent material: Coarse-loamy eolian deposits over sandy and gravelly glaciofluvial deposits derived from gneiss, granite, schist, and/or phyllite

Typical profile

Ap - 0 to 8 inches: fine sandy loam
Bw1 - 8 to 16 inches: fine sandy loam
Bw2 - 16 to 26 inches: fine sandy loam
2C - 26 to 65 inches: stratified loamy sand to loamy fine sand

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: 18 to 38 inches to strongly contrasting textural stratification
Natural drainage class: Moderately well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: About 17 to 39 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water storage in profile: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Tisbury

Setting

Landform: Outwash terraces, valley trains, deltas, depressions, depressions, outwash plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread, talf, dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Coarse-silty eolian deposits over sandy and gravelly glaciofluvial deposits derived from granite, schist, and/or gneiss

Typical profile

Ap - 0 to 8 inches: silt loam
Bw1 - 8 to 18 inches: silt loam
Bw2 - 18 to 26 inches: silt loam
2C - 26 to 65 inches: stratified extremely gravelly sand

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: 24 to 36 inches to strongly contrasting textural stratification
Natural drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water storage in profile: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Merrimac

Percent of map unit: 5 percent
Landform: Outwash plains, outwash terraces, moraines, eskers, kames
Landform position (two-dimensional): Backslope, footslope, summit, shoulder
Landform position (three-dimensional): Side slope, crest, riser, tread
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Agawam

Percent of map unit: 5 percent
Landform: Moraines, kames, kame terraces, outwash plains, outwash terraces
Landform position (two-dimensional): Backslope, shoulder, footslope, summit
Landform position (three-dimensional): Side slope, crest, tread, riser, rise
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Haven

Percent of map unit: 3 percent
Landform: Outwash terraces, moraines, kames, kame terraces, outwash plains
Landform position (two-dimensional): Shoulder, footslope, backslope, summit
Landform position (three-dimensional): Side slope, crest, riser, tread, rise, dip
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Raypol

Percent of map unit: 2 percent
Landform: Outwash plains, outwash terraces, valley trains, deltas, depressions, depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread, dip, talf
Down-slope shape: Concave

Across-slope shape: Concave
Hydric soil rating: Yes

29B—Agawam fine sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2tyqx
Elevation: 0 to 820 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 250 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Agawam and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Agawam

Setting

Landform: Kame terraces, outwash plains, outwash terraces, moraines, kames
Landform position (two-dimensional): Backslope, shoulder, footslope, summit
Landform position (three-dimensional): Side slope, crest, riser, tread, rise, dip
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Coarse-loamy eolian deposits over sandy and gravelly glaciofluvial deposits derived from gneiss, granite, schist, and/or phyllite

Typical profile

Ap - 0 to 11 inches: fine sandy loam
Bw1 - 11 to 16 inches: fine sandy loam
Bw2 - 16 to 26 inches: fine sandy loam
2C1 - 26 to 45 inches: loamy fine sand
2C2 - 45 to 55 inches: loamy fine sand
2C3 - 55 to 65 inches: loamy sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 15 to 35 inches to strongly contrasting textural stratification
Natural drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water storage in profile: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Hinckley

Percent of map unit: 5 percent
Landform: Deltas, eskers, kames, outwash plains
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Head slope, nose slope, side slope, crest, rise
Down-slope shape: Convex
Across-slope shape: Convex, linear
Hydric soil rating: No

Sudbury

Percent of map unit: 5 percent
Landform: Outwash plains, terraces, deltas
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Merrimac

Percent of map unit: 3 percent
Landform: Eskers, kames, outwash plains, outwash terraces, moraines
Landform position (two-dimensional): Backslope, footslope, shoulder, summit
Landform position (three-dimensional): Side slope, crest, riser, tread
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Windsor

Percent of map unit: 2 percent
Landform: Outwash plains, outwash terraces, deltas, dunes
Landform position (three-dimensional): Tread, riser
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Hydric soil rating: No

52C—Sutton fine sandy loam, 2 to 15 percent slopes, extremely stony

Map Unit Setting

National map unit symbol: 9lp5
Elevation: 0 to 1,200 feet

Mean annual precipitation: 43 to 56 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 140 to 185 days
Farmland classification: Not prime farmland

Map Unit Composition

Sutton and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sutton

Setting

Landform: Depressions, drainageways
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Coarse-loamy melt-out till derived from granite and/or schist and/or gneiss

Typical profile

Ap - 0 to 6 inches: fine sandy loam
Bw1 - 6 to 12 inches: fine sandy loam
Bw2 - 12 to 24 inches: fine sandy loam
Bw3 - 24 to 28 inches: fine sandy loam
C1 - 28 to 36 inches: gravelly fine sandy loam
C2 - 36 to 65 inches: gravelly sandy loam

Properties and qualities

Slope: 2 to 15 percent
Percent of area covered with surface fragments: 9.0 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 5.95 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 6.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Charlton

Percent of map unit: 5 percent
Landform: Hills
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Canton

Percent of map unit: 4 percent

Landform: Hills
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Paxton
Percent of map unit: 3 percent
Landform: Till plains, drumlins, hills
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Leicester
Percent of map unit: 3 percent
Landform: Depressions, drainageways
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Woodbridge
Percent of map unit: 2 percent
Landform: Drumlins, hills
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Rainbow
Percent of map unit: 2 percent
Landform: Drumlins, hills
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

Narragansett
Percent of map unit: 1 percent
Landform: Till plains, hills
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

61B—Canton and Charlton fine sandy loams, 0 to 8 percent slopes, very stony

Map Unit Setting

National map unit symbol: 2w81v
Elevation: 0 to 1,480 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Canton, very stony, and similar soils: 50 percent
Charlton, very stony, and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Canton, Very Stony

Setting

Landform: Hills, moraines, ridges
Landform position (two-dimensional): Summit, backslope, shoulder
Landform position (three-dimensional): Side slope, crest, nose slope
Down-slope shape: Linear, convex
Across-slope shape: Convex
Parent material: Coarse-loamy over sandy melt-out till derived from gneiss, granite, and/or schist

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material
A - 2 to 5 inches: fine sandy loam
Bw1 - 5 to 16 inches: fine sandy loam
Bw2 - 16 to 22 inches: gravelly fine sandy loam
2C - 22 to 67 inches: gravelly loamy sand

Properties and qualities

Slope: 0 to 8 percent
Percent of area covered with surface fragments: 1.6 percent
Depth to restrictive feature: 19 to 39 inches to strongly contrasting textural stratification
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water storage in profile: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: B
Hydric soil rating: No

Description of Charlton, Very Stony

Setting

Landform: Ground moraines, ridges, hills
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Linear, convex
Across-slope shape: Convex
Parent material: Coarse-loamy melt-out till derived from granite, gneiss, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 4 inches: fine sandy loam
Bw - 4 to 27 inches: gravelly fine sandy loam
C - 27 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 0 to 8 percent
Percent of area covered with surface fragments: 1.6 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water storage in profile: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Chatfield, very stony

Percent of map unit: 5 percent
Landform: Hills, ridges
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Crest, side slope, nose slope
Down-slope shape: Convex
Across-slope shape: Linear, convex
Hydric soil rating: No

Sutton, very stony

Percent of map unit: 5 percent
Landform: Ground moraines, hills
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Leicester, very stony

Percent of map unit: 5 percent
Landform: Hills, depressions, ground moraines, drainageways
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave, linear
Across-slope shape: Concave
Hydric soil rating: Yes

62C—Canton and Charlton fine sandy loams, 3 to 15 percent slopes, extremely stony

Map Unit Setting

National map unit symbol: 2wks7
Elevation: 0 to 1,310 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Canton, extremely stony, and similar soils: 50 percent
Charlton, extremely stony, and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Canton, Extremely Stony

Setting

Landform: Ridges, hills, moraines
Landform position (two-dimensional): Shoulder, backslope, summit
Landform position (three-dimensional): Side slope, crest, nose slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Coarse-loamy over sandy melt-out till derived from gneiss, granite, and/or schist

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material
A - 2 to 5 inches: fine sandy loam
Bw1 - 5 to 16 inches: fine sandy loam
Bw2 - 16 to 22 inches: gravelly fine sandy loam
2C - 22 to 67 inches: gravelly loamy sand

Properties and qualities

Slope: 3 to 15 percent
Percent of area covered with surface fragments: 9.0 percent
Depth to restrictive feature: 19 to 39 inches to strongly contrasting textural stratification
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water storage in profile: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: B
Hydric soil rating: No

Description of Charlton, Extremely Stony

Setting

Landform: Ground moraines, ridges, hills
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Linear, convex
Across-slope shape: Convex
Parent material: Coarse-loamy melt-out till derived from granite, gneiss, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 4 inches: fine sandy loam
Bw - 4 to 27 inches: gravelly fine sandy loam
C - 27 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 3 to 15 percent
Percent of area covered with surface fragments: 9.0 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water storage in profile: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Leicester, extremely stony

Percent of map unit: 5 percent
Landform: Depressions, ground moraines, drainageways, hills
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear, concave
Across-slope shape: Concave
Hydric soil rating: Yes

Sutton, extremely stony

Percent of map unit: 5 percent

Landform: Hills, ground moraines
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Chatfield, extremely stony

Percent of map unit: 5 percent
Landform: Ridges, hills
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Crest, side slope, nose slope
Down-slope shape: Convex
Across-slope shape: Linear, convex
Hydric soil rating: No

73C—Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky

Map Unit Setting

National map unit symbol: 2w698
Elevation: 0 to 1,550 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Charlton, very stony, and similar soils: 50 percent
Chatfield, very stony, and similar soils: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Charlton, Very Stony

Setting

Landform: Ridges, hills
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Side slope, crest, nose slope
Down-slope shape: Linear, convex
Across-slope shape: Convex
Parent material: Coarse-loamy melt-out till derived from granite, gneiss, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 4 inches: fine sandy loam
Bw - 4 to 27 inches: gravelly fine sandy loam
C - 27 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 3 to 15 percent
Percent of area covered with surface fragments: 1.6 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water storage in profile: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: B
Hydric soil rating: No

Description of Chatfield, Very Stony

Setting

Landform: Ridges, hills
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Crest, side slope, nose slope
Down-slope shape: Convex
Across-slope shape: Linear, convex
Parent material: Coarse-loamy melt-out till derived from granite, gneiss, and/or schist

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
A - 1 to 2 inches: fine sandy loam
Bw - 2 to 30 inches: gravelly fine sandy loam
2R - 30 to 40 inches: bedrock

Properties and qualities

Slope: 3 to 15 percent
Percent of area covered with surface fragments: 1.6 percent
Depth to restrictive feature: 20 to 41 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water storage in profile: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Leicester, very stony

Percent of map unit: 5 percent
Landform: Depressions, drainageways
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Rock outcrop

Percent of map unit: 5 percent
Hydric soil rating: No

Hollis, very stony

Percent of map unit: 5 percent
Landform: Hills, ridges
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Crest, side slope, nose slope
Down-slope shape: Convex
Across-slope shape: Linear, convex
Hydric soil rating: No

Sutton, very stony

Percent of map unit: 5 percent
Landform: Ground moraines, hills
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

75C—Hollis-Chatfield-Rock outcrop complex, 3 to 15 percent slopes

Map Unit Setting

National map unit symbol: 9lqn
Elevation: 0 to 1,200 feet
Mean annual precipitation: 43 to 56 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 140 to 185 days
Farmland classification: Not prime farmland

Map Unit Composition

Hollis and similar soils: 35 percent
Chatfield and similar soils: 30 percent
Rock outcrop: 15 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hollis

Setting

Landform: Ridges, hills
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy melt-out till derived from granite and/or schist and/or gneiss

Typical profile

Oa - 0 to 1 inches: highly decomposed plant material
A - 1 to 6 inches: gravelly fine sandy loam
Bw1 - 6 to 9 inches: channery fine sandy loam
Bw2 - 9 to 15 inches: gravelly fine sandy loam
2R - 15 to 80 inches: bedrock

Properties and qualities

Slope: 3 to 15 percent
Percent of area covered with surface fragments: 9.0 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Natural drainage class: Somewhat excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Very low (about 1.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: D
Hydric soil rating: No

Description of Chatfield

Setting

Landform: Ridges, hills
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Coarse-loamy melt-out till derived from granite and/or schist and/or gneiss

Typical profile

Oa - 0 to 1 inches: highly decomposed plant material
A - 1 to 6 inches: gravelly fine sandy loam
Bw1 - 6 to 15 inches: gravelly fine sandy loam
Bw2 - 15 to 29 inches: gravelly fine sandy loam
2R - 29 to 80 inches: unweathered bedrock

Properties and qualities

Slope: 3 to 15 percent
Percent of area covered with surface fragments: 1.6 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 3.3 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: B
Hydric soil rating: No

Description of Rock Outcrop

Properties and qualities
Slope: 3 to 15 percent
Depth to restrictive feature: 0 inches to lithic bedrock
Runoff class: Very high

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: Unranked

Minor Components

Charlton
Percent of map unit: 7 percent
Landform: Hills
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Sutton
Percent of map unit: 5 percent
Landform: Depressions, drainageways
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Leicester
Percent of map unit: 5 percent
Landform: Depressions, drainageways
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Brimfield
Percent of map unit: 1 percent
Landform: Ridges, hills
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Unnamed, sandy subsoil
Percent of map unit: 1 percent

Hydric soil rating: No

Unnamed, red parent material

Percent of map unit: 1 percent
Hydric soil rating: No

75E—Hollis-Chatfield-Rock outcrop complex, 15 to 45 percent slopes

Map Unit Setting

National map unit symbol: 9lqp
Elevation: 0 to 1,200 feet
Mean annual precipitation: 43 to 56 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 140 to 185 days
Farmland classification: Not prime farmland

Map Unit Composition

Hollis and similar soils: 35 percent
Chatfield and similar soils: 30 percent
Rock outcrop: 15 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hollis

Setting

Landform: Hills, ridges
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy melt-out till derived from granite and/or schist and/or gneiss

Typical profile

Oa - 0 to 1 inches: highly decomposed plant material
A - 1 to 6 inches: gravelly fine sandy loam
Bw1 - 6 to 9 inches: channery fine sandy loam
Bw2 - 9 to 15 inches: gravelly fine sandy loam
2R - 15 to 80 inches: bedrock

Properties and qualities

Slope: 15 to 45 percent
Percent of area covered with surface fragments: 9.0 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Natural drainage class: Somewhat excessively drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 5.95 in/hr)
Depth to water table: More than 80 inches

Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Very low (about 1.8 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Hydric soil rating: No

Description of Chatfield

Setting
Landform: Ridges, hills
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Coarse-loamy melt-out till derived from granite and/or schist and/or gneiss

Typical profile
Oa - 0 to 1 inches: highly decomposed plant material
A - 1 to 6 inches: gravelly fine sandy loam
Bw1 - 6 to 15 inches: gravelly fine sandy loam
Bw2 - 15 to 29 inches: gravelly fine sandy loam
2R - 29 to 80 inches: unweathered bedrock

Properties and qualities
Slope: 15 to 45 percent
Percent of area covered with surface fragments: 1.6 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 3.3 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: B
Hydric soil rating: No

Description of Rock Outcrop

Properties and qualities
Slope: 15 to 45 percent
Depth to restrictive feature: 0 inches to lithic bedrock
Runoff class: Very high

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: Unranked

Minor Components

Charlton
Percent of map unit: 7 percent
Landform: Hills
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Sutton
Percent of map unit: 5 percent
Landform: Depressions, drainageways
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Leicester
Percent of map unit: 5 percent
Landform: Drainageways, depressions
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Brimfield
Percent of map unit: 1 percent
Landform: Ridges, hills
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Unnamed, red parent material
Percent of map unit: 1 percent
Hydric soil rating: No

Unnamed, sandy subsoil
Percent of map unit: 1 percent
Hydric soil rating: No

85B—Paxton and Montauk fine sandy loams, 3 to 8 percent slopes, very stony

Map Unit Setting
National map unit symbol: 2w679
Elevation: 0 to 1,530 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 145 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Paxton, very stony, and similar soils: 55 percent
Montauk, very stony, and similar soils: 30 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Paxton, Very Stony

Setting

Landform: Drumlins, ground moraines, hills
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Linear, convex
Across-slope shape: Convex
Parent material: Coarse-loamy lodgment till derived from gneiss, granite, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 10 inches: fine sandy loam
Bw1 - 10 to 17 inches: fine sandy loam
Bw2 - 17 to 28 inches: fine sandy loam
Cd - 28 to 67 inches: gravelly fine sandy loam

Properties and qualities

Slope: 3 to 8 percent
Percent of area covered with surface fragments: 1.6 percent
Depth to restrictive feature: 20 to 43 inches to densic material
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 18 to 37 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water storage in profile: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Montauk, Very Stony

Setting

Landform: Drumlins, ground moraines, recessionial moraines, hills
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Linear, convex
Across-slope shape: Convex
Parent material: Coarse-loamy over sandy lodgment till derived from gneiss, granite, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 6 inches: fine sandy loam
Bw1 - 6 to 28 inches: fine sandy loam
Bw2 - 28 to 36 inches: sandy loam
2Cd - 36 to 74 inches: gravelly loamy sand

Properties and qualities

Slope: 3 to 8 percent
Percent of area covered with surface fragments: 1.6 percent
Depth to restrictive feature: 20 to 43 inches to densic material
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 1.42 in/hr)
Depth to water table: About 18 to 37 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water storage in profile: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Woodbridge, very stony

Percent of map unit: 8 percent
Landform: Ground moraines, hills, drumlins
Landform position (two-dimensional): Backslope, footslope, summit
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Charlton, very stony

Percent of map unit: 3 percent
Landform: Hills
Landform position (two-dimensional): Shoulder, summit, backslope
Landform position (three-dimensional): Crest, side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Ridgebury, very stony

Percent of map unit: 3 percent
Landform: Hills, depressions, drumlins, ground moraines, drainageways
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Stockbridge, very stony

Percent of map unit: 1 percent
Landform: Hills
Landform position (two-dimensional): Shoulder, backslope, summit
Landform position (three-dimensional): Crest, side slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Soil Information for All Uses

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Soil Physical Properties

This folder contains a collection of tabular reports that present soil physical properties. The reports (tables) include all selected map units and components for each map unit. Soil physical properties are measured or inferred from direct observations in the field or laboratory. Examples of soil physical properties include percent clay, organic matter, saturated hydraulic conductivity, available water capacity, and bulk density.

Engineering Properties (17D3515)

This table gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

Hydrologic soil group is a group of soils having similar runoff potential under similar storm and cover conditions. The criteria for determining Hydrologic soil group is found in the National Engineering Handbook, Chapter 7 issued May 2007(http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba). Listing HSGs by soil map unit component and not by soil series is a new concept for the engineers. Past engineering references contained lists of HSGs by soil series. Soil series are continually being defined and redefined, and the list of soil series names changes so frequently as to make the task of maintaining a single national list virtually impossible. Therefore, the criteria is now used to calculate the HSG using the component soil properties and no such national series lists will be maintained. All such references are obsolete and their use should be discontinued. Soil properties that influence runoff potential are those that influence the minimum rate of infiltration for a bare soil after prolonged wetting and when not frozen. These properties are depth to a seasonal high water table, saturated hydraulic conductivity after prolonged wetting, and depth to a layer with a very slow water transmission

rate. Changes in soil properties caused by land management or climate changes also cause the hydrologic soil group to change. The influence of ground cover is treated independently. There are four hydrologic soil groups, A, B, C, and D, and three dual groups, A/D, B/D, and C/D. In the dual groups, the first letter is for drained areas and the second letter is for undrained areas.

The four hydrologic soil groups are described in the following paragraphs:

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.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly."

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group

index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Percentage of rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

References:

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Absence of an entry indicates that the data were not estimated. The asterisk '*' denotes the representative texture; other possible textures follow the dash. The criteria for determining the hydrologic soil group for individual soil components is found in the National Engineering Handbook, Chapter 7 issued May 2007(http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba). Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
3—Ridgebury, Leicester, and Whitman soils, 0 to 8 percent slopes, extremely stony														
Ridgebury, extremely stony	40	D	0-1	Highly decomposed plant material, moderately decomposed plant material, slightly decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			1-6	Gravelly fine sandy loam, fine sandy loam, loam, gravelly loam, sandy loam, stony loam, mucky fine sandy loam	GC, MH, OH, SM, SC, OL, GC-GM, SC-SM, GM, ML, CL-ML	A-1-b, A-4, A-2-5, A-5, A-2-4	0- 0- 42	0-11- 16	52-88-88	50-87-88	38-73-83	21-42-51	0-40 -59	NP-7 -10
			6-10	Gravelly fine sandy loam, fine sandy loam, gravelly sandy loam, stony fine sandy loam, sandy loam, gravelly loam, very fine sandy loam	GC-GM, CL-ML, SC, GC, CL, ML, SM, GM, SC-SM	A-6, A-4, A-2-4, A-1-b, A-2-6	0- 0- 7	0- 8- 8	60-91-91	58-90-91	43-71-82	22-39-50	0-0 -36	NP-0 -11
			10-19	Sandy loam, gravelly sandy loam, fine sandy loam, very fine sandy loam, gravelly fine sandy loam, stony fine sandy loam, gravelly loam	CL, SM, SC-SM, GC-GM, ML, GC, GM, CL-ML, SC	A-1-b, A-6, A-2-6, A-2-4, A-4	0- 0- 6	0- 7- 7	64-85-93	62-84-92	46-66-83	24-36-51	0-0 -30	NP-0 -11

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
			19-66	Coarse sandy loam, gravelly sandy loam, very fine sandy loam, gravelly fine sandy loam, gravelly loam, sandy loam, stony fine sandy loam, fine sandy loam	SC, GM, SM, GC, SC-SM, GC-GM, CL, ML, CL-ML	A-6, A-2-6, A-1-b, A-2-4, A-4	0- 0- 6	0- 6- 6	67-86-93	65-86-93	48-67-84	25-37-51	0-0 -28	NP-0 -11
Leicester, extremely stony	35	B/D	0-1	Highly decomposed plant material, stony moderately decomposed plant material, stony highly decomposed plant material, stony slightly decomposed plant material, very stony moderately decomposed plant material, slightly decomposed plant material, moderately decomposed plant material, very stony highly decomposed plant material, very stony slightly decomposed plant material	PT	A-8	0- 0- 81	0- 0- 0	—	—	—	—	—	—
			1-7	Fine sandy loam, gravelly fine sandy loam, very fine sandy loam, loam, mucky fine sandy loam, stony loam	SM, SC-SM, GM, GC-GM	A-2-4, A-1-b, A-2-5, A-4, A-5	0- 0- 6	0- 9- 17	51-85-88	48-84-87	38-72-80	21-41-49	0-43 -78	NP-6 -10
			7-18	Fine sandy loam, loam, gravelly sandy loam, gravelly fine sandy loam	SM, SC-SM, CL-ML, CL, GM, GC,	A-4, A-2-4, A-2-6, A-6	0- 0- 5	0- 7- 14	60-89-91	58-89-91	46-75-86	26-44-54	0-23 -40	NP-6 -11

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
Whitman, extremely stony	17	D	0-1	Peat, muck, mucky peat, stony peat, stony muck, stony mucky peat, very stony peat, very stony muck, very stony mucky peat	PT	A-8	0-23- 38	0- 0- 51	—	—	—	—	—	—

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
			1-10	Mucky loam, mucky sandy loam, mucky fine sandy loam, mucky very fine sandy loam, mucky silt loam, loam, sandy loam, fine sandy loam, very fine sandy loam, silt loam, gravelly loam, gravelly sandy loam, gravelly fine sandy loam, gravelly very fine sandy loam, gravelly silt loam, very cobbly loam, very cobbly sandy loam, very cobbly fine sandy loam, very cobbly very fine sandy loam, very cobbly silt loam, extremely stony loam, extremely stony sandy loam, extremely stony fine sandy loam, extremely stony very fine sandy loam, extremely stony silt loam	GW-GM, GW-GC, GP-GM, GP-GC, GM, SW-SM, SW-SC, SP-SM, SP-SC, SM, GC-GM, SC-SM	A-1-a, A-1-b, A-2-4, A-2-5, A-4, A-5	0- 0- 57	0-15- 28	28-82-83	24-81-82	19-70-78	10-41-49	0-41 -78	NP-5 -10

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
			10-17	Loam, sandy loam, fine sandy loam, very fine sandy loam, gravelly loam, gravelly sandy loam, gravelly fine sandy loam, gravelly very fine sandy loam, very cobbly loam, very cobbly sandy loam, very cobbly fine sandy loam, very cobbly very fine sandy loam, extremely stony loam, extremely stony sandy loam, extremely stony fine sandy loam, extremely stony very fine sandy loam	GW-GM, GW-GC, GP-GM, GP-GC, GM, GC-GM, SW-SM, SW-SC, SP-SM, SP-SC, SC, SC-SM, CL-ML, CL, ML, GC, SM	A-2-4, A-2-6, A-1-a, A-1-b, A-3, A-4, A-6	0- 0- 34	0- 7- 28	26-84-92	23-84-92	18-72-87	10-43-55	0-21 -38	NP-6 -11

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
			17-61	Loam, sandy loam, fine sandy loam, very fine sandy loam, gravelly loam, gravelly sandy loam, gravelly fine sandy loam, gravelly very fine sandy loam, very cobbly loam, very cobbly sandy loam, very cobbly fine sandy loam, very cobbly very fine sandy loam, extremely stony loam, extremely stony sandy loam, extremely stony fine sandy loam, extremely stony very fine sandy loam	GW-GC, GP-GM, GP-GC, GM, GC, SW-SM, SW-SC, SP-SM, SP-SC, SM, GW-GM, SC, SC-SM, CL-ML, CL, ML, GC-GM	A-2-4, A-2-6, A-4, A-6, A-1-a, A-1-b	0- 0- 32	0- 6- 27	29-93-93	26-93-93	20-80-88	11-47-56	0-19 -28	NP-7 -11

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
12—Raypol silt loam														
Raypol	80	C/D	0-8	Silt loam	ML	A-4	0- 0- 0	0- 0- 0	90-95-100	85-93-100	70-85-100	50-70-90	15-20-25	NP
			8-12	Silt loam, very fine sandy loam, loam	ML, SM	A-4	0- 0- 0	0- 0- 0	90-95-100	85-93-100	75-88-100	45-68-90	15-20-25	NP-3 -5
			12-20	Silt loam, very fine sandy loam, loam	ML, SM	A-4	0- 0- 0	0- 0- 0	90-95-100	85-93-100	75-88-100	45-68-90	15-20-25	NP-3 -5
			20-26	Silt loam, very fine sandy loam, loam	ML, SM	A-4	0- 0- 0	0- 0- 0	90-95-100	85-93-100	75-88-100	45-68-90	15-20-25	NP-3 -5
			26-29	Silt loam, very fine sandy loam, loam	ML, SM	A-4	0- 0- 0	0- 0- 0	90-95-100	85-93-100	75-88-100	45-68-90	15-20-25	NP-3 -5
			29-52	Stratified very gravelly coarse sand to loamy fine sand	SM, SP-SM	A-1, A-2, A-3	0- 0- 0	0- 5- 15	60-80-100	30-65-100	15-55-95	5-18- 30	0-7 -15	NP
			52-65	Stratified very gravelly coarse sand to loamy fine sand	SM, SP-SM	A-1, A-2, A-3	0- 0- 0	0- 5- 15	60-80-100	30-65-100	15-55-95	5-18- 30	0-7 -15	NP

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
21A—Ninigret and Tisbury soils, 0 to 5 percent slopes														
Ninigret	60	C	0-8	Fine sandy loam, loam, very fine sandy loam, silt loam	ML, SM	A-2, A-4	0- 0- 0	0- 0- 0	89-100-100	79-100-100	59-85-97	31-47-64	0-24 -30	NP-2 -4
			8-16	Silt loam, fine sandy loam, loam, very fine sandy loam	ML, SM	A-2, A-4	0- 0- 0	0- 0- 0	89-100-100	78-100-100	59-85-97	30-47-64	0-18 -22	NP-2 -4
			16-26	Silt loam, fine sandy loam, loam, very fine sandy loam	ML, SM	A-4, A-2	0- 0- 0	0- 0- 0	89-100-100	78-100-100	59-85-97	30-47-64	0-16 -20	NP-2 -4

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
			26-65	Very gravelly coarse sand, stratified loamy sand to loamy fine sand, loamy fine sand, very gravelly sand, gravelly fine sand, very gravelly fine sand, very gravelly loamy fine sand, loamy coarse sand, gravelly sand, sand, coarse sand, gravelly very fine sand, loamy sand, very gravelly loamy sand, very gravelly very fine sand, very fine sand, gravelly loamy sand, gravelly coarse sand, fine sand, very gravelly loamy coarse sand, gravelly loamy coarse sand, gravelly loamy fine sand	SM	A-3, A-1, A-4	0- 0- 0	0- 0- 0	64-100-100	28-100-100	25-98-100	9-43- 54	0-0 -17	NP-0 -2
Tisbury	25	C	0-8	Very fine sandy loam, silt loam	ML	A-4	0- 0- 0	0- 0- 0	96-98-100	91-96-100	77-90-100	62-77-97	0-29 -51	NP-6 -9
			8-18	Very fine sandy loam, silt loam	ML, CL-ML	A-4	0- 0- 0	0- 0- 0	96-98-100	92-97-100	78-91-100	62-77-97	0-23 -31	NP-6 -9
			18-26	Silt loam, very fine sandy loam	ML, CL-ML	A-4	0- 0- 0	0- 0- 0	96-98-100	92-97-100	78-91-100	62-77-97	0-23 -31	NP-6 -9
			26-65	Coarse sand, fine sand, loamy coarse sand, loamy fine sand, loamy sand, sand, stratified very gravelly very fine sand, stratified extremely gravelly	SM	A-1, A-2-4	0- 0- 0	0- 0- 11	62-64-100	23-29-100	14-19-89	1- 1- 31	0-0 -18	NP-0 -2

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
29B—Agawam fine sandy loam, 3 to 8 percent slopes														
Agawam	85	B	0-11	Fine sandy loam, loam, very fine sandy loam	SM, ML	A-4, A-2-4, A-5	0- 0- 0	0- 0- 0	91-100-100	82-100-100	64-88-100	32-47-65	0-23 -46	NP-1 -5
			11-16	Gravelly very fine sandy loam, fine sandy loam, gravelly fine sandy loam, gravelly loam, loam, very fine sandy loam	CL-ML, SM	A-1-b, A-2-4, A-4	0- 0- 0	0- 0- 0	77-100-100	53-100-100	42-88-100	21-47-65	0-17 -25	NP-1 -5
			16-26	Very fine sandy loam, gravelly fine sandy loam, gravelly very fine sandy loam, fine sandy loam	ML, SM	A-1-b, A-2-4, A-4	0- 0- 0	0- 0- 0	77-100-100	53-100-100	42-88-100	21-47-64	0-17 -23	NP-1 -3

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
			26-45	Stratified gravel to fine sand, stratified gravel to sand, sand, stratified gravel to gravelly loamy sand, stratified gravel to gravelly sand, fine sand, stratified gravel to loamy fine sand, stratified gravel to gravelly loamy fine sand, loamy fine sand, stratified gravel to loamy sand, loamy sand, stratified gravel to gravelly fine sand	SM	A-4, A-1-b, A-2-4	0- 0- 0	0- 0- 0	78-100-100	55-100-100	47-99-100	14-43-48	0-0 -18	NP-0 -2

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
			45-55	Stratified gravel to gravelly very gravelly sand, fine sand, stratified gravel to very gravelly loamy sand, loamy fine sand, stratified gravel to gravelly fine sand, stratified gravel to gravelly loamy fine sand, stratified gravel to fine sand, loamy sand, stratified gravel to sand, stratified gravel to very gravelly fine sand, stratified gravel to loamy sand, stratified gravel to very gravelly loamy fine sand, stratified gravel to gravelly sand, stratified gravel to loamy fine sand, sand, stratified gravel to gravelly loamy sand	SM, SP-SM	A-1-a, A-2-4, A-4	0- 0- 0	0- 0- 0	63-100-100	26-100-100	22-99-100	7-43- 48	0-0 -18	NP-0 -2

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
			55-65	Stratified gravel to very gravelly fine sand, loamy sand, stratified gravel to gravelly fine sand, stratified gravel to very gravelly loamy fine sand, loamy fine sand, stratified gravel to gravelly loamy fine sand, sand, stratified gravel to sand, stratified gravel to fine sand, stratified gravel to very gravelly loamy sand, stratified gravel to gravelly very gravelly sand, fine sand, stratified gravel to gravelly sand, stratified gravel to loamy fine sand, stratified gravel to gravelly loamy sand, stratified gravel to loamy sand	SM, SP-SM	A-2-4, A-4, A-1-a	0- 0- 0	0- 0- 0	63-100-100	26-100-100	19-82-99	5-28- 41	0-0 -18	NP-0 -2

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
52C—Sutton fine sandy loam, 2 to 15 percent slopes, extremely stony														
Sutton	80	B	0-6	Fine sandy loam	SC-SM, SM	A-4, A-2	0- 0- 0	0- 3- 5	90-95-100	80-85-90	70-80-90	30-43-45	15-20-25	NP-3 -5
			6-12	Fine sandy loam, loam, gravelly fine sandy loam, sandy loam	ML, SM, SC-SM, CL-ML	A-4, A-2	0- 0- 0	0- 3- 5	60-80-100	55-73-90	40-65-90	20-38-55	15-20-25	NP-2 -5
			12-24	Fine sandy loam, loam, gravelly fine sandy loam, sandy loam	ML, SM, CL-ML, SC-SM	A-2, A-4	0- 3- 5	0- 3- 5	65-83-100	55-73-90	40-65-90	20-38-55	15-20-25	NP-2 -5
			24-28	Fine sandy loam, loam, gravelly fine sandy loam, sandy loam	ML, SM, CL-ML, SC-SM	A-2, A-4	0- 3- 5	0- 3- 5	65-83-100	55-73-90	40-65-90	20-38-55	15-20-25	NP-2 -5
			28-36	Gravelly fine sandy loam, gravelly sandy loam, sandy loam	SC-SM, SM	A-2	0- 3- 5	0- 5- 10	65-83-100	60-75-90	55-70-85	30-35-40	15-18-20	NP-2 -5
			36-65	Gravelly fine sandy loam, gravelly sandy loam, sandy loam	SC-SM, SM	A-2, A-4	0- 3- 5	0- 5- 10	65-83-100	60-75-90	45-65-85	25-38-50	15-18-20	NP-2 -5

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
61B—Canton and Charlton fine sandy loams, 0 to 8 percent slopes, very stony														
Canton, very stony	50	B	0-2	Slightly decomposed plant material, highly decomposed plant material, moderately decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			2-5	Gravelly sandy loam, loam, sandy loam, fine sandy loam, gravelly very fine sandy loam, gravelly fine sandy loam, gravelly loam, very fine sandy loam, very gravelly sandy loam, very gravelly very fine sandy loam, very gravelly fine sandy loam, very gravelly loam	SC-SM, SM	A-2-4, A-4	0- 0- 21	0- 0- 7	80-95-100	60-90-100	48-78-89	24-42-50	0-35 -48	NP-4 -6

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
			5-16	Gravelly loam, very fine sandy loam, very gravelly sandy loam, very gravelly very fine sandy loam, very gravelly fine sandy loam, very gravelly loam, gravelly sandy loam, loam, sandy loam, fine sandy loam, gravelly very fine sandy loam, gravelly fine sandy loam	SC, SC-SM, SM	A-2-4, A-4	0- 0- 20	0- 0- 6	82-96-100	63-92-100	53-81-92	27-43-51	0-19 -27	NP-4 -6
			16-22	Gravelly loam, very fine sandy loam, very gravelly sandy loam, very gravelly very fine sandy loam, very gravelly fine sandy loam, very gravelly loam, gravelly sandy loam, loam, sandy loam, fine sandy loam, gravelly very fine sandy loam, gravelly fine sandy loam	SC-SM, SC, SM	A-4, A-2-4	0- 0- 20	0- 0- 6	82-88-100	63-76-100	52-64-91	26-32-50	0-0 -27	NP-0 -6

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
			22-67	Very gravelly loamy fine sand, very gravelly sand, gravelly fine sand, gravelly loamy sand, gravelly coarse sand, gravelly loamy coarse sand, very gravelly loamy very fine sand, very gravelly fine sand, very gravelly coarse sand, gravelly loamy fine sand, very gravelly very fine sand, gravelly sand, very gravelly loamy coarse sand, very gravelly loamy sand, gravelly very fine sand	SM	A-1-b, A-2-4	0- 0- 12	0- 0- 12	67-72-85	50-65-78	39-51-63	14-19-25	0-0 -17	NP-0 -2
Charlton, very stony	35	B	0-2	Slightly decomposed plant material, highly decomposed plant material, moderately decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			2-4	Loam, gravelly loam, sandy loam, fine sandy loam, gravelly sandy loam	SC-SM, SM, GM, GC-GM	A-1-b, A-2-4, A-4, A-5, A-1-a	0- 0- 9	0- 0- 18	48-100-100	31-84-84	24-72-77	13-41-46	0-45 -80	NP-4 -8
			4-27	Gravelly fine sandy loam, very gravelly sandy loam, fine sandy loam, gravelly loam, loam, gravelly sandy loam, sandy loam	CL, SM, SC-SM, SC, ML, CL-ML, OL, GM, GC, GC-GM	A-4, A-1-b, A-2-4, A-2-6, A-2-7, A-6, A-7-5, A-2-5, A-5	0- 0- 6	0- 3- 13	59-87-100	46-79-91	37-68-88	22-41-57	0-22 -41	NP-6 -11

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
62C—Canton and Charlton fine sandy loams, 3 to 15 percent slopes, extremely stony														
Canton, extremely stony	50	B	0-2	Slightly decomposed plant material, highly decomposed plant material, moderately decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			2-5	Gravelly sandy loam, loam, sandy loam, fine sandy loam, gravelly very fine sandy loam, gravelly fine sandy loam, gravelly loam, very fine sandy loam, very gravelly sandy loam, very gravelly very fine sandy loam, very gravelly fine sandy loam, very gravelly loam	SC-SM, SM	A-2-4, A-4	0- 0- 21	0- 0- 7	80-95-100	60-90-100	48-78-89	24-42-50	0-35 -48	NP-4 -6

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
			5-16	Gravelly loam, very fine sandy loam, very gravelly sandy loam, very gravelly very fine sandy loam, very gravelly fine sandy loam, very gravelly loam, gravelly sandy loam, loam, sandy loam, fine sandy loam, gravelly very fine sandy loam, gravelly fine sandy loam	SC, SC-SM, SM	A-2-4, A-4	0- 0- 20	0- 0- 6	82-96-100	63-92-100	53-81-92	27-43-51	0-19 -27	NP-4 -6
			16-22	Gravelly loam, very fine sandy loam, very gravelly sandy loam, very gravelly very fine sandy loam, very gravelly fine sandy loam, very gravelly loam, gravelly sandy loam, loam, sandy loam, fine sandy loam, gravelly very fine sandy loam, gravelly fine sandy loam	SC-SM, SC, SM	A-4, A-2-4	0- 0- 20	0- 0- 6	82-88-100	63-76-100	52-64-91	26-32-50	0-0 -27	NP-0 -6

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
			22-67	Very gravelly loamy fine sand, very gravelly sand, gravelly fine sand, gravelly loamy sand, gravelly coarse sand, gravelly loamy coarse sand, very gravelly loamy very fine sand, very gravelly fine sand, very gravelly coarse sand, gravelly loamy fine sand, very gravelly very fine sand, gravelly sand, very gravelly loamy coarse sand, very gravelly loamy sand, gravelly very fine sand	SM	A-1-b, A-2-4	0- 0- 12	0- 0- 12	67-72-85	50-65-78	39-51-63	14-19-25	0-0 -17	NP-0 -2
Charlton, extremely stony	35	B	0-2	Slightly decomposed plant material, highly decomposed plant material, moderately decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			2-4	Loam, gravelly loam, sandy loam, fine sandy loam, gravelly sandy loam	SC-SM, SM, GM, GC-GM	A-1-b, A-2-4, A-4, A-5, A-1-a	0- 0- 9	0- 0- 18	48-100-100	31-84-84	24-72-77	13-41-46	0-45 -80	NP-4 -8
			4-27	Gravelly fine sandy loam, very gravelly sandy loam, fine sandy loam, gravelly loam, loam, gravelly sandy loam, sandy loam	CL, SM, SC-SM, SC, ML, CL-ML, OL, GM, GC, GC-GM	A-4, A-1-b, A-2-4, A-2-6, A-2-7, A-6, A-7-5, A-2-5, A-5	0- 0- 6	0- 3- 13	59-87-100	46-79-91	37-68-88	22-41-57	0-22 -41	NP-6 -11

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
73C—Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky														
Charlton, very stony	50	B	0-2	Slightly decomposed plant material, highly decomposed plant material, moderately decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			2-4	Fine sandy loam, loam, sandy loam, gravelly loam, gravelly sandy loam	SM, SC-SM, GM, GC-GM	A-5, A-1-a, A-1-b, A-2-4, A-4	0- 0- 9	0- 0- 18	48-100-100	31-84-84	24-72-77	13-41-46	0-45 -80	NP-4 -8
			4-27	Gravelly fine sandy loam, loam, sandy loam, fine sandy loam, gravelly loam, very gravelly sandy loam, gravelly sandy loam	CL, OL, GM, SC-SM, SC, ML, CL-ML, GC, GC-GM, SM	A-4, A-1-b, A-2-4, A-2-5, A-5, A-2-6, A-2-7, A-6, A-7-5	0- 0- 6	0- 3- 13	59-87-100	46-79-91	37-68-88	22-41-57	0-22 -41	NP-6 -11

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
			27-65	Gravelly fine sandy loam, loam, sandy loam, very gravelly sandy loam, fine sandy loam, gravelly loam, gravelly sandy loam	SC-SM, SM, GM, GC, GC-GM, SC	A-2-4, A-1-b, A-4	0- 0- 6	0- 7- 25	49-76-100	36-68-92	30-60-82	16-35-47	0-22 -24	NP-6 -6
Chatfield, very stony	30	B	0-1	Moderately decomposed plant material, slightly decomposed plant material, highly decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			1-2	Cobbly fine sandy loam, cobbly loam, gravelly fine sandy loam, gravelly loam, gravelly sandy loam, very gravelly loam, very gravelly sandy loam, loam, silt loam, stony fine sandy loam, stony loam, very fine sandy loam, highly organic fine sandy loam, fine sandy loam	GC-GM, GM, SC-SM, SM, GW-GM, GW-GC, GP-GM, GP-GC, SW-SM, SW-SC, SP-SM, SP-SC	A-1-a, A-2-4, A-1-b, A-2-5, A-4, A-5	0- 0- 7	0- 0- 29	56-95-95	27-88-88	21-75-80	11-43-48	0-42 -80	NP-4 -8
			2-30	Cobbly fine sandy loam, cobbly loam, fine sandy loam, gravelly fine sandy loam, gravelly loam, gravelly sandy loam, loam, silt loam, stony fine sandy loam, stony loam, very fine sandy loam	CL-ML, GM, ML, SC, CL, SM, SC-SM, GC, GC-GM	A-1-b, A-2-5, A-2-6, A-2-7, A-5, A-6, A-7-5, A-2-4, A-4	0- 0- 7	0- 8- 29	70-82-94	40-74-92	32-63-89	18-38-57	0-22 -41	NP-6 -11
			30-40	Bedrock	—	—	—	—	—	—	—	—	—	—

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
75C—Hollis-Chatfield-Rock outcrop complex, 3 to 15 percent slopes														
Hollis	35	D	0-1	Highly decomposed plant material	OL	A-8	0- 0- 0	0- 0- 0	100-100-100	100-100-100	100-100-100	100-100-100	—	—
			1-6	Gravelly fine sandy loam	SM	A-2, A-4	0- 0- 3	0- 5- 10	65-75-85	55-65-75	45-60-75	20-30-40	15-20-25	NP-3 -5
			6-9	Gravelly fine sandy loam, fine sandy loam, channery fine sandy loam	SM	A-2, A-4	0- 2- 5	0- 5- 10	65-83-100	55-75-90	50-70-90	25-40-50	15-20-25	NP-3 -5
			9-15	Gravelly fine sandy loam, fine sandy loam	SM	A-2, A-4	0- 5- 10	0-10- 20	70-85-100	65-78-90	55-70-90	25-40-50	15-20-25	NP-3 -5
			15-80	Bedrock	—	—	—	—	—	—	—	—	—	—
Chatfield	30	B	0-1	Highly decomposed plant material	OL	A-8	0- 0- 0	0- 0- 0	100-100-100	100-100-100	100-100-100	100-100-100	—	NP-2 -5
			1-6	Gravelly fine sandy loam	SM	A-2, A-4	0- 1- 5	0- 2- 5	70-78-85	55-65-75	45-60-75	15-30-40	10-20-25	NP-4 -5
			6-15	Gravelly loam, gravelly sandy loam, gravelly fine sandy loam, loam	SM, ML	A-2, A-4	0- 0- 0	0- 5- 10	75-80-100	60-75-90	45-65-90	15-38-60	10-20-25	NP-5-10
			15-29	Fine sandy loam, gravelly sandy loam, gravelly fine sandy loam, loam	SM	A-2, A-4	0- 0- 0	0- 5- 10	70-75-100	60-75-90	40-60-90	15-33-50	10-20-25	NP-5-10
			29-80	Unweathered bedrock	—	—	—	—	—	—	—	—	—	—
Rock outcrop	15	D	>0		—	—	—	—	—	—	—	—	—	—

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
75E—Hollis-Chatfield-Rock outcrop complex, 15 to 45 percent slopes														
Hollis	35	D	0-1	Highly decomposed plant material	OL	A-8	0- 0- 0	0- 0- 0	100-100-100	100-100-100	100-100-100	100-100-100	—	—
			1-6	Gravelly fine sandy loam	SM	A-2, A-4	0- 0- 3	0- 5- 10	65-75-85	55-65-75	45-60-75	20-30-40	15-20-25	NP-3 -5
			6-9	Gravelly fine sandy loam, fine sandy loam, channery fine sandy loam	SM	A-2, A-4	0- 2- 5	0- 5- 10	65-83-100	55-75-90	50-70-90	25-40-50	15-20-25	NP-3 -5
			9-15	Gravelly fine sandy loam, fine sandy loam	SM	A-2, A-4	0- 5- 10	0-10- 20	70-85-100	65-78-90	55-70-90	25-40-50	15-20-25	NP-3 -5
			15-80	Bedrock	—	—	—	—	—	—	—	—	—	—
Chatfield	30	B	0-1	Highly decomposed plant material	OL	A-8	0- 0- 0	0- 0- 0	100-100-100	100-100-100	100-100-100	100-100-100	—	NP-2 -5
			1-6	Gravelly fine sandy loam	SM	A-2, A-4	0- 1- 5	0- 2- 5	70-78-85	55-65-75	45-60-75	15-30-40	10-20-25	NP-4 -5
			6-15	Gravelly loam, gravelly sandy loam, gravelly fine sandy loam, loam	SM, ML	A-2, A-4	0- 0- 0	0- 5- 10	75-80-100	60-75-90	45-65-90	15-38-60	10-20-25	NP-5 -10
			15-29	Fine sandy loam, gravelly sandy loam, gravelly fine sandy loam, loam	SM	A-2, A-4	0- 0- 0	0- 5- 10	70-75-100	60-75-90	40-60-90	15-33-50	10-20-25	NP-5 -10
			29-80	Unweathered bedrock	—	—	—	—	—	—	—	—	—	—
Rock outcrop	15	D	>0		—	—	—	—	—	—	—	—	—	—

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
85B—Paxton and Montauk fine sandy loams, 3 to 8 percent slopes, very stony														
Paxton, very stony	55	C	0-2	Moderately decomposed plant material, slightly decomposed plant material, highly decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			2-10	Gravelly fine sandy loam, loam, gravelly sandy loam, fine sandy loam	SC-SM, GC, GC-GM, SM, CL-ML, CL, ML, SC, GM, OL, OH	A-5, A-2-4, A-1-b, A-2-5, A-4	0- 0- 24	0- 0- 24	44-88-88	42-87-87	32-74-82	17-43-51	0-40 -60	NP-7 -10
			10-17	Loam, gravelly sandy loam, fine sandy loam	CL-ML, GM, GC, GC-GM, ML, CL, SC, SM, SC-SM	A-2-6, A-1-b, A-4, A-2-4, A-6	0- 0- 7	0- 0- 14	52-91-91	50-91-91	38-76-85	21-44-53	0-21 -32	NP-7 -11
			17-28	Fine sandy loam, loam, gravelly sandy loam	SC, GC-GM, CL-ML, CL, GC, ML, GM, SM, SC-SM	A-2-4, A-4, A-6, A-1-b, A-2-6	0- 0- 6	0- 0- 13	56-85-92	55-85-92	42-71-87	23-41-54	0-19 -29	NP-7 -11

Engineering Properties–State of Connecticut														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
			28-67	Gravelly coarse sandy loam, fine sandy loam, loam, gravelly sandy loam, gravelly fine sandy loam	GC, GC-GM, CL-ML, CL, SC, ML, GM, SM, SC-SM	A-4, A-2-6, A-1-b, A-2-4, A-6	0- 0- 6	0- 0- 12	59-68-93	57-67-93	44-56-87	24-33-54	0-18 -28	NP-7 -11
Montauk, very stony	30	C	0-2	Highly decomposed plant material, moderately decomposed plant material, slightly decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			2-6	Loam, gravelly sandy loam, gravelly fine sandy loam, fine sandy loam, sandy loam, gravelly loam, gravelly silt loam, silt loam	SM	A-5, A-2-4, A-4, A-2-5	0- 2- 13	0- 2- 13	76-97-97	57-92-92	46-76-79	26-44-47	0-37 -52	NP-3 -4
			6-28	Gravelly fine sandy loam, fine sandy loam, sandy loam, gravelly loam, silt loam, gravelly silt loam, loam, gravelly sandy loam	SM, GC-GM, SC-SM, GM	A-4, A-2-4	0- 1- 6	0- 1- 14	70-94-95	69-93-95	55-77-81	31-45-48	0-18 -21	NP-3 -4
			28-36	Sandy loam, silt loam, gravelly loam, gravelly silt loam, loam, gravelly sandy loam, gravelly fine sandy loam, fine sandy loam	SM, SC-SM, GC-GM, GM	A-2-4, A-4	0- 0- 6	0- 1- 15	69-90-95	68-90-95	52-70-78	27-38-43	15-18 -23	1-3 -6
			36-74	Loamy very fine sand, gravelly loamy sand, gravelly fine sandy loam, gravelly sand, very gravelly loamy coarse	SM	A-1-b, A-2-4	0- 1- 4	0- 6- 6	66-88-93	53-85-93	39-64-74	14-25-30	0-0 -18	NP-0 -3

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf