APPENDIX D Water Resources



September 18, 2018

Ref: 26228.00

VIA CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. Ronald Pinzon
Chief, Eastern Permits Section
New York District
Regulatory Branch
United States Army Corps of Engineers
Jacob K. Javits Federal Building
26 Federal Plaza, Room 1937
New York, New York 10278-0090

Re: Request for Approved Jurisdictional Determination

Artificial Pond at Belmont Park 2150 Hempstead Turnpike Elmont, New York 11003

Dear Mr. Pinzon:

VHB Engineering, Surveying, Landscape Architecture and Geology, P.C. (VHB) is serving as environmental consultant to Empire State Development, which is requesting an Approved Jurisdictional Determination (JD) for a 0.12-acre artificial pond (known as the "Duck Pond") located on a 15-acre portion of Belmont Park ("Site A"). Belmont Park is owned by the State of New York (acting by and through the Franchise Oversight Board) and operated by the New York Racing Association as a major thoroughbred horseracing facility. New York Arena Partners, LLC and its affiliates are proposing to construct a sports, hospitality, and entertainment destination at Parcel A and other portions of Belmont Park that would result in the elimination of the Duck Pond.

The Duck Pond was delineated by VHB on August 30, 2018, based upon an evaluation of vegetation, soils and hydrology. The delineation was conducted in accordance with the procedures set forth in the 1987 United States Army Corps of Engineers (USACE) Wetland Delineation Manual and the 2012 USACE Regional Supplement for the Northcentral and Northeast Region.

100 Motor Parkway

Suite 135

Hauppauge, New York 11788

P 631.787.3400

F 631.234.3437

Mr. Ronald A. Pinzon USACE Ref: 26228.00

September 18, 2018

Page 2



Based on the information presented in the enclosed Pond Delineation Report, the Duck Pond is an isolated, artificial structure with no hydrological connection to other surface waters, wetlands or other waters of the United States, pending U.S. Army Corps of Engineers review. Accordingly, please accept this correspondence as a formal request for an Approved JD for the Duck Pond.

To assist in the processing of this request, VHB has enclosed two paper copies of the Pond Delineation Report for the Duck Pond, which was prepared in accordance with the United States Army Corps of Engineers (USACE) guidance document entitled *Checklist of Information Included with Requests for Jurisdictional Determinations*. The Pond Delineation Report includes a description of existing conditions at the Duck Pond and Site A, and provides a review of government agency maps and data pertaining to local surface waters and wetlands. Also included is a summary and supporting documentation for the delineation of the Duck Pond, as well as a justification for a proposed waters of the United States non-jurisdictional determination.

For your records, contact information for the project sponsor and the property owner are provided below:

Empire State Development 633 Third Avenue New York, NY 10017 Attn: Rachel Shatz Vice President, Planning and Environmental Review (212) 803-3252

Franchise Oversight Board State Capital Albany, New York 12224 Attn: Robert Williams, Chairman

Additionally, a letter from the property owner authorizing the USACE to inspect Site A in association with this Approved JD request is included as Appendix G of the Pond Delineation Report.

Mr. Ronald A. Pinzon USACE Ref: 26228.00

September 18, 2018

Page 3



Thank you for your cooperation in this matter. Please feel free to contact me at your earliest convenience at 631.787.3400 or at dkennedy@vhb.com, to arrange for a field inspection of the subject property or if you require any additional information to process this request.

Sincerely,

VHB Engineering, Surveying and Landscape Architecture, P.C.

David Kennedy Project Scientist

Daniel Keny

Pond Delineation Report

Belmont Park – Site A

Elmont, Town of Hempstead Nassau County, New York

PREPARED FOR

Empire State Development 633 Third Avenue New York, NY 10017 Attn: Rachel Shatz Vice President, Planning and Environmental Review

PREPARED BY



VHB Engineering, Surveying, Landscape Architecture and Geology, P.C. 100 Motor Parkway, Suite 135 Hauppauge, New York 11788

September 18, 2018



Table of Contents

1.0 Introduction		1		
2.0 Background		2		
3.0 Map Review and Pond Delineation				
4.0 Summary and Proposed	d Non-	Jurisdictional Determination Justification5		
Appendix A	-	<u>List of Appendices</u> Figures		
Figure 1 Figure 2 Figure 3 Figure 4 Figure 5 Figure 6	- - - -	Topographic Map		
Appendix B		Historical Aerial Photographs		
Appendix C	-	Current Site Photographs		
Appendix D	-	1965 Topographic Survey		
Appendix E	-	NCDPW Correspondence and Map		
Appendix F		Wetland Delineation Data Forms		
Appendix G -		Owner Authorization Letter		

1.0

Introduction

This Pond Delineation Report has been prepared by VHB Engineering, Surveying, Landscape Architecture and Geology P.C. (VHB), for a 15-acre portion of Belmont Park located in the hamlet of Elmont, Town of Hempstead, Nassau County, New York (hereinafter, "Site A," see Appendix A, Figure 1). Site A and Belmont Park are owned by the State of New York, acting by and through the Franchise Oversight Board, and are leased through a ground lease to The New York Racing Association (NYRA).

Site A, which has a topographic elevation that ranges between 72 and 74 feet above mean sea level (see Appendix A, Figure 2), is currently developed with paved parking areas and lawns/landscaping created in association with site usage since 1905 as a major thoroughbred horseracing facility. Parcel A also includes a 0.12-acre, concrete-lined artificial pond (known as the "Duck Pond") constructed for ornamental purposes. New York Arena Partners, LLC and its affiliates are proposing to construct a sports, hospitality, and entertainment destination at Parcel A and other portions of Belmont Park that would result in the elimination of the Duck Pond.

The Duck Pond boundary was delineated by VHB on August 30, 2018. This Pond Delineation Report includes a description of existing conditions at the Duck Pond and Site A, and provides a review of government agency maps and data pertaining to local surface waters and wetlands. Also included is a summary and supporting documentation for the delineation of the Duck Pond, as well as a justification for a proposed waters of the United States non-jurisdictional determination. This Pond Delineation Report was prepared pursuant to the United States Army Corps of Engineers (USACE) guidance document entitled *Checklist of Information Included with Requests for Jurisdictional Determinations.*¹

¹ United States Army corps of Engineers. 2014. Checklist of Information Included with Requests for Jurisdictional Determinations. Available online at: http://www.nan.usace.army.mil/Portals/37/docs/regulatory/Formdoc/JD%20Checklist.pdf Accessed September 11, 2018.

2.0

Background

Based on review of historical aerial photographs, the Duck Pond is an artificial structure constructed between 1924 and 1951 within the area immediately to the south of the Belmont Park Grandstand (see historical aerial photographs in Appendix B). The pond is concrete-lined and surrounded by a paving stone path, with lawns and ornamental landscaping located beyond the path (see current site photographs in Appendix C). Water depths within the structure are variable and range from 8-to-18± inches, with aeration of the water column provided by a floating, electric-powered aerator/fountain. The primary hydrological source for the pond is municipal water, via a ¾-inch copper pipe located at the west side of the structure. An overflow at the eastern side of the Duck Pond discharges via subgrade piping to a storm drain located 100± feet to the east of the pond. The storm drain is part of a series of connected area drains that comprise the existing stormwater management system at Site A. There are no other inlets or outlets to or from the Duck Pond. The municipal water supply and overflow drain within the Duck Pond, as well as the associated stormwater management system at Site A, have been in existence for at least 43 years, as shown on the 1965 topographic survey of Belmont Park (see Appendix D). According to correspondence and a stormwater drainage map provided by the Nassau County Department of Public Works (NCDPW) (see Appendix E), the area drains are located within the tributary area for Nassau County Groundwater Recharge Basin No. 122, located approximately one mile to the south of the Duck Pond (see Appendix A, Figure 3). As such, municipal water that overflows from the Duck Pond ultimately discharges to the groundwater table, rather than to other surface waters or wetlands.

Map Review and Pond Delineation

Based on review of the New York State Department of Environmental Conservation (NYSDEC) Freshwater Wetland Map data, the Duck Pond is not regulated by the NYSDEC. Further, there are no NYSDEC-mapped wetlands or surface waters within the 1,500-foot radius surrounding the Duck Pond.² The nearest NYSDEC-regulated wetland is 9,875± feet to the northwest of the Duck Pond (see Appendix A, Figures 4 and 5).

The Duck Pond is identified on the United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) maps³ as a PUBHX (Palustrine, Unconsolidated Bottom, Permanently Flooded, Excavated) feature. As defined by the NWI, the latter "Excavated" modifier is indicative of basins or channels that were "excavated by humans."⁴ The nearest additional NWI feature is located 1,230± feet to the northeast of the Duck Pond, within the infield of the Belmont Park racetrack (see Appendix A, Figures 4 and 5).

There are no National Hydrography Dataset (NHD) streams located within 1,500 feet of the Duck Pond. The nearest NHD stream is located 3,685± feet to the east-southeast of the Duck Pond (see Appendix A, Figures 4 and 5).

Review of the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey map data (see Appendix A, Figure 6) indicates that soils at and in the vicinity of the Duck Pond are composed of Urban Land, Riverhead Complex, 0-to-3 percent slopes (UrA) and Urban Land (Ug). These two soil types are not included on the National List of Hydric Soils.⁵

² New York State Department of Environmental Conservation. 2017. Environmental Resource Mapper. Available online at: http://www.dec.ny.gov/animals/38801.html. Accessed September 11, 2018.

³ United States Fish and Wildlife Service – National Wetlands Inventory Maps. 2017. Available online at: https://www.fws.gov/wetlands/Data/Mapper.html. Accessed September 11, 2018.

⁴ United States Fish and Wildlife Service – National Wetlands Inventory. 2017. Wetland Classification Codes. Available online at: https://www.fws.gov/wetlands/data/wetland-codes.html. Accessed September 11, 2018.

⁵ Natural Resources Conservation Service – United States Department of Agriculture. 2018. Hydric Soils of the United States

The Duck Pond was delineated by VHB on August 30, 2018 based upon an evaluation of vegetation, soils and hydrology conducted in accordance with the procedures set forth in the 1987 USACE Wetland Delineation Manual⁶ and the 2012 USACE Regional Supplement for the Northcentral and Northeast Region.⁷ During the delineation, 19 numbered flags were placed along the pond boundary (Flag Nos. P1-101 through P1-119) and USACE Northcentral and Northeast Region wetland delineation data forms were completed for one pond and one upland data plot (see Appendix F). The locations of the pond boundary flags and two data plots were recorded with a global positioning system (GPS) unit (see Appendix A, Figure 7).

As surface water was noted during the delineation and in review of current and historical aerial photographs, wetland hydrology occurs within the Duck Pond. However, due to the concrete liner, there is no hydrological connection between the Duck Pond waters and underlying soils, and no submerged or emergent vegetation grows within the pond. Furthermore, the concrete liner and paving stone perimeter path preclude the existence of pond edge vegetation or bordering wetland communities around the structure. Due to these conditions, hydrophytic vegetation and hydric soils do not occur within or adjacent to the pond. Based on the foregoing, the Duck Pond does not pass the three-parameter wetland determination test set forth in the above-referenced USACE guidance manuals, and therefore is not a wetland, as defined by the USACE.

⁶ Environmental Laboratory. 1987. "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

⁷ United States Army Corps of Engineers Engineer Research and Development Center. 2012. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0).

Summary and Proposed Non-**Jurisdictional Determination Justification**

Based on the information and supporting documentation presented in Sections 1.0 through 3.0 of this report, the Duck Pond is a 0.12-acre artificial structure constructed between 1924 and 1951. The pond is concrete-lined and surrounded by a brick paving stone path. Due to these conditions, there is no hydrological or biochemical connection between the Duck Pond waters and underlying soils, and no submerged or emergent vegetation grows within the pond. As a result, the Duck Pond does not pass the USACE three-parameter wetland determination test, and therefore is not a wetland, as defined by the USACE.

The primary hydrological source for the Duck Pond is municipal water, and overflow from the pond discharges to a stormwater management system located within the tributary area for Nassau County Groundwater Recharge Basin No. 122. As such, the municipal water that overflows from the Duck Pond ultimately discharges through municipal drainage pipes and structures to the underlying groundwater table, rather than to other surface waters or wetlands. Beyond the aforementioned municipal water source and overflow drain, there are no other inlets to, or outlets from, the Duck Pond. Moreover, no surficial or subsurface connections, or other significant nexus exists between the Duck Pond and other surface waters or wetlands, the nearest of which is located 1,230± feet away.

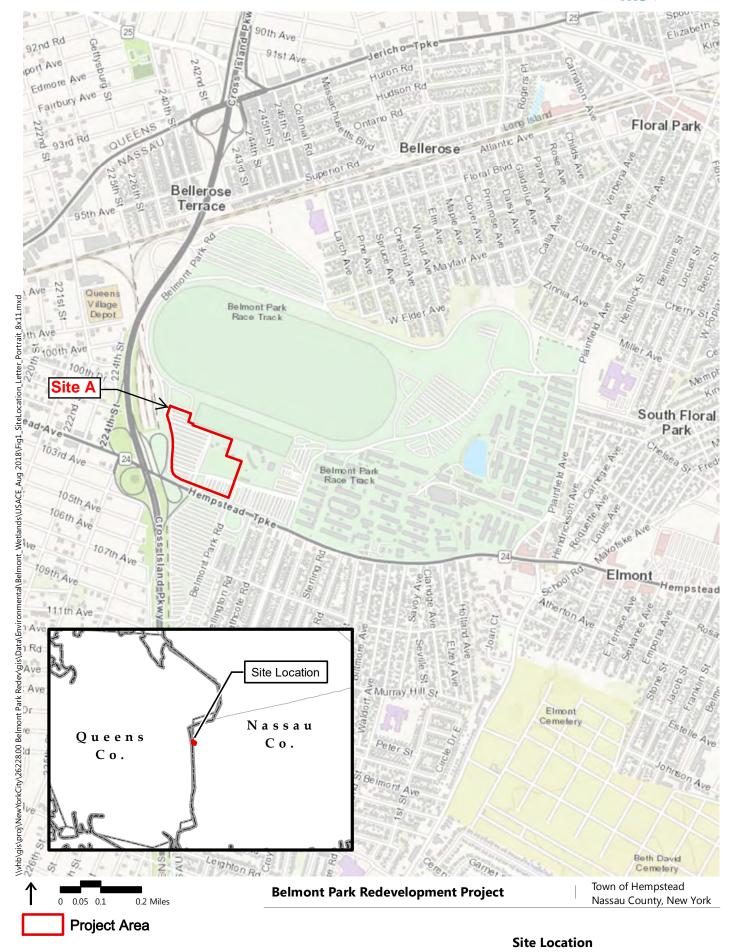
In Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers (the "SWANCC Decision," 2001), and Rapanos v. the United States (the "Rapanos Decision," 2006), the United States Supreme Court ruled that the USACE's jurisdiction over 'waters of the United States' under Section 404 of the Clean Water Act (CWA) does not extend to isolated wetlands. Further, the Supreme Court ruled that waters or wetlands that do not have a "significant nexus" to a traditional navigable waterway are isolated waters that should not be considered waters of the United States for the purposes of the CWA. Pursuant to the Rapanos Decision, a significant nexus exists when a wetland or waterbody, either by itself or in combination with other similar sites, significantly affects the physical, biological, and chemical integrity of a downstream navigable waterway. Significant nexus is further defined as "having a significant effect on the chemical, physical or biological integrity of an interstate water, its tributaries or adjacent wetlands." 8

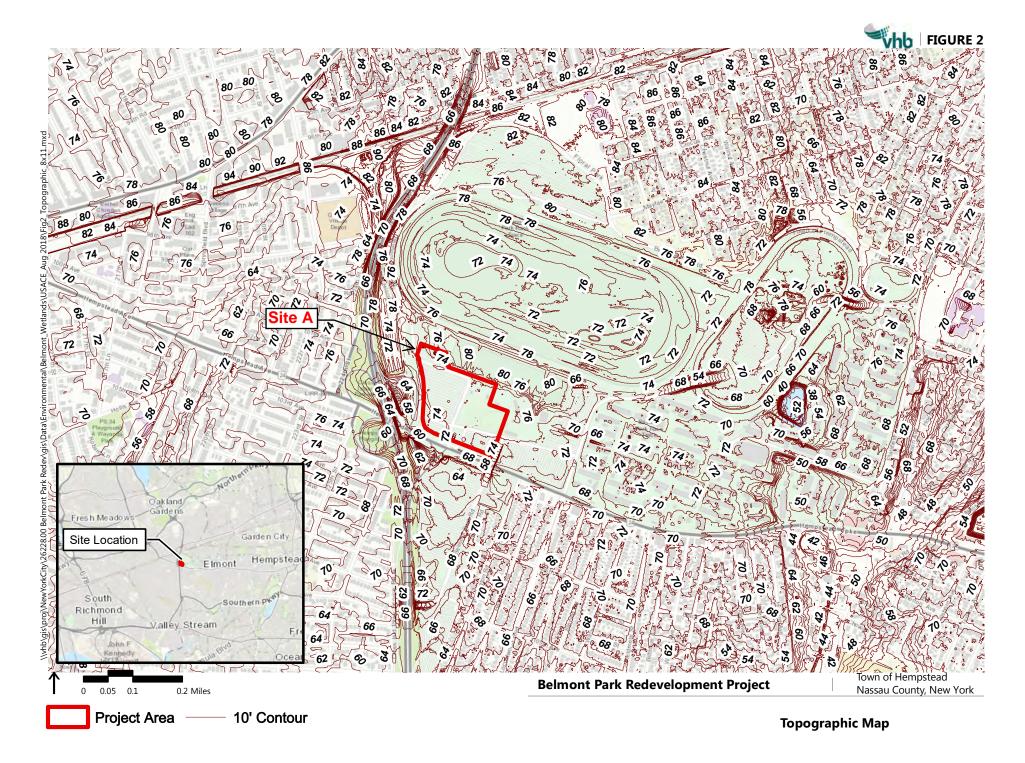
Based on the foregoing, the Duck Pond is an isolated, artificial structure with no hydrological connection to other surface waters, wetlands or other waters of the United States. Accordingly, pursuant to the legal precedents of the SWANCC and Rapanos Decisions regarding isolated wetlands summarized above, it appears that the Duck Pond would not be subject to USACE jurisdiction under Section 404 of the CWA, due to its isolated status and artificial origin.



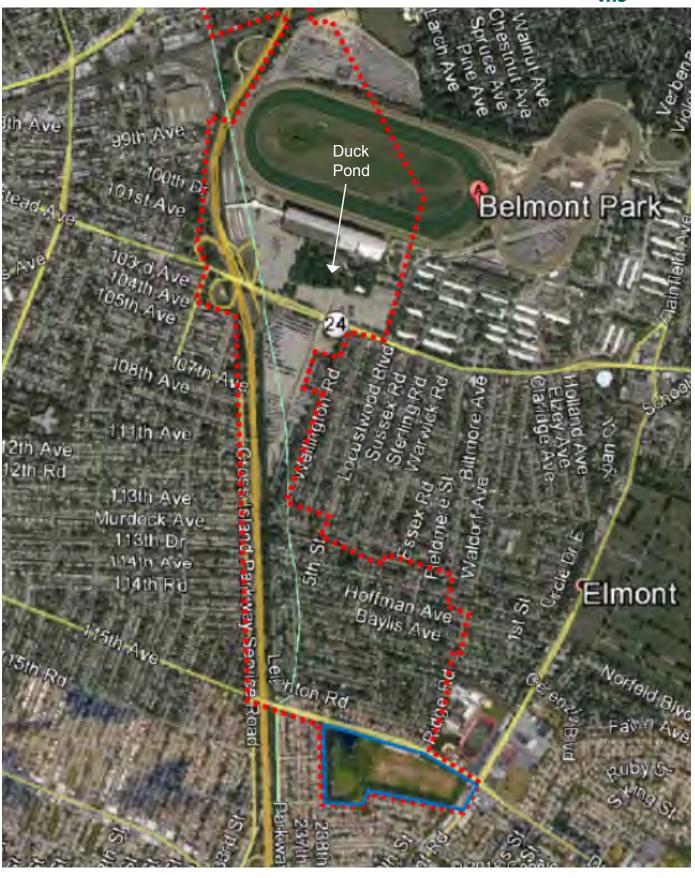
Appendix A











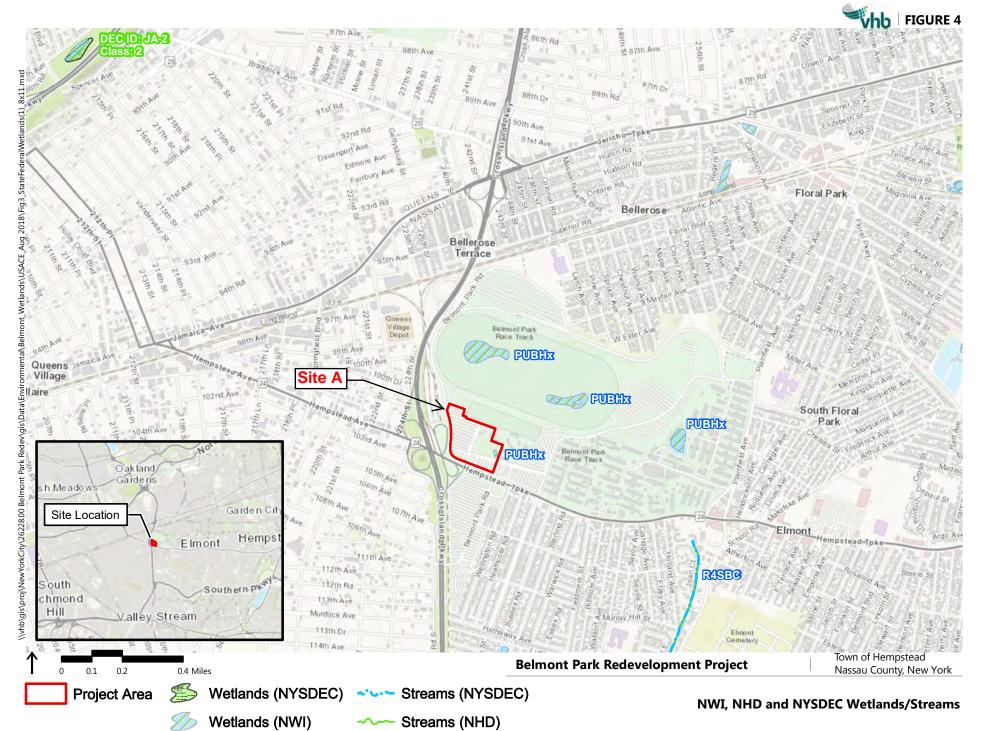


Belmont Park Redevelopment Project

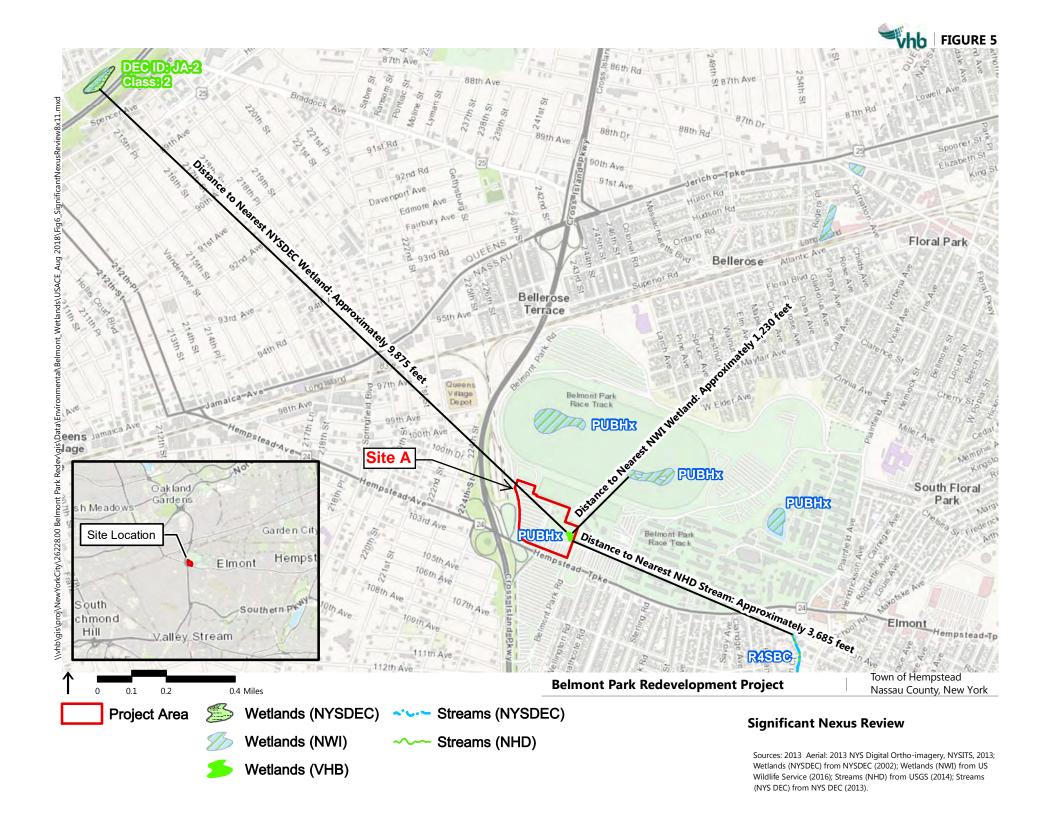
Town of Hempstead Nassau County, New York

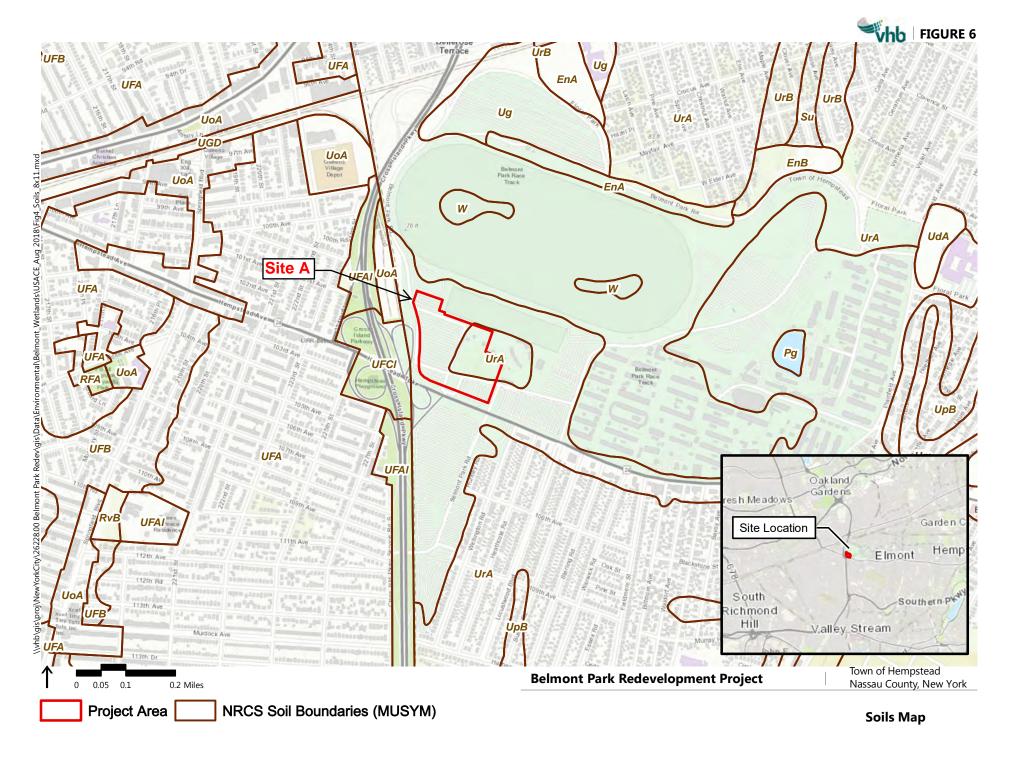
Tributary Area Boundary

Stormwater Drainage Tributary Map



Sources: 2013 Aerial: 2013 NYS Digital Ortho-imagery, NYSITS, 2013; Wetlands (NYSDEC) from NYSDEC (2002); Wetlands (NWI) from US Wildlife Service (2016); Streams (NHD) from USGS (2014); Streams (NYS DEC) from NYS DEC (2013).







Data Plot (VHB)



Appendix B

Belmont Park

2150 Hempstead Turnpike Floral Park, NY 11001

Inquiry Number: 5408584.1

August 29, 2018

The EDR Aerial Photo Decade Package



EDR Aerial Photo Decade Package

08/29/18

Site Name: Client Name:

Belmont Park Vanasse Hangen Brustlin, Inc. 2150 Hempstead Turnpike 100 Motor Parkway, Ste. 135 Floral Park, NY 11001 Hauppauge, NY 11788 EDR Inquiry # 5408584.1 Contact: David Kennedy



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2017	1"=500'	Flight Year: 2017	USDA/NAIP
2013	1"=500'	Flight Year: 2013	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1994	1"=500'	Acquisition Date: April 04, 1994	USGS/DOQQ
1984	1"=500'	Flight Date: March 26, 1984	USGS
1980	1"=500'	Flight Date: April 06, 1980	Aero
1976	1"=500'	Flight Date: March 29, 1976	Aero
1966	1"=500'	Flight Date: February 23, 1966	USGS
1961	1"=500'	Flight Date: December 15, 1961	EDR Proprietary Aerial Viewpoint
1954	1"=500'	Flight Date: January 29, 1954	USGS
1951	1"=500'	Flight Date: April 21, 1951	EDR Proprietary Aerial Viewpoint
1924	1"=500'	Flight Date: July 01, 1924	USGS

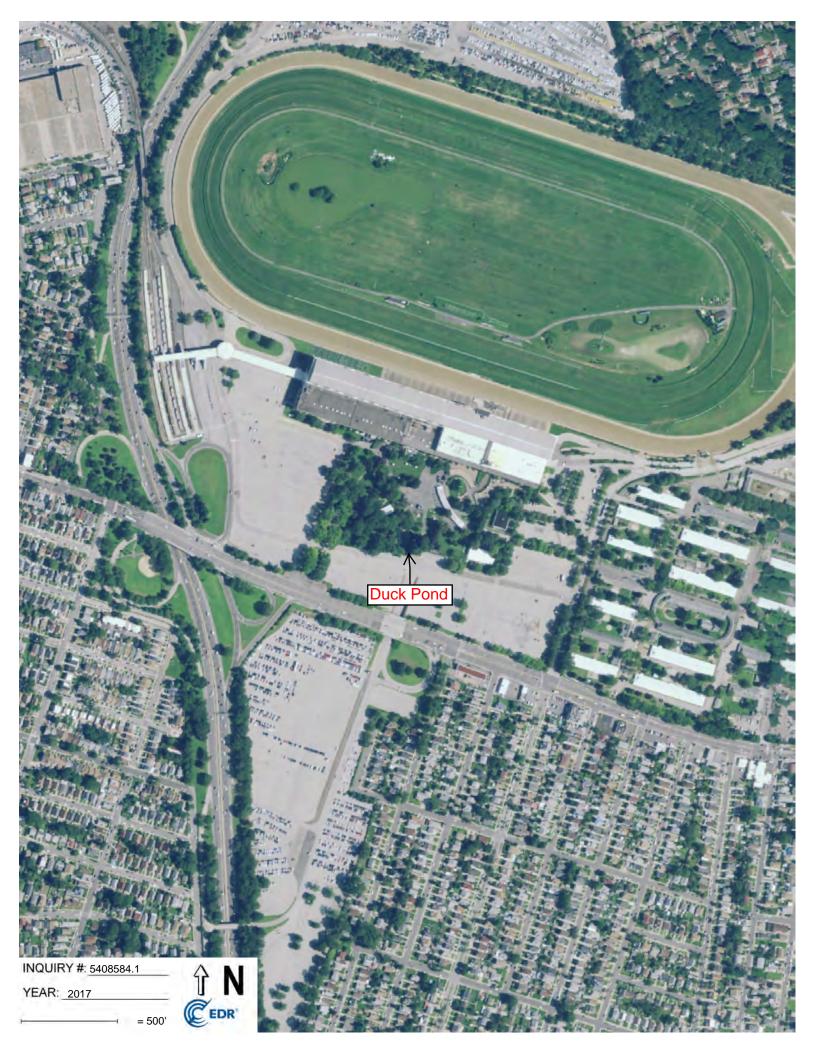
When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

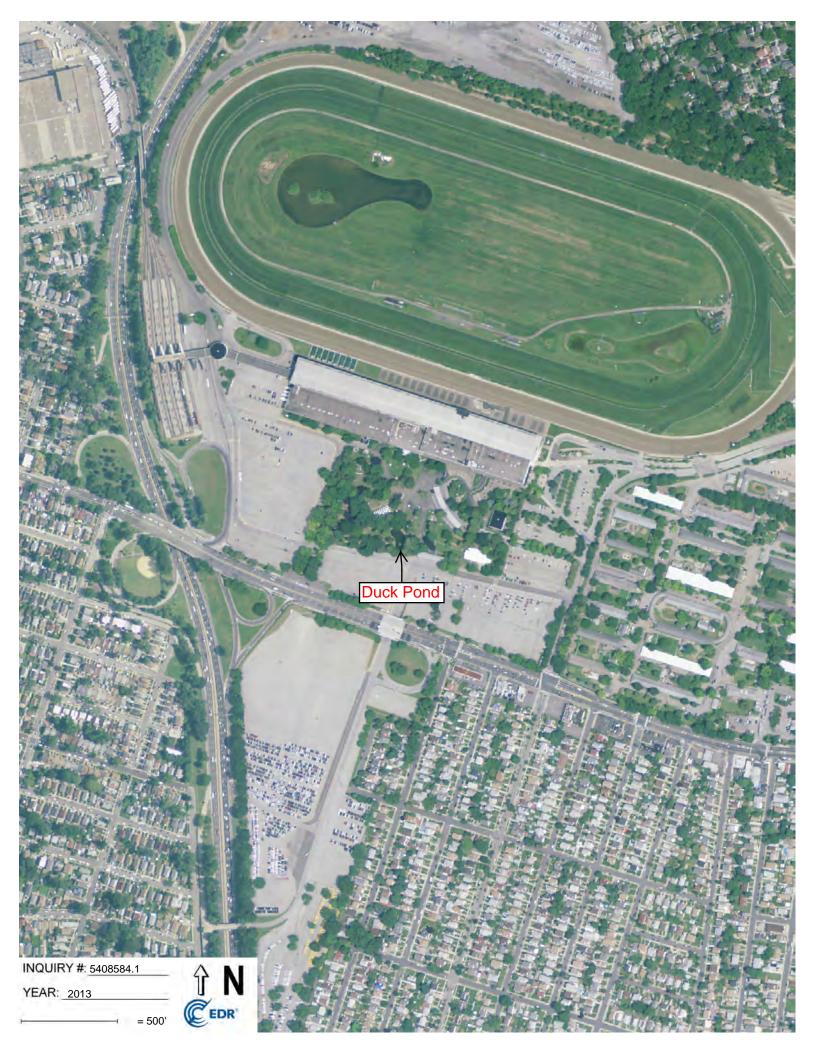
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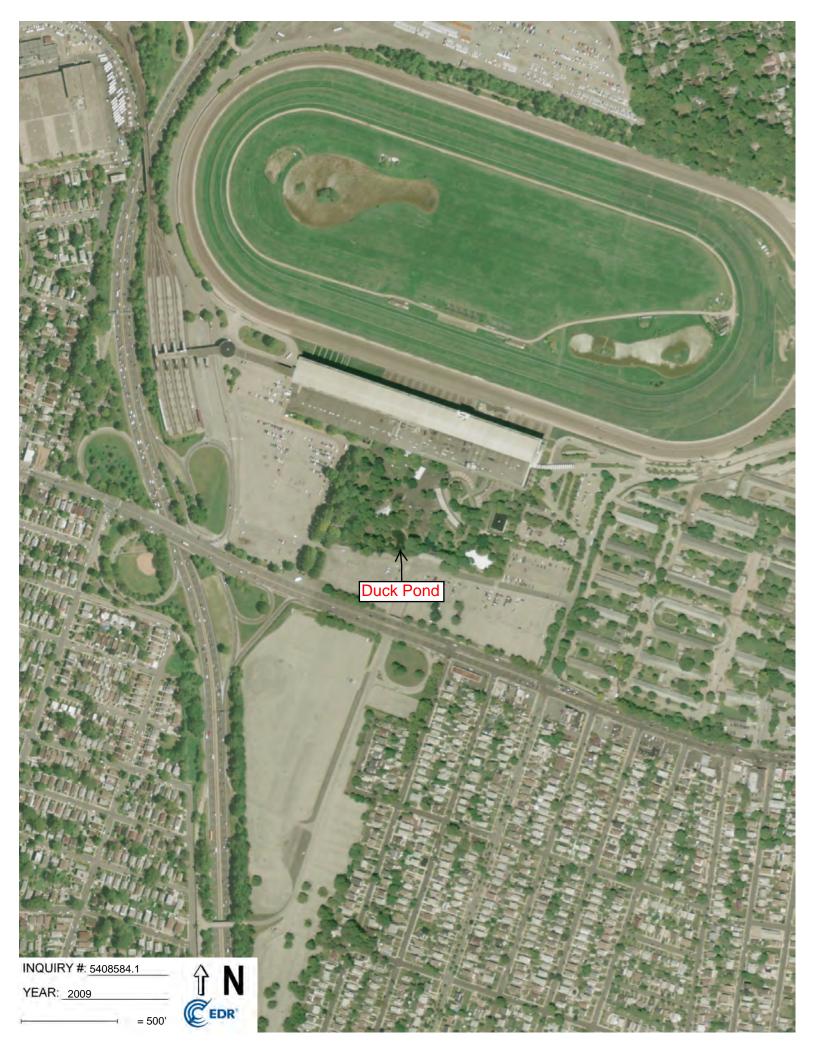
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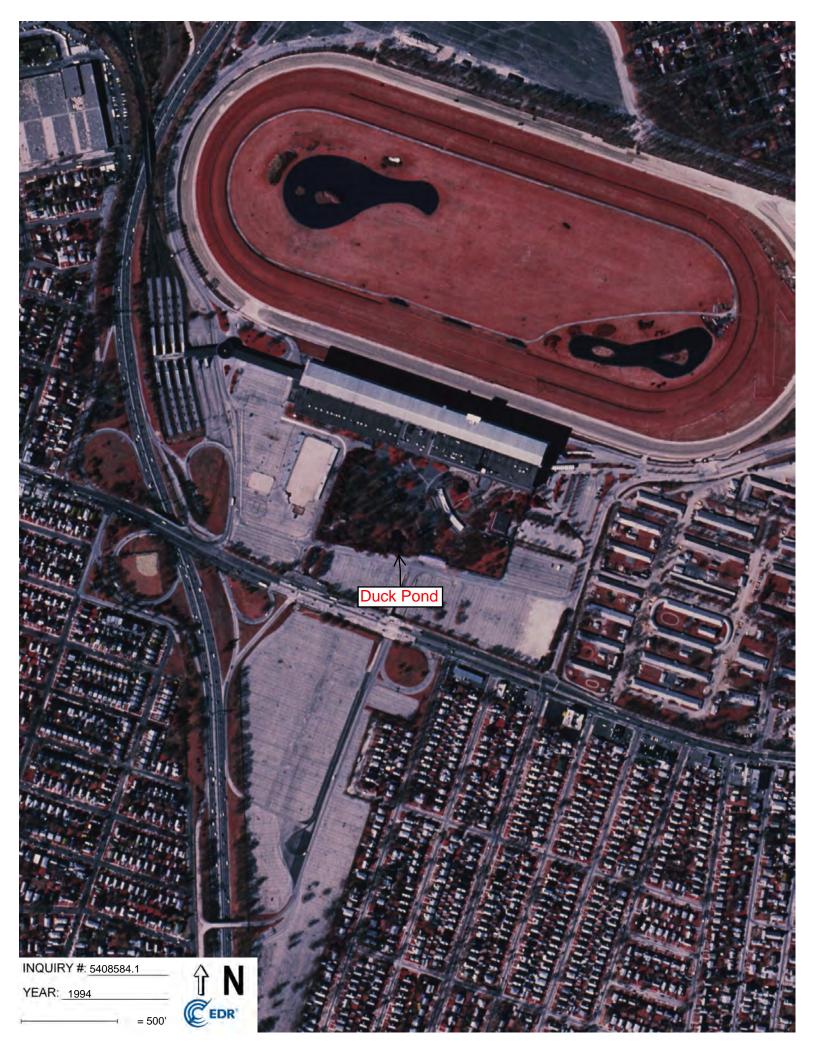
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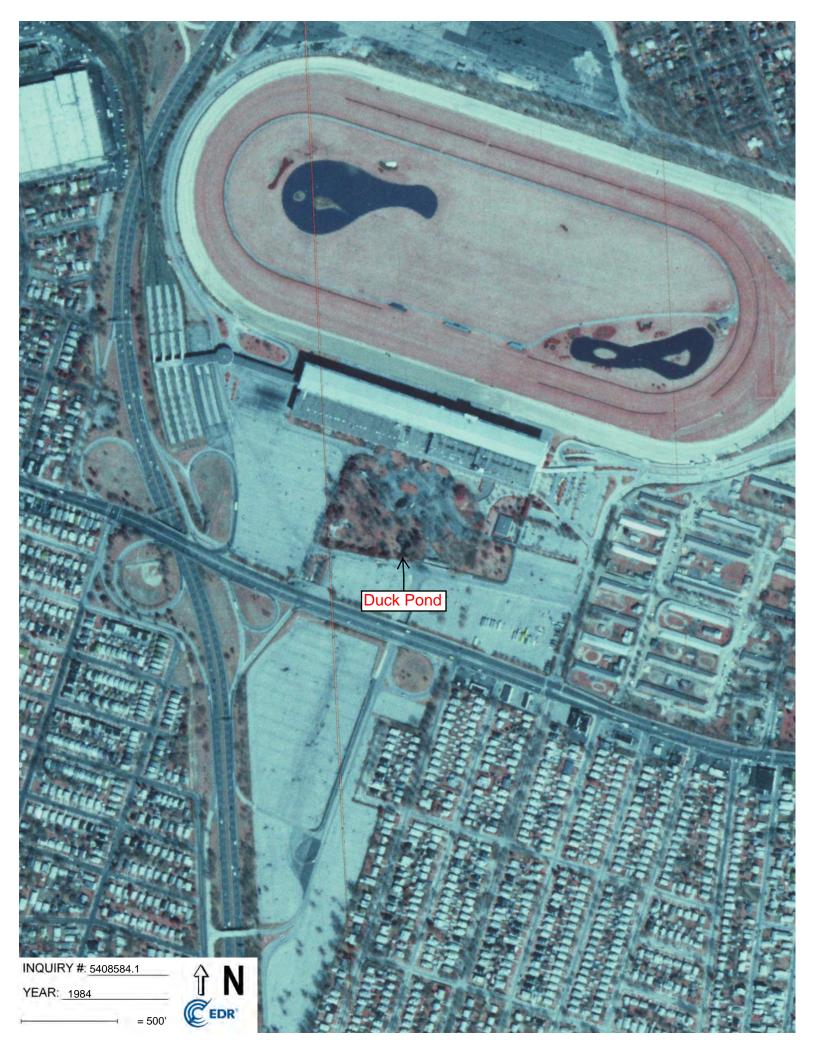














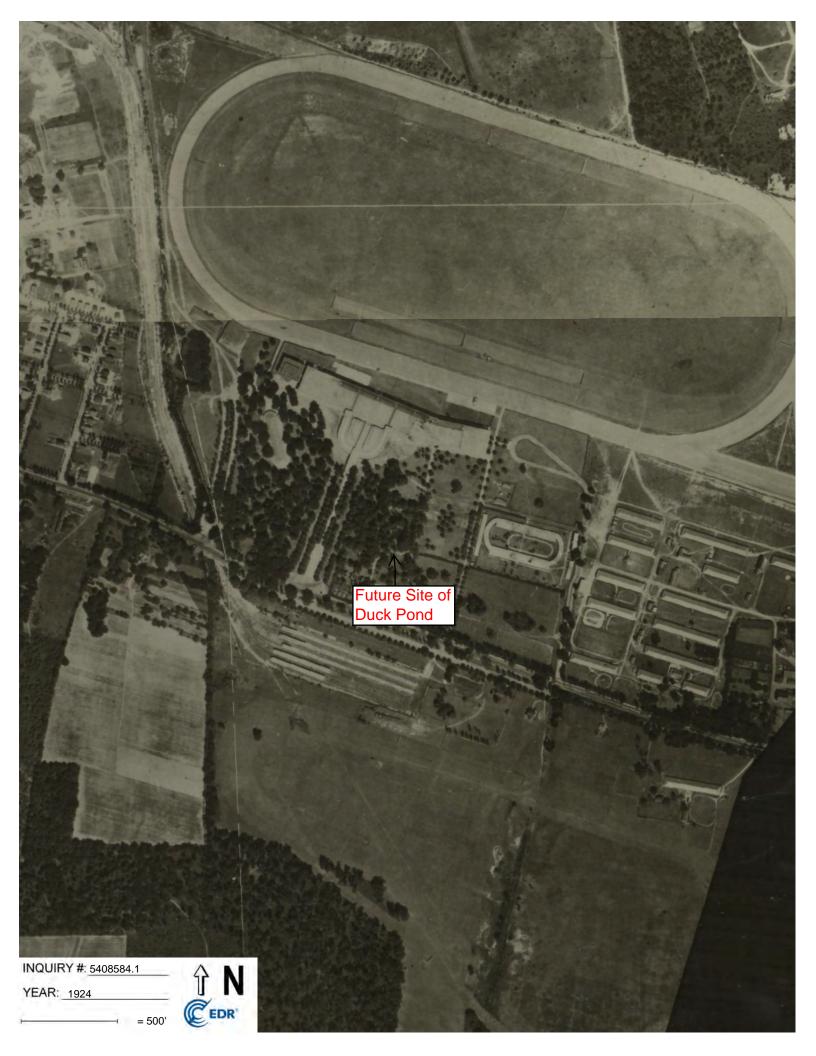














Appendix C





Photograph No. 1: View of the Duck Pond and paving stone perimeter path, facing north (August 30, 2018).



<u>Photograph No. 2:</u> View of the concrete liner and municipal water source (3/4-inch copper pipe) at the west side of the Duck Pond (August 30, 2018).





Photograph No. 3: Municipal water valves associated with the Duck Pond water supply (August 30, 2018).



Photograph No. 4: Overflow drain at the east side of the Duck Pond (August 30, 2018).





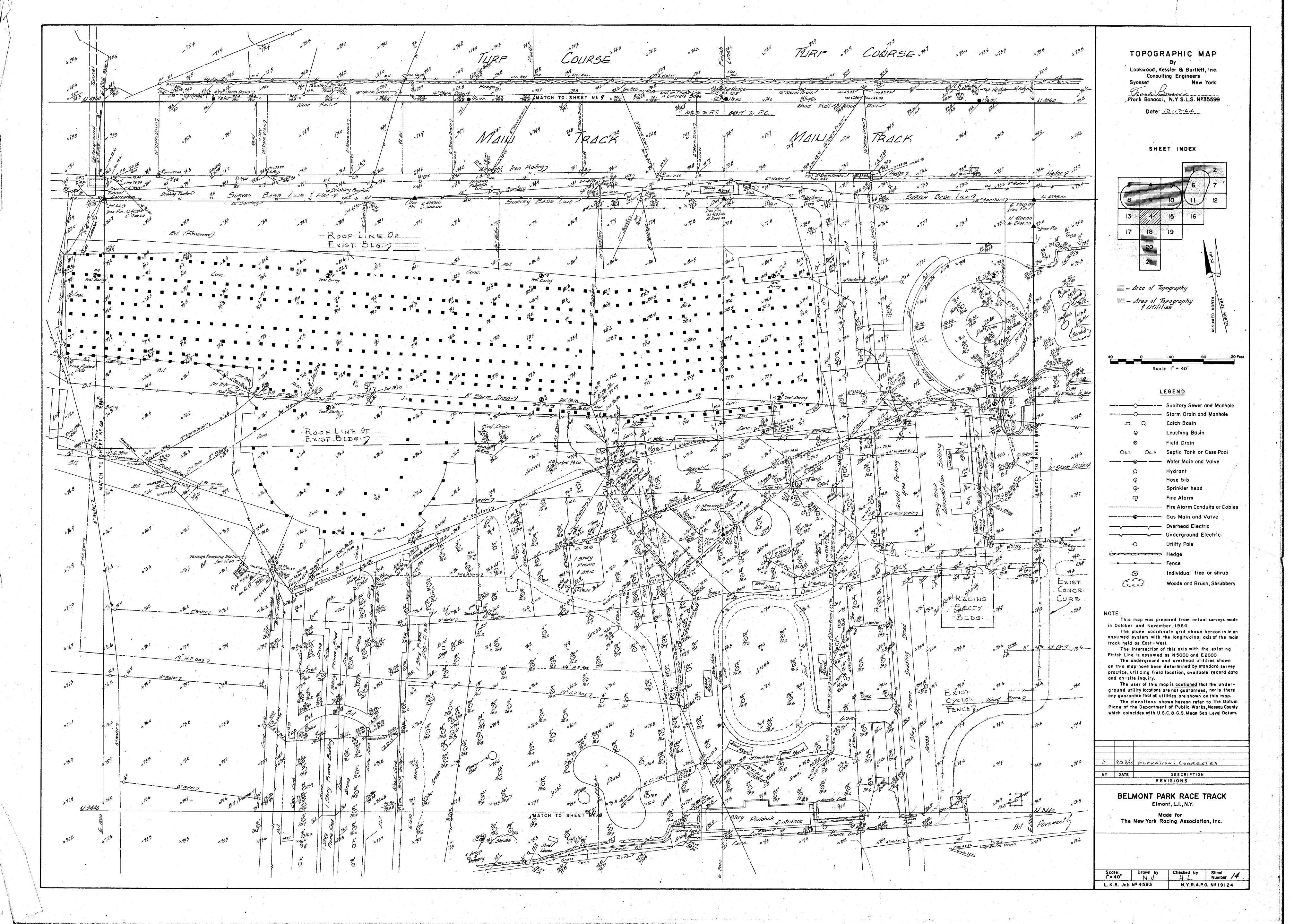
<u>Photograph No. 5</u>: View of the storm drain associated with the Duck Pond overflow, with the Duck Pond visible in the background (as indicated by the arrow) (August 30, 2018).



<u>Photograph No. 6</u>: View of the Duck Pond, including the floating aerator/fountain, facing northwest (August 30, 2018).



Appendix D





Appendix E

Kennedy, David

From: Sallie, Sean E

Sent: Thursday, August 16, 2018 1:35 PM

To: Kristin DeLuca

Cc: Walsh, Kevin; Ennis, Gerard; Arnold, Kenneth

Subject: [External] NCDPW feedback - Belmont Redevelopment Drainage Design

Hi Kristin,

I hope all is well. We appreciate you taking the time to meet with us earlier this month to discuss the preliminary drainage concepts for the Belmont development proposal. Gerry and I have discuss the project with the Commissioner, and offer the following comments/feedback pertaining to the drainage design parameters. Please do not hesitate to contact me anytime to discuss our comments in greater detail.

Comments/Feedback

- Based on the current configuration, the proposed development area is within the tributary area for NC Basin #122 on Dutch Broadway. It is DPW's understanding that there are a series of area drains along the western perimeter of the property that collect overland flow and convey it to a 66 inch pipe within the Cross Island Parkway ROW and ultimately south to NC basin #122. The proposed development includes new drainage infrastructure to collect stormwater throughout the site and convey it to the existing 66 inch pipe within the Cross Island Parkway ROW. DPW notes that, even though there is not to be an increase in impervious surface, the new collection system may deliver a greater volume of stormwater and at a higher discharge rate to the 66 inch pipe and recharge basin #122. As a result the developer should perform the following analysis:
 - Evaluate the Time of Concentration (TOC) for the new condition vs. the existing condition in order to confirm that the new condition will not negatively impact the 66" pipe (volume/capacity), recharge basin (capacity) or the TOH property adjacent to the basin (overflow).
- The eastern portion of the Belmont property is currently part of the Elmont Drain watershed. This system is routinely at capacity and has historically contributed to flooding along the southern channel as well as the adjacent Village of Floral Park to the north of the site. In an effort to provide relief to the Elmont Drain and mitigate flooding in the adjacent Floral Park area, the developer should consider the following:
 - Investigate the feasibility of reducing the volume of runoff entering Elmont Drain by interconnecting some of the drainage collection system within Belmont Park on the east side of the development area into the proposed system that will discharge to the CI Parkway system.
- As the proposed development plan contemplates maintaining the existing connection to a municipal system, NCDPW will require stormwater BMP's to reduce/eliminate negative impacts, such as floatables, sediments and petroleum, on the County's system.
- Approval of the proposed drainage system by the NYSDEC may also be required.

Sean E. Sallie, AICP
Deputy Commissioner

Nassau County Department of Public Works 1194 Prospect Avenue, Westbury, NY 11590

Phone: (516)-571-9342

Email: ssallie@nassaucountyny.gov

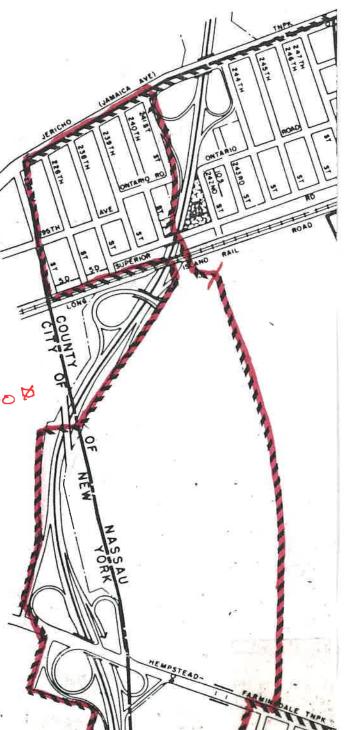
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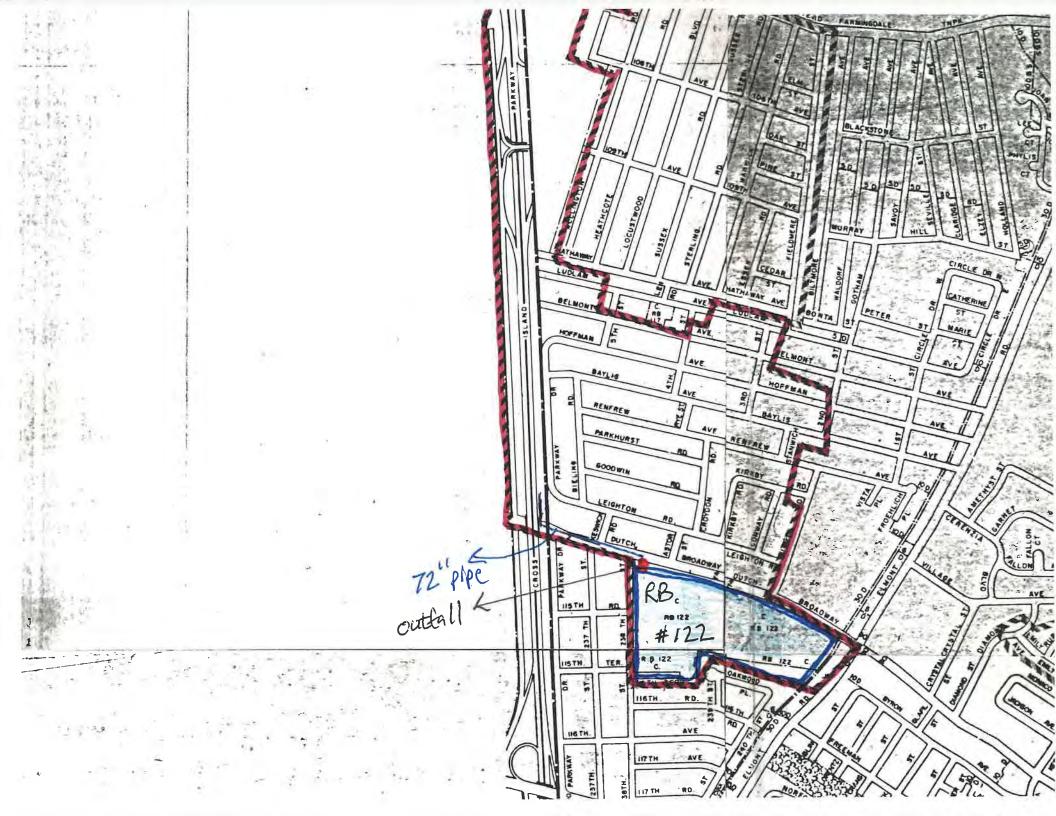
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REQ: 25 x 640,000 = 16,000,000 \$

16,000,000 x .40 x 8/12=

4266,600 F







Appendix F

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Belmont Park/Site A – Duck Pond City/C	County: Nassau County Sampling Date: 8/30/18
Applicant/Owner. Empire State Development/NYS (Franchise	
Investigator(s): David Kennedy Section	on, Township, Range: hamlet of Elmont
Landform (hillslope, terrace, etc.): terrace	
Slope (%): 0 Lat. 40° 42′ 39.51″ N Long:	73° 43′ 26.68″ W Datum: WGS 84
Soil Map Unit Name: Urban Land, Riverhead Complex, 0-to-3 p	
Are climatic / hydrologic conditions on the site typical for this time of year? Y	
Are Vegetation X, Soil X, or Hydrology X significantly distur	
Are Vegetation, Soil, or Hydrologynaturally problems	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sam	pling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No X Hydric Soil Present? Yes No X Wetland Hydrology Present? Yes X No Remarks: (Explain alternative procedures here or in a separate report.)	Is the Sampled Area within a Wetland? If yes, optional Wetland Site ID:
the second state of the second	
Isolated, artificial pond with concrete liner, no vegetation the site stormwater management system and ultimately t Basin No. 122.	
Bushi No. 122.	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
X Surface Water (A1) Water-Stained Leave	s (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13)	
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Od	
Sediment Deposits (B2) Oxidized Rhizosphere	
Drift Deposits (B3) Presence of Reduced Algal Mat or Crust (B4) Recent Iron Reductio	
recent for Reduction from Deposits (B5) Thin Muck Surface (C	
X Inundation Visible on Aerial Imagery (B7) Other (Explain in Ren	
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes X No Depth (inches):	
Water Table Present? Yes No _X _ Depth (inches):	
Saturation Present? Yes No _X _ Depth (inches):	Wetland Hydrology Present? Yes X No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available
besome recorded paid (silearn gauge, monitoring wan, dental prisess, pre	vious inspections, in available.
Remarks:	
Municipal water source via ¾-inch copper pipe at west sid	e of pond.

VECETATION LINE	scientific names of plants

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species?	Status	Dominance Test worksheet	:	
· Pinus strobus		yes	FACU	Number of Dominant Species That Are OBL, FACW, or FA		(A)
. <u>Morus alba</u>		yes	FACU_	Total Number of Dominant Species Across All Strata:	2	(B)
				Percent of Dominant Species That Are OBL, FACW, or FA		(A/B
				Prevalence Index workshee	Š.	
				Total % Cover of:		
-		= Total Cov	er	OBL species		_
Section (Obert Distance (Distance 45 foot	0	- Total Cov	CI	FACW species		
apling/Shrub Stratum (Plot size: 15 feet)				FAC species		
Q			_	FACU species		
				UPL species		
				Column Totals:		
				Column Totals.	. (/)	(D)
,				Prevalence Index = B/i	A =	
				Hydrophytic Vegetation Inc	licators:	
				Rapid Test for Hydrophy		
-				Dominance Test is >50%		
		= Total Cov	er	Prevalence Index is ≤3.0		
lerb Stratum (Plot size: <u>5 feet</u>)				Morphological Adaptatio		porting
				data in Remarks or or		
				Problematic Hydrophytic	Vegetation ¹ (Ex	plain)
0						
				Indicators of hydric soil and		gy must
				be present, unless disturbed	or problematic.	
V				Definitions of Vegetation S	trata:	
				Tree - Woody plants 3 in. (7.	6 cm) or more in	diamete
				at breast height (DBH), regar		, alamote
3				Sapling/shrub – Woody plan	ate lece than 3 in	DBH
				and greater than 3.28 ft (1 m		. DDH
				Hack All Garbaras va Value		
0				Herb – All herbaceous (non- of size, and woody plants les		
1.		_	$\overline{}$	Managha dana Allana ada ada		2 20 8 :-
2				Woody vines – All woody vir height.	ies greater than	3.28 π In
		= Total Cov	er	701 (0-1)		
Noody Vine Stratum (Plot size: 30 feet)						
				Hydrophytic		
		$\overline{}$		Vegetation	0.00	
	-	5.57.400		Present? Yes	No X	_
		= Total Cov	er			
Remarks: (Include photo numbers here or on a separate	sheet.)					
No vegetation within or immediately adjacen	t to nond					

Sampling Point: P1

Depth	ription: (Describe to th Matrix			x Features				
(inches)	Color (moist)	% C	olor (moist)	_ %	Type ¹	Loc ²	Texture	Remarks
Type: C=Cc ydric Soil I Histosol Histic Ep Black His Hydrogei Stratified Depletec Thick Da Sandy M Sandy G Sandy R Stripped	oncentration, D=Depletion indicators: (A1) ipedon (A2) stic (A3) in Sulfide (A4) Layers (A5) I Below Dark Surface (A1) ucky Mineral (S1) leyed Matrix (S4) edox (S5) Matrix (S6)	n, RM=Red	color (moist)	S=Covered v Surface ce (S9) (L dineral (F1 Matrix (F2 (F3) face (F6) Surface (F	Type¹	d Sand Gra	ins. ² Location: PL= Indicators for Problet 2 cm Muck (A10) (Coast Prairie Red 5 cm Mucky Peat Dark Surface (S7) Polyvalue Below S Thin Dark Surface Iron-Manganese M Piedmont Floodpla Mesic Spodic (TAI Red Parent Materi Very Shallow Dark	Pore Lining, M=Matrix. matic Hydric Soils ³ : LRR K, L, MLRA 149B) ox (A16) (LRR K, L, R) or Peat (S3) (LRR K, L, R) (LRR K, L) Surface (S8) (LRR K, L) (S9) (LRR K, L) Masses (F12) (LRR K, L, R) ain Soils (F19) (MLRA 149B) al (TF2) is Surface (TF12)
	face (S7) (LRR R, MLRA						Other (Explain in F	
	hydrophytic vegetation a ayer (if observed):	and wetland	l hydrology mus	t be prese	nt, unless	disturbed o	or problematic.	
Type:	ayer (ii observed).							
Depth (inc	hes)						Hydric Soil Present?	Yes No_X_
Remarks:			n .					
INU SOIIS (due to concrete line	el.						

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

	City/County: Nassau County Sampling Date: 8/30/18
	nchise Oversight Board) State: NY Sampling Point: U1
Investigator(s): David Kennedy	Section, Township, Range: hamlet of Elmont
Landform (hillslope, terrace, etc.): terrace	Local relief (concave, convex, none):none
	Long: _73° 43′ 26.74″ W Datum: WGS 84
	l-to-3 percent slopes (UrA) NWI classification PUBHx
Are climatic / hydrologic conditions on the site typical for this time of	
	ntly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrologynaturally	problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showi	ng sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes NoX	Is the Sampled Area
Hydric Soil Present? Yes NoX	within a Wetland? Yes NoX
Wetland Hydrology Present? Yes No X	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate re	port.)
Success 2000	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that app	
	ed Leaves (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fau	10 C 1 C
Saturation (A3) Marl Deposi	
	ulfide Odor (C1) Crayfish Burrows (C8) izospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
	Reduced Iron (C4) Stunted or Stressed Plants (D1)
	Reduction in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck S	
	ain in Remarks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No _X Depth (inch	es):
Water Table Present? Yes No X Depth (inch	
Saturation Present? Yes No X Depth (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial ph	
Describe Necotaca Data (Siream gauge, monitoring won, acriai pi	iotos, previous inspections), ii available,
Remarks:	

VECETATION	lea eciantific names	of plante

Absolute	Dominant	Indicator	Waterstand with the second
7 7 7 7 7 7 7 7	Species?		Dominance Test worksheet: Number of Dominant Species
_40	_yes	FACU	That Are OBL, FACW, or FAC: 1 (A)
10	<u>_yes</u> _	<u>FACU</u>	Total Number of Dominant
			Species Across All Strata: 7 (B)
			Percent of Dominant Species
			That Are OBL, FACW, or FAC: 14 (A/B)
			Bulliot sout that a strange of the
			Prevalence Index worksheet: Total % Cover of: Multiply by:
	= Total Cov	———	OBL species x 1 =
,	- 10ta100v		FACW species x 2 =
5	VOC	FACU	FAC species x 3 =
		_	FACU species x 4 =
		FACU	UPL species x 5 =
-			Column Totals: (A) (B)
			Prevalence Index = B/A =
			Hydrophytic Vegetation Indicators:
			Rapid Test for Hydrophytic Vegetation
	= Total Cov	ver	Dominance Test is >50%
			Prevalence Index is ≤3.0 ¹
5	ves	EAC	Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
-			Problematic Hydrophytic Vegetation (Explain)
			Problematic Hydrophytic regetation (Explain)
			Indicators of hydric soil and wetland hydrology must
-			be present, unless disturbed or problematic.
. —			Definitions of Vegetation Strata:
			Tree – Woody plants 3 in. (7.6 cm) or more in diameter
			at breast height (DBH), regardless of height.
			Sapling/shrub – Woody plants less than 3 in. DBH
			and greater than 3.28 ft (1 m) tall.
			Herb – All herbaceous (non-woody) plants, regardless
		=	of size, and woody plants less than 3.28 ft tall.
-			Woody vines – All woody vines greater than 3.28 ft in
			height.
	= Total Cov	/er	
			In A S 1 .
			Hydrophytic
			Vegetation
			Present? Yes No _X

Depth	cription: (Describe to Matrix		Redo	x Feature	s	100		
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	_Loc ²	Texture	Remarks
0-16	10YR 4/3	_100_	10YR 4/6				Loam, commer	
16-22			10YR 4/6				sandy sand, tra	
	oncentration, D=Deple Indicators:	etion, RM=	Reduced Matrix, C	S=Covere	d or Coate	d Sand Gr		: PL=Pore Lining, M=Matrix. roblematic Hydric Soils ³ :
Black H Hydroge Stratifie Deplete Thick D Sandy N Sandy F Stripped Dark Su	pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) urface (S7) (LRR R, Mil	LRA 149B) ace (S9) (I Mineral (F Matrix (F2 x (F3) urface (F6) Surface (F8)	LRR R, MI 1) (LRR K 2) -7)	.RA 149B	Coast Prairie Coast Prairie 5 cm Mucky Dark Surface Polyvalue Be Thin Dark Se Iron-Mangar Piedmont Fl Mesic Spodi Red Parent Very Shallow Other (Explain	A10) (LRR K, L, MLRA 149B) e Redox (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, R) e (S7) (LRR K, L) elow Surface (S8) (LRR K, L) urface (S9) (LRR K, L) nese Masses (F12) (LRR K, L, R) oodplain Soils (F19) (MLRA 149B) c (TA6) (MLRA 144A, 145, 149B) Material (TF2) v Dark Surface (TF12) tin in Remarks)
	of hydrophytic vegetation Layer (if observed):	on and we	tland hydrology mu	st be prese	ent, unless	disturbed	or problematic.	
Туре:			_					
Depth (in	ches):						Hydric Soil Pres	ent? Yes No <u>X</u>



Appendix G



Franchise Oversight Board

State Capitol Albany, New York 12224 Robert Williams, Chair Joseph J. Rabito, Member Anthony Rodolakis, Member James T. Towne, Jr., Member

Steven M. Lowenstein, Secretary David Perino, Counsel

September 6, 2018

Mr. Ronald Pinzon
Chief, Eastern Permits Section
United States Army Corps of Engineers
New York District
Regulatory Branch
Jacob K. Javits Federal Building
26 Federal Plaza, Room 1937
New York, New York 10278-0090

Re:

Request for Approved Jurisdictional Determination

Artificial Pond at Belmont Park 2150 Hempstead Turnpike Elmont, New York 11003

Dear Mr. Pinzon:

As the owner's authorized representative of the above-referenced property, please accept this letter as authorization for the U.S. Army Corps of Engineers to perform a site inspection in association with the wetland jurisdictional determination request for the property.

Sincerely,

Robert Williams

Chairman



DEPARTMENT OF THE ARMY

U.S. ARMY CORPS OF ENGINEERS, NEW YORK DISTRICT JACOB K. JAVITS FEDERAL BUILDING 26 FEDERAL PLAZA NEW YORK NEW YORK 10278-009

REGULATORY BRANCH

APR 2 9 2019

SUBJECT: Department of the Army Approved Jurisdictional Determination Number NAN-2018-01382-ESW Issued to the Empire State Development Corporation

Empire State Development Corporation Attn: Rachel Shatz 633 Third Avenue New York, New York 10017

Dear Ms. Shatz:

On September 19, 2018, the New York District of the U.S. Army Corps of Engineers received a request for a Department of the Army jurisdictional determination for the above referenced project. This request was made by David Kennedy, as consultant for VHB Engineering, Surveying, Landscape Architecture and Geology, P.C. The site consists of approximately 15 acres, in the Elmont Drain watershed, at Belmont Park in Elmont, Town of Hempstead, Nassau County, New York.

In the letter received on September 19, 2018, your office submitted a proposed delineation of the extent of waters of the United States within the project boundary. A site inspection was conducted by representatives of this office on October 30, 2018, in which it was determined that USACE concurred with the delineation report prepared by VHB Engineering, Surveying, Landscape Architecture and Geology, P.C., and dated September 18, 2018.

Wetland 1, delineated as P1-101 to P1-119, is located southeast within the site boundaries and is approximately is 0.12 acres. This delineated area, as shown on the drawings entitled "Pond Delineation Map", prepared by VHB Engineering, Surveying, Landscape Architecture and Geology, P.C., dated August 30, 2018, is considered to be excluded from consideration as a Water of the United States pursuant to 33 CFR 328.3(b)(4)(ii).

This determination regarding the delineation shall be considered valid for a period of five years from the date of this letter unless new information warrants revision of the determination before the expiration date.

This determination was documented using the Interim Approved Jurisdictional Determination Form, promulgated by the Corps of Engineers on October 1, 2015. A copy of that document is enclosed with this letter, and will be posted on the New York District website at:

http://www.nan.usace.army.mil/Missions/Regulatory/JurisdictionalDeterminations/RecentJurisdictionalDeterminations.aspx

SUBJECT: Department of the Army Approved Jurisdictional Determination Number NAN-2018-01382-ESW Issued to the Empire State Development Corporation

-2-

This delineation/determination has been conducted to identify the limits of the Corps Clean Water Act jurisdiction for the particular site identified in this request. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331. Enclosed is a combined Notification of Appeal Process (NAP) and Request For Appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the North Atlantic Division Office at the following address:

James W. Haggerty, Regulatory Program Manager, CENAD-PD-OR North Atlantic Division, U.S. Army Engineer Division Fort Hamilton Military Community General Lee Avenue, Building 301 Brooklyn, New York 11252-6700

In order for a RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR Park 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit a RFA form, it must be received at the above address by ________. It is not necessary to submit a RFA form to the Division Office if you do not object to the determination in this letter.

This delineation/determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

In order for us to better serve you, please complete our Customer Service Survey located at http://www.nan.usace.army.mil/Missions/Regulatory/CustomerSurvey.aspx.

SUBJECT: Department of the Army Approved Jurisdictional Determination Number NAN-2018-01382-ESW Issued to the Empire State Development Corporation

-3-

If any questions should arise concerning this matter, please contact Amanda M. Regan, of my staff, at (917) 790-8618.

Sincerely,

For and in behalf of

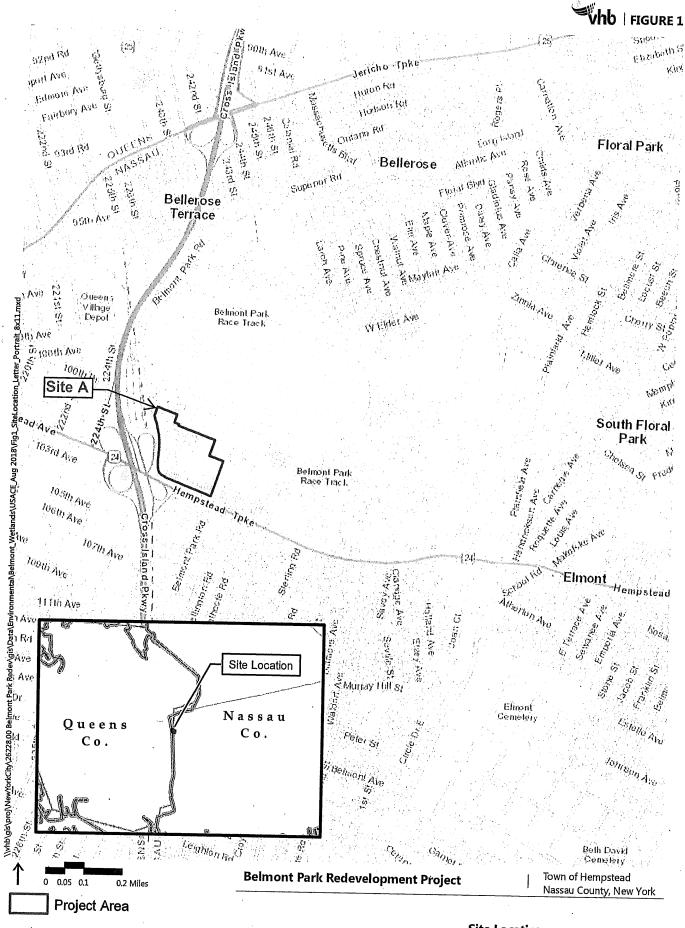
Stephan A. Ryba Chief, Regulatory Branch

Enclosures

Copy furnished:

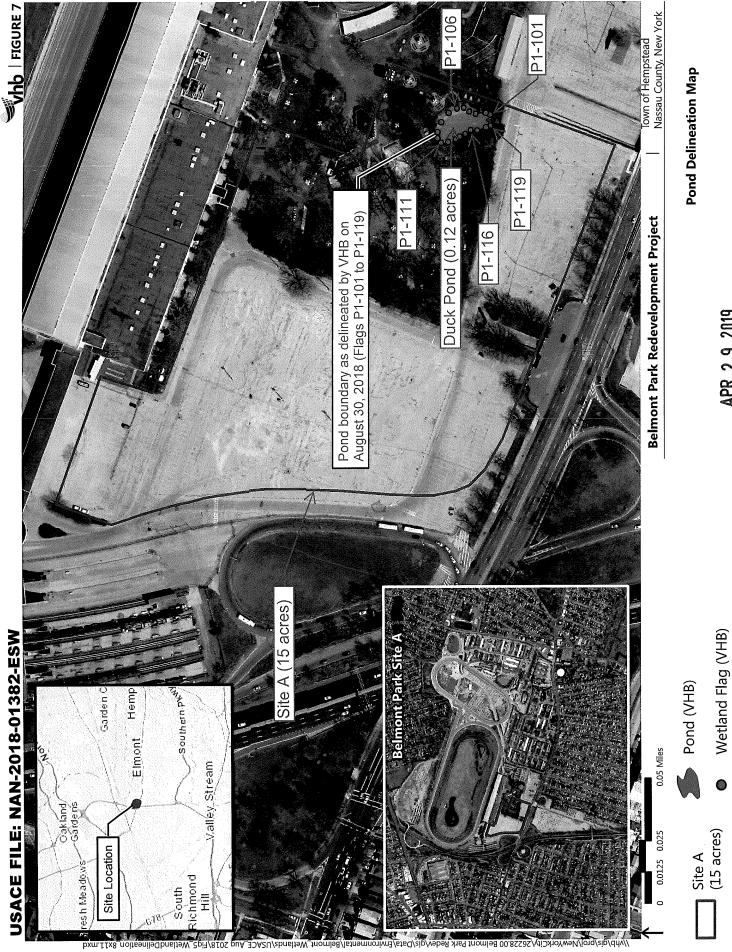
VHB Engineering, Surveying, Landscape Architecture and Geology, P.C. Attn: David Kennedy 100 Motor Parkway, Suite 135 Hauppage, New York 11788

USACE FILE: NAN-2018-01382-ESW



Site Location

APR 2 9 2019



Data Plot (VHB)





Regulatory Program

INTERIM APPROVED JURISDICTIONAL DETERMINATION FORM U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in the Interim Approved Jurisdictional Determination Form User Manual.

SECTION I: BACKGROUND INFORMATION

Applicable/supporting scientific literature:

A. COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (AJD):

APR 2 9 2019

B. ORM NUMBER IN APPROPRIATE FORMAT (e.g., HQ-2015-00001-SMJ): NAN-2018-01382-ESW C. PROJECT LOCATION AND BACKGROUND INFORMATION: State:New York County/parish/borough: Nassau City: Hempstead Center coordinates of site (lat/long in degree decimal format): Lat. 40.711114, Long. -73.724074. Map(s)/diagram(s) of review area (including map identifying single point of entry (SPOE) watershed and/or potential jurisdictional areas where applicable) is/are: attached 🔀 in report/map titled Pond Delineation Report Belmont Park - Site A. Other sites (e.g., offsite mitigation sites, disposal sites, etc.) are associated with this action and are recorded on a different jurisdictional determination (JD) form. List JD form ID numbers (e.g., HQ-2015-00001-SMJ-1): D. REVIEW PERFORMED FOR SITE EVALUATION: Office (Desk) Determination Only. Date: Office (Desk) and Field Determination. Office/Desk Dates: April 16, 2019 Field Date(s): October 30, 2018. **SECTION II: DATA SOURCES** Check all that were used to aid in the determination and attach data/maps to this AJD form and/or references/citations in the administrative record, as appropriate. Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant. Title/Date: Pond Delineation Map, August 30, 2018. Data sheets prepared/submitted by or on behalf of the applicant/consultant. Data sheets/delineation report are sufficient for purposes of AJD form. Title/Date: Data sheets/delineation report are not sufficient for purposes of AJD form. Summarize rationale and include information on revised data sheets/delineation report that this AJD form has relied upon: Revised Title/Date: Data sheets prepared by the Corps. Title/Date: Corps navigable waters study. Title/Date: CorpsMap ORM map layers. Title/Date: USGS Hydrologic Atlas. Title/Date: USGS, NHD, or WBD data/maps. Title/Date: USGS 8, 10 and/or 12 digit HUC maps. HUC number: USGS maps. Scale & guad name and date: ☑ USDA NRCS Soil Survey. Citation: Soils Map (2015). USFWS National Wetlands Inventory maps. Citation: NWI, NHD and NYSDEC Wetlands/Streams. State/Local wetland inventory maps. Citation: FEMA/FIRM maps. Citation: Photographs:
 Aerial. Citation: Stormwater Drainage Tributary Map. or
 Other. Citation: August 30, 2018. LiDAR data/maps. Citation: Previous JDs. File no. and date of JD letter: Applicable/supporting case law:

Page 1 of 7 Version: October 1, 2015

☑ Other information (please specify): Wetland Delineation Report.

SECTION III: SUMMARY OF FINDINGS

Complete ORM "Aquatic Resource Upload Sheet" or Export and Print the Aquatic Resource Water Droplet Screen from ORM for All Waters and Features, Regardless of Jurisdictional Status – Required

	RIVERS AND HARBORS ACT (RHA) SECTION 10 DETERMINATION OF JURISDICTION:
	"navigable waters of the U.S." within RHA jurisdiction (as defined by 33 CFR part 329) in the review area.
	Complete Table 1 - Required
	OTE: If the navigable water is not subject to the ebb and flow of the tide or included on the District's list of Section
	navigable waters list, DO NOT USE THIS FORM TO MAKE THE DETERMINATION. The District must continue to
follo	ow the procedure outlined in 33 CFR part 329.14 to make a Section 10 RHA navigability determination.
B.	CLEAN WATER ACT (CWA) SECTION 404 DETERMINATION OF JURISDICTION: "waters of the U.S." within
	/A jurisdiction (as defined by 33 CFR part 328.3) in the review area. Check all that apply.
	(a)(1): All waters which are currently used, were used in the past, or may be susceptible to use in interstate or
	foreign commerce, including all waters which are subject to the ebb and flow of the tide. (Traditional Navigable
	Waters (TNWs))
	Complete Table 1 - Required
	This AJD includes a case-specific (a)(1) TNW (Section 404 navigable-in-fact) determination on a water that
	has not previously been designated as such. Documentation required for this case-specific (a)(1) TNW
	determination is attached.
	(a)(2): All interstate waters, including interstate wetlands.
_	Complete Table 2 - Required
	(a)(3): The territorial seas.
rical	Complete Table 3 - Required
	(a)(4): All impoundments of waters otherwise identified as waters of the U.S. under 33 CFR part 328.3.
-over	• Complete Table 4 - Required
	(a)(5): All tributaries, as defined in 33 CFR part 328.3, of waters identified in paragraphs (a)(1)-(a)(3) of 33 CFR
	part 328.3.
1000	• Complete Table 5 - Required
	(a)(6): All waters adjacent to a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3, including
	wetlands, ponds, lakes, oxbows, impoundments, and similar waters. • Complete Table 6 - Required
	Bordering/Contiguous.
	Neighboring:
	(c)(2)(i): All waters located within 100 feet of the ordinary high water mark (OHWM) of a water identified in
	paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3.
	(c)(2)(ii): All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1)-(a)(5) of
	33 CFR part 328.3 and not more than 1,500 feet of the OHWM of such water.
	(c)(2)(iii): All waters located within 1,500 feet of the high tide line of a water identified in paragraphs (a)(1) or
	(a)(3) of 33 CFR part 328.3, and all waters within 1,500 feet of the OHWM of the Great Lakes.
	(a)(7): All waters identified in 33 CFR 328.3(a)(7)(i)-(v) where they are determined, on a case-specific basis, to
	have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.
	 Complete Table 7 for the significant nexus determination. Attach a map delineating the SPOE
	watershed boundary with (a)(7) waters identified in the similarly situated analysis Required
	Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established,
	normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent
2005	and require a case-specific significant nexus determination.
	(a)(8): All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1)-(a)(3) of 33
	CFR part 328.3 not covered by (c)(2)(ii) above and all waters located within 4,000 feet of the high tide line or
	OHWM of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3 where they are determined on a
	case-specific basis to have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.
	• Complete Table 8 for the significant nexus determination. Attach a map delineating the SPOE
	- Symplete Table o for the significant nexas acteniniation. Attach a map acinicating the Of OL

watershed boundary with (a)(8) waters identified in the similarly situated analysis. - Required

d for established, e not adjacent
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Version: October 1, 2015

¹ In many cases these excluded features will not be specifically identified on the AJD form, unless specifically requested. Corps Districts may, in case-by-case instances, choose to identify some or all of these features within the review area.

Page 3 of 7

Version: October 1, 20

Version: October 1, 2015

Jurisdictional Waters of the U.S.

Table 1. Non-Waters/Excluded Waters and Features

Paragraph (b) Excluded Feature/Water Name	Rationale for Paragraph (b) Excluded Feature/Water and Additional Discussion.
Wetland 1	Wetland 1 is approximately 0.12 acres and is a concrete enclosed pond excavated in an upland area, as evident from a 1924 aerial image. This water appears to be sustained by precipitation, exhibits evidence of subsurface drainage off-site into a municipal drainage system with output greater than 6,000 linear feet from the water resource to a basin with no connection to a waterway or wetland system with no immediate hydrologic connection to any waters of the U.S. are present on-site or off-site, to the immediate north, south, east or west,, and is surrounded by concrete and upland plant communities with non-hydric soils. Wetland 1 is excluded from being considered a Water of the United States because it appears to be a manmade concrete enclosed pond without any natural features created from an upland area. In accordance with 33 CFR 328.3 (b)(4)(v), "artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice
	growing, log cleaning ponds, or cooling ponds;" quality as Non-Waters and are excluded from USACE jurisdiction under the Clean Water Rule.

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NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

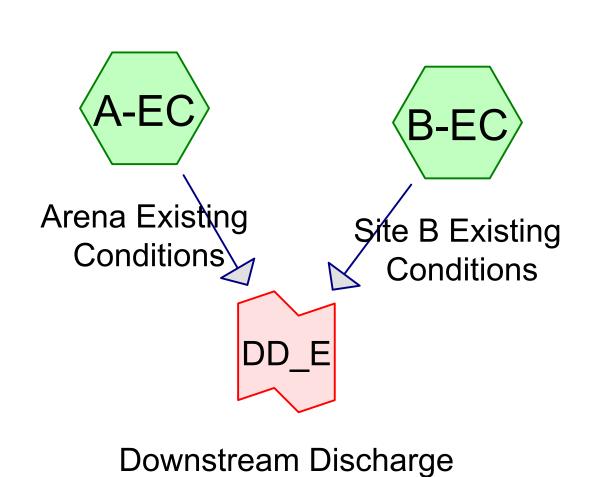
Applie	cant: Empire State Dev. Corp.	File Number: NAN-2018-01382-ESW	Date APR 2 9 2019
Attacl	See Section below		
	INITIAL PROFFERED PERMIT (Sta	A	
	PROFFERED PERMIT (Standard Per	В	
	PERMIT DENIAL	C	
X	APPROVED JURISDICTIONAL DE	D	
	PRELIMINARY JURISDICTIONAL	Е	

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at

http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/appeals.aspx or Corps regulations at 33 CFR Part 331.

- A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.
- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.
- B: PROFFERED PERMIT: You may accept or appeal the permit
- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.
- C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.
- D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.
- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.
- E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II DEGLECT FOR ADDEAL OF ODJECTI	ONG TO AN INITIAL DRO	ENEDEDMAT
SECTION II - REQUEST FOR APPEAL or OBJECTION REASONS FOR APPEAL OR OBJECTIONS: (Describinitial proffered permit in clear concise statements. You may attactor objections are addressed in the administrative record.)	pe your reasons for appealing the d	lecision or your objections to an
ADDITIONAL INFORMATION: The appeal is limited to a review record of the appeal conference or meeting, and any supplemental clarify the administrative record. Neither the appellant nor the Coryou may provide additional information to clarify the location of in	information that the review officer rps may add new information or ar	r has determined is needed to nalyses to the record. However,
POINT OF CONTACT FOR QUESTIONS OR INFOR	MATION:	
If you have questions regarding this decision and/or the appeal process you may contact: Mr. Stephan A. Ryba	If you only have questions regard also contact: Mr. James W. Haggerty	ding the appeal process you may
Chief, Regulatory Branch (CENAN-OP-R) NY District, U.S. Army Corps of Engineers	Regulatory Program Manager (CEN U.S. Army Corps of Engineers Fort Hamilton Military Community	AD-PD-OR)
26 Federal Plaza, Room 1937 New York, NY 10278-0090 Telephone number: 917-790-8512	General Lee Avenue, Building 301 Brooklyn, New York 11252-6700 Telephone number: 347-370-4650	
RIGHT OF ENTRY: Your signature below grants the right of entriconsultants, to conduct investigations of the project site during the notice of any site investigation, and will have the opportunity to pa	course of the appeal process. You	
	Date:	Telephone number:
Signature of appellant or agent.		











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Page 2

Area Listing (selected nodes)

Area	CN	Description	
(acres)		(subcatchment-numbers)	
6.495	69	50-75% Grass cover, Fair, HSG B (A-EC, B-EC)	
13.802	98	Impervious (Roof and Pavement) (A-EC)	
25.836	98	Impervious (Rooftop/Pavement) (B-EC)	
46.133	94	TOTAL AREA	

Page 3

N17425-SiteASiteB

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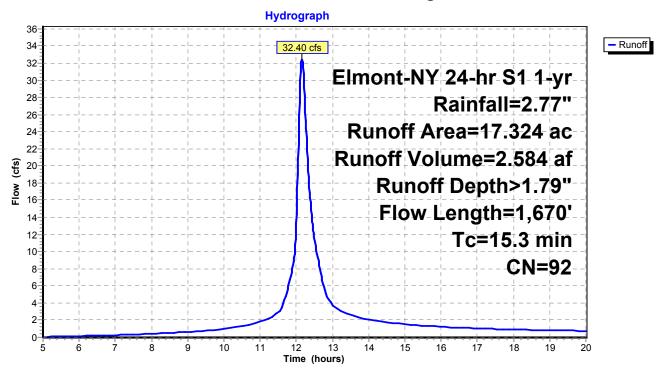
Summary for Subcatchment A-EC: Arena Existing Conditions

Runoff = 32.40 cfs @ 12.16 hrs, Volume= 2.584 af, Depth> 1.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont-NY 24-hr S1 1-yr Rainfall=2.77"

	Area	(ac) C	N Des	cription		
*	* 13.802 98 Impervious (Roof and Pave			ervious (Ro	oof and Pav	vement)
	3.522 69 50-75% Grass cover, Fair,			5% Grass	cover, Fair	r, HSG B
	17.324 92 Weighted Average			hted Aver	age	
	3.522 20.33% Pervious Area			•	•	
	13.802 79.67% Impervious Area		ious Area			
	Tc	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	6.7	50	0.0150	0.12		Sheet Flow, Grass Sheet flow
						Grass: Short n= 0.150 P2= 2.80"
	1.0	50	0.0100	0.85		Sheet Flow, Pavement Sheet Flow
						Smooth surfaces n= 0.011 P2= 2.80"
	7.6	1,570	0.0050	3.46	4.24	Pipe Channel, 1500 Ft Pipe flow
						15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31'
						n= 0.014 Concrete pipe, bends & connections
	15.3	1,670	Total			

Subcatchment A-EC: Arena Existing Conditions



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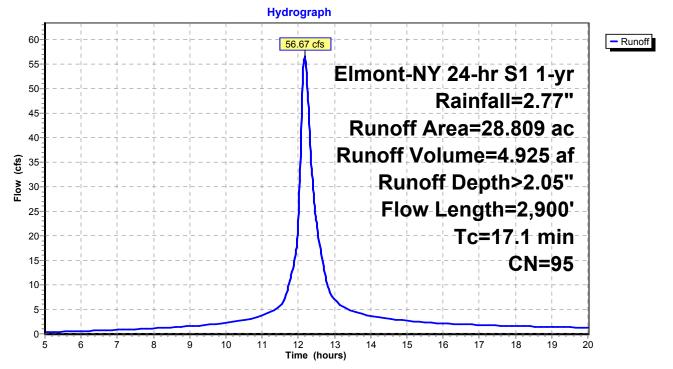
Summary for Subcatchment B-EC: Site B Existing Conditions

Runoff = 56.67 cfs @ 12.18 hrs, Volume= 4.925 af, Depth> 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont-NY 24-hr S1 1-yr Rainfall=2.77"

_	Area	(ac) C	N Des	cription		
*	25.	836	98 Impe	ervious (Ro	ooftop/Pave	ement)
	2.	, HSG B				
	28.	809 9	95 Weig	ghted Aver	age	
	2.	973	10.3	2% Pervio	us Area	
	25.	836	89.6	8% Imperv	vious Area	
	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	1.7	100	0.0100	0.98		Sheet Flow, 100 Ft Sheet flow
						Smooth surfaces n= 0.011 P2= 2.80"
	15.4	2,800	0.0033	3.02	3.71	Pipe Channel, 2800 Ft Pipe Flow
						15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31'
						n= 0.013 Concrete pipe, bends & connections
	17.1	2,900	Total			

Subcatchment B-EC: Site B Existing Conditions



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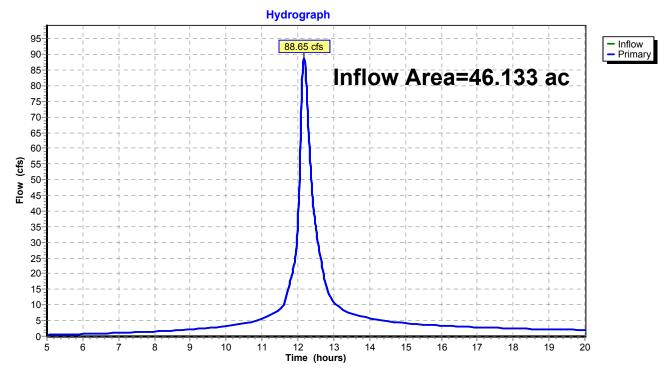
Summary for Link DD_E: Downstream Discharge

Inflow Area = 46.133 ac, 85.92% Impervious, Inflow Depth > 1.95" for 1-yr event

Inflow = 88.65 cfs @ 12.17 hrs, Volume= 7.508 af

Primary = 88.65 cfs @ 12.17 hrs, Volume= 7.508 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs



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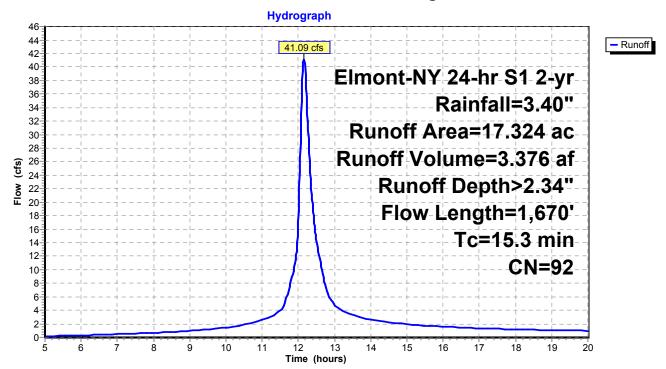
Summary for Subcatchment A-EC: Arena Existing Conditions

Runoff = 41.09 cfs @ 12.16 hrs, Volume= 3.376 af, Depth> 2.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont-NY 24-hr S1 2-yr Rainfall=3.40"

	Area	(ac) C	N Desc	cription				
*	13.802 98 Ir		8 Impe	Impervious (Roof and Pavement)				
	3.522 69 50-75% Grass cover, Fair,					r, HSG B		
	17.324 92 Weighted Average							
	3.522 20.33% Pervious			3% Pervio	us Area			
	13.	802	79.6	7% Imper	ious Area			
	_				_			
	Tc	Length	Slope	Velocity	Capacity	Description		
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
	6.7	50	0.0150	0.12		Sheet Flow, Grass Sheet flow		
						Grass: Short n= 0.150 P2= 2.80"		
	1.0	50	0.0100	0.85		Sheet Flow, Pavement Sheet Flow		
						Smooth surfaces n= 0.011 P2= 2.80"		
	7.6	1,570	0.0050	3.46	4.24	Pipe Channel, 1500 Ft Pipe flow		
						15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31'		
						n= 0.014 Concrete pipe, bends & connections		
	15.3	1,670	Total					

Subcatchment A-EC: Arena Existing Conditions



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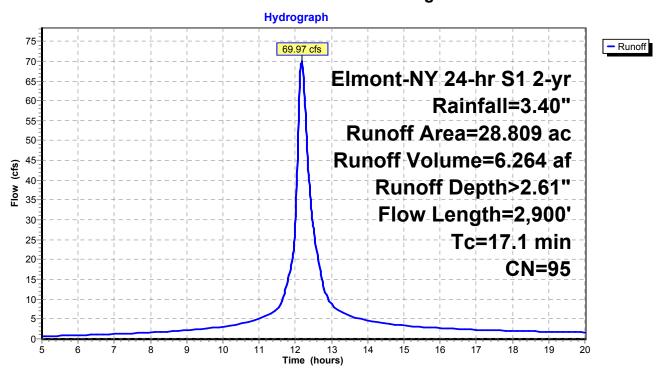
Summary for Subcatchment B-EC: Site B Existing Conditions

Runoff = 69.97 cfs @ 12.18 hrs, Volume= 6.264 af, Depth> 2.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont-NY 24-hr S1 2-yr Rainfall=3.40"

	Area	(ac) C	N Des	cription		
*	* 25.836 98 Impervious (Rooftop/Pave					ement)
	2.	973	69 50-7	5% Grass	cover, Fair	r, HSG B
	28.	809	95 Weig	ghted Aver	age	
	2.	973	10.3	2% Pervio	us Area	
	25.836 89.68% Impervious Area					
	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	1.7	100	0.0100	0.98		Sheet Flow, 100 Ft Sheet flow
						Smooth surfaces n= 0.011 P2= 2.80"
	15.4	2,800	0.0033	3.02	3.71	Pipe Channel, 2800 Ft Pipe Flow
						15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31'
_						n= 0.013 Concrete pipe, bends & connections
	17.1	2,900	Total			

Subcatchment B-EC: Site B Existing Conditions



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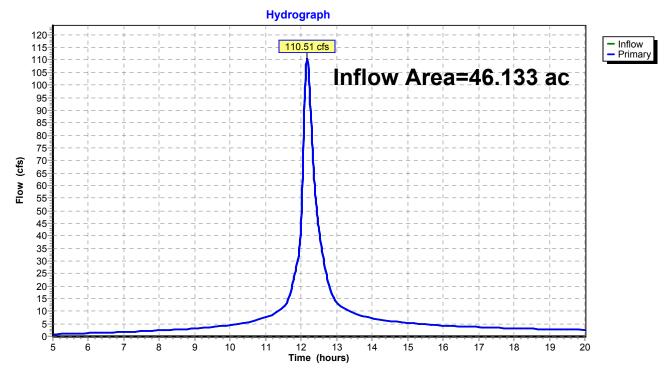
Summary for Link DD_E: Downstream Discharge

Inflow Area = 46.133 ac, 85.92% Impervious, Inflow Depth > 2.51" for 2-yr event

Inflow = 110.51 cfs @ 12.17 hrs, Volume= 9.640 af

Primary = 110.51 cfs @ 12.17 hrs, Volume= 9.640 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs



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Page 9

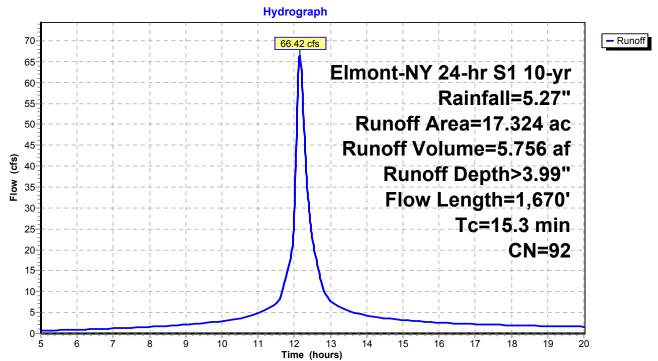
Summary for Subcatchment A-EC: Arena Existing Conditions

Runoff 66.42 cfs @ 12.15 hrs, Volume= 5.756 af, Depth> 3.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont-NY 24-hr S1 10-yr Rainfall=5.27"

	Area	(ac) C	N Desc	cription				
*	13.	802 9	8 Impe	ervious (Ro	oof and Pav	vement)		
	3.	522 6	69 50 ⁻ 7	5% Grass	cover, Fair	; HSG B		
	17.324 92 Weighted Average					,		
	3.522 20.33% Pervious Area				•			
	13.802			79.67% Impervious Area				
				. ,				
	Tc	Length	Slope	Velocity	Capacity	Description		
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	·		
	6.7	50	0.0150	0.12	, ,	Sheet Flow, Grass Sheet flow		
				• • • • • • • • • • • • • • • • • • • •		Grass: Short n= 0.150 P2= 2.80"		
	1.0	50	0.0100	0.85		Sheet Flow, Pavement Sheet Flow		
						Smooth surfaces n= 0.011 P2= 2.80"		
	7.6	1,570	0.0050	3.46	4.24	Pipe Channel, 1500 Ft Pipe flow		
		•				15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31'		
						n= 0.014 Concrete pipe, bends & connections		
	15.3	1,670	Total					

Subcatchment A-EC: Arena Existing Conditions



Page 10

Summary for Subcatchment B-EC: Site B Existing Conditions

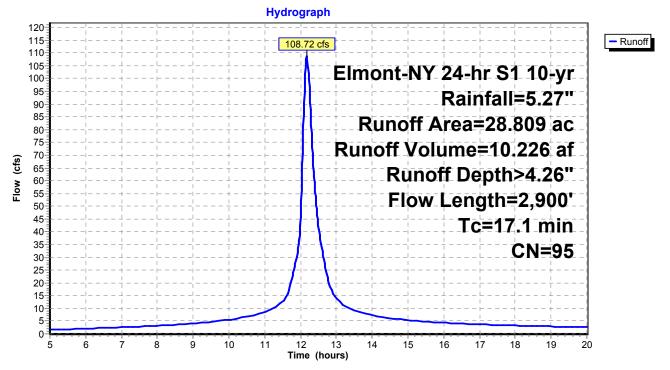
Runoff 108.72 cfs @ 12.18 hrs, Volume= 10.226 af, Depth> 4.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont-NY 24-hr S1 10-yr Rainfall=5.27"

	Area	(ac) (N Des	cription		
*	25.836 98 Impervious (Rooftop/Paver					ement)
_	2.	973	; HSG B			
	28.	809	95 Wei	ghted Aver	age	
	2.	973	10.3	2% Pervio	us Area	
	25.	836	89.6	8% Imper	ious Area	
	Tc	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	1.7	100	0.0100	0.98		Sheet Flow, 100 Ft Sheet flow
						Smooth surfaces n= 0.011 P2= 2.80"
	15.4	2,800	0.0033	3.02	3.71	Pipe Channel, 2800 Ft Pipe Flow
						15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31'
_						n= 0.013 Concrete pipe, bends & connections
	17.1	2,900	Total			

2,900 Total

Subcatchment B-EC: Site B Existing Conditions



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Page 11

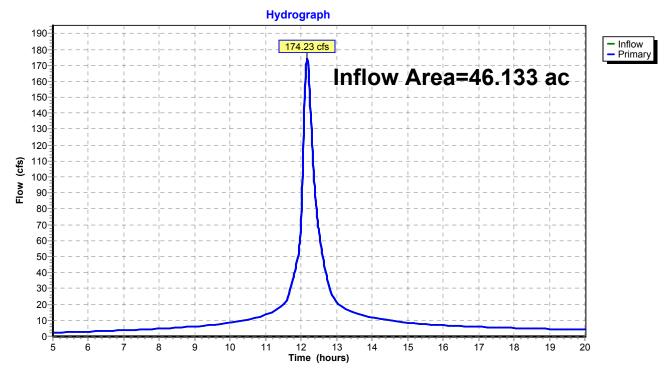
Summary for Link DD_E: Downstream Discharge

Inflow Area = 46.133 ac, 85.92% Impervious, Inflow Depth > 4.16" for 10-yr event

Inflow = 174.23 cfs @ 12.17 hrs, Volume= 15.982 af

Primary = 174.23 cfs @ 12.17 hrs, Volume= 15.982 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs



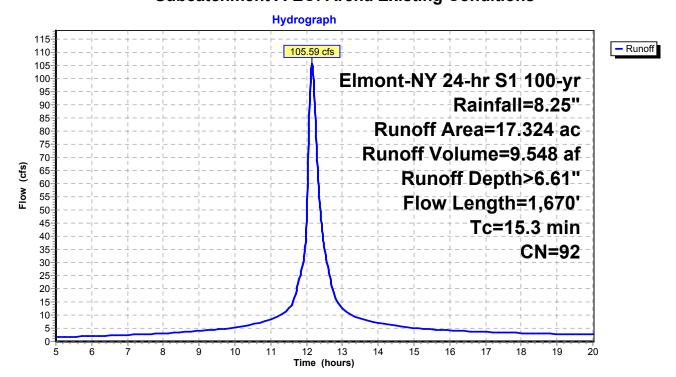
Summary for Subcatchment A-EC: Arena Existing Conditions

Runoff = 105.59 cfs @ 12.15 hrs, Volume= 9.548 af, Depth> 6.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont-NY 24-hr S1 100-yr Rainfall=8.25"

	Area	(ac) C	N Desc	cription				
*	13.	802 9		Impervious (Roof and Pavement)				
	3.522 69 50-75% Grass c				cover, Fair	r, HSG B		
	17.324 92 Weighted Average				age			
	3.522			3% Pervio	us Area			
	13.802			7% Imperv	vious Area			
				-				
	Tc	Length	Slope	Velocity	Capacity	Description		
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
	6.7	50	0.0150	0.12		Sheet Flow, Grass Sheet flow		
						Grass: Short n= 0.150 P2= 2.80"		
	1.0	50	0.0100	0.85		Sheet Flow, Pavement Sheet Flow		
						Smooth surfaces n= 0.011 P2= 2.80"		
	7.6	1,570	0.0050	3.46	4.24	Pipe Channel, 1500 Ft Pipe flow		
						15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31'		
						n= 0.014 Concrete pipe, bends & connections		
	15.3	1,670	Total	·				

Subcatchment A-EC: Arena Existing Conditions



Page 13

Summary for Subcatchment B-EC: Site B Existing Conditions

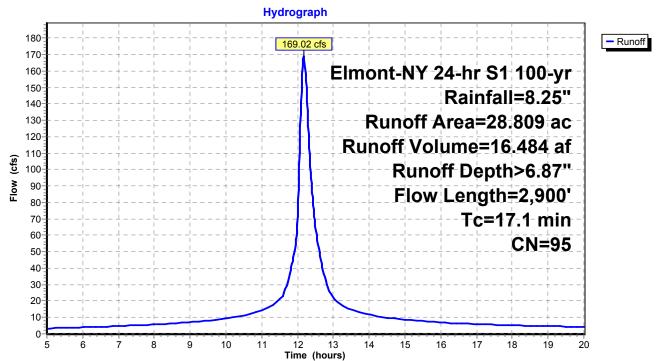
Runoff = 169.02 cfs @ 12.18 hrs, Volume= 16.484 af, Depth> 6.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont-NY 24-hr S1 100-yr Rainfall=8.25"

	Area	(ac) C	N Des	cription		
*	25.	836	98 Impe	ervious (Ro	ooftop/Pave	ement)
	2.	973	69 50-7	5% Grass	cover, Fair	r, HSG B
	28.	809	95 Wei	ghted Aver	age	
	2.	973	10.3	2% Pervio	us Area	
	25.	836	89.6	8% Imperv	ious Area	
	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	1.7	100	0.0100	0.98		Sheet Flow, 100 Ft Sheet flow
						Smooth surfaces n= 0.011 P2= 2.80"
	15.4	2,800	0.0033	3.02	3.71	Pipe Channel, 2800 Ft Pipe Flow
						15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31'
						n= 0.013 Concrete pipe, bends & connections
	17 1	2 200	Tatal	<u> </u>	<u> </u>	

17.1 2,900 Total

Subcatchment B-EC: Site B Existing Conditions



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Page 14

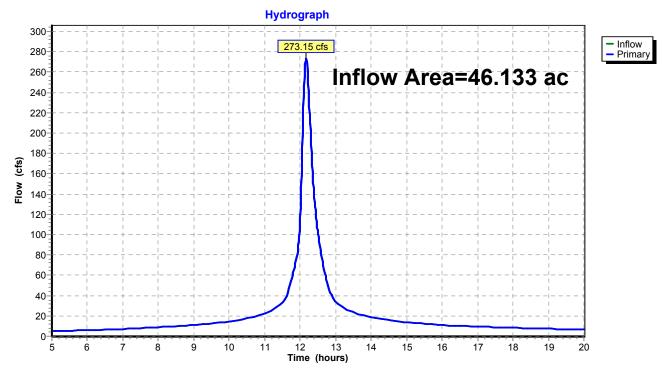
Summary for Link DD_E: Downstream Discharge

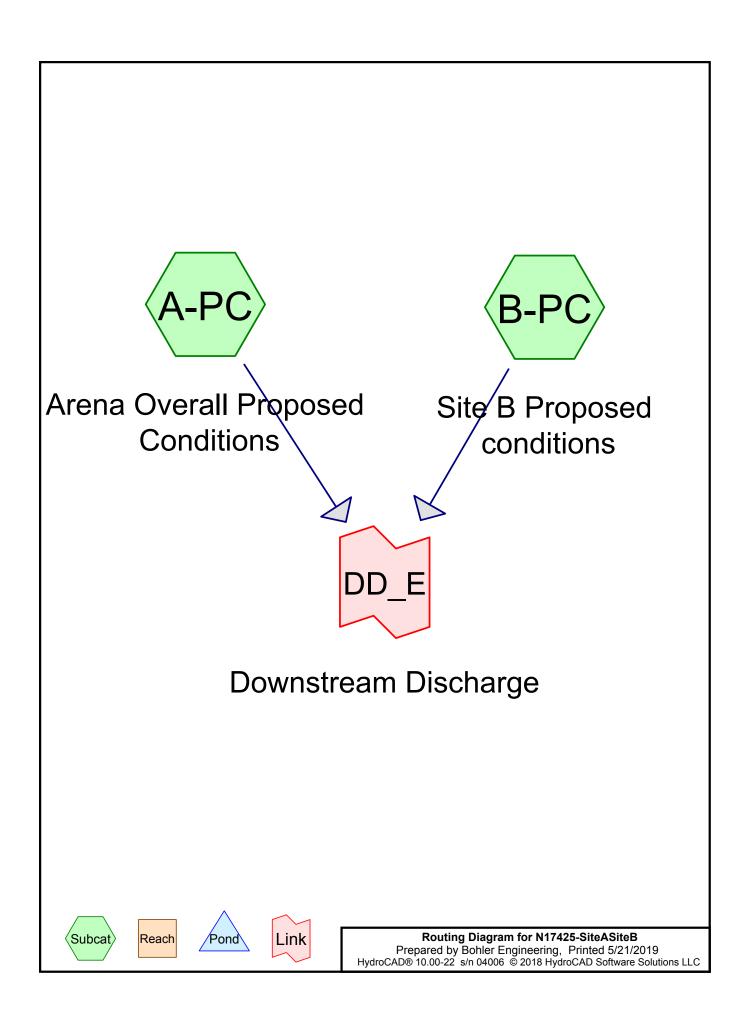
Inflow Area = 46.133 ac, 85.92% Impervious, Inflow Depth > 6.77" for 100-yr event

Inflow = 273.15 cfs @ 12.17 hrs, Volume= 26.032 af

Primary = 273.15 cfs @ 12.17 hrs, Volume= 26.032 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs





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Page 2

Area Listing (selected nodes)

Area	CN	Description
(acres)		(subcatchment-numbers)
35.925	98	Impervious (A-PC, B-PC)
10.209	69	Landscaped (A-PC, B-PC)
46.134	92	TOTAL AREA

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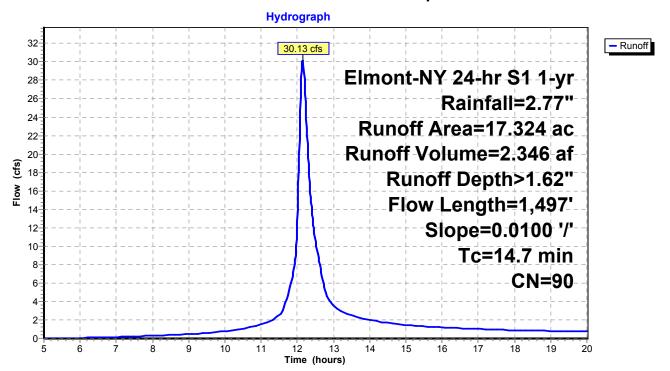
Summary for Subcatchment A-PC: Arena Overall Proposed Conditions

Runoff = 30.13 cfs @ 12.15 hrs, Volume= 2.346 af, Depth> 1.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont-NY 24-hr S1 1-yr Rainfall=2.77"

	Area	(ac) C	N Des	cription		
*	* 12.736 98 Impervious					
*	4.	588 6	39 Land	dscaped		
	17.324 90 Weighted Average				age	
	4.588 26.48% Pervious Area				us Area	
	12.736 73.52% Impervious Area			2% Imperv	ious Area	
				•		
	Tc	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	9.6	63	0.0100	0.11		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.80"
	2.0	249	0.0100	2.03		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	3.1	1,185	0.0100	6.44	11.38	Pipe Channel,
						18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38'
_						n= 0.012 Corrugated PP, smooth interior
	14.7	1,497	Total			

Subcatchment A-PC: Arena Overall Proposed Conditions



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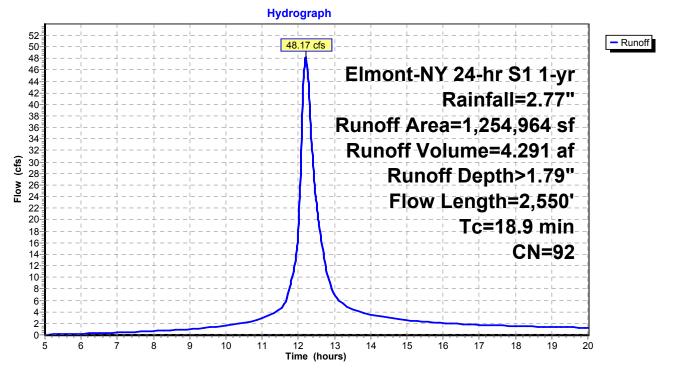
Summary for Subcatchment B-PC: Site B Proposed conditions

Runoff = 48.17 cfs @ 12.20 hrs, Volume= 4.291 af, Depth> 1.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont-NY 24-hr S1 1-yr Rainfall=2.77"

_	Α	rea (sf)	CN [Description					
*	1,0	10,113	98 I	mpervious					
*	2	44,851	69 L	.andscaped	b				
	1,254,964 92			Weighted Average					
	2	44,851	1	19.51% Pervious Area					
	1,010,113 80.49% Imper			0.49% lmp	pervious Are	ea			
	Тс	Length	Slope	Velocity	Capacity	Description			
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
	6.7	50	0.0150	0.12		Sheet Flow, Grass to Drain			
						Grass: Short n= 0.150 P2= 2.80"			
	12.2	2,500	0.0033	3.41	6.03	Pipe Channel, Pipe			
						18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38'			
_						n= 0.013 Concrete pipe, bends & connections			
	18.9	2,550	Total						

Subcatchment B-PC: Site B Proposed conditions



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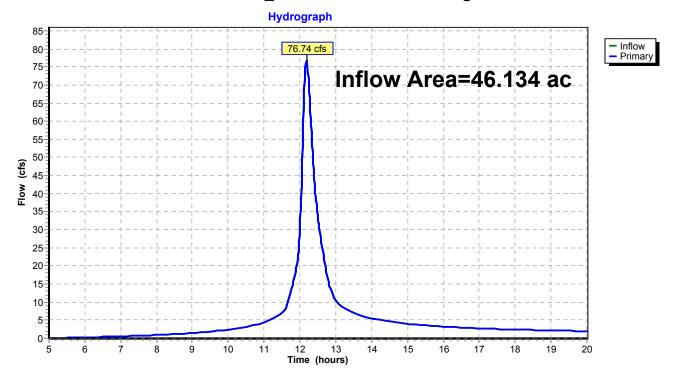
Summary for Link DD_E: Downstream Discharge

Inflow Area = 46.134 ac, 77.87% Impervious, Inflow Depth > 1.73" for 1-yr event

Inflow = 76.74 cfs @ 12.18 hrs, Volume= 6.637 af

Primary = 76.74 cfs @ 12.18 hrs, Volume= 6.637 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs



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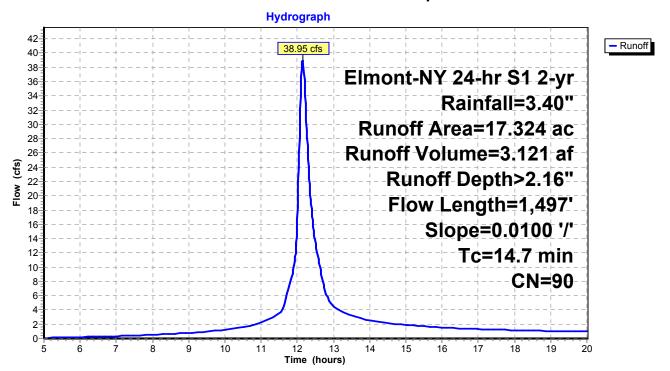
Summary for Subcatchment A-PC: Arena Overall Proposed Conditions

Runoff = 38.95 cfs @ 12.15 hrs, Volume= 3.121 af, Depth> 2.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont-NY 24-hr S1 2-yr Rainfall=3.40"

	Area	(ac) (N Des	cription		
*	12.	736	98 Imp	ervious		
*	4.	588	69 Lan	dscaped		
	17.	324	90 Wei	ghted Avei	rage	
	4.	588		18% Pervio	0	
	12.	736	73.5	52% Imper	vious Area	
	Tc	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	9.6	63	0.0100	0.11		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.80"
	2.0	249	0.0100	2.03		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	3.1	1,185	0.0100	6.44	11.38	Pipe Channel,
						18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38'
						n= 0.012 Corrugated PP, smooth interior
	14.7	1,497	Total			

Subcatchment A-PC: Arena Overall Proposed Conditions



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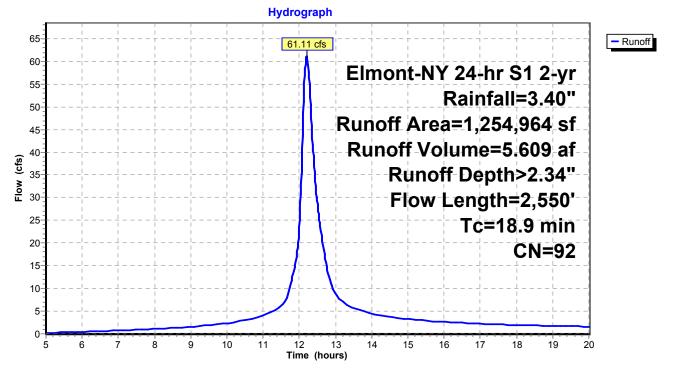
Summary for Subcatchment B-PC: Site B Proposed conditions

Runoff = 61.11 cfs @ 12.20 hrs, Volume= 5.609 af, Depth> 2.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont-NY 24-hr S1 2-yr Rainfall=3.40"

	Aı	rea (sf)	CN D	escription		
*	1,0	10,113	98 Ir	npervious		
*	2	44,851	69 L	andscaped	b	
	1,254,964 92 Weighted Average					
	2	44,851			vious Area	
	1,0	10,113	8	0.49% Imp	ervious Ar	ea
	, ,					
	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	6.7	50	0.0150	0.12		Sheet Flow, Grass to Drain
						Grass: Short n= 0.150 P2= 2.80"
	12.2	2,500	0.0033	3.41	6.03	Pipe Channel, Pipe
						18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38'
						n= 0.013 Concrete pipe, bends & connections
	18.9	2,550	Total			

Subcatchment B-PC: Site B Proposed conditions



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Page 8

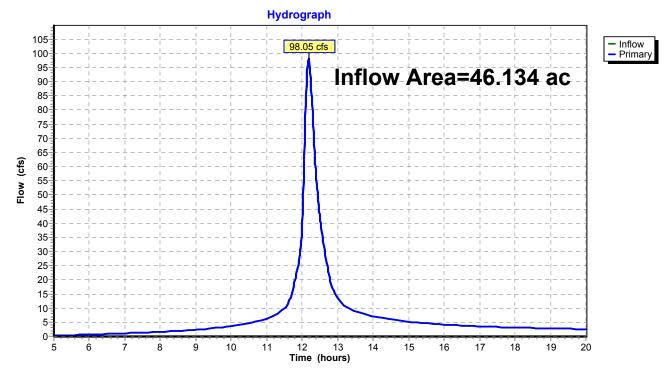
Summary for Link DD_E: Downstream Discharge

Inflow Area = 46.134 ac, 77.87% Impervious, Inflow Depth > 2.27" for 2-yr event

Inflow = 98.05 cfs @ 12.18 hrs, Volume= 8.729 af

Primary = 98.05 cfs @ 12.18 hrs, Volume= 8.729 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs



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<u> Page 9</u>

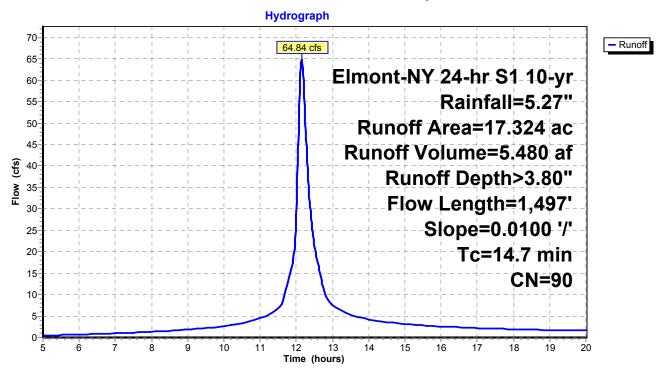
Summary for Subcatchment A-PC: Arena Overall Proposed Conditions

Runoff = 64.84 cfs @ 12.15 hrs, Volume= 5.480 af, Depth> 3.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont-NY 24-hr S1 10-yr Rainfall=5.27"

	Area	(ac) (ON D	esc	cription		
*	* 12.736 98		98 Ir	Impervious			
*	4.	588			Iscaped		
	17.	324	90 V	Weighted Average			
	4.	588		•	8% Pervio	•	
	12.	736	7	3.5	2% Imper	ious Area	
	Tc	Length	Slo	ое	Velocity	Capacity	Description
	(min)	(feet)	(ft/	ft)	(ft/sec)	(cfs)	
	9.6	63	0.01	00	0.11		Sheet Flow,
							Grass: Short n= 0.150 P2= 2.80"
	2.0	249	0.01	00	2.03		Shallow Concentrated Flow,
							Paved Kv= 20.3 fps
	3.1	1,185	0.01	00	6.44	11.38	Pipe Channel,
							18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38'
_							n= 0.012 Corrugated PP, smooth interior
	14.7	1,497	Tota				

Subcatchment A-PC: Arena Overall Proposed Conditions



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Page 10

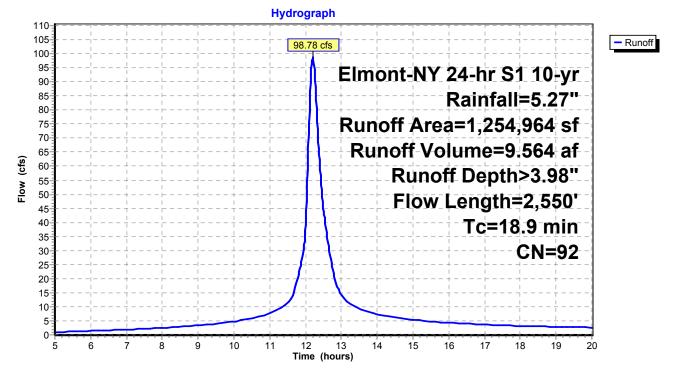
Summary for Subcatchment B-PC: Site B Proposed conditions

Runoff = 98.78 cfs @ 12.20 hrs, Volume= 9.564 af, Depth> 3.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont-NY 24-hr S1 10-yr Rainfall=5.27"

_	Α	rea (sf)	CN E	Description					
*	1,0	10,113	98 lı	mpervious					
*	2	44,851	69 L	andscaped	b				
	1,2	54,964	92 V	Veighted A	verage				
	2	44,851	1	19.51% Pervious Area					
	1,010,113 80.49% Impervious Are				ervious Ar	ea			
	Тс	Length	Slope	Velocity	Capacity	Description			
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
	6.7	50	0.0150	0.12		Sheet Flow, Grass to Drain			
						Grass: Short n= 0.150 P2= 2.80"			
	12.2	2,500	0.0033	3.41	6.03	Pipe Channel, Pipe			
						18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38'			
_						n= 0.013 Concrete pipe, bends & connections			
	18.9	2,550	Total						

Subcatchment B-PC: Site B Proposed conditions



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Page 11

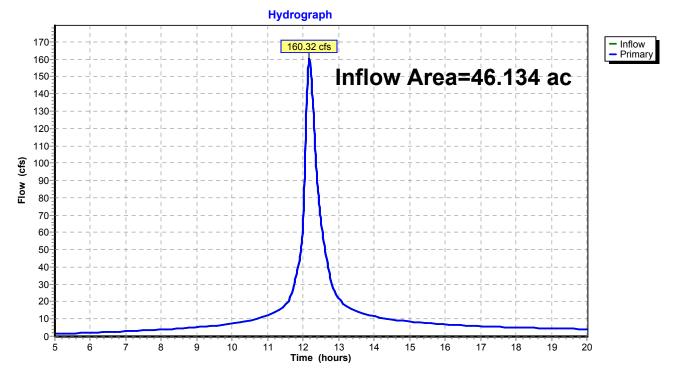
Summary for Link DD_E: Downstream Discharge

Inflow Area = 46.134 ac, 77.87% Impervious, Inflow Depth > 3.91" for 10-yr event

Inflow = 160.32 cfs @ 12.18 hrs, Volume= 15.043 af

Primary = 160.32 cfs @ 12.18 hrs, Volume= 15.043 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs



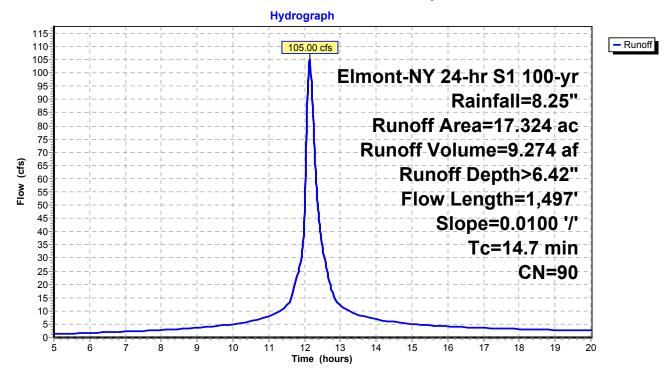
Summary for Subcatchment A-PC: Arena Overall Proposed Conditions

Runoff 105.00 cfs @ 12.14 hrs, Volume= 9.274 af, Depth> 6.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont-NY 24-hr S1 100-yr Rainfall=8.25"

	Area	(ac) C	N Des	cription		
*	12.	736	98 Impe	ervious		
*	4.	588 (39 Land	dscaped		
	17.	324 9	90 Weig	ghted Aver	age	
	4.	588	26.4	8% Pervio	us Area	
	12.	736	73.5	2% Imperv	vious Area	
	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	9.6	63	0.0100	0.11		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.80"
	2.0	249	0.0100	2.03		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	3.1	1,185	0.0100	6.44	11.38	Pipe Channel,
						18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38'
_						n= 0.012 Corrugated PP, smooth interior
	14.7	1,497	Total			

Subcatchment A-PC: Arena Overall Proposed Conditions



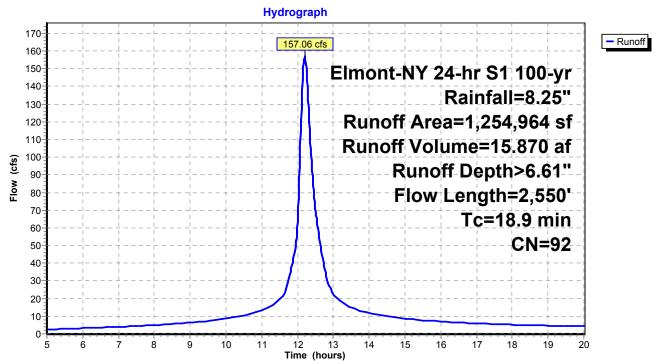
Summary for Subcatchment B-PC: Site B Proposed conditions

Runoff 157.06 cfs @ 12.20 hrs, Volume= 15.870 af, Depth> 6.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont-NY 24-hr S1 100-yr Rainfall=8.25"

_	Α	rea (sf)	CN [Description				
*	1,0	10,113	98 I	mpervious				
*	2	44,851	69 L	.andscaped	b			
	1,2	54,964	92 V	Veighted A	verage			
	2	44,851	1	9.51% Per	vious Area			
	1,010,113			80.49% Impervious Area				
	Тс	Length	Slope	Velocity	Capacity	Description		
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
	6.7	50	0.0150	0.12		Sheet Flow, Grass to Drain		
						Grass: Short n= 0.150 P2= 2.80"		
	12.2	2,500	0.0033	3.41	6.03	Pipe Channel, Pipe		
						18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38'		
_						n= 0.013 Concrete pipe, bends & connections		
	18.9	2,550	Total					

Subcatchment B-PC: Site B Proposed conditions



Page 14

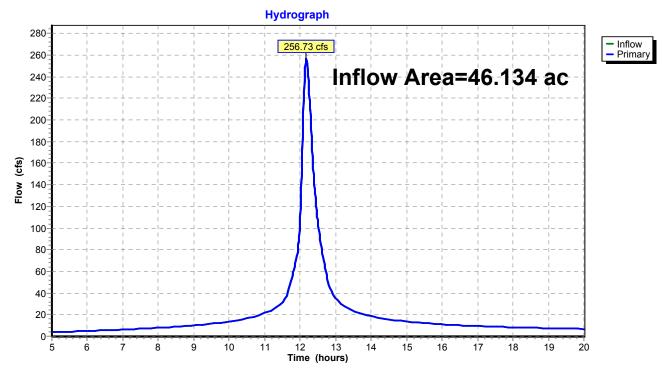
Summary for Link DD_E: Downstream Discharge

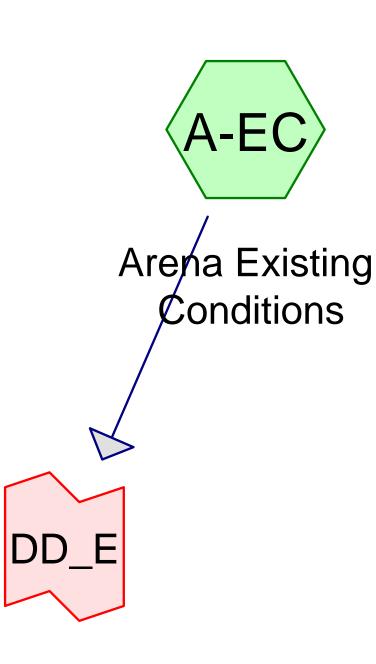
Inflow Area = 46.134 ac, 77.87% Impervious, Inflow Depth > 6.54" for 100-yr event

Inflow = 256.73 cfs @ 12.17 hrs, Volume= 25.144 af

Primary = 256.73 cfs @ 12.17 hrs, Volume= 25.144 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs





Downstream Discharge









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Area Listing (selected nodes)

Are	a CN	Description
(acres	s)	(subcatchment-numbers)
3.52	22 69	50-75% Grass cover, Fair, HSG B (A-EC)
13.80	98	Impervious (Roof and Pavement) (A-EC)
17.32	24 92	TOTAL AREA

Elmont-NY 24-hr S1 1-yr Rainfall=2.77"

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Time span=5.00-20.00 hrs, dt=0.01 hrs, 1501 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 A-EC: Arena Existing Runoff Area=17.324 ac 79.67% Impervious Runoff Depth>1.79"

Flow Length=1,670' Tc=15.3 min CN=92 Runoff=32.40 cfs 2.584 af

Link DD_E: Downstream Discharge

Inflow=32.40 cfs 2.584 af Primary=32.40 cfs 2.584 af

Total Runoff Area = 17.324 ac Runoff Volume = 2.584 af Average Runoff Depth = 1.79" 20.33% Pervious = 3.522 ac 79.67% Impervious = 13.802 ac

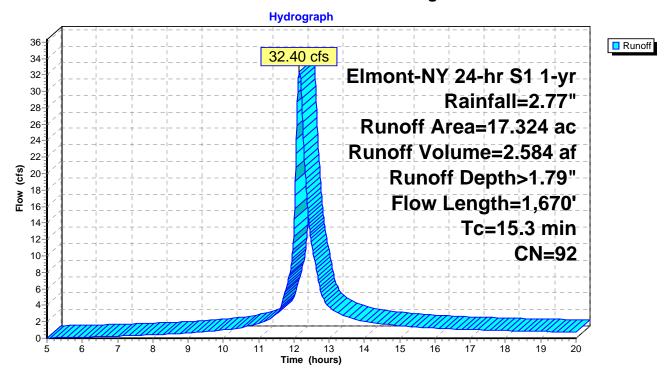
Summary for Subcatchment A-EC: Arena Existing Conditions

Runoff = 32.40 cfs @ 12.16 hrs, Volume= 2.584 af, Depth> 1.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont-NY 24-hr S1 1-yr Rainfall=2.77"

	Area	(ac) C	N Desc	cription		
*	13.	802 9	8 Impe	ervious (Ro	oof and Pav	rement)
	3.	522	39 50-7	5% Grass	cover, Fair	, HSG B
	17.	324	2 Weig	hted Aver	age	
	3.	522	20.3	3% Pervio	us Area	
	13.	802	79.6	7% Imperv	ious Area	
	Тс	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	6.7	50	0.0150	0.12		Sheet Flow, Grass Sheet flow
						Grass: Short n= 0.150 P2= 2.80"
	1.0	50	0.0100	0.85		Sheet Flow, Pavement Sheet Flow
						Smooth surfaces n= 0.011 P2= 2.80"
	7.6	1,570	0.0050	3.46	4.24	Pipe Channel, 1500 Ft Pipe flow
						15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31'
_						n= 0.014 Concrete pipe, bends & connections
	15.3	1,670	Total			

Subcatchment A-EC: Arena Existing Conditions



Page 5

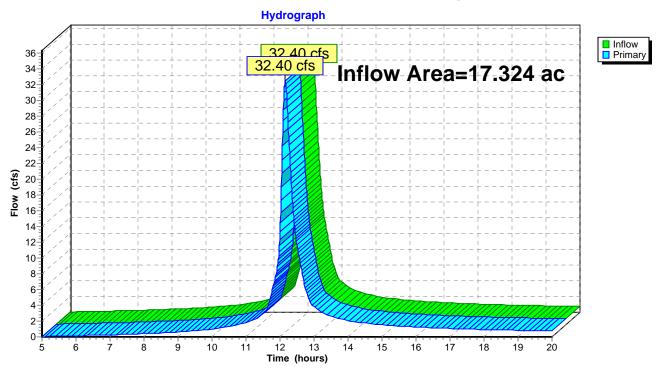
Summary for Link DD_E: Downstream Discharge

Inflow Area = 17.324 ac, 79.67% Impervious, Inflow Depth > 1.79" for 1-yr event

Inflow = 32.40 cfs @ 12.16 hrs, Volume= 2.584 af

Primary = 32.40 cfs @ 12.16 hrs, Volume= 2.584 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs



Elmont-NY 24-hr S1 2-yr Rainfall=3.40" Printed 5/20/2019

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Page 6

Time span=5.00-20.00 hrs, dt=0.01 hrs, 1501 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 A-EC: Arena Existing

Runoff Area=17.324 ac 79.67% Impervious Runoff Depth>2.34"

Flow Length=1,670' Tc=15.3 min CN=92 Runoff=41.09 cfs 3.376 af

1 low Length = 1,070 1C=13.3 min CN=32 1\dnot1=41.03 cls 3.370

Link DD_E: Downstream Discharge

Inflow=41.09 cfs 3.376 af Primary=41.09 cfs 3.376 af

Total Runoff Area = 17.324 ac Runoff Volume = 3.376 af Average Runoff Depth = 2.34" 20.33% Pervious = 3.522 ac 79.67% Impervious = 13.802 ac

Page 7

Summary for Subcatchment A-EC: Arena Existing Conditions

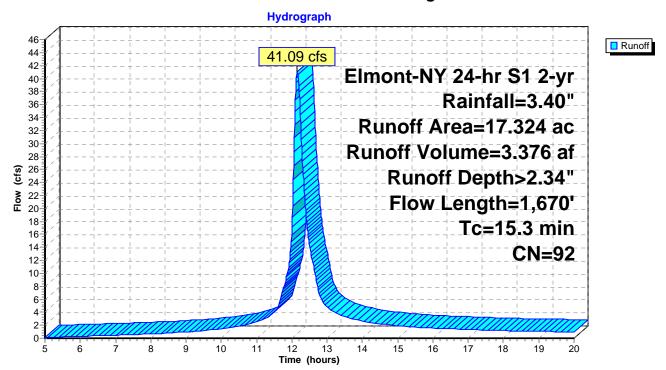
Runoff = 41.09 cfs @ 12.16 hrs, Volume= 3.376 af, Depth> 2.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont-NY 24-hr S1 2-yr Rainfall=3.40"

	Area	(ac) C	N Desc	cription					
*	* 13.802 98			Impervious (Roof and Pavement)					
	3.522 69			50-75% Grass cover, Fair, HSG B					
	17.	324 9	92 Weig	ghted Aver	age				
	3.	522	20.3	3% Pervio	us Area				
	13.	802	79.6	7% Imper\	vious Area				
	Тс	Length	Slope	Velocity	Capacity	Description			
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
	6.7	50	0.0150	0.12		Sheet Flow, Grass Sheet flow			
						Grass: Short n= 0.150 P2= 2.80"			
	1.0	50	0.0100	0.85		Sheet Flow, Pavement Sheet Flow			
						Smooth surfaces n= 0.011 P2= 2.80"			
	7.6	1,570	0.0050	3.46	4.24	Pipe Channel, 1500 Ft Pipe flow			
						15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31'			
_	45.0	4.070	T ()			n= 0.014 Concrete pipe, bends & connections			

15.3 1,670 Total

Subcatchment A-EC: Arena Existing Conditions



Page 8

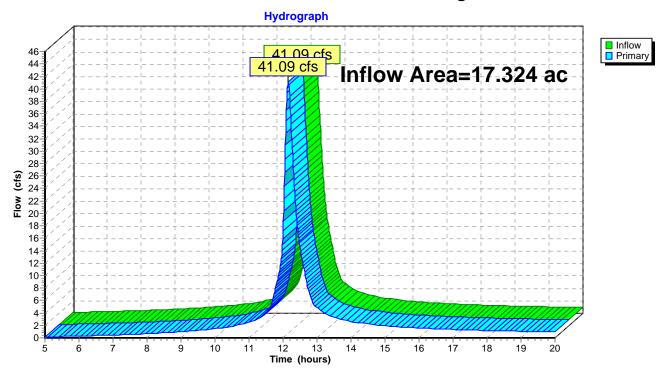
Summary for Link DD_E: Downstream Discharge

Inflow Area = 17.324 ac, 79.67% Impervious, Inflow Depth > 2.34" for 2-yr event

Inflow = 41.09 cfs @ 12.16 hrs, Volume= 3.376 af

Primary = 41.09 cfs @ 12.16 hrs, Volume= 3.376 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs



Elmont-NY 24-hr S1 10-yr Rainfall=5.27" Printed 5/20/2019

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Page 9

Time span=5.00-20.00 hrs, dt=0.01 hrs, 1501 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 A-EC: Arena Existing

Runoff Area=17.324 ac 79.67% Impervious Runoff Depth>3.99"

Flow Length=1,670' Tc=15.3 min CN=92 Runoff=66.42 cfs 5.756 af

Link DD_E: Downstream Discharge

Inflow=66.42 cfs 5.756 af Primary=66.42 cfs 5.756 af

Total Runoff Area = 17.324 ac Runoff Volume = 5.756 af Average Runoff Depth = 3.99" 20.33% Pervious = 3.522 ac 79.67% Impervious = 13.802 ac

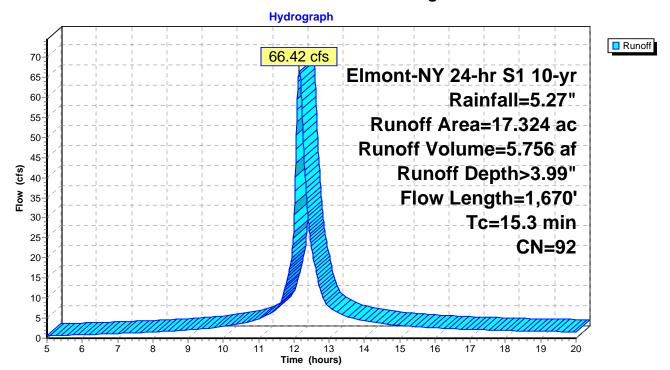
Summary for Subcatchment A-EC: Arena Existing Conditions

Runoff = 66.42 cfs @ 12.15 hrs, Volume= 5.756 af, Depth> 3.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont-NY 24-hr S1 10-yr Rainfall=5.27"

	Area	(ac) C	N Desc	cription				
*	* 13.802 98		98 Impe	Impervious (Roof and Pavement)				
_	3.	522 6	<u>59 50-7</u>	5% Grass	cover, Fair	, HSG B		
	17.	324	92 Weig	ghted Aver	age			
	3.	522	20.3	3% Pervio	us Area			
	13.	802	79.6	7% Imper\	vious Area			
	т.	1 0	01	\	0 1	Describette		
	Tc	Length	Slope	Velocity	Capacity	Description		
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
	6.7	50	0.0150	0.12		Sheet Flow, Grass Sheet flow		
						Grass: Short n= 0.150 P2= 2.80"		
	1.0	50	0.0100	0.85		Sheet Flow, Pavement Sheet Flow		
						Smooth surfaces n= 0.011 P2= 2.80"		
	7.6	1,570	0.0050	3.46	4.24	Pipe Channel, 1500 Ft Pipe flow		
						15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31'		
_						n= 0.014 Concrete pipe, bends & connections		
	15.3	1,670	Total					

Subcatchment A-EC: Arena Existing Conditions



Page 11

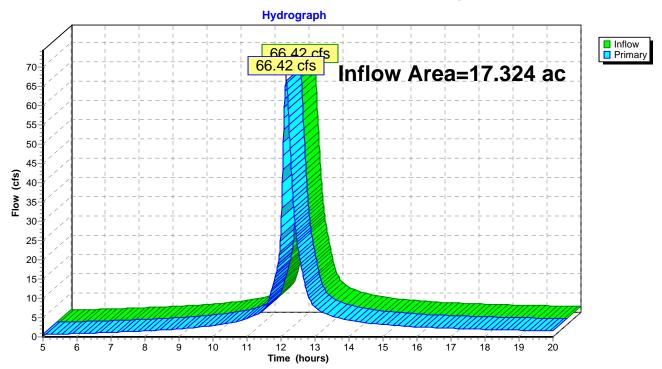
Summary for Link DD_E: Downstream Discharge

Inflow Area = 17.324 ac, 79.67% Impervious, Inflow Depth > 3.99" for 10-yr event

Inflow = 66.42 cfs @ 12.15 hrs, Volume= 5.756 af

Primary = 66.42 cfs @ 12.15 hrs, Volume= 5.756 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs



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Elmont-NY 24-hr S1 100-yr Rainfall=8.25"

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Page 12

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Time span=5.00-20.00 hrs, dt=0.01 hrs, 1501 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 A-EC: Arena Existing

Runoff Area=17.324 ac 79.67% Impervious Runoff Depth>6.61"

Flow Length=1,670' Tc=15.3 min CN=92 Runoff=105.59 cfs 9.548 af

Link DD_E: Downstream Discharge

Inflow=105.59 cfs 9.548 af Primary=105.59 cfs 9.548 af

Total Runoff Area = 17.324 ac Runoff Volume = 9.548 af Average Runoff Depth = 6.61" 20.33% Pervious = 3.522 ac 79.67% Impervious = 13.802 ac HydroCAD® 10.00-22 s/n 04006 © 2018 HydroCAD Software Solutions LLC

Page 13

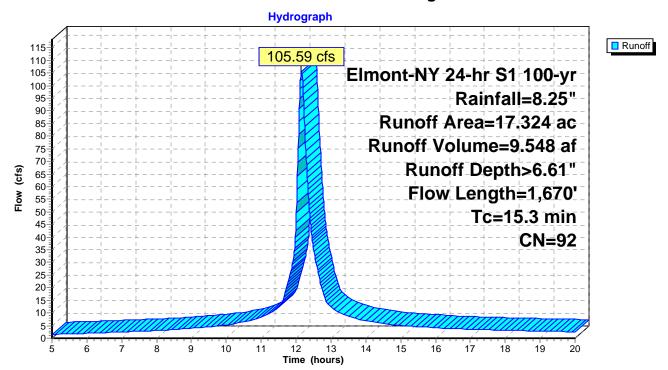
Summary for Subcatchment A-EC: Arena Existing Conditions

Runoff = 105.59 cfs @ 12.15 hrs, Volume= 9.548 af, Depth> 6.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont-NY 24-hr S1 100-yr Rainfall=8.25"

	Area	(ac) C	N Desc	cription					
*	* 13.802 98		8 Impe	Impervious (Roof and Pavement)					
_	3.522 69		<u>50-7</u>	50-75% Grass cover, Fair, HSG B					
	17.	324 9	2 Weig	hted Aver	age				
	3.522		20.3	3% Pervio	us Area				
	13.	802	79.6	7% Imperv	vious Area				
	Тс	Length	Slope	Velocity	Capacity	Description			
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
	6.7	50	0.0150	0.12		Sheet Flow, Grass Sheet flow			
						Grass: Short n= 0.150 P2= 2.80"			
	1.0	50	0.0100	0.85		Sheet Flow, Pavement Sheet Flow			
						Smooth surfaces n= 0.011 P2= 2.80"			
	7.6	1,570	0.0050	3.46	4.24	Pipe Channel, 1500 Ft Pipe flow			
						15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31'			
_						n= 0.014 Concrete pipe, bends & connections			
	15.3	1,670	Total						

Subcatchment A-EC: Arena Existing Conditions



Summary for Link DD_E: Downstream Discharge

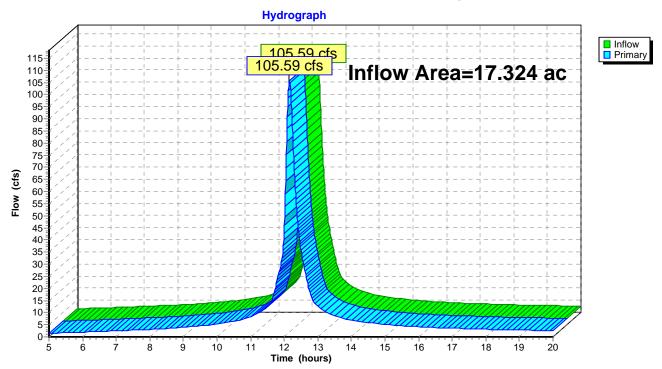
Inflow Area = 17.324 ac, 79.67% Impervious, Inflow Depth > 6.61" for 100-yr event

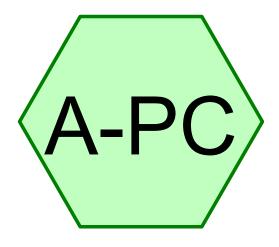
Inflow = 105.59 cfs @ 12.15 hrs, Volume= 9.548 af

Primary = 105.59 cfs @ 12.15 hrs, Volume= 9.548 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs

Link DD_E: Downstream Discharge





Arena Overall Proposed Conditions









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Page 2

Area Listing (selected nodes)

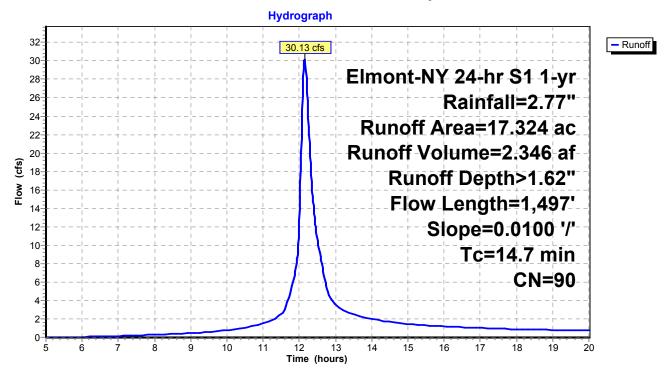
Area	CN	Description
 (acres)		(subcatchment-numbers)
12.736	98	Impervious (A-PC)
4.588	69	Landscaped (A-PC)
17.324	90	TOTAL AREA

Summary for Subcatchment A-PC: Arena Overall Proposed Conditions

Runoff = 30.13 cfs @ 12.15 hrs, Volume= 2.346 af, Depth> 1.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont-NY 24-hr S1 1-yr Rainfall=2.77"

	Area	(ac) (ON D	esc	cription		
*	* 12.736 98		98 Ir	Impervious			
*				Landscaped			
	17.	324	90 V	Weighted Average			
	4.	588		•	8% Pervio	•	
	12.	736	7	3.5	2% Imper	ious Area	
	Tc	Length	Slo	ое	Velocity	Capacity	Description
	(min)	(feet)	(ft/	ft)	(ft/sec)	(cfs)	
	9.6	63	0.01	00	0.11		Sheet Flow,
							Grass: Short n= 0.150 P2= 2.80"
	2.0	249	0.01	00	2.03		Shallow Concentrated Flow,
							Paved Kv= 20.3 fps
	3.1	1,185	0.01	00	6.44	11.38	Pipe Channel,
							18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38'
_							n= 0.012 Corrugated PP, smooth interior
	14.7	1,497	Tota				



N17425-SiteASiteB

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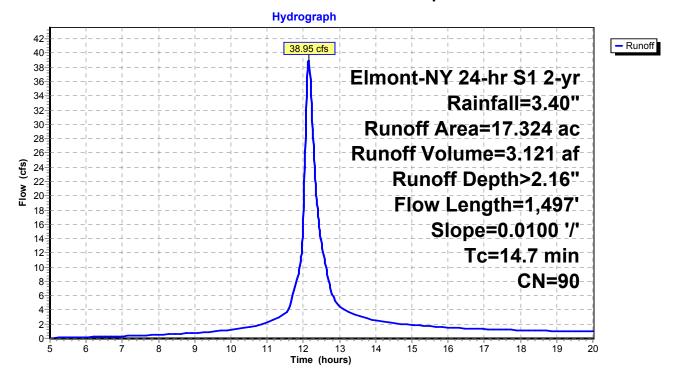
Page 4

Summary for Subcatchment A-PC: Arena Overall Proposed Conditions

Runoff = 38.95 cfs @ 12.15 hrs, Volume= 3.121 af, Depth> 2.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont-NY 24-hr S1 2-yr Rainfall=3.40"

	Area	(ac) C	N Des	cription		
*	* 12.736 98		98 Impe	ervious		
*	4.	588 6	39 Land	dscaped		
	17.	324 9	0 Weig	ghted Aver	age	
	4.	588	26.4	8% Pervio	us Area	
	12.	736	73.5	2% Imperv	vious Area	
	Tc	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	9.6	63	0.0100	0.11		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.80"
	2.0	249	0.0100	2.03		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	3.1	1,185	0.0100	6.44	11.38	Pipe Channel,
						18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38'
						n= 0.012 Corrugated PP, smooth interior
	14.7	1,497	Total			



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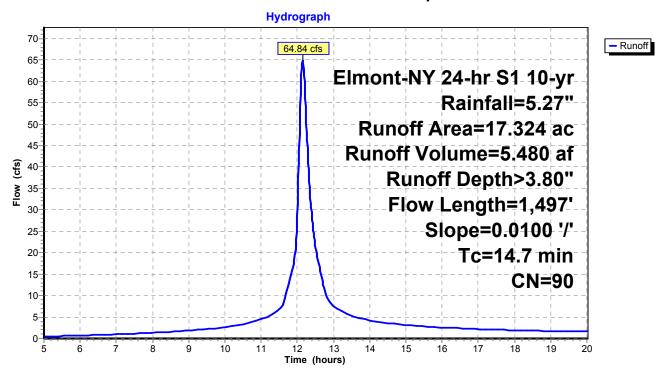
Page 5

Summary for Subcatchment A-PC: Arena Overall Proposed Conditions

Runoff = 64.84 cfs @ 12.15 hrs, Volume= 5.480 af, Depth> 3.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont-NY 24-hr S1 10-yr Rainfall=5.27"

_	Area	(ac) C	N Des	cription		
*	* 12.736 98		98 Impe	Impervious		
*				dscaped		
	17.324 90 Weighted Average				age	
	4.588 26.48% Pervious Area					
	12.	736	73.5	2% Imperv	ious Area	
	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	9.6	63	0.0100	0.11		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.80"
	2.0	249	0.0100	2.03		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	3.1	1,185	0.0100	6.44	11.38	Pipe Channel,
						18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38'
_						n= 0.012 Corrugated PP, smooth interior
	14.7	1,497	Total			

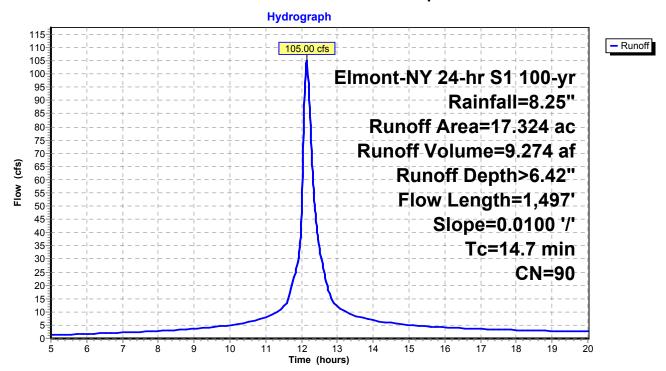


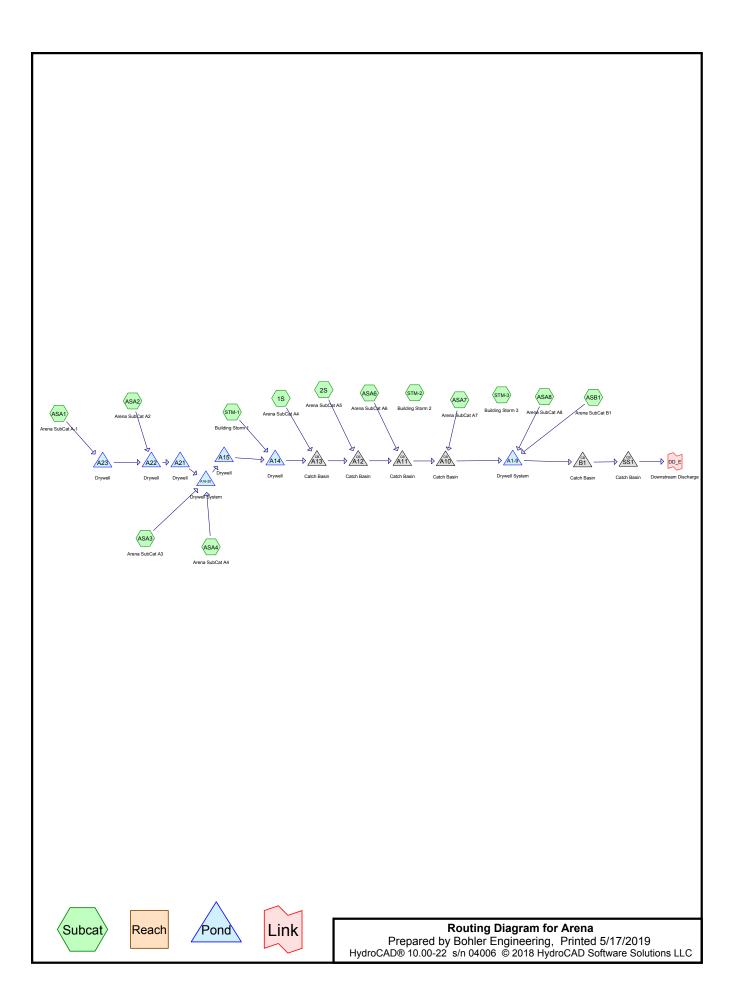
Summary for Subcatchment A-PC: Arena Overall Proposed Conditions

Runoff = 105.00 cfs @ 12.14 hrs, Volume= 9.274 af, Depth> 6.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont-NY 24-hr S1 100-yr Rainfall=8.25"

	Area	(ac) C	N Des	cription		
*	* 12.736 98		98 Impe	ervious		
*	4.	588 6	39 Land	dscaped		
	17.	324 9	0 Weig	ghted Aver	age	
	4.	588	26.4	8% Pervio	us Area	
	12.	736	73.5	2% Imperv	vious Area	
	Tc	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	9.6	63	0.0100	0.11		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.80"
	2.0	249	0.0100	2.03		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	3.1	1,185	0.0100	6.44	11.38	Pipe Channel,
						18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38'
						n= 0.012 Corrugated PP, smooth interior
	14.7	1,497	Total			





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Area Listing (all nodes)

Area	CN	Description
(acres)		(subcatchment-numbers)
5.450	98	Building Stormwater (STM-1, STM-2, STM-3)
1.335	98	Impervious (ASA1, ASA2, ASA3)
2.147	61	Lscape (1S, 2S, ASA2, ASA3, ASA4, ASA6, ASA7, ASA8, ASB1)
0.598	61	Lscape Area (ASA1)
2.526	98	Paved (1S, 2S, ASA4, ASA6, ASA7, ASA8, ASB1)
12.055	90	TOTAL AREA

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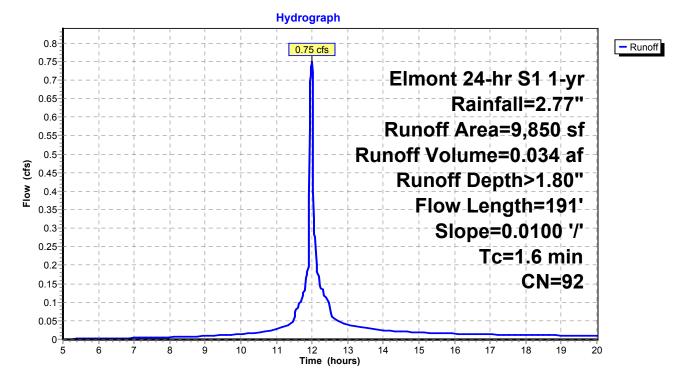
Summary for Subcatchment 1S: Arena SubCat A4

Runoff = 0.75 cfs @ 12.00 hrs, Volume= 0.034 af, Depth> 1.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

	Α	rea (sf)	CN	Description				
*		8,210	98	Paved				
*		1,640	61	Lscape				
		9,850	92	Weighted Average				
		1,640	61	16.65% Pervious Area				
		8,210	98	83.35% Impervious Area				
	Tc (min)	Length (feet)	Slop (ft/ft	,	Capacity (cfs)	Description		
	1.6	191	0.010	0 2.03		Shallow Concentrated Flow, Paved Kv= 20.3 fps		

Subcatchment 1S: Arena SubCat A4



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Page 4

Summary for Subcatchment 2S: Arena SubCat A5

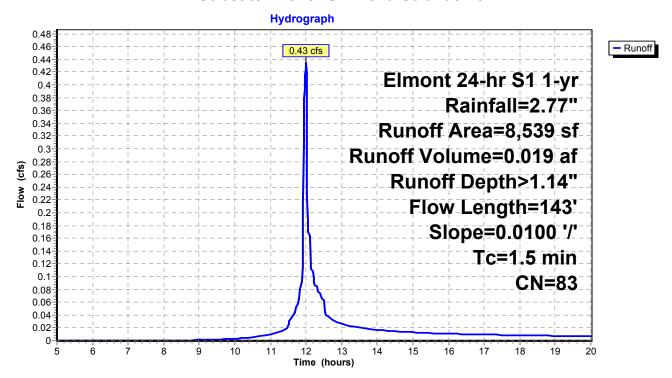
Runoff = 0.43 cfs @ 12.00 hrs, Volume= 0.019 af, Depth> 1.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

	Α	rea (sf)	CN	Description					
*		5,060	98	Paved					
*		3,479	61	Lscape					
		8,539	83	3 Weighted Average					
		3,479	61	40.74% Pervious Area					
		5,060	98	59.26% Imp	pervious Ar	ea			
	Tc (min)	Length (feet)	Slop (ft/ft	,	Capacity (cfs)	Description			
	1.2	143	0.010	, ,	()	Shallow Concentrated Flow, Paved Kv= 20.3 fps			

1.2 143 Total, Increased to minimum Tc = 1.5 min

Subcatchment 2S: Arena SubCat A5



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Page 5

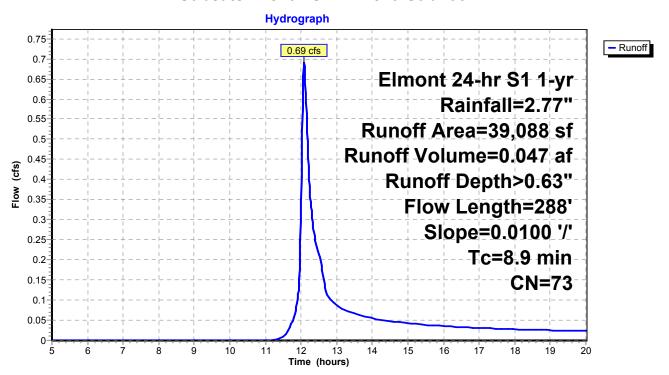
Summary for Subcatchment ASA1: Arena SubCat A-1

Runoff = 0.69 cfs @ 12.08 hrs, Volume= 0.047 af, Depth> 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

	Α	rea (sf)	CN	Description		
*		13,051	98	Impervious		
*		26,037	61	Lscape Are	a	
		39,088	73	Weighted A	verage	
		26,037	61	66.61% Pe	rvious Area	
		13,051	98	33.39% Imp	pervious Ar	ea
	Tc	Length	Slope	•	Capacity	Description
_	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)	
	1.5	139	0.010	1.50		Shallow Concentrated Flow,
						Grassed Waterway Kv= 15.0 fps
	7.1	49	0.010	0.12		Sheet Flow,
						Grass: Short n= 0.150 P2= 3.40"
	0.3	100	0.010	5.70	7.00	Pipe Channel,
						15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31'
						n= 0.012 Corrugated PP, smooth interior
	8.9	288	Total			

Subcatchment ASA1: Arena SubCat A-1



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Page 6

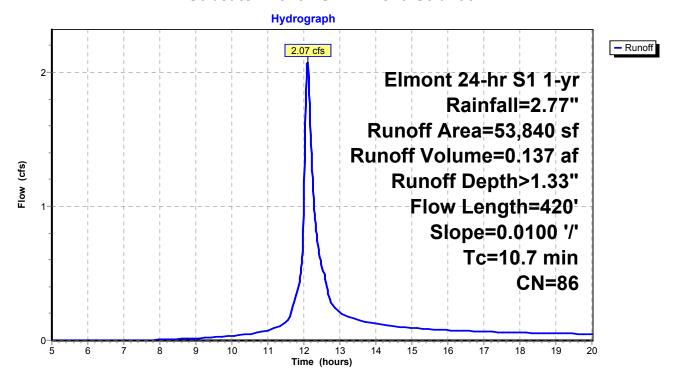
Summary for Subcatchment ASA2: Arena SubCat A2

Runoff = 2.07 cfs @ 12.10 hrs, Volume= 0.137 af, Depth> 1.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

	Д	rea (sf)	CN I	Description		
*		18,121	61 I	Lscape		
*		35,719	98	Impervious		
		53,840	86 \	Weighted A	verage	
		18,121	61	33.66% Pe	rvious Area	
		35,719	98 (66.34% lmp	pervious Ar	ea
	Тс		Slope	•	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	8.3	60	0.0100	0.12		Sheet Flow,
						Grass: Short n= 0.150 P2= 3.40"
	2.1	250	0.0100	2.03		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	0.3	110	0.0100	5.36	4.21	Pipe Channel,
						12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25'
_						n= 0.011 Concrete pipe, straight & clean
	10.7	420	Total			

Subcatchment ASA2: Arena SubCat A2



Arena

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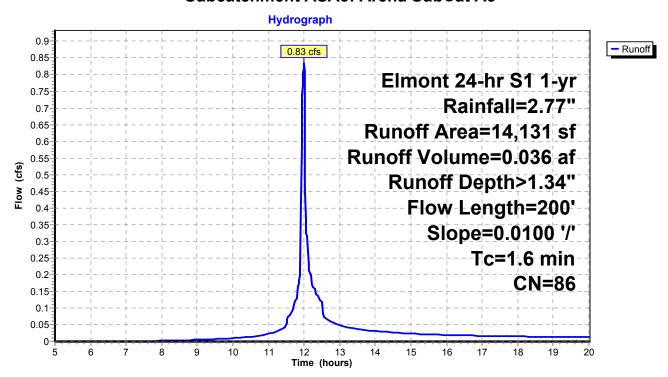
Summary for Subcatchment ASA3: Arena SubCat A3

Runoff = 0.83 cfs @ 12.00 hrs, Volume= 0.036 af, Depth> 1.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

_	A	rea (sf)	CN	Description				
*		9,367	98	Impervious				
*		4,764	61	Lscape				
		14,131	86	Weighted A	verage			
		4,764	61	33.71% Pervious Area				
		9,367	98	66.29% Imp	pervious Ar	ea		
	Tc (min)	Length (feet)	Slop (ft/fl	•	Capacity (cfs)	Description		
	1.6	200	0.010	0 2.03		Shallow Concentrated Flow, Paved Kv= 20.3 fps		

Subcatchment ASA3: Arena SubCat A3



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Page 8

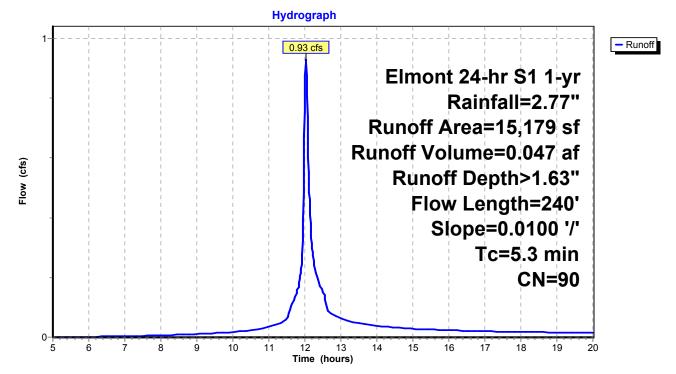
Summary for Subcatchment ASA4: Arena SubCat A4

Runoff = 0.93 cfs @ 12.03 hrs, Volume= 0.047 af, Depth> 1.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

	Α	rea (sf)	CN [Description		
*		11,926	98 F	Paved		
*		3,253	61 L	_scape		
_		15,179	90 \	Neighted A	verage	
		3,253	61 2	21.43% Pei	rvious Area	
		11,926	98	78.57% Imp	pervious Ar	ea
	Тс	Length	Slope	,	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	1.8	220	0.0100	2.03		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	3.5	20	0.0100	0.10		Sheet Flow,
_						Grass: Short n= 0.150 P2= 3.40"
	5.3	240	Total			

Subcatchment ASA4: Arena SubCat A4



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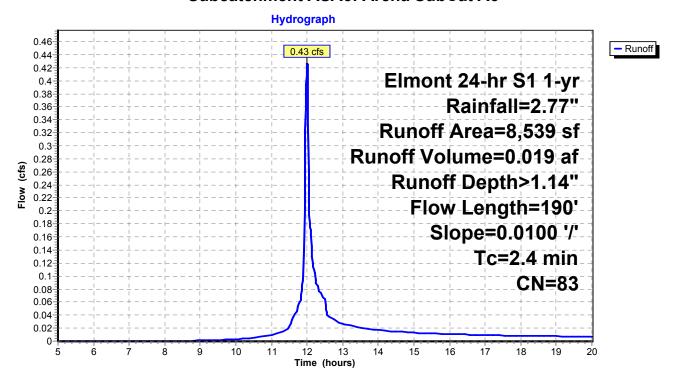
Summary for Subcatchment ASA6: Arena SubCat A6

Runoff = 0.43 cfs @ 12.01 hrs, Volume= 0.019 af, Depth> 1.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

	Α	rea (sf)	CN	Description		
*		5,060	98	Paved		
*		3,479	61	Lscape		
		8,539	83	Weighted A	verage	
		3,479	61	40.74% Pei	vious Area	
		5,060	98	59.26% lmp	pervious Ar	ea
	Тс	Length	Slope	,	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	2.1	150	0.0100	1.17		Sheet Flow,
						Smooth surfaces n= 0.011 P2= 3.40"
	0.3	40	0.0100	2.03		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	2.4	190	Total			

Subcatchment ASA6: Arena SubCat A6



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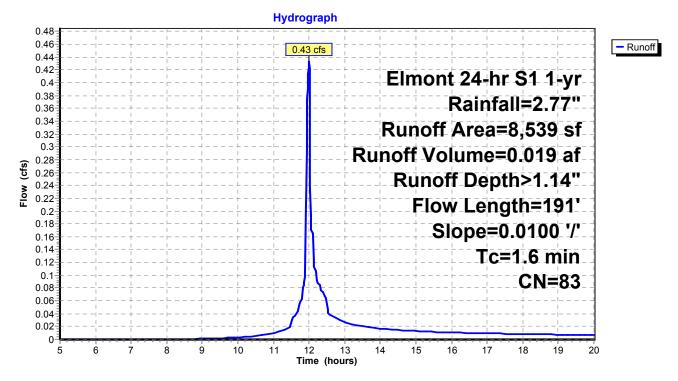
Summary for Subcatchment ASA7: Arena SubCat A7

Runoff = 0.43 cfs @ 12.00 hrs, Volume= 0.019 af, Depth> 1.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

	Α	rea (sf)	CN	Description		
*		5,060	98	Paved		
*		3,479	61	Lscape		
		8,539	83	Weighted A	verage	
		3,479	61	40.74% Per	rvious Area	
		5,060	98	59.26% Imp	ea	
_	Tc (min)	Length (feet)	Slop (ft/ft	,	Capacity (cfs)	Description
	1.6	191	0.010	0 2.03		Shallow Concentrated Flow, Paved Kv= 20.3 fps

Subcatchment ASA7: Arena SubCat A7



Arena

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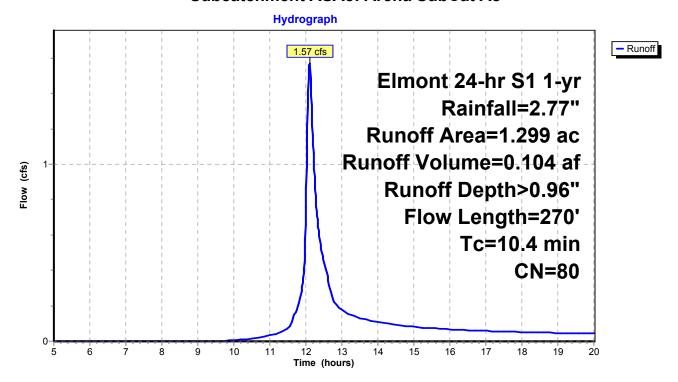
Summary for Subcatchment ASA8: Arena SubCat A8

Runoff = 1.57 cfs @ 12.10 hrs, Volume= 0.104 af, Depth> 0.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

	Area	(ac)	CN	Desc	cription		
*	0.	664	98	Pave	ed		
*	0.	635	61	Lsca	ре		
	1.	299	80	Weig	hted Aver	age	
	0.635 61 48.88% Pervious Area						
	0.664 98 51.12% Impervious Area					ious Area	
	Tc	Length	า ร	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	8.8	120	0.	.0350	0.23		Sheet Flow,
							Grass: Short n= 0.150 P2= 3.40"
	1.6	150	0.	.0200	1.54		Sheet Flow,
_							Smooth surfaces n= 0.011 P2= 3.40"
	10.4	270) To	otal			

Subcatchment ASA8: Arena SubCat A8



Arena

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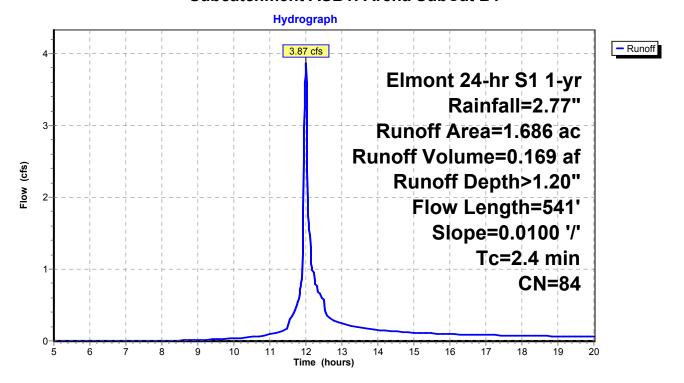
Summary for Subcatchment ASB1: Arena SubCat B1

Runoff = 3.87 cfs @ 12.01 hrs, Volume= 0.169 af, Depth> 1.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

_	Area	(ac) (CN De	scription		
*	1.	051	98 Pa	ved		
*	0.	635	61 Ls	cape		
	1.	686	84 W	eighted Ave	rage	
	0.	635	61 37	.66% Pervio	ous Area	
	1.051 98 62.34% Impervious Area					
	Tc	Length	Slop	e Velocity	Capacity	Description
_	(min)	(feet)	(ft/fi	(ft/sec)	(cfs)	
	1.6	191	0.010	0 2.03		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	8.0	350	0.010	0 7.03	12.41	Pipe Channel,
						18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38'
						n= 0.011 Concrete pipe, straight & clean
	2.4	541	Total			

Subcatchment ASB1: Arena SubCat B1



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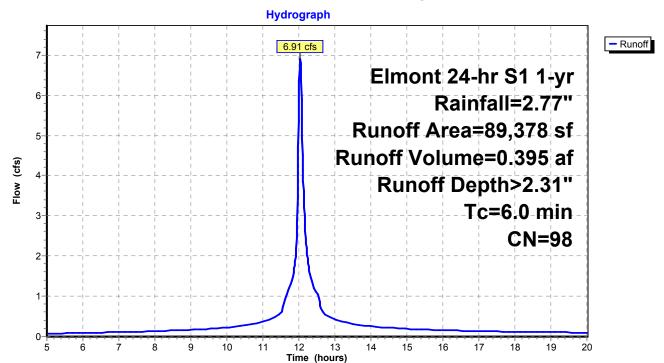
Summary for Subcatchment STM-1: Building Storm 1

Runoff = 6.91 cfs @ 12.04 hrs, Volume= 0.395 af, Depth> 2.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

	Α	rea (sf)	CN I	Description						
*		89,378	98 I	98 Building Stormwater						
		89,378	98	98 100.00% Impervious Area						
	Тс	Length	Slope	Velocity	Capacity	Description				
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	6.0					Direct Entry,				

Subcatchment STM-1: Building Storm 1



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Page 14

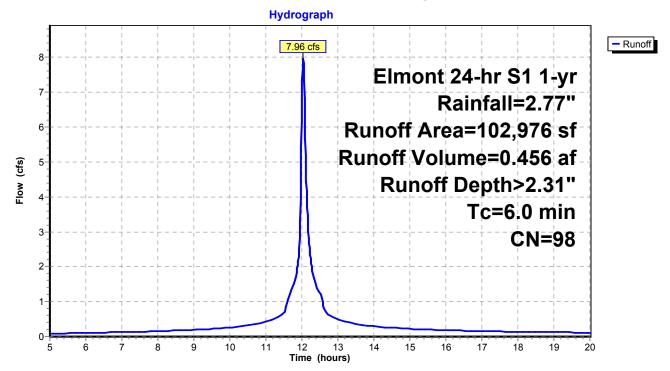
Summary for Subcatchment STM-2: Building Storm 2

Runoff = 7.96 cfs @ 12.04 hrs, Volume= 0.456 af, Depth> 2.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

	Α	rea (sf)	CN [Description						
*	1	02,976	98 E	98 Building Stormwater						
	1	02,976	98 100.00% Impervious Area							
	Tc	Length	Slope	Velocity	Capacity	Description				
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	6.0					Direct Entry,				

Subcatchment STM-2: Building Storm 2



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Page 15

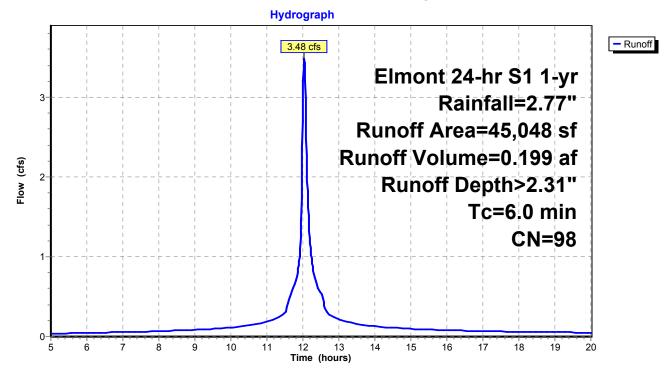
Summary for Subcatchment STM-3: Building Storm 3

Runoff = 3.48 cfs @ 12.04 hrs, Volume= 0.199 af, Depth> 2.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

	Α	rea (sf)	CN I	Description						
*		45,048	98 I	98 Building Stormwater						
		45,048	98	08 100.00% Impervious Area						
	Тс	Length	Slope	Velocity	Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	6.0					Direct Entry,				

Subcatchment STM-3: Building Storm 3



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Page 16

Summary for Pond A1-9: Drywell System

Inflow Area = 8.657 ac, 68.29% Impervious, Inflow Depth > 0.60" for 1-yr event

Inflow = 11.45 cfs @ 12.01 hrs, Volume= 0.432 af

Outflow = 5.44 cfs @ 12.14 hrs, Volume= 0.432 af, Atten= 52%, Lag= 7.3 min

Discarded = 5.44 cfs @ 12.14 hrs, Volume= 0.432 af Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs / 4 Peak Elev= 60.28' @ 12.14 hrs Surf.Area= 0.021 ac Storage= 0.068 af

Plug-Flow detention time= 3.9 min calculated for 0.432 af (100% of inflow) Center-of-Mass det. time= 3.7 min (792.5 - 788.8)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	0.312 af	11.33'D x 15.00'H Vertical Cone/Cylinderx 9
#2	73.00'	3.955 af	Custom Stage Data (Conic)Listed below (Recalc)

4.267 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
1.000	0.000	0.000	1.000
2.000	1.471	1.471	2.000
3.000	2.483	3.955	3.001
	(acres) 1.000 2.000	(acres) (acre-feet) 1.000 0.000 2.000 1.471	(acres) (acre-feet) (acre-feet) 1.000 0.000 0.000 2.000 1.471 1.471

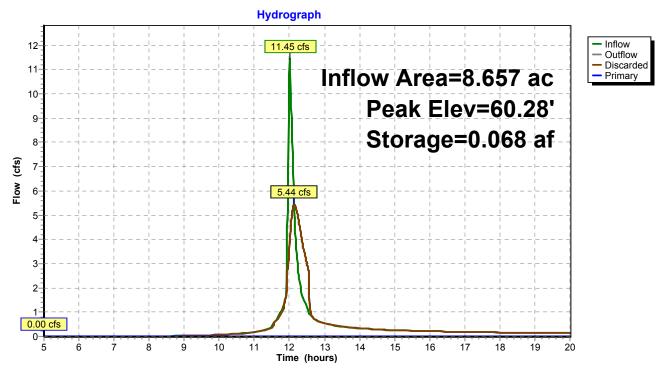
Device	Routing	Invert	Outlet Devices
#1	Discarded	57.00'	120.000 in/hr Exfiltration over Wetted area below 72.00'
#2	Primary	68.00'	24.0" Round Culvert
			I - 40 01 CDD militared to conform to fill I/o- 0.700

L= 10.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 68.00' / 67.90' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf

Discarded OutFlow Max=5.44 cfs @ 12.14 hrs HW=60.28' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 5.44 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=57.00' (Free Discharge) 2=Culvert (Controls 0.00 cfs)

Pond A1-9: Drywell System



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Page 18

Summary for Pond A10: Catch Basin

Inflow Area = 5.672 ac, 74.00% Impervious, Inflow Depth > 0.33" for 1-yr event

Inflow = 6.72 cfs @ 12.02 hrs, Volume= 0.158 af

Outflow = 6.72 cfs @ 12.02 hrs, Volume= 0.158 af, Atten= 0%, Lag= 0.0 min

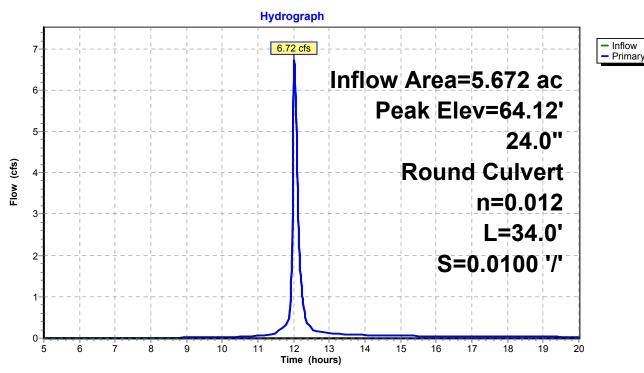
Primary = 6.72 cfs @ 12.02 hrs, Volume= 0.158 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 64.12' @ 12.02 hrs

Device Routing Invert Outlet Devices	
#1 Primary 62.84' 24.0" Round Culvert L= 34.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 62.84' / 62.50' S= 0.0100'/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf	

Primary OutFlow Max=6.70 cfs @ 12.02 hrs HW=64.11' (Free Discharge) 1=Culvert (Barrel Controls 6.70 cfs @ 4.52 fps)

Pond A10: Catch Basin



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Summary for Pond A11: Catch Basin

Inflow Area = 5.476 ac, 74.52% Impervious, Inflow Depth > 0.31" for 1-yr event

Inflow = 6.37 cfs @ 12.02 hrs, Volume= 0.140 af

Outflow = 6.37 cfs @ 12.02 hrs, Volume= 0.140 af, Atten= 0%, Lag= 0.0 min

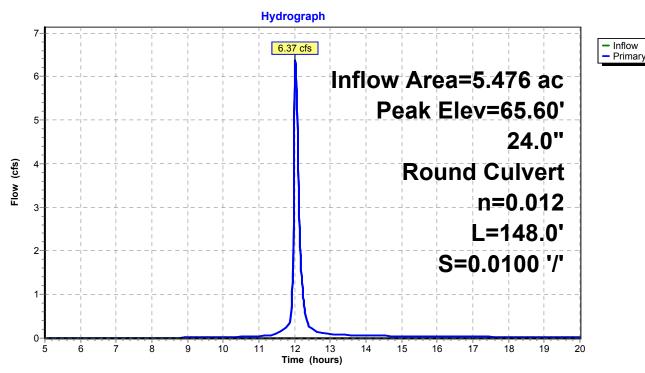
Primary = 6.37 cfs @ 12.02 hrs, Volume= 0.140 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 65.60' @ 12.02 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	64.41'	24.0" Round Culvert
			L= 148.0' CPP, mitered to conform to fill, Ke= 0.700
			Inlet / Outlet Invert= 64.41' / 62.93' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=6.36 cfs @ 12.02 hrs HW=65.60' (Free Discharge) 1=Culvert (Inlet Controls 6.36 cfs @ 3.27 fps)

Pond A11: Catch Basin



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Summary for Pond A12: Catch Basin

5.280 ac, 75.09% Impervious, Inflow Depth > 0.27" for 1-yr event Inflow Area =

0.121 af Inflow

5.98 cfs @ 12.02 hrs, Volume= 5.98 cfs @ 12.02 hrs, Volume= Outflow 0.121 af, Atten= 0%, Lag= 0.0 min

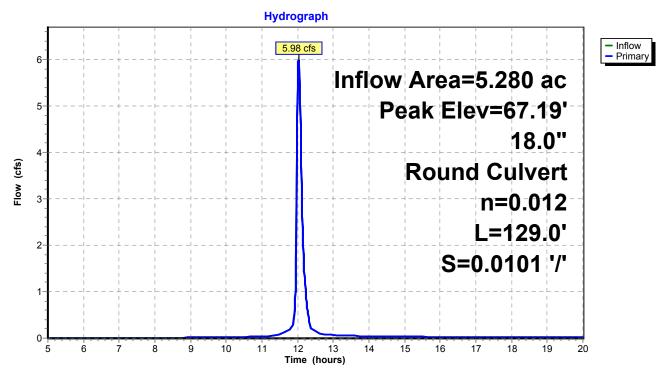
Primary 5.98 cfs @ 12.02 hrs, Volume= 0.121 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 67.19' @ 12.02 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary		18.0" Round Culvert L= 129.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 65.81' / 64.51' S= 0.0101'/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf
			11 0.012 confugatour 1, chicour interior, 1 low 7 aca 1.77 ci

Primary OutFlow Max=5.96 cfs @ 12.02 hrs HW=67.18' (Free Discharge) 1=Culvert (Inlet Controls 5.96 cfs @ 3.52 fps)

Pond A12: Catch Basin



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Summary for Pond A13: Catch Basin

Inflow Area = 5.084 ac, 75.70% Impervious, Inflow Depth > 0.24" for 1-yr event

Inflow = 5.74 cfs @ 12.03 hrs, Volume= 0.102 af

Outflow = 5.74 cfs @ 12.03 hrs, Volume= 0.102 af, Atten= 0%, Lag= 0.0 min

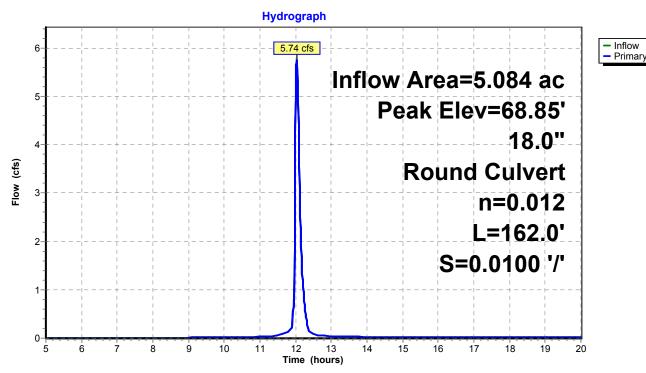
Primary = 5.74 cfs @ 12.03 hrs, Volume= 0.102 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 68.85' @ 12.03 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	67.52'	18.0" Round Culvert
			L= 162.0' CPP, mitered to conform to fill, Ke= 0.700
			Inlet / Outlet Invert= 67.52' / 65.90' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=5.73 cfs @ 12.03 hrs HW=68.85' (Free Discharge) 1=Culvert (Inlet Controls 5.73 cfs @ 3.46 fps)

Pond A13: Catch Basin



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Page 22

Summary for Pond A14: Drywell

Inflow Area = 4.858 ac, 75.34% Impervious, Inflow Depth > 0.98" for 1-yr event Inflow = 6.91 cfs @ 12.04 hrs, Volume= 0.395 af Outflow = 6.88 cfs @ 12.04 hrs, Volume= 0.395 af, Atten= 0%, Lag= 0.2 min Discarded = 1.48 cfs @ 12.04 hrs, Volume= 0.327 af Primary = 5.41 cfs @ 12.04 hrs, Volume= 0.068 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs / 4 Peak Elev= 69.10' @ 12.04 hrs Surf.Area= 0.002 ac Storage= 0.028 af

Plug-Flow detention time= 5.2 min calculated for 0.395 af (100% of inflow) Center-of-Mass det. time= 5.1 min (744.4 - 739.3)

Volume	Invert A	vail.Stora	ge Sto	rage Description		
#1	57.00'	0.035	af 11.	33'D x 15.00'H Ve	ertical Cone/Cy	linder
#2	73.00'	1.471	af Cu	stom Stage Data	(Conic)Listed b	elow (Recalc)
		1.506	af Tot	al Available Stora	ge	
Elevatio	on Surf.Area	Ind	c.Store	Cum.Store	Wet.Area	
(fee	t) (acres)	(acr	e-feet)	(acre-feet)	(acres)	
73.0	0 1.000		0.000	0.000	1.000	
74.0	0 2.000		1.471	1.471	2.000	
		_				
Device	Routing	Invert	Outlet [Devices		
#1	Primary	67.86'	24.0" F	Round Culvert		
	•		L= 16.0	' CPP, mitered to	conform to fill,	Ke= 0.700
			Inlet / C	outlet Invert= 67.80	6' / 67.75' S= 0	0.0069 '/' Cc= 0.900
						r, Flow Area= 3.14 sf
#2	Discarded	57.00'		•	•	area below 72.00'

Discarded OutFlow Max=1.48 cfs @ 12.04 hrs HW=69.10' (Free Discharge)

2=Exfiltration (Exfiltration Controls 1.48 cfs)

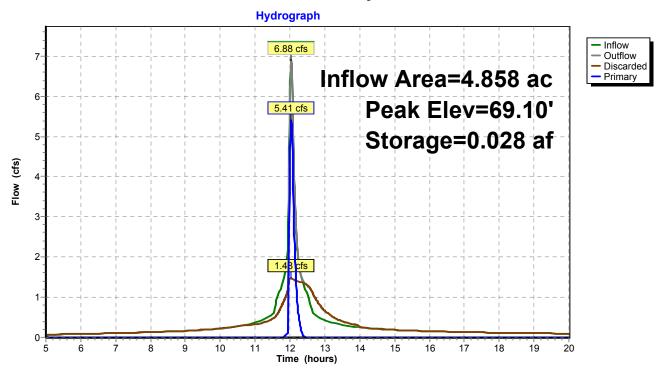
Primary OutFlow Max=5.39 cfs @ 12.04 hrs HW=69.10' (Free Discharge) 1=Culvert (Barrel Controls 5.39 cfs @ 3.79 fps)

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Page 23

Pond A14: Drywell



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Page 24

Summary for Pond A15: Drywell

2.806 ac, 57.32% Impervious, Inflow Depth = 0.00" for 1-yr event Inflow Area = Inflow 5.00 hrs, Volume= 0.000 af 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min Outflow 0.00 cfs @ Discarded = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af Primary 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs / 8 Peak Elev= 57.00' @ 5.00 hrs Surf.Area= 0.002 ac Storage= 0.000 af

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

Volume		Invert A	vail.Stora	ige Stora	ge Description		
#1	7	57.00'	0.035		B'D x 15.00'H Ve		
#2	1	73.00'	1.471	at Cust	om Stage Data	(Conic) Listed b	elow (Recalc)
			1.506	af Total	Available Storag	ge	
Elevatio		Surf.Area (acres)		c.Store re-feet)	Cum.Store (acre-feet)	Wet.Area (acres)	
73.0	00	1.000		0.000	0.000	1.000	
74.0	00	2.000		1.471	1.471	2.000	
Device	Routi	ing	Invert	Outlet De	vices		
#1	Prima	arv	67.86'	24.0" Ro	und Culvert		
		,		L= 16.0'	CPP, mitered to	conform to fill.	Ke= 0.700
					•	,	.0069 '/' Cc= 0.900
							, Flow Area= 3.14 sf
#2	2 Discarded		57.00'		n/hr Exfiltration		area below 72.00'

Discarded OutFlow Max=0.00 cfs @ 5.00 hrs HW=57.00' (Free Discharge)

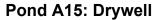
2=Exfiltration (Controls 0.00 cfs)

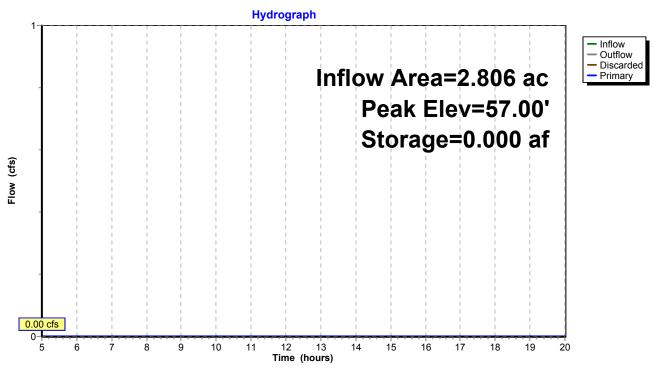
Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=57.00' (Free Discharge) 1=Culvert (Controls 0.00 cfs)

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Page 25





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Page 26

Summary for Pond A16-20: Drywell System

Inflow Area = 2.806 ac, 57.32% Impervious, Inflow Depth > 0.36" for 1-yr event Inflow = 1.70 cfs @ 12.01 hrs, Volume= 0.084 af Outflow = 1.50 cfs @ 12.02 hrs, Volume= 0.083 af, Atten= 11%, Lag= 1.0 min Discarded = 1.50 cfs @ 12.02 hrs, Volume= 0.083 af Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 57.20' @ 12.02 hrs Surf.Area= 0.012 ac Storage= 0.002 af

Plug-Flow detention time= 1.0 min calculated for 0.083 af (100% of inflow) Center-of-Mass det. time= 0.8 min (784.8 - 784.0)

Volume	e Invert	Avail.Storage	Storage Description
#1	57.00'	0.174 af	11.33'D x 15.00'H Vertical Cone/Cylinderx 5
#2	73.00'	3.955 af	Custom Stage Data (Conic)Listed below (Recalc)

4.128 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
1.000	0.000	0.000	1.000
2.000	1.471	1.471	2.000
3.000	2.483	3.955	3.001
	(acres) 1.000 2.000	(acres) (acre-feet) 1.000 0.000 2.000 1.471	(acres) (acre-feet) (acre-feet) 1.000 0.000 0.000 2.000 1.471 1.471

Device	Routing	Invert	Outlet Devices
#1	Discarded	57.00'	120.000 in/hr Exfiltration over Wetted area below 72.00'
#2	Primary	68.00'	18.0" Round Culvert
	-		L= 12.0' CPP, mitered to conform to fill, Ke= 0.700
			Inlet / Outlet Invert= 68.00' / 67.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=1.50 cfs @ 12.02 hrs HW=57.20' (Free Discharge)

1=Exfiltration (Exfiltration Controls 1.50 cfs)

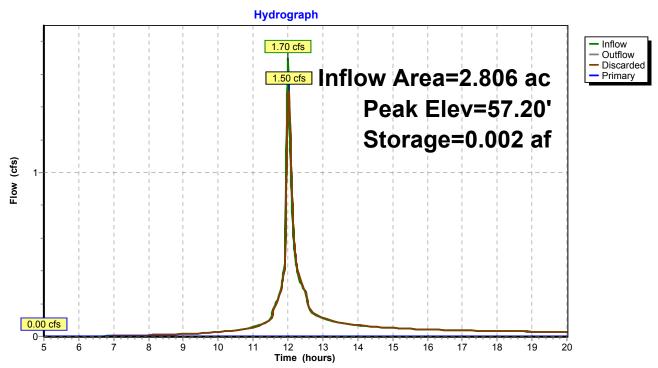
Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=57.00' (Free Discharge) 2=Culvert (Controls 0.00 cfs)

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Page 27

Pond A16-20: Drywell System



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Page 28

Summary for Pond A21: Drywell

2.133 ac, 52.48% Impervious, Inflow Depth = 0.00" for 1-yr event Inflow Area = Inflow 5.00 hrs, Volume= 0.00 cfs @ 0.000 af 5.00 hrs, Volume= Outflow 0.00 cfs @ 0.000 af, Atten= 0%, Lag= 0.0 min Discarded = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af Primary 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs / 7 Peak Elev= 57.00' @ 5.00 hrs Surf.Area= 0.002 ac Storage= 0.000 af

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert A	vail.Stora	ige Stora	ge Description					
#1	57.00'	0.046	af 11.33	11.33'D x 20.00'H Vertical Cone/Cylinder					
				0.052 af Overall - 4.0" Wall Thickness = 0.046 af					
#2	73.00'	1.471	af Cust	om Stage Data	(Conic)Listed below (Reca	alc)			
		1.518	af Total	Total Available Storage					
Elevation	on Surf.Area	In	c.Store	Cum.Store	Wet.Area				
(fee			re-feet)	(acre-feet)	(acres)				
73.0	00 1.000	,	0.000	0.000	1.000				
74.0	2.000		1.471	1.471	2.000				
Device	Routing	Invert	Outlet De	vices					
#1	Primary	68.00'	15.0" Ro	und Culvert					
	•		L= 263.0'	CPP, mitered	to conform to fill, Ke= 0.70	00			
			Inlet / Out	tlet Invert= 68.0	0' / 65.41' S= 0.0098 '/' C	Cc= 0.900			
			n= 0.012	Corrugated PP	, smooth interior, Flow Are	a= 1.23 sf			
#2	Discarded	57.00'		120.000 in/hr Exfiltration over Wetted area below 72.00' Phase-In= 0.03'					

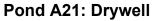
Discarded OutFlow Max=0.00 cfs @ 5.00 hrs HW=57.00' (Free Discharge) **2=Exfiltration** (Controls 0.00 cfs)

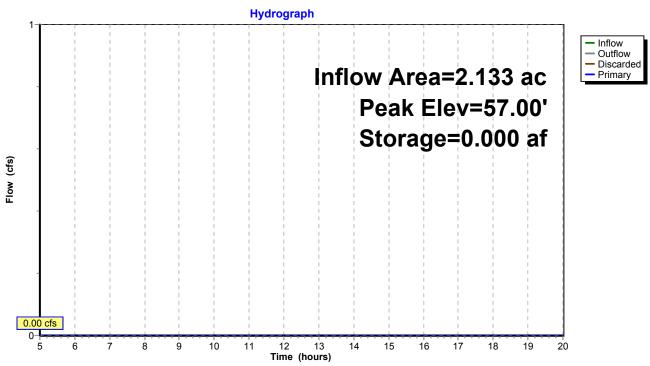
Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=57.00' (Free Discharge) 1=Culvert (Controls 0.00 cfs)

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Page 29





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Page 30

Summary for Pond A22: Drywell

Inflow Area = 2.133 ac, 52.48% Impervious, Inflow Depth > 0.77" for 1-yr event
Inflow = 2.07 cfs @ 12.10 hrs, Volume= 0.137 af
Outflow = 1.14 cfs @ 12.25 hrs, Volume= 0.137 af, Atten= 45%, Lag= 9.4 min
Discarded = 1.14 cfs @ 12.25 hrs, Volume= 0.137 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs / 7 Peak Elev= 65.68' @ 12.25 hrs Surf.Area= 0.002 ac Storage= 0.020 af

Plug-Flow detention time= 5.9 min calculated for 0.137 af (100% of inflow) Center-of-Mass det. time= 5.7 min (803.6 - 797.9)

Volume	Invert A	Avail.Stora	ge Stora	ge Description				
#1	57.00'	0.046	af 11.33	11.33'D x 20.00'H Vertical Cone/Cylinder				
#2	73.00'	1.471	af Custo	Custom Stage Data (Conic)Listed below (Recalc)				
		1.518	af Total	Available Stora	ge			
Elevatio	n Surf.Area	a In	c.Store	Cum.Store	Wet.Area			
(fee	t) (acres)) (ac	re-feet)	(acre-feet)	(acres)			
73.0	0 1.000)	0.000	0.000	1.000			
74.0	0 2.000)	1.471	1.471	2.000			
Device	Routing	Invert	Outlet De	vices				
#1	Primary	68.00'	15.0" Ro	und Culvert				
	•		L= 12.0'	CPP, mitered to	conform to fill,	Ke= 0.700		
			Inlet / Out	let Invert= 68.00	0' / 67.88' S= 0.0	0100 '/' Cc= 0.900		
			n= 0.012	Corrugated PP,	smooth interior,	Flow Area= 1.23 sf		
#2	Discarded	57.00'	120.000 i	20.000 in/hr Exfiltration over Wetted area below 72.00' Phase-In= 0.03'				

Discarded OutFlow Max=1.14 cfs @ 12.25 hrs HW=65.68' (Free Discharge)

2=Exfiltration (Exfiltration Controls 1.14 cfs)

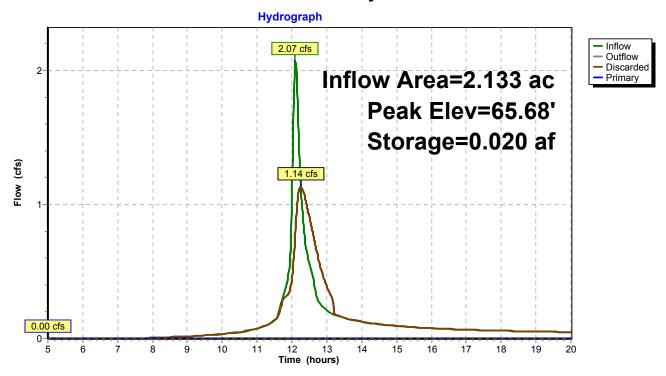
Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=57.00' (Free Discharge) 1=Culvert (Controls 0.00 cfs)

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Pond A22: Drywell



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Page 32

Summary for Pond A23: Drywell

Inflow Area = 0.897 ac, 33.39% Impervious, Inflow Depth > 0.63" for 1-yr event

Inflow = 0.69 cfs @ 12.08 hrs, Volume= 0.047 af

Outflow = 0.43 cfs @ 12.21 hrs, Volume= 0.047 af, Atten= 37%, Lag= 7.6 min

Discarded = 0.43 cfs @ 12.21 hrs, Volume= 0.047 af Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs / 7 Peak Elev= 58.55' @ 12.21 hrs Surf.Area= 0.002 ac Storage= 0.004 af

Plug-Flow detention time= 2.0 min calculated for 0.047 af (100% of inflow) Center-of-Mass det. time= 1.8 min (837.1 - 835.2)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/Cylinder
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#2	73.00'	1.471 af	Custom Stage Data (Conic)Listed below (Recalc)

1.518 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
1.000	0.000	0.000	1.000
2.000	1.471	1.471	2.000
	1.000	(acres) (acre-feet) 1.000 0.000	(acres) (acre-feet) (acre-feet) 1.000 0.000 0.000

Device	Routing	Invert	Outlet Devices	
#1	Primary	69.80'	15.0" Round Culvert	
	-		L= 184.0' CPP, mitered to conform to fill, Ke= 0.700	
			Inlet / Outlet Invert= 69.80' / 68.05' S= 0.0095 '/' Cc= 0.900	
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf	
#2	Discarded	57.00'	120.000 in/hr Exfiltration over Wetted area Phase-In= 0.03'	

Discarded OutFlow Max=0.43 cfs @ 12.21 hrs HW=58.55' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 0.43 cfs)

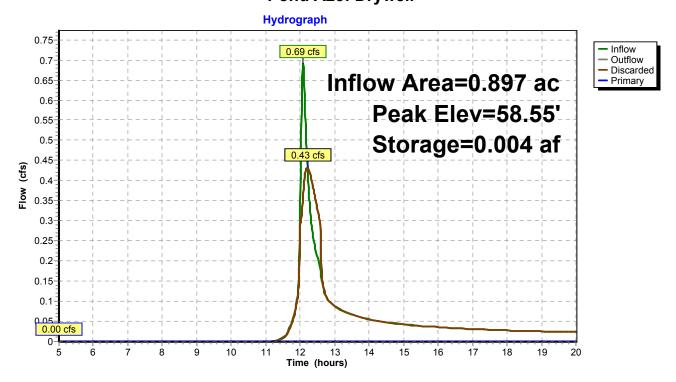
Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=57.00' (Free Discharge) 1=Culvert (Controls 0.00 cfs)

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Pond A23: Drywell



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Summary for Pond B1: Catch Basin

Inflow Area = 8.657 ac, 68.29% Impervious, Inflow Depth = 0.00" for 1-yr event

Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

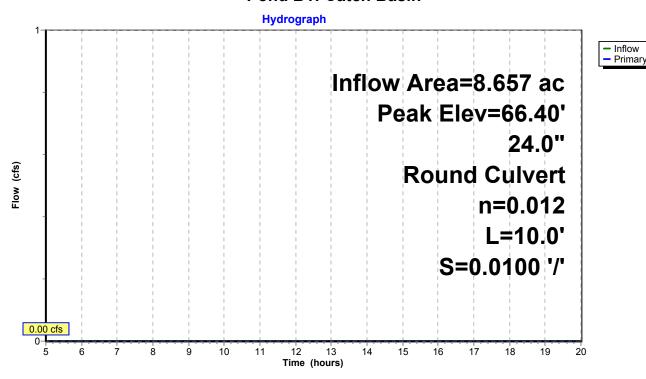
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 66.40' @ 5.00 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary		24.0" Round Culvert L= 10.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 66.40' / 66.30' S= 0.0100'/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=66.40' (Free Discharge) 1=Culvert (Controls 0.00 cfs)

Pond B1: Catch Basin



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Page 35

Summary for Pond SS1: Catch Basin

8.657 ac, 68.29% Impervious, Inflow Depth = 0.00" for 1-yr event Inflow Area =

0.000 af Inflow 0.00 cfs @

5.00 hrs, Volume= 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min Outflow 0.00 cfs @

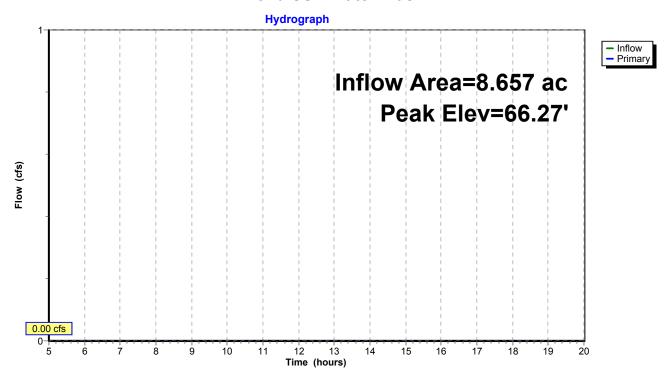
Primary 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 66.27' @ 5.00 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	66.27'	24.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=66.27' (Free Discharge) 1=Orifice/Grate (Controls 0.00 cfs)

Pond SS1: Catch Basin



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Page 36

Summary for Link DD_E: Downstream Discharge

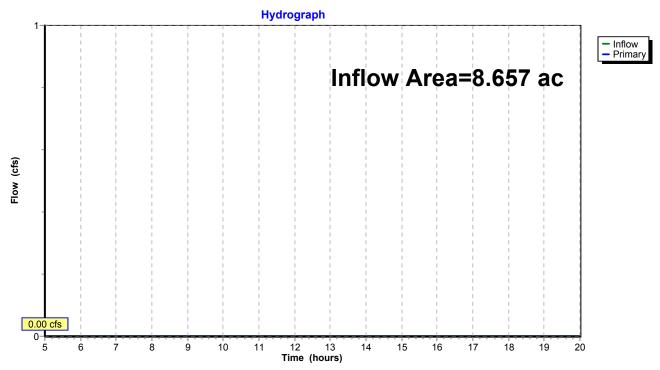
Inflow Area = 8.657 ac, 68.29% Impervious, Inflow Depth = 0.00" for 1-yr event

Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs

Link DD_E: Downstream Discharge



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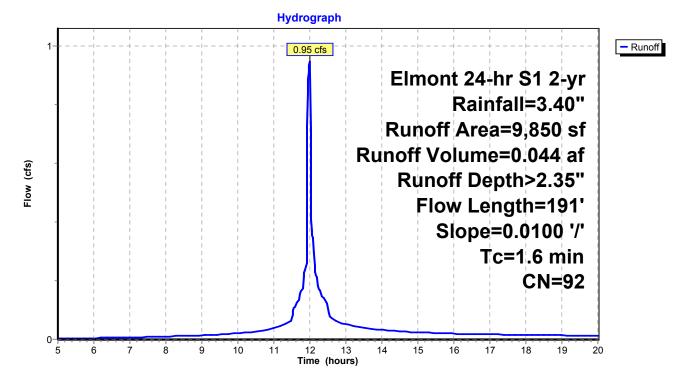
Summary for Subcatchment 1S: Arena SubCat A4

Runoff = 0.95 cfs @ 12.00 hrs, Volume= 0.044 af, Depth> 2.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

	Α	rea (sf)	CN	Description			
*		8,210	98	Paved			
*		1,640	61	Lscape			
_		9,850	92	2 Weighted Average			
		1,640	61	16.65% Pervious Area			
		8,210	98	83.35% Imp	pervious Ar	ea	
	Tc (min)	Length (feet)	Slope (ft/ft	•	Capacity (cfs)	Description	
	1.6	191	0.0100	2.03		Shallow Concentrated Flow, Paved Kv= 20.3 fps	

Subcatchment 1S: Arena SubCat A4



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Page 38

Summary for Subcatchment 2S: Arena SubCat A5

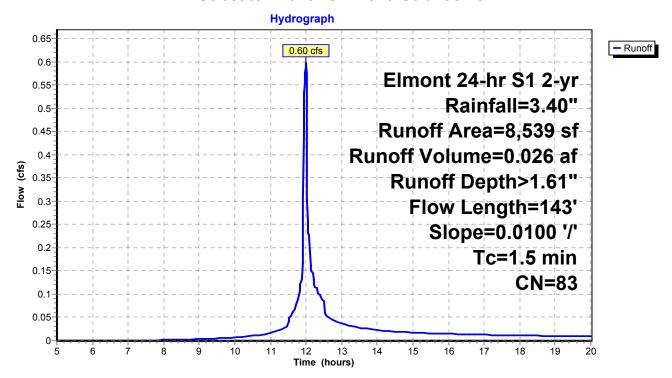
Runoff = 0.60 cfs @ 12.00 hrs, Volume= 0.026 af, Depth> 1.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

	Α	rea (sf)	CN	Description					
*		5,060	98	Paved					
*		3,479	61	Lscape					
		8,539	83	Weighted Average					
		3,479	61	40.74% Pe	40.74% Pervious Area				
		5,060	98	59.26% Imp	pervious Ar	ea			
	Tc (min)	Length (feet)	Slop (ft/ft	,	Capacity (cfs)	Description			
	1.2	143	0.010	, ,	()	Shallow Concentrated Flow, Paved Kv= 20.3 fps			

1.2 143 Total, Increased to minimum Tc = 1.5 min

Subcatchment 2S: Arena SubCat A5



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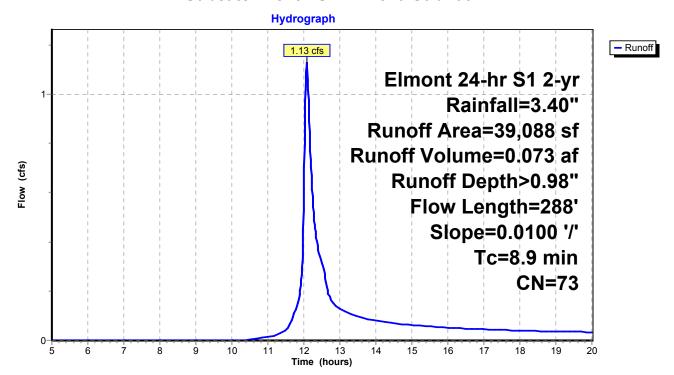
Summary for Subcatchment ASA1: Arena SubCat A-1

Runoff = 1.13 cfs @ 12.08 hrs, Volume= 0.073 af, Depth> 0.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

_	Α	rea (sf)	CN	Description		
*		13,051	98	Impervious		
*		26,037	61	Lscape Are	а	
		39,088	73	Weighted A	verage	
		26,037	61	66.61% Per	rvious Area	
		13,051	98	33.39% Imp	pervious Ar	ea
	Tc	Length	Slope	•	Capacity	Description
_	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)	
	1.5	139	0.0100	1.50		Shallow Concentrated Flow,
						Grassed Waterway Kv= 15.0 fps
	7.1	49	0.0100	0.12		Sheet Flow,
						Grass: Short n= 0.150 P2= 3.40"
	0.3	100	0.0100	5.70	7.00	Pipe Channel,
						15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31'
_						n= 0.012 Corrugated PP, smooth interior
	8.9	288	Total			

Subcatchment ASA1: Arena SubCat A-1



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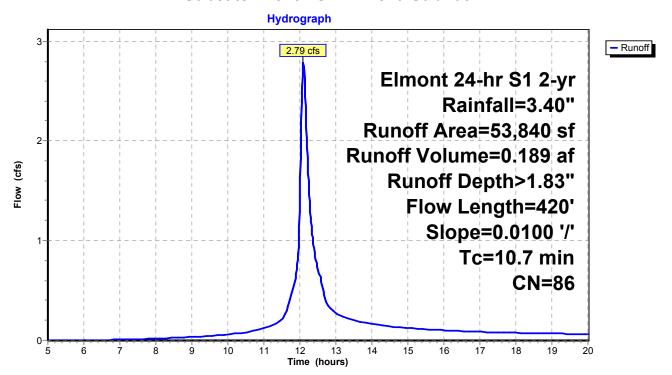
Summary for Subcatchment ASA2: Arena SubCat A2

Runoff = 2.79 cfs @ 12.10 hrs, Volume= 0.189 af, Depth> 1.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

	Д	rea (sf)	CN	Description		
*		18,121	61	Lscape		
*		35,719		Impervious		
		53,840	86	Weighted A	verage	
		18,121	61	33.66% Pei	rvious Area	
		35,719	98	66.34% Imp	pervious Ar	ea
	Тс	Length	Slope		Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	8.3	60	0.0100	0.12		Sheet Flow,
						Grass: Short n= 0.150 P2= 3.40"
	2.1	250	0.0100	2.03		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	0.3	110	0.0100	5.36	4.21	Pipe Channel,
						12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25'
_						n= 0.011 Concrete pipe, straight & clean
	10.7	420	Total			

Subcatchment ASA2: Arena SubCat A2



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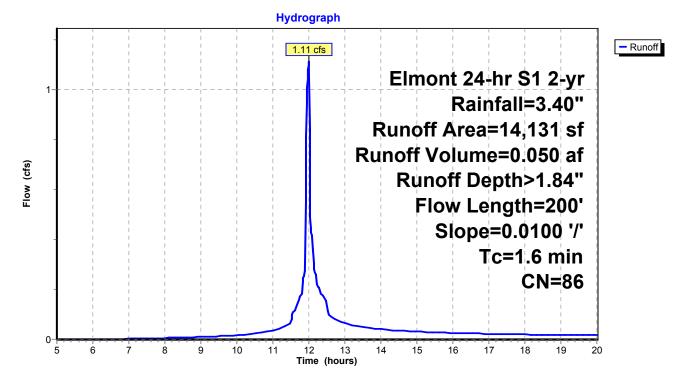
Summary for Subcatchment ASA3: Arena SubCat A3

Runoff = 1.11 cfs @ 12.00 hrs, Volume= 0.050 af, Depth> 1.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

	Α	rea (sf)	CN	Description				
*		9,367	98	Impervious				
*		4,764	61	Lscape				
		14,131	86	Weighted A	Weighted Average			
		4,764	61	33.71% Per	33.71% Pervious Area			
		9,367	98	66.29% Imp	pervious Ar	ea		
	Tc (min)	Length (feet)	Slop (ft/f	,	Capacity (cfs)	Description		
	1.6	200	0.010	0 2.03		Shallow Concentrated Flow, Paved Kv= 20.3 fps		

Subcatchment ASA3: Arena SubCat A3



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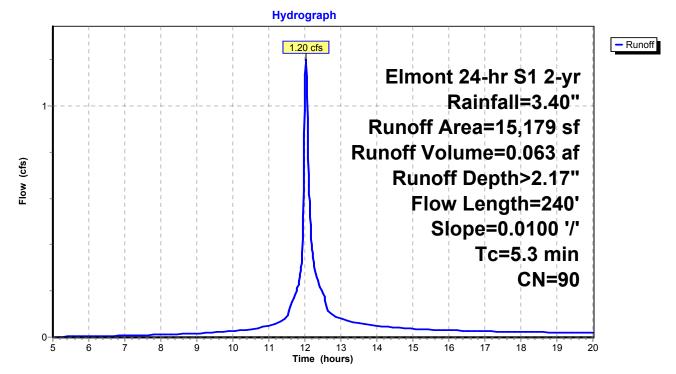
Summary for Subcatchment ASA4: Arena SubCat A4

Runoff = 1.20 cfs @ 12.03 hrs, Volume= 0.063 af, Depth> 2.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

	Α	rea (sf)	CN	Description		
*		11,926	98	Paved		
*		3,253	61	Lscape		
		15,179	90	Weighted A	verage	
		3,253	61	21.43% Pe	rvious Area	l
		11,926	98	78.57% Imp	pervious Ar	ea
	Тс	Length	Slope	•	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	1.8	220	0.0100	2.03		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	3.5	20	0.0100	0.10		Sheet Flow,
_						Grass: Short n= 0.150 P2= 3.40"
	5.3	240	Total			

Subcatchment ASA4: Arena SubCat A4



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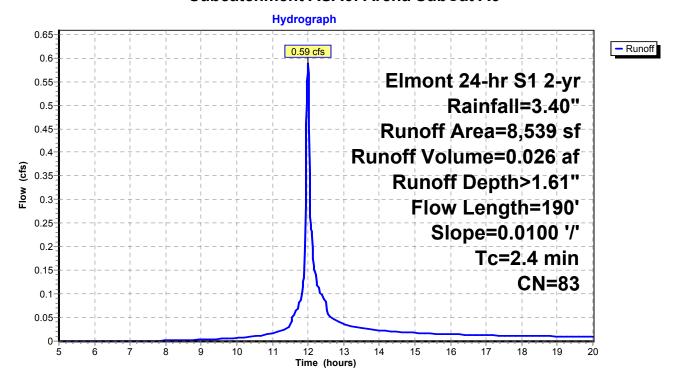
Summary for Subcatchment ASA6: Arena SubCat A6

Runoff = 0.59 cfs @ 12.01 hrs, Volume= 0.026 af, Depth> 1.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

	Α	rea (sf)	CN	Description			
*		5,060	98	Paved			
*		3,479	61	Lscape			
		8,539 83 Weighted Average					
		3,479	61	40.74% Pe	rvious Area		
		5,060	98	59.26% lmp	pervious Ar	ea	
	Tc	Length	Slope	,	Capacity	Description	
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)		
	2.1	150	0.0100	1.17		Sheet Flow,	
						Smooth surfaces n= 0.011 P2= 3.40"	
	0.3	40	0.0100	2.03		Shallow Concentrated Flow,	
						Paved Kv= 20.3 fps	
	2.4	190	Total				

Subcatchment ASA6: Arena SubCat A6



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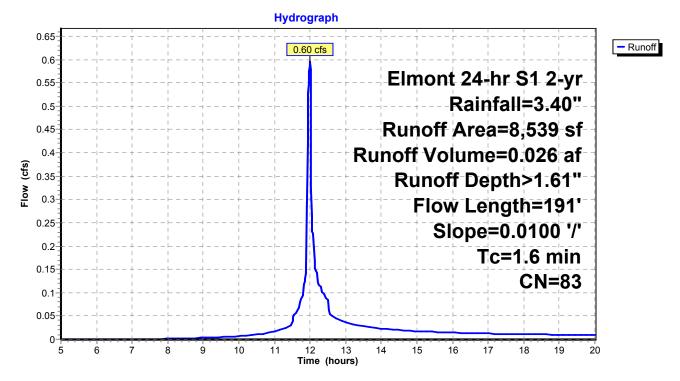
Summary for Subcatchment ASA7: Arena SubCat A7

Runoff = 0.60 cfs @ 12.00 hrs, Volume= 0.026 af, Depth> 1.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

	Α	rea (sf)	CN	Description			
*		5,060	98	Paved			
*		3,479	61	Lscape			
		8,539	83	Weighted A	verage		
		3,479	61	40.74% Pervious Area			
		5,060	98	59.26% Imp	ea		
_	Tc (min)	Length (feet)	Slop (ft/ft	,	Capacity (cfs)	Description	
	1.6	191	0.010	0 2.03		Shallow Concentrated Flow, Paved Kv= 20.3 fps	

Subcatchment ASA7: Arena SubCat A7



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Page 45

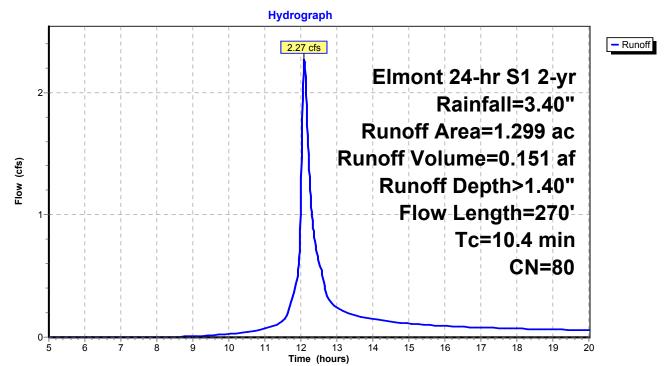
Summary for Subcatchment ASA8: Arena SubCat A8

Runoff = 2.27 cfs @ 12.10 hrs, Volume= 0.151 af, Depth> 1.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

_	Area	(ac) C	N Des	cription		
*	0.	664	98 Pav	ed		
*	0.	635	61 Lsca	аре		
	1.	299	80 Wei	ghted Aver	age	
	0.	635	61 48.8	88% Pervio	us Area	
	0.	664	98 51.1	2% Imper	vious Area	
	_				_	
	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	8.8	120	0.0350	0.23		Sheet Flow,
						Grass: Short n= 0.150 P2= 3.40"
	1.6	150	0.0200	1.54		Sheet Flow,
_						Smooth surfaces n= 0.011 P2= 3.40"
	10.4	270	Total			

Subcatchment ASA8: Arena SubCat A8



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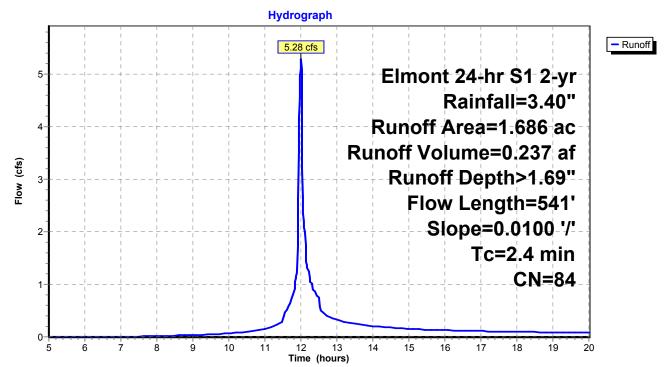
Summary for Subcatchment ASB1: Arena SubCat B1

Runoff = 5.28 cfs @ 12.01 hrs, Volume= 0.237 af, Depth> 1.69"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

	Area	(ac) C	N Des	cription		
*	1.	051	98 Pave	ed		
*	0.	635	31 Lsca	аре		
	1.	686	34 Weig	ghted Aver	rage	
	0.	635	37.6	6% Pervio	us Area	
	1.	051	98 62.3	4% Imper	vious Area	
	Tc	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	1.6	191	0.0100	2.03		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	8.0	350	0.0100	7.03	12.41	Pipe Channel,
						18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38'
_						n= 0.011 Concrete pipe, straight & clean
	2.4	541	Total			

Subcatchment ASB1: Arena SubCat B1



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Page 47

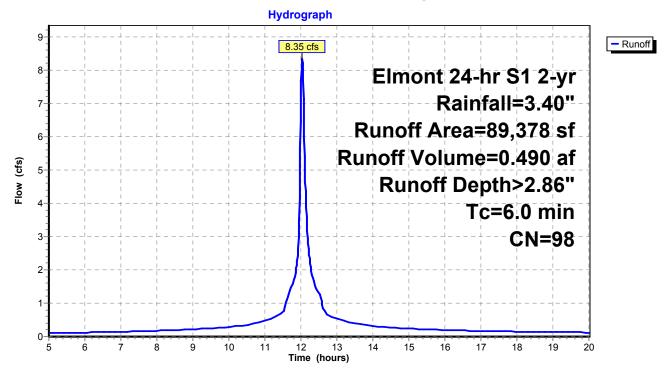
Summary for Subcatchment STM-1: Building Storm 1

Runoff = 8.35 cfs @ 12.04 hrs, Volume= 0.490 af, Depth> 2.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

_	Α	rea (sf)	CN	Description			
*		89,378	98	Building Stormwater			
		89,378 98 100.00% Impervious Area			npervious A	Area	
	Тс	Length	Slope	e Velocity	Capacity	Description	
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)		
	6.0					Direct Entry	

Subcatchment STM-1: Building Storm 1



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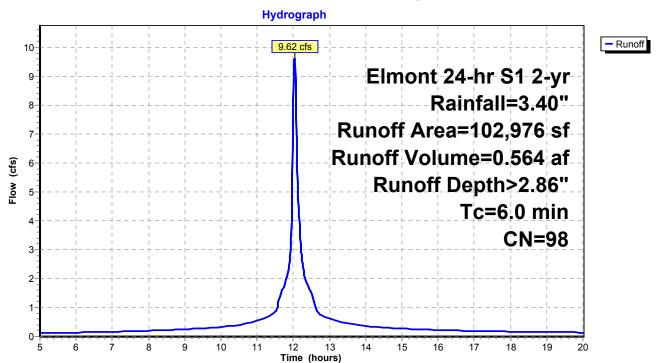
Summary for Subcatchment STM-2: Building Storm 2

Runoff = 9.62 cfs @ 12.04 hrs, Volume= 0.564 af, Depth> 2.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

	Α	rea (sf)	CN [Description				
*	1	02,976	98 E	98 Building Stormwater				
	102,976		98 100.00% Impervious A			Area		
	Тс	- 3	Slope	,		Description		
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
	6.0					Direct Entry		

Subcatchment STM-2: Building Storm 2



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Page 49

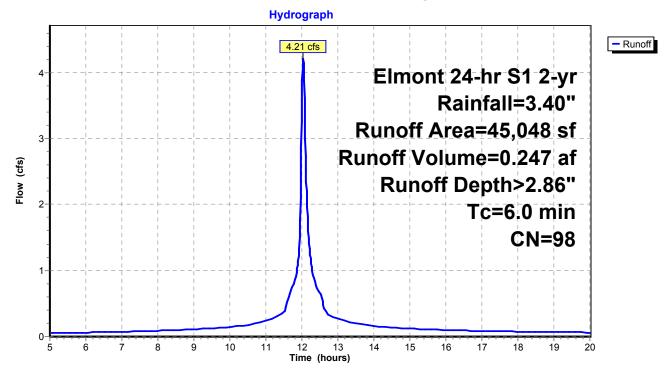
Summary for Subcatchment STM-3: Building Storm 3

Runoff = 4.21 cfs @ 12.04 hrs, Volume= 0.247 af, Depth> 2.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

	Α	rea (sf)	CN [Description				
*		45,048	98 E	98 Building Stormwater				
		45,048	98 ′	100.00% Im	Area			
	Tc	0	Slope	,	Capacity	Description		
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	Dive of Frating		
	6.0					Direct Entry,		

Subcatchment STM-3: Building Storm 3



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Page 50

Summary for Pond A1-9: Drywell System

Inflow Area = 8.657 ac, 68.29% Impervious, Inflow Depth > 0.85" for 2-yr event Inflow = 15.21 cfs @ 12.01 hrs, Volume= 0.612 af

Outflow = 7.05 cfs @ 12.14 hrs, Volume= 0.611 af, Atten= 54%, Lag= 7.7 min

Discarded = 7.05 cfs @ 12.14 hrs, Volume= 0.611 af Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs / 4 Peak Elev= 62.09' @ 12.14 hrs Surf.Area= 0.021 ac Storage= 0.106 af

Plug-Flow detention time= 4.8 min calculated for 0.611 af (100% of inflow) Center-of-Mass det. time= 4.7 min (786.9 - 782.2)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	0.312 af	11.33'D x 15.00'H Vertical Cone/Cylinderx 9
#2	73.00'	3.955 af	Custom Stage Data (Conic)Listed below (Recalc)

4.267 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
1.000	0.000	0.000	1.000
2.000	1.471	1.471	2.000
3.000	2.483	3.955	3.001
	(acres) 1.000 2.000	(acres) (acre-feet) 1.000 0.000 2.000 1.471	(acres) (acre-feet) (acre-feet) 1.000 0.000 0.000 2.000 1.471 1.471

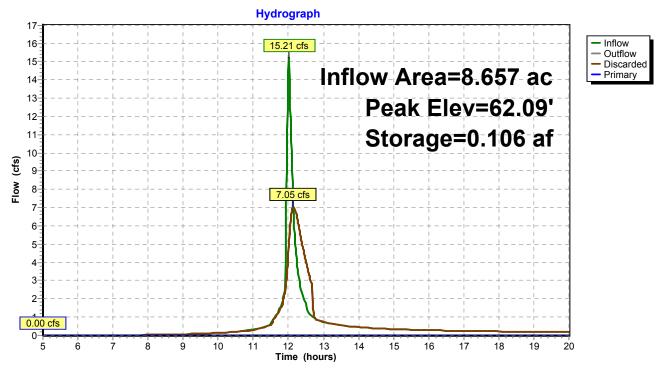
Device	Routing	Invert	Outlet Devices
#1	Discarded	57.00'	120.000 in/hr Exfiltration over Wetted area below 72.00'
#2	Primary	68.00'	24.0" Round Culvert
	-		L= 10.0' CPP, mitered to conform to fill, Ke= 0.700

Inlet / Outlet Invert= 68.00' / 67.90' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf

Discarded OutFlow Max=7.05 cfs @ 12.14 hrs HW=62.09' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 7.05 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=57.00' (Free Discharge) 2=Culvert (Controls 0.00 cfs)

Pond A1-9: Drywell System



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Summary for Pond A10: Catch Basin

Inflow Area = 5.672 ac, 74.00% Impervious, Inflow Depth > 0.47" for 2-yr event

Inflow = 8.69 cfs @ 12.01 hrs, Volume= 0.223 af

Outflow = 8.69 cfs @ 12.01 hrs, Volume= 0.223 af, Atten= 0%, Lag= 0.0 min

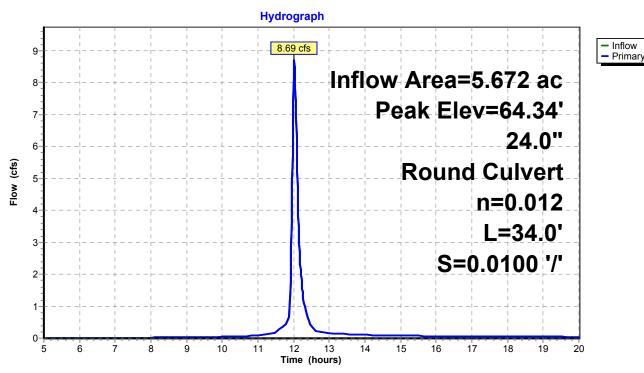
Primary = 8.69 cfs @ 12.01 hrs, Volume= 0.223 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 64.34' @ 12.01 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	62.84'	24.0" Round Culvert
			L= 34.0' CPP, mitered to conform to fill, Ke= 0.700
			Inlet / Outlet Invert= 62.84' / 62.50' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=8.62 cfs @ 12.01 hrs HW=64.33' (Free Discharge)
—1=Culvert (Barrel Controls 8.62 cfs @ 4.76 fps)

Pond A10: Catch Basin



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Summary for Pond A11: Catch Basin

Inflow Area = 5.476 ac, 74.52% Impervious, Inflow Depth > 0.43" for 2-yr event

Inflow = 8.14 cfs @ 12.02 hrs, Volume= 0.197 af

Outflow = 8.14 cfs @ 12.02 hrs, Volume= 0.197 af, Atten= 0%, Lag= 0.0 min

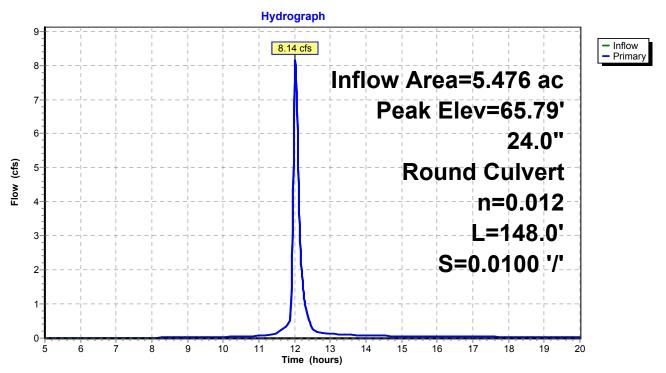
Primary = 8.14 cfs @ 12.02 hrs, Volume= 0.197 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 65.79' @ 12.02 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary		24.0" Round Culvert L= 148.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 64.41' / 62.93' S= 0.0100'/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=8.13 cfs @ 12.02 hrs HW=65.79' (Free Discharge) 1=Culvert (Inlet Controls 8.13 cfs @ 3.53 fps)

Pond A11: Catch Basin



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Summary for Pond A12: Catch Basin

Inflow Area = 5.280 ac, 75.09% Impervious, Inflow Depth > 0.39" for 2-yr event

Inflow = 7.60 cfs @ 12.02 hrs, Volume= 0.171 af

Outflow = 7.60 cfs @ 12.02 hrs, Volume= 0.171 af, Atten= 0%, Lag= 0.0 min

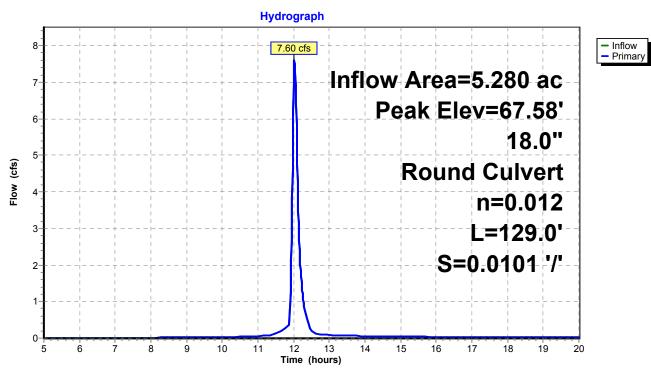
Primary = 7.60 cfs @ 12.02 hrs, Volume= 0.171 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 67.58' @ 12.02 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	65.81'	18.0" Round Culvert L= 129.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 65.81' / 64.51' S= 0.0101'/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=7.59 cfs @ 12.02 hrs HW=67.58' (Free Discharge) 1=Culvert (Inlet Controls 7.59 cfs @ 4.29 fps)

Pond A12: Catch Basin



Arena

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Summary for Pond A13: Catch Basin

Inflow Area = 5.084 ac, 75.70% Impervious, Inflow Depth > 0.34" for 2-yr event

Inflow = 7.25 cfs @ 12.03 hrs, Volume= 0.144 af

Outflow = 7.25 cfs @ 12.03 hrs, Volume= 0.144 af, Atten= 0%, Lag= 0.0 min

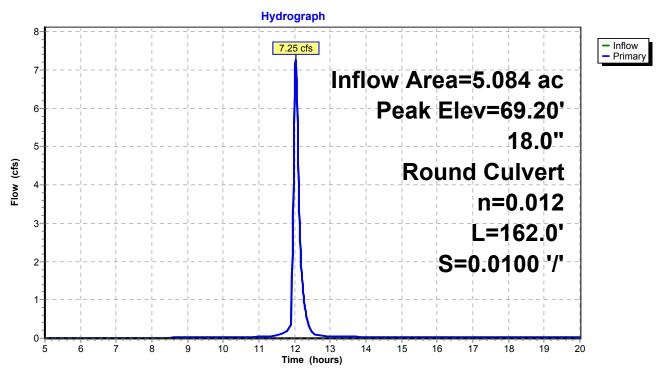
Primary = 7.25 cfs @ 12.03 hrs, Volume= 0.144 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 69.20' @ 12.03 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	67.52'	18.0" Round Culvert L= 162.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 67.52' / 65.90' S= 0.0100'/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=7.24 cfs @ 12.03 hrs HW=69.20' (Free Discharge) 1=Culvert (Inlet Controls 7.24 cfs @ 4.09 fps)

Pond A13: Catch Basin



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Page 56

Summary for Pond A14: Drywell

Inflow Area = 4.858 ac, 75.34% Impervious, Inflow Depth > 1.21" for 2-yr event Inflow = 8.35 cfs @ 12.04 hrs, Volume= 0.490 af Outflow = 8.32 cfs @ 12.04 hrs, Volume= 0.489 af, Atten= 0%, Lag= 0.2 min Discarded = 1.49 cfs @ 12.04 hrs, Volume= 0.389 af Primary = 6.82 cfs @ 12.04 hrs, Volume= 0.100 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs / 4 Peak Elev= 69.28' @ 12.04 hrs Surf.Area= 0.002 ac Storage= 0.028 af

Plug-Flow detention time= 5.3 min calculated for 0.489 af (100% of inflow) Center-of-Mass det. time= 5.1 min (742.6 - 737.6)

Volume	Invert	Avail.Storaç	ge Stor	age Description		
#1	57.00'	0.035	af 11. 3	3'D x 15.00'H Ve	ertical Cone/Cy	/linder
#2	73.00'	1.471	af Cus	tom Stage Data	(Conic)Listed b	pelow (Recalc)
		1.506	af Tota	al Available Stora	ge	
Elevation	on Surf.Area	a Ind	:Store	Cum.Store	Wet.Area	
(fee	et) (acres	s) (acre	e-feet)	(acre-feet)	(acres)	
73.0	00 1.00	0	0.000	0.000	1.000	
74.0	2.00	0	1.471	1.471	2.000	
		_				
<u>Device</u>	Routing	Invert	Outlet D	evices		
#1	Primary	67.86'	24.0" R	ound Culvert		
			L= 16.0'	CPP, mitered to	conform to fill,	Ke= 0.700
			Inlet / O	utlet Invert= 67.80	6' / 67.75' S= 0	0.0069 '/' Cc= 0.900
			n= 0.012	2 Corrugated PP	, smooth interio	r, Flow Area= 3.14 sf
#2	Discarded			O O	•	area below 72.00'

Discarded OutFlow Max=1.49 cfs @ 12.04 hrs HW=69.28' (Free Discharge)

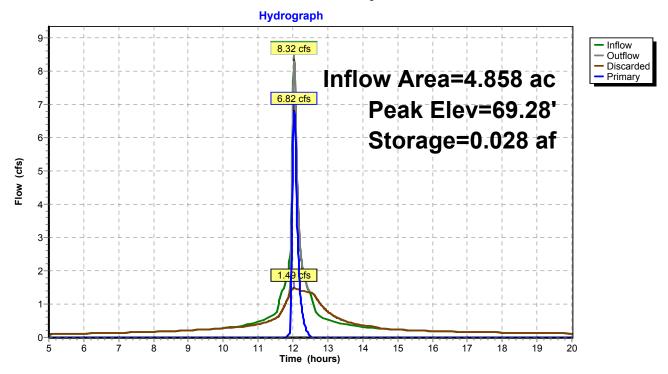
2=Exfiltration (Exfiltration Controls 1.49 cfs)

Primary OutFlow Max=6.81 cfs @ 12.04 hrs HW=69.28' (Free Discharge) 1=Culvert (Barrel Controls 6.81 cfs @ 4.01 fps)

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Page 57

Pond A14: Drywell



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Page 58

Summary for Pond A15: Drywell

2.806 ac, 57.32% Impervious, Inflow Depth = 0.00" for 2-yr event Inflow Area = Inflow 5.00 hrs, Volume= 0.00 cfs @ 0.000 af 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min Outflow 0.00 cfs @ Discarded = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af Primary 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs / 8 Peak Elev= 57.00' @ 5.00 hrs Surf.Area= 0.002 ac Storage= 0.000 af

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert A	vail.Storage	e Storag	ge Description		
#1	57.00'	0.035 a	f 11.33'	D x 15.00'H Ve	rtical Cone/Cyl	inder
#2	73.00'	1.471 a	f Custo	m Stage Data	(Conic)Listed be	elow (Recalc)
		1.506 a	f Total /	Available Storag	je	
Elevation (fee			Store -feet)	Cum.Store (acre-feet)	Wet.Area (acres)	
73.0	00 1.000	(0.000	0.000	1.000	
74.0	2.000		1.471	1.471	2.000	
Device	Routing	Invert C	Outlet Dev	vices		
#1	Primary	67.86' 2	4.0" Roi	und Culvert		
·		l:	L= 16.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 67.86' / 67.75' S= 0.0069 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf			
#2 Discarded		57.00' 1	20.000 ir Phase-In		over Wetted a	rea below 72.00'

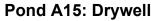
Discarded OutFlow Max=0.00 cfs @ 5.00 hrs HW=57.00' (Free Discharge) **2=Exfiltration** (Controls 0.00 cfs)

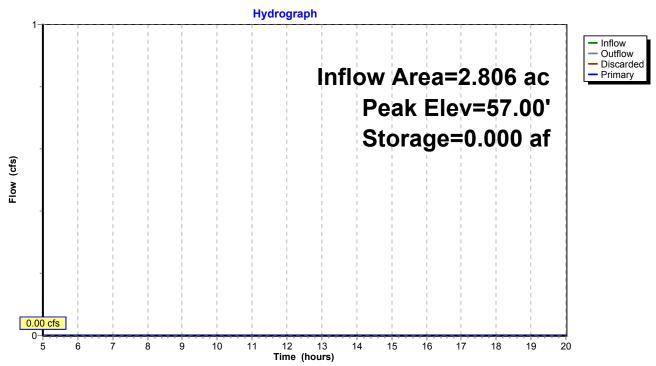
Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=57.00' (Free Discharge) 1=Culvert (Controls 0.00 cfs)

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Page 59





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Page 60

Summary for Pond A16-20: Drywell System

Inflow Area = 2.806 ac, 57.32% Impervious, Inflow Depth > 0.48" for 2-yr event
Inflow = 2.23 cfs @ 12.01 hrs, Volume= 0.113 af
Outflow = 1.61 cfs @ 12.05 hrs, Volume= 0.113 af, Atten= 28%, Lag= 2.4 min
Discarded = 1.61 cfs @ 12.05 hrs, Volume= 0.113 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 57.41' @ 12.05 hrs Surf.Area= 0.012 ac Storage= 0.005 af

Plug-Flow detention time= 1.2 min calculated for 0.113 af (100% of inflow) Center-of-Mass det. time= 1.0 min (777.5 - 776.5)

Volume	e Invert	Avail.Storage	Storage Description
#1	57.00'	0.174 af	11.33'D x 15.00'H Vertical Cone/Cylinderx 5
#2	73.00'	3.955 af	Custom Stage Data (Conic)Listed below (Recalc)

4.128 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
1.000	0.000	0.000	1.000
2.000	1.471	1.471	2.000
3.000	2.483	3.955	3.001
	(acres) 1.000 2.000	(acres) (acre-feet) 1.000 0.000 2.000 1.471	(acres) (acre-feet) (acre-feet) 1.000 0.000 0.000 2.000 1.471 1.471

Device	Routing	Invert	Outlet Devices
#1	Discarded	57.00'	120.000 in/hr Exfiltration over Wetted area below 72.00'
#2	Primary	68.00'	18.0" Round Culvert
			L= 12.0' CPP, mitered to conform to fill, Ke= 0.700
			Inlet / Outlet Invert= 68.00' / 67.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=1.60 cfs @ 12.05 hrs HW=57.41' (Free Discharge) 1=Exfiltration (Exfiltration Controls 1.60 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=57.00' (Free Discharge) 2=Culvert (Controls 0.00 cfs)

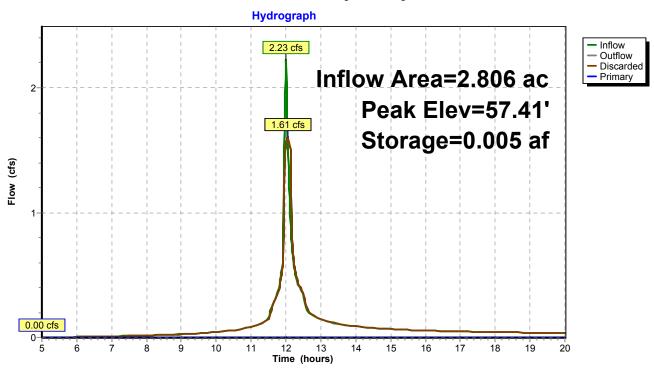
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Page 61

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Pond A16-20: Drywell System



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Page 62

Summary for Pond A21: Drywell

Inflow Area = 2.133 ac, 52.48% Impervious, Inflow Depth = 0.02" for 2-yr event
Inflow = 0.69 cfs @ 12.18 hrs, Volume= 0.004 af
Outflow = 0.34 cfs @ 12.23 hrs, Volume= 0.004 af, Atten= 50%, Lag= 3.0 min

Discarded = 0.34 cfs @ 12.23 hrs, Volume= 0.004 af Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs / 7 Peak Elev= 57.64' @ 12.23 hrs Surf.Area= 0.002 ac Storage= 0.001 af

Plug-Flow detention time= 2.3 min calculated for 0.004 af (100% of inflow) Center-of-Mass det. time= 2.3 min (734.7 - 732.5)

Volume	Invert A	vail.Stora	ge Stora	age Description			
#1	57.00'	0.046	af 11.3	3'D x 20.00'H Ve	ertical Cone/Cy	linder	
			0.052	2 af Overall - 4.0	" Wall Thickness	s = 0.046 af	
#2	73.00'	1.471	af Cust	tom Stage Data	(Conic)Listed b	elow (Recalc)	
		1.518	af Total	Available Stora	ge		
Elevation	on Surf.Area	Ind	c.Store	Cum.Store	Wet.Area		
(fee	et) (acres)	(acr	e-feet)	(acre-feet)	(acres)		
73.0	00 1.000		0.000	0.000	1.000		
74.0	2.000		1.471	1.471	2.000		
<u>Device</u>	Routing	Invert	Outlet De	evices			
#1	Primary	68.00'	15.0" Ro	ound Culvert			
			L= 263.0	' CPP, mitered	to conform to fill	, Ke= 0.700	
			Inlet / Ou	itlet Invert= 68.00	0' / 65.41' S= 0	.0098 '/' Cc= 0.900	
			n = 0.012	Corrugated PP	, smooth interior	, Flow Area= 1.23 sf	
#2 Discarded		57.00'	120.000 in/hr Exfiltration over Wetted area below 72.00'				

Discarded OutFlow Max=0.34 cfs @ 12.23 hrs HW=57.64' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 0.34 cfs)

Phase-In= 0.03'

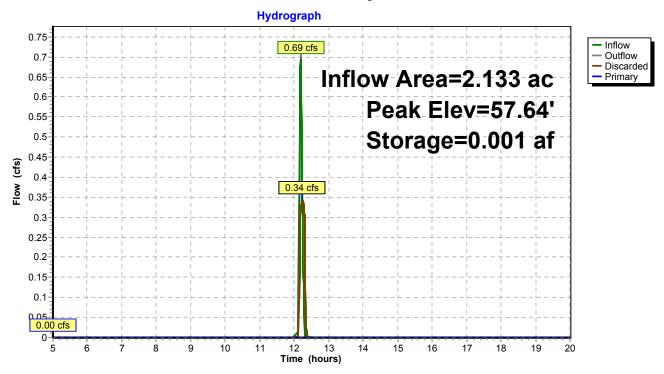
Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=57.00' (Free Discharge) 1=Culvert (Controls 0.00 cfs)

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Page 63

Pond A21: Drywell



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Page 64

Summary for Pond A22: Drywell

Inflow Area = 2.133 ac, 52.48% Impervious, Inflow Depth > 1.06" for 2-yr event

Inflow = 2.79 cfs @ 12.10 hrs, Volume= 0.189 af

Outflow = 2.10 cfs @ 12.18 hrs, Volume= 0.189 af, Atten= 24%, Lag= 5.3 min

Discarded = 1.41 cfs @ 12.18 hrs, Volume= 0.184 af Primary = 0.69 cfs @ 12.18 hrs, Volume= 0.004 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs / 7 Peak Elev= 68.44' @ 12.18 hrs Surf.Area= 0.002 ac Storage= 0.026 af

Plug-Flow detention time= 6.4 min calculated for 0.189 af (100% of inflow) Center-of-Mass det. time= 6.2 min (796.3 - 790.2)

Volume	Invert A	Avail.Storage	e Storag	ge Description				
#1	57.00'	0.046 a	046 af 11.33'D x 20.00'H V e		rtical Cone/Cyli	nder		
#2	73.00'	1.471 a	f Custo	Custom Stage Data (Conic)Listed below (Recalc)				
		1.518 a	f Total	Available Storaç	ge			
Elevation (fee			Store -feet)	Cum.Store (acre-feet)	Wet.Area (acres)			
73.0	00 1.000) (0.000	0.000	1.000			
74.0	2.000) '	1.471	1.471	2.000			
Device	Routing	Invert C	Outlet Dev	vices				
#1	Primary	68.00' 1	5.0" Ro	und Culvert				
	•	L	= 12.0'	CPP, mitered to	conform to fill, I	Ke= 0.700		
		li	nlet / Out	let Invert= 68.00	0' / 67.88' S= 0.0)100 '/' Cc= 0.900		
		n	= 0.012	Corrugated PP,	smooth interior,	Flow Area= 1.23 sf		
#2	Discarded	57.00' 1						

Discarded OutFlow Max=1.41 cfs @ 12.18 hrs HW=68.43' (Free Discharge)

2=Exfiltration (Exfiltration Controls 1.41 cfs)

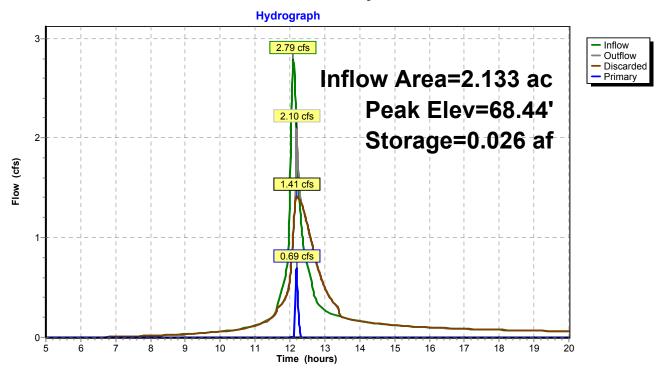
Primary OutFlow Max=0.66 cfs @ 12.18 hrs HW=68.43' (Free Discharge) 1=Culvert (Barrel Controls 0.66 cfs @ 2.61 fps)

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Page 65

Pond A22: Drywell



Primary

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Page 66

Summary for Pond A23: Drywell

0.000 af

Inflow Area = 0.897 ac, 33.39% Impervious, Inflow Depth > 0.98" for 2-yr event

Inflow = 1.13 cfs @ 12.08 hrs, Volume= 0.073 af

Outflow = 0.63 cfs @ 12.22 hrs, Volume= 0.073 af, Atten= 45%, Lag= 8.7 min

Discarded = 0.897 ac, 33.39% Impervious, Inflow Depth > 0.98" for 2-yr event

0.073 af

0.073 af, Atten= 45%, Lag= 8.7 min

0.63 cfs @ 12.22 hrs, Volume= 0.073 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs / 7 Peak Elev= 60.49' @ 12.22 hrs Surf.Area= 0.002 ac Storage= 0.008 af

5.00 hrs, Volume=

0.00 cfs @

Plug-Flow detention time= 3.5 min calculated for 0.073 af (100% of inflow) Center-of-Mass det. time= 3.3 min (828.8 - 825.4)

Volume	Invert A	vail.Stora	ge Stora	age Description					
#1	57.00'	0.046		11.33'D x 20.00'H Vertical Cone/Cylinder					
				2 af Overall - 4.0					
#2	73.00'	1.471	af Cust	tom Stage Data	(Conic)Listed	below (Recalc)			
		1.518	af Total	otal Available Storage					
Elevation	on Surf.Area	In	c.Store	Cum.Store	Wet.Area				
(fee			re-feet)	(acre-feet)	(acres)				
73.0			0.000	0.000	1.000				
			0.000						
74.0	2.000		1.471	1.471	2.000				
Device	Routing	Invert	Outlet De	evices					
#1	Primary	69.80'	15.0" Ro	ound Culvert					
	•		L= 184.0	' CPP, mitered	to conform to t	fill, Ke= 0.700			
			Inlet / Ou	itlet Invert= 69.8	0' / 68.05' S=	0.0095 '/' Cc= 0.900			
#2	Discarded	57.00'	n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf 120.000 in/hr Exfiltration over Wetted area Phase-In= 0.03'						

Discarded OutFlow Max=0.63 cfs @ 12.22 hrs HW=60.49' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 0.63 cfs)

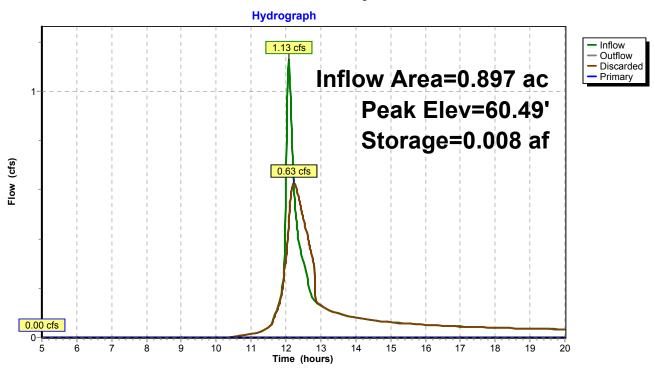
Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=57.00' (Free Discharge) 1=Culvert (Controls 0.00 cfs)

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Page 67

Pond A23: Drywell



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Page 68

Summary for Pond B1: Catch Basin

Inflow Area = 8.657 ac, 68.29% Impervious, Inflow Depth = 0.00" for 2-yr event

Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

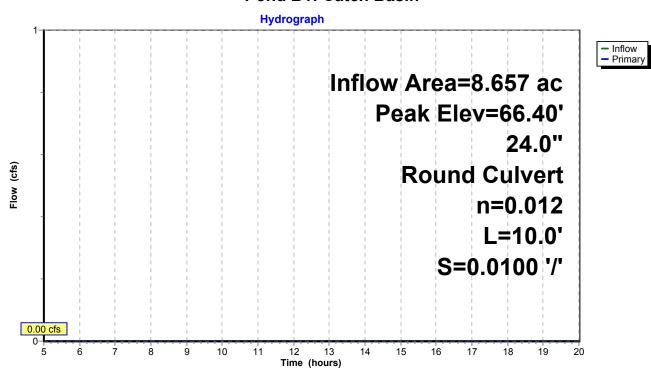
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 66.40' @ 5.00 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary		24.0" Round Culvert L= 10.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 66.40' / 66.30' S= 0.0100'/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=66.40' (Free Discharge) 1=Culvert (Controls 0.00 cfs)

Pond B1: Catch Basin



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Page 69

Summary for Pond SS1: Catch Basin

Inflow Area = 8.657 ac, 68.29% Impervious, Inflow Depth = 0.00" for 2-yr event

Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

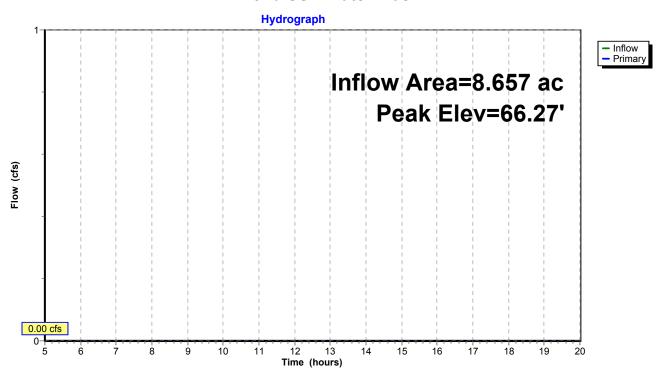
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 66.27' @ 5.00 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	66.27'	24.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=66.27' (Free Discharge) 1=Orifice/Grate (Controls 0.00 cfs)

Pond SS1: Catch Basin



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Page 70

Summary for Link DD_E: Downstream Discharge

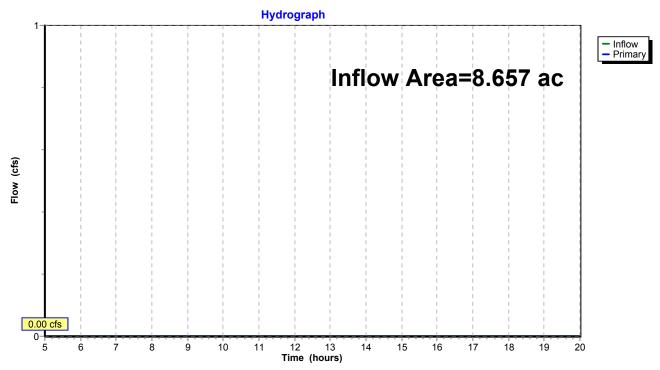
Inflow Area = 8.657 ac, 68.29% Impervious, Inflow Depth = 0.00" for 2-yr event

Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs

Link DD_E: Downstream Discharge



Page 71

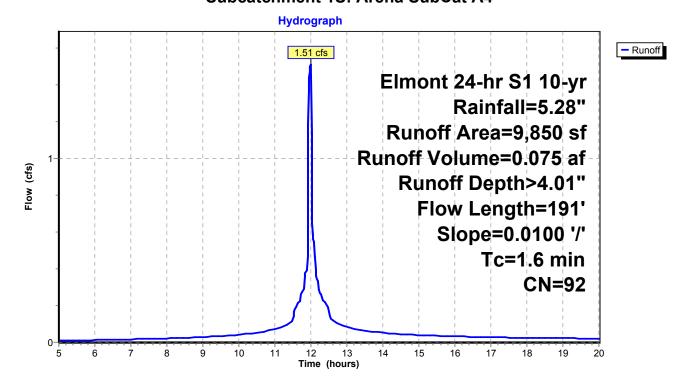
Summary for Subcatchment 1S: Arena SubCat A4

Runoff = 1.51 cfs @ 12.00 hrs, Volume= 0.075 af, Depth> 4.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

	Α	rea (sf)	CN	Description	Description						
*		8,210	98	Paved							
*		1,640	61	Lscape							
		9,850	92	Weighted A	Veighted Average						
		1,640	61	16.65% Pervious Area							
		8,210	98	83.35% Imp	pervious Ar	ea					
	Tc (min)	Length (feet)	Slop (ft/ft	•	Capacity (cfs)	Description					
	1.6	191	0.010	2.03		Shallow Concentrated Flow, Paved Kv= 20.3 fps					

Subcatchment 1S: Arena SubCat A4



Page 72

Summary for Subcatchment 2S: Arena SubCat A5

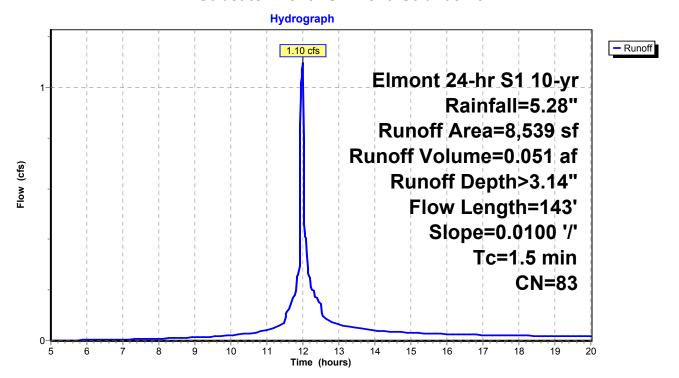
Runoff = 1.10 cfs @ 12.00 hrs, Volume= 0.051 af, Depth> 3.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

	rea (sf)	CN	Description					
*	5,060	98	Paved	Paved				
*	3,479	61	Lscape					
	8,539	83	Weighted Average					
	3,479	61	40.74% Pervious Area					
	5,060	98	59.26% lmp	pervious Ar	ea			
Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description			
1.2	143	0.0100	2.03		Shallow Concentrated Flow,			
					Paved Kv= 20.3 fps			

1.2 143 Total, Increased to minimum Tc = 1.5 min

Subcatchment 2S: Arena SubCat A5



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Page 73

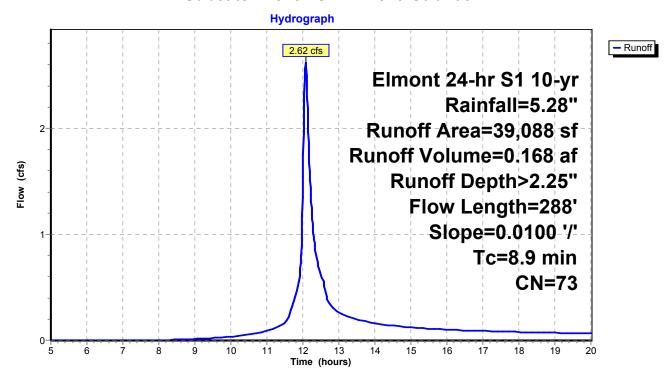
Summary for Subcatchment ASA1: Arena SubCat A-1

Runoff = 2.62 cfs @ 12.07 hrs, Volume= 0.168 af, Depth> 2.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

_	Д	rea (sf)	CN	Description		
*		13,051	98	Impervious		
*		26,037	61	Lscape Are	а	
		39,088	73	Weighted A	verage	
		26,037	61	66.61% Per	vious Area	
		13,051	98	33.39% Imp	ervious Ar	ea
	Тс	Length	Slope		Capacity	Description
_	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)	
	1.5	139	0.0100	1.50		Shallow Concentrated Flow,
						Grassed Waterway Kv= 15.0 fps
	7.1	49	0.0100	0.12		Sheet Flow,
						Grass: Short n= 0.150 P2= 3.40"
	0.3	100	0.0100	5.70	7.00	Pipe Channel,
						15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31'
_						n= 0.012 Corrugated PP, smooth interior
	8.9	288	Total			

Subcatchment ASA1: Arena SubCat A-1



Page 74

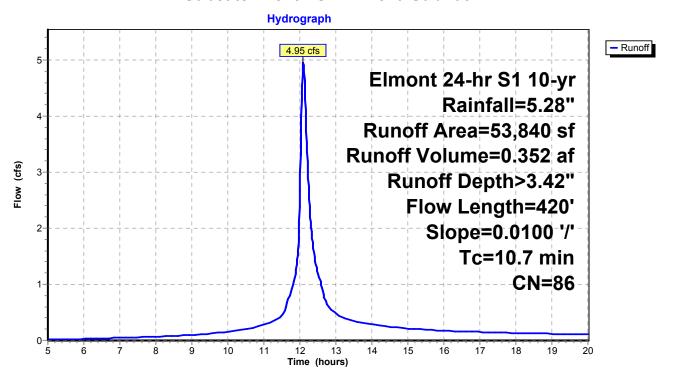
Summary for Subcatchment ASA2: Arena SubCat A2

Runoff = 4.95 cfs @ 12.09 hrs, Volume= 0.352 af, Depth> 3.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

	Д	rea (sf)	CN I	Description		
*		18,121	61 l	_scape		
*		35,719	98 I	mpervious		
		53,840	86 \	Neighted A	verage	
		18,121			rvious Area	
		35,719	98 6	66.34% Imp	pervious Ar	ea
	Тс	Length	Slope		Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	8.3	60	0.0100	0.12		Sheet Flow,
						Grass: Short n= 0.150 P2= 3.40"
	2.1	250	0.0100	2.03		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	0.3	110	0.0100	5.36	4.21	Pipe Channel,
						12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25'
_						n= 0.011 Concrete pipe, straight & clean
	10.7	420	Total			

Subcatchment ASA2: Arena SubCat A2



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Page 75

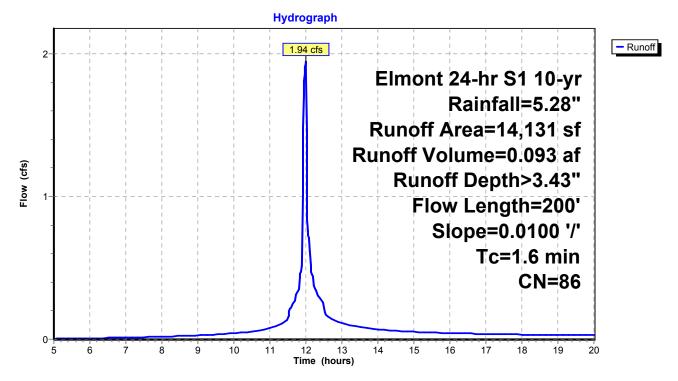
Summary for Subcatchment ASA3: Arena SubCat A3

Runoff = 1.94 cfs @ 12.00 hrs, Volume= 0.093 af, Depth> 3.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

	Α	rea (sf)	CN	Description		
*		9,367	98	Impervious		
*		4,764	61	Lscape		
		14,131	86	Weighted A	verage	
		4,764	61	33.71% Per	vious Area	
		9,367	98	66.29% Imp	pervious Ar	ea
	Tc (min)	Length (feet)	Slop (ft/ft	•	Capacity (cfs)	Description
	1.6	200	0.010	0 2.03		Shallow Concentrated Flow, Paved Kv= 20.3 fps

Subcatchment ASA3: Arena SubCat A3



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Page 76

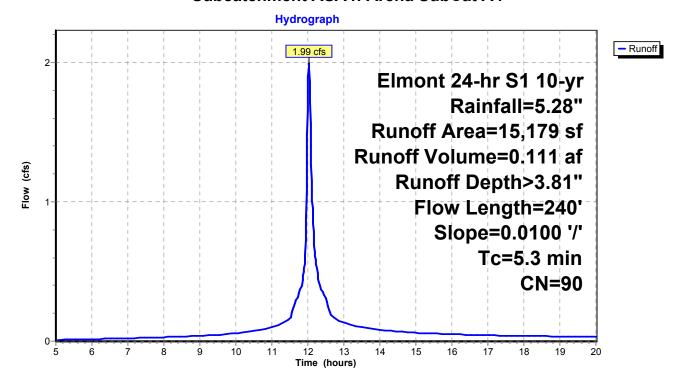
Summary for Subcatchment ASA4: Arena SubCat A4

Runoff = 1.99 cfs @ 12.03 hrs, Volume= 0.111 af, Depth> 3.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

	Α	rea (sf)	CN [Description		
*		11,926	98 F	Paved		
*		3,253	61 L	_scape		
_		15,179	90 \	Neighted A	verage	
		3,253	61 2	21.43% Pei	rvious Area	
	11,926 98 78.57% Impervious Area					ea
	Тс	Length	Slope	,	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	1.8	220	0.0100	2.03		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	3.5	20	0.0100	0.10		Sheet Flow,
_						Grass: Short n= 0.150 P2= 3.40"
	5.3	240	Total			

Subcatchment ASA4: Arena SubCat A4



Page 77

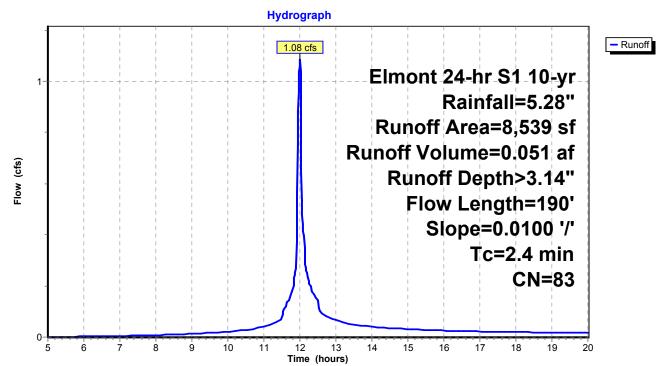
Summary for Subcatchment ASA6: Arena SubCat A6

Runoff = 1.08 cfs @ 12.01 hrs, Volume= 0.051 af, Depth> 3.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

	Α	rea (sf)	CN [Description		
*		5,060	98 F	Paved		
*		3,479	61 L	scape		
		8,539	83 \	Veighted A	verage	
		3,479	61 4	10.74% Per	vious Area	
		5,060	98 5	59.26% Imp	ervious Ar	ea
	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	2.1	150	0.0100	1.17		Sheet Flow,
						Smooth surfaces n= 0.011 P2= 3.40"
	0.3	40	0.0100	2.03		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	2.4	190	Total			

Subcatchment ASA6: Arena SubCat A6



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Page 78

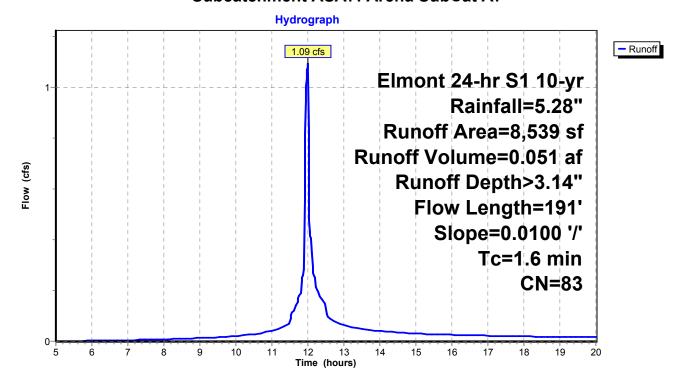
Summary for Subcatchment ASA7: Arena SubCat A7

Runoff = 1.09 cfs @ 12.00 hrs, Volume= 0.051 af, Depth> 3.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

	Α	rea (sf)	CN	Description	Description					
*		5,060	98	Paved						
*		3,479	61	Lscape						
		8,539	83	Weighted A	Veighted Average					
		3,479	61	40.74% Pervious Area						
		5,060	98	59.26% Imp	pervious Ar	ea				
	Tc (min)	Length (feet)	Slope (ft/ft	•	Capacity (cfs)	Description				
	1.6	191	0.010	2.03		Shallow Concentrated Flow, Paved Kv= 20.3 fps				

Subcatchment ASA7: Arena SubCat A7



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Page 79

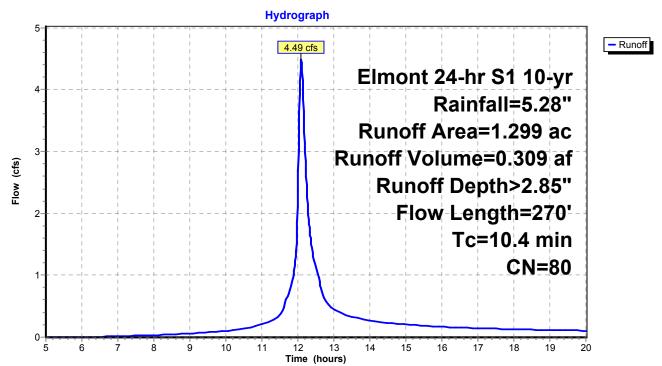
Summary for Subcatchment ASA8: Arena SubCat A8

Runoff = 4.49 cfs @ 12.09 hrs, Volume= 0.309 af, Depth> 2.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

_	Area	(ac) C	N Des	cription		
*	0.	664	98 Pav	ed		
*	0.	635	61 Lsca	аре		
	1.	299	80 Wei	ghted Aver	age	
	0.	635	61 48.8	88% Pervio	us Area	
	0.	664	98 51.1	2% Imper	vious Area	
	_				_	
	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	8.8	120	0.0350	0.23		Sheet Flow,
						Grass: Short n= 0.150 P2= 3.40"
	1.6	150	0.0200	1.54		Sheet Flow,
_						Smooth surfaces n= 0.011 P2= 3.40"
	10.4	270	Total			

Subcatchment ASA8: Arena SubCat A8



Page 80

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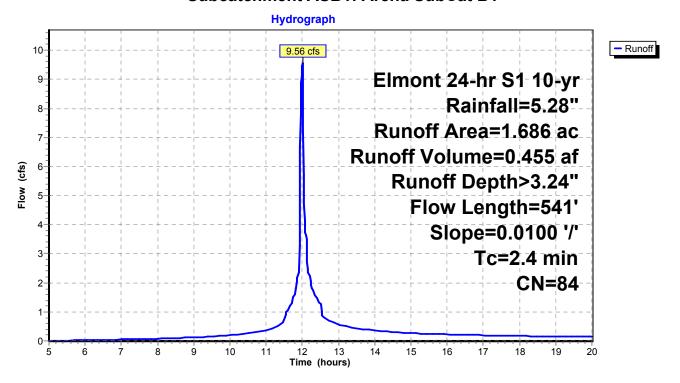
Summary for Subcatchment ASB1: Arena SubCat B1

Runoff = 9.56 cfs @ 12.01 hrs, Volume= 0.455 af, Depth> 3.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

	Area	(ac) (CN De	scription		
*	1.	051	98 Pa	ved		
*	0.	635	61 Ls	cape		
	1.	686	84 We	eighted Ave	rage	
	0.	635		.66% Pervio	•	
	1.051 98 62.34% Impervious Area			.34% Imper	vious Area	
	Tc	Length	•		Capacity	Description
	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)	
	1.6	191	0.010	2.03		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	8.0	350	0.010	7.03	12.41	Pipe Channel,
						18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38'
_						n= 0.011 Concrete pipe, straight & clean
	2.4	541	Total			

Subcatchment ASB1: Arena SubCat B1



Page 81

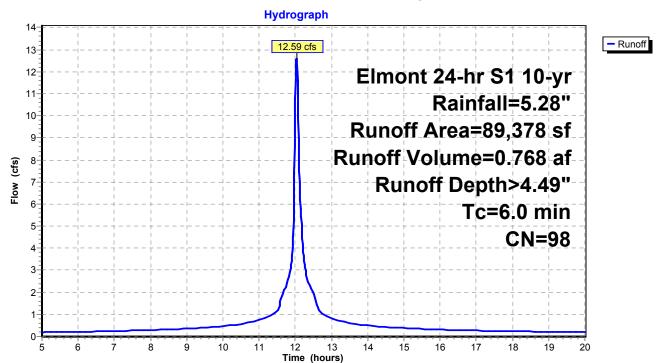
Summary for Subcatchment STM-1: Building Storm 1

Runoff = 12.59 cfs @ 12.04 hrs, Volume= 0.768 af, Depth> 4.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

_	Α	rea (sf)	CN	Description				
*		89,378	98	Building Stormwater				
		89,378	98	98 100.00% Impervious Area				
	Тс	Length	Slope	e Velocity	Capacity	Description		
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
	6.0					Direct Entry		

Subcatchment STM-1: Building Storm 1



Page 82

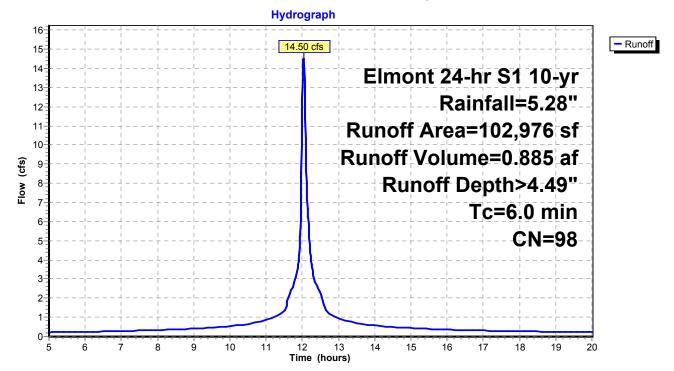
Summary for Subcatchment STM-2: Building Storm 2

Runoff = 14.50 cfs @ 12.04 hrs, Volume= 0.885 af, Depth> 4.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

	Α	rea (sf)	CN [CN Description				
*	1	02,976	98 E	8 Building Stormwater				
	1	02,976	98 100.00% Impervious Ar			Area		
	Тс	- 3	Slope	,		Description		
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
	6.0					Direct Entry		

Subcatchment STM-2: Building Storm 2



Page 83

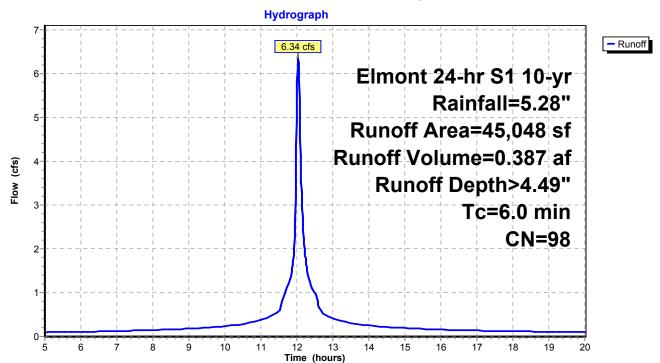
Summary for Subcatchment STM-3: Building Storm 3

Runoff = 6.34 cfs @ 12.04 hrs, Volume= 0.387 af, Depth> 4.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

_	Α	rea (sf)	CN	N Description				
*		45,048	98	Building Stormwater				
		45,048	98	98 100.00% Impervious Area				
	Тс	Length	Slope	e Velocity	Capacity	Description		
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
	6.0					Direct Entry		

Subcatchment STM-3: Building Storm 3



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Page 84

Summary for Pond A1-9: Drywell System

Inflow Area = 8.657 ac, 68.29% Impervious, Inflow Depth > 1.66" for 10-yr event

Inflow = 26.60 cfs @ 12.01 hrs, Volume= 1.201 af

Outflow = 12.18 cfs @ 12.15 hrs, Volume= 1.200 af, Atten= 54%, Lag= 8.2 min

Discarded = 12.18 cfs @ 12.15 hrs, Volume= 1.200 af Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs / 4 Peak Elev= 67.86' @ 12.15 hrs Surf.Area= 0.021 ac Storage= 0.226 af

Plug-Flow detention time= 6.6 min calculated for 1.199 af (100% of inflow) Center-of-Mass det. time= 6.4 min (774.5 - 768.0)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	0.312 af	11.33'D x 15.00'H Vertical Cone/Cylinderx 9
#2	73.00'	3.955 af	Custom Stage Data (Conic)Listed below (Recalc)

4.267 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
1.000	0.000	0.000	1.000
2.000	1.471	1.471	2.000
3.000	2.483	3.955	3.001
	(acres) 1.000 2.000	(acres) (acre-feet) 1.000 0.000 2.000 1.471	(acres) (acre-feet) (acre-feet) 1.000 0.000 0.000 2.000 1.471 1.471

Device	Routing	Invert	Outlet Devices
#1	Discarded	57.00'	120.000 in/hr Exfiltration over Wetted area below 72.00'
#2	Primary	68.00'	24.0" Round Culvert
			L= 10.0' CPP, mitered to conform to fill. Ke= 0.700

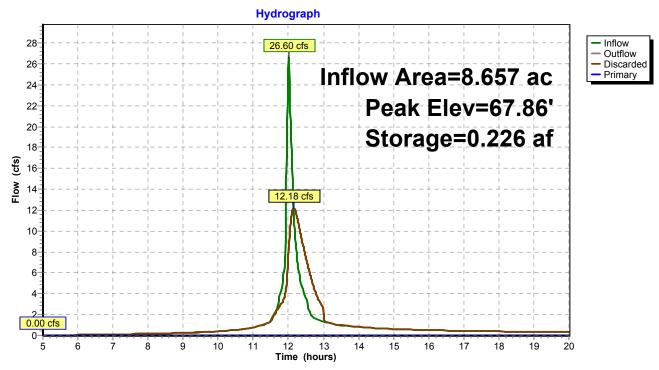
Inlet / Outlet Invert= 68.00' / 67.90' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf

Discarded OutFlow Max=12.18 cfs @ 12.15 hrs HW=67.85' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 12.18 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=57.00' (Free Discharge) 2=Culvert (Controls 0.00 cfs)

Page 85

Pond A1-9: Drywell System



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Page 86

Summary for Pond A10: Catch Basin

Inflow Area = 5.672 ac, 74.00% Impervious, Inflow Depth > 0.92" for 10-yr event

Inflow = 14.45 cfs @ 12.01 hrs, Volume= 0.437 af

Outflow = 14.45 cfs @ 12.01 hrs, Volume= 0.437 af, Atten= 0%, Lag= 0.0 min

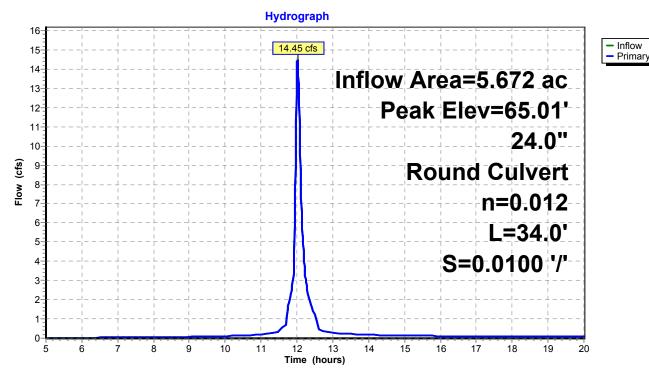
Primary = 14.45 cfs @ 12.01 hrs, Volume= 0.437 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 65.01' @ 12.01 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	62.84'	24.0" Round Culvert
			L= 34.0' CPP, mitered to conform to fill, Ke= 0.700
			Inlet / Outlet Invert= 62.84' / 62.50' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=14.35 cfs @ 12.01 hrs HW=65.00' (Free Discharge) 1=Culvert (Inlet Controls 14.35 cfs @ 4.57 fps)

Pond A10: Catch Basin



Page 87

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Summary for Pond A11: Catch Basin

Inflow Area = 5.476 ac, 74.52% Impervious, Inflow Depth > 0.85" for 10-yr event

Inflow = 13.42 cfs @ 12.02 hrs, Volume= 0.386 af

Outflow = 13.42 cfs @ 12.02 hrs, Volume= 0.386 af, Atten= 0%, Lag= 0.0 min

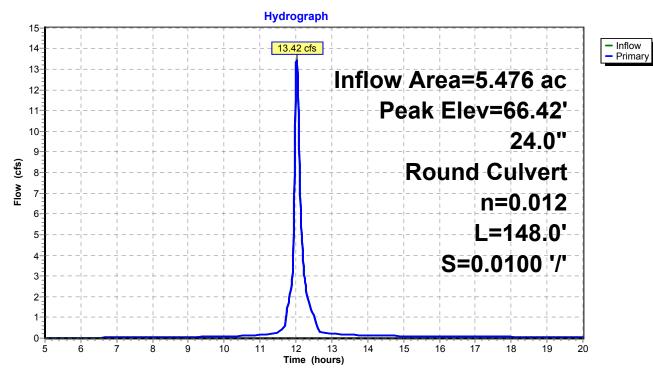
Primary = 13.42 cfs @ 12.02 hrs, Volume= 0.386 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 66.42' @ 12.02 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	64.41'	24.0" Round Culvert L= 148.0' CPP, mitered to conform to fill, Ke= 0.700
			Inlet / Outlet Invert= 64.41' / 62.93' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=13.38 cfs @ 12.02 hrs HW=66.41' (Free Discharge) 1=Culvert (Inlet Controls 13.38 cfs @ 4.26 fps)

Pond A11: Catch Basin



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Summary for Pond A12: Catch Basin

5.280 ac, 75.09% Impervious, Inflow Depth > 0.76" for 10-yr event Inflow Area =

Inflow 12.39 cfs @ 12.02 hrs, Volume= 0.335 af

12.39 cfs @ 12.02 hrs, Volume= Outflow 0.335 af, Atten= 0%, Lag= 0.0 min

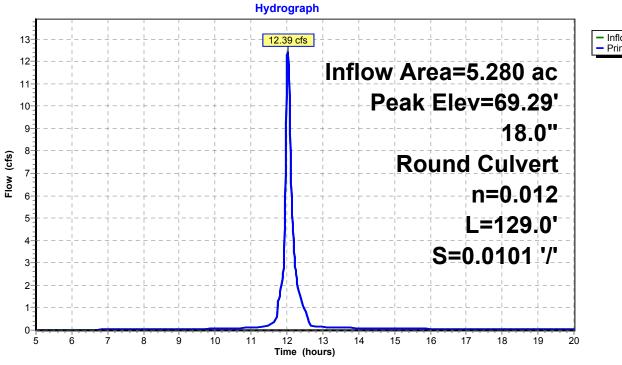
12.39 cfs @ 12.02 hrs, Volume= Primary 0.335 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 69.29' @ 12.02 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	65.81'	18.0" Round Culvert
			L= 129.0' CPP, mitered to conform to fill, Ke= 0.700
			Inlet / Outlet Invert= 65.81' / 64.51' S= 0.0101 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=12.38 cfs @ 12.02 hrs HW=69.28' (Free Discharge) 1=Culvert (Inlet Controls 12.38 cfs @ 7.01 fps)

Pond A12: Catch Basin





Page 88

Page 89

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Summary for Pond A13: Catch Basin

Inflow Area = 5.084 ac, 75.70% Impervious, Inflow Depth > 0.67" for 10-yr event

Inflow = 11.69 cfs @ 12.03 hrs, Volume= 0.283 af

Outflow = 11.69 cfs @ 12.03 hrs, Volume= 0.283 af, Atten= 0%, Lag= 0.0 min

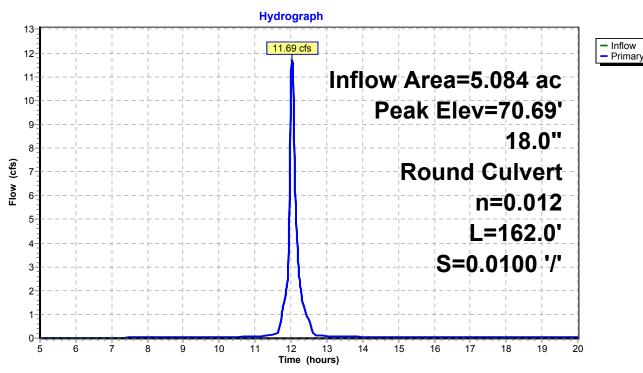
Primary = 11.69 cfs @ 12.03 hrs, Volume= 0.283 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 70.69' @ 12.03 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	67.52'	18.0" Round Culvert
			L= 162.0' CPP, mitered to conform to fill, Ke= 0.700
			Inlet / Outlet Invert= 67.52' / 65.90' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=11.68 cfs @ 12.03 hrs HW=70.69' (Free Discharge) 1=Culvert (Inlet Controls 11.68 cfs @ 6.61 fps)

Pond A13: Catch Basin



#2

Discarded

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Page 90

Summary for Pond A14: Drywell

Inflow Area = 4.858 ac, 75.34% Impervious, Inflow Depth > 1.90" for 10-yr event

Inflow = 12.59 cfs @ 12.04 hrs, Volume= 0.768 af

Outflow = 12.55 cfs @ 12.04 hrs, Volume= 0.768 af, Atten= 0%, Lag= 0.2 min

Discarded = 1.54 cfs @ 12.04 hrs, Volume= 0.560 af Primary = 11.00 cfs @ 12.04 hrs, Volume= 0.208 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs / 4 Peak Elev= 69.78' @ 12.04 hrs Surf.Area= 0.002 ac Storage= 0.030 af

Plug-Flow detention time= 5.6 min calculated for 0.768 af (100% of inflow) Center-of-Mass det. time= 5.4 min (740.4 - 735.0)

Volume	Invert A	vail.Stora	ge Stora	ge Description		
#1	57.00'	0.035	af 11.33	D x 15.00'H Ve	ertical Cone/C	ylinder
#2	73.00'	1.471	af Cust	Custom Stage Data (Conic)Listed below (Recalc)		
		1.506	af Total	Available Stora	ge	
Elevation	on Surf.Area	ı Ind	c.Store	Cum.Store	Wet.Area	
(fee	et) (acres)	(acr	e-feet)	(acre-feet)	(acres)	
73.0	00 1.000		0.000	0.000	1.000	
74.0	00 2.000)	1.471	1.471	2.000	
Device	Routing	Invert	Outlet De	vices		
#1	Primary	67.86'	24.0" Ro	und Culvert		
				CPP, mitered to		•
			Inlet / Out	tlet Invert= 67.80	6' / 67.75' S=	0.0069 '/' Cc= 0.900
			n= 0.012	Corrugated PP	, smooth interior	or, Flow Area= 3.14 sf

57.00' 120.000 in/hr Exfiltration over Wetted area below 72.00'

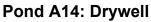
Discarded OutFlow Max=1.54 cfs @ 12.04 hrs HW=69.78' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 1.54 cfs)

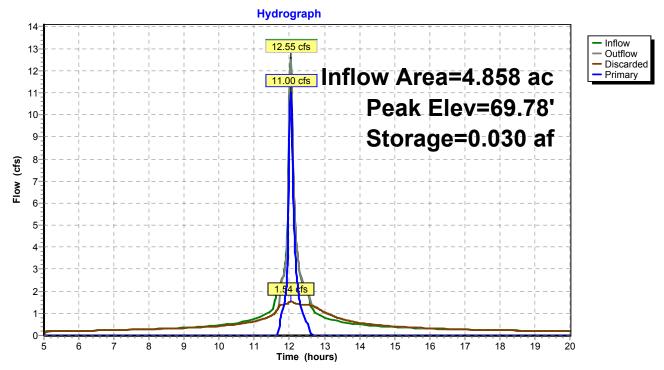
Primary OutFlow Max=10.98 cfs @ 12.04 hrs HW=69.78' (Free Discharge) 1=Culvert (Barrel Controls 10.98 cfs @ 4.55 fps)

Page 91

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Page 92

Summary for Pond A15: Drywell

2.806 ac, 57.32% Impervious, Inflow Depth = 0.00" for 10-yr event Inflow Area = Inflow 5.00 hrs, Volume= 0.000 af 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min Outflow 0.00 cfs @ Discarded = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af Primary 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs / 8 Peak Elev= 57.00' @ 5.00 hrs Surf.Area= 0.002 ac Storage= 0.000 af

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

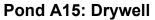
Center-of-Mass det. time= (not calculated: no inflow)

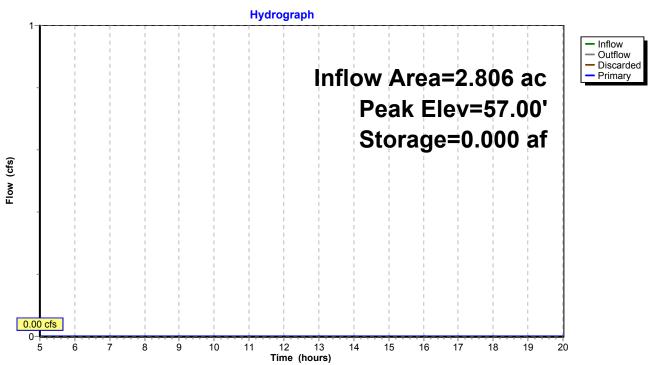
Volume		Invert A	vail.Stora	ige Stora	ge Description			
#1 57.00'		0.035		The state of the s				
#2	1	73.00'	1.471	at Cust	Custom Stage Data (Conic)Listed below (Recalc)			
			1.506	af Total	Available Storag	ge		
Elevatio		Surf.Area (acres)		c.Store re-feet)	Cum.Store (acre-feet)	Wet.Area (acres)		
73.0	00	1.000		0.000	0.000	1.000		
74.0	00	2.000		1.471	1.471	2.000		
Device	Routi	ing	Invert	Outlet De	vices			
#1	Prima	arv	67.86'	24.0" Ro	und Culvert			
		,		L= 16.0'	CPP, mitered to	conform to fill.	Ke= 0.700	
					•	,	.0069 '/' Cc= 0.900	
#2	Disca	arded	57.00'	n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf 120.000 in/hr Exfiltration over Wetted area below 72.00' Phase-In= 0.03'				

Discarded OutFlow Max=0.00 cfs @ 5.00 hrs HW=57.00' (Free Discharge) 2=Exfiltration (Controls 0.00 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=57.00' (Free Discharge) 1=Culvert (Controls 0.00 cfs)

Page 93





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Page 94

Summary for Pond A16-20: Drywell System

Inflow Area = 2.806 ac, 57.32% Impervious, Inflow Depth > 0.87" for 10-yr event
Inflow = 3.80 cfs @ 12.01 hrs, Volume= 0.204 af
Outflow = 2.09 cfs @ 12.08 hrs, Volume= 0.204 af, Atten= 45%, Lag= 4.6 min
Discarded = 2.09 cfs @ 12.08 hrs, Volume= 0.204 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 58.39' @ 12.08 hrs Surf.Area= 0.012 ac Storage= 0.016 af

Plug-Flow detention time= 1.9 min calculated for 0.204 af (100% of inflow) Center-of-Mass det. time= 1.7 min (763.5 - 761.8)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	0.174 af	11.33'D x 15.00'H Vertical Cone/Cylinderx 5
#2	73.00'	3.955 af	Custom Stage Data (Conic)Listed below (Recalc)
•		4 400 5	T + 1 A - 11 + 1 - 04

4.128 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
1.000	0.000	0.000	1.000
2.000	1.471	1.471	2.000
3.000	2.483	3.955	3.001
	(acres) 1.000 2.000	(acres) (acre-feet) 1.000 0.000 2.000 1.471	(acres) (acre-feet) (acre-feet) 1.000 0.000 0.000 2.000 1.471 1.471

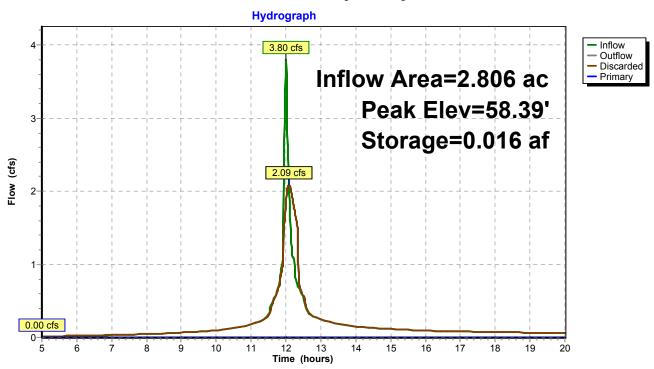
Device	Routing	Invert	Outlet Devices		
#1	Discarded	57.00'	120.000 in/hr Exfiltration over Wetted area below 72.00'		
#2	Primary	68.00'	18.0" Round Culvert		
			L= 12.0' CPP, mitered to conform to fill, Ke= 0.700		
			Inlet / Outlet Invert= 68.00' / 67.88' S= 0.0100 '/' Cc= 0.900		
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf		

Discarded OutFlow Max=2.09 cfs @ 12.08 hrs HW=58.39' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 2.09 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=57.00' (Free Discharge) 2=Culvert (Controls 0.00 cfs)

Page 95

Pond A16-20: Drywell System



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Page 96

Summary for Pond A21: Drywell

Inflow Area = 2.133 ac, 52.48% Impervious, Inflow Depth = 0.29" for 10-yr event
Inflow = 3.44 cfs @ 12.10 hrs, Volume= 0.052 af
Outflow = 1.58 cfs @ 12.23 hrs, Volume= 0.052 af, Atten= 54%, Lag= 7.7 min
Discarded = 1.39 cfs @ 12.23 hrs, Volume= 0.051 af

Primary = 0.20 cfs @ 12.23 hrs, Volume= 0.001 af

Peak Elev= 68.21' @ 12.23 hrs Surf.Area= 0.002 ac Storage= 0.026 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs / 7

Plug-Flow detention time= 11.2 min calculated for 0.052 af (100% of inflow) Center-of-Mass det. time= 11.2 min (741.1 - 729.9)

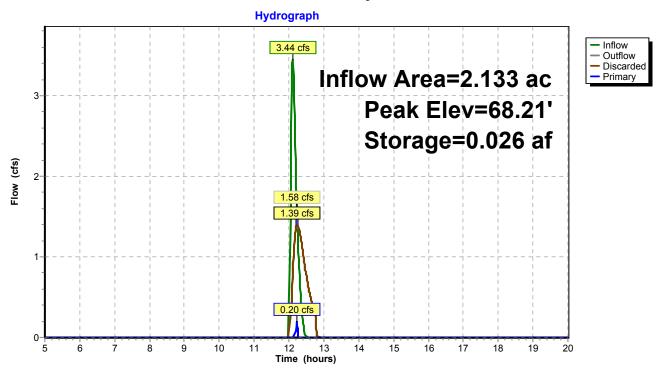
Volume	Invert Av	/ail.Stora	ige Stora	ge Description				
# 1 57.00' 0.0		0.046	af 11.3 3	11.33'D x 20.00'H Vertical Cone/Cylinder				
			0.052	2 af Overall - 4.0	" Wall Thickness =	0.046 af		
#2	73.00'	1.471	af Cust	Custom Stage Data (Conic)Listed below (Recalc)				
		1.518	af Total	Available Storag	ge			
Elevation			c.Store	Cum.Store	Wet.Area			
(fee	et) (acres)	(ac	re-feet)	(acre-feet)	(acres)			
73.0	00 1.000		0.000	0.000	1.000			
74.0	2.000		1.471	1.471	2.000			
<u>Device</u>	Routing	Invert	Outlet De	vices				
#1	Primary	68.00'	15.0" Ro	und Culvert				
			L= 263.0'	CPP, mitered	to conform to fill, K	e= 0.700		
			Inlet / Out	tlet Invert= 68.00	0' / 65.41' S= 0.009	98 '/' Cc= 0.900		
			n= 0.012	Corrugated PP	, smooth interior, FI	ow Area= 1.23 sf		
#2	Discarded	57.00'	120.000 i	n/hr Exfiltration	n over Wetted area	below 72.00'		
			Phase-li	n= 0.03'				

Discarded OutFlow Max=1.39 cfs @ 12.23 hrs HW=68.21' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 1.39 cfs)

Primary OutFlow Max=0.19 cfs @ 12.23 hrs HW=68.21' (Free Discharge) 1=Culvert (Inlet Controls 0.19 cfs @ 1.38 fps)

Page 97

Pond A21: Drywell



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Page 98

Summary for Pond A22: Drywell

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs / 7 Peak Elev= 69.17' @ 12.10 hrs Surf.Area= 0.002 ac Storage= 0.028 af

Plug-Flow detention time= 5.7 min calculated for 0.352 af (100% of inflow) Center-of-Mass det. time= 5.5 min (779.0 - 773.5)

Volume	Invert	Avail.Stora	ge Stora	ge Description				
#1 57.00'		0.046						
#2	73.00'	1.471	af Custo	om Stage Data	(Conic)Listed be	elow (Recalc)		
		1.518	af Total	Available Stora	ge			
Elevation (fee			c.Store re-feet)	Cum.Store (acre-feet)	Wet.Area (acres)			
73.0	00 1.00	0	0.000	0.000	1.000			
74.0	2.00	0	1.471	1.471	2.000			
Device	Routing	Invert	Outlet De	vices				
#1	Primary	68.00'	15.0" Ro	und Culvert				
	,		L= 12.0'	CPP, mitered to	conform to fill,	Ke= 0.700		
				,	,	.0100 '/' Cc= 0.900		
						, Flow Area= 1.23 sf		
#2	Discarded	57.00'	120.000 i	20.000 in/hr Exfiltration over Wetted area below 72.00' Phase-In= 0.03'				

Discarded OutFlow Max=1.48 cfs @ 12.10 hrs HW=69.17' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 1.48 cfs)

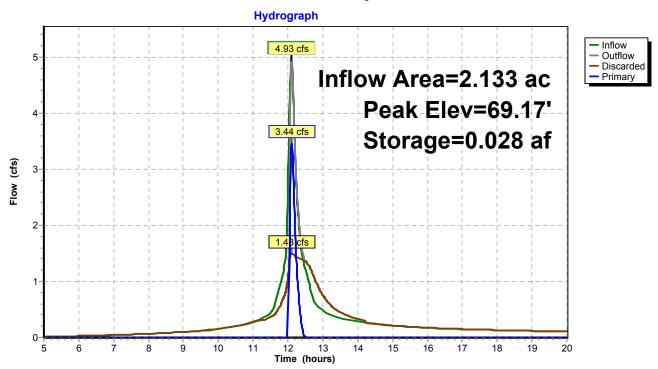
Primary OutFlow Max=3.44 cfs @ 12.10 hrs HW=69.17' (Free Discharge) 1=Culvert (Barrel Controls 3.44 cfs @ 3.75 fps)

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Page 99

Pond A22: Drywell



#2

Discarded

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Page 100

Summary for Pond A23: Drywell

Inflow Area = 0.897 ac, 33.39% Impervious, Inflow Depth > 2.25" for 10-yr event Inflow = 0.168 af

Outflow = 1.34 cfs @ 12.22 hrs, Volume= 0.168 af, Atten= 49%, Lag= 9.0 min

Discarded = 1.34 cfs @ 12.22 hrs, Volume= 0.168 af Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs / 7 Peak Elev= 67.71' @ 12.22 hrs Surf.Area= 0.002 ac Storage= 0.025 af

Plug-Flow detention time= 6.0 min calculated for 0.168 af (100% of inflow) Center-of-Mass det. time= 5.9 min (812.2 - 806.3)

Volume	Invert	Avail.Stor	age St	orage Description				
#1	57.00'	0.04		1.33'D x 20.00'H V				
40	70.00	4 47	_	052 af Overall - 4.0				
#2	73.00'	1.47	Tar C	Custom Stage Data (Conic)Listed below (Recalc)				
		1.51	8 af To	Total Available Storage				
Elevation	on Surf.A	rea li	nc.Store	Cum.Store	Wet.Area			
(fee	et) (ac	res) (ad	cre-feet)	(acre-feet)	(acres)			
73.0	00 1.	000	0.000	0.000	1.000			
74.0	00 2.	000	1.471	1.471	2.000			
Device	Routing	Invert	Outlet	Devices				
#1	Primary	69.80'	15.0"	Round Culvert				
			L= 184	4.0' CPP, mitered	to conform to	fill, Ke= 0.700		
				•		= 0.0095 '/' Cc= 0.900		
			n = 0.0	12 Corrugated PF	, smootn inter	ior, Flow Area= 1.23 sf		

120.000 in/hr Exfiltration over Wetted area Phase-In= 0.03'

Discarded OutFlow Max=1.34 cfs @ 12.22 hrs HW=67.71' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 1.34 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=57.00' (Free Discharge) 1=Culvert (Controls 0.00 cfs)

57.00'

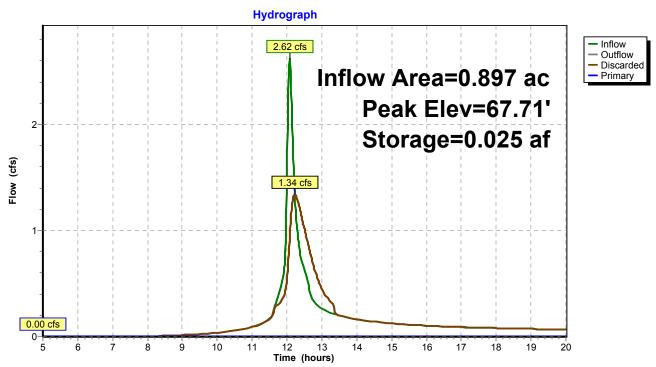
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Page 101

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Pond A23: Drywell



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Page 102

Summary for Pond B1: Catch Basin

Inflow Area = 8.657 ac, 68.29% Impervious, Inflow Depth = 0.00" for 10-yr event

Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

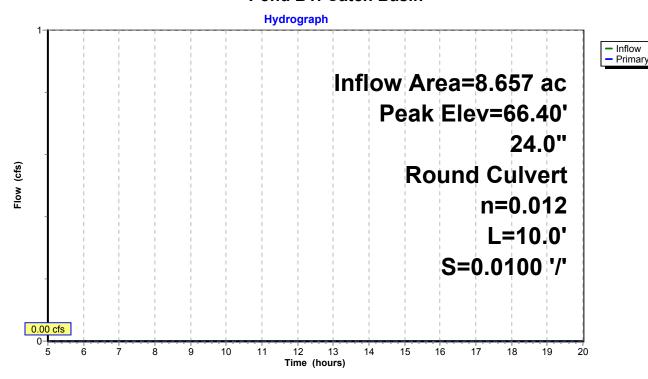
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 66.40' @ 5.00 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	66.40'	24.0" Round Culvert
			L= 10.0' CPP, mitered to conform to fill, Ke= 0.700
			Inlet / Outlet Invert= 66.40' / 66.30' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=66.40' (Free Discharge) 1=Culvert (Controls 0.00 cfs)

Pond B1: Catch Basin



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Page 103

Summary for Pond SS1: Catch Basin

Inflow Area = 8.657 ac, 68.29% Impervious, Inflow Depth = 0.00" for 10-yr event

Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

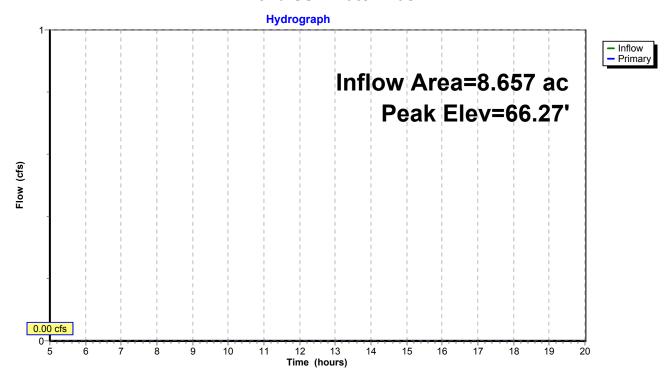
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 66.27' @ 5.00 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	66.27'	24.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=66.27' (Free Discharge) 1=Orifice/Grate (Controls 0.00 cfs)

Pond SS1: Catch Basin



Page 104

Summary for Link DD_E: Downstream Discharge

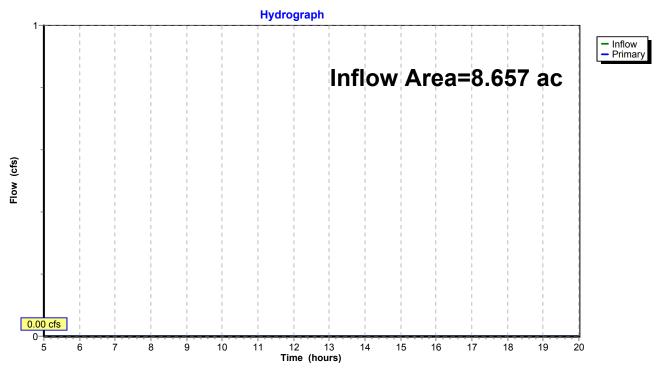
Inflow Area = 8.657 ac, 68.29% Impervious, Inflow Depth = 0.00" for 10-yr event

Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs

Link DD_E: Downstream Discharge



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Page 105

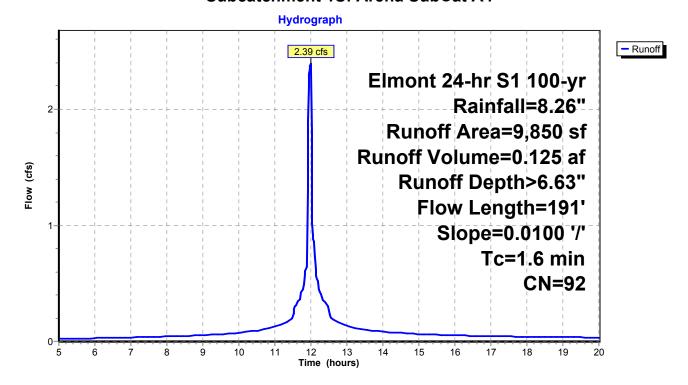
Summary for Subcatchment 1S: Arena SubCat A4

Runoff = 2.39 cfs @ 12.00 hrs, Volume= 0.125 af, Depth> 6.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

	Α	rea (sf)	CN	Description						
*		8,210	98	Paved						
*		1,640	61	Lscape						
		9,850	92	Weighted Average						
		1,640	61	16.65% Pe	16.65% Pervious Area					
		8,210	98	83.35% Imp	pervious Ar	ea				
	Tc (min)	Length (feet)	Slop (ft/ft	,	Capacity (cfs)	Description				
	1.6	191	0.010	0 2.03		Shallow Concentrated Flow, Paved Kv= 20.3 fps				

Subcatchment 1S: Arena SubCat A4



Page 106

Summary for Subcatchment 2S: Arena SubCat A5

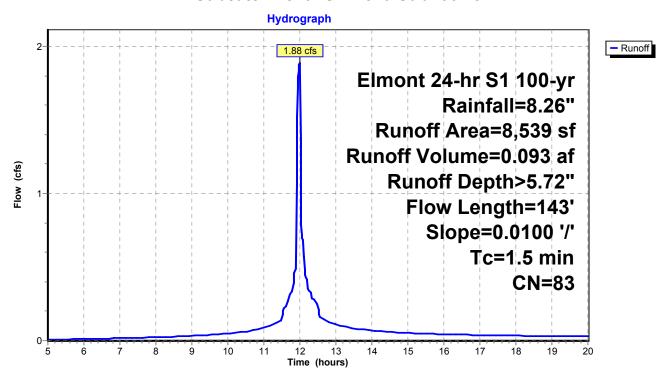
Runoff = 1.88 cfs @ 12.00 hrs, Volume= 0.093 af, Depth> 5.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

	rea (sf)	CN	Description						
*	5,060	98	Paved	Paved					
*	3,479	61	Lscape	scape					
	8,539	83	3 Weighted Average						
	3,479	61	40.74% Pervious Area						
	5,060	98	59.26% lmp	pervious Ar	ea				
Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description				
1.2	143	0.0100	2.03		Shallow Concentrated Flow,				
					Paved Kv= 20.3 fps				

1.2 143 Total, Increased to minimum Tc = 1.5 min

Subcatchment 2S: Arena SubCat A5



Page 107

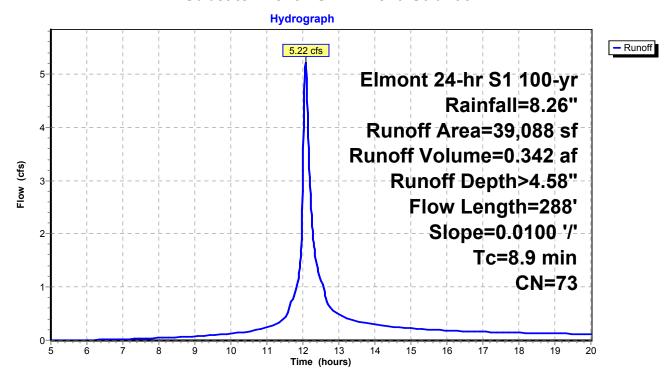
Summary for Subcatchment ASA1: Arena SubCat A-1

Runoff = 5.22 cfs @ 12.07 hrs, Volume= 0.342 af, Depth> 4.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

	Α	rea (sf)	CN	Description		
*		13,051	98	Impervious		
*		26,037	61	Lscape Are	а	
		39,088	73	Weighted A	verage	
		26,037	61	66.61% Per	vious Area	
		13,051	98	33.39% Imp	pervious Ar	ea
	Tc	Length	Slope		Capacity	Description
_	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)	
	1.5	139	0.0100	1.50		Shallow Concentrated Flow,
						Grassed Waterway Kv= 15.0 fps
	7.1	49	0.0100	0.12		Sheet Flow,
						Grass: Short n= 0.150 P2= 3.40"
	0.3	100	0.0100	5.70	7.00	Pipe Channel,
						15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31'
_						n= 0.012 Corrugated PP, smooth interior
	8.9	288	Total			

Subcatchment ASA1: Arena SubCat A-1



Page 108

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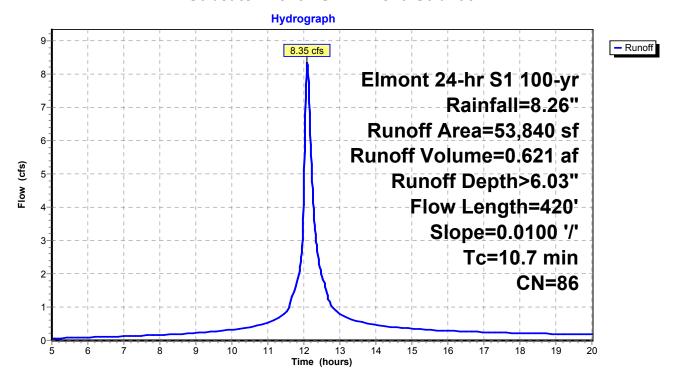
Summary for Subcatchment ASA2: Arena SubCat A2

Runoff = 8.35 cfs @ 12.09 hrs, Volume= 0.621 af, Depth> 6.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

	Д	rea (sf)	CN	Description		
*		18,121	61	Lscape		
*		35,719	98	Impervious		
		53,840	86	Weighted A	verage	
		18,121	61	33.66% Per	rvious Area	
		35,719	98	66.34% Imp	pervious Ar	ea
	_				_	
	Тс	Length	Slope		Capacity	Description
_	(min)	(feet)	(ft/ft)) (ft/sec)	(cfs)	
	8.3	60	0.0100	0.12		Sheet Flow,
						Grass: Short n= 0.150 P2= 3.40"
	2.1	250	0.0100	2.03		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	0.3	110	0.0100	5.36	4.21	Pipe Channel,
						12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25'
_						n= 0.011 Concrete pipe, straight & clean
	10.7	420	Total			

Subcatchment ASA2: Arena SubCat A2



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Page 109

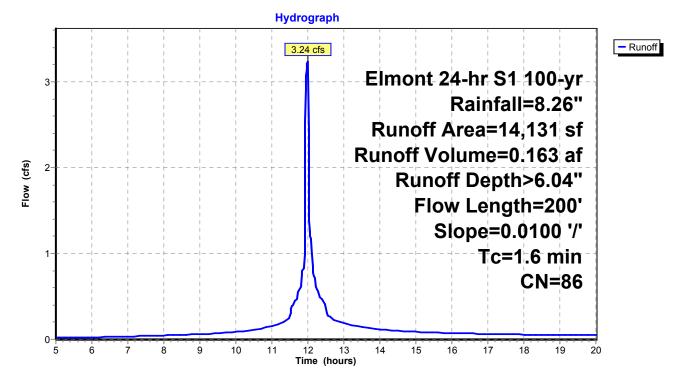
Summary for Subcatchment ASA3: Arena SubCat A3

Runoff = 3.24 cfs @ 12.00 hrs, Volume= 0.163 af, Depth> 6.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

	Α	rea (sf)	CN	Description						
*		9,367	98	Impervious						
*		4,764	61	Lscape						
		14,131	86	Weighted Average						
		4,764	61	33.71% Per	33.71% Pervious Area					
		9,367	98	66.29% Imp	pervious Ar	rea				
	Tc	Length	Slope	e Velocity	Capacity	Description				
	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)					
	1.6	200	0.010	2.03		Shallow Concentrated Flow,				
						Paved Kv= 20.3 fps				

Subcatchment ASA3: Arena SubCat A3



Page 110

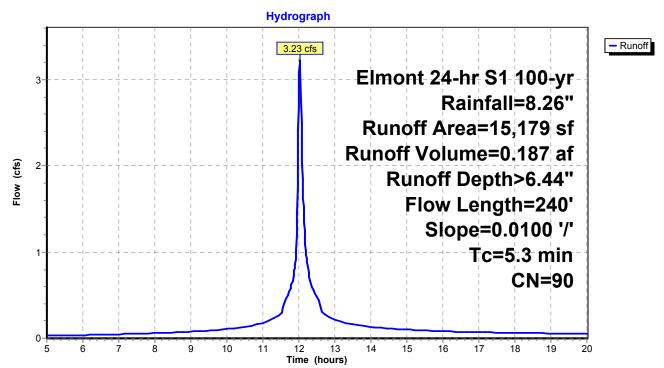
Summary for Subcatchment ASA4: Arena SubCat A4

Runoff = 3.23 cfs @ 12.03 hrs, Volume= 0.187 af, Depth> 6.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

	Α	rea (sf)	CN [Description		
*		11,926	98 F	Paved		
*		3,253	61 L	_scape		
_		15,179	90 \	Neighted A	verage	
		3,253	61 2	21.43% Pei	rvious Area	
		11,926	98	78.57% Imp	pervious Ar	ea
	Тс	Length	Slope	,	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	1.8	220	0.0100	2.03		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	3.5	20	0.0100	0.10		Sheet Flow,
_						Grass: Short n= 0.150 P2= 3.40"
	5.3	240	Total			

Subcatchment ASA4: Arena SubCat A4



Page 111

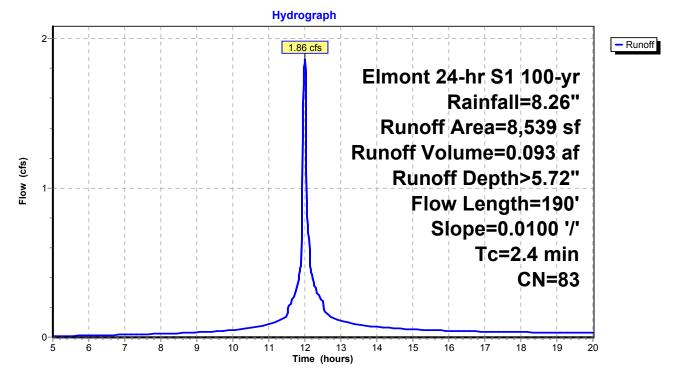
Summary for Subcatchment ASA6: Arena SubCat A6

Runoff = 1.86 cfs @ 12.00 hrs, Volume= 0.093 af, Depth> 5.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

	Α	rea (sf)	CN	Description					
*		5,060	98	B Paved					
*		3,479	61	Lscape					
		8,539	83	Weighted A	verage				
		3,479	61	40.74% Pei	vious Area				
		5,060	98 59.26% Impervious Area						
	Тс	Length	Slope	,	Capacity	Description			
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
	2.1	150	0.0100	1.17		Sheet Flow,			
						Smooth surfaces n= 0.011 P2= 3.40"			
	0.3	40	0.0100	2.03		Shallow Concentrated Flow,			
						Paved Kv= 20.3 fps			
	2.4	190	Total						

Subcatchment ASA6: Arena SubCat A6



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Page 112

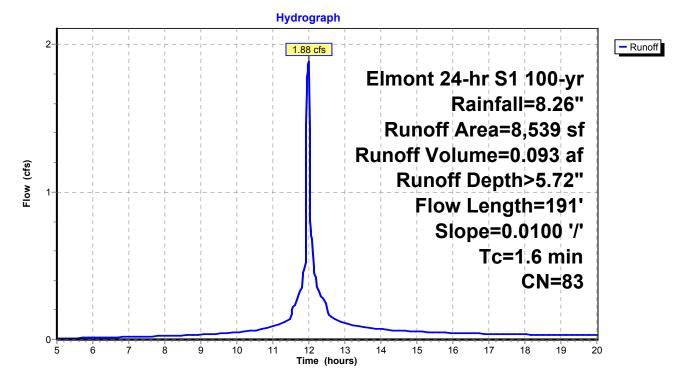
Summary for Subcatchment ASA7: Arena SubCat A7

Runoff = 1.88 cfs @ 12.00 hrs, Volume= 0.093 af, Depth> 5.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

	Α	rea (sf)	CN	Description						
*		5,060	98	Paved	Paved					
*		3,479	61	Lscape						
		8,539	83	8 Weighted Average						
		3,479	61	40.74% Per	40.74% Pervious Area					
		5,060	98	59.26% Imp	pervious Ar	ea				
_	Tc (min)	Length (feet)	Slop (ft/ft	,	Capacity (cfs)	Description				
	1.6	191	0.010	0 2.03		Shallow Concentrated Flow, Paved Kv= 20.3 fps				

Subcatchment ASA7: Arena SubCat A7



Page 113

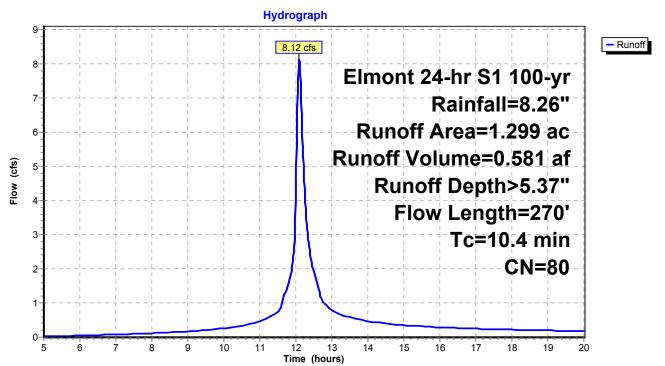
Summary for Subcatchment ASA8: Arena SubCat A8

Runoff = 8.12 cfs @ 12.09 hrs, Volume= 0.581 af, Depth> 5.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

	Area	(ac)	CN	Desc	cription		
*	0.	664	98	Pave	ed		
*	0.	635	61	Lsca	ре		
	1.	299	80	Weig	hted Aver	age	
	0.	635	61	48.8	8% Pervio	us Area	
	0.664 98 51.12% Impervious Area				2% Imper	ious Area	
	Tc	Length	า ร	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	8.8	120	0.	.0350	0.23		Sheet Flow,
							Grass: Short n= 0.150 P2= 3.40"
	1.6	150	0.	.0200	1.54		Sheet Flow,
_							Smooth surfaces n= 0.011 P2= 3.40"
	10.4	270) To	otal			

Subcatchment ASA8: Arena SubCat A8



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Page 114

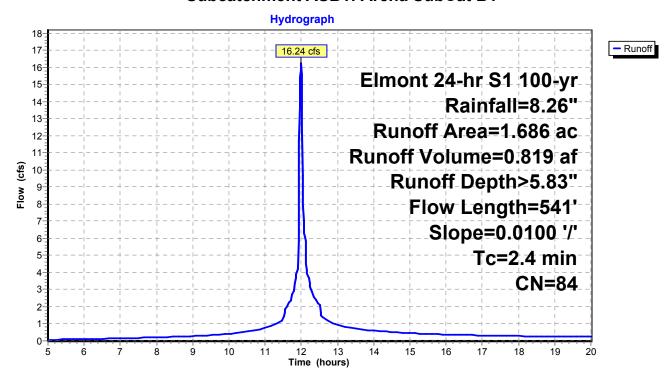
Summary for Subcatchment ASB1: Arena SubCat B1

Runoff = 16.24 cfs @ 12.00 hrs, Volume= 0.819 af, Depth> 5.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

	Area	(ac) (CN De	scription		
*	1.	051	98 Pa	ved		
*	0.	635	61 Ls	cape		
	1.686 84 Weighted Average				rage	
	0.635 61 37.66% Pervious Area					
	1.051 98 62.34% Impervious Area					
	Tc	Length	•		Capacity	Description
	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)	
	1.6	191	0.010	2.03		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	8.0	350	0.010	7.03	12.41	Pipe Channel,
						18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38'
_						n= 0.011 Concrete pipe, straight & clean
	2.4	541	Total			

Subcatchment ASB1: Arena SubCat B1



Page 115

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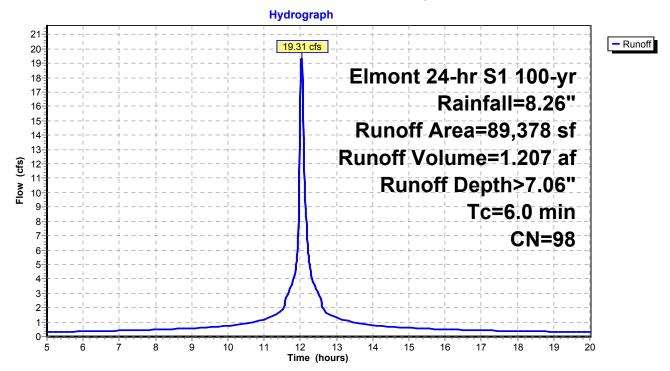
Summary for Subcatchment STM-1: Building Storm 1

Runoff = 19.31 cfs @ 12.04 hrs, Volume= 1.207 af, Depth> 7.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

_	Α	rea (sf)	CN	Description			
*		89,378	98	Building Stormwater			
		89,378	98	98 100.00% Impervious Area			
	Тс	Length	Slope	e Velocity	Capacity	Description	
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)		
	6.0					Direct Entry	

Subcatchment STM-1: Building Storm 1



Page 116

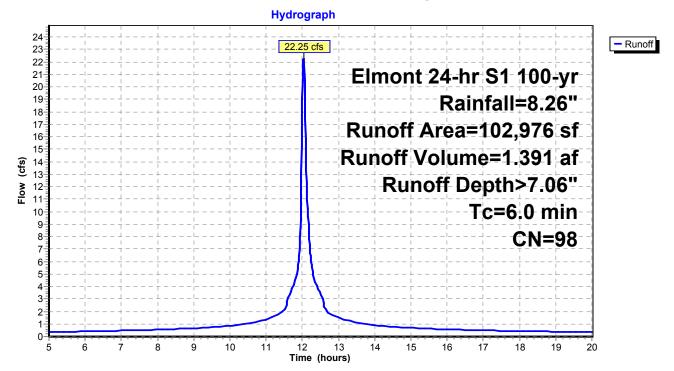
Summary for Subcatchment STM-2: Building Storm 2

Runoff = 22.25 cfs @ 12.04 hrs, Volume= 1.391 af, Depth> 7.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

Α	rea (sf)	CN I	N Description				
* 1	02,976	98 I	Building Stormwater				
1	102,976 98 100.00% Impervious Area			rea			
	Length	•	,		Description		
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
6.0					Direct Entry		

Subcatchment STM-2: Building Storm 2



Page 117

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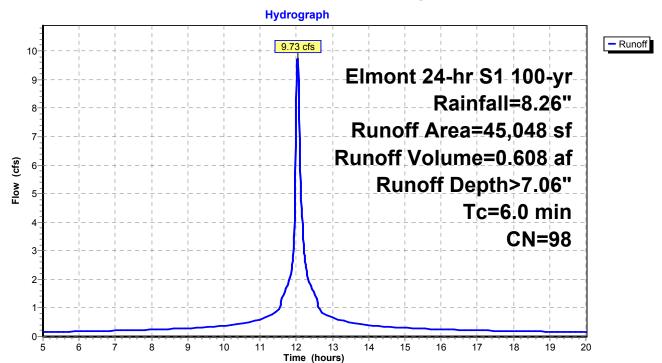
Summary for Subcatchment STM-3: Building Storm 3

Runoff = 9.73 cfs @ 12.04 hrs, Volume= 0.608 af, Depth> 7.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

_	Α	rea (sf)	CN	Description			
*		45,048	98	8 Building Stormwater			
		45,048	98	98 100.00% Impervious Area			
	Тс	Length	Slope	e Velocity	Capacity	Description	
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)		
	6.0					Direct Entry	

Subcatchment STM-3: Building Storm 3



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Page 118

Summary for Pond A1-9: Drywell System

Inflow Area = 8.657 ac, 68.29% Impervious, Inflow Depth > 3.06" for 100-yr event

Inflow = 44.57 cfs @ 12.01 hrs, Volume= 2.206 af

Outflow = 35.18 cfs @ 12.05 hrs, Volume= 2.205 af, Atten= 21%, Lag= 2.6 min

Discarded = 15.19 cfs @ 12.05 hrs, Volume= 1.948 af Primary = 19.99 cfs @ 12.05 hrs, Volume= 0.258 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs / 4 Peak Elev= 71.24' @ 12.05 hrs Surf.Area= 0.021 ac Storage= 0.297 af

Plug-Flow detention time= 6.1 min calculated for 2.205 af (100% of inflow) Center-of-Mass det. time= 6.0 min (761.3 - 755.4)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	0.312 af	11.33'D x 15.00'H Vertical Cone/Cylinderx 9
#2	73.00'	3.955 af	Custom Stage Data (Conic)Listed below (Recalc)

4.267 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
1.000	0.000	0.000	1.000
2.000	1.471	1.471	2.000
3.000	2.483	3.955	3.001
	(acres) 1.000 2.000	(acres) (acre-feet) 1.000 0.000 2.000 1.471	(acres) (acre-feet) (acre-feet) 1.000 0.000 0.000 2.000 1.471 1.471

Device	Routing	Invert	Outlet Devices
#1	Discarded	57.00'	120.000 in/hr Exfiltration over Wetted area below 72.00'
#2	Primary	68.00'	24.0" Round Culvert
			I - 40 01 CDD militared to conform to fill I/o- 0.700

L= 10.0' CPP, mitered to conform to fill, Ke= 0.700
Inlet / Outlet Invert= 68.00' / 67.90' S= 0.0100 '/' Cc= 0.900
n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf

Discarded OutFlow Max=15.19 cfs @ 12.05 hrs HW=71.23' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 15.19 cfs)

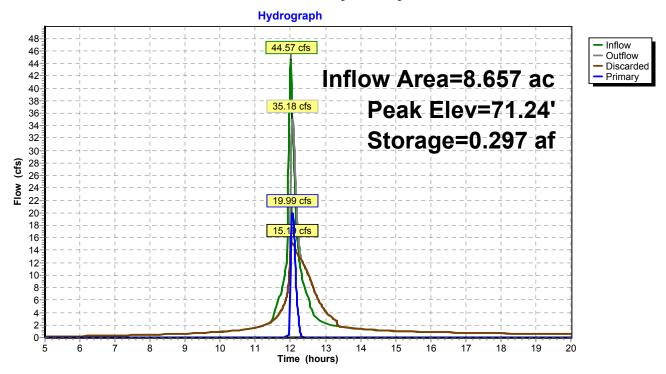
Primary OutFlow Max=19.95 cfs @ 12.05 hrs HW=71.23' (Free Discharge) 2=Culvert (Inlet Controls 19.95 cfs @ 6.35 fps)

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Page 119

Pond A1-9: Drywell System



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Page 120

Summary for Pond A10: Catch Basin

Inflow Area = 5.672 ac, 74.00% Impervious, Inflow Depth > 1.71" for 100-yr event

Inflow = 23.41 cfs @ 12.01 hrs, Volume= 0.806 af

Outflow = 23.41 cfs @ 12.01 hrs, Volume= 0.806 af, Atten= 0%, Lag= 0.0 min

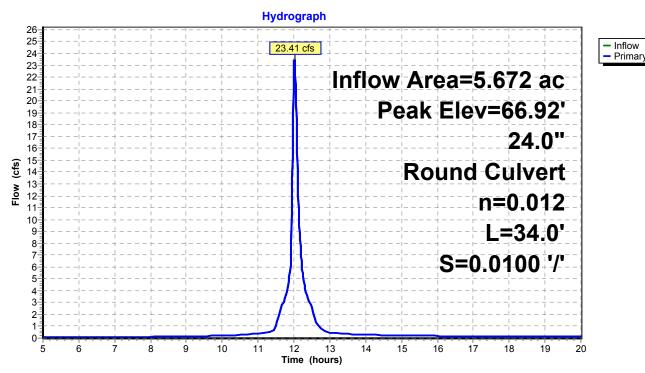
Primary = 23.41 cfs @ 12.01 hrs, Volume= 0.806 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 66.92' @ 12.01 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	62.84'	24.0" Round Culvert
			L= 34.0' CPP, mitered to conform to fill, Ke= 0.700
			Inlet / Outlet Invert= 62.84' / 62.50' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=23.29 cfs @ 12.01 hrs HW=66.88' (Free Discharge) 1=Culvert (Inlet Controls 23.29 cfs @ 7.41 fps)

Pond A10: Catch Basin



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Page 121

Summary for Pond A11: Catch Basin

Inflow Area = 5.476 ac, 74.52% Impervious, Inflow Depth > 1.56" for 100-yr event

Inflow = 21.70 cfs @ 12.01 hrs, Volume= 0.713 af

Outflow = 21.70 cfs @ 12.01 hrs, Volume= 0.713 af, Atten= 0%, Lag= 0.0 min

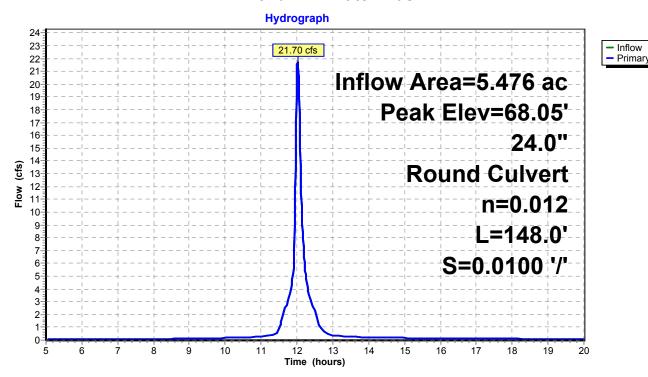
Primary = 21.70 cfs @ 12.01 hrs, Volume= 0.713 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 68.05' @ 12.01 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary		24.0" Round Culvert L= 148.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 64.41' / 62.93' S= 0.0100'/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 st

Primary OutFlow Max=21.56 cfs @ 12.01 hrs HW=68.02' (Free Discharge) 1=Culvert (Inlet Controls 21.56 cfs @ 6.86 fps)

Pond A11: Catch Basin



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Page 122

Summary for Pond A12: Catch Basin

Inflow Area = 5.280 ac, 75.09% Impervious, Inflow Depth > 1.41" for 100-yr event

Inflow = 19.84 cfs @ 12.02 hrs, Volume= 0.619 af

Outflow = 19.84 cfs @ 12.02 hrs, Volume= 0.619 af, Atten= 0%, Lag= 0.0 min

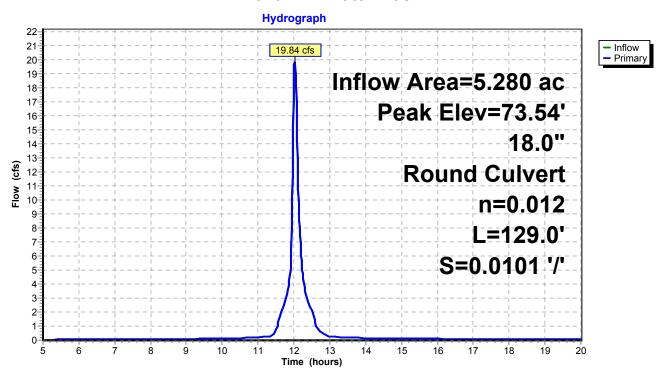
Primary = 19.84 cfs @ 12.02 hrs, Volume= 0.619 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 73.54' @ 12.02 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	65.81'	18.0" Round Culvert L= 129.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 65.81' / 64.51' S= 0.0101'/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=19.82 cfs @ 12.02 hrs HW=73.53' (Free Discharge) 1=Culvert (Inlet Controls 19.82 cfs @ 11.22 fps)

Pond A12: Catch Basin



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Page 123

Summary for Pond A13: Catch Basin

Inflow Area = 5.084 ac, 75.70% Impervious, Inflow Depth > 1.24" for 100-yr event

Inflow = 18.70 cfs @ 12.03 hrs, Volume= 0.526 af

Outflow = 18.70 cfs @ 12.03 hrs, Volume= 0.526 af, Atten= 0%, Lag= 0.0 min

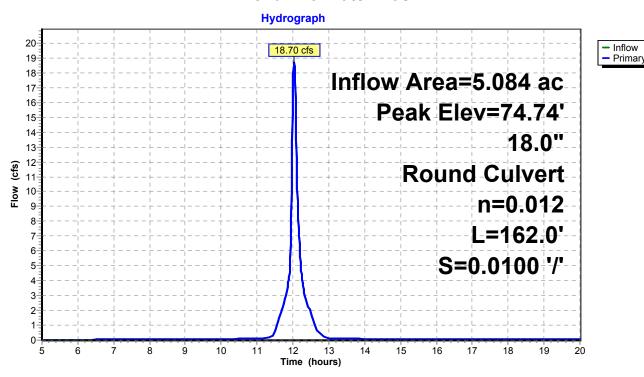
Primary = 18.70 cfs @ 12.03 hrs, Volume= 0.526 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 74.74' @ 12.03 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	67.52'	18.0" Round Culvert
			L= 162.0' CPP, mitered to conform to fill, Ke= 0.700
			Inlet / Outlet Invert= 67.52' / 65.90' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=18.67 cfs @ 12.03 hrs HW=74.72' (Free Discharge) 1=Culvert (Barrel Controls 18.67 cfs @ 10.56 fps)

Pond A13: Catch Basin



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Page 124

Summary for Pond A14: Drywell

Inflow Area = 4.858 ac, 75.34% Impervious, Inflow Depth > 2.98" for 100-yr event

Inflow = 19.31 cfs @ 12.04 hrs, Volume= 1.207 af

Outflow = 19.25 cfs @ 12.04 hrs, Volume= 1.206 af, Atten= 0%, Lag= 0.2 min

Discarded = 1.63 cfs @ 12.04 hrs, Volume= 0.805 af Primary = 17.62 cfs @ 12.04 hrs, Volume= 0.401 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs / 4 Peak Elev= 70.67' @ 12.04 hrs Surf.Area= 0.002 ac Storage= 0.032 af

Plug-Flow detention time= 6.6 min calculated for 1.205 af (100% of inflow) Center-of-Mass det. time= 6.2 min (739.9 - 733.7)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	0.035 af	11.33'D x 15.00'H Vertical Cone/Cylinder
#2	73.00'	1.471 af	Custom Stage Data (Conic)Listed below (Recalc)
		1.506 af	Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
73.00	1.000	0.000	0.000	1.000
74.00	2.000	1.471	1.471	2.000

Device	Routing	Invert	Outlet Devices
#1	Primary	67.86'	24.0" Round Culvert
	•		L= 16.0' CPP, mitered to conform to fill, Ke= 0.700
			Inlet / Outlet Invert= 67.86' / 67.75' S= 0.0069 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf
#2	Discarded	57.00'	120.000 in/hr Exfiltration over Wetted area below 72.00'

Discarded OutFlow Max=1.63 cfs @ 12.04 hrs HW=70.67' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 1.63 cfs)

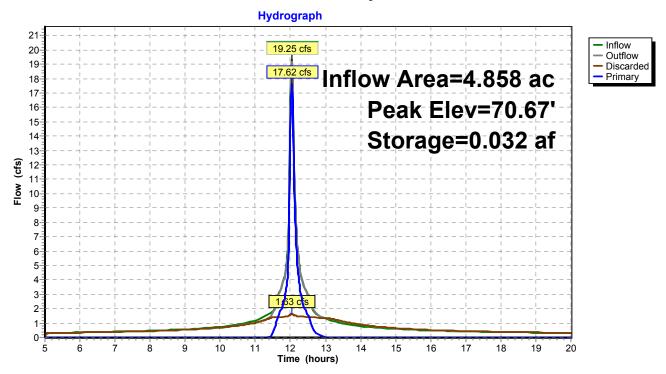
Primary OutFlow Max=17.68 cfs @ 12.04 hrs HW=70.67' (Free Discharge) 1=Culvert (Barrel Controls 17.68 cfs @ 5.63 fps)

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Page 125

Pond A14: Drywell



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Page 126

Summary for Pond A15: Drywell

2.806 ac, 57.32% Impervious, Inflow Depth = 0.00" for 100-yr event Inflow Area = Inflow 5.00 hrs, Volume= 0.00 cfs @ 0.000 af 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min Outflow 0.00 cfs @ Discarded = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af Primary 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs / 8 Peak Elev= 57.00' @ 5.00 hrs Surf.Area= 0.002 ac Storage= 0.000 af

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

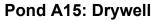
Volume	Invert	<u> Avail.Storag</u>	e Storag	ge Description			
#1	57.00'	0.035 a	f 11.33 '	D x 15.00'H Ve	rtical Cone/Cyli	nder	
#2	73.00'	1.471 a	f Custo	m Stage Data	(Conic)Listed be	elow (Recalc)	
		1.506 a	f Total	Available Storaç	ge		
Elevation (fee			Store -feet)	Cum.Store (acre-feet)	Wet.Area (acres)		
73.0	00 1.00	0	0.000	0.000	1.000		
74.0	2.00	0	1.471	1.471	2.000		
Device	Routing	Invert (Outlet Dev	/ices			
#1	Primary	67.86' 2	24.0" Rou	und Culvert			
	·	I	L= 16.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 67.86' / 67.75' S= 0.0069 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf				
#2	Discarded	57.00' 1	120.000 in/hr Exfiltration over Wetted area below 72.00' Phase-In= 0.03'				

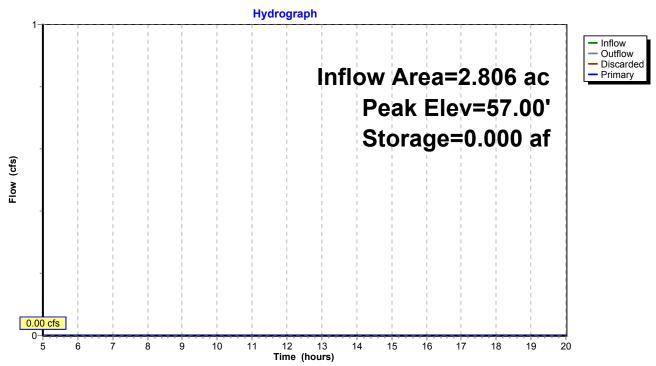
Discarded OutFlow Max=0.00 cfs @ 5.00 hrs HW=57.00' (Free Discharge) 2=Exfiltration (Controls 0.00 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=57.00' (Free Discharge) 1=Culvert (Controls 0.00 cfs)

Page 127

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Page 128

Summary for Pond A16-20: Drywell System

Inflow Area = 2.806 ac, 57.32% Impervious, Inflow Depth > 1.93" for 100-yr event 10.47 cfs @ 12.11 hrs, Volume= 0.452 af Outflow = 5.33 cfs @ 12.22 hrs, Volume= 0.452 af, Atten= 49%, Lag= 6.9 min Discarded = 5.33 cfs @ 12.22 hrs, Volume= 0.452 af Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 64.94' @ 12.22 hrs Surf.Area= 0.012 ac Storage= 0.092 af

Plug-Flow detention time= 5.5 min calculated for 0.452 af (100% of inflow) Center-of-Mass det. time= 5.4 min (751.3 - 745.9)

Volume	e Invert	Avail.Storage	Storage Description
#1	57.00'	0.174 af	11.33'D x 15.00'H Vertical Cone/Cylinderx 5
#2	73.00'	3.955 af	Custom Stage Data (Conic)Listed below (Recalc)

4.128 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
1.000	0.000	0.000	1.000
2.000	1.471	1.471	2.000
3.000	2.483	3.955	3.001
	(acres) 1.000 2.000	(acres) (acre-feet) 1.000 0.000 2.000 1.471	(acres) (acre-feet) (acre-feet) 1.000 0.000 0.000 2.000 1.471 1.471

Device	Routing	Invert	Outlet Devices
#1	Discarded	57.00'	120.000 in/hr Exfiltration over Wetted area below 72.00'
#2	Primary	68.00'	18.0" Round Culvert
			L= 12.0' CPP, mitered to conform to fill, Ke= 0.700
			Inlet / Outlet Invert= 68.00' / 67.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=5.32 cfs @ 12.22 hrs HW=64.94' (Free Discharge)

1=Exfiltration (Exfiltration Controls 5.32 cfs)

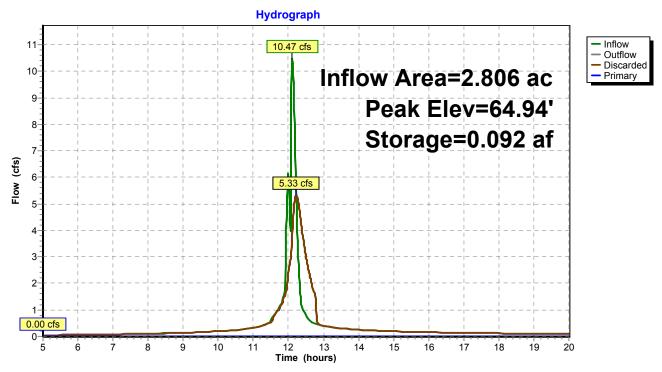
Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=57.00' (Free Discharge) 2=Culvert (Controls 0.00 cfs)

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Pond A16-20: Drywell System



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Page 130

Summary for Pond A21: Drywell

Inflow Area = 2.133 ac, 52.48% Impervious, Inflow Depth = 1.06" for 100-yr event
Inflow = 9.67 cfs @ 12.11 hrs, Volume= 0.188 af
Outflow = 9.39 cfs @ 12.13 hrs, Volume= 0.188 af, Atten= 3%, Lag= 1.1 min
Discarded = 1.66 cfs @ 12.13 hrs, Volume= 0.086 af
Primary = 7.73 cfs @ 12.13 hrs, Volume= 0.102 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs / 7 Peak Elev= 70.93' @ 12.13 hrs Surf.Area= 0.002 ac Storage= 0.032 af

Plug-Flow detention time= 5.6 min calculated for 0.187 af (100% of inflow) Center-of-Mass det. time= 5.6 min (735.4 - 729.9)

Volume	Invert Av	vail.Stora	ige Stora	ge Description		
#1	57.00'	0.046	af 11.3 3	B'D x 20.00'H Ve	ertical Cone/Cylin	nder
					" Wall Thickness	
#2	73.00'	1.471	af Cust	om Stage Data	(Conic)Listed bel	ow (Recalc)
		1.518	af Total	Available Storag	ge	
Elevation	on Surf.Area	In	c.Store	Cum.Store	Wet.Area	
(fee	et) (acres)	(ac	re-feet)	(acre-feet)	(acres)	
73.0	00 1.000		0.000	0.000	1.000	
74.0	2.000		1.471	1.471	2.000	
	-					
<u>Device</u>	Routing	Invert	Outlet De	vices		
#1	Primary	68.00'	15.0" Ro	ound Culvert		
			L= 263.0'	CPP, mitered	to conform to fill,	Ke= 0.700
			Inlet / Ou	tlet Invert= 68.00	0' / 65.41' S= 0.0	098 '/' Cc= 0.900
			n= 0.012	Corrugated PP,	, smooth interior,	Flow Area= 1.23 sf
#2	Discarded	57.00'			n over Wetted ar	
			Phase-I	n= 0.03'		

Discarded OutFlow Max=1.66 cfs @ 12.13 hrs HW=70.92' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 1.66 cfs)

Primary OutFlow Max=7.73 cfs @ 12.13 hrs HW=70.92' (Free Discharge) 1=Culvert (Barrel Controls 7.73 cfs @ 6.30 fps)

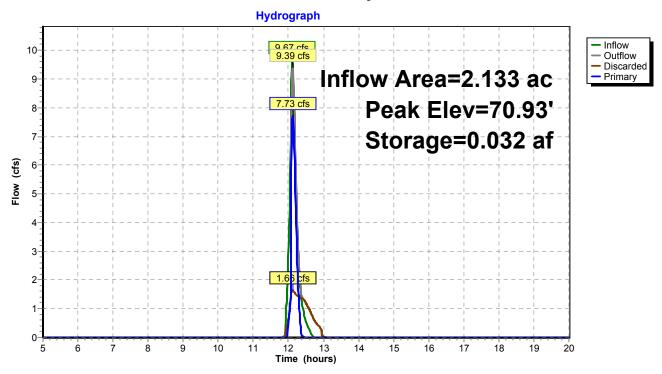
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Page 131

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Pond A21: Drywell



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Page 132

Summary for Pond A22: Drywell

Inflow Area = 2.133 ac, 52.48% Impervious, Inflow Depth > 3.72" for 100-yr event

Inflow = 11.82 cfs @ 12.09 hrs, Volume= 0.661 af

Outflow = 11.43 cfs @ 12.11 hrs, Volume= 0.660 af, Atten= 3%, Lag= 1.2 min

Discarded = 1.76 cfs @ 12.10 hrs, Volume= 0.473 af Primary = 9.67 cfs @ 12.11 hrs, Volume= 0.188 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs / 7 Peak Elev= 72.06' @ 12.11 hrs Surf.Area= 0.002 ac Storage= 0.035 af

Plug-Flow detention time= 5.4 min calculated for 0.660 af (100% of inflow) Center-of-Mass det. time= 5.2 min (763.4 - 758.2)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/Cylinder
#2	73.00'	1.471 af	Custom Stage Data (Conic)Listed below (Recalc)
		1.518 af	Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
73.00	1.000	0.000	0.000	1.000
74.00	2.000	1.471	1.471	2.000

<u>Device</u>	Routing	Invert	Outlet Devices
#1	Primary	68.00'	15.0" Round Culvert
	•		L= 12.0' CPP, mitered to conform to fill, Ke= 0.700
			Inlet / Outlet Invert= 68.00' / 67.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf
#2	Discarded	57.00'	120.000 in/hr Exfiltration over Wetted area below 72.00'
			Phase-In= 0.03'

Discarded OutFlow Max=1.76 cfs @ 12.10 hrs HW=72.02' (Free Discharge)

2=Exfiltration (Exfiltration Controls 1.76 cfs)

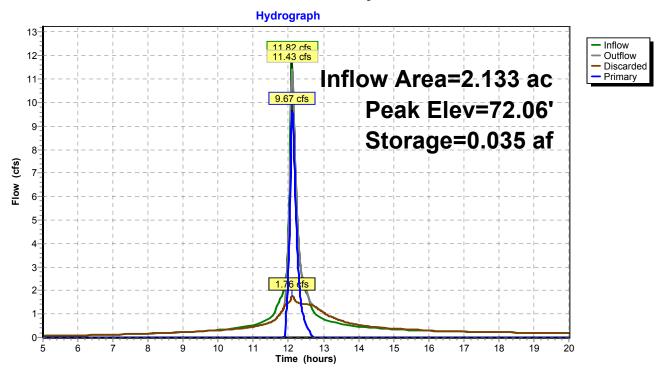
Primary OutFlow Max=9.66 cfs @ 12.11 hrs HW=72.06' (Free Discharge) 1=Culvert (Inlet Controls 9.66 cfs @ 7.87 fps)

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Page 133

Pond A22: Drywell



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Page 134

Summary for Pond A23: Drywell

Inflow Area = 0.897 ac, 33.39% Impervious, Inflow Depth > 4.58" for 100-yr event
Inflow = 5.22 cfs @ 12.07 hrs, Volume= 0.342 af
Outflow = 5.17 cfs @ 12.08 hrs, Volume= 0.342 af, Atten= 1%, Lag= 0.6 min
Discarded = 1.65 cfs @ 12.08 hrs, Volume= 0.302 af
Primary = 3.52 cfs @ 12.08 hrs, Volume= 0.040 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs / 7 Peak Elev= 70.88' @ 12.08 hrs Surf.Area= 0.002 ac Storage= 0.032 af

Plug-Flow detention time= 6.0 min calculated for 0.342 af (100% of inflow) Center-of-Mass det. time= 5.9 min (793.3 - 787.4)

Volume	Invert A	vail.Stora	ge Stora	age Description		
#1	57.00'	0.046		3'D x 20.00'H Ve		
				2 af Overall - 4.0		
#2	73.00'	1.471	af Cust	tom Stage Data	(Conic)Listed	below (Recalc)
		1.518	af Total	l Available Stora	ge	
Elevation	on Surf.Area	In	c.Store	Cum.Store	Wet.Area	
(fee			re-feet)	(acre-feet)	(acres)	
73.0			0.000	0.000	1.000	
			0.000			
74.0	2.000		1.471	1.471	2.000	
Device	Routing	Invert	Outlet De	evices		
#1	Primary	69.80'	15.0" Ro	ound Culvert		
	•		L= 184.0	' CPP, mitered	to conform to t	fill, Ke= 0.700
			Inlet / Ou	itlet Invert= 69.8	0' / 68.05' S=	0.0095 '/' Cc= 0.900
						or, Flow Area= 1.23 sf
#2	Discarded	57.00'				l area Phase-In= 0.03'

Discarded OutFlow Max=1.65 cfs @ 12.08 hrs HW=70.88' (Free Discharge)

2=Exfiltration (Exfiltration Controls 1.65 cfs)

Primary OutFlow Max=3.51 cfs @ 12.08 hrs HW=70.88' (Free Discharge) 1=Culvert (Inlet Controls 3.51 cfs @ 3.12 fps)

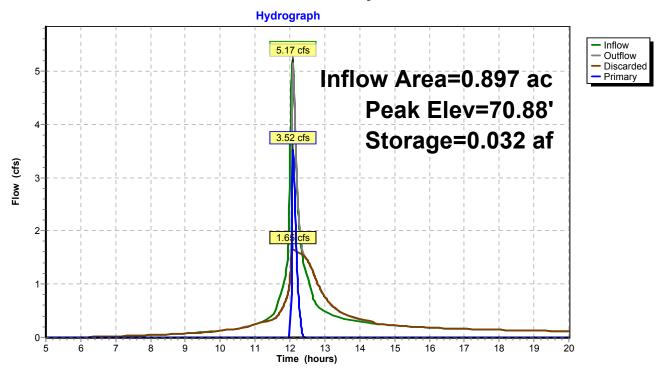
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Page 135

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Pond A23: Drywell



Arena

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Page 136

Summary for Pond B1: Catch Basin

Inflow Area = 8.657 ac, 68.29% Impervious, Inflow Depth = 0.36" for 100-yr event

Inflow = 19.99 cfs @ 12.05 hrs, Volume= 0.258 af

Outflow = 19.99 cfs @ 12.05 hrs, Volume= 0.258 af, Atten= 0%, Lag= 0.0 min

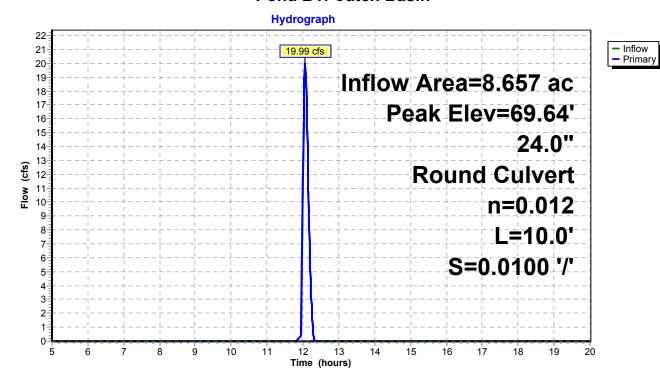
Primary = 19.99 cfs @ 12.05 hrs, Volume= 0.258 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 69.64' @ 12.05 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	66.40'	24.0" Round Culvert
			L= 10.0' CPP, mitered to conform to fill, Ke= 0.700
			Inlet / Outlet Invert= 66.40' / 66.30' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP_smooth interior_Flow Area= 3.14 sf

Primary OutFlow Max=19.95 cfs @ 12.05 hrs HW=69.63' (Free Discharge) 1=Culvert (Inlet Controls 19.95 cfs @ 6.35 fps)

Pond B1: Catch Basin



Arena

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Page 137

Summary for Pond SS1: Catch Basin

Inflow Area = 8.657 ac, 68.29% Impervious, Inflow Depth = 0.36" for 100-yr event

Inflow = 19.99 cfs @ 12.05 hrs, Volume= 0.258 af

Outflow = 19.99 cfs @ 12.05 hrs, Volume= 0.258 af, Atten= 0%, Lag= 0.0 min

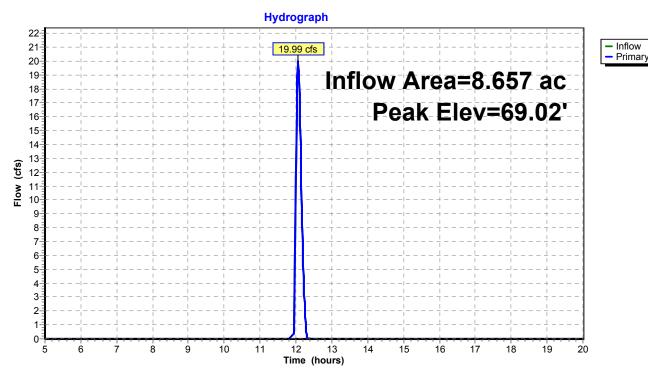
Primary = 19.99 cfs @ 12.05 hrs, Volume= 0.258 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 69.02' @ 12.05 hrs

Device	Routing	Invert	Outlet Devices	
#1	Primary	66.27'	24.0" Vert. Orifice/Grate	C= 0.600

Primary OutFlow Max=19.95 cfs @ 12.05 hrs HW=69.01' (Free Discharge) 1=Orifice/Grate (Orifice Controls 19.95 cfs @ 6.35 fps)

Pond SS1: Catch Basin



Page 138

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Summary for Link DD_E: Downstream Discharge

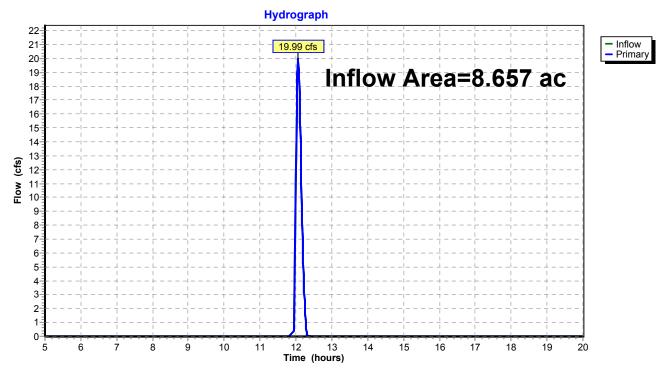
Inflow Area = 8.657 ac, 68.29% Impervious, Inflow Depth = 0.36" for 100-yr event

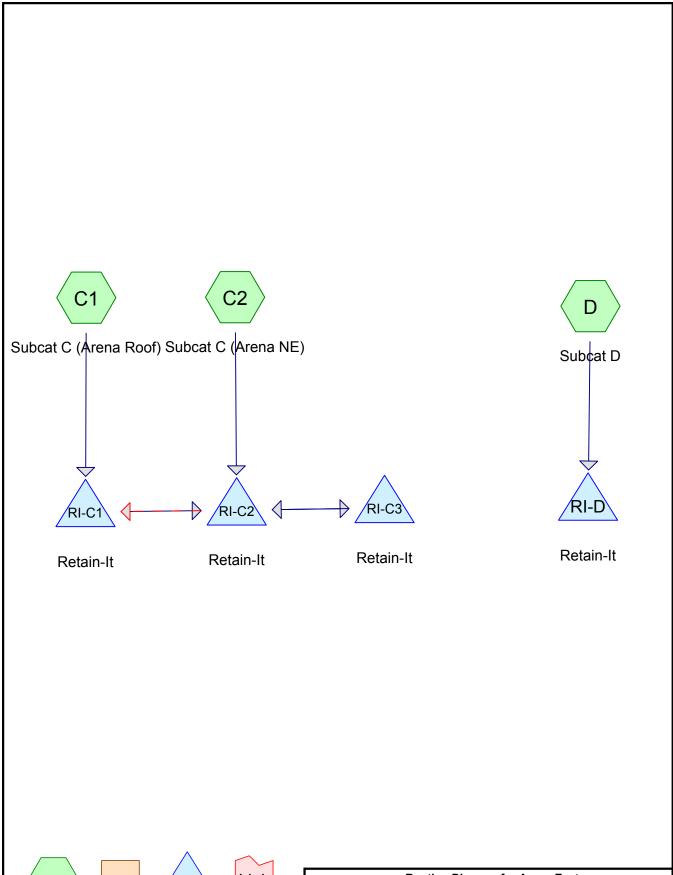
Inflow = 19.99 cfs @ 12.05 hrs, Volume= 0.258 af

Primary = 19.99 cfs @ 12.05 hrs, Volume= 0.258 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs

Link DD_E: Downstream Discharge











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Page 2

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Area Listing (all nodes)

Area	CN	Description
(acres)		(subcatchment-numbers)
0.189	98	Canopy/Roof (C1)
1.660	61	Lscape (C2)
0.306	61	Lscpe (D)
1.337	98	Pavement (D)
1.773	98	Pavement/Hardscapes (C2)
5.265	84	TOTAL AREA

Page 3

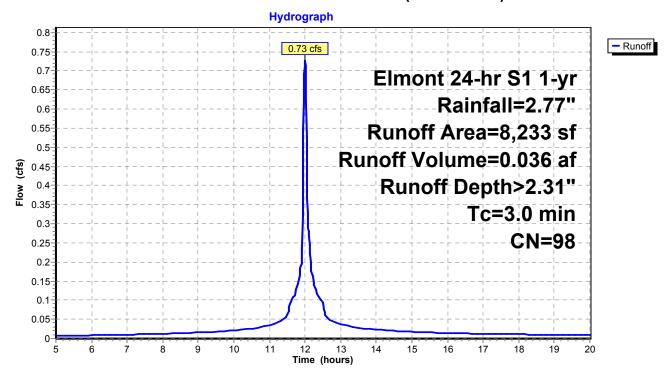
Summary for Subcatchment C1: Subcat C (Arena Roof)

Runoff = 0.73 cfs @ 12.01 hrs, Volume= 0.036 af, Depth> 2.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

	Α	rea (sf)	CN [Description		
*		8,233	98 (Canopy/Ro	of	
		8,233	ŕ	00.00% In	npervious A	Area
	Тс	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	3.0					Direct Entry,

Subcatchment C1: Subcat C (Arena Roof)



Page 4

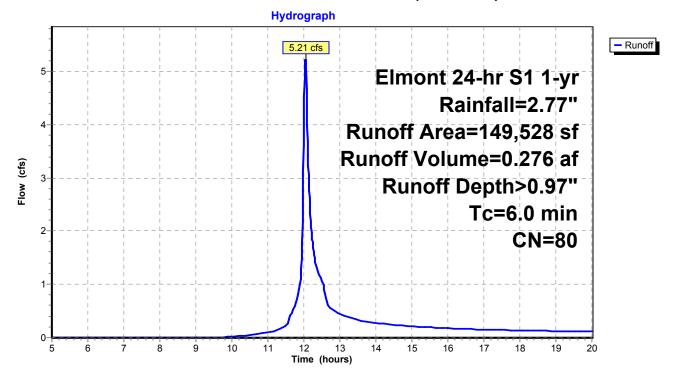
Summary for Subcatchment C2: Subcat C (Arena NE)

Runoff = 5.21 cfs @ 12.04 hrs, Volume= 0.276 af, Depth> 0.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

	Α	rea (sf)	CN	Description		
*		72,302	61	Lscape		
*	:	77,226	98	Pavement/I	-lardscapes	es
_	1	49,528	80	Weighted A	verage	
		72,302		48.35% Pe	rvious Area	a
		77,226	51.65% Impervious Are			rea
	Тс	Length	Slope	e Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	6.0					Direct Entry.

Subcatchment C2: Subcat C (Arena NE)



Page 5

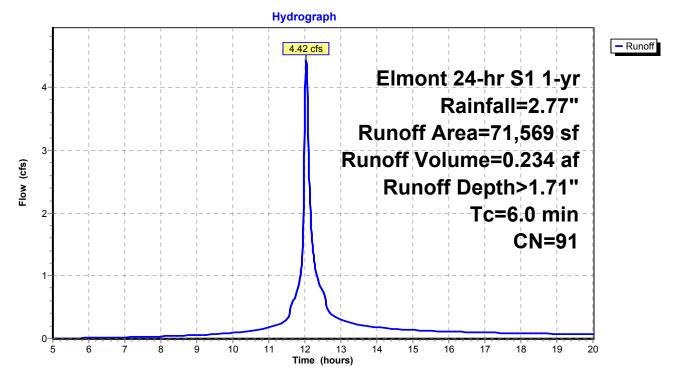
Summary for Subcatchment D: Subcat D

Runoff = 4.42 cfs @ 12.04 hrs, Volume= 0.234 af, Depth> 1.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

	Α	rea (sf)	CN	Description		
*		58,240	98	Pavement		
*		13,329	61	Lscpe		
		71,569	91	Weighted A	Average	
		13,329		18.62% Pe	rvious Area	a
		58,240		81.38% Im	pervious Ar	rea
	Тс	Length	Slope	e Velocity	Capacity	Description
	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)	
	6.0					Direct Entry.

Subcatchment D: Subcat D



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Page 6

Summary for Pond RI-C1: Retain-It

Inflow = 0.73 cfs @ 12.01 hrs, Volume= 0.036 af
Outflow = 0.48 cfs @ 12.05 hrs, Volume= 0.036 af, Atten= 34%, Lag= 2.6 min
Discarded = 0.48 cfs @ 12.05 hrs, Volume= 0.036 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Sim-Route method w/Net Flows, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 61.89' @ 12.05 hrs Surf.Area= 0.026 ac Storage= 0.002 af

Plug-Flow detention time= 1.4 min calculated for 0.036 af (100% of inflow) Center-of-Mass det. time= 1.3 min (738.5 - 737.2)

Volume	Invert	Avail.Storage	Storage Description
#1	61.80'	0.124 af	retain_it retain_it 5.0' x 20
			Inside= 84.0"W x 60.0"H => 36.41 sf x 8.00'L = 291.3 cf
			Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf
			1 Rows adjusted for 436.4 cf perimeter wall
#2	66.80'	0.124 af	retain_it retain_it 5.0' x 20
			Inside= 84.0 "W x 60.0 "H => 36.41 sf x 8.00 'L = 291.3 cf
			Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf
			1 Rows adjusted for 436.4 cf perimeter wall
#3	72.00'	2.832 af	Custom Stage Data (Conic)Listed below (Recalc)
		3.079 af	Total Available Storage
□ 1€	O		Our Olars Wet Area

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
72.00	0.000	0.000	0.000	0.000
73.49	0.001	0.000	0.000	0.001
73.50	1.000	0.003	0.004	1.000
74.00	1.500	0.621	0.625	1.500
75.00	3.000	2.207	2.832	3.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	61.80'	18.000 in/hr Exfiltration over Wetted area below 72.00'
			Phase-In= 0.03'
#2	Primary	68.60'	18.0" Round Culvert
	•		L= 58.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 68.60' / 67.90' S= 0.0121 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.48 cfs @ 12.05 hrs HW=61.89' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.48 cfs)

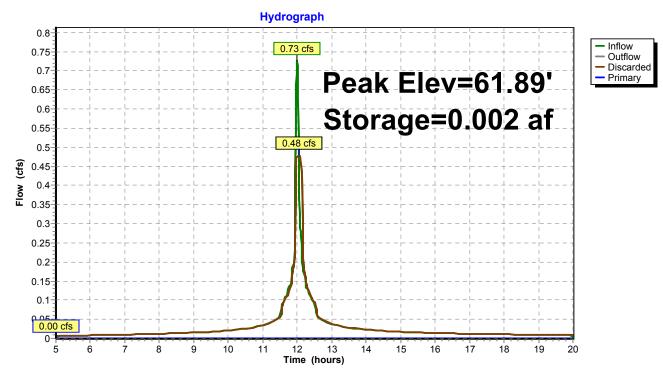
Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=61.80' TW=61.80' (Dynamic Tailwater) 2=Culvert (Controls 0.00 cfs)

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Page 7

Pond RI-C1: Retain-It



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Page 8

Summary for Pond RI-C2: Retain-It

Inflow =	5.21 cfs @ 12.04	hrs, Volume= 0.276 af	
Outflow =	0.86 cfs @ 12.58	hrs, Volume= 0.276 af,	Atten= 83%, Lag= 32.3 min
Discarded =	0.86 cfs @ 12.58	hrs, Volume= 0.276 af	
Primary =	0.00 cfs @ 5.00	hrs, Volume= 0.000 af	
Secondary =	0.00 cfs @ 5.00	hrs, Volume= 0.000 af	

Routing by Sim-Route method w/Net Flows, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 66.17' @ 12.58 hrs Surf.Area= 0.021 ac Storage= 0.086 af

Plug-Flow detention time= 39.0 min calculated for 0.276 af (100% of inflow) Center-of-Mass det. time= 38.8 min (851.7 - 812.9)

Volume	Invert	Avail.Storage	Storage Description
#1	61.80'	0.099 af	retain_it retain_it 5.0' x 16
			Inside= 84.0 "W x 60.0 "H => 36.41 sf x 8.00 'L = 291.3 cf
			Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf
			1 Rows adjusted for 353.3 cf perimeter wall
#2	66.80'	0.093 af	retain_it retain_it 5.0' x 15
			Inside= 84.0"W x 60.0"H => 36.41 sf x 8.00'L = 291.3 cf
			Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf
			1 Rows adjusted for 332.5 cf perimeter wall
<u>#3</u>	72.00'	3.223 af	Custom Stage Data (Conic)Listed below (Recalc)
			- · · · · · · · · · · · ·

3.414 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
72.00	0.000	0.000	0.000	0.000
73.49	0.001	0.000	0.000	0.001
73.50	1.000	0.003	0.004	1.000
74.00	2.000	0.736	0.740	2.000
75.00	3.000	2.483	3.223	3.000

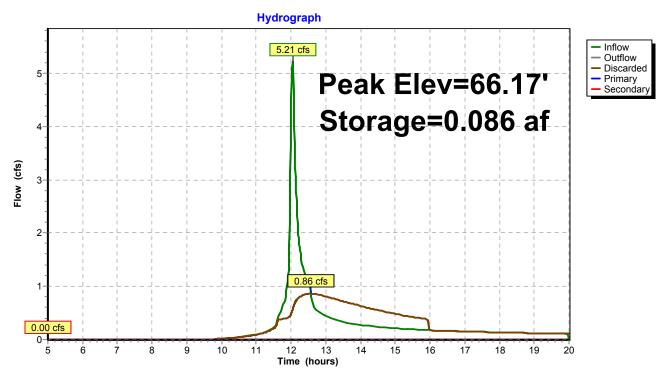
Device	Routing	Invert	Outlet Devices
#1	Discarded	61.80'	18.000 in/hr Exfiltration over Wetted area below 72.00'
			Phase-In= 0.03'
#2	Primary	68.50'	18.0" Round Culvert
	•		L= 33.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 68.50' / 68.15' S= 0.0106 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf
#3	Secondary	68.60'	18.0" Round Culvert
	•		L= 58.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 67.95' / 68.60' S= -0.0112 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.86 cfs @ 12.58 hrs HW=66.17' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.86 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=61.80' TW=61.80' (Dynamic Tailwater) 2=Culvert (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=61.80' TW=61.80' (Dynamic Tailwater) = 3=Culvert (Controls 0.00 cfs)

Pond RI-C2: Retain-It



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Page 10

Summary for Pond RI-C3: Retain-It

Inflow 0.00 cfs @ 5.00 hrs. Volume= 0.000 af 5.00 hrs, Volume= Outflow 0.00 cfs @ 0.000 af, Atten= 0%, Lag= 0.0 min 5.00 hrs, Volume= Discarded = 0.00 cfs @ 0.000 af Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Sim-Route method w/Net Flows, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 61.80' @ 5.00 hrs Surf.Area= 0.019 ac Storage= 0.000 af

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	61.80'	0.093 af	retain_it retain_it 5.0' x 15
			Inside= 84.0"W \times 60.0"H => 36.41 sf x 8.00'L = 291.3 cf
			Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf
			1 Rows adjusted for 332.5 cf perimeter wall
#2	66.80'	0.093 af	retain_it retain_it 5.0' x 15
			Inside= 84.0"W \times 60.0"H => 36.41 sf x 8.00'L = 291.3 cf
			Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf
			1 Rows adjusted for 332.5 cf perimeter wall
#3	72.45'	3.223 af	Custom Stage Data (Conic)Listed below (Recalc)
		3.408 af	Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
72.45	0.000	0.000	0.000	0.000
73.49	0.001	0.000	0.000	0.001
73.50	1.000	0.003	0.004	1.000
74.00	2.000	0.736	0.739	2.000
75.00	3.000	2.483	3.223	3.000

Invert Outlet Devices

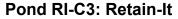
Device	Rouling	mvert	Outlet Devices
#1	Discarded	61.80'	18.000 in/hr Exfiltration over Wetted area below 72.00'
			Phase-In= 0.03'
#2	Primary	68.50'	18.0" Round Culvert
			L= 33.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 68.15' / 68.50' S= -0.0106 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

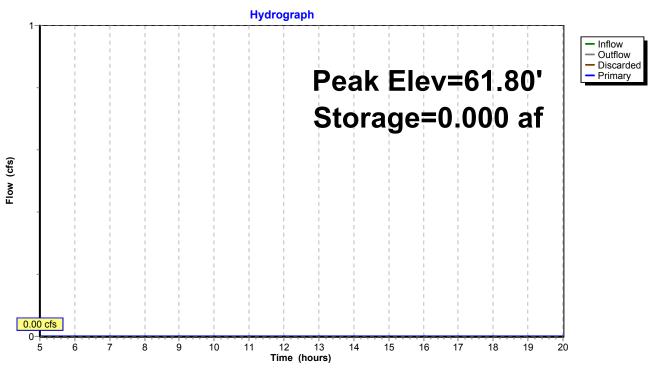
Discarded OutFlow Max=0.00 cfs @ 5.00 hrs HW=61.80' (Free Discharge) 1=Exfiltration (Controls 0.00 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=61.80' TW=61.80' (Dynamic Tailwater) 2=Culvert (Controls 0.00 cfs)

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Page 11





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Page 12

Summary for Pond RI-D: Retain-It

Inflow Area = 1.643 ac, 81.38% Impervious, Inflow Depth > 1.71" for 1-yr event

Inflow = 4.42 cfs @ 12.04 hrs, Volume= 0.234 af

Outflow = 0.99 cfs @ 12.34 hrs, Volume= 0.234 af, Atten= 78%, Lag= 18.4 min

Discarded = 0.99 cfs @ 12.34 hrs, Volume= 0.234 af

Routing by Sim-Route method w/Net Flows, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs

Peak Elev= 61.10' @ 12.34 hrs Surf.Area= 0.039 ac Storage= 0.052 af

Plug-Flow detention time= 14.2 min calculated for 0.234 af (100% of inflow)

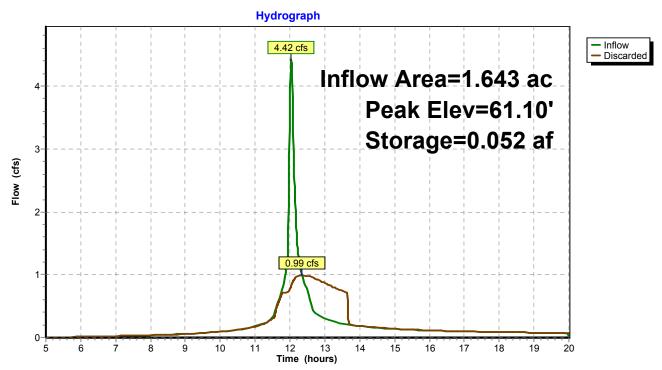
Center-of-Mass det. time= 14.1 min (788.6 - 774.5)

Volume	Invert A	vail.Storage	Stora	ge Description		
#1	59.70'	0.186 af	Inside Outsi	de= 96.0"W x 68	0"H => 36.41 sf x	8.00'L = 291.3 cf x 8.00'L = 362.7 cf r wall
#2	64.70'	0.186 af	Inside= 84.0"W x 60.0"H => 36.41 sf x 8.00'L = 291.3 cf Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf 1 Rows adjusted for 644.2 cf perimeter wall			
#3	69.70'	3.959 af	Cust	om Stage Data	(Conic)Listed be	low (Recalc)
		4.331 af	Total	Available Storag	ge	
Elevation	on Surf.Area	Inc.S	tore	Cum.Store	Wet.Area	
(fee	et) (acres)	(acre-f	eet)	(acre-feet)	(acres)	
69.7	70 0.000	0.	000	0.000	0.000	
72.9	99 0.001	0.	001	0.001	0.001	
73.0	1.000	0.	003	0.005	1.000	
74.0	2.000	1.	471	1.476	2.001	
75.0	3.000	2.	483	3.959	3.001	
Device	Routing	Invert O	utlet De	vices		
#1	Discarded	59.70' 18	.000 in	hr Exfiltration	over Wetted are	a below 70.00'

Discarded OutFlow Max=0.99 cfs @ 12.34 hrs HW=61.10' (Free Discharge) 1=Exfiltration (Exfiltration Controls 0.99 cfs)

Phase-In= 0.03'





Page 14

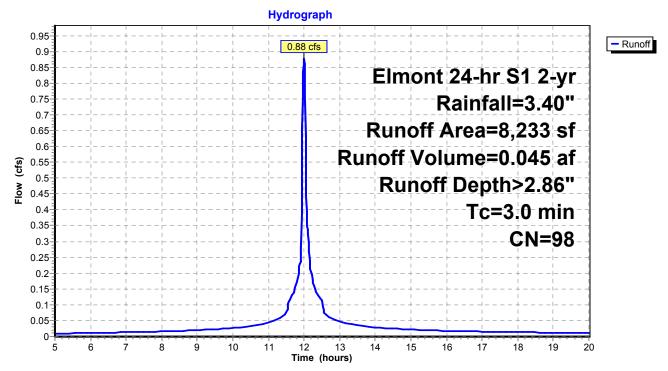
Summary for Subcatchment C1: Subcat C (Arena Roof)

Runoff = 0.88 cfs @ 12.01 hrs, Volume= 0.045 af, Depth> 2.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

Α	rea (sf)	CN I	Description				
*	8,233	98 (Canopy/Roof				
	8,233		100.00% Im	npervious A	rea		
Tc	Length	Slope	Velocity	Capacity	Description		
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
3.0					Direct Entry		

Subcatchment C1: Subcat C (Arena Roof)



Page 15

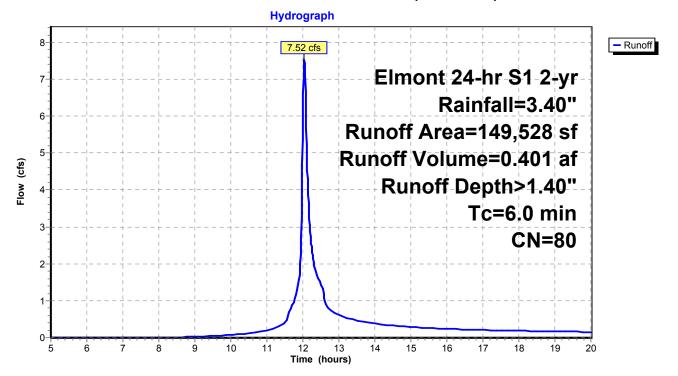
Summary for Subcatchment C2: Subcat C (Arena NE)

Runoff = 7.52 cfs @ 12.04 hrs, Volume= 0.401 af, Depth> 1.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

	Are	ea (sf)	CN	Description		
*	7:	2,302	61	Lscape		
*	7	7,226	98	Pavement/l	Hardscapes	es
	7	9,528 2,302 7,226		Weighted A 48.35% Pei 51.65% Imp	vious Area	
	Tc I (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	·
	6.0					Direct Entry,

Subcatchment C2: Subcat C (Arena NE)



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Page 16

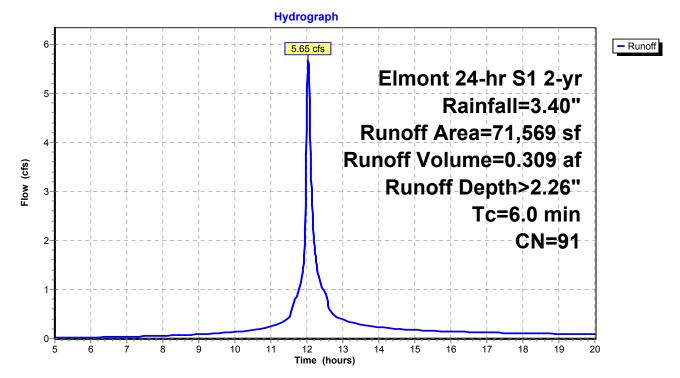
Summary for Subcatchment D: Subcat D

Runoff = 5.65 cfs @ 12.04 hrs, Volume= 0.309 af, Depth> 2.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

	Α	rea (sf)	CN	Description				
*		58,240	98	Pavement				
*		13,329	61	Lscpe				
		71,569	91	Weighted A	verage			
		13,329		18.62% Pervious Area				
		58,240		81.38% lmp	pervious Ar	rea		
	Тс	Length	Slope	Velocity	Capacity	Description		
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
	6.0				•	Direct Entry.		

Subcatchment D: Subcat D



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Page 17

Summary for Pond RI-C1: Retain-It

Inflow = 0.88 cfs @ 12.01 hrs, Volume= 0.045 af
Outflow = 0.49 cfs @ 12.06 hrs, Volume= 0.045 af, Atten= 45%, Lag= 3.2 min
Discarded = 0.49 cfs @ 12.06 hrs, Volume= 0.045 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Sim-Route method w/Net Flows, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 61.93' @ 12.06 hrs Surf.Area= 0.026 ac Storage= 0.003 af

Plug-Flow detention time= 1.7 min calculated for 0.045 af (100% of inflow) Center-of-Mass det. time= 1.6 min (737.0 - 735.4)

Volume	Invert	Avail.Storage	Storage Description			
#1	61.80'	0.124 af	retain_it retain_it 5.0' x 20			
			Inside= 84.0"W x 60.0"H => 36.41 sf x 8.00'L = 291.3 cf			
			Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf			
			1 Rows adjusted for 436.4 cf perimeter wall			
#2	66.80'	0.124 af	retain_it retain_it 5.0' x 20			
			Inside= 84.0"W x 60.0"H => 36.41 sf x 8.00'L = 291.3 cf			
			Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf			
			1 Rows adjusted for 436.4 cf perimeter wall			
#3	72.00'	2.832 af	Custom Stage Data (Conic)Listed below (Recalc)			
		3.079 af	Total Available Storage			
E	0 ()		0 0 0 0 0			
Elevation	Surf.Are	ea Inc.St	ore Cum.Store Wet.Area			

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
72.00	0.000	0.000	0.000	0.000
73.49	0.001	0.000	0.000	0.001
73.50	1.000	0.003	0.004	1.000
74.00	1.500	0.621	0.625	1.500
75.00	3.000	2.207	2.832	3.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	61.80'	18.000 in/hr Exfiltration over Wetted area below 72.00'
			Phase-In= 0.03'
#2	Primary	68.60'	18.0" Round Culvert
	•		L= 58.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 68.60' / 67.90' S= 0.0121 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.49 cfs @ 12.06 hrs HW=61.93' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.49 cfs)

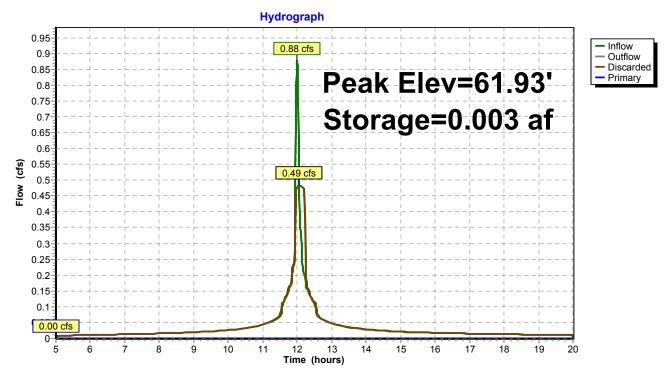
Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=61.80' TW=61.80' (Dynamic Tailwater) 2=Culvert (Controls 0.00 cfs)

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Pond RI-C1: Retain-It



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Page 19

Summary for Pond RI-C2: Retain-It

Inflow =	7.52 cfs @	12.04 hrs, Volume=	0.401 af
Outflow =	1.43 cfs @	12.52 hrs, Volume=	0.401 af, Atten= 81%, Lag= 28.6 min
Discarded =	1.43 cfs @	12.52 hrs, Volume=	0.401 af
Primary =	0.00 cfs @	5.00 hrs, Volume=	0.000 af
Secondary =	0.00 cfs @	5.00 hrs, Volume=	0.000 af

Routing by Sim-Route method w/Net Flows, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 68.15' @ 12.52 hrs Surf.Area= 0.019 ac Storage= 0.124 af

Plug-Flow detention time= 43.5 min calculated for 0.401 af (100% of inflow) Center-of-Mass det. time= 43.4 min (848.0 - 804.7)

Volume	Invert	Avail.Storage	Storage Description
#1	61.80'	0.099 af	retain_it retain_it 5.0' x 16
			Inside= 84.0 "W x 60.0 "H => 36.41 sf x 8.00 'L = 291.3 cf
			Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf
			1 Rows adjusted for 353.3 cf perimeter wall
#2	66.80'	0.093 af	retain_it retain_it 5.0' x 15
			Inside= 84.0"W x 60.0"H => 36.41 sf x 8.00'L = 291.3 cf
			Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf
			1 Rows adjusted for 332.5 cf perimeter wall
<u>#3</u>	72.00'	3.223 af	Custom Stage Data (Conic)Listed below (Recalc)
			- · · · · · · · · · · · ·

3.414 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
72.00	0.000	0.000	0.000	0.000
73.49	0.001	0.000	0.000	0.001
73.50	1.000	0.003	0.004	1.000
74.00	2.000	0.736	0.740	2.000
75.00	3.000	2.483	3.223	3.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	61.80'	18.000 in/hr Exfiltration over Wetted area below 72.00'
			Phase-In= 0.03'
#2	Primary	68.50'	18.0" Round Culvert
	•		L= 33.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 68.50' / 68.15' S= 0.0106 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf
#3	Secondary	68.60'	18.0" Round Culvert
	•		L= 58.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 67.95' / 68.60' S= -0.0112 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

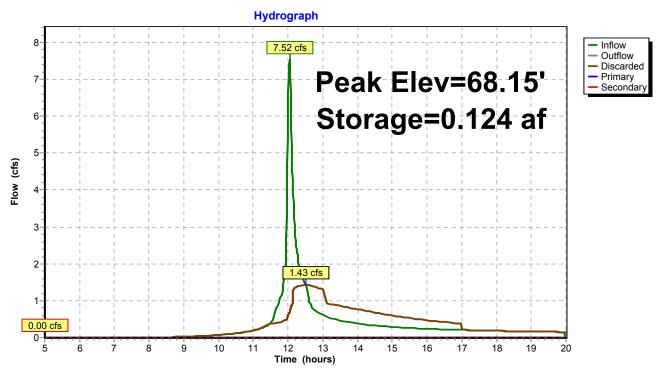
Page 20

Discarded OutFlow Max=1.43 cfs @ 12.52 hrs HW=68.15' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 1.43 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=61.80' TW=61.80' (Dynamic Tailwater) 2=Culvert (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=61.80' TW=61.80' (Dynamic Tailwater) = 3=Culvert (Controls 0.00 cfs)

Pond RI-C2: Retain-It



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Page 21

Summary for Pond RI-C3: Retain-It

Inflow 0.00 cfs @ 5.00 hrs. Volume= 0.000 af 5.00 hrs, Volume= Outflow 0.00 cfs @ 0.000 af, Atten= 0%, Lag= 0.0 min 5.00 hrs, Volume= Discarded = 0.00 cfs @ 0.000 af Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Sim-Route method w/Net Flows, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 61.80' @ 5.00 hrs Surf.Area= 0.019 ac Storage= 0.000 af

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1 61.80' 0.093 af		0.093 af	retain_it retain_it 5.0' x 15
			Inside= 84.0"W x 60.0"H => 36.41 sf x 8.00'L = 291.3 cf
			Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf
			1 Rows adjusted for 332.5 cf perimeter wall
#2	66.80'	0.093 af	retain_it retain_it 5.0' x 15
			Inside= 84.0 "W x 60.0 "H => 36.41 sf x 8.00 'L = 291.3 cf
			Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf
			1 Rows adjusted for 332.5 cf perimeter wall
#3	72.45'	3.223 af	Custom Stage Data (Conic)Listed below (Recalc)
		3.408 af	Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
72.45	0.000	0.000	0.000	0.000
73.49	0.001	0.000	0.000	0.001
73.50	1.000	0.003	0.004	1.000
74.00	2.000	0.736	0.739	2.000
75.00	3.000	2.483	3.223	3.000

Invert Outlet Devices

Device	Routing	mvert	Outlet Devices
#1	Discarded	61.80'	18.000 in/hr Exfiltration over Wetted area below 72.00'
			Phase-In= 0.03'
#2	Primary	68.50'	18.0" Round Culvert
			L= 33.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 68.15' / 68.50' S= -0.0106 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

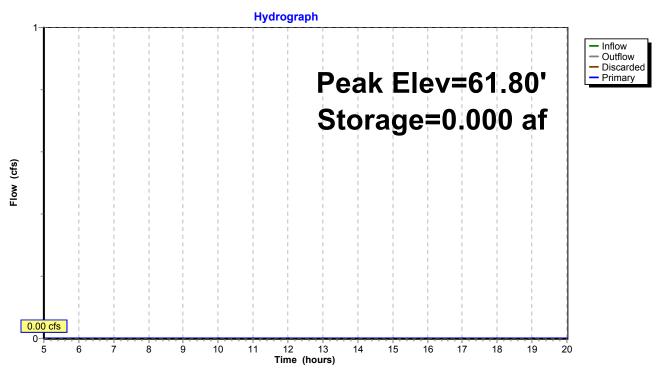
Discarded OutFlow Max=0.00 cfs @ 5.00 hrs HW=61.80' (Free Discharge) 1=Exfiltration (Controls 0.00 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=61.80' TW=61.80' (Dynamic Tailwater) 2=Culvert (Controls 0.00 cfs)

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Pond RI-C3: Retain-It



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Page 23

Summary for Pond RI-D: Retain-It

Inflow Area = 1.643 ac, 81.38% Impervious, Inflow Depth > 2.26" for 2-yr event

Inflow = 5.65 cfs @ 12.04 hrs, Volume= 0.309 af

Outflow = 1.12 cfs @ 12.39 hrs, Volume= 0.309 af, Atten= 80%, Lag= 21.2 min

Discarded = 1.12 cfs @ 12.39 hrs, Volume= 0.309 af

Routing by Sim-Route method w/Net Flows, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs

Peak Elev= 61.73' @ 12.39 hrs Surf.Area= 0.039 ac Storage= 0.076 af

Plug-Flow detention time= 19.3 min calculated for 0.309 af (100% of inflow)

Center-of-Mass det. time= 19.2 min (786.7 - 767.5)

Volume	Invert A	Avail.Storage	Stora	age Description		
#1	59.70'	0.186 af	· · · · · · · · · · · · · · · · · · ·			
#2	64.70'	0.186 af				
#3	69.70'	3.959 af	Cust	om Stage Data	(Conic)Listed be	elow (Recalc)
		4.331 af	Total	Available Stora	ge	
Elevation	on Surf.Area	n Inc.S	tore	Cum.Store	Wet.Area	
(fee	et) (acres)) (acre-f	eet)	(acre-feet)	(acres)	
69.7	70 0.000	0	000	0.000	0.000	
72.9	99 0.001	0.	001	0.001	0.001	
73.0	00 1.000	0	003	0.005	1.000	
74.0	00 2.000) 1.	471	1.476	2.001	
75.0	3.000) 2	483	3.959	3.001	
Device	Routing	Invert O	utlet De	evices		
#1	Discarded	59.70' 18	.000 ir	n/hr Exfiltration	over Wetted are	ea below 70.00'

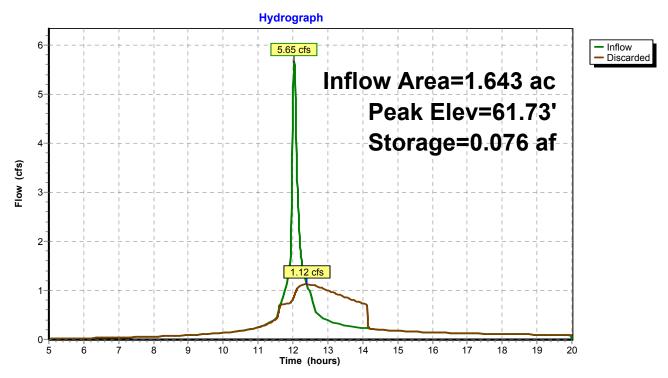
Discarded OutFlow Max=1.12 cfs @ 12.39 hrs HW=61.73' (Free Discharge) 1=Exfiltration (Exfiltration Controls 1.12 cfs)

Phase-In= 0.03'

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Pond RI-D: Retain-It



Page 25

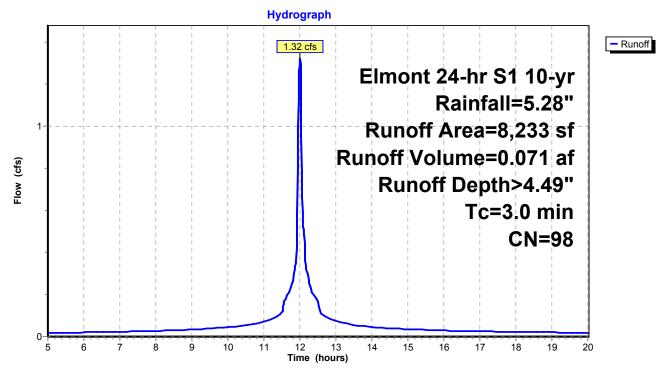
Summary for Subcatchment C1: Subcat C (Arena Roof)

Runoff = 1.32 cfs @ 12.01 hrs, Volume= 0.071 af, Depth> 4.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

	Α	rea (sf)	CN I	Description			
*		8,233	98	Canopy/Ro	of		
		8,233		100.00% Impervious Area			
	Тс	Length	Slope	Velocity	Capacity	Description	
(n	nin)	(feet)	(ft/ft)	(ft/sec)	(cfs)		
	3.0					Direct Entry,	

Subcatchment C1: Subcat C (Arena Roof)



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Page 26

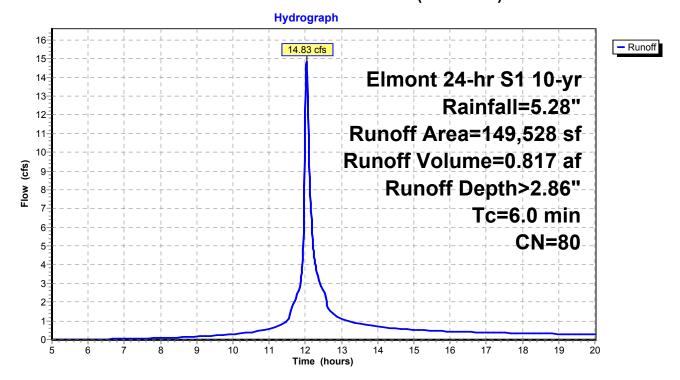
Summary for Subcatchment C2: Subcat C (Arena NE)

Runoff = 14.83 cfs @ 12.04 hrs, Volume= 0.817 af, Depth> 2.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

	Α	rea (sf)	CN	Description		
*		72,302	61	Lscape		
*	:	77,226	98	Pavement/I	-lardscapes	es
_	1	49,528	80	Weighted A	verage	
		72,302		48.35% Pe	rvious Area	a
		77,226		51.65% lmլ	pervious Ar	rea
	Тс	Length	Slope	e Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	6.0					Direct Entry.

Subcatchment C2: Subcat C (Arena NE)



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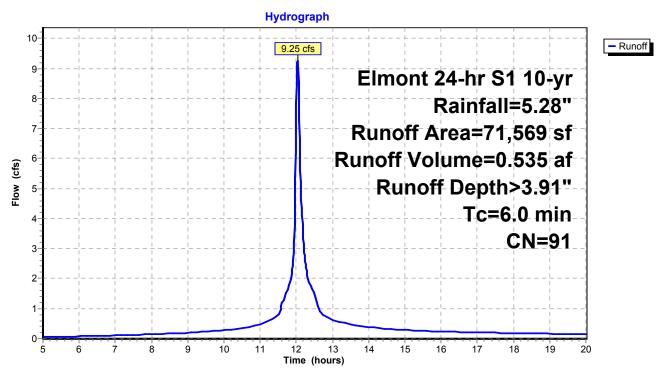
Summary for Subcatchment D: Subcat D

Runoff = 9.25 cfs @ 12.04 hrs, Volume= 0.535 af, Depth> 3.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

	Α	rea (sf)	CN	Description		
*		58,240	98	Pavement		
*		13,329	61	Lscpe		
		71,569		Weighted A		
		13,329		18.62% Pe		
		58,240		81.38% lm _l	pervious Ar	rea
	Тс	Length	Slope	e Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	6.0			•		Direct Entry.

Subcatchment D: Subcat D



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Page 28

Summary for Pond RI-C1: Retain-It

Inflow = 6.70 cfs @ 12.06 hrs, Volume= 0.153 af

Outflow = 0.85 cfs @ 12.40 hrs, Volume= 0.153 af, Atten= 87%, Lag= 20.3 min

Discarded = 0.85 cfs @ 12.40 hrs, Volume= 0.153 af

Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Sim-Route method w/Net Flows, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 64.56' @ 12.40 hrs Surf.Area= 0.026 ac Storage= 0.068 af

Plug-Flow detention time= 29.5 min calculated for 0.153 af (100% of inflow) Center-of-Mass det. time= 29.4 min (761.4 - 732.0)

Volume	Invert	Avail.Storage	Storage Description			
#1	61.80'	0.124 af	retain_it retain_it 5.0' x 20 Inside= 84.0"W x 60.0"H => 36.41 sf x 8.00'L = 291.3 cf			
			Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf 1 Rows adjusted for 436.4 cf perimeter wall			
#2	66.80'	0.124 af	retain_it retain_it 5.0' x 20 Inside= 84.0"W x 60.0"H => 36.41 sf x 8.00'L = 291.3 cf			
			Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf			
			1 Rows adjusted for 436.4 cf perimeter wall			
#3	72.00'	2.832 af	Custom Stage Data (Conic)Listed below (Recalc)			
		3.079 af	Total Available Storage			
Elevation	Surf.Are					
(feet)	(acres	s) (acre-fe	eet) (acre-feet) (acres)			
72 00	0.00	0 0 (000 0 000 0 000			

Licvation	ouri.Arca	1110.01010	Ouril.Oldic	vvct.Aica
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
72.00	0.000	0.000	0.000	0.000
73.49	0.001	0.000	0.000	0.001
73.50	1.000	0.003	0.004	1.000
74.00	1.500	0.621	0.625	1.500
75.00	3.000	2.207	2.832	3.000

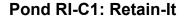
Device	Routing	Invert	Outlet Devices
#1	Discarded	61.80'	18.000 in/hr Exfiltration over Wetted area below 72.00'
			Phase-In= 0.03'
#2	Primary	68.60'	18.0" Round Culvert
	•		L= 58.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 68.60' / 67.90' S= 0.0121 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

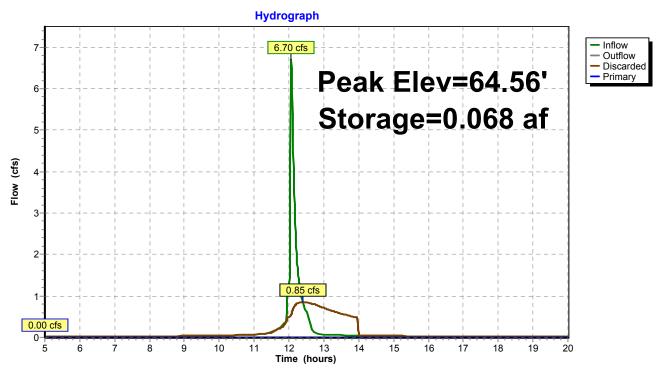
Discarded OutFlow Max=0.85 cfs @ 12.40 hrs HW=64.56' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.85 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=61.80' TW=61.80' (Dynamic Tailwater) 2=Culvert (Controls 0.00 cfs)

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Page 29





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Page 30

Summary for Pond RI-C2: Retain-It

Inflow =	14.83 cfs @	12.04 hrs, Volume=	0.817 af
Outflow =	13.80 cfs @	12.07 hrs, Volume=	0.817 af, Atten= 7%, Lag= 1.7 min
Discarded =	1.61 cfs @	12.07 hrs, Volume=	0.633 af
Primary =	6.15 cfs @	12.07 hrs, Volume=	0.101 af
Secondary =	6.04 cfs @	12.07 hrs, Volume=	0.083 af

Routing by Sim-Route method w/Net Flows, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 69.86' @ 12.07 hrs Surf.Area= 0.019 ac Storage= 0.156 af

Plug-Flow detention time= 37.8 min calculated for 0.817 af (100% of inflow) Center-of-Mass det. time= 37.7 min (824.7 - 786.9)

Volume	Invert	Avail.Storage	Storage Description
#1	61.80'	0.099 af	retain_it retain_it 5.0' x 16
			Inside= 84.0 "W x 60.0 "H => 36.41 sf x 8.00 'L = 291.3 cf
			Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf
			1 Rows adjusted for 353.3 cf perimeter wall
#2	66.80'	0.093 af	retain it retain it 5.0' x 15
			Inside= 84.0 "W x 60.0 "H => 36.41 sf x 8.00 'L = 291.3 cf
			Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf
			1 Rows adjusted for 332.5 cf perimeter wall
#3	72.00'	3.223 af	Custom Stage Data (Conic)Listed below (Recalc)

3.414 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
72.00	0.000	0.000	0.000	0.000
73.49	0.001	0.000	0.000	0.001
73.50	1.000	0.003	0.004	1.000
74.00	2.000	0.736	0.740	2.000
75.00	3.000	2.483	3.223	3.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	61.80'	18.000 in/hr Exfiltration over Wetted area below 72.00'
			Phase-In= 0.03'
#2	Primary	68.50'	18.0" Round Culvert
	•		L= 33.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 68.50' / 68.15' S= 0.0106 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf
#3	Secondary	68.60'	18.0" Round Culvert
	•		L= 58.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 67.95' / 68.60' S= -0.0112 '/' Cc= 0.900
			n= 0.012 Corrugated PP. smooth interior. Flow Area= 1.77 sf

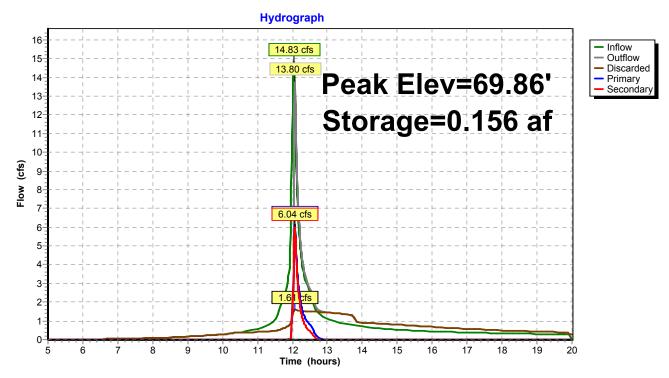
Page 31

Discarded OutFlow Max=1.61 cfs @ 12.07 hrs HW=69.85' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 1.61 cfs)

Primary OutFlow Max=6.12 cfs @ 12.07 hrs HW=69.85' TW=62.40' (Dynamic Tailwater) 2=Culvert (Barrel Controls 6.12 cfs @ 4.81 fps)

Secondary OutFlow Max=6.01 cfs @ 12.07 hrs HW=69.85' TW=62.54' (Dynamic Tailwater) —3=Culvert (Inlet Controls 6.01 cfs @ 3.81 fps)

Pond RI-C2: Retain-It



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Page 32

Summary for Pond RI-C3: Retain-It

Inflow = 6.15 cfs @ 12.07 hrs, Volume= 0.101 af

Outflow = 0.73 cfs @ 12.53 hrs, Volume= 0.101 af, Atten= 88%, Lag= 27.5 min

Discarded = 0.73 cfs @ 12.53 hrs, Volume= 0.101 af

Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Sim-Route method w/Net Flows, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 65.43' @ 12.53 hrs Surf.Area= 0.019 ac Storage= 0.067 af

Plug-Flow detention time= 47.6 min calculated for 0.101 af (100% of inflow) Center-of-Mass det. time= 47.6 min (780.8 - 733.2)

Volume	Invert	Avail.Storage	Storage Description
#1	61.80'	0.093 af	retain_it retain_it 5.0' x 15
			Inside= 84.0 "W x 60.0 "H => 36.41 sf x 8.00 'L = 291.3 cf
			Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf
			1 Rows adjusted for 332.5 cf perimeter wall
#2	66.80'	0.093 af	retain_it retain_it 5.0' x 15
			Inside= 84.0"W x 60.0"H => 36.41 sf x 8.00'L = 291.3 cf
			Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf
			1 Rows adjusted for 332.5 cf perimeter wall
<u>#3</u>	72.45'	3.223 af	Custom Stage Data (Conic)Listed below (Recalc)
		3.408 af	Total Available Storage
			· ·
Elevation	Surf.Are	a Inc.St	ore Cum.Store Wet.Area
(feet)	(acres	s) (acre-fe	eet) (acre-feet) (acres)
72.45	0.00	0.0	0.000 0.000
72.40	0.00	11	000 0.000 0.001

	Guil.Aica	1110.01010	Ourn.Olorc	vvct.Arca
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
72.45	0.000	0.000	0.000	0.000
73.49	0.001	0.000	0.000	0.001
73.50	1.000	0.003	0.004	1.000
74.00	2.000	0.736	0.739	2.000
75.00	3.000	2.483	3.223	3.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	61.80'	18.000 in/hr Exfiltration over Wetted area below 72.00'
			Phase-In= 0.03'
#2	Primary	68.50'	18.0" Round Culvert
	•		L= 33.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 68.15' / 68.50' S= -0.0106 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

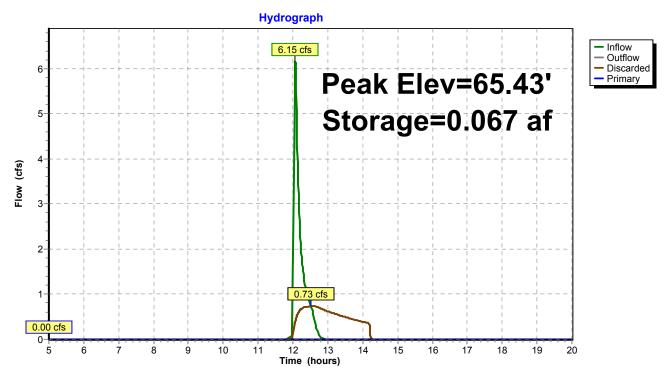
Discarded OutFlow Max=0.73 cfs @ 12.53 hrs HW=65.43' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.73 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=61.80' TW=61.80' (Dynamic Tailwater) 2=Culvert (Controls 0.00 cfs)

Arena East

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Pond RI-C3: Retain-It



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Page 34

Summary for Pond RI-D: Retain-It

Inflow Area = 1.643 ac, 81.38% Impervious, Inflow Depth > 3.91" for 10-yr event

Inflow = 9.25 cfs @ 12.04 hrs, Volume= 0.535 af

Outflow = 1.53 cfs @ 12.48 hrs, Volume= 0.535 af, Atten= 83%, Lag= 26.8 min

Discarded = 1.53 cfs @ 12.48 hrs, Volume= 0.535 af

Routing by Sim-Route method w/Net Flows, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs

Peak Elev= 63.74' @ 12.48 hrs Surf.Area= 0.039 ac Storage= 0.150 af

Plug-Flow detention time= 31.7 min calculated for 0.534 af (100% of inflow)

Center-of-Mass det. time= 31.5 min (786.8 - 755.3)

Volume	Invert A	vail.Storage	Stora	ge Description		
#1	59.70'	0.186 af		n_it retain_it 5. e= 84.0"W x 60.	.0' x 30 0"H => 36.41 sf x	8.00'L = 291.3 cf
					8.0"H => 45.33 sf 644.2 cf perimeter	x 8.00'L = 362.7 cf wall
#2	64.70'	0.186 af	retaiı	n_it retain_it 5.	•	
			Outsi	ide= 96.0"W x 6		x 8.00'L = 362.7 cf
#3	69.70'	3.959 af		•	(Conic)Listed belo	
		4.331 af	Total	Available Stora	ge	
Elevation	on Surf.Area	Inc.S	tore	Cum.Store	Wet.Area	
(fee		(acre-f		(acre-feet)	(acres)	
69.7		,	000	0.000	0.000	
72.9	99 0.001	0.	001	0.001	0.001	
73.0		_	003	0.005	1.000	
74.0			471	1.476	2.001	
75.0	3.000	2.	483	3.959	3.001	
Device	Routing	Invert O	ıtlet De	evices		
#1	Discarded	59.70' 18	.000 in	hr Exfiltration	over Wetted area	a below 70.00'

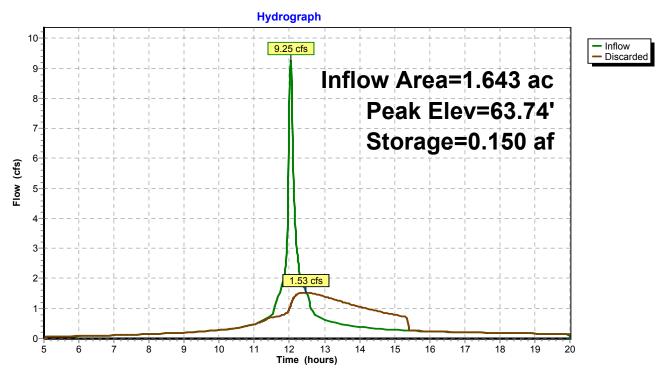
Discarded OutFlow Max=1.53 cfs @ 12.48 hrs HW=63.74' (Free Discharge) 1=Exfiltration (Exfiltration Controls 1.53 cfs)

Phase-In= 0.03'

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Page 35

Pond RI-D: Retain-It



Page 36

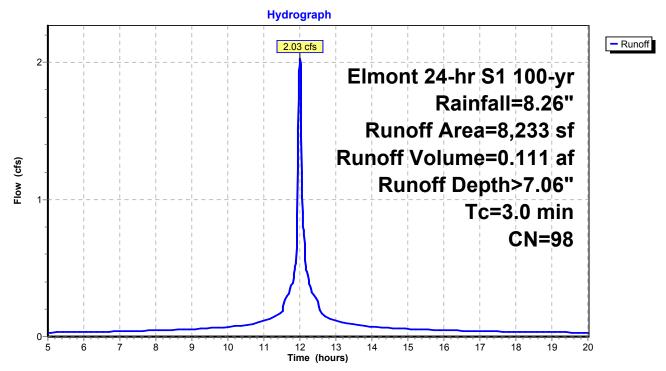
Summary for Subcatchment C1: Subcat C (Arena Roof)

Runoff = 2.03 cfs @ 12.01 hrs, Volume= 0.111 af, Depth> 7.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

_	Α	rea (sf)	CN [Description				
*		8,233	98 (Canopy/Roof				
		8,233	1	100.00% Impervious Area				
	Тс	Length	Slope	Velocity	Capacity	Description		
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
	3.0					Direct Entry		

Subcatchment C1: Subcat C (Arena Roof)



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Page 37

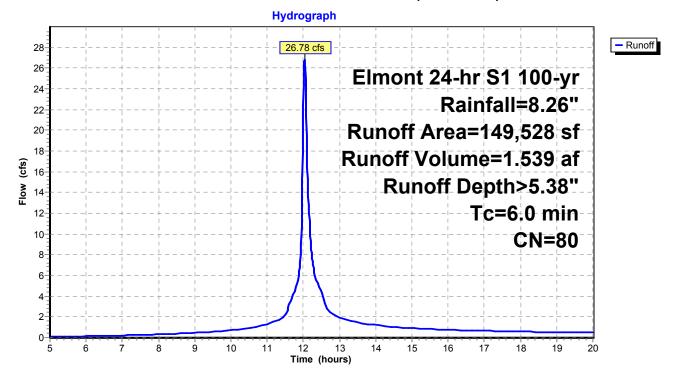
Summary for Subcatchment C2: Subcat C (Arena NE)

Runoff = 26.78 cfs @ 12.04 hrs, Volume= 1.539 af, Depth> 5.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

	Α	rea (sf)	CN	Description				
*		72,302	61	Lscape				
*		77,226	98	Pavement/Hardscapes				
	1	49,528	80 Weighted Average					
		72,302	48.35% Pervious Area					
		77,226		51.65% lmp	pervious Ar	rea		
	Тс	Length	Slope	e Velocity	Capacity	Description		
	(min)	(feet)	(ft/ft	,	(cfs)			
	6.0					Direct Entry.		

Subcatchment C2: Subcat C (Arena NE)



Page 38

Arena East

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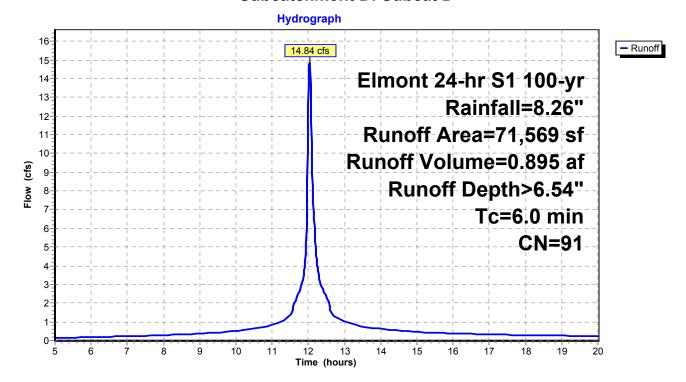
Summary for Subcatchment D: Subcat D

Runoff = 14.84 cfs @ 12.04 hrs, Volume= 0.895 af, Depth> 6.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

	Α	rea (sf)	CN	Description			
*		58,240	98	Pavement			
*	:	13,329	61	Lscpe			
_		71,569	91	Weighted A	verage		
		13,329		18.62% Pervious Area			
		58,240	8,240 81.38% Impervious Are			rea	
	Тс	Length	Slope	e Velocity	Capacity	Description	
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)		
	6.0					Direct Entry.	

Subcatchment D: Subcat D



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Page 39

Summary for Pond RI-C1: Retain-It

Inflow = 12.58 cfs @ 12.06 hrs, Volume= 0.433 af

Outflow = 5.00 cfs @ 12.68 hrs, Volume= 0.433 af, Atten= 60%, Lag= 37.4 min

Discarded = 2.14 cfs @ 12.41 hrs, Volume= 0.411 af

Primary = 2.93 cfs @ 12.68 hrs, Volume= 0.021 af

Routing by Sim-Route method w/Net Flows, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 70.45' @ 12.41 hrs Surf.Area= 0.026 ac Storage= 0.214 af

Plug-Flow detention time= 50.0 min calculated for 0.433 af (100% of inflow) Center-of-Mass det. time= 50.0 min (783.3 - 733.3)

Volume	Invert	Avail.Storage	Storage Description
#1	61.80'	0.124 af	retain_it retain_it 5.0' x 20
			Inside= 84.0"W x 60.0"H => 36.41 sf x 8.00'L = 291.3 cf
			Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf
			1 Rows adjusted for 436.4 cf perimeter wall
#2	66.80'	0.124 af	retain_it retain_it 5.0' x 20
			Inside= 84.0"W \times 60.0"H => 36.41 sf x 8.00'L = 291.3 cf
			Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf
			1 Rows adjusted for 436.4 cf perimeter wall
#3	72.00'	2.832 af	Custom Stage Data (Conic)Listed below (Recalc)
		3.079 af	Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
72.00	0.000	0.000	0.000	0.000
73.49	0.001	0.000	0.000	0.001
73.50	1.000	0.003	0.004	1.000
74.00	1.500	0.621	0.625	1.500
75.00	3.000	2.207	2.832	3.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	61.80'	18.000 in/hr Exfiltration over Wetted area below 72.00'
			Phase-In= 0.03'
#2	Primary	68.60'	18.0" Round Culvert
	•		L= 58.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 68.60' / 67.90' S= 0.0121 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

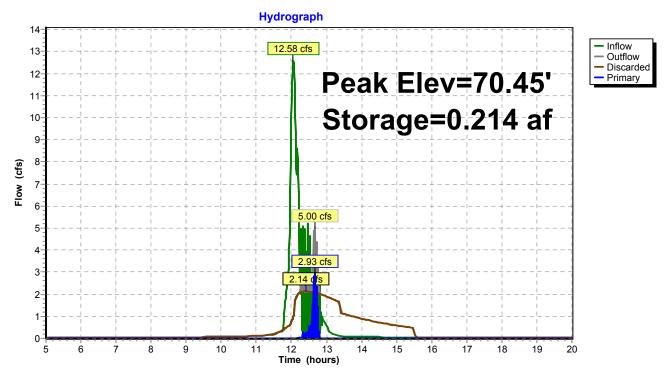
Discarded OutFlow Max=2.13 cfs @ 12.41 hrs HW=70.43' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 2.13 cfs)

Primary OutFlow Max=0.22 cfs @ 12.68 hrs HW=69.99' TW=69.99' (Dynamic Tailwater) 2=Culvert (Outlet Controls 0.22 cfs @ 0.17 fps)

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Page 40

Pond RI-C1: Retain-It



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Page 41

Summary for Pond RI-C2: Retain-It

Inflow =	=	26.78 cfs @	12.04 hrs, Volume=	1.597 af		
Outflow =	=	25.18 cfs @	12.06 hrs, Volume=	1.558 af,	Atten= 6%,	Lag= 1.6 min
Discarded =	=	1.75 cfs @	12.06 hrs, Volume=	0.929 af		_
Primary =	=	11.87 cfs @	12.06 hrs, Volume=	0.308 af		
Secondary =	=	11.56 cfs @	12.06 hrs, Volume=	0.322 af		

Routing by Sim-Route method w/Net Flows, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.20' @ 12.06 hrs Surf.Area= 0.019 ac Storage= 0.180 af

Plug-Flow detention time= 33.4 min calculated for 1.568 af (98% of inflow) Center-of-Mass det. time= 23.4 min (792.5 - 769.0)

\/al	اسميصا	Avail Charage	Ctorono Deceription
Volume	Invert	Avail.Storage	Storage Description
#1	61.80'	0.099 af	retain_it retain_it 5.0' x 16
			Inside= 84.0"W x 60.0"H => 36.41 sf x 8.00'L = 291.3 cf
			Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf
			1 Rows adjusted for 353.3 cf perimeter wall
#2	66.80'	0.093 af	retain_it retain_it 5.0' x 15
			Inside= 84.0"W x 60.0"H => 36.41 sf x 8.00'L = 291.3 cf
			Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf
			1 Rows adjusted for 332.5 cf perimeter wall
#3	72.00'	3.223 af	Custom Stage Data (Conic)Listed below (Recalc)

3.414 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
72.00	0.000	0.000	0.000	0.000
73.49	0.001	0.000	0.000	0.001
73.50	1.000	0.003	0.004	1.000
74.00	2.000	0.736	0.740	2.000
75.00	3.000	2.483	3.223	3.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	61.80'	18.000 in/hr Exfiltration over Wetted area below 72.00'
			Phase-In= 0.03'
#2	Primary	68.50'	18.0" Round Culvert
	•		L= 33.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 68.50' / 68.15' S= 0.0106 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf
#3	Secondary	68.60'	18.0" Round Culvert
	•		L= 58.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 67.95' / 68.60' S= -0.0112 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior. Flow Area= 1.77 sf

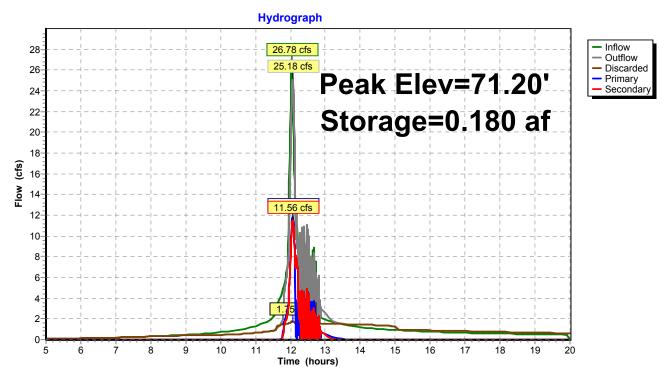
Page 42

Discarded OutFlow Max=1.75 cfs @ 12.06 hrs HW=71.19' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 1.75 cfs)

Primary OutFlow Max=11.84 cfs @ 12.06 hrs HW=71.19' TW=66.82' (Dynamic Tailwater) 2=Culvert (Inlet Controls 11.84 cfs @ 6.70 fps)

Secondary OutFlow Max=11.53 cfs @ 12.06 hrs HW=71.19' TW=66.09' (Dynamic Tailwater) —3=Culvert (Inlet Controls 11.53 cfs @ 6.53 fps)

Pond RI-C2: Retain-It



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Page 43

Summary for Pond RI-C3: Retain-It

Inflow = 11.87 cfs @ 12.06 hrs, Volume= 0.308 af

Outflow = 5.08 cfs @ 12.68 hrs, Volume= 0.308 af, Atten= 57%, Lag= 36.8 min

Discarded = 1.62 cfs @ 12.44 hrs, Volume= 0.271 af

Primary = 3.51 cfs @ 12.68 hrs, Volume= 0.037 af

Routing by Sim-Route method w/Net Flows, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 70.49' @ 12.44 hrs Surf.Area= 0.019 ac Storage= 0.161 af

Plug-Flow detention time= 51.4 min calculated for 0.316 af (100% of inflow) Center-of-Mass det. time= 51.4 min (788.1 - 735.3)

Volume	Invert	Avail.Storage	Storage Description
#1	61.80'	0.093 af	retain_it retain_it 5.0' x 15
			Inside= 84.0"W x 60.0"H => 36.41 sf x 8.00'L = 291.3 cf
			Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf
			1 Rows adjusted for 332.5 cf perimeter wall
#2	66.80'	0.093 af	retain_it retain_it 5.0' x 15
			Inside= 84.0"W \times 60.0"H => 36.41 sf x 8.00'L = 291.3 cf
			Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf
			1 Rows adjusted for 332.5 cf perimeter wall
#3	72.45'	3.223 af	Custom Stage Data (Conic)Listed below (Recalc)
		3.408 af	Total Available Storage

Elevation Surf.Area		Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
72.45	0.000	0.000	0.000	0.000
73.49	0.001	0.000	0.000	0.001
73.50	1.000	0.003	0.004	1.000
74.00	2.000	0.736	0.739	2.000
75.00	3.000	2.483	3.223	3.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	61.80'	18.000 in/hr Exfiltration over Wetted area below 72.00'
			Phase-In= 0.03'
#2	Primary	68.50'	18.0" Round Culvert
	•		L= 33.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 68.15' / 68.50' S= -0.0106 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

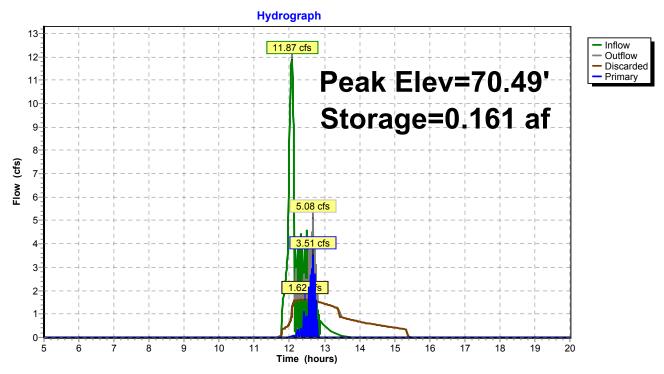
Discarded OutFlow Max=1.62 cfs @ 12.44 hrs HW=70.48' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 1.62 cfs)

Primary OutFlow Max=2.07 cfs @ 12.68 hrs HW=70.01' TW=69.95' (Dynamic Tailwater) 2=Culvert (Inlet Controls 2.07 cfs @ 1.17 fps)

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Page 44

Pond RI-C3: Retain-It



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Page 45

Summary for Pond RI-D: Retain-It

Inflow Area = 1.643 ac, 81.38% Impervious, Inflow Depth > 6.54" for 100-yr event

Inflow = 14.84 cfs @ 12.04 hrs, Volume= 0.895 af

Outflow = 2.83 cfs @ 12.38 hrs, Volume= 0.895 af, Atten= 81%, Lag= 20.8 min

Discarded = 2.83 cfs @ 12.38 hrs, Volume= 0.895 af

Routing by Sim-Route method w/Net Flows, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs

Peak Elev= 66.62' @ 12.38 hrs Surf.Area= 0.039 ac Storage= 0.257 af

Plug-Flow detention time= 38.5 min calculated for 0.895 af (100% of inflow)

Center-of-Mass det. time= 38.4 min (784.6 - 746.2)

Volume	Invert A	Avail.Storag	e Stor	age Description				
#1	59.70'	0.186 a	of reta Insid	retain_it retain_it 5.0' x 30 Inside= 84.0"W x 60.0"H => 36.41 sf x 8.00'L = 291.3 cf Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf				
#2 64.70' 0.186 af retai Insid				1 Rows adjusted for 644.2 cf perimeter wall retain_it retain_it 5.0' x 30 Inside= 84.0"W x 60.0"H => 36.41 sf x 8.00'L = 291.3 cf Outside= 96.0"W x 68.0"H => 45.33 sf x 8.00'L = 362.7 cf				
#3	69.70'	3.959 a	1 R	ows adjusted for tom Stage Data	644.2 cf perim	eter wall		
<u>πυ</u>	03.70	4.331 a		al Available Stora		below (recale)		
		1.001	. 1010	ii / (valiable otora	.gc			
Elevation	on Surf.Area	a Inc.	Store	Cum.Store	Wet.Area			
(fee	et) (acres) (acre	-feet)	(acre-feet)	(acres)			
69.7	70 0.000)	0.000	0.000	0.000			
72.9	99 0.001		0.001	0.001	0.001			
73.0	00 1.000)	0.003	0.005	1.000			
74.0	00 2.000)	1.471	1.476	2.001			
75.0	3.000)	2.483	3.959	3.001			
Device	Routing		Outlet D					
#1 Discarded		59.70' <i>'</i>	18.000 in/hr Exfiltration over Wetted area below 70.00'					

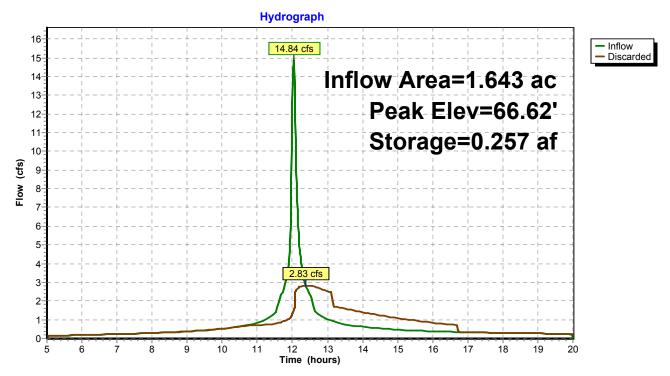
Discarded OutFlow Max=2.83 cfs @ 12.38 hrs HW=66.62' (Free Discharge) 1=Exfiltration (Exfiltration Controls 2.83 cfs)

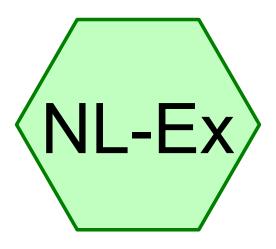
Phase-In= 0.03'

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Page 46

Pond RI-D: Retain-It





Existing North Lot









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Page 2

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Area Listing (selected nodes)

Area	CN	Description
(acres)		(subcatchment-numbers)
3.050	68	<50% Grass cover, Poor, HSG A (NL-Ex)
22.230	96	Gravel surface, HSG A (NL-Ex)
25.280	93	TOTAL AREA

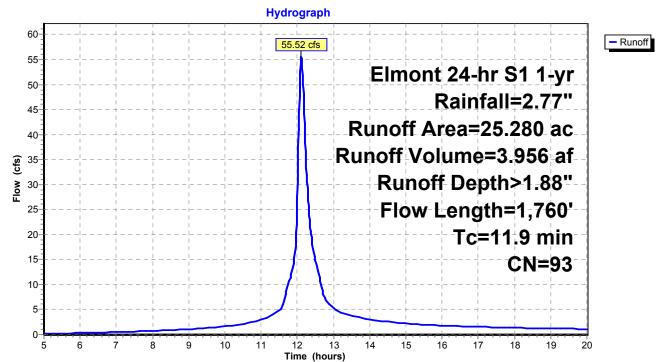
Page 3

Summary for Subcatchment NL-Ex: Existing North Lot

Runoff = 55.52 cfs @ 12.11 hrs, Volume= 3.956 af, Depth> 1.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

Area	(ac) C	N Desc	cription						
22.	230 9		el surface	•					
3.	050 6	se <50°	% Grass co	over, Poor,	HSG A				
25.	25.280 93 Weighted Average								
25.	280	100.	00% Pervi	ous Area					
Tc	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
4.0	300	0.0110	1.26		Sheet Flow, Sheet				
					Smooth surfaces n= 0.011 P2= 2.80"				
7.1	1,360	0.0050	3.21	2.52	Pipe Channel, RCP_Round 12"				
					12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25'				
					n= 0.013 Concrete pipe, bends & connections				
8.0	100	0.0100	2.03		Shallow Concentrated Flow,				
					Paved Kv= 20.3 fps				
11.9	1,760	Total	·						



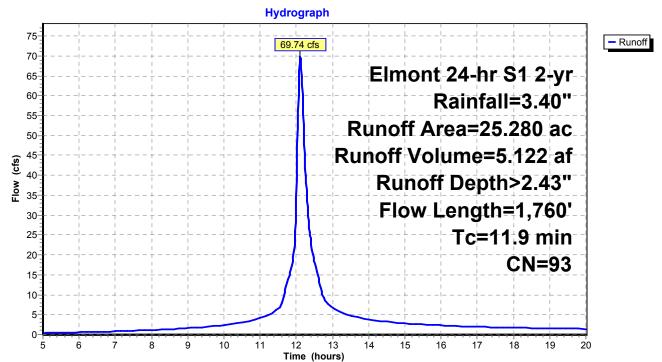
Page 4

Summary for Subcatchment NL-Ex: Existing North Lot

Runoff = 69.74 cfs @ 12.11 hrs, Volume= 5.122 af, Depth> 2.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

Area	(ac) C	N Desc	cription					
			el surface	•				
3.	<u>050 6</u>	38 <50°	<u>% Grass co</u>	over, Poor,	HSG A			
25.	25.280 93 Weighted Average							
25.	280	100.	00% Pervi	ous Area				
Tc	Length	Slope	Velocity	Capacity	Description			
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
4.0	300	0.0110	1.26		Sheet Flow, Sheet			
					Smooth surfaces n= 0.011 P2= 2.80"			
7.1	1,360	0.0050	3.21	2.52	Pipe Channel, RCP_Round 12"			
					12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25'			
					n= 0.013 Concrete pipe, bends & connections			
0.8	100	0.0100	2.03		Shallow Concentrated Flow,			
					Paved Kv= 20.3 fps			
11.9	1,760	Total						



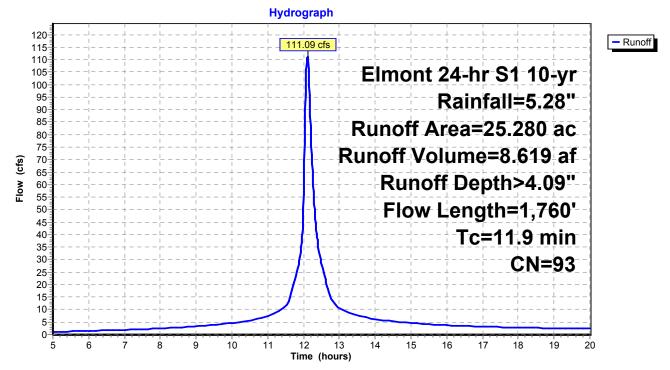
Page 5

Summary for Subcatchment NL-Ex: Existing North Lot

Runoff = 111.09 cfs @ 12.11 hrs, Volume= 8.619 af, Depth> 4.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

Area	(ac) C	N Desc	cription		
			el surface	, HSG A over, Poor,	HeC V
			hted Aver		1100 A
25.	280		00% Pervi		
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	300	0.0110	1.26	(0.0)	Sheet Flow, Sheet
7.1	1,360	0.0050	3.21	2.52	Smooth surfaces n= 0.011 P2= 2.80" Pipe Channel, RCP_Round 12" 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25'
0.8	100	0.0100	2.03		n= 0.013 Concrete pipe, bends & connections Shallow Concentrated Flow, Paved Kv= 20.3 fps
11.9	1,760	Total			



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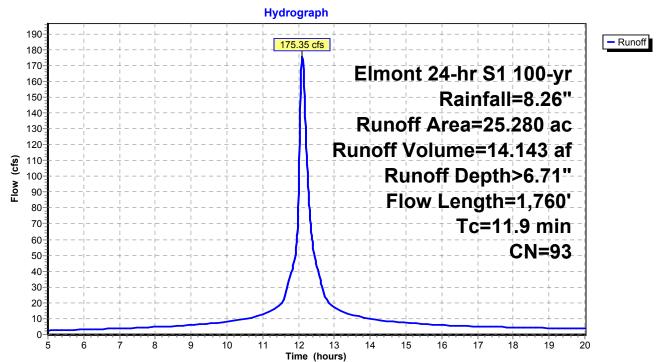
Page 6

Summary for Subcatchment NL-Ex: Existing North Lot

Runoff = 175.35 cfs @ 12.11 hrs, Volume= 14.143 af, Depth> 6.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

Area	(ac) C	N Desc	cription					
			el surface	•				
3.	<u>050 6</u>	38 <50°	<u>% Grass co</u>	over, Poor,	HSG A			
25.	25.280 93 Weighted Average							
25.	280	100.	00% Pervi	ous Area				
Tc	Length	Slope	Velocity	Capacity	Description			
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
4.0	300	0.0110	1.26		Sheet Flow, Sheet			
					Smooth surfaces n= 0.011 P2= 2.80"			
7.1	1,360	0.0050	3.21	2.52	Pipe Channel, RCP_Round 12"			
					12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25'			
					n= 0.013 Concrete pipe, bends & connections			
0.8	100	0.0100	2.03		Shallow Concentrated Flow,			
					Paved Kv= 20.3 fps			
11.9	1,760	Total						





Proposed North Lot Overall









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Page 2

Area Listing (selected nodes)

Area	CN	Description
(acres)		(subcatchment-numbers)
3.700	68	<50% Grass cover, Poor, HSG A (NL-Prop)
23.570	98	Pavement (NL-Prop)
27.270	94	TOTAL AREA

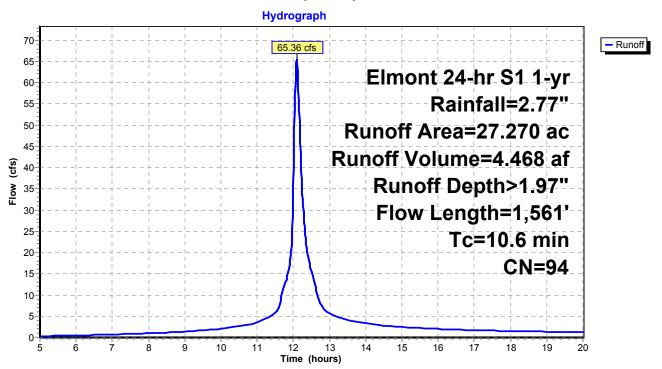
Page 3

Summary for Subcatchment NL-Prop: Proposed North Lot Overall

Runoff = 65.36 cfs @ 12.09 hrs, Volume= 4.468 af, Depth> 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

_	Area	(ac) C	N Des	cription		
*	* 23.570 98 Pavement					
	3.	700 6	68 <50°	% Grass c	over, Poor,	HSG A
_	27.	270 9	94 Wei	hted Aver	age	
	3.	700		7% Pervio		
	23.	570	86.4	3% Imperv	ious Area	
				•		
	Tc	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	0.4	25	0.0200	0.98		Sheet Flow, 25
						Smooth surfaces n= 0.011 P2= 2.80"
	1.8	286	0.0033	2.61	2.05	Pipe Channel, RCP_Round 12"
						12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25'
						n= 0.013 Concrete pipe, bends & connections
	8.4	1,250	0.0150	2.49		Shallow Concentrated Flow,
_						Paved Kv= 20.3 fps
	10.6	1 561	Total			



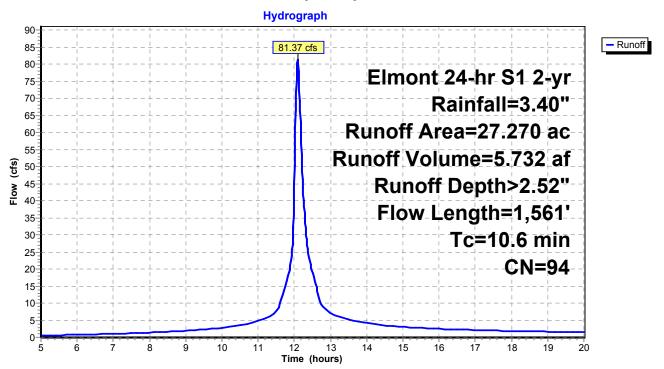
Page 4

Summary for Subcatchment NL-Prop: Proposed North Lot Overall

Runoff = 81.37 cfs @ 12.09 hrs, Volume= 5.732 af, Depth> 2.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

	Area	(ac) C	N Des	cription		
*	* 23.570 98 Pavement					
3.700 68 <50% Grass cover, Poor, H					over, Poor,	HSG A
_	27.	270 9	94 Weid	hted Aver	age	
	3.	700		7% Pervio		
	23.	570	86.4	3% Imperv	ious Area	
				·		
	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	0.4	25	0.0200	0.98		Sheet Flow, 25
						Smooth surfaces n= 0.011 P2= 2.80"
	1.8	286	0.0033	2.61	2.05	Pipe Channel, RCP_Round 12"
						12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25'
						n= 0.013 Concrete pipe, bends & connections
	8.4	1,250	0.0150	2.49		Shallow Concentrated Flow,
_						Paved Kv= 20.3 fps
	10.6	1 561	Total			



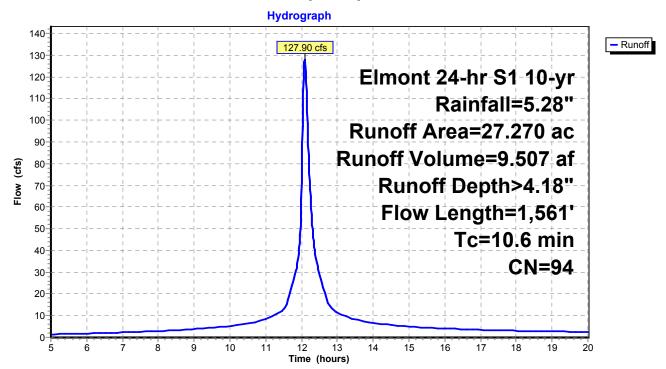
Page 5

Summary for Subcatchment NL-Prop: Proposed North Lot Overall

Runoff = 127.90 cfs @ 12.09 hrs, Volume= 9.507 af, Depth> 4.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

_	Area	(ac) C	N Des	cription		
*	* 23.570 98 Pavement					
	3.	700 6	68 <50°	% Grass c	over, Poor,	HSG A
_	27.	270 9	94 Wei	hted Aver	age	
	3.	700		7% Pervio		
	23.	570	86.4	3% Imperv	ious Area	
				•		
	Tc	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	0.4	25	0.0200	0.98		Sheet Flow, 25
						Smooth surfaces n= 0.011 P2= 2.80"
	1.8	286	0.0033	2.61	2.05	Pipe Channel, RCP_Round 12"
						12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25'
						n= 0.013 Concrete pipe, bends & connections
	8.4	1,250	0.0150	2.49		Shallow Concentrated Flow,
_						Paved Kv= 20.3 fps
	10.6	1 561	Total			



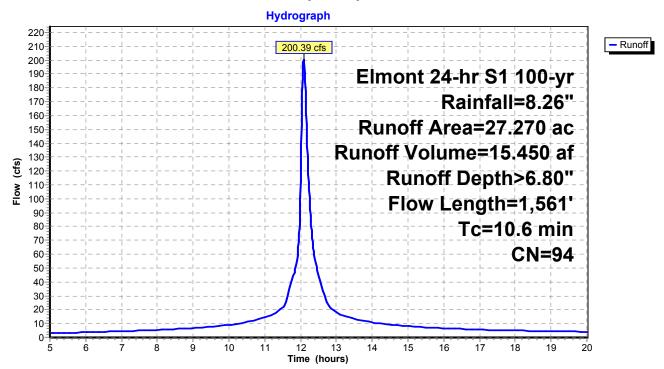
Page 6

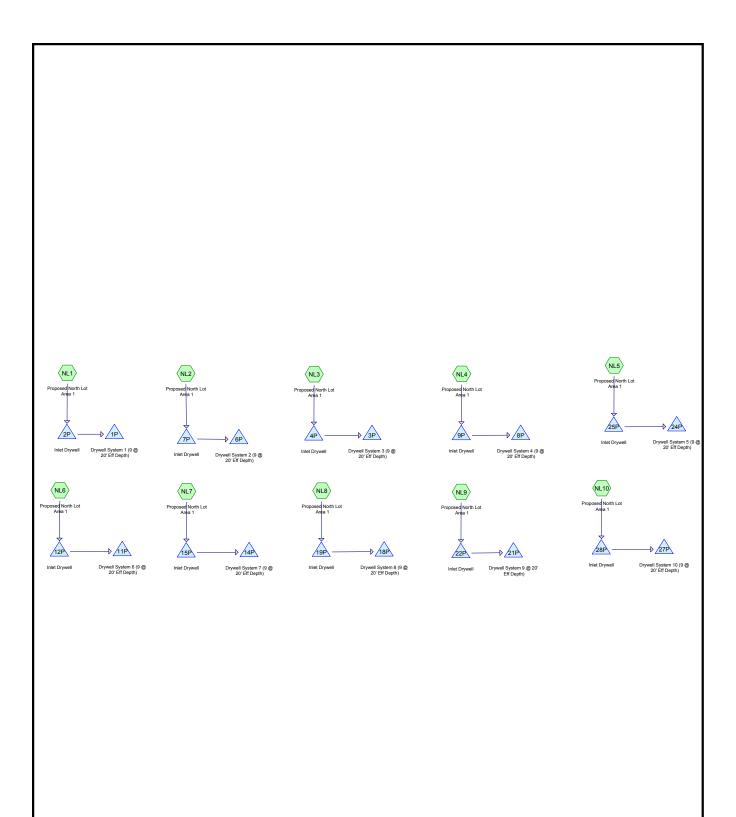
Summary for Subcatchment NL-Prop: Proposed North Lot Overall

Runoff = 200.39 cfs @ 12.09 hrs, Volume= 15.450 af, Depth> 6.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

_	Area	(ac) C	N Des	cription		
*	23.570 98		8 Pave	ement		
	3.	700 6	38 <50°	% Grass c	over, Poor,	HSG A
_	27.	270 9	94 Wei	hted Aver	age	
	3.	700		7% Pervio		
	23.	570	86.4	3% Imperv	ious Area	
				•		
	Tc	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	0.4	25	0.0200	0.98		Sheet Flow, 25
						Smooth surfaces n= 0.011 P2= 2.80"
	1.8	286	0.0033	2.61	2.05	Pipe Channel, RCP_Round 12"
						12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25'
						n= 0.013 Concrete pipe, bends & connections
	8.4	1,250	0.0150	2.49		Shallow Concentrated Flow,
_						Paved Kv= 20.3 fps
	10.6	1 561	Total			













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Page 2

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
3.700	68	<50% Grass cover, Poor, HSG A (NL1, NL10, NL2, NL3, NL4, NL5, NL6, NL7, NL8, NL9)
23.570 27.270	98 94	Pavement (NL1, NL10, NL2, NL3, NL4, NL5, NL6, NL7, NL8, NL9) TOTAL AREA

Page 3

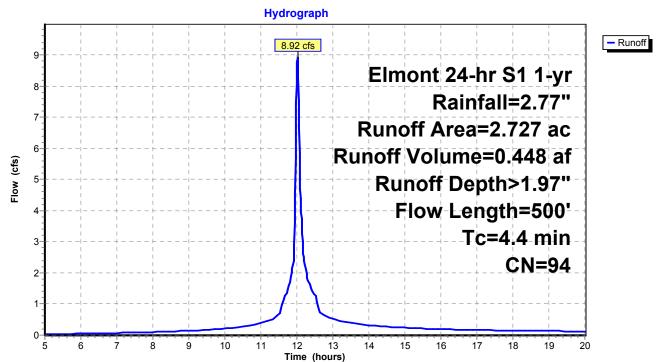
Summary for Subcatchment NL1: Proposed North Lot Area 1

Runoff = 8.92 cfs @ 12.02 hrs, Volume= 0.448 af, Depth> 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

	Area	(ac)	CN	Desc	cription		
*	2.	357	98	Pave	ement		
	0.370 68 <50% Gra					over, Poor,	HSG A
	2.	727	94	Weig	hted Aver	age	
	0.	370		13.5	7% Pervio	us Area	
	2.	357		86.4	3% Imper\	ious Area	
	Tc (min)	Length (feet		lope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	3.1	300	0.0	200	1.60		Sheet Flow, 25
	1.3	200	0.0	0150	2.49		Smooth surfaces n= 0.011 P2= 2.80" Shallow Concentrated Flow, Paved Kv= 20.3 fps
	4.4	500) To	tal	•		

Subcatchment NL1: Proposed North Lot Area 1



Page 4

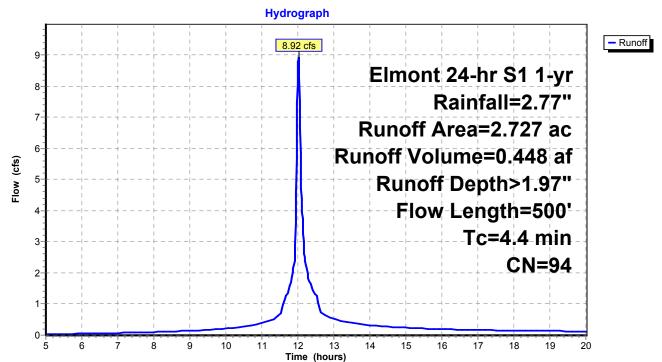
Summary for Subcatchment NL10: Proposed North Lot Area 1

Runoff = 8.92 cfs @ 12.02 hrs, Volume= 0.448 af, Depth> 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

	Area	(ac)	CN	Desc	cription					
*	* 2.357 98 Pavement									
	0.370 68			<50%	<50% Grass cover, Poor, HSG A					
	2.	727	94	Weig	hted Aver	age				
	0.	370		13.5	7% Pervio	us Area				
	2.	357		86.4	3% Imperv	ious Area				
	Tc	Lengtl		lope	Velocity	Capacity	Description			
_	(min)	(feet) ((ft/ft)	(ft/sec)	(cfs)				
	3.1	300	0.0	200	1.60		Sheet Flow, 25			
							Smooth surfaces n= 0.011 P2= 2.80"			
	1.3	200	0.0)150	2.49		Shallow Concentrated Flow,			
							Paved Kv= 20.3 fps			
	4.4	500) To	tal						

Subcatchment NL10: Proposed North Lot Area 1



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Page 5

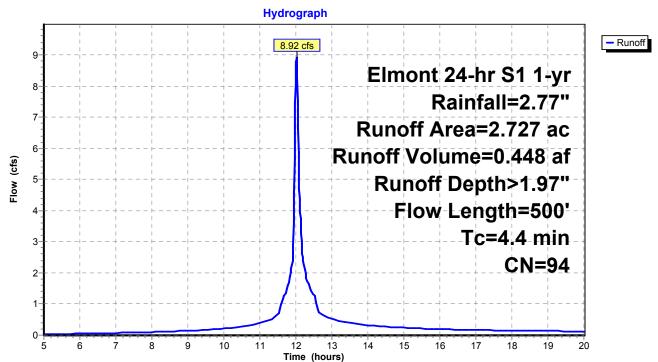
Summary for Subcatchment NL2: Proposed North Lot Area 1

Runoff = 8.92 cfs @ 12.02 hrs, Volume= 0.448 af, Depth> 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

	Area	(ac)	CN	Desc	cription		
*	2.	357	98	Pave	ement		
	0.370 68 <50% Gra					over, Poor,	HSG A
	2.	727	94	Weig	hted Aver	age	
	0.	370		13.5	7% Pervio	us Area	
	2.	357		86.4	3% Imper\	ious Area	
	Tc (min)	Length (feet		lope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	3.1	300	0.0	200	1.60		Sheet Flow, 25
	1.3	200	0.0	0150	2.49		Smooth surfaces n= 0.011 P2= 2.80" Shallow Concentrated Flow, Paved Kv= 20.3 fps
	4.4	500) To	tal	•		

Subcatchment NL2: Proposed North Lot Area 1



Page 6

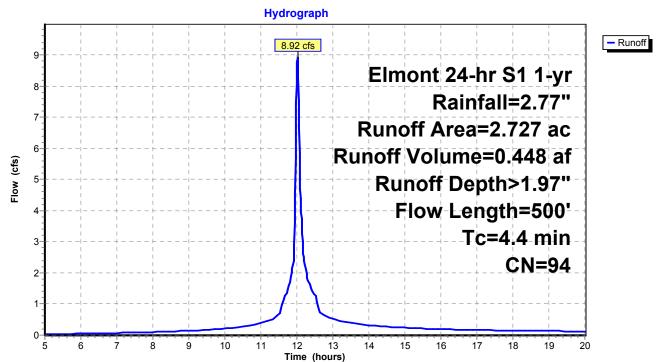
Summary for Subcatchment NL3: Proposed North Lot Area 1

Runoff = 8.92 cfs @ 12.02 hrs, Volume= 0.448 af, Depth> 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

	Area	(ac)	CN	Desc	cription		
*	2.	357	98	Pave	ement		
	0.370 68 <50% Gra					over, Poor,	HSG A
	2.	727	94	Weig	hted Aver	age	
	0.	370		13.5	7% Pervio	us Area	
	2.	357		86.4	3% Imper\	ious Area	
	Tc (min)	Length (feet		lope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	3.1	300	0.0	200	1.60		Sheet Flow, 25
	1.3	200	0.0	0150	2.49		Smooth surfaces n= 0.011 P2= 2.80" Shallow Concentrated Flow, Paved Kv= 20.3 fps
	4.4	500) To	tal	•		

Subcatchment NL3: Proposed North Lot Area 1



Page 7

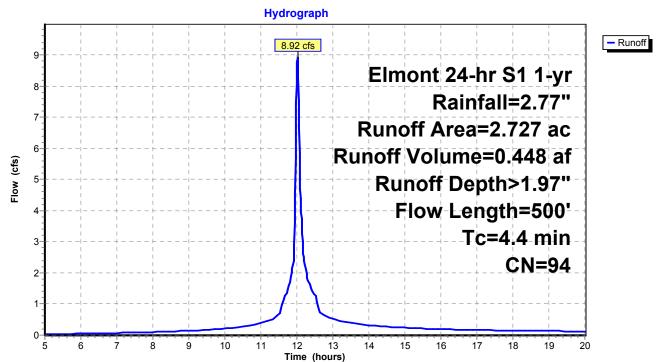
Summary for Subcatchment NL4: Proposed North Lot Area 1

Runoff = 8.92 cfs @ 12.02 hrs, Volume= 0.448 af, Depth> 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

	Area	(ac)	CN	Desc	cription		
*	2.	357	98	Pave	ement		
	0.370 68 <50% Gra					over, Poor,	HSG A
	2.	727	94	Weig	hted Aver	age	
	0.	370		13.5	7% Pervio	us Area	
	2.	357		86.4	3% Imper\	ious Area	
	Tc (min)	Length (feet		lope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	3.1	300	0.0	200	1.60		Sheet Flow, 25
	1.3	200	0.0	0150	2.49		Smooth surfaces n= 0.011 P2= 2.80" Shallow Concentrated Flow, Paved Kv= 20.3 fps
	4.4	500) To	tal	•		

Subcatchment NL4: Proposed North Lot Area 1



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Page 8

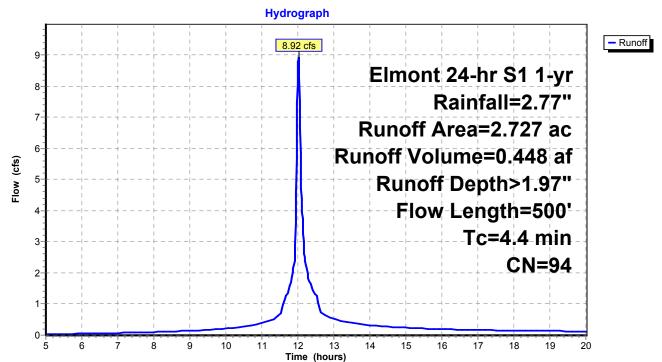
Summary for Subcatchment NL5: Proposed North Lot Area 1

Runoff = 8.92 cfs @ 12.02 hrs, Volume= 0.448 af, Depth> 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

_	Area	(ac)	CN	Desc	cription					
*	2.357 98 Pavement									
	0.	370	68	<50%	<50% Grass cover, Poor, HSG A					
	2.	727	94	Weig	hted Aver	age				
	0.	370		13.5	7% Pervio	us Area				
	2.	357		86.4	3% Imperv	ious Area				
	Tc (min)	Lengt (feet		Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description			
	3.1	30	0 0	.0200	1.60	, ,	Sheet Flow, 25			
	1.3	20	0 0	.0150	2.49		Smooth surfaces n= 0.011 P2= 2.80" Shallow Concentrated Flow, Paved Kv= 20.3 fps			
	4.4	50	0 T	otal						

Subcatchment NL5: Proposed North Lot Area 1



Page 9

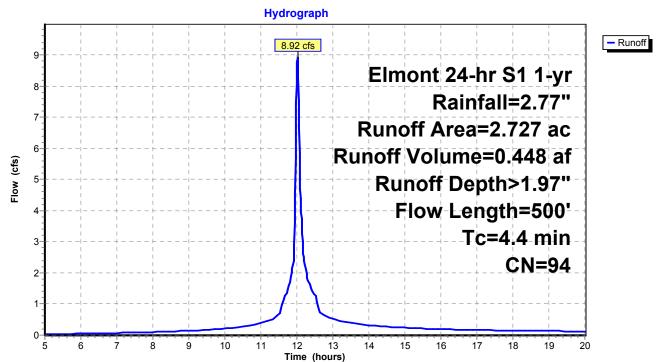
Summary for Subcatchment NL6: Proposed North Lot Area 1

Runoff = 8.92 cfs @ 12.02 hrs, Volume= 0.448 af, Depth> 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

_	Area	(ac)	CN	Desc	cription					
*	2.357 98 Pavement									
	0.	370	68	<50%	<50% Grass cover, Poor, HSG A					
	2.	727	94	Weig	hted Aver	age				
	0.	370		13.5	7% Pervio	us Area				
	2.	357		86.4	3% Imperv	ious Area				
	Tc (min)	Lengt (feet		Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description			
	3.1	30	0 0	.0200	1.60	, ,	Sheet Flow, 25			
	1.3	20	0 0	.0150	2.49		Smooth surfaces n= 0.011 P2= 2.80" Shallow Concentrated Flow, Paved Kv= 20.3 fps			
	4.4	50	0 T	otal						

Subcatchment NL6: Proposed North Lot Area 1



Page 10

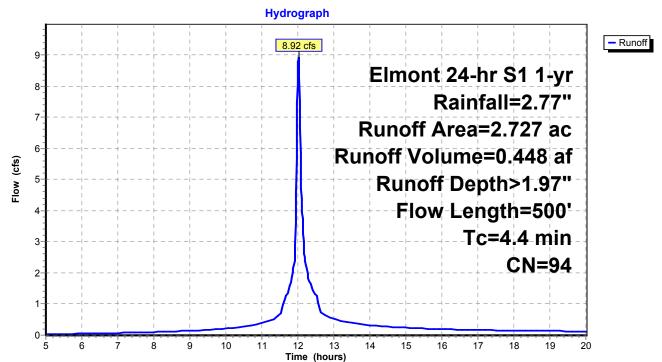
Summary for Subcatchment NL7: Proposed North Lot Area 1

Runoff = 8.92 cfs @ 12.02 hrs, Volume= 0.448 af, Depth> 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

	Area	(ac)	CN	Desc	ription				
*	⁴ 2.357 98 Pavement								
	0.370 68			<50% Grass cover, Poor, HSG A					
	2.	727	94	Weig	hted Aver	age			
	0.	370		13.5	7% Pervio	us Area			
2.357 86.43% Impervious Area									
	Tc	Length		ope	Velocity	Capacity	Description		
_	(min)	(feet) (1	ft/ft)	(ft/sec)	(cfs)			
	3.1	300	0.0	200	1.60		Sheet Flow, 25		
							Smooth surfaces n= 0.011 P2= 2.80"		
	1.3	200	0.0	150	2.49		Shallow Concentrated Flow,		
							Paved Kv= 20.3 fps		
	4.4	500) Tot	al	•				

Subcatchment NL7: Proposed North Lot Area 1



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Page 11

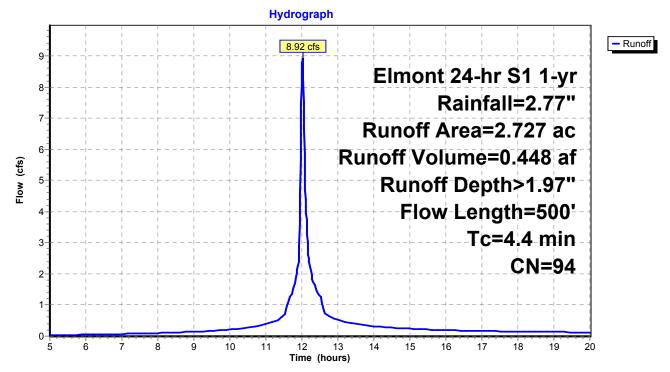
Summary for Subcatchment NL8: Proposed North Lot Area 1

Runoff = 8.92 cfs @ 12.02 hrs, Volume= 0.448 af, Depth> 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

	Area	(ac)	CN	Desc	cription					
*	2.	357	98	Pave	ement					
	0.	370	68	<50%	<50% Grass cover, Poor, HSG A					
	2.	727	94	Weig	hted Aver	age				
	0.	370		13.5	7% Pervio	us Area				
	2.	357		86.4	36.43% Impervious Area					
	Tc (min)	Length (feet		Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description			
	3.1	300	0.0	0200	1.60		Sheet Flow, 25			
	1.3	200	0.0	0150	2.49		Smooth surfaces n= 0.011 P2= 2.80" Shallow Concentrated Flow, Paved Kv= 20.3 fps			
	4.4	500) To	tal	•					

Subcatchment NL8: Proposed North Lot Area 1



Page 12

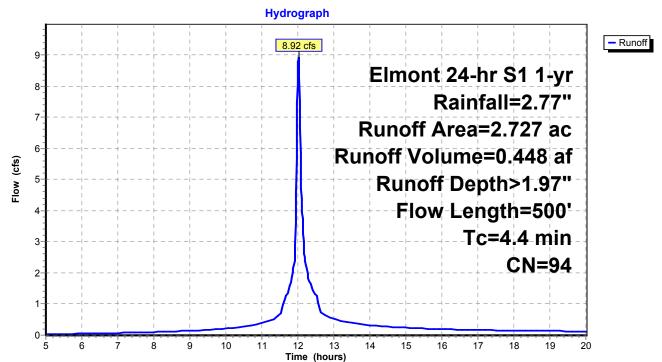
Summary for Subcatchment NL9: Proposed North Lot Area 1

Runoff = 8.92 cfs @ 12.02 hrs, Volume= 0.448 af, Depth> 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 1-yr Rainfall=2.77"

_	Area	(ac)	CN	Desc	cription		
*	2.	357	98	Pave	ement		
	0.	370	68	<50%	√ Grass co	over, Poor,	HSG A
	2.	727	94	Weig	hted Aver	age	
	0.	370		13.5	7% Pervio	us Area	
	2.	357		86.4	3% Imperv	ious Area	
	Tc (min)	Lengt (feet		Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	3.1	30	0 0	.0200	1.60	, ,	Sheet Flow, 25
	1.3	20	0 0	.0150	2.49		Smooth surfaces n= 0.011 P2= 2.80" Shallow Concentrated Flow, Paved Kv= 20.3 fps
	4.4	50	0 T	otal			

Subcatchment NL9: Proposed North Lot Area 1



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Summary for Pond 1P: Drywell System 1 (9 @ 20' Eff Depth)

2.727 ac, 86.43% Impervious, Inflow Depth = 0.87" for 1-yr event Inflow Area =

8.54 cfs @ 12.02 hrs, Volume= Inflow 0.197 af

1.48 cfs @ 12.29 hrs, Volume= 0.197 af, Atten= 83%, Lag= 16.3 min Outflow

Discarded = 1.48 cfs @ 12.29 hrs, Volume= 0.197 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 60.46' @ 12.29 hrs Surf.Area= 0.032 ac Storage= 0.103 af

Plug-Flow detention time= 34.6 min calculated for 0.197 af (100% of inflow)

Center-of-Mass det. time= 34.6 min (763.5 - 728.8)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

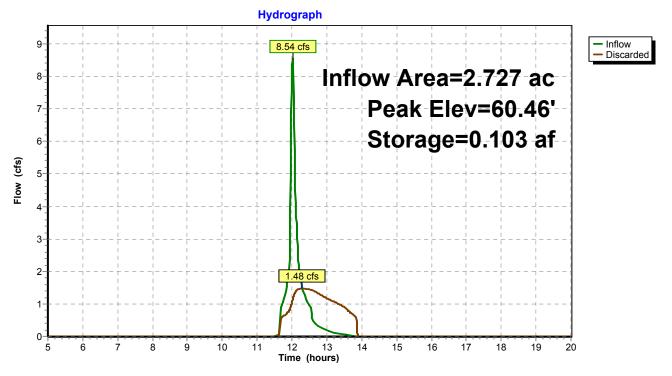
Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=1.48 cfs @ 12.29 hrs HW=60.46' (Free Discharge) 1=Exfiltration (Exfiltration Controls 1.48 cfs)

Page 14

Pond 1P: Drywell System 1 (9 @ 20' Eff Depth)



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Page 15

Summary for Pond 2P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 1.97" for 1-yr event

Inflow = 8.92 cfs @ 12.02 hrs, Volume= 0.448 af

Outflow = 8.90 cfs @ 12.02 hrs, Volume= 0.438 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.36 cfs @ 12.02 hrs, Volume= 0.241 af

Primary = 8.54 cfs @ 12.02 hrs, Volume= 0.197 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.17' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.040 af

Plug-Flow detention time= 33.7 min calculated for 0.438 af (98% of inflow) Center-of-Mass det. time= 24.9 min (784.0 - 759.1)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)
		9.363 af	Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

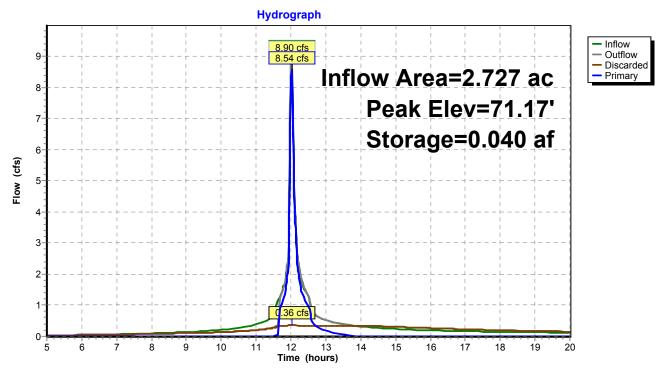
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.36 cfs @ 12.02 hrs HW=71.16' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.36 cfs)

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Page 16

Pond 2P: Inlet Drywell



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Page 17

Summary for Pond 3P: Drywell System 3 (9 @ 20' Eff Depth)

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth = 0.87" for 1-yr event

Inflow = 8.54 cfs @ 12.02 hrs, Volume= 0.197 af

Outflow = 1.48 cfs @ 12.29 hrs, Volume= 0.197 af, Atten= 83%, Lag= 16.3 min

Discarded = 1.48 cfs @ 12.29 hrs, Volume= 0.197 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 60.46' @ 12.29 hrs Surf.Area= 0.032 ac Storage= 0.103 af

Plug-Flow detention time= 34.6 min calculated for 0.197 af (100% of inflow)

Center-of-Mass det. time= 34.6 min (763.5 - 728.8)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

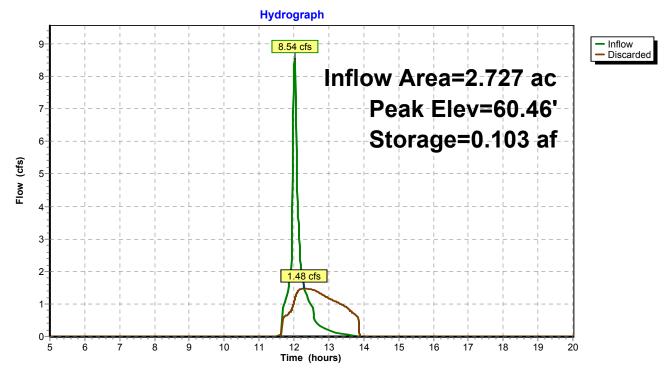
Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=1.48 cfs @ 12.29 hrs HW=60.46' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 1.48 cfs)

Page 18

Pond 3P: Drywell System 3 (9 @ 20' Eff Depth)



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Page 19

Summary for Pond 4P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 1.97" for 1-yr event

Inflow = 8.92 cfs @ 12.02 hrs, Volume= 0.448 af

Outflow = 8.90 cfs @ 12.02 hrs, Volume= 0.438 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.36 cfs @ 12.02 hrs, Volume= 0.241 af

Primary = 8.54 cfs @ 12.02 hrs, Volume= 0.197 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.17' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.040 af

Plug-Flow detention time= 33.7 min calculated for 0.438 af (98% of inflow) Center-of-Mass det. time= 24.9 min (784.0 - 759.1)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)
		9.363 af	Total Available Storage

Elevation
(feet)Surf.Area
(acres)Inc.Store
(acre-feet)Cum.Store
(acre-feet)Wet.Area
(acres)77.000.0000.0000.0000.000

0.000 78.00 0.000 0.001 0.001 0.000 79.00 1.000 0.344 0.345 1.000 80.00 2.000 1.471 1.816 2.000 81.00 15.000 7.492 9.308 15.000

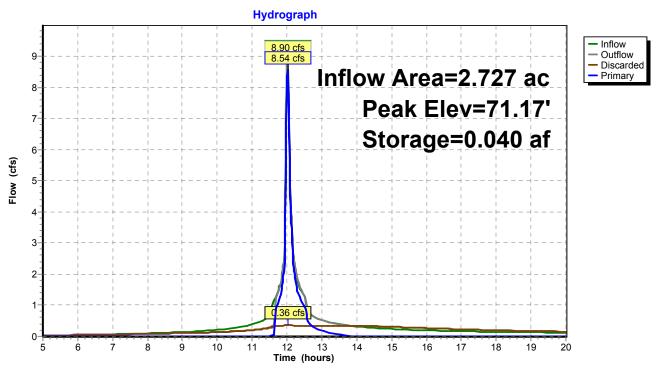
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	-		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.36 cfs @ 12.02 hrs HW=71.16' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.36 cfs)

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Page 20

Pond 4P: Inlet Drywell



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Summary for Pond 6P: Drywell System 2 (9 @ 20' Eff Depth)

2.727 ac, 86.43% Impervious, Inflow Depth = 0.87" for 1-yr event Inflow Area =

8.54 cfs @ 12.02 hrs, Volume= Inflow 0.197 af

1.48 cfs @ 12.29 hrs, Volume= 0.197 af, Atten= 83%, Lag= 16.3 min Outflow

Discarded = 1.48 cfs @ 12.29 hrs, Volume= 0.197 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 60.46' @ 12.29 hrs Surf.Area= 0.032 ac Storage= 0.103 af

Plug-Flow detention time= 34.6 min calculated for 0.197 af (100% of inflow)

Center-of-Mass det. time= 34.6 min (763.5 - 728.8)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

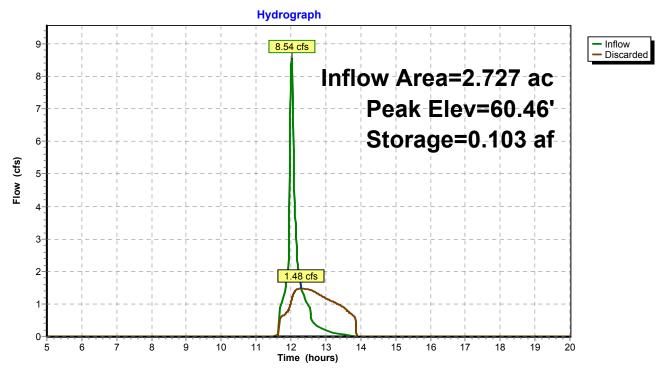
Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=1.48 cfs @ 12.29 hrs HW=60.46' (Free Discharge) 1=Exfiltration (Exfiltration Controls 1.48 cfs)

Page 22

Pond 6P: Drywell System 2 (9 @ 20' Eff Depth)



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Page 23

Summary for Pond 7P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 1.97" for 1-yr event

Inflow = 8.92 cfs @ 12.02 hrs, Volume= 0.448 af

Outflow = 8.90 cfs @ 12.02 hrs, Volume= 0.438 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.36 cfs @ 12.02 hrs, Volume= 0.241 af

Primary = 8.54 cfs @ 12.02 hrs, Volume= 0.197 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.17' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.040 af

Plug-Flow detention time= 33.7 min calculated for 0.438 af (98% of inflow) Center-of-Mass det. time= 24.9 min (784.0 - 759.1)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)
		9.363 af	Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

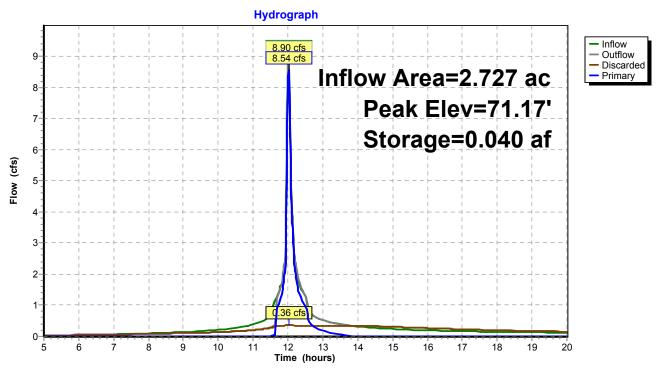
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.36 cfs @ 12.02 hrs HW=71.16' (Free Discharge) 1=Exfiltration (Exfiltration Controls 0.36 cfs)

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Page 24

Pond 7P: Inlet Drywell



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Page 25

Summary for Pond 8P: Drywell System 4 (9 @ 20' Eff Depth)

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth = 0.87" for 1-yr event

Inflow = 8.54 cfs @ 12.02 hrs, Volume= 0.197 af

Outflow = 1.48 cfs @ 12.29 hrs, Volume= 0.197 af, Atten= 83%, Lag= 16.3 min

Discarded = 1.48 cfs @ 12.29 hrs, Volume= 0.197 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 60.46' @ 12.29 hrs Surf.Area= 0.032 ac Storage= 0.103 af

Plug-Flow detention time= 34.6 min calculated for 0.197 af (100% of inflow)

Center-of-Mass det. time= 34.6 min (763.5 - 728.8)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

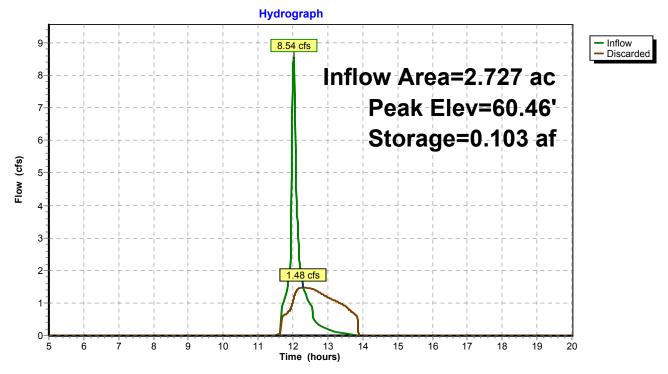
Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=1.48 cfs @ 12.29 hrs HW=60.46' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 1.48 cfs)

Page 26





81.00

15.000

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Page 27

Summary for Pond 9P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 1.97" for 1-yr event

Inflow = 8.92 cfs @ 12.02 hrs, Volume= 0.448 af

Outflow = 8.90 cfs @ 12.02 hrs, Volume= 0.438 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.36 cfs @ 12.02 hrs, Volume= 0.241 af

Primary = 8.54 cfs @ 12.02 hrs, Volume= 0.197 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.17' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.040 af

Plug-Flow detention time= 33.7 min calculated for 0.438 af (98% of inflow) Center-of-Mass det. time= 24.9 min (784.0 - 759.1)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)
		9.363 af	Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000

7.492

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

9.308

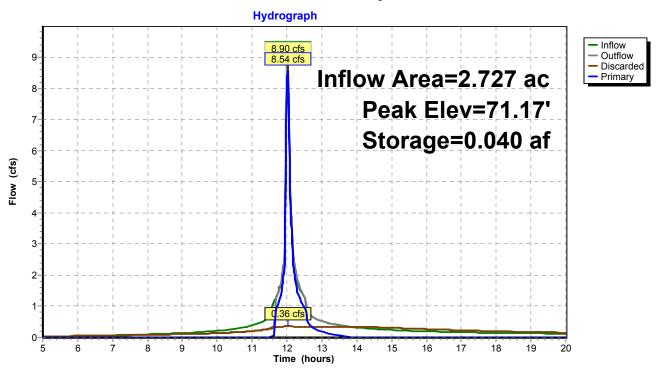
15.000

Discarded OutFlow Max=0.36 cfs @ 12.02 hrs HW=71.16' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.36 cfs)

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Page 28

Pond 9P: Inlet Drywell



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Summary for Pond 11P: Drywell System 6 (9 @ 20' Eff Depth)

2.727 ac, 86.43% Impervious, Inflow Depth = 0.87" for 1-yr event Inflow Area =

Inflow 8.54 cfs @ 12.02 hrs, Volume= 0.197 af

1.48 cfs @ 12.29 hrs, Volume= 0.197 af, Atten= 83%, Lag= 16.3 min Outflow

Discarded = 1.48 cfs @ 12.29 hrs, Volume= 0.197 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 60.46' @ 12.29 hrs Surf.Area= 0.032 ac Storage= 0.103 af

Plug-Flow detention time= 34.6 min calculated for 0.197 af (100% of inflow)

Center-of-Mass det. time= 34.6 min (763.5 - 728.8)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

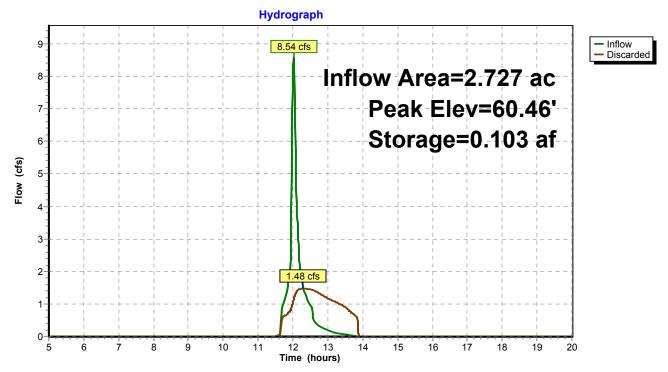
Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=1.48 cfs @ 12.29 hrs HW=60.46' (Free Discharge) 1=Exfiltration (Exfiltration Controls 1.48 cfs)

Page 30

Pond 11P: Drywell System 6 (9 @ 20' Eff Depth)



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Page 31

Summary for Pond 12P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 1.97" for 1-yr event

Inflow = 8.92 cfs @ 12.02 hrs, Volume= 0.448 af

Outflow = 8.90 cfs @ 12.02 hrs, Volume= 0.438 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.36 cfs @ 12.02 hrs, Volume= 0.241 af

Primary = 8.54 cfs @ 12.02 hrs, Volume= 0.197 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.17' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.040 af

Plug-Flow detention time= 33.7 min calculated for 0.438 af (98% of inflow) Center-of-Mass det. time= 24.9 min (784.0 - 759.1)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)
-			

9.363 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
0.000	0.000	0.000	0.000
0.001	0.000	0.000	0.001
1.000	0.344	0.345	1.000
2.000	1.471	1.816	2.000
15.000	7.492	9.308	15.000
	0.000 0.001 1.000 2.000	(acres) (acre-feet) 0.000 0.000 0.001 0.000 1.000 0.344 2.000 1.471	(acres) (acre-feet) (acre-feet) 0.000 0.000 0.000 0.001 0.000 0.000 1.000 0.344 0.345 2.000 1.471 1.816

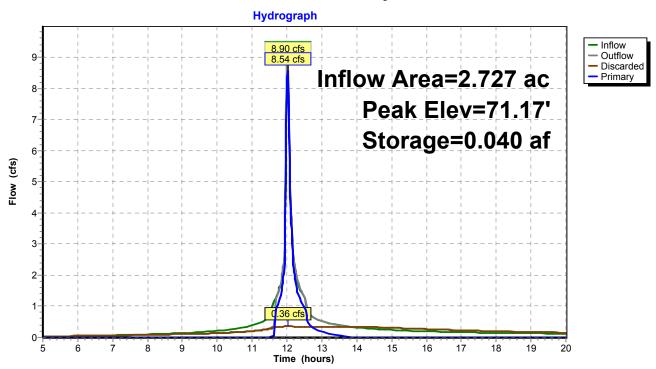
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.36 cfs @ 12.02 hrs HW=71.16' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.36 cfs)

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Page 32

Pond 12P: Inlet Drywell



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Page 33

Summary for Pond 14P: Drywell System 7 (9 @ 20' Eff Depth)

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth = 0.87" for 1-yr event

Inflow = 8.54 cfs @ 12.02 hrs, Volume= 0.197 af

Outflow = 1.48 cfs @ 12.29 hrs, Volume= 0.197 af, Atten= 83%, Lag= 16.3 min

Discarded = 1.48 cfs @ 12.29 hrs, Volume= 0.197 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 60.46' @ 12.29 hrs Surf.Area= 0.032 ac Storage= 0.103 af

Plug-Flow detention time= 34.6 min calculated for 0.197 af (100% of inflow)

Center-of-Mass det. time= 34.6 min (763.5 - 728.8)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

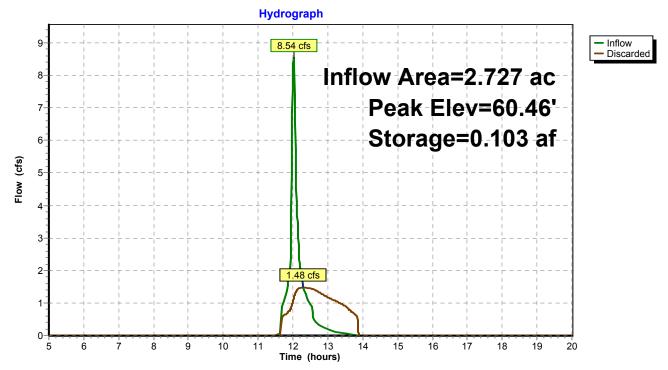
Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=1.48 cfs @ 12.29 hrs HW=60.46' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 1.48 cfs)

Page 34

Pond 14P: Drywell System 7 (9 @ 20' Eff Depth)



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Page 35

Summary for Pond 15P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 1.97" for 1-yr event

Inflow = 8.92 cfs @ 12.02 hrs, Volume= 0.448 af

Outflow = 8.90 cfs @ 12.02 hrs, Volume= 0.438 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.36 cfs @ 12.02 hrs, Volume= 0.241 af

Primary = 8.54 cfs @ 12.02 hrs, Volume= 0.197 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.17' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.040 af

Plug-Flow detention time= 33.7 min calculated for 0.438 af (98% of inflow) Center-of-Mass det. time= 24.9 min (784.0 - 759.1)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)
-			

9.363 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
0.000	0.000	0.000	0.000
0.001	0.000	0.000	0.001
1.000	0.344	0.345	1.000
2.000	1.471	1.816	2.000
15.000	7.492	9.308	15.000
	0.000 0.001 1.000 2.000	(acres) (acre-feet) 0.000 0.000 0.001 0.000 1.000 0.344 2.000 1.471	(acres) (acre-feet) (acre-feet) 0.000 0.000 0.000 0.001 0.000 0.000 1.000 0.344 0.345 2.000 1.471 1.816

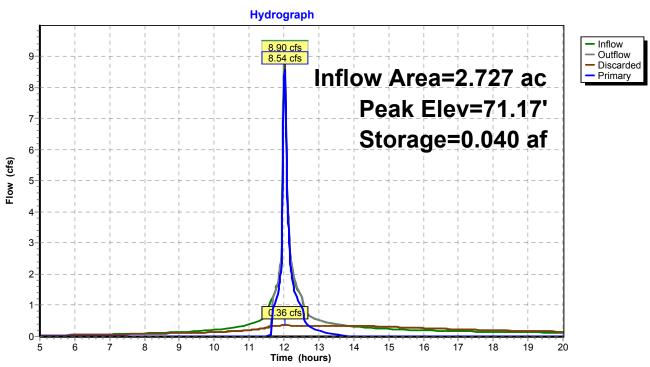
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.36 cfs @ 12.02 hrs HW=71.16' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.36 cfs)

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Page 36

Pond 15P: Inlet Drywell



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Page 37

Summary for Pond 18P: Drywell System 8 (9 @ 20' Eff Depth)

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth = 0.87" for 1-yr event

Inflow = 8.54 cfs @ 12.02 hrs, Volume= 0.197 af

Outflow = 1.48 cfs @ 12.29 hrs, Volume= 0.197 af, Atten= 83%, Lag= 16.3 min

Discarded = 1.48 cfs @ 12.29 hrs, Volume= 0.197 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 60.46' @ 12.29 hrs Surf.Area= 0.032 ac Storage= 0.103 af

Plug-Flow detention time= 34.6 min calculated for 0.197 af (100% of inflow)

Center-of-Mass det. time= 34.6 min (763.5 - 728.8)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

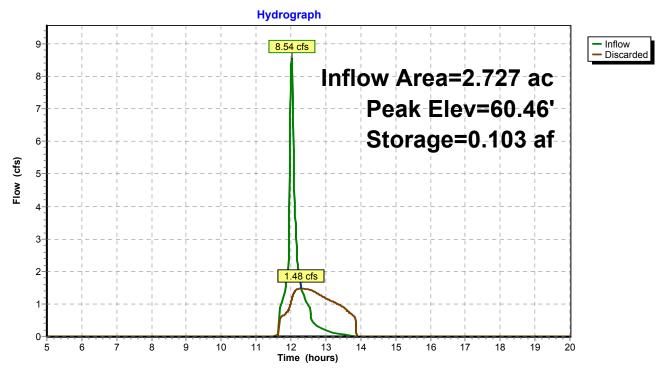
Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=1.48 cfs @ 12.29 hrs HW=60.46' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 1.48 cfs)

Page 38

Pond 18P: Drywell System 8 (9 @ 20' Eff Depth)



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Page 39

Summary for Pond 19P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 1.97" for 1-yr event

Inflow = 8.92 cfs @ 12.02 hrs, Volume= 0.448 af

Outflow = 8.90 cfs @ 12.02 hrs, Volume= 0.438 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.36 cfs @ 12.02 hrs, Volume= 0.241 af

Primary = 8.54 cfs @ 12.02 hrs, Volume= 0.197 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.17' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.040 af

Plug-Flow detention time= 33.7 min calculated for 0.438 af (98% of inflow) Center-of-Mass det. time= 24.9 min (784.0 - 759.1)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)
		9.363 af	Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

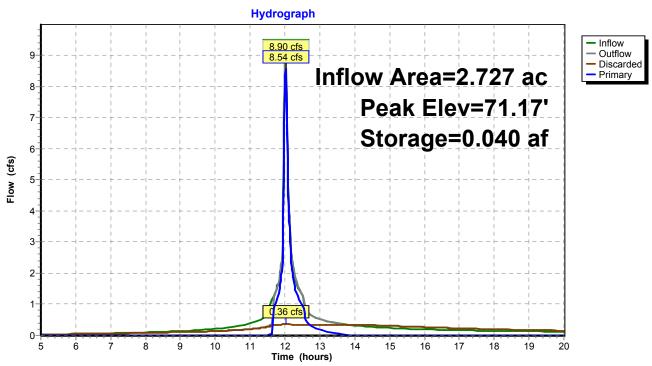
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	·		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.36 cfs @ 12.02 hrs HW=71.16' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.36 cfs)

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Page 40

Pond 19P: Inlet Drywell



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Summary for Pond 21P: Drywell System 9 @ 20' Eff Depth)

2.727 ac, 86.43% Impervious, Inflow Depth = 0.87" for 1-yr event Inflow Area =

8.54 cfs @ 12.02 hrs, Volume= Inflow 0.197 af

1.48 cfs @ 12.29 hrs, Volume= 0.197 af, Atten= 83%, Lag= 16.3 min Outflow

1.48 cfs @ 12.29 hrs, Volume= Discarded = 0.197 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 60.46' @ 12.29 hrs Surf.Area= 0.032 ac Storage= 0.103 af

Plug-Flow detention time= 34.6 min calculated for 0.197 af (100% of inflow)

Center-of-Mass det. time= 34.6 min (763.5 - 728.8)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

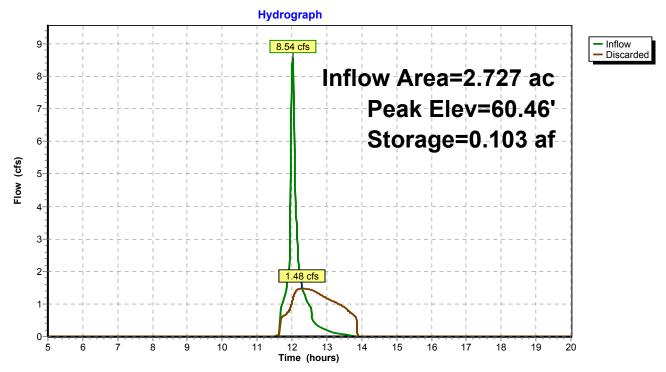
Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=1.48 cfs @ 12.29 hrs HW=60.46' (Free Discharge) 1=Exfiltration (Exfiltration Controls 1.48 cfs)

Page 42

Pond 21P: Drywell System 9 @ 20' Eff Depth)



81.00

15.000

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Page 43

Summary for Pond 22P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 1.97" for 1-yr event

Inflow = 8.92 cfs @ 12.02 hrs, Volume= 0.448 af

Outflow = 8.90 cfs @ 12.02 hrs, Volume= 0.438 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.36 cfs @ 12.02 hrs, Volume= 0.241 af

Primary = 8.54 cfs @ 12.02 hrs, Volume= 0.197 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.17' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.040 af

Plug-Flow detention time= 33.7 min calculated for 0.438 af (98% of inflow) Center-of-Mass det. time= 24.9 min (784.0 - 759.1)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)
		9.363 af	Total Available Storage

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000

7.492

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	-		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

9.308

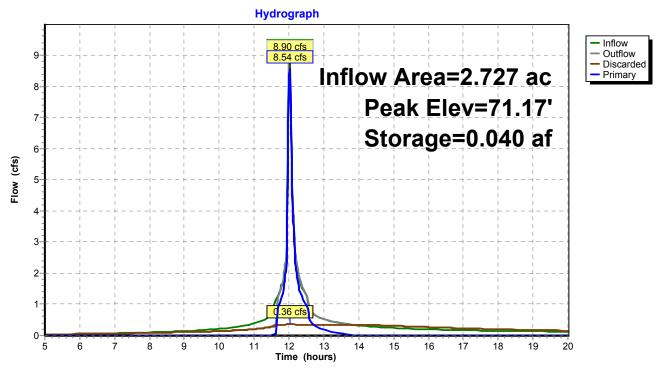
15.000

Discarded OutFlow Max=0.36 cfs @ 12.02 hrs HW=71.16' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.36 cfs)

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Page 44

Pond 22P: Inlet Drywell



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Page 45

Summary for Pond 24P: Drywell System 5 (9 @ 20' Eff Depth)

2.727 ac, 86.43% Impervious, Inflow Depth = 0.87" for 1-yr event Inflow Area =

Inflow 8.54 cfs @ 12.02 hrs, Volume= 0.197 af

1.48 cfs @ 12.29 hrs, Volume= 0.197 af, Atten= 83%, Lag= 16.3 min Outflow

1.48 cfs @ 12.29 hrs, Volume= Discarded = 0.197 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 60.46' @ 12.29 hrs Surf.Area= 0.032 ac Storage= 0.103 af

Plug-Flow detention time= 34.6 min calculated for 0.197 af (100% of inflow)

Center-of-Mass det. time= 34.6 min (763.5 - 728.8)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

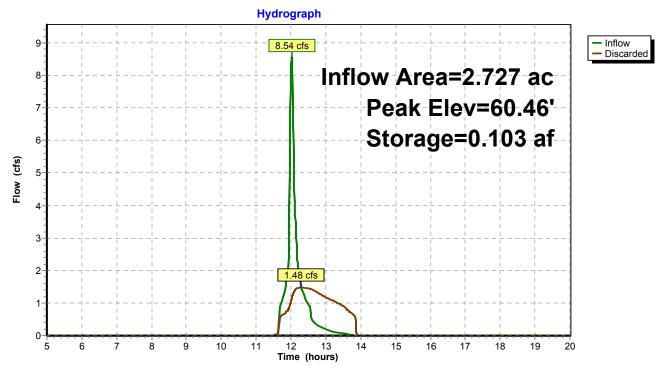
Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=1.48 cfs @ 12.29 hrs HW=60.46' (Free Discharge) 1=Exfiltration (Exfiltration Controls 1.48 cfs)

Page 46

Pond 24P: Drywell System 5 (9 @ 20' Eff Depth)



81.00

15.000

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Page 47

Summary for Pond 25P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 1.97" for 1-yr event

Inflow = 8.92 cfs @ 12.02 hrs, Volume= 0.448 af

Outflow = 8.90 cfs @ 12.02 hrs, Volume= 0.438 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.36 cfs @ 12.02 hrs, Volume= 0.241 af

Primary = 8.54 cfs @ 12.02 hrs, Volume= 0.197 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.17' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.040 af

Plug-Flow detention time= 33.7 min calculated for 0.438 af (98% of inflow) Center-of-Mass det. time= 24.9 min (784.0 - 759.1)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)
		9.363 af	Total Available Storage

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000

7.492

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

9.308

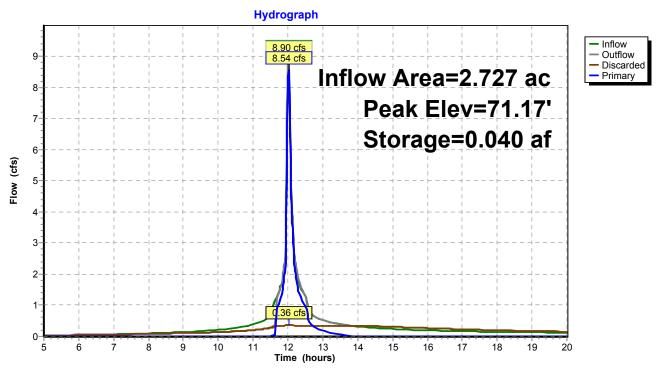
15.000

Discarded OutFlow Max=0.36 cfs @ 12.02 hrs HW=71.16' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.36 cfs)

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Page 48

Pond 25P: Inlet Drywell



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Summary for Pond 27P: Drywell System 10 (9 @ 20' Eff Depth)

2.727 ac, 86.43% Impervious, Inflow Depth = 0.87" for 1-yr event Inflow Area =

8.54 cfs @ 12.02 hrs, Volume= Inflow 0.197 af

1.48 cfs @ 12.29 hrs, Volume= 0.197 af, Atten= 83%, Lag= 16.3 min Outflow

Discarded = 1.48 cfs @ 12.29 hrs, Volume= 0.197 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 60.46' @ 12.29 hrs Surf.Area= 0.032 ac Storage= 0.103 af

Plug-Flow detention time= 34.6 min calculated for 0.197 af (100% of inflow)

Center-of-Mass det. time= 34.6 min (763.5 - 728.8)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

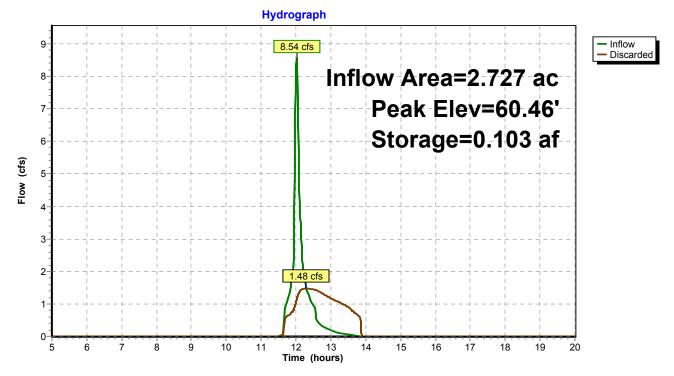
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=1.48 cfs @ 12.29 hrs HW=60.46' (Free Discharge) 1=Exfiltration (Exfiltration Controls 1.48 cfs)

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Page 50

Pond 27P: Drywell System 10 (9 @ 20' Eff Depth)



81.00

15.000

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Page 51

Summary for Pond 28P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 1.97" for 1-yr event

Inflow = 8.92 cfs @ 12.02 hrs, Volume= 0.448 af

Outflow = 8.90 cfs @ 12.02 hrs, Volume= 0.438 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.36 cfs @ 12.02 hrs, Volume= 0.241 af

Primary = 8.54 cfs @ 12.02 hrs, Volume= 0.197 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.17' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.040 af

Plug-Flow detention time= 33.7 min calculated for 0.438 af (98% of inflow) Center-of-Mass det. time= 24.9 min (784.0 - 759.1)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)
		9.363 af	Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80 00	2 000	1 471	1 816	2 000

7.492

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

9.308

15.000

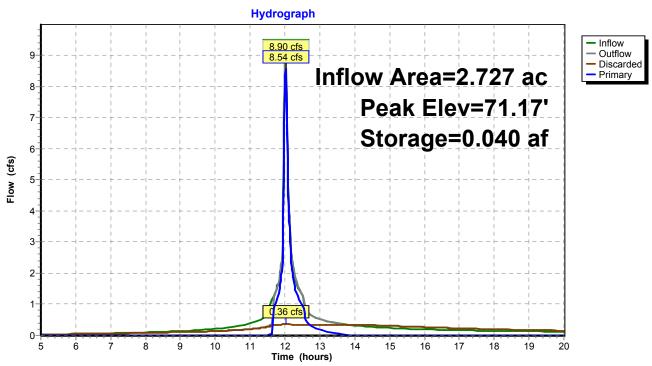
Discarded OutFlow Max=0.36 cfs @ 12.02 hrs HW=71.16' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.36 cfs)

Primary OutFlow Max=8.52 cfs @ 12.02 hrs HW=71.16' TW=58.40' (Dynamic Tailwater) 2=Culvert (Barrel Controls 8.52 cfs @ 3.99 fps)

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Page 52

Pond 28P: Inlet Drywell



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Page 53

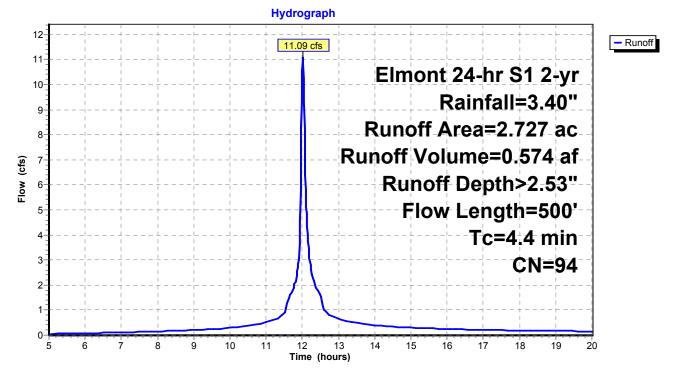
Summary for Subcatchment NL1: Proposed North Lot Area 1

Runoff = 11.09 cfs @ 12.02 hrs, Volume= 0.574 af, Depth> 2.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

	Area	(ac) (CN De	scription		
*	* 2.357 98 Pavement					
	0.	370	68 <50	% Grass c	over, Poor,	HSG A
	2.	727	94 We	ighted Ave	rage	
	0.	370	13.	57% Pervic	us Area	
	2.	357	86.	43% Imper	vious Area	
	Тс	Length			Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	3.1	300	0.0200	1.60		Sheet Flow, 25
						Smooth surfaces n= 0.011 P2= 2.80"
	1.3	200	0.0150	2.49		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	4.4	500	Total			

Subcatchment NL1: Proposed North Lot Area 1



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Page 54

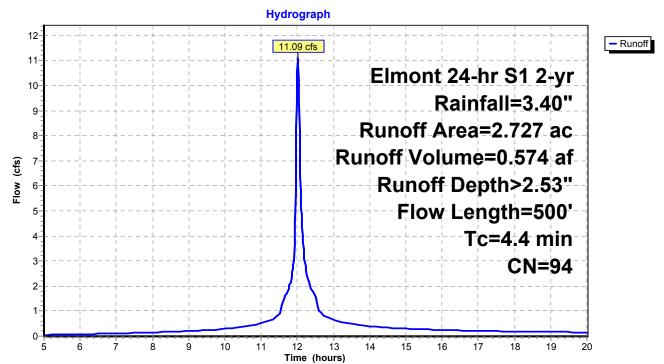
Summary for Subcatchment NL10: Proposed North Lot Area 1

Runoff = 11.09 cfs @ 12.02 hrs, Volume= 0.574 af, Depth> 2.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

_	Area	(ac)	CN	Desc	cription		
*	2.	357	98	Pave	ement		
	0.	370	68	<50%	% Grass co	over, Poor,	HSG A
	2.	727	94	Weig	hted Aver	age	
	0.	370		13.5	7% Pervio	us Area	
	2.	357		86.4	3% Imper	ious Area	
	Тс	Length		lope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	3.1	300	0.0	0200	1.60		Sheet Flow, 25
							Smooth surfaces n= 0.011 P2= 2.80"
	1.3	200	0.0	0150	2.49		Shallow Concentrated Flow,
							Paved Kv= 20.3 fps
	4.4	500) To	tal			

Subcatchment NL10: Proposed North Lot Area 1



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Page 55

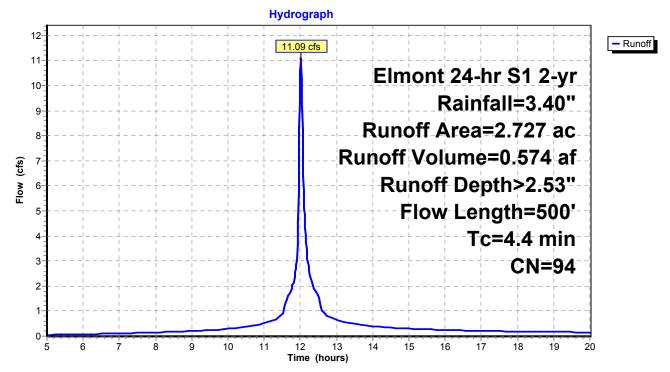
Summary for Subcatchment NL2: Proposed North Lot Area 1

Runoff = 11.09 cfs @ 12.02 hrs, Volume= 0.574 af, Depth> 2.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

_	Area	(ac)	CN	Desc	cription		
*	2.	357	98	Pave	ement		
	0.	370	68	<50%	% Grass co	over, Poor,	HSG A
	2.	727	94	Weig	hted Aver	age	
	0.	370		13.5	7% Pervio	us Area	
	2.	357		86.4	3% Imper	ious Area	
	Тс	Length		lope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	3.1	300	0.0	0200	1.60		Sheet Flow, 25
							Smooth surfaces n= 0.011 P2= 2.80"
	1.3	200	0.0	0150	2.49		Shallow Concentrated Flow,
							Paved Kv= 20.3 fps
	4.4	500) To	tal			

Subcatchment NL2: Proposed North Lot Area 1



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Page 56

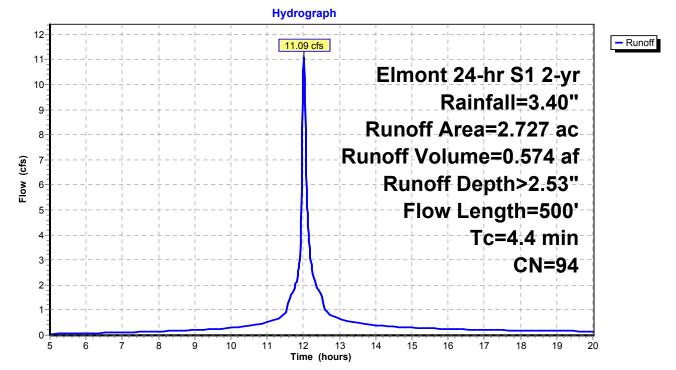
Summary for Subcatchment NL3: Proposed North Lot Area 1

Runoff = 11.09 cfs @ 12.02 hrs, Volume= 0.574 af, Depth> 2.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

	Area	(ac)	CN	Desc	cription		
*	* 2.357 98 Pavement						
_	0.	370	68	<50%	% Grass co	over, Poor,	HSG A
	2.	727	94	Weig	hted Aver	age	
	0.	370		13.5	7% Pervio	us Area	
	2.	357		86.43	3% Imperv	ious Area	
	_					• "	-
	Tc	Lengt		Slope	Velocity	Capacity	Description
_	(min)	(feet	[)	(ft/ft)	(ft/sec)	(cfs)	
	3.1	30	0.0	0200	1.60		Sheet Flow, 25
							Smooth surfaces n= 0.011 P2= 2.80"
	1.3	20	0.0	0150	2.49		Shallow Concentrated Flow,
							Paved Kv= 20.3 fps
	4.4	50	0 Tc	otal			

Subcatchment NL3: Proposed North Lot Area 1



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Page 57

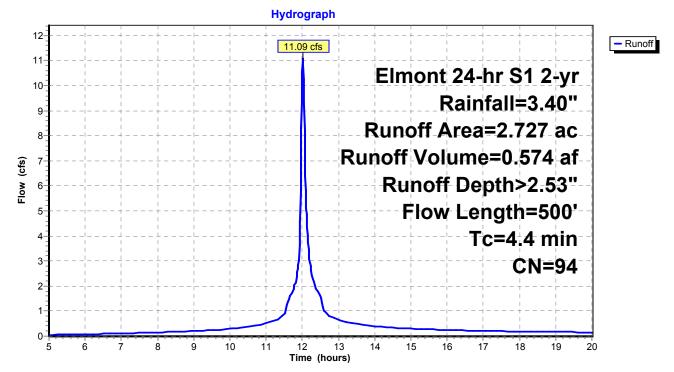
Summary for Subcatchment NL4: Proposed North Lot Area 1

Runoff = 11.09 cfs @ 12.02 hrs, Volume= 0.574 af, Depth> 2.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

_	Area	(ac)	CN	Desc	cription		
*	2.	357	98	Pave	ement		
	0.	370	68	<50%	% Grass co	over, Poor,	HSG A
	2.	727	94	Weig	hted Aver	age	
	0.	370		13.5	7% Pervio	us Area	
	2.	357		86.4	3% Imper	ious Area	
	Тс	Length		lope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	3.1	300	0.0	0200	1.60		Sheet Flow, 25
							Smooth surfaces n= 0.011 P2= 2.80"
	1.3	200	0.0	0150	2.49		Shallow Concentrated Flow,
							Paved Kv= 20.3 fps
	4.4	500) To	tal			

Subcatchment NL4: Proposed North Lot Area 1



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Page 58

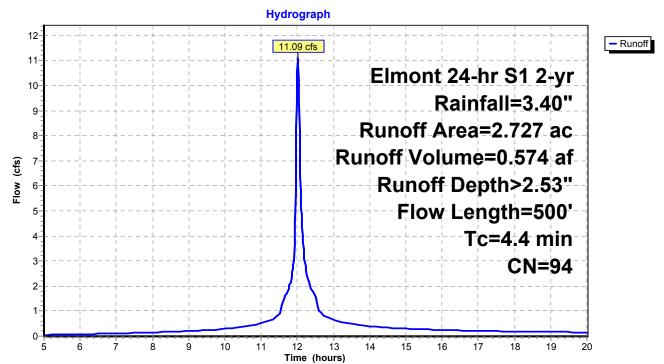
Summary for Subcatchment NL5: Proposed North Lot Area 1

Runoff = 11.09 cfs @ 12.02 hrs, Volume= 0.574 af, Depth> 2.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

	Area	(ac)	CN	Desc	cription		
*	* 2.357 98 Pavement						
_	0.	370	68	<50%	% Grass co	over, Poor,	HSG A
	2.	727	94	Weig	hted Aver	age	
	0.	370		13.5	7% Pervio	us Area	
	2.	357		86.43	3% Imperv	ious Area	
	_					• "	-
	Tc	Lengt		Slope	Velocity	Capacity	Description
_	(min)	(feet	[)	(ft/ft)	(ft/sec)	(cfs)	
	3.1	30	0.0	0200	1.60		Sheet Flow, 25
							Smooth surfaces n= 0.011 P2= 2.80"
	1.3	20	0.0	0150	2.49		Shallow Concentrated Flow,
							Paved Kv= 20.3 fps
	4.4	50	0 Tc	otal			

Subcatchment NL5: Proposed North Lot Area 1



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Page 59

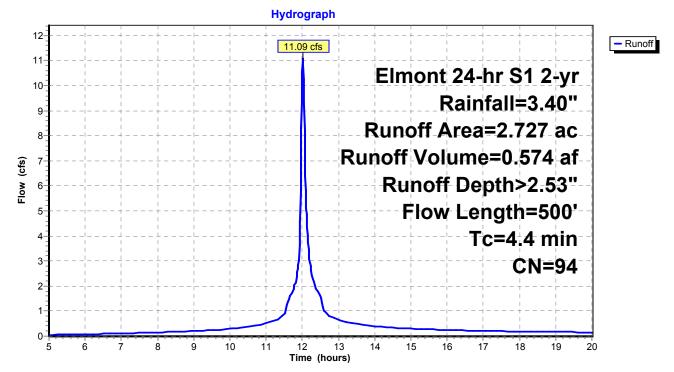
Summary for Subcatchment NL6: Proposed North Lot Area 1

Runoff = 11.09 cfs @ 12.02 hrs, Volume= 0.574 af, Depth> 2.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

_	Area	(ac)	CN	Desc	cription		
*	2.	357	98	Pave	ement		
	0.	370	68	<50%	% Grass co	over, Poor,	HSG A
2.727 94 Weighted Average					hted Aver	age	
0.370 13.57% Pervious Area					7% Pervio	us Area	
	2.357 86.43% Impervious			3% Imper	ious Area		
	Тс	Length		lope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	3.1	300	0.0	0200	1.60		Sheet Flow, 25
							Smooth surfaces n= 0.011 P2= 2.80"
	1.3	200	0.0	0150	2.49		Shallow Concentrated Flow,
							Paved Kv= 20.3 fps
	4.4	500) To	tal			

Subcatchment NL6: Proposed North Lot Area 1



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Page 60

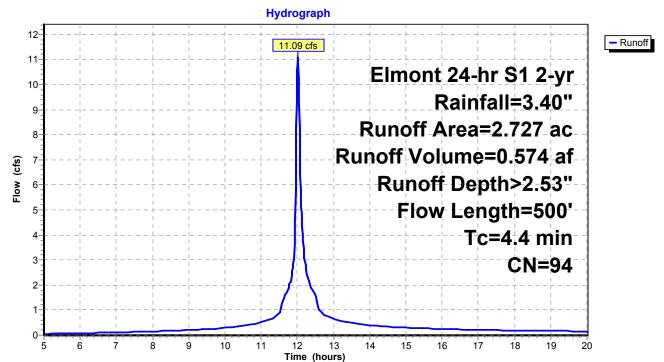
Summary for Subcatchment NL7: Proposed North Lot Area 1

Runoff = 11.09 cfs @ 12.02 hrs, Volume= 0.574 af, Depth> 2.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

_	Area	(ac) (CN Des	scription		
*	2.	357	98 Pa\	/ement		
	0.	370	68 <50	% Grass c	over, Poor,	HSG A
2.727 94 Weighted Average						
0.370 13.57% Pervious Area						
2.357 86.43% Impervious Area					vious Area	
	Tc	Length			Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	3.1	300	0.0200	1.60		Sheet Flow, 25
						Smooth surfaces n= 0.011 P2= 2.80"
	1.3	200	0.0150	2.49		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	4.4	500	Total			

Subcatchment NL7: Proposed North Lot Area 1



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Page 61

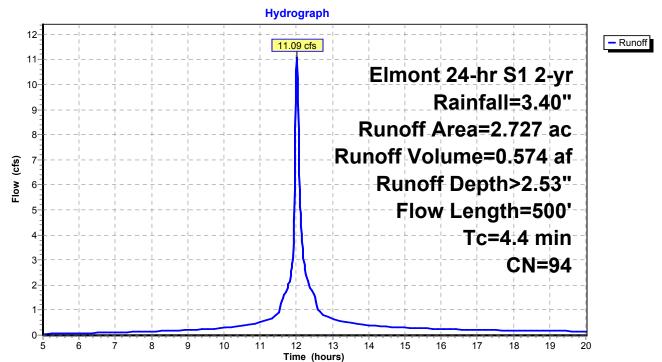
Summary for Subcatchment NL8: Proposed North Lot Area 1

Runoff = 11.09 cfs @ 12.02 hrs, Volume= 0.574 af, Depth> 2.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

_	Area	(ac)	CN	Desc	cription		
*	2.	357	98	Pave	ement		
	0.	370	68	<50%	% Grass co	over, Poor,	HSG A
	2.	727	94	Weig	ghted Aver	age	
				13.5	7% Pervio	us Area	
2.357 86.4			86.4	3% Imperv	ious Area		
	_						
	Tc	Lengt		Slope	Velocity	Capacity	Description
	(min)	(feet	.)	(ft/ft)	(ft/sec)	(cfs)	
	3.1	30	0.0	0200	1.60		Sheet Flow, 25
							Smooth surfaces n= 0.011 P2= 2.80"
	1.3	20	0.0	0150	2.49		Shallow Concentrated Flow,
							Paved Kv= 20.3 fps
	4.4	50	0 Tc	otal			

Subcatchment NL8: Proposed North Lot Area 1



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Page 62

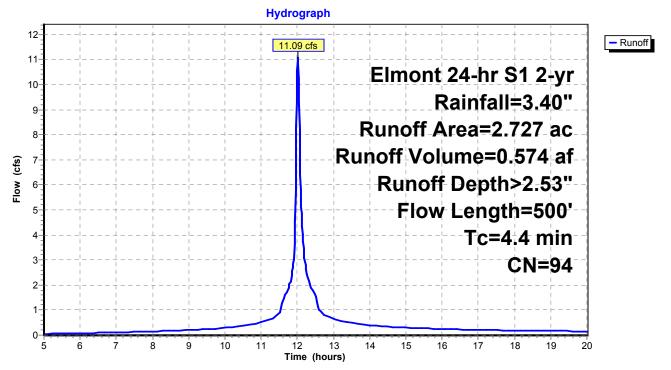
Summary for Subcatchment NL9: Proposed North Lot Area 1

Runoff = 11.09 cfs @ 12.02 hrs, Volume= 0.574 af, Depth> 2.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 2-yr Rainfall=3.40"

	Area	(ac)	CN	Desc	cription		
*	2.	357	98	Pave	ement		
	0.	370	68	<50%	% Grass co	over, Poor,	HSG A
	2.	727	94	Weig	hted Aver	age	
0.370 13				13.5	7% Pervio	us Area	
2.357 86.43% I			3% Imper\	ious Area			
	Tc (min)	Length (feet		lope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	3.1	300	0.0	200	1.60		Sheet Flow, 25
	1.3	200	0.0	0150	2.49		Smooth surfaces n= 0.011 P2= 2.80" Shallow Concentrated Flow, Paved Kv= 20.3 fps
	4.4	500) To	tal	•		

Subcatchment NL9: Proposed North Lot Area 1



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Page 63

Summary for Pond 1P: Drywell System 1 (9 @ 20' Eff Depth)

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth = 1.23" for 2-yr event

Inflow = 10.70 cfs @ 12.02 hrs, Volume= 0.280 af

Outflow = 1.75 cfs @ 12.34 hrs, Volume= 0.280 af, Atten= 84%, Lag= 18.9 min

Discarded = 1.75 cfs @ 12.34 hrs, Volume= 0.280 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 62.11' @ 12.34 hrs Surf.Area= 0.032 ac Storage= 0.142 af

Plug-Flow detention time= 40.0 min calculated for 0.280 af (100% of inflow) Center-of-Mass det. time= 40.0 min (769.5 - 729.5)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

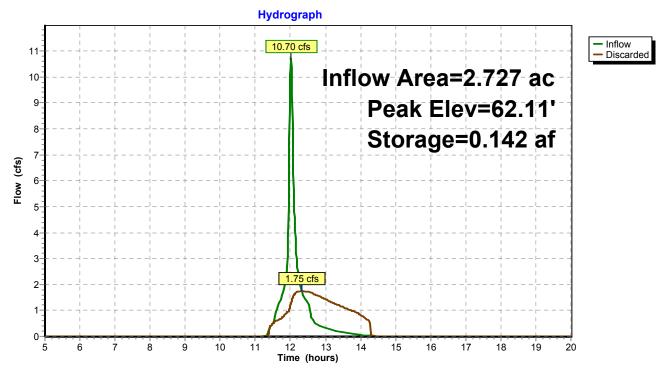
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=1.75 cfs @ 12.34 hrs HW=62.11' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 1.75 cfs)

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Page 64

Pond 1P: Drywell System 1 (9 @ 20' Eff Depth)



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Page 65

Summary for Pond 2P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 2.53" for 2-yr event

Inflow = 11.09 cfs @ 12.02 hrs, Volume= 0.574 af

Outflow = 11.07 cfs @ 12.02 hrs, Volume= 0.559 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.36 cfs @ 12.02 hrs, Volume= 0.280 af Primary = 10.70 cfs @ 12.02 hrs, Volume= 0.280 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.35' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.040 af

Plug-Flow detention time= 32.2 min calculated for 0.559 af (97% of inflow)

Center-of-Mass det. time= 21.4 min (775.4 - 754.0)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
<u>#3</u>	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
0.000	0.000	0.000	0.000
0.001	0.000	0.000	0.001
1.000	0.344	0.345	1.000
2.000	1.471	1.816	2.000
15.000	7.492	9.308	15.000
	0.000 0.001 1.000 2.000	(acres) (acre-feet) 0.000 0.000 0.001 0.000 1.000 0.344 2.000 1.471	(acres) (acre-feet) (acre-feet) 0.000 0.000 0.000 0.001 0.000 0.000 1.000 0.344 0.345 2.000 1.471 1.816

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

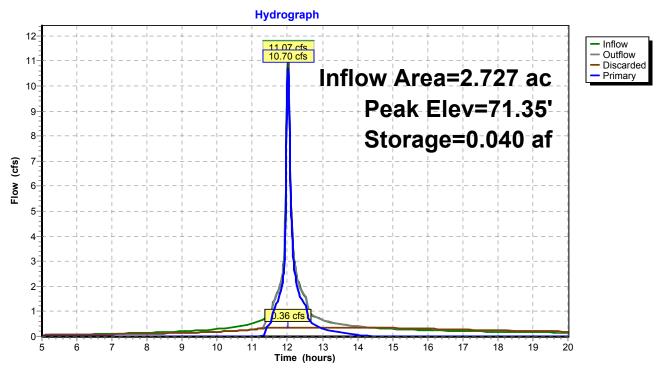
Discarded OutFlow Max=0.36 cfs @ 12.02 hrs HW=71.35' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.36 cfs)

Primary OutFlow Max=10.68 cfs @ 12.02 hrs HW=71.35' TW=59.38' (Dynamic Tailwater) 2=Culvert (Barrel Controls 10.68 cfs @ 4.22 fps)

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Page 66

Pond 2P: Inlet Drywell



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Summary for Pond 3P: Drywell System 3 (9 @ 20' Eff Depth)

2.727 ac, 86.43% Impervious, Inflow Depth = 1.23" for 2-yr event Inflow Area =

Inflow 10.70 cfs @ 12.02 hrs, Volume= 0.280 af

1.75 cfs @ 12.34 hrs, Volume= 0.280 af, Atten= 84%, Lag= 18.9 min Outflow

Discarded = 1.75 cfs @ 12.34 hrs, Volume= 0.280 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 62.11' @ 12.34 hrs Surf.Area= 0.032 ac Storage= 0.142 af

Plug-Flow detention time= 40.0 min calculated for 0.280 af (100% of inflow) Center-of-Mass det. time= 40.0 min (769.5 - 729.5)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

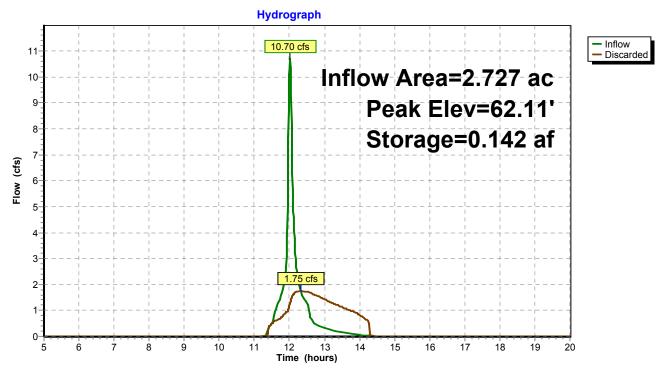
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=1.75 cfs @ 12.34 hrs HW=62.11' (Free Discharge) 1=Exfiltration (Exfiltration Controls 1.75 cfs)

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Page 68

Pond 3P: Drywell System 3 (9 @ 20' Eff Depth)



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Page 69

Summary for Pond 4P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 2.53" for 2-yr event

Inflow = 11.09 cfs @ 12.02 hrs, Volume= 0.574 af

Outflow = 11.07 cfs @ 12.02 hrs, Volume= 0.559 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.36 cfs @ 12.02 hrs, Volume= 0.280 af Primary = 10.70 cfs @ 12.02 hrs, Volume= 0.280 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.35' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.040 af

Plug-Flow detention time= 32.2 min calculated for 0.559 af (97% of inflow) Center-of-Mass det. time= 21.4 min (775.4 - 754.0)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
0.000	0.000	0.000	0.000
0.001	0.000	0.000	0.001
1.000	0.344	0.345	1.000
2.000	1.471	1.816	2.000
15.000	7.492	9.308	15.000
	0.000 0.001 1.000 2.000	(acres) (acre-feet) 0.000 0.000 0.001 0.000 1.000 0.344 2.000 1.471	(acres) (acre-feet) (acre-feet) 0.000 0.000 0.000 0.001 0.000 0.000 1.000 0.344 0.345 2.000 1.471 1.816

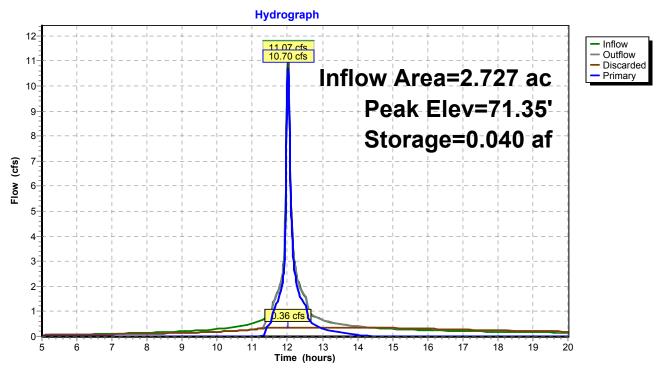
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.36 cfs @ 12.02 hrs HW=71.35' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.36 cfs)

Primary OutFlow Max=10.68 cfs @ 12.02 hrs HW=71.35' TW=59.38' (Dynamic Tailwater) 2=Culvert (Barrel Controls 10.68 cfs @ 4.22 fps)

Page 70

Pond 4P: Inlet Drywell



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Summary for Pond 6P: Drywell System 2 (9 @ 20' Eff Depth)

2.727 ac, 86.43% Impervious, Inflow Depth = 1.23" for 2-yr event Inflow Area =

Inflow 10.70 cfs @ 12.02 hrs, Volume= 0.280 af

1.75 cfs @ 12.34 hrs, Volume= 0.280 af, Atten= 84%, Lag= 18.9 min Outflow

Discarded = 1.75 cfs @ 12.34 hrs, Volume= 0.280 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 62.11' @ 12.34 hrs Surf.Area= 0.032 ac Storage= 0.142 af

Plug-Flow detention time= 40.0 min calculated for 0.280 af (100% of inflow) Center-of-Mass det. time= 40.0 min (769.5 - 729.5)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

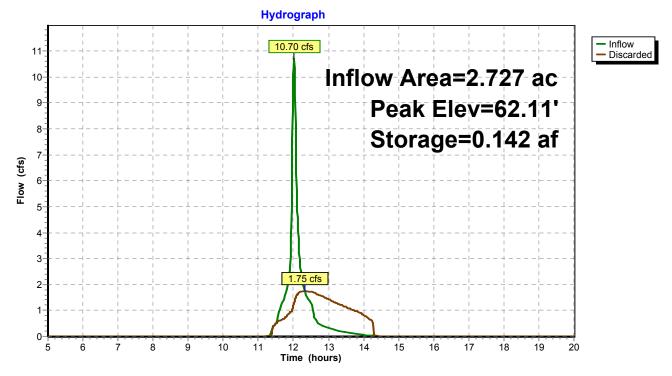
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=1.75 cfs @ 12.34 hrs HW=62.11' (Free Discharge) 1=Exfiltration (Exfiltration Controls 1.75 cfs)

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Page 72

Pond 6P: Drywell System 2 (9 @ 20' Eff Depth)



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Page 73

Summary for Pond 7P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 2.53" for 2-yr event

Inflow = 11.09 cfs @ 12.02 hrs, Volume= 0.574 af

Outflow = 11.07 cfs @ 12.02 hrs, Volume= 0.559 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.36 cfs @ 12.02 hrs, Volume= 0.280 af Primary = 10.70 cfs @ 12.02 hrs, Volume= 0.280 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.35' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.040 af

Plug-Flow detention time= 32.2 min calculated for 0.559 af (97% of inflow) Center-of-Mass det. time= 21.4 min (775.4 - 754.0)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
0.000	0.000	0.000	0.000
0.001	0.000	0.000	0.001
1.000	0.344	0.345	1.000
2.000	1.471	1.816	2.000
15.000	7.492	9.308	15.000
	0.000 0.001 1.000 2.000	(acres) (acre-feet) 0.000 0.000 0.001 0.000 1.000 0.344 2.000 1.471	(acres) (acre-feet) (acre-feet) 0.000 0.000 0.000 0.001 0.000 0.000 1.000 0.344 0.345 2.000 1.471 1.816

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
			L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

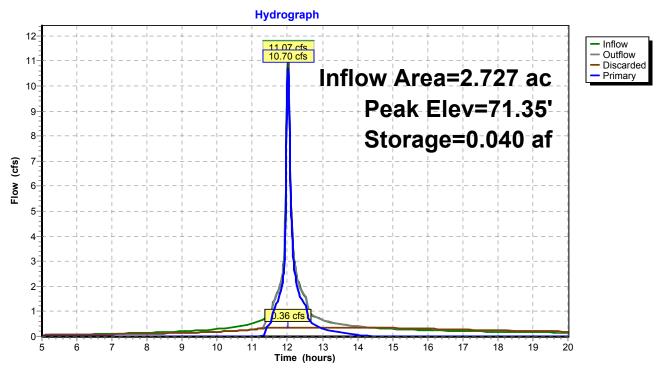
Discarded OutFlow Max=0.36 cfs @ 12.02 hrs HW=71.35' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.36 cfs)

Primary OutFlow Max=10.68 cfs @ 12.02 hrs HW=71.35' TW=59.38' (Dynamic Tailwater) 2=Culvert (Barrel Controls 10.68 cfs @ 4.22 fps)

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Page 74

Pond 7P: Inlet Drywell



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Page 75

Summary for Pond 8P: Drywell System 4 (9 @ 20' Eff Depth)

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth = 1.23" for 2-yr event

Inflow = 10.70 cfs @ 12.02 hrs, Volume= 0.280 af

Outflow = 1.75 cfs @ 12.34 hrs, Volume= 0.280 af, Atten= 84%, Lag= 18.9 min

Discarded = 1.75 cfs @ 12.34 hrs, Volume= 0.280 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 62.11' @ 12.34 hrs Surf.Area= 0.032 ac Storage= 0.142 af

Plug-Flow detention time= 40.0 min calculated for 0.280 af (100% of inflow) Center-of-Mass det. time= 40.0 min (769.5 - 729.5)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81 00	15 000	7 492	9 308	15 000

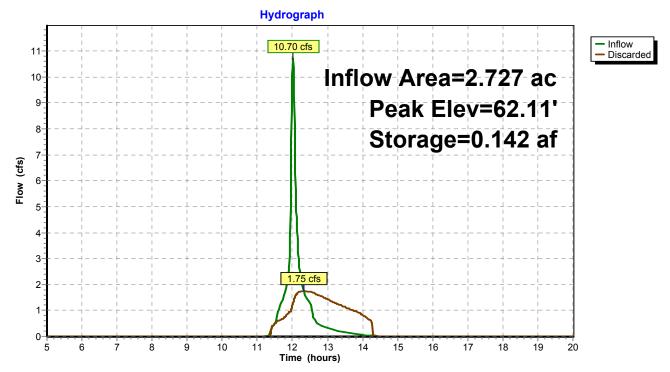
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=1.75 cfs @ 12.34 hrs HW=62.11' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 1.75 cfs)

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Page 76

Pond 8P: Drywell System 4 (9 @ 20' Eff Depth)



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Page 77

Summary for Pond 9P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 2.53" for 2-yr event

Inflow = 11.09 cfs @ 12.02 hrs, Volume= 0.574 af

Outflow = 11.07 cfs @ 12.02 hrs, Volume= 0.559 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.36 cfs @ 12.02 hrs, Volume= 0.280 af Primary = 10.70 cfs @ 12.02 hrs, Volume= 0.280 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.35' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.040 af

Plug-Flow detention time= 32.2 min calculated for 0.559 af (97% of inflow) Center-of-Mass det. time= 21.4 min (775.4 - 754.0)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Elevation	Surt.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

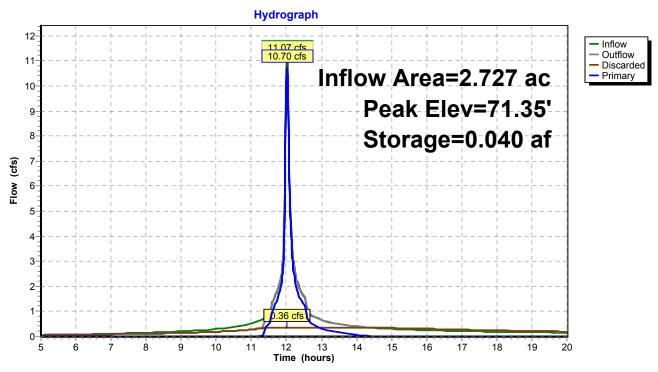
Discarded OutFlow Max=0.36 cfs @ 12.02 hrs HW=71.35' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.36 cfs)

Primary OutFlow Max=10.68 cfs @ 12.02 hrs HW=71.35' TW=59.38' (Dynamic Tailwater) 2=Culvert (Barrel Controls 10.68 cfs @ 4.22 fps)

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Page 78

Pond 9P: Inlet Drywell



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Summary for Pond 11P: Drywell System 6 (9 @ 20' Eff Depth)

2.727 ac, 86.43% Impervious, Inflow Depth = 1.23" for 2-yr event Inflow Area =

Inflow 10.70 cfs @ 12.02 hrs, Volume= 0.280 af

1.75 cfs @ 12.34 hrs, Volume= 0.280 af, Atten= 84%, Lag= 18.9 min Outflow

Discarded = 1.75 cfs @ 12.34 hrs, Volume= 0.280 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 62.11' @ 12.34 hrs Surf.Area= 0.032 ac Storage= 0.142 af

Plug-Flow detention time= 40.0 min calculated for 0.280 af (100% of inflow) Center-of-Mass det. time= 40.0 min (769.5 - 729.5)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)
			·

9.802 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
0.000	0.000	0.000	0.000
0.001	0.000	0.000	0.001
1.000	0.344	0.345	1.000
2.000	1.471	1.816	2.000
15.000	7.492	9.308	15.000
	0.000 0.001 1.000 2.000	(acres) (acre-feet) 0.000 0.000 0.001 0.000 1.000 0.344 2.000 1.471	(acres) (acre-feet) (acre-feet) 0.000 0.000 0.000 0.001 0.000 0.000 1.000 0.344 0.345 2.000 1.471 1.816

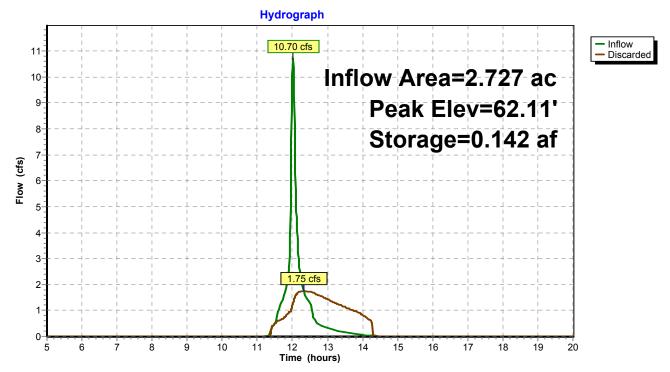
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=1.75 cfs @ 12.34 hrs HW=62.11' (Free Discharge) 1=Exfiltration (Exfiltration Controls 1.75 cfs)

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Page 80

Pond 11P: Drywell System 6 (9 @ 20' Eff Depth)



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Page 81

Summary for Pond 12P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 2.53" for 2-yr event

Inflow = 11.09 cfs @ 12.02 hrs, Volume= 0.574 af

Outflow = 11.07 cfs @ 12.02 hrs, Volume= 0.559 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.36 cfs @ 12.02 hrs, Volume= 0.280 af Primary = 10.70 cfs @ 12.02 hrs, Volume= 0.280 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.35' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.040 af

Plug-Flow detention time= 32.2 min calculated for 0.559 af (97% of inflow) Center-of-Mass det. time= 21.4 min (775.4 - 754.0)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
0.000	0.000	0.000	0.000
0.001	0.000	0.000	0.001
1.000	0.344	0.345	1.000
2.000	1.471	1.816	2.000
15.000	7.492	9.308	15.000
	0.000 0.001 1.000 2.000	(acres) (acre-feet) 0.000 0.000 0.001 0.000 1.000 0.344 2.000 1.471	(acres) (acre-feet) (acre-feet) 0.000 0.000 0.000 0.001 0.000 0.000 1.000 0.344 0.345 2.000 1.471 1.816

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

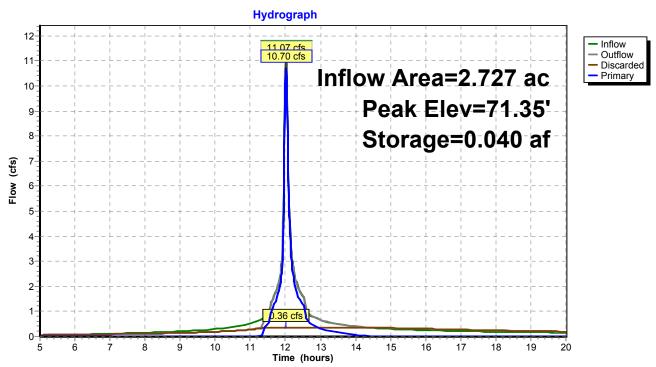
Discarded OutFlow Max=0.36 cfs @ 12.02 hrs HW=71.35' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.36 cfs)

Primary OutFlow Max=10.68 cfs @ 12.02 hrs HW=71.35' TW=59.38' (Dynamic Tailwater) 2=Culvert (Barrel Controls 10.68 cfs @ 4.22 fps)

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Page 82

Pond 12P: Inlet Drywell



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Page 83

Summary for Pond 14P: Drywell System 7 (9 @ 20' Eff Depth)

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth = 1.23" for 2-yr event

Inflow = 10.70 cfs @ 12.02 hrs, Volume= 0.280 af

Outflow = 1.75 cfs @ 12.34 hrs, Volume= 0.280 af, Atten= 84%, Lag= 18.9 min

Discarded = 1.75 cfs @ 12.34 hrs, Volume= 0.280 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 62.11' @ 12.34 hrs Surf.Area= 0.032 ac Storage= 0.142 af

Plug-Flow detention time= 40.0 min calculated for 0.280 af (100% of inflow) Center-of-Mass det. time= 40.0 min (769.5 - 729.5)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

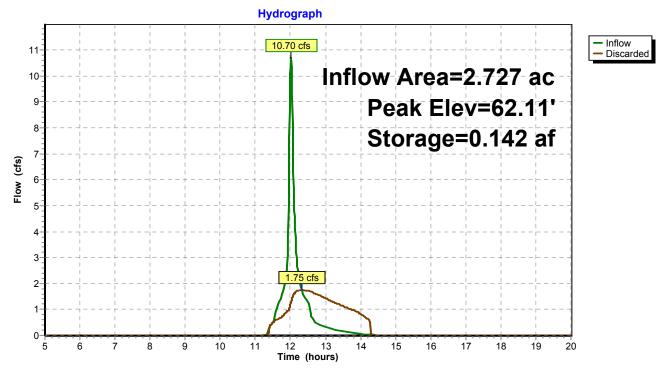
9.802 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81 00	15 000	7 492	9 308	15 000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=1.75 cfs @ 12.34 hrs HW=62.11' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 1.75 cfs)

Pond 14P: Drywell System 7 (9 @ 20' Eff Depth)



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Page 85

Summary for Pond 15P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 2.53" for 2-yr event

Inflow = 11.09 cfs @ 12.02 hrs, Volume= 0.574 af

Outflow = 11.07 cfs @ 12.02 hrs, Volume= 0.559 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.36 cfs @ 12.02 hrs, Volume= 0.280 af Primary = 10.70 cfs @ 12.02 hrs, Volume= 0.280 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.35' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.040 af

Plug-Flow detention time= 32.2 min calculated for 0.559 af (97% of inflow)

Center-of-Mass det. time= 21.4 min (775.4 - 754.0)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
0.000	0.000	0.000	0.000
0.001	0.000	0.000	0.001
1.000	0.344	0.345	1.000
2.000	1.471	1.816	2.000
15.000	7.492	9.308	15.000
	0.000 0.001 1.000 2.000	(acres) (acre-feet) 0.000 0.000 0.001 0.000 1.000 0.344 2.000 1.471	(acres) (acre-feet) (acre-feet) 0.000 0.000 0.000 0.001 0.000 0.000 1.000 0.344 0.345 2.000 1.471 1.816

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

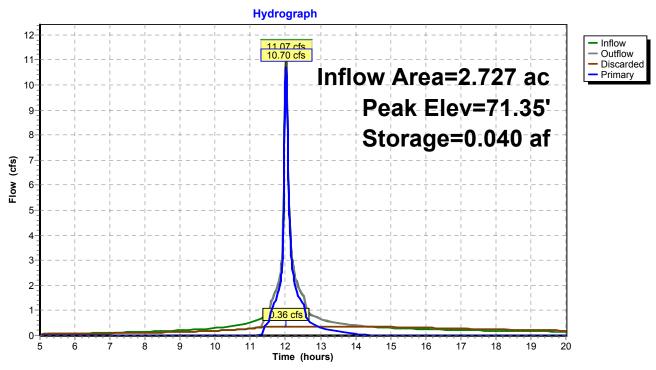
Discarded OutFlow Max=0.36 cfs @ 12.02 hrs HW=71.35' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.36 cfs)

Primary OutFlow Max=10.68 cfs @ 12.02 hrs HW=71.35' TW=59.38' (Dynamic Tailwater) 2=Culvert (Barrel Controls 10.68 cfs @ 4.22 fps)

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Page 86

Pond 15P: Inlet Drywell



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Summary for Pond 18P: Drywell System 8 (9 @ 20' Eff Depth)

2.727 ac, 86.43% Impervious, Inflow Depth = 1.23" for 2-yr event Inflow Area =

Inflow 10.70 cfs @ 12.02 hrs, Volume= 0.280 af

1.75 cfs @ 12.34 hrs, Volume= 0.280 af, Atten= 84%, Lag= 18.9 min Outflow

Discarded = 1.75 cfs @ 12.34 hrs, Volume= 0.280 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 62.11' @ 12.34 hrs Surf.Area= 0.032 ac Storage= 0.142 af

Plug-Flow detention time= 40.0 min calculated for 0.280 af (100% of inflow) Center-of-Mass det. time= 40.0 min (769.5 - 729.5)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

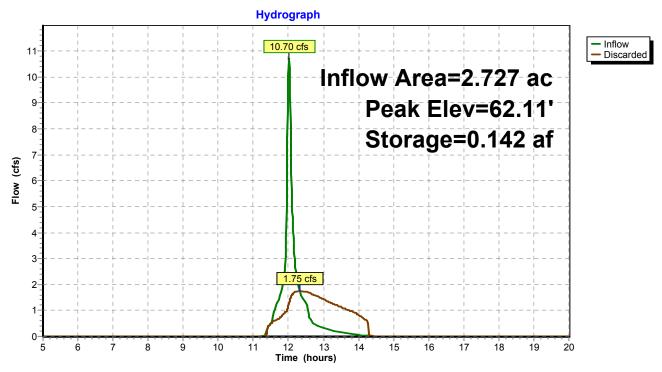
9.802 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=1.75 cfs @ 12.34 hrs HW=62.11' (Free Discharge) 1=Exfiltration (Exfiltration Controls 1.75 cfs)

Pond 18P: Drywell System 8 (9 @ 20' Eff Depth)



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Page 89

Summary for Pond 19P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 2.53" for 2-yr event

Inflow = 11.09 cfs @ 12.02 hrs, Volume= 0.574 af

Outflow = 11.07 cfs @ 12.02 hrs, Volume= 0.559 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.36 cfs @ 12.02 hrs, Volume= 0.280 af Primary = 10.70 cfs @ 12.02 hrs, Volume= 0.280 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.35' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.040 af

Plug-Flow detention time= 32.2 min calculated for 0.559 af (97% of inflow) Center-of-Mass det. time= 21.4 min (775.4 - 754.0)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

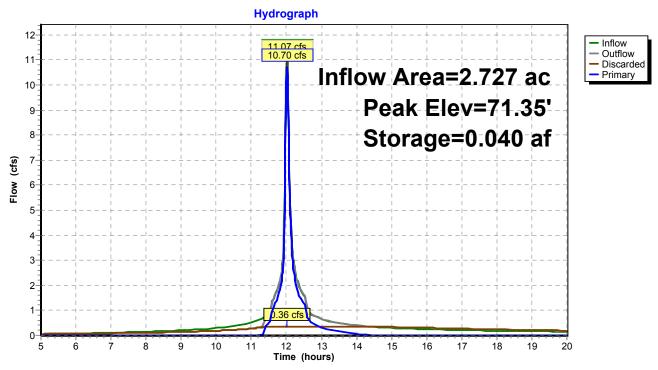
Discarded OutFlow Max=0.36 cfs @ 12.02 hrs HW=71.35' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.36 cfs)

Primary OutFlow Max=10.68 cfs @ 12.02 hrs HW=71.35' TW=59.38' (Dynamic Tailwater) 2=Culvert (Barrel Controls 10.68 cfs @ 4.22 fps)

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Page 90

Pond 19P: Inlet Drywell



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Summary for Pond 21P: Drywell System 9 @ 20' Eff Depth)

2.727 ac, 86.43% Impervious, Inflow Depth = 1.23" for 2-yr event Inflow Area =

Inflow 10.70 cfs @ 12.02 hrs, Volume= 0.280 af

1.75 cfs @ 12.34 hrs, Volume= 0.280 af, Atten= 84%, Lag= 18.9 min Outflow

Discarded = 1.75 cfs @ 12.34 hrs, Volume= 0.280 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 62.11' @ 12.34 hrs Surf.Area= 0.032 ac Storage= 0.142 af

Plug-Flow detention time= 40.0 min calculated for 0.280 af (100% of inflow) Center-of-Mass det. time= 40.0 min (769.5 - 729.5)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

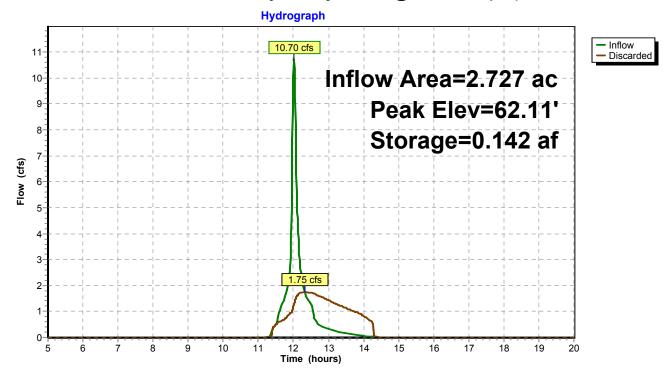
9.802 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=1.75 cfs @ 12.34 hrs HW=62.11' (Free Discharge) 1=Exfiltration (Exfiltration Controls 1.75 cfs)

Pond 21P: Drywell System 9 @ 20' Eff Depth)



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Page 93

Summary for Pond 22P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 2.53" for 2-yr event

Inflow = 11.09 cfs @ 12.02 hrs, Volume= 0.574 af

Outflow = 11.07 cfs @ 12.02 hrs, Volume= 0.559 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.36 cfs @ 12.02 hrs, Volume = 0.280 afPrimary = 10.70 cfs @ 12.02 hrs, Volume = 0.280 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.35' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.040 af

Plug-Flow detention time= 32.2 min calculated for 0.559 af (97% of inflow) Center-of-Mass det. time= 21.4 min (775.4 - 754.0)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
0.000	0.000	0.000	0.000
0.001	0.000	0.000	0.001
1.000	0.344	0.345	1.000
2.000	1.471	1.816	2.000
15.000	7.492	9.308	15.000
	0.000 0.001 1.000 2.000	(acres) (acre-feet) 0.000 0.000 0.001 0.000 1.000 0.344 2.000 1.471	(acres) (acre-feet) (acre-feet) 0.000 0.000 0.000 0.001 0.000 0.000 1.000 0.344 0.345 2.000 1.471 1.816

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

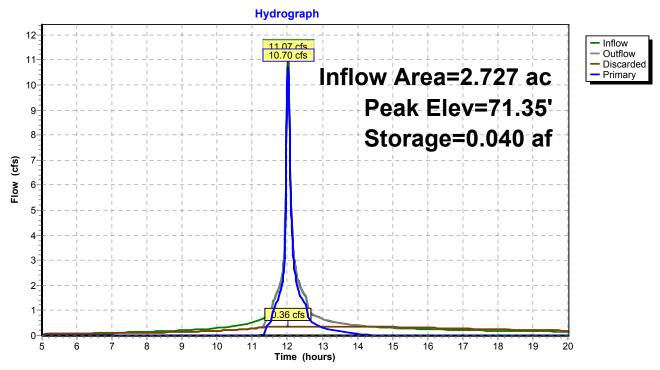
Discarded OutFlow Max=0.36 cfs @ 12.02 hrs HW=71.35' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.36 cfs)

Primary OutFlow Max=10.68 cfs @ 12.02 hrs HW=71.35' TW=59.38' (Dynamic Tailwater) 2=Culvert (Barrel Controls 10.68 cfs @ 4.22 fps)

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Page 94

Pond 22P: Inlet Drywell



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Page 95

Summary for Pond 24P: Drywell System 5 (9 @ 20' Eff Depth)

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth = 1.23" for 2-yr event

Inflow = 10.70 cfs @ 12.02 hrs, Volume= 0.280 af

Outflow = 1.75 cfs @ 12.34 hrs, Volume= 0.280 af, Atten= 84%, Lag= 18.9 min

Discarded = 1.75 cfs @ 12.34 hrs, Volume= 0.280 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 62.11' @ 12.34 hrs Surf.Area= 0.032 ac Storage= 0.142 af

Plug-Flow detention time= 40.0 min calculated for 0.280 af (100% of inflow) Center-of-Mass det. time= 40.0 min (769.5 - 729.5)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

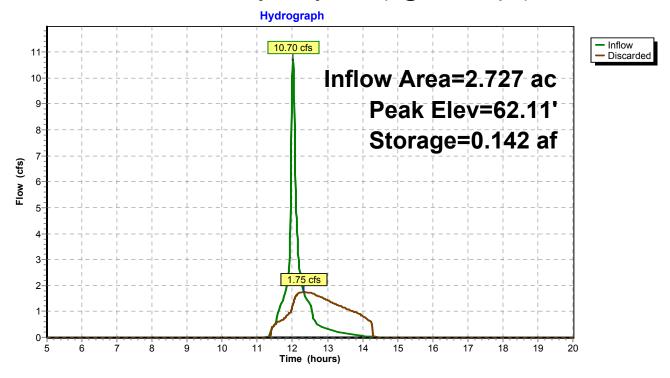
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=1.75 cfs @ 12.34 hrs HW=62.11' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 1.75 cfs)

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Pond 24P: Drywell System 5 (9 @ 20' Eff Depth)



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Page 97

Summary for Pond 25P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 2.53" for 2-yr event

Inflow = 11.09 cfs @ 12.02 hrs, Volume= 0.574 af

Outflow = 11.07 cfs @ 12.02 hrs, Volume= 0.559 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.36 cfs @ 12.02 hrs, Volume= 0.280 af Primary = 10.70 cfs @ 12.02 hrs, Volume= 0.280 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.35' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.040 af

Plug-Flow detention time= 32.2 min calculated for 0.559 af (97% of inflow)

Center-of-Mass det. time= 21.4 min (775.4 - 754.0)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
0.000	0.000	0.000	0.000
0.001	0.000	0.000	0.001
1.000	0.344	0.345	1.000
2.000	1.471	1.816	2.000
15.000	7.492	9.308	15.000
	0.000 0.001 1.000 2.000	(acres) (acre-feet) 0.000 0.000 0.001 0.000 1.000 0.344 2.000 1.471	(acres) (acre-feet) (acre-feet) 0.000 0.000 0.000 0.001 0.000 0.000 1.000 0.344 0.345 2.000 1.471 1.816

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
			L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

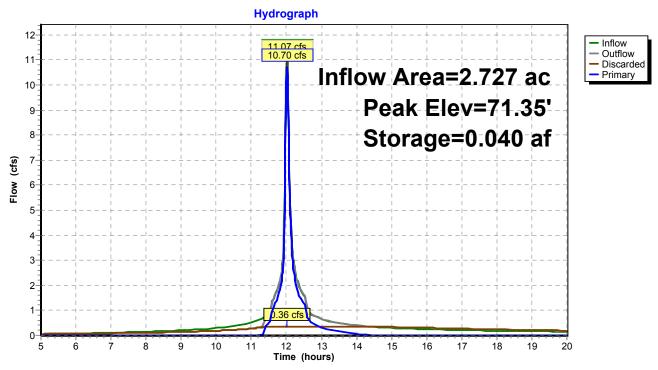
Discarded OutFlow Max=0.36 cfs @ 12.02 hrs HW=71.35' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.36 cfs)

Primary OutFlow Max=10.68 cfs @ 12.02 hrs HW=71.35' TW=59.38' (Dynamic Tailwater) 2=Culvert (Barrel Controls 10.68 cfs @ 4.22 fps)

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Page 98

Pond 25P: Inlet Drywell



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Page 99

Summary for Pond 27P: Drywell System 10 (9 @ 20' Eff Depth)

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth = 1.23" for 2-yr event

Inflow = 10.70 cfs @ 12.02 hrs, Volume= 0.280 af

Outflow = 1.75 cfs @ 12.34 hrs, Volume= 0.280 af, Atten= 84%, Lag= 18.9 min

Discarded = 1.75 cfs @ 12.34 hrs, Volume= 0.280 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 62.11' @ 12.34 hrs Surf.Area= 0.032 ac Storage= 0.142 af

Plug-Flow detention time= 40.0 min calculated for 0.280 af (100% of inflow) Center-of-Mass det. time= 40.0 min (769.5 - 729.5)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81 00	15 000	7 492	9 308	15 000

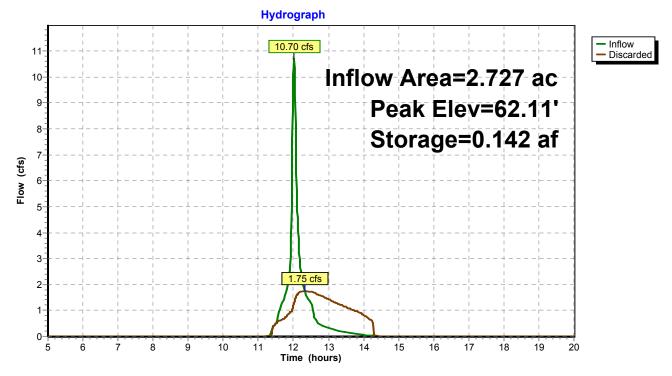
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=1.75 cfs @ 12.34 hrs HW=62.11' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 1.75 cfs)

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Page 100

Pond 27P: Drywell System 10 (9 @ 20' Eff Depth)



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Page 101

Summary for Pond 28P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 2.53" for 2-yr event

Inflow = 11.09 cfs @ 12.02 hrs, Volume= 0.574 af

Outflow = 11.07 cfs @ 12.02 hrs, Volume= 0.559 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.36 cfs @ 12.02 hrs, Volume= 0.280 af Primary = 10.70 cfs @ 12.02 hrs, Volume= 0.280 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.35' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.040 af

Plug-Flow detention time= 32.2 min calculated for 0.559 af (97% of inflow)

Center-of-Mass det. time= 21.4 min (775.4 - 754.0)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
<u>#3</u>	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
0.000	0.000	0.000	0.000
0.001	0.000	0.000	0.001
1.000	0.344	0.345	1.000
2.000	1.471	1.816	2.000
15.000	7.492	9.308	15.000
	0.000 0.001 1.000 2.000	(acres) (acre-feet) 0.000 0.000 0.001 0.000 1.000 0.344 2.000 1.471	(acres) (acre-feet) (acre-feet) 0.000 0.000 0.000 0.001 0.000 0.000 1.000 0.344 0.345 2.000 1.471 1.816

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	-		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

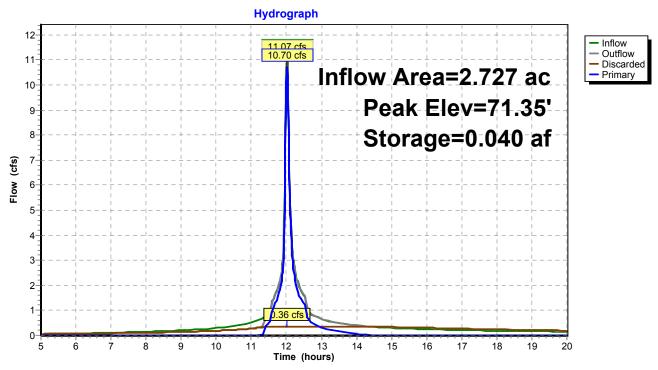
Discarded OutFlow Max=0.36 cfs @ 12.02 hrs HW=71.35' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.36 cfs)

Primary OutFlow Max=10.68 cfs @ 12.02 hrs HW=71.35' TW=59.38' (Dynamic Tailwater) 2=Culvert (Barrel Controls 10.68 cfs @ 4.22 fps)

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Page 102

Pond 28P: Inlet Drywell



Page 103

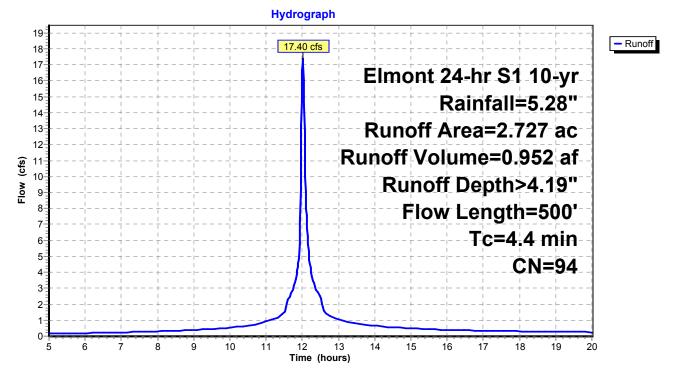
Summary for Subcatchment NL1: Proposed North Lot Area 1

Runoff = 17.40 cfs @ 12.02 hrs, Volume= 0.952 af, Depth> 4.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

	Area	(ac)	CN	Desc	cription					
*	2.357 98 Pavement									
	0.	370	68	<50%	<50% Grass cover, Poor, HSG A					
	2.727 94 Weighted Average									
	0.370 13.57% Pervious Area									
	2.	357		86.4	86.43% Impervious Area					
	Tc (min)	Length (feet		Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description			
	3.1	300	0.0	0200	1.60		Sheet Flow, 25			
	1.3	200	0.0	0150	2.49		Smooth surfaces n= 0.011 P2= 2.80" Shallow Concentrated Flow, Paved Kv= 20.3 fps			
	4.4	500) To	tal	•					

Subcatchment NL1: Proposed North Lot Area 1



Page 104

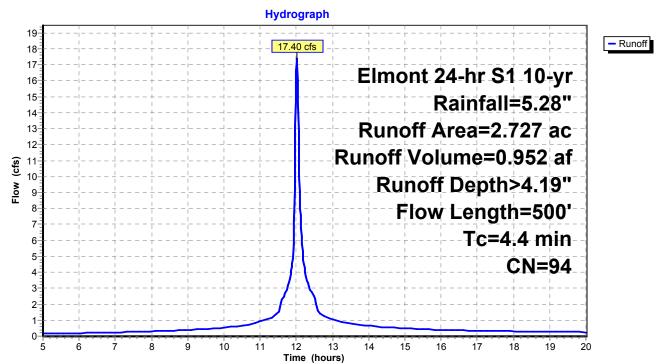
Summary for Subcatchment NL10: Proposed North Lot Area 1

Runoff = 17.40 cfs @ 12.02 hrs, Volume= 0.952 af, Depth> 4.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

	Area	(ac)	CN	Desc	cription					
*	2.357 98 Pavement									
	0.	370	68	<50%	<50% Grass cover, Poor, HSG A					
	2.727 94 Weighted Average									
	0.370 13.57% Pervious Area									
	2.	357		86.4	86.43% Impervious Area					
	Tc (min)	Length (feet		Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description			
	3.1	300	0.0	0200	1.60		Sheet Flow, 25			
	1.3	200	0.0	0150	2.49		Smooth surfaces n= 0.011 P2= 2.80" Shallow Concentrated Flow, Paved Kv= 20.3 fps			
	4.4	500) To	tal	•					

Subcatchment NL10: Proposed North Lot Area 1



Page 105

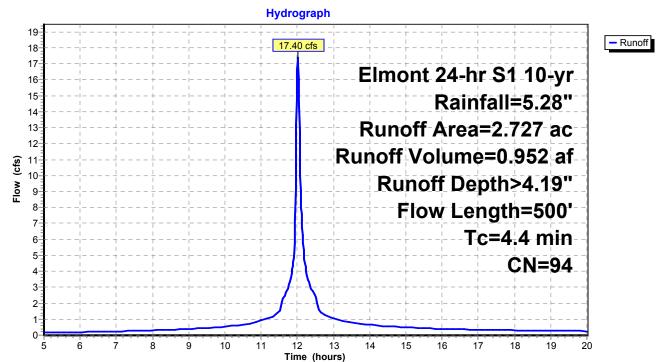
Summary for Subcatchment NL2: Proposed North Lot Area 1

Runoff = 17.40 cfs @ 12.02 hrs, Volume= 0.952 af, Depth> 4.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

	Area	(ac) (CN De	scription					
*	2.	357	98 Pa	Pavement					
	0.370 68			<50% Grass cover, Poor, HSG A					
	2.	727	94 We	ighted Ave	rage				
0.370 13.57% Pervious Area									
2.357 86.43% Impervious Area									
	Тс	Length			Capacity	Description			
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
	3.1	300	0.0200	1.60		Sheet Flow, 25			
						Smooth surfaces n= 0.011 P2= 2.80"			
	1.3	200	0.0150	2.49		Shallow Concentrated Flow,			
						Paved Kv= 20.3 fps			
	4.4	500	Total						

Subcatchment NL2: Proposed North Lot Area 1



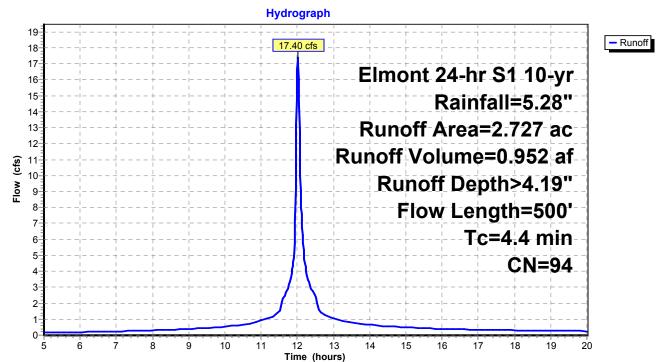
Summary for Subcatchment NL3: Proposed North Lot Area 1

Runoff = 17.40 cfs @ 12.02 hrs, Volume= 0.952 af, Depth> 4.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

	Area	(ac)	CN	Desc	cription				
*	2.357 98 Pavement								
	0.370 68			<50% Grass cover, Poor, HSG A					
	2.727 94 Weighted Average								
	0.370 13.57% Pervious Area								
2.357 86.43% Impervious Area						ious Area			
	Tc (min)	Length (feet		lope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description		
	3.1	300	0.0	200	1.60		Sheet Flow, 25		
	1.3	200	0.0	0150	2.49		Smooth surfaces n= 0.011 P2= 2.80" Shallow Concentrated Flow, Paved Kv= 20.3 fps		
	4.4	500) To	tal	•				

Subcatchment NL3: Proposed North Lot Area 1



Page 107

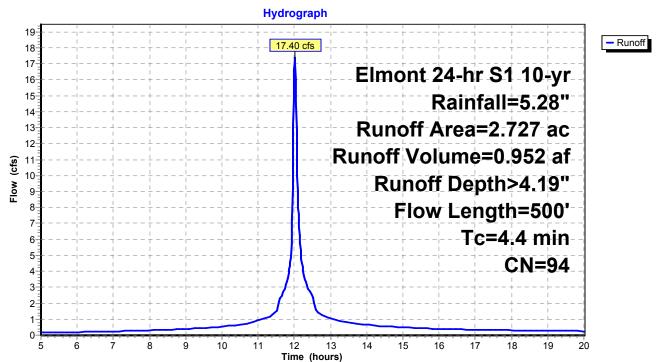
Summary for Subcatchment NL4: Proposed North Lot Area 1

Runoff = 17.40 cfs @ 12.02 hrs, Volume= 0.952 af, Depth> 4.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

	Area	(ac)	CN	Desc	cription				
*	2.357 98 Pavement								
	0.370 68			<50% Grass cover, Poor, HSG A					
	2.727 94 Weighted Average								
	0.370 13.57% Pervious Area								
2.357 86.43% Impervious Area						ious Area			
	Tc (min)	Length (feet		lope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description		
	3.1	300	0.0	200	1.60		Sheet Flow, 25		
	1.3	200	0.0	0150	2.49		Smooth surfaces n= 0.011 P2= 2.80" Shallow Concentrated Flow, Paved Kv= 20.3 fps		
	4.4	500) To	tal	•				

Subcatchment NL4: Proposed North Lot Area 1



Page 108

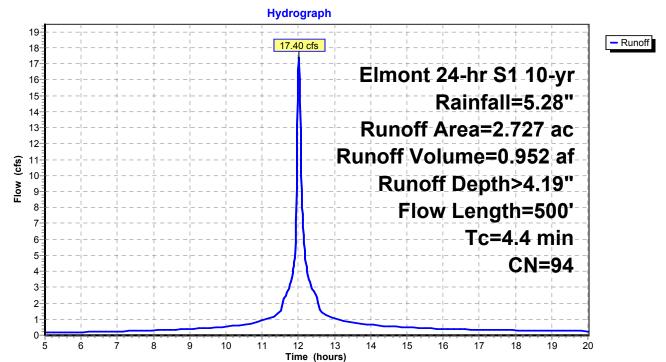
Summary for Subcatchment NL5: Proposed North Lot Area 1

Runoff = 17.40 cfs @ 12.02 hrs, Volume= 0.952 af, Depth> 4.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

	Area	(ac)	CN	Desc	cription				
*	2.357 98 Pavement								
	0.370 68			<50% Grass cover, Poor, HSG A					
	2.727 94 Weighted Average								
	0.370 13.57% Pervious Area								
2.357 86.43% Impervious Area						ious Area			
	Tc (min)	Length (feet		lope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description		
	3.1	300	0.0	200	1.60		Sheet Flow, 25		
	1.3	200	0.0	0150	2.49		Smooth surfaces n= 0.011 P2= 2.80" Shallow Concentrated Flow, Paved Kv= 20.3 fps		
	4.4	500) To	tal	•				

Subcatchment NL5: Proposed North Lot Area 1



Page 109

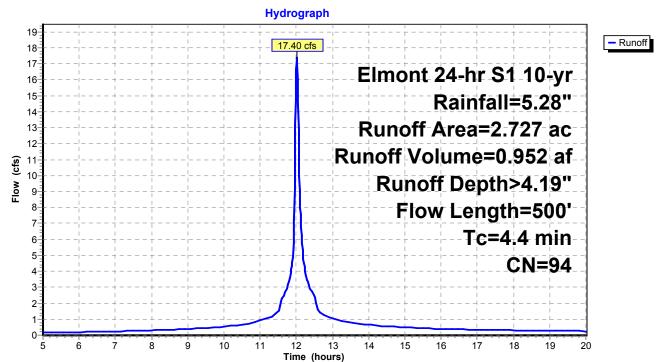
Summary for Subcatchment NL6: Proposed North Lot Area 1

Runoff = 17.40 cfs @ 12.02 hrs, Volume= 0.952 af, Depth> 4.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

	Area	(ac)	CN	Desc	cription				
*	2.357 98 Pavement								
	0.370 68			<50% Grass cover, Poor, HSG A					
	2.727 94 Weighted Average								
	0.370 13.57% Pervious Area								
2.357 86.43% Impervious Area						ious Area			
	Tc (min)	Length (feet		lope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description		
	3.1	300	0.0	200	1.60		Sheet Flow, 25		
	1.3	200	0.0	0150	2.49		Smooth surfaces n= 0.011 P2= 2.80" Shallow Concentrated Flow, Paved Kv= 20.3 fps		
	4.4	500) To	tal	•				

Subcatchment NL6: Proposed North Lot Area 1



Page 110

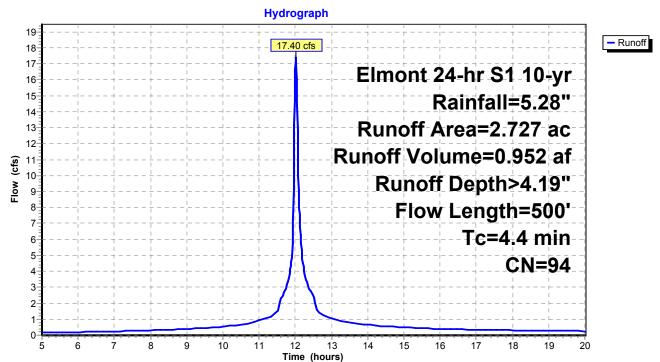
Summary for Subcatchment NL7: Proposed North Lot Area 1

Runoff = 17.40 cfs @ 12.02 hrs, Volume= 0.952 af, Depth> 4.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

_	Area	(ac)	CN	Desc	cription					
*	* 2.357 98 Pavement									
	0.370 68			<50%	<50% Grass cover, Poor, HSG A					
2.727 94 Weighted Average						age				
0.370 13.57% Pervious Are						us Area				
	2.	357		86.4	86.43% Impervious Area					
	_									
	Tc	Lengt		Slope	Velocity	Capacity	Description			
	(min)	(feet	.)	(ft/ft)	(ft/sec)	(cfs)				
	3.1	30	0.0	0200	1.60		Sheet Flow, 25			
							Smooth surfaces n= 0.011 P2= 2.80"			
	1.3	20	0.0	0150	2.49		Shallow Concentrated Flow,			
							Paved Kv= 20.3 fps			
	4.4	50	0 Tc	otal						

Subcatchment NL7: Proposed North Lot Area 1



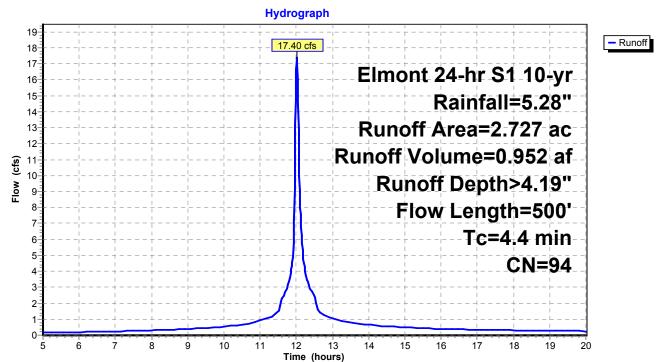
Summary for Subcatchment NL8: Proposed North Lot Area 1

Runoff = 17.40 cfs @ 12.02 hrs, Volume= 0.952 af, Depth> 4.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

	Area	(ac)	CN	Desc	cription				
*	2.357 98 Pavement								
	0.370 68			<50% Grass cover, Poor, HSG A					
	2.727 94 Weighted Average								
	0.370 13.57% Pervious Area								
2.357 86.43% Impervious Area						ious Area			
	Tc (min)	Length (feet		lope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description		
	3.1	300	0.0	200	1.60		Sheet Flow, 25		
	1.3	200	0.0	0150	2.49		Smooth surfaces n= 0.011 P2= 2.80" Shallow Concentrated Flow, Paved Kv= 20.3 fps		
	4.4	500) To	tal	•				

Subcatchment NL8: Proposed North Lot Area 1



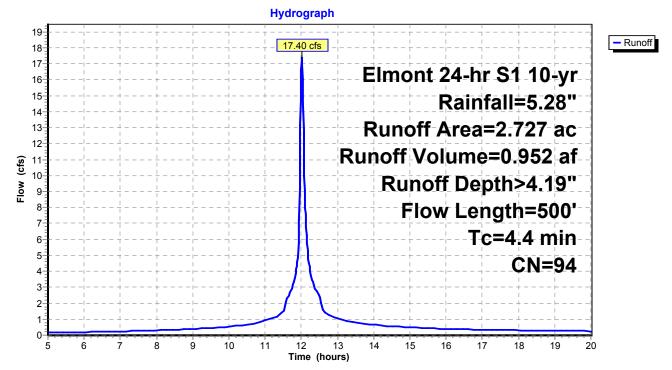
Summary for Subcatchment NL9: Proposed North Lot Area 1

Runoff = 17.40 cfs @ 12.02 hrs, Volume= 0.952 af, Depth> 4.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 10-yr Rainfall=5.28"

	Area	(ac)	CN	Desc	cription		
*	2.	357	98	Pave	ement		
	0.	370	68	<50%	% Grass co	over, Poor,	HSG A
	2.	727	94	Weig	hted Aver	age	
	0.	370		13.5	7% Pervio	us Area	
	2.	357		86.4	3% Imper\	ious Area	
	Tc (min)	Length (feet		lope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	3.1	300	0.0	200	1.60		Sheet Flow, 25
	1.3	200	0.0	0150	2.49		Smooth surfaces n= 0.011 P2= 2.80" Shallow Concentrated Flow, Paved Kv= 20.3 fps
	4.4	500) To	tal	•		

Subcatchment NL9: Proposed North Lot Area 1



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Summary for Pond 1P: Drywell System 1 (9 @ 20' Eff Depth)

2.727 ac, 86.43% Impervious, Inflow Depth = 2.49" for 10-yr event Inflow Area =

Inflow 16.95 cfs @ 12.02 hrs, Volume= 0.565 af

0.565 af, Atten= 85%, Lag= 21.3 min 2.57 cfs @ 12.38 hrs, Volume= Outflow

Discarded = 2.57 cfs @ 12.38 hrs, Volume= 0.565 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 67.09' @ 12.38 hrs Surf.Area= 0.032 ac Storage= 0.259 af

Plug-Flow detention time= 48.8 min calculated for 0.565 af (100% of inflow) Center-of-Mass det. time= 48.7 min (781.0 - 732.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

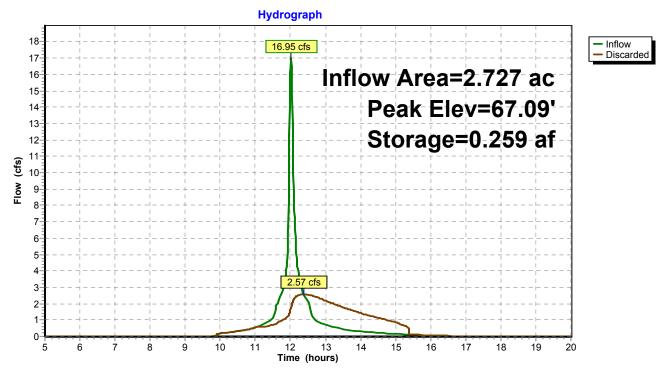
Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=2.57 cfs @ 12.38 hrs HW=67.08' (Free Discharge) 1=Exfiltration (Exfiltration Controls 2.57 cfs)

Page 114

Pond 1P: Drywell System 1 (9 @ 20' Eff Depth)



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Page 115

Summary for Pond 2P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 4.19" for 10-yr event

Inflow = 17.40 cfs @ 12.02 hrs, Volume= 0.952 af

Outflow = 17.33 cfs @ 12.02 hrs, Volume= 0.923 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.37 cfs @ 12.02 hrs, Volume= 0.358 af Primary = 16.95 cfs @ 12.02 hrs, Volume= 0.565 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.94' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.042 af

Plug-Flow detention time= 27.3 min calculated for 0.923 af (97% of inflow) Center-of-Mass det. time= 14.2 min (759.5 - 745.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

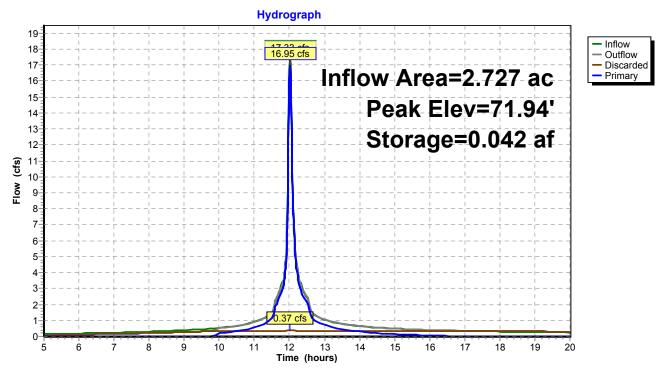
Discarded OutFlow Max=0.37 cfs @ 12.02 hrs HW=71.93' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.37 cfs)

Primary OutFlow Max=16.91 cfs @ 12.02 hrs HW=71.93' TW=62.46' (Dynamic Tailwater) 2=Culvert (Barrel Controls 16.91 cfs @ 4.84 fps)

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Page 116

Pond 2P: Inlet Drywell



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Page 117

Summary for Pond 3P: Drywell System 3 (9 @ 20' Eff Depth)

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth = 2.49" for 10-yr event

Inflow = 16.95 cfs @ 12.02 hrs, Volume= 0.565 af

Outflow = 2.57 cfs @ 12.38 hrs, Volume= 0.565 af, Atten= 85%, Lag= 21.3 min

Discarded = 2.57 cfs @ 12.38 hrs, Volume= 0.565 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 67.09' @ 12.38 hrs Surf.Area= 0.032 ac Storage= 0.259 af

Plug-Flow detention time= 48.8 min calculated for 0.565 af (100% of inflow) Center-of-Mass det. time= 48.7 min (781.0 - 732.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

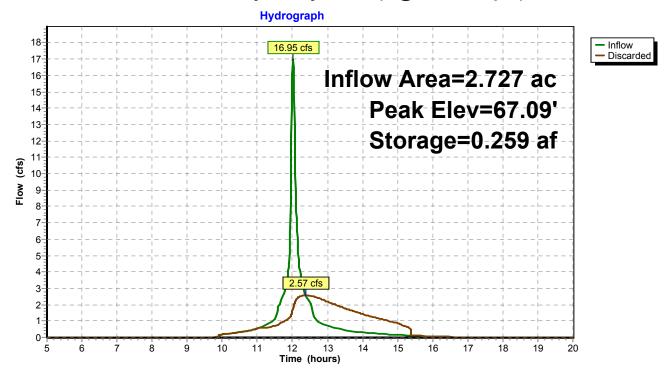
9.802 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=2.57 cfs @ 12.38 hrs HW=67.08' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 2.57 cfs)

Pond 3P: Drywell System 3 (9 @ 20' Eff Depth)



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Page 119

Summary for Pond 4P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 4.19" for 10-yr event

Inflow = 17.40 cfs @ 12.02 hrs, Volume= 0.952 af

Outflow = 17.33 cfs @ 12.02 hrs, Volume= 0.923 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.37 cfs @ 12.02 hrs, Volume= 0.358 af Primary = 16.95 cfs @ 12.02 hrs, Volume= 0.565 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.94' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.042 af

Plug-Flow detention time= 27.3 min calculated for 0.923 af (97% of inflow) Center-of-Mass det. time= 14.2 min (759.5 - 745.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
0.000	0.000	0.000	0.000
0.001	0.000	0.000	0.001
1.000	0.344	0.345	1.000
2.000	1.471	1.816	2.000
15.000	7.492	9.308	15.000
	0.000 0.001 1.000 2.000	(acres) (acre-feet) 0.000 0.000 0.001 0.000 1.000 0.344 2.000 1.471	(acres) (acre-feet) (acre-feet) 0.000 0.000 0.000 0.001 0.000 0.000 1.000 0.344 0.345 2.000 1.471 1.816

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

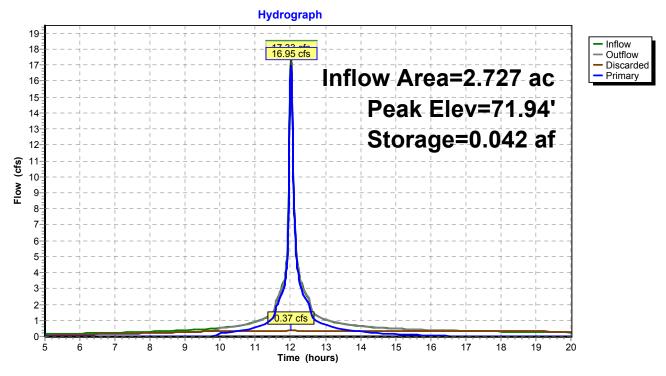
Discarded OutFlow Max=0.37 cfs @ 12.02 hrs HW=71.93' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.37 cfs)

Primary OutFlow Max=16.91 cfs @ 12.02 hrs HW=71.93' TW=62.46' (Dynamic Tailwater) 2=Culvert (Barrel Controls 16.91 cfs @ 4.84 fps)

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Page 120

Pond 4P: Inlet Drywell



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Page 121

Summary for Pond 6P: Drywell System 2 (9 @ 20' Eff Depth)

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth = 2.49" for 10-yr event

Inflow = 16.95 cfs @ 12.02 hrs, Volume= 0.565 af

Outflow = 2.57 cfs @ 12.38 hrs, Volume= 0.565 af, Atten= 85%, Lag= 21.3 min

Discarded = 2.57 cfs @ 12.38 hrs, Volume= 0.565 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 67.09' @ 12.38 hrs Surf.Area= 0.032 ac Storage= 0.259 af

Plug-Flow detention time= 48.8 min calculated for 0.565 af (100% of inflow) Center-of-Mass det. time= 48.7 min (781.0 - 732.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

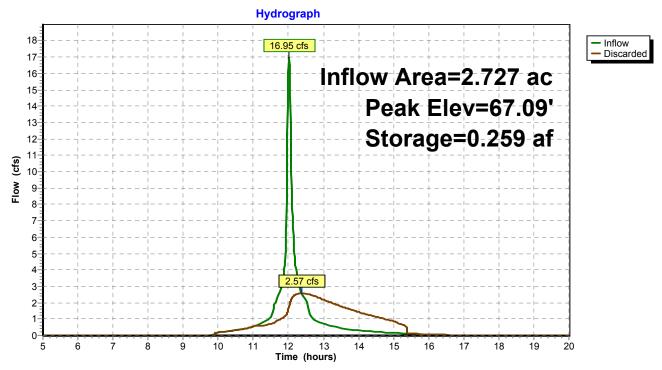
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=2.57 cfs @ 12.38 hrs HW=67.08' (Free Discharge) 1=Exfiltration (Exfiltration Controls 2.57 cfs)

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Page 122

Pond 6P: Drywell System 2 (9 @ 20' Eff Depth)



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Page 123

Summary for Pond 7P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 4.19" for 10-yr event

Inflow = 17.40 cfs @ 12.02 hrs, Volume= 0.952 af

Outflow = 17.33 cfs @ 12.02 hrs, Volume= 0.923 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.37 cfs @ 12.02 hrs, Volume= 0.358 af Primary = 16.95 cfs @ 12.02 hrs, Volume= 0.565 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.94' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.042 af

Plug-Flow detention time= 27.3 min calculated for 0.923 af (97% of inflow) Center-of-Mass det. time= 14.2 min (759.5 - 745.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

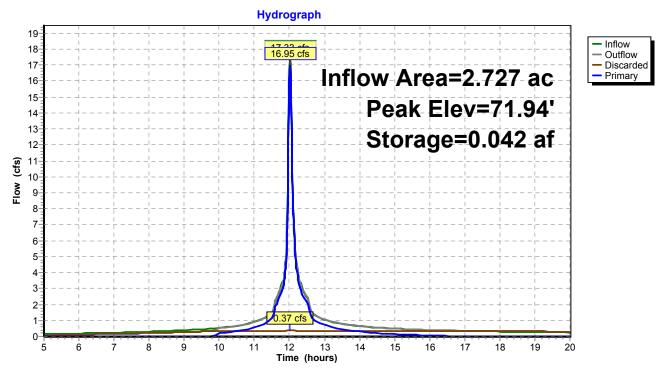
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.37 cfs @ 12.02 hrs HW=71.93' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.37 cfs)

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Page 124

Pond 7P: Inlet Drywell



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Page 125

Summary for Pond 8P: Drywell System 4 (9 @ 20' Eff Depth)

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth = 2.49" for 10-yr event

Inflow = 16.95 cfs @ 12.02 hrs, Volume= 0.565 af

Outflow = 2.57 cfs @ 12.38 hrs, Volume= 0.565 af, Atten= 85%, Lag= 21.3 min

Discarded = 2.57 cfs @ 12.38 hrs, Volume= 0.565 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 67.09' @ 12.38 hrs Surf.Area= 0.032 ac Storage= 0.259 af

Plug-Flow detention time= 48.8 min calculated for 0.565 af (100% of inflow) Center-of-Mass det. time= 48.7 min (781.0 - 732.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

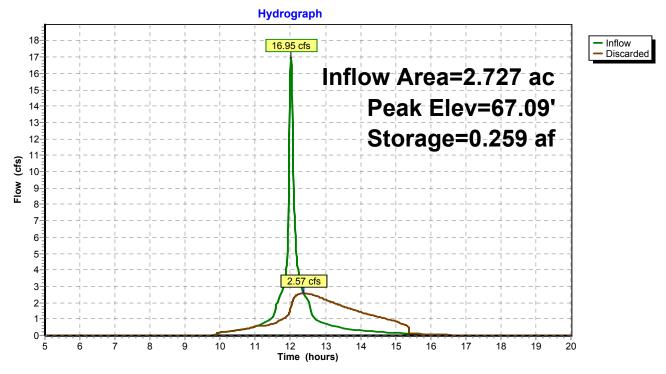
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=2.57 cfs @ 12.38 hrs HW=67.08' (Free Discharge) 1=Exfiltration (Exfiltration Controls 2.57 cfs)

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Page 126

Pond 8P: Drywell System 4 (9 @ 20' Eff Depth)



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Page 127

Summary for Pond 9P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 4.19" for 10-yr event

Inflow = 17.40 cfs @ 12.02 hrs, Volume= 0.952 af

Outflow = 17.33 cfs @ 12.02 hrs, Volume= 0.923 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.37 cfs @ 12.02 hrs, Volume= 0.358 af Primary = 16.95 cfs @ 12.02 hrs, Volume= 0.565 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.94' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.042 af

Plug-Flow detention time= 27.3 min calculated for 0.923 af (97% of inflow) Center-of-Mass det. time= 14.2 min (759.5 - 745.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

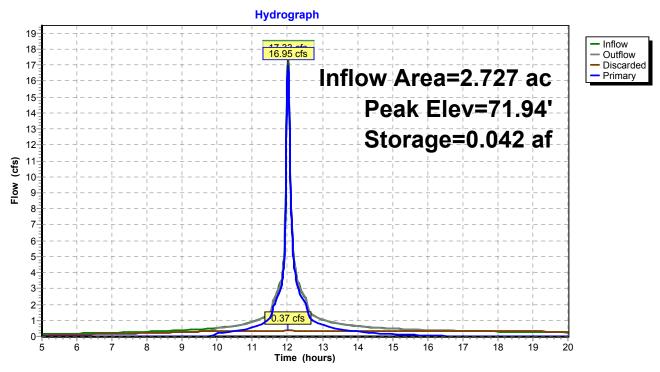
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.37 cfs @ 12.02 hrs HW=71.93' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.37 cfs)

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Page 128

Pond 9P: Inlet Drywell



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Page 129

Summary for Pond 11P: Drywell System 6 (9 @ 20' Eff Depth)

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth = 2.49" for 10-yr event

Inflow = 16.95 cfs @ 12.02 hrs, Volume= 0.565 af

Outflow = 2.57 cfs @ 12.38 hrs, Volume= 0.565 af, Atten= 85%, Lag= 21.3 min

Discarded = 2.57 cfs @ 12.38 hrs, Volume= 0.565 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 67.09' @ 12.38 hrs Surf.Area= 0.032 ac Storage= 0.259 af

Plug-Flow detention time= 48.8 min calculated for 0.565 af (100% of inflow) Center-of-Mass det. time= 48.7 min (781.0 - 732.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

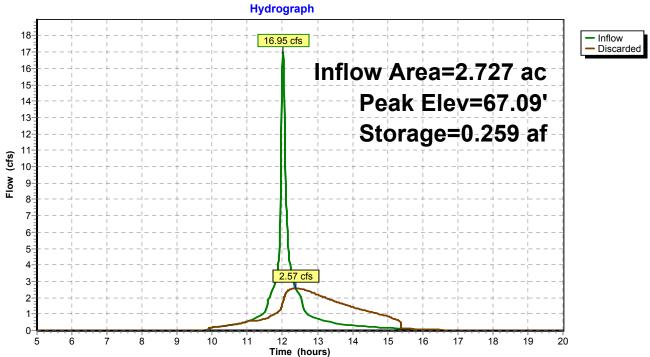
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=2.57 cfs @ 12.38 hrs HW=67.08' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 2.57 cfs)

Page 130

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Page 131

Summary for Pond 12P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 4.19" for 10-yr event

Inflow = 17.40 cfs @ 12.02 hrs, Volume= 0.952 af

Outflow = 17.33 cfs @ 12.02 hrs, Volume= 0.923 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.37 cfs @ 12.02 hrs, Volume= 0.358 af Primary = 16.95 cfs @ 12.02 hrs, Volume= 0.565 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.94' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.042 af

Plug-Flow detention time= 27.3 min calculated for 0.923 af (97% of inflow) Center-of-Mass det. time= 14.2 min (759.5 - 745.2)

Avail.Storage Storage Description Volume Invert 55.00' #1 0.009 af 14.00'D x 22.00'H Vertical Cone/Cylinder $0.078 \text{ af Overall} - 0.052 \text{ af Embedded} = 0.026 \text{ af } \times 33.0\% \text{ Voids}$ #2 57.00' 0.046 af 11.33'D x 20.00'H Vertical Cone/CylinderInside #1 0.052 af Overall - 4.0" Wall Thickness = 0.046 af #3 77.00' 9.308 af Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
0.000	0.000	0.000	0.000
0.001	0.000	0.000	0.001
1.000	0.344	0.345	1.000
2.000	1.471	1.816	2.000
15.000	7.492	9.308	15.000
	0.000 0.001 1.000 2.000	(acres) (acre-feet) 0.000 0.000 0.001 0.000 1.000 0.344 2.000 1.471	(acres) (acre-feet) (acre-feet) 0.000 0.000 0.000 0.001 0.000 0.000 1.000 0.344 0.345 2.000 1.471 1.816

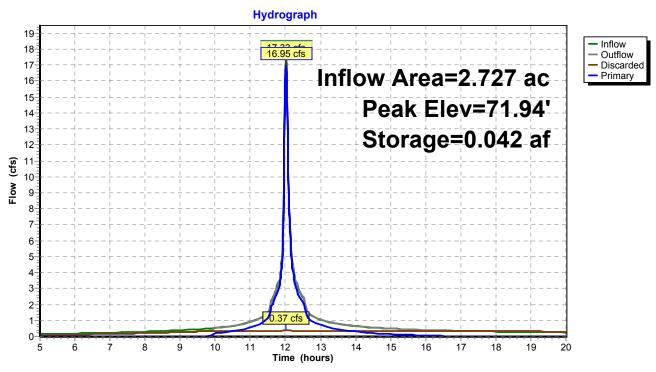
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.37 cfs @ 12.02 hrs HW=71.93' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.37 cfs)

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Page 132

Pond 12P: Inlet Drywell



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Page 133

Summary for Pond 14P: Drywell System 7 (9 @ 20' Eff Depth)

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth = 2.49" for 10-yr event

Inflow = 16.95 cfs @ 12.02 hrs, Volume= 0.565 af

Outflow = 2.57 cfs @ 12.38 hrs, Volume= 0.565 af, Atten= 85%, Lag= 21.3 min

Discarded = 2.57 cfs @ 12.38 hrs, Volume= 0.565 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 67.09' @ 12.38 hrs Surf.Area= 0.032 ac Storage= 0.259 af

Plug-Flow detention time= 48.8 min calculated for 0.565 af (100% of inflow) Center-of-Mass det. time= 48.7 min (781.0 - 732.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81 00	15 000	7 492	9 308	15 000

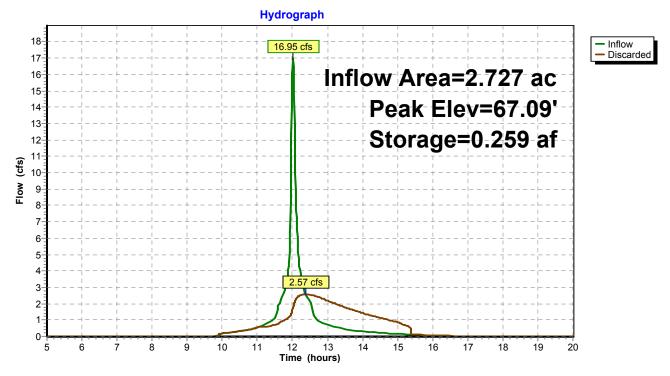
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=2.57 cfs @ 12.38 hrs HW=67.08' (Free Discharge) 1=Exfiltration (Exfiltration Controls 2.57 cfs)

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Page 134

Pond 14P: Drywell System 7 (9 @ 20' Eff Depth)



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Page 135

Summary for Pond 15P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 4.19" for 10-yr event

Inflow = 17.40 cfs @ 12.02 hrs, Volume= 0.952 af

Outflow = 17.33 cfs @ 12.02 hrs, Volume= 0.923 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.37 cfs @ 12.02 hrs, Volume= 0.358 af Primary = 16.95 cfs @ 12.02 hrs, Volume= 0.565 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.94' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.042 af

Plug-Flow detention time= 27.3 min calculated for 0.923 af (97% of inflow) Center-of-Mass det. time= 14.2 min (759.5 - 745.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
0.000	0.000	0.000	0.000
0.001	0.000	0.000	0.001
1.000	0.344	0.345	1.000
2.000	1.471	1.816	2.000
15.000	7.492	9.308	15.000
	0.000 0.001 1.000 2.000	(acres) (acre-feet) 0.000 0.000 0.001 0.000 1.000 0.344 2.000 1.471	(acres) (acre-feet) (acre-feet) 0.000 0.000 0.000 0.001 0.000 0.000 1.000 0.344 0.345 2.000 1.471 1.816

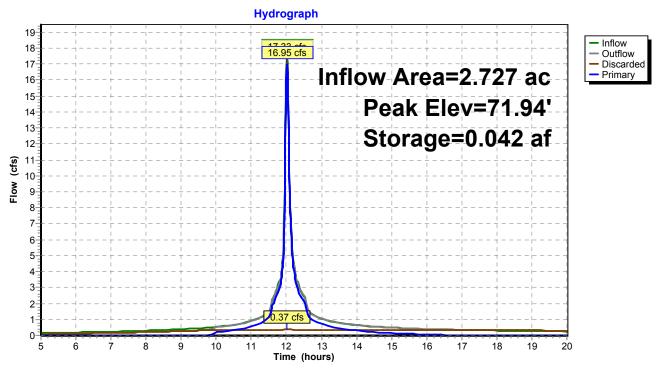
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
			L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.37 cfs @ 12.02 hrs HW=71.93' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.37 cfs)

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Page 136

Pond 15P: Inlet Drywell



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Summary for Pond 18P: Drywell System 8 (9 @ 20' Eff Depth)

2.727 ac, 86.43% Impervious, Inflow Depth = 2.49" for 10-yr event Inflow Area =

Inflow 16.95 cfs @ 12.02 hrs, Volume= 0.565 af

2.57 cfs @ 12.38 hrs, Volume= 0.565 af, Atten= 85%, Lag= 21.3 min Outflow

Discarded = 2.57 cfs @ 12.38 hrs, Volume= 0.565 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 67.09' @ 12.38 hrs Surf.Area= 0.032 ac Storage= 0.259 af

Plug-Flow detention time= 48.8 min calculated for 0.565 af (100% of inflow) Center-of-Mass det. time= 48.7 min (781.0 - 732.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

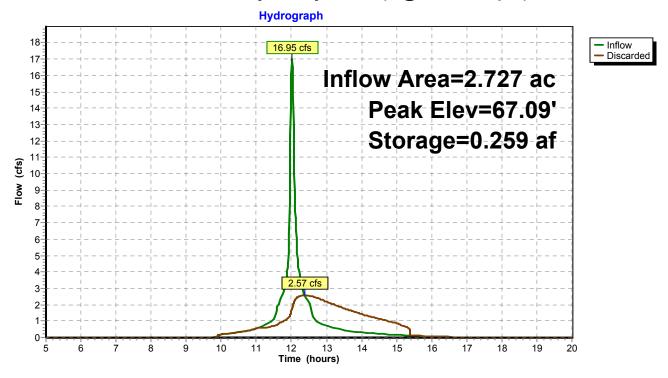
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=2.57 cfs @ 12.38 hrs HW=67.08' (Free Discharge) 1=Exfiltration (Exfiltration Controls 2.57 cfs)

Page 138

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Pond 18P: Drywell System 8 (9 @ 20' Eff Depth)



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Page 139

Summary for Pond 19P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 4.19" for 10-yr event

Inflow = 17.40 cfs @ 12.02 hrs, Volume= 0.952 af

Outflow = 17.33 cfs @ 12.02 hrs, Volume= 0.923 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.37 cfs @ 12.02 hrs, Volume= 0.358 af Primary = 16.95 cfs @ 12.02 hrs, Volume= 0.565 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.94' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.042 af

Plug-Flow detention time= 27.3 min calculated for 0.923 af (97% of inflow) Center-of-Mass det. time= 14.2 min (759.5 - 745.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

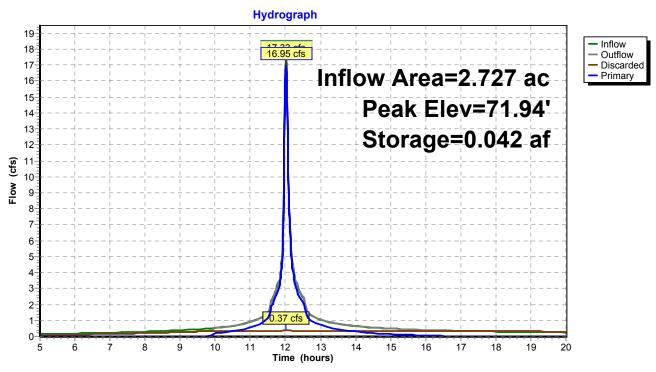
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.37 cfs @ 12.02 hrs HW=71.93' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.37 cfs)

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Page 140

Pond 19P: Inlet Drywell



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Page 141

Summary for Pond 21P: Drywell System 9 @ 20' Eff Depth)

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth = 2.49" for 10-yr event

Inflow = 16.95 cfs @ 12.02 hrs, Volume= 0.565 af

Outflow = 2.57 cfs @ 12.38 hrs, Volume= 0.565 af, Atten= 85%, Lag= 21.3 min

Discarded = 2.57 cfs @ 12.38 hrs, Volume= 0.565 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 67.09' @ 12.38 hrs Surf.Area= 0.032 ac Storage= 0.259 af

Plug-Flow detention time= 48.8 min calculated for 0.565 af (100% of inflow) Center-of-Mass det. time= 48.7 min (781.0 - 732.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

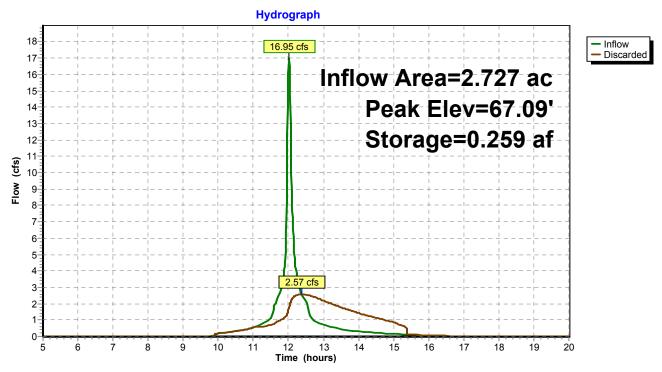
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=2.57 cfs @ 12.38 hrs HW=67.08' (Free Discharge) 1=Exfiltration (Exfiltration Controls 2.57 cfs)

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Page 142

Pond 21P: Drywell System 9 @ 20' Eff Depth)



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Page 143

Summary for Pond 22P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 4.19" for 10-yr event

Inflow = 17.40 cfs @ 12.02 hrs, Volume= 0.952 af

Outflow = 17.33 cfs @ 12.02 hrs, Volume= 0.923 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.37 cfs @ 12.02 hrs, Volume= 0.358 af Primary = 16.95 cfs @ 12.02 hrs, Volume= 0.565 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.94' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.042 af

Plug-Flow detention time= 27.3 min calculated for 0.923 af (97% of inflow) Center-of-Mass det. time= 14.2 min (759.5 - 745.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

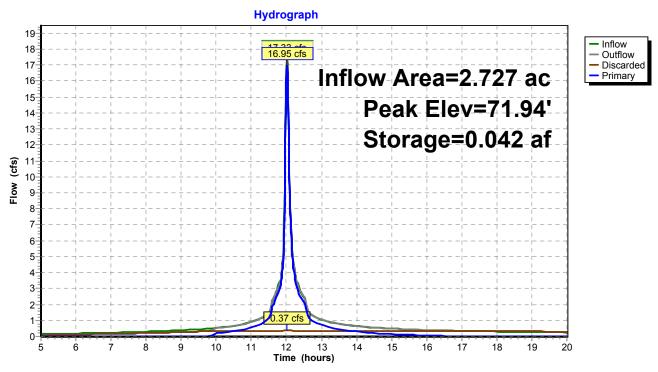
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.37 cfs @ 12.02 hrs HW=71.93' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.37 cfs)

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Page 144

Pond 22P: Inlet Drywell



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Page 145

Summary for Pond 24P: Drywell System 5 (9 @ 20' Eff Depth)

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth = 2.49" for 10-yr event

Inflow = 16.95 cfs @ 12.02 hrs, Volume= 0.565 af

Outflow = 2.57 cfs @ 12.38 hrs, Volume= 0.565 af, Atten= 85%, Lag= 21.3 min

Discarded = 2.57 cfs @ 12.38 hrs, Volume= 0.565 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 67.09' @ 12.38 hrs Surf.Area= 0.032 ac Storage= 0.259 af

Plug-Flow detention time= 48.8 min calculated for 0.565 af (100% of inflow) Center-of-Mass det. time= 48.7 min (781.0 - 732.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

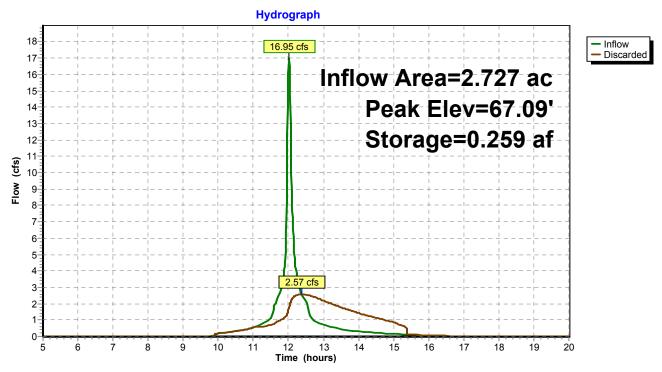
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=2.57 cfs @ 12.38 hrs HW=67.08' (Free Discharge) 1=Exfiltration (Exfiltration Controls 2.57 cfs)

Page 146

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Pond 24P: Drywell System 5 (9 @ 20' Eff Depth)



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Page 147

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Summary for Pond 25P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 4.19" for 10-yr event

Inflow = 17.40 cfs @ 12.02 hrs, Volume= 0.952 af

Outflow = 17.33 cfs @ 12.02 hrs, Volume= 0.923 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.37 cfs @ 12.02 hrs, Volume= 0.358 af Primary = 16.95 cfs @ 12.02 hrs, Volume= 0.565 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.94' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.042 af

Plug-Flow detention time= 27.3 min calculated for 0.923 af (97% of inflow) Center-of-Mass det. time= 14.2 min (759.5 - 745.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

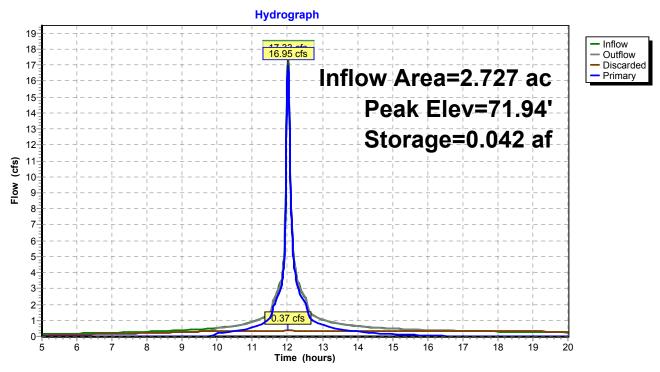
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.37 cfs @ 12.02 hrs HW=71.93' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.37 cfs)

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Page 148

Pond 25P: Inlet Drywell



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Summary for Pond 27P: Drywell System 10 (9 @ 20' Eff Depth)

2.727 ac, 86.43% Impervious, Inflow Depth = 2.49" for 10-yr event Inflow Area =

Inflow 16.95 cfs @ 12.02 hrs, Volume= 0.565 af

2.57 cfs @ 12.38 hrs, Volume= 0.565 af, Atten= 85%, Lag= 21.3 min Outflow

Discarded = 2.57 cfs @ 12.38 hrs, Volume= 0.565 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 67.09' @ 12.38 hrs Surf.Area= 0.032 ac Storage= 0.259 af

Plug-Flow detention time= 48.8 min calculated for 0.565 af (100% of inflow) Center-of-Mass det. time= 48.7 min (781.0 - 732.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

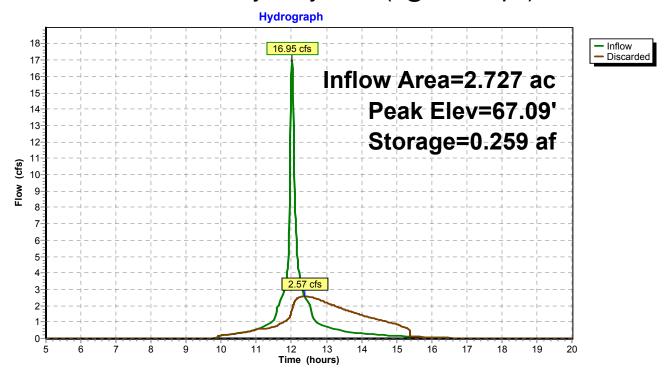
Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=2.57 cfs @ 12.38 hrs HW=67.08' (Free Discharge) 1=Exfiltration (Exfiltration Controls 2.57 cfs)

Page 150

Pond 27P: Drywell System 10 (9 @ 20' Eff Depth)



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Page 151

Summary for Pond 28P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 4.19" for 10-yr event

Inflow = 17.40 cfs @ 12.02 hrs, Volume= 0.952 af

Outflow = 17.33 cfs @ 12.02 hrs, Volume= 0.923 af, Atten= 0%, Lag= 0.2 min

Discarded = 0.37 cfs @ 12.02 hrs, Volume= 0.358 af Primary = 16.95 cfs @ 12.02 hrs, Volume= 0.565 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 71.94' @ 12.02 hrs Surf.Area= 0.004 ac Storage= 0.042 af

Plug-Flow detention time= 27.3 min calculated for 0.923 af (97% of inflow) Center-of-Mass det. time= 14.2 min (759.5 - 745.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

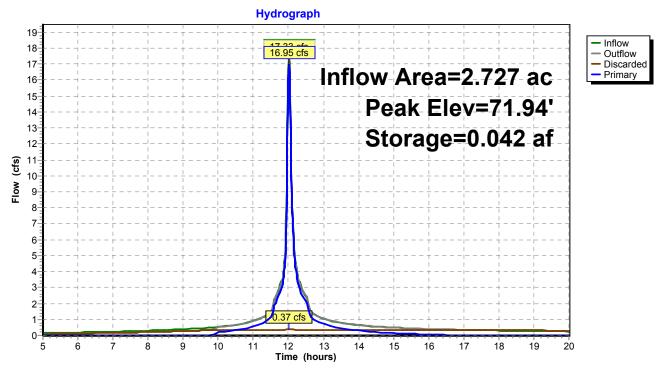
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
			L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.37 cfs @ 12.02 hrs HW=71.93' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.37 cfs)

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Page 152

Pond 28P: Inlet Drywell



Page 153

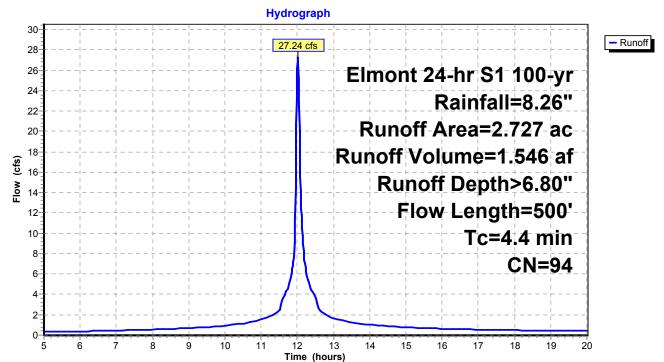
Summary for Subcatchment NL1: Proposed North Lot Area 1

Runoff = 27.24 cfs @ 12.02 hrs, Volume= 1.546 af, Depth> 6.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

	Area	(ac)	CN	Desc	cription		
*	2.	357	98	Pave	ement		
	0.	370	68	<50%	% Grass co	over, Poor,	HSG A
	2.	727	94	Weig	hted Aver	age	
	0.	370		13.5	7% Pervio	us Area	
	2.357 86.43% Impervious Area				3% Imper\	ious Area	
	Tc (min)	Length (feet		lope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	3.1	300	0.0	200	1.60		Sheet Flow, 25
	1.3	200	0.0	0150	2.49		Smooth surfaces n= 0.011 P2= 2.80" Shallow Concentrated Flow, Paved Kv= 20.3 fps
	4.4	500) To	tal	•		

Subcatchment NL1: Proposed North Lot Area 1



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Page 154

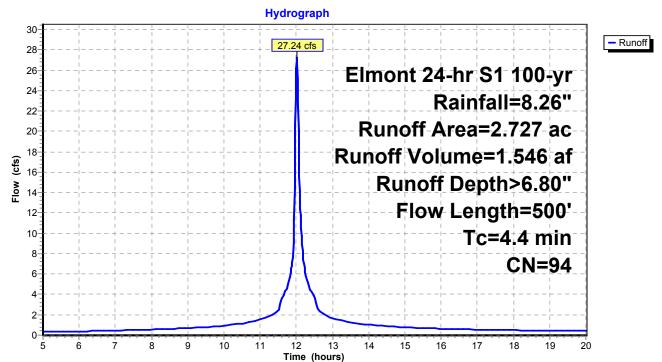
Summary for Subcatchment NL10: Proposed North Lot Area 1

Runoff = 27.24 cfs @ 12.02 hrs, Volume= 1.546 af, Depth> 6.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

	Area	(ac)	CN	Description						
*	2.	2.357 98		Pavement						
	0.	0.370 68		<50%	% Grass co	over, Poor,	HSG A			
	2.	727	94	Weig	hted Aver	age				
	0.370				13.57% Pervious Area					
	2.	357		86.4	3% Imper\	ious Area				
	Tc (min)	Length (feet		lope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description			
	3.1	300	0.0	200	1.60		Sheet Flow, 25			
	1.3	200	0.0	0150	2.49		Smooth surfaces n= 0.011 P2= 2.80" Shallow Concentrated Flow, Paved Kv= 20.3 fps			
	4.4	500) To	tal	•					

Subcatchment NL10: Proposed North Lot Area 1



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Page 155

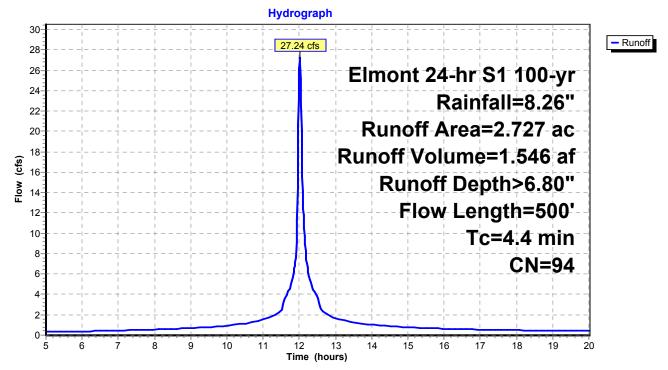
Summary for Subcatchment NL2: Proposed North Lot Area 1

Runoff = 27.24 cfs @ 12.02 hrs, Volume= 1.546 af, Depth> 6.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

	Area	(ac)	CN	Description						
*	2.	2.357 98		Pavement						
	0.	0.370 68		<50%	% Grass co	over, Poor,	HSG A			
	2.	727	94	Weig	hted Aver	age				
	0.370				13.57% Pervious Area					
	2.	357		86.4	3% Imper\	ious Area				
	Tc (min)	Length (feet		lope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description			
	3.1	300	0.0	200	1.60		Sheet Flow, 25			
	1.3	200	0.0	0150	2.49		Smooth surfaces n= 0.011 P2= 2.80" Shallow Concentrated Flow, Paved Kv= 20.3 fps			
	4.4	500) To	tal	•					

Subcatchment NL2: Proposed North Lot Area 1



Page 156

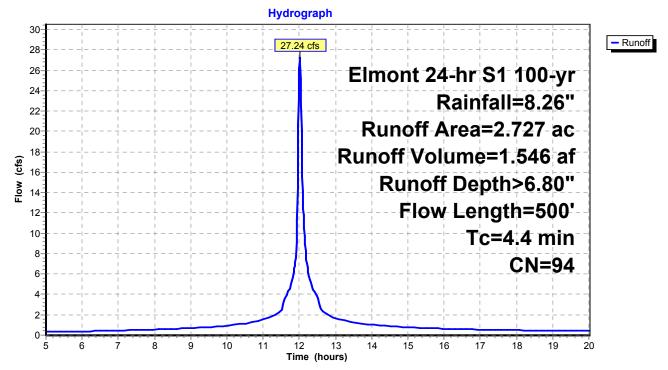
Summary for Subcatchment NL3: Proposed North Lot Area 1

Runoff = 27.24 cfs @ 12.02 hrs, Volume= 1.546 af, Depth> 6.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

	Area	(ac)	CN	Desc	cription		
*	2.	357	98	Pave	ement		
	0.	370	68	<50%	% Grass co	over, Poor,	HSG A
2.727 94 Weighted Average						age	
	0.	370		13.5	7% Pervio	us Area	
	2.	357		86.4	3% Imper\	ious Area	
	Tc (min)	Length (feet		lope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	3.1	300	0.0	200	1.60		Sheet Flow, 25
	1.3	200	0.0	0150	2.49		Smooth surfaces n= 0.011 P2= 2.80" Shallow Concentrated Flow, Paved Kv= 20.3 fps
	4.4	500) To	tal	•	·	

Subcatchment NL3: Proposed North Lot Area 1



Page 157

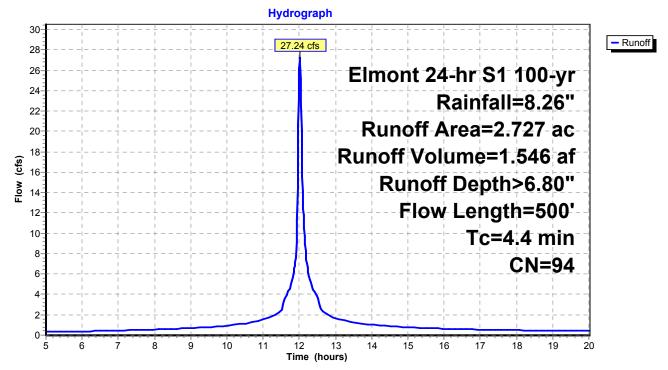
Summary for Subcatchment NL4: Proposed North Lot Area 1

Runoff = 27.24 cfs @ 12.02 hrs, Volume= 1.546 af, Depth> 6.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

	Area	(ac)	CN	Desc	cription		
*	2.	357	98	Pave	ement		
	0.	370	68	<50%	% Grass co	over, Poor,	HSG A
2.727 94 Weighted Average						age	
	0.	370		13.5	7% Pervio	us Area	
	2.	357		86.4	3% Imper\	ious Area	
	Tc (min)	Length (feet		lope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	3.1	300	0.0	200	1.60		Sheet Flow, 25
	1.3	200	0.0	0150	2.49		Smooth surfaces n= 0.011 P2= 2.80" Shallow Concentrated Flow, Paved Kv= 20.3 fps
	4.4	500) To	tal	•	·	

Subcatchment NL4: Proposed North Lot Area 1



Page 158

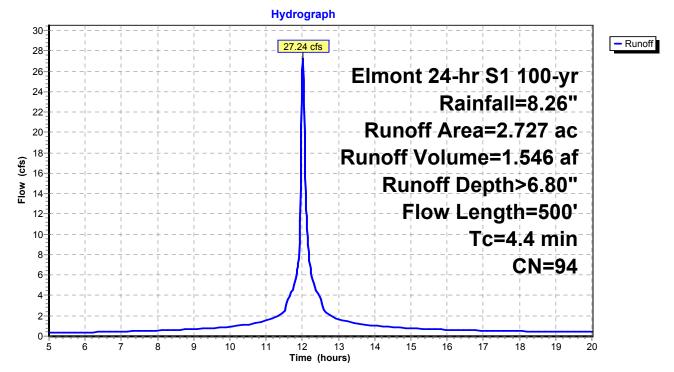
Summary for Subcatchment NL5: Proposed North Lot Area 1

Runoff = 27.24 cfs @ 12.02 hrs, Volume= 1.546 af, Depth> 6.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

_	Area	(ac)	CN	Desc	cription		
*	2.	357	98	Pave	ement		
	0.	370	68	<50%	% Grass co	over, Poor,	HSG A
2.727 94 Weighted Average					hted Aver	age	
0.370 13.57% Pervious Area				13.5	7% Pervio	us Area	
2.357 86.43% Impervious Area				86.4	3% Imper	ious Area	
	Тс	Length		lope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	3.1	300	0.0	0200	1.60		Sheet Flow, 25
							Smooth surfaces n= 0.011 P2= 2.80"
	1.3	200	0.0	0150	2.49		Shallow Concentrated Flow,
							Paved Kv= 20.3 fps
	4.4	500) To	tal			

Subcatchment NL5: Proposed North Lot Area 1



Page 159

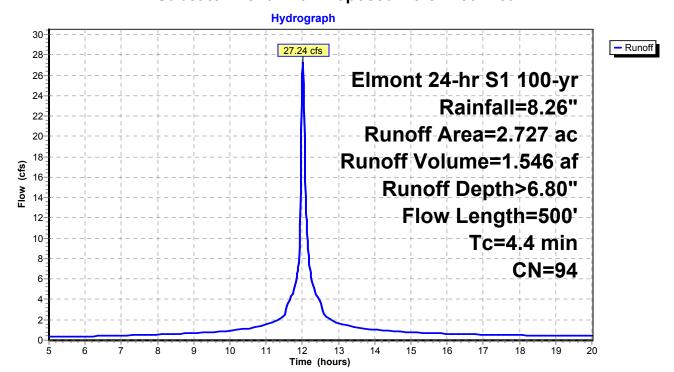
Summary for Subcatchment NL6: Proposed North Lot Area 1

Runoff = 27.24 cfs @ 12.02 hrs, Volume= 1.546 af, Depth> 6.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

Area (ac) CN Description * 2.357 98 Pavement						
* 2.357 98 Pavement				ement		
0.370 68 <50% Grass cover, Poor, H					over, Poor,	HSG A
2.727 94 Weighted Average						
0.370 13.57% Pervious Area						
2.357 86.43% Impervious Area					ious Area	
·						
	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	3.1	300	0.0200	1.60		Sheet Flow, 25
						Smooth surfaces n= 0.011 P2= 2.80"
	1.3	200	0.0150	2.49		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	4.4	500	Total			

Subcatchment NL6: Proposed North Lot Area 1



Page 160

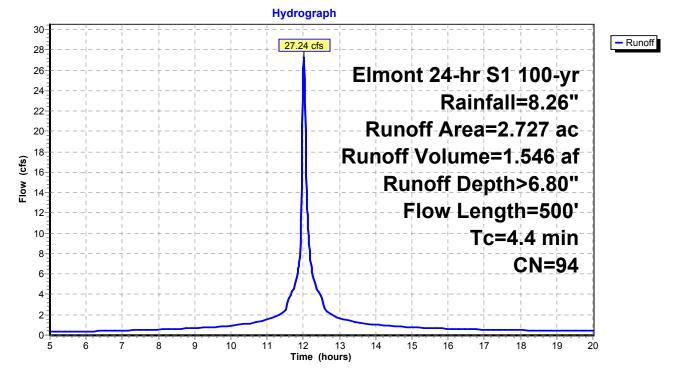
Summary for Subcatchment NL7: Proposed North Lot Area 1

Runoff = 27.24 cfs @ 12.02 hrs, Volume= 1.546 af, Depth> 6.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

_	Area	(ac) (CN Des	scription		
*	2.	357	98 Pa\	/ement		
0.370 68 <50% Grass cover, Poor, H					over, Poor,	HSG A
2.727 94 Weighted Average					age	
0.370 13.57% Pervious Area					us Area	
2.357 86.43% Impervious Area				43% Imper	vious Area	
	Tc	Length			Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	3.1	300	0.0200	1.60		Sheet Flow, 25
						Smooth surfaces n= 0.011 P2= 2.80"
	1.3	200	0.0150	2.49		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	4.4	500	Total			

Subcatchment NL7: Proposed North Lot Area 1



Page 161

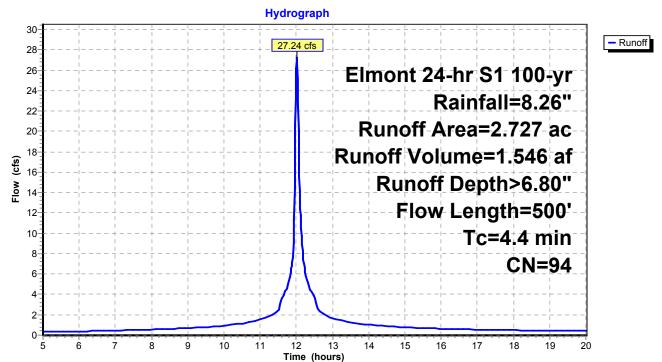
Summary for Subcatchment NL8: Proposed North Lot Area 1

Runoff = 27.24 cfs @ 12.02 hrs, Volume= 1.546 af, Depth> 6.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

_	Area	(ac)	CN	Desc	cription		
*	2.	357	98	Pave	ement		
	0.	370	68	<50%	% Grass co	over, Poor,	HSG A
	2.	727	94	Weig	ghted Aver	age	
	0.	370		13.5	7% Pervio	us Area	
	2.	357		86.4	3% Imperv	ious Area	
	_						
	Tc	Lengt		Slope	Velocity	Capacity	Description
	(min)	(feet	.)	(ft/ft)	(ft/sec)	(cfs)	
	3.1	30	0.0	0200	1.60		Sheet Flow, 25
							Smooth surfaces n= 0.011 P2= 2.80"
	1.3	20	0.0	0150	2.49		Shallow Concentrated Flow,
							Paved Kv= 20.3 fps
	4.4	50	0 Tc	otal			

Subcatchment NL8: Proposed North Lot Area 1



Page 162

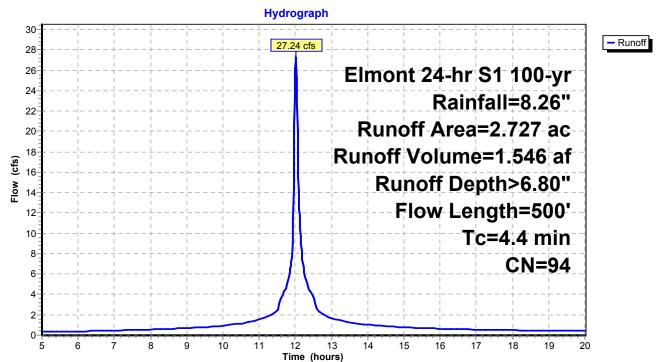
Summary for Subcatchment NL9: Proposed North Lot Area 1

Runoff = 27.24 cfs @ 12.02 hrs, Volume= 1.546 af, Depth> 6.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Elmont 24-hr S1 100-yr Rainfall=8.26"

	Area	(ac)	CN	Desc	cription		
*	2.	357	98	Pave	ement		
	0.	370	68	<50%	% Grass co	over, Poor,	HSG A
2.727 94 Weighted Average						age	
	0.	370		13.5	7% Pervio	us Area	
	2.	357		86.4	3% Imper\	ious Area	
	Tc (min)	Length (feet		lope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	3.1	300	0.0	200	1.60		Sheet Flow, 25
	1.3	200	0.0	0150	2.49		Smooth surfaces n= 0.011 P2= 2.80" Shallow Concentrated Flow, Paved Kv= 20.3 fps
	4.4	500) To	tal	•	·	

Subcatchment NL9: Proposed North Lot Area 1



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Page 163

Summary for Pond 1P: Drywell System 1 (9 @ 20' Eff Depth)

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 4.86" for 100-yr event

Inflow = 26.69 cfs @ 12.02 hrs, Volume= 1.103 af

Outflow = 3.88 cfs @ 12.41 hrs, Volume= 1.103 af, Atten= 85%, Lag= 23.0 min

Discarded = 3.88 cfs @ 12.41 hrs, Volume= 1.103 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 75.00' @ 12.41 hrs Surf.Area= 0.032 ac Storage= 0.446 af

Plug-Flow detention time= 55.8 min calculated for 1.103 af (100% of inflow) Center-of-Mass det. time= 55.8 min (794.9 - 739.0)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

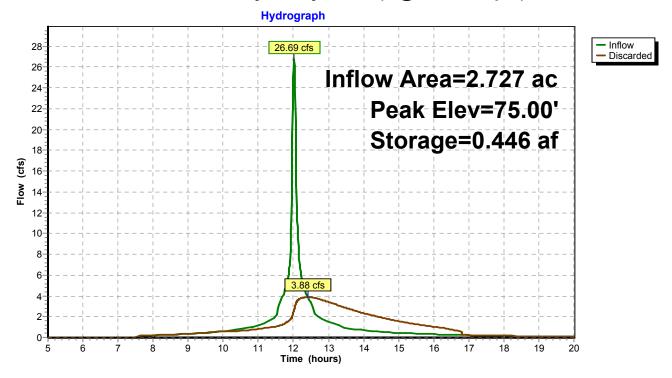
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=3.88 cfs @ 12.41 hrs HW=75.00' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 3.88 cfs)

Page 164

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Pond 1P: Drywell System 1 (9 @ 20' Eff Depth)



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Page 165

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Summary for Pond 2P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 6.80" for 100-yr event

Inflow = 27.24 cfs @ 12.02 hrs, Volume= 1.546 af

Outflow = 27.09 cfs @ 12.02 hrs, Volume= 1.509 af, Atten= 1%, Lag= 0.3 min

Discarded = 0.43 cfs @ 12.41 hrs, Volume= 0.406 af Primary = 26.69 cfs @ 12.02 hrs, Volume= 1.103 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 75.05' @ 12.41 hrs Surf.Area= 0.004 ac Storage= 0.050 af

Plug-Flow detention time= 20.0 min calculated for 1.509 af (98% of inflow) Center-of-Mass det. time= 9.5 min (748.8 - 739.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

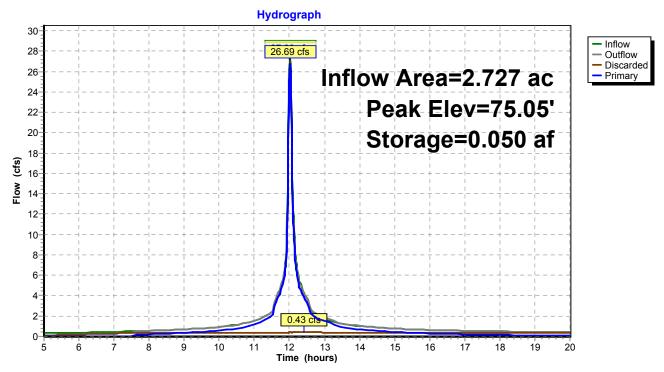
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.43 cfs @ 12.41 hrs HW=75.05' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.43 cfs)

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Page 166

Pond 2P: Inlet Drywell



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Summary for Pond 3P: Drywell System 3 (9 @ 20' Eff Depth)

2.727 ac, 86.43% Impervious, Inflow Depth > 4.86" for 100-yr event Inflow Area =

Inflow 26.69 cfs @ 12.02 hrs, Volume= 1.103 af

3.88 cfs @ 12.41 hrs, Volume= 1.103 af, Atten= 85%, Lag= 23.0 min Outflow

Discarded = 3.88 cfs @ 12.41 hrs, Volume= 1.103 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 75.00' @ 12.41 hrs Surf.Area= 0.032 ac Storage= 0.446 af

Plug-Flow detention time= 55.8 min calculated for 1.103 af (100% of inflow) Center-of-Mass det. time= 55.8 min (794.9 - 739.0)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

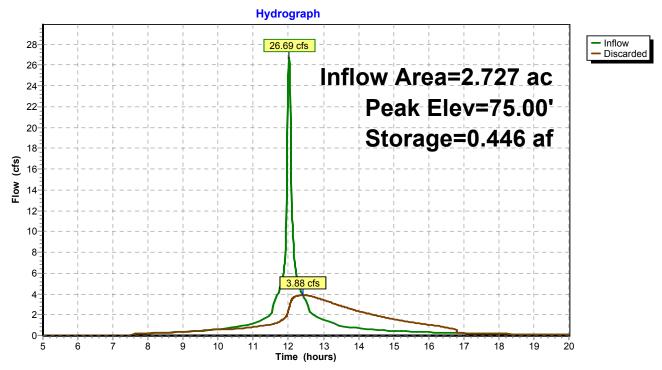
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=3.88 cfs @ 12.41 hrs HW=75.00' (Free Discharge) 1=Exfiltration (Exfiltration Controls 3.88 cfs)

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Page 168

Pond 3P: Drywell System 3 (9 @ 20' Eff Depth)



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Page 169

Summary for Pond 4P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 6.80" for 100-yr event

Inflow = 27.24 cfs @ 12.02 hrs, Volume= 1.546 af

Outflow = 27.09 cfs @ 12.02 hrs, Volume= 1.509 af, Atten= 1%, Lag= 0.3 min

Discarded = 0.43 cfs @ 12.41 hrs, Volume= 0.406 af Primary = 26.69 cfs @ 12.02 hrs, Volume= 1.103 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 75.05' @ 12.41 hrs Surf.Area= 0.004 ac Storage= 0.050 af

Plug-Flow detention time= 20.0 min calculated for 1.509 af (98% of inflow) Center-of-Mass det. time= 9.5 min (748.8 - 739.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

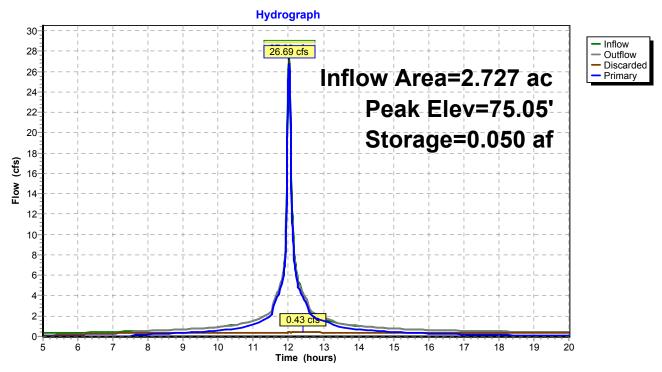
Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
0.000	0.000	0.000	0.000
0.001	0.000	0.000	0.001
1.000	0.344	0.345	1.000
2.000	1.471	1.816	2.000
15.000	7.492	9.308	15.000
	0.000 0.001 1.000 2.000	(acres) (acre-feet) 0.000 0.000 0.001 0.000 1.000 0.344 2.000 1.471	(acres) (acre-feet) (acre-feet) 0.000 0.000 0.000 0.001 0.000 0.000 1.000 0.344 0.345 2.000 1.471 1.816

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.43 cfs @ 12.41 hrs HW=75.05' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.43 cfs)

Page 170

Pond 4P: Inlet Drywell



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Page 171

Summary for Pond 6P: Drywell System 2 (9 @ 20' Eff Depth)

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 4.86" for 100-yr event

Inflow = 26.69 cfs @ 12.02 hrs, Volume= 1.103 af

Outflow = 3.88 cfs @ 12.41 hrs, Volume= 1.103 af, Atten= 85%, Lag= 23.0 min

Discarded = 3.88 cfs @ 12.41 hrs, Volume= 1.103 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 75.00' @ 12.41 hrs Surf.Area= 0.032 ac Storage= 0.446 af

Plug-Flow detention time= 55.8 min calculated for 1.103 af (100% of inflow) Center-of-Mass det. time= 55.8 min (794.9 - 739.0)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

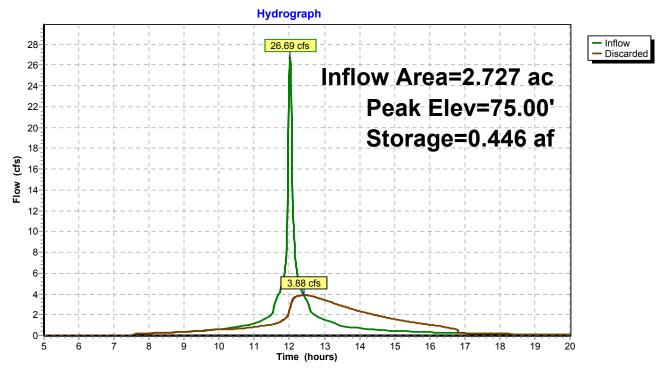
Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=3.88 cfs @ 12.41 hrs HW=75.00' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 3.88 cfs)

Page 172

Pond 6P: Drywell System 2 (9 @ 20' Eff Depth)



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Page 173

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Summary for Pond 7P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 6.80" for 100-yr event

Inflow = 27.24 cfs @ 12.02 hrs, Volume= 1.546 af

Outflow = 27.09 cfs @ 12.02 hrs, Volume= 1.509 af, Atten= 1%, Lag= 0.3 min

Discarded = 0.43 cfs @ 12.41 hrs, Volume = 0.406 afPrimary = 26.69 cfs @ 12.02 hrs, Volume = 1.103 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 75.05' @ 12.41 hrs Surf.Area= 0.004 ac Storage= 0.050 af

Plug-Flow detention time= 20.0 min calculated for 1.509 af (98% of inflow) Center-of-Mass det. time= 9.5 min (748.8 - 739.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

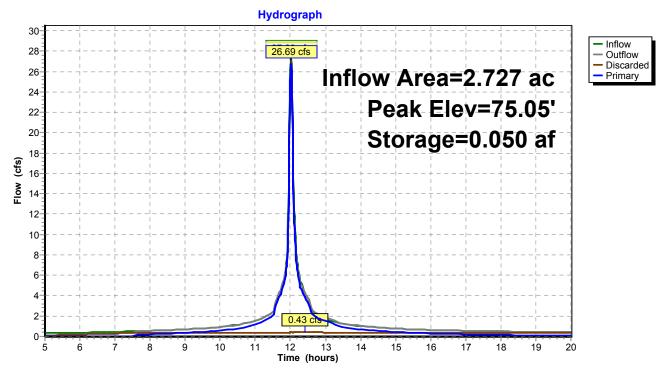
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.43 cfs @ 12.41 hrs HW=75.05' (Free Discharge) 1=Exfiltration (Exfiltration Controls 0.43 cfs)

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Page 174

Pond 7P: Inlet Drywell



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Page 175

Summary for Pond 8P: Drywell System 4 (9 @ 20' Eff Depth)

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 4.86" for 100-yr event

Inflow = 26.69 cfs @ 12.02 hrs, Volume= 1.103 af

Outflow = 3.88 cfs @ 12.41 hrs, Volume= 1.103 af, Atten= 85%, Lag= 23.0 min

Discarded = 3.88 cfs @ 12.41 hrs, Volume= 1.103 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 75.00' @ 12.41 hrs Surf.Area= 0.032 ac Storage= 0.446 af

Plug-Flow detention time= 55.8 min calculated for 1.103 af (100% of inflow) Center-of-Mass det. time= 55.8 min (794.9 - 739.0)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

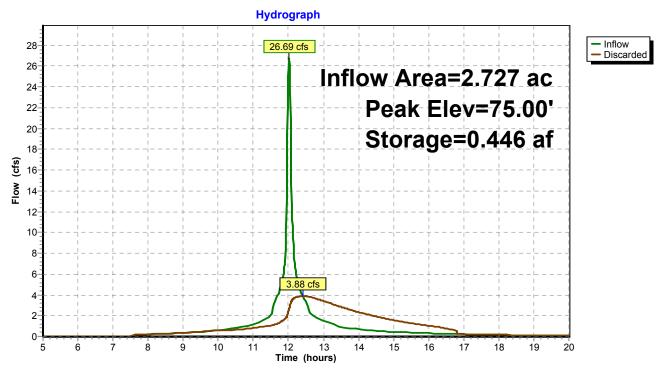
Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=3.88 cfs @ 12.41 hrs HW=75.00' (Free Discharge) 1=Exfiltration (Exfiltration Controls 3.88 cfs)

Page 176

Pond 8P: Drywell System 4 (9 @ 20' Eff Depth)



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Page 177

Summary for Pond 9P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 6.80" for 100-yr event

Inflow = 27.24 cfs @ 12.02 hrs, Volume= 1.546 af

Outflow = 27.09 cfs @ 12.02 hrs, Volume= 1.509 af, Atten= 1%, Lag= 0.3 min

Discarded = 0.43 cfs @ 12.41 hrs, Volume= 0.406 af Primary = 26.69 cfs @ 12.02 hrs, Volume= 1.103 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 75.05' @ 12.41 hrs Surf.Area= 0.004 ac Storage= 0.050 af

Plug-Flow detention time= 20.0 min calculated for 1.509 af (98% of inflow) Center-of-Mass det. time= 9.5 min (748.8 - 739.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
0.000	0.000	0.000	0.000
0.001	0.000	0.000	0.001
1.000	0.344	0.345	1.000
2.000	1.471	1.816	2.000
15.000	7.492	9.308	15.000
	0.000 0.001 1.000 2.000	(acres) (acre-feet) 0.000 0.000 0.001 0.000 1.000 0.344 2.000 1.471	(acres) (acre-feet) (acre-feet) 0.000 0.000 0.000 0.001 0.000 0.000 1.000 0.344 0.345 2.000 1.471 1.816

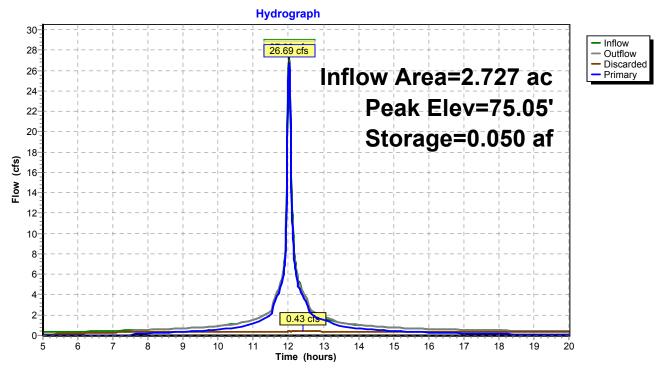
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.43 cfs @ 12.41 hrs HW=75.05' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.43 cfs)

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Page 178

Pond 9P: Inlet Drywell



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Page 179

Summary for Pond 11P: Drywell System 6 (9 @ 20' Eff Depth)

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 4.86" for 100-yr event

Inflow = 26.69 cfs @ 12.02 hrs, Volume= 1.103 af

Outflow = 3.88 cfs @ 12.41 hrs, Volume= 1.103 af, Atten= 85%, Lag= 23.0 min

Discarded = 3.88 cfs @ 12.41 hrs, Volume= 1.103 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 75.00' @ 12.41 hrs Surf.Area= 0.032 ac Storage= 0.446 af

Plug-Flow detention time= 55.8 min calculated for 1.103 af (100% of inflow) Center-of-Mass det. time= 55.8 min (794.9 - 739.0)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

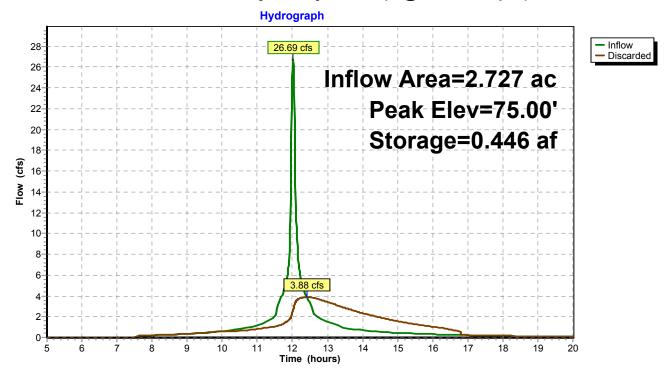
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=3.88 cfs @ 12.41 hrs HW=75.00' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 3.88 cfs)

Page 180

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Pond 11P: Drywell System 6 (9 @ 20' Eff Depth)



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Page 181

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Summary for Pond 12P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 6.80" for 100-yr event

Inflow = 27.24 cfs @ 12.02 hrs, Volume= 1.546 af

Outflow = 27.09 cfs @ 12.02 hrs, Volume= 1.509 af, Atten= 1%, Lag= 0.3 min

Discarded = 0.43 cfs @ 12.41 hrs, Volume= 0.406 af Primary = 26.69 cfs @ 12.02 hrs, Volume= 1.103 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 75.05' @ 12.41 hrs Surf.Area= 0.004 ac Storage= 0.050 af

Plug-Flow detention time= 20.0 min calculated for 1.509 af (98% of inflow) Center-of-Mass det. time= 9.5 min (748.8 - 739.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
0.000	0.000	0.000	0.000
0.001	0.000	0.000	0.001
1.000	0.344	0.345	1.000
2.000	1.471	1.816	2.000
15.000	7.492	9.308	15.000
	0.000 0.001 1.000 2.000	(acres) (acre-feet) 0.000 0.000 0.001 0.000 1.000 0.344 2.000 1.471	(acres) (acre-feet) (acre-feet) 0.000 0.000 0.000 0.001 0.000 0.000 1.000 0.344 0.345 2.000 1.471 1.816

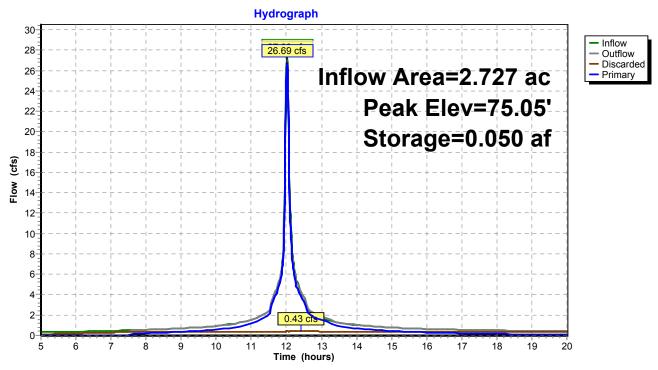
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.43 cfs @ 12.41 hrs HW=75.05' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.43 cfs)

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Page 182

Pond 12P: Inlet Drywell



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Page 183

Summary for Pond 14P: Drywell System 7 (9 @ 20' Eff Depth)

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 4.86" for 100-yr event

Inflow = 26.69 cfs @ 12.02 hrs, Volume= 1.103 af

Outflow = 3.88 cfs @ 12.41 hrs, Volume= 1.103 af, Atten= 85%, Lag= 23.0 min

Discarded = 3.88 cfs @ 12.41 hrs, Volume= 1.103 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 75.00' @ 12.41 hrs Surf.Area= 0.032 ac Storage= 0.446 af

Plug-Flow detention time= 55.8 min calculated for 1.103 af (100% of inflow) Center-of-Mass det. time= 55.8 min (794.9 - 739.0)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

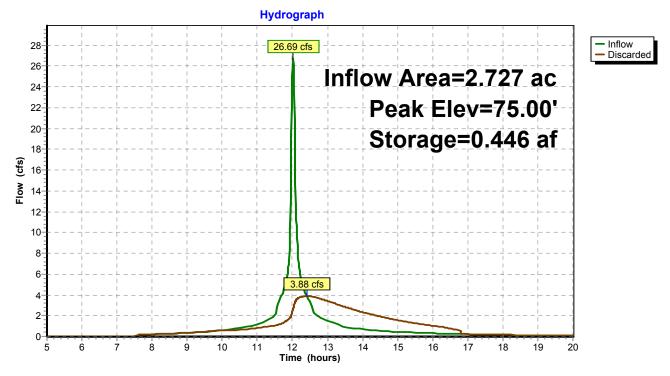
Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=3.88 cfs @ 12.41 hrs HW=75.00' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 3.88 cfs)

Page 184

Pond 14P: Drywell System 7 (9 @ 20' Eff Depth)



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Page 185

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Summary for Pond 15P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 6.80" for 100-yr event

Inflow = 27.24 cfs @ 12.02 hrs, Volume= 1.546 af

Outflow = 27.09 cfs @ 12.02 hrs, Volume= 1.509 af, Atten= 1%, Lag= 0.3 min

Discarded = 0.43 cfs @ 12.41 hrs, Volume= 0.406 af Primary = 26.69 cfs @ 12.02 hrs, Volume= 1.103 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 75.05' @ 12.41 hrs Surf.Area= 0.004 ac Storage= 0.050 af

Plug-Flow detention time= 20.0 min calculated for 1.509 af (98% of inflow) Center-of-Mass det. time= 9.5 min (748.8 - 739.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)
		9.363 af	Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

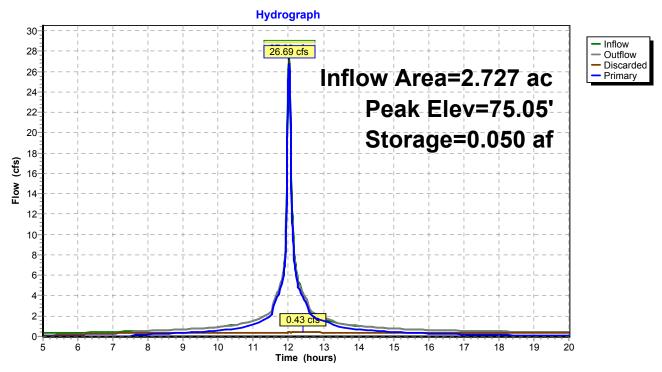
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	-		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.43 cfs @ 12.41 hrs HW=75.05' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.43 cfs)

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Page 186

Pond 15P: Inlet Drywell



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Summary for Pond 18P: Drywell System 8 (9 @ 20' Eff Depth)

2.727 ac, 86.43% Impervious, Inflow Depth > 4.86" for 100-yr event Inflow Area =

26.69 cfs @ 12.02 hrs, Volume= Inflow 1.103 af

3.88 cfs @ 12.41 hrs, Volume= 1.103 af, Atten= 85%, Lag= 23.0 min Outflow

Discarded = 3.88 cfs @ 12.41 hrs, Volume= 1.103 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 75.00' @ 12.41 hrs Surf.Area= 0.032 ac Storage= 0.446 af

Plug-Flow detention time= 55.8 min calculated for 1.103 af (100% of inflow) Center-of-Mass det. time= 55.8 min (794.9 - 739.0)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

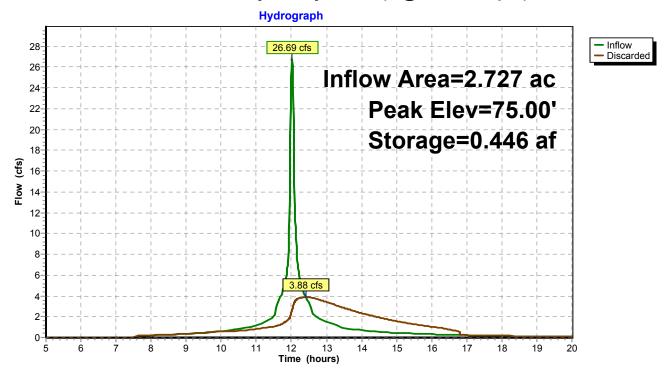
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=3.88 cfs @ 12.41 hrs HW=75.00' (Free Discharge) 1=Exfiltration (Exfiltration Controls 3.88 cfs)

Page 188

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Pond 18P: Drywell System 8 (9 @ 20' Eff Depth)



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Page 189

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Summary for Pond 19P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 6.80" for 100-yr event

Inflow = 27.24 cfs @ 12.02 hrs, Volume= 1.546 af

Outflow = 27.09 cfs @ 12.02 hrs, Volume= 1.509 af, Atten= 1%, Lag= 0.3 min

Discarded = 0.43 cfs @ 12.41 hrs, Volume= 0.406 af Primary = 26.69 cfs @ 12.02 hrs, Volume= 1.103 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 75.05' @ 12.41 hrs Surf.Area= 0.004 ac Storage= 0.050 af

Plug-Flow detention time= 20.0 min calculated for 1.509 af (98% of inflow) Center-of-Mass det. time= 9.5 min (748.8 - 739.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

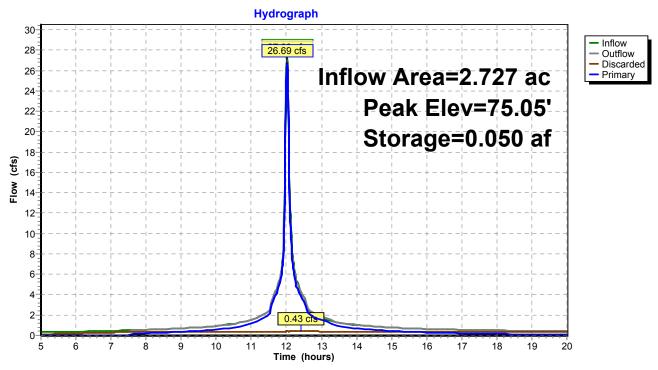
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.43 cfs @ 12.41 hrs HW=75.05' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.43 cfs)

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Page 190

Pond 19P: Inlet Drywell



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Page 191

Summary for Pond 21P: Drywell System 9 @ 20' Eff Depth)

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 4.86" for 100-yr event

Inflow = 26.69 cfs @ 12.02 hrs, Volume= 1.103 af

Outflow = 3.88 cfs @ 12.41 hrs, Volume= 1.103 af, Atten= 85%, Lag= 23.0 min

Discarded = 3.88 cfs @ 12.41 hrs, Volume= 1.103 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 75.00' @ 12.41 hrs Surf.Area= 0.032 ac Storage= 0.446 af

Plug-Flow detention time= 55.8 min calculated for 1.103 af (100% of inflow) Center-of-Mass det. time= 55.8 min (794.9 - 739.0)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

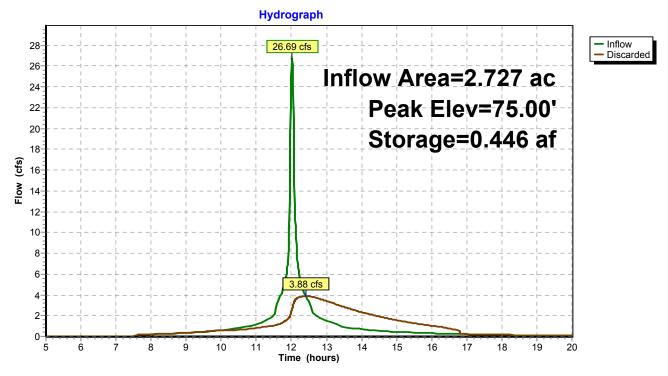
Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=3.88 cfs @ 12.41 hrs HW=75.00' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 3.88 cfs)

Page 192

Pond 21P: Drywell System 9 @ 20' Eff Depth)



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Page 193

Summary for Pond 22P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 6.80" for 100-yr event

Inflow = 27.24 cfs @ 12.02 hrs, Volume= 1.546 af

Outflow = 27.09 cfs @ 12.02 hrs, Volume= 1.509 af, Atten= 1%, Lag= 0.3 min

Discarded = 0.43 cfs @ 12.41 hrs, Volume= 0.406 af Primary = 26.69 cfs @ 12.02 hrs, Volume= 1.103 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 75.05' @ 12.41 hrs Surf.Area= 0.004 ac Storage= 0.050 af

Plug-Flow detention time= 20.0 min calculated for 1.509 af (98% of inflow) Center-of-Mass det. time= 9.5 min (748.8 - 739.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

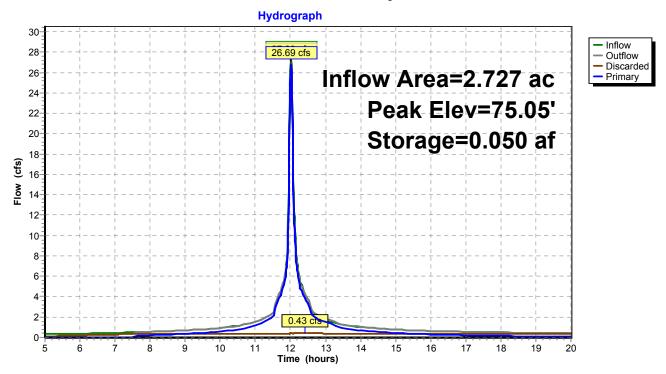
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.43 cfs @ 12.41 hrs HW=75.05' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.43 cfs)

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Page 194

Pond 22P: Inlet Drywell



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Page 195

Summary for Pond 24P: Drywell System 5 (9 @ 20' Eff Depth)

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 4.86" for 100-yr event

Inflow = 26.69 cfs @ 12.02 hrs, Volume= 1.103 af

Outflow = 3.88 cfs @ 12.41 hrs, Volume= 1.103 af, Atten= 85%, Lag= 23.0 min

Discarded = 3.88 cfs @ 12.41 hrs, Volume= 1.103 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 75.00' @ 12.41 hrs Surf.Area= 0.032 ac Storage= 0.446 af

Plug-Flow detention time= 55.8 min calculated for 1.103 af (100% of inflow) Center-of-Mass det. time= 55.8 min (794.9 - 739.0)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

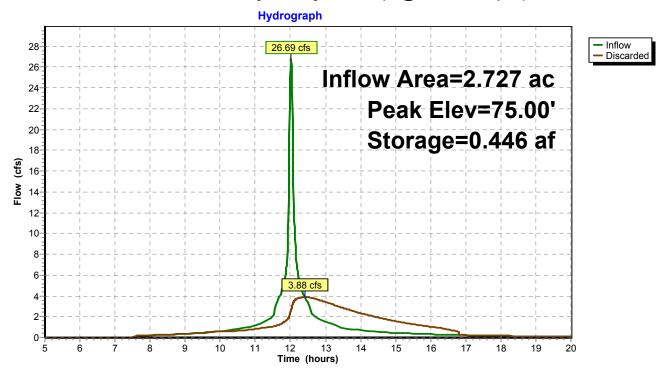
Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=3.88 cfs @ 12.41 hrs HW=75.00' (Free Discharge) 1=Exfiltration (Exfiltration Controls 3.88 cfs)

Page 196

Pond 24P: Drywell System 5 (9 @ 20' Eff Depth)



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Page 197

Summary for Pond 25P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 6.80" for 100-yr event

Inflow = 27.24 cfs @ 12.02 hrs, Volume= 1.546 af

Outflow = 27.09 cfs @ 12.02 hrs, Volume= 1.509 af, Atten= 1%, Lag= 0.3 min

Discarded = 0.43 cfs @ 12.41 hrs, Volume= 0.406 af Primary = 26.69 cfs @ 12.02 hrs, Volume= 1.103 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 75.05' @ 12.41 hrs Surf.Area= 0.004 ac Storage= 0.050 af

Plug-Flow detention time= 20.0 min calculated for 1.509 af (98% of inflow) Center-of-Mass det. time= 9.5 min (748.8 - 739.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Surf.Area	Inc.Store	Cum.Store	Wet.Area
(acres)	(acre-feet)	(acre-feet)	(acres)
0.000	0.000	0.000	0.000
0.001	0.000	0.000	0.001
1.000	0.344	0.345	1.000
2.000	1.471	1.816	2.000
15.000	7.492	9.308	15.000
	0.000 0.001 1.000 2.000	(acres) (acre-feet) 0.000 0.000 0.001 0.000 1.000 0.344 2.000 1.471	(acres) (acre-feet) (acre-feet) 0.000 0.000 0.000 0.001 0.000 0.000 1.000 0.344 0.345 2.000 1.471 1.816

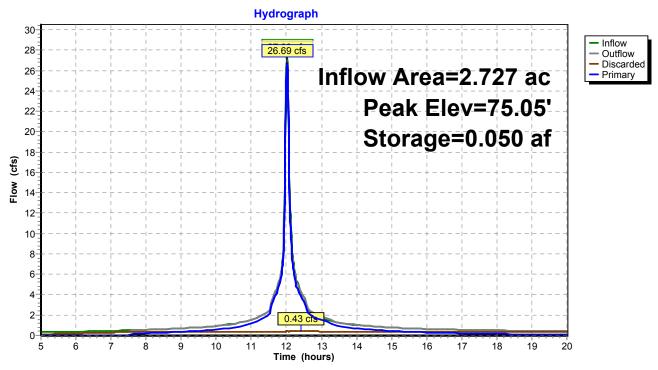
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.43 cfs @ 12.41 hrs HW=75.05' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.43 cfs)

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Page 198

Pond 25P: Inlet Drywell



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Page 199

Summary for Pond 27P: Drywell System 10 (9 @ 20' Eff Depth)

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 4.86" for 100-yr event

Inflow = 26.69 cfs @ 12.02 hrs, Volume= 1.103 af

Outflow = 3.88 cfs @ 12.41 hrs, Volume= 1.103 af, Atten= 85%, Lag= 23.0 min

Discarded = 3.88 cfs @ 12.41 hrs, Volume= 1.103 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 75.00' @ 12.41 hrs Surf.Area= 0.032 ac Storage= 0.446 af

Plug-Flow detention time= 55.8 min calculated for 1.103 af (100% of inflow) Center-of-Mass det. time= 55.8 min (794.9 - 739.0)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.077 af	14.00'D x 22.00'H Vertical Cone/Cylinderx 9
			0.700 af Overall - 0.467 af Embedded = 0.233 af x 33.0% Voids
#2	57.00'	0.417 af	11.33'D x 20.00'H Vertical Cone/Cylinderx 9 Inside #1
			0.467 af Overall - 4.0" Wall Thickness = 0.417 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.802 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

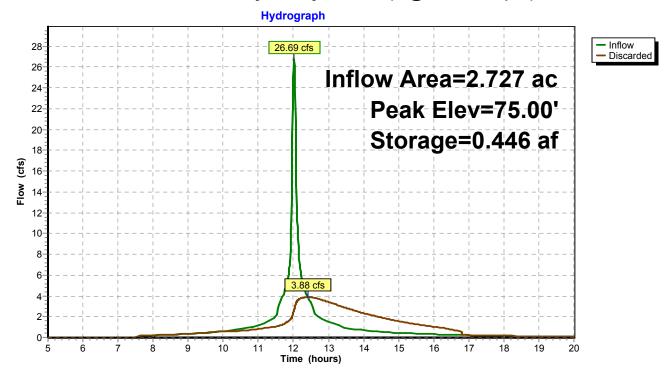
Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'

Discarded OutFlow Max=3.88 cfs @ 12.41 hrs HW=75.00' (Free Discharge) 1=Exfiltration (Exfiltration Controls 3.88 cfs)

Page 200

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Pond 27P: Drywell System 10 (9 @ 20' Eff Depth)



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Page 201

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Summary for Pond 28P: Inlet Drywell

Inflow Area = 2.727 ac, 86.43% Impervious, Inflow Depth > 6.80" for 100-yr event

Inflow = 27.24 cfs @ 12.02 hrs, Volume= 1.546 af

Outflow = 27.09 cfs @ 12.02 hrs, Volume= 1.509 af, Atten= 1%, Lag= 0.3 min

Discarded = 0.43 cfs @ 12.41 hrs, Volume= 0.406 af Primary = 26.69 cfs @ 12.02 hrs, Volume= 1.103 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.01 hrs Peak Elev= 75.05' @ 12.41 hrs Surf.Area= 0.004 ac Storage= 0.050 af

Plug-Flow detention time= 20.0 min calculated for 1.509 af (98% of inflow) Center-of-Mass det. time= 9.5 min (748.8 - 739.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	0.009 af	14.00'D x 22.00'H Vertical Cone/Cylinder
			0.078 af Overall - 0.052 af Embedded = 0.026 af x 33.0% Voids
#2	57.00'	0.046 af	11.33'D x 20.00'H Vertical Cone/CylinderInside #1
			0.052 af Overall - 4.0" Wall Thickness = 0.046 af
#3	77.00'	9.308 af	Custom Stage Data (Conic)Listed below (Recalc)

9.363 af Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store	Wet.Area
(feet)	(acres)	(acre-feet)	(acre-feet)	(acres)
77.00	0.000	0.000	0.000	0.000
78.00	0.001	0.000	0.000	0.001
79.00	1.000	0.344	0.345	1.000
80.00	2.000	1.471	1.816	2.000
81.00	15.000	7.492	9.308	15.000

Device	Routing	Invert	Outlet Devices
#1	Discarded	55.00'	18.000 in/hr Exfiltration over Wetted area below 77.00'
			Phase-In= 0.05'
#2	Primary	70.00'	18.0" Round Culvert X 2.00
	•		L= 12.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 70.00' / 69.88' S= 0.0100 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.77 sf

Discarded OutFlow Max=0.43 cfs @ 12.41 hrs HW=75.05' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.43 cfs)

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Page 202

Pond 28P: Inlet Drywell

