Stormwater Pollution Prevention Plan (SWPPP)

Eighteen-Eight Group, LLC
Black Meadow Road
Section 6, Block 1, Lot 102
Town Chester, Orange County, NY

Prepared for:

Eighteeen-Eight Group, LLC
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Sugar Loaf, NY 10981

160149

2016 September

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I. INTRODUCTION

The purpose of this Stormwater Pollution Prevention Plan is to meet the requirements of the NYS Dept. of Environmental Conservation (NYSDEC) SPDES General Permit for Stormwater Discharges from Construction Activity, Permit No. GP-0-15-002, effective January 29, 2015. The project will attenuate stormwater which would be generated from this site, as well as to meet the stormwater quality objectives by providing erosion and sediment control during construction and long-term stormwater quality treatment storage & infiltration during the life of the project.

It will be shown that this project meets both criteria by limiting the amount of peak stormwater runoff for the 1, 10, and 100-year return period storms. In addition, we have designed a stormwater infiltration basin and dry wells into the plan which will enhance stormwater runoff before exiting the site.

II. BACKGROUND INFORMATION

A. PROJECT DESCRIPTION

Eighteen-Eight Group, LLC is a site located along the south side of Black Meadow Road. The subdivision includes 23.3 acres located between Black Meadow Road and the railroad tracks. The project will include a parking lot to access a light industrial building. Standard soil erosion and sediment control methods will be used. The water supply will be served by an individual well. The sewage disposal will be served by an individual septic system. Drawing 1 contains the location map, drawing C-4 portrays the stormwater system, infiltration basin, dry wells and existing topography.

III. EXISTING (PRE-DEVELOPMENT) CONDITIONS

A. TOPOGRAPHY

The site ranges in elevation from 474 at the center of the area being developed to 470 at the Black Meadow Creek Tributary. The site is gently sloping.

B. EXISTING LAND USE

The site was previously used for farming. The fields have been abandoned for several years.

C. SOIL SURVEY INFORMATION

The existing soils on the site are classified as Ca (Canandaigua silt loam), Ha (Halsey silt loam), Ra (Raynham silt loam). Soils information is presented on Figure #1.

Ca (Canandaigua silt loam), is deep, poorly and very poorly drained soil. The soil is typically classified as ML, CL, CL-ML. Hydrologic group is B/D.

Ha (Halsey silt loam) is deep, very poorly drained soil formed in glacial out-washed deposits. The soil is typically classified as ML, CL, SM, SC. Hydrologic group is B/D.

Ra (Raynham silt loan), is poorly drained and very poorly drained soil, comprised mainly of silt and very fine sand. Hydrologic group is C/D.

This information was used to develop the runoff curve numbers.

D. HYDROLOGIC DATA

For developing the hydrographs, the design storms from Figures 4.2, 4.3 & 4.4 of the NYSSDM were utilized. The following hydrologic data for Orange County, NY was used:

Design Rainfall Data	
Return Period (Years)	**SCS 24-Hour Precipitation (Inches)**
1	2.70
2	3.50
10	4.90
100	8.80

The project has been analyzed as one (1) existing drainage area (Figure #2). This is as follows:

Drainage Area 1 includes the entire site. The area consists of meadow. The area drains west towards Black Meadow Creek Tributary.

Drainage areas and runoff curve numbers are presented in Appendix A.

IV. PROPOSED FUTURE (DEVELOPMENT) CONDITIONS

A. MAP OF COMPLETED PROJECT LAYOUT

A map of the completed project is presented as Drawing C-4. The project involves removal of meadow in the area of the proposed light industrial building, lawns, and construction of a driveway to access the building.

B. CHANGES TO LAND SURFACE

In the areas to be developed, the existing meadow will be removed. These areas will be top-soiled and seeded.

C. CONSTRUCTION SCHEDULE

Construction is scheduled to begin in the fall of 2016. Completion is scheduled for approximately the fall of 2017.

V. COMPARISON OF PRE-DEVELOPMENT WITH POST DEVELOPMENT RUNOFF

A. METHODOLOGIES

The pre-development hydrographs were developed as previously described. The drainage basin has an area of 23.3 acres. The site has an area of approximately 23.3 acres.

Peak rates of runoff for both the pre- and post-developed conditions were calculated utilizing the methodologies outlined in the publication, *Urban Hydrology for Small Water Sheds* (June 1986). Various coefficients used in this analysis were taken from the *Web Soil Survey.* Routing for the post-developed condition was done utilizing the computer program known as *Hydroflow* (Autodesk, 2009)

The proposed site will have infiltration basin and dry wells to attenuate increased stormwater runoff from development. Water quality issues will be addressed by use of infiltration.

Figure #3 depicts the proposed drainage areas.

The Tc worksheets are presented in Appendix B. The Tc summary is presented in Table #1. As the Tc to the SMPs was small, a Tc of 10.0 min was used in the analysis.

By providing infiltration for the site, we were able to reduce the peak rates of runoff to values approximately the same as the pre-developed rates currently existing. Pre- and post-development hydrographs for the 1, 10, and 100-year return period storms are presented in Appendices C, D and E.

Table #1 summarizes the pre-, post- and routed peak rates of discharge.

Table #1 — Peak Rates of Discharge

Area	Drainage Area (AC)		CN		Discharge (CFS)	
	Pre	Post	Pre	Post	Pre	Post
Combined	23.3	23.3	61	61		
Q_1					1.97	1.90
Q_{10}					16.65	16.53
Q_{100}					56.76	56.55

In addition to attenuating the design storms, the infiltration basin and dry wells address the water-quality issues from the development by providing infiltration. The infiltration basin is similar to the Infiltration Basin (I-2). The dry wells are similar to the Dry Wells (I-3).

VI. CALCULATIONS

Detailed calculations are included in the Appendix of this report.

VII. STORMWATER MANAGEMENT

A. STORMWATER MANAGEMENT FACILITIES

Stormwater management for the facility will consist of a infiltration basin at the northeast side of the site which has been designed to fit in with the topography of the site and is designed to be a part of the landscape features. We propose slopes of 2:1. The infiltration basin has been designed to infiltrate the runoff from the parking lot. The infiltration basin system will be topsoiled and seeded with riparian seed mix that would be maintained. In order to meet the Stream Channel Protection Volume Requirements (Cp_v), the infiltration basin provides infiltration of the one-year 24-hour storm event. The infiltration basin features a weir. This weir provides the required detention for the drainage area.

To meet the Overbank Flood Control criteria (Q_p), the infiltration basin attenuates the post-development 10-year 24-hour peak discharge rate to pre-development rates. In addition, the infiltration basin attenuates the 100-year 24-hour peak discharge rate to pre-development rates. This meets the Extreme Flood Control criteria (Q_f). Infiltration basin calculations are presented in Appendix F.

The bottom of the infiltration basin has been set to elevation 467.0. A weir divides the infiltration basin to control flow to the discharge pipe. The vegetated swale acts as an upstream pre-treatment device, utilized for maintenance, as well as benefiting the basin longevity. The basin and the control weir have been designed to handle a 100-year storm.

Dry Wells

The building roof drains will discharge to the surface, through a sand filter to dry wells. These dry wells will serve to infiltrate the runoff reduction volume and channel protection volume. In addition, they will provide attenuation of the 10- Year and 100- Year storms. During these storms the dry wells will fill, then the additional flow beyond their capacity will discharge to the wetlands on the southeast side of the building.

Table #2 — Water Quality Volume (WQ_v)

	Required RRv (AC-FT)	Provided (AC-FT)
Infiltration Basin	0.045	0.045
Dry Wells	0.025	0.025

B. STORMWATER CONVEYANCE SYSTEM

The stormwater conveyance system is presented on the drawing. The system will consist of a vegetated swale conveying the stormwater flow from the parking lot and upland area to the infiltration basin.

C. LANDSCAPE FEATURES

As part of the overall development of the site, we are attempting to maintain much of the existing vegetation on the site. In those areas that would be disturbed, we would provide a lawn and landscaping features.

VIII. EROSION AND SEDIMENT CONTROL

A. TEMPORARY EROSION AND SEDIMENT CONTROL FACILITIES

The Erosion and Sediment Control Plan for the proposed site will utilize silt fences, inlet protection, and a sediment basin to be installed by the contractor prior to construction. These features will be maintained during construction to contain the silt and sediment on site. These facilities will remain in place until vegetation is established.

Silt Fence: Silt fence will be installed on the downslope side of disturbed areas, as shown on the Erosion and Sediment Control Plan.

Construction Road Stabilization: As soon as final grade is reached on the road, the subgrade will be sloped stabilized with 6 inches of Type 4 subbase course, Item 304.05. This will prevent erosion and dust during the construction prior to paving.

Sediment Basin: The Sediment Basins, will be constructed at the low points of the property. Water from disturbed areas will be directed to the basin before leaving the site. Sediment Basin Details are shown on the drawings.

Upon completion of the roadway and stabilization of the site, the sediment basin will be converted to an infiltration basin.

Temporary Gravel Construction Entrance/Exit: A temporary gravel construction entrances will be installed at the entrance to the property.

Grading: Grading will be required on the site. Upon completion of rough grading, the area will be temporarily vegetated.

Surface Stabilization: Stabilization of the surface will be accomplished with vegetation and mulch as specified in the Erosion & Sediment Control Plan. Roadway subbase course will be installed as soon as finished grade is reached.

Dust Control: Dust control is not anticipated to be a problem. Should excessive dust be generated by construction activities, the contractor will control it by sprinkling water on the disturbed areas.

Soil Stockpiling: Stockpiles shall be enclosed with silt fence.

B. PERMANENT EROSION AND SEDIMENT CONTROL FACILITIES

Upon establishment of vegetation, the stormwater infiltration basin and dry wells will provide sediment control. The lawn areas will be maintained and mowed by the building owner. The establishment of vegetation will proceed as construction progresses.

C. POLLUTION PREVENTION MEASURES DURING CONSTRUCTION (OTHER THAN SOIL DISTURBANCE)

The following product-specific practices will be followed on site:

Petroleum Products: All on-site vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the change of leakage. Petroleum products will be stored in tightly sealed containers that are clearly labeled. Any asphalt substances used on site will be applied according to the manufacturer's recommendations.

Fertilizers: Fertilizers used will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into the soil to limit exposure to stormwater. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

Paints: All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm sewer system but will be properly disposed of according to manufacturers' instructions or state and local regulations.

Concrete Trucks: Concrete trucks will not be allowed to wash out or discharge surplus concrete or drum-wash water on the site.

Waste Disposal: All waste materials and litter will be collected and stored in a securely lidded metal dumpster rented from a licensed solid waste management company. The dumpster will meet all local and any state solid waste management regulations. All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied as often as necessary, and the trash will be hauled to a transfer station. No construction waste materials will be buried on site. All personnel will be instructed regarding the correct procedure for waste disposal. Notices stating these practices will be posted in the office trailer.

Hazardous Waste: All hazardous waste materials will be disposed of in the manner specified by the local or state regulations or by the manufacturer. Site personnel will be instructed in these practices.

Sanitary Waste: All sanitary waste will be collected from the portable units a minimum of three (3) times per week by a licensed sanitary waste management contractor.

Recyclable Waste: All recyclable waste (cardboard, wood, etc.) shall be collected and recycled.

Refueling: All refueling, repair, and changing of equipment and vehicle fluids shall be conducted in a designated area, if practicable. This area will be designed in a manner to reduce the potential for contamination of on-site resources. For refueling, repair, and changing of equipment and vehicles outside of the designated areas, care should be taken to avoid activities with ±100 feet of wetlands, streams, water bodies, or other environmentally-sensitive areas.

D. ON-SITE STORAGE OF CONSTRUCTION AND WASTE MATERIALS

Spill Prevention Inventory: The materials or substances listed below are expected to be present on site during construction:

Concrete	Detergents	Roofing
Metal Studs	Paints (Enamel and Latex)	Wood
Petroleum-based Products	Fertilizers	Tar
Masonry Block	Cleaning Solvents	

Material Management Practices:

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

- Products will be kept in original containers unless they are not resealable.
- Original labels and material safety data sheets will be retained.
- An effort will be made to store only enough products required to do the job.
- All materials stored on site will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure and/or on blacktop.
- Products will be kept in their original containers with the original manufacturer's label.
- Substances will not be mixed with one another unless recommended by the manufacturer.
- Whenever possible, all of a product will be used up before disposing of the container.
- Manufacturers' recommendations for proper use and disposal will be followed.
- The site superintendent will inspect daily to ensure the proper use and disposal of materials on site.
- Manufacturers' recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area on site. Equipment and materials will include but not be limited to brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- Spills of any size of toxic or hazardous material will be reported to the NYSDEC or the Town of Chester Building Department.

The spill prevention plan will be adjusted to include measures to prevent this type of spill from recurring and how to clean up the spill if there is another one. A description of the spill, what caused it, and the cleanup measures will also be included.

IX. IMPLEMENTATION SCHEDULE AND MAINTENANCE

A. IMPLEMENTATION SCHEDULE FOR STAGING OF ALL STORMWATER MANAGEMENT FACILITIES.

The Erosion & Sediment Control Plan for the proposed site will utilize silt fences, and a sediment basin to be installed prior to and during construction to contain silt and sediment on site. These facilities will be placed as shown on the plans and are to be maintained during construction to ensure that they will continue to remove sediment throughout the period of construction.

There will be existing topsoil on site to be stockpiled. All areas of construction that will not be seeded within 14 days will receive temporary seeding as specified on the plans. When construction is completed, topsoil will be brought in and spread to a depth of 4 inches and a permanent vegetative cover established. Upon determination that the vegetation cover has reached the level where sedimentation will not be a problem, all the sedimentation control can then be removed.

As part of the development, the following will take place for implementing the erosion and sediment controls:

Phase 1

1) Installation of stabilized construction entrance.

2) Installation of silt fencing as shown on the plan.

3) General site clearing of vegetation for the areas disturbed.

4) Soil stockpiling and rough grading.

5) Construction of the sediment basin.

6) Install subbase for the driveway.

7) Temporary seeding.

8) Installation of the stormwater conveyance system.

9) Place base course of asphalt.

10) Construction of building.

11) Topsoil, permanent seeding, and landscaping.

Phase 3

12) Upon final completion of building, install asphalt top course.

13) Remove erosion and sediment control.

Inspection of erosion and sediment controls shall be performed every seven (7) calendar days.

B. DESCRIPTION OF ARRANGEMENTS (SHORT-TERM MAINTENANCE)

These items will be handled by Eighteen-Eight Group, LLC.

All soil erosion and sediment control practices will be checked for stability once every week. Any needed repairs will be made immediately to maintain all practices as designed.

The sediment basin will be cleaned out when the level of sediment reaches 1.0 feet below the top of the weir.

Sediment will be removed from behind the silt fence when it becomes about 0.5 feet deep at the fence. The silt fence will be repaired as necessary to maintain a barrier.

All seeded areas will be fertilized, reseeded as necessary, and mulched to maintain a vigorous, dense vegetative cover.

C. DESCRIPTION OF ARRANGEMENTS (LONG-TERM MAINTENANCE)

The only long-term maintenance required for this project is cleaning of the storm sewer piping, infiltration basin and dry wells. The maintenance is expected to include cleaning of the infiltration basin and dry wells every two (2) years. These items will be handled by the building owner.

The infiltration basin and dry wells will be inspected by the building owner personnel monthly. At that time, any wind-blown or floating trash will be removed from the basin and above the dry wells and disposed of. The accumulated sediment shall be measured by personnel, utilizing a calibrated measuring rod. Upon measuring sediment, the readings will be recorded in a log book. The infiltration basins and dry wells will be cleaned out when accumulated sediment reaches the depths shown in the table below.

Table #3 — Pond & Basin Cleanout Depth

	Depth (FT)
Infiltration Basin	1.0
Dry Wells	0.5

X. ACCOUNTABILITY DURING PLAN IMPLEMENTATION

The Eighteen-Eight Group, LLC will be responsible for the implementation of the soil erosion and sediment control during construction. Maintenance will include the cleaning and cutting of grass swales, and the cleaning of the sediment basin. The project would be overseen by the Town of Chester Building Dept. who will ensure that the project and the associated improvements are implemented correctly.

XI. WORKS CITED

Autodesk, Inc. (2009). Hydroflow Hydrographs Extension for Auto CAD, Civil 3D, Computer Program, San Rafael, CA

New York State Department of Environmental Conservation (NYSDEC), (January, 2015), *New York State Stormwater Management Design Manual*, Albany, NY

New York State Dept. of Environmental Conservation, (July, 2016), *Standards and Specifications for Erosion and Sediment Control*, Albany, NY

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture, (USDA). Web Soil Survey, Available online at http://websoilsurvey.nrcs.usda.gov/. Accessed 9/06/2016.

Soil Conservation Service (SCS), (June 1986), *Urban Hydrology for Small Water Sheds*, New York, NY

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FIGURES

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Site Soils

Figure #1


74° 17' 41" W
74° 17' 0" W
559000
559100
559200
559300
559400
559500
559600
559700
559800
559900
41° 20' 31" N
41° 20' 11" N
4576900
4576800
4576700
4576600
4576500
4576400
Shunoski Ln
Black Meadow Rd
Fd
Ha
Ca
RSF
ErA
Ra
Ma
RbB
Pg
Map Scale: 1:4,370 if printed on A landscape (11" x 8.5") sheet.
N
0 50 100 200 300 Meters
0 200 400 800 1200 Feet
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

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 1:15,800.

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: http://websoilsurvey.nrcs.usda.gov
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: Orange County, New York
Survey Area Data: Version 16, Sep 24, 2015

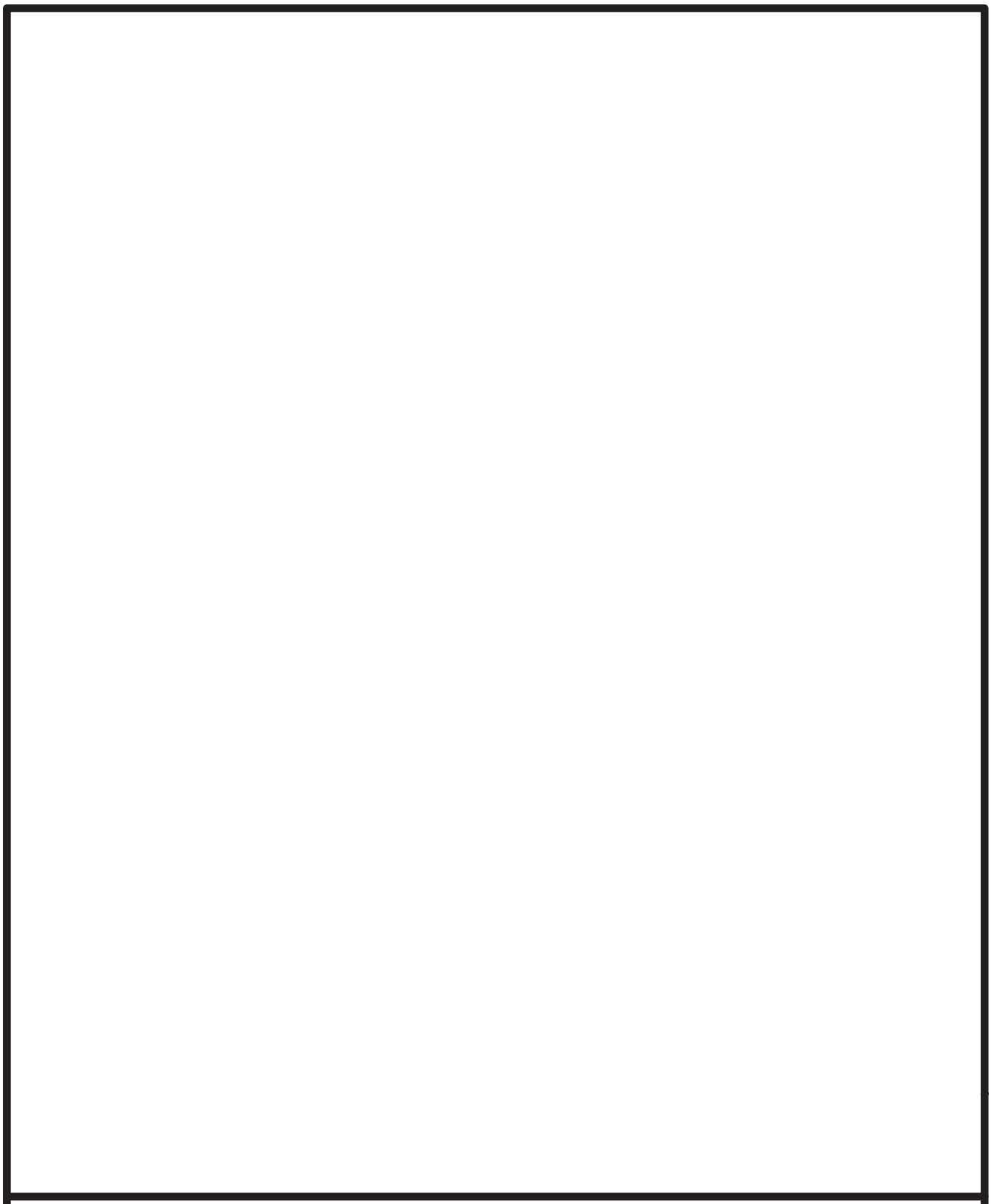
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 20, 2011—Oct 10, 2011

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

Map Unit Legend

Orange County, New York (NY071)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
Ca	Canandaigua silt loam	44.1	60.1%
ErA	Erie gravelly silt loam, 0 to 3 percent slopes	2.2	3.0%
Fd	Fredon loam	0.9	1.3%
Ha	Halsey silt loam	5.5	7.5%
Ma	Madalin silt loam	3.5	4.7%
Pg	Pits, gravel	2.4	3.2%
Ra	Raynham silt loam	6.0	8.2%
RbB	Rhinebeck silt loam, 3 to 8 percent slopes	0.6	0.8%
RSF	Rock outcrop-Nassau complex, very steep	8.2	11.2%
Totals for Area of Interest		**73.5**	**100.0%**



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Pre-Development Site Drainage Area

Figure #2

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Post-Development Site Drainage Area

Figure #3

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APPENDICES

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Drainage Areas, Runoff Curve Numbers, WQv & RRv

Appendix A

Eighteen-Eight Group LLC
SWPPP
Drainage Areas and Runoff Curve Numbers

Hydrograph	Description	Hydrologic Soil Group B				Hydrologic Soil Group C				Total (AC)
		Woods CN 55 (AC)	Meadow CN 58 (AC)	Lawn CN 61 (AC)	Road CN 98 (AC)	Woods CN 70 (AC)	Meadow CN 71 (AC)	Lawn CN 74 (AC)	Road CN 98 (AC)	
1	**Pre-Dev Site**									
	Subtotal	0.00	18.35	0.00	0.00	0.00	4.95	0.00	0.00	23.30
	TOTAL									23.30
3	**Post-Dev Area 1**									
	Subtotal	0.00	0.28	0.00	0.40	0.00	0.00	0.00	0.00	0.67
5	**Post-Dev Areas 2&4**									
	Subtotal	0.00	16.97	0.44	0.05	0.00	4.95	0.00	0.00	22.41
6	**Post-Dev Area 3**									
	Subtotal	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.22
	TOTAL									23.30

Version 1.7
Last Updated: 10/02/2015

Total Water Quality Volume Calculation
WQv(acre-feet) = [(P)(Rv)(A)] /12

Is this project subject to Chapter 10 of the NYS Design Manual (i.e. WQv is equal to post-development 1 year runoff volume)?.....	No

Design Point:	1	
P=	1.40	*inch*

Manually enter P, Total Area and Impervious Cover.

Breakdown of Subcatchments

Catchment Number	Total Area *(Acres)*	Impervious Area *(Acres)*	Percent Impervious *%*	Rv	WQv *(ft^3)*	Description
1	0.67	0.40	59%	0.58	1,977	Infiltration Basin
2	2.84	0.05	2%	0.07	941	Riparian Buffer
3	0.22	0.22	100%	0.95	1,072	Dry Well
4	19.57	0.00	0%	0.05	4,973	Conservation of Natural Areas
5						
6						
7						
8						
9						
10						
Subtotal (1-30)	23.30	0.67	3%	0.08	**8,963**	**Subtotal 1**
Total	23.30	0.67	3%	0.08	**8,963**	**Initial WQv**

Identify Runoff Reduction Techniques By Area

Technique	Total Contributing Area *(Acre)*	Contributing Impervious Area *(Acre)*	Notes
Conservation of Natural Areas	19.57	0.00	*minimum 10,000 sf*
Riparian Buffers	2.84	0.05	*maximum contributing length 75 feet to 150 feet*
Filter Strips	0.00	0.00	
Tree Planting	0.00	0.00	*Up to 100 sf directly connected impervious area may be subtracted per tree*
Total	**22.41**	**0.05**	

Recalculate WQv after application of Area Reduction Techniques

	Total Area *(Acres)*	Impervious Area *(Acres)*	Percent Impervious *%*	Runoff Coefficient Rv	WQv *(ft^3)*
"<<Initial WQv"	23.30	0.67	3%	0.08	8,963
Subtract Area	-22.41	-0.05			
WQv adjusted after Area Reductions	**0.89**	**0.62**	69%	0.67	3,049
Disconnection of Rooftops		0.00			
Adjusted WQv after Area Reduction and Rooftop Disconnect	0.89	0.62	69%	0.67	**3,049**

Runoff Reduction Volume and Treated volumes						
	Runoff Reduction Techiques/Standard SMPs		**Total Contributing Area**	**Total Contributing Impervious Area**	**WQv Reduced (RRv)**	**WQv Treated**
			(acres)	**(acres)**	**cf**	**cf**
Area/Volume Reduction	Conservation of Natural Areas	RR-1	19.57	0.00		
	Sheetflow to Riparian Buffers/Filter Strips	RR-2	2.84	0.05		
	Tree Planting/Tree Pit	RR-3	0.00	0.00		
	Disconnection of Rooftop Runoff	RR-4		0.00		
	Vegetated Swale	RR-5	0.00	0.00	0	
	Rain Garden	RR-6	0.00	0.00	0	
	Stormwater Planter	RR-7	0.00	0.00	0	
	Rain Barrel/Cistern	RR-8	0.00	0.00	0	
	Porous Pavement	RR-9	0.00	0.00	0	
	Green Roof (Intensive & Extensive)	RR-10	0.00	0.00	0	
Standard SMPs w/RRv Capacity	Infiltration Trench	I-1	0.00	0.00	0	0
	Infiltration Basin	I-2	0.67	0.40	1687	0
	Dry Well	I-3	0.22	0.22	1072	0
	Underground Infiltration System	I-4	0.00			
	Bioretention & Infiltration Bioretention	F-5	0.00	0.00	0	0
	Dry swale	O-1	0.67	0.40	291	0
Standard SMPs	Micropool Extended Detention (P-1)	P-1				
	Wet Pond (P-2)	P-2				
	Wet Extended Detention (P-3)	P-3				
	Multiple Pond system (P-4)	P-4				
	Pocket Pond (p-5)	P-5				
	Surface Sand filter (F-1)	F-1				
	Underground Sand filter (F-2)	F-2				
	Perimeter Sand Filter (F-3)	F-3				
	Organic Filter (F-4	F-4				
	Shallow Wetland (W-1)	W-1				
	Extended Detention Wetland (W-2	W-2				
	Pond/Wetland System (W-3)	W-3				
	Pocket Wetland (W-4)	W-4				
	Wet Swale (O-2)	O-2				
Totals by Area Reduction →			22.41	0.05	5914	
Totals by Volume Reduction →			0.00	0.00	0	
Totals by Standard SMP w/RRV →			1.56	1.01	3050	0
Totals by Standard SMP →			0.00	0.00		0
Totals (Area + Volume + all SMPs) →			23.97	1.06	8,963	0
	Impervious Cover √	error				

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Time of Concentration Tc Worksheets

Appendix B

TR55 Tc Worksheet

Hyd. No. 1

Pre-Dev Site

Description		A		B		C		Totals
Sheet Flow								
Manning's n-value	=	0.240		0.011		0.011		
Flow length (ft)	=	200.0		0.0		0.0		
Two-year 24-hr precip. (in)	=	3.50		0.00		0.00		
Land slope (%)	=	1.00		0.00		0.00		
Travel Time (min)	**=**	**31.35**	**+**	**0.00**	**+**	**0.00**	**=**	**31.35**
Shallow Concentrated Flow								
Flow length (ft)	=	600.00		0.00		0.00		
Watercourse slope (%)	=	1.00		0.00		0.00		
Surface description	=	Unpaved		Paved		Paved		
Average velocity (ft/s)	=	1.61		0.00		0.00		
Travel Time (min)	**=**	**6.20**	**+**	**0.00**	**+**	**0.00**	**=**	**6.20**
Channel Flow								
X sectional flow area (sqft)	=	0.00		0.00		0.00		
Wetted perimeter (ft)	=	0.00		0.00		0.00		
Channel slope (%)	=	0.00		0.00		0.00		
Manning's n-value	=	0.015		0.015		0.015		
Velocity (ft/s)	=	0.00		0.00		0.00		
Flow length (ft)	=	0.0		0.0		0.0		
Travel Time (min)	**=**	**0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

Total Travel Time, Tc ..... 37.50 min

TR55 Tc Worksheet

Hyd. No. 5

Post-Dev Areas 2&4

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.240		0.011		0.011		
Flow length (ft)	= 200.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 3.50		0.00		0.00		
Land slope (%)	= 1.00		0.00		0.00		
Travel Time (min)	**= 31.35**	**+**	**0.00**	**+**	**0.00**	**=**	**31.35**
Shallow Concentrated Flow							
Flow length (ft)	= 600.00		0.00		0.00		
Watercourse slope (%)	= 1.00		0.00		0.00		
Surface description	= Unpaved		Paved		Paved		
Average velocity (ft/s)	= 1.61		0.00		0.00		
Travel Time (min)	**= 6.20**	**+**	**0.00**	**+**	**0.00**	**=**	**6.20**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	= 0.00		0.00		0.00		
Flow length (ft)	= 0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

Total Travel Time, Tc ..... 37.50 min

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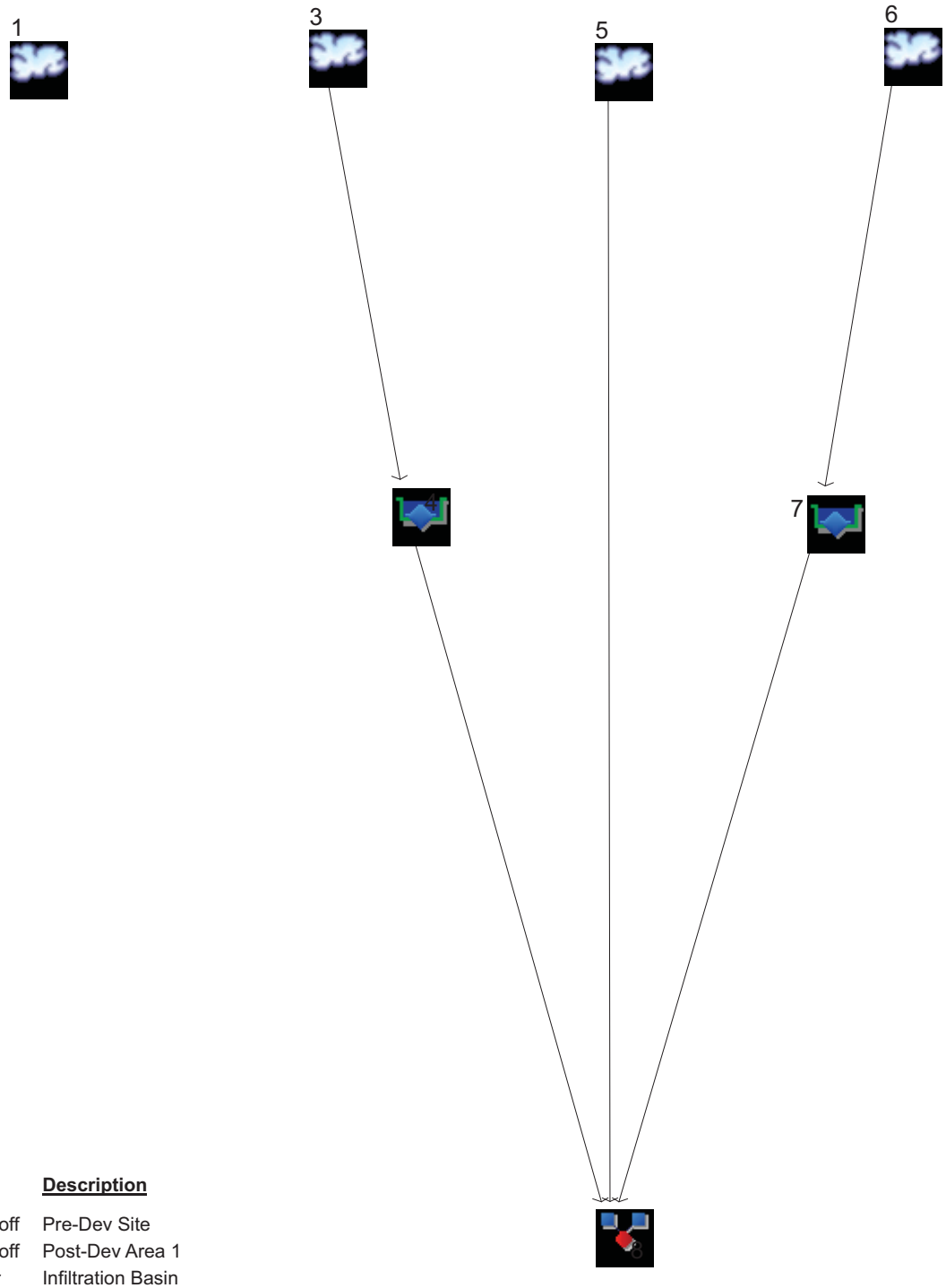
Pre- and Post-Development Hydrographs
1-Year Return Interval Storm

Appendix C

Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066



Legend

Hyd.	Origin	Description
1	SCS Runoff	Pre-Dev Site
3	SCS Runoff	Post-Dev Area 1
4	Reservoir	Infiltration Basin
5	SCS Runoff	Post-Dev Areas 2&4
6	SCS Runoff	Post-Dev Area 3
7	Reservoir	Dry Wells
8	Combine	Post-Dev Combined

Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description
1	SCS Runoff	1.972	2	764	21,855	------	------	------	Pre-Dev Site
3	SCS Runoff	0.780	2	730	3,033	------	------	------	Post-Dev Area 1
4	Reservoir	0.000	2	900	0	3	469.00	1,055	Infiltration Basin
5	SCS Runoff	1.896	2	764	21,020	------	------	------	Post-Dev Areas 2&4
6	SCS Runoff	0.482	2	728	2,034	------	------	------	Post-Dev Area 3
7	Reservoir	0.000	2	652	0	6	470.38	744	Dry Wells
8	Combine	1.896	2	764	21,020	4, 5, 7	------	------	Post-Dev Combined

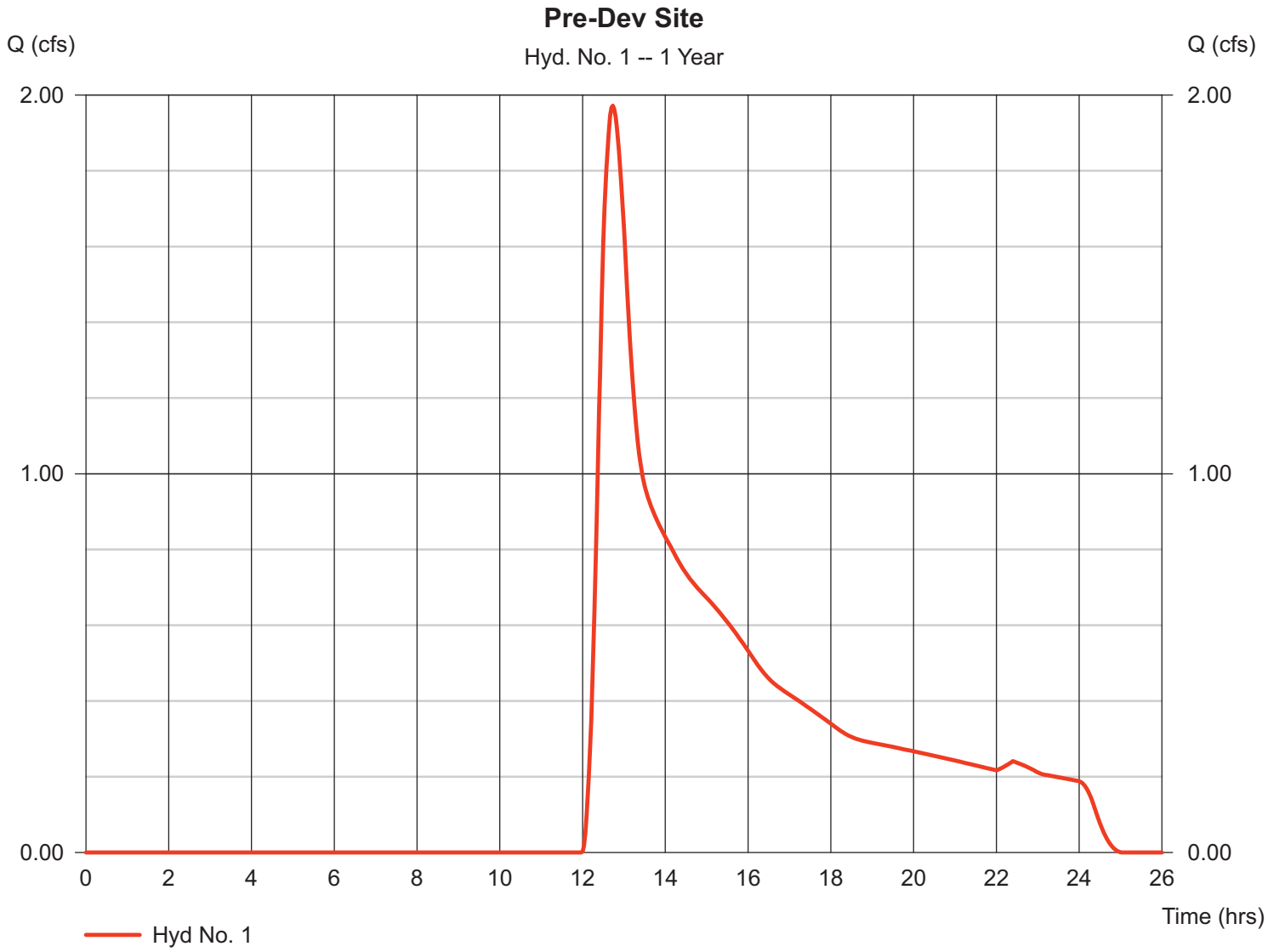
Hydrograph Report

Hyd. No. 1

Pre-Dev Site

Hydrograph type	=	SCS Runoff	Peak discharge	=	1.972 cfs
Storm frequency	=	1 yrs	Time to peak	=	12.73 hrs
Time interval	=	2 min	Hyd. volume	=	21,855 cuft
Drainage area	=	23.300 ac	Curve number	=	61*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	37.50 min
Total precip.	=	2.70 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(18.350 x 58) + (4.950 x 71)] / 23.300



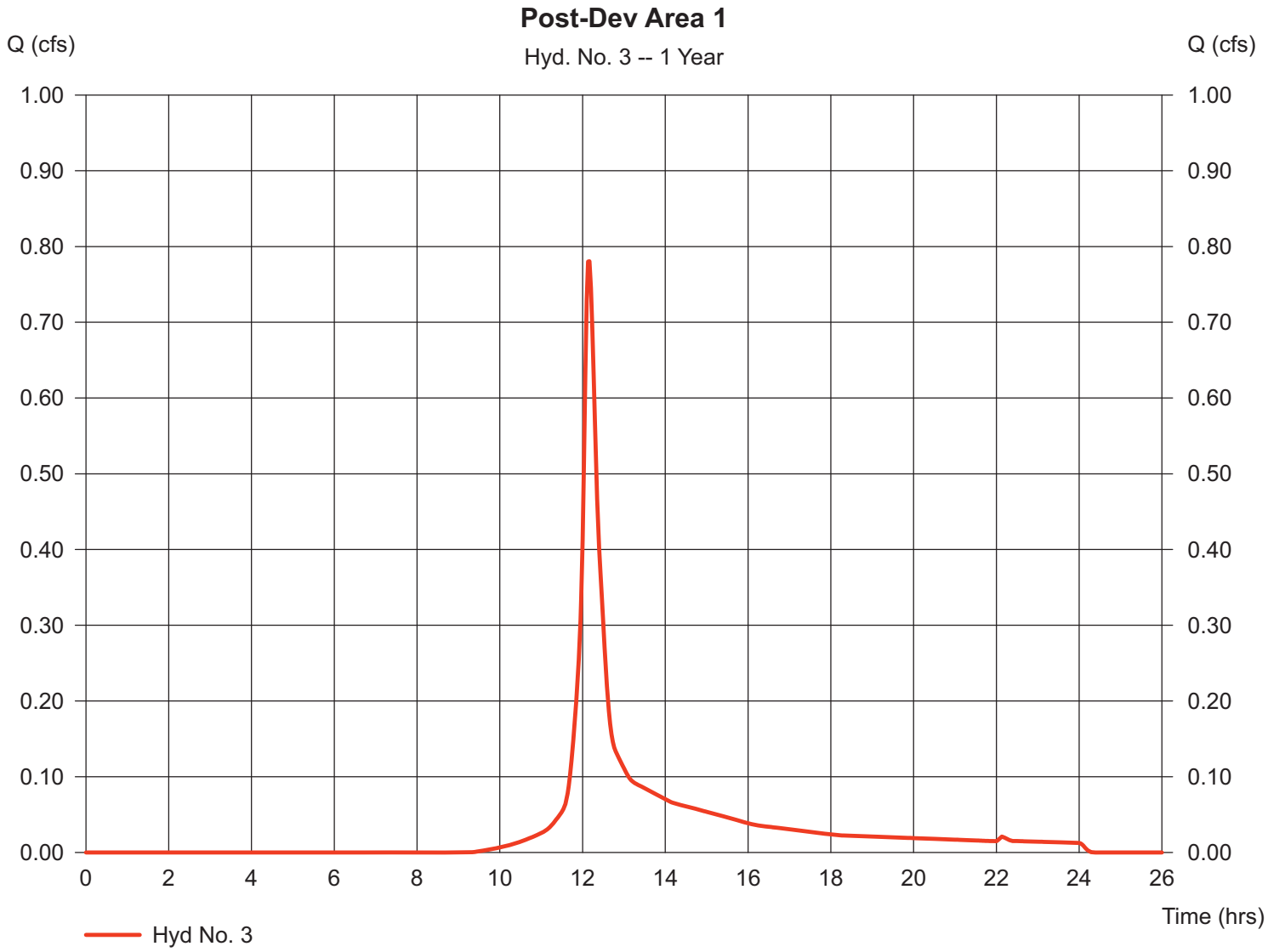
Hydrograph Report

Hyd. No. 3

Post-Dev Area 1

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.780 cfs
Storm frequency	=	1 yrs	Time to peak	=	12.17 hrs
Time interval	=	2 min	Hyd. volume	=	3,033 cuft
Drainage area	=	0.670 ac	Curve number	=	83*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	USER	Time of conc. (Tc)	=	10.00 min
Total precip.	=	2.70 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(0.270 x 61) + (0.400 x 98)] / 0.670



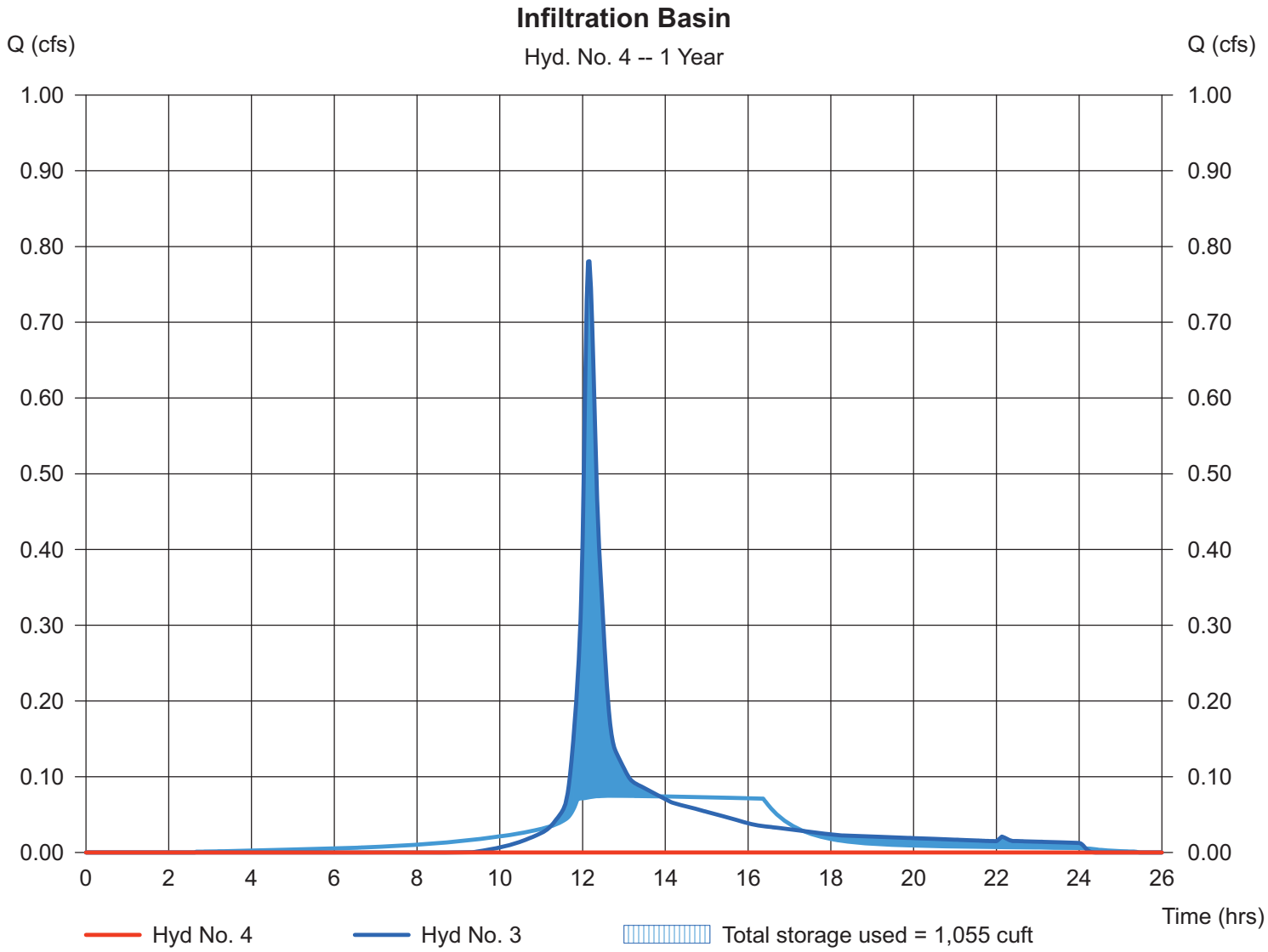
Hydrograph Report

Hyd. No. 4

Infiltration Basin

Hydrograph type	=	Reservoir	Peak discharge	=	0.000 cfs
Storm frequency	=	1 yrs	Time to peak	=	15.00 hrs
Time interval	=	2 min	Hyd. volume	=	0 cuft
Inflow hyd. No.	=	3 - Post-Dev Area 1	Max. Elevation	=	469.00 ft
Reservoir name	=	Infiltration Basin	Max. Storage	=	1,055 cuft

Storage Indication method used. Exfiltration extracted from Outflow.



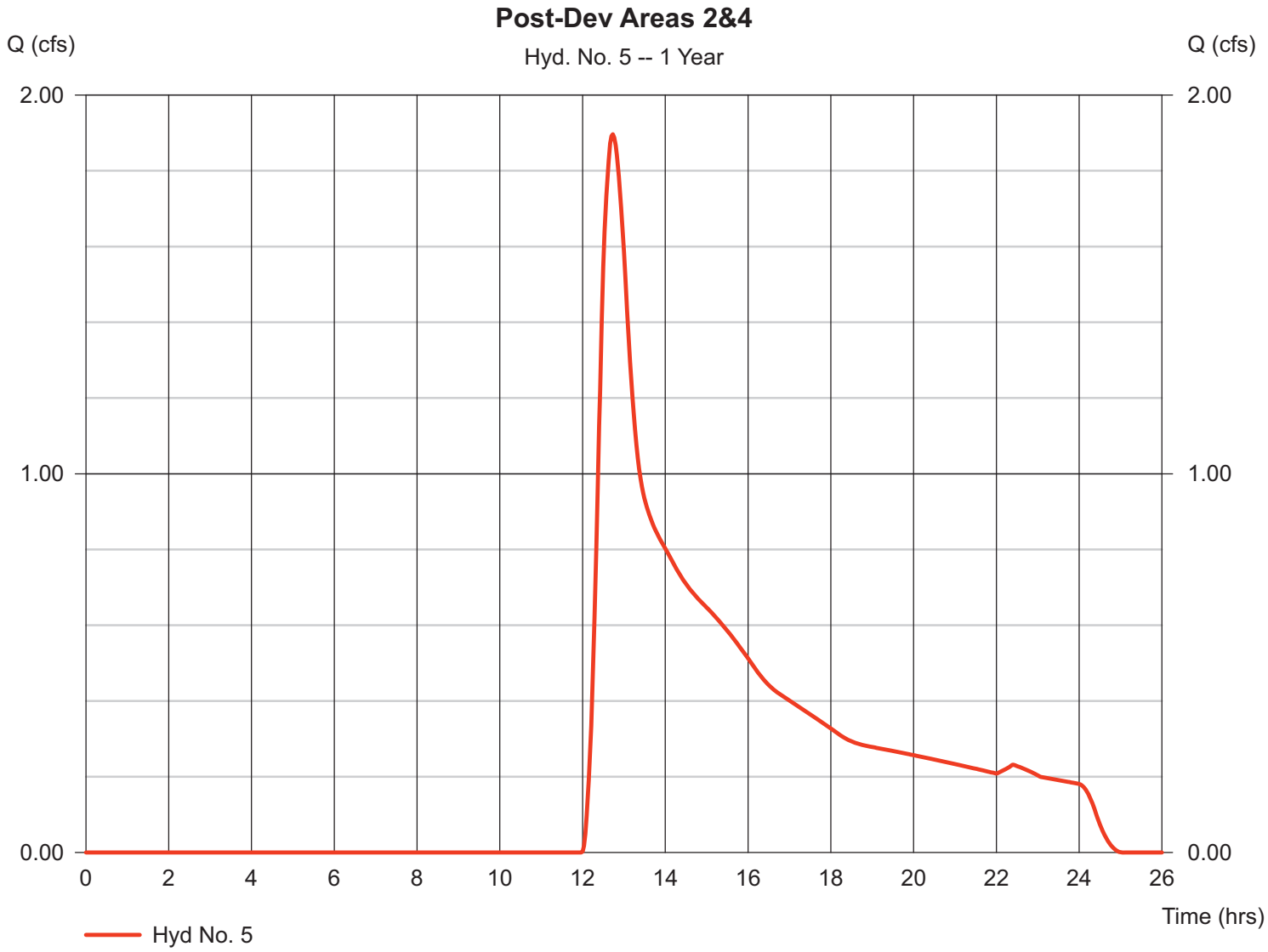
Hydrograph Report

Hyd. No. 5

Post-Dev Areas 2&4

Hydrograph type	=	SCS Runoff	Peak discharge	=	1.896 cfs
Storm frequency	=	1 yrs	Time to peak	=	12.73 hrs
Time interval	=	2 min	Hyd. volume	=	21,020 cuft
Drainage area	=	22.410 ac	Curve number	=	61*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	37.50 min
Total precip.	=	2.70 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(16.970 x 58) + (0.440 x 61) + (4.950 x 71) + (0.050 x 98)] / 22.410



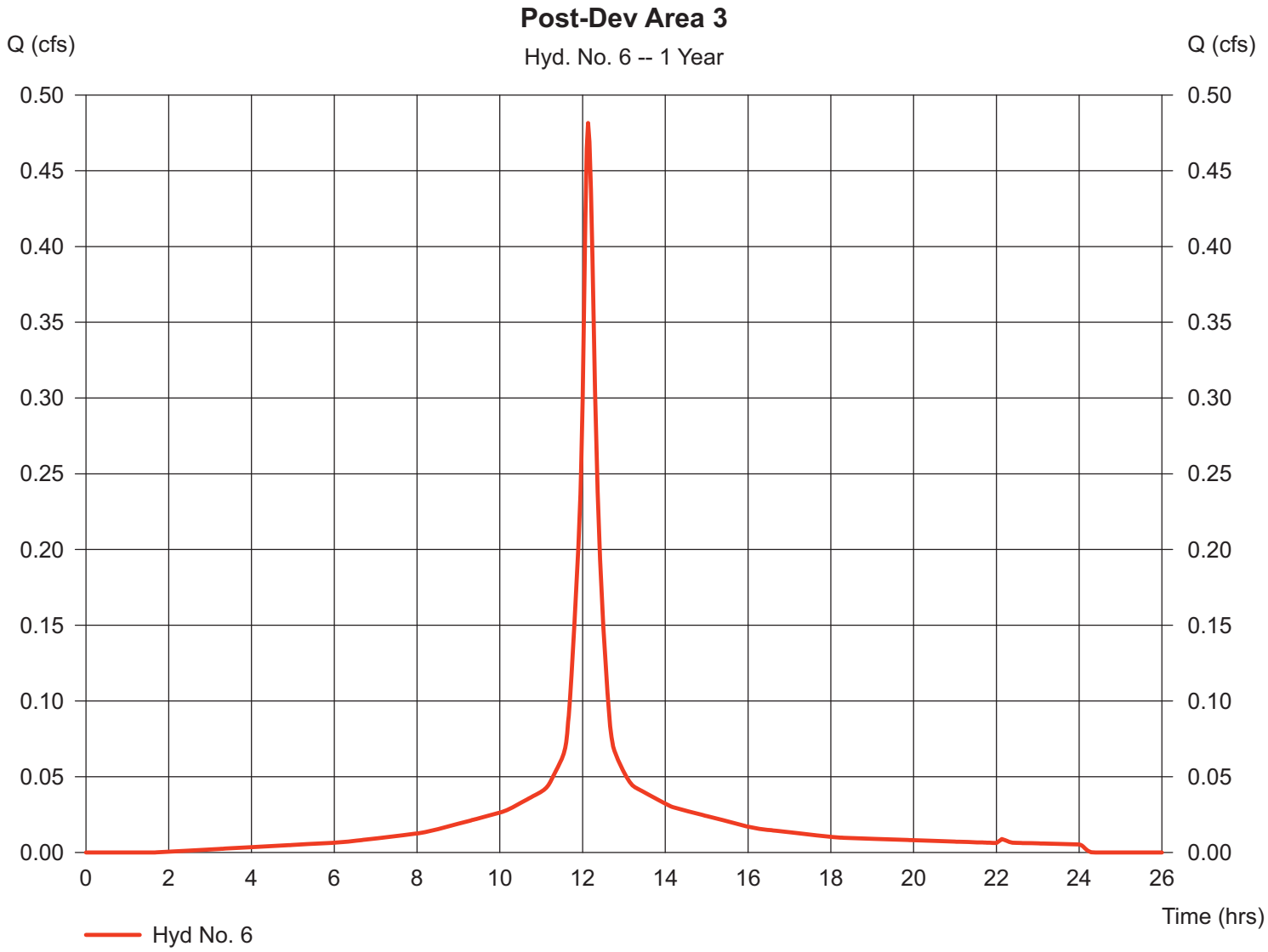
Hydrograph Report

Hyd. No. 6

Post-Dev Area 3

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.482 cfs
Storm frequency	=	1 yrs	Time to peak	=	12.13 hrs
Time interval	=	2 min	Hyd. volume	=	2,034 cuft
Drainage area	=	0.220 ac	Curve number	=	98*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	USER	Time of conc. (Tc)	=	10.00 min
Total precip.	=	2.70 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(0.220 x 98)] / 0.220



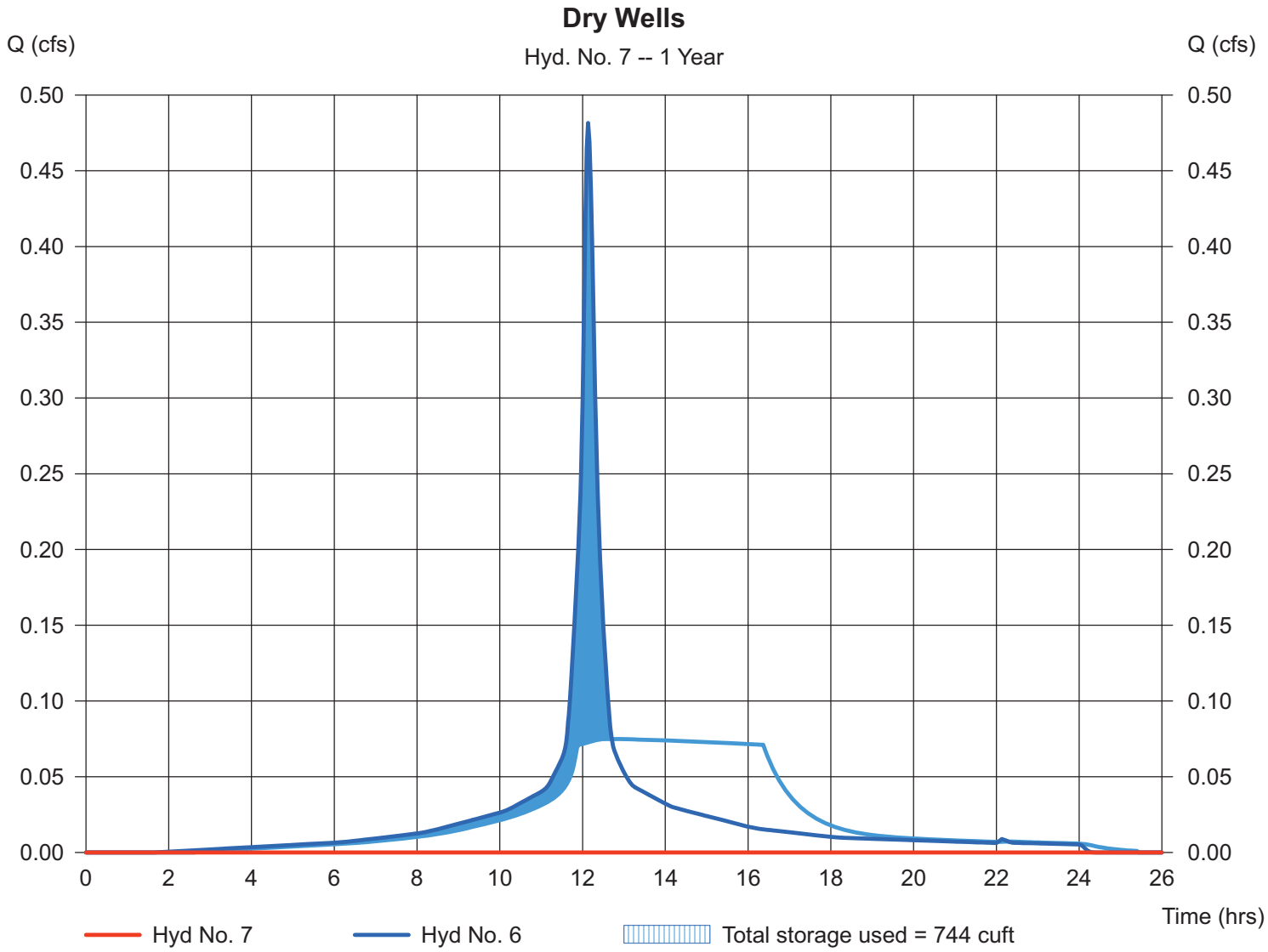
Hydrograph Report

Hyd. No. 7

Dry Wells

Hydrograph type	=	Reservoir	Peak discharge	=	0.000 cfs
Storm frequency	=	1 yrs	Time to peak	=	10.87 hrs
Time interval	=	2 min	Hyd. volume	=	0 cuft
Inflow hyd. No.	=	6 - Post-Dev Area 3	Max. Elevation	=	470.38 ft
Reservoir name	=	Dry Well	Max. Storage	=	744 cuft

Storage Indication method used. Exfiltration extracted from Outflow.

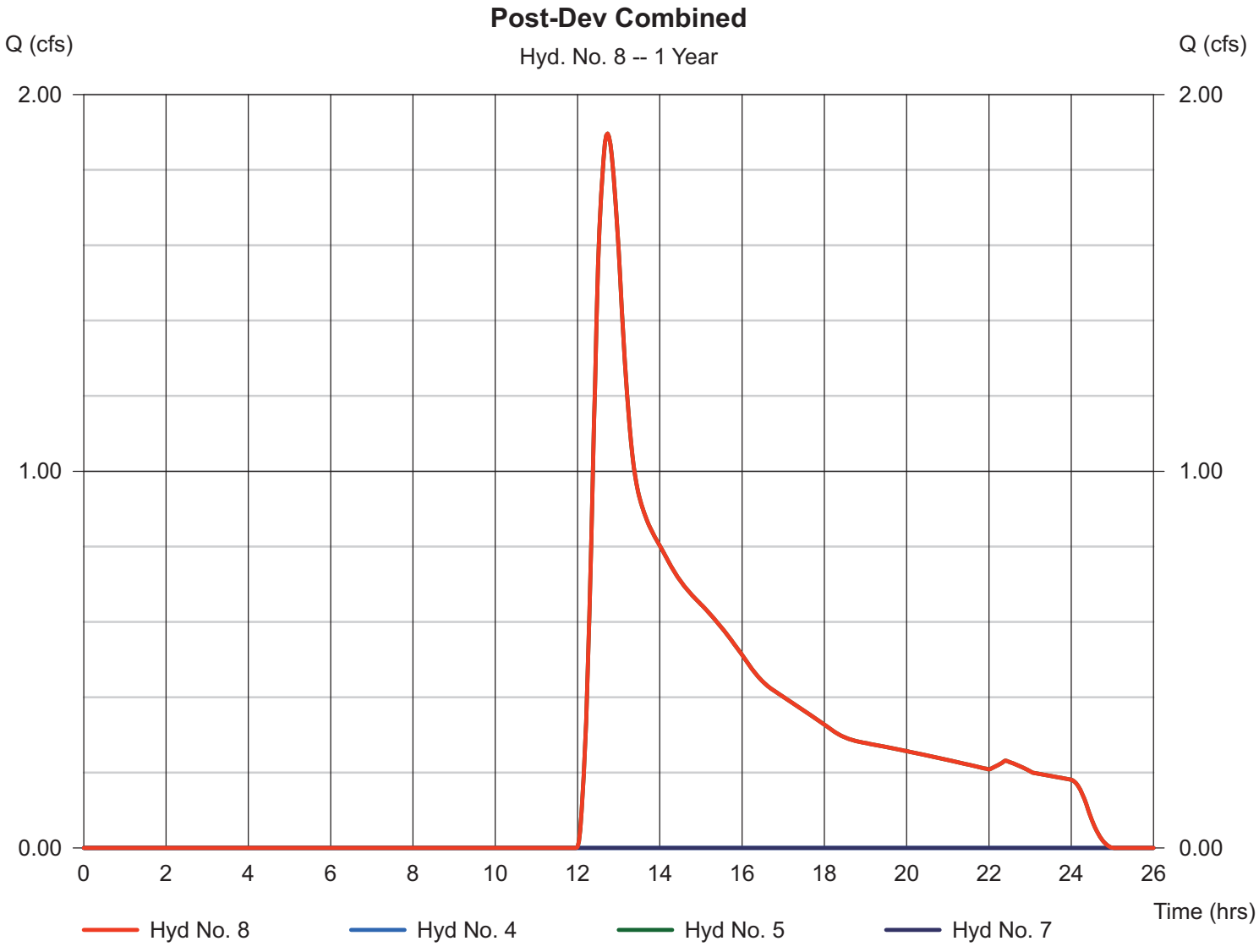


Hydrograph Report

Hyd. No. 8

Post-Dev Combined

Hydrograph type	= Combine	Peak discharge	= 1.896 cfs
Storm frequency	= 1 yrs	Time to peak	= 12.73 hrs
Time interval	= 2 min	Hyd. volume	= 21,020 cuft
Inflow hyds.	= 4, 5, 7	Contrib. drain. area	= 22.410 ac



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Pre- and Post-Development Hydrographs
10-Year Return Interval Storm

Appendix D

Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description
1	SCS Runoff	16.65	2	752	110,753	------	------	------	Pre-Dev Site
3	SCS Runoff	2.014	2	728	7,734	------	------	------	Post-Dev Area 1
4	Reservoir	1.660	2	732	1,840	3	469.69	1,736	Infiltration Basin
5	SCS Runoff	16.01	2	752	106,522	------	------	------	Post-Dev Areas 2&4
6	SCS Runoff	0.885	2	728	3,841	------	------	------	Post-Dev Area 3
7	Reservoir	0.009	2	784	4	6	472.98	1,618	Dry Wells
8	Combine	16.53	2	750	108,366	4, 5, 7	------	------	Post-Dev Combined

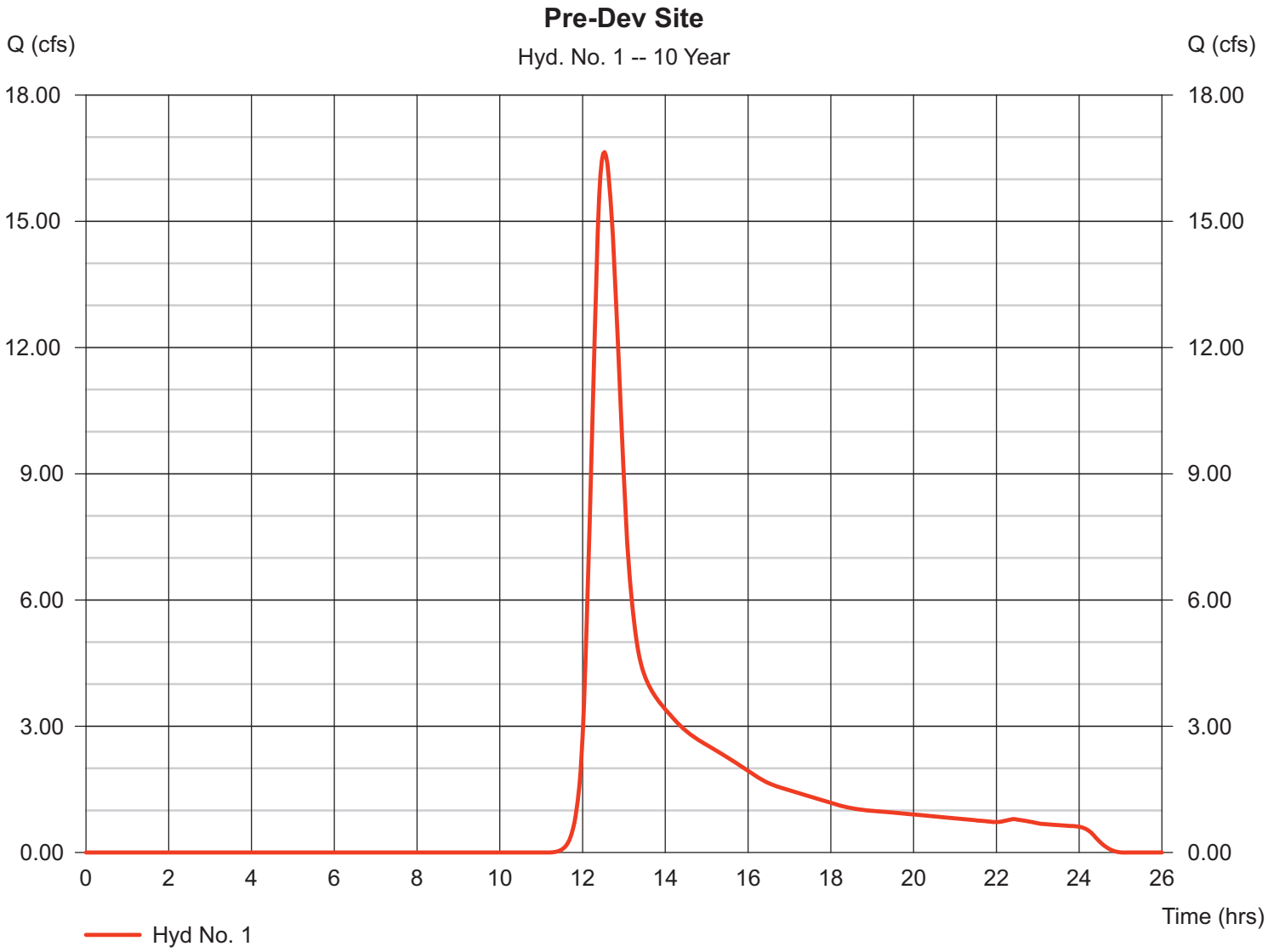
Hydrograph Report

Hyd. No. 1

Pre-Dev Site

Hydrograph type	=	SCS Runoff	Peak discharge	=	16.65 cfs
Storm frequency	=	10 yrs	Time to peak	=	12.53 hrs
Time interval	=	2 min	Hyd. volume	=	110,753 cuft
Drainage area	=	23.300 ac	Curve number	=	61*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	37.50 min
Total precip.	=	4.90 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(18.350 x 58) + (4.950 x 71)] / 23.300



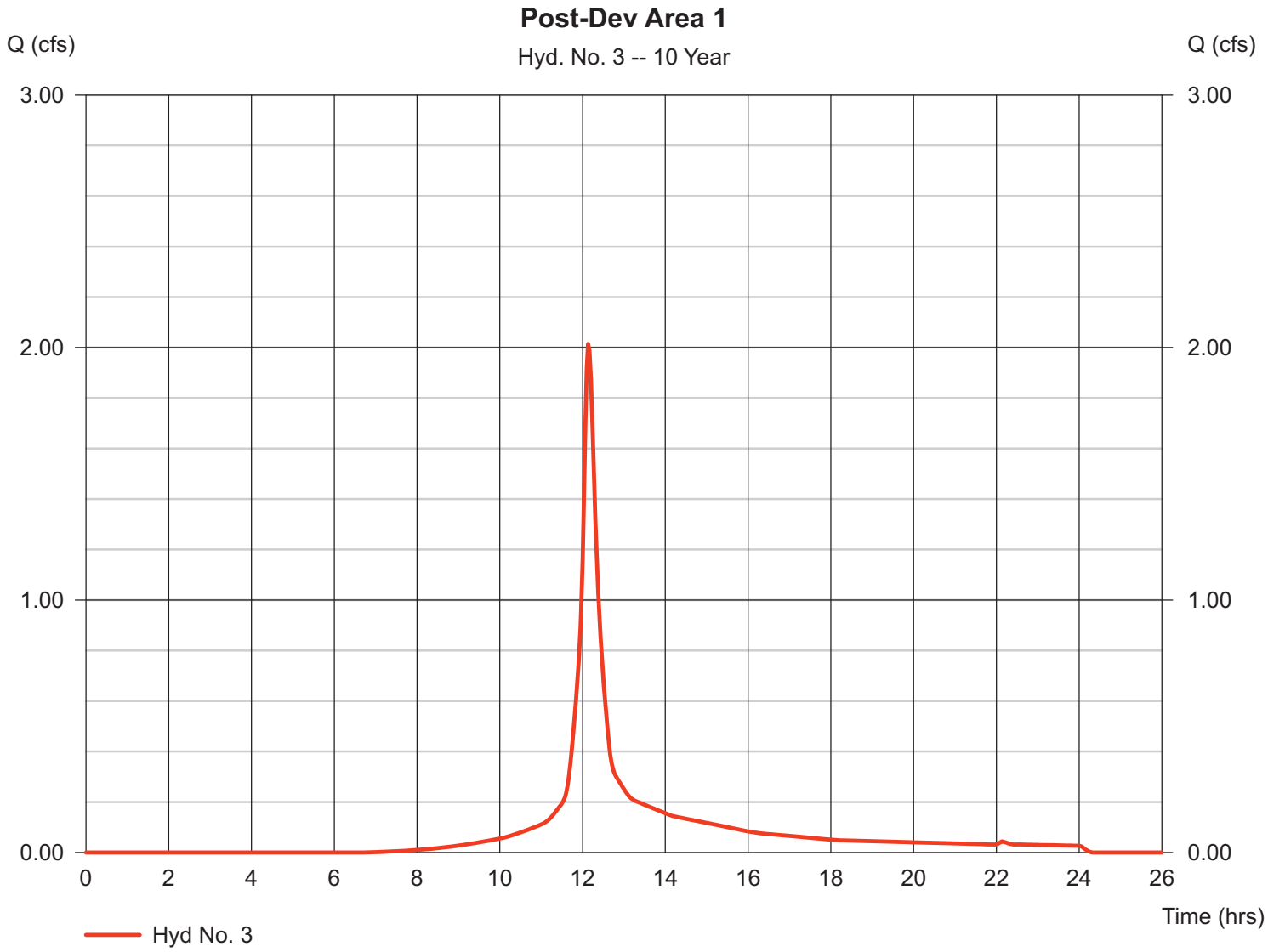
Hydrograph Report

Hyd. No. 3

Post-Dev Area 1

Hydrograph type	= SCS Runoff	Peak discharge	= 2.014 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.13 hrs
Time interval	= 2 min	Hyd. volume	= 7,734 cuft
Drainage area	= 0.670 ac	Curve number	= 83*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 10.00 min
Total precip.	= 4.90 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.270 x 61) + (0.400 x 98)] / 0.670



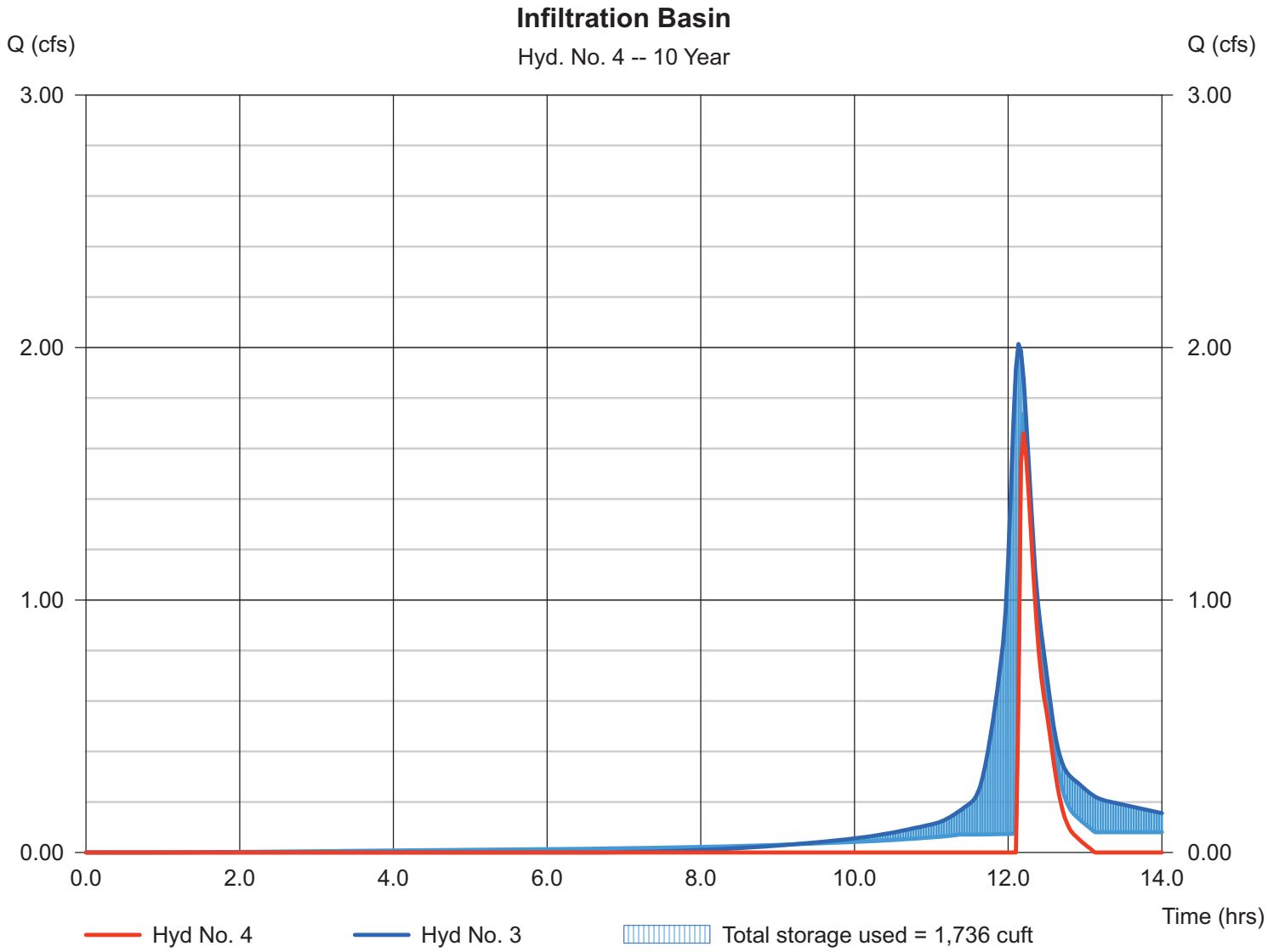
Hydrograph Report

Hyd. No. 4

Infiltration Basin

Hydrograph type	=	Reservoir	Peak discharge	=	1.660 cfs
Storm frequency	=	10 yrs	Time to peak	=	12.20 hrs
Time interval	=	2 min	Hyd. volume	=	1,840 cuft
Inflow hyd. No.	=	3 - Post-Dev Area 1	Max. Elevation	=	469.69 ft
Reservoir name	=	Infiltration Basin	Max. Storage	=	1,736 cuft

Storage Indication method used. Exfiltration extracted from Outflow.



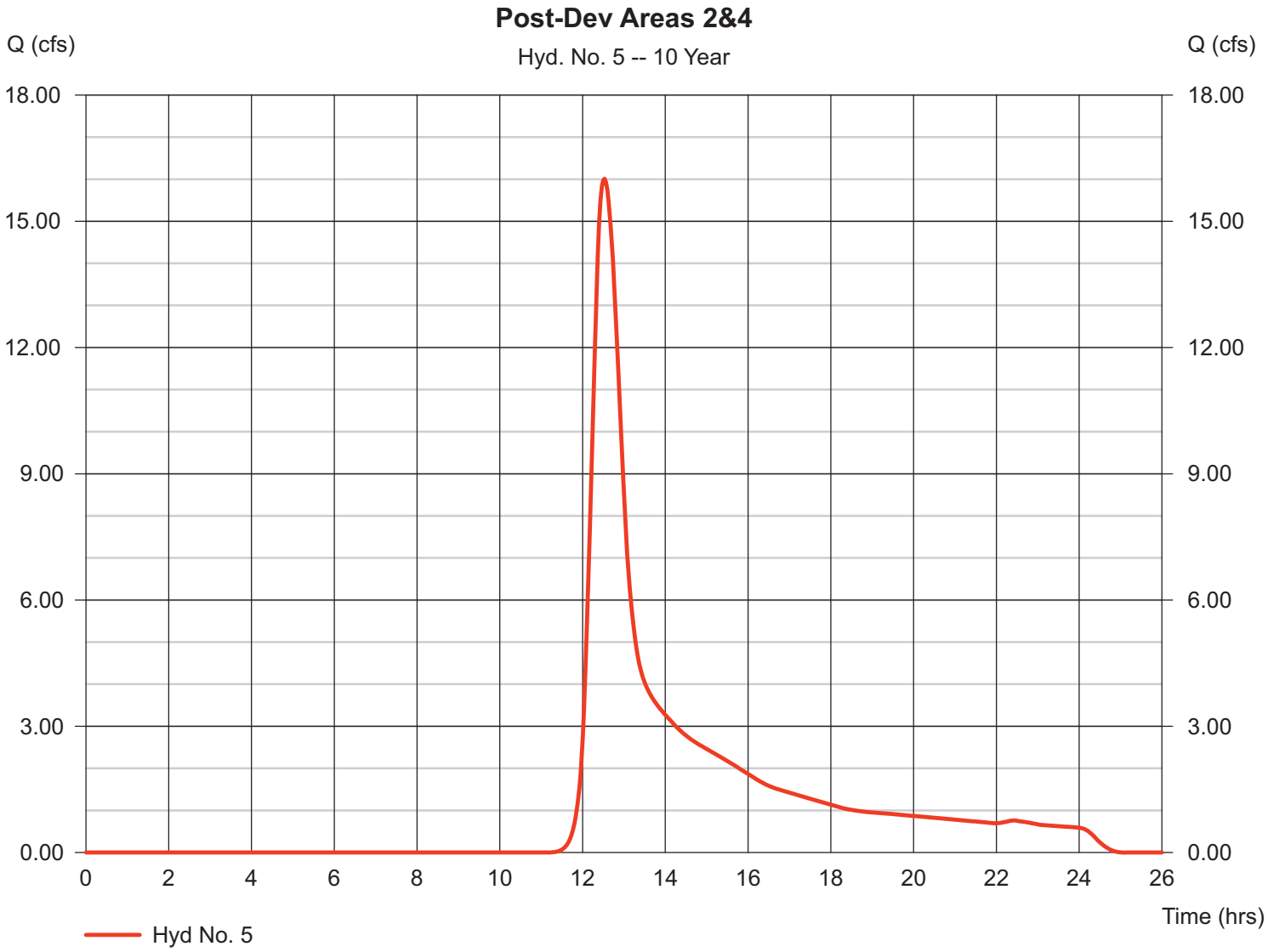
Hydrograph Report

Hyd. No. 5

Post-Dev Areas 2&4

Hydrograph type	=	SCS Runoff	Peak discharge	=	16.01 cfs
Storm frequency	=	10 yrs	Time to peak	=	12.53 hrs
Time interval	=	2 min	Hyd. volume	=	106,522 cuft
Drainage area	=	22.410 ac	Curve number	=	61*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	37.50 min
Total precip.	=	4.90 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(16.970 x 58) + (0.440 x 61) + (4.950 x 71) + (0.050 x 98)] / 22.410



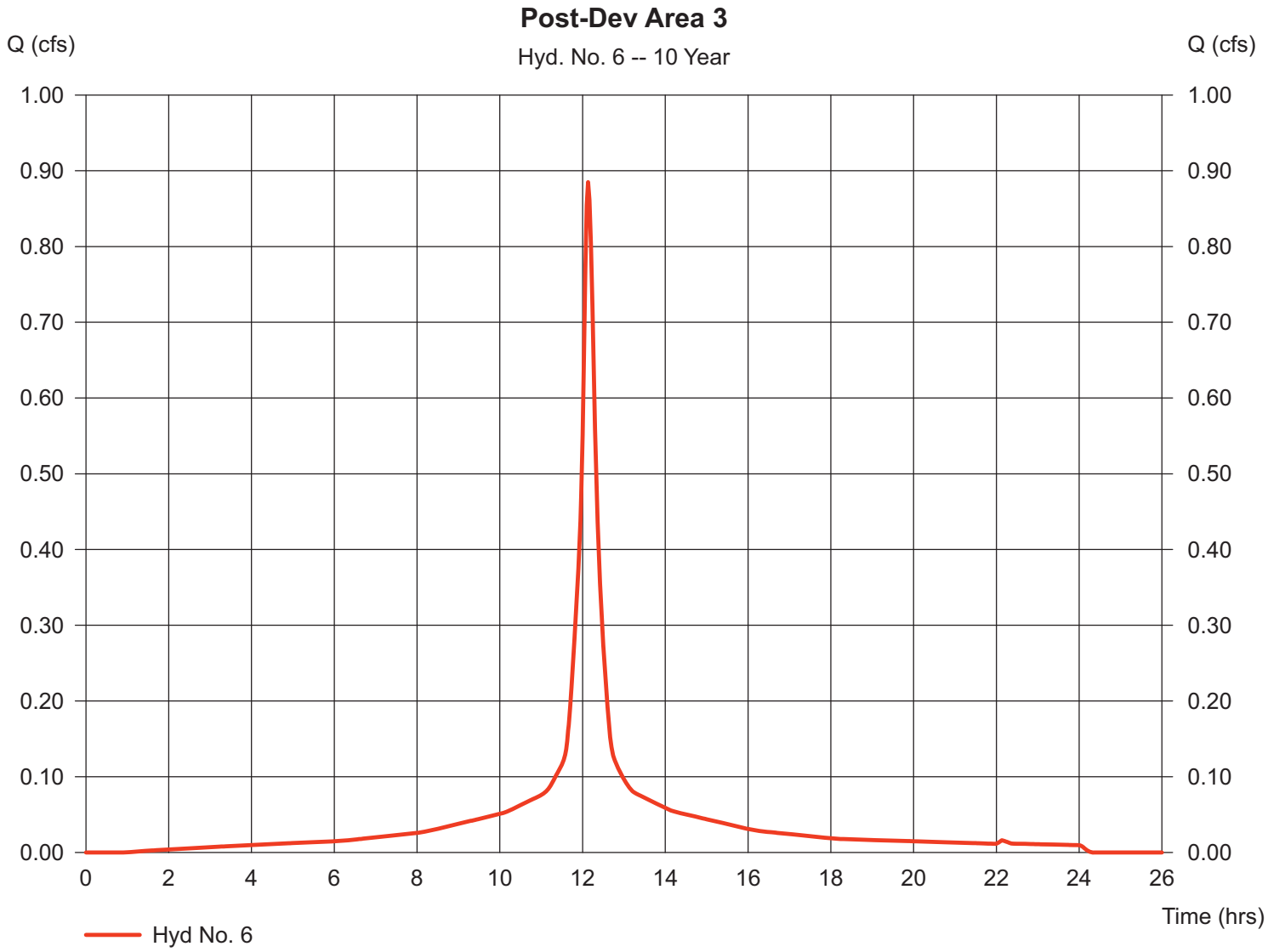
Hydrograph Report

Hyd. No. 6

Post-Dev Area 3

Hydrograph type	= SCS Runoff	Peak discharge	= 0.885 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.13 hrs
Time interval	= 2 min	Hyd. volume	= 3,841 cuft
Drainage area	= 0.220 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 10.00 min
Total precip.	= 4.90 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.220 x 98)] / 0.220



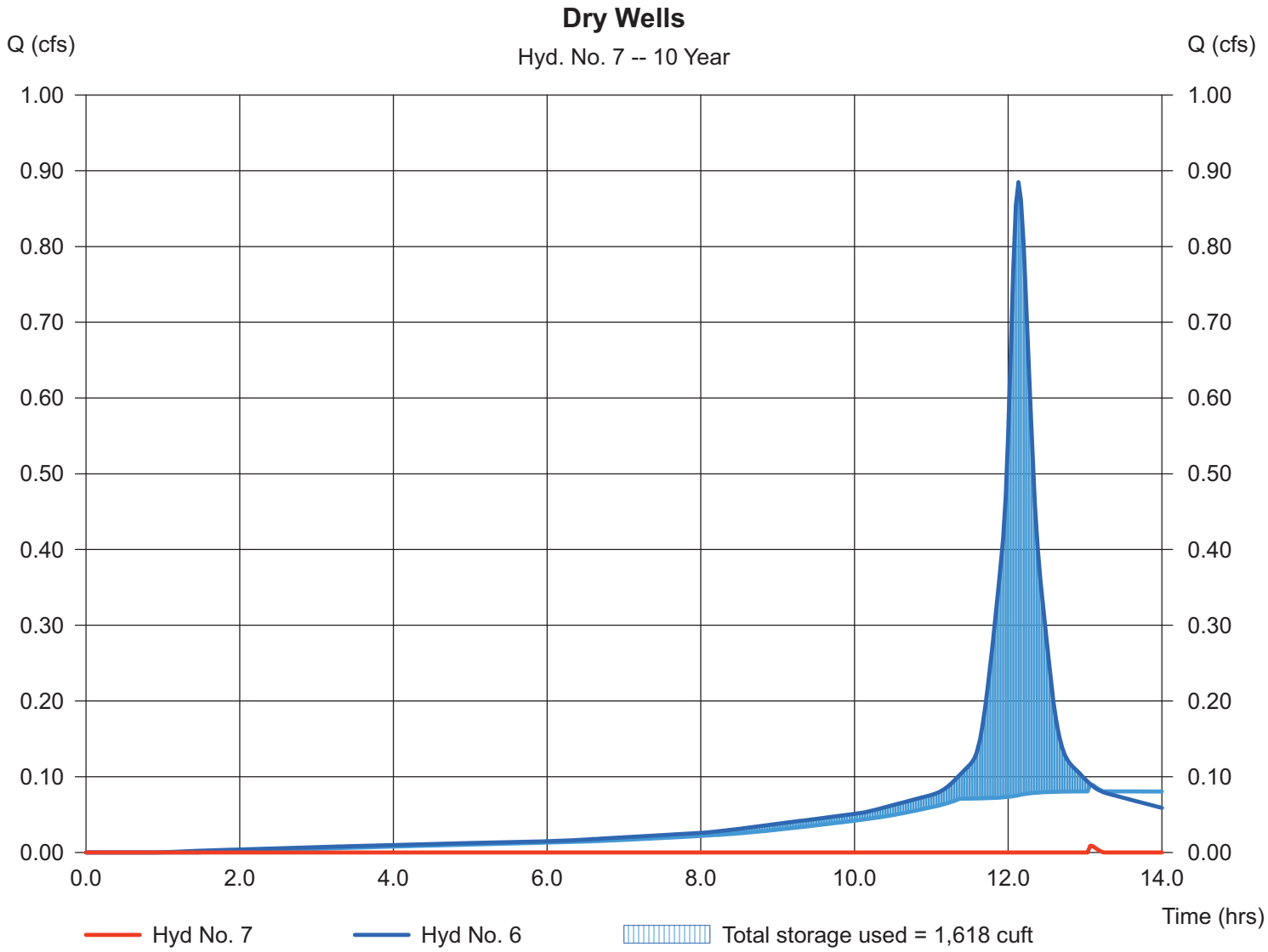
Hydrograph Report

Hyd. No. 7

Dry Wells

Hydrograph type	=	Reservoir	Peak discharge	=	0.009 cfs
Storm frequency	=	10 yrs	Time to peak	=	13.07 hrs
Time interval	=	2 min	Hyd. volume	=	4 cuft
Inflow hyd. No.	=	6 - Post-Dev Area 3	Max. Elevation	=	472.98 ft
Reservoir name	=	Dry Well	Max. Storage	=	1,618 cuft

Storage Indication method used. Exfiltration extracted from Outflow.

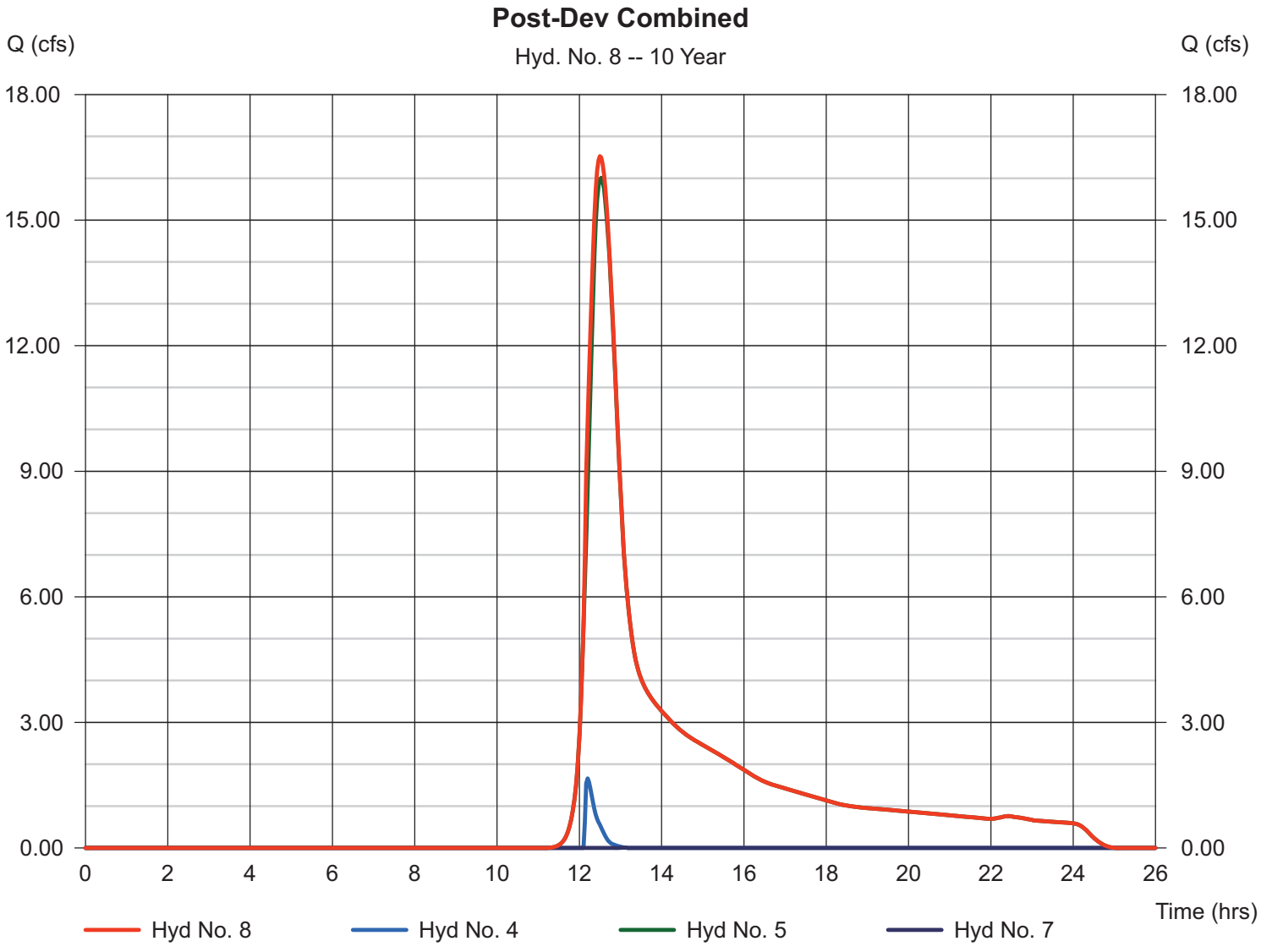


Hydrograph Report

Hyd. No. 8

Post-Dev Combined

Hydrograph type	=	Combine	Peak discharge	=	16.53 cfs
Storm frequency	=	10 yrs	Time to peak	=	12.50 hrs
Time interval	=	2 min	Hyd. volume	=	108,366 cuft
Inflow hyds.	=	4, 5, 7	Contrib. drain. area	=	22.410 ac



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Pre- and Post-Development Hydrographs
100-Year Return Interval Storm

Appendix E

Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description
1	SCS Runoff	56.76	2	748	343,854	------	------	------	Pre-Dev Site
3	SCS Runoff	4.291	2	728	16,915	------	------	------	Post-Dev Area 1
4	Reservoir	3.990	2	730	7,723	3	469.84	1,885	Infiltration Basin
5	SCS Runoff	54.59	2	748	330,719	------	------	------	Post-Dev Areas 2&4
6	SCS Runoff	1.597	2	728	7,049	------	------	------	Post-Dev Area 3
7	Reservoir	1.957	2	728	2,008	6	473.23	1,677	Dry Wells
8	Combine	56.55	2	746	340,451	4, 5, 7	------	------	Post-Dev Combined

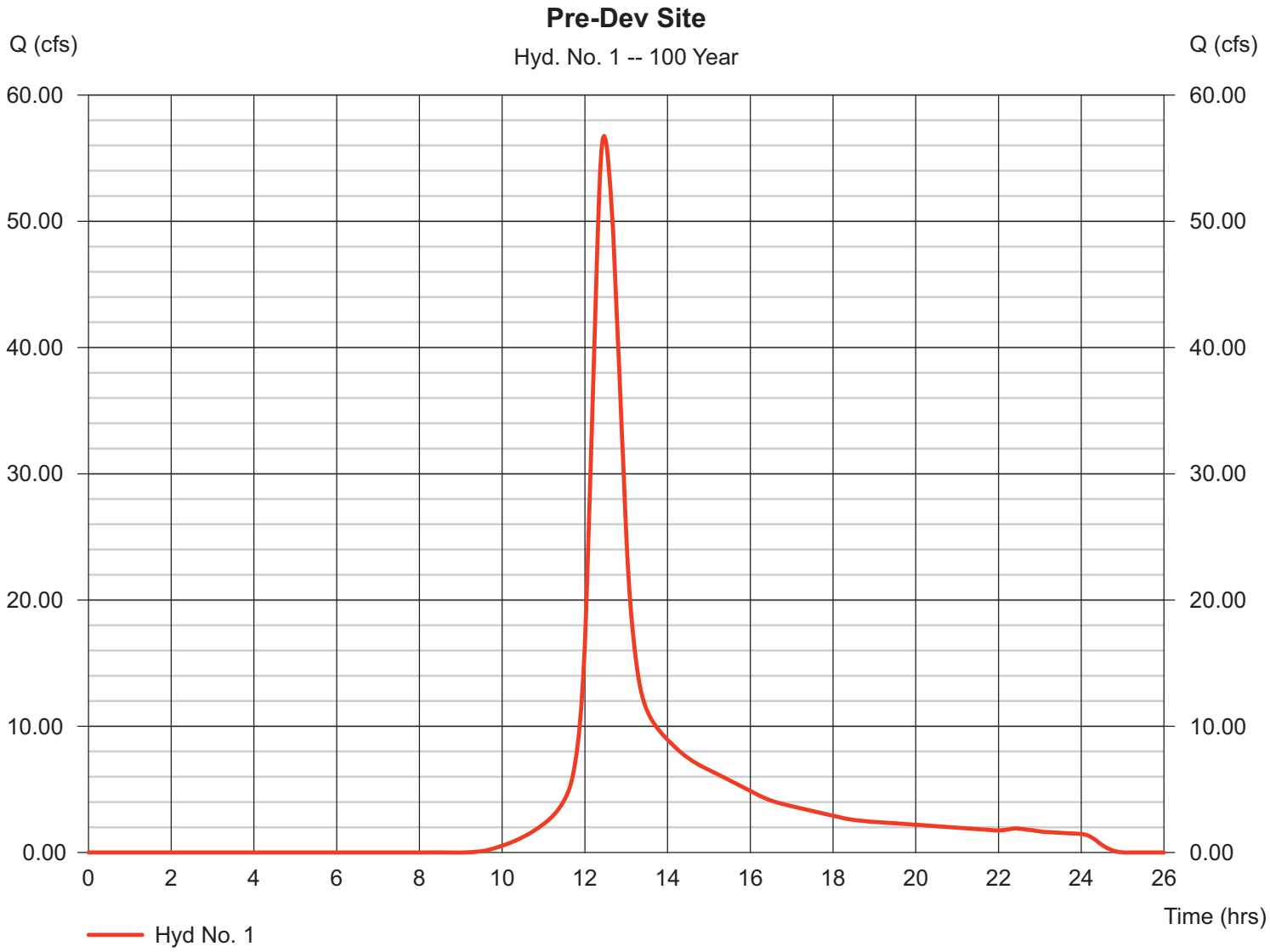
Hydrograph Report

Hyd. No. 1

Pre-Dev Site

Hydrograph type	=	SCS Runoff	Peak discharge	=	56.76 cfs
Storm frequency	=	100 yrs	Time to peak	=	12.47 hrs
Time interval	=	2 min	Hyd. volume	=	343,854 cuft
Drainage area	=	23.300 ac	Curve number	=	61*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	37.50 min
Total precip.	=	8.80 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(18.350 x 58) + (4.950 x 71)] / 23.300



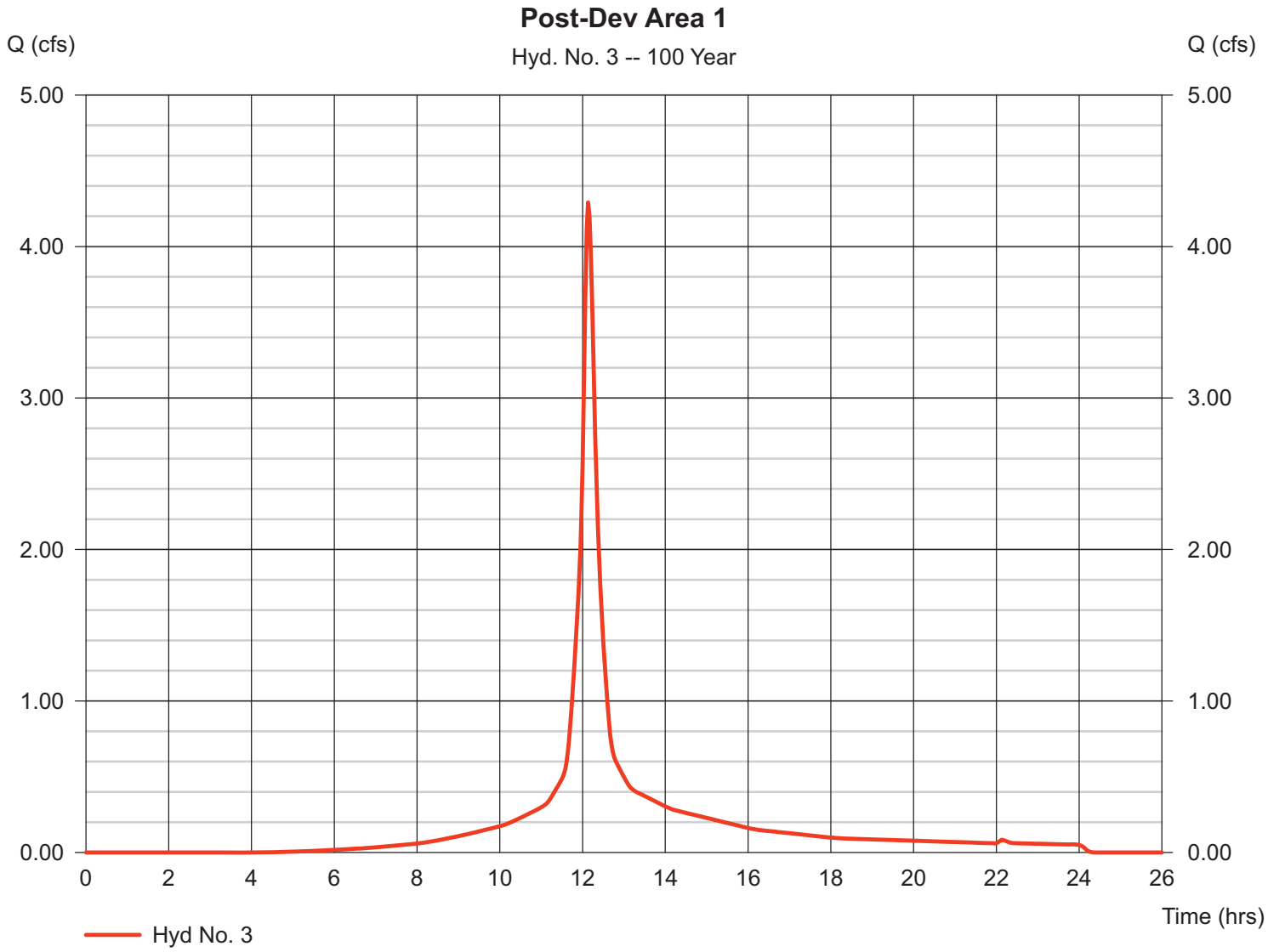
Hydrograph Report

Hyd. No. 3

Post-Dev Area 1

Hydrograph type	=	SCS Runoff	Peak discharge	=	4.291 cfs
Storm frequency	=	100 yrs	Time to peak	=	12.13 hrs
Time interval	=	2 min	Hyd. volume	=	16,915 cuft
Drainage area	=	0.670 ac	Curve number	=	83*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	USER	Time of conc. (Tc)	=	10.00 min
Total precip.	=	8.80 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(0.270 x 61) + (0.400 x 98)] / 0.670



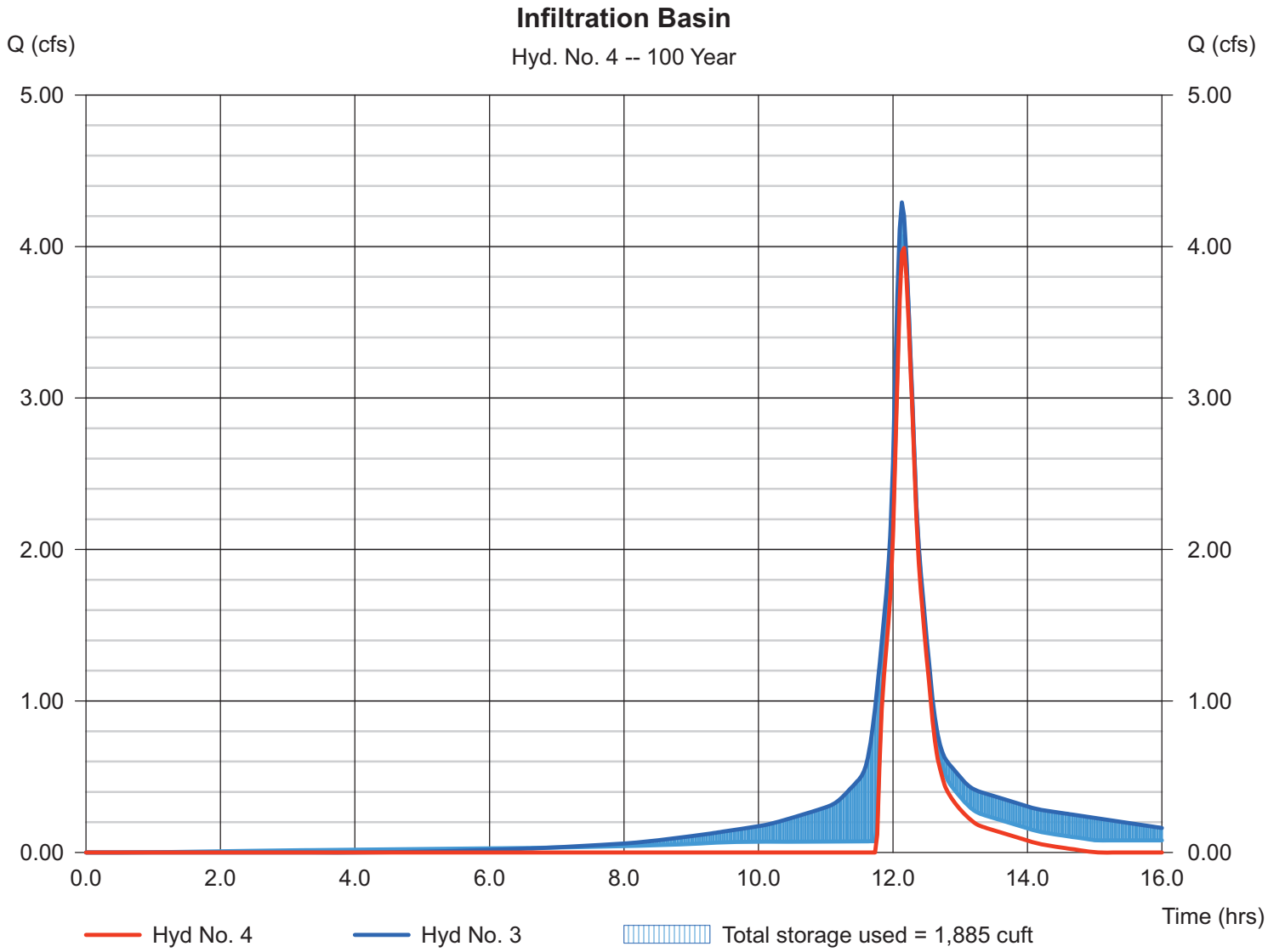
Hydrograph Report

Hyd. No. 4

Infiltration Basin

Hydrograph type	=	Reservoir	Peak discharge	=	3.990 cfs
Storm frequency	=	100 yrs	Time to peak	=	12.17 hrs
Time interval	=	2 min	Hyd. volume	=	7,723 cuft
Inflow hyd. No.	=	3 - Post-Dev Area 1	Max. Elevation	=	469.84 ft
Reservoir name	=	Infiltration Basin	Max. Storage	=	1,885 cuft

Storage Indication method used. Exfiltration extracted from Outflow.



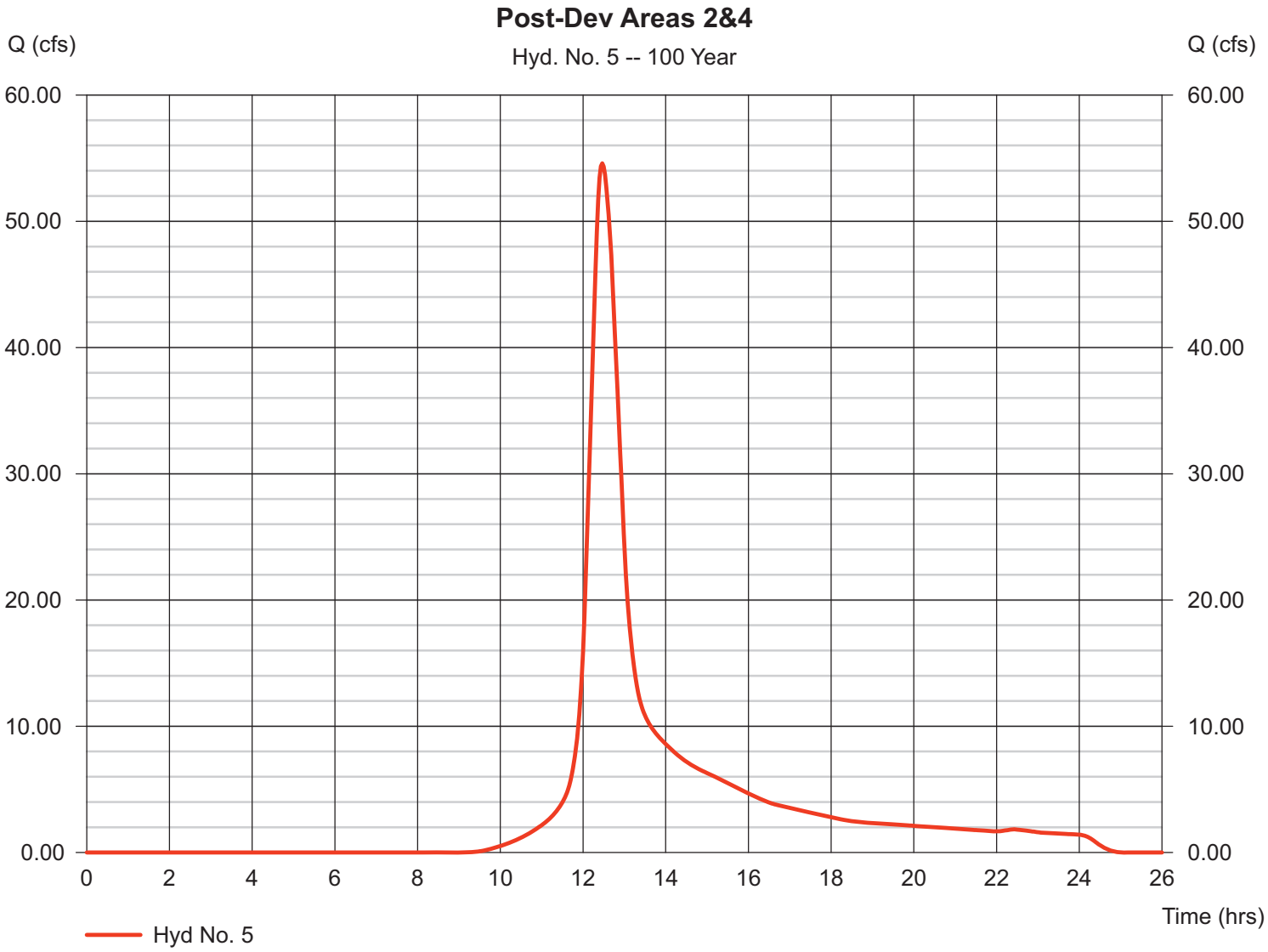
Hydrograph Report

Hyd. No. 5

Post-Dev Areas 2&4

Hydrograph type	=	SCS Runoff	Peak discharge	=	54.59 cfs
Storm frequency	=	100 yrs	Time to peak	=	12.47 hrs
Time interval	=	2 min	Hyd. volume	=	330,719 cuft
Drainage area	=	22.410 ac	Curve number	=	61*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	37.50 min
Total precip.	=	8.80 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(16.970 x 58) + (0.440 x 61) + (4.950 x 71) + (0.050 x 98)] / 22.410



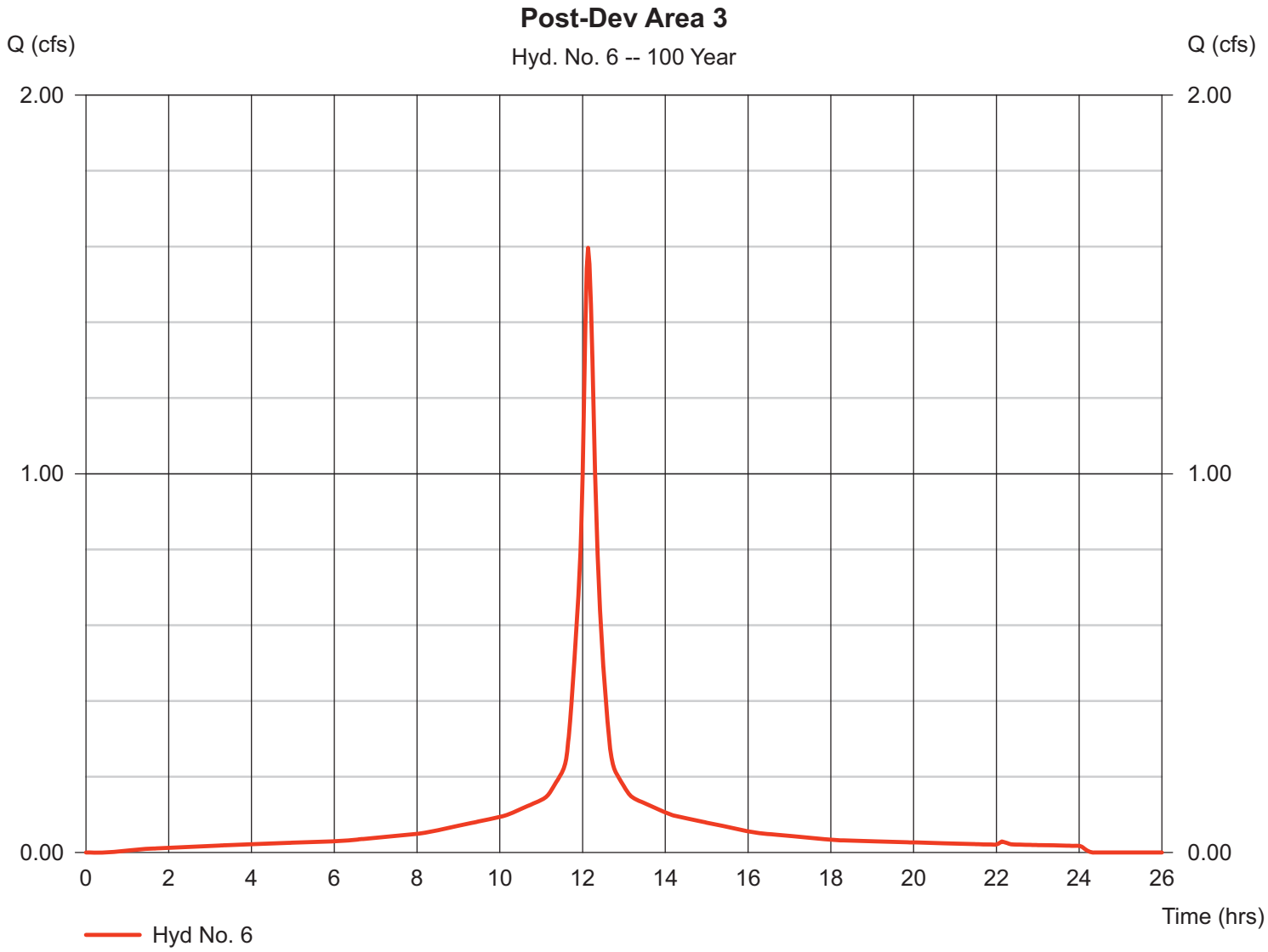
Hydrograph Report

Hyd. No. 6

Post-Dev Area 3

Hydrograph type	=	SCS Runoff	Peak discharge	=	1.597 cfs
Storm frequency	=	100 yrs	Time to peak	=	12.13 hrs
Time interval	=	2 min	Hyd. volume	=	7,049 cuft
Drainage area	=	0.220 ac	Curve number	=	98*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	USER	Time of conc. (Tc)	=	10.00 min
Total precip.	=	8.80 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(0.220 x 98)] / 0.220



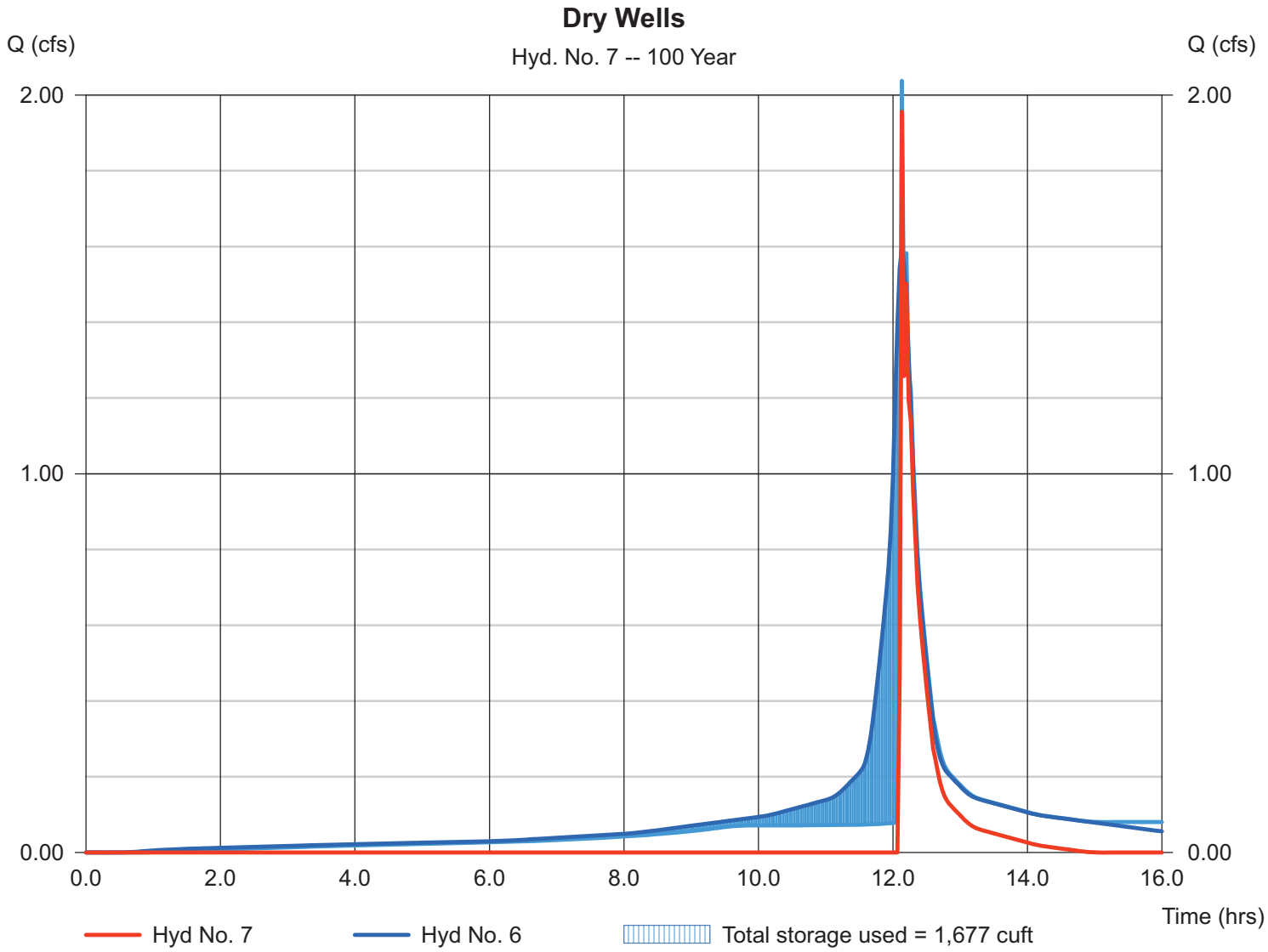
Hydrograph Report

Hyd. No. 7

Dry Wells

Hydrograph type	=	Reservoir	Peak discharge	=	1.957 cfs
Storm frequency	=	100 yrs	Time to peak	=	12.13 hrs
Time interval	=	2 min	Hyd. volume	=	2,008 cuft
Inflow hyd. No.	=	6 - Post-Dev Area 3	Max. Elevation	=	473.23 ft
Reservoir name	=	Dry Well	Max. Storage	=	1,677 cuft

Storage Indication method used. Exfiltration extracted from Outflow.

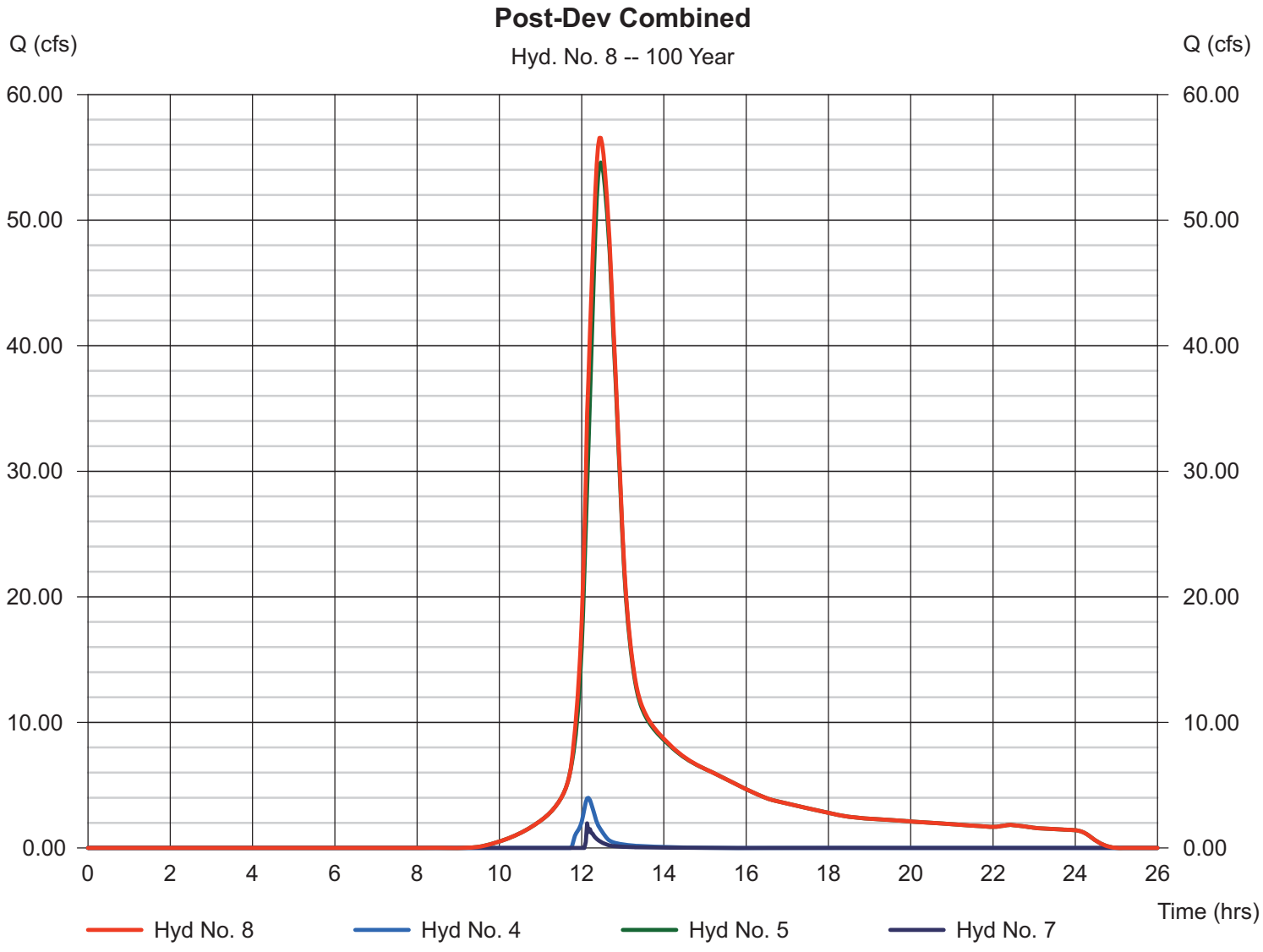


Hydrograph Report

Hyd. No. 8

Post-Dev Combined

Hydrograph type	= Combine	Peak discharge	= 56.55 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.43 hrs
Time interval	= 2 min	Hyd. volume	= 340,451 cuft
Inflow hyds.	= 4, 5, 7	Contrib. drain. area	= 22.410 ac



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MJS Engineering & Land Surveying, PC
261 Greenwich Avenue
Goshen, NY 10924

Detention Pond/Infiltration Basin Calculations

Appendix F

Pond Report

Pond No. 1 - Infiltration Basin

Pond Data

Contours - User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 467.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	467.00	290	0	0
1.00	468.00	510	395	395
2.00	469.00	820	659	1,054
3.00	470.00	1,170	990	2,043
4.00	471.00	1,730	1,441	3,484

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 0.00	0.00	0.00	0.00
Span (in)	= 0.00	0.00	0.00	0.00
No. Barrels	= 0	0	0	0
Invert El. (ft)	= 0.00	0.00	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

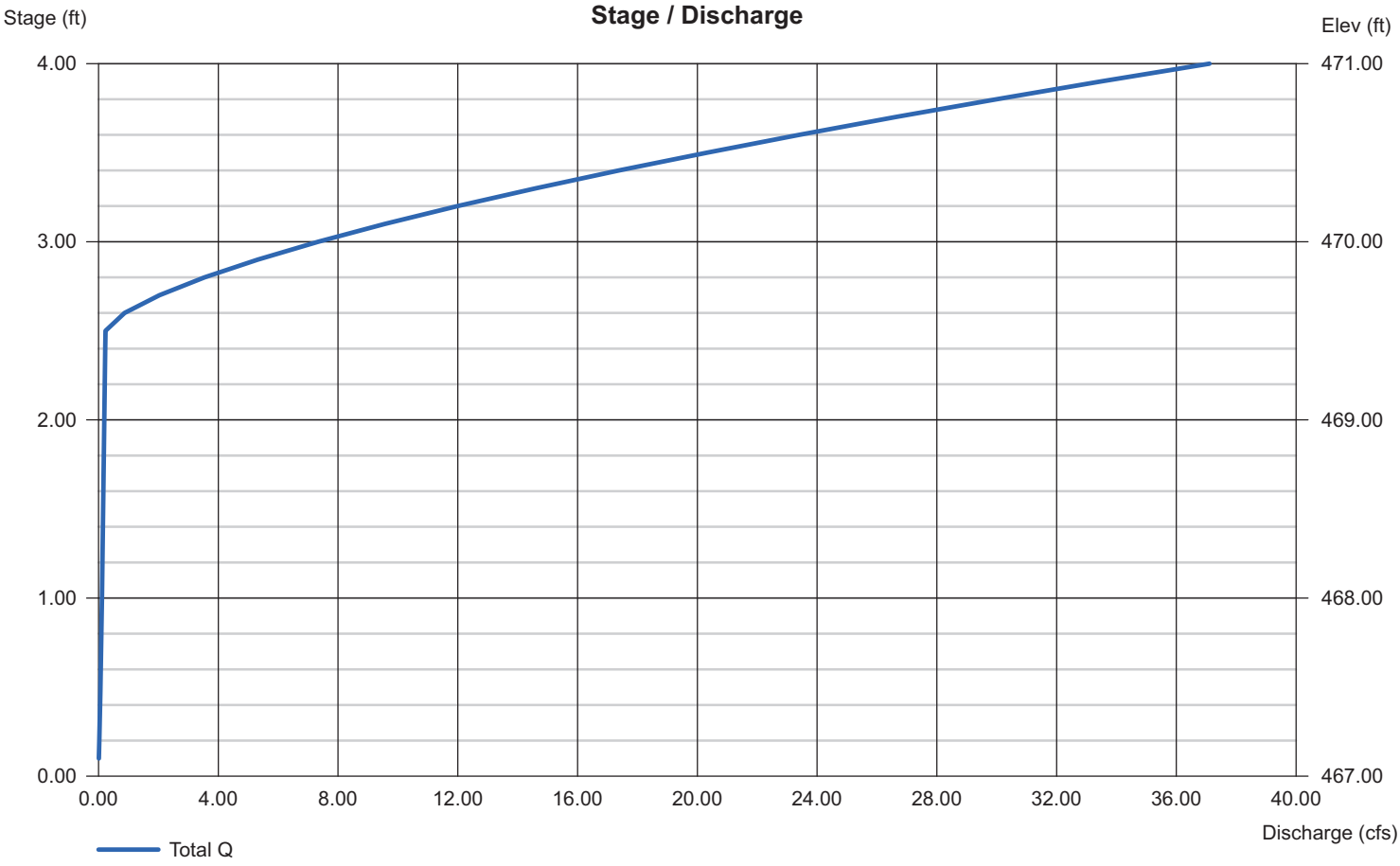
Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 6.00	0.00	0.00	0.00
Crest El. (ft)	= 469.50	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= CipIti	---	---	---
Multi-Stage	= No	No	No	No

Exfil.(in/hr) = 10.000 (by Contour)

TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



MJS ENGINEERING
& LAND SURVEYING P.C.
261 Greenwich Avenue
GOSHEN, NY 10924-2028
(845) 291-8650
(845) 291-8657 FAX

JOB EIGHTEEN-EIGHT
SHEET NO. 1 OF
CALCULATED BY BGC DATE 9/12/16
CHECKED BY DATE
SCALE

DRY WELLS

ROOF 0.22 AC

USE 6 - 8' ø DRY WELLS

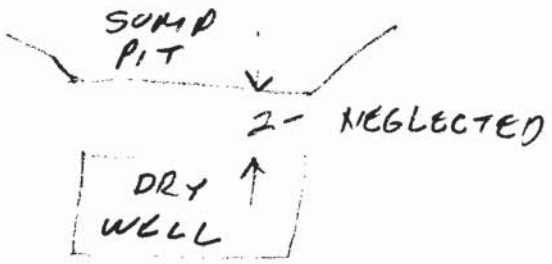
DRY WELL AREA

$\frac{\pi}{4} \times 8^2 = 50.3\,SF \times 6 = 301.8\,SF$

FOR MODEL, USE TRAPEZOD

$8' \times 37.7' = 301.8\,SF$

FOR MODEL, NEGLECT TOPSOIL, SAND GRAVEL, CONCRETE ABOVE DRY WELL. THIS WILL YIELD CONSERVATIVE RESULTS.



Pond Report

Pond No. 2 - Dry Well

Pond Data

Trapezoid - Bottom L x W = 37.7 x 8.0 ft, Side slope = 0.10:1, Bottom elev. = 468.00 ft, Depth = 6.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	468.00	302	0	0
0.60	468.60	307	183	183
1.20	469.20	313	186	369
1.80	469.80	318	189	558
2.40	470.40	324	193	750
3.00	471.00	329	196	946
3.60	471.60	335	199	1,146
4.20	472.20	341	203	1,348
4.80	472.80	346	206	1,554
5.40	473.40	352	210	1,764
6.00	474.00	358	213	1,977

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 0.00	0.00	0.00	0.00
Span (in)	= 0.00	0.00	0.00	0.00
No. Barrels	= 1	0	0	0
Invert El. (ft)	= 0.00	0.00	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

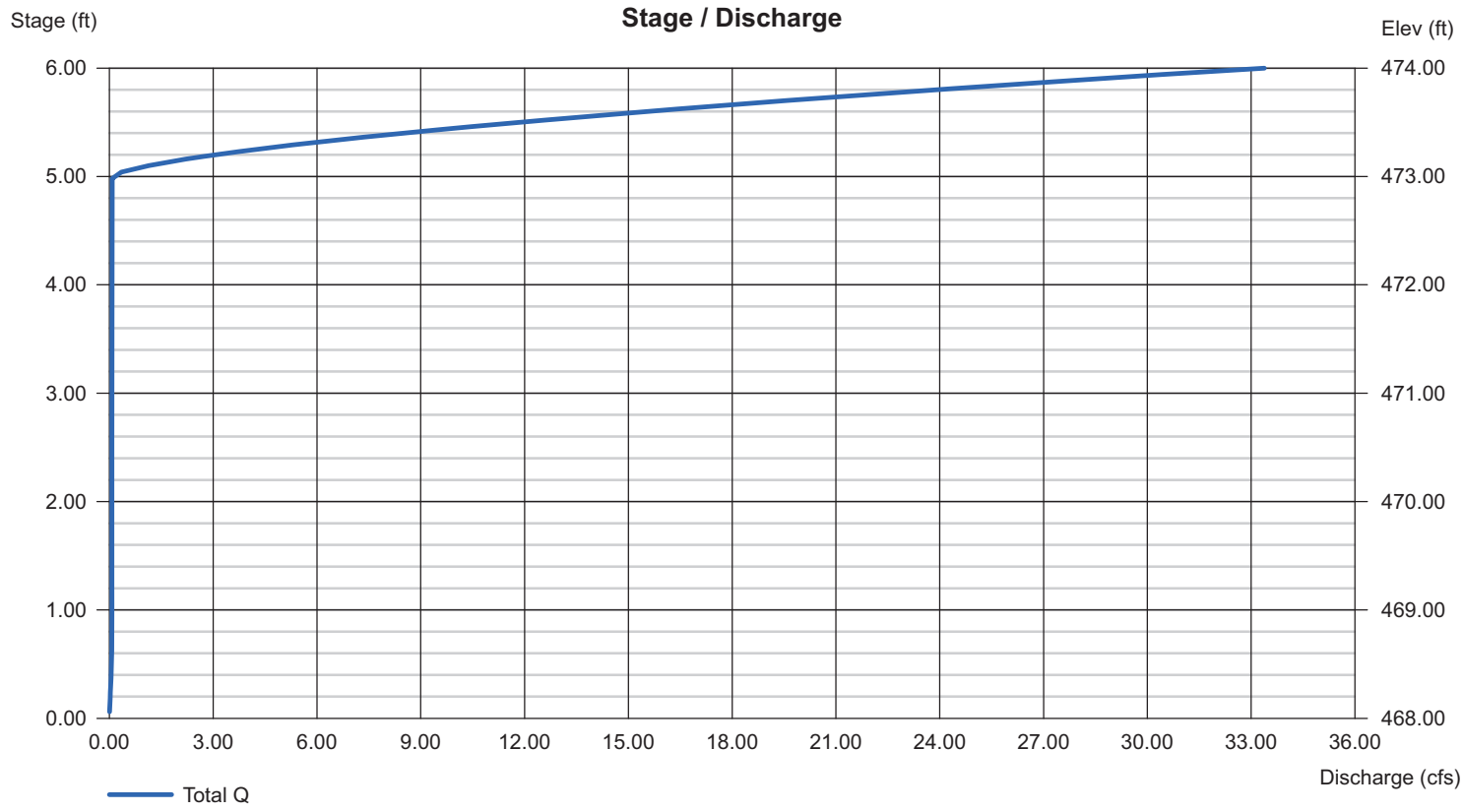
Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 10.00	0.00	0.00	0.00
Crest El. (ft)	= 473.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Ciplti	---	---	---
Multi-Stage	= No	No	No	No

Exfil.(in/hr) = 10.000 (by Contour)

TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



MJS ENGINEERING

MJS Engineering & Land Surveying, PC
261 Greenwich Avenue
Goshen, NY 10924

Notice of Intent (NOI)

Appendix G

0644089821

NOTICE OF INTENT

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

NYR _____
(for DEC use only)

Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-15-002

All sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

-IMPORTANT-
RETURN THIS FORM TO THE ADDRESS ABOVE

OWNER/OPERATOR MUST SIGN FORM

Owner/Operator Information

Owner/Operator (Company Name/Private Owner Name/Municipality Name)
Eighteen-Eight Group LLC

Owner/Operator Contact Person Last Name (NOT CONSULTANT)

Owner/Operator Contact Person First Name

Owner/Operator Mailing Address
PO Box 388

City
Sugar Loaf

State
NY

Zip
10981-____

Phone (Owner/Operator)
___-___-____

Fax (Owner/Operator)
___-___-____

Email (Owner/Operator)

FED TAX ID
__-_____ (not required for individuals)

Project Site Information

Project/Site Name
Eighteen-Eight Group LLC

Street Address (NOT P.O. BOX)
Black Meadow Rd

Side of Street
○ **North** ● **South** ○ **East** ○ **West**

City/Town/Village (THAT ISSUES BUILDING PERMIT)
Chester

State: NY
Zip: 10918-
County: Orange
DEC Region: 3

Name of Nearest Cross Street
Elkay Dr

Distance to Nearest Cross Street (Feet)
3800

Project In Relation to Cross Street
○ **North** ○ **South** ○ **East** ● **West**

Tax Map Numbers
Section-Block-Parcel
6-1-102

Tax Map Numbers

1. Provide the Geographic Coordinates for the project site in NYTM Units. To do this you **must** go to the NYSDEC Stormwater Interactive Map on the DEC website at:

www.dec.ny.gov/imsmaps/stormwater/viewer.htm

Zoom into your Project Location such that you can accurately click on the centroid of your site. Once you have located your project site, go to the tool boxes on the top and choose "i"(identify). Then click on the center of your site and a new window containing the X, Y coordinates in UTM will pop up. Transcribe these coordinates into the boxes below. For problems with the interactive map use the help function.

X Coordinates (Easting): 559304

Y Coordinates (Northing): 4576783

2. What is the nature of this construction project?

● **New Construction**

○ **Redevelopment with increase in impervious area**

○ **Redevelopment with no increase in impervious area**

3. Select the predominant land use for both pre and post development conditions.
SELECT ONLY ONE CHOICE FOR EACH

Pre-Development Existing Land Use

- ○ FOREST
- ● PASTURE/OPEN LAND
- ○ CULTIVATED LAND
- ○ SINGLE FAMILY HOME
- ○ SINGLE FAMILY SUBDIVISION
- ○ TOWN HOME RESIDENTIAL
- ○ MULTIFAMILY RESIDENTIAL
- ○ INSTITUTIONAL/SCHOOL
- ○ INDUSTRIAL
- ○ COMMERCIAL
- ○ ROAD/HIGHWAY
- ○ RECREATIONAL/SPORTS FIELD
- ○ BIKE PATH/TRAIL
- ○ LINEAR UTILITY
- ○ PARKING LOT
- ○ OTHER

Post-Development Future Land Use

- ○ SINGLE FAMILY HOME
- ○ SINGLE FAMILY SUBDIVISION — Number of Lots
- ○ TOWN HOME RESIDENTIAL
- ○ MULTIFAMILY RESIDENTIAL
- ○ INSTITUTIONAL/SCHOOL
- ● INDUSTRIAL
- ○ COMMERCIAL
- ○ MUNICIPAL
- ○ ROAD/HIGHWAY
- ○ RECREATIONAL/SPORTS FIELD
- ○ BIKE PATH/TRAIL
- ○ LINEAR UTILITY (water, sewer, gas, etc.)
- ○ PARKING LOT
- ○ CLEARING/GRADING ONLY
- ○ DEMOLITION, NO REDEVELOPMENT
- ○ WELL DRILLING ACTIVITY *(Oil, Gas, etc.)
- ○ OTHER

***Note**: for gas well drilling, non-high volume hydraulic fractured wells only

4. In accordance with the larger common plan of development or sale, enter the total project site area; the total area to be disturbed; existing impervious area to be disturbed (for redevelopment activities); and the future impervious area constructed within the disturbed area. (Round to the nearest tenth of an acre.)

Total Site Area	Total Area To Be Disturbed	Existing Impervious Area To Be Disturbed	Future Impervious Area Within Disturbed Area
23.3	1.4	0.0	0.7

5. Do you plan to disturb more than 5 acres of soil at any one time? ○ **Yes** ● **No**

6. Indicate the percentage of each Hydrologic Soil Group(HSG) at the site.

A	B	C	D
%	79 %	21 %	%

7. Is this a phased project? ○ **Yes** ● **No**

8. Enter the planned start and end dates of the disturbance activities.

Start Date 11/07/2016 – **End Date** 11/17/2017

9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.

Name

Black Meadow Creek Tributary

9a. Type of waterbody identified in Question 9?

- ○ Wetland / State Jurisdiction On Site (Answer 9b)
- ○ Wetland / State Jurisdiction Off Site
- ○ Wetland / Federal Jurisdiction On Site (Answer 9b)
- ○ Wetland / Federal Jurisdiction Off Site
- ● Stream / Creek On Site
- ○ Stream / Creek Off Site
- ○ River On Site
- ○ River Off Site
- ○ Lake On Site
- ○ Lake Off Site
- ○ Other Type On Site
- ○ Other Type Off Site

9b. How was the wetland identified?

- ○ Regulatory Map
- ● Delineated by Consultant
- ○ Delineated by Army Corps of Engineers
- ○ Other (identify)

10. Has the surface waterbody(ies) in question 9 been identified as a 303(d) segment in Appendix E of GP-0-15-002? ○ **Yes** ● **No**

11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-15-002? ○ **Yes** ● **No**

12. Is the project located in one of the watershed areas associated with AA and AA-S classified waters? ○ **Yes** ● **No**
If no, skip question 13.

13. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey? ○ **Yes** ● **No**
If Yes, what is the acreage to be disturbed?

.

14. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area? ○ **Yes** ● **No**

15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)? ● **Yes** ○ **No** ○ **Unknown**

16. What is the name of the municipality/entity that owns the separate storm sewer system?

Town of Chester

17. Does any runoff from the site enter a sewer classified as a Combined Sewer? ○ **Yes** ● **No** ○ **Unknown**

18. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law? ○ **Yes** ● **No**

19. Is this property owned by a state authority, state agency, federal government or local government? ○ **Yes** ● **No**

20. Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.) ○ **Yes** ● **No**

21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)? ● **Yes** ○ **No**

22. Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)? ● **Yes** ○ **No**
If No, skip questions 23 and 27-39.

23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual? ● **Yes** ○ **No**

24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:

- ● **Professional Engineer (P.E.)**
- ○ **Soil and Water Conservation District (SWCD)**
- ○ **Registered Landscape Architect (R.L.A)**
- ○ **Certified Professional in Erosion and Sediment Control (CPESC)**
- ○ **Owner/Operator**
- ○ **Other**

SWPPP Preparer: MJS Engineering & Land Surveying PC

Contact Name (Last, Space, First): Cleverley Bradley G

Mailing Address: 261 Greenwich Ave

City: Goshen

State: NY Zip: 10924-

Phone: 845-291-8650 Fax: 845-291-8657

Email: bcleverley@mjseng.com

SWPPP Preparer Certification

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-15-002. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

First Name Bradley **MI** G

Last Name Cleverley

Signature

Date / /

25. Has a construction sequence schedule for the planned management practices been prepared? ● Yes ○ No

26. Select **all** of the erosion and sediment control practices that will be employed on the project site:

Temporary Structural

- ○ Check Dams
- ○ Construction Road Stabilization
- ○ Dust Control
- ○ Earth Dike
- ○ Level Spreader
- ○ Perimeter Dike/Swale
- ○ Pipe Slope Drain
- ○ Portable Sediment Tank
- ○ Rock Dam
- ● Sediment Basin
- ○ Sediment Traps
- ● Silt Fence
- ● Stabilized Construction Entrance
- ○ Storm Drain Inlet Protection
- ○ Straw/Hay Bale Dike
- ○ Temporary Access Waterway Crossing
- ○ Temporary Stormdrain Diversion
- ○ Temporary Swale
- ○ Turbidity Curtain
- ○ Water bars

Biotechnical

- ○ Brush Matting
- ○ Wattling

Vegetative Measures

- ○ Brush Matting
- ○ Dune Stabilization
- ○ Grassed Waterway
- ○ Mulching
- ○ Protecting Vegetation
- ○ Recreation Area Improvement
- ● Seeding
- ○ Sodding
- ○ Straw/Hay Bale Dike
- ○ Streambank Protection
- ○ Temporary Swale
- ● Topsoiling
- ○ Vegetating Waterways

Permanent Structural

- ○ Debris Basin
- ○ Diversion
- ○ Grade Stabilization Structure
- ○ Land Grading
- ○ Lined Waterway (Rock)
- ○ Paved Channel (Concrete)
- ○ Paved Flume
- ○ Retaining Wall
- ○ Riprap Slope Protection
- ○ Rock Outlet Protection
- ○ Streambank Protection

Other

Post-construction Stormwater Management Practice (SMP) Requirements

Important: Completion of Questions 27-39 is not required if response to Question 22 is No.

27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.

- ● **Preservation of Undisturbed Areas**
- ● **Preservation of Buffers**
- ○ **Reduction of Clearing and Grading**
- ○ **Locating Development in Less Sensitive Areas**
- ○ **Roadway Reduction**
- ○ **Sidewalk Reduction**
- ○ **Driveway Reduction**
- ○ **Cul-de-sac Reduction**
- ○ **Building Footprint Reduction**
- ○ **Parking Reduction**

27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).

- ● All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).
- ○ Compacted areas were considered as impervious cover when calculating the **WQv Required**, and the compacted areas were assigned a post-construction Hydrologic Soil Group (HSG) designation that is one level less permeable than existing conditions for the hydrology analysis.

28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout).

Total WQv Required

		0	.	2	0	0

acre-feet

29. Identify the RR techniques (Area Reduction), RR techniques(Volume Reduction) and Standard SMPs with RRv Capacity in Table 1 (See Page 9) that were used to reduce the Total WQv Required(#28).

Also, provide in Table 1 the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

Note: Redevelopment projects shall use Tables 1 and 2 to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.

Table 1 - Runoff Reduction (RR) Techniques and Standard Stormwater Management Practices (SMPs)

	Total Contributing Area (acres)		Total Contributing Impervious Area (acres)
RR Techniques (Area Reduction)			
● Conservation of Natural Areas (RR-1)	18.57	and/or	0.00
● Sheetflow to Riparian Buffers/Filters Strips (RR-2)	2.84	and/or	0.05
○ Tree Planting/Tree Pit (RR-3)		and/or	
○ Disconnection of Rooftop Runoff (RR-4)		and/or	
RR Techniques (Volume Reduction)			
● Vegetated Swale (RR-5)			0.06
○ Rain Garden (RR-6)			
○ Stormwater Planter (RR-7)			
○ Rain Barrel/Cistern (RR-8)			
○ Porous Pavement (RR-9)			
○ Green Roof (RR-10)			
Standard SMPs with RRv Capacity			
○ Infiltration Trench (I-1)			
● Infiltration Basin (I-2)			0.34
● Dry Well (I-3)			0.22
○ Underground Infiltration System (I-4)			
○ Bioretention (F-5)			
○ Dry Swale (O-1)			
Standard SMPs			
○ Micropool Extended Detention (P-1)			
○ Wet Pond (P-2)			
○ Wet Extended Detention (P-3)			
○ Multiple Pond System (P-4)			
○ Pocket Pond (P-5)			
○ Surface Sand Filter (F-1)			
○ Underground Sand Filter (F-2)			
○ Perimeter Sand Filter (F-3)			
○ Organic Filter (F-4)			
○ Shallow Wetland (W-1)			
○ Extended Detention Wetland (W-2)			
○ Pond/Wetland System (W-3)			
○ Pocket Wetland (W-4)			
○ Wet Swale (O-2)			

Table 2 - Alternative SMPs (DO NOT INCLUDE PRACTICES BEING USED FOR PRETREATMENT ONLY)

Alternative SMP	Total Contributing Impervious Area(acres)
○ **Hydrodynamic**	
○ **Wet Vault**	
○ **Media Filter**	
○ **Other** [ ]	

Provide the name and manufacturer of the Alternative SMPs (i.e. proprietary practice(s)) being used for WQv treatment.

Name [ ]

Manufacturer [ ]

Note: Redevelopment projects which do not use RR techniques, shall use questions 28, 29, 33 and 33a to provide SMPs used, total WQv required and total WQv provided for the project.

30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29.

Total RRv provided

[ ][ ]0.[2][0][0] **acre-feet**

31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28).

● **Yes** ○ **No**

If Yes, go to question 36.
If No, go to question 32.

32. Provide the Minimum RRv required based on HSG.
[Minimum RRv Required = (P)(0.95)(Ai)/12, Ai=(S)(Aic)]

Minimum RRv Required

[ ][ ][ ].[ ][ ][ ] **acre-feet**

32a. Is the Total RRv provided (#30) greater than or equal to the Minimum RRv Required (#32)?

● **Yes** ○ **No**

If Yes, go to question 33.
Note: Use the space provided in question #39 to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). A detailed evaluation of the specific site limitations and justification for not reducing 100% of the WQv required (#28) must also be included in the SWPPP.
If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

33. Identify the Standard SMPs in Table 1 and, if applicable, the Alternative SMPs in Table 2 that were used to treat the remaining total WQv(=Total WQv Required in 28 - Total RRv Provided in 30).

Also, provide in Table 1 and 2 the total impervious area that contributes runoff to each practice selected.

Note: Use Tables 1 and 2 to identify the SMPs used on Redevelopment projects.

33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question 29.

WQv Provided

[ ][ ][ ].[ ][ ][ ] **acre-feet**

Note: For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - RRv provided by the practice. (See Table 3.5 in Design Manual)

34. Provide the sum of the Total RRv provided (#30) and the WQv provided (#33a). [ ][ ][ ].[ ][ ][ ]

35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)? ● **Yes** ○ **No**

If Yes, go to question 36.
If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

36. Provide the total Channel Protection Storage Volume (CPv) required and provided or select waiver (36a), if applicable.

CPv Required

[ ][ ][ ].[ ][ ][ ] **acre-feet**

CPv Provided

[ ][ ][ ].[ ][ ][ ] **acre-feet**

36a. The need to provide channel protection has been waived because:

○ Site discharges directly to tidal waters or a fifth order or larger stream.

● Reduction of the total CPv is achieved on site through runoff reduction techniques or infiltration systems.

37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (37a), if applicable.

Total Overbank Flood Control Criteria (Qp)

Pre-Development

[ ][1][6].[6][5][ ] **CFS**

Post-development

[ ][1][6].[5][3][ ] **CFS**

Total Extreme Flood Control Criteria (Qf)

Pre-Development

[ ][5][6].[7][6][ ] **CFS**

Post-development

[ ][5][6].[5][5][ ] **CFS**

37a. The need to meet the Qp and Qf criteria has been waived because:

- ○ Site discharges directly to tidal waters or a fifth order or larger stream.
- ○ Downstream analysis reveals that the Qp and Qf controls are not required

38. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed? ● **Yes** ○ **No**

If Yes, Identify the entity responsible for the long term Operation and Maintenance

Eighteen-Eight Group LLC

39. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required(#28). (See question 32a) This space can also be used for other pertinent project information.

40. Identify other DEC permits, existing and new, that are required for this project/facility.

- ○ Air Pollution Control
- ○ Coastal Erosion
- ○ Hazardous Waste
- ○ Long Island Wells
- ○ Mined Land Reclamation
- ○ Solid Waste
- ○ Navigable Waters Protection / Article 15
- ○ Water Quality Certificate
- ○ Dam Safety
- ○ Water Supply
- ○ Freshwater Wetlands/Article 24
- ○ Tidal Wetlands
- ○ Wild, Scenic and Recreational Rivers
- ○ Stream Bed or Bank Protection / Article 15
- ○ Endangered or Threatened Species(Incidental Take Permit)
- ○ Individual SPDES
- ○ SPDES Multi-Sector GP [N][Y][R][ ][ ][ ][ ][ ][ ]
- ○ Other [ ]
- ○ None

41. Does this project require a US Army Corps of Engineers Wetland Permit? ○ **Yes** ◉ **No**
If Yes, Indicate Size of Impact. [ ][ ][ ][ ][ ].[ ]

42. Is this project subject to the requirements of a regulated, traditional land use control MS4? ○ **Yes** ◉ **No**
(If No, skip question 43)

43. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI? ○ **Yes** ○ **No**

44. If this NOI is being submitted for the purpose of continuing or transferring coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned. [N][Y][R][ ][ ][ ][ ][ ][ ]

Owner/Operator Certification

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Print First Name **MI**

Print Last Name

Owner/Operator Signature

Date / /

MJS ENGINEERING

MJS Engineering & Land Surveying, PC
261 Greenwich Avenue
Goshen, NY 10924

SWPPP Certification Forms

Appendix H

Stormwater Pollution Prevention Plan
SPDES General Permit for Construction Activity, GP-0-15-002

CONTRACTOR CERTIFICATION STATEMENT

Eighteen-Eight Group LLC
Town of Chester, Orange County, New York

The Contractor and Subcontractor(s) responsible for the implementation and adherence to the Stormwater Pollution Prevention Plan (SWPPP) shall sign a copy of the following certification statement prior to commencing any construction activity:

Certification Statement:

"I hereby certify that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the qualified inspector during a site inspection. I also understand that the *owner or operator* must comply with the terms and conditions of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings."

Contractor:

Signature: _____ Date: _____
Name (Print): _____
Title: _____

Contracting Firm Name: _____
Address: _____
_____
Telephone: (_____) _____

Trained Individual(s):
Name: _____
Title: _____

Name: _____
Title: _____

SWPPP Responsibilities:

_____
_____

Subcontractor:

Signature: _____ Date: _____
Name (Print): _____
Title: _____

Subcontracting Firm Name: _____
Address: _____

_____

Telephone: ( ) _____

Trained Individual(s):
Name: _____
Title: _____

Name: _____
Title: _____

SWPPP Responsibilities:

_____

_____

Subcontractor:

Signature: _____ Date: _____
Name (Print): _____
Title: _____

Subcontracting Firm Name: _____
Address: _____

_____

Telephone: ( ) _____

Trained Individual(s):
Name: _____
Title: _____

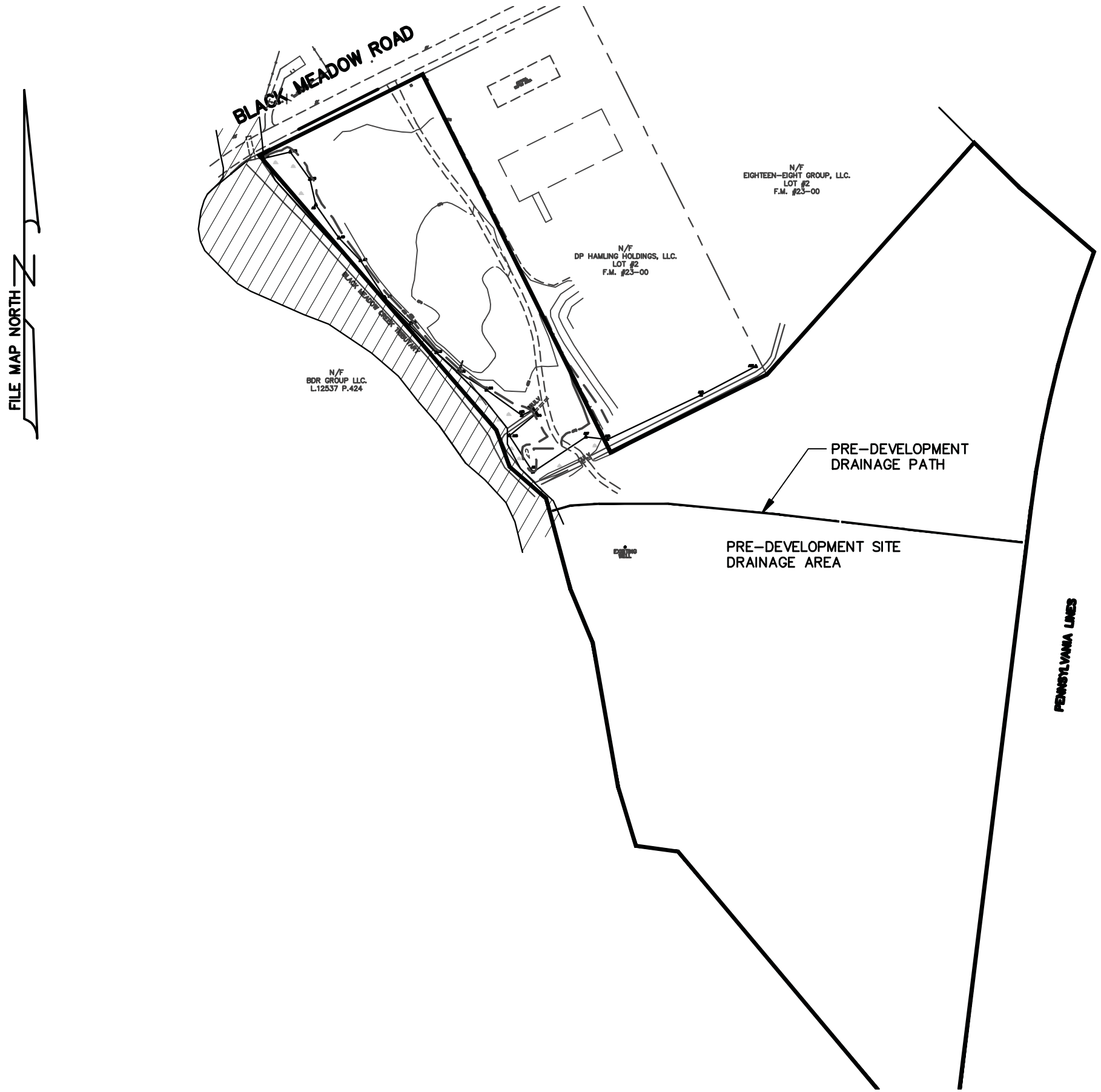
Name: _____
Title: _____

SWPPP Responsibilities:

_____

_____

**For additional contractors/subcontractors print additional copies of this form.



MJS ENGINEERING & LAND SURVEYING, PC

261 Greenwich Ave
Goshen, NY 10924
845-291-8650
Fax 845-291-8657

SHEET TITLE:

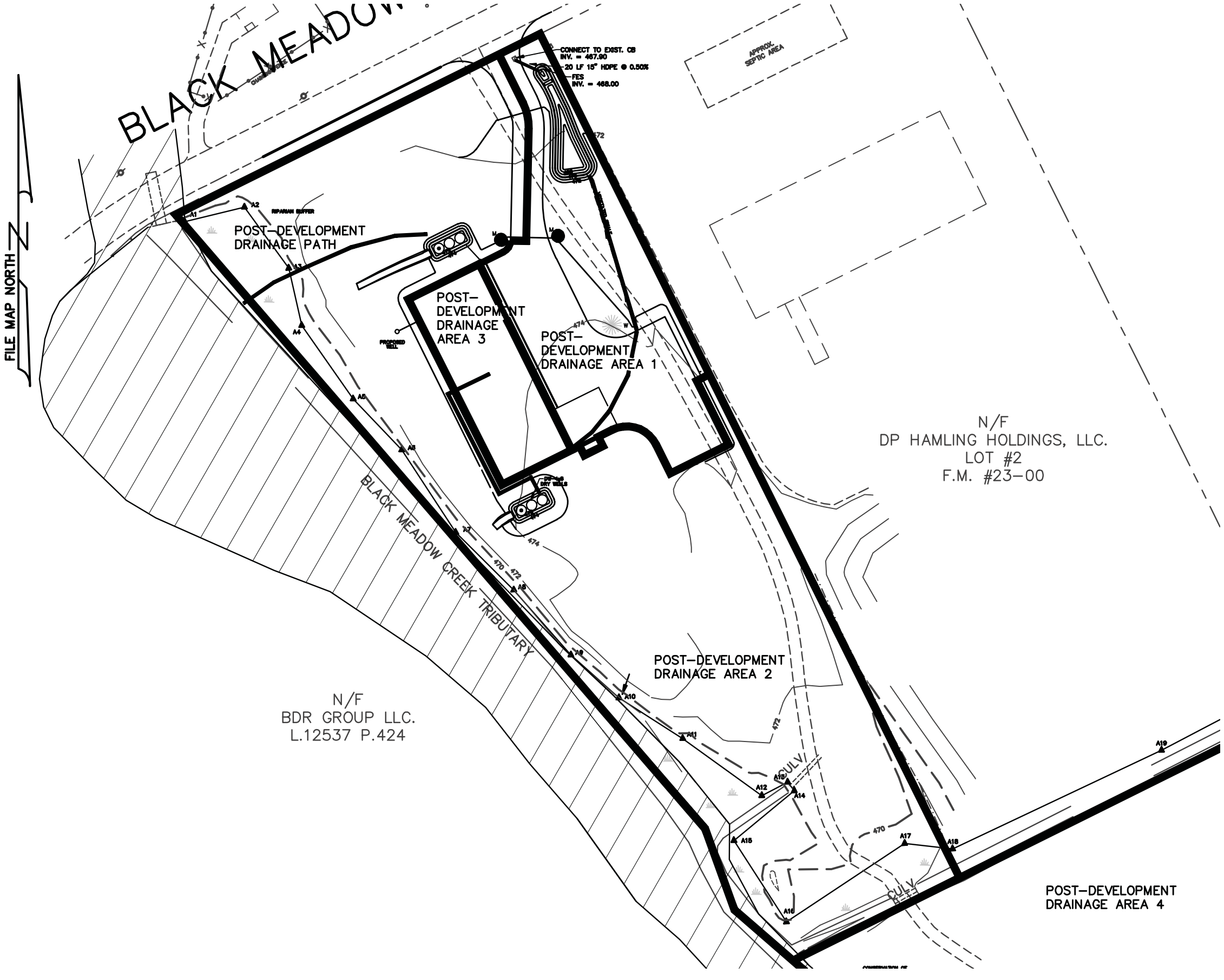
PRE-DEVELOPMENT DRAINAGE AREAS

JOB NAME:

EIGHTEEN-EIGHT GROUP LLC

TOWN OF CHESTER
ORANGE COUNTY, NEW YORK

DRAWN BY: BGC	
DEPT. CK. M. SANDOR	
DEP. APPR.	
JOB NO. 160149	DATE: 09/12/16
	REV. NO. A
SCALE: 1"= 200'	FIG. NO. 2



MJS ENGINEERING & LAND SURVEYING, PC

261 Greenwich Ave
Goshen, NY 10924
845-291-8650
Fax 845-291-8657

SHEET TITLE:

POST-DEVELOPMENT DRAINAGE AREAS

JOB NAME:

EIGHTEEN-EIGHT GROUP LLC

TOWN OF CHESTER
ORANGE COUNTY, NEW YORK

DRAWN BY: BGC	
DEPT. CK. M. SANDOR	
DEP. APPR.	
JOB NO. 160149	DATE: 09/12/16
	REV. NO. A
SCALE: 1"= 80'	FIG. NO. 3