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DRAINAGE ANALYSIS

Prepared for:

Rella Boulevard

Village of Montebello
Rockland County, New York

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METHODOLOGY

Brooker Engineering, PLLC has been retained to perform a hydraulic and hydrologic analysis for the Rella Boulevard project to provide zero-net increase in peak runoff rates as a result of the proposed development.

The project site is Tax Lots 55.08-1-5 & 6 and has a total area of 18.5265 acres situated in the LO-C zoning district. The proposed development of the property includes four (4) warehouse/flex-space buildings totaling 236,860 SF with 156 parking spaces having access from Rella Boulevard.

The lots are currently vacant and heavily wooded. The site drains in two (2) directions: South to a network of catch basins in Rella Boulevard, and West to a network of catch basins in Airmont Road.

According to the U.S. Department of Agriculture Soil Conservation Service, the soil on-site consists mainly of Creshire gravelly fine sandy loam, 2 to 8 percent slopes (87.9%), and of Wethersfield gravelly silt loam, 8 to 15 percent slopes (12.1%).

The attached Existing Conditions Drainage Area Map shows the project site divided into two (2) drainage areas, draining to separate points of interest. Drainage Area #1 drains to Point of Interest #1 at the network of catch basins in Rella Boulevard. Drainage Area #2 drains to Point of Interest #2 at the network of catch basins in Airmont Road.

The attached Proposed Conditions Drainage Area Map also shows the project site divided into two (2) drainage areas. Drainage Area #1 is further broken down into Drainage Area #1A, Drainage Area #1B, and Drainage Area #1C. Drainage Area #1A is captured in the proposed underground infiltration system under Roadway C. Drainage Area #1C is captured in the proposed underground infiltration system under Roadway B. Drainage Area #1C drains to the network of catch basins in Rella Boulevard, as in existing conditions. Drainage Area #2 is further broken down into Drainage Area #2A and Drainage Area #2B. Drainage Area #2A is captured in the proposed infiltration basin. Drainage Area #2B drains to the network of catch basins in Airmont Road, as in existing conditions.

For Drainage Area #1A, the developed, impervious portion of the land (consisting of buildings/roofs, pavement, sidewalks, and 62% of the emergency access road) is captured in a network of catch basins along Roadway C, and routed to the proposed underground infiltration system underneath Roadway C. For Drainage Area #1C, the developed, impervious portion of the land (consisting of buildings/roofs, pavement, sidewalks, and 62% of the emergency access road) is captured in a network of catch basins along Roadway B, and routed to the proposed underground infiltration system underneath Roadway B. For Drainage Area #2A, the developed, impervious portion of the land (consisting of buildings/roofs, pavement, sidewalks, and 62% of the emergency access road) runs through a network of catch basins underneath Roadways A and D to the proposed infiltration basin. The infiltration basins have been designed and sized to handle the runoff from a 100-year storm.

Proposed Stormwater Management Facilities have been designed to provide water quality and quantity controls utilizing standard practices in accordance with the requirements of the New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit for Stormwater Discharges from Construction. The design incorporates sizing for:

- 1) Water Quality Volume Control (WQv),
- 2) Runoff Reduction Volume (RRv),
- 3) Channel Protection Storage Volume (CPv),
- 4) Overbank Flood Control (Qp) and
- 5) Extreme Storm Flood Control (Qf).

These five components of the water quality sizing criteria are further described as follows:

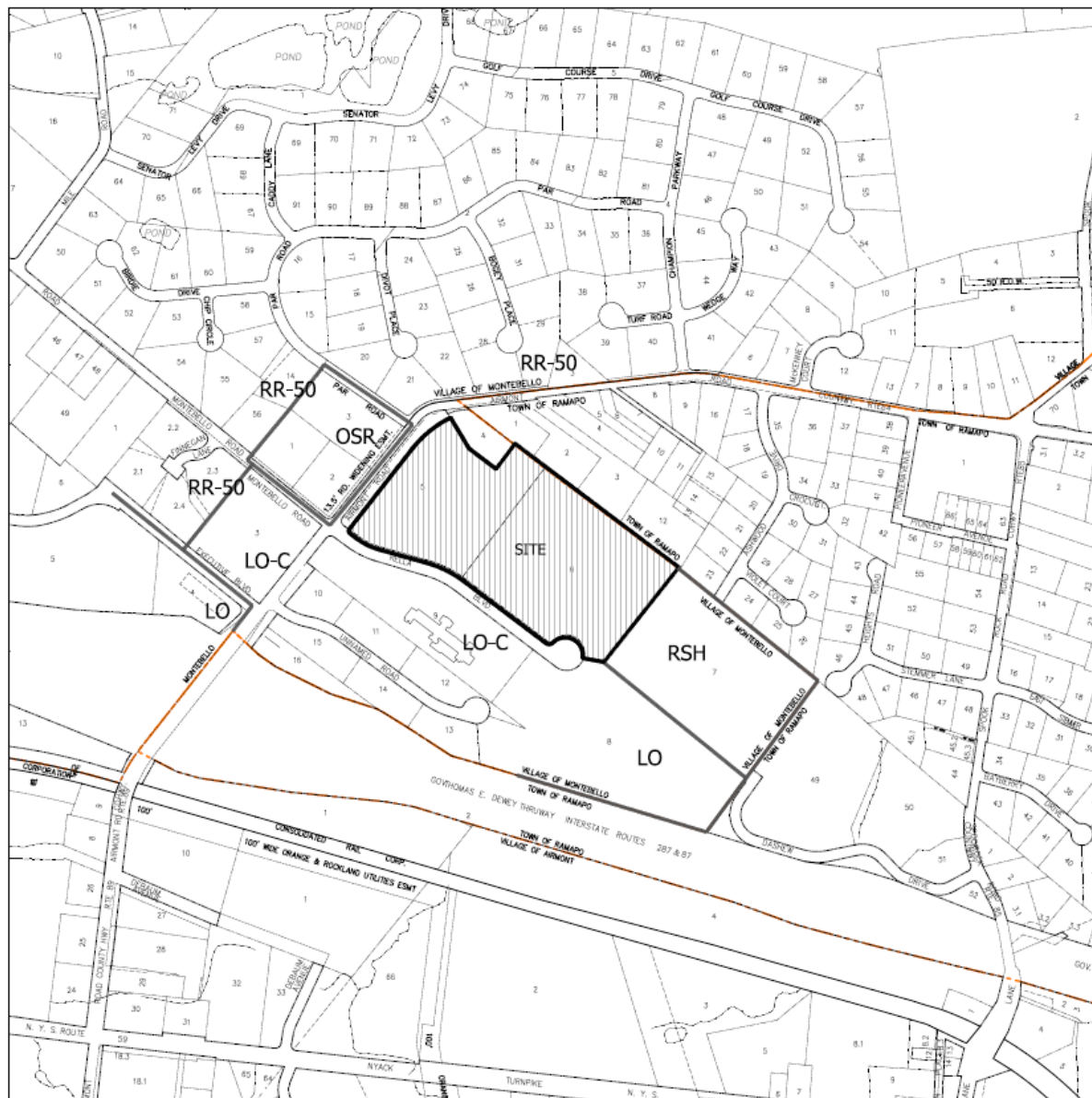
- The Water Quality Volume (WQv) is designed to improve water quality by capturing and treating 90% of the average annual stormwater runoff volume. The WQv is directly related to the amount of impervious cover on a project site. On this project the water quality volume will be treated by the use of the underground infiltration facilities.
- The Runoff Reduction Volume (RRv) is designed to control post-development water quality volumes to replicate pre-development hydrology by maintaining pre-construction infiltration, peak runoff flow, and discharge volume as well as minimizing concentrated flow. Runoff Reduction is achieved by infiltration, groundwater recharge, reuse and recycling by incorporating green infrastructure techniques and standard stormwater management practices with runoff reducing capacity.
- The Channel Protection Storage Volume (Cpv) is designed to protect stream channels from erosion. The CPv is accomplished by providing 24 hour extended detention of the one-year, 24-hour storm event.
- The purpose of Overbank Flood Control (Qp) is to prevent an increase in the frequency and magnitude of out-of-bank flooding generated by urban development. Overbank Flood Control is accomplished by attenuating the post development 10-year, 24-hour peak discharge rate from the site to the pre-development rate.
- The purpose of Extreme Flood Control (Qf) is to prevent an increased risk of flood damage from large storm events, to maintain the boundaries of the pre-development 100-year floodplain, and to protect the physical integrity of stormwater management practices. Extreme Flood Control is accomplished by attenuating the post development 100-year, 24-hour peak discharge rate from the site to the pre-development rate.

The required Water Quality Volume was calculated in accordance with the procedure outlined in the *New York State Stormwater Management Design Manual*. The 100% Runoff Reduction requirement is achieved by providing infiltration for the entire water quality volume. The Overbank Flood Control and Extreme Storm Flood Control are provided by controlling the peak discharge from the project site for the 10 year and 100-year storms to pre-development rates.

This hydrologic analysis utilized the HydroCAD computer program to generate, route and combine runoff hydrographs for storms having 1-, 2-, 10-, 25-, and 100-year recurrence intervals. Runoff hydrographs were generated by utilizing SCS hydrographs to match discharges as calculated using the TR-55 peak discharge method for each drainage subarea.

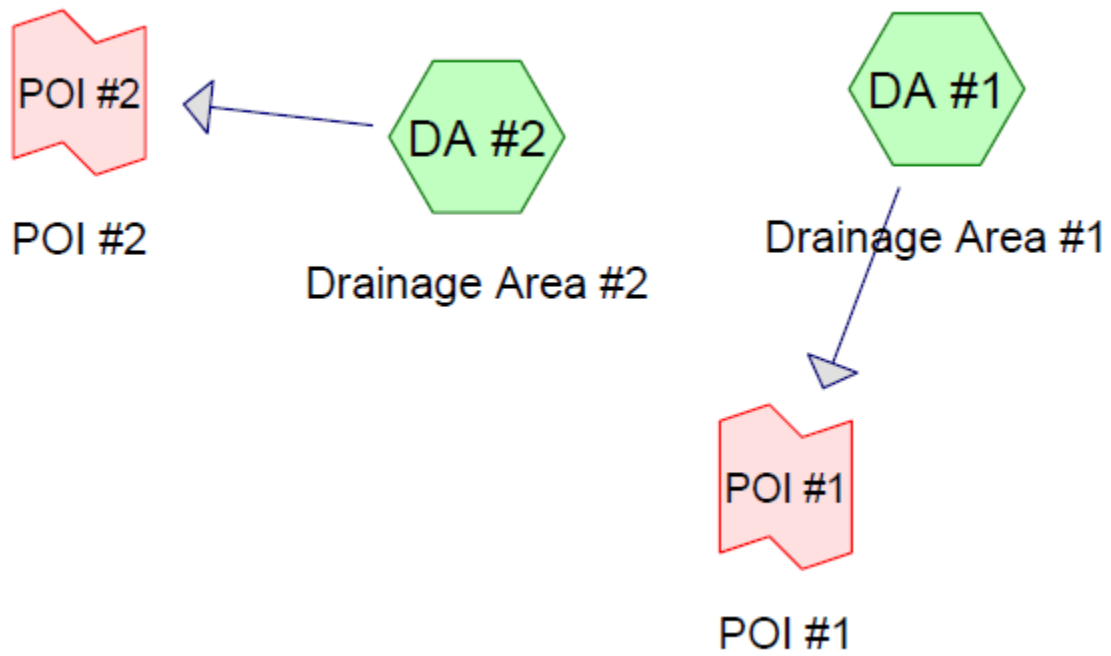
The attached tables summarize the results of the stormwater runoff analyses. Also attached are backup calculations, input data, and HydroCAD computer output.

VICINITY MAP

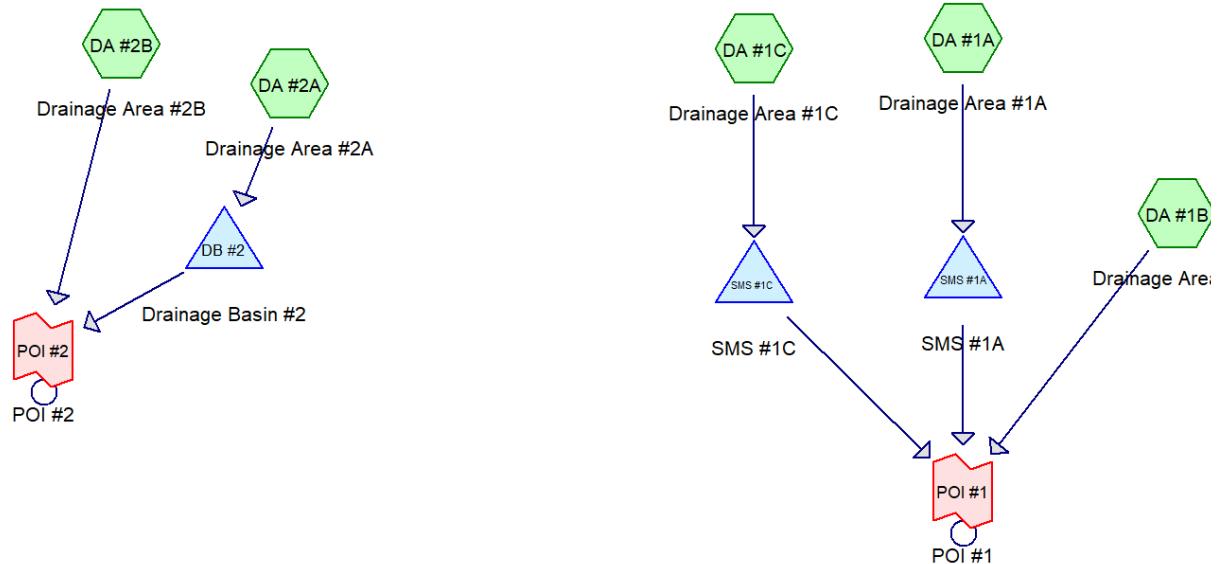


ROUTING DIAGRAMS

EXISTING



PROPOSED



SUMMARY OF PEAK DISCHARGES

Peak Discharge from project area to Point of Interest #1 (cfs)

<u>FREQUENCY</u>	<u>EXISTING CONDITIONS</u>	<u>PROPOSED CONDITIONS</u>	<u>DIFFERENCE</u>
1 YEAR	1.66	1.60	- 0.06
2 YEAR	3.52	3.42	- 0.10
10 YEAR	8.73	8.43	- 0.30
25 YEAR	12.75	12.37	- 0.38
100 YEAR	26.27	26.26	- 0.01

Peak Discharge from project area to Point of Interest #2 (cfs)

<u>FREQUENCY</u>	<u>EXISTING CONDITIONS</u>	<u>PROPOSED CONDITIONS</u>	<u>DIFFERENCE</u>
1 YEAR	1.16	1.00	- 0.16
2 YEAR	2.45	2.35	- 0.10
10 YEAR	6.07	5.82	- 0.25
25 YEAR	8.91	8.44	- 0.47
100 YEAR	18.38	18.03	- 0.35

SUMMARY OF UNIFIED SIZING CRITERIA

WQv:

Required WQv = 18,164 cf + 17,032 cf + 12,632 cf = 47,828 cf

Provided WQv = 18,208 cf + 17,119 cf + 12,632 cf = 47,959 cf

HydroCAD Input Data

Drainage Basins – Existing Conditions

DA #1 – Drainage Area #1

Cover Type: Woods/grass comb., Fair
Area = 10.206 acres
Hydrologic Soil Group: B
Composite SCS curve number (CN) = 65
Time of Concentration = 44.4 Minutes

DA #2 – Drainage Area #2

Cover Type: Woods/grass comb., Fair
Area = 8.321 acres
Hydrologic Soil Group: B
Composite SCS curve number (CN) = 65
Time of Concentration = 58.4 Minutes

Total Area Onsite: 18.5 Acres

Drainage Basins – Proposed Conditions

DA #1A – Drainage Area #1A

Area (sf)	CN	Description
11,207	61	>75% Grass cover, Good, HSG B
1,751	61	Emergency Access Road (Perv.), Good, HSG B
86,044	98	Building/Roof, HSG B
60,510	98	Pavement, HSG B
2,937	98	Sidewalk, HSG B
2,858	98	Emergency Access Road (Imp.), HSG B
165,307	95	Weighted Average
12,958		7.84% Pervious Area
152,349		92.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, 10 Minute Minimum

DA #1B – Drainage Area #1B

Area (sf)	CN	Description
161,751	61	>75% Grass cover, Good, HSG B
3,911	61	Emergency Access Road (Perv.), Good, HSG B
6,380	98	Emergency Access Road (Imp.), HSG B
172,042	62	Weighted Average
165,662		96.29% Pervious Area
6,380		3.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.2	150	0.1200	0.21		Sheet Flow, Grass: Dense n= 0.240 P2= 2.00"
4.8	488	0.0578	1.68		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
17.0	638	Total			

DA #1C – Drainage Area #1C

Area (sf)	CN	Description
8,883	61	>75% Grass cover, Good, HSG B
1,528	61	Emergency Access Road (Perv.), Good, HSG B
100,238	98	Building/Roof, HSG B
36,917	98	Pavement, HSG B
3,080	98	Sidewalk, HSG B
2,494	98	Emergency Access Road (Imp.), HSG B
153,140	95	Weighted Average
10,411		6.80% Pervious Area
142,729		93.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, 10 Direct Minimum

DA #2A – Drainage Area #2A

Area (sf)	CN	Description
50,600	98	Building/Roof, HSG B
37,828	98	Pavement, HSG B
1,562	98	Sidewalk, HSG B
3,943	98	Emergency Access Road (Imp.), HSG B
14,078	61	>75% Grass cover, Good, HSG B
2,417	61	Emergency Access Road (Perv.), Good, HSG B
11,500	98	Infiltration Basin, HSG B
121,928	93	Weighted Average
16,495		13.53% Pervious Area
105,433		86.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, 10 Minute Minimum

DA #1B – Drainage Area #2B

Area (sf)	CN	Description
185,909	61	>75% Grass cover, Good, HSG B
2,004	61	Emergency Access Road (Perv.), Good, HSG B
3,271	98	Emergency Access Road (Imp.), HSG B
191,184	62	Weighted Average
187,913		98.29% Pervious Area
3,271		1.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	150	0.0667	0.16		Sheet Flow, Grass: Dense n= 0.240 P2= 2.00"
3.0	634	0.2524	3.52		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
18.4	784	Total			

Total Area Onsite: 18.5 Acres

24 Hour Rainfall

Frequency	Rainfall (inches)
1 Year	2.80
2 Year	3.50
10 Year	5.00
25 Year	6.00
100 Year	9.00

Source: NOAA National Weather Service Precipitation Frequency Data Server (PFDS)

Water Quality (WQv) Calculations

Utilize the procedures outlined in Chapters 4 and Chapter 9 of NYSDEC Stormwater Management Design Manual

Compute Impervious Cover

Drainage Area to Roadway C Underground Infiltration Basin:

Contributing site area = 3.795 acres

Impervious area to be treated = 3.497 acres

Impervious Cover (I) = 92.16%

Compute Runoff Coefficient

$$\begin{aligned} R_v &= 0.05 + (I) (0.009) \\ &= 0.05 + (92.16) (0.009) = 0.879 \end{aligned}$$

Compute Required Water Quality Volume (WQv)

Use 90% Capture Rule

From Figure 4.1 of Stormwater Management Design Manual, 90% Rainfall = 1.5"

$$WQv = [(P)(R_v)(A)] / 12 = [(1.5'')(0.879)(3.795)] / 12 = \underline{\underline{0.417 \text{ acre-feet} = 18,164 \text{ ft}^3}}$$

The WQv = 18,164 cubic feet represents the required water quality volume *before* runoff reduction volume is considered. The WQv can be recalculated and reduced in accordance with the implementation of the Runoff Reduction measures.

Drainage Area to Roadway B Underground Infiltration Basin:

Contributing site area = 3.516 acres

Impervious area to be treated = 3.277 acres

Impervious Cover (I) = 93.20%

Compute Runoff Coefficient

$$\begin{aligned} R_v &= 0.05 + (I) (0.009) \\ &= 0.05 + (93.20) (0.009) = 0.889 \end{aligned}$$

Compute Required Water Quality Volume (WQv)

Use 90% Capture Rule

From Figure 4.1 of Stormwater Management Design Manual, 90% Rainfall = 1.5"

$$WQv = [(P)(R_v)(A)] / 12 = [(1.5'')(0.889)(3.516)] / 12 = \underline{\underline{0.391 \text{ acre-feet} = 17,032 \text{ ft}^3}}$$

The WQv = 17,032 cubic feet represents the required water quality volume *before* runoff reduction volume is considered. The WQv can be recalculated and reduced in accordance with the implementation of the Runoff Reduction measures.

Drainage Area to West Infiltration Basin:

Contributing site area = 2.799 acres

Impervious area to be treated = 2.420 acres

Impervious Cover (I) = 86.47%

Compute Runoff Coefficient

$$\begin{aligned} R_v &= 0.05 + (I) (0.009) \\ &= 0.05 + (86.47) (0.009) = 0.828 \end{aligned}$$

Compute Required Water Quality Volume (WQv)

Use 90% Capture Rule

From Figure 4.1 of Stormwater Management Design Manual, 90% Rainfall = 1.5"

$$WQv = [(P)(R_v)(A)] / 12 = [(1.5'')(0.828)(2.799)] / 12 = \underline{\underline{0.290 \text{ acre-feet} = 12,632 \text{ ft}^3}}$$

The WQv = 12,632 cubic feet represents the required water quality volume *before* runoff reduction volume is considered. The WQv can be recalculated and reduced in accordance with the implementation of the Runoff Reduction measures.

Minimum Runoff Reduction Volume (RRv)

According to the NYSDEC Stormwater Management Design Manual, Runoff Reduction Volume (RRv) is a reduction of the total Water Quality Volume (WQv) by application of green infrastructure techniques and Standard Stormwater Management Practices (SMPs) to replicate pre-development hydrology. This concept is intended to improve the mitigation of the negative effects of stormwater runoff from development by incorporating the design and layout of stormwater management features into the site planning process. The three primary components that mitigate the negative effects of stormwater runoff are:

1. Avoiding Impacts – Avoid or minimize disturbance by preserving natural features and using conservation design techniques.
2. Reducing Impacts – Reducing the impacts of development by reducing impervious cover.
3. Managing Impacts – Manage the impacts by using natural features and runoff reduction practices to slow down the runoff, promote infiltration and minimize the need for structural “end-of-pipe” practices.

The RRv requirement can be accomplished by application of on-site green infrastructure techniques, standard stormwater management practices with runoff reduction capacity, and good operation and maintenance. The NYSDEC Stormwater Management Design Manual requires planners and designers to address this approach in an iterative site planning and design process. The iterative process is a five-step process that combines site planning with the use of various green infrastructure techniques and standard stormwater management practices until the RRv requirement is met. The iterative five-step process is as follows:

1. Site planning to preserve natural features and reduce impervious cover;
2. Calculation of the water quality volume for the site;
3. Incorporation of green infrastructure techniques and standard SMPs with RRv capacity;
4. Use of standard SMPs, where applicable; and
5. Design of volume and peak rate control practices where required.

If by using these techniques the calculated RRv is greater than the required WQv, the RRv requirement is met. If the RRv is less than the required WQv then the design must, at a minimum, reduce a percentage of the runoff from impervious areas to be constructed on the site. The percent reduction is based on the Hydrologic Soil Group of the site, and is determined by the Specific Reduction Factor (S). The Specific Reduction Factor (S) for this project is 0.40, based on the ‘B’ soils present.

The runoff reduction techniques that have been selected have been determined to be suitable for the proposed project in consideration of factors including site topography, slopes, soil properties, project layout, and maintenance requirements. The selected techniques include the following:

- Infiltration

Minimum Runoff Reduction Volume (RRv) Calculations

Utilize the procedure outlined in Chapter 4, Section 4.3 of NYSDEC Stormwater Management Design Manual

Infiltration Calculations

Two (2) underground infiltration systems, and one (1) infiltration basin will be installed to store, infiltrate and treat runoff from the site. The system has been sized to handle the runoff from the 100-year storm. A soil percolation rate of 12 inches per hour has been used based on test results.

Outlet control structures and outlet pipes are proposed from each system to the existing network of catch basins as in existing conditions.

Drainage Area to Roadway C Infiltration System:

The WQv storm was determined to be 1.83" of rainfall

Infiltration volume at WQv Peak Elevation (Elevation 492.53) = **0.418 acre-feet = 18,208 ft³**
*Outlet invert = Elevation 492.53

Infiltration practices count as 100% of WQv towards meeting the RRv sizing criteria.
(Table 3.5 of the NYSDEC Stormwater Management Design Manual)

$$RRv = (1.0) \times (18,208 \text{ ft}^3) = 18,208 \text{ ft}^3$$

Check 48-hour Infiltration

12 inches per hour percolation rate.

$$12 \text{ in/hour} = 1 \text{ ft/ hour}$$

$$\text{Bottom area of Roadway C Infiltration System (El. 491.75)} = 7,502 \text{ sq. ft.}$$

$$18,208 \text{ ft}^3 / 1 \text{ ft/ hour} / 7,502 \text{ sq. ft.} = 2.43 \text{ hours} < 48 \text{ hours} \rightarrow \text{OK}$$

Drainage Area to Roadway B Infiltration System:

The WQv storm was determined to be 1.85" of rainfall

Infiltration volume at WQv Peak Elevation (Elevation 496.04) = **0.393 acre-feet = 17,119 ft³**
*Outlet invert = Elevation 496.04

Infiltration practices count as 100% of WQv towards meeting the RRv sizing criteria.
(Table 3.5 of the NYSDEC Stormwater Management Design Manual)

$$RRv = (1.0) \times (17,119 \text{ ft}^3) = 17,119 \text{ ft}^3$$

Check 48-hour Infiltration

12 inches per hour percolation rate.

$$12 \text{ in/hour} = 1 \text{ ft/ hour}$$

$$\text{Bottom area of Roadway B Infiltration System (El. 495.25)} = 6,909 \text{ sq. ft.}$$

$$17,119 \text{ ft}^3 / 1 \text{ ft/ hour} / 6,909 \text{ sq. ft.} = 2.48 \text{ hours} < 48 \text{ hours} \rightarrow \text{OK}$$

Drainage Area to Infiltration Basin:

The WQv storm was determined to be 1.92" of rainfall

$$\text{Infiltration volume at WQv Peak Elevation (Elevation 485.26)} = 0.290 \text{ acre-feet} = 12,632 \text{ ft}^3$$

*Outlet invert = Elevation 485.26

Infiltration practices count as 100% of WQv towards meeting the RRv sizing criteria.
(Table 3.5 of the NYSDEC Stormwater Management Design Manual)

$$\text{RRv} = (1.0) \times (12,632 \text{ ft}^3) = 12,632 \text{ ft}^3$$

Check 48-hour Infiltration

12 inches per hour percolation rate.

$$12 \text{ in/hour} = 1 \text{ ft/ hour}$$

$$\text{Bottom area of Infiltration Basin (El. 485.00)} = 5,500 \text{ sq. ft.}$$

$$12,632 \text{ ft}^3 / 1 \text{ ft/ hour} / 5,500 \text{ sq. ft.} = 2.30 \text{ hours} < 48 \text{ hours} \rightarrow \text{OK}$$

Runoff Reduction Summary

The entire water quality volume from the site will be treated, stored and infiltrated in the proposed systems. Therefore, the runoff reduction requirement of 100% is achieved.

POI Roadway C Underground Infiltration System

An underground infiltration system is proposed to provide 100% water quality treatment and runoff reduction of Drainage Area #1A.

Storage Volume vs. Elevation per HydroCAD Output

Elevation Storage Volume (cubic-feet)

498.50 (Top of Stone)	= 32,970 cf
497.50 (Top of Chamber)	= 30,100 cf
492.53 (Low Orifice)	= 2,439 cf
492.50 (Bottom of Chamber)	= 2,370 cf
491.75 (Bottom of Stone)	= 0 cf

Outlets

- Exfiltration @ INV El. 491.75
- (1) 5" Diameter Orifice @ INV El. 492.53
- (1) 5" Diameter Orifice @ INV El. 492.95
- (1) 5" Diameter Orifice @ INV El. 493.59
- (1) 5" Diameter Orifice @ INV El. 494.58
- (1) 8" Diameter Orifice @ INV El. 495.75
- Emergency Spillway @ INV EL. 497.89

Freeboard

100-yr Peak WSEL = 497.89 (per attached HydroCAD analysis)

Freeboard = 498.50' – 497.89' = 0.61'

POI Roadway B Underground Infiltration System

An underground infiltration system is proposed to provide 100% water quality treatment and runoff reduction of Drainage Area #1C.

Storage Volume vs. Elevation per HydroCAD Output

Elevation Storage Volume (cubic-feet)

502.00 (Top of Stone)	= 30,347 cf
501.00 (Top of Chamber)	= 27,704 cf
496.04 (Low Orifice)	= 2,526 cf
496.00 (Bottom of Chamber)	= 2,470 cf
495.25 (Bottom of Stone)	= 0 cf

Outlets

- Exfiltration @ INV El. 495.25
- (1) 5" Diameter Orifice @ INV El. 496.04
- (1) 5" Diameter Orifice @ INV El. 496.45
- (1) 6" Diameter Orifice @ INV El. 497.09
- (1) 6" Diameter Orifice @ INV El. 498.04
- (1) 6" Diameter Orifice @ INV El. 501.00
- Emergency Spillway @ INV EL. 501.43

Freeboard

100-yr Peak WSEL = 501.43 (per attached HydroCAD analysis)

Freeboard = 502.00' – 501.43' = 0.57'

POI Infiltration Basin

An infiltration basin is proposed to provide 100% water quality treatment and runoff reduction of Drainage Area #2A.

Storage Volume vs. Elevation per HydroCAD Output

Elevation Storage Volume (cubic-feet)

485.00 (Bottom of Basin)	= 0 cf
486.00	= 6,500 cf
487.00	= 15,000 cf
488.00 (Top of Basin)	= 25,500 cf

Outlets

- Exfiltration @ INV El. 485.00
- (1) 7" Diameter Orifice @ INV El. 485.26
- (1) 7" Diameter Orifice @ INV El. 486.79
- Emergency Spillway @ INV EL. 487.72

Freeboard

100-yr Peak WSEL = 487.72 (per attached HydroCAD analysis)

Freeboard = 488.00' – 487.72' = 0.28'

Pretreatment

According to the NYSDEC publication *Stormwater Management Design Manual*, the definition of Pretreatment is as follows:

Pretreatment – Techniques employed in stormwater SMPs to provide storage or filtering to help trap coarse materials before they enter the system.

In regard to pretreatment for infiltration practices, Section 6.3.3 of the NYSDEC *Stormwater Management Design Manual* states the following:

A minimum pretreatment volume of 25% of the WQv must be provided prior to entry to an infiltration facility, and can be provided in the form of a sedimentation basin, sump pit, grass channel, plunge pool or other measure.

Additionally, if the soil infiltration rate exceeds 5 inches per hour, a minimum pretreatment volume of 100% of the WQv must be provided.

In order to meet the pretreatment requirement, a First Defense HC Stormwater Treatment Device as manufactured by Hydro International has been selected. These devices are on the list of approved proprietary devices published by the New Jersey Corporation for Advanced Technology (NJCAT) and are thereby approved by the NYSDEC for use as pretreatment devices.

A First Defense HC Stormwater Treatment Device will be installed upstream of the inlet to proposed infiltration basins and underground infiltration system. The device is designed as flow-through device, and the selected sizing ensures that all water quality flows captured in the stormwater collection system will pass through the device prior to discharging into the stormwater infiltration system. Thus, the configuration provides pretreatment of the full water quality volume prior to it entering into the proposed stormwater infiltration system.

Pre-treatment Calculations:

This system is designed as a flow-through device.

Check the Water Quality volume flow rates. Flow rates are taken from the HydroCAD computer output for proposed conditions for the water quality design flow,

Roadway C Drainage Area:

Peak WQ flow rate = 4.98 cfs → OK

Peak WQv flow rate of 8' Diameter First Defense High Capacity unit = 6.00 cfs → OK

Peak flow rate (100 year) = 28.75 cfs

Peak on-line flow rate of 8' Diameter First Defense High Capacity unit = 32 cfs → OK

WQv Pretreatment required = 100%

WQv Pretreatment provided = 100% → OK

Roadway B Drainage Area:

Peak WQ flow rate = 4.67 cfs → **OK**

Peak WQv flow rate of 8' Diameter First Defense High Capacity unit = 6.00 cfs → **OK**

Peak flow rate (100 year) = 26.63 cfs

Peak on-line flow rate of 8' Diameter First Defense High Capacity unit = 32 cfs → **OK**

WQv Pretreatment required = 100%

WQv Pretreatment provided = 100% → **OK**

Infiltration Basin:

Peak WQ flow rate = 3.50 cfs → **OK**

Peak WQv flow rate of 6' Diameter First Defense Optimum unit = 4.07 cfs → **OK**

Peak flow rate (100 year) = 20.98 cfs

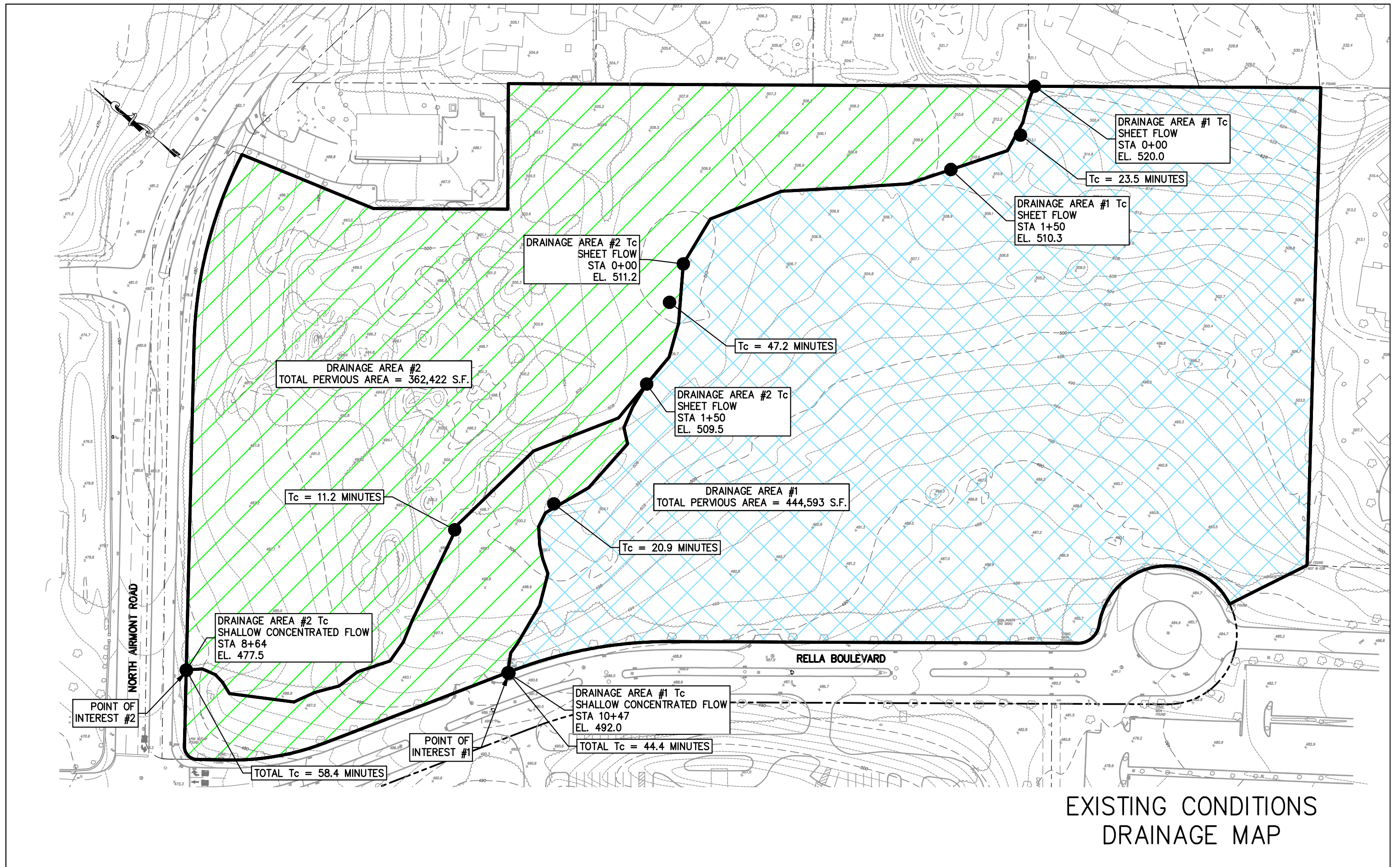
Peak on-line flow rate of 6' Diameter First Defense Optimum unit = 32 cfs → **OK**

WQv Pretreatment required = 100%

WQv Pretreatment provided = 100% → **OK**

Appendix A

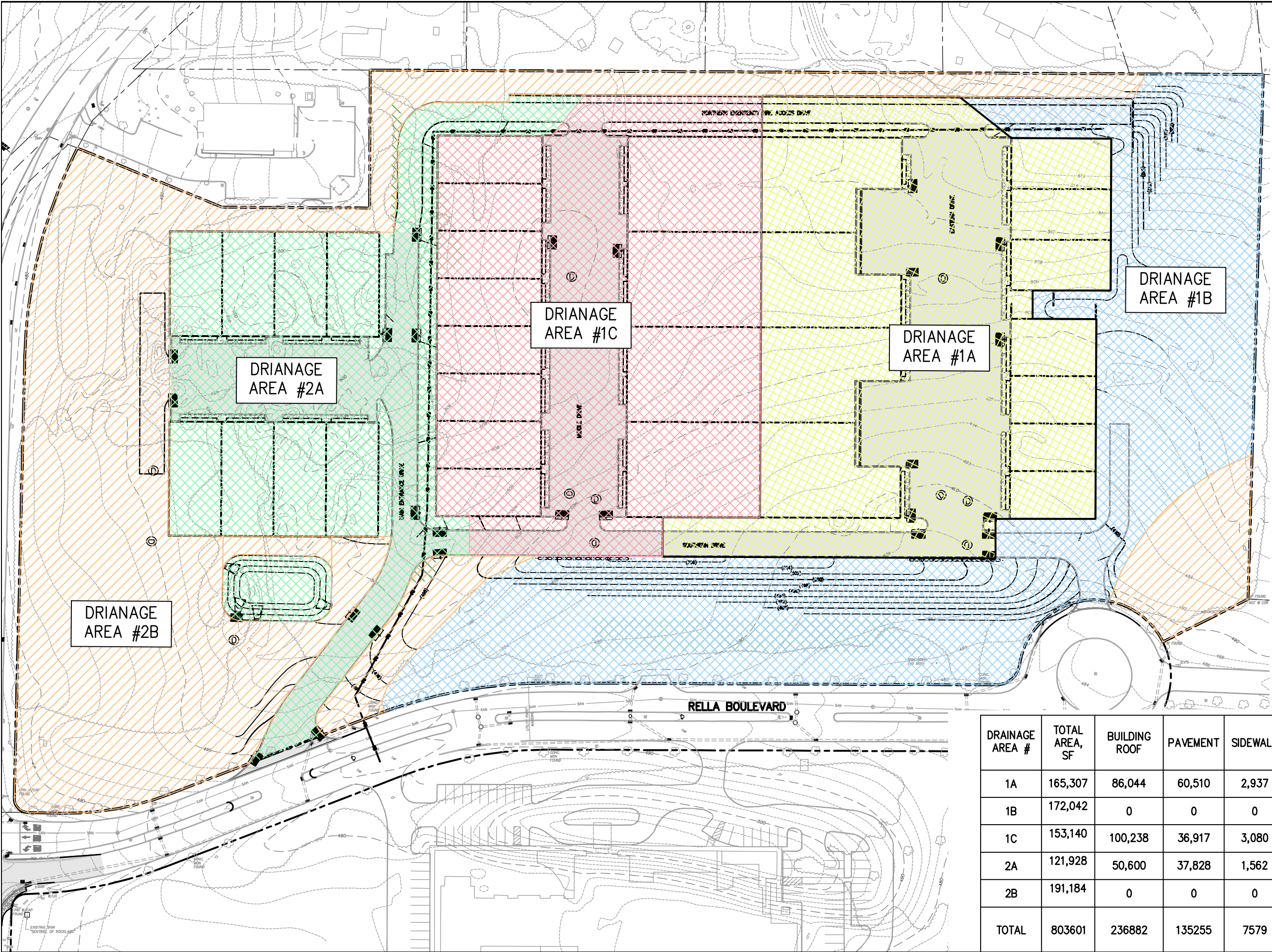
**Existing Conditions
Drainage Area Map**



EXISTING CONDITIONS
DRAINAGE MAP

Appendix B

**Proposed Conditions
Drainage Area Map**



PROPOSED
CONDITIONS
DRAINAGE MAP

DRAINAGE AREA #	TOTAL AREA, SF	BUILDING ROOF	PAVEMENT	SIDEWALK	E. ACCESS ROAD	LAWN	DETENSION BASIN
1A	165,307	86,044	60,510	2,937	4,609	11,207	0
1B	172,042	0	0	0	10291	161,751	0
1C	153,140	100,238	36,917	3,080	4022	8883	0
2A	121,928	50,600	37,828	1,562	6,360	14,078	11,500
2B	191,184	0	0	0	5,275	185,909	0
TOTAL	803601	236882	135255	7579	30557	381828	11500

Appendix C

USDA NRCS Soil 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 **Rockland County, New York**



May 6, 2021

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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Soil Map.....	9
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Rockland County, New York.....	13
CrB—Cheshire gravelly fine sandy loam, 2 to 8 percent slopes.....	13
WeC—Wethersfield gravelly silt loam, 8 to 15 percent slopes.....	14
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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

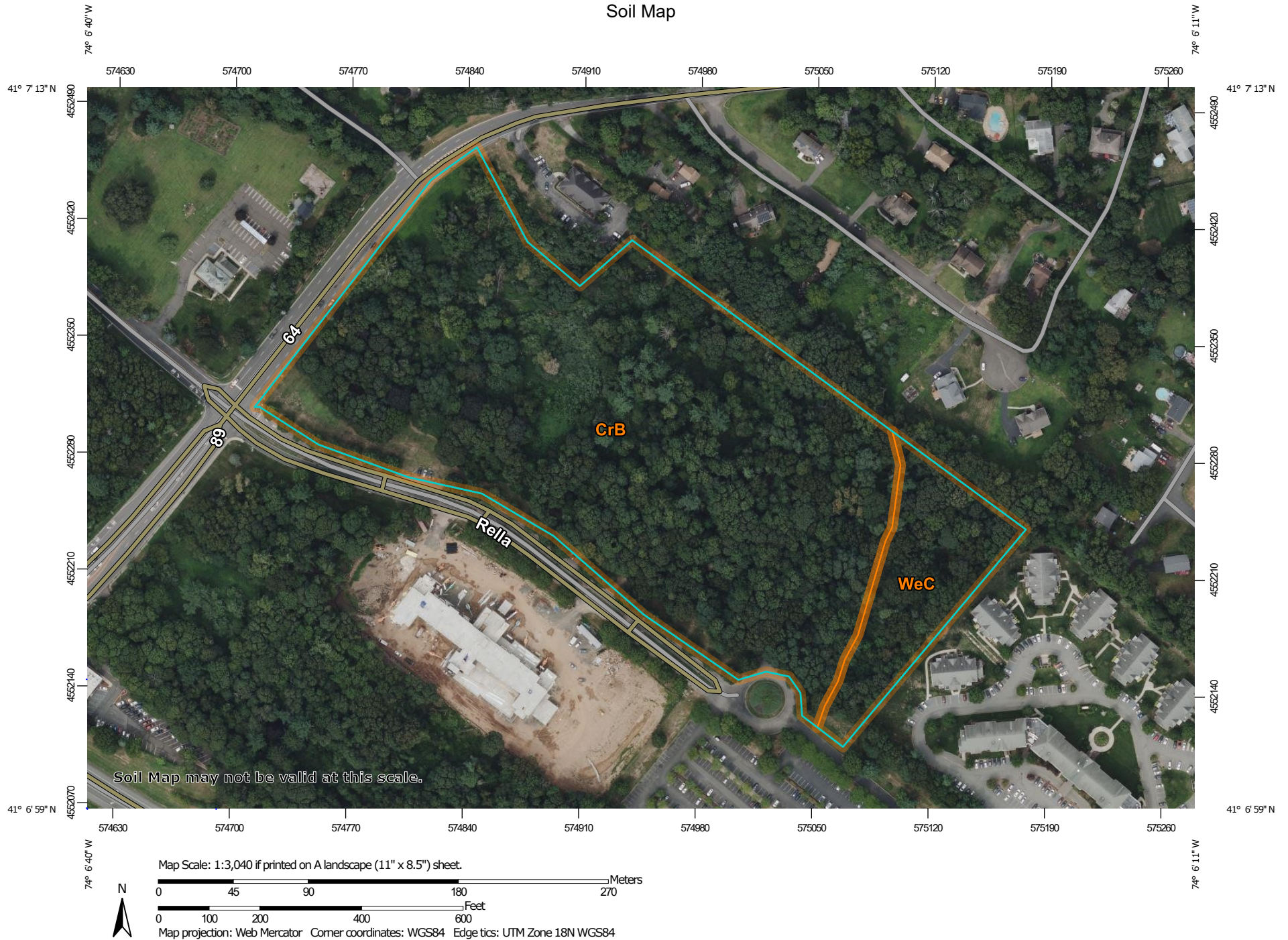
Custom Soil Resource Report

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



Custom Soil Resource Report

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 1:24,000.

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

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

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

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

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

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

Soil Survey Area: Rockland County, New York
Survey Area Data: Version 18, Jun 11, 2020

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

Date(s) aerial images were photographed: Aug 22, 2020—Sep 23, 2020

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
CrB	Cheshire gravelly fine sandy loam, 2 to 8 percent slopes	15.4	87.9%
WeC	Wethersfield gravelly silt loam, 8 to 15 percent slopes	2.1	12.1%
Totals for Area of Interest		17.5	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.

Rockland County, New York

CrB—Cheshire gravelly fine sandy loam, 2 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9v46
Elevation: 50 to 670 feet
Mean annual precipitation: 47 to 50 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 135 to 215 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Cheshire and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cheshire

Setting

Landform: Till plains, hills
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy till derived mostly from reddish sandstone, shale, and conglomerate

Typical profile

H1 - 0 to 10 inches: gravelly fine sandy loam
H2 - 10 to 22 inches: gravelly fine sandy loam
H3 - 22 to 60 inches: gravelly sandy loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
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: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 8.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Ecological site: F145XY013CT - Well Drained Till Uplands
Hydric soil rating: No

Minor Components

Yalesville

Percent of map unit: 5 percent
Hydric soil rating: No

Wethersfield

Percent of map unit: 5 percent

Hydric soil rating: No

Watchaug

Percent of map unit: 5 percent

Hydric soil rating: No

Cheshire, very stony

Percent of map unit: 5 percent

Hydric soil rating: No

WeC—Wethersfield gravelly silt loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 9v5m

Elevation: 20 to 690 feet

Mean annual precipitation: 47 to 50 inches

Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 135 to 215 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Wethersfield and similar soils: 80 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wethersfield

Setting

Landform: Till plains, hills

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy acid till derived mainly from reddish sandstone, shale, and conglomerate, with some basalt

Typical profile

H1 - 0 to 13 inches: gravelly silt loam

H2 - 13 to 22 inches: gravelly loam

H3 - 22 to 60 inches: gravelly fine sandy loam

Properties and qualities

Slope: 8 to 15 percent

Depth to restrictive feature: 20 to 38 inches to densic material

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 18 to 30 inches

Frequency of flooding: None

Custom Soil Resource Report

Frequency of ponding: None

Available water capacity: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: C

Ecological site: F145XY012CT - Well Drained Dense Till Uplands

Hydric soil rating: No

Minor Components

Cheshire

Percent of map unit: 5 percent

Hydric soil rating: No

Charlton

Percent of map unit: 5 percent

Hydric soil rating: No

Riverhead

Percent of map unit: 5 percent

Hydric soil rating: No

Wallington

Percent of map unit: 3 percent

Hydric soil rating: No

Yalesville

Percent of map unit: 2 percent

Hydric soil rating: No

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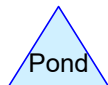
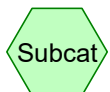
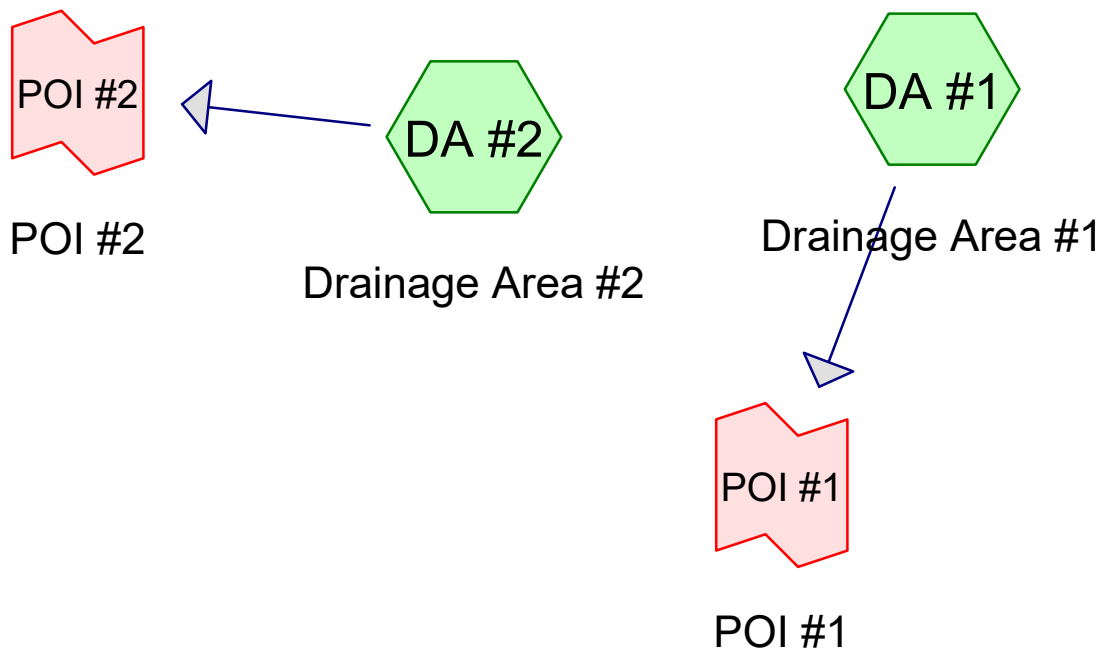
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Appendix D
Existing Conditions
HydroCAD Model



2022.09.15 - Existing Conditions

Prepared by Hewlett-Packard Company

Printed 11/14/2022

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Page 2

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	Type III 24-hr		Default	24.00	1	2.80	2
2	2-Year	Type III 24-hr		Default	24.00	1	3.50	2
3	10-Year	Type III 24-hr		Default	24.00	1	5.00	2
4	25-Year	Type III 24-hr		Default	24.00	1	6.00	2
5	100-Year	Type III 24-hr		Default	24.00	1	9.00	2

2022.09.15 - Existing Conditions

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Page 3

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
18.527	65	Woods/grass comb., Fair, HSG B (DA #1, DA #2)
18.527	65	TOTAL AREA

2022.09.15 - Existing Conditions

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Page 4

Soil Listing (all nodes)

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

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Page 5

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	18.527	0.000	0.000	0.000	18.527	Woods/grass comb., Fair	DA #1, DA #2
0.000	18.527	0.000	0.000	0.000	18.527	TOTAL AREA	

2022.09.15 - Existing Conditions*Type III 24-hr 1-Year Rainfall=2.80"*

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Page 6

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 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 DA #1: Drainage Area #1 Runoff Area=444,593 sf 0.00% Impervious Runoff Depth=0.42"
Flow Length=1,047' Tc=44.4 min CN=65 Runoff=1.66 cfs 0.355 af

Subcatchment DA #2: Drainage Area #2 Runoff Area=362,442 sf 0.00% Impervious Runoff Depth=0.42"
Flow Length=864' Tc=58.4 min CN=65 Runoff=1.16 cfs 0.290 af

Link POI #1: POI #1

Inflow=1.66 cfs 0.355 af
Primary=1.66 cfs 0.355 af

Link POI #2: POI #2

Inflow=1.16 cfs 0.290 af
Primary=1.16 cfs 0.290 af

Total Runoff Area = 18.527 ac Runoff Volume = 0.645 af Average Runoff Depth = 0.42"
100.00% Pervious = 18.527 ac 0.00% Impervious = 0.000 ac

2022.09.15 - Existing Conditions

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Type III 24-hr 1-Year Rainfall=2.80"

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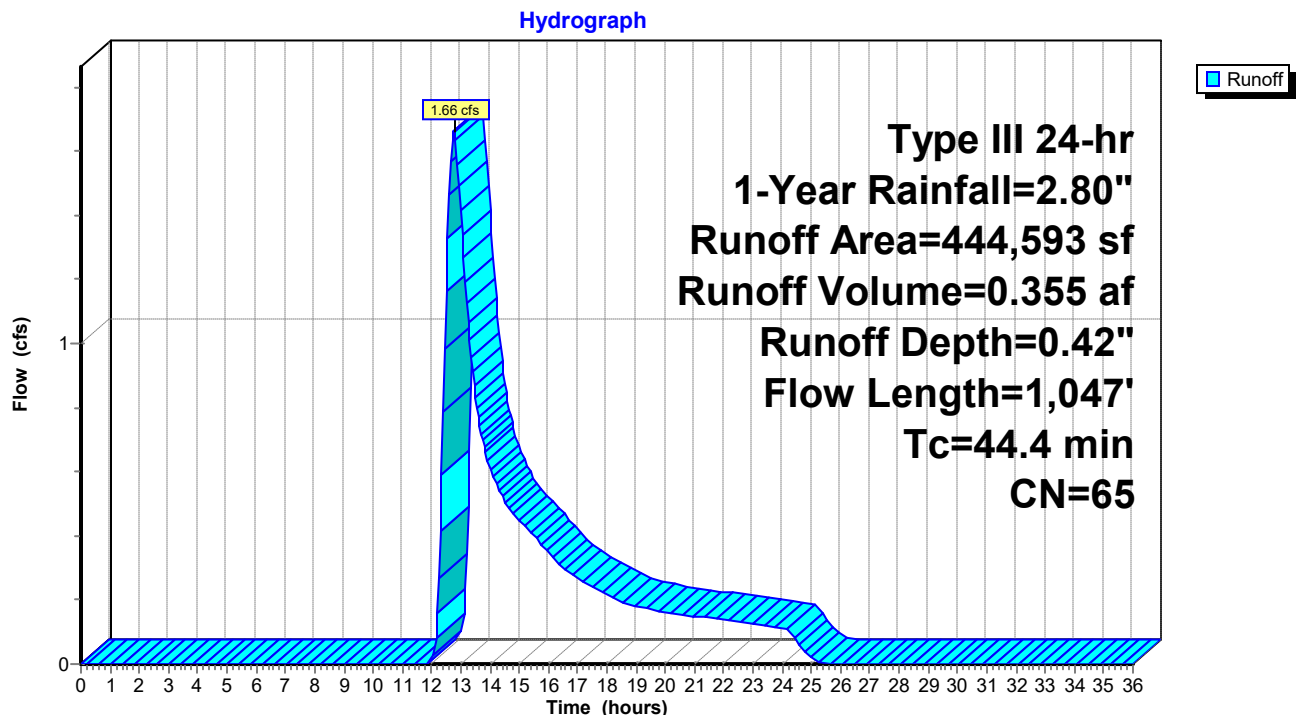
Summary for Subcatchment DA #1: Drainage Area #1

Runoff = 1.66 cfs @ 12.76 hrs, Volume= 0.355 af, Depth= 0.42"
Routed to Link POI #1 : POI #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-Year Rainfall=2.80"

Area (sf)	CN	Description
444,593	65	Woods/grass comb., Fair, HSG B
444,593		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.5	150	0.0647	0.11		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.00"
20.9	897	0.0204	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
44.4	1,047	Total			

Subcatchment DA #1: Drainage Area #1

2022.09.15 - Existing Conditions*Type III 24-hr 1-Year Rainfall=2.80"*

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Hydrograph for Subcatchment DA #1: Drainage Area #1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	2.80	0.42	0.00
0.50	0.01	0.00	0.00	26.50	2.80	0.42	0.00
1.00	0.03	0.00	0.00	27.00	2.80	0.42	0.00
1.50	0.04	0.00	0.00	27.50	2.80	0.42	0.00
2.00	0.06	0.00	0.00	28.00	2.80	0.42	0.00
2.50	0.07	0.00	0.00	28.50	2.80	0.42	0.00
3.00	0.09	0.00	0.00	29.00	2.80	0.42	0.00
3.50	0.10	0.00	0.00	29.50	2.80	0.42	0.00
4.00	0.12	0.00	0.00	30.00	2.80	0.42	0.00
4.50	0.14	0.00	0.00	30.50	2.80	0.42	0.00
5.00	0.16	0.00	0.00	31.00	2.80	0.42	0.00
5.50	0.18	0.00	0.00	31.50	2.80	0.42	0.00
6.00	0.20	0.00	0.00	32.00	2.80	0.42	0.00
6.50	0.23	0.00	0.00	32.50	2.80	0.42	0.00
7.00	0.25	0.00	0.00	33.00	2.80	0.42	0.00
7.50	0.28	0.00	0.00	33.50	2.80	0.42	0.00
8.00	0.32	0.00	0.00	34.00	2.80	0.42	0.00
8.50	0.36	0.00	0.00	34.50	2.80	0.42	0.00
9.00	0.41	0.00	0.00	35.00	2.80	0.42	0.00
9.50	0.46	0.00	0.00	35.50	2.80	0.42	0.00
10.00	0.53	0.00	0.00	36.00	2.80	0.42	0.00
10.50	0.61	0.00	0.00				
11.00	0.70	0.00	0.00				
11.50	0.83	0.00	0.00				
12.00	1.40	0.02	0.00				
12.50	1.97	0.13	1.16				
13.00	2.10	0.16	1.41				
13.50	2.19	0.19	0.83				
14.00	2.27	0.22	0.61				
14.50	2.34	0.24	0.51				
15.00	2.39	0.26	0.45				
15.50	2.44	0.28	0.40				
16.00	2.48	0.29	0.35				
16.50	2.52	0.30	0.30				
17.00	2.55	0.32	0.27				
17.50	2.57	0.33	0.24				
18.00	2.60	0.34	0.22				
18.50	2.62	0.34	0.19				
19.00	2.64	0.35	0.18				
19.50	2.66	0.36	0.17				
20.00	2.68	0.37	0.16				
20.50	2.70	0.37	0.16				
21.00	2.71	0.38	0.15				
21.50	2.73	0.39	0.14				
22.00	2.75	0.39	0.14				
22.50	2.76	0.40	0.13				
23.00	2.77	0.41	0.13				
23.50	2.79	0.41	0.12				
24.00	2.80	0.42	0.11				
24.50	2.80	0.42	0.07				
25.00	2.80	0.42	0.02				
25.50	2.80	0.42	0.00				

2022.09.15 - Existing Conditions

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Type III 24-hr 1-Year Rainfall=2.80"

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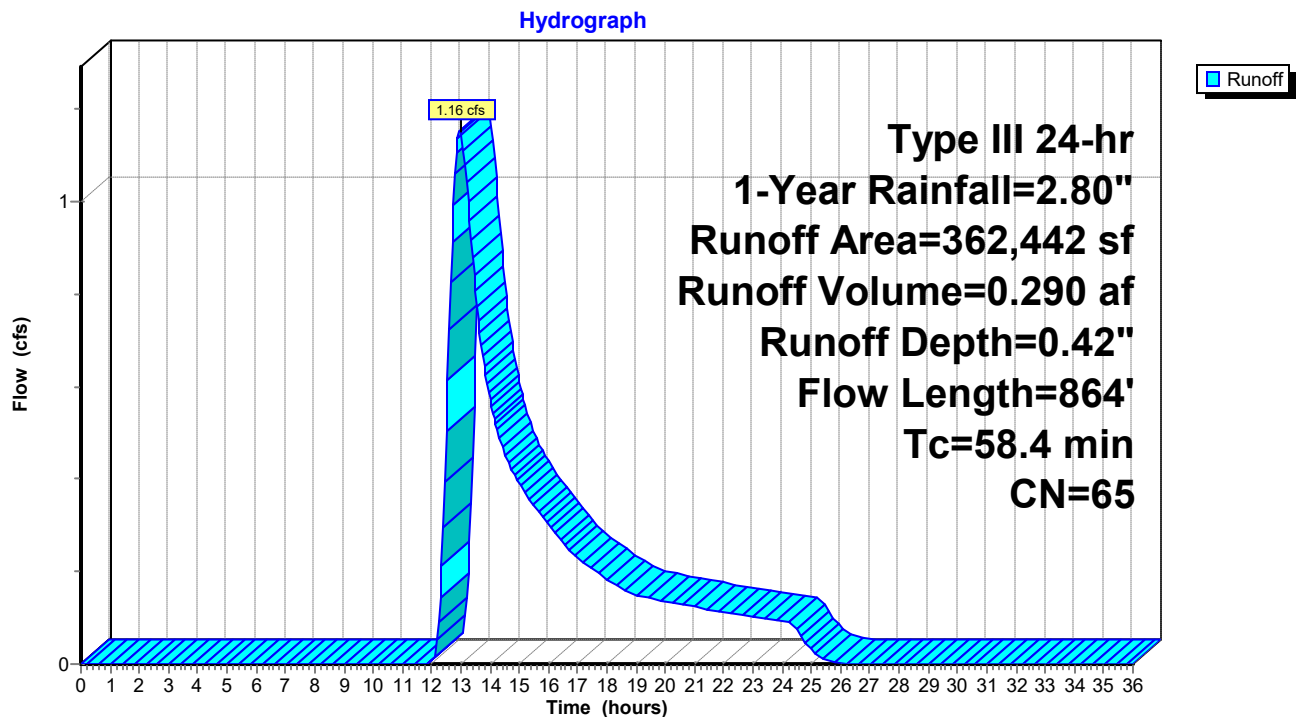
Summary for Subcatchment DA #2: Drainage Area #2

Runoff = 1.16 cfs @ 12.98 hrs, Volume= 0.290 af, Depth= 0.42"
Routed to Link POI #2 : POI #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-Year Rainfall=2.80"

Area (sf)	CN	Description
362,442	65	Woods/grass comb., Fair, HSG B
362,442		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.2	150	0.0113	0.05		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.00"
11.2	714	0.0448	1.06		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
58.4	864	Total			

Subcatchment DA #2: Drainage Area #2

2022.09.15 - Existing Conditions

Type III 24-hr 1-Year Rainfall=2.80"

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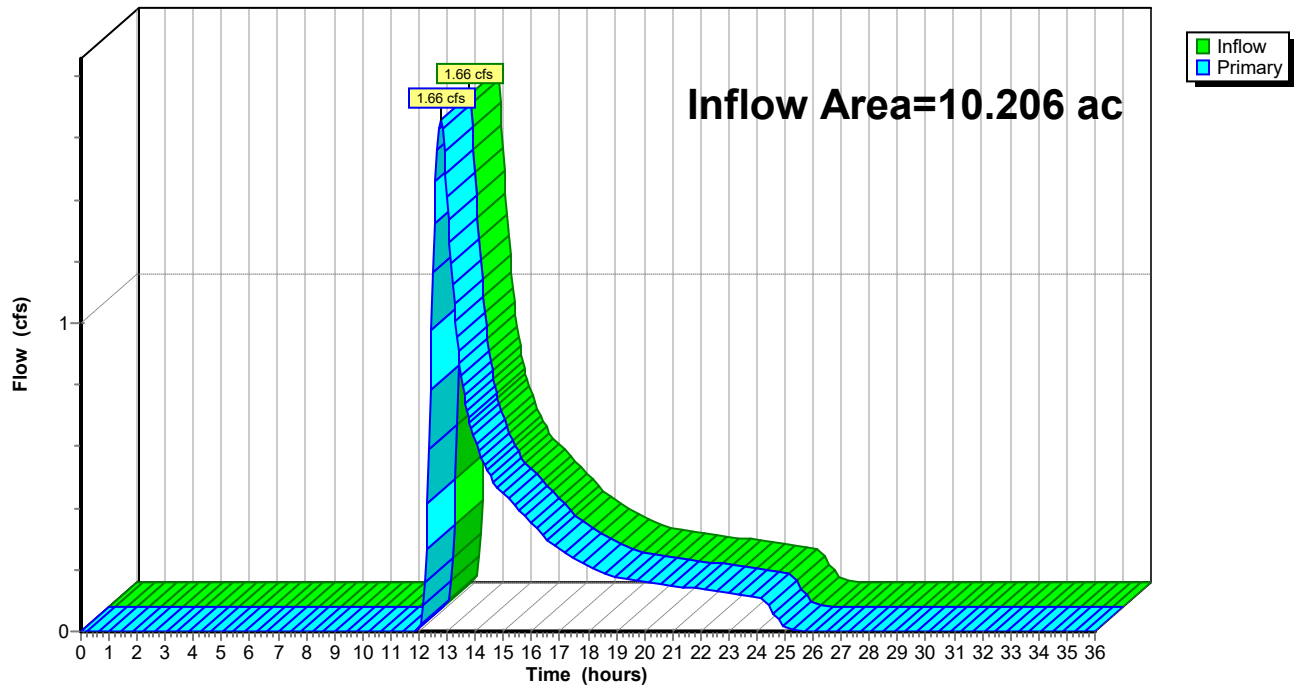
Hydrograph for Subcatchment DA #2: Drainage Area #2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	2.80	0.42	0.00
0.50	0.01	0.00	0.00	26.50	2.80	0.42	0.00
1.00	0.03	0.00	0.00	27.00	2.80	0.42	0.00
1.50	0.04	0.00	0.00	27.50	2.80	0.42	0.00
2.00	0.06	0.00	0.00	28.00	2.80	0.42	0.00
2.50	0.07	0.00	0.00	28.50	2.80	0.42	0.00
3.00	0.09	0.00	0.00	29.00	2.80	0.42	0.00
3.50	0.10	0.00	0.00	29.50	2.80	0.42	0.00
4.00	0.12	0.00	0.00	30.00	2.80	0.42	0.00
4.50	0.14	0.00	0.00	30.50	2.80	0.42	0.00
5.00	0.16	0.00	0.00	31.00	2.80	0.42	0.00
5.50	0.18	0.00	0.00	31.50	2.80	0.42	0.00
6.00	0.20	0.00	0.00	32.00	2.80	0.42	0.00
6.50	0.23	0.00	0.00	32.50	2.80	0.42	0.00
7.00	0.25	0.00	0.00	33.00	2.80	0.42	0.00
7.50	0.28	0.00	0.00	33.50	2.80	0.42	0.00
8.00	0.32	0.00	0.00	34.00	2.80	0.42	0.00
8.50	0.36	0.00	0.00	34.50	2.80	0.42	0.00
9.00	0.41	0.00	0.00	35.00	2.80	0.42	0.00
9.50	0.46	0.00	0.00	35.50	2.80	0.42	0.00
10.00	0.53	0.00	0.00	36.00	2.80	0.42	0.00
10.50	0.61	0.00	0.00				
11.00	0.70	0.00	0.00				
11.50	0.83	0.00	0.00				
12.00	1.40	0.02	0.00				
12.50	1.97	0.13	0.50				
13.00	2.10	0.16	1.15				
13.50	2.19	0.19	0.81				
14.00	2.27	0.22	0.57				
14.50	2.34	0.24	0.46				
15.00	2.39	0.26	0.39				
15.50	2.44	0.28	0.34				
16.00	2.48	0.29	0.30				
16.50	2.52	0.30	0.26				
17.00	2.55	0.32	0.23				
17.50	2.57	0.33	0.21				
18.00	2.60	0.34	0.19				
18.50	2.62	0.34	0.16				
19.00	2.64	0.35	0.15				
19.50	2.66	0.36	0.14				
20.00	2.68	0.37	0.14				
20.50	2.70	0.37	0.13				
21.00	2.71	0.38	0.12				
21.50	2.73	0.39	0.12				
22.00	2.75	0.39	0.11				
22.50	2.76	0.40	0.11				
23.00	2.77	0.41	0.10				
23.50	2.79	0.41	0.10				
24.00	2.80	0.42	0.09				
24.50	2.80	0.42	0.08				
25.00	2.80	0.42	0.03				
25.50	2.80	0.42	0.01				

Summary for Link POI #1: POI #1

Inflow Area = 10.206 ac, 0.00% Impervious, Inflow Depth = 0.42" for 1-Year event
Inflow = 1.66 cfs @ 12.76 hrs, Volume= 0.355 af
Primary = 1.66 cfs @ 12.76 hrs, Volume= 0.355 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #1: POI #1**Hydrograph**

2022.09.15 - Existing Conditions

Type III 24-hr 1-Year Rainfall=2.80"

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Hydrograph for Link POI #1: POI #1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	35.50	0.00	0.00	0.00
10.00	0.00	0.00	0.00	36.00	0.00	0.00	0.00
10.50	0.00	0.00	0.00				
11.00	0.00	0.00	0.00				
11.50	0.00	0.00	0.00				
12.00	0.00	0.00	0.00				
12.50	1.16	0.00	1.16				
13.00	1.41	0.00	1.41				
13.50	0.83	0.00	0.83				
14.00	0.61	0.00	0.61				
14.50	0.51	0.00	0.51				
15.00	0.45	0.00	0.45				
15.50	0.40	0.00	0.40				
16.00	0.35	0.00	0.35				
16.50	0.30	0.00	0.30				
17.00	0.27	0.00	0.27				
17.50	0.24	0.00	0.24				
18.00	0.22	0.00	0.22				
18.50	0.19	0.00	0.19				
19.00	0.18	0.00	0.18				
19.50	0.17	0.00	0.17				
20.00	0.16	0.00	0.16				
20.50	0.16	0.00	0.16				
21.00	0.15	0.00	0.15				
21.50	0.14	0.00	0.14				
22.00	0.14	0.00	0.14				
22.50	0.13	0.00	0.13				
23.00	0.13	0.00	0.13				
23.50	0.12	0.00	0.12				
24.00	0.11	0.00	0.11				
24.50	0.07	0.00	0.07				
25.00	0.02	0.00	0.02				
25.50	0.00	0.00	0.00				

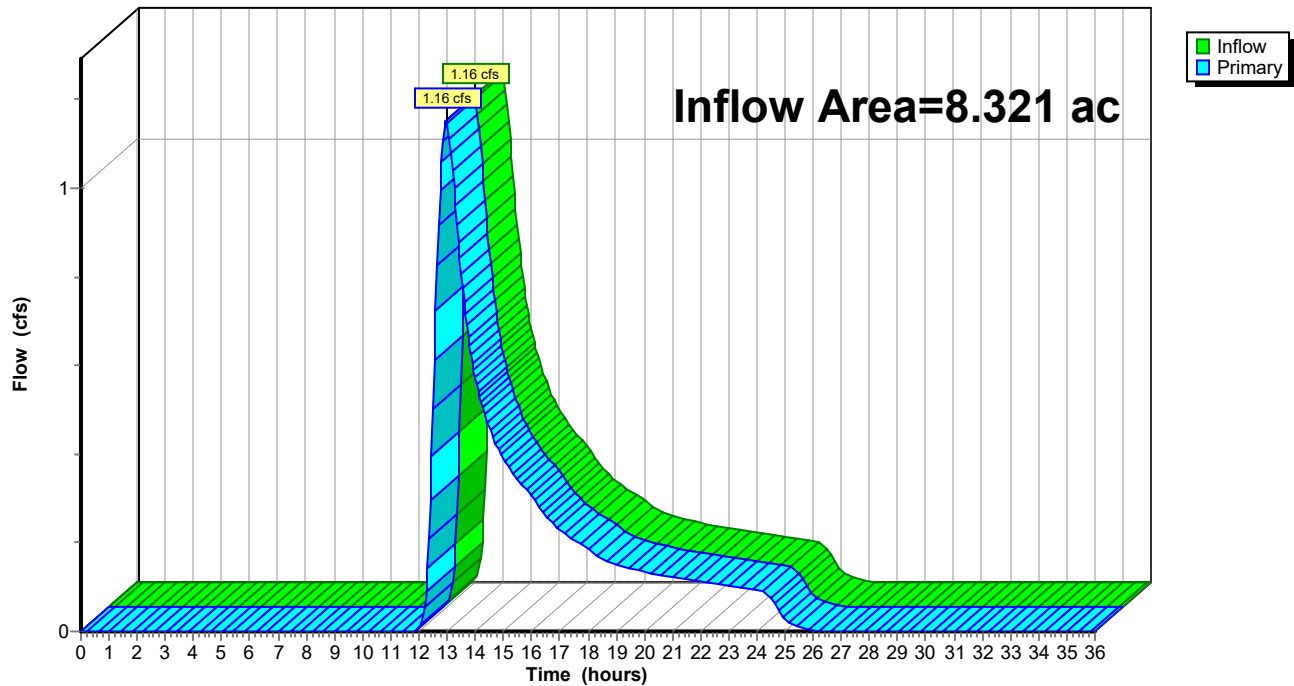
Summary for Link POI #2: POI #2

Inflow Area = 8.321 ac, 0.00% Impervious, Inflow Depth = 0.42" for 1-Year event
Inflow = 1.16 cfs @ 12.98 hrs, Volume= 0.290 af
Primary = 1.16 cfs @ 12.98 hrs, Volume= 0.290 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #2: POI #2

Hydrograph



2022.09.15 - Existing Conditions

Type III 24-hr 1-Year Rainfall=2.80"

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Hydrograph for Link POI #2: POI #2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	35.50	0.00	0.00	0.00
10.00	0.00	0.00	0.00	36.00	0.00	0.00	0.00
10.50	0.00	0.00	0.00				
11.00	0.00	0.00	0.00				
11.50	0.00	0.00	0.00				
12.00	0.00	0.00	0.00				
12.50	0.50	0.00	0.50				
13.00	1.15	0.00	1.15				
13.50	0.81	0.00	0.81				
14.00	0.57	0.00	0.57				
14.50	0.46	0.00	0.46				
15.00	0.39	0.00	0.39				
15.50	0.34	0.00	0.34				
16.00	0.30	0.00	0.30				
16.50	0.26	0.00	0.26				
17.00	0.23	0.00	0.23				
17.50	0.21	0.00	0.21				
18.00	0.19	0.00	0.19				
18.50	0.16	0.00	0.16				
19.00	0.15	0.00	0.15				
19.50	0.14	0.00	0.14				
20.00	0.14	0.00	0.14				
20.50	0.13	0.00	0.13				
21.00	0.12	0.00	0.12				
21.50	0.12	0.00	0.12				
22.00	0.11	0.00	0.11				
22.50	0.11	0.00	0.11				
23.00	0.10	0.00	0.10				
23.50	0.10	0.00	0.10				
24.00	0.09	0.00	0.09				
24.50	0.08	0.00	0.08				
25.00	0.03	0.00	0.03				
25.50	0.01	0.00	0.01				

2022.09.15 - Existing Conditions*Type III 24-hr 2-Year Rainfall=3.50"*

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Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 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 DA #1: Drainage Area #1 Runoff Area=444,593 sf 0.00% Impervious Runoff Depth=0.75"
Flow Length=1,047' Tc=44.4 min CN=65 Runoff=3.52 cfs 0.640 af

Subcatchment DA #2: Drainage Area #2 Runoff Area=362,442 sf 0.00% Impervious Runoff Depth=0.75"
Flow Length=864' Tc=58.4 min CN=65 Runoff=2.45 cfs 0.521 af

Link POI #1: POI #1 Inflow=3.52 cfs 0.640 af
Primary=3.52 cfs 0.640 af

Link POI #2: POI #2 Inflow=2.45 cfs 0.521 af
Primary=2.45 cfs 0.521 af

Total Runoff Area = 18.527 ac Runoff Volume = 1.161 af Average Runoff Depth = 0.75"
100.00% Pervious = 18.527 ac 0.00% Impervious = 0.000 ac

2022.09.15 - Existing Conditions

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Type III 24-hr 2-Year Rainfall=3.50"

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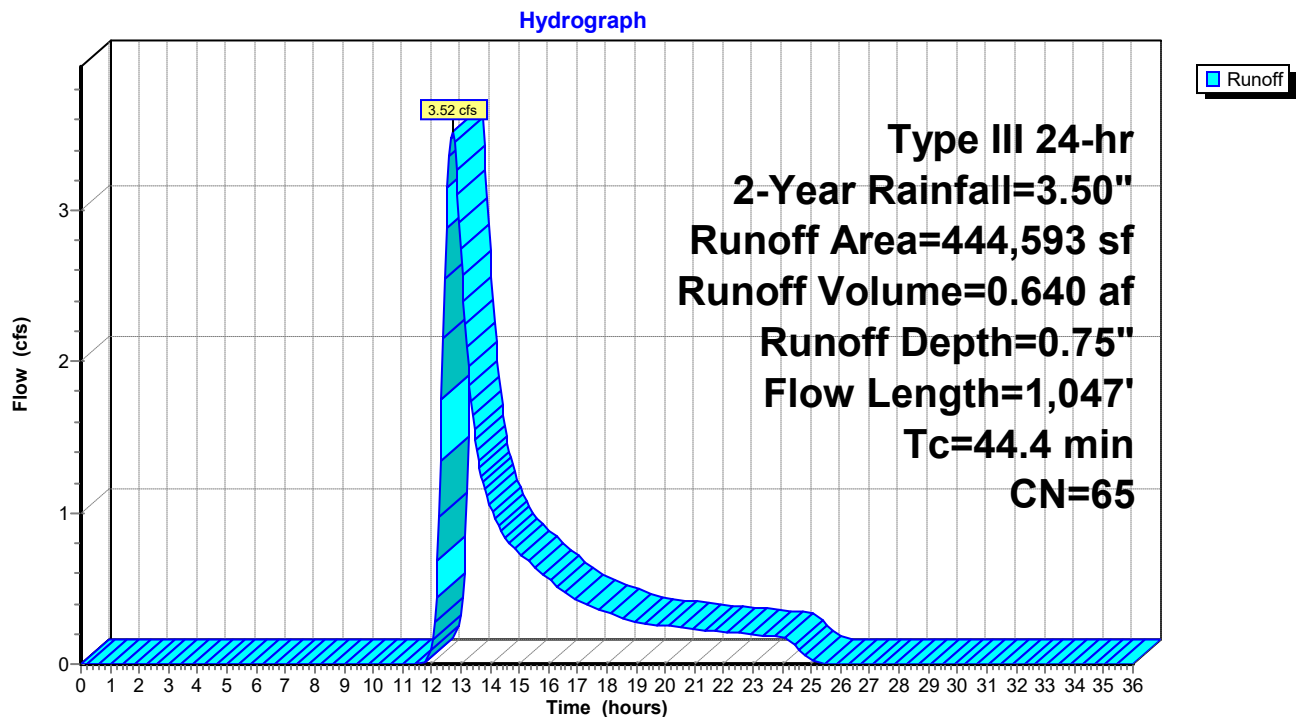
Summary for Subcatchment DA #1: Drainage Area #1

Runoff = 3.52 cfs @ 12.71 hrs, Volume= 0.640 af, Depth= 0.75"
Routed to Link POI #1 : POI #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.50"

Area (sf)	CN	Description
444,593	65	Woods/grass comb., Fair, HSG B
444,593		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.5	150	0.0647	0.11		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.00"
20.9	897	0.0204	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
44.4	1,047	Total			

Subcatchment DA #1: Drainage Area #1

2022.09.15 - Existing Conditions*Type III 24-hr 2-Year Rainfall=3.50"*

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Hydrograph for Subcatchment DA #1: Drainage Area #1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	3.50	0.75	0.00
0.50	0.02	0.00	0.00	26.50	3.50	0.75	0.00
1.00	0.04	0.00	0.00	27.00	3.50	0.75	0.00
1.50	0.05	0.00	0.00	27.50	3.50	0.75	0.00
2.00	0.07	0.00	0.00	28.00	3.50	0.75	0.00
2.50	0.09	0.00	0.00	28.50	3.50	0.75	0.00
3.00	0.11	0.00	0.00	29.00	3.50	0.75	0.00
3.50	0.13	0.00	0.00	29.50	3.50	0.75	0.00
4.00	0.15	0.00	0.00	30.00	3.50	0.75	0.00
4.50	0.17	0.00	0.00	30.50	3.50	0.75	0.00
5.00	0.20	0.00	0.00	31.00	3.50	0.75	0.00
5.50	0.22	0.00	0.00	31.50	3.50	0.75	0.00
6.00	0.25	0.00	0.00	32.00	3.50	0.75	0.00
6.50	0.28	0.00	0.00	32.50	3.50	0.75	0.00
7.00	0.32	0.00	0.00	33.00	3.50	0.75	0.00
7.50	0.36	0.00	0.00	33.50	3.50	0.75	0.00
8.00	0.40	0.00	0.00	34.00	3.50	0.75	0.00
8.50	0.45	0.00	0.00	34.50	3.50	0.75	0.00
9.00	0.51	0.00	0.00	35.00	3.50	0.75	0.00
9.50	0.58	0.00	0.00	35.50	3.50	0.75	0.00
10.00	0.66	0.00	0.00	36.00	3.50	0.75	0.00
10.50	0.76	0.00	0.00				
11.00	0.88	0.00	0.00				
11.50	1.04	0.00	0.00				
12.00	1.75	0.07	0.09				
12.50	2.46	0.28	2.88				
13.00	2.62	0.35	2.74				
13.50	2.74	0.39	1.48				
14.00	2.84	0.43	1.04				
14.50	2.92	0.47	0.84				
15.00	2.99	0.50	0.73				
15.50	3.05	0.53	0.64				
16.00	3.10	0.55	0.56				
16.50	3.14	0.57	0.48				
17.00	3.18	0.59	0.42				
17.50	3.22	0.61	0.38				
18.00	3.25	0.62	0.34				
18.50	3.28	0.64	0.30				
19.00	3.30	0.65	0.28				
19.50	3.33	0.66	0.27				
20.00	3.35	0.67	0.25				
20.50	3.37	0.69	0.24				
21.00	3.39	0.70	0.23				
21.50	3.41	0.71	0.22				
22.00	3.43	0.72	0.21				
22.50	3.45	0.73	0.20				
23.00	3.47	0.74	0.19				
23.50	3.48	0.74	0.18				
24.00	3.50	0.75	0.17				
24.50	3.50	0.75	0.12				
25.00	3.50	0.75	0.02				
25.50	3.50	0.75	0.00				

2022.09.15 - Existing Conditions

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Type III 24-hr 2-Year Rainfall=3.50"

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Summary for Subcatchment DA #2: Drainage Area #2

Runoff = 2.45 cfs @ 12.91 hrs, Volume= 0.521 af, Depth= 0.75"
 Routed to Link POI #2 : POI #2

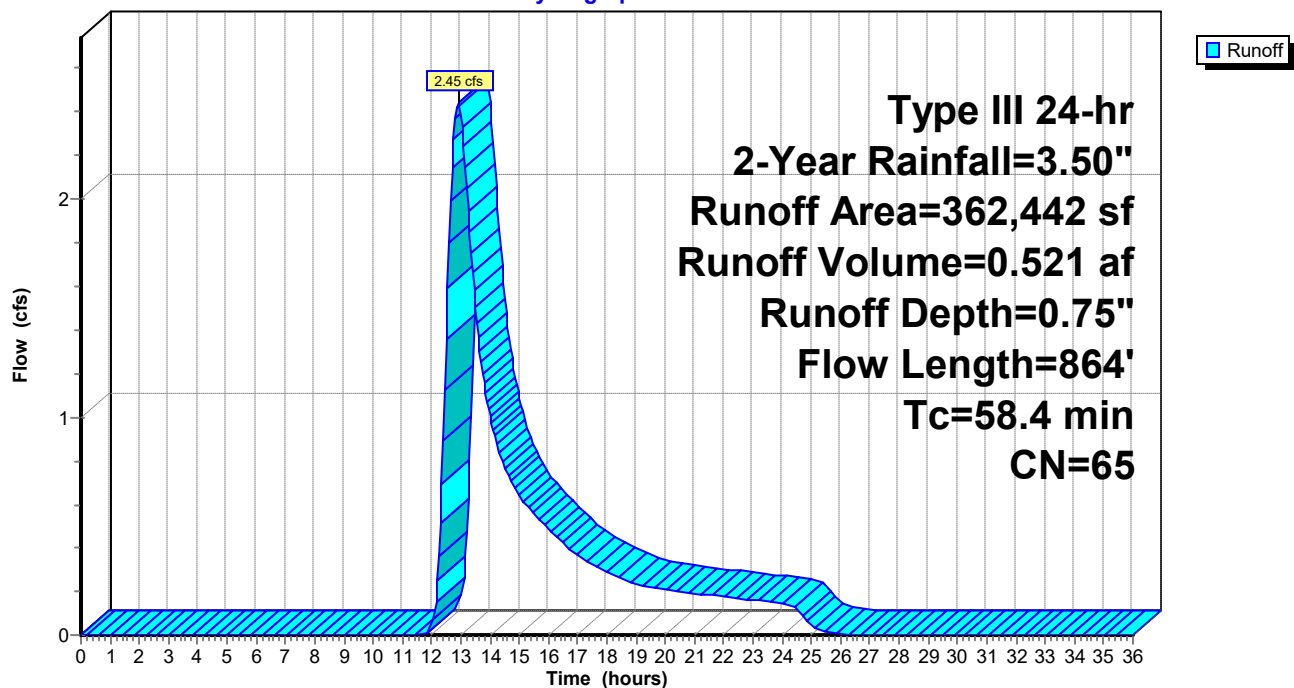
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2-Year Rainfall=3.50"

Area (sf)	CN	Description
362,442	65	Woods/grass comb., Fair, HSG B
362,442		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.2	150	0.0113	0.05		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.00"
11.2	714	0.0448	1.06		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
58.4	864	Total			

Subcatchment DA #2: Drainage Area #2

Hydrograph



2022.09.15 - Existing Conditions*Type III 24-hr 2-Year Rainfall=3.50"*

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Hydrograph for Subcatchment DA #2: Drainage Area #2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	3.50	0.75	0.00
0.50	0.02	0.00	0.00	26.50	3.50	0.75	0.00
1.00	0.04	0.00	0.00	27.00	3.50	0.75	0.00
1.50	0.05	0.00	0.00	27.50	3.50	0.75	0.00
2.00	0.07	0.00	0.00	28.00	3.50	0.75	0.00
2.50	0.09	0.00	0.00	28.50	3.50	0.75	0.00
3.00	0.11	0.00	0.00	29.00	3.50	0.75	0.00
3.50	0.13	0.00	0.00	29.50	3.50	0.75	0.00
4.00	0.15	0.00	0.00	30.00	3.50	0.75	0.00
4.50	0.17	0.00	0.00	30.50	3.50	0.75	0.00
5.00	0.20	0.00	0.00	31.00	3.50	0.75	0.00
5.50	0.22	0.00	0.00	31.50	3.50	0.75	0.00
6.00	0.25	0.00	0.00	32.00	3.50	0.75	0.00
6.50	0.28	0.00	0.00	32.50	3.50	0.75	0.00
7.00	0.32	0.00	0.00	33.00	3.50	0.75	0.00
7.50	0.36	0.00	0.00	33.50	3.50	0.75	0.00
8.00	0.40	0.00	0.00	34.00	3.50	0.75	0.00
8.50	0.45	0.00	0.00	34.50	3.50	0.75	0.00
9.00	0.51	0.00	0.00	35.00	3.50	0.75	0.00
9.50	0.58	0.00	0.00	35.50	3.50	0.75	0.00
10.00	0.66	0.00	0.00	36.00	3.50	0.75	0.00
10.50	0.76	0.00	0.00				
11.00	0.88	0.00	0.00				
11.50	1.04	0.00	0.00				
12.00	1.75	0.07	0.03				
12.50	2.46	0.28	1.36				
13.00	2.62	0.35	2.39				
13.50	2.74	0.39	1.50				
14.00	2.84	0.43	1.00				
14.50	2.92	0.47	0.77				
15.00	2.99	0.50	0.64				
15.50	3.05	0.53	0.56				
16.00	3.10	0.55	0.49				
16.50	3.14	0.57	0.42				
17.00	3.18	0.59	0.36				
17.50	3.22	0.61	0.33				
18.00	3.25	0.62	0.29				
18.50	3.28	0.64	0.26				
19.00	3.30	0.65	0.24				
19.50	3.33	0.66	0.22				
20.00	3.35	0.67	0.21				
20.50	3.37	0.69	0.20				
21.00	3.39	0.70	0.19				
21.50	3.41	0.71	0.18				
22.00	3.43	0.72	0.18				
22.50	3.45	0.73	0.17				
23.00	3.47	0.74	0.16				
23.50	3.48	0.74	0.15				
24.00	3.50	0.75	0.15				
24.50	3.50	0.75	0.12				
25.00	3.50	0.75	0.04				
25.50	3.50	0.75	0.01				

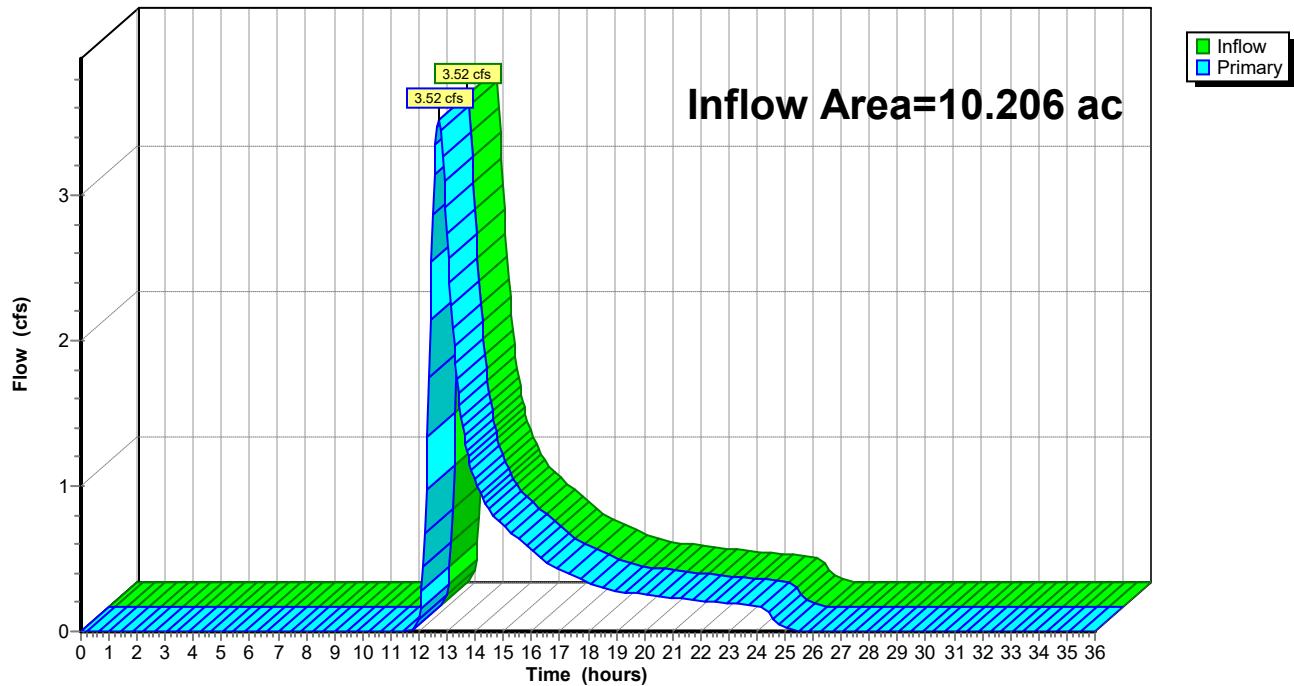
Summary for Link POI #1: POI #1

Inflow Area = 10.206 ac, 0.00% Impervious, Inflow Depth = 0.75" for 2-Year event
Inflow = 3.52 cfs @ 12.71 hrs, Volume= 0.640 af
Primary = 3.52 cfs @ 12.71 hrs, Volume= 0.640 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #1: POI #1

Hydrograph



2022.09.15 - Existing Conditions*Type III 24-hr 2-Year Rainfall=3.50"*

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Hydrograph for Link POI #1: POI #1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	35.50	0.00	0.00	0.00
10.00	0.00	0.00	0.00	36.00	0.00	0.00	0.00
10.50	0.00	0.00	0.00				
11.00	0.00	0.00	0.00				
11.50	0.00	0.00	0.00				
12.00	0.09	0.00	0.09				
12.50	2.88	0.00	2.88				
13.00	2.74	0.00	2.74				
13.50	1.48	0.00	1.48				
14.00	1.04	0.00	1.04				
14.50	0.84	0.00	0.84				
15.00	0.73	0.00	0.73				
15.50	0.64	0.00	0.64				
16.00	0.56	0.00	0.56				
16.50	0.48	0.00	0.48				
17.00	0.42	0.00	0.42				
17.50	0.38	0.00	0.38				
18.00	0.34	0.00	0.34				
18.50	0.30	0.00	0.30				
19.00	0.28	0.00	0.28				
19.50	0.27	0.00	0.27				
20.00	0.25	0.00	0.25				
20.50	0.24	0.00	0.24				
21.00	0.23	0.00	0.23				
21.50	0.22	0.00	0.22				
22.00	0.21	0.00	0.21				
22.50	0.20	0.00	0.20				
23.00	0.19	0.00	0.19				
23.50	0.18	0.00	0.18				
24.00	0.17	0.00	0.17				
24.50	0.12	0.00	0.12				
25.00	0.02	0.00	0.02				
25.50	0.00	0.00	0.00				

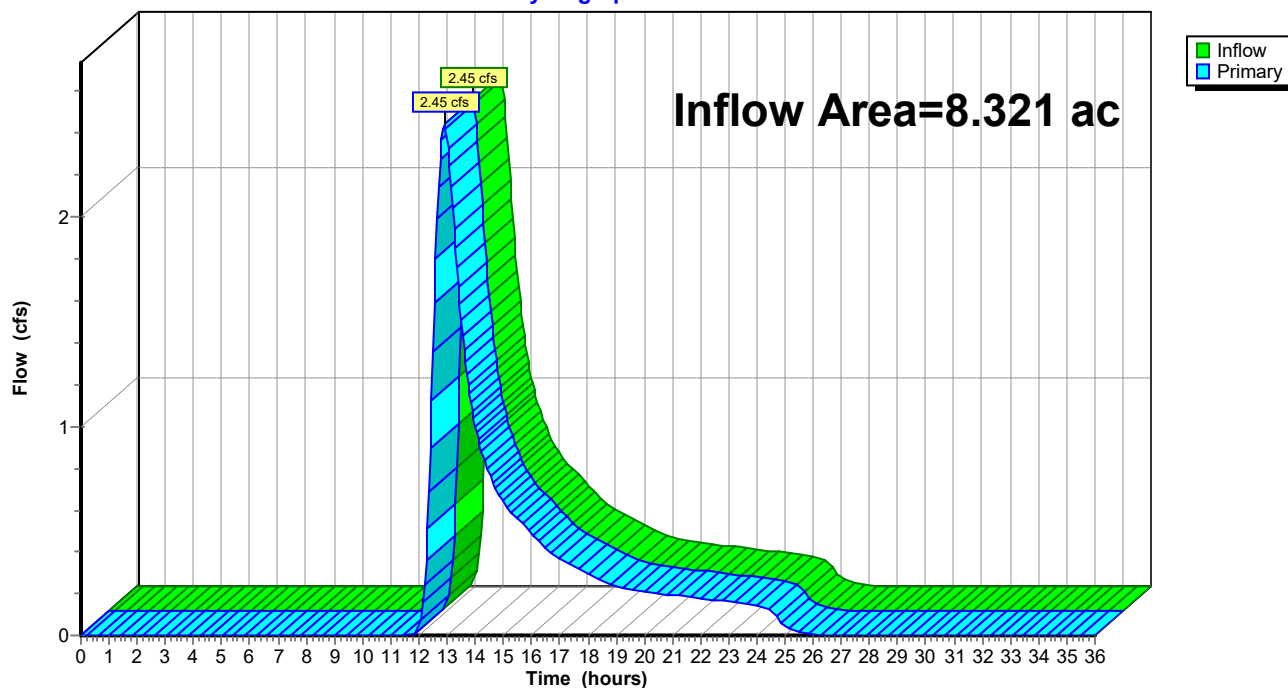
Summary for Link POI #2: POI #2

Inflow Area = 8.321 ac, 0.00% Impervious, Inflow Depth = 0.75" for 2-Year event
Inflow = 2.45 cfs @ 12.91 hrs, Volume= 0.521 af
Primary = 2.45 cfs @ 12.91 hrs, Volume= 0.521 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #2: POI #2

Hydrograph



2022.09.15 - Existing Conditions*Type III 24-hr 2-Year Rainfall=3.50"*

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Hydrograph for Link POI #2: POI #2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	35.50	0.00	0.00	0.00
10.00	0.00	0.00	0.00	36.00	0.00	0.00	0.00
10.50	0.00	0.00	0.00				
11.00	0.00	0.00	0.00				
11.50	0.00	0.00	0.00				
12.00	0.03	0.00	0.03				
12.50	1.36	0.00	1.36				
13.00	2.39	0.00	2.39				
13.50	1.50	0.00	1.50				
14.00	1.00	0.00	1.00				
14.50	0.77	0.00	0.77				
15.00	0.64	0.00	0.64				
15.50	0.56	0.00	0.56				
16.00	0.49	0.00	0.49				
16.50	0.42	0.00	0.42				
17.00	0.36	0.00	0.36				
17.50	0.33	0.00	0.33				
18.00	0.29	0.00	0.29				
18.50	0.26	0.00	0.26				
19.00	0.24	0.00	0.24				
19.50	0.22	0.00	0.22				
20.00	0.21	0.00	0.21				
20.50	0.20	0.00	0.20				
21.00	0.19	0.00	0.19				
21.50	0.18	0.00	0.18				
22.00	0.18	0.00	0.18				
22.50	0.17	0.00	0.17				
23.00	0.16	0.00	0.16				
23.50	0.15	0.00	0.15				
24.00	0.15	0.00	0.15				
24.50	0.12	0.00	0.12				
25.00	0.04	0.00	0.04				
25.50	0.01	0.00	0.01				

2022.09.15 - Existing Conditions*Type III 24-hr 10-Year Rainfall=5.00"*

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Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 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 DA #1: Drainage Area #1 Runoff Area=444,593 sf 0.00% Impervious Runoff Depth=1.65"
Flow Length=1,047' Tc=44.4 min CN=65 Runoff=8.73 cfs 1.406 af

Subcatchment DA #2: Drainage Area #2 Runoff Area=362,442 sf 0.00% Impervious Runoff Depth=1.65"
Flow Length=864' Tc=58.4 min CN=65 Runoff=6.07 cfs 1.147 af

Link POI #1: POI #1

Inflow=8.73 cfs 1.406 af
Primary=8.73 cfs 1.406 af

Link POI #2: POI #2

Inflow=6.07 cfs 1.147 af
Primary=6.07 cfs 1.147 af

Total Runoff Area = 18.527 ac Runoff Volume = 2.553 af Average Runoff Depth = 1.65"
100.00% Pervious = 18.527 ac 0.00% Impervious = 0.000 ac

2022.09.15 - Existing Conditions

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Type III 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment DA #1: Drainage Area #1

Runoff = 8.73 cfs @ 12.66 hrs, Volume= 1.406 af, Depth= 1.65"
 Routed to Link POI #1 : POI #1

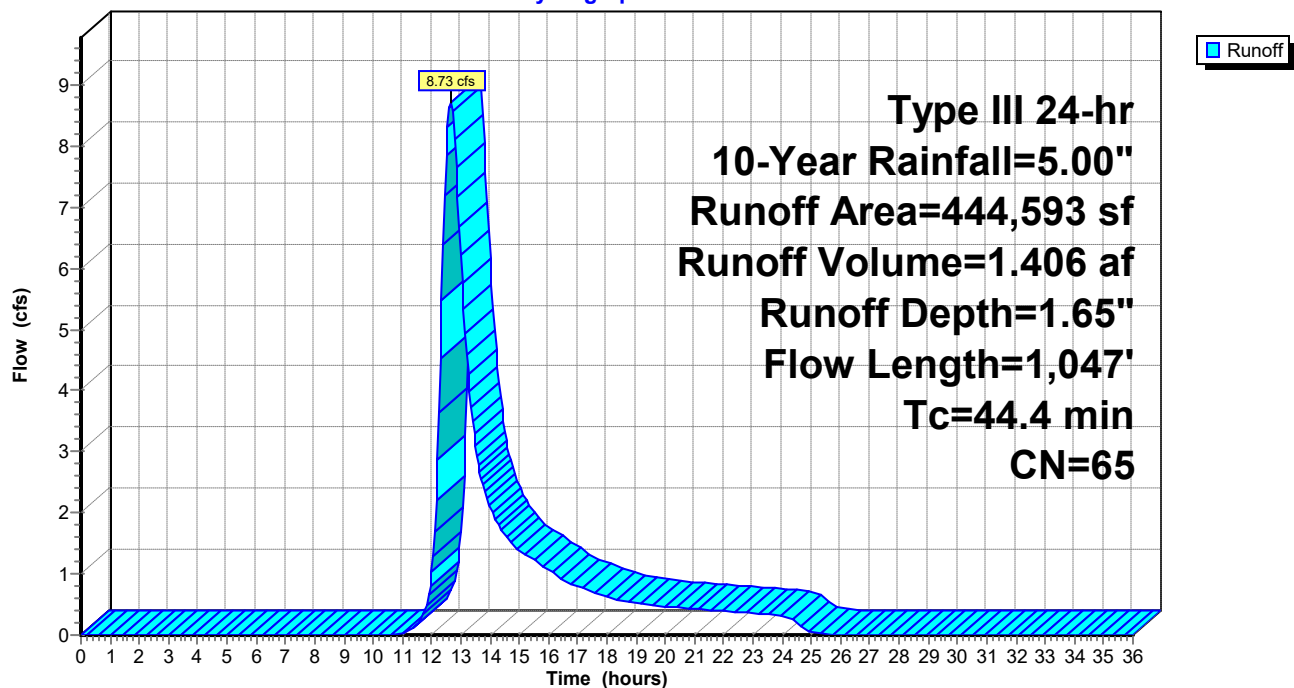
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
444,593	65	Woods/grass comb., Fair, HSG B
444,593		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.5	150	0.0647	0.11		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.00"
20.9	897	0.0204	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
44.4	1,047	Total			

Subcatchment DA #1: Drainage Area #1

Hydrograph



2022.09.15 - Existing Conditions*Type III 24-hr 10-Year Rainfall=5.00"*

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Hydrograph for Subcatchment DA #1: Drainage Area #1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	5.00	1.65	0.00
0.50	0.03	0.00	0.00	26.50	5.00	1.65	0.00
1.00	0.05	0.00	0.00	27.00	5.00	1.65	0.00
1.50	0.08	0.00	0.00	27.50	5.00	1.65	0.00
2.00	0.10	0.00	0.00	28.00	5.00	1.65	0.00
2.50	0.13	0.00	0.00	28.50	5.00	1.65	0.00
3.00	0.15	0.00	0.00	29.00	5.00	1.65	0.00
3.50	0.18	0.00	0.00	29.50	5.00	1.65	0.00
4.00	0.22	0.00	0.00	30.00	5.00	1.65	0.00
4.50	0.25	0.00	0.00	30.50	5.00	1.65	0.00
5.00	0.28	0.00	0.00	31.00	5.00	1.65	0.00
5.50	0.32	0.00	0.00	31.50	5.00	1.65	0.00
6.00	0.36	0.00	0.00	32.00	5.00	1.65	0.00
6.50	0.40	0.00	0.00	32.50	5.00	1.65	0.00
7.00	0.45	0.00	0.00	33.00	5.00	1.65	0.00
7.50	0.51	0.00	0.00	33.50	5.00	1.65	0.00
8.00	0.57	0.00	0.00	34.00	5.00	1.65	0.00
8.50	0.64	0.00	0.00	34.50	5.00	1.65	0.00
9.00	0.73	0.00	0.00	35.00	5.00	1.65	0.00
9.50	0.83	0.00	0.00	35.50	5.00	1.65	0.00
10.00	0.95	0.00	0.00	36.00	5.00	1.65	0.00
10.50	1.08	0.00	0.00				
11.00	1.25	0.01	0.02				
11.50	1.49	0.03	0.18				
12.00	2.50	0.30	1.02				
12.50	3.51	0.76	7.84				
13.00	3.75	0.89	6.21				
13.50	3.92	0.98	3.10				
14.00	4.06	1.06	2.08				
14.50	4.17	1.13	1.63				
15.00	4.27	1.19	1.40				
15.50	4.36	1.24	1.23				
16.00	4.43	1.29	1.06				
16.50	4.49	1.33	0.90				
17.00	4.55	1.36	0.79				
17.50	4.60	1.39	0.71				
18.00	4.64	1.42	0.63				
18.50	4.68	1.44	0.56				
19.00	4.72	1.47	0.52				
19.50	4.75	1.49	0.49				
20.00	4.79	1.51	0.47				
20.50	4.82	1.53	0.44				
21.00	4.85	1.55	0.42				
21.50	4.88	1.57	0.41				
22.00	4.90	1.59	0.39				
22.50	4.93	1.61	0.37				
23.00	4.95	1.62	0.35				
23.50	4.98	1.64	0.33				
24.00	5.00	1.65	0.32				
24.50	5.00	1.65	0.21				
25.00	5.00	1.65	0.04				
25.50	5.00	1.65	0.01				

2022.09.15 - Existing Conditions

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Type III 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment DA #2: Drainage Area #2

Runoff = 6.07 cfs @ 12.84 hrs, Volume= 1.147 af, Depth= 1.65"
 Routed to Link POI #2 : POI #2

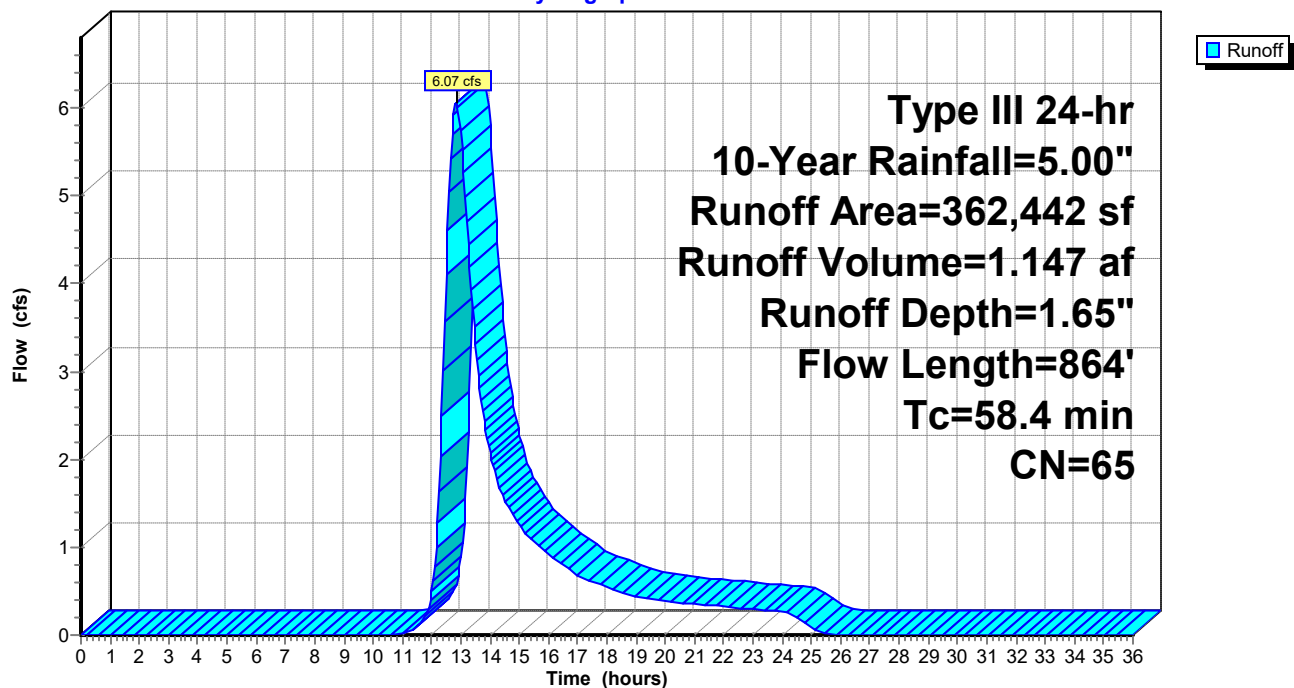
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
362,442	65	Woods/grass comb., Fair, HSG B
362,442		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.2	150	0.0113	0.05		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.00"
11.2	714	0.0448	1.06		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
58.4	864	Total			

Subcatchment DA #2: Drainage Area #2

Hydrograph



2022.09.15 - Existing Conditions*Type III 24-hr 10-Year Rainfall=5.00"*

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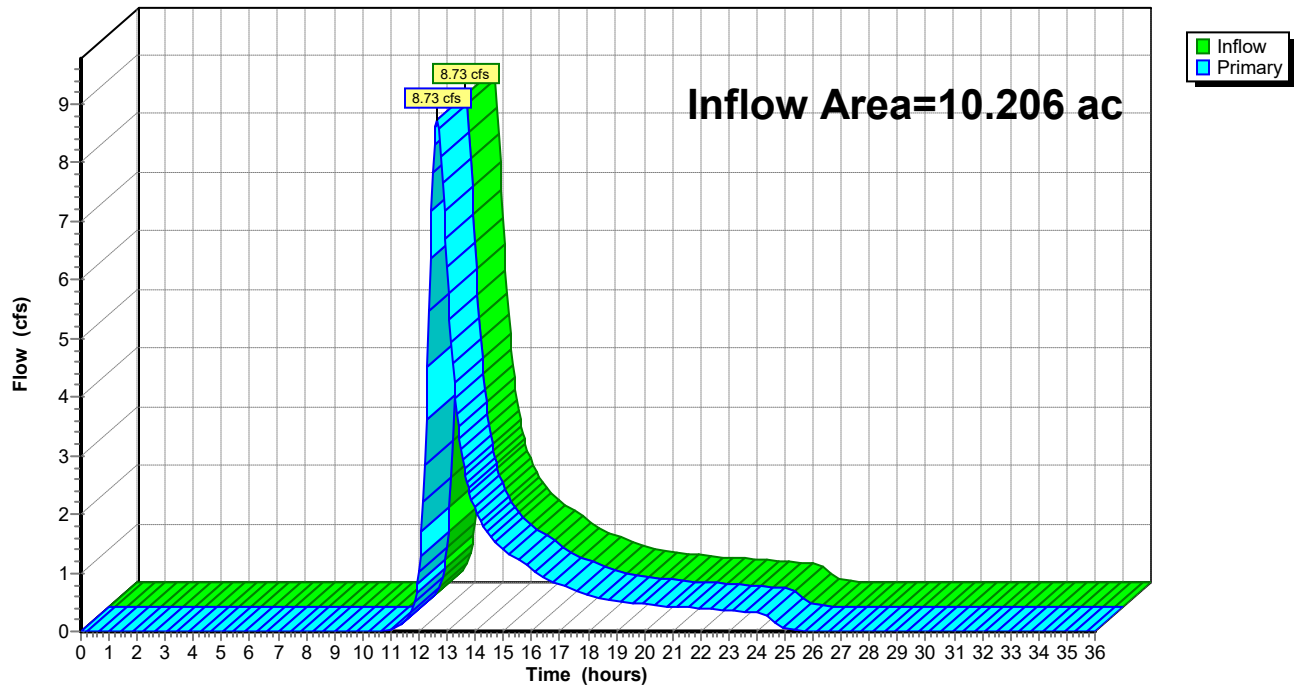
Hydrograph for Subcatchment DA #2: Drainage Area #2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	5.00	1.65	0.01
0.50	0.03	0.00	0.00	26.50	5.00	1.65	0.00
1.00	0.05	0.00	0.00	27.00	5.00	1.65	0.00
1.50	0.08	0.00	0.00	27.50	5.00	1.65	0.00
2.00	0.10	0.00	0.00	28.00	5.00	1.65	0.00
2.50	0.13	0.00	0.00	28.50	5.00	1.65	0.00
3.00	0.15	0.00	0.00	29.00	5.00	1.65	0.00
3.50	0.18	0.00	0.00	29.50	5.00	1.65	0.00
4.00	0.22	0.00	0.00	30.00	5.00	1.65	0.00
4.50	0.25	0.00	0.00	30.50	5.00	1.65	0.00
5.00	0.28	0.00	0.00	31.00	5.00	1.65	0.00
5.50	0.32	0.00	0.00	31.50	5.00	1.65	0.00
6.00	0.36	0.00	0.00	32.00	5.00	1.65	0.00
6.50	0.40	0.00	0.00	32.50	5.00	1.65	0.00
7.00	0.45	0.00	0.00	33.00	5.00	1.65	0.00
7.50	0.51	0.00	0.00	33.50	5.00	1.65	0.00
8.00	0.57	0.00	0.00	34.00	5.00	1.65	0.00
8.50	0.64	0.00	0.00	34.50	5.00	1.65	0.00
9.00	0.73	0.00	0.00	35.00	5.00	1.65	0.00
9.50	0.83	0.00	0.00	35.50	5.00	1.65	0.00
10.00	0.95	0.00	0.00	36.00	5.00	1.65	0.00
10.50	1.08	0.00	0.00				
11.00	1.25	0.01	0.01				
11.50	1.49	0.03	0.09				
12.00	2.50	0.30	0.50				
12.50	3.51	0.76	4.11				
13.00	3.75	0.89	5.75				
13.50	3.92	0.98	3.30				
14.00	4.06	1.06	2.07				
14.50	4.17	1.13	1.53				
15.00	4.27	1.19	1.25				
15.50	4.36	1.24	1.07				
16.00	4.43	1.29	0.93				
16.50	4.49	1.33	0.79				
17.00	4.55	1.36	0.68				
17.50	4.60	1.39	0.61				
18.00	4.64	1.42	0.54				
18.50	4.68	1.44	0.48				
19.00	4.72	1.47	0.44				
19.50	4.75	1.49	0.41				
20.00	4.79	1.51	0.39				
20.50	4.82	1.53	0.37				
21.00	4.85	1.55	0.35				
21.50	4.88	1.57	0.34				
22.00	4.90	1.59	0.32				
22.50	4.93	1.61	0.31				
23.00	4.95	1.62	0.29				
23.50	4.98	1.64	0.28				
24.00	5.00	1.65	0.26				
24.50	5.00	1.65	0.22				
25.00	5.00	1.65	0.08				
25.50	5.00	1.65	0.02				

Summary for Link POI #1: POI #1

Inflow Area = 10.206 ac, 0.00% Impervious, Inflow Depth = 1.65" for 10-Year event
Inflow = 8.73 cfs @ 12.66 hrs, Volume= 1.406 af
Primary = 8.73 cfs @ 12.66 hrs, Volume= 1.406 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #1: POI #1**Hydrograph**

2022.09.15 - Existing Conditions*Type III 24-hr 10-Year Rainfall=5.00"*

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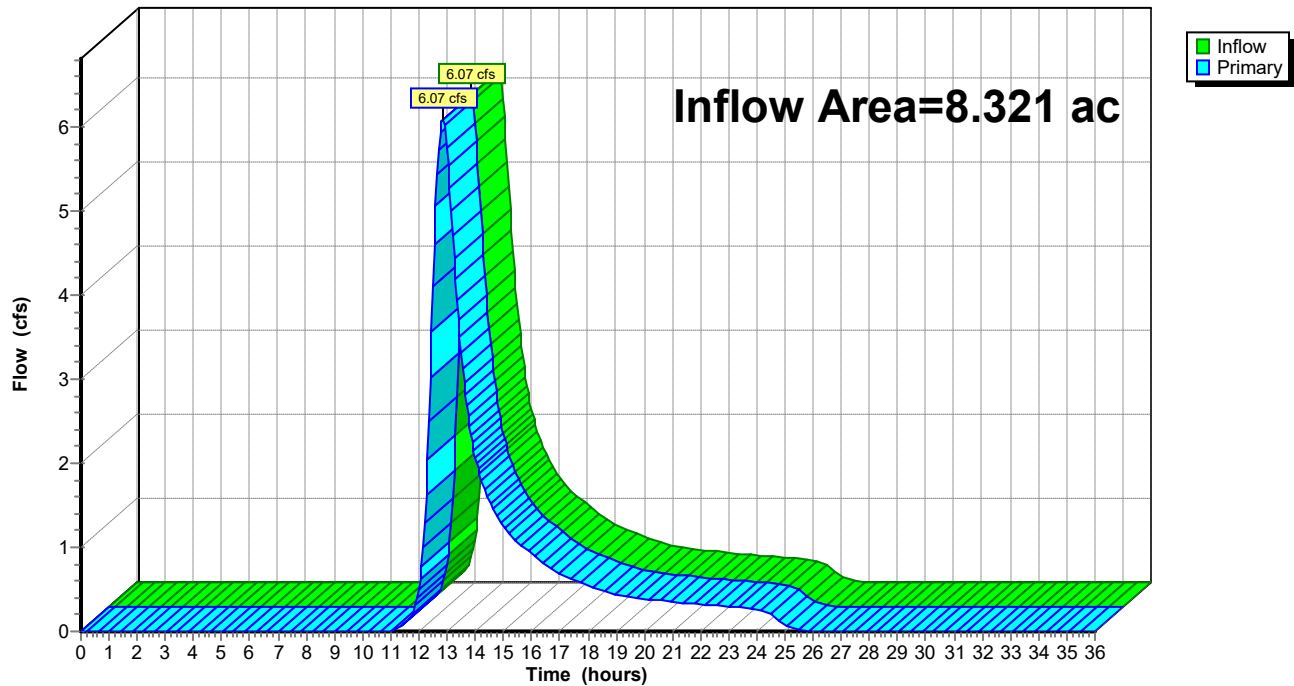
Hydrograph for Link POI #1: POI #1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	35.50	0.00	0.00	0.00
10.00	0.00	0.00	0.00	36.00	0.00	0.00	0.00
10.50	0.00	0.00	0.00				
11.00	0.02	0.00	0.02				
11.50	0.18	0.00	0.18				
12.00	1.02	0.00	1.02				
12.50	7.84	0.00	7.84				
13.00	6.21	0.00	6.21				
13.50	3.10	0.00	3.10				
14.00	2.08	0.00	2.08				
14.50	1.63	0.00	1.63				
15.00	1.40	0.00	1.40				
15.50	1.23	0.00	1.23				
16.00	1.06	0.00	1.06				
16.50	0.90	0.00	0.90				
17.00	0.79	0.00	0.79				
17.50	0.71	0.00	0.71				
18.00	0.63	0.00	0.63				
18.50	0.56	0.00	0.56				
19.00	0.52	0.00	0.52				
19.50	0.49	0.00	0.49				
20.00	0.47	0.00	0.47				
20.50	0.44	0.00	0.44				
21.00	0.42	0.00	0.42				
21.50	0.41	0.00	0.41				
22.00	0.39	0.00	0.39				
22.50	0.37	0.00	0.37				
23.00	0.35	0.00	0.35				
23.50	0.33	0.00	0.33				
24.00	0.32	0.00	0.32				
24.50	0.21	0.00	0.21				
25.00	0.04	0.00	0.04				
25.50	0.01	0.00	0.01				

Summary for Link POI #2: POI #2

Inflow Area = 8.321 ac, 0.00% Impervious, Inflow Depth = 1.65" for 10-Year event
Inflow = 6.07 cfs @ 12.84 hrs, Volume= 1.147 af
Primary = 6.07 cfs @ 12.84 hrs, Volume= 1.147 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #2: POI #2**Hydrograph**

2022.09.15 - Existing Conditions

Type III 24-hr 10-Year Rainfall=5.00"

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Hydrograph for Link POI #2: POI #2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.01	0.00	0.01
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	35.50	0.00	0.00	0.00
10.00	0.00	0.00	0.00	36.00	0.00	0.00	0.00
10.50	0.00	0.00	0.00				
11.00	0.01	0.00	0.01				
11.50	0.09	0.00	0.09				
12.00	0.50	0.00	0.50				
12.50	4.11	0.00	4.11				
13.00	5.75	0.00	5.75				
13.50	3.30	0.00	3.30				
14.00	2.07	0.00	2.07				
14.50	1.53	0.00	1.53				
15.00	1.25	0.00	1.25				
15.50	1.07	0.00	1.07				
16.00	0.93	0.00	0.93				
16.50	0.79	0.00	0.79				
17.00	0.68	0.00	0.68				
17.50	0.61	0.00	0.61				
18.00	0.54	0.00	0.54				
18.50	0.48	0.00	0.48				
19.00	0.44	0.00	0.44				
19.50	0.41	0.00	0.41				
20.00	0.39	0.00	0.39				
20.50	0.37	0.00	0.37				
21.00	0.35	0.00	0.35				
21.50	0.34	0.00	0.34				
22.00	0.32	0.00	0.32				
22.50	0.31	0.00	0.31				
23.00	0.29	0.00	0.29				
23.50	0.28	0.00	0.28				
24.00	0.26	0.00	0.26				
24.50	0.22	0.00	0.22				
25.00	0.08	0.00	0.08				
25.50	0.02	0.00	0.02				

2022.09.15 - Existing Conditions*Type III 24-hr 25-Year Rainfall=6.00"*

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Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 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 DA #1: Drainage Area #1 Runoff Area=444,593 sf 0.00% Impervious Runoff Depth=2.35"
Flow Length=1,047' Tc=44.4 min CN=65 Runoff=12.75 cfs 2.000 af

Subcatchment DA #2: Drainage Area #2 Runoff Area=362,442 sf 0.00% Impervious Runoff Depth=2.35"
Flow Length=864' Tc=58.4 min CN=65 Runoff=8.91 cfs 1.630 af

Link POI #1: POI #1 Inflow=12.75 cfs 2.000 af
Primary=12.75 cfs 2.000 af

Link POI #2: POI #2 Inflow=8.91 cfs 1.630 af
Primary=8.91 cfs 1.630 af

Total Runoff Area = 18.527 ac Runoff Volume = 3.630 af Average Runoff Depth = 2.35"
100.00% Pervious = 18.527 ac 0.00% Impervious = 0.000 ac

2022.09.15 - Existing Conditions

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Type III 24-hr 25-Year Rainfall=6.00"

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Summary for Subcatchment DA #1: Drainage Area #1

Runoff = 12.75 cfs @ 12.64 hrs, Volume= 2.000 af, Depth= 2.35"
Routed to Link POI #1 : POI #1

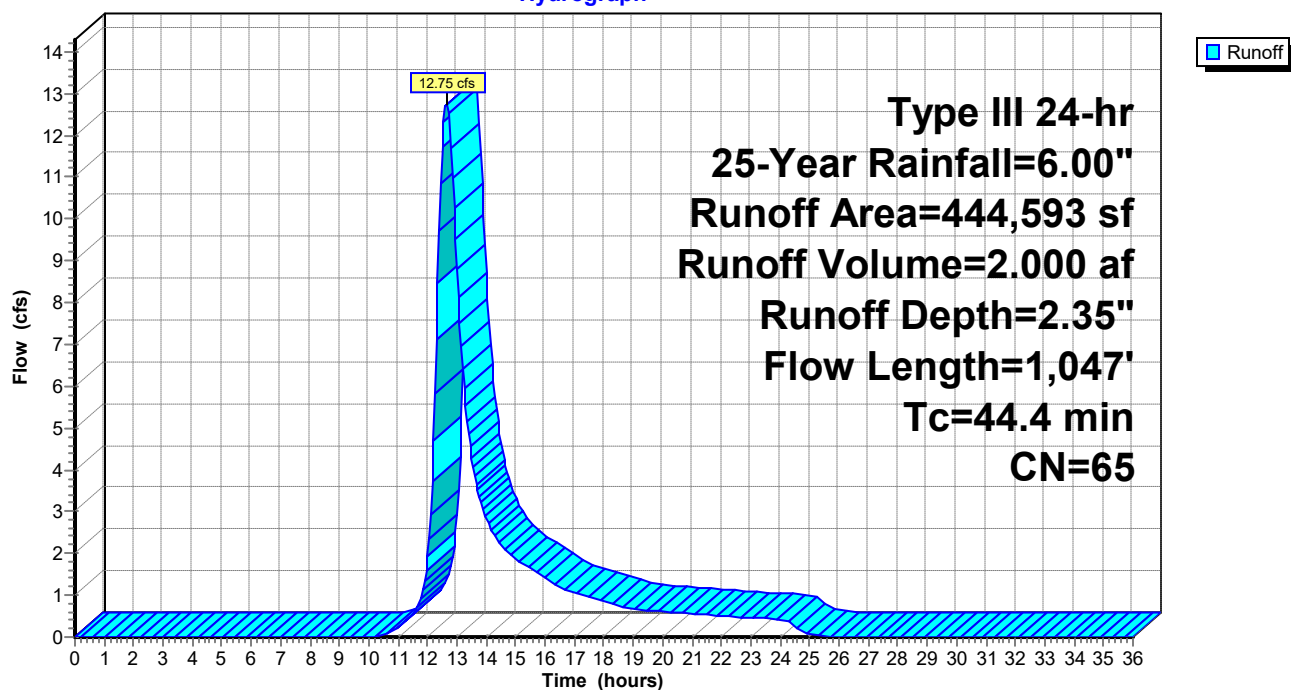
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=6.00"

Area (sf)	CN	Description
444,593	65	Woods/grass comb., Fair, HSG B
444,593		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.5	150	0.0647	0.11		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.00"
20.9	897	0.0204	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
44.4	1,047	Total			

Subcatchment DA #1: Drainage Area #1

Hydrograph



2022.09.15 - Existing Conditions*Type III 24-hr 25-Year Rainfall=6.00"*

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Hydrograph for Subcatchment DA #1: Drainage Area #1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	6.00	2.35	0.00
0.50	0.03	0.00	0.00	26.50	6.00	2.35	0.00
1.00	0.06	0.00	0.00	27.00	6.00	2.35	0.00
1.50	0.09	0.00	0.00	27.50	6.00	2.35	0.00
2.00	0.12	0.00	0.00	28.00	6.00	2.35	0.00
2.50	0.15	0.00	0.00	28.50	6.00	2.35	0.00
3.00	0.18	0.00	0.00	29.00	6.00	2.35	0.00
3.50	0.22	0.00	0.00	29.50	6.00	2.35	0.00
4.00	0.26	0.00	0.00	30.00	6.00	2.35	0.00
4.50	0.30	0.00	0.00	30.50	6.00	2.35	0.00
5.00	0.34	0.00	0.00	31.00	6.00	2.35	0.00
5.50	0.39	0.00	0.00	31.50	6.00	2.35	0.00
6.00	0.43	0.00	0.00	32.00	6.00	2.35	0.00
6.50	0.48	0.00	0.00	32.50	6.00	2.35	0.00
7.00	0.54	0.00	0.00	33.00	6.00	2.35	0.00
7.50	0.61	0.00	0.00	33.50	6.00	2.35	0.00
8.00	0.68	0.00	0.00	34.00	6.00	2.35	0.00
8.50	0.77	0.00	0.00	34.50	6.00	2.35	0.00
9.00	0.87	0.00	0.00	35.00	6.00	2.35	0.00
9.50	1.00	0.00	0.00	35.50	6.00	2.35	0.00
10.00	1.13	0.00	0.00	36.00	6.00	2.35	0.00
10.50	1.30	0.01	0.04				
11.00	1.50	0.03	0.22				
11.50	1.79	0.08	0.55				
12.00	3.00	0.51	1.92				
12.50	4.21	1.15	11.71				
13.00	4.50	1.33	8.80				
13.50	4.70	1.46	4.28				
14.00	4.87	1.57	2.83				
14.50	5.00	1.66	2.20				
15.00	5.13	1.74	1.87				
15.50	5.23	1.81	1.64				
16.00	5.32	1.87	1.42				
16.50	5.39	1.92	1.20				
17.00	5.46	1.96	1.05				
17.50	5.52	2.01	0.94				
18.00	5.57	2.04	0.84				
18.50	5.61	2.08	0.74				
19.00	5.66	2.11	0.68				
19.50	5.70	2.14	0.65				
20.00	5.74	2.17	0.61				
20.50	5.78	2.19	0.58				
21.00	5.82	2.22	0.56				
21.50	5.85	2.24	0.53				
22.00	5.88	2.27	0.51				
22.50	5.92	2.29	0.49				
23.00	5.95	2.31	0.46				
23.50	5.97	2.33	0.44				
24.00	6.00	2.35	0.42				
24.50	6.00	2.35	0.27				
25.00	6.00	2.35	0.06				
25.50	6.00	2.35	0.01				

2022.09.15 - Existing Conditions

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Type III 24-hr 25-Year Rainfall=6.00"

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Summary for Subcatchment DA #2: Drainage Area #2

Runoff = 8.91 cfs @ 12.82 hrs, Volume= 1.630 af, Depth= 2.35"
 Routed to Link POI #2 : POI #2

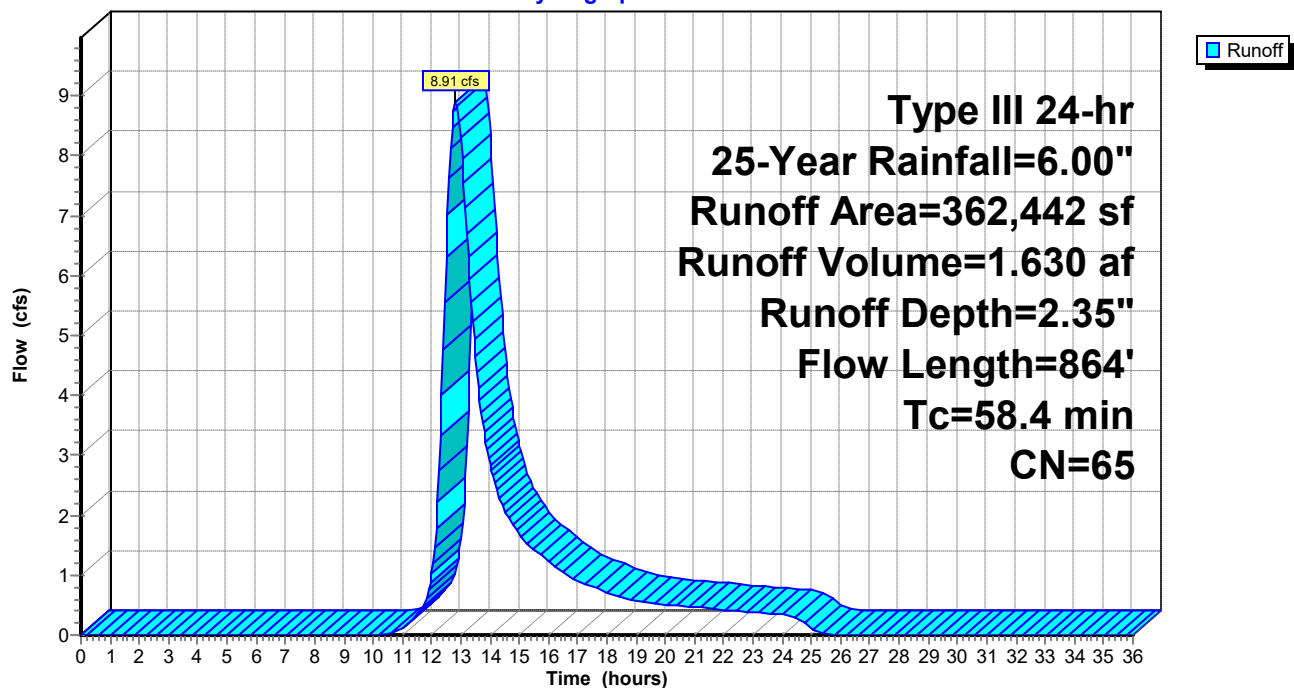
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25-Year Rainfall=6.00"

Area (sf)	CN	Description
362,442	65	Woods/grass comb., Fair, HSG B
362,442		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.2	150	0.0113	0.05		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.00"
11.2	714	0.0448	1.06		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
58.4	864	Total			

Subcatchment DA #2: Drainage Area #2

Hydrograph



2022.09.15 - Existing Conditions*Type III 24-hr 25-Year Rainfall=6.00"*

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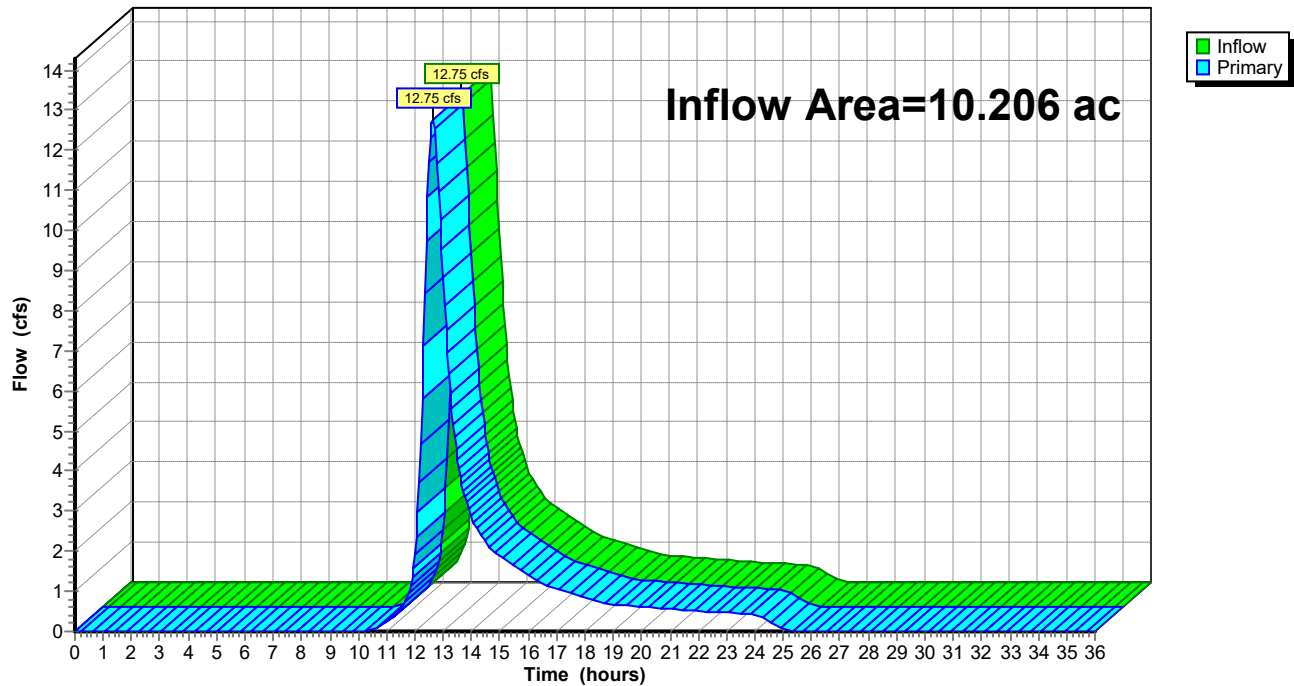
Hydrograph for Subcatchment DA #2: Drainage Area #2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	6.00	2.35	0.01
0.50	0.03	0.00	0.00	26.50	6.00	2.35	0.00
1.00	0.06	0.00	0.00	27.00	6.00	2.35	0.00
1.50	0.09	0.00	0.00	27.50	6.00	2.35	0.00
2.00	0.12	0.00	0.00	28.00	6.00	2.35	0.00
2.50	0.15	0.00	0.00	28.50	6.00	2.35	0.00
3.00	0.18	0.00	0.00	29.00	6.00	2.35	0.00
3.50	0.22	0.00	0.00	29.50	6.00	2.35	0.00
4.00	0.26	0.00	0.00	30.00	6.00	2.35	0.00
4.50	0.30	0.00	0.00	30.50	6.00	2.35	0.00
5.00	0.34	0.00	0.00	31.00	6.00	2.35	0.00
5.50	0.39	0.00	0.00	31.50	6.00	2.35	0.00
6.00	0.43	0.00	0.00	32.00	6.00	2.35	0.00
6.50	0.48	0.00	0.00	32.50	6.00	2.35	0.00
7.00	0.54	0.00	0.00	33.00	6.00	2.35	0.00
7.50	0.61	0.00	0.00	33.50	6.00	2.35	0.00
8.00	0.68	0.00	0.00	34.00	6.00	2.35	0.00
8.50	0.77	0.00	0.00	34.50	6.00	2.35	0.00
9.00	0.87	0.00	0.00	35.00	6.00	2.35	0.00
9.50	1.00	0.00	0.00	35.50	6.00	2.35	0.00
10.00	1.13	0.00	0.00	36.00	6.00	2.35	0.00
10.50	1.30	0.01	0.02				
11.00	1.50	0.03	0.12				
11.50	1.79	0.08	0.33				
12.00	3.00	0.51	1.01				
12.50	4.21	1.15	6.31				
13.00	4.50	1.33	8.30				
13.50	4.70	1.46	4.64				
14.00	4.87	1.57	2.85				
14.50	5.00	1.66	2.08				
15.00	5.13	1.74	1.68				
15.50	5.23	1.81	1.43				
16.00	5.32	1.87	1.24				
16.50	5.39	1.92	1.05				
17.00	5.46	1.96	0.91				
17.50	5.52	2.01	0.81				
18.00	5.57	2.04	0.72				
18.50	5.61	2.08	0.64				
19.00	5.66	2.11	0.58				
19.50	5.70	2.14	0.54				
20.00	5.74	2.17	0.51				
20.50	5.78	2.19	0.49				
21.00	5.82	2.22	0.46				
21.50	5.85	2.24	0.44				
22.00	5.88	2.27	0.43				
22.50	5.92	2.29	0.41				
23.00	5.95	2.31	0.39				
23.50	5.97	2.33	0.37				
24.00	6.00	2.35	0.35				
24.50	6.00	2.35	0.28				
25.00	6.00	2.35	0.11				
25.50	6.00	2.35	0.03				

Summary for Link POI #1: POI #1

Inflow Area = 10.206 ac, 0.00% Impervious, Inflow Depth = 2.35" for 25-Year event
Inflow = 12.75 cfs @ 12.64 hrs, Volume= 2.000 af
Primary = 12.75 cfs @ 12.64 hrs, Volume= 2.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #1: POI #1**Hydrograph**

2022.09.15 - Existing Conditions*Type III 24-hr 25-Year Rainfall=6.00"*

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Hydrograph for Link POI #1: POI #1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	35.50	0.00	0.00	0.00
10.00	0.00	0.00	0.00	36.00	0.00	0.00	0.00
10.50	0.04	0.00	0.04				
11.00	0.22	0.00	0.22				
11.50	0.55	0.00	0.55				
12.00	1.92	0.00	1.92				
12.50	11.71	0.00	11.71				
13.00	8.80	0.00	8.80				
13.50	4.28	0.00	4.28				
14.00	2.83	0.00	2.83				
14.50	2.20	0.00	2.20				
15.00	1.87	0.00	1.87				
15.50	1.64	0.00	1.64				
16.00	1.42	0.00	1.42				
16.50	1.20	0.00	1.20				
17.00	1.05	0.00	1.05				
17.50	0.94	0.00	0.94				
18.00	0.84	0.00	0.84				
18.50	0.74	0.00	0.74				
19.00	0.68	0.00	0.68				
19.50	0.65	0.00	0.65				
20.00	0.61	0.00	0.61				
20.50	0.58	0.00	0.58				
21.00	0.56	0.00	0.56				
21.50	0.53	0.00	0.53				
22.00	0.51	0.00	0.51				
22.50	0.49	0.00	0.49				
23.00	0.46	0.00	0.46				
23.50	0.44	0.00	0.44				
24.00	0.42	0.00	0.42				
24.50	0.27	0.00	0.27				
25.00	0.06	0.00	0.06				
25.50	0.01	0.00	0.01				

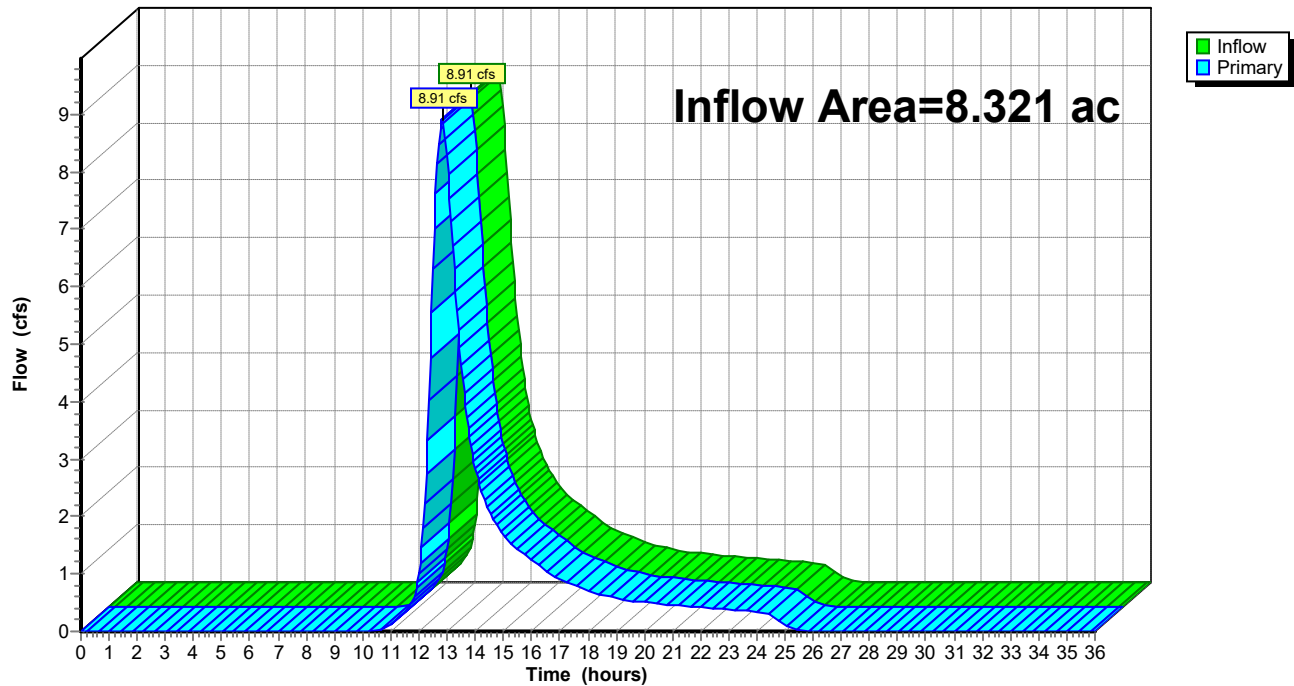
Summary for Link POI #2: POI #2

Inflow Area = 8.321 ac, 0.00% Impervious, Inflow Depth = 2.35" for 25-Year event
 Inflow = 8.91 cfs @ 12.82 hrs, Volume= 1.630 af
 Primary = 8.91 cfs @ 12.82 hrs, Volume= 1.630 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #2: POI #2

Hydrograph



2022.09.15 - Existing Conditions

Type III 24-hr 25-Year Rainfall=6.00"

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Hydrograph for Link POI #2: POI #2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.01	0.00	0.01
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	35.50	0.00	0.00	0.00
10.00	0.00	0.00	0.00	36.00	0.00	0.00	0.00
10.50	0.02	0.00	0.02				
11.00	0.12	0.00	0.12				
11.50	0.33	0.00	0.33				
12.00	1.01	0.00	1.01				
12.50	6.31	0.00	6.31				
13.00	8.30	0.00	8.30				
13.50	4.64	0.00	4.64				
14.00	2.85	0.00	2.85				
14.50	2.08	0.00	2.08				
15.00	1.68	0.00	1.68				
15.50	1.43	0.00	1.43				
16.00	1.24	0.00	1.24				
16.50	1.05	0.00	1.05				
17.00	0.91	0.00	0.91				
17.50	0.81	0.00	0.81				
18.00	0.72	0.00	0.72				
18.50	0.64	0.00	0.64				
19.00	0.58	0.00	0.58				
19.50	0.54	0.00	0.54				
20.00	0.51	0.00	0.51				
20.50	0.49	0.00	0.49				
21.00	0.46	0.00	0.46				
21.50	0.44	0.00	0.44				
22.00	0.43	0.00	0.43				
22.50	0.41	0.00	0.41				
23.00	0.39	0.00	0.39				
23.50	0.37	0.00	0.37				
24.00	0.35	0.00	0.35				
24.50	0.28	0.00	0.28				
25.00	0.11	0.00	0.11				
25.50	0.03	0.00	0.03				

2022.09.15 - Existing Conditions*Type III 24-hr 100-Year Rainfall=9.00"*

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Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 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 DA #1: Drainage Area #1 Runoff Area=444,593 sf 0.00% Impervious Runoff Depth=4.72"
Flow Length=1,047' Tc=44.4 min CN=65 Runoff=26.27 cfs 4.012 af

Subcatchment DA #2: Drainage Area #2 Runoff Area=362,442 sf 0.00% Impervious Runoff Depth=4.72"
Flow Length=864' Tc=58.4 min CN=65 Runoff=18.38 cfs 3.271 af

Link POI #1: POI #1 Inflow=26.27 cfs 4.012 af
Primary=26.27 cfs 4.012 af

Link POI #2: POI #2 Inflow=18.38 cfs 3.271 af
Primary=18.38 cfs 3.271 af

Total Runoff Area = 18.527 ac Runoff Volume = 7.283 af Average Runoff Depth = 4.72"
100.00% Pervious = 18.527 ac 0.00% Impervious = 0.000 ac

2022.09.15 - Existing Conditions

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Type III 24-hr 100-Year Rainfall=9.00"

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Summary for Subcatchment DA #1: Drainage Area #1

Runoff = 26.27 cfs @ 12.62 hrs, Volume= 4.012 af, Depth= 4.72"
 Routed to Link POI #1 : POI #1

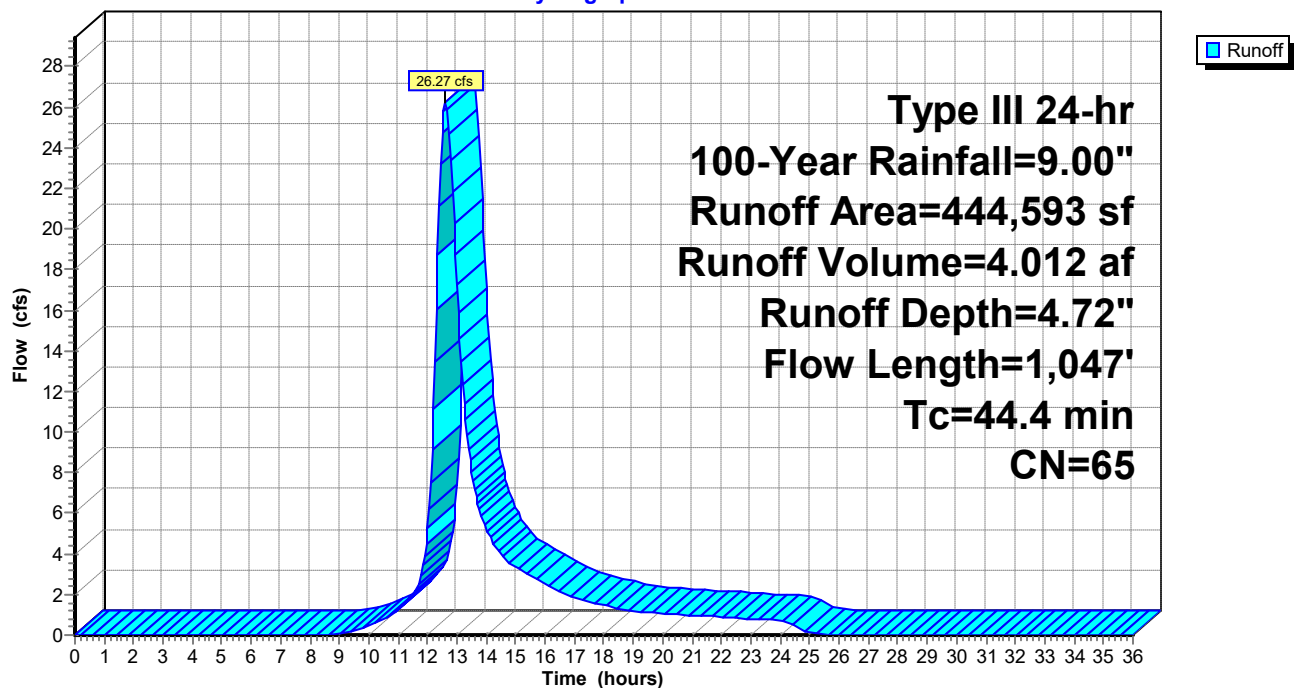
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100-Year Rainfall=9.00"

Area (sf)	CN	Description
444,593	65	Woods/grass comb., Fair, HSG B
444,593		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.5	150	0.0647	0.11		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.00"
20.9	897	0.0204	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
44.4	1,047	Total			

Subcatchment DA #1: Drainage Area #1

Hydrograph



2022.09.15 - Existing Conditions

Type III 24-hr 100-Year Rainfall=9.00"

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Hydrograph for Subcatchment DA #1: Drainage Area #1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	9.00	4.72	0.00
0.50	0.04	0.00	0.00	26.50	9.00	4.72	0.00
1.00	0.09	0.00	0.00	27.00	9.00	4.72	0.00
1.50	0.13	0.00	0.00	27.50	9.00	4.72	0.00
2.00	0.18	0.00	0.00	28.00	9.00	4.72	0.00
2.50	0.23	0.00	0.00	28.50	9.00	4.72	0.00
3.00	0.28	0.00	0.00	29.00	9.00	4.72	0.00
3.50	0.33	0.00	0.00	29.50	9.00	4.72	0.00
4.00	0.39	0.00	0.00	30.00	9.00	4.72	0.00
4.50	0.45	0.00	0.00	30.50	9.00	4.72	0.00
5.00	0.51	0.00	0.00	31.00	9.00	4.72	0.00
5.50	0.58	0.00	0.00	31.50	9.00	4.72	0.00
6.00	0.65	0.00	0.00	32.00	9.00	4.72	0.00
6.50	0.73	0.00	0.00	32.50	9.00	4.72	0.00
7.00	0.81	0.00	0.00	33.00	9.00	4.72	0.00
7.50	0.91	0.00	0.00	33.50	9.00	4.72	0.00
8.00	1.03	0.00	0.00	34.00	9.00	4.72	0.00
8.50	1.16	0.00	0.00	34.50	9.00	4.72	0.00
9.00	1.31	0.01	0.06	35.00	9.00	4.72	0.00
9.50	1.49	0.03	0.22	35.50	9.00	4.72	0.00
10.00	1.70	0.06	0.46	36.00	9.00	4.72	0.00
10.50	1.95	0.12	0.79				
11.00	2.25	0.21	1.27				
11.50	2.68	0.37	2.04				
12.00	4.50	1.33	5.23				
12.50	6.32	2.59	24.77				
13.00	6.75	2.91	17.24				
13.50	7.05	3.14	8.06				
14.00	7.30	3.34	5.18				
14.50	7.51	3.50	3.97				
15.00	7.69	3.64	3.36				
15.50	7.84	3.77	2.93				
16.00	7.97	3.87	2.52				
16.50	8.09	3.96	2.12				
17.00	8.19	4.04	1.85				
17.50	8.27	4.12	1.66				
18.00	8.35	4.18	1.47				
18.50	8.42	4.24	1.29				
19.00	8.49	4.29	1.19				
19.50	8.55	4.35	1.13				
20.00	8.61	4.40	1.07				
20.50	8.67	4.44	1.02				
21.00	8.72	4.49	0.97				
21.50	8.78	4.53	0.93				
22.00	8.83	4.57	0.89				
22.50	8.87	4.61	0.84				
23.00	8.92	4.65	0.80				
23.50	8.96	4.68	0.76				
24.00	9.00	4.72	0.72				
24.50	9.00	4.72	0.47				
25.00	9.00	4.72	0.10				
25.50	9.00	4.72	0.02				

2022.09.15 - Existing Conditions

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Type III 24-hr 100-Year Rainfall=9.00"

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Summary for Subcatchment DA #2: Drainage Area #2

Runoff = 18.38 cfs @ 12.80 hrs, Volume= 3.271 af, Depth= 4.72"
 Routed to Link POI #2 : POI #2

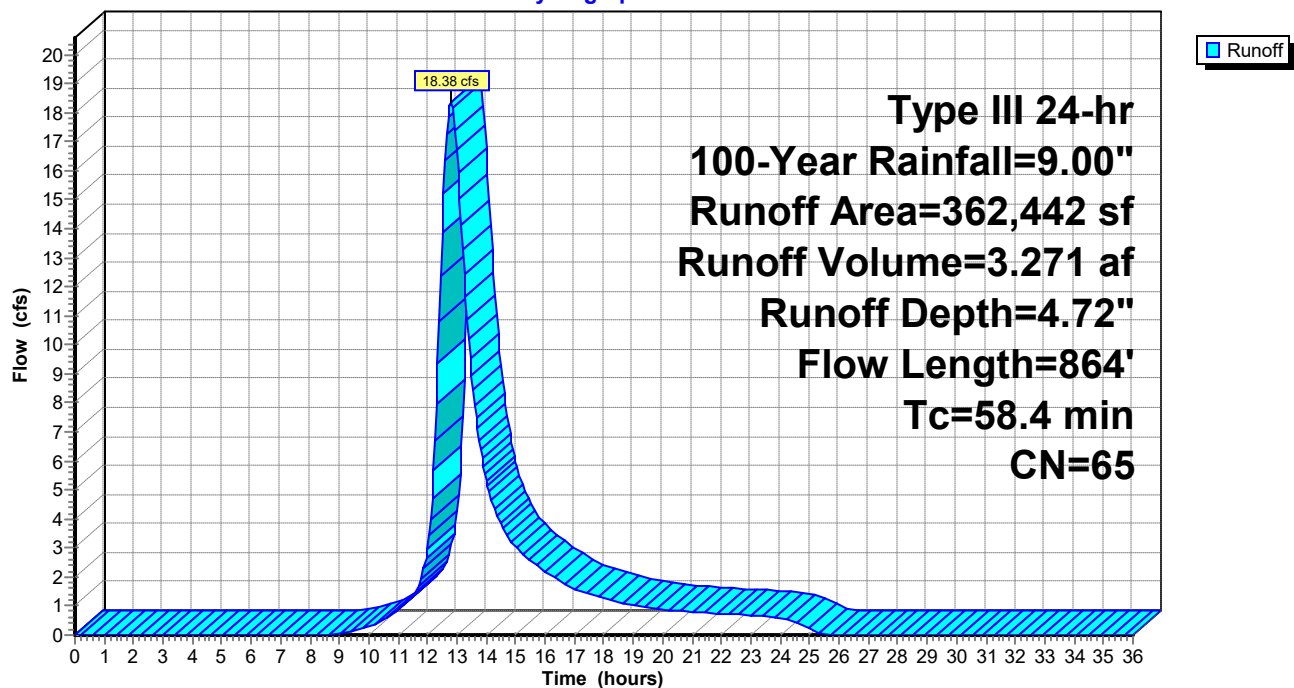
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100-Year Rainfall=9.00"

Area (sf)	CN	Description
362,442	65	Woods/grass comb., Fair, HSG B
362,442		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.2	150	0.0113	0.05		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.00"
11.2	714	0.0448	1.06		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
58.4	864	Total			

Subcatchment DA #2: Drainage Area #2

Hydrograph



2022.09.15 - Existing Conditions

Type III 24-hr 100-Year Rainfall=9.00"

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Hydrograph for Subcatchment DA #2: Drainage Area #2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	9.00	4.72	0.01
0.50	0.04	0.00	0.00	26.50	9.00	4.72	0.00
1.00	0.09	0.00	0.00	27.00	9.00	4.72	0.00
1.50	0.13	0.00	0.00	27.50	9.00	4.72	0.00
2.00	0.18	0.00	0.00	28.00	9.00	4.72	0.00
2.50	0.23	0.00	0.00	28.50	9.00	4.72	0.00
3.00	0.28	0.00	0.00	29.00	9.00	4.72	0.00
3.50	0.33	0.00	0.00	29.50	9.00	4.72	0.00
4.00	0.39	0.00	0.00	30.00	9.00	4.72	0.00
4.50	0.45	0.00	0.00	30.50	9.00	4.72	0.00
5.00	0.51	0.00	0.00	31.00	9.00	4.72	0.00
5.50	0.58	0.00	0.00	31.50	9.00	4.72	0.00
6.00	0.65	0.00	0.00	32.00	9.00	4.72	0.00
6.50	0.73	0.00	0.00	32.50	9.00	4.72	0.00
7.00	0.81	0.00	0.00	33.00	9.00	4.72	0.00
7.50	0.91	0.00	0.00	33.50	9.00	4.72	0.00
8.00	1.03	0.00	0.00	34.00	9.00	4.72	0.00
8.50	1.16	0.00	0.00	34.50	9.00	4.72	0.00
9.00	1.31	0.01	0.03	35.00	9.00	4.72	0.00
9.50	1.49	0.03	0.12	35.50	9.00	4.72	0.00
10.00	1.70	0.06	0.29	36.00	9.00	4.72	0.00
10.50	1.95	0.12	0.53				
11.00	2.25	0.21	0.87				
11.50	2.68	0.37	1.39				
12.00	4.50	1.33	2.99				
12.50	6.32	2.59	13.87				
13.00	6.75	2.91	16.73				
13.50	7.05	3.14	8.96				
14.00	7.30	3.34	5.33				
14.50	7.51	3.50	3.81				
15.00	7.69	3.64	3.03				
15.50	7.84	3.77	2.56				
16.00	7.97	3.87	2.20				
16.50	8.09	3.96	1.87				
17.00	8.19	4.04	1.61				
17.50	8.27	4.12	1.42				
18.00	8.35	4.18	1.26				
18.50	8.42	4.24	1.12				
19.00	8.49	4.29	1.01				
19.50	8.55	4.35	0.94				
20.00	8.61	4.40	0.89				
20.50	8.67	4.44	0.85				
21.00	8.72	4.49	0.81				
21.50	8.78	4.53	0.77				
22.00	8.83	4.57	0.74				
22.50	8.87	4.61	0.70				
23.00	8.92	4.65	0.67				
23.50	8.96	4.68	0.63				
24.00	9.00	4.72	0.60				
24.50	9.00	4.72	0.49				
25.00	9.00	4.72	0.18				
25.50	9.00	4.72	0.05				

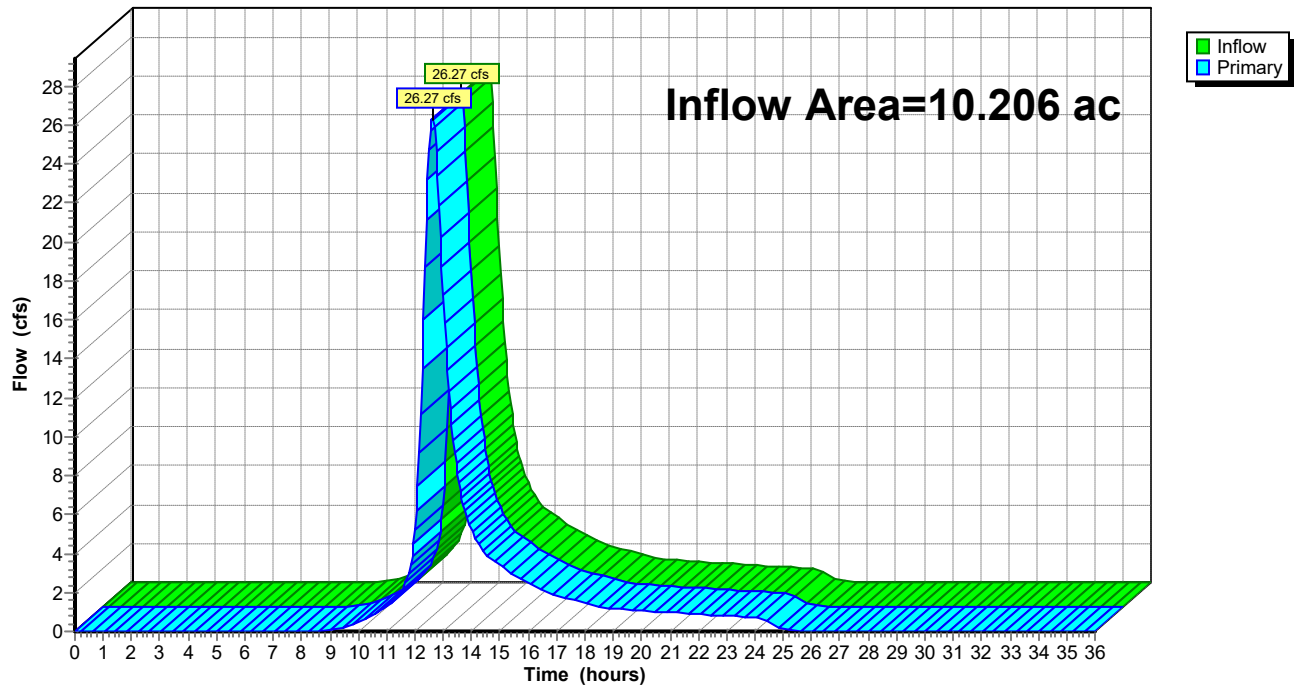
Summary for Link POI #1: POI #1

Inflow Area = 10.206 ac, 0.00% Impervious, Inflow Depth = 4.72" for 100-Year event

Inflow = 26.27 cfs @ 12.62 hrs, Volume= 4.012 af

Primary = 26.27 cfs @ 12.62 hrs, Volume= 4.012 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #1: POI #1**Hydrograph**

2022.09.15 - Existing Conditions

Type III 24-hr 100-Year Rainfall=9.00"

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Hydrograph for Link POI #1: POI #1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.06	0.00	0.06	35.00	0.00	0.00	0.00
9.50	0.22	0.00	0.22	35.50	0.00	0.00	0.00
10.00	0.46	0.00	0.46	36.00	0.00	0.00	0.00
10.50	0.79	0.00	0.79				
11.00	1.27	0.00	1.27				
11.50	2.04	0.00	2.04				
12.00	5.23	0.00	5.23				
12.50	24.77	0.00	24.77				
13.00	17.24	0.00	17.24				
13.50	8.06	0.00	8.06				
14.00	5.18	0.00	5.18				
14.50	3.97	0.00	3.97				
15.00	3.36	0.00	3.36				
15.50	2.93	0.00	2.93				
16.00	2.52	0.00	2.52				
16.50	2.12	0.00	2.12				
17.00	1.85	0.00	1.85				
17.50	1.66	0.00	1.66				
18.00	1.47	0.00	1.47				
18.50	1.29	0.00	1.29				
19.00	1.19	0.00	1.19				
19.50	1.13	0.00	1.13				
20.00	1.07	0.00	1.07				
20.50	1.02	0.00	1.02				
21.00	0.97	0.00	0.97				
21.50	0.93	0.00	0.93				
22.00	0.89	0.00	0.89				
22.50	0.84	0.00	0.84				
23.00	0.80	0.00	0.80				
23.50	0.76	0.00	0.76				
24.00	0.72	0.00	0.72				
24.50	0.47	0.00	0.47				
25.00	0.10	0.00	0.10				
25.50	0.02	0.00	0.02				

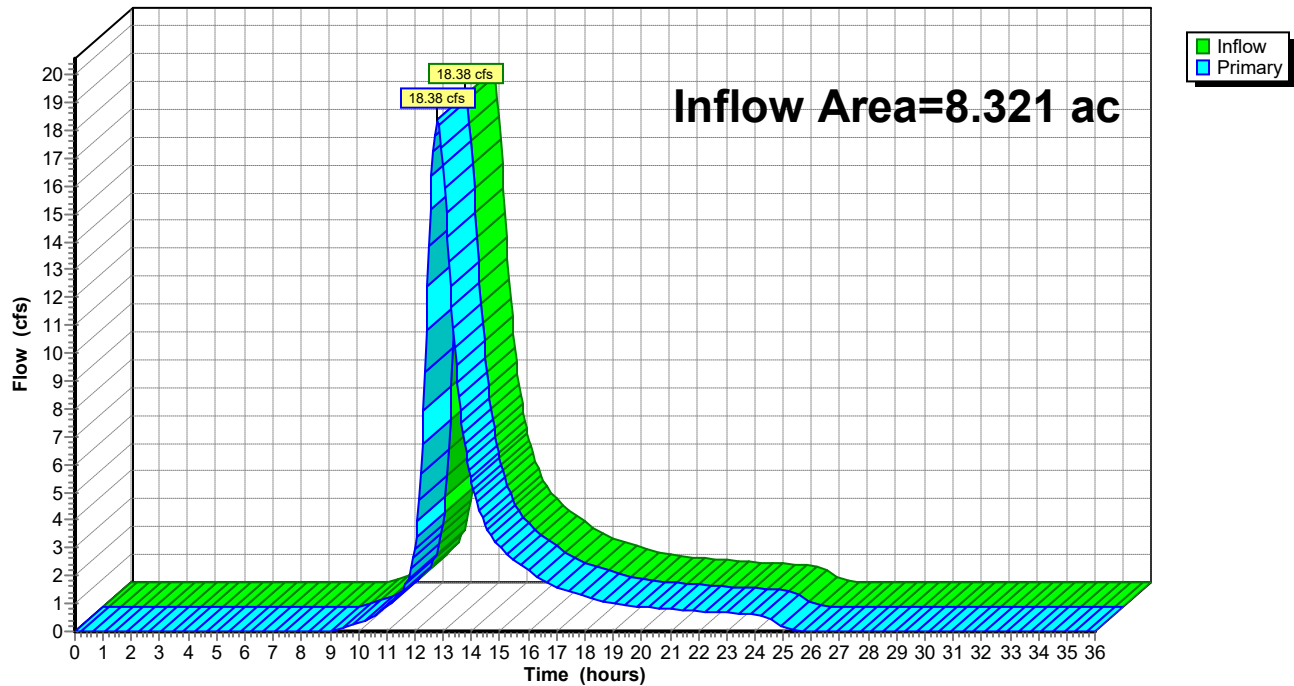
Summary for Link POI #2: POI #2

Inflow Area = 8.321 ac, 0.00% Impervious, Inflow Depth = 4.72" for 100-Year event
 Inflow = 18.38 cfs @ 12.80 hrs, Volume= 3.271 af
 Primary = 18.38 cfs @ 12.80 hrs, Volume= 3.271 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #2: POI #2

Hydrograph



2022.09.15 - Existing Conditions

Type III 24-hr 100-Year Rainfall=9.00"

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Hydrograph for Link POI #2: POI #2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.01	0.00	0.01
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.03	0.00	0.03	35.00	0.00	0.00	0.00
9.50	0.12	0.00	0.12	35.50	0.00	0.00	0.00
10.00	0.29	0.00	0.29	36.00	0.00	0.00	0.00
10.50	0.53	0.00	0.53				
11.00	0.87	0.00	0.87				
11.50	1.39	0.00	1.39				
12.00	2.99	0.00	2.99				
12.50	13.87	0.00	13.87				
13.00	16.73	0.00	16.73				
13.50	8.96	0.00	8.96				
14.00	5.33	0.00	5.33				
14.50	3.81	0.00	3.81				
15.00	3.03	0.00	3.03				
15.50	2.56	0.00	2.56				
16.00	2.20	0.00	2.20				
16.50	1.87	0.00	1.87				
17.00	1.61	0.00	1.61				
17.50	1.42	0.00	1.42				
18.00	1.26	0.00	1.26				
18.50	1.12	0.00	1.12				
19.00	1.01	0.00	1.01				
19.50	0.94	0.00	0.94				
20.00	0.89	0.00	0.89				
20.50	0.85	0.00	0.85				
21.00	0.81	0.00	0.81				
21.50	0.77	0.00	0.77				
22.00	0.74	0.00	0.74				
22.50	0.70	0.00	0.70				
23.00	0.67	0.00	0.67				
23.50	0.63	0.00	0.63				
24.00	0.60	0.00	0.60				
24.50	0.49	0.00	0.49				
25.00	0.18	0.00	0.18				
25.50	0.05	0.00	0.05				

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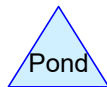
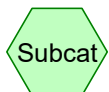
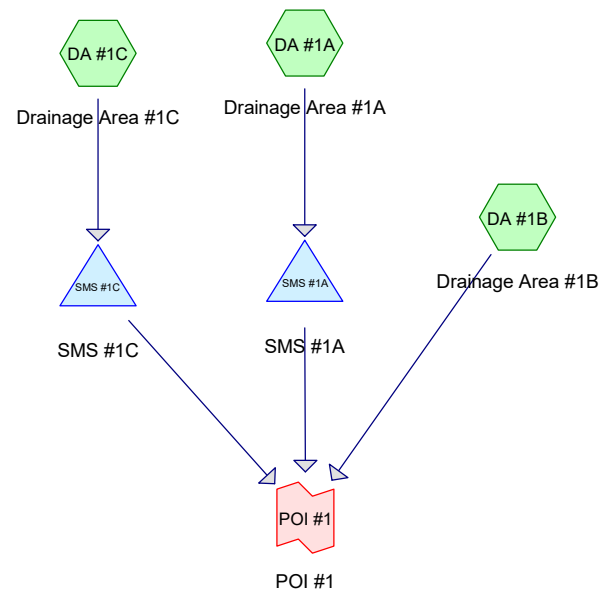
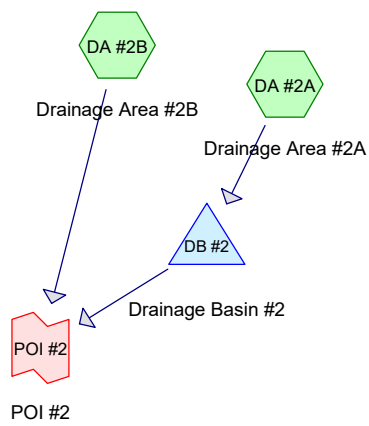
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Appendix E
Proposed Conditions
HydroCAD Model



2025.07.03 - Proposed Conditions

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Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	Type III 24-hr		Default	24.00	1	2.80	
2	2-Year	Type III 24-hr		Default	24.00	1	3.50	
3	10-Year	Type III 24-hr		Default	24.00	1	5.00	
4	25-Year	Type III 24-hr		Default	24.00	1	6.00	
5	100-Year	Type III 24-hr		Default	24.00	1	9.00	
6	WQv (Roadway B)	Type III 24-hr		Default	24.00	1	1.85	
7	WQv (Roadway C)	Type III 24-hr		Default	24.00	1	1.83	
8	WQv (Underground Infiltration System)	Type III 24-hr		Default	24.00	1	1.92	

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
8.766	61	>75% Grass cover, Good, HSG B (DA #1A, DA #1B, DA #1C, DA #2A, DA #2B)
5.438	98	Building/Roof, HSG B (DA #1A, DA #1C, DA #2A)
0.360	98	Emergency Access Road (Imp.), HSG B (DA #1A, DA #1B, DA #1C, DA #2A)
0.267	61	Emergency Access Road (Perv.), Good, HSG B (DA #1A, DA #1B, DA #1C, DA #2A, DA #2B)
0.075	98	Emergency Access Road (Imp.), HSG B (DA #2B)
0.264	98	Infiltration Basin, HSG B (DA #2A)
3.105	98	Pavement, HSG B (DA #1A, DA #1C, DA #2A)
0.174	98	Sidewalk, HSG B (DA #1A, DA #1C, DA #2A)
18.448	80	TOTAL AREA

2025.07.03 - Proposed Conditions

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Soil Listing (all nodes)

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

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcate Numbe
0.000	8.766	0.000	0.000	0.000	8.766	>75% Grass cover, Good	
0.000	5.438	0.000	0.000	0.000	5.438	Building/Roof	
0.000	0.360	0.000	0.000	0.000	0.360	Emergency Access Road (Imp.)	
0.000	0.267	0.000	0.000	0.000	0.267	Emergency Access Road (Perv.), Good	
0.000	0.075	0.000	0.000	0.000	0.075	Emergency Access Road (Imp.)	
0.000	0.264	0.000	0.000	0.000	0.264	Infiltration Basin	
0.000	3.105	0.000	0.000	0.000	3.105	Pavement	
0.000	0.174	0.000	0.000	0.000	0.174	Sidewalk	
0.000	18.448	0.000	0.000	0.000	18.448	TOTAL AREA	

2025.07.03 - Proposed Conditions*Type III 24-hr 1-Year Rainfall=2.80"*

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Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 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 DA #1A: Drainage Area #1A Runoff Area=165,307 sf 92.16% Impervious Runoff Depth=2.25"
Tc=10.0 min CN=95 Runoff=8.27 cfs 0.713 af

Subcatchment DA #1B: Drainage Area #1B Runoff Area=172,042 sf 3.71% Impervious Runoff Depth=0.32"
Flow Length=638' Tc=17.0 min CN=62 Runoff=0.60 cfs 0.106 af

Subcatchment DA #1C: Drainage Area Runoff Area=153,140 sf 93.20% Impervious Runoff Depth=2.25"
Tc=10.0 min CN=95 Runoff=7.67 cfs 0.660 af

Subcatchment DA #2A: Drainage Area #2A Runoff Area=121,928 sf 86.47% Impervious Runoff Depth=2.06"
Tc=10.0 min CN=93 Runoff=5.71 cfs 0.481 af

Subcatchment DA #2B: Drainage Area #2B Runoff Area=191,184 sf 1.71% Impervious Runoff Depth=0.32"
Flow Length=784' Tc=18.4 min CN=62 Runoff=0.66 cfs 0.118 af

Pond DB #2: Drainage Basin #2 Peak Elev=485.61' Storage=3,751 cf Inflow=5.71 cfs 0.481 af
Discarded=1.94 cfs 0.467 af Primary=0.34 cfs 0.014 af Outflow=2.28 cfs 0.481 af

Pond SMS #1A: SMS #1A Peak Elev=493.14' Storage=0.148 af Inflow=8.27 cfs 0.713 af
Discarded=2.14 cfs 0.685 af Primary=0.50 cfs 0.028 af Outflow=2.64 cfs 0.713 af

Pond SMS #1C: SMS #1C Peak Elev=496.64' Storage=0.137 af Inflow=7.67 cfs 0.660 af
Discarded=1.97 cfs 0.633 af Primary=0.51 cfs 0.028 af Outflow=2.48 cfs 0.660 af

Link POI #1: POI #1 Inflow=1.60 cfs 0.161 af
Primary=1.60 cfs 0.161 af

Link POI #2: POI #2 Inflow=1.00 cfs 0.132 af
Primary=1.00 cfs 0.132 af

Total Runoff Area = 18.448 ac Runoff Volume = 2.078 af Average Runoff Depth = 1.35"
48.96% Pervious = 9.032 ac 51.04% Impervious = 9.416 ac

2025.07.03 - Proposed Conditions

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Type III 24-hr 1-Year Rainfall=2.80"

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Summary for Subcatchment DA #1A: Drainage Area #1A

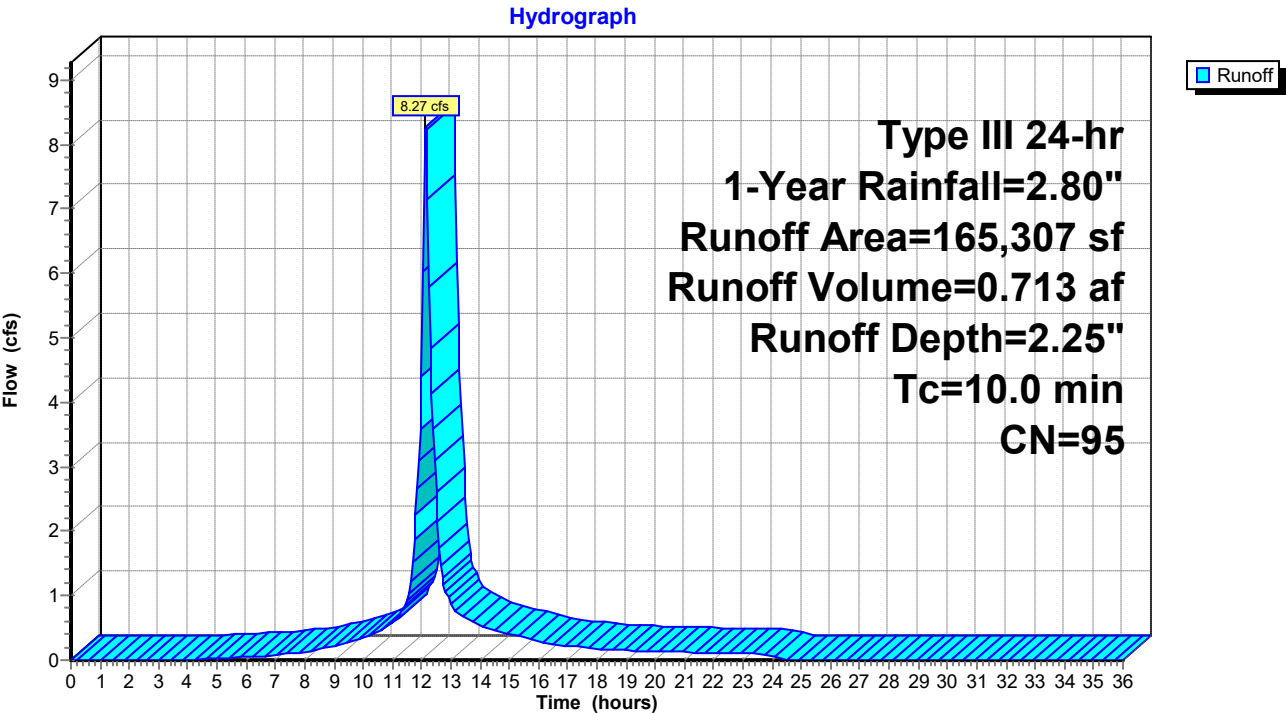
Runoff = 8.27 cfs @ 12.14 hrs, Volume= 0.713 af, Depth= 2.25"
Routed to Pond SMS #1A : SMS #1A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-Year Rainfall=2.80"

	Area (sf)	CN	Description
	11,207	61	>75% Grass cover, Good, HSG B
*	1,751	61	Emergency Access Road (Perv.), Good, HSG B
*	86,044	98	Building/Roof, HSG B
*	60,510	98	Pavement, HSG B
*	2,937	98	Sidewalk, HSG B
*	2,858	98	Emergency Access Road (Imp.), HSG B
	165,307	95	Weighted Average
	12,958		7.84% Pervious Area
	152,349		92.16% Impervious Area

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
10.0					Direct Entry, 10 Minute Minimum

Subcatchment DA #1A: Drainage Area #1A



2025.07.03 - Proposed Conditions*Type III 24-hr 1-Year Rainfall=2.80"*

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Hydrograph for Subcatchment DA #1A: Drainage Area #1A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	2.80	2.25	0.00
0.50	0.01	0.00	0.00	26.50	2.80	2.25	0.00
1.00	0.03	0.00	0.00	27.00	2.80	2.25	0.00
1.50	0.04	0.00	0.00	27.50	2.80	2.25	0.00
2.00	0.06	0.00	0.00	28.00	2.80	2.25	0.00
2.50	0.07	0.00	0.00	28.50	2.80	2.25	0.00
3.00	0.09	0.00	0.00	29.00	2.80	2.25	0.00
3.50	0.10	0.00	0.00	29.50	2.80	2.25	0.00
4.00	0.12	0.00	0.00	30.00	2.80	2.25	0.00
4.50	0.14	0.00	0.01	30.50	2.80	2.25	0.00
5.00	0.16	0.00	0.02	31.00	2.80	2.25	0.00
5.50	0.18	0.01	0.03	31.50	2.80	2.25	0.00
6.00	0.20	0.01	0.05	32.00	2.80	2.25	0.00
6.50	0.23	0.02	0.06	32.50	2.80	2.25	0.00
7.00	0.25	0.03	0.08	33.00	2.80	2.25	0.00
7.50	0.28	0.05	0.10	33.50	2.80	2.25	0.00
8.00	0.32	0.06	0.13	34.00	2.80	2.25	0.00
8.50	0.36	0.08	0.17	34.50	2.80	2.25	0.00
9.00	0.41	0.11	0.22	35.00	2.80	2.25	0.00
9.50	0.46	0.15	0.28	35.50	2.80	2.25	0.00
10.00	0.53	0.19	0.34	36.00	2.80	2.25	0.00
10.50	0.61	0.24	0.44				
11.00	0.70	0.32	0.57				
11.50	0.83	0.42	0.91				
12.00	1.40	0.92	4.40				
12.50	1.97	1.45	2.62				
13.00	2.10	1.58	0.89				
13.50	2.19	1.67	0.66				
14.00	2.27	1.74	0.54				
14.50	2.34	1.80	0.46				
15.00	2.39	1.86	0.41				
15.50	2.44	1.91	0.35				
16.00	2.48	1.94	0.29				
16.50	2.52	1.98	0.25				
17.00	2.55	2.01	0.23				
17.50	2.57	2.04	0.20				
18.00	2.60	2.06	0.17				
18.50	2.62	2.08	0.16				
19.00	2.64	2.10	0.15				
19.50	2.66	2.12	0.15				
20.00	2.68	2.14	0.14				
20.50	2.70	2.15	0.13				
21.00	2.71	2.17	0.13				
21.50	2.73	2.19	0.12				
22.00	2.75	2.20	0.11				
22.50	2.76	2.22	0.11				
23.00	2.77	2.23	0.10				
23.50	2.79	2.24	0.10				
24.00	2.80	2.25	0.09				
24.50	2.80	2.25	0.00				
25.00	2.80	2.25	0.00				
25.50	2.80	2.25	0.00				

2025.07.03 - Proposed Conditions

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Type III 24-hr 1-Year Rainfall=2.80"

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Summary for Subcatchment DA #1B: Drainage Area #1B

Runoff = 0.60 cfs @ 12.41 hrs, Volume= 0.106 af, Depth= 0.32"
Routed to Link POI #1 : POI #1

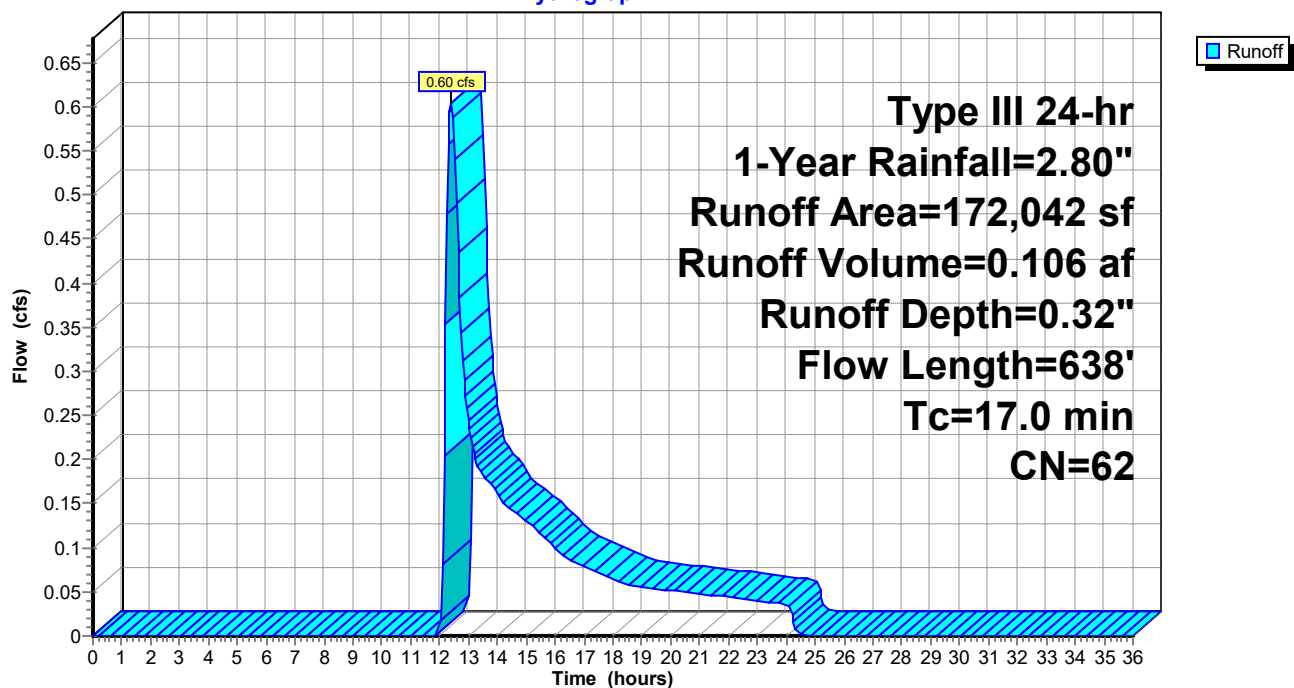
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-Year Rainfall=2.80"

	Area (sf)	CN	Description
	161,751	61	>75% Grass cover, Good, HSG B
*	3,911	61	Emergency Access Road (Perv.), Good, HSG B
*	6,380	98	Emergency Access Road (Imp.), HSG B
	172,042	62	Weighted Average
	165,662		96.29% Pervious Area
	6,380		3.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.2	150	0.1200	0.21		Sheet Flow, Grass: Dense n= 0.240 P2= 2.00"
4.8	488	0.0578	1.68		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
17.0	638	Total			

Subcatchment DA #1B: Drainage Area #1B

Hydrograph



2025.07.03 - Proposed Conditions*Type III 24-hr 1-Year Rainfall=2.80"*

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Hydrograph for Subcatchment DA #1B: Drainage Area #1B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	2.80	0.32	0.00
0.50	0.01	0.00	0.00	26.50	2.80	0.32	0.00
1.00	0.03	0.00	0.00	27.00	2.80	0.32	0.00
1.50	0.04	0.00	0.00	27.50	2.80	0.32	0.00
2.00	0.06	0.00	0.00	28.00	2.80	0.32	0.00
2.50	0.07	0.00	0.00	28.50	2.80	0.32	0.00
3.00	0.09	0.00	0.00	29.00	2.80	0.32	0.00
3.50	0.10	0.00	0.00	29.50	2.80	0.32	0.00
4.00	0.12	0.00	0.00	30.00	2.80	0.32	0.00
4.50	0.14	0.00	0.00	30.50	2.80	0.32	0.00
5.00	0.16	0.00	0.00	31.00	2.80	0.32	0.00
5.50	0.18	0.00	0.00	31.50	2.80	0.32	0.00
6.00	0.20	0.00	0.00	32.00	2.80	0.32	0.00
6.50	0.23	0.00	0.00	32.50	2.80	0.32	0.00
7.00	0.25	0.00	0.00	33.00	2.80	0.32	0.00
7.50	0.28	0.00	0.00	33.50	2.80	0.32	0.00
8.00	0.32	0.00	0.00	34.00	2.80	0.32	0.00
8.50	0.36	0.00	0.00	34.50	2.80	0.32	0.00
9.00	0.41	0.00	0.00	35.00	2.80	0.32	0.00
9.50	0.46	0.00	0.00	35.50	2.80	0.32	0.00
10.00	0.53	0.00	0.00	36.00	2.80	0.32	0.00
10.50	0.61	0.00	0.00				
11.00	0.70	0.00	0.00				
11.50	0.83	0.00	0.00				
12.00	1.40	0.00	0.00				
12.50	1.97	0.08	0.58				
13.00	2.10	0.11	0.25				
13.50	2.19	0.13	0.18				
14.00	2.27	0.15	0.16				
14.50	2.34	0.17	0.14				
15.00	2.39	0.19	0.13				
15.50	2.44	0.20	0.12				
16.00	2.48	0.21	0.10				
16.50	2.52	0.22	0.09				
17.00	2.55	0.23	0.08				
17.50	2.57	0.24	0.07				
18.00	2.60	0.25	0.06				
18.50	2.62	0.26	0.06				
19.00	2.64	0.27	0.06				
19.50	2.66	0.27	0.05				
20.00	2.68	0.28	0.05				
20.50	2.70	0.28	0.05				
21.00	2.71	0.29	0.05				
21.50	2.73	0.30	0.05				
22.00	2.75	0.30	0.04				
22.50	2.76	0.31	0.04				
23.00	2.77	0.31	0.04				
23.50	2.79	0.32	0.04				
24.00	2.80	0.32	0.04				
24.50	2.80	0.32	0.00				
25.00	2.80	0.32	0.00				
25.50	2.80	0.32	0.00				

2025.07.03 - Proposed Conditions

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Type III 24-hr 1-Year Rainfall=2.80"

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Summary for Subcatchment DA #1C: Drainage Area #1C

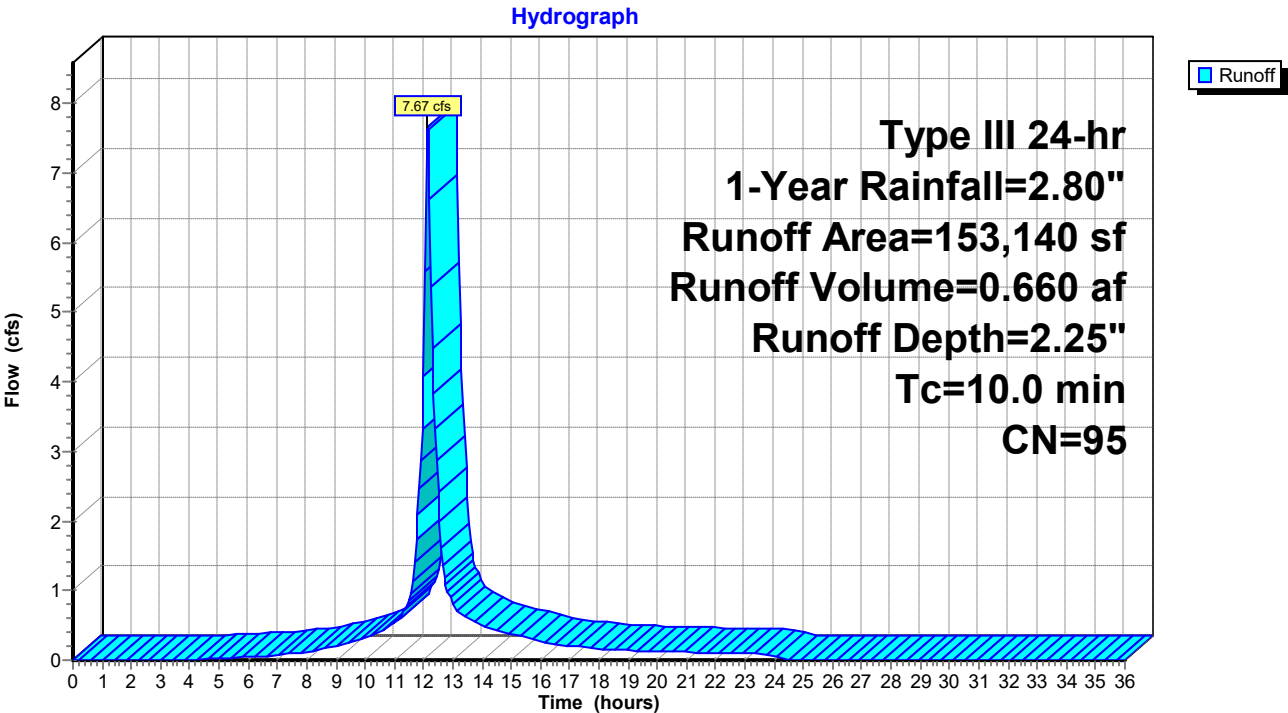
Runoff = 7.67 cfs @ 12.14 hrs, Volume= 0.660 af, Depth= 2.25"
Routed to Pond SMS #1C : SMS #1C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-Year Rainfall=2.80"

Area (sf)	CN	Description
8,883	61	>75% Grass cover, Good, HSG B
* 1,528	61	Emergency Access Road (Perv.), Good, HSG B
* 100,238	98	Building/Roof, HSG B
* 36,917	98	Pavement, HSG B
* 3,080	98	Sidewalk, HSG B
2,494	98	Emergency Access Road (Imp.), HSG B
153,140	95	Weighted Average
10,411		6.80% Pervious Area
142,729		93.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, 10 Direct Minimum

Subcatchment DA #1C: Drainage Area #1C



2025.07.03 - Proposed Conditions*Type III 24-hr 1-Year Rainfall=2.80"*

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Hydrograph for Subcatchment DA #1C: Drainage Area #1C

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	2.80	2.25	0.00
0.50	0.01	0.00	0.00	26.50	2.80	2.25	0.00
1.00	0.03	0.00	0.00	27.00	2.80	2.25	0.00
1.50	0.04	0.00	0.00	27.50	2.80	2.25	0.00
2.00	0.06	0.00	0.00	28.00	2.80	2.25	0.00
2.50	0.07	0.00	0.00	28.50	2.80	2.25	0.00
3.00	0.09	0.00	0.00	29.00	2.80	2.25	0.00
3.50	0.10	0.00	0.00	29.50	2.80	2.25	0.00
4.00	0.12	0.00	0.00	30.00	2.80	2.25	0.00
4.50	0.14	0.00	0.01	30.50	2.80	2.25	0.00
5.00	0.16	0.00	0.02	31.00	2.80	2.25	0.00
5.50	0.18	0.01	0.03	31.50	2.80	2.25	0.00
6.00	0.20	0.01	0.04	32.00	2.80	2.25	0.00
6.50	0.23	0.02	0.06	32.50	2.80	2.25	0.00
7.00	0.25	0.03	0.08	33.00	2.80	2.25	0.00
7.50	0.28	0.05	0.10	33.50	2.80	2.25	0.00
8.00	0.32	0.06	0.12	34.00	2.80	2.25	0.00
8.50	0.36	0.08	0.16	34.50	2.80	2.25	0.00
9.00	0.41	0.11	0.21	35.00	2.80	2.25	0.00
9.50	0.46	0.15	0.26	35.50	2.80	2.25	0.00
10.00	0.53	0.19	0.32	36.00	2.80	2.25	0.00
10.50	0.61	0.24	0.41				
11.00	0.70	0.32	0.53				
11.50	0.83	0.42	0.84				
12.00	1.40	0.92	4.07				
12.50	1.97	1.45	2.42				
13.00	2.10	1.58	0.83				
13.50	2.19	1.67	0.62				
14.00	2.27	1.74	0.50				
14.50	2.34	1.80	0.43				
15.00	2.39	1.86	0.38				
15.50	2.44	1.91	0.32				
16.00	2.48	1.94	0.27				
16.50	2.52	1.98	0.23				
17.00	2.55	2.01	0.21				
17.50	2.57	2.04	0.19				
18.00	2.60	2.06	0.16				
18.50	2.62	2.08	0.15				
19.00	2.64	2.10	0.14				
19.50	2.66	2.12	0.13				
20.00	2.68	2.14	0.13				
20.50	2.70	2.15	0.12				
21.00	2.71	2.17	0.12				
21.50	2.73	2.19	0.11				
22.00	2.75	2.20	0.11				
22.50	2.76	2.22	0.10				
23.00	2.77	2.23	0.09				
23.50	2.79	2.24	0.09				
24.00	2.80	2.25	0.08				
24.50	2.80	2.25	0.00				
25.00	2.80	2.25	0.00				
25.50	2.80	2.25	0.00				

2025.07.03 - Proposed Conditions

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Type III 24-hr 1-Year Rainfall=2.80"

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Summary for Subcatchment DA #2A: Drainage Area #2A

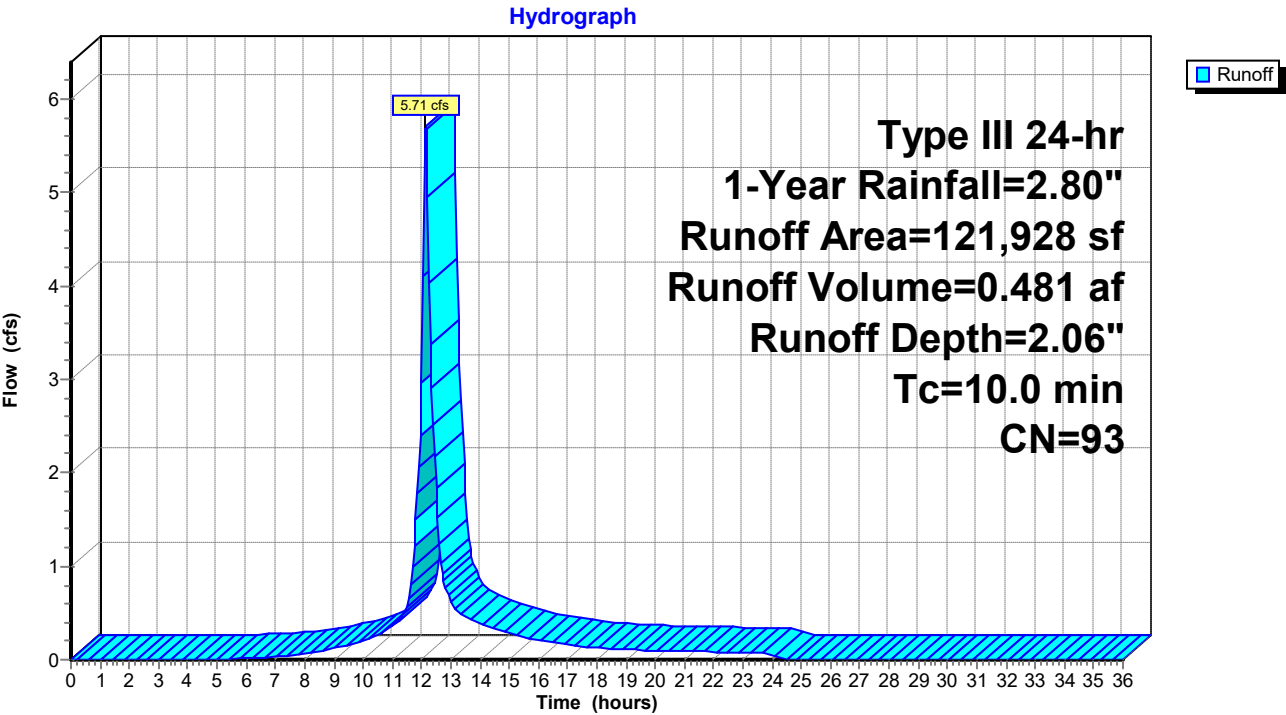
Runoff = 5.71 cfs @ 12.14 hrs, Volume= 0.481 af, Depth= 2.06"
Routed to Pond DB #2 : Drainage Basin #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-Year Rainfall=2.80"

	Area (sf)	CN	Description
*	50,600	98	Building/Roof, HSG B
*	37,828	98	Pavement, HSG B
*	1,562	98	Sidewalk, HSG B
*	3,943	98	Emergency Access Road (Imp.), HSG B
	14,078	61	>75% Grass cover, Good, HSG B
*	2,417	61	Emergency Access Road (Perv.), Good, HSG B
*	11,500	98	Infiltration Basin, HSG B
	121,928	93	Weighted Average
	16,495		13.53% Pervious Area
	105,433		86.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, 10 Minute Minimum

Subcatchment DA #2A: Drainage Area #2A



2025.07.03 - Proposed Conditions*Type III 24-hr 1-Year Rainfall=2.80"*

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Hydrograph for Subcatchment DA #2A: Drainage Area #2A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	2.80	2.06	0.00
0.50	0.01	0.00	0.00	26.50	2.80	2.06	0.00
1.00	0.03	0.00	0.00	27.00	2.80	2.06	0.00
1.50	0.04	0.00	0.00	27.50	2.80	2.06	0.00
2.00	0.06	0.00	0.00	28.00	2.80	2.06	0.00
2.50	0.07	0.00	0.00	28.50	2.80	2.06	0.00
3.00	0.09	0.00	0.00	29.00	2.80	2.06	0.00
3.50	0.10	0.00	0.00	29.50	2.80	2.06	0.00
4.00	0.12	0.00	0.00	30.00	2.80	2.06	0.00
4.50	0.14	0.00	0.00	30.50	2.80	2.06	0.00
5.00	0.16	0.00	0.00	31.00	2.80	2.06	0.00
5.50	0.18	0.00	0.01	31.50	2.80	2.06	0.00
6.00	0.20	0.00	0.01	32.00	2.80	2.06	0.00
6.50	0.23	0.01	0.02	32.50	2.80	2.06	0.00
7.00	0.25	0.01	0.03	33.00	2.80	2.06	0.00
7.50	0.28	0.02	0.05	33.50	2.80	2.06	0.00
8.00	0.32	0.03	0.06	34.00	2.80	2.06	0.00
8.50	0.36	0.05	0.09	34.50	2.80	2.06	0.00
9.00	0.41	0.07	0.12	35.00	2.80	2.06	0.00
9.50	0.46	0.09	0.16	35.50	2.80	2.06	0.00
10.00	0.53	0.13	0.20	36.00	2.80	2.06	0.00
10.50	0.61	0.17	0.27				
11.00	0.70	0.23	0.36				
11.50	0.83	0.33	0.59				
12.00	1.40	0.78	2.97				
12.50	1.97	1.28	1.85				
13.00	2.10	1.41	0.63				
13.50	2.19	1.49	0.47				
14.00	2.27	1.56	0.39				
14.50	2.34	1.63	0.33				
15.00	2.39	1.68	0.29				
15.50	2.44	1.72	0.25				
16.00	2.48	1.76	0.21				
16.50	2.52	1.79	0.18				
17.00	2.55	1.82	0.16				
17.50	2.57	1.85	0.14				
18.00	2.60	1.87	0.13				
18.50	2.62	1.89	0.12				
19.00	2.64	1.91	0.11				
19.50	2.66	1.93	0.10				
20.00	2.68	1.95	0.10				
20.50	2.70	1.97	0.09				
21.00	2.71	1.98	0.09				
21.50	2.73	2.00	0.09				
22.00	2.75	2.01	0.08				
22.50	2.76	2.03	0.08				
23.00	2.77	2.04	0.07				
23.50	2.79	2.05	0.07				
24.00	2.80	2.06	0.07				
24.50	2.80	2.06	0.00				
25.00	2.80	2.06	0.00				
25.50	2.80	2.06	0.00				

2025.07.03 - Proposed Conditions

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Type III 24-hr 1-Year Rainfall=2.80"

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Summary for Subcatchment DA #2B: Drainage Area #2B

Runoff = 0.66 cfs @ 12.43 hrs, Volume= 0.118 af, Depth= 0.32"
Routed to Link POI #2 : POI #2

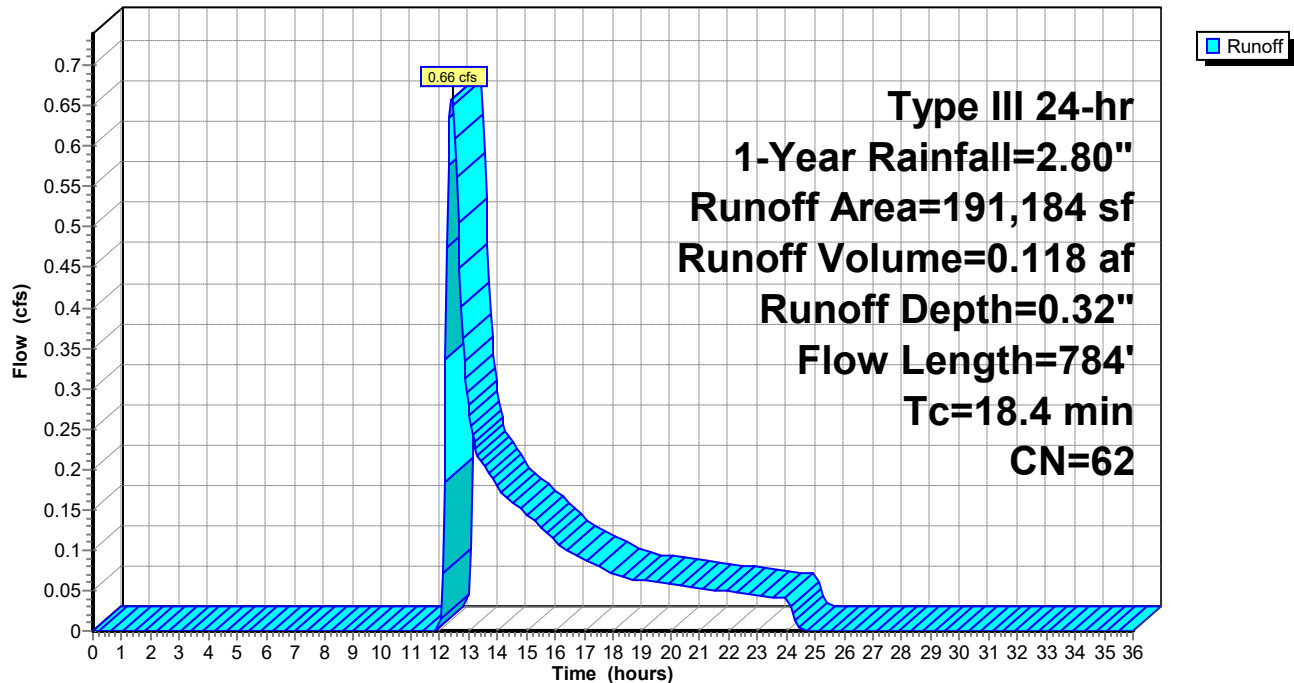
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-Year Rainfall=2.80"

	Area (sf)	CN	Description
	185,909	61	>75% Grass cover, Good, HSG B
*	2,004	61	Emergency Access Road (Perv.), Good, HSG B
*	3,271	98	Emergency Access Road (Imp.), HSG B
	191,184	62	Weighted Average
	187,913		98.29% Pervious Area
	3,271		1.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	150	0.0667	0.16		Sheet Flow, Grass: Dense n= 0.240 P2= 2.00"
3.0	634	0.2524	3.52		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
18.4	784	Total			

Subcatchment DA #2B: Drainage Area #2B

Hydrograph



2025.07.03 - Proposed Conditions*Type III 24-hr 1-Year Rainfall=2.80"*

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Hydrograph for Subcatchment DA #2B: Drainage Area #2B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	2.80	0.32	0.00
0.50	0.01	0.00	0.00	26.50	2.80	0.32	0.00
1.00	0.03	0.00	0.00	27.00	2.80	0.32	0.00
1.50	0.04	0.00	0.00	27.50	2.80	0.32	0.00
2.00	0.06	0.00	0.00	28.00	2.80	0.32	0.00
2.50	0.07	0.00	0.00	28.50	2.80	0.32	0.00
3.00	0.09	0.00	0.00	29.00	2.80	0.32	0.00
3.50	0.10	0.00	0.00	29.50	2.80	0.32	0.00
4.00	0.12	0.00	0.00	30.00	2.80	0.32	0.00
4.50	0.14	0.00	0.00	30.50	2.80	0.32	0.00
5.00	0.16	0.00	0.00	31.00	2.80	0.32	0.00
5.50	0.18	0.00	0.00	31.50	2.80	0.32	0.00
6.00	0.20	0.00	0.00	32.00	2.80	0.32	0.00
6.50	0.23	0.00	0.00	32.50	2.80	0.32	0.00
7.00	0.25	0.00	0.00	33.00	2.80	0.32	0.00
7.50	0.28	0.00	0.00	33.50	2.80	0.32	0.00
8.00	0.32	0.00	0.00	34.00	2.80	0.32	0.00
8.50	0.36	0.00	0.00	34.50	2.80	0.32	0.00
9.00	0.41	0.00	0.00	35.00	2.80	0.32	0.00
9.50	0.46	0.00	0.00	35.50	2.80	0.32	0.00
10.00	0.53	0.00	0.00	36.00	2.80	0.32	0.00
10.50	0.61	0.00	0.00				
11.00	0.70	0.00	0.00				
11.50	0.83	0.00	0.00				
12.00	1.40	0.00	0.00				
12.50	1.97	0.08	0.64				
13.00	2.10	0.11	0.28				
13.50	2.19	0.13	0.21				
14.00	2.27	0.15	0.18				
14.50	2.34	0.17	0.16				
15.00	2.39	0.19	0.15				
15.50	2.44	0.20	0.13				
16.00	2.48	0.21	0.11				
16.50	2.52	0.22	0.10				
17.00	2.55	0.23	0.09				
17.50	2.57	0.24	0.08				
18.00	2.60	0.25	0.07				
18.50	2.62	0.26	0.07				
19.00	2.64	0.27	0.06				
19.50	2.66	0.27	0.06				
20.00	2.68	0.28	0.06				
20.50	2.70	0.28	0.06				
21.00	2.71	0.29	0.05				
21.50	2.73	0.30	0.05				
22.00	2.75	0.30	0.05				
22.50	2.76	0.31	0.05				
23.00	2.77	0.31	0.04				
23.50	2.79	0.32	0.04				
24.00	2.80	0.32	0.04				
24.50	2.80	0.32	0.00				
25.00	2.80	0.32	0.00				
25.50	2.80	0.32	0.00				

2025.07.03 - Proposed Conditions

Type III 24-hr 1-Year Rainfall=2.80"

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Summary for Pond DB #2: Drainage Basin #2

Inflow Area = 2.799 ac, 86.47% Impervious, Inflow Depth = 2.06" for 1-Year event
 Inflow = 5.71 cfs @ 12.14 hrs, Volume= 0.481 af
 Outflow = 2.28 cfs @ 12.44 hrs, Volume= 0.481 af, Atten= 60%, Lag= 17.7 min
 Discarded = 1.94 cfs @ 12.44 hrs, Volume= 0.467 af
 Primary = 0.34 cfs @ 12.44 hrs, Volume= 0.014 af
 Routed to Link POI #2 : POI #2

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs / 3
 Peak Elev= 485.61' @ 12.44 hrs Surf.Area= 6,727 sf Storage= 3,751 cf

Plug-Flow detention time= 10.5 min calculated for 0.480 af (100% of inflow)
 Center-of-Mass det. time= 10.2 min (811.3 - 801.1)

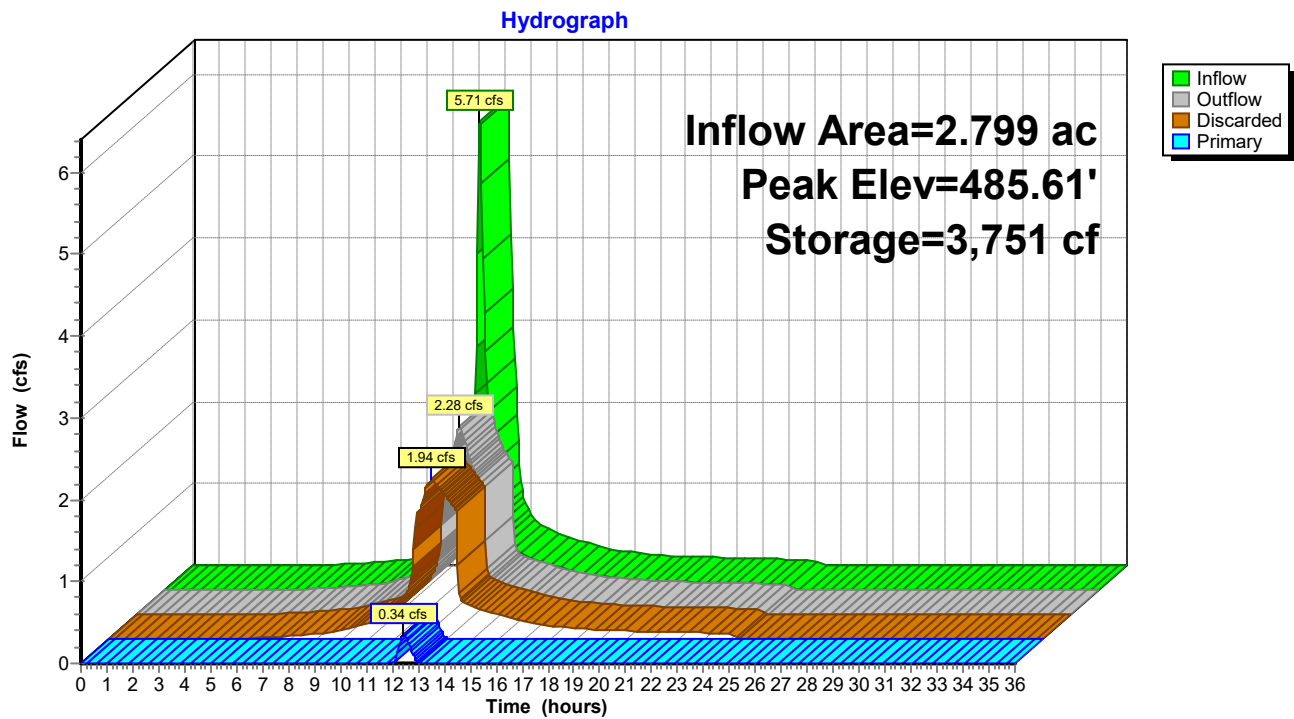
Volume	Invert	Avail.Storage	Storage Description
#1	485.00'	25,500 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
485.00	5,500	0	0
486.00	7,500	6,500	6,500
487.00	9,500	8,500	15,000
488.00	11,500	10,500	25,500

Device	Routing	Invert	Outlet Devices
#1	Discarded	485.00'	12.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 470.00'
#2	Primary	485.26'	7.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	486.79'	7.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

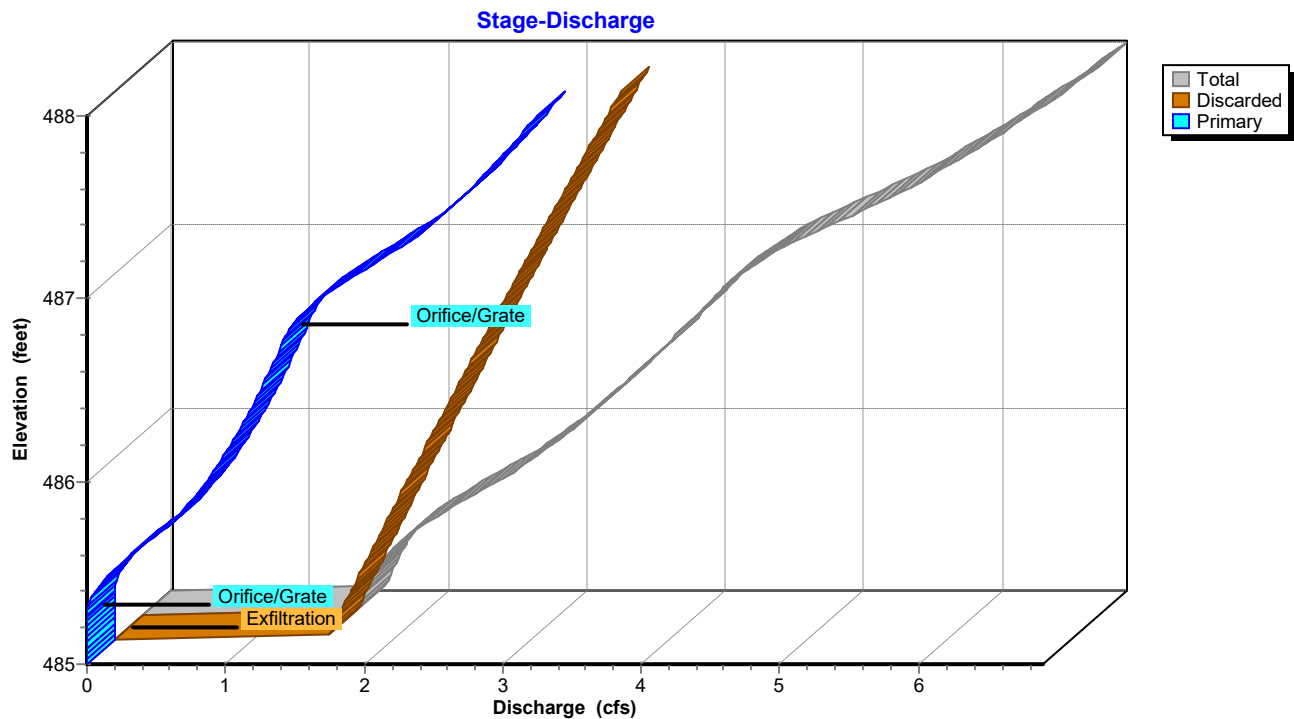
Discarded OutFlow Max=1.94 cfs @ 12.44 hrs HW=485.61' (Free Discharge)
 ↑ **1=Exfiltration** (Controls 1.94 cfs)

Primary OutFlow Max=0.34 cfs @ 12.44 hrs HW=485.61' (Free Discharge)
 ↑ **2=Orifice/Grate** (Orifice Controls 0.34 cfs @ 2.02 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

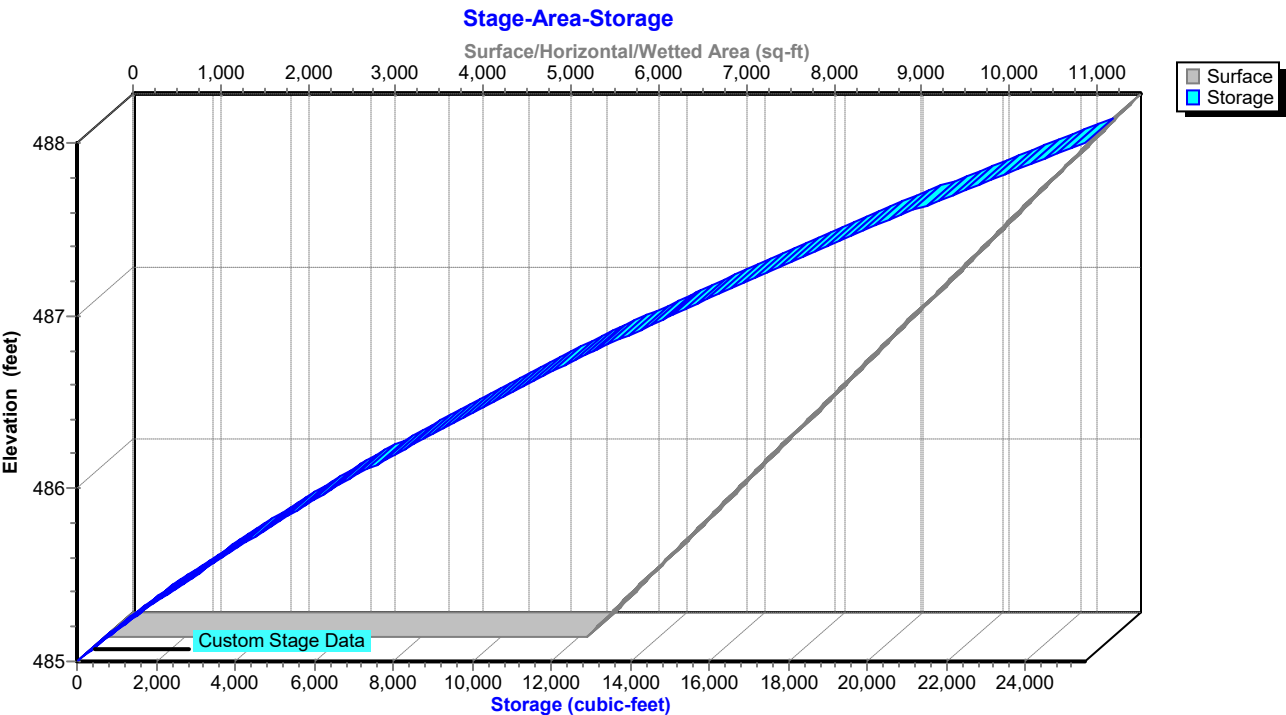
Pond DB #2: Drainage Basin #2



Pond DB #2: Drainage Basin #2



Pond DB #2: Drainage Basin #2



2025.07.03 - Proposed Conditions*Type III 24-hr 1-Year Rainfall=2.80"*

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Hydrograph for Pond DB #2: Drainage Basin #2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	485.00	0.00	0.00	0.00
1.00	0.00	0	485.00	0.00	0.00	0.00
2.00	0.00	0	485.00	0.00	0.00	0.00
3.00	0.00	0	485.00	0.00	0.00	0.00
4.00	0.00	0	485.00	0.00	0.00	0.00
5.00	0.00	0	485.00	0.00	0.00	0.00
6.00	0.01	1	485.00	0.01	0.01	0.00
7.00	0.03	4	485.00	0.03	0.03	0.00
8.00	0.06	7	485.00	0.06	0.06	0.00
9.00	0.12	13	485.00	0.12	0.12	0.00
10.00	0.20	21	485.00	0.20	0.20	0.00
11.00	0.36	38	485.01	0.35	0.35	0.00
12.00	2.97	561	485.10	1.59	1.59	0.00
13.00	0.63	1,842	485.32	1.75	1.74	0.01
14.00	0.39	42	485.01	0.39	0.39	0.00
15.00	0.29	31	485.01	0.29	0.29	0.00
16.00	0.21	22	485.00	0.21	0.21	0.00
17.00	0.16	18	485.00	0.16	0.16	0.00
18.00	0.13	14	485.00	0.13	0.13	0.00
19.00	0.11	12	485.00	0.11	0.11	0.00
20.00	0.10	11	485.00	0.10	0.10	0.00
21.00	0.09	10	485.00	0.09	0.09	0.00
22.00	0.08	9	485.00	0.08	0.08	0.00
23.00	0.07	8	485.00	0.07	0.07	0.00
24.00	0.07	7	485.00	0.07	0.07	0.00
25.00	0.00	0	485.00	0.00	0.00	0.00
26.00	0.00	0	485.00	0.00	0.00	0.00
27.00	0.00	0	485.00	0.00	0.00	0.00
28.00	0.00	0	485.00	0.00	0.00	0.00
29.00	0.00	0	485.00	0.00	0.00	0.00
30.00	0.00	0	485.00	0.00	0.00	0.00
31.00	0.00	0	485.00	0.00	0.00	0.00
32.00	0.00	0	485.00	0.00	0.00	0.00
33.00	0.00	0	485.00	0.00	0.00	0.00
34.00	0.00	0	485.00	0.00	0.00	0.00
35.00	0.00	0	485.00	0.00	0.00	0.00
36.00	0.00	0	485.00	0.00	0.00	0.00

2025.07.03 - Proposed Conditions*Type III 24-hr 1-Year Rainfall=2.80"*

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Stage-Discharge for Pond DB #2: Drainage Basin #2

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
485.00	0.00	0.00	0.00	487.60	6.12	3.35	2.77
485.05	1.56	1.56	0.00	487.65	6.23	3.39	2.83
485.10	1.59	1.59	0.00	487.70	6.33	3.43	2.90
485.15	1.63	1.63	0.00	487.75	6.43	3.47	2.96
485.20	1.66	1.66	0.00	487.80	6.52	3.50	3.02
485.25	1.69	1.69	0.00	487.85	6.62	3.54	3.08
485.30	1.73	1.73	0.01	487.90	6.72	3.58	3.14
485.35	1.79	1.76	0.03	487.95	6.81	3.62	3.19
485.40	1.86	1.79	0.06	488.00	6.90	3.65	3.25
485.45	1.94	1.83	0.11				
485.50	2.03	1.86	0.17				
485.55	2.14	1.89	0.24				
485.60	2.25	1.93	0.32				
485.65	2.37	1.96	0.40				
485.70	2.48	2.00	0.49				
485.75	2.60	2.03	0.57				
485.80	2.71	2.06	0.65				
485.85	2.80	2.10	0.70				
485.90	2.89	2.13	0.76				
485.95	2.98	2.17	0.81				
486.00	3.06	2.20	0.86				
486.05	3.15	2.24	0.91				
486.10	3.23	2.27	0.95				
486.15	3.30	2.31	1.00				
486.20	3.38	2.34	1.04				
486.25	3.45	2.38	1.08				
486.30	3.53	2.41	1.11				
486.35	3.60	2.45	1.15				
486.40	3.67	2.48	1.19				
486.45	3.74	2.52	1.22				
486.50	3.81	2.55	1.25				
486.55	3.87	2.59	1.29				
486.60	3.94	2.62	1.32				
486.65	4.01	2.66	1.35				
486.70	4.07	2.70	1.38				
486.75	4.14	2.73	1.41				
486.80	4.21	2.77	1.44				
486.85	4.28	2.80	1.48				
486.90	4.37	2.84	1.53				
486.95	4.48	2.88	1.60				
487.00	4.60	2.91	1.68				
487.05	4.72	2.95	1.78				
487.10	4.86	2.99	1.87				
487.15	5.00	3.02	1.98				
487.20	5.15	3.06	2.09				
487.25	5.29	3.10	2.20				
487.30	5.44	3.13	2.30				
487.35	5.57	3.17	2.40				
487.40	5.68	3.21	2.48				
487.45	5.80	3.24	2.55				
487.50	5.91	3.28	2.63				
487.55	6.02	3.32	2.70				

2025.07.03 - Proposed Conditions*Type III 24-hr 1-Year Rainfall=2.80"*

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Stage-Area-Storage for Pond DB #2: Drainage Basin #2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
485.00	5,500	0	487.60	10,700	21,060
485.05	5,600	278	487.65	10,800	21,597
485.10	5,700	560	487.70	10,900	22,140
485.15	5,800	847	487.75	11,000	22,688
485.20	5,900	1,140	487.80	11,100	23,240
485.25	6,000	1,438	487.85	11,200	23,798
485.30	6,100	1,740	487.90	11,300	24,360
485.35	6,200	2,048	487.95	11,400	24,927
485.40	6,300	2,360	488.00	11,500	25,500
485.45	6,400	2,677			
485.50	6,500	3,000			
485.55	6,600	3,328			
485.60	6,700	3,660			
485.65	6,800	3,997			
485.70	6,900	4,340			
485.75	7,000	4,688			
485.80	7,100	5,040			
485.85	7,200	5,398			
485.90	7,300	5,760			
485.95	7,400	6,127			
486.00	7,500	6,500			
486.05	7,600	6,878			
486.10	7,700	7,260			
486.15	7,800	7,647			
486.20	7,900	8,040			
486.25	8,000	8,438			
486.30	8,100	8,840			
486.35	8,200	9,248			
486.40	8,300	9,660			
486.45	8,400	10,077			
486.50	8,500	10,500			
486.55	8,600	10,928			
486.60	8,700	11,360			
486.65	8,800	11,797			
486.70	8,900	12,240			
486.75	9,000	12,688			
486.80	9,100	13,140			
486.85	9,200	13,598			
486.90	9,300	14,060			
486.95	9,400	14,527			
487.00	9,500	15,000			
487.05	9,600	15,478			
487.10	9,700	15,960			
487.15	9,800	16,447			
487.20	9,900	16,940			
487.25	10,000	17,438			
487.30	10,100	17,940			
487.35	10,200	18,448			
487.40	10,300	18,960			
487.45	10,400	19,477			
487.50	10,500	20,000			
487.55	10,600	20,528			

2025.07.03 - Proposed Conditions

Type III 24-hr 1-Year Rainfall=2.80"

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Summary for Pond SMS #1A: SMS #1A

Inflow Area = 3.795 ac, 92.16% Impervious, Inflow Depth = 2.25" for 1-Year event
 Inflow = 8.27 cfs @ 12.14 hrs, Volume= 0.713 af
 Outflow = 2.64 cfs @ 12.50 hrs, Volume= 0.713 af, Atten= 68%, Lag= 21.6 min
 Discarded = 2.14 cfs @ 12.50 hrs, Volume= 0.685 af
 Primary = 0.50 cfs @ 12.50 hrs, Volume= 0.028 af
 Routed to Link POI #1 : POI #1

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
 Peak Elev= 493.14' @ 12.50 hrs Surf.Area= 0.172 ac Storage= 0.148 af

Plug-Flow detention time= 14.4 min calculated for 0.713 af (100% of inflow)
 Center-of-Mass det. time= 14.3 min (803.2 - 788.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	491.75'	0.270 af	36.83'W x 203.69'L x 6.75'H Field A 1.163 af Overall - 0.486 af Embedded = 0.676 af x 40.0% Voids
#2A	492.50'	0.486 af	ADS_StormTech MC-4500 b +Cap x 196 Inside #1 Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap 196 Chambers in 4 Rows Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf
		0.757 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	491.75'	12.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 440.00'
#2	Primary	492.53'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	492.95'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	493.59'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Primary	494.58'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#6	Primary	495.75'	8.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=2.14 cfs @ 12.50 hrs HW=493.14' (Free Discharge)↑ **1=Exfiltration** (Controls 2.14 cfs)**Primary OutFlow** Max=0.50 cfs @ 12.50 hrs HW=493.14' (Free Discharge)

↑ **2=Orifice/Grate** (Orifice Controls 0.41 cfs @ 3.04 fps)
 — **3=Orifice/Grate** (Orifice Controls 0.09 cfs @ 1.48 fps)
 — **4=Orifice/Grate** (Controls 0.00 cfs)
 — **5=Orifice/Grate** (Controls 0.00 cfs)
 — **6=Orifice/Grate** (Controls 0.00 cfs)

2025.07.03 - Proposed Conditions

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Type III 24-hr 1-Year Rainfall=2.80"

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Pond SMS #1A: SMS #1A - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-4500 b +Cap (ADS StormTech® MC-4500 with cap volume)

Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf

Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap

Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf

100.0" Wide + 6.0" Spacing = 106.0" C-C Row Spacing

49 Chambers/Row x 4.02' Long +2.73' Cap Length x 2 = 202.69' Row Length +6.0" End Stone x 2 =
203.69' Base Length

4 Rows x 100.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 36.83' Base Width

9.0" Stone Base + 60.0" Chamber Height + 12.0" Stone Cover = 6.75' Field Height

196 Chambers x 106.5 cf + 39.5 cf Cap Volume x 2 x 4 Rows = 21,188.1 cf Chamber Storage

50,642.8 cf Field - 21,188.1 cf Chambers = 29,454.7 cf Stone x 40.0% Voids = 11,781.9 cf Stone Storage

Chamber Storage + Stone Storage = 32,970.0 cf = 0.757 af

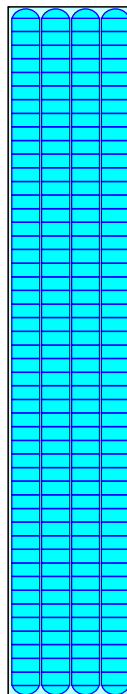
Overall Storage Efficiency = 65.1%

Overall System Size = 203.69' x 36.83' x 6.75'

196 Chambers

1,875.7 cy Field

1,090.9 cy Stone



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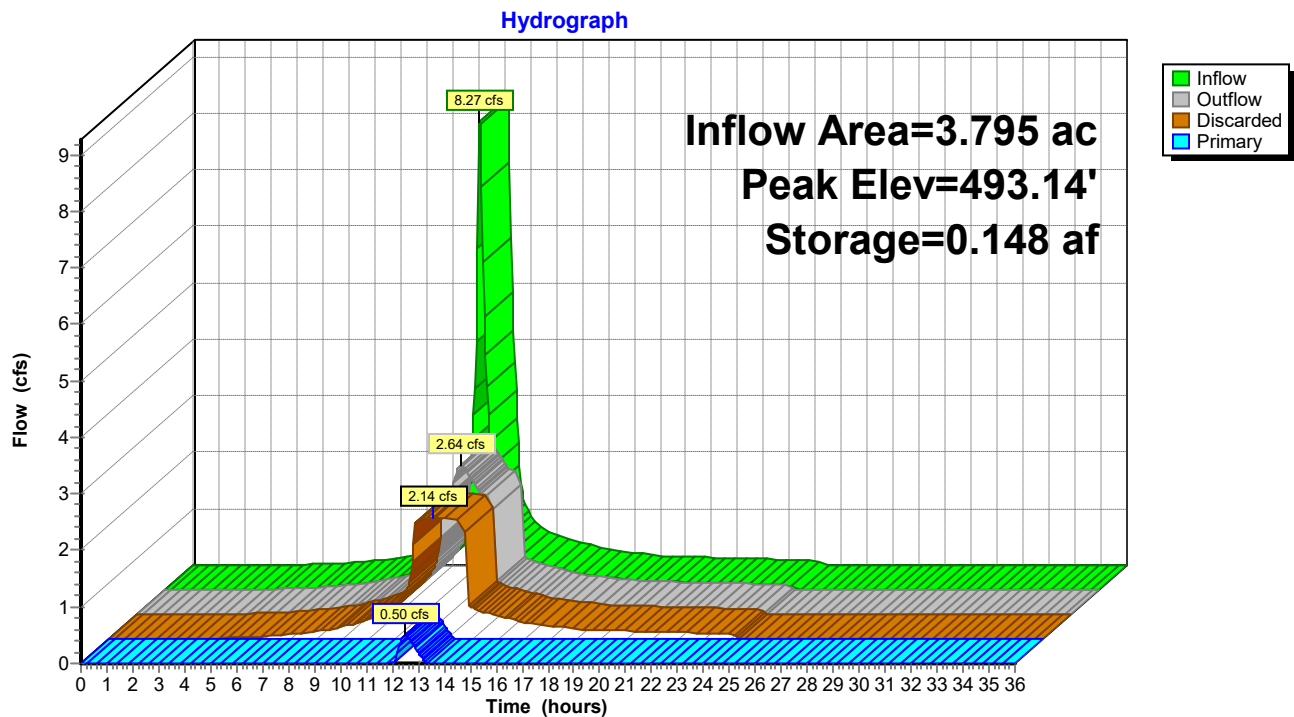
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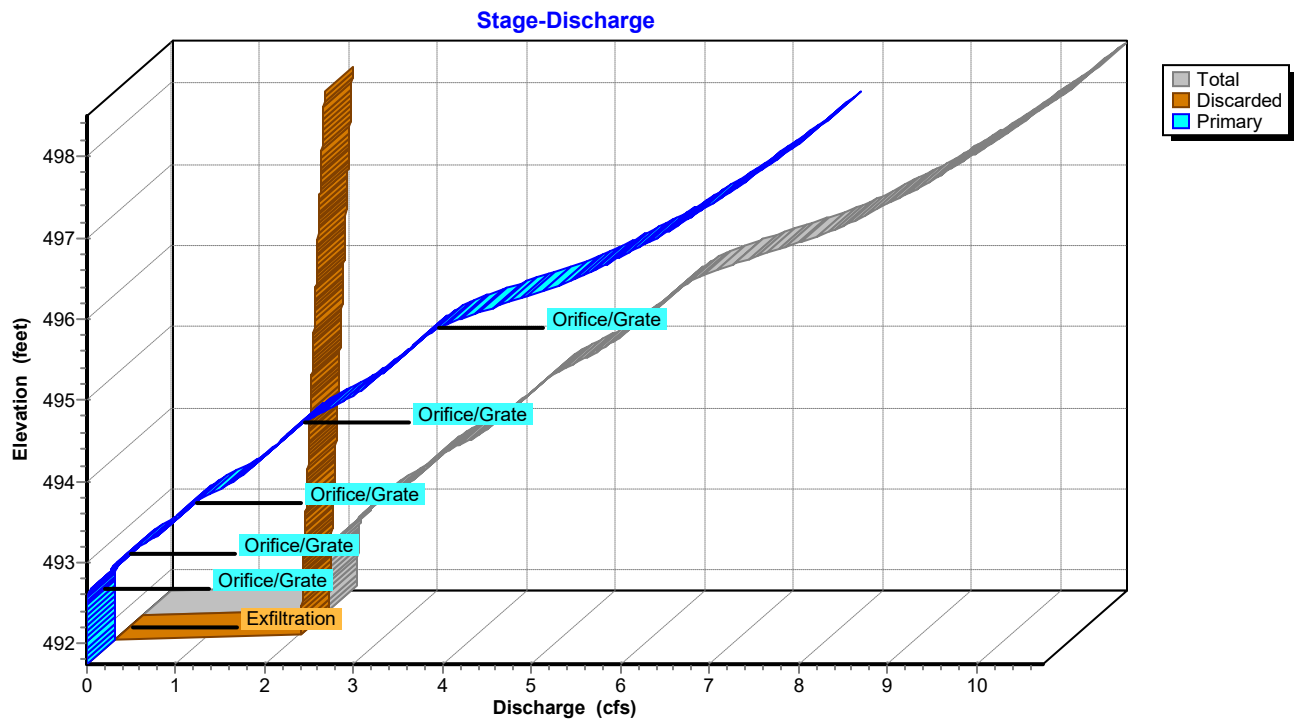
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Pond SMS #1A: SMS #1A



Pond SMS #1A: SMS #1A



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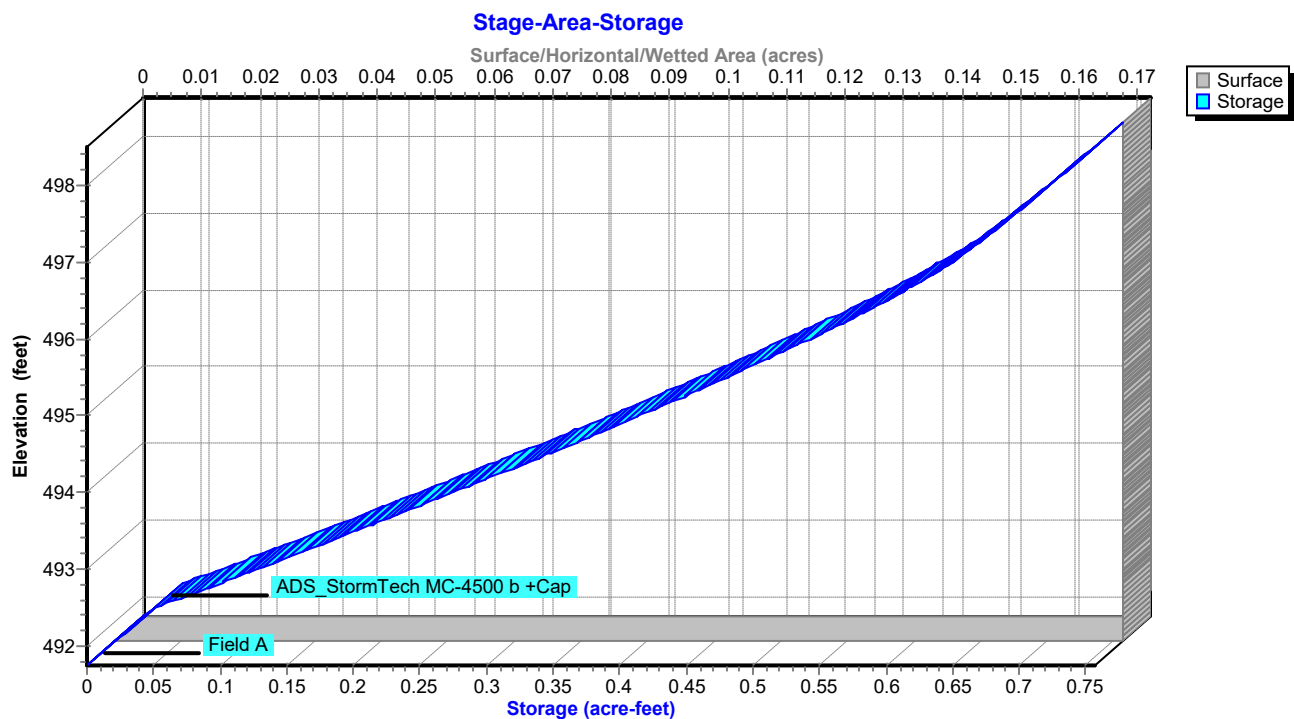
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Type III 24-hr 1-Year Rainfall=2.80"

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Pond SMS #1A: SMS #1A



2025.07.03 - Proposed Conditions*Type III 24-hr 1-Year Rainfall=2.80"*

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Hydrograph for Pond SMS #1A: SMS #1A

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0.000	491.75	0.00	0.00	0.00
1.00	0.00	0.000	491.75	0.00	0.00	0.00
2.00	0.00	0.000	491.75	0.00	0.00	0.00
3.00	0.00	0.000	491.75	0.00	0.00	0.00
4.00	0.00	0.000	491.75	0.00	0.00	0.00
5.00	0.02	0.000	491.75	0.02	0.02	0.00
6.00	0.05	0.000	491.75	0.04	0.04	0.00
7.00	0.08	0.000	491.75	0.08	0.08	0.00
8.00	0.13	0.000	491.75	0.13	0.13	0.00
9.00	0.22	0.000	491.76	0.22	0.22	0.00
10.00	0.34	0.001	491.76	0.34	0.34	0.00
11.00	0.57	0.001	491.77	0.56	0.56	0.00
12.00	4.40	0.023	492.08	2.10	2.10	0.00
13.00	0.89	0.101	492.83	2.32	2.13	0.19
14.00	0.54	0.001	491.77	0.55	0.55	0.00
15.00	0.41	0.001	491.76	0.41	0.41	0.00
16.00	0.29	0.001	491.76	0.29	0.29	0.00
17.00	0.23	0.001	491.76	0.23	0.23	0.00
18.00	0.17	0.000	491.76	0.18	0.18	0.00
19.00	0.15	0.000	491.75	0.15	0.15	0.00
20.00	0.14	0.000	491.75	0.14	0.14	0.00
21.00	0.13	0.000	491.75	0.13	0.13	0.00
22.00	0.11	0.000	491.75	0.11	0.11	0.00
23.00	0.10	0.000	491.75	0.10	0.10	0.00
24.00	0.09	0.000	491.75	0.09	0.09	0.00
25.00	0.00	0.000	491.75	0.00	0.00	0.00
26.00	0.00	0.000	491.75	0.00	0.00	0.00
27.00	0.00	0.000	491.75	0.00	0.00	0.00
28.00	0.00	0.000	491.75	0.00	0.00	0.00
29.00	0.00	0.000	491.75	0.00	0.00	0.00
30.00	0.00	0.000	491.75	0.00	0.00	0.00
31.00	0.00	0.000	491.75	0.00	0.00	0.00
32.00	0.00	0.000	491.75	0.00	0.00	0.00
33.00	0.00	0.000	491.75	0.00	0.00	0.00
34.00	0.00	0.000	491.75	0.00	0.00	0.00
35.00	0.00	0.000	491.75	0.00	0.00	0.00
36.00	0.00	0.000	491.75	0.00	0.00	0.00

2025.07.03 - Proposed Conditions

Type III 24-hr 1-Year Rainfall=2.80"

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Stage-Discharge for Pond SMS #1A: SMS #1A

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
491.75	0.00	0.00	0.00	496.95	8.61	2.29	6.32
491.85	2.09	2.09	0.00	497.05	8.78	2.30	6.48
491.95	2.09	2.09	0.00	497.15	8.94	2.30	6.64
492.05	2.10	2.10	0.00	497.25	9.09	2.31	6.79
492.15	2.10	2.10	0.00	497.35	9.24	2.31	6.93
492.25	2.10	2.10	0.00	497.45	9.39	2.31	7.08
492.35	2.11	2.11	0.00	497.55	9.53	2.32	7.21
492.45	2.11	2.11	0.00	497.65	9.67	2.32	7.35
492.55	2.12	2.12	0.00	497.75	9.81	2.33	7.48
492.65	2.16	2.12	0.04	497.85	9.94	2.33	7.61
492.75	2.24	2.12	0.12	497.95	10.07	2.33	7.74
492.85	2.34	2.13	0.22	498.05	10.20	2.34	7.86
492.95	2.43	2.13	0.30	498.15	10.33	2.34	7.98
493.05	2.53	2.14	0.39	498.25	10.45	2.35	8.10
493.15	2.66	2.14	0.52	498.35	10.57	2.35	8.22
493.25	2.81	2.14	0.67	498.45	10.69	2.35	8.34
493.35	2.95	2.15	0.80				
493.45	3.06	2.15	0.91				
493.55	3.16	2.16	1.00				
493.65	3.26	2.16	1.10				
493.75	3.40	2.16	1.23				
493.85	3.56	2.17	1.39				
493.95	3.74	2.17	1.56				
494.05	3.88	2.18	1.70				
494.15	4.00	2.18	1.82				
494.25	4.12	2.18	1.93				
494.35	4.23	2.19	2.04				
494.45	4.33	2.19	2.14				
494.55	4.42	2.20	2.23				
494.65	4.53	2.20	2.33				
494.75	4.68	2.20	2.47				
494.85	4.86	2.21	2.65				
494.95	5.04	2.21	2.82				
495.05	5.19	2.22	2.97				
495.15	5.33	2.22	3.10				
495.25	5.45	2.23	3.23				
495.35	5.57	2.23	3.34				
495.45	5.69	2.23	3.45				
495.55	5.80	2.24	3.56				
495.65	5.90	2.24	3.66				
495.75	6.00	2.25	3.76				
495.85	6.14	2.25	3.89				
495.95	6.33	2.25	4.08				
496.05	6.58	2.26	4.32				
496.15	6.85	2.26	4.59				
496.25	7.15	2.27	4.88				
496.35	7.43	2.27	5.16				
496.45	7.66	2.27	5.39				
496.55	7.88	2.28	5.60				
496.65	8.08	2.28	5.80				
496.75	8.26	2.29	5.98				
496.85	8.44	2.29	6.15				

2025.07.03 - Proposed Conditions*Type III 24-hr 1-Year Rainfall=2.80"*

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Stage-Area-Storage for Pond SMS #1A: SMS #1A

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
491.75	0.172	0.000	496.95	0.172	0.646
491.85	0.172	0.007	497.05	0.172	0.654
491.95	0.172	0.014	497.15	0.172	0.662
492.05	0.172	0.021	497.25	0.172	0.670
492.15	0.172	0.028	497.35	0.172	0.677
492.25	0.172	0.034	497.45	0.172	0.685
492.35	0.172	0.041	497.55	0.172	0.691
492.45	0.172	0.048	497.65	0.172	0.698
492.55	0.172	0.059	497.75	0.172	0.705
492.65	0.172	0.074	497.85	0.172	0.712
492.75	0.172	0.090	497.95	0.172	0.719
492.85	0.172	0.105	498.05	0.172	0.726
492.95	0.172	0.120	498.15	0.172	0.733
493.05	0.172	0.135	498.25	0.172	0.740
493.15	0.172	0.150	498.35	0.172	0.747
493.25	0.172	0.165	498.45	0.172	0.753
493.35	0.172	0.180			
493.45	0.172	0.194			
493.55	0.172	0.209			
493.65	0.172	0.224			
493.75	0.172	0.239			
493.85	0.172	0.253			
493.95	0.172	0.268			
494.05	0.172	0.282			
494.15	0.172	0.296			
494.25	0.172	0.311			
494.35	0.172	0.325			
494.45	0.172	0.339			
494.55	0.172	0.353			
494.65	0.172	0.367			
494.75	0.172	0.381			
494.85	0.172	0.395			
494.95	0.172	0.408			
495.05	0.172	0.422			
495.15	0.172	0.435			
495.25	0.172	0.448			
495.35	0.172	0.461			
495.45	0.172	0.474			
495.55	0.172	0.487			
495.65	0.172	0.500			
495.75	0.172	0.512			
495.85	0.172	0.525			
495.95	0.172	0.537			
496.05	0.172	0.549			
496.15	0.172	0.561			
496.25	0.172	0.572			
496.35	0.172	0.584			
496.45	0.172	0.595			
496.55	0.172	0.606			
496.65	0.172	0.616			
496.75	0.172	0.626			
496.85	0.172	0.636			

2025.07.03 - Proposed Conditions

Type III 24-hr 1-Year Rainfall=2.80"

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Summary for Pond SMS #1C: SMS #1C

Inflow Area = 3.516 ac, 93.20% Impervious, Inflow Depth = 2.25" for 1-Year event
 Inflow = 7.67 cfs @ 12.14 hrs, Volume= 0.660 af
 Outflow = 2.48 cfs @ 12.49 hrs, Volume= 0.660 af, Atten= 68%, Lag= 21.4 min
 Discarded = 1.97 cfs @ 12.49 hrs, Volume= 0.633 af
 Primary = 0.51 cfs @ 12.49 hrs, Volume= 0.028 af
 Routed to Link POI #1 : POI #1

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
 Peak Elev= 496.64' @ 12.49 hrs Surf.Area= 0.159 ac Storage= 0.137 af

Plug-Flow detention time= 14.4 min calculated for 0.660 af (100% of inflow)
 Center-of-Mass det. time= 14.3 min (803.2 - 788.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	495.25'	0.249 af	36.83'W x 187.59'L x 6.75'H Field A 1.071 af Overall - 0.447 af Embedded = 0.623 af x 40.0% Voids
#2A	496.00'	0.447 af	ADS_StormTech MC-4500 b +Cap x 180 Inside #1 Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap 180 Chambers in 4 Rows Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf
		0.697 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	495.25'	12.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 440.00'
#2	Primary	496.04'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	496.45'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	497.09'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Primary	498.04'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#6	Primary	501.00'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=1.97 cfs @ 12.49 hrs HW=496.64' (Free Discharge)↑ **1=Exfiltration** (Controls 1.97 cfs)**Primary OutFlow** Max=0.51 cfs @ 12.49 hrs HW=496.64' (Free Discharge)

↑ **2=Orifice/Grate** (Orifice Controls 0.41 cfs @ 3.03 fps)
 — **3=Orifice/Grate** (Orifice Controls 0.09 cfs @ 1.50 fps)
 — **4=Orifice/Grate** (Controls 0.00 cfs)
 — **5=Orifice/Grate** (Controls 0.00 cfs)
 — **6=Orifice/Grate** (Controls 0.00 cfs)

2025.07.03 - Proposed Conditions

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Type III 24-hr 1-Year Rainfall=2.80"

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Pond SMS #1C: SMS #1C - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-4500 b +Cap (ADS StormTech® MC-4500 with cap volume)

Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf

Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap

Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf

100.0" Wide + 6.0" Spacing = 106.0" C-C Row Spacing

45 Chambers/Row x 4.02' Long +2.73' Cap Length x 2 = 186.59' Row Length +6.0" End Stone x 2 =
187.59' Base Length

4 Rows x 100.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 36.83' Base Width

9.0" Stone Base + 60.0" Chamber Height + 12.0" Stone Cover = 6.75' Field Height

180 Chambers x 106.5 cf + 39.5 cf Cap Volume x 2 x 4 Rows = 19,484.3 cf Chamber Storage

46,640.0 cf Field - 19,484.3 cf Chambers = 27,155.7 cf Stone x 40.0% Voids = 10,862.3 cf Stone Storage

Chamber Storage + Stone Storage = 30,346.6 cf = 0.697 af

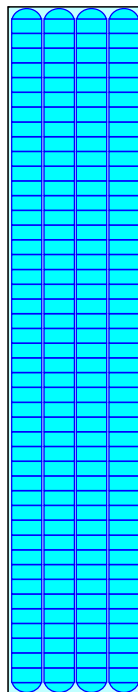
Overall Storage Efficiency = 65.1%

Overall System Size = 187.59' x 36.83' x 6.75'

180 Chambers

1,727.4 cy Field

1,005.8 cy Stone



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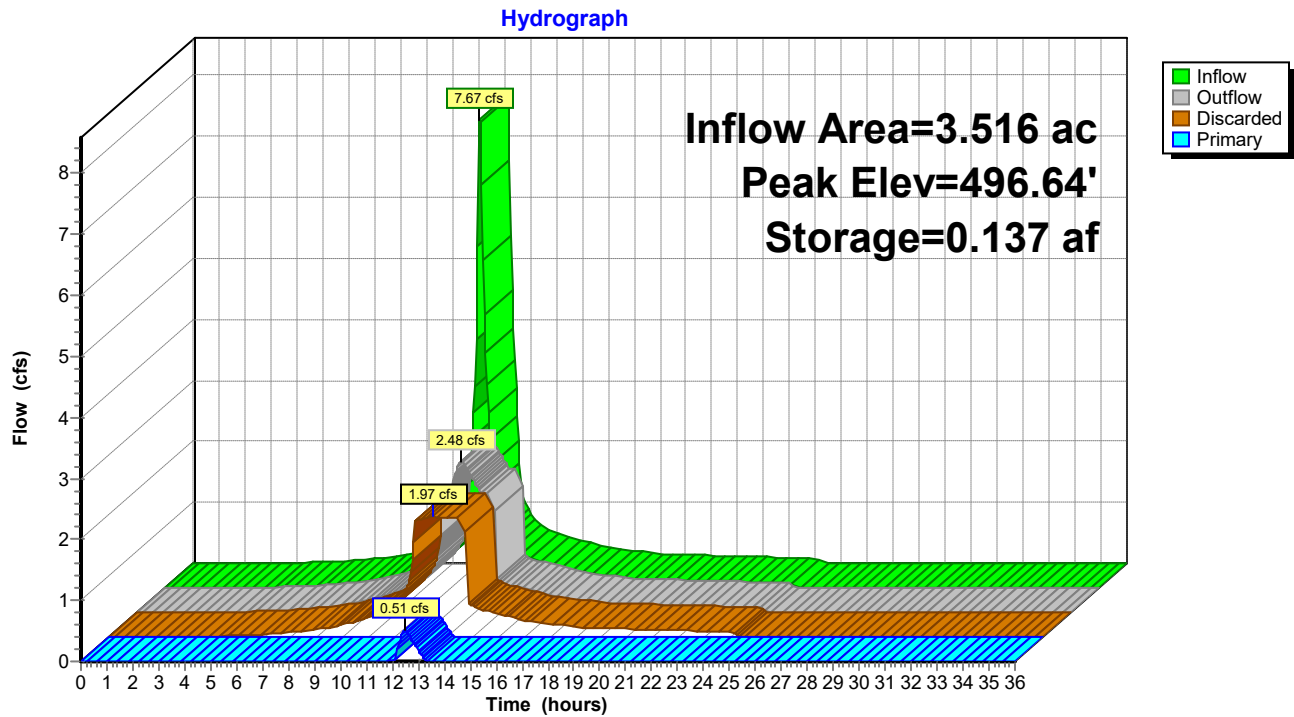
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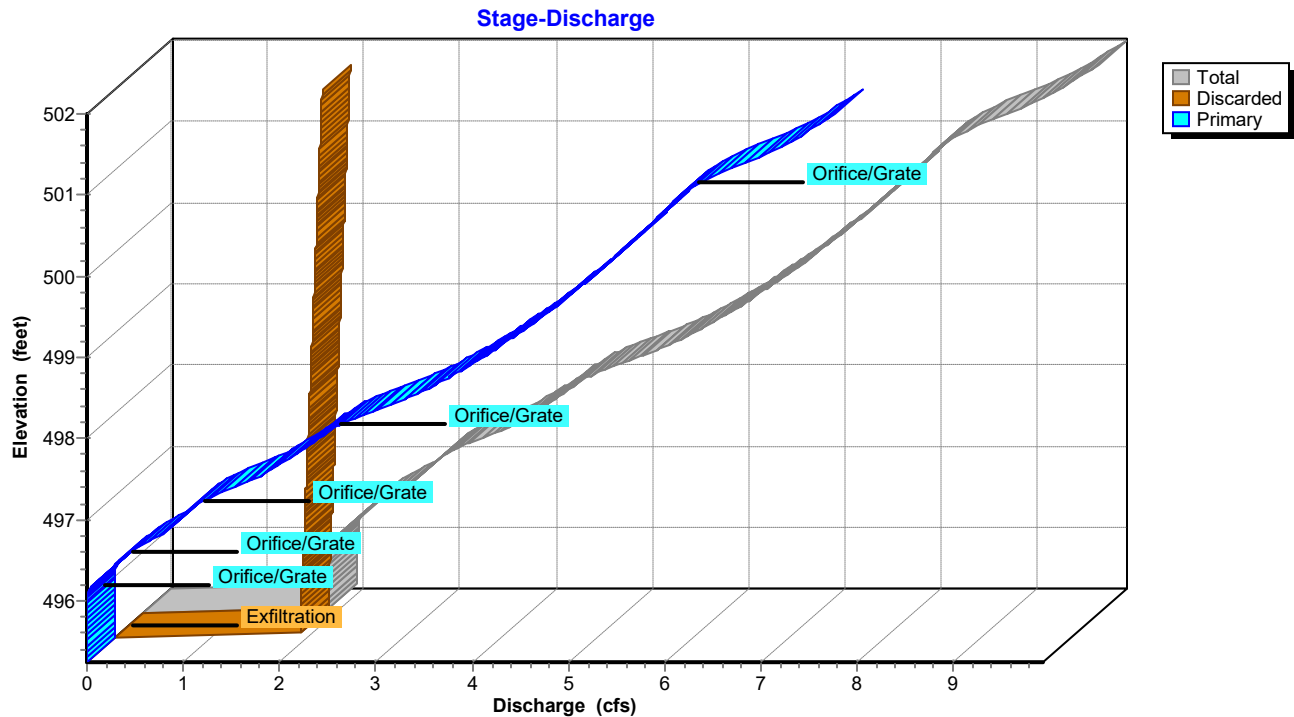
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Pond SMS #1C: SMS #1C

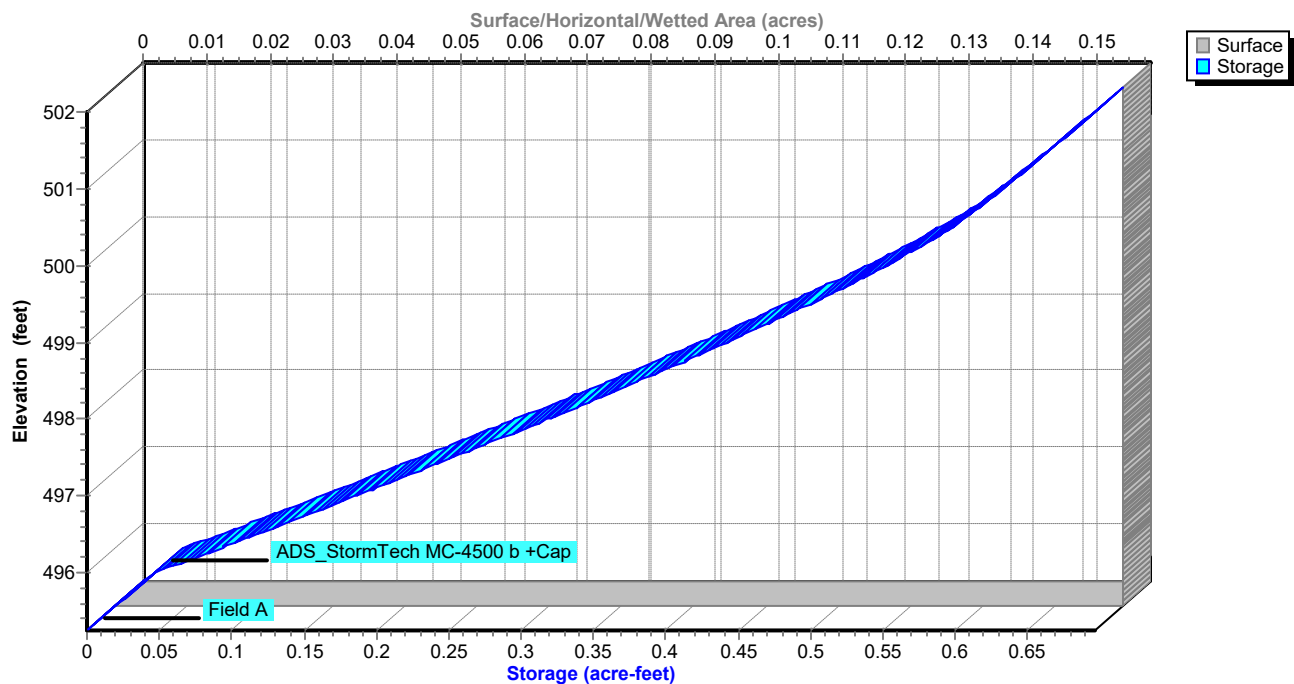


Pond SMS #1C: SMS #1C



Pond SMS #1C: SMS #1C

Stage-Area-Storage



2025.07.03 - Proposed Conditions*Type III 24-hr 1-Year Rainfall=2.80"*

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Hydrograph for Pond SMS #1C: SMS #1C

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0.000	495.25	0.00	0.00	0.00
1.00	0.00	0.000	495.25	0.00	0.00	0.00
2.00	0.00	0.000	495.25	0.00	0.00	0.00
3.00	0.00	0.000	495.25	0.00	0.00	0.00
4.00	0.00	0.000	495.25	0.00	0.00	0.00
5.00	0.02	0.000	495.25	0.02	0.02	0.00
6.00	0.04	0.000	495.25	0.04	0.04	0.00
7.00	0.08	0.000	495.25	0.07	0.07	0.00
8.00	0.12	0.000	495.25	0.12	0.12	0.00
9.00	0.21	0.000	495.26	0.20	0.20	0.00
10.00	0.32	0.001	495.26	0.32	0.32	0.00
11.00	0.53	0.001	495.27	0.52	0.52	0.00
12.00	4.07	0.021	495.58	1.93	1.93	0.00
13.00	0.83	0.093	496.33	2.14	1.96	0.18
14.00	0.50	0.001	495.27	0.51	0.51	0.00
15.00	0.38	0.001	495.26	0.38	0.38	0.00
16.00	0.27	0.001	495.26	0.27	0.27	0.00
17.00	0.21	0.000	495.26	0.21	0.21	0.00
18.00	0.16	0.000	495.26	0.16	0.16	0.00
19.00	0.14	0.000	495.25	0.14	0.14	0.00
20.00	0.13	0.000	495.25	0.13	0.13	0.00
21.00	0.12	0.000	495.25	0.12	0.12	0.00
22.00	0.11	0.000	495.25	0.11	0.11	0.00
23.00	0.09	0.000	495.25	0.09	0.09	0.00
24.00	0.08	0.000	495.25	0.08	0.08	0.00
25.00	0.00	0.000	495.25	0.00	0.00	0.00
26.00	0.00	0.000	495.25	0.00	0.00	0.00
27.00	0.00	0.000	495.25	0.00	0.00	0.00
28.00	0.00	0.000	495.25	0.00	0.00	0.00
29.00	0.00	0.000	495.25	0.00	0.00	0.00
30.00	0.00	0.000	495.25	0.00	0.00	0.00
31.00	0.00	0.000	495.25	0.00	0.00	0.00
32.00	0.00	0.000	495.25	0.00	0.00	0.00
33.00	0.00	0.000	495.25	0.00	0.00	0.00
34.00	0.00	0.000	495.25	0.00	0.00	0.00
35.00	0.00	0.000	495.25	0.00	0.00	0.00
36.00	0.00	0.000	495.25	0.00	0.00	0.00

2025.07.03 - Proposed Conditions*Type III 24-hr 1-Year Rainfall=2.80"*

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Stage-Discharge for Pond SMS #1C: SMS #1C

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
495.25	0.00	0.00	0.00	500.45	7.78	2.10	5.68
495.35	1.92	1.92	0.00	500.55	7.88	2.10	5.77
495.45	1.93	1.93	0.00	500.65	7.97	2.11	5.86
495.55	1.93	1.93	0.00	500.75	8.06	2.11	5.95
495.65	1.93	1.93	0.00	500.85	8.15	2.11	6.04
495.75	1.94	1.94	0.00	500.95	8.24	2.12	6.12
495.85	1.94	1.94	0.00	501.05	8.33	2.12	6.21
495.95	1.94	1.94	0.00	501.15	8.48	2.12	6.35
496.05	1.95	1.95	0.00	501.25	8.67	2.13	6.54
496.15	1.98	1.95	0.03	501.35	8.88	2.13	6.75
496.25	2.06	1.95	0.11	501.45	9.09	2.13	6.96
496.35	2.16	1.96	0.21	501.55	9.27	2.14	7.13
496.45	2.26	1.96	0.30	501.65	9.43	2.14	7.29
496.55	2.35	1.96	0.39	501.75	9.58	2.15	7.43
496.65	2.48	1.97	0.51	501.85	9.72	2.15	7.57
496.75	2.63	1.97	0.66	501.95	9.86	2.15	7.71
496.85	2.77	1.97	0.80				
496.95	2.88	1.98	0.90				
497.05	2.98	1.98	1.00				
497.15	3.08	1.99	1.09				
497.25	3.22	1.99	1.24				
497.35	3.41	1.99	1.41				
497.45	3.61	2.00	1.61				
497.55	3.80	2.00	1.81				
497.65	3.96	2.00	1.96				
497.75	4.10	2.01	2.10				
497.85	4.23	2.01	2.22				
497.95	4.35	2.01	2.34				
498.05	4.47	2.02	2.45				
498.15	4.61	2.02	2.59				
498.25	4.80	2.02	2.78				
498.35	5.03	2.03	3.00				
498.45	5.26	2.03	3.22				
498.55	5.46	2.03	3.42				
498.65	5.63	2.04	3.59				
498.75	5.79	2.04	3.75				
498.85	5.94	2.04	3.90				
498.95	6.09	2.05	4.04				
499.05	6.23	2.05	4.17				
499.15	6.36	2.05	4.30				
499.25	6.49	2.06	4.43				
499.35	6.61	2.06	4.55				
499.45	6.73	2.07	4.66				
499.55	6.84	2.07	4.78				
499.65	6.96	2.07	4.89				
499.75	7.07	2.08	4.99				
499.85	7.18	2.08	5.10				
499.95	7.28	2.08	5.20				
500.05	7.39	2.09	5.30				
500.15	7.49	2.09	5.40				
500.25	7.59	2.09	5.49				
500.35	7.68	2.10	5.59				

2025.07.03 - Proposed Conditions*Type III 24-hr 1-Year Rainfall=2.80"*

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Stage-Area-Storage for Pond SMS #1C: SMS #1C

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
495.25	0.159	0.000	500.45	0.159	0.594
495.35	0.159	0.006	500.55	0.159	0.602
495.45	0.159	0.013	500.65	0.159	0.610
495.55	0.159	0.019	500.75	0.159	0.617
495.65	0.159	0.025	500.85	0.159	0.623
495.75	0.159	0.032	500.95	0.159	0.630
495.85	0.159	0.038	501.05	0.159	0.636
495.95	0.159	0.044	501.15	0.159	0.643
496.05	0.159	0.055	501.25	0.159	0.649
496.15	0.159	0.069	501.35	0.159	0.655
496.25	0.159	0.082	501.45	0.159	0.662
496.35	0.159	0.096	501.55	0.159	0.668
496.45	0.159	0.110	501.65	0.159	0.674
496.55	0.159	0.124	501.75	0.159	0.681
496.65	0.159	0.138	501.85	0.159	0.687
496.75	0.159	0.152	501.95	0.159	0.693
496.85	0.159	0.165			
496.95	0.159	0.179			
497.05	0.159	0.193			
497.15	0.159	0.206			
497.25	0.159	0.220			
497.35	0.159	0.233			
497.45	0.159	0.246			
497.55	0.159	0.260			
497.65	0.159	0.273			
497.75	0.159	0.286			
497.85	0.159	0.299			
497.95	0.159	0.312			
498.05	0.159	0.325			
498.15	0.159	0.338			
498.25	0.159	0.351			
498.35	0.159	0.363			
498.45	0.159	0.376			
498.55	0.159	0.388			
498.65	0.159	0.400			
498.75	0.159	0.413			
498.85	0.159	0.425			
498.95	0.159	0.437			
499.05	0.159	0.448			
499.15	0.159	0.460			
499.25	0.159	0.472			
499.35	0.159	0.483			
499.45	0.159	0.494			
499.55	0.159	0.505			
499.65	0.159	0.516			
499.75	0.159	0.527			
499.85	0.159	0.537			
499.95	0.159	0.547			
500.05	0.159	0.557			
500.15	0.159	0.567			
500.25	0.159	0.576			
500.35	0.159	0.586			

2025.07.03 - Proposed Conditions

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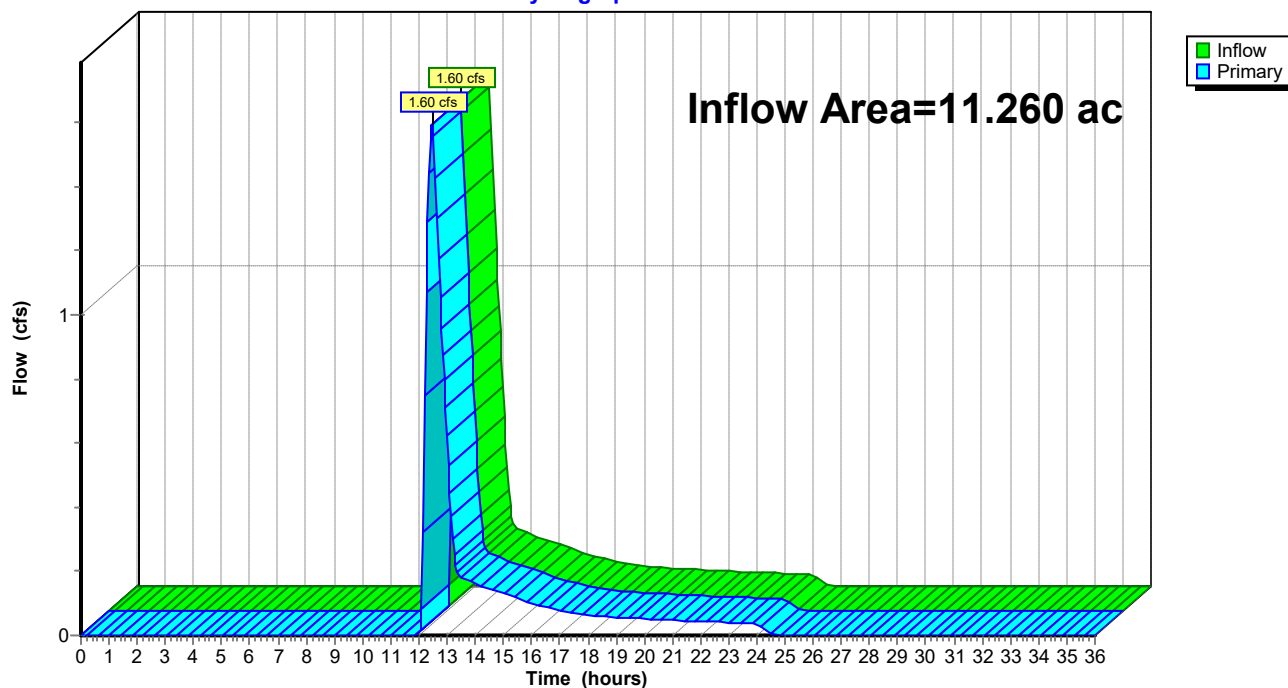
Summary for Link POI #1: POI #1

Inflow Area = 11.260 ac, 61.46% Impervious, Inflow Depth = 0.17" for 1-Year event
Inflow = 1.60 cfs @ 12.47 hrs, Volume= 0.161 af
Primary = 1.60 cfs @ 12.47 hrs, Volume= 0.161 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #1: POI #1

Hydrograph



2025.07.03 - Proposed Conditions*Type III 24-hr 1-Year Rainfall=2.80"*

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Hydrograph for Link POI #1: POI #1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	35.50	0.00	0.00	0.00
10.00	0.00	0.00	0.00	36.00	0.00	0.00	0.00
10.50	0.00	0.00	0.00				
11.00	0.00	0.00	0.00				
11.50	0.00	0.00	0.00				
12.00	0.00	0.00	0.00				
12.50	1.59	0.00	1.59				
13.00	0.62	0.00	0.62				
13.50	0.18	0.00	0.18				
14.00	0.16	0.00	0.16				
14.50	0.14	0.00	0.14				
15.00	0.13	0.00	0.13				
15.50	0.12	0.00	0.12				
16.00	0.10	0.00	0.10				
16.50	0.09	0.00	0.09				
17.00	0.08	0.00	0.08				
17.50	0.07	0.00	0.07				
18.00	0.06	0.00	0.06				
18.50	0.06	0.00	0.06				
19.00	0.06	0.00	0.06				
19.50	0.05	0.00	0.05				
20.00	0.05	0.00	0.05				
20.50	0.05	0.00	0.05				
21.00	0.05	0.00	0.05				
21.50	0.05	0.00	0.05				
22.00	0.04	0.00	0.04				
22.50	0.04	0.00	0.04				
23.00	0.04	0.00	0.04				
23.50	0.04	0.00	0.04				
24.00	0.04	0.00	0.04				
24.50	0.00	0.00	0.00				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				

2025.07.03 - Proposed Conditions

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Type III 24-hr 1-Year Rainfall=2.80"

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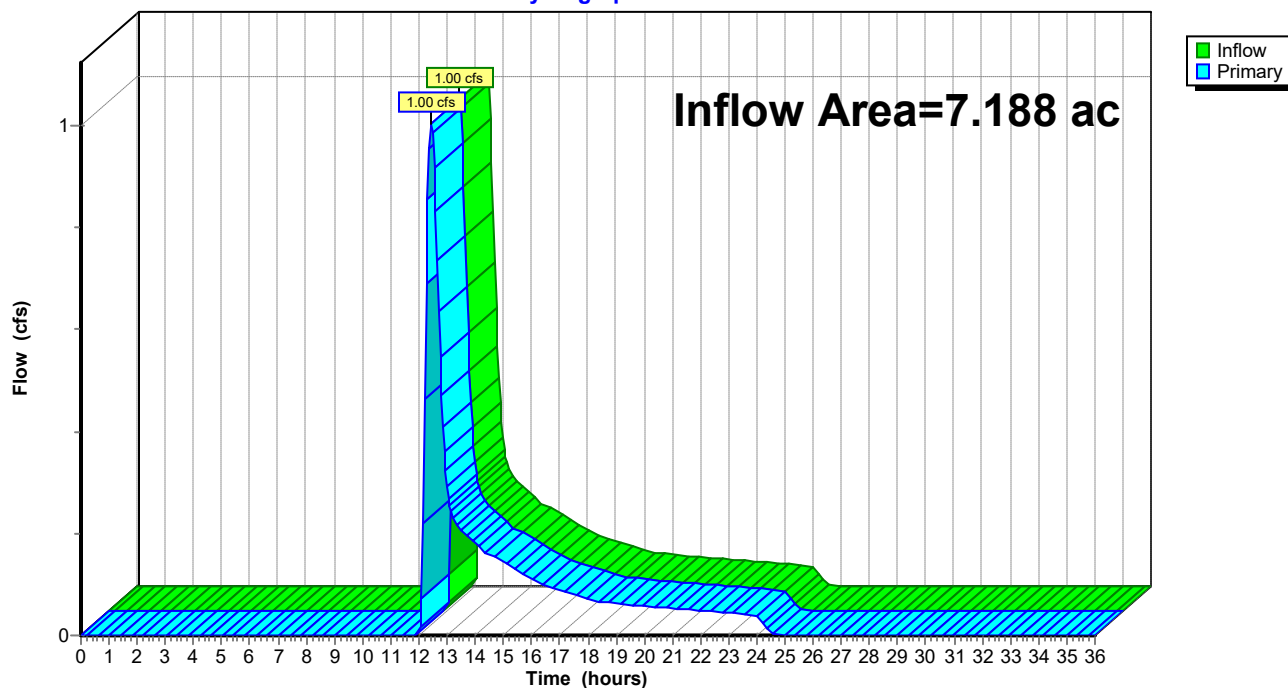
Summary for Link POI #2: POI #2

Inflow Area = 7.188 ac, 34.72% Impervious, Inflow Depth = 0.22" for 1-Year event
Inflow = 1.00 cfs @ 12.43 hrs, Volume= 0.132 af
Primary = 1.00 cfs @ 12.43 hrs, Volume= 0.132 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #2: POI #2

Hydrograph



2025.07.03 - Proposed Conditions*Type III 24-hr 1-Year Rainfall=2.80"*

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Hydrograph for Link POI #2: POI #2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	35.50	0.00	0.00	0.00
10.00	0.00	0.00	0.00	36.00	0.00	0.00	0.00
10.50	0.00	0.00	0.00				
11.00	0.00	0.00	0.00				
11.50	0.00	0.00	0.00				
12.00	0.00	0.00	0.00				
12.50	0.97	0.00	0.97				
13.00	0.29	0.00	0.29				
13.50	0.21	0.00	0.21				
14.00	0.18	0.00	0.18				
14.50	0.16	0.00	0.16				
15.00	0.15	0.00	0.15				
15.50	0.13	0.00	0.13				
16.00	0.11	0.00	0.11				
16.50	0.10	0.00	0.10				
17.00	0.09	0.00	0.09				
17.50	0.08	0.00	0.08				
18.00	0.07	0.00	0.07				
18.50	0.07	0.00	0.07				
19.00	0.06	0.00	0.06				
19.50	0.06	0.00	0.06				
20.00	0.06	0.00	0.06				
20.50	0.06	0.00	0.06				
21.00	0.05	0.00	0.05				
21.50	0.05	0.00	0.05				
22.00	0.05	0.00	0.05				
22.50	0.05	0.00	0.05				
23.00	0.04	0.00	0.04				
23.50	0.04	0.00	0.04				
24.00	0.04	0.00	0.04				
24.50	0.00	0.00	0.00				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				

2025.07.03 - Proposed Conditions*Type III 24-hr 2-Year Rainfall=3.50"*

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Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 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 DA #1A: Drainage Area #1A Runoff Area=165,307 sf 92.16% Impervious Runoff Depth=2.94"
Tc=10.0 min CN=95 Runoff=10.63 cfs 0.929 af

Subcatchment DA #1B: Drainage Area #1B Runoff Area=172,042 sf 3.71% Impervious Runoff Depth=0.62"
Flow Length=638' Tc=17.0 min CN=62 Runoff=1.53 cfs 0.203 af

Subcatchment DA #1C: Drainage Area Runoff Area=153,140 sf 93.20% Impervious Runoff Depth=2.94"
Tc=10.0 min CN=95 Runoff=9.85 cfs 0.861 af

Subcatchment DA #2A: Drainage Area #2A Runoff Area=121,928 sf 86.47% Impervious Runoff Depth=2.73"
Tc=10.0 min CN=93 Runoff=7.47 cfs 0.638 af

Subcatchment DA #2B: Drainage Area #2B Runoff Area=191,184 sf 1.71% Impervious Runoff Depth=0.62"
Flow Length=784' Tc=18.4 min CN=62 Runoff=1.65 cfs 0.225 af

Pond DB #2: Drainage Basin #2 Peak Elev=485.88' Storage=5,585 cf Inflow=7.47 cfs 0.638 af
Discarded=2.12 cfs 0.595 af Primary=0.73 cfs 0.043 af Outflow=2.85 cfs 0.638 af

Pond SMS #1A: SMS #1A Peak Elev=493.59' Storage=0.215 af Inflow=10.63 cfs 0.929 af
Discarded=2.16 cfs 0.851 af Primary=1.04 cfs 0.079 af Outflow=3.19 cfs 0.929 af

Pond SMS #1C: SMS #1C Peak Elev=497.09' Storage=0.198 af Inflow=9.85 cfs 0.861 af
Discarded=1.98 cfs 0.784 af Primary=1.03 cfs 0.077 af Outflow=3.02 cfs 0.861 af

Link POI #1: POI #1 Inflow=3.42 cfs 0.358 af
Primary=3.42 cfs 0.358 af

Link POI #2: POI #2 Inflow=2.35 cfs 0.268 af
Primary=2.35 cfs 0.268 af

Total Runoff Area = 18.448 ac Runoff Volume = 2.856 af Average Runoff Depth = 1.86"
48.96% Pervious = 9.032 ac 51.04% Impervious = 9.416 ac

2025.07.03 - Proposed Conditions

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Type III 24-hr 2-Year Rainfall=3.50"

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Summary for Subcatchment DA #1A: Drainage Area #1A

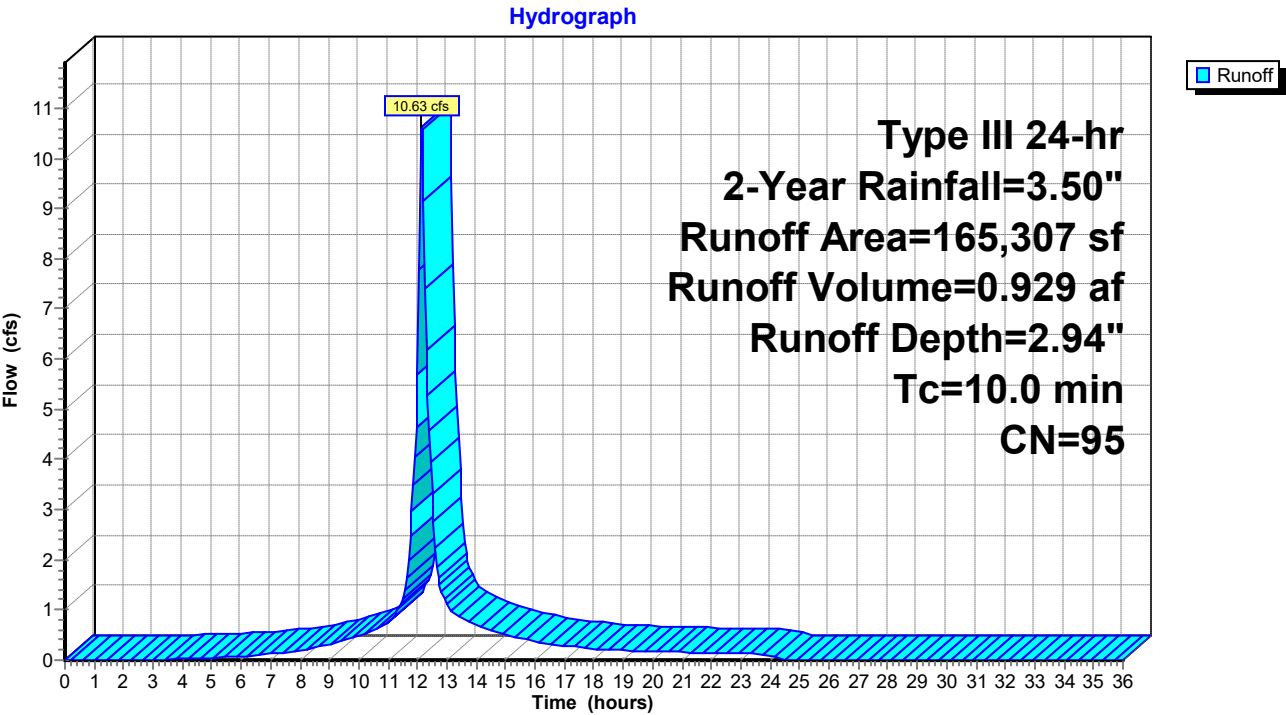
Runoff = 10.63 cfs @ 12.14 hrs, Volume= 0.929 af, Depth= 2.94"
Routed to Pond SMS #1A : SMS #1A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.50"

	Area (sf)	CN	Description
	11,207	61	>75% Grass cover, Good, HSG B
*	1,751	61	Emergency Access Road (Perv.), Good, HSG B
*	86,044	98	Building/Roof, HSG B
*	60,510	98	Pavement, HSG B
*	2,937	98	Sidewalk, HSG B
*	2,858	98	Emergency Access Road (Imp.), HSG B
	165,307	95	Weighted Average
	12,958		7.84% Pervious Area
	152,349		92.16% Impervious Area

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
10.0					Direct Entry, 10 Minute Minimum

Subcatchment DA #1A: Drainage Area #1A



2025.07.03 - Proposed Conditions*Type III 24-hr 2-Year Rainfall=3.50"*

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Hydrograph for Subcatchment DA #1A: Drainage Area #1A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	3.50	2.94	0.00
0.50	0.02	0.00	0.00	26.50	3.50	2.94	0.00
1.00	0.04	0.00	0.00	27.00	3.50	2.94	0.00
1.50	0.05	0.00	0.00	27.50	3.50	2.94	0.00
2.00	0.07	0.00	0.00	28.00	3.50	2.94	0.00
2.50	0.09	0.00	0.00	28.50	3.50	2.94	0.00
3.00	0.11	0.00	0.00	29.00	3.50	2.94	0.00
3.50	0.13	0.00	0.01	29.50	3.50	2.94	0.00
4.00	0.15	0.00	0.02	30.00	3.50	2.94	0.00
4.50	0.17	0.01	0.04	30.50	3.50	2.94	0.00
5.00	0.20	0.01	0.05	31.00	3.50	2.94	0.00
5.50	0.22	0.02	0.06	31.50	3.50	2.94	0.00
6.00	0.25	0.03	0.08	32.00	3.50	2.94	0.00
6.50	0.28	0.04	0.10	32.50	3.50	2.94	0.00
7.00	0.32	0.06	0.13	33.00	3.50	2.94	0.00
7.50	0.36	0.08	0.16	33.50	3.50	2.94	0.00
8.00	0.40	0.11	0.19	34.00	3.50	2.94	0.00
8.50	0.45	0.14	0.25	34.50	3.50	2.94	0.00
9.00	0.51	0.18	0.32	35.00	3.50	2.94	0.00
9.50	0.58	0.23	0.39	35.50	3.50	2.94	0.00
10.00	0.66	0.29	0.48	36.00	3.50	2.94	0.00
10.50	0.76	0.36	0.61				
11.00	0.88	0.46	0.77				
11.50	1.04	0.60	1.21				
12.00	1.75	1.25	5.70				
12.50	2.46	1.92	3.33				
13.00	2.62	2.08	1.13				
13.50	2.74	2.20	0.84				
14.00	2.84	2.29	0.69				
14.50	2.92	2.37	0.59				
15.00	2.99	2.44	0.51				
15.50	3.05	2.50	0.44				
16.00	3.10	2.55	0.36				
16.50	3.14	2.59	0.32				
17.00	3.18	2.63	0.29				
17.50	3.22	2.66	0.25				
18.00	3.25	2.69	0.22				
18.50	3.28	2.72	0.20				
19.00	3.30	2.74	0.19				
19.50	3.33	2.77	0.18				
20.00	3.35	2.79	0.17				
20.50	3.37	2.81	0.17				
21.00	3.39	2.83	0.16				
21.50	3.41	2.85	0.15				
22.00	3.43	2.87	0.14				
22.50	3.45	2.89	0.14				
23.00	3.47	2.91	0.13				
23.50	3.48	2.92	0.12				
24.00	3.50	2.94	0.11				
24.50	3.50	2.94	0.00				
25.00	3.50	2.94	0.00				
25.50	3.50	2.94	0.00				

2025.07.03 - Proposed Conditions

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Type III 24-hr 2-Year Rainfall=3.50"

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Summary for Subcatchment DA #1B: Drainage Area #1B

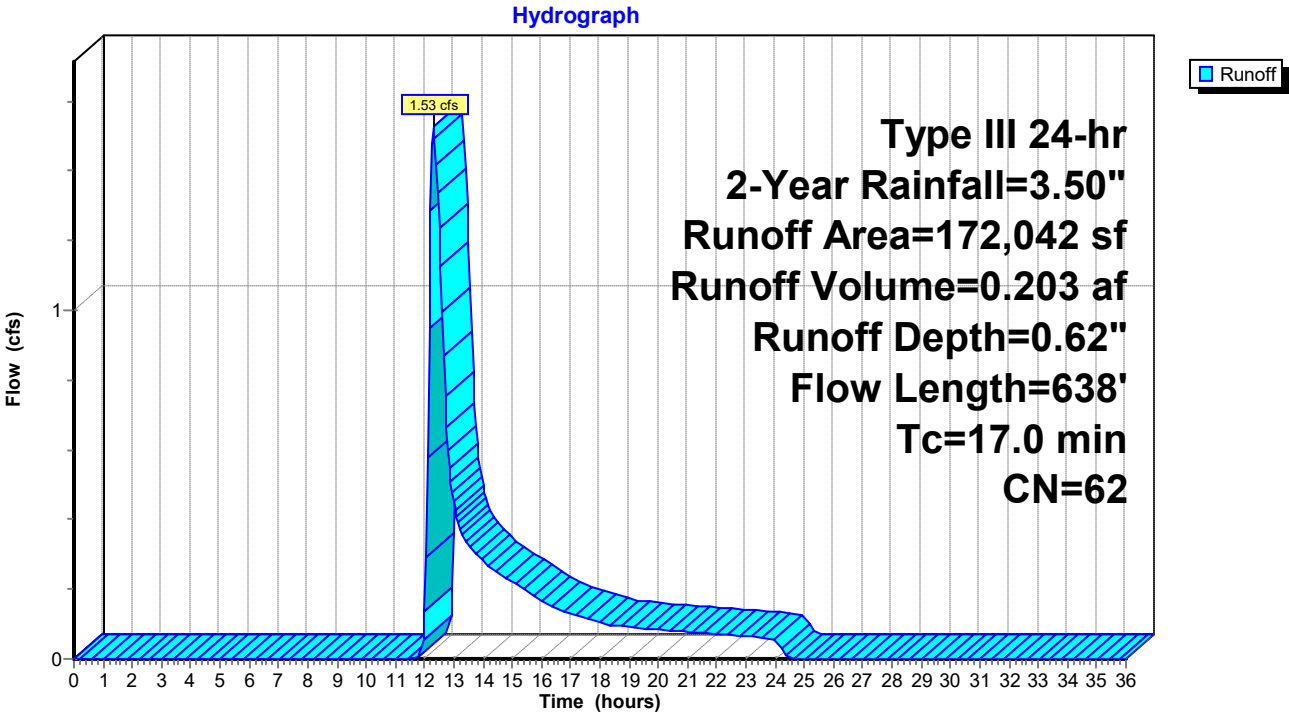
Runoff = 1.53 cfs @ 12.30 hrs, Volume= 0.203 af, Depth= 0.62"
Routed to Link POI #1 : POI #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.50"

Area (sf)	CN	Description
161,751	61	>75% Grass cover, Good, HSG B
* 3,911	61	Emergency Access Road (Perv.), Good, HSG B
* 6,380	98	Emergency Access Road (Imp.), HSG B
172,042	62	Weighted Average
165,662		96.29% Pervious Area
6,380		3.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.2	150	0.1200	0.21		Sheet Flow, Grass: Dense n= 0.240 P2= 2.00"
4.8	488	0.0578	1.68		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
17.0	638	Total			

Subcatchment DA #1B: Drainage Area #1B



2025.07.03 - Proposed Conditions*Type III 24-hr 2-Year Rainfall=3.50"*

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Hydrograph for Subcatchment DA #1B: Drainage Area #1B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	3.50	0.62	0.00
0.50	0.02	0.00	0.00	26.50	3.50	0.62	0.00
1.00	0.04	0.00	0.00	27.00	3.50	0.62	0.00
1.50	0.05	0.00	0.00	27.50	3.50	0.62	0.00
2.00	0.07	0.00	0.00	28.00	3.50	0.62	0.00
2.50	0.09	0.00	0.00	28.50	3.50	0.62	0.00
3.00	0.11	0.00	0.00	29.00	3.50	0.62	0.00
3.50	0.13	0.00	0.00	29.50	3.50	0.62	0.00
4.00	0.15	0.00	0.00	30.00	3.50	0.62	0.00
4.50	0.17	0.00	0.00	30.50	3.50	0.62	0.00
5.00	0.20	0.00	0.00	31.00	3.50	0.62	0.00
5.50	0.22	0.00	0.00	31.50	3.50	0.62	0.00
6.00	0.25	0.00	0.00	32.00	3.50	0.62	0.00
6.50	0.28	0.00	0.00	32.50	3.50	0.62	0.00
7.00	0.32	0.00	0.00	33.00	3.50	0.62	0.00
7.50	0.36	0.00	0.00	33.50	3.50	0.62	0.00
8.00	0.40	0.00	0.00	34.00	3.50	0.62	0.00
8.50	0.45	0.00	0.00	34.50	3.50	0.62	0.00
9.00	0.51	0.00	0.00	35.00	3.50	0.62	0.00
9.50	0.58	0.00	0.00	35.50	3.50	0.62	0.00
10.00	0.66	0.00	0.00	36.00	3.50	0.62	0.00
10.50	0.76	0.00	0.00				
11.00	0.88	0.00	0.00				
11.50	1.04	0.00	0.00				
12.00	1.75	0.04	0.13				
12.50	2.46	0.21	1.24				
13.00	2.62	0.26	0.45				
13.50	2.74	0.30	0.33				
14.00	2.84	0.34	0.28				
14.50	2.92	0.37	0.25				
15.00	2.99	0.39	0.22				
15.50	3.05	0.42	0.19				
16.00	3.10	0.44	0.17				
16.50	3.14	0.46	0.14				
17.00	3.18	0.47	0.13				
17.50	3.22	0.49	0.12				
18.00	3.25	0.50	0.10				
18.50	3.28	0.51	0.10				
19.00	3.30	0.53	0.09				
19.50	3.33	0.54	0.09				
20.00	3.35	0.55	0.08				
20.50	3.37	0.56	0.08				
21.00	3.39	0.57	0.08				
21.50	3.41	0.58	0.07				
22.00	3.43	0.58	0.07				
22.50	3.45	0.59	0.07				
23.00	3.47	0.60	0.06				
23.50	3.48	0.61	0.06				
24.00	3.50	0.62	0.06				
24.50	3.50	0.62	0.00				
25.00	3.50	0.62	0.00				
25.50	3.50	0.62	0.00				

2025.07.03 - Proposed Conditions

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Type III 24-hr 2-Year Rainfall=3.50"

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Summary for Subcatchment DA #1C: Drainage Area #1C

Runoff = 9.85 cfs @ 12.14 hrs, Volume= 0.861 af, Depth= 2.94"
Routed to Pond SMS #1C : SMS #1C

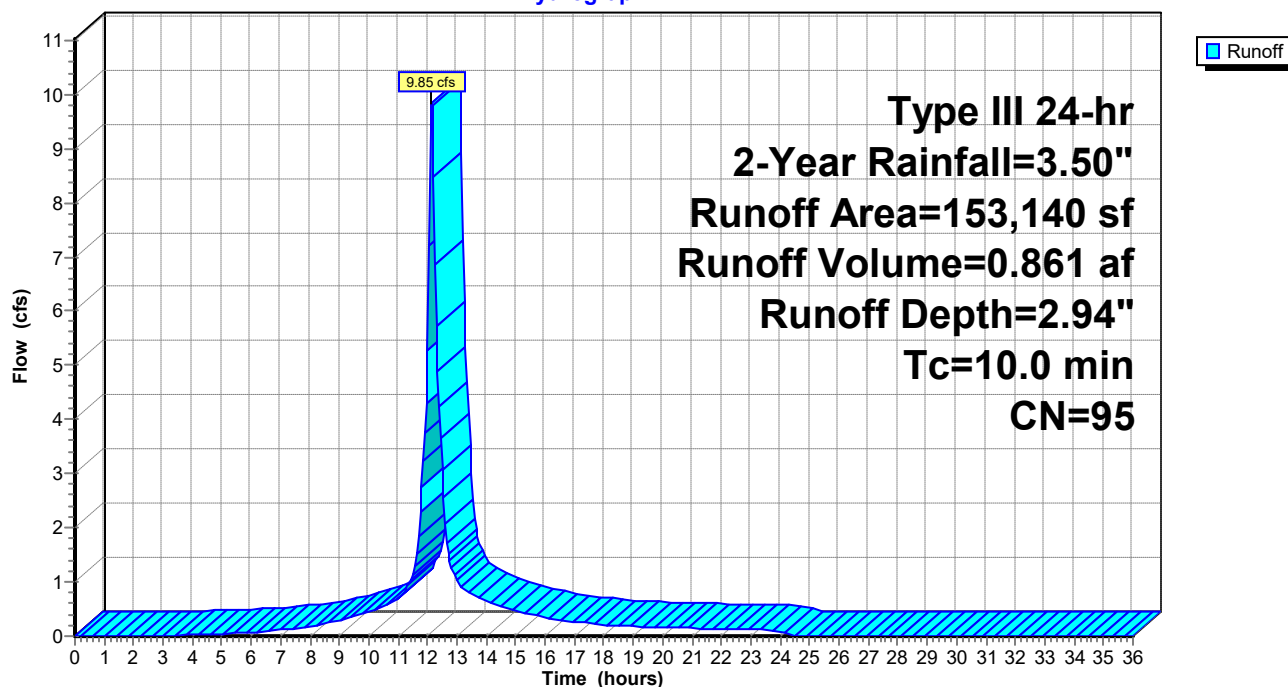
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.50"

Area (sf)	CN	Description
8,883	61	>75% Grass cover, Good, HSG B
* 1,528	61	Emergency Access Road (Perv.), Good, HSG B
* 100,238	98	Building/Roof, HSG B
* 36,917	98	Pavement, HSG B
* 3,080	98	Sidewalk, HSG B
2,494	98	Emergency Access Road (Imp.), HSG B
153,140	95	Weighted Average
10,411		6.80% Pervious Area
142,729		93.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, 10 Direct Minimum

Subcatchment DA #1C: Drainage Area #1C

Hydrograph



2025.07.03 - Proposed Conditions*Type III 24-hr 2-Year Rainfall=3.50"*

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Hydrograph for Subcatchment DA #1C: Drainage Area #1C

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	3.50	2.94	0.00
0.50	0.02	0.00	0.00	26.50	3.50	2.94	0.00
1.00	0.04	0.00	0.00	27.00	3.50	2.94	0.00
1.50	0.05	0.00	0.00	27.50	3.50	2.94	0.00
2.00	0.07	0.00	0.00	28.00	3.50	2.94	0.00
2.50	0.09	0.00	0.00	28.50	3.50	2.94	0.00
3.00	0.11	0.00	0.00	29.00	3.50	2.94	0.00
3.50	0.13	0.00	0.01	29.50	3.50	2.94	0.00
4.00	0.15	0.00	0.02	30.00	3.50	2.94	0.00
4.50	0.17	0.01	0.03	30.50	3.50	2.94	0.00
5.00	0.20	0.01	0.05	31.00	3.50	2.94	0.00
5.50	0.22	0.02	0.06	31.50	3.50	2.94	0.00
6.00	0.25	0.03	0.07	32.00	3.50	2.94	0.00
6.50	0.28	0.04	0.09	32.50	3.50	2.94	0.00
7.00	0.32	0.06	0.12	33.00	3.50	2.94	0.00
7.50	0.36	0.08	0.15	33.50	3.50	2.94	0.00
8.00	0.40	0.11	0.18	34.00	3.50	2.94	0.00
8.50	0.45	0.14	0.23	34.50	3.50	2.94	0.00
9.00	0.51	0.18	0.30	35.00	3.50	2.94	0.00
9.50	0.58	0.23	0.37	35.50	3.50	2.94	0.00
10.00	0.66	0.29	0.44	36.00	3.50	2.94	0.00
10.50	0.76	0.36	0.56				
11.00	0.88	0.46	0.71				
11.50	1.04	0.60	1.12				
12.00	1.75	1.25	5.28				
12.50	2.46	1.92	3.08				
13.00	2.62	2.08	1.05				
13.50	2.74	2.20	0.78				
14.00	2.84	2.29	0.64				
14.50	2.92	2.37	0.54				
15.00	2.99	2.44	0.48				
15.50	3.05	2.50	0.41				
16.00	3.10	2.55	0.34				
16.50	3.14	2.59	0.29				
17.00	3.18	2.63	0.26				
17.50	3.22	2.66	0.23				
18.00	3.25	2.69	0.20				
18.50	3.28	2.72	0.19				
19.00	3.30	2.74	0.18				
19.50	3.33	2.77	0.17				
20.00	3.35	2.79	0.16				
20.50	3.37	2.81	0.15				
21.00	3.39	2.83	0.15				
21.50	3.41	2.85	0.14				
22.00	3.43	2.87	0.13				
22.50	3.45	2.89	0.13				
23.00	3.47	2.91	0.12				
23.50	3.48	2.92	0.11				
24.00	3.50	2.94	0.11				
24.50	3.50	2.94	0.00				
25.00	3.50	2.94	0.00				
25.50	3.50	2.94	0.00				

2025.07.03 - Proposed Conditions

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Type III 24-hr 2-Year Rainfall=3.50"

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Summary for Subcatchment DA #2A: Drainage Area #2A

Runoff = 7.47 cfs @ 12.14 hrs, Volume= 0.638 af, Depth= 2.73"
Routed to Pond DB #2 : Drainage Basin #2

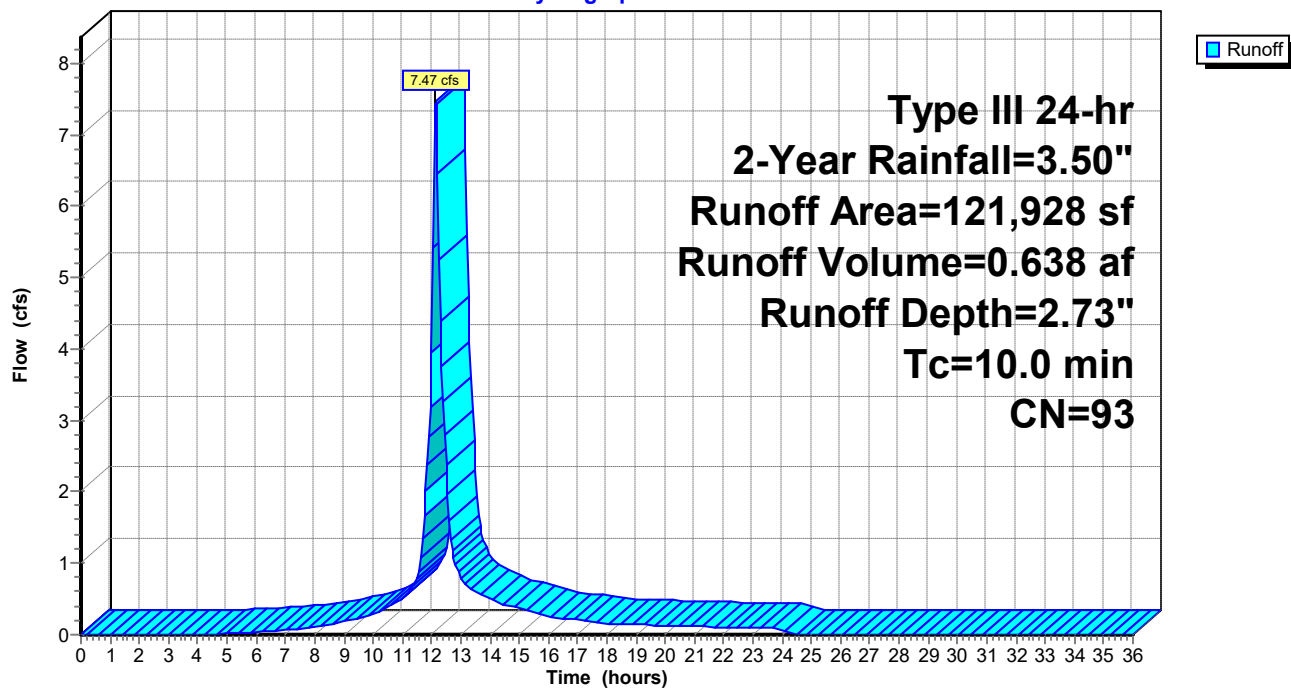
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.50"

	Area (sf)	CN	Description
*	50,600	98	Building/Roof, HSG B
*	37,828	98	Pavement, HSG B
*	1,562	98	Sidewalk, HSG B
*	3,943	98	Emergency Access Road (Imp.), HSG B
	14,078	61	>75% Grass cover, Good, HSG B
*	2,417	61	Emergency Access Road (Perv.), Good, HSG B
*	11,500	98	Infiltration Basin, HSG B
	121,928	93	Weighted Average
	16,495		13.53% Pervious Area
	105,433		86.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, 10 Minute Minimum

Subcatchment DA #2A: Drainage Area #2A

Hydrograph



2025.07.03 - Proposed Conditions*Type III 24-hr 2-Year Rainfall=3.50"*

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Hydrograph for Subcatchment DA #2A: Drainage Area #2A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	3.50	2.73	0.00
0.50	0.02	0.00	0.00	26.50	3.50	2.73	0.00
1.00	0.04	0.00	0.00	27.00	3.50	2.73	0.00
1.50	0.05	0.00	0.00	27.50	3.50	2.73	0.00
2.00	0.07	0.00	0.00	28.00	3.50	2.73	0.00
2.50	0.09	0.00	0.00	28.50	3.50	2.73	0.00
3.00	0.11	0.00	0.00	29.00	3.50	2.73	0.00
3.50	0.13	0.00	0.00	29.50	3.50	2.73	0.00
4.00	0.15	0.00	0.00	30.00	3.50	2.73	0.00
4.50	0.17	0.00	0.01	30.50	3.50	2.73	0.00
5.00	0.20	0.00	0.01	31.00	3.50	2.73	0.00
5.50	0.22	0.01	0.02	31.50	3.50	2.73	0.00
6.00	0.25	0.01	0.03	32.00	3.50	2.73	0.00
6.50	0.28	0.02	0.05	32.50	3.50	2.73	0.00
7.00	0.32	0.03	0.06	33.00	3.50	2.73	0.00
7.50	0.36	0.04	0.08	33.50	3.50	2.73	0.00
8.00	0.40	0.06	0.10	34.00	3.50	2.73	0.00
8.50	0.45	0.09	0.14	34.50	3.50	2.73	0.00
9.00	0.51	0.12	0.19	35.00	3.50	2.73	0.00
9.50	0.58	0.16	0.24	35.50	3.50	2.73	0.00
10.00	0.66	0.21	0.29	36.00	3.50	2.73	0.00
10.50	0.76	0.27	0.38				
11.00	0.88	0.36	0.50				
11.50	1.04	0.48	0.80				
12.00	1.75	1.09	3.94				
12.50	2.46	1.74	2.38				
13.00	2.62	1.90	0.81				
13.50	2.74	2.01	0.61				
14.00	2.84	2.10	0.50				
14.50	2.92	2.18	0.42				
15.00	2.99	2.24	0.37				
15.50	3.05	2.30	0.32				
16.00	3.10	2.35	0.26				
16.50	3.14	2.39	0.23				
17.00	3.18	2.43	0.21				
17.50	3.22	2.46	0.18				
18.00	3.25	2.49	0.16				
18.50	3.28	2.52	0.15				
19.00	3.30	2.54	0.14				
19.50	3.33	2.57	0.13				
20.00	3.35	2.59	0.13				
20.50	3.37	2.61	0.12				
21.00	3.39	2.63	0.11				
21.50	3.41	2.65	0.11				
22.00	3.43	2.67	0.10				
22.50	3.45	2.69	0.10				
23.00	3.47	2.70	0.09				
23.50	3.48	2.72	0.09				
24.00	3.50	2.73	0.08				
24.50	3.50	2.73	0.00				
25.00	3.50	2.73	0.00				
25.50	3.50	2.73	0.00				

2025.07.03 - Proposed Conditions

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Type III 24-hr 2-Year Rainfall=3.50"

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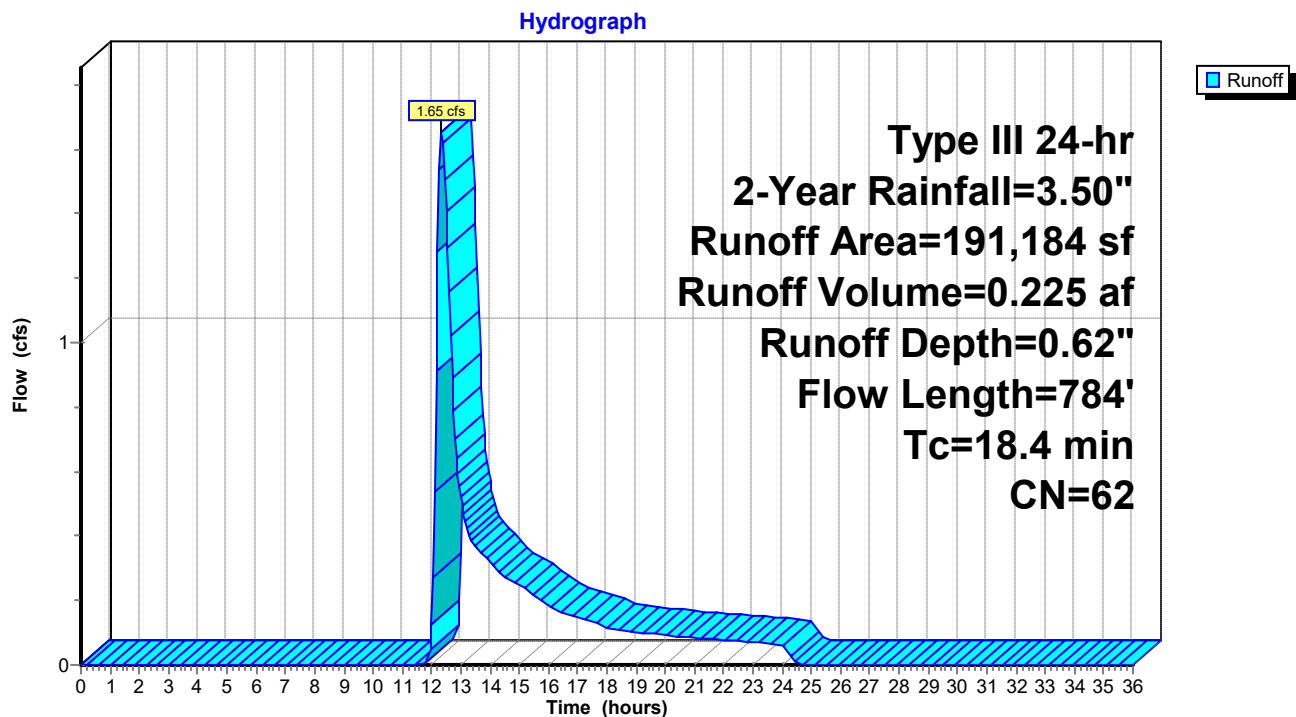
Summary for Subcatchment DA #2B: Drainage Area #2B

Runoff = 1.65 cfs @ 12.33 hrs, Volume= 0.225 af, Depth= 0.62"
Routed to Link POI #2 : POI #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.50"

	Area (sf)	CN	Description
	185,909	61	>75% Grass cover, Good, HSG B
*	2,004	61	Emergency Access Road (Perv.), Good, HSG B
*	3,271	98	Emergency Access Road (Imp.), HSG B
	191,184	62	Weighted Average
	187,913		98.29% Pervious Area
	3,271		1.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	150	0.0667	0.16		Sheet Flow, Grass: Dense n= 0.240 P2= 2.00"
3.0	634	0.2524	3.52		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
18.4	784	Total			

Subcatchment DA #2B: Drainage Area #2B

2025.07.03 - Proposed Conditions*Type III 24-hr 2-Year Rainfall=3.50"*

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Hydrograph for Subcatchment DA #2B: Drainage Area #2B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	3.50	0.62	0.00
0.50	0.02	0.00	0.00	26.50	3.50	0.62	0.00
1.00	0.04	0.00	0.00	27.00	3.50	0.62	0.00
1.50	0.05	0.00	0.00	27.50	3.50	0.62	0.00
2.00	0.07	0.00	0.00	28.00	3.50	0.62	0.00
2.50	0.09	0.00	0.00	28.50	3.50	0.62	0.00
3.00	0.11	0.00	0.00	29.00	3.50	0.62	0.00
3.50	0.13	0.00	0.00	29.50	3.50	0.62	0.00
4.00	0.15	0.00	0.00	30.00	3.50	0.62	0.00
4.50	0.17	0.00	0.00	30.50	3.50	0.62	0.00
5.00	0.20	0.00	0.00	31.00	3.50	0.62	0.00
5.50	0.22	0.00	0.00	31.50	3.50	0.62	0.00
6.00	0.25	0.00	0.00	32.00	3.50	0.62	0.00
6.50	0.28	0.00	0.00	32.50	3.50	0.62	0.00
7.00	0.32	0.00	0.00	33.00	3.50	0.62	0.00
7.50	0.36	0.00	0.00	33.50	3.50	0.62	0.00
8.00	0.40	0.00	0.00	34.00	3.50	0.62	0.00
8.50	0.45	0.00	0.00	34.50	3.50	0.62	0.00
9.00	0.51	0.00	0.00	35.00	3.50	0.62	0.00
9.50	0.58	0.00	0.00	35.50	3.50	0.62	0.00
10.00	0.66	0.00	0.00	36.00	3.50	0.62	0.00
10.50	0.76	0.00	0.00				
11.00	0.88	0.00	0.00				
11.50	1.04	0.00	0.00				
12.00	1.75	0.04	0.12				
12.50	2.46	0.21	1.41				
13.00	2.62	0.26	0.52				
13.50	2.74	0.30	0.37				
14.00	2.84	0.34	0.31				
14.50	2.92	0.37	0.27				
15.00	2.99	0.39	0.25				
15.50	3.05	0.42	0.22				
16.00	3.10	0.44	0.19				
16.50	3.14	0.46	0.16				
17.00	3.18	0.47	0.15				
17.50	3.22	0.49	0.13				
18.00	3.25	0.50	0.12				
18.50	3.28	0.51	0.11				
19.00	3.30	0.53	0.10				
19.50	3.33	0.54	0.10				
20.00	3.35	0.55	0.09				
20.50	3.37	0.56	0.09				
21.00	3.39	0.57	0.09				
21.50	3.41	0.58	0.08				
22.00	3.43	0.58	0.08				
22.50	3.45	0.59	0.07				
23.00	3.47	0.60	0.07				
23.50	3.48	0.61	0.07				
24.00	3.50	0.62	0.06				
24.50	3.50	0.62	0.00				
25.00	3.50	0.62	0.00				
25.50	3.50	0.62	0.00				

2025.07.03 - Proposed Conditions

Type III 24-hr 2-Year Rainfall=3.50"

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Summary for Pond DB #2: Drainage Basin #2

Inflow Area = 2.799 ac, 86.47% Impervious, Inflow Depth = 2.73" for 2-Year event
 Inflow = 7.47 cfs @ 12.14 hrs, Volume= 0.638 af
 Outflow = 2.85 cfs @ 12.45 hrs, Volume= 0.638 af, Atten= 62%, Lag= 18.4 min
 Discarded = 2.12 cfs @ 12.45 hrs, Volume= 0.595 af
 Primary = 0.73 cfs @ 12.45 hrs, Volume= 0.043 af
 Routed to Link POI #2 : POI #2

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs / 3
 Peak Elev= 485.88' @ 12.45 hrs Surf.Area= 7,252 sf Storage= 5,585 cf

Plug-Flow detention time= 13.4 min calculated for 0.638 af (100% of inflow)
 Center-of-Mass det. time= 13.1 min (806.4 - 793.3)

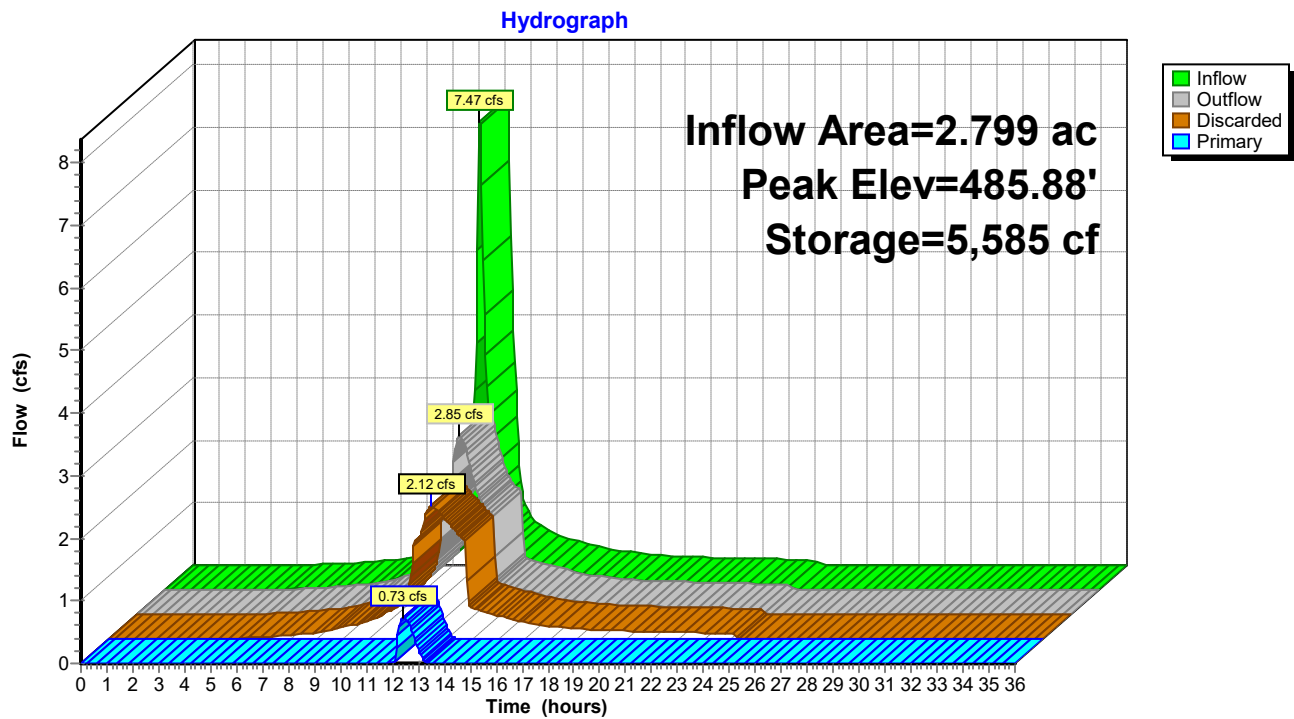
Volume	Invert	Avail.Storage	Storage Description
#1	485.00'	25,500 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
485.00	5,500	0	0
486.00	7,500	6,500	6,500
487.00	9,500	8,500	15,000
488.00	11,500	10,500	25,500

Device	Routing	Invert	Outlet Devices
#1	Discarded	485.00'	12.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 470.00'
#2	Primary	485.26'	7.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	486.79'	7.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

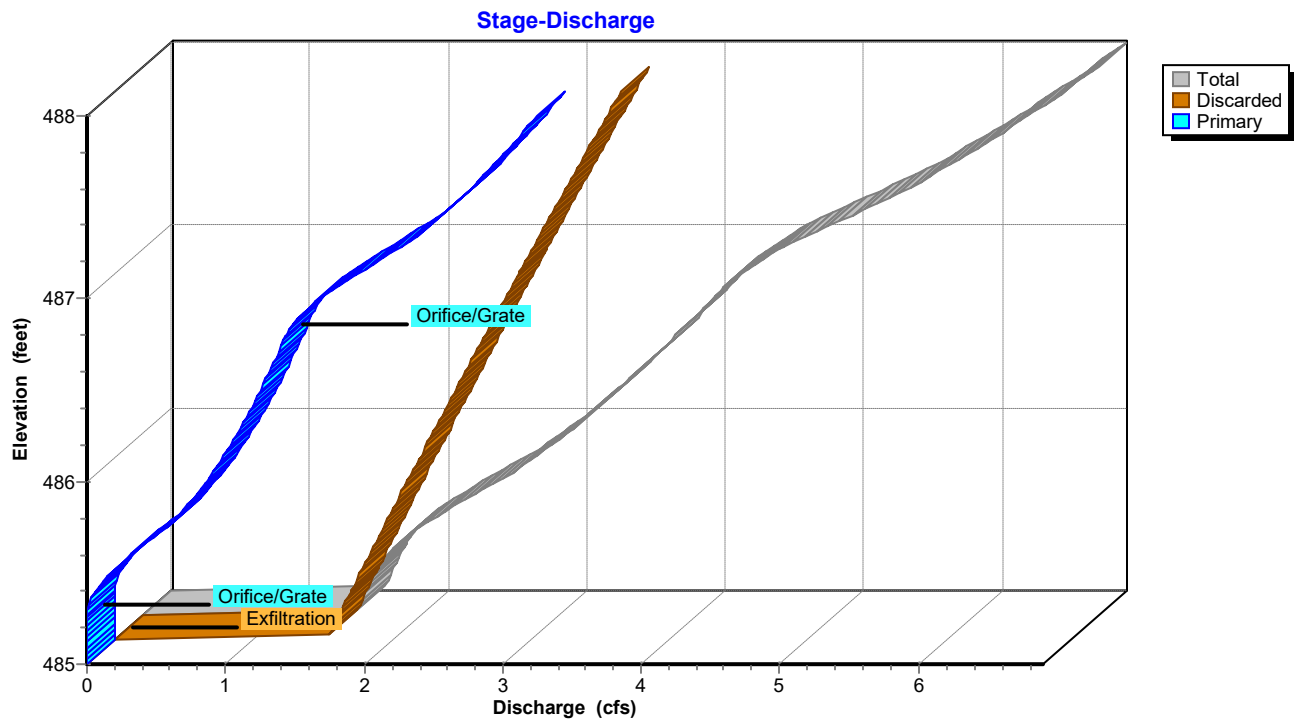
Discarded OutFlow Max=2.12 cfs @ 12.45 hrs HW=485.88' (Free Discharge)
 ↑ **1=Exfiltration** (Controls 2.12 cfs)

Primary OutFlow Max=0.73 cfs @ 12.45 hrs HW=485.88' (Free Discharge)
 ↑ **2=Orifice/Grate** (Orifice Controls 0.73 cfs @ 2.74 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

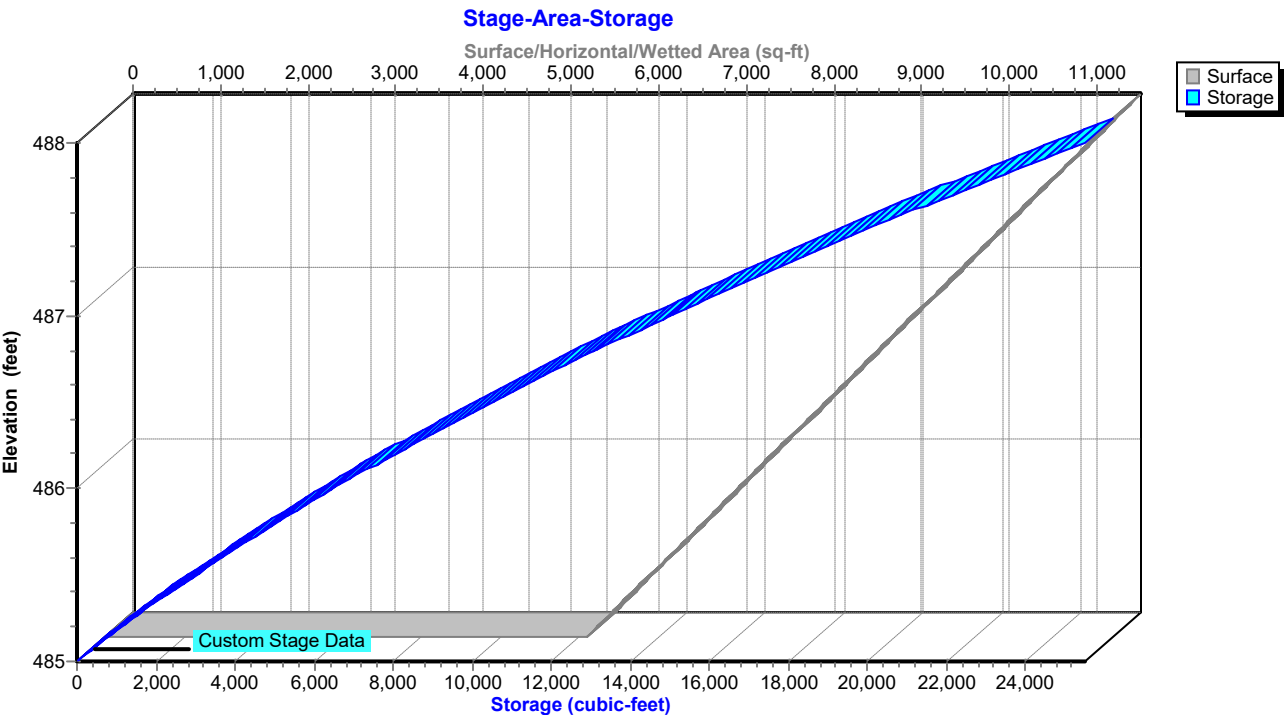
Pond DB #2: Drainage Basin #2



Pond DB #2: Drainage Basin #2



Pond DB #2: Drainage Basin #2



2025.07.03 - Proposed Conditions*Type III 24-hr 2-Year Rainfall=3.50"*

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Hydrograph for Pond DB #2: Drainage Basin #2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	485.00	0.00	0.00	0.00
1.00	0.00	0	485.00	0.00	0.00	0.00
2.00	0.00	0	485.00	0.00	0.00	0.00
3.00	0.00	0	485.00	0.00	0.00	0.00
4.00	0.00	0	485.00	0.00	0.00	0.00
5.00	0.01	1	485.00	0.01	0.01	0.00
6.00	0.03	3	485.00	0.03	0.03	0.00
7.00	0.06	7	485.00	0.06	0.06	0.00
8.00	0.10	11	485.00	0.10	0.10	0.00
9.00	0.19	20	485.00	0.18	0.18	0.00
10.00	0.29	31	485.01	0.29	0.29	0.00
11.00	0.50	53	485.01	0.49	0.49	0.00
12.00	3.94	1,105	485.19	1.66	1.66	0.00
13.00	0.81	3,246	485.54	2.11	1.89	0.23
14.00	0.50	54	485.01	0.50	0.50	0.00
15.00	0.37	40	485.01	0.37	0.37	0.00
16.00	0.26	29	485.01	0.27	0.27	0.00
17.00	0.21	22	485.00	0.21	0.21	0.00
18.00	0.16	17	485.00	0.16	0.16	0.00
19.00	0.14	15	485.00	0.14	0.14	0.00
20.00	0.13	14	485.00	0.13	0.13	0.00
21.00	0.11	12	485.00	0.12	0.12	0.00
22.00	0.10	11	485.00	0.10	0.10	0.00
23.00	0.09	10	485.00	0.09	0.09	0.00
24.00	0.08	9	485.00	0.08	0.08	0.00
25.00	0.00	0	485.00	0.00	0.00	0.00
26.00	0.00	0	485.00	0.00	0.00	0.00
27.00	0.00	0	485.00	0.00	0.00	0.00
28.00	0.00	0	485.00	0.00	0.00	0.00
29.00	0.00	0	485.00	0.00	0.00	0.00
30.00	0.00	0	485.00	0.00	0.00	0.00
31.00	0.00	0	485.00	0.00	0.00	0.00
32.00	0.00	0	485.00	0.00	0.00	0.00
33.00	0.00	0	485.00	0.00	0.00	0.00
34.00	0.00	0	485.00	0.00	0.00	0.00
35.00	0.00	0	485.00	0.00	0.00	0.00
36.00	0.00	0	485.00	0.00	0.00	0.00

2025.07.03 - Proposed Conditions*Type III 24-hr 2-Year Rainfall=3.50"*

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Stage-Discharge for Pond DB #2: Drainage Basin #2

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
485.00	0.00	0.00	0.00	487.60	6.12	3.35	2.77
485.05	1.56	1.56	0.00	487.65	6.23	3.39	2.83
485.10	1.59	1.59	0.00	487.70	6.33	3.43	2.90
485.15	1.63	1.63	0.00	487.75	6.43	3.47	2.96
485.20	1.66	1.66	0.00	487.80	6.52	3.50	3.02
485.25	1.69	1.69	0.00	487.85	6.62	3.54	3.08
485.30	1.73	1.73	0.01	487.90	6.72	3.58	3.14
485.35	1.79	1.76	0.03	487.95	6.81	3.62	3.19
485.40	1.86	1.79	0.06	488.00	6.90	3.65	3.25
485.45	1.94	1.83	0.11				
485.50	2.03	1.86	0.17				
485.55	2.14	1.89	0.24				
485.60	2.25	1.93	0.32				
485.65	2.37	1.96	0.40				
485.70	2.48	2.00	0.49				
485.75	2.60	2.03	0.57				
485.80	2.71	2.06	0.65				
485.85	2.80	2.10	0.70				
485.90	2.89	2.13	0.76				
485.95	2.98	2.17	0.81				
486.00	3.06	2.20	0.86				
486.05	3.15	2.24	0.91				
486.10	3.23	2.27	0.95				
486.15	3.30	2.31	1.00				
486.20	3.38	2.34	1.04				
486.25	3.45	2.38	1.08				
486.30	3.53	2.41	1.11				
486.35	3.60	2.45	1.15				
486.40	3.67	2.48	1.19				
486.45	3.74	2.52	1.22				
486.50	3.81	2.55	1.25				
486.55	3.87	2.59	1.29				
486.60	3.94	2.62	1.32				
486.65	4.01	2.66	1.35				
486.70	4.07	2.70	1.38				
486.75	4.14	2.73	1.41				
486.80	4.21	2.77	1.44				
486.85	4.28	2.80	1.48				
486.90	4.37	2.84	1.53				
486.95	4.48	2.88	1.60				
487.00	4.60	2.91	1.68				
487.05	4.72	2.95	1.78				
487.10	4.86	2.99	1.87				
487.15	5.00	3.02	1.98				
487.20	5.15	3.06	2.09				
487.25	5.29	3.10	2.20				
487.30	5.44	3.13	2.30				
487.35	5.57	3.17	2.40				
487.40	5.68	3.21	2.48				
487.45	5.80	3.24	2.55				
487.50	5.91	3.28	2.63				
487.55	6.02	3.32	2.70				

2025.07.03 - Proposed Conditions*Type III 24-hr 2-Year Rainfall=3.50"*

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Stage-Area-Storage for Pond DB #2: Drainage Basin #2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
485.00	5,500	0	487.60	10,700	21,060
485.05	5,600	278	487.65	10,800	21,597
485.10	5,700	560	487.70	10,900	22,140
485.15	5,800	847	487.75	11,000	22,688
485.20	5,900	1,140	487.80	11,100	23,240
485.25	6,000	1,438	487.85	11,200	23,798
485.30	6,100	1,740	487.90	11,300	24,360
485.35	6,200	2,048	487.95	11,400	24,927
485.40	6,300	2,360	488.00	11,500	25,500
485.45	6,400	2,677			
485.50	6,500	3,000			
485.55	6,600	3,328			
485.60	6,700	3,660			
485.65	6,800	3,997			
485.70	6,900	4,340			
485.75	7,000	4,688			
485.80	7,100	5,040			
485.85	7,200	5,398			
485.90	7,300	5,760			
485.95	7,400	6,127			
486.00	7,500	6,500			
486.05	7,600	6,878			
486.10	7,700	7,260			
486.15	7,800	7,647			
486.20	7,900	8,040			
486.25	8,000	8,438			
486.30	8,100	8,840			
486.35	8,200	9,248			
486.40	8,300	9,660			
486.45	8,400	10,077			
486.50	8,500	10,500			
486.55	8,600	10,928			
486.60	8,700	11,360			
486.65	8,800	11,797			
486.70	8,900	12,240			
486.75	9,000	12,688			
486.80	9,100	13,140			
486.85	9,200	13,598			
486.90	9,300	14,060			
486.95	9,400	14,527			
487.00	9,500	15,000			
487.05	9,600	15,478			
487.10	9,700	15,960			
487.15	9,800	16,447			
487.20	9,900	16,940			
487.25	10,000	17,438			
487.30	10,100	17,940			
487.35	10,200	18,448			
487.40	10,300	18,960			
487.45	10,400	19,477			
487.50	10,500	20,000			
487.55	10,600	20,528			

2025.07.03 - Proposed Conditions

Type III 24-hr 2-Year Rainfall=3.50"

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Summary for Pond SMS #1A: SMS #1A

Inflow Area = 3.795 ac, 92.16% Impervious, Inflow Depth = 2.94" for 2-Year event
 Inflow = 10.63 cfs @ 12.14 hrs, Volume= 0.929 af
 Outflow = 3.19 cfs @ 12.51 hrs, Volume= 0.929 af, Atten= 70%, Lag= 22.5 min
 Discarded = 2.16 cfs @ 12.51 hrs, Volume= 0.851 af
 Primary = 1.04 cfs @ 12.51 hrs, Volume= 0.079 af
 Routed to Link POI #1 : POI #1

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
 Peak Elev= 493.59' @ 12.51 hrs Surf.Area= 0.172 ac Storage= 0.215 af

Plug-Flow detention time= 18.9 min calculated for 0.929 af (100% of inflow)
 Center-of-Mass det. time= 18.9 min (800.9 - 782.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	491.75'	0.270 af	36.83'W x 203.69'L x 6.75'H Field A 1.163 af Overall - 0.486 af Embedded = 0.676 af x 40.0% Voids
#2A	492.50'	0.486 af	ADS_StormTech MC-4500 b +Cap x 196 Inside #1 Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap 196 Chambers in 4 Rows Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf
		0.757 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	491.75'	12.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 440.00'
#2	Primary	492.53'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	492.95'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	493.59'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Primary	494.58'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#6	Primary	495.75'	8.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=2.16 cfs @ 12.51 hrs HW=493.59' (Free Discharge)↑ **1=Exfiltration** (Controls 2.16 cfs)**Primary OutFlow** Max=1.04 cfs @ 12.51 hrs HW=493.59' (Free Discharge)↑ **2=Orifice/Grate** (Orifice Controls 0.61 cfs @ 4.44 fps)↑ **3=Orifice/Grate** (Orifice Controls 0.43 cfs @ 3.16 fps)↑ **4=Orifice/Grate** (Controls 0.00 cfs)↑ **5=Orifice/Grate** (Controls 0.00 cfs)↑ **6=Orifice/Grate** (Controls 0.00 cfs)

2025.07.03 - Proposed Conditions

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Type III 24-hr 2-Year Rainfall=3.50"

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Pond SMS #1A: SMS #1A - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-4500 b +Cap (ADS StormTech® MC-4500 with cap volume)

Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf

Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap

Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf

100.0" Wide + 6.0" Spacing = 106.0" C-C Row Spacing

49 Chambers/Row x 4.02' Long +2.73' Cap Length x 2 = 202.69' Row Length +6.0" End Stone x 2 =
203.69' Base Length

4 Rows x 100.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 36.83' Base Width

9.0" Stone Base + 60.0" Chamber Height + 12.0" Stone Cover = 6.75' Field Height

196 Chambers x 106.5 cf + 39.5 cf Cap Volume x 2 x 4 Rows = 21,188.1 cf Chamber Storage

50,642.8 cf Field - 21,188.1 cf Chambers = 29,454.7 cf Stone x 40.0% Voids = 11,781.9 cf Stone Storage

Chamber Storage + Stone Storage = 32,970.0 cf = 0.757 af

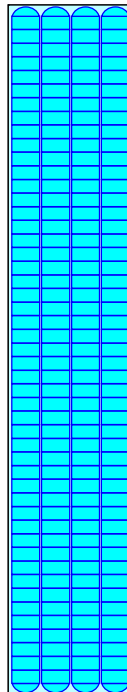
Overall Storage Efficiency = 65.1%

Overall System Size = 203.69' x 36.83' x 6.75'

196 Chambers

1,875.7 cy Field

1,090.9 cy Stone



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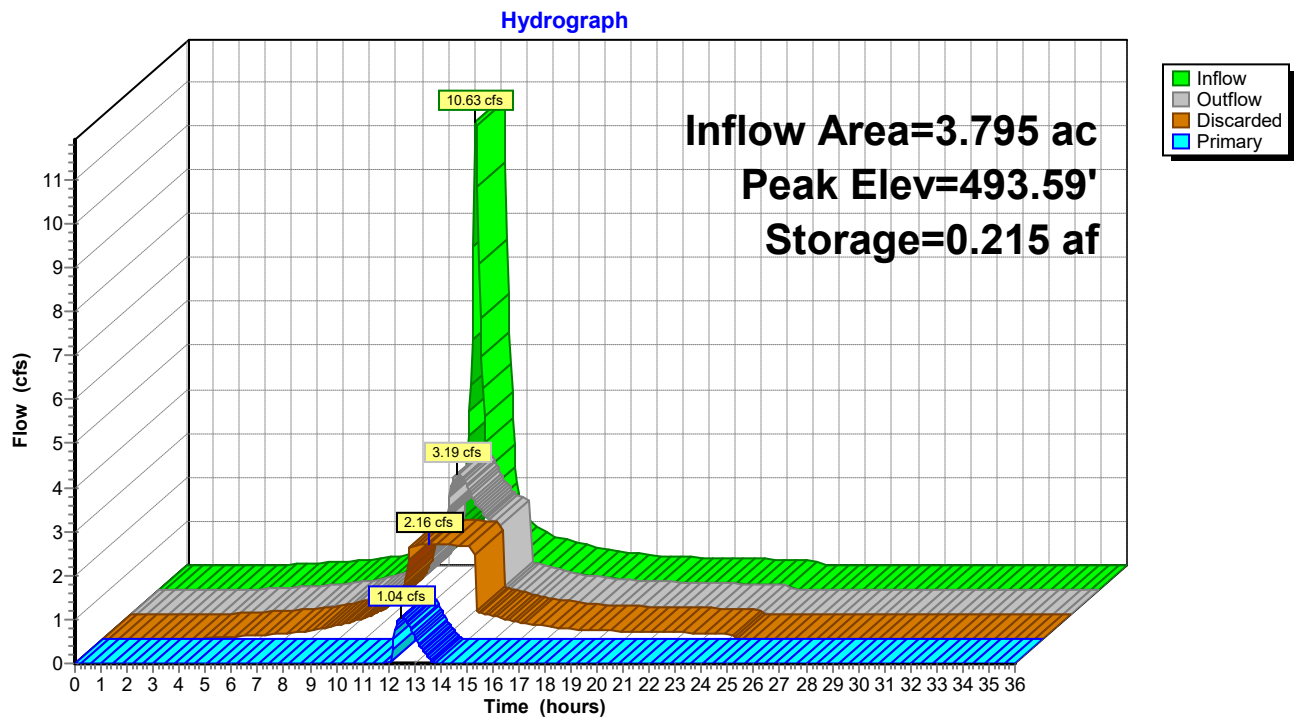
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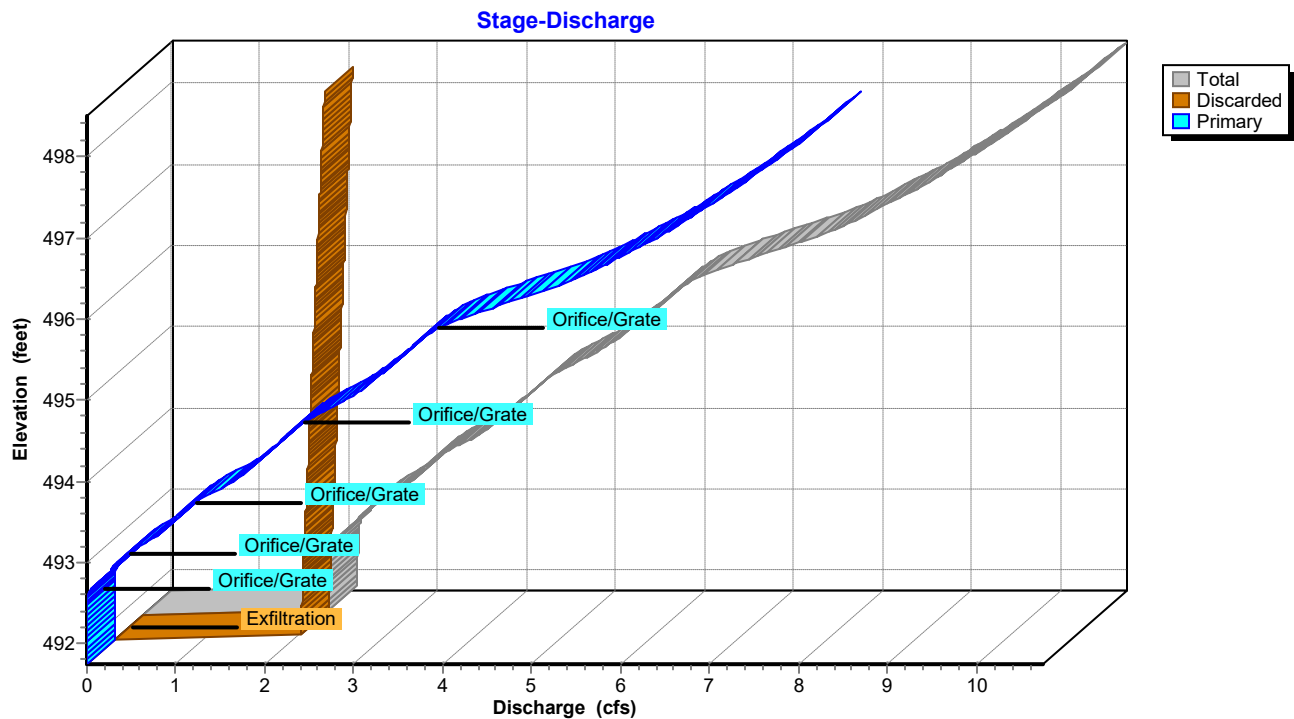
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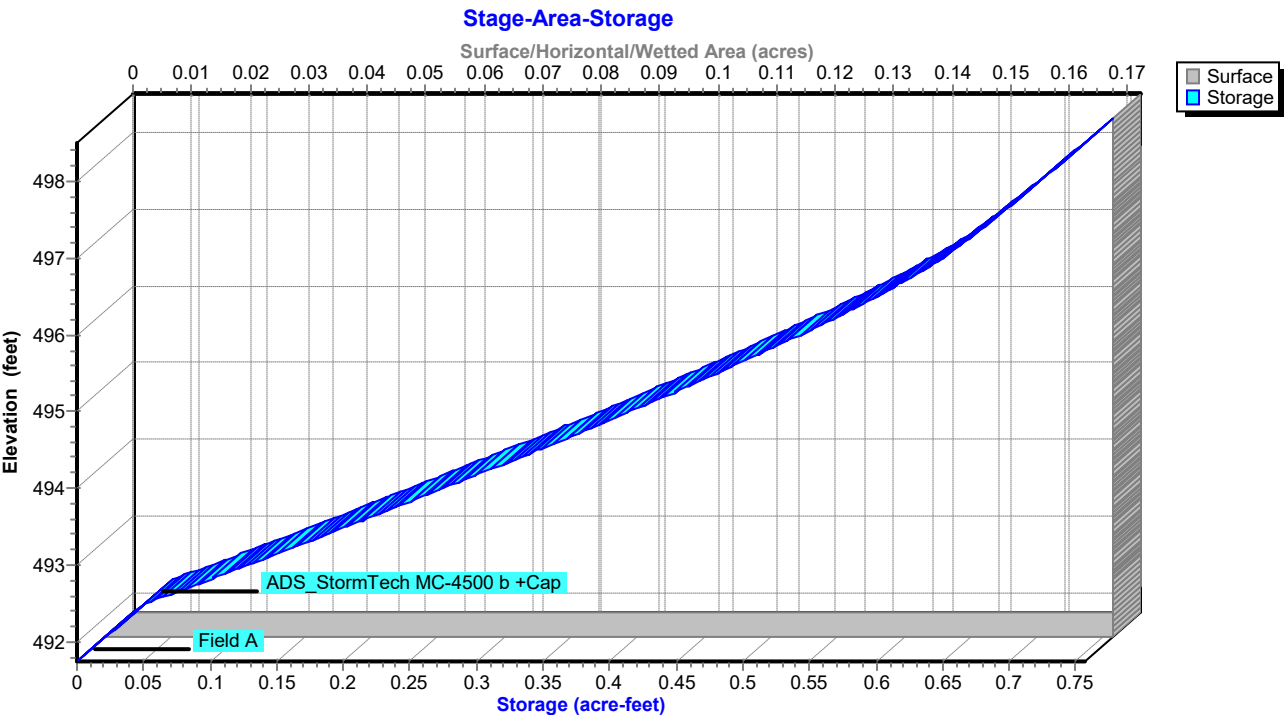
Pond SMS #1A: SMS #1A



Pond SMS #1A: SMS #1A



Pond SMS #1A: SMS #1A



2025.07.03 - Proposed Conditions*Type III 24-hr 2-Year Rainfall=3.50"*

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Hydrograph for Pond SMS #1A: SMS #1A

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0.000	491.75	0.00	0.00	0.00
1.00	0.00	0.000	491.75	0.00	0.00	0.00
2.00	0.00	0.000	491.75	0.00	0.00	0.00
3.00	0.00	0.000	491.75	0.00	0.00	0.00
4.00	0.02	0.000	491.75	0.02	0.02	0.00
5.00	0.05	0.000	491.75	0.05	0.05	0.00
6.00	0.08	0.000	491.75	0.08	0.08	0.00
7.00	0.13	0.000	491.75	0.13	0.13	0.00
8.00	0.19	0.000	491.76	0.19	0.19	0.00
9.00	0.32	0.001	491.76	0.32	0.32	0.00
10.00	0.48	0.001	491.77	0.47	0.47	0.00
11.00	0.77	0.002	491.77	0.76	0.76	0.00
12.00	5.70	0.041	492.35	2.11	2.11	0.00
13.00	1.13	0.161	493.23	2.77	2.14	0.63
14.00	0.69	0.039	492.32	2.11	2.11	0.00
15.00	0.51	0.001	491.77	0.52	0.52	0.00
16.00	0.36	0.001	491.76	0.37	0.37	0.00
17.00	0.29	0.001	491.76	0.29	0.29	0.00
18.00	0.22	0.000	491.76	0.22	0.22	0.00
19.00	0.19	0.000	491.76	0.19	0.19	0.00
20.00	0.17	0.000	491.76	0.17	0.17	0.00
21.00	0.16	0.000	491.76	0.16	0.16	0.00
22.00	0.14	0.000	491.75	0.14	0.14	0.00
23.00	0.13	0.000	491.75	0.13	0.13	0.00
24.00	0.11	0.000	491.75	0.11	0.11	0.00
25.00	0.00	0.000	491.75	0.00	0.00	0.00
26.00	0.00	0.000	491.75	0.00	0.00	0.00
27.00	0.00	0.000	491.75	0.00	0.00	0.00
28.00	0.00	0.000	491.75	0.00	0.00	0.00
29.00	0.00	0.000	491.75	0.00	0.00	0.00
30.00	0.00	0.000	491.75	0.00	0.00	0.00
31.00	0.00	0.000	491.75	0.00	0.00	0.00
32.00	0.00	0.000	491.75	0.00	0.00	0.00
33.00	0.00	0.000	491.75	0.00	0.00	0.00
34.00	0.00	0.000	491.75	0.00	0.00	0.00
35.00	0.00	0.000	491.75	0.00	0.00	0.00
36.00	0.00	0.000	491.75	0.00	0.00	0.00

2025.07.03 - Proposed Conditions*Type III 24-hr 2-Year Rainfall=3.50"*

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Stage-Discharge for Pond SMS #1A: SMS #1A

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
491.75	0.00	0.00	0.00	496.95	8.61	2.29	6.32
491.85	2.09	2.09	0.00	497.05	8.78	2.30	6.48
491.95	2.09	2.09	0.00	497.15	8.94	2.30	6.64
492.05	2.10	2.10	0.00	497.25	9.09	2.31	6.79
492.15	2.10	2.10	0.00	497.35	9.24	2.31	6.93
492.25	2.10	2.10	0.00	497.45	9.39	2.31	7.08
492.35	2.11	2.11	0.00	497.55	9.53	2.32	7.21
492.45	2.11	2.11	0.00	497.65	9.67	2.32	7.35
492.55	2.12	2.12	0.00	497.75	9.81	2.33	7.48
492.65	2.16	2.12	0.04	497.85	9.94	2.33	7.61
492.75	2.24	2.12	0.12	497.95	10.07	2.33	7.74
492.85	2.34	2.13	0.22	498.05	10.20	2.34	7.86
492.95	2.43	2.13	0.30	498.15	10.33	2.34	7.98
493.05	2.53	2.14	0.39	498.25	10.45	2.35	8.10
493.15	2.66	2.14	0.52	498.35	10.57	2.35	8.22
493.25	2.81	2.14	0.67	498.45	10.69	2.35	8.34
493.35	2.95	2.15	0.80				
493.45	3.06	2.15	0.91				
493.55	3.16	2.16	1.00				
493.65	3.26	2.16	1.10				
493.75	3.40	2.16	1.23				
493.85	3.56	2.17	1.39				
493.95	3.74	2.17	1.56				
494.05	3.88	2.18	1.70				
494.15	4.00	2.18	1.82				
494.25	4.12	2.18	1.93				
494.35	4.23	2.19	2.04				
494.45	4.33	2.19	2.14				
494.55	4.42	2.20	2.23				
494.65	4.53	2.20	2.33				
494.75	4.68	2.20	2.47				
494.85	4.86	2.21	2.65				
494.95	5.04	2.21	2.82				
495.05	5.19	2.22	2.97				
495.15	5.33	2.22	3.10				
495.25	5.45	2.23	3.23				
495.35	5.57	2.23	3.34				
495.45	5.69	2.23	3.45				
495.55	5.80	2.24	3.56				
495.65	5.90	2.24	3.66				
495.75	6.00	2.25	3.76				
495.85	6.14	2.25	3.89				
495.95	6.33	2.25	4.08				
496.05	6.58	2.26	4.32				
496.15	6.85	2.26	4.59				
496.25	7.15	2.27	4.88				
496.35	7.43	2.27	5.16				
496.45	7.66	2.27	5.39				
496.55	7.88	2.28	5.60				
496.65	8.08	2.28	5.80				
496.75	8.26	2.29	5.98				
496.85	8.44	2.29	6.15				

2025.07.03 - Proposed Conditions*Type III 24-hr 2-Year Rainfall=3.50"*

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Stage-Area-Storage for Pond SMS #1A: SMS #1A

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
491.75	0.172	0.000	496.95	0.172	0.646
491.85	0.172	0.007	497.05	0.172	0.654
491.95	0.172	0.014	497.15	0.172	0.662
492.05	0.172	0.021	497.25	0.172	0.670
492.15	0.172	0.028	497.35	0.172	0.677
492.25	0.172	0.034	497.45	0.172	0.685
492.35	0.172	0.041	497.55	0.172	0.691
492.45	0.172	0.048	497.65	0.172	0.698
492.55	0.172	0.059	497.75	0.172	0.705
492.65	0.172	0.074	497.85	0.172	0.712
492.75	0.172	0.090	497.95	0.172	0.719
492.85	0.172	0.105	498.05	0.172	0.726
492.95	0.172	0.120	498.15	0.172	0.733
493.05	0.172	0.135	498.25	0.172	0.740
493.15	0.172	0.150	498.35	0.172	0.747
493.25	0.172	0.165	498.45	0.172	0.753
493.35	0.172	0.180			
493.45	0.172	0.194			
493.55	0.172	0.209			
493.65	0.172	0.224			
493.75	0.172	0.239			
493.85	0.172	0.253			
493.95	0.172	0.268			
494.05	0.172	0.282			
494.15	0.172	0.296			
494.25	0.172	0.311			
494.35	0.172	0.325			
494.45	0.172	0.339			
494.55	0.172	0.353			
494.65	0.172	0.367			
494.75	0.172	0.381			
494.85	0.172	0.395			
494.95	0.172	0.408			
495.05	0.172	0.422			
495.15	0.172	0.435			
495.25	0.172	0.448			
495.35	0.172	0.461			
495.45	0.172	0.474			
495.55	0.172	0.487			
495.65	0.172	0.500			
495.75	0.172	0.512			
495.85	0.172	0.525			
495.95	0.172	0.537			
496.05	0.172	0.549			
496.15	0.172	0.561			
496.25	0.172	0.572			
496.35	0.172	0.584			
496.45	0.172	0.595			
496.55	0.172	0.606			
496.65	0.172	0.616			
496.75	0.172	0.626			
496.85	0.172	0.636			

2025.07.03 - Proposed Conditions

Type III 24-hr 2-Year Rainfall=3.50"

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Summary for Pond SMS #1C: SMS #1C

Inflow Area = 3.516 ac, 93.20% Impervious, Inflow Depth = 2.94" for 2-Year event
 Inflow = 9.85 cfs @ 12.14 hrs, Volume= 0.861 af
 Outflow = 3.02 cfs @ 12.51 hrs, Volume= 0.861 af, Atten= 69%, Lag= 22.1 min
 Discarded = 1.98 cfs @ 12.51 hrs, Volume= 0.784 af
 Primary = 1.03 cfs @ 12.51 hrs, Volume= 0.077 af
 Routed to Link POI #1 : POI #1

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
 Peak Elev= 497.09' @ 12.51 hrs Surf.Area= 0.159 ac Storage= 0.198 af

Plug-Flow detention time= 18.7 min calculated for 0.860 af (100% of inflow)
 Center-of-Mass det. time= 18.7 min (800.6 - 782.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	495.25'	0.249 af	36.83'W x 187.59'L x 6.75'H Field A 1.071 af Overall - 0.447 af Embedded = 0.623 af x 40.0% Voids
#2A	496.00'	0.447 af	ADS_StormTech MC-4500 b +Cap x 180 Inside #1 Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap 180 Chambers in 4 Rows Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf
		0.697 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	495.25'	12.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 440.00'
#2	Primary	496.04'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	496.45'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	497.09'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Primary	498.04'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#6	Primary	501.00'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=1.98 cfs @ 12.51 hrs HW=497.09' (Free Discharge)↑ **1=Exfiltration** (Controls 1.98 cfs)**Primary OutFlow** Max=1.03 cfs @ 12.51 hrs HW=497.09' (Free Discharge)

↑ **2=Orifice/Grate** (Orifice Controls 0.60 cfs @ 4.42 fps)
 — **3=Orifice/Grate** (Orifice Controls 0.43 cfs @ 3.16 fps)
 — **4=Orifice/Grate** (Controls 0.00 cfs)
 — **5=Orifice/Grate** (Controls 0.00 cfs)
 — **6=Orifice/Grate** (Controls 0.00 cfs)

2025.07.03 - Proposed Conditions

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Type III 24-hr 2-Year Rainfall=3.50"

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Pond SMS #1C: SMS #1C - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-4500 b +Cap (ADS StormTech® MC-4500 with cap volume)

Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf

Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap

Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf

100.0" Wide + 6.0" Spacing = 106.0" C-C Row Spacing

45 Chambers/Row x 4.02' Long +2.73' Cap Length x 2 = 186.59' Row Length +6.0" End Stone x 2 =
187.59' Base Length

4 Rows x 100.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 36.83' Base Width

9.0" Stone Base + 60.0" Chamber Height + 12.0" Stone Cover = 6.75' Field Height

180 Chambers x 106.5 cf + 39.5 cf Cap Volume x 2 x 4 Rows = 19,484.3 cf Chamber Storage

46,640.0 cf Field - 19,484.3 cf Chambers = 27,155.7 cf Stone x 40.0% Voids = 10,862.3 cf Stone Storage

Chamber Storage + Stone Storage = 30,346.6 cf = 0.697 af

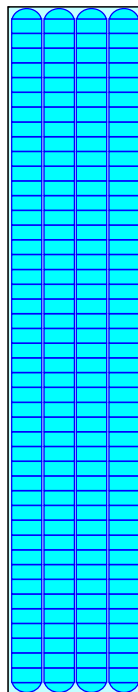
Overall Storage Efficiency = 65.1%

Overall System Size = 187.59' x 36.83' x 6.75'

180 Chambers

1,727.4 cy Field

1,005.8 cy Stone



2025.07.03 - Proposed Conditions

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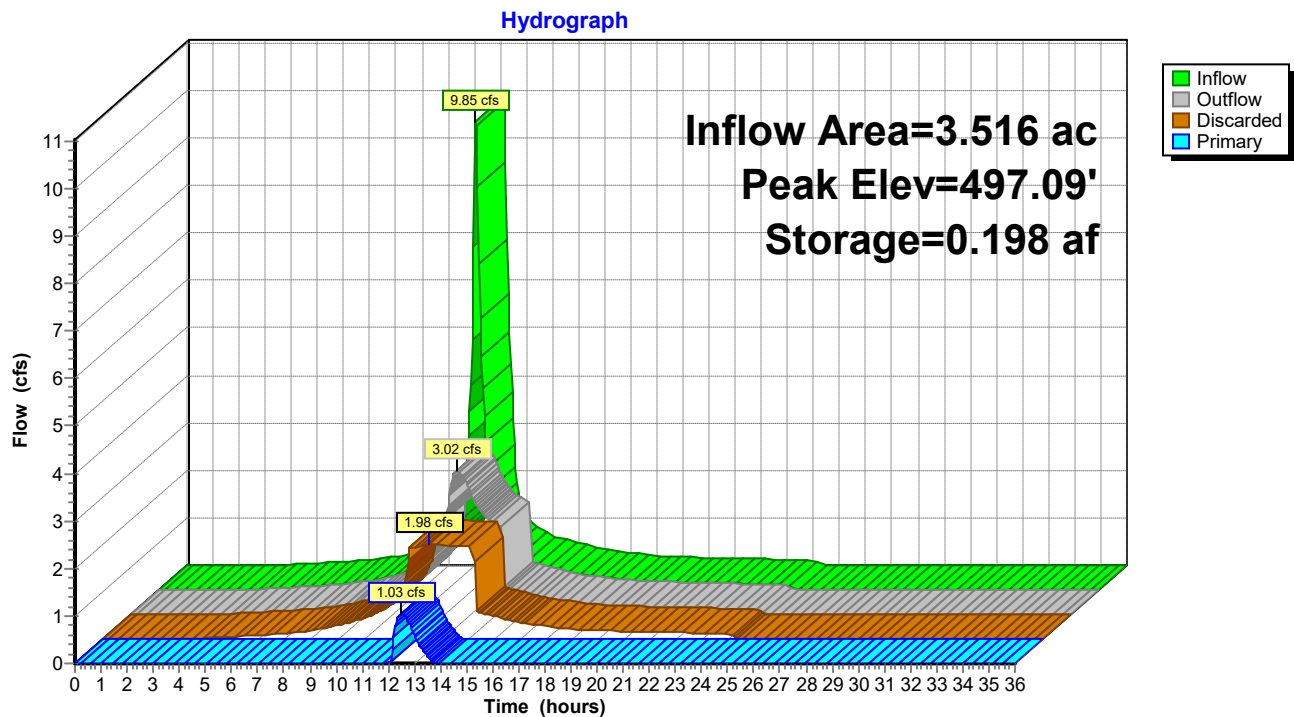
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Type III 24-hr 2-Year Rainfall=3.50"

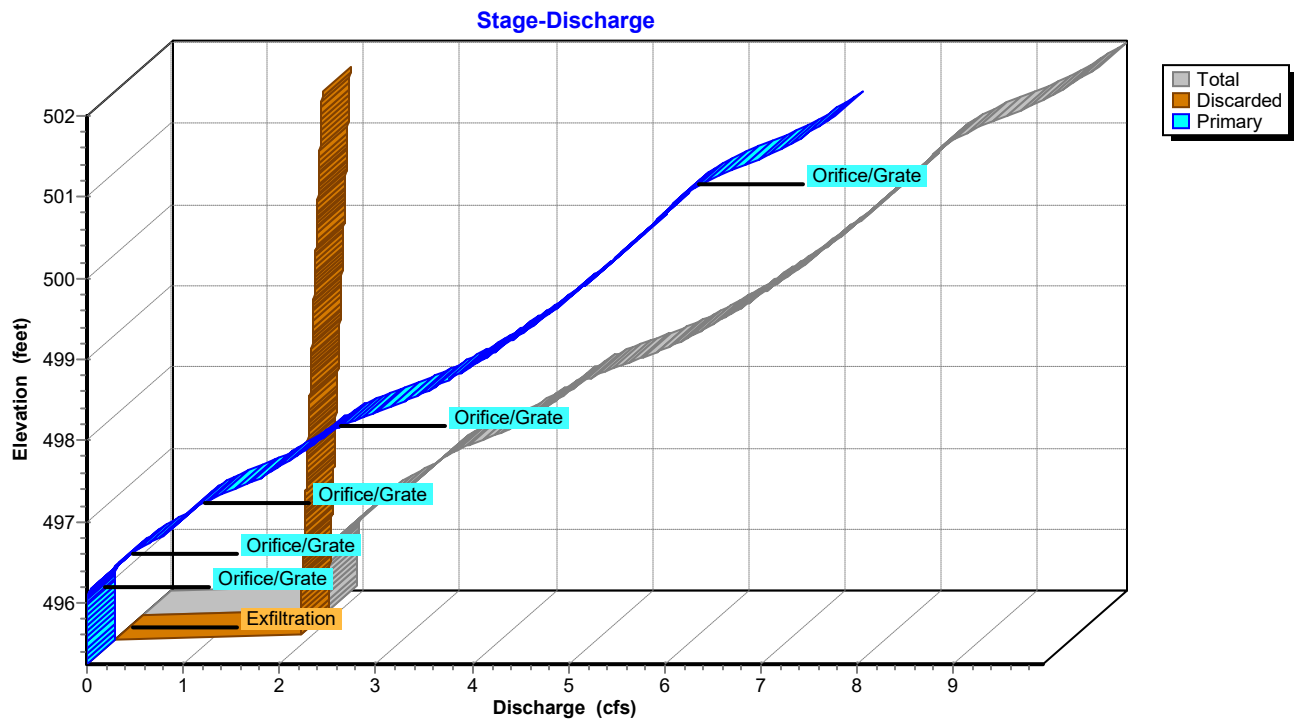
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Pond SMS #1C: SMS #1C

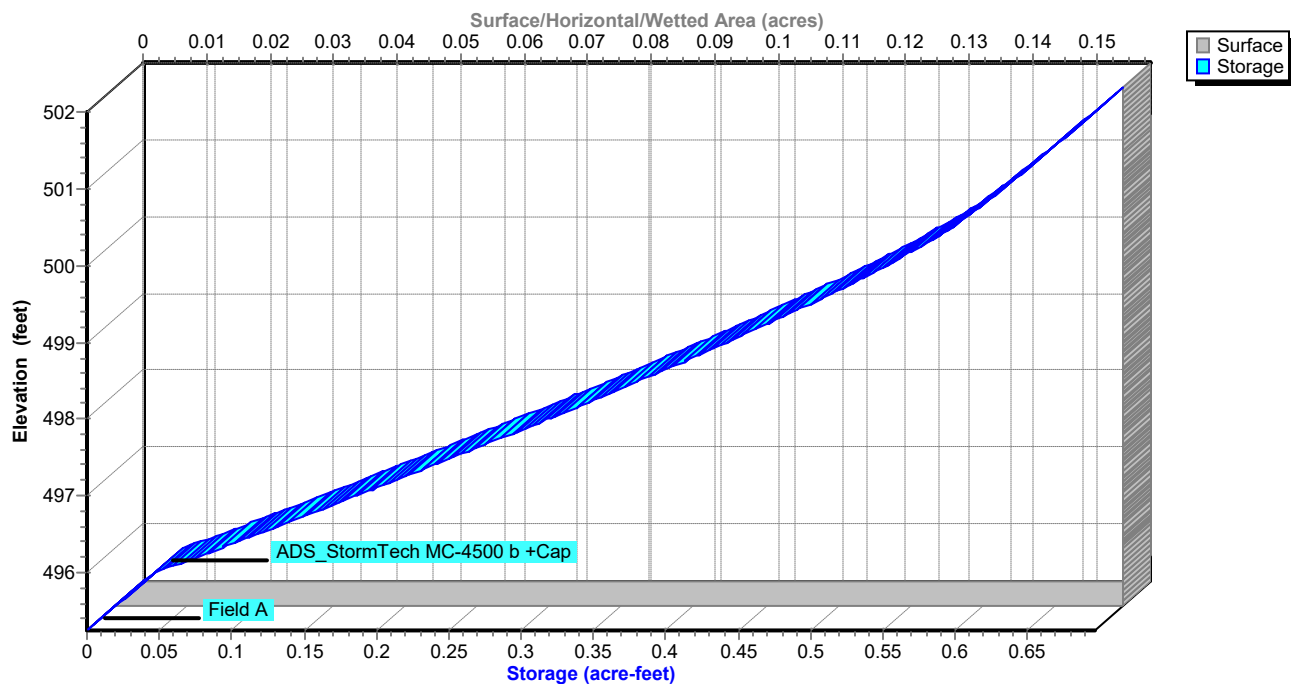


Pond SMS #1C: SMS #1C



Pond SMS #1C: SMS #1C

Stage-Area-Storage



2025.07.03 - Proposed Conditions*Type III 24-hr 2-Year Rainfall=3.50"*

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Hydrograph for Pond SMS #1C: SMS #1C

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0.000	495.25	0.00	0.00	0.00
1.00	0.00	0.000	495.25	0.00	0.00	0.00
2.00	0.00	0.000	495.25	0.00	0.00	0.00
3.00	0.00	0.000	495.25	0.00	0.00	0.00
4.00	0.02	0.000	495.25	0.02	0.02	0.00
5.00	0.05	0.000	495.25	0.05	0.05	0.00
6.00	0.07	0.000	495.25	0.07	0.07	0.00
7.00	0.12	0.000	495.25	0.12	0.12	0.00
8.00	0.18	0.000	495.26	0.18	0.18	0.00
9.00	0.30	0.001	495.26	0.29	0.29	0.00
10.00	0.44	0.001	495.27	0.44	0.44	0.00
11.00	0.71	0.002	495.27	0.70	0.70	0.00
12.00	5.28	0.039	495.86	1.94	1.94	0.00
13.00	1.05	0.147	496.71	2.58	1.97	0.61
14.00	0.64	0.035	495.80	1.94	1.94	0.00
15.00	0.48	0.001	495.27	0.48	0.48	0.00
16.00	0.34	0.001	495.26	0.34	0.34	0.00
17.00	0.26	0.001	495.26	0.27	0.27	0.00
18.00	0.20	0.000	495.26	0.21	0.21	0.00
19.00	0.18	0.000	495.26	0.18	0.18	0.00
20.00	0.16	0.000	495.26	0.16	0.16	0.00
21.00	0.15	0.000	495.26	0.15	0.15	0.00
22.00	0.13	0.000	495.25	0.13	0.13	0.00
23.00	0.12	0.000	495.25	0.12	0.12	0.00
24.00	0.11	0.000	495.25	0.11	0.11	0.00
25.00	0.00	0.000	495.25	0.00	0.00	0.00
26.00	0.00	0.000	495.25	0.00	0.00	0.00
27.00	0.00	0.000	495.25	0.00	0.00	0.00
28.00	0.00	0.000	495.25	0.00	0.00	0.00
29.00	0.00	0.000	495.25	0.00	0.00	0.00
30.00	0.00	0.000	495.25	0.00	0.00	0.00
31.00	0.00	0.000	495.25	0.00	0.00	0.00
32.00	0.00	0.000	495.25	0.00	0.00	0.00
33.00	0.00	0.000	495.25	0.00	0.00	0.00
34.00	0.00	0.000	495.25	0.00	0.00	0.00
35.00	0.00	0.000	495.25	0.00	0.00	0.00
36.00	0.00	0.000	495.25	0.00	0.00	0.00

2025.07.03 - Proposed Conditions*Type III 24-hr 2-Year Rainfall=3.50"*

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Stage-Discharge for Pond SMS #1C: SMS #1C

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
495.25	0.00	0.00	0.00	500.45	7.78	2.10	5.68
495.35	1.92	1.92	0.00	500.55	7.88	2.10	5.77
495.45	1.93	1.93	0.00	500.65	7.97	2.11	5.86
495.55	1.93	1.93	0.00	500.75	8.06	2.11	5.95
495.65	1.93	1.93	0.00	500.85	8.15	2.11	6.04
495.75	1.94	1.94	0.00	500.95	8.24	2.12	6.12
495.85	1.94	1.94	0.00	501.05	8.33	2.12	6.21
495.95	1.94	1.94	0.00	501.15	8.48	2.12	6.35
496.05	1.95	1.95	0.00	501.25	8.67	2.13	6.54
496.15	1.98	1.95	0.03	501.35	8.88	2.13	6.75
496.25	2.06	1.95	0.11	501.45	9.09	2.13	6.96
496.35	2.16	1.96	0.21	501.55	9.27	2.14	7.13
496.45	2.26	1.96	0.30	501.65	9.43	2.14	7.29
496.55	2.35	1.96	0.39	501.75	9.58	2.15	7.43
496.65	2.48	1.97	0.51	501.85	9.72	2.15	7.57
496.75	2.63	1.97	0.66	501.95	9.86	2.15	7.71
496.85	2.77	1.97	0.80				
496.95	2.88	1.98	0.90				
497.05	2.98	1.98	1.00				
497.15	3.08	1.99	1.09				
497.25	3.22	1.99	1.24				
497.35	3.41	1.99	1.41				
497.45	3.61	2.00	1.61				
497.55	3.80	2.00	1.81				
497.65	3.96	2.00	1.96				
497.75	4.10	2.01	2.10				
497.85	4.23	2.01	2.22				
497.95	4.35	2.01	2.34				
498.05	4.47	2.02	2.45				
498.15	4.61	2.02	2.59				
498.25	4.80	2.02	2.78				
498.35	5.03	2.03	3.00				
498.45	5.26	2.03	3.22				
498.55	5.46	2.03	3.42				
498.65	5.63	2.04	3.59				
498.75	5.79	2.04	3.75				
498.85	5.94	2.04	3.90				
498.95	6.09	2.05	4.04				
499.05	6.23	2.05	4.17				
499.15	6.36	2.05	4.30				
499.25	6.49	2.06	4.43				
499.35	6.61	2.06	4.55				
499.45	6.73	2.07	4.66				
499.55	6.84	2.07	4.78				
499.65	6.96	2.07	4.89				
499.75	7.07	2.08	4.99				
499.85	7.18	2.08	5.10				
499.95	7.28	2.08	5.20				
500.05	7.39	2.09	5.30				
500.15	7.49	2.09	5.40				
500.25	7.59	2.09	5.49				
500.35	7.68	2.10	5.59				

2025.07.03 - Proposed Conditions*Type III 24-hr 2-Year Rainfall=3.50"*

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Stage-Area-Storage for Pond SMS #1C: SMS #1C

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
495.25	0.159	0.000	500.45	0.159	0.594
495.35	0.159	0.006	500.55	0.159	0.602
495.45	0.159	0.013	500.65	0.159	0.610
495.55	0.159	0.019	500.75	0.159	0.617
495.65	0.159	0.025	500.85	0.159	0.623
495.75	0.159	0.032	500.95	0.159	0.630
495.85	0.159	0.038	501.05	0.159	0.636
495.95	0.159	0.044	501.15	0.159	0.643
496.05	0.159	0.055	501.25	0.159	0.649
496.15	0.159	0.069	501.35	0.159	0.655
496.25	0.159	0.082	501.45	0.159	0.662
496.35	0.159	0.096	501.55	0.159	0.668
496.45	0.159	0.110	501.65	0.159	0.674
496.55	0.159	0.124	501.75	0.159	0.681
496.65	0.159	0.138	501.85	0.159	0.687
496.75	0.159	0.152	501.95	0.159	0.693
496.85	0.159	0.165			
496.95	0.159	0.179			
497.05	0.159	0.193			
497.15	0.159	0.206			
497.25	0.159	0.220			
497.35	0.159	0.233			
497.45	0.159	0.246			
497.55	0.159	0.260			
497.65	0.159	0.273			
497.75	0.159	0.286			
497.85	0.159	0.299			
497.95	0.159	0.312			
498.05	0.159	0.325			
498.15	0.159	0.338			
498.25	0.159	0.351			
498.35	0.159	0.363			
498.45	0.159	0.376			
498.55	0.159	0.388			
498.65	0.159	0.400			
498.75	0.159	0.413			
498.85	0.159	0.425			
498.95	0.159	0.437			
499.05	0.159	0.448			
499.15	0.159	0.460			
499.25	0.159	0.472			
499.35	0.159	0.483			
499.45	0.159	0.494			
499.55	0.159	0.505			
499.65	0.159	0.516			
499.75	0.159	0.527			
499.85	0.159	0.537			
499.95	0.159	0.547			
500.05	0.159	0.557			
500.15	0.159	0.567			
500.25	0.159	0.576			
500.35	0.159	0.586			

2025.07.03 - Proposed Conditions

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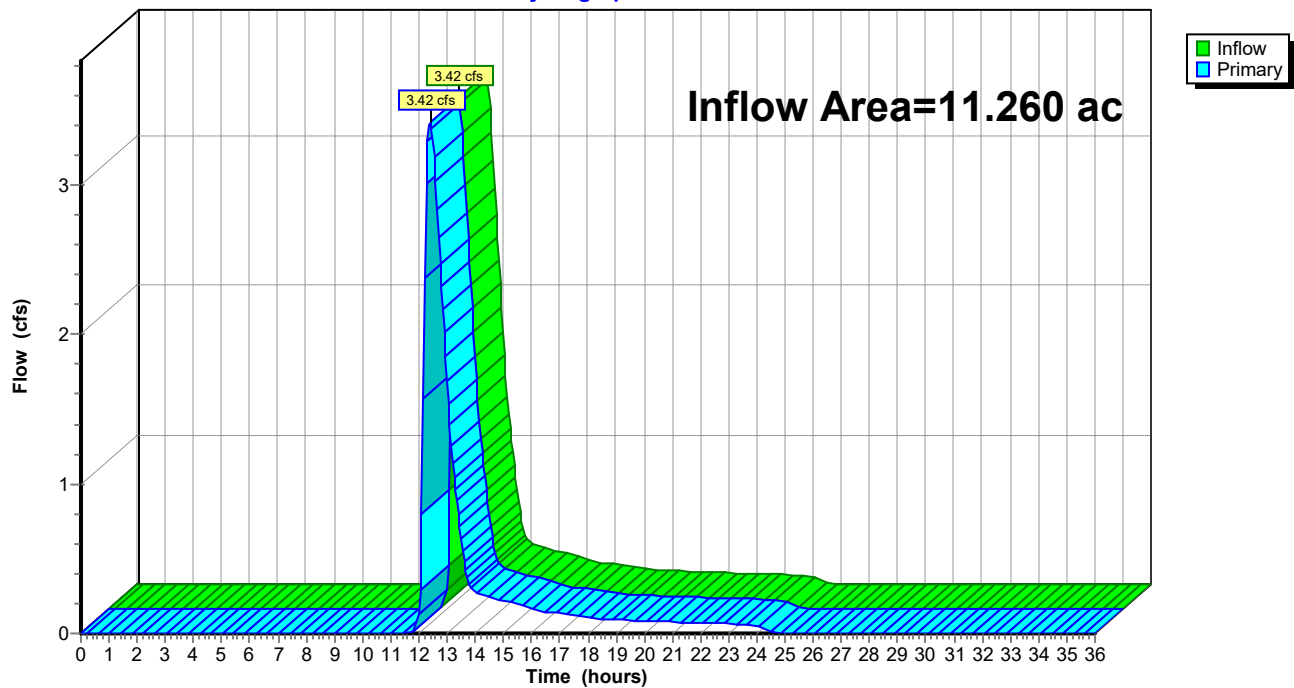
Summary for Link POI #1: POI #1

Inflow Area = 11.260 ac, 61.46% Impervious, Inflow Depth = 0.38" for 2-Year event
Inflow = 3.42 cfs @ 12.39 hrs, Volume= 0.358 af
Primary = 3.42 cfs @ 12.39 hrs, Volume= 0.358 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #1: POI #1

Hydrograph



2025.07.03 - Proposed Conditions*Type III 24-hr 2-Year Rainfall=3.50"*

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Hydrograph for Link POI #1: POI #1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	35.50	0.00	0.00	0.00
10.00	0.00	0.00	0.00	36.00	0.00	0.00	0.00
10.50	0.00	0.00	0.00				
11.00	0.00	0.00	0.00				
11.50	0.00	0.00	0.00				
12.00	0.13	0.00	0.13				
12.50	3.31	0.00	3.31				
13.00	1.69	0.00	1.69				
13.50	0.63	0.00	0.63				
14.00	0.28	0.00	0.28				
14.50	0.25	0.00	0.25				
15.00	0.22	0.00	0.22				
15.50	0.19	0.00	0.19				
16.00	0.17	0.00	0.17				
16.50	0.14	0.00	0.14				
17.00	0.13	0.00	0.13				
17.50	0.12	0.00	0.12				
18.00	0.10	0.00	0.10				
18.50	0.10	0.00	0.10				
19.00	0.09	0.00	0.09				
19.50	0.09	0.00	0.09				
20.00	0.08	0.00	0.08				
20.50	0.08	0.00	0.08				
21.00	0.08	0.00	0.08				
21.50	0.07	0.00	0.07				
22.00	0.07	0.00	0.07				
22.50	0.07	0.00	0.07				
23.00	0.06	0.00	0.06				
23.50	0.06	0.00	0.06				
24.00	0.06	0.00	0.06				
24.50	0.00	0.00	0.00				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				

2025.07.03 - Proposed Conditions

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Type III 24-hr 2-Year Rainfall=3.50"

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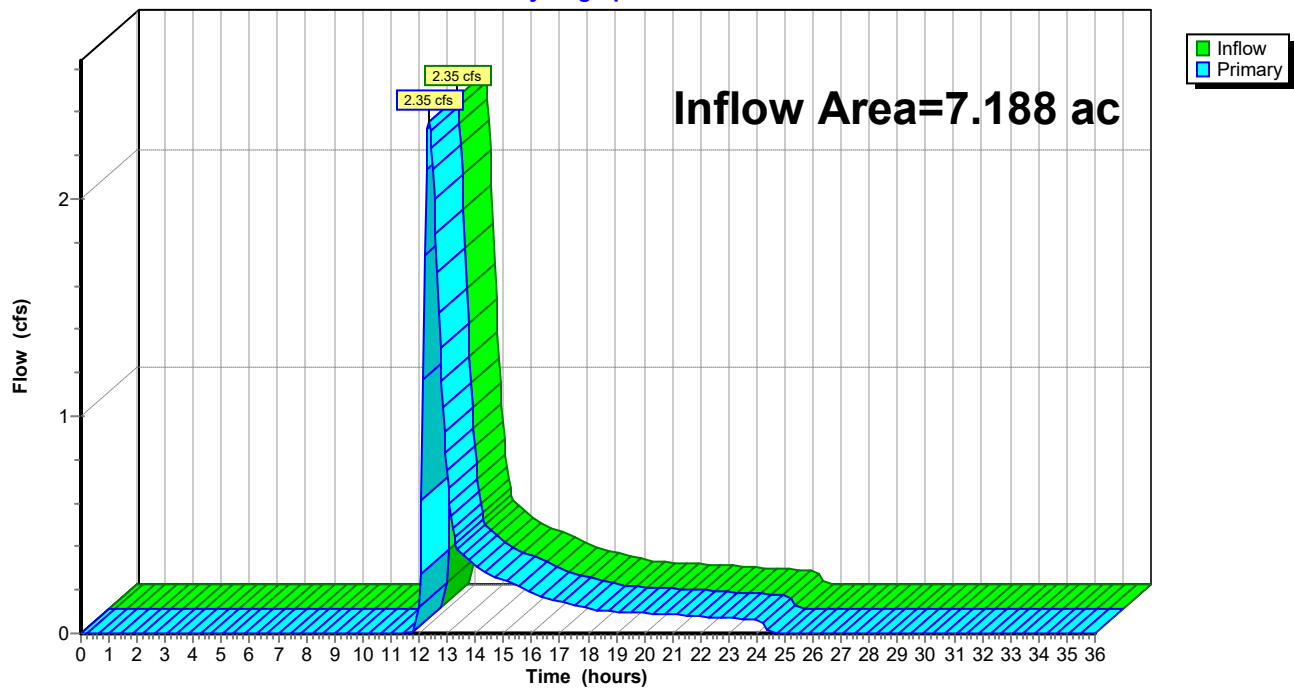
Summary for Link POI #2: POI #2

Inflow Area = 7.188 ac, 34.72% Impervious, Inflow Depth = 0.45" for 2-Year event
Inflow = 2.35 cfs @ 12.35 hrs, Volume= 0.268 af
Primary = 2.35 cfs @ 12.35 hrs, Volume= 0.268 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #2: POI #2

Hydrograph



2025.07.03 - Proposed Conditions*Type III 24-hr 2-Year Rainfall=3.50"*

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Hydrograph for Link POI #2: POI #2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	35.50	0.00	0.00	0.00
10.00	0.00	0.00	0.00	36.00	0.00	0.00	0.00
10.50	0.00	0.00	0.00				
11.00	0.00	0.00	0.00				
11.50	0.00	0.00	0.00				
12.00	0.12	0.00	0.12				
12.50	2.13	0.00	2.13				
13.00	0.75	0.00	0.75				
13.50	0.37	0.00	0.37				
14.00	0.31	0.00	0.31				
14.50	0.27	0.00	0.27				
15.00	0.25	0.00	0.25				
15.50	0.22	0.00	0.22				
16.00	0.19	0.00	0.19				
16.50	0.16	0.00	0.16				
17.00	0.15	0.00	0.15				
17.50	0.13	0.00	0.13				
18.00	0.12	0.00	0.12				
18.50	0.11	0.00	0.11				
19.00	0.10	0.00	0.10				
19.50	0.10	0.00	0.10				
20.00	0.09	0.00	0.09				
20.50	0.09	0.00	0.09				
21.00	0.09	0.00	0.09				
21.50	0.08	0.00	0.08				
22.00	0.08	0.00	0.08				
22.50	0.07	0.00	0.07				
23.00	0.07	0.00	0.07				
23.50	0.07	0.00	0.07				
24.00	0.06	0.00	0.06				
24.50	0.00	0.00	0.00				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				

2025.07.03 - Proposed Conditions*Type III 24-hr 10-Year Rainfall=5.00"*

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Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 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 DA #1A: Drainage Area #1A Runoff Area=165,307 sf 92.16% Impervious Runoff Depth=4.42"
Tc=10.0 min CN=95 Runoff=15.62 cfs 1.398 af

Subcatchment DA #1B: Drainage Area #1B Runoff Area=172,042 sf 3.71% Impervious Runoff Depth=1.44"
Flow Length=638' Tc=17.0 min CN=62 Runoff=4.37 cfs 0.473 af

Subcatchment DA #1C: Drainage Area Runoff Area=153,140 sf 93.20% Impervious Runoff Depth=4.42"
Tc=10.0 min CN=95 Runoff=14.47 cfs 1.295 af

Subcatchment DA #2A: Drainage Area #2A Runoff Area=121,928 sf 86.47% Impervious Runoff Depth=4.20"
Tc=10.0 min CN=93 Runoff=11.20 cfs 0.979 af

Subcatchment DA #2B: Drainage Area #2B Runoff Area=191,184 sf 1.71% Impervious Runoff Depth=1.44"
Flow Length=784' Tc=18.4 min CN=62 Runoff=4.70 cfs 0.526 af

Pond DB #2: Drainage Basin #2 Peak Elev=486.44' Storage=9,954 cf Inflow=11.20 cfs 0.979 af
Discarded=2.51 cfs 0.864 af Primary=1.21 cfs 0.116 af Outflow=3.72 cfs 0.980 af

Pond SMS #1A: SMS #1A Peak Elev=494.59' Storage=0.358 af Inflow=15.62 cfs 1.398 af
Discarded=2.20 cfs 1.162 af Primary=2.26 cfs 0.236 af Outflow=4.46 cfs 1.398 af

Pond SMS #1C: SMS #1C Peak Elev=498.04' Storage=0.324 af Inflow=14.47 cfs 1.295 af
Discarded=2.02 cfs 1.064 af Primary=2.44 cfs 0.231 af Outflow=4.46 cfs 1.295 af

Link POI #1: POI #1 Inflow=8.43 cfs 0.940 af
Primary=8.43 cfs 0.940 af

Link POI #2: POI #2 Inflow=5.82 cfs 0.642 af
Primary=5.82 cfs 0.642 af

Total Runoff Area = 18.448 ac Runoff Volume = 4.671 af Average Runoff Depth = 3.04"
48.96% Pervious = 9.032 ac 51.04% Impervious = 9.416 ac

2025.07.03 - Proposed Conditions

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Type III 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment DA #1A: Drainage Area #1A

Runoff = 15.62 cfs @ 12.14 hrs, Volume= 1.398 af, Depth= 4.42"
Routed to Pond SMS #1A : SMS #1A

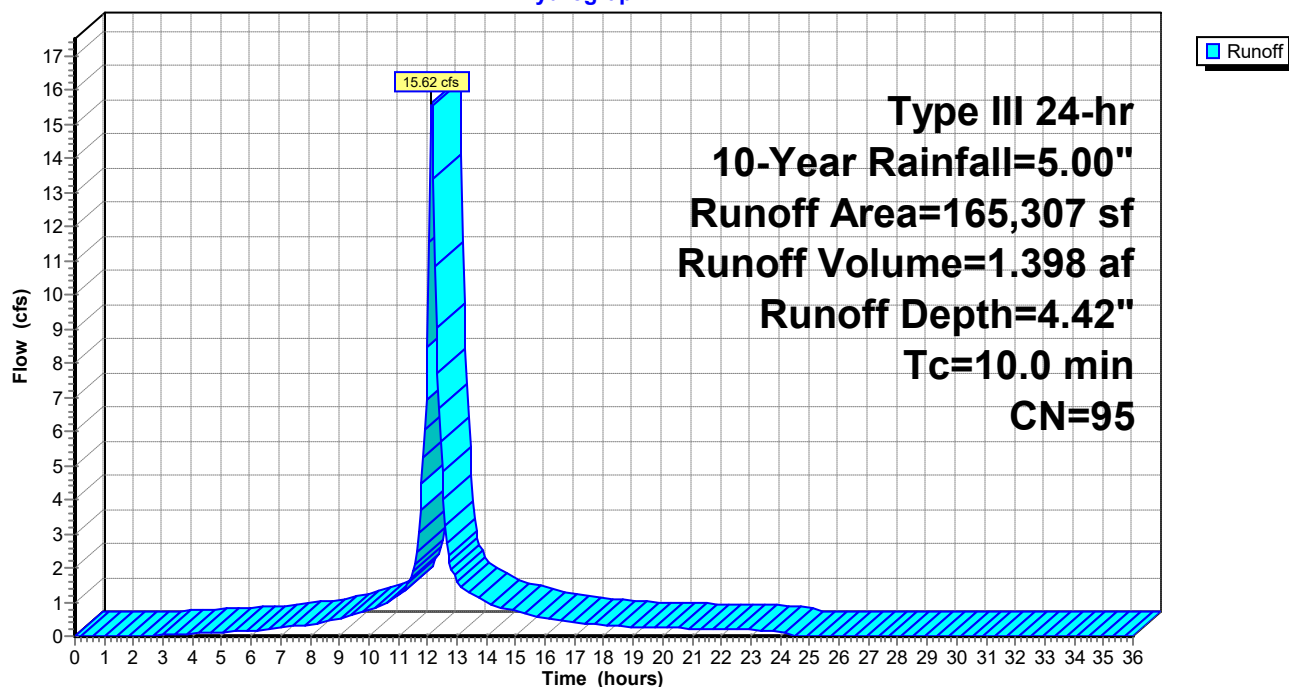
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=5.00"

	Area (sf)	CN	Description
	11,207	61	>75% Grass cover, Good, HSG B
*	1,751	61	Emergency Access Road (Perv.), Good, HSG B
*	86,044	98	Building/Roof, HSG B
*	60,510	98	Pavement, HSG B
*	2,937	98	Sidewalk, HSG B
*	2,858	98	Emergency Access Road (Imp.), HSG B
	165,307	95	Weighted Average
	12,958		7.84% Pervious Area
	152,349		92.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, 10 Minute Minimum

Subcatchment DA #1A: Drainage Area #1A

Hydrograph



2025.07.03 - Proposed Conditions*Type III 24-hr 10-Year Rainfall=5.00"*

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Hydrograph for Subcatchment DA #1A: Drainage Area #1A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	5.00	4.42	0.00
0.50	0.03	0.00	0.00	26.50	5.00	4.42	0.00
1.00	0.05	0.00	0.00	27.00	5.00	4.42	0.00
1.50	0.08	0.00	0.00	27.50	5.00	4.42	0.00
2.00	0.10	0.00	0.00	28.00	5.00	4.42	0.00
2.50	0.13	0.00	0.01	28.50	5.00	4.42	0.00
3.00	0.15	0.00	0.03	29.00	5.00	4.42	0.00
3.50	0.18	0.01	0.05	29.50	5.00	4.42	0.00
4.00	0.22	0.02	0.07	30.00	5.00	4.42	0.00
4.50	0.25	0.03	0.09	30.50	5.00	4.42	0.00
5.00	0.28	0.05	0.12	31.00	5.00	4.42	0.00
5.50	0.32	0.06	0.14	31.50	5.00	4.42	0.00
6.00	0.36	0.08	0.16	32.00	5.00	4.42	0.00
6.50	0.40	0.11	0.20	32.50	5.00	4.42	0.00
7.00	0.45	0.14	0.24	33.00	5.00	4.42	0.00
7.50	0.51	0.17	0.29	33.50	5.00	4.42	0.00
8.00	0.57	0.22	0.34	34.00	5.00	4.42	0.00
8.50	0.64	0.27	0.43	34.50	5.00	4.42	0.00
9.00	0.73	0.34	0.53	35.00	5.00	4.42	0.00
9.50	0.83	0.42	0.65	35.50	5.00	4.42	0.00
10.00	0.95	0.52	0.76	36.00	5.00	4.42	0.00
10.50	1.08	0.64	0.95				
11.00	1.25	0.78	1.19				
11.50	1.49	1.00	1.84				
12.00	2.50	1.96	8.46				
12.50	3.51	2.95	4.84				
13.00	3.75	3.18	1.64				
13.50	3.92	3.35	1.22				
14.00	4.06	3.49	0.99				
14.50	4.17	3.60	0.85				
15.00	4.27	3.70	0.74				
15.50	4.36	3.78	0.63				
16.00	4.43	3.86	0.53				
16.50	4.49	3.92	0.46				
17.00	4.55	3.97	0.41				
17.50	4.60	4.02	0.36				
18.00	4.64	4.06	0.32				
18.50	4.68	4.10	0.29				
19.00	4.72	4.14	0.28				
19.50	4.75	4.17	0.26				
20.00	4.79	4.21	0.25				
20.50	4.82	4.24	0.24				
21.00	4.85	4.27	0.23				
21.50	4.88	4.30	0.22				
22.00	4.90	4.32	0.21				
22.50	4.93	4.35	0.20				
23.00	4.95	4.37	0.19				
23.50	4.98	4.40	0.18				
24.00	5.00	4.42	0.16				
24.50	5.00	4.42	0.00				
25.00	5.00	4.42	0.00				
25.50	5.00	4.42	0.00				

2025.07.03 - Proposed Conditions

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Type III 24-hr 10-Year Rainfall=5.00"

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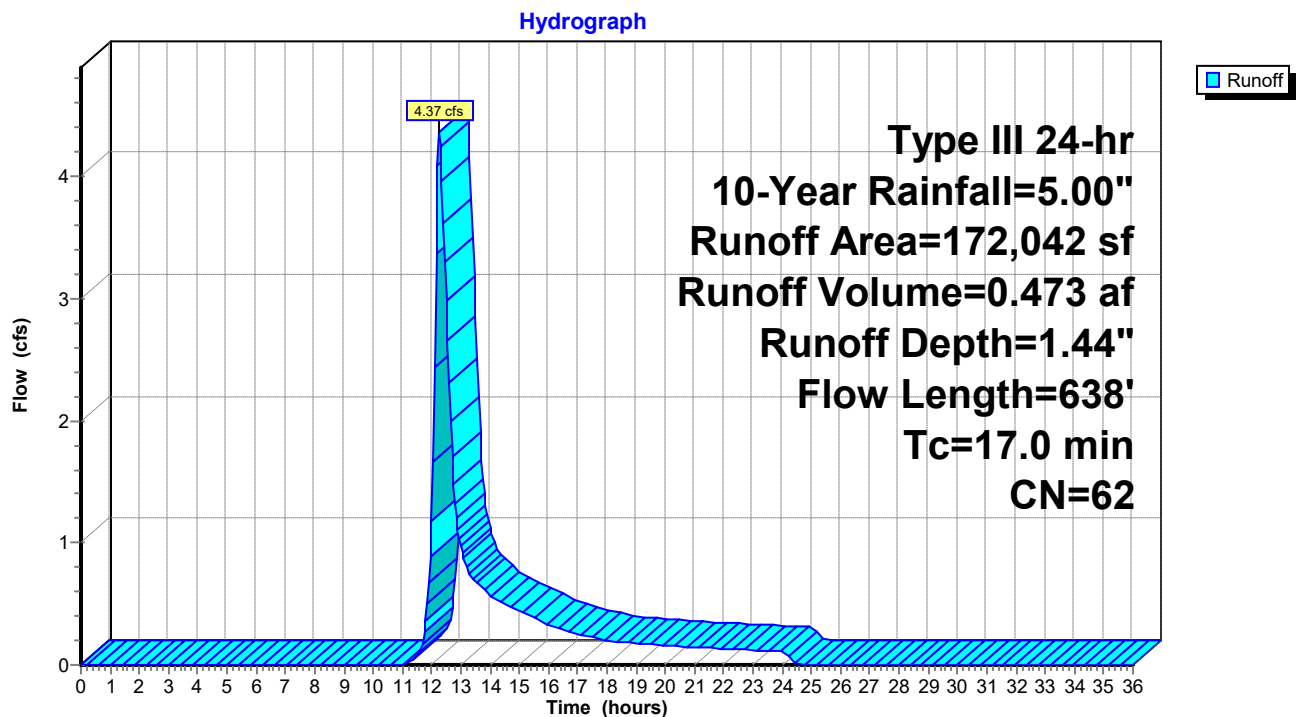
Summary for Subcatchment DA #1B: Drainage Area #1B

Runoff = 4.37 cfs @ 12.26 hrs, Volume= 0.473 af, Depth= 1.44"
Routed to Link POI #1 : POI #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
161,751	61	>75% Grass cover, Good, HSG B
* 3,911	61	Emergency Access Road (Perv.), Good, HSG B
* 6,380	98	Emergency Access Road (Imp.), HSG B
172,042	62	Weighted Average
165,662		96.29% Pervious Area
6,380		3.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.2	150	0.1200	0.21		Sheet Flow, Grass: Dense n= 0.240 P2= 2.00"
4.8	488	0.0578	1.68		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
17.0	638	Total			

Subcatchment DA #1B: Drainage Area #1B

2025.07.03 - Proposed Conditions*Type III 24-hr 10-Year Rainfall=5.00"*

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Hydrograph for Subcatchment DA #1B: Drainage Area #1B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	5.00	1.44	0.00
0.50	0.03	0.00	0.00	26.50	5.00	1.44	0.00
1.00	0.05	0.00	0.00	27.00	5.00	1.44	0.00
1.50	0.08	0.00	0.00	27.50	5.00	1.44	0.00
2.00	0.10	0.00	0.00	28.00	5.00	1.44	0.00
2.50	0.13	0.00	0.00	28.50	5.00	1.44	0.00
3.00	0.15	0.00	0.00	29.00	5.00	1.44	0.00
3.50	0.18	0.00	0.00	29.50	5.00	1.44	0.00
4.00	0.22	0.00	0.00	30.00	5.00	1.44	0.00
4.50	0.25	0.00	0.00	30.50	5.00	1.44	0.00
5.00	0.28	0.00	0.00	31.00	5.00	1.44	0.00
5.50	0.32	0.00	0.00	31.50	5.00	1.44	0.00
6.00	0.36	0.00	0.00	32.00	5.00	1.44	0.00
6.50	0.40	0.00	0.00	32.50	5.00	1.44	0.00
7.00	0.45	0.00	0.00	33.00	5.00	1.44	0.00
7.50	0.51	0.00	0.00	33.50	5.00	1.44	0.00
8.00	0.57	0.00	0.00	34.00	5.00	1.44	0.00
8.50	0.64	0.00	0.00	34.50	5.00	1.44	0.00
9.00	0.73	0.00	0.00	35.00	5.00	1.44	0.00
9.50	0.83	0.00	0.00	35.50	5.00	1.44	0.00
10.00	0.95	0.00	0.00	36.00	5.00	1.44	0.00
10.50	1.08	0.00	0.00				
11.00	1.25	0.00	0.00				
11.50	1.49	0.01	0.08				
12.00	2.50	0.22	1.18				
12.50	3.51	0.62	2.98				
13.00	3.75	0.74	0.97				
13.50	3.92	0.82	0.68				
14.00	4.06	0.89	0.58				
14.50	4.17	0.96	0.50				
15.00	4.27	1.01	0.44				
15.50	4.36	1.06	0.39				
16.00	4.43	1.10	0.33				
16.50	4.49	1.14	0.28				
17.00	4.55	1.17	0.26				
17.50	4.60	1.20	0.23				
18.00	4.64	1.22	0.20				
18.50	4.68	1.24	0.18				
19.00	4.72	1.27	0.18				
19.50	4.75	1.29	0.17				
20.00	4.79	1.31	0.16				
20.50	4.82	1.33	0.15				
21.00	4.85	1.35	0.15				
21.50	4.88	1.36	0.14				
22.00	4.90	1.38	0.13				
22.50	4.93	1.40	0.13				
23.00	4.95	1.41	0.12				
23.50	4.98	1.42	0.11				
24.00	5.00	1.44	0.11				
24.50	5.00	1.44	0.01				
25.00	5.00	1.44	0.00				
25.50	5.00	1.44	0.00				

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Type III 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment DA #1C: Drainage Area #1C

Runoff = 14.47 cfs @ 12.14 hrs, Volume= 1.295 af, Depth= 4.42"
Routed to Pond SMS #1C : SMS #1C

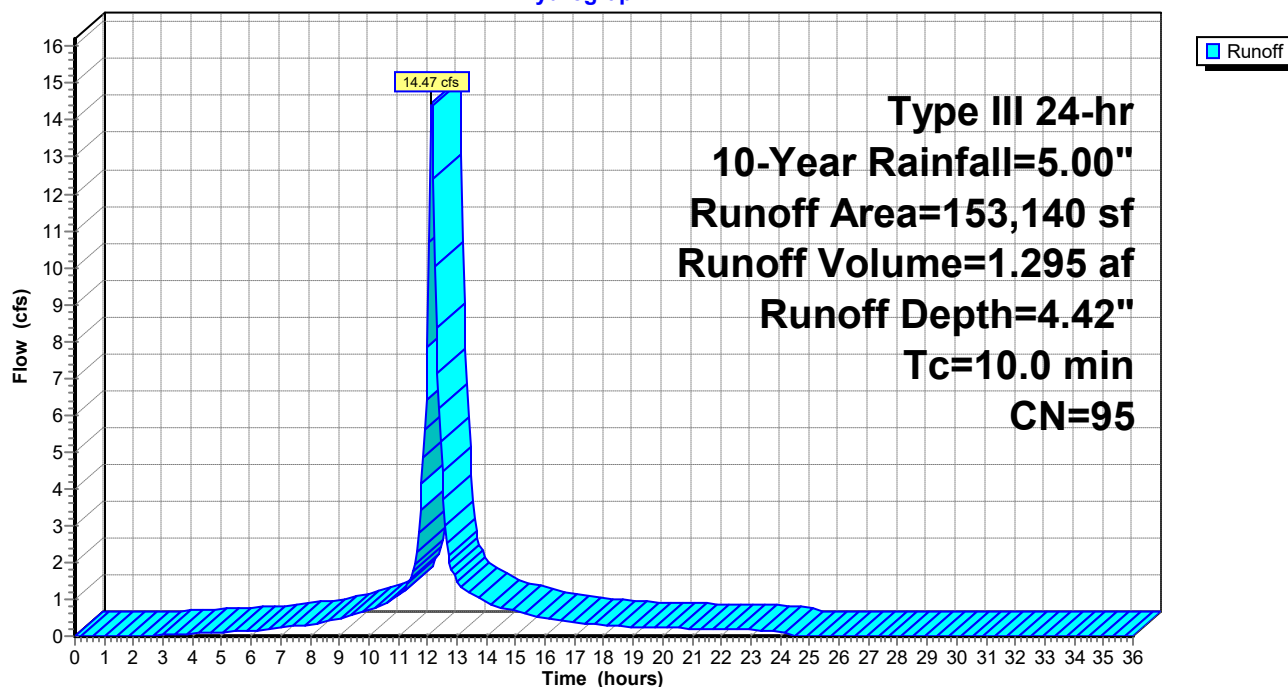
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=5.00"

	Area (sf)	CN	Description
	8,883	61	>75% Grass cover, Good, HSG B
*	1,528	61	Emergency Access Road (Perv.), Good, HSG B
*	100,238	98	Building/Roof, HSG B
*	36,917	98	Pavement, HSG B
*	3,080	98	Sidewalk, HSG B
	2,494	98	Emergency Access Road (Imp.), HSG B
	153,140	95	Weighted Average
	10,411		6.80% Pervious Area
	142,729		93.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, 10 Direct Minimum

Subcatchment DA #1C: Drainage Area #1C

Hydrograph



2025.07.03 - Proposed Conditions*Type III 24-hr 10-Year Rainfall=5.00"*

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Hydrograph for Subcatchment DA #1C: Drainage Area #1C

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	5.00	4.42	0.00
0.50	0.03	0.00	0.00	26.50	5.00	4.42	0.00
1.00	0.05	0.00	0.00	27.00	5.00	4.42	0.00
1.50	0.08	0.00	0.00	27.50	5.00	4.42	0.00
2.00	0.10	0.00	0.00	28.00	5.00	4.42	0.00
2.50	0.13	0.00	0.01	28.50	5.00	4.42	0.00
3.00	0.15	0.00	0.03	29.00	5.00	4.42	0.00
3.50	0.18	0.01	0.05	29.50	5.00	4.42	0.00
4.00	0.22	0.02	0.07	30.00	5.00	4.42	0.00
4.50	0.25	0.03	0.09	30.50	5.00	4.42	0.00
5.00	0.28	0.05	0.11	31.00	5.00	4.42	0.00
5.50	0.32	0.06	0.13	31.50	5.00	4.42	0.00
6.00	0.36	0.08	0.15	32.00	5.00	4.42	0.00
6.50	0.40	0.11	0.18	32.50	5.00	4.42	0.00
7.00	0.45	0.14	0.22	33.00	5.00	4.42	0.00
7.50	0.51	0.17	0.27	33.50	5.00	4.42	0.00
8.00	0.57	0.22	0.32	34.00	5.00	4.42	0.00
8.50	0.64	0.27	0.40	34.50	5.00	4.42	0.00
9.00	0.73	0.34	0.49	35.00	5.00	4.42	0.00
9.50	0.83	0.42	0.60	35.50	5.00	4.42	0.00
10.00	0.95	0.52	0.71	36.00	5.00	4.42	0.00
10.50	1.08	0.64	0.88				
11.00	1.25	0.78	1.10				
11.50	1.49	1.00	1.70				
12.00	2.50	1.96	7.84				
12.50	3.51	2.95	4.48				
13.00	3.75	3.18	1.52				
13.50	3.92	3.35	1.13				
14.00	4.06	3.49	0.92				
14.50	4.17	3.60	0.79				
15.00	4.27	3.70	0.69				
15.50	4.36	3.78	0.59				
16.00	4.43	3.86	0.49				
16.50	4.49	3.92	0.43				
17.00	4.55	3.97	0.38				
17.50	4.60	4.02	0.34				
18.00	4.64	4.06	0.29				
18.50	4.68	4.10	0.27				
19.00	4.72	4.14	0.26				
19.50	4.75	4.17	0.25				
20.00	4.79	4.21	0.23				
20.50	4.82	4.24	0.22				
21.00	4.85	4.27	0.21				
21.50	4.88	4.30	0.20				
22.00	4.90	4.32	0.19				
22.50	4.93	4.35	0.18				
23.00	4.95	4.37	0.17				
23.50	4.98	4.40	0.16				
24.00	5.00	4.42	0.15				
24.50	5.00	4.42	0.00				
25.00	5.00	4.42	0.00				
25.50	5.00	4.42	0.00				

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Summary for Subcatchment DA #2A: Drainage Area #2A

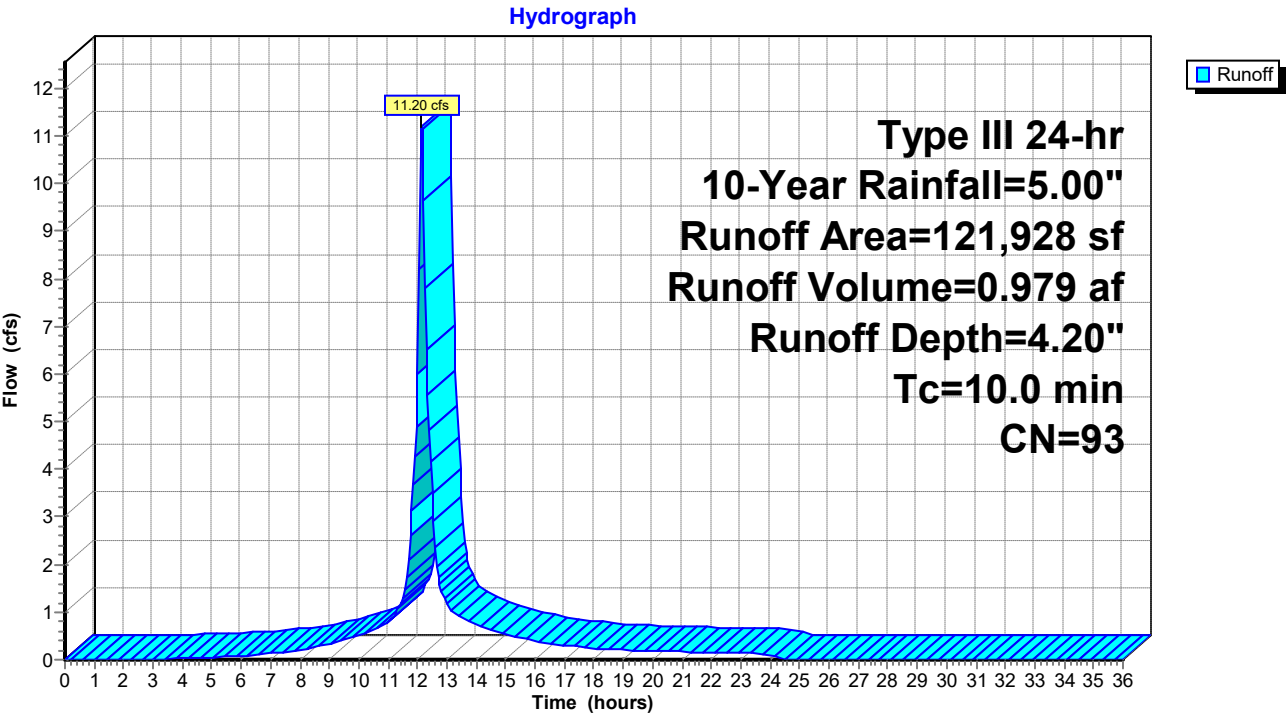
Runoff = 11.20 cfs @ 12.14 hrs, Volume= 0.979 af, Depth= 4.20"
Routed to Pond DB #2 : Drainage Basin #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=5.00"

	Area (sf)	CN	Description
*	50,600	98	Building/Roof, HSG B
*	37,828	98	Pavement, HSG B
*	1,562	98	Sidewalk, HSG B
*	3,943	98	Emergency Access Road (Imp.), HSG B
	14,078	61	>75% Grass cover, Good, HSG B
*	2,417	61	Emergency Access Road (Perv.), Good, HSG B
*	11,500	98	Infiltration Basin, HSG B
	121,928	93	Weighted Average
	16,495		13.53% Pervious Area
	105,433		86.47% Impervious Area

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
10.0					Direct Entry, 10 Minute Minimum

Subcatchment DA #2A: Drainage Area #2A



2025.07.03 - Proposed Conditions*Type III 24-hr 10-Year Rainfall=5.00"*

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Hydrograph for Subcatchment DA #2A: Drainage Area #2A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	5.00	4.20	0.00
0.50	0.03	0.00	0.00	26.50	5.00	4.20	0.00
1.00	0.05	0.00	0.00	27.00	5.00	4.20	0.00
1.50	0.08	0.00	0.00	27.50	5.00	4.20	0.00
2.00	0.10	0.00	0.00	28.00	5.00	4.20	0.00
2.50	0.13	0.00	0.00	28.50	5.00	4.20	0.00
3.00	0.15	0.00	0.00	29.00	5.00	4.20	0.00
3.50	0.18	0.00	0.01	29.50	5.00	4.20	0.00
4.00	0.22	0.01	0.02	30.00	5.00	4.20	0.00
4.50	0.25	0.01	0.04	30.50	5.00	4.20	0.00
5.00	0.28	0.02	0.05	31.00	5.00	4.20	0.00
5.50	0.32	0.03	0.07	31.50	5.00	4.20	0.00
6.00	0.36	0.05	0.08	32.00	5.00	4.20	0.00
6.50	0.40	0.06	0.11	32.50	5.00	4.20	0.00
7.00	0.45	0.09	0.14	33.00	5.00	4.20	0.00
7.50	0.51	0.12	0.17	33.50	5.00	4.20	0.00
8.00	0.57	0.15	0.20	34.00	5.00	4.20	0.00
8.50	0.64	0.19	0.26	34.50	5.00	4.20	0.00
9.00	0.73	0.25	0.34	35.00	5.00	4.20	0.00
9.50	0.83	0.32	0.42	35.50	5.00	4.20	0.00
10.00	0.95	0.41	0.50	36.00	5.00	4.20	0.00
10.50	1.08	0.52	0.64				
11.00	1.25	0.65	0.81				
11.50	1.49	0.86	1.27				
12.00	2.50	1.78	6.00				
12.50	3.51	2.74	3.50				
13.00	3.75	2.98	1.19				
13.50	3.92	3.14	0.89				
14.00	4.06	3.27	0.72				
14.50	4.17	3.39	0.62				
15.00	4.27	3.48	0.54				
15.50	4.36	3.57	0.46				
16.00	4.43	3.64	0.38				
16.50	4.49	3.70	0.34				
17.00	4.55	3.75	0.30				
17.50	4.60	3.80	0.27				
18.00	4.64	3.84	0.23				
18.50	4.68	3.88	0.21				
19.00	4.72	3.92	0.20				
19.50	4.75	3.95	0.19				
20.00	4.79	3.99	0.18				
20.50	4.82	4.02	0.17				
21.00	4.85	4.05	0.17				
21.50	4.88	4.08	0.16				
22.00	4.90	4.10	0.15				
22.50	4.93	4.13	0.14				
23.00	4.95	4.15	0.14				
23.50	4.98	4.18	0.13				
24.00	5.00	4.20	0.12				
24.50	5.00	4.20	0.00				
25.00	5.00	4.20	0.00				
25.50	5.00	4.20	0.00				

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Type III 24-hr 10-Year Rainfall=5.00"

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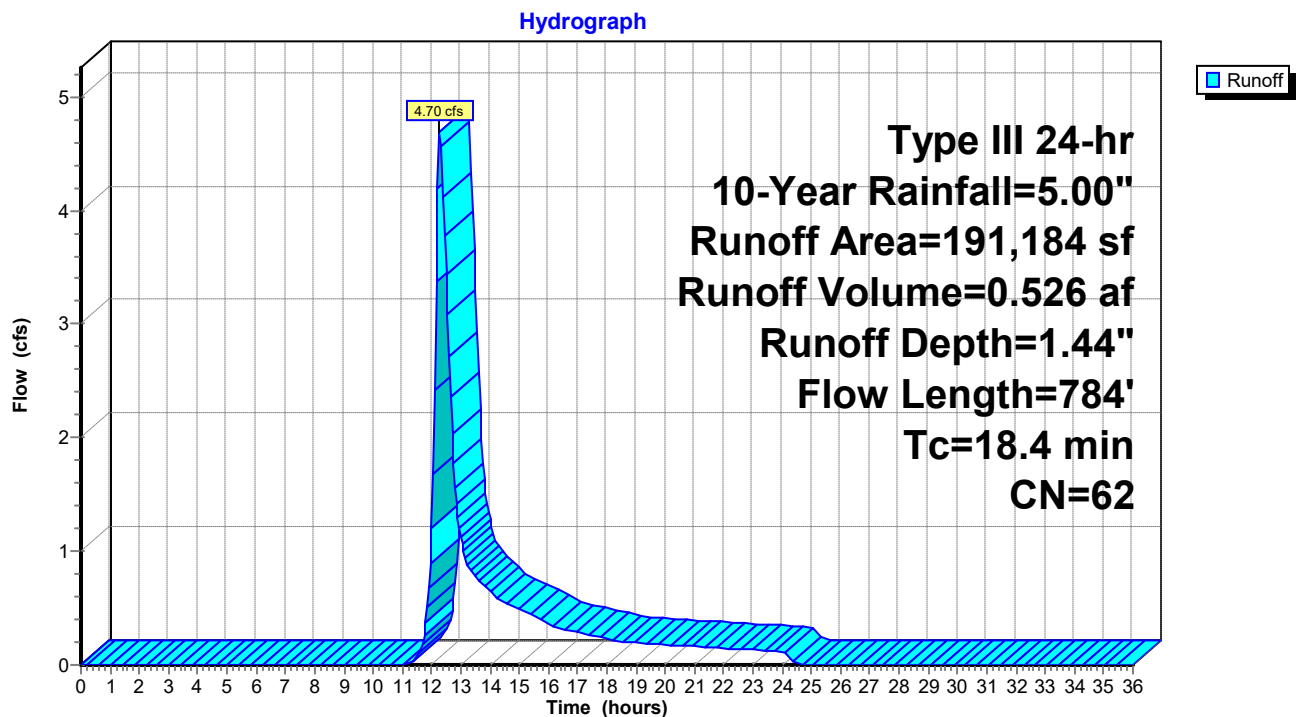
Summary for Subcatchment DA #2B: Drainage Area #2B

Runoff = 4.70 cfs @ 12.28 hrs, Volume= 0.526 af, Depth= 1.44"
Routed to Link POI #2 : POI #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=5.00"

	Area (sf)	CN	Description
	185,909	61	>75% Grass cover, Good, HSG B
*	2,004	61	Emergency Access Road (Perv.), Good, HSG B
*	3,271	98	Emergency Access Road (Imp.), HSG B
	191,184	62	Weighted Average
	187,913		98.29% Pervious Area
	3,271		1.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	150	0.0667	0.16		Sheet Flow, Grass: Dense n= 0.240 P2= 2.00"
3.0	634	0.2524	3.52		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
18.4	784	Total			

Subcatchment DA #2B: Drainage Area #2B

2025.07.03 - Proposed Conditions*Type III 24-hr 10-Year Rainfall=5.00"*

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Hydrograph for Subcatchment DA #2B: Drainage Area #2B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	5.00	1.44	0.00
0.50	0.03	0.00	0.00	26.50	5.00	1.44	0.00
1.00	0.05	0.00	0.00	27.00	5.00	1.44	0.00
1.50	0.08	0.00	0.00	27.50	5.00	1.44	0.00
2.00	0.10	0.00	0.00	28.00	5.00	1.44	0.00
2.50	0.13	0.00	0.00	28.50	5.00	1.44	0.00
3.00	0.15	0.00	0.00	29.00	5.00	1.44	0.00
3.50	0.18	0.00	0.00	29.50	5.00	1.44	0.00
4.00	0.22	0.00	0.00	30.00	5.00	1.44	0.00
4.50	0.25	0.00	0.00	30.50	5.00	1.44	0.00
5.00	0.28	0.00	0.00	31.00	5.00	1.44	0.00
5.50	0.32	0.00	0.00	31.50	5.00	1.44	0.00
6.00	0.36	0.00	0.00	32.00	5.00	1.44	0.00
6.50	0.40	0.00	0.00	32.50	5.00	1.44	0.00
7.00	0.45	0.00	0.00	33.00	5.00	1.44	0.00
7.50	0.51	0.00	0.00	33.50	5.00	1.44	0.00
8.00	0.57	0.00	0.00	34.00	5.00	1.44	0.00
8.50	0.64	0.00	0.00	34.50	5.00	1.44	0.00
9.00	0.73	0.00	0.00	35.00	5.00	1.44	0.00
9.50	0.83	0.00	0.00	35.50	5.00	1.44	0.00
10.00	0.95	0.00	0.00	36.00	5.00	1.44	0.00
10.50	1.08	0.00	0.00				
11.00	1.25	0.00	0.00				
11.50	1.49	0.01	0.08				
12.00	2.50	0.22	1.20				
12.50	3.51	0.62	3.44				
13.00	3.75	0.74	1.13				
13.50	3.92	0.82	0.77				
14.00	4.06	0.89	0.65				
14.50	4.17	0.96	0.55				
15.00	4.27	1.01	0.49				
15.50	4.36	1.06	0.43				
16.00	4.43	1.10	0.37				
16.50	4.49	1.14	0.32				
17.00	4.55	1.17	0.29				
17.50	4.60	1.20	0.26				
18.00	4.64	1.22	0.23				
18.50	4.68	1.24	0.20				
19.00	4.72	1.27	0.20				
19.50	4.75	1.29	0.19				
20.00	4.79	1.31	0.18				
20.50	4.82	1.33	0.17				
21.00	4.85	1.35	0.16				
21.50	4.88	1.36	0.16				
22.00	4.90	1.38	0.15				
22.50	4.93	1.40	0.14				
23.00	4.95	1.41	0.13				
23.50	4.98	1.42	0.13				
24.00	5.00	1.44	0.12				
24.50	5.00	1.44	0.01				
25.00	5.00	1.44	0.00				
25.50	5.00	1.44	0.00				

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Summary for Pond DB #2: Drainage Basin #2

Inflow Area = 2.799 ac, 86.47% Impervious, Inflow Depth = 4.20" for 10-Year event
 Inflow = 11.20 cfs @ 12.14 hrs, Volume= 0.979 af
 Outflow = 3.72 cfs @ 12.48 hrs, Volume= 0.980 af, Atten= 67%, Lag= 20.8 min
 Discarded = 2.51 cfs @ 12.48 hrs, Volume= 0.864 af
 Primary = 1.21 cfs @ 12.48 hrs, Volume= 0.116 af
 Routed to Link POI #2 : POI #2

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs / 3
 Peak Elev= 486.44' @ 12.48 hrs Surf.Area= 8,371 sf Storage= 9,954 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 18.8 min (800.8 - 782.0)

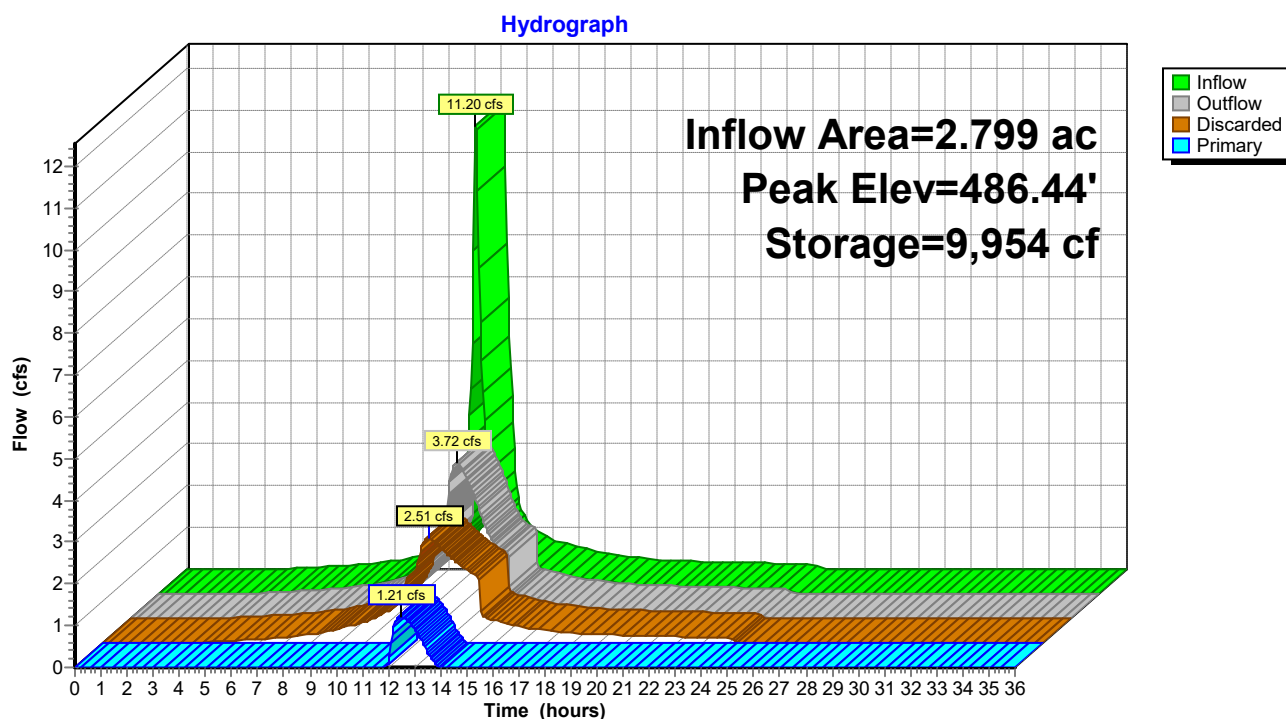
Volume	Invert	Avail.Storage	Storage Description
#1	485.00'	25,500 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
485.00	5,500	0	0
486.00	7,500	6,500	6,500
487.00	9,500	8,500	15,000
488.00	11,500	10,500	25,500

Device	Routing	Invert	Outlet Devices
#1	Discarded	485.00'	12.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 470.00'
#2	Primary	485.26'	7.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	486.79'	7.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

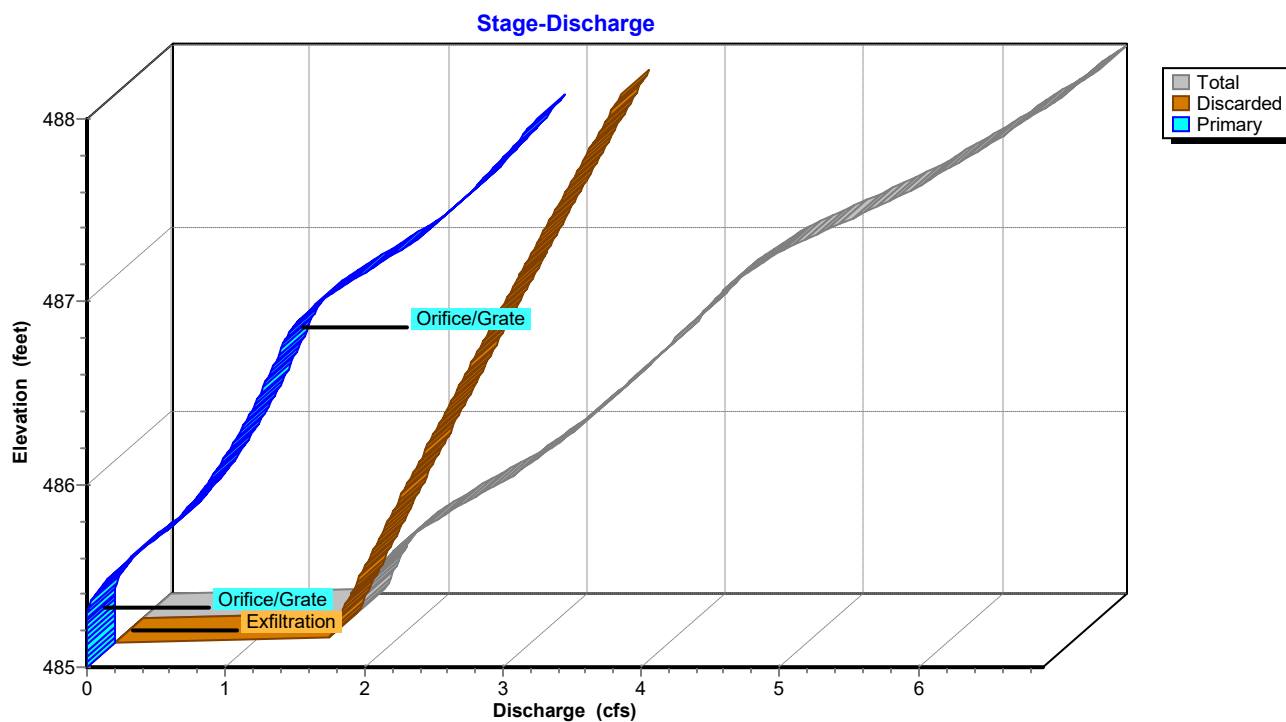
Discarded OutFlow Max=2.51 cfs @ 12.48 hrs HW=486.43' (Free Discharge)
 ↑ **1=Exfiltration** (Controls 2.51 cfs)

Primary OutFlow Max=1.21 cfs @ 12.48 hrs HW=486.43' (Free Discharge)
 ↑ **2=Orifice/Grate** (Orifice Controls 1.21 cfs @ 4.52 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

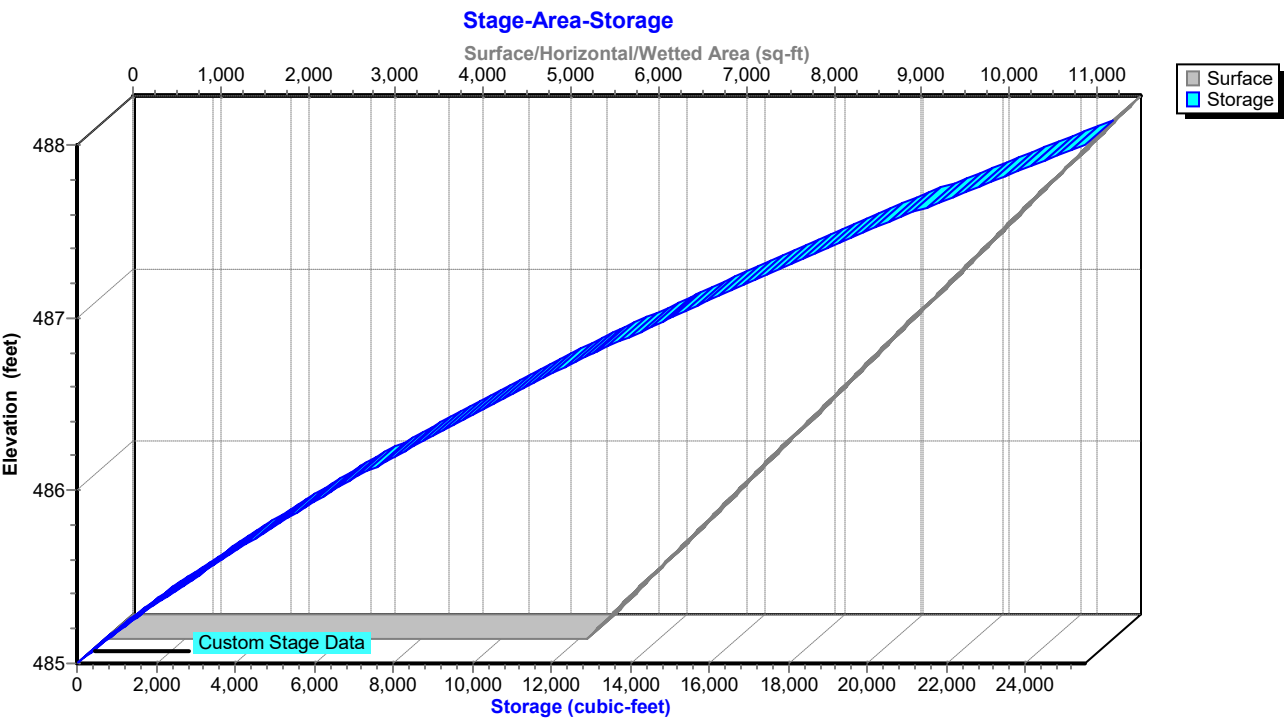
Pond DB #2: Drainage Basin #2



Pond DB #2: Drainage Basin #2



Pond DB #2: Drainage Basin #2



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Hydrograph for Pond DB #2: Drainage Basin #2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	485.00	0.00	0.00	0.00
1.00	0.00	0	485.00	0.00	0.00	0.00
2.00	0.00	0	485.00	0.00	0.00	0.00
3.00	0.00	0	485.00	0.00	0.00	0.00
4.00	0.02	2	485.00	0.02	0.02	0.00
5.00	0.05	6	485.00	0.05	0.05	0.00
6.00	0.08	9	485.00	0.08	0.08	0.00
7.00	0.14	14	485.00	0.13	0.13	0.00
8.00	0.20	22	485.00	0.20	0.20	0.00
9.00	0.34	36	485.01	0.33	0.33	0.00
10.00	0.50	53	485.01	0.50	0.50	0.00
11.00	0.81	85	485.02	0.80	0.80	0.00
12.00	6.00	2,516	485.42	1.90	1.81	0.09
13.00	1.19	6,963	486.06	3.16	2.25	0.92
14.00	0.72	1,721	485.30	1.73	1.72	0.00
15.00	0.54	58	485.01	0.55	0.55	0.00
16.00	0.38	42	485.01	0.39	0.39	0.00
17.00	0.30	32	485.01	0.30	0.30	0.00
18.00	0.23	25	485.00	0.23	0.23	0.00
19.00	0.20	22	485.00	0.20	0.20	0.00
20.00	0.18	20	485.00	0.18	0.18	0.00
21.00	0.17	18	485.00	0.17	0.17	0.00
22.00	0.15	16	485.00	0.15	0.15	0.00
23.00	0.14	15	485.00	0.14	0.14	0.00
24.00	0.12	13	485.00	0.12	0.12	0.00
25.00	0.00	0	485.00	0.00	0.00	0.00
26.00	0.00	0	485.00	0.00	0.00	0.00
27.00	0.00	0	485.00	0.00	0.00	0.00
28.00	0.00	0	485.00	0.00	0.00	0.00
29.00	0.00	0	485.00	0.00	0.00	0.00
30.00	0.00	0	485.00	0.00	0.00	0.00
31.00	0.00	0	485.00	0.00	0.00	0.00
32.00	0.00	0	485.00	0.00	0.00	0.00
33.00	0.00	0	485.00	0.00	0.00	0.00
34.00	0.00	0	485.00	0.00	0.00	0.00
35.00	0.00	0	485.00	0.00	0.00	0.00
36.00	0.00	0	485.00	0.00	0.00	0.00

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Stage-Discharge for Pond DB #2: Drainage Basin #2

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
485.00	0.00	0.00	0.00	487.60	6.12	3.35	2.77
485.05	1.56	1.56	0.00	487.65	6.23	3.39	2.83
485.10	1.59	1.59	0.00	487.70	6.33	3.43	2.90
485.15	1.63	1.63	0.00	487.75	6.43	3.47	2.96
485.20	1.66	1.66	0.00	487.80	6.52	3.50	3.02
485.25	1.69	1.69	0.00	487.85	6.62	3.54	3.08
485.30	1.73	1.73	0.01	487.90	6.72	3.58	3.14
485.35	1.79	1.76	0.03	487.95	6.81	3.62	3.19
485.40	1.86	1.79	0.06	488.00	6.90	3.65	3.25
485.45	1.94	1.83	0.11				
485.50	2.03	1.86	0.17				
485.55	2.14	1.89	0.24				
485.60	2.25	1.93	0.32				
485.65	2.37	1.96	0.40				
485.70	2.48	2.00	0.49				
485.75	2.60	2.03	0.57				
485.80	2.71	2.06	0.65				
485.85	2.80	2.10	0.70				
485.90	2.89	2.13	0.76				
485.95	2.98	2.17	0.81				
486.00	3.06	2.20	0.86				
486.05	3.15	2.24	0.91				
486.10	3.23	2.27	0.95				
486.15	3.30	2.31	1.00				
486.20	3.38	2.34	1.04				
486.25	3.45	2.38	1.08				
486.30	3.53	2.41	1.11				
486.35	3.60	2.45	1.15				
486.40	3.67	2.48	1.19				
486.45	3.74	2.52	1.22				
486.50	3.81	2.55	1.25				
486.55	3.87	2.59	1.29				
486.60	3.94	2.62	1.32				
486.65	4.01	2.66	1.35				
486.70	4.07	2.70	1.38				
486.75	4.14	2.73	1.41				
486.80	4.21	2.77	1.44				
486.85	4.28	2.80	1.48				
486.90	4.37	2.84	1.53				
486.95	4.48	2.88	1.60				
487.00	4.60	2.91	1.68				
487.05	4.72	2.95	1.78				
487.10	4.86	2.99	1.87				
487.15	5.00	3.02	1.98				
487.20	5.15	3.06	2.09				
487.25	5.29	3.10	2.20				
487.30	5.44	3.13	2.30				
487.35	5.57	3.17	2.40				
487.40	5.68	3.21	2.48				
487.45	5.80	3.24	2.55				
487.50	5.91	3.28	2.63				
487.55	6.02	3.32	2.70				

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Stage-Area-Storage for Pond DB #2: Drainage Basin #2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
485.00	5,500	0	487.60	10,700	21,060
485.05	5,600	278	487.65	10,800	21,597
485.10	5,700	560	487.70	10,900	22,140
485.15	5,800	847	487.75	11,000	22,688
485.20	5,900	1,140	487.80	11,100	23,240
485.25	6,000	1,438	487.85	11,200	23,798
485.30	6,100	1,740	487.90	11,300	24,360
485.35	6,200	2,048	487.95	11,400	24,927
485.40	6,300	2,360	488.00	11,500	25,500
485.45	6,400	2,677			
485.50	6,500	3,000			
485.55	6,600	3,328			
485.60	6,700	3,660			
485.65	6,800	3,997			
485.70	6,900	4,340			
485.75	7,000	4,688			
485.80	7,100	5,040			
485.85	7,200	5,398			
485.90	7,300	5,760			
485.95	7,400	6,127			
486.00	7,500	6,500			
486.05	7,600	6,878			
486.10	7,700	7,260			
486.15	7,800	7,647			
486.20	7,900	8,040			
486.25	8,000	8,438			
486.30	8,100	8,840			
486.35	8,200	9,248			
486.40	8,300	9,660			
486.45	8,400	10,077			
486.50	8,500	10,500			
486.55	8,600	10,928			
486.60	8,700	11,360			
486.65	8,800	11,797			
486.70	8,900	12,240			
486.75	9,000	12,688			
486.80	9,100	13,140			
486.85	9,200	13,598			
486.90	9,300	14,060			
486.95	9,400	14,527			
487.00	9,500	15,000			
487.05	9,600	15,478			
487.10	9,700	15,960			
487.15	9,800	16,447			
487.20	9,900	16,940			
487.25	10,000	17,438			
487.30	10,100	17,940			
487.35	10,200	18,448			
487.40	10,300	18,960			
487.45	10,400	19,477			
487.50	10,500	20,000			
487.55	10,600	20,528			

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Summary for Pond SMS #1A: SMS #1A

Inflow Area = 3.795 ac, 92.16% Impervious, Inflow Depth = 4.42" for 10-Year event
 Inflow = 15.62 cfs @ 12.14 hrs, Volume= 1.398 af
 Outflow = 4.46 cfs @ 12.52 hrs, Volume= 1.398 af, Atten= 71%, Lag= 23.1 min
 Discarded = 2.20 cfs @ 12.52 hrs, Volume= 1.162 af
 Primary = 2.26 cfs @ 12.52 hrs, Volume= 0.236 af
 Routed to Link POI #1 : POI #1

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
 Peak Elev= 494.59' @ 12.52 hrs Surf.Area= 0.172 ac Storage= 0.358 af

Plug-Flow detention time= 25.8 min calculated for 1.398 af (100% of inflow)
 Center-of-Mass det. time= 25.8 min (797.7 - 771.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	491.75'	0.270 af	36.83'W x 203.69'L x 6.75'H Field A 1.163 af Overall - 0.486 af Embedded = 0.676 af x 40.0% Voids
#2A	492.50'	0.486 af	ADS_StormTech MC-4500 b +Cap x 196 Inside #1 Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap 196 Chambers in 4 Rows Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf
		0.757 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	491.75'	12.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 440.00'
#2	Primary	492.53'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	492.95'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	493.59'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Primary	494.58'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#6	Primary	495.75'	8.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=2.20 cfs @ 12.52 hrs HW=494.58' (Free Discharge)↑ **1=Exfiltration** (Controls 2.20 cfs)**Primary OutFlow** Max=2.26 cfs @ 12.52 hrs HW=494.58' (Free Discharge)

↑ **2=Orifice/Grate** (Orifice Controls 0.89 cfs @ 6.54 fps)
 — **3=Orifice/Grate** (Orifice Controls 0.78 cfs @ 5.75 fps)
 — **4=Orifice/Grate** (Orifice Controls 0.58 cfs @ 4.27 fps)
 — **5=Orifice/Grate** (Orifice Controls 0.00 cfs @ 0.21 fps)
 — **6=Orifice/Grate** (Controls 0.00 cfs)

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Pond SMS #1A: SMS #1A - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-4500 b +Cap (ADS StormTech® MC-4500 with cap volume)

Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf

Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap

Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf

100.0" Wide + 6.0" Spacing = 106.0" C-C Row Spacing

49 Chambers/Row x 4.02' Long +2.73' Cap Length x 2 = 202.69' Row Length +6.0" End Stone x 2 =
203.69' Base Length

4 Rows x 100.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 36.83' Base Width

9.0" Stone Base + 60.0" Chamber Height + 12.0" Stone Cover = 6.75' Field Height

196 Chambers x 106.5 cf + 39.5 cf Cap Volume x 2 x 4 Rows = 21,188.1 cf Chamber Storage

50,642.8 cf Field - 21,188.1 cf Chambers = 29,454.7 cf Stone x 40.0% Voids = 11,781.9 cf Stone Storage

Chamber Storage + Stone Storage = 32,970.0 cf = 0.757 af

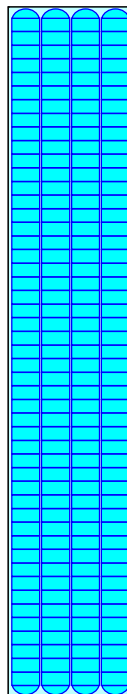
Overall Storage Efficiency = 65.1%

Overall System Size = 203.69' x 36.83' x 6.75'

196 Chambers

1,875.7 cy Field

1,090.9 cy Stone



2025.07.03 - Proposed Conditions

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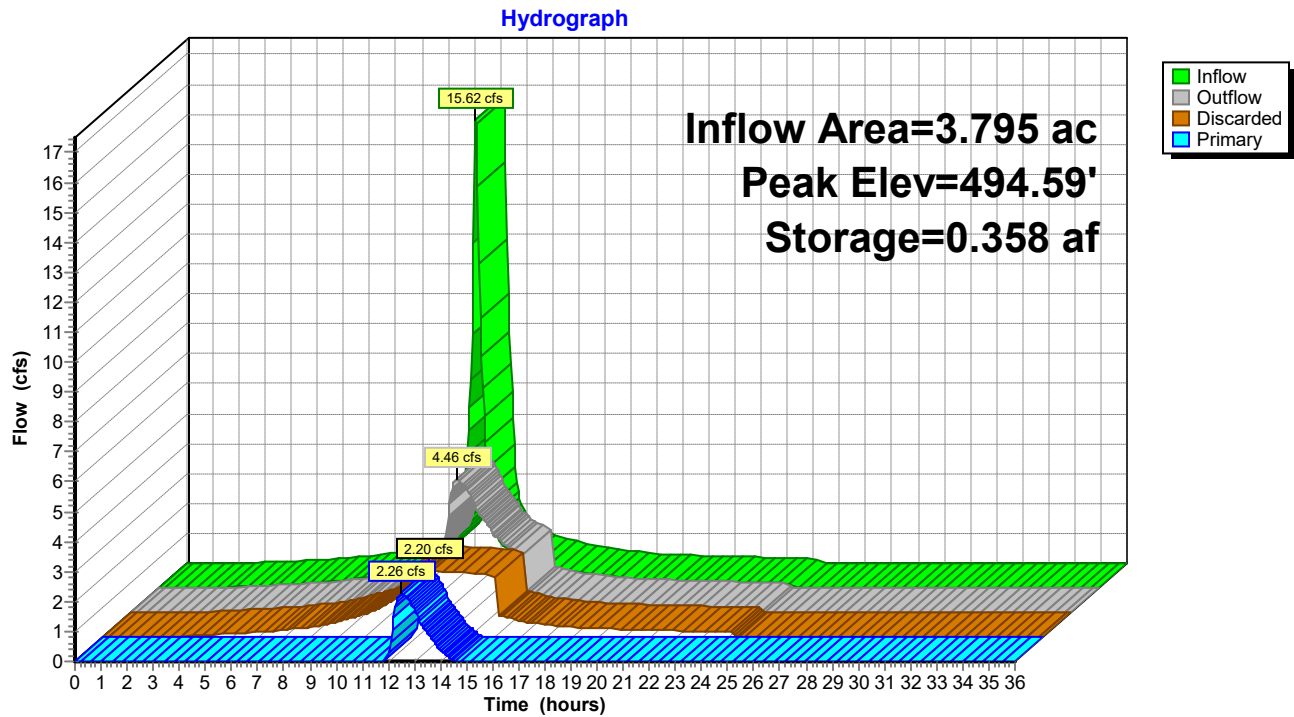
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Type III 24-hr 10-Year Rainfall=5.00"

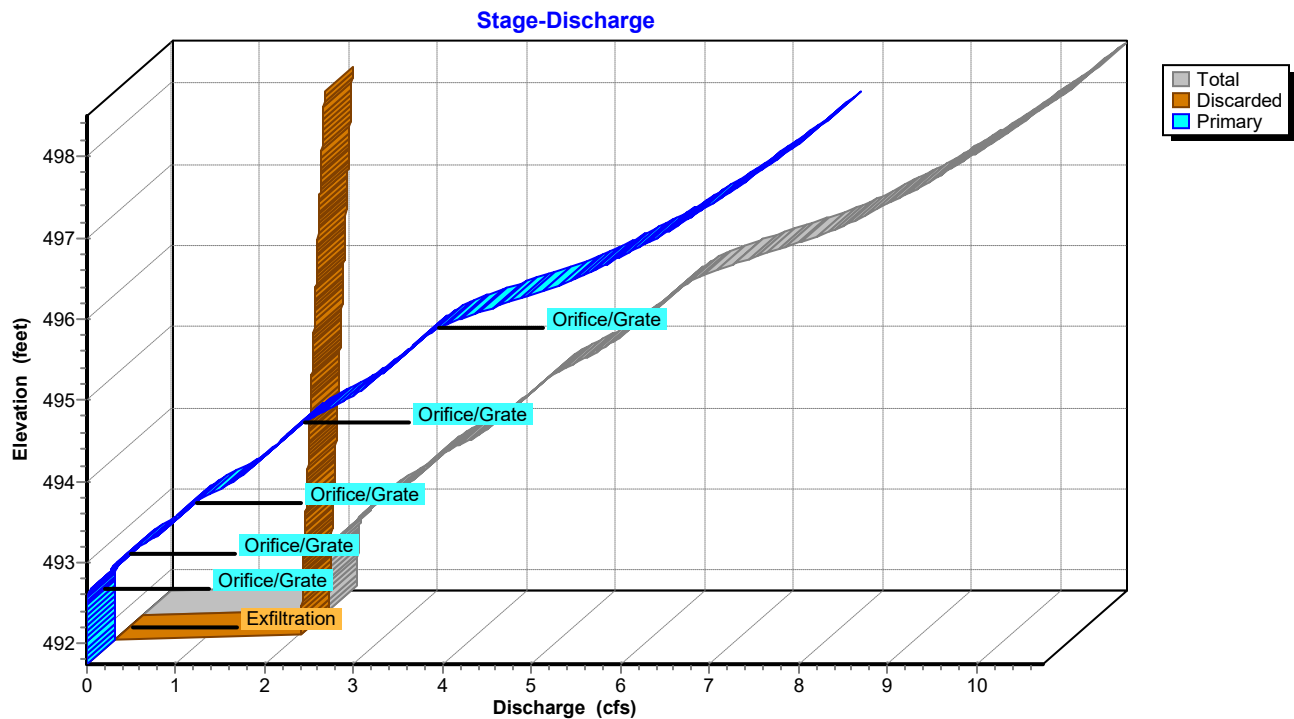
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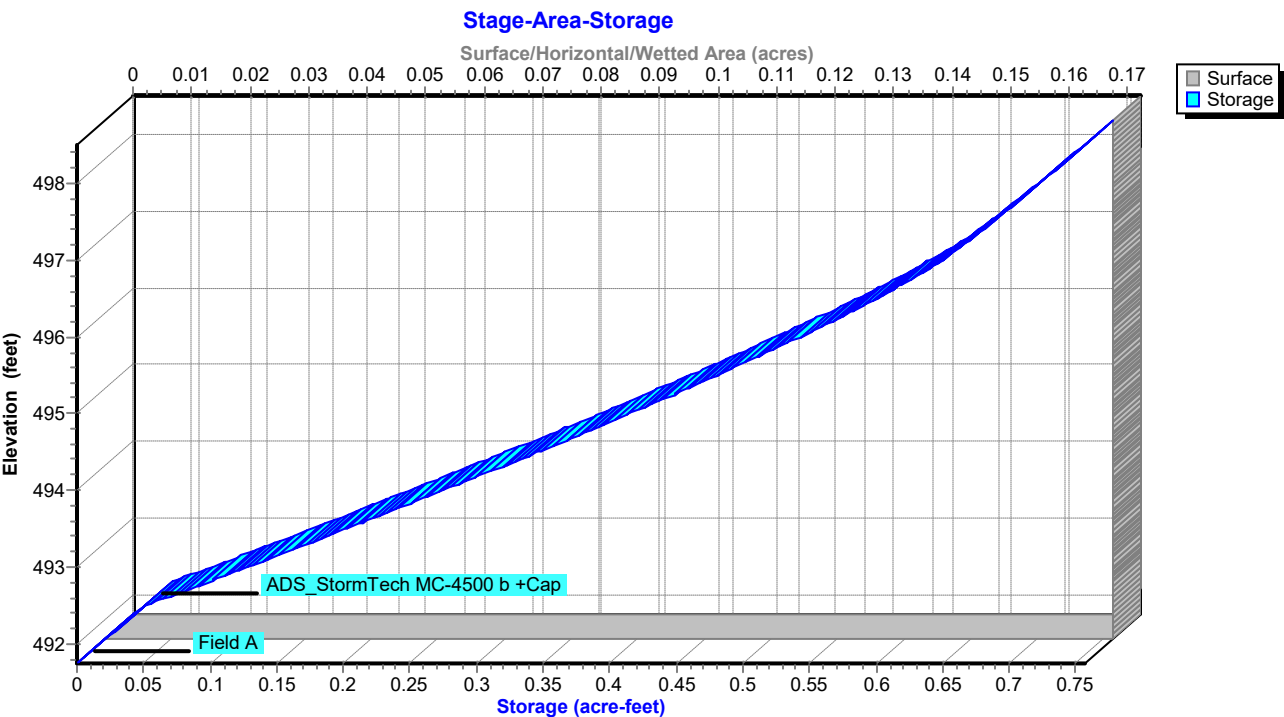
Pond SMS #1A: SMS #1A



Pond SMS #1A: SMS #1A



Pond SMS #1A: SMS #1A



2025.07.03 - Proposed Conditions*Type III 24-hr 10-Year Rainfall=5.00"*

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Hydrograph for Pond SMS #1A: SMS #1A

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0.000	491.75	0.00	0.00	0.00
1.00	0.00	0.000	491.75	0.00	0.00	0.00
2.00	0.00	0.000	491.75	0.00	0.00	0.00
3.00	0.03	0.000	491.75	0.03	0.03	0.00
4.00	0.07	0.000	491.75	0.07	0.07	0.00
5.00	0.12	0.000	491.75	0.11	0.11	0.00
6.00	0.16	0.000	491.76	0.16	0.16	0.00
7.00	0.24	0.001	491.76	0.24	0.24	0.00
8.00	0.34	0.001	491.76	0.34	0.34	0.00
9.00	0.53	0.001	491.77	0.53	0.53	0.00
10.00	0.76	0.002	491.77	0.76	0.76	0.00
11.00	1.19	0.003	491.79	1.17	1.17	0.00
12.00	8.46	0.089	492.74	2.23	2.12	0.11
13.00	1.64	0.286	494.08	3.92	2.18	1.74
14.00	0.99	0.130	493.02	2.50	2.14	0.36
15.00	0.74	0.018	492.01	2.09	2.09	0.00
16.00	0.53	0.001	491.77	0.53	0.53	0.00
17.00	0.41	0.001	491.76	0.41	0.41	0.00
18.00	0.32	0.001	491.76	0.32	0.32	0.00
19.00	0.28	0.001	491.76	0.28	0.28	0.00
20.00	0.25	0.001	491.76	0.25	0.25	0.00
21.00	0.23	0.001	491.76	0.23	0.23	0.00
22.00	0.21	0.000	491.76	0.21	0.21	0.00
23.00	0.19	0.000	491.76	0.19	0.19	0.00
24.00	0.16	0.000	491.76	0.16	0.16	0.00
25.00	0.00	0.000	491.75	0.00	0.00	0.00
26.00	0.00	0.000	491.75	0.00	0.00	0.00
27.00	0.00	0.000	491.75	0.00	0.00	0.00
28.00	0.00	0.000	491.75	0.00	0.00	0.00
29.00	0.00	0.000	491.75	0.00	0.00	0.00
30.00	0.00	0.000	491.75	0.00	0.00	0.00
31.00	0.00	0.000	491.75	0.00	0.00	0.00
32.00	0.00	0.000	491.75	0.00	0.00	0.00
33.00	0.00	0.000	491.75	0.00	0.00	0.00
34.00	0.00	0.000	491.75	0.00	0.00	0.00
35.00	0.00	0.000	491.75	0.00	0.00	0.00
36.00	0.00	0.000	491.75	0.00	0.00	0.00

2025.07.03 - Proposed Conditions*Type III 24-hr 10-Year Rainfall=5.00"*

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Stage-Discharge for Pond SMS #1A: SMS #1A

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
491.75	0.00	0.00	0.00	496.95	8.61	2.29	6.32
491.85	2.09	2.09	0.00	497.05	8.78	2.30	6.48
491.95	2.09	2.09	0.00	497.15	8.94	2.30	6.64
492.05	2.10	2.10	0.00	497.25	9.09	2.31	6.79
492.15	2.10	2.10	0.00	497.35	9.24	2.31	6.93
492.25	2.10	2.10	0.00	497.45	9.39	2.31	7.08
492.35	2.11	2.11	0.00	497.55	9.53	2.32	7.21
492.45	2.11	2.11	0.00	497.65	9.67	2.32	7.35
492.55	2.12	2.12	0.00	497.75	9.81	2.33	7.48
492.65	2.16	2.12	0.04	497.85	9.94	2.33	7.61
492.75	2.24	2.12	0.12	497.95	10.07	2.33	7.74
492.85	2.34	2.13	0.22	498.05	10.20	2.34	7.86
492.95	2.43	2.13	0.30	498.15	10.33	2.34	7.98
493.05	2.53	2.14	0.39	498.25	10.45	2.35	8.10
493.15	2.66	2.14	0.52	498.35	10.57	2.35	8.22
493.25	2.81	2.14	0.67	498.45	10.69	2.35	8.34
493.35	2.95	2.15	0.80				
493.45	3.06	2.15	0.91				
493.55	3.16	2.16	1.00				
493.65	3.26	2.16	1.10				
493.75	3.40	2.16	1.23				
493.85	3.56	2.17	1.39				
493.95	3.74	2.17	1.56				
494.05	3.88	2.18	1.70				
494.15	4.00	2.18	1.82				
494.25	4.12	2.18	1.93				
494.35	4.23	2.19	2.04				
494.45	4.33	2.19	2.14				
494.55	4.42	2.20	2.23				
494.65	4.53	2.20	2.33				
494.75	4.68	2.20	2.47				
494.85	4.86	2.21	2.65				
494.95	5.04	2.21	2.82				
495.05	5.19	2.22	2.97				
495.15	5.33	2.22	3.10				
495.25	5.45	2.23	3.23				
495.35	5.57	2.23	3.34				
495.45	5.69	2.23	3.45				
495.55	5.80	2.24	3.56				
495.65	5.90	2.24	3.66				
495.75	6.00	2.25	3.76				
495.85	6.14	2.25	3.89				
495.95	6.33	2.25	4.08				
496.05	6.58	2.26	4.32				
496.15	6.85	2.26	4.59				
496.25	7.15	2.27	4.88				
496.35	7.43	2.27	5.16				
496.45	7.66	2.27	5.39				
496.55	7.88	2.28	5.60				
496.65	8.08	2.28	5.80				
496.75	8.26	2.29	5.98				
496.85	8.44	2.29	6.15				

2025.07.03 - Proposed Conditions*Type III 24-hr 10-Year Rainfall=5.00"*

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Stage-Area-Storage for Pond SMS #1A: SMS #1A

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
491.75	0.172	0.000	496.95	0.172	0.646
491.85	0.172	0.007	497.05	0.172	0.654
491.95	0.172	0.014	497.15	0.172	0.662
492.05	0.172	0.021	497.25	0.172	0.670
492.15	0.172	0.028	497.35	0.172	0.677
492.25	0.172	0.034	497.45	0.172	0.685
492.35	0.172	0.041	497.55	0.172	0.691
492.45	0.172	0.048	497.65	0.172	0.698
492.55	0.172	0.059	497.75	0.172	0.705
492.65	0.172	0.074	497.85	0.172	0.712
492.75	0.172	0.090	497.95	0.172	0.719
492.85	0.172	0.105	498.05	0.172	0.726
492.95	0.172	0.120	498.15	0.172	0.733
493.05	0.172	0.135	498.25	0.172	0.740
493.15	0.172	0.150	498.35	0.172	0.747
493.25	0.172	0.165	498.45	0.172	0.753
493.35	0.172	0.180			
493.45	0.172	0.194			
493.55	0.172	0.209			
493.65	0.172	0.224			
493.75	0.172	0.239			
493.85	0.172	0.253			
493.95	0.172	0.268			
494.05	0.172	0.282			
494.15	0.172	0.296			
494.25	0.172	0.311			
494.35	0.172	0.325			
494.45	0.172	0.339			
494.55	0.172	0.353			
494.65	0.172	0.367			
494.75	0.172	0.381			
494.85	0.172	0.395			
494.95	0.172	0.408			
495.05	0.172	0.422			
495.15	0.172	0.435			
495.25	0.172	0.448			
495.35	0.172	0.461			
495.45	0.172	0.474			
495.55	0.172	0.487			
495.65	0.172	0.500			
495.75	0.172	0.512			
495.85	0.172	0.525			
495.95	0.172	0.537			
496.05	0.172	0.549			
496.15	0.172	0.561			
496.25	0.172	0.572			
496.35	0.172	0.584			
496.45	0.172	0.595			
496.55	0.172	0.606			
496.65	0.172	0.616			
496.75	0.172	0.626			
496.85	0.172	0.636			

2025.07.03 - Proposed Conditions

Type III 24-hr 10-Year Rainfall=5.00"

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Summary for Pond SMS #1C: SMS #1C

Inflow Area = 3.516 ac, 93.20% Impervious, Inflow Depth = 4.42" for 10-Year event
 Inflow = 14.47 cfs @ 12.14 hrs, Volume= 1.295 af
 Outflow = 4.46 cfs @ 12.50 hrs, Volume= 1.295 af, Atten= 69%, Lag= 21.9 min
 Discarded = 2.02 cfs @ 12.50 hrs, Volume= 1.064 af
 Primary = 2.44 cfs @ 12.50 hrs, Volume= 0.231 af
 Routed to Link POI #1 : POI #1

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
 Peak Elev= 498.04' @ 12.50 hrs Surf.Area= 0.159 ac Storage= 0.324 af

Plug-Flow detention time= 24.3 min calculated for 1.295 af (100% of inflow)
 Center-of-Mass det. time= 24.3 min (796.3 - 771.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	495.25'	0.249 af	36.83'W x 187.59'L x 6.75'H Field A 1.071 af Overall - 0.447 af Embedded = 0.623 af x 40.0% Voids
#2A	496.00'	0.447 af	ADS_StormTech MC-4500 b +Cap x 180 Inside #1 Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap 180 Chambers in 4 Rows Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf
		0.697 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	495.25'	12.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 440.00'
#2	Primary	496.04'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	496.45'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	497.09'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Primary	498.04'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#6	Primary	501.00'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=2.02 cfs @ 12.50 hrs HW=498.04' (Free Discharge)↑ **1=Exfiltration** (Controls 2.02 cfs)**Primary OutFlow** Max=2.44 cfs @ 12.50 hrs HW=498.04' (Free Discharge)

↑ **2=Orifice/Grate** (Orifice Controls 0.88 cfs @ 6.45 fps)
 — **3=Orifice/Grate** (Orifice Controls 0.77 cfs @ 5.66 fps)
 — **4=Orifice/Grate** (Orifice Controls 0.79 cfs @ 4.03 fps)
 — **5=Orifice/Grate** (Orifice Controls 0.00 cfs @ 0.09 fps)
 — **6=Orifice/Grate** (Controls 0.00 cfs)

2025.07.03 - Proposed Conditions

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Type III 24-hr 10-Year Rainfall=5.00"

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Pond SMS #1C: SMS #1C - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-4500 b +Cap (ADS StormTech® MC-4500 with cap volume)

Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf

Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap

Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf

100.0" Wide + 6.0" Spacing = 106.0" C-C Row Spacing

45 Chambers/Row x 4.02' Long +2.73' Cap Length x 2 = 186.59' Row Length +6.0" End Stone x 2 =
187.59' Base Length

4 Rows x 100.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 36.83' Base Width

9.0" Stone Base + 60.0" Chamber Height + 12.0" Stone Cover = 6.75' Field Height

180 Chambers x 106.5 cf + 39.5 cf Cap Volume x 2 x 4 Rows = 19,484.3 cf Chamber Storage

46,640.0 cf Field - 19,484.3 cf Chambers = 27,155.7 cf Stone x 40.0% Voids = 10,862.3 cf Stone Storage

Chamber Storage + Stone Storage = 30,346.6 cf = 0.697 af

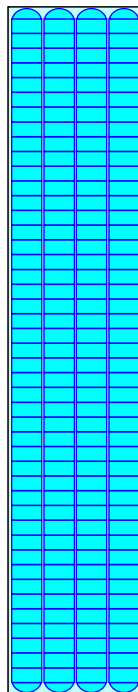
Overall Storage Efficiency = 65.1%

Overall System Size = 187.59' x 36.83' x 6.75'

180 Chambers

1,727.4 cy Field

1,005.8 cy Stone



2025.07.03 - Proposed Conditions

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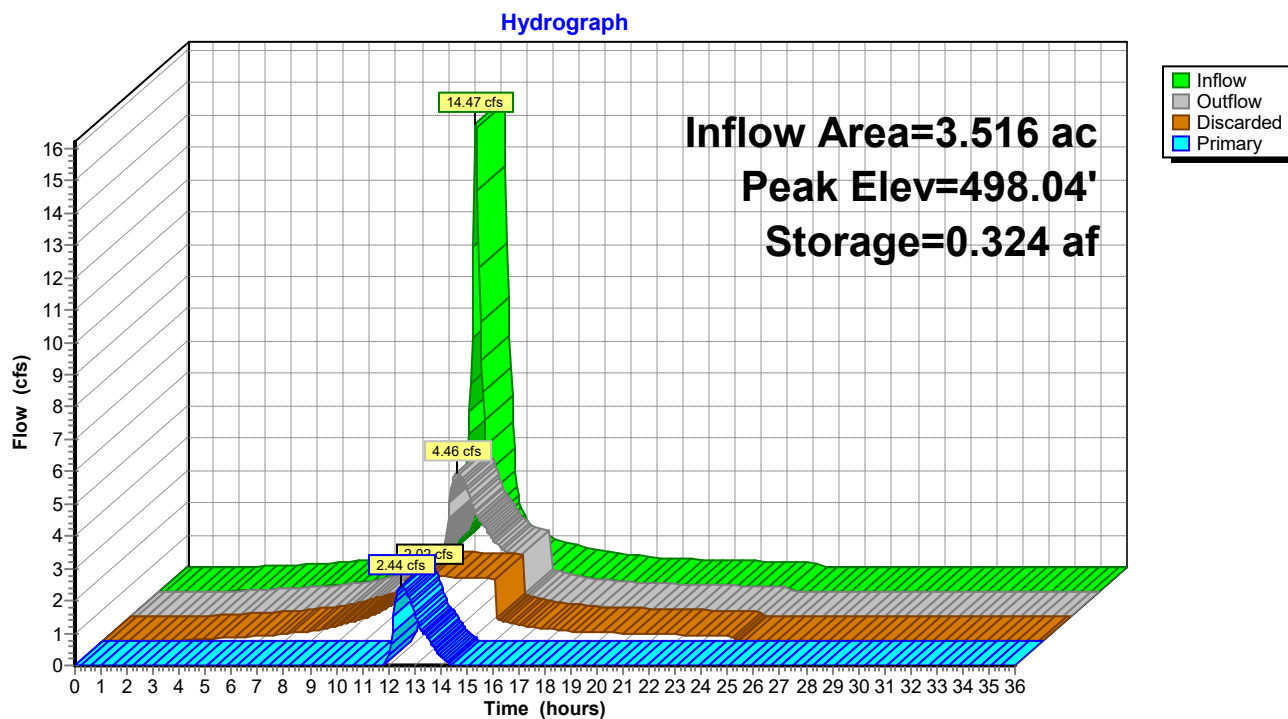
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Type III 24-hr 10-Year Rainfall=5.00"

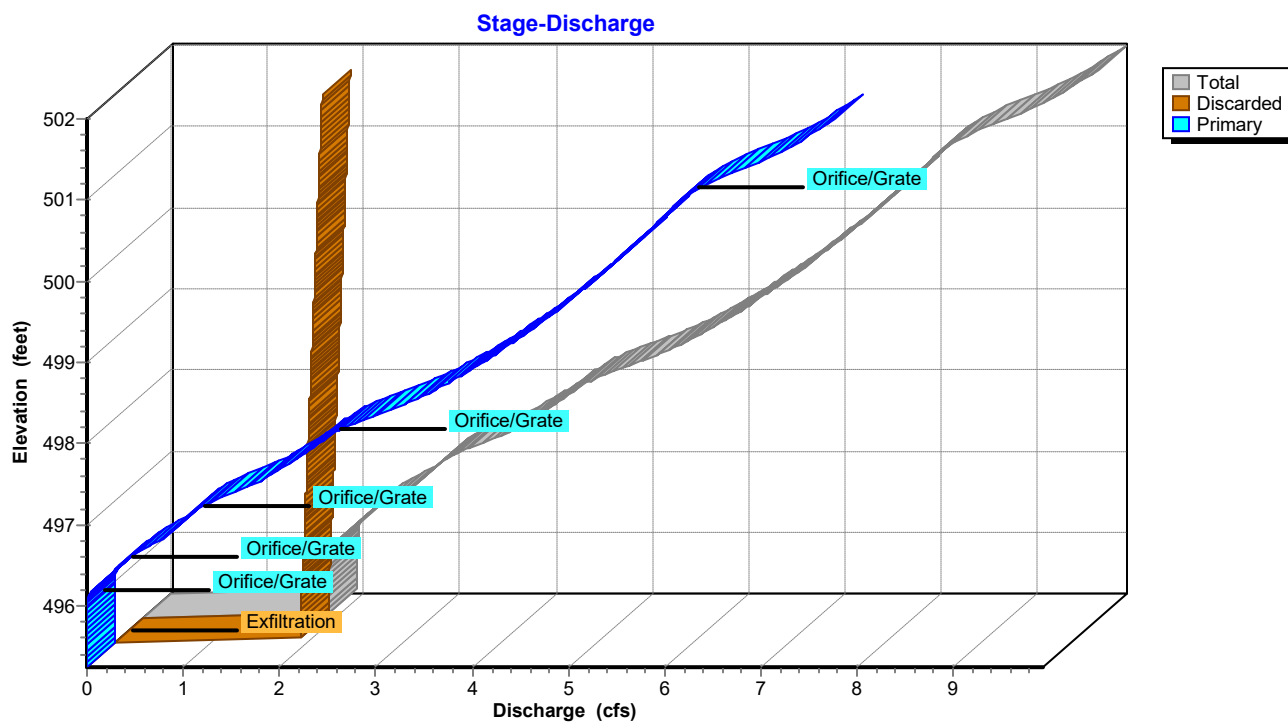
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Pond SMS #1C: SMS #1C

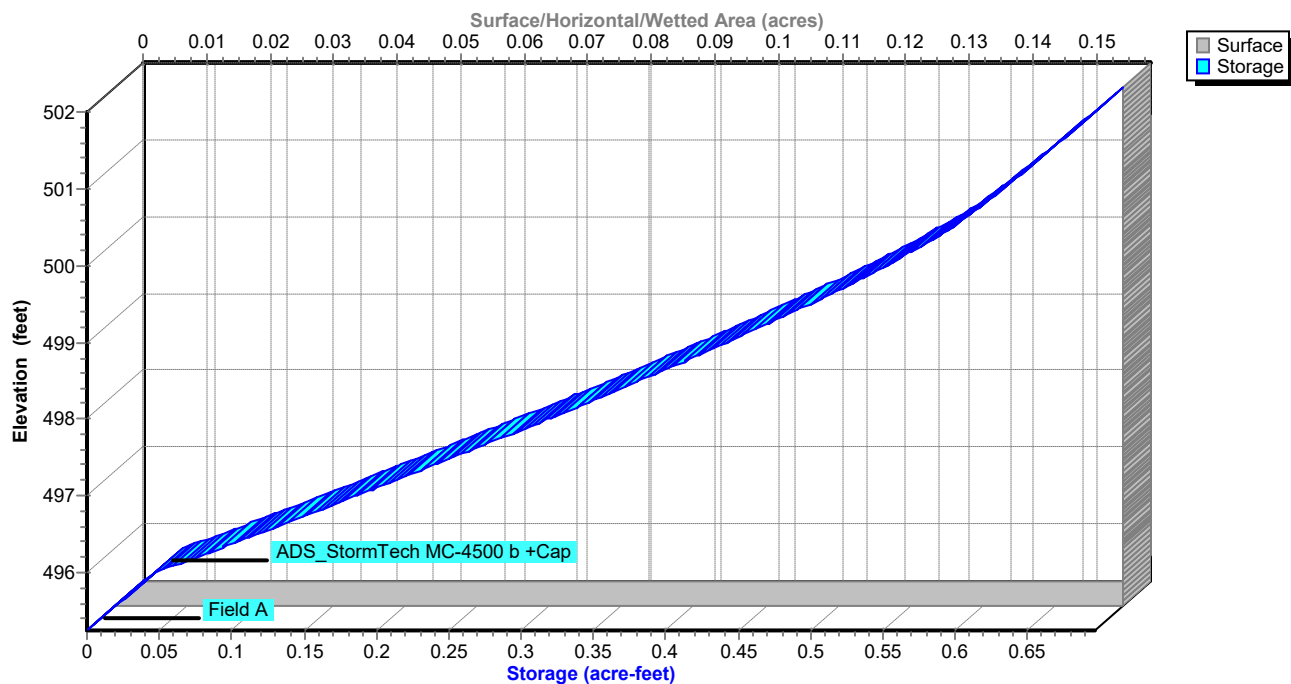


Pond SMS #1C: SMS #1C



Pond SMS #1C: SMS #1C

Stage-Area-Storage



2025.07.03 - Proposed Conditions*Type III 24-hr 10-Year Rainfall=5.00"*

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Hydrograph for Pond SMS #1C: SMS #1C

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0.000	495.25	0.00	0.00	0.00
1.00	0.00	0.000	495.25	0.00	0.00	0.00
2.00	0.00	0.000	495.25	0.00	0.00	0.00
3.00	0.03	0.000	495.25	0.03	0.03	0.00
4.00	0.07	0.000	495.25	0.07	0.07	0.00
5.00	0.11	0.000	495.25	0.11	0.11	0.00
6.00	0.15	0.000	495.26	0.15	0.15	0.00
7.00	0.22	0.000	495.26	0.22	0.22	0.00
8.00	0.32	0.001	495.26	0.31	0.31	0.00
9.00	0.49	0.001	495.27	0.49	0.49	0.00
10.00	0.71	0.002	495.27	0.70	0.70	0.00
11.00	1.10	0.002	495.29	1.09	1.09	0.00
12.00	7.84	0.082	496.25	2.06	1.95	0.11
13.00	1.52	0.249	497.47	3.65	2.00	1.65
14.00	0.92	0.110	496.45	2.26	1.96	0.29
15.00	0.69	0.009	495.39	1.92	1.92	0.00
16.00	0.49	0.001	495.27	0.49	0.49	0.00
17.00	0.38	0.001	495.26	0.38	0.38	0.00
18.00	0.29	0.001	495.26	0.30	0.30	0.00
19.00	0.26	0.001	495.26	0.26	0.26	0.00
20.00	0.23	0.001	495.26	0.23	0.23	0.00
21.00	0.21	0.000	495.26	0.21	0.21	0.00
22.00	0.19	0.000	495.26	0.19	0.19	0.00
23.00	0.17	0.000	495.26	0.17	0.17	0.00
24.00	0.15	0.000	495.26	0.15	0.15	0.00
25.00	0.00	0.000	495.25	0.00	0.00	0.00
26.00	0.00	0.000	495.25	0.00	0.00	0.00
27.00	0.00	0.000	495.25	0.00	0.00	0.00
28.00	0.00	0.000	495.25	0.00	0.00	0.00
29.00	0.00	0.000	495.25	0.00	0.00	0.00
30.00	0.00	0.000	495.25	0.00	0.00	0.00
31.00	0.00	0.000	495.25	0.00	0.00	0.00
32.00	0.00	0.000	495.25	0.00	0.00	0.00
33.00	0.00	0.000	495.25	0.00	0.00	0.00
34.00	0.00	0.000	495.25	0.00	0.00	0.00
35.00	0.00	0.000	495.25	0.00	0.00	0.00
36.00	0.00	0.000	495.25	0.00	0.00	0.00

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Stage-Discharge for Pond SMS #1C: SMS #1C

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
495.25	0.00	0.00	0.00	500.45	7.78	2.10	5.68
495.35	1.92	1.92	0.00	500.55	7.88	2.10	5.77
495.45	1.93	1.93	0.00	500.65	7.97	2.11	5.86
495.55	1.93	1.93	0.00	500.75	8.06	2.11	5.95
495.65	1.93	1.93	0.00	500.85	8.15	2.11	6.04
495.75	1.94	1.94	0.00	500.95	8.24	2.12	6.12
495.85	1.94	1.94	0.00	501.05	8.33	2.12	6.21
495.95	1.94	1.94	0.00	501.15	8.48	2.12	6.35
496.05	1.95	1.95	0.00	501.25	8.67	2.13	6.54
496.15	1.98	1.95	0.03	501.35	8.88	2.13	6.75
496.25	2.06	1.95	0.11	501.45	9.09	2.13	6.96
496.35	2.16	1.96	0.21	501.55	9.27	2.14	7.13
496.45	2.26	1.96	0.30	501.65	9.43	2.14	7.29
496.55	2.35	1.96	0.39	501.75	9.58	2.15	7.43
496.65	2.48	1.97	0.51	501.85	9.72	2.15	7.57
496.75	2.63	1.97	0.66	501.95	9.86	2.15	7.71
496.85	2.77	1.97	0.80				
496.95	2.88	1.98	0.90				
497.05	2.98	1.98	1.00				
497.15	3.08	1.99	1.09				
497.25	3.22	1.99	1.24				
497.35	3.41	1.99	1.41				
497.45	3.61	2.00	1.61				
497.55	3.80	2.00	1.81				
497.65	3.96	2.00	1.96				
497.75	4.10	2.01	2.10				
497.85	4.23	2.01	2.22				
497.95	4.35	2.01	2.34				
498.05	4.47	2.02	2.45				
498.15	4.61	2.02	2.59				
498.25	4.80	2.02	2.78				
498.35	5.03	2.03	3.00				
498.45	5.26	2.03	3.22				
498.55	5.46	2.03	3.42				
498.65	5.63	2.04	3.59				
498.75	5.79	2.04	3.75				
498.85	5.94	2.04	3.90				
498.95	6.09	2.05	4.04				
499.05	6.23	2.05	4.17				
499.15	6.36	2.05	4.30				
499.25	6.49	2.06	4.43				
499.35	6.61	2.06	4.55				
499.45	6.73	2.07	4.66				
499.55	6.84	2.07	4.78				
499.65	6.96	2.07	4.89				
499.75	7.07	2.08	4.99				
499.85	7.18	2.08	5.10				
499.95	7.28	2.08	5.20				
500.05	7.39	2.09	5.30				
500.15	7.49	2.09	5.40				
500.25	7.59	2.09	5.49				
500.35	7.68	2.10	5.59				

2025.07.03 - Proposed Conditions*Type III 24-hr 10-Year Rainfall=5.00"*

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Stage-Area-Storage for Pond SMS #1C: SMS #1C

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
495.25	0.159	0.000	500.45	0.159	0.594
495.35	0.159	0.006	500.55	0.159	0.602
495.45	0.159	0.013	500.65	0.159	0.610
495.55	0.159	0.019	500.75	0.159	0.617
495.65	0.159	0.025	500.85	0.159	0.623
495.75	0.159	0.032	500.95	0.159	0.630
495.85	0.159	0.038	501.05	0.159	0.636
495.95	0.159	0.044	501.15	0.159	0.643
496.05	0.159	0.055	501.25	0.159	0.649
496.15	0.159	0.069	501.35	0.159	0.655
496.25	0.159	0.082	501.45	0.159	0.662
496.35	0.159	0.096	501.55	0.159	0.668
496.45	0.159	0.110	501.65	0.159	0.674
496.55	0.159	0.124	501.75	0.159	0.681
496.65	0.159	0.138	501.85	0.159	0.687
496.75	0.159	0.152	501.95	0.159	0.693
496.85	0.159	0.165			
496.95	0.159	0.179			
497.05	0.159	0.193			
497.15	0.159	0.206			
497.25	0.159	0.220			
497.35	0.159	0.233			
497.45	0.159	0.246			
497.55	0.159	0.260			
497.65	0.159	0.273			
497.75	0.159	0.286			
497.85	0.159	0.299			
497.95	0.159	0.312			
498.05	0.159	0.325			
498.15	0.159	0.338			
498.25	0.159	0.351			
498.35	0.159	0.363			
498.45	0.159	0.376			
498.55	0.159	0.388			
498.65	0.159	0.400			
498.75	0.159	0.413			
498.85	0.159	0.425			
498.95	0.159	0.437			
499.05	0.159	0.448			
499.15	0.159	0.460			
499.25	0.159	0.472			
499.35	0.159	0.483			
499.45	0.159	0.494			
499.55	0.159	0.505			
499.65	0.159	0.516			
499.75	0.159	0.527			
499.85	0.159	0.537			
499.95	0.159	0.547			
500.05	0.159	0.557			
500.15	0.159	0.567			
500.25	0.159	0.576			
500.35	0.159	0.586			

2025.07.03 - Proposed Conditions

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Type III 24-hr 10-Year Rainfall=5.00"

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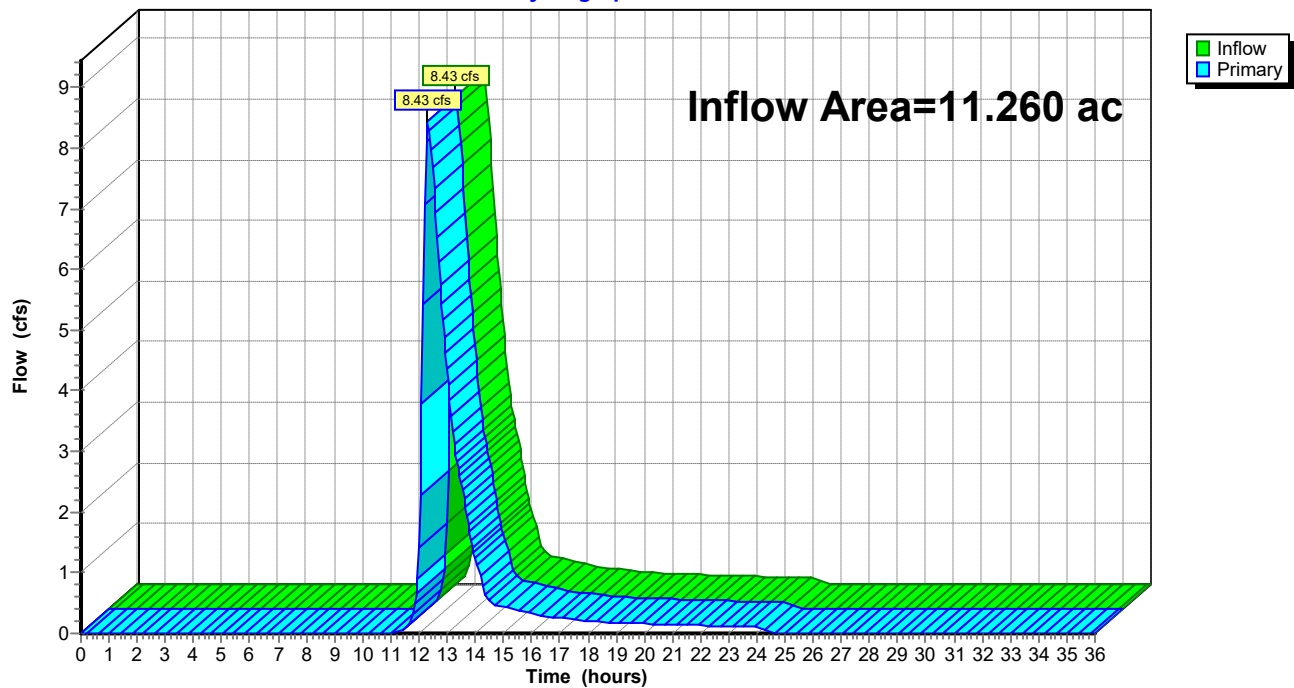
Summary for Link POI #1: POI #1

Inflow Area = 11.260 ac, 61.46% Impervious, Inflow Depth = 1.00" for 10-Year event
Inflow = 8.43 cfs @ 12.32 hrs, Volume= 0.940 af
Primary = 8.43 cfs @ 12.32 hrs, Volume= 0.940 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #1: POI #1

Hydrograph



2025.07.03 - Proposed Conditions*Type III 24-hr 10-Year Rainfall=5.00"*

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Hydrograph for Link POI #1: POI #1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	35.50	0.00	0.00	0.00
10.00	0.00	0.00	0.00	36.00	0.00	0.00	0.00
10.50	0.00	0.00	0.00				
11.00	0.00	0.00	0.00				
11.50	0.08	0.00	0.08				
12.00	1.40	0.00	1.40				
12.50	7.68	0.00	7.68				
13.00	4.37	0.00	4.37				
13.50	2.47	0.00	2.47				
14.00	1.23	0.00	1.23				
14.50	0.53	0.00	0.53				
15.00	0.44	0.00	0.44				
15.50	0.39	0.00	0.39				
16.00	0.33	0.00	0.33				
16.50	0.28	0.00	0.28				
17.00	0.26	0.00	0.26				
17.50	0.23	0.00	0.23				
18.00	0.20	0.00	0.20				
18.50	0.18	0.00	0.18				
19.00	0.18	0.00	0.18				
19.50	0.17	0.00	0.17				
20.00	0.16	0.00	0.16				
20.50	0.15	0.00	0.15				
21.00	0.15	0.00	0.15				
21.50	0.14	0.00	0.14				
22.00	0.13	0.00	0.13				
22.50	0.13	0.00	0.13				
23.00	0.12	0.00	0.12				
23.50	0.11	0.00	0.11				
24.00	0.11	0.00	0.11				
24.50	0.01	0.00	0.01				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				

2025.07.03 - Proposed Conditions

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Type III 24-hr 10-Year Rainfall=5.00"

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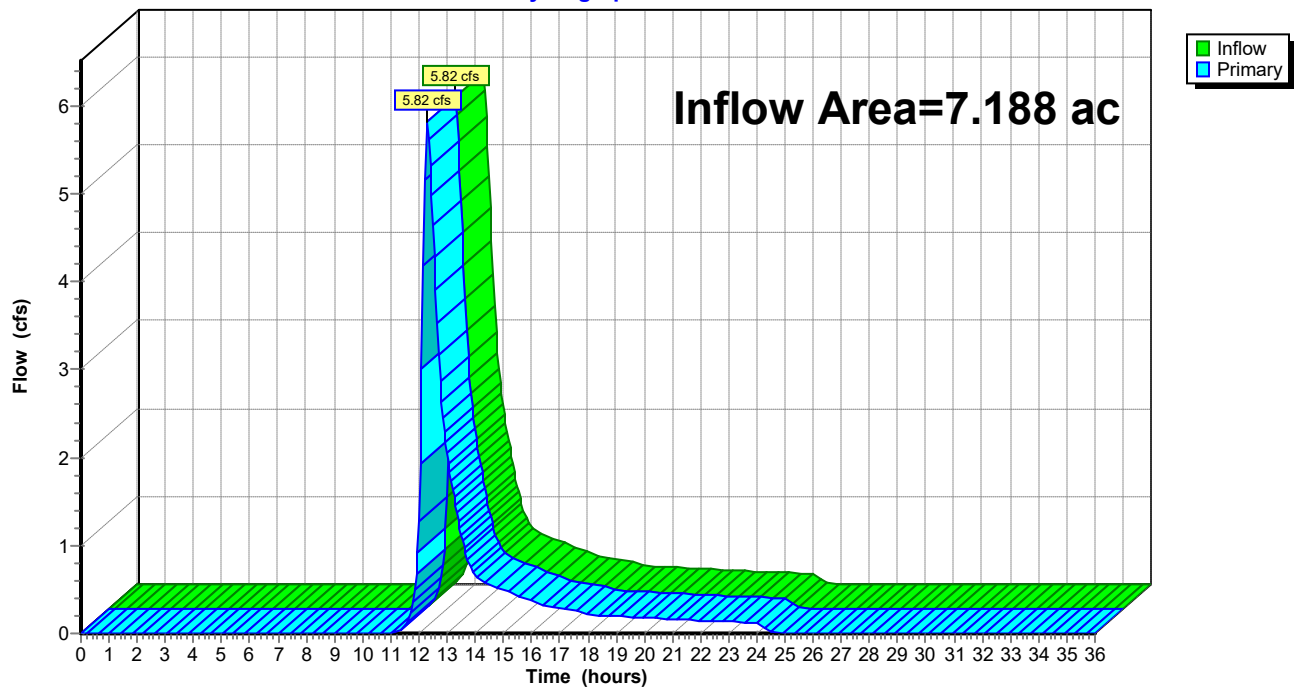
Summary for Link POI #2: POI #2

Inflow Area = 7.188 ac, 34.72% Impervious, Inflow Depth = 1.07" for 10-Year event
Inflow = 5.82 cfs @ 12.29 hrs, Volume= 0.642 af
Primary = 5.82 cfs @ 12.29 hrs, Volume= 0.642 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #2: POI #2

Hydrograph



2025.07.03 - Proposed Conditions*Type III 24-hr 10-Year Rainfall=5.00"*

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Hydrograph for Link POI #2: POI #2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	35.50	0.00	0.00	0.00
10.00	0.00	0.00	0.00	36.00	0.00	0.00	0.00
10.50	0.00	0.00	0.00				
11.00	0.00	0.00	0.00				
11.50	0.08	0.00	0.08				
12.00	1.28	0.00	1.28				
12.50	4.65	0.00	4.65				
13.00	2.04	0.00	2.04				
13.50	1.12	0.00	1.12				
14.00	0.65	0.00	0.65				
14.50	0.55	0.00	0.55				
15.00	0.49	0.00	0.49				
15.50	0.43	0.00	0.43				
16.00	0.37	0.00	0.37				
16.50	0.32	0.00	0.32				
17.00	0.29	0.00	0.29				
17.50	0.26	0.00	0.26				
18.00	0.23	0.00	0.23				
18.50	0.20	0.00	0.20				
19.00	0.20	0.00	0.20				
19.50	0.19	0.00	0.19				
20.00	0.18	0.00	0.18				
20.50	0.17	0.00	0.17				
21.00	0.16	0.00	0.16				
21.50	0.16	0.00	0.16				
22.00	0.15	0.00	0.15				
22.50	0.14	0.00	0.14				
23.00	0.13	0.00	0.13				
23.50	0.13	0.00	0.13				
24.00	0.12	0.00	0.12				
24.50	0.01	0.00	0.01				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				

2025.07.03 - Proposed Conditions*Type III 24-hr 25-Year Rainfall=6.00"*

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Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 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 DA #1A: Drainage Area #1A Runoff Area=165,307 sf 92.16% Impervious Runoff Depth=5.41"
Tc=10.0 min CN=95 Runoff=18.92 cfs 1.711 af

Subcatchment DA #1B: Drainage Area #1B Runoff Area=172,042 sf 3.71% Impervious Runoff Depth=2.09"
Flow Length=638' Tc=17.0 min CN=62 Runoff=6.62 cfs 0.688 af

Subcatchment DA #1C: Drainage Area Runoff Area=153,140 sf 93.20% Impervious Runoff Depth=5.41"
Tc=10.0 min CN=95 Runoff=17.53 cfs 1.585 af

Subcatchment DA #2A: Drainage Area #2A Runoff Area=121,928 sf 86.47% Impervious Runoff Depth=5.18"
Tc=10.0 min CN=93 Runoff=13.66 cfs 1.209 af

Subcatchment DA #2B: Drainage Area #2B Runoff Area=191,184 sf 1.71% Impervious Runoff Depth=2.09"
Flow Length=784' Tc=18.4 min CN=62 Runoff=7.14 cfs 0.765 af

Pond DB #2: Drainage Basin #2 Peak Elev=486.79' Storage=13,086 cf Inflow=13.66 cfs 1.209 af
Discarded=2.76 cfs 1.039 af Primary=1.43 cfs 0.170 af Outflow=4.20 cfs 1.209 af

Pond SMS #1A: SMS #1A Peak Elev=495.28' Storage=0.453 af Inflow=18.92 cfs 1.711 af
Discarded=2.23 cfs 1.345 af Primary=3.27 cfs 0.366 af Outflow=5.49 cfs 1.711 af

Pond SMS #1C: SMS #1C Peak Elev=498.68' Storage=0.404 af Inflow=17.53 cfs 1.585 af
Discarded=2.04 cfs 1.228 af Primary=3.65 cfs 0.357 af Outflow=5.68 cfs 1.585 af

Link POI #1: POI #1 Inflow=12.37 cfs 1.411 af
Primary=12.37 cfs 1.411 af

Link POI #2: POI #2 Inflow=8.44 cfs 0.934 af
Primary=8.44 cfs 0.934 af

Total Runoff Area = 18.448 ac Runoff Volume = 5.958 af Average Runoff Depth = 3.88"
48.96% Pervious = 9.032 ac 51.04% Impervious = 9.416 ac

2025.07.03 - Proposed Conditions

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Type III 24-hr 25-Year Rainfall=6.00"

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Summary for Subcatchment DA #1A: Drainage Area #1A

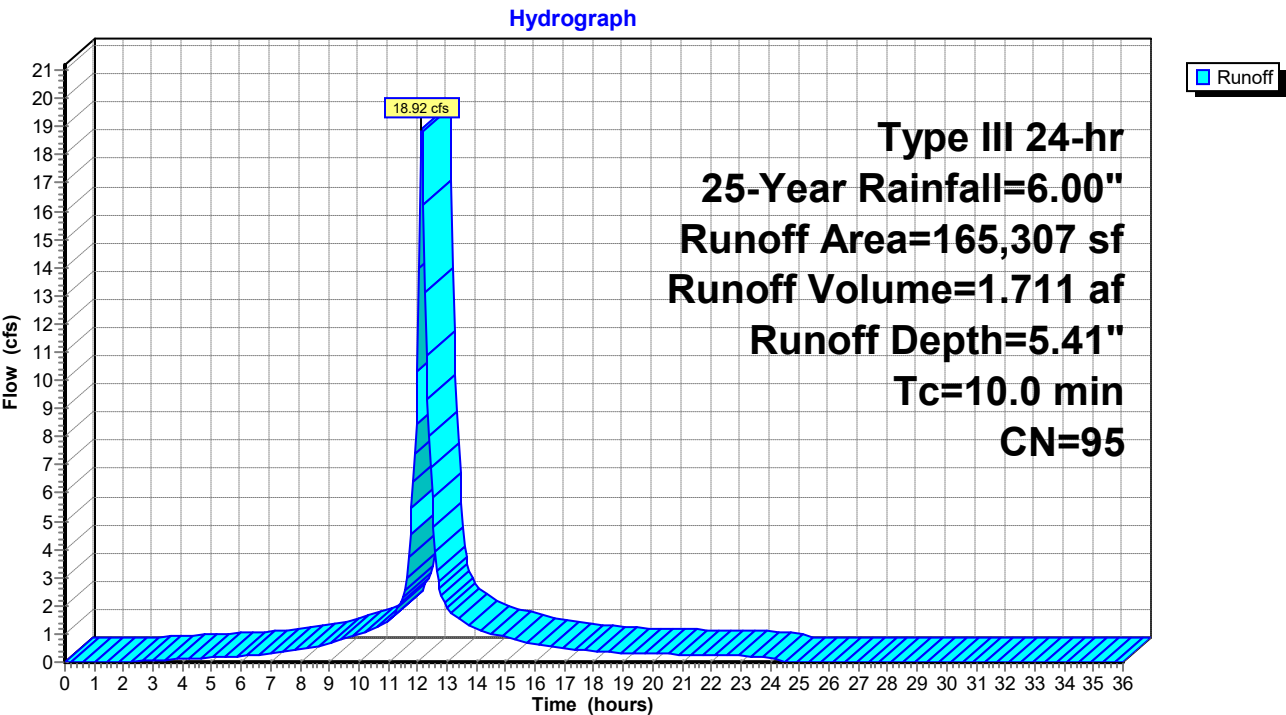
Runoff = 18.92 cfs @ 12.14 hrs, Volume= 1.711 af, Depth= 5.41"
Routed to Pond SMS #1A : SMS #1A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=6.00"

	Area (sf)	CN	Description
	11,207	61	>75% Grass cover, Good, HSG B
*	1,751	61	Emergency Access Road (Perv.), Good, HSG B
*	86,044	98	Building/Roof, HSG B
*	60,510	98	Pavement, HSG B
*	2,937	98	Sidewalk, HSG B
*	2,858	98	Emergency Access Road (Imp.), HSG B
	165,307	95	Weighted Average
	12,958		7.84% Pervious Area
	152,349		92.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, 10 Minute Minimum

Subcatchment DA #1A: Drainage Area #1A



2025.07.03 - Proposed Conditions*Type III 24-hr 25-Year Rainfall=6.00"*

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Hydrograph for Subcatchment DA #1A: Drainage Area #1A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	6.00	5.41	0.00
0.50	0.03	0.00	0.00	26.50	6.00	5.41	0.00
1.00	0.06	0.00	0.00	27.00	6.00	5.41	0.00
1.50	0.09	0.00	0.00	27.50	6.00	5.41	0.00
2.00	0.12	0.00	0.01	28.00	6.00	5.41	0.00
2.50	0.15	0.00	0.03	28.50	6.00	5.41	0.00
3.00	0.18	0.01	0.06	29.00	6.00	5.41	0.00
3.50	0.22	0.02	0.08	29.50	6.00	5.41	0.00
4.00	0.26	0.03	0.11	30.00	6.00	5.41	0.00
4.50	0.30	0.05	0.14	30.50	6.00	5.41	0.00
5.00	0.34	0.07	0.17	31.00	6.00	5.41	0.00
5.50	0.39	0.10	0.19	31.50	6.00	5.41	0.00
6.00	0.43	0.13	0.22	32.00	6.00	5.41	0.00
6.50	0.48	0.16	0.26	32.50	6.00	5.41	0.00
7.00	0.54	0.20	0.32	33.00	6.00	5.41	0.00
7.50	0.61	0.25	0.38	33.50	6.00	5.41	0.00
8.00	0.68	0.30	0.44	34.00	6.00	5.41	0.00
8.50	0.77	0.37	0.55	34.50	6.00	5.41	0.00
9.00	0.87	0.46	0.68	35.00	6.00	5.41	0.00
9.50	1.00	0.56	0.81	35.50	6.00	5.41	0.00
10.00	1.13	0.68	0.95	36.00	6.00	5.41	0.00
10.50	1.30	0.83	1.18				
11.00	1.50	1.01	1.46				
11.50	1.79	1.28	2.26				
12.00	3.00	2.45	10.29				
12.50	4.21	3.64	5.84				
13.00	4.50	3.92	1.98				
13.50	4.70	4.12	1.47				
14.00	4.87	4.29	1.20				
14.50	5.00	4.42	1.02				
15.00	5.13	4.54	0.89				
15.50	5.23	4.65	0.76				
16.00	5.32	4.73	0.63				
16.50	5.39	4.81	0.55				
17.00	5.46	4.87	0.50				
17.50	5.52	4.93	0.44				
18.00	5.57	4.98	0.38				
18.50	5.61	5.03	0.35				
19.00	5.66	5.07	0.34				
19.50	5.70	5.12	0.32				
20.00	5.74	5.16	0.30				
20.50	5.78	5.19	0.29				
21.00	5.82	5.23	0.27				
21.50	5.85	5.26	0.26				
22.00	5.88	5.30	0.25				
22.50	5.92	5.33	0.24				
23.00	5.95	5.36	0.22				
23.50	5.97	5.39	0.21				
24.00	6.00	5.41	0.20				
24.50	6.00	5.41	0.00				
25.00	6.00	5.41	0.00				
25.50	6.00	5.41	0.00				

2025.07.03 - Proposed Conditions

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Type III 24-hr 25-Year Rainfall=6.00"

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Summary for Subcatchment DA #1B: Drainage Area #1B

Runoff = 6.62 cfs @ 12.25 hrs, Volume= 0.688 af, Depth= 2.09"
Routed to Link POI #1 : POI #1

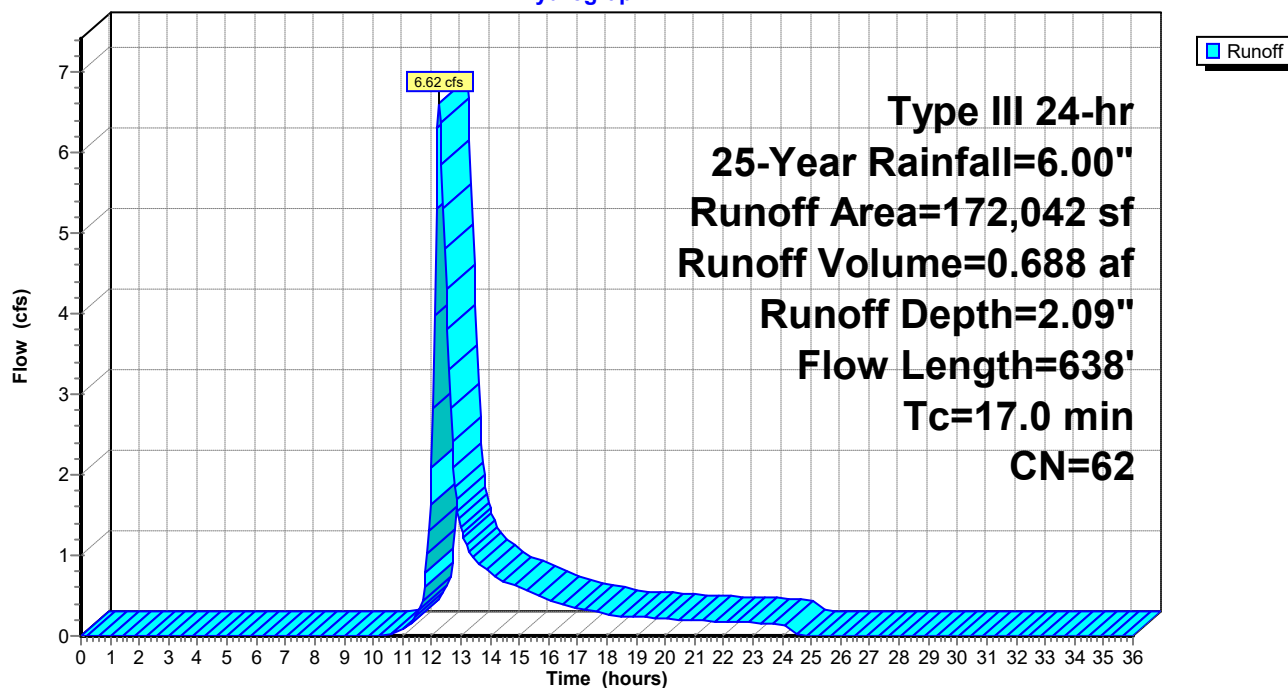
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=6.00"

	Area (sf)	CN	Description
	161,751	61	>75% Grass cover, Good, HSG B
*	3,911	61	Emergency Access Road (Perv.), Good, HSG B
*	6,380	98	Emergency Access Road (Imp.), HSG B
	172,042	62	Weighted Average
	165,662		96.29% Pervious Area
	6,380		3.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.2	150	0.1200	0.21		Sheet Flow, Grass: Dense n= 0.240 P2= 2.00"
4.8	488	0.0578	1.68		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
17.0	638	Total			

Subcatchment DA #1B: Drainage Area #1B

Hydrograph



2025.07.03 - Proposed Conditions*Type III 24-hr 25-Year Rainfall=6.00"*

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Hydrograph for Subcatchment DA #1B: Drainage Area #1B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	6.00	2.09	0.00
0.50	0.03	0.00	0.00	26.50	6.00	2.09	0.00
1.00	0.06	0.00	0.00	27.00	6.00	2.09	0.00
1.50	0.09	0.00	0.00	27.50	6.00	2.09	0.00
2.00	0.12	0.00	0.00	28.00	6.00	2.09	0.00
2.50	0.15	0.00	0.00	28.50	6.00	2.09	0.00
3.00	0.18	0.00	0.00	29.00	6.00	2.09	0.00
3.50	0.22	0.00	0.00	29.50	6.00	2.09	0.00
4.00	0.26	0.00	0.00	30.00	6.00	2.09	0.00
4.50	0.30	0.00	0.00	30.50	6.00	2.09	0.00
5.00	0.34	0.00	0.00	31.00	6.00	2.09	0.00
5.50	0.39	0.00	0.00	31.50	6.00	2.09	0.00
6.00	0.43	0.00	0.00	32.00	6.00	2.09	0.00
6.50	0.48	0.00	0.00	32.50	6.00	2.09	0.00
7.00	0.54	0.00	0.00	33.00	6.00	2.09	0.00
7.50	0.61	0.00	0.00	33.50	6.00	2.09	0.00
8.00	0.68	0.00	0.00	34.00	6.00	2.09	0.00
8.50	0.77	0.00	0.00	34.50	6.00	2.09	0.00
9.00	0.87	0.00	0.00	35.00	6.00	2.09	0.00
9.50	1.00	0.00	0.00	35.50	6.00	2.09	0.00
10.00	1.13	0.00	0.00	36.00	6.00	2.09	0.00
10.50	1.30	0.00	0.00				
11.00	1.50	0.01	0.08				
11.50	1.79	0.05	0.27				
12.00	3.00	0.40	2.10				
12.50	4.21	0.98	4.30				
13.00	4.50	1.14	1.36				
13.50	4.70	1.26	0.94				
14.00	4.87	1.36	0.79				
14.50	5.00	1.44	0.68				
15.00	5.13	1.52	0.60				
15.50	5.23	1.58	0.52				
16.00	5.32	1.64	0.44				
16.50	5.39	1.68	0.38				
17.00	5.46	1.73	0.35				
17.50	5.52	1.77	0.31				
18.00	5.57	1.80	0.27				
18.50	5.61	1.83	0.25				
19.00	5.66	1.86	0.24				
19.50	5.70	1.89	0.22				
20.00	5.74	1.92	0.21				
20.50	5.78	1.94	0.20				
21.00	5.82	1.97	0.20				
21.50	5.85	1.99	0.19				
22.00	5.88	2.01	0.18				
22.50	5.92	2.03	0.17				
23.00	5.95	2.05	0.16				
23.50	5.97	2.07	0.15				
24.00	6.00	2.09	0.14				
24.50	6.00	2.09	0.01				
25.00	6.00	2.09	0.00				
25.50	6.00	2.09	0.00				

2025.07.03 - Proposed Conditions

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Type III 24-hr 25-Year Rainfall=6.00"

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Summary for Subcatchment DA #1C: Drainage Area #1C

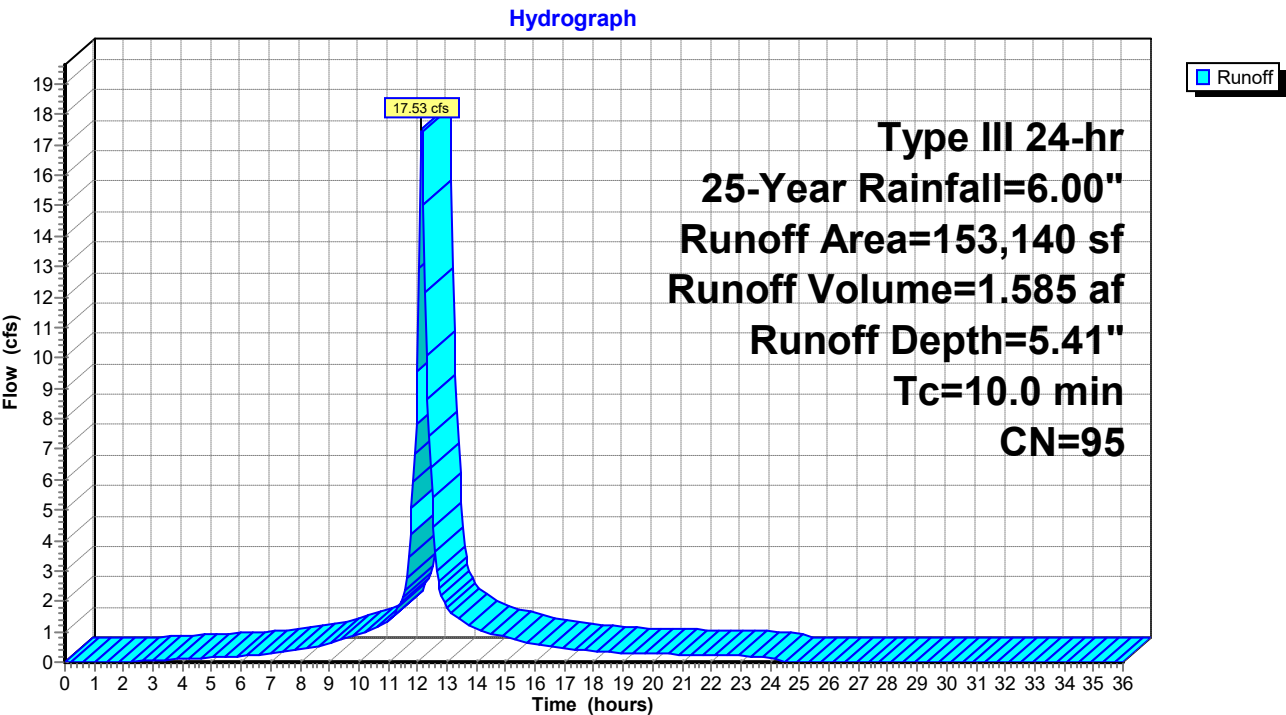
Runoff = 17.53 cfs @ 12.14 hrs, Volume= 1.585 af, Depth= 5.41"
Routed to Pond SMS #1C : SMS #1C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=6.00"

	Area (sf)	CN	Description
	8,883	61	>75% Grass cover, Good, HSG B
*	1,528	61	Emergency Access Road (Perv.), Good, HSG B
*	100,238	98	Building/Roof, HSG B
*	36,917	98	Pavement, HSG B
*	3,080	98	Sidewalk, HSG B
	2,494	98	Emergency Access Road (Imp.), HSG B
	153,140	95	Weighted Average
	10,411		6.80% Pervious Area
	142,729		93.20% Impervious Area

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
10.0					Direct Entry, 10 Direct Minimum

Subcatchment DA #1C: Drainage Area #1C



2025.07.03 - Proposed Conditions*Type III 24-hr 25-Year Rainfall=6.00"*

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Hydrograph for Subcatchment DA #1C: Drainage Area #1C

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	6.00	5.41	0.00
0.50	0.03	0.00	0.00	26.50	6.00	5.41	0.00
1.00	0.06	0.00	0.00	27.00	6.00	5.41	0.00
1.50	0.09	0.00	0.00	27.50	6.00	5.41	0.00
2.00	0.12	0.00	0.00	28.00	6.00	5.41	0.00
2.50	0.15	0.00	0.03	28.50	6.00	5.41	0.00
3.00	0.18	0.01	0.05	29.00	6.00	5.41	0.00
3.50	0.22	0.02	0.08	29.50	6.00	5.41	0.00
4.00	0.26	0.03	0.10	30.00	6.00	5.41	0.00
4.50	0.30	0.05	0.13	30.50	6.00	5.41	0.00
5.00	0.34	0.07	0.15	31.00	6.00	5.41	0.00
5.50	0.39	0.10	0.18	31.50	6.00	5.41	0.00
6.00	0.43	0.13	0.20	32.00	6.00	5.41	0.00
6.50	0.48	0.16	0.24	32.50	6.00	5.41	0.00
7.00	0.54	0.20	0.30	33.00	6.00	5.41	0.00
7.50	0.61	0.25	0.35	33.50	6.00	5.41	0.00
8.00	0.68	0.30	0.41	34.00	6.00	5.41	0.00
8.50	0.77	0.37	0.51	34.50	6.00	5.41	0.00
9.00	0.87	0.46	0.63	35.00	6.00	5.41	0.00
9.50	1.00	0.56	0.75	35.50	6.00	5.41	0.00
10.00	1.13	0.68	0.88	36.00	6.00	5.41	0.00
10.50	1.30	0.83	1.10				
11.00	1.50	1.01	1.36				
11.50	1.79	1.28	2.09				
12.00	3.00	2.45	9.53				
12.50	4.21	3.64	5.41				
13.00	4.50	3.92	1.83				
13.50	4.70	4.12	1.36				
14.00	4.87	4.29	1.11				
14.50	5.00	4.42	0.95				
15.00	5.13	4.54	0.83				
15.50	5.23	4.65	0.71				
16.00	5.32	4.73	0.59				
16.50	5.39	4.81	0.51				
17.00	5.46	4.87	0.46				
17.50	5.52	4.93	0.41				
18.00	5.57	4.98	0.35				
18.50	5.61	5.03	0.33				
19.00	5.66	5.07	0.31				
19.50	5.70	5.12	0.30				
20.00	5.74	5.16	0.28				
20.50	5.78	5.19	0.27				
21.00	5.82	5.23	0.25				
21.50	5.85	5.26	0.24				
22.00	5.88	5.30	0.23				
22.50	5.92	5.33	0.22				
23.00	5.95	5.36	0.21				
23.50	5.97	5.39	0.20				
24.00	6.00	5.41	0.18				
24.50	6.00	5.41	0.00				
25.00	6.00	5.41	0.00				
25.50	6.00	5.41	0.00				

2025.07.03 - Proposed Conditions

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Type III 24-hr 25-Year Rainfall=6.00"

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Summary for Subcatchment DA #2A: Drainage Area #2A

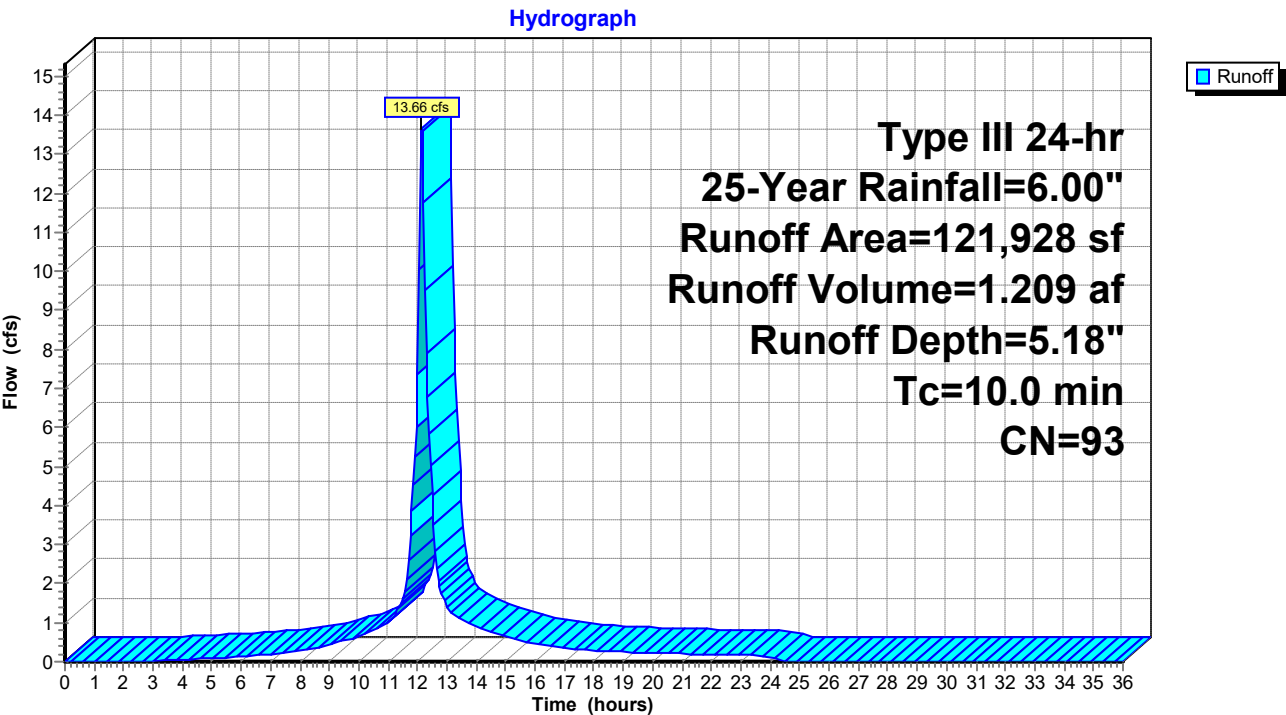
Runoff = 13.66 cfs @ 12.14 hrs, Volume= 1.209 af, Depth= 5.18"
Routed to Pond DB #2 : Drainage Basin #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=6.00"

	Area (sf)	CN	Description
*	50,600	98	Building/Roof, HSG B
*	37,828	98	Pavement, HSG B
*	1,562	98	Sidewalk, HSG B
*	3,943	98	Emergency Access Road (Imp.), HSG B
	14,078	61	>75% Grass cover, Good, HSG B
*	2,417	61	Emergency Access Road (Perv.), Good, HSG B
*	11,500	98	Infiltration Basin, HSG B
	121,928	93	Weighted Average
	16,495		13.53% Pervious Area
	105,433		86.47% Impervious Area

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
10.0					Direct Entry, 10 Minute Minimum

Subcatchment DA #2A: Drainage Area #2A



2025.07.03 - Proposed Conditions*Type III 24-hr 25-Year Rainfall=6.00"*

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Hydrograph for Subcatchment DA #2A: Drainage Area #2A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	6.00	5.18	0.00
0.50	0.03	0.00	0.00	26.50	6.00	5.18	0.00
1.00	0.06	0.00	0.00	27.00	6.00	5.18	0.00
1.50	0.09	0.00	0.00	27.50	6.00	5.18	0.00
2.00	0.12	0.00	0.00	28.00	6.00	5.18	0.00
2.50	0.15	0.00	0.00	28.50	6.00	5.18	0.00
3.00	0.18	0.00	0.01	29.00	6.00	5.18	0.00
3.50	0.22	0.01	0.03	29.50	6.00	5.18	0.00
4.00	0.26	0.01	0.05	30.00	6.00	5.18	0.00
4.50	0.30	0.02	0.06	30.50	6.00	5.18	0.00
5.00	0.34	0.04	0.08	31.00	6.00	5.18	0.00
5.50	0.39	0.06	0.10	31.50	6.00	5.18	0.00
6.00	0.43	0.08	0.12	32.00	6.00	5.18	0.00
6.50	0.48	0.10	0.15	32.50	6.00	5.18	0.00
7.00	0.54	0.13	0.19	33.00	6.00	5.18	0.00
7.50	0.61	0.17	0.23	33.50	6.00	5.18	0.00
8.00	0.68	0.22	0.28	34.00	6.00	5.18	0.00
8.50	0.77	0.28	0.35	34.50	6.00	5.18	0.00
9.00	0.87	0.35	0.44	35.00	6.00	5.18	0.00
9.50	1.00	0.45	0.54	35.50	6.00	5.18	0.00
10.00	1.13	0.56	0.64	36.00	6.00	5.18	0.00
10.50	1.30	0.69	0.81				
11.00	1.50	0.87	1.01				
11.50	1.79	1.12	1.58				
12.00	3.00	2.25	7.37				
12.50	4.21	3.43	4.25				
13.00	4.50	3.71	1.44				
13.50	4.70	3.90	1.07				
14.00	4.87	4.07	0.88				
14.50	5.00	4.20	0.75				
15.00	5.13	4.32	0.65				
15.50	5.23	4.42	0.56				
16.00	5.32	4.51	0.46				
16.50	5.39	4.58	0.40				
17.00	5.46	4.65	0.36				
17.50	5.52	4.71	0.32				
18.00	5.57	4.76	0.28				
18.50	5.61	4.80	0.26				
19.00	5.66	4.85	0.25				
19.50	5.70	4.89	0.23				
20.00	5.74	4.93	0.22				
20.50	5.78	4.97	0.21				
21.00	5.82	5.00	0.20				
21.50	5.85	5.04	0.19				
22.00	5.88	5.07	0.18				
22.50	5.92	5.10	0.17				
23.00	5.95	5.13	0.16				
23.50	5.97	5.16	0.15				
24.00	6.00	5.18	0.14				
24.50	6.00	5.18	0.00				
25.00	6.00	5.18	0.00				
25.50	6.00	5.18	0.00				

2025.07.03 - Proposed Conditions

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Type III 24-hr 25-Year Rainfall=6.00"

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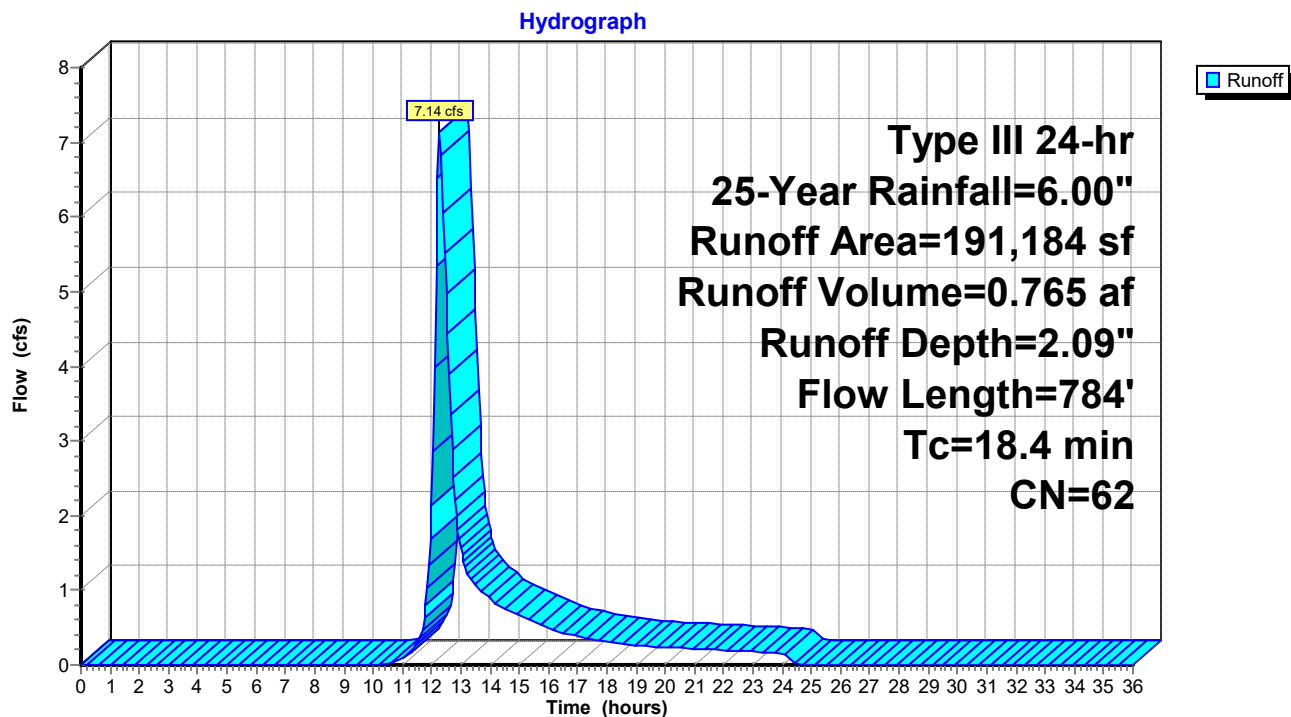
Summary for Subcatchment DA #2B: Drainage Area #2B

Runoff = 7.14 cfs @ 12.27 hrs, Volume= 0.765 af, Depth= 2.09"
Routed to Link POI #2 : POI #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=6.00"

Area (sf)	CN	Description
185,909	61	>75% Grass cover, Good, HSG B
* 2,004	61	Emergency Access Road (Perv.), Good, HSG B
* 3,271	98	Emergency Access Road (Imp.), HSG B
191,184	62	Weighted Average
187,913		98.29% Pervious Area
3,271		1.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	150	0.0667	0.16		Sheet Flow, Grass: Dense n= 0.240 P2= 2.00"
3.0	634	0.2524	3.52		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
18.4	784	Total			

Subcatchment DA #2B: Drainage Area #2B

2025.07.03 - Proposed Conditions*Type III 24-hr 25-Year Rainfall=6.00"*

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Hydrograph for Subcatchment DA #2B: Drainage Area #2B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	6.00	2.09	0.00
0.50	0.03	0.00	0.00	26.50	6.00	2.09	0.00
1.00	0.06	0.00	0.00	27.00	6.00	2.09	0.00
1.50	0.09	0.00	0.00	27.50	6.00	2.09	0.00
2.00	0.12	0.00	0.00	28.00	6.00	2.09	0.00
2.50	0.15	0.00	0.00	28.50	6.00	2.09	0.00
3.00	0.18	0.00	0.00	29.00	6.00	2.09	0.00
3.50	0.22	0.00	0.00	29.50	6.00	2.09	0.00
4.00	0.26	0.00	0.00	30.00	6.00	2.09	0.00
4.50	0.30	0.00	0.00	30.50	6.00	2.09	0.00
5.00	0.34	0.00	0.00	31.00	6.00	2.09	0.00
5.50	0.39	0.00	0.00	31.50	6.00	2.09	0.00
6.00	0.43	0.00	0.00	32.00	6.00	2.09	0.00
6.50	0.48	0.00	0.00	32.50	6.00	2.09	0.00
7.00	0.54	0.00	0.00	33.00	6.00	2.09	0.00
7.50	0.61	0.00	0.00	33.50	6.00	2.09	0.00
8.00	0.68	0.00	0.00	34.00	6.00	2.09	0.00
8.50	0.77	0.00	0.00	34.50	6.00	2.09	0.00
9.00	0.87	0.00	0.00	35.00	6.00	2.09	0.00
9.50	1.00	0.00	0.00	35.50	6.00	2.09	0.00
10.00	1.13	0.00	0.00	36.00	6.00	2.09	0.00
10.50	1.30	0.00	0.00				
11.00	1.50	0.01	0.09				
11.50	1.79	0.05	0.29				
12.00	3.00	0.40	2.15				
12.50	4.21	0.98	4.98				
13.00	4.50	1.14	1.57				
13.50	4.70	1.26	1.06				
14.00	4.87	1.36	0.89				
14.50	5.00	1.44	0.76				
15.00	5.13	1.52	0.67				
15.50	5.23	1.58	0.59				
16.00	5.32	1.64	0.49				
16.50	5.39	1.68	0.43				
17.00	5.46	1.73	0.39				
17.50	5.52	1.77	0.34				
18.00	5.57	1.80	0.30				
18.50	5.61	1.83	0.27				
19.00	5.66	1.86	0.26				
19.50	5.70	1.89	0.25				
20.00	5.74	1.92	0.24				
20.50	5.78	1.94	0.23				
21.00	5.82	1.97	0.22				
21.50	5.85	1.99	0.21				
22.00	5.88	2.01	0.20				
22.50	5.92	2.03	0.19				
23.00	5.95	2.05	0.18				
23.50	5.97	2.07	0.17				
24.00	6.00	2.09	0.16				
24.50	6.00	2.09	0.01				
25.00	6.00	2.09	0.00				
25.50	6.00	2.09	0.00				

2025.07.03 - Proposed Conditions

Type III 24-hr 25-Year Rainfall=6.00"

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Summary for Pond DB #2: Drainage Basin #2

Inflow Area = 2.799 ac, 86.47% Impervious, Inflow Depth = 5.18" for 25-Year event
 Inflow = 13.66 cfs @ 12.14 hrs, Volume= 1.209 af
 Outflow = 4.20 cfs @ 12.50 hrs, Volume= 1.209 af, Atten= 69%, Lag= 22.0 min
 Discarded = 2.76 cfs @ 12.50 hrs, Volume= 1.039 af
 Primary = 1.43 cfs @ 12.50 hrs, Volume= 0.170 af
 Routed to Link POI #2 : POI #2

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs / 3
 Peak Elev= 486.79' @ 12.50 hrs Surf.Area= 9,088 sf Storage= 13,086 cf

Plug-Flow detention time= 22.3 min calculated for 1.207 af (100% of inflow)
 Center-of-Mass det. time= 22.2 min (798.9 - 776.7)

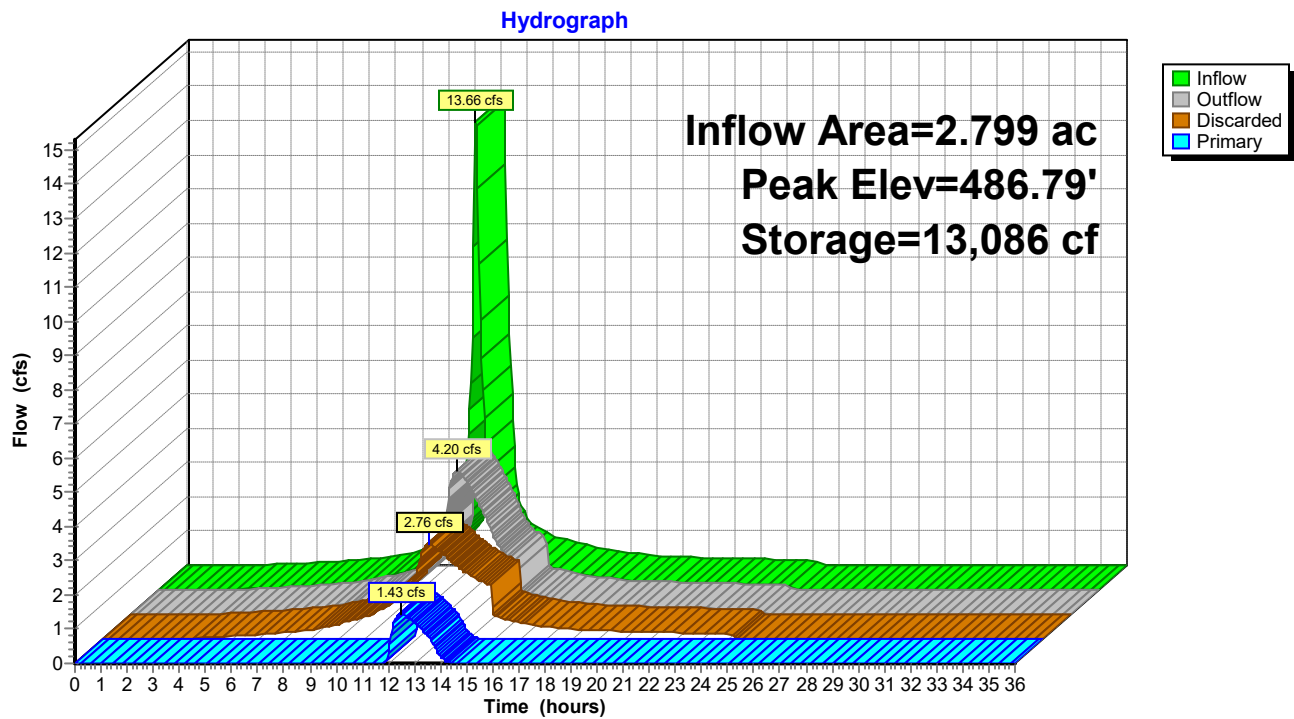
Volume	Invert	Avail.Storage	Storage Description
#1	485.00'	25,500 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
485.00	5,500	0	0
486.00	7,500	6,500	6,500
487.00	9,500	8,500	15,000
488.00	11,500	10,500	25,500

Device	Routing	Invert	Outlet Devices
#1	Discarded	485.00'	12.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 470.00'
#2	Primary	485.26'	7.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	486.79'	7.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

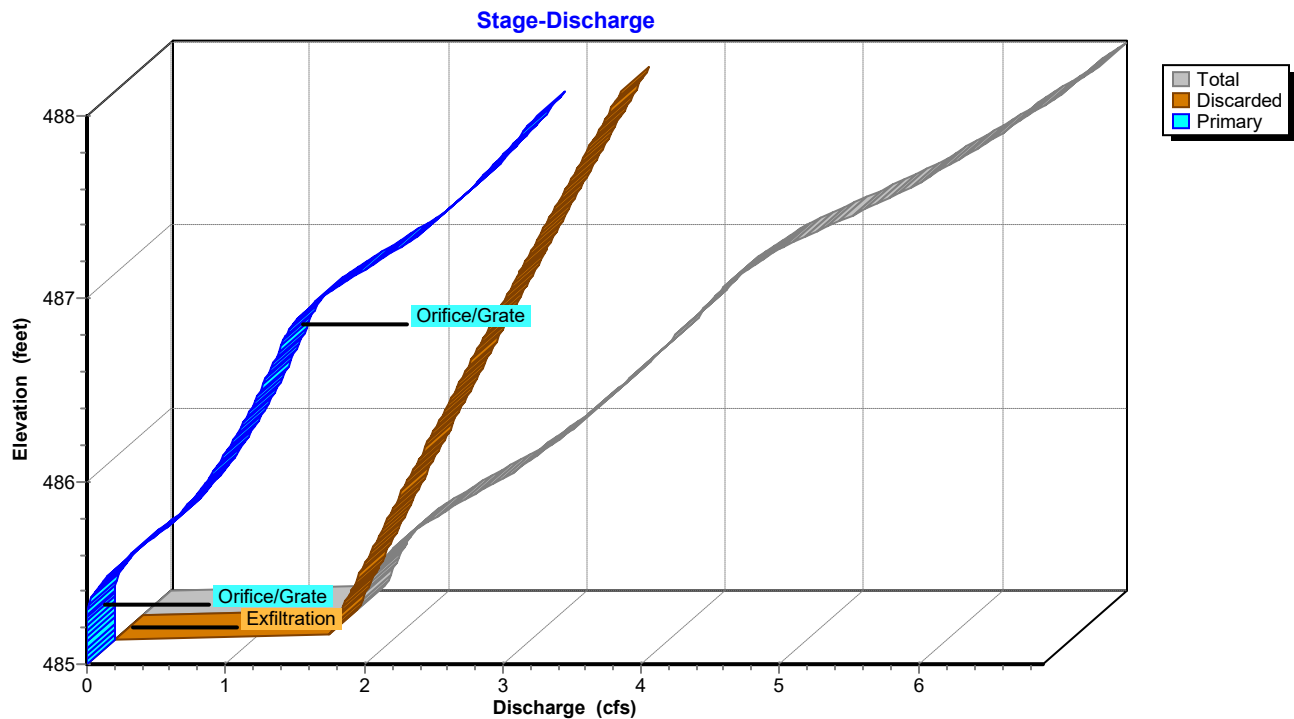
Discarded OutFlow Max=2.76 cfs @ 12.50 hrs HW=486.79' (Free Discharge)
 ↑ **1=Exfiltration** (Controls 2.76 cfs)

Primary OutFlow Max=1.43 cfs @ 12.50 hrs HW=486.79' (Free Discharge)
 ↑ **2=Orifice/Grate** (Orifice Controls 1.43 cfs @ 5.37 fps)
 ↑ **3=Orifice/Grate** (Orifice Controls 0.00 cfs @ 0.20 fps)

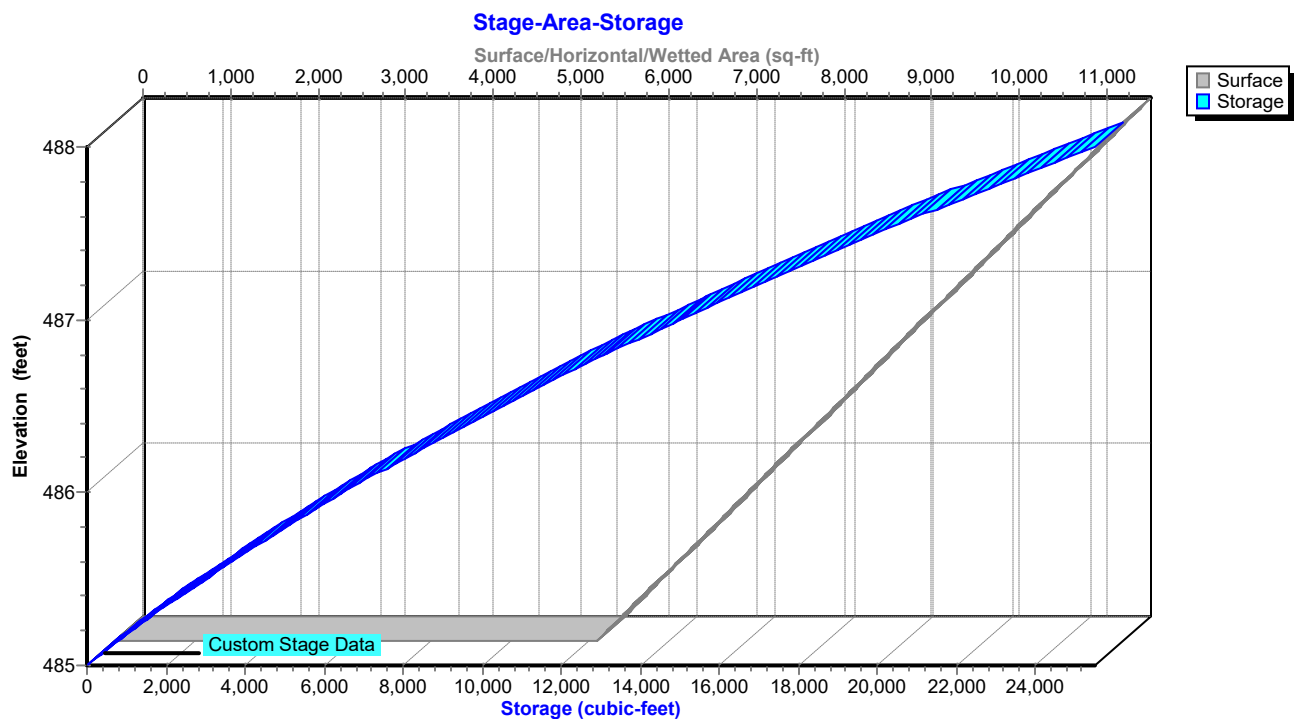
Pond DB #2: Drainage Basin #2



Pond DB #2: Drainage Basin #2



Pond DB #2: Drainage Basin #2



2025.07.03 - Proposed Conditions*Type III 24-hr 25-Year Rainfall=6.00"*

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Hydrograph for Pond DB #2: Drainage Basin #2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	485.00	0.00	0.00	0.00
1.00	0.00	0	485.00	0.00	0.00	0.00
2.00	0.00	0	485.00	0.00	0.00	0.00
3.00	0.01	1	485.00	0.01	0.01	0.00
4.00	0.05	5	485.00	0.04	0.04	0.00
5.00	0.08	9	485.00	0.08	0.08	0.00
6.00	0.12	13	485.00	0.12	0.12	0.00
7.00	0.19	20	485.00	0.19	0.19	0.00
8.00	0.28	29	485.01	0.27	0.27	0.00
9.00	0.44	47	485.01	0.43	0.43	0.00
10.00	0.64	68	485.01	0.64	0.64	0.00
11.00	1.01	107	485.02	1.00	1.00	0.00
12.00	7.37	3,551	485.58	2.21	1.92	0.30
13.00	1.44	9,875	486.43	3.70	2.50	1.20
14.00	0.88	3,231	485.54	2.11	1.88	0.22
15.00	0.65	72	485.01	0.67	0.67	0.00
16.00	0.46	50	485.01	0.47	0.47	0.00
17.00	0.36	39	485.01	0.37	0.37	0.00
18.00	0.28	30	485.01	0.28	0.28	0.00
19.00	0.25	26	485.00	0.25	0.25	0.00
20.00	0.22	24	485.00	0.22	0.22	0.00
21.00	0.20	22	485.00	0.20	0.20	0.00
22.00	0.18	20	485.00	0.18	0.18	0.00
23.00	0.16	18	485.00	0.16	0.16	0.00
24.00	0.14	16	485.00	0.15	0.15	0.00
25.00	0.00	0	485.00	0.00	0.00	0.00
26.00	0.00	0	485.00	0.00	0.00	0.00
27.00	0.00	0	485.00	0.00	0.00	0.00
28.00	0.00	0	485.00	0.00	0.00	0.00
29.00	0.00	0	485.00	0.00	0.00	0.00
30.00	0.00	0	485.00	0.00	0.00	0.00
31.00	0.00	0	485.00	0.00	0.00	0.00
32.00	0.00	0	485.00	0.00	0.00	0.00
33.00	0.00	0	485.00	0.00	0.00	0.00
34.00	0.00	0	485.00	0.00	0.00	0.00
35.00	0.00	0	485.00	0.00	0.00	0.00
36.00	0.00	0	485.00	0.00	0.00	0.00

2025.07.03 - Proposed Conditions*Type III 24-hr 25-Year Rainfall=6.00"*

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Stage-Discharge for Pond DB #2: Drainage Basin #2

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
485.00	0.00	0.00	0.00	487.60	6.12	3.35	2.77
485.05	1.56	1.56	0.00	487.65	6.23	3.39	2.83
485.10	1.59	1.59	0.00	487.70	6.33	3.43	2.90
485.15	1.63	1.63	0.00	487.75	6.43	3.47	2.96
485.20	1.66	1.66	0.00	487.80	6.52	3.50	3.02
485.25	1.69	1.69	0.00	487.85	6.62	3.54	3.08
485.30	1.73	1.73	0.01	487.90	6.72	3.58	3.14
485.35	1.79	1.76	0.03	487.95	6.81	3.62	3.19
485.40	1.86	1.79	0.06	488.00	6.90	3.65	3.25
485.45	1.94	1.83	0.11				
485.50	2.03	1.86	0.17				
485.55	2.14	1.89	0.24				
485.60	2.25	1.93	0.32				
485.65	2.37	1.96	0.40				
485.70	2.48	2.00	0.49				
485.75	2.60	2.03	0.57				
485.80	2.71	2.06	0.65				
485.85	2.80	2.10	0.70				
485.90	2.89	2.13	0.76				
485.95	2.98	2.17	0.81				
486.00	3.06	2.20	0.86				
486.05	3.15	2.24	0.91				
486.10	3.23	2.27	0.95				
486.15	3.30	2.31	1.00				
486.20	3.38	2.34	1.04				
486.25	3.45	2.38	1.08				
486.30	3.53	2.41	1.11				
486.35	3.60	2.45	1.15				
486.40	3.67	2.48	1.19				
486.45	3.74	2.52	1.22				
486.50	3.81	2.55	1.25				
486.55	3.87	2.59	1.29				
486.60	3.94	2.62	1.32				
486.65	4.01	2.66	1.35				
486.70	4.07	2.70	1.38				
486.75	4.14	2.73	1.41				
486.80	4.21	2.77	1.44				
486.85	4.28	2.80	1.48				
486.90	4.37	2.84	1.53				
486.95	4.48	2.88	1.60				
487.00	4.60	2.91	1.68				
487.05	4.72	2.95	1.78				
487.10	4.86	2.99	1.87				
487.15	5.00	3.02	1.98				
487.20	5.15	3.06	2.09				
487.25	5.29	3.10	2.20				
487.30	5.44	3.13	2.30				
487.35	5.57	3.17	2.40				
487.40	5.68	3.21	2.48				
487.45	5.80	3.24	2.55				
487.50	5.91	3.28	2.63				
487.55	6.02	3.32	2.70				

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Stage-Area-Storage for Pond DB #2: Drainage Basin #2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
485.00	5,500	0	487.60	10,700	21,060
485.05	5,600	278	487.65	10,800	21,597
485.10	5,700	560	487.70	10,900	22,140
485.15	5,800	847	487.75	11,000	22,688
485.20	5,900	1,140	487.80	11,100	23,240
485.25	6,000	1,438	487.85	11,200	23,798
485.30	6,100	1,740	487.90	11,300	24,360
485.35	6,200	2,048	487.95	11,400	24,927
485.40	6,300	2,360	488.00	11,500	25,500
485.45	6,400	2,677			
485.50	6,500	3,000			
485.55	6,600	3,328			
485.60	6,700	3,660			
485.65	6,800	3,997			
485.70	6,900	4,340			
485.75	7,000	4,688			
485.80	7,100	5,040			
485.85	7,200	5,398			
485.90	7,300	5,760			
485.95	7,400	6,127			
486.00	7,500	6,500			
486.05	7,600	6,878			
486.10	7,700	7,260			
486.15	7,800	7,647			
486.20	7,900	8,040			
486.25	8,000	8,438			
486.30	8,100	8,840			
486.35	8,200	9,248			
486.40	8,300	9,660			
486.45	8,400	10,077			
486.50	8,500	10,500			
486.55	8,600	10,928			
486.60	8,700	11,360			
486.65	8,800	11,797			
486.70	8,900	12,240			
486.75	9,000	12,688			
486.80	9,100	13,140			
486.85	9,200	13,598			
486.90	9,300	14,060			
486.95	9,400	14,527			
487.00	9,500	15,000			
487.05	9,600	15,478			
487.10	9,700	15,960			
487.15	9,800	16,447			
487.20	9,900	16,940			
487.25	10,000	17,438			
487.30	10,100	17,940			
487.35	10,200	18,448			
487.40	10,300	18,960			
487.45	10,400	19,477			
487.50	10,500	20,000			
487.55	10,600	20,528			

2025.07.03 - Proposed Conditions

Type III 24-hr 25-Year Rainfall=6.00"

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Summary for Pond SMS #1A: SMS #1A

Inflow Area = 3.795 ac, 92.16% Impervious, Inflow Depth = 5.41" for 25-Year event
 Inflow = 18.92 cfs @ 12.14 hrs, Volume= 1.711 af
 Outflow = 5.49 cfs @ 12.52 hrs, Volume= 1.711 af, Atten= 71%, Lag= 22.8 min
 Discarded = 2.23 cfs @ 12.52 hrs, Volume= 1.345 af
 Primary = 3.27 cfs @ 12.52 hrs, Volume= 0.366 af
 Routed to Link POI #1 : POI #1

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
 Peak Elev= 495.28' @ 12.52 hrs Surf.Area= 0.172 ac Storage= 0.453 af

Plug-Flow detention time= 28.8 min calculated for 1.711 af (100% of inflow)
 Center-of-Mass det. time= 28.8 min (796.2 - 767.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	491.75'	0.270 af	36.83'W x 203.69'L x 6.75'H Field A 1.163 af Overall - 0.486 af Embedded = 0.676 af x 40.0% Voids
#2A	492.50'	0.486 af	ADS_StormTech MC-4500 b +Cap x 196 Inside #1 Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap 196 Chambers in 4 Rows Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf
		0.757 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	491.75'	12.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 440.00'
#2	Primary	492.53'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	492.95'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	493.59'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Primary	494.58'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#6	Primary	495.75'	8.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=2.23 cfs @ 12.52 hrs HW=495.28' (Free Discharge)↑ **1=Exfiltration** (Controls 2.23 cfs)**Primary OutFlow** Max=3.26 cfs @ 12.52 hrs HW=495.28' (Free Discharge)

↑ **2=Orifice/Grate** (Orifice Controls 1.05 cfs @ 7.68 fps)
 — **3=Orifice/Grate** (Orifice Controls 0.96 cfs @ 7.01 fps)
 — **4=Orifice/Grate** (Orifice Controls 0.80 cfs @ 5.86 fps)
 — **5=Orifice/Grate** (Orifice Controls 0.46 cfs @ 3.38 fps)
 — **6=Orifice/Grate** (Controls 0.00 cfs)

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Pond SMS #1A: SMS #1A - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-4500 b +Cap (ADS StormTech® MC-4500 with cap volume)

Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf

Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap

Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf

100.0" Wide + 6.0" Spacing = 106.0" C-C Row Spacing

49 Chambers/Row x 4.02' Long +2.73' Cap Length x 2 = 202.69' Row Length +6.0" End Stone x 2 =
203.69' Base Length

4 Rows x 100.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 36.83' Base Width

9.0" Stone Base + 60.0" Chamber Height + 12.0" Stone Cover = 6.75' Field Height

196 Chambers x 106.5 cf + 39.5 cf Cap Volume x 2 x 4 Rows = 21,188.1 cf Chamber Storage

50,642.8 cf Field - 21,188.1 cf Chambers = 29,454.7 cf Stone x 40.0% Voids = 11,781.9 cf Stone Storage

Chamber Storage + Stone Storage = 32,970.0 cf = 0.757 af

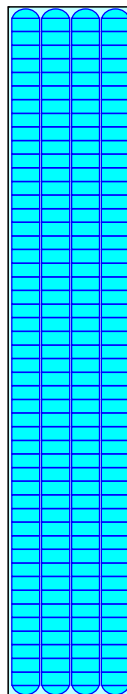
Overall Storage Efficiency = 65.1%

Overall System Size = 203.69' x 36.83' x 6.75'

196 Chambers

1,875.7 cy Field

1,090.9 cy Stone



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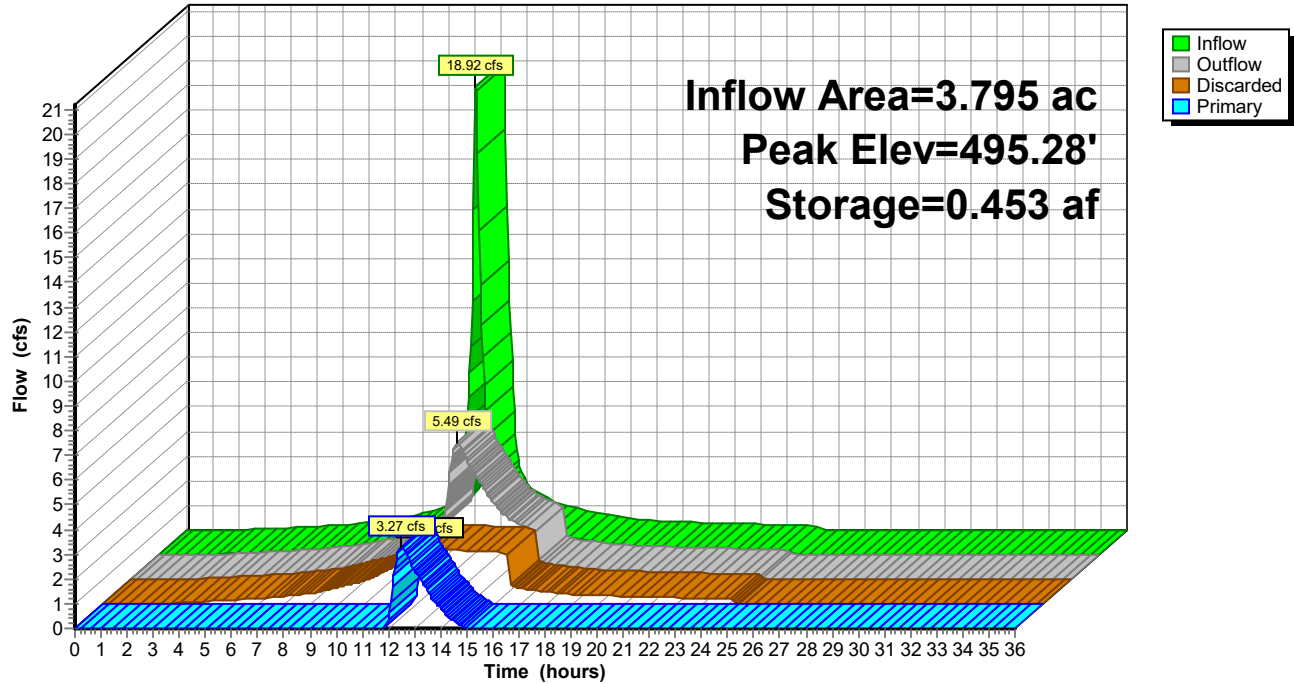
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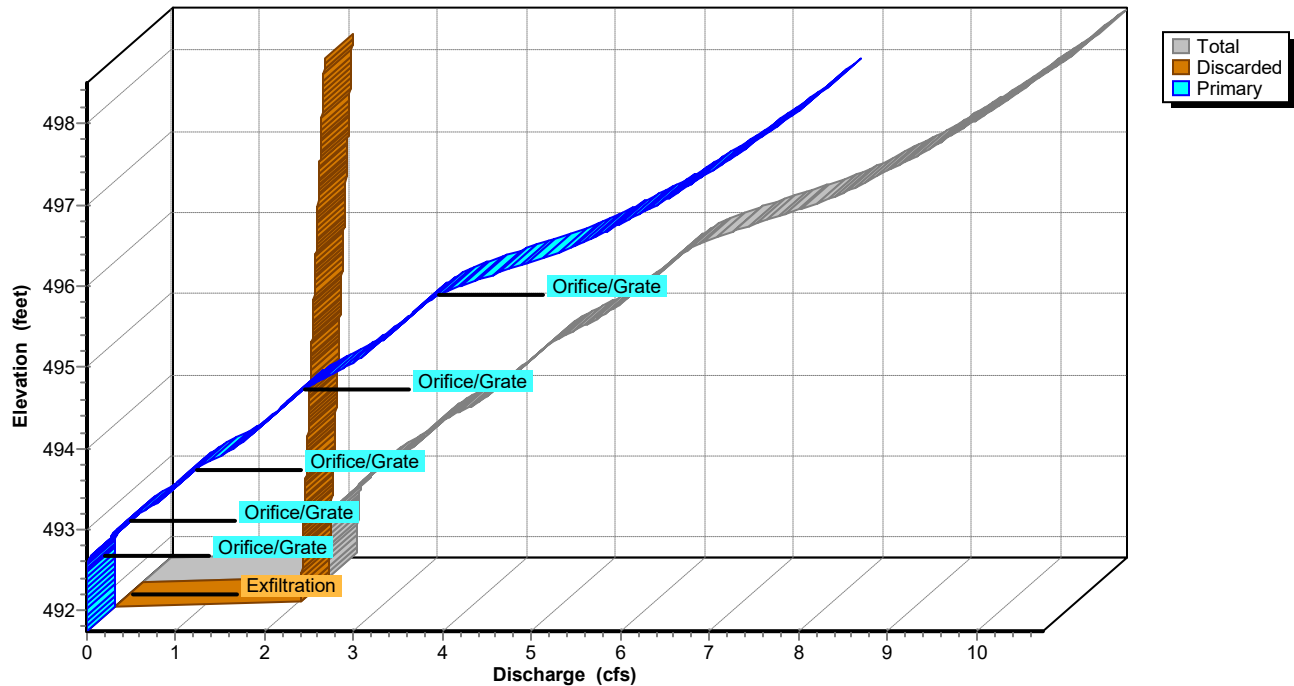
Pond SMS #1A: SMS #1A

Hydrograph



Pond SMS #1A: SMS #1A

Stage-Discharge



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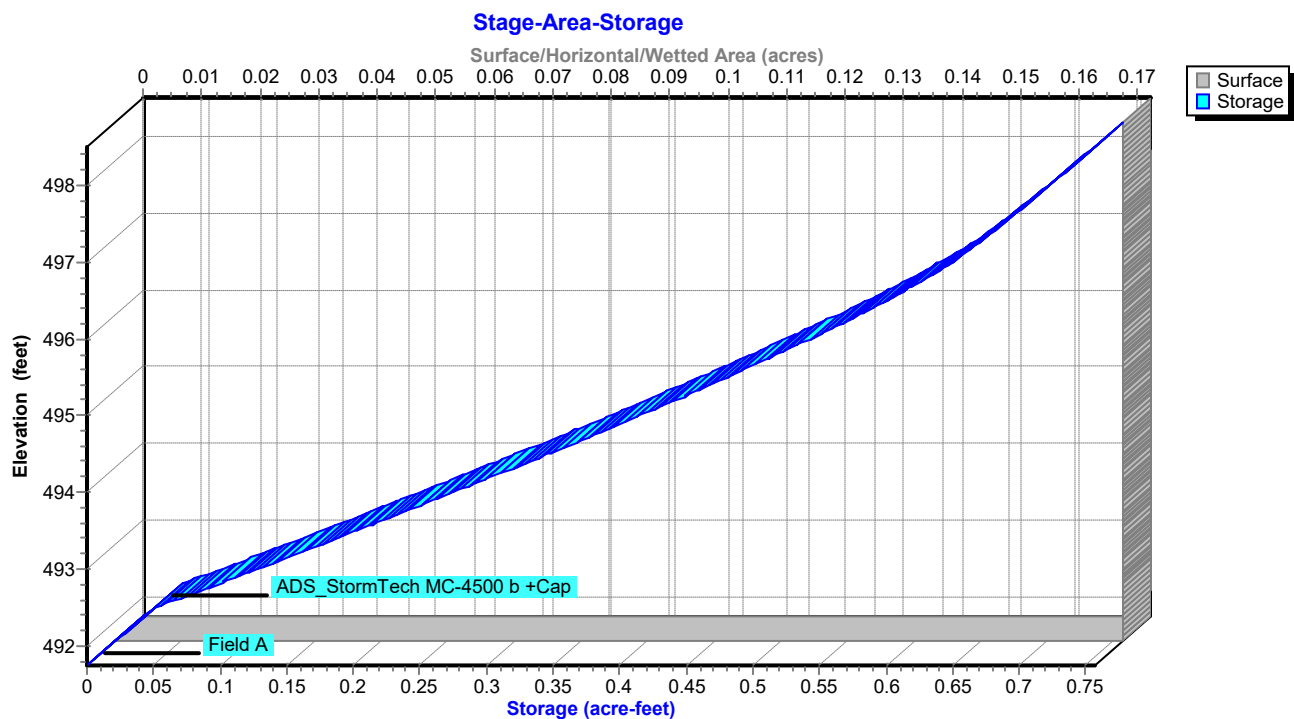
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Pond SMS #1A: SMS #1A



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Hydrograph for Pond SMS #1A: SMS #1A

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0.000	491.75	0.00	0.00	0.00
1.00	0.00	0.000	491.75	0.00	0.00	0.00
2.00	0.01	0.000	491.75	0.00	0.00	0.00
3.00	0.06	0.000	491.75	0.05	0.05	0.00
4.00	0.11	0.000	491.75	0.11	0.11	0.00
5.00	0.17	0.000	491.76	0.16	0.16	0.00
6.00	0.22	0.000	491.76	0.22	0.22	0.00
7.00	0.32	0.001	491.76	0.32	0.32	0.00
8.00	0.44	0.001	491.76	0.44	0.44	0.00
9.00	0.68	0.001	491.77	0.67	0.67	0.00
10.00	0.95	0.002	491.78	0.94	0.94	0.00
11.00	1.46	0.003	491.80	1.45	1.45	0.00
12.00	10.29	0.124	492.98	2.46	2.13	0.32
13.00	1.98	0.367	494.65	4.53	2.20	2.33
14.00	1.20	0.184	493.38	2.98	2.15	0.83
15.00	0.89	0.065	492.59	2.13	2.12	0.01
16.00	0.63	0.001	491.77	0.64	0.64	0.00
17.00	0.50	0.001	491.77	0.50	0.50	0.00
18.00	0.38	0.001	491.76	0.39	0.39	0.00
19.00	0.34	0.001	491.76	0.34	0.34	0.00
20.00	0.30	0.001	491.76	0.30	0.30	0.00
21.00	0.27	0.001	491.76	0.28	0.28	0.00
22.00	0.25	0.001	491.76	0.25	0.25	0.00
23.00	0.22	0.000	491.76	0.22	0.22	0.00
24.00	0.20	0.000	491.76	0.20	0.20	0.00
25.00	0.00	0.000	491.75	0.00	0.00	0.00
26.00	0.00	0.000	491.75	0.00	0.00	0.00
27.00	0.00	0.000	491.75	0.00	0.00	0.00
28.00	0.00	0.000	491.75	0.00	0.00	0.00
29.00	0.00	0.000	491.75	0.00	0.00	0.00
30.00	0.00	0.000	491.75	0.00	0.00	0.00
31.00	0.00	0.000	491.75	0.00	0.00	0.00
32.00	0.00	0.000	491.75	0.00	0.00	0.00
33.00	0.00	0.000	491.75	0.00	0.00	0.00
34.00	0.00	0.000	491.75	0.00	0.00	0.00
35.00	0.00	0.000	491.75	0.00	0.00	0.00
36.00	0.00	0.000	491.75	0.00	0.00	0.00

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Stage-Discharge for Pond SMS #1A: SMS #1A

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
491.75	0.00	0.00	0.00	496.95	8.61	2.29	6.32
491.85	2.09	2.09	0.00	497.05	8.78	2.30	6.48
491.95	2.09	2.09	0.00	497.15	8.94	2.30	6.64
492.05	2.10	2.10	0.00	497.25	9.09	2.31	6.79
492.15	2.10	2.10	0.00	497.35	9.24	2.31	6.93
492.25	2.10	2.10	0.00	497.45	9.39	2.31	7.08
492.35	2.11	2.11	0.00	497.55	9.53	2.32	7.21
492.45	2.11	2.11	0.00	497.65	9.67	2.32	7.35
492.55	2.12	2.12	0.00	497.75	9.81	2.33	7.48
492.65	2.16	2.12	0.04	497.85	9.94	2.33	7.61
492.75	2.24	2.12	0.12	497.95	10.07	2.33	7.74
492.85	2.34	2.13	0.22	498.05	10.20	2.34	7.86
492.95	2.43	2.13	0.30	498.15	10.33	2.34	7.98
493.05	2.53	2.14	0.39	498.25	10.45	2.35	8.10
493.15	2.66	2.14	0.52	498.35	10.57	2.35	8.22
493.25	2.81	2.14	0.67	498.45	10.69	2.35	8.34
493.35	2.95	2.15	0.80				
493.45	3.06	2.15	0.91				
493.55	3.16	2.16	1.00				
493.65	3.26	2.16	1.10				
493.75	3.40	2.16	1.23				
493.85	3.56	2.17	1.39				
493.95	3.74	2.17	1.56				
494.05	3.88	2.18	1.70				
494.15	4.00	2.18	1.82				
494.25	4.12	2.18	1.93				
494.35	4.23	2.19	2.04				
494.45	4.33	2.19	2.14				
494.55	4.42	2.20	2.23				
494.65	4.53	2.20	2.33				
494.75	4.68	2.20	2.47				
494.85	4.86	2.21	2.65				
494.95	5.04	2.21	2.82				
495.05	5.19	2.22	2.97				
495.15	5.33	2.22	3.10				
495.25	5.45	2.23	3.23				
495.35	5.57	2.23	3.34				
495.45	5.69	2.23	3.45				
495.55	5.80	2.24	3.56				
495.65	5.90	2.24	3.66				
495.75	6.00	2.25	3.76				
495.85	6.14	2.25	3.89				
495.95	6.33	2.25	4.08				
496.05	6.58	2.26	4.32				
496.15	6.85	2.26	4.59				
496.25	7.15	2.27	4.88				
496.35	7.43	2.27	5.16				
496.45	7.66	2.27	5.39				
496.55	7.88	2.28	5.60				
496.65	8.08	2.28	5.80				
496.75	8.26	2.29	5.98				
496.85	8.44	2.29	6.15				

2025.07.03 - Proposed Conditions*Type III 24-hr 25-Year Rainfall=6.00"*

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Stage-Area-Storage for Pond SMS #1A: SMS #1A

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
491.75	0.172	0.000	496.95	0.172	0.646
491.85	0.172	0.007	497.05	0.172	0.654
491.95	0.172	0.014	497.15	0.172	0.662
492.05	0.172	0.021	497.25	0.172	0.670
492.15	0.172	0.028	497.35	0.172	0.677
492.25	0.172	0.034	497.45	0.172	0.685
492.35	0.172	0.041	497.55	0.172	0.691
492.45	0.172	0.048	497.65	0.172	0.698
492.55	0.172	0.059	497.75	0.172	0.705
492.65	0.172	0.074	497.85	0.172	0.712
492.75	0.172	0.090	497.95	0.172	0.719
492.85	0.172	0.105	498.05	0.172	0.726
492.95	0.172	0.120	498.15	0.172	0.733
493.05	0.172	0.135	498.25	0.172	0.740
493.15	0.172	0.150	498.35	0.172	0.747
493.25	0.172	0.165	498.45	0.172	0.753
493.35	0.172	0.180			
493.45	0.172	0.194			
493.55	0.172	0.209			
493.65	0.172	0.224			
493.75	0.172	0.239			
493.85	0.172	0.253			
493.95	0.172	0.268			
494.05	0.172	0.282			
494.15	0.172	0.296			
494.25	0.172	0.311			
494.35	0.172	0.325			
494.45	0.172	0.339			
494.55	0.172	0.353			
494.65	0.172	0.367			
494.75	0.172	0.381			
494.85	0.172	0.395			
494.95	0.172	0.408			
495.05	0.172	0.422			
495.15	0.172	0.435			
495.25	0.172	0.448			
495.35	0.172	0.461			
495.45	0.172	0.474			
495.55	0.172	0.487			
495.65	0.172	0.500			
495.75	0.172	0.512			
495.85	0.172	0.525			
495.95	0.172	0.537			
496.05	0.172	0.549			
496.15	0.172	0.561			
496.25	0.172	0.572			
496.35	0.172	0.584			
496.45	0.172	0.595			
496.55	0.172	0.606			
496.65	0.172	0.616			
496.75	0.172	0.626			
496.85	0.172	0.636			

2025.07.03 - Proposed Conditions

Type III 24-hr 25-Year Rainfall=6.00"

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Summary for Pond SMS #1C: SMS #1C

Inflow Area = 3.516 ac, 93.20% Impervious, Inflow Depth = 5.41" for 25-Year event
 Inflow = 17.53 cfs @ 12.14 hrs, Volume= 1.585 af
 Outflow = 5.68 cfs @ 12.49 hrs, Volume= 1.585 af, Atten= 68%, Lag= 21.0 min
 Discarded = 2.04 cfs @ 12.49 hrs, Volume= 1.228 af
 Primary = 3.65 cfs @ 12.49 hrs, Volume= 0.357 af
 Routed to Link POI #1 : POI #1

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
 Peak Elev= 498.68' @ 12.49 hrs Surf.Area= 0.159 ac Storage= 0.404 af

Plug-Flow detention time= 26.5 min calculated for 1.585 af (100% of inflow)
 Center-of-Mass det. time= 26.5 min (793.8 - 767.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	495.25'	0.249 af	36.83'W x 187.59'L x 6.75'H Field A 1.071 af Overall - 0.447 af Embedded = 0.623 af x 40.0% Voids
#2A	496.00'	0.447 af	ADS_StormTech MC-4500 b +Cap x 180 Inside #1 Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap 180 Chambers in 4 Rows Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf
		0.697 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	495.25'	12.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 440.00'
#2	Primary	496.04'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	496.45'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	497.09'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Primary	498.04'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#6	Primary	501.00'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=2.04 cfs @ 12.49 hrs HW=498.68' (Free Discharge)↑ **1=Exfiltration** (Controls 2.04 cfs)**Primary OutFlow** Max=3.64 cfs @ 12.49 hrs HW=498.68' (Free Discharge)

↑ **2=Orifice/Grate** (Orifice Controls 1.02 cfs @ 7.51 fps)
 — **3=Orifice/Grate** (Orifice Controls 0.93 cfs @ 6.84 fps)
 — **4=Orifice/Grate** (Orifice Controls 1.09 cfs @ 5.57 fps)
 — **5=Orifice/Grate** (Orifice Controls 0.59 cfs @ 3.00 fps)
 — **6=Orifice/Grate** (Controls 0.00 cfs)

2025.07.03 - Proposed Conditions

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Type III 24-hr 25-Year Rainfall=6.00"

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Pond SMS #1C: SMS #1C - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-4500 b +Cap (ADS StormTech® MC-4500 with cap volume)

Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf

Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap

Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf

100.0" Wide + 6.0" Spacing = 106.0" C-C Row Spacing

45 Chambers/Row x 4.02' Long +2.73' Cap Length x 2 = 186.59' Row Length +6.0" End Stone x 2 =
187.59' Base Length

4 Rows x 100.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 36.83' Base Width

9.0" Stone Base + 60.0" Chamber Height + 12.0" Stone Cover = 6.75' Field Height

180 Chambers x 106.5 cf + 39.5 cf Cap Volume x 2 x 4 Rows = 19,484.3 cf Chamber Storage

46,640.0 cf Field - 19,484.3 cf Chambers = 27,155.7 cf Stone x 40.0% Voids = 10,862.3 cf Stone Storage

Chamber Storage + Stone Storage = 30,346.6 cf = 0.697 af

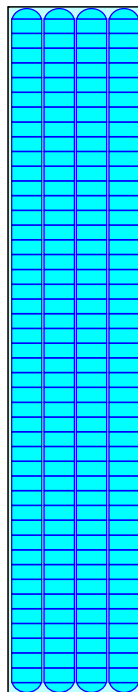
Overall Storage Efficiency = 65.1%

Overall System Size = 187.59' x 36.83' x 6.75'

180 Chambers

1,727.4 cy Field

1,005.8 cy Stone



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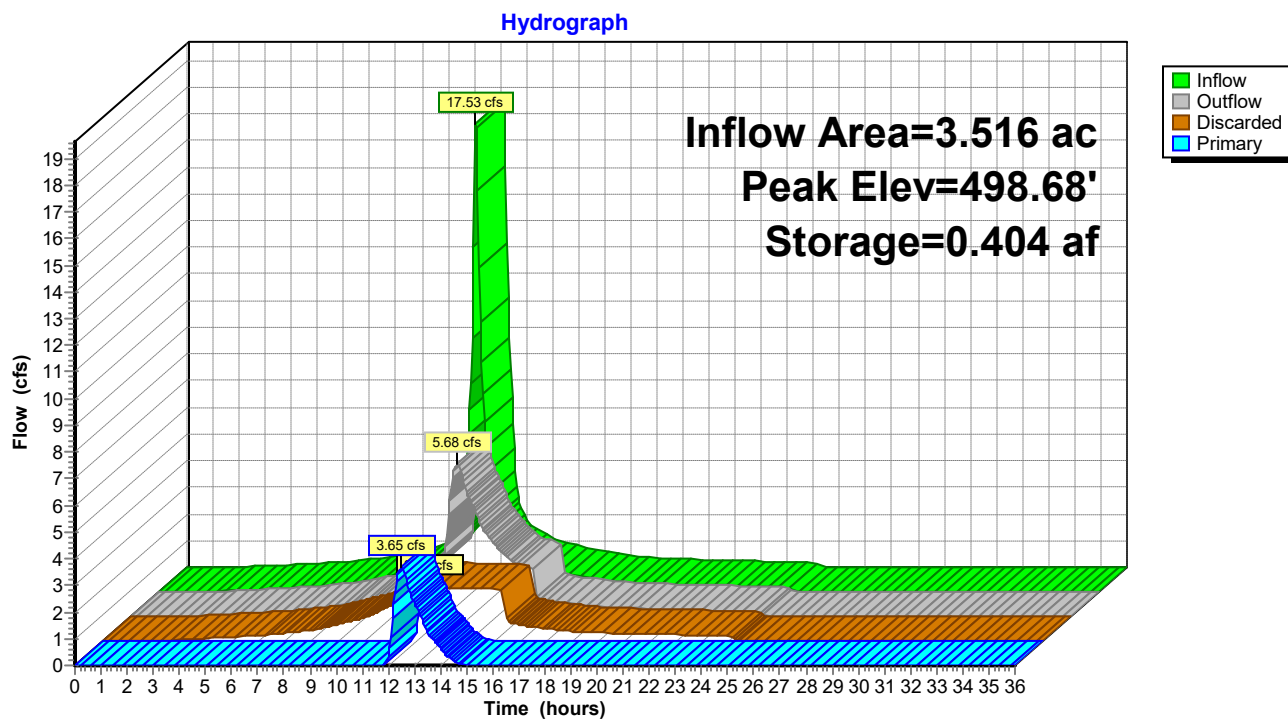
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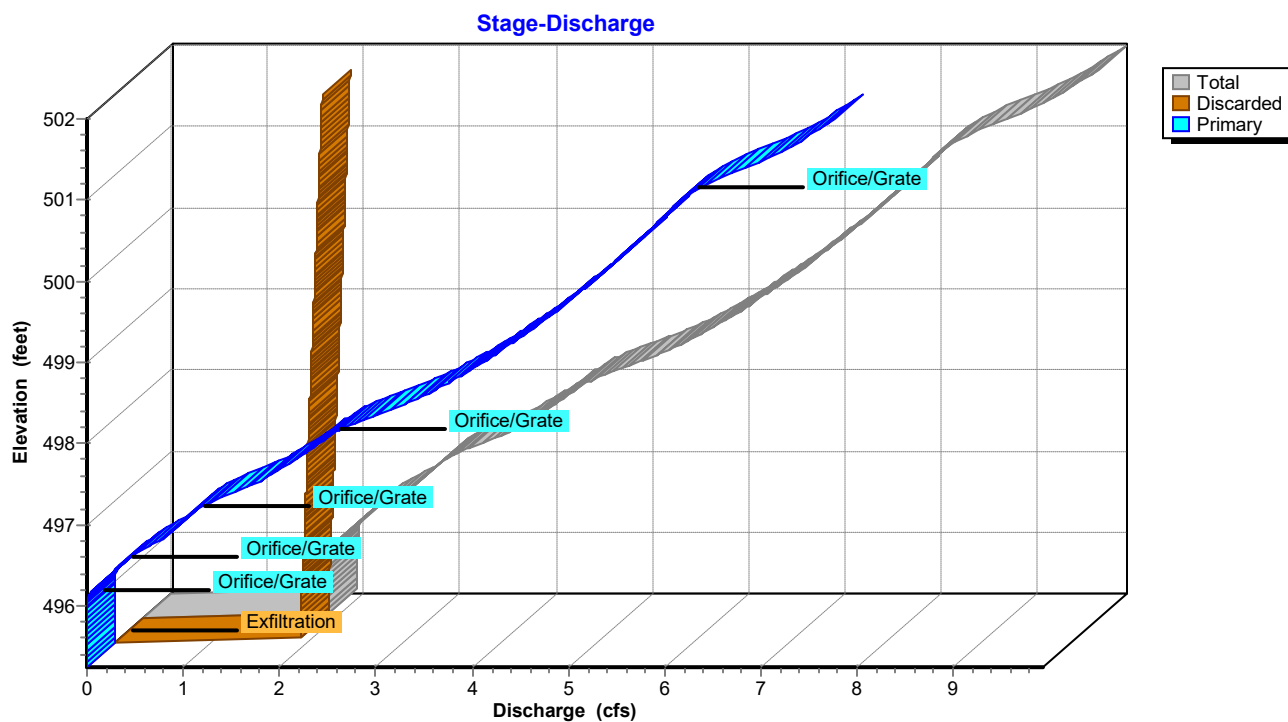
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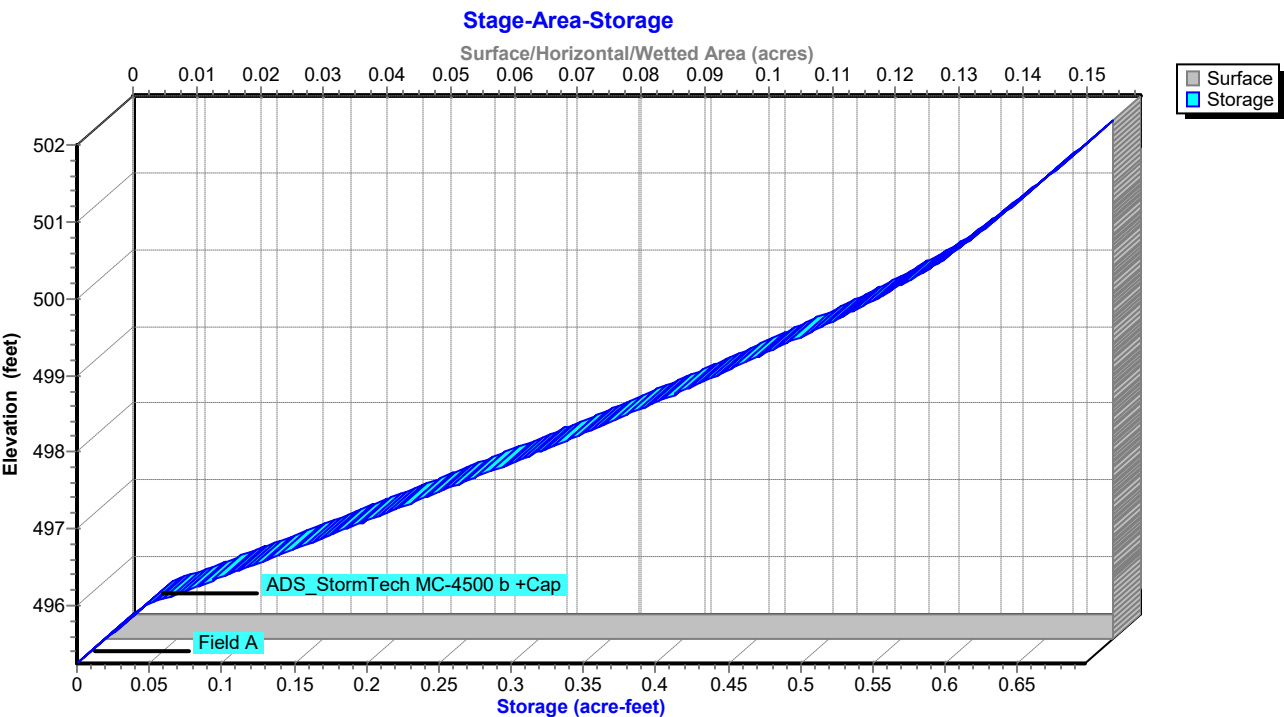
Pond SMS #1C: SMS #1C



Pond SMS #1C: SMS #1C



Pond SMS #1C: SMS #1C



2025.07.03 - Proposed Conditions*Type III 24-hr 25-Year Rainfall=6.00"*

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Hydrograph for Pond SMS #1C: SMS #1C

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0.000	495.25	0.00	0.00	0.00
1.00	0.00	0.000	495.25	0.00	0.00	0.00
2.00	0.00	0.000	495.25	0.00	0.00	0.00
3.00	0.05	0.000	495.25	0.05	0.05	0.00
4.00	0.10	0.000	495.25	0.10	0.10	0.00
5.00	0.15	0.000	495.26	0.15	0.15	0.00
6.00	0.20	0.000	495.26	0.20	0.20	0.00
7.00	0.30	0.001	495.26	0.29	0.29	0.00
8.00	0.41	0.001	495.26	0.41	0.41	0.00
9.00	0.63	0.001	495.27	0.62	0.62	0.00
10.00	0.88	0.002	495.28	0.88	0.88	0.00
11.00	1.36	0.003	495.30	1.34	1.34	0.00
12.00	9.53	0.115	496.49	2.29	1.96	0.33
13.00	1.83	0.312	497.95	4.35	2.01	2.34
14.00	1.11	0.149	496.73	2.61	1.97	0.64
15.00	0.83	0.048	496.00	1.95	1.95	0.00
16.00	0.59	0.001	495.27	0.59	0.59	0.00
17.00	0.46	0.001	495.27	0.46	0.46	0.00
18.00	0.35	0.001	495.26	0.36	0.36	0.00
19.00	0.31	0.001	495.26	0.31	0.31	0.00
20.00	0.28	0.001	495.26	0.28	0.28	0.00
21.00	0.25	0.001	495.26	0.26	0.26	0.00
22.00	0.23	0.001	495.26	0.23	0.23	0.00
23.00	0.21	0.000	495.26	0.21	0.21	0.00
24.00	0.18	0.000	495.26	0.18	0.18	0.00
25.00	0.00	0.000	495.25	0.00	0.00	0.00
26.00	0.00	0.000	495.25	0.00	0.00	0.00
27.00	0.00	0.000	495.25	0.00	0.00	0.00
28.00	0.00	0.000	495.25	0.00	0.00	0.00
29.00	0.00	0.000	495.25	0.00	0.00	0.00
30.00	0.00	0.000	495.25	0.00	0.00	0.00
31.00	0.00	0.000	495.25	0.00	0.00	0.00
32.00	0.00	0.000	495.25	0.00	0.00	0.00
33.00	0.00	0.000	495.25	0.00	0.00	0.00
34.00	0.00	0.000	495.25	0.00	0.00	0.00
35.00	0.00	0.000	495.25	0.00	0.00	0.00
36.00	0.00	0.000	495.25	0.00	0.00	0.00

2025.07.03 - Proposed Conditions*Type III 24-hr 25-Year Rainfall=6.00"*

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Stage-Discharge for Pond SMS #1C: SMS #1C

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
495.25	0.00	0.00	0.00	500.45	7.78	2.10	5.68
495.35	1.92	1.92	0.00	500.55	7.88	2.10	5.77
495.45	1.93	1.93	0.00	500.65	7.97	2.11	5.86
495.55	1.93	1.93	0.00	500.75	8.06	2.11	5.95
495.65	1.93	1.93	0.00	500.85	8.15	2.11	6.04
495.75	1.94	1.94	0.00	500.95	8.24	2.12	6.12
495.85	1.94	1.94	0.00	501.05	8.33	2.12	6.21
495.95	1.94	1.94	0.00	501.15	8.48	2.12	6.35
496.05	1.95	1.95	0.00	501.25	8.67	2.13	6.54
496.15	1.98	1.95	0.03	501.35	8.88	2.13	6.75
496.25	2.06	1.95	0.11	501.45	9.09	2.13	6.96
496.35	2.16	1.96	0.21	501.55	9.27	2.14	7.13
496.45	2.26	1.96	0.30	501.65	9.43	2.14	7.29
496.55	2.35	1.96	0.39	501.75	9.58	2.15	7.43
496.65	2.48	1.97	0.51	501.85	9.72	2.15	7.57
496.75	2.63	1.97	0.66	501.95	9.86	2.15	7.71
496.85	2.77	1.97	0.80				
496.95	2.88	1.98	0.90				
497.05	2.98	1.98	1.00				
497.15	3.08	1.99	1.09				
497.25	3.22	1.99	1.24				
497.35	3.41	1.99	1.41				
497.45	3.61	2.00	1.61				
497.55	3.80	2.00	1.81				
497.65	3.96	2.00	1.96				
497.75	4.10	2.01	2.10				
497.85	4.23	2.01	2.22				
497.95	4.35	2.01	2.34				
498.05	4.47	2.02	2.45				
498.15	4.61	2.02	2.59				
498.25	4.80	2.02	2.78				
498.35	5.03	2.03	3.00				
498.45	5.26	2.03	3.22				
498.55	5.46	2.03	3.42				
498.65	5.63	2.04	3.59				
498.75	5.79	2.04	3.75				
498.85	5.94	2.04	3.90				
498.95	6.09	2.05	4.04				
499.05	6.23	2.05	4.17				
499.15	6.36	2.05	4.30				
499.25	6.49	2.06	4.43				
499.35	6.61	2.06	4.55				
499.45	6.73	2.07	4.66				
499.55	6.84	2.07	4.78				
499.65	6.96	2.07	4.89				
499.75	7.07	2.08	4.99				
499.85	7.18	2.08	5.10				
499.95	7.28	2.08	5.20				
500.05	7.39	2.09	5.30				
500.15	7.49	2.09	5.40				
500.25	7.59	2.09	5.49				
500.35	7.68	2.10	5.59				

2025.07.03 - Proposed Conditions*Type III 24-hr 25-Year Rainfall=6.00"*

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Stage-Area-Storage for Pond SMS #1C: SMS #1C

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
495.25	0.159	0.000	500.45	0.159	0.594
495.35	0.159	0.006	500.55	0.159	0.602
495.45	0.159	0.013	500.65	0.159	0.610
495.55	0.159	0.019	500.75	0.159	0.617
495.65	0.159	0.025	500.85	0.159	0.623
495.75	0.159	0.032	500.95	0.159	0.630
495.85	0.159	0.038	501.05	0.159	0.636
495.95	0.159	0.044	501.15	0.159	0.643
496.05	0.159	0.055	501.25	0.159	0.649
496.15	0.159	0.069	501.35	0.159	0.655
496.25	0.159	0.082	501.45	0.159	0.662
496.35	0.159	0.096	501.55	0.159	0.668
496.45	0.159	0.110	501.65	0.159	0.674
496.55	0.159	0.124	501.75	0.159	0.681
496.65	0.159	0.138	501.85	0.159	0.687
496.75	0.159	0.152	501.95	0.159	0.693
496.85	0.159	0.165			
496.95	0.159	0.179			
497.05	0.159	0.193			
497.15	0.159	0.206			
497.25	0.159	0.220			
497.35	0.159	0.233			
497.45	0.159	0.246			
497.55	0.159	0.260			
497.65	0.159	0.273			
497.75	0.159	0.286			
497.85	0.159	0.299			
497.95	0.159	0.312			
498.05	0.159	0.325			
498.15	0.159	0.338			
498.25	0.159	0.351			
498.35	0.159	0.363			
498.45	0.159	0.376			
498.55	0.159	0.388			
498.65	0.159	0.400			
498.75	0.159	0.413			
498.85	0.159	0.425			
498.95	0.159	0.437			
499.05	0.159	0.448			
499.15	0.159	0.460			
499.25	0.159	0.472			
499.35	0.159	0.483			
499.45	0.159	0.494			
499.55	0.159	0.505			
499.65	0.159	0.516			
499.75	0.159	0.527			
499.85	0.159	0.537			
499.95	0.159	0.547			
500.05	0.159	0.557			
500.15	0.159	0.567			
500.25	0.159	0.576			
500.35	0.159	0.586			

2025.07.03 - Proposed Conditions

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Summary for Link POI #1: POI #1

Inflow Area = 11.260 ac, 61.46% Impervious, Inflow Depth = 1.50" for 25-Year event

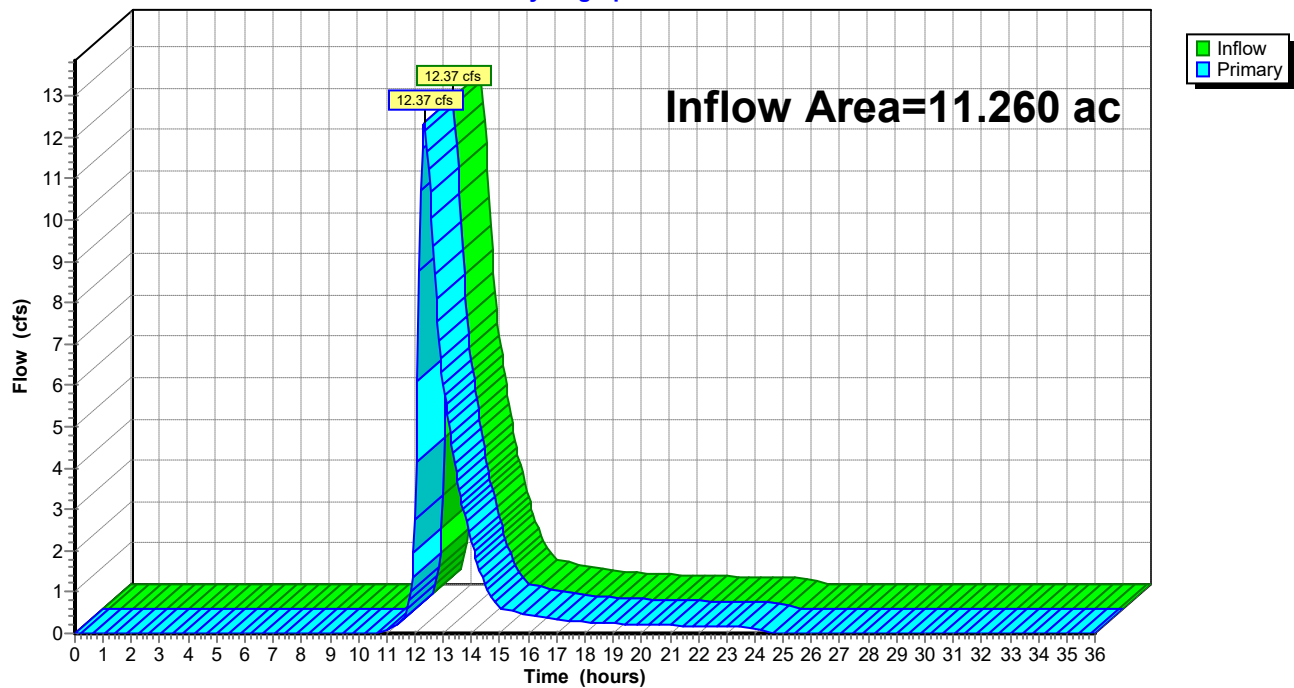
Inflow = 12.37 cfs @ 12.32 hrs, Volume= 1.411 af

Primary = 12.37 cfs @ 12.32 hrs, Volume= 1.411 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #1: POI #1

Hydrograph



2025.07.03 - Proposed Conditions*Type III 24-hr 25-Year Rainfall=6.00"*

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Hydrograph for Link POI #1: POI #1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	35.50	0.00	0.00	0.00
10.00	0.00	0.00	0.00	36.00	0.00	0.00	0.00
10.50	0.00	0.00	0.00				
11.00	0.08	0.00	0.08				
11.50	0.27	0.00	0.27				
12.00	2.75	0.00	2.75				
12.50	11.21	0.00	11.21				
13.00	6.03	0.00	6.03				
13.50	3.69	0.00	3.69				
14.00	2.26	0.00	2.26				
14.50	1.17	0.00	1.17				
15.00	0.61	0.00	0.61				
15.50	0.52	0.00	0.52				
16.00	0.44	0.00	0.44				
16.50	0.38	0.00	0.38				
17.00	0.35	0.00	0.35				
17.50	0.31	0.00	0.31				
18.00	0.27	0.00	0.27				
18.50	0.25	0.00	0.25				
19.00	0.24	0.00	0.24				
19.50	0.22	0.00	0.22				
20.00	0.21	0.00	0.21				
20.50	0.20	0.00	0.20				
21.00	0.20	0.00	0.20				
21.50	0.19	0.00	0.19				
22.00	0.18	0.00	0.18				
22.50	0.17	0.00	0.17				
23.00	0.16	0.00	0.16				
23.50	0.15	0.00	0.15				
24.00	0.14	0.00	0.14				
24.50	0.01	0.00	0.01				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				

2025.07.03 - Proposed Conditions

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Type III 24-hr 25-Year Rainfall=6.00"

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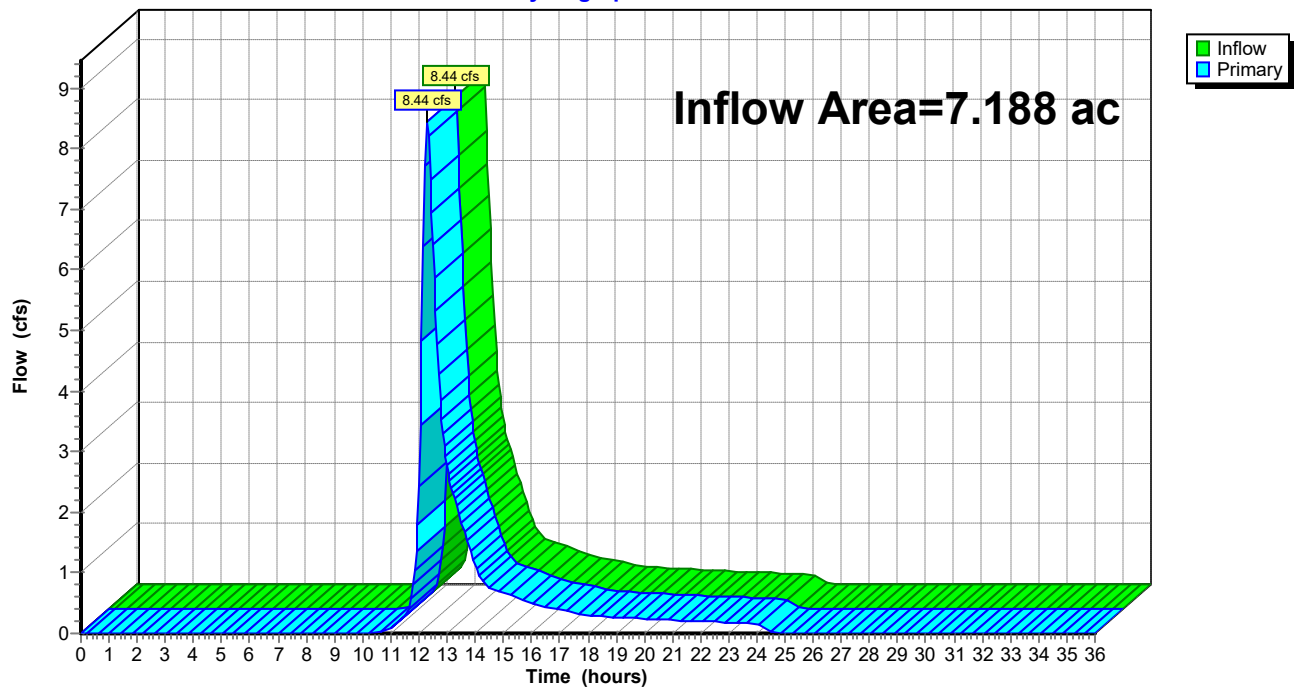
Summary for Link POI #2: POI #2

Inflow Area = 7.188 ac, 34.72% Impervious, Inflow Depth = 1.56" for 25-Year event
Inflow = 8.44 cfs @ 12.28 hrs, Volume= 0.934 af
Primary = 8.44 cfs @ 12.28 hrs, Volume= 0.934 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #2: POI #2

Hydrograph



2025.07.03 - Proposed Conditions*Type III 24-hr 25-Year Rainfall=6.00"*

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Hydrograph for Link POI #2: POI #2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	35.50	0.00	0.00	0.00
10.00	0.00	0.00	0.00	36.00	0.00	0.00	0.00
10.50	0.00	0.00	0.00				
11.00	0.09	0.00	0.09				
11.50	0.29	0.00	0.29				
12.00	2.44	0.00	2.44				
12.50	6.41	0.00	6.41				
13.00	2.77	0.00	2.77				
13.50	1.86	0.00	1.86				
14.00	1.11	0.00	1.11				
14.50	0.76	0.00	0.76				
15.00	0.67	0.00	0.67				
15.50	0.59	0.00	0.59				
16.00	0.49	0.00	0.49				
16.50	0.43	0.00	0.43				
17.00	0.39	0.00	0.39				
17.50	0.34	0.00	0.34				
18.00	0.30	0.00	0.30				
18.50	0.27	0.00	0.27				
19.00	0.26	0.00	0.26				
19.50	0.25	0.00	0.25				
20.00	0.24	0.00	0.24				
20.50	0.23	0.00	0.23				
21.00	0.22	0.00	0.22				
21.50	0.21	0.00	0.21				
22.00	0.20	0.00	0.20				
22.50	0.19	0.00	0.19				
23.00	0.18	0.00	0.18				
23.50	0.17	0.00	0.17				
24.00	0.16	0.00	0.16				
24.50	0.01	0.00	0.01				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				

2025.07.03 - Proposed Conditions*Type III 24-hr 100-Year Rainfall=9.00"*

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Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 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 DA #1A: Drainage Area #1A Runoff Area=165,307 sf 92.16% Impervious Runoff Depth=8.40"
Tc=10.0 min CN=95 Runoff=28.75 cfs 2.656 af

Subcatchment DA #1B: Drainage Area #1B Runoff Area=172,042 sf 3.71% Impervious Runoff Depth=4.35"
Flow Length=638' Tc=17.0 min CN=62 Runoff=14.34 cfs 1.431 af

Subcatchment DA #1C: Drainage Area Runoff Area=153,140 sf 93.20% Impervious Runoff Depth=8.40"
Tc=10.0 min CN=95 Runoff=26.63 cfs 2.460 af

Subcatchment DA #2A: Drainage Area #2A Runoff Area=121,928 sf 86.47% Impervious Runoff Depth=8.16"
Tc=10.0 min CN=93 Runoff=20.98 cfs 1.902 af

Subcatchment DA #2B: Drainage Area #2B Runoff Area=191,184 sf 1.71% Impervious Runoff Depth=4.35"
Flow Length=784' Tc=18.4 min CN=62 Runoff=15.47 cfs 1.590 af

Pond DB #2: Drainage Basin #2 Peak Elev=487.72' Storage=22,345 cf Inflow=20.98 cfs 1.902 af
Discarded=3.44 cfs 1.516 af Primary=2.92 cfs 0.386 af Outflow=6.36 cfs 1.902 af

Pond SMS #1A: SMS #1A Peak Elev=497.89' Storage=0.715 af Inflow=28.75 cfs 2.656 af
Discarded=2.33 cfs 1.804 af Primary=7.66 cfs 0.852 af Outflow=10.00 cfs 2.656 af

Pond SMS #1C: SMS #1C Peak Elev=501.43' Storage=0.660 af Inflow=26.63 cfs 2.460 af
Discarded=2.13 cfs 1.652 af Primary=6.91 cfs 0.809 af Outflow=9.05 cfs 2.460 af

Link POI #1: POI #1 Inflow=26.26 cfs 3.091 af
Primary=26.26 cfs 3.091 af

Link POI #2: POI #2 Inflow=18.03 cfs 1.976 af
Primary=18.03 cfs 1.976 af

Total Runoff Area = 18.448 ac Runoff Volume = 10.039 af Average Runoff Depth = 6.53"
48.96% Pervious = 9.032 ac 51.04% Impervious = 9.416 ac

2025.07.03 - Proposed Conditions

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Type III 24-hr 100-Year Rainfall=9.00"

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Summary for Subcatchment DA #1A: Drainage Area #1A

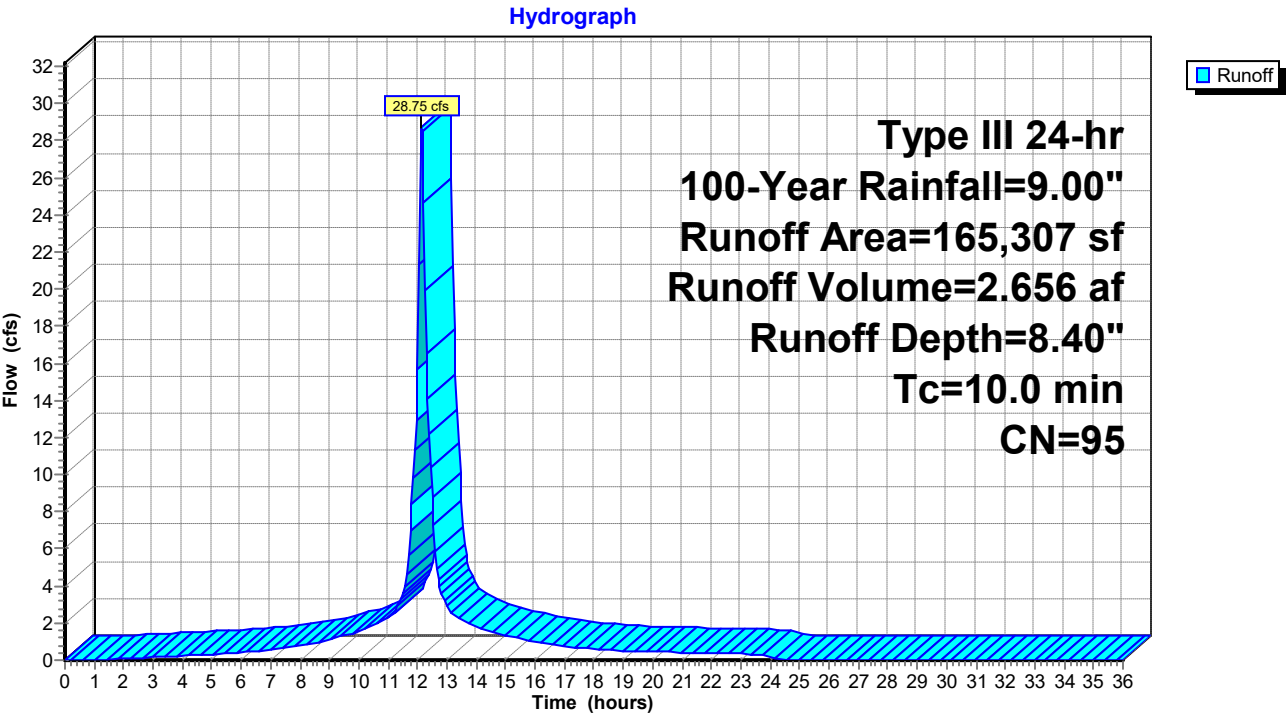
Runoff = 28.75 cfs @ 12.14 hrs, Volume= 2.656 af, Depth= 8.40"
Routed to Pond SMS #1A : SMS #1A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=9.00"

	Area (sf)	CN	Description
	11,207	61	>75% Grass cover, Good, HSG B
*	1,751	61	Emergency Access Road (Perv.), Good, HSG B
*	86,044	98	Building/Roof, HSG B
*	60,510	98	Pavement, HSG B
*	2,937	98	Sidewalk, HSG B
*	2,858	98	Emergency Access Road (Imp.), HSG B
	165,307	95	Weighted Average
	12,958		7.84% Pervious Area
	152,349		92.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, 10 Minute Minimum

Subcatchment DA #1A: Drainage Area #1A



2025.07.03 - Proposed Conditions*Type III 24-hr 100-Year Rainfall=9.00"*

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Hydrograph for Subcatchment DA #1A: Drainage Area #1A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	9.00	8.40	0.00
0.50	0.04	0.00	0.00	26.50	9.00	8.40	0.00
1.00	0.09	0.00	0.00	27.00	9.00	8.40	0.00
1.50	0.13	0.00	0.02	27.50	9.00	8.40	0.00
2.00	0.18	0.01	0.07	28.00	9.00	8.40	0.00
2.50	0.23	0.02	0.11	28.50	9.00	8.40	0.00
3.00	0.28	0.04	0.16	29.00	9.00	8.40	0.00
3.50	0.33	0.07	0.20	29.50	9.00	8.40	0.00
4.00	0.39	0.10	0.24	30.00	9.00	8.40	0.00
4.50	0.45	0.13	0.29	30.50	9.00	8.40	0.00
5.00	0.51	0.18	0.33	31.00	9.00	8.40	0.00
5.50	0.58	0.22	0.37	31.50	9.00	8.40	0.00
6.00	0.65	0.28	0.41	32.00	9.00	8.40	0.00
6.50	0.73	0.34	0.48	32.50	9.00	8.40	0.00
7.00	0.81	0.41	0.56	33.00	9.00	8.40	0.00
7.50	0.91	0.49	0.66	33.50	9.00	8.40	0.00
8.00	1.03	0.59	0.75	34.00	9.00	8.40	0.00
8.50	1.16	0.70	0.91	34.50	9.00	8.40	0.00
9.00	1.31	0.84	1.11	35.00	9.00	8.40	0.00
9.50	1.49	1.01	1.31	35.50	9.00	8.40	0.00
10.00	1.70	1.20	1.52	36.00	9.00	8.40	0.00
10.50	1.95	1.43	1.87				
11.00	2.25	1.72	2.29				
11.50	2.68	2.14	3.49				
12.00	4.50	3.92	15.71				
12.50	6.32	5.73	8.82				
13.00	6.75	6.16	2.99				
13.50	7.05	6.46	2.22				
14.00	7.30	6.70	1.81				
14.50	7.51	6.91	1.54				
15.00	7.69	7.09	1.35				
15.50	7.84	7.25	1.15				
16.00	7.97	7.38	0.95				
16.50	8.09	7.49	0.83				
17.00	8.19	7.59	0.75				
17.50	8.27	7.67	0.66				
18.00	8.35	7.75	0.58				
18.50	8.42	7.82	0.53				
19.00	8.49	7.89	0.51				
19.50	8.55	7.95	0.48				
20.00	8.61	8.01	0.45				
20.50	8.67	8.07	0.43				
21.00	8.72	8.12	0.41				
21.50	8.78	8.18	0.39				
22.00	8.83	8.23	0.37				
22.50	8.87	8.27	0.36				
23.00	8.92	8.32	0.34				
23.50	8.96	8.36	0.32				
24.00	9.00	8.40	0.30				
24.50	9.00	8.40	0.00				
25.00	9.00	8.40	0.00				
25.50	9.00	8.40	0.00				

2025.07.03 - Proposed Conditions

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Type III 24-hr 100-Year Rainfall=9.00"

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Summary for Subcatchment DA #1B: Drainage Area #1B

Runoff = 14.34 cfs @ 12.24 hrs, Volume= 1.431 af, Depth= 4.35"
Routed to Link POI #1 : POI #1

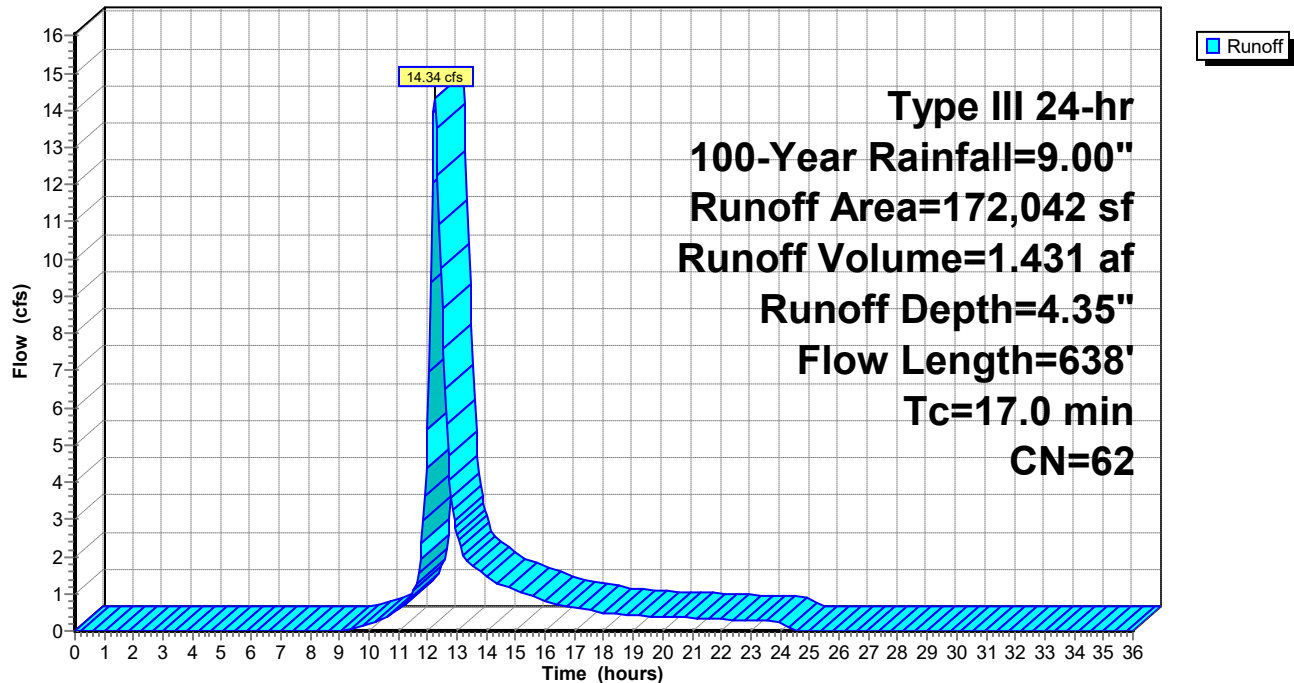
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=9.00"

Area (sf)	CN	Description
161,751	61	>75% Grass cover, Good, HSG B
* 3,911	61	Emergency Access Road (Perv.), Good, HSG B
* 6,380	98	Emergency Access Road (Imp.), HSG B
172,042	62	Weighted Average
165,662		96.29% Pervious Area
6,380		3.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.2	150	0.1200	0.21		Sheet Flow, Grass: Dense n= 0.240 P2= 2.00"
4.8	488	0.0578	1.68		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
17.0	638	Total			

Subcatchment DA #1B: Drainage Area #1B

Hydrograph



2025.07.03 - Proposed Conditions*Type III 24-hr 100-Year Rainfall=9.00"*

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Hydrograph for Subcatchment DA #1B: Drainage Area #1B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	9.00	4.35	0.00
0.50	0.04	0.00	0.00	26.50	9.00	4.35	0.00
1.00	0.09	0.00	0.00	27.00	9.00	4.35	0.00
1.50	0.13	0.00	0.00	27.50	9.00	4.35	0.00
2.00	0.18	0.00	0.00	28.00	9.00	4.35	0.00
2.50	0.23	0.00	0.00	28.50	9.00	4.35	0.00
3.00	0.28	0.00	0.00	29.00	9.00	4.35	0.00
3.50	0.33	0.00	0.00	29.50	9.00	4.35	0.00
4.00	0.39	0.00	0.00	30.00	9.00	4.35	0.00
4.50	0.45	0.00	0.00	30.50	9.00	4.35	0.00
5.00	0.51	0.00	0.00	31.00	9.00	4.35	0.00
5.50	0.58	0.00	0.00	31.50	9.00	4.35	0.00
6.00	0.65	0.00	0.00	32.00	9.00	4.35	0.00
6.50	0.73	0.00	0.00	32.50	9.00	4.35	0.00
7.00	0.81	0.00	0.00	33.00	9.00	4.35	0.00
7.50	0.91	0.00	0.00	33.50	9.00	4.35	0.00
8.00	1.03	0.00	0.00	34.00	9.00	4.35	0.00
8.50	1.16	0.00	0.00	34.50	9.00	4.35	0.00
9.00	1.31	0.00	0.01	35.00	9.00	4.35	0.00
9.50	1.49	0.01	0.08	35.50	9.00	4.35	0.00
10.00	1.70	0.03	0.18	36.00	9.00	4.35	0.00
10.50	1.95	0.08	0.33				
11.00	2.25	0.15	0.55				
11.50	2.68	0.28	1.04				
12.00	4.50	1.14	5.40				
12.50	6.32	2.31	8.65				
13.00	6.75	2.62	2.59				
13.50	7.05	2.84	1.77				
14.00	7.30	3.02	1.47				
14.50	7.51	3.18	1.25				
15.00	7.69	3.32	1.10				
15.50	7.84	3.44	0.95				
16.00	7.97	3.54	0.80				
16.50	8.09	3.62	0.69				
17.00	8.19	3.70	0.62				
17.50	8.27	3.77	0.56				
18.00	8.35	3.83	0.49				
18.50	8.42	3.89	0.44				
19.00	8.49	3.94	0.42				
19.50	8.55	3.99	0.40				
20.00	8.61	4.04	0.38				
20.50	8.67	4.08	0.36				
21.00	8.72	4.13	0.35				
21.50	8.78	4.17	0.33				
22.00	8.83	4.21	0.32				
22.50	8.87	4.25	0.30				
23.00	8.92	4.28	0.29				
23.50	8.96	4.32	0.27				
24.00	9.00	4.35	0.25				
24.50	9.00	4.35	0.01				
25.00	9.00	4.35	0.00				
25.50	9.00	4.35	0.00				

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Summary for Subcatchment DA #1C: Drainage Area #1C

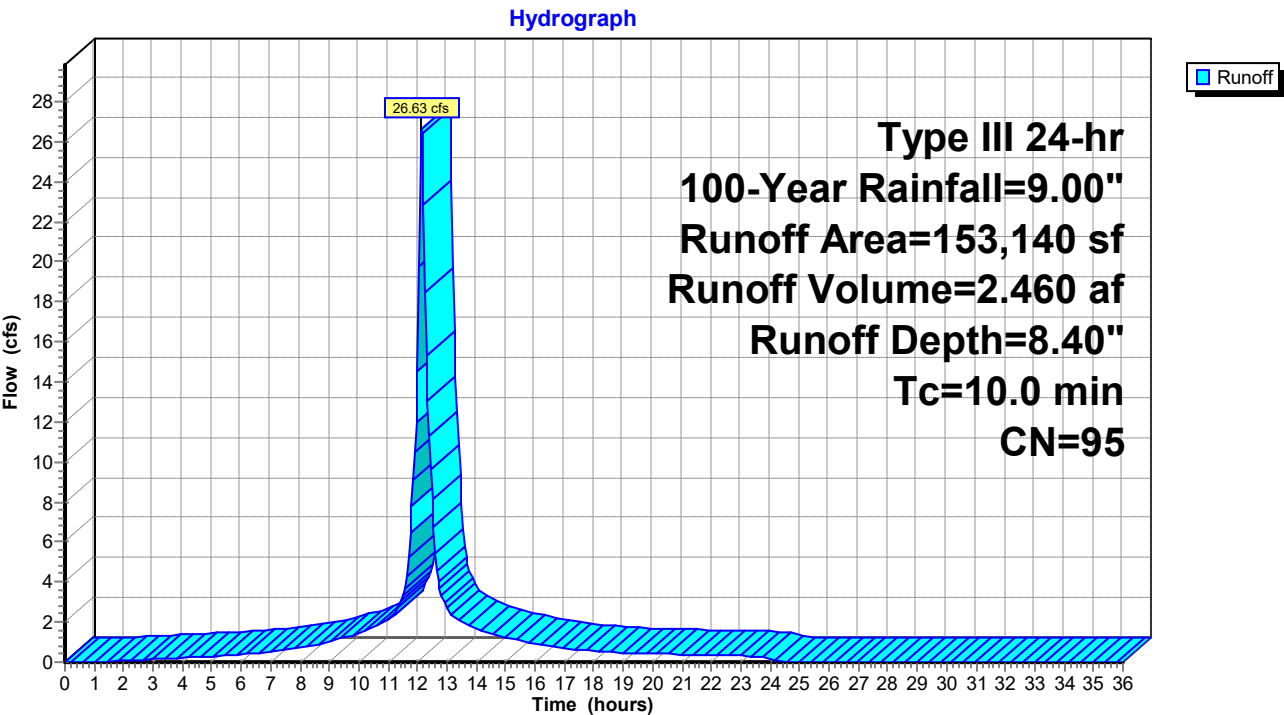
Runoff = 26.63 cfs @ 12.14 hrs, Volume= 2.460 af, Depth= 8.40"
Routed to Pond SMS #1C : SMS #1C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=9.00"

	Area (sf)	CN	Description
	8,883	61	>75% Grass cover, Good, HSG B
*	1,528	61	Emergency Access Road (Perv.), Good, HSG B
*	100,238	98	Building/Roof, HSG B
*	36,917	98	Pavement, HSG B
*	3,080	98	Sidewalk, HSG B
	2,494	98	Emergency Access Road (Imp.), HSG B
	153,140	95	Weighted Average
	10,411		6.80% Pervious Area
	142,729		93.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, 10 Direct Minimum

Subcatchment DA #1C: Drainage Area #1C



2025.07.03 - Proposed Conditions*Type III 24-hr 100-Year Rainfall=9.00"*

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Hydrograph for Subcatchment DA #1C: Drainage Area #1C

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	9.00	8.40	0.00
0.50	0.04	0.00	0.00	26.50	9.00	8.40	0.00
1.00	0.09	0.00	0.00	27.00	9.00	8.40	0.00
1.50	0.13	0.00	0.02	27.50	9.00	8.40	0.00
2.00	0.18	0.01	0.06	28.00	9.00	8.40	0.00
2.50	0.23	0.02	0.10	28.50	9.00	8.40	0.00
3.00	0.28	0.04	0.15	29.00	9.00	8.40	0.00
3.50	0.33	0.07	0.19	29.50	9.00	8.40	0.00
4.00	0.39	0.10	0.23	30.00	9.00	8.40	0.00
4.50	0.45	0.13	0.27	30.50	9.00	8.40	0.00
5.00	0.51	0.18	0.30	31.00	9.00	8.40	0.00
5.50	0.58	0.22	0.34	31.50	9.00	8.40	0.00
6.00	0.65	0.28	0.38	32.00	9.00	8.40	0.00
6.50	0.73	0.34	0.44	32.50	9.00	8.40	0.00
7.00	0.81	0.41	0.52	33.00	9.00	8.40	0.00
7.50	0.91	0.49	0.61	33.50	9.00	8.40	0.00
8.00	1.03	0.59	0.69	34.00	9.00	8.40	0.00
8.50	1.16	0.70	0.84	34.50	9.00	8.40	0.00
9.00	1.31	0.84	1.03	35.00	9.00	8.40	0.00
9.50	1.49	1.01	1.22	35.50	9.00	8.40	0.00
10.00	1.70	1.20	1.41	36.00	9.00	8.40	0.00
10.50	1.95	1.43	1.73				
11.00	2.25	1.72	2.12				
11.50	2.68	2.14	3.24				
12.00	4.50	3.92	14.56				
12.50	6.32	5.73	8.17				
13.00	6.75	6.16	2.77				
13.50	7.05	6.46	2.05				
14.00	7.30	6.70	1.67				
14.50	7.51	6.91	1.43				
15.00	7.69	7.09	1.25				
15.50	7.84	7.25	1.07				
16.00	7.97	7.38	0.88				
16.50	8.09	7.49	0.77				
17.00	8.19	7.59	0.69				
17.50	8.27	7.67	0.61				
18.00	8.35	7.75	0.53				
18.50	8.42	7.82	0.49				
19.00	8.49	7.89	0.47				
19.50	8.55	7.95	0.44				
20.00	8.61	8.01	0.42				
20.50	8.67	8.07	0.40				
21.00	8.72	8.12	0.38				
21.50	8.78	8.18	0.37				
22.00	8.83	8.23	0.35				
22.50	8.87	8.27	0.33				
23.00	8.92	8.32	0.31				
23.50	8.96	8.36	0.29				
24.00	9.00	8.40	0.28				
24.50	9.00	8.40	0.00				
25.00	9.00	8.40	0.00				
25.50	9.00	8.40	0.00				

2025.07.03 - Proposed Conditions

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Type III 24-hr 100-Year Rainfall=9.00"

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Summary for Subcatchment DA #2A: Drainage Area #2A

Runoff = 20.98 cfs @ 12.14 hrs, Volume= 1.902 af, Depth= 8.16"
Routed to Pond DB #2 : Drainage Basin #2

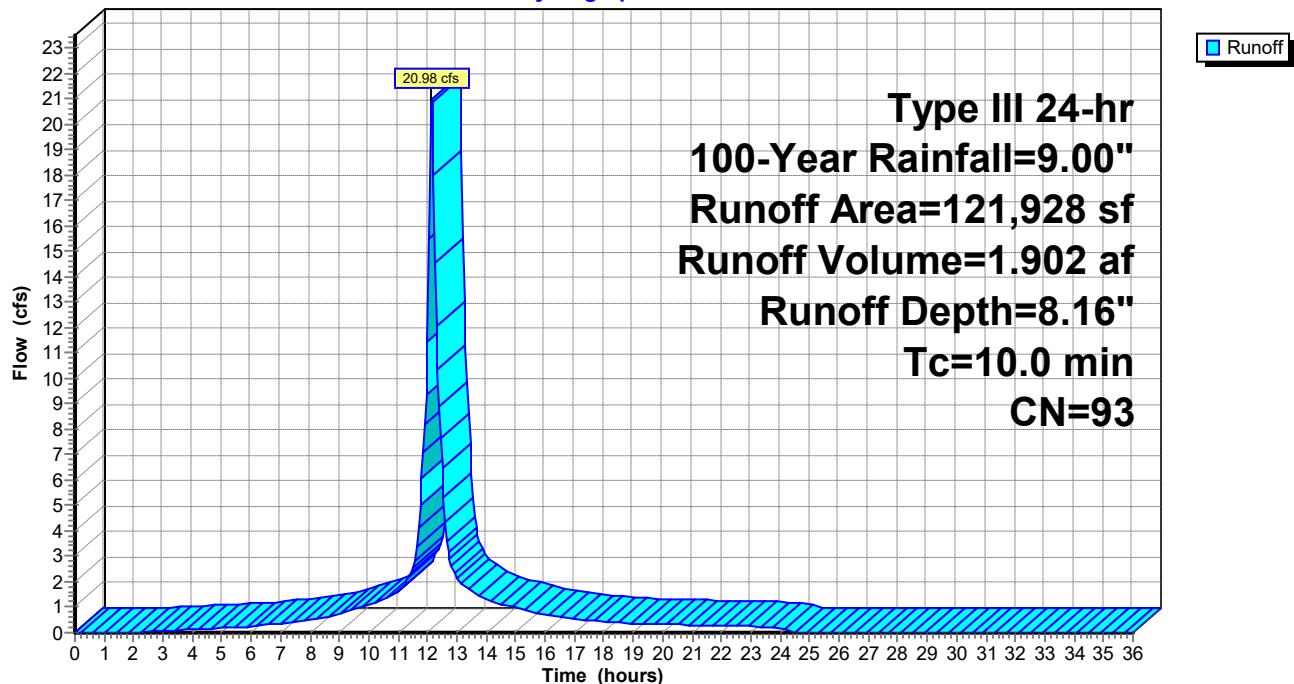
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=9.00"

	Area (sf)	CN	Description
*	50,600	98	Building/Roof, HSG B
*	37,828	98	Pavement, HSG B
*	1,562	98	Sidewalk, HSG B
*	3,943	98	Emergency Access Road (Imp.), HSG B
	14,078	61	>75% Grass cover, Good, HSG B
*	2,417	61	Emergency Access Road (Perv.), Good, HSG B
*	11,500	98	Infiltration Basin, HSG B
	121,928	93	Weighted Average
	16,495		13.53% Pervious Area
	105,433		86.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, 10 Minute Minimum

Subcatchment DA #2A: Drainage Area #2A

Hydrograph



2025.07.03 - Proposed Conditions*Type III 24-hr 100-Year Rainfall=9.00"*

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Hydrograph for Subcatchment DA #2A: Drainage Area #2A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	9.00	8.16	0.00
0.50	0.04	0.00	0.00	26.50	9.00	8.16	0.00
1.00	0.09	0.00	0.00	27.00	9.00	8.16	0.00
1.50	0.13	0.00	0.00	27.50	9.00	8.16	0.00
2.00	0.18	0.00	0.01	28.00	9.00	8.16	0.00
2.50	0.23	0.01	0.04	28.50	9.00	8.16	0.00
3.00	0.28	0.02	0.07	29.00	9.00	8.16	0.00
3.50	0.33	0.03	0.10	29.50	9.00	8.16	0.00
4.00	0.39	0.06	0.13	30.00	9.00	8.16	0.00
4.50	0.45	0.08	0.16	30.50	9.00	8.16	0.00
5.00	0.51	0.12	0.19	31.00	9.00	8.16	0.00
5.50	0.58	0.15	0.22	31.50	9.00	8.16	0.00
6.00	0.65	0.20	0.25	32.00	9.00	8.16	0.00
6.50	0.73	0.25	0.30	32.50	9.00	8.16	0.00
7.00	0.81	0.31	0.36	33.00	9.00	8.16	0.00
7.50	0.91	0.38	0.43	33.50	9.00	8.16	0.00
8.00	1.03	0.47	0.50	34.00	9.00	8.16	0.00
8.50	1.16	0.57	0.61	34.50	9.00	8.16	0.00
9.00	1.31	0.70	0.76	35.00	9.00	8.16	0.00
9.50	1.49	0.86	0.91	35.50	9.00	8.16	0.00
10.00	1.70	1.04	1.06	36.00	9.00	8.16	0.00
10.50	1.95	1.27	1.32				
11.00	2.25	1.55	1.63				
11.50	2.68	1.95	2.51				
12.00	4.50	3.71	11.41				
12.50	6.32	5.50	6.46				
13.00	6.75	5.92	2.19				
13.50	7.05	6.22	1.63				
14.00	7.30	6.47	1.33				
14.50	7.51	6.67	1.13				
15.00	7.69	6.85	0.99				
15.50	7.84	7.01	0.84				
16.00	7.97	7.14	0.70				
16.50	8.09	7.25	0.61				
17.00	8.19	7.35	0.55				
17.50	8.27	7.43	0.49				
18.00	8.35	7.51	0.42				
18.50	8.42	7.58	0.39				
19.00	8.49	7.65	0.37				
19.50	8.55	7.71	0.35				
20.00	8.61	7.77	0.33				
20.50	8.67	7.83	0.32				
21.00	8.72	7.88	0.30				
21.50	8.78	7.93	0.29				
22.00	8.83	7.98	0.28				
22.50	8.87	8.03	0.26				
23.00	8.92	8.07	0.25				
23.50	8.96	8.12	0.23				
24.00	9.00	8.16	0.22				
24.50	9.00	8.16	0.00				
25.00	9.00	8.16	0.00				
25.50	9.00	8.16	0.00				

2025.07.03 - Proposed Conditions

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Type III 24-hr 100-Year Rainfall=9.00"

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Summary for Subcatchment DA #2B: Drainage Area #2B

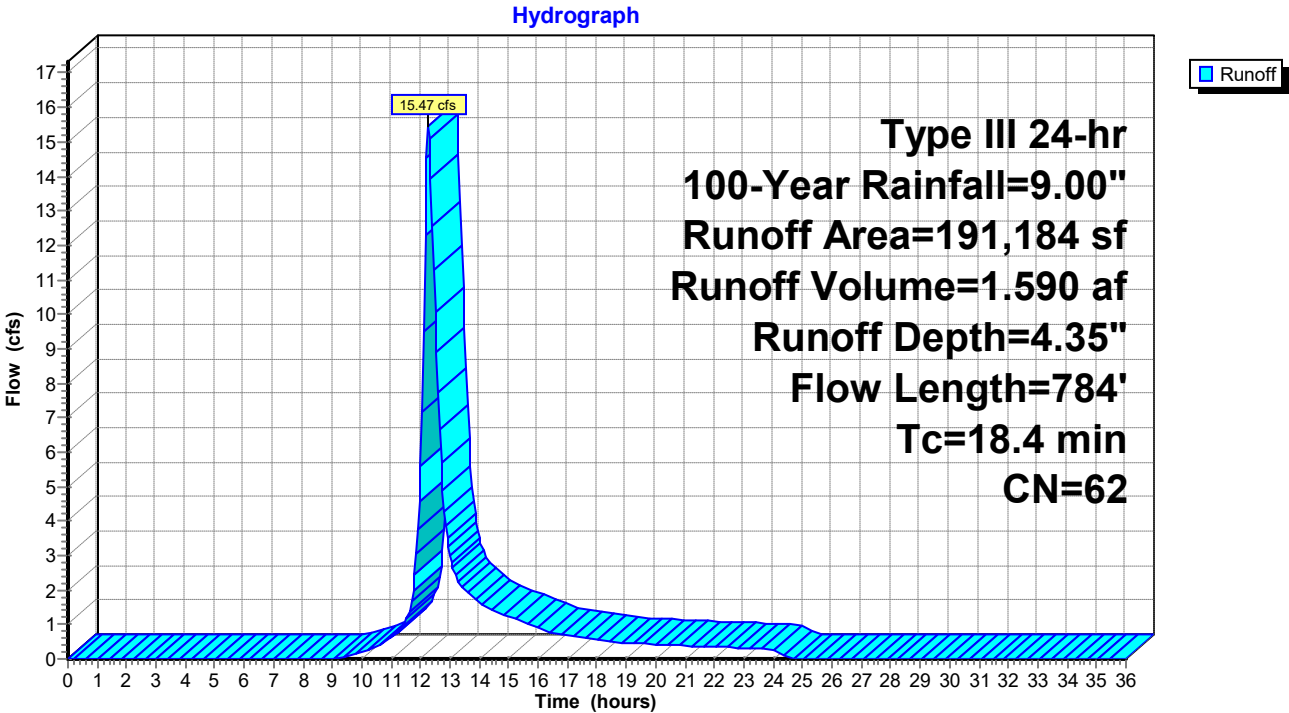
Runoff = 15.47 cfs @ 12.26 hrs, Volume= 1.590 af, Depth= 4.35"
Routed to Link POI #2 : POI #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=9.00"

Area (sf)	CN	Description
185,909	61	>75% Grass cover, Good, HSG B
* 2,004	61	Emergency Access Road (Perv.), Good, HSG B
* 3,271	98	Emergency Access Road (Imp.), HSG B
191,184	62	Weighted Average
187,913		98.29% Pervious Area
3,271		1.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	150	0.0667	0.16		Sheet Flow, Grass: Dense n= 0.240 P2= 2.00"
3.0	634	0.2524	3.52		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
18.4	784	Total			

Subcatchment DA #2B: Drainage Area #2B



2025.07.03 - Proposed Conditions*Type III 24-hr 100-Year Rainfall=9.00"*

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Hydrograph for Subcatchment DA #2B: Drainage Area #2B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	9.00	4.35	0.00
0.50	0.04	0.00	0.00	26.50	9.00	4.35	0.00
1.00	0.09	0.00	0.00	27.00	9.00	4.35	0.00
1.50	0.13	0.00	0.00	27.50	9.00	4.35	0.00
2.00	0.18	0.00	0.00	28.00	9.00	4.35	0.00
2.50	0.23	0.00	0.00	28.50	9.00	4.35	0.00
3.00	0.28	0.00	0.00	29.00	9.00	4.35	0.00
3.50	0.33	0.00	0.00	29.50	9.00	4.35	0.00
4.00	0.39	0.00	0.00	30.00	9.00	4.35	0.00
4.50	0.45	0.00	0.00	30.50	9.00	4.35	0.00
5.00	0.51	0.00	0.00	31.00	9.00	4.35	0.00
5.50	0.58	0.00	0.00	31.50	9.00	4.35	0.00
6.00	0.65	0.00	0.00	32.00	9.00	4.35	0.00
6.50	0.73	0.00	0.00	32.50	9.00	4.35	0.00
7.00	0.81	0.00	0.00	33.00	9.00	4.35	0.00
7.50	0.91	0.00	0.00	33.50	9.00	4.35	0.00
8.00	1.03	0.00	0.00	34.00	9.00	4.35	0.00
8.50	1.16	0.00	0.00	34.50	9.00	4.35	0.00
9.00	1.31	0.00	0.01	35.00	9.00	4.35	0.00
9.50	1.49	0.01	0.08	35.50	9.00	4.35	0.00
10.00	1.70	0.03	0.19	36.00	9.00	4.35	0.00
10.50	1.95	0.08	0.36				
11.00	2.25	0.15	0.60				
11.50	2.68	0.28	1.12				
12.00	4.50	1.14	5.60				
12.50	6.32	2.31	10.07				
13.00	6.75	2.62	3.00				
13.50	7.05	2.84	1.99				
14.00	7.30	3.02	1.65				
14.50	7.51	3.18	1.40				
15.00	7.69	3.32	1.23				
15.50	7.84	3.44	1.07				
16.00	7.97	3.54	0.90				
16.50	8.09	3.62	0.77				
17.00	8.19	3.70	0.70				
17.50	8.27	3.77	0.62				
18.00	8.35	3.83	0.54				
18.50	8.42	3.89	0.49				
19.00	8.49	3.94	0.47				
19.50	8.55	3.99	0.45				
20.00	8.61	4.04	0.42				
20.50	8.67	4.08	0.40				
21.00	8.72	4.13	0.39				
21.50	8.78	4.17	0.37				
22.00	8.83	4.21	0.35				
22.50	8.87	4.25	0.34				
23.00	8.92	4.28	0.32				
23.50	8.96	4.32	0.30				
24.00	9.00	4.35	0.28				
24.50	9.00	4.35	0.02				
25.00	9.00	4.35	0.00				
25.50	9.00	4.35	0.00				

2025.07.03 - Proposed Conditions

Type III 24-hr 100-Year Rainfall=9.00"

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Summary for Pond DB #2: Drainage Basin #2

Inflow Area = 2.799 ac, 86.47% Impervious, Inflow Depth = 8.16" for 100-Year event
 Inflow = 20.98 cfs @ 12.14 hrs, Volume= 1.902 af
 Outflow = 6.36 cfs @ 12.51 hrs, Volume= 1.902 af, Atten= 70%, Lag= 22.1 min
 Discarded = 3.44 cfs @ 12.51 hrs, Volume= 1.516 af
 Primary = 2.92 cfs @ 12.51 hrs, Volume= 0.386 af
 Routed to Link POI #2 : POI #2

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs / 3
 Peak Elev= 487.72' @ 12.51 hrs Surf.Area= 10,938 sf Storage= 22,345 cf

Plug-Flow detention time= 29.3 min calculated for 1.902 af (100% of inflow)
 Center-of-Mass det. time= 29.3 min (795.5 - 766.2)

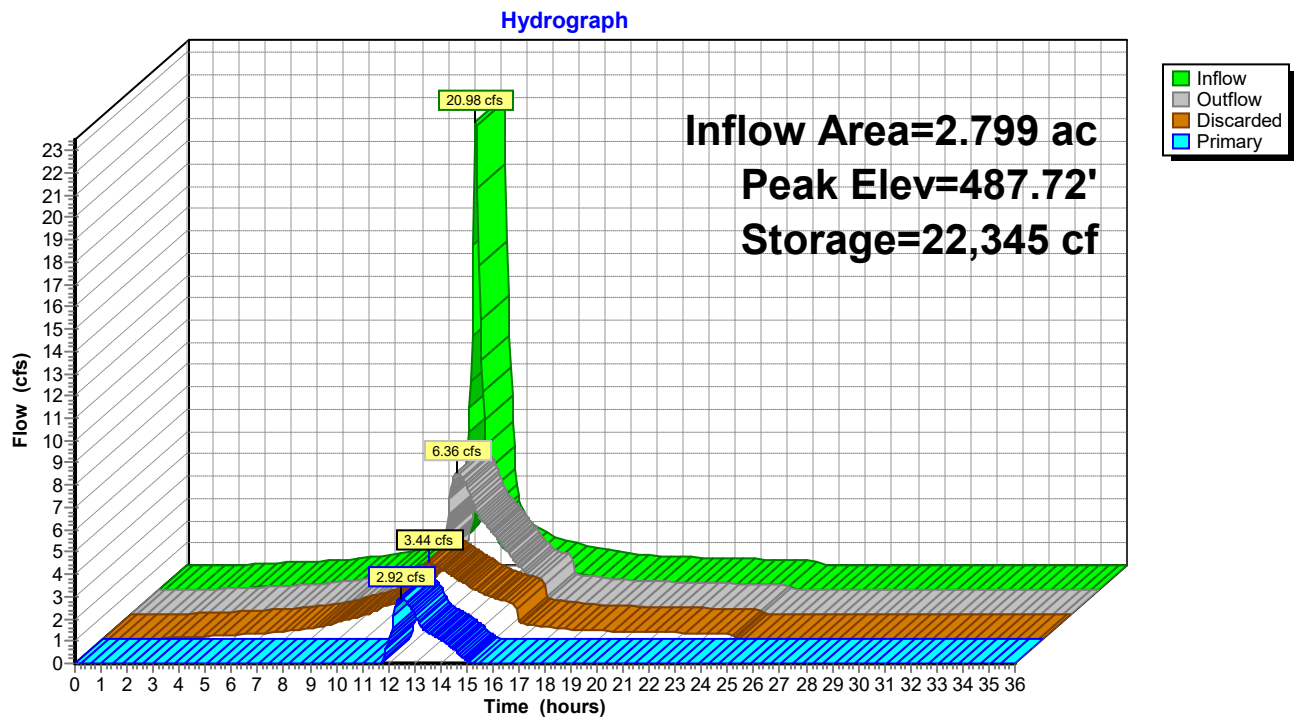
Volume	Invert	Avail.Storage	Storage Description
#1	485.00'	25,500 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
485.00	5,500	0	0
486.00	7,500	6,500	6,500
487.00	9,500	8,500	15,000
488.00	11,500	10,500	25,500

Device	Routing	Invert	Outlet Devices
#1	Discarded	485.00'	12.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 470.00'
#2	Primary	485.26'	7.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	486.79'	7.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

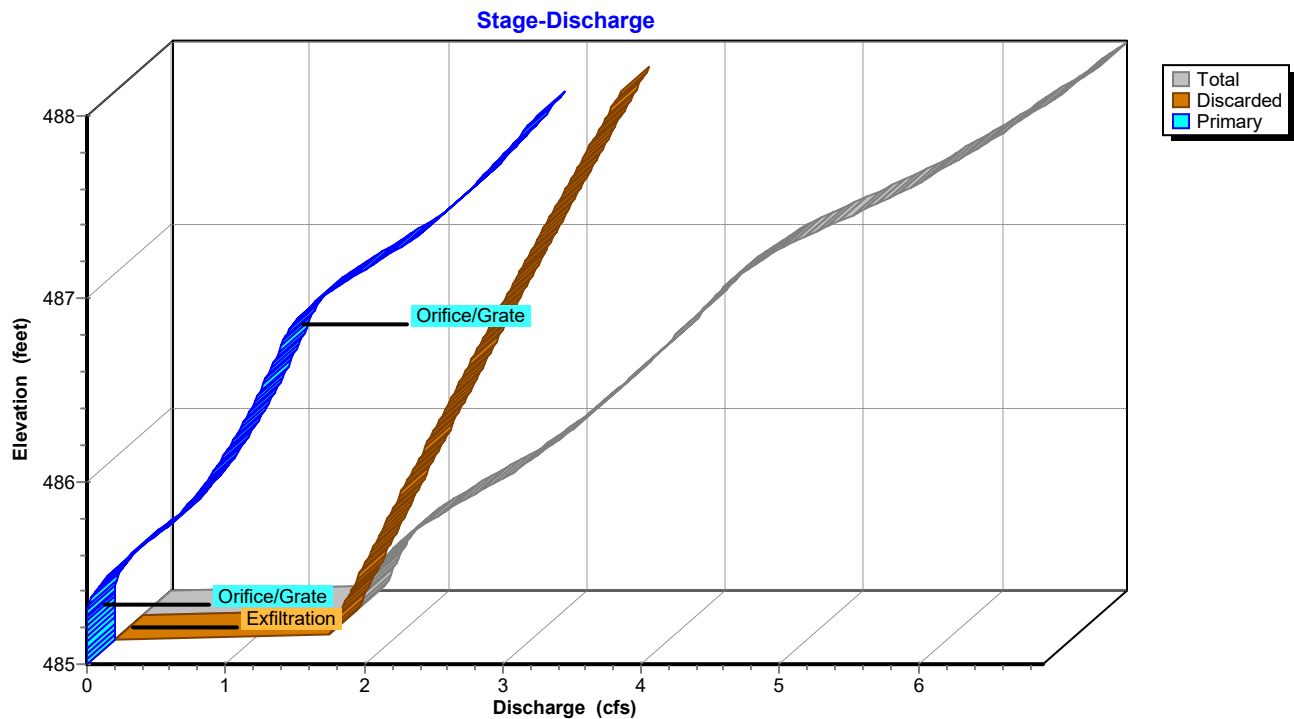
Discarded OutFlow Max=3.44 cfs @ 12.51 hrs HW=487.72' (Free Discharge)
 ↑ **1=Exfiltration** (Controls 3.44 cfs)

Primary OutFlow Max=2.92 cfs @ 12.51 hrs HW=487.72' (Free Discharge)
 ↑ **2=Orifice/Grate** (Orifice Controls 1.89 cfs @ 7.09 fps)
 ↑ **3=Orifice/Grate** (Orifice Controls 1.03 cfs @ 3.84 fps)

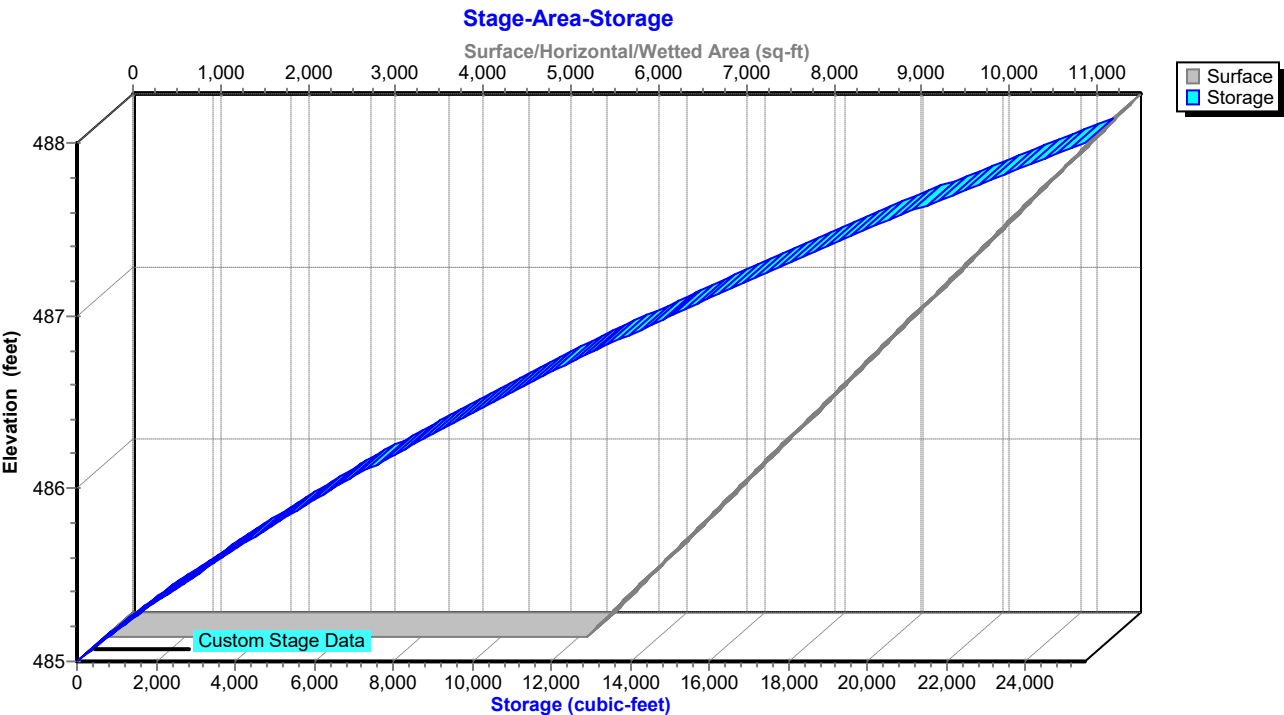
Pond DB #2: Drainage Basin #2



Pond DB #2: Drainage Basin #2



Pond DB #2: Drainage Basin #2



2025.07.03 - Proposed Conditions*Type III 24-hr 100-Year Rainfall=9.00"*

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Hydrograph for Pond DB #2: Drainage Basin #2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	485.00	0.00	0.00	0.00
1.00	0.00	0	485.00	0.00	0.00	0.00
2.00	0.01	1	485.00	0.01	0.01	0.00
3.00	0.07	7	485.00	0.07	0.07	0.00
4.00	0.13	14	485.00	0.13	0.13	0.00
5.00	0.19	20	485.00	0.19	0.19	0.00
6.00	0.25	27	485.00	0.25	0.25	0.00
7.00	0.36	38	485.01	0.36	0.36	0.00
8.00	0.50	53	485.01	0.49	0.49	0.00
9.00	0.76	80	485.01	0.75	0.75	0.00
10.00	1.06	113	485.02	1.05	1.05	0.00
11.00	1.63	184	485.03	1.55	1.55	0.00
12.00	11.41	7,172	486.09	3.21	2.26	0.94
13.00	2.19	17,655	487.27	5.36	3.11	2.25
14.00	1.33	8,426	486.25	3.45	2.38	1.07
15.00	0.99	2,803	485.47	1.98	1.84	0.14
16.00	0.70	77	485.01	0.72	0.72	0.00
17.00	0.55	59	485.01	0.55	0.55	0.00
18.00	0.42	46	485.01	0.43	0.43	0.00
19.00	0.37	40	485.01	0.37	0.37	0.00
20.00	0.33	36	485.01	0.33	0.33	0.00
21.00	0.30	33	485.01	0.30	0.30	0.00
22.00	0.28	30	485.01	0.28	0.28	0.00
23.00	0.25	27	485.00	0.25	0.25	0.00
24.00	0.22	24	485.00	0.22	0.22	0.00
25.00	0.00	0	485.00	0.00	0.00	0.00
26.00	0.00	0	485.00	0.00	0.00	0.00
27.00	0.00	0	485.00	0.00	0.00	0.00
28.00	0.00	0	485.00	0.00	0.00	0.00
29.00	0.00	0	485.00	0.00	0.00	0.00
30.00	0.00	0	485.00	0.00	0.00	0.00
31.00	0.00	0	485.00	0.00	0.00	0.00
32.00	0.00	0	485.00	0.00	0.00	0.00
33.00	0.00	0	485.00	0.00	0.00	0.00
34.00	0.00	0	485.00	0.00	0.00	0.00
35.00	0.00	0	485.00	0.00	0.00	0.00
36.00	0.00	0	485.00	0.00	0.00	0.00

2025.07.03 - Proposed Conditions*Type III 24-hr 100-Year Rainfall=9.00"*

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Stage-Discharge for Pond DB #2: Drainage Basin #2

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
485.00	0.00	0.00	0.00	487.60	6.12	3.35	2.77
485.05	1.56	1.56	0.00	487.65	6.23	3.39	2.83
485.10	1.59	1.59	0.00	487.70	6.33	3.43	2.90
485.15	1.63	1.63	0.00	487.75	6.43	3.47	2.96
485.20	1.66	1.66	0.00	487.80	6.52	3.50	3.02
485.25	1.69	1.69	0.00	487.85	6.62	3.54	3.08
485.30	1.73	1.73	0.01	487.90	6.72	3.58	3.14
485.35	1.79	1.76	0.03	487.95	6.81	3.62	3.19
485.40	1.86	1.79	0.06	488.00	6.90	3.65	3.25
485.45	1.94	1.83	0.11				
485.50	2.03	1.86	0.17				
485.55	2.14	1.89	0.24				
485.60	2.25	1.93	0.32				
485.65	2.37	1.96	0.40				
485.70	2.48	2.00	0.49				
485.75	2.60	2.03	0.57				
485.80	2.71	2.06	0.65				
485.85	2.80	2.10	0.70				
485.90	2.89	2.13	0.76				
485.95	2.98	2.17	0.81				
486.00	3.06	2.20	0.86				
486.05	3.15	2.24	0.91				
486.10	3.23	2.27	0.95				
486.15	3.30	2.31	1.00				
486.20	3.38	2.34	1.04				
486.25	3.45	2.38	1.08				
486.30	3.53	2.41	1.11				
486.35	3.60	2.45	1.15				
486.40	3.67	2.48	1.19				
486.45	3.74	2.52	1.22				
486.50	3.81	2.55	1.25				
486.55	3.87	2.59	1.29				
486.60	3.94	2.62	1.32				
486.65	4.01	2.66	1.35				
486.70	4.07	2.70	1.38				
486.75	4.14	2.73	1.41				
486.80	4.21	2.77	1.44				
486.85	4.28	2.80	1.48				
486.90	4.37	2.84	1.53				
486.95	4.48	2.88	1.60				
487.00	4.60	2.91	1.68				
487.05	4.72	2.95	1.78				
487.10	4.86	2.99	1.87				
487.15	5.00	3.02	1.98				
487.20	5.15	3.06	2.09				
487.25	5.29	3.10	2.20				
487.30	5.44	3.13	2.30				
487.35	5.57	3.17	2.40				
487.40	5.68	3.21	2.48				
487.45	5.80	3.24	2.55				
487.50	5.91	3.28	2.63				
487.55	6.02	3.32	2.70				

2025.07.03 - Proposed Conditions*Type III 24-hr 100-Year Rainfall=9.00"*

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Stage-Area-Storage for Pond DB #2: Drainage Basin #2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
485.00	5,500	0	487.60	10,700	21,060
485.05	5,600	278	487.65	10,800	21,597
485.10	5,700	560	487.70	10,900	22,140
485.15	5,800	847	487.75	11,000	22,688
485.20	5,900	1,140	487.80	11,100	23,240
485.25	6,000	1,438	487.85	11,200	23,798
485.30	6,100	1,740	487.90	11,300	24,360
485.35	6,200	2,048	487.95	11,400	24,927
485.40	6,300	2,360	488.00	11,500	25,500
485.45	6,400	2,677			
485.50	6,500	3,000			
485.55	6,600	3,328			
485.60	6,700	3,660			
485.65	6,800	3,997			
485.70	6,900	4,340			
485.75	7,000	4,688			
485.80	7,100	5,040			
485.85	7,200	5,398			
485.90	7,300	5,760			
485.95	7,400	6,127			
486.00	7,500	6,500			
486.05	7,600	6,878			
486.10	7,700	7,260			
486.15	7,800	7,647			
486.20	7,900	8,040			
486.25	8,000	8,438			
486.30	8,100	8,840			
486.35	8,200	9,248			
486.40	8,300	9,660			
486.45	8,400	10,077			
486.50	8,500	10,500			
486.55	8,600	10,928			
486.60	8,700	11,360			
486.65	8,800	11,797			
486.70	8,900	12,240			
486.75	9,000	12,688			
486.80	9,100	13,140			
486.85	9,200	13,598			
486.90	9,300	14,060			
486.95	9,400	14,527			
487.00	9,500	15,000			
487.05	9,600	15,478			
487.10	9,700	15,960			
487.15	9,800	16,447			
487.20	9,900	16,940			
487.25	10,000	17,438			
487.30	10,100	17,940			
487.35	10,200	18,448			
487.40	10,300	18,960			
487.45	10,400	19,477			
487.50	10,500	20,000			
487.55	10,600	20,528			

2025.07.03 - Proposed Conditions

Type III 24-hr 100-Year Rainfall=9.00"

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Summary for Pond SMS #1A: SMS #1A

Inflow Area = 3.795 ac, 92.16% Impervious, Inflow Depth = 8.40" for 100-Year event
 Inflow = 28.75 cfs @ 12.14 hrs, Volume= 2.656 af
 Outflow = 10.00 cfs @ 12.46 hrs, Volume= 2.656 af, Atten= 65%, Lag= 19.7 min
 Discarded = 2.33 cfs @ 12.46 hrs, Volume= 1.804 af
 Primary = 7.66 cfs @ 12.46 hrs, Volume= 0.852 af
 Routed to Link POI #1 : POI #1

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
 Peak Elev= 497.89' @ 12.46 hrs Surf.Area= 0.172 ac Storage= 0.715 af

Plug-Flow detention time= 33.2 min calculated for 2.652 af (100% of inflow)
 Center-of-Mass det. time= 33.1 min (791.4 - 758.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	491.75'	0.270 af	36.83'W x 203.69'L x 6.75'H Field A 1.163 af Overall - 0.486 af Embedded = 0.676 af x 40.0% Voids
#2A	492.50'	0.486 af	ADS_StormTech MC-4500 b +Cap x 196 Inside #1 Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap 196 Chambers in 4 Rows Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf
		0.757 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	491.75'	12.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 440.00'
#2	Primary	492.53'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	492.95'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	493.59'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Primary	494.58'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#6	Primary	495.75'	8.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=2.33 cfs @ 12.46 hrs HW=497.88' (Free Discharge)↑ **1=Exfiltration** (Controls 2.33 cfs)**Primary OutFlow** Max=7.65 cfs @ 12.46 hrs HW=497.88' (Free Discharge)

↑ **2=Orifice/Grate** (Orifice Controls 1.49 cfs @ 10.92 fps)
 — **3=Orifice/Grate** (Orifice Controls 1.43 cfs @ 10.46 fps)
 — **4=Orifice/Grate** (Orifice Controls 1.33 cfs @ 9.73 fps)
 — **5=Orifice/Grate** (Orifice Controls 1.15 cfs @ 8.47 fps)
 — **6=Orifice/Grate** (Orifice Controls 2.25 cfs @ 6.46 fps)

2025.07.03 - Proposed Conditions

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Type III 24-hr 100-Year Rainfall=9.00"

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Pond SMS #1A: SMS #1A - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-4500 b +Cap (ADS StormTech® MC-4500 with cap volume)

Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf

Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap

Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf

100.0" Wide + 6.0" Spacing = 106.0" C-C Row Spacing

49 Chambers/Row x 4.02' Long +2.73' Cap Length x 2 = 202.69' Row Length +6.0" End Stone x 2 =
203.69' Base Length

4 Rows x 100.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 36.83' Base Width

9.0" Stone Base + 60.0" Chamber Height + 12.0" Stone Cover = 6.75' Field Height

196 Chambers x 106.5 cf + 39.5 cf Cap Volume x 2 x 4 Rows = 21,188.1 cf Chamber Storage

50,642.8 cf Field - 21,188.1 cf Chambers = 29,454.7 cf Stone x 40.0% Voids = 11,781.9 cf Stone Storage

Chamber Storage + Stone Storage = 32,970.0 cf = 0.757 af

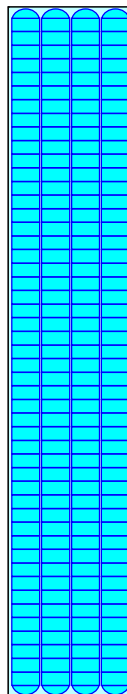
Overall Storage Efficiency = 65.1%

Overall System Size = 203.69' x 36.83' x 6.75'

196 Chambers

1,875.7 cy Field

1,090.9 cy Stone



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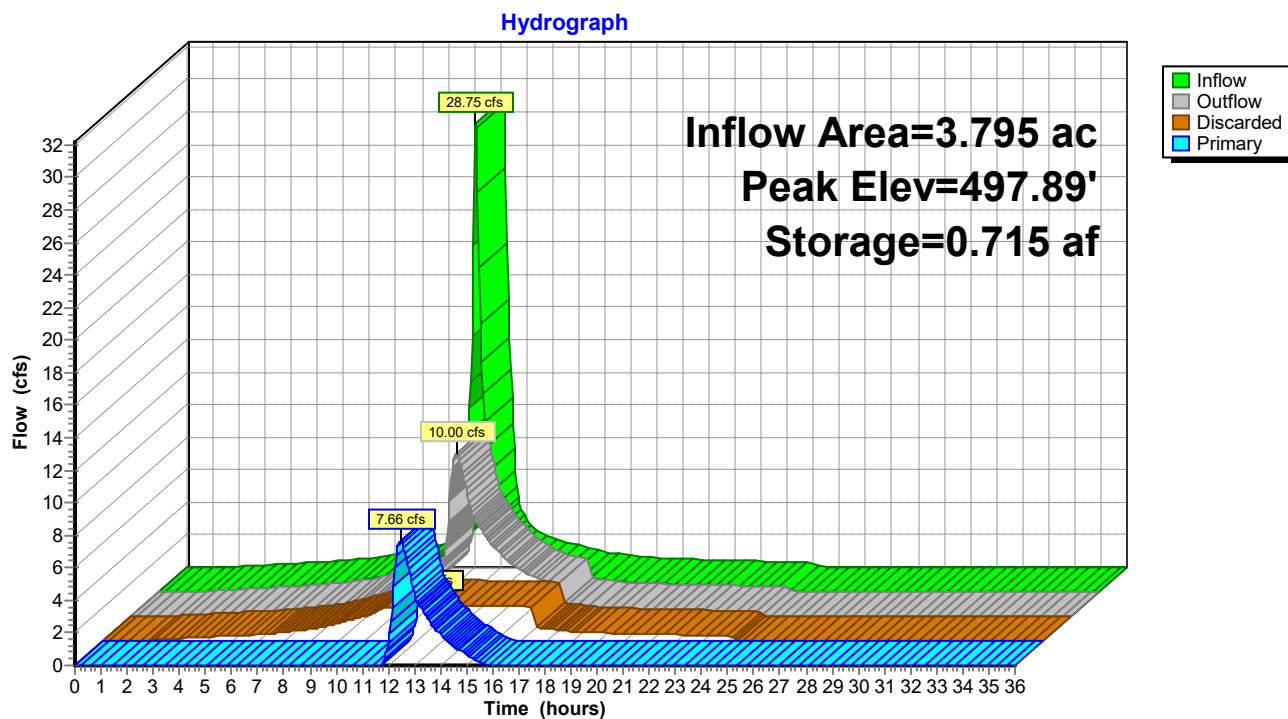
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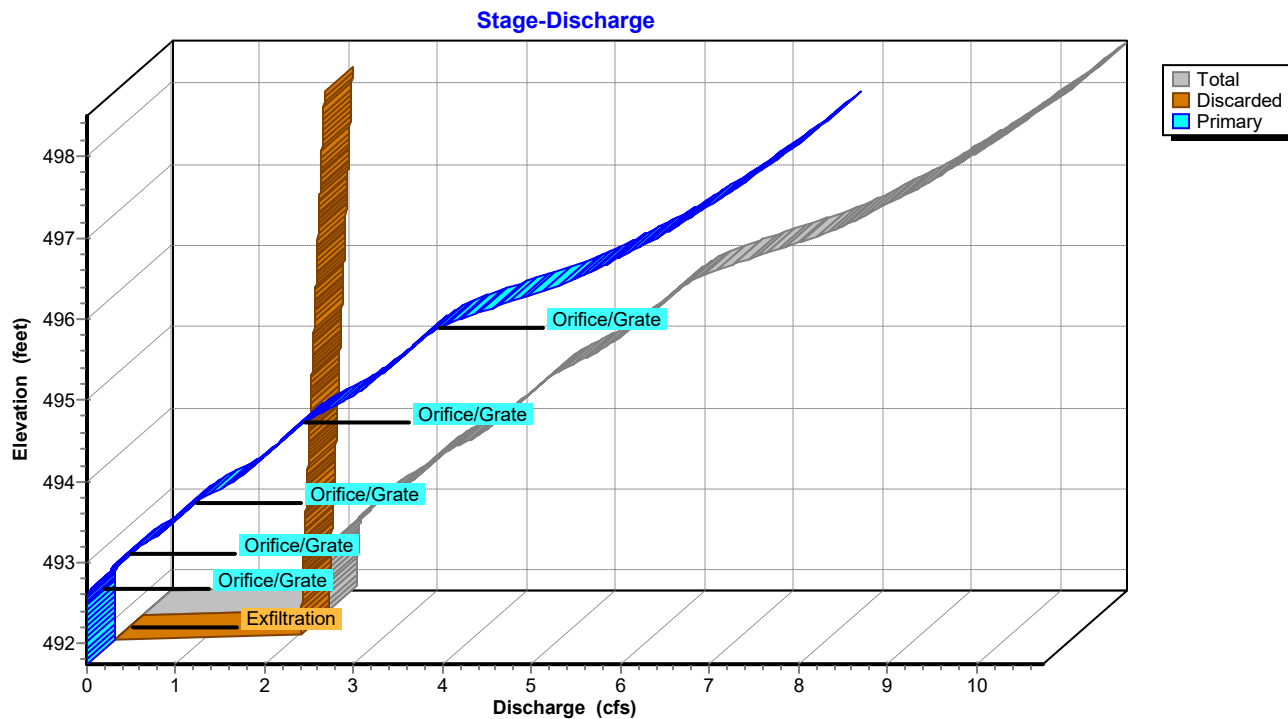
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Pond SMS #1A: SMS #1A

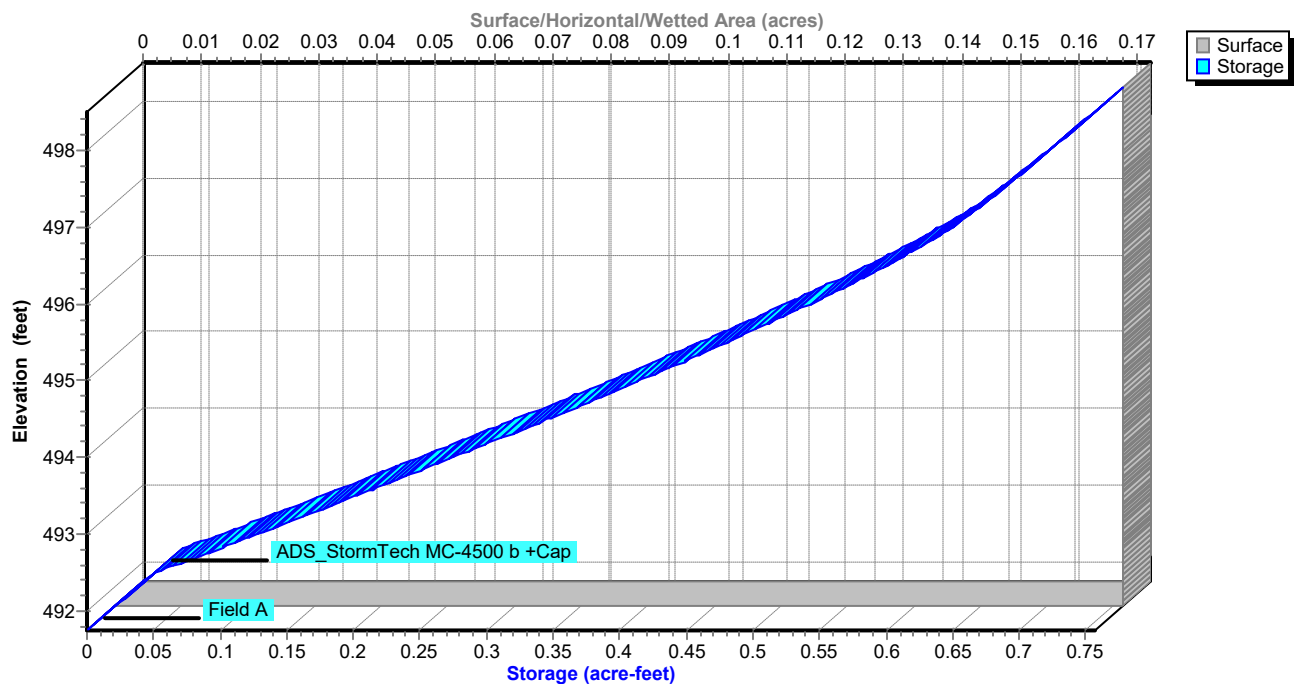


Pond SMS #1A: SMS #1A



Pond SMS #1A: SMS #1A

Stage-Area-Storage



2025.07.03 - Proposed Conditions*Type III 24-hr 100-Year Rainfall=9.00"*

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Hydrograph for Pond SMS #1A: SMS #1A

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0.000	491.75	0.00	0.00	0.00
1.00	0.00	0.000	491.75	0.00	0.00	0.00
2.00	0.07	0.000	491.75	0.07	0.07	0.00
3.00	0.16	0.000	491.75	0.15	0.15	0.00
4.00	0.24	0.001	491.76	0.24	0.24	0.00
5.00	0.33	0.001	491.76	0.33	0.33	0.00
6.00	0.41	0.001	491.76	0.40	0.40	0.00
7.00	0.56	0.001	491.77	0.56	0.56	0.00
8.00	0.75	0.002	491.77	0.74	0.74	0.00
9.00	1.11	0.002	491.79	1.10	1.10	0.00
10.00	1.52	0.003	491.80	1.51	1.51	0.00
11.00	2.29	0.007	491.85	2.09	2.09	0.00
12.00	15.71	0.252	493.84	3.55	2.17	1.38
13.00	2.99	0.553	496.08	6.66	2.26	4.40
14.00	1.81	0.312	494.26	4.13	2.19	1.95
15.00	1.35	0.161	493.23	2.78	2.14	0.63
16.00	0.95	0.060	492.55	2.12	2.12	0.00
17.00	0.75	0.002	491.77	0.75	0.75	0.00
18.00	0.58	0.001	491.77	0.58	0.58	0.00
19.00	0.51	0.001	491.77	0.51	0.51	0.00
20.00	0.45	0.001	491.76	0.46	0.46	0.00
21.00	0.41	0.001	491.76	0.41	0.41	0.00
22.00	0.37	0.001	491.76	0.38	0.38	0.00
23.00	0.34	0.001	491.76	0.34	0.34	0.00
24.00	0.30	0.001	491.76	0.30	0.30	0.00
25.00	0.00	0.000	491.75	0.00	0.00	0.00
26.00	0.00	0.000	491.75	0.00	0.00	0.00
27.00	0.00	0.000	491.75	0.00	0.00	0.00
28.00	0.00	0.000	491.75	0.00	0.00	0.00
29.00	0.00	0.000	491.75	0.00	0.00	0.00
30.00	0.00	0.000	491.75	0.00	0.00	0.00
31.00	0.00	0.000	491.75	0.00	0.00	0.00
32.00	0.00	0.000	491.75	0.00	0.00	0.00
33.00	0.00	0.000	491.75	0.00	0.00	0.00
34.00	0.00	0.000	491.75	0.00	0.00	0.00
35.00	0.00	0.000	491.75	0.00	0.00	0.00
36.00	0.00	0.000	491.75	0.00	0.00	0.00

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Stage-Discharge for Pond SMS #1A: SMS #1A

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
491.75	0.00	0.00	0.00	496.95	8.61	2.29	6.32
491.85	2.09	2.09	0.00	497.05	8.78	2.30	6.48
491.95	2.09	2.09	0.00	497.15	8.94	2.30	6.64
492.05	2.10	2.10	0.00	497.25	9.09	2.31	6.79
492.15	2.10	2.10	0.00	497.35	9.24	2.31	6.93
492.25	2.10	2.10	0.00	497.45	9.39	2.31	7.08
492.35	2.11	2.11	0.00	497.55	9.53	2.32	7.21
492.45	2.11	2.11	0.00	497.65	9.67	2.32	7.35
492.55	2.12	2.12	0.00	497.75	9.81	2.33	7.48
492.65	2.16	2.12	0.04	497.85	9.94	2.33	7.61
492.75	2.24	2.12	0.12	497.95	10.07	2.33	7.74
492.85	2.34	2.13	0.22	498.05	10.20	2.34	7.86
492.95	2.43	2.13	0.30	498.15	10.33	2.34	7.98
493.05	2.53	2.14	0.39	498.25	10.45	2.35	8.10
493.15	2.66	2.14	0.52	498.35	10.57	2.35	8.22
493.25	2.81	2.14	0.67	498.45	10.69	2.35	8.34
493.35	2.95	2.15	0.80				
493.45	3.06	2.15	0.91				
493.55	3.16	2.16	1.00				
493.65	3.26	2.16	1.10				
493.75	3.40	2.16	1.23				
493.85	3.56	2.17	1.39				
493.95	3.74	2.17	1.56				
494.05	3.88	2.18	1.70				
494.15	4.00	2.18	1.82				
494.25	4.12	2.18	1.93				
494.35	4.23	2.19	2.04				
494.45	4.33	2.19	2.14				
494.55	4.42	2.20	2.23				
494.65	4.53	2.20	2.33				
494.75	4.68	2.20	2.47				
494.85	4.86	2.21	2.65				
494.95	5.04	2.21	2.82				
495.05	5.19	2.22	2.97				
495.15	5.33	2.22	3.10				
495.25	5.45	2.23	3.23				
495.35	5.57	2.23	3.34				
495.45	5.69	2.23	3.45				
495.55	5.80	2.24	3.56				
495.65	5.90	2.24	3.66				
495.75	6.00	2.25	3.76				
495.85	6.14	2.25	3.89				
495.95	6.33	2.25	4.08				
496.05	6.58	2.26	4.32				
496.15	6.85	2.26	4.59				
496.25	7.15	2.27	4.88				
496.35	7.43	2.27	5.16				
496.45	7.66	2.27	5.39				
496.55	7.88	2.28	5.60				
496.65	8.08	2.28	5.80				
496.75	8.26	2.29	5.98				
496.85	8.44	2.29	6.15				

2025.07.03 - Proposed Conditions*Type III 24-hr 100-Year Rainfall=9.00"*

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Stage-Area-Storage for Pond SMS #1A: SMS #1A

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
491.75	0.172	0.000	496.95	0.172	0.646
491.85	0.172	0.007	497.05	0.172	0.654
491.95	0.172	0.014	497.15	0.172	0.662
492.05	0.172	0.021	497.25	0.172	0.670
492.15	0.172	0.028	497.35	0.172	0.677
492.25	0.172	0.034	497.45	0.172	0.685
492.35	0.172	0.041	497.55	0.172	0.691
492.45	0.172	0.048	497.65	0.172	0.698
492.55	0.172	0.059	497.75	0.172	0.705
492.65	0.172	0.074	497.85	0.172	0.712
492.75	0.172	0.090	497.95	0.172	0.719
492.85	0.172	0.105	498.05	0.172	0.726
492.95	0.172	0.120	498.15	0.172	0.733
493.05	0.172	0.135	498.25	0.172	0.740
493.15	0.172	0.150	498.35	0.172	0.747
493.25	0.172	0.165	498.45	0.172	0.753
493.35	0.172	0.180			
493.45	0.172	0.194			
493.55	0.172	0.209			
493.65	0.172	0.224			
493.75	0.172	0.239			
493.85	0.172	0.253			
493.95	0.172	0.268			
494.05	0.172	0.282			
494.15	0.172	0.296			
494.25	0.172	0.311			
494.35	0.172	0.325			
494.45	0.172	0.339			
494.55	0.172	0.353			
494.65	0.172	0.367			
494.75	0.172	0.381			
494.85	0.172	0.395			
494.95	0.172	0.408			
495.05	0.172	0.422			
495.15	0.172	0.435			
495.25	0.172	0.448			
495.35	0.172	0.461			
495.45	0.172	0.474			
495.55	0.172	0.487			
495.65	0.172	0.500			
495.75	0.172	0.512			
495.85	0.172	0.525			
495.95	0.172	0.537			
496.05	0.172	0.549			
496.15	0.172	0.561			
496.25	0.172	0.572			
496.35	0.172	0.584			
496.45	0.172	0.595			
496.55	0.172	0.606			
496.65	0.172	0.616			
496.75	0.172	0.626			
496.85	0.172	0.636			

2025.07.03 - Proposed Conditions

Type III 24-hr 100-Year Rainfall=9.00"

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Summary for Pond SMS #1C: SMS #1C

Inflow Area = 3.516 ac, 93.20% Impervious, Inflow Depth = 8.40" for 100-Year event
 Inflow = 26.63 cfs @ 12.14 hrs, Volume= 2.460 af
 Outflow = 9.05 cfs @ 12.47 hrs, Volume= 2.460 af, Atten= 66%, Lag= 20.2 min
 Discarded = 2.13 cfs @ 12.47 hrs, Volume= 1.652 af
 Primary = 6.91 cfs @ 12.47 hrs, Volume= 0.809 af
 Routed to Link POI #1 : POI #1

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
 Peak Elev= 501.43' @ 12.47 hrs Surf.Area= 0.159 ac Storage= 0.660 af

Plug-Flow detention time= 31.5 min calculated for 2.457 af (100% of inflow)
 Center-of-Mass det. time= 31.4 min (789.8 - 758.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	495.25'	0.249 af	36.83'W x 187.59'L x 6.75'H Field A 1.071 af Overall - 0.447 af Embedded = 0.623 af x 40.0% Voids
#2A	496.00'	0.447 af	ADS_StormTech MC-4500 b +Cap x 180 Inside #1 Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap 180 Chambers in 4 Rows Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf
		0.697 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	495.25'	12.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 440.00'
#2	Primary	496.04'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	496.45'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	497.09'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Primary	498.04'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#6	Primary	501.00'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=2.13 cfs @ 12.47 hrs HW=501.41' (Free Discharge)↑ **1=Exfiltration** (Controls 2.13 cfs)**Primary OutFlow** Max=6.89 cfs @ 12.47 hrs HW=501.41' (Free Discharge)

↑ **2=Orifice/Grate** (Orifice Controls 1.49 cfs @ 10.94 fps)
 — **3=Orifice/Grate** (Orifice Controls 1.43 cfs @ 10.50 fps)
 — **4=Orifice/Grate** (Orifice Controls 1.91 cfs @ 9.72 fps)
 — **5=Orifice/Grate** (Orifice Controls 1.67 cfs @ 8.51 fps)
 — **6=Orifice/Grate** (Orifice Controls 0.38 cfs @ 2.19 fps)

2025.07.03 - Proposed Conditions

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Type III 24-hr 100-Year Rainfall=9.00"

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Pond SMS #1C: SMS #1C - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-4500 b +Cap (ADS StormTech® MC-4500 with cap volume)

Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf

Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap

Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf

100.0" Wide + 6.0" Spacing = 106.0" C-C Row Spacing

45 Chambers/Row x 4.02' Long +2.73' Cap Length x 2 = 186.59' Row Length +6.0" End Stone x 2 =
187.59' Base Length

4 Rows x 100.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 36.83' Base Width

9.0" Stone Base + 60.0" Chamber Height + 12.0" Stone Cover = 6.75' Field Height

180 Chambers x 106.5 cf + 39.5 cf Cap Volume x 2 x 4 Rows = 19,484.3 cf Chamber Storage

46,640.0 cf Field - 19,484.3 cf Chambers = 27,155.7 cf Stone x 40.0% Voids = 10,862.3 cf Stone Storage

Chamber Storage + Stone Storage = 30,346.6 cf = 0.697 af

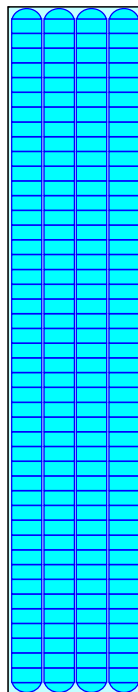
Overall Storage Efficiency = 65.1%

Overall System Size = 187.59' x 36.83' x 6.75'

180 Chambers

1,727.4 cy Field

1,005.8 cy Stone



2025.07.03 - Proposed Conditions

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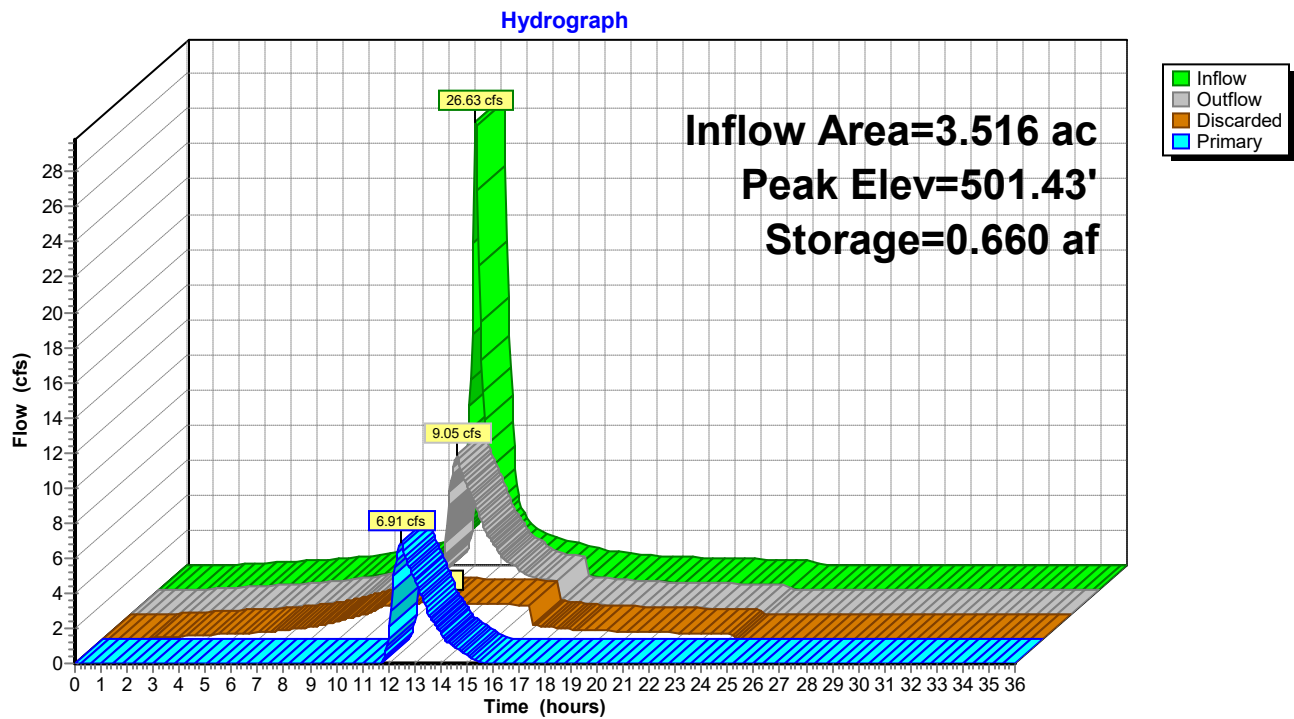
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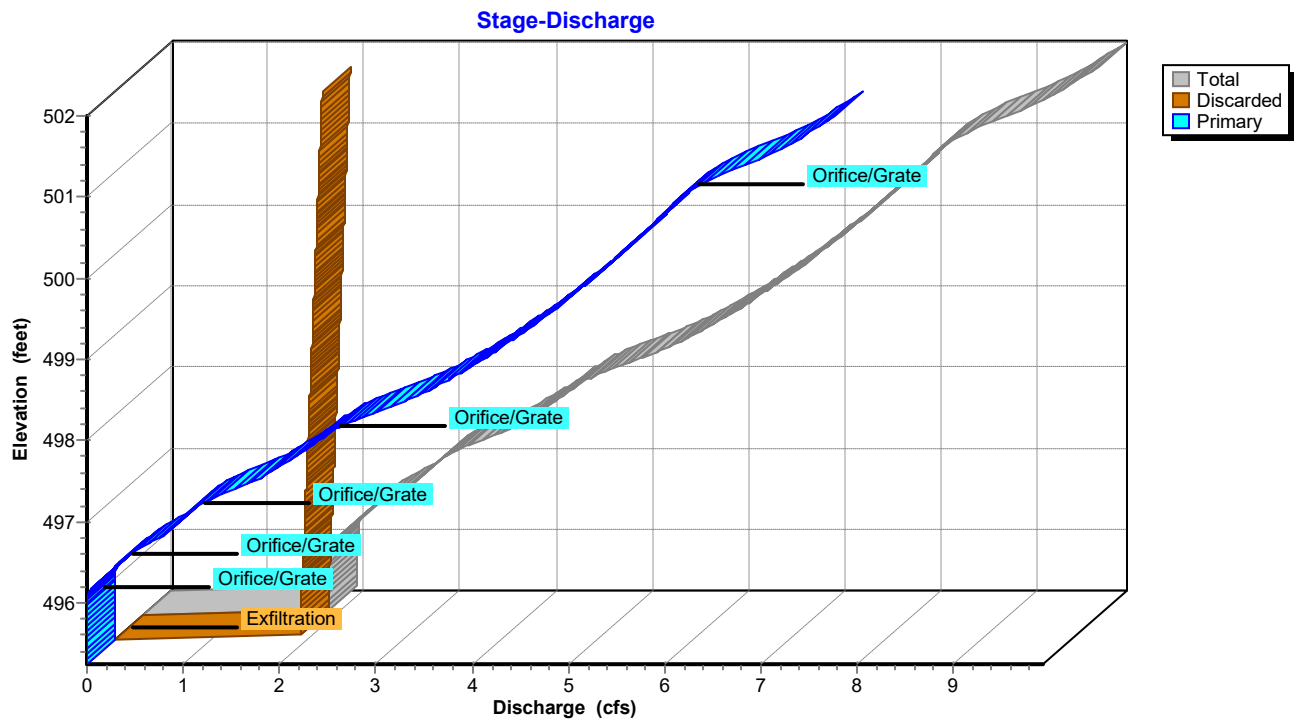
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Pond SMS #1C: SMS #1C

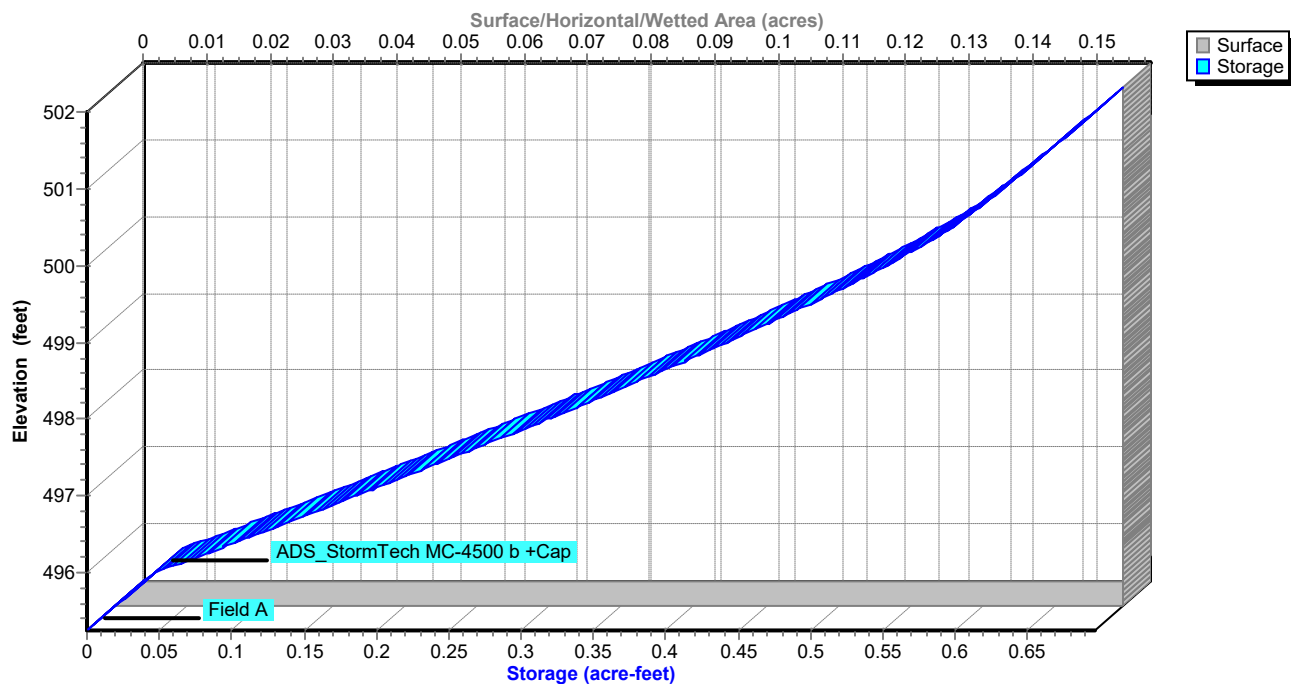


Pond SMS #1C: SMS #1C



Pond SMS #1C: SMS #1C

Stage-Area-Storage



2025.07.03 - Proposed Conditions*Type III 24-hr 100-Year Rainfall=9.00"*

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Hydrograph for Pond SMS #1C: SMS #1C

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0.000	495.25	0.00	0.00	0.00
1.00	0.00	0.000	495.25	0.00	0.00	0.00
2.00	0.06	0.000	495.25	0.06	0.06	0.00
3.00	0.15	0.000	495.26	0.14	0.14	0.00
4.00	0.23	0.001	495.26	0.22	0.22	0.00
5.00	0.30	0.001	495.26	0.30	0.30	0.00
6.00	0.38	0.001	495.26	0.37	0.37	0.00
7.00	0.52	0.001	495.27	0.52	0.52	0.00
8.00	0.69	0.002	495.27	0.69	0.69	0.00
9.00	1.03	0.002	495.29	1.02	1.02	0.00
10.00	1.41	0.003	495.30	1.40	1.40	0.00
11.00	2.12	0.006	495.35	1.92	1.92	0.00
12.00	14.56	0.234	497.36	3.42	1.99	1.43
13.00	2.77	0.510	499.59	6.89	2.07	4.82
14.00	1.67	0.258	497.54	3.78	2.00	1.78
15.00	1.25	0.131	496.60	2.41	1.97	0.45
16.00	0.88	0.044	495.94	1.94	1.94	0.00
17.00	0.69	0.002	495.27	0.70	0.70	0.00
18.00	0.53	0.001	495.27	0.54	0.54	0.00
19.00	0.47	0.001	495.27	0.47	0.47	0.00
20.00	0.42	0.001	495.26	0.42	0.42	0.00
21.00	0.38	0.001	495.26	0.38	0.38	0.00
22.00	0.35	0.001	495.26	0.35	0.35	0.00
23.00	0.31	0.001	495.26	0.31	0.31	0.00
24.00	0.28	0.001	495.26	0.28	0.28	0.00
25.00	0.00	0.000	495.25	0.00	0.00	0.00
26.00	0.00	0.000	495.25	0.00	0.00	0.00
27.00	0.00	0.000	495.25	0.00	0.00	0.00
28.00	0.00	0.000	495.25	0.00	0.00	0.00
29.00	0.00	0.000	495.25	0.00	0.00	0.00
30.00	0.00	0.000	495.25	0.00	0.00	0.00
31.00	0.00	0.000	495.25	0.00	0.00	0.00
32.00	0.00	0.000	495.25	0.00	0.00	0.00
33.00	0.00	0.000	495.25	0.00	0.00	0.00
34.00	0.00	0.000	495.25	0.00	0.00	0.00
35.00	0.00	0.000	495.25	0.00	0.00	0.00
36.00	0.00	0.000	495.25	0.00	0.00	0.00

2025.07.03 - Proposed Conditions*Type III 24-hr 100-Year Rainfall=9.00"*

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Stage-Discharge for Pond SMS #1C: SMS #1C

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
495.25	0.00	0.00	0.00	500.45	7.78	2.10	5.68
495.35	1.92	1.92	0.00	500.55	7.88	2.10	5.77
495.45	1.93	1.93	0.00	500.65	7.97	2.11	5.86
495.55	1.93	1.93	0.00	500.75	8.06	2.11	5.95
495.65	1.93	1.93	0.00	500.85	8.15	2.11	6.04
495.75	1.94	1.94	0.00	500.95	8.24	2.12	6.12
495.85	1.94	1.94	0.00	501.05	8.33	2.12	6.21
495.95	1.94	1.94	0.00	501.15	8.48	2.12	6.35
496.05	1.95	1.95	0.00	501.25	8.67	2.13	6.54
496.15	1.98	1.95	0.03	501.35	8.88	2.13	6.75
496.25	2.06	1.95	0.11	501.45	9.09	2.13	6.96
496.35	2.16	1.96	0.21	501.55	9.27	2.14	7.13
496.45	2.26	1.96	0.30	501.65	9.43	2.14	7.29
496.55	2.35	1.96	0.39	501.75	9.58	2.15	7.43
496.65	2.48	1.97	0.51	501.85	9.72	2.15	7.57
496.75	2.63	1.97	0.66	501.95	9.86	2.15	7.71
496.85	2.77	1.97	0.80				
496.95	2.88	1.98	0.90				
497.05	2.98	1.98	1.00				
497.15	3.08	1.99	1.09				
497.25	3.22	1.99	1.24				
497.35	3.41	1.99	1.41				
497.45	3.61	2.00	1.61				
497.55	3.80	2.00	1.81				
497.65	3.96	2.00	1.96				
497.75	4.10	2.01	2.10				
497.85	4.23	2.01	2.22				
497.95	4.35	2.01	2.34				
498.05	4.47	2.02	2.45				
498.15	4.61	2.02	2.59				
498.25	4.80	2.02	2.78				
498.35	5.03	2.03	3.00				
498.45	5.26	2.03	3.22				
498.55	5.46	2.03	3.42				
498.65	5.63	2.04	3.59				
498.75	5.79	2.04	3.75				
498.85	5.94	2.04	3.90				
498.95	6.09	2.05	4.04				
499.05	6.23	2.05	4.17				
499.15	6.36	2.05	4.30				
499.25	6.49	2.06	4.43				
499.35	6.61	2.06	4.55				
499.45	6.73	2.07	4.66				
499.55	6.84	2.07	4.78				
499.65	6.96	2.07	4.89				
499.75	7.07	2.08	4.99				
499.85	7.18	2.08	5.10				
499.95	7.28	2.08	5.20				
500.05	7.39	2.09	5.30				
500.15	7.49	2.09	5.40				
500.25	7.59	2.09	5.49				
500.35	7.68	2.10	5.59				

2025.07.03 - Proposed Conditions*Type III 24-hr 100-Year Rainfall=9.00"*

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Stage-Area-Storage for Pond SMS #1C: SMS #1C

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
495.25	0.159	0.000	500.45	0.159	0.594
495.35	0.159	0.006	500.55	0.159	0.602
495.45	0.159	0.013	500.65	0.159	0.610
495.55	0.159	0.019	500.75	0.159	0.617
495.65	0.159	0.025	500.85	0.159	0.623
495.75	0.159	0.032	500.95	0.159	0.630
495.85	0.159	0.038	501.05	0.159	0.636
495.95	0.159	0.044	501.15	0.159	0.643
496.05	0.159	0.055	501.25	0.159	0.649
496.15	0.159	0.069	501.35	0.159	0.655
496.25	0.159	0.082	501.45	0.159	0.662
496.35	0.159	0.096	501.55	0.159	0.668
496.45	0.159	0.110	501.65	0.159	0.674
496.55	0.159	0.124	501.75	0.159	0.681
496.65	0.159	0.138	501.85	0.159	0.687
496.75	0.159	0.152	501.95	0.159	0.693
496.85	0.159	0.165			
496.95	0.159	0.179			
497.05	0.159	0.193			
497.15	0.159	0.206			
497.25	0.159	0.220			
497.35	0.159	0.233			
497.45	0.159	0.246			
497.55	0.159	0.260			
497.65	0.159	0.273			
497.75	0.159	0.286			
497.85	0.159	0.299			
497.95	0.159	0.312			
498.05	0.159	0.325			
498.15	0.159	0.338			
498.25	0.159	0.351			
498.35	0.159	0.363			
498.45	0.159	0.376			
498.55	0.159	0.388			
498.65	0.159	0.400			
498.75	0.159	0.413			
498.85	0.159	0.425			
498.95	0.159	0.437			
499.05	0.159	0.448			
499.15	0.159	0.460			
499.25	0.159	0.472			
499.35	0.159	0.483			
499.45	0.159	0.494			
499.55	0.159	0.505			
499.65	0.159	0.516			
499.75	0.159	0.527			
499.85	0.159	0.537			
499.95	0.159	0.547			
500.05	0.159	0.557			
500.15	0.159	0.567			
500.25	0.159	0.576			
500.35	0.159	0.586			

2025.07.03 - Proposed Conditions

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Type III 24-hr 100-Year Rainfall=9.00"

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Summary for Link POI #1: POI #1

Inflow Area = 11.260 ac, 61.46% Impervious, Inflow Depth = 3.29" for 100-Year event

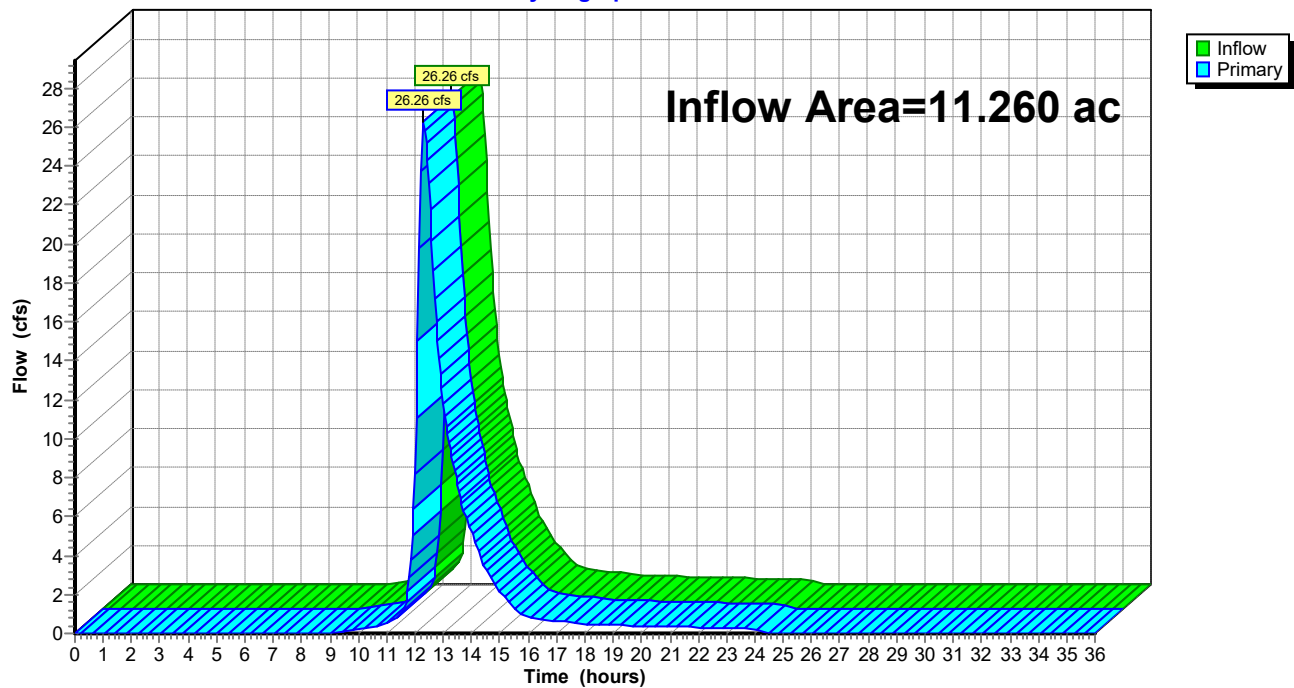
Inflow = 26.26 cfs @ 12.30 hrs, Volume= 3.091 af

Primary = 26.26 cfs @ 12.30 hrs, Volume= 3.091 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #1: POI #1

Hydrograph



2025.07.03 - Proposed Conditions*Type III 24-hr 100-Year Rainfall=9.00"*

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Hydrograph for Link POI #1: POI #1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.01	0.00	0.01	35.00	0.00	0.00	0.00
9.50	0.08	0.00	0.08	35.50	0.00	0.00	0.00
10.00	0.18	0.00	0.18	36.00	0.00	0.00	0.00
10.50	0.33	0.00	0.33				
11.00	0.55	0.00	0.55				
11.50	1.04	0.00	1.04				
12.00	8.22	0.00	8.22				
12.50	23.16	0.00	23.16				
13.00	11.82	0.00	11.82				
13.50	7.62	0.00	7.62				
14.00	5.20	0.00	5.20				
14.50	3.33	0.00	3.33				
15.00	2.18	0.00	2.18				
15.50	1.32	0.00	1.32				
16.00	0.80	0.00	0.80				
16.50	0.69	0.00	0.69				
17.00	0.62	0.00	0.62				
17.50	0.56	0.00	0.56				
18.00	0.49	0.00	0.49				
18.50	0.44	0.00	0.44				
19.00	0.42	0.00	0.42				
19.50	0.40	0.00	0.40				
20.00	0.38	0.00	0.38				
20.50	0.36	0.00	0.36				
21.00	0.35	0.00	0.35				
21.50	0.33	0.00	0.33				
22.00	0.32	0.00	0.32				
22.50	0.30	0.00	0.30				
23.00	0.29	0.00	0.29				
23.50	0.27	0.00	0.27				
24.00	0.25	0.00	0.25				
24.50	0.01	0.00	0.01				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				

2025.07.03 - Proposed Conditions

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Type III 24-hr 100-Year Rainfall=9.00"

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Summary for Link POI #2: POI #2

Inflow Area = 7.188 ac, 34.72% Impervious, Inflow Depth = 3.30" for 100-Year event

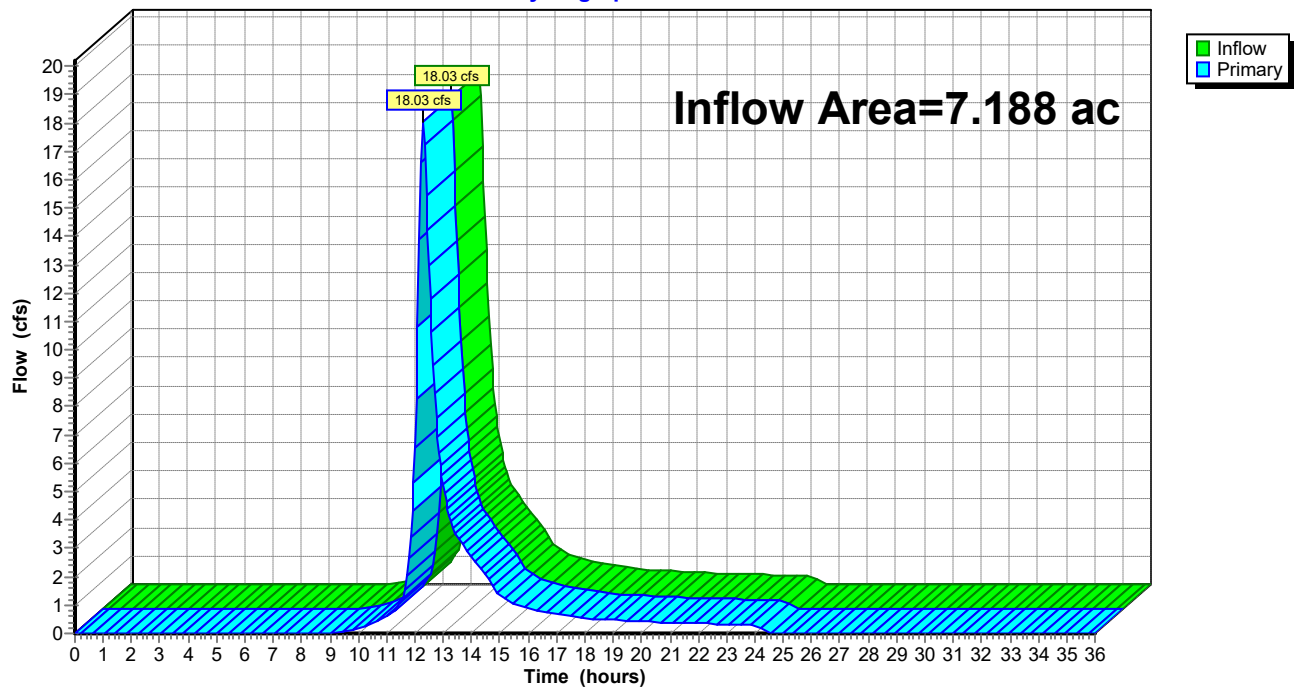
Inflow = 18.03 cfs @ 12.27 hrs, Volume= 1.976 af

Primary = 18.03 cfs @ 12.27 hrs, Volume= 1.976 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #2: POI #2

Hydrograph



2025.07.03 - Proposed Conditions*Type III 24-hr 100-Year Rainfall=9.00"*

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Hydrograph for Link POI #2: POI #2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.01	0.00	0.01	35.00	0.00	0.00	0.00
9.50	0.08	0.00	0.08	35.50	0.00	0.00	0.00
10.00	0.19	0.00	0.19	36.00	0.00	0.00	0.00
10.50	0.36	0.00	0.36				
11.00	0.60	0.00	0.60				
11.50	1.12	0.00	1.12				
12.00	6.54	0.00	6.54				
12.50	13.00	0.00	13.00				
13.00	5.25	0.00	5.25				
13.50	3.39	0.00	3.39				
14.00	2.72	0.00	2.72				
14.50	2.04	0.00	2.04				
15.00	1.37	0.00	1.37				
15.50	1.07	0.00	1.07				
16.00	0.90	0.00	0.90				
16.50	0.77	0.00	0.77				
17.00	0.70	0.00	0.70				
17.50	0.62	0.00	0.62				
18.00	0.54	0.00	0.54				
18.50	0.49	0.00	0.49				
19.00	0.47	0.00	0.47				
19.50	0.45	0.00	0.45				
20.00	0.42	0.00	0.42				
20.50	0.40	0.00	0.40				
21.00	0.39	0.00	0.39				
21.50	0.37	0.00	0.37				
22.00	0.35	0.00	0.35				
22.50	0.34	0.00	0.34				
23.00	0.32	0.00	0.32				
23.50	0.30	0.00	0.30				
24.00	0.28	0.00	0.28				
24.50	0.02	0.00	0.02				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				

2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway B) Rainfall=1.85"*

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Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 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 DA #1A: Drainage Area #1A Runoff Area=165,307 sf 92.16% Impervious Runoff Depth=1.34"
Tc=10.0 min CN=95 Runoff=5.05 cfs 0.424 af

Subcatchment DA #1B: Drainage Area #1B Runoff Area=172,042 sf 3.71% Impervious Runoff Depth=0.06"
Flow Length=638' Tc=17.0 min CN=62 Runoff=0.03 cfs 0.019 af

Subcatchment DA #1C: Drainage Area Runoff Area=153,140 sf 93.20% Impervious Runoff Depth=1.34"
Tc=10.0 min CN=95 Runoff=4.67 cfs 0.393 af

Subcatchment DA #2A: Drainage Area #2A Runoff Area=121,928 sf 86.47% Impervious Runoff Depth=1.18"
Tc=10.0 min CN=93 Runoff=3.32 cfs 0.275 af

Subcatchment DA #2B: Drainage Area #2B Runoff Area=191,184 sf 1.71% Impervious Runoff Depth=0.06"
Flow Length=784' Tc=18.4 min CN=62 Runoff=0.03 cfs 0.021 af

Pond DB #2: Drainage Basin #2 Peak Elev=485.23' Storage=1,320 cf Inflow=3.32 cfs 0.275 af
Discarded=1.68 cfs 0.275 af Primary=0.00 cfs 0.000 af Outflow=1.68 cfs 0.275 af

Pond SMS #1A: SMS #1A Peak Elev=492.54' Storage=0.058 af Inflow=5.05 cfs 0.424 af
Discarded=2.12 cfs 0.424 af Primary=0.00 cfs 0.000 af Outflow=2.12 cfs 0.424 af

Pond SMS #1C: SMS #1C Peak Elev=496.04' Storage=0.054 af Inflow=4.67 cfs 0.393 af
Discarded=1.95 cfs 0.393 af Primary=0.00 cfs 0.000 af Outflow=1.95 cfs 0.393 af

Link POI #1: POI #1 Inflow=0.03 cfs 0.019 af
Primary=0.03 cfs 0.019 af

Link POI #2: POI #2 Inflow=0.03 cfs 0.021 af
Primary=0.03 cfs 0.021 af

Total Runoff Area = 18.448 ac Runoff Volume = 1.131 af Average Runoff Depth = 0.74"
48.96% Pervious = 9.032 ac 51.04% Impervious = 9.416 ac

2025.07.03 - Proposed Conditions

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Type III 24-hr WQv (Roadway B) Rainfall=1.85"

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Summary for Subcatchment DA #1A: Drainage Area #1A

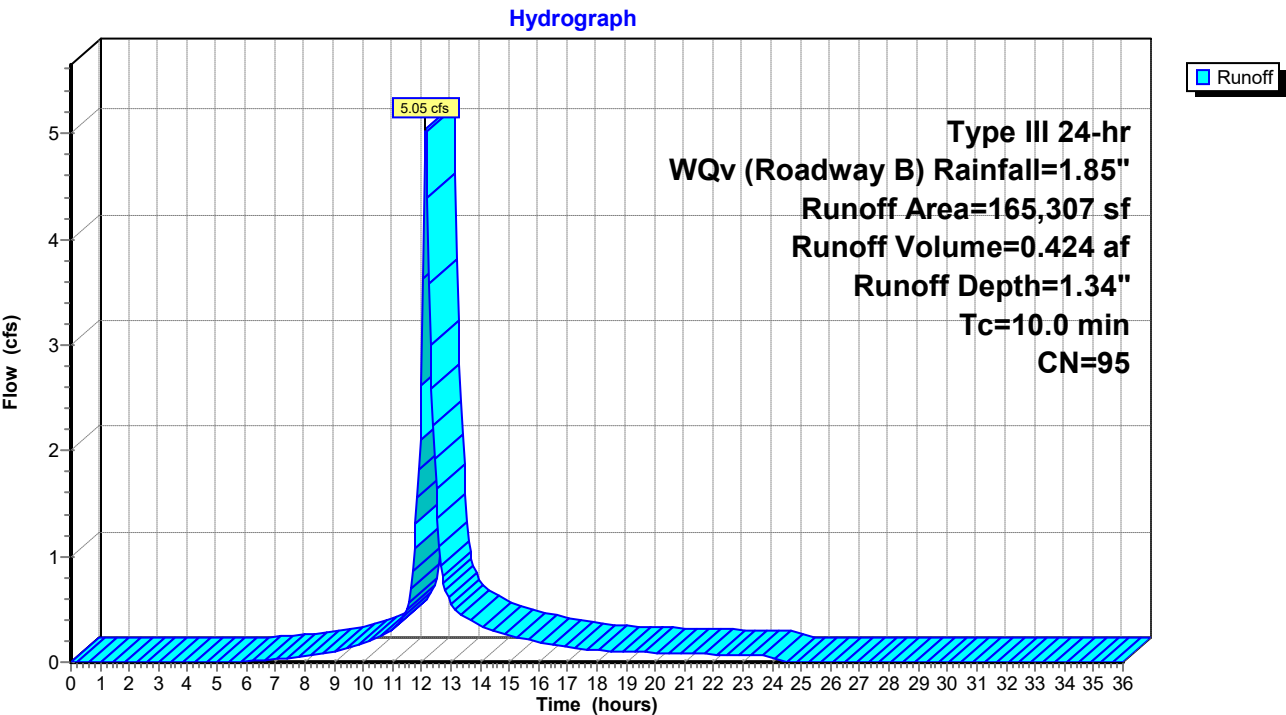
Runoff = 5.05 cfs @ 12.14 hrs, Volume= 0.424 af, Depth= 1.34"
Routed to Pond SMS #1A : SMS #1A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr WQv (Roadway B) Rainfall=1.85"

	Area (sf)	CN	Description
	11,207	61	>75% Grass cover, Good, HSG B
*	1,751	61	Emergency Access Road (Perv.), Good, HSG B
*	86,044	98	Building/Roof, HSG B
*	60,510	98	Pavement, HSG B
*	2,937	98	Sidewalk, HSG B
*	2,858	98	Emergency Access Road (Imp.), HSG B
	165,307	95	Weighted Average
	12,958		7.84% Pervious Area
	152,349		92.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, 10 Minute Minimum

Subcatchment DA #1A: Drainage Area #1A



2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway B) Rainfall=1.85"*

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Hydrograph for Subcatchment DA #1A: Drainage Area #1A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	1.85	1.34	0.00
0.50	0.01	0.00	0.00	26.50	1.85	1.34	0.00
1.00	0.02	0.00	0.00	27.00	1.85	1.34	0.00
1.50	0.03	0.00	0.00	27.50	1.85	1.34	0.00
2.00	0.04	0.00	0.00	28.00	1.85	1.34	0.00
2.50	0.05	0.00	0.00	28.50	1.85	1.34	0.00
3.00	0.06	0.00	0.00	29.00	1.85	1.34	0.00
3.50	0.07	0.00	0.00	29.50	1.85	1.34	0.00
4.00	0.08	0.00	0.00	30.00	1.85	1.34	0.00
4.50	0.09	0.00	0.00	30.50	1.85	1.34	0.00
5.00	0.10	0.00	0.00	31.00	1.85	1.34	0.00
5.50	0.12	0.00	0.00	31.50	1.85	1.34	0.00
6.00	0.13	0.00	0.01	32.00	1.85	1.34	0.00
6.50	0.15	0.00	0.02	32.50	1.85	1.34	0.00
7.00	0.17	0.01	0.03	33.00	1.85	1.34	0.00
7.50	0.19	0.01	0.04	33.50	1.85	1.34	0.00
8.00	0.21	0.02	0.05	34.00	1.85	1.34	0.00
8.50	0.24	0.03	0.07	34.50	1.85	1.34	0.00
9.00	0.27	0.04	0.10	35.00	1.85	1.34	0.00
9.50	0.31	0.06	0.13	35.50	1.85	1.34	0.00
10.00	0.35	0.08	0.17	36.00	1.85	1.34	0.00
10.50	0.40	0.11	0.23				
11.00	0.46	0.14	0.31				
11.50	0.55	0.20	0.51				
12.00	0.92	0.50	2.61				
12.50	1.30	0.83	1.64				
13.00	1.39	0.91	0.56				
13.50	1.45	0.97	0.42				
14.00	1.50	1.01	0.34				
14.50	1.54	1.05	0.30				
15.00	1.58	1.09	0.26				
15.50	1.61	1.12	0.22				
16.00	1.64	1.14	0.18				
16.50	1.66	1.16	0.16				
17.00	1.68	1.18	0.14				
17.50	1.70	1.20	0.13				
18.00	1.72	1.21	0.11				
18.50	1.73	1.23	0.10				
19.00	1.75	1.24	0.10				
19.50	1.76	1.25	0.09				
20.00	1.77	1.27	0.09				
20.50	1.78	1.28	0.08				
21.00	1.79	1.29	0.08				
21.50	1.80	1.30	0.08				
22.00	1.81	1.31	0.07				
22.50	1.82	1.32	0.07				
23.00	1.83	1.32	0.07				
23.50	1.84	1.33	0.06				
24.00	1.85	1.34	0.06				
24.50	1.85	1.34	0.00				
25.00	1.85	1.34	0.00				
25.50	1.85	1.34	0.00				

2025.07.03 - Proposed Conditions

Type III 24-hr WQv (Roadway B) Rainfall=1.85"

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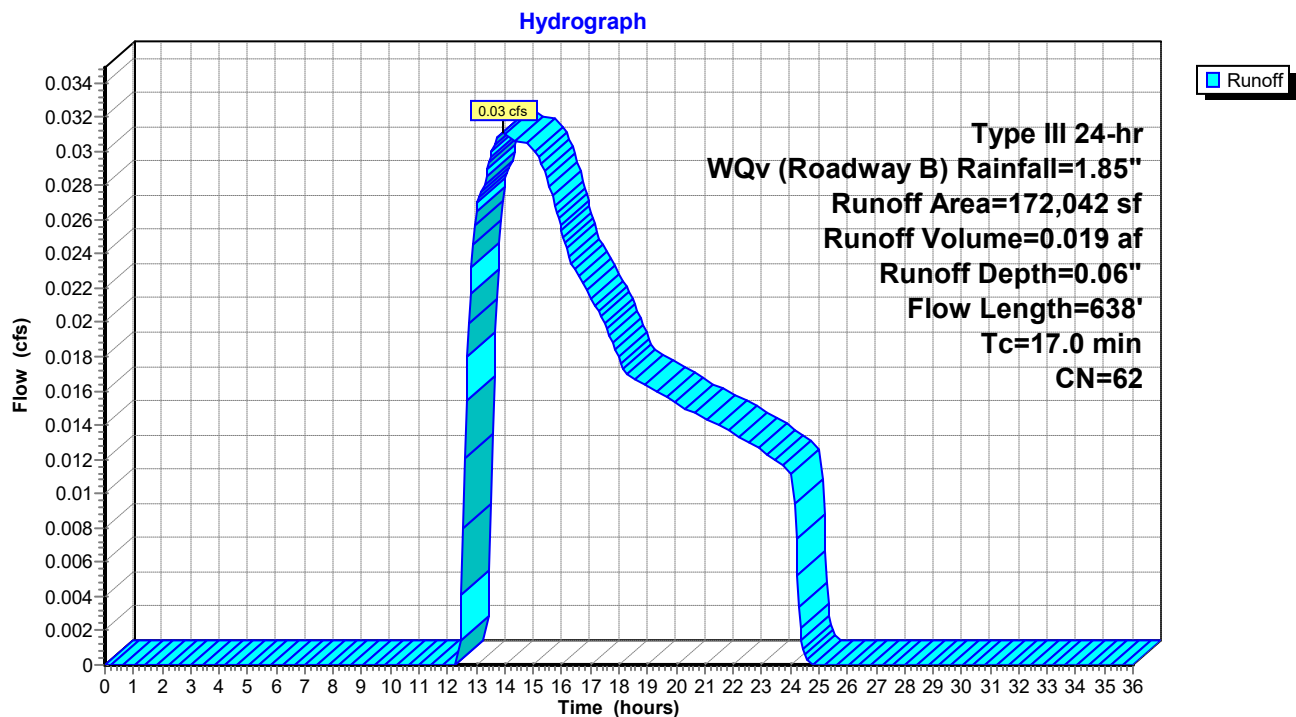
Summary for Subcatchment DA #1B: Drainage Area #1B

Runoff = 0.03 cfs @ 13.91 hrs, Volume= 0.019 af, Depth= 0.06"
Routed to Link POI #1 : POI #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr WQv (Roadway B) Rainfall=1.85"

	Area (sf)	CN	Description
	161,751	61	>75% Grass cover, Good, HSG B
*	3,911	61	Emergency Access Road (Perv.), Good, HSG B
*	6,380	98	Emergency Access Road (Imp.), HSG B
	172,042	62	Weighted Average
	165,662		96.29% Pervious Area
	6,380		3.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.2	150	0.1200	0.21		Sheet Flow, Grass: Dense n= 0.240 P2= 2.00"
4.8	488	0.0578	1.68		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
17.0	638	Total			

Subcatchment DA #1B: Drainage Area #1B

2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway B) Rainfall=1.85"*

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Hydrograph for Subcatchment DA #1B: Drainage Area #1B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	1.85	0.06	0.00
0.50	0.01	0.00	0.00	26.50	1.85	0.06	0.00
1.00	0.02	0.00	0.00	27.00	1.85	0.06	0.00
1.50	0.03	0.00	0.00	27.50	1.85	0.06	0.00
2.00	0.04	0.00	0.00	28.00	1.85	0.06	0.00
2.50	0.05	0.00	0.00	28.50	1.85	0.06	0.00
3.00	0.06	0.00	0.00	29.00	1.85	0.06	0.00
3.50	0.07	0.00	0.00	29.50	1.85	0.06	0.00
4.00	0.08	0.00	0.00	30.00	1.85	0.06	0.00
4.50	0.09	0.00	0.00	30.50	1.85	0.06	0.00
5.00	0.10	0.00	0.00	31.00	1.85	0.06	0.00
5.50	0.12	0.00	0.00	31.50	1.85	0.06	0.00
6.00	0.13	0.00	0.00	32.00	1.85	0.06	0.00
6.50	0.15	0.00	0.00	32.50	1.85	0.06	0.00
7.00	0.17	0.00	0.00	33.00	1.85	0.06	0.00
7.50	0.19	0.00	0.00	33.50	1.85	0.06	0.00
8.00	0.21	0.00	0.00	34.00	1.85	0.06	0.00
8.50	0.24	0.00	0.00	34.50	1.85	0.06	0.00
9.00	0.27	0.00	0.00	35.00	1.85	0.06	0.00
9.50	0.31	0.00	0.00	35.50	1.85	0.06	0.00
10.00	0.35	0.00	0.00	36.00	1.85	0.06	0.00
10.50	0.40	0.00	0.00				
11.00	0.46	0.00	0.00				
11.50	0.55	0.00	0.00				
12.00	0.92	0.00	0.00				
12.50	1.30	0.00	0.00				
13.00	1.39	0.00	0.03				
13.50	1.45	0.01	0.03				
14.00	1.50	0.01	0.03				
14.50	1.54	0.02	0.03				
15.00	1.58	0.02	0.03				
15.50	1.61	0.02	0.03				
16.00	1.64	0.03	0.03				
16.50	1.66	0.03	0.02				
17.00	1.68	0.03	0.02				
17.50	1.70	0.03	0.02				
18.00	1.72	0.04	0.02				
18.50	1.73	0.04	0.02				
19.00	1.75	0.04	0.02				
19.50	1.76	0.04	0.02				
20.00	1.77	0.04	0.02				
20.50	1.78	0.05	0.01				
21.00	1.79	0.05	0.01				
21.50	1.80	0.05	0.01				
22.00	1.81	0.05	0.01				
22.50	1.82	0.05	0.01				
23.00	1.83	0.05	0.01				
23.50	1.84	0.06	0.01				
24.00	1.85	0.06	0.01				
24.50	1.85	0.06	0.00				
25.00	1.85	0.06	0.00				
25.50	1.85	0.06	0.00				

2025.07.03 - Proposed Conditions

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Type III 24-hr WQv (Roadway B) Rainfall=1.85"

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Summary for Subcatchment DA #1C: Drainage Area #1C

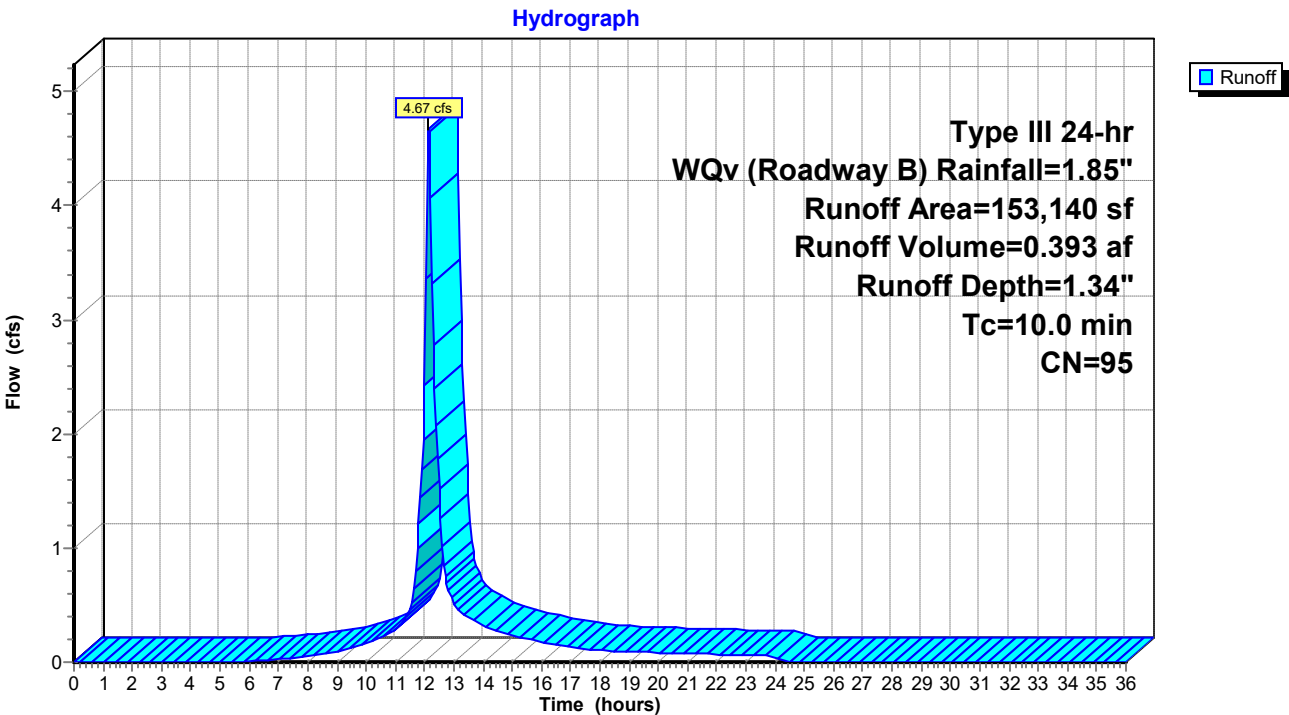
Runoff = 4.67 cfs @ 12.14 hrs, Volume= 0.393 af, Depth= 1.34"
Routed to Pond SMS #1C : SMS #1C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr WQv (Roadway B) Rainfall=1.85"

Area (sf)	CN	Description
8,883	61	>75% Grass cover, Good, HSG B
* 1,528	61	Emergency Access Road (Perv.), Good, HSG B
* 100,238	98	Building/Roof, HSG B
* 36,917	98	Pavement, HSG B
* 3,080	98	Sidewalk, HSG B
2,494	98	Emergency Access Road (Imp.), HSG B
153,140	95	Weighted Average
10,411		6.80% Pervious Area
142,729		93.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, 10 Direct Minimum

Subcatchment DA #1C: Drainage Area #1C



2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway B) Rainfall=1.85"*

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Hydrograph for Subcatchment DA #1C: Drainage Area #1C

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	1.85	1.34	0.00
0.50	0.01	0.00	0.00	26.50	1.85	1.34	0.00
1.00	0.02	0.00	0.00	27.00	1.85	1.34	0.00
1.50	0.03	0.00	0.00	27.50	1.85	1.34	0.00
2.00	0.04	0.00	0.00	28.00	1.85	1.34	0.00
2.50	0.05	0.00	0.00	28.50	1.85	1.34	0.00
3.00	0.06	0.00	0.00	29.00	1.85	1.34	0.00
3.50	0.07	0.00	0.00	29.50	1.85	1.34	0.00
4.00	0.08	0.00	0.00	30.00	1.85	1.34	0.00
4.50	0.09	0.00	0.00	30.50	1.85	1.34	0.00
5.00	0.10	0.00	0.00	31.00	1.85	1.34	0.00
5.50	0.12	0.00	0.00	31.50	1.85	1.34	0.00
6.00	0.13	0.00	0.01	32.00	1.85	1.34	0.00
6.50	0.15	0.00	0.02	32.50	1.85	1.34	0.00
7.00	0.17	0.01	0.02	33.00	1.85	1.34	0.00
7.50	0.19	0.01	0.04	33.50	1.85	1.34	0.00
8.00	0.21	0.02	0.05	34.00	1.85	1.34	0.00
8.50	0.24	0.03	0.07	34.50	1.85	1.34	0.00
9.00	0.27	0.04	0.09	35.00	1.85	1.34	0.00
9.50	0.31	0.06	0.13	35.50	1.85	1.34	0.00
10.00	0.35	0.08	0.16	36.00	1.85	1.34	0.00
10.50	0.40	0.11	0.22				
11.00	0.46	0.14	0.29				
11.50	0.55	0.20	0.47				
12.00	0.92	0.50	2.42				
12.50	1.30	0.83	1.52				
13.00	1.39	0.91	0.52				
13.50	1.45	0.97	0.39				
14.00	1.50	1.01	0.32				
14.50	1.54	1.05	0.27				
15.00	1.58	1.09	0.24				
15.50	1.61	1.12	0.21				
16.00	1.64	1.14	0.17				
16.50	1.66	1.16	0.15				
17.00	1.68	1.18	0.13				
17.50	1.70	1.20	0.12				
18.00	1.72	1.21	0.10				
18.50	1.73	1.23	0.10				
19.00	1.75	1.24	0.09				
19.50	1.76	1.25	0.09				
20.00	1.77	1.27	0.08				
20.50	1.78	1.28	0.08				
21.00	1.79	1.29	0.07				
21.50	1.80	1.30	0.07				
22.00	1.81	1.31	0.07				
22.50	1.82	1.32	0.06				
23.00	1.83	1.32	0.06				
23.50	1.84	1.33	0.06				
24.00	1.85	1.34	0.05				
24.50	1.85	1.34	0.00				
25.00	1.85	1.34	0.00				
25.50	1.85	1.34	0.00				

2025.07.03 - Proposed Conditions

Type III 24-hr WQv (Roadway B) Rainfall=1.85"

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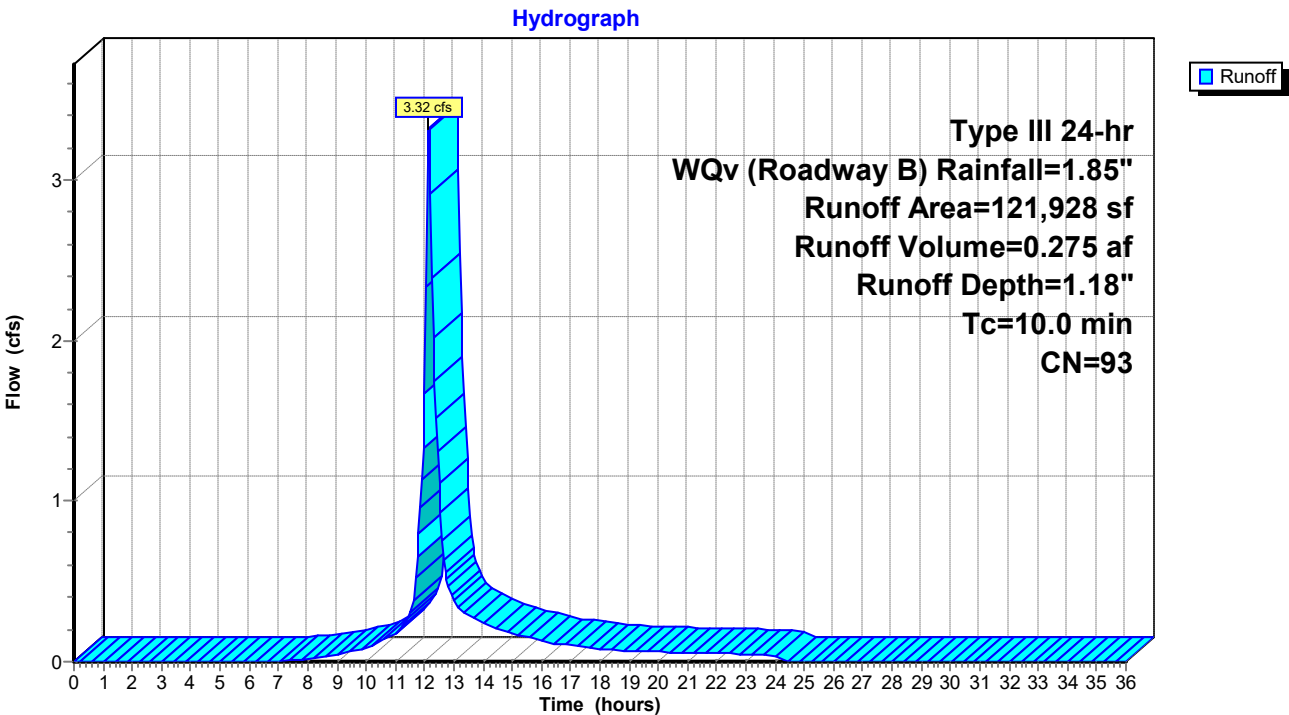
Summary for Subcatchment DA #2A: Drainage Area #2A

Runoff = 3.32 cfs @ 12.14 hrs, Volume= 0.275 af, Depth= 1.18"
Routed to Pond DB #2 : Drainage Basin #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr WQv (Roadway B) Rainfall=1.85"

	Area (sf)	CN	Description
*	50,600	98	Building/Roof, HSG B
*	37,828	98	Pavement, HSG B
*	1,562	98	Sidewalk, HSG B
*	3,943	98	Emergency Access Road (Imp.), HSG B
	14,078	61	>75% Grass cover, Good, HSG B
*	2,417	61	Emergency Access Road (Perv.), Good, HSG B
*	11,500	98	Infiltration Basin, HSG B
	121,928	93	Weighted Average
	16,495		13.53% Pervious Area
	105,433		86.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, 10 Minute Minimum

Subcatchment DA #2A: Drainage Area #2A

2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway B) Rainfall=1.85"*

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Hydrograph for Subcatchment DA #2A: Drainage Area #2A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	1.85	1.18	0.00
0.50	0.01	0.00	0.00	26.50	1.85	1.18	0.00
1.00	0.02	0.00	0.00	27.00	1.85	1.18	0.00
1.50	0.03	0.00	0.00	27.50	1.85	1.18	0.00
2.00	0.04	0.00	0.00	28.00	1.85	1.18	0.00
2.50	0.05	0.00	0.00	28.50	1.85	1.18	0.00
3.00	0.06	0.00	0.00	29.00	1.85	1.18	0.00
3.50	0.07	0.00	0.00	29.50	1.85	1.18	0.00
4.00	0.08	0.00	0.00	30.00	1.85	1.18	0.00
4.50	0.09	0.00	0.00	30.50	1.85	1.18	0.00
5.00	0.10	0.00	0.00	31.00	1.85	1.18	0.00
5.50	0.12	0.00	0.00	31.50	1.85	1.18	0.00
6.00	0.13	0.00	0.00	32.00	1.85	1.18	0.00
6.50	0.15	0.00	0.00	32.50	1.85	1.18	0.00
7.00	0.17	0.00	0.00	33.00	1.85	1.18	0.00
7.50	0.19	0.00	0.01	33.50	1.85	1.18	0.00
8.00	0.21	0.00	0.02	34.00	1.85	1.18	0.00
8.50	0.24	0.01	0.03	34.50	1.85	1.18	0.00
9.00	0.27	0.02	0.04	35.00	1.85	1.18	0.00
9.50	0.31	0.03	0.06	35.50	1.85	1.18	0.00
10.00	0.35	0.04	0.09	36.00	1.85	1.18	0.00
10.50	0.40	0.06	0.12				
11.00	0.46	0.09	0.17				
11.50	0.55	0.14	0.30				
12.00	0.92	0.39	1.67				
12.50	1.30	0.69	1.12				
13.00	1.39	0.77	0.39				
13.50	1.45	0.82	0.29				
14.00	1.50	0.87	0.24				
14.50	1.54	0.90	0.21				
15.00	1.58	0.94	0.18				
15.50	1.61	0.96	0.15				
16.00	1.64	0.99	0.13				
16.50	1.66	1.01	0.11				
17.00	1.68	1.03	0.10				
17.50	1.70	1.04	0.09				
18.00	1.72	1.06	0.08				
18.50	1.73	1.07	0.07				
19.00	1.75	1.08	0.07				
19.50	1.76	1.09	0.07				
20.00	1.77	1.11	0.06				
20.50	1.78	1.12	0.06				
21.00	1.79	1.13	0.06				
21.50	1.80	1.14	0.05				
22.00	1.81	1.15	0.05				
22.50	1.82	1.15	0.05				
23.00	1.83	1.16	0.05				
23.50	1.84	1.17	0.04				
24.00	1.85	1.18	0.04				
24.50	1.85	1.18	0.00				
25.00	1.85	1.18	0.00				
25.50	1.85	1.18	0.00				

2025.07.03 - Proposed Conditions

Type III 24-hr WQv (Roadway B) Rainfall=1.85"

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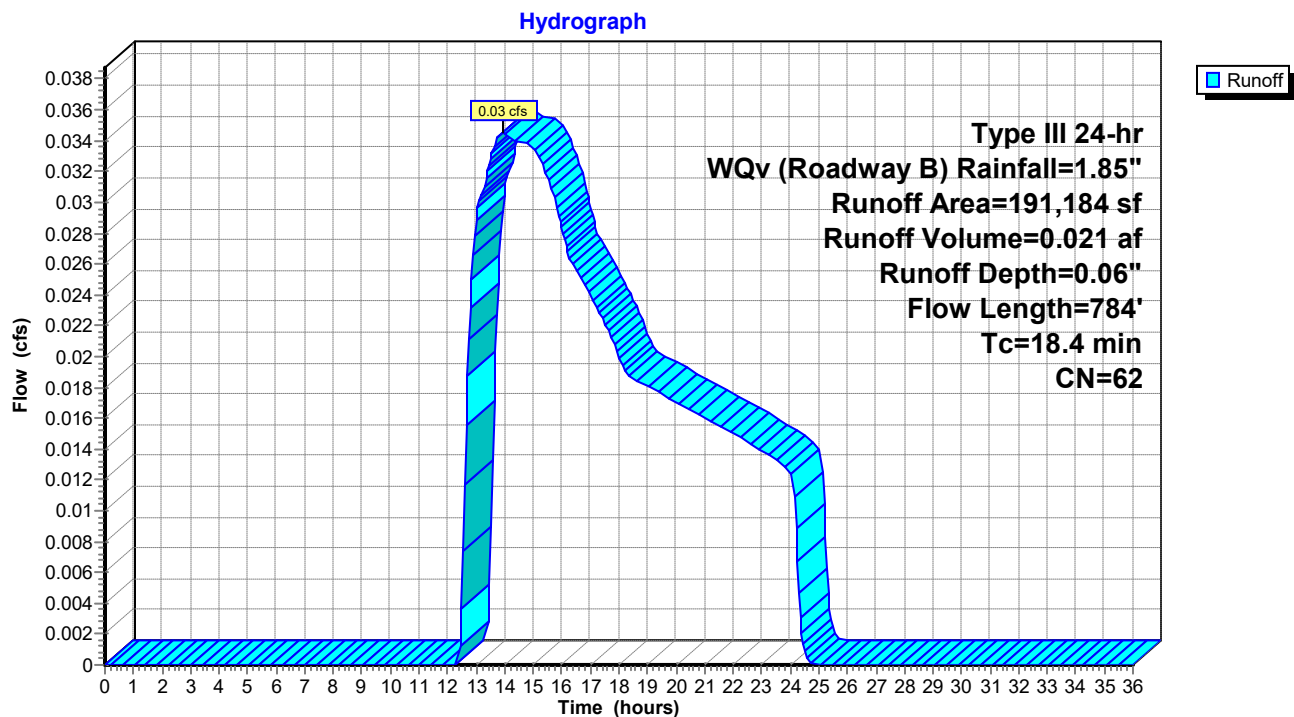
Summary for Subcatchment DA #2B: Drainage Area #2B

Runoff = 0.03 cfs @ 13.93 hrs, Volume= 0.021 af, Depth= 0.06"
Routed to Link POI #2 : POI #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr WQv (Roadway B) Rainfall=1.85"

	Area (sf)	CN	Description
	185,909	61	>75% Grass cover, Good, HSG B
*	2,004	61	Emergency Access Road (Perv.), Good, HSG B
*	3,271	98	Emergency Access Road (Imp.), HSG B
	191,184	62	Weighted Average
	187,913		98.29% Pervious Area
	3,271		1.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	150	0.0667	0.16		Sheet Flow, Grass: Dense n= 0.240 P2= 2.00"
3.0	634	0.2524	3.52		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
18.4	784	Total			

Subcatchment DA #2B: Drainage Area #2B

2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway B) Rainfall=1.85"*

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Hydrograph for Subcatchment DA #2B: Drainage Area #2B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	1.85	0.06	0.00
0.50	0.01	0.00	0.00	26.50	1.85	0.06	0.00
1.00	0.02	0.00	0.00	27.00	1.85	0.06	0.00
1.50	0.03	0.00	0.00	27.50	1.85	0.06	0.00
2.00	0.04	0.00	0.00	28.00	1.85	0.06	0.00
2.50	0.05	0.00	0.00	28.50	1.85	0.06	0.00
3.00	0.06	0.00	0.00	29.00	1.85	0.06	0.00
3.50	0.07	0.00	0.00	29.50	1.85	0.06	0.00
4.00	0.08	0.00	0.00	30.00	1.85	0.06	0.00
4.50	0.09	0.00	0.00	30.50	1.85	0.06	0.00
5.00	0.10	0.00	0.00	31.00	1.85	0.06	0.00
5.50	0.12	0.00	0.00	31.50	1.85	0.06	0.00
6.00	0.13	0.00	0.00	32.00	1.85	0.06	0.00
6.50	0.15	0.00	0.00	32.50	1.85	0.06	0.00
7.00	0.17	0.00	0.00	33.00	1.85	0.06	0.00
7.50	0.19	0.00	0.00	33.50	1.85	0.06	0.00
8.00	0.21	0.00	0.00	34.00	1.85	0.06	0.00
8.50	0.24	0.00	0.00	34.50	1.85	0.06	0.00
9.00	0.27	0.00	0.00	35.00	1.85	0.06	0.00
9.50	0.31	0.00	0.00	35.50	1.85	0.06	0.00
10.00	0.35	0.00	0.00	36.00	1.85	0.06	0.00
10.50	0.40	0.00	0.00				
11.00	0.46	0.00	0.00				
11.50	0.55	0.00	0.00				
12.00	0.92	0.00	0.00				
12.50	1.30	0.00	0.00				
13.00	1.39	0.00	0.03				
13.50	1.45	0.01	0.03				
14.00	1.50	0.01	0.03				
14.50	1.54	0.02	0.03				
15.00	1.58	0.02	0.03				
15.50	1.61	0.02	0.03				
16.00	1.64	0.03	0.03				
16.50	1.66	0.03	0.03				
17.00	1.68	0.03	0.02				
17.50	1.70	0.03	0.02				
18.00	1.72	0.04	0.02				
18.50	1.73	0.04	0.02				
19.00	1.75	0.04	0.02				
19.50	1.76	0.04	0.02				
20.00	1.77	0.04	0.02				
20.50	1.78	0.05	0.02				
21.00	1.79	0.05	0.02				
21.50	1.80	0.05	0.02				
22.00	1.81	0.05	0.02				
22.50	1.82	0.05	0.01				
23.00	1.83	0.05	0.01				
23.50	1.84	0.06	0.01				
24.00	1.85	0.06	0.01				
24.50	1.85	0.06	0.00				
25.00	1.85	0.06	0.00				
25.50	1.85	0.06	0.00				

2025.07.03 - Proposed Conditions

Type III 24-hr WQv (Roadway B) Rainfall=1.85"

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Summary for Pond DB #2: Drainage Basin #2

Inflow Area = 2.799 ac, 86.47% Impervious, Inflow Depth = 1.18" for WQv (Roadway B) event
 Inflow = 3.32 cfs @ 12.14 hrs, Volume= 0.275 af
 Outflow = 1.68 cfs @ 12.36 hrs, Volume= 0.275 af, Atten= 49%, Lag= 13.4 min
 Discarded = 1.68 cfs @ 12.36 hrs, Volume= 0.275 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link POI #2 : POI #2

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs / 3
 Peak Elev= 485.23' @ 12.36 hrs Surf.Area= 5,961 sf Storage= 1,320 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 4.5 min (821.4 - 816.9)

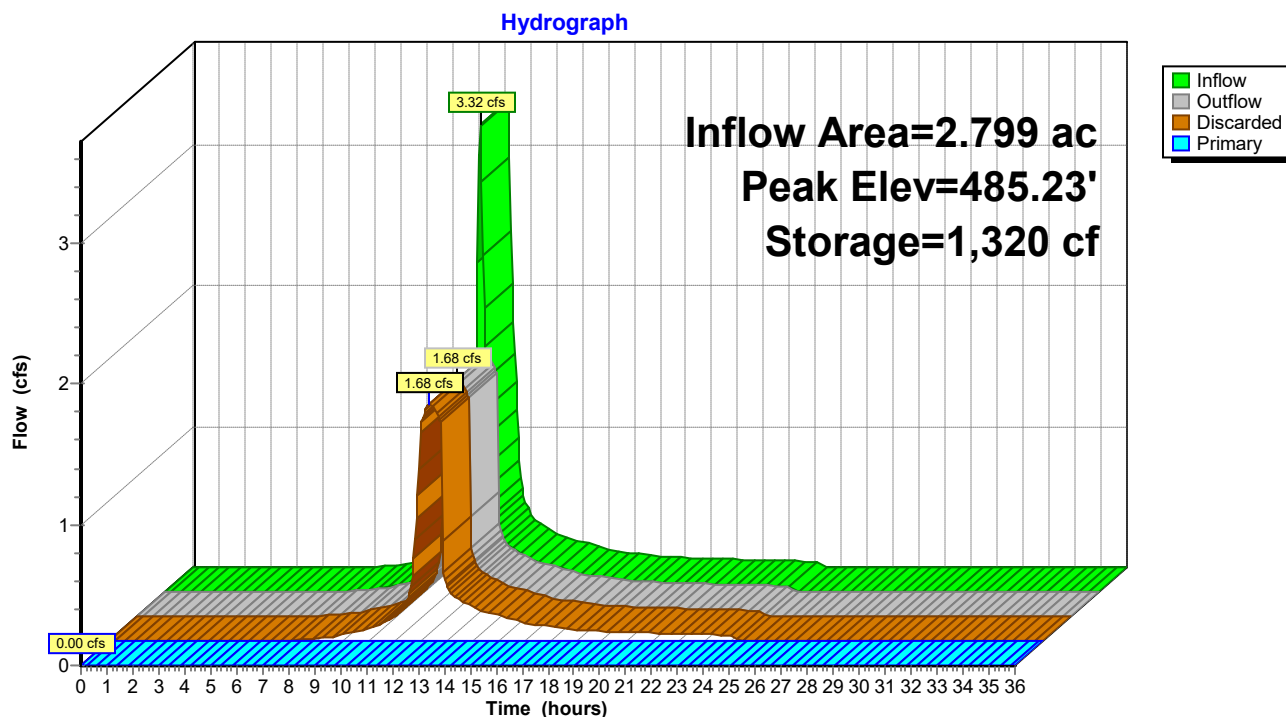
Volume	Invert	Avail.Storage	Storage Description
#1	485.00'	25,500 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
485.00	5,500	0	0
486.00	7,500	6,500	6,500
487.00	9,500	8,500	15,000
488.00	11,500	10,500	25,500

Device	Routing	Invert	Outlet Devices
#1	Discarded	485.00'	12.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 470.00'
#2	Primary	485.26'	7.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	486.79'	7.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

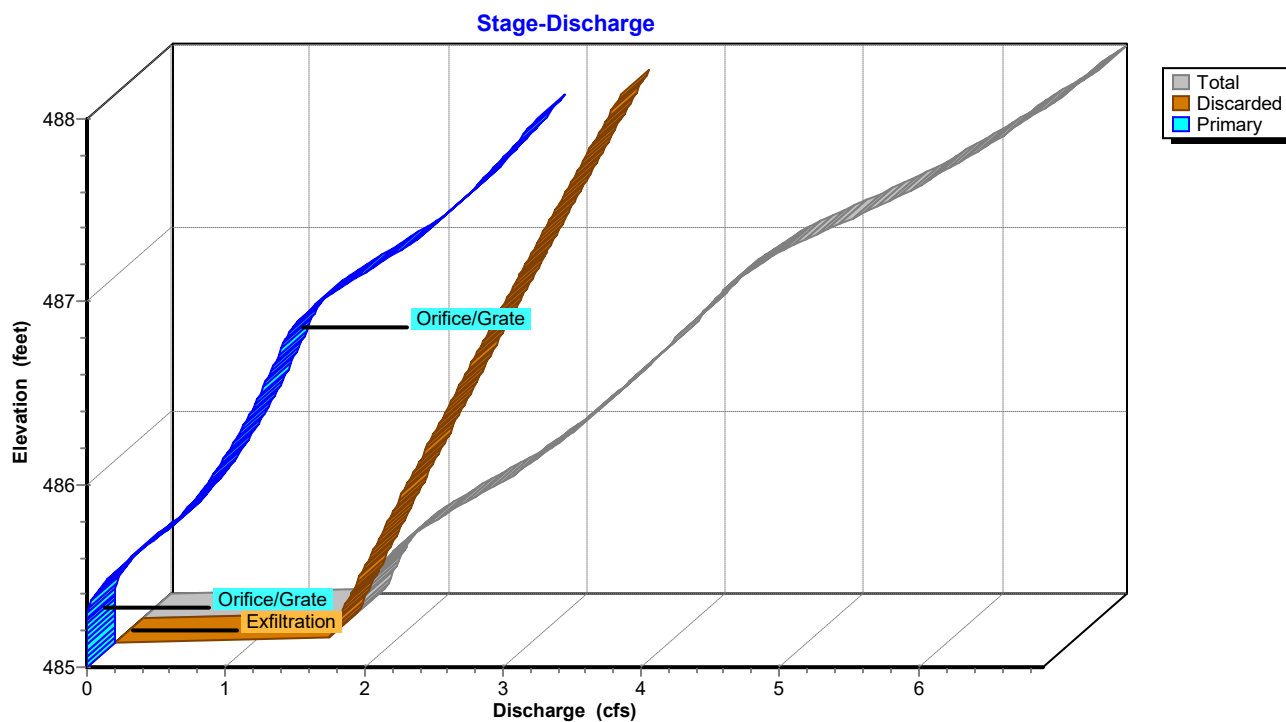
Discarded OutFlow Max=1.68 cfs @ 12.36 hrs HW=485.23' (Free Discharge)
 ↑ **1=Exfiltration** (Controls 1.68 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=485.00' (Free Discharge)
 ↑ **2=Orifice/Grate** (Controls 0.00 cfs)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

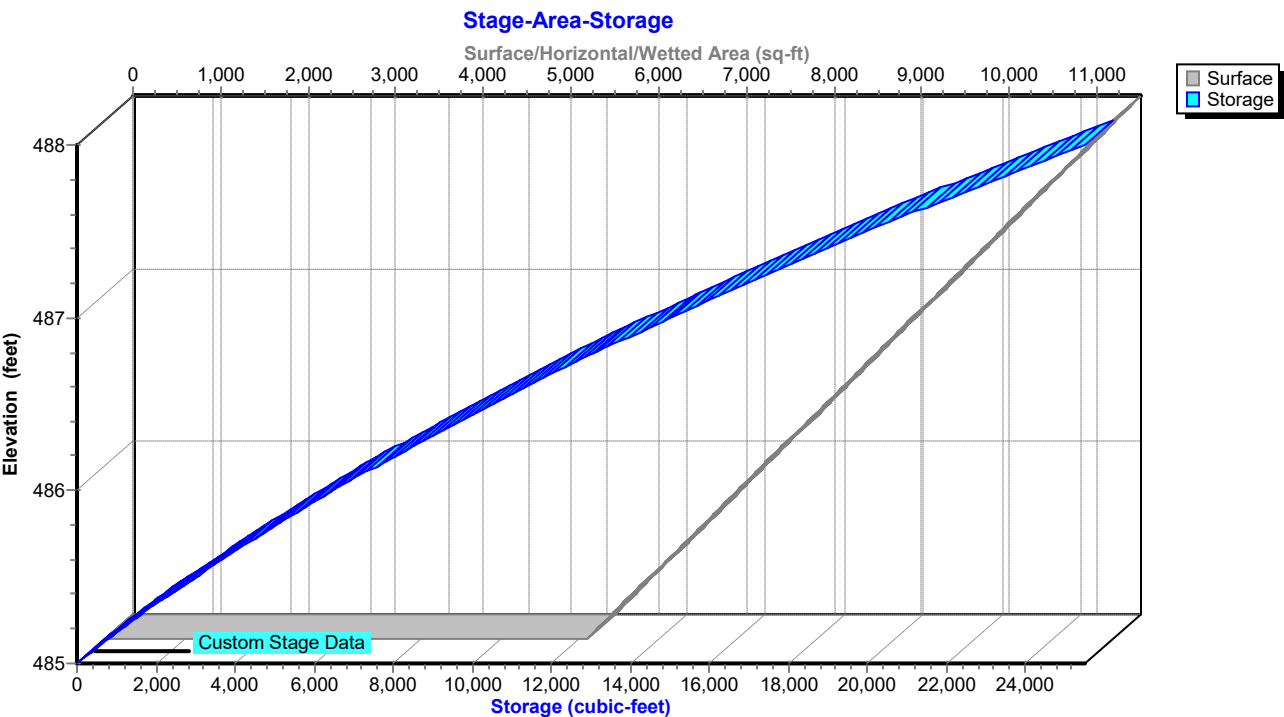
Pond DB #2: Drainage Basin #2



Pond DB #2: Drainage Basin #2



Pond DB #2: Drainage Basin #2



2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway B) Rainfall=1.85"*

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Hydrograph for Pond DB #2: Drainage Basin #2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	485.00	0.00	0.00	0.00
1.00	0.00	0	485.00	0.00	0.00	0.00
2.00	0.00	0	485.00	0.00	0.00	0.00
3.00	0.00	0	485.00	0.00	0.00	0.00
4.00	0.00	0	485.00	0.00	0.00	0.00
5.00	0.00	0	485.00	0.00	0.00	0.00
6.00	0.00	0	485.00	0.00	0.00	0.00
7.00	0.00	0	485.00	0.00	0.00	0.00
8.00	0.02	2	485.00	0.02	0.02	0.00
9.00	0.04	5	485.00	0.04	0.04	0.00
10.00	0.09	9	485.00	0.09	0.09	0.00
11.00	0.17	18	485.00	0.17	0.17	0.00
12.00	1.67	159	485.03	1.48	1.48	0.00
13.00	0.39	43	485.01	0.40	0.40	0.00
14.00	0.24	26	485.00	0.24	0.24	0.00
15.00	0.18	20	485.00	0.18	0.18	0.00
16.00	0.13	14	485.00	0.13	0.13	0.00
17.00	0.10	11	485.00	0.10	0.10	0.00
18.00	0.08	8	485.00	0.08	0.08	0.00
19.00	0.07	7	485.00	0.07	0.07	0.00
20.00	0.06	7	485.00	0.06	0.06	0.00
21.00	0.06	6	485.00	0.06	0.06	0.00
22.00	0.05	6	485.00	0.05	0.05	0.00
23.00	0.05	5	485.00	0.05	0.05	0.00
24.00	0.04	4	485.00	0.04	0.04	0.00
25.00	0.00	0	485.00	0.00	0.00	0.00
26.00	0.00	0	485.00	0.00	0.00	0.00
27.00	0.00	0	485.00	0.00	0.00	0.00
28.00	0.00	0	485.00	0.00	0.00	0.00
29.00	0.00	0	485.00	0.00	0.00	0.00
30.00	0.00	0	485.00	0.00	0.00	0.00
31.00	0.00	0	485.00	0.00	0.00	0.00
32.00	0.00	0	485.00	0.00	0.00	0.00
33.00	0.00	0	485.00	0.00	0.00	0.00
34.00	0.00	0	485.00	0.00	0.00	0.00
35.00	0.00	0	485.00	0.00	0.00	0.00
36.00	0.00	0	485.00	0.00	0.00	0.00

2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway B) Rainfall=1.85"*

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Stage-Discharge for Pond DB #2: Drainage Basin #2

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
485.00	0.00	0.00	0.00	487.60	6.12	3.35	2.77
485.05	1.56	1.56	0.00	487.65	6.23	3.39	2.83
485.10	1.59	1.59	0.00	487.70	6.33	3.43	2.90
485.15	1.63	1.63	0.00	487.75	6.43	3.47	2.96
485.20	1.66	1.66	0.00	487.80	6.52	3.50	3.02
485.25	1.69	1.69	0.00	487.85	6.62	3.54	3.08
485.30	1.73	1.73	0.01	487.90	6.72	3.58	3.14
485.35	1.79	1.76	0.03	487.95	6.81	3.62	3.19
485.40	1.86	1.79	0.06	488.00	6.90	3.65	3.25
485.45	1.94	1.83	0.11				
485.50	2.03	1.86	0.17				
485.55	2.14	1.89	0.24				
485.60	2.25	1.93	0.32				
485.65	2.37	1.96	0.40				
485.70	2.48	2.00	0.49				
485.75	2.60	2.03	0.57				
485.80	2.71	2.06	0.65				
485.85	2.80	2.10	0.70				
485.90	2.89	2.13	0.76				
485.95	2.98	2.17	0.81				
486.00	3.06	2.20	0.86				
486.05	3.15	2.24	0.91				
486.10	3.23	2.27	0.95				
486.15	3.30	2.31	1.00				
486.20	3.38	2.34	1.04				
486.25	3.45	2.38	1.08				
486.30	3.53	2.41	1.11				
486.35	3.60	2.45	1.15				
486.40	3.67	2.48	1.19				
486.45	3.74	2.52	1.22				
486.50	3.81	2.55	1.25				
486.55	3.87	2.59	1.29				
486.60	3.94	2.62	1.32				
486.65	4.01	2.66	1.35				
486.70	4.07	2.70	1.38				
486.75	4.14	2.73	1.41				
486.80	4.21	2.77	1.44				
486.85	4.28	2.80	1.48				
486.90	4.37	2.84	1.53				
486.95	4.48	2.88	1.60				
487.00	4.60	2.91	1.68				
487.05	4.72	2.95	1.78				
487.10	4.86	2.99	1.87				
487.15	5.00	3.02	1.98				
487.20	5.15	3.06	2.09				
487.25	5.29	3.10	2.20				
487.30	5.44	3.13	2.30				
487.35	5.57	3.17	2.40				
487.40	5.68	3.21	2.48				
487.45	5.80	3.24	2.55				
487.50	5.91	3.28	2.63				
487.55	6.02	3.32	2.70				

2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway B) Rainfall=1.85"*

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Stage-Area-Storage for Pond DB #2: Drainage Basin #2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
485.00	5,500	0	487.60	10,700	21,060
485.05	5,600	278	487.65	10,800	21,597
485.10	5,700	560	487.70	10,900	22,140
485.15	5,800	847	487.75	11,000	22,688
485.20	5,900	1,140	487.80	11,100	23,240
485.25	6,000	1,438	487.85	11,200	23,798
485.30	6,100	1,740	487.90	11,300	24,360
485.35	6,200	2,048	487.95	11,400	24,927
485.40	6,300	2,360	488.00	11,500	25,500
485.45	6,400	2,677			
485.50	6,500	3,000			
485.55	6,600	3,328			
485.60	6,700	3,660			
485.65	6,800	3,997			
485.70	6,900	4,340			
485.75	7,000	4,688			
485.80	7,100	5,040			
485.85	7,200	5,398			
485.90	7,300	5,760			
485.95	7,400	6,127			
486.00	7,500	6,500			
486.05	7,600	6,878			
486.10	7,700	7,260			
486.15	7,800	7,647			
486.20	7,900	8,040			
486.25	8,000	8,438			
486.30	8,100	8,840			
486.35	8,200	9,248			
486.40	8,300	9,660			
486.45	8,400	10,077			
486.50	8,500	10,500			
486.55	8,600	10,928			
486.60	8,700	11,360			
486.65	8,800	11,797			
486.70	8,900	12,240			
486.75	9,000	12,688			
486.80	9,100	13,140			
486.85	9,200	13,598			
486.90	9,300	14,060			
486.95	9,400	14,527			
487.00	9,500	15,000			
487.05	9,600	15,478			
487.10	9,700	15,960			
487.15	9,800	16,447			
487.20	9,900	16,940			
487.25	10,000	17,438			
487.30	10,100	17,940			
487.35	10,200	18,448			
487.40	10,300	18,960			
487.45	10,400	19,477			
487.50	10,500	20,000			
487.55	10,600	20,528			

2025.07.03 - Proposed Conditions

Type III 24-hr WQv (Roadway B) Rainfall=1.85"

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Summary for Pond SMS #1A: SMS #1A

Inflow Area = 3.795 ac, 92.16% Impervious, Inflow Depth = 1.34" for WQv (Roadway B) event
 Inflow = 5.05 cfs @ 12.14 hrs, Volume= 0.424 af
 Outflow = 2.12 cfs @ 12.42 hrs, Volume= 0.424 af, Atten= 58%, Lag= 16.8 min
 Discarded = 2.12 cfs @ 12.42 hrs, Volume= 0.424 af
 Primary = 0.00 cfs @ 12.42 hrs, Volume= 0.000 af
 Routed to Link POI #1 : POI #1

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
 Peak Elev= 492.54' @ 12.42 hrs Surf.Area= 0.172 ac Storage= 0.058 af

Plug-Flow detention time= 6.2 min calculated for 0.424 af (100% of inflow)
 Center-of-Mass det. time= 6.2 min (809.3 - 803.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	491.75'	0.270 af	36.83'W x 203.69'L x 6.75'H Field A 1.163 af Overall - 0.486 af Embedded = 0.676 af x 40.0% Voids
#2A	492.50'	0.486 af	ADS_StormTech MC-4500 b +Cap x 196 Inside #1 Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap 196 Chambers in 4 Rows Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf
		0.757 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	491.75'	12.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 440.00'
#2	Primary	492.53'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	492.95'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	493.59'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Primary	494.58'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#6	Primary	495.75'	8.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=2.12 cfs @ 12.42 hrs HW=492.54' (Free Discharge)↑ **1=Exfiltration** (Controls 2.12 cfs)**Primary OutFlow** Max=0.00 cfs @ 12.42 hrs HW=492.54' (Free Discharge)↑ **2=Orifice/Grate** (Orifice Controls 0.00 cfs @ 0.31 fps)↑ **3=Orifice/Grate** (Controls 0.00 cfs)↑ **4=Orifice/Grate** (Controls 0.00 cfs)↑ **5=Orifice/Grate** (Controls 0.00 cfs)↑ **6=Orifice/Grate** (Controls 0.00 cfs)

2025.07.03 - Proposed Conditions

Type III 24-hr WQv (Roadway B) Rainfall=1.85"

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Pond SMS #1A: SMS #1A - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-4500 b +Cap (ADS StormTech® MC-4500 with cap volume)

Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf

Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap

Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf

100.0" Wide + 6.0" Spacing = 106.0" C-C Row Spacing

49 Chambers/Row x 4.02' Long +2.73' Cap Length x 2 = 202.69' Row Length +6.0" End Stone x 2 =
203.69' Base Length

4 Rows x 100.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 36.83' Base Width

9.0" Stone Base + 60.0" Chamber Height + 12.0" Stone Cover = 6.75' Field Height

196 Chambers x 106.5 cf + 39.5 cf Cap Volume x 2 x 4 Rows = 21,188.1 cf Chamber Storage

50,642.8 cf Field - 21,188.1 cf Chambers = 29,454.7 cf Stone x 40.0% Voids = 11,781.9 cf Stone Storage

Chamber Storage + Stone Storage = 32,970.0 cf = 0.757 af

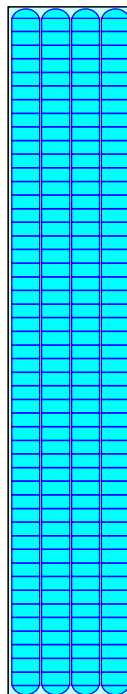
Overall Storage Efficiency = 65.1%

Overall System Size = 203.69' x 36.83' x 6.75'

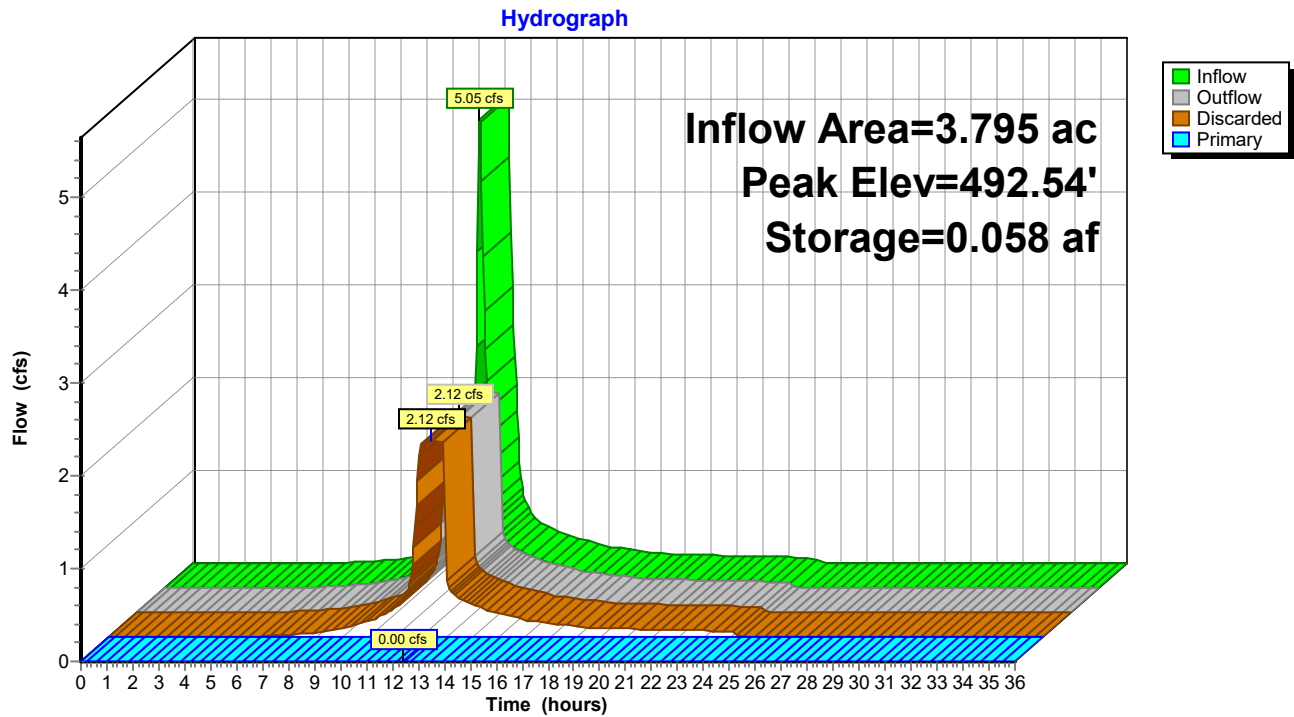
196 Chambers

1,875.7 cy Field

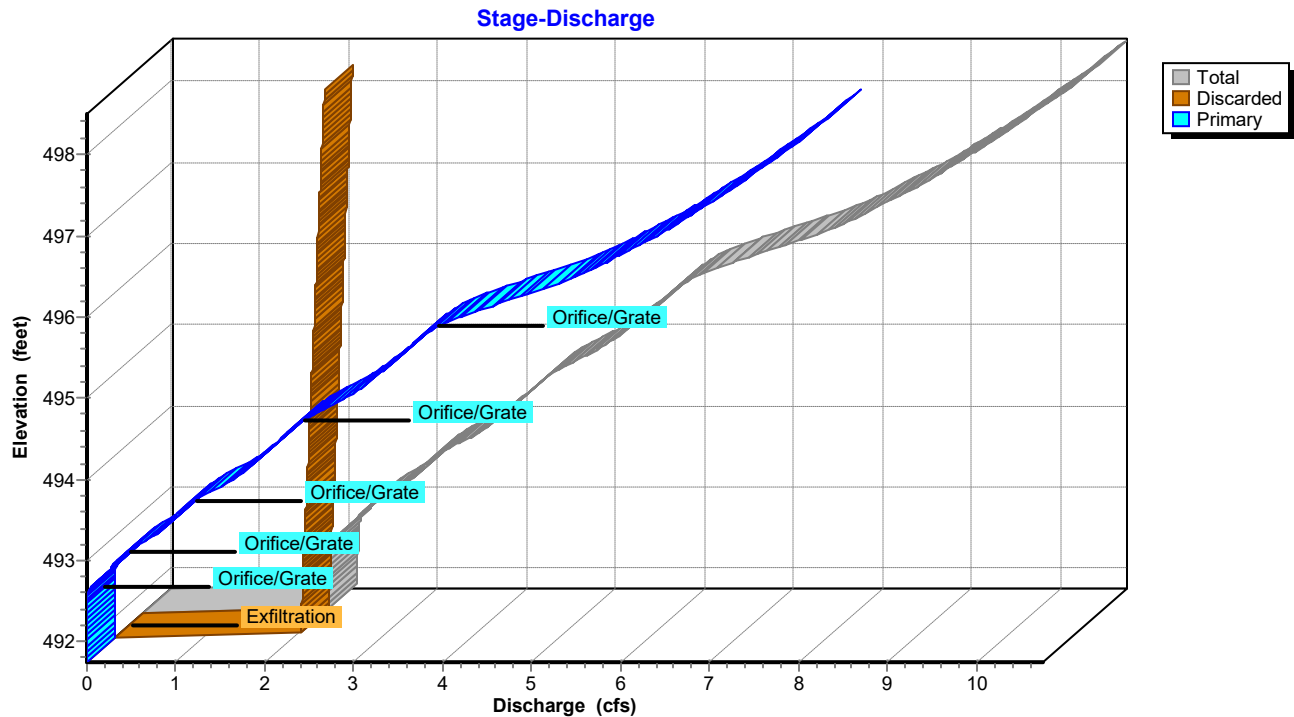
1,090.9 cy Stone



Pond SMS #1A: SMS #1A

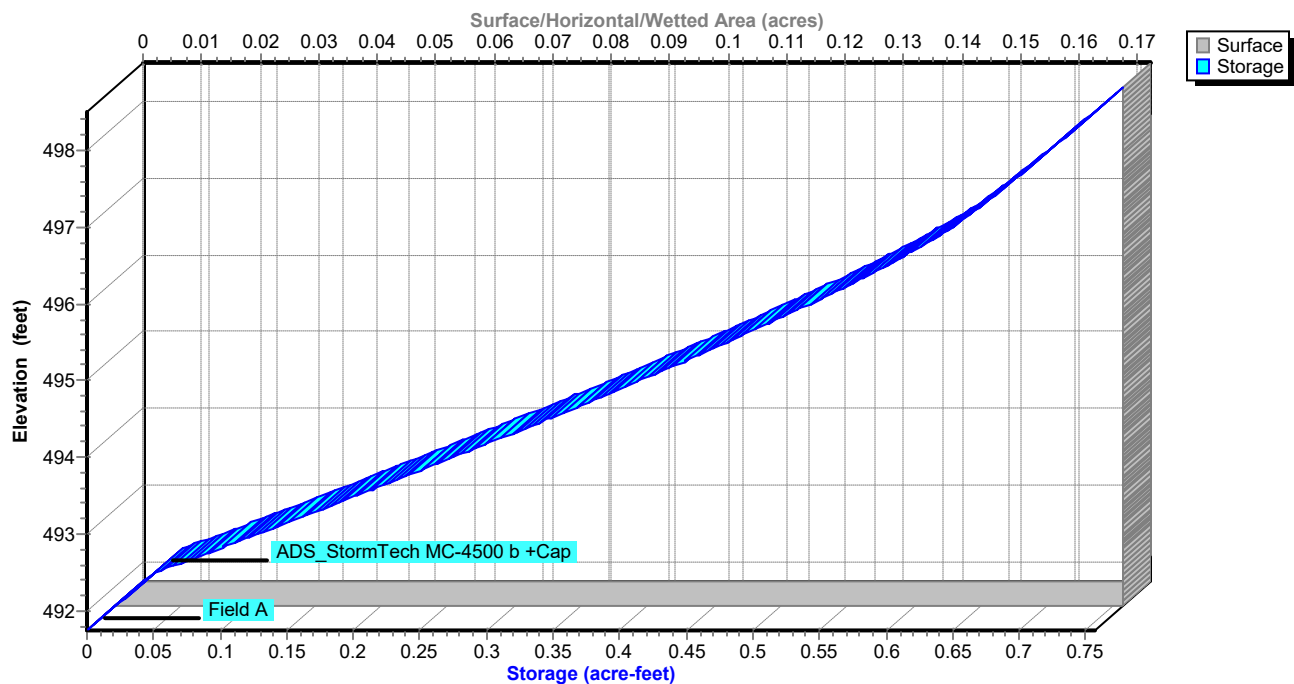


Pond SMS #1A: SMS #1A



Pond SMS #1A: SMS #1A

Stage-Area-Storage



2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway B) Rainfall=1.85"*

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Hydrograph for Pond SMS #1A: SMS #1A

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0.000	491.75	0.00	0.00	0.00
1.00	0.00	0.000	491.75	0.00	0.00	0.00
2.00	0.00	0.000	491.75	0.00	0.00	0.00
3.00	0.00	0.000	491.75	0.00	0.00	0.00
4.00	0.00	0.000	491.75	0.00	0.00	0.00
5.00	0.00	0.000	491.75	0.00	0.00	0.00
6.00	0.01	0.000	491.75	0.01	0.01	0.00
7.00	0.03	0.000	491.75	0.03	0.03	0.00
8.00	0.05	0.000	491.75	0.05	0.05	0.00
9.00	0.10	0.000	491.75	0.10	0.10	0.00
10.00	0.17	0.000	491.76	0.17	0.17	0.00
11.00	0.31	0.001	491.76	0.30	0.30	0.00
12.00	2.61	0.006	491.83	2.09	2.09	0.00
13.00	0.56	0.005	491.82	2.08	2.08	0.00
14.00	0.34	0.001	491.76	0.35	0.35	0.00
15.00	0.26	0.001	491.76	0.26	0.26	0.00
16.00	0.18	0.000	491.76	0.19	0.19	0.00
17.00	0.14	0.000	491.75	0.15	0.15	0.00
18.00	0.11	0.000	491.75	0.11	0.11	0.00
19.00	0.10	0.000	491.75	0.10	0.10	0.00
20.00	0.09	0.000	491.75	0.09	0.09	0.00
21.00	0.08	0.000	491.75	0.08	0.08	0.00
22.00	0.07	0.000	491.75	0.07	0.07	0.00
23.00	0.07	0.000	491.75	0.07	0.07	0.00
24.00	0.06	0.000	491.75	0.06	0.06	0.00
25.00	0.00	0.000	491.75	0.00	0.00	0.00
26.00	0.00	0.000	491.75	0.00	0.00	0.00
27.00	0.00	0.000	491.75	0.00	0.00	0.00
28.00	0.00	0.000	491.75	0.00	0.00	0.00
29.00	0.00	0.000	491.75	0.00	0.00	0.00
30.00	0.00	0.000	491.75	0.00	0.00	0.00
31.00	0.00	0.000	491.75	0.00	0.00	0.00
32.00	0.00	0.000	491.75	0.00	0.00	0.00
33.00	0.00	0.000	491.75	0.00	0.00	0.00
34.00	0.00	0.000	491.75	0.00	0.00	0.00
35.00	0.00	0.000	491.75	0.00	0.00	0.00
36.00	0.00	0.000	491.75	0.00	0.00	0.00

2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway B) Rainfall=1.85"*

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Stage-Discharge for Pond SMS #1A: SMS #1A

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
491.75	0.00	0.00	0.00	496.95	8.61	2.29	6.32
491.85	2.09	2.09	0.00	497.05	8.78	2.30	6.48
491.95	2.09	2.09	0.00	497.15	8.94	2.30	6.64
492.05	2.10	2.10	0.00	497.25	9.09	2.31	6.79
492.15	2.10	2.10	0.00	497.35	9.24	2.31	6.93
492.25	2.10	2.10	0.00	497.45	9.39	2.31	7.08
492.35	2.11	2.11	0.00	497.55	9.53	2.32	7.21
492.45	2.11	2.11	0.00	497.65	9.67	2.32	7.35
492.55	2.12	2.12	0.00	497.75	9.81	2.33	7.48
492.65	2.16	2.12	0.04	497.85	9.94	2.33	7.61
492.75	2.24	2.12	0.12	497.95	10.07	2.33	7.74
492.85	2.34	2.13	0.22	498.05	10.20	2.34	7.86
492.95	2.43	2.13	0.30	498.15	10.33	2.34	7.98
493.05	2.53	2.14	0.39	498.25	10.45	2.35	8.10
493.15	2.66	2.14	0.52	498.35	10.57	2.35	8.22
493.25	2.81	2.14	0.67	498.45	10.69	2.35	8.34
493.35	2.95	2.15	0.80				
493.45	3.06	2.15	0.91				
493.55	3.16	2.16	1.00				
493.65	3.26	2.16	1.10				
493.75	3.40	2.16	1.23				
493.85	3.56	2.17	1.39				
493.95	3.74	2.17	1.56				
494.05	3.88	2.18	1.70				
494.15	4.00	2.18	1.82				
494.25	4.12	2.18	1.93				
494.35	4.23	2.19	2.04				
494.45	4.33	2.19	2.14				
494.55	4.42	2.20	2.23				
494.65	4.53	2.20	2.33				
494.75	4.68	2.20	2.47				
494.85	4.86	2.21	2.65				
494.95	5.04	2.21	2.82				
495.05	5.19	2.22	2.97				
495.15	5.33	2.22	3.10				
495.25	5.45	2.23	3.23				
495.35	5.57	2.23	3.34				
495.45	5.69	2.23	3.45				
495.55	5.80	2.24	3.56				
495.65	5.90	2.24	3.66				
495.75	6.00	2.25	3.76				
495.85	6.14	2.25	3.89				
495.95	6.33	2.25	4.08				
496.05	6.58	2.26	4.32				
496.15	6.85	2.26	4.59				
496.25	7.15	2.27	4.88				
496.35	7.43	2.27	5.16				
496.45	7.66	2.27	5.39				
496.55	7.88	2.28	5.60				
496.65	8.08	2.28	5.80				
496.75	8.26	2.29	5.98				
496.85	8.44	2.29	6.15				

2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway B) Rainfall=1.85"*

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Stage-Area-Storage for Pond SMS #1A: SMS #1A

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
491.75	0.172	0.000	496.95	0.172	0.646
491.85	0.172	0.007	497.05	0.172	0.654
491.95	0.172	0.014	497.15	0.172	0.662
492.05	0.172	0.021	497.25	0.172	0.670
492.15	0.172	0.028	497.35	0.172	0.677
492.25	0.172	0.034	497.45	0.172	0.685
492.35	0.172	0.041	497.55	0.172	0.691
492.45	0.172	0.048	497.65	0.172	0.698
492.55	0.172	0.059	497.75	0.172	0.705
492.65	0.172	0.074	497.85	0.172	0.712
492.75	0.172	0.090	497.95	0.172	0.719
492.85	0.172	0.105	498.05	0.172	0.726
492.95	0.172	0.120	498.15	0.172	0.733
493.05	0.172	0.135	498.25	0.172	0.740
493.15	0.172	0.150	498.35	0.172	0.747
493.25	0.172	0.165	498.45	0.172	0.753
493.35	0.172	0.180			
493.45	0.172	0.194			
493.55	0.172	0.209			
493.65	0.172	0.224			
493.75	0.172	0.239			
493.85	0.172	0.253			
493.95	0.172	0.268			
494.05	0.172	0.282			
494.15	0.172	0.296			
494.25	0.172	0.311			
494.35	0.172	0.325			
494.45	0.172	0.339			
494.55	0.172	0.353			
494.65	0.172	0.367			
494.75	0.172	0.381			
494.85	0.172	0.395			
494.95	0.172	0.408			
495.05	0.172	0.422			
495.15	0.172	0.435			
495.25	0.172	0.448			
495.35	0.172	0.461			
495.45	0.172	0.474			
495.55	0.172	0.487			
495.65	0.172	0.500			
495.75	0.172	0.512			
495.85	0.172	0.525			
495.95	0.172	0.537			
496.05	0.172	0.549			
496.15	0.172	0.561			
496.25	0.172	0.572			
496.35	0.172	0.584			
496.45	0.172	0.595			
496.55	0.172	0.606			
496.65	0.172	0.616			
496.75	0.172	0.626			
496.85	0.172	0.636			

2025.07.03 - Proposed Conditions

Type III 24-hr WQv (Roadway B) Rainfall=1.85"

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Summary for Pond SMS #1C: SMS #1C

Inflow Area = 3.516 ac, 93.20% Impervious, Inflow Depth = 1.34" for WQv (Roadway B) event
 Inflow = 4.67 cfs @ 12.14 hrs, Volume= 0.393 af
 Outflow = 1.95 cfs @ 12.42 hrs, Volume= 0.393 af, Atten= 58%, Lag= 16.9 min
 Discarded = 1.95 cfs @ 12.42 hrs, Volume= 0.393 af
 Primary = 0.00 cfs @ 12.42 hrs, Volume= 0.000 af
 Routed to Link POI #1 : POI #1

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
 Peak Elev= 496.04' @ 12.42 hrs Surf.Area= 0.159 ac Storage= 0.054 af

Plug-Flow detention time= 6.3 min calculated for 0.392 af (100% of inflow)
 Center-of-Mass det. time= 6.3 min (809.4 - 803.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	495.25'	0.249 af	36.83'W x 187.59'L x 6.75'H Field A 1.071 af Overall - 0.447 af Embedded = 0.623 af x 40.0% Voids
#2A	496.00'	0.447 af	ADS_StormTech MC-4500 b +Cap x 180 Inside #1 Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap 180 Chambers in 4 Rows Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf
		0.697 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	495.25'	12.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 440.00'
#2	Primary	496.04'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	496.45'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	497.09'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Primary	498.04'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#6	Primary	501.00'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=1.95 cfs @ 12.42 hrs HW=496.04' (Free Discharge)↑ **1=Exfiltration** (Controls 1.95 cfs)**Primary OutFlow** Max=0.00 cfs @ 12.42 hrs HW=496.04' (Free Discharge)↑ **2=Orifice/Grate** (Orifice Controls 0.00 cfs @ 0.21 fps)↑ **3=Orifice/Grate** (Controls 0.00 cfs)↑ **4=Orifice/Grate** (Controls 0.00 cfs)↑ **5=Orifice/Grate** (Controls 0.00 cfs)↑ **6=Orifice/Grate** (Controls 0.00 cfs)

2025.07.03 - Proposed Conditions

Type III 24-hr WQv (Roadway B) Rainfall=1.85"

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Pond SMS #1C: SMS #1C - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-4500 b +Cap (ADS StormTech® MC-4500 with cap volume)

Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf

Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap

Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf

100.0" Wide + 6.0" Spacing = 106.0" C-C Row Spacing

45 Chambers/Row x 4.02' Long +2.73' Cap Length x 2 = 186.59' Row Length +6.0" End Stone x 2 = 187.59' Base Length

4 Rows x 100.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 36.83' Base Width

9.0" Stone Base + 60.0" Chamber Height + 12.0" Stone Cover = 6.75' Field Height

180 Chambers x 106.5 cf + 39.5 cf Cap Volume x 2 x 4 Rows = 19,484.3 cf Chamber Storage

46,640.0 cf Field - 19,484.3 cf Chambers = 27,155.7 cf Stone x 40.0% Voids = 10,862.3 cf Stone Storage

Chamber Storage + Stone Storage = 30,346.6 cf = 0.697 af

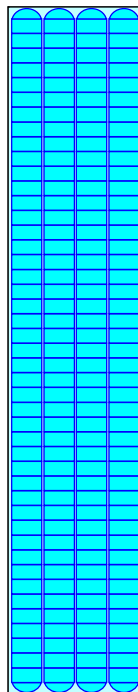
Overall Storage Efficiency = 65.1%

Overall System Size = 187.59' x 36.83' x 6.75'

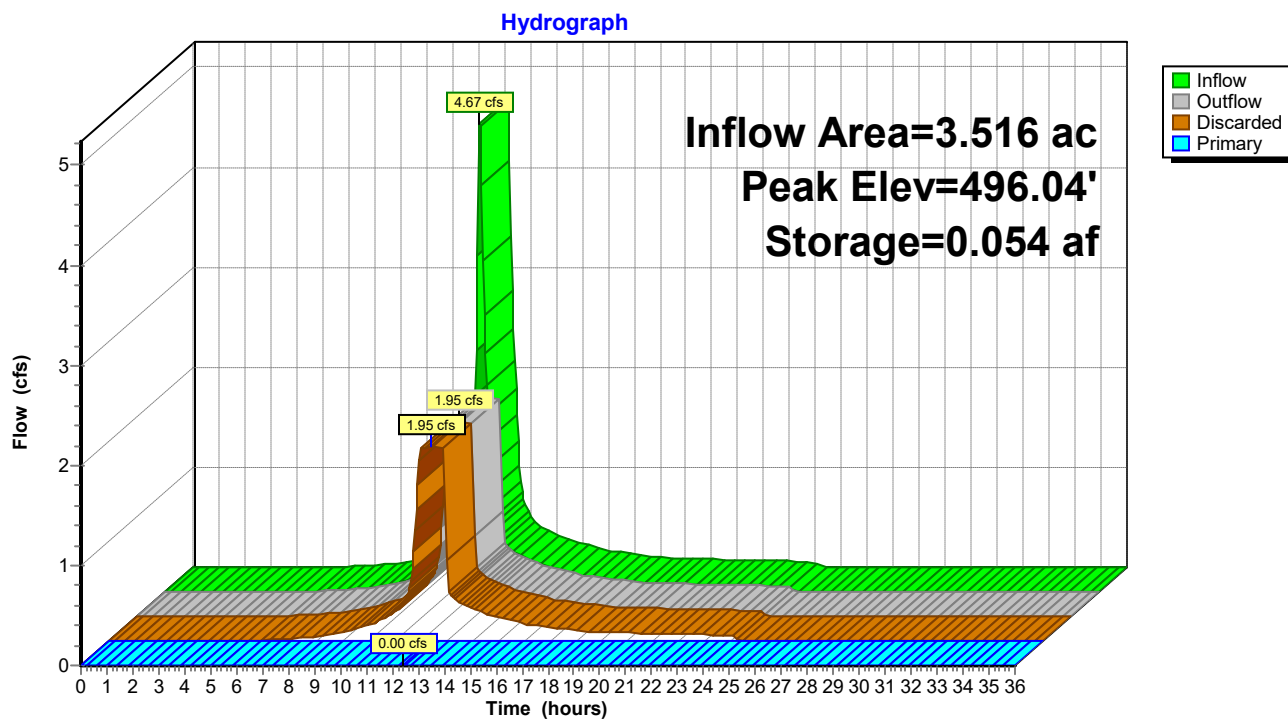
180 Chambers

1,727.4 cy Field

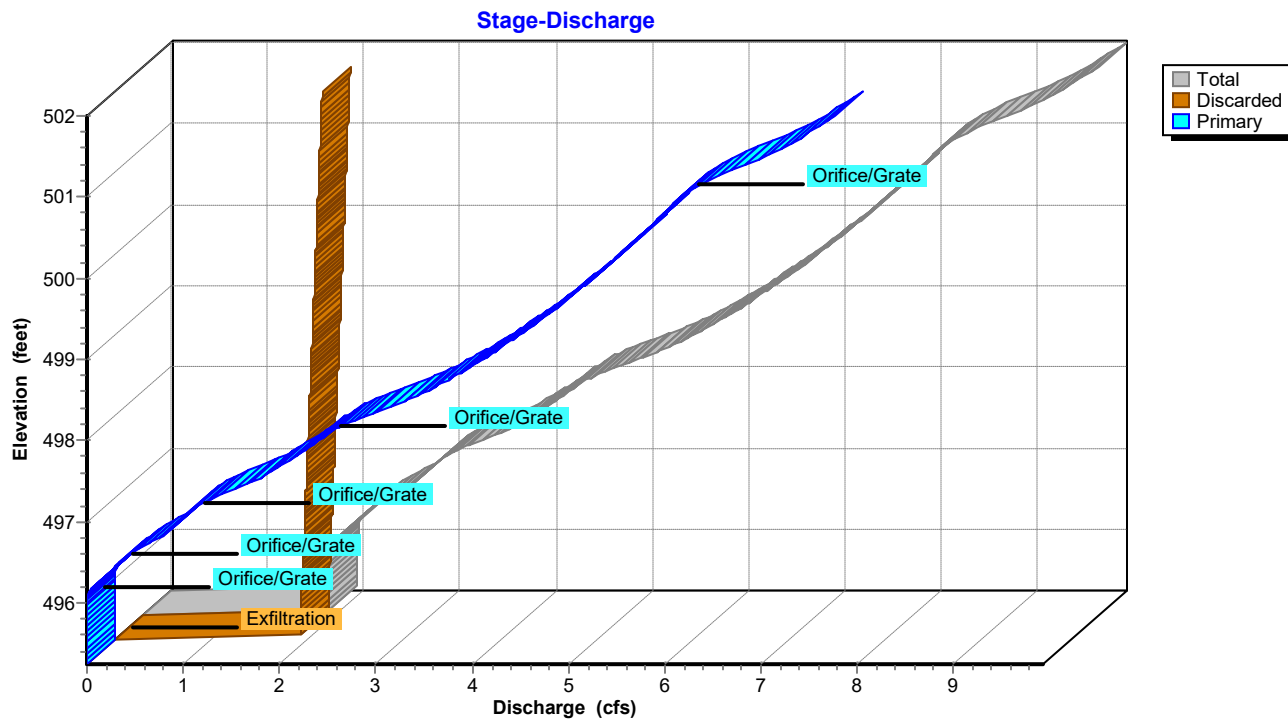
1,005.8 cy Stone



Pond SMS #1C: SMS #1C

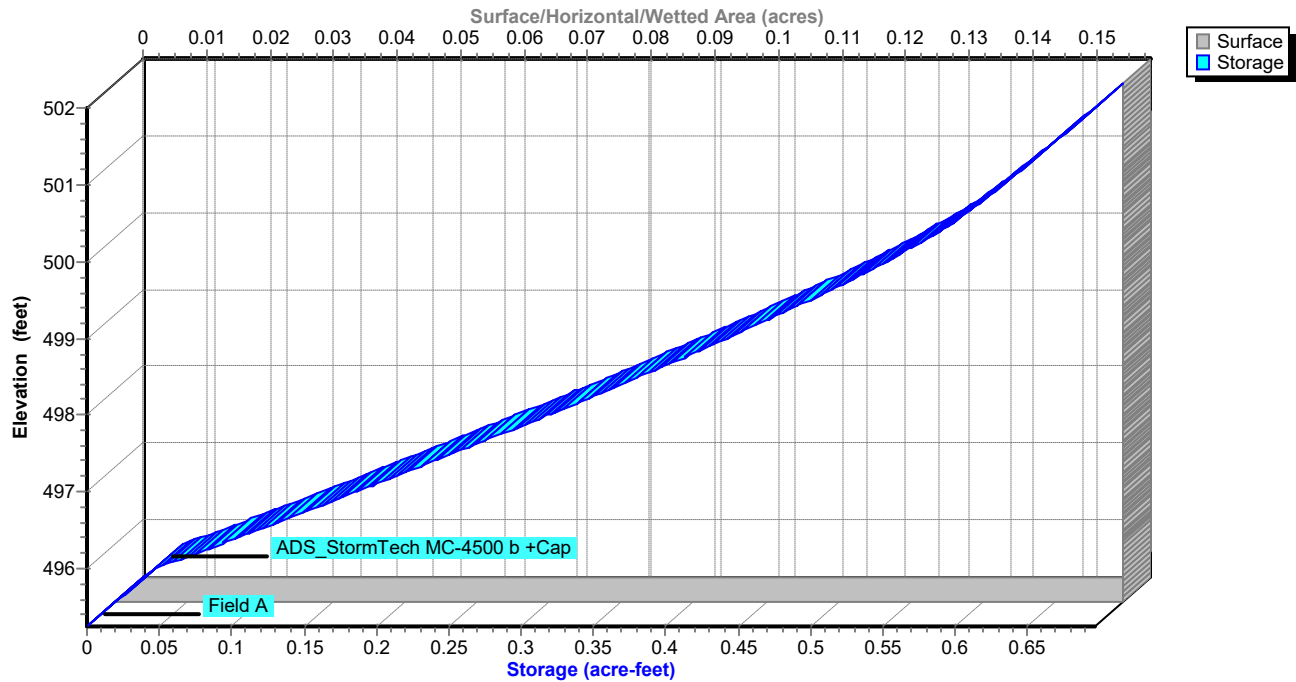


Pond SMS #1C: SMS #1C



Pond SMS #1C: SMS #1C

Stage-Area-Storage



2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway B) Rainfall=1.85"*

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Hydrograph for Pond SMS #1C: SMS #1C

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0.000	495.25	0.00	0.00	0.00
1.00	0.00	0.000	495.25	0.00	0.00	0.00
2.00	0.00	0.000	495.25	0.00	0.00	0.00
3.00	0.00	0.000	495.25	0.00	0.00	0.00
4.00	0.00	0.000	495.25	0.00	0.00	0.00
5.00	0.00	0.000	495.25	0.00	0.00	0.00
6.00	0.01	0.000	495.25	0.01	0.01	0.00
7.00	0.02	0.000	495.25	0.02	0.02	0.00
8.00	0.05	0.000	495.25	0.05	0.05	0.00
9.00	0.09	0.000	495.25	0.09	0.09	0.00
10.00	0.16	0.000	495.26	0.16	0.16	0.00
11.00	0.29	0.001	495.26	0.28	0.28	0.00
12.00	2.42	0.005	495.33	1.92	1.92	0.00
13.00	0.52	0.005	495.33	1.92	1.92	0.00
14.00	0.32	0.001	495.26	0.32	0.32	0.00
15.00	0.24	0.001	495.26	0.24	0.24	0.00
16.00	0.17	0.000	495.26	0.17	0.17	0.00
17.00	0.13	0.000	495.25	0.13	0.13	0.00
18.00	0.10	0.000	495.25	0.10	0.10	0.00
19.00	0.09	0.000	495.25	0.09	0.09	0.00
20.00	0.08	0.000	495.25	0.08	0.08	0.00
21.00	0.07	0.000	495.25	0.07	0.07	0.00
22.00	0.07	0.000	495.25	0.07	0.07	0.00
23.00	0.06	0.000	495.25	0.06	0.06	0.00
24.00	0.05	0.000	495.25	0.05	0.05	0.00
25.00	0.00	0.000	495.25	0.00	0.00	0.00
26.00	0.00	0.000	495.25	0.00	0.00	0.00
27.00	0.00	0.000	495.25	0.00	0.00	0.00
28.00	0.00	0.000	495.25	0.00	0.00	0.00
29.00	0.00	0.000	495.25	0.00	0.00	0.00
30.00	0.00	0.000	495.25	0.00	0.00	0.00
31.00	0.00	0.000	495.25	0.00	0.00	0.00
32.00	0.00	0.000	495.25	0.00	0.00	0.00
33.00	0.00	0.000	495.25	0.00	0.00	0.00
34.00	0.00	0.000	495.25	0.00	0.00	0.00
35.00	0.00	0.000	495.25	0.00	0.00	0.00
36.00	0.00	0.000	495.25	0.00	0.00	0.00

2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway B) Rainfall=1.85"*

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Stage-Discharge for Pond SMS #1C: SMS #1C

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
495.25	0.00	0.00	0.00	500.45	7.78	2.10	5.68
495.35	1.92	1.92	0.00	500.55	7.88	2.10	5.77
495.45	1.93	1.93	0.00	500.65	7.97	2.11	5.86
495.55	1.93	1.93	0.00	500.75	8.06	2.11	5.95
495.65	1.93	1.93	0.00	500.85	8.15	2.11	6.04
495.75	1.94	1.94	0.00	500.95	8.24	2.12	6.12
495.85	1.94	1.94	0.00	501.05	8.33	2.12	6.21
495.95	1.94	1.94	0.00	501.15	8.48	2.12	6.35
496.05	1.95	1.95	0.00	501.25	8.67	2.13	6.54
496.15	1.98	1.95	0.03	501.35	8.88	2.13	6.75
496.25	2.06	1.95	0.11	501.45	9.09	2.13	6.96
496.35	2.16	1.96	0.21	501.55	9.27	2.14	7.13
496.45	2.26	1.96	0.30	501.65	9.43	2.14	7.29
496.55	2.35	1.96	0.39	501.75	9.58	2.15	7.43
496.65	2.48	1.97	0.51	501.85	9.72	2.15	7.57
496.75	2.63	1.97	0.66	501.95	9.86	2.15	7.71
496.85	2.77	1.97	0.80				
496.95	2.88	1.98	0.90				
497.05	2.98	1.98	1.00				
497.15	3.08	1.99	1.09				
497.25	3.22	1.99	1.24				
497.35	3.41	1.99	1.41				
497.45	3.61	2.00	1.61				
497.55	3.80	2.00	1.81				
497.65	3.96	2.00	1.96				
497.75	4.10	2.01	2.10				
497.85	4.23	2.01	2.22				
497.95	4.35	2.01	2.34				
498.05	4.47	2.02	2.45				
498.15	4.61	2.02	2.59				
498.25	4.80	2.02	2.78				
498.35	5.03	2.03	3.00				
498.45	5.26	2.03	3.22				
498.55	5.46	2.03	3.42				
498.65	5.63	2.04	3.59				
498.75	5.79	2.04	3.75				
498.85	5.94	2.04	3.90				
498.95	6.09	2.05	4.04				
499.05	6.23	2.05	4.17				
499.15	6.36	2.05	4.30				
499.25	6.49	2.06	4.43				
499.35	6.61	2.06	4.55				
499.45	6.73	2.07	4.66				
499.55	6.84	2.07	4.78				
499.65	6.96	2.07	4.89				
499.75	7.07	2.08	4.99				
499.85	7.18	2.08	5.10				
499.95	7.28	2.08	5.20				
500.05	7.39	2.09	5.30				
500.15	7.49	2.09	5.40				
500.25	7.59	2.09	5.49				
500.35	7.68	2.10	5.59				

2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway B) Rainfall=1.85"*

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Stage-Area-Storage for Pond SMS #1C: SMS #1C

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
495.25	0.159	0.000	500.45	0.159	0.594
495.35	0.159	0.006	500.55	0.159	0.602
495.45	0.159	0.013	500.65	0.159	0.610
495.55	0.159	0.019	500.75	0.159	0.617
495.65	0.159	0.025	500.85	0.159	0.623
495.75	0.159	0.032	500.95	0.159	0.630
495.85	0.159	0.038	501.05	0.159	0.636
495.95	0.159	0.044	501.15	0.159	0.643
496.05	0.159	0.055	501.25	0.159	0.649
496.15	0.159	0.069	501.35	0.159	0.655
496.25	0.159	0.082	501.45	0.159	0.662
496.35	0.159	0.096	501.55	0.159	0.668
496.45	0.159	0.110	501.65	0.159	0.674
496.55	0.159	0.124	501.75	0.159	0.681
496.65	0.159	0.138	501.85	0.159	0.687
496.75	0.159	0.152	501.95	0.159	0.693
496.85	0.159	0.165			
496.95	0.159	0.179			
497.05	0.159	0.193			
497.15	0.159	0.206			
497.25	0.159	0.220			
497.35	0.159	0.233			
497.45	0.159	0.246			
497.55	0.159	0.260			
497.65	0.159	0.273			
497.75	0.159	0.286			
497.85	0.159	0.299			
497.95	0.159	0.312			
498.05	0.159	0.325			
498.15	0.159	0.338			
498.25	0.159	0.351			
498.35	0.159	0.363			
498.45	0.159	0.376			
498.55	0.159	0.388			
498.65	0.159	0.400			
498.75	0.159	0.413			
498.85	0.159	0.425			
498.95	0.159	0.437			
499.05	0.159	0.448			
499.15	0.159	0.460			
499.25	0.159	0.472			
499.35	0.159	0.483			
499.45	0.159	0.494			
499.55	0.159	0.505			
499.65	0.159	0.516			
499.75	0.159	0.527			
499.85	0.159	0.537			
499.95	0.159	0.547			
500.05	0.159	0.557			
500.15	0.159	0.567			
500.25	0.159	0.576			
500.35	0.159	0.586			

2025.07.03 - Proposed Conditions

Type III 24-hr WQv (Roadway B) Rainfall=1.85"

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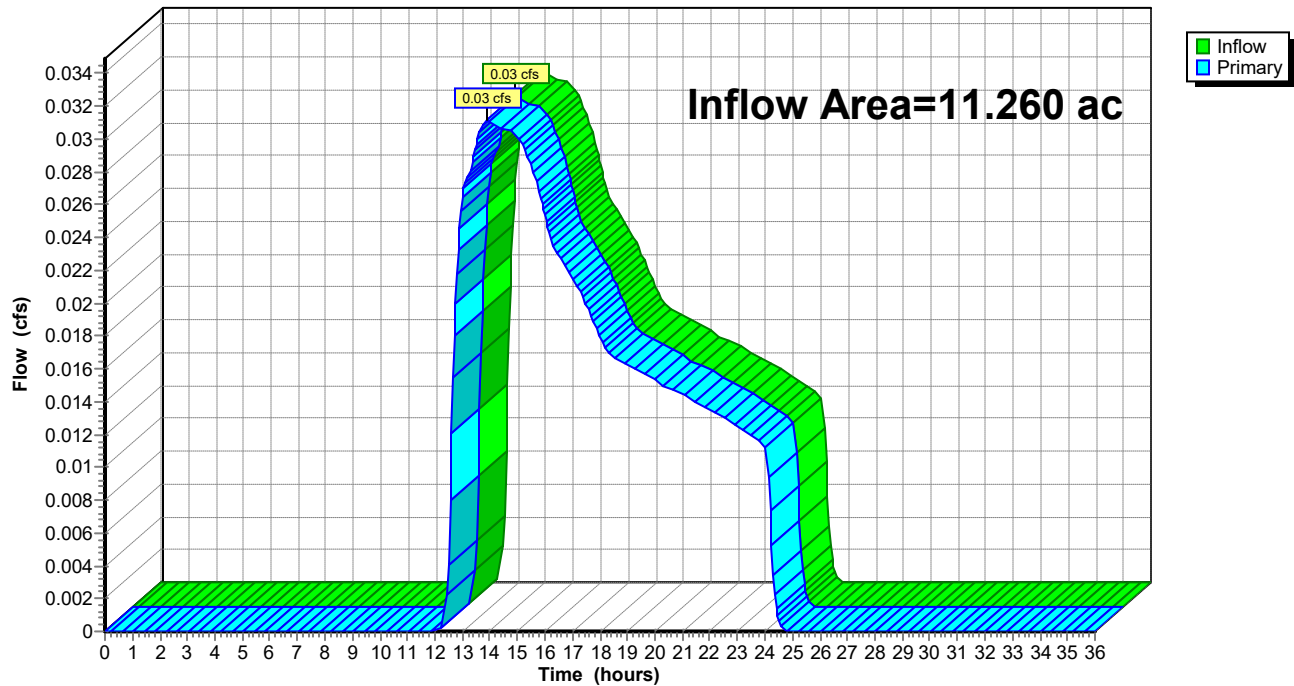
Summary for Link POI #1: POI #1

Inflow Area = 11.260 ac, 61.46% Impervious, Inflow Depth = 0.02" for WQv (Roadway B) event
Inflow = 0.03 cfs @ 13.91 hrs, Volume= 0.019 af
Primary = 0.03 cfs @ 13.91 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #1: POI #1

Hydrograph



2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway B) Rainfall=1.85"*

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Hydrograph for Link POI #1: POI #1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	35.50	0.00	0.00	0.00
10.00	0.00	0.00	0.00	36.00	0.00	0.00	0.00
10.50	0.00	0.00	0.00				
11.00	0.00	0.00	0.00				
11.50	0.00	0.00	0.00				
12.00	0.00	0.00	0.00				
12.50	0.00	0.00	0.00				
13.00	0.03	0.00	0.03				
13.50	0.03	0.00	0.03				
14.00	0.03	0.00	0.03				
14.50	0.03	0.00	0.03				
15.00	0.03	0.00	0.03				
15.50	0.03	0.00	0.03				
16.00	0.03	0.00	0.03				
16.50	0.02	0.00	0.02				
17.00	0.02	0.00	0.02				
17.50	0.02	0.00	0.02				
18.00	0.02	0.00	0.02				
18.50	0.02	0.00	0.02				
19.00	0.02	0.00	0.02				
19.50	0.02	0.00	0.02				
20.00	0.02	0.00	0.02				
20.50	0.01	0.00	0.01				
21.00	0.01	0.00	0.01				
21.50	0.01	0.00	0.01				
22.00	0.01	0.00	0.01				
22.50	0.01	0.00	0.01				
23.00	0.01	0.00	0.01				
23.50	0.01	0.00	0.01				
24.00	0.01	0.00	0.01				
24.50	0.00	0.00	0.00				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				

2025.07.03 - Proposed Conditions

Type III 24-hr WQv (Roadway B) Rainfall=1.85"

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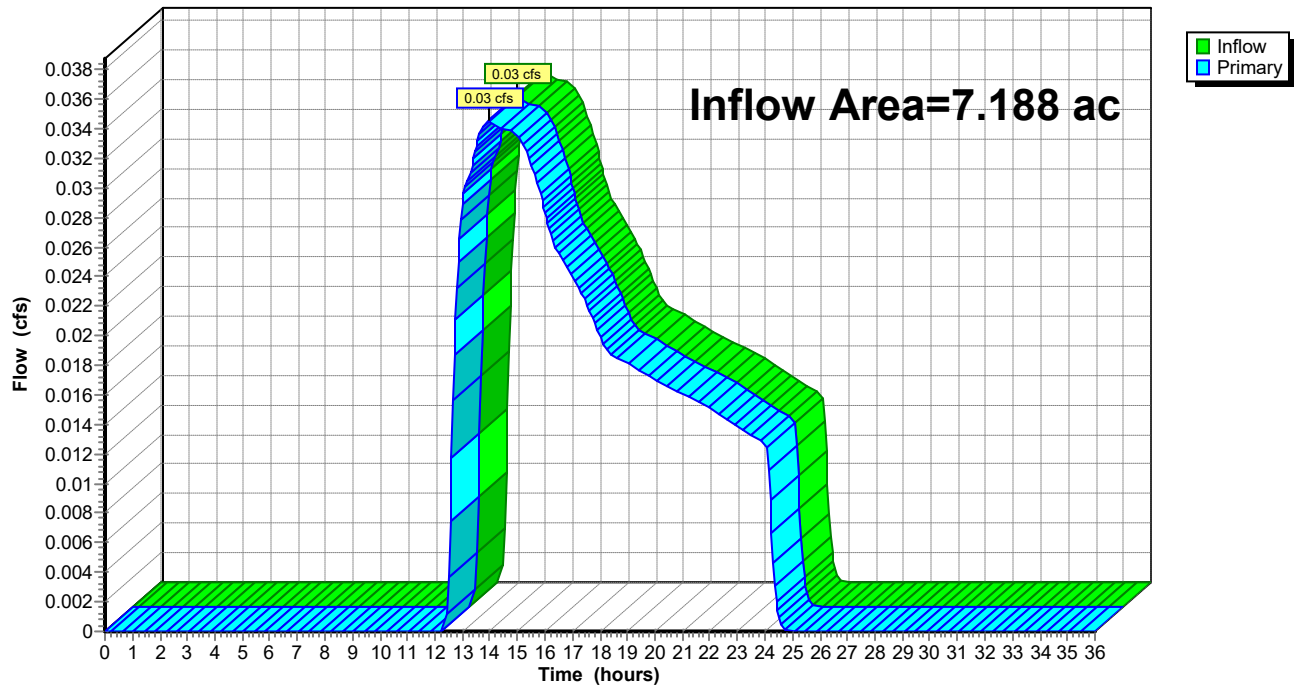
Summary for Link POI #2: POI #2

Inflow Area = 7.188 ac, 34.72% Impervious, Inflow Depth = 0.04" for WQv (Roadway B) event
Inflow = 0.03 cfs @ 13.93 hrs, Volume= 0.021 af
Primary = 0.03 cfs @ 13.93 hrs, Volume= 0.021 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #2: POI #2

Hydrograph



2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway B) Rainfall=1.85"*

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Hydrograph for Link POI #2: POI #2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	35.50	0.00	0.00	0.00
10.00	0.00	0.00	0.00	36.00	0.00	0.00	0.00
10.50	0.00	0.00	0.00				
11.00	0.00	0.00	0.00				
11.50	0.00	0.00	0.00				
12.00	0.00	0.00	0.00				
12.50	0.00	0.00	0.00				
13.00	0.03	0.00	0.03				
13.50	0.03	0.00	0.03				
14.00	0.03	0.00	0.03				
14.50	0.03	0.00	0.03				
15.00	0.03	0.00	0.03				
15.50	0.03	0.00	0.03				
16.00	0.03	0.00	0.03				
16.50	0.03	0.00	0.03				
17.00	0.02	0.00	0.02				
17.50	0.02	0.00	0.02				
18.00	0.02	0.00	0.02				
18.50	0.02	0.00	0.02				
19.00	0.02	0.00	0.02				
19.50	0.02	0.00	0.02				
20.00	0.02	0.00	0.02				
20.50	0.02	0.00	0.02				
21.00	0.02	0.00	0.02				
21.50	0.02	0.00	0.02				
22.00	0.02	0.00	0.02				
22.50	0.01	0.00	0.01				
23.00	0.01	0.00	0.01				
23.50	0.01	0.00	0.01				
24.00	0.01	0.00	0.01				
24.50	0.00	0.00	0.00				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				

2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway C) Rainfall=1.83"*

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Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 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 DA #1A: Drainage Area #1A Runoff Area=165,307 sf 92.16% Impervious Runoff Depth=1.32"
Tc=10.0 min CN=95 Runoff=4.98 cfs 0.418 af

Subcatchment DA #1B: Drainage Area #1B Runoff Area=172,042 sf 3.71% Impervious Runoff Depth=0.05"
Flow Length=638' Tc=17.0 min CN=62 Runoff=0.03 cfs 0.018 af

Subcatchment DA #1C: Drainage Area Runoff Area=153,140 sf 93.20% Impervious Runoff Depth=1.32"
Tc=10.0 min CN=95 Runoff=4.61 cfs 0.387 af

Subcatchment DA #2A: Drainage Area #2A Runoff Area=121,928 sf 86.47% Impervious Runoff Depth=1.16"
Tc=10.0 min CN=93 Runoff=3.27 cfs 0.271 af

Subcatchment DA #2B: Drainage Area #2B Runoff Area=191,184 sf 1.71% Impervious Runoff Depth=0.05"
Flow Length=784' Tc=18.4 min CN=62 Runoff=0.03 cfs 0.020 af

Pond DB #2: Drainage Basin #2 Peak Elev=485.22' Storage=1,273 cf Inflow=3.27 cfs 0.271 af
Discarded=1.67 cfs 0.271 af Primary=0.00 cfs 0.000 af Outflow=1.67 cfs 0.271 af

Pond SMS #1A: SMS #1A Peak Elev=492.53' Storage=0.056 af Inflow=4.98 cfs 0.418 af
Discarded=2.12 cfs 0.418 af Primary=0.00 cfs 0.000 af Outflow=2.12 cfs 0.418 af

Pond SMS #1C: SMS #1C Peak Elev=496.03' Storage=0.052 af Inflow=4.61 cfs 0.387 af
Discarded=1.95 cfs 0.387 af Primary=0.00 cfs 0.000 af Outflow=1.95 cfs 0.387 af

Link POI #1: POI #1 Inflow=0.03 cfs 0.018 af
Primary=0.03 cfs 0.018 af

Link POI #2: POI #2 Inflow=0.03 cfs 0.020 af
Primary=0.03 cfs 0.020 af

Total Runoff Area = 18.448 ac Runoff Volume = 1.113 af Average Runoff Depth = 0.72"
48.96% Pervious = 9.032 ac 51.04% Impervious = 9.416 ac

2025.07.03 - Proposed Conditions

Type III 24-hr WQv (Roadway C) Rainfall=1.83"

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Summary for Subcatchment DA #1A: Drainage Area #1A

Runoff = 4.98 cfs @ 12.14 hrs, Volume= 0.418 af, Depth= 1.32"
Routed to Pond SMS #1A : SMS #1A

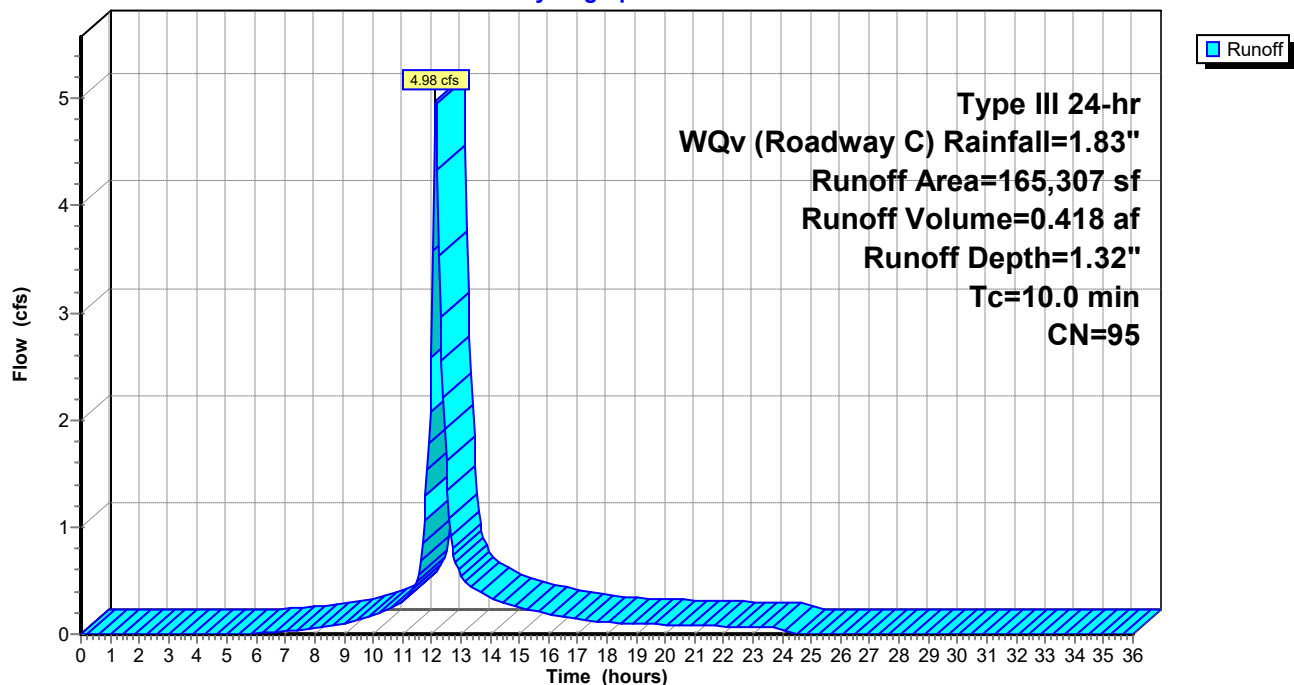
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr WQv (Roadway C) Rainfall=1.83"

	Area (sf)	CN	Description
	11,207	61	>75% Grass cover, Good, HSG B
*	1,751	61	Emergency Access Road (Perv.), Good, HSG B
*	86,044	98	Building/Roof, HSG B
*	60,510	98	Pavement, HSG B
*	2,937	98	Sidewalk, HSG B
*	2,858	98	Emergency Access Road (Imp.), HSG B
	165,307	95	Weighted Average
	12,958		7.84% Pervious Area
	152,349		92.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, 10 Minute Minimum

Subcatchment DA #1A: Drainage Area #1A

Hydrograph



2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway C) Rainfall=1.83"*

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Hydrograph for Subcatchment DA #1A: Drainage Area #1A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	1.83	1.32	0.00
0.50	0.01	0.00	0.00	26.50	1.83	1.32	0.00
1.00	0.02	0.00	0.00	27.00	1.83	1.32	0.00
1.50	0.03	0.00	0.00	27.50	1.83	1.32	0.00
2.00	0.04	0.00	0.00	28.00	1.83	1.32	0.00
2.50	0.05	0.00	0.00	28.50	1.83	1.32	0.00
3.00	0.06	0.00	0.00	29.00	1.83	1.32	0.00
3.50	0.07	0.00	0.00	29.50	1.83	1.32	0.00
4.00	0.08	0.00	0.00	30.00	1.83	1.32	0.00
4.50	0.09	0.00	0.00	30.50	1.83	1.32	0.00
5.00	0.10	0.00	0.00	31.00	1.83	1.32	0.00
5.50	0.12	0.00	0.00	31.50	1.83	1.32	0.00
6.00	0.13	0.00	0.01	32.00	1.83	1.32	0.00
6.50	0.15	0.00	0.02	32.50	1.83	1.32	0.00
7.00	0.17	0.01	0.03	33.00	1.83	1.32	0.00
7.50	0.19	0.01	0.04	33.50	1.83	1.32	0.00
8.00	0.21	0.02	0.05	34.00	1.83	1.32	0.00
8.50	0.24	0.03	0.07	34.50	1.83	1.32	0.00
9.00	0.27	0.04	0.10	35.00	1.83	1.32	0.00
9.50	0.30	0.05	0.13	35.50	1.83	1.32	0.00
10.00	0.35	0.08	0.17	36.00	1.83	1.32	0.00
10.50	0.40	0.10	0.23				
11.00	0.46	0.14	0.30				
11.50	0.55	0.20	0.50				
12.00	0.91	0.49	2.58				
12.50	1.28	0.82	1.62				
13.00	1.37	0.90	0.56				
13.50	1.43	0.95	0.42				
14.00	1.48	1.00	0.34				
14.50	1.53	1.04	0.29				
15.00	1.56	1.07	0.26				
15.50	1.59	1.10	0.22				
16.00	1.62	1.13	0.18				
16.50	1.64	1.15	0.16				
17.00	1.66	1.17	0.14				
17.50	1.68	1.18	0.13				
18.00	1.70	1.20	0.11				
18.50	1.71	1.21	0.10				
19.00	1.73	1.22	0.10				
19.50	1.74	1.24	0.09				
20.00	1.75	1.25	0.09				
20.50	1.76	1.26	0.08				
21.00	1.77	1.27	0.08				
21.50	1.78	1.28	0.08				
22.00	1.79	1.29	0.07				
22.50	1.80	1.30	0.07				
23.00	1.81	1.31	0.06				
23.50	1.82	1.31	0.06				
24.00	1.83	1.32	0.06				
24.50	1.83	1.32	0.00				
25.00	1.83	1.32	0.00				
25.50	1.83	1.32	0.00				

2025.07.03 - Proposed Conditions

Type III 24-hr WQv (Roadway C) Rainfall=1.83"

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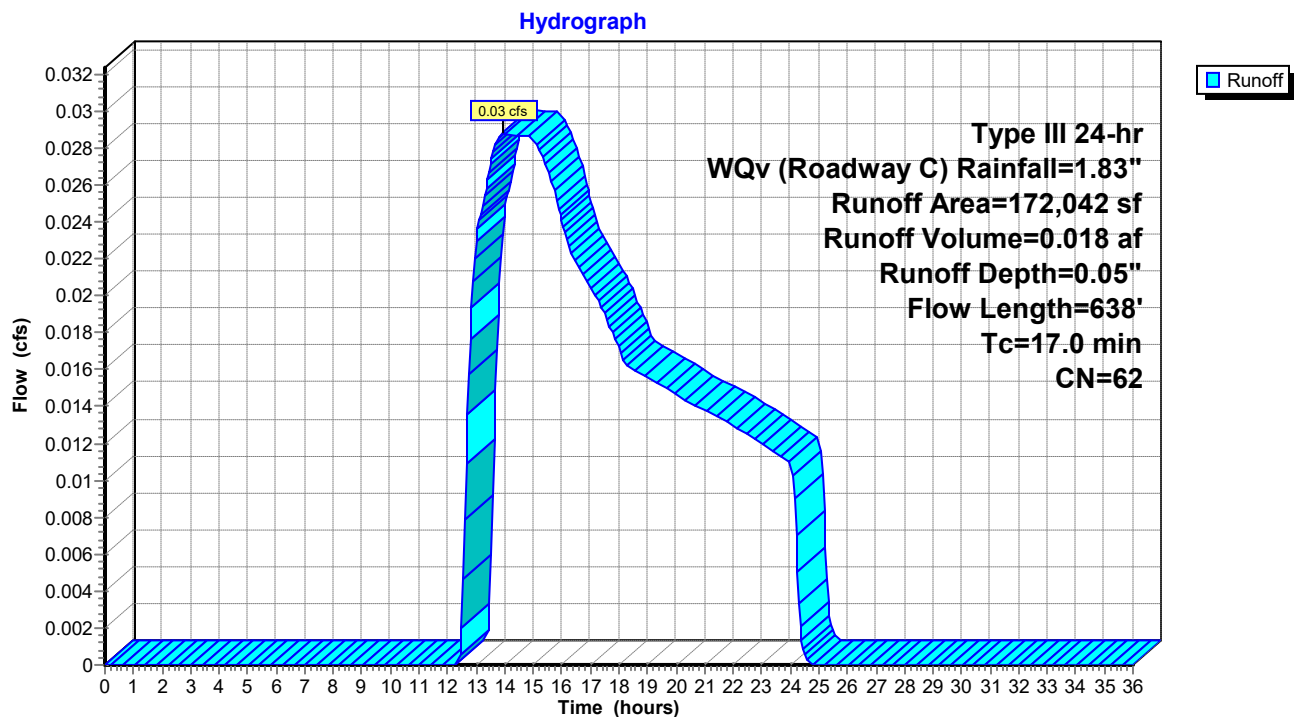
Summary for Subcatchment DA #1B: Drainage Area #1B

Runoff = 0.03 cfs @ 13.96 hrs, Volume= 0.018 af, Depth= 0.05"
Routed to Link POI #1 : POI #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr WQv (Roadway C) Rainfall=1.83"

	Area (sf)	CN	Description
	161,751	61	>75% Grass cover, Good, HSG B
*	3,911	61	Emergency Access Road (Perv.), Good, HSG B
*	6,380	98	Emergency Access Road (Imp.), HSG B
	172,042	62	Weighted Average
	165,662		96.29% Pervious Area
	6,380		3.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.2	150	0.1200	0.21		Sheet Flow, Grass: Dense n= 0.240 P2= 2.00"
4.8	488	0.0578	1.68		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
17.0	638	Total			

Subcatchment DA #1B: Drainage Area #1B

2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway C) Rainfall=1.83"*

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Hydrograph for Subcatchment DA #1B: Drainage Area #1B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	1.83	0.05	0.00
0.50	0.01	0.00	0.00	26.50	1.83	0.05	0.00
1.00	0.02	0.00	0.00	27.00	1.83	0.05	0.00
1.50	0.03	0.00	0.00	27.50	1.83	0.05	0.00
2.00	0.04	0.00	0.00	28.00	1.83	0.05	0.00
2.50	0.05	0.00	0.00	28.50	1.83	0.05	0.00
3.00	0.06	0.00	0.00	29.00	1.83	0.05	0.00
3.50	0.07	0.00	0.00	29.50	1.83	0.05	0.00
4.00	0.08	0.00	0.00	30.00	1.83	0.05	0.00
4.50	0.09	0.00	0.00	30.50	1.83	0.05	0.00
5.00	0.10	0.00	0.00	31.00	1.83	0.05	0.00
5.50	0.12	0.00	0.00	31.50	1.83	0.05	0.00
6.00	0.13	0.00	0.00	32.00	1.83	0.05	0.00
6.50	0.15	0.00	0.00	32.50	1.83	0.05	0.00
7.00	0.17	0.00	0.00	33.00	1.83	0.05	0.00
7.50	0.19	0.00	0.00	33.50	1.83	0.05	0.00
8.00	0.21	0.00	0.00	34.00	1.83	0.05	0.00
8.50	0.24	0.00	0.00	34.50	1.83	0.05	0.00
9.00	0.27	0.00	0.00	35.00	1.83	0.05	0.00
9.50	0.30	0.00	0.00	35.50	1.83	0.05	0.00
10.00	0.35	0.00	0.00	36.00	1.83	0.05	0.00
10.50	0.40	0.00	0.00				
11.00	0.46	0.00	0.00				
11.50	0.55	0.00	0.00				
12.00	0.91	0.00	0.00				
12.50	1.28	0.00	0.00				
13.00	1.37	0.00	0.02				
13.50	1.43	0.01	0.03				
14.00	1.48	0.01	0.03				
14.50	1.53	0.01	0.03				
15.00	1.56	0.02	0.03				
15.50	1.59	0.02	0.03				
16.00	1.62	0.02	0.02				
16.50	1.64	0.03	0.02				
17.00	1.66	0.03	0.02				
17.50	1.68	0.03	0.02				
18.00	1.70	0.03	0.02				
18.50	1.71	0.04	0.02				
19.00	1.73	0.04	0.02				
19.50	1.74	0.04	0.02				
20.00	1.75	0.04	0.01				
20.50	1.76	0.04	0.01				
21.00	1.77	0.05	0.01				
21.50	1.78	0.05	0.01				
22.00	1.79	0.05	0.01				
22.50	1.80	0.05	0.01				
23.00	1.81	0.05	0.01				
23.50	1.82	0.05	0.01				
24.00	1.83	0.05	0.01				
24.50	1.83	0.05	0.00				
25.00	1.83	0.05	0.00				
25.50	1.83	0.05	0.00				

2025.07.03 - Proposed Conditions

Type III 24-hr WQv (Roadway C) Rainfall=1.83"

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Summary for Subcatchment DA #1C: Drainage Area #1C

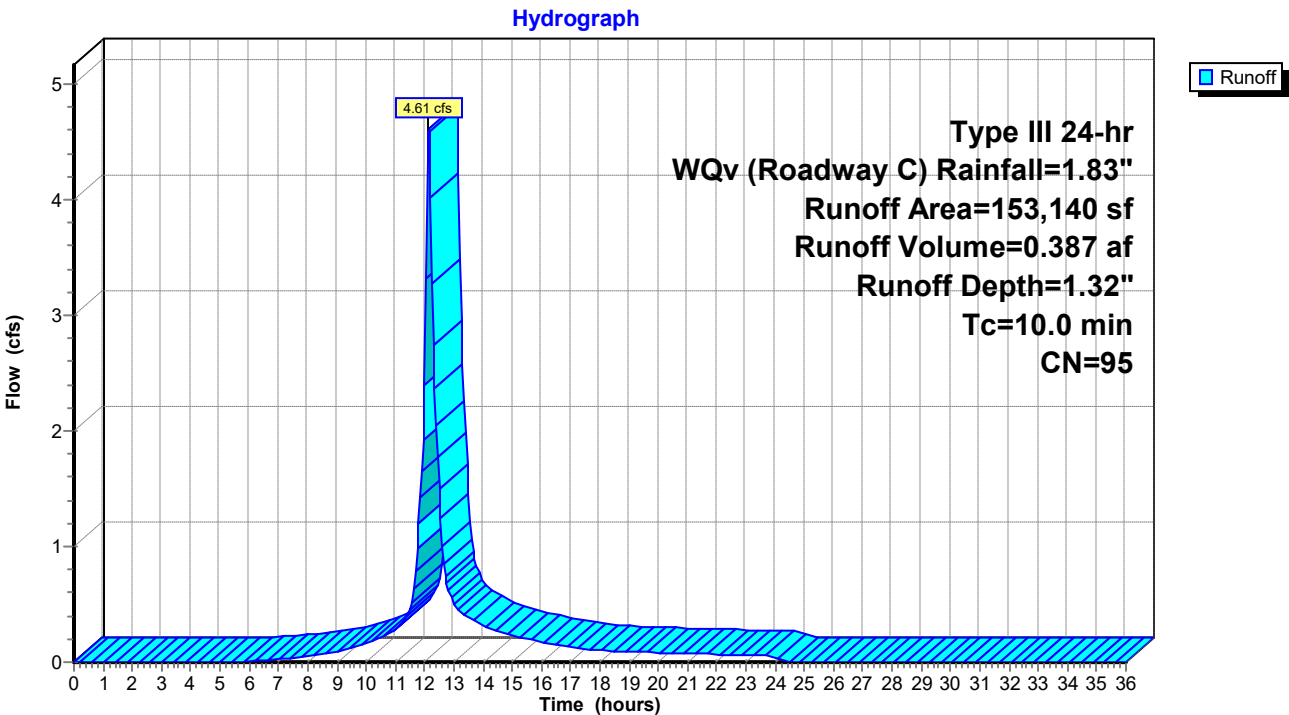
Runoff = 4.61 cfs @ 12.14 hrs, Volume= 0.387 af, Depth= 1.32"
Routed to Pond SMS #1C : SMS #1C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr WQv (Roadway C) Rainfall=1.83"

Area (sf)	CN	Description
8,883	61	>75% Grass cover, Good, HSG B
* 1,528	61	Emergency Access Road (Perv.), Good, HSG B
* 100,238	98	Building/Roof, HSG B
* 36,917	98	Pavement, HSG B
* 3,080	98	Sidewalk, HSG B
2,494	98	Emergency Access Road (Imp.), HSG B
153,140	95	Weighted Average
10,411		6.80% Pervious Area
142,729		93.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, 10 Direct Minimum

Subcatchment DA #1C: Drainage Area #1C



2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway C) Rainfall=1.83"*

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Hydrograph for Subcatchment DA #1C: Drainage Area #1C

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	1.83	1.32	0.00
0.50	0.01	0.00	0.00	26.50	1.83	1.32	0.00
1.00	0.02	0.00	0.00	27.00	1.83	1.32	0.00
1.50	0.03	0.00	0.00	27.50	1.83	1.32	0.00
2.00	0.04	0.00	0.00	28.00	1.83	1.32	0.00
2.50	0.05	0.00	0.00	28.50	1.83	1.32	0.00
3.00	0.06	0.00	0.00	29.00	1.83	1.32	0.00
3.50	0.07	0.00	0.00	29.50	1.83	1.32	0.00
4.00	0.08	0.00	0.00	30.00	1.83	1.32	0.00
4.50	0.09	0.00	0.00	30.50	1.83	1.32	0.00
5.00	0.10	0.00	0.00	31.00	1.83	1.32	0.00
5.50	0.12	0.00	0.00	31.50	1.83	1.32	0.00
6.00	0.13	0.00	0.01	32.00	1.83	1.32	0.00
6.50	0.15	0.00	0.01	32.50	1.83	1.32	0.00
7.00	0.17	0.01	0.02	33.00	1.83	1.32	0.00
7.50	0.19	0.01	0.03	33.50	1.83	1.32	0.00
8.00	0.21	0.02	0.05	34.00	1.83	1.32	0.00
8.50	0.24	0.03	0.07	34.50	1.83	1.32	0.00
9.00	0.27	0.04	0.09	35.00	1.83	1.32	0.00
9.50	0.30	0.05	0.12	35.50	1.83	1.32	0.00
10.00	0.35	0.08	0.16	36.00	1.83	1.32	0.00
10.50	0.40	0.10	0.21				
11.00	0.46	0.14	0.28				
11.50	0.55	0.20	0.46				
12.00	0.91	0.49	2.39				
12.50	1.28	0.82	1.50				
13.00	1.37	0.90	0.52				
13.50	1.43	0.95	0.39				
14.00	1.48	1.00	0.32				
14.50	1.53	1.04	0.27				
15.00	1.56	1.07	0.24				
15.50	1.59	1.10	0.20				
16.00	1.62	1.13	0.17				
16.50	1.64	1.15	0.15				
17.00	1.66	1.17	0.13				
17.50	1.68	1.18	0.12				
18.00	1.70	1.20	0.10				
18.50	1.71	1.21	0.09				
19.00	1.73	1.22	0.09				
19.50	1.74	1.24	0.09				
20.00	1.75	1.25	0.08				
20.50	1.76	1.26	0.08				
21.00	1.77	1.27	0.07				
21.50	1.78	1.28	0.07				
22.00	1.79	1.29	0.07				
22.50	1.80	1.30	0.06				
23.00	1.81	1.31	0.06				
23.50	1.82	1.31	0.06				
24.00	1.83	1.32	0.05				
24.50	1.83	1.32	0.00				
25.00	1.83	1.32	0.00				
25.50	1.83	1.32	0.00				

2025.07.03 - Proposed Conditions

Type III 24-hr WQv (Roadway C) Rainfall=1.83"

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Summary for Subcatchment DA #2A: Drainage Area #2A

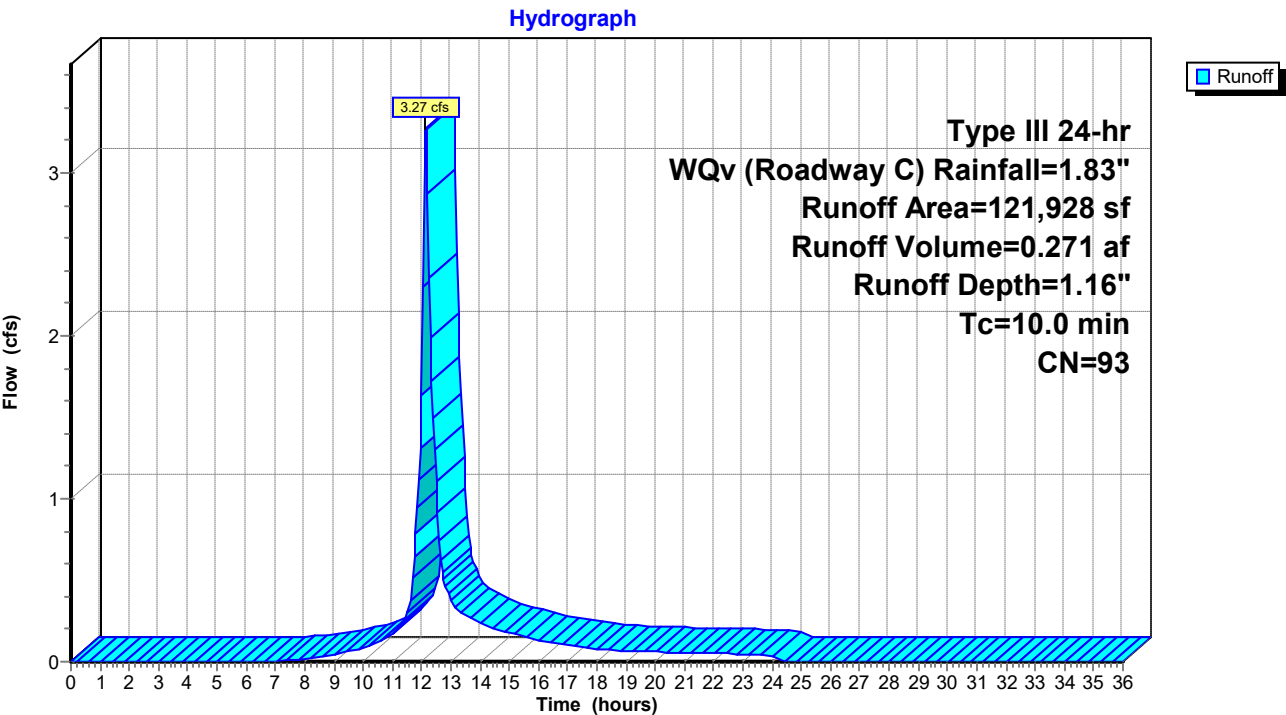
Runoff = 3.27 cfs @ 12.14 hrs, Volume= 0.271 af, Depth= 1.16"
Routed to Pond DB #2 : Drainage Basin #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr WQv (Roadway C) Rainfall=1.83"

	Area (sf)	CN	Description
*	50,600	98	Building/Roof, HSG B
*	37,828	98	Pavement, HSG B
*	1,562	98	Sidewalk, HSG B
*	3,943	98	Emergency Access Road (Imp.), HSG B
	14,078	61	>75% Grass cover, Good, HSG B
*	2,417	61	Emergency Access Road (Perv.), Good, HSG B
*	11,500	98	Infiltration Basin, HSG B
	121,928	93	Weighted Average
	16,495		13.53% Pervious Area
	105,433		86.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, 10 Minute Minimum

Subcatchment DA #2A: Drainage Area #2A



2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway C) Rainfall=1.83"*

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Hydrograph for Subcatchment DA #2A: Drainage Area #2A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	1.83	1.16	0.00
0.50	0.01	0.00	0.00	26.50	1.83	1.16	0.00
1.00	0.02	0.00	0.00	27.00	1.83	1.16	0.00
1.50	0.03	0.00	0.00	27.50	1.83	1.16	0.00
2.00	0.04	0.00	0.00	28.00	1.83	1.16	0.00
2.50	0.05	0.00	0.00	28.50	1.83	1.16	0.00
3.00	0.06	0.00	0.00	29.00	1.83	1.16	0.00
3.50	0.07	0.00	0.00	29.50	1.83	1.16	0.00
4.00	0.08	0.00	0.00	30.00	1.83	1.16	0.00
4.50	0.09	0.00	0.00	30.50	1.83	1.16	0.00
5.00	0.10	0.00	0.00	31.00	1.83	1.16	0.00
5.50	0.12	0.00	0.00	31.50	1.83	1.16	0.00
6.00	0.13	0.00	0.00	32.00	1.83	1.16	0.00
6.50	0.15	0.00	0.00	32.50	1.83	1.16	0.00
7.00	0.17	0.00	0.00	33.00	1.83	1.16	0.00
7.50	0.19	0.00	0.01	33.50	1.83	1.16	0.00
8.00	0.21	0.00	0.02	34.00	1.83	1.16	0.00
8.50	0.24	0.01	0.03	34.50	1.83	1.16	0.00
9.00	0.27	0.02	0.04	35.00	1.83	1.16	0.00
9.50	0.30	0.03	0.06	35.50	1.83	1.16	0.00
10.00	0.35	0.04	0.09	36.00	1.83	1.16	0.00
10.50	0.40	0.06	0.12				
11.00	0.46	0.09	0.17				
11.50	0.55	0.14	0.30				
12.00	0.91	0.39	1.64				
12.50	1.28	0.68	1.10				
13.00	1.37	0.76	0.38				
13.50	1.43	0.81	0.29				
14.00	1.48	0.85	0.24				
14.50	1.53	0.89	0.20				
15.00	1.56	0.92	0.18				
15.50	1.59	0.95	0.15				
16.00	1.62	0.97	0.13				
16.50	1.64	0.99	0.11				
17.00	1.66	1.01	0.10				
17.50	1.68	1.03	0.09				
18.00	1.70	1.04	0.08				
18.50	1.71	1.05	0.07				
19.00	1.73	1.07	0.07				
19.50	1.74	1.08	0.06				
20.00	1.75	1.09	0.06				
20.50	1.76	1.10	0.06				
21.00	1.77	1.11	0.06				
21.50	1.78	1.12	0.05				
22.00	1.79	1.13	0.05				
22.50	1.80	1.14	0.05				
23.00	1.81	1.14	0.05				
23.50	1.82	1.15	0.04				
24.00	1.83	1.16	0.04				
24.50	1.83	1.16	0.00				
25.00	1.83	1.16	0.00				
25.50	1.83	1.16	0.00				

2025.07.03 - Proposed Conditions

Type III 24-hr WQv (Roadway C) Rainfall=1.83"

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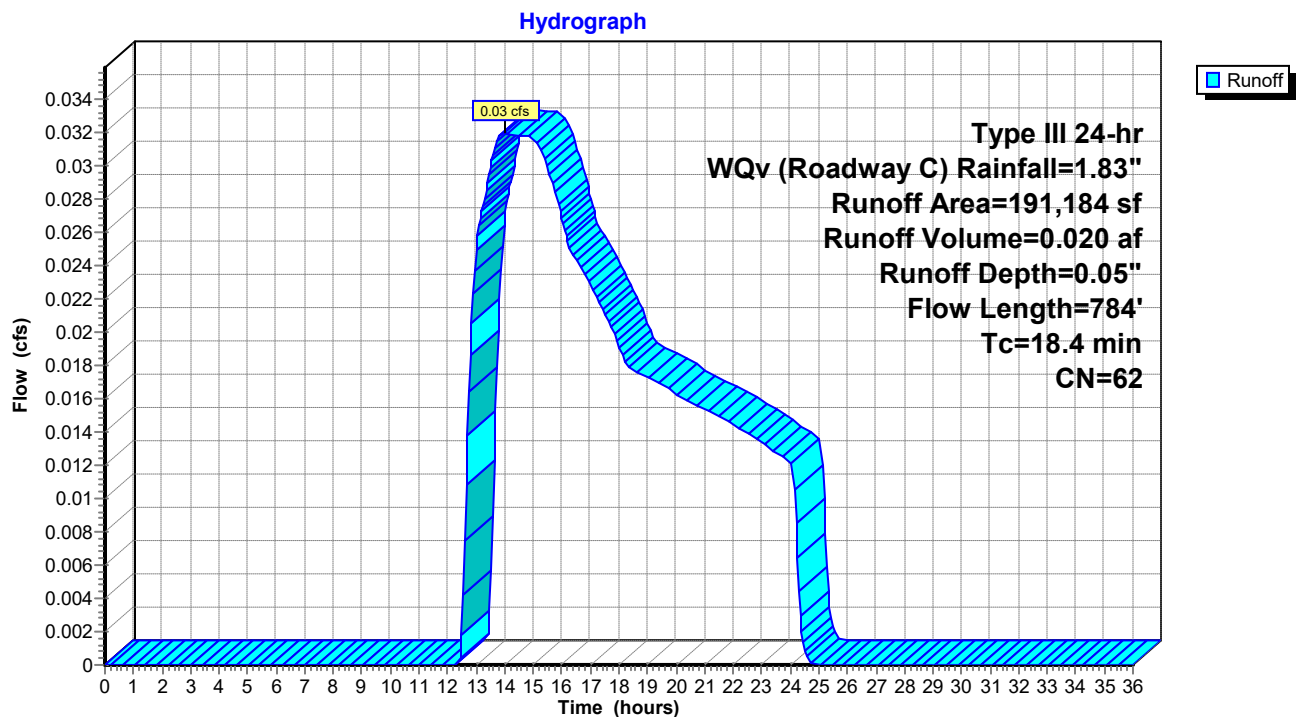
Summary for Subcatchment DA #2B: Drainage Area #2B

Runoff = 0.03 cfs @ 13.98 hrs, Volume= 0.020 af, Depth= 0.05"
Routed to Link POI #2 : POI #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr WQv (Roadway C) Rainfall=1.83"

	Area (sf)	CN	Description
	185,909	61	>75% Grass cover, Good, HSG B
*	2,004	61	Emergency Access Road (Perv.), Good, HSG B
*	3,271	98	Emergency Access Road (Imp.), HSG B
	191,184	62	Weighted Average
	187,913		98.29% Pervious Area
	3,271		1.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	150	0.0667	0.16		Sheet Flow, Grass: Dense n= 0.240 P2= 2.00"
3.0	634	0.2524	3.52		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
18.4	784	Total			

Subcatchment DA #2B: Drainage Area #2B

2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway C) Rainfall=1.83"*

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Hydrograph for Subcatchment DA #2B: Drainage Area #2B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	1.83	0.05	0.00
0.50	0.01	0.00	0.00	26.50	1.83	0.05	0.00
1.00	0.02	0.00	0.00	27.00	1.83	0.05	0.00
1.50	0.03	0.00	0.00	27.50	1.83	0.05	0.00
2.00	0.04	0.00	0.00	28.00	1.83	0.05	0.00
2.50	0.05	0.00	0.00	28.50	1.83	0.05	0.00
3.00	0.06	0.00	0.00	29.00	1.83	0.05	0.00
3.50	0.07	0.00	0.00	29.50	1.83	0.05	0.00
4.00	0.08	0.00	0.00	30.00	1.83	0.05	0.00
4.50	0.09	0.00	0.00	30.50	1.83	0.05	0.00
5.00	0.10	0.00	0.00	31.00	1.83	0.05	0.00
5.50	0.12	0.00	0.00	31.50	1.83	0.05	0.00
6.00	0.13	0.00	0.00	32.00	1.83	0.05	0.00
6.50	0.15	0.00	0.00	32.50	1.83	0.05	0.00
7.00	0.17	0.00	0.00	33.00	1.83	0.05	0.00
7.50	0.19	0.00	0.00	33.50	1.83	0.05	0.00
8.00	0.21	0.00	0.00	34.00	1.83	0.05	0.00
8.50	0.24	0.00	0.00	34.50	1.83	0.05	0.00
9.00	0.27	0.00	0.00	35.00	1.83	0.05	0.00
9.50	0.30	0.00	0.00	35.50	1.83	0.05	0.00
10.00	0.35	0.00	0.00	36.00	1.83	0.05	0.00
10.50	0.40	0.00	0.00				
11.00	0.46	0.00	0.00				
11.50	0.55	0.00	0.00				
12.00	0.91	0.00	0.00				
12.50	1.28	0.00	0.00				
13.00	1.37	0.00	0.02				
13.50	1.43	0.01	0.03				
14.00	1.48	0.01	0.03				
14.50	1.53	0.01	0.03				
15.00	1.56	0.02	0.03				
15.50	1.59	0.02	0.03				
16.00	1.62	0.02	0.03				
16.50	1.64	0.03	0.02				
17.00	1.66	0.03	0.02				
17.50	1.68	0.03	0.02				
18.00	1.70	0.03	0.02				
18.50	1.71	0.04	0.02				
19.00	1.73	0.04	0.02				
19.50	1.74	0.04	0.02				
20.00	1.75	0.04	0.02				
20.50	1.76	0.04	0.02				
21.00	1.77	0.05	0.02				
21.50	1.78	0.05	0.01				
22.00	1.79	0.05	0.01				
22.50	1.80	0.05	0.01				
23.00	1.81	0.05	0.01				
23.50	1.82	0.05	0.01				
24.00	1.83	0.05	0.01				
24.50	1.83	0.05	0.00				
25.00	1.83	0.05	0.00				
25.50	1.83	0.05	0.00				

2025.07.03 - Proposed Conditions

Type III 24-hr WQv (Roadway C) Rainfall=1.83"

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Summary for Pond DB #2: Drainage Basin #2

Inflow Area = 2.799 ac, 86.47% Impervious, Inflow Depth = 1.16" for WQv (Roadway C) event
 Inflow = 3.27 cfs @ 12.14 hrs, Volume= 0.271 af
 Outflow = 1.67 cfs @ 12.36 hrs, Volume= 0.271 af, Atten= 49%, Lag= 13.1 min
 Discarded = 1.67 cfs @ 12.36 hrs, Volume= 0.271 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link POI #2 : POI #2

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs / 3
 Peak Elev= 485.22' @ 12.36 hrs Surf.Area= 5,945 sf Storage= 1,273 cf

Plug-Flow detention time= 4.4 min calculated for 0.270 af (100% of inflow)
 Center-of-Mass det. time= 4.4 min (821.8 - 817.3)

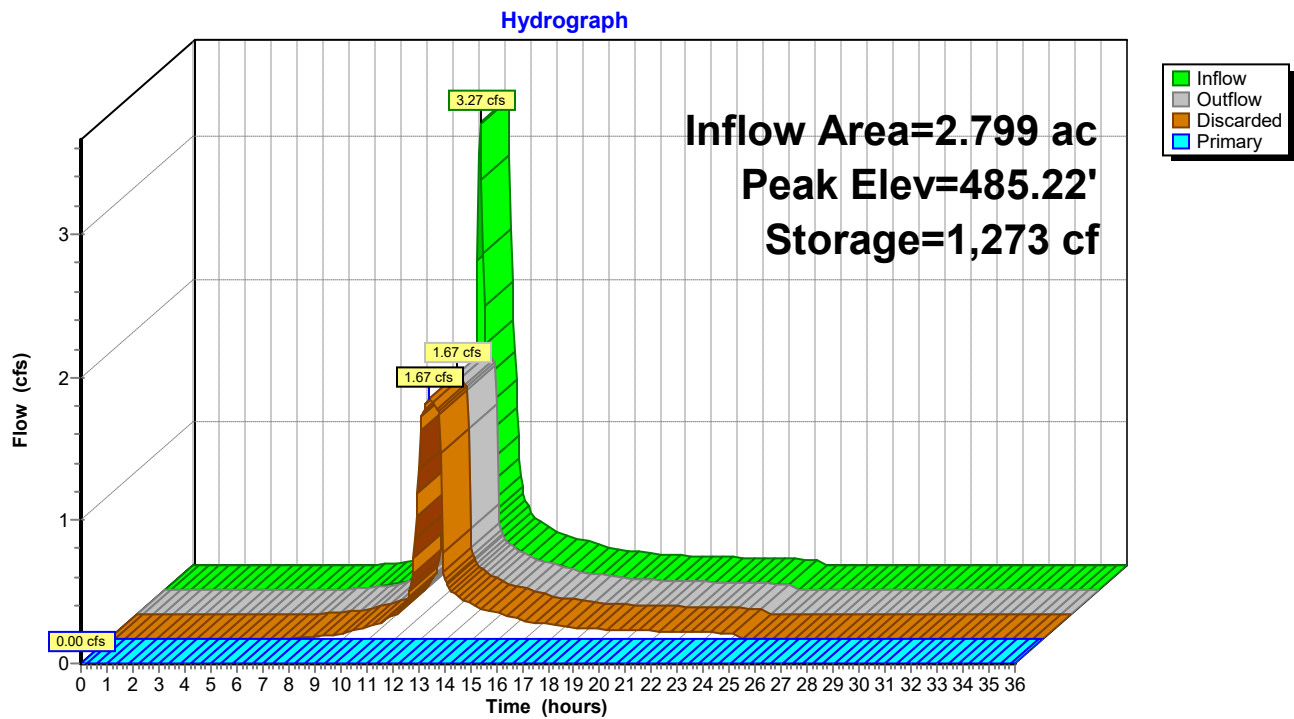
Volume	Invert	Avail.Storage	Storage Description
#1	485.00'	25,500 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
485.00	5,500	0	0
486.00	7,500	6,500	6,500
487.00	9,500	8,500	15,000
488.00	11,500	10,500	25,500

Device	Routing	Invert	Outlet Devices
#1	Discarded	485.00'	12.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 470.00'
#2	Primary	485.26'	7.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	486.79'	7.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

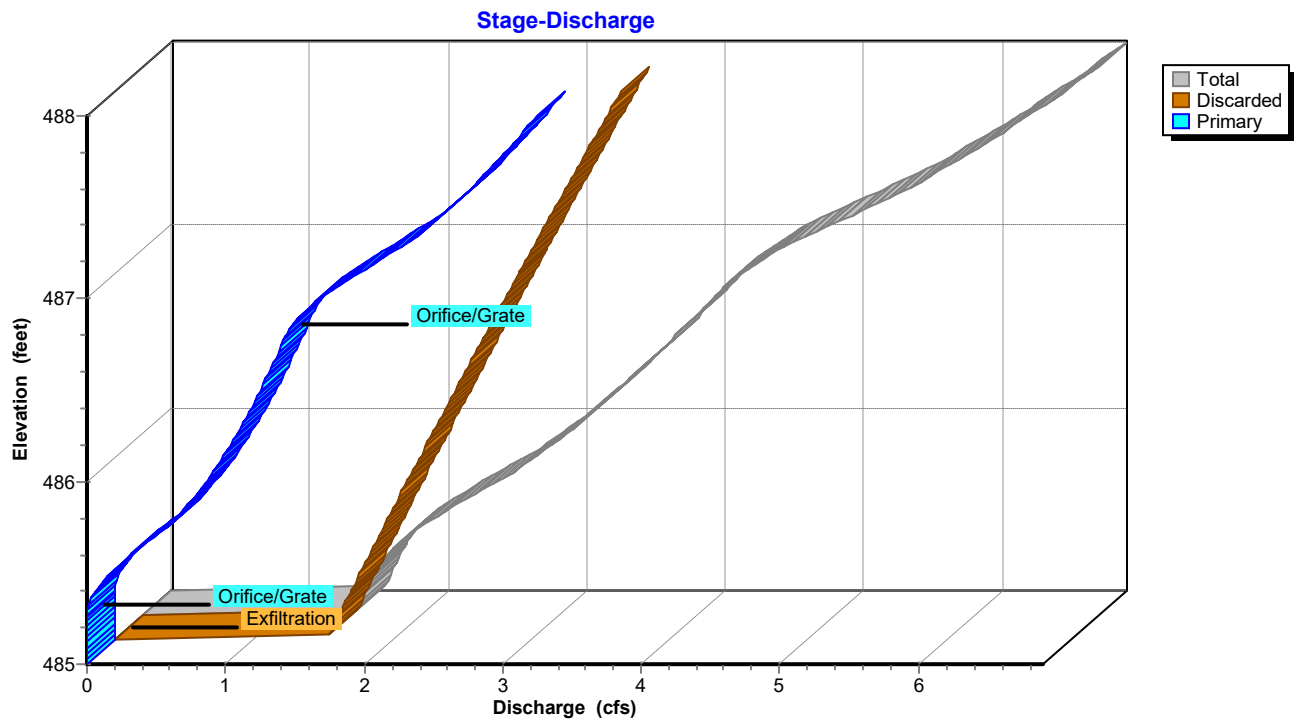
Discarded OutFlow Max=1.67 cfs @ 12.36 hrs HW=485.22' (Free Discharge)
 ↑ **1=Exfiltration** (Controls 1.67 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=485.00' (Free Discharge)
 ↑ **2=Orifice/Grate** (Controls 0.00 cfs)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

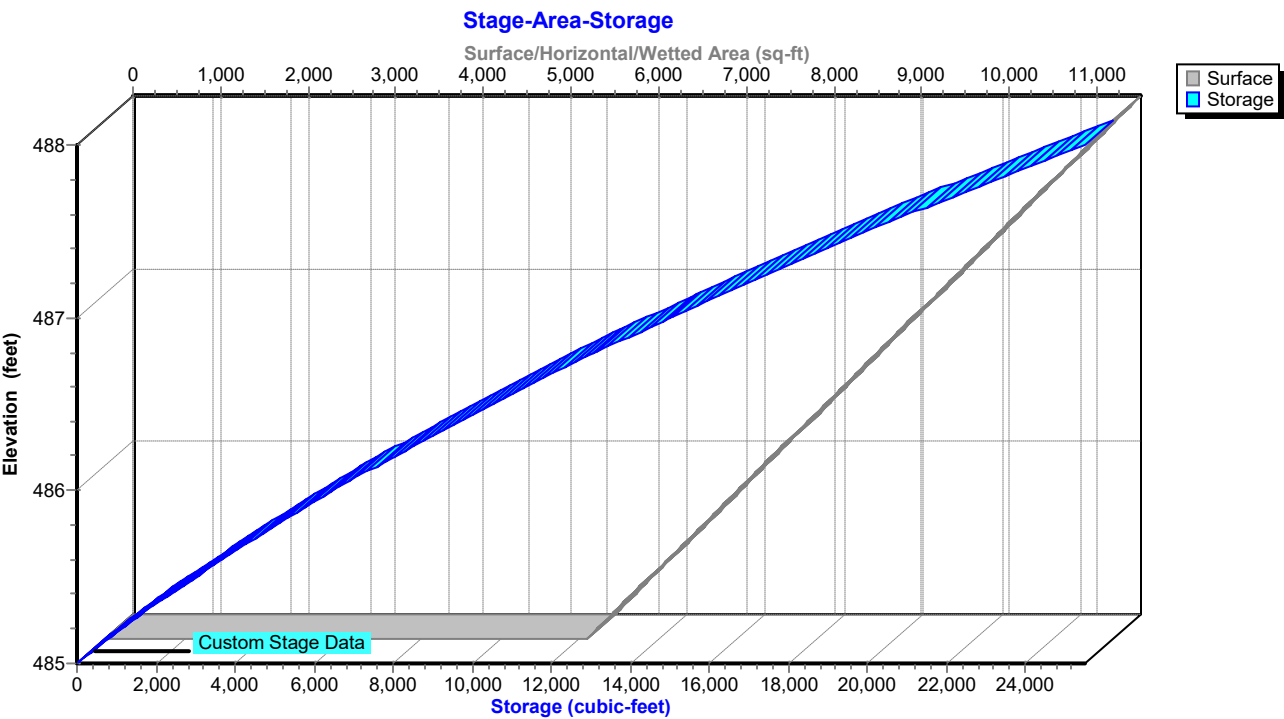
Pond DB #2: Drainage Basin #2



Pond DB #2: Drainage Basin #2



Pond DB #2: Drainage Basin #2



2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway C) Rainfall=1.83"*

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Hydrograph for Pond DB #2: Drainage Basin #2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	485.00	0.00	0.00	0.00
1.00	0.00	0	485.00	0.00	0.00	0.00
2.00	0.00	0	485.00	0.00	0.00	0.00
3.00	0.00	0	485.00	0.00	0.00	0.00
4.00	0.00	0	485.00	0.00	0.00	0.00
5.00	0.00	0	485.00	0.00	0.00	0.00
6.00	0.00	0	485.00	0.00	0.00	0.00
7.00	0.00	0	485.00	0.00	0.00	0.00
8.00	0.02	2	485.00	0.02	0.02	0.00
9.00	0.04	4	485.00	0.04	0.04	0.00
10.00	0.09	9	485.00	0.08	0.08	0.00
11.00	0.17	18	485.00	0.17	0.17	0.00
12.00	1.64	156	485.03	1.46	1.46	0.00
13.00	0.38	42	485.01	0.40	0.40	0.00
14.00	0.24	26	485.00	0.24	0.24	0.00
15.00	0.18	19	485.00	0.18	0.18	0.00
16.00	0.13	14	485.00	0.13	0.13	0.00
17.00	0.10	11	485.00	0.10	0.10	0.00
18.00	0.08	8	485.00	0.08	0.08	0.00
19.00	0.07	7	485.00	0.07	0.07	0.00
20.00	0.06	7	485.00	0.06	0.06	0.00
21.00	0.06	6	485.00	0.06	0.06	0.00
22.00	0.05	5	485.00	0.05	0.05	0.00
23.00	0.05	5	485.00	0.05	0.05	0.00
24.00	0.04	4	485.00	0.04	0.04	0.00
25.00	0.00	0	485.00	0.00	0.00	0.00
26.00	0.00	0	485.00	0.00	0.00	0.00
27.00	0.00	0	485.00	0.00	0.00	0.00
28.00	0.00	0	485.00	0.00	0.00	0.00
29.00	0.00	0	485.00	0.00	0.00	0.00
30.00	0.00	0	485.00	0.00	0.00	0.00
31.00	0.00	0	485.00	0.00	0.00	0.00
32.00	0.00	0	485.00	0.00	0.00	0.00
33.00	0.00	0	485.00	0.00	0.00	0.00
34.00	0.00	0	485.00	0.00	0.00	0.00
35.00	0.00	0	485.00	0.00	0.00	0.00
36.00	0.00	0	485.00	0.00	0.00	0.00

2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway C) Rainfall=1.83"*

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Stage-Discharge for Pond DB #2: Drainage Basin #2

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
485.00	0.00	0.00	0.00	487.60	6.12	3.35	2.77
485.05	1.56	1.56	0.00	487.65	6.23	3.39	2.83
485.10	1.59	1.59	0.00	487.70	6.33	3.43	2.90
485.15	1.63	1.63	0.00	487.75	6.43	3.47	2.96
485.20	1.66	1.66	0.00	487.80	6.52	3.50	3.02
485.25	1.69	1.69	0.00	487.85	6.62	3.54	3.08
485.30	1.73	1.73	0.01	487.90	6.72	3.58	3.14
485.35	1.79	1.76	0.03	487.95	6.81	3.62	3.19
485.40	1.86	1.79	0.06	488.00	6.90	3.65	3.25
485.45	1.94	1.83	0.11				
485.50	2.03	1.86	0.17				
485.55	2.14	1.89	0.24				
485.60	2.25	1.93	0.32				
485.65	2.37	1.96	0.40				
485.70	2.48	2.00	0.49				
485.75	2.60	2.03	0.57				
485.80	2.71	2.06	0.65				
485.85	2.80	2.10	0.70				
485.90	2.89	2.13	0.76				
485.95	2.98	2.17	0.81				
486.00	3.06	2.20	0.86				
486.05	3.15	2.24	0.91				
486.10	3.23	2.27	0.95				
486.15	3.30	2.31	1.00				
486.20	3.38	2.34	1.04				
486.25	3.45	2.38	1.08				
486.30	3.53	2.41	1.11				
486.35	3.60	2.45	1.15				
486.40	3.67	2.48	1.19				
486.45	3.74	2.52	1.22				
486.50	3.81	2.55	1.25				
486.55	3.87	2.59	1.29				
486.60	3.94	2.62	1.32				
486.65	4.01	2.66	1.35				
486.70	4.07	2.70	1.38				
486.75	4.14	2.73	1.41				
486.80	4.21	2.77	1.44				
486.85	4.28	2.80	1.48				
486.90	4.37	2.84	1.53				
486.95	4.48	2.88	1.60				
487.00	4.60	2.91	1.68				
487.05	4.72	2.95	1.78				
487.10	4.86	2.99	1.87				
487.15	5.00	3.02	1.98				
487.20	5.15	3.06	2.09				
487.25	5.29	3.10	2.20				
487.30	5.44	3.13	2.30				
487.35	5.57	3.17	2.40				
487.40	5.68	3.21	2.48				
487.45	5.80	3.24	2.55				
487.50	5.91	3.28	2.63				
487.55	6.02	3.32	2.70				

2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway C) Rainfall=1.83"*

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Stage-Area-Storage for Pond DB #2: Drainage Basin #2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
485.00	5,500	0	487.60	10,700	21,060
485.05	5,600	278	487.65	10,800	21,597
485.10	5,700	560	487.70	10,900	22,140
485.15	5,800	847	487.75	11,000	22,688
485.20	5,900	1,140	487.80	11,100	23,240
485.25	6,000	1,438	487.85	11,200	23,798
485.30	6,100	1,740	487.90	11,300	24,360
485.35	6,200	2,048	487.95	11,400	24,927
485.40	6,300	2,360	488.00	11,500	25,500
485.45	6,400	2,677			
485.50	6,500	3,000			
485.55	6,600	3,328			
485.60	6,700	3,660			
485.65	6,800	3,997			
485.70	6,900	4,340			
485.75	7,000	4,688			
485.80	7,100	5,040			
485.85	7,200	5,398			
485.90	7,300	5,760			
485.95	7,400	6,127			
486.00	7,500	6,500			
486.05	7,600	6,878			
486.10	7,700	7,260			
486.15	7,800	7,647			
486.20	7,900	8,040			
486.25	8,000	8,438			
486.30	8,100	8,840			
486.35	8,200	9,248			
486.40	8,300	9,660			
486.45	8,400	10,077			
486.50	8,500	10,500			
486.55	8,600	10,928			
486.60	8,700	11,360			
486.65	8,800	11,797			
486.70	8,900	12,240			
486.75	9,000	12,688			
486.80	9,100	13,140			
486.85	9,200	13,598			
486.90	9,300	14,060			
486.95	9,400	14,527			
487.00	9,500	15,000			
487.05	9,600	15,478			
487.10	9,700	15,960			
487.15	9,800	16,447			
487.20	9,900	16,940			
487.25	10,000	17,438			
487.30	10,100	17,940			
487.35	10,200	18,448			
487.40	10,300	18,960			
487.45	10,400	19,477			
487.50	10,500	20,000			
487.55	10,600	20,528			

2025.07.03 - Proposed Conditions

Type III 24-hr WQv (Roadway C) Rainfall=1.83"

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Summary for Pond SMS #1A: SMS #1A

Inflow Area = 3.795 ac, 92.16% Impervious, Inflow Depth = 1.32" for WQv (Roadway C) event
 Inflow = 4.98 cfs @ 12.14 hrs, Volume= 0.418 af
 Outflow = 2.12 cfs @ 12.42 hrs, Volume= 0.418 af, Atten= 58%, Lag= 16.5 min
 Discarded = 2.12 cfs @ 12.42 hrs, Volume= 0.418 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link POI #1 : POI #1

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
 Peak Elev= 492.53' @ 12.42 hrs Surf.Area= 0.172 ac Storage= 0.056 af

Plug-Flow detention time= 6.0 min calculated for 0.417 af (100% of inflow)
 Center-of-Mass det. time= 6.0 min (809.5 - 803.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	491.75'	0.270 af	36.83'W x 203.69'L x 6.75'H Field A 1.163 af Overall - 0.486 af Embedded = 0.676 af x 40.0% Voids
#2A	492.50'	0.486 af	ADS_StormTech MC-4500 b +Cap x 196 Inside #1 Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap 196 Chambers in 4 Rows Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf
		0.757 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	491.75'	12.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 440.00'
#2	Primary	492.53'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	492.95'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	493.59'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Primary	494.58'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#6	Primary	495.75'	8.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=2.12 cfs @ 12.42 hrs HW=492.53' (Free Discharge)↑ **1=Exfiltration** (Controls 2.12 cfs)**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=491.75' (Free Discharge)

↑ **2=Orifice/Grate** (Controls 0.00 cfs)
 — **3=Orifice/Grate** (Controls 0.00 cfs)
 — **4=Orifice/Grate** (Controls 0.00 cfs)
 — **5=Orifice/Grate** (Controls 0.00 cfs)
 — **6=Orifice/Grate** (Controls 0.00 cfs)

2025.07.03 - Proposed Conditions

Type III 24-hr WQv (Roadway C) Rainfall=1.83"

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Pond SMS #1A: SMS #1A - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-4500 b +Cap (ADS StormTech® MC-4500 with cap volume)

Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf

Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap

Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf

100.0" Wide + 6.0" Spacing = 106.0" C-C Row Spacing

49 Chambers/Row x 4.02' Long +2.73' Cap Length x 2 = 202.69' Row Length +6.0" End Stone x 2 =
203.69' Base Length

4 Rows x 100.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 36.83' Base Width

9.0" Stone Base + 60.0" Chamber Height + 12.0" Stone Cover = 6.75' Field Height

196 Chambers x 106.5 cf + 39.5 cf Cap Volume x 2 x 4 Rows = 21,188.1 cf Chamber Storage

50,642.8 cf Field - 21,188.1 cf Chambers = 29,454.7 cf Stone x 40.0% Voids = 11,781.9 cf Stone Storage

Chamber Storage + Stone Storage = 32,970.0 cf = 0.757 af

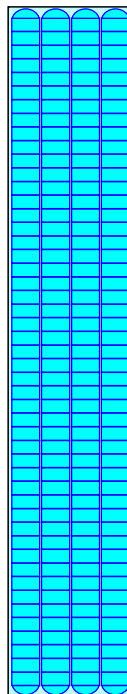
Overall Storage Efficiency = 65.1%

Overall System Size = 203.69' x 36.83' x 6.75'

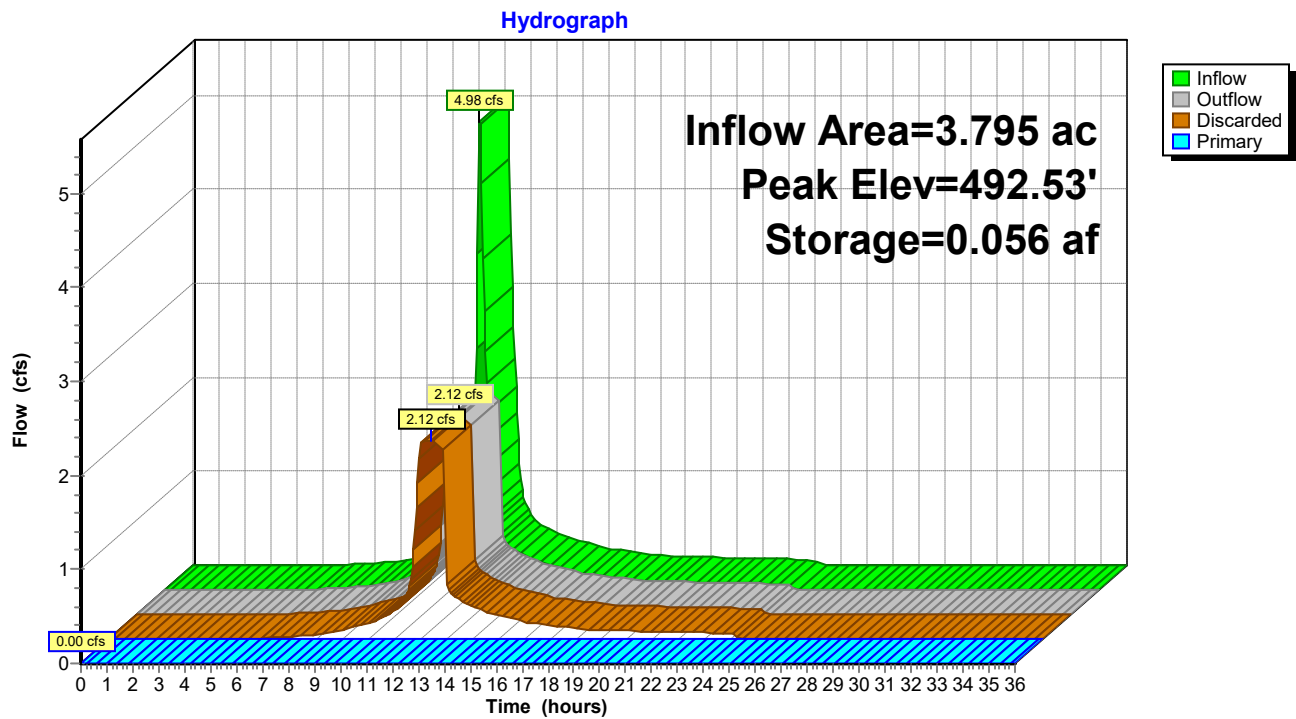
196 Chambers

1,875.7 cy Field

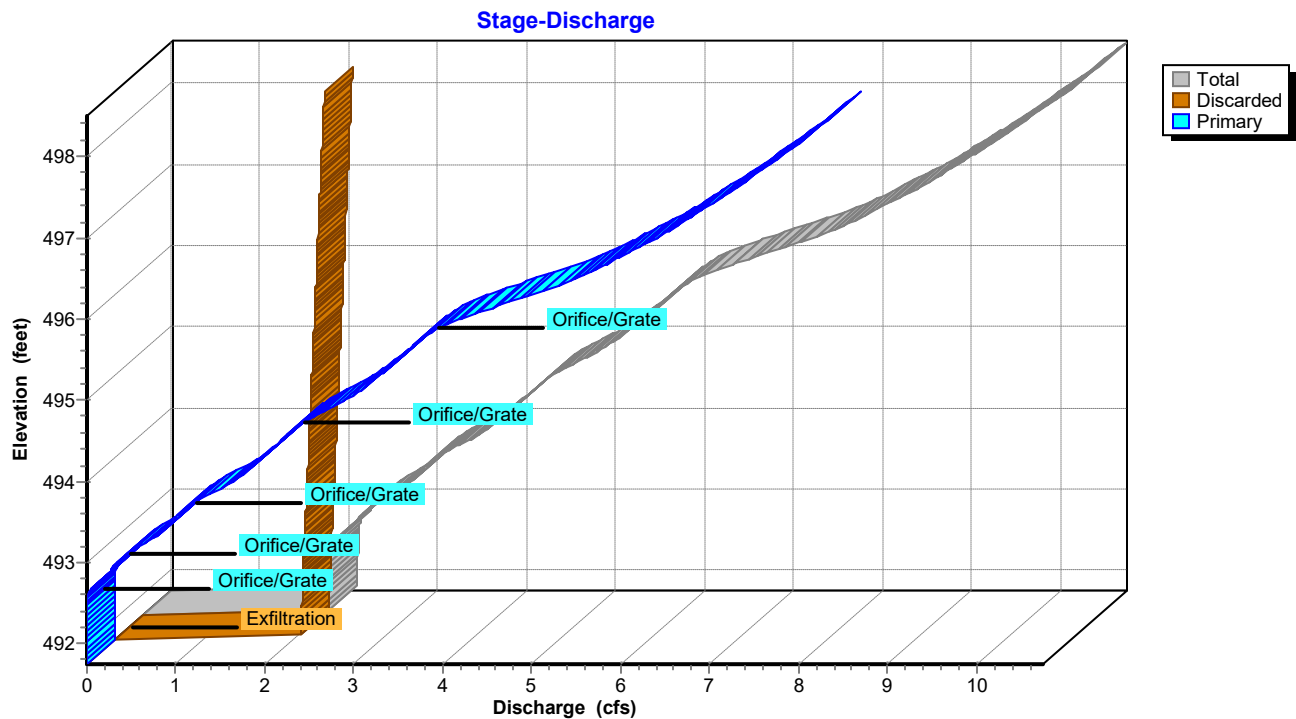
1,090.9 cy Stone



Pond SMS #1A: SMS #1A

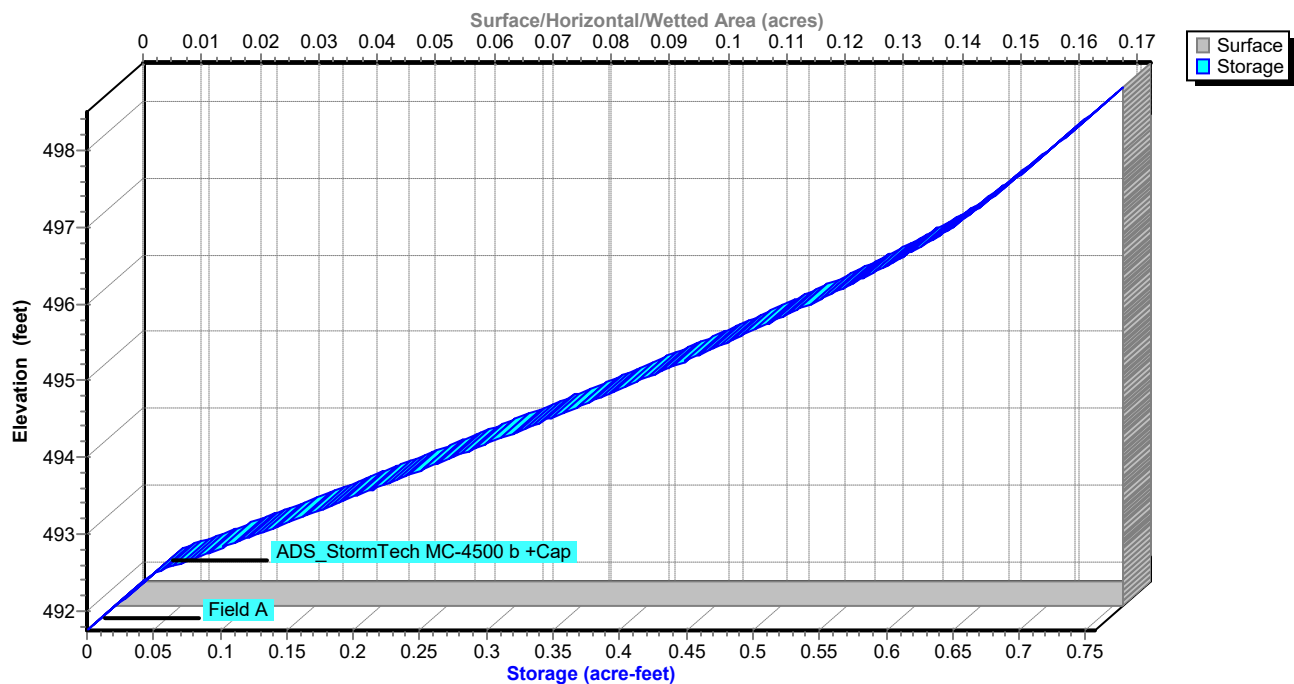


Pond SMS #1A: SMS #1A



Pond SMS #1A: SMS #1A

Stage-Area-Storage



2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway C) Rainfall=1.83"*

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Hydrograph for Pond SMS #1A: SMS #1A

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0.000	491.75	0.00	0.00	0.00
1.00	0.00	0.000	491.75	0.00	0.00	0.00
2.00	0.00	0.000	491.75	0.00	0.00	0.00
3.00	0.00	0.000	491.75	0.00	0.00	0.00
4.00	0.00	0.000	491.75	0.00	0.00	0.00
5.00	0.00	0.000	491.75	0.00	0.00	0.00
6.00	0.01	0.000	491.75	0.01	0.01	0.00
7.00	0.03	0.000	491.75	0.02	0.02	0.00
8.00	0.05	0.000	491.75	0.05	0.05	0.00
9.00	0.10	0.000	491.75	0.10	0.10	0.00
10.00	0.17	0.000	491.76	0.17	0.17	0.00
11.00	0.30	0.001	491.76	0.30	0.30	0.00
12.00	2.58	0.006	491.83	2.09	2.09	0.00
13.00	0.56	0.003	491.80	1.53	1.53	0.00
14.00	0.34	0.001	491.76	0.34	0.34	0.00
15.00	0.26	0.001	491.76	0.26	0.26	0.00
16.00	0.18	0.000	491.76	0.18	0.18	0.00
17.00	0.14	0.000	491.75	0.14	0.14	0.00
18.00	0.11	0.000	491.75	0.11	0.11	0.00
19.00	0.10	0.000	491.75	0.10	0.10	0.00
20.00	0.09	0.000	491.75	0.09	0.09	0.00
21.00	0.08	0.000	491.75	0.08	0.08	0.00
22.00	0.07	0.000	491.75	0.07	0.07	0.00
23.00	0.06	0.000	491.75	0.06	0.06	0.00
24.00	0.06	0.000	491.75	0.06	0.06	0.00
25.00	0.00	0.000	491.75	0.00	0.00	0.00
26.00	0.00	0.000	491.75	0.00	0.00	0.00
27.00	0.00	0.000	491.75	0.00	0.00	0.00
28.00	0.00	0.000	491.75	0.00	0.00	0.00
29.00	0.00	0.000	491.75	0.00	0.00	0.00
30.00	0.00	0.000	491.75	0.00	0.00	0.00
31.00	0.00	0.000	491.75	0.00	0.00	0.00
32.00	0.00	0.000	491.75	0.00	0.00	0.00
33.00	0.00	0.000	491.75	0.00	0.00	0.00
34.00	0.00	0.000	491.75	0.00	0.00	0.00
35.00	0.00	0.000	491.75	0.00	0.00	0.00
36.00	0.00	0.000	491.75	0.00	0.00	0.00

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Stage-Discharge for Pond SMS #1A: SMS #1A

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
491.75	0.00	0.00	0.00	496.95	8.61	2.29	6.32
491.85	2.09	2.09	0.00	497.05	8.78	2.30	6.48
491.95	2.09	2.09	0.00	497.15	8.94	2.30	6.64
492.05	2.10	2.10	0.00	497.25	9.09	2.31	6.79
492.15	2.10	2.10	0.00	497.35	9.24	2.31	6.93
492.25	2.10	2.10	0.00	497.45	9.39	2.31	7.08
492.35	2.11	2.11	0.00	497.55	9.53	2.32	7.21
492.45	2.11	2.11	0.00	497.65	9.67	2.32	7.35
492.55	2.12	2.12	0.00	497.75	9.81	2.33	7.48
492.65	2.16	2.12	0.04	497.85	9.94	2.33	7.61
492.75	2.24	2.12	0.12	497.95	10.07	2.33	7.74
492.85	2.34	2.13	0.22	498.05	10.20	2.34	7.86
492.95	2.43	2.13	0.30	498.15	10.33	2.34	7.98
493.05	2.53	2.14	0.39	498.25	10.45	2.35	8.10
493.15	2.66	2.14	0.52	498.35	10.57	2.35	8.22
493.25	2.81	2.14	0.67	498.45	10.69	2.35	8.34
493.35	2.95	2.15	0.80				
493.45	3.06	2.15	0.91				
493.55	3.16	2.16	1.00				
493.65	3.26	2.16	1.10				
493.75	3.40	2.16	1.23				
493.85	3.56	2.17	1.39				
493.95	3.74	2.17	1.56				
494.05	3.88	2.18	1.70				
494.15	4.00	2.18	1.82				
494.25	4.12	2.18	1.93				
494.35	4.23	2.19	2.04				
494.45	4.33	2.19	2.14				
494.55	4.42	2.20	2.23				
494.65	4.53	2.20	2.33				
494.75	4.68	2.20	2.47				
494.85	4.86	2.21	2.65				
494.95	5.04	2.21	2.82				
495.05	5.19	2.22	2.97				
495.15	5.33	2.22	3.10				
495.25	5.45	2.23	3.23				
495.35	5.57	2.23	3.34				
495.45	5.69	2.23	3.45				
495.55	5.80	2.24	3.56				
495.65	5.90	2.24	3.66				
495.75	6.00	2.25	3.76				
495.85	6.14	2.25	3.89				
495.95	6.33	2.25	4.08				
496.05	6.58	2.26	4.32				
496.15	6.85	2.26	4.59				
496.25	7.15	2.27	4.88				
496.35	7.43	2.27	5.16				
496.45	7.66	2.27	5.39				
496.55	7.88	2.28	5.60				
496.65	8.08	2.28	5.80				
496.75	8.26	2.29	5.98				
496.85	8.44	2.29	6.15				

2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway C) Rainfall=1.83"*

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Stage-Area-Storage for Pond SMS #1A: SMS #1A

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
491.75	0.172	0.000	496.95	0.172	0.646
491.85	0.172	0.007	497.05	0.172	0.654
491.95	0.172	0.014	497.15	0.172	0.662
492.05	0.172	0.021	497.25	0.172	0.670
492.15	0.172	0.028	497.35	0.172	0.677
492.25	0.172	0.034	497.45	0.172	0.685
492.35	0.172	0.041	497.55	0.172	0.691
492.45	0.172	0.048	497.65	0.172	0.698
492.55	0.172	0.059	497.75	0.172	0.705
492.65	0.172	0.074	497.85	0.172	0.712
492.75	0.172	0.090	497.95	0.172	0.719
492.85	0.172	0.105	498.05	0.172	0.726
492.95	0.172	0.120	498.15	0.172	0.733
493.05	0.172	0.135	498.25	0.172	0.740
493.15	0.172	0.150	498.35	0.172	0.747
493.25	0.172	0.165	498.45	0.172	0.753
493.35	0.172	0.180			
493.45	0.172	0.194			
493.55	0.172	0.209			
493.65	0.172	0.224			
493.75	0.172	0.239			
493.85	0.172	0.253			
493.95	0.172	0.268			
494.05	0.172	0.282			
494.15	0.172	0.296			
494.25	0.172	0.311			
494.35	0.172	0.325			
494.45	0.172	0.339			
494.55	0.172	0.353			
494.65	0.172	0.367			
494.75	0.172	0.381			
494.85	0.172	0.395			
494.95	0.172	0.408			
495.05	0.172	0.422			
495.15	0.172	0.435			
495.25	0.172	0.448			
495.35	0.172	0.461			
495.45	0.172	0.474			
495.55	0.172	0.487			
495.65	0.172	0.500			
495.75	0.172	0.512			
495.85	0.172	0.525			
495.95	0.172	0.537			
496.05	0.172	0.549			
496.15	0.172	0.561			
496.25	0.172	0.572			
496.35	0.172	0.584			
496.45	0.172	0.595			
496.55	0.172	0.606			
496.65	0.172	0.616			
496.75	0.172	0.626			
496.85	0.172	0.636			

2025.07.03 - Proposed Conditions

Type III 24-hr WQv (Roadway C) Rainfall=1.83"

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Summary for Pond SMS #1C: SMS #1C

Inflow Area = 3.516 ac, 93.20% Impervious, Inflow Depth = 1.32" for WQv (Roadway C) event
 Inflow = 4.61 cfs @ 12.14 hrs, Volume= 0.387 af
 Outflow = 1.95 cfs @ 12.42 hrs, Volume= 0.387 af, Atten= 58%, Lag= 16.7 min
 Discarded = 1.95 cfs @ 12.42 hrs, Volume= 0.387 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link POI #1 : POI #1

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
 Peak Elev= 496.03' @ 12.42 hrs Surf.Area= 0.159 ac Storage= 0.052 af

Plug-Flow detention time= 6.1 min calculated for 0.387 af (100% of inflow)
 Center-of-Mass det. time= 6.1 min (809.6 - 803.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	495.25'	0.249 af	36.83'W x 187.59'L x 6.75'H Field A 1.071 af Overall - 0.447 af Embedded = 0.623 af x 40.0% Voids
#2A	496.00'	0.447 af	ADS_StormTech MC-4500 b +Cap x 180 Inside #1 Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap 180 Chambers in 4 Rows Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf
		0.697 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	495.25'	12.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 440.00'
#2	Primary	496.04'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	496.45'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	497.09'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Primary	498.04'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#6	Primary	501.00'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=1.95 cfs @ 12.42 hrs HW=496.03' (Free Discharge)↑ **1=Exfiltration** (Controls 1.95 cfs)**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=495.25' (Free Discharge)

↑ **2=Orifice/Grate** (Controls 0.00 cfs)
 — **3=Orifice/Grate** (Controls 0.00 cfs)
 — **4=Orifice/Grate** (Controls 0.00 cfs)
 — **5=Orifice/Grate** (Controls 0.00 cfs)
 — **6=Orifice/Grate** (Controls 0.00 cfs)

2025.07.03 - Proposed Conditions

Type III 24-hr WQv (Roadway C) Rainfall=1.83"

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Pond SMS #1C: SMS #1C - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-4500 b +Cap (ADS StormTech® MC-4500 with cap volume)

Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf

Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap

Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf

100.0" Wide + 6.0" Spacing = 106.0" C-C Row Spacing

45 Chambers/Row x 4.02' Long +2.73' Cap Length x 2 = 186.59' Row Length +6.0" End Stone x 2 = 187.59' Base Length

4 Rows x 100.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 36.83' Base Width

9.0" Stone Base + 60.0" Chamber Height + 12.0" Stone Cover = 6.75' Field Height

180 Chambers x 106.5 cf + 39.5 cf Cap Volume x 2 x 4 Rows = 19,484.3 cf Chamber Storage

46,640.0 cf Field - 19,484.3 cf Chambers = 27,155.7 cf Stone x 40.0% Voids = 10,862.3 cf Stone Storage

Chamber Storage + Stone Storage = 30,346.6 cf = 0.697 af

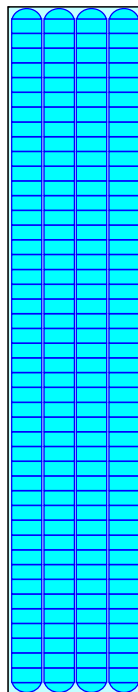
Overall Storage Efficiency = 65.1%

Overall System Size = 187.59' x 36.83' x 6.75'

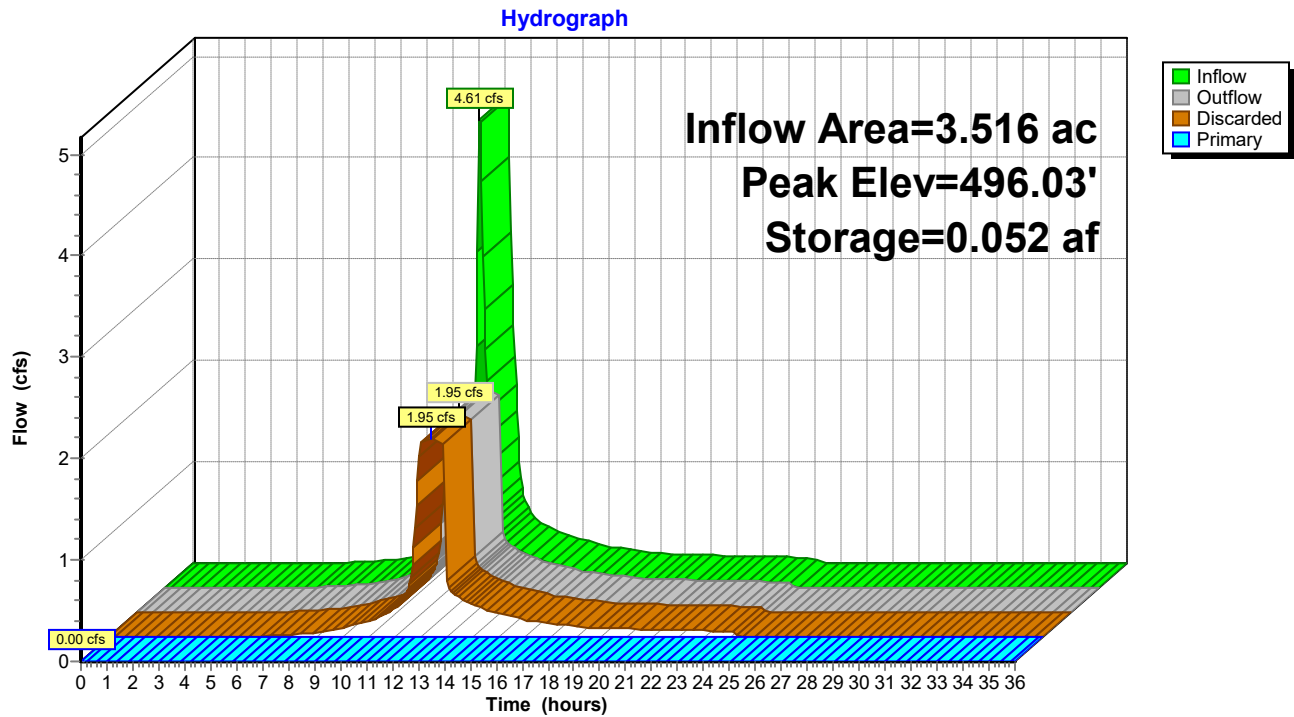
180 Chambers

1,727.4 cy Field

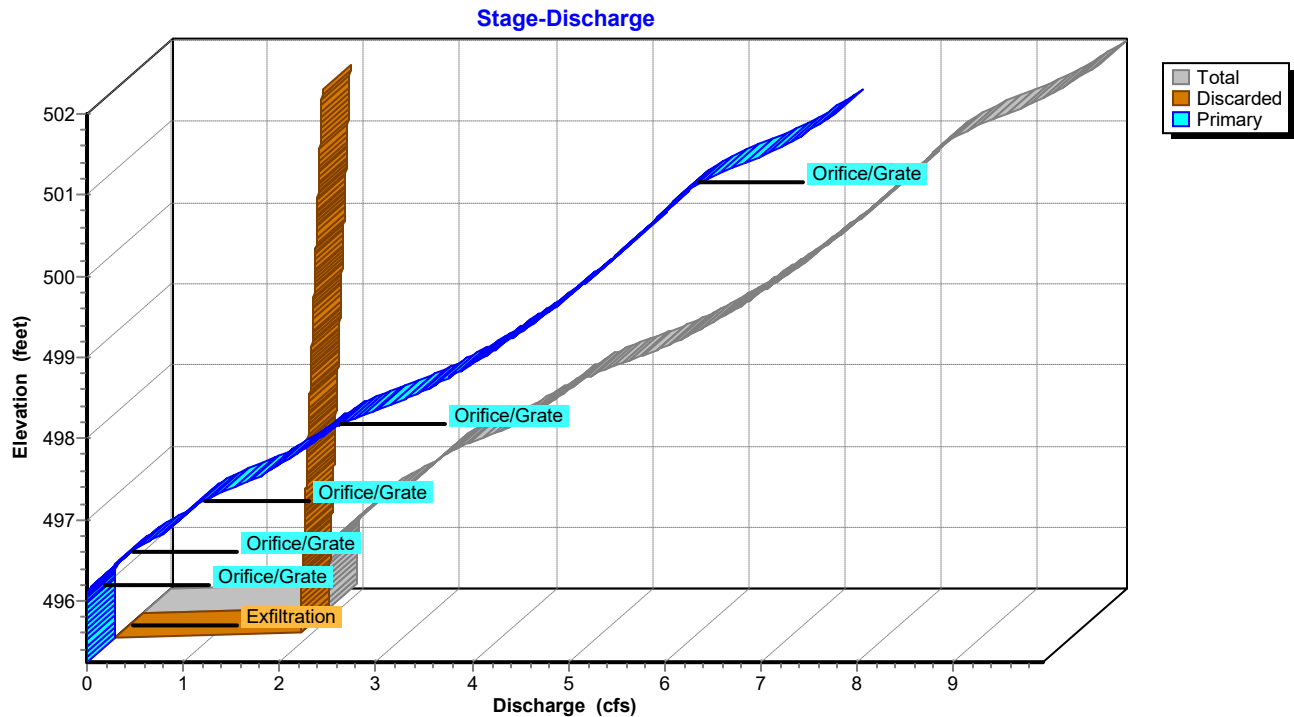
1,005.8 cy Stone



Pond SMS #1C: SMS #1C

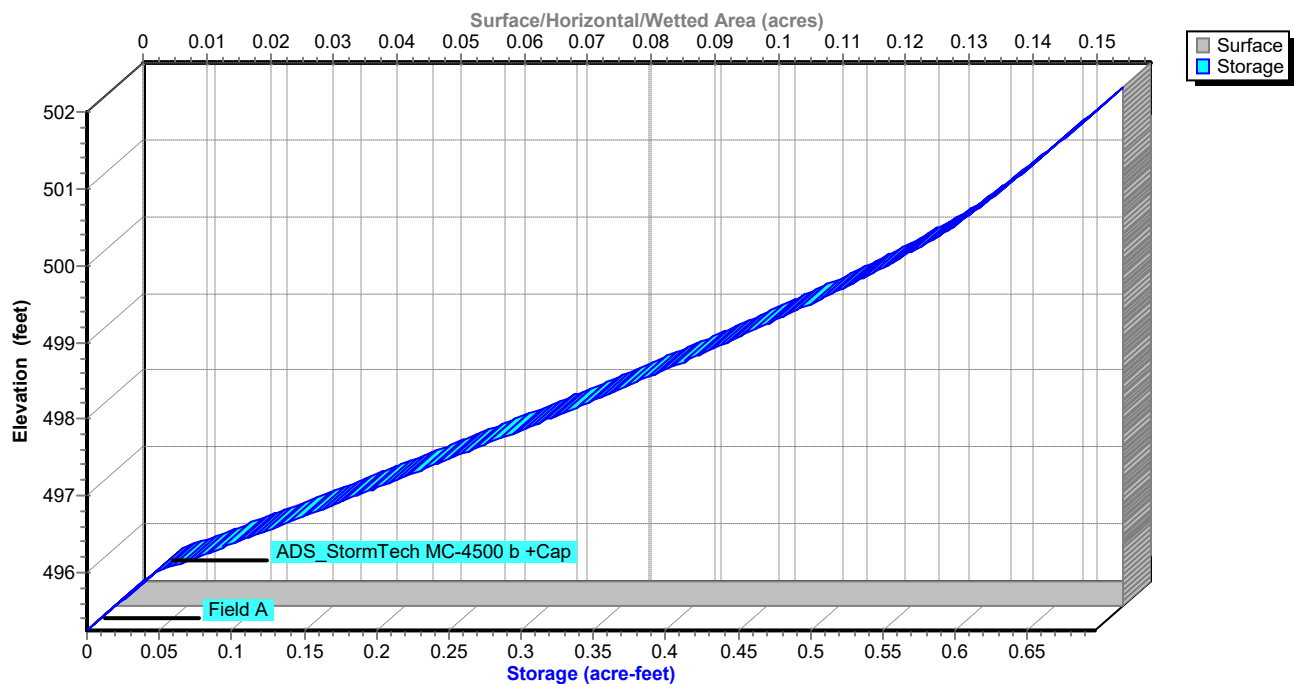


Pond SMS #1C: SMS #1C



Pond SMS #1C: SMS #1C

Stage-Area-Storage



2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway C) Rainfall=1.83"*

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Hydrograph for Pond SMS #1C: SMS #1C

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0.000	495.25	0.00	0.00	0.00
1.00	0.00	0.000	495.25	0.00	0.00	0.00
2.00	0.00	0.000	495.25	0.00	0.00	0.00
3.00	0.00	0.000	495.25	0.00	0.00	0.00
4.00	0.00	0.000	495.25	0.00	0.00	0.00
5.00	0.00	0.000	495.25	0.00	0.00	0.00
6.00	0.01	0.000	495.25	0.01	0.01	0.00
7.00	0.02	0.000	495.25	0.02	0.02	0.00
8.00	0.05	0.000	495.25	0.05	0.05	0.00
9.00	0.09	0.000	495.25	0.09	0.09	0.00
10.00	0.16	0.000	495.26	0.15	0.15	0.00
11.00	0.28	0.001	495.26	0.28	0.28	0.00
12.00	2.39	0.005	495.33	1.92	1.92	0.00
13.00	0.52	0.004	495.31	1.66	1.66	0.00
14.00	0.32	0.001	495.26	0.32	0.32	0.00
15.00	0.24	0.001	495.26	0.24	0.24	0.00
16.00	0.17	0.000	495.26	0.17	0.17	0.00
17.00	0.13	0.000	495.25	0.13	0.13	0.00
18.00	0.10	0.000	495.25	0.10	0.10	0.00
19.00	0.09	0.000	495.25	0.09	0.09	0.00
20.00	0.08	0.000	495.25	0.08	0.08	0.00
21.00	0.07	0.000	495.25	0.07	0.07	0.00
22.00	0.07	0.000	495.25	0.07	0.07	0.00
23.00	0.06	0.000	495.25	0.06	0.06	0.00
24.00	0.05	0.000	495.25	0.05	0.05	0.00
25.00	0.00	0.000	495.25	0.00	0.00	0.00
26.00	0.00	0.000	495.25	0.00	0.00	0.00
27.00	0.00	0.000	495.25	0.00	0.00	0.00
28.00	0.00	0.000	495.25	0.00	0.00	0.00
29.00	0.00	0.000	495.25	0.00	0.00	0.00
30.00	0.00	0.000	495.25	0.00	0.00	0.00
31.00	0.00	0.000	495.25	0.00	0.00	0.00
32.00	0.00	0.000	495.25	0.00	0.00	0.00
33.00	0.00	0.000	495.25	0.00	0.00	0.00
34.00	0.00	0.000	495.25	0.00	0.00	0.00
35.00	0.00	0.000	495.25	0.00	0.00	0.00
36.00	0.00	0.000	495.25	0.00	0.00	0.00

2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway C) Rainfall=1.83"*

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Stage-Discharge for Pond SMS #1C: SMS #1C

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
495.25	0.00	0.00	0.00	500.45	7.78	2.10	5.68
495.35	1.92	1.92	0.00	500.55	7.88	2.10	5.77
495.45	1.93	1.93	0.00	500.65	7.97	2.11	5.86
495.55	1.93	1.93	0.00	500.75	8.06	2.11	5.95
495.65	1.93	1.93	0.00	500.85	8.15	2.11	6.04
495.75	1.94	1.94	0.00	500.95	8.24	2.12	6.12
495.85	1.94	1.94	0.00	501.05	8.33	2.12	6.21
495.95	1.94	1.94	0.00	501.15	8.48	2.12	6.35
496.05	1.95	1.95	0.00	501.25	8.67	2.13	6.54
496.15	1.98	1.95	0.03	501.35	8.88	2.13	6.75
496.25	2.06	1.95	0.11	501.45	9.09	2.13	6.96
496.35	2.16	1.96	0.21	501.55	9.27	2.14	7.13
496.45	2.26	1.96	0.30	501.65	9.43	2.14	7.29
496.55	2.35	1.96	0.39	501.75	9.58	2.15	7.43
496.65	2.48	1.97	0.51	501.85	9.72	2.15	7.57
496.75	2.63	1.97	0.66	501.95	9.86	2.15	7.71
496.85	2.77	1.97	0.80				
496.95	2.88	1.98	0.90				
497.05	2.98	1.98	1.00				
497.15	3.08	1.99	1.09				
497.25	3.22	1.99	1.24				
497.35	3.41	1.99	1.41				
497.45	3.61	2.00	1.61				
497.55	3.80	2.00	1.81				
497.65	3.96	2.00	1.96				
497.75	4.10	2.01	2.10				
497.85	4.23	2.01	2.22				
497.95	4.35	2.01	2.34				
498.05	4.47	2.02	2.45				
498.15	4.61	2.02	2.59				
498.25	4.80	2.02	2.78				
498.35	5.03	2.03	3.00				
498.45	5.26	2.03	3.22				
498.55	5.46	2.03	3.42				
498.65	5.63	2.04	3.59				
498.75	5.79	2.04	3.75				
498.85	5.94	2.04	3.90				
498.95	6.09	2.05	4.04				
499.05	6.23	2.05	4.17				
499.15	6.36	2.05	4.30				
499.25	6.49	2.06	4.43				
499.35	6.61	2.06	4.55				
499.45	6.73	2.07	4.66				
499.55	6.84	2.07	4.78				
499.65	6.96	2.07	4.89				
499.75	7.07	2.08	4.99				
499.85	7.18	2.08	5.10				
499.95	7.28	2.08	5.20				
500.05	7.39	2.09	5.30				
500.15	7.49	2.09	5.40				
500.25	7.59	2.09	5.49				
500.35	7.68	2.10	5.59				

2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway C) Rainfall=1.83"*

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Stage-Area-Storage for Pond SMS #1C: SMS #1C

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
495.25	0.159	0.000	500.45	0.159	0.594
495.35	0.159	0.006	500.55	0.159	0.602
495.45	0.159	0.013	500.65	0.159	0.610
495.55	0.159	0.019	500.75	0.159	0.617
495.65	0.159	0.025	500.85	0.159	0.623
495.75	0.159	0.032	500.95	0.159	0.630
495.85	0.159	0.038	501.05	0.159	0.636
495.95	0.159	0.044	501.15	0.159	0.643
496.05	0.159	0.055	501.25	0.159	0.649
496.15	0.159	0.069	501.35	0.159	0.655
496.25	0.159	0.082	501.45	0.159	0.662
496.35	0.159	0.096	501.55	0.159	0.668
496.45	0.159	0.110	501.65	0.159	0.674
496.55	0.159	0.124	501.75	0.159	0.681
496.65	0.159	0.138	501.85	0.159	0.687
496.75	0.159	0.152	501.95	0.159	0.693
496.85	0.159	0.165			
496.95	0.159	0.179			
497.05	0.159	0.193			
497.15	0.159	0.206			
497.25	0.159	0.220			
497.35	0.159	0.233			
497.45	0.159	0.246			
497.55	0.159	0.260			
497.65	0.159	0.273			
497.75	0.159	0.286			
497.85	0.159	0.299			
497.95	0.159	0.312			
498.05	0.159	0.325			
498.15	0.159	0.338			
498.25	0.159	0.351			
498.35	0.159	0.363			
498.45	0.159	0.376			
498.55	0.159	0.388			
498.65	0.159	0.400			
498.75	0.159	0.413			
498.85	0.159	0.425			
498.95	0.159	0.437			
499.05	0.159	0.448			
499.15	0.159	0.460			
499.25	0.159	0.472			
499.35	0.159	0.483			
499.45	0.159	0.494			
499.55	0.159	0.505			
499.65	0.159	0.516			
499.75	0.159	0.527			
499.85	0.159	0.537			
499.95	0.159	0.547			
500.05	0.159	0.557			
500.15	0.159	0.567			
500.25	0.159	0.576			
500.35	0.159	0.586			

2025.07.03 - Proposed Conditions

Type III 24-hr WQv (Roadway C) Rainfall=1.83"

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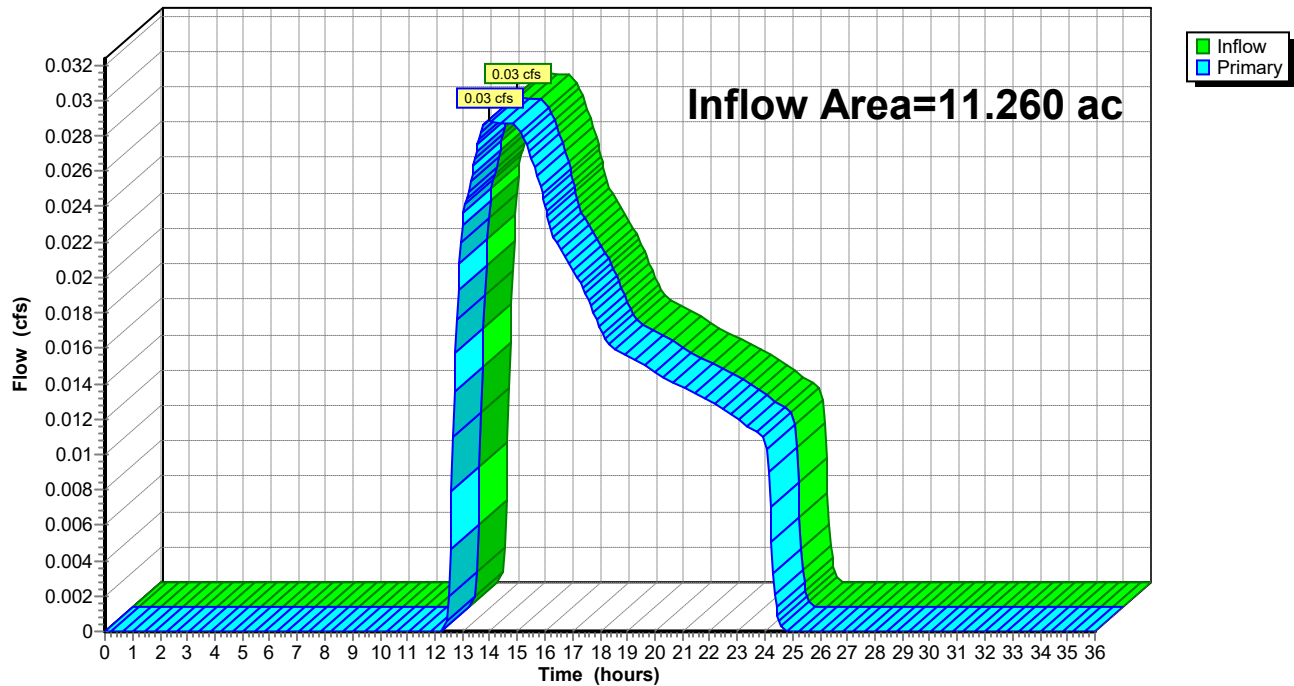
Summary for Link POI #1: POI #1

Inflow Area = 11.260 ac, 61.46% Impervious, Inflow Depth = 0.02" for WQv (Roadway C) event
Inflow = 0.03 cfs @ 13.96 hrs, Volume= 0.018 af
Primary = 0.03 cfs @ 13.96 hrs, Volume= 0.018 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #1: POI #1

Hydrograph



2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway C) Rainfall=1.83"*

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Hydrograph for Link POI #1: POI #1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	35.50	0.00	0.00	0.00
10.00	0.00	0.00	0.00	36.00	0.00	0.00	0.00
10.50	0.00	0.00	0.00				
11.00	0.00	0.00	0.00				
11.50	0.00	0.00	0.00				
12.00	0.00	0.00	0.00				
12.50	0.00	0.00	0.00				
13.00	0.02	0.00	0.02				
13.50	0.03	0.00	0.03				
14.00	0.03	0.00	0.03				
14.50	0.03	0.00	0.03				
15.00	0.03	0.00	0.03				
15.50	0.03	0.00	0.03				
16.00	0.02	0.00	0.02				
16.50	0.02	0.00	0.02				
17.00	0.02	0.00	0.02				
17.50	0.02	0.00	0.02				
18.00	0.02	0.00	0.02				
18.50	0.02	0.00	0.02				
19.00	0.02	0.00	0.02				
19.50	0.02	0.00	0.02				
20.00	0.01	0.00	0.01				
20.50	0.01	0.00	0.01				
21.00	0.01	0.00	0.01				
21.50	0.01	0.00	0.01				
22.00	0.01	0.00	0.01				
22.50	0.01	0.00	0.01				
23.00	0.01	0.00	0.01				
23.50	0.01	0.00	0.01				
24.00	0.01	0.00	0.01				
24.50	0.00	0.00	0.00				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				

2025.07.03 - Proposed Conditions

Type III 24-hr WQv (Roadway C) Rainfall=1.83"

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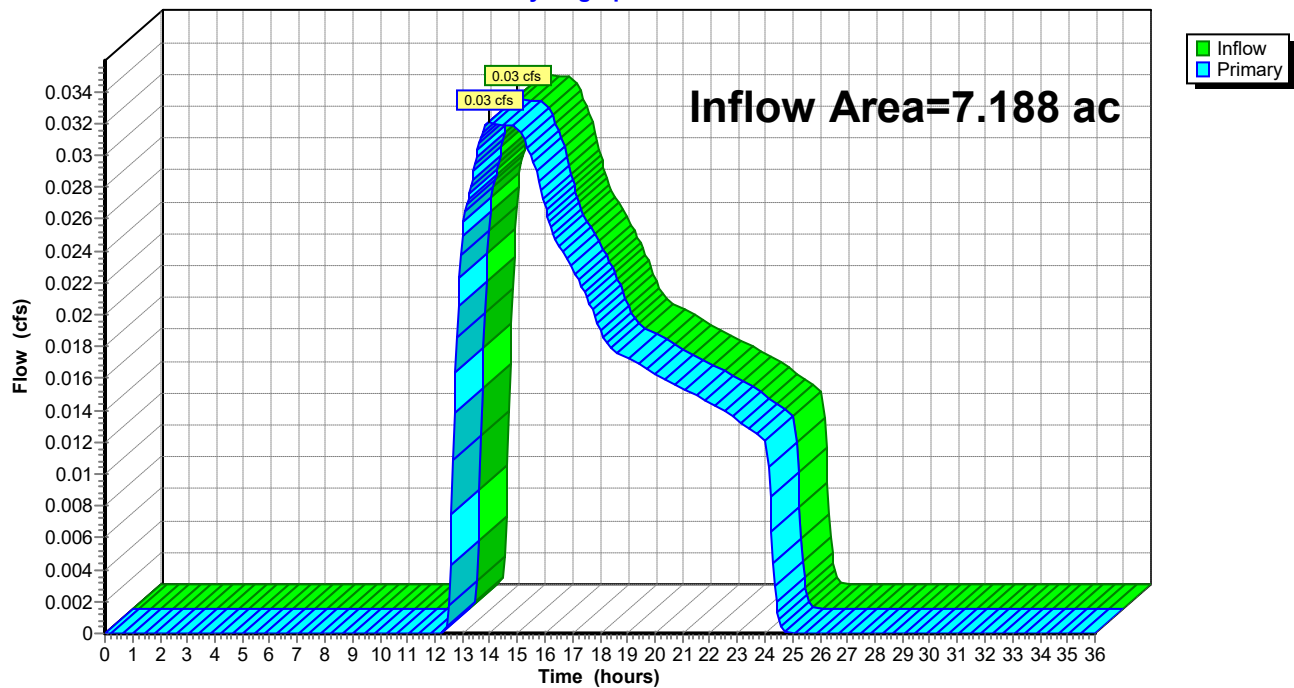
Summary for Link POI #2: POI #2

Inflow Area = 7.188 ac, 34.72% Impervious, Inflow Depth = 0.03" for WQv (Roadway C) event
Inflow = 0.03 cfs @ 13.98 hrs, Volume= 0.020 af
Primary = 0.03 cfs @ 13.98 hrs, Volume= 0.020 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #2: POI #2

Hydrograph



2025.07.03 - Proposed Conditions*Type III 24-hr WQv (Roadway C) Rainfall=1.83"*

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Hydrograph for Link POI #2: POI #2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	35.50	0.00	0.00	0.00
10.00	0.00	0.00	0.00	36.00	0.00	0.00	0.00
10.50	0.00	0.00	0.00				
11.00	0.00	0.00	0.00				
11.50	0.00	0.00	0.00				
12.00	0.00	0.00	0.00				
12.50	0.00	0.00	0.00				
13.00	0.02	0.00	0.02				
13.50	0.03	0.00	0.03				
14.00	0.03	0.00	0.03				
14.50	0.03	0.00	0.03				
15.00	0.03	0.00	0.03				
15.50	0.03	0.00	0.03				
16.00	0.03	0.00	0.03				
16.50	0.02	0.00	0.02				
17.00	0.02	0.00	0.02				
17.50	0.02	0.00	0.02				
18.00	0.02	0.00	0.02				
18.50	0.02	0.00	0.02				
19.00	0.02	0.00	0.02				
19.50	0.02	0.00	0.02				
20.00	0.02	0.00	0.02				
20.50	0.02	0.00	0.02				
21.00	0.02	0.00	0.02				
21.50	0.01	0.00	0.01				
22.00	0.01	0.00	0.01				
22.50	0.01	0.00	0.01				
23.00	0.01	0.00	0.01				
23.50	0.01	0.00	0.01				
24.00	0.01	0.00	0.01				
24.50	0.00	0.00	0.00				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 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 DA #1A: Drainage Area #1A Runoff Area=165,307 sf 92.16% Impervious Runoff Depth=1.41"
Tc=10.0 min CN=95 Runoff=5.29 cfs 0.445 af

Subcatchment DA #1B: Drainage Area #1B Runoff Area=172,042 sf 3.71% Impervious Runoff Depth=0.07"
Flow Length=638' Tc=17.0 min CN=62 Runoff=0.04 cfs 0.023 af

Subcatchment DA #1C: Drainage Area Runoff Area=153,140 sf 93.20% Impervious Runoff Depth=1.41"
Tc=10.0 min CN=95 Runoff=4.90 cfs 0.412 af

Subcatchment DA #2A: Drainage Area #2A Runoff Area=121,928 sf 86.47% Impervious Runoff Depth=1.24"
Tc=10.0 min CN=93 Runoff=3.50 cfs 0.290 af

Subcatchment DA #2B: Drainage Area #2B Runoff Area=191,184 sf 1.71% Impervious Runoff Depth=0.07"
Flow Length=784' Tc=18.4 min CN=62 Runoff=0.04 cfs 0.026 af

Pond DB #2: Drainage Basin #2 Peak Elev=485.26' Storage=1,487 cf Inflow=3.50 cfs 0.290 af
Discarded=1.70 cfs 0.290 af Primary=0.00 cfs 0.000 af Outflow=1.70 cfs 0.290 af

Pond SMS #1A: SMS #1A Peak Elev=492.58' Storage=0.064 af Inflow=5.29 cfs 0.445 af
Discarded=2.12 cfs 0.445 af Primary=0.01 cfs 0.000 af Outflow=2.12 cfs 0.445 af

Pond SMS #1C: SMS #1C Peak Elev=496.09' Storage=0.060 af Inflow=4.90 cfs 0.412 af
Discarded=1.95 cfs 0.412 af Primary=0.01 cfs 0.000 af Outflow=1.95 cfs 0.412 af

Link POI #1: POI #1 Inflow=0.04 cfs 0.023 af
Primary=0.04 cfs 0.023 af

Link POI #2: POI #2 Inflow=0.04 cfs 0.026 af
Primary=0.04 cfs 0.026 af

Total Runoff Area = 18.448 ac Runoff Volume = 1.196 af Average Runoff Depth = 0.78"
48.96% Pervious = 9.032 ac 51.04% Impervious = 9.416 ac

Summary for Subcatchment DA #1A: Drainage Area #1A

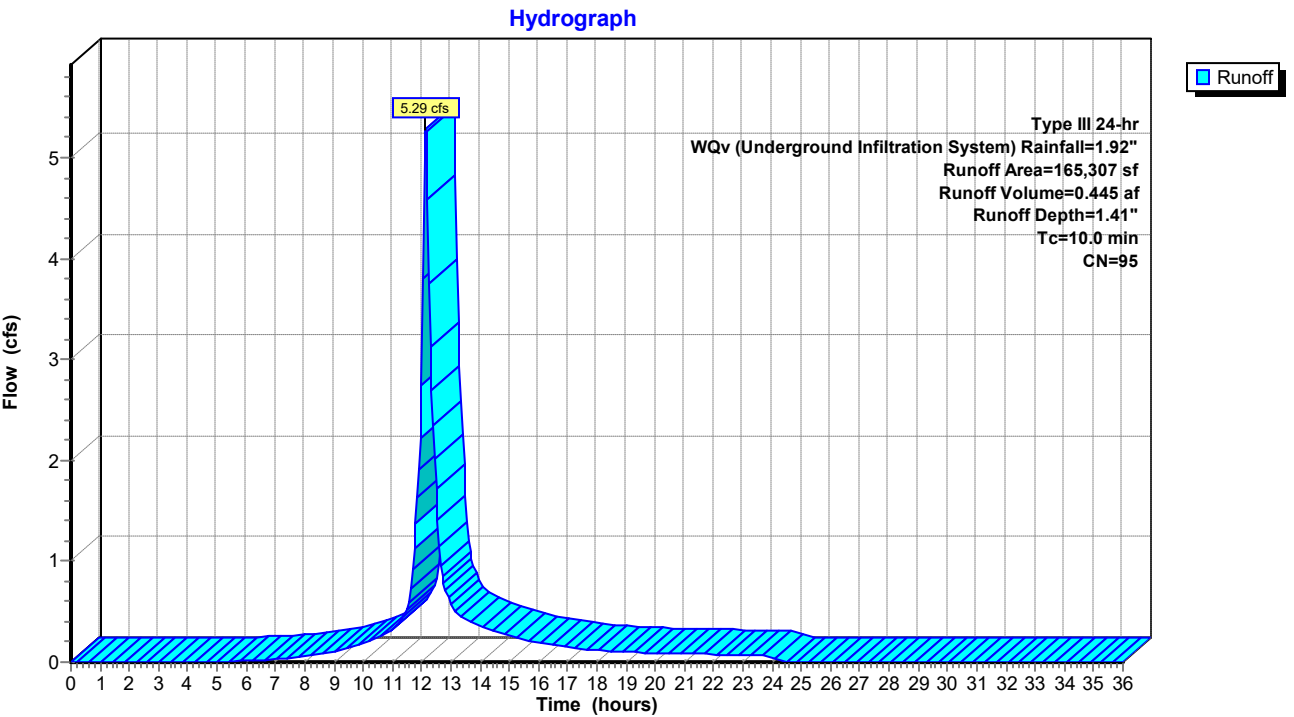
Runoff = 5.29 cfs @ 12.14 hrs, Volume= 0.445 af, Depth= 1.41"
Routed to Pond SMS #1A : SMS #1A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr WQv (Underground Infiltration System) Rainfall=1.92"

	Area (sf)	CN	Description
	11,207	61	>75% Grass cover, Good, HSG B
*	1,751	61	Emergency Access Road (Perv.), Good, HSG B
*	86,044	98	Building/Roof, HSG B
*	60,510	98	Pavement, HSG B
*	2,937	98	Sidewalk, HSG B
*	2,858	98	Emergency Access Road (Imp.), HSG B
	165,307	95	Weighted Average
	12,958		7.84% Pervious Area
	152,349		92.16% Impervious Area

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
10.0					Direct Entry, 10 Minute Minimum

Subcatchment DA #1A: Drainage Area #1A



2025.07.03 - Proposed Con Type III 24-hr WQv (Underground Infiltration System) Rainfall=1.92"

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Hydrograph for Subcatchment DA #1A: Drainage Area #1A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	1.92	1.41	0.00
0.50	0.01	0.00	0.00	26.50	1.92	1.41	0.00
1.00	0.02	0.00	0.00	27.00	1.92	1.41	0.00
1.50	0.03	0.00	0.00	27.50	1.92	1.41	0.00
2.00	0.04	0.00	0.00	28.00	1.92	1.41	0.00
2.50	0.05	0.00	0.00	28.50	1.92	1.41	0.00
3.00	0.06	0.00	0.00	29.00	1.92	1.41	0.00
3.50	0.07	0.00	0.00	29.50	1.92	1.41	0.00
4.00	0.08	0.00	0.00	30.00	1.92	1.41	0.00
4.50	0.10	0.00	0.00	30.50	1.92	1.41	0.00
5.00	0.11	0.00	0.00	31.00	1.92	1.41	0.00
5.50	0.12	0.00	0.01	31.50	1.92	1.41	0.00
6.00	0.14	0.00	0.01	32.00	1.92	1.41	0.00
6.50	0.15	0.00	0.02	32.50	1.92	1.41	0.00
7.00	0.17	0.01	0.03	33.00	1.92	1.41	0.00
7.50	0.20	0.01	0.04	33.50	1.92	1.41	0.00
8.00	0.22	0.02	0.06	34.00	1.92	1.41	0.00
8.50	0.25	0.03	0.08	34.50	1.92	1.41	0.00
9.00	0.28	0.04	0.11	35.00	1.92	1.41	0.00
9.50	0.32	0.06	0.15	35.50	1.92	1.41	0.00
10.00	0.36	0.08	0.18	36.00	1.92	1.41	0.00
10.50	0.42	0.12	0.25				
11.00	0.48	0.16	0.33				
11.50	0.57	0.22	0.54				
12.00	0.96	0.53	2.75				
12.50	1.35	0.87	1.71				
13.00	1.44	0.96	0.59				
13.50	1.50	1.02	0.44				
14.00	1.56	1.07	0.36				
14.50	1.60	1.11	0.31				
15.00	1.64	1.14	0.27				
15.50	1.67	1.17	0.23				
16.00	1.70	1.20	0.19				
16.50	1.72	1.22	0.17				
17.00	1.75	1.24	0.15				
17.50	1.77	1.26	0.13				
18.00	1.78	1.28	0.12				
18.50	1.80	1.29	0.11				
19.00	1.81	1.30	0.10				
19.50	1.82	1.32	0.10				
20.00	1.84	1.33	0.09				
20.50	1.85	1.34	0.09				
21.00	1.86	1.35	0.08				
21.50	1.87	1.36	0.08				
22.00	1.88	1.37	0.08				
22.50	1.89	1.38	0.07				
23.00	1.90	1.39	0.07				
23.50	1.91	1.40	0.06				
24.00	1.92	1.41	0.06				
24.50	1.92	1.41	0.00				
25.00	1.92	1.41	0.00				
25.50	1.92	1.41	0.00				

Summary for Subcatchment DA #1B: Drainage Area #1B

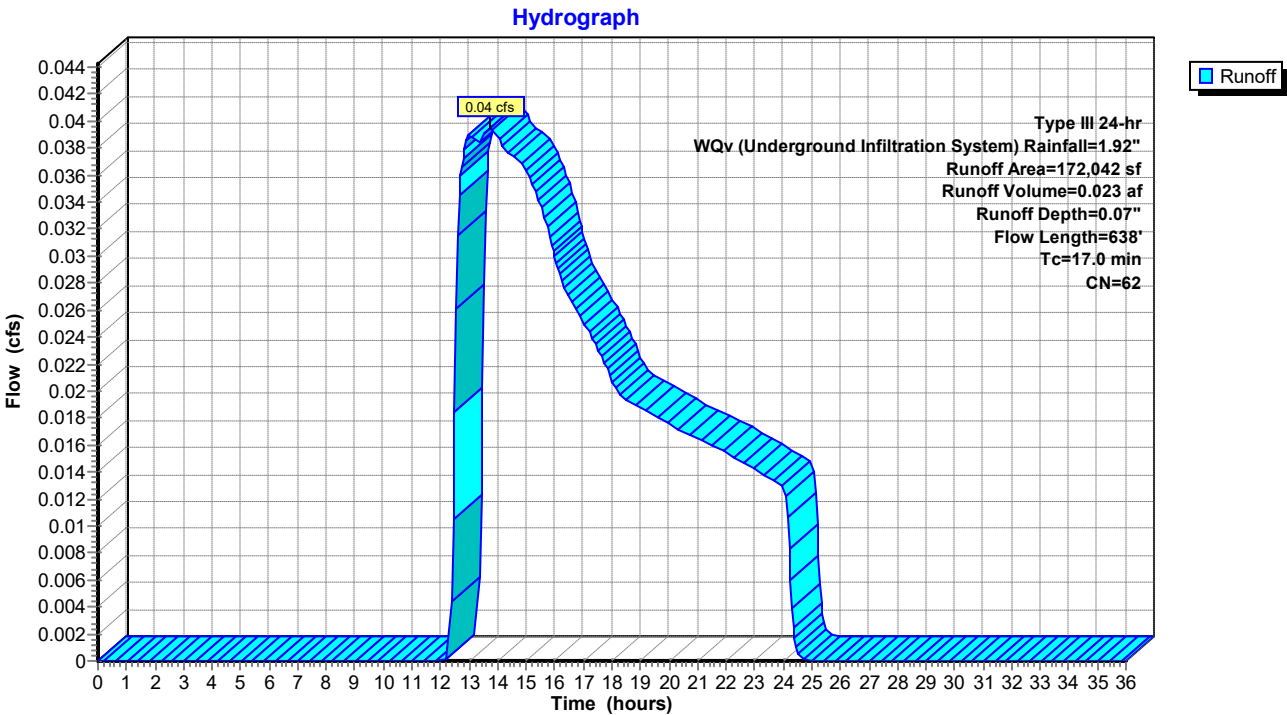
Runoff = 0.04 cfs @ 13.76 hrs, Volume= 0.023 af, Depth= 0.07"
Routed to Link POI #1 : POI #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr WQv (Underground Infiltration System) Rainfall=1.92"

	Area (sf)	CN	Description
	161,751	61	>75% Grass cover, Good, HSG B
*	3,911	61	Emergency Access Road (Perv.), Good, HSG B
*	6,380	98	Emergency Access Road (Imp.), HSG B
	172,042	62	Weighted Average
	165,662		96.29% Pervious Area
	6,380		3.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.2	150	0.1200	0.21		Sheet Flow, Grass: Dense n= 0.240 P2= 2.00"
4.8	488	0.0578	1.68		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
17.0	638	Total			

Subcatchment DA #1B: Drainage Area #1B



2025.07.03 - Proposed Con Type III 24-hr WQv (Underground Infiltration System) Rainfall=1.92"

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Hydrograph for Subcatchment DA #1B: Drainage Area #1B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	1.92	0.07	0.00
0.50	0.01	0.00	0.00	26.50	1.92	0.07	0.00
1.00	0.02	0.00	0.00	27.00	1.92	0.07	0.00
1.50	0.03	0.00	0.00	27.50	1.92	0.07	0.00
2.00	0.04	0.00	0.00	28.00	1.92	0.07	0.00
2.50	0.05	0.00	0.00	28.50	1.92	0.07	0.00
3.00	0.06	0.00	0.00	29.00	1.92	0.07	0.00
3.50	0.07	0.00	0.00	29.50	1.92	0.07	0.00
4.00	0.08	0.00	0.00	30.00	1.92	0.07	0.00
4.50	0.10	0.00	0.00	30.50	1.92	0.07	0.00
5.00	0.11	0.00	0.00	31.00	1.92	0.07	0.00
5.50	0.12	0.00	0.00	31.50	1.92	0.07	0.00
6.00	0.14	0.00	0.00	32.00	1.92	0.07	0.00
6.50	0.15	0.00	0.00	32.50	1.92	0.07	0.00
7.00	0.17	0.00	0.00	33.00	1.92	0.07	0.00
7.50	0.20	0.00	0.00	33.50	1.92	0.07	0.00
8.00	0.22	0.00	0.00	34.00	1.92	0.07	0.00
8.50	0.25	0.00	0.00	34.50	1.92	0.07	0.00
9.00	0.28	0.00	0.00	35.00	1.92	0.07	0.00
9.50	0.32	0.00	0.00	35.50	1.92	0.07	0.00
10.00	0.36	0.00	0.00	36.00	1.92	0.07	0.00
10.50	0.42	0.00	0.00				
11.00	0.48	0.00	0.00				
11.50	0.57	0.00	0.00				
12.00	0.96	0.00	0.00				
12.50	1.35	0.00	0.02				
13.00	1.44	0.01	0.04				
13.50	1.50	0.01	0.04				
14.00	1.56	0.02	0.04				
14.50	1.60	0.02	0.04				
15.00	1.64	0.03	0.04				
15.50	1.67	0.03	0.03				
16.00	1.70	0.03	0.03				
16.50	1.72	0.04	0.03				
17.00	1.75	0.04	0.03				
17.50	1.77	0.04	0.02				
18.00	1.78	0.05	0.02				
18.50	1.80	0.05	0.02				
19.00	1.81	0.05	0.02				
19.50	1.82	0.05	0.02				
20.00	1.84	0.06	0.02				
20.50	1.85	0.06	0.02				
21.00	1.86	0.06	0.02				
21.50	1.87	0.06	0.02				
22.00	1.88	0.06	0.02				
22.50	1.89	0.07	0.01				
23.00	1.90	0.07	0.01				
23.50	1.91	0.07	0.01				
24.00	1.92	0.07	0.01				
24.50	1.92	0.07	0.00				
25.00	1.92	0.07	0.00				
25.50	1.92	0.07	0.00				

Summary for Subcatchment DA #1C: Drainage Area #1C

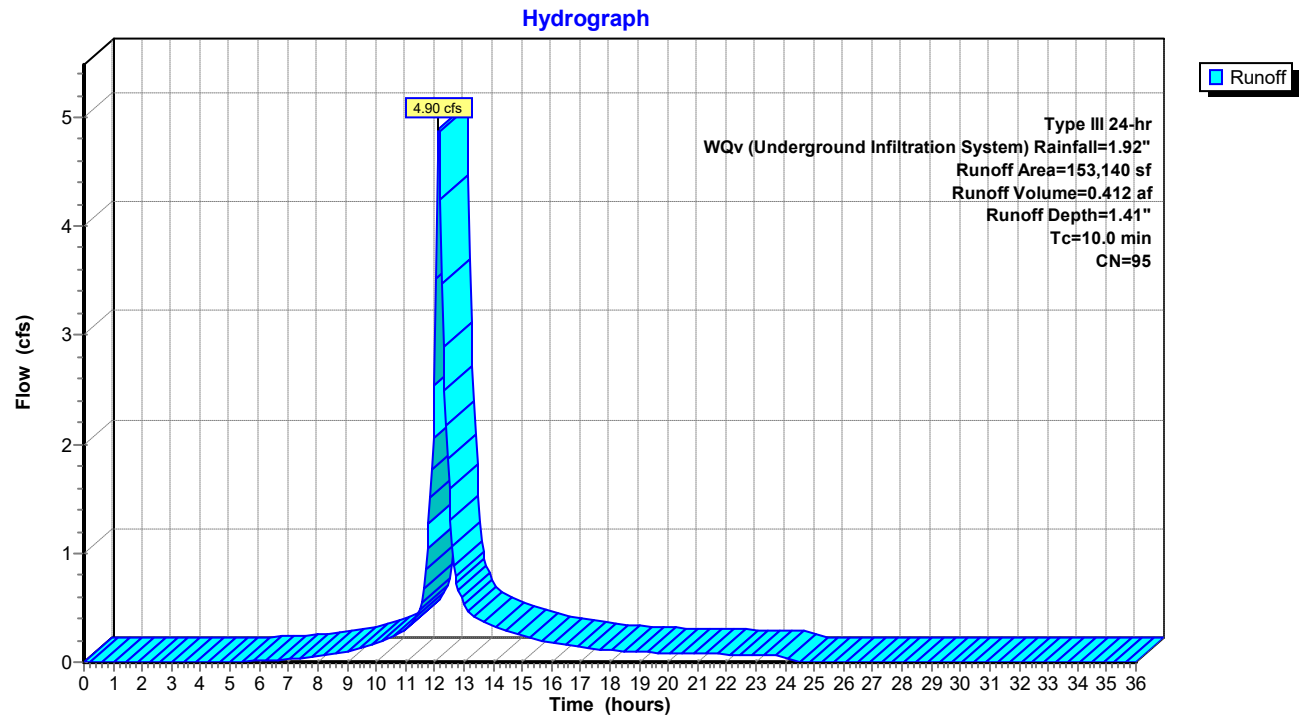
Runoff = 4.90 cfs @ 12.14 hrs, Volume= 0.412 af, Depth= 1.41"
Routed to Pond SMS #1C : SMS #1C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr WQv (Underground Infiltration System) Rainfall=1.92"

	Area (sf)	CN	Description
	8,883	61	>75% Grass cover, Good, HSG B
*	1,528	61	Emergency Access Road (Perv.), Good, HSG B
*	100,238	98	Building/Roof, HSG B
*	36,917	98	Pavement, HSG B
*	3,080	98	Sidewalk, HSG B
	2,494	98	Emergency Access Road (Imp.), HSG B
	153,140	95	Weighted Average
	10,411		6.80% Pervious Area
	142,729		93.20% Impervious Area

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
10.0					Direct Entry, 10 Direct Minimum

Subcatchment DA #1C: Drainage Area #1C



2025.07.03 - Proposed Con Type III 24-hr WQv (Underground Infiltration System) Rainfall=1.92"

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Hydrograph for Subcatchment DA #1C: Drainage Area #1C

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	1.92	1.41	0.00
0.50	0.01	0.00	0.00	26.50	1.92	1.41	0.00
1.00	0.02	0.00	0.00	27.00	1.92	1.41	0.00
1.50	0.03	0.00	0.00	27.50	1.92	1.41	0.00
2.00	0.04	0.00	0.00	28.00	1.92	1.41	0.00
2.50	0.05	0.00	0.00	28.50	1.92	1.41	0.00
3.00	0.06	0.00	0.00	29.00	1.92	1.41	0.00
3.50	0.07	0.00	0.00	29.50	1.92	1.41	0.00
4.00	0.08	0.00	0.00	30.00	1.92	1.41	0.00
4.50	0.10	0.00	0.00	30.50	1.92	1.41	0.00
5.00	0.11	0.00	0.00	31.00	1.92	1.41	0.00
5.50	0.12	0.00	0.01	31.50	1.92	1.41	0.00
6.00	0.14	0.00	0.01	32.00	1.92	1.41	0.00
6.50	0.15	0.00	0.02	32.50	1.92	1.41	0.00
7.00	0.17	0.01	0.03	33.00	1.92	1.41	0.00
7.50	0.20	0.01	0.04	33.50	1.92	1.41	0.00
8.00	0.22	0.02	0.05	34.00	1.92	1.41	0.00
8.50	0.25	0.03	0.07	34.50	1.92	1.41	0.00
9.00	0.28	0.04	0.10	35.00	1.92	1.41	0.00
9.50	0.32	0.06	0.13	35.50	1.92	1.41	0.00
10.00	0.36	0.08	0.17	36.00	1.92	1.41	0.00
10.50	0.42	0.12	0.23				
11.00	0.48	0.16	0.30				
11.50	0.57	0.22	0.50				
12.00	0.96	0.53	2.54				
12.50	1.35	0.87	1.59				
13.00	1.44	0.96	0.54				
13.50	1.50	1.02	0.41				
14.00	1.56	1.07	0.33				
14.50	1.60	1.11	0.29				
15.00	1.64	1.14	0.25				
15.50	1.67	1.17	0.21				
16.00	1.70	1.20	0.18				
16.50	1.72	1.22	0.16				
17.00	1.75	1.24	0.14				
17.50	1.77	1.26	0.12				
18.00	1.78	1.28	0.11				
18.50	1.80	1.29	0.10				
19.00	1.81	1.30	0.09				
19.50	1.82	1.32	0.09				
20.00	1.84	1.33	0.09				
20.50	1.85	1.34	0.08				
21.00	1.86	1.35	0.08				
21.50	1.87	1.36	0.07				
22.00	1.88	1.37	0.07				
22.50	1.89	1.38	0.07				
23.00	1.90	1.39	0.06				
23.50	1.91	1.40	0.06				
24.00	1.92	1.41	0.06				
24.50	1.92	1.41	0.00				
25.00	1.92	1.41	0.00				
25.50	1.92	1.41	0.00				

Summary for Subcatchment DA #2A: Drainage Area #2A

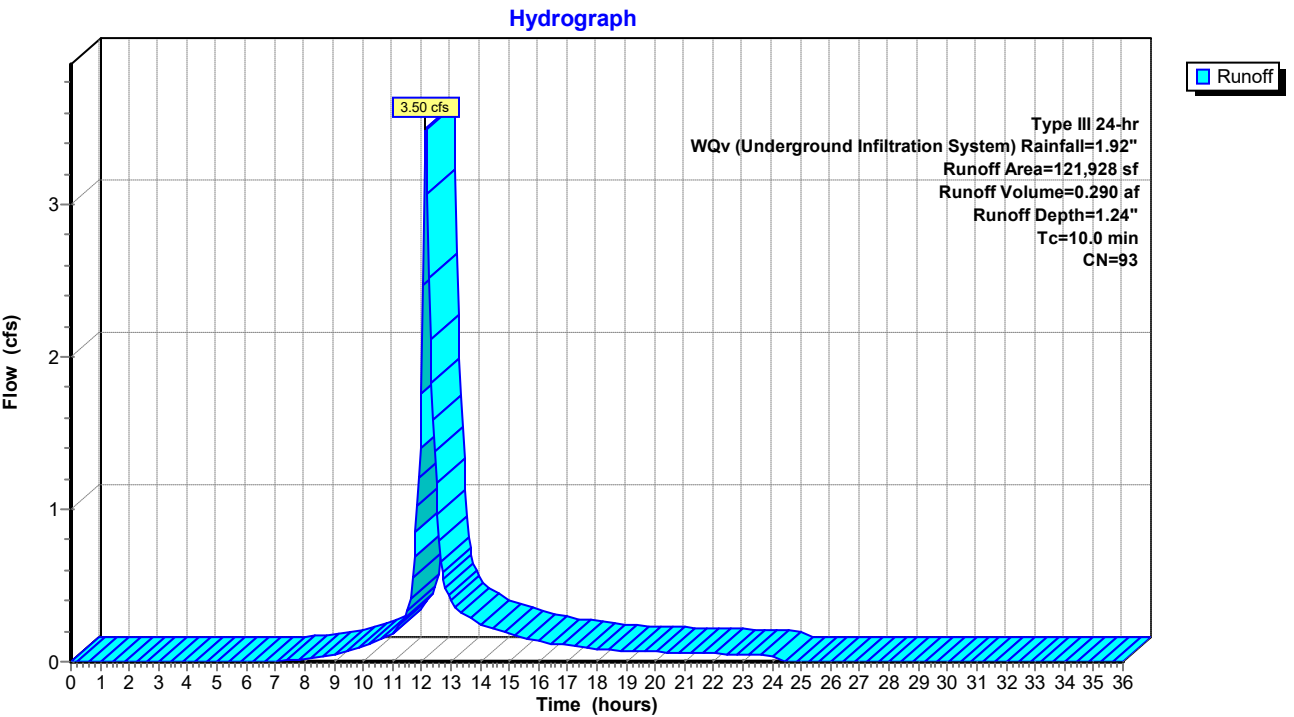
Runoff = 3.50 cfs @ 12.14 hrs, Volume= 0.290 af, Depth= 1.24"
Routed to Pond DB #2 : Drainage Basin #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr WQv (Underground Infiltration System) Rainfall=1.92"

	Area (sf)	CN	Description
*	50,600	98	Building/Roof, HSG B
*	37,828	98	Pavement, HSG B
*	1,562	98	Sidewalk, HSG B
*	3,943	98	Emergency Access Road (Imp.), HSG B
	14,078	61	>75% Grass cover, Good, HSG B
*	2,417	61	Emergency Access Road (Perv.), Good, HSG B
*	11,500	98	Infiltration Basin, HSG B
	121,928	93	Weighted Average
	16,495		13.53% Pervious Area
	105,433		86.47% Impervious Area

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
10.0					Direct Entry, 10 Minute Minimum

Subcatchment DA #2A: Drainage Area #2A



2025.07.03 - Proposed Con Type III 24-hr WQv (Underground Infiltration System) Rainfall=1.92"

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Hydrograph for Subcatchment DA #2A: Drainage Area #2A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	1.92	1.24	0.00
0.50	0.01	0.00	0.00	26.50	1.92	1.24	0.00
1.00	0.02	0.00	0.00	27.00	1.92	1.24	0.00
1.50	0.03	0.00	0.00	27.50	1.92	1.24	0.00
2.00	0.04	0.00	0.00	28.00	1.92	1.24	0.00
2.50	0.05	0.00	0.00	28.50	1.92	1.24	0.00
3.00	0.06	0.00	0.00	29.00	1.92	1.24	0.00
3.50	0.07	0.00	0.00	29.50	1.92	1.24	0.00
4.00	0.08	0.00	0.00	30.00	1.92	1.24	0.00
4.50	0.10	0.00	0.00	30.50	1.92	1.24	0.00
5.00	0.11	0.00	0.00	31.00	1.92	1.24	0.00
5.50	0.12	0.00	0.00	31.50	1.92	1.24	0.00
6.00	0.14	0.00	0.00	32.00	1.92	1.24	0.00
6.50	0.15	0.00	0.00	32.50	1.92	1.24	0.00
7.00	0.17	0.00	0.00	33.00	1.92	1.24	0.00
7.50	0.20	0.00	0.01	33.50	1.92	1.24	0.00
8.00	0.22	0.01	0.02	34.00	1.92	1.24	0.00
8.50	0.25	0.01	0.03	34.50	1.92	1.24	0.00
9.00	0.28	0.02	0.05	35.00	1.92	1.24	0.00
9.50	0.32	0.03	0.07	35.50	1.92	1.24	0.00
10.00	0.36	0.05	0.10	36.00	1.92	1.24	0.00
10.50	0.42	0.07	0.13				
11.00	0.48	0.10	0.19				
11.50	0.57	0.15	0.32				
12.00	0.96	0.42	1.76				
12.50	1.35	0.74	1.17				
13.00	1.44	0.81	0.41				
13.50	1.50	0.87	0.31				
14.00	1.56	0.92	0.25				
14.50	1.60	0.96	0.22				
15.00	1.64	0.99	0.19				
15.50	1.67	1.02	0.16				
16.00	1.70	1.04	0.13				
16.50	1.72	1.07	0.12				
17.00	1.75	1.08	0.11				
17.50	1.77	1.10	0.09				
18.00	1.78	1.12	0.08				
18.50	1.80	1.13	0.08				
19.00	1.81	1.14	0.07				
19.50	1.82	1.15	0.07				
20.00	1.84	1.17	0.06				
20.50	1.85	1.18	0.06				
21.00	1.86	1.19	0.06				
21.50	1.87	1.20	0.06				
22.00	1.88	1.21	0.05				
22.50	1.89	1.22	0.05				
23.00	1.90	1.23	0.05				
23.50	1.91	1.23	0.05				
24.00	1.92	1.24	0.04				
24.50	1.92	1.24	0.00				
25.00	1.92	1.24	0.00				
25.50	1.92	1.24	0.00				

Summary for Subcatchment DA #2B: Drainage Area #2B

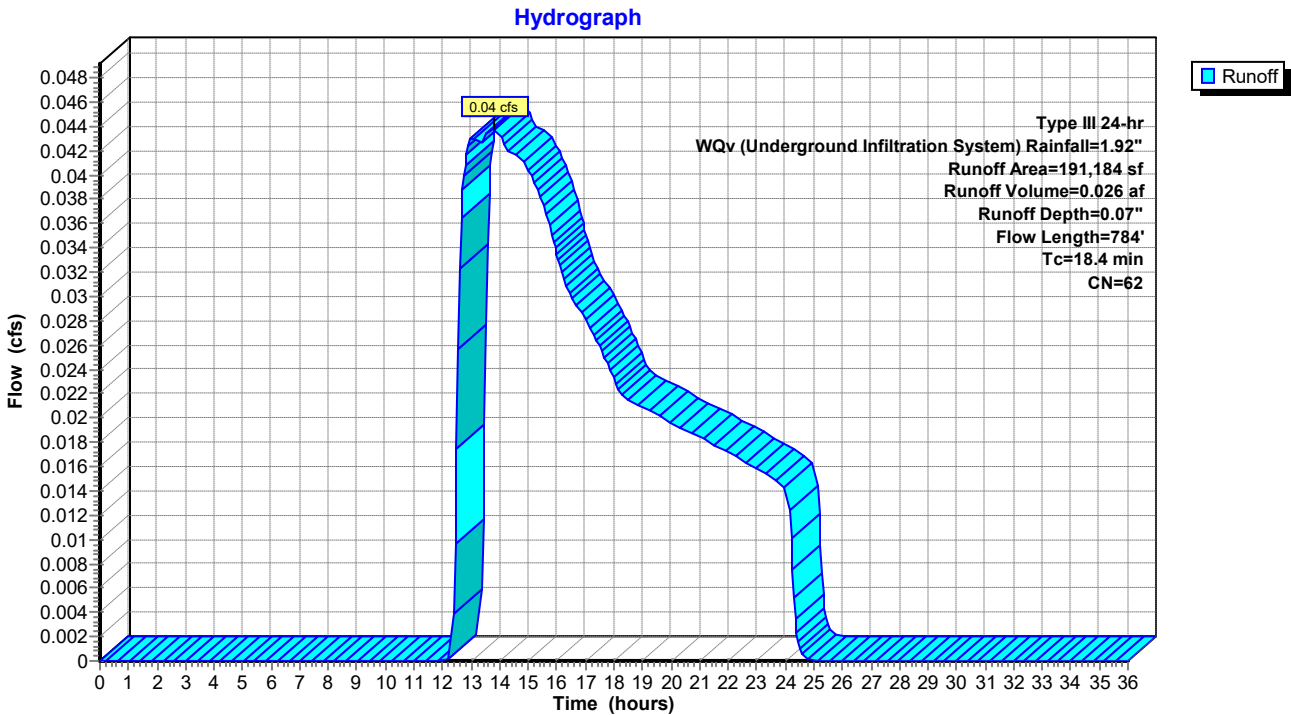
Runoff = 0.04 cfs @ 13.77 hrs, Volume= 0.026 af, Depth= 0.07"
Routed to Link POI #2 : POI #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr WQv (Underground Infiltration System) Rainfall=1.92"

Area (sf)	CN	Description
185,909	61	>75% Grass cover, Good, HSG B
* 2,004	61	Emergency Access Road (Perv.), Good, HSG B
* 3,271	98	Emergency Acess Road (Imp.), HSG B
191,184	62	Weighted Average
187,913		98.29% Pervious Area
3,271		1.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	150	0.0667	0.16		Sheet Flow, Grass: Dense n= 0.240 P2= 2.00"
3.0	634	0.2524	3.52		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
18.4	784	Total			

Subcatchment DA #2B: Drainage Area #2B



2025.07.03 - Proposed Con Type III 24-hr WQv (Underground Infiltration System) Rainfall=1.92"

Prepared by Weston & Sampson Engineers, Inc

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Hydrograph for Subcatchment DA #2B: Drainage Area #2B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	1.92	0.07	0.00
0.50	0.01	0.00	0.00	26.50	1.92	0.07	0.00
1.00	0.02	0.00	0.00	27.00	1.92	0.07	0.00
1.50	0.03	0.00	0.00	27.50	1.92	0.07	0.00
2.00	0.04	0.00	0.00	28.00	1.92	0.07	0.00
2.50	0.05	0.00	0.00	28.50	1.92	0.07	0.00
3.00	0.06	0.00	0.00	29.00	1.92	0.07	0.00
3.50	0.07	0.00	0.00	29.50	1.92	0.07	0.00
4.00	0.08	0.00	0.00	30.00	1.92	0.07	0.00
4.50	0.10	0.00	0.00	30.50	1.92	0.07	0.00
5.00	0.11	0.00	0.00	31.00	1.92	0.07	0.00
5.50	0.12	0.00	0.00	31.50	1.92	0.07	0.00
6.00	0.14	0.00	0.00	32.00	1.92	0.07	0.00
6.50	0.15	0.00	0.00	32.50	1.92	0.07	0.00
7.00	0.17	0.00	0.00	33.00	1.92	0.07	0.00
7.50	0.20	0.00	0.00	33.50	1.92	0.07	0.00
8.00	0.22	0.00	0.00	34.00	1.92	0.07	0.00
8.50	0.25	0.00	0.00	34.50	1.92	0.07	0.00
9.00	0.28	0.00	0.00	35.00	1.92	0.07	0.00
9.50	0.32	0.00	0.00	35.50	1.92	0.07	0.00
10.00	0.36	0.00	0.00	36.00	1.92	0.07	0.00
10.50	0.42	0.00	0.00				
11.00	0.48	0.00	0.00				
11.50	0.57	0.00	0.00				
12.00	0.96	0.00	0.00				
12.50	1.35	0.00	0.02				
13.00	1.44	0.01	0.04				
13.50	1.50	0.01	0.04				
14.00	1.56	0.02	0.04				
14.50	1.60	0.02	0.04				
15.00	1.64	0.03	0.04				
15.50	1.67	0.03	0.04				
16.00	1.70	0.03	0.03				
16.50	1.72	0.04	0.03				
17.00	1.75	0.04	0.03				
17.50	1.77	0.04	0.03				
18.00	1.78	0.05	0.02				
18.50	1.80	0.05	0.02				
19.00	1.81	0.05	0.02				
19.50	1.82	0.05	0.02				
20.00	1.84	0.06	0.02				
20.50	1.85	0.06	0.02				
21.00	1.86	0.06	0.02				
21.50	1.87	0.06	0.02				
22.00	1.88	0.06	0.02				
22.50	1.89	0.07	0.02				
23.00	1.90	0.07	0.02				
23.50	1.91	0.07	0.02				
24.00	1.92	0.07	0.01				
24.50	1.92	0.07	0.00				
25.00	1.92	0.07	0.00				
25.50	1.92	0.07	0.00				

Summary for Pond DB #2: Drainage Basin #2

Inflow Area = 2.799 ac, 86.47% Impervious, Inflow Depth = 1.24" for WQv (Underground Infiltration System)
 Inflow = 3.50 cfs @ 12.14 hrs, Volume= 0.290 af
 Outflow = 1.70 cfs @ 12.38 hrs, Volume= 0.290 af, Atten= 51%, Lag= 14.1 min
 Discarded = 1.70 cfs @ 12.38 hrs, Volume= 0.290 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link POI #2 : POI #2

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs / 3
 Peak Elev= 485.26' @ 12.38 hrs Surf.Area= 6,016 sf Storage= 1,487 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 4.9 min (820.3 - 815.4)

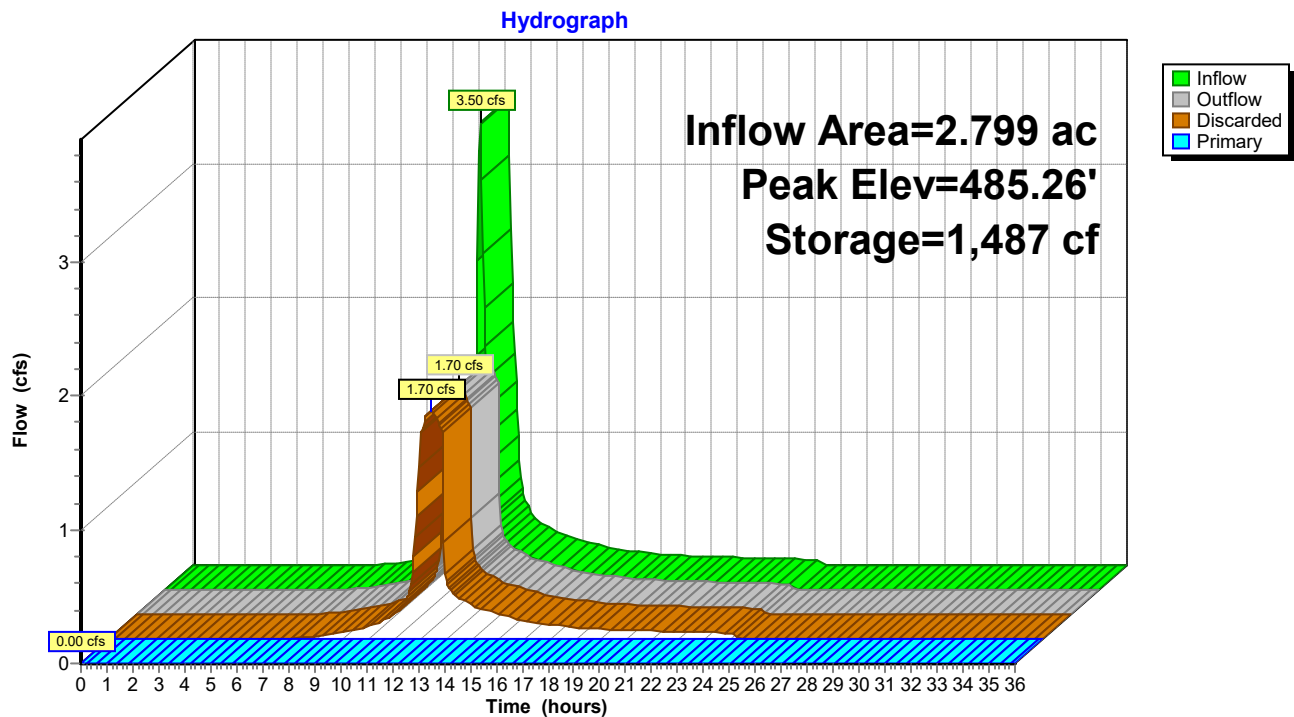
Volume	Invert	Avail.Storage	Storage Description
#1	485.00'	25,500 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
485.00	5,500	0	0
486.00	7,500	6,500	6,500
487.00	9,500	8,500	15,000
488.00	11,500	10,500	25,500

Device	Routing	Invert	Outlet Devices
#1	Discarded	485.00'	12.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 470.00'
#2	Primary	485.26'	7.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	486.79'	7.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

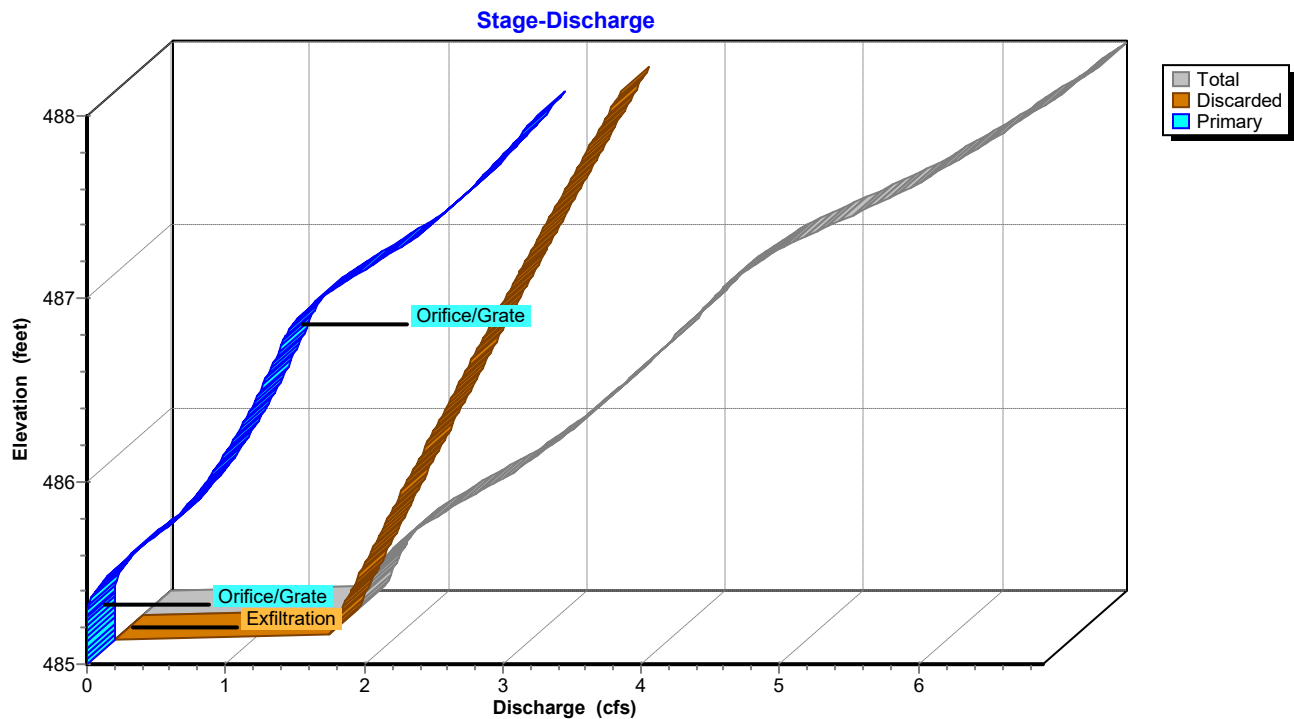
Discarded OutFlow Max=1.70 cfs @ 12.38 hrs HW=485.26' (Free Discharge)
 ↑ **1=Exfiltration** (Controls 1.70 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=485.00' (Free Discharge)
 ↑ **2=Orifice/Grate** (Controls 0.00 cfs)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

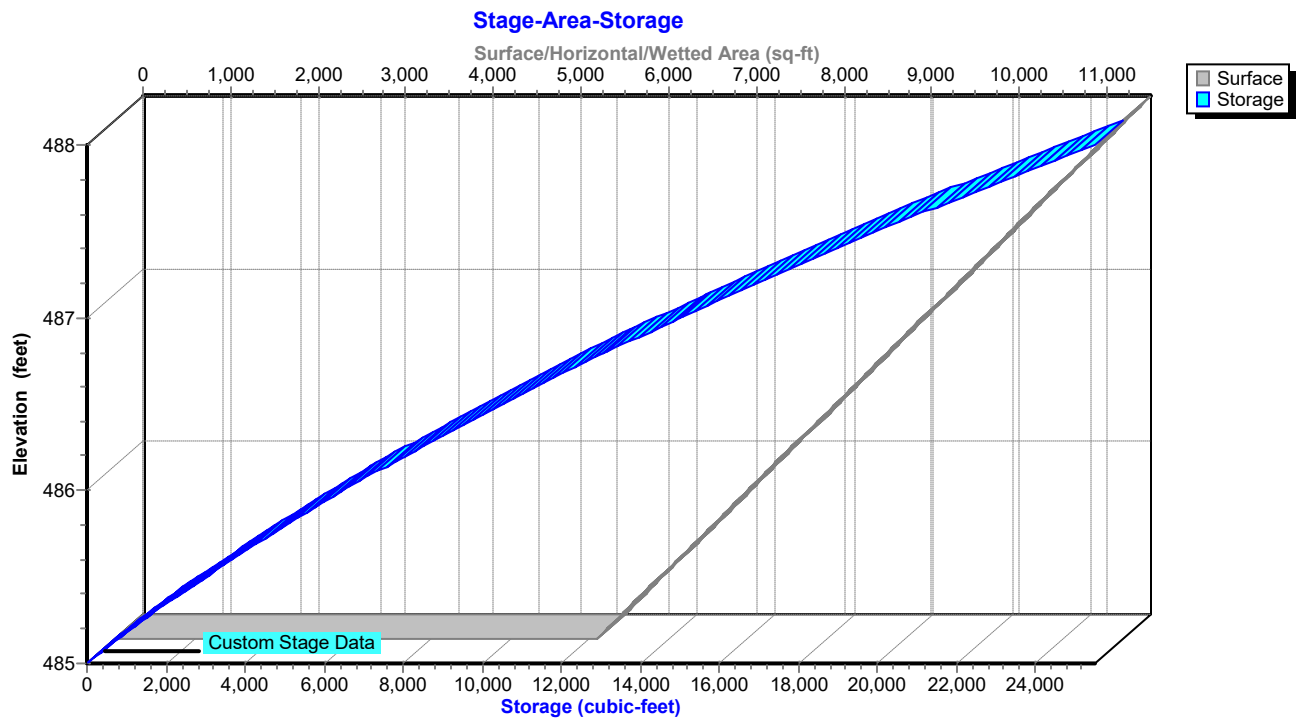
Pond DB #2: Drainage Basin #2



Pond DB #2: Drainage Basin #2



Pond DB #2: Drainage Basin #2



Hydrograph for Pond DB #2: Drainage Basin #2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	485.00	0.00	0.00	0.00
1.00	0.00	0	485.00	0.00	0.00	0.00
2.00	0.00	0	485.00	0.00	0.00	0.00
3.00	0.00	0	485.00	0.00	0.00	0.00
4.00	0.00	0	485.00	0.00	0.00	0.00
5.00	0.00	0	485.00	0.00	0.00	0.00
6.00	0.00	0	485.00	0.00	0.00	0.00
7.00	0.00	0	485.00	0.00	0.00	0.00
8.00	0.02	2	485.00	0.02	0.02	0.00
9.00	0.05	5	485.00	0.05	0.05	0.00
10.00	0.10	10	485.00	0.09	0.09	0.00
11.00	0.19	20	485.00	0.18	0.18	0.00
12.00	1.76	168	485.03	1.55	1.55	0.00
13.00	0.41	46	485.01	0.43	0.43	0.00
14.00	0.25	27	485.00	0.25	0.25	0.00
15.00	0.19	20	485.00	0.19	0.19	0.00
16.00	0.13	15	485.00	0.14	0.14	0.00
17.00	0.11	11	485.00	0.11	0.11	0.00
18.00	0.08	9	485.00	0.08	0.08	0.00
19.00	0.07	8	485.00	0.07	0.07	0.00
20.00	0.06	7	485.00	0.07	0.07	0.00
21.00	0.06	6	485.00	0.06	0.06	0.00
22.00	0.05	6	485.00	0.05	0.05	0.00
23.00	0.05	5	485.00	0.05	0.05	0.00
24.00	0.04	5	485.00	0.04	0.04	0.00
25.00	0.00	0	485.00	0.00	0.00	0.00
26.00	0.00	0	485.00	0.00	0.00	0.00
27.00	0.00	0	485.00	0.00	0.00	0.00
28.00	0.00	0	485.00	0.00	0.00	0.00
29.00	0.00	0	485.00	0.00	0.00	0.00
30.00	0.00	0	485.00	0.00	0.00	0.00
31.00	0.00	0	485.00	0.00	0.00	0.00
32.00	0.00	0	485.00	0.00	0.00	0.00
33.00	0.00	0	485.00	0.00	0.00	0.00
34.00	0.00	0	485.00	0.00	0.00	0.00
35.00	0.00	0	485.00	0.00	0.00	0.00
36.00	0.00	0	485.00	0.00	0.00	0.00

Stage-Discharge for Pond DB #2: Drainage Basin #2

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
485.00	0.00	0.00	0.00	487.60	6.12	3.35	2.77
485.05	1.56	1.56	0.00	487.65	6.23	3.39	2.83
485.10	1.59	1.59	0.00	487.70	6.33	3.43	2.90
485.15	1.63	1.63	0.00	487.75	6.43	3.47	2.96
485.20	1.66	1.66	0.00	487.80	6.52	3.50	3.02
485.25	1.69	1.69	0.00	487.85	6.62	3.54	3.08
485.30	1.73	1.73	0.01	487.90	6.72	3.58	3.14
485.35	1.79	1.76	0.03	487.95	6.81	3.62	3.19
485.40	1.86	1.79	0.06	488.00	6.90	3.65	3.25
485.45	1.94	1.83	0.11				
485.50	2.03	1.86	0.17				
485.55	2.14	1.89	0.24				
485.60	2.25	1.93	0.32				
485.65	2.37	1.96	0.40				
485.70	2.48	2.00	0.49				
485.75	2.60	2.03	0.57				
485.80	2.71	2.06	0.65				
485.85	2.80	2.10	0.70				
485.90	2.89	2.13	0.76				
485.95	2.98	2.17	0.81				
486.00	3.06	2.20	0.86				
486.05	3.15	2.24	0.91				
486.10	3.23	2.27	0.95				
486.15	3.30	2.31	1.00				
486.20	3.38	2.34	1.04				
486.25	3.45	2.38	1.08				
486.30	3.53	2.41	1.11				
486.35	3.60	2.45	1.15				
486.40	3.67	2.48	1.19				
486.45	3.74	2.52	1.22				
486.50	3.81	2.55	1.25				
486.55	3.87	2.59	1.29				
486.60	3.94	2.62	1.32				
486.65	4.01	2.66	1.35				
486.70	4.07	2.70	1.38				
486.75	4.14	2.73	1.41				
486.80	4.21	2.77	1.44				
486.85	4.28	2.80	1.48				
486.90	4.37	2.84	1.53				
486.95	4.48	2.88	1.60				
487.00	4.60	2.91	1.68				
487.05	4.72	2.95	1.78				
487.10	4.86	2.99	1.87				
487.15	5.00	3.02	1.98				
487.20	5.15	3.06	2.09				
487.25	5.29	3.10	2.20				
487.30	5.44	3.13	2.30				
487.35	5.57	3.17	2.40				
487.40	5.68	3.21	2.48				
487.45	5.80	3.24	2.55				
487.50	5.91	3.28	2.63				
487.55	6.02	3.32	2.70				

Stage-Area-Storage for Pond DB #2: Drainage Basin #2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
485.00	5,500	0	487.60	10,700	21,060
485.05	5,600	278	487.65	10,800	21,597
485.10	5,700	560	487.70	10,900	22,140
485.15	5,800	847	487.75	11,000	22,688
485.20	5,900	1,140	487.80	11,100	23,240
485.25	6,000	1,438	487.85	11,200	23,798
485.30	6,100	1,740	487.90	11,300	24,360
485.35	6,200	2,048	487.95	11,400	24,927
485.40	6,300	2,360	488.00	11,500	25,500
485.45	6,400	2,677			
485.50	6,500	3,000			
485.55	6,600	3,328			
485.60	6,700	3,660			
485.65	6,800	3,997			
485.70	6,900	4,340			
485.75	7,000	4,688			
485.80	7,100	5,040			
485.85	7,200	5,398			
485.90	7,300	5,760			
485.95	7,400	6,127			
486.00	7,500	6,500			
486.05	7,600	6,878			
486.10	7,700	7,260			
486.15	7,800	7,647			
486.20	7,900	8,040			
486.25	8,000	8,438			
486.30	8,100	8,840			
486.35	8,200	9,248			
486.40	8,300	9,660			
486.45	8,400	10,077			
486.50	8,500	10,500			
486.55	8,600	10,928			
486.60	8,700	11,360			
486.65	8,800	11,797			
486.70	8,900	12,240			
486.75	9,000	12,688			
486.80	9,100	13,140			
486.85	9,200	13,598			
486.90	9,300	14,060			
486.95	9,400	14,527			
487.00	9,500	15,000			
487.05	9,600	15,478			
487.10	9,700	15,960			
487.15	9,800	16,447			
487.20	9,900	16,940			
487.25	10,000	17,438			
487.30	10,100	17,940			
487.35	10,200	18,448			
487.40	10,300	18,960			
487.45	10,400	19,477			
487.50	10,500	20,000			
487.55	10,600	20,528			

Summary for Pond SMS #1A: SMS #1A

Inflow Area = 3.795 ac, 92.16% Impervious, Inflow Depth = 1.41" for WQv (Underground Infiltration System)
 Inflow = 5.29 cfs @ 12.14 hrs, Volume= 0.445 af
 Outflow = 2.12 cfs @ 12.43 hrs, Volume= 0.445 af, Atten= 60%, Lag= 17.6 min
 Discarded = 2.12 cfs @ 12.43 hrs, Volume= 0.445 af
 Primary = 0.01 cfs @ 12.43 hrs, Volume= 0.000 af
 Routed to Link POI #1 : POI #1

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
 Peak Elev= 492.58' @ 12.43 hrs Surf.Area= 0.172 ac Storage= 0.064 af

Plug-Flow detention time= 6.8 min calculated for 0.444 af (100% of inflow)
 Center-of-Mass det. time= 6.8 min (808.6 - 801.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	491.75'	0.270 af	36.83'W x 203.69'L x 6.75'H Field A 1.163 af Overall - 0.486 af Embedded = 0.676 af x 40.0% Voids
#2A	492.50'	0.486 af	ADS_StormTech MC-4500 b +Cap x 196 Inside #1 Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap 196 Chambers in 4 Rows Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf
		0.757 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	491.75'	12.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 440.00'
#2	Primary	492.53'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	492.95'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	493.59'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Primary	494.58'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#6	Primary	495.75'	8.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=2.12 cfs @ 12.43 hrs HW=492.58' (Free Discharge)

↑ **1=Exfiltration** (Controls 2.12 cfs)

Primary OutFlow Max=0.01 cfs @ 12.43 hrs HW=492.58' (Free Discharge)

↑ **2=Orifice/Grate** (Orifice Controls 0.01 cfs @ 0.76 fps)

↑ **3=Orifice/Grate** (Controls 0.00 cfs)

↑ **4=Orifice/Grate** (Controls 0.00 cfs)

↑ **5=Orifice/Grate** (Controls 0.00 cfs)

↑ **6=Orifice/Grate** (Controls 0.00 cfs)

Pond SMS #1A: SMS #1A - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-4500 b +Cap (ADS StormTech® MC-4500 with cap volume)

Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf

Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap

Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf

100.0" Wide + 6.0" Spacing = 106.0" C-C Row Spacing

49 Chambers/Row x 4.02' Long +2.73' Cap Length x 2 = 202.69' Row Length +6.0" End Stone x 2 = 203.69' Base Length

4 Rows x 100.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 36.83' Base Width

9.0" Stone Base + 60.0" Chamber Height + 12.0" Stone Cover = 6.75' Field Height

196 Chambers x 106.5 cf + 39.5 cf Cap Volume x 2 x 4 Rows = 21,188.1 cf Chamber Storage

50,642.8 cf Field - 21,188.1 cf Chambers = 29,454.7 cf Stone x 40.0% Voids = 11,781.9 cf Stone Storage

Chamber Storage + Stone Storage = 32,970.0 cf = 0.757 af

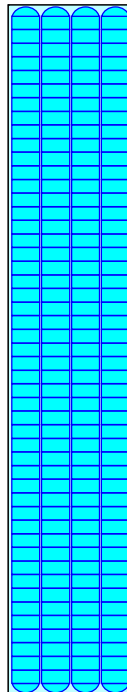
Overall Storage Efficiency = 65.1%

Overall System Size = 203.69' x 36.83' x 6.75'

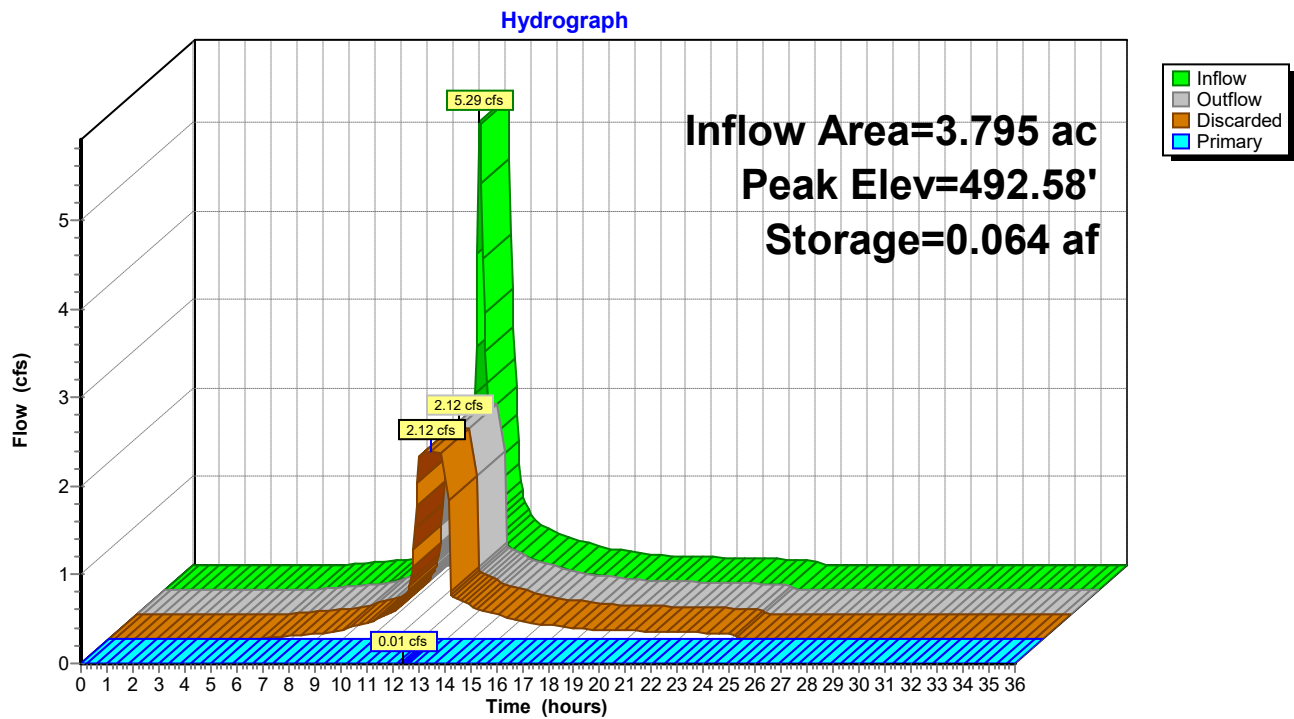
196 Chambers

1,875.7 cy Field

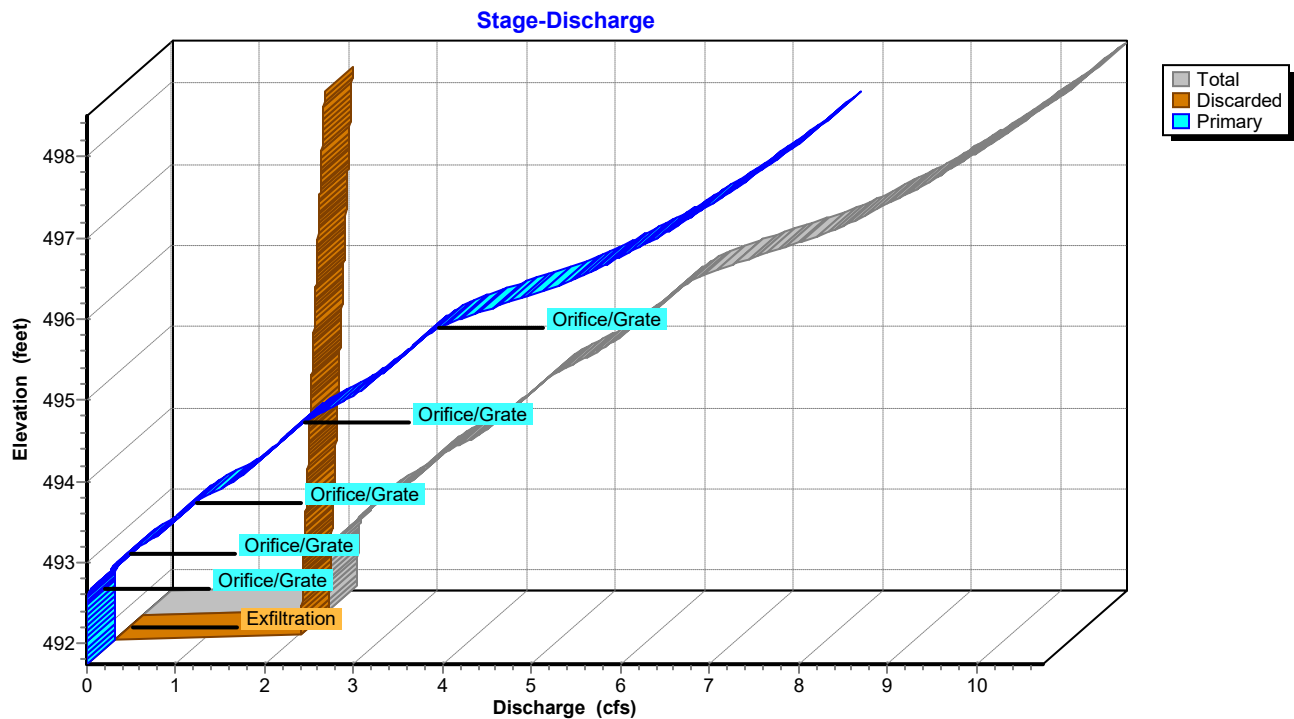
1,090.9 cy Stone



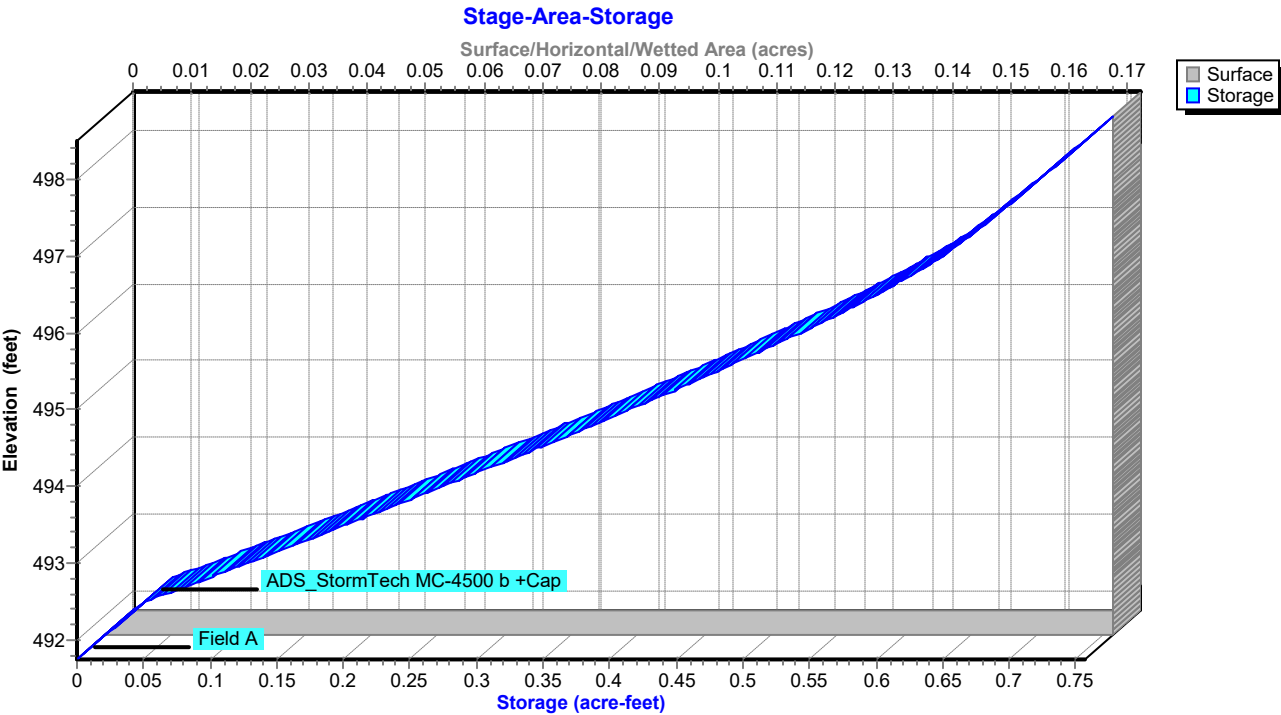
Pond SMS #1A: SMS #1A



Pond SMS #1A: SMS #1A



Pond SMS #1A: SMS #1A



Hydrograph for Pond SMS #1A: SMS #1A

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0.000	491.75	0.00	0.00	0.00
1.00	0.00	0.000	491.75	0.00	0.00	0.00
2.00	0.00	0.000	491.75	0.00	0.00	0.00
3.00	0.00	0.000	491.75	0.00	0.00	0.00
4.00	0.00	0.000	491.75	0.00	0.00	0.00
5.00	0.00	0.000	491.75	0.00	0.00	0.00
6.00	0.01	0.000	491.75	0.01	0.01	0.00
7.00	0.03	0.000	491.75	0.03	0.03	0.00
8.00	0.06	0.000	491.75	0.06	0.06	0.00
9.00	0.11	0.000	491.75	0.11	0.11	0.00
10.00	0.18	0.000	491.76	0.18	0.18	0.00
11.00	0.33	0.001	491.76	0.32	0.32	0.00
12.00	2.75	0.006	491.84	2.09	2.09	0.00
13.00	0.59	0.013	491.94	2.09	2.09	0.00
14.00	0.36	0.001	491.76	0.36	0.36	0.00
15.00	0.27	0.001	491.76	0.27	0.27	0.00
16.00	0.19	0.000	491.76	0.19	0.19	0.00
17.00	0.15	0.000	491.75	0.15	0.15	0.00
18.00	0.12	0.000	491.75	0.12	0.12	0.00
19.00	0.10	0.000	491.75	0.10	0.10	0.00
20.00	0.09	0.000	491.75	0.09	0.09	0.00
21.00	0.08	0.000	491.75	0.08	0.08	0.00
22.00	0.08	0.000	491.75	0.08	0.08	0.00
23.00	0.07	0.000	491.75	0.07	0.07	0.00
24.00	0.06	0.000	491.75	0.06	0.06	0.00
25.00	0.00	0.000	491.75	0.00	0.00	0.00
26.00	0.00	0.000	491.75	0.00	0.00	0.00
27.00	0.00	0.000	491.75	0.00	0.00	0.00
28.00	0.00	0.000	491.75	0.00	0.00	0.00
29.00	0.00	0.000	491.75	0.00	0.00	0.00
30.00	0.00	0.000	491.75	0.00	0.00	0.00
31.00	0.00	0.000	491.75	0.00	0.00	0.00
32.00	0.00	0.000	491.75	0.00	0.00	0.00
33.00	0.00	0.000	491.75	0.00	0.00	0.00
34.00	0.00	0.000	491.75	0.00	0.00	0.00
35.00	0.00	0.000	491.75	0.00	0.00	0.00
36.00	0.00	0.000	491.75	0.00	0.00	0.00

Stage-Discharge for Pond SMS #1A: SMS #1A

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
491.75	0.00	0.00	0.00	496.95	8.61	2.29	6.32
491.85	2.09	2.09	0.00	497.05	8.78	2.30	6.48
491.95	2.09	2.09	0.00	497.15	8.94	2.30	6.64
492.05	2.10	2.10	0.00	497.25	9.09	2.31	6.79
492.15	2.10	2.10	0.00	497.35	9.24	2.31	6.93
492.25	2.10	2.10	0.00	497.45	9.39	2.31	7.08
492.35	2.11	2.11	0.00	497.55	9.53	2.32	7.21
492.45	2.11	2.11	0.00	497.65	9.67	2.32	7.35
492.55	2.12	2.12	0.00	497.75	9.81	2.33	7.48
492.65	2.16	2.12	0.04	497.85	9.94	2.33	7.61
492.75	2.24	2.12	0.12	497.95	10.07	2.33	7.74
492.85	2.34	2.13	0.22	498.05	10.20	2.34	7.86
492.95	2.43	2.13	0.30	498.15	10.33	2.34	7.98
493.05	2.53	2.14	0.39	498.25	10.45	2.35	8.10
493.15	2.66	2.14	0.52	498.35	10.57	2.35	8.22
493.25	2.81	2.14	0.67	498.45	10.69	2.35	8.34
493.35	2.95	2.15	0.80				
493.45	3.06	2.15	0.91				
493.55	3.16	2.16	1.00				
493.65	3.26	2.16	1.10				
493.75	3.40	2.16	1.23				
493.85	3.56	2.17	1.39				
493.95	3.74	2.17	1.56				
494.05	3.88	2.18	1.70				
494.15	4.00	2.18	1.82				
494.25	4.12	2.18	1.93				
494.35	4.23	2.19	2.04				
494.45	4.33	2.19	2.14				
494.55	4.42	2.20	2.23				
494.65	4.53	2.20	2.33				
494.75	4.68	2.20	2.47				
494.85	4.86	2.21	2.65				
494.95	5.04	2.21	2.82				
495.05	5.19	2.22	2.97				
495.15	5.33	2.22	3.10				
495.25	5.45	2.23	3.23				
495.35	5.57	2.23	3.34				
495.45	5.69	2.23	3.45				
495.55	5.80	2.24	3.56				
495.65	5.90	2.24	3.66				
495.75	6.00	2.25	3.76				
495.85	6.14	2.25	3.89				
495.95	6.33	2.25	4.08				
496.05	6.58	2.26	4.32				
496.15	6.85	2.26	4.59				
496.25	7.15	2.27	4.88				
496.35	7.43	2.27	5.16				
496.45	7.66	2.27	5.39				
496.55	7.88	2.28	5.60				
496.65	8.08	2.28	5.80				
496.75	8.26	2.29	5.98				
496.85	8.44	2.29	6.15				

Stage-Area-Storage for Pond SMS #1A: SMS #1A

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
491.75	0.172	0.000	496.95	0.172	0.646
491.85	0.172	0.007	497.05	0.172	0.654
491.95	0.172	0.014	497.15	0.172	0.662
492.05	0.172	0.021	497.25	0.172	0.670
492.15	0.172	0.028	497.35	0.172	0.677
492.25	0.172	0.034	497.45	0.172	0.685
492.35	0.172	0.041	497.55	0.172	0.691
492.45	0.172	0.048	497.65	0.172	0.698
492.55	0.172	0.059	497.75	0.172	0.705
492.65	0.172	0.074	497.85	0.172	0.712
492.75	0.172	0.090	497.95	0.172	0.719
492.85	0.172	0.105	498.05	0.172	0.726
492.95	0.172	0.120	498.15	0.172	0.733
493.05	0.172	0.135	498.25	0.172	0.740
493.15	0.172	0.150	498.35	0.172	0.747
493.25	0.172	0.165	498.45	0.172	0.753
493.35	0.172	0.180			
493.45	0.172	0.194			
493.55	0.172	0.209			
493.65	0.172	0.224			
493.75	0.172	0.239			
493.85	0.172	0.253			
493.95	0.172	0.268			
494.05	0.172	0.282			
494.15	0.172	0.296			
494.25	0.172	0.311			
494.35	0.172	0.325			
494.45	0.172	0.339			
494.55	0.172	0.353			
494.65	0.172	0.367			
494.75	0.172	0.381			
494.85	0.172	0.395			
494.95	0.172	0.408			
495.05	0.172	0.422			
495.15	0.172	0.435			
495.25	0.172	0.448			
495.35	0.172	0.461			
495.45	0.172	0.474			
495.55	0.172	0.487			
495.65	0.172	0.500			
495.75	0.172	0.512			
495.85	0.172	0.525			
495.95	0.172	0.537			
496.05	0.172	0.549			
496.15	0.172	0.561			
496.25	0.172	0.572			
496.35	0.172	0.584			
496.45	0.172	0.595			
496.55	0.172	0.606			
496.65	0.172	0.616			
496.75	0.172	0.626			
496.85	0.172	0.636			

Summary for Pond SMS #1C: SMS #1C

Inflow Area = 3.516 ac, 93.20% Impervious, Inflow Depth = 1.41" for WQv (Underground Infiltration System)
 Inflow = 4.90 cfs @ 12.14 hrs, Volume= 0.412 af
 Outflow = 1.95 cfs @ 12.44 hrs, Volume= 0.412 af, Atten= 60%, Lag= 17.9 min
 Discarded = 1.95 cfs @ 12.44 hrs, Volume= 0.412 af
 Primary = 0.01 cfs @ 12.44 hrs, Volume= 0.000 af
 Routed to Link POI #1 : POI #1

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
 Peak Elev= 496.09' @ 12.44 hrs Surf.Area= 0.159 ac Storage= 0.060 af

Plug-Flow detention time= 6.9 min calculated for 0.412 af (100% of inflow)
 Center-of-Mass det. time= 6.9 min (808.7 - 801.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	495.25'	0.249 af	36.83'W x 187.59'L x 6.75'H Field A 1.071 af Overall - 0.447 af Embedded = 0.623 af x 40.0% Voids
#2A	496.00'	0.447 af	ADS_StormTech MC-4500 b +Cap x 180 Inside #1 Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap 180 Chambers in 4 Rows Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf
		0.697 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	495.25'	12.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 440.00'
#2	Primary	496.04'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	496.45'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	497.09'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Primary	498.04'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#6	Primary	501.00'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=1.95 cfs @ 12.44 hrs HW=496.09' (Free Discharge)

↑ **1=Exfiltration** (Controls 1.95 cfs)

Primary OutFlow Max=0.01 cfs @ 12.44 hrs HW=496.09' (Free Discharge)

↑ **2=Orifice/Grate** (Orifice Controls 0.01 cfs @ 0.73 fps)

↑ **3=Orifice/Grate** (Controls 0.00 cfs)

↑ **4=Orifice/Grate** (Controls 0.00 cfs)

↑ **5=Orifice/Grate** (Controls 0.00 cfs)

↑ **6=Orifice/Grate** (Controls 0.00 cfs)

Pond SMS #1C: SMS #1C - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-4500 b +Cap (ADS StormTech® MC-4500 with cap volume)

Effective Size= 90.4"W x 60.0"H => 26.46 sf x 4.02'L = 106.5 cf

Overall Size= 100.0"W x 60.0"H x 4.33'L with 0.31' Overlap

Cap Storage= 39.5 cf x 2 x 4 rows = 316.0 cf

100.0" Wide + 6.0" Spacing = 106.0" C-C Row Spacing

45 Chambers/Row x 4.02' Long +2.73' Cap Length x 2 = 186.59' Row Length +6.0" End Stone x 2 = 187.59' Base Length

4 Rows x 100.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 36.83' Base Width

9.0" Stone Base + 60.0" Chamber Height + 12.0" Stone Cover = 6.75' Field Height

180 Chambers x 106.5 cf + 39.5 cf Cap Volume x 2 x 4 Rows = 19,484.3 cf Chamber Storage

46,640.0 cf Field - 19,484.3 cf Chambers = 27,155.7 cf Stone x 40.0% Voids = 10,862.3 cf Stone Storage

Chamber Storage + Stone Storage = 30,346.6 cf = 0.697 af

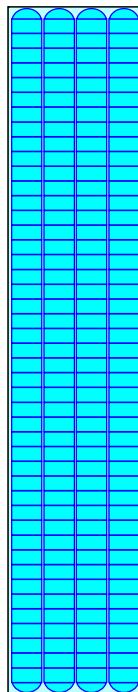
Overall Storage Efficiency = 65.1%

Overall System Size = 187.59' x 36.83' x 6.75'

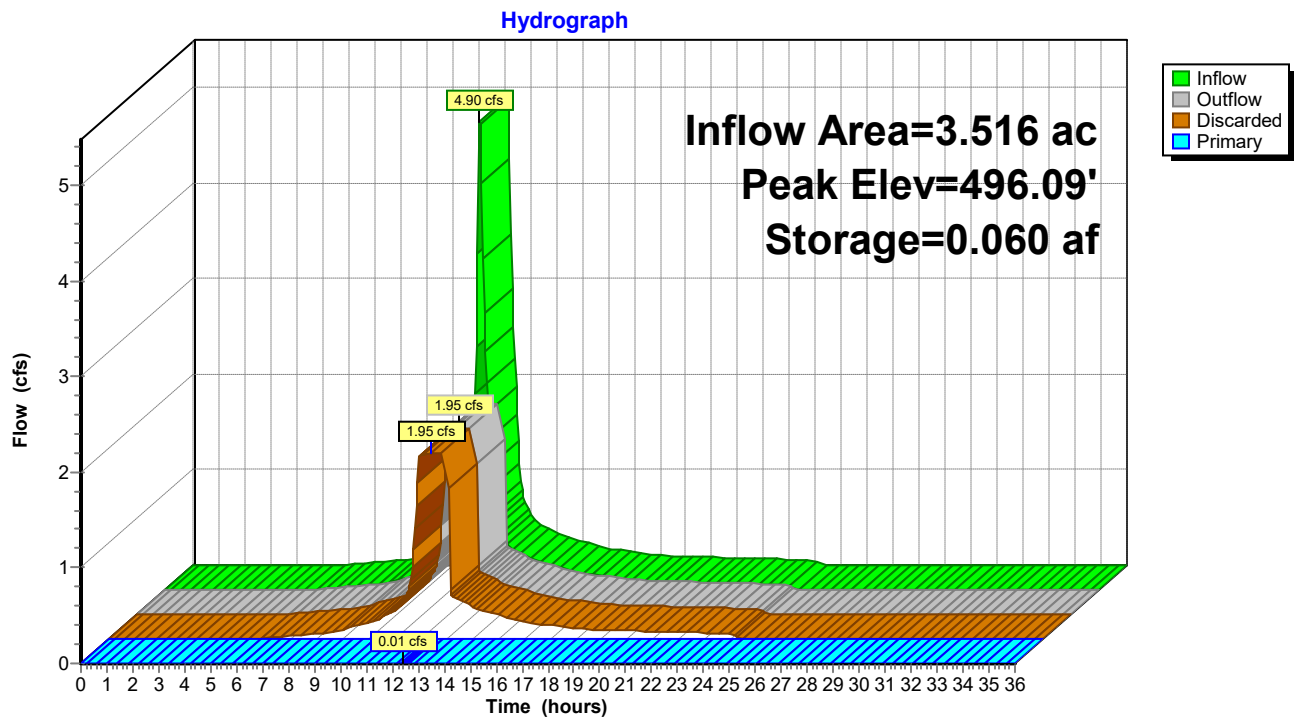
180 Chambers

1,727.4 cy Field

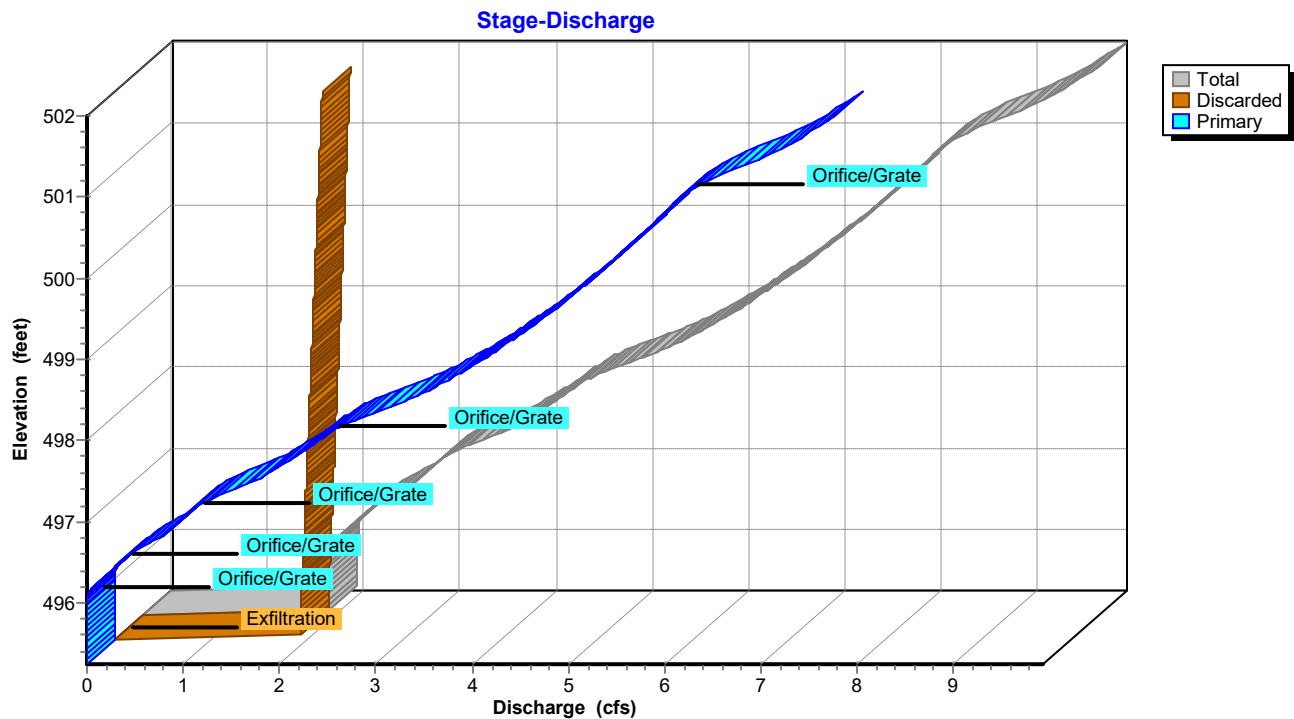
1,005.8 cy Stone



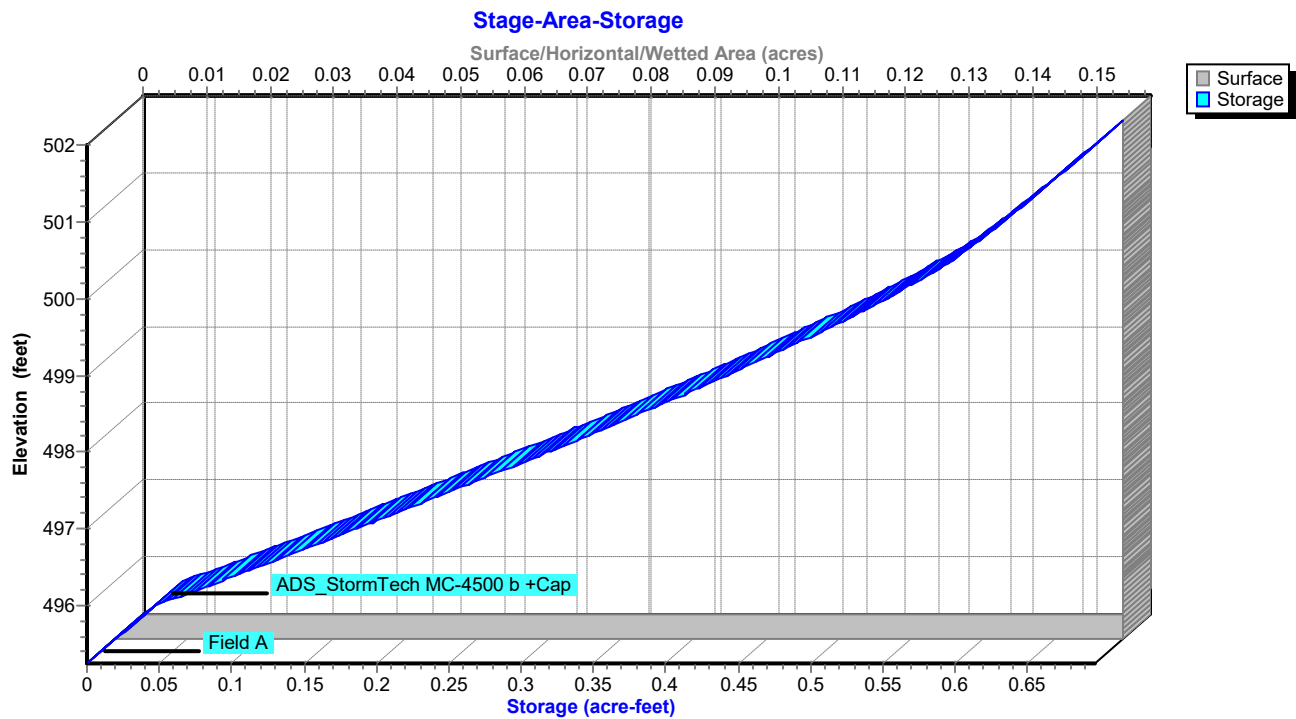
Pond SMS #1C: SMS #1C



Pond SMS #1C: SMS #1C



Pond SMS #1C: SMS #1C



Hydrograph for Pond SMS #1C: SMS #1C

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0.000	495.25	0.00	0.00	0.00
1.00	0.00	0.000	495.25	0.00	0.00	0.00
2.00	0.00	0.000	495.25	0.00	0.00	0.00
3.00	0.00	0.000	495.25	0.00	0.00	0.00
4.00	0.00	0.000	495.25	0.00	0.00	0.00
5.00	0.00	0.000	495.25	0.00	0.00	0.00
6.00	0.01	0.000	495.25	0.01	0.01	0.00
7.00	0.03	0.000	495.25	0.03	0.03	0.00
8.00	0.05	0.000	495.25	0.05	0.05	0.00
9.00	0.10	0.000	495.25	0.10	0.10	0.00
10.00	0.17	0.000	495.26	0.17	0.17	0.00
11.00	0.30	0.001	495.26	0.30	0.30	0.00
12.00	2.54	0.006	495.34	1.92	1.92	0.00
13.00	0.54	0.013	495.45	1.93	1.93	0.00
14.00	0.33	0.001	495.26	0.34	0.34	0.00
15.00	0.25	0.001	495.26	0.25	0.25	0.00
16.00	0.18	0.000	495.26	0.18	0.18	0.00
17.00	0.14	0.000	495.25	0.14	0.14	0.00
18.00	0.11	0.000	495.25	0.11	0.11	0.00
19.00	0.09	0.000	495.25	0.09	0.09	0.00
20.00	0.09	0.000	495.25	0.09	0.09	0.00
21.00	0.08	0.000	495.25	0.08	0.08	0.00
22.00	0.07	0.000	495.25	0.07	0.07	0.00
23.00	0.06	0.000	495.25	0.06	0.06	0.00
24.00	0.06	0.000	495.25	0.06	0.06	0.00
25.00	0.00	0.000	495.25	0.00	0.00	0.00
26.00	0.00	0.000	495.25	0.00	0.00	0.00
27.00	0.00	0.000	495.25	0.00	0.00	0.00
28.00	0.00	0.000	495.25	0.00	0.00	0.00
29.00	0.00	0.000	495.25	0.00	0.00	0.00
30.00	0.00	0.000	495.25	0.00	0.00	0.00
31.00	0.00	0.000	495.25	0.00	0.00	0.00
32.00	0.00	0.000	495.25	0.00	0.00	0.00
33.00	0.00	0.000	495.25	0.00	0.00	0.00
34.00	0.00	0.000	495.25	0.00	0.00	0.00
35.00	0.00	0.000	495.25	0.00	0.00	0.00
36.00	0.00	0.000	495.25	0.00	0.00	0.00

Stage-Discharge for Pond SMS #1C: SMS #1C

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
495.25	0.00	0.00	0.00	500.45	7.78	2.10	5.68
495.35	1.92	1.92	0.00	500.55	7.88	2.10	5.77
495.45	1.93	1.93	0.00	500.65	7.97	2.11	5.86
495.55	1.93	1.93	0.00	500.75	8.06	2.11	5.95
495.65	1.93	1.93	0.00	500.85	8.15	2.11	6.04
495.75	1.94	1.94	0.00	500.95	8.24	2.12	6.12
495.85	1.94	1.94	0.00	501.05	8.33	2.12	6.21
495.95	1.94	1.94	0.00	501.15	8.48	2.12	6.35
496.05	1.95	1.95	0.00	501.25	8.67	2.13	6.54
496.15	1.98	1.95	0.03	501.35	8.88	2.13	6.75
496.25	2.06	1.95	0.11	501.45	9.09	2.13	6.96
496.35	2.16	1.96	0.21	501.55	9.27	2.14	7.13
496.45	2.26	1.96	0.30	501.65	9.43	2.14	7.29
496.55	2.35	1.96	0.39	501.75	9.58	2.15	7.43
496.65	2.48	1.97	0.51	501.85	9.72	2.15	7.57
496.75	2.63	1.97	0.66	501.95	9.86	2.15	7.71
496.85	2.77	1.97	0.80				
496.95	2.88	1.98	0.90				
497.05	2.98	1.98	1.00				
497.15	3.08	1.99	1.09				
497.25	3.22	1.99	1.24				
497.35	3.41	1.99	1.41				
497.45	3.61	2.00	1.61				
497.55	3.80	2.00	1.81				
497.65	3.96	2.00	1.96				
497.75	4.10	2.01	2.10				
497.85	4.23	2.01	2.22				
497.95	4.35	2.01	2.34				
498.05	4.47	2.02	2.45				
498.15	4.61	2.02	2.59				
498.25	4.80	2.02	2.78				
498.35	5.03	2.03	3.00				
498.45	5.26	2.03	3.22				
498.55	5.46	2.03	3.42				
498.65	5.63	2.04	3.59				
498.75	5.79	2.04	3.75				
498.85	5.94	2.04	3.90				
498.95	6.09	2.05	4.04				
499.05	6.23	2.05	4.17				
499.15	6.36	2.05	4.30				
499.25	6.49	2.06	4.43				
499.35	6.61	2.06	4.55				
499.45	6.73	2.07	4.66				
499.55	6.84	2.07	4.78				
499.65	6.96	2.07	4.89				
499.75	7.07	2.08	4.99				
499.85	7.18	2.08	5.10				
499.95	7.28	2.08	5.20				
500.05	7.39	2.09	5.30				
500.15	7.49	2.09	5.40				
500.25	7.59	2.09	5.49				
500.35	7.68	2.10	5.59				

Stage-Area-Storage for Pond SMS #1C: SMS #1C

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
495.25	0.159	0.000	500.45	0.159	0.594
495.35	0.159	0.006	500.55	0.159	0.602
495.45	0.159	0.013	500.65	0.159	0.610
495.55	0.159	0.019	500.75	0.159	0.617
495.65	0.159	0.025	500.85	0.159	0.623
495.75	0.159	0.032	500.95	0.159	0.630
495.85	0.159	0.038	501.05	0.159	0.636
495.95	0.159	0.044	501.15	0.159	0.643
496.05	0.159	0.055	501.25	0.159	0.649
496.15	0.159	0.069	501.35	0.159	0.655
496.25	0.159	0.082	501.45	0.159	0.662
496.35	0.159	0.096	501.55	0.159	0.668
496.45	0.159	0.110	501.65	0.159	0.674
496.55	0.159	0.124	501.75	0.159	0.681
496.65	0.159	0.138	501.85	0.159	0.687
496.75	0.159	0.152	501.95	0.159	0.693
496.85	0.159	0.165			
496.95	0.159	0.179			
497.05	0.159	0.193			
497.15	0.159	0.206			
497.25	0.159	0.220			
497.35	0.159	0.233			
497.45	0.159	0.246			
497.55	0.159	0.260			
497.65	0.159	0.273			
497.75	0.159	0.286			
497.85	0.159	0.299			
497.95	0.159	0.312			
498.05	0.159	0.325			
498.15	0.159	0.338			
498.25	0.159	0.351			
498.35	0.159	0.363			
498.45	0.159	0.376			
498.55	0.159	0.388			
498.65	0.159	0.400			
498.75	0.159	0.413			
498.85	0.159	0.425			
498.95	0.159	0.437			
499.05	0.159	0.448			
499.15	0.159	0.460			
499.25	0.159	0.472			
499.35	0.159	0.483			
499.45	0.159	0.494			
499.55	0.159	0.505			
499.65	0.159	0.516			
499.75	0.159	0.527			
499.85	0.159	0.537			
499.95	0.159	0.547			
500.05	0.159	0.557			
500.15	0.159	0.567			
500.25	0.159	0.576			
500.35	0.159	0.586			

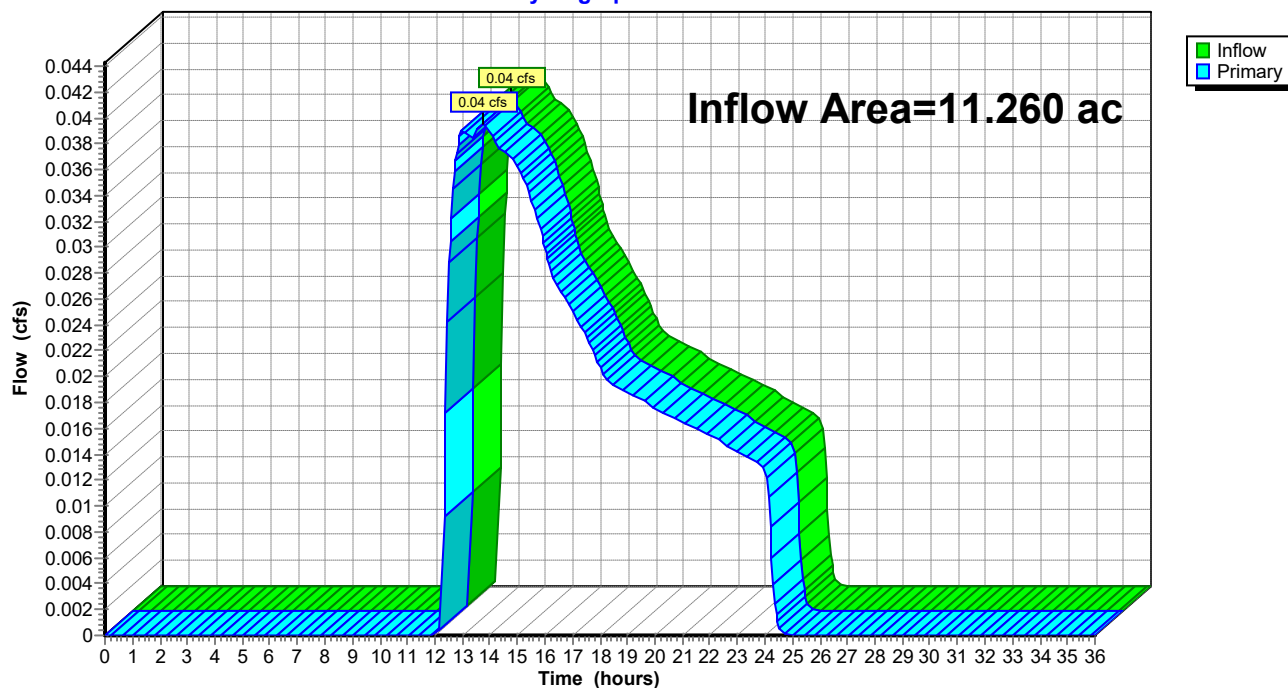
Summary for Link POI #1: POI #1

Inflow Area = 11.260 ac, 61.46% Impervious, Inflow Depth = 0.03" for WQv (Underground Infiltration System)
Inflow = 0.04 cfs @ 13.76 hrs, Volume= 0.023 af
Primary = 0.04 cfs @ 13.76 hrs, Volume= 0.023 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #1: POI #1

Hydrograph



Hydrograph for Link POI #1: POI #1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	35.50	0.00	0.00	0.00
10.00	0.00	0.00	0.00	36.00	0.00	0.00	0.00
10.50	0.00	0.00	0.00				
11.00	0.00	0.00	0.00				
11.50	0.00	0.00	0.00				
12.00	0.00	0.00	0.00				
12.50	0.03	0.00	0.03				
13.00	0.04	0.00	0.04				
13.50	0.04	0.00	0.04				
14.00	0.04	0.00	0.04				
14.50	0.04	0.00	0.04				
15.00	0.04	0.00	0.04				
15.50	0.03	0.00	0.03				
16.00	0.03	0.00	0.03				
16.50	0.03	0.00	0.03				
17.00	0.03	0.00	0.03				
17.50	0.02	0.00	0.02				
18.00	0.02	0.00	0.02				
18.50	0.02	0.00	0.02				
19.00	0.02	0.00	0.02				
19.50	0.02	0.00	0.02				
20.00	0.02	0.00	0.02				
20.50	0.02	0.00	0.02				
21.00	0.02	0.00	0.02				
21.50	0.02	0.00	0.02				
22.00	0.02	0.00	0.02				
22.50	0.01	0.00	0.01				
23.00	0.01	0.00	0.01				
23.50	0.01	0.00	0.01				
24.00	0.01	0.00	0.01				
24.50	0.00	0.00	0.00				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				

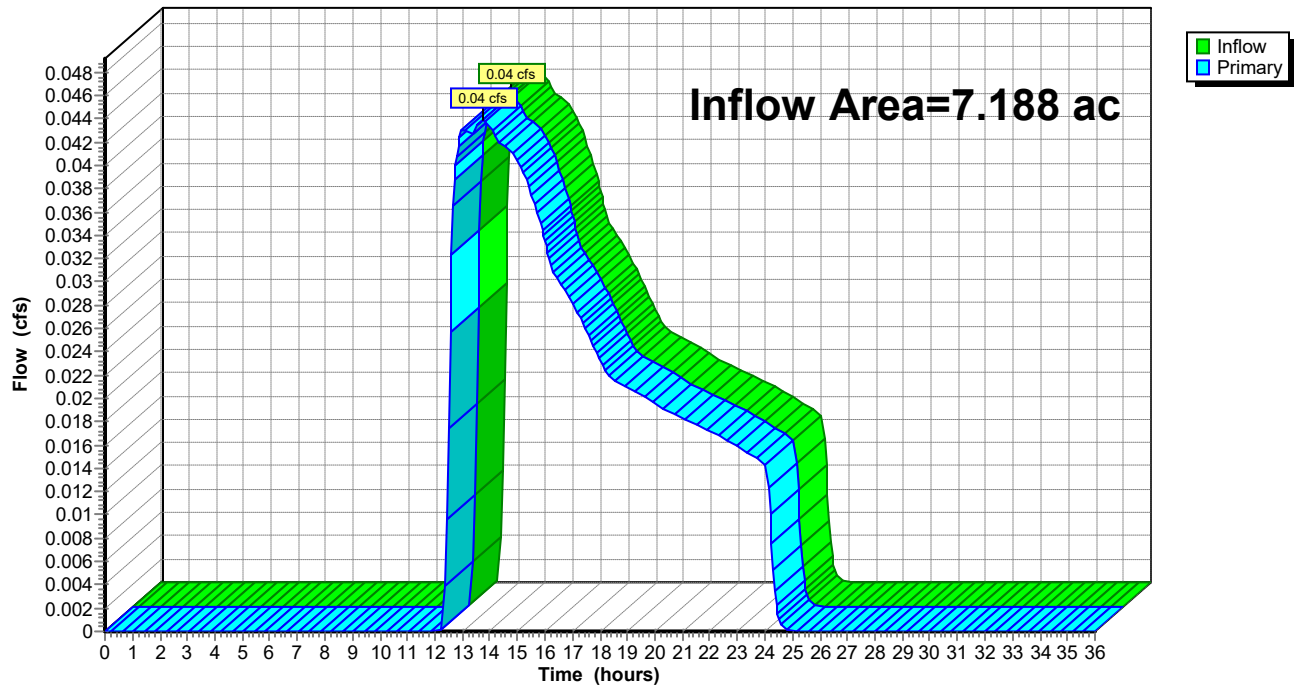
Summary for Link POI #2: POI #2

Inflow Area = 7.188 ac, 34.72% Impervious, Inflow Depth = 0.04" for WQv (Underground Infiltration System)
Inflow = 0.04 cfs @ 13.77 hrs, Volume= 0.026 af
Primary = 0.04 cfs @ 13.77 hrs, Volume= 0.026 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link POI #2: POI #2

Hydrograph



Hydrograph for Link POI #2: POI #2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	35.50	0.00	0.00	0.00
10.00	0.00	0.00	0.00	36.00	0.00	0.00	0.00
10.50	0.00	0.00	0.00				
11.00	0.00	0.00	0.00				
11.50	0.00	0.00	0.00				
12.00	0.00	0.00	0.00				
12.50	0.02	0.00	0.02				
13.00	0.04	0.00	0.04				
13.50	0.04	0.00	0.04				
14.00	0.04	0.00	0.04				
14.50	0.04	0.00	0.04				
15.00	0.04	0.00	0.04				
15.50	0.04	0.00	0.04				
16.00	0.03	0.00	0.03				
16.50	0.03	0.00	0.03				
17.00	0.03	0.00	0.03				
17.50	0.03	0.00	0.03				
18.00	0.02	0.00	0.02				
18.50	0.02	0.00	0.02				
19.00	0.02	0.00	0.02				
19.50	0.02	0.00	0.02				
20.00	0.02	0.00	0.02				
20.50	0.02	0.00	0.02				
21.00	0.02	0.00	0.02				
21.50	0.02	0.00	0.02				
22.00	0.02	0.00	0.02				
22.50	0.02	0.00	0.02				
23.00	0.02	0.00	0.02				
23.50	0.02	0.00	0.02				
24.00	0.01	0.00	0.01				
24.50	0.00	0.00	0.00				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				

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- 58 Pond SMS #1A: SMS #1A
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- 72 Link POI #1: POI #1
- 74 Link POI #2: POI #2

10-Year Event

- 76 Node Listing
- 77 Subcat DA #1A: Drainage Area #1A
- 79 Subcat DA #1B: Drainage Area #1B
- 81 Subcat DA #1C: Drainage Area #1C
- 83 Subcat DA #2A: Drainage Area #2A
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- 87 Pond DB #2: Drainage Basin #2
- 93 Pond SMS #1A: SMS #1A
- 100 Pond SMS #1C: SMS #1C
- 107 Link POI #1: POI #1
- 109 Link POI #2: POI #2

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25-Year Event

- 111 Node Listing
- 112 Subcat DA #1A: Drainage Area #1A
- 114 Subcat DA #1B: Drainage Area #1B
- 116 Subcat DA #1C: Drainage Area #1C
- 118 Subcat DA #2A: Drainage Area #2A
- 120 Subcat DA #2B: Drainage Area #2B
- 122 Pond DB #2: Drainage Basin #2
- 128 Pond SMS #1A: SMS #1A
- 135 Pond SMS #1C: SMS #1C
- 142 Link POI #1: POI #1
- 144 Link POI #2: POI #2

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- 146 Node Listing
- 147 Subcat DA #1A: Drainage Area #1A
- 149 Subcat DA #1B: Drainage Area #1B
- 151 Subcat DA #1C: Drainage Area #1C
- 153 Subcat DA #2A: Drainage Area #2A
- 155 Subcat DA #2B: Drainage Area #2B
- 157 Pond DB #2: Drainage Basin #2
- 163 Pond SMS #1A: SMS #1A
- 170 Pond SMS #1C: SMS #1C
- 177 Link POI #1: POI #1
- 179 Link POI #2: POI #2

WQv (Roadway B) Event

- 181 Node Listing
- 182 Subcat DA #1A: Drainage Area #1A
- 184 Subcat DA #1B: Drainage Area #1B
- 186 Subcat DA #1C: Drainage Area #1C
- 188 Subcat DA #2A: Drainage Area #2A
- 190 Subcat DA #2B: Drainage Area #2B
- 192 Pond DB #2: Drainage Basin #2
- 198 Pond SMS #1A: SMS #1A
- 205 Pond SMS #1C: SMS #1C
- 212 Link POI #1: POI #1
- 214 Link POI #2: POI #2

WQv (Roadway C) Event

- 216 Node Listing
- 217 Subcat DA #1A: Drainage Area #1A
- 219 Subcat DA #1B: Drainage Area #1B
- 221 Subcat DA #1C: Drainage Area #1C
- 223 Subcat DA #2A: Drainage Area #2A
- 225 Subcat DA #2B: Drainage Area #2B
- 227 Pond DB #2: Drainage Basin #2
- 233 Pond SMS #1A: SMS #1A

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240 Pond SMS #1C: SMS #1C

247 Link POI #1: POI #1

249 Link POI #2: POI #2

WQv (Underground Infiltration System) Event

251 Node Listing

252 Subcat DA #1A: Drainage Area #1A

254 Subcat DA #1B: Drainage Area #1B

256 Subcat DA #1C: Drainage Area #1C

258 Subcat DA #2A: Drainage Area #2A

260 Subcat DA #2B: Drainage Area #2B

262 Pond DB #2: Drainage Basin #2

268 Pond SMS #1A: SMS #1A

275 Pond SMS #1C: SMS #1C

282 Link POI #1: POI #1

284 Link POI #2: POI #2

Appendix F

**Stormwater Pipe Capacity
Calculations & Map**

Appendix G

**First Defense
Stormwater Treatment Unit
Data Sheet**

First Defense®

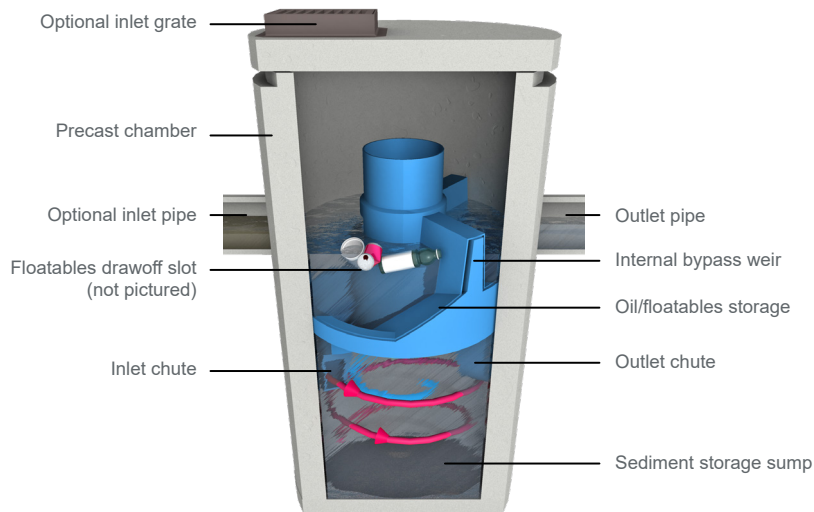
Advanced Hydrodynamic Separator

Product Summary

A Simple Solution for the Trickiest Sites

First Defense is a versatile stormwater separator with some of the highest approved flow rates in the United States. Engineers and contractors can save site space and reduce project costs by using the smallest possible footprint. It works with single or multiple inlet pipes and inlet grates. An internal bypass conveys infrequent peak flows directly to the outlet, efficiently capturing pollutants and preventing washouts.

Features



Contaminated stormwater runoff enters the inlet chute from a surface grate and/or inlet pipe. The inlet chute introduces flow into the chamber tangentially to create a low energy vortex flow regime (magenta arrow) that directs sediment into the sump while oils, floating trash and debris rise to the surface.

Treated stormwater exits through a submerged outlet chute located opposite to the direction of the rotating flow (blue arrow). Enhanced vortex separation is provided by forcing the rotating

flow within the vessel to follow the longest path possible rather than directly from inlet to outlet.

Higher flows bypass the treatment chamber to prevent turbulence and washout of captured pollutants. An internal bypass conveys infrequent peak flows directly to the outlet eliminating the need for, and expense of, external bypass control structures. A floatables draw off slot functions to convey floatables into the treatment chamber prior to bypass.

Applications

- » Areas requiring a minimum of 50% TSS removal
- » Stormwater treatment at the point of entry into the drainage line
- » Sites constrained by space, topography or drainage profiles with limited slope and depth of cover
- » Highways, parking lots, industrial areas and urban developments
- » Pre-treatment to ponds, storage systems, green infrastructure



Benefits

Highest Flow Through the Smallest Footprint

» Smaller Footprint, Lower Costs

First Defense provides space-saving, easy-to-install surface water treatment in standard size chambers/manholes.

» Adapt to Site Limitations

Variable configurations will help you effectively slip First Defense into a tight spot. It also works well with large pipes, multiple inlet pipes and inlet grates.

» Reduce Installation Time & Costs

Every First Defense unit is delivered to site pre-assembled and ready for install.

» Online System Configuration

First Defense eliminates the need for separate structures with its integrated internal bypass.

» Designed with Maintenance in Mind

Easy vector hose access through the center shaft of the system makes for quick sump cleanout, saving time and reducing long-term operational cost.



Sizing & Specifications

First Defense units are available in **six diameters** to fit standard chamber and manhole sizes. The dimensions below are common across all model numbers.

Diameter	Peak Online Flow Rate	Maximum Pipe Diameter ¹	Typical Sediment Storage Capacity ²	Minimum Distance from Outlet Invert to Top of Rim ³	Standard Distance from Outlet Invert to Sump Floor
(ft / m)	(cfs / L/s)	(in / mm)	(yd ³ / m ³)	(ft / m)	(ft / m)
3 / 0.9	15 / 424	18 / 450	0.4 / 0.3	2.0 - 2.5 / 0.61 - 0.76	3.71 / 1.13
4 / 1.2	18 / 510	24 / 600	0.7 / 0.5	2.0 - 3.0 / 0.61 - 0.91	4.97 / 1.5
5 / 1.5	20 / 566	24 / 600	1.1 / .84	2.0 - 3.7 / 0.61 - 1.13	5.83 / 1.5
6 / 1.8	32 / 906	30 / 750	1.6 / 1.2	2.0 - 4.1 / 0.61 - 1.25	5.97 / 1.8
8 / 2.4	50 / 1415	48 / 1200	2.8 / 2.1	2.4 - 5.4 / 0.73 - 1.65	7.40 / 2.2
10 / 3.0	50 / 1415	48 / 1200	4.4 / 3.3	2.4 - 6.8 / 0.73 - 2.07	10.25 / 3.12

Hydro International offers First Defense units in **two versions** that conform to the performance requirements of different states' water quality regulations.⁴

First Defense High Capacity Model Number	Typical TSS Treatment Flow Rates	
	NJDEP Certified ⁴	110µm
	(cfs / L/s)	(cfs / L/s)
FDHC-3	0.84 / 23.7	1.06 / 30.0
FDHC-4	1.50 / 42.4	1.88 / 53.2
FDHC-5	2.35 / 66.2	2.94 / 83.2
FDHC-6	3.38 / 95.7	4.23 / 119.8
FDHC-8	6.00 / 169.9	7.52 / 212.9
FDHC-10	9.38 / 265.6	11.75 / 332.7

First Defense Optimum Model Number	NJDEP Certified Treatment Flow Rates ⁴
	(cfs / L/s)
FDO-3	1.02 / 28.9
FDO-4	1.81 / 51.3
FDO-5	2.83 / 80.0
FDO-6	4.07 / 115.2
FDO-8	7.23 / 204.7
FDO-10	11.33 / 320.6

¹Contact Hydro International when larger pipe sizes are required.

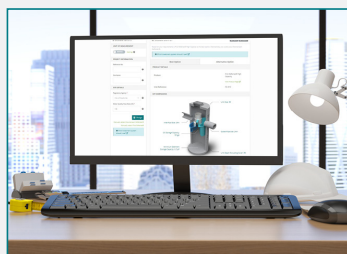
²Contact Hydro International when custom sediment storage capacity is required.

³These are guidelines only. Minimum distance is based on pipe diameter and headloss at assumed flow rates, contact Hydro for detailed design.

⁴NJDEP Certified / NJCAT Verified , based on one inlet pipe and no inlet grate.



Also available in a screened configuration for Full Trash Capture!



Free Online Design Tool

This free online sizing tool will recommend the best separator, model size and online or offline configuration based on site-specific data entered by the user.

Upon completion, users have the option to submit the design to Hydro International for a free review by our engineering team.

Go to hydro-int.com/sizing  to access the tool.



📍 Hydro International, 94 Hutchins Drive, Portland, ME 04102

☎ Tel: (207) 756-6200

✉ Email: stormwaterinquiry@hydro-int.com

🌐 Web: www.hydro-int.com/firstdefense 

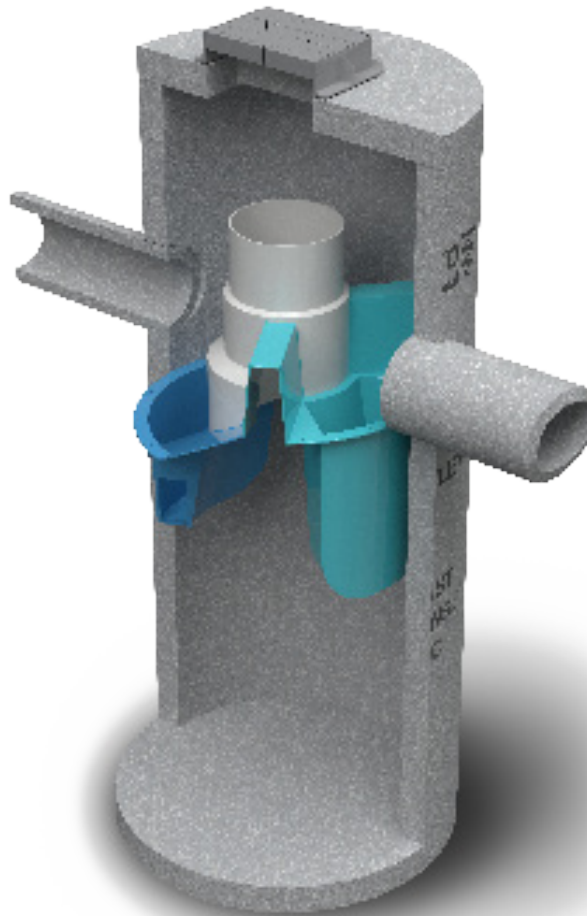
FD_SS_B_2203

Download Drawings:

→ hydro-int.com/fddrawings 

Operation & Maintenance Manual:

→ hydro-int.com/fd-om 



Operation and Maintenance Manual

First Defense® High Capacity and First Defense® Optimum

Vortex Separator for Stormwater Treatment

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3	FIRST DEFENSE® BY HYDRO INTERNATIONAL - INTRODUCTION - OPERATION - POLLUTANT CAPTURE AND RETENTION
4	MODEL SIZES & CONFIGURATIONS - FIRST DEFENSE® COMPONENTS
5	MAINTENANCE - OVERVIEW - MAINTENANCE EQUIPMENT CONSIDERATIONS - DETERMINING YOUR MAINTENANCE SCHEDULE
6	MAINTENANCE PROCEDURES - INSPECTION - FLOATABLES AND SEDIMENT CLEAN OUT
8	FIRST DEFENSE® INSTALLATION LOG
9	FIRST DEFENSE® INSPECTION AND MAINTENANCE LOG

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DISCLAIMER: Information and data contained in this manual is exclusively for the purpose of assisting in the operation and maintenance of Hydro International plc's First Defense®. No warranty is given nor can liability be accepted for use of this information for any other purpose. Hydro International plc has a policy of continuous product development and reserves the right to amend specifications without notice.

I. First Defense® by Hydro International

Introduction

The First Defense® is an enhanced vortex separator that combines an effective and economical stormwater treatment chamber with an integral peak flow bypass. It efficiently removes total suspended solids (TSS), trash and hydrocarbons from stormwater runoff without washing out previously captured pollutants. The First Defense® is available in several model configurations to accommodate a wide range of pipe sizes, peak flows and depth constraints.

The two product models described in this guide are the First Defense® High Capacity and the First Defense® Optimum; they are inspected and maintained identically.

Operation

The First Defense® operates on simple fluid hydraulics. It is self-activating, has no moving parts, no external power requirement and is fabricated with durable non-corrosive components. No manual procedures are required to operate the unit and maintenance is limited to monitoring accumulations of stored pollutants and periodic clean-outs. The First Defense® has been designed to allow for easy and safe access for inspection, monitoring and clean-out procedures. Neither entry into the unit nor removal of the internal components is necessary for maintenance, thus safety concerns related to confined-space-entry are avoided.

Pollutant Capture and Retention

The internal components of the First Defense® have been designed to optimize pollutant capture. Sediment is captured and retained in the base of the unit, while oil and floatables are stored on the water surface in the inner volume (Fig. 1).

The pollutant storage volumes are isolated from the built-in bypass chamber to prevent washout during high-flow storm events. The sump of the First Defense® retains a standing water level between storm events. This ensures a quiescent flow regime at the onset of a storm, preventing resuspension and washout of pollutants captured during previous events.

Accessories such as oil absorbent pads are available for enhanced oil removal and storage. Due to the separation of the oil and floatable storage volume from the outlet, the potential for washout of stored pollutants between clean-outs is minimized.

Applications

- Stormwater treatment at the point of entry into the drainage line
- Sites constrained by space, topography or drainage profiles with limited slope and depth of cover
- Retrofit installations where stormwater treatment is placed on or tied into an existing storm drain line
- Pretreatment for filters, infiltration and storage

Advantages

- Inlet options include surface grate or multiple inlet pipes
- Integral high capacity bypass conveys large peak flows without the need for "offline" arrangements using separate junction manholes
- Long flow path through the device ensures a long residence time within the treatment chamber, enhancing pollutant settling
- Delivered to site pre-assembled and ready for installation

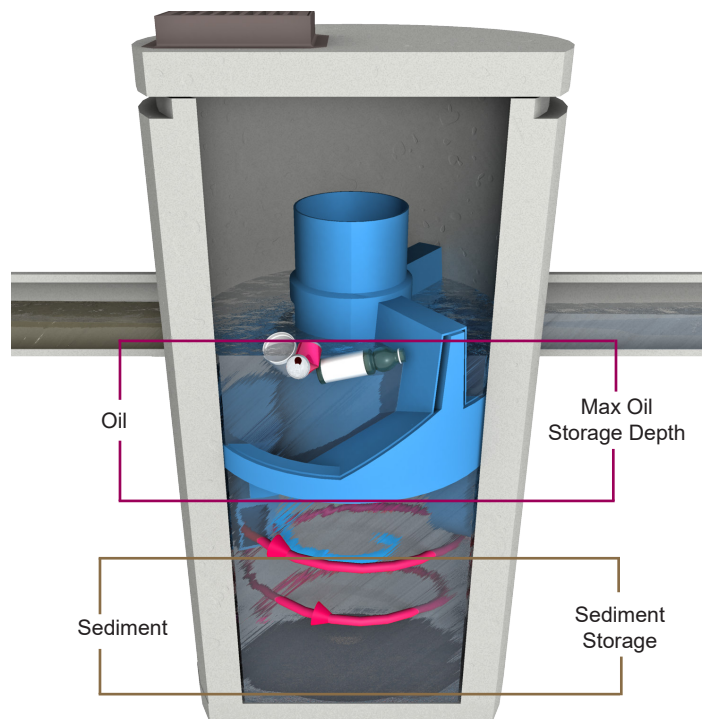


Fig. 1 Pollutant storage volumes in the First Defense®.

II. Model Sizes & Configurations

The First Defense® inlet and internal bypass arrangements are available in several model sizes and configurations. The components have modified geometries allowing greater design flexibility to accommodate various site constraints.

All First Defense® models include the internal components that are designed to remove and retain total suspended solids (TSS), gross solids, floatable trash and hydrocarbons (Fig.2). First Defense® model sizes (diameter) are shown in Table 1.

III. Maintenance

First Defense® Components

1. Built-In Bypass
2. Inlet Pipe
3. Inlet Chute
4. Floatables Draw-off Port
5. Outlet Pipe
6. Floatables Storage
7. Sediment Storage
8. Inlet Grate or Cover

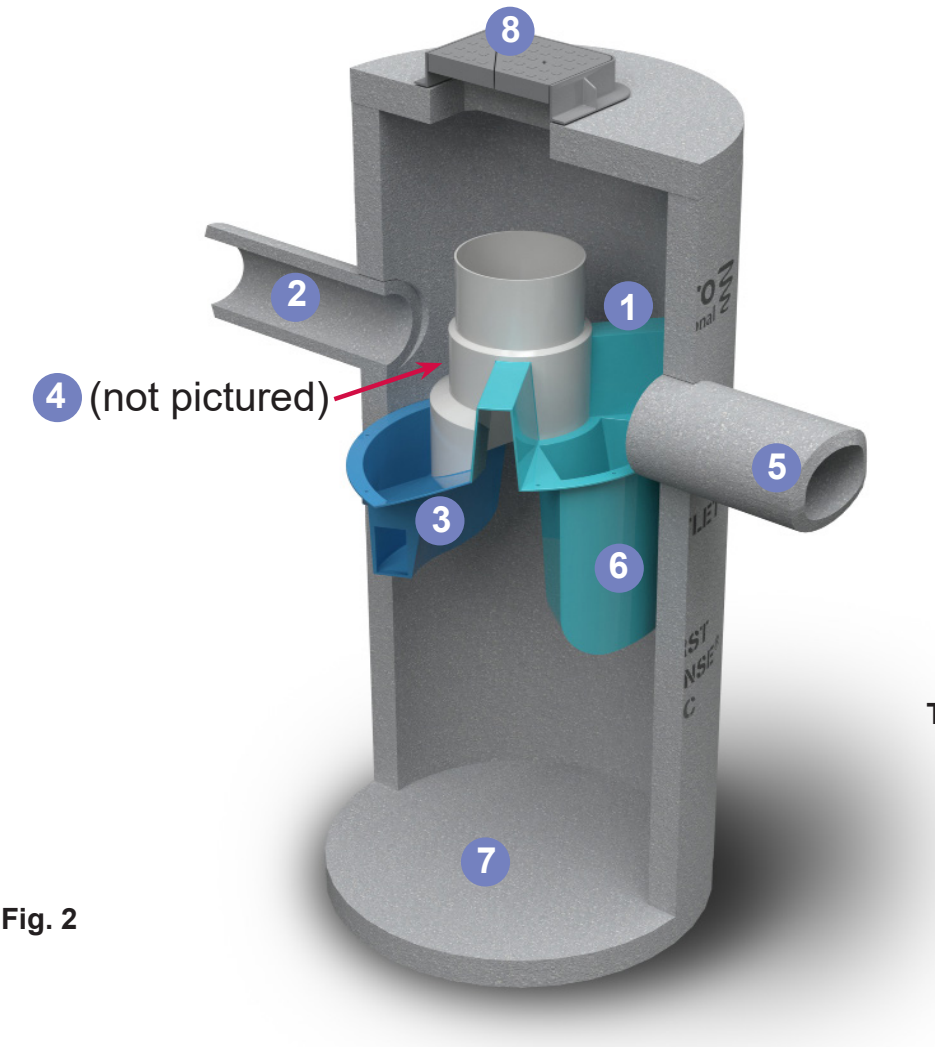


Fig. 2

Table 1

First Defense® Model Sizes
(ft / m) diameter
3 / 0.9
4 / 1.2
5 / 1.5
6 / 1.8
7 / 2.1
8 / 2.4
10 / 3.0

Overview

The First Defense® protects the environment by removing a wide range of pollutants from stormwater runoff. Periodic removal of these captured pollutants is essential to the continuous, long-term functioning of the First Defense®. The First Defense® will capture and retain sediment and oil until the sediment and oil storage volumes are full to capacity. When sediment and oil storage capacities are reached, the First Defense® will no longer be able to store removed sediment and oil.

The First Defense® allows for easy and safe inspection, monitoring and clean-out procedures. A commercially or municipally owned sump-vac is used to remove captured sediment and floatables. Access ports are located in the top of the manhole.

Maintenance events may include Inspection, Oil & Floatables Removal, and Sediment Removal. Maintenance events do not require entry into the First Defense®, nor do they require the internal components of the First Defense® to be removed. In the case of inspection and floatables removal, a vactor truck is not required. However, a vactor truck is required if the maintenance event is to include oil removal and/or sediment removal.

Maintenance Equipment Considerations

The internal components of the First Defense® have a centrally located circular shaft through which the sediment storage sump can be accessed with a sump vac hose. The open diameter of this access shaft is 15 inches in diameter (Fig.3). Therefore, the nozzle fitting of any vactor hose used for maintenance should be less than 15 inches in diameter.

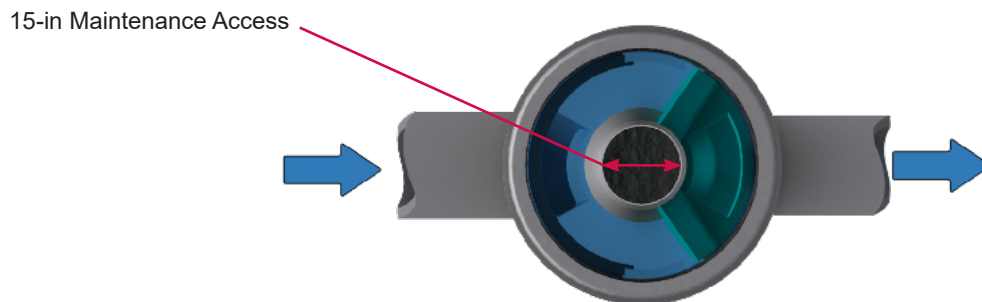


Fig.3 The central opening to the sump of the First Defense® is 15 inches in diameter.

Determining Your Maintenance Schedule

The frequency of clean out is determined in the field after installation. During the first year of operation, the unit should be inspected every six months to determine the rate of sediment and floatables accumulation. A simple probe such as a Sludge-Judge® can be used to determine the level of accumulated solids stored in the sump. This information can be recorded in the maintenance log (see page 9) to establish a routine maintenance schedule.

The vactor procedure, including both sediment and oil / floatables removal, for First Defense® typically takes less than 30 minutes and removes a combined water/oil volume of about 765 gallons.

Inspection Procedures

1. Set up any necessary safety equipment around the access port or grate of the First Defense® as stipulated by local ordinances. Safety equipment should notify passing pedestrian and road traffic that work is being done.
2. Remove the grate or lid to the manhole.
3. Without entering the vessel, look down into the chamber to inspect the inside. Make note of any irregularities. Fig.4 shows the standing water level that should be observed.
4. Without entering the vessel, use the pole with the skimmer net to remove floatables and loose debris from the components and water surface.
5. Using a sediment probe such as a Sludge Judge®, measure the depth of sediment that has collected in the sump of the vessel.
6. On the Maintenance Log (see page 9), record the date, unit location, estimated volume of floatables and gross debris removed, and the depth of sediment measured. Also note any apparent irregularities such as damaged components or blockages.
7. Securely replace the grate or lid.
8. Take down safety equipment.
9. Notify Hydro International of any irregularities noted during inspection.

Floatables and Sediment Clean Out

Floatables clean out is typically done in conjunction with sediment removal. A commercially or municipally owned sump-vac is used to remove captured sediment and floatables (Fig.4).

Floatables and loose debris can also be netted with a skimmer and pole. The access port located at the top of the manhole provides unobstructed access for a vactor hose to be lowered to the base of the sump.

Scheduling

- Floatables and sump clean out are typically conducted once a year during any season.
- Floatables and sump clean out should occur as soon as possible following a spill in the contributing drainage area.



Fig.4 Floatables are removed with a vactor hose

Recommended Equipment

- Safety Equipment (traffic cones, etc)
- Crow bar or other tool to remove grate or lid
- Pole with skimmer or net (if only floatables are being removed)
- Sediment probe (such as a Sludge Judge®)
- Vactor truck (flexible hose recommended)
- First Defense® Maintenance Log

Floatables and Sediment Clean Out Procedures

1. Set up any necessary safety equipment around the access port or grate of the First Defense® as stipulated by local ordinances. Safety equipment should notify passing pedestrian and road traffic that work is being done.
2. Remove the grate or lid to the manhole.
3. Without entering the vessel, look down into the chamber to inspect the inside. Make note of any irregularities.
4. Remove oil and floatables stored on the surface of the water with the vactor hose or with the skimmer or net
5. Using a sediment probe such as a Sludge Judge®, measure the depth of sediment that has collected in the sump of the vessel and record it in the Maintenance Log (page 9).
6. Once all floatables have been removed, drop the vactor hose to the base of the sump. Vactor out the sediment and gross debris off the sump floor
7. Retract the vactor hose from the vessel.
8. On the Maintenance Log provided by Hydro International, record the date, unit location, estimated volume of floatables and gross debris removed, and the depth of sediment measured. Also note any apparent irregularities such as damaged components, blockages, or irregularly high or low water levels.
9. Securely replace the grate or lid.

Maintenance at a Glance

Inspection	- Regularly during first year of installation - Every 6 months after the first year of installation
Oil and Floatables Removal	- Once per year, with sediment removal - Following a spill in the drainage area
Sediment Removal	- Once per year or as needed - Following a spill in the drainage area

NOTE: For most clean outs the entire volume of liquid does not need to be removed from the manhole. Only remove the first few inches of oils and floatables from the water surface to reduce the total volume of liquid removed during a clean out.



First Defense® Installation Log

HYDRO INTERNATIONAL REFERENCE NUMBER:	
SITE NAME:	
SITE LOCATION:	
OWNER:	CONTRACTOR:
CONTACT NAME:	CONTACT NAME:
COMPANY NAME:	COMPANY NAME:
ADDRESS:	ADDRESS:
TELEPHONE:	TELEPHONE:
FAX:	FAX:

INSTALLATION DATE: / /

MODEL SIZE (CIRCLE ONE): [3-FT] [4-FT] [5-FT] [6-FT] [7-FT] [8-FT] [10-FT]

INLET (CIRCLE ALL THAT APPLY): GRATED INLET (CATCH BASIN) INLET PIPE (FLOW THROUGH)

First Defense® Inspection and Maintenance Log

[illegible]

Stormwater Solutions

94 Hutchins Drive
Portland, ME 04102

Tel: (207) 756-6200

Fax: (207) 756-6212

stormwaterinquiry@hydro-int.com

www.hydro-int.com

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FD_O+M_K_2105



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Bureau of Nonpoint Pollution Control

Division of Water Quality

401-02B

Post Office Box 420

Trenton, New Jersey 08625-0420

609-633-7021 Fax: 609-777-0432

http://www.state.nj.us/dep/dwq/bnpc_home.htm

CHRIS CHRISTIE

Governor

KIM GUADAGNO

Lt. Governor

BOB MARTIN

Commissioner

April 4, 2016

Lisa Lemont, CPSWQ
Business Development Manager
Hydro International
94 Hutchins Drive
Portland, ME 04102

Re: MTD Lab Certification
First Defense® HC (FDHC) Stormwater Treatment Device by Hydro International

TSS Removal Rate 50%

Dear Ms. Lemont:

The Stormwater Management rules under N.J.A.C. 7:8-5.5(b) and 5.7 (c) allow the use of manufactured treatment devices (MTDs) for compliance with the design and performance standards at N.J.A.C. 7:8-5 if the pollutant removal rates have been verified by the New Jersey Corporation for Advanced Technology (NJCAT) and have been certified by the New Jersey Department of Environmental Protection (NJDEP). Hydro International has requested an MTD Laboratory Certification for the First Defense® HC Stormwater Treatment Device.

The projects falls under the "Procedure for Obtaining Verification of a Stormwater Manufactured Treatment Device from New Jersey Corporation for Advance Technology" dated January 25, 2013. The applicable protocol is the "New Jersey Laboratory Testing Protocol to Assess Total Suspended Solids Removal by a Hydrodynamic Sedimentation Manufactured Treatment Device" dated January 25, 2013.

NJCAT verification documents submitted to the NJDEP indicate that the requirements of the aforementioned protocol have been met or exceeded. The NJCAT letter also included a recommended certification TSS removal rate and the required maintenance plan. The NJCAT Verification Report with the Verification Appendix (dated February 2016) for this device is published online at <http://www.njcat.org/verification-process/technology-verification-database.html>.

The NJDEP certifies the use of the First Defense® HC Stormwater Treatment Device by Hydro International at a TSS removal rate of 50% when designed, operated and maintained in accordance with the information provided in the Verification Appendix and the following conditions:

1. The maximum treatment flow rate (MTFR) for the manufactured treatment device (MTD) is calculated using the New Jersey Water Quality Design Storm (1.25 inches in 2 hrs) in N.J.A.C. 7:8-5.5.

2. The First Defense® HC Stormwater Treatment Device shall be installed using the same configuration reviewed by NJCAT and shall be sized in accordance with the criteria specified in item 6 below.
3. This First Defense® HC Stormwater Treatment Device cannot be used in series with another MTD or a media filter (such as a sand filter) to achieve an enhanced removal rate for total suspended solids (TSS) removal under N.J.A.C. 7:8-5.5.
4. Additional design criteria for MTDs can be found in Chapter 9.6 of the New Jersey Stormwater Best Management Practices (NJ Stormwater BMP) Manual which can be found on-line at www.njstormwater.org.
5. The maintenance plan for a site using the First Defense® HC Stormwater Treatment Device shall incorporate, at a minimum, the maintenance requirements noted in the attached document. However, it is recommended to review the maintenance website at http://www.hydro-int.com/UserFiles/downloads/FD_O%2BM_F1512.pdf for any changes to the maintenance requirements.
6. Sizing Requirements:

The example below demonstrates the sizing procedure for the First Defense® HC Stormwater Treatment Device:

Example: A 0.25 acre impervious site is to be treated to 50% TSS removal using a First Defense® HC Stormwater Treatment Device. The impervious site runoff (Q) based on the New Jersey Water Quality Design Storm was determined to be 0.79 cfs.

Maximum Treatment Flow Rate (MTFR) Evaluation:

The site runoff (Q) was based on the following:

time of concentration = 10 minutes

i=3.2 in/hr (page 5-8, Fig. 5-3 of the NJ Stormwater BMP Manual)

c=0.99 (curve number for impervious)

$Q=ciA=0.99 \times 3.2 \times 0.25 = 0.79$ cfs

Given the site runoff is 0.79 cfs and based on Table 1 below, the First Defense® HC Model 4-ft with a MTFR of 1.5 cfs would be the smallest model approved that could be used for this site that could remove 50% of the TSS from the impervious area without exceeding the MTFR.

The sizing table corresponding to the available system models is noted below. Additional specifications regarding each model can be found in the Verification Appendix under Table A-1 and Table A-2 of the NJCAT Verification Report.

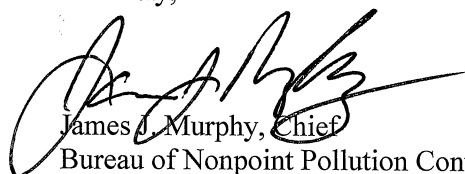
Table 1 First Defense® HC Models

First Defense® Model	Manhole Diameter (ft)	Maximum Treatment Flowrate, MTFR (cfs)
4-ft	4-ft	1.50
6-ft	6-ft	3.38
8-ft	8-ft	6.00

Be advised a detailed maintenance plan is mandatory for any project with a Stormwater BMP subject to the Stormwater Management Rules, N.J.A.C. 7:8. The plan must include all of the items identified in the Stormwater Management Rules, N.J.A.C. 7:8-5.8. Such items include, but are not limited to, the list of inspection and maintenance equipment and tools, specific corrective and preventative maintenance tasks, indication of problems in the system, and training of maintenance personnel. Additional information can be found in Chapter 8: Maintenance of the New Jersey Stormwater Best Management Practices Manual.

If you have any questions regarding the above information, please contact Mr. Titus Magnanao of my office at (609) 633-7021.

Sincerely,


James J. Murphy, Chief
Bureau of Nonpoint Pollution Control

Attachment: Maintenance Plan

C: Chron File
Richard Magee, NJCAT
Vince Mazzei, DLUR
Ravi Patraju, NJDEP
Gabriel Mahon, BNPC
Titus Magnanao, BNPC

Appendix H

Percolation Test Data



BROOKER ENGINEERING, PLLC

74 Lafayette Avenue, Suite 501
Suffern, NY 10901
Tel: 845.357.4411

22 Paris Avenue, Suite 105
Rockleigh, NJ 07647
Tel: 201.750.3527

12/20/2022

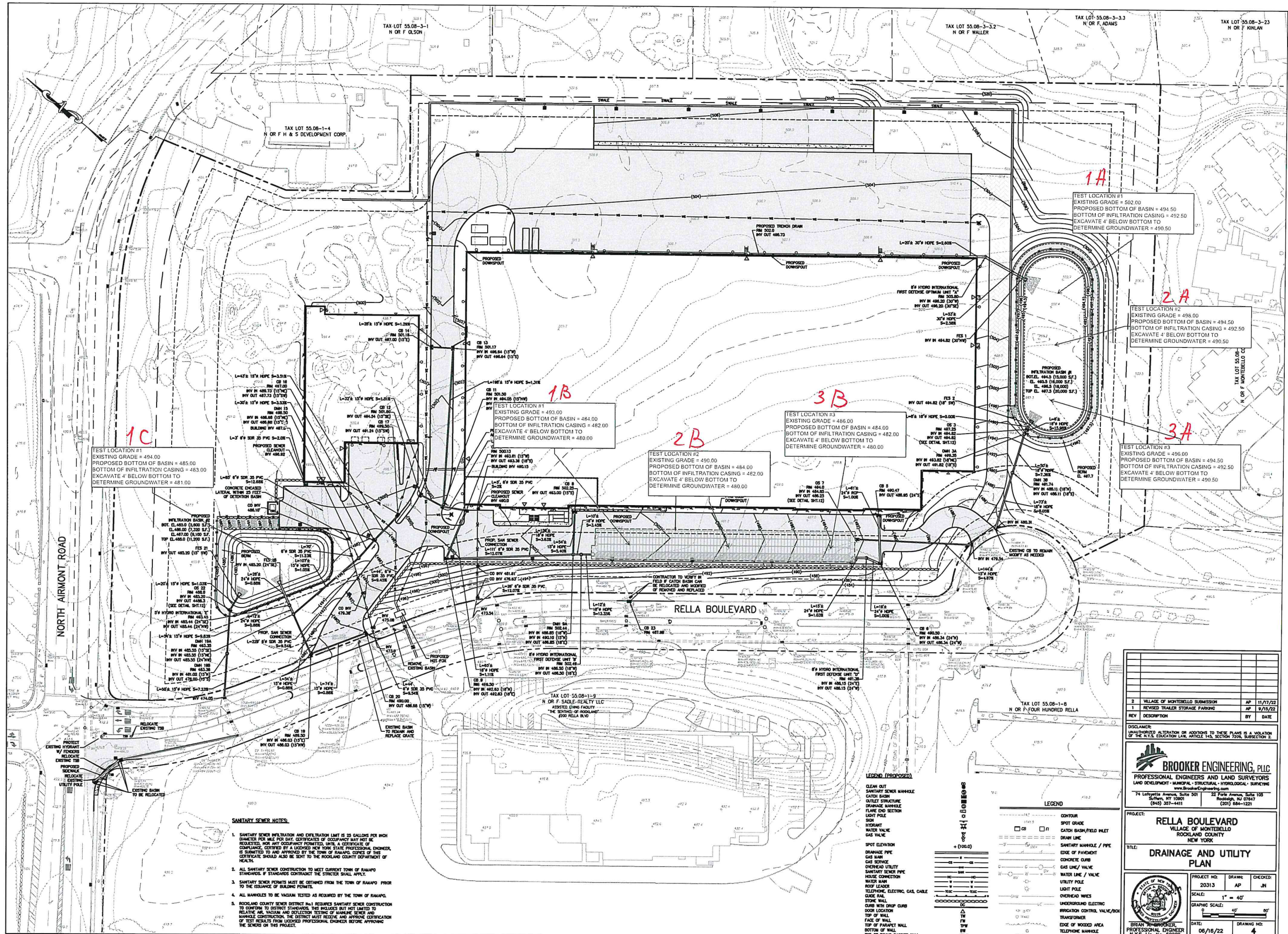
Percolation Test Data

Development/Site: Rella Blvd (T/V/C) Montebello County: Rockland

Date : Test Conducted By:

Test Hole No.	Test Hole Depth (ft-in.)	Lot No.	Soil Profile	Presoak date & time	Time	Percolation Test Runs					
						1	2	3	4	5	6
1C	11'			12/19/2022	END	11:01	12:03	13:01			
					BEGIN	10:04	11:01	12:03			
					RESULT	23"/hr	21"/hr	19"/hr			
1B	11"			12/19/2022	END	11:06	12:07	13:04			
					BEGIN	10:10	11:06	12:07			
					RESULT	24"/hr	24"/hr	24"/hr			
2B	8'			12/19/2022	END	11:09	12:09	13:07			
					BEGIN	10:13	11:09	12:09			
					RESULT	22"/hr	19.5"/hr	16"/hr			
3B	4'			12/19/2022	END	11:12	12:12	13:09			
					BEGIN	10:17	11:12	12:12			
					RESULT	20"/hr	16"/hr	15"/hr			
3A	3.5'			12/19/2022	END	11:18	12:15	13:11			
					BEGIN	10:20	11:18	12:15			
					RESULT	19"/hr	18"/hr	17"/hr			
2A	5.5'			12/19/2022	END	11:20	12:17	12:13			
					BEGIN	10:22	11:20	12:17			
					RESULT	24"/hr	22"/hr	20.5"/hr			
1A	9.5			12/19/2022	END	11:21	12:19	13:14			
					BEGIN	10:24	11:21	12:19			
					RESULT	24"/hr	24"/hr	24"/hr			

1. Test to be run for 1 hour and result recorded as inches of water elevation drop.



SANITARY SEWER NOTES:

1. SANITARY SEWER INFILTRATION AND INFLTRATION LIMIT IS 25 GALLONS PER INCH DIAMETER PER MILE PER DAY. CERTIFICATES OF OCCUPANCY MAY NOT BE REQUESTED, NOR ANY OCCUPANCY PERMITTED, UNTIL A CERTIFICATE OF COMPLIANCE, CERTIFIED BY A LICENSED NEW YORK STATE PROFESSIONAL ENGINEER, IS SUBMITTED TO AND APPROVED BY THE TOWN OF RAMAPO. COPIES OF THIS CERTIFICATE SHOULD ALSO BE SENT TO THE ROCKLAND COUNTY DEPARTMENT OF HEALTH.
2. ALL SANITARY SEWER CONSTRUCTION TO MEET CURRENT TOWN OF RAMAPO STANDARDS. IF STANDARDS CONTRADICT THE STRICTER SHALL APPLY.
3. SANITARY SEWER PERMITS MUST BE OBTAINED FROM THE TOWN OF RAMAPO PRIOR TO THE ISSUANCE OF BUILDING PERMITS.
4. ALL MANHOLES TO BE VACUUM TESTED AS REQUIRED BY THE TOWN OF RAMAPO.
5. ROCKLAND COUNTY SEWER DISTRICT #11 REQUIRES SANITARY SEWER CONSTRUCTION TO CONFORM TO DISTRICT STANDARDS. THIS INCLUDES BUT NOT LIMITED TO: RELATIVE AIR VACUUM AND DEFLECTION TESTING OF MANHOLE SEWER AND MANHOLE CONSTRUCTION. THE DISTRICT MUST RECEIVE AND APPROVE CERTIFICATION OF TEST RESULTS FROM LICENSED PROFESSIONAL ENGINEER BEFORE APPROVING THE SEWERS ON THIS PROJECT.

LEGEND (PROPOSED)

- CLEAN OUT
- SANITARY SEWER MANHOLE
- CATCH BASIN
- OUTLET STRUCTURE
- DRAINAGE MANHOLE
- FLUME D/O SECTION
- LIGHT POLE
- SOB
- HYDRANT
- WATER VALVE
- GAS VALVE
- SPOT ELEVATION
- DRAINAGE PIPE
- GAS MAIN
- GAS SERVICE
- OVERHEAD UTILITY
- SANITARY SEWER PIPE
- HOUSE CONNECTION
- WATER MAIN
- ROOF LEADER
- TELEPHONE, ELECTRIC, GAS, CABLE
- STONE WALL
- CLUMP RAIL
- CURB WITH DROP CURB
- DOOR LOCATION
- TOP OF WALL
- FACE OF WALL
- TOP OF PARAPET WALL
- BOTTOM OF WALL
- TOP OF SOUND BARRIER WALL

LEGEND

- CONTOUR
- SPOT GRADE
- CATCH BASIN/YIELD INLET
- DRAIN LINE
- SANITARY MANHOLE / PIPE
- EDGE OF PAVEMENT
- CONCRETE CURB
- GAS LINE / VALVE
- WATER LINE / VALVE
- UTILITY POLE
- LIGHT POLE
- OVERHEAD WIRES
- UNDERGROUND ELECTRIC
- IRRIGATION CONTROL VALVE/BOX
- TRANSFORMER
- EDGE OF WOODED AREA
- TELEPHONE MANHOLE
- TRAFFIC SIGNAL BOX



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22 Park Avenue, Suite 105 ROCKLAND, NJ 07847 (201) 684-1221

PROJECT: **RELLA BOULEVARD**
VILLAGE OF MONTEBELLO
ROCKLAND COUNTY
NEW YORK

TITLE: **DRAINAGE AND UTILITY PLAN**

PROJECT NO: 20313
SCALE: 1" = 40'
DATE: 06/16/22
DRAWING NO: 4