



Easton Staff Development Review MEETING AGENDA

Wednesday, June 26, 2024 - 11:00 AM
Council Chambers, Easton Town Office
14 S Harrison Street

1. Discussion Items

- a. **Application Number:** 2024 - 11
 Location: 9719 Ocean Gateway
 Tax Map 0025, Grid 0006, Parcel 0013

 Applicant: Rauch Inc.
 Request: Sketch Site Plan review for the
 construction of a new automotive sales
 and services facility with associated
 stormwater management
 improvements, and a waiver for
 bufferyard requirements.

- b. **Application Number:** 2024 - 12
 Location: 404 & 406 Marvel Court
 Tax Map 0105, Grid 000, Parcel 2992D,
 Lots 4 & 5

 Applicant: Lane Engineering, LLC
 Request: Sketch Site Plan review for the
 redevelopment of the existing lots 4 & 5
 to include a two-story 4,000 square foot
 (8,000 GFA) expansion of the existing
 medical facility with associated parking,
 stormwater management, and other site
 improvements.



Town of Easton
Engineering, Planning and Zoning
14 South Harrison Street, Easton, MD 21601

RECEIVED
MAY 01 2024
TOWN OF EASTON

Easton Staff Development Review

Property Information

Address 9719 Ocean Gateway, Easton, MD 21601
Tax Map 0025 Grid 0006 Parcel 0113 Lot
Deed Reference: Liber 03002 Folio 00214
Plat Reference: Liber Folio
Base Zoning District R10A Historic District Y ☐ N ☒ Planning Redevelopment Y ☐ N ☒
Purpose of Application / Description of Work:

The project consists of some minimal tree clearing and existing gravel demolition to construct a new powersports sales and service facility for Preston Automotive. There will water, sewer, electric, and communication services provided to the structure. There will be parking for both the powersports products for sale and for customers. Management for stormwater will be provided via a submerged gravel wetlands with forebay to the North side of the site. A deceleration lane will be required for the entrance off Rt 50.

Owner

Name ADBMD Route 50, LLC
Mailing Address 101 Bay St, Suite 12A
Telephone No. 302-745-6788 Email chris@dhwholdings.com

Applicant / Agent

Name Same as above
Mailing Address
Telephone No. Email

Surveyor / Engineer

Name Robert Rauch License No. 11024 Expiration Date 7/24/2024
Mailing Address 106 N. Harrison St, Easton, MD, 21601
Telephone No. 410-770-9081 Email robert@raucheng.com; brian@raucheng.com

Any modifications during review shall warrant an updated application.

I do hereby solemnly declare and affirm that the information provided by this application and the documents attached hereto accurately represent the conditions of the request and that submission of an incomplete application will be returned for correction prior to processing.

Signature of Applicant or Agent

Date 05/01/2024

Printed Name of Applicant or Agent

Robert Rauch

For Office Use Only

Easton Staff Development Review Meeting Required Y ☒ N ☐

Easton Staff Development Review Meeting Date 05/22/2024

Completeness Check Date 05/02/2024

Revisions/Resubmissions Required Y ☐ N ☒

Resubmission Date

Documents Received Y ☐ N ☐

Staff Determination

Planning Commission Required Y ☐ N ☐ TBD

2024 - 1210 / ESDR 24-11

BOZA Required Y ☐ N ☐ TBD

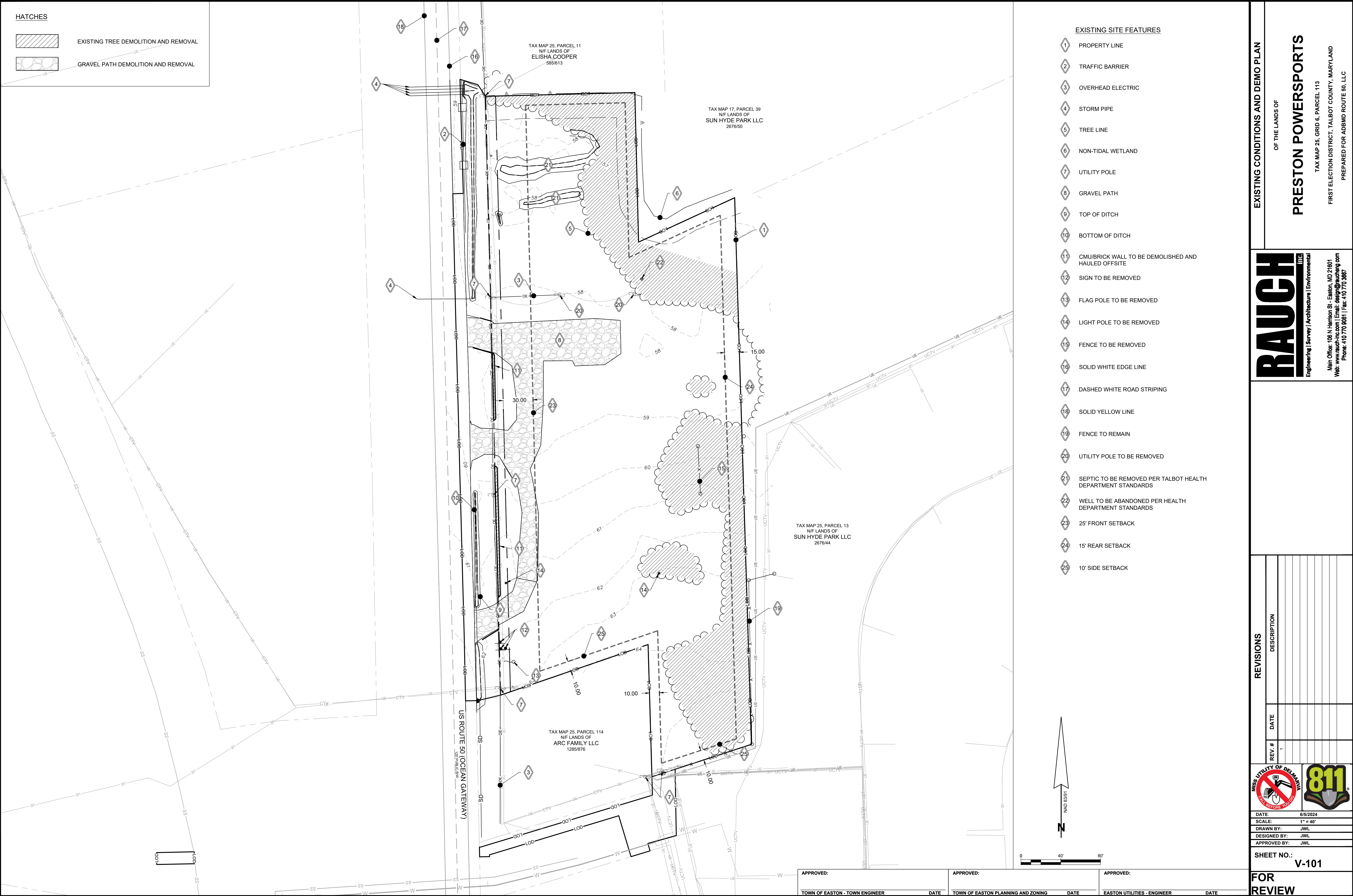
Historic District Commission Required Y ☐ N ☒

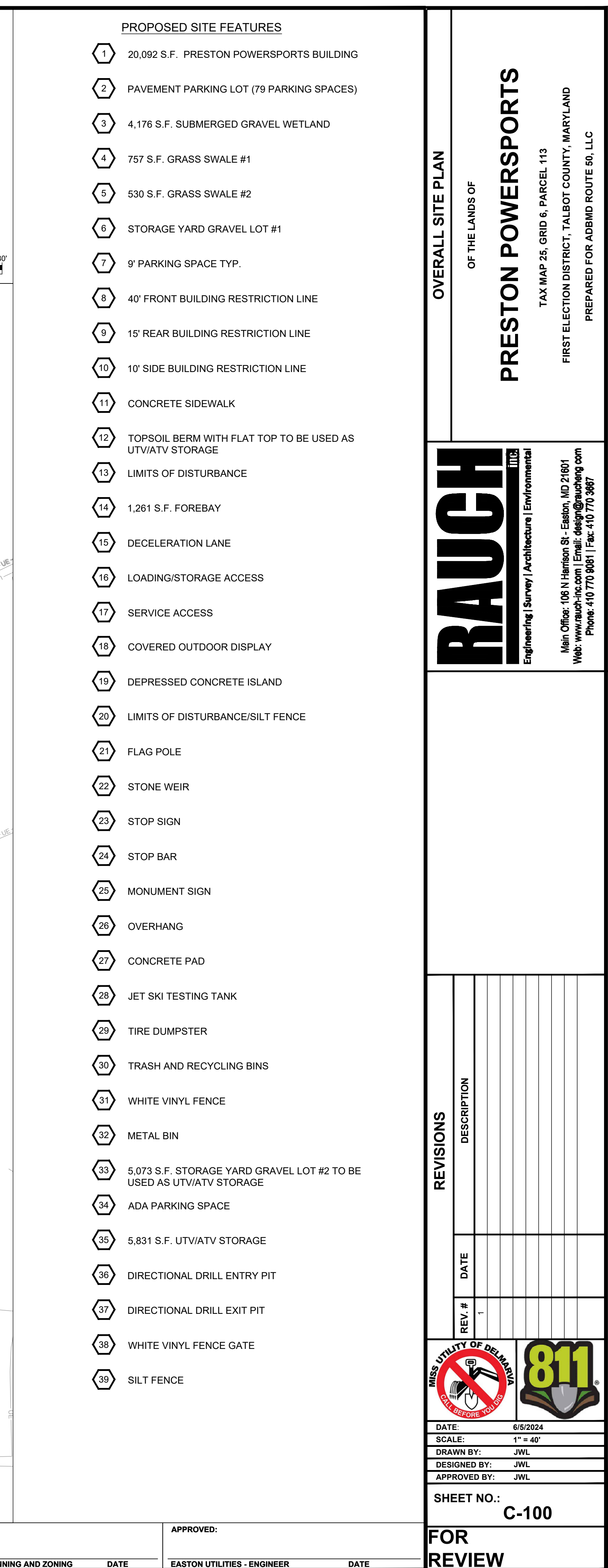
Resubmission for ESDR Required Y ☐ N ☐ TBD

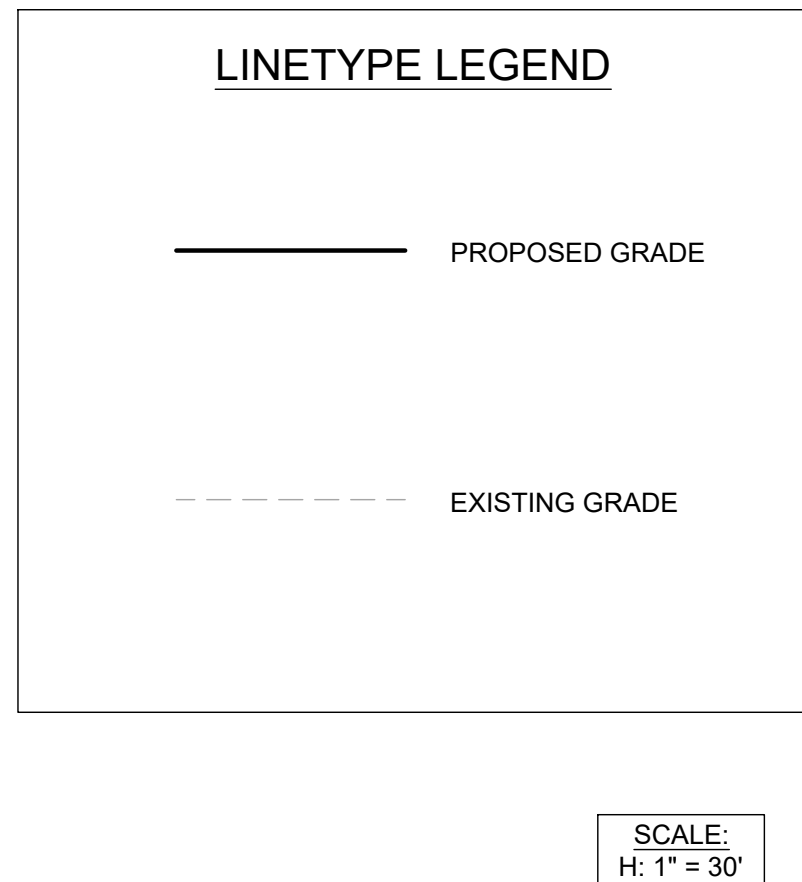
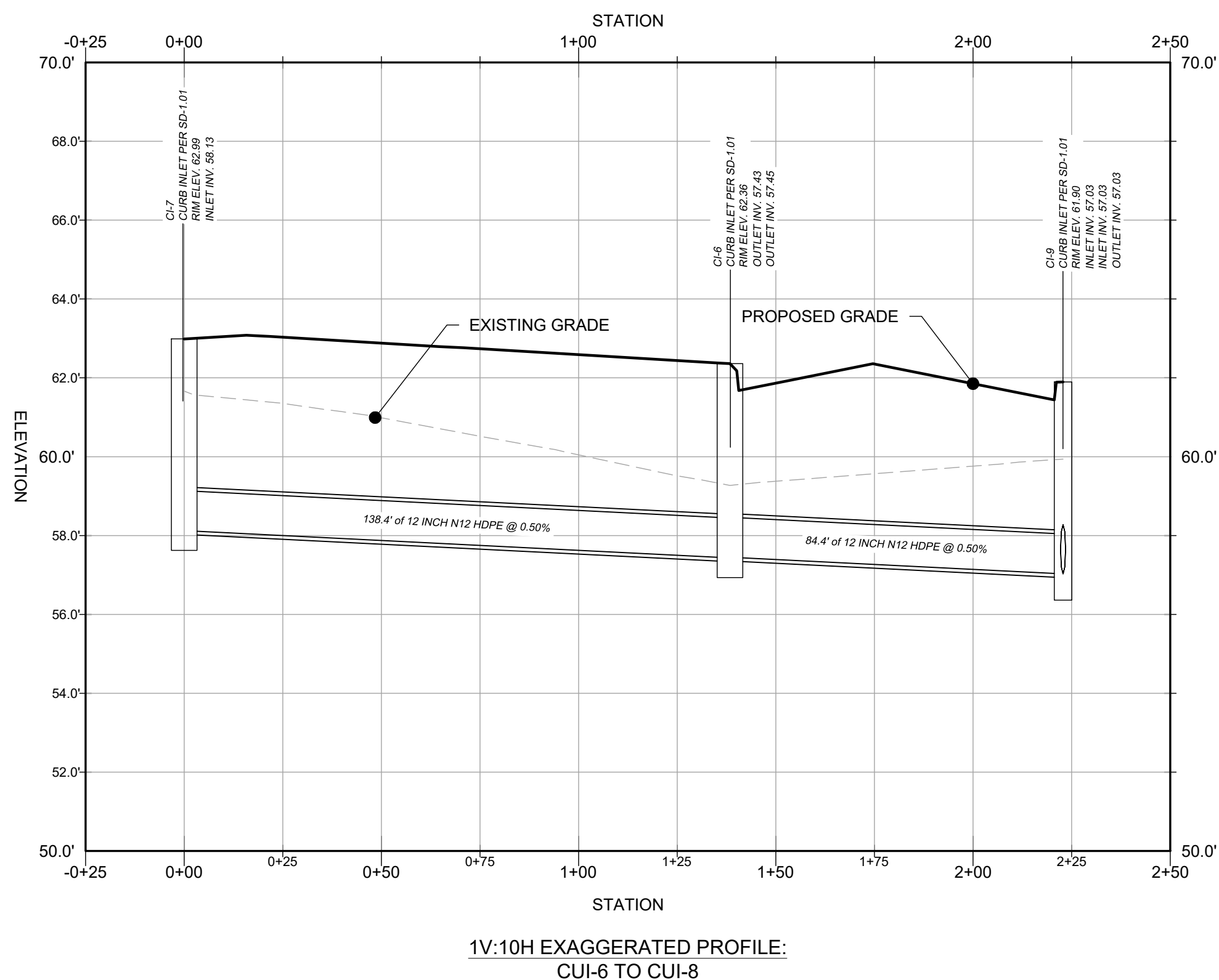
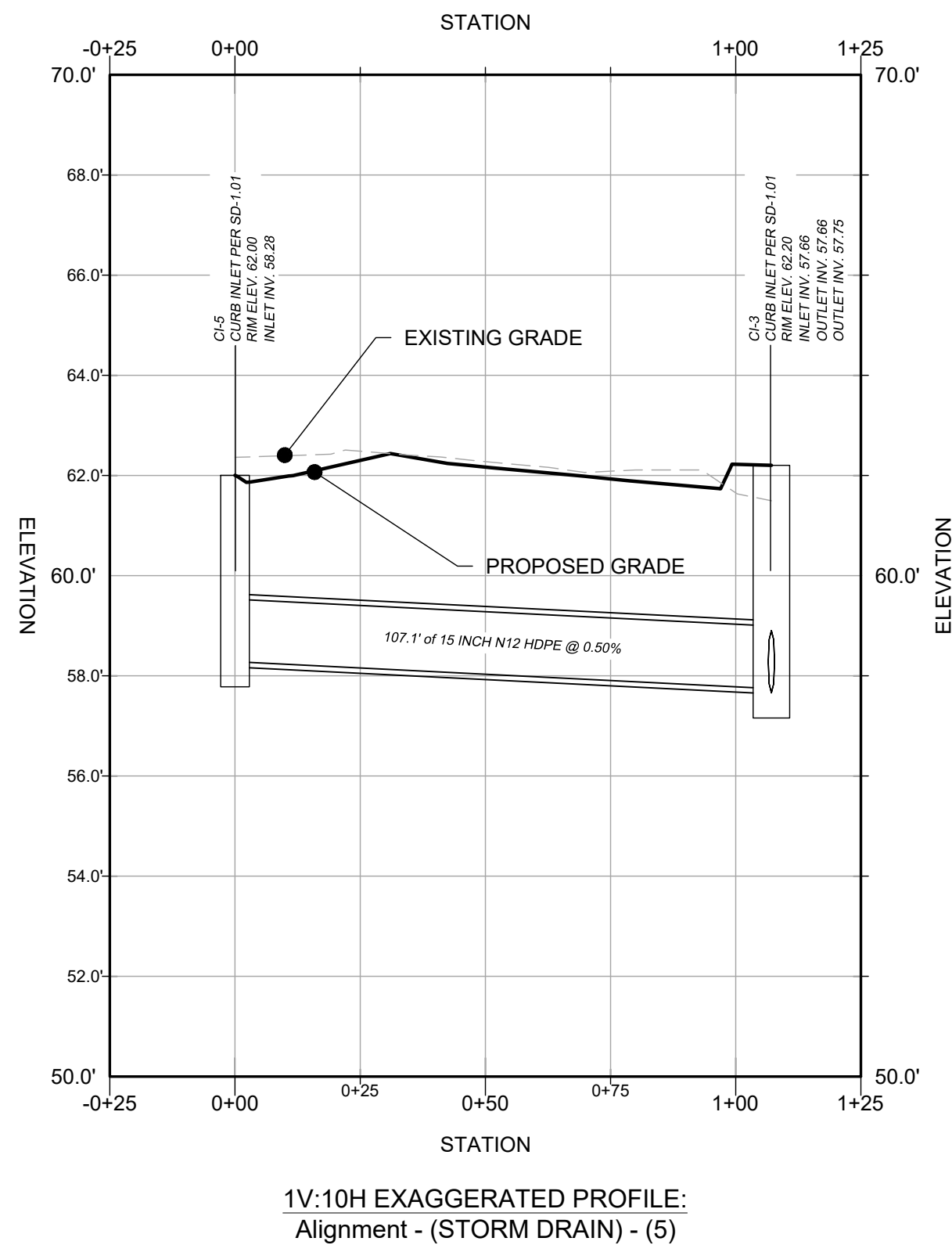
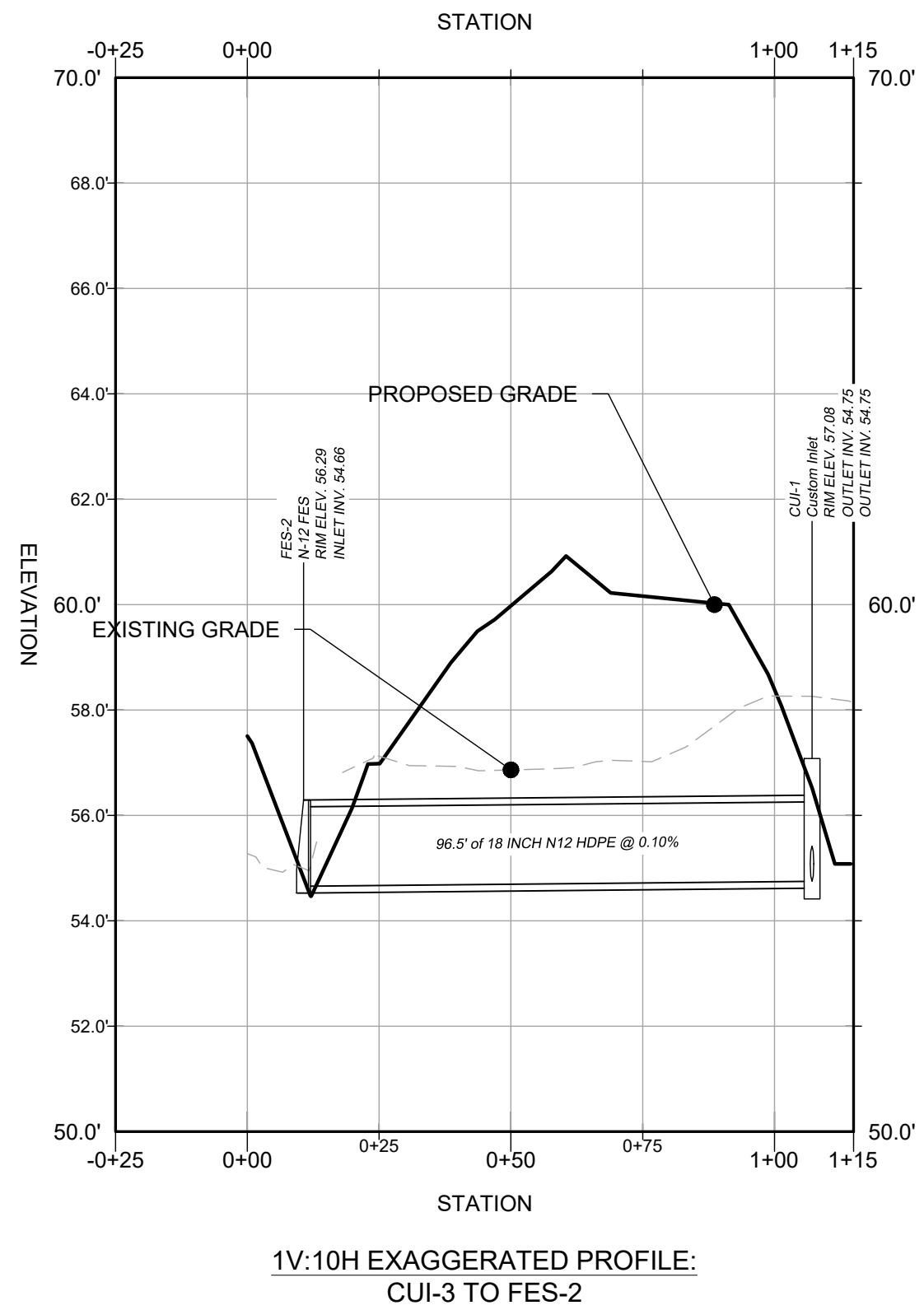
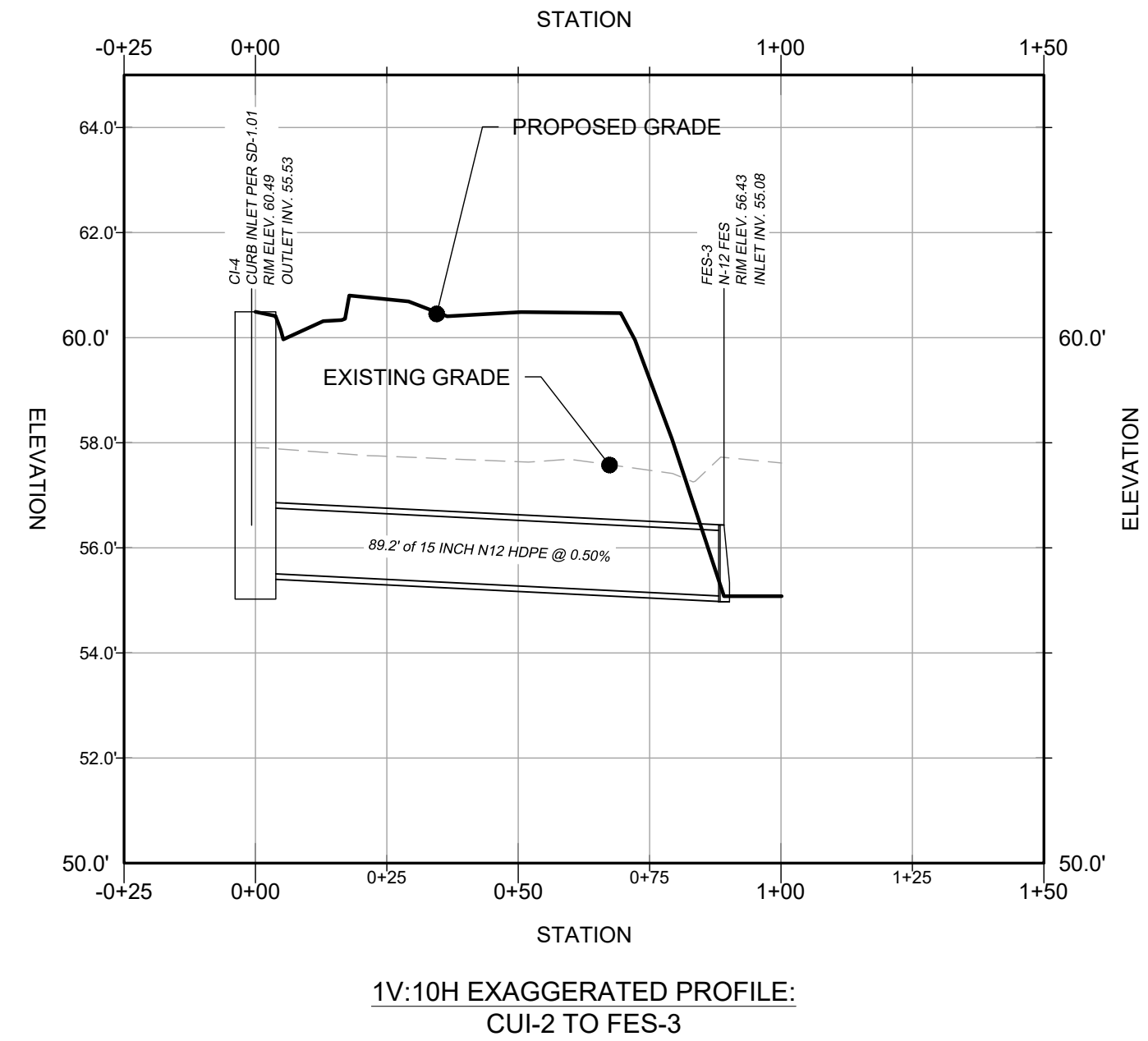
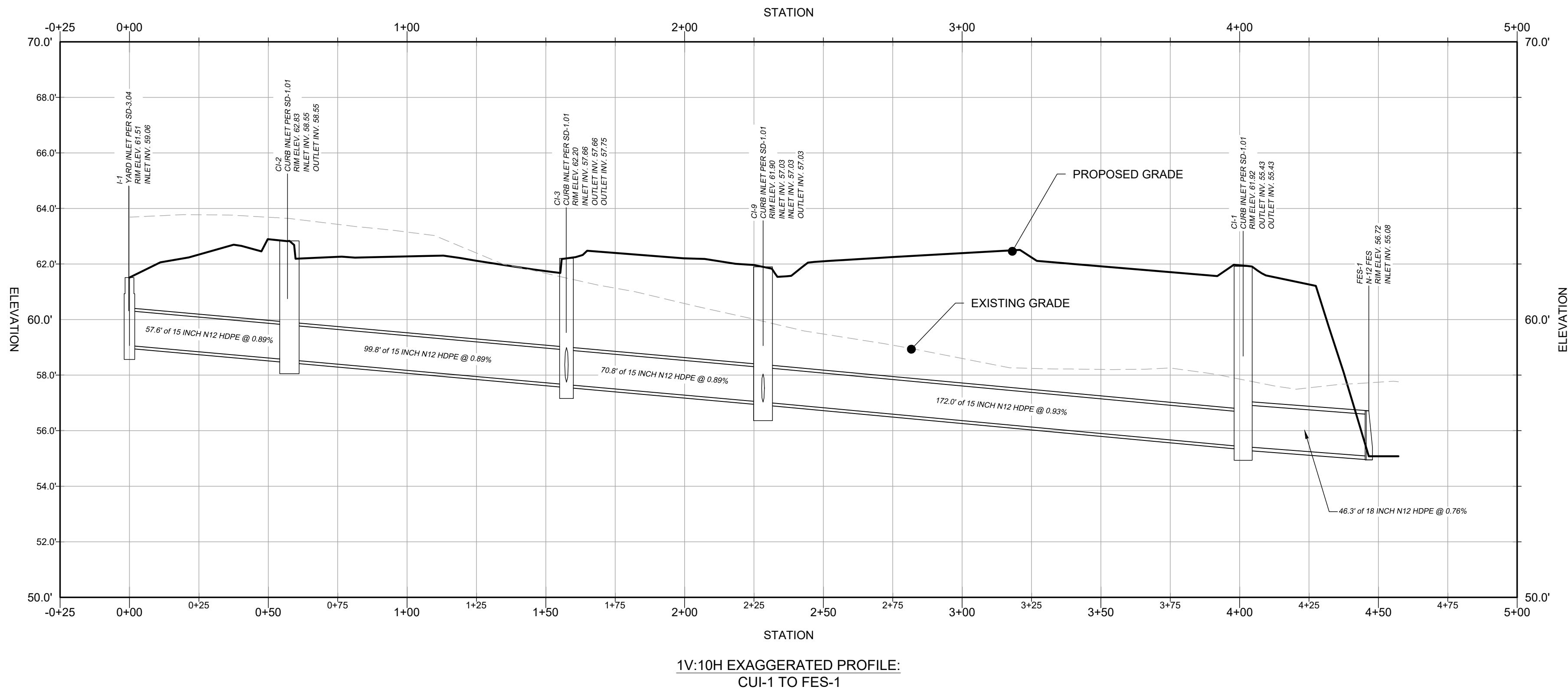
Staff Signature *Samantha N. Smith*

Date 05/02/2024

Revised 02-2019







STORMWATER MANAGEMENT PROFILES

OF THE LANDS OF

PRESTON POWERSPORTS

TAX MAP 25, GRID 6, PARCEL 113

FIRST ELECTION DISTRICT, TALBOT COUNTY, MARYLAND

PREPARED FOR ADBMD ROUTE 50, LLC

RAUCH
Engineering | Survey | Architecture | Environmental

Main Office: 106 N Harrison St - Easton, MD 21601
Web: www.rauch-inc.com | Email: design@raucheng.com
Phone: 410 770 9881 | Fax: 410 770 3887

REVISIONS

DESCRIPTION

REV. #

DATE



DATE: 6/6/2024
SCALE: AS SHOWN
DRAWN BY: JWJ
DESIGNED BY: JWJ
APPROVED BY: JWJ

SHEET NO.: C-203

FOR REVIEW

APPROVED:

TOWN OF EASTON - TOWN ENGINEER

DATE

APPROVED:

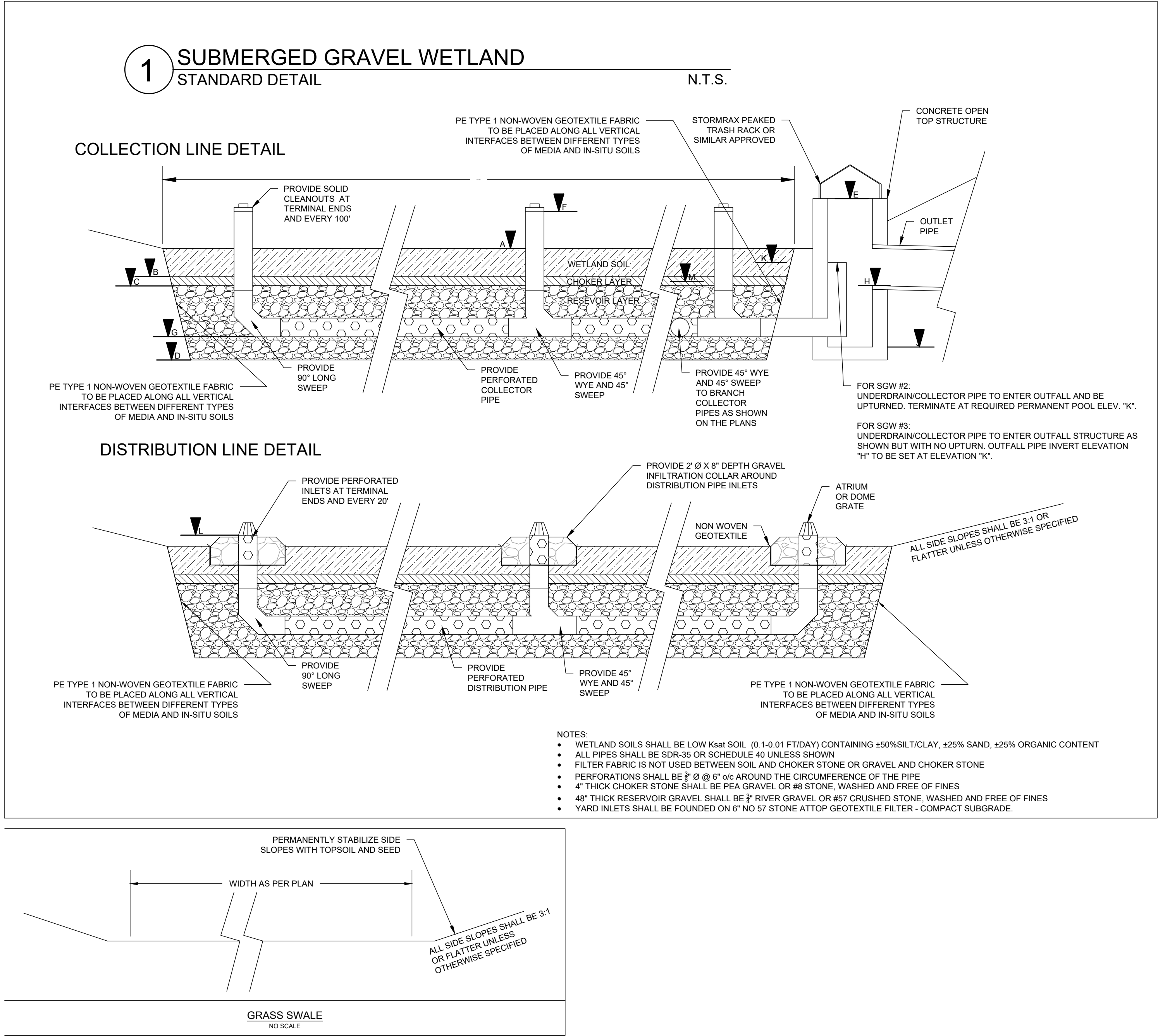
TOWN OF EASTON PLANNING AND ZONING

DATE

APPROVED:

EASTON UTILITIES - ENGINEER

DATE



GRASS SWALE INSPECTION AND MAINTENANCE NOTES

- INSPECTION:
- REGULAR INSPECTIONS SHALL BE MADE DURING THE FOLLOWING STAGES OF CONSTRUCTION:
 - UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.
- MAINTENANCE CRITERIA:
- THE FOLLOWING ITEMS SHOULD BE ADDRESSED TO ENSURE PROPER MAINTENANCE AND LONG-TERM PERFORMANCE OF SWALES:
- FOR GRASSED SWALES, REGULAR MOWING (AT LEAST BI-ANNUALLY) IS CRITICAL IN ORDER TO REDUCE COMPETITION FROM WEEDS AND IRRIGATION MAY BE NEEDED DURING DRY WEATHER TO ESTABLISH VEGETATION. SPARSELY VEGETATED AREAS NEED TO BE RE-SEEDED TO MAINTAIN DENSE COVERAGE.
 - IF WATER DOES NOT DRAIN WITHIN 48 HOURS, THE BOTTOM SOIL SHOULD BE TILLED AND REVEGETATED.
 - INSPECTIONS SHOULD BE PERFORMED ONCE A YEAR TO ASSESS SLOPE INTEGRITY, VEGETATIVE HEALTH, SOIL STABILITY, COMPACTION, EROSION, PONDING, AND SEDIMENTATION. PERIODIC REMOVAL OF SEDIMENT, LITTER, OR OBSTRUCTIONS SHOULD BE DONE AS NEEDED. ERODED SIDE SLOPES AND THE SWALE BOTTOM SHOULD BE REPAIRED AND STABILIZED WHERE NEEDED.

APPROVED:	APPROVED:	APPROVED:
TOWN OF EASTON - TOWN ENGINEER	TOWN OF EASTON PLANNING AND ZONING	EASTON UTILITIES - ENGINEER
DATE	DATE	DATE

STORMWATER MANAGEMENT DETAILS

OF THE LANDS OF

PRESTON POWERSPORTS

TAX MAP 25, GRID 6, PARCEL 113

FIRST ELECTION DISTRICT, TALBOT COUNTY, MARYLAND

PREPARED FOR ADBMD ROUTE 50, LLC

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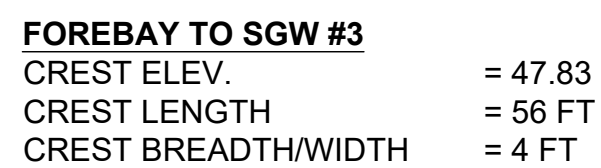
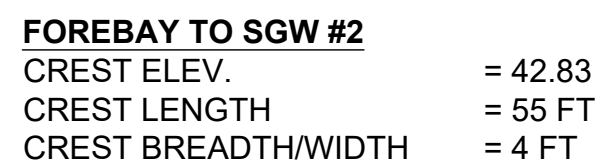
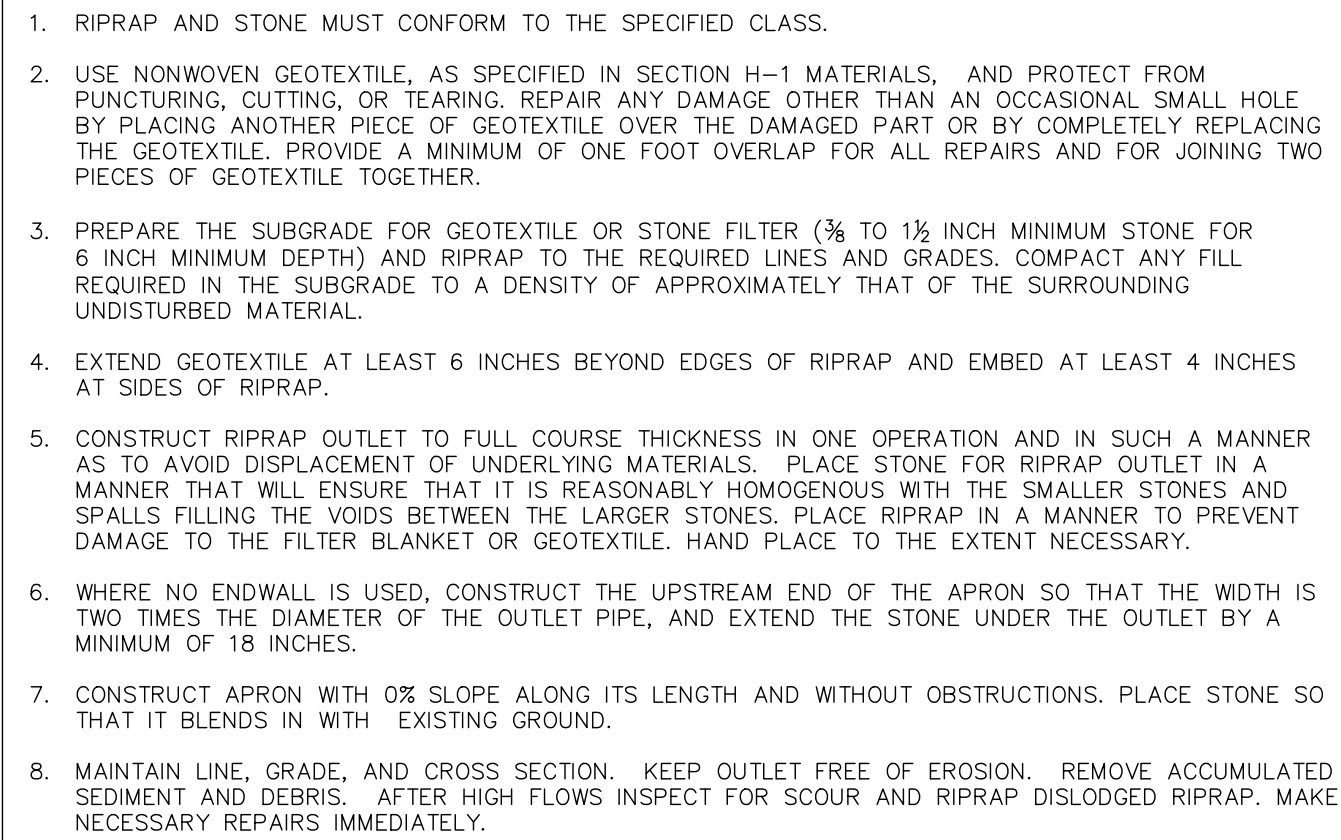
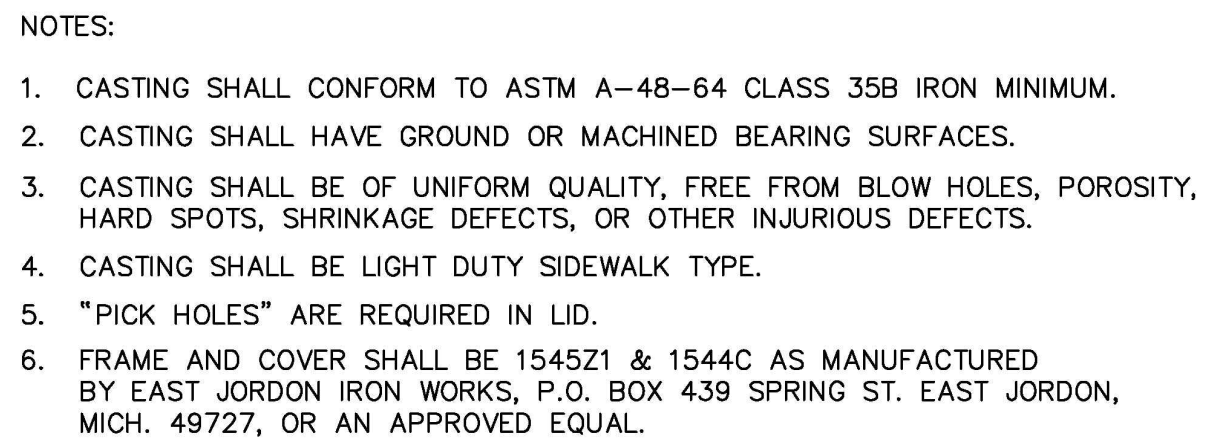
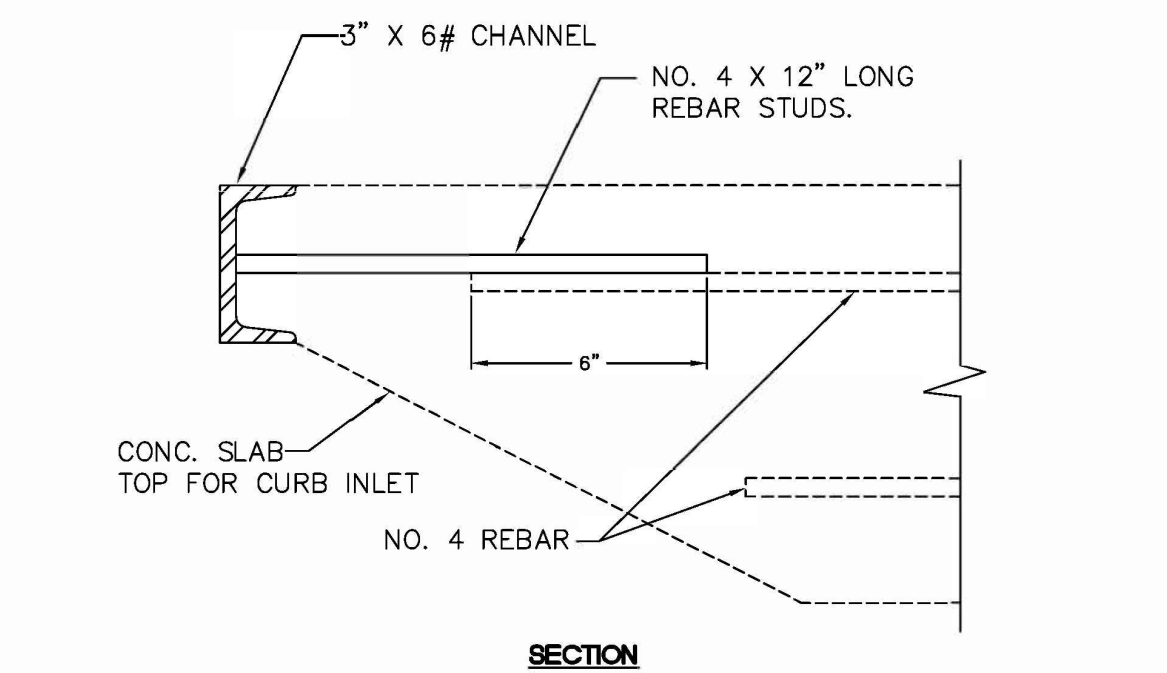
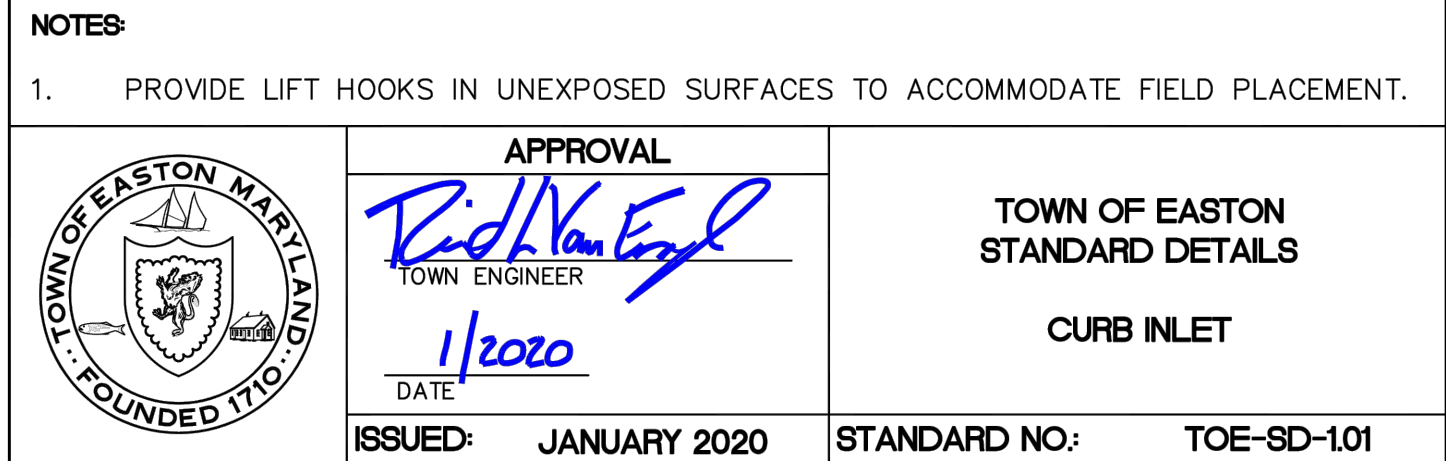
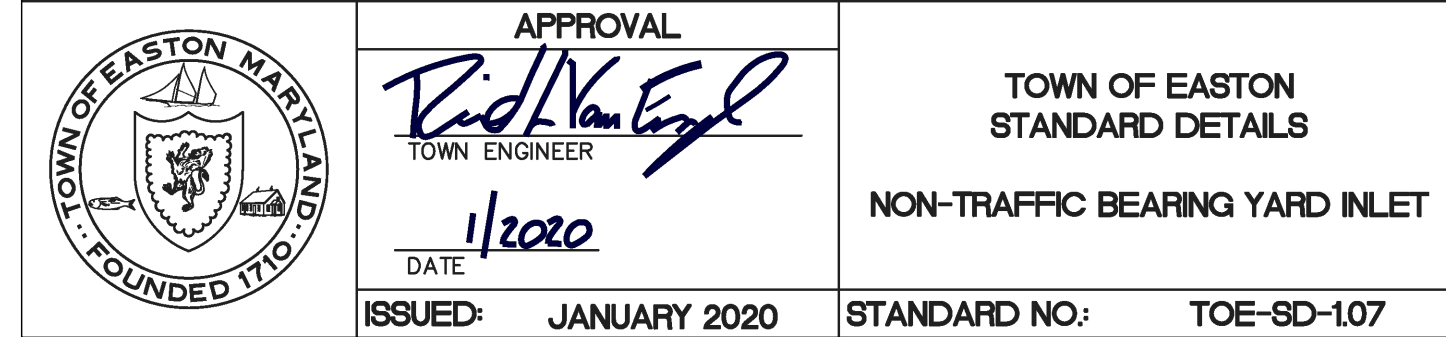
REV.	DATE	DESCRIPTION
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DATE: 6/6/2024
SCALE: AS SHOWN
DRAWN BY: JWJ
DESIGNED BY: JWJ
APPROVED BY: JWJ

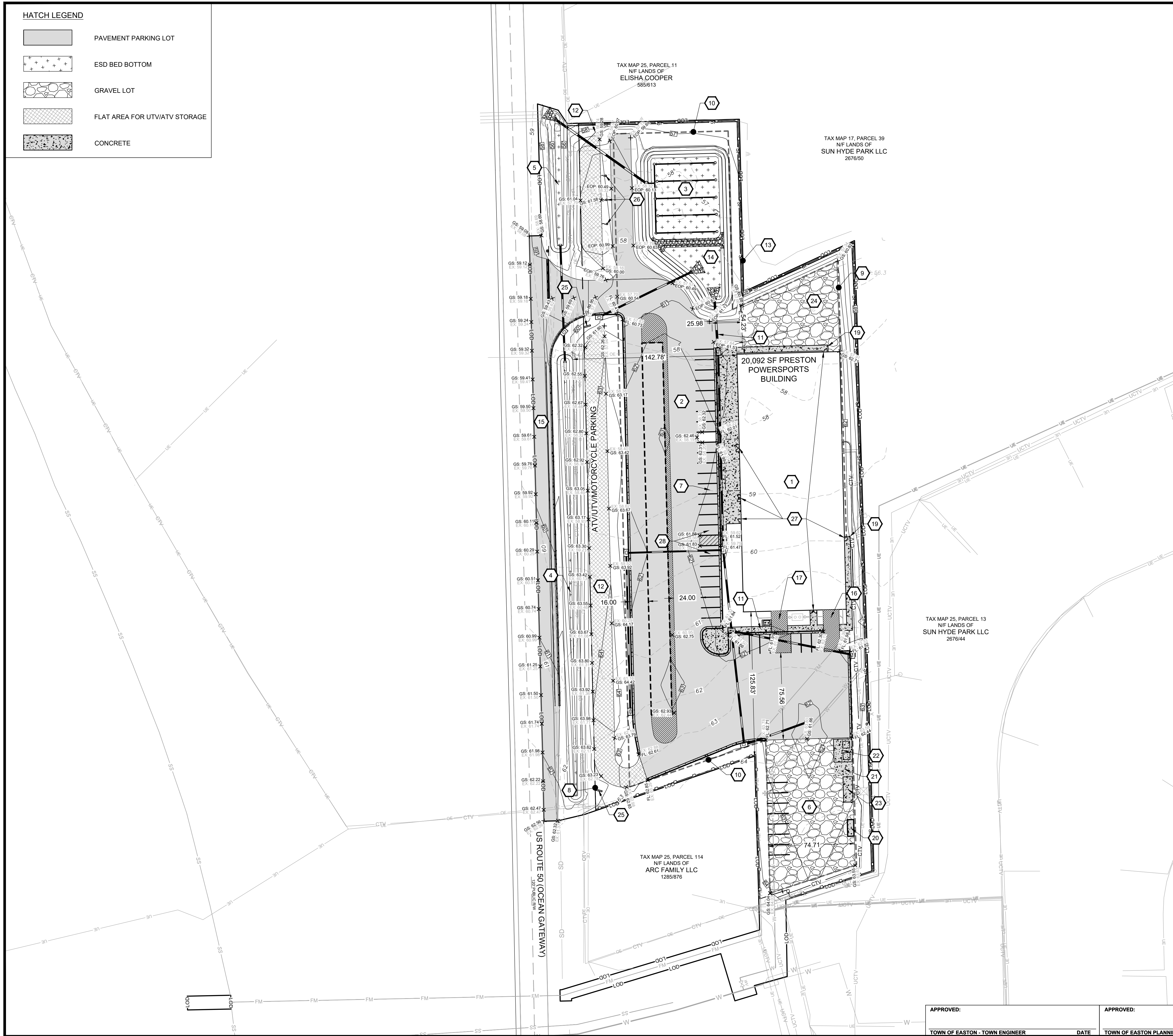
SHEET NO.: C-205.02

FOR REVIEW



APPROVED:	APPROVED:	APPROVED:
TOWN OF EASTON - TOWN ENGINEER DATE	TOWN OF EASTON PLANNING AND ZONING DATE	EASTON UTILITIES - ENGINEER DATE

	PAVEMENT PARKING LOT
	ESD BED BOTTOM
	GRAVEL LOT
	FLAT AREA FOR UTV/ATV STORAGE
	CONCRETE



1	20,092 S.F. PRESTON POWERSPORTS BUILDING
2	PAVEMENT PARKING LOT (79 PARKING SPACES) SEE DETAIL ON SHEET 305.01
3	4,944 S.F. SUBMERGED GRAVEL WETLAND
4	757 S.F. GRASS SWALE #1
5	350 S.F. GRASS SWALE #2
6	STORAGE YARD GRAVEL LOT #2
7	9' PARKING SPACE TYP.
8	40' FRONT BUILDING RESTRICTION LINE
9	10' REAR BUILDING RESTRICTION LINE
10	15' SIDE BUILDING RESTRICTION LINE
11	CONCRETE SIDEWALK
12	TOPSOIL BERM WITH FLAT TOP TO BE USED AS UTV/ATV STORAGE
13	LIMITS OF DISTURBANCE
14	FOREBAY
15	DECELERATION LANE
16	LOADING/STORAGE ACCESS
17	SERVICE ACCESS
18	DEPRESSED CONCRETE ISLAND
19	CONCRETE PAD
20	JET SKI TESTING TANK
21	TIRE DUMPSTER
22	TRASH AND RECYCLING BINS
23	METAL BIN
24	STORAGE YARD GRAVEL LOT #2
25	SITE MONUMENT SIGN
26	FLAG POLE
27	OVERHEAD DOOR
28	ADA PARKING SPACE

OF THE LANDS OF
PRESTON POWERSPORTS

TAX MAP 25, GRID 6, PARCEL 113
FIRST ELECTION DISTRICT, TALBOT COUNTY, MARYLAND
PREPARED FOR ADEMD ROUTE 50, LLC

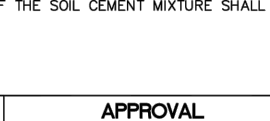
RAUCH
inc.

Engineering | Survey | Architecture | Environmental

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Phone: 410 770 9081 | Fax: 410 770 3667

REVISIONS		DESCRIPTION
REV. #	DATE	
1		
		
DATE: 6/6/2024		
SCALE: 1" = 40'		
DRAWN BY: JWL		
DESIGNED BY: JWL		
APPROVED BY: JWL		
SHEET NO.: C-301		
FOR REVIEW		

COMMERCIAL ASPHALT PAVEMENT FOR ROADS	SURFACE COURSE: 2" HOT MIX ASPHALT SUPERPAVE 9.5 MM BASE COURSE: 4" HOT MIX ASPHALT SUPERPAVE, 19.0 MM PLACED IN 2-2" LIFTS SUB BASE: 2" CR-6 GRADED AGGREGATE COMPACTED TO 95% OF ASTM D1557, MOIST PROCTOR METHOD
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PAVING NOTES	
<u>PAVING REQUIREMENTS</u>	
A. BASE COURSE 1) SUB-BASE COURSE SHALL BE PLACED ON PREPARED AND COMPACTED REEFLED EXCAVATIONS TO THE COMPACTED DEPTH AS SHOWN ON DETAIL. 8W-1.05. MATERIALS AND METHODS OF CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATION.	
2. GRADED AGGREGATE BASE COURSE: a) GRADED AGGREGATE BASE COURSE SHALL BE SPREAD ON PREPARED AND COMPACTED REEFLED EXCAVATIONS TO THE COMPACTED DEPTH AS SHOWN ON DETAIL. 8W-1.05. MATERIALS AND METHODS OF CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATION.	
3. GRADED AGGREGATE SHALL BE PER W-100 STANDARD, SECTION 801. b) RECYCLED COURSE CONCRETE IS AN ACCEPTABLE ALTERNATIVE PROVIDED THICKNESS ADJUSTMENTS ARE MADE BASED ON SUPPLEMENTAL TESTING TO BE SUBMITTED BY A QUALIFIED TESTING LABORATORY AND APPROVED BY THE TOWN ENGINEER.	
B. TACK COAT	
1) COATING SHALL BE RESIDUAL ASPHALT EMULSION SPREAD BETWEEN .01 AND .05 GALLONS/SQ. YARD.	2) CONTRACTOR SHALL TAKE CARE NOT TO TRACK COAT ON SURFACE COURSES.
C. HOT MIX ASPHALT PAVEMENT	
1) HOT MIX ASPHALT PAVEMENT SHALL CONSIST OF A NUMBER OF COURSES OF HMA SUPERPAVE MATERIAL AND AGGREGATE ON A PREPARED SUB-BASE AS SHOWN WITHIN THE TOWN STANDARDS.	
MATERIALS AND METHODS OF CONSTRUCTION SHALL MEET THE PROVISIONS OF SECTION 504 AND SECTION 505 OF THE STANDARD SPECIFICATION.	
2) SURFACE COURSES OF BITUMINOUS CONCRETE MIXES SHALL HAVE LESS THAN 15% OF RECYCLED ASPHALT (RVA) (8W-1.04).	
a) BASE COURSES SHALL HAVE NO MORE THAN 20% RAP.	
b) WEARER COURSES SHALL BE 1.5" THICK.	
3) PLANT MIXED SEAL - MINIMUM SURFACE TEMPERATURE 60F AND RISING.	
SURFACE - MINIMUM SURFACE TEMPERATURE 40F AND RISING.	
c) BASE COURSE - MINIMUM SURFACE TEMPERATURE 37F AND RISING.	
D. CONCRETE PAVEMENT	
1) CONCRETE USED IN THE RESTORATION OF STREET AND ROADS SHALL BE PLACED TO THE MINIMUM THICKNESS THAT SHALL APPROVED BY THE TOWN. CONCRETE MAY BE A BASE COURSE WITH A BITUMINOUS CONCRETE OVERLAY OR A FINISHED SURFACE COURSE.	
2) CONCRETE PAVEMENT SHALL MEET THE PROVISIONS OF THE W-100 STANDARDS, SECTION 822.	
3) CONCRETE SIDEWALKS AND CURBS AND OTHER RESTORATION SHALL, AS INDICATED WITH THE TOWN STANDARDS.	
E. SOIL CEMENT	
1) WHERE THE SOIL VALUES ARE FOUND TO BE LOW WITHIN THE PAVED AREA, THE TOWN WILL ALLOW THE SOIL CEMENT TO BE REINFORCED BY A CONCRETE MORTAR LAYER APPLIED IN THE SUBGRADE. APPLICATION SHALL BE SUBJECT TO THE GEOLOGICAL INVESTIGATION.	
2) A MINIMUM 12" OF 2" C-100 SHALL BE INSTALLED BETWEEN THE AMENDED SOIL AND THE SUBGRADE.	
3) MINIMUM MAX DEPTH OF THE SOIL CEMENT MIXTURE SHALL BE 18" WITH A 5-5-55 MINIMUM CEMENT CONTENT.	
 TOWN OF EASTON TOWN ENGINEER APPROVAL  TOWN OF EASTON STANDARD DETAILS PAYING NOTES DATE <u>1/10/20</u> ISSUED JANUARY 2020 STANDARD NO. TOE-R-102	

CONCRETE QUICK REFERENCE LIST

CAST-IN-PLACE CONCRETE SIDEWALKS AND CURBS

A. MATERIALS

1. SUBMIT MAXIMUM TEST FOR APPROVAL PRIOR TO PLACING CONCRETE (MPSA MAX #5 FOR ALL CONCRETE SIDEWALKS AND ENTRANCES, MINIMUM JOB SPEC UNLESS APPROVED BY ENGINEER. DO NOT PUT CONCRETE EXCEPT MAXIMUM TENSILE STRENGTH RATIO OF 0.45 AND 81% MINIMUM MINIMUM CEMENTITIOUS MATERIALS, AND OBTAINED MINIMUM LABORATORY TESTING.

2. SUBMIT CEMENTITIOUS TESTS FOR APPROVAL, WHICH CONTRACTOR OR PROJECT OWNER SHALL VERIFY FOR INFO AND LABORATORY TESTING.

B. CONCRETE PLACEMENT

1. NOTIFY TOWN OF INTENTION TO PUT CONCRETE 24 HOURS PRIOR TO PERFORMING WORK. (PHONE: 100-862-4421)

2. TOWNSHIP SHALL PRESENT CONTRACTOR GENERATED MAX DELIVERY TICKET UPON ARRIVAL TO TOWNSHIP. DO NOT EXCEED WATER TO MAX 1 JOB SPEC UNLESS APPROVED BY ENGINEER. DO NOT PUT CONCRETE DURING RAIN EVENTS.

3. TESTING AGENCY SHALL TEST FOR SLUMP, TEMPERATURE, AND AIR ENTRAINMENT AT THE JOB SITE, PRIOR TO POURING EACH TRUCK LOAD DELIVERED TO SITE. THE MAXIMUM TIME FROM AGING WATER TO BATCH AT PLANT TO REQUEST AT SITE SHALL BE WITHIN 15 HOURS. TESTING AGENCY SHALL VERIFY EACH TRUCK LOAD FOR CONCRETE CEMENT RATIO AND REQUIREMENTS. TEST RESULTS SHALL BE PROVIDED TO THE ENGINEER WITHIN 48 HOURS OF 7 AND 28 DAY BREAKS. REPORT SHALL INCLUDE LOCATION OF TOWN PER PLAN STATION.

4. ENGINEER SHALL CHECK ALL CHANGES FOR COMPRESSION TESTING ON EACH TRUCK LOAD OF CONCRETE. FOUR TO FIVE TESTS PER TRUCK LOAD. TESTING RESULTS SHALL BE PROVIDED TO THE ENGINEER WITHIN 48 HOURS OF 7 AND 28 DAY BREAKS. REPORT SHALL INCLUDE LOCATION OF TOWN PER PLAN STATION.

5. PREPARED, FREE OF WATER, FREE OF UNDESIRABLE MATERIALS AND THAT ALL REINFORCEMENT REQUIRED AT DRAINAGE, RAMP, VALLEY SLOTTING, ETC IS IN PLACE AND PROPERLY SUPPORTED.

6. COLD WEATHER CONCRETE PLACEMENT SHALL BE PROTECTED FROM DAMAGE AND PROOF FREEZING.

7. CONCRETE CURE DOWNS AND SIDEWALKS SHALL HAVE PROPER CURING, INSTALLED AT 10 FOOT INTERVALS AND JOINTS AT 20 FOOT INTERVALS. CURING SHALL BE MAINTAINED FOR 7 DAYS.

8. CONCRETE CURE DOWNS AND SIDEWALKS SHALL HAVE PROPER CURING, INSTALLED AT 10 FOOT INTERVALS AND JOINTS AT 20 FOOT INTERVALS. CURING SHALL BE MAINTAINED FOR 7 DAYS.

9. AT EACH 100 FOOT INTERVAL, PLUS AT EACH POINT OF "TANGENT OR CORNER, SIDEWALKS SHALL HAVE UPDRAUGHT JOINTS AT 20 FOOT INTERVALS OR AT CHANGE OF DIRECTION.

APPROVAL


JOHN D. FOSTER
TOWN OF EASTON
STANDARD DETAILS

CONCRETE QUICK REFERENCE LIST

DATE: 1/30/20

ISSUED: JANUARY 2020

STANDARD NO: TCE-R-103

CAST-IN-PLACE CONCRETE SIDEWALKS AND CURBS

A. Summary

- 1) Submit mix design for approval prior to placing concrete (USHA MC #3 for all concrete sidewalks, air entrained, minimum 3500 psi min.). For curb and gutter, utilize USHA MC #7; exceed maximum water cementitious ratio of 0.45 and 611 pounds minimum cementitious materials or air entrained, minimum 4200 psi min.
- 2) Submit Concrete Testing Agency for approval, which contractor or project owner will arrange for testing and laboratory testing.

B. Concrete Placement

- 1) Notify the Town of Inverton prior to pour concrete 24 hours prior to performing work. (Phone: 410-825-8822).
- 2) Diver shall present computer generated mix delivery ticket upon arrival to site. Do not add water to mix at job site unless approved by Engineer. Do not pour concrete during rain events.
- 3) Testing Agency shall test for slump, temperature and air entrainment at the job site, prior to pouring each truck load of concrete to deliver to site. The maximum time from adding water to batch of concrete to discharge of site shall be 1 1/2 hours. Testing Agency shall verify that subgrade is properly compacted.
- 4) Testing Agency shall collect samples for compression testing on each truck load of concrete delivered to site per ACI requirements. Test results shall be reported to the Engineer within 48 hours of test and 28 day results. Report shall include location of pour per plan stationing.
- 5) Engineer or his representative shall verify that area of concrete work is properly prepared, free of water, free of undesirable material and that all reinforcement required at driveway, ramp, curb and gutter is in place and properly supported.
- 6) Cold weather concrete placement shall be protected from damage and frost, freezing action or low temperatures. No unapproved admixtures are permitted.
- 7) Concrete curb and sidewalks shall have proper control joints installed at 10' intervals for curb and 5' foot intervals for sidewalks, curb & gutter shall have contraction joints every 10'-0" and expansion joints every 45'-0". Extended concrete curb & gutter shall have contraction joints every 10'-0", and expansion joints every 100'-0" and at point of tangent or curve. Sidewalk shall have expansion joints at 20' intervals or at change of direction.

18"

6"

FACE OF CURB

1/2"

1" R

1/4" R

12"

17 1/2"

6 1/2"

24"

1"

NOTES:

1. ALL CONCRETE USED FOR CURB & GUTTER SHALL BE SH. MIX NO. 7.
2. CURB & GUTTER SHALL HAVE CONTRACTION JOINTS EVERY 10'-0", AND EXPANSION JOINTS EVERY 40'-0". DEPRESSED CONCRETE CURB & GUTTER JOINTS EVERY 100'-0" AND AT 9" R/C.
3. DEPRESSED CURB AND GUTTER SHALL BE UTILIZED AT HANDICAPPED RAMPEN TRANSITIONING FROM STANDARD CURB AND GUTTER.
4. MAXIMUM GUTTER SLOPE ON CURB RETURNS SHALL BE 2% WHERE HANDICAPPED RAMPEN ARE REQUIRED.

APPROVAL		REVISED	TOWN OF EASTON AND EASTON UTILITIES STANDARD DETAILS
 TOWN ENGINEER	DATE	MAY 1, 89	
		AUG 1, 94	
		FEB 25, 09	
		JAN 1, 11	STANDARD CURB AND GUTTER
ISSUED: MAY 1, 1986		STANDARD NO. PW-2.00	

The diagram illustrates a cross-section of a pavement repair. At the top, a 5'-0" MIN. REPAIR WIDTH is indicated. Below this, a 1'-2" MIN. dimension is shown for the base course. The repair consists of several layers: a 2" SURFACE COURSE, a TACK COAT, a 2" SURFACE COURSE, a TACK COAT, and a 4" BASE COURSE. A 4" MIN. dimension is shown for the base course. The repair is shown on a 12" MIN. dimension. A legend at the bottom indicates: [Hatched Box] - HOT MIX ASPHALT and [Stippled Box] - CR-6.

5'-0" MIN. REPAIR WIDTH

1'-2" MIN.

2" SURFACE COURSE

TACK COAT

4" MIN.

4" BASE COURSE

12" MIN.

LEGEND: [Hatched Box] - HOT MIX ASPHALT [Stippled Box] - CR-6

[illegible]

PRESTON POWERSPORTS

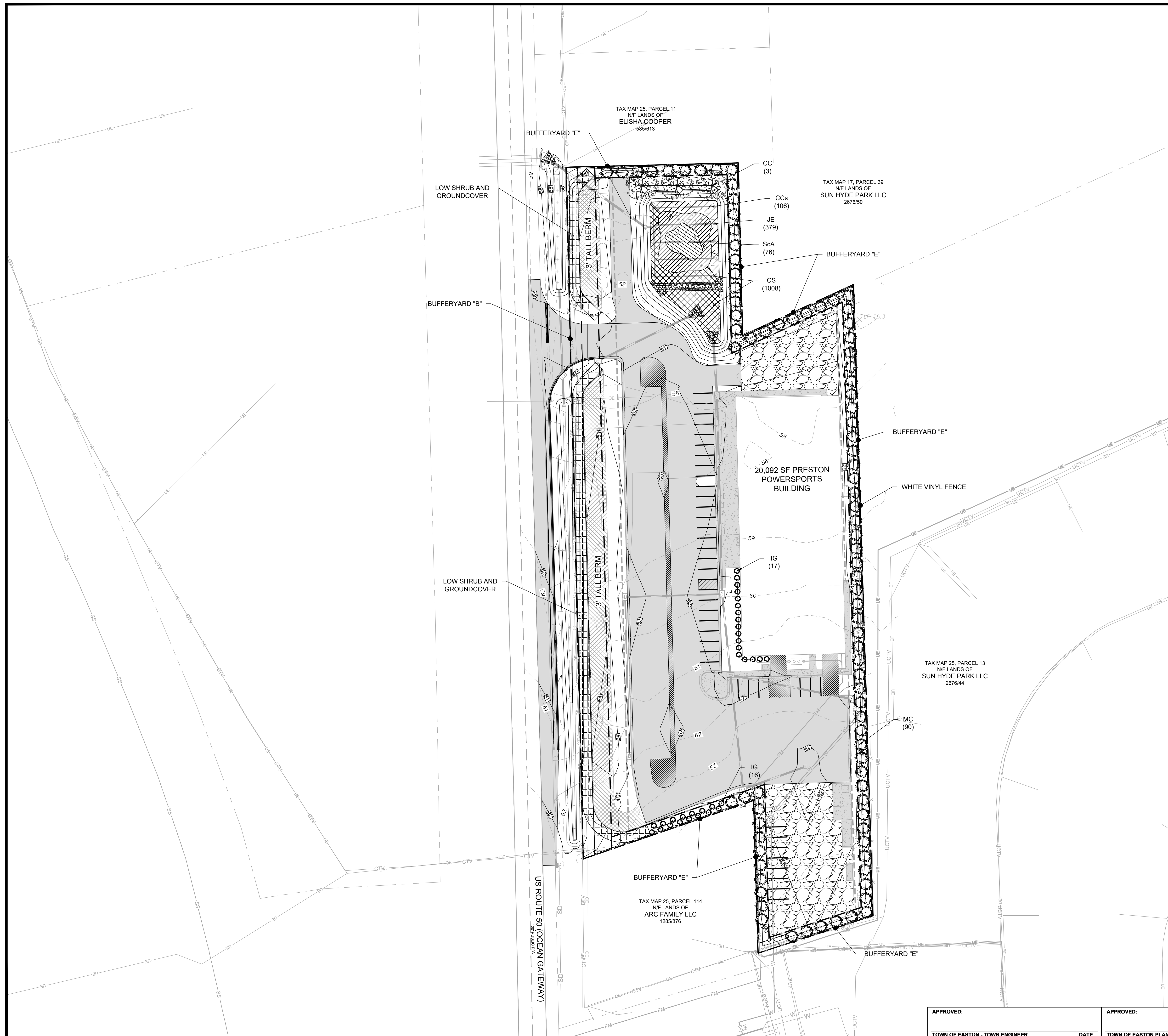
RAUCH

RAUCH
INC.
Engineering | Survey | Architecture | Environmental

Main Office: 108 N Harrison St., Easton, MD 21801
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APPROVED:	APPROVED:	APPROVED:	FOR REVIEW
TOWN OF EASTON - TOWN ENGINEER DATE	TOWN OF EASTON PLANNING AND ZONING DATE	EASTON UTILITIES - ENGINEER DATE	

[illegible]



Town of Easton
Engineering, Planning and Zoning
14 South Harrison Street, Easton, MD 21601

RECEIVED
JUN 06 2024
TOWN OF EASTON

Supplemental Waiver Request Application

Waiver Request Type

Sidewalk ☐ Parking Spaces ☐ Parking/Aisle Dimension ☐
Landscaping & Buffering ☒ Signage ☐ Other ☐

Project Information

Address	9719 Ocean Gateway, Easton, MD 21601				
Tax Map	25	Grid	6	Parcel	113
Zoning District	CG	PC Meeting Date		Historic District	Yes ☐ No ☒
Owner or Agent	ADBMD Route 50, LLC				
Mailing Address	101 Bay Street, Suite 12A				
Telephone No.	410-690-7358	Email			

Request Details

Please attach a detailed description of the waiver request(s) being made and the justification(s) for requesting said waiver(s).

Relief from the bufferyard "B" tree requirements in the entire area. Applicant is constructing a 3' tall berm with low lying shrubs/ flowers no more than 3' tall. The berm will be used to showcase utility vehicles. Larger trees and shrubs will bring leaves and birds. Both leaves and bird drop-pings will damage the finish on vehicles displayed on the lot. Surrounding dealerships within the Town of Easton show no trees on/around the display parking area for this reason. Curb appeal will still be obtained without evergreen tree landscaping.

☐ Ordinance Section Supporting Waiver Request.

28-1014.7

Any modifications during review shall warrant an updated application.

I do hereby solemnly declare and affirm that the information provided by this application and the documents attached hereto accurately represent the conditions of the request and that submission of an incomplete application will be returned for correction prior to processing.

Signature of Applicant or Agent

Date 6/5/2024

Printed Name of Applicant or Agent

Brian Fitzgerald

2024 - 1210 / ESDR 24 - 11



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Engineering, Planning and Zoning
14 South Harrison Street, Easton, MD 21601

RECEIVED
JUN 06 2024
TOWN OF EASTON

Supplemental Waiver Request Application

Waiver Request Type

Sidewalk ☐ Parking Spaces ☐ Parking/Aisle Dimension ☐
Landscaping & Buffering ☒ Signage ☐ Other ☐

Project Information

Address	9719 Ocean Gateway, Easton, MD 21601				
Tax Map	25	Grid	6	Parcel	113
Zoning District	CG	PC Meeting Date		Historic District	Yes ☐ No ☒
Owner or Agent	ADBMD Route 50, LLC				
Mailing Address	101 Bay Street, Suite 12A				
Telephone No.	410-690-7358	Email			

Request Details

Please attach a detailed description of the waiver request(s) being made and the justification(s) for requesting said waiver(s).

Relief from the overall landscaping canopy, and tree requirements. 56 trees, 13 of which are evergreen, are required. Applicant is providing a perimeter 8' white vinyl fence, 3 canopy trees, 90 large shrubs, and 33 small shrubs within the site for screening. Larger trees and shrubs will bring leaves and birds. Both leaves and bird droppings will damage the finish on vehicles displayed on the lot. Surrounding dealerships within the Town of Easton show no trees on/around the display parking area for this reason. Curb appeal will still be obtained without tree landscaping.

☐ Ordinance Section Supporting Waiver Request. 28-1014.6.G

Any modifications during review shall warrant an updated application.

I do hereby solemnly declare and affirm that the information provided by this application and the documents attached hereto accurately represent the conditions of the request and that submission of an incomplete application will be returned for correction prior to processing.

Signature of Applicant or Agent

Date 6/5/2024

Printed Name of Applicant or Agent

Brian Fitzgerald

2024 - 1210 / ESDR 24-11



**SITE DEVELOPMENT
STORMWATER MANAGEMENT ANALYSIS
FOR
PRESTON POWERSPORTS
9719 OCEAN GATEWAY
EASTON, MD 21601**

**PREPARED FOR:
ADBMD ROUTE 50, LLC**

**PREPARED BY:
RAUCH, INC
106 N. HARRISON STREET
EASTON, MD 21601**

JUNE 4TH, 2024

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

TABLE OF CONTENTS

SECTION 1.....Stormwater Management Narrative

SECTION 2.....ESD Calculation Spreadsheets

SECTION 3.....Pre-Development Quantity Calculations

SECTION 4.....Post-Development Quantity Calculations

SECTION 5.....Pre & Post Drainage Map

SECTION 6.....Soil Report

SECTION 1 – STORMWATER MANAGEMENT NARRATIVE

SITE DEVELOPMENT STORMWATER MANAGEMENT NARRATIVE

The proposed Preston Powersports facility is located on a 3.25-acre parcel of land with an existing driveway and trees. 100% of the existing soils within the proposed limits of disturbance are Hydrologic Soil Type D. This project is located within the Miles River watershed (02130502).

The proposed development plan will add 1.34 acres of impervious surfaces, comprising of a building, gravel lots, sidewalk/concrete pads, and asphalt parking. Based on the conditions of the existing parcel, the proposed development will be categorized as “New Development”. The spreadsheets found in Section 2 of this report calculates the required ESD volume to be 14,137 CF of ESD storage.

Water quality will be met through a submerged gravel wetland facility. Prior to entering the submerged gravel wetlands facility water will go through a forebay as a form of pretreatment. The submerged gravel wetlands will have a series of distribution pipes that have risers to the surface to collect surface water. This water will flow through the stone reservoir and be collected by the collection pipes. The rim of the outfall structure will be set 2’ above the bed elevation. The water will discharge into existing ditch along Route 50 and within SHA’s Right-of-Way. The 2, 10, and 100-yr storm will be contained within the submerged gravel wetlands. All Stormwater practices are designed in accordance with MDE Chap. 5 Guidelines.

The volume provided within the submerged gravel wetlands and forebay is as follows:
Total Storage: 16,737 CF

Water quantity control is required for both the 2-year, 10, and 100-year storm events. The table for all study points are shown below for existing and proposed.

Study Point #1			
	2-YR (CFS)	10-YR (CFS)	100-YR (CFS)
Existing	4.40	8.59	17.28
Proposed	3.79	8.47	28.22

ESD SUMMARY CHART

DRAINAGE AREA	TYPE OF ESD PRACTICE	NAME OF ESD PRACTICE (STRUCTURE NAME)	ON-SITE OR OFF-SITE STRUCTURE	RUNOFF CURVE NUMBER (RON) WEIGHTED	MARYLAND GRID COORDINATE NAD 83 METERS NORTHING	MARYLAND GRID COORDINATE NAD 83 METERS EASTING	ESD PRACTICE TOTAL DRAINAGE AREA (ACRES)	ESD PRACTICE IMPERVIOUS DRAINAGE AREA (ACRES)	SURFACE AREA OF ESD PRACTICE (ACRES)	TARGET PE (IN.)	ACTUAL PE (IN.)	TARGET ESDv (FT. ³)	ACTUAL ESDv (ft. ³)
1	SGW-1	SUBMERGED GRAVEL WETLANDS #1	ON	93	420348.1336	1580312.5221	2.672	1.924	0.125	1.80	2.13	14,137	16,737
2													
3													
4													
5													
6													
7													
8													
9													
10													
TOTAL/ AVERAGE				93			2.672	1.924	0.125	1.80	2.13	14,137	16,737

APPROVAL


 TOWN ENGINEER

1/2020
 DATE

TOWN OF EASTON
STANDARD DETAILS

ESD SUMMARY CHART



ISSUED: JANUARY 2020

STANDARD NO.: TOE-SWM-7.01

Page 25 of 129

SECTION 2 – ESD CALCULATION SPREADSHEETS

5/1/2024

EXISTING LOD COVERAGE

COVERAGE DESCRIPTION	COVERAGE CATEGORY	COVERAGE AREA SQ-FT	SOIL TYPE
TREES/VEGETATION	PERVIOUS	146623 D	
TREES/VEGETATION	IMPERVIOUS	19521 D	

TOTAL SITE AREA

EXISTING IMPERVIOUS AREA

PERCENT IMPERVIOUS

166144 SQ-FT

19521 SQ-FT

12%

PROPOSED LOD COVERAGE

COVERAGE DESCRIPTION	COVERAGE CATEGORY	COVERAGE AREA SQ-FT
IMPERVIOUS PARADE ROOFS	IMPERVIOUS IMPERVIOUS	75396
		20093

TOTAL SITE AREA

PROPOSED IMPERVIOUS AREA

PERCENT IMPERVIOUS

166144 SQ-FT

95489 SQ-FT

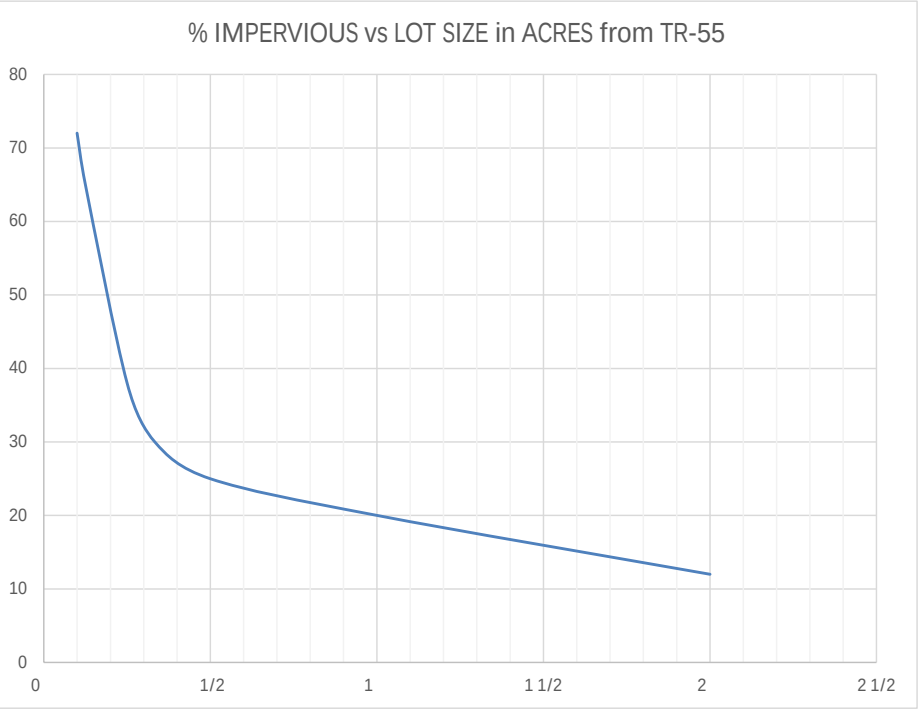
57%

PERCENT HSG A	0%
PERCENT HSG B	0%
PERCENT HSG C	0%
PERCENT HSG D	100%

0

FROM TR-55		
LOT SIZE , % IMPERVIOUS		
	2.00	12
	1.00	20
1/2	0.50	25
1/3	0.33	30
1/4	0.25	38
1/8	0.13	65
	0.10	72

0.166667



Maryland ESD Calculations and 10% Phosphorus Removal

Last Update: 1/6/2019 Rauch Inc.

Project Name:	Preston Powersports	
Date:	1-May-24	
	data input cells	
	calculation cells	146623

Step 1: Complete ESD Implementation Checklist

Check all of the Following ESD Practices That Were Implemented at Site	Yes - No - N/A
Environmental Mapping Was Conducted at Site Prior to Layout	YES
Natural Areas Were Conserved (e.g., forests, wetlands, steep slopes, floodplains)	YES
Stream, Wetland and Shoreline Buffers Were Reserved	YES
Disturbance of Permeable Soils Was Minimized	YES
Natural Flow Paths Were Maintained Across the Site	YES
Building Layout Was Fingerprinted to Reduce Clearing and Grading at Site	YES
Site Grading Promoted Sheetflow From Impervious Areas to Pervious Ones	YES
Site Design Was Evaluated to Reduce Creation of Needless Impervious Cover	YES
Site Design Was Evaluated to Maximize Disconnection of Impervious Cover	YES
Site Design Was Evaluated to Identify Potential Hotspot Generating Area for Stormwater Treatment	YES
Erosion and Sediment Control Practices and Post Construction Stormwater Management Practices Were Integrated into a Comprehensive Plan	YES
Tree PlantingWas Used at the Site to Convert Turf Areas into Forest	YES

Step 2: Calculate Site Imperviousness and Water Quality Volume, WQv (for redevelopment)

defined as A single tract, lot, parcel of land or combination of tracts, lots parcels of land that are in one ownership or are contiguous and in diverse ownership where development is to be performed as part of a unit, subdivision or project. See page 5.117 in the design handbook. This means that a project may be classed as redevelopment even if the LOD is less than 40% impervious

Total SITE Area, A (acres or sq-ft)	140758
Existing SITE Impervious Area (acres or sq-ft)	11887
SITE percent impervious	8%
Development Category (for ESD)	New Development

LOD Area, A (acres)	3.81
Existing LOD Impervious Surface Area (acres)	0.45
Proposed LOD Impervious Surface Area (acres)	2.19
Rainfall Depth, P (in)	1.0

Existing LOD Imperviousness, I _{pre}	12%
Proposed LOD Imperviousness, I _{post}	57%

Water Quality Calculation for Redevelopment Only	
Required Treatment Area (acres)	0.000
Runoff Coefficient, Rv	0.95

Water Quality Volume, WQv (cf)	0
--------------------------------	---

Step 4: Calculate Environmental Site Design (ESD) Rainfall Target, P_E

% Soil Type A	0%	RCN Soil Type A	72.99
% Soil Type B	0%	RCN Soil Type B	81.99
% Soil Type C	0%	RCN Soil Type C	86.99
% Soil Type D	100%	RCN Soil Type D	90.49

Target Pre-Developed Condition, RCN _{woods}	77.00000	Post-Developed Condition, RCN	90.49
--	----------	-------------------------------	-------

Soil Type A ESD Rainfall Target, P _E (in)	0.00
Soil Type B ESD Rainfall Target, P _E (in)	0.00
Soil Type C ESD Rainfall Target, P _E (in)	0.00
Soil Type D ESD Rainfall Target, P _E (in)	1.80
	1yr
Maximum P _E (in)	2.7

Runoff depths for H and H analysis		
2yr	10yr	100yr
3.4	5.3	7.6

Site ESD Rainfall Target, P _E (in)	1.80
---	------

ESD Runoff Depth, Q _E (in)	1.02
---------------------------------------	------

ESD Runoff Volume, ESDv (cf)	14,137
------------------------------	--------

Total Treatment Volume (cf)	14,137
-----------------------------	--------

4176 5679
75396

Step 3: Calculate Phosphorous Removal Requirement, RR for Critical Area Sites

Development Category (for 10%)	New Development
--------------------------------	-----------------

New Development	
Average Annual Predevelopment Load, L _{pre} (lbs P / yr)	1.91

Redevelopment:	
Predevelopment Runoff Coefficient, Rv _{pre}	0.16
Phosphorous Mean Concentration, C (mg/L)	0.3
Average Annual Predevelopment Load, L _{pre} (lbs P / yr)	1.45

Post-Development Runoff Coefficient, Rv _{post}	0.57
Average Annual Post-Development Load, L _{post} (lbs P / yr)	5.30

Removal Requirement, RR (lbs P / yr)	3.58
--------------------------------------	------

Step 5: Select Nonstructural Practices to Treat the ESD Rainfall Target

	P _E Credit Description	Contributing Drainage Area (sf)	Direct WQv or ESDv Received by Practice (cf)	WQv or ESDv from Up- Gradient Practices (cf)	Average P _E Credit (in)	WQV or ESDv credit (cf)	Runoff Volume Remaining (cf)
<i>Nonstructural Practices</i>							
Disconnection of Rooftop Runoff 1	Up to 1 inch credit provided based upon disconnection flow length.	0	0	N/A	#DIV/0!	0	0
Disconnection of Rooftop Runoff 2	Up to 1 inch credit provided based upon disconnection flow length.	0	0	N/A	#DIV/0!	0	0
Disconnection of Non-Rooftop Runoff 1	Up to 1 inch credit provided based upon disconnection and contributing flow lengths.	0	0	N/A	#DIV/0!	0	0
Disconnection of Non-Rooftop Runoff 2	Up to 1 inch credit provided based upon disconnection and contributing flow lengths.	0	0	N/A	#DIV/0!	0	0
Sheetflow to Conservation Areas 1	Up to 1 inch credit provided based upon conservation area width.	0	0	0	#DIV/0!	0	0
Sheetflow to Conservation Areas 2	Up to 1 inch credit provided based upon conservation area width.	0	0	0	#DIV/0!	0	0

Step 6: Select Micro-Scale Practices to Treat the ESD Rainfall Target

	P _E Credit Description	Contributing Drainage Area (sf)	Direct ESDv Received by Practice (cf)	WQv or ESDv from Up- Gradient Practices (cf)	WQv or ESDv credit (cf)	Runoff Volume Remaining (cf)
<i>Micro-Scale Practices</i>						
Green Roof (Level 1)	ESDv credit is based on roof thickness	0	0	N/A	0	0
Green Roof (Level 2)	ESDv credit is based on roof thickness	0	0	N/A	0	0
Pemeable Pavement (A Soils)	ESDv credit is based on subbase thickness	0	0	N/A	0	0
Pemeable Pavement (B Soils)	ESDv credit is based on subbase thickness	0	0	N/A	0	0
Pemeable Pavement (C Soils)	ESDv credit is based on subbase thickness	0	0	N/A	0	0
Rainwater Harvesting	ESDv credit is based on design storage volume and annual use	0	0	0	0	0
Submerged Gravel Wetlands	ESDv credit is based on design storage volume	146,830	18,140	14088	16,737	15,492
Infiltration berms	ESDv credit is based on design storage volume	0	0	0	0	0
Rain Gardens 1	ESDv credit is based on design storage volume	0	0	0	0	0
Rain Gardens 2	ESDv credit is based on design storage volume	0	0	0	0	0
Micro-Bioretention 1	ESDv credit is based on design storage volume	0	0	0	0	0
Micro-Bioretention 2	ESDv credit is based on design storage volume	0	0	0	0	0
Landscape Infiltration	ESDv credit is based on design storage volume	0	0	0	0	0
Grass Swales 1	ESDv credit is based on design storage volume	0	0	0	0	0
Grass Swales 2	ESDv credit is based on design storage volume	0	0	0	0	0
Bio-swales 1	ESDv credit is based on design storage volume	0	0	0	0	0
Bio-swales 2	ESDv credit is based on design storage volume	0	0	0	0	0
Wet Swales	ESDv credit is based on design storage volume	0	0	0	0	0

Critical Area Credits

Baseline Phosphorous Removal Efficiency	Average Adjusted Removal Efficiency Rate	P Load to Practice (lbs/yr)	Load Reduction (lbs/yr)	Remaining Load (lbs/yr)
#DIV/0!	#DIV/0!	0.00	0.00	0.00
#DIV/0!	#DIV/0!	0.00	0.00	0.00
#DIV/0!	#DIV/0!	0.00	0.00	0.00
#DIV/0!	#DIV/0!	0.00	0.00	0.00
#DIV/0!	#DIV/0!	0.00	0.00	0.00
#DIV/0!	#DIV/0!	0.00	0.00	0.00
#DIV/0!	#DIV/0!	0.00	0.00	0.00

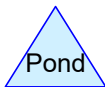
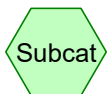
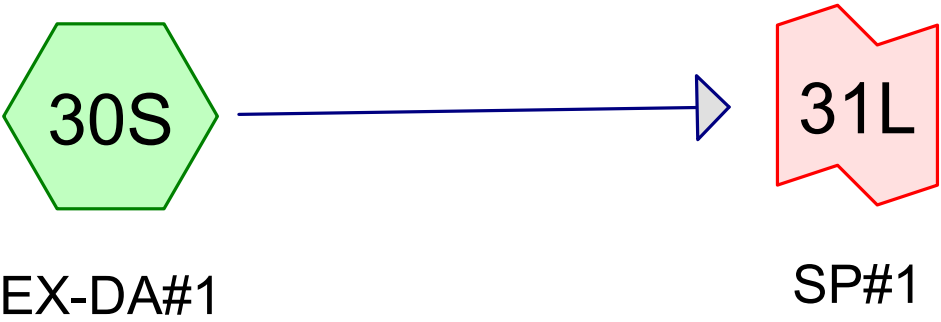
Baseline Phosphorous Removal Efficiency	Average Adjusted Removal Efficiency Rate	P Load to Practice (lbs/yr)	Load Reduction (lbs/yr)	Remaining Load (lbs/yr)
#DIV/0!	#DIV/0!	0.00	0.00	0.00
#DIV/0!	#DIV/0!	0.00	0.00	0.00
80%	#DIV/0!	0.00	0.00	0.00
80%	#DIV/0!	0.00	0.00	0.00
40%	#DIV/0!	0.00	0.00	0.00
45%	#DIV/0!	0.00	0.00	0.00
55%	61%	8.05	4.93	3.12
#DIV/0!	#DIV/0!	0.00	0.00	0.00
#DIV/0!	#DIV/0!	0.00	0.00	0.00
#DIV/0!	#DIV/0!	0.00	0.00	0.00
#DIV/0!	#DIV/0!	0.00	0.00	0.00
#DIV/0!	#DIV/0!	0.00	0.00	0.00
#DIV/0!	#DIV/0!	0.00	0.00	0.00
#DIV/0!	#DIV/0!	0.00	0.00	0.00
#DIV/0!	#DIV/0!	0.00	0.00	0.00

	Contributing Drainage Area (sf)	% Impervious Cover ----- RV	To fully treat sub area ----- PE required ----- WQV required	Max available WQv or ESDv from CDA (cf)	Area of upstream catchment (sf)	WQv or ESDv from Up- Gradient Practices (cf)	Total catchment area ----- Total ESDv to practice	Practice Specific Parameter(s)				WQV or ESDv provided (cf)	Runoff Volume Remainin g (cf)	Down-Gradient Practice and Row	SOIL TYPE	Baseline Phosphor ous Removal Efficiency	Adjusted Removal Rate	P Load to Practice (lbs/yr)	Load Reduction (lbs/yr)	Remainin g Load (lbs/yr)	Watershe d-inches treated (PE Provided)	Annual Rainfall Treated (%)
Micro-Scale Practices																						
Submerged Gravel Wetlands #1	45,413	0%	1.00	511	101417	14088	146,830	Bed Surface Area (sf)	Top of Ponding Surface Area (sf)	Ponding Depth (ft)	Media Depth (ft)	13,196	1,403			60%	76.73%	3.65	2.80	0.85	2.44	105.59%
		4,176	5,679					2	2	C/D												
Forebay #1	101,417	80%	1.80	17,629	0	0	101,417	Bed Surface Area (sf)	75396	Ponding Depth (ft)	Media Depth (ft)	3,541	14,088	Submerged Gravel Wetlands 1		60%	48.53%	4.40	2.14	2.27	0.54	66.78%
		0.7725771	11753					1,261	2,280	2	0				C/D							
Total	146,830			18,140		14,088						16,737	15,492			55%	61.30%	8.05	4.93	3.12	1.40	91.29%

	Contributing Drainage Area (sf)	% Impervious Cover ----- RV	To fully treat sub area ----- PE required ----- WQV required	Max available WQv or ESDv from CDA (cf)	Area of upstream catchment (sf)	WQv or ESDv from Up- Gradient Practices (cf)	Total catchment area ----- Total ESDv to practice	Practice Specific Parameter(s)				WQV or ESDv provided (cf)	Runoff Volume Remainin g (cf)	Down-Gradient Practice and Row	SOIL TYPE	Baseline Phosphor ous Removal Efficiency	Adjusted Removal Rate	P Load to Practice (lbs/yr)	Load Reduction (lbs/yr)	Remainin g Load (lbs/yr)	Watershe d-inches treated (PE Provided)	Annual Rainfall Treated (%)
Micro-Scale Practices		0%	1.00				146,830	Bed Surface Area (sf)	Top of Ponding Surface Area (sf)	Ponding Depth (ft)	Media Depth (ft)											
Submerged Gravel Wetlands #1	45,413	0.05	189	511	101417	14088	14599	4,176	5,679	2	2	13,196	1,403		C/D	60%	76.73%	3.65	2.80	0.85	2.44	105.59%
Forebay #1	101,417	80%	1.80				101,417	Bed Surface Area (sf)	Top of Ponding Surface Area (sf)	Ponding Depth (ft)	Media Depth (ft)			Submerged Gravel Wetlands 1								
		0.7725771	11753	17,629	0	0	17629	1,261	2,280	2	0	3,541	14,088		C/D	60%	48.53%	4.40	2.14	2.27	0.54	66.78%
Total	146,830			18,140		14,088						16,737	15,492			55%	61.30%	8.05	4.93	3.12	1.40	91.29%

SECTION 3 – PRE-DEVELOPMENT QUANTITY CALCULATIONS

EXISTING



Routing Diagram for EX and PR
Prepared by Rauch Inc, Printed 5/1/2024
HydroCAD® 10.20-3g s/n 02413 © 2023 HydroCAD Software Solutions LLC

EX and PR

Prepared by Rauch Inc

Printed 5/1/2024

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Project Notes

Rainfall events imported from "NRCS-Rain.txt" for 5020 MD Talbot

EX and PR

Prepared by Rauch Inc

Printed 5/1/2024

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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-Year	NOAA 24-hr	C	Default	24.00	1	3.33	2
2	10-Year	NOAA 24-hr	C	Default	24.00	1	5.20	2
3	100-Year	NOAA 24-hr	C	Default	24.00	1	8.98	2

EX and PR

Prepared by Rauch Inc

Printed 5/1/2024

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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
3.257	80	>75% Grass cover, Good, HSG D (30S)
0.641	98	Paved parking, HSG D (30S)
3.898	83	TOTAL AREA

EX and PR

Prepared by Rauch Inc

Printed 5/1/2024

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Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
3.898	HSG D	30S
0.000	Other	
3.898		TOTAL AREA

EX and PR

Prepared by Rauch Inc

Printed 5/1/2024

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Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	3.257	0.000	3.257	>75% Grass cover, Good	30S
0.000	0.000	0.000	0.641	0.000	0.641	Paved parking	30S
0.000	0.000	0.000	3.898	0.000	3.898	TOTAL AREA	

EX and PR

NOAA 24-hr C 2-Year Rainfall=3.33"

Prepared by Rauch Inc

Printed 5/1/2024

HydroCAD® 10.20-3g s/n 02413 © 2023 HydroCAD Software Solutions LLC

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 30S: EX-DA#1Runoff Area=169,795 sf 16.44% Impervious Runoff Depth>1.56"
Flow Length=756' Tc=32.9 min CN=83 Runoff=4.40 cfs 0.508 af**Link 31L: SP#1**Inflow=4.40 cfs 0.508 af
Primary=4.40 cfs 0.508 af**Total Runoff Area = 3.898 ac Runoff Volume = 0.508 af Average Runoff Depth = 1.56"**
83.56% Pervious = 3.257 ac 16.44% Impervious = 0.641 ac

EX and PR

Prepared by Rauch Inc

HydroCAD® 10.20-3g s/n 02413 © 2023 HydroCAD Software Solutions LLC

NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Summary for Subcatchment 30S: EX-DA#1

Runoff = 4.40 cfs @ 12.47 hrs, Volume= 0.508 af, Depth> 1.56"
 Routed to Link 31L : SP#1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C 2-Year Rainfall=3.33"

Area (sf)	CN	Description
141,874	80	>75% Grass cover, Good, HSG D
13,874	98	Paved parking, HSG D
14,047	98	Paved parking, HSG D
169,795	83	Weighted Average
141,874		83.56% Pervious Area
27,921		16.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.9	100	0.0080	0.08		Sheet Flow, Grass: Dense n= 0.240 P2= 3.42"
13.0	656	0.0144	0.84		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
32.9	756	Total			



EX and PR

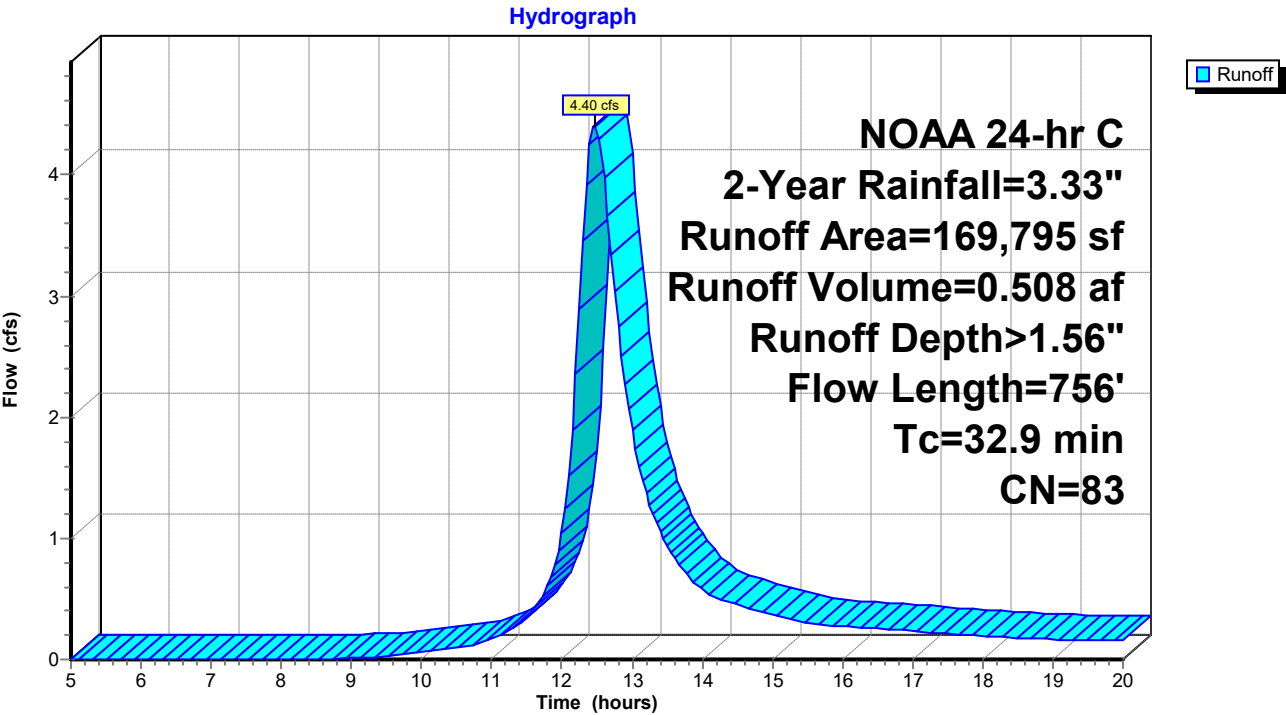
Prepared by Rauch Inc

HydroCAD® 10.20-3g s/n 02413 © 2023 HydroCAD Software Solutions LLC

NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Subcatchment 30S: EX-DA#1



EX and PR

Prepared by Rauch Inc

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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Hydrograph for Subcatchment 30S: EX-DA#1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00	18.00	3.07	1.50	0.19
5.25	0.22	0.00	0.00	18.25	3.08	1.51	0.18
5.50	0.24	0.00	0.00	18.50	3.09	1.52	0.18
5.75	0.25	0.00	0.00	18.75	3.11	1.53	0.17
6.00	0.26	0.00	0.00	19.00	3.12	1.54	0.17
6.25	0.28	0.00	0.00	19.25	3.13	1.55	0.16
6.50	0.29	0.00	0.00	19.50	3.14	1.56	0.16
6.75	0.31	0.00	0.00	19.75	3.16	1.57	0.16
7.00	0.32	0.00	0.00	20.00	3.17	1.58	0.16
7.25	0.34	0.00	0.00				
7.50	0.36	0.00	0.00				
7.75	0.38	0.00	0.00				
8.00	0.40	0.00	0.00				
8.25	0.42	0.00	0.00				
8.50	0.44	0.00	0.00				
8.75	0.46	0.00	0.00				
9.00	0.49	0.00	0.01				
9.25	0.51	0.00	0.02				
9.50	0.54	0.01	0.03				
9.75	0.57	0.01	0.04				
10.00	0.61	0.02	0.06				
10.25	0.65	0.02	0.08				
10.50	0.69	0.03	0.10				
10.75	0.74	0.05	0.12				
11.00	0.80	0.06	0.17				
11.25	0.88	0.09	0.24				
11.50	0.98	0.13	0.35				
11.75	1.17	0.21	0.54				
12.00	1.59	0.43	1.05				
12.25	2.16	0.81	2.90				
12.50	2.35	0.94	4.37				
12.75	2.45	1.02	3.03				
13.00	2.53	1.08	1.89				
13.25	2.59	1.13	1.28				
13.50	2.64	1.17	0.94				
13.75	2.68	1.20	0.72				
14.00	2.72	1.23	0.58				
14.25	2.76	1.25	0.50				
14.50	2.79	1.28	0.45				
14.75	2.82	1.30	0.41				
15.00	2.84	1.32	0.37				
15.25	2.87	1.34	0.34				
15.50	2.89	1.36	0.31				
15.75	2.91	1.37	0.29				
16.00	2.93	1.39	0.27				
16.25	2.95	1.41	0.26				
16.50	2.97	1.42	0.25				
16.75	2.99	1.44	0.24				
17.00	3.01	1.45	0.23				
17.25	3.02	1.46	0.22				
17.50	3.04	1.48	0.21				
17.75	3.05	1.49	0.20				

EX and PR

Prepared by Rauch Inc

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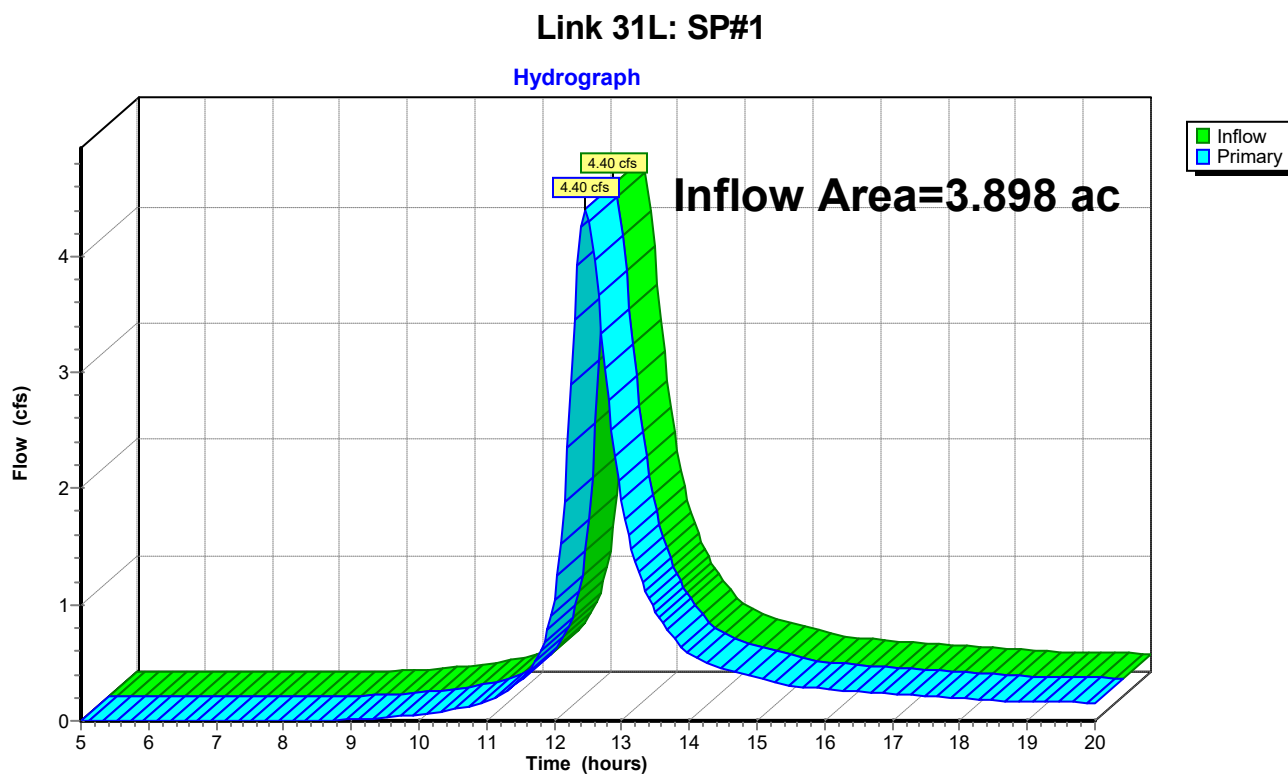
NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Summary for Link 31L: SP#1

Inflow Area = 3.898 ac, 16.44% Impervious, Inflow Depth > 1.56" for 2-Year event
Inflow = 4.40 cfs @ 12.47 hrs, Volume= 0.508 af
Primary = 4.40 cfs @ 12.47 hrs, Volume= 0.508 af, Atten= 0%, Lag= 0.0 min

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



EX and PR

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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Hydrograph for Link 31L: SP#1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	18.00	0.19	0.00	0.19
5.25	0.00	0.00	0.00	18.25	0.18	0.00	0.18
5.50	0.00	0.00	0.00	18.50	0.18	0.00	0.18
5.75	0.00	0.00	0.00	18.75	0.17	0.00	0.17
6.00	0.00	0.00	0.00	19.00	0.17	0.00	0.17
6.25	0.00	0.00	0.00	19.25	0.16	0.00	0.16
6.50	0.00	0.00	0.00	19.50	0.16	0.00	0.16
6.75	0.00	0.00	0.00	19.75	0.16	0.00	0.16
7.00	0.00	0.00	0.00	20.00	0.16	0.00	0.16
7.25	0.00	0.00	0.00				
7.50	0.00	0.00	0.00				
7.75	0.00	0.00	0.00				
8.00	0.00	0.00	0.00				
8.25	0.00	0.00	0.00				
8.50	0.00	0.00	0.00				
8.75	0.00	0.00	0.00				
9.00	0.01	0.00	0.01				
9.25	0.02	0.00	0.02				
9.50	0.03	0.00	0.03				
9.75	0.04	0.00	0.04				
10.00	0.06	0.00	0.06				
10.25	0.08	0.00	0.08				
10.50	0.10	0.00	0.10				
10.75	0.12	0.00	0.12				
11.00	0.17	0.00	0.17				
11.25	0.24	0.00	0.24				
11.50	0.35	0.00	0.35				
11.75	0.54	0.00	0.54				
12.00	1.05	0.00	1.05				
12.25	2.90	0.00	2.90				
12.50	4.37	0.00	4.37				
12.75	3.03	0.00	3.03				
13.00	1.89	0.00	1.89				
13.25	1.28	0.00	1.28				
13.50	0.94	0.00	0.94				
13.75	0.72	0.00	0.72				
14.00	0.58	0.00	0.58				
14.25	0.50	0.00	0.50				
14.50	0.45	0.00	0.45				
14.75	0.41	0.00	0.41				
15.00	0.37	0.00	0.37				
15.25	0.34	0.00	0.34				
15.50	0.31	0.00	0.31				
15.75	0.29	0.00	0.29				
16.00	0.27	0.00	0.27				
16.25	0.26	0.00	0.26				
16.50	0.25	0.00	0.25				
16.75	0.24	0.00	0.24				
17.00	0.23	0.00	0.23				
17.25	0.22	0.00	0.22				
17.50	0.21	0.00	0.21				
17.75	0.20	0.00	0.20				

EX and PR

NOAA 24-hr C 10-Year Rainfall=5.20"

Prepared by Rauch Inc

Printed 5/1/2024

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 30S: EX-DA#1Runoff Area=169,795 sf 16.44% Impervious Runoff Depth>3.09"
Flow Length=756' Tc=32.9 min CN=83 Runoff=8.59 cfs 1.004 af**Link 31L: SP#1**Inflow=8.59 cfs 1.004 af
Primary=8.59 cfs 1.004 af**Total Runoff Area = 3.898 ac Runoff Volume = 1.004 af Average Runoff Depth = 3.09"**
83.56% Pervious = 3.257 ac 16.44% Impervious = 0.641 ac

EX and PR

Prepared by Rauch Inc

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Summary for Subcatchment 30S: EX-DA#1

Runoff = 8.59 cfs @ 12.46 hrs, Volume= 1.004 af, Depth> 3.09"
 Routed to Link 31L : SP#1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C 10-Year Rainfall=5.20"

Area (sf)	CN	Description
141,874	80	>75% Grass cover, Good, HSG D
13,874	98	Paved parking, HSG D
14,047	98	Paved parking, HSG D
169,795	83	Weighted Average
141,874		83.56% Pervious Area
27,921		16.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.9	100	0.0080	0.08		Sheet Flow, Grass: Dense n= 0.240 P2= 3.42"
13.0	656	0.0144	0.84		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
32.9	756	Total			



EX and PR

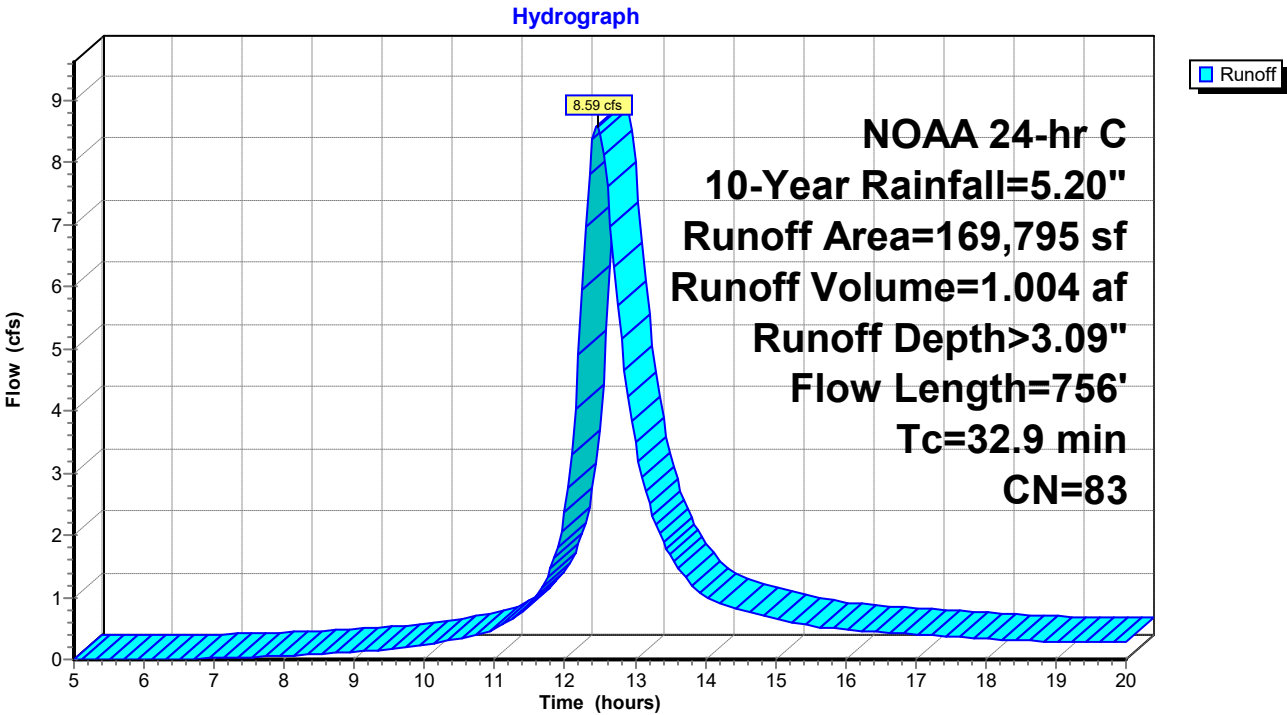
Prepared by Rauch Inc

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Subcatchment 30S: EX-DA#1



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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Hydrograph for Subcatchment 30S: EX-DA#1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00	18.00	4.79	2.98	0.34
5.25	0.35	0.00	0.00	18.25	4.81	3.00	0.32
5.50	0.37	0.00	0.00	18.50	4.83	3.02	0.30
5.75	0.39	0.00	0.00	18.75	4.85	3.04	0.29
6.00	0.41	0.00	0.00	19.00	4.87	3.06	0.29
6.25	0.43	0.00	0.00	19.25	4.89	3.07	0.28
6.50	0.46	0.00	0.00	19.50	4.91	3.09	0.28
6.75	0.48	0.00	0.01	19.75	4.93	3.11	0.27
7.00	0.51	0.00	0.02	20.00	4.95	3.12	0.27
7.25	0.53	0.01	0.03				
7.50	0.56	0.01	0.04				
7.75	0.59	0.01	0.05				
8.00	0.62	0.02	0.06				
8.25	0.66	0.03	0.07				
8.50	0.69	0.03	0.09				
8.75	0.72	0.04	0.10				
9.00	0.76	0.05	0.12				
9.25	0.80	0.06	0.14				
9.50	0.84	0.08	0.16				
9.75	0.89	0.09	0.20				
10.00	0.95	0.11	0.24				
10.25	1.01	0.14	0.28				
10.50	1.07	0.16	0.33				
10.75	1.15	0.20	0.39				
11.00	1.25	0.24	0.50				
11.25	1.38	0.31	0.66				
11.50	1.54	0.40	0.91				
11.75	1.83	0.58	1.32				
12.00	2.48	1.04	2.37				
12.25	3.37	1.75	5.94				
12.50	3.66	2.00	8.47				
12.75	3.82	2.13	5.71				
13.00	3.95	2.24	3.49				
13.25	4.05	2.33	2.32				
13.50	4.13	2.40	1.68				
13.75	4.19	2.45	1.28				
14.00	4.25	2.51	1.02				
14.25	4.31	2.55	0.88				
14.50	4.36	2.60	0.80				
14.75	4.40	2.64	0.73				
15.00	4.44	2.67	0.66				
15.25	4.48	2.70	0.59				
15.50	4.51	2.74	0.54				
15.75	4.54	2.77	0.50				
16.00	4.58	2.79	0.48				
16.25	4.61	2.82	0.46				
16.50	4.64	2.85	0.44				
16.75	4.67	2.87	0.42				
17.00	4.69	2.90	0.41				
17.25	4.72	2.92	0.39				
17.50	4.74	2.94	0.37				
17.75	4.77	2.96	0.35				

EX and PR

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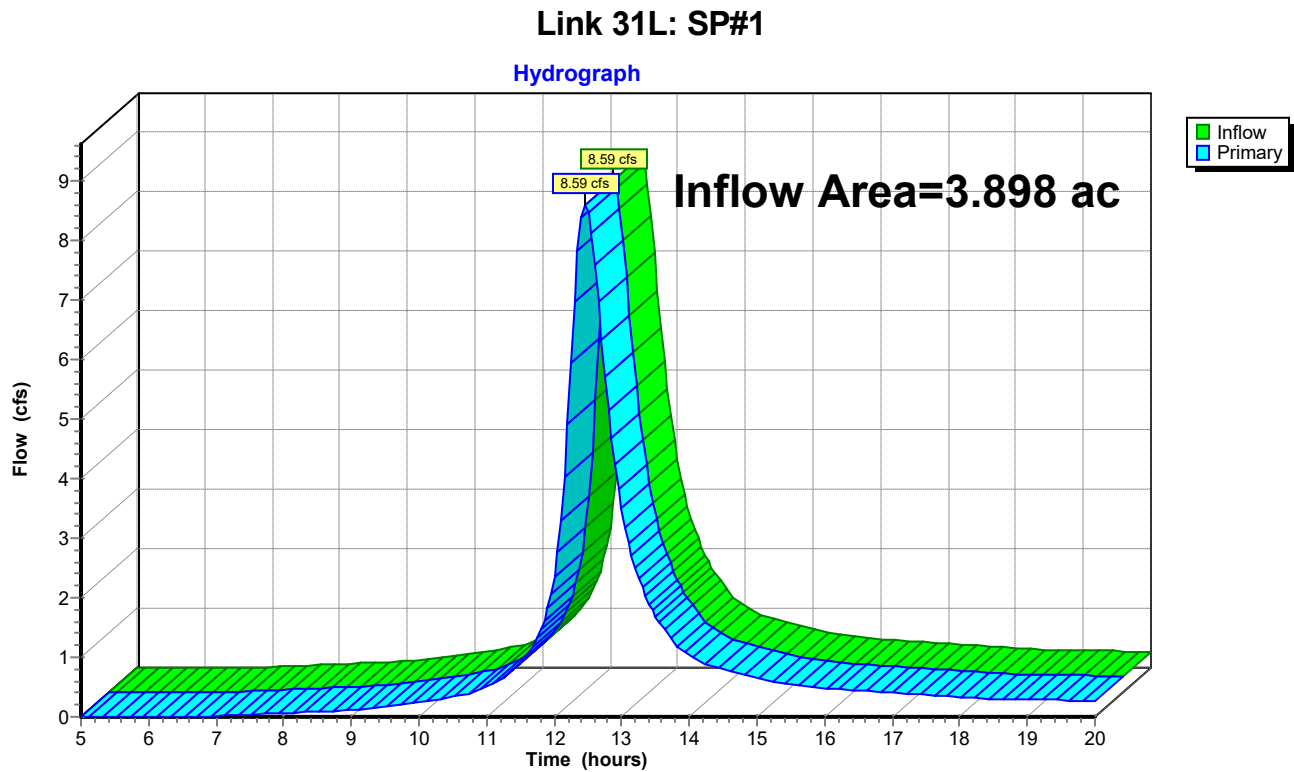
NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Summary for Link 31L: SP#1

Inflow Area = 3.898 ac, 16.44% Impervious, Inflow Depth > 3.09" for 10-Year event
Inflow = 8.59 cfs @ 12.46 hrs, Volume= 1.004 af
Primary = 8.59 cfs @ 12.46 hrs, Volume= 1.004 af, Atten= 0%, Lag= 0.0 min

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



EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Hydrograph for Link 31L: SP#1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	18.00	0.34	0.00	0.34
5.25	0.00	0.00	0.00	18.25	0.32	0.00	0.32
5.50	0.00	0.00	0.00	18.50	0.30	0.00	0.30
5.75	0.00	0.00	0.00	18.75	0.29	0.00	0.29
6.00	0.00	0.00	0.00	19.00	0.29	0.00	0.29
6.25	0.00	0.00	0.00	19.25	0.28	0.00	0.28
6.50	0.00	0.00	0.00	19.50	0.28	0.00	0.28
6.75	0.01	0.00	0.01	19.75	0.27	0.00	0.27
7.00	0.02	0.00	0.02	20.00	0.27	0.00	0.27
7.25	0.03	0.00	0.03				
7.50	0.04	0.00	0.04				
7.75	0.05	0.00	0.05				
8.00	0.06	0.00	0.06				
8.25	0.07	0.00	0.07				
8.50	0.09	0.00	0.09				
8.75	0.10	0.00	0.10				
9.00	0.12	0.00	0.12				
9.25	0.14	0.00	0.14				
9.50	0.16	0.00	0.16				
9.75	0.20	0.00	0.20				
10.00	0.24	0.00	0.24				
10.25	0.28	0.00	0.28				
10.50	0.33	0.00	0.33				
10.75	0.39	0.00	0.39				
11.00	0.50	0.00	0.50				
11.25	0.66	0.00	0.66				
11.50	0.91	0.00	0.91				
11.75	1.32	0.00	1.32				
12.00	2.37	0.00	2.37				
12.25	5.94	0.00	5.94				
12.50	8.47	0.00	8.47				
12.75	5.71	0.00	5.71				
13.00	3.49	0.00	3.49				
13.25	2.32	0.00	2.32				
13.50	1.68	0.00	1.68				
13.75	1.28	0.00	1.28				
14.00	1.02	0.00	1.02				
14.25	0.88	0.00	0.88				
14.50	0.80	0.00	0.80				
14.75	0.73	0.00	0.73				
15.00	0.66	0.00	0.66				
15.25	0.59	0.00	0.59				
15.50	0.54	0.00	0.54				
15.75	0.50	0.00	0.50				
16.00	0.48	0.00	0.48				
16.25	0.46	0.00	0.46				
16.50	0.44	0.00	0.44				
16.75	0.42	0.00	0.42				
17.00	0.41	0.00	0.41				
17.25	0.39	0.00	0.39				
17.50	0.37	0.00	0.37				
17.75	0.35	0.00	0.35				

EX and PR

NOAA 24-hr C 100-Year Rainfall=8.98"

Prepared by Rauch Inc

Printed 5/1/2024

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 30S: EX-DA#1Runoff Area=169,795 sf 16.44% Impervious Runoff Depth>6.43"
Flow Length=756' Tc=32.9 min CN=83 Runoff=17.28 cfs 2.089 af**Link 31L: SP#1**Inflow=17.28 cfs 2.089 af
Primary=17.28 cfs 2.089 af**Total Runoff Area = 3.898 ac Runoff Volume = 2.089 af Average Runoff Depth = 6.43"**
83.56% Pervious = 3.257 ac 16.44% Impervious = 0.641 ac

EX and PR

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NOAA 24-hr C 100-Year Rainfall=8.98"

Printed 5/1/2024

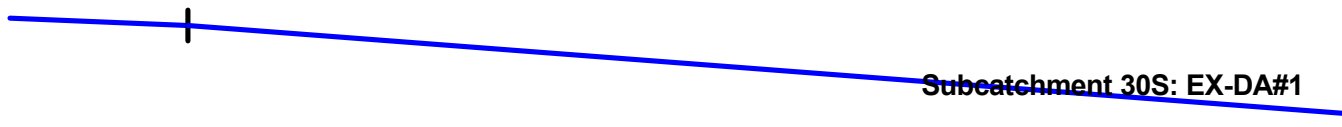
Summary for Subcatchment 30S: EX-DA#1

Runoff = 17.28 cfs @ 12.45 hrs, Volume= 2.089 af, Depth> 6.43"
 Routed to Link 31L : SP#1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C 100-Year Rainfall=8.98"

Area (sf)	CN	Description
141,874	80	>75% Grass cover, Good, HSG D
13,874	98	Paved parking, HSG D
14,047	98	Paved parking, HSG D
169,795	83	Weighted Average
141,874		83.56% Pervious Area
27,921		16.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.9	100	0.0080	0.08		Sheet Flow, Grass: Dense n= 0.240 P2= 3.42"
13.0	656	0.0144	0.84		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
32.9	756	Total			



EX and PR

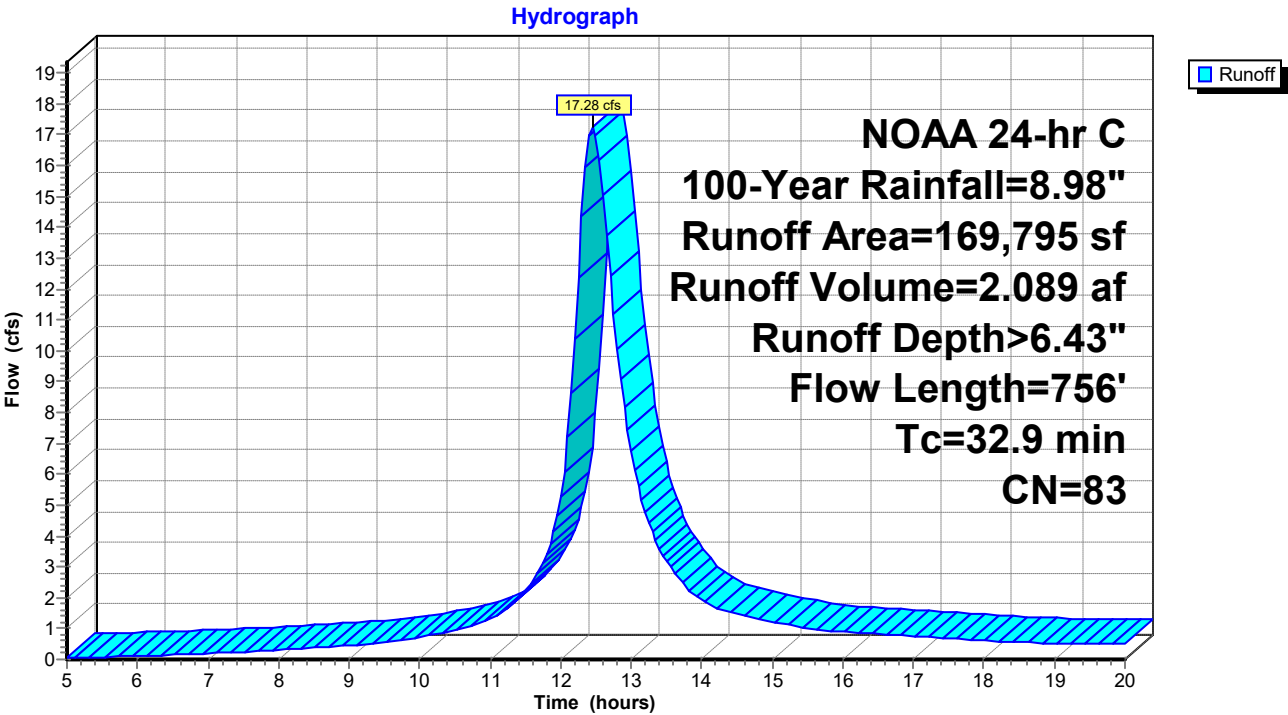
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NOAA 24-hr C 100-Year Rainfall=8.98"

Printed 5/1/2024

Subcatchment 30S: EX-DA#1



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NOAA 24-hr C 100-Year Rainfall=8.98"

Printed 5/1/2024

Hydrograph for Subcatchment 30S: EX-DA#1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.57	0.01	0.04	18.00	8.27	6.23	0.62
5.25	0.61	0.02	0.06	18.25	8.30	6.27	0.59
5.50	0.64	0.02	0.07	18.50	8.34	6.30	0.56
5.75	0.68	0.03	0.09	18.75	8.37	6.34	0.54
6.00	0.71	0.04	0.11	19.00	8.41	6.37	0.53
6.25	0.75	0.05	0.12	19.25	8.44	6.40	0.52
6.50	0.79	0.06	0.14	19.50	8.48	6.43	0.51
6.75	0.83	0.07	0.16	19.75	8.51	6.46	0.50
7.00	0.88	0.09	0.19	20.00	8.54	6.49	0.50
7.25	0.92	0.10	0.21				
7.50	0.97	0.12	0.24				
7.75	1.02	0.14	0.27				
8.00	1.08	0.16	0.30				
8.25	1.13	0.19	0.33				
8.50	1.19	0.21	0.37				
8.75	1.25	0.24	0.40				
9.00	1.31	0.28	0.44				
9.25	1.38	0.31	0.48				
9.50	1.46	0.35	0.54				
9.75	1.54	0.40	0.62				
10.00	1.64	0.46	0.72				
10.25	1.74	0.52	0.83				
10.50	1.85	0.60	0.94				
10.75	1.99	0.69	1.07				
11.00	2.16	0.80	1.31				
11.25	2.38	0.96	1.67				
11.50	2.65	1.17	2.22				
11.75	3.16	1.57	3.10				
12.00	4.28	2.53	5.28				
12.25	5.82	3.93	12.39				
12.50	6.33	4.40	16.96				
12.75	6.60	4.65	11.18				
13.00	6.82	4.86	6.73				
13.25	6.99	5.02	4.42				
13.50	7.13	5.15	3.17				
13.75	7.24	5.25	2.41				
14.00	7.34	5.35	1.91				
14.25	7.44	5.44	1.65				
14.50	7.52	5.52	1.49				
14.75	7.60	5.60	1.35				
15.00	7.67	5.66	1.22				
15.25	7.73	5.72	1.10				
15.50	7.79	5.78	0.99				
15.75	7.85	5.83	0.93				
16.00	7.90	5.89	0.89				
16.25	7.96	5.94	0.85				
16.50	8.01	5.99	0.82				
16.75	8.06	6.03	0.78				
17.00	8.10	6.08	0.75				
17.25	8.15	6.12	0.72				
17.50	8.19	6.16	0.69				
17.75	8.23	6.20	0.65				

EX and PR

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NOAA 24-hr C 100-Year Rainfall=8.98"

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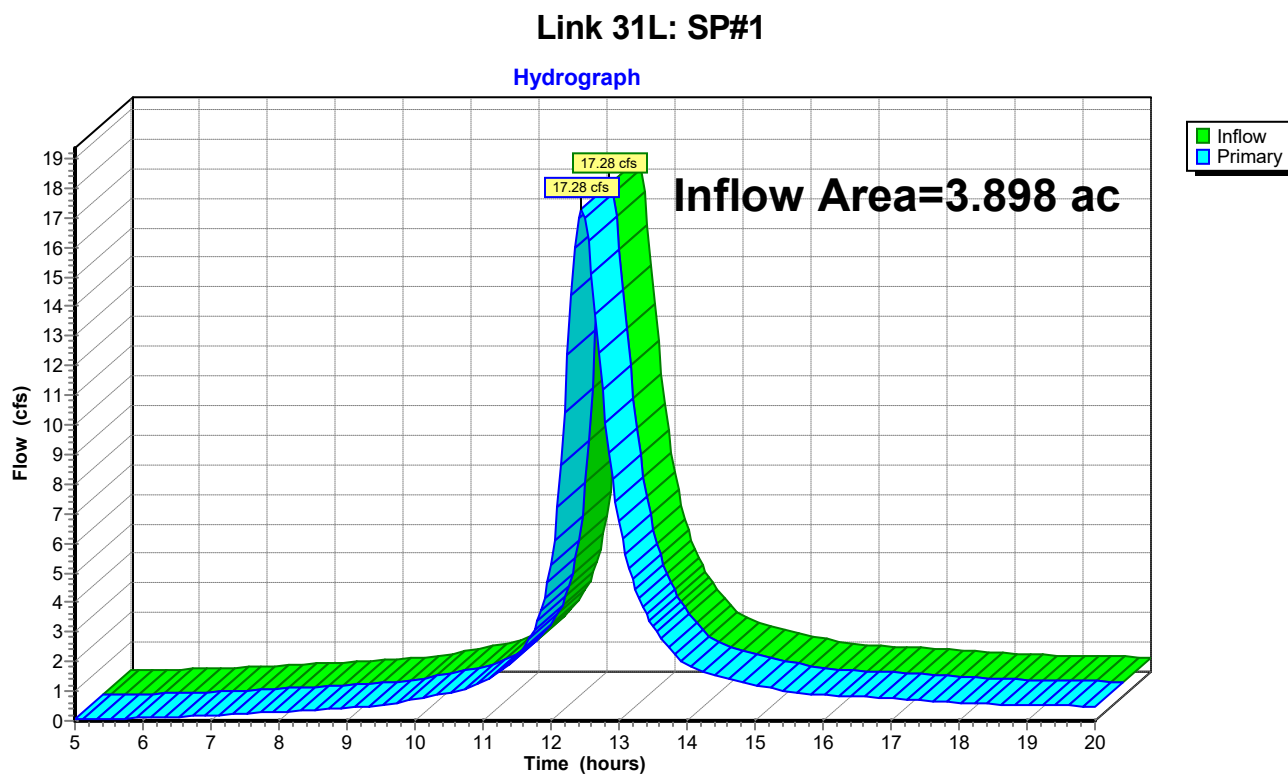
Summary for Link 31L: SP#1

Inflow Area = 3.898 ac, 16.44% Impervious, Inflow Depth > 6.43" for 100-Year event

Inflow = 17.28 cfs @ 12.45 hrs, Volume= 2.089 af

Primary = 17.28 cfs @ 12.45 hrs, Volume= 2.089 af, Atten= 0%, Lag= 0.0 min

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



EX and PR

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NOAA 24-hr C 100-Year Rainfall=8.98"

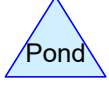
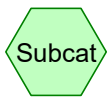
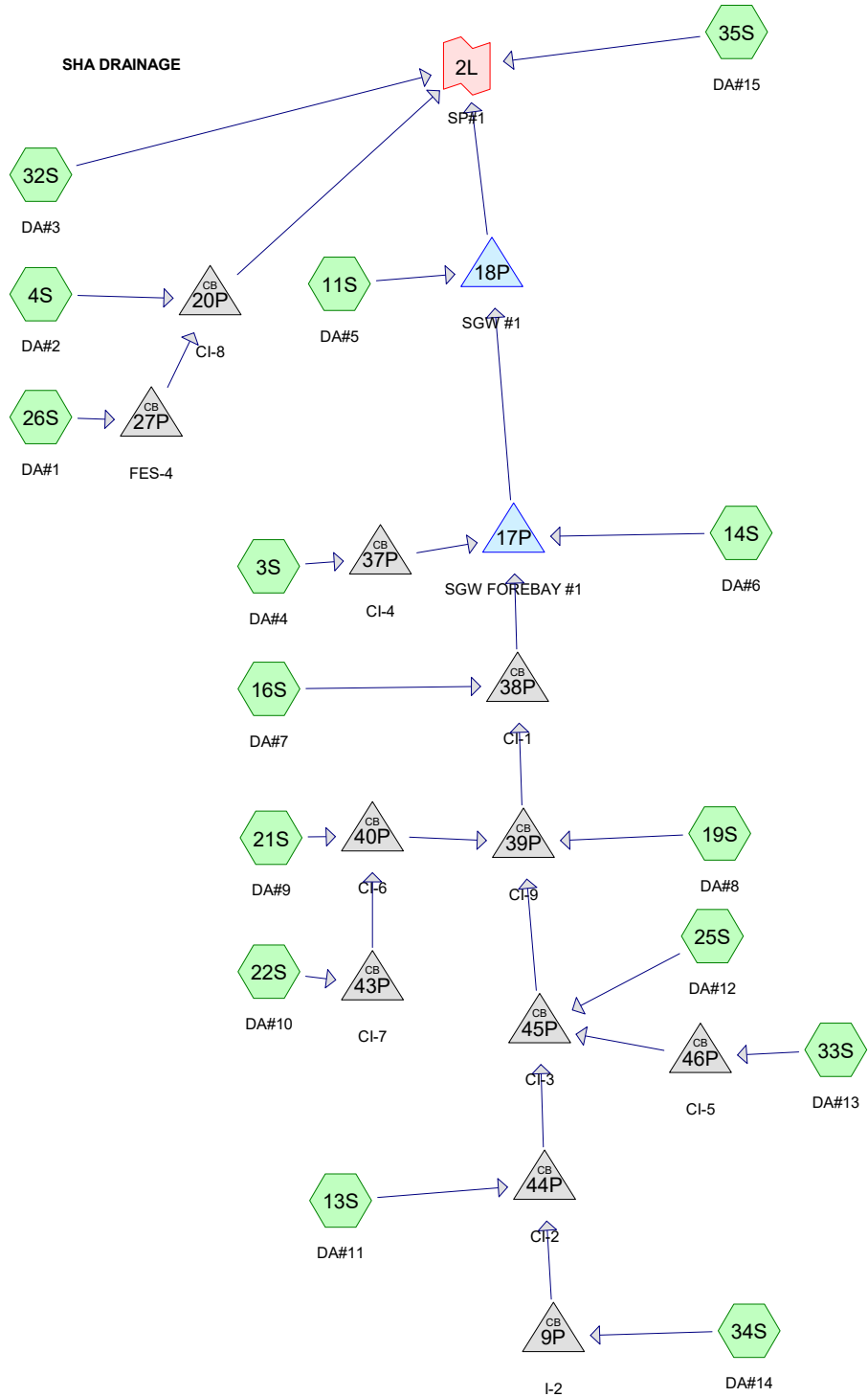
Printed 5/1/2024

Hydrograph for Link 31L: SP#1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.04	0.00	0.04	18.00	0.62	0.00	0.62
5.25	0.06	0.00	0.06	18.25	0.59	0.00	0.59
5.50	0.07	0.00	0.07	18.50	0.56	0.00	0.56
5.75	0.09	0.00	0.09	18.75	0.54	0.00	0.54
6.00	0.11	0.00	0.11	19.00	0.53	0.00	0.53
6.25	0.12	0.00	0.12	19.25	0.52	0.00	0.52
6.50	0.14	0.00	0.14	19.50	0.51	0.00	0.51
6.75	0.16	0.00	0.16	19.75	0.50	0.00	0.50
7.00	0.19	0.00	0.19	20.00	0.50	0.00	0.50
7.25	0.21	0.00	0.21				
7.50	0.24	0.00	0.24				
7.75	0.27	0.00	0.27				
8.00	0.30	0.00	0.30				
8.25	0.33	0.00	0.33				
8.50	0.37	0.00	0.37				
8.75	0.40	0.00	0.40				
9.00	0.44	0.00	0.44				
9.25	0.48	0.00	0.48				
9.50	0.54	0.00	0.54				
9.75	0.62	0.00	0.62				
10.00	0.72	0.00	0.72				
10.25	0.83	0.00	0.83				
10.50	0.94	0.00	0.94				
10.75	1.07	0.00	1.07				
11.00	1.31	0.00	1.31				
11.25	1.67	0.00	1.67				
11.50	2.22	0.00	2.22				
11.75	3.10	0.00	3.10				
12.00	5.28	0.00	5.28				
12.25	12.39	0.00	12.39				
12.50	16.96	0.00	16.96				
12.75	11.18	0.00	11.18				
13.00	6.73	0.00	6.73				
13.25	4.42	0.00	4.42				
13.50	3.17	0.00	3.17				
13.75	2.41	0.00	2.41				
14.00	1.91	0.00	1.91				
14.25	1.65	0.00	1.65				
14.50	1.49	0.00	1.49				
14.75	1.35	0.00	1.35				
15.00	1.22	0.00	1.22				
15.25	1.10	0.00	1.10				
15.50	0.99	0.00	0.99				
15.75	0.93	0.00	0.93				
16.00	0.89	0.00	0.89				
16.25	0.85	0.00	0.85				
16.50	0.82	0.00	0.82				
16.75	0.78	0.00	0.78				
17.00	0.75	0.00	0.75				
17.25	0.72	0.00	0.72				
17.50	0.69	0.00	0.69				
17.75	0.65	0.00	0.65				

SECTION 4 – POST-DEVELOPMENT QUANTITY CALCULATIONS

PROPOSED



Routing Diagram for EX and PR
 Prepared by Rauch Inc, Printed 5/1/2024
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EX and PR

Prepared by Rauch Inc

Printed 5/1/2024

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Project Notes

Rainfall events imported from "NRCS-Rain.txt" for 5020 MD Talbot

EX and PR

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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-Year	NOAA 24-hr	C	Default	24.00	1	3.33	2
2	10-Year	NOAA 24-hr	C	Default	24.00	1	5.20	2
3	100-Year	NOAA 24-hr	C	Default	24.00	1	8.98	2

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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.567	80	>75% Grass cover, Good, HSG D (3S, 4S, 11S, 13S, 14S, 16S, 19S, 21S, 22S, 25S, 26S, 32S, 33S, 34S, 35S)
0.092	98	Paved parking, HSG D (4S, 11S)
2.239	98	Roofs, HSG D (3S, 13S, 14S, 16S, 19S, 21S, 22S, 25S, 26S, 32S, 33S, 34S)
3.898	91	TOTAL AREA

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Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
3.898	HSG D	3S, 4S, 11S, 13S, 14S, 16S, 19S, 21S, 22S, 25S, 26S, 32S, 33S, 34S, 35S
0.000	Other	
3.898		TOTAL AREA

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Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	1.567	0.000	1.567	>75% Grass cover, Good	3S, 4S, 11S, 13S, 14S, 16S, 19S, 21S, 22S, 25S, 26S, 32S, 33S, 34S, 35S
0.000	0.000	0.000	0.092	0.000	0.092	Paved parking	4S, 11S
0.000	0.000	0.000	2.239	0.000	2.239	Roofs	3S, 13S, 14S, 16S, 19S, 21S, 22S, 25S, 26S, 32S, 33S, 34S
0.000	0.000	0.000	3.898	0.000	3.898	TOTAL AREA	

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Printed 5/1/2024

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Pipe Listing (selected nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	9P	59.06	58.55	57.6	0.0089	0.012	0.0	15.0	0.0	
2	18P	54.75	54.66	96.5	0.0009	0.012	0.0	18.0	0.0	
3	20P	56.78	56.00	75.5	0.0103	0.012	0.0	15.0	0.0	
4	27P	57.05	56.78	25.5	0.0106	0.012	0.0	15.0	0.0	
5	37P	55.53	55.08	89.2	0.0050	0.012	0.0	15.0	0.0	
6	38P	55.43	55.08	46.3	0.0076	0.012	0.0	18.0	0.0	
7	39P	57.03	55.43	172.0	0.0093	0.012	0.0	15.0	0.0	
8	40P	57.45	57.03	84.4	0.0050	0.012	0.0	12.0	0.0	
9	43P	58.13	57.43	138.4	0.0051	0.012	0.0	12.0	0.0	
10	44P	58.55	57.66	99.8	0.0089	0.012	0.0	15.0	0.0	
11	45P	57.66	57.03	99.8	0.0063	0.012	0.0	15.0	0.0	
12	46P	58.28	57.75	107.0	0.0050	0.012	0.0	15.0	0.0	

EX and PR

Prepared by Rauch Inc

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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

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

Subcatchment 3S: DA#4	Runoff Area=9,330 sf 70.69% Impervious Runoff Depth>2.41" Flow Length=143' Tc=1.4 min CN=93 Runoff=0.76 cfs 0.043 af
Subcatchment 4S: DA#2	Runoff Area=3,733 sf 67.48% Impervious Runoff Depth>2.32" Flow Length=44' Slope=0.0948 '/' Tc=3.8 min CN=92 Runoff=0.28 cfs 0.017 af
Subcatchment 11S: DA#5	Runoff Area=9,317 sf 15.83% Impervious Runoff Depth>1.58" Flow Length=44' Slope=0.0889 '/' Tc=1.1 min CN=83 Runoff=0.54 cfs 0.028 af
Subcatchment 13S: DA#11	Runoff Area=6,211 sf 83.67% Impervious Runoff Depth>2.60" Flow Length=81' Slope=0.0126 '/' Tc=1.2 min CN=95 Runoff=0.53 cfs 0.031 af
Subcatchment 14S: DA#6	Runoff Area=21,528 sf 73.17% Impervious Runoff Depth>2.41" Flow Length=119' Tc=3.4 min CN=93 Runoff=1.69 cfs 0.099 af
Subcatchment 16S: DA#7	Runoff Area=8,499 sf 87.34% Impervious Runoff Depth>2.69" Flow Length=120' Tc=1.5 min CN=96 Runoff=0.73 cfs 0.044 af
Subcatchment 19S: DA#8	Runoff Area=17,721 sf 97.79% Impervious Runoff Depth>2.86" Flow Length=73' Slope=0.0174 '/' Tc=1.0 min CN=98 Runoff=1.58 cfs 0.097 af
Subcatchment 21S: DA#9	Runoff Area=10,950 sf 68.20% Impervious Runoff Depth>2.32" Flow Length=128' Tc=1.4 min CN=92 Runoff=0.86 cfs 0.049 af
Subcatchment 22S: DA#10	Runoff Area=5,696 sf 41.20% Impervious Runoff Depth>1.88" Flow Length=99' Tc=12.1 min CN=87 Runoff=0.28 cfs 0.020 af
Subcatchment 25S: DA#12	Runoff Area=6,725 sf 87.20% Impervious Runoff Depth>2.69" Flow Length=98' Slope=0.0100 '/' Tc=1.5 min CN=96 Runoff=0.58 cfs 0.035 af
Subcatchment 26S: DA#1	Runoff Area=29,068 sf 39.09% Impervious Runoff Depth>1.88" Flow Length=405' Tc=5.5 min CN=87 Runoff=1.72 cfs 0.105 af
Subcatchment 32S: DA#3	Runoff Area=9,470 sf 40.45% Impervious Runoff Depth>1.89" Flow Length=161' Tc=1.0 min CN=87 Runoff=0.64 cfs 0.034 af
Subcatchment 33S: DA#13	Runoff Area=3,211 sf 51.14% Impervious Runoff Depth>2.05" Flow Length=52' Slope=0.0292 '/' Tc=0.6 min CN=89 Runoff=0.23 cfs 0.013 af
Subcatchment 34S: DA#14	Runoff Area=17,184 sf 73.97% Impervious Runoff Depth>2.41" Flow Length=100' Slope=0.0187 '/' Tc=1.2 min CN=93 Runoff=1.39 cfs 0.079 af
Subcatchment 35S: DA#15	Runoff Area=11,147 sf 0.00% Impervious Runoff Depth>1.37" Flow Length=558' Tc=21.2 min CN=80 Runoff=0.31 cfs 0.029 af
Pond 9P: I-2	Peak Elev=59.70' Inflow=1.39 cfs 0.079 af Outflow=1.39 cfs 0.079 af

EX and PR

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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Pond 17P: SGW FOREBAY #1	Peak Elev=56.71' Storage=2,712 cf Inflow=8.32 cfs 0.509 af Outflow=8.79 cfs 0.474 af
Pond 18P: SGW #1	Peak Elev=56.71' Storage=7,790 cf Inflow=9.33 cfs 0.502 af Outflow=1.24 cfs 0.502 af
Pond 20P: CI-8	Peak Elev=57.48' Inflow=1.99 cfs 0.121 af Outflow=1.99 cfs 0.121 af
Pond 27P: FES-4	Peak Elev=57.79' Inflow=1.72 cfs 0.105 af 15.0" Round Culvert n=0.012 L=25.5' S=0.0106 '/' Outflow=1.72 cfs 0.105 af
Pond 37P: CI-4	Peak Elev=56.71' Inflow=0.76 cfs 0.043 af Outflow=0.76 cfs 0.043 af
Pond 38P: CI-1	Peak Elev=56.85' Inflow=6.06 cfs 0.367 af Outflow=6.06 cfs 0.367 af
Pond 39P: CI-9	Peak Elev=58.46' Inflow=5.33 cfs 0.323 af Outflow=5.33 cfs 0.323 af
Pond 40P: CI-6	Peak Elev=58.55' Inflow=1.04 cfs 0.069 af Outflow=1.04 cfs 0.069 af
Pond 43P: CI-7	Peak Elev=58.63' Inflow=0.28 cfs 0.020 af Outflow=0.28 cfs 0.020 af
Pond 44P: CI-2	Peak Elev=59.30' Inflow=1.92 cfs 0.110 af Outflow=1.92 cfs 0.110 af
Pond 45P: CI-3	Peak Elev=58.81' Inflow=2.73 cfs 0.157 af Outflow=2.73 cfs 0.157 af
Pond 46P: CI-5	Peak Elev=58.82' Inflow=0.23 cfs 0.013 af Outflow=0.23 cfs 0.013 af
Link 2L: SP#1	Inflow=3.79 cfs 0.687 af Primary=3.79 cfs 0.687 af

Total Runoff Area = 3.898 ac Runoff Volume = 0.722 af Average Runoff Depth = 2.22"
40.21% Pervious = 1.567 ac 59.79% Impervious = 2.330 ac

EX and PR

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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

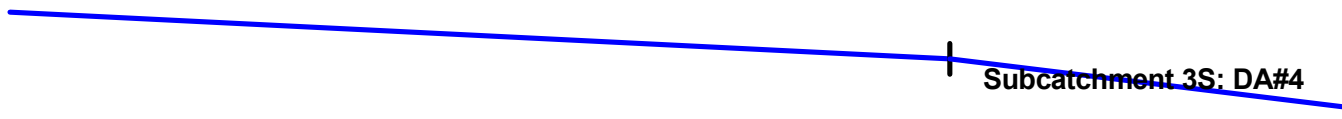
Summary for Subcatchment 3S: DA#4

Runoff = 0.76 cfs @ 12.07 hrs, Volume= 0.043 af, Depth> 2.41"
 Routed to Pond 37P : CI-4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C 2-Year Rainfall=3.33"

Area (sf)	CN	Description
6,595	98	Roofs, HSG D
2,735	80	>75% Grass cover, Good, HSG D
9,330	93	Weighted Average
2,735		29.31% Pervious Area
6,595		70.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0180	1.36		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"
0.2	43	0.0441	4.26		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.4	143	Total			



EX and PR

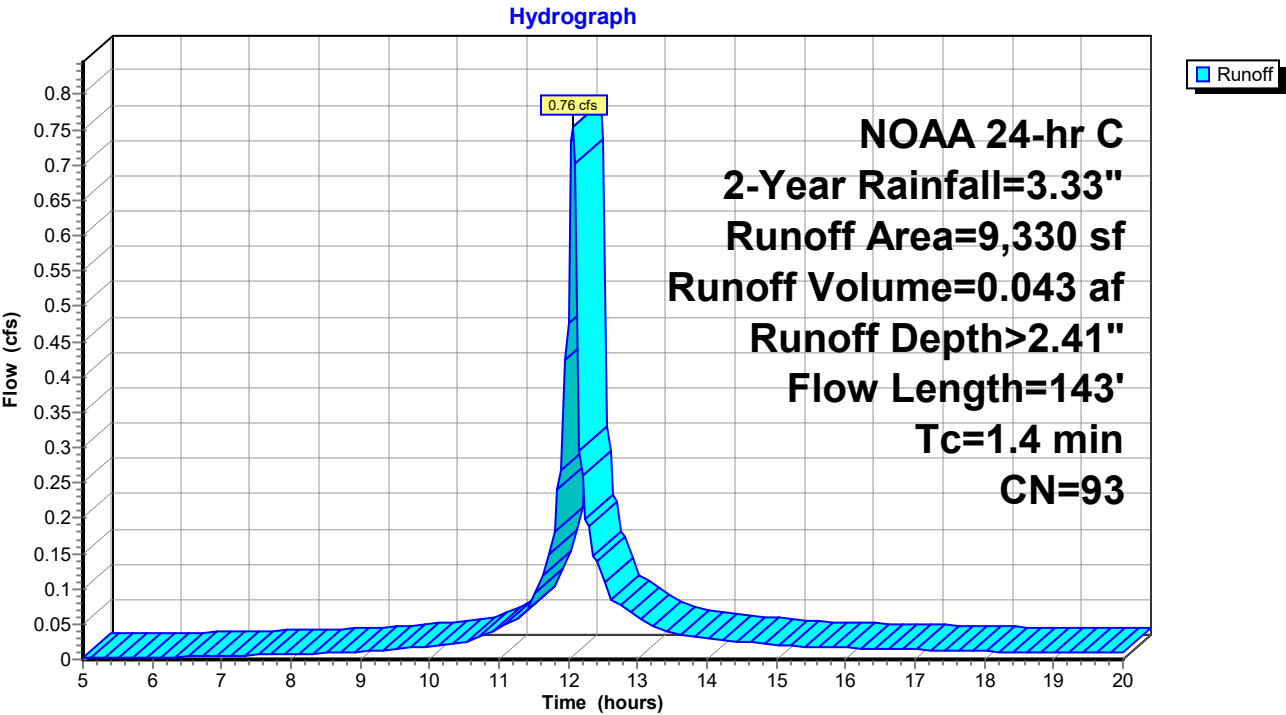
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NOAA 24-hr C 2-Year Rainfall=3.33"

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Subcatchment 3S: DA#4



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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Hydrograph for Subcatchment 3S: DA#4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00	18.00	3.07	2.32	0.01
5.25	0.22	0.01	0.00	18.25	3.08	2.33	0.01
5.50	0.24	0.01	0.00	18.50	3.09	2.34	0.01
5.75	0.25	0.01	0.00	18.75	3.11	2.36	0.01
6.00	0.26	0.01	0.00	19.00	3.12	2.37	0.01
6.25	0.28	0.02	0.00	19.25	3.13	2.38	0.01
6.50	0.29	0.02	0.00	19.50	3.14	2.39	0.01
6.75	0.31	0.03	0.00	19.75	3.16	2.40	0.01
7.00	0.32	0.03	0.00	20.00	3.17	2.41	0.01
7.25	0.34	0.04	0.01				
7.50	0.36	0.05	0.01				
7.75	0.38	0.05	0.01				
8.00	0.40	0.06	0.01				
8.25	0.42	0.07	0.01				
8.50	0.44	0.08	0.01				
8.75	0.46	0.09	0.01				
9.00	0.49	0.10	0.01				
9.25	0.51	0.12	0.01				
9.50	0.54	0.13	0.01				
9.75	0.57	0.15	0.02				
10.00	0.61	0.17	0.02				
10.25	0.65	0.20	0.02				
10.50	0.69	0.22	0.02				
10.75	0.74	0.26	0.03				
11.00	0.80	0.30	0.04				
11.25	0.88	0.36	0.06				
11.50	0.98	0.44	0.08				
11.75	1.17	0.59	0.17				
12.00	1.59	0.94	0.48				
12.25	2.16	1.46	0.20				
12.50	2.35	1.63	0.13				
12.75	2.45	1.73	0.08				
13.00	2.53	1.81	0.06				
13.25	2.59	1.87	0.05				
13.50	2.64	1.92	0.04				
13.75	2.68	1.95	0.03				
14.00	2.72	1.99	0.03				
14.25	2.76	2.02	0.03				
14.50	2.79	2.05	0.03				
14.75	2.82	2.08	0.02				
15.00	2.84	2.10	0.02				
15.25	2.87	2.13	0.02				
15.50	2.89	2.15	0.02				
15.75	2.91	2.17	0.02				
16.00	2.93	2.19	0.02				
16.25	2.95	2.21	0.02				
16.50	2.97	2.23	0.02				
16.75	2.99	2.24	0.01				
17.00	3.01	2.26	0.01				
17.25	3.02	2.27	0.01				
17.50	3.04	2.29	0.01				
17.75	3.05	2.30	0.01				

EX and PR

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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Summary for Subcatchment 4S: DA#2

Runoff = 0.28 cfs @ 12.10 hrs, Volume= 0.017 af, Depth> 2.32"
Routed to Pond 20P : CI-8

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 2-Year Rainfall=3.33"

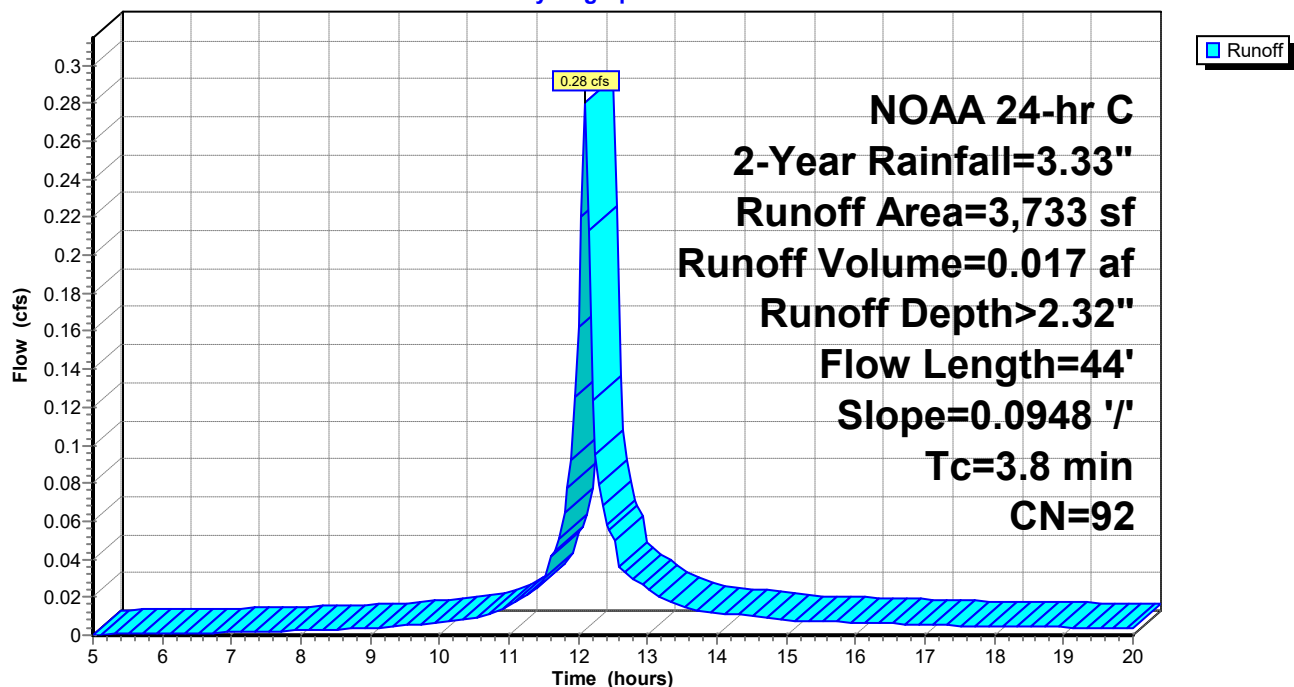
Area (sf)	CN	Description
2,519	98	Paved parking, HSG D
1,214	80	>75% Grass cover, Good, HSG D
3,733	92	Weighted Average
1,214		32.52% Pervious Area
2,519		67.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.8	44	0.0948	0.19		Sheet Flow, Grass: Dense n= 0.240 P2= 3.42"

Subcatchment 4S: DA#2

Subcatchment 4S: DA#2

Hydrograph



EX and PR

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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Hydrograph for Subcatchment 4S: DA#2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00	18.00	3.07	2.22	0.00
5.25	0.22	0.00	0.00	18.25	3.08	2.24	0.00
5.50	0.24	0.00	0.00	18.50	3.09	2.25	0.00
5.75	0.25	0.01	0.00	18.75	3.11	2.26	0.00
6.00	0.26	0.01	0.00	19.00	3.12	2.27	0.00
6.25	0.28	0.01	0.00	19.25	3.13	2.28	0.00
6.50	0.29	0.01	0.00	19.50	3.14	2.30	0.00
6.75	0.31	0.02	0.00	19.75	3.16	2.31	0.00
7.00	0.32	0.02	0.00	20.00	3.17	2.32	0.00
7.25	0.34	0.03	0.00				
7.50	0.36	0.03	0.00				
7.75	0.38	0.04	0.00				
8.00	0.40	0.05	0.00				
8.25	0.42	0.05	0.00				
8.50	0.44	0.06	0.00				
8.75	0.46	0.07	0.00				
9.00	0.49	0.08	0.00				
9.25	0.51	0.09	0.00				
9.50	0.54	0.11	0.01				
9.75	0.57	0.13	0.01				
10.00	0.61	0.14	0.01				
10.25	0.65	0.17	0.01				
10.50	0.69	0.19	0.01				
10.75	0.74	0.22	0.01				
11.00	0.80	0.26	0.01				
11.25	0.88	0.32	0.02				
11.50	0.98	0.39	0.03				
11.75	1.17	0.53	0.05				
12.00	1.59	0.87	0.16				
12.25	2.16	1.38	0.10				
12.50	2.35	1.55	0.05				
12.75	2.45	1.65	0.03				
13.00	2.53	1.72	0.02				
13.25	2.59	1.78	0.02				
13.50	2.64	1.83	0.02				
13.75	2.68	1.86	0.01				
14.00	2.72	1.90	0.01				
14.25	2.76	1.93	0.01				
14.50	2.79	1.96	0.01				
14.75	2.82	1.99	0.01				
15.00	2.84	2.01	0.01				
15.25	2.87	2.04	0.01				
15.50	2.89	2.06	0.01				
15.75	2.91	2.08	0.01				
16.00	2.93	2.10	0.01				
16.25	2.95	2.11	0.01				
16.50	2.97	2.13	0.01				
16.75	2.99	2.15	0.01				
17.00	3.01	2.17	0.01				
17.25	3.02	2.18	0.01				
17.50	3.04	2.20	0.01				
17.75	3.05	2.21	0.00				

EX and PR

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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Summary for Subcatchment 11S: DA#5

Runoff = 0.54 cfs @ 12.07 hrs, Volume= 0.028 af, Depth> 1.58"
Routed to Pond 18P : SGW #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 2-Year Rainfall=3.33"

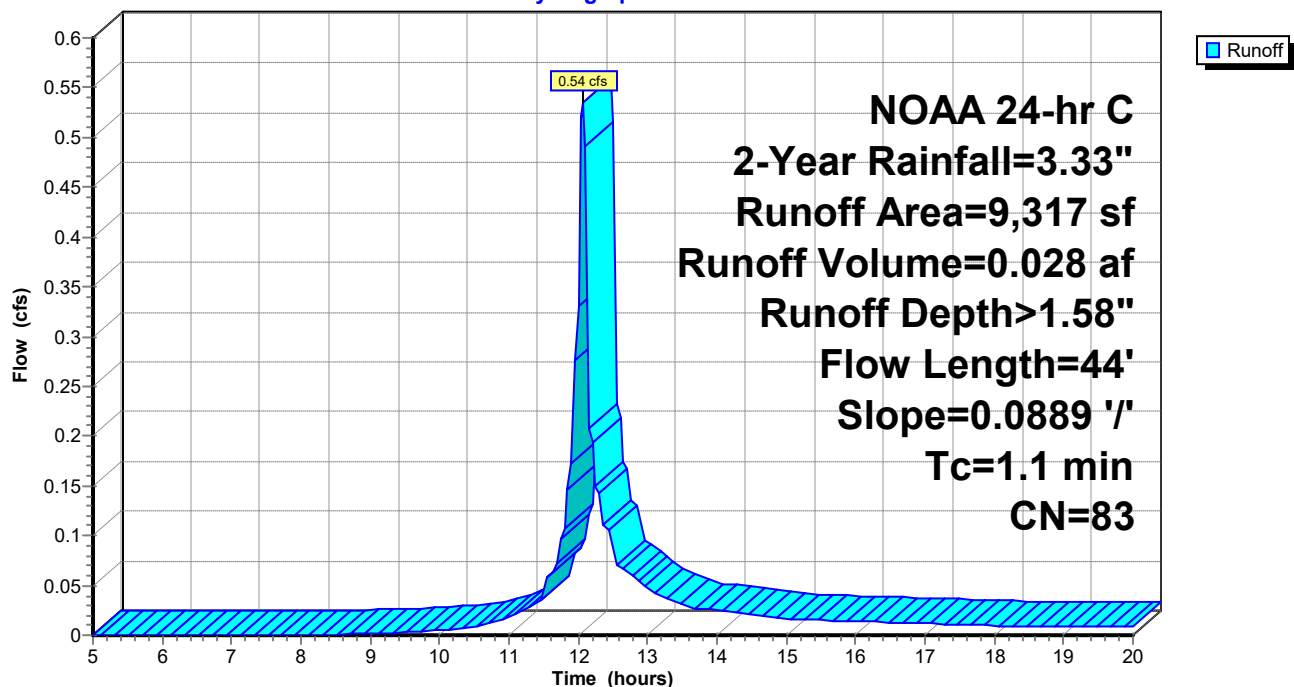
Area (sf)	CN	Description
1,475	98	Paved parking, HSG D
7,842	80	>75% Grass cover, Good, HSG D
9,317	83	Weighted Average
7,842		84.17% Pervious Area
1,475		15.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	44	0.0889	0.65		Sheet Flow, Fallow n= 0.050 P2= 3.42"

Subcatchment 11S: DA#5

Subcatchment 11S: DA#5

Hydrograph



EX and PR

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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Hydrograph for Subcatchment 11S: DA#5

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00	18.00	3.07	1.50	0.01
5.25	0.22	0.00	0.00	18.25	3.08	1.51	0.01
5.50	0.24	0.00	0.00	18.50	3.09	1.52	0.01
5.75	0.25	0.00	0.00	18.75	3.11	1.53	0.01
6.00	0.26	0.00	0.00	19.00	3.12	1.54	0.01
6.25	0.28	0.00	0.00	19.25	3.13	1.55	0.01
6.50	0.29	0.00	0.00	19.50	3.14	1.56	0.01
6.75	0.31	0.00	0.00	19.75	3.16	1.57	0.01
7.00	0.32	0.00	0.00	20.00	3.17	1.58	0.01
7.25	0.34	0.00	0.00				
7.50	0.36	0.00	0.00				
7.75	0.38	0.00	0.00				
8.00	0.40	0.00	0.00				
8.25	0.42	0.00	0.00				
8.50	0.44	0.00	0.00				
8.75	0.46	0.00	0.00				
9.00	0.49	0.00	0.00				
9.25	0.51	0.00	0.00				
9.50	0.54	0.01	0.00				
9.75	0.57	0.01	0.00				
10.00	0.61	0.02	0.01				
10.25	0.65	0.02	0.01				
10.50	0.69	0.03	0.01				
10.75	0.74	0.05	0.01				
11.00	0.80	0.06	0.02				
11.25	0.88	0.09	0.03				
11.50	0.98	0.13	0.04				
11.75	1.17	0.21	0.10				
12.00	1.59	0.43	0.33				
12.25	2.16	0.81	0.15				
12.50	2.35	0.94	0.10				
12.75	2.45	1.02	0.06				
13.00	2.53	1.08	0.05				
13.25	2.59	1.13	0.04				
13.50	2.64	1.17	0.03				
13.75	2.68	1.20	0.03				
14.00	2.72	1.23	0.02				
14.25	2.76	1.25	0.02				
14.50	2.79	1.28	0.02				
14.75	2.82	1.30	0.02				
15.00	2.84	1.32	0.02				
15.25	2.87	1.34	0.02				
15.50	2.89	1.36	0.02				
15.75	2.91	1.37	0.01				
16.00	2.93	1.39	0.01				
16.25	2.95	1.41	0.01				
16.50	2.97	1.42	0.01				
16.75	2.99	1.44	0.01				
17.00	3.01	1.45	0.01				
17.25	3.02	1.46	0.01				
17.50	3.04	1.48	0.01				
17.75	3.05	1.49	0.01				

EX and PR

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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Summary for Subcatchment 13S: DA#11

Runoff = 0.53 cfs @ 12.07 hrs, Volume= 0.031 af, Depth> 2.60"
Routed to Pond 44P : CI-2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 2-Year Rainfall=3.33"

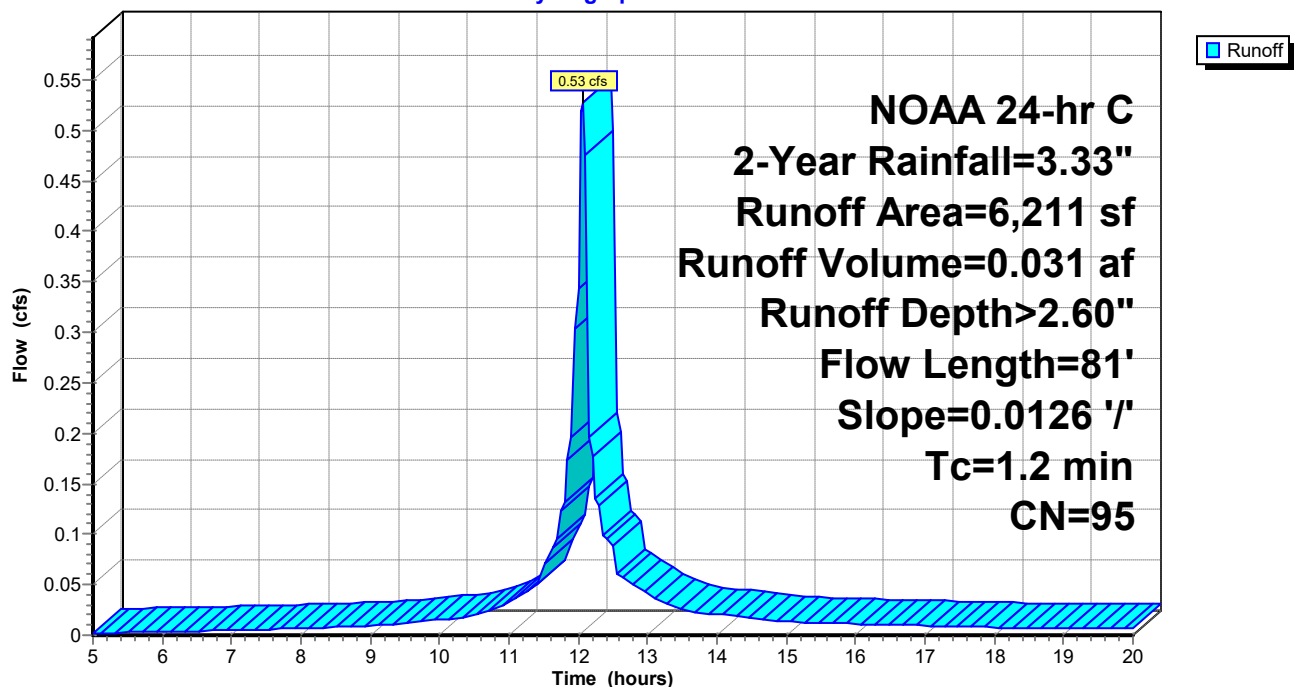
Area (sf)	CN	Description
5,197	98	Roofs, HSG D
1,014	80	>75% Grass cover, Good, HSG D
6,211	95	Weighted Average
1,014		16.33% Pervious Area
5,197		83.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	81	0.0126	1.13		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"

Subcatchment 13S: DA#11

Subcatchment 13S: DA#11

Hydrograph



EX and PR

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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Hydrograph for Subcatchment 13S: DA#11

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.02	0.00	18.00	3.07	2.51	0.01
5.25	0.22	0.02	0.00	18.25	3.08	2.53	0.01
5.50	0.24	0.03	0.00	18.50	3.09	2.54	0.01
5.75	0.25	0.03	0.00	18.75	3.11	2.55	0.01
6.00	0.26	0.04	0.00	19.00	3.12	2.56	0.01
6.25	0.28	0.04	0.00	19.25	3.13	2.58	0.01
6.50	0.29	0.05	0.00	19.50	3.14	2.59	0.01
6.75	0.31	0.06	0.00	19.75	3.16	2.60	0.01
7.00	0.32	0.06	0.00	20.00	3.17	2.61	0.01
7.25	0.34	0.07	0.01				
7.50	0.36	0.08	0.01				
7.75	0.38	0.09	0.01				
8.00	0.40	0.11	0.01				
8.25	0.42	0.12	0.01				
8.50	0.44	0.13	0.01				
8.75	0.46	0.14	0.01				
9.00	0.49	0.16	0.01				
9.25	0.51	0.18	0.01				
9.50	0.54	0.20	0.01				
9.75	0.57	0.22	0.01				
10.00	0.61	0.24	0.02				
10.25	0.65	0.27	0.02				
10.50	0.69	0.30	0.02				
10.75	0.74	0.34	0.03				
11.00	0.80	0.39	0.03				
11.25	0.88	0.46	0.04				
11.50	0.98	0.55	0.06				
11.75	1.17	0.71	0.12				
12.00	1.59	1.09	0.34				
12.25	2.16	1.63	0.14				
12.50	2.35	1.81	0.09				
12.75	2.45	1.91	0.05				
13.00	2.53	1.99	0.04				
13.25	2.59	2.05	0.03				
13.50	2.64	2.10	0.03				
13.75	2.68	2.14	0.02				
14.00	2.72	2.18	0.02				
14.25	2.76	2.21	0.02				
14.50	2.79	2.24	0.02				
14.75	2.82	2.27	0.02				
15.00	2.84	2.30	0.01				
15.25	2.87	2.32	0.01				
15.50	2.89	2.34	0.01				
15.75	2.91	2.36	0.01				
16.00	2.93	2.38	0.01				
16.25	2.95	2.40	0.01				
16.50	2.97	2.42	0.01				
16.75	2.99	2.44	0.01				
17.00	3.01	2.45	0.01				
17.25	3.02	2.47	0.01				
17.50	3.04	2.49	0.01				
17.75	3.05	2.50	0.01				

EX and PR

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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Summary for Subcatchment 14S: DA#6

Runoff = 1.69 cfs @ 12.09 hrs, Volume= 0.099 af, Depth> 2.41"
 Routed to Pond 17P : SGW FOREBAY #1

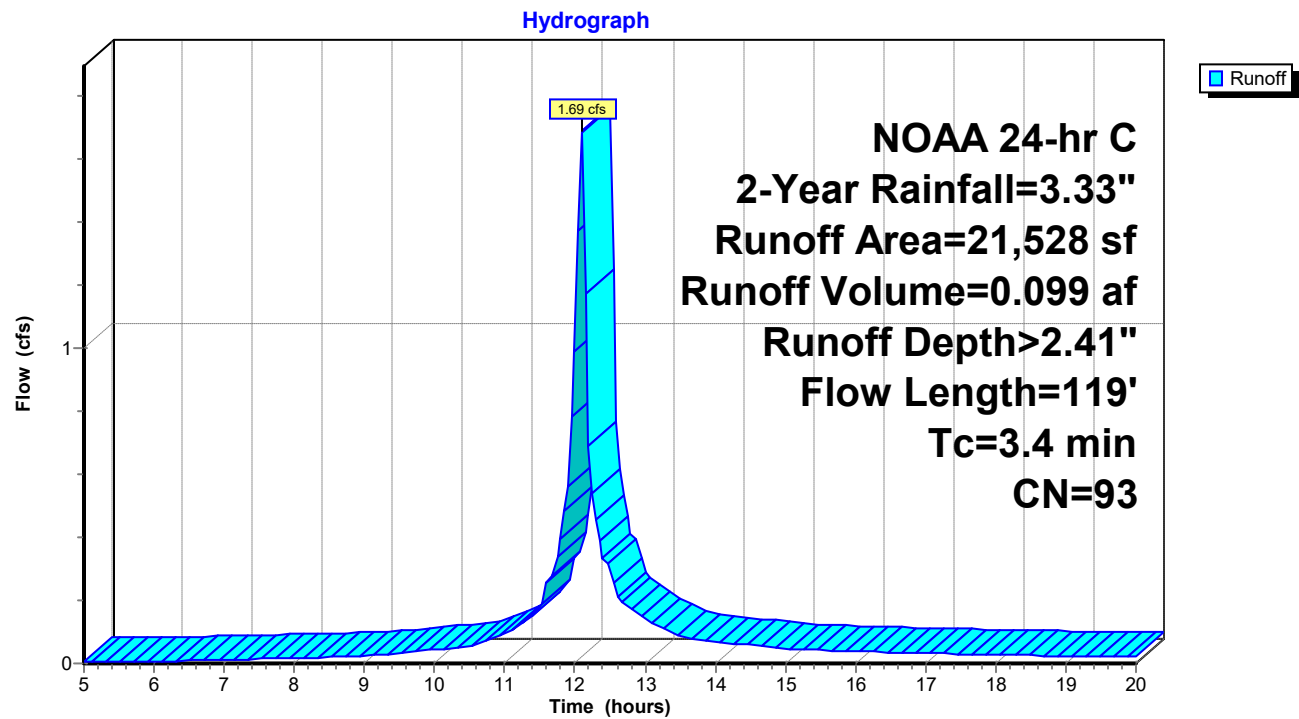
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C 2-Year Rainfall=3.33"

Area (sf)	CN	Description
15,753	98	Roofs, HSG D
5,775	80	>75% Grass cover, Good, HSG D
21,528	93	Weighted Average
5,775		26.83% Pervious Area
15,753		73.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	100	0.0319	0.51		Sheet Flow, Fallow n= 0.050 P2= 3.42"
0.1	19	0.0726	4.34		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
3.4	119	Total			

Subcatchment 14S: DA#6

Subcatchment 14S: DA#6



EX and PR

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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Hydrograph for Subcatchment 14S: DA#6

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00	18.00	3.07	2.32	0.03
5.25	0.22	0.01	0.00	18.25	3.08	2.33	0.03
5.50	0.24	0.01	0.00	18.50	3.09	2.34	0.02
5.75	0.25	0.01	0.01	18.75	3.11	2.36	0.02
6.00	0.26	0.01	0.01	19.00	3.12	2.37	0.02
6.25	0.28	0.02	0.01	19.25	3.13	2.38	0.02
6.50	0.29	0.02	0.01	19.50	3.14	2.39	0.02
6.75	0.31	0.03	0.01	19.75	3.16	2.40	0.02
7.00	0.32	0.03	0.01	20.00	3.17	2.41	0.02
7.25	0.34	0.04	0.01				
7.50	0.36	0.05	0.01				
7.75	0.38	0.05	0.02				
8.00	0.40	0.06	0.02				
8.25	0.42	0.07	0.02				
8.50	0.44	0.08	0.02				
8.75	0.46	0.09	0.02				
9.00	0.49	0.10	0.02				
9.25	0.51	0.12	0.03				
9.50	0.54	0.13	0.03				
9.75	0.57	0.15	0.04				
10.00	0.61	0.17	0.04				
10.25	0.65	0.20	0.05				
10.50	0.69	0.22	0.05				
10.75	0.74	0.26	0.07				
11.00	0.80	0.30	0.09				
11.25	0.88	0.36	0.13				
11.50	0.98	0.44	0.17				
11.75	1.17	0.59	0.34				
12.00	1.59	0.94	0.99				
12.25	2.16	1.46	0.54				
12.50	2.35	1.63	0.31				
12.75	2.45	1.73	0.18				
13.00	2.53	1.81	0.14				
13.25	2.59	1.87	0.11				
13.50	2.64	1.92	0.09				
13.75	2.68	1.95	0.08				
14.00	2.72	1.99	0.07				
14.25	2.76	2.02	0.06				
14.50	2.79	2.05	0.06				
14.75	2.82	2.08	0.05				
15.00	2.84	2.10	0.05				
15.25	2.87	2.13	0.04				
15.50	2.89	2.15	0.04				
15.75	2.91	2.17	0.04				
16.00	2.93	2.19	0.04				
16.25	2.95	2.21	0.04				
16.50	2.97	2.23	0.04				
16.75	2.99	2.24	0.03				
17.00	3.01	2.26	0.03				
17.25	3.02	2.27	0.03				
17.50	3.04	2.29	0.03				
17.75	3.05	2.30	0.03				

EX and PR

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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Summary for Subcatchment 16S: DA#7

Runoff = 0.73 cfs @ 12.07 hrs, Volume= 0.044 af, Depth> 2.69"
 Routed to Pond 38P : CI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C 2-Year Rainfall=3.33"

Area (sf)	CN	Description
7,423	98	Roofs, HSG D
1,076	80	>75% Grass cover, Good, HSG D
8,499	96	Weighted Average
1,076		12.66% Pervious Area
7,423		87.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0151	1.27		Sheet Flow, GRAVEL LOT Smooth surfaces n= 0.011 P2= 3.42"
0.2	20	0.0085	1.87		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.5	120	Total			



EX and PR

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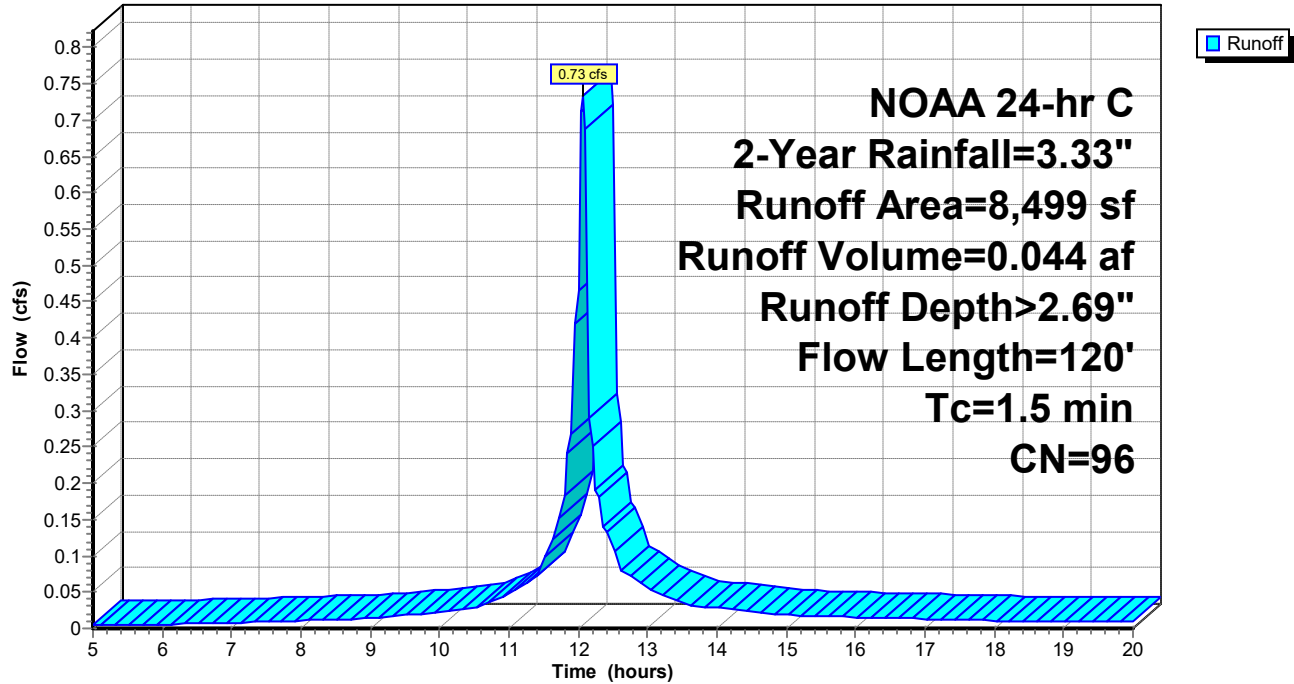
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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Subcatchment 16S: DA#7

Hydrograph



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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Hydrograph for Subcatchment 16S: DA#7

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.03	0.00	18.00	3.07	2.62	0.01
5.25	0.22	0.04	0.00	18.25	3.08	2.63	0.01
5.50	0.24	0.04	0.00	18.50	3.09	2.64	0.01
5.75	0.25	0.05	0.01	18.75	3.11	2.66	0.01
6.00	0.26	0.05	0.01	19.00	3.12	2.67	0.01
6.25	0.28	0.06	0.01	19.25	3.13	2.68	0.01
6.50	0.29	0.07	0.01	19.50	3.14	2.69	0.01
6.75	0.31	0.08	0.01	19.75	3.16	2.70	0.01
7.00	0.32	0.09	0.01	20.00	3.17	2.72	0.01
7.25	0.34	0.10	0.01				
7.50	0.36	0.11	0.01				
7.75	0.38	0.12	0.01				
8.00	0.40	0.14	0.01				
8.25	0.42	0.15	0.01				
8.50	0.44	0.17	0.01				
8.75	0.46	0.18	0.01				
9.00	0.49	0.20	0.01				
9.25	0.51	0.22	0.02				
9.50	0.54	0.24	0.02				
9.75	0.57	0.26	0.02				
10.00	0.61	0.29	0.02				
10.25	0.65	0.32	0.03				
10.50	0.69	0.36	0.03				
10.75	0.74	0.40	0.04				
11.00	0.80	0.45	0.05				
11.25	0.88	0.52	0.06				
11.50	0.98	0.62	0.08				
11.75	1.17	0.79	0.17				
12.00	1.59	1.18	0.47				
12.25	2.16	1.73	0.19				
12.50	2.35	1.91	0.12				
12.75	2.45	2.01	0.07				
13.00	2.53	2.09	0.06				
13.25	2.59	2.15	0.04				
13.50	2.64	2.20	0.04				
13.75	2.68	2.24	0.03				
14.00	2.72	2.28	0.03				
14.25	2.76	2.31	0.03				
14.50	2.79	2.35	0.02				
14.75	2.82	2.37	0.02				
15.00	2.84	2.40	0.02				
15.25	2.87	2.42	0.02				
15.50	2.89	2.44	0.02				
15.75	2.91	2.46	0.02				
16.00	2.93	2.48	0.02				
16.25	2.95	2.50	0.01				
16.50	2.97	2.52	0.01				
16.75	2.99	2.54	0.01				
17.00	3.01	2.56	0.01				
17.25	3.02	2.57	0.01				
17.50	3.04	2.59	0.01				
17.75	3.05	2.60	0.01				

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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

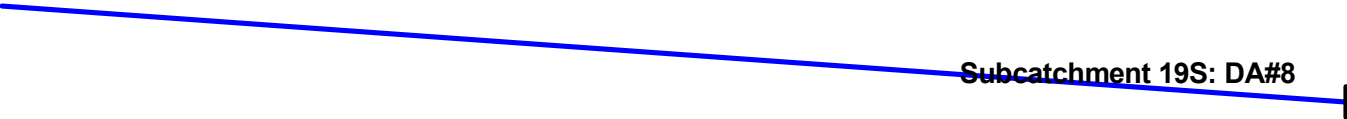
Summary for Subcatchment 19S: DA#8

Runoff = 1.58 cfs @ 12.06 hrs, Volume= 0.097 af, Depth> 2.86"
Routed to Pond 39P : CI-9

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 2-Year Rainfall=3.33"

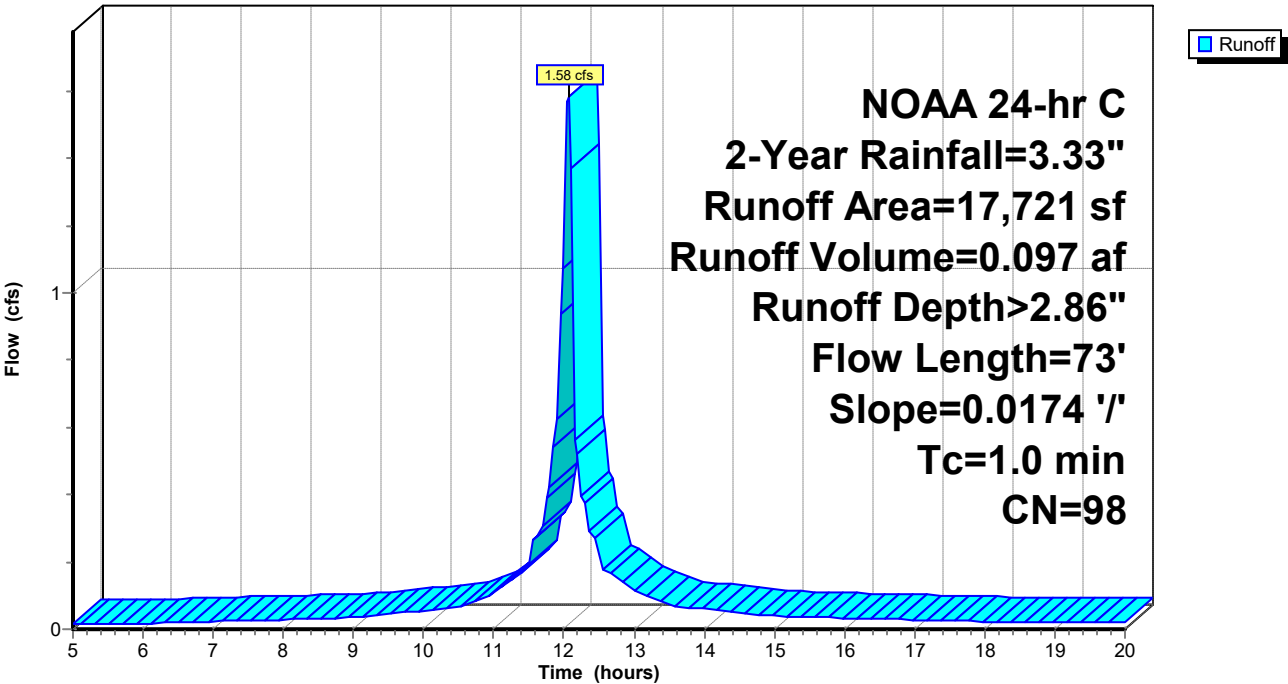
Area (sf)	CN	Description
17,329	98	Roofs, HSG D
392	80	>75% Grass cover, Good, HSG D
17,721	98	Weighted Average
392		2.21% Pervious Area
17,329		97.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	73	0.0174	1.26		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"



Subcatchment 19S: DA#8

Hydrograph



EX and PR

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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Hydrograph for Subcatchment 19S: DA#8

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.08	0.01	18.00	3.07	2.83	0.02
5.25	0.22	0.09	0.02	18.25	3.08	2.85	0.02
5.50	0.24	0.10	0.02	18.50	3.09	2.86	0.02
5.75	0.25	0.11	0.02	18.75	3.11	2.87	0.02
6.00	0.26	0.12	0.02	19.00	3.12	2.89	0.02
6.25	0.28	0.13	0.02	19.25	3.13	2.90	0.02
6.50	0.29	0.14	0.02	19.50	3.14	2.91	0.02
6.75	0.31	0.15	0.02	19.75	3.16	2.92	0.02
7.00	0.32	0.17	0.02	20.00	3.17	2.93	0.02
7.25	0.34	0.18	0.02				
7.50	0.36	0.19	0.03				
7.75	0.38	0.21	0.03				
8.00	0.40	0.23	0.03				
8.25	0.42	0.25	0.03				
8.50	0.44	0.27	0.03				
8.75	0.46	0.28	0.03				
9.00	0.49	0.31	0.03				
9.25	0.51	0.33	0.04				
9.50	0.54	0.35	0.04				
9.75	0.57	0.38	0.05				
10.00	0.61	0.42	0.05				
10.25	0.65	0.45	0.06				
10.50	0.69	0.49	0.07				
10.75	0.74	0.54	0.09				
11.00	0.80	0.60	0.11				
11.25	0.88	0.68	0.15				
11.50	0.98	0.78	0.19				
11.75	1.17	0.96	0.39				
12.00	1.59	1.37	1.07				
12.25	2.16	1.93	0.40				
12.50	2.35	2.12	0.25				
12.75	2.45	2.22	0.15				
13.00	2.53	2.30	0.12				
13.25	2.59	2.36	0.09				
13.50	2.64	2.41	0.07				
13.75	2.68	2.45	0.06				
14.00	2.72	2.49	0.06				
14.25	2.76	2.53	0.05				
14.50	2.79	2.56	0.05				
14.75	2.82	2.59	0.04				
15.00	2.84	2.61	0.04				
15.25	2.87	2.64	0.04				
15.50	2.89	2.66	0.04				
15.75	2.91	2.68	0.03				
16.00	2.93	2.70	0.03				
16.25	2.95	2.72	0.03				
16.50	2.97	2.74	0.03				
16.75	2.99	2.76	0.03				
17.00	3.01	2.77	0.03				
17.25	3.02	2.79	0.03				
17.50	3.04	2.81	0.03				
17.75	3.05	2.82	0.02				

EX and PR

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NOAA 24-hr C 2-Year Rainfall=3.33"

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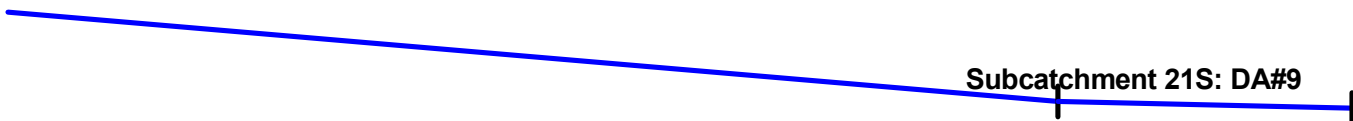
Summary for Subcatchment 21S: DA#9

Runoff = 0.86 cfs @ 12.07 hrs, Volume= 0.049 af, Depth> 2.32"
 Routed to Pond 40P : CI-6

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C 2-Year Rainfall=3.33"

Area (sf)	CN	Description
7,468	98	Roofs, HSG D
3,482	80	>75% Grass cover, Good, HSG D
10,950	92	Weighted Average
3,482		31.80% Pervious Area
7,468		68.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	100	0.0254	1.56		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"
0.3	28	0.0068	1.67		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.4	128	Total			



EX and PR

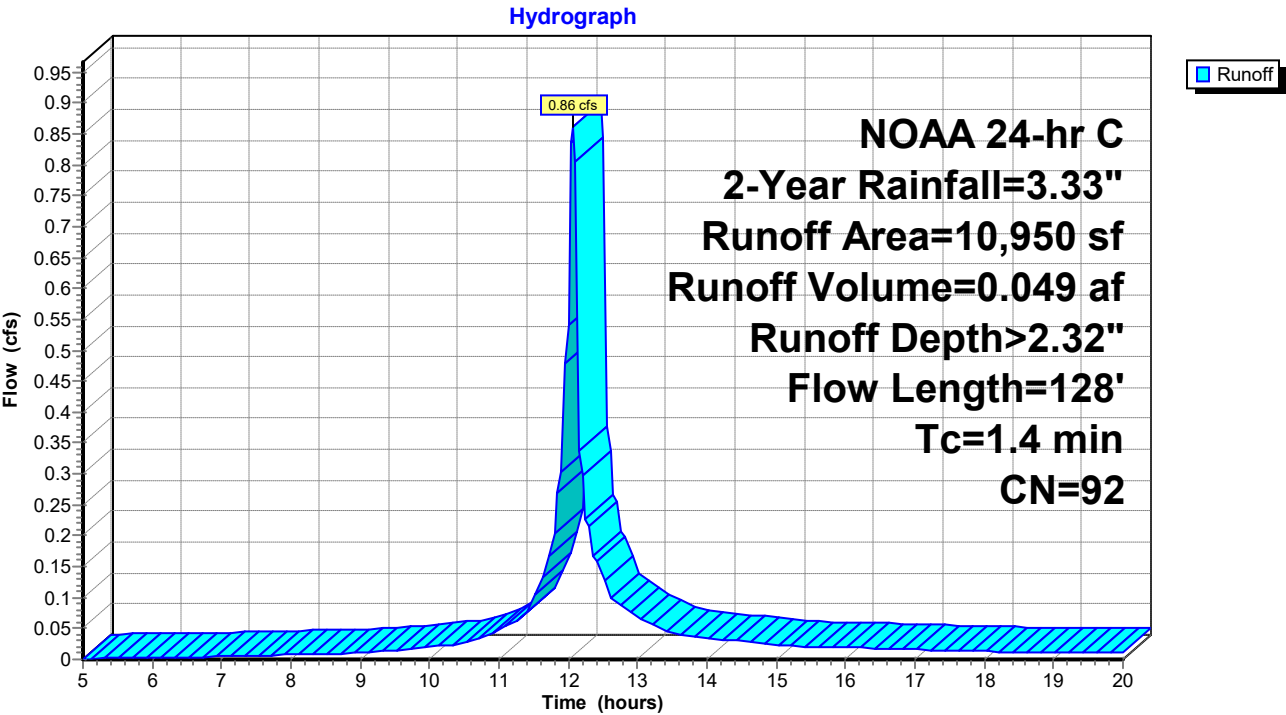
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Subcatchment 21S: DA#9



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NOAA 24-hr C 2-Year Rainfall=3.33"

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Hydrograph for Subcatchment 21S: DA#9

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00	18.00	3.07	2.22	0.01
5.25	0.22	0.00	0.00	18.25	3.08	2.24	0.01
5.50	0.24	0.00	0.00	18.50	3.09	2.25	0.01
5.75	0.25	0.01	0.00	18.75	3.11	2.26	0.01
6.00	0.26	0.01	0.00	19.00	3.12	2.27	0.01
6.25	0.28	0.01	0.00	19.25	3.13	2.28	0.01
6.50	0.29	0.01	0.00	19.50	3.14	2.30	0.01
6.75	0.31	0.02	0.00	19.75	3.16	2.31	0.01
7.00	0.32	0.02	0.00	20.00	3.17	2.32	0.01
7.25	0.34	0.03	0.01				
7.50	0.36	0.03	0.01				
7.75	0.38	0.04	0.01				
8.00	0.40	0.05	0.01				
8.25	0.42	0.05	0.01				
8.50	0.44	0.06	0.01				
8.75	0.46	0.07	0.01				
9.00	0.49	0.08	0.01				
9.25	0.51	0.09	0.01				
9.50	0.54	0.11	0.02				
9.75	0.57	0.13	0.02				
10.00	0.61	0.14	0.02				
10.25	0.65	0.17	0.02				
10.50	0.69	0.19	0.03				
10.75	0.74	0.22	0.04				
11.00	0.80	0.26	0.04				
11.25	0.88	0.32	0.06				
11.50	0.98	0.39	0.09				
11.75	1.17	0.53	0.19				
12.00	1.59	0.87	0.54				
12.25	2.16	1.38	0.23				
12.50	2.35	1.55	0.15				
12.75	2.45	1.65	0.09				
13.00	2.53	1.72	0.07				
13.25	2.59	1.78	0.05				
13.50	2.64	1.83	0.04				
13.75	2.68	1.86	0.04				
14.00	2.72	1.90	0.03				
14.25	2.76	1.93	0.03				
14.50	2.79	1.96	0.03				
14.75	2.82	1.99	0.03				
15.00	2.84	2.01	0.02				
15.25	2.87	2.04	0.02				
15.50	2.89	2.06	0.02				
15.75	2.91	2.08	0.02				
16.00	2.93	2.10	0.02				
16.25	2.95	2.11	0.02				
16.50	2.97	2.13	0.02				
16.75	2.99	2.15	0.02				
17.00	3.01	2.17	0.02				
17.25	3.02	2.18	0.02				
17.50	3.04	2.20	0.01				
17.75	3.05	2.21	0.01				

EX and PR

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NOAA 24-hr C 2-Year Rainfall=3.33"
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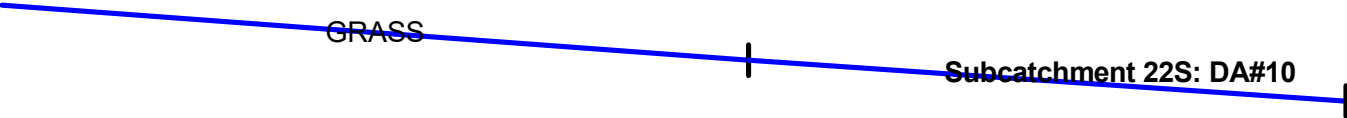
Summary for Subcatchment 22S: DA#10

Runoff = 0.28 cfs @ 12.20 hrs, Volume= 0.020 af, Depth> 1.88"
Routed to Pond 43P : CI-7

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 2-Year Rainfall=3.33"

Area (sf)	CN	Description
2,347	98	Roofs, HSG D
3,349	80	>75% Grass cover, Good, HSG D
5,696	87	Weighted Average
3,349		58.80% Pervious Area
2,347		41.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.3	55	0.0100	0.08		Sheet Flow, GRASS Grass: Dense n= 0.240 P2= 3.42"
0.8	44	0.0093	0.89		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"
12.1	99	Total			



EX and PR

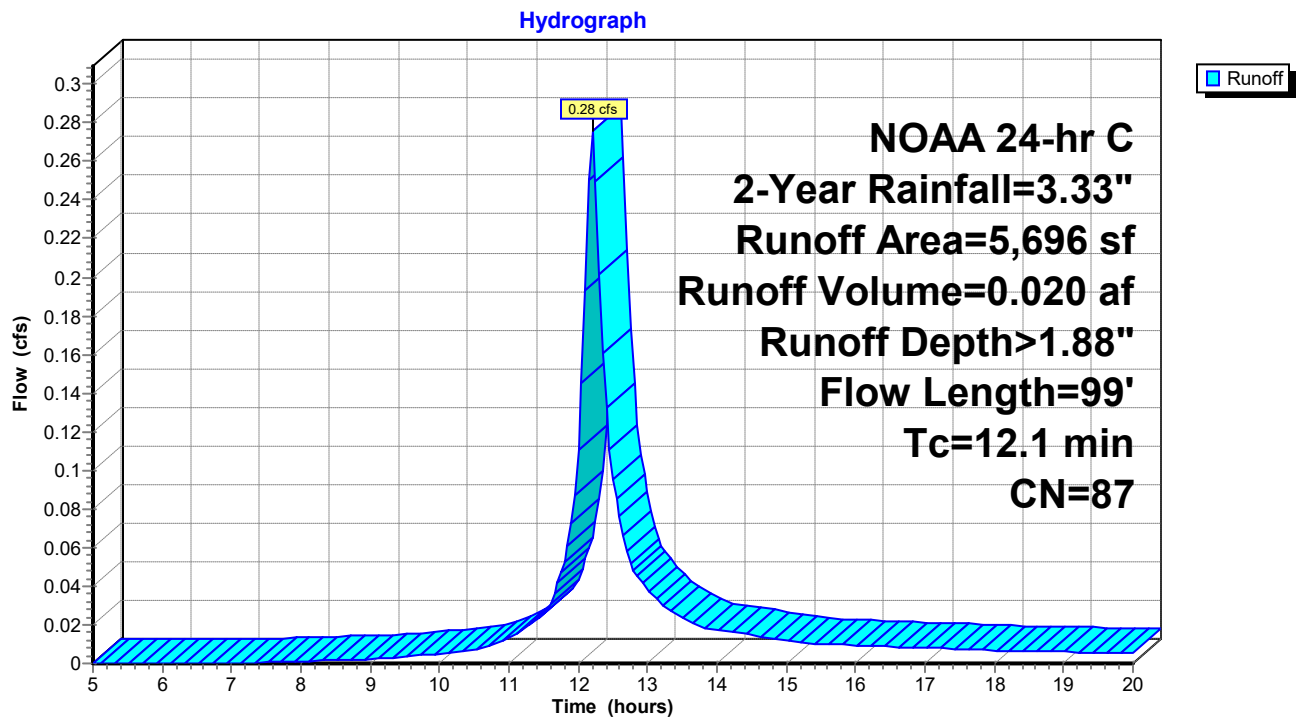
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Subcatchment 22S: DA#10



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NOAA 24-hr C 2-Year Rainfall=3.33"

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Hydrograph for Subcatchment 22S: DA#10

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00	18.00	3.07	1.80	0.01
5.25	0.22	0.00	0.00	18.25	3.08	1.81	0.01
5.50	0.24	0.00	0.00	18.50	3.09	1.82	0.01
5.75	0.25	0.00	0.00	18.75	3.11	1.83	0.01
6.00	0.26	0.00	0.00	19.00	3.12	1.84	0.01
6.25	0.28	0.00	0.00	19.25	3.13	1.85	0.01
6.50	0.29	0.00	0.00	19.50	3.14	1.86	0.01
6.75	0.31	0.00	0.00	19.75	3.16	1.88	0.01
7.00	0.32	0.00	0.00	20.00	3.17	1.89	0.01
7.25	0.34	0.00	0.00				
7.50	0.36	0.00	0.00				
7.75	0.38	0.00	0.00				
8.00	0.40	0.01	0.00				
8.25	0.42	0.01	0.00				
8.50	0.44	0.01	0.00				
8.75	0.46	0.02	0.00				
9.00	0.49	0.02	0.00				
9.25	0.51	0.03	0.00				
9.50	0.54	0.03	0.00				
9.75	0.57	0.04	0.00				
10.00	0.61	0.05	0.01				
10.25	0.65	0.07	0.01				
10.50	0.69	0.08	0.01				
10.75	0.74	0.10	0.01				
11.00	0.80	0.13	0.01				
11.25	0.88	0.16	0.02				
11.50	0.98	0.22	0.03				
11.75	1.17	0.32	0.05				
12.00	1.59	0.60	0.11				
12.25	2.16	1.03	0.25				
12.50	2.35	1.18	0.10				
12.75	2.45	1.27	0.05				
13.00	2.53	1.34	0.04				
13.25	2.59	1.39	0.03				
13.50	2.64	1.43	0.02				
13.75	2.68	1.47	0.02				
14.00	2.72	1.50	0.02				
14.25	2.76	1.53	0.02				
14.50	2.79	1.56	0.01				
14.75	2.82	1.58	0.01				
15.00	2.84	1.60	0.01				
15.25	2.87	1.62	0.01				
15.50	2.89	1.64	0.01				
15.75	2.91	1.66	0.01				
16.00	2.93	1.68	0.01				
16.25	2.95	1.70	0.01				
16.50	2.97	1.71	0.01				
16.75	2.99	1.73	0.01				
17.00	3.01	1.74	0.01				
17.25	3.02	1.76	0.01				
17.50	3.04	1.77	0.01				
17.75	3.05	1.78	0.01				

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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Summary for Subcatchment 25S: DA#12

Runoff = 0.58 cfs @ 12.07 hrs, Volume= 0.035 af, Depth> 2.69"
Routed to Pond 45P : CI-3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 2-Year Rainfall=3.33"

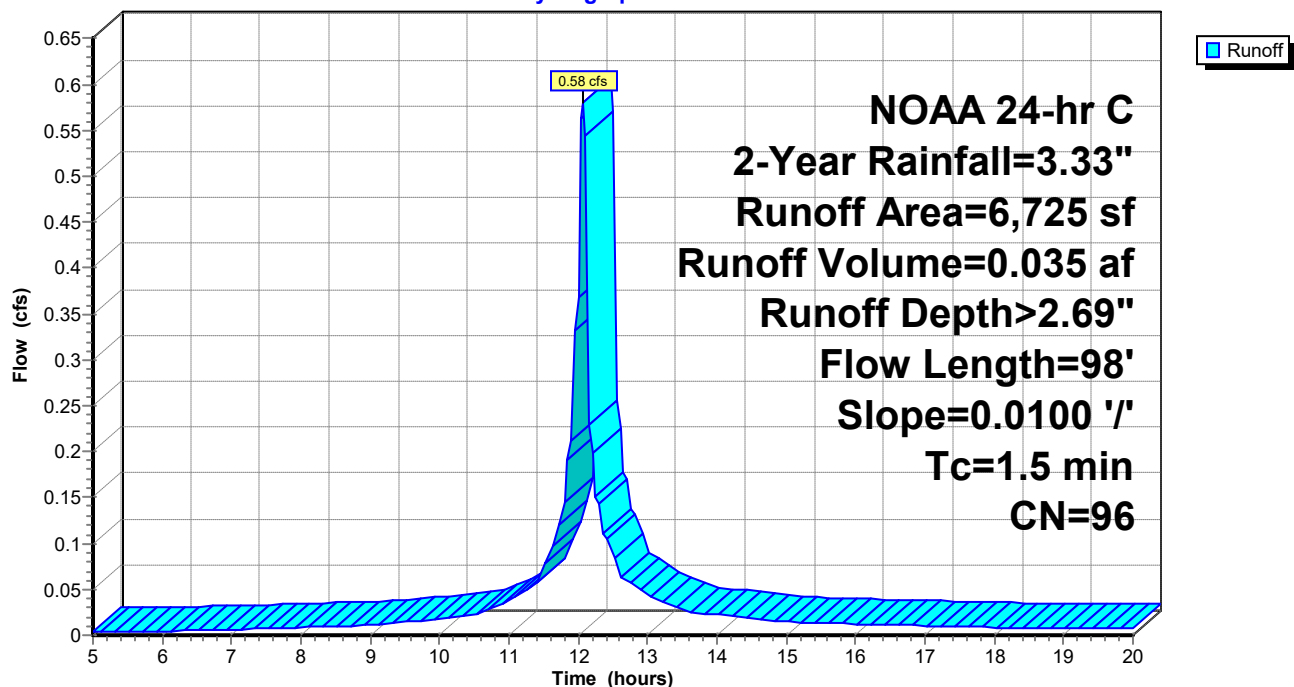
Area (sf)	CN	Description
5,864	98	Roofs, HSG D
861	80	>75% Grass cover, Good, HSG D
6,725	96	Weighted Average
861		12.80% Pervious Area
5,864		87.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	98	0.0100	1.07		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"

Subcatchment 25S: DA#12

Subcatchment 25S: DA#12

Hydrograph



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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Hydrograph for Subcatchment 25S: DA#12

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.03	0.00	18.00	3.07	2.62	0.01
5.25	0.22	0.04	0.00	18.25	3.08	2.63	0.01
5.50	0.24	0.04	0.00	18.50	3.09	2.64	0.01
5.75	0.25	0.05	0.00	18.75	3.11	2.66	0.01
6.00	0.26	0.05	0.00	19.00	3.12	2.67	0.01
6.25	0.28	0.06	0.00	19.25	3.13	2.68	0.01
6.50	0.29	0.07	0.01	19.50	3.14	2.69	0.01
6.75	0.31	0.08	0.01	19.75	3.16	2.70	0.01
7.00	0.32	0.09	0.01	20.00	3.17	2.72	0.01
7.25	0.34	0.10	0.01				
7.50	0.36	0.11	0.01				
7.75	0.38	0.12	0.01				
8.00	0.40	0.14	0.01				
8.25	0.42	0.15	0.01				
8.50	0.44	0.17	0.01				
8.75	0.46	0.18	0.01				
9.00	0.49	0.20	0.01				
9.25	0.51	0.22	0.01				
9.50	0.54	0.24	0.01				
9.75	0.57	0.26	0.02				
10.00	0.61	0.29	0.02				
10.25	0.65	0.32	0.02				
10.50	0.69	0.36	0.02				
10.75	0.74	0.40	0.03				
11.00	0.80	0.45	0.04				
11.25	0.88	0.52	0.05				
11.50	0.98	0.62	0.06				
11.75	1.17	0.79	0.14				
12.00	1.59	1.18	0.37				
12.25	2.16	1.73	0.15				
12.50	2.35	1.91	0.10				
12.75	2.45	2.01	0.06				
13.00	2.53	2.09	0.05				
13.25	2.59	2.15	0.03				
13.50	2.64	2.20	0.03				
13.75	2.68	2.24	0.02				
14.00	2.72	2.28	0.02				
14.25	2.76	2.31	0.02				
14.50	2.79	2.35	0.02				
14.75	2.82	2.37	0.02				
15.00	2.84	2.40	0.01				
15.25	2.87	2.42	0.01				
15.50	2.89	2.44	0.01				
15.75	2.91	2.46	0.01				
16.00	2.93	2.48	0.01				
16.25	2.95	2.50	0.01				
16.50	2.97	2.52	0.01				
16.75	2.99	2.54	0.01				
17.00	3.01	2.56	0.01				
17.25	3.02	2.57	0.01				
17.50	3.04	2.59	0.01				
17.75	3.05	2.60	0.01				

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NOAA 24-hr C 2-Year Rainfall=3.33"

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Summary for Subcatchment 26S: DA#1

Runoff = 1.72 cfs @ 12.12 hrs, Volume= 0.105 af, Depth> 1.88"
 Routed to Pond 27P : FES-4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C 2-Year Rainfall=3.33"

Area (sf)	CN	Description
11,362	98	Roofs, HSG D
17,706	80	>75% Grass cover, Good, HSG D
29,068	87	Weighted Average
17,706		60.91% Pervious Area
11,362		39.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	27	0.0306	0.11		Sheet Flow, GRASS
					Grass: Dense n= 0.240 P2= 3.42"
1.4	378	0.0073	4.50	71.98	Channel Flow,
					Area= 16.0 sf Perim= 14.6' r= 1.10' n= 0.030
5.5	405	Total			

GRASS

Subcatchment 26S: DA#1

EX and PR

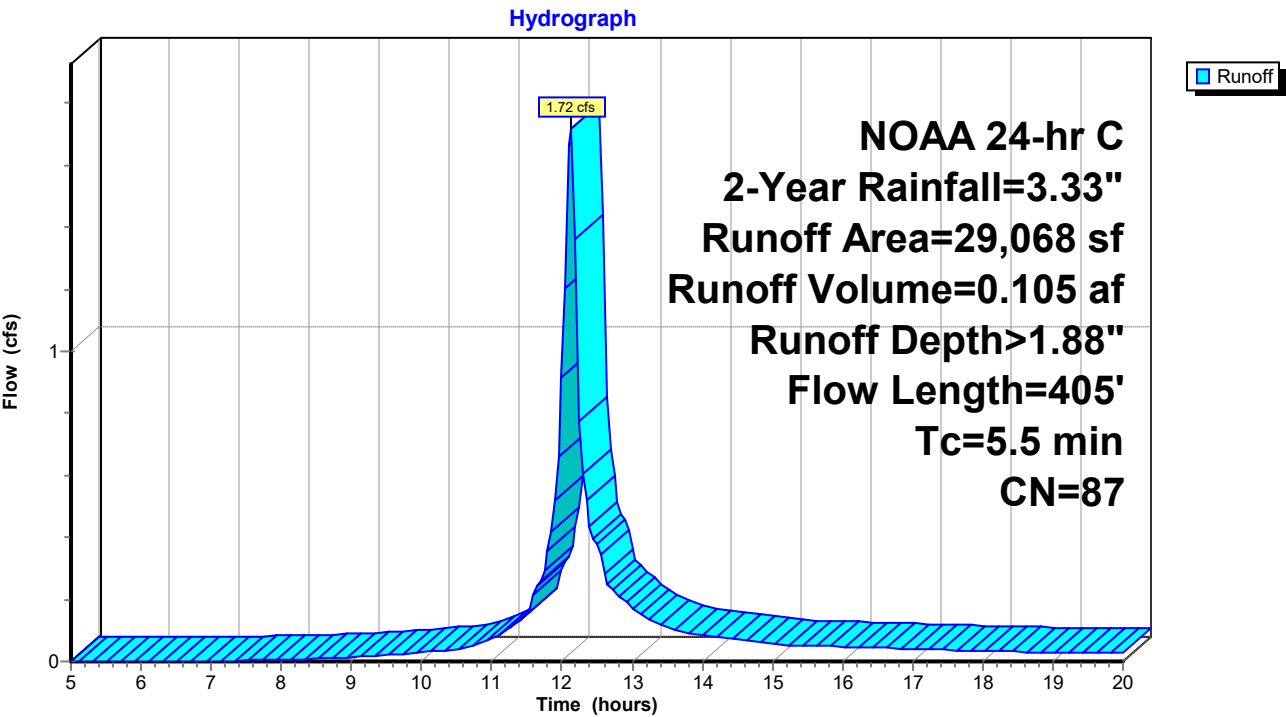
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Subcatchment 26S: DA#1



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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Hydrograph for Subcatchment 26S: DA#1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00	18.00	3.07	1.80	0.03
5.25	0.22	0.00	0.00	18.25	3.08	1.81	0.03
5.50	0.24	0.00	0.00	18.50	3.09	1.82	0.03
5.75	0.25	0.00	0.00	18.75	3.11	1.83	0.03
6.00	0.26	0.00	0.00	19.00	3.12	1.84	0.03
6.25	0.28	0.00	0.00	19.25	3.13	1.85	0.03
6.50	0.29	0.00	0.00	19.50	3.14	1.86	0.03
6.75	0.31	0.00	0.00	19.75	3.16	1.88	0.03
7.00	0.32	0.00	0.00	20.00	3.17	1.89	0.03
7.25	0.34	0.00	0.00				
7.50	0.36	0.00	0.00				
7.75	0.38	0.00	0.00				
8.00	0.40	0.01	0.01				
8.25	0.42	0.01	0.01				
8.50	0.44	0.01	0.01				
8.75	0.46	0.02	0.01				
9.00	0.49	0.02	0.01				
9.25	0.51	0.03	0.02				
9.50	0.54	0.03	0.02				
9.75	0.57	0.04	0.02				
10.00	0.61	0.05	0.03				
10.25	0.65	0.07	0.03				
10.50	0.69	0.08	0.04				
10.75	0.74	0.10	0.05				
11.00	0.80	0.13	0.07				
11.25	0.88	0.16	0.11				
11.50	0.98	0.22	0.15				
11.75	1.17	0.32	0.29				
12.00	1.59	0.60	0.92				
12.25	2.16	1.03	0.77				
12.50	2.35	1.18	0.38				
12.75	2.45	1.27	0.22				
13.00	2.53	1.34	0.18				
13.25	2.59	1.39	0.14				
13.50	2.64	1.43	0.11				
13.75	2.68	1.47	0.09				
14.00	2.72	1.50	0.09				
14.25	2.76	1.53	0.08				
14.50	2.79	1.56	0.07				
14.75	2.82	1.58	0.07				
15.00	2.84	1.60	0.06				
15.25	2.87	1.62	0.05				
15.50	2.89	1.64	0.05				
15.75	2.91	1.66	0.05				
16.00	2.93	1.68	0.05				
16.25	2.95	1.70	0.05				
16.50	2.97	1.71	0.04				
16.75	2.99	1.73	0.04				
17.00	3.01	1.74	0.04				
17.25	3.02	1.76	0.04				
17.50	3.04	1.77	0.04				
17.75	3.05	1.78	0.03				

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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

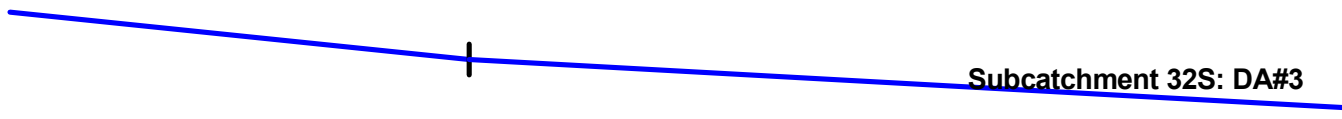
Summary for Subcatchment 32S: DA#3

Runoff = 0.64 cfs @ 12.06 hrs, Volume= 0.034 af, Depth> 1.89"
 Routed to Link 2L : SP#1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C 2-Year Rainfall=3.33"

Area (sf)	CN	Description
3,831	98	Roofs, HSG D
5,639	80	>75% Grass cover, Good, HSG D
9,470	87	Weighted Average
5,639		59.55% Pervious Area
3,831		40.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	55	0.0240	1.36		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"
0.3	106	0.0128	5.96	95.31	Channel Flow, Area= 16.0 sf Perim= 14.6' r= 1.10' n= 0.030
1.0	161	Total			



EX and PR

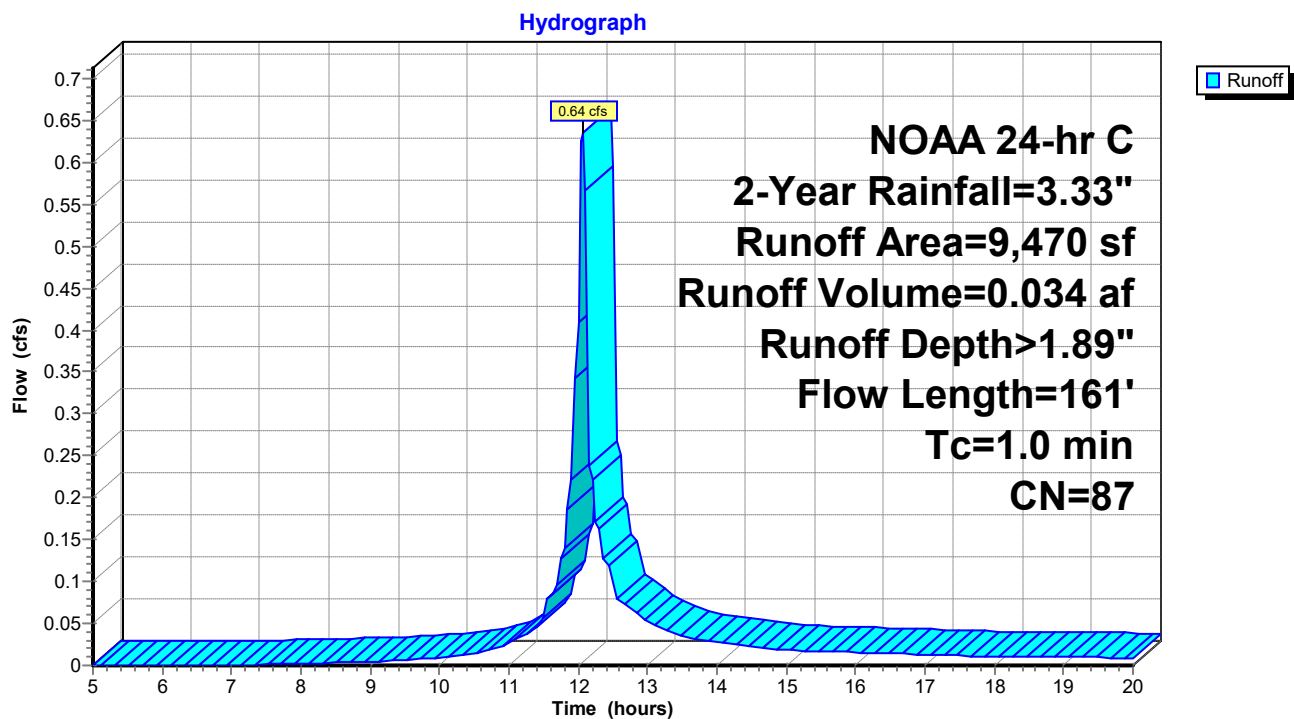
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NOAA 24-hr C 2-Year Rainfall=3.33"

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Subcatchment 32S: DA#3



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NOAA 24-hr C 2-Year Rainfall=3.33"

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Hydrograph for Subcatchment 32S: DA#3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00	18.00	3.07	1.80	0.01
5.25	0.22	0.00	0.00	18.25	3.08	1.81	0.01
5.50	0.24	0.00	0.00	18.50	3.09	1.82	0.01
5.75	0.25	0.00	0.00	18.75	3.11	1.83	0.01
6.00	0.26	0.00	0.00	19.00	3.12	1.84	0.01
6.25	0.28	0.00	0.00	19.25	3.13	1.85	0.01
6.50	0.29	0.00	0.00	19.50	3.14	1.86	0.01
6.75	0.31	0.00	0.00	19.75	3.16	1.88	0.01
7.00	0.32	0.00	0.00	20.00	3.17	1.89	0.01
7.25	0.34	0.00	0.00				
7.50	0.36	0.00	0.00				
7.75	0.38	0.00	0.00				
8.00	0.40	0.01	0.00				
8.25	0.42	0.01	0.00				
8.50	0.44	0.01	0.00				
8.75	0.46	0.02	0.00				
9.00	0.49	0.02	0.00				
9.25	0.51	0.03	0.01				
9.50	0.54	0.03	0.01				
9.75	0.57	0.04	0.01				
10.00	0.61	0.05	0.01				
10.25	0.65	0.07	0.01				
10.50	0.69	0.08	0.01				
10.75	0.74	0.10	0.02				
11.00	0.80	0.13	0.03				
11.25	0.88	0.16	0.04				
11.50	0.98	0.22	0.06				
11.75	1.17	0.32	0.13				
12.00	1.59	0.60	0.41				
12.25	2.16	1.03	0.17				
12.50	2.35	1.18	0.11				
12.75	2.45	1.27	0.07				
13.00	2.53	1.34	0.05				
13.25	2.59	1.39	0.04				
13.50	2.64	1.43	0.03				
13.75	2.68	1.47	0.03				
14.00	2.72	1.50	0.03				
14.25	2.76	1.53	0.03				
14.50	2.79	1.56	0.02				
14.75	2.82	1.58	0.02				
15.00	2.84	1.60	0.02				
15.25	2.87	1.62	0.02				
15.50	2.89	1.64	0.02				
15.75	2.91	1.66	0.02				
16.00	2.93	1.68	0.02				
16.25	2.95	1.70	0.01				
16.50	2.97	1.71	0.01				
16.75	2.99	1.73	0.01				
17.00	3.01	1.74	0.01				
17.25	3.02	1.76	0.01				
17.50	3.04	1.77	0.01				
17.75	3.05	1.78	0.01				

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NOAA 24-hr C 2-Year Rainfall=3.33"

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Summary for Subcatchment 33S: DA#13

Runoff = 0.23 cfs @ 12.06 hrs, Volume= 0.013 af, Depth> 2.05"
Routed to Pond 46P : CI-5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 2-Year Rainfall=3.33"

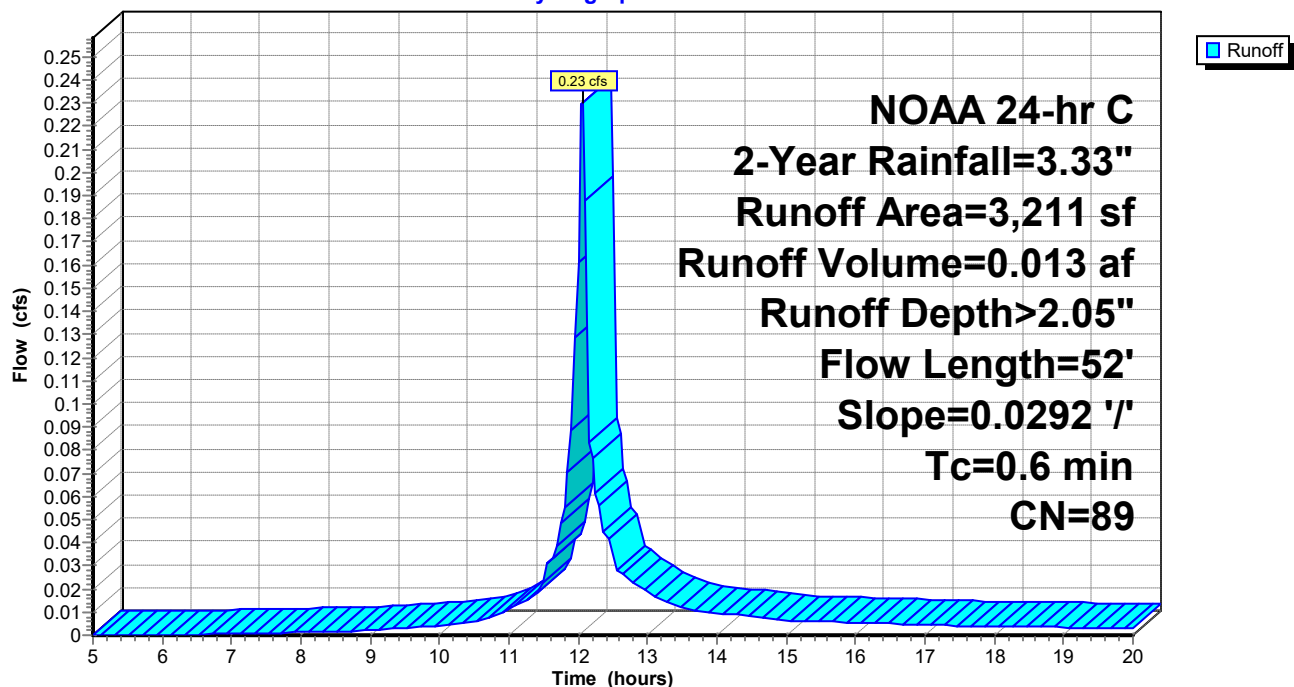
Area (sf)	CN	Description
1,642	98	Roofs, HSG D
1,569	80	>75% Grass cover, Good, HSG D
3,211	89	Weighted Average
1,569		48.86% Pervious Area
1,642		51.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	52	0.0292	1.45		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"

Subcatchment 33S: DA#13

Subcatchment 33S: DA#13

Hydrograph



EX and PR

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NOAA 24-hr C 2-Year Rainfall=3.33"

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Hydrograph for Subcatchment 33S: DA#13

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00	18.00	3.07	1.96	0.00
5.25	0.22	0.00	0.00	18.25	3.08	1.97	0.00
5.50	0.24	0.00	0.00	18.50	3.09	1.98	0.00
5.75	0.25	0.00	0.00	18.75	3.11	2.00	0.00
6.00	0.26	0.00	0.00	19.00	3.12	2.01	0.00
6.25	0.28	0.00	0.00	19.25	3.13	2.02	0.00
6.50	0.29	0.00	0.00	19.50	3.14	2.03	0.00
6.75	0.31	0.00	0.00	19.75	3.16	2.04	0.00
7.00	0.32	0.00	0.00	20.00	3.17	2.05	0.00
7.25	0.34	0.01	0.00				
7.50	0.36	0.01	0.00				
7.75	0.38	0.01	0.00				
8.00	0.40	0.02	0.00				
8.25	0.42	0.02	0.00				
8.50	0.44	0.03	0.00				
8.75	0.46	0.03	0.00				
9.00	0.49	0.04	0.00				
9.25	0.51	0.05	0.00				
9.50	0.54	0.06	0.00				
9.75	0.57	0.07	0.00				
10.00	0.61	0.08	0.00				
10.25	0.65	0.10	0.01				
10.50	0.69	0.12	0.01				
10.75	0.74	0.14	0.01				
11.00	0.80	0.17	0.01				
11.25	0.88	0.21	0.02				
11.50	0.98	0.28	0.02				
11.75	1.17	0.40	0.05				
12.00	1.59	0.70	0.16				
12.25	2.16	1.16	0.06				
12.50	2.35	1.32	0.04				
12.75	2.45	1.41	0.02				
13.00	2.53	1.48	0.02				
13.25	2.59	1.54	0.01				
13.50	2.64	1.58	0.01				
13.75	2.68	1.62	0.01				
14.00	2.72	1.65	0.01				
14.25	2.76	1.68	0.01				
14.50	2.79	1.71	0.01				
14.75	2.82	1.74	0.01				
15.00	2.84	1.76	0.01				
15.25	2.87	1.78	0.01				
15.50	2.89	1.80	0.01				
15.75	2.91	1.82	0.01				
16.00	2.93	1.84	0.01				
16.25	2.95	1.86	0.01				
16.50	2.97	1.87	0.00				
16.75	2.99	1.89	0.00				
17.00	3.01	1.90	0.00				
17.25	3.02	1.92	0.00				
17.50	3.04	1.93	0.00				
17.75	3.05	1.95	0.00				

EX and PR

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NOAA 24-hr C 2-Year Rainfall=3.33"

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Summary for Subcatchment 34S: DA#14

Runoff = 1.39 cfs @ 12.07 hrs, Volume= 0.079 af, Depth> 2.41"
Routed to Pond 9P : I-2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 2-Year Rainfall=3.33"

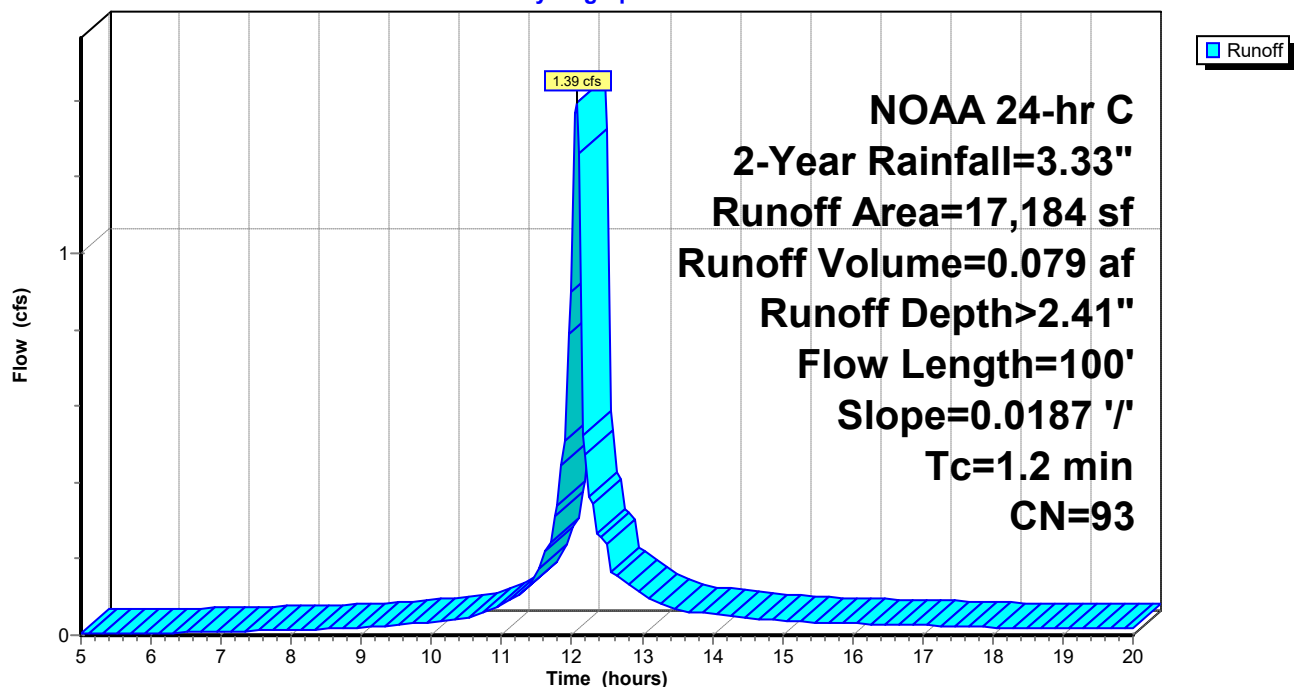
Area (sf)	CN	Description
12,711	98	Roofs, HSG D
4,473	80	>75% Grass cover, Good, HSG D
17,184	93	Weighted Average
4,473		26.03% Pervious Area
12,711		73.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0187	1.38		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"

Subcatchment 34S: DA#14

Subcatchment 34S: DA#14

Hydrograph



EX and PR

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NOAA 24-hr C 2-Year Rainfall=3.33"

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Hydrograph for Subcatchment 34S: DA#14

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00	18.00	3.07	2.32	0.02
5.25	0.22	0.01	0.00	18.25	3.08	2.33	0.02
5.50	0.24	0.01	0.00	18.50	3.09	2.34	0.02
5.75	0.25	0.01	0.00	18.75	3.11	2.36	0.02
6.00	0.26	0.01	0.01	19.00	3.12	2.37	0.02
6.25	0.28	0.02	0.01	19.25	3.13	2.38	0.02
6.50	0.29	0.02	0.01	19.50	3.14	2.39	0.02
6.75	0.31	0.03	0.01	19.75	3.16	2.40	0.02
7.00	0.32	0.03	0.01	20.00	3.17	2.41	0.02
7.25	0.34	0.04	0.01				
7.50	0.36	0.05	0.01				
7.75	0.38	0.05	0.01				
8.00	0.40	0.06	0.01				
8.25	0.42	0.07	0.02				
8.50	0.44	0.08	0.02				
8.75	0.46	0.09	0.02				
9.00	0.49	0.10	0.02				
9.25	0.51	0.12	0.02				
9.50	0.54	0.13	0.03				
9.75	0.57	0.15	0.03				
10.00	0.61	0.17	0.03				
10.25	0.65	0.20	0.04				
10.50	0.69	0.22	0.04				
10.75	0.74	0.26	0.06				
11.00	0.80	0.30	0.08				
11.25	0.88	0.36	0.11				
11.50	0.98	0.44	0.15				
11.75	1.17	0.59	0.31				
12.00	1.59	0.94	0.90				
12.25	2.16	1.46	0.36				
12.50	2.35	1.63	0.24				
12.75	2.45	1.73	0.14				
13.00	2.53	1.81	0.11				
13.25	2.59	1.87	0.09				
13.50	2.64	1.92	0.07				
13.75	2.68	1.95	0.06				
14.00	2.72	1.99	0.06				
14.25	2.76	2.02	0.05				
14.50	2.79	2.05	0.05				
14.75	2.82	2.08	0.04				
15.00	2.84	2.10	0.04				
15.25	2.87	2.13	0.03				
15.50	2.89	2.15	0.03				
15.75	2.91	2.17	0.03				
16.00	2.93	2.19	0.03				
16.25	2.95	2.21	0.03				
16.50	2.97	2.23	0.03				
16.75	2.99	2.24	0.03				
17.00	3.01	2.26	0.03				
17.25	3.02	2.27	0.02				
17.50	3.04	2.29	0.02				
17.75	3.05	2.30	0.02				

EX and PR

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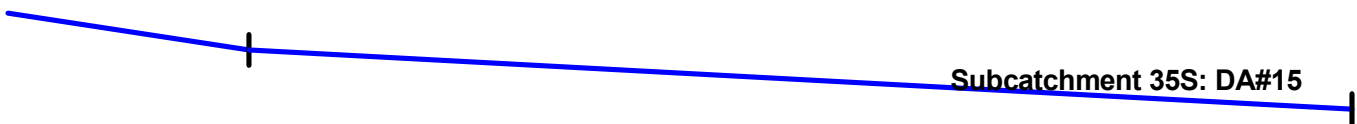
Summary for Subcatchment 35S: DA#15

Runoff = 0.31 cfs @ 12.32 hrs, Volume= 0.029 af, Depth> 1.37"
Routed to Link 2L : SP#1

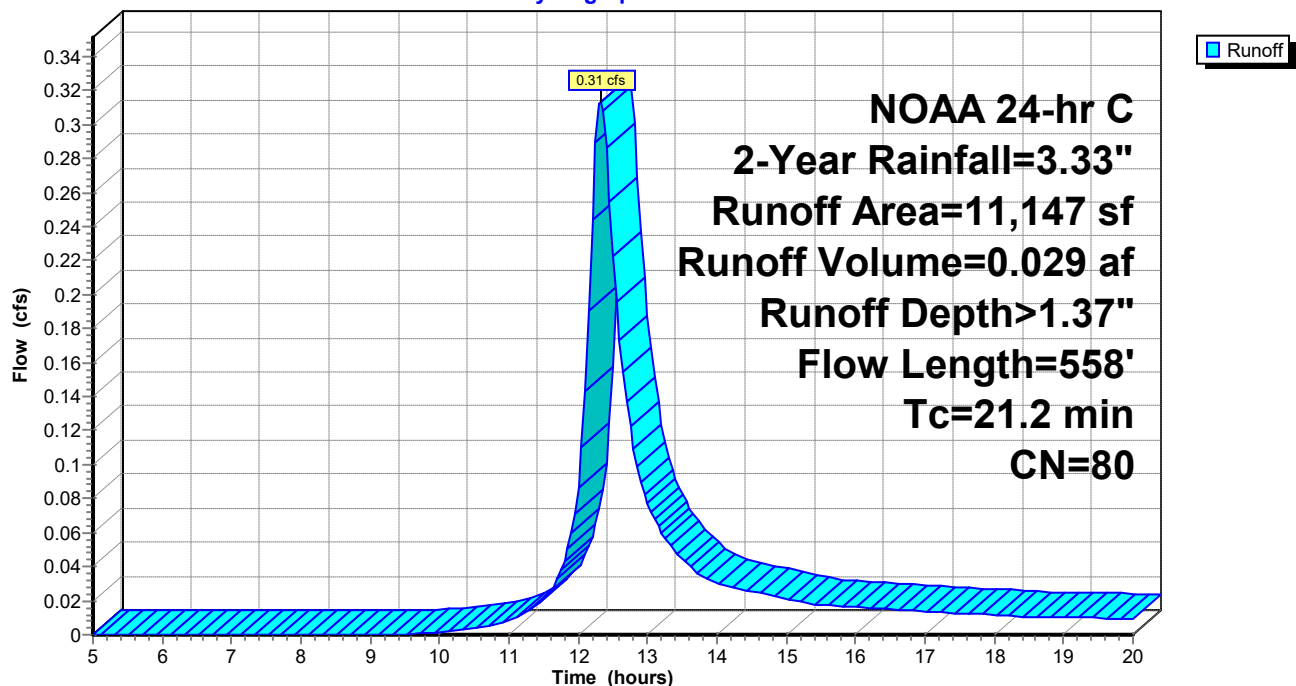
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 2-Year Rainfall=3.33"

Area (sf)	CN	Description
11,147	80	>75% Grass cover, Good, HSG D
11,147		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.2	100	0.0336	0.15		Sheet Flow, Grass: Dense n= 0.240 P2= 3.42"
10.0	458	0.0118	0.76		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
21.2	558	Total			

**Subcatchment 35S: DA#15**

Hydrograph



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NOAA 24-hr C 2-Year Rainfall=3.33"

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Hydrograph for Subcatchment 35S: DA#15

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00	18.00	3.07	1.30	0.01
5.25	0.22	0.00	0.00	18.25	3.08	1.31	0.01
5.50	0.24	0.00	0.00	18.50	3.09	1.32	0.01
5.75	0.25	0.00	0.00	18.75	3.11	1.33	0.01
6.00	0.26	0.00	0.00	19.00	3.12	1.34	0.01
6.25	0.28	0.00	0.00	19.25	3.13	1.35	0.01
6.50	0.29	0.00	0.00	19.50	3.14	1.36	0.01
6.75	0.31	0.00	0.00	19.75	3.16	1.37	0.01
7.00	0.32	0.00	0.00	20.00	3.17	1.38	0.01
7.25	0.34	0.00	0.00				
7.50	0.36	0.00	0.00				
7.75	0.38	0.00	0.00				
8.00	0.40	0.00	0.00				
8.25	0.42	0.00	0.00				
8.50	0.44	0.00	0.00				
8.75	0.46	0.00	0.00				
9.00	0.49	0.00	0.00				
9.25	0.51	0.00	0.00				
9.50	0.54	0.00	0.00				
9.75	0.57	0.00	0.00				
10.00	0.61	0.00	0.00				
10.25	0.65	0.01	0.00				
10.50	0.69	0.01	0.00				
10.75	0.74	0.02	0.01				
11.00	0.80	0.03	0.01				
11.25	0.88	0.05	0.01				
11.50	0.98	0.08	0.02				
11.75	1.17	0.14	0.04				
12.00	1.59	0.33	0.09				
12.25	2.16	0.66	0.29				
12.50	2.35	0.78	0.22				
12.75	2.45	0.85	0.12				
13.00	2.53	0.91	0.08				
13.25	2.59	0.95	0.06				
13.50	2.64	0.99	0.04				
13.75	2.68	1.02	0.04				
14.00	2.72	1.05	0.03				
14.25	2.76	1.07	0.03				
14.50	2.79	1.09	0.03				
14.75	2.82	1.12	0.02				
15.00	2.84	1.13	0.02				
15.25	2.87	1.15	0.02				
15.50	2.89	1.17	0.02				
15.75	2.91	1.18	0.02				
16.00	2.93	1.20	0.02				
16.25	2.95	1.21	0.02				
16.50	2.97	1.23	0.02				
16.75	2.99	1.24	0.01				
17.00	3.01	1.25	0.01				
17.25	3.02	1.27	0.01				
17.50	3.04	1.28	0.01				
17.75	3.05	1.29	0.01				

EX and PR

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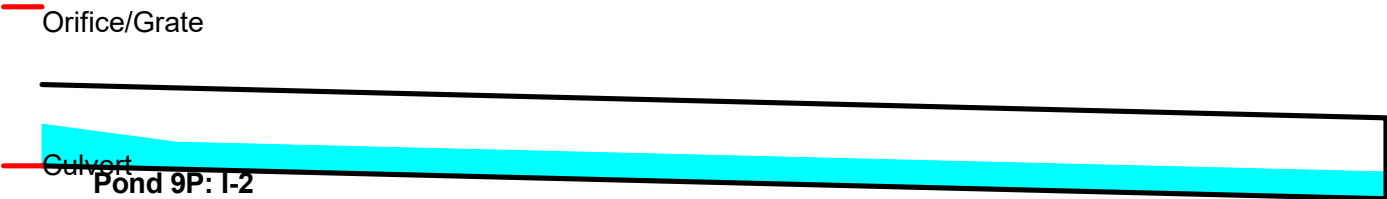
Summary for Pond 9P: I-2

Inflow Area = 0.394 ac, 73.97% Impervious, Inflow Depth > 2.41" for 2-Year event
Inflow = 1.39 cfs @ 12.07 hrs, Volume= 0.079 af
Outflow = 1.39 cfs @ 12.07 hrs, Volume= 0.079 af, Atten= 0%, Lag= 0.0 min
Primary = 1.39 cfs @ 12.07 hrs, Volume= 0.079 af
Routed to Pond 44P : CI-2

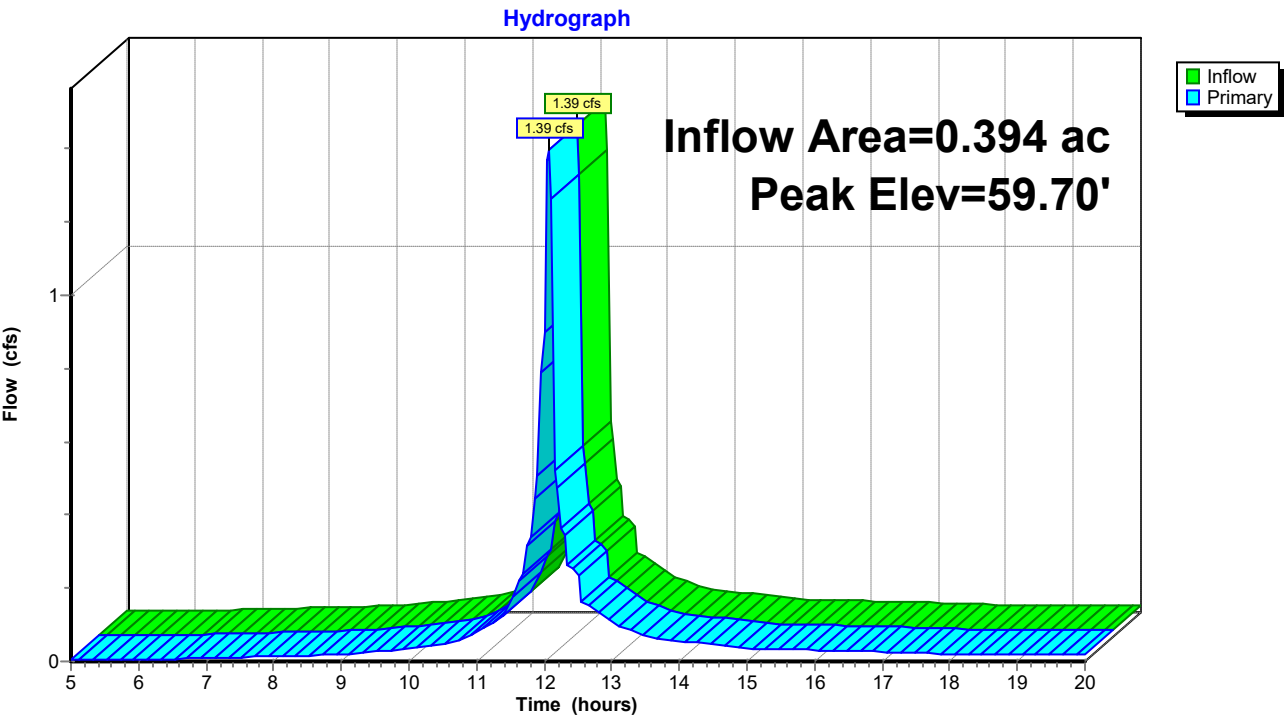
Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 59.70' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	61.51'	1.0" x 2.0" Horiz. Orifice/Grate X 20.00 columns X 10 rows C= 0.600 in 24.0" x 24.0" Grate (69% open area)
#2	Primary	59.06'	15.0" Round Culvert L= 57.6' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 59.06' / 58.55' S= 0.0089 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

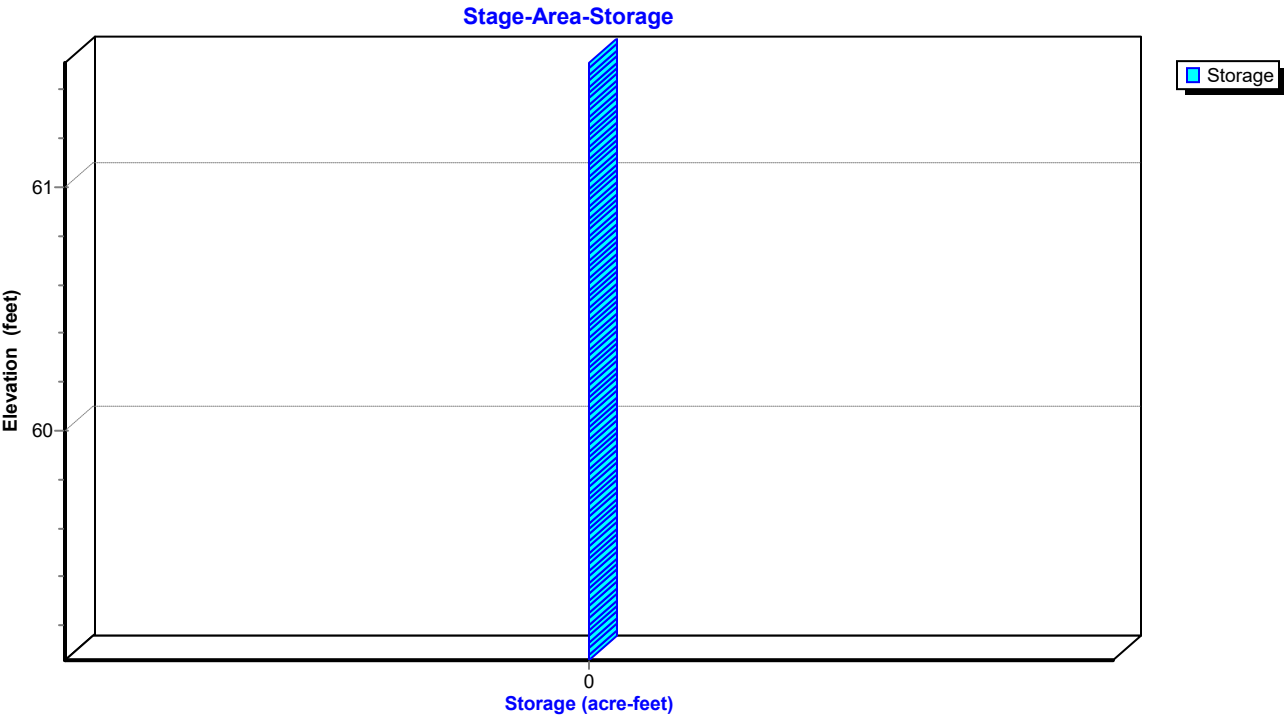
Primary OutFlow Max=1.19 cfs @ 12.07 hrs HW=59.67' TW=59.27' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Outlet Controls 1.19 cfs @ 2.91 fps)



Pond 9P: I-2



Pond 9P: I-2



EX and PR

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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Hydrograph for Pond 9P: I-2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	59.09	0.00	18.00	0.02	59.13	0.02
5.25	0.00	59.09	0.00	18.25	0.02	59.13	0.02
5.50	0.00	59.09	0.00	18.50	0.02	59.13	0.02
5.75	0.00	59.09	0.00	18.75	0.02	59.13	0.02
6.00	0.01	59.10	0.01	19.00	0.02	59.13	0.02
6.25	0.01	59.10	0.01	19.25	0.02	59.13	0.02
6.50	0.01	59.10	0.01	19.50	0.02	59.13	0.02
6.75	0.01	59.10	0.01	19.75	0.02	59.13	0.02
7.00	0.01	59.11	0.01	20.00	0.02	59.13	0.02
7.25	0.01	59.11	0.01				
7.50	0.01	59.11	0.01				
7.75	0.01	59.12	0.01				
8.00	0.01	59.12	0.01				
8.25	0.02	59.12	0.02				
8.50	0.02	59.12	0.02				
8.75	0.02	59.13	0.02				
9.00	0.02	59.13	0.02				
9.25	0.02	59.13	0.02				
9.50	0.03	59.14	0.03				
9.75	0.03	59.14	0.03				
10.00	0.03	59.15	0.03				
10.25	0.04	59.16	0.04				
10.50	0.04	59.16	0.04				
10.75	0.06	59.18	0.06				
11.00	0.08	59.19	0.08				
11.25	0.11	59.22	0.11				
11.50	0.15	59.24	0.15				
11.75	0.31	59.33	0.31				
12.00	0.90	59.55	0.90				
12.25	0.36	59.37	0.36				
12.50	0.24	59.30	0.24				
12.75	0.14	59.24	0.14				
13.00	0.11	59.22	0.11				
13.25	0.09	59.20	0.09				
13.50	0.07	59.19	0.07				
13.75	0.06	59.18	0.06				
14.00	0.06	59.17	0.06				
14.25	0.05	59.17	0.05				
14.50	0.05	59.16	0.05				
14.75	0.04	59.16	0.04				
15.00	0.04	59.15	0.04				
15.25	0.03	59.15	0.03				
15.50	0.03	59.15	0.03				
15.75	0.03	59.15	0.03				
16.00	0.03	59.14	0.03				
16.25	0.03	59.14	0.03				
16.50	0.03	59.14	0.03				
16.75	0.03	59.14	0.03				
17.00	0.03	59.14	0.03				
17.25	0.02	59.14	0.02				
17.50	0.02	59.13	0.02				
17.75	0.02	59.13	0.02				

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NOAA 24-hr C 2-Year Rainfall=3.33"

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Stage-Area-Storage for Pond 9P: I-2

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
59.06	0.000	60.10	0.000	61.14	0.000
59.08	0.000	60.12	0.000	61.16	0.000
59.10	0.000	60.14	0.000	61.18	0.000
59.12	0.000	60.16	0.000	61.20	0.000
59.14	0.000	60.18	0.000	61.22	0.000
59.16	0.000	60.20	0.000	61.24	0.000
59.18	0.000	60.22	0.000	61.26	0.000
59.20	0.000	60.24	0.000	61.28	0.000
59.22	0.000	60.26	0.000	61.30	0.000
59.24	0.000	60.28	0.000	61.32	0.000
59.26	0.000	60.30	0.000	61.34	0.000
59.28	0.000	60.32	0.000	61.36	0.000
59.30	0.000	60.34	0.000	61.38	0.000
59.32	0.000	60.36	0.000	61.40	0.000
59.34	0.000	60.38	0.000	61.42	0.000
59.36	0.000	60.40	0.000	61.44	0.000
59.38	0.000	60.42	0.000	61.46	0.000
59.40	0.000	60.44	0.000	61.48	0.000
59.42	0.000	60.46	0.000	61.50	0.000
59.44	0.000	60.48	0.000		
59.46	0.000	60.50	0.000		
59.48	0.000	60.52	0.000		
59.50	0.000	60.54	0.000		
59.52	0.000	60.56	0.000		
59.54	0.000	60.58	0.000		
59.56	0.000	60.60	0.000		
59.58	0.000	60.62	0.000		
59.60	0.000	60.64	0.000		
59.62	0.000	60.66	0.000		
59.64	0.000	60.68	0.000		
59.66	0.000	60.70	0.000		
59.68	0.000	60.72	0.000		
59.70	0.000	60.74	0.000		
59.72	0.000	60.76	0.000		
59.74	0.000	60.78	0.000		
59.76	0.000	60.80	0.000		
59.78	0.000	60.82	0.000		
59.80	0.000	60.84	0.000		
59.82	0.000	60.86	0.000		
59.84	0.000	60.88	0.000		
59.86	0.000	60.90	0.000		
59.88	0.000	60.92	0.000		
59.90	0.000	60.94	0.000		
59.92	0.000	60.96	0.000		
59.94	0.000	60.98	0.000		
59.96	0.000	61.00	0.000		
59.98	0.000	61.02	0.000		
60.00	0.000	61.04	0.000		
60.02	0.000	61.06	0.000		
60.04	0.000	61.08	0.000		
60.06	0.000	61.10	0.000		
60.08	0.000	61.12	0.000		

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Summary for Pond 17P: SGW FOREBAY #1

Inflow Area = 2.458 ac, 76.90% Impervious, Inflow Depth > 2.49" for 2-Year event
 Inflow = 8.32 cfs @ 12.07 hrs, Volume= 0.509 af
 Outflow = 8.79 cfs @ 12.08 hrs, Volume= 0.474 af, Atten= 0%, Lag= 0.3 min
 Primary = 8.79 cfs @ 12.08 hrs, Volume= 0.474 af
 Routed to Pond 18P : SGW #1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 56.71' @ 12.60 hrs Surf.Area= 2,062 sf Storage= 2,712 cf

Plug-Flow detention time= 51.2 min calculated for 0.472 af (93% of inflow)
 Center-of-Mass det. time= 25.8 min (777.7 - 751.9)

Volume	Invert	Avail.Storage	Storage Description
#1	55.08'	5,991 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
55.08	1,261	0	0
58.08	2,733	5,991	5,991

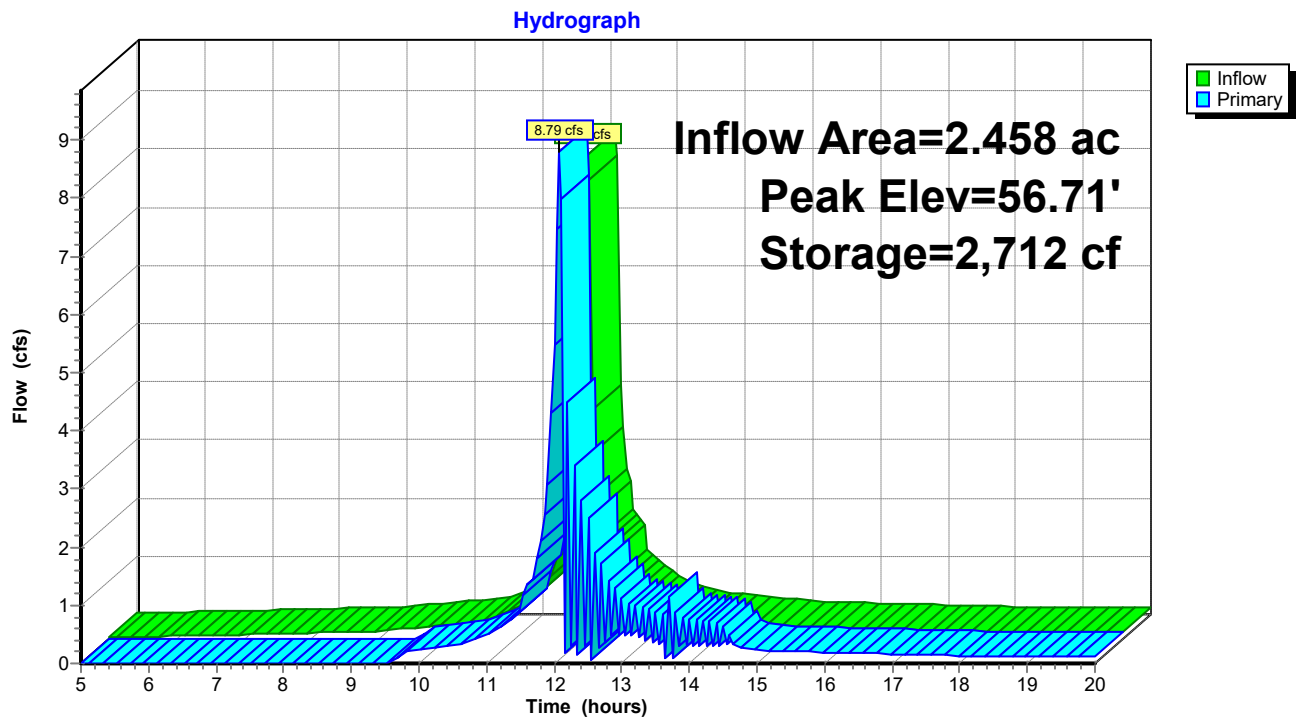
Device	Routing	Invert	Outlet Devices
#1	Primary	56.08'	60.0' long + 3.0 ' SideZ x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 12.08 hrs HW=56.23' TW=56.30' (Dynamic Tailwater)
 ↑1=**Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

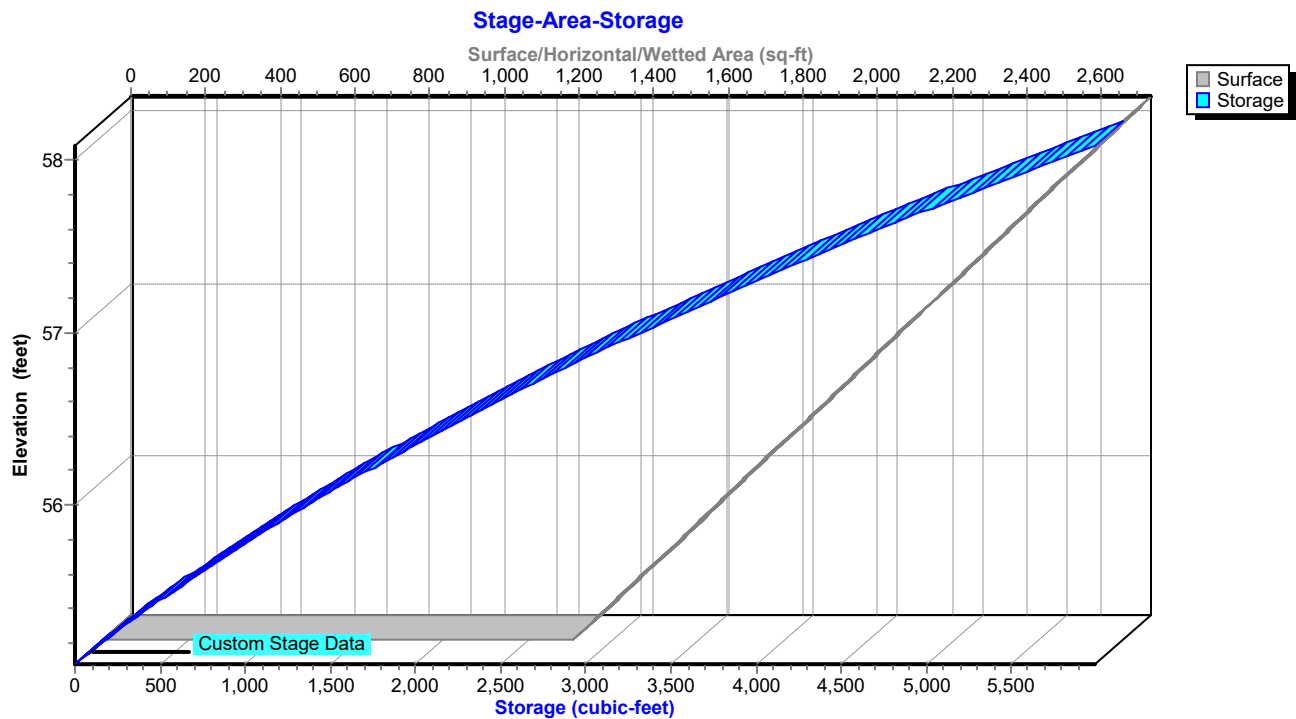
Pond 17P: SGW FOREBAY #1

Broad-Crested Rectangular Weir

Pond 17P: SGW FOREBAY #1



Pond 17P: SGW FOREBAY #1



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Hydrograph for Pond 17P: SGW FOREBAY #1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.03	3	55.08	0.00
5.50	0.04	69	55.13	0.00
6.00	0.05	146	55.19	0.00
6.50	0.06	242	55.26	0.00
7.00	0.07	359	55.35	0.00
7.50	0.09	503	55.45	0.00
8.00	0.10	674	55.57	0.00
8.50	0.12	874	55.70	0.00
9.00	0.14	1,105	55.84	0.00
9.50	0.19	1,396	56.02	0.00
10.00	0.24	1,531	56.09	0.24
10.50	0.30	1,534	56.10	0.30
11.00	0.50	1,546	56.10	0.49
11.50	0.92	1,565	56.11	0.90
12.00	5.42	1,704	56.19	5.47
12.50	1.53	2,685	56.70	2.49
13.00	0.70	2,599	56.66	1.12
13.50	0.44	2,309	56.51	0.89
14.00	0.35	1,957	56.33	0.77
14.50	0.29	1,622	56.15	0.63
15.00	0.23	1,530	56.09	0.23
15.50	0.21	1,529	56.09	0.21
16.00	0.19	1,527	56.09	0.19
16.50	0.18	1,526	56.09	0.18
17.00	0.16	1,525	56.09	0.16
17.50	0.15	1,524	56.09	0.15
18.00	0.13	1,523	56.09	0.13
18.50	0.12	1,522	56.09	0.12
19.00	0.12	1,522	56.09	0.12
19.50	0.12	1,521	56.09	0.12
20.00	0.11	1,521	56.09	0.11

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Stage-Area-Storage for Pond 17P: SGW FOREBAY #1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
55.08	1,261	0	57.68	2,537	4,937
55.13	1,286	64	57.73	2,561	5,065
55.18	1,310	129	57.78	2,586	5,193
55.23	1,335	195	57.83	2,610	5,323
55.28	1,359	262	57.88	2,635	5,454
55.33	1,384	331	57.93	2,659	5,587
55.38	1,408	400	57.98	2,684	5,720
55.43	1,433	471	58.03	2,708	5,855
55.48	1,457	544	58.08	2,733	5,991
55.53	1,482	617			
55.58	1,506	692			
55.63	1,531	768			
55.68	1,555	845			
55.73	1,580	923			
55.78	1,604	1,003			
55.83	1,629	1,084			
55.88	1,654	1,166			
55.93	1,678	1,249			
55.98	1,703	1,334			
56.03	1,727	1,419			
56.08	1,752	1,506			
56.13	1,776	1,595			
56.18	1,801	1,684			
56.23	1,825	1,775			
56.28	1,850	1,866			
56.33	1,874	1,960			
56.38	1,899	2,054			
56.43	1,923	2,149			
56.48	1,948	2,246			
56.53	1,972	2,344			
56.58	1,997	2,444			
56.63	2,022	2,544			
56.68	2,046	2,646			
56.73	2,071	2,749			
56.78	2,095	2,853			
56.83	2,120	2,958			
56.88	2,144	3,065			
56.93	2,169	3,173			
56.98	2,193	3,282			
57.03	2,218	3,392			
57.08	2,242	3,503			
57.13	2,267	3,616			
57.18	2,291	3,730			
57.23	2,316	3,845			
57.28	2,340	3,962			
57.33	2,365	4,079			
57.38	2,390	4,198			
57.43	2,414	4,318			
57.48	2,439	4,440			
57.53	2,463	4,562			
57.58	2,488	4,686			
57.63	2,512	4,811			

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Summary for Pond 18P: SGW #1

Inflow Area = 2.672 ac, 72.01% Impervious, Inflow Depth > 2.25" for 2-Year event
Inflow = 9.33 cfs @ 12.08 hrs, Volume= 0.502 af
Outflow = 1.24 cfs @ 12.55 hrs, Volume= 0.502 af, Atten= 87%, Lag= 28.1 min
Primary = 1.24 cfs @ 12.55 hrs, Volume= 0.502 af
Routed to Link 2L : SP#1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 56.71' @ 12.55 hrs Surf.Area= 5,368 sf Storage= 7,790 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 64.7 min (843.0 - 778.3)

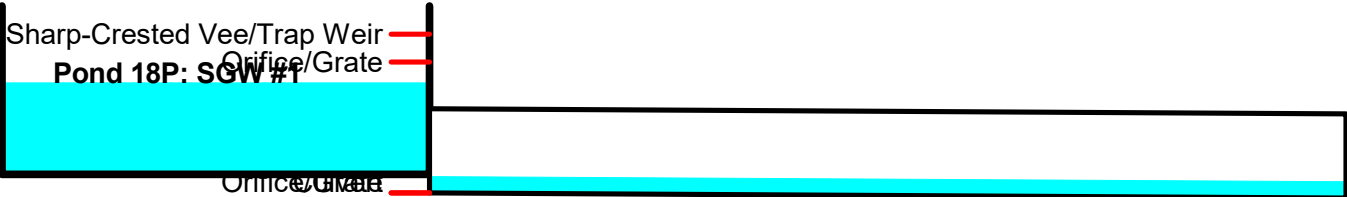
Volume	Invert	Avail.Storage	Storage Description
#1	55.08'	15,815 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
55.08	4,176	0	0
58.08	6,367	15,815	15,815

Device	Routing	Invert	Outlet Devices
#1	Primary	54.75'	18.0" Round Culvert L= 96.5' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 54.75' / 54.66' S= 0.0009 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	57.08'	2.0" x 1.0" Horiz. Orifice/Grate X 10.00 columns X 20 rows C= 0.600 in 24.0" x 24.0" Grate (69% open area) Limited to weir flow at low heads
#3	Device 1	54.75'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	57.58'	20.0 deg x 10.0' long x 0.50' rise Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)

Primary OutFlow Max=1.24 cfs @ 12.55 hrs HW=56.71' TW=0.00' (Dynamic Tailwater)

- 1=Culvert (Passes 1.24 cfs of 6.39 cfs potential flow)
- 2=Orifice/Grate (Controls 0.00 cfs)
- 3=Orifice/Grate (Orifice Controls 1.24 cfs @ 6.30 fps)
- 4=Sharp-Crested Vee/Trap Weir (Controls 0.00 cfs)



EX and PR

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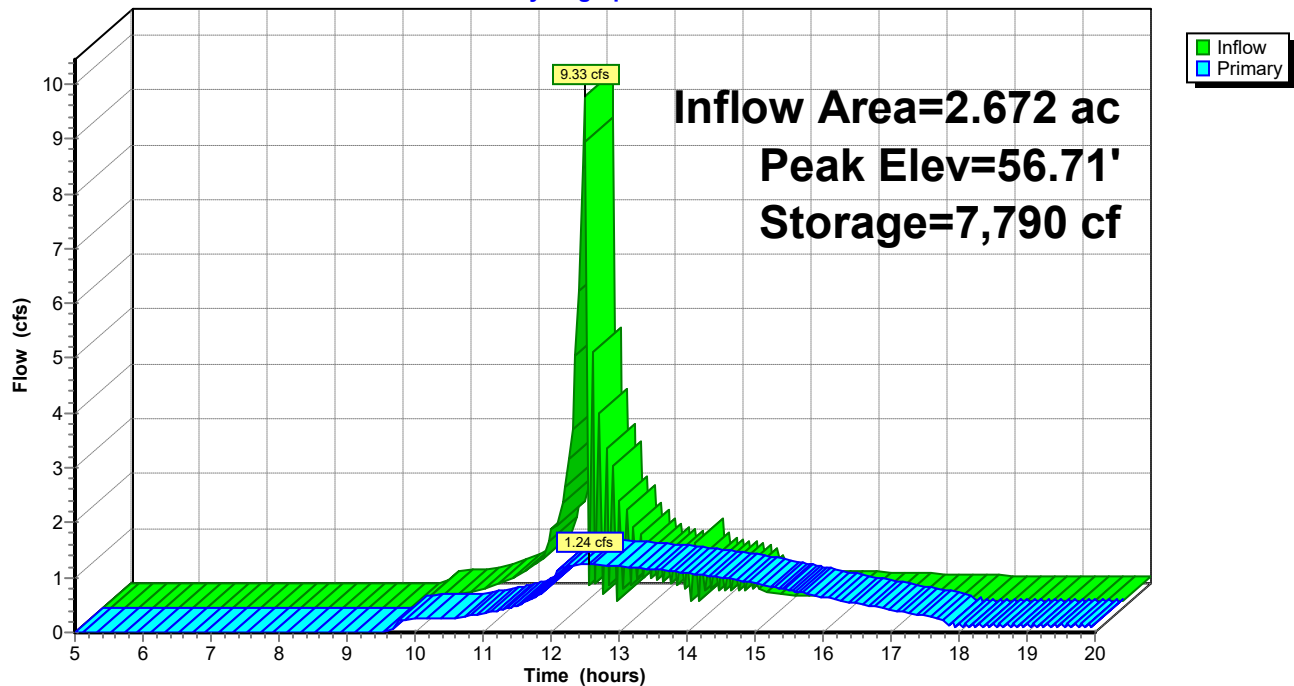
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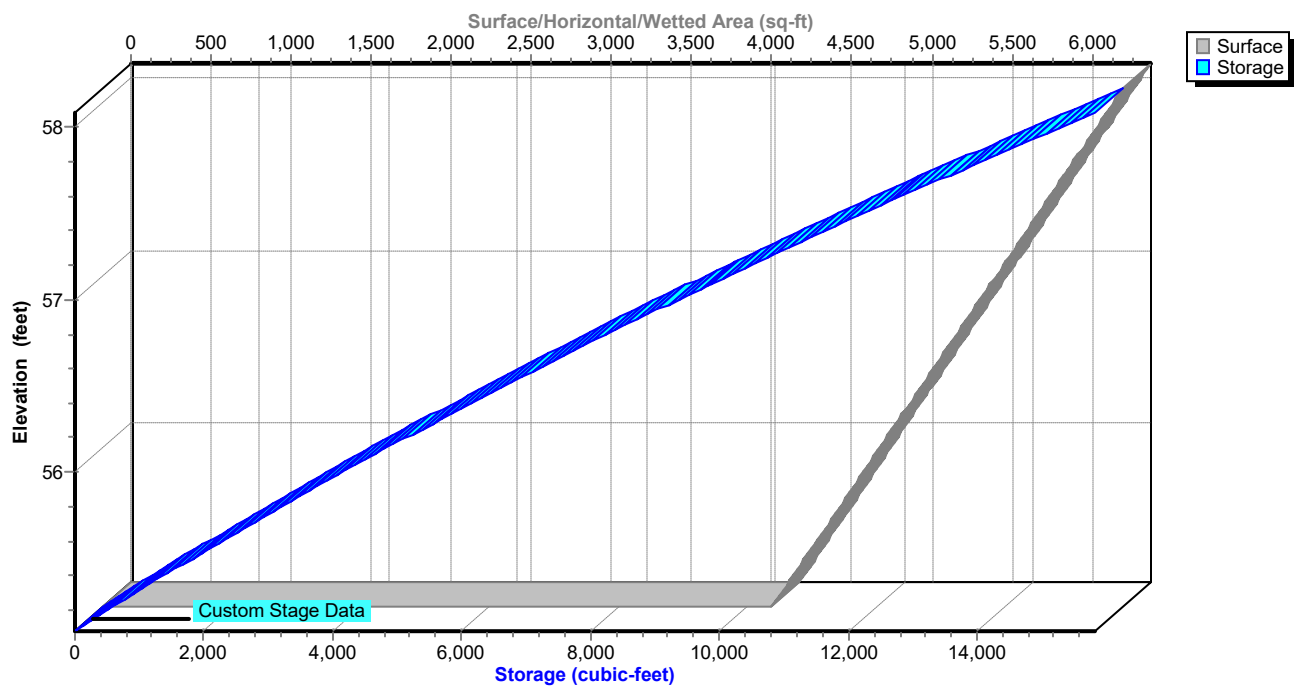
Pond 18P: SGW #1

Hydrograph



Pond 18P: SGW #1

Stage-Area-Storage



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Hydrograph for Pond 18P: SGW #1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	55.08	0.00
5.50	0.00	0	55.08	0.00
6.00	0.00	0	55.08	0.00
6.50	0.00	0	55.08	0.00
7.00	0.00	0	55.08	0.00
7.50	0.00	0	55.08	0.00
8.00	0.00	0	55.08	0.00
8.50	0.00	0	55.08	0.00
9.00	0.00	0	55.08	0.00
9.50	0.00	0	55.08	0.00
10.00	0.24	1	55.08	0.24
10.50	0.30	35	55.09	0.26
11.00	0.51	230	55.13	0.34
11.50	0.94	774	55.26	0.48
12.00	5.80	3,873	55.94	0.92
12.50	2.59	7,766	56.71	1.24
13.00	1.17	7,428	56.64	1.21
13.50	0.92	6,641	56.50	1.16
14.00	0.79	5,691	56.31	1.08
14.50	0.65	4,764	56.13	1.00
15.00	0.25	3,645	55.89	0.89
15.50	0.22	2,567	55.66	0.77
16.00	0.21	1,679	55.47	0.65
16.50	0.19	982	55.31	0.53
17.00	0.17	464	55.19	0.41
17.50	0.16	122	55.11	0.30
18.00	0.14	0	55.08	0.17
18.50	0.13	0	55.08	0.17
19.00	0.13	0	55.08	0.16
19.50	0.13	0	55.08	0.16
20.00	0.12	0	55.08	0.15

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Stage-Area-Storage for Pond 18P: SGW #1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
55.08	4,176	0	57.68	6,075	13,326
55.13	4,213	210	57.73	6,111	13,631
55.18	4,249	421	57.78	6,148	13,937
55.23	4,286	635	57.83	6,184	14,246
55.28	4,322	850	57.88	6,221	14,556
55.33	4,359	1,067	57.93	6,257	14,868
55.38	4,395	1,286	57.98	6,294	15,181
55.43	4,432	1,506	58.03	6,330	15,497
55.48	4,468	1,729	58.08	6,367	15,815
55.53	4,505	1,953			
55.58	4,541	2,179			
55.63	4,578	2,407			
55.68	4,614	2,637			
55.73	4,651	2,869			
55.78	4,687	3,102			
55.83	4,724	3,337			
55.88	4,760	3,575			
55.93	4,797	3,813			
55.98	4,833	4,054			
56.03	4,870	4,297			
56.08	4,906	4,541			
56.13	4,943	4,787			
56.18	4,979	5,035			
56.23	5,016	5,285			
56.28	5,052	5,537			
56.33	5,089	5,791			
56.38	5,125	6,046			
56.43	5,162	6,303			
56.48	5,198	6,562			
56.53	5,235	6,823			
56.58	5,272	7,086			
56.63	5,308	7,350			
56.68	5,345	7,616			
56.73	5,381	7,885			
56.78	5,418	8,155			
56.83	5,454	8,426			
56.88	5,491	8,700			
56.93	5,527	8,975			
56.98	5,564	9,253			
57.03	5,600	9,532			
57.08	5,637	9,813			
57.13	5,673	10,095			
57.18	5,710	10,380			
57.23	5,746	10,666			
57.28	5,783	10,955			
57.33	5,819	11,245			
57.38	5,856	11,537			
57.43	5,892	11,830			
57.48	5,929	12,126			
57.53	5,965	12,423			
57.58	6,002	12,722			
57.63	6,038	13,023			

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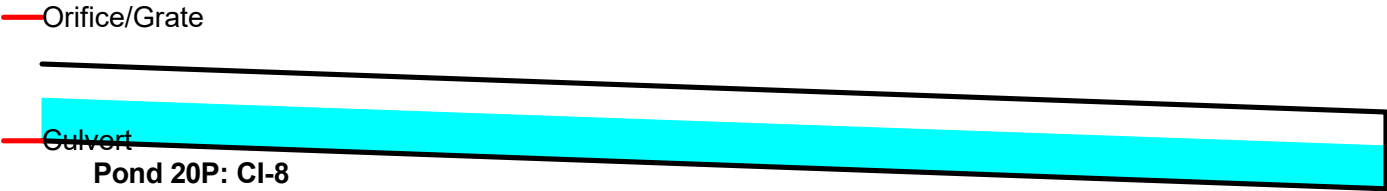
Summary for Pond 20P: CI-8

Inflow Area = 0.753 ac, 42.32% Impervious, Inflow Depth > 1.93" for 2-Year event
Inflow = 1.99 cfs @ 12.12 hrs, Volume= 0.121 af
Outflow = 1.99 cfs @ 12.12 hrs, Volume= 0.121 af, Atten= 0%, Lag= 0.0 min
Primary = 1.99 cfs @ 12.12 hrs, Volume= 0.121 af
Routed to Link 2L : SP#1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.48' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	58.79'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	56.78'	15.0" Round Culvert L= 75.5' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 56.78' / 56.00' S= 0.0103 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.92 cfs @ 12.12 hrs HW=57.46' TW=0.00' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Inlet Controls 1.92 cfs @ 2.81 fps)



EX and PR

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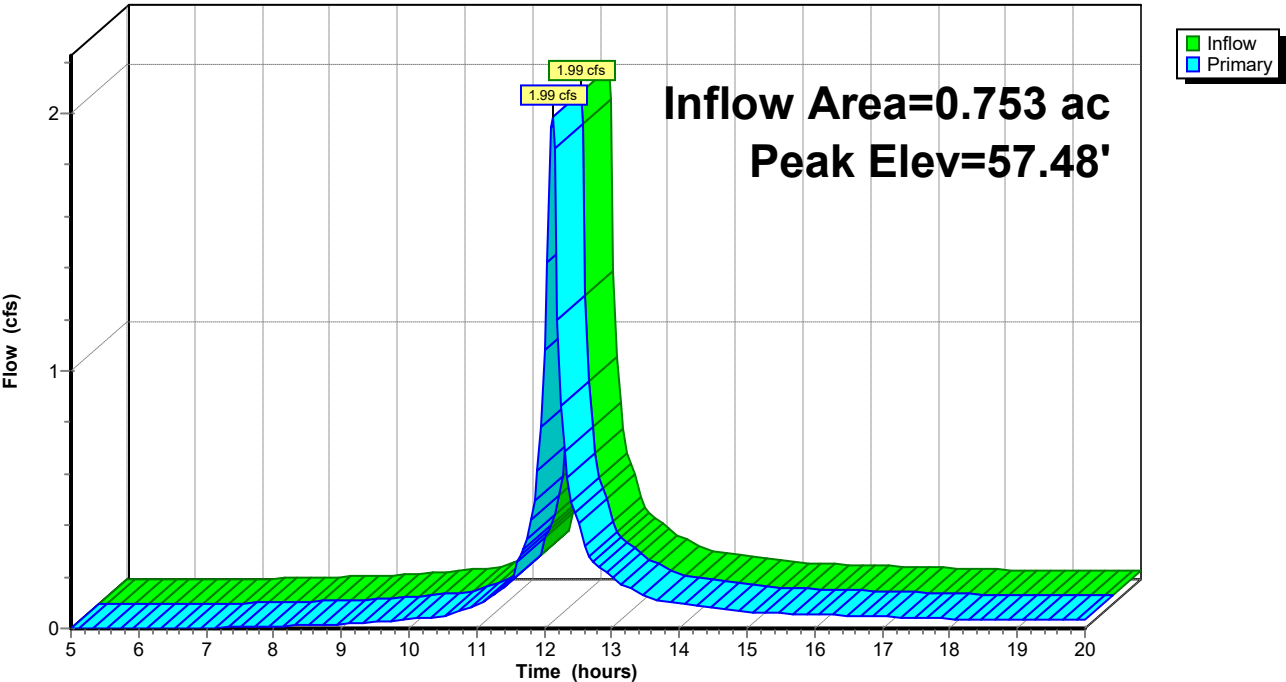
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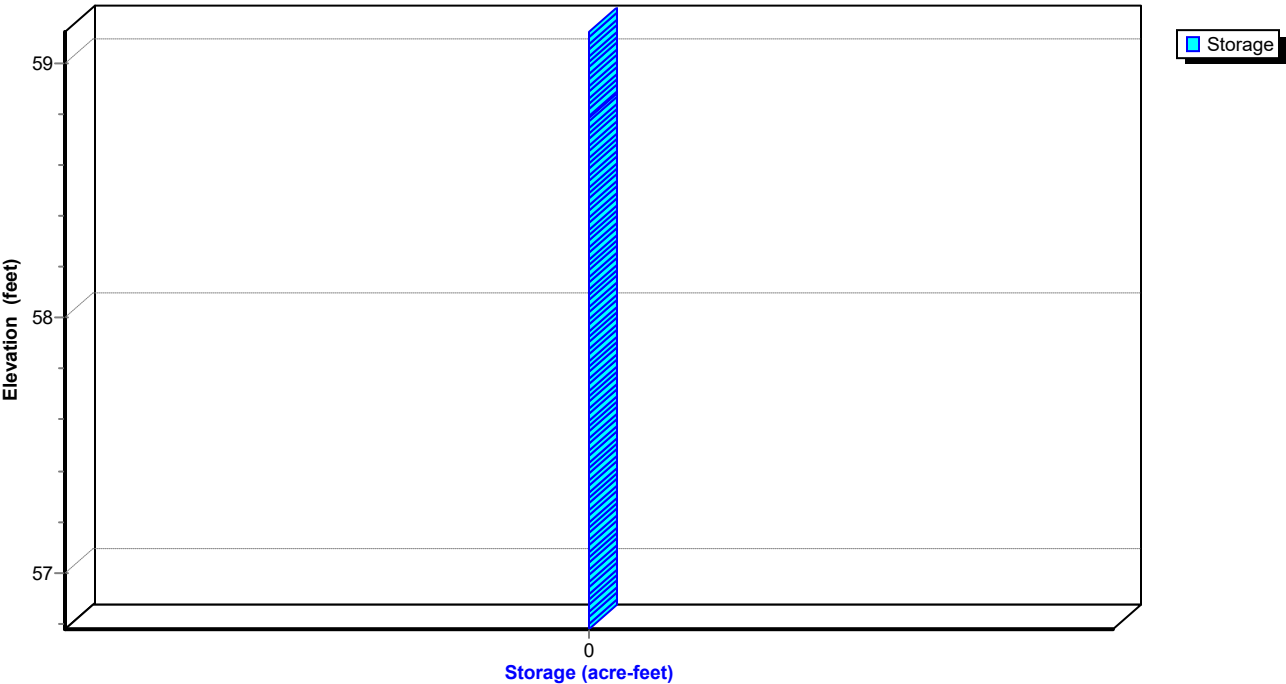
Pond 20P: CI-8

Hydrograph



Pond 20P: CI-8

Stage-Area-Storage



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Hydrograph for Pond 20P: CI-8

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	56.79	0.00	18.00	0.04	56.87	0.04
5.25	0.00	56.79	0.00	18.25	0.04	56.87	0.04
5.50	0.00	56.79	0.00	18.50	0.04	56.87	0.04
5.75	0.00	56.79	0.00	18.75	0.03	56.86	0.03
6.00	0.00	56.79	0.00	19.00	0.03	56.86	0.03
6.25	0.00	56.80	0.00	19.25	0.03	56.86	0.03
6.50	0.00	56.80	0.00	19.50	0.03	56.86	0.03
6.75	0.00	56.80	0.00	19.75	0.03	56.86	0.03
7.00	0.00	56.81	0.00	20.00	0.03	56.86	0.03
7.25	0.00	56.81	0.00				
7.50	0.01	56.82	0.01				
7.75	0.01	56.82	0.01				
8.00	0.01	56.82	0.01				
8.25	0.01	56.83	0.01				
8.50	0.01	56.83	0.01				
8.75	0.01	56.84	0.01				
9.00	0.02	56.84	0.02				
9.25	0.02	56.85	0.02				
9.50	0.02	56.85	0.02				
9.75	0.03	56.86	0.03				
10.00	0.04	56.87	0.04				
10.25	0.04	56.87	0.04				
10.50	0.05	56.88	0.05				
10.75	0.07	56.90	0.07				
11.00	0.09	56.91	0.09				
11.25	0.13	56.94	0.13				
11.50	0.17	56.97	0.17				
11.75	0.35	57.05	0.35				
12.00	1.08	57.27	1.08				
12.25	0.87	57.22	0.87				
12.50	0.43	57.08	0.43				
12.75	0.26	57.01	0.26				
13.00	0.20	56.98	0.20				
13.25	0.16	56.96	0.16				
13.50	0.13	56.94	0.13				
13.75	0.11	56.93	0.11				
14.00	0.10	56.92	0.10				
14.25	0.09	56.92	0.09				
14.50	0.08	56.91	0.08				
14.75	0.07	56.90	0.07				
15.00	0.07	56.90	0.07				
15.25	0.06	56.89	0.06				
15.50	0.06	56.89	0.06				
15.75	0.06	56.89	0.06				
16.00	0.05	56.89	0.05				
16.25	0.05	56.88	0.05				
16.50	0.05	56.88	0.05				
16.75	0.05	56.88	0.05				
17.00	0.05	56.88	0.05				
17.25	0.04	56.87	0.04				
17.50	0.04	56.87	0.04				
17.75	0.04	56.87	0.04				

EX and PR

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NOAA 24-hr C 2-Year Rainfall=3.33"

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Stage-Area-Storage for Pond 20P: CI-8

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
56.78	0.000	57.82	0.000	58.86	0.000
56.80	0.000	57.84	0.000	58.88	0.000
56.82	0.000	57.86	0.000	58.90	0.000
56.84	0.000	57.88	0.000	58.92	0.000
56.86	0.000	57.90	0.000	58.94	0.000
56.88	0.000	57.92	0.000	58.96	0.000
56.90	0.000	57.94	0.000	58.98	0.000
56.92	0.000	57.96	0.000	59.00	0.000
56.94	0.000	57.98	0.000	59.02	0.000
56.96	0.000	58.00	0.000	59.04	0.000
56.98	0.000	58.02	0.000	59.06	0.000
57.00	0.000	58.04	0.000	59.08	0.000
57.02	0.000	58.06	0.000	59.10	0.000
57.04	0.000	58.08	0.000	59.12	0.000
57.06	0.000	58.10	0.000		
57.08	0.000	58.12	0.000		
57.10	0.000	58.14	0.000		
57.12	0.000	58.16	0.000		
57.14	0.000	58.18	0.000		
57.16	0.000	58.20	0.000		
57.18	0.000	58.22	0.000		
57.20	0.000	58.24	0.000		
57.22	0.000	58.26	0.000		
57.24	0.000	58.28	0.000		
57.26	0.000	58.30	0.000		
57.28	0.000	58.32	0.000		
57.30	0.000	58.34	0.000		
57.32	0.000	58.36	0.000		
57.34	0.000	58.38	0.000		
57.36	0.000	58.40	0.000		
57.38	0.000	58.42	0.000		
57.40	0.000	58.44	0.000		
57.42	0.000	58.46	0.000		
57.44	0.000	58.48	0.000		
57.46	0.000	58.50	0.000		
57.48	0.000	58.52	0.000		
57.50	0.000	58.54	0.000		
57.52	0.000	58.56	0.000		
57.54	0.000	58.58	0.000		
57.56	0.000	58.60	0.000		
57.58	0.000	58.62	0.000		
57.60	0.000	58.64	0.000		
57.62	0.000	58.66	0.000		
57.64	0.000	58.68	0.000		
57.66	0.000	58.70	0.000		
57.68	0.000	58.72	0.000		
57.70	0.000	58.74	0.000		
57.72	0.000	58.76	0.000		
57.74	0.000	58.78	0.000		
57.76	0.000	58.80	0.000		
57.78	0.000	58.82	0.000		
57.80	0.000	58.84	0.000		

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NOAA 24-hr C 2-Year Rainfall=3.33"

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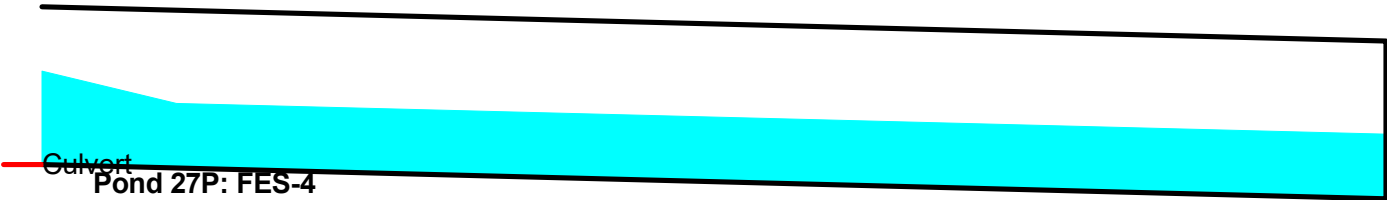
Summary for Pond 27P: FES-4

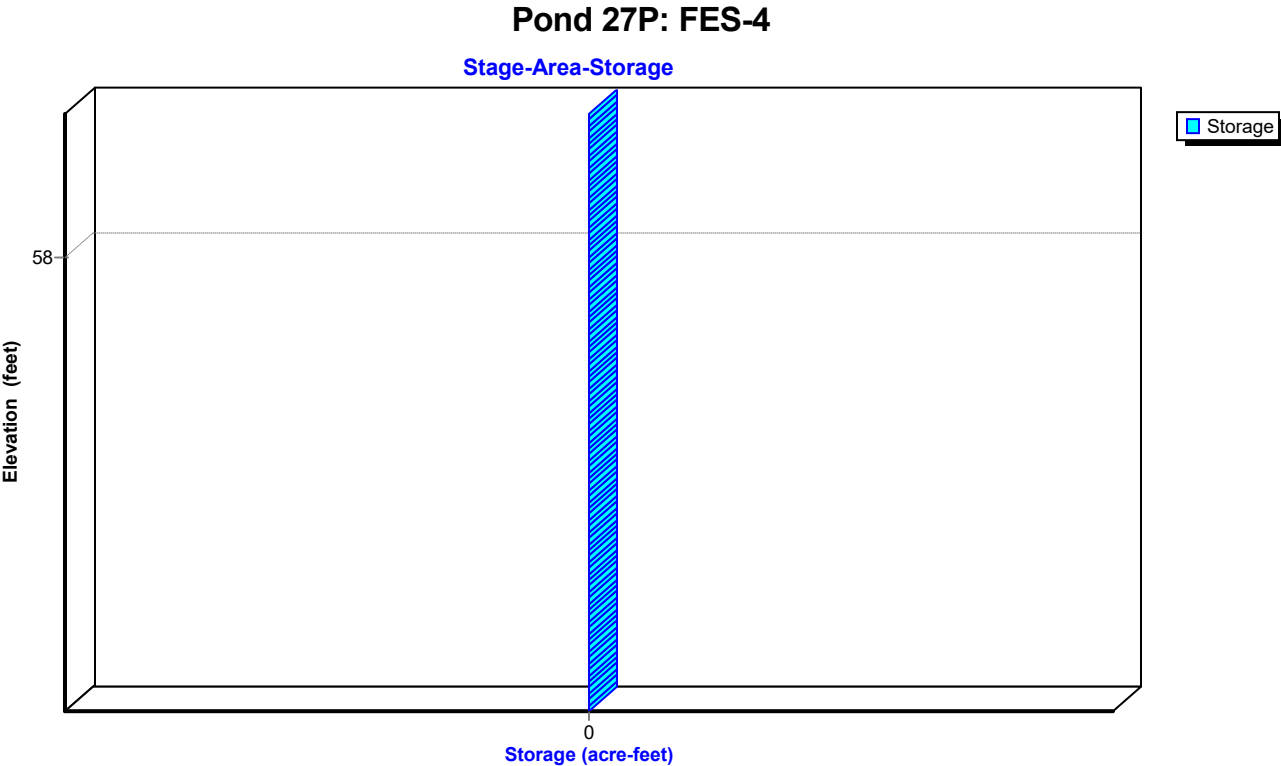
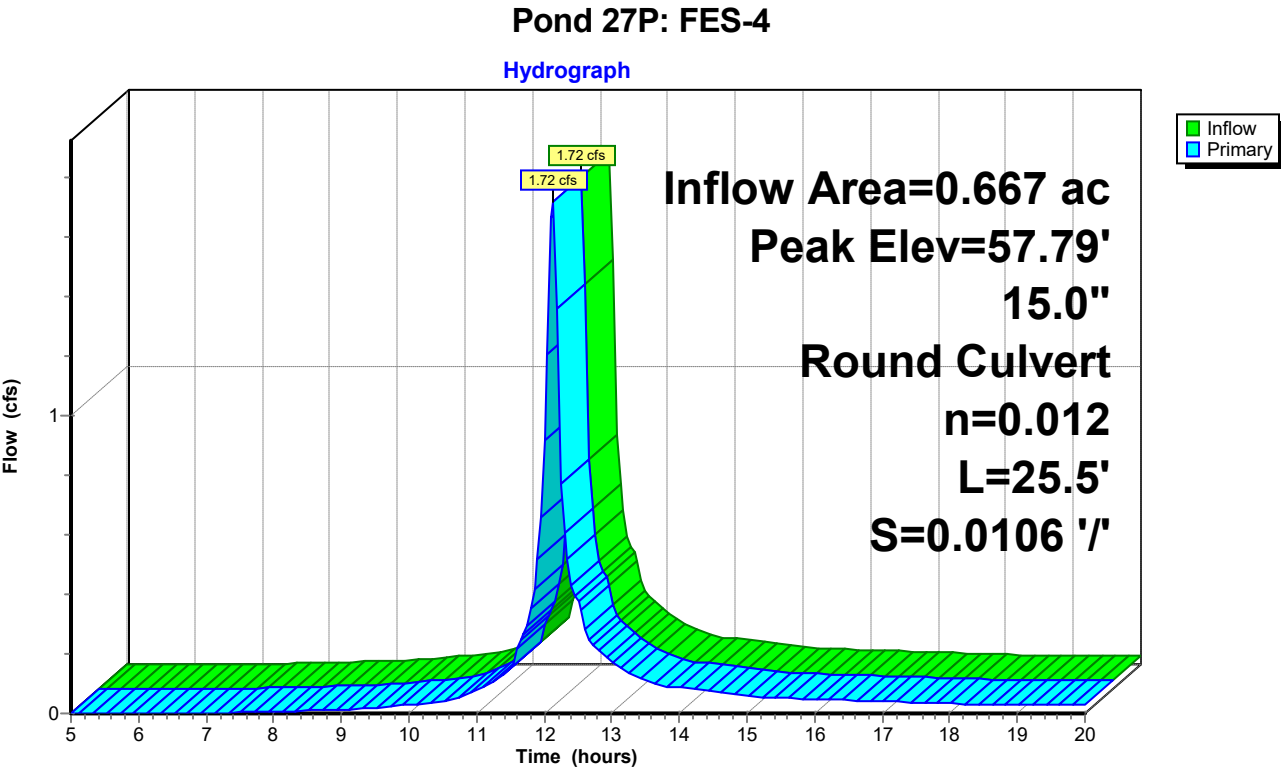
Inflow Area = 0.667 ac, 39.09% Impervious, Inflow Depth > 1.88" for 2-Year event
Inflow = 1.72 cfs @ 12.12 hrs, Volume= 0.105 af
Outflow = 1.72 cfs @ 12.12 hrs, Volume= 0.105 af, Atten= 0%, Lag= 0.0 min
Primary = 1.72 cfs @ 12.12 hrs, Volume= 0.105 af
Routed to Pond 20P : CI-8

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.79' @ 12.14 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	57.05'	15.0" Round Culvert L= 25.5' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 57.05' / 56.78' S= 0.0106 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.54 cfs @ 12.12 hrs HW=57.76' TW=57.46' (Dynamic Tailwater)
↑1=Culvert (Outlet Controls 1.54 cfs @ 3.07 fps)





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Hydrograph for Pond 27P: FES-4

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	57.05	0.00	18.00	0.03	57.13	0.03
5.25	0.00	57.05	0.00	18.25	0.03	57.13	0.03
5.50	0.00	57.05	0.00	18.50	0.03	57.13	0.03
5.75	0.00	57.05	0.00	18.75	0.03	57.13	0.03
6.00	0.00	57.05	0.00	19.00	0.03	57.13	0.03
6.25	0.00	57.05	0.00	19.25	0.03	57.13	0.03
6.50	0.00	57.05	0.00	19.50	0.03	57.13	0.03
6.75	0.00	57.06	0.00	19.75	0.03	57.13	0.03
7.00	0.00	57.07	0.00	20.00	0.03	57.13	0.03
7.25	0.00	57.07	0.00				
7.50	0.00	57.08	0.00				
7.75	0.00	57.08	0.00				
8.00	0.01	57.09	0.01				
8.25	0.01	57.09	0.01				
8.50	0.01	57.10	0.01				
8.75	0.01	57.10	0.01				
9.00	0.01	57.10	0.01				
9.25	0.02	57.11	0.02				
9.50	0.02	57.12	0.02				
9.75	0.02	57.12	0.02				
10.00	0.03	57.13	0.03				
10.25	0.03	57.14	0.03				
10.50	0.04	57.14	0.04				
10.75	0.05	57.16	0.05				
11.00	0.07	57.18	0.07				
11.25	0.11	57.20	0.11				
11.50	0.15	57.23	0.15				
11.75	0.29	57.31	0.29				
12.00	0.92	57.54	0.92				
12.25	0.77	57.54	0.77				
12.50	0.38	57.36	0.38				
12.75	0.22	57.28	0.22				
13.00	0.18	57.25	0.18				
13.25	0.14	57.23	0.14				
13.50	0.11	57.21	0.11				
13.75	0.09	57.19	0.09				
14.00	0.09	57.19	0.09				
14.25	0.08	57.18	0.08				
14.50	0.07	57.18	0.07				
14.75	0.07	57.17	0.07				
15.00	0.06	57.16	0.06				
15.25	0.05	57.16	0.05				
15.50	0.05	57.16	0.05				
15.75	0.05	57.15	0.05				
16.00	0.05	57.15	0.05				
16.25	0.05	57.15	0.05				
16.50	0.04	57.15	0.04				
16.75	0.04	57.15	0.04				
17.00	0.04	57.14	0.04				
17.25	0.04	57.14	0.04				
17.50	0.04	57.14	0.04				
17.75	0.03	57.14	0.03				

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Stage-Area-Storage for Pond 27P: FES-4

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
57.05	0.000	57.57	0.000	58.09	0.000
57.06	0.000	57.58	0.000	58.10	0.000
57.07	0.000	57.59	0.000	58.11	0.000
57.08	0.000	57.60	0.000	58.12	0.000
57.09	0.000	57.61	0.000	58.13	0.000
57.10	0.000	57.62	0.000	58.14	0.000
57.11	0.000	57.63	0.000	58.15	0.000
57.12	0.000	57.64	0.000	58.16	0.000
57.13	0.000	57.65	0.000	58.17	0.000
57.14	0.000	57.66	0.000	58.18	0.000
57.15	0.000	57.67	0.000	58.19	0.000
57.16	0.000	57.68	0.000	58.20	0.000
57.17	0.000	57.69	0.000	58.21	0.000
57.18	0.000	57.70	0.000	58.22	0.000
57.19	0.000	57.71	0.000	58.23	0.000
57.20	0.000	57.72	0.000	58.24	0.000
57.21	0.000	57.73	0.000	58.25	0.000
57.22	0.000	57.74	0.000	58.26	0.000
57.23	0.000	57.75	0.000	58.27	0.000
57.24	0.000	57.76	0.000	58.28	0.000
57.25	0.000	57.77	0.000	58.29	0.000
57.26	0.000	57.78	0.000	58.30	0.000
57.27	0.000	57.79	0.000		
57.28	0.000	57.80	0.000		
57.29	0.000	57.81	0.000		
57.30	0.000	57.82	0.000		
57.31	0.000	57.83	0.000		
57.32	0.000	57.84	0.000		
57.33	0.000	57.85	0.000		
57.34	0.000	57.86	0.000		
57.35	0.000	57.87	0.000		
57.36	0.000	57.88	0.000		
57.37	0.000	57.89	0.000		
57.38	0.000	57.90	0.000		
57.39	0.000	57.91	0.000		
57.40	0.000	57.92	0.000		
57.41	0.000	57.93	0.000		
57.42	0.000	57.94	0.000		
57.43	0.000	57.95	0.000		
57.44	0.000	57.96	0.000		
57.45	0.000	57.97	0.000		
57.46	0.000	57.98	0.000		
57.47	0.000	57.99	0.000		
57.48	0.000	58.00	0.000		
57.49	0.000	58.01	0.000		
57.50	0.000	58.02	0.000		
57.51	0.000	58.03	0.000		
57.52	0.000	58.04	0.000		
57.53	0.000	58.05	0.000		
57.54	0.000	58.06	0.000		
57.55	0.000	58.07	0.000		
57.56	0.000	58.08	0.000		

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NOAA 24-hr C 2-Year Rainfall=3.33"
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Summary for Pond 37P: CI-4

Inflow Area = 0.214 ac, 70.69% Impervious, Inflow Depth > 2.41" for 2-Year event
Inflow = 0.76 cfs @ 12.07 hrs, Volume= 0.043 af
Outflow = 0.76 cfs @ 12.07 hrs, Volume= 0.043 af, Atten= 0%, Lag= 0.0 min
Primary = 0.76 cfs @ 12.07 hrs, Volume= 0.043 af
Routed to Pond 17P : SGW FOREBAY #1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 56.71' @ 12.65 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	59.64'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	55.53'	15.0" Round Culvert L= 89.2' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 55.53' / 55.08' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.62 cfs @ 12.07 hrs HW=56.29' TW=56.23' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Outlet Controls 0.62 cfs @ 1.12 fps)

Orifice/Grate



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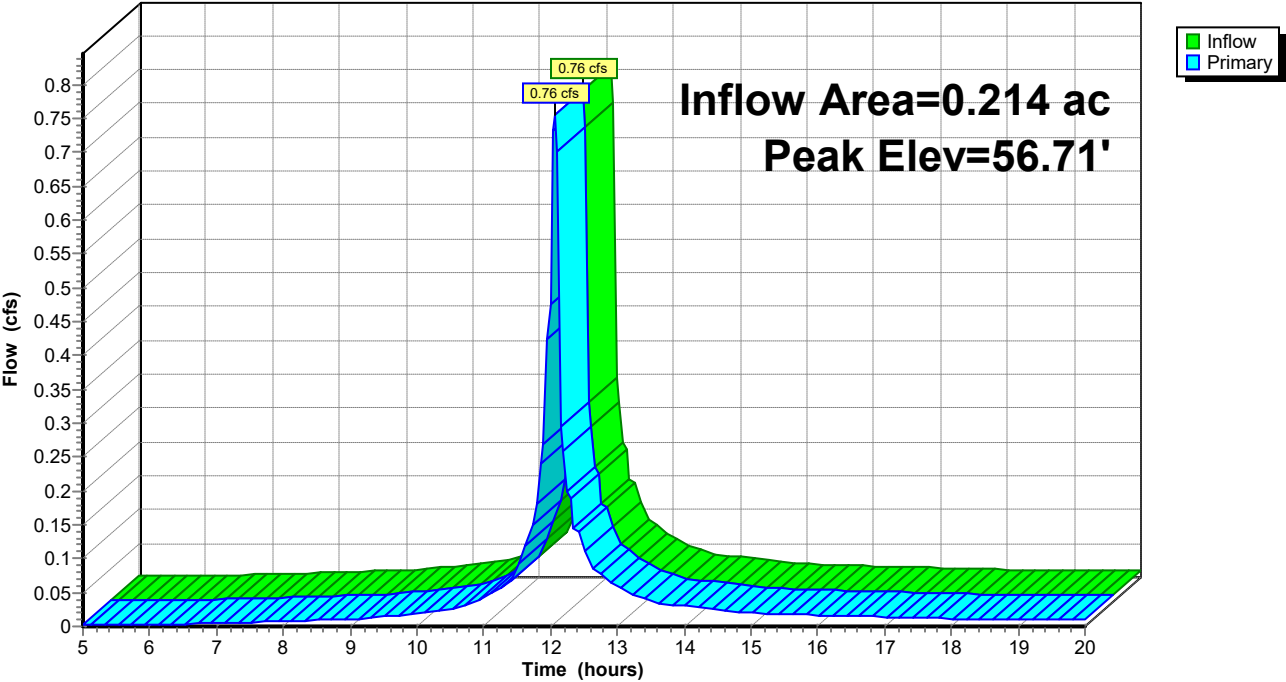
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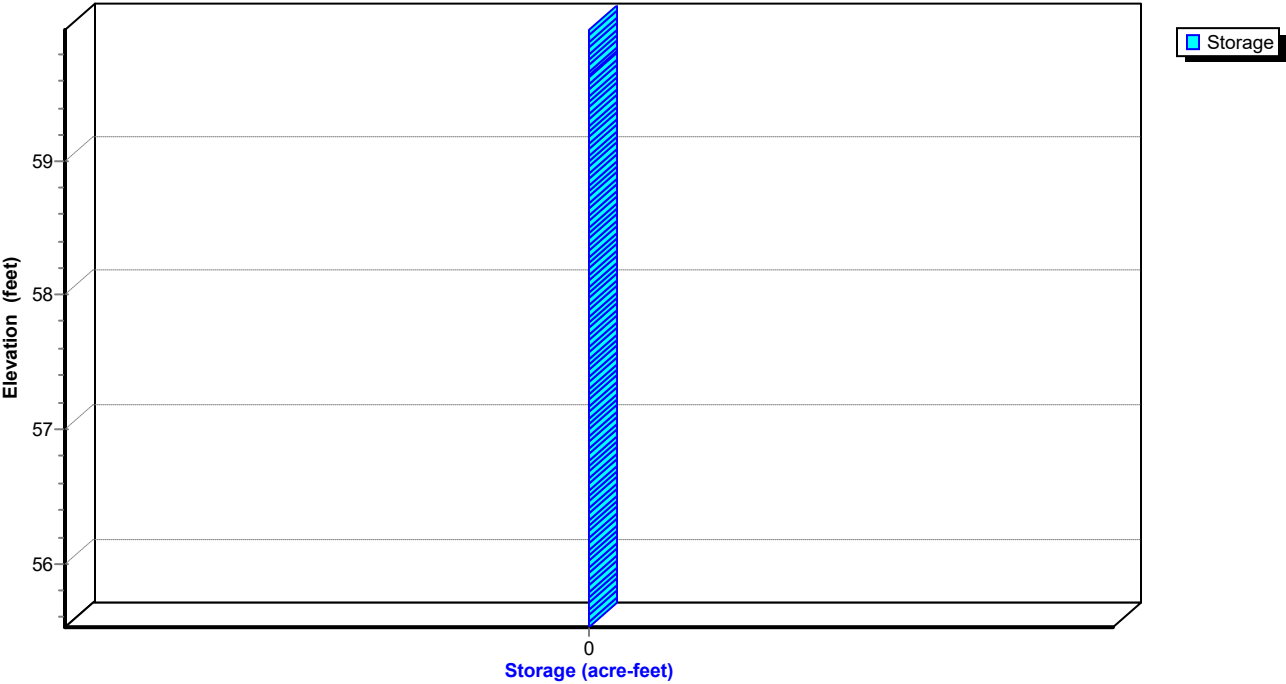
Pond 37P: CI-4

Hydrograph



Pond 37P: CI-4

Stage-Area-Storage



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Hydrograph for Pond 37P: CI-4

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	55.55	0.00	18.00	0.01	56.09	0.01
5.25	0.00	55.56	0.00	18.25	0.01	56.09	0.01
5.50	0.00	55.56	0.00	18.50	0.01	56.09	0.01
5.75	0.00	55.56	0.00	18.75	0.01	56.09	0.01
6.00	0.00	55.56	0.00	19.00	0.01	56.09	0.01
6.25	0.00	55.57	0.00	19.25	0.01	56.09	0.01
6.50	0.00	55.57	0.00	19.50	0.01	56.09	0.01
6.75	0.00	55.57	0.00	19.75	0.01	56.09	0.01
7.00	0.00	55.58	0.00	20.00	0.01	56.09	0.01
7.25	0.01	55.58	0.01				
7.50	0.01	55.59	0.01				
7.75	0.01	55.60	0.01				
8.00	0.01	55.61	0.01				
8.25	0.01	55.64	0.01				
8.50	0.01	55.69	0.01				
8.75	0.01	55.76	0.01				
9.00	0.01	55.83	0.01				
9.25	0.01	55.91	0.01				
9.50	0.01	56.00	0.01				
9.75	0.02	56.09	0.02				
10.00	0.02	56.09	0.02				
10.25	0.02	56.09	0.02				
10.50	0.02	56.10	0.02				
10.75	0.03	56.10	0.03				
11.00	0.04	56.10	0.04				
11.25	0.06	56.11	0.06				
11.50	0.08	56.11	0.08				
11.75	0.17	56.14	0.17				
12.00	0.48	56.23	0.48				
12.25	0.20	56.53	0.20				
12.50	0.13	56.68	0.13				
12.75	0.08	56.70	0.08				
13.00	0.06	56.67	0.06				
13.25	0.05	56.61	0.05				
13.50	0.04	56.53	0.04				
13.75	0.03	56.44	0.03				
14.00	0.03	56.35	0.03				
14.25	0.03	56.26	0.03				
14.50	0.03	56.16	0.03				
14.75	0.02	56.10	0.02				
15.00	0.02	56.09	0.02				
15.25	0.02	56.09	0.02				
15.50	0.02	56.09	0.02				
15.75	0.02	56.09	0.02				
16.00	0.02	56.09	0.02				
16.25	0.02	56.09	0.02				
16.50	0.02	56.09	0.02				
16.75	0.01	56.09	0.01				
17.00	0.01	56.09	0.01				
17.25	0.01	56.09	0.01				
17.50	0.01	56.09	0.01				
17.75	0.01	56.09	0.01				

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Stage-Area-Storage for Pond 37P: CI-4

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
55.53	0.000	58.13	0.000
55.58	0.000	58.18	0.000
55.63	0.000	58.23	0.000
55.68	0.000	58.28	0.000
55.73	0.000	58.33	0.000
55.78	0.000	58.38	0.000
55.83	0.000	58.43	0.000
55.88	0.000	58.48	0.000
55.93	0.000	58.53	0.000
55.98	0.000	58.58	0.000
56.03	0.000	58.63	0.000
56.08	0.000	58.68	0.000
56.13	0.000	58.73	0.000
56.18	0.000	58.78	0.000
56.23	0.000	58.83	0.000
56.28	0.000	58.88	0.000
56.33	0.000	58.93	0.000
56.38	0.000	58.98	0.000
56.43	0.000	59.03	0.000
56.48	0.000	59.08	0.000
56.53	0.000	59.13	0.000
56.58	0.000	59.18	0.000
56.63	0.000	59.23	0.000
56.68	0.000	59.28	0.000
56.73	0.000	59.33	0.000
56.78	0.000	59.38	0.000
56.83	0.000	59.43	0.000
56.88	0.000	59.48	0.000
56.93	0.000	59.53	0.000
56.98	0.000	59.58	0.000
57.03	0.000	59.63	0.000
57.08	0.000	59.68	0.000
57.13	0.000	59.73	0.000
57.18	0.000	59.78	0.000
57.23	0.000	59.83	0.000
57.28	0.000	59.88	0.000
57.33	0.000	59.93	0.000
57.38	0.000		
57.43	0.000		
57.48	0.000		
57.53	0.000		
57.58	0.000		
57.63	0.000		
57.68	0.000		
57.73	0.000		
57.78	0.000		
57.83	0.000		
57.88	0.000		
57.93	0.000		
57.98	0.000		
58.03	0.000		
58.08	0.000		

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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Summary for Pond 38P: CI-1

Inflow Area = 1.749 ac, 78.72% Impervious, Inflow Depth > 2.52" for 2-Year event
Inflow = 6.06 cfs @ 12.07 hrs, Volume= 0.367 af
Outflow = 6.06 cfs @ 12.07 hrs, Volume= 0.367 af, Atten= 0%, Lag= 0.0 min
Primary = 6.06 cfs @ 12.07 hrs, Volume= 0.367 af
Routed to Pond 17P : SGW FOREBAY #1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 56.85' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	61.41'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	55.43'	18.0" Round Culvert L= 46.3' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 55.43' / 55.08' S= 0.0076 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=5.68 cfs @ 12.07 hrs HW=56.83' TW=56.22' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Outlet Controls 5.68 cfs @ 4.32 fps)

Orifice/Grate

Culvert Pond 38P: CI-1

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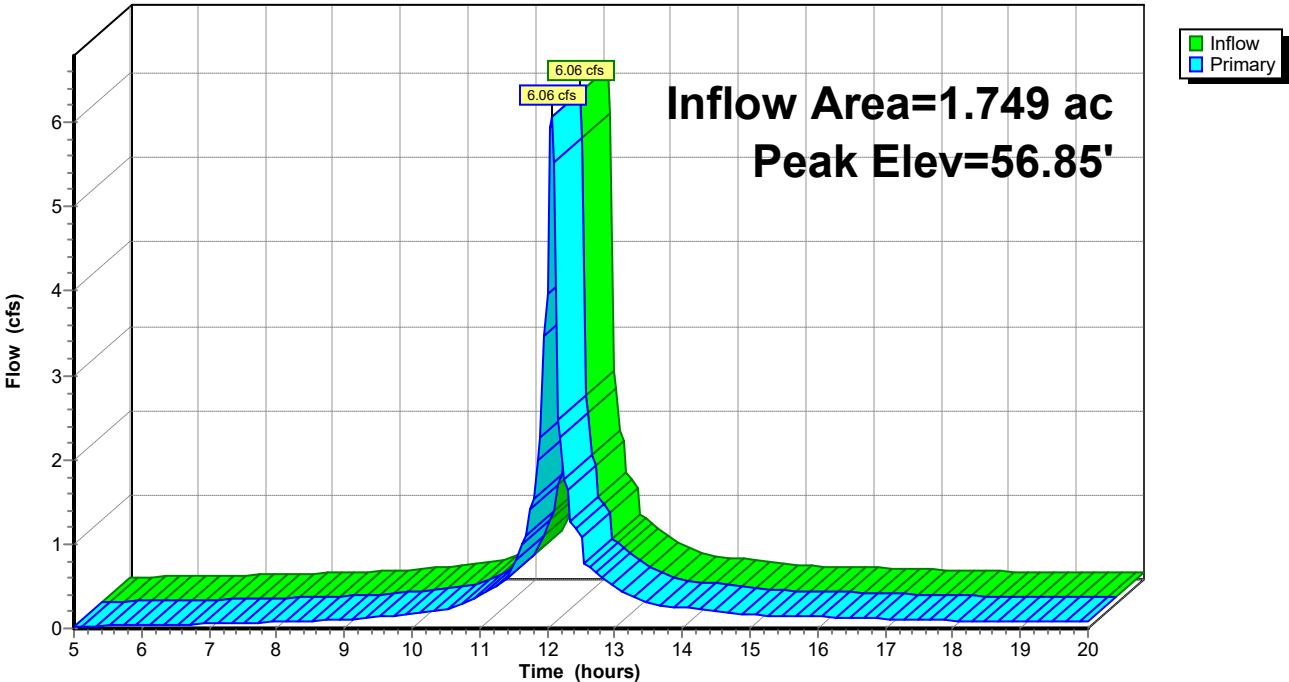
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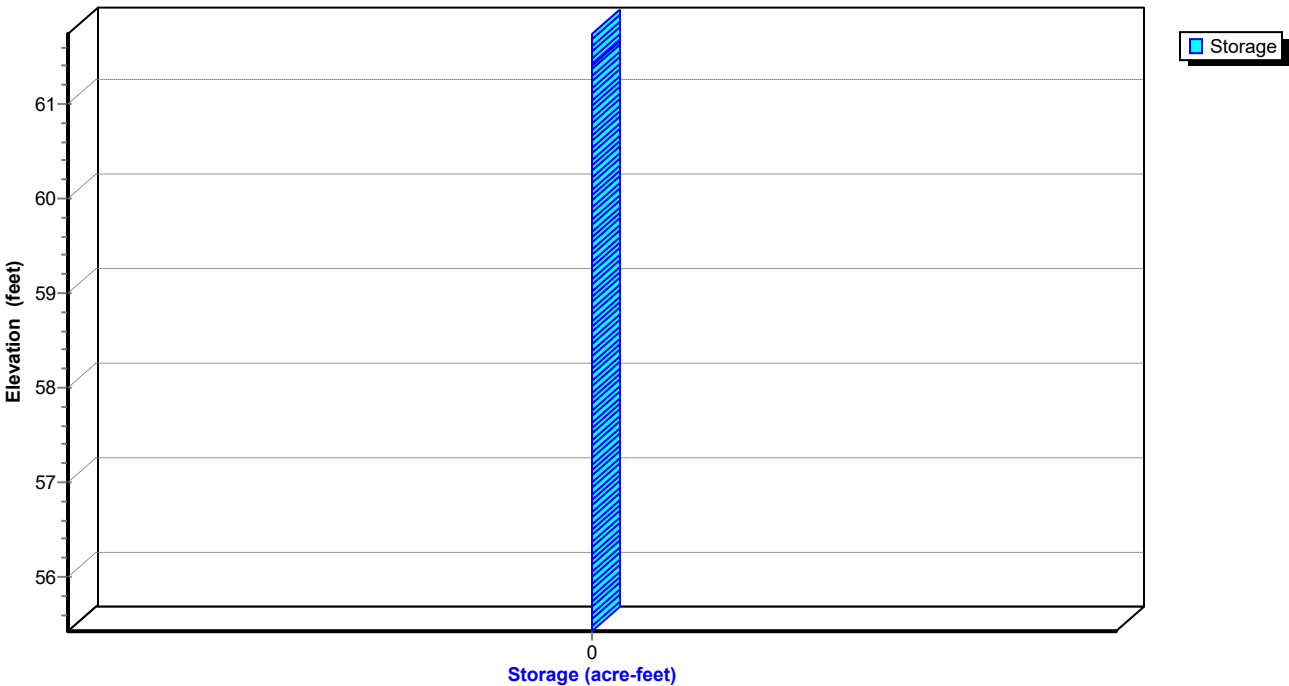
Pond 38P: CI-1

Hydrograph



Pond 38P: CI-1

Stage-Area-Storage



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Hydrograph for Pond 38P: CI-1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.03	55.51	0.03	18.00	0.09	56.09	0.09
5.25	0.03	55.51	0.03	18.25	0.09	56.09	0.09
5.50	0.03	55.51	0.03	18.50	0.09	56.09	0.09
5.75	0.04	55.52	0.04	18.75	0.09	56.09	0.09
6.00	0.04	55.52	0.04	19.00	0.09	56.09	0.09
6.25	0.04	55.53	0.04	19.25	0.08	56.09	0.08
6.50	0.05	55.54	0.05	19.50	0.08	56.09	0.08
6.75	0.05	55.55	0.05	19.75	0.08	56.09	0.08
7.00	0.06	55.56	0.06	20.00	0.08	56.09	0.08
7.25	0.06	55.57	0.06				
7.50	0.07	55.58	0.07				
7.75	0.07	55.60	0.07				
8.00	0.08	55.63	0.08				
8.25	0.08	55.66	0.08				
8.50	0.09	55.71	0.09				
8.75	0.10	55.77	0.10				
9.00	0.10	55.84	0.10				
9.25	0.12	55.91	0.12				
9.50	0.14	56.00	0.14				
9.75	0.16	56.09	0.16				
10.00	0.18	56.10	0.18				
10.25	0.20	56.10	0.20				
10.50	0.22	56.10	0.22				
10.75	0.29	56.11	0.29				
11.00	0.36	56.12	0.36				
11.25	0.51	56.14	0.51				
11.50	0.68	56.16	0.68				
11.75	1.42	56.27	1.42				
12.00	3.96	56.61	3.96				
12.25	1.77	56.62	1.77				
12.50	1.08	56.71	1.08				
12.75	0.63	56.71	0.63				
13.00	0.50	56.67	0.50				
13.25	0.38	56.61	0.38				
13.50	0.31	56.53	0.31				
13.75	0.27	56.44	0.27				
14.00	0.25	56.35	0.25				
14.25	0.23	56.26	0.23				
14.50	0.21	56.17	0.21				
14.75	0.18	56.10	0.18				
15.00	0.17	56.10	0.17				
15.25	0.15	56.10	0.15				
15.50	0.15	56.10	0.15				
15.75	0.14	56.10	0.14				
16.00	0.14	56.09	0.14				
16.25	0.13	56.09	0.13				
16.50	0.13	56.09	0.13				
16.75	0.12	56.09	0.12				
17.00	0.12	56.09	0.12				
17.25	0.11	56.09	0.11				
17.50	0.10	56.09	0.10				
17.75	0.10	56.09	0.10				

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NOAA 24-hr C 2-Year Rainfall=3.33"

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Stage-Area-Storage for Pond 38P: CI-1

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
55.43	0.000	58.03	0.000	60.63	0.000
55.48	0.000	58.08	0.000	60.68	0.000
55.53	0.000	58.13	0.000	60.73	0.000
55.58	0.000	58.18	0.000	60.78	0.000
55.63	0.000	58.23	0.000	60.83	0.000
55.68	0.000	58.28	0.000	60.88	0.000
55.73	0.000	58.33	0.000	60.93	0.000
55.78	0.000	58.38	0.000	60.98	0.000
55.83	0.000	58.43	0.000	61.03	0.000
55.88	0.000	58.48	0.000	61.08	0.000
55.93	0.000	58.53	0.000	61.13	0.000
55.98	0.000	58.58	0.000	61.18	0.000
56.03	0.000	58.63	0.000	61.23	0.000
56.08	0.000	58.68	0.000	61.28	0.000
56.13	0.000	58.73	0.000	61.33	0.000
56.18	0.000	58.78	0.000	61.38	0.000
56.23	0.000	58.83	0.000	61.43	0.000
56.28	0.000	58.88	0.000	61.48	0.000
56.33	0.000	58.93	0.000	61.53	0.000
56.38	0.000	58.98	0.000	61.58	0.000
56.43	0.000	59.03	0.000	61.63	0.000
56.48	0.000	59.08	0.000	61.68	0.000
56.53	0.000	59.13	0.000	61.73	0.000
56.58	0.000	59.18	0.000		
56.63	0.000	59.23	0.000		
56.68	0.000	59.28	0.000		
56.73	0.000	59.33	0.000		
56.78	0.000	59.38	0.000		
56.83	0.000	59.43	0.000		
56.88	0.000	59.48	0.000		
56.93	0.000	59.53	0.000		
56.98	0.000	59.58	0.000		
57.03	0.000	59.63	0.000		
57.08	0.000	59.68	0.000		
57.13	0.000	59.73	0.000		
57.18	0.000	59.78	0.000		
57.23	0.000	59.83	0.000		
57.28	0.000	59.88	0.000		
57.33	0.000	59.93	0.000		
57.38	0.000	59.98	0.000		
57.43	0.000	60.03	0.000		
57.48	0.000	60.08	0.000		
57.53	0.000	60.13	0.000		
57.58	0.000	60.18	0.000		
57.63	0.000	60.23	0.000		
57.68	0.000	60.28	0.000		
57.73	0.000	60.33	0.000		
57.78	0.000	60.38	0.000		
57.83	0.000	60.43	0.000		
57.88	0.000	60.48	0.000		
57.93	0.000	60.53	0.000		
57.98	0.000	60.58	0.000		

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NOAA 24-hr C 2-Year Rainfall=3.33"
Printed 5/1/2024

Summary for Pond 39P: CI-9

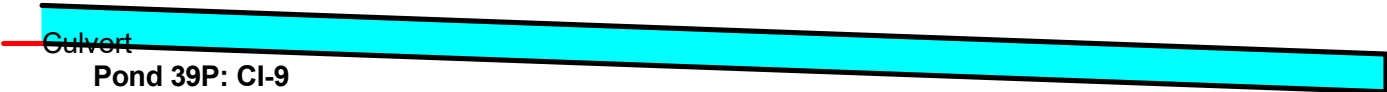
Inflow Area = 1.554 ac, 77.64% Impervious, Inflow Depth > 2.50" for 2-Year event
Inflow = 5.33 cfs @ 12.07 hrs, Volume= 0.323 af
Outflow = 5.33 cfs @ 12.07 hrs, Volume= 0.323 af, Atten= 0%, Lag= 0.0 min
Primary = 5.33 cfs @ 12.07 hrs, Volume= 0.323 af
Routed to Pond 38P : CI-1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 58.46' @ 12.06 hrs

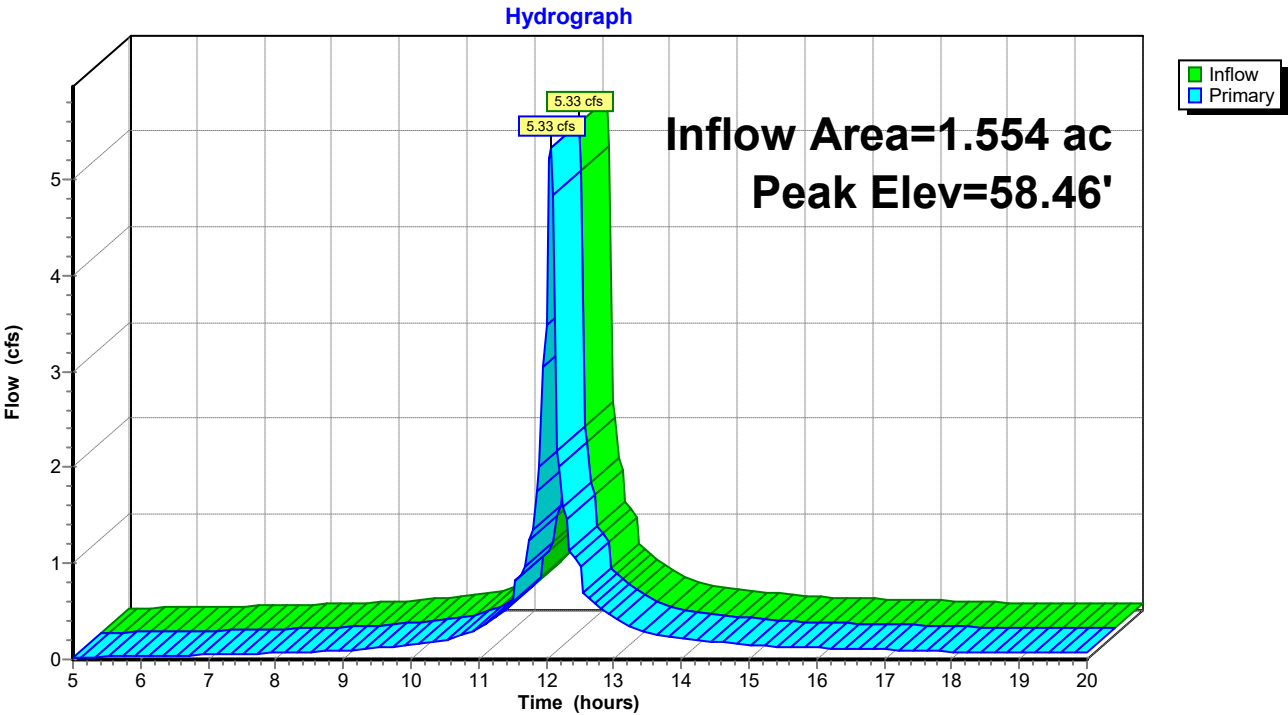
Device	Routing	Invert	Outlet Devices
#1	Primary	61.44'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	57.03'	15.0" Round Culvert L= 172.0' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 57.03' / 55.43' S= 0.0093 '/ Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=5.10 cfs @ 12.07 hrs HW=58.40' TW=56.83' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Inlet Controls 5.10 cfs @ 4.16 fps)

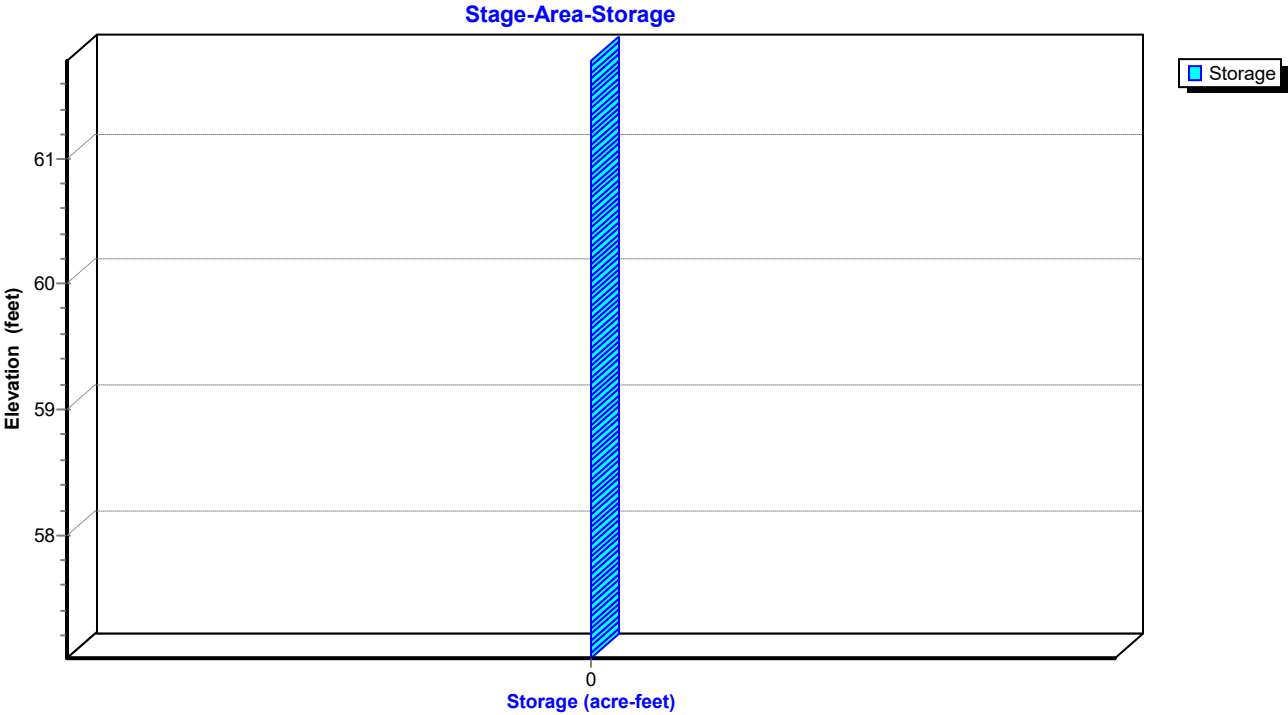
Orifice/Grate



Pond 39P: CI-9



Pond 39P: CI-9



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Hydrograph for Pond 39P: CI-9

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.02	57.10	0.02	18.00	0.08	57.17	0.08
5.25	0.03	57.11	0.03	18.25	0.08	57.17	0.08
5.50	0.03	57.11	0.03	18.50	0.08	57.17	0.08
5.75	0.03	57.11	0.03	18.75	0.08	57.17	0.08
6.00	0.03	57.11	0.03	19.00	0.08	57.17	0.08
6.25	0.04	57.12	0.04	19.25	0.07	57.17	0.07
6.50	0.04	57.12	0.04	19.50	0.07	57.17	0.07
6.75	0.04	57.13	0.04	19.75	0.07	57.17	0.07
7.00	0.05	57.13	0.05	20.00	0.07	57.16	0.07
7.25	0.05	57.14	0.05				
7.50	0.06	57.14	0.06				
7.75	0.06	57.15	0.06				
8.00	0.07	57.15	0.07				
8.25	0.07	57.16	0.07				
8.50	0.08	57.16	0.08				
8.75	0.08	57.17	0.08				
9.00	0.09	57.17	0.09				
9.25	0.11	57.19	0.11				
9.50	0.12	57.20	0.12				
9.75	0.14	57.21	0.14				
10.00	0.15	57.22	0.15				
10.25	0.17	57.23	0.17				
10.50	0.19	57.24	0.19				
10.75	0.26	57.28	0.26				
11.00	0.32	57.30	0.32				
11.25	0.45	57.35	0.45				
11.50	0.59	57.40	0.59				
11.75	1.24	57.57	1.24				
12.00	3.49	58.02	3.49				
12.25	1.58	57.69	1.58				
12.50	0.96	57.56	0.96				
12.75	0.56	57.45	0.56				
13.00	0.44	57.40	0.44				
13.25	0.34	57.35	0.34				
13.50	0.28	57.31	0.28				
13.75	0.24	57.29	0.24				
14.00	0.22	57.27	0.22				
14.25	0.20	57.26	0.20				
14.50	0.18	57.24	0.18				
14.75	0.16	57.23	0.16				
15.00	0.15	57.22	0.15				
15.25	0.14	57.21	0.14				
15.50	0.13	57.21	0.13				
15.75	0.13	57.21	0.13				
16.00	0.12	57.20	0.12				
16.25	0.12	57.20	0.12				
16.50	0.11	57.20	0.11				
16.75	0.11	57.19	0.11				
17.00	0.10	57.19	0.10				
17.25	0.10	57.18	0.10				
17.50	0.09	57.18	0.09				
17.75	0.09	57.18	0.09				

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NOAA 24-hr C 2-Year Rainfall=3.33"

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Stage-Area-Storage for Pond 39P: CI-9

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
57.03	0.000	59.63	0.000
57.08	0.000	59.68	0.000
57.13	0.000	59.73	0.000
57.18	0.000	59.78	0.000
57.23	0.000	59.83	0.000
57.28	0.000	59.88	0.000
57.33	0.000	59.93	0.000
57.38	0.000	59.98	0.000
57.43	0.000	60.03	0.000
57.48	0.000	60.08	0.000
57.53	0.000	60.13	0.000
57.58	0.000	60.18	0.000
57.63	0.000	60.23	0.000
57.68	0.000	60.28	0.000
57.73	0.000	60.33	0.000
57.78	0.000	60.38	0.000
57.83	0.000	60.43	0.000
57.88	0.000	60.48	0.000
57.93	0.000	60.53	0.000
57.98	0.000	60.58	0.000
58.03	0.000	60.63	0.000
58.08	0.000	60.68	0.000
58.13	0.000	60.73	0.000
58.18	0.000	60.78	0.000
58.23	0.000	60.83	0.000
58.28	0.000	60.88	0.000
58.33	0.000	60.93	0.000
58.38	0.000	60.98	0.000
58.43	0.000	61.03	0.000
58.48	0.000	61.08	0.000
58.53	0.000	61.13	0.000
58.58	0.000	61.18	0.000
58.63	0.000	61.23	0.000
58.68	0.000	61.28	0.000
58.73	0.000	61.33	0.000
58.78	0.000	61.38	0.000
58.83	0.000	61.43	0.000
58.88	0.000	61.48	0.000
58.93	0.000	61.53	0.000
58.98	0.000	61.58	0.000
59.03	0.000	61.63	0.000
59.08	0.000	61.68	0.000
59.13	0.000	61.73	0.000
59.18	0.000		
59.23	0.000		
59.28	0.000		
59.33	0.000		
59.38	0.000		
59.43	0.000		
59.48	0.000		
59.53	0.000		
59.58	0.000		

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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Summary for Pond 40P: CI-6

Inflow Area = 0.382 ac, 58.96% Impervious, Inflow Depth > 2.17" for 2-Year event
Inflow = 1.04 cfs @ 12.08 hrs, Volume= 0.069 af
Outflow = 1.04 cfs @ 12.08 hrs, Volume= 0.069 af, Atten= 0%, Lag= 0.0 min
Primary = 1.04 cfs @ 12.08 hrs, Volume= 0.069 af
Routed to Pond 39P : CI-9

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 58.55' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	61.68'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	57.45'	12.0" Round Culvert L= 84.4' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 57.45' / 57.03' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.44 cfs @ 12.08 hrs HW=58.40' TW=58.38' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Outlet Controls 0.44 cfs @ 0.73 fps)

Orifice/Grate

Culvert Pond 40P: CI-6

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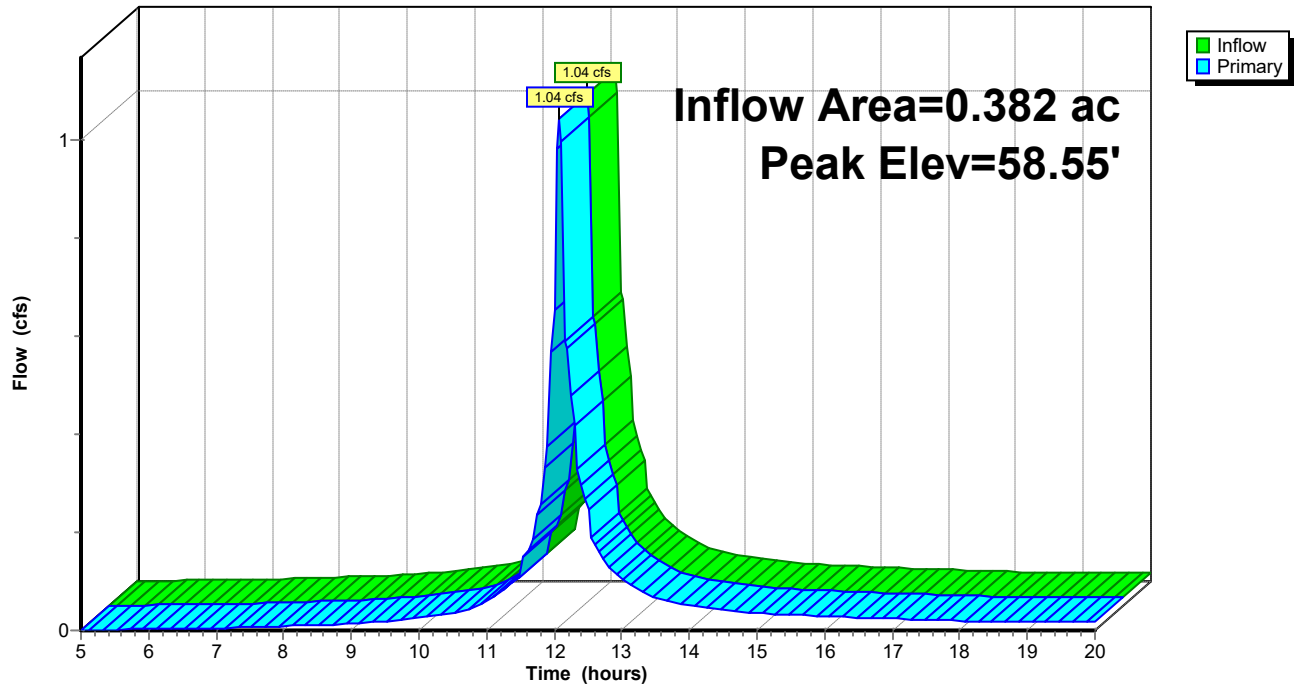
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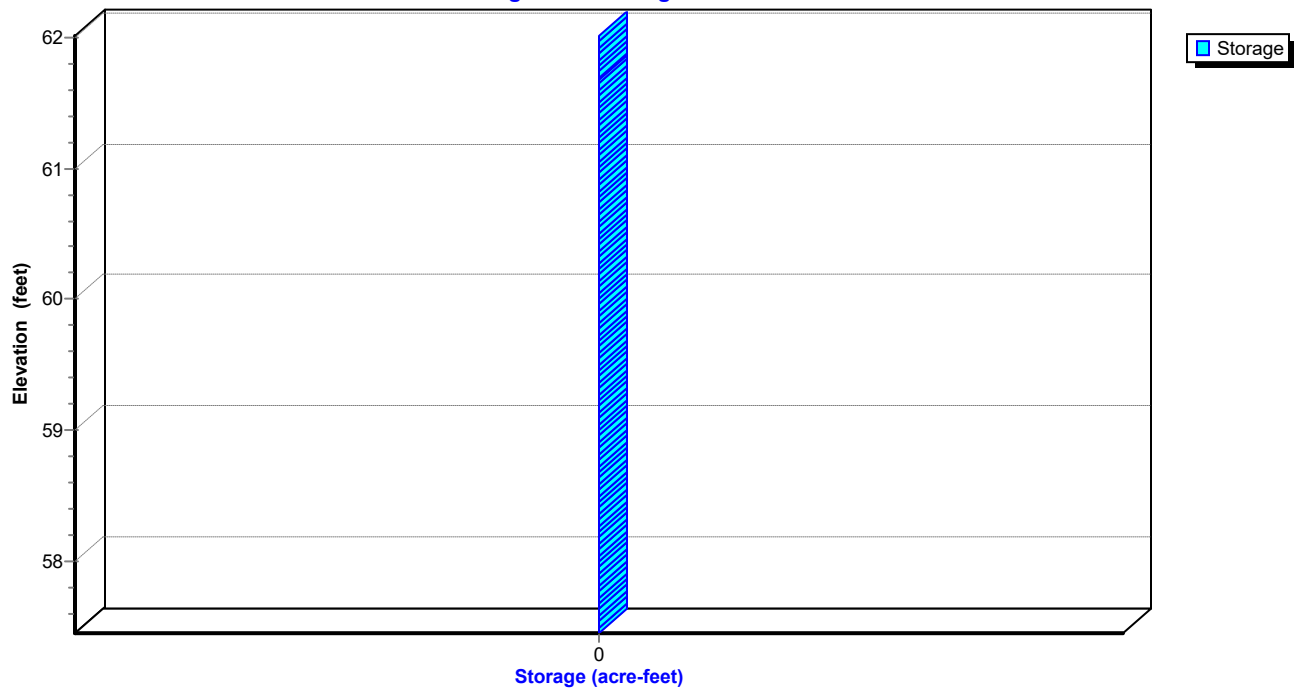
Pond 40P: CI-6

Hydrograph



Pond 40P: CI-6

Stage-Area-Storage



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Hydrograph for Pond 40P: CI-6

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	57.47	0.00	18.00	0.02	57.53	0.02
5.25	0.00	57.47	0.00	18.25	0.02	57.53	0.02
5.50	0.00	57.48	0.00	18.50	0.02	57.53	0.02
5.75	0.00	57.48	0.00	18.75	0.02	57.53	0.02
6.00	0.00	57.48	0.00	19.00	0.02	57.53	0.02
6.25	0.00	57.48	0.00	19.25	0.02	57.53	0.02
6.50	0.00	57.49	0.00	19.50	0.02	57.53	0.02
6.75	0.00	57.49	0.00	19.75	0.02	57.53	0.02
7.00	0.00	57.49	0.00	20.00	0.02	57.53	0.02
7.25	0.01	57.50	0.01				
7.50	0.01	57.50	0.01				
7.75	0.01	57.50	0.01				
8.00	0.01	57.51	0.01				
8.25	0.01	57.51	0.01				
8.50	0.01	57.51	0.01				
8.75	0.01	57.52	0.01				
9.00	0.01	57.52	0.01				
9.25	0.02	57.53	0.02				
9.50	0.02	57.53	0.02				
9.75	0.02	57.54	0.02				
10.00	0.03	57.55	0.03				
10.25	0.03	57.56	0.03				
10.50	0.03	57.56	0.03				
10.75	0.05	57.58	0.05				
11.00	0.06	57.60	0.06				
11.25	0.08	57.63	0.08				
11.50	0.11	57.66	0.11				
11.75	0.24	57.77	0.24				
12.00	0.65	58.10	0.65				
12.25	0.48	57.96	0.48				
12.50	0.24	57.79	0.24				
12.75	0.14	57.70	0.14				
13.00	0.11	57.66	0.11				
13.25	0.08	57.63	0.08				
13.50	0.07	57.61	0.07				
13.75	0.06	57.60	0.06				
14.00	0.05	57.59	0.05				
14.25	0.05	57.58	0.05				
14.50	0.04	57.58	0.04				
14.75	0.04	57.57	0.04				
15.00	0.04	57.56	0.04				
15.25	0.03	57.56	0.03				
15.50	0.03	57.56	0.03				
15.75	0.03	57.55	0.03				
16.00	0.03	57.55	0.03				
16.25	0.03	57.55	0.03				
16.50	0.03	57.55	0.03				
16.75	0.03	57.55	0.03				
17.00	0.02	57.54	0.02				
17.25	0.02	57.54	0.02				
17.50	0.02	57.54	0.02				
17.75	0.02	57.54	0.02				

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Stage-Area-Storage for Pond 40P: CI-6

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
57.45	0.000	60.05	0.000
57.50	0.000	60.10	0.000
57.55	0.000	60.15	0.000
57.60	0.000	60.20	0.000
57.65	0.000	60.25	0.000
57.70	0.000	60.30	0.000
57.75	0.000	60.35	0.000
57.80	0.000	60.40	0.000
57.85	0.000	60.45	0.000
57.90	0.000	60.50	0.000
57.95	0.000	60.55	0.000
58.00	0.000	60.60	0.000
58.05	0.000	60.65	0.000
58.10	0.000	60.70	0.000
58.15	0.000	60.75	0.000
58.20	0.000	60.80	0.000
58.25	0.000	60.85	0.000
58.30	0.000	60.90	0.000
58.35	0.000	60.95	0.000
58.40	0.000	61.00	0.000
58.45	0.000	61.05	0.000
58.50	0.000	61.10	0.000
58.55	0.000	61.15	0.000
58.60	0.000	61.20	0.000
58.65	0.000	61.25	0.000
58.70	0.000	61.30	0.000
58.75	0.000	61.35	0.000
58.80	0.000	61.40	0.000
58.85	0.000	61.45	0.000
58.90	0.000	61.50	0.000
58.95	0.000	61.55	0.000
59.00	0.000	61.60	0.000
59.05	0.000	61.65	0.000
59.10	0.000	61.70	0.000
59.15	0.000	61.75	0.000
59.20	0.000	61.80	0.000
59.25	0.000	61.85	0.000
59.30	0.000	61.90	0.000
59.35	0.000	61.95	0.000
59.40	0.000	62.00	0.000
59.45	0.000		
59.50	0.000		
59.55	0.000		
59.60	0.000		
59.65	0.000		
59.70	0.000		
59.75	0.000		
59.80	0.000		
59.85	0.000		
59.90	0.000		
59.95	0.000		
60.00	0.000		

EX and PR

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NOAA 24-hr C 2-Year Rainfall=3.33"

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Summary for Pond 43P: CI-7

Inflow Area = 0.131 ac, 41.20% Impervious, Inflow Depth > 1.88" for 2-Year event
Inflow = 0.28 cfs @ 12.20 hrs, Volume= 0.020 af
Outflow = 0.28 cfs @ 12.20 hrs, Volume= 0.020 af, Atten= 0%, Lag= 0.0 min
Primary = 0.28 cfs @ 12.20 hrs, Volume= 0.020 af
Routed to Pond 40P : CI-6

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 58.63' @ 12.16 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	62.27'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	58.13'	12.0" Round Culvert L= 138.4' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 58.13' / 57.43' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.47 cfs @ 12.20 hrs HW=58.56' TW=58.04' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Outlet Controls 0.47 cfs @ 2.16 fps)

Orifice/Grate



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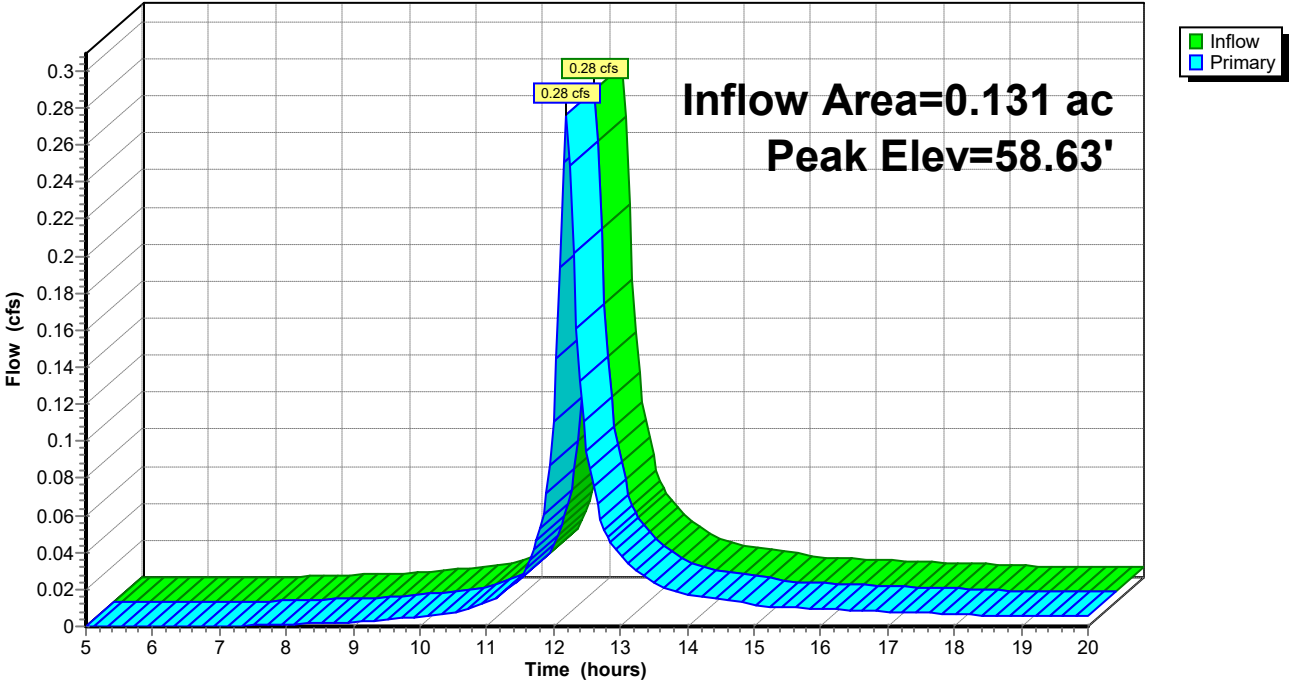
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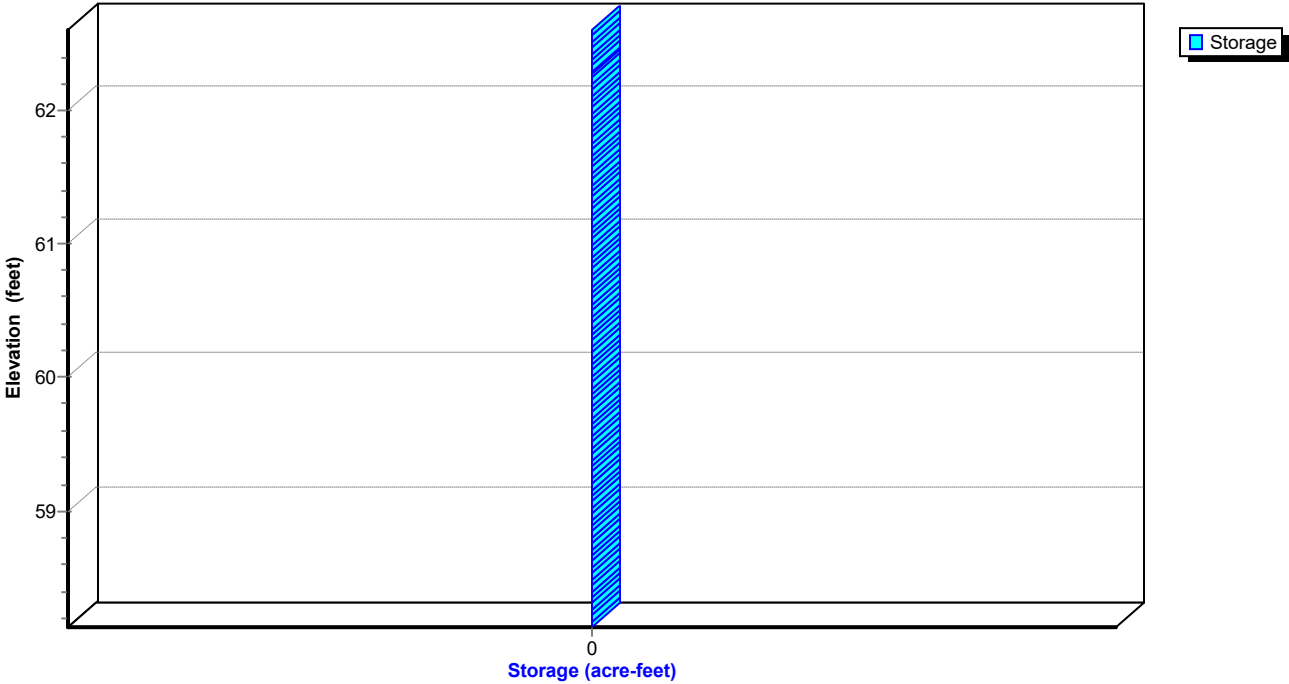
Pond 43P: CI-7

Hydrograph



Pond 43P: CI-7

Stage-Area-Storage



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Hydrograph for Pond 43P: CI-7

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	58.13	0.00	18.00	0.01	58.18	0.01
5.25	0.00	58.13	0.00	18.25	0.01	58.18	0.01
5.50	0.00	58.13	0.00	18.50	0.01	58.18	0.01
5.75	0.00	58.13	0.00	18.75	0.01	58.18	0.01
6.00	0.00	58.13	0.00	19.00	0.01	58.18	0.01
6.25	0.00	58.13	0.00	19.25	0.01	58.18	0.01
6.50	0.00	58.13	0.00	19.50	0.01	58.18	0.01
6.75	0.00	58.13	0.00	19.75	0.01	58.18	0.01
7.00	0.00	58.14	0.00	20.00	0.01	58.18	0.01
7.25	0.00	58.14	0.00				
7.50	0.00	58.15	0.00				
7.75	0.00	58.15	0.00				
8.00	0.00	58.15	0.00				
8.25	0.00	58.15	0.00				
8.50	0.00	58.16	0.00				
8.75	0.00	58.16	0.00				
9.00	0.00	58.16	0.00				
9.25	0.00	58.16	0.00				
9.50	0.00	58.17	0.00				
9.75	0.00	58.17	0.00				
10.00	0.01	58.17	0.01				
10.25	0.01	58.18	0.01				
10.50	0.01	58.18	0.01				
10.75	0.01	58.19	0.01				
11.00	0.01	58.20	0.01				
11.25	0.02	58.21	0.02				
11.50	0.03	58.23	0.03				
11.75	0.05	58.26	0.05				
12.00	0.11	58.35	0.11				
12.25	0.25	58.45	0.25				
12.50	0.10	58.32	0.10				
12.75	0.05	58.27	0.05				
13.00	0.04	58.25	0.04				
13.25	0.03	58.23	0.03				
13.50	0.02	58.22	0.02				
13.75	0.02	58.21	0.02				
14.00	0.02	58.21	0.02				
14.25	0.02	58.21	0.02				
14.50	0.01	58.20	0.01				
14.75	0.01	58.20	0.01				
15.00	0.01	58.20	0.01				
15.25	0.01	58.19	0.01				
15.50	0.01	58.19	0.01				
15.75	0.01	58.19	0.01				
16.00	0.01	58.19	0.01				
16.25	0.01	58.19	0.01				
16.50	0.01	58.19	0.01				
16.75	0.01	58.19	0.01				
17.00	0.01	58.18	0.01				
17.25	0.01	58.18	0.01				
17.50	0.01	58.18	0.01				
17.75	0.01	58.18	0.01				

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Stage-Area-Storage for Pond 43P: CI-7

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
58.13	0.000	60.73	0.000
58.18	0.000	60.78	0.000
58.23	0.000	60.83	0.000
58.28	0.000	60.88	0.000
58.33	0.000	60.93	0.000
58.38	0.000	60.98	0.000
58.43	0.000	61.03	0.000
58.48	0.000	61.08	0.000
58.53	0.000	61.13	0.000
58.58	0.000	61.18	0.000
58.63	0.000	61.23	0.000
58.68	0.000	61.28	0.000
58.73	0.000	61.33	0.000
58.78	0.000	61.38	0.000
58.83	0.000	61.43	0.000
58.88	0.000	61.48	0.000
58.93	0.000	61.53	0.000
58.98	0.000	61.58	0.000
59.03	0.000	61.63	0.000
59.08	0.000	61.68	0.000
59.13	0.000	61.73	0.000
59.18	0.000	61.78	0.000
59.23	0.000	61.83	0.000
59.28	0.000	61.88	0.000
59.33	0.000	61.93	0.000
59.38	0.000	61.98	0.000
59.43	0.000	62.03	0.000
59.48	0.000	62.08	0.000
59.53	0.000	62.13	0.000
59.58	0.000	62.18	0.000
59.63	0.000	62.23	0.000
59.68	0.000	62.28	0.000
59.73	0.000	62.33	0.000
59.78	0.000	62.38	0.000
59.83	0.000	62.43	0.000
59.88	0.000	62.48	0.000
59.93	0.000	62.53	0.000
59.98	0.000	62.58	0.000
60.03	0.000		
60.08	0.000		
60.13	0.000		
60.18	0.000		
60.23	0.000		
60.28	0.000		
60.33	0.000		
60.38	0.000		
60.43	0.000		
60.48	0.000		
60.53	0.000		
60.58	0.000		
60.63	0.000		
60.68	0.000		

EX and PR

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NOAA 24-hr C 2-Year Rainfall=3.33"
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Summary for Pond 44P: CI-2

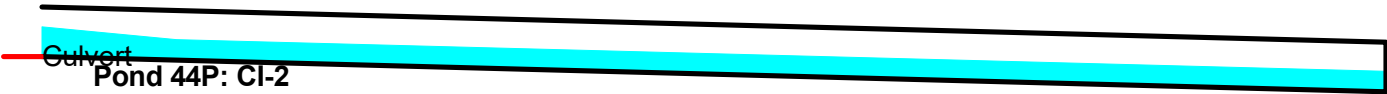
Inflow Area = 0.537 ac, 76.55% Impervious, Inflow Depth > 2.46" for 2-Year event
Inflow = 1.92 cfs @ 12.07 hrs, Volume= 0.110 af
Outflow = 1.92 cfs @ 12.07 hrs, Volume= 0.110 af, Atten= 0%, Lag= 0.0 min
Primary = 1.92 cfs @ 12.07 hrs, Volume= 0.110 af
Routed to Pond 45P : CI-3

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 59.30' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	62.18'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	58.55'	15.0" Round Culvert L= 99.8' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 58.55' / 57.66' S= 0.0089 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

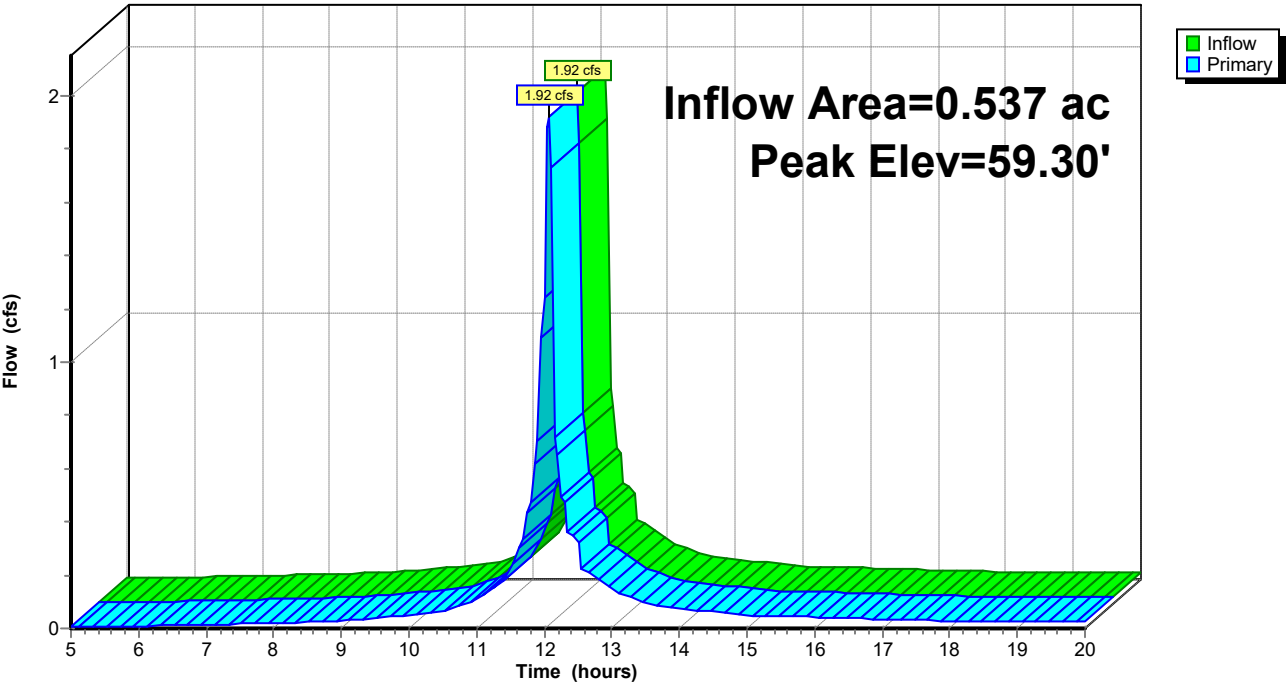
Primary OutFlow Max=1.61 cfs @ 12.07 hrs HW=59.27' TW=58.70' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Outlet Controls 1.61 cfs @ 3.15 fps)

Orifice/Grate



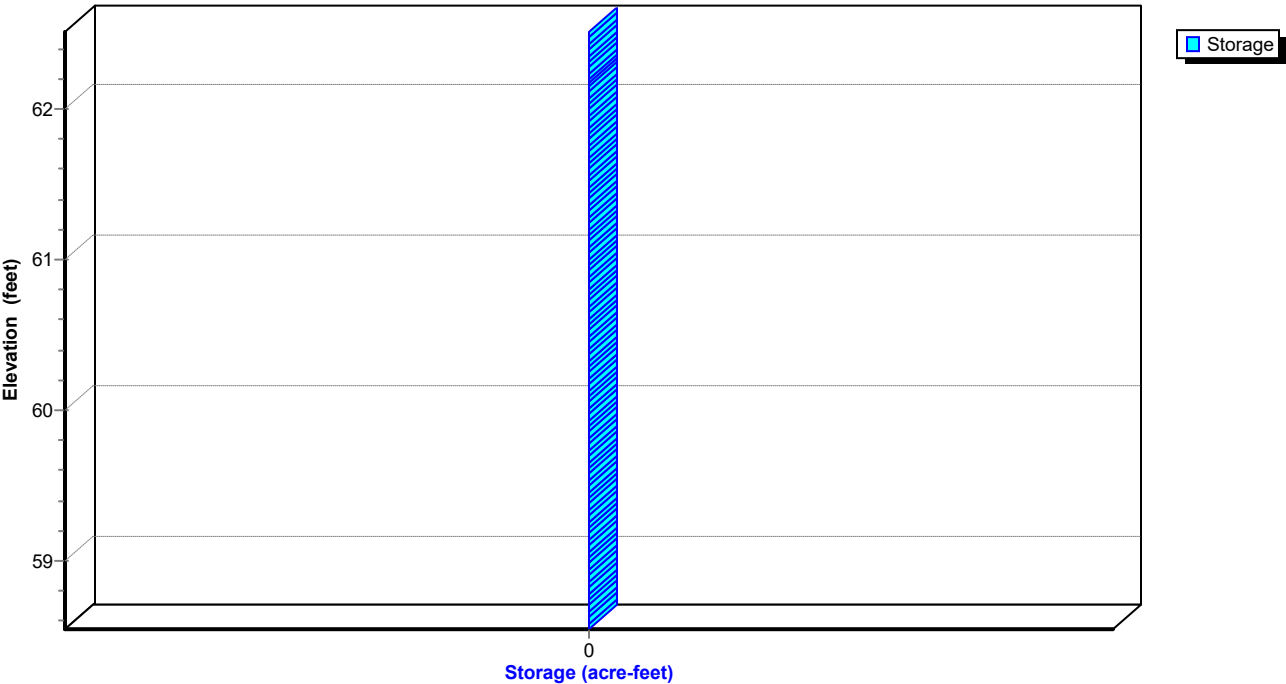
Pond 44P: CI-2

Hydrograph



Pond 44P: CI-2

Stage-Area-Storage



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Hydrograph for Pond 44P: CI-2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.01	58.59	0.01	18.00	0.03	58.63	0.03
5.25	0.01	58.59	0.01	18.25	0.03	58.63	0.03
5.50	0.01	58.59	0.01	18.50	0.03	58.63	0.03
5.75	0.01	58.59	0.01	18.75	0.03	58.63	0.03
6.00	0.01	58.60	0.01	19.00	0.03	58.63	0.03
6.25	0.01	58.60	0.01	19.25	0.03	58.63	0.03
6.50	0.01	58.60	0.01	19.50	0.03	58.63	0.03
6.75	0.01	58.60	0.01	19.75	0.03	58.63	0.03
7.00	0.01	58.61	0.01	20.00	0.02	58.63	0.02
7.25	0.02	58.61	0.02				
7.50	0.02	58.61	0.02				
7.75	0.02	58.62	0.02				
8.00	0.02	58.62	0.02				
8.25	0.02	58.62	0.02				
8.50	0.02	58.62	0.02				
8.75	0.03	58.63	0.03				
9.00	0.03	58.63	0.03				
9.25	0.03	58.64	0.03				
9.50	0.04	58.64	0.04				
9.75	0.04	58.65	0.04				
10.00	0.05	58.66	0.05				
10.25	0.06	58.66	0.06				
10.50	0.06	58.67	0.06				
10.75	0.09	58.69	0.09				
11.00	0.11	58.70	0.11				
11.25	0.15	58.73	0.15				
11.50	0.20	58.76	0.20				
11.75	0.44	58.86	0.44				
12.00	1.24	59.12	1.24				
12.25	0.50	58.91	0.50				
12.50	0.32	58.82	0.32				
12.75	0.19	58.76	0.19				
13.00	0.15	58.73	0.15				
13.25	0.12	58.71	0.12				
13.50	0.10	58.70	0.10				
13.75	0.08	58.68	0.08				
14.00	0.08	58.68	0.08				
14.25	0.07	58.67	0.07				
14.50	0.06	58.67	0.06				
14.75	0.06	58.66	0.06				
15.00	0.05	58.66	0.05				
15.25	0.05	58.65	0.05				
15.50	0.05	58.65	0.05				
15.75	0.04	58.65	0.04				
16.00	0.04	58.65	0.04				
16.25	0.04	58.65	0.04				
16.50	0.04	58.64	0.04				
16.75	0.04	58.64	0.04				
17.00	0.04	58.64	0.04				
17.25	0.03	58.64	0.03				
17.50	0.03	58.64	0.03				
17.75	0.03	58.63	0.03				

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NOAA 24-hr C 2-Year Rainfall=3.33"

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Stage-Area-Storage for Pond 44P: CI-2

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
58.55	0.000	61.15	0.000
58.60	0.000	61.20	0.000
58.65	0.000	61.25	0.000
58.70	0.000	61.30	0.000
58.75	0.000	61.35	0.000
58.80	0.000	61.40	0.000
58.85	0.000	61.45	0.000
58.90	0.000	61.50	0.000
58.95	0.000	61.55	0.000
59.00	0.000	61.60	0.000
59.05	0.000	61.65	0.000
59.10	0.000	61.70	0.000
59.15	0.000	61.75	0.000
59.20	0.000	61.80	0.000
59.25	0.000	61.85	0.000
59.30	0.000	61.90	0.000
59.35	0.000	61.95	0.000
59.40	0.000	62.00	0.000
59.45	0.000	62.05	0.000
59.50	0.000	62.10	0.000
59.55	0.000	62.15	0.000
59.60	0.000	62.20	0.000
59.65	0.000	62.25	0.000
59.70	0.000	62.30	0.000
59.75	0.000	62.35	0.000
59.80	0.000	62.40	0.000
59.85	0.000	62.45	0.000
59.90	0.000	62.50	0.000
59.95	0.000		
60.00	0.000		
60.05	0.000		
60.10	0.000		
60.15	0.000		
60.20	0.000		
60.25	0.000		
60.30	0.000		
60.35	0.000		
60.40	0.000		
60.45	0.000		
60.50	0.000		
60.55	0.000		
60.60	0.000		
60.65	0.000		
60.70	0.000		
60.75	0.000		
60.80	0.000		
60.85	0.000		
60.90	0.000		
60.95	0.000		
61.00	0.000		
61.05	0.000		
61.10	0.000		

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Summary for Pond 45P: CI-3

Inflow Area = 0.765 ac, 76.25% Impervious, Inflow Depth > 2.47" for 2-Year event
Inflow = 2.73 cfs @ 12.07 hrs, Volume= 0.157 af
Outflow = 2.73 cfs @ 12.07 hrs, Volume= 0.157 af, Atten= 0%, Lag= 0.0 min
Primary = 2.73 cfs @ 12.07 hrs, Volume= 0.157 af
Routed to Pond 39P : CI-9

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 58.81' @ 12.09 hrs

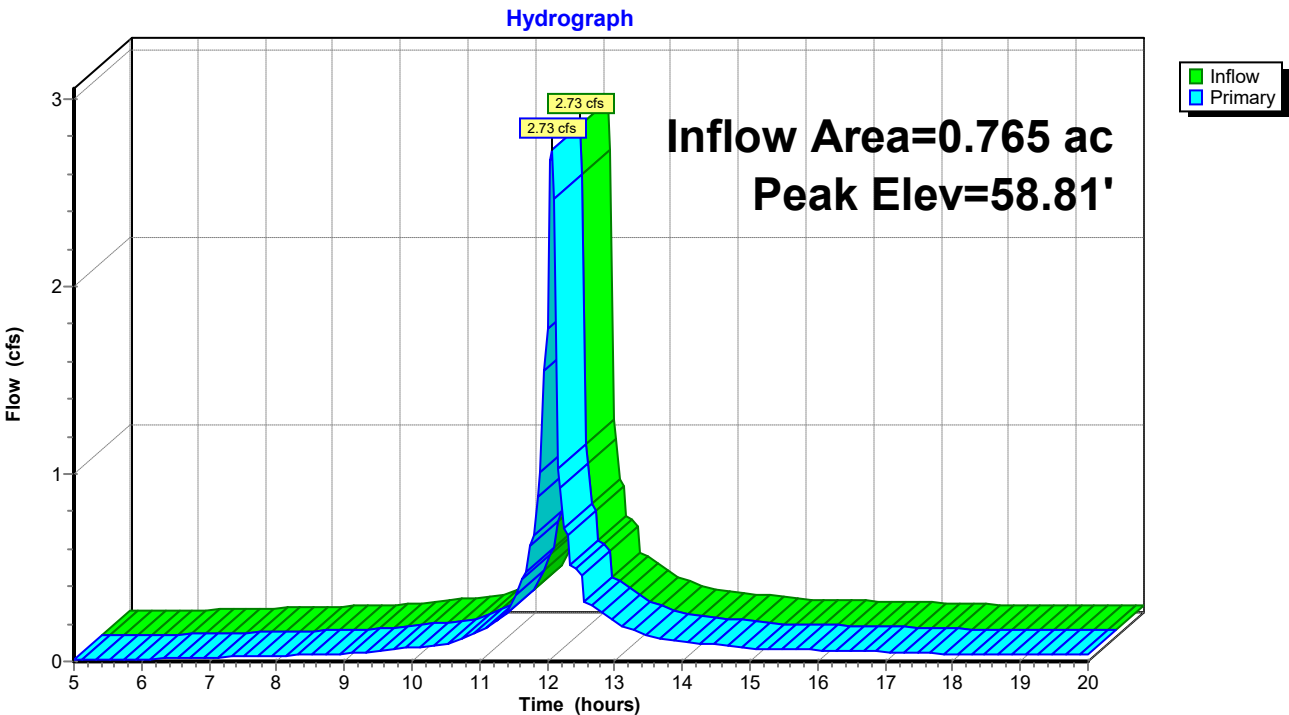
Device	Routing	Invert	Outlet Devices
#1	Primary	61.68'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	57.66'	15.0" Round Culvert L= 99.8' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 57.66' / 57.03' S= 0.0063 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.95 cfs @ 12.07 hrs HW=58.70' TW=58.40' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Outlet Controls 1.95 cfs @ 2.44 fps)

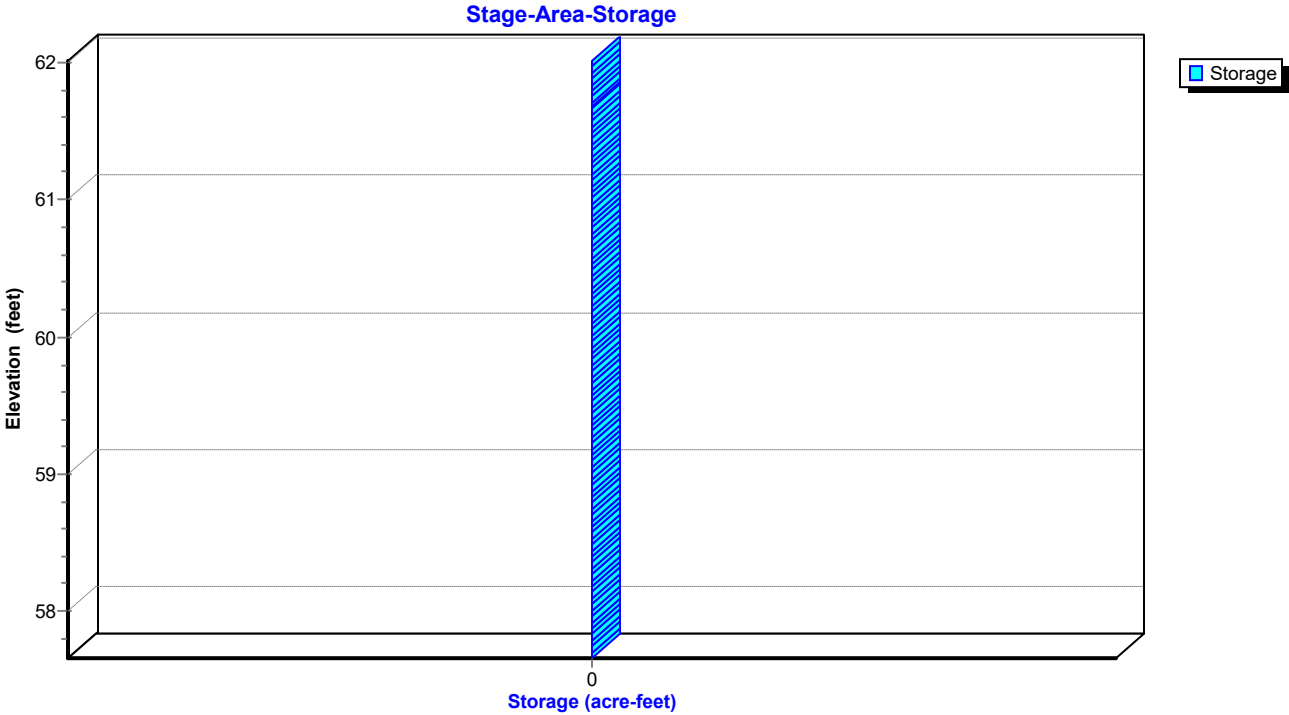
Orifice/Grate



Pond 45P: CI-3



Pond 45P: CI-3



EX and PR

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Hydrograph for Pond 45P: CI-3

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.01	57.71	0.01	18.00	0.04	57.76	0.04
5.25	0.01	57.71	0.01	18.25	0.04	57.76	0.04
5.50	0.01	57.71	0.01	18.50	0.04	57.76	0.04
5.75	0.01	57.72	0.01	18.75	0.04	57.76	0.04
6.00	0.01	57.72	0.01	19.00	0.04	57.76	0.04
6.25	0.01	57.72	0.01	19.25	0.04	57.76	0.04
6.50	0.02	57.73	0.02	19.50	0.04	57.76	0.04
6.75	0.02	57.73	0.02	19.75	0.04	57.76	0.04
7.00	0.02	57.74	0.02	20.00	0.04	57.76	0.04
7.25	0.02	57.74	0.02				
7.50	0.03	57.74	0.03				
7.75	0.03	57.75	0.03				
8.00	0.03	57.75	0.03				
8.25	0.03	57.75	0.03				
8.50	0.04	57.76	0.04				
8.75	0.04	57.76	0.04				
9.00	0.04	57.77	0.04				
9.25	0.05	57.77	0.05				
9.50	0.06	57.78	0.06				
9.75	0.06	57.79	0.06				
10.00	0.07	57.80	0.07				
10.25	0.08	57.81	0.08				
10.50	0.09	57.82	0.09				
10.75	0.12	57.84	0.12				
11.00	0.15	57.86	0.15				
11.25	0.22	57.90	0.22				
11.50	0.29	57.94	0.29				
11.75	0.62	58.08	0.62				
12.00	1.77	58.45	1.77				
12.25	0.71	58.16	0.71				
12.50	0.46	58.04	0.46				
12.75	0.27	57.94	0.27				
13.00	0.22	57.91	0.22				
13.25	0.17	57.88	0.17				
13.50	0.14	57.85	0.14				
13.75	0.12	57.84	0.12				
14.00	0.11	57.83	0.11				
14.25	0.10	57.82	0.10				
14.50	0.09	57.82	0.09				
14.75	0.08	57.81	0.08				
15.00	0.07	57.80	0.07				
15.25	0.07	57.79	0.07				
15.50	0.06	57.79	0.06				
15.75	0.06	57.79	0.06				
16.00	0.06	57.79	0.06				
16.25	0.06	57.78	0.06				
16.50	0.06	57.78	0.06				
16.75	0.05	57.78	0.05				
17.00	0.05	57.78	0.05				
17.25	0.05	57.77	0.05				
17.50	0.05	57.77	0.05				
17.75	0.04	57.77	0.04				

EX and PR

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NOAA 24-hr C 2-Year Rainfall=3.33"

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Stage-Area-Storage for Pond 45P: CI-3

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
57.66	0.000	60.26	0.000
57.71	0.000	60.31	0.000
57.76	0.000	60.36	0.000
57.81	0.000	60.41	0.000
57.86	0.000	60.46	0.000
57.91	0.000	60.51	0.000
57.96	0.000	60.56	0.000
58.01	0.000	60.61	0.000
58.06	0.000	60.66	0.000
58.11	0.000	60.71	0.000
58.16	0.000	60.76	0.000
58.21	0.000	60.81	0.000
58.26	0.000	60.86	0.000
58.31	0.000	60.91	0.000
58.36	0.000	60.96	0.000
58.41	0.000	61.01	0.000
58.46	0.000	61.06	0.000
58.51	0.000	61.11	0.000
58.56	0.000	61.16	0.000
58.61	0.000	61.21	0.000
58.66	0.000	61.26	0.000
58.71	0.000	61.31	0.000
58.76	0.000	61.36	0.000
58.81	0.000	61.41	0.000
58.86	0.000	61.46	0.000
58.91	0.000	61.51	0.000
58.96	0.000	61.56	0.000
59.01	0.000	61.61	0.000
59.06	0.000	61.66	0.000
59.11	0.000	61.71	0.000
59.16	0.000	61.76	0.000
59.21	0.000	61.81	0.000
59.26	0.000	61.86	0.000
59.31	0.000	61.91	0.000
59.36	0.000	61.96	0.000
59.41	0.000	62.01	0.000
59.46	0.000		
59.51	0.000		
59.56	0.000		
59.61	0.000		
59.66	0.000		
59.71	0.000		
59.76	0.000		
59.81	0.000		
59.86	0.000		
59.91	0.000		
59.96	0.000		
60.01	0.000		
60.06	0.000		
60.11	0.000		
60.16	0.000		
60.21	0.000		

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NOAA 24-hr C 2-Year Rainfall=3.33"
Printed 5/1/2024

Summary for Pond 46P: CI-5

Inflow Area = 0.074 ac, 51.14% Impervious, Inflow Depth > 2.05" for 2-Year event
Inflow = 0.23 cfs @ 12.06 hrs, Volume= 0.013 af
Outflow = 0.23 cfs @ 12.06 hrs, Volume= 0.013 af, Atten= 0%, Lag= 0.0 min
Primary = 0.23 cfs @ 12.06 hrs, Volume= 0.013 af
Routed to Pond 45P : CI-3

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 58.82' @ 12.14 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	61.87'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	58.28'	15.0" Round Culvert L= 107.0' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 58.28' / 57.75' S= 0.0050 '/ Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.06 hrs HW=58.63' TW=58.67' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Controls 0.00 cfs)

Orifice/Grate



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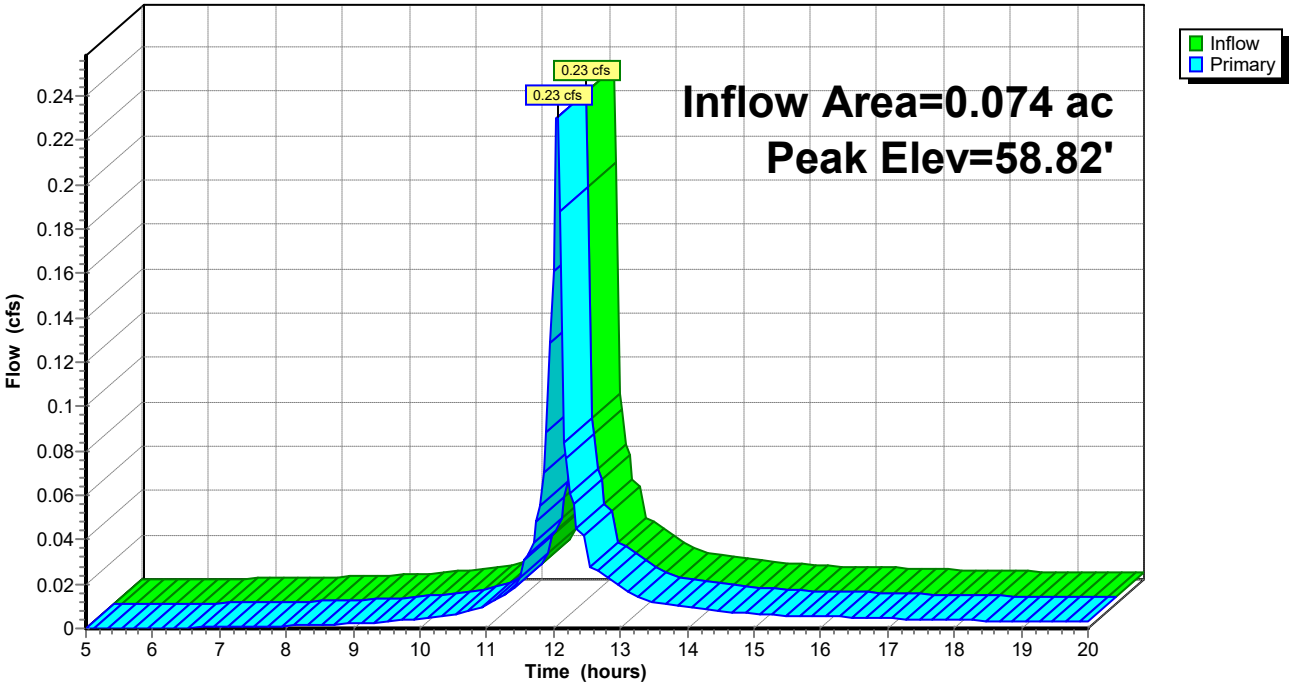
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NOAA 24-hr C 2-Year Rainfall=3.33"

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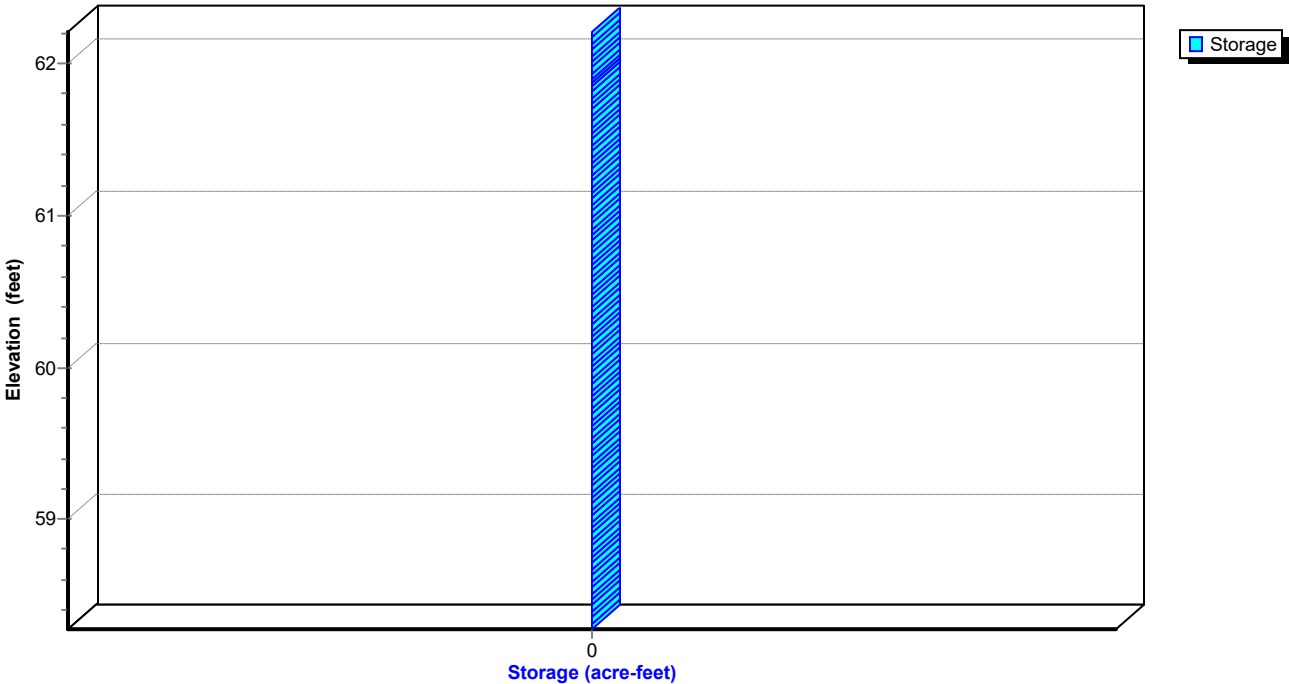
Pond 46P: CI-5

Hydrograph



Pond 46P: CI-5

Stage-Area-Storage



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NOAA 24-hr C 2-Year Rainfall=3.33"

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Hydrograph for Pond 46P: CI-5

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	58.28	0.00	18.00	0.00	58.32	0.00
5.25	0.00	58.28	0.00	18.25	0.00	58.31	0.00
5.50	0.00	58.28	0.00	18.50	0.00	58.31	0.00
5.75	0.00	58.28	0.00	18.75	0.00	58.31	0.00
6.00	0.00	58.29	0.00	19.00	0.00	58.31	0.00
6.25	0.00	58.29	0.00	19.25	0.00	58.31	0.00
6.50	0.00	58.29	0.00	19.50	0.00	58.31	0.00
6.75	0.00	58.29	0.00	19.75	0.00	58.31	0.00
7.00	0.00	58.29	0.00	20.00	0.00	58.31	0.00
7.25	0.00	58.30	0.00				
7.50	0.00	58.30	0.00				
7.75	0.00	58.30	0.00				
8.00	0.00	58.30	0.00				
8.25	0.00	58.30	0.00				
8.50	0.00	58.30	0.00				
8.75	0.00	58.31	0.00				
9.00	0.00	58.31	0.00				
9.25	0.00	58.31	0.00				
9.50	0.00	58.31	0.00				
9.75	0.00	58.32	0.00				
10.00	0.00	58.32	0.00				
10.25	0.01	58.32	0.01				
10.50	0.01	58.32	0.01				
10.75	0.01	58.33	0.01				
11.00	0.01	58.34	0.01				
11.25	0.02	58.35	0.02				
11.50	0.02	58.37	0.02				
11.75	0.05	58.41	0.05				
12.00	0.16	58.55	0.16				
12.25	0.06	58.45	0.06				
12.50	0.04	58.40	0.04				
12.75	0.02	58.37	0.02				
13.00	0.02	58.36	0.02				
13.25	0.01	58.35	0.01				
13.50	0.01	58.34	0.01				
13.75	0.01	58.34	0.01				
14.00	0.01	58.34	0.01				
14.25	0.01	58.33	0.01				
14.50	0.01	58.33	0.01				
14.75	0.01	58.33	0.01				
15.00	0.01	58.33	0.01				
15.25	0.01	58.32	0.01				
15.50	0.01	58.32	0.01				
15.75	0.01	58.32	0.01				
16.00	0.01	58.32	0.01				
16.25	0.01	58.32	0.01				
16.50	0.00	58.32	0.00				
16.75	0.00	58.32	0.00				
17.00	0.00	58.32	0.00				
17.25	0.00	58.32	0.00				
17.50	0.00	58.32	0.00				
17.75	0.00	58.32	0.00				

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Stage-Area-Storage for Pond 46P: CI-5

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
58.28	0.000	60.88	0.000
58.33	0.000	60.93	0.000
58.38	0.000	60.98	0.000
58.43	0.000	61.03	0.000
58.48	0.000	61.08	0.000
58.53	0.000	61.13	0.000
58.58	0.000	61.18	0.000
58.63	0.000	61.23	0.000
58.68	0.000	61.28	0.000
58.73	0.000	61.33	0.000
58.78	0.000	61.38	0.000
58.83	0.000	61.43	0.000
58.88	0.000	61.48	0.000
58.93	0.000	61.53	0.000
58.98	0.000	61.58	0.000
59.03	0.000	61.63	0.000
59.08	0.000	61.68	0.000
59.13	0.000	61.73	0.000
59.18	0.000	61.78	0.000
59.23	0.000	61.83	0.000
59.28	0.000	61.88	0.000
59.33	0.000	61.93	0.000
59.38	0.000	61.98	0.000
59.43	0.000	62.03	0.000
59.48	0.000	62.08	0.000
59.53	0.000	62.13	0.000
59.58	0.000	62.18	0.000
59.63	0.000		
59.68	0.000		
59.73	0.000		
59.78	0.000		
59.83	0.000		
59.88	0.000		
59.93	0.000		
59.98	0.000		
60.03	0.000		
60.08	0.000		
60.13	0.000		
60.18	0.000		
60.23	0.000		
60.28	0.000		
60.33	0.000		
60.38	0.000		
60.43	0.000		
60.48	0.000		
60.53	0.000		
60.58	0.000		
60.63	0.000		
60.68	0.000		
60.73	0.000		
60.78	0.000		
60.83	0.000		

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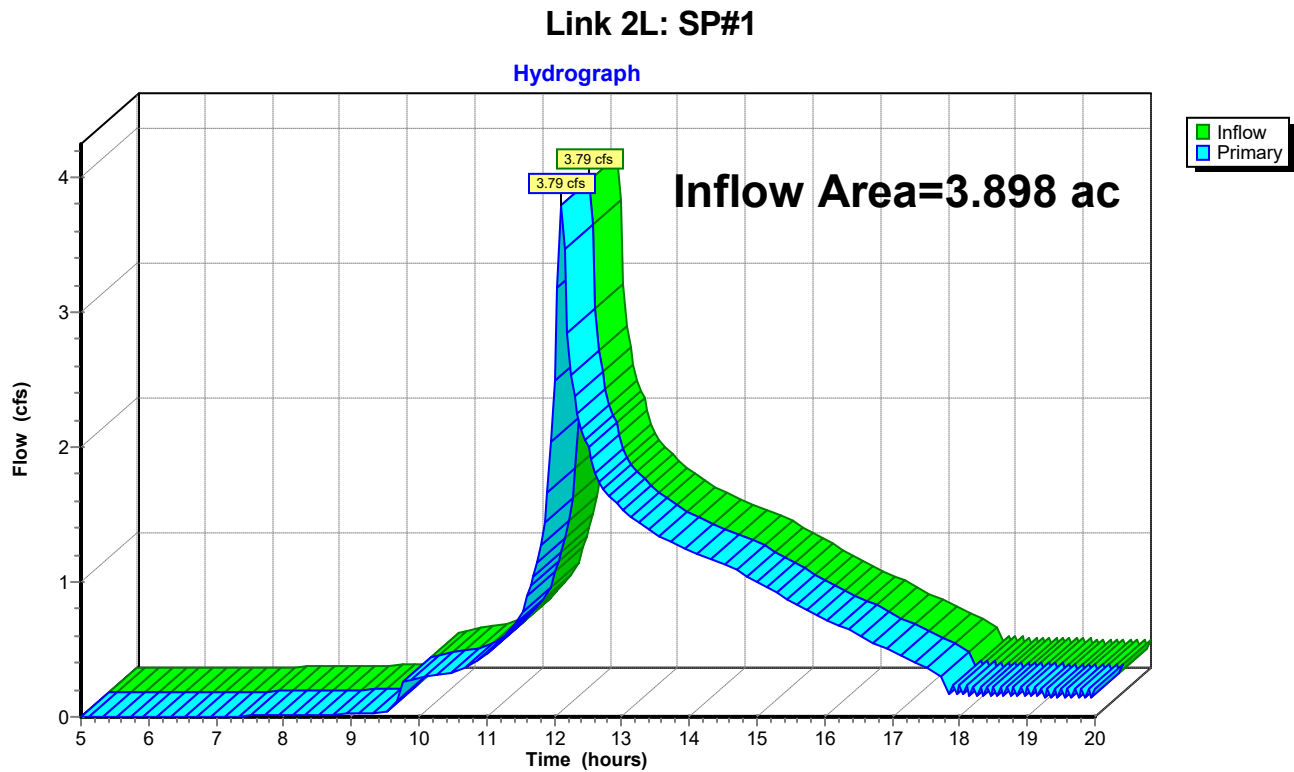
NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Summary for Link 2L: SP#1

Inflow Area = 3.898 ac, 59.79% Impervious, Inflow Depth > 2.11" for 2-Year event
Inflow = 3.79 cfs @ 12.11 hrs, Volume= 0.687 af
Primary = 3.79 cfs @ 12.11 hrs, Volume= 0.687 af, Atten= 0%, Lag= 0.0 min

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



EX and PR

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NOAA 24-hr C 2-Year Rainfall=3.33"

Printed 5/1/2024

Hydrograph for Link 2L: SP#1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	18.00	0.23	0.00	0.23
5.25	0.00	0.00	0.00	18.25	0.16	0.00	0.16
5.50	0.00	0.00	0.00	18.50	0.22	0.00	0.22
5.75	0.00	0.00	0.00	18.75	0.15	0.00	0.15
6.00	0.00	0.00	0.00	19.00	0.22	0.00	0.22
6.25	0.00	0.00	0.00	19.25	0.15	0.00	0.15
6.50	0.00	0.00	0.00	19.50	0.21	0.00	0.21
6.75	0.00	0.00	0.00	19.75	0.14	0.00	0.14
7.00	0.00	0.00	0.00	20.00	0.20	0.00	0.20
7.25	0.00	0.00	0.00				
7.50	0.01	0.00	0.01				
7.75	0.01	0.00	0.01				
8.00	0.01	0.00	0.01				
8.25	0.01	0.00	0.01				
8.50	0.02	0.00	0.02				
8.75	0.02	0.00	0.02				
9.00	0.02	0.00	0.02				
9.25	0.03	0.00	0.03				
9.50	0.03	0.00	0.03				
9.75	0.26	0.00	0.26				
10.00	0.29	0.00	0.29				
10.25	0.31	0.00	0.31				
10.50	0.33	0.00	0.33				
10.75	0.38	0.00	0.38				
11.00	0.47	0.00	0.47				
11.25	0.59	0.00	0.59				
11.50	0.74	0.00	0.74				
11.75	1.14	0.00	1.14				
12.00	2.49	0.00	2.49				
12.25	2.53	0.00	2.53				
12.50	2.00	0.00	2.00				
12.75	1.68	0.00	1.68				
13.00	1.54	0.00	1.54				
13.25	1.44	0.00	1.44				
13.50	1.36	0.00	1.36				
13.75	1.29	0.00	1.29				
14.00	1.24	0.00	1.24				
14.25	1.19	0.00	1.19				
14.50	1.13	0.00	1.13				
14.75	1.07	0.00	1.07				
15.00	1.00	0.00	1.00				
15.25	0.93	0.00	0.93				
15.50	0.86	0.00	0.86				
15.75	0.80	0.00	0.80				
16.00	0.73	0.00	0.73				
16.25	0.67	0.00	0.67				
16.50	0.61	0.00	0.61				
16.75	0.55	0.00	0.55				
17.00	0.49	0.00	0.49				
17.25	0.42	0.00	0.42				
17.50	0.36	0.00	0.36				
17.75	0.32	0.00	0.32				

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

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

Subcatchment 3S: DA#4	Runoff Area=9,330 sf 70.69% Impervious Runoff Depth>4.11" Flow Length=143' Tc=1.4 min CN=93 Runoff=1.25 cfs 0.073 af
Subcatchment 4S: DA#2	Runoff Area=3,733 sf 67.48% Impervious Runoff Depth>4.01" Flow Length=44' Slope=0.0948 '/' Tc=3.8 min CN=92 Runoff=0.47 cfs 0.029 af
Subcatchment 11S: DA#5	Runoff Area=9,317 sf 15.83% Impervious Runoff Depth>3.13" Flow Length=44' Slope=0.0889 '/' Tc=1.1 min CN=83 Runoff=1.03 cfs 0.056 af
Subcatchment 13S: DA#11	Runoff Area=6,211 sf 83.67% Impervious Runoff Depth>4.30" Flow Length=81' Slope=0.0126 '/' Tc=1.2 min CN=95 Runoff=0.85 cfs 0.051 af
Subcatchment 14S: DA#6	Runoff Area=21,528 sf 73.17% Impervious Runoff Depth>4.11" Flow Length=119' Tc=3.4 min CN=93 Runoff=2.79 cfs 0.169 af
Subcatchment 16S: DA#7	Runoff Area=8,499 sf 87.34% Impervious Runoff Depth>4.39" Flow Length=120' Tc=1.5 min CN=96 Runoff=1.17 cfs 0.071 af
Subcatchment 19S: DA#8	Runoff Area=17,721 sf 97.79% Impervious Runoff Depth>4.54" Flow Length=73' Slope=0.0174 '/' Tc=1.0 min CN=98 Runoff=2.49 cfs 0.154 af
Subcatchment 21S: DA#9	Runoff Area=10,950 sf 68.20% Impervious Runoff Depth>4.01" Flow Length=128' Tc=1.4 min CN=92 Runoff=1.44 cfs 0.084 af
Subcatchment 22S: DA#10	Runoff Area=5,696 sf 41.20% Impervious Runoff Depth>3.50" Flow Length=99' Tc=12.1 min CN=87 Runoff=0.50 cfs 0.038 af
Subcatchment 25S: DA#12	Runoff Area=6,725 sf 87.20% Impervious Runoff Depth>4.39" Flow Length=98' Slope=0.0100 '/' Tc=1.5 min CN=96 Runoff=0.93 cfs 0.056 af
Subcatchment 26S: DA#1	Runoff Area=29,068 sf 39.09% Impervious Runoff Depth>3.51" Flow Length=405' Tc=5.5 min CN=87 Runoff=3.10 cfs 0.195 af
Subcatchment 32S: DA#3	Runoff Area=9,470 sf 40.45% Impervious Runoff Depth>3.52" Flow Length=161' Tc=1.0 min CN=87 Runoff=1.14 cfs 0.064 af
Subcatchment 33S: DA#13	Runoff Area=3,211 sf 51.14% Impervious Runoff Depth>3.72" Flow Length=52' Slope=0.0292 '/' Tc=0.6 min CN=89 Runoff=0.40 cfs 0.023 af
Subcatchment 34S: DA#14	Runoff Area=17,184 sf 73.97% Impervious Runoff Depth>4.11" Flow Length=100' Slope=0.0187 '/' Tc=1.2 min CN=93 Runoff=2.30 cfs 0.135 af
Subcatchment 35S: DA#15	Runoff Area=11,147 sf 0.00% Impervious Runoff Depth>2.83" Flow Length=558' Tc=21.2 min CN=80 Runoff=0.64 cfs 0.060 af
Pond 9P: I-2	Peak Elev=61.39' Inflow=2.30 cfs 0.135 af Outflow=2.30 cfs 0.135 af

EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Pond 17P: SGW FOREBAY #1	Peak Elev=57.33' Storage=4,077 cf Inflow=13.60 cfs 0.856 af Outflow=10.43 cfs 0.820 af
Pond 18P: SGW #1	Peak Elev=57.33' Storage=11,240 cf Inflow=11.46 cfs 0.875 af Outflow=4.70 cfs 0.875 af
Pond 20P: CI-8	Peak Elev=57.77' Inflow=3.55 cfs 0.224 af Outflow=3.55 cfs 0.224 af
Pond 27P: FES-4	Peak Elev=58.13' Inflow=3.10 cfs 0.195 af 15.0" Round Culvert n=0.012 L=25.5' S=0.0106 '/' Outflow=3.10 cfs 0.195 af
Pond 37P: CI-4	Peak Elev=57.33' Inflow=1.25 cfs 0.073 af Outflow=1.25 cfs 0.073 af
Pond 38P: CI-1	Peak Elev=57.82' Inflow=9.87 cfs 0.613 af Outflow=9.87 cfs 0.613 af
Pond 39P: CI-9	Peak Elev=61.10' Inflow=8.70 cfs 0.542 af Outflow=8.70 cfs 0.542 af
Pond 40P: CI-6	Peak Elev=61.25' Inflow=1.77 cfs 0.122 af Outflow=1.77 cfs 0.122 af
Pond 43P: CI-7	Peak Elev=61.26' Inflow=0.50 cfs 0.038 af Outflow=0.50 cfs 0.038 af
Pond 44P: CI-2	Peak Elev=61.38' Inflow=3.15 cfs 0.186 af Outflow=3.15 cfs 0.186 af
Pond 45P: CI-3	Peak Elev=61.38' Inflow=4.48 cfs 0.266 af Outflow=4.48 cfs 0.266 af
Pond 46P: CI-5	Peak Elev=61.38' Inflow=0.40 cfs 0.023 af Outflow=0.40 cfs 0.023 af
Link 2L: SP#1	Inflow=8.47 cfs 1.223 af Primary=8.47 cfs 1.223 af

Total Runoff Area = 3.898 ac Runoff Volume = 1.259 af Average Runoff Depth = 3.88"
40.21% Pervious = 1.567 ac 59.79% Impervious = 2.330 ac

EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"
Printed 5/1/2024

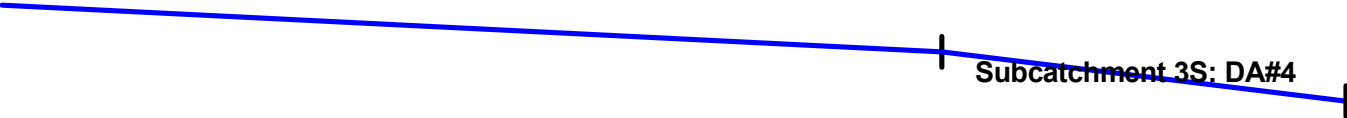
Summary for Subcatchment 3S: DA#4

Runoff = 1.25 cfs @ 12.07 hrs, Volume= 0.073 af, Depth> 4.11"
Routed to Pond 37P : CI-4

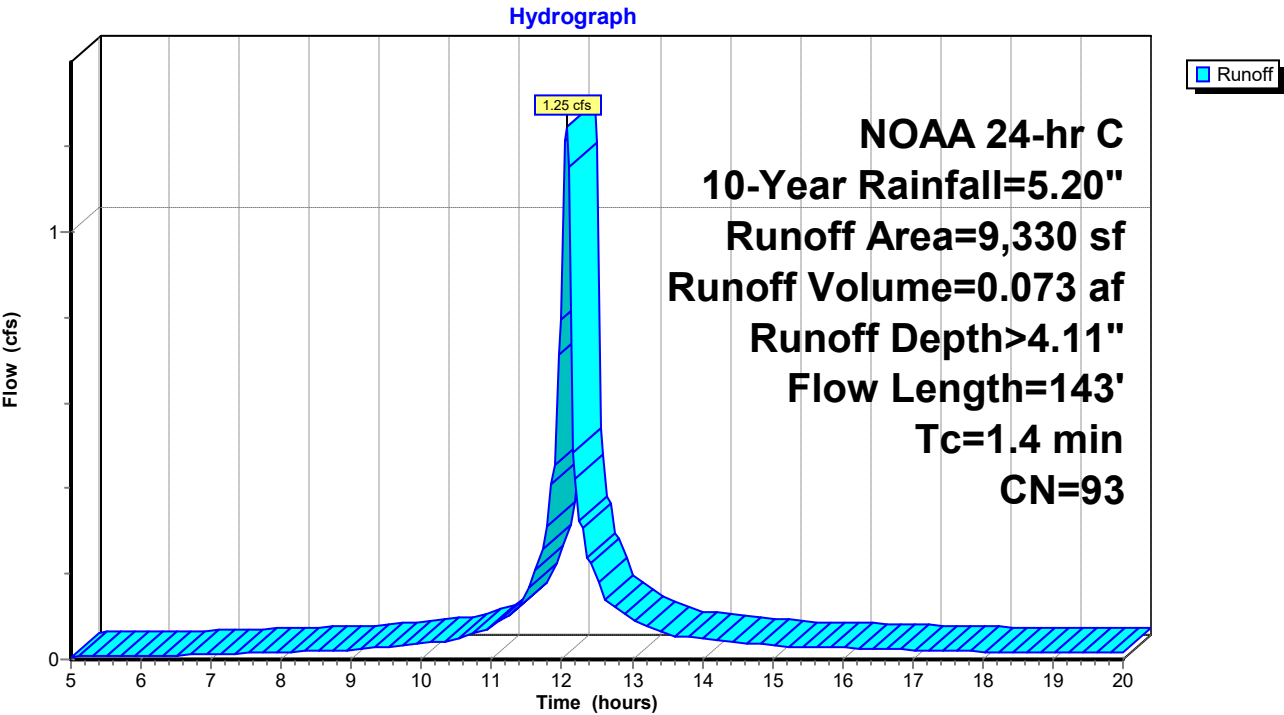
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 10-Year Rainfall=5.20"

Area (sf)	CN	Description
6,595	98	Roofs, HSG D
2,735	80	>75% Grass cover, Good, HSG D
9,330	93	Weighted Average
2,735		29.31% Pervious Area
6,595		70.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0180	1.36		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"
0.2	43	0.0441	4.26		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.4	143	Total			



Subcatchment 3S: DA#4



EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

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Hydrograph for Subcatchment 3S: DA#4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.03	0.01	18.00	4.79	3.99	0.02
5.25	0.35	0.04	0.01	18.25	4.81	4.01	0.02
5.50	0.37	0.05	0.01	18.50	4.83	4.03	0.02
5.75	0.39	0.06	0.01	18.75	4.85	4.05	0.02
6.00	0.41	0.07	0.01	19.00	4.87	4.07	0.02
6.25	0.43	0.08	0.01	19.25	4.89	4.09	0.02
6.50	0.46	0.09	0.01	19.50	4.91	4.11	0.02
6.75	0.48	0.10	0.01	19.75	4.93	4.13	0.02
7.00	0.51	0.11	0.01	20.00	4.95	4.14	0.02
7.25	0.53	0.13	0.01				
7.50	0.56	0.15	0.01				
7.75	0.59	0.16	0.02				
8.00	0.62	0.18	0.02				
8.25	0.66	0.20	0.02				
8.50	0.69	0.22	0.02				
8.75	0.72	0.25	0.02				
9.00	0.76	0.27	0.02				
9.25	0.80	0.30	0.03				
9.50	0.84	0.33	0.03				
9.75	0.89	0.37	0.03				
10.00	0.95	0.41	0.04				
10.25	1.01	0.46	0.04				
10.50	1.07	0.51	0.05				
10.75	1.15	0.57	0.06				
11.00	1.25	0.65	0.08				
11.25	1.38	0.76	0.11				
11.50	1.54	0.90	0.14				
11.75	1.83	1.16	0.29				
12.00	2.48	1.76	0.80				
12.25	3.37	2.61	0.32				
12.50	3.66	2.89	0.21				
12.75	3.82	3.05	0.12				
13.00	3.95	3.17	0.10				
13.25	4.05	3.27	0.07				
13.50	4.13	3.34	0.06				
13.75	4.19	3.41	0.05				
14.00	4.25	3.47	0.05				
14.25	4.31	3.52	0.04				
14.50	4.36	3.57	0.04				
14.75	4.40	3.61	0.04				
15.00	4.44	3.65	0.03				
15.25	4.48	3.68	0.03				
15.50	4.51	3.72	0.03				
15.75	4.54	3.75	0.03				
16.00	4.58	3.78	0.03				
16.25	4.61	3.81	0.03				
16.50	4.64	3.84	0.02				
16.75	4.67	3.87	0.02				
17.00	4.69	3.90	0.02				
17.25	4.72	3.92	0.02				
17.50	4.74	3.95	0.02				
17.75	4.77	3.97	0.02				

EX and PR

Prepared by Rauch Inc

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Summary for Subcatchment 4S: DA#2

Runoff = 0.47 cfs @ 12.10 hrs, Volume= 0.029 af, Depth> 4.01"
Routed to Pond 20P : CI-8

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 10-Year Rainfall=5.20"

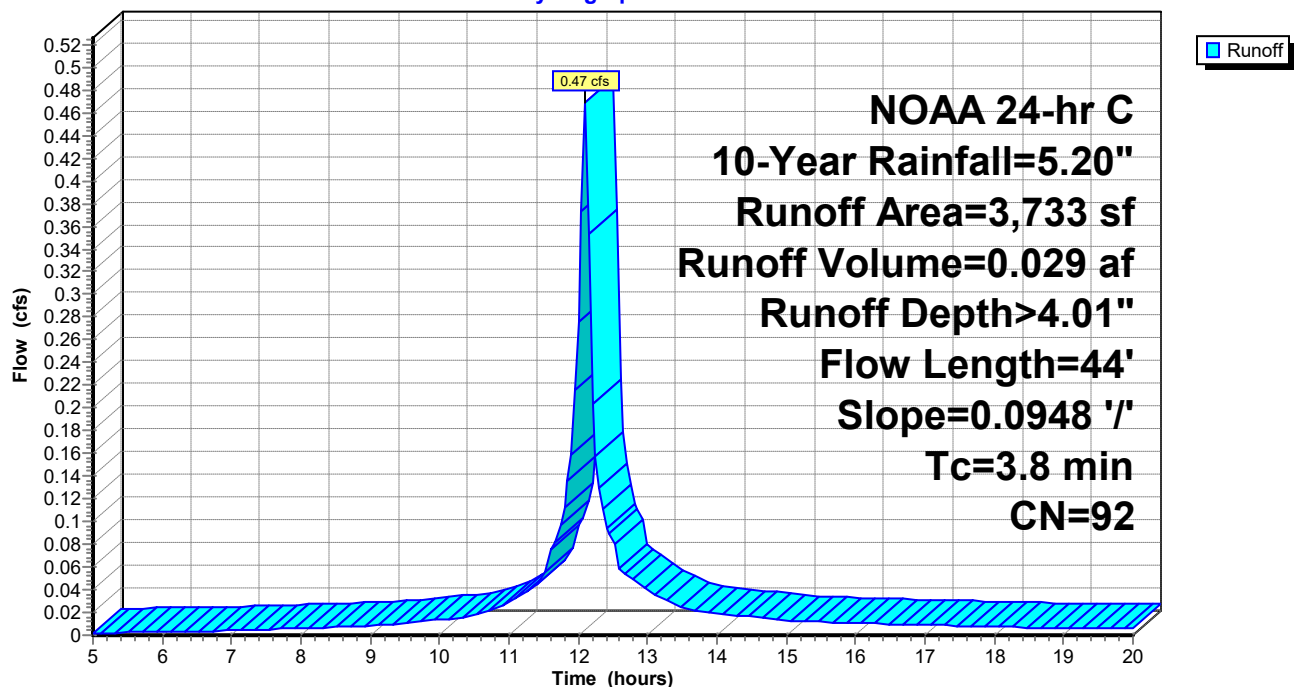
Area (sf)	CN	Description
2,519	98	Paved parking, HSG D
1,214	80	>75% Grass cover, Good, HSG D
3,733	92	Weighted Average
1,214		32.52% Pervious Area
2,519		67.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.8	44	0.0948	0.19		Sheet Flow, Grass: Dense n= 0.240 P2= 3.42"

Subcatchment 4S: DA#2

Subcatchment 4S: DA#2

Hydrograph



EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Hydrograph for Subcatchment 4S: DA#2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.02	0.00	18.00	4.79	3.88	0.01
5.25	0.35	0.03	0.00	18.25	4.81	3.90	0.01
5.50	0.37	0.04	0.00	18.50	4.83	3.92	0.01
5.75	0.39	0.04	0.00	18.75	4.85	3.94	0.01
6.00	0.41	0.05	0.00	19.00	4.87	3.96	0.01
6.25	0.43	0.06	0.00	19.25	4.89	3.98	0.01
6.50	0.46	0.07	0.00	19.50	4.91	4.00	0.01
6.75	0.48	0.08	0.00	19.75	4.93	4.02	0.01
7.00	0.51	0.09	0.00	20.00	4.95	4.04	0.01
7.25	0.53	0.11	0.00				
7.50	0.56	0.12	0.01				
7.75	0.59	0.14	0.01				
8.00	0.62	0.15	0.01				
8.25	0.66	0.17	0.01				
8.50	0.69	0.19	0.01				
8.75	0.72	0.21	0.01				
9.00	0.76	0.24	0.01				
9.25	0.80	0.26	0.01				
9.50	0.84	0.29	0.01				
9.75	0.89	0.33	0.01				
10.00	0.95	0.36	0.01				
10.25	1.01	0.41	0.02				
10.50	1.07	0.46	0.02				
10.75	1.15	0.52	0.02				
11.00	1.25	0.59	0.03				
11.25	1.38	0.70	0.04				
11.50	1.54	0.83	0.05				
11.75	1.83	1.08	0.10				
12.00	2.48	1.67	0.28				
12.25	3.37	2.51	0.16				
12.50	3.66	2.79	0.09				
12.75	3.82	2.95	0.05				
13.00	3.95	3.07	0.04				
13.25	4.05	3.17	0.03				
13.50	4.13	3.24	0.02				
13.75	4.19	3.30	0.02				
14.00	4.25	3.36	0.02				
14.25	4.31	3.41	0.02				
14.50	4.36	3.46	0.02				
14.75	4.40	3.51	0.01				
15.00	4.44	3.54	0.01				
15.25	4.48	3.58	0.01				
15.50	4.51	3.61	0.01				
15.75	4.54	3.65	0.01				
16.00	4.58	3.68	0.01				
16.25	4.61	3.71	0.01				
16.50	4.64	3.74	0.01				
16.75	4.67	3.76	0.01				
17.00	4.69	3.79	0.01				
17.25	4.72	3.81	0.01				
17.50	4.74	3.84	0.01				
17.75	4.77	3.86	0.01				

EX and PR

Prepared by Rauch Inc

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Summary for Subcatchment 11S: DA#5

Runoff = 1.03 cfs @ 12.07 hrs, Volume= 0.056 af, Depth> 3.13"
Routed to Pond 18P : SGW #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 10-Year Rainfall=5.20"

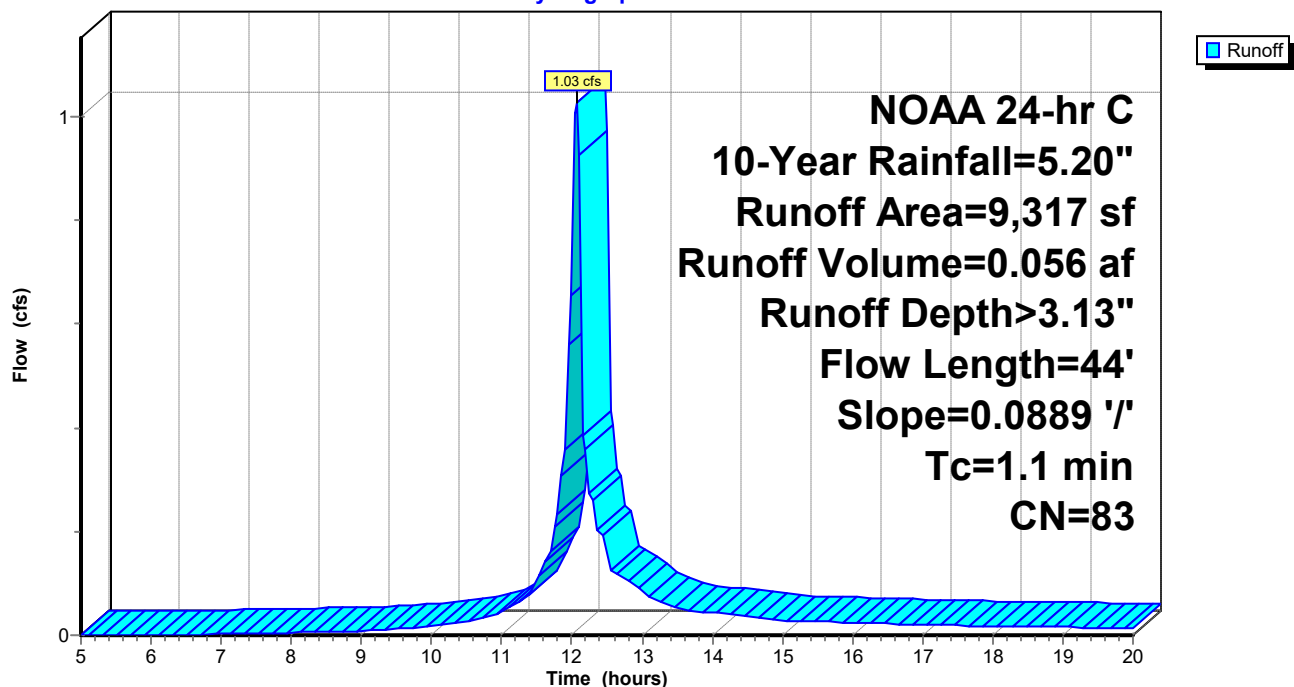
Area (sf)	CN	Description
1,475	98	Paved parking, HSG D
7,842	80	>75% Grass cover, Good, HSG D
9,317	83	Weighted Average
7,842		84.17% Pervious Area
1,475		15.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	44	0.0889	0.65		Sheet Flow, Fallow n= 0.050 P2= 3.42"

Subcatchment 11S: DA#5

Subcatchment 11S: DA#5

Hydrograph



EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Hydrograph for Subcatchment 11S: DA#5

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00	18.00	4.79	2.98	0.02
5.25	0.35	0.00	0.00	18.25	4.81	3.00	0.02
5.50	0.37	0.00	0.00	18.50	4.83	3.02	0.02
5.75	0.39	0.00	0.00	18.75	4.85	3.04	0.02
6.00	0.41	0.00	0.00	19.00	4.87	3.06	0.02
6.25	0.43	0.00	0.00	19.25	4.89	3.07	0.02
6.50	0.46	0.00	0.00	19.50	4.91	3.09	0.01
6.75	0.48	0.00	0.00	19.75	4.93	3.11	0.01
7.00	0.51	0.00	0.00	20.00	4.95	3.12	0.01
7.25	0.53	0.01	0.00				
7.50	0.56	0.01	0.00				
7.75	0.59	0.01	0.00				
8.00	0.62	0.02	0.00				
8.25	0.66	0.03	0.01				
8.50	0.69	0.03	0.01				
8.75	0.72	0.04	0.01				
9.00	0.76	0.05	0.01				
9.25	0.80	0.06	0.01				
9.50	0.84	0.08	0.01				
9.75	0.89	0.09	0.02				
10.00	0.95	0.11	0.02				
10.25	1.01	0.14	0.02				
10.50	1.07	0.16	0.02				
10.75	1.15	0.20	0.03				
11.00	1.25	0.24	0.05				
11.25	1.38	0.31	0.07				
11.50	1.54	0.40	0.09				
11.75	1.83	0.58	0.21				
12.00	2.48	1.04	0.66				
12.25	3.37	1.75	0.27				
12.50	3.66	2.00	0.18				
12.75	3.82	2.13	0.11				
13.00	3.95	2.24	0.09				
13.25	4.05	2.33	0.07				
13.50	4.13	2.40	0.05				
13.75	4.19	2.45	0.05				
14.00	4.25	2.51	0.04				
14.25	4.31	2.55	0.04				
14.50	4.36	2.60	0.04				
14.75	4.40	2.64	0.03				
15.00	4.44	2.67	0.03				
15.25	4.48	2.70	0.03				
15.50	4.51	2.74	0.03				
15.75	4.54	2.77	0.03				
16.00	4.58	2.79	0.02				
16.25	4.61	2.82	0.02				
16.50	4.64	2.85	0.02				
16.75	4.67	2.87	0.02				
17.00	4.69	2.90	0.02				
17.25	4.72	2.92	0.02				
17.50	4.74	2.94	0.02				
17.75	4.77	2.96	0.02				

EX and PR

Prepared by Rauch Inc

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Summary for Subcatchment 13S: DA#11

Runoff = 0.85 cfs @ 12.06 hrs, Volume= 0.051 af, Depth> 4.30"
Routed to Pond 44P : CI-2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 10-Year Rainfall=5.20"

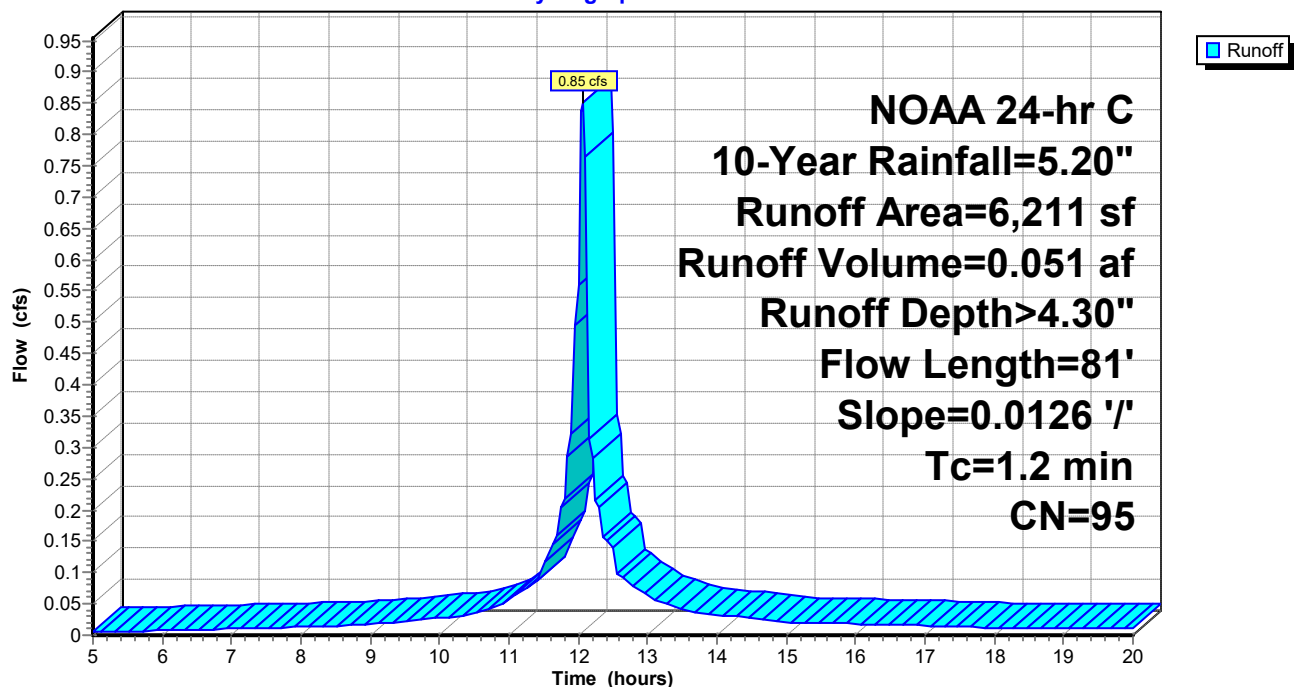
Area (sf)	CN	Description
5,197	98	Roofs, HSG D
1,014	80	>75% Grass cover, Good, HSG D
6,211	95	Weighted Average
1,014		16.33% Pervious Area
5,197		83.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	81	0.0126	1.13		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"

Subcatchment 13S: DA#11

Subcatchment 13S: DA#11

Hydrograph



EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Hydrograph for Subcatchment 13S: DA#11

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.07	0.01	18.00	4.79	4.21	0.01
5.25	0.35	0.08	0.01	18.25	4.81	4.23	0.01
5.50	0.37	0.09	0.01	18.50	4.83	4.25	0.01
5.75	0.39	0.10	0.01	18.75	4.85	4.27	0.01
6.00	0.41	0.11	0.01	19.00	4.87	4.29	0.01
6.25	0.43	0.13	0.01	19.25	4.89	4.31	0.01
6.50	0.46	0.14	0.01	19.50	4.91	4.33	0.01
6.75	0.48	0.16	0.01	19.75	4.93	4.35	0.01
7.00	0.51	0.17	0.01	20.00	4.95	4.37	0.01
7.25	0.53	0.19	0.01				
7.50	0.56	0.21	0.01				
7.75	0.59	0.23	0.01				
8.00	0.62	0.26	0.01				
8.25	0.66	0.28	0.01				
8.50	0.69	0.31	0.02				
8.75	0.72	0.33	0.02				
9.00	0.76	0.36	0.02				
9.25	0.80	0.39	0.02				
9.50	0.84	0.43	0.02				
9.75	0.89	0.47	0.03				
10.00	0.95	0.52	0.03				
10.25	1.01	0.57	0.03				
10.50	1.07	0.63	0.03				
10.75	1.15	0.70	0.04				
11.00	1.25	0.78	0.05				
11.25	1.38	0.90	0.08				
11.50	1.54	1.05	0.10				
11.75	1.83	1.32	0.20				
12.00	2.48	1.94	0.56				
12.25	3.37	2.81	0.22				
12.50	3.66	3.10	0.14				
12.75	3.82	3.26	0.08				
13.00	3.95	3.38	0.07				
13.25	4.05	3.48	0.05				
13.50	4.13	3.56	0.04				
13.75	4.19	3.62	0.04				
14.00	4.25	3.68	0.03				
14.25	4.31	3.73	0.03				
14.50	4.36	3.78	0.03				
14.75	4.40	3.83	0.02				
15.00	4.44	3.87	0.02				
15.25	4.48	3.90	0.02				
15.50	4.51	3.94	0.02				
15.75	4.54	3.97	0.02				
16.00	4.58	4.00	0.02				
16.25	4.61	4.03	0.02				
16.50	4.64	4.06	0.02				
16.75	4.67	4.09	0.02				
17.00	4.69	4.12	0.02				
17.25	4.72	4.14	0.01				
17.50	4.74	4.16	0.01				
17.75	4.77	4.19	0.01				

EX and PR

Prepared by Rauch Inc

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Summary for Subcatchment 14S: DA#6

Runoff = 2.79 cfs @ 12.09 hrs, Volume= 0.169 af, Depth> 4.11"
 Routed to Pond 17P : SGW FOREBAY #1

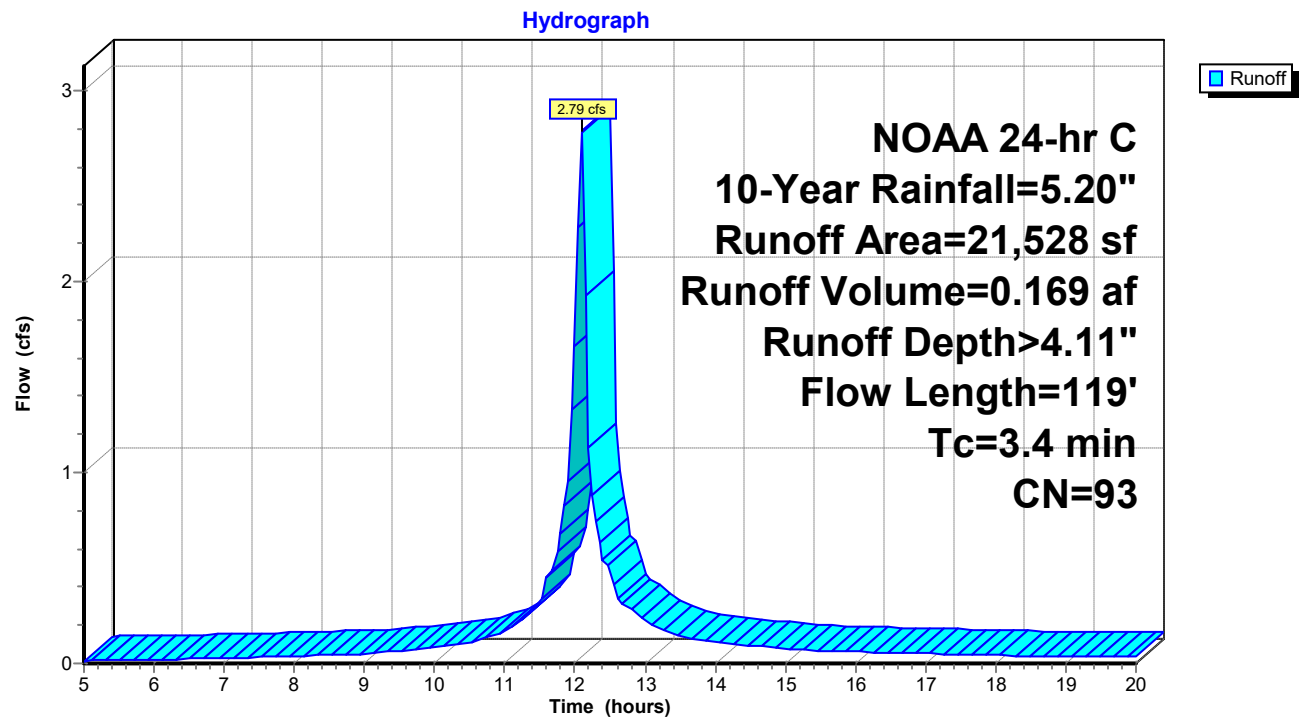
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C 10-Year Rainfall=5.20"

Area (sf)	CN	Description
15,753	98	Roofs, HSG D
5,775	80	>75% Grass cover, Good, HSG D
21,528	93	Weighted Average
5,775		26.83% Pervious Area
15,753		73.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	100	0.0319	0.51		Sheet Flow, Fallow n= 0.050 P2= 3.42"
0.1	19	0.0726	4.34		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
3.4	119	Total			

Subcatchment 14S: DA#6

Subcatchment 14S: DA#6



EX and PR

Prepared by Rauch Inc

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Hydrograph for Subcatchment 14S: DA#6

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.03	0.01	18.00	4.79	3.99	0.04
5.25	0.35	0.04	0.01	18.25	4.81	4.01	0.04
5.50	0.37	0.05	0.02	18.50	4.83	4.03	0.04
5.75	0.39	0.06	0.02	18.75	4.85	4.05	0.04
6.00	0.41	0.07	0.02	19.00	4.87	4.07	0.04
6.25	0.43	0.08	0.02	19.25	4.89	4.09	0.04
6.50	0.46	0.09	0.02	19.50	4.91	4.11	0.04
6.75	0.48	0.10	0.03	19.75	4.93	4.13	0.04
7.00	0.51	0.11	0.03	20.00	4.95	4.14	0.04
7.25	0.53	0.13	0.03				
7.50	0.56	0.15	0.03				
7.75	0.59	0.16	0.04				
8.00	0.62	0.18	0.04				
8.25	0.66	0.20	0.04				
8.50	0.69	0.22	0.04				
8.75	0.72	0.25	0.05				
9.00	0.76	0.27	0.05				
9.25	0.80	0.30	0.06				
9.50	0.84	0.33	0.07				
9.75	0.89	0.37	0.08				
10.00	0.95	0.41	0.08				
10.25	1.01	0.46	0.09				
10.50	1.07	0.51	0.10				
10.75	1.15	0.57	0.14				
11.00	1.25	0.65	0.17				
11.25	1.38	0.76	0.23				
11.50	1.54	0.90	0.30				
11.75	1.83	1.16	0.59				
12.00	2.48	1.76	1.66				
12.25	3.37	2.61	0.88				
12.50	3.66	2.89	0.51				
12.75	3.82	3.05	0.29				
13.00	3.95	3.17	0.23				
13.25	4.05	3.27	0.18				
13.50	4.13	3.34	0.14				
13.75	4.19	3.41	0.12				
14.00	4.25	3.47	0.11				
14.25	4.31	3.52	0.10				
14.50	4.36	3.57	0.09				
14.75	4.40	3.61	0.08				
15.00	4.44	3.65	0.07				
15.25	4.48	3.68	0.07				
15.50	4.51	3.72	0.07				
15.75	4.54	3.75	0.06				
16.00	4.58	3.78	0.06				
16.25	4.61	3.81	0.06				
16.50	4.64	3.84	0.06				
16.75	4.67	3.87	0.05				
17.00	4.69	3.90	0.05				
17.25	4.72	3.92	0.05				
17.50	4.74	3.95	0.05				
17.75	4.77	3.97	0.04				

EX and PR

Prepared by Rauch Inc

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Summary for Subcatchment 16S: DA#7

Runoff = 1.17 cfs @ 12.07 hrs, Volume= 0.071 af, Depth> 4.39"
 Routed to Pond 38P : CI-1

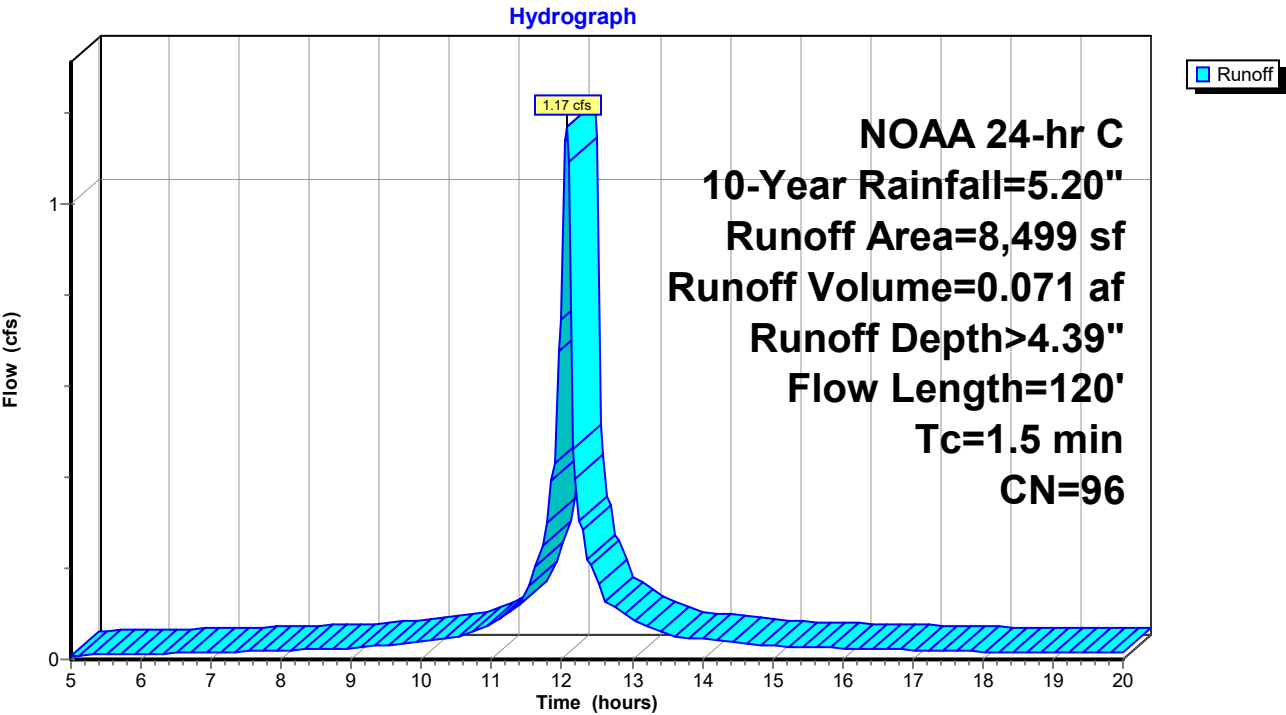
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C 10-Year Rainfall=5.20"

Area (sf)	CN	Description
7,423	98	Roofs, HSG D
1,076	80	>75% Grass cover, Good, HSG D
8,499	96	Weighted Average
1,076		12.66% Pervious Area
7,423		87.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0151	1.27		Sheet Flow, GRAVEL LOT Smooth surfaces n= 0.011 P2= 3.42"
0.2	20	0.0085	1.87		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.5	120	Total			



Subcatchment 16S: DA#7



EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Hydrograph for Subcatchment 16S: DA#7

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.09	0.01	18.00	4.79	4.32	0.02
5.25	0.35	0.10	0.01	18.25	4.81	4.34	0.02
5.50	0.37	0.12	0.01	18.50	4.83	4.36	0.02
5.75	0.39	0.13	0.01	18.75	4.85	4.38	0.02
6.00	0.41	0.14	0.01	19.00	4.87	4.40	0.02
6.25	0.43	0.16	0.01	19.25	4.89	4.42	0.02
6.50	0.46	0.18	0.01	19.50	4.91	4.44	0.01
6.75	0.48	0.19	0.01	19.75	4.93	4.46	0.01
7.00	0.51	0.21	0.02	20.00	4.95	4.48	0.01
7.25	0.53	0.23	0.02				
7.50	0.56	0.26	0.02				
7.75	0.59	0.28	0.02				
8.00	0.62	0.30	0.02				
8.25	0.66	0.33	0.02				
8.50	0.69	0.36	0.02				
8.75	0.72	0.39	0.02				
9.00	0.76	0.42	0.02				
9.25	0.80	0.45	0.03				
9.50	0.84	0.49	0.03				
9.75	0.89	0.54	0.04				
10.00	0.95	0.58	0.04				
10.25	1.01	0.64	0.04				
10.50	1.07	0.70	0.05				
10.75	1.15	0.77	0.06				
11.00	1.25	0.86	0.08				
11.25	1.38	0.98	0.11				
11.50	1.54	1.13	0.13				
11.75	1.83	1.41	0.28				
12.00	2.48	2.04	0.75				
12.25	3.37	2.92	0.30				
12.50	3.66	3.21	0.20				
12.75	3.82	3.37	0.11				
13.00	3.95	3.49	0.09				
13.25	4.05	3.59	0.07				
13.50	4.13	3.67	0.06				
13.75	4.19	3.73	0.05				
14.00	4.25	3.79	0.04				
14.25	4.31	3.84	0.04				
14.50	4.36	3.89	0.04				
14.75	4.40	3.94	0.03				
15.00	4.44	3.98	0.03				
15.25	4.48	4.01	0.03				
15.50	4.51	4.05	0.03				
15.75	4.54	4.08	0.03				
16.00	4.58	4.11	0.02				
16.25	4.61	4.14	0.02				
16.50	4.64	4.17	0.02				
16.75	4.67	4.20	0.02				
17.00	4.69	4.23	0.02				
17.25	4.72	4.25	0.02				
17.50	4.74	4.28	0.02				
17.75	4.77	4.30	0.02				

EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

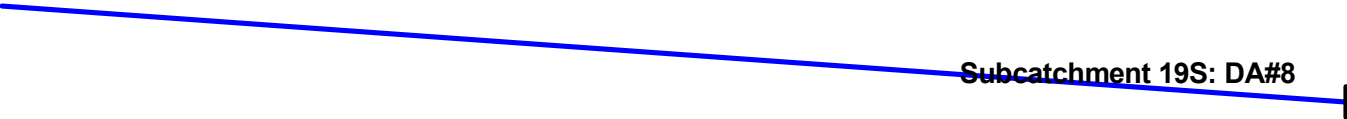
Summary for Subcatchment 19S: DA#8

Runoff = 2.49 cfs @ 12.06 hrs, Volume= 0.154 af, Depth> 4.54"
Routed to Pond 39P : CI-9

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 10-Year Rainfall=5.20"

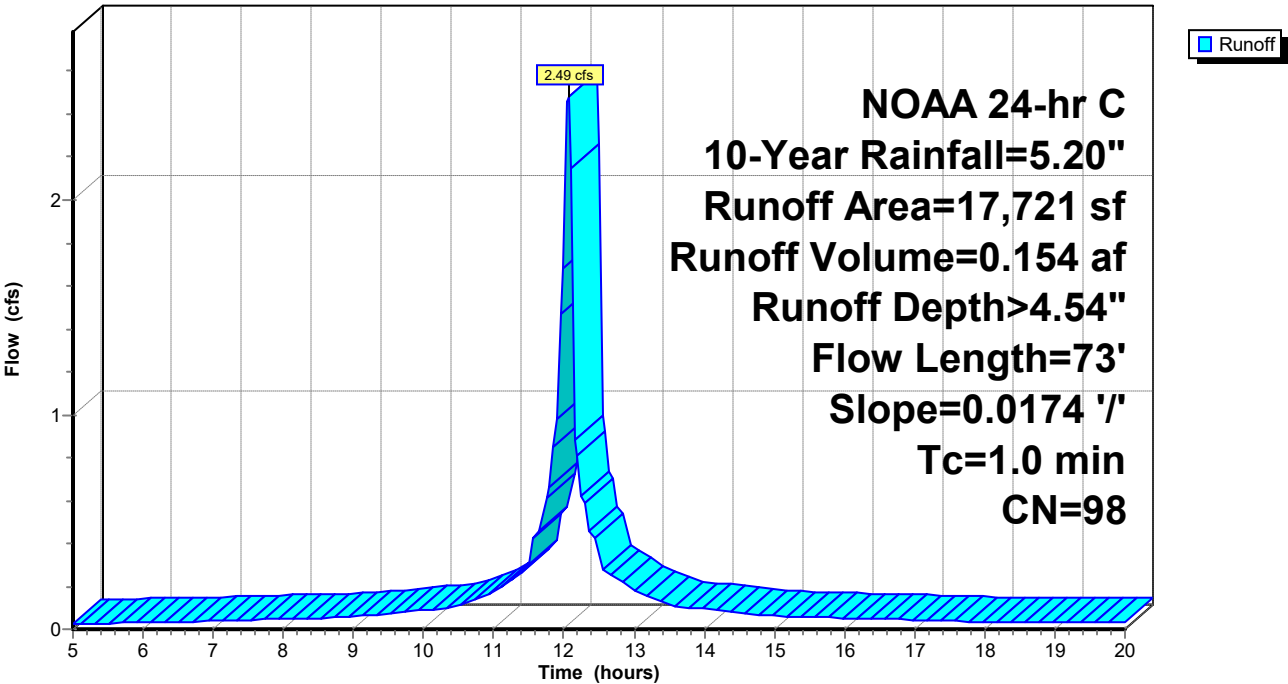
Area (sf)	CN	Description
17,329	98	Roofs, HSG D
392	80	>75% Grass cover, Good, HSG D
17,721	98	Weighted Average
392		2.21% Pervious Area
17,329		97.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	73	0.0174	1.26		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"



Subcatchment 19S: DA#8

Hydrograph



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NOAA 24-hr C 10-Year Rainfall=5.20"

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Hydrograph for Subcatchment 19S: DA#8

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.17	0.03	18.00	4.79	4.55	0.03
5.25	0.35	0.19	0.03	18.25	4.81	4.57	0.03
5.50	0.37	0.20	0.03	18.50	4.83	4.59	0.03
5.75	0.39	0.22	0.03	18.75	4.85	4.61	0.03
6.00	0.41	0.24	0.03	19.00	4.87	4.63	0.03
6.25	0.43	0.26	0.03	19.25	4.89	4.65	0.03
6.50	0.46	0.28	0.03	19.50	4.91	4.67	0.03
6.75	0.48	0.30	0.04	19.75	4.93	4.69	0.03
7.00	0.51	0.32	0.04	20.00	4.95	4.71	0.03
7.25	0.53	0.35	0.04				
7.50	0.56	0.38	0.04				
7.75	0.59	0.40	0.05				
8.00	0.62	0.43	0.05				
8.25	0.66	0.46	0.05				
8.50	0.69	0.49	0.05				
8.75	0.72	0.53	0.05				
9.00	0.76	0.56	0.06				
9.25	0.80	0.60	0.07				
9.50	0.84	0.64	0.07				
9.75	0.89	0.69	0.08				
10.00	0.95	0.74	0.09				
10.25	1.01	0.80	0.10				
10.50	1.07	0.86	0.11				
10.75	1.15	0.94	0.14				
11.00	1.25	1.03	0.17				
11.25	1.38	1.16	0.23				
11.50	1.54	1.32	0.31				
11.75	1.83	1.60	0.61				
12.00	2.48	2.25	1.68				
12.25	3.37	3.14	0.62				
12.50	3.66	3.43	0.40				
12.75	3.82	3.59	0.24				
13.00	3.95	3.72	0.19				
13.25	4.05	3.81	0.14				
13.50	4.13	3.89	0.12				
13.75	4.19	3.96	0.10				
14.00	4.25	4.02	0.09				
14.25	4.31	4.07	0.09				
14.50	4.36	4.12	0.08				
14.75	4.40	4.16	0.07				
15.00	4.44	4.20	0.06				
15.25	4.48	4.24	0.06				
15.50	4.51	4.28	0.06				
15.75	4.54	4.31	0.05				
16.00	4.58	4.34	0.05				
16.25	4.61	4.37	0.05				
16.50	4.64	4.40	0.05				
16.75	4.67	4.43	0.05				
17.00	4.69	4.46	0.04				
17.25	4.72	4.48	0.04				
17.50	4.74	4.51	0.04				
17.75	4.77	4.53	0.04				

EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

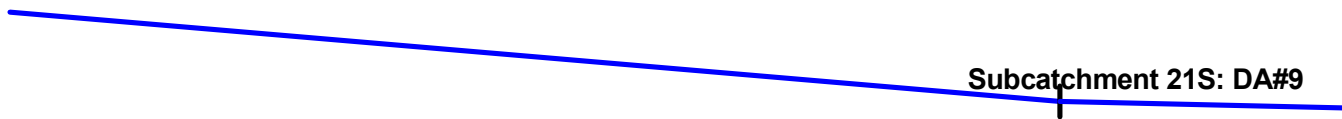
Summary for Subcatchment 21S: DA#9

Runoff = 1.44 cfs @ 12.07 hrs, Volume= 0.084 af, Depth> 4.01"
 Routed to Pond 40P : CI-6

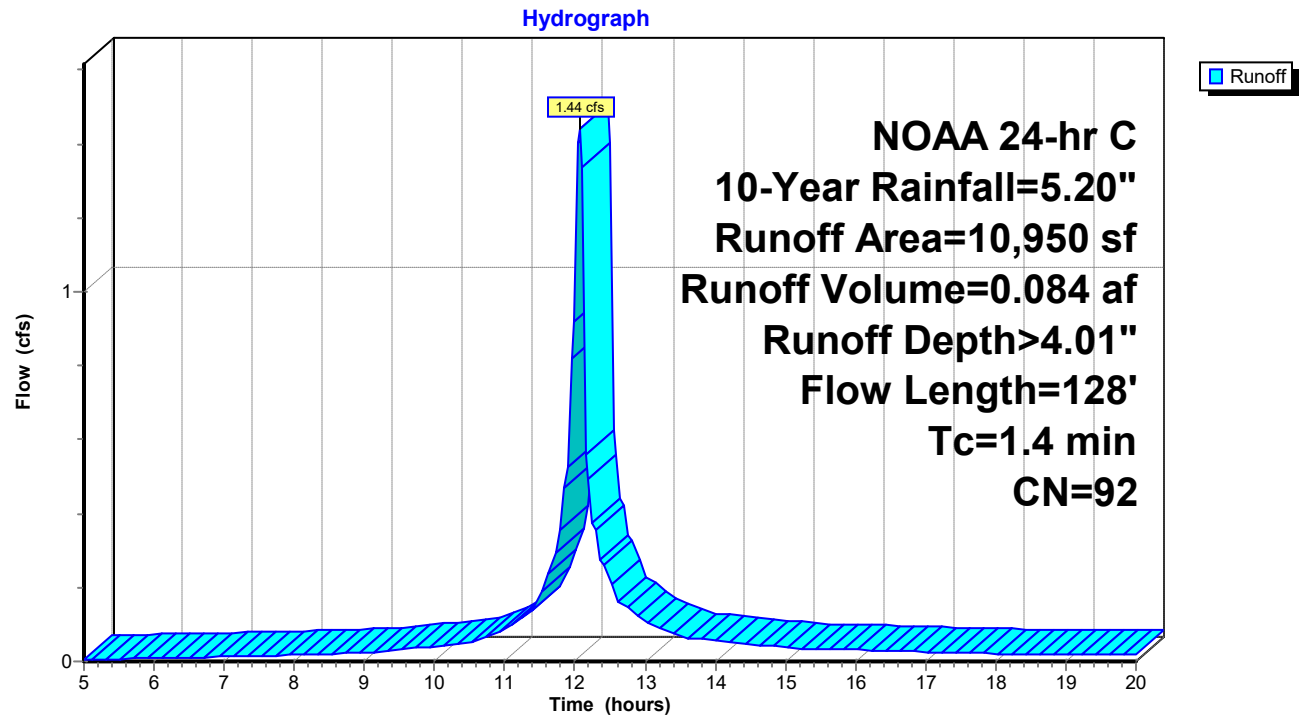
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C 10-Year Rainfall=5.20"

Area (sf)	CN	Description
7,468	98	Roofs, HSG D
3,482	80	>75% Grass cover, Good, HSG D
10,950	92	Weighted Average
3,482		31.80% Pervious Area
7,468		68.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	100	0.0254	1.56		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"
0.3	28	0.0068	1.67		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.4	128	Total			



Subcatchment 21S: DA#9



EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Hydrograph for Subcatchment 21S: DA#9

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.02	0.01	18.00	4.79	3.88	0.02
5.25	0.35	0.03	0.01	18.25	4.81	3.90	0.02
5.50	0.37	0.04	0.01	18.50	4.83	3.92	0.02
5.75	0.39	0.04	0.01	18.75	4.85	3.94	0.02
6.00	0.41	0.05	0.01	19.00	4.87	3.96	0.02
6.25	0.43	0.06	0.01	19.25	4.89	3.98	0.02
6.50	0.46	0.07	0.01	19.50	4.91	4.00	0.02
6.75	0.48	0.08	0.01	19.75	4.93	4.02	0.02
7.00	0.51	0.09	0.01	20.00	4.95	4.04	0.02
7.25	0.53	0.11	0.01				
7.50	0.56	0.12	0.02				
7.75	0.59	0.14	0.02				
8.00	0.62	0.15	0.02				
8.25	0.66	0.17	0.02				
8.50	0.69	0.19	0.02				
8.75	0.72	0.21	0.02				
9.00	0.76	0.24	0.02				
9.25	0.80	0.26	0.03				
9.50	0.84	0.29	0.03				
9.75	0.89	0.33	0.04				
10.00	0.95	0.36	0.04				
10.25	1.01	0.41	0.05				
10.50	1.07	0.46	0.05				
10.75	1.15	0.52	0.07				
11.00	1.25	0.59	0.08				
11.25	1.38	0.70	0.12				
11.50	1.54	0.83	0.16				
11.75	1.83	1.08	0.33				
12.00	2.48	1.67	0.92				
12.25	3.37	2.51	0.37				
12.50	3.66	2.79	0.24				
12.75	3.82	2.95	0.14				
13.00	3.95	3.07	0.11				
13.25	4.05	3.17	0.09				
13.50	4.13	3.24	0.07				
13.75	4.19	3.30	0.06				
14.00	4.25	3.36	0.06				
14.25	4.31	3.41	0.05				
14.50	4.36	3.46	0.05				
14.75	4.40	3.51	0.04				
15.00	4.44	3.54	0.04				
15.25	4.48	3.58	0.03				
15.50	4.51	3.61	0.03				
15.75	4.54	3.65	0.03				
16.00	4.58	3.68	0.03				
16.25	4.61	3.71	0.03				
16.50	4.64	3.74	0.03				
16.75	4.67	3.76	0.03				
17.00	4.69	3.79	0.03				
17.25	4.72	3.81	0.02				
17.50	4.74	3.84	0.02				
17.75	4.77	3.86	0.02				

EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"
Printed 5/1/2024

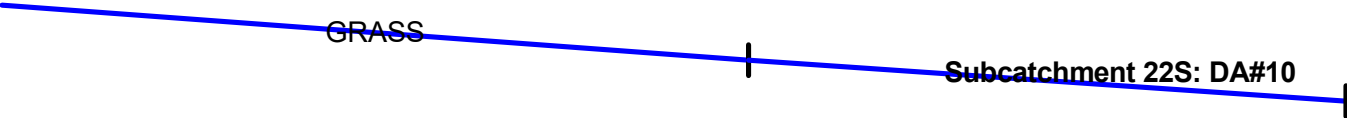
Summary for Subcatchment 22S: DA#10

Runoff = 0.50 cfs @ 12.20 hrs, Volume= 0.038 af, Depth> 3.50"
Routed to Pond 43P : CI-7

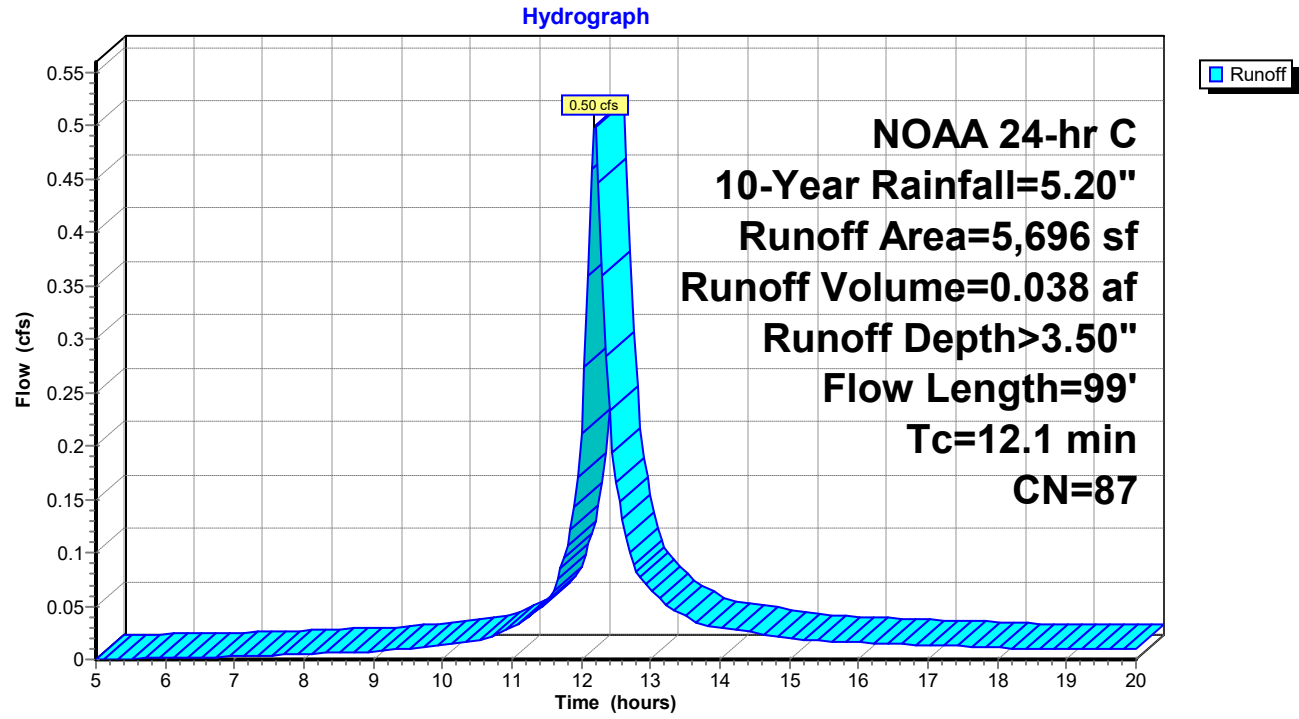
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 10-Year Rainfall=5.20"

Area (sf)	CN	Description
2,347	98	Roofs, HSG D
3,349	80	>75% Grass cover, Good, HSG D
5,696	87	Weighted Average
3,349		58.80% Pervious Area
2,347		41.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.3	55	0.0100	0.08		Sheet Flow, GRASS Grass: Dense n= 0.240 P2= 3.42"
0.8	44	0.0093	0.89		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"
12.1	99	Total			



Subcatchment 22S: DA#10



EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

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Hydrograph for Subcatchment 22S: DA#10

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00	18.00	4.79	3.37	0.01
5.25	0.35	0.00	0.00	18.25	4.81	3.39	0.01
5.50	0.37	0.00	0.00	18.50	4.83	3.41	0.01
5.75	0.39	0.01	0.00	18.75	4.85	3.43	0.01
6.00	0.41	0.01	0.00	19.00	4.87	3.44	0.01
6.25	0.43	0.01	0.00	19.25	4.89	3.46	0.01
6.50	0.46	0.02	0.00	19.50	4.91	3.48	0.01
6.75	0.48	0.02	0.00	19.75	4.93	3.50	0.01
7.00	0.51	0.03	0.00	20.00	4.95	3.52	0.01
7.25	0.53	0.03	0.00				
7.50	0.56	0.04	0.00				
7.75	0.59	0.05	0.00				
8.00	0.62	0.06	0.00				
8.25	0.66	0.07	0.01				
8.50	0.69	0.08	0.01				
8.75	0.72	0.09	0.01				
9.00	0.76	0.11	0.01				
9.25	0.80	0.13	0.01				
9.50	0.84	0.15	0.01				
9.75	0.89	0.17	0.01				
10.00	0.95	0.20	0.01				
10.25	1.01	0.23	0.02				
10.50	1.07	0.26	0.02				
10.75	1.15	0.31	0.02				
11.00	1.25	0.37	0.03				
11.25	1.38	0.45	0.04				
11.50	1.54	0.56	0.05				
11.75	1.83	0.77	0.10				
12.00	2.48	1.29	0.21				
12.25	3.37	2.07	0.45				
12.50	3.66	2.33	0.17				
12.75	3.82	2.48	0.09				
13.00	3.95	2.59	0.07				
13.25	4.05	2.68	0.05				
13.50	4.13	2.75	0.04				
13.75	4.19	2.81	0.03				
14.00	4.25	2.87	0.03				
14.25	4.31	2.92	0.03				
14.50	4.36	2.97	0.02				
14.75	4.40	3.01	0.02				
15.00	4.44	3.04	0.02				
15.25	4.48	3.08	0.02				
15.50	4.51	3.11	0.02				
15.75	4.54	3.14	0.02				
16.00	4.58	3.17	0.02				
16.25	4.61	3.20	0.02				
16.50	4.64	3.23	0.01				
16.75	4.67	3.25	0.01				
17.00	4.69	3.28	0.01				
17.25	4.72	3.30	0.01				
17.50	4.74	3.33	0.01				
17.75	4.77	3.35	0.01				

EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Summary for Subcatchment 25S: DA#12

Runoff = 0.93 cfs @ 12.07 hrs, Volume= 0.056 af, Depth> 4.39"
Routed to Pond 45P : CI-3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 10-Year Rainfall=5.20"

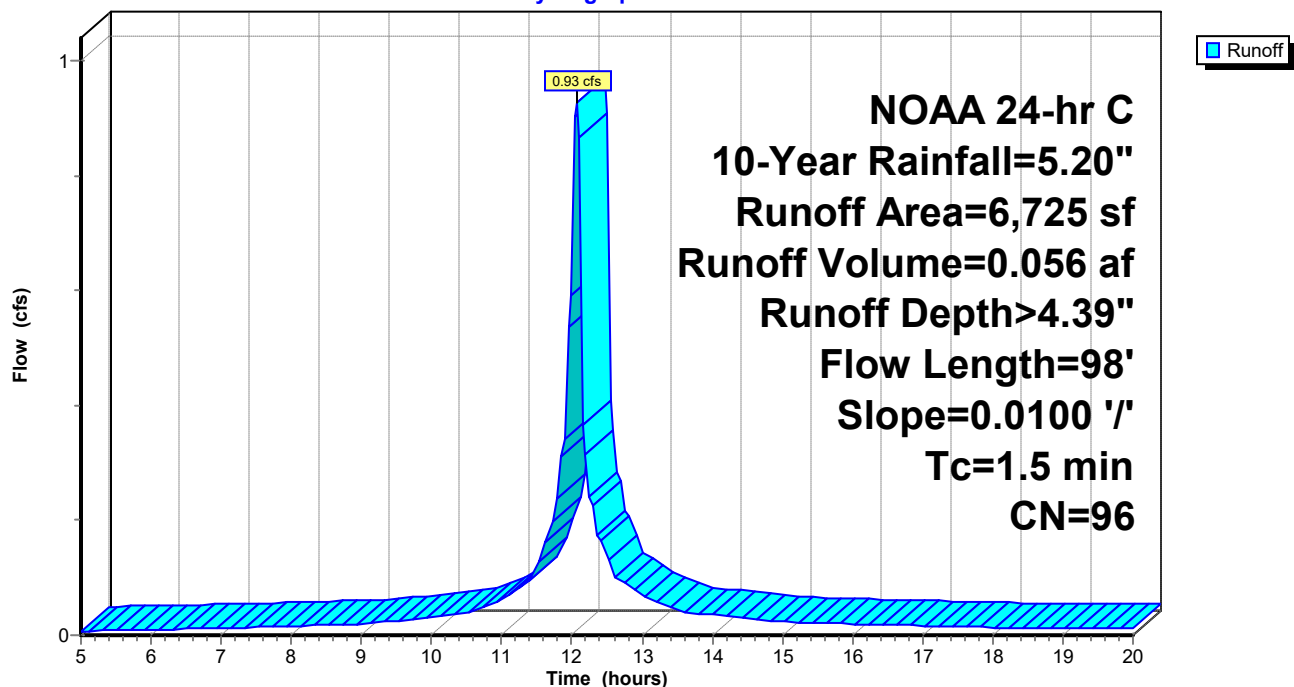
Area (sf)	CN	Description
5,864	98	Roofs, HSG D
861	80	>75% Grass cover, Good, HSG D
6,725	96	Weighted Average
861		12.80% Pervious Area
5,864		87.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	98	0.0100	1.07		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"

Subcatchment 25S: DA#12

Subcatchment 25S: DA#12

Hydrograph



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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Hydrograph for Subcatchment 25S: DA#12

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.09	0.01	18.00	4.79	4.32	0.01
5.25	0.35	0.10	0.01	18.25	4.81	4.34	0.01
5.50	0.37	0.12	0.01	18.50	4.83	4.36	0.01
5.75	0.39	0.13	0.01	18.75	4.85	4.38	0.01
6.00	0.41	0.14	0.01	19.00	4.87	4.40	0.01
6.25	0.43	0.16	0.01	19.25	4.89	4.42	0.01
6.50	0.46	0.18	0.01	19.50	4.91	4.44	0.01
6.75	0.48	0.19	0.01	19.75	4.93	4.46	0.01
7.00	0.51	0.21	0.01	20.00	4.95	4.48	0.01
7.25	0.53	0.23	0.01				
7.50	0.56	0.26	0.01				
7.75	0.59	0.28	0.01				
8.00	0.62	0.30	0.02				
8.25	0.66	0.33	0.02				
8.50	0.69	0.36	0.02				
8.75	0.72	0.39	0.02				
9.00	0.76	0.42	0.02				
9.25	0.80	0.45	0.02				
9.50	0.84	0.49	0.03				
9.75	0.89	0.54	0.03				
10.00	0.95	0.58	0.03				
10.25	1.01	0.64	0.03				
10.50	1.07	0.70	0.04				
10.75	1.15	0.77	0.05				
11.00	1.25	0.86	0.06				
11.25	1.38	0.98	0.08				
11.50	1.54	1.13	0.11				
11.75	1.83	1.41	0.22				
12.00	2.48	2.04	0.59				
12.25	3.37	2.92	0.24				
12.50	3.66	3.21	0.16				
12.75	3.82	3.37	0.09				
13.00	3.95	3.49	0.07				
13.25	4.05	3.59	0.05				
13.50	4.13	3.67	0.04				
13.75	4.19	3.73	0.04				
14.00	4.25	3.79	0.04				
14.25	4.31	3.84	0.03				
14.50	4.36	3.89	0.03				
14.75	4.40	3.94	0.03				
15.00	4.44	3.98	0.02				
15.25	4.48	4.01	0.02				
15.50	4.51	4.05	0.02				
15.75	4.54	4.08	0.02				
16.00	4.58	4.11	0.02				
16.25	4.61	4.14	0.02				
16.50	4.64	4.17	0.02				
16.75	4.67	4.20	0.02				
17.00	4.69	4.23	0.02				
17.25	4.72	4.25	0.02				
17.50	4.74	4.28	0.01				
17.75	4.77	4.30	0.01				

EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Summary for Subcatchment 26S: DA#1

Runoff = 3.10 cfs @ 12.12 hrs, Volume= 0.195 af, Depth> 3.51"
 Routed to Pond 27P : FES-4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C 10-Year Rainfall=5.20"

Area (sf)	CN	Description
11,362	98	Roofs, HSG D
17,706	80	>75% Grass cover, Good, HSG D
29,068	87	Weighted Average
17,706		60.91% Pervious Area
11,362		39.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	27	0.0306	0.11		Sheet Flow, GRASS Grass: Dense n= 0.240 P2= 3.42"
1.4	378	0.0073	4.50	71.98	Channel Flow, Area= 16.0 sf Perim= 14.6' r= 1.10' n= 0.030
5.5	405	Total			

GRASS

Subcatchment 26S: DA#1

EX and PR

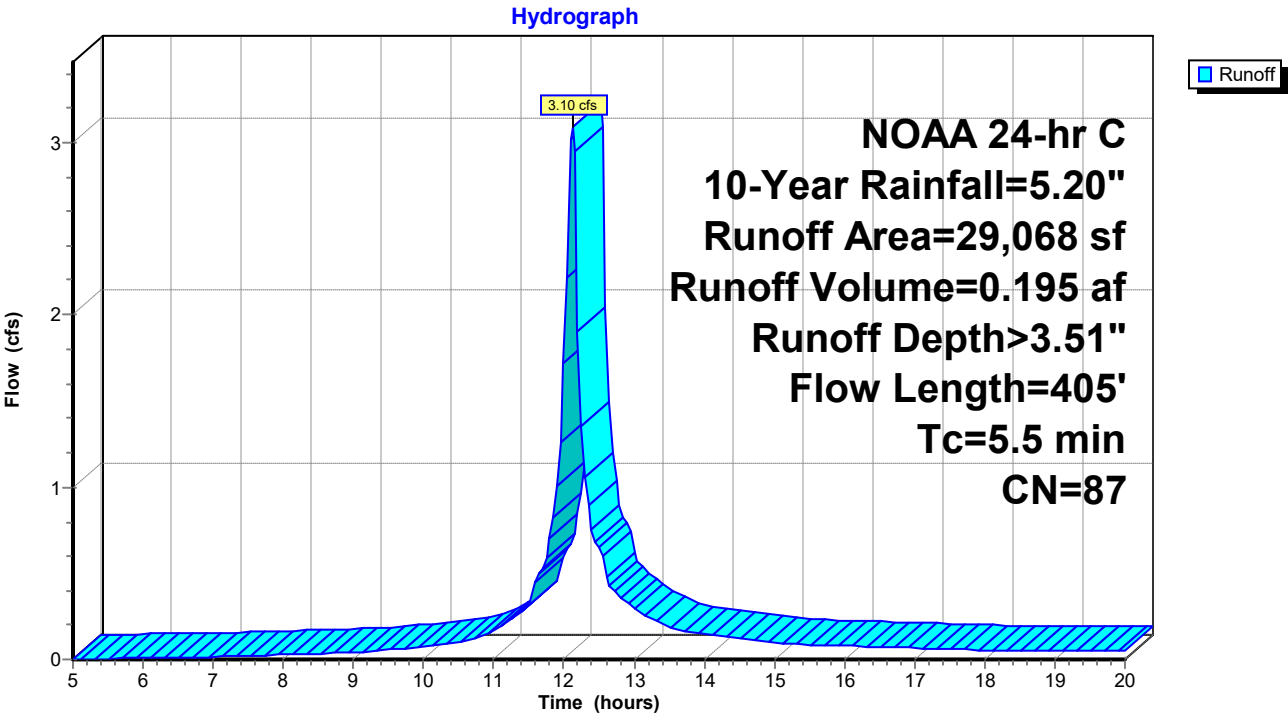
Prepared by Rauch Inc

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NOAA 24-hr C 10-Year Rainfall=5.20"

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Subcatchment 26S: DA#1



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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Hydrograph for Subcatchment 26S: DA#1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00	18.00	4.79	3.37	0.05
5.25	0.35	0.00	0.00	18.25	4.81	3.39	0.05
5.50	0.37	0.00	0.00	18.50	4.83	3.41	0.05
5.75	0.39	0.01	0.01	18.75	4.85	3.43	0.05
6.00	0.41	0.01	0.01	19.00	4.87	3.44	0.05
6.25	0.43	0.01	0.01	19.25	4.89	3.46	0.05
6.50	0.46	0.02	0.01	19.50	4.91	3.48	0.05
6.75	0.48	0.02	0.01	19.75	4.93	3.50	0.05
7.00	0.51	0.03	0.02	20.00	4.95	3.52	0.05
7.25	0.53	0.03	0.02				
7.50	0.56	0.04	0.02				
7.75	0.59	0.05	0.02				
8.00	0.62	0.06	0.03				
8.25	0.66	0.07	0.03				
8.50	0.69	0.08	0.03				
8.75	0.72	0.09	0.04				
9.00	0.76	0.11	0.04				
9.25	0.80	0.13	0.05				
9.50	0.84	0.15	0.06				
9.75	0.89	0.17	0.06				
10.00	0.95	0.20	0.08				
10.25	1.01	0.23	0.09				
10.50	1.07	0.26	0.10				
10.75	1.15	0.31	0.13				
11.00	1.25	0.37	0.17				
11.25	1.38	0.45	0.23				
11.50	1.54	0.56	0.31				
11.75	1.83	0.77	0.59				
12.00	2.48	1.29	1.72				
12.25	3.37	2.07	1.36				
12.50	3.66	2.33	0.65				
12.75	3.82	2.48	0.39				
13.00	3.95	2.59	0.30				
13.25	4.05	2.68	0.23				
13.50	4.13	2.75	0.19				
13.75	4.19	2.81	0.16				
14.00	4.25	2.87	0.15				
14.25	4.31	2.92	0.13				
14.50	4.36	2.97	0.12				
14.75	4.40	3.01	0.11				
15.00	4.44	3.04	0.10				
15.25	4.48	3.08	0.09				
15.50	4.51	3.11	0.09				
15.75	4.54	3.14	0.08				
16.00	4.58	3.17	0.08				
16.25	4.61	3.20	0.08				
16.50	4.64	3.23	0.07				
16.75	4.67	3.25	0.07				
17.00	4.69	3.28	0.07				
17.25	4.72	3.30	0.06				
17.50	4.74	3.33	0.06				
17.75	4.77	3.35	0.06				

EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

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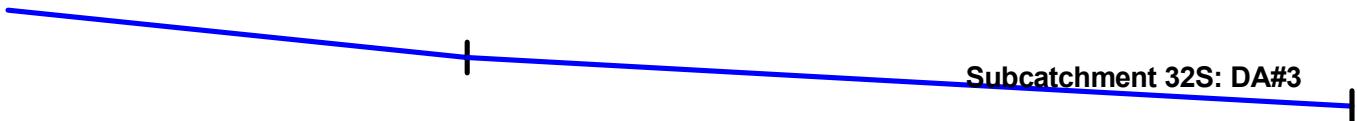
Summary for Subcatchment 32S: DA#3

Runoff = 1.14 cfs @ 12.06 hrs, Volume= 0.064 af, Depth> 3.52"
 Routed to Link 2L : SP#1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C 10-Year Rainfall=5.20"

Area (sf)	CN	Description
3,831	98	Roofs, HSG D
5,639	80	>75% Grass cover, Good, HSG D
9,470	87	Weighted Average
5,639		59.55% Pervious Area
3,831		40.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	55	0.0240	1.36		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"
0.3	106	0.0128	5.96	95.31	Channel Flow, Area= 16.0 sf Perim= 14.6' r= 1.10' n= 0.030
1.0	161	Total			

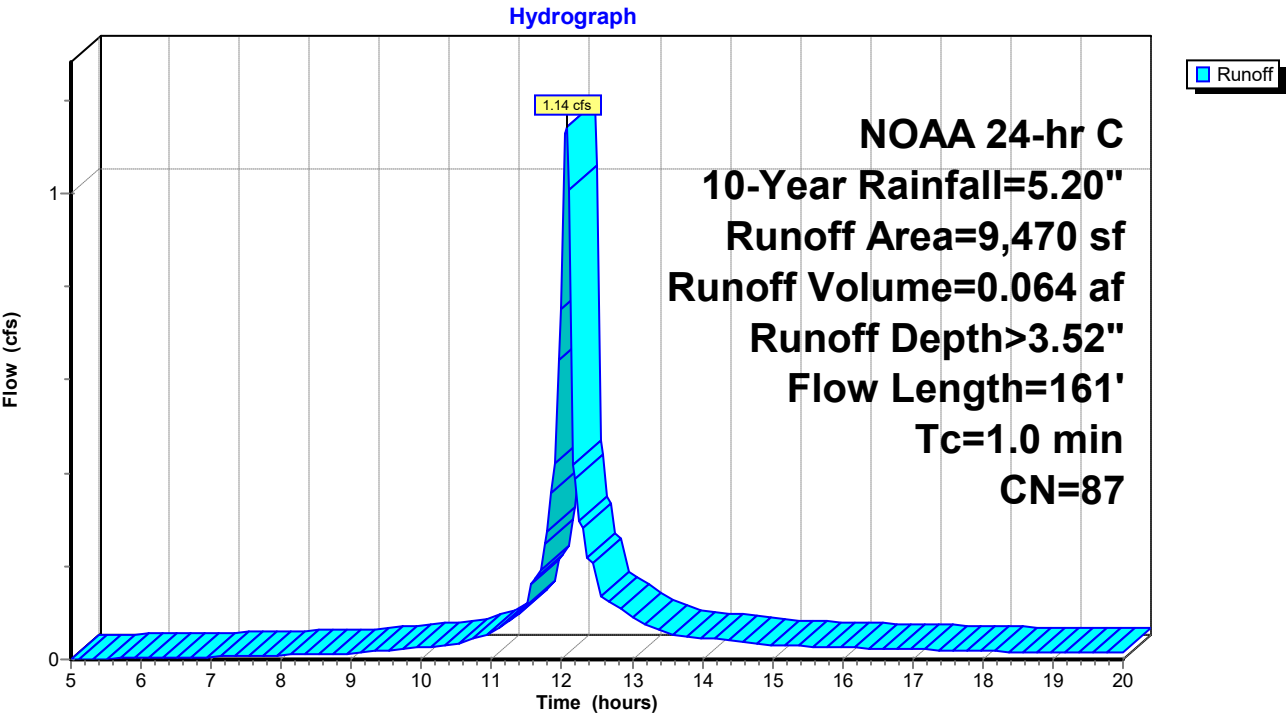


EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"
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Subcatchment 32S: DA#3



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NOAA 24-hr C 10-Year Rainfall=5.20"

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Hydrograph for Subcatchment 32S: DA#3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00	18.00	4.79	3.37	0.02
5.25	0.35	0.00	0.00	18.25	4.81	3.39	0.02
5.50	0.37	0.00	0.00	18.50	4.83	3.41	0.02
5.75	0.39	0.01	0.00	18.75	4.85	3.43	0.02
6.00	0.41	0.01	0.00	19.00	4.87	3.44	0.02
6.25	0.43	0.01	0.00	19.25	4.89	3.46	0.02
6.50	0.46	0.02	0.00	19.50	4.91	3.48	0.02
6.75	0.48	0.02	0.00	19.75	4.93	3.50	0.02
7.00	0.51	0.03	0.01	20.00	4.95	3.52	0.02
7.25	0.53	0.03	0.01				
7.50	0.56	0.04	0.01				
7.75	0.59	0.05	0.01				
8.00	0.62	0.06	0.01				
8.25	0.66	0.07	0.01				
8.50	0.69	0.08	0.01				
8.75	0.72	0.09	0.01				
9.00	0.76	0.11	0.01				
9.25	0.80	0.13	0.02				
9.50	0.84	0.15	0.02				
9.75	0.89	0.17	0.02				
10.00	0.95	0.20	0.03				
10.25	1.01	0.23	0.03				
10.50	1.07	0.26	0.03				
10.75	1.15	0.31	0.05				
11.00	1.25	0.37	0.06				
11.25	1.38	0.45	0.08				
11.50	1.54	0.56	0.12				
11.75	1.83	0.77	0.25				
12.00	2.48	1.29	0.75				
12.25	3.37	2.07	0.30				
12.50	3.66	2.33	0.19				
12.75	3.82	2.48	0.12				
13.00	3.95	2.59	0.09				
13.25	4.05	2.68	0.07				
13.50	4.13	2.75	0.06				
13.75	4.19	2.81	0.05				
14.00	4.25	2.87	0.05				
14.25	4.31	2.92	0.04				
14.50	4.36	2.97	0.04				
14.75	4.40	3.01	0.03				
15.00	4.44	3.04	0.03				
15.25	4.48	3.08	0.03				
15.50	4.51	3.11	0.03				
15.75	4.54	3.14	0.03				
16.00	4.58	3.17	0.03				
16.25	4.61	3.20	0.02				
16.50	4.64	3.23	0.02				
16.75	4.67	3.25	0.02				
17.00	4.69	3.28	0.02				
17.25	4.72	3.30	0.02				
17.50	4.74	3.33	0.02				
17.75	4.77	3.35	0.02				

EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Summary for Subcatchment 33S: DA#13

Runoff = 0.40 cfs @ 12.06 hrs, Volume= 0.023 af, Depth> 3.72"
Routed to Pond 46P : CI-5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 10-Year Rainfall=5.20"

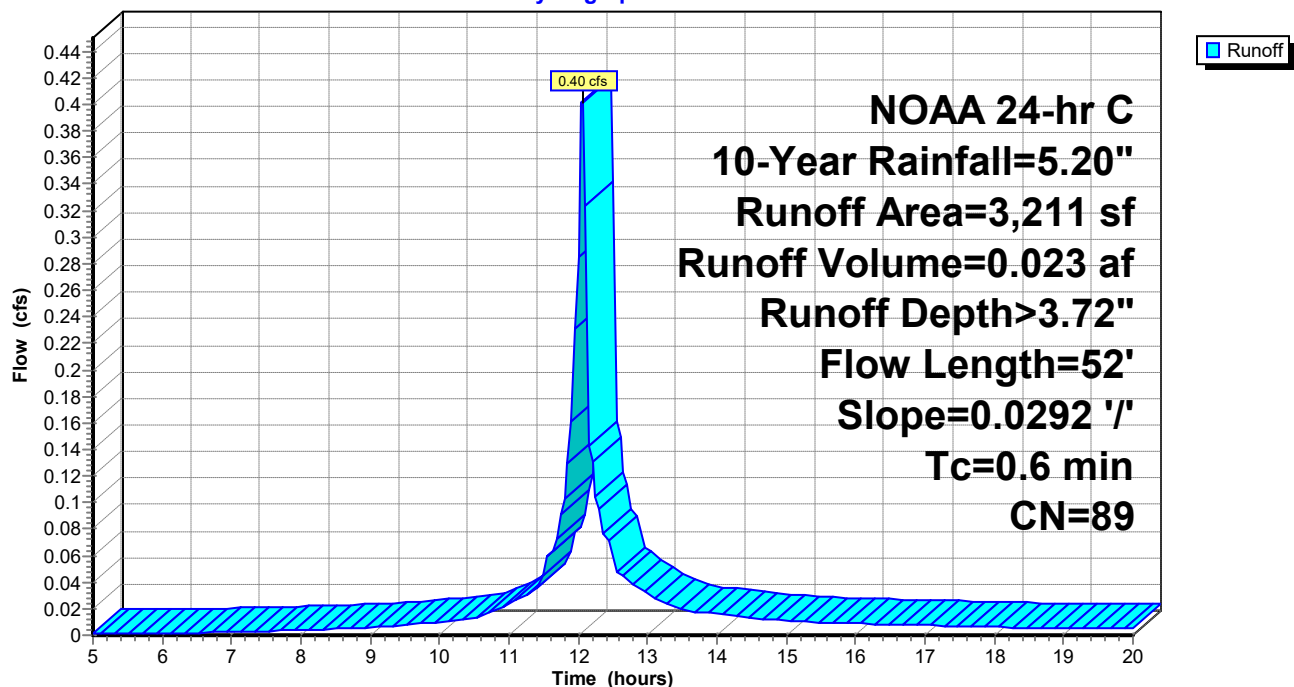
Area (sf)	CN	Description
1,642	98	Roofs, HSG D
1,569	80	>75% Grass cover, Good, HSG D
3,211	89	Weighted Average
1,569		48.86% Pervious Area
1,642		51.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	52	0.0292	1.45		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"

Subcatchment 33S: DA#13

Subcatchment 33S: DA#13

Hydrograph



EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Hydrograph for Subcatchment 33S: DA#13

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.01	0.00	18.00	4.79	3.57	0.01
5.25	0.35	0.01	0.00	18.25	4.81	3.59	0.01
5.50	0.37	0.01	0.00	18.50	4.83	3.61	0.01
5.75	0.39	0.02	0.00	18.75	4.85	3.63	0.01
6.00	0.41	0.02	0.00	19.00	4.87	3.65	0.01
6.25	0.43	0.02	0.00	19.25	4.89	3.67	0.01
6.50	0.46	0.03	0.00	19.50	4.91	3.68	0.01
6.75	0.48	0.04	0.00	19.75	4.93	3.70	0.01
7.00	0.51	0.05	0.00	20.00	4.95	3.72	0.01
7.25	0.53	0.05	0.00				
7.50	0.56	0.06	0.00				
7.75	0.59	0.08	0.00				
8.00	0.62	0.09	0.00				
8.25	0.66	0.10	0.00				
8.50	0.69	0.12	0.00				
8.75	0.72	0.13	0.01				
9.00	0.76	0.15	0.01				
9.25	0.80	0.17	0.01				
9.50	0.84	0.19	0.01				
9.75	0.89	0.22	0.01				
10.00	0.95	0.25	0.01				
10.25	1.01	0.29	0.01				
10.50	1.07	0.33	0.01				
10.75	1.15	0.38	0.02				
11.00	1.25	0.45	0.02				
11.25	1.38	0.54	0.03				
11.50	1.54	0.66	0.04				
11.75	1.83	0.89	0.09				
12.00	2.48	1.44	0.29				
12.25	3.37	2.24	0.10				
12.50	3.66	2.51	0.06				
12.75	3.82	2.66	0.04				
13.00	3.95	2.78	0.03				
13.25	4.05	2.87	0.02				
13.50	4.13	2.94	0.02				
13.75	4.19	3.00	0.02				
14.00	4.25	3.06	0.02				
14.25	4.31	3.11	0.01				
14.50	4.36	3.16	0.01				
14.75	4.40	3.20	0.01				
15.00	4.44	3.24	0.01				
15.25	4.48	3.27	0.01				
15.50	4.51	3.31	0.01				
15.75	4.54	3.34	0.01				
16.00	4.58	3.37	0.01				
16.25	4.61	3.40	0.01				
16.50	4.64	3.43	0.01				
16.75	4.67	3.45	0.01				
17.00	4.69	3.48	0.01				
17.25	4.72	3.50	0.01				
17.50	4.74	3.53	0.01				
17.75	4.77	3.55	0.01				

EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Summary for Subcatchment 34S: DA#14

Runoff = 2.30 cfs @ 12.06 hrs, Volume= 0.135 af, Depth> 4.11"
Routed to Pond 9P : I-2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 10-Year Rainfall=5.20"

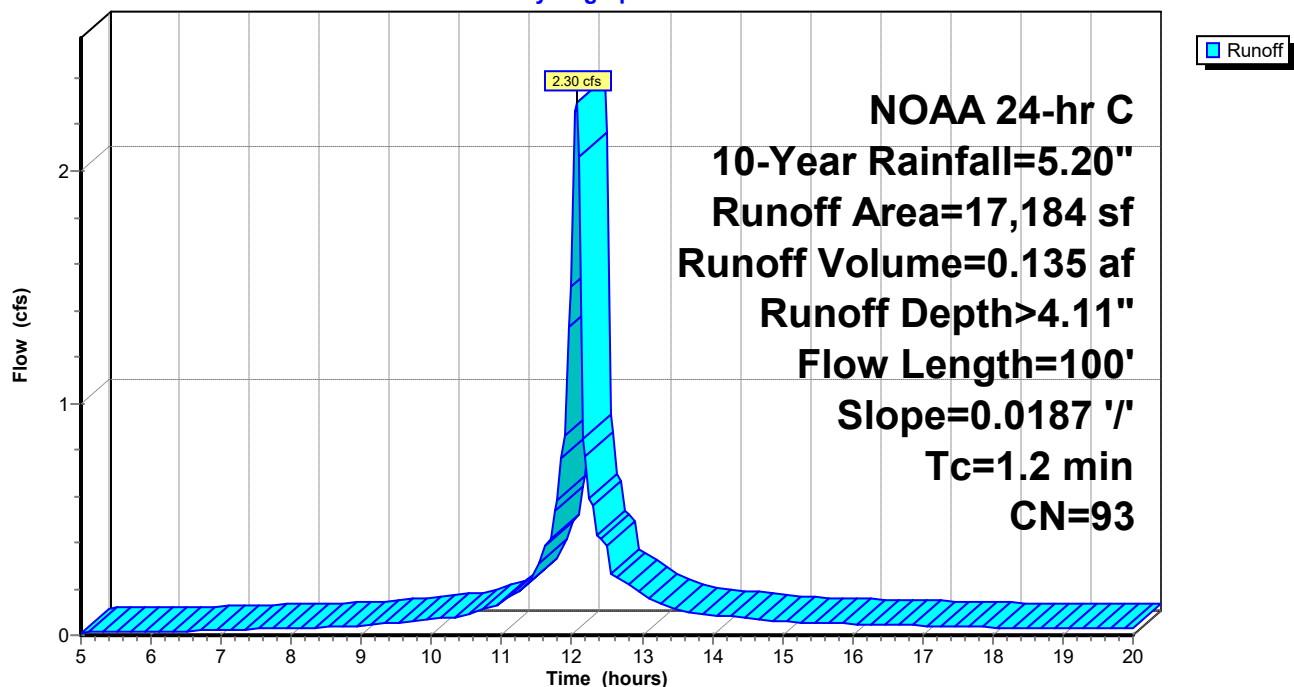
Area (sf)	CN	Description
12,711	98	Roofs, HSG D
4,473	80	>75% Grass cover, Good, HSG D
17,184	93	Weighted Average
4,473		26.03% Pervious Area
12,711		73.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0187	1.38		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"

Subcatchment 34S: DA#14

Subcatchment 34S: DA#14

Hydrograph



EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Hydrograph for Subcatchment 34S: DA#14

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.03	0.01	18.00	4.79	3.99	0.03
5.25	0.35	0.04	0.01	18.25	4.81	4.01	0.03
5.50	0.37	0.05	0.01	18.50	4.83	4.03	0.03
5.75	0.39	0.06	0.01	18.75	4.85	4.05	0.03
6.00	0.41	0.07	0.01	19.00	4.87	4.07	0.03
6.25	0.43	0.08	0.02	19.25	4.89	4.09	0.03
6.50	0.46	0.09	0.02	19.50	4.91	4.11	0.03
6.75	0.48	0.10	0.02	19.75	4.93	4.13	0.03
7.00	0.51	0.11	0.02	20.00	4.95	4.14	0.03
7.25	0.53	0.13	0.02				
7.50	0.56	0.15	0.03				
7.75	0.59	0.16	0.03				
8.00	0.62	0.18	0.03				
8.25	0.66	0.20	0.03				
8.50	0.69	0.22	0.04				
8.75	0.72	0.25	0.04				
9.00	0.76	0.27	0.04				
9.25	0.80	0.30	0.05				
9.50	0.84	0.33	0.05				
9.75	0.89	0.37	0.06				
10.00	0.95	0.41	0.07				
10.25	1.01	0.46	0.08				
10.50	1.07	0.51	0.08				
10.75	1.15	0.57	0.11				
11.00	1.25	0.65	0.14				
11.25	1.38	0.76	0.20				
11.50	1.54	0.90	0.26				
11.75	1.83	1.16	0.54				
12.00	2.48	1.76	1.50				
12.25	3.37	2.61	0.59				
12.50	3.66	2.89	0.38				
12.75	3.82	3.05	0.22				
13.00	3.95	3.17	0.18				
13.25	4.05	3.27	0.14				
13.50	4.13	3.34	0.11				
13.75	4.19	3.41	0.10				
14.00	4.25	3.47	0.09				
14.25	4.31	3.52	0.08				
14.50	4.36	3.57	0.07				
14.75	4.40	3.61	0.07				
15.00	4.44	3.65	0.06				
15.25	4.48	3.68	0.06				
15.50	4.51	3.72	0.05				
15.75	4.54	3.75	0.05				
16.00	4.58	3.78	0.05				
16.25	4.61	3.81	0.05				
16.50	4.64	3.84	0.05				
16.75	4.67	3.87	0.04				
17.00	4.69	3.90	0.04				
17.25	4.72	3.92	0.04				
17.50	4.74	3.95	0.04				
17.75	4.77	3.97	0.04				

EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

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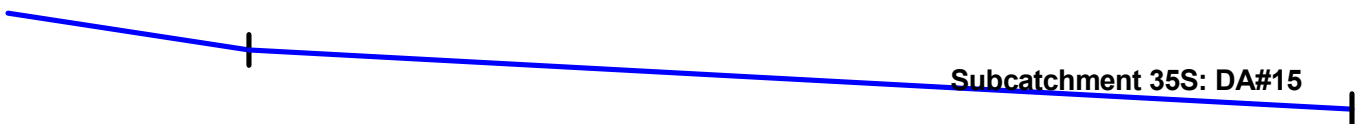
Summary for Subcatchment 35S: DA#15

Runoff = 0.64 cfs @ 12.31 hrs, Volume= 0.060 af, Depth> 2.83"
Routed to Link 2L : SP#1

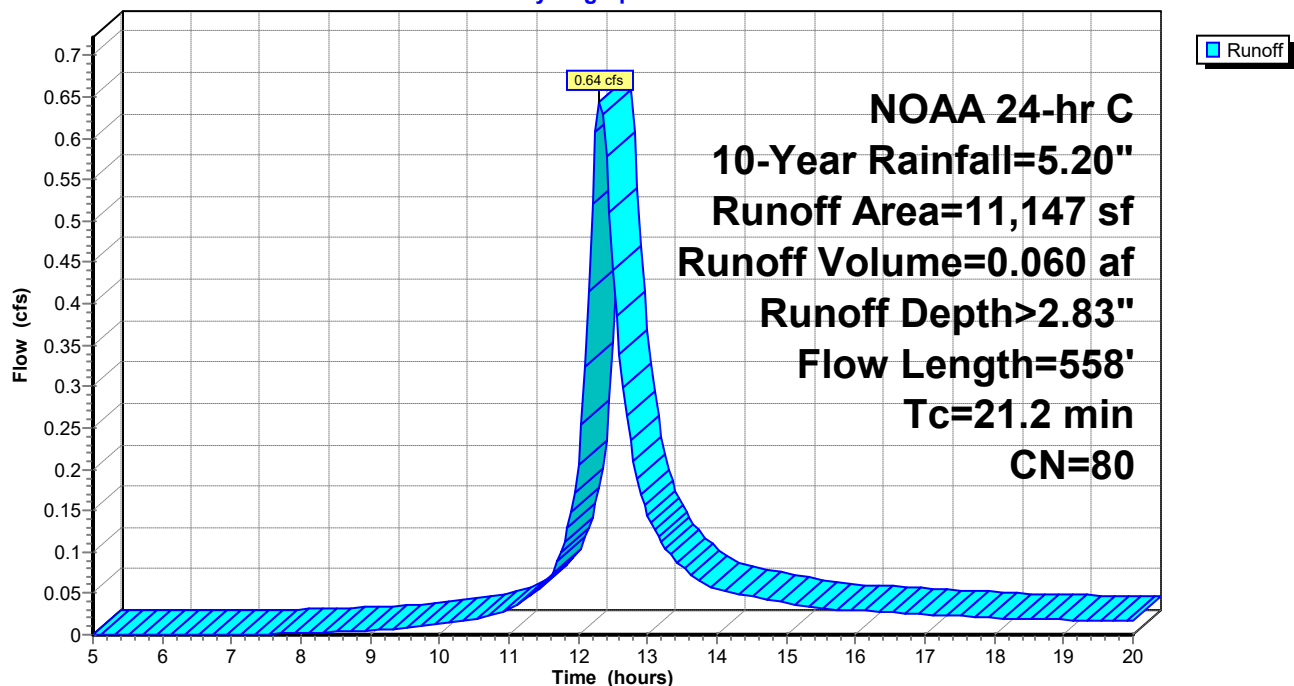
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 10-Year Rainfall=5.20"

Area (sf)	CN	Description
11,147	80	>75% Grass cover, Good, HSG D
11,147		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.2	100	0.0336	0.15		Sheet Flow, Grass: Dense n= 0.240 P2= 3.42"
10.0	458	0.0118	0.76		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
21.2	558	Total			

**Subcatchment 35S: DA#15**

Hydrograph



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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Hydrograph for Subcatchment 35S: DA#15

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00	18.00	4.79	2.71	0.02
5.25	0.35	0.00	0.00	18.25	4.81	2.73	0.02
5.50	0.37	0.00	0.00	18.50	4.83	2.74	0.02
5.75	0.39	0.00	0.00	18.75	4.85	2.76	0.02
6.00	0.41	0.00	0.00	19.00	4.87	2.78	0.02
6.25	0.43	0.00	0.00	19.25	4.89	2.80	0.02
6.50	0.46	0.00	0.00	19.50	4.91	2.81	0.02
6.75	0.48	0.00	0.00	19.75	4.93	2.83	0.02
7.00	0.51	0.00	0.00	20.00	4.95	2.85	0.02
7.25	0.53	0.00	0.00				
7.50	0.56	0.00	0.00				
7.75	0.59	0.00	0.00				
8.00	0.62	0.01	0.00				
8.25	0.66	0.01	0.00				
8.50	0.69	0.01	0.00				
8.75	0.72	0.02	0.00				
9.00	0.76	0.02	0.01				
9.25	0.80	0.03	0.01				
9.50	0.84	0.04	0.01				
9.75	0.89	0.05	0.01				
10.00	0.95	0.07	0.01				
10.25	1.01	0.09	0.02				
10.50	1.07	0.11	0.02				
10.75	1.15	0.13	0.02				
11.00	1.25	0.17	0.03				
11.25	1.38	0.23	0.04				
11.50	1.54	0.30	0.06				
11.75	1.83	0.46	0.10				
12.00	2.48	0.87	0.21				
12.25	3.37	1.54	0.61				
12.50	3.66	1.77	0.44				
12.75	3.82	1.90	0.23				
13.00	3.95	2.00	0.14				
13.25	4.05	2.08	0.10				
13.50	4.13	2.15	0.08				
13.75	4.19	2.20	0.07				
14.00	4.25	2.25	0.06				
14.25	4.31	2.30	0.05				
14.50	4.36	2.34	0.05				
14.75	4.40	2.38	0.04				
15.00	4.44	2.41	0.04				
15.25	4.48	2.44	0.03				
15.50	4.51	2.47	0.03				
15.75	4.54	2.50	0.03				
16.00	4.58	2.53	0.03				
16.25	4.61	2.55	0.03				
16.50	4.64	2.58	0.03				
16.75	4.67	2.60	0.03				
17.00	4.69	2.63	0.02				
17.25	4.72	2.65	0.02				
17.50	4.74	2.67	0.02				
17.75	4.77	2.69	0.02				

EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

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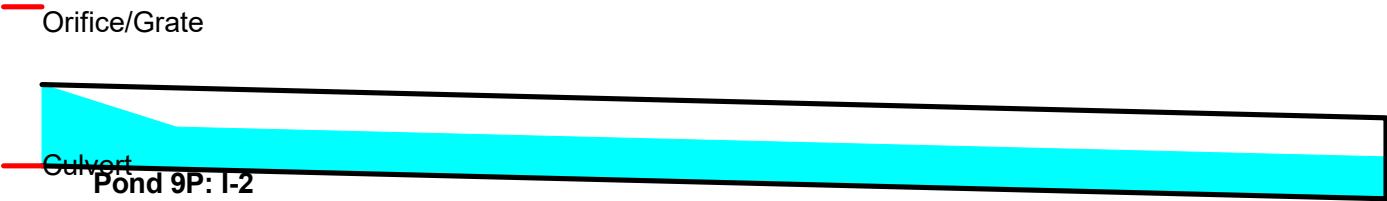
Summary for Pond 9P: I-2

Inflow Area = 0.394 ac, 73.97% Impervious, Inflow Depth > 4.11" for 10-Year event
Inflow = 2.30 cfs @ 12.06 hrs, Volume= 0.135 af
Outflow = 2.30 cfs @ 12.06 hrs, Volume= 0.135 af, Atten= 0%, Lag= 0.0 min
Primary = 2.30 cfs @ 12.06 hrs, Volume= 0.135 af
Routed to Pond 44P : CI-2

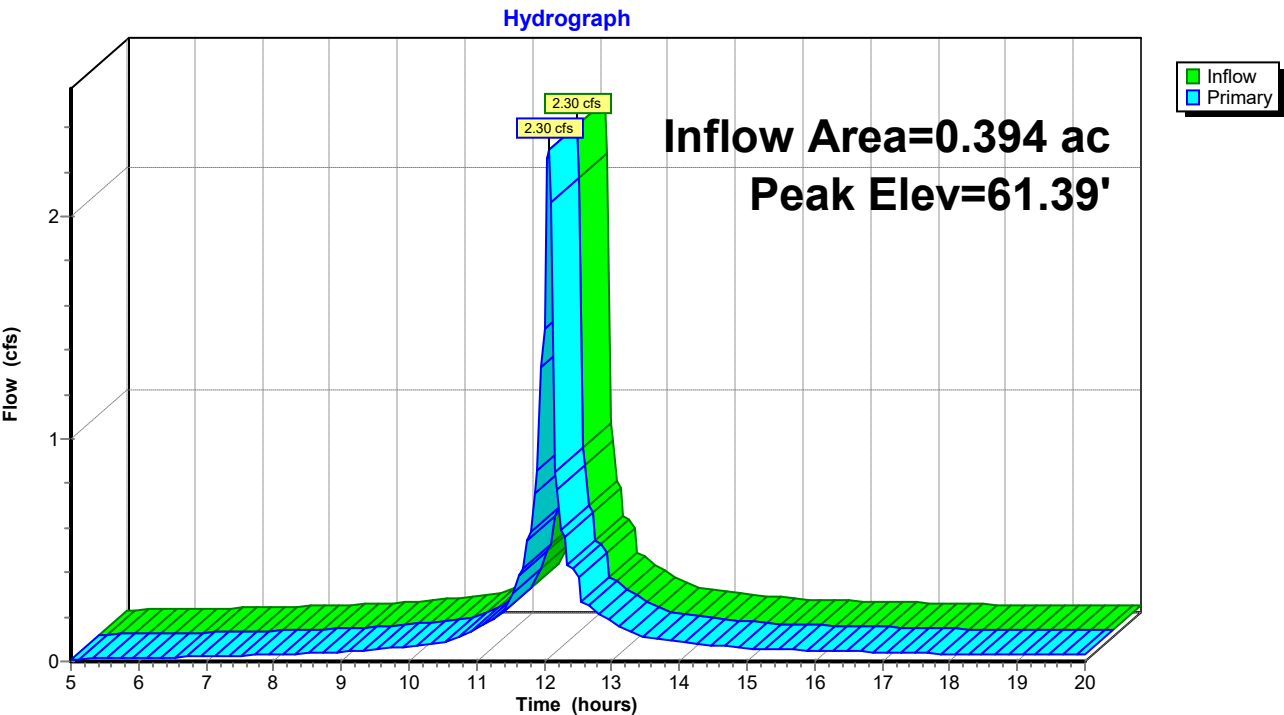
Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.39' @ 12.22 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	61.51'	1.0" x 2.0" Horiz. Orifice/Grate X 20.00 columns X 10 rows C= 0.600 in 24.0" x 24.0" Grate (69% open area)
#2	Primary	59.06'	15.0" Round Culvert L= 57.6' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 59.06' / 58.55' S= 0.0089 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

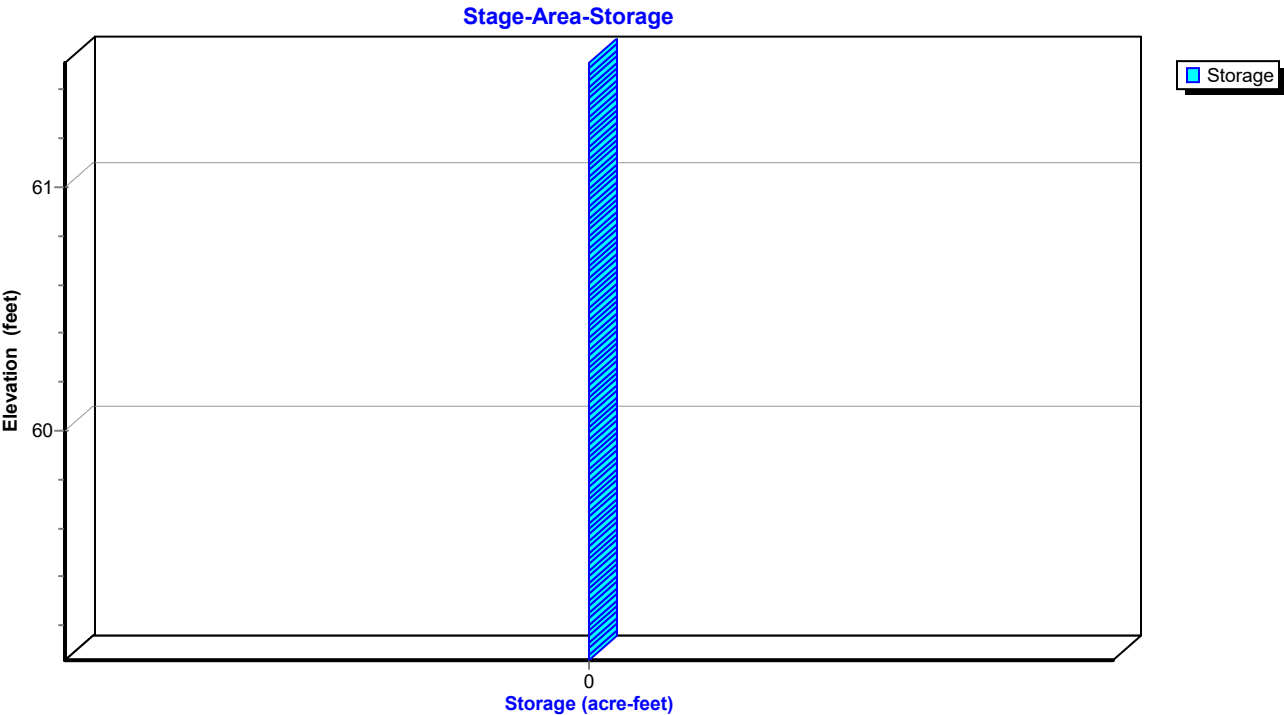
Primary OutFlow Max=1.69 cfs @ 12.06 hrs HW=59.91' TW=59.62' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Outlet Controls 1.69 cfs @ 2.67 fps)



Pond 9P: I-2



Pond 9P: I-2



EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

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Hydrograph for Pond 9P: I-2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.01	59.11	0.01	18.00	0.03	59.15	0.03
5.25	0.01	59.11	0.01	18.25	0.03	59.15	0.03
5.50	0.01	59.12	0.01	18.50	0.03	59.15	0.03
5.75	0.01	59.12	0.01	18.75	0.03	59.15	0.03
6.00	0.01	59.12	0.01	19.00	0.03	59.14	0.03
6.25	0.02	59.12	0.02	19.25	0.03	59.14	0.03
6.50	0.02	59.13	0.02	19.50	0.03	59.14	0.03
6.75	0.02	59.13	0.02	19.75	0.03	59.14	0.03
7.00	0.02	59.13	0.02	20.00	0.03	59.14	0.03
7.25	0.02	59.14	0.02				
7.50	0.03	59.14	0.03				
7.75	0.03	59.14	0.03				
8.00	0.03	59.14	0.03				
8.25	0.03	59.15	0.03				
8.50	0.04	59.15	0.04				
8.75	0.04	59.15	0.04				
9.00	0.04	59.16	0.04				
9.25	0.05	59.16	0.05				
9.50	0.05	59.17	0.05				
9.75	0.06	59.18	0.06				
10.00	0.07	59.18	0.07				
10.25	0.08	59.19	0.08				
10.50	0.08	59.20	0.08				
10.75	0.11	59.22	0.11				
11.00	0.14	59.24	0.14				
11.25	0.20	59.27	0.20				
11.50	0.26	59.30	0.26				
11.75	0.54	59.42	0.54				
12.00	1.50	59.73	1.50				
12.25	0.59	61.02	0.59				
12.50	0.38	59.37	0.38				
12.75	0.22	59.29	0.22				
13.00	0.18	59.26	0.18				
13.25	0.14	59.24	0.14				
13.50	0.11	59.22	0.11				
13.75	0.10	59.21	0.10				
14.00	0.09	59.20	0.09				
14.25	0.08	59.20	0.08				
14.50	0.07	59.19	0.07				
14.75	0.07	59.18	0.07				
15.00	0.06	59.18	0.06				
15.25	0.06	59.17	0.06				
15.50	0.05	59.17	0.05				
15.75	0.05	59.17	0.05				
16.00	0.05	59.17	0.05				
16.25	0.05	59.16	0.05				
16.50	0.05	59.16	0.05				
16.75	0.04	59.16	0.04				
17.00	0.04	59.16	0.04				
17.25	0.04	59.15	0.04				
17.50	0.04	59.15	0.04				
17.75	0.04	59.15	0.04				

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NOAA 24-hr C 10-Year Rainfall=5.20"

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Stage-Area-Storage for Pond 9P: I-2

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
59.06	0.000	60.10	0.000	61.14	0.000
59.08	0.000	60.12	0.000	61.16	0.000
59.10	0.000	60.14	0.000	61.18	0.000
59.12	0.000	60.16	0.000	61.20	0.000
59.14	0.000	60.18	0.000	61.22	0.000
59.16	0.000	60.20	0.000	61.24	0.000
59.18	0.000	60.22	0.000	61.26	0.000
59.20	0.000	60.24	0.000	61.28	0.000
59.22	0.000	60.26	0.000	61.30	0.000
59.24	0.000	60.28	0.000	61.32	0.000
59.26	0.000	60.30	0.000	61.34	0.000
59.28	0.000	60.32	0.000	61.36	0.000
59.30	0.000	60.34	0.000	61.38	0.000
59.32	0.000	60.36	0.000	61.40	0.000
59.34	0.000	60.38	0.000	61.42	0.000
59.36	0.000	60.40	0.000	61.44	0.000
59.38	0.000	60.42	0.000	61.46	0.000
59.40	0.000	60.44	0.000	61.48	0.000
59.42	0.000	60.46	0.000	61.50	0.000
59.44	0.000	60.48	0.000		
59.46	0.000	60.50	0.000		
59.48	0.000	60.52	0.000		
59.50	0.000	60.54	0.000		
59.52	0.000	60.56	0.000		
59.54	0.000	60.58	0.000		
59.56	0.000	60.60	0.000		
59.58	0.000	60.62	0.000		
59.60	0.000	60.64	0.000		
59.62	0.000	60.66	0.000		
59.64	0.000	60.68	0.000		
59.66	0.000	60.70	0.000		
59.68	0.000	60.72	0.000		
59.70	0.000	60.74	0.000		
59.72	0.000	60.76	0.000		
59.74	0.000	60.78	0.000		
59.76	0.000	60.80	0.000		
59.78	0.000	60.82	0.000		
59.80	0.000	60.84	0.000		
59.82	0.000	60.86	0.000		
59.84	0.000	60.88	0.000		
59.86	0.000	60.90	0.000		
59.88	0.000	60.92	0.000		
59.90	0.000	60.94	0.000		
59.92	0.000	60.96	0.000		
59.94	0.000	60.98	0.000		
59.96	0.000	61.00	0.000		
59.98	0.000	61.02	0.000		
60.00	0.000	61.04	0.000		
60.02	0.000	61.06	0.000		
60.04	0.000	61.08	0.000		
60.06	0.000	61.10	0.000		
60.08	0.000	61.12	0.000		

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Summary for Pond 17P: SGW FOREBAY #1

Inflow Area = 2.458 ac, 76.90% Impervious, Inflow Depth > 4.18" for 10-Year event
 Inflow = 13.60 cfs @ 12.07 hrs, Volume= 0.856 af
 Outflow = 10.43 cfs @ 12.06 hrs, Volume= 0.820 af, Atten= 23%, Lag= 0.0 min
 Primary = 10.43 cfs @ 12.06 hrs, Volume= 0.820 af
 Routed to Pond 18P : SGW #1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 57.33' @ 12.29 hrs Surf.Area= 2,365 sf Storage= 4,077 cf

Plug-Flow detention time= 41.1 min calculated for 0.817 af (95% of inflow)
 Center-of-Mass det. time= 24.1 min (768.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	55.08'	5,991 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
55.08	1,261	0	0
58.08	2,733	5,991	5,991

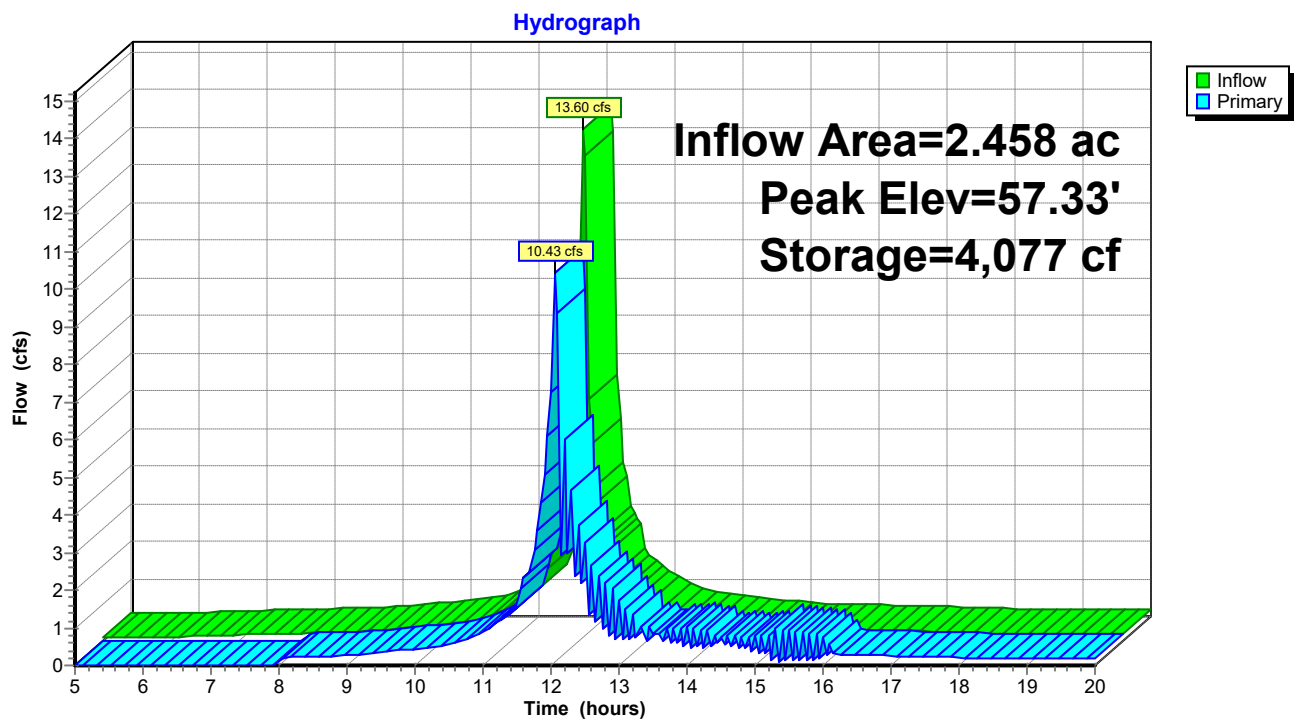
Device	Routing	Invert	Outlet Devices
#1	Primary	56.08'	60.0' long + 3.0 ' SideZ x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 12.06 hrs HW=56.72' TW=57.00' (Dynamic Tailwater)
 ↑1=**Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

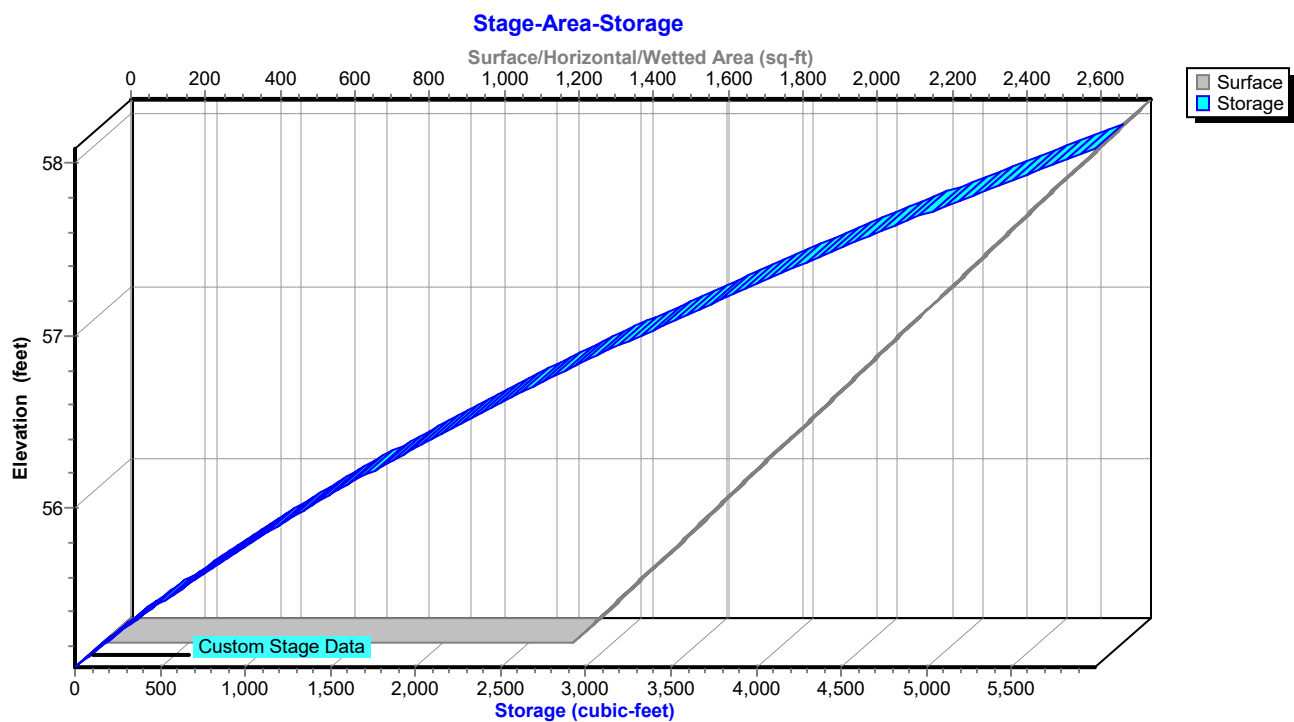
Pond 17P: SGW FOREBAY #1

Broad-Crested Rectangular Weir

Pond 17P: SGW FOREBAY #1



Pond 17P: SGW FOREBAY #1



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NOAA 24-hr C 10-Year Rainfall=5.20"

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Hydrograph for Pond 17P: SGW FOREBAY #1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.09	8	55.09	0.00
5.50	0.10	173	55.21	0.00
6.00	0.11	361	55.35	0.00
6.50	0.13	580	55.50	0.00
7.00	0.16	841	55.68	0.00
7.50	0.18	1,148	55.87	0.00
8.00	0.21	1,503	56.08	0.00
8.50	0.24	1,531	56.09	0.24
9.00	0.27	1,533	56.09	0.27
9.50	0.35	1,538	56.10	0.35
10.00	0.44	1,543	56.10	0.44
10.50	0.54	1,548	56.10	0.54
11.00	0.88	1,564	56.11	0.88
11.50	1.59	1,592	56.13	1.56
12.00	8.95	2,168	56.44	7.26
12.50	2.47	3,924	57.26	3.28
13.00	1.13	3,616	57.13	1.73
13.50	0.71	3,379	57.02	0.83
14.00	0.56	3,053	56.87	1.00
14.50	0.47	2,700	56.71	0.72
15.00	0.37	2,327	56.52	0.80
15.50	0.33	1,959	56.33	0.91
16.00	0.31	1,625	56.15	0.75
16.50	0.28	1,534	56.10	0.28
17.00	0.26	1,532	56.09	0.26
17.50	0.23	1,530	56.09	0.23
18.00	0.21	1,529	56.09	0.21
18.50	0.20	1,528	56.09	0.20
19.00	0.19	1,527	56.09	0.19
19.50	0.19	1,527	56.09	0.19
20.00	0.18	1,526	56.09	0.18

EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

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Stage-Area-Storage for Pond 17P: SGW FOREBAY #1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
55.08	1,261	0	57.68	2,537	4,937
55.13	1,286	64	57.73	2,561	5,065
55.18	1,310	129	57.78	2,586	5,193
55.23	1,335	195	57.83	2,610	5,323
55.28	1,359	262	57.88	2,635	5,454
55.33	1,384	331	57.93	2,659	5,587
55.38	1,408	400	57.98	2,684	5,720
55.43	1,433	471	58.03	2,708	5,855
55.48	1,457	544	58.08	2,733	5,991
55.53	1,482	617			
55.58	1,506	692			
55.63	1,531	768			
55.68	1,555	845			
55.73	1,580	923			
55.78	1,604	1,003			
55.83	1,629	1,084			
55.88	1,654	1,166			
55.93	1,678	1,249			
55.98	1,703	1,334			
56.03	1,727	1,419			
56.08	1,752	1,506			
56.13	1,776	1,595			
56.18	1,801	1,684			
56.23	1,825	1,775			
56.28	1,850	1,866			
56.33	1,874	1,960			
56.38	1,899	2,054			
56.43	1,923	2,149			
56.48	1,948	2,246			
56.53	1,972	2,344			
56.58	1,997	2,444			
56.63	2,022	2,544			
56.68	2,046	2,646			
56.73	2,071	2,749			
56.78	2,095	2,853			
56.83	2,120	2,958			
56.88	2,144	3,065			
56.93	2,169	3,173			
56.98	2,193	3,282			
57.03	2,218	3,392			
57.08	2,242	3,503			
57.13	2,267	3,616			
57.18	2,291	3,730			
57.23	2,316	3,845			
57.28	2,340	3,962			
57.33	2,365	4,079			
57.38	2,390	4,198			
57.43	2,414	4,318			
57.48	2,439	4,440			
57.53	2,463	4,562			
57.58	2,488	4,686			
57.63	2,512	4,811			

EX and PR

NOAA 24-hr C 10-Year Rainfall=5.20"

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Summary for Pond 18P: SGW #1

Inflow Area = 2.672 ac, 72.01% Impervious, Inflow Depth > 3.93" for 10-Year event
 Inflow = 11.46 cfs @ 12.06 hrs, Volume= 0.875 af
 Outflow = 4.70 cfs @ 12.24 hrs, Volume= 0.875 af, Atten= 59%, Lag= 10.6 min
 Primary = 4.70 cfs @ 12.24 hrs, Volume= 0.875 af
 Routed to Link 2L : SP#1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 57.33' @ 12.24 hrs Surf.Area= 5,819 sf Storage= 11,240 cf

Plug-Flow detention time= 67.8 min calculated for 0.875 af (100% of inflow)
 Center-of-Mass det. time= 67.8 min (836.1 - 768.3)

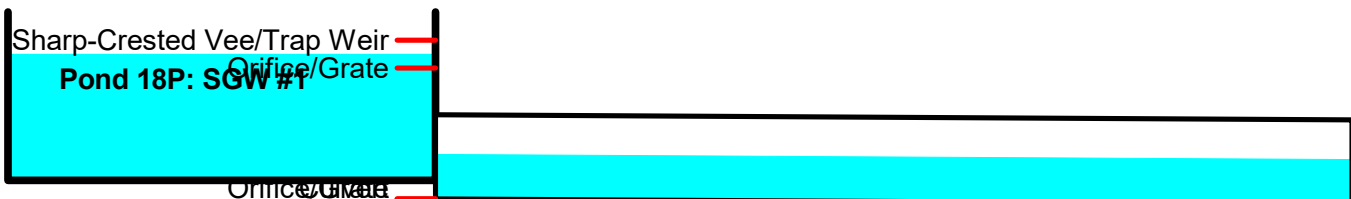
Volume	Invert	Avail.Storage	Storage Description
#1	55.08'	15,815 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
55.08	4,176	0	0
58.08	6,367	15,815	15,815

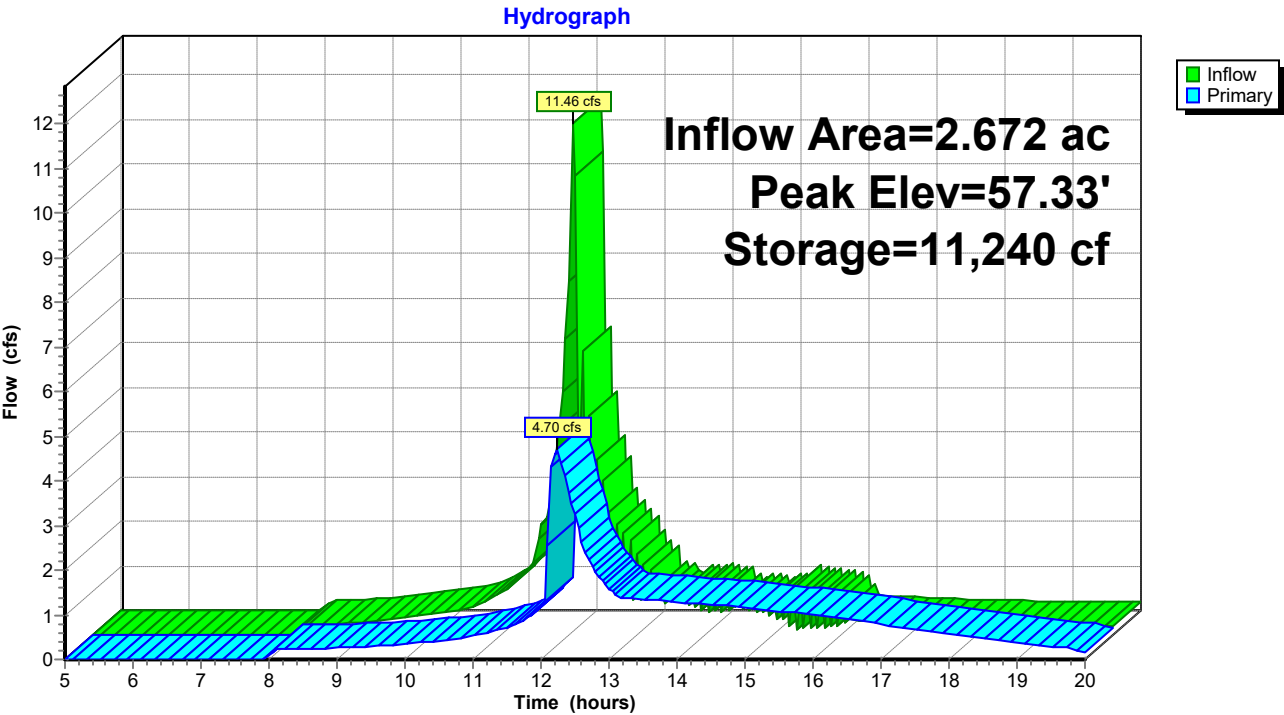
Device	Routing	Invert	Outlet Devices
#1	Primary	54.75'	18.0" Round Culvert L= 96.5' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 54.75' / 54.66' S= 0.0009 ' S= 0.0009 ' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	57.08'	2.0" x 1.0" Horiz. Orifice/Grate X 10.00 columns X 20 rows C= 0.600 in 24.0" x 24.0" Grate (69% open area) Limited to weir flow at low heads
#3	Device 1	54.75'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	57.58'	20.0 deg x 10.0' long x 0.50' rise Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)

Primary OutFlow Max=4.67 cfs @ 12.24 hrs HW=57.33' TW=0.00' (Dynamic Tailwater)

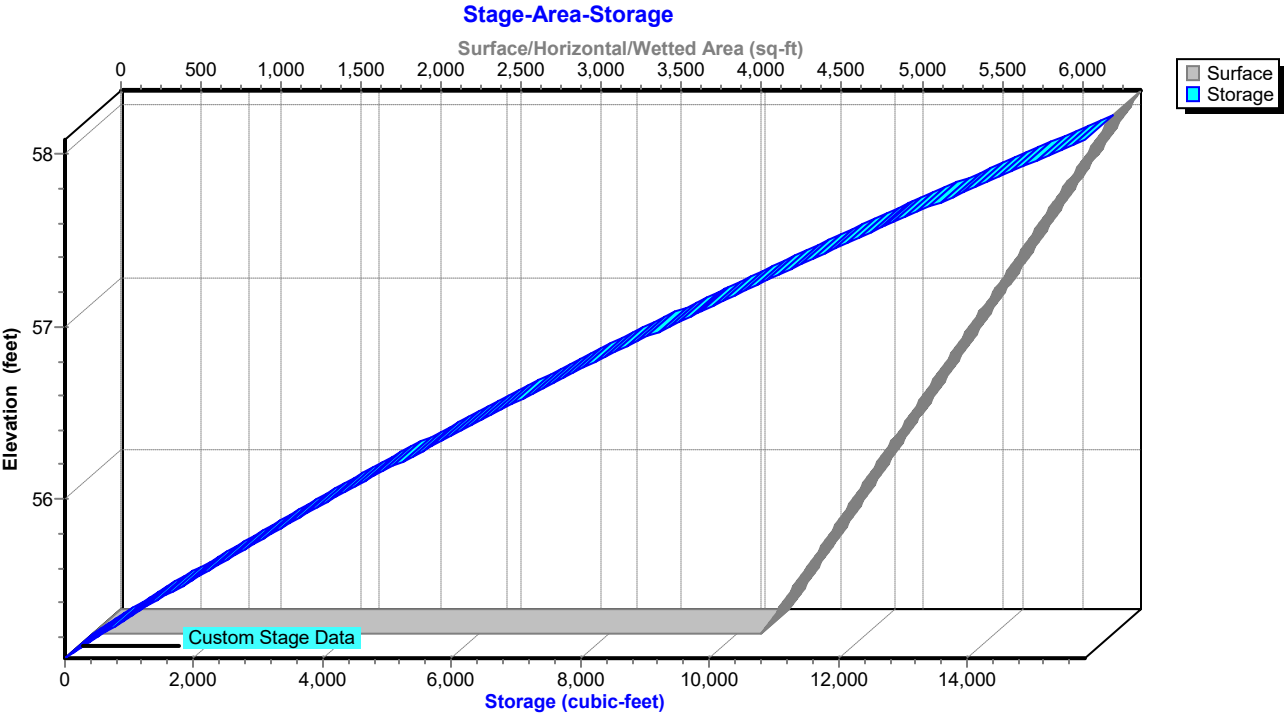
1=Culvert (Passes 4.67 cfs of 8.84 cfs potential flow)
 2=Orifice/Grate (Weir Controls 3.22 cfs @ 1.63 fps)
 3=Orifice/Grate (Orifice Controls 1.44 cfs @ 7.35 fps)
 4=Sharp-Crested Vee/Trap Weir (Controls 0.00 cfs)



Pond 18P: SGW #1



Pond 18P: SGW #1



EX and PR

NOAA 24-hr C 10-Year Rainfall=5.20"

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Hydrograph for Pond 18P: SGW #1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	55.08	0.00
5.50	0.00	0	55.08	0.00
6.00	0.00	0	55.08	0.00
6.50	0.00	0	55.08	0.00
7.00	0.00	0	55.08	0.00
7.50	0.00	0	55.08	0.00
8.00	0.00	0	55.08	0.00
8.50	0.24	1	55.08	0.24
9.00	0.28	17	55.08	0.26
9.50	0.36	104	55.10	0.29
10.00	0.46	264	55.14	0.35
10.50	0.57	488	55.20	0.42
11.00	0.93	978	55.31	0.53
11.50	1.66	2,154	55.57	0.72
12.00	7.92	7,430	56.65	1.21
12.50	3.46	10,780	57.25	3.25
13.00	1.82	10,037	57.12	1.58
13.50	0.88	9,446	57.01	1.34
14.00	1.05	8,583	56.86	1.29
14.50	0.76	7,661	56.69	1.23
15.00	0.83	6,681	56.50	1.16
15.50	0.94	5,692	56.31	1.08
16.00	0.78	4,770	56.13	1.00
16.50	0.31	3,716	55.91	0.90
17.00	0.28	2,721	55.70	0.79
17.50	0.25	1,879	55.51	0.68
18.00	0.23	1,191	55.36	0.57
18.50	0.21	662	55.24	0.46
19.00	0.21	299	55.15	0.36
19.50	0.20	87	55.10	0.28
20.00	0.19	0	55.08	0.17

EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

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Stage-Area-Storage for Pond 18P: SGW #1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
55.08	4,176	0	57.68	6,075	13,326
55.13	4,213	210	57.73	6,111	13,631
55.18	4,249	421	57.78	6,148	13,937
55.23	4,286	635	57.83	6,184	14,246
55.28	4,322	850	57.88	6,221	14,556
55.33	4,359	1,067	57.93	6,257	14,868
55.38	4,395	1,286	57.98	6,294	15,181
55.43	4,432	1,506	58.03	6,330	15,497
55.48	4,468	1,729	58.08	6,367	15,815
55.53	4,505	1,953			
55.58	4,541	2,179			
55.63	4,578	2,407			
55.68	4,614	2,637			
55.73	4,651	2,869			
55.78	4,687	3,102			
55.83	4,724	3,337			
55.88	4,760	3,575			
55.93	4,797	3,813			
55.98	4,833	4,054			
56.03	4,870	4,297			
56.08	4,906	4,541			
56.13	4,943	4,787			
56.18	4,979	5,035			
56.23	5,016	5,285			
56.28	5,052	5,537			
56.33	5,089	5,791			
56.38	5,125	6,046			
56.43	5,162	6,303			
56.48	5,198	6,562			
56.53	5,235	6,823			
56.58	5,272	7,086			
56.63	5,308	7,350			
56.68	5,345	7,616			
56.73	5,381	7,885			
56.78	5,418	8,155			
56.83	5,454	8,426			
56.88	5,491	8,700			
56.93	5,527	8,975			
56.98	5,564	9,253			
57.03	5,600	9,532			
57.08	5,637	9,813			
57.13	5,673	10,095			
57.18	5,710	10,380			
57.23	5,746	10,666			
57.28	5,783	10,955			
57.33	5,819	11,245			
57.38	5,856	11,537			
57.43	5,892	11,830			
57.48	5,929	12,126			
57.53	5,965	12,423			
57.58	6,002	12,722			
57.63	6,038	13,023			

EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

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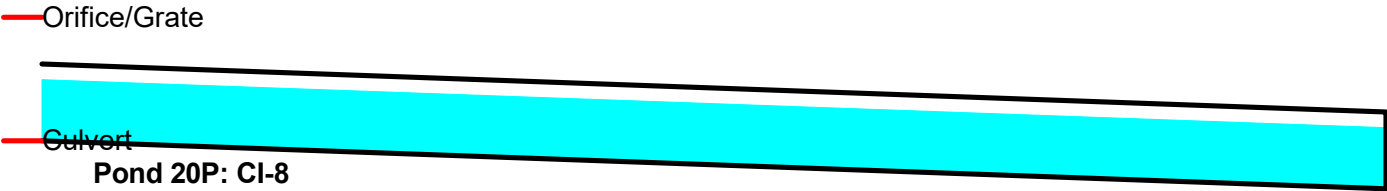
Summary for Pond 20P: CI-8

Inflow Area = 0.753 ac, 42.32% Impervious, Inflow Depth > 3.57" for 10-Year event
Inflow = 3.55 cfs @ 12.12 hrs, Volume= 0.224 af
Outflow = 3.55 cfs @ 12.12 hrs, Volume= 0.224 af, Atten= 0%, Lag= 0.0 min
Primary = 3.55 cfs @ 12.12 hrs, Volume= 0.224 af
Routed to Link 2L : SP#1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.77' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	58.79'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	56.78'	15.0" Round Culvert L= 75.5' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 56.78' / 56.00' S= 0.0103 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=3.43 cfs @ 12.12 hrs HW=57.75' TW=0.00' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Inlet Controls 3.43 cfs @ 3.35 fps)



EX and PR

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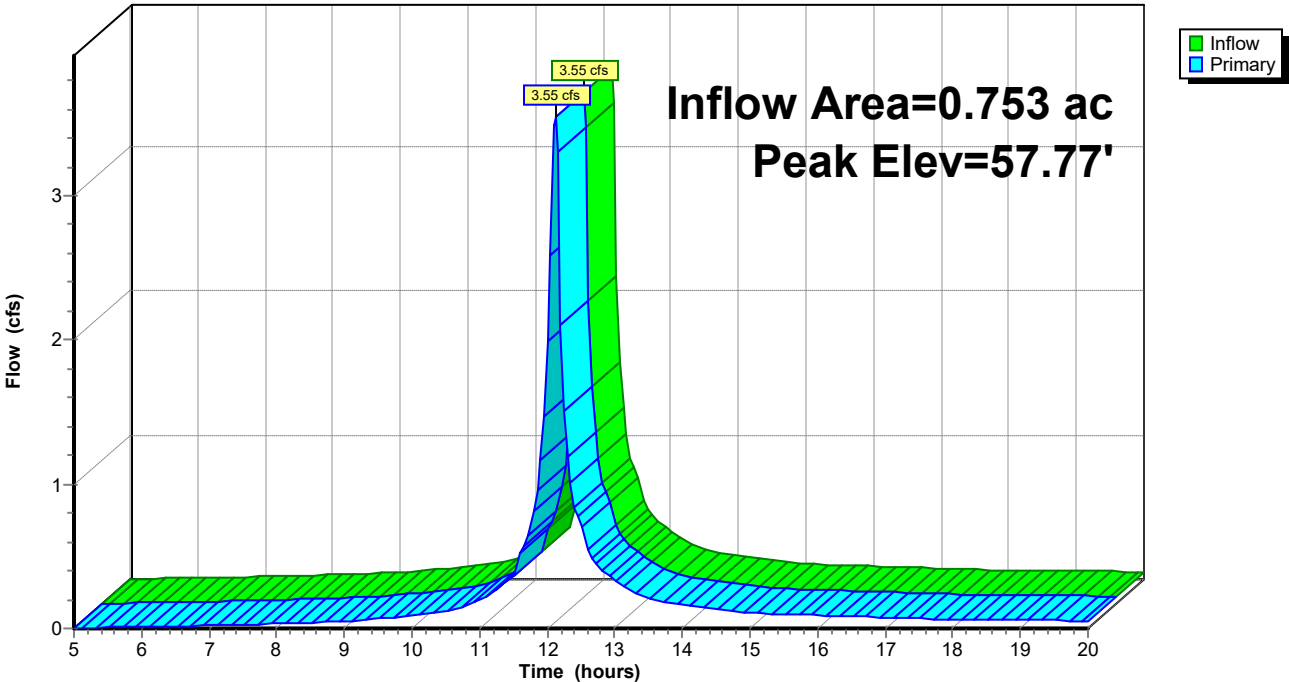
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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

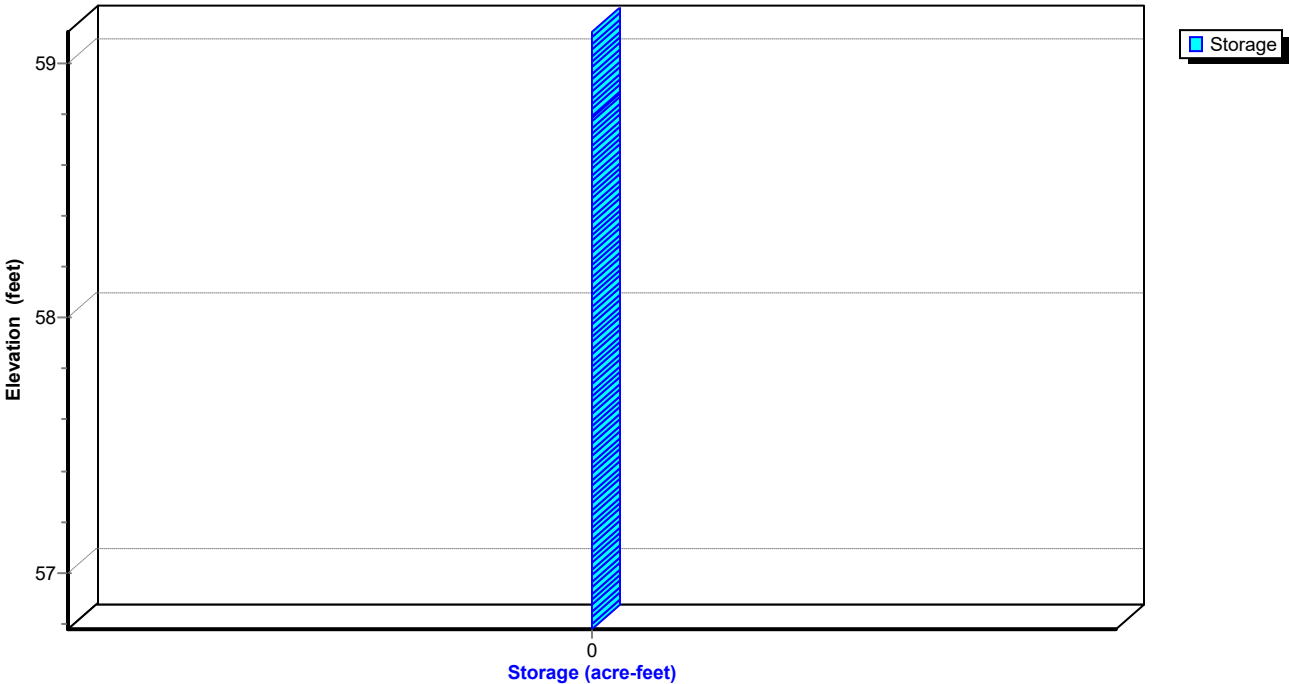
Pond 20P: CI-8

Hydrograph



Pond 20P: CI-8

Stage-Area-Storage



EX and PR

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Hydrograph for Pond 20P: CI-8

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	56.81	0.00	18.00	0.06	56.89	0.06
5.25	0.01	56.81	0.01	18.25	0.06	56.89	0.06
5.50	0.01	56.82	0.01	18.50	0.06	56.89	0.06
5.75	0.01	56.82	0.01	18.75	0.06	56.89	0.06
6.00	0.01	56.83	0.01	19.00	0.06	56.89	0.06
6.25	0.01	56.83	0.01	19.25	0.06	56.89	0.06
6.50	0.01	56.84	0.01	19.50	0.05	56.89	0.05
6.75	0.02	56.84	0.02	19.75	0.05	56.88	0.05
7.00	0.02	56.84	0.02	20.00	0.05	56.88	0.05
7.25	0.02	56.85	0.02				
7.50	0.03	56.85	0.03				
7.75	0.03	56.86	0.03				
8.00	0.03	56.86	0.03				
8.25	0.04	56.87	0.04				
8.50	0.04	56.87	0.04				
8.75	0.04	56.87	0.04				
9.00	0.05	56.88	0.05				
9.25	0.06	56.89	0.06				
9.50	0.07	56.90	0.07				
9.75	0.08	56.91	0.08				
10.00	0.09	56.91	0.09				
10.25	0.10	56.92	0.10				
10.50	0.11	56.93	0.11				
10.75	0.15	56.96	0.15				
11.00	0.19	56.98	0.19				
11.25	0.27	57.02	0.27				
11.50	0.36	57.05	0.36				
11.75	0.68	57.17	0.68				
12.00	2.00	57.48	2.00				
12.25	1.51	57.37	1.51				
12.50	0.74	57.18	0.74				
12.75	0.44	57.09	0.44				
13.00	0.34	57.05	0.34				
13.25	0.26	57.02	0.26				
13.50	0.21	56.99	0.21				
13.75	0.18	56.97	0.18				
14.00	0.16	56.96	0.16				
14.25	0.15	56.96	0.15				
14.50	0.14	56.95	0.14				
14.75	0.12	56.94	0.12				
15.00	0.11	56.93	0.11				
15.25	0.10	56.92	0.10				
15.50	0.10	56.92	0.10				
15.75	0.09	56.92	0.09				
16.00	0.09	56.92	0.09				
16.25	0.09	56.91	0.09				
16.50	0.08	56.91	0.08				
16.75	0.08	56.91	0.08				
17.00	0.08	56.90	0.08				
17.25	0.07	56.90	0.07				
17.50	0.07	56.90	0.07				
17.75	0.07	56.90	0.07				

EX and PR

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Stage-Area-Storage for Pond 20P: CI-8

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
56.78	0.000	57.82	0.000	58.86	0.000
56.80	0.000	57.84	0.000	58.88	0.000
56.82	0.000	57.86	0.000	58.90	0.000
56.84	0.000	57.88	0.000	58.92	0.000
56.86	0.000	57.90	0.000	58.94	0.000
56.88	0.000	57.92	0.000	58.96	0.000
56.90	0.000	57.94	0.000	58.98	0.000
56.92	0.000	57.96	0.000	59.00	0.000
56.94	0.000	57.98	0.000	59.02	0.000
56.96	0.000	58.00	0.000	59.04	0.000
56.98	0.000	58.02	0.000	59.06	0.000
57.00	0.000	58.04	0.000	59.08	0.000
57.02	0.000	58.06	0.000	59.10	0.000
57.04	0.000	58.08	0.000	59.12	0.000
57.06	0.000	58.10	0.000		
57.08	0.000	58.12	0.000		
57.10	0.000	58.14	0.000		
57.12	0.000	58.16	0.000		
57.14	0.000	58.18	0.000		
57.16	0.000	58.20	0.000		
57.18	0.000	58.22	0.000		
57.20	0.000	58.24	0.000		
57.22	0.000	58.26	0.000		
57.24	0.000	58.28	0.000		
57.26	0.000	58.30	0.000		
57.28	0.000	58.32	0.000		
57.30	0.000	58.34	0.000		
57.32	0.000	58.36	0.000		
57.34	0.000	58.38	0.000		
57.36	0.000	58.40	0.000		
57.38	0.000	58.42	0.000		
57.40	0.000	58.44	0.000		
57.42	0.000	58.46	0.000		
57.44	0.000	58.48	0.000		
57.46	0.000	58.50	0.000		
57.48	0.000	58.52	0.000		
57.50	0.000	58.54	0.000		
57.52	0.000	58.56	0.000		
57.54	0.000	58.58	0.000		
57.56	0.000	58.60	0.000		
57.58	0.000	58.62	0.000		
57.60	0.000	58.64	0.000		
57.62	0.000	58.66	0.000		
57.64	0.000	58.68	0.000		
57.66	0.000	58.70	0.000		
57.68	0.000	58.72	0.000		
57.70	0.000	58.74	0.000		
57.72	0.000	58.76	0.000		
57.74	0.000	58.78	0.000		
57.76	0.000	58.80	0.000		
57.78	0.000	58.82	0.000		
57.80	0.000	58.84	0.000		

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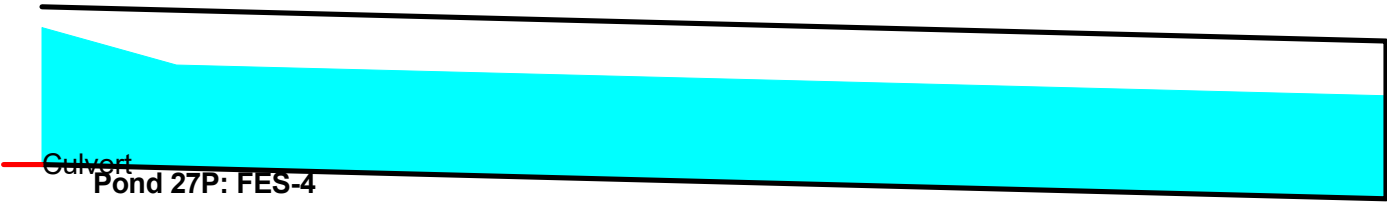
Summary for Pond 27P: FES-4

Inflow Area = 0.667 ac, 39.09% Impervious, Inflow Depth > 3.51" for 10-Year event
Inflow = 3.10 cfs @ 12.12 hrs, Volume= 0.195 af
Outflow = 3.10 cfs @ 12.12 hrs, Volume= 0.195 af, Atten= 0%, Lag= 0.0 min
Primary = 3.10 cfs @ 12.12 hrs, Volume= 0.195 af
Routed to Pond 20P : CI-8

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 58.13' @ 12.14 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	57.05'	15.0" Round Culvert L= 25.5' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 57.05' / 56.78' S= 0.0106 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.69 cfs @ 12.12 hrs HW=58.09' TW=57.75' (Dynamic Tailwater)
↑**1=Culvert** (Outlet Controls 2.69 cfs @ 3.36 fps)



EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

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Hydrograph for Pond 27P: FES-4

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	57.07	0.00	18.00	0.05	57.16	0.05
5.25	0.00	57.08	0.00	18.25	0.05	57.16	0.05
5.50	0.00	57.08	0.00	18.50	0.05	57.16	0.05
5.75	0.01	57.09	0.01	18.75	0.05	57.16	0.05
6.00	0.01	57.09	0.01	19.00	0.05	57.16	0.05
6.25	0.01	57.10	0.01	19.25	0.05	57.15	0.05
6.50	0.01	57.10	0.01	19.50	0.05	57.15	0.05
6.75	0.01	57.10	0.01	19.75	0.05	57.15	0.05
7.00	0.02	57.11	0.02	20.00	0.05	57.15	0.05
7.25	0.02	57.11	0.02				
7.50	0.02	57.12	0.02				
7.75	0.02	57.12	0.02				
8.00	0.03	57.13	0.03				
8.25	0.03	57.13	0.03				
8.50	0.03	57.14	0.03				
8.75	0.04	57.14	0.04				
9.00	0.04	57.14	0.04				
9.25	0.05	57.15	0.05				
9.50	0.06	57.16	0.06				
9.75	0.06	57.17	0.06				
10.00	0.08	57.18	0.08				
10.25	0.09	57.19	0.09				
10.50	0.10	57.20	0.10				
10.75	0.13	57.22	0.13				
11.00	0.17	57.25	0.17				
11.25	0.23	57.28	0.23				
11.50	0.31	57.32	0.31				
11.75	0.59	57.44	0.59				
12.00	1.72	57.76	1.72				
12.25	1.36	57.75	1.36				
12.50	0.65	57.47	0.65				
12.75	0.39	57.36	0.39				
13.00	0.30	57.32	0.30				
13.25	0.23	57.29	0.23				
13.50	0.19	57.26	0.19				
13.75	0.16	57.24	0.16				
14.00	0.15	57.23	0.15				
14.25	0.13	57.22	0.13				
14.50	0.12	57.22	0.12				
14.75	0.11	57.21	0.11				
15.00	0.10	57.20	0.10				
15.25	0.09	57.19	0.09				
15.50	0.09	57.19	0.09				
15.75	0.08	57.19	0.08				
16.00	0.08	57.18	0.08				
16.25	0.08	57.18	0.08				
16.50	0.07	57.18	0.07				
16.75	0.07	57.18	0.07				
17.00	0.07	57.17	0.07				
17.25	0.06	57.17	0.06				
17.50	0.06	57.17	0.06				
17.75	0.06	57.16	0.06				

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NOAA 24-hr C 10-Year Rainfall=5.20"

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Stage-Area-Storage for Pond 27P: FES-4

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
57.05	0.000	57.57	0.000	58.09	0.000
57.06	0.000	57.58	0.000	58.10	0.000
57.07	0.000	57.59	0.000	58.11	0.000
57.08	0.000	57.60	0.000	58.12	0.000
57.09	0.000	57.61	0.000	58.13	0.000
57.10	0.000	57.62	0.000	58.14	0.000
57.11	0.000	57.63	0.000	58.15	0.000
57.12	0.000	57.64	0.000	58.16	0.000
57.13	0.000	57.65	0.000	58.17	0.000
57.14	0.000	57.66	0.000	58.18	0.000
57.15	0.000	57.67	0.000	58.19	0.000
57.16	0.000	57.68	0.000	58.20	0.000
57.17	0.000	57.69	0.000	58.21	0.000
57.18	0.000	57.70	0.000	58.22	0.000
57.19	0.000	57.71	0.000	58.23	0.000
57.20	0.000	57.72	0.000	58.24	0.000
57.21	0.000	57.73	0.000	58.25	0.000
57.22	0.000	57.74	0.000	58.26	0.000
57.23	0.000	57.75	0.000	58.27	0.000
57.24	0.000	57.76	0.000	58.28	0.000
57.25	0.000	57.77	0.000	58.29	0.000
57.26	0.000	57.78	0.000	58.30	0.000
57.27	0.000	57.79	0.000		
57.28	0.000	57.80	0.000		
57.29	0.000	57.81	0.000		
57.30	0.000	57.82	0.000		
57.31	0.000	57.83	0.000		
57.32	0.000	57.84	0.000		
57.33	0.000	57.85	0.000		
57.34	0.000	57.86	0.000		
57.35	0.000	57.87	0.000		
57.36	0.000	57.88	0.000		
57.37	0.000	57.89	0.000		
57.38	0.000	57.90	0.000		
57.39	0.000	57.91	0.000		
57.40	0.000	57.92	0.000		
57.41	0.000	57.93	0.000		
57.42	0.000	57.94	0.000		
57.43	0.000	57.95	0.000		
57.44	0.000	57.96	0.000		
57.45	0.000	57.97	0.000		
57.46	0.000	57.98	0.000		
57.47	0.000	57.99	0.000		
57.48	0.000	58.00	0.000		
57.49	0.000	58.01	0.000		
57.50	0.000	58.02	0.000		
57.51	0.000	58.03	0.000		
57.52	0.000	58.04	0.000		
57.53	0.000	58.05	0.000		
57.54	0.000	58.06	0.000		
57.55	0.000	58.07	0.000		
57.56	0.000	58.08	0.000		

EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

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Summary for Pond 37P: CI-4

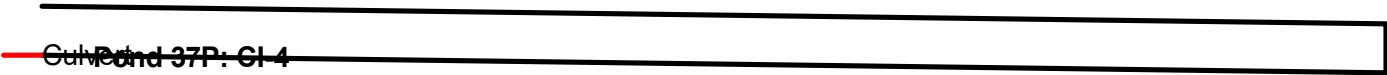
Inflow Area = 0.214 ac, 70.69% Impervious, Inflow Depth > 4.11" for 10-Year event
Inflow = 1.25 cfs @ 12.07 hrs, Volume= 0.073 af
Outflow = 1.25 cfs @ 12.07 hrs, Volume= 0.073 af, Atten= 0%, Lag= 0.0 min
Primary = 1.25 cfs @ 12.07 hrs, Volume= 0.073 af
Routed to Pond 17P : SGW FOREBAY #1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.33' @ 12.34 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	59.64'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	55.53'	15.0" Round Culvert L= 89.2' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 55.53' / 55.08' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.07 hrs HW=56.61' TW=56.75' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Controls 0.00 cfs)

Orifice/Grate



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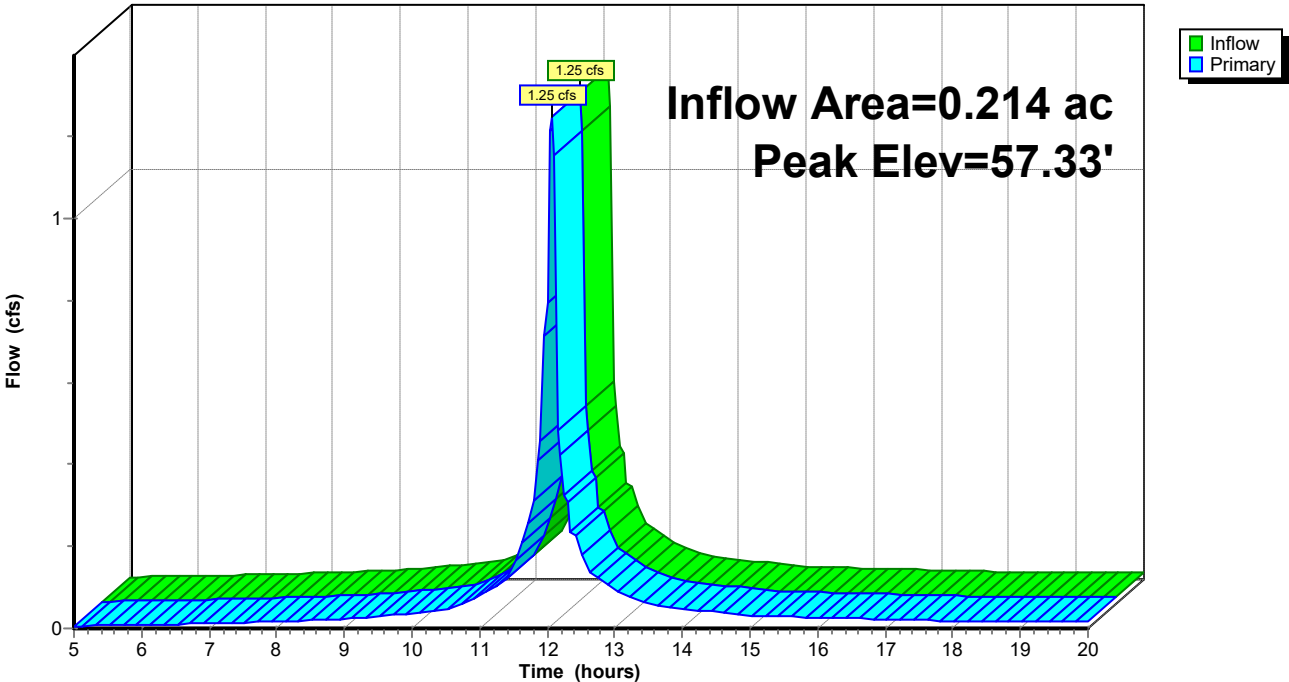
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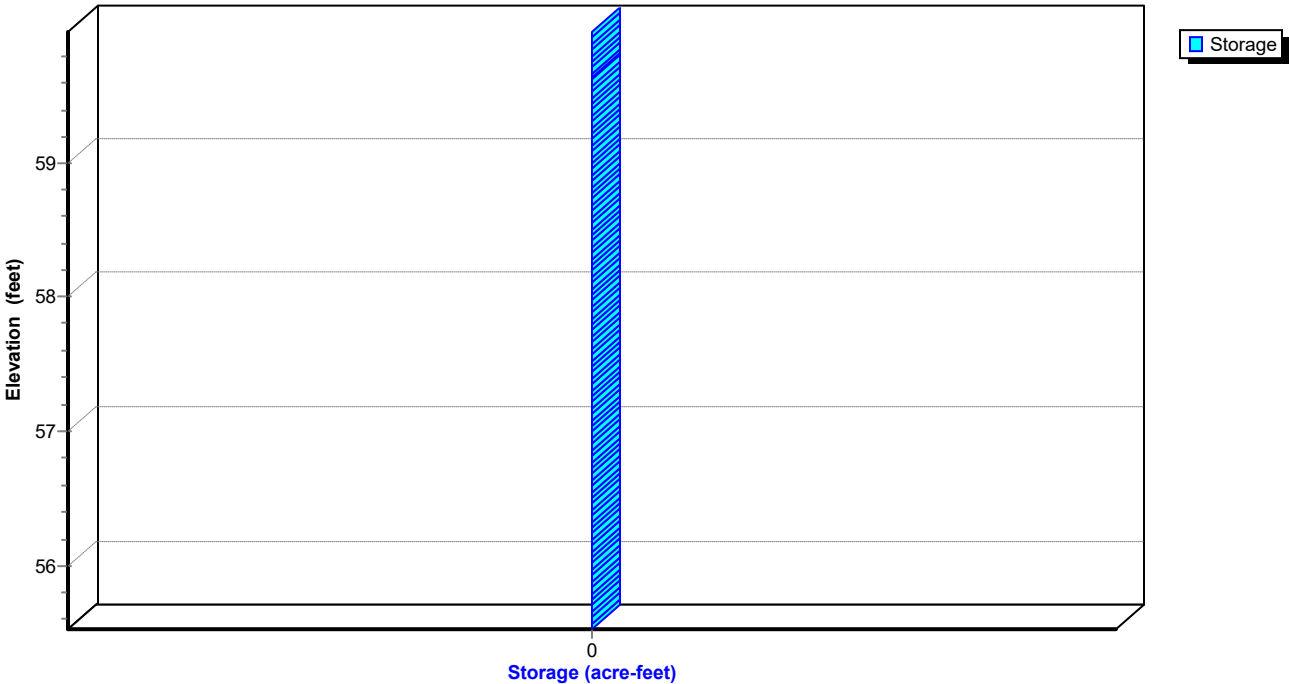
Pond 37P: CI-4

Hydrograph



Pond 37P: CI-4

Stage-Area-Storage



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NOAA 24-hr C 10-Year Rainfall=5.20"

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Hydrograph for Pond 37P: CI-4

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.01	55.57	0.01	18.00	0.02	56.09	0.02
5.25	0.01	55.58	0.01	18.25	0.02	56.09	0.02
5.50	0.01	55.58	0.01	18.50	0.02	56.09	0.02
5.75	0.01	55.58	0.01	18.75	0.02	56.09	0.02
6.00	0.01	55.59	0.01	19.00	0.02	56.09	0.02
6.25	0.01	55.60	0.01	19.25	0.02	56.09	0.02
6.50	0.01	55.61	0.01	19.50	0.02	56.09	0.02
6.75	0.01	55.63	0.01	19.75	0.02	56.09	0.02
7.00	0.01	55.67	0.01	20.00	0.02	56.09	0.02
7.25	0.01	55.75	0.01				
7.50	0.01	55.85	0.01				
7.75	0.02	55.95	0.02				
8.00	0.02	56.06	0.02				
8.25	0.02	56.09	0.02				
8.50	0.02	56.09	0.02				
8.75	0.02	56.09	0.02				
9.00	0.02	56.10	0.02				
9.25	0.03	56.10	0.03				
9.50	0.03	56.10	0.03				
9.75	0.03	56.10	0.03				
10.00	0.04	56.10	0.04				
10.25	0.04	56.10	0.04				
10.50	0.05	56.10	0.05				
10.75	0.06	56.11	0.06				
11.00	0.08	56.11	0.08				
11.25	0.11	56.12	0.11				
11.50	0.14	56.13	0.14				
11.75	0.29	56.17	0.29				
12.00	0.80	56.36	0.80				
12.25	0.32	57.31	0.32				
12.50	0.21	57.28	0.21				
12.75	0.12	57.19	0.12				
13.00	0.10	57.14	0.10				
13.25	0.07	57.09	0.07				
13.50	0.06	57.04	0.06				
13.75	0.05	56.97	0.05				
14.00	0.05	56.89	0.05				
14.25	0.04	56.81	0.04				
14.50	0.04	56.72	0.04				
14.75	0.04	56.63	0.04				
15.00	0.03	56.54	0.03				
15.25	0.03	56.45	0.03				
15.50	0.03	56.35	0.03				
15.75	0.03	56.26	0.03				
16.00	0.03	56.16	0.03				
16.25	0.03	56.10	0.03				
16.50	0.02	56.10	0.02				
16.75	0.02	56.10	0.02				
17.00	0.02	56.09	0.02				
17.25	0.02	56.09	0.02				
17.50	0.02	56.09	0.02				
17.75	0.02	56.09	0.02				

EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

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Stage-Area-Storage for Pond 37P: CI-4

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
55.53	0.000	58.13	0.000
55.58	0.000	58.18	0.000
55.63	0.000	58.23	0.000
55.68	0.000	58.28	0.000
55.73	0.000	58.33	0.000
55.78	0.000	58.38	0.000
55.83	0.000	58.43	0.000
55.88	0.000	58.48	0.000
55.93	0.000	58.53	0.000
55.98	0.000	58.58	0.000
56.03	0.000	58.63	0.000
56.08	0.000	58.68	0.000
56.13	0.000	58.73	0.000
56.18	0.000	58.78	0.000
56.23	0.000	58.83	0.000
56.28	0.000	58.88	0.000
56.33	0.000	58.93	0.000
56.38	0.000	58.98	0.000
56.43	0.000	59.03	0.000
56.48	0.000	59.08	0.000
56.53	0.000	59.13	0.000
56.58	0.000	59.18	0.000
56.63	0.000	59.23	0.000
56.68	0.000	59.28	0.000
56.73	0.000	59.33	0.000
56.78	0.000	59.38	0.000
56.83	0.000	59.43	0.000
56.88	0.000	59.48	0.000
56.93	0.000	59.53	0.000
56.98	0.000	59.58	0.000
57.03	0.000	59.63	0.000
57.08	0.000	59.68	0.000
57.13	0.000	59.73	0.000
57.18	0.000	59.78	0.000
57.23	0.000	59.83	0.000
57.28	0.000	59.88	0.000
57.33	0.000	59.93	0.000
57.38	0.000		
57.43	0.000		
57.48	0.000		
57.53	0.000		
57.58	0.000		
57.63	0.000		
57.68	0.000		
57.73	0.000		
57.78	0.000		
57.83	0.000		
57.88	0.000		
57.93	0.000		
57.98	0.000		
58.03	0.000		
58.08	0.000		

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NOAA 24-hr C 10-Year Rainfall=5.20"
Printed 5/1/2024

Summary for Pond 38P: CI-1

Inflow Area = 1.749 ac, 78.72% Impervious, Inflow Depth > 4.21" for 10-Year event
Inflow = 9.87 cfs @ 12.07 hrs, Volume= 0.613 af
Outflow = 9.87 cfs @ 12.07 hrs, Volume= 0.613 af, Atten= 0%, Lag= 0.0 min
Primary = 9.87 cfs @ 12.07 hrs, Volume= 0.613 af
Routed to Pond 17P : SGW FOREBAY #1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.82' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	61.41'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	55.43'	18.0" Round Culvert L= 46.3' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 55.43' / 55.08' S= 0.0076 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=8.53 cfs @ 12.07 hrs HW=57.74' TW=56.73' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Inlet Controls 8.53 cfs @ 4.83 fps)

Orifice/Grate

Culvert Pond 38P: CI-1

EX and PR

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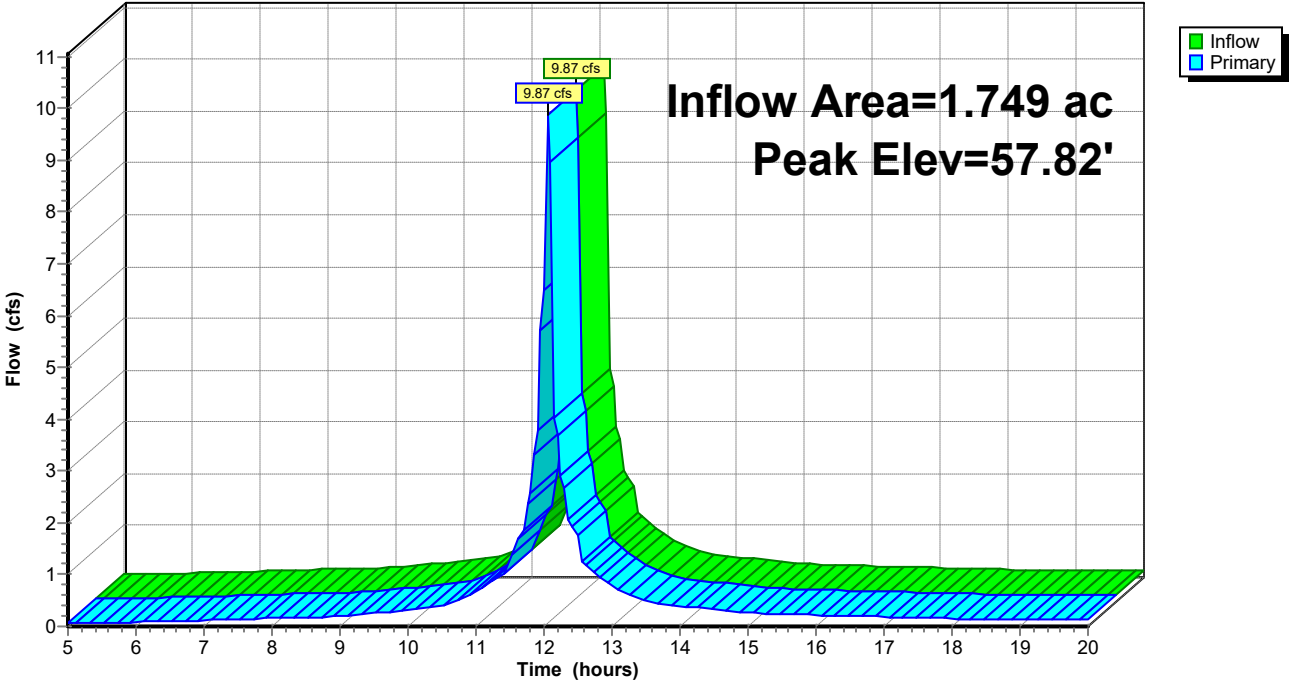
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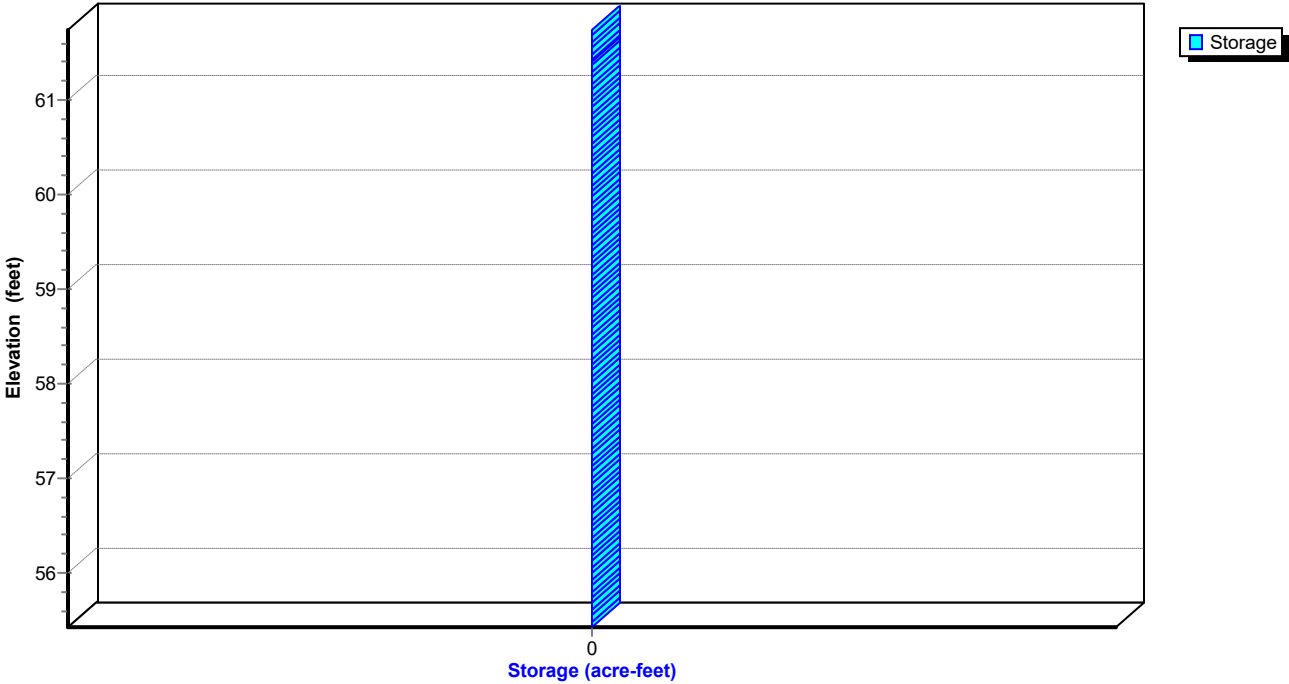
Pond 38P: CI-1

Hydrograph



Pond 38P: CI-1

Stage-Area-Storage



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Hydrograph for Pond 38P: CI-1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.07	55.55	0.07	18.00	0.15	56.10	0.15
5.25	0.07	55.55	0.07	18.25	0.14	56.10	0.14
5.50	0.08	55.56	0.08	18.50	0.14	56.10	0.14
5.75	0.08	55.57	0.08	18.75	0.14	56.10	0.14
6.00	0.08	55.58	0.08	19.00	0.14	56.09	0.14
6.25	0.09	55.60	0.09	19.25	0.13	56.09	0.13
6.50	0.10	55.62	0.10	19.50	0.13	56.09	0.13
6.75	0.11	55.65	0.11	19.75	0.13	56.09	0.13
7.00	0.12	55.70	0.12	20.00	0.13	56.09	0.13
7.25	0.13	55.78	0.13				
7.50	0.14	55.86	0.14				
7.75	0.15	55.96	0.15				
8.00	0.16	56.06	0.16				
8.25	0.17	56.10	0.17				
8.50	0.17	56.10	0.17				
8.75	0.19	56.10	0.19				
9.00	0.20	56.10	0.20				
9.25	0.23	56.10	0.23				
9.50	0.26	56.11	0.26				
9.75	0.29	56.11	0.29				
10.00	0.32	56.11	0.32				
10.25	0.36	56.12	0.36				
10.50	0.39	56.12	0.39				
10.75	0.52	56.14	0.52				
11.00	0.64	56.16	0.64				
11.25	0.89	56.20	0.89				
11.50	1.16	56.24	1.16				
11.75	2.38	56.41	2.38				
12.00	6.50	56.94	6.50				
12.25	2.90	57.43	2.90				
12.50	1.75	57.32	1.75				
12.75	1.02	57.21	1.02				
13.00	0.80	57.14	0.80				
13.25	0.62	57.10	0.62				
13.50	0.50	57.04	0.50				
13.75	0.43	56.97	0.43				
14.00	0.40	56.89	0.40				
14.25	0.36	56.81	0.36				
14.50	0.33	56.73	0.33				
14.75	0.30	56.64	0.30				
15.00	0.26	56.54	0.26				
15.25	0.25	56.45	0.25				
15.50	0.24	56.35	0.24				
15.75	0.23	56.26	0.23				
16.00	0.22	56.17	0.22				
16.25	0.21	56.10	0.21				
16.50	0.20	56.10	0.20				
16.75	0.19	56.10	0.19				
17.00	0.18	56.10	0.18				
17.25	0.17	56.10	0.17				
17.50	0.17	56.10	0.17				
17.75	0.16	56.10	0.16				

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Stage-Area-Storage for Pond 38P: CI-1

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
55.43	0.000	58.03	0.000	60.63	0.000
55.48	0.000	58.08	0.000	60.68	0.000
55.53	0.000	58.13	0.000	60.73	0.000
55.58	0.000	58.18	0.000	60.78	0.000
55.63	0.000	58.23	0.000	60.83	0.000
55.68	0.000	58.28	0.000	60.88	0.000
55.73	0.000	58.33	0.000	60.93	0.000
55.78	0.000	58.38	0.000	60.98	0.000
55.83	0.000	58.43	0.000	61.03	0.000
55.88	0.000	58.48	0.000	61.08	0.000
55.93	0.000	58.53	0.000	61.13	0.000
55.98	0.000	58.58	0.000	61.18	0.000
56.03	0.000	58.63	0.000	61.23	0.000
56.08	0.000	58.68	0.000	61.28	0.000
56.13	0.000	58.73	0.000	61.33	0.000
56.18	0.000	58.78	0.000	61.38	0.000
56.23	0.000	58.83	0.000	61.43	0.000
56.28	0.000	58.88	0.000	61.48	0.000
56.33	0.000	58.93	0.000	61.53	0.000
56.38	0.000	58.98	0.000	61.58	0.000
56.43	0.000	59.03	0.000	61.63	0.000
56.48	0.000	59.08	0.000	61.68	0.000
56.53	0.000	59.13	0.000	61.73	0.000
56.58	0.000	59.18	0.000		
56.63	0.000	59.23	0.000		
56.68	0.000	59.28	0.000		
56.73	0.000	59.33	0.000		
56.78	0.000	59.38	0.000		
56.83	0.000	59.43	0.000		
56.88	0.000	59.48	0.000		
56.93	0.000	59.53	0.000		
56.98	0.000	59.58	0.000		
57.03	0.000	59.63	0.000		
57.08	0.000	59.68	0.000		
57.13	0.000	59.73	0.000		
57.18	0.000	59.78	0.000		
57.23	0.000	59.83	0.000		
57.28	0.000	59.88	0.000		
57.33	0.000	59.93	0.000		
57.38	0.000	59.98	0.000		
57.43	0.000	60.03	0.000		
57.48	0.000	60.08	0.000		
57.53	0.000	60.13	0.000		
57.58	0.000	60.18	0.000		
57.63	0.000	60.23	0.000		
57.68	0.000	60.28	0.000		
57.73	0.000	60.33	0.000		
57.78	0.000	60.38	0.000		
57.83	0.000	60.43	0.000		
57.88	0.000	60.48	0.000		
57.93	0.000	60.53	0.000		
57.98	0.000	60.58	0.000		

EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Summary for Pond 39P: CI-9

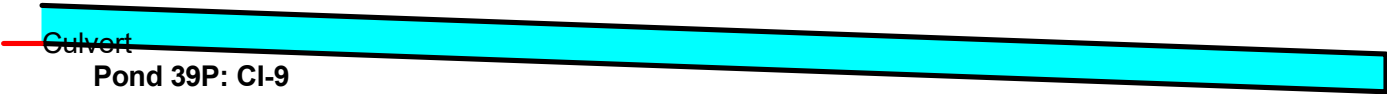
Inflow Area = 1.554 ac, 77.64% Impervious, Inflow Depth > 4.18" for 10-Year event
Inflow = 8.70 cfs @ 12.07 hrs, Volume= 0.542 af
Outflow = 8.70 cfs @ 12.07 hrs, Volume= 0.542 af, Atten= 0%, Lag= 0.0 min
Primary = 8.70 cfs @ 12.07 hrs, Volume= 0.542 af
Routed to Pond 38P : CI-1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.10' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	61.44'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	57.03'	15.0" Round Culvert L= 172.0' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 57.03' / 55.43' S= 0.0093 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=7.65 cfs @ 12.07 hrs HW=60.71' TW=57.74' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Outlet Controls 7.65 cfs @ 6.23 fps)

Orifice/Grate



EX and PR

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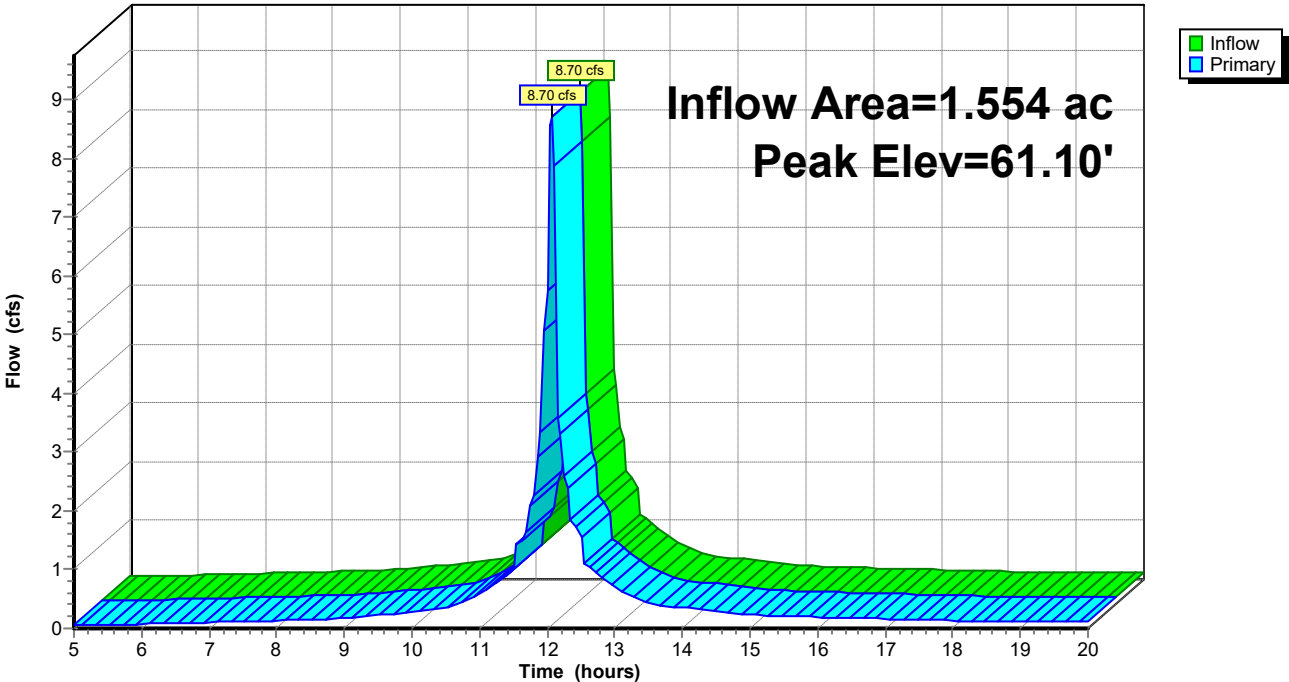
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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

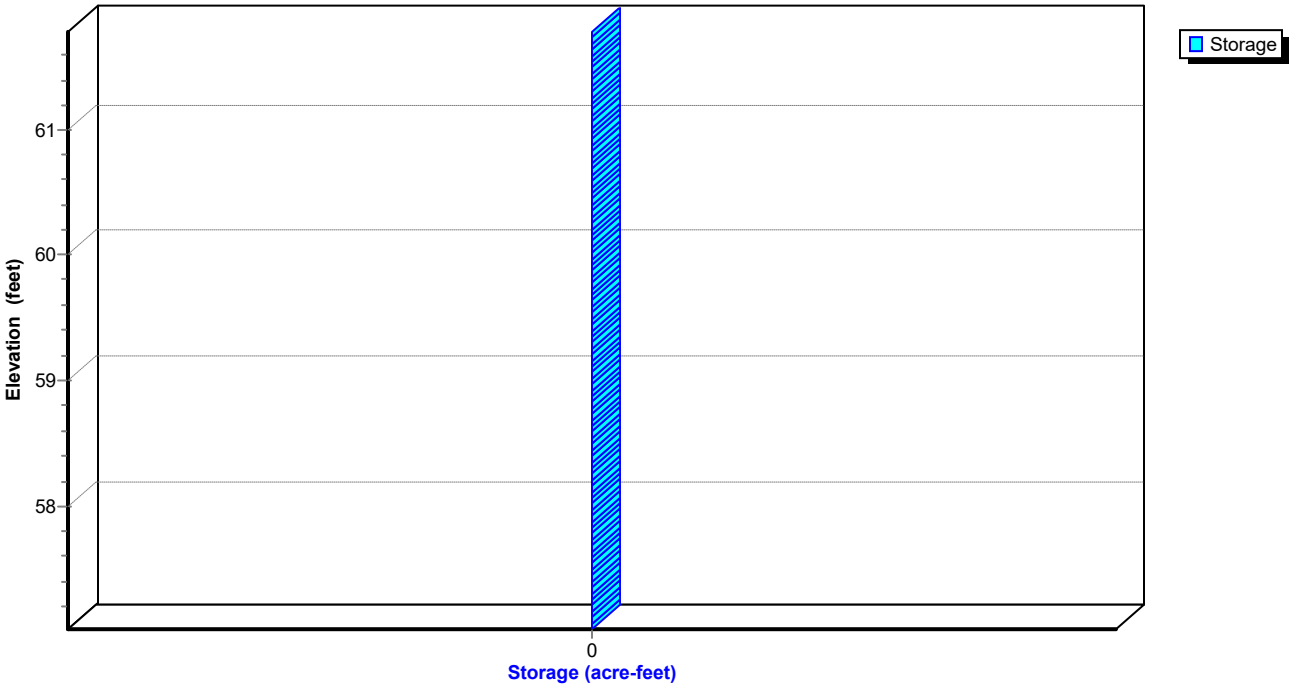
Pond 39P: CI-9

Hydrograph



Pond 39P: CI-9

Stage-Area-Storage



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NOAA 24-hr C 10-Year Rainfall=5.20"

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Hydrograph for Pond 39P: CI-9

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.06	57.14	0.06	18.00	0.13	57.21	0.13
5.25	0.06	57.14	0.06	18.25	0.13	57.21	0.13
5.50	0.06	57.15	0.06	18.50	0.13	57.21	0.13
5.75	0.07	57.15	0.07	18.75	0.12	57.20	0.12
6.00	0.07	57.15	0.07	19.00	0.12	57.20	0.12
6.25	0.08	57.16	0.08	19.25	0.12	57.20	0.12
6.50	0.09	57.17	0.09	19.50	0.12	57.20	0.12
6.75	0.09	57.17	0.09	19.75	0.12	57.20	0.12
7.00	0.10	57.18	0.10	20.00	0.11	57.20	0.11
7.25	0.11	57.18	0.11				
7.50	0.12	57.19	0.12				
7.75	0.13	57.20	0.13				
8.00	0.14	57.21	0.14				
8.25	0.14	57.22	0.14				
8.50	0.15	57.22	0.15				
8.75	0.16	57.23	0.16				
9.00	0.17	57.23	0.17				
9.25	0.20	57.25	0.20				
9.50	0.22	57.26	0.22				
9.75	0.25	57.28	0.25				
10.00	0.28	57.29	0.28				
10.25	0.31	57.30	0.31				
10.50	0.35	57.31	0.35				
10.75	0.46	57.36	0.46				
11.00	0.56	57.39	0.56				
11.25	0.78	57.46	0.78				
11.50	1.02	57.52	1.02				
11.75	2.10	57.75	2.10				
12.00	5.75	58.60	5.75				
12.25	2.59	58.08	2.59				
12.50	1.55	57.85	1.55				
12.75	0.91	57.66	0.91				
13.00	0.71	57.58	0.71				
13.25	0.55	57.51	0.55				
13.50	0.45	57.46	0.45				
13.75	0.38	57.42	0.38				
14.00	0.35	57.39	0.35				
14.25	0.32	57.37	0.32				
14.50	0.30	57.34	0.30				
14.75	0.26	57.32	0.26				
15.00	0.23	57.29	0.23				
15.25	0.22	57.28	0.22				
15.50	0.21	57.27	0.21				
15.75	0.20	57.26	0.20				
16.00	0.19	57.25	0.19				
16.25	0.19	57.24	0.19				
16.50	0.18	57.24	0.18				
16.75	0.17	57.23	0.17				
17.00	0.16	57.23	0.16				
17.25	0.15	57.22	0.15				
17.50	0.15	57.22	0.15				
17.75	0.14	57.21	0.14				

EX and PR

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Stage-Area-Storage for Pond 39P: CI-9

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
57.03	0.000	59.63	0.000
57.08	0.000	59.68	0.000
57.13	0.000	59.73	0.000
57.18	0.000	59.78	0.000
57.23	0.000	59.83	0.000
57.28	0.000	59.88	0.000
57.33	0.000	59.93	0.000
57.38	0.000	59.98	0.000
57.43	0.000	60.03	0.000
57.48	0.000	60.08	0.000
57.53	0.000	60.13	0.000
57.58	0.000	60.18	0.000
57.63	0.000	60.23	0.000
57.68	0.000	60.28	0.000
57.73	0.000	60.33	0.000
57.78	0.000	60.38	0.000
57.83	0.000	60.43	0.000
57.88	0.000	60.48	0.000
57.93	0.000	60.53	0.000
57.98	0.000	60.58	0.000
58.03	0.000	60.63	0.000
58.08	0.000	60.68	0.000
58.13	0.000	60.73	0.000
58.18	0.000	60.78	0.000
58.23	0.000	60.83	0.000
58.28	0.000	60.88	0.000
58.33	0.000	60.93	0.000
58.38	0.000	60.98	0.000
58.43	0.000	61.03	0.000
58.48	0.000	61.08	0.000
58.53	0.000	61.13	0.000
58.58	0.000	61.18	0.000
58.63	0.000	61.23	0.000
58.68	0.000	61.28	0.000
58.73	0.000	61.33	0.000
58.78	0.000	61.38	0.000
58.83	0.000	61.43	0.000
58.88	0.000	61.48	0.000
58.93	0.000	61.53	0.000
58.98	0.000	61.58	0.000
59.03	0.000	61.63	0.000
59.08	0.000	61.68	0.000
59.13	0.000	61.73	0.000
59.18	0.000		
59.23	0.000		
59.28	0.000		
59.33	0.000		
59.38	0.000		
59.43	0.000		
59.48	0.000		
59.53	0.000		
59.58	0.000		

EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Summary for Pond 40P: CI-6

Inflow Area = 0.382 ac, 58.96% Impervious, Inflow Depth > 3.84" for 10-Year event
Inflow = 1.77 cfs @ 12.08 hrs, Volume= 0.122 af
Outflow = 1.77 cfs @ 12.08 hrs, Volume= 0.122 af, Atten= 0%, Lag= 0.0 min
Primary = 1.77 cfs @ 12.08 hrs, Volume= 0.122 af
Routed to Pond 39P : CI-9

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.25' @ 12.13 hrs

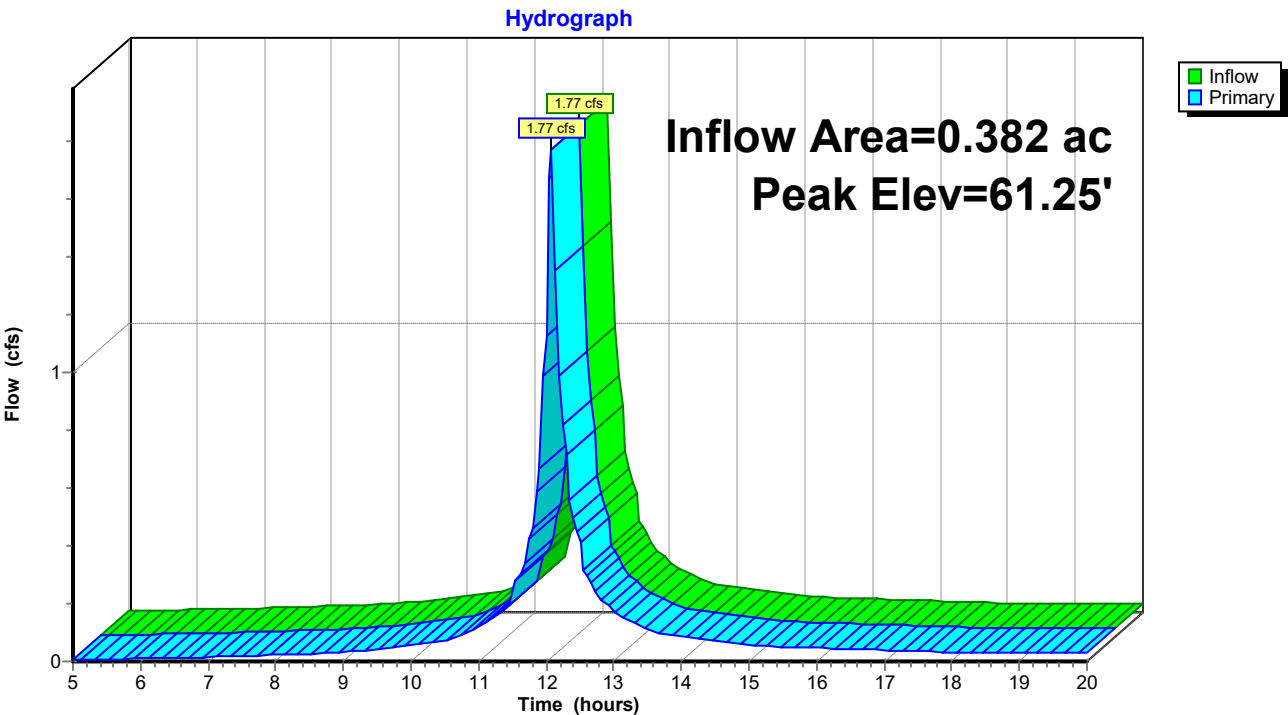
Device	Routing	Invert	Outlet Devices
#1	Primary	61.68'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	57.45'	12.0" Round Culvert L= 84.4' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 57.45' / 57.03' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 12.08 hrs HW=59.94' TW=60.76' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Controls 0.00 cfs)

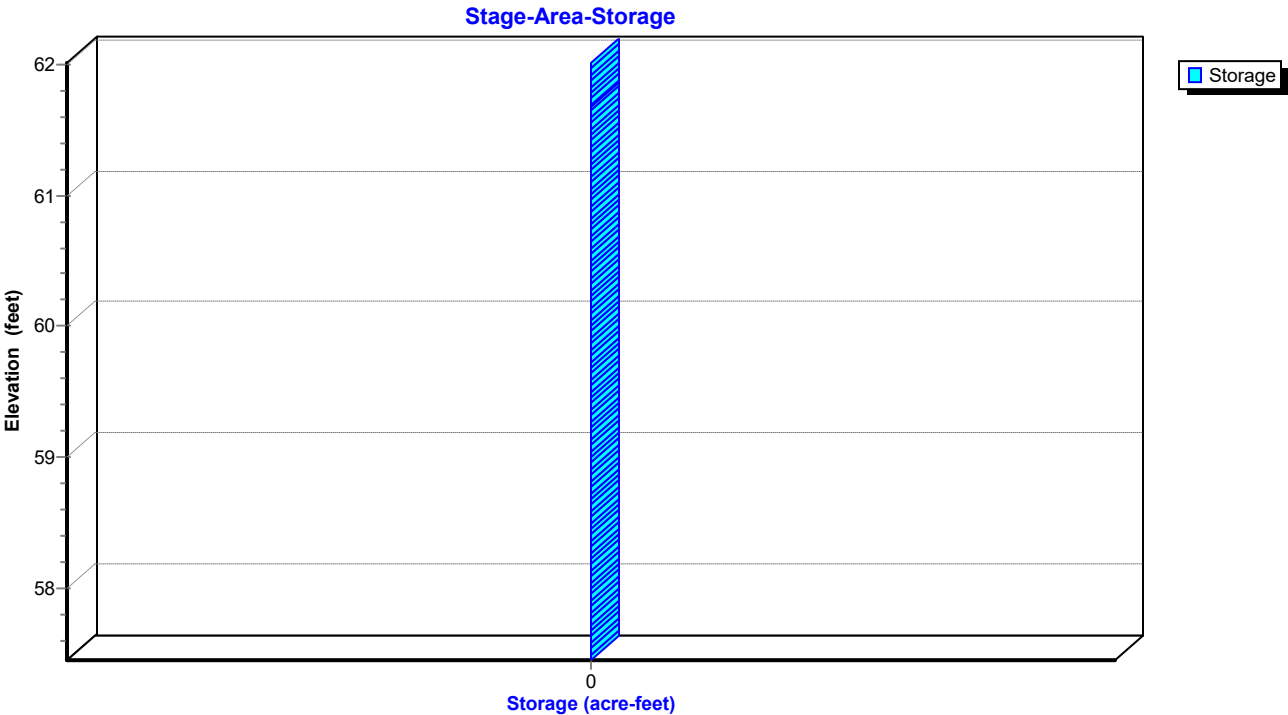
Orifice/Grate

Culvert Pond 40P: CI-6

Pond 40P: CI-6



Pond 40P: CI-6



EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

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Hydrograph for Pond 40P: CI-6

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.01	57.50	0.01	18.00	0.03	57.56	0.03
5.25	0.01	57.50	0.01	18.25	0.03	57.56	0.03
5.50	0.01	57.50	0.01	18.50	0.03	57.56	0.03
5.75	0.01	57.51	0.01	18.75	0.03	57.55	0.03
6.00	0.01	57.51	0.01	19.00	0.03	57.55	0.03
6.25	0.01	57.51	0.01	19.25	0.03	57.55	0.03
6.50	0.01	57.52	0.01	19.50	0.03	57.55	0.03
6.75	0.01	57.52	0.01	19.75	0.03	57.55	0.03
7.00	0.02	57.53	0.02	20.00	0.03	57.55	0.03
7.25	0.02	57.53	0.02				
7.50	0.02	57.53	0.02				
7.75	0.02	57.54	0.02				
8.00	0.02	57.54	0.02				
8.25	0.02	57.55	0.02				
8.50	0.03	57.55	0.03				
8.75	0.03	57.55	0.03				
9.00	0.03	57.56	0.03				
9.25	0.04	57.57	0.04				
9.50	0.04	57.58	0.04				
9.75	0.05	57.59	0.05				
10.00	0.05	57.59	0.05				
10.25	0.06	57.60	0.06				
10.50	0.07	57.61	0.07				
10.75	0.09	57.64	0.09				
11.00	0.11	57.66	0.11				
11.25	0.16	57.71	0.16				
11.50	0.21	57.75	0.21				
11.75	0.43	57.91	0.43				
12.00	1.13	58.53	1.13				
12.25	0.82	58.27	0.82				
12.50	0.41	58.00	0.41				
12.75	0.23	57.82	0.23				
13.00	0.18	57.76	0.18				
13.25	0.14	57.71	0.14				
13.50	0.11	57.68	0.11				
13.75	0.09	57.65	0.09				
14.00	0.09	57.64	0.09				
14.25	0.08	57.63	0.08				
14.50	0.07	57.62	0.07				
14.75	0.06	57.61	0.06				
15.00	0.06	57.60	0.06				
15.25	0.05	57.59	0.05				
15.50	0.05	57.59	0.05				
15.75	0.05	57.59	0.05				
16.00	0.05	57.58	0.05				
16.25	0.05	57.58	0.05				
16.50	0.04	57.58	0.04				
16.75	0.04	57.57	0.04				
17.00	0.04	57.57	0.04				
17.25	0.04	57.57	0.04				
17.50	0.04	57.56	0.04				
17.75	0.03	57.56	0.03				

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NOAA 24-hr C 10-Year Rainfall=5.20"

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Stage-Area-Storage for Pond 40P: CI-6

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
57.45	0.000	60.05	0.000
57.50	0.000	60.10	0.000
57.55	0.000	60.15	0.000
57.60	0.000	60.20	0.000
57.65	0.000	60.25	0.000
57.70	0.000	60.30	0.000
57.75	0.000	60.35	0.000
57.80	0.000	60.40	0.000
57.85	0.000	60.45	0.000
57.90	0.000	60.50	0.000
57.95	0.000	60.55	0.000
58.00	0.000	60.60	0.000
58.05	0.000	60.65	0.000
58.10	0.000	60.70	0.000
58.15	0.000	60.75	0.000
58.20	0.000	60.80	0.000
58.25	0.000	60.85	0.000
58.30	0.000	60.90	0.000
58.35	0.000	60.95	0.000
58.40	0.000	61.00	0.000
58.45	0.000	61.05	0.000
58.50	0.000	61.10	0.000
58.55	0.000	61.15	0.000
58.60	0.000	61.20	0.000
58.65	0.000	61.25	0.000
58.70	0.000	61.30	0.000
58.75	0.000	61.35	0.000
58.80	0.000	61.40	0.000
58.85	0.000	61.45	0.000
58.90	0.000	61.50	0.000
58.95	0.000	61.55	0.000
59.00	0.000	61.60	0.000
59.05	0.000	61.65	0.000
59.10	0.000	61.70	0.000
59.15	0.000	61.75	0.000
59.20	0.000	61.80	0.000
59.25	0.000	61.85	0.000
59.30	0.000	61.90	0.000
59.35	0.000	61.95	0.000
59.40	0.000	62.00	0.000
59.45	0.000		
59.50	0.000		
59.55	0.000		
59.60	0.000		
59.65	0.000		
59.70	0.000		
59.75	0.000		
59.80	0.000		
59.85	0.000		
59.90	0.000		
59.95	0.000		
60.00	0.000		

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NOAA 24-hr C 10-Year Rainfall=5.20"
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Summary for Pond 43P: CI-7

Inflow Area = 0.131 ac, 41.20% Impervious, Inflow Depth > 3.50" for 10-Year event
Inflow = 0.50 cfs @ 12.20 hrs, Volume= 0.038 af
Outflow = 0.50 cfs @ 12.20 hrs, Volume= 0.038 af, Atten= 0%, Lag= 0.0 min
Primary = 0.50 cfs @ 12.20 hrs, Volume= 0.038 af
Routed to Pond 40P : CI-6

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.26' @ 12.18 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	62.27'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	58.13'	12.0" Round Culvert L= 138.4' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 58.13' / 57.43' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=4.19 cfs @ 12.20 hrs HW=60.99' TW=58.69' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Outlet Controls 4.19 cfs @ 5.34 fps)

Orifice/Grate

Culvert
Pond 43P: CI-7

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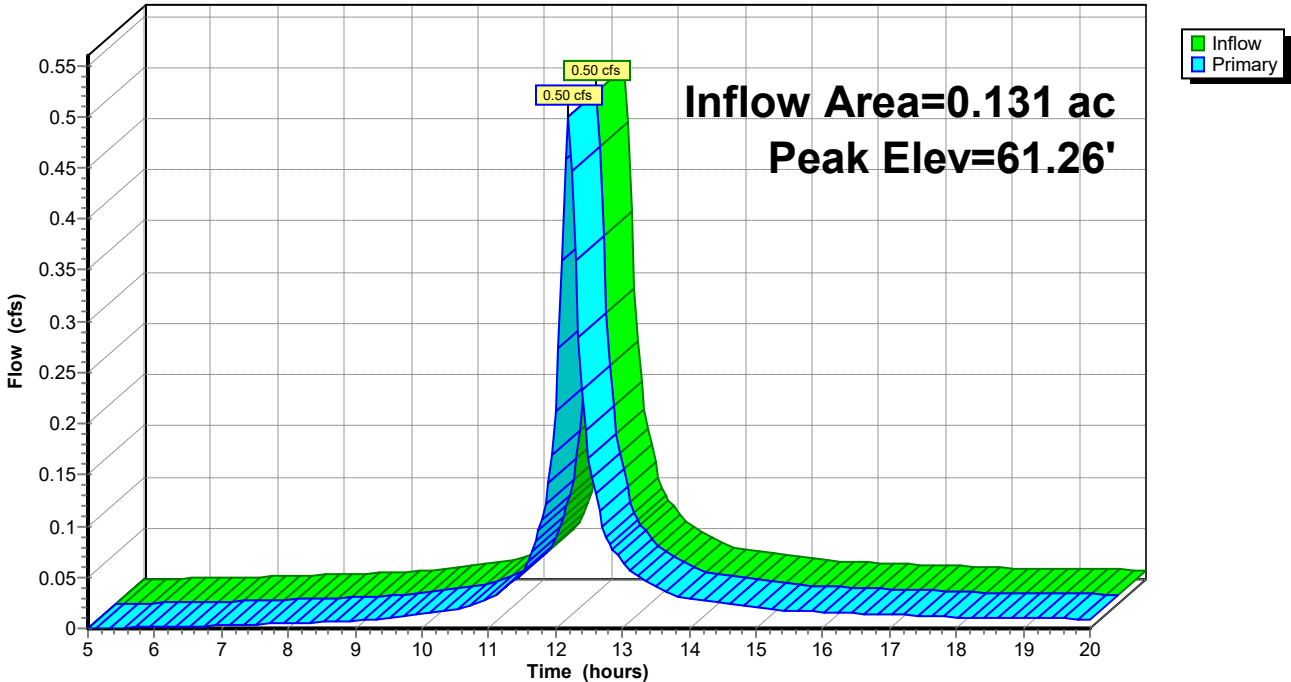
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NOAA 24-hr C 10-Year Rainfall=5.20"

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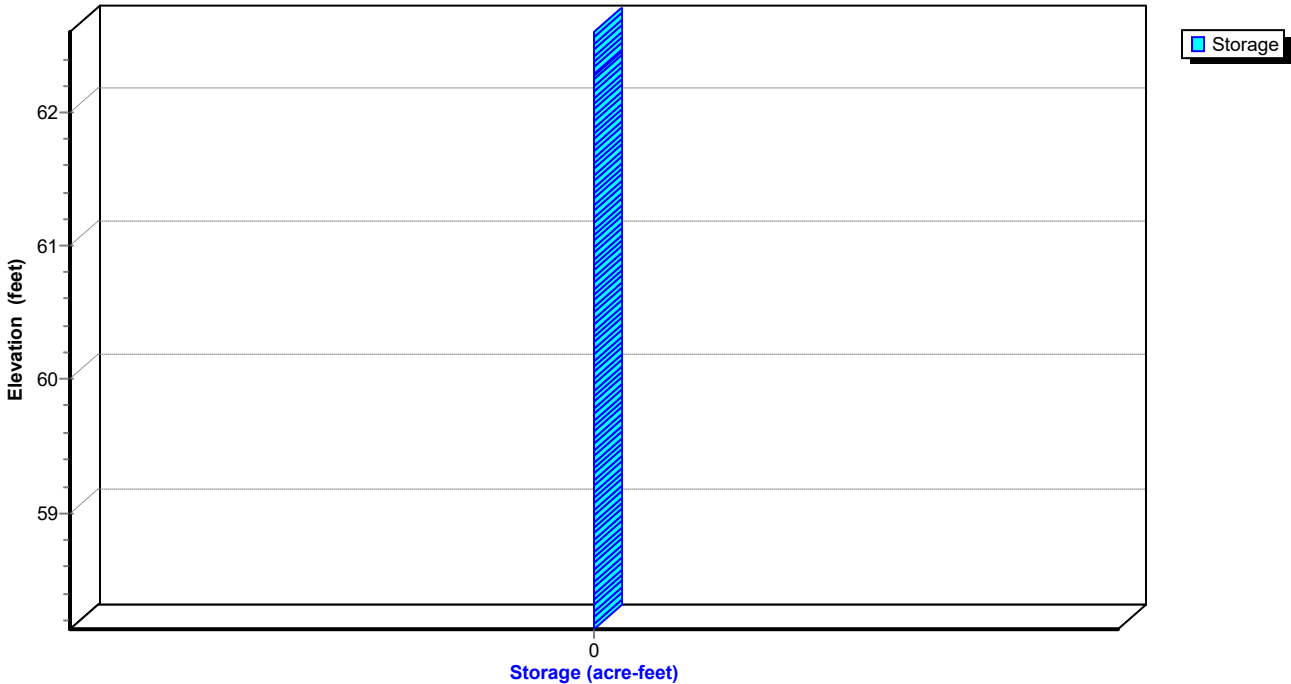
Pond 43P: CI-7

Hydrograph



Pond 43P: CI-7

Stage-Area-Storage



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Hydrograph for Pond 43P: CI-7

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	58.14	0.00	18.00	0.01	58.19	0.01
5.25	0.00	58.14	0.00	18.25	0.01	58.19	0.01
5.50	0.00	58.15	0.00	18.50	0.01	58.19	0.01
5.75	0.00	58.15	0.00	18.75	0.01	58.19	0.01
6.00	0.00	58.15	0.00	19.00	0.01	58.19	0.01
6.25	0.00	58.16	0.00	19.25	0.01	58.19	0.01
6.50	0.00	58.16	0.00	19.50	0.01	58.19	0.01
6.75	0.00	58.16	0.00	19.75	0.01	58.19	0.01
7.00	0.00	58.16	0.00	20.00	0.01	58.19	0.01
7.25	0.00	58.17	0.00				
7.50	0.00	58.17	0.00				
7.75	0.00	58.17	0.00				
8.00	0.00	58.17	0.00				
8.25	0.01	58.18	0.01				
8.50	0.01	58.18	0.01				
8.75	0.01	58.18	0.01				
9.00	0.01	58.18	0.01				
9.25	0.01	58.19	0.01				
9.50	0.01	58.19	0.01				
9.75	0.01	58.20	0.01				
10.00	0.01	58.20	0.01				
10.25	0.02	58.21	0.02				
10.50	0.02	58.21	0.02				
10.75	0.02	58.22	0.02				
11.00	0.03	58.23	0.03				
11.25	0.04	58.25	0.04				
11.50	0.05	58.27	0.05				
11.75	0.10	58.32	0.10				
12.00	0.21	58.47	0.21				
12.25	0.45	58.70	0.45				
12.50	0.17	58.40	0.17				
12.75	0.09	58.32	0.09				
13.00	0.07	58.29	0.07				
13.25	0.05	58.26	0.05				
13.50	0.04	58.25	0.04				
13.75	0.03	58.24	0.03				
14.00	0.03	58.23	0.03				
14.25	0.03	58.23	0.03				
14.50	0.02	58.22	0.02				
14.75	0.02	58.22	0.02				
15.00	0.02	58.21	0.02				
15.25	0.02	58.21	0.02				
15.50	0.02	58.21	0.02				
15.75	0.02	58.21	0.02				
16.00	0.02	58.21	0.02				
16.25	0.02	58.20	0.02				
16.50	0.01	58.20	0.01				
16.75	0.01	58.20	0.01				
17.00	0.01	58.20	0.01				
17.25	0.01	58.20	0.01				
17.50	0.01	58.20	0.01				
17.75	0.01	58.19	0.01				

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NOAA 24-hr C 10-Year Rainfall=5.20"

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Stage-Area-Storage for Pond 43P: CI-7

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
58.13	0.000	60.73	0.000
58.18	0.000	60.78	0.000
58.23	0.000	60.83	0.000
58.28	0.000	60.88	0.000
58.33	0.000	60.93	0.000
58.38	0.000	60.98	0.000
58.43	0.000	61.03	0.000
58.48	0.000	61.08	0.000
58.53	0.000	61.13	0.000
58.58	0.000	61.18	0.000
58.63	0.000	61.23	0.000
58.68	0.000	61.28	0.000
58.73	0.000	61.33	0.000
58.78	0.000	61.38	0.000
58.83	0.000	61.43	0.000
58.88	0.000	61.48	0.000
58.93	0.000	61.53	0.000
58.98	0.000	61.58	0.000
59.03	0.000	61.63	0.000
59.08	0.000	61.68	0.000
59.13	0.000	61.73	0.000
59.18	0.000	61.78	0.000
59.23	0.000	61.83	0.000
59.28	0.000	61.88	0.000
59.33	0.000	61.93	0.000
59.38	0.000	61.98	0.000
59.43	0.000	62.03	0.000
59.48	0.000	62.08	0.000
59.53	0.000	62.13	0.000
59.58	0.000	62.18	0.000
59.63	0.000	62.23	0.000
59.68	0.000	62.28	0.000
59.73	0.000	62.33	0.000
59.78	0.000	62.38	0.000
59.83	0.000	62.43	0.000
59.88	0.000	62.48	0.000
59.93	0.000	62.53	0.000
59.98	0.000	62.58	0.000
60.03	0.000		
60.08	0.000		
60.13	0.000		
60.18	0.000		
60.23	0.000		
60.28	0.000		
60.33	0.000		
60.38	0.000		
60.43	0.000		
60.48	0.000		
60.53	0.000		
60.58	0.000		
60.63	0.000		
60.68	0.000		

EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

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Summary for Pond 44P: CI-2

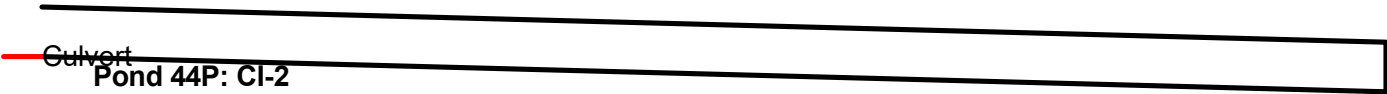
Inflow Area = 0.537 ac, 76.55% Impervious, Inflow Depth > 4.16" for 10-Year event
Inflow = 3.15 cfs @ 12.06 hrs, Volume= 0.186 af
Outflow = 3.15 cfs @ 12.06 hrs, Volume= 0.186 af, Atten= 0%, Lag= 0.0 min
Primary = 3.15 cfs @ 12.06 hrs, Volume= 0.186 af
Routed to Pond 45P : CI-3

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.38' @ 12.17 hrs

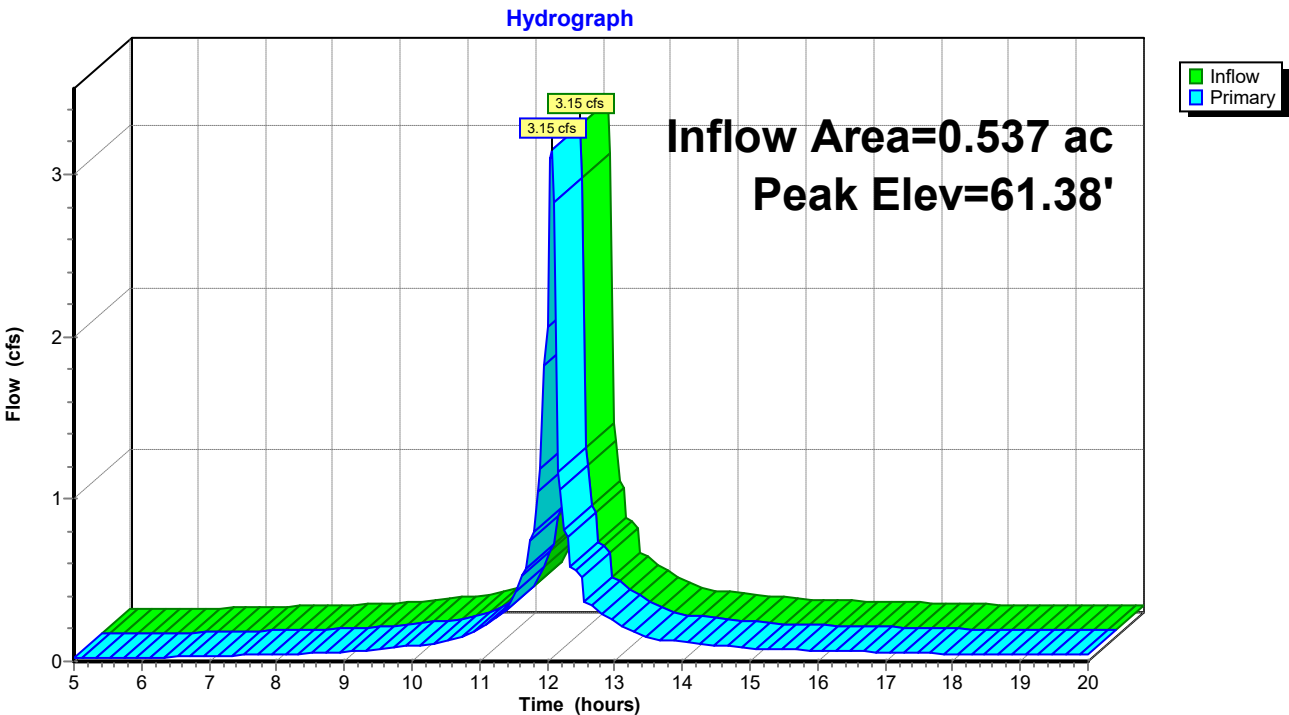
Device	Routing	Invert	Outlet Devices
#1	Primary	62.18'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	58.55'	15.0" Round Culvert L= 99.8' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 58.55' / 57.66' S= 0.0089 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.06 hrs HW=59.62' TW=59.83' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Controls 0.00 cfs)

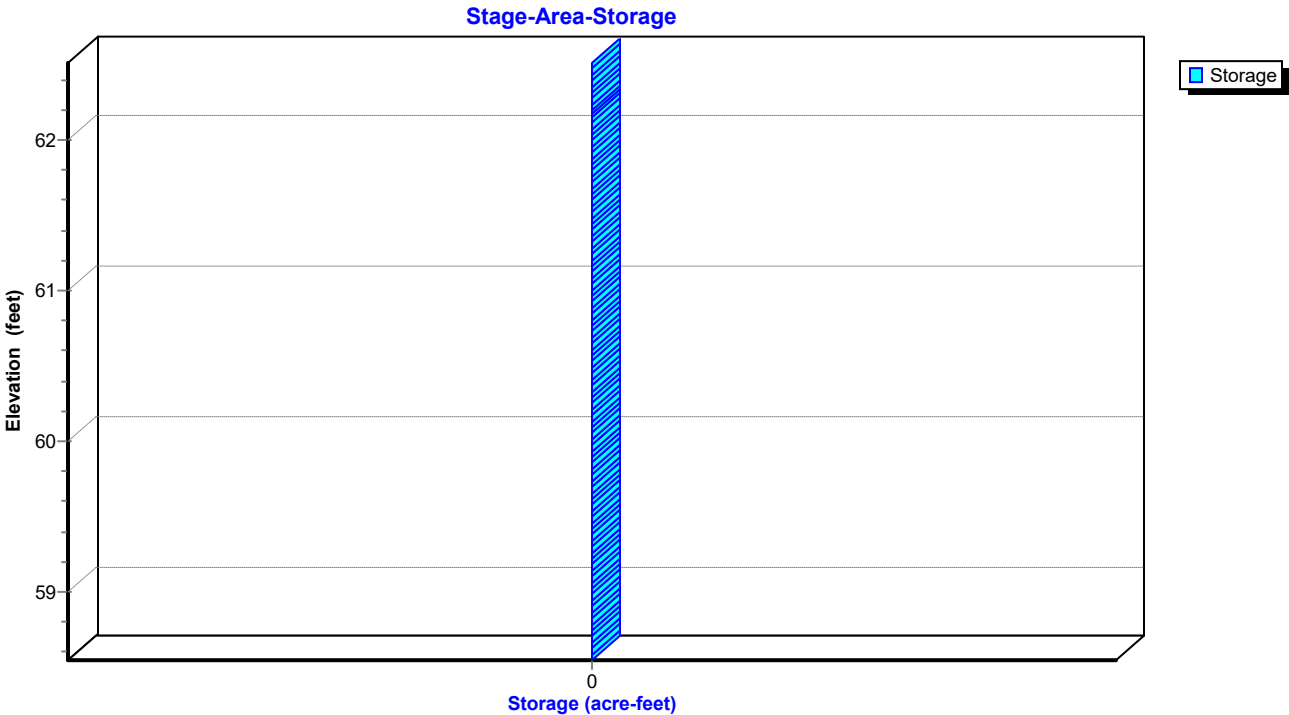
Orifice/Grate



Pond 44P: CI-2



Pond 44P: CI-2



EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

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Hydrograph for Pond 44P: CI-2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.02	58.61	0.02	18.00	0.05	58.65	0.05
5.25	0.02	58.61	0.02	18.25	0.04	58.65	0.04
5.50	0.02	58.62	0.02	18.50	0.04	58.65	0.04
5.75	0.02	58.62	0.02	18.75	0.04	58.65	0.04
6.00	0.02	58.62	0.02	19.00	0.04	58.65	0.04
6.25	0.02	58.63	0.02	19.25	0.04	58.65	0.04
6.50	0.03	58.63	0.03	19.50	0.04	58.65	0.04
6.75	0.03	58.63	0.03	19.75	0.04	58.65	0.04
7.00	0.03	58.64	0.03	20.00	0.04	58.64	0.04
7.25	0.04	58.64	0.04				
7.50	0.04	58.64	0.04				
7.75	0.04	58.65	0.04				
8.00	0.04	58.65	0.04				
8.25	0.05	58.65	0.05				
8.50	0.05	58.66	0.05				
8.75	0.05	58.66	0.05				
9.00	0.06	58.66	0.06				
9.25	0.07	58.67	0.07				
9.50	0.08	58.68	0.08				
9.75	0.09	58.69	0.09				
10.00	0.10	58.70	0.10				
10.25	0.11	58.70	0.11				
10.50	0.12	58.71	0.12				
10.75	0.16	58.74	0.16				
11.00	0.19	58.76	0.19				
11.25	0.27	58.80	0.27				
11.50	0.36	58.83	0.36				
11.75	0.74	58.97	0.74				
12.00	2.06	59.34	2.06				
12.25	0.80	59.07	0.80				
12.50	0.52	58.91	0.52				
12.75	0.31	58.82	0.31				
13.00	0.24	58.78	0.24				
13.25	0.19	58.76	0.19				
13.50	0.15	58.73	0.15				
13.75	0.13	58.72	0.13				
14.00	0.12	58.71	0.12				
14.25	0.11	58.71	0.11				
14.50	0.10	58.70	0.10				
14.75	0.09	58.69	0.09				
15.00	0.08	58.68	0.08				
15.25	0.08	58.68	0.08				
15.50	0.07	58.68	0.07				
15.75	0.07	58.67	0.07				
16.00	0.07	58.67	0.07				
16.25	0.06	58.67	0.06				
16.50	0.06	58.67	0.06				
16.75	0.06	58.66	0.06				
17.00	0.06	58.66	0.06				
17.25	0.05	58.66	0.05				
17.50	0.05	58.66	0.05				
17.75	0.05	58.65	0.05				

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NOAA 24-hr C 10-Year Rainfall=5.20"

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Stage-Area-Storage for Pond 44P: CI-2

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
58.55	0.000	61.15	0.000
58.60	0.000	61.20	0.000
58.65	0.000	61.25	0.000
58.70	0.000	61.30	0.000
58.75	0.000	61.35	0.000
58.80	0.000	61.40	0.000
58.85	0.000	61.45	0.000
58.90	0.000	61.50	0.000
58.95	0.000	61.55	0.000
59.00	0.000	61.60	0.000
59.05	0.000	61.65	0.000
59.10	0.000	61.70	0.000
59.15	0.000	61.75	0.000
59.20	0.000	61.80	0.000
59.25	0.000	61.85	0.000
59.30	0.000	61.90	0.000
59.35	0.000	61.95	0.000
59.40	0.000	62.00	0.000
59.45	0.000	62.05	0.000
59.50	0.000	62.10	0.000
59.55	0.000	62.15	0.000
59.60	0.000	62.20	0.000
59.65	0.000	62.25	0.000
59.70	0.000	62.30	0.000
59.75	0.000	62.35	0.000
59.80	0.000	62.40	0.000
59.85	0.000	62.45	0.000
59.90	0.000	62.50	0.000
59.95	0.000		
60.00	0.000		
60.05	0.000		
60.10	0.000		
60.15	0.000		
60.20	0.000		
60.25	0.000		
60.30	0.000		
60.35	0.000		
60.40	0.000		
60.45	0.000		
60.50	0.000		
60.55	0.000		
60.60	0.000		
60.65	0.000		
60.70	0.000		
60.75	0.000		
60.80	0.000		
60.85	0.000		
60.90	0.000		
60.95	0.000		
61.00	0.000		
61.05	0.000		
61.10	0.000		

EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"
Printed 5/1/2024

Summary for Pond 45P: CI-3

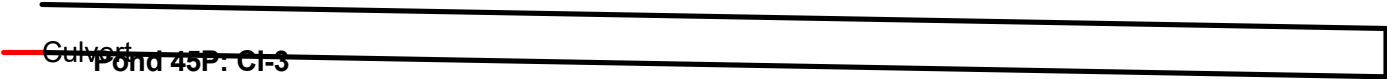
Inflow Area = 0.765 ac, 76.25% Impervious, Inflow Depth > 4.16" for 10-Year event
Inflow = 4.48 cfs @ 12.06 hrs, Volume= 0.266 af
Outflow = 4.48 cfs @ 12.06 hrs, Volume= 0.266 af, Atten= 0%, Lag= 0.0 min
Primary = 4.48 cfs @ 12.06 hrs, Volume= 0.266 af
Routed to Pond 39P : CI-9

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.38' @ 12.12 hrs

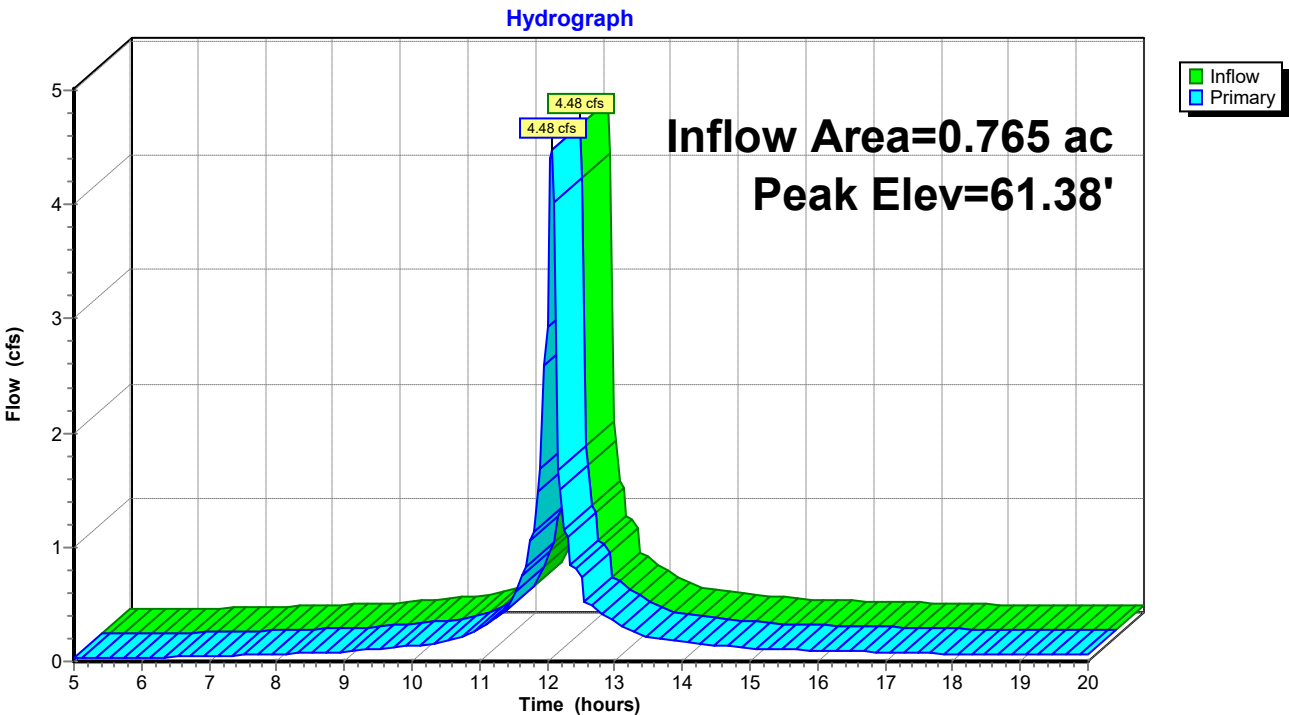
Device	Routing	Invert	Outlet Devices
#1	Primary	61.68'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	57.66'	15.0" Round Culvert L= 99.8' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 57.66' / 57.03' S= 0.0063 '/ Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.06 hrs HW=59.83' TW=60.70' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Controls 0.00 cfs)

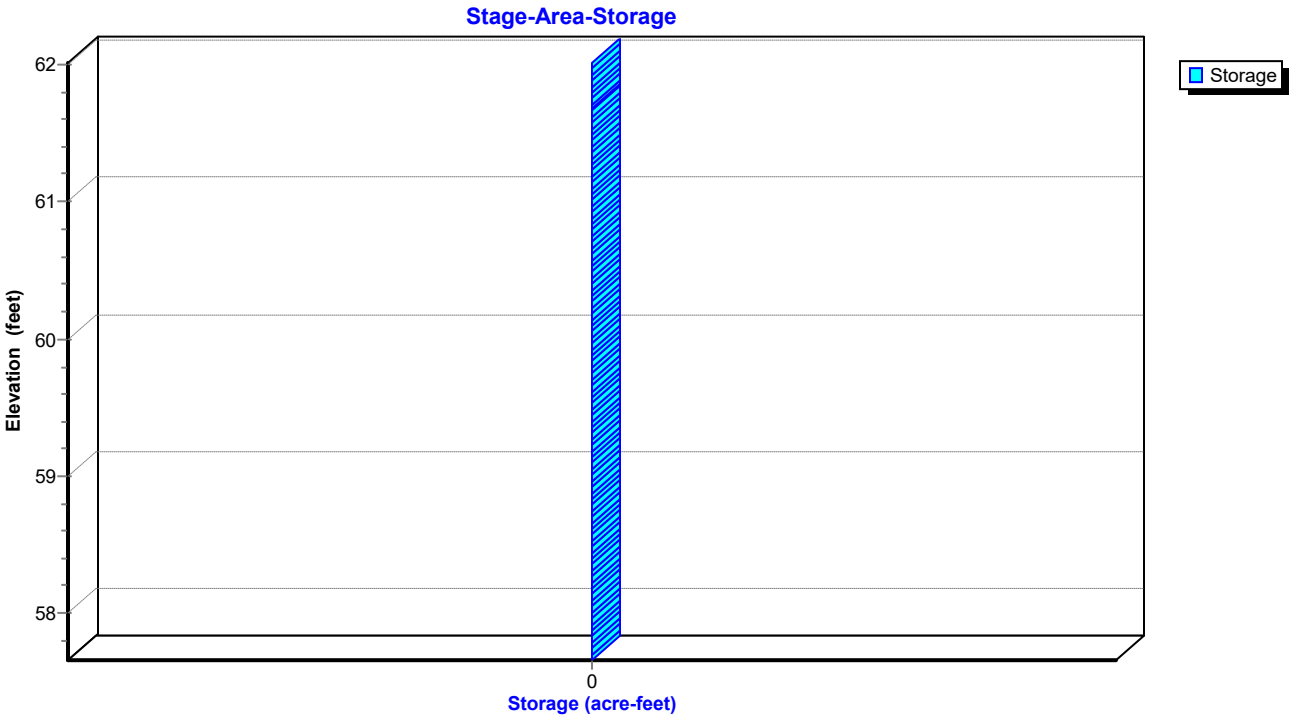
Orifice/Grate



Pond 45P: CI-3



Pond 45P: CI-3



EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

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Hydrograph for Pond 45P: CI-3

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.02	57.74	0.02	18.00	0.06	57.79	0.06
5.25	0.03	57.75	0.03	18.25	0.06	57.79	0.06
5.50	0.03	57.75	0.03	18.50	0.06	57.79	0.06
5.75	0.03	57.75	0.03	18.75	0.06	57.79	0.06
6.00	0.03	57.75	0.03	19.00	0.06	57.79	0.06
6.25	0.04	57.76	0.04	19.25	0.06	57.79	0.06
6.50	0.04	57.76	0.04	19.50	0.06	57.78	0.06
6.75	0.04	57.77	0.04	19.75	0.06	57.78	0.06
7.00	0.05	57.77	0.05	20.00	0.06	57.78	0.06
7.25	0.05	57.78	0.05				
7.50	0.06	57.78	0.06				
7.75	0.06	57.79	0.06				
8.00	0.06	57.79	0.06				
8.25	0.07	57.80	0.07				
8.50	0.07	57.80	0.07				
8.75	0.08	57.80	0.08				
9.00	0.08	57.81	0.08				
9.25	0.10	57.82	0.10				
9.50	0.11	57.83	0.11				
9.75	0.12	57.84	0.12				
10.00	0.14	57.85	0.14				
10.25	0.15	57.86	0.15				
10.50	0.17	57.87	0.17				
10.75	0.23	57.91	0.23				
11.00	0.28	57.94	0.28				
11.25	0.39	57.99	0.39				
11.50	0.51	58.04	0.51				
11.75	1.06	58.23	1.06				
12.00	2.94	58.85	2.94				
12.25	1.15	58.40	1.15				
12.50	0.74	58.20	0.74				
12.75	0.44	58.05	0.44				
13.00	0.35	57.99	0.35				
13.25	0.27	57.95	0.27				
13.50	0.22	57.92	0.22				
13.75	0.19	57.89	0.19				
14.00	0.17	57.88	0.17				
14.25	0.16	57.87	0.16				
14.50	0.14	57.86	0.14				
14.75	0.13	57.85	0.13				
15.00	0.12	57.84	0.12				
15.25	0.11	57.83	0.11				
15.50	0.10	57.83	0.10				
15.75	0.10	57.82	0.10				
16.00	0.10	57.82	0.10				
16.25	0.09	57.82	0.09				
16.50	0.09	57.81	0.09				
16.75	0.08	57.81	0.08				
17.00	0.08	57.81	0.08				
17.25	0.08	57.80	0.08				
17.50	0.07	57.80	0.07				
17.75	0.07	57.80	0.07				

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Stage-Area-Storage for Pond 45P: CI-3

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
57.66	0.000	60.26	0.000
57.71	0.000	60.31	0.000
57.76	0.000	60.36	0.000
57.81	0.000	60.41	0.000
57.86	0.000	60.46	0.000
57.91	0.000	60.51	0.000
57.96	0.000	60.56	0.000
58.01	0.000	60.61	0.000
58.06	0.000	60.66	0.000
58.11	0.000	60.71	0.000
58.16	0.000	60.76	0.000
58.21	0.000	60.81	0.000
58.26	0.000	60.86	0.000
58.31	0.000	60.91	0.000
58.36	0.000	60.96	0.000
58.41	0.000	61.01	0.000
58.46	0.000	61.06	0.000
58.51	0.000	61.11	0.000
58.56	0.000	61.16	0.000
58.61	0.000	61.21	0.000
58.66	0.000	61.26	0.000
58.71	0.000	61.31	0.000
58.76	0.000	61.36	0.000
58.81	0.000	61.41	0.000
58.86	0.000	61.46	0.000
58.91	0.000	61.51	0.000
58.96	0.000	61.56	0.000
59.01	0.000	61.61	0.000
59.06	0.000	61.66	0.000
59.11	0.000	61.71	0.000
59.16	0.000	61.76	0.000
59.21	0.000	61.81	0.000
59.26	0.000	61.86	0.000
59.31	0.000	61.91	0.000
59.36	0.000	61.96	0.000
59.41	0.000	62.01	0.000
59.46	0.000		
59.51	0.000		
59.56	0.000		
59.61	0.000		
59.66	0.000		
59.71	0.000		
59.76	0.000		
59.81	0.000		
59.86	0.000		
59.91	0.000		
59.96	0.000		
60.01	0.000		
60.06	0.000		
60.11	0.000		
60.16	0.000		
60.21	0.000		

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NOAA 24-hr C 10-Year Rainfall=5.20"

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Summary for Pond 46P: CI-5

Inflow Area = 0.074 ac, 51.14% Impervious, Inflow Depth > 3.72" for 10-Year event
Inflow = 0.40 cfs @ 12.06 hrs, Volume= 0.023 af
Outflow = 0.40 cfs @ 12.06 hrs, Volume= 0.023 af, Atten= 0%, Lag= 0.0 min
Primary = 0.40 cfs @ 12.06 hrs, Volume= 0.023 af
Routed to Pond 45P : CI-3

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.38' @ 12.17 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	61.87'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	58.28'	15.0" Round Culvert L= 107.0' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 58.28' / 57.75' S= 0.0050 '/ Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.06 hrs HW=58.95' TW=59.45' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Controls 0.00 cfs)

Orifice/Grate



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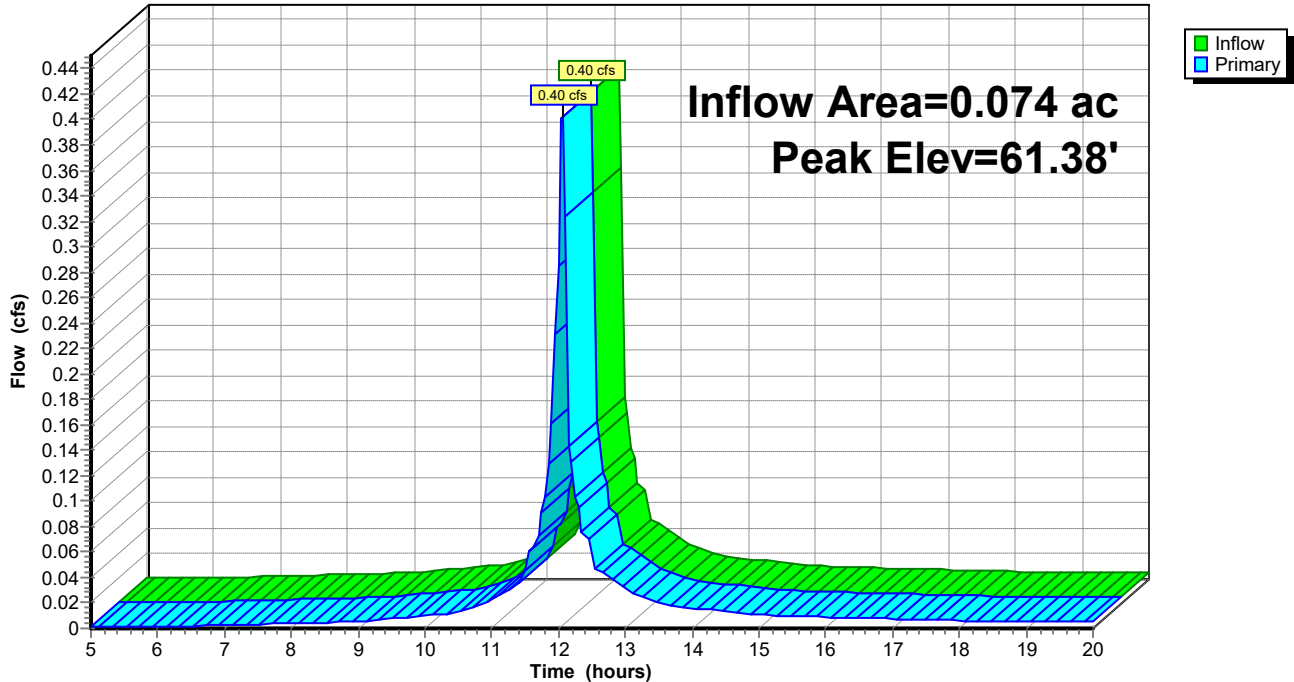
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NOAA 24-hr C 10-Year Rainfall=5.20"

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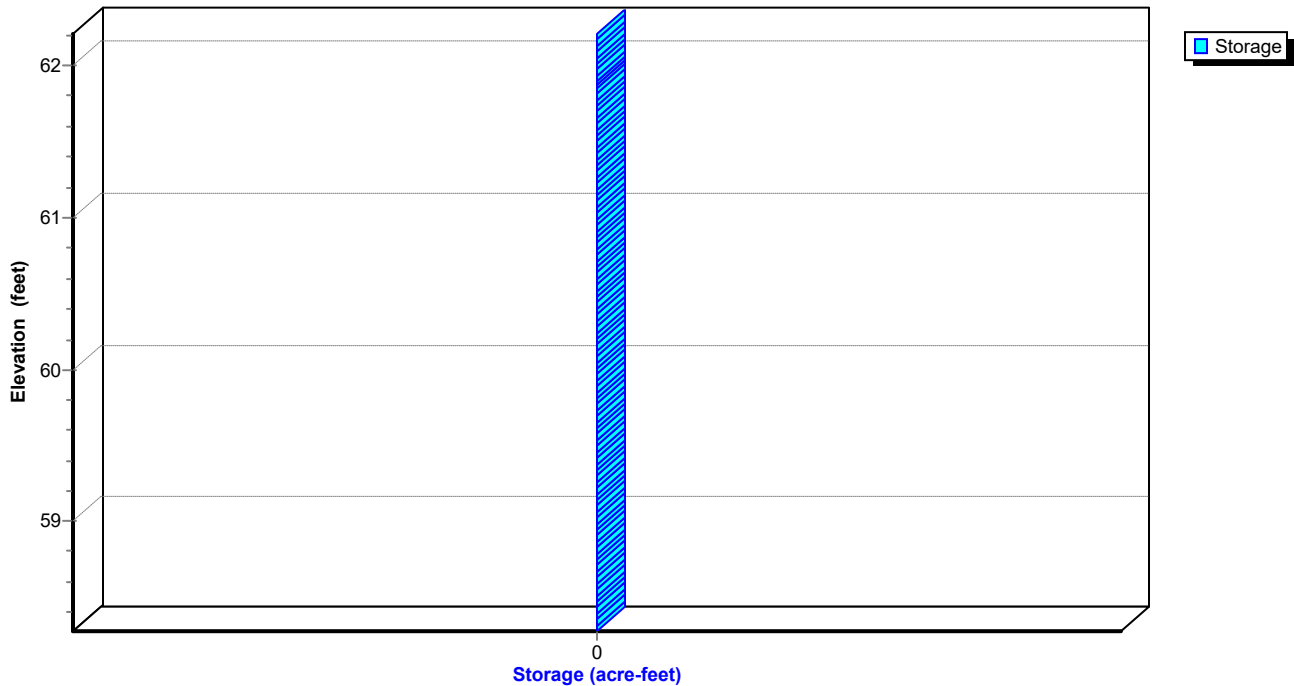
Pond 46P: CI-5

Hydrograph



Pond 46P: CI-5

Stage-Area-Storage



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Hydrograph for Pond 46P: CI-5

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	58.30	0.00	18.00	0.01	58.32	0.01
5.25	0.00	58.30	0.00	18.25	0.01	58.32	0.01
5.50	0.00	58.30	0.00	18.50	0.01	58.32	0.01
5.75	0.00	58.30	0.00	18.75	0.01	58.32	0.01
6.00	0.00	58.30	0.00	19.00	0.01	58.32	0.01
6.25	0.00	58.30	0.00	19.25	0.01	58.32	0.01
6.50	0.00	58.31	0.00	19.50	0.01	58.32	0.01
6.75	0.00	58.31	0.00	19.75	0.01	58.32	0.01
7.00	0.00	58.31	0.00	20.00	0.01	58.32	0.01
7.25	0.00	58.31	0.00				
7.50	0.00	58.31	0.00				
7.75	0.00	58.31	0.00				
8.00	0.00	58.32	0.00				
8.25	0.00	58.32	0.00				
8.50	0.00	58.32	0.00				
8.75	0.01	58.32	0.01				
9.00	0.01	58.32	0.01				
9.25	0.01	58.33	0.01				
9.50	0.01	58.33	0.01				
9.75	0.01	58.33	0.01				
10.00	0.01	58.34	0.01				
10.25	0.01	58.34	0.01				
10.50	0.01	58.35	0.01				
10.75	0.02	58.36	0.02				
11.00	0.02	58.37	0.02				
11.25	0.03	58.38	0.03				
11.50	0.04	58.40	0.04				
11.75	0.09	58.46	0.09				
12.00	0.29	58.72	0.29				
12.25	0.10	58.66	0.10				
12.50	0.06	58.45	0.06				
12.75	0.04	58.40	0.04				
13.00	0.03	58.38	0.03				
13.25	0.02	58.37	0.02				
13.50	0.02	58.36	0.02				
13.75	0.02	58.36	0.02				
14.00	0.02	58.35	0.02				
14.25	0.01	58.35	0.01				
14.50	0.01	58.35	0.01				
14.75	0.01	58.34	0.01				
15.00	0.01	58.34	0.01				
15.25	0.01	58.34	0.01				
15.50	0.01	58.34	0.01				
15.75	0.01	58.33	0.01				
16.00	0.01	58.33	0.01				
16.25	0.01	58.33	0.01				
16.50	0.01	58.33	0.01				
16.75	0.01	58.33	0.01				
17.00	0.01	58.33	0.01				
17.25	0.01	58.33	0.01				
17.50	0.01	58.33	0.01				
17.75	0.01	58.33	0.01				

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Stage-Area-Storage for Pond 46P: CI-5

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
58.28	0.000	60.88	0.000
58.33	0.000	60.93	0.000
58.38	0.000	60.98	0.000
58.43	0.000	61.03	0.000
58.48	0.000	61.08	0.000
58.53	0.000	61.13	0.000
58.58	0.000	61.18	0.000
58.63	0.000	61.23	0.000
58.68	0.000	61.28	0.000
58.73	0.000	61.33	0.000
58.78	0.000	61.38	0.000
58.83	0.000	61.43	0.000
58.88	0.000	61.48	0.000
58.93	0.000	61.53	0.000
58.98	0.000	61.58	0.000
59.03	0.000	61.63	0.000
59.08	0.000	61.68	0.000
59.13	0.000	61.73	0.000
59.18	0.000	61.78	0.000
59.23	0.000	61.83	0.000
59.28	0.000	61.88	0.000
59.33	0.000	61.93	0.000
59.38	0.000	61.98	0.000
59.43	0.000	62.03	0.000
59.48	0.000	62.08	0.000
59.53	0.000	62.13	0.000
59.58	0.000	62.18	0.000
59.63	0.000		
59.68	0.000		
59.73	0.000		
59.78	0.000		
59.83	0.000		
59.88	0.000		
59.93	0.000		
59.98	0.000		
60.03	0.000		
60.08	0.000		
60.13	0.000		
60.18	0.000		
60.23	0.000		
60.28	0.000		
60.33	0.000		
60.38	0.000		
60.43	0.000		
60.48	0.000		
60.53	0.000		
60.58	0.000		
60.63	0.000		
60.68	0.000		
60.73	0.000		
60.78	0.000		
60.83	0.000		

EX and PR

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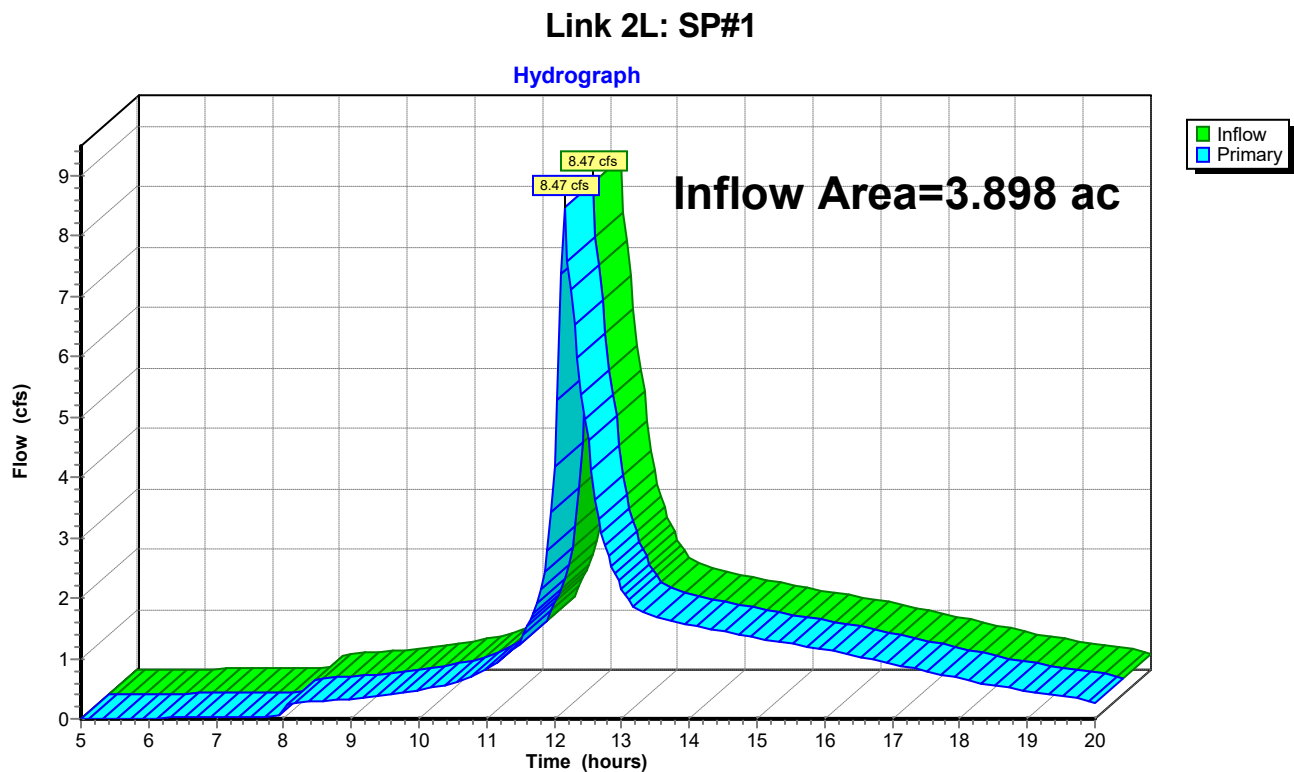
NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Summary for Link 2L: SP#1

Inflow Area = 3.898 ac, 59.79% Impervious, Inflow Depth > 3.77" for 10-Year event
Inflow = 8.47 cfs @ 12.15 hrs, Volume= 1.223 af
Primary = 8.47 cfs @ 12.15 hrs, Volume= 1.223 af, Atten= 0%, Lag= 0.0 min

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



EX and PR

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NOAA 24-hr C 10-Year Rainfall=5.20"

Printed 5/1/2024

Hydrograph for Link 2L: SP#1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	18.00	0.67	0.00	0.67
5.25	0.01	0.00	0.01	18.25	0.61	0.00	0.61
5.50	0.01	0.00	0.01	18.50	0.56	0.00	0.56
5.75	0.01	0.00	0.01	18.75	0.50	0.00	0.50
6.00	0.01	0.00	0.01	19.00	0.46	0.00	0.46
6.25	0.02	0.00	0.02	19.25	0.41	0.00	0.41
6.50	0.02	0.00	0.02	19.50	0.37	0.00	0.37
6.75	0.02	0.00	0.02	19.75	0.34	0.00	0.34
7.00	0.03	0.00	0.03	20.00	0.26	0.00	0.26
7.25	0.03	0.00	0.03				
7.50	0.04	0.00	0.04				
7.75	0.04	0.00	0.04				
8.00	0.05	0.00	0.05				
8.25	0.28	0.00	0.28				
8.50	0.30	0.00	0.30				
8.75	0.31	0.00	0.31				
9.00	0.32	0.00	0.32				
9.25	0.35	0.00	0.35				
9.50	0.39	0.00	0.39				
9.75	0.43	0.00	0.43				
10.00	0.48	0.00	0.48				
10.25	0.53	0.00	0.53				
10.50	0.59	0.00	0.59				
10.75	0.68	0.00	0.68				
11.00	0.81	0.00	0.81				
11.25	1.01	0.00	1.01				
11.50	1.25	0.00	1.25				
11.75	1.93	0.00	1.93				
12.00	4.17	0.00	4.17				
12.25	7.11	0.00	7.11				
12.50	4.62	0.00	4.62				
12.75	2.87	0.00	2.87				
13.00	2.16	0.00	2.16				
13.25	1.80	0.00	1.80				
13.50	1.69	0.00	1.69				
13.75	1.61	0.00	1.61				
14.00	1.56	0.00	1.56				
14.25	1.50	0.00	1.50				
14.50	1.45	0.00	1.45				
14.75	1.40	0.00	1.40				
15.00	1.34	0.00	1.34				
15.25	1.29	0.00	1.29				
15.50	1.24	0.00	1.24				
15.75	1.20	0.00	1.20				
16.00	1.15	0.00	1.15				
16.25	1.10	0.00	1.10				
16.50	1.04	0.00	1.04				
16.75	0.97	0.00	0.97				
17.00	0.91	0.00	0.91				
17.25	0.85	0.00	0.85				
17.50	0.79	0.00	0.79				
17.75	0.73	0.00	0.73				

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NOAA 24-hr C 100-Year Rainfall=8.98"

Printed 5/1/2024

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

Subcatchment 3S: DA#4	Runoff Area=9,330 sf 70.69% Impervious Runoff Depth>7.55" Flow Length=143' Tc=1.4 min CN=93 Runoff=2.22 cfs 0.135 af
Subcatchment 4S: DA#2	Runoff Area=3,733 sf 67.48% Impervious Runoff Depth>7.46" Flow Length=44' Slope=0.0948 '/' Tc=3.8 min CN=92 Runoff=0.84 cfs 0.053 af
Subcatchment 11S: DA#5	Runoff Area=9,317 sf 15.83% Impervious Runoff Depth>6.48" Flow Length=44' Slope=0.0889 '/' Tc=1.1 min CN=83 Runoff=2.04 cfs 0.116 af
Subcatchment 13S: DA#11	Runoff Area=6,211 sf 83.67% Impervious Runoff Depth>7.73" Flow Length=81' Slope=0.0126 '/' Tc=1.2 min CN=95 Runoff=1.50 cfs 0.092 af
Subcatchment 14S: DA#6	Runoff Area=21,528 sf 73.17% Impervious Runoff Depth>7.55" Flow Length=119' Tc=3.4 min CN=93 Runoff=4.97 cfs 0.311 af
Subcatchment 16S: DA#7	Runoff Area=8,499 sf 87.34% Impervious Runoff Depth>7.80" Flow Length=120' Tc=1.5 min CN=96 Runoff=2.05 cfs 0.127 af
Subcatchment 19S: DA#8	Runoff Area=17,721 sf 97.79% Impervious Runoff Depth>7.92" Flow Length=73' Slope=0.0174 '/' Tc=1.0 min CN=98 Runoff=4.31 cfs 0.269 af
Subcatchment 21S: DA#9	Runoff Area=10,950 sf 68.20% Impervious Runoff Depth>7.46" Flow Length=128' Tc=1.4 min CN=92 Runoff=2.59 cfs 0.156 af
Subcatchment 22S: DA#10	Runoff Area=5,696 sf 41.20% Impervious Runoff Depth>6.92" Flow Length=99' Tc=12.1 min CN=87 Runoff=0.95 cfs 0.075 af
Subcatchment 25S: DA#12	Runoff Area=6,725 sf 87.20% Impervious Runoff Depth>7.80" Flow Length=98' Slope=0.0100 '/' Tc=1.5 min CN=96 Runoff=1.62 cfs 0.100 af
Subcatchment 26S: DA#1	Runoff Area=29,068 sf 39.09% Impervious Runoff Depth>6.93" Flow Length=405' Tc=5.5 min CN=87 Runoff=5.87 cfs 0.385 af
Subcatchment 32S: DA#3	Runoff Area=9,470 sf 40.45% Impervious Runoff Depth>6.94" Flow Length=161' Tc=1.0 min CN=87 Runoff=2.16 cfs 0.126 af
Subcatchment 33S: DA#13	Runoff Area=3,211 sf 51.14% Impervious Runoff Depth>7.15" Flow Length=52' Slope=0.0292 '/' Tc=0.6 min CN=89 Runoff=0.74 cfs 0.044 af
Subcatchment 34S: DA#14	Runoff Area=17,184 sf 73.97% Impervious Runoff Depth>7.55" Flow Length=100' Slope=0.0187 '/' Tc=1.2 min CN=93 Runoff=4.10 cfs 0.248 af
Subcatchment 35S: DA#15	Runoff Area=11,147 sf 0.00% Impervious Runoff Depth>6.10" Flow Length=558' Tc=21.2 min CN=80 Runoff=1.35 cfs 0.130 af
Pond 9P: I-2	Peak Elev=62.77' Inflow=4.10 cfs 0.248 af Outflow=4.10 cfs 0.248 af

EX and PR

NOAA 24-hr C 100-Year Rainfall=8.98"

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Pond 17P: SGW FOREBAY #1 Peak Elev=57.97' Storage=5,684 cf Inflow=24.13 cfs 1.557 af
Outflow=21.62 cfs 1.517 af

Pond 18P: SGW #1 Peak Elev=57.97' Storage=15,095 cf Inflow=23.65 cfs 1.633 af
Outflow=19.07 cfs 1.607 af

Pond 20P: CI-8 Peak Elev=58.68' Inflow=6.68 cfs 0.439 af
Outflow=6.68 cfs 0.439 af

Pond 27P: FES-4 Peak Elev=59.54' Inflow=5.87 cfs 0.385 af
15.0" Round Culvert n=0.012 L=25.5' S=0.0106 ' /' Outflow=5.87 cfs 0.385 af

Pond 37P: CI-4 Peak Elev=57.98' Inflow=2.22 cfs 0.135 af
Outflow=2.22 cfs 0.135 af

Pond 38P: CI-1 Peak Elev=61.61' Inflow=17.48 cfs 1.112 af
Outflow=17.48 cfs 1.112 af

Pond 39P: CI-9 Peak Elev=62.68' Inflow=15.43 cfs 0.985 af
Outflow=15.43 cfs 0.985 af

Pond 40P: CI-6 Peak Elev=62.71' Inflow=3.23 cfs 0.232 af
Outflow=3.23 cfs 0.232 af

Pond 43P: CI-7 Peak Elev=62.71' Inflow=0.95 cfs 0.075 af
Outflow=0.95 cfs 0.075 af

Pond 44P: CI-2 Peak Elev=62.77' Inflow=5.60 cfs 0.340 af
Outflow=5.60 cfs 0.340 af

Pond 45P: CI-3 Peak Elev=62.76' Inflow=7.96 cfs 0.484 af
Outflow=7.96 cfs 0.484 af

Pond 46P: CI-5 Peak Elev=62.76' Inflow=0.74 cfs 0.044 af
Outflow=0.74 cfs 0.044 af

Link 2L: SP#1 Inflow=28.22 cfs 2.301 af
Primary=28.22 cfs 2.301 af

Total Runoff Area = 3.898 ac Runoff Volume = 2.367 af Average Runoff Depth = 7.29"
40.21% Pervious = 1.567 ac 59.79% Impervious = 2.330 ac

EX and PR

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NOAA 24-hr C 100-Year Rainfall=8.98"

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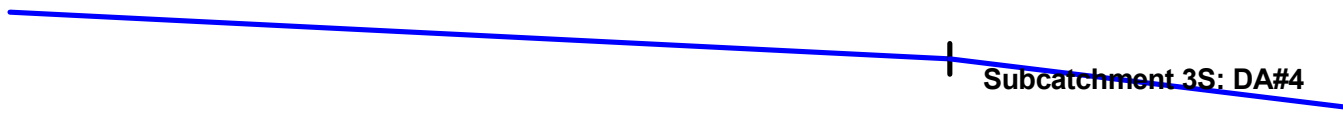
Summary for Subcatchment 3S: DA#4

Runoff = 2.22 cfs @ 12.07 hrs, Volume= 0.135 af, Depth> 7.55"
 Routed to Pond 37P : CI-4

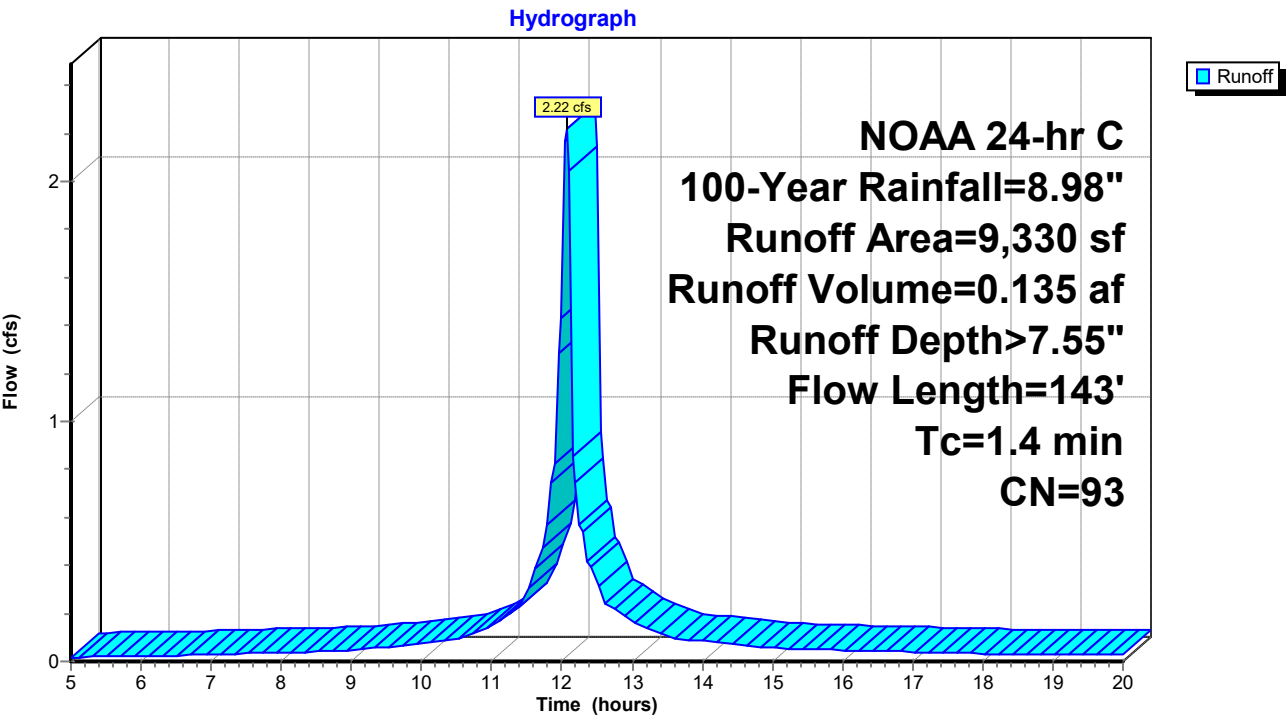
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C 100-Year Rainfall=8.98"

Area (sf)	CN	Description
6,595	98	Roofs, HSG D
2,735	80	>75% Grass cover, Good, HSG D
9,330	93	Weighted Average
2,735		29.31% Pervious Area
6,595		70.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0180	1.36		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"
0.2	43	0.0441	4.26		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.4	143	Total			



Subcatchment 3S: DA#4



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NOAA 24-hr C 100-Year Rainfall=8.98"

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Hydrograph for Subcatchment 3S: DA#4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.57	0.15	0.02	18.00	8.27	7.43	0.03
5.25	0.61	0.17	0.02	18.25	8.30	7.46	0.03
5.50	0.64	0.19	0.02	18.50	8.34	7.50	0.03
5.75	0.68	0.22	0.02	18.75	8.37	7.53	0.03
6.00	0.71	0.24	0.02	19.00	8.41	7.57	0.03
6.25	0.75	0.27	0.02	19.25	8.44	7.60	0.03
6.50	0.79	0.29	0.02	19.50	8.48	7.63	0.03
6.75	0.83	0.32	0.03	19.75	8.51	7.67	0.03
7.00	0.88	0.36	0.03	20.00	8.54	7.70	0.03
7.25	0.92	0.39	0.03				
7.50	0.97	0.43	0.03				
7.75	1.02	0.47	0.04				
8.00	1.08	0.51	0.04				
8.25	1.13	0.56	0.04				
8.50	1.19	0.60	0.04				
8.75	1.25	0.65	0.04				
9.00	1.31	0.70	0.05				
9.25	1.38	0.76	0.05				
9.50	1.46	0.83	0.06				
9.75	1.54	0.90	0.07				
10.00	1.64	0.99	0.07				
10.25	1.74	1.08	0.08				
10.50	1.85	1.18	0.09				
10.75	1.99	1.30	0.12				
11.00	2.16	1.46	0.14				
11.25	2.38	1.66	0.20				
11.50	2.65	1.92	0.26				
11.75	3.16	2.40	0.53				
12.00	4.28	3.49	1.43				
12.25	5.82	5.01	0.57				
12.50	6.33	5.50	0.37				
12.75	6.60	5.78	0.21				
13.00	6.82	6.00	0.17				
13.25	6.99	6.16	0.13				
13.50	7.13	6.30	0.11				
13.75	7.24	6.41	0.09				
14.00	7.34	6.51	0.09				
14.25	7.44	6.60	0.08				
14.50	7.52	6.69	0.07				
14.75	7.60	6.77	0.06				
15.00	7.67	6.83	0.06				
15.25	7.73	6.90	0.05				
15.50	7.79	6.96	0.05				
15.75	7.85	7.01	0.05				
16.00	7.90	7.07	0.05				
16.25	7.96	7.12	0.04				
16.50	8.01	7.17	0.04				
16.75	8.06	7.22	0.04				
17.00	8.10	7.27	0.04				
17.25	8.15	7.31	0.04				
17.50	8.19	7.35	0.04				
17.75	8.23	7.39	0.03				

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NOAA 24-hr C 100-Year Rainfall=8.98"

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Summary for Subcatchment 4S: DA#2

Runoff = 0.84 cfs @ 12.10 hrs, Volume= 0.053 af, Depth> 7.46"
Routed to Pond 20P : CI-8

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 100-Year Rainfall=8.98"

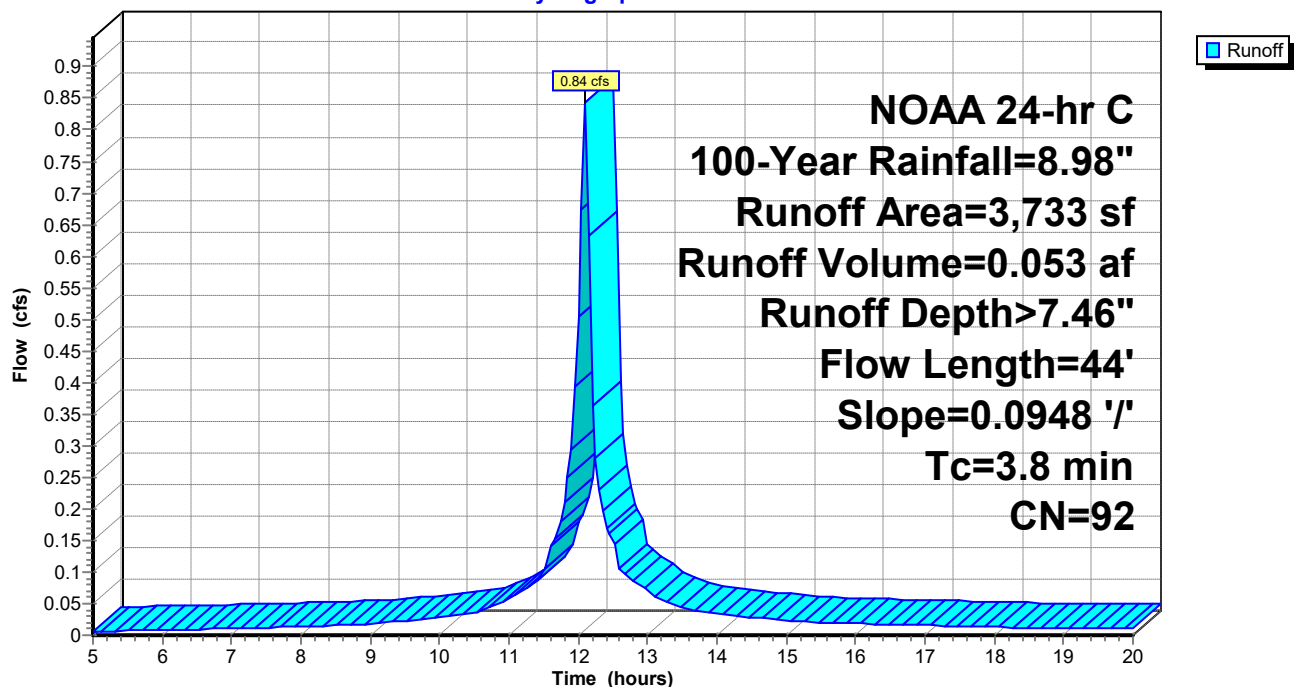
Area (sf)	CN	Description
2,519	98	Paved parking, HSG D
1,214	80	>75% Grass cover, Good, HSG D
3,733	92	Weighted Average
1,214		32.52% Pervious Area
2,519		67.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.8	44	0.0948	0.19		Sheet Flow, Grass: Dense n= 0.240 P2= 3.42"

Subcatchment 4S: DA#2

Subcatchment 4S: DA#2

Hydrograph



EX and PR

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NOAA 24-hr C 100-Year Rainfall=8.98"

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Hydrograph for Subcatchment 4S: DA#2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.57	0.12	0.01	18.00	8.27	7.31	0.01
5.25	0.61	0.14	0.01	18.25	8.30	7.34	0.01
5.50	0.64	0.16	0.01	18.50	8.34	7.38	0.01
5.75	0.68	0.18	0.01	18.75	8.37	7.41	0.01
6.00	0.71	0.21	0.01	19.00	8.41	7.45	0.01
6.25	0.75	0.23	0.01	19.25	8.44	7.48	0.01
6.50	0.79	0.26	0.01	19.50	8.48	7.51	0.01
6.75	0.83	0.28	0.01	19.75	8.51	7.55	0.01
7.00	0.88	0.31	0.01	20.00	8.54	7.58	0.01
7.25	0.92	0.35	0.01				
7.50	0.97	0.38	0.01				
7.75	1.02	0.42	0.01				
8.00	1.08	0.46	0.01				
8.25	1.13	0.50	0.01				
8.50	1.19	0.55	0.02				
8.75	1.25	0.59	0.02				
9.00	1.31	0.64	0.02				
9.25	1.38	0.70	0.02				
9.50	1.46	0.77	0.02				
9.75	1.54	0.84	0.03				
10.00	1.64	0.92	0.03				
10.25	1.74	1.01	0.03				
10.50	1.85	1.10	0.03				
10.75	1.99	1.23	0.04				
11.00	2.16	1.38	0.06				
11.25	2.38	1.58	0.07				
11.50	2.65	1.84	0.09				
11.75	3.16	2.31	0.18				
12.00	4.28	3.39	0.50				
12.25	5.82	4.90	0.28				
12.50	6.33	5.39	0.15				
12.75	6.60	5.66	0.09				
13.00	6.82	5.88	0.07				
13.25	6.99	6.05	0.05				
13.50	7.13	6.18	0.04				
13.75	7.24	6.29	0.04				
14.00	7.34	6.39	0.03				
14.25	7.44	6.49	0.03				
14.50	7.52	6.57	0.03				
14.75	7.60	6.65	0.03				
15.00	7.67	6.72	0.02				
15.25	7.73	6.78	0.02				
15.50	7.79	6.84	0.02				
15.75	7.85	6.89	0.02				
16.00	7.90	6.95	0.02				
16.25	7.96	7.00	0.02				
16.50	8.01	7.05	0.02				
16.75	8.06	7.10	0.02				
17.00	8.10	7.15	0.02				
17.25	8.15	7.19	0.01				
17.50	8.19	7.23	0.01				
17.75	8.23	7.27	0.01				

EX and PR

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NOAA 24-hr C 100-Year Rainfall=8.98"

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Summary for Subcatchment 11S: DA#5

Runoff = 2.04 cfs @ 12.06 hrs, Volume= 0.116 af, Depth> 6.48"
Routed to Pond 18P : SGW #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 100-Year Rainfall=8.98"

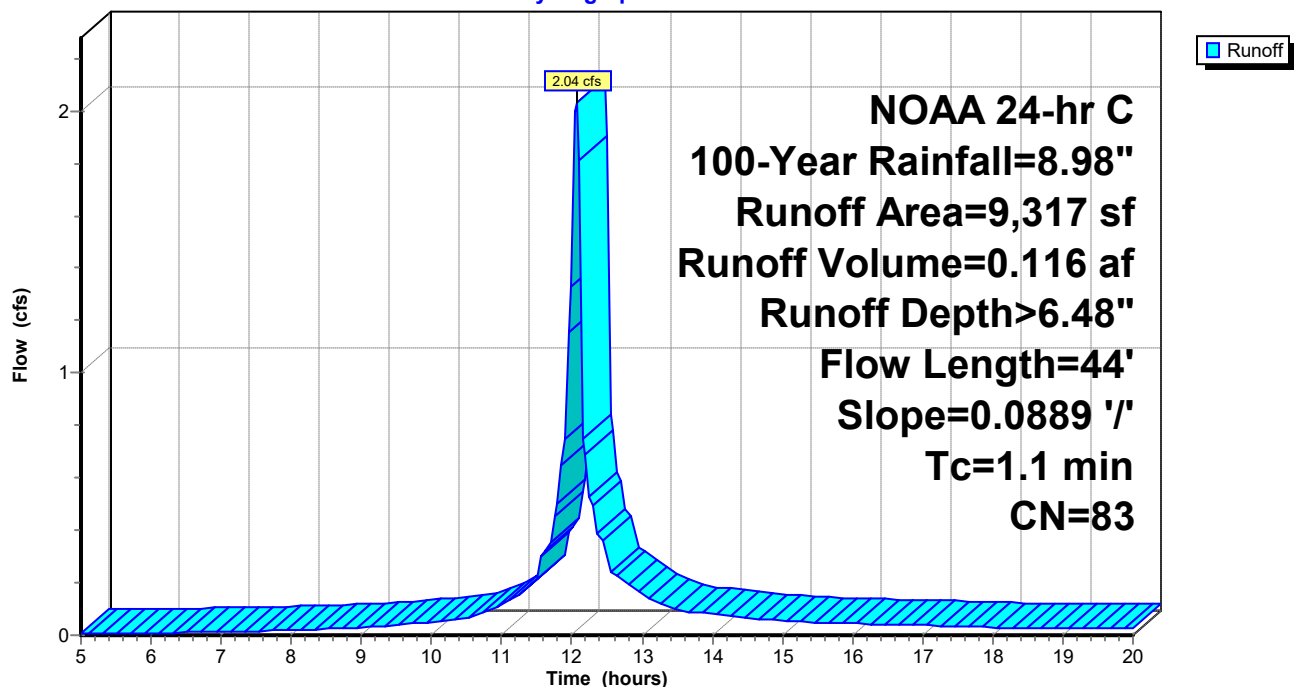
Area (sf)	CN	Description
1,475	98	Paved parking, HSG D
7,842	80	>75% Grass cover, Good, HSG D
9,317	83	Weighted Average
7,842		84.17% Pervious Area
1,475		15.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	44	0.0889	0.65		Sheet Flow, Fallow n= 0.050 P2= 3.42"

Subcatchment 11S: DA#5

Subcatchment 11S: DA#5

Hydrograph



EX and PR

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Hydrograph for Subcatchment 11S: DA#5

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.57	0.01	0.00	18.00	8.27	6.23	0.03
5.25	0.61	0.02	0.00	18.25	8.30	6.27	0.03
5.50	0.64	0.02	0.01	18.50	8.34	6.30	0.03
5.75	0.68	0.03	0.01	18.75	8.37	6.34	0.03
6.00	0.71	0.04	0.01	19.00	8.41	6.37	0.03
6.25	0.75	0.05	0.01	19.25	8.44	6.40	0.03
6.50	0.79	0.06	0.01	19.50	8.48	6.43	0.03
6.75	0.83	0.07	0.01	19.75	8.51	6.46	0.03
7.00	0.88	0.09	0.01	20.00	8.54	6.49	0.03
7.25	0.92	0.10	0.01				
7.50	0.97	0.12	0.02				
7.75	1.02	0.14	0.02				
8.00	1.08	0.16	0.02				
8.25	1.13	0.19	0.02				
8.50	1.19	0.21	0.02				
8.75	1.25	0.24	0.03				
9.00	1.31	0.28	0.03				
9.25	1.38	0.31	0.03				
9.50	1.46	0.35	0.04				
9.75	1.54	0.40	0.05				
10.00	1.64	0.46	0.05				
10.25	1.74	0.52	0.06				
10.50	1.85	0.60	0.07				
10.75	1.99	0.69	0.09				
11.00	2.16	0.80	0.11				
11.25	2.38	0.96	0.16				
11.50	2.65	1.17	0.21				
11.75	3.16	1.57	0.46				
12.00	4.28	2.53	1.33				
12.25	5.82	3.93	0.53				
12.50	6.33	4.40	0.34				
12.75	6.60	4.65	0.20				
13.00	6.82	4.86	0.16				
13.25	6.99	5.02	0.12				
13.50	7.13	5.15	0.10				
13.75	7.24	5.25	0.09				
14.00	7.34	5.35	0.08				
14.25	7.44	5.44	0.07				
14.50	7.52	5.52	0.07				
14.75	7.60	5.60	0.06				
15.00	7.67	5.66	0.05				
15.25	7.73	5.72	0.05				
15.50	7.79	5.78	0.05				
15.75	7.85	5.83	0.05				
16.00	7.90	5.89	0.04				
16.25	7.96	5.94	0.04				
16.50	8.01	5.99	0.04				
16.75	8.06	6.03	0.04				
17.00	8.10	6.08	0.04				
17.25	8.15	6.12	0.04				
17.50	8.19	6.16	0.03				
17.75	8.23	6.20	0.03				

EX and PR

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NOAA 24-hr C 100-Year Rainfall=8.98"

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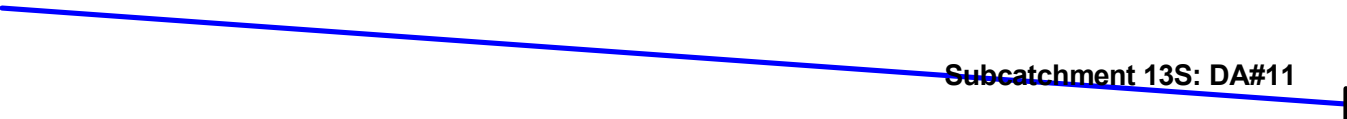
Summary for Subcatchment 13S: DA#11

Runoff = 1.50 cfs @ 12.06 hrs, Volume= 0.092 af, Depth> 7.73"
Routed to Pond 44P : CI-2

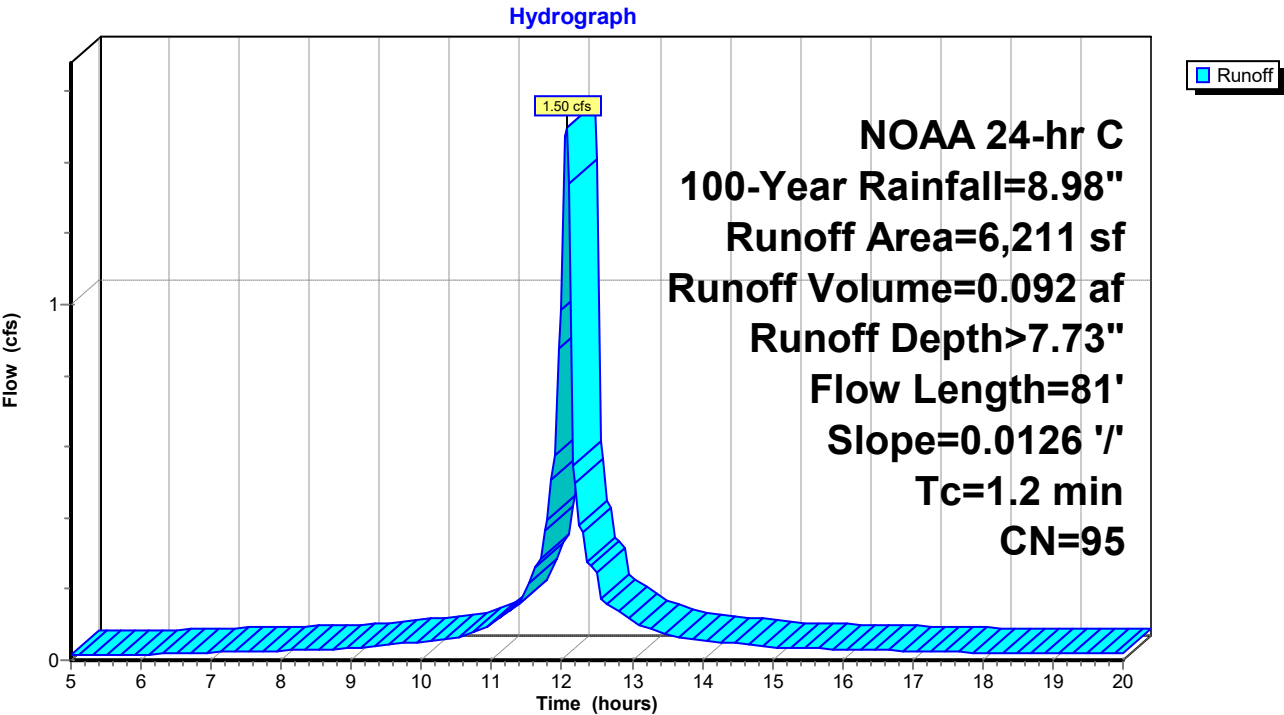
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 100-Year Rainfall=8.98"

Area (sf)	CN	Description
5,197	98	Roofs, HSG D
1,014	80	>75% Grass cover, Good, HSG D
6,211	95	Weighted Average
1,014		16.33% Pervious Area
5,197		83.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	81	0.0126	1.13		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"



Subcatchment 13S: DA#11



EX and PR

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NOAA 24-hr C 100-Year Rainfall=8.98"

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Hydrograph for Subcatchment 13S: DA#11

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.57	0.22	0.01	18.00	8.27	7.67	0.02
5.25	0.61	0.24	0.01	18.25	8.30	7.70	0.02
5.50	0.64	0.27	0.02	18.50	8.34	7.74	0.02
5.75	0.68	0.30	0.02	18.75	8.37	7.77	0.02
6.00	0.71	0.32	0.02	19.00	8.41	7.81	0.02
6.25	0.75	0.35	0.02	19.25	8.44	7.84	0.02
6.50	0.79	0.39	0.02	19.50	8.48	7.88	0.02
6.75	0.83	0.42	0.02	19.75	8.51	7.91	0.02
7.00	0.88	0.46	0.02	20.00	8.54	7.94	0.02
7.25	0.92	0.50	0.02				
7.50	0.97	0.54	0.02				
7.75	1.02	0.58	0.03				
8.00	1.08	0.63	0.03				
8.25	1.13	0.68	0.03				
8.50	1.19	0.73	0.03				
8.75	1.25	0.78	0.03				
9.00	1.31	0.84	0.03				
9.25	1.38	0.90	0.04				
9.50	1.46	0.97	0.04				
9.75	1.54	1.05	0.05				
10.00	1.64	1.14	0.05				
10.25	1.74	1.24	0.06				
10.50	1.85	1.34	0.06				
10.75	1.99	1.47	0.08				
11.00	2.16	1.63	0.10				
11.25	2.38	1.84	0.14				
11.50	2.65	2.11	0.18				
11.75	3.16	2.60	0.37				
12.00	4.28	3.71	0.99				
12.25	5.82	5.24	0.38				
12.50	6.33	5.74	0.24				
12.75	6.60	6.01	0.14				
13.00	6.82	6.23	0.11				
13.25	6.99	6.40	0.09				
13.50	7.13	6.53	0.07				
13.75	7.24	6.64	0.06				
14.00	7.34	6.75	0.06				
14.25	7.44	6.84	0.05				
14.50	7.52	6.93	0.05				
14.75	7.60	7.00	0.04				
15.00	7.67	7.07	0.04				
15.25	7.73	7.13	0.03				
15.50	7.79	7.19	0.03				
15.75	7.85	7.25	0.03				
16.00	7.90	7.31	0.03				
16.25	7.96	7.36	0.03				
16.50	8.01	7.41	0.03				
16.75	8.06	7.46	0.03				
17.00	8.10	7.51	0.03				
17.25	8.15	7.55	0.02				
17.50	8.19	7.59	0.02				
17.75	8.23	7.63	0.02				

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Summary for Subcatchment 14S: DA#6

Runoff = 4.97 cfs @ 12.09 hrs, Volume= 0.311 af, Depth> 7.55"
 Routed to Pond 17P : SGW FOREBAY #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C 100-Year Rainfall=8.98"

Area (sf)	CN	Description
15,753	98	Roofs, HSG D
5,775	80	>75% Grass cover, Good, HSG D
21,528	93	Weighted Average
5,775		26.83% Pervious Area
15,753		73.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	100	0.0319	0.51		Sheet Flow, Fallow n= 0.050 P2= 3.42"
0.1	19	0.0726	4.34		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
3.4	119	Total			

Subcatchment 14S: DA#6

EX and PR

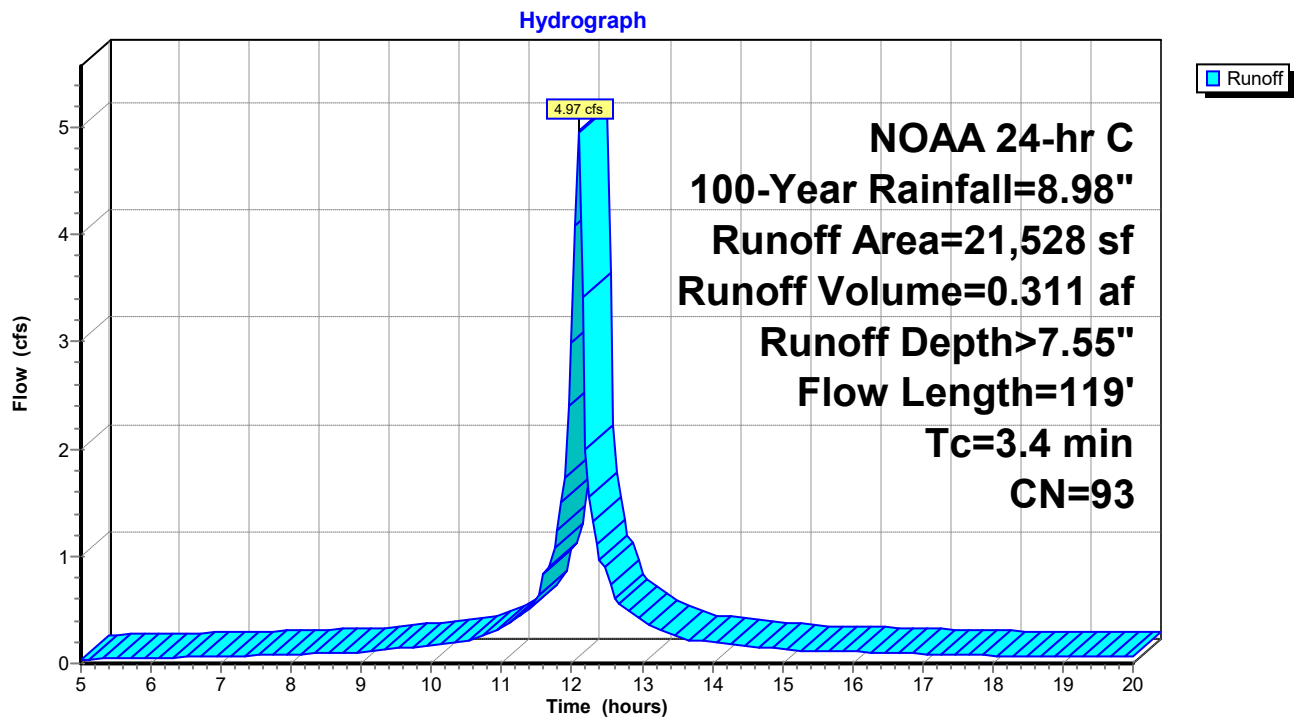
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Subcatchment 14S: DA#6



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Printed 5/1/2024

Hydrograph for Subcatchment 14S: DA#6

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.57	0.15	0.04	18.00	8.27	7.43	0.07
5.25	0.61	0.17	0.04	18.25	8.30	7.46	0.07
5.50	0.64	0.19	0.04	18.50	8.34	7.50	0.07
5.75	0.68	0.22	0.05	18.75	8.37	7.53	0.07
6.00	0.71	0.24	0.05	19.00	8.41	7.57	0.07
6.25	0.75	0.27	0.05	19.25	8.44	7.60	0.07
6.50	0.79	0.29	0.06	19.50	8.48	7.63	0.07
6.75	0.83	0.32	0.06	19.75	8.51	7.67	0.06
7.00	0.88	0.36	0.07	20.00	8.54	7.70	0.06
7.25	0.92	0.39	0.07				
7.50	0.97	0.43	0.08				
7.75	1.02	0.47	0.08				
8.00	1.08	0.51	0.09				
8.25	1.13	0.56	0.09				
8.50	1.19	0.60	0.10				
8.75	1.25	0.65	0.10				
9.00	1.31	0.70	0.11				
9.25	1.38	0.76	0.12				
9.50	1.46	0.83	0.14				
9.75	1.54	0.90	0.15				
10.00	1.64	0.99	0.17				
10.25	1.74	1.08	0.19				
10.50	1.85	1.18	0.20				
10.75	1.99	1.30	0.27				
11.00	2.16	1.46	0.33				
11.25	2.38	1.66	0.44				
11.50	2.65	1.92	0.55				
11.75	3.16	2.40	1.08				
12.00	4.28	3.49	2.98				
12.25	5.82	5.01	1.55				
12.50	6.33	5.50	0.89				
12.75	6.60	5.78	0.52				
13.00	6.82	6.00	0.40				
13.25	6.99	6.16	0.31				
13.50	7.13	6.30	0.25				
13.75	7.24	6.41	0.21				
14.00	7.34	6.51	0.20				
14.25	7.44	6.60	0.18				
14.50	7.52	6.69	0.16				
14.75	7.60	6.77	0.15				
15.00	7.67	6.83	0.13				
15.25	7.73	6.90	0.12				
15.50	7.79	6.96	0.12				
15.75	7.85	7.01	0.11				
16.00	7.90	7.07	0.11				
16.25	7.96	7.12	0.10				
16.50	8.01	7.17	0.10				
16.75	8.06	7.22	0.10				
17.00	8.10	7.27	0.09				
17.25	8.15	7.31	0.09				
17.50	8.19	7.35	0.08				
17.75	8.23	7.39	0.08				

EX and PR

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NOAA 24-hr C 100-Year Rainfall=8.98"

Printed 5/1/2024

Summary for Subcatchment 16S: DA#7

Runoff = 2.05 cfs @ 12.07 hrs, Volume= 0.127 af, Depth> 7.80"
 Routed to Pond 38P : CI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C 100-Year Rainfall=8.98"

Area (sf)	CN	Description
7,423	98	Roofs, HSG D
1,076	80	>75% Grass cover, Good, HSG D
8,499	96	Weighted Average
1,076		12.66% Pervious Area
7,423		87.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0151	1.27		Sheet Flow, GRAVEL LOT Smooth surfaces n= 0.011 P2= 3.42"
0.2	20	0.0085	1.87		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.5	120	Total			



EX and PR

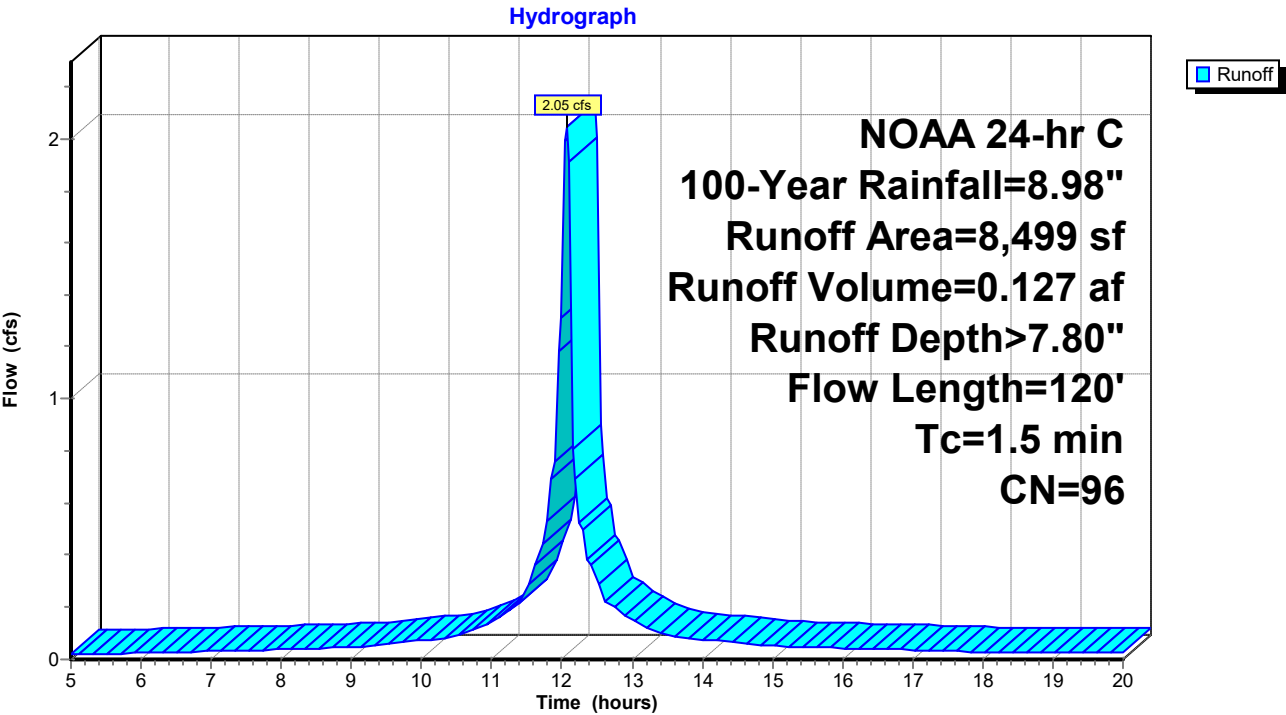
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NOAA 24-hr C 100-Year Rainfall=8.98"

Printed 5/1/2024

Subcatchment 16S: DA#7



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NOAA 24-hr C 100-Year Rainfall=8.98"

Printed 5/1/2024

Hydrograph for Subcatchment 16S: DA#7

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.57	0.26	0.02	18.00	8.27	7.79	0.03
5.25	0.61	0.29	0.02	18.25	8.30	7.82	0.03
5.50	0.64	0.32	0.02	18.50	8.34	7.86	0.03
5.75	0.68	0.35	0.02	18.75	8.37	7.89	0.03
6.00	0.71	0.38	0.02	19.00	8.41	7.93	0.03
6.25	0.75	0.41	0.03	19.25	8.44	7.96	0.03
6.50	0.79	0.44	0.03	19.50	8.48	8.00	0.03
6.75	0.83	0.48	0.03	19.75	8.51	8.03	0.03
7.00	0.88	0.52	0.03	20.00	8.54	8.06	0.03
7.25	0.92	0.56	0.03				
7.50	0.97	0.60	0.04				
7.75	1.02	0.65	0.04				
8.00	1.08	0.70	0.04				
8.25	1.13	0.75	0.04				
8.50	1.19	0.80	0.04				
8.75	1.25	0.86	0.04				
9.00	1.31	0.92	0.05				
9.25	1.38	0.98	0.05				
9.50	1.46	1.05	0.06				
9.75	1.54	1.14	0.07				
10.00	1.64	1.23	0.07				
10.25	1.74	1.32	0.08				
10.50	1.85	1.43	0.09				
10.75	1.99	1.56	0.12				
11.00	2.16	1.72	0.14				
11.25	2.38	1.94	0.19				
11.50	2.65	2.21	0.24				
11.75	3.16	2.71	0.50				
12.00	4.28	3.82	1.31				
12.25	5.82	5.35	0.53				
12.50	6.33	5.85	0.34				
12.75	6.60	6.13	0.20				
13.00	6.82	6.35	0.16				
13.25	6.99	6.52	0.12				
13.50	7.13	6.65	0.10				
13.75	7.24	6.76	0.08				
14.00	7.34	6.87	0.08				
14.25	7.44	6.96	0.07				
14.50	7.52	7.04	0.07				
14.75	7.60	7.12	0.06				
15.00	7.67	7.19	0.05				
15.25	7.73	7.25	0.05				
15.50	7.79	7.31	0.05				
15.75	7.85	7.37	0.04				
16.00	7.90	7.43	0.04				
16.25	7.96	7.48	0.04				
16.50	8.01	7.53	0.04				
16.75	8.06	7.58	0.04				
17.00	8.10	7.62	0.04				
17.25	8.15	7.67	0.03				
17.50	8.19	7.71	0.03				
17.75	8.23	7.75	0.03				

EX and PR

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NOAA 24-hr C 100-Year Rainfall=8.98"

Printed 5/1/2024

Summary for Subcatchment 19S: DA#8

Runoff = 4.31 cfs @ 12.06 hrs, Volume= 0.269 af, Depth> 7.92"
Routed to Pond 39P : CI-9

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 100-Year Rainfall=8.98"

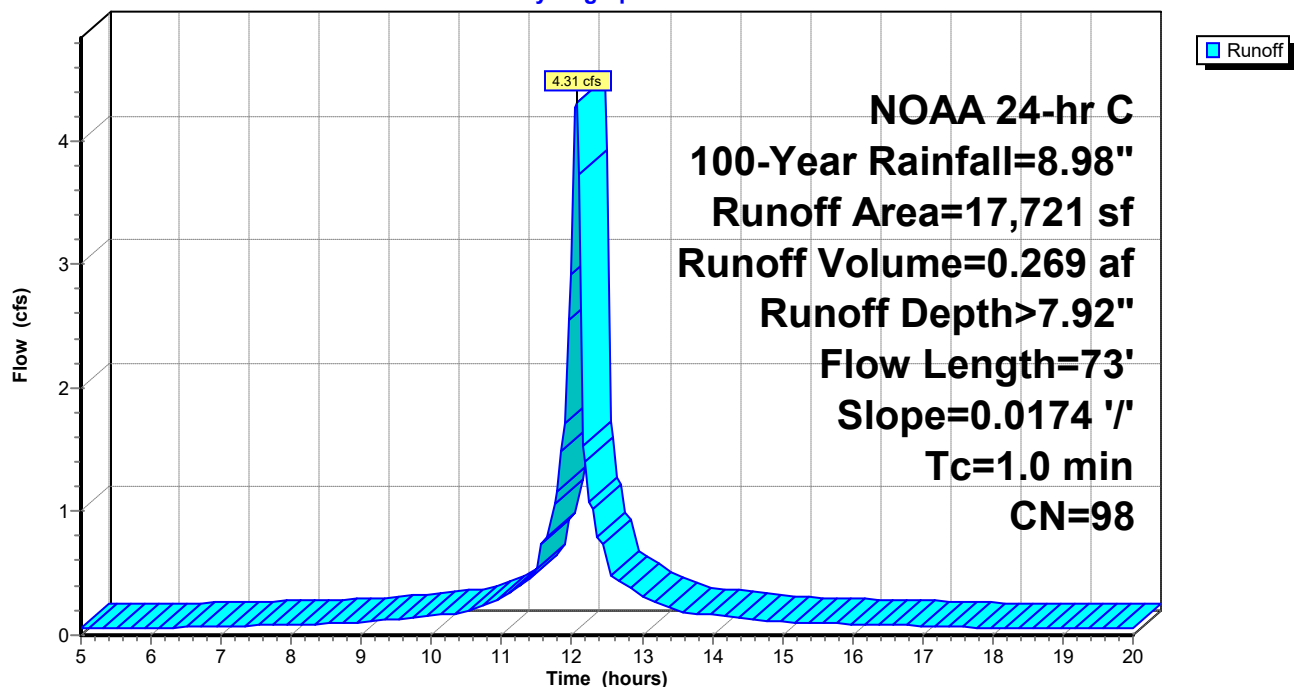
Area (sf)	CN	Description
17,329	98	Roofs, HSG D
392	80	>75% Grass cover, Good, HSG D
17,721	98	Weighted Average
392		2.21% Pervious Area
17,329		97.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	73	0.0174	1.26		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"

Subcatchment 19S: DA#8

Subcatchment 19S: DA#8

Hydrograph



EX and PR

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NOAA 24-hr C 100-Year Rainfall=8.98"

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Hydrograph for Subcatchment 19S: DA#8

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.57	0.38	0.05	18.00	8.27	8.03	0.06
5.25	0.61	0.41	0.05	18.25	8.30	8.06	0.06
5.50	0.64	0.45	0.05	18.50	8.34	8.10	0.06
5.75	0.68	0.48	0.06	18.75	8.37	8.13	0.06
6.00	0.71	0.51	0.06	19.00	8.41	8.17	0.06
6.25	0.75	0.55	0.06	19.25	8.44	8.20	0.05
6.50	0.79	0.59	0.06	19.50	8.48	8.24	0.05
6.75	0.83	0.63	0.07	19.75	8.51	8.27	0.05
7.00	0.88	0.67	0.07	20.00	8.54	8.30	0.05
7.25	0.92	0.72	0.08				
7.50	0.97	0.76	0.08				
7.75	1.02	0.81	0.08				
8.00	1.08	0.86	0.09				
8.25	1.13	0.92	0.09				
8.50	1.19	0.98	0.09				
8.75	1.25	1.03	0.10				
9.00	1.31	1.09	0.10				
9.25	1.38	1.16	0.12				
9.50	1.46	1.24	0.13				
9.75	1.54	1.32	0.15				
10.00	1.64	1.42	0.16				
10.25	1.74	1.52	0.17				
10.50	1.85	1.63	0.19				
10.75	1.99	1.76	0.25				
11.00	2.16	1.93	0.30				
11.25	2.38	2.15	0.41				
11.50	2.65	2.42	0.53				
11.75	3.16	2.92	1.07				
12.00	4.28	4.04	2.92				
12.25	5.82	5.58	1.08				
12.50	6.33	6.09	0.69				
12.75	6.60	6.36	0.41				
13.00	6.82	6.59	0.32				
13.25	6.99	6.75	0.25				
13.50	7.13	6.89	0.20				
13.75	7.24	7.00	0.17				
14.00	7.34	7.10	0.16				
14.25	7.44	7.20	0.15				
14.50	7.52	7.28	0.14				
14.75	7.60	7.36	0.12				
15.00	7.67	7.43	0.11				
15.25	7.73	7.49	0.10				
15.50	7.79	7.55	0.10				
15.75	7.85	7.61	0.09				
16.00	7.90	7.66	0.09				
16.25	7.96	7.72	0.09				
16.50	8.01	7.77	0.08				
16.75	8.06	7.82	0.08				
17.00	8.10	7.86	0.08				
17.25	8.15	7.91	0.07				
17.50	8.19	7.95	0.07				
17.75	8.23	7.99	0.06				

EX and PR

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NOAA 24-hr C 100-Year Rainfall=8.98"

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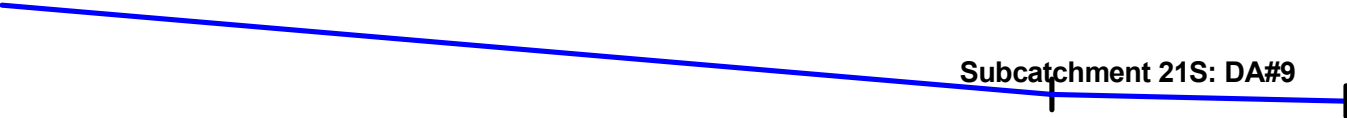
Summary for Subcatchment 21S: DA#9

Runoff = 2.59 cfs @ 12.07 hrs, Volume= 0.156 af, Depth> 7.46"
Routed to Pond 40P : CI-6

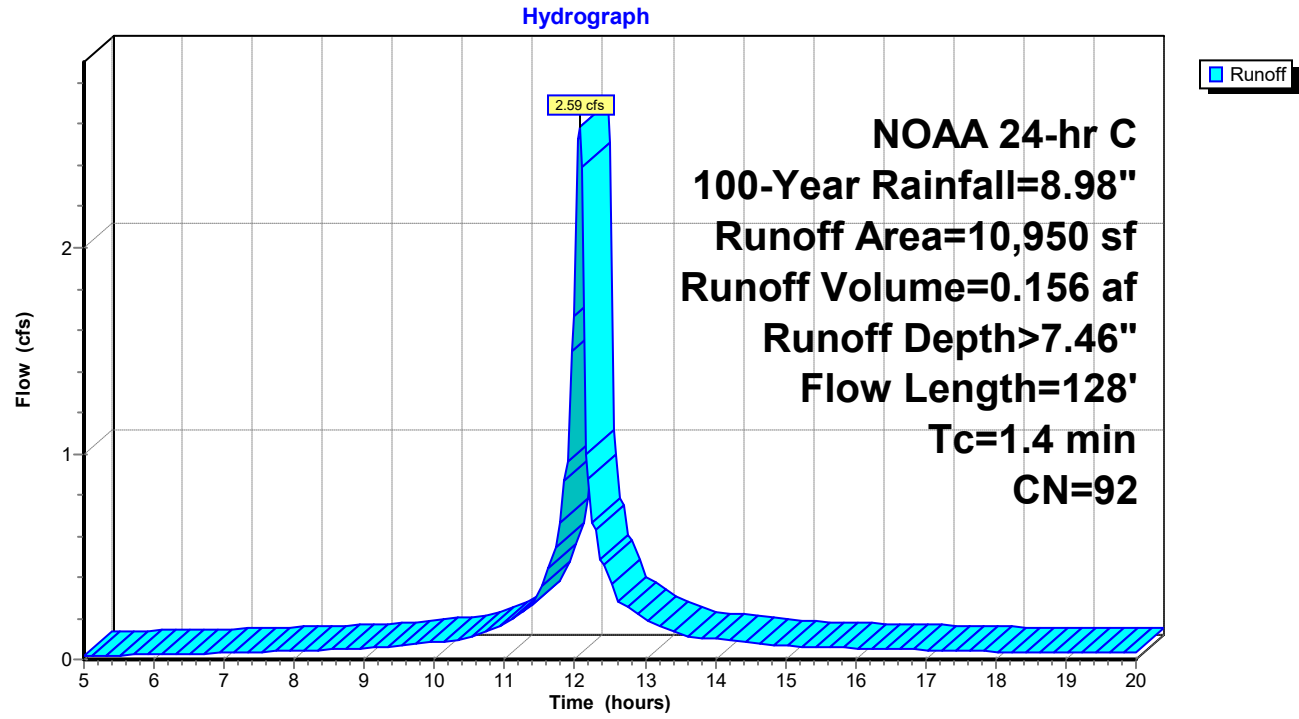
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 100-Year Rainfall=8.98"

Area (sf)	CN	Description
7,468	98	Roofs, HSG D
3,482	80	>75% Grass cover, Good, HSG D
10,950	92	Weighted Average
3,482		31.80% Pervious Area
7,468		68.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	100	0.0254	1.56		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"
0.3	28	0.0068	1.67		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.4	128	Total			



Subcatchment 21S: DA#9



EX and PR

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NOAA 24-hr C 100-Year Rainfall=8.98"

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Hydrograph for Subcatchment 21S: DA#9

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.57	0.12	0.02	18.00	8.27	7.31	0.04
5.25	0.61	0.14	0.02	18.25	8.30	7.34	0.04
5.50	0.64	0.16	0.02	18.50	8.34	7.38	0.04
5.75	0.68	0.18	0.02	18.75	8.37	7.41	0.03
6.00	0.71	0.21	0.02	19.00	8.41	7.45	0.03
6.25	0.75	0.23	0.03	19.25	8.44	7.48	0.03
6.50	0.79	0.26	0.03	19.50	8.48	7.51	0.03
6.75	0.83	0.28	0.03	19.75	8.51	7.55	0.03
7.00	0.88	0.31	0.03	20.00	8.54	7.58	0.03
7.25	0.92	0.35	0.03				
7.50	0.97	0.38	0.04				
7.75	1.02	0.42	0.04				
8.00	1.08	0.46	0.04				
8.25	1.13	0.50	0.04				
8.50	1.19	0.55	0.05				
8.75	1.25	0.59	0.05				
9.00	1.31	0.64	0.05				
9.25	1.38	0.70	0.06				
9.50	1.46	0.77	0.07				
9.75	1.54	0.84	0.08				
10.00	1.64	0.92	0.08				
10.25	1.74	1.01	0.09				
10.50	1.85	1.10	0.10				
10.75	1.99	1.23	0.14				
11.00	2.16	1.38	0.17				
11.25	2.38	1.58	0.23				
11.50	2.65	1.84	0.30				
11.75	3.16	2.31	0.62				
12.00	4.28	3.39	1.67				
12.25	5.82	4.90	0.67				
12.50	6.33	5.39	0.43				
12.75	6.60	5.66	0.25				
13.00	6.82	5.88	0.20				
13.25	6.99	6.05	0.15				
13.50	7.13	6.18	0.13				
13.75	7.24	6.29	0.11				
14.00	7.34	6.39	0.10				
14.25	7.44	6.49	0.09				
14.50	7.52	6.57	0.08				
14.75	7.60	6.65	0.07				
15.00	7.67	6.72	0.07				
15.25	7.73	6.78	0.06				
15.50	7.79	6.84	0.06				
15.75	7.85	6.89	0.06				
16.00	7.90	6.95	0.05				
16.25	7.96	7.00	0.05				
16.50	8.01	7.05	0.05				
16.75	8.06	7.10	0.05				
17.00	8.10	7.15	0.05				
17.25	8.15	7.19	0.04				
17.50	8.19	7.23	0.04				
17.75	8.23	7.27	0.04				

EX and PR

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NOAA 24-hr C 100-Year Rainfall=8.98"
Printed 5/1/2024

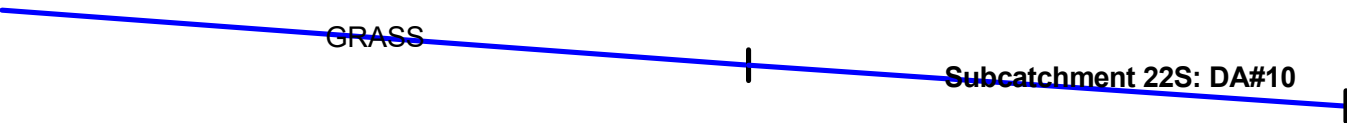
Summary for Subcatchment 22S: DA#10

Runoff = 0.95 cfs @ 12.19 hrs, Volume= 0.075 af, Depth> 6.92"
Routed to Pond 43P : CI-7

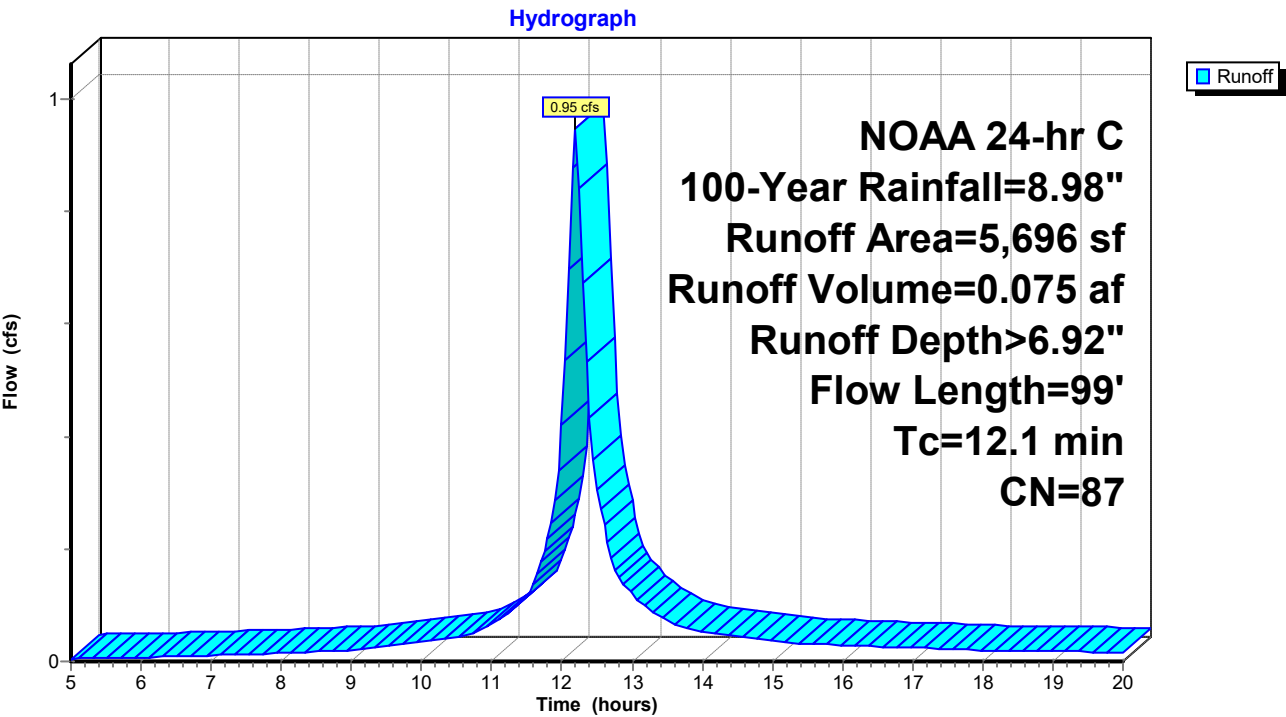
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 100-Year Rainfall=8.98"

Area (sf)	CN	Description
2,347	98	Roofs, HSG D
3,349	80	>75% Grass cover, Good, HSG D
5,696	87	Weighted Average
3,349		58.80% Pervious Area
2,347		41.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.3	55	0.0100	0.08		Sheet Flow, GRASS Grass: Dense n= 0.240 P2= 3.42"
0.8	44	0.0093	0.89		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"
12.1	99	Total			



Subcatchment 22S: DA#10



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NOAA 24-hr C 100-Year Rainfall=8.98"

Printed 5/1/2024

Hydrograph for Subcatchment 22S: DA#10

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.57	0.04	0.00	18.00	8.27	6.71	0.02
5.25	0.61	0.05	0.01	18.25	8.30	6.75	0.02
5.50	0.64	0.06	0.01	18.50	8.34	6.78	0.02
5.75	0.68	0.08	0.01	18.75	8.37	6.81	0.02
6.00	0.71	0.09	0.01	19.00	8.41	6.85	0.02
6.25	0.75	0.10	0.01	19.25	8.44	6.88	0.02
6.50	0.79	0.12	0.01	19.50	8.48	6.91	0.02
6.75	0.83	0.14	0.01	19.75	8.51	6.95	0.02
7.00	0.88	0.16	0.01	20.00	8.54	6.98	0.02
7.25	0.92	0.18	0.01				
7.50	0.97	0.21	0.01				
7.75	1.02	0.24	0.01				
8.00	1.08	0.27	0.02				
8.25	1.13	0.30	0.02				
8.50	1.19	0.33	0.02				
8.75	1.25	0.37	0.02				
9.00	1.31	0.41	0.02				
9.25	1.38	0.45	0.02				
9.50	1.46	0.51	0.03				
9.75	1.54	0.57	0.03				
10.00	1.64	0.63	0.03				
10.25	1.74	0.71	0.04				
10.50	1.85	0.79	0.04				
10.75	1.99	0.90	0.05				
11.00	2.16	1.03	0.07				
11.25	2.38	1.21	0.09				
11.50	2.65	1.44	0.12				
11.75	3.16	1.88	0.20				
12.00	4.28	2.89	0.42				
12.25	5.82	4.35	0.84				
12.50	6.33	4.83	0.31				
12.75	6.60	5.10	0.16				
13.00	6.82	5.31	0.12				
13.25	6.99	5.47	0.09				
13.50	7.13	5.60	0.07				
13.75	7.24	5.71	0.06				
14.00	7.34	5.81	0.05				
14.25	7.44	5.90	0.05				
14.50	7.52	5.99	0.04				
14.75	7.60	6.06	0.04				
15.00	7.67	6.13	0.04				
15.25	7.73	6.19	0.03				
15.50	7.79	6.25	0.03				
15.75	7.85	6.30	0.03				
16.00	7.90	6.36	0.03				
16.25	7.96	6.41	0.03				
16.50	8.01	6.46	0.03				
16.75	8.06	6.51	0.03				
17.00	8.10	6.55	0.02				
17.25	8.15	6.59	0.02				
17.50	8.19	6.64	0.02				
17.75	8.23	6.67	0.02				

EX and PR

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NOAA 24-hr C 100-Year Rainfall=8.98"

Printed 5/1/2024

Summary for Subcatchment 25S: DA#12

Runoff = 1.62 cfs @ 12.07 hrs, Volume= 0.100 af, Depth> 7.80"
Routed to Pond 45P : CI-3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 100-Year Rainfall=8.98"

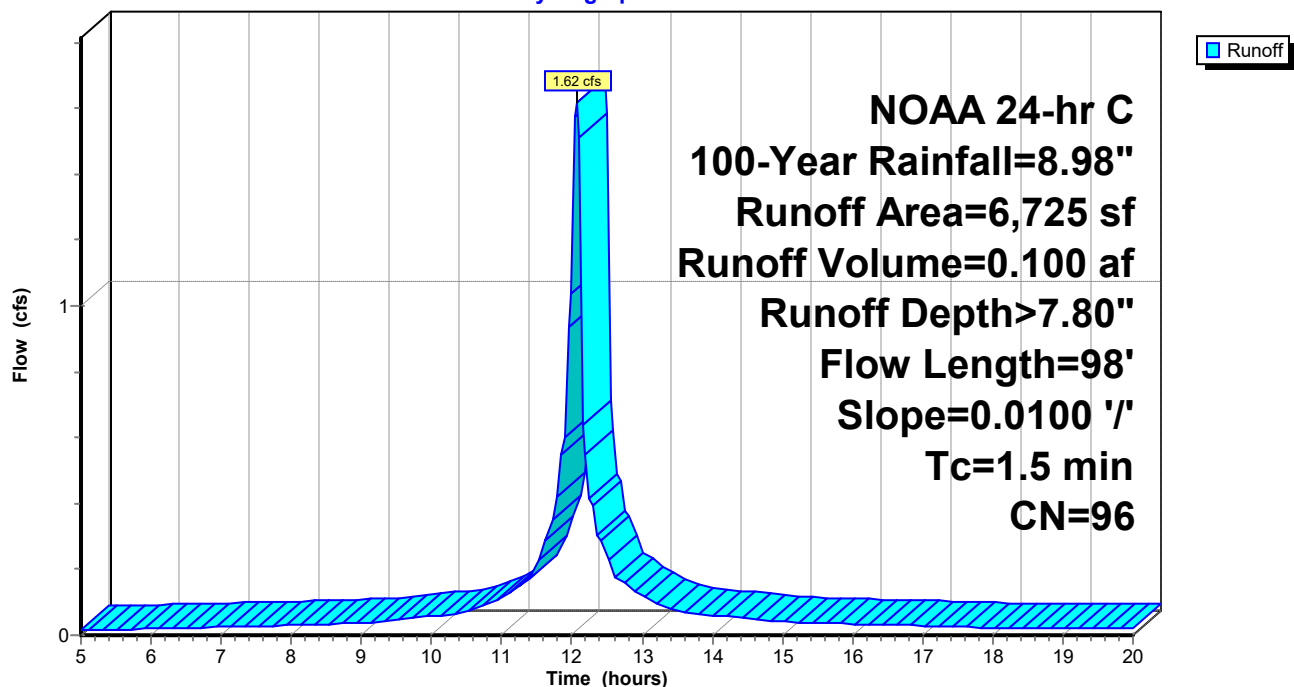
Area (sf)	CN	Description
5,864	98	Roofs, HSG D
861	80	>75% Grass cover, Good, HSG D
6,725	96	Weighted Average
861		12.80% Pervious Area
5,864		87.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	98	0.0100	1.07		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"

Subcatchment 25S: DA#12

Subcatchment 25S: DA#12

Hydrograph



EX and PR

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NOAA 24-hr C 100-Year Rainfall=8.98"

Printed 5/1/2024

Hydrograph for Subcatchment 25S: DA#12

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.57	0.26	0.02	18.00	8.27	7.79	0.02
5.25	0.61	0.29	0.02	18.25	8.30	7.82	0.02
5.50	0.64	0.32	0.02	18.50	8.34	7.86	0.02
5.75	0.68	0.35	0.02	18.75	8.37	7.89	0.02
6.00	0.71	0.38	0.02	19.00	8.41	7.93	0.02
6.25	0.75	0.41	0.02	19.25	8.44	7.96	0.02
6.50	0.79	0.44	0.02	19.50	8.48	8.00	0.02
6.75	0.83	0.48	0.02	19.75	8.51	8.03	0.02
7.00	0.88	0.52	0.02	20.00	8.54	8.06	0.02
7.25	0.92	0.56	0.03				
7.50	0.97	0.60	0.03				
7.75	1.02	0.65	0.03				
8.00	1.08	0.70	0.03				
8.25	1.13	0.75	0.03				
8.50	1.19	0.80	0.03				
8.75	1.25	0.86	0.04				
9.00	1.31	0.92	0.04				
9.25	1.38	0.98	0.04				
9.50	1.46	1.05	0.05				
9.75	1.54	1.14	0.05				
10.00	1.64	1.23	0.06				
10.25	1.74	1.32	0.06				
10.50	1.85	1.43	0.07				
10.75	1.99	1.56	0.09				
11.00	2.16	1.72	0.11				
11.25	2.38	1.94	0.15				
11.50	2.65	2.21	0.19				
11.75	3.16	2.71	0.39				
12.00	4.28	3.82	1.04				
12.25	5.82	5.35	0.42				
12.50	6.33	5.85	0.27				
12.75	6.60	6.13	0.16				
13.00	6.82	6.35	0.12				
13.25	6.99	6.52	0.10				
13.50	7.13	6.65	0.08				
13.75	7.24	6.76	0.07				
14.00	7.34	6.87	0.06				
14.25	7.44	6.96	0.06				
14.50	7.52	7.04	0.05				
14.75	7.60	7.12	0.05				
15.00	7.67	7.19	0.04				
15.25	7.73	7.25	0.04				
15.50	7.79	7.31	0.04				
15.75	7.85	7.37	0.04				
16.00	7.90	7.43	0.03				
16.25	7.96	7.48	0.03				
16.50	8.01	7.53	0.03				
16.75	8.06	7.58	0.03				
17.00	8.10	7.62	0.03				
17.25	8.15	7.67	0.03				
17.50	8.19	7.71	0.03				
17.75	8.23	7.75	0.02				

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NOAA 24-hr C 100-Year Rainfall=8.98"

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Summary for Subcatchment 26S: DA#1

Runoff = 5.87 cfs @ 12.12 hrs, Volume= 0.385 af, Depth> 6.93"
 Routed to Pond 27P : FES-4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C 100-Year Rainfall=8.98"

Area (sf)	CN	Description
11,362	98	Roofs, HSG D
17,706	80	>75% Grass cover, Good, HSG D
29,068	87	Weighted Average
17,706		60.91% Pervious Area
11,362		39.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	27	0.0306	0.11		Sheet Flow, GRASS Grass: Dense n= 0.240 P2= 3.42"
1.4	378	0.0073	4.50	71.98	Channel Flow, Area= 16.0 sf Perim= 14.6' r= 1.10' n= 0.030
5.5	405	Total			

GRASS

Subcatchment 26S: DA#1

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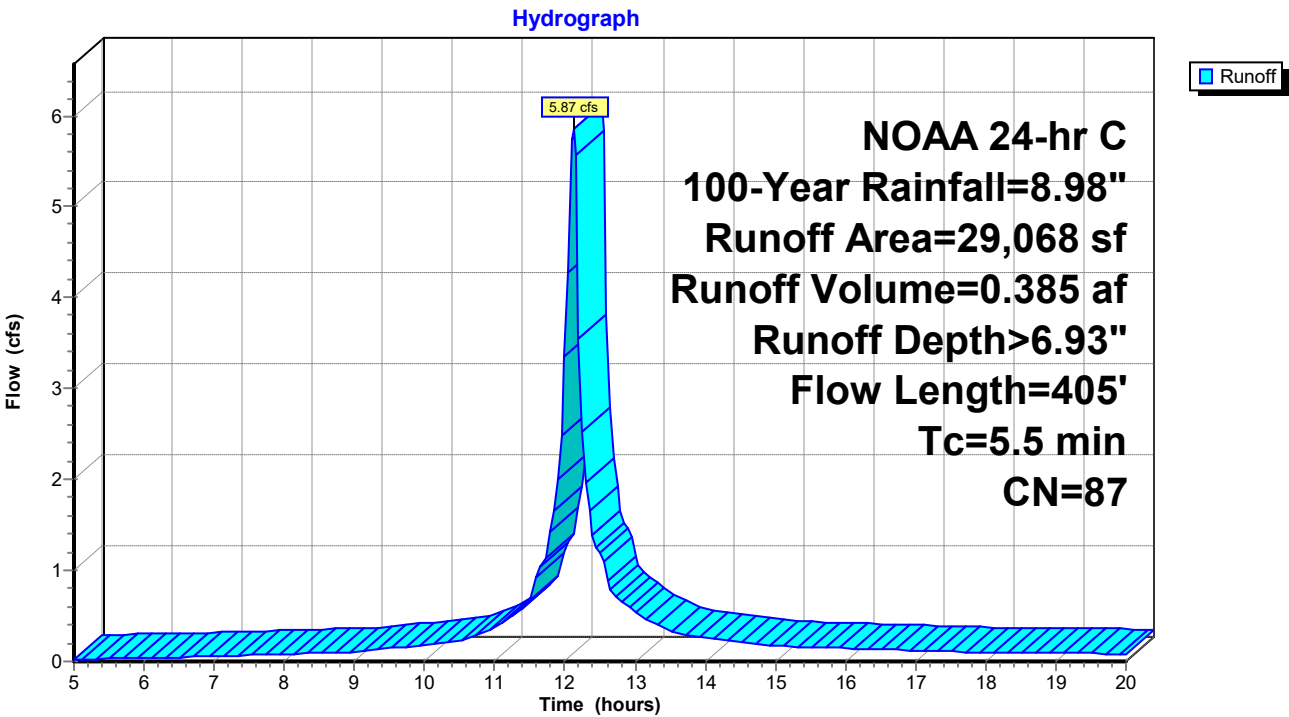
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NOAA 24-hr C 100-Year Rainfall=8.98"

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Subcatchment 26S: DA#1



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NOAA 24-hr C 100-Year Rainfall=8.98"

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Hydrograph for Subcatchment 26S: DA#1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.57	0.04	0.03	18.00	8.27	6.71	0.10
5.25	0.61	0.05	0.03	18.25	8.30	6.75	0.09
5.50	0.64	0.06	0.03	18.50	8.34	6.78	0.09
5.75	0.68	0.08	0.03	18.75	8.37	6.81	0.09
6.00	0.71	0.09	0.04	19.00	8.41	6.85	0.09
6.25	0.75	0.10	0.04	19.25	8.44	6.88	0.09
6.50	0.79	0.12	0.05	19.50	8.48	6.91	0.09
6.75	0.83	0.14	0.05	19.75	8.51	6.95	0.09
7.00	0.88	0.16	0.06	20.00	8.54	6.98	0.08
7.25	0.92	0.18	0.06				
7.50	0.97	0.21	0.07				
7.75	1.02	0.24	0.07				
8.00	1.08	0.27	0.08				
8.25	1.13	0.30	0.09				
8.50	1.19	0.33	0.09				
8.75	1.25	0.37	0.10				
9.00	1.31	0.41	0.11				
9.25	1.38	0.45	0.12				
9.50	1.46	0.51	0.14				
9.75	1.54	0.57	0.16				
10.00	1.64	0.63	0.18				
10.25	1.74	0.71	0.21				
10.50	1.85	0.79	0.23				
10.75	1.99	0.90	0.29				
11.00	2.16	1.03	0.37				
11.25	2.38	1.21	0.50				
11.50	2.65	1.44	0.65				
11.75	3.16	1.88	1.20				
12.00	4.28	2.89	3.35				
12.25	5.82	4.35	2.52				
12.50	6.33	4.83	1.20				
12.75	6.60	5.10	0.70				
13.00	6.82	5.31	0.54				
13.25	6.99	5.47	0.43				
13.50	7.13	5.60	0.34				
13.75	7.24	5.71	0.29				
14.00	7.34	5.81	0.26				
14.25	7.44	5.90	0.24				
14.50	7.52	5.99	0.22				
14.75	7.60	6.06	0.20				
15.00	7.67	6.13	0.18				
15.25	7.73	6.19	0.16				
15.50	7.79	6.25	0.16				
15.75	7.85	6.30	0.15				
16.00	7.90	6.36	0.14				
16.25	7.96	6.41	0.14				
16.50	8.01	6.46	0.13				
16.75	8.06	6.51	0.13				
17.00	8.10	6.55	0.12				
17.25	8.15	6.59	0.12				
17.50	8.19	6.64	0.11				
17.75	8.23	6.67	0.10				

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NOAA 24-hr C 100-Year Rainfall=8.98"

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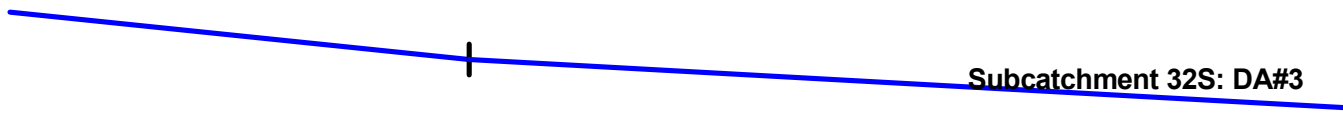
Summary for Subcatchment 32S: DA#3

Runoff = 2.16 cfs @ 12.06 hrs, Volume= 0.126 af, Depth> 6.94"
 Routed to Link 2L : SP#1

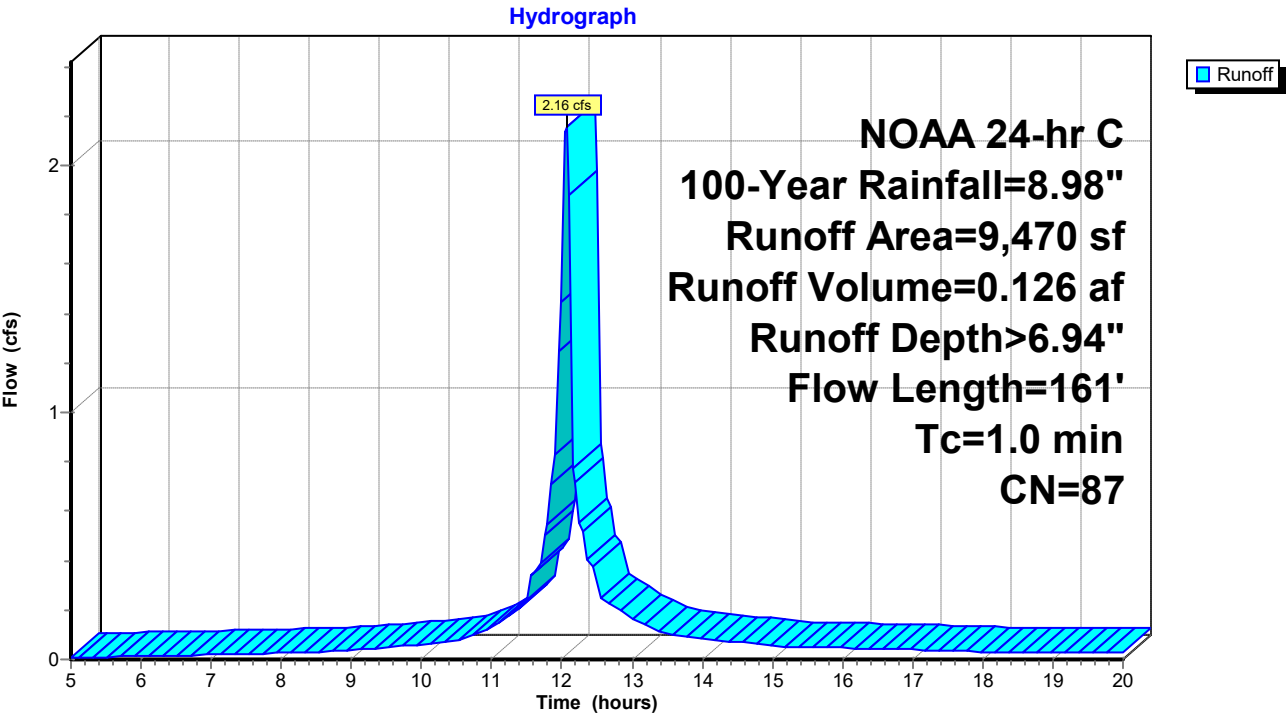
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C 100-Year Rainfall=8.98"

Area (sf)	CN	Description
3,831	98	Roofs, HSG D
5,639	80	>75% Grass cover, Good, HSG D
9,470	87	Weighted Average
5,639		59.55% Pervious Area
3,831		40.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	55	0.0240	1.36		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"
0.3	106	0.0128	5.96	95.31	Channel Flow, Area= 16.0 sf Perim= 14.6' r= 1.10' n= 0.030
1.0	161	Total			



Subcatchment 32S: DA#3



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NOAA 24-hr C 100-Year Rainfall=8.98"

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Hydrograph for Subcatchment 32S: DA#3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.57	0.04	0.01	18.00	8.27	6.71	0.03
5.25	0.61	0.05	0.01	18.25	8.30	6.75	0.03
5.50	0.64	0.06	0.01	18.50	8.34	6.78	0.03
5.75	0.68	0.08	0.01	18.75	8.37	6.81	0.03
6.00	0.71	0.09	0.01	19.00	8.41	6.85	0.03
6.25	0.75	0.10	0.01	19.25	8.44	6.88	0.03
6.50	0.79	0.12	0.02	19.50	8.48	6.91	0.03
6.75	0.83	0.14	0.02	19.75	8.51	6.95	0.03
7.00	0.88	0.16	0.02	20.00	8.54	6.98	0.03
7.25	0.92	0.18	0.02				
7.50	0.97	0.21	0.02				
7.75	1.02	0.24	0.02				
8.00	1.08	0.27	0.03				
8.25	1.13	0.30	0.03				
8.50	1.19	0.33	0.03				
8.75	1.25	0.37	0.03				
9.00	1.31	0.41	0.04				
9.25	1.38	0.45	0.04				
9.50	1.46	0.51	0.05				
9.75	1.54	0.57	0.06				
10.00	1.64	0.63	0.06				
10.25	1.74	0.71	0.07				
10.50	1.85	0.79	0.08				
10.75	1.99	0.90	0.10				
11.00	2.16	1.03	0.13				
11.25	2.38	1.21	0.18				
11.50	2.65	1.44	0.24				
11.75	3.16	1.88	0.50				
12.00	4.28	2.89	1.44				
12.25	5.82	4.35	0.55				
12.50	6.33	4.83	0.35				
12.75	6.60	5.10	0.21				
13.00	6.82	5.31	0.17				
13.25	6.99	5.47	0.13				
13.50	7.13	5.60	0.11				
13.75	7.24	5.71	0.09				
14.00	7.34	5.81	0.08				
14.25	7.44	5.90	0.08				
14.50	7.52	5.99	0.07				
14.75	7.60	6.06	0.06				
15.00	7.67	6.13	0.06				
15.25	7.73	6.19	0.05				
15.50	7.79	6.25	0.05				
15.75	7.85	6.30	0.05				
16.00	7.90	6.36	0.05				
16.25	7.96	6.41	0.04				
16.50	8.01	6.46	0.04				
16.75	8.06	6.51	0.04				
17.00	8.10	6.55	0.04				
17.25	8.15	6.59	0.04				
17.50	8.19	6.64	0.04				
17.75	8.23	6.67	0.03				

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NOAA 24-hr C 100-Year Rainfall=8.98"

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Summary for Subcatchment 33S: DA#13

Runoff = 0.74 cfs @ 12.05 hrs, Volume= 0.044 af, Depth> 7.15"
Routed to Pond 46P : CI-5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 100-Year Rainfall=8.98"

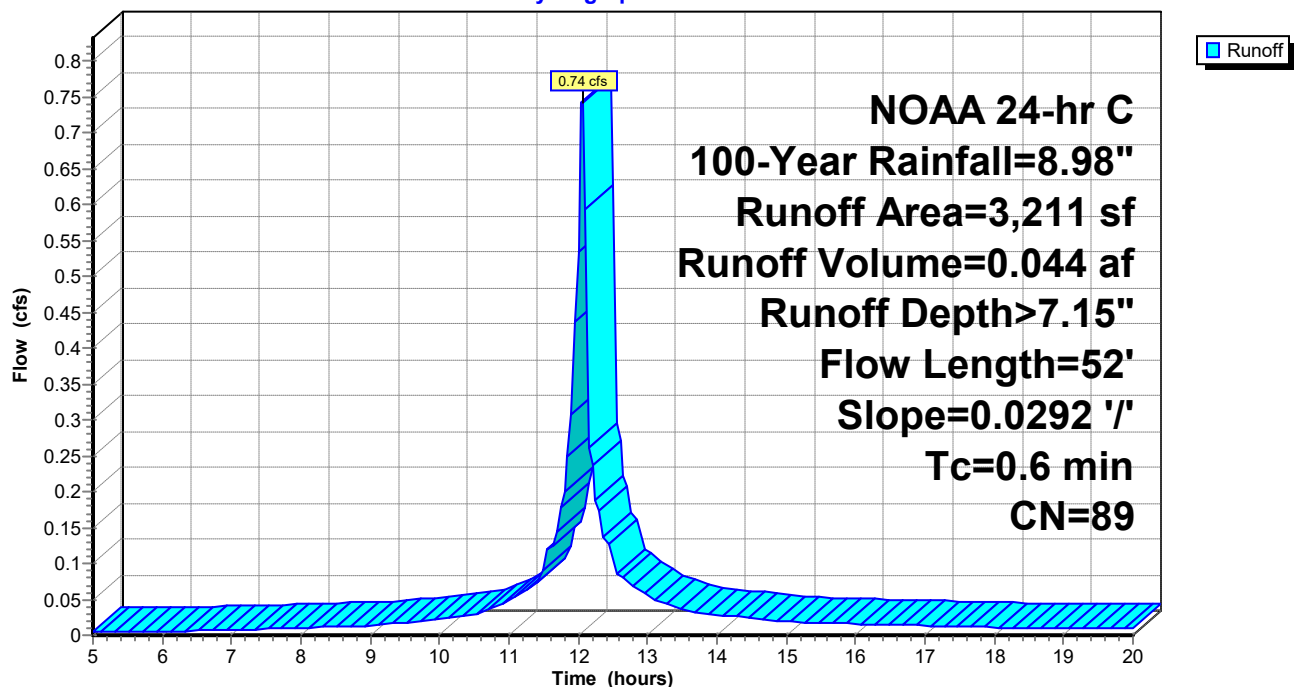
Area (sf)	CN	Description
1,642	98	Roofs, HSG D
1,569	80	>75% Grass cover, Good, HSG D
3,211	89	Weighted Average
1,569		48.86% Pervious Area
1,642		51.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	52	0.0292	1.45		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"

Subcatchment 33S: DA#13

Subcatchment 33S: DA#13

Hydrograph



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Hydrograph for Subcatchment 33S: DA#13

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.57	0.07	0.00	18.00	8.27	6.95	0.01
5.25	0.61	0.08	0.00	18.25	8.30	6.99	0.01
5.50	0.64	0.09	0.00	18.50	8.34	7.02	0.01
5.75	0.68	0.11	0.00	18.75	8.37	7.05	0.01
6.00	0.71	0.13	0.01	19.00	8.41	7.09	0.01
6.25	0.75	0.15	0.01	19.25	8.44	7.12	0.01
6.50	0.79	0.17	0.01	19.50	8.48	7.15	0.01
6.75	0.83	0.19	0.01	19.75	8.51	7.19	0.01
7.00	0.88	0.21	0.01	20.00	8.54	7.22	0.01
7.25	0.92	0.24	0.01				
7.50	0.97	0.27	0.01				
7.75	1.02	0.30	0.01				
8.00	1.08	0.33	0.01				
8.25	1.13	0.37	0.01				
8.50	1.19	0.41	0.01				
8.75	1.25	0.45	0.01				
9.00	1.31	0.49	0.01				
9.25	1.38	0.54	0.02				
9.50	1.46	0.60	0.02				
9.75	1.54	0.66	0.02				
10.00	1.64	0.74	0.02				
10.25	1.74	0.82	0.03				
10.50	1.85	0.91	0.03				
10.75	1.99	1.02	0.04				
11.00	2.16	1.16	0.05				
11.25	2.38	1.35	0.06				
11.50	2.65	1.59	0.09				
11.75	3.16	2.04	0.18				
12.00	4.28	3.09	0.53				
12.25	5.82	4.56	0.19				
12.50	6.33	5.05	0.12				
12.75	6.60	5.32	0.07				
13.00	6.82	5.54	0.06				
13.25	6.99	5.70	0.04				
13.50	7.13	5.83	0.04				
13.75	7.24	5.94	0.03				
14.00	7.34	6.04	0.03				
14.25	7.44	6.13	0.03				
14.50	7.52	6.22	0.02				
14.75	7.60	6.29	0.02				
15.00	7.67	6.36	0.02				
15.25	7.73	6.42	0.02				
15.50	7.79	6.48	0.02				
15.75	7.85	6.54	0.02				
16.00	7.90	6.59	0.02				
16.25	7.96	6.65	0.02				
16.50	8.01	6.70	0.01				
16.75	8.06	6.74	0.01				
17.00	8.10	6.79	0.01				
17.25	8.15	6.83	0.01				
17.50	8.19	6.87	0.01				
17.75	8.23	6.91	0.01				

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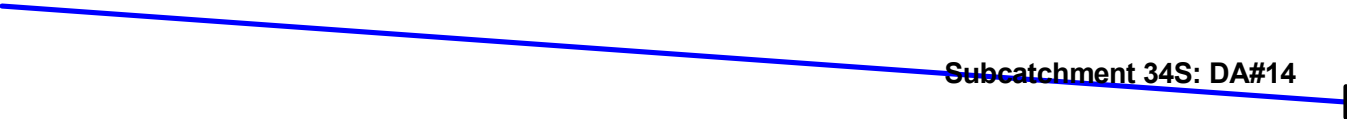
Summary for Subcatchment 34S: DA#14

Runoff = 4.10 cfs @ 12.06 hrs, Volume= 0.248 af, Depth> 7.55"
Routed to Pond 9P : I-2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 100-Year Rainfall=8.98"

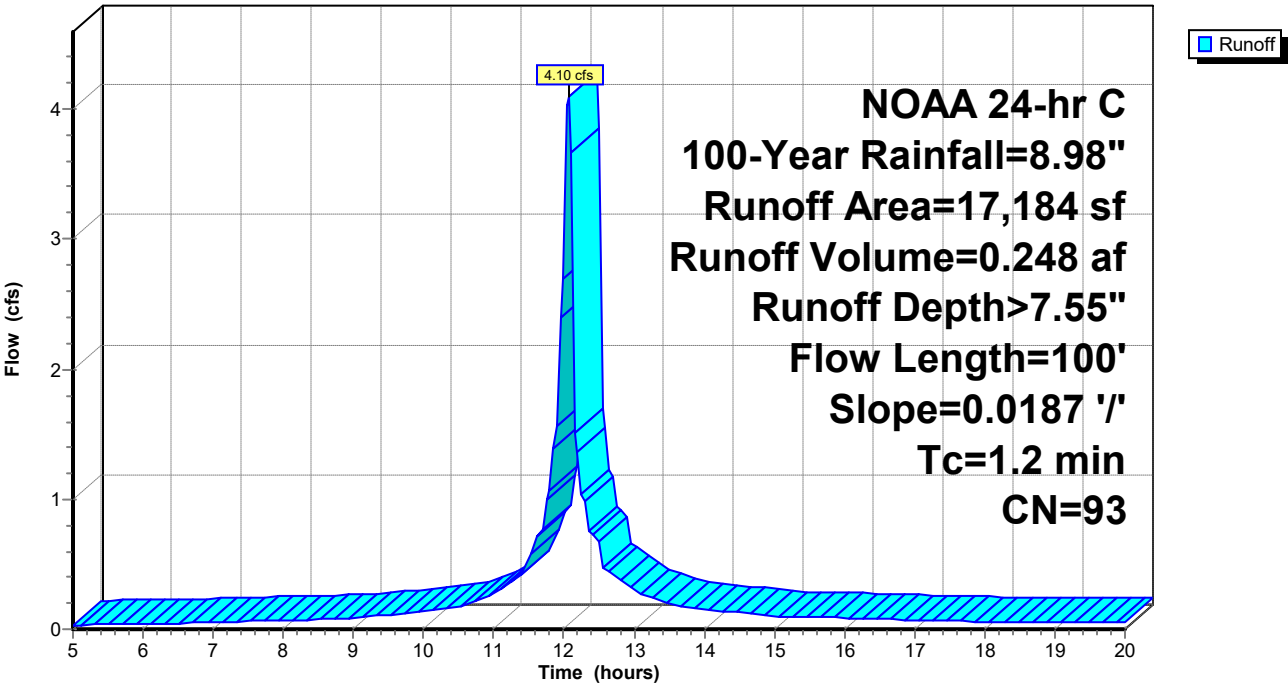
Area (sf)	CN	Description
12,711	98	Roofs, HSG D
4,473	80	>75% Grass cover, Good, HSG D
17,184	93	Weighted Average
4,473		26.03% Pervious Area
12,711		73.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0187	1.38		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.42"



Subcatchment 34S: DA#14

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Hydrograph for Subcatchment 34S: DA#14

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.57	0.15	0.03	18.00	8.27	7.43	0.06
5.25	0.61	0.17	0.03	18.25	8.30	7.46	0.06
5.50	0.64	0.19	0.04	18.50	8.34	7.50	0.06
5.75	0.68	0.22	0.04	18.75	8.37	7.53	0.05
6.00	0.71	0.24	0.04	19.00	8.41	7.57	0.05
6.25	0.75	0.27	0.04	19.25	8.44	7.60	0.05
6.50	0.79	0.29	0.05	19.50	8.48	7.63	0.05
6.75	0.83	0.32	0.05	19.75	8.51	7.67	0.05
7.00	0.88	0.36	0.05	20.00	8.54	7.70	0.05
7.25	0.92	0.39	0.06				
7.50	0.97	0.43	0.06				
7.75	1.02	0.47	0.06				
8.00	1.08	0.51	0.07				
8.25	1.13	0.56	0.07				
8.50	1.19	0.60	0.08				
8.75	1.25	0.65	0.08				
9.00	1.31	0.70	0.09				
9.25	1.38	0.76	0.10				
9.50	1.46	0.83	0.11				
9.75	1.54	0.90	0.13				
10.00	1.64	0.99	0.14				
10.25	1.74	1.08	0.15				
10.50	1.85	1.18	0.17				
10.75	1.99	1.30	0.22				
11.00	2.16	1.46	0.27				
11.25	2.38	1.66	0.37				
11.50	2.65	1.92	0.48				
11.75	3.16	2.40	0.99				
12.00	4.28	3.49	2.69				
12.25	5.82	5.01	1.04				
12.50	6.33	5.50	0.67				
12.75	6.60	5.78	0.40				
13.00	6.82	6.00	0.31				
13.25	6.99	6.16	0.24				
13.50	7.13	6.30	0.20				
13.75	7.24	6.41	0.17				
14.00	7.34	6.51	0.16				
14.25	7.44	6.60	0.14				
14.50	7.52	6.69	0.13				
14.75	7.60	6.77	0.12				
15.00	7.67	6.83	0.10				
15.25	7.73	6.90	0.10				
15.50	7.79	6.96	0.09				
15.75	7.85	7.01	0.09				
16.00	7.90	7.07	0.09				
16.25	7.96	7.12	0.08				
16.50	8.01	7.17	0.08				
16.75	8.06	7.22	0.08				
17.00	8.10	7.27	0.07				
17.25	8.15	7.31	0.07				
17.50	8.19	7.35	0.07				
17.75	8.23	7.39	0.06				

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NOAA 24-hr C 100-Year Rainfall=8.98"
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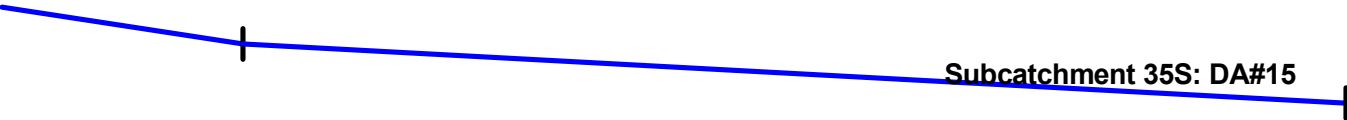
Summary for Subcatchment 35S: DA#15

Runoff = 1.35 cfs @ 12.30 hrs, Volume= 0.130 af, Depth> 6.10"
Routed to Link 2L : SP#1

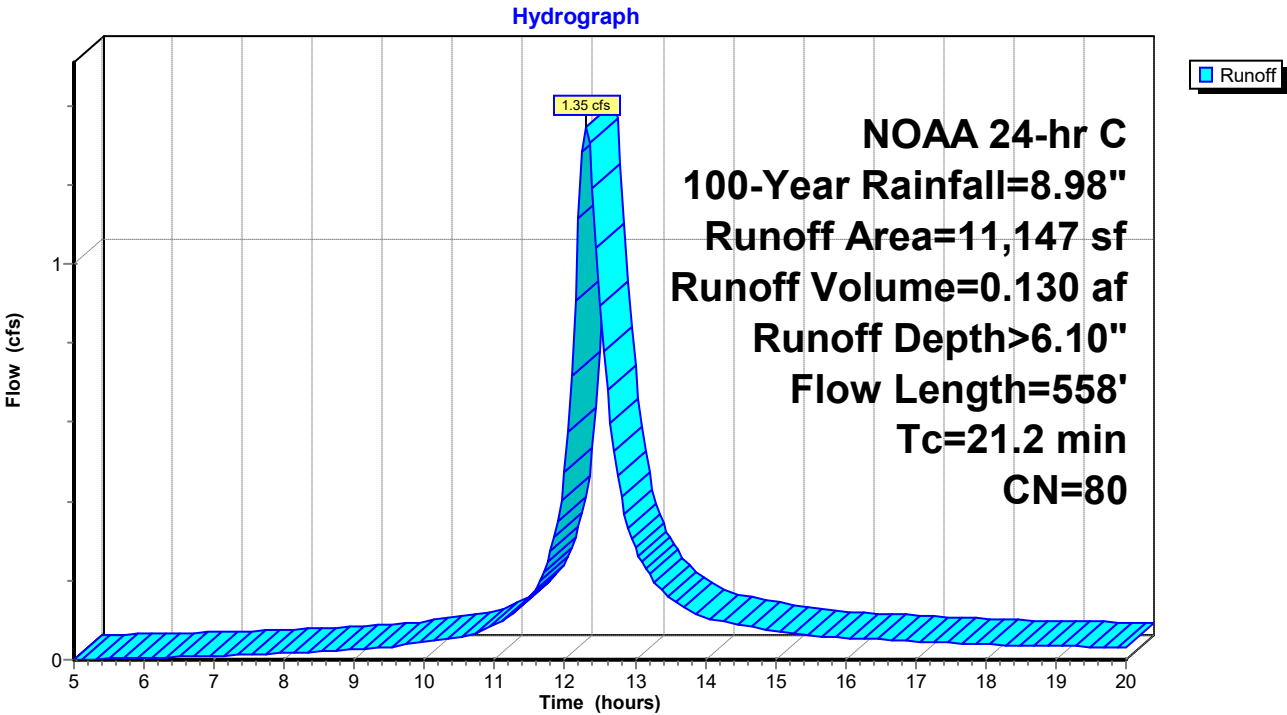
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 100-Year Rainfall=8.98"

Area (sf)	CN	Description
11,147	80	>75% Grass cover, Good, HSG D
11,147		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.2	100	0.0336	0.15		Sheet Flow, Grass: Dense n= 0.240 P2= 3.42"
10.0	458	0.0118	0.76		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
21.2	558	Total			



Subcatchment 35S: DA#15



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Hydrograph for Subcatchment 35S: DA#15

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.57	0.00	0.00	18.00	8.27	5.88	0.04
5.25	0.61	0.00	0.00	18.25	8.30	5.91	0.04
5.50	0.64	0.01	0.00	18.50	8.34	5.94	0.03
5.75	0.68	0.01	0.00	18.75	8.37	5.98	0.03
6.00	0.71	0.02	0.00	19.00	8.41	6.01	0.03
6.25	0.75	0.02	0.01	19.25	8.44	6.04	0.03
6.50	0.79	0.03	0.01	19.50	8.48	6.07	0.03
6.75	0.83	0.04	0.01	19.75	8.51	6.10	0.03
7.00	0.88	0.05	0.01	20.00	8.54	6.13	0.03
7.25	0.92	0.06	0.01				
7.50	0.97	0.07	0.01				
7.75	1.02	0.09	0.01				
8.00	1.08	0.11	0.02				
8.25	1.13	0.13	0.02				
8.50	1.19	0.15	0.02				
8.75	1.25	0.17	0.02				
9.00	1.31	0.20	0.03				
9.25	1.38	0.23	0.03				
9.50	1.46	0.27	0.03				
9.75	1.54	0.31	0.04				
10.00	1.64	0.36	0.04				
10.25	1.74	0.41	0.05				
10.50	1.85	0.47	0.06				
10.75	1.99	0.55	0.07				
11.00	2.16	0.66	0.09				
11.25	2.38	0.80	0.12				
11.50	2.65	1.00	0.16				
11.75	3.16	1.37	0.25				
12.00	4.28	2.28	0.48				
12.25	5.82	3.62	1.28				
12.50	6.33	4.08	0.90				
12.75	6.60	4.33	0.47				
13.00	6.82	4.53	0.28				
13.25	6.99	4.69	0.20				
13.50	7.13	4.81	0.16				
13.75	7.24	4.92	0.13				
14.00	7.34	5.01	0.11				
14.25	7.44	5.10	0.10				
14.50	7.52	5.18	0.09				
14.75	7.60	5.25	0.08				
15.00	7.67	5.31	0.07				
15.25	7.73	5.37	0.06				
15.50	7.79	5.43	0.06				
15.75	7.85	5.48	0.06				
16.00	7.90	5.54	0.06				
16.25	7.96	5.59	0.05				
16.50	8.01	5.63	0.05				
16.75	8.06	5.68	0.05				
17.00	8.10	5.72	0.05				
17.25	8.15	5.76	0.04				
17.50	8.19	5.80	0.04				
17.75	8.23	5.84	0.04				

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Summary for Pond 9P: I-2

Inflow Area = 0.394 ac, 73.97% Impervious, Inflow Depth > 7.55" for 100-Year event
Inflow = 4.10 cfs @ 12.06 hrs, Volume= 0.248 af
Outflow = 4.10 cfs @ 12.06 hrs, Volume= 0.248 af, Atten= 0%, Lag= 0.0 min
Primary = 4.10 cfs @ 12.06 hrs, Volume= 0.248 af
Routed to Pond 44P : CI-2

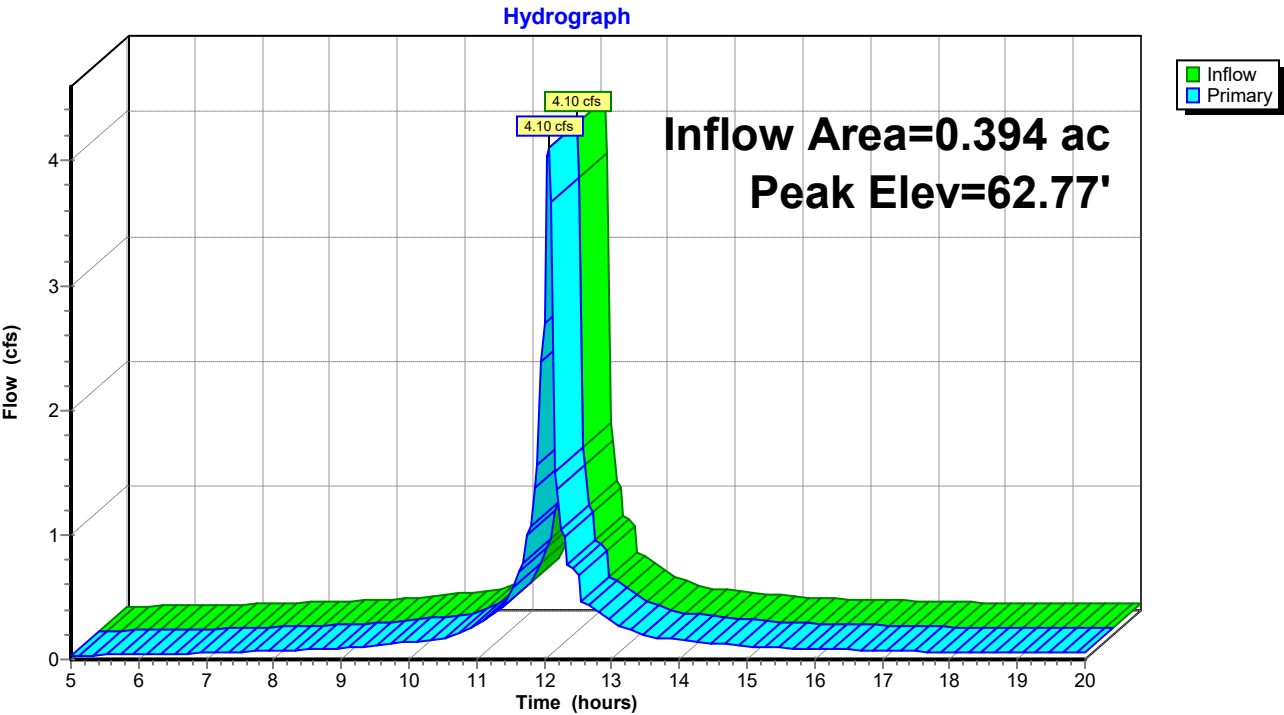
Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 62.77' @ 12.23 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	61.51'	1.0" x 2.0" Horiz. Orifice/Grate X 20.00 columns X 10 rows C= 0.600 in 24.0" x 24.0" Grate (69% open area)
#2	Primary	59.06'	15.0" Round Culvert L= 57.6' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 59.06' / 58.55' S= 0.0089 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

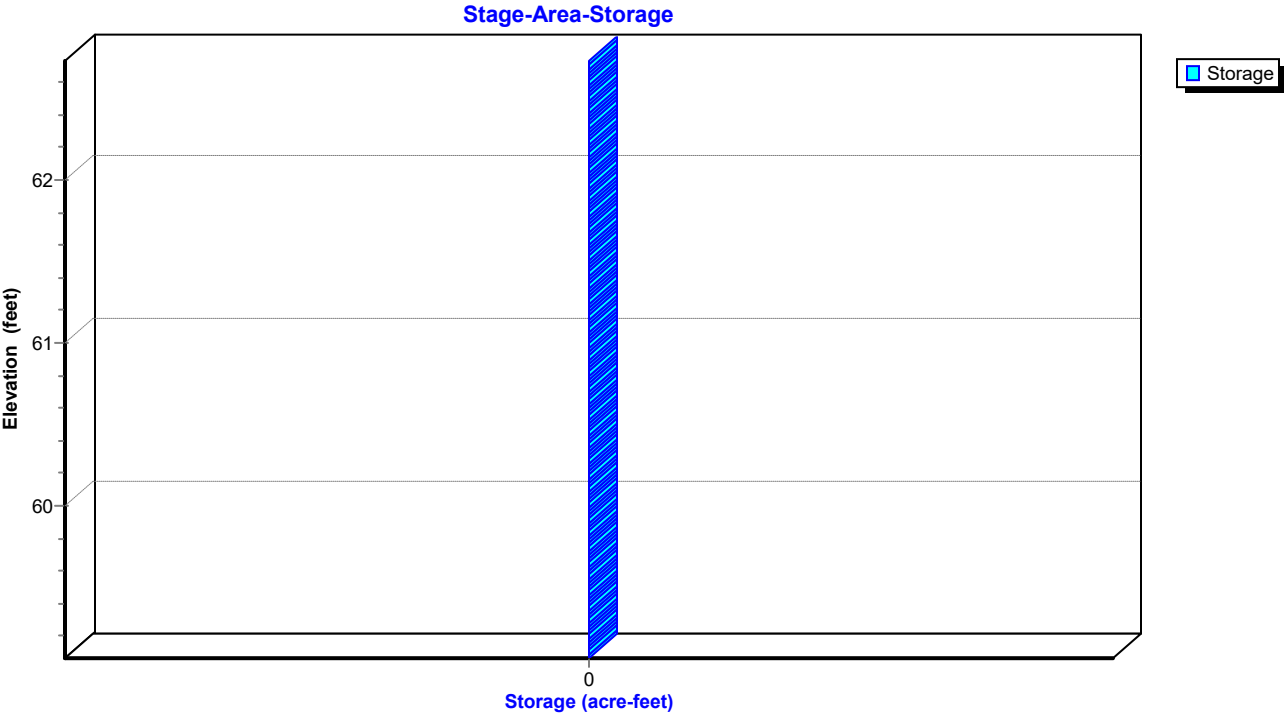
Primary OutFlow Max=0.00 cfs @ 12.06 hrs HW=61.28' TW=62.40' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Controls 0.00 cfs)



Pond 9P: I-2



Pond 9P: I-2



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Hydrograph for Pond 9P: I-2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.03	59.14	0.03	18.00	0.06	59.18	0.06
5.25	0.03	59.15	0.03	18.25	0.06	59.17	0.06
5.50	0.04	59.15	0.04	18.50	0.06	59.17	0.06
5.75	0.04	59.15	0.04	18.75	0.05	59.17	0.05
6.00	0.04	59.15	0.04	19.00	0.05	59.17	0.05
6.25	0.04	59.16	0.04	19.25	0.05	59.17	0.05
6.50	0.05	59.16	0.05	19.50	0.05	59.17	0.05
6.75	0.05	59.17	0.05	19.75	0.05	59.17	0.05
7.00	0.05	59.17	0.05	20.00	0.05	59.17	0.05
7.25	0.06	59.17	0.06				
7.50	0.06	59.18	0.06				
7.75	0.06	59.18	0.06				
8.00	0.07	59.19	0.07				
8.25	0.07	59.19	0.07				
8.50	0.08	59.19	0.08				
8.75	0.08	59.20	0.08				
9.00	0.09	59.20	0.09				
9.25	0.10	59.21	0.10				
9.50	0.11	59.22	0.11				
9.75	0.13	59.23	0.13				
10.00	0.14	59.24	0.14				
10.25	0.15	59.25	0.15				
10.50	0.17	59.26	0.17				
10.75	0.22	59.29	0.22				
11.00	0.27	59.31	0.27				
11.25	0.37	59.36	0.37				
11.50	0.48	59.40	0.48				
11.75	0.99	59.57	0.99				
12.00	2.69	60.08	2.69				
12.25	1.04	62.72	1.04				
12.50	0.67	59.51	0.67				
12.75	0.40	59.38	0.40				
13.00	0.31	59.33	0.31				
13.25	0.24	59.30	0.24				
13.50	0.20	59.27	0.20				
13.75	0.17	59.26	0.17				
14.00	0.16	59.25	0.16				
14.25	0.14	59.24	0.14				
14.50	0.13	59.23	0.13				
14.75	0.12	59.22	0.12				
15.00	0.10	59.21	0.10				
15.25	0.10	59.21	0.10				
15.50	0.09	59.21	0.09				
15.75	0.09	59.20	0.09				
16.00	0.09	59.20	0.09				
16.25	0.08	59.20	0.08				
16.50	0.08	59.19	0.08				
16.75	0.08	59.19	0.08				
17.00	0.07	59.19	0.07				
17.25	0.07	59.18	0.07				
17.50	0.07	59.18	0.07				
17.75	0.06	59.18	0.06				

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Stage-Area-Storage for Pond 9P: I-2

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
59.06	0.000	61.66	0.000
59.11	0.000	61.71	0.000
59.16	0.000	61.76	0.000
59.21	0.000	61.81	0.000
59.26	0.000	61.86	0.000
59.31	0.000	61.91	0.000
59.36	0.000	61.96	0.000
59.41	0.000	62.01	0.000
59.46	0.000	62.06	0.000
59.51	0.000	62.11	0.000
59.56	0.000	62.16	0.000
59.61	0.000	62.21	0.000
59.66	0.000	62.26	0.000
59.71	0.000	62.31	0.000
59.76	0.000	62.36	0.000
59.81	0.000	62.41	0.000
59.86	0.000	62.46	0.000
59.91	0.000	62.51	0.000
59.96	0.000	62.56	0.000
60.01	0.000	62.61	0.000
60.06	0.000	62.66	0.000
60.11	0.000	62.71	0.000
60.16	0.000		
60.21	0.000		
60.26	0.000		
60.31	0.000		
60.36	0.000		
60.41	0.000		
60.46	0.000		
60.51	0.000		
60.56	0.000		
60.61	0.000		
60.66	0.000		
60.71	0.000		
60.76	0.000		
60.81	0.000		
60.86	0.000		
60.91	0.000		
60.96	0.000		
61.01	0.000		
61.06	0.000		
61.11	0.000		
61.16	0.000		
61.21	0.000		
61.26	0.000		
61.31	0.000		
61.36	0.000		
61.41	0.000		
61.46	0.000		
61.51	0.000		
61.56	0.000		
61.61	0.000		

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Summary for Pond 17P: SGW FOREBAY #1

Inflow Area = 2.458 ac, 76.90% Impervious, Inflow Depth > 7.60" for 100-Year event
 Inflow = 24.13 cfs @ 12.07 hrs, Volume= 1.557 af
 Outflow = 21.62 cfs @ 12.06 hrs, Volume= 1.517 af, Atten= 10%, Lag= 0.0 min
 Primary = 21.62 cfs @ 12.06 hrs, Volume= 1.517 af
 Routed to Pond 18P : SGW #1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 57.97' @ 12.16 hrs Surf.Area= 2,677 sf Storage= 5,684 cf

Plug-Flow detention time= 28.2 min calculated for 1.512 af (97% of inflow)
 Center-of-Mass det. time= 17.0 min (754.1 - 737.1)

Volume	Invert	Avail.Storage	Storage Description
#1	55.08'	5,991 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
55.08	1,261	0	0
58.08	2,733	5,991	5,991

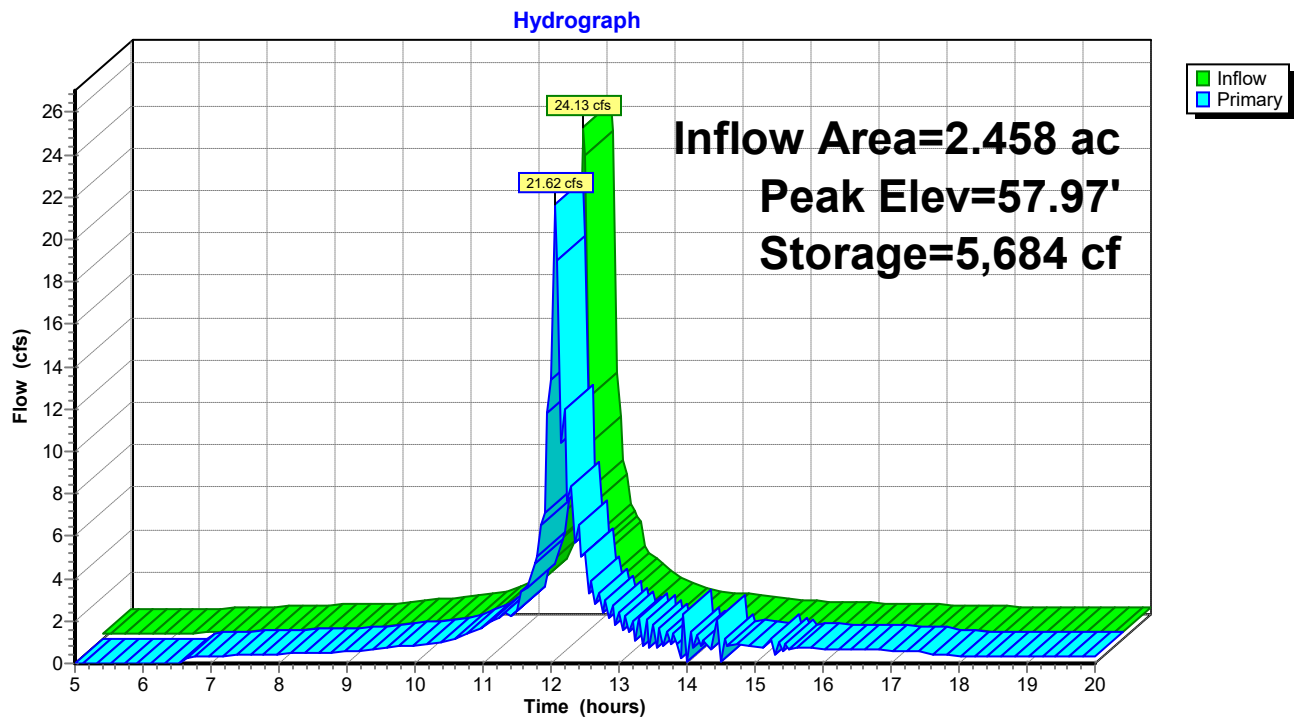
Device	Routing	Invert	Outlet Devices
#1	Primary	56.08'	60.0' long + 3.0 ' SideZ x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 12.06 hrs HW=57.64' TW=57.84' (Dynamic Tailwater)
 ↑1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

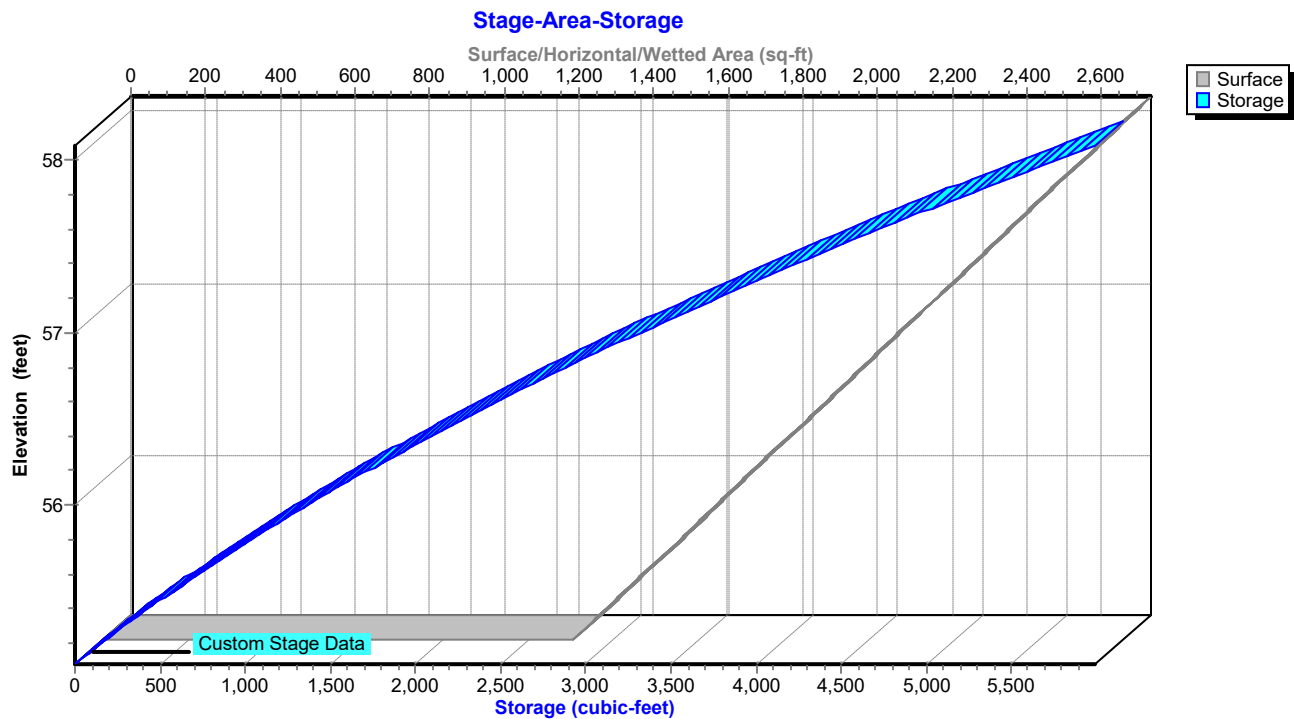
Pond 17P: SGW FOREBAY #1

Broad-Crested Rectangular Weir

Pond 17P: SGW FOREBAY #1



Pond 17P: SGW FOREBAY #1



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Hydrograph for Pond 17P: SGW FOREBAY #1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.22	20	55.10	0.00
5.50	0.24	430	55.40	0.00
6.00	0.26	877	55.70	0.00
6.50	0.30	1,382	56.01	0.00
7.00	0.35	1,538	56.10	0.35
7.50	0.39	1,540	56.10	0.39
8.00	0.44	1,543	56.10	0.44
8.50	0.49	1,546	56.10	0.49
9.00	0.54	1,548	56.10	0.54
9.50	0.70	1,556	56.11	0.70
10.00	0.86	1,564	56.11	0.86
10.50	1.04	1,571	56.12	1.04
11.00	1.66	1,595	56.13	1.66
11.50	2.93	1,818	56.25	2.51
12.00	15.98	4,268	57.41	13.39
12.50	4.34	4,343	57.44	5.24
13.00	1.98	3,811	57.22	2.43
13.50	1.24	3,623	57.13	1.84
14.00	0.98	3,422	57.04	0.07
14.50	0.82	3,210	56.95	0.12
15.00	0.65	2,991	56.85	0.85
15.50	0.58	2,685	56.70	0.65
16.00	0.54	2,391	56.55	0.62
16.50	0.49	2,104	56.41	0.57
17.00	0.45	1,826	56.26	0.53
17.50	0.41	1,566	56.11	0.50
18.00	0.36	1,539	56.10	0.36
18.50	0.35	1,538	56.10	0.35
19.00	0.34	1,537	56.10	0.34
19.50	0.32	1,536	56.10	0.33
20.00	0.31	1,536	56.10	0.31

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Stage-Area-Storage for Pond 17P: SGW FOREBAY #1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
55.08	1,261	0	57.68	2,537	4,937
55.13	1,286	64	57.73	2,561	5,065
55.18	1,310	129	57.78	2,586	5,193
55.23	1,335	195	57.83	2,610	5,323
55.28	1,359	262	57.88	2,635	5,454
55.33	1,384	331	57.93	2,659	5,587
55.38	1,408	400	57.98	2,684	5,720
55.43	1,433	471	58.03	2,708	5,855
55.48	1,457	544	58.08	2,733	5,991
55.53	1,482	617			
55.58	1,506	692			
55.63	1,531	768			
55.68	1,555	845			
55.73	1,580	923			
55.78	1,604	1,003			
55.83	1,629	1,084			
55.88	1,654	1,166			
55.93	1,678	1,249			
55.98	1,703	1,334			
56.03	1,727	1,419			
56.08	1,752	1,506			
56.13	1,776	1,595			
56.18	1,801	1,684			
56.23	1,825	1,775			
56.28	1,850	1,866			
56.33	1,874	1,960			
56.38	1,899	2,054			
56.43	1,923	2,149			
56.48	1,948	2,246			
56.53	1,972	2,344			
56.58	1,997	2,444			
56.63	2,022	2,544			
56.68	2,046	2,646			
56.73	2,071	2,749			
56.78	2,095	2,853			
56.83	2,120	2,958			
56.88	2,144	3,065			
56.93	2,169	3,173			
56.98	2,193	3,282			
57.03	2,218	3,392			
57.08	2,242	3,503			
57.13	2,267	3,616			
57.18	2,291	3,730			
57.23	2,316	3,845			
57.28	2,340	3,962			
57.33	2,365	4,079			
57.38	2,390	4,198			
57.43	2,414	4,318			
57.48	2,439	4,440			
57.53	2,463	4,562			
57.58	2,488	4,686			
57.63	2,512	4,811			

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Summary for Pond 18P: SGW #1

Inflow Area = 2.672 ac, 72.01% Impervious, Inflow Depth > 7.33" for 100-Year event
Inflow = 23.65 cfs @ 12.06 hrs, Volume= 1.633 af
Outflow = 19.07 cfs @ 12.11 hrs, Volume= 1.607 af, Atten= 19%, Lag= 2.8 min
Primary = 19.07 cfs @ 12.11 hrs, Volume= 1.607 af
Routed to Link 2L : SP#1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.97' @ 12.11 hrs Surf.Area= 6,284 sf Storage= 15,095 cf

Plug-Flow detention time= 54.8 min calculated for 1.602 af (98% of inflow)
Center-of-Mass det. time= 48.1 min (802.4 - 754.3)

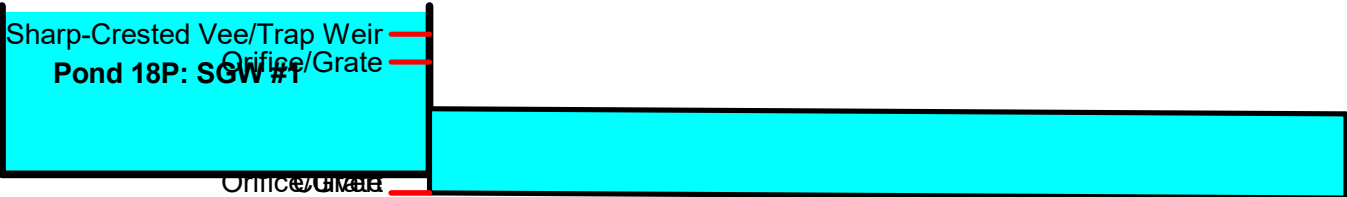
Volume	Invert	Avail.Storage	Storage Description
#1	55.08'	15,815 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
55.08	4,176	0	0
58.08	6,367	15,815	15,815

Device	Routing	Invert	Outlet Devices
#1	Primary	54.75'	18.0" Round Culvert L= 96.5' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 54.75' / 54.66' S= 0.0009 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	57.08'	2.0" x 1.0" Horiz. Orifice/Grate X 10.00 columns X 20 rows C= 0.600 in 24.0" x 24.0" Grate (69% open area) Limited to weir flow at low heads
#3	Device 1	54.75'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	57.58'	20.0 deg x 10.0' long x 0.50' rise Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)

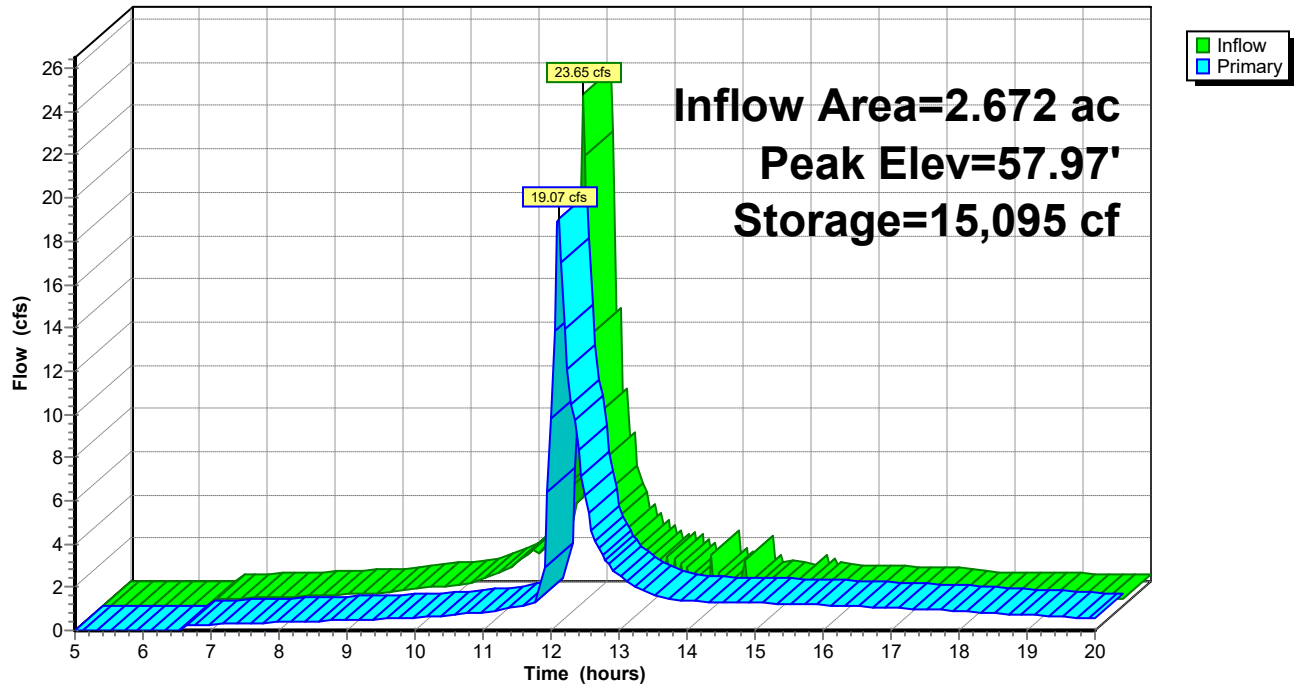
Primary OutFlow Max=18.44 cfs @ 12.11 hrs HW=57.95' TW=0.00' (Dynamic Tailwater)

- 1=Culvert (Barrel Controls 10.94 cfs @ 6.19 fps)
- 2=Orifice/Grate (Passes < 12.45 cfs potential flow)
- 3=Orifice/Grate (Passes < 1.62 cfs potential flow)
- 4=Sharp-Crested Vee/Trap Weir (Weir Controls 7.51 cfs @ 2.03 fps)



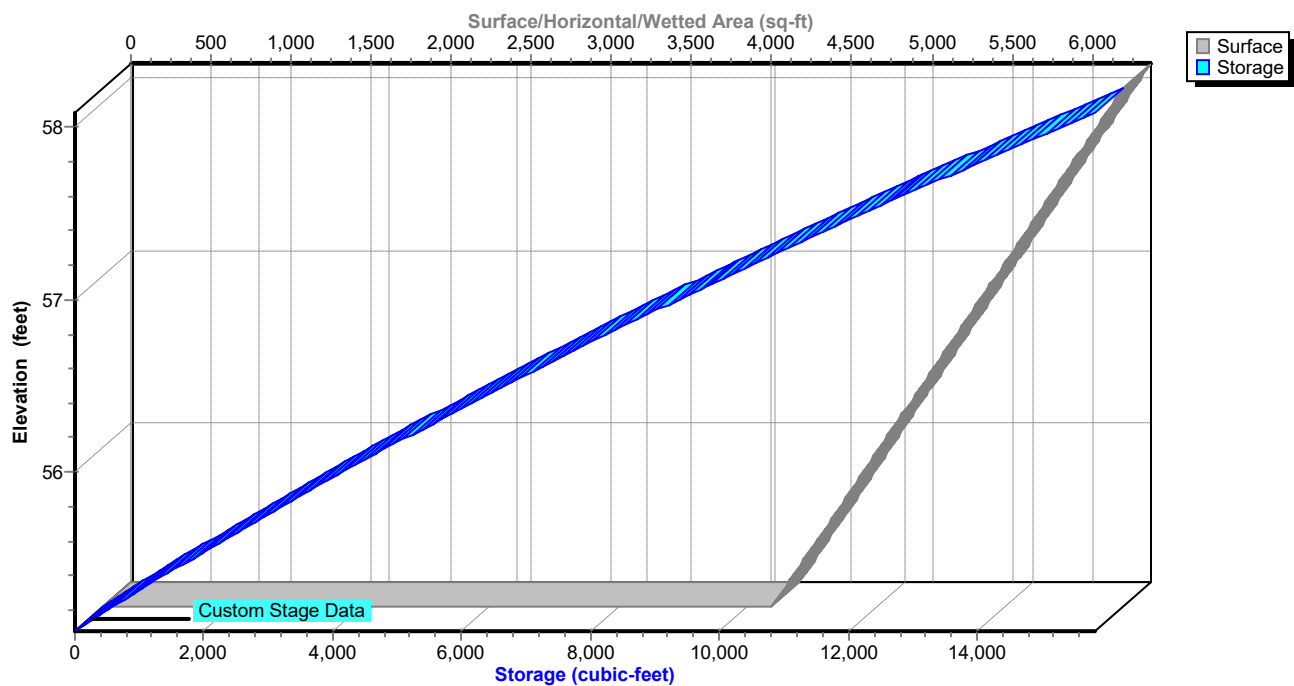
Pond 18P: SGW #1

Hydrograph



Pond 18P: SGW #1

Stage-Area-Storage



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NOAA 24-hr C 100-Year Rainfall=8.98"

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Hydrograph for Pond 18P: SGW #1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	55.08	0.00
5.50	0.01	0	55.08	0.01
6.00	0.01	0	55.08	0.01
6.50	0.01	0	55.08	0.01
7.00	0.36	91	55.10	0.29
7.50	0.41	220	55.13	0.34
8.00	0.46	356	55.16	0.38
8.50	0.52	508	55.20	0.43
9.00	0.57	678	55.24	0.47
9.50	0.74	968	55.31	0.52
10.00	0.91	1,437	55.41	0.61
10.50	1.10	2,065	55.55	0.70
11.00	1.77	3,255	55.81	0.85
11.50	2.72	5,657	56.30	1.08
12.00	14.72	12,743	57.58	9.77
12.50	5.58	11,671	57.40	6.27
13.00	2.59	10,522	57.20	2.56
13.50	1.94	10,066	57.12	1.63
14.00	0.15	9,682	57.06	1.36
14.50	0.19	9,139	56.96	1.32
15.00	0.90	8,437	56.83	1.28
15.50	0.70	7,643	56.68	1.23
16.00	0.66	6,869	56.54	1.17
16.50	0.61	6,105	56.39	1.12
17.00	0.56	5,352	56.24	1.05
17.50	0.54	4,609	56.09	0.99
18.00	0.40	3,688	55.90	0.90
18.50	0.38	2,844	55.72	0.80
19.00	0.36	2,143	55.57	0.72
19.50	0.35	1,577	55.45	0.63
20.00	0.34	1,135	55.35	0.56

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Stage-Area-Storage for Pond 18P: SGW #1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
55.08	4,176	0	57.68	6,075	13,326
55.13	4,213	210	57.73	6,111	13,631
55.18	4,249	421	57.78	6,148	13,937
55.23	4,286	635	57.83	6,184	14,246
55.28	4,322	850	57.88	6,221	14,556
55.33	4,359	1,067	57.93	6,257	14,868
55.38	4,395	1,286	57.98	6,294	15,181
55.43	4,432	1,506	58.03	6,330	15,497
55.48	4,468	1,729	58.08	6,367	15,815
55.53	4,505	1,953			
55.58	4,541	2,179			
55.63	4,578	2,407			
55.68	4,614	2,637			
55.73	4,651	2,869			
55.78	4,687	3,102			
55.83	4,724	3,337			
55.88	4,760	3,575			
55.93	4,797	3,813			
55.98	4,833	4,054			
56.03	4,870	4,297			
56.08	4,906	4,541			
56.13	4,943	4,787			
56.18	4,979	5,035			
56.23	5,016	5,285			
56.28	5,052	5,537			
56.33	5,089	5,791			
56.38	5,125	6,046			
56.43	5,162	6,303			
56.48	5,198	6,562			
56.53	5,235	6,823			
56.58	5,272	7,086			
56.63	5,308	7,350			
56.68	5,345	7,616			
56.73	5,381	7,885			
56.78	5,418	8,155			
56.83	5,454	8,426			
56.88	5,491	8,700			
56.93	5,527	8,975			
56.98	5,564	9,253			
57.03	5,600	9,532			
57.08	5,637	9,813			
57.13	5,673	10,095			
57.18	5,710	10,380			
57.23	5,746	10,666			
57.28	5,783	10,955			
57.33	5,819	11,245			
57.38	5,856	11,537			
57.43	5,892	11,830			
57.48	5,929	12,126			
57.53	5,965	12,423			
57.58	6,002	12,722			
57.63	6,038	13,023			

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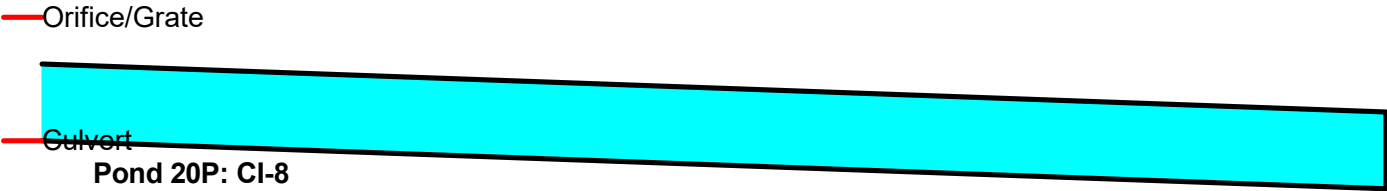
Summary for Pond 20P: CI-8

Inflow Area = 0.753 ac, 42.32% Impervious, Inflow Depth > 6.99" for 100-Year event
Inflow = 6.68 cfs @ 12.12 hrs, Volume= 0.439 af
Outflow = 6.68 cfs @ 12.12 hrs, Volume= 0.439 af, Atten= 0%, Lag= 0.0 min
Primary = 6.68 cfs @ 12.12 hrs, Volume= 0.439 af
Routed to Link 2L : SP#1

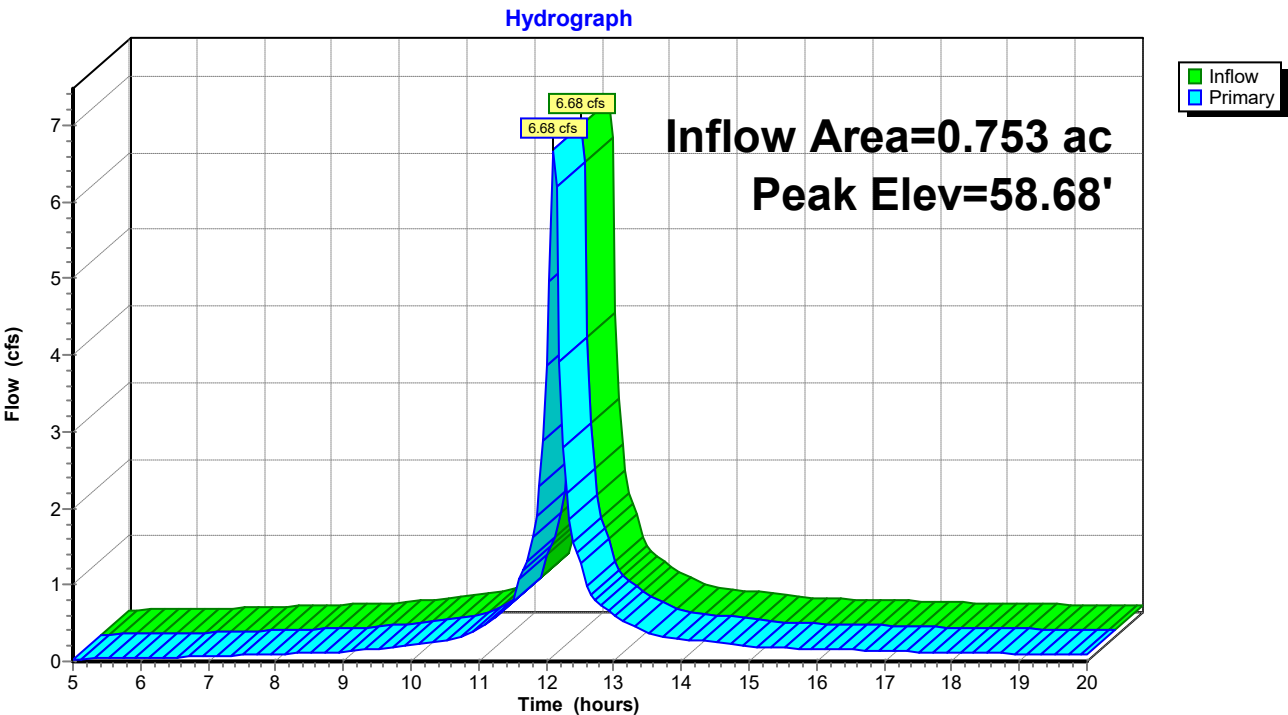
Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 58.68' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	58.79'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	56.78'	15.0" Round Culvert L= 75.5' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 56.78' / 56.00' S= 0.0103 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

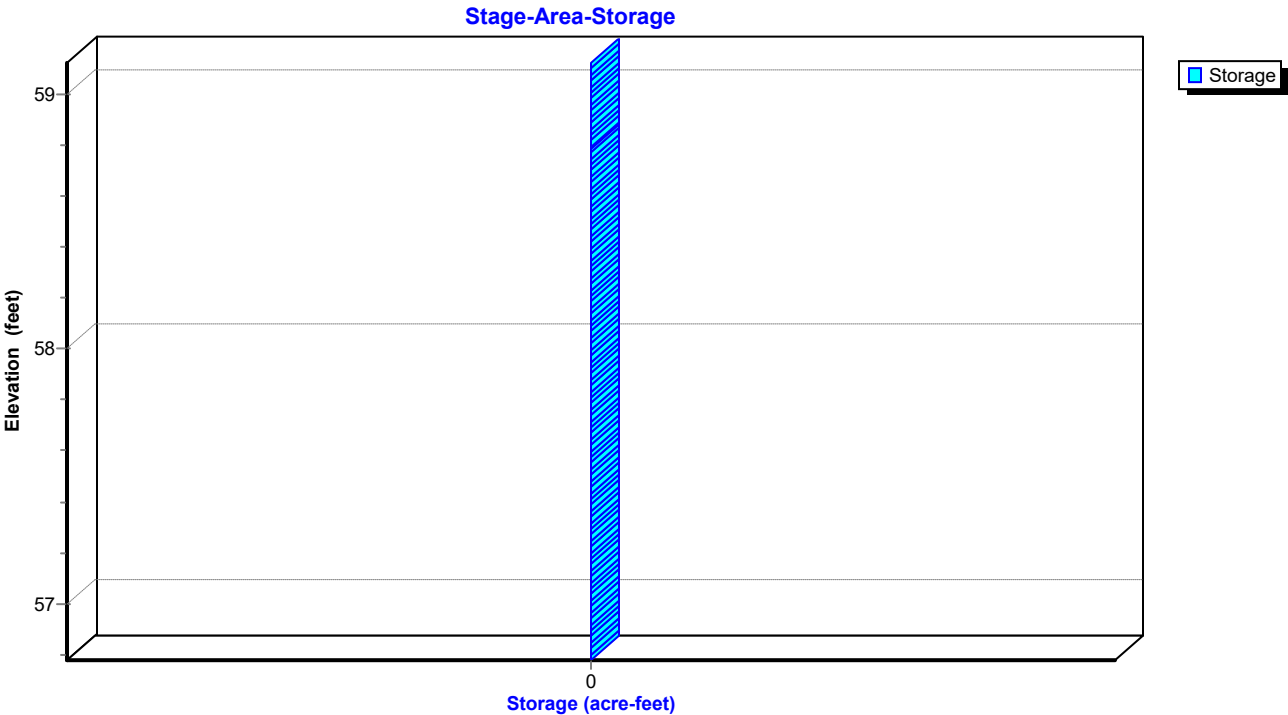
Primary OutFlow Max=6.47 cfs @ 12.12 hrs HW=58.60' TW=0.00' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Inlet Controls 6.47 cfs @ 5.27 fps)



Pond 20P: CI-8



Pond 20P: CI-8



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NOAA 24-hr C 100-Year Rainfall=8.98"

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Hydrograph for Pond 20P: CI-8

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.03	56.86	0.03	18.00	0.11	56.93	0.11
5.25	0.03	56.86	0.03	18.25	0.11	56.93	0.11
5.50	0.04	56.87	0.04	18.50	0.10	56.93	0.10
5.75	0.04	56.87	0.04	18.75	0.10	56.93	0.10
6.00	0.04	56.88	0.04	19.00	0.10	56.92	0.10
6.25	0.05	56.88	0.05	19.25	0.10	56.92	0.10
6.50	0.06	56.89	0.06	19.50	0.10	56.92	0.10
6.75	0.06	56.89	0.06	19.75	0.10	56.92	0.10
7.00	0.07	56.90	0.07	20.00	0.09	56.92	0.09
7.25	0.07	56.90	0.07				
7.50	0.08	56.91	0.08				
7.75	0.09	56.91	0.09				
8.00	0.10	56.92	0.10				
8.25	0.10	56.92	0.10				
8.50	0.11	56.93	0.11				
8.75	0.12	56.94	0.12				
9.00	0.13	56.94	0.13				
9.25	0.14	56.95	0.14				
9.50	0.17	56.97	0.17				
9.75	0.19	56.98	0.19				
10.00	0.21	56.99	0.21				
10.25	0.24	57.00	0.24				
10.50	0.26	57.01	0.26				
10.75	0.34	57.05	0.34				
11.00	0.43	57.08	0.43				
11.25	0.58	57.13	0.58				
11.50	0.74	57.18	0.74				
11.75	1.38	57.34	1.38				
12.00	3.86	57.83	3.86				
12.25	2.80	57.63	2.80				
12.50	1.35	57.34	1.35				
12.75	0.79	57.20	0.79				
13.00	0.61	57.15	0.61				
13.25	0.48	57.10	0.48				
13.50	0.38	57.07	0.38				
13.75	0.32	57.04	0.32				
14.00	0.30	57.03	0.30				
14.25	0.27	57.02	0.27				
14.50	0.25	57.01	0.25				
14.75	0.22	57.00	0.22				
15.00	0.20	56.98	0.20				
15.25	0.18	56.97	0.18				
15.50	0.18	56.97	0.18				
15.75	0.17	56.97	0.17				
16.00	0.16	56.96	0.16				
16.25	0.16	56.96	0.16				
16.50	0.15	56.96	0.15				
16.75	0.14	56.95	0.14				
17.00	0.14	56.95	0.14				
17.25	0.13	56.94	0.13				
17.50	0.12	56.94	0.12				
17.75	0.12	56.94	0.12				

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Stage-Area-Storage for Pond 20P: CI-8

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
56.78	0.000	57.82	0.000	58.86	0.000
56.80	0.000	57.84	0.000	58.88	0.000
56.82	0.000	57.86	0.000	58.90	0.000
56.84	0.000	57.88	0.000	58.92	0.000
56.86	0.000	57.90	0.000	58.94	0.000
56.88	0.000	57.92	0.000	58.96	0.000
56.90	0.000	57.94	0.000	58.98	0.000
56.92	0.000	57.96	0.000	59.00	0.000
56.94	0.000	57.98	0.000	59.02	0.000
56.96	0.000	58.00	0.000	59.04	0.000
56.98	0.000	58.02	0.000	59.06	0.000
57.00	0.000	58.04	0.000	59.08	0.000
57.02	0.000	58.06	0.000	59.10	0.000
57.04	0.000	58.08	0.000	59.12	0.000
57.06	0.000	58.10	0.000		
57.08	0.000	58.12	0.000		
57.10	0.000	58.14	0.000		
57.12	0.000	58.16	0.000		
57.14	0.000	58.18	0.000		
57.16	0.000	58.20	0.000		
57.18	0.000	58.22	0.000		
57.20	0.000	58.24	0.000		
57.22	0.000	58.26	0.000		
57.24	0.000	58.28	0.000		
57.26	0.000	58.30	0.000		
57.28	0.000	58.32	0.000		
57.30	0.000	58.34	0.000		
57.32	0.000	58.36	0.000		
57.34	0.000	58.38	0.000		
57.36	0.000	58.40	0.000		
57.38	0.000	58.42	0.000		
57.40	0.000	58.44	0.000		
57.42	0.000	58.46	0.000		
57.44	0.000	58.48	0.000		
57.46	0.000	58.50	0.000		
57.48	0.000	58.52	0.000		
57.50	0.000	58.54	0.000		
57.52	0.000	58.56	0.000		
57.54	0.000	58.58	0.000		
57.56	0.000	58.60	0.000		
57.58	0.000	58.62	0.000		
57.60	0.000	58.64	0.000		
57.62	0.000	58.66	0.000		
57.64	0.000	58.68	0.000		
57.66	0.000	58.70	0.000		
57.68	0.000	58.72	0.000		
57.70	0.000	58.74	0.000		
57.72	0.000	58.76	0.000		
57.74	0.000	58.78	0.000		
57.76	0.000	58.80	0.000		
57.78	0.000	58.82	0.000		
57.80	0.000	58.84	0.000		

EX and PR

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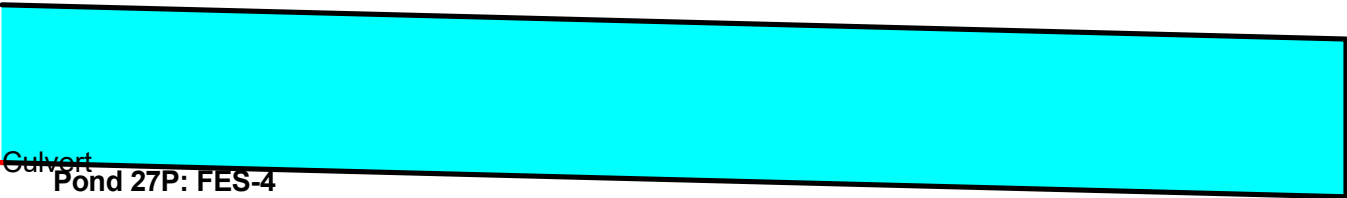
Summary for Pond 27P: FES-4

Inflow Area = 0.667 ac, 39.09% Impervious, Inflow Depth > 6.93" for 100-Year event
Inflow = 5.87 cfs @ 12.12 hrs, Volume= 0.385 af
Outflow = 5.87 cfs @ 12.12 hrs, Volume= 0.385 af, Atten= 0%, Lag= 0.0 min
Primary = 5.87 cfs @ 12.12 hrs, Volume= 0.385 af
Routed to Pond 20P : CI-8

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 59.54' @ 12.15 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	57.05'	15.0" Round Culvert L= 25.5' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 57.05' / 56.78' S= 0.0106 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=4.75 cfs @ 12.12 hrs HW=59.24' TW=58.59' (Dynamic Tailwater)
↑**1=Culvert** (Inlet Controls 4.75 cfs @ 3.87 fps)



EX and PR

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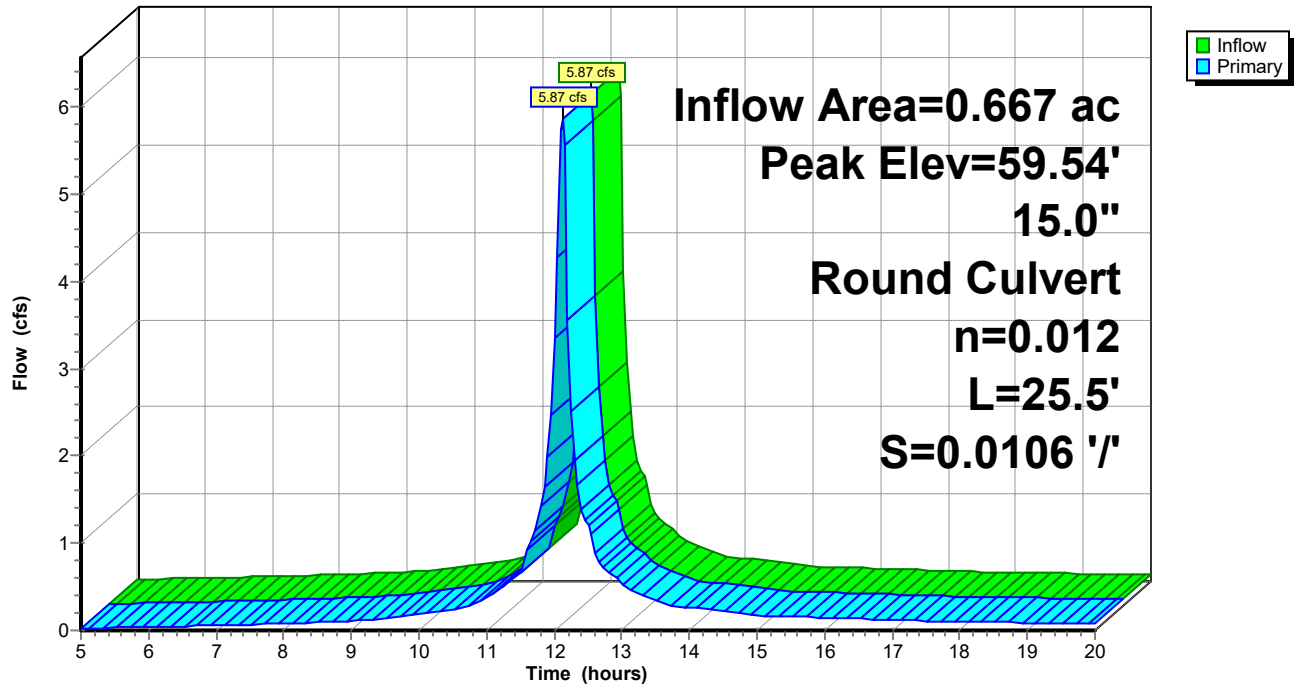
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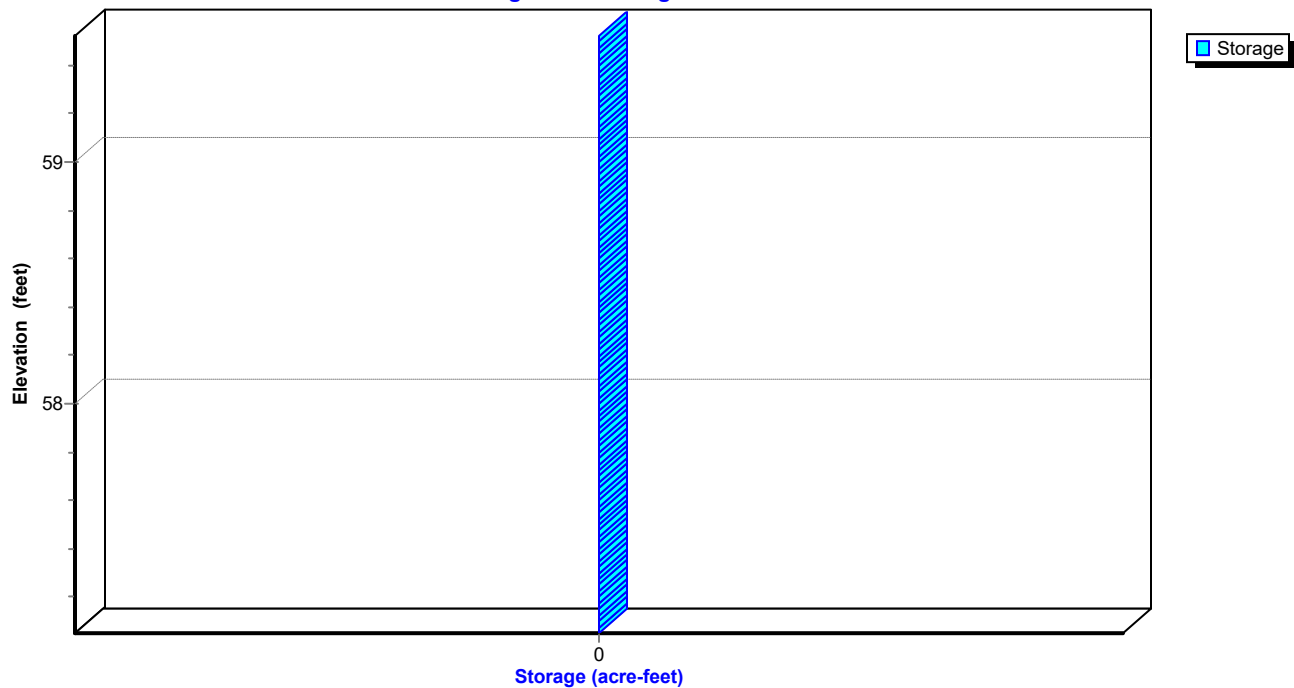
Pond 27P: FES-4

Hydrograph



Pond 27P: FES-4

Stage-Area-Storage



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Hydrograph for Pond 27P: FES-4

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.03	57.12	0.03	18.00	0.10	57.20	0.10
5.25	0.03	57.13	0.03	18.25	0.09	57.20	0.09
5.50	0.03	57.13	0.03	18.50	0.09	57.19	0.09
5.75	0.03	57.14	0.03	18.75	0.09	57.19	0.09
6.00	0.04	57.14	0.04	19.00	0.09	57.19	0.09
6.25	0.04	57.15	0.04	19.25	0.09	57.19	0.09
6.50	0.05	57.15	0.05	19.50	0.09	57.19	0.09
6.75	0.05	57.16	0.05	19.75	0.09	57.19	0.09
7.00	0.06	57.16	0.06	20.00	0.08	57.19	0.08
7.25	0.06	57.17	0.06				
7.50	0.07	57.17	0.07				
7.75	0.07	57.18	0.07				
8.00	0.08	57.18	0.08				
8.25	0.09	57.19	0.09				
8.50	0.09	57.20	0.09				
8.75	0.10	57.20	0.10				
9.00	0.11	57.21	0.11				
9.25	0.12	57.22	0.12				
9.50	0.14	57.23	0.14				
9.75	0.16	57.24	0.16				
10.00	0.18	57.26	0.18				
10.25	0.21	57.27	0.21				
10.50	0.23	57.28	0.23				
10.75	0.29	57.32	0.29				
11.00	0.37	57.35	0.37				
11.25	0.50	57.41	0.50				
11.50	0.65	57.47	0.65				
11.75	1.20	57.64	1.20				
12.00	3.35	58.12	3.35				
12.25	2.52	58.12	2.52				
12.50	1.20	57.65	1.20				
12.75	0.70	57.49	0.70				
13.00	0.54	57.43	0.54				
13.25	0.43	57.38	0.43				
13.50	0.34	57.34	0.34				
13.75	0.29	57.31	0.29				
14.00	0.26	57.30	0.26				
14.25	0.24	57.29	0.24				
14.50	0.22	57.28	0.22				
14.75	0.20	57.27	0.20				
15.00	0.18	57.25	0.18				
15.25	0.16	57.24	0.16				
15.50	0.16	57.24	0.16				
15.75	0.15	57.24	0.15				
16.00	0.14	57.23	0.14				
16.25	0.14	57.23	0.14				
16.50	0.13	57.22	0.13				
16.75	0.13	57.22	0.13				
17.00	0.12	57.22	0.12				
17.25	0.12	57.21	0.12				
17.50	0.11	57.21	0.11				
17.75	0.10	57.20	0.10				

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Stage-Area-Storage for Pond 27P: FES-4

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
57.05	0.000	58.09	0.000	59.13	0.000
57.07	0.000	58.11	0.000	59.15	0.000
57.09	0.000	58.13	0.000	59.17	0.000
57.11	0.000	58.15	0.000	59.19	0.000
57.13	0.000	58.17	0.000	59.21	0.000
57.15	0.000	58.19	0.000	59.23	0.000
57.17	0.000	58.21	0.000	59.25	0.000
57.19	0.000	58.23	0.000	59.27	0.000
57.21	0.000	58.25	0.000	59.29	0.000
57.23	0.000	58.27	0.000	59.31	0.000
57.25	0.000	58.29	0.000	59.33	0.000
57.27	0.000	58.31	0.000	59.35	0.000
57.29	0.000	58.33	0.000	59.37	0.000
57.31	0.000	58.35	0.000	59.39	0.000
57.33	0.000	58.37	0.000	59.41	0.000
57.35	0.000	58.39	0.000	59.43	0.000
57.37	0.000	58.41	0.000	59.45	0.000
57.39	0.000	58.43	0.000	59.47	0.000
57.41	0.000	58.45	0.000	59.49	0.000
57.43	0.000	58.47	0.000	59.51	0.000
57.45	0.000	58.49	0.000	59.53	0.000
57.47	0.000	58.51	0.000		
57.49	0.000	58.53	0.000		
57.51	0.000	58.55	0.000		
57.53	0.000	58.57	0.000		
57.55	0.000	58.59	0.000		
57.57	0.000	58.61	0.000		
57.59	0.000	58.63	0.000		
57.61	0.000	58.65	0.000		
57.63	0.000	58.67	0.000		
57.65	0.000	58.69	0.000		
57.67	0.000	58.71	0.000		
57.69	0.000	58.73	0.000		
57.71	0.000	58.75	0.000		
57.73	0.000	58.77	0.000		
57.75	0.000	58.79	0.000		
57.77	0.000	58.81	0.000		
57.79	0.000	58.83	0.000		
57.81	0.000	58.85	0.000		
57.83	0.000	58.87	0.000		
57.85	0.000	58.89	0.000		
57.87	0.000	58.91	0.000		
57.89	0.000	58.93	0.000		
57.91	0.000	58.95	0.000		
57.93	0.000	58.97	0.000		
57.95	0.000	58.99	0.000		
57.97	0.000	59.01	0.000		
57.99	0.000	59.03	0.000		
58.01	0.000	59.05	0.000		
58.03	0.000	59.07	0.000		
58.05	0.000	59.09	0.000		
58.07	0.000	59.11	0.000		

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NOAA 24-hr C 100-Year Rainfall=8.98"

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Summary for Pond 37P: CI-4

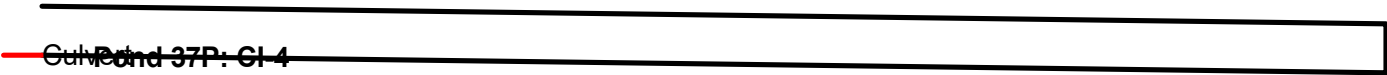
Inflow Area = 0.214 ac, 70.69% Impervious, Inflow Depth > 7.55" for 100-Year event
Inflow = 2.22 cfs @ 12.07 hrs, Volume= 0.135 af
Outflow = 2.22 cfs @ 12.07 hrs, Volume= 0.135 af, Atten= 0%, Lag= 0.0 min
Primary = 2.22 cfs @ 12.07 hrs, Volume= 0.135 af
Routed to Pond 17P : SGW FOREBAY #1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.98' @ 12.21 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	59.64'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	55.53'	15.0" Round Culvert L= 89.2' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 55.53' / 55.08' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

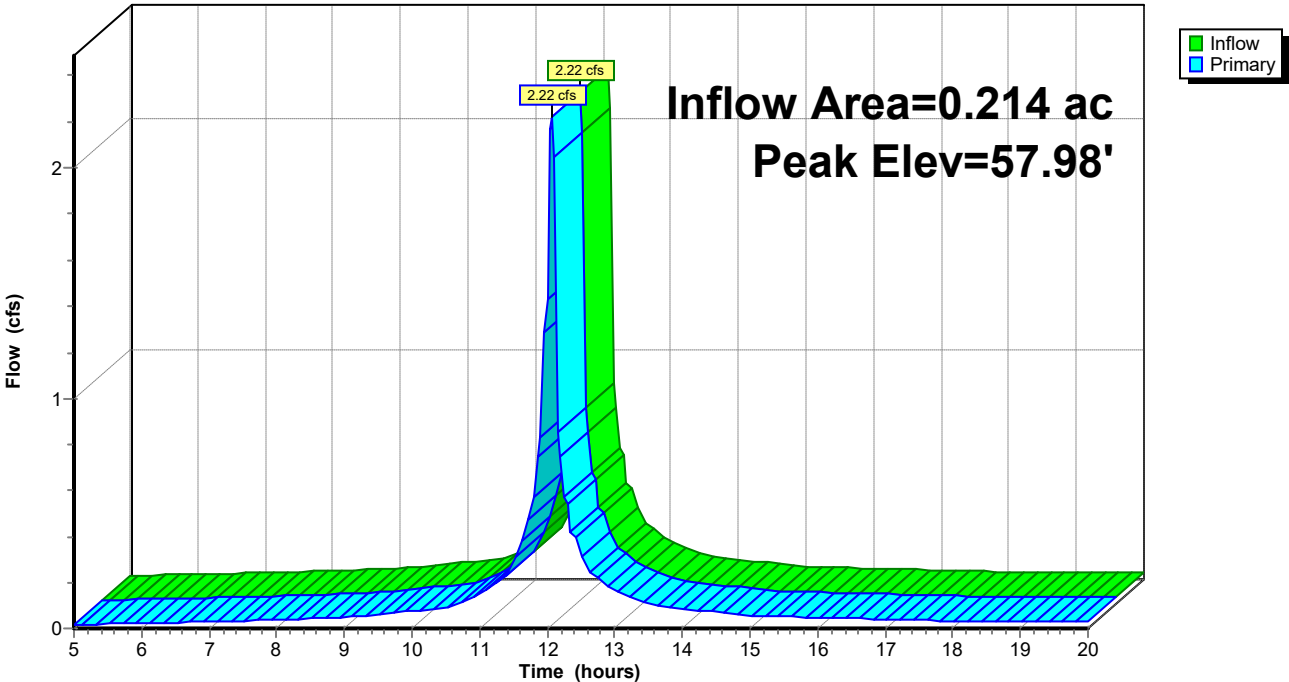
Primary OutFlow Max=0.00 cfs @ 12.07 hrs HW=57.62' TW=57.66' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Controls 0.00 cfs)

Orifice/Grate



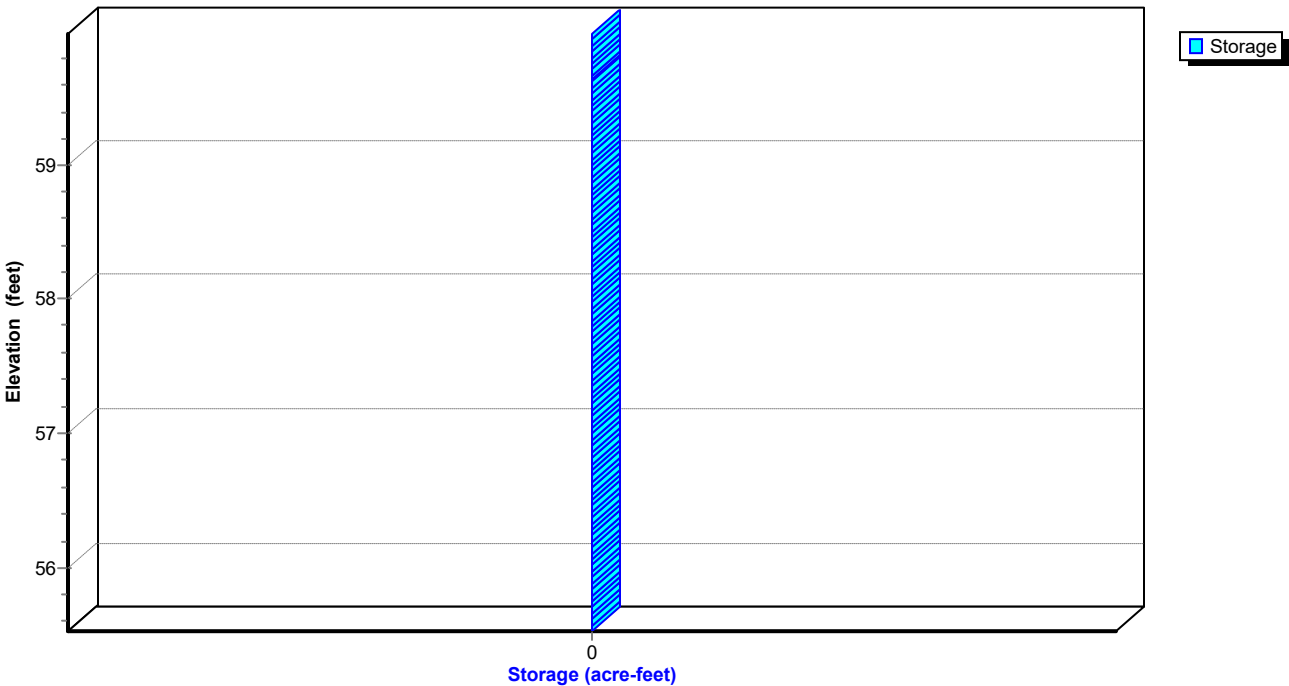
Pond 37P: CI-4

Hydrograph



Pond 37P: CI-4

Stage-Area-Storage



EX and PR

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NOAA 24-hr C 100-Year Rainfall=8.98"

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Hydrograph for Pond 37P: CI-4

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.02	55.60	0.02	18.00	0.03	56.10	0.03
5.25	0.02	55.61	0.02	18.25	0.03	56.10	0.03
5.50	0.02	55.62	0.02	18.50	0.03	56.10	0.03
5.75	0.02	55.64	0.02	18.75	0.03	56.10	0.03
6.00	0.02	55.69	0.02	19.00	0.03	56.10	0.03
6.25	0.02	55.82	0.02	19.25	0.03	56.10	0.03
6.50	0.02	55.98	0.02	19.50	0.03	56.10	0.03
6.75	0.03	56.10	0.03	19.75	0.03	56.10	0.03
7.00	0.03	56.10	0.03	20.00	0.03	56.10	0.03
7.25	0.03	56.10	0.03				
7.50	0.03	56.10	0.03				
7.75	0.04	56.10	0.04				
8.00	0.04	56.10	0.04				
8.25	0.04	56.10	0.04				
8.50	0.04	56.10	0.04				
8.75	0.04	56.10	0.04				
9.00	0.05	56.10	0.05				
9.25	0.05	56.11	0.05				
9.50	0.06	56.11	0.06				
9.75	0.07	56.11	0.07				
10.00	0.07	56.11	0.07				
10.25	0.08	56.12	0.08				
10.50	0.09	56.12	0.09				
10.75	0.12	56.13	0.12				
11.00	0.14	56.14	0.14				
11.25	0.20	56.15	0.20				
11.50	0.26	56.22	0.26				
11.75	0.53	56.58	0.53				
12.00	1.43	57.30	1.43				
12.25	0.57	57.91	0.57				
12.50	0.37	57.49	0.37				
12.75	0.21	57.30	0.21				
13.00	0.17	57.23	0.17				
13.25	0.13	57.18	0.13				
13.50	0.11	57.14	0.11				
13.75	0.09	57.11	0.09				
14.00	0.09	57.06	0.09				
14.25	0.08	57.02	0.08				
14.50	0.07	56.97	0.07				
14.75	0.06	56.92	0.06				
15.00	0.06	56.86	0.06				
15.25	0.05	56.79	0.05				
15.50	0.05	56.71	0.05				
15.75	0.05	56.64	0.05				
16.00	0.05	56.57	0.05				
16.25	0.04	56.49	0.04				
16.50	0.04	56.42	0.04				
16.75	0.04	56.35	0.04				
17.00	0.04	56.27	0.04				
17.25	0.04	56.20	0.04				
17.50	0.04	56.13	0.04				
17.75	0.03	56.10	0.03				

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Stage-Area-Storage for Pond 37P: CI-4

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
55.53	0.000	58.13	0.000
55.58	0.000	58.18	0.000
55.63	0.000	58.23	0.000
55.68	0.000	58.28	0.000
55.73	0.000	58.33	0.000
55.78	0.000	58.38	0.000
55.83	0.000	58.43	0.000
55.88	0.000	58.48	0.000
55.93	0.000	58.53	0.000
55.98	0.000	58.58	0.000
56.03	0.000	58.63	0.000
56.08	0.000	58.68	0.000
56.13	0.000	58.73	0.000
56.18	0.000	58.78	0.000
56.23	0.000	58.83	0.000
56.28	0.000	58.88	0.000
56.33	0.000	58.93	0.000
56.38	0.000	58.98	0.000
56.43	0.000	59.03	0.000
56.48	0.000	59.08	0.000
56.53	0.000	59.13	0.000
56.58	0.000	59.18	0.000
56.63	0.000	59.23	0.000
56.68	0.000	59.28	0.000
56.73	0.000	59.33	0.000
56.78	0.000	59.38	0.000
56.83	0.000	59.43	0.000
56.88	0.000	59.48	0.000
56.93	0.000	59.53	0.000
56.98	0.000	59.58	0.000
57.03	0.000	59.63	0.000
57.08	0.000	59.68	0.000
57.13	0.000	59.73	0.000
57.18	0.000	59.78	0.000
57.23	0.000	59.83	0.000
57.28	0.000	59.88	0.000
57.33	0.000	59.93	0.000
57.38	0.000		
57.43	0.000		
57.48	0.000		
57.53	0.000		
57.58	0.000		
57.63	0.000		
57.68	0.000		
57.73	0.000		
57.78	0.000		
57.83	0.000		
57.88	0.000		
57.93	0.000		
57.98	0.000		
58.03	0.000		
58.08	0.000		

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Summary for Pond 38P: CI-1

Inflow Area = 1.749 ac, 78.72% Impervious, Inflow Depth > 7.63" for 100-Year event
Inflow = 17.48 cfs @ 12.07 hrs, Volume= 1.112 af
Outflow = 17.48 cfs @ 12.07 hrs, Volume= 1.112 af, Atten= 0%, Lag= 0.0 min
Primary = 17.48 cfs @ 12.07 hrs, Volume= 1.112 af
Routed to Pond 17P : SGW FOREBAY #1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.61' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	61.41'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	55.43'	18.0" Round Culvert L= 46.3' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 55.43' / 55.08' S= 0.0076 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=16.29 cfs @ 12.07 hrs HW=61.32' TW=57.65' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Inlet Controls 16.29 cfs @ 9.22 fps)

Orifice/Grate

Culvert Pond 38P: CI-1

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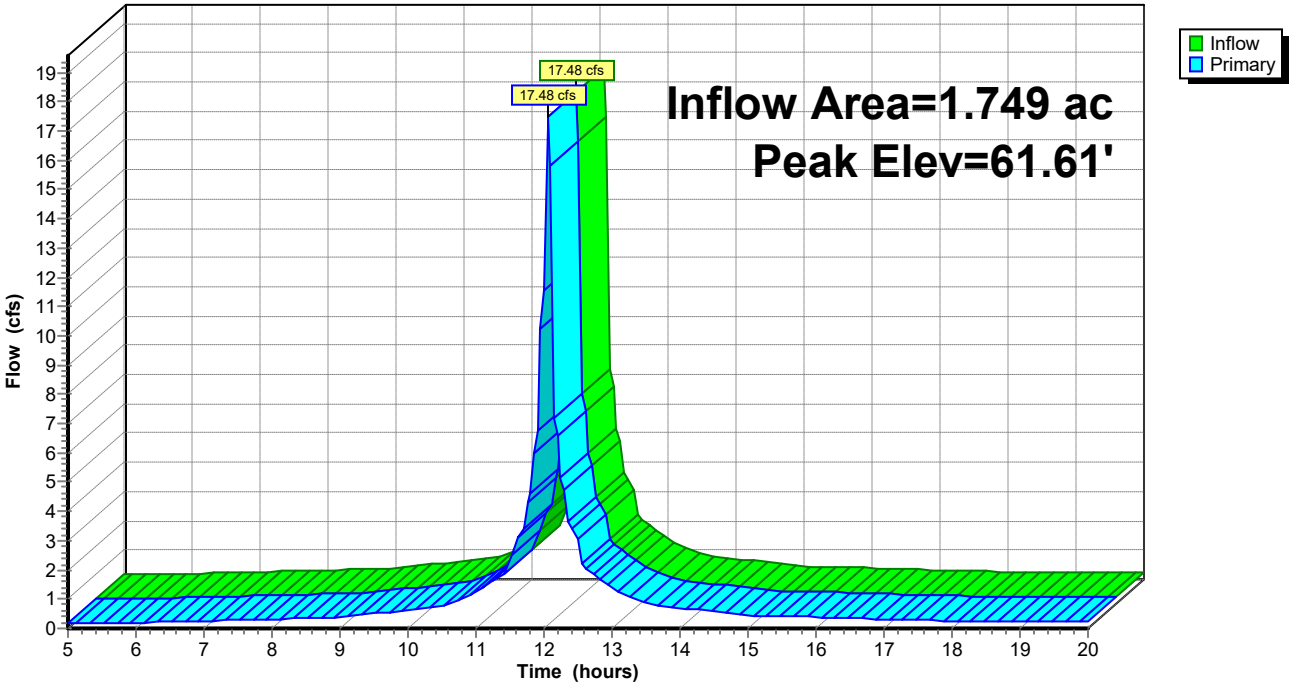
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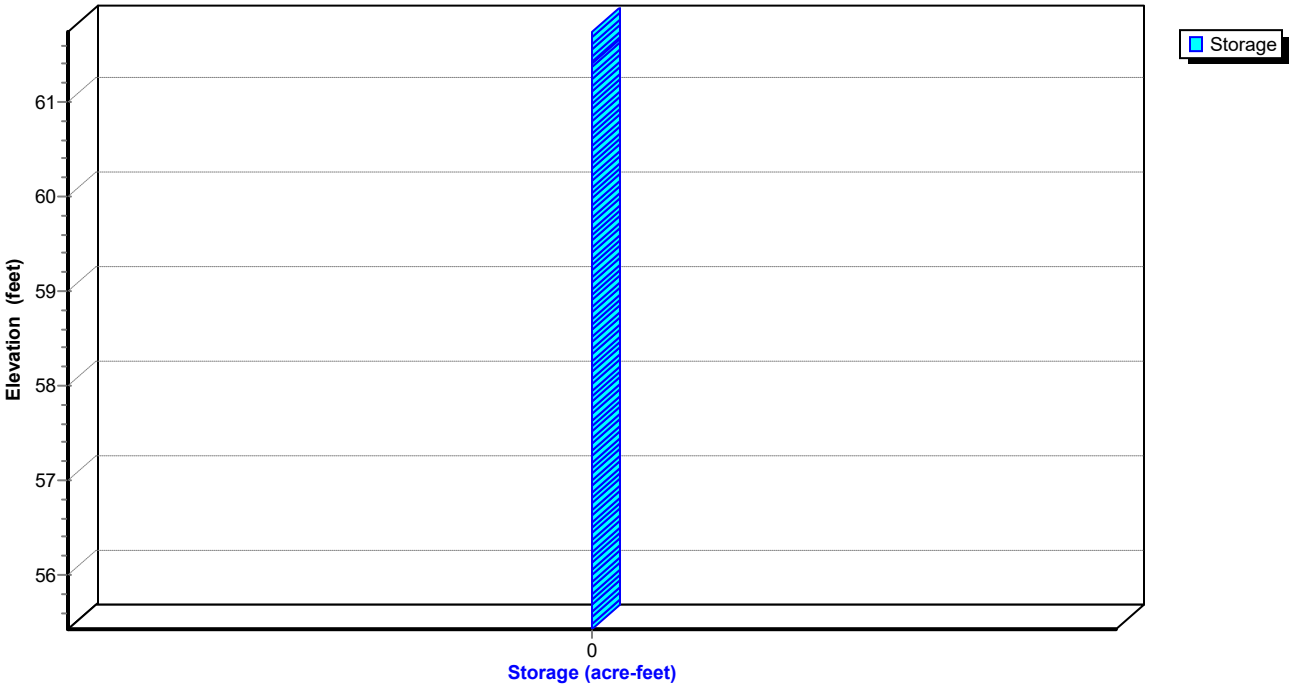
Pond 38P: CI-1

Hydrograph



Pond 38P: CI-1

Stage-Area-Storage



EX and PR

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Hydrograph for Pond 38P: CI-1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.16	55.61	0.16	18.00	0.26	56.11	0.26
5.25	0.17	55.62	0.17	18.25	0.25	56.11	0.25
5.50	0.18	55.64	0.18	18.50	0.25	56.11	0.25
5.75	0.18	55.68	0.18	18.75	0.24	56.11	0.24
6.00	0.19	55.74	0.19	19.00	0.24	56.11	0.24
6.25	0.21	55.85	0.21	19.25	0.23	56.11	0.23
6.50	0.22	55.99	0.22	19.50	0.23	56.10	0.23
6.75	0.24	56.11	0.24	19.75	0.23	56.10	0.23
7.00	0.25	56.11	0.25	20.00	0.22	56.10	0.22
7.25	0.27	56.11	0.27				
7.50	0.29	56.11	0.29				
7.75	0.30	56.11	0.30				
8.00	0.32	56.11	0.32				
8.25	0.34	56.12	0.34				
8.50	0.35	56.12	0.35				
8.75	0.37	56.12	0.37				
9.00	0.39	56.12	0.39				
9.25	0.45	56.13	0.45				
9.50	0.50	56.14	0.50				
9.75	0.57	56.15	0.57				
10.00	0.62	56.16	0.62				
10.25	0.68	56.17	0.68				
10.50	0.75	56.18	0.75				
10.75	0.98	56.21	0.98				
11.00	1.19	56.24	1.19				
11.25	1.64	56.31	1.64				
11.50	2.12	56.41	2.12				
11.75	4.31	56.87	4.31				
12.00	11.57	59.08	11.57				
12.25	5.14	58.27	5.14				
12.50	3.08	57.62	3.08				
12.75	1.79	57.35	1.79				
13.00	1.40	57.25	1.40				
13.25	1.08	57.19	1.08				
13.50	0.88	57.15	0.88				
13.75	0.75	57.11	0.75				
14.00	0.70	57.07	0.70				
14.25	0.63	57.03	0.63				
14.50	0.58	56.97	0.58				
14.75	0.52	56.92	0.52				
15.00	0.46	56.86	0.46				
15.25	0.43	56.79	0.43				
15.50	0.42	56.72	0.42				
15.75	0.40	56.65	0.40				
16.00	0.38	56.57	0.38				
16.25	0.37	56.50	0.37				
16.50	0.35	56.43	0.35				
16.75	0.33	56.35	0.33				
17.00	0.32	56.28	0.32				
17.25	0.30	56.21	0.30				
17.50	0.29	56.14	0.29				
17.75	0.27	56.11	0.27				

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Stage-Area-Storage for Pond 38P: CI-1

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
55.43	0.000	58.03	0.000	60.63	0.000
55.48	0.000	58.08	0.000	60.68	0.000
55.53	0.000	58.13	0.000	60.73	0.000
55.58	0.000	58.18	0.000	60.78	0.000
55.63	0.000	58.23	0.000	60.83	0.000
55.68	0.000	58.28	0.000	60.88	0.000
55.73	0.000	58.33	0.000	60.93	0.000
55.78	0.000	58.38	0.000	60.98	0.000
55.83	0.000	58.43	0.000	61.03	0.000
55.88	0.000	58.48	0.000	61.08	0.000
55.93	0.000	58.53	0.000	61.13	0.000
55.98	0.000	58.58	0.000	61.18	0.000
56.03	0.000	58.63	0.000	61.23	0.000
56.08	0.000	58.68	0.000	61.28	0.000
56.13	0.000	58.73	0.000	61.33	0.000
56.18	0.000	58.78	0.000	61.38	0.000
56.23	0.000	58.83	0.000	61.43	0.000
56.28	0.000	58.88	0.000	61.48	0.000
56.33	0.000	58.93	0.000	61.53	0.000
56.38	0.000	58.98	0.000	61.58	0.000
56.43	0.000	59.03	0.000	61.63	0.000
56.48	0.000	59.08	0.000	61.68	0.000
56.53	0.000	59.13	0.000	61.73	0.000
56.58	0.000	59.18	0.000		
56.63	0.000	59.23	0.000		
56.68	0.000	59.28	0.000		
56.73	0.000	59.33	0.000		
56.78	0.000	59.38	0.000		
56.83	0.000	59.43	0.000		
56.88	0.000	59.48	0.000		
56.93	0.000	59.53	0.000		
56.98	0.000	59.58	0.000		
57.03	0.000	59.63	0.000		
57.08	0.000	59.68	0.000		
57.13	0.000	59.73	0.000		
57.18	0.000	59.78	0.000		
57.23	0.000	59.83	0.000		
57.28	0.000	59.88	0.000		
57.33	0.000	59.93	0.000		
57.38	0.000	59.98	0.000		
57.43	0.000	60.03	0.000		
57.48	0.000	60.08	0.000		
57.53	0.000	60.13	0.000		
57.58	0.000	60.18	0.000		
57.63	0.000	60.23	0.000		
57.68	0.000	60.28	0.000		
57.73	0.000	60.33	0.000		
57.78	0.000	60.38	0.000		
57.83	0.000	60.43	0.000		
57.88	0.000	60.48	0.000		
57.93	0.000	60.53	0.000		
57.98	0.000	60.58	0.000		

EX and PR

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NOAA 24-hr C 100-Year Rainfall=8.98"

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Summary for Pond 39P: CI-9

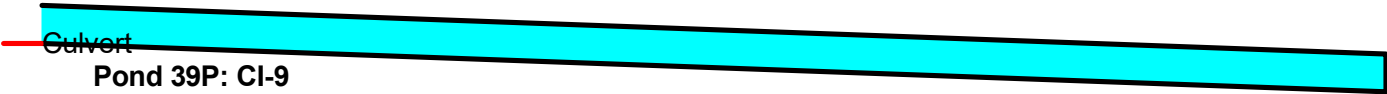
Inflow Area = 1.554 ac, 77.64% Impervious, Inflow Depth > 7.60" for 100-Year event
Inflow = 15.43 cfs @ 12.06 hrs, Volume= 0.985 af
Outflow = 15.43 cfs @ 12.06 hrs, Volume= 0.985 af, Atten= 0%, Lag= 0.0 min
Primary = 15.43 cfs @ 12.06 hrs, Volume= 0.985 af
Routed to Pond 38P : CI-1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 62.68' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	61.44'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	57.03'	15.0" Round Culvert L= 172.0' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 57.03' / 55.43' S= 0.0093 '/ Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

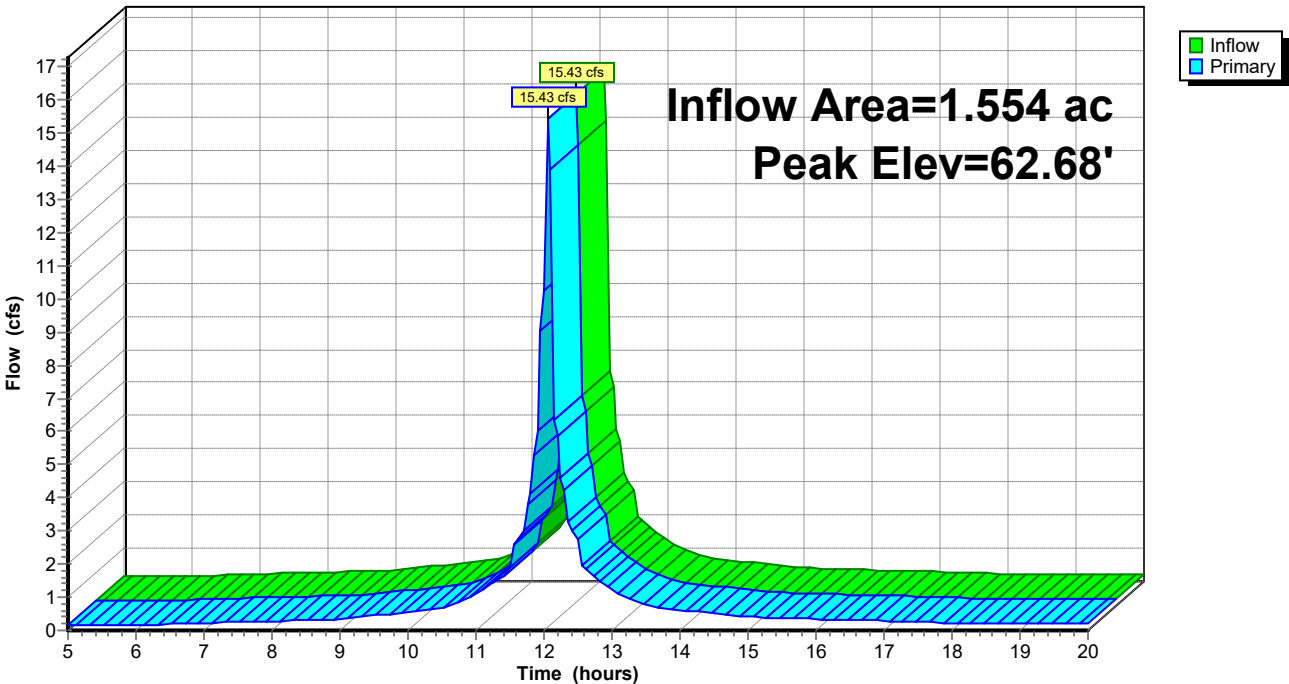
Primary OutFlow Max=12.39 cfs @ 12.06 hrs HW=62.39' TW=61.32' (Dynamic Tailwater)
1=Orifice/Grate (Orifice Controls 7.80 cfs @ 4.25 fps)
2=Culvert (Outlet Controls 4.60 cfs @ 3.74 fps)

Orifice/Grate



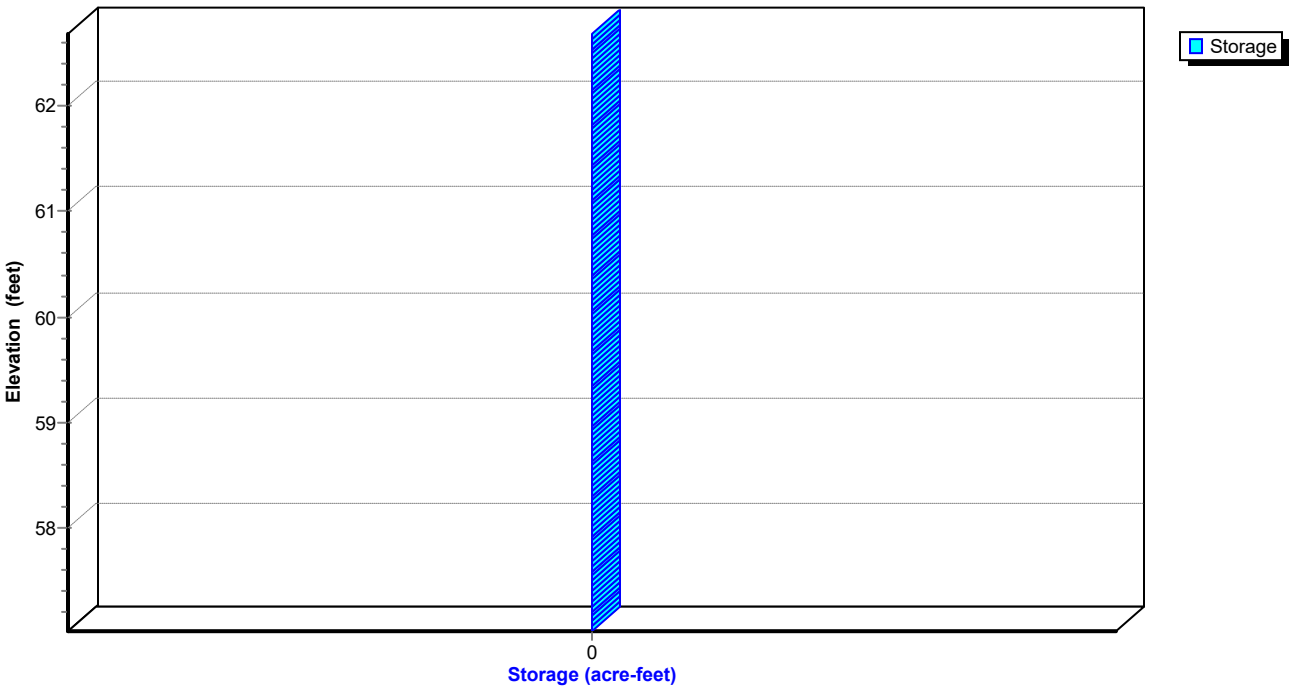
Pond 39P: CI-9

Hydrograph



Pond 39P: CI-9

Stage-Area-Storage



EX and PR

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Hydrograph for Pond 39P: CI-9

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.14	57.20	0.14	18.00	0.23	57.26	0.23
5.25	0.15	57.20	0.15	18.25	0.22	57.26	0.22
5.50	0.15	57.21	0.15	18.50	0.22	57.26	0.22
5.75	0.16	57.21	0.16	18.75	0.22	57.26	0.22
6.00	0.17	57.22	0.17	19.00	0.21	57.25	0.21
6.25	0.18	57.23	0.18	19.25	0.21	57.25	0.21
6.50	0.19	57.24	0.19	19.50	0.21	57.25	0.21
6.75	0.21	57.25	0.21	19.75	0.20	57.25	0.20
7.00	0.22	57.26	0.22	20.00	0.20	57.25	0.20
7.25	0.24	57.27	0.24				
7.50	0.25	57.27	0.25				
7.75	0.27	57.28	0.27				
8.00	0.28	57.29	0.28				
8.25	0.30	57.29	0.30				
8.50	0.31	57.30	0.31				
8.75	0.33	57.31	0.33				
9.00	0.34	57.31	0.34				
9.25	0.40	57.33	0.40				
9.50	0.44	57.35	0.44				
9.75	0.50	57.37	0.50				
10.00	0.55	57.39	0.55				
10.25	0.60	57.40	0.60				
10.50	0.66	57.42	0.66				
10.75	0.87	57.48	0.87				
11.00	1.05	57.53	1.05				
11.25	1.45	57.62	1.45				
11.50	1.88	57.72	1.88				
11.75	3.81	58.11	3.81				
12.00	10.26	61.70	10.26				
12.25	4.61	59.63	4.61				
12.50	2.74	58.24	2.74				
12.75	1.59	57.87	1.59				
13.00	1.25	57.76	1.25				
13.25	0.96	57.66	0.96				
13.50	0.78	57.60	0.78				
13.75	0.67	57.55	0.67				
14.00	0.62	57.53	0.62				
14.25	0.56	57.50	0.56				
14.50	0.52	57.47	0.52				
14.75	0.46	57.44	0.46				
15.00	0.41	57.41	0.41				
15.25	0.38	57.39	0.38				
15.50	0.37	57.37	0.37				
15.75	0.35	57.36	0.35				
16.00	0.34	57.35	0.34				
16.25	0.33	57.33	0.33				
16.50	0.31	57.32	0.31				
16.75	0.30	57.31	0.30				
17.00	0.29	57.30	0.29				
17.25	0.27	57.29	0.27				
17.50	0.26	57.28	0.26				
17.75	0.24	57.27	0.24				

EX and PR

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NOAA 24-hr C 100-Year Rainfall=8.98"

Printed 5/1/2024

Stage-Area-Storage for Pond 39P: CI-9

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
57.03	0.000	59.63	0.000	62.23	0.000
57.08	0.000	59.68	0.000	62.28	0.000
57.13	0.000	59.73	0.000	62.33	0.000
57.18	0.000	59.78	0.000	62.38	0.000
57.23	0.000	59.83	0.000	62.43	0.000
57.28	0.000	59.88	0.000	62.48	0.000
57.33	0.000	59.93	0.000	62.53	0.000
57.38	0.000	59.98	0.000	62.58	0.000
57.43	0.000	60.03	0.000	62.63	0.000
57.48	0.000	60.08	0.000		
57.53	0.000	60.13	0.000		
57.58	0.000	60.18	0.000		
57.63	0.000	60.23	0.000		
57.68	0.000	60.28	0.000		
57.73	0.000	60.33	0.000		
57.78	0.000	60.38	0.000		
57.83	0.000	60.43	0.000		
57.88	0.000	60.48	0.000		
57.93	0.000	60.53	0.000		
57.98	0.000	60.58	0.000		
58.03	0.000	60.63	0.000		
58.08	0.000	60.68	0.000		
58.13	0.000	60.73	0.000		
58.18	0.000	60.78	0.000		
58.23	0.000	60.83	0.000		
58.28	0.000	60.88	0.000		
58.33	0.000	60.93	0.000		
58.38	0.000	60.98	0.000		
58.43	0.000	61.03	0.000		
58.48	0.000	61.08	0.000		
58.53	0.000	61.13	0.000		
58.58	0.000	61.18	0.000		
58.63	0.000	61.23	0.000		
58.68	0.000	61.28	0.000		
58.73	0.000	61.33	0.000		
58.78	0.000	61.38	0.000		
58.83	0.000	61.43	0.000		
58.88	0.000	61.48	0.000		
58.93	0.000	61.53	0.000		
58.98	0.000	61.58	0.000		
59.03	0.000	61.63	0.000		
59.08	0.000	61.68	0.000		
59.13	0.000	61.73	0.000		
59.18	0.000	61.78	0.000		
59.23	0.000	61.83	0.000		
59.28	0.000	61.88	0.000		
59.33	0.000	61.93	0.000		
59.38	0.000	61.98	0.000		
59.43	0.000	62.03	0.000		
59.48	0.000	62.08	0.000		
59.53	0.000	62.13	0.000		
59.58	0.000	62.18	0.000		

EX and PR

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Summary for Pond 40P: CI-6

Inflow Area = 0.382 ac, 58.96% Impervious, Inflow Depth > 7.27" for 100-Year event
Inflow = 3.23 cfs @ 12.08 hrs, Volume= 0.232 af
Outflow = 3.23 cfs @ 12.08 hrs, Volume= 0.232 af, Atten= 0%, Lag= 0.0 min
Primary = 3.23 cfs @ 12.08 hrs, Volume= 0.232 af
Routed to Pond 39P : CI-9

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 62.71' @ 12.14 hrs

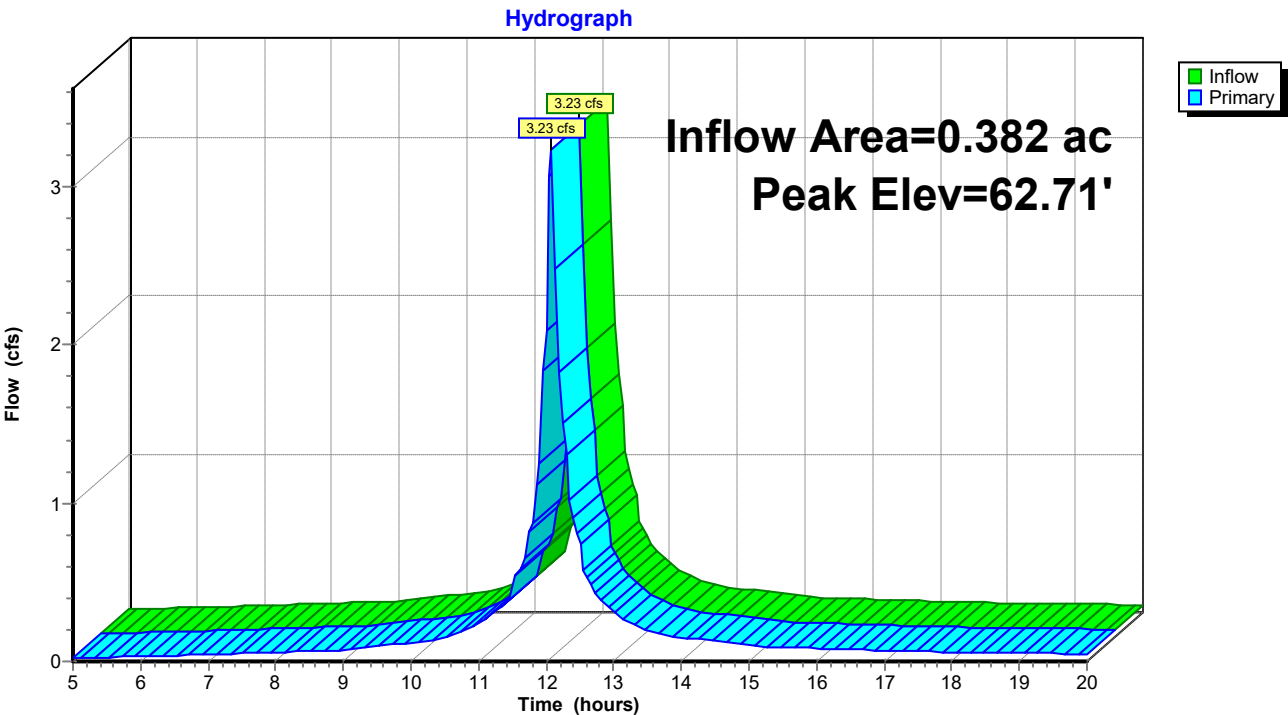
Device	Routing	Invert	Outlet Devices
#1	Primary	61.68'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	57.45'	12.0" Round Culvert L= 84.4' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 57.45' / 57.03' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 12.08 hrs HW=62.12' TW=62.47' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Controls 0.00 cfs)

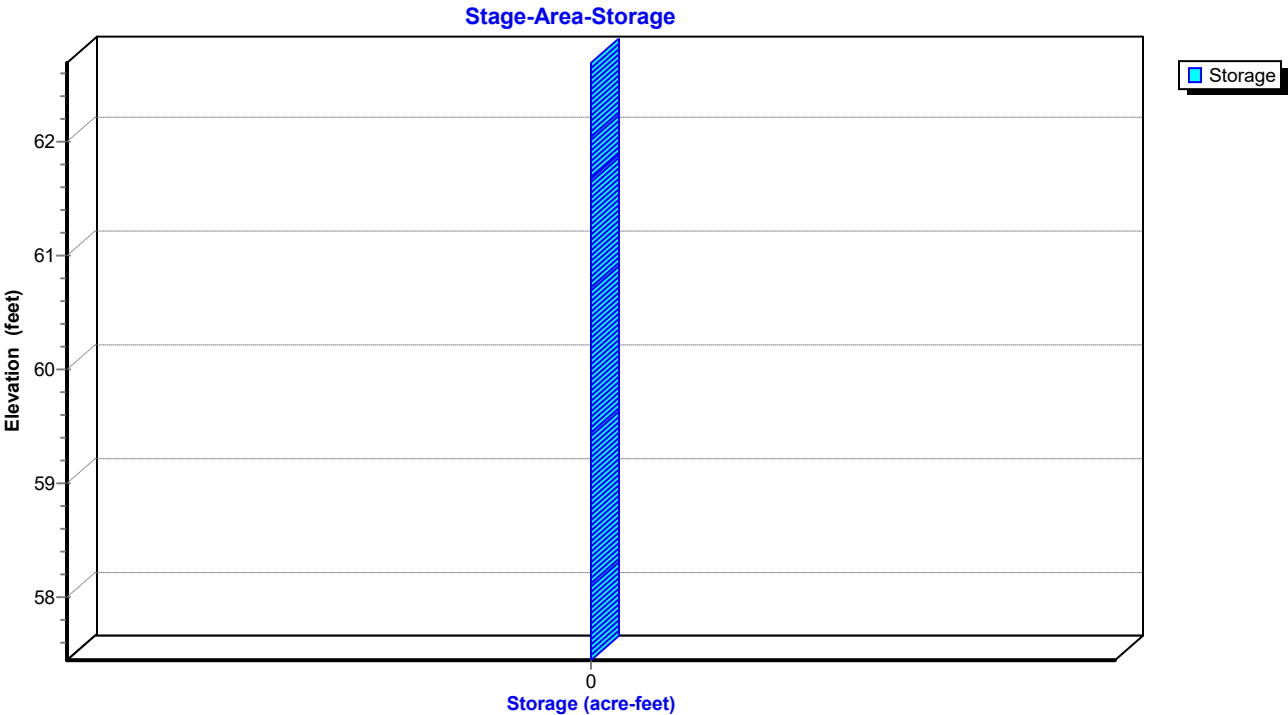
Orifice/Grate

Culvert Pond 40P: CI-6

Pond 40P: CI-6



Pond 40P: CI-6



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Hydrograph for Pond 40P: CI-6

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.02	57.54	0.02	18.00	0.06	57.60	0.06
5.25	0.02	57.55	0.02	18.25	0.05	57.59	0.05
5.50	0.03	57.55	0.03	18.50	0.05	57.59	0.05
5.75	0.03	57.55	0.03	18.75	0.05	57.59	0.05
6.00	0.03	57.55	0.03	19.00	0.05	57.59	0.05
6.25	0.03	57.56	0.03	19.25	0.05	57.59	0.05
6.50	0.04	57.57	0.04	19.50	0.05	57.59	0.05
6.75	0.04	57.57	0.04	19.75	0.05	57.59	0.05
7.00	0.04	57.58	0.04	20.00	0.05	57.58	0.05
7.25	0.05	57.58	0.05				
7.50	0.05	57.59	0.05				
7.75	0.05	57.59	0.05				
8.00	0.06	57.60	0.06				
8.25	0.06	57.60	0.06				
8.50	0.06	57.61	0.06				
8.75	0.07	57.61	0.07				
9.00	0.07	57.62	0.07				
9.25	0.08	57.63	0.08				
9.50	0.09	57.64	0.09				
9.75	0.11	57.66	0.11				
10.00	0.12	57.67	0.12				
10.25	0.13	57.68	0.13				
10.50	0.15	57.69	0.15				
10.75	0.19	57.73	0.19				
11.00	0.23	57.77	0.23				
11.25	0.32	57.84	0.32				
11.50	0.41	57.91	0.41				
11.75	0.82	58.16	0.82				
12.00	2.09	61.76	2.09				
12.25	1.51	60.47	1.51				
12.50	0.74	58.41	0.74				
12.75	0.41	58.02	0.41				
13.00	0.32	57.91	0.32				
13.25	0.24	57.83	0.24				
13.50	0.20	57.78	0.20				
13.75	0.17	57.74	0.17				
14.00	0.15	57.73	0.15				
14.25	0.14	57.71	0.14				
14.50	0.13	57.69	0.13				
14.75	0.11	57.68	0.11				
15.00	0.10	57.66	0.10				
15.25	0.09	57.65	0.09				
15.50	0.09	57.64	0.09				
15.75	0.09	57.64	0.09				
16.00	0.08	57.63	0.08				
16.25	0.08	57.63	0.08				
16.50	0.08	57.62	0.08				
16.75	0.07	57.62	0.07				
17.00	0.07	57.61	0.07				
17.25	0.07	57.61	0.07				
17.50	0.06	57.60	0.06				
17.75	0.06	57.60	0.06				

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Stage-Area-Storage for Pond 40P: CI-6

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
57.45	0.000	60.05	0.000	62.65	0.000
57.50	0.000	60.10	0.000	62.70	0.000
57.55	0.000	60.15	0.000		
57.60	0.000	60.20	0.000		
57.65	0.000	60.25	0.000		
57.70	0.000	60.30	0.000		
57.75	0.000	60.35	0.000		
57.80	0.000	60.40	0.000		
57.85	0.000	60.45	0.000		
57.90	0.000	60.50	0.000		
57.95	0.000	60.55	0.000		
58.00	0.000	60.60	0.000		
58.05	0.000	60.65	0.000		
58.10	0.000	60.70	0.000		
58.15	0.000	60.75	0.000		
58.20	0.000	60.80	0.000		
58.25	0.000	60.85	0.000		
58.30	0.000	60.90	0.000		
58.35	0.000	60.95	0.000		
58.40	0.000	61.00	0.000		
58.45	0.000	61.05	0.000		
58.50	0.000	61.10	0.000		
58.55	0.000	61.15	0.000		
58.60	0.000	61.20	0.000		
58.65	0.000	61.25	0.000		
58.70	0.000	61.30	0.000		
58.75	0.000	61.35	0.000		
58.80	0.000	61.40	0.000		
58.85	0.000	61.45	0.000		
58.90	0.000	61.50	0.000		
58.95	0.000	61.55	0.000		
59.00	0.000	61.60	0.000		
59.05	0.000	61.65	0.000		
59.10	0.000	61.70	0.000		
59.15	0.000	61.75	0.000		
59.20	0.000	61.80	0.000		
59.25	0.000	61.85	0.000		
59.30	0.000	61.90	0.000		
59.35	0.000	61.95	0.000		
59.40	0.000	62.00	0.000		
59.45	0.000	62.05	0.000		
59.50	0.000	62.10	0.000		
59.55	0.000	62.15	0.000		
59.60	0.000	62.20	0.000		
59.65	0.000	62.25	0.000		
59.70	0.000	62.30	0.000		
59.75	0.000	62.35	0.000		
59.80	0.000	62.40	0.000		
59.85	0.000	62.45	0.000		
59.90	0.000	62.50	0.000		
59.95	0.000	62.55	0.000		
60.00	0.000	62.60	0.000		

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NOAA 24-hr C 100-Year Rainfall=8.98"

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Summary for Pond 43P: CI-7

Inflow Area = 0.131 ac, 41.20% Impervious, Inflow Depth > 6.92" for 100-Year event
Inflow = 0.95 cfs @ 12.19 hrs, Volume= 0.075 af
Outflow = 0.95 cfs @ 12.19 hrs, Volume= 0.075 af, Atten= 0%, Lag= 0.0 min
Primary = 0.95 cfs @ 12.19 hrs, Volume= 0.075 af
Routed to Pond 40P : CI-6

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 62.71' @ 12.19 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	62.27'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	58.13'	12.0" Round Culvert L= 138.4' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 58.13' / 57.43' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=6.37 cfs @ 12.19 hrs HW=62.65' TW=61.90' (Dynamic Tailwater)
1=Orifice/Grate (Orifice Controls 3.98 cfs @ 2.17 fps)
2=Culvert (Outlet Controls 2.39 cfs @ 3.04 fps)

Orifice/Grate

Culvert
Pond 43P: CI-7

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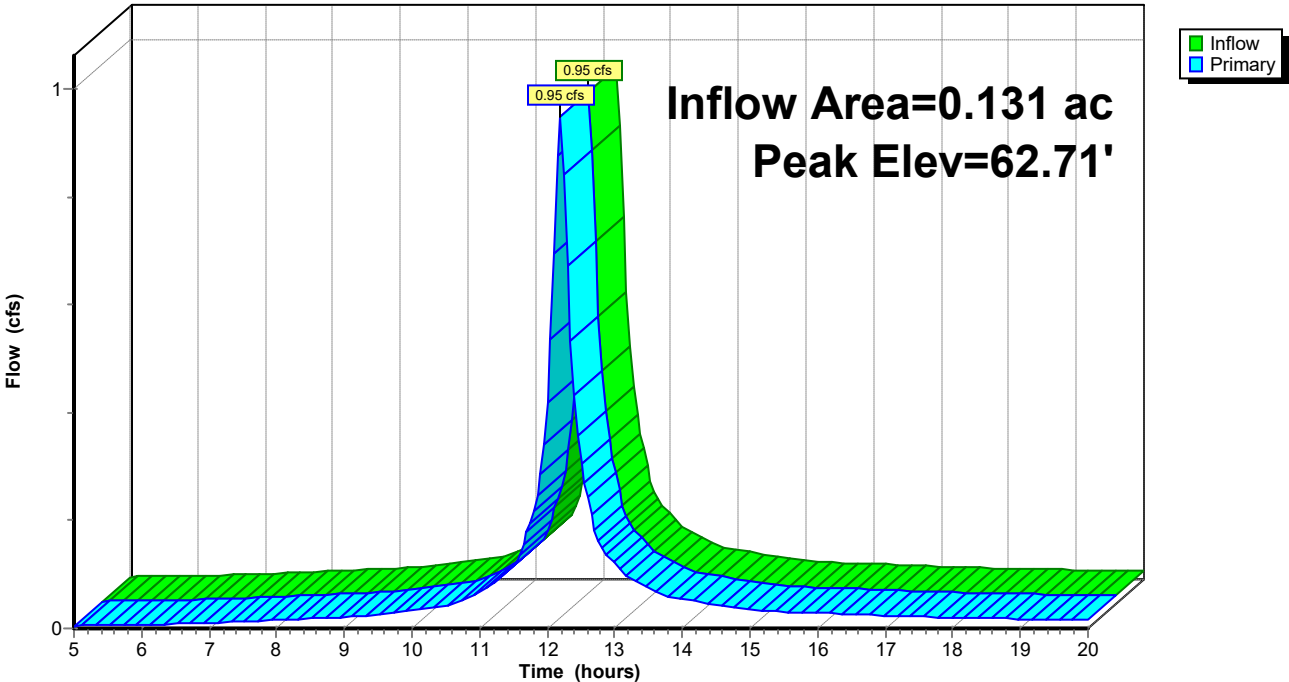
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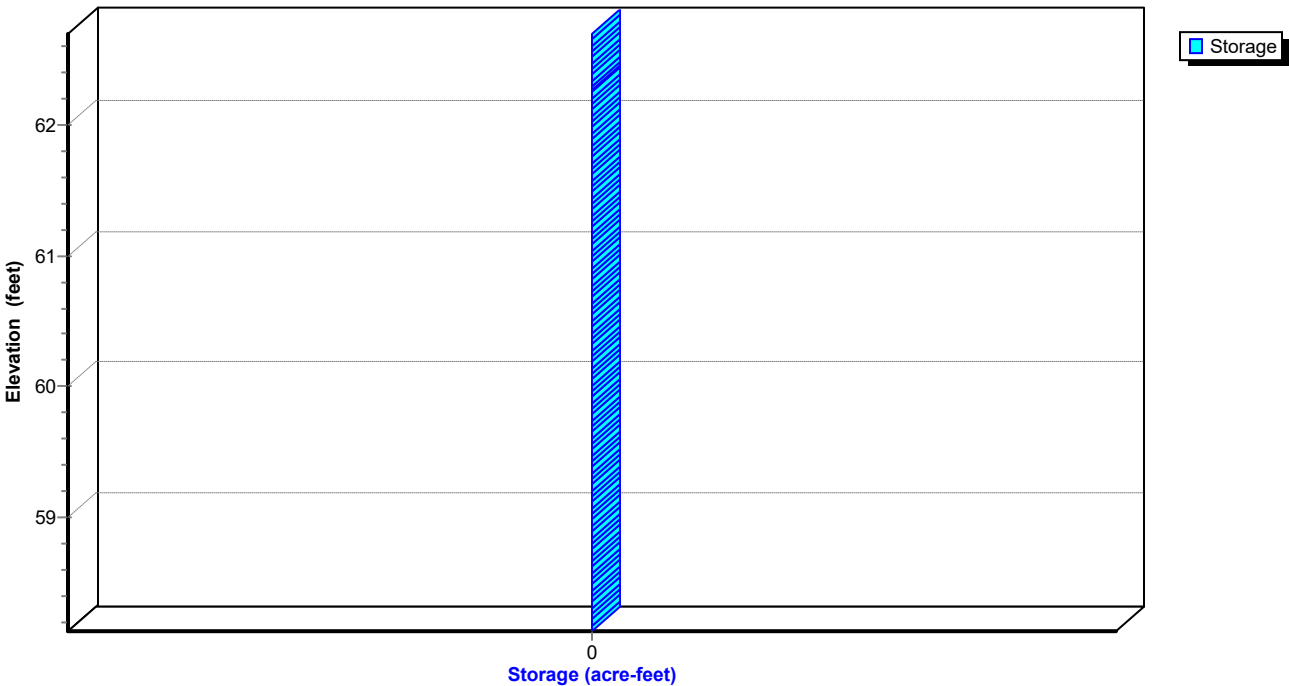
Pond 43P: CI-7

Hydrograph



Pond 43P: CI-7

Stage-Area-Storage



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Hydrograph for Pond 43P: CI-7

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	58.17	0.00	18.00	0.02	58.21	0.02
5.25	0.01	58.17	0.01	18.25	0.02	58.21	0.02
5.50	0.01	58.18	0.01	18.50	0.02	58.21	0.02
5.75	0.01	58.18	0.01	18.75	0.02	58.21	0.02
6.00	0.01	58.18	0.01	19.00	0.02	58.21	0.02
6.25	0.01	58.18	0.01	19.25	0.02	58.21	0.02
6.50	0.01	58.19	0.01	19.50	0.02	58.21	0.02
6.75	0.01	58.19	0.01	19.75	0.02	58.21	0.02
7.00	0.01	58.19	0.01	20.00	0.02	58.21	0.02
7.25	0.01	58.20	0.01				
7.50	0.01	58.20	0.01				
7.75	0.01	58.20	0.01				
8.00	0.02	58.20	0.02				
8.25	0.02	58.21	0.02				
8.50	0.02	58.21	0.02				
8.75	0.02	58.21	0.02				
9.00	0.02	58.22	0.02				
9.25	0.02	58.22	0.02				
9.50	0.03	58.23	0.03				
9.75	0.03	58.23	0.03				
10.00	0.03	58.24	0.03				
10.25	0.04	58.25	0.04				
10.50	0.04	58.25	0.04				
10.75	0.05	58.27	0.05				
11.00	0.07	58.29	0.07				
11.25	0.09	58.31	0.09				
11.50	0.12	58.34	0.12				
11.75	0.20	58.43	0.20				
12.00	0.42	59.43	0.42				
12.25	0.84	61.91	0.84				
12.50	0.31	58.63	0.31				
12.75	0.16	58.40	0.16				
13.00	0.12	58.35	0.12				
13.25	0.09	58.32	0.09				
13.50	0.07	58.30	0.07				
13.75	0.06	58.28	0.06				
14.00	0.05	58.27	0.05				
14.25	0.05	58.26	0.05				
14.50	0.04	58.26	0.04				
14.75	0.04	58.25	0.04				
15.00	0.04	58.24	0.04				
15.25	0.03	58.24	0.03				
15.50	0.03	58.24	0.03				
15.75	0.03	58.23	0.03				
16.00	0.03	58.23	0.03				
16.25	0.03	58.23	0.03				
16.50	0.03	58.23	0.03				
16.75	0.03	58.22	0.03				
17.00	0.02	58.22	0.02				
17.25	0.02	58.22	0.02				
17.50	0.02	58.22	0.02				
17.75	0.02	58.22	0.02				

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Stage-Area-Storage for Pond 43P: CI-7

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
58.13	0.000	60.73	0.000
58.18	0.000	60.78	0.000
58.23	0.000	60.83	0.000
58.28	0.000	60.88	0.000
58.33	0.000	60.93	0.000
58.38	0.000	60.98	0.000
58.43	0.000	61.03	0.000
58.48	0.000	61.08	0.000
58.53	0.000	61.13	0.000
58.58	0.000	61.18	0.000
58.63	0.000	61.23	0.000
58.68	0.000	61.28	0.000
58.73	0.000	61.33	0.000
58.78	0.000	61.38	0.000
58.83	0.000	61.43	0.000
58.88	0.000	61.48	0.000
58.93	0.000	61.53	0.000
58.98	0.000	61.58	0.000
59.03	0.000	61.63	0.000
59.08	0.000	61.68	0.000
59.13	0.000	61.73	0.000
59.18	0.000	61.78	0.000
59.23	0.000	61.83	0.000
59.28	0.000	61.88	0.000
59.33	0.000	61.93	0.000
59.38	0.000	61.98	0.000
59.43	0.000	62.03	0.000
59.48	0.000	62.08	0.000
59.53	0.000	62.13	0.000
59.58	0.000	62.18	0.000
59.63	0.000	62.23	0.000
59.68	0.000	62.28	0.000
59.73	0.000	62.33	0.000
59.78	0.000	62.38	0.000
59.83	0.000	62.43	0.000
59.88	0.000	62.48	0.000
59.93	0.000	62.53	0.000
59.98	0.000	62.58	0.000
60.03	0.000	62.63	0.000
60.08	0.000	62.68	0.000
60.13	0.000		
60.18	0.000		
60.23	0.000		
60.28	0.000		
60.33	0.000		
60.38	0.000		
60.43	0.000		
60.48	0.000		
60.53	0.000		
60.58	0.000		
60.63	0.000		
60.68	0.000		

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Summary for Pond 44P: CI-2

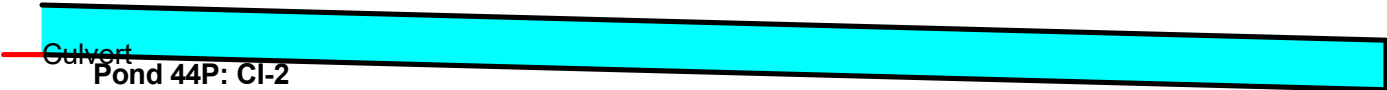
Inflow Area = 0.537 ac, 76.55% Impervious, Inflow Depth > 7.60" for 100-Year event
Inflow = 5.60 cfs @ 12.06 hrs, Volume= 0.340 af
Outflow = 5.60 cfs @ 12.06 hrs, Volume= 0.340 af, Atten= 0%, Lag= 0.0 min
Primary = 5.60 cfs @ 12.06 hrs, Volume= 0.340 af
Routed to Pond 45P : CI-3

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 62.77' @ 12.18 hrs

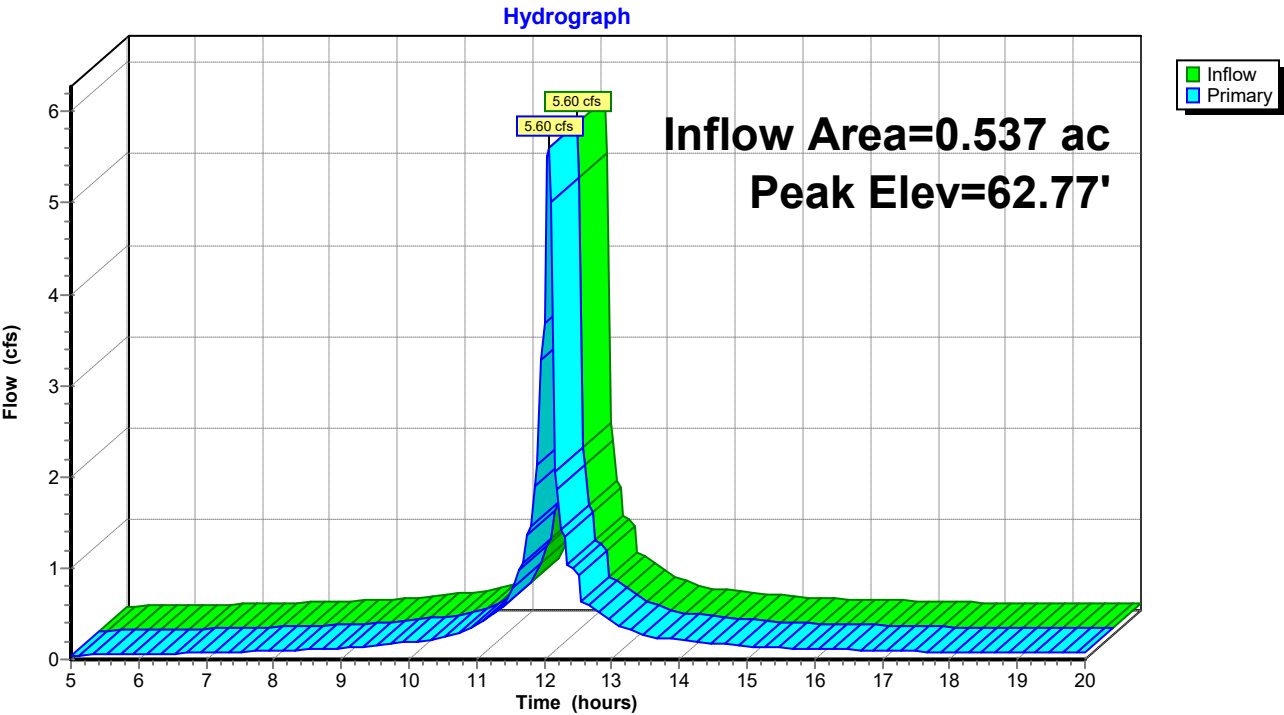
Device	Routing	Invert	Outlet Devices
#1	Primary	62.18'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	58.55'	15.0" Round Culvert L= 99.8' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 58.55' / 57.66' S= 0.0089 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=4.03 cfs @ 12.06 hrs HW=62.40' TW=62.23' (Dynamic Tailwater)
1=Orifice/Grate (Orifice Controls 1.83 cfs @ 1.49 fps)
2=Culvert (Outlet Controls 2.20 cfs @ 1.79 fps)

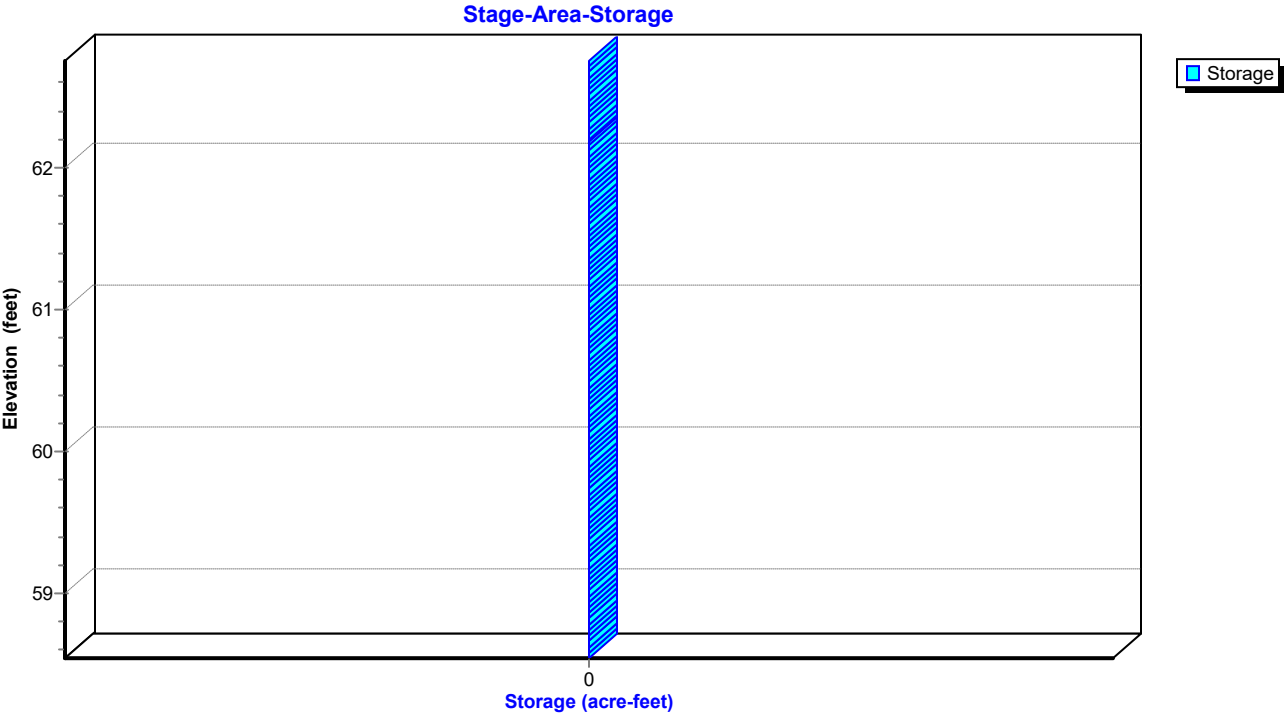
Orifice/Grate



Pond 44P: CI-2



Pond 44P: CI-2



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Hydrograph for Pond 44P: CI-2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.05	58.65	0.05	18.00	0.08	58.68	0.08
5.25	0.05	58.65	0.05	18.25	0.08	58.68	0.08
5.50	0.05	58.66	0.05	18.50	0.08	58.68	0.08
5.75	0.05	58.66	0.05	18.75	0.07	58.68	0.07
6.00	0.06	58.66	0.06	19.00	0.07	58.68	0.07
6.25	0.06	58.67	0.06	19.25	0.07	58.68	0.07
6.50	0.06	58.67	0.06	19.50	0.07	58.68	0.07
6.75	0.07	58.67	0.07	19.75	0.07	58.67	0.07
7.00	0.07	58.68	0.07	20.00	0.07	58.67	0.07
7.25	0.08	58.68	0.08				
7.50	0.09	58.69	0.09				
7.75	0.09	58.69	0.09				
8.00	0.10	58.70	0.10				
8.25	0.10	58.70	0.10				
8.50	0.11	58.70	0.11				
8.75	0.11	58.71	0.11				
9.00	0.12	58.71	0.12				
9.25	0.14	58.72	0.14				
9.50	0.15	58.73	0.15				
9.75	0.17	58.75	0.17				
10.00	0.19	58.75	0.19				
10.25	0.21	58.77	0.21				
10.50	0.23	58.78	0.23				
10.75	0.30	58.81	0.30				
11.00	0.37	58.84	0.37				
11.25	0.51	58.89	0.51				
11.50	0.66	58.95	0.66				
11.75	1.36	59.15	1.36				
12.00	3.68	60.35	3.68				
12.25	1.42	61.90	1.42				
12.50	0.92	59.10	0.92				
12.75	0.54	58.92	0.54				
13.00	0.43	58.87	0.43				
13.25	0.33	58.83	0.33				
13.50	0.27	58.80	0.27				
13.75	0.23	58.78	0.23				
14.00	0.21	58.77	0.21				
14.25	0.19	58.76	0.19				
14.50	0.18	58.75	0.18				
14.75	0.16	58.74	0.16				
15.00	0.14	58.73	0.14				
15.25	0.13	58.72	0.13				
15.50	0.13	58.72	0.13				
15.75	0.12	58.71	0.12				
16.00	0.12	58.71	0.12				
16.25	0.11	58.71	0.11				
16.50	0.11	58.70	0.11				
16.75	0.10	58.70	0.10				
17.00	0.10	58.70	0.10				
17.25	0.09	58.69	0.09				
17.50	0.09	58.69	0.09				
17.75	0.08	58.69	0.08				

EX and PR

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Stage-Area-Storage for Pond 44P: CI-2

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
58.55	0.000	61.15	0.000
58.60	0.000	61.20	0.000
58.65	0.000	61.25	0.000
58.70	0.000	61.30	0.000
58.75	0.000	61.35	0.000
58.80	0.000	61.40	0.000
58.85	0.000	61.45	0.000
58.90	0.000	61.50	0.000
58.95	0.000	61.55	0.000
59.00	0.000	61.60	0.000
59.05	0.000	61.65	0.000
59.10	0.000	61.70	0.000
59.15	0.000	61.75	0.000
59.20	0.000	61.80	0.000
59.25	0.000	61.85	0.000
59.30	0.000	61.90	0.000
59.35	0.000	61.95	0.000
59.40	0.000	62.00	0.000
59.45	0.000	62.05	0.000
59.50	0.000	62.10	0.000
59.55	0.000	62.15	0.000
59.60	0.000	62.20	0.000
59.65	0.000	62.25	0.000
59.70	0.000	62.30	0.000
59.75	0.000	62.35	0.000
59.80	0.000	62.40	0.000
59.85	0.000	62.45	0.000
59.90	0.000	62.50	0.000
59.95	0.000	62.55	0.000
60.00	0.000	62.60	0.000
60.05	0.000	62.65	0.000
60.10	0.000	62.70	0.000
60.15	0.000	62.75	0.000
60.20	0.000		
60.25	0.000		
60.30	0.000		
60.35	0.000		
60.40	0.000		
60.45	0.000		
60.50	0.000		
60.55	0.000		
60.60	0.000		
60.65	0.000		
60.70	0.000		
60.75	0.000		
60.80	0.000		
60.85	0.000		
60.90	0.000		
60.95	0.000		
61.00	0.000		
61.05	0.000		
61.10	0.000		

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Summary for Pond 45P: CI-3

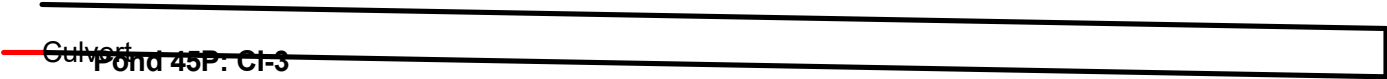
Inflow Area = 0.765 ac, 76.25% Impervious, Inflow Depth > 7.60" for 100-Year event
Inflow = 7.96 cfs @ 12.06 hrs, Volume= 0.484 af
Outflow = 7.96 cfs @ 12.06 hrs, Volume= 0.484 af, Atten= 0%, Lag= 0.0 min
Primary = 7.96 cfs @ 12.06 hrs, Volume= 0.484 af
Routed to Pond 39P : CI-9

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 62.76' @ 12.13 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	61.68'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	57.66'	15.0" Round Culvert L= 99.8' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 57.66' / 57.03' S= 0.0063 '/ Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

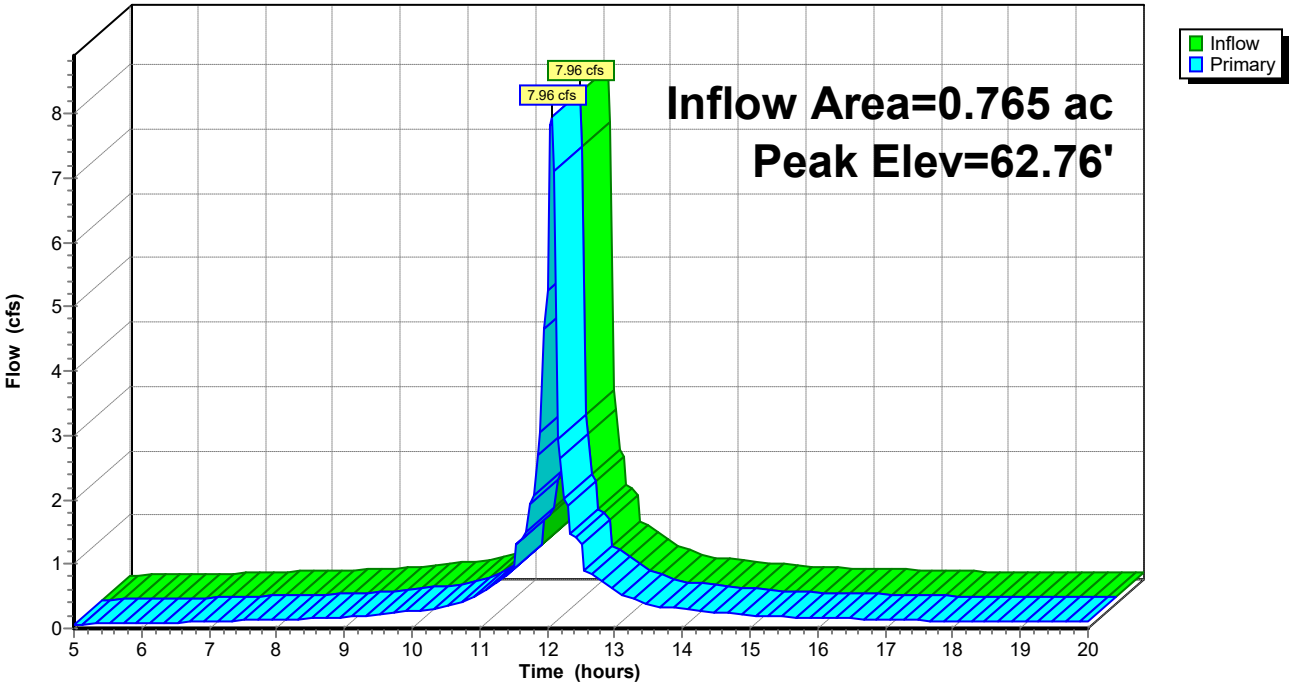
Primary OutFlow Max=0.00 cfs @ 12.06 hrs HW=62.23' TW=62.38' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Controls 0.00 cfs)

Orifice/Grate



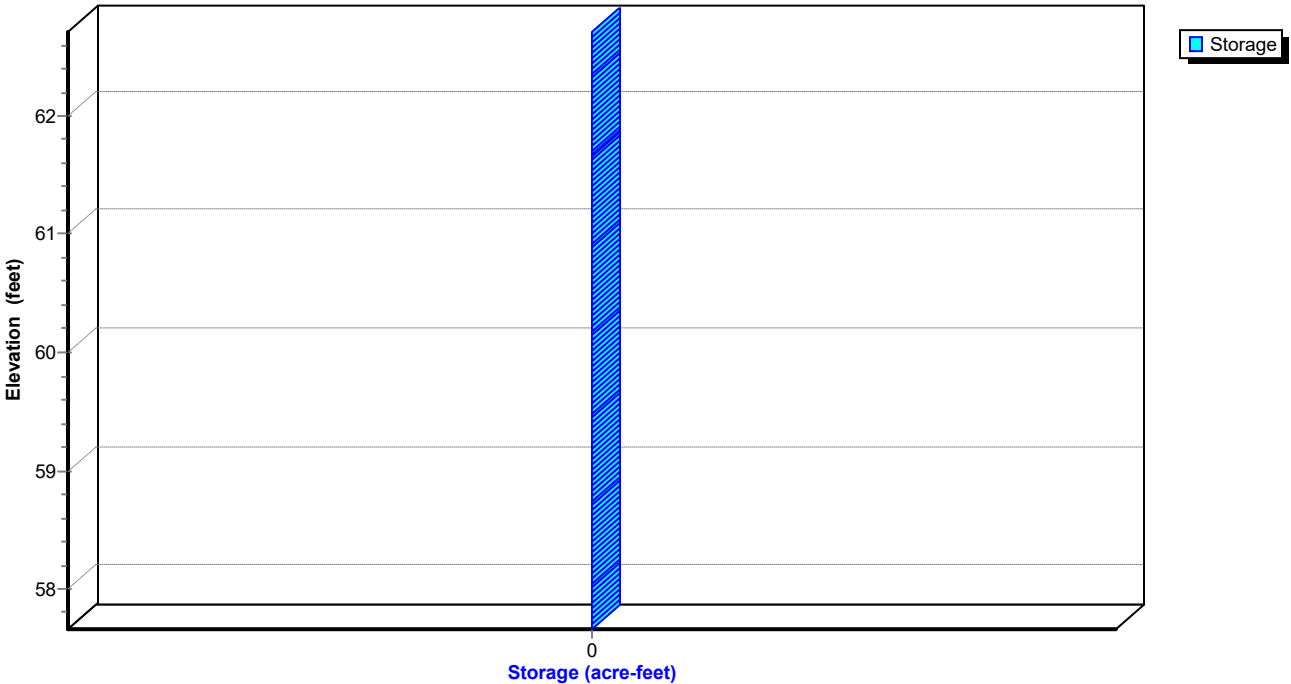
Pond 45P: CI-3

Hydrograph



Pond 45P: CI-3

Stage-Area-Storage



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Hydrograph for Pond 45P: CI-3

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.07	57.79	0.07	18.00	0.11	57.83	0.11
5.25	0.07	57.80	0.07	18.25	0.11	57.83	0.11
5.50	0.07	57.80	0.07	18.50	0.11	57.83	0.11
5.75	0.08	57.80	0.08	18.75	0.11	57.83	0.11
6.00	0.08	57.80	0.08	19.00	0.10	57.83	0.10
6.25	0.09	57.81	0.09	19.25	0.10	57.83	0.10
6.50	0.09	57.82	0.09	19.50	0.10	57.82	0.10
6.75	0.10	57.82	0.10	19.75	0.10	57.82	0.10
7.00	0.11	57.83	0.11	20.00	0.10	57.82	0.10
7.25	0.11	57.83	0.11				
7.50	0.12	57.84	0.12				
7.75	0.13	57.85	0.13				
8.00	0.14	57.85	0.14				
8.25	0.15	57.86	0.15				
8.50	0.15	57.86	0.15				
8.75	0.16	57.87	0.16				
9.00	0.17	57.87	0.17				
9.25	0.20	57.89	0.20				
9.50	0.22	57.90	0.22				
9.75	0.25	57.92	0.25				
10.00	0.27	57.93	0.27				
10.25	0.30	57.95	0.30				
10.50	0.33	57.96	0.33				
10.75	0.43	58.01	0.43				
11.00	0.52	58.05	0.52				
11.25	0.73	58.13	0.73				
11.50	0.94	58.20	0.94				
11.75	1.93	58.49	1.93				
12.00	5.25	61.90	5.25				
12.25	2.02	60.40	2.02				
12.50	1.31	58.54	1.31				
12.75	0.77	58.22	0.77				
13.00	0.61	58.13	0.61				
13.25	0.47	58.06	0.47				
13.50	0.38	58.01	0.38				
13.75	0.33	57.98	0.33				
14.00	0.30	57.97	0.30				
14.25	0.28	57.95	0.28				
14.50	0.25	57.94	0.25				
14.75	0.22	57.92	0.22				
15.00	0.20	57.90	0.20				
15.25	0.19	57.89	0.19				
15.50	0.18	57.89	0.18				
15.75	0.17	57.88	0.17				
16.00	0.17	57.88	0.17				
16.25	0.16	57.87	0.16				
16.50	0.15	57.86	0.15				
16.75	0.15	57.86	0.15				
17.00	0.14	57.85	0.14				
17.25	0.13	57.85	0.13				
17.50	0.13	57.84	0.13				
17.75	0.12	57.84	0.12				

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Stage-Area-Storage for Pond 45P: CI-3

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
57.66	0.000	60.26	0.000
57.71	0.000	60.31	0.000
57.76	0.000	60.36	0.000
57.81	0.000	60.41	0.000
57.86	0.000	60.46	0.000
57.91	0.000	60.51	0.000
57.96	0.000	60.56	0.000
58.01	0.000	60.61	0.000
58.06	0.000	60.66	0.000
58.11	0.000	60.71	0.000
58.16	0.000	60.76	0.000
58.21	0.000	60.81	0.000
58.26	0.000	60.86	0.000
58.31	0.000	60.91	0.000
58.36	0.000	60.96	0.000
58.41	0.000	61.01	0.000
58.46	0.000	61.06	0.000
58.51	0.000	61.11	0.000
58.56	0.000	61.16	0.000
58.61	0.000	61.21	0.000
58.66	0.000	61.26	0.000
58.71	0.000	61.31	0.000
58.76	0.000	61.36	0.000
58.81	0.000	61.41	0.000
58.86	0.000	61.46	0.000
58.91	0.000	61.51	0.000
58.96	0.000	61.56	0.000
59.01	0.000	61.61	0.000
59.06	0.000	61.66	0.000
59.11	0.000	61.71	0.000
59.16	0.000	61.76	0.000
59.21	0.000	61.81	0.000
59.26	0.000	61.86	0.000
59.31	0.000	61.91	0.000
59.36	0.000	61.96	0.000
59.41	0.000	62.01	0.000
59.46	0.000	62.06	0.000
59.51	0.000	62.11	0.000
59.56	0.000	62.16	0.000
59.61	0.000	62.21	0.000
59.66	0.000	62.26	0.000
59.71	0.000	62.31	0.000
59.76	0.000	62.36	0.000
59.81	0.000	62.41	0.000
59.86	0.000	62.46	0.000
59.91	0.000	62.51	0.000
59.96	0.000	62.56	0.000
60.01	0.000	62.61	0.000
60.06	0.000	62.66	0.000
60.11	0.000	62.71	0.000
60.16	0.000		
60.21	0.000		

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Summary for Pond 46P: CI-5

Inflow Area = 0.074 ac, 51.14% Impervious, Inflow Depth > 7.15" for 100-Year event
Inflow = 0.74 cfs @ 12.05 hrs, Volume= 0.044 af
Outflow = 0.74 cfs @ 12.05 hrs, Volume= 0.044 af, Atten= 0%, Lag= 0.0 min
Primary = 0.74 cfs @ 12.05 hrs, Volume= 0.044 af
Routed to Pond 45P : CI-3

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 62.76' @ 12.18 hrs

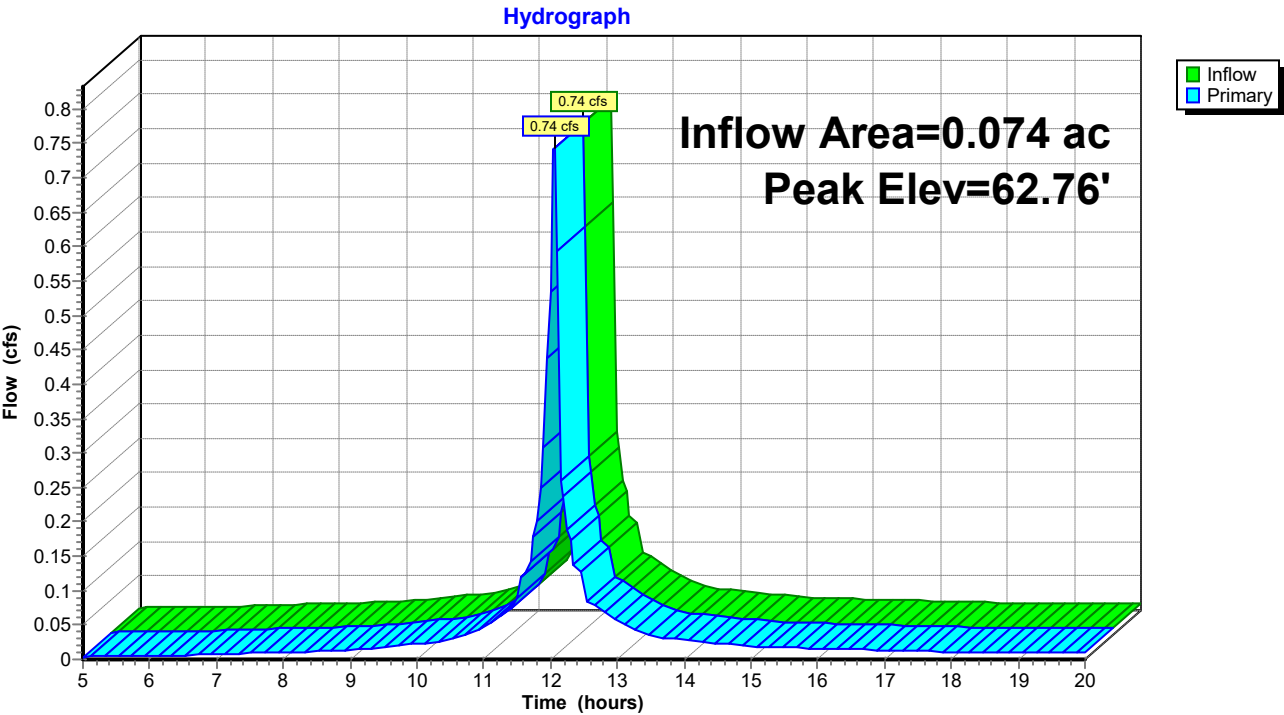
Device	Routing	Invert	Outlet Devices
#1	Primary	61.87'	66.0" W x 4.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	58.28'	15.0" Round Culvert L= 107.0' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 58.28' / 57.75' S= 0.0050 '/ Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.05 hrs HW=61.93' TW=62.15' (Dynamic Tailwater)
1=Orifice/Grate (Controls 0.00 cfs)
2=Culvert (Controls 0.00 cfs)

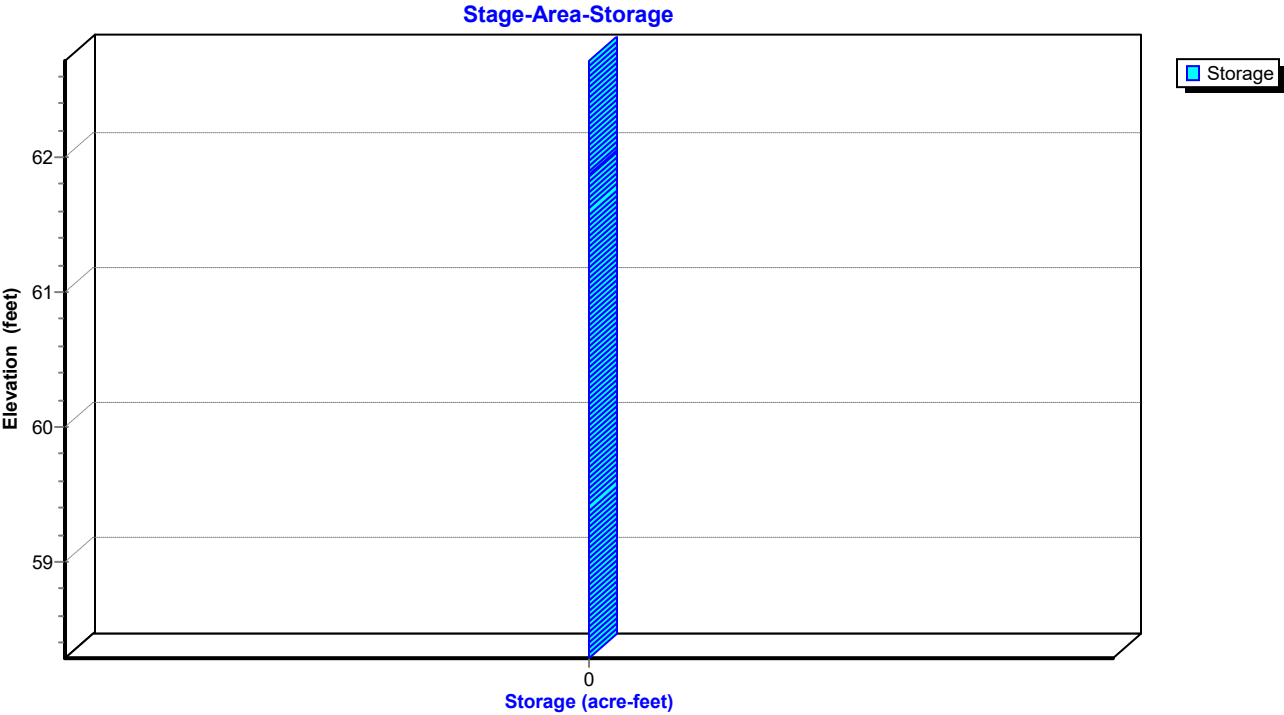
Orifice/Grate



Pond 46P: CI-5



Pond 46P: CI-5



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NOAA 24-hr C 100-Year Rainfall=8.98"

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Hydrograph for Pond 46P: CI-5

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	58.32	0.00	18.00	0.01	58.34	0.01
5.25	0.00	58.32	0.00	18.25	0.01	58.34	0.01
5.50	0.00	58.32	0.00	18.50	0.01	58.34	0.01
5.75	0.00	58.32	0.00	18.75	0.01	58.34	0.01
6.00	0.01	58.32	0.01	19.00	0.01	58.34	0.01
6.25	0.01	58.32	0.01	19.25	0.01	58.34	0.01
6.50	0.01	58.33	0.01	19.50	0.01	58.34	0.01
6.75	0.01	58.33	0.01	19.75	0.01	58.34	0.01
7.00	0.01	58.33	0.01	20.00	0.01	58.33	0.01
7.25	0.01	58.33	0.01				
7.50	0.01	58.33	0.01				
7.75	0.01	58.34	0.01				
8.00	0.01	58.34	0.01				
8.25	0.01	58.34	0.01				
8.50	0.01	58.34	0.01				
8.75	0.01	58.34	0.01				
9.00	0.01	58.35	0.01				
9.25	0.02	58.35	0.02				
9.50	0.02	58.36	0.02				
9.75	0.02	58.36	0.02				
10.00	0.02	58.37	0.02				
10.25	0.03	58.37	0.03				
10.50	0.03	58.38	0.03				
10.75	0.04	58.39	0.04				
11.00	0.05	58.41	0.05				
11.25	0.06	58.43	0.06				
11.50	0.09	58.47	0.09				
11.75	0.18	58.58	0.18				
12.00	0.53	59.87	0.53				
12.25	0.19	61.83	0.19				
12.50	0.12	58.65	0.12				
12.75	0.07	58.46	0.07				
13.00	0.06	58.43	0.06				
13.25	0.04	58.41	0.04				
13.50	0.04	58.39	0.04				
13.75	0.03	58.38	0.03				
14.00	0.03	58.38	0.03				
14.25	0.03	58.37	0.03				
14.50	0.02	58.37	0.02				
14.75	0.02	58.36	0.02				
15.00	0.02	58.36	0.02				
15.25	0.02	58.36	0.02				
15.50	0.02	58.35	0.02				
15.75	0.02	58.35	0.02				
16.00	0.02	58.35	0.02				
16.25	0.02	58.35	0.02				
16.50	0.01	58.35	0.01				
16.75	0.01	58.35	0.01				
17.00	0.01	58.35	0.01				
17.25	0.01	58.34	0.01				
17.50	0.01	58.34	0.01				
17.75	0.01	58.34	0.01				

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Stage-Area-Storage for Pond 46P: CI-5

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
58.28	0.000	60.88	0.000
58.33	0.000	60.93	0.000
58.38	0.000	60.98	0.000
58.43	0.000	61.03	0.000
58.48	0.000	61.08	0.000
58.53	0.000	61.13	0.000
58.58	0.000	61.18	0.000
58.63	0.000	61.23	0.000
58.68	0.000	61.28	0.000
58.73	0.000	61.33	0.000
58.78	0.000	61.38	0.000
58.83	0.000	61.43	0.000
58.88	0.000	61.48	0.000
58.93	0.000	61.53	0.000
58.98	0.000	61.58	0.000
59.03	0.000	61.63	0.000
59.08	0.000	61.68	0.000
59.13	0.000	61.73	0.000
59.18	0.000	61.78	0.000
59.23	0.000	61.83	0.000
59.28	0.000	61.88	0.000
59.33	0.000	61.93	0.000
59.38	0.000	61.98	0.000
59.43	0.000	62.03	0.000
59.48	0.000	62.08	0.000
59.53	0.000	62.13	0.000
59.58	0.000	62.18	0.000
59.63	0.000	62.23	0.000
59.68	0.000	62.28	0.000
59.73	0.000	62.33	0.000
59.78	0.000	62.38	0.000
59.83	0.000	62.43	0.000
59.88	0.000	62.48	0.000
59.93	0.000	62.53	0.000
59.98	0.000	62.58	0.000
60.03	0.000	62.63	0.000
60.08	0.000	62.68	0.000
60.13	0.000		
60.18	0.000		
60.23	0.000		
60.28	0.000		
60.33	0.000		
60.38	0.000		
60.43	0.000		
60.48	0.000		
60.53	0.000		
60.58	0.000		
60.63	0.000		
60.68	0.000		
60.73	0.000		
60.78	0.000		
60.83	0.000		

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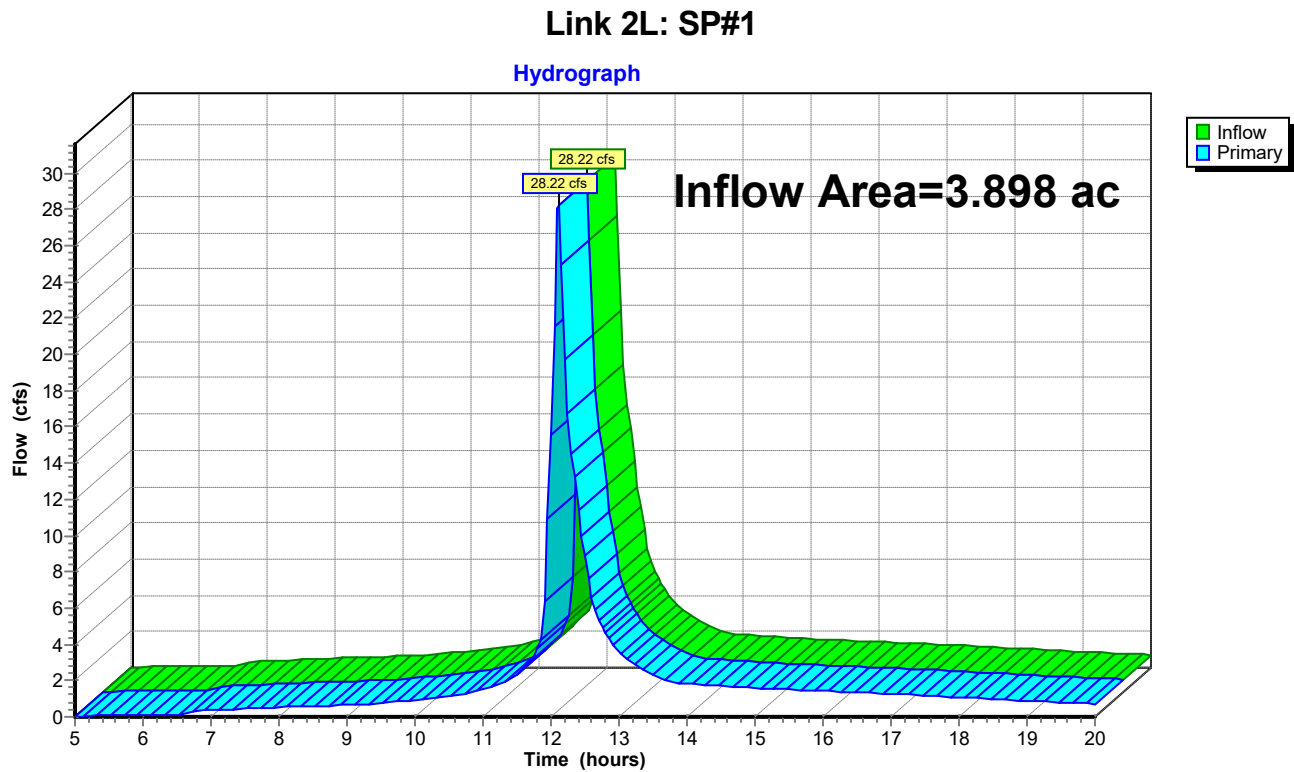
Summary for Link 2L: SP#1

Inflow Area = 3.898 ac, 59.79% Impervious, Inflow Depth > 7.09" for 100-Year event

Inflow = 28.22 cfs @ 12.11 hrs, Volume= 2.301 af

Primary = 28.22 cfs @ 12.11 hrs, Volume= 2.301 af, Atten= 0%, Lag= 0.0 min

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



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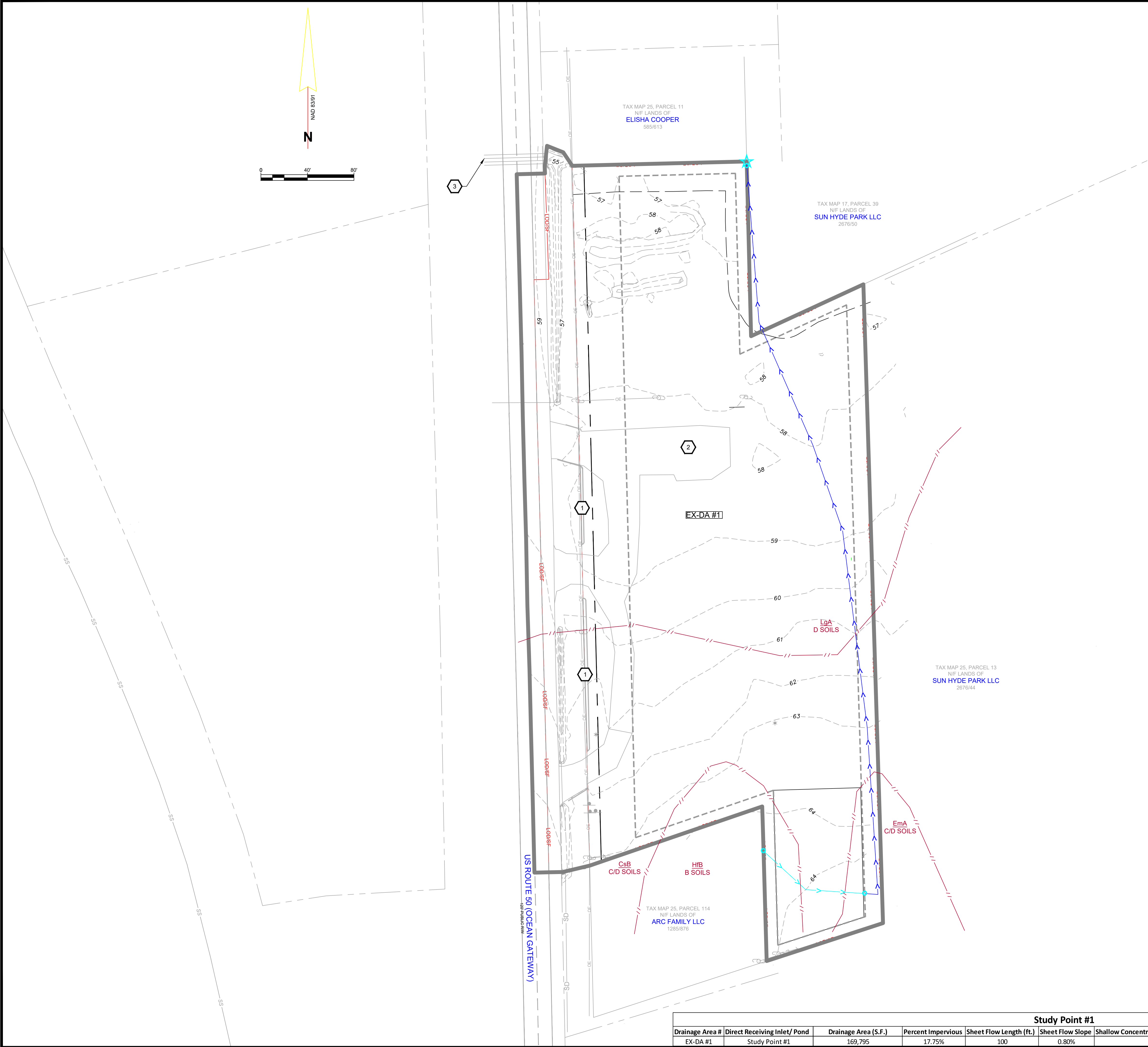
NOAA 24-hr C 100-Year Rainfall=8.98"

Printed 5/1/2024

Hydrograph for Link 2L: SP#1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.04	0.00	0.04	18.00	1.08	0.00	1.08
5.25	0.05	0.00	0.05	18.25	1.02	0.00	1.02
5.50	0.06	0.00	0.06	18.50	0.97	0.00	0.97
5.75	0.06	0.00	0.06	18.75	0.93	0.00	0.93
6.00	0.07	0.00	0.07	19.00	0.88	0.00	0.88
6.25	0.08	0.00	0.08	19.25	0.83	0.00	0.83
6.50	0.09	0.00	0.09	19.50	0.79	0.00	0.79
6.75	0.34	0.00	0.34	19.75	0.75	0.00	0.75
7.00	0.38	0.00	0.38	20.00	0.71	0.00	0.71
7.25	0.42	0.00	0.42				
7.50	0.46	0.00	0.46				
7.75	0.49	0.00	0.49				
8.00	0.52	0.00	0.52				
8.25	0.55	0.00	0.55				
8.50	0.59	0.00	0.59				
8.75	0.62	0.00	0.62				
9.00	0.65	0.00	0.65				
9.25	0.70	0.00	0.70				
9.50	0.77	0.00	0.77				
9.75	0.85	0.00	0.85				
10.00	0.93	0.00	0.93				
10.25	1.01	0.00	1.01				
10.50	1.10	0.00	1.10				
10.75	1.28	0.00	1.28				
11.00	1.50	0.00	1.50				
11.25	1.84	0.00	1.84				
11.50	2.23	0.00	2.23				
11.75	3.38	0.00	3.38				
12.00	15.55	0.00	15.55				
12.25	16.69	0.00	16.69				
12.50	8.87	0.00	8.87				
12.75	4.96	0.00	4.96				
13.00	3.62	0.00	3.62				
13.25	2.77	0.00	2.77				
13.50	2.27	0.00	2.27				
13.75	1.94	0.00	1.94				
14.00	1.84	0.00	1.84				
14.25	1.79	0.00	1.79				
14.50	1.73	0.00	1.73				
14.75	1.67	0.00	1.67				
15.00	1.61	0.00	1.61				
15.25	1.55	0.00	1.55				
15.50	1.51	0.00	1.51				
15.75	1.48	0.00	1.48				
16.00	1.44	0.00	1.44				
16.25	1.40	0.00	1.40				
16.50	1.36	0.00	1.36				
16.75	1.32	0.00	1.32				
17.00	1.28	0.00	1.28				
17.25	1.23	0.00	1.23				
17.50	1.19	0.00	1.19				
17.75	1.14	0.00	1.14				

SECTION 5 – PRE & POST DRAINAGE MAPS



- EXISTING DRAINAGE FEATURES
- 1 BRICK WALL
 - 2 GRAVEL DRIVEWAY
 - 3 STORM DRAIN PIPE (X4)

LEGEND

- DRAINAGE AREA BOUNDARY
- - - SOILS BOUNDARY
- SHEET FLOW
- SHALLOW CONCENTRATED FLOW
- PIPE FLOW
- REACH/SWALE/CHANNEL
- TIME OF CONCENTRATION METHOD DIVIDER
- ★ STUDY POINT

Study Point #1									
Drainage Area #	Direct Receiving Inlet/ Pond	Drainage Area (S.F.)	Percent Impervious	Sheet Flow Length (ft.)	Sheet Flow Slope	Shallow Concentrated Flow Length (ft.)	Shallow Concentrated Flow Slope	Pipe Flow Length (ft.)	Pipe Flow Slope
EX-DA #1	Study Point #1	169,795	17.75%	100	0.80%	656	1.44%	N/A	N/A

EXISTING DRAINAGE AREA

OF THE LANDS OF

PRESTON POWER SPORTS

TAX MAP , GRID , PARCEL

ELECTION DISTRICT, COUNTY, MARYLAND

PREPARED FOR

RAUCH

Engineering | Survey | Architecture | Environmental

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REVISIONS		DESCRIPTION	
REV. #	DATE	DESCRIPTION	
1			

MISS. UTILITY OF DELAWARE
CALL BEFORE YOU DIG

811

DATE: 5/1/2024

SCALE: 1" = 40'

DRAWN BY: JWJ

DESIGNED BY: JWJ

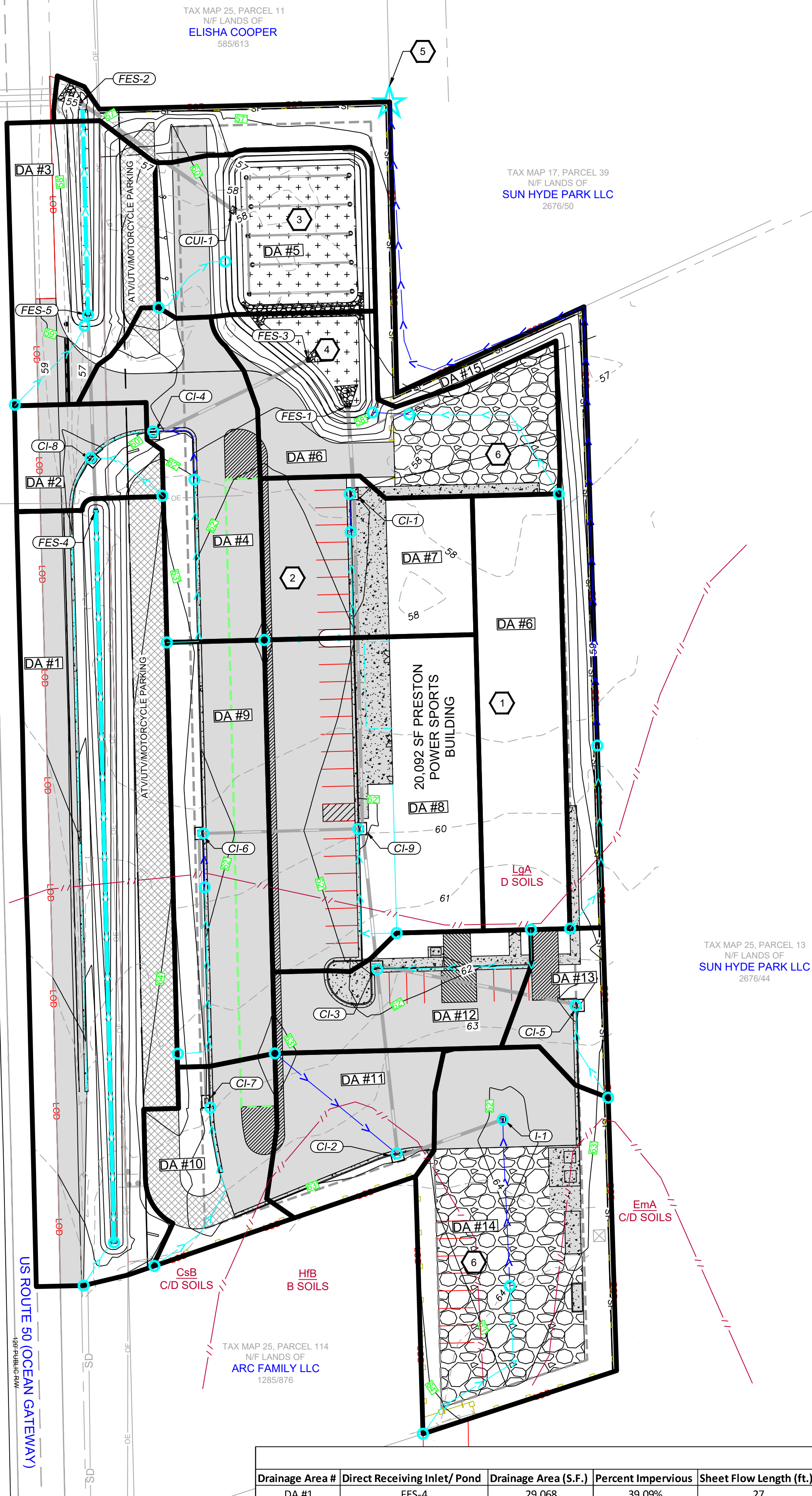
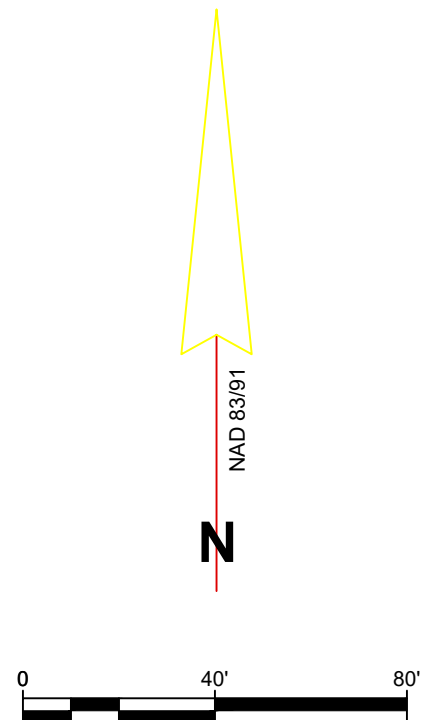
APPROVED BY: JWJ

SHEET NO.: EX DA MAP

FOR REVIEW

HATCH LEGEND

	PAVEMENT PARKING LOT
	ESD BED BOTTOM
	GRAVEL LOT
	FLAT AREA FOR UTV/ATV PARKING
	CONCRETE



PROPOSED DRAINAGE FEATURES

- 20,092 S.F. PRESTON POWER SPORTS BUILDING
- PAVEMENT PARKING LOT (79 PARKING SPACES)
- SUBMERGED GRAVEL WETLAND #1
- SUBMERGED GRAVEL WETLAND FOREBAY #1
- STUDY POINT #1
- GRAVEL STORAGE LOT

EXISTING SITE FEATURES

- 1 STORM DRAIN PIPE (X4)

LEGEND

- DRAINAGE AREA BOUNDARY
- SOILS BOUNDARY
- SHEET FLOW
- SHALLOW CONCENTRATED FLOW
- PIPE FLOW
- REACH/SWALE/CHANNEL
- TIME OF CONCENTRATION METHOD DIVIDER
- STUDY POINT

Study Point #1									
Drainage Area #	Direct Receiving Inlet/ Pond	Drainage Area (S.F.)	Percent Impervious	Sheet Flow Length (ft.)	Sheet Flow Slope	Shallow Concentrated Flow Length (ft.)	Shallow Concentrated Flow Slope	Channel Flow Length (ft.)	Channel Flow Slope
DA #1	FES-4	29,068	39.09%	27	3.06%	N/A	N/A	378	0.73%
DA #2	CI-8	3,738	67.39%	44	9.48%	N/A	N/A	N/A	N/A
DA #3	Study Point #1	9,470	40.45%	55	2.40%	N/A	N/A	106	1.28%
DA #4	CI-4	9,330	70.69%	100	1.80%	43	4.41%	N/A	N/A
DA #5	SGW #1	9,317	15.83%	44	8.89%	N/A	N/A	N/A	N/A
DA #6	SGW Forebay #1	21,528	73.17%	100	3.19%	19	7.26%	N/A	N/A
DA #7	CI-1	8,499	87.34%	100	1.51%	20	0.85%	N/A	N/A
DA #8	CI-9	17,721	92.68%	73	1.74%	N/A	N/A	N/A	N/A
DA #9	CI-6	10,950	68.20%	100	2.54%	28	0.61%	N/A	N/A
DA #10	CI-7	5,696	41.20%	55(GRASS)/44(CURB)	1% (GRASS)/0.93% (CURB)	N/A	N/A	N/A	N/A
DA #11	CI-2	6,211	83.67%	81	1.26%	N/A	N/A	N/A	N/A
DA #12	CI-3	6,725	87.20%	98	1.00%	N/A	N/A	N/A	N/A
DA #13	CI-5	3,211	51.14%	52	2.92%	N/A	N/A	N/A	N/A
DA #14	I-1	17,184	73.97%	100	1.87%	86	1.00%	N/A	N/A
DA #15	Study Point #1	13,096	0.00%	100	3.36%	458	1.18%	N/A	N/A

PROPOSED DRAINAGE MAP

OF THE LANDS OF

PRESTON POWER SPORTS

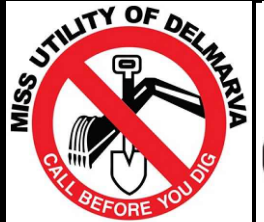
TAX MAP , GRID , PARCEL
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REVISIONS

REV. #	DATE	DESCRIPTION
1		



DATE: 5/1/2024
SCALE: 1" = 40'
DESIGNED BY: JWJ
APPROVED BY: JWJ

SHEET NO.: PR DA MAP

FOR REVIEW

SECTION 6 – SOIL REPORTS



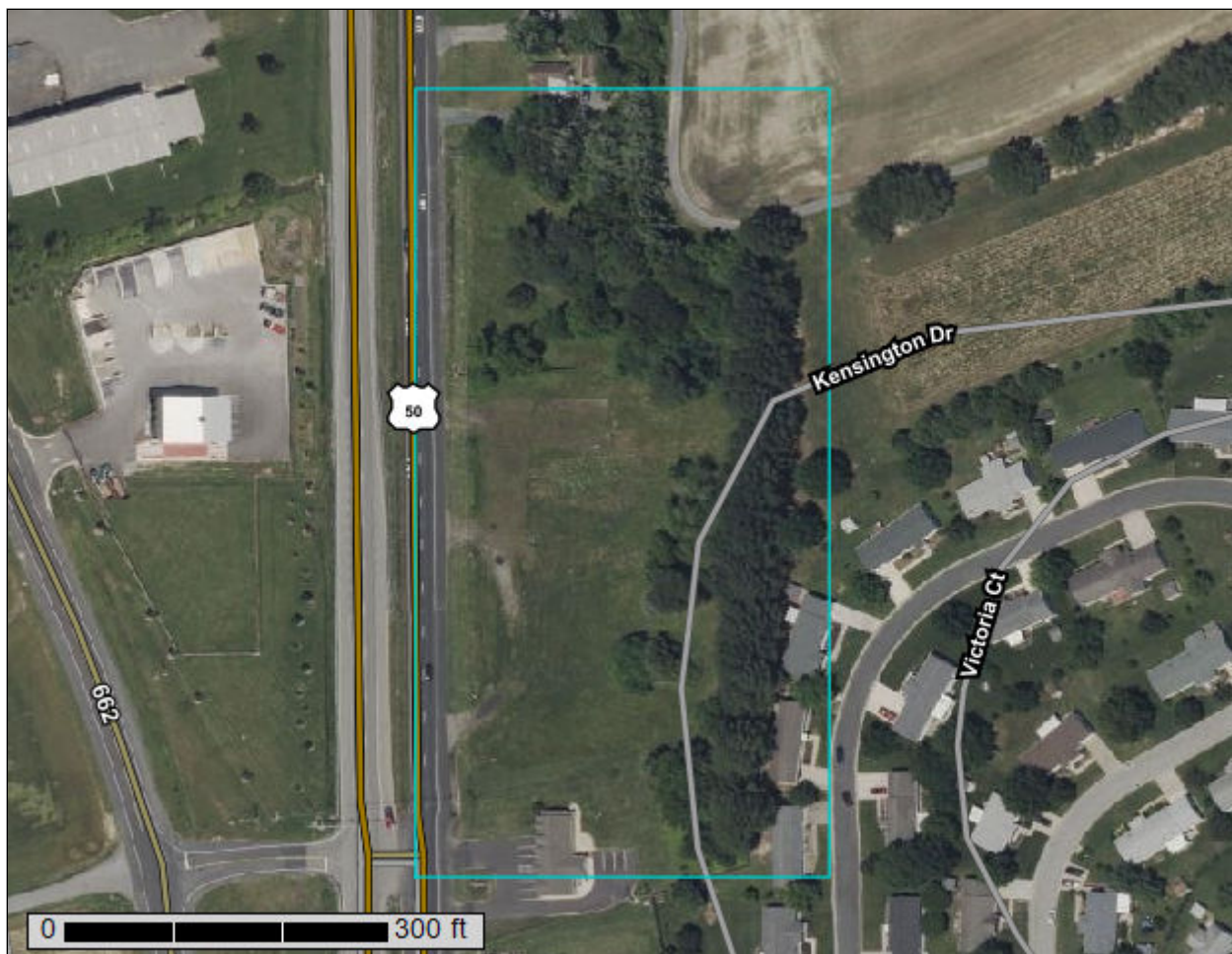
United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Talbot County, Maryland



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Map Unit Descriptions.....	11
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CsB—Crosiadore silt loam, 2 to 5 percent slopes.....	13
EmA—Elkton silt loam, 0 to 2 percent slopes.....	14
HfB—Hambrook-Sassafras complex, 2 to 5 percent slopes.....	16
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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

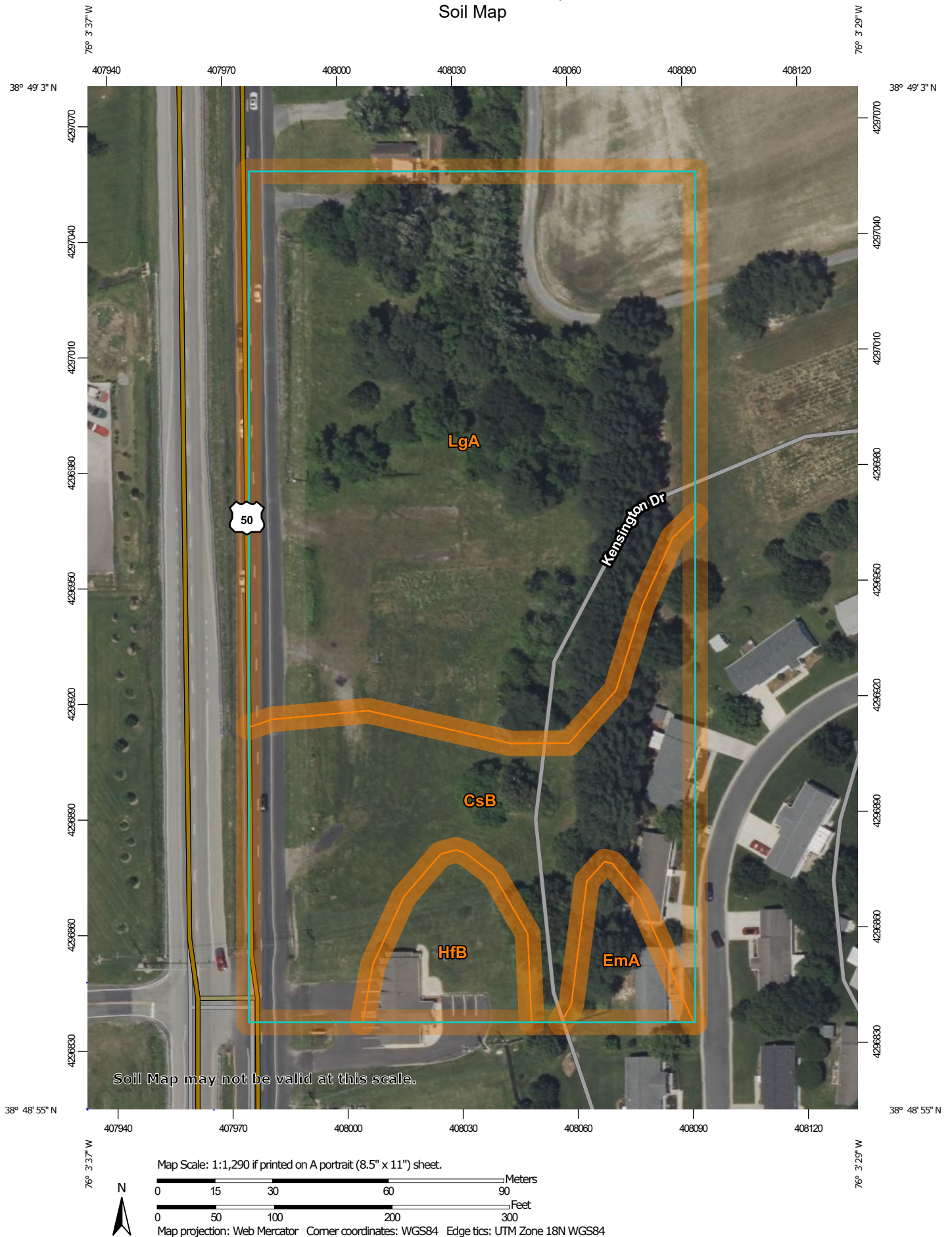
Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Talbot County, Maryland
Survey Area Data: Version 19, Sep 14, 2022

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

Date(s) aerial images were photographed: May 30, 2022—Jul 4, 2022

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CsB	Crosiadore silt loam, 2 to 5 percent slopes	1.8	29.0%
EmA	Elkton silt loam, 0 to 2 percent slopes	0.2	3.3%
HfB	Hambrook-Sassafras complex, 2 to 5 percent slopes	0.4	5.6%
LgA	Lenni loam, 0 to 2 percent slopes	4.0	62.1%
Totals for Area of Interest		6.4	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Talbot County, Maryland

CsB—Crosiadore silt loam, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1vh03

Elevation: 0 to 100 feet

Mean annual precipitation: 42 to 48 inches

Mean annual air temperature: 52 to 58 degrees F

Frost-free period: 180 to 220 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Crosiadore and similar soils: 80 percent

Minor components: 20 percent

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

Description of Crosiadore

Setting

Landform: Depressions, flats

Landform position (three-dimensional): Talf

Down-slope shape: Concave, linear

Across-slope shape: Concave, linear

Parent material: Silty eolian deposits over fluviomarine sediments

Typical profile

Ap - 0 to 10 inches: silt loam

Bt - 10 to 28 inches: silt loam

2Btg - 28 to 33 inches: sandy loam

2Cg - 33 to 50 inches: sandy loam

2C1 - 50 to 57 inches: gravelly loamy sand

2C2 - 57 to 80 inches: fine sandy loam

Properties and qualities

Slope: 2 to 5 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)

Depth to water table: About 10 to 20 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 8.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: C/D

Hydric soil rating: No

Minor Components

Mattapex

Percent of map unit: 10 percent

Landform: Flats
Landform position (three-dimensional): Rise
Hydric soil rating: No

Elkton

Percent of map unit: 5 percent
Landform: Swales, flats, depressions
Landform position (three-dimensional): Dip
Hydric soil rating: Yes

Othello

Percent of map unit: 5 percent
Landform: Flats, depressions, drainageways, swales
Landform position (three-dimensional): Dip
Hydric soil rating: Yes

EmA—Elkton silt loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: spvy
Elevation: 0 to 210 feet
Mean annual precipitation: 42 to 48 inches
Mean annual air temperature: 52 to 58 degrees F
Frost-free period: 180 to 220 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Elkton, undrained, and similar soils: 40 percent
Elkton, drained, and similar soils: 35 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Elkton, Undrained

Setting

Landform: Depressions, flats, drainageways, swales
Landform position (three-dimensional): Dip, talf
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Parent material: Silty eolian deposits and/or fluviomarine sediments

Typical profile

Oe - 0 to 3 inches: moderately decomposed plant material
A - 3 to 4 inches: silt loam
Eg - 4 to 13 inches: silt loam
Btg - 13 to 43 inches: silty clay loam
2BCg - 43 to 80 inches: very fine sandy loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches

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Drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 to 10 inches
Frequency of flooding: None
Frequency of ponding: Occasional
Available water supply, 0 to 60 inches: High (about 10.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: C/D
Hydric soil rating: Yes

Description of Elkton, Drained

Setting

Landform: Swales, depressions, flats
Landform position (three-dimensional): Dip, tal
Down-slope shape: Concave, linear
Across-slope shape: Linear, concave
Parent material: Silty eolian deposits and/or fluviomarine sediments

Typical profile

Ap - 0 to 10 inches: silt loam
BEg - 10 to 13 inches: silt loam
Btg - 13 to 43 inches: silty clay loam
2BCg - 43 to 80 inches: very fine sandy loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 10 to 20 inches
Frequency of flooding: None
Frequency of ponding: Rare
Available water supply, 0 to 60 inches: High (about 9.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Hydric soil rating: Yes

Minor Components

Crosiadore

Percent of map unit: 10 percent
Landform: Depressions, flats
Landform position (three-dimensional): Rise
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Hydric soil rating: No

Mattapex

Percent of map unit: 5 percent
Landform: Swales, depressions, flats
Down-slope shape: Concave, linear
Across-slope shape: Linear, concave
Hydric soil rating: No

Keyport

Percent of map unit: 5 percent
Landform: Flats, depressions, fluviomarine terraces
Down-slope shape: Linear, concave
Across-slope shape: Linear, concave
Hydric soil rating: No

Kentuck, undrained

Percent of map unit: 5 percent
Landform: Depressions, swales
Down-slope shape: Concave
Across-slope shape: Concave, linear
Hydric soil rating: Yes

HfB—Hambrook-Sassafras complex, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1vh09
Elevation: 0 to 330 feet
Mean annual precipitation: 42 to 48 inches
Mean annual air temperature: 52 to 58 degrees F
Frost-free period: 180 to 220 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Hambrook and similar soils: 41 percent
Sassafras and similar soils: 39 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hambrook

Setting

Landform: Depressions, knolls, fluviomarine terraces, flats
Landform position (three-dimensional): Rise
Down-slope shape: Concave, convex, linear
Across-slope shape: Concave, convex, linear

Typical profile

Ap - 0 to 10 inches: sandy loam
BE - 10 to 14 inches: loam
Bt - 14 to 28 inches: sandy clay loam

Custom Soil Resource Report

BC - 28 to 65 inches: loamy sand

2Cg - 65 to 80 inches: silt loam

Properties and qualities

Slope: 2 to 5 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Low

*Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.20 to 1.98 in/hr)*

Depth to water table: About 40 to 72 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 7.9 inches)

Interpretive groups

Land capability classification (irrigated): 2e

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: B

Hydric soil rating: No

Description of Sassafras

Setting

Landform: Low hills, flats, fluviomarine terraces, knolls

Landform position (three-dimensional): Riser, dip

Down-slope shape: Convex, linear

Across-slope shape: Convex, linear

Typical profile

Ap - 0 to 9 inches: sandy loam

E - 9 to 15 inches: sandy loam

Bt - 15 to 30 inches: loam

BC - 30 to 37 inches: sandy loam

C - 37 to 80 inches: loamy sand

Properties and qualities

Slope: 2 to 5 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Low

*Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)*

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: B

Hydric soil rating: No

Minor Components

Woodstown

Percent of map unit: 10 percent

Landform: Flats, depressions
Landform position (three-dimensional): Dip
Hydric soil rating: No

Ingleside

Percent of map unit: 5 percent
Landform: Flats
Landform position (three-dimensional): Talf
Hydric soil rating: No

Mattapex

Percent of map unit: 5 percent
Landform: Flats, depressions
Landform position (three-dimensional): Dip
Hydric soil rating: No

LgA—Lenni loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: spw3
Elevation: 10 to 120 feet
Mean annual precipitation: 42 to 48 inches
Mean annual air temperature: 52 to 58 degrees F
Frost-free period: 180 to 220 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Lenni, undrained, and similar soils: 50 percent
Lenni, drained, and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lenni, Undrained

Setting

Landform: Flats, swales, depressions
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Clayey fluviomarine sediments

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 7 inches: loam
Eg - 7 to 14 inches: loam
Btg - 14 to 51 inches: clay
2Cg - 51 to 80 inches: fine sandy loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches

Custom Soil Resource Report

Drainage class: Poorly drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: About 0 to 10 inches

Frequency of flooding: None

Frequency of ponding: Occasional

Available water supply, 0 to 60 inches: Moderate (about 8.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: D

Hydric soil rating: Yes

Description of Lenni, Drained

Setting

Landform: Flats, swales, depressions

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Clayey fluviomarine sediments

Typical profile

Ap - 0 to 7 inches: loam

Eg - 7 to 14 inches: loam

Btg - 14 to 51 inches: clay

2Cg - 51 to 80 inches: fine sandy loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: About 10 to 20 inches

Frequency of flooding: None

Frequency of ponding: Rare

Available water supply, 0 to 60 inches: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): 3w

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: D

Hydric soil rating: Yes

Minor Components

Keyport

Percent of map unit: 5 percent

Landform: Flats

Landform position (three-dimensional): Rise

Hydric soil rating: No

Rosedale

Percent of map unit: 5 percent

Landform: Dunes, knolls, flats

Custom Soil Resource Report

Landform position (three-dimensional): Rise
Hydric soil rating: No

Pepperbox

Percent of map unit: 5 percent
Landform: Flats, knolls
Landform position (three-dimensional): Rise
Hydric soil rating: No

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Town of Easton
Engineering, Planning and Zoning
14 South Harrison Street, Easton, MD 21601

RECEIVED
JUN 04 2024
TOWN OF EASTON

Easton Staff Development Review

Property Information

Address	406 & 404 Marvel Court, Easton, MD 21601						
Tax Map	105	Grid	0	Parcel	2992D	Lot	4 & 5
Deed Reference:	Liber	3043 / 2611	Folio	500 / 95			
Plat Reference:	Liber	61	Folio	64			
Base Zoning District	CG	Historic District	Y ☐ N ☒		Planning Redevelopment	Y ☐ N ☒	

Purpose of Application / Description of Work:

The proposed project is to remove the property line between Lots 4 & 5, thus creating revised Lot 4, then demolish the existing office building on Lot 5 and existing solar panels on Lot 4. The site will be redeveloped to include a two-story 4,000 SF (8,000 GFA) expansion of the existing medical facility, sidewalks, parking, and stormwater management area.

Owner

Name	NOVA SIXA, LLC		
Mailing Address	8845 Mistletoe Drive, Easton, MD 21601		
Telephone No.	410-310-1350	Email	dljcommercial@gmail.com

Applicant / Agent

Name	Lane Engineering, LLC c/o Brett Ewing, AICP		
Mailing Address	117 Bay Street, Easton, MD 21601		
Telephone No.	410-822-8003	Email	bewing@leinc.com

Surveyor / Engineer

Name	Alec Chosta, P.E.	License No.	51461	Expiration Date	4/4/2026
Mailing Address	Lane Engineering, LLC, 117 Bay Street, Easton, MD 21601				
Telephone No.	410-822-8003	Email	achosta@leinc.com		

Any modifications during review shall warrant an updated application.

I do hereby solemnly declare and affirm that the information provided by this application and the documents attached hereto accurately represent the conditions of the request and that submission of an incomplete application will be returned for correction prior to processing.

Signature of Applicant or Agent

Date

6/4/2024

Printed Name of Applicant or Agent

Brett Ewing, AICP, Lane Engineering, LLC

For Office Use Only

Easton Staff Development Review Meeting Required Y ☒ N ☐

Easton Staff Development Review Meeting Date **06/26/2024**

Completeness Check Date

Revisions/Resubmissions Required Y ☐ N ☐

Resubmission Date

Documents Received Y ☐ N ☐

Staff Determination

Planning Commission Required Y ☐ N ☐ **TBD**

BOZA Required Y ☐ N ☐ **TBD**

Historic District Commission Required Y ☐ N ☒

Resubmission for ESDR Required Y ☐ N ☐

Staff Signature *Samantha N. Smith*

Date **06/04/2024**

Revised 02-2019



Town of Easton
Engineering, Planning and Zoning
14 South Harrison Street, Easton, MD 21601

RECEIVED
JUN 04 2024
TOWN OF EASTON

Site Plan, PUD, Planned Healthcare Application

Application Type

Planned Unit Development ☐ Amendment ☐ Health Care (HC) ☐ Site Plan ☒

Subdivision Information

Name 406 & 404 Marvel Court
Original Property Size Acres 1.42 AC Square Feet 61,997 SF
Telephone No. 410-822-8003 (Agent) Email bewing@leinc.com (Agent)

Site Plan Information

Property Size Acres 1.423 AC Square Feet 61,997 SF
Structure's Floor Area 4,000 SF +/- Structure's Square Feet 8,000 SF +/-
Area of Disturbance 61,997 SF +/- Number of Dwelling Units 0

Property Information

Address 406 & 404 Marvel Court, Easton, MD 21601
Tax Map 105 Grid 0 Parcel 2992D Lot 4 & 5
Deed Reference: Liber 3043 / 2611 Folio 500 / 95
Plat Reference: Liber 61 Folio 64
Base Zoning District CG Historic Y ☐ N ☒ Planned Redevelopment Y ☐ N ☒
Source of Electricity Easton Utilities

Owner

Name NOVA SIXA, LLC
Mailing Address 8845 Mistletoe Drive, Easton, MD 21601
Telephone No. 410-310-1350 Email dljcommercial@gmail.com

Applicant or Agent

Name Lane Engineering, LLC c/o Brett Ewing, AICP
Mailing Address 117 Bay Street, Easton, MD 21601
Telephone No. 410-822-8003 Email bewing@leinc.com

Surveyor / Engineer

Name Alec Chosta, P.E. License No. 51461 Expiration Date 4/4/2026
Mailing Address Lane Engineering, LLC, 117 Bay Street, Easton, MD 21601
Telephone No. 410-822-8003 Email achosta@leinc.com

Any modifications during review shall warrant an updated application.

I hereby certify that I have reviewed and satisfied the Town of Easton Development Standards and that submission of an incomplete application will be returned for correction prior to processing.

Signature of Applicant or Agent



Date 6/4/2024

Printed Name of Applicant or Agent

Brett Ewing, AICP, Lane Engineering, LLC

For Office Use Only

Planning Commission Required	Y ☐ N ☐		
Planning Commission Meeting Date	TBD		
Sketch Approval Date		Project No.	ESDR 24-12
Prelim/Dev. Approval Date		Application No.	2024 - 1231
Final Approval Date		Sketch Fee Paid	
Recordation Date		Develop. Fee Paid	

Revised 02-2019

PROPERTY OWNER: NOVA SIXA, LLC
PROPERTY ADDRESS: 406 MARVEL COURT
EASTON, MARYLAND 21601
DEED REFERENCE: 3043/500
PLAT REFERENCE: 61/46

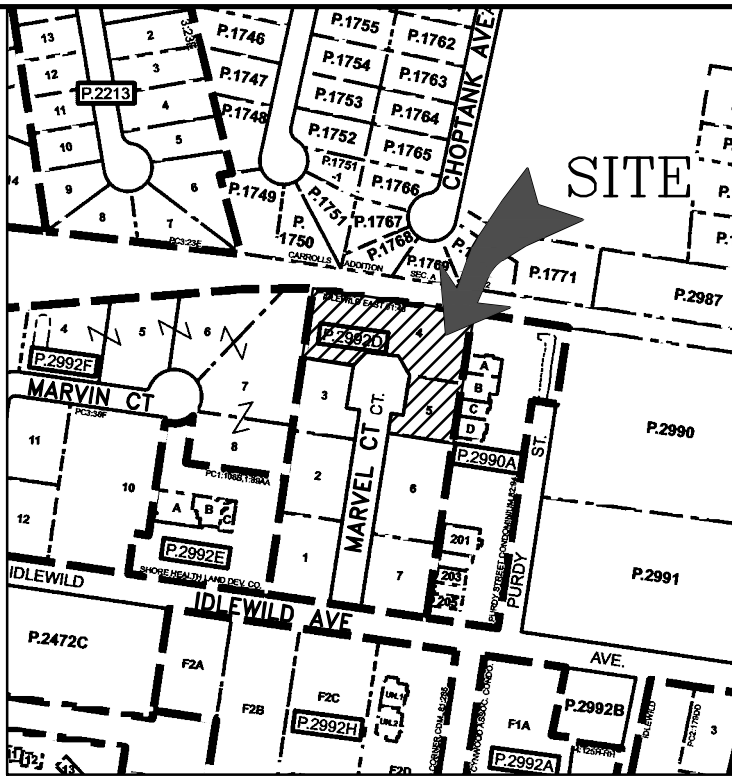
PROPERTY OWNER: MARVEL COURT, LLC
PROPERTY ADDRESS: 404 MARVEL COURT
EASTON, MARYLAND 21601
DEED REFERENCE: 2611/95
PLAT REFERENCE: 61/46

THE COORDINATES SHOWN HEREON ARE BASED ON THE MARYLAND COORDINATE SYSTEM NAD83 (011), AS ESTABLISHED BY GPS METHODOLOGY TO CORS STATIONS MDNM (NGS CERTIFICATE PENDING) AND LOYF (PID DK7313) COMBINED FACTOR: 0.99995360. THE DISTANCES SHOWN HEREON ARE GROUND BASED.

THE PROPERTY SHOWN HEREON IS NOT LOCATED IN THE NATIONAL FLOOD INSURANCE PROGRAM (NFIP) SPECIAL FLOOD HAZARD AREA (SFHA) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD. THE PROPERTY IS MAPPED IN THE "X" FLOOD ZONE AS SHOWN ON THE FLOOD INSURANCE RATE MAPS FOR COMMUNITY NO. 240687, MAP NO. 2404-010189D FOR TALBOT COUNTY, MARYLAND. THE 1% ANNUAL CHANCE FLOOD (100-YEAR FLOOD), ALSO KNOWN AS THE BASE FLOOD, IS THE FLOOD THAT HAS A 1% CHANCE OF BEING EQUALLED OR EXCEEDED IN ANY GIVEN YEAR. THE FLOODING OF THE FLOODPLAIN BY THE 1% ANNUAL CHANCE FLOOD, THE SFHA INCLUDES ZONES A, AE, AH, AO, A99, V & VE. THE BASE FLOOD ELEVATION (BFE) IS THE WATER SURFACE ELEVATION OF THE 1% ANNUAL CHANCE FLOOD. FLOOD INSURANCE MAY BE REQUIRED FOR STRUCTURES LOCATED IN THE SPECIAL FLOOD HAZARD AREA.

FLOOD ZONE LEGEND
ZONES A, AE, AH, AO, AR, A99, V, & VE - 1% ANNUAL CHANCE FLOOD
ZONE X (SHADED) - 0.2% ANNUAL CHANCE FLOOD
ZONE X - AREA OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD

THE FLOOD DATA SHOWN HEREON IS BASED ON AVAILABLE MAPPED AND/OR DIGITAL INFORMATION AND IS DEPICTED AS DIRECTED AND REQUIRED BY FEDERAL, STATE AND LOCATION REGULATIONS. IT IS SUBJECT TO DATA INACCURACIES AND REGULATORY CHANGE AND SHOULD BE VERIFIED PRIOR TO FINALIZING DEVELOPMENT OR IMPROVEMENT PLANS FOR THE SUBJECT LANDS.

[illegible]

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THE LOCATIONS OF EXISTING UTILITIES AS SHOWN ON THIS PLAN ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. THE QUANTITIES SHOWN ON THIS PLAN ARE FOR INFORMATIONAL AND PERMITTING PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES TO HIS OWN SATISFACTION PRIOR TO BEGINNING CONSTRUCTION.

THE CONTRACTOR SHALL TEST PIT AND LOCATE EXISTING UNDERGROUND UTILITIES PRIOR TO THE BEGINNING OF ANY WORK ON-SITE. THE CONTRACTOR SHALL NOTIFY DEPT. OF PUBLIC WORKS OF ANY POSSIBLE CONFLICT AND REQUEST THE RELOCATION OF THE EXISTING UNDERGROUND UTILITIES BEFORE BEGINNING ANY WORK ON-SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY RELOCATION EXPENSE.



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PROFESSIONAL CERTIFICATION: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 51461 . Expiration Date: 04/04/2026.

SEAL



5-31-24

DATE

IN THE TOWN OF EASTON
TALBOT COUNTY, MARYLAND
TAX MAP 105, GRID 0, PARCEL 2992D, LOTS 4 AND 5

ISSUED FOR:	DATE:	BY:
AGENCY REVIEW	05/31/24	BCE

SHEET No. 1 OF 2	DATE:
SCALE: AS NOTED	JOB No. 230464
	FILE No. 1026

SEE SHEET 2 OF 2 FOR SKETCH SITE PLAN.

NOTE: THE LAYOUT AS SHOWN HEREON IS CONCEPTUAL ONLY AND NOT INTENDED TO BE UTILIZED FOR DESIGN OR CONSTRUCTION PURPOSES.

SEAL:



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LICENSE NO.: 0013955
EXPIRATION NO.: 09-23-2024

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CONSULTANTS:

TIDEWATER PT - EASTON
406 MARVEL COURT
EASTON MD

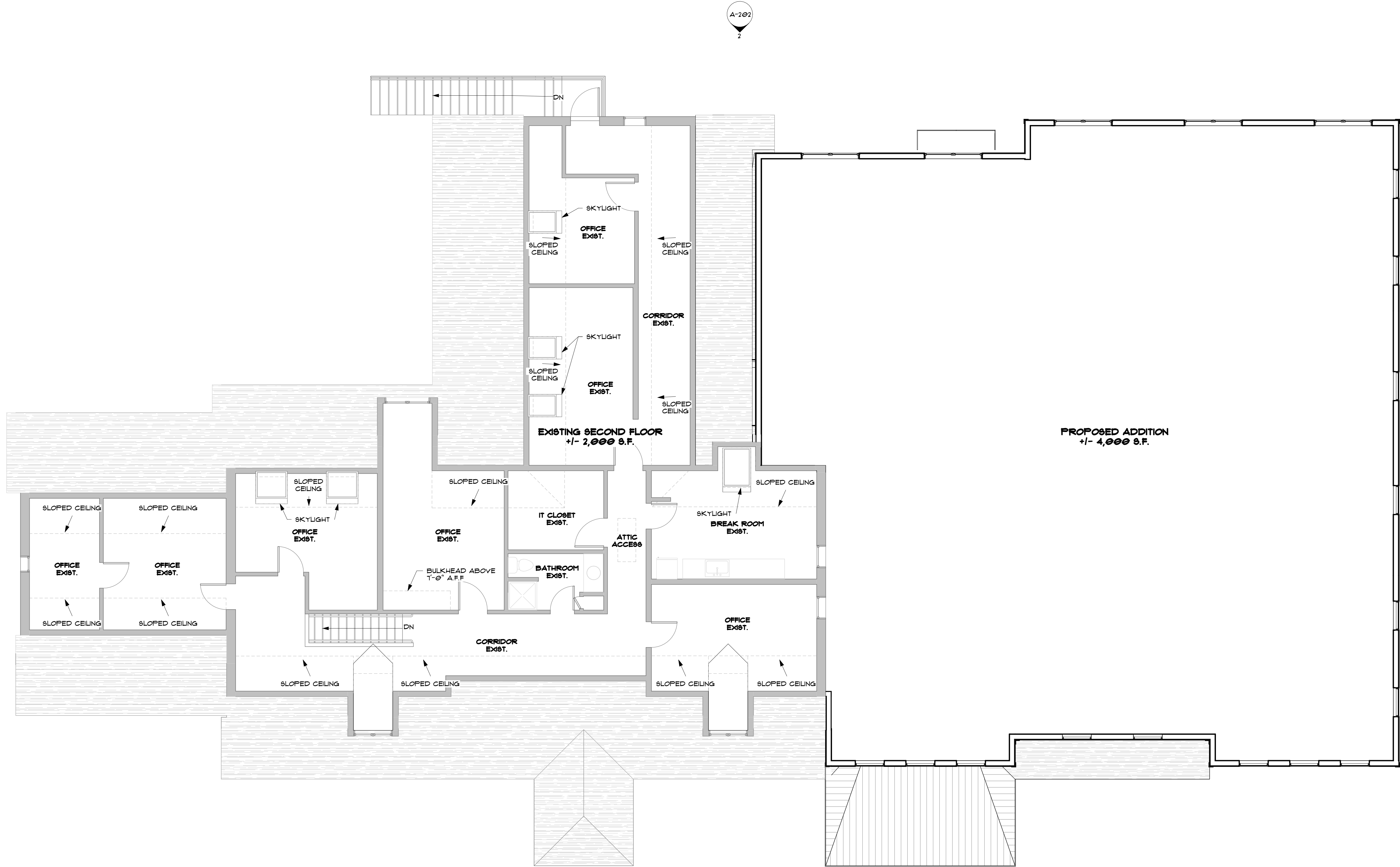
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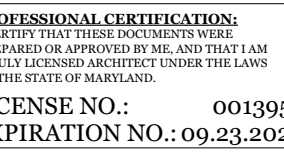
**SECOND FLOOR
PLAN**

1	2024 04 16	Updated SD Exteriors
REV	REV DATE	DESCRIPTION
	2024 03 08	
PROJECT NO.	2024012	
SCALE:	3/16" = 1'-0"	
PROJ MGR:	C. Park	
DRAWN BY:	Author	
SHEET NUMBER:		

A-102

1 SECOND FLOOR
3/16" = 1'-0"





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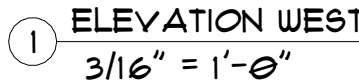
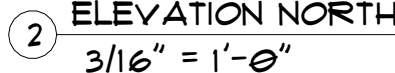
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PROPOSED ELEVATIONS

[illegible]

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PROJECT NO.	2024012	
SCALE:	3/16" = 1'-0"	
PROJ MGR:	C. Park	
DRAWN BY:	Author	
SHEET NUMBER:		

A-202

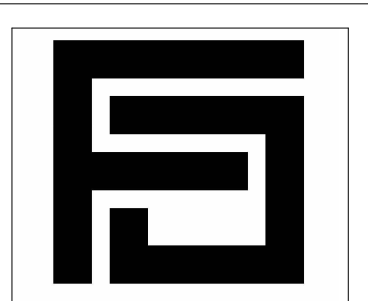




2 FRONT VIEW
1" = 1'-0"



1 ADDITION VIEW
1" = 1'-0"



FISHER
ARCHITECTURE
Fisher Architecture, LLC
542 Riverside Drive
Salisbury, MD 21801
(410) 742-0238

SEAL:

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CONSULTANTS:

TIDEWATER PT - EASTON

406 MARVEL COURT
EASTON MD

SHEET INFO:

RENDERINGS

1	2024 04 16	Updated SD Exteriors
REV	REV DATE	DESCRIPTION
DATE:	2024 03 08	
PROJECT NO.	2024012	
SCALE:	1" = 1'-0"	
PROJ MGR:	C. Park	
DRAWN BY:	Author	
SHEET NUMBER:		

A-801

CONCEPT STORMWATER MANAGEMENT REPORT

For

406 Marvel Court
Easton, Maryland

Developer

NOVA SIXA, LLC
C/o Doug James
404 Marvel Court
Easton, MD 21601

Design Professional

Lane Engineering, LLC.
117 Bay Street
Easton, Maryland 21601
410-822-8003

Date Prepared

May 31, 2024

Prepared by

Matt Rajacich, E.I.T.

Reviewed by

Alec F. Chosta, P.E.
Civil Engineer



PROFESSIONAL CERTIFICATION: I hereby certify that this document was prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 51461, Expiration Date: 4/4/26.

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1. Introduction
2. General Site Information
3. Proposed Project
4. Stormwater Management and Environmental Site Design (ESD)
 - 4.1 Stormwater Quantity Management
5. Conclusion

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- APPENDIX A – Maryland Environmental Site Design (ESD) Calculations
- APPENDIX B – Drainage Area Maps
- APPENDIX C – HydroCAD Quantity Management Report
- APPENDIX D – Field Boring at Proposed SGW Location

406 Marvel Court

STORMWATER MANAGEMENT REPORT

1. INTRODUCTION

This report addresses the concept stormwater management design for development of the property located at 406 Martin Court, Easton, Maryland. The stormwater management plan incorporates the requirements of the *2000 Maryland Stormwater Design Manual Volumes I and II* (Manual) as currently updated. Development projects are required to be reviewed during the concept, preliminary site development, and final design stages.

2. GENERAL SITE INFORMATION

Current site conditions consist of 2 separate lots which are improved with office buildings and parking. 404 Marvel Court is currently improved with a parking lot and an office building. The site drains to an existing swale that runs along the eastern side of the property. 406 Marvel Court is currently improved with a parking lot, an office building, and a solar farm. 406 Marvel Court has a high point in the middle of the lot and the site drains to existing swales on the eastern and western sides of the property (see Drainage Area Maps in Appendix B).



Per the USDA soil maps, most site soils are Hambrook-Sassafras complex and classified as a Hydrologic Soil Group (HSG) B soil. The remaining portion of the site is mapped as Woodstown Sandy Loam and Woodstown Loam which are considered group C soils.

Preliminary soil investigations conducted by Lane Engineering (see Appendix D), prior to the concept stormwater submittal, indicate onsite soils that are visually consistent with B soils. One soil boring was conducted in the vicinity of the proposed stormwater feature. The boring was terminated at 5' below grade. Soils were predominately clean sand, and no groundwater was encountered.

3. PROPOSED PROJECT

The developer proposes to demolish all existing improvements on 404 Marvel Court and remove the existing solar farm from 406 Marvel Court and combine the two lots and add an addition onto the existing 406 Marvel Court building and add additional parking on the 404 Marvel Court Area.

4. STORMWATER MANAGEMENT AND ENVIRONMENTAL SITE DESIGN (ESD)

The existing site, which includes the total area of both 406 and 404 Marvel Court, is over 40% impervious and therefore qualifies for redevelopment. Projects that qualify for redevelopment are required to treat 50% of the existing impervious area on-site to a Pe of 1" as well as treat 100% of the net increase in impervious area on-site to the full Pe based on soil group. The total site area for the project is 61,999 SF (1.423 acres) with an existing impervious area of 28,282 SF (0.649 acres, 46%). The proposed development will result in a total impervious area of 33,922 SF (0.779 acres) for a 5,640 SF net increase of impervious area on-site. Utilizing the requirements of redevelopment, this results in an ESD target volume of **2,245 cf**. Refer to Appendix A for detailed ESD calculations.

In accordance with the Manual, available ESD techniques i.e. Alternative Surfaces, Non-Structural and Micro-Scale Practices were evaluated for use at the site:

Alternative Surfaces

- Green Rooftops – Are not applicable to the current parking lot project.
- **Permeable Pavements** – Permeable pavements are effective for reducing imperviousness in pedestrian pavements and parking lots. The site is mapped with predominately B soils, and preliminary soil investigations show that there is predominately clean sands below grade making permeable pavements a viable practice for this project.
- Reinforced Turf - Reinforced turf areas are commonly used for emergency equipment access or for areas that receive minimal vehicular use. The proposed parking area will have significant vehicular use.

Nonstructural practices

- Disconnection of Rooftop Runoff – Not applicable to the current parking lot project.
- Disconnection of Non-Rooftop Runoff – This could be utilized to a minimal degree, however, the site lacks adequate green space to disconnect the entirety of the proposed parking lot.
- Sheetflow to Conservation Area – The adjacent properties and environmental features do not meet the requirements for implementation of this practice.

Micro-scale practices

- Rainwater Harvesting – Opportunities for on-site reuse of harvested rainwater is limited. Irrigation is not proposed for the site. Operations and maintenance, especially during cold-weather periods, is also a concern.
- **Submerged Gravel Wetlands** – This practice is best suited for sites with a high groundwater table and poor soils. Since no formal geotechnical work has been performed, a submerged gravel wetland ensures that the project is feasible if the required 2' separation between media and groundwater cannot be achieved.
- Landscape Infiltration – The drainage area limitation in Chapter 5 prohibits the use of this practice in the current configuration of the project.

- Infiltration Berms – The requirements of the proposed development do not leave enough room for the implementation of this practice.
- Dry Wells – The proposed drainage areas exceed the 1,000 square foot limit for dry wells.
- Micro-Bioretenention – This practice would provide significant treatment and quantity management. Maintenance for this practice is reasonable. Site soils may suit this infiltration practice, however additional geotechnical information is needed to confirm ground water elevation.
- Rain Gardens – The limited drainage area (10,000 sf) allowed for the practice, prevents its use for the current project.
- Bio-Swale – This practice could provide significant treatment and quantity management. Maintenance for this practice is reasonable. Site soils may suit this infiltration practice, however additional geotechnical information is needed to confirm ground water elevation.

Permeable Pavers and a Submerged Gravel Wetland are ideally suited for this site. Existing soils on site are mapped as B soils and preliminary soil investigations show the site is predominately clean sands making permeable pavers and ideal practice for this site. A submerged gravel wetland has been proposed as a concept stormwater management facility in lieu of conducting a formal geotechnical analysis. The drainage area to the proposed submerged gravel wetland is less than 20,000 SF, meaning the feature can be converted to a micro-bioretenention area during preliminary design if geotechnical analysis shows that there is proper separation between the media and groundwater as required in the Manual. This change would not impact the overall site design or required size of the stormwater management facility.

The total ESD volume provided by the gravel wetland's temporary ponding is **2,188 cf** and the permeable pavers is **1,365 cf** for total ESD volume of **3,553 cf**. Please refer to Appendix A for the detailed water quality computations.

4.1 STORMWATER QUANTITY MANAGEMENT

The existing office building at 406 Marvel Court is the high point between the two properties and water drains to existing swales on the eastern and western sides of the property.

The proposed project will utilize permeable pavers for the proposed parking areas as well as redirect rooftop runoff from the existing building at 406 Marvel Court and the proposed addition to the new management facility on-site which attenuate the added runoff from the proposed additions. This new feature will discharge to the existing swale that runs along on the eastern property line. The combination of this new management facility and the proposed permeable pavers will reduce runoff leaving the site. See the table below for details and refer to Appendix B to see pre and post development drainage area maps and refer to Appendix C for a detailed HydroCAD analysis for the site.

	2 Year Storm (cfs)		10 Year Storm (cfs)		100 Year Storm (cfs)	
	Pre	Post	Pre	Post	Pre	Post
Study Point 1	1.14	0.99	2.65	2.22	4.67	5.50
Study Point 2	1.73	1.61	3.12	2.95	4.80	4.57
TOTAL	2.87	2.60	5.77	5.17	9.47	10.07
NET REDUCTION	0.27		0.60		(0.60)	

5. CONCLUSION

This stormwater management analysis indicates that the proposed design will successfully meet stormwater quality and quantity requirements. Referring to the attached water quality calculations, the ESD volume provided is greater than the ESD volume required. Planning and design analysis indicate that stormwater quality and quantity management can be accomplished as described.

APPENDIX A

MARYLAND ENVIRONMENTAL SITE DESIGN (ESD) CALCULATIONS

Maryland Environmental Site Design (ESD) Computations

Project	Marvel Court	By	MR	Job #	230464
Location	406 Marvel Court	Date	5/31/2024	File #	1026

Determine if the Project is subject to Redevelopment Requirements:

Site Area = 1.4 ac excluding buffers, forest conservation = ac
 Net Site Area = 1.4
 Existing Imp. Area = 0.6 ac
 Percent Impervious (I) = 45.6 %
 I > 40%. Project subject to Redevelopment standards.

ESD Target for Redevelopment

Impervious Cover (50% of Ex. Imp): 0.32 ac 14,141 sf
 Percent Impervious (I) 100 %

Remove and/or treat 14,141 sf of existing impervious area
 Area of impervious removed = sf *(whereby I_{post} < I_{pre})*
 Impervious area remaining = 14,141 sf *to be treated using ESD practices, Pe = 1 in, Rv = 0.95*

$$\begin{aligned}
 R_v &= 0.05 + 0.009(I) \\
 &= 0.95
 \end{aligned}$$

Composite Target P_E (in.): 1.00

$$\begin{aligned}
 ESD_v &= \frac{(P_E)(R_v)(A)}{12} \\
 &= 1,119 \quad \text{cf}
 \end{aligned}$$

Step 1 - Determine Stormwater Management Requirements

Initial Site Assessment (Site Data):

Total Increase in Impervious Area: 5,640 sf *(I_{post} > I_{pre} by this amount)*

Soil Types:

HSG	A	B	C	D
Area		4,512	1,128	
Percent		80.0	20.0	

Proposed Layout

Impervious Cover: 5,640 sf
 Percent Impervious (I) 100 %

Determine RCNs for Wooded Conditions:

HSG	A	B	C	D
Area		4,512	1,128	
Percent		80.0	20.0	
RCN	38	55	70	77

Weighted RCN: **58**

Determine ESD Targets:

$$R_v = 0.05 + 0.009(I) \\ = 0.95$$

From Table 5.3 and
%I = 100

HSG	A	B	C	D
Area		4,512	1,128	
Target P_E		2.6	2.2	

Composite Target P_E (in.): **2.52**

$$ESD_v = \frac{(P_E)(R_v)(A)}{12} \\ = 1,125 \quad \text{cf}$$

Total ESDv required = 2,245 cf

Step 2 - Preliminary ESD Options

Please refer to the Stormwater Management Report

Step 3 - ESD Design

Evaluation of specific ESD treatment practices for the project on the following sheets.

Permeable Pavement Areas

Parking Lot Area

Total Length	315	ft
Total Width	18	ft
Impervious Area	6,966	sf
Base thickness	12	in
ESD Value Per HSG	0.196	ESDv/sf (Ref. ESD Process & Comps)
ESDv provided	1,365	cf

Drainage Area SGW-1

Total Area	18,962 sf	Target ESDv = $\frac{(P_e)(R_v)(A)}{12}$
Impervious Area	11,694 sf	
Percent Impervious (I)	62 %	= 2,409 cf
Rv = 0.05 +0.009(I)	0.61	75% of target= 1,807 cf

Site Development Design - Submerged Gravel Wetland (M-2)

Based on the Cpv storm (2.8 in.): Max allowable ESDv that can be used:

$$V = \frac{(P)(R_v)(A)}{12} = 2,677 \text{ cf}$$

The computed ESDv provided is:

$$\text{ESDv} = (\text{Ponding storage}) + (\text{Storage in media})$$

$$= 2,188 \text{ cf}$$

Surface Area=	1,220 sf	Media Depth=	2 ft
Ponding Area=	2,280 sf		
Ponding depth=	1.25 ft	Porosity=	0

Therefore, when assessing compliance with the MEP standard, the volume of runoff treated by this Submerged Gravel wetland practice is **2,188 cf.**

Now check for compliance with design criteria:

Submerged Gravel Wetland Design Criteria:	Provided
Runoff shall enter, flowthrough, and exit in safe and non-erosive manner	✓
Drainage area to practice is large enough to maintain submerged flow	✓
Appropriate soils and/or high groundwater is present	✓
Section dimensions of soil media layers greater than minimum	✓
Distribution and collection piping/underdrains provided	✓
Flow paths through gravel greater than 15 ft	✓
Riser pipes provided and spaced at 15 ft or less apart	✓
Cleanouts Provided	✓

ESD SUMMARY CHART

DRAINAGE AREA	TYPE OF ESD PRACTICE	NAME OF ESD PRACTICE (STRUCTURE NAME)	ON-SITE OR OFF-SITE STRUCTURE	RUNOFF CURVE NUMBER (RCN) WEIGHTED	MARYLAND GRID COORDINATE NAD 83 METERS NORTHING	MARYLAND GRID COORDINATE NAD 83 METERS EASTING	ESD PRACTICE TOTAL DRAINAGE AREA (ACRES)	ESD PRACTICE IMPERVIOUS DRAINAGE AREA (ACRES)	SURFACE AREA OF ESD PRACTICE (ACRES)	TARGET PE (IN.)	ACTUAL PE (IN.)	TARGET ESDv (FT. ³)	ACTUAL ESDv (ft. ³)
1	A-2	PERMEABLE PAVERS	ON-SITE	-	401599.04	1579464.11	0.527	0.213	0.160	-	-	-	1,365
2	M-2	SUBMERGED GRAVEL WETLAND	ON-SITE	-	401501.34	1579376.64	0.435	0.268	0.028	-	-	-	2,188
3													
4	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-
6													
7													
8													
9													
10													
TOTAL/ AVERAGE				-			0.962	0.481	0.188	-	-	2,245	3,553



APPROVAL

Rid Van Engle
TOWN ENGINEER

1/2020
DATE

**TOWN OF EASTON
STANDARD DETAILS**

ESD SUMMARY CHART

ISSUED: JANUARY 2020

STANDARD NO: TOE-SWM-7.01

SWM QUANTITY SUMMARY CHART

PRACTICE Study Point	DA (ACRES)	IMPERVIOUS (ACRES)	RCN	Tc (MINUTES)	PRE 2 YEAR	POST 2 YEAR	W.S.E.	PRE 10 YEAR	POST 10 YEAR	W.S.E.	PRE 100 YEAR	POST 100 YEAR	W.S.E.
1	0.987	0.499	-	5	1.14	0.99	48.81	2.65	2.22	49.05	4.67	5.50	49.34
2	0.435	0.280	-	1.70	1.73	1.61	-	3.12	2.95	-	4.80	4.57	-



APPROVAL

Rid Van Engle
TOWN ENGINEER

1/2020
DATE

**TOWN OF EASTON
STANDARD DETAILS**

SWM QUANTITY SUMMARY CHART

ISSUED: JANUARY 2020

STANDARD NO: TOE-SWM-7.02

APPENDIX B

DRAINAGE AREA MAPS

SWM PRE DEVELOPMENT DISCHARGES (CFS)			
STUDY POINT	Q ₂	Q ₁₀	Q ₁₀₀
1	1.14	2.65	4.67
2	1.73	3.12	4.80
TOTAL	2.87	5.77	9.47

AREA #	AREA (SF)	TOTAL Tc (MINUTES)	IMPERVIOUS (%)	DESCRIPTION
EX-1	42,340	11.10	35%	SOLAR FIELD, OFFICE BUILDING, AND PARKING
EX-2	19,659	1.70	69%	OFFICE BUILDING AND PARKING

[illegible]

WARNING!!
THE LOCATIONS OF EXISTING UTILITIES AS SHOWN ON THIS PLAN ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. THE QUANTITIES SHOWN ON THIS PLAN ARE FOR INFORMATIONAL AND PERMITTING PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES TO HIS OWN SATISFACTION PRIOR TO BEGINNING CONSTRUCTION.

THE CONTRACTOR SHALL TEST PIT AND LOCATE EXISTING UNDERGROUND UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION. IF ANY CONFLICTS ARE NOTED BY THE DEPT. OF PUBLIC WORKS OF ANY POSSIBLE CONFLICT AND REQUEST THE RELOCATION OF THE EXISTING UNDERGROUND UTILITIES BEFORE BEGINNING ANY WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY RELOCATION EXPENSE.



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354 Pennsylvania Ave. Centreville, MD 21617 (410) 758-2095

PROFESSIONAL CERTIFICATION: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 51461, Expiration Date: 04/04/2026.



PRE-DEVELOPMENT
DRAINAGE AREA
MAP

ON THE LANDS OF NOVA SIXA, LLC AND 406 MARVEL COURT, LLC
IN THE TOWN OF EASTON TALBOT COUNTY, MARYLAND TAX MAP 105, GRID 0, PARCEL 2992D, LOTS 4 AND 5

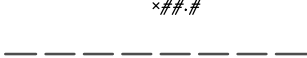
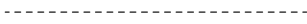
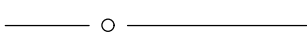
ISSUED FOR:	DATE:	BY:
AGENCY REVIEW	05/31/24	BCE

SHEET No. 1 OF 2	DATE:
SCALE: AS NOTED	JOB No. 230464
	FILE No. 1026



TALBOT COUNTY SOILS				
MAP SYMBOL	SOILS NAME	HYDRIC SOILS	K FACTOR	SOIL GROUP
HfB	HAMBROOK-SASSAFRAS COMPLEX		0.37	B
WdA	WOODSTOWN SANDY LOAM	*	0.2	C
WoA	WOODSTOWN LOAM	*	0.32	C

* POSSIBLE SMALL AREAS OF HYDRIC SOIL INCLUSIONS SUBJECT TO FIELD VERIFICATION.

<u>LEGEND</u>	
	IRON ROD FOUND
	CONCRETE MONUMENT FOUND
	CABLE TV PEDESTAL
	CIRCUIT BREAKER PANEL
	ELECTRIC PEDESTAL
	ELECTRIC TRANSFORMER
	ELECTRIC METER
	ELECTRIC HANDHOLE
	LAMP POLE
	SANITARY SEWER CLEAN OUT
	SANITARY SEWER MANHOLE
	SEPTIC TANK
	TELEPHONE PEDESTAL
	HVAC UNIT
	SINGLE POST SIGN
	WATER METER
	WATER FAUCET
	FLOOD ZONE LINE
	SURFACE ELEVATION
	MAJOR CONTOUR
	MINOR CONTOUR
	CHAINLINK FENCE

Date: 05/31/2024 - 10:14am User: mroajcich Project Manager: BCE
Drawing Path: J:\2023\0400\230463\Civil3D\230463\dwg\Plots\CDA\PLTS-230463.dwg | Pte
Xref File(s): RAR-BASE-230463\VSF-BASE-230463\WLD-BASE-230463\RBS-BASE-2436-230463\RD-BASE-230463\RSK-BASE-230463\CSF-BASE-230463\CDA-BASE-230463\HSL-BASE-230463

SWM POST DEVELOPMENT DISCHARGES (CFS)			
STUDY POINT	Q ₂	Q ₁₀	Q ₁₀₀
1	0.99	2.22	5.50
2	1.61	2.95	4.57
TOTAL	2.60	5.17	10.07

STORMWATER MANAGEMENT DRAINAGE AREA TABLE

[illegible]

WARNING!!
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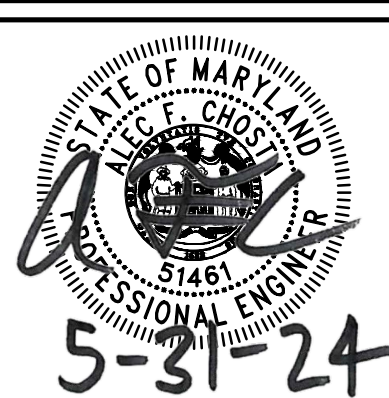
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PROFESSIONAL CERTIFICATION: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 51461, Expiration Date: 04/04/2026.



POST-DEVELOPMENT DRAINAGE AREA MAP

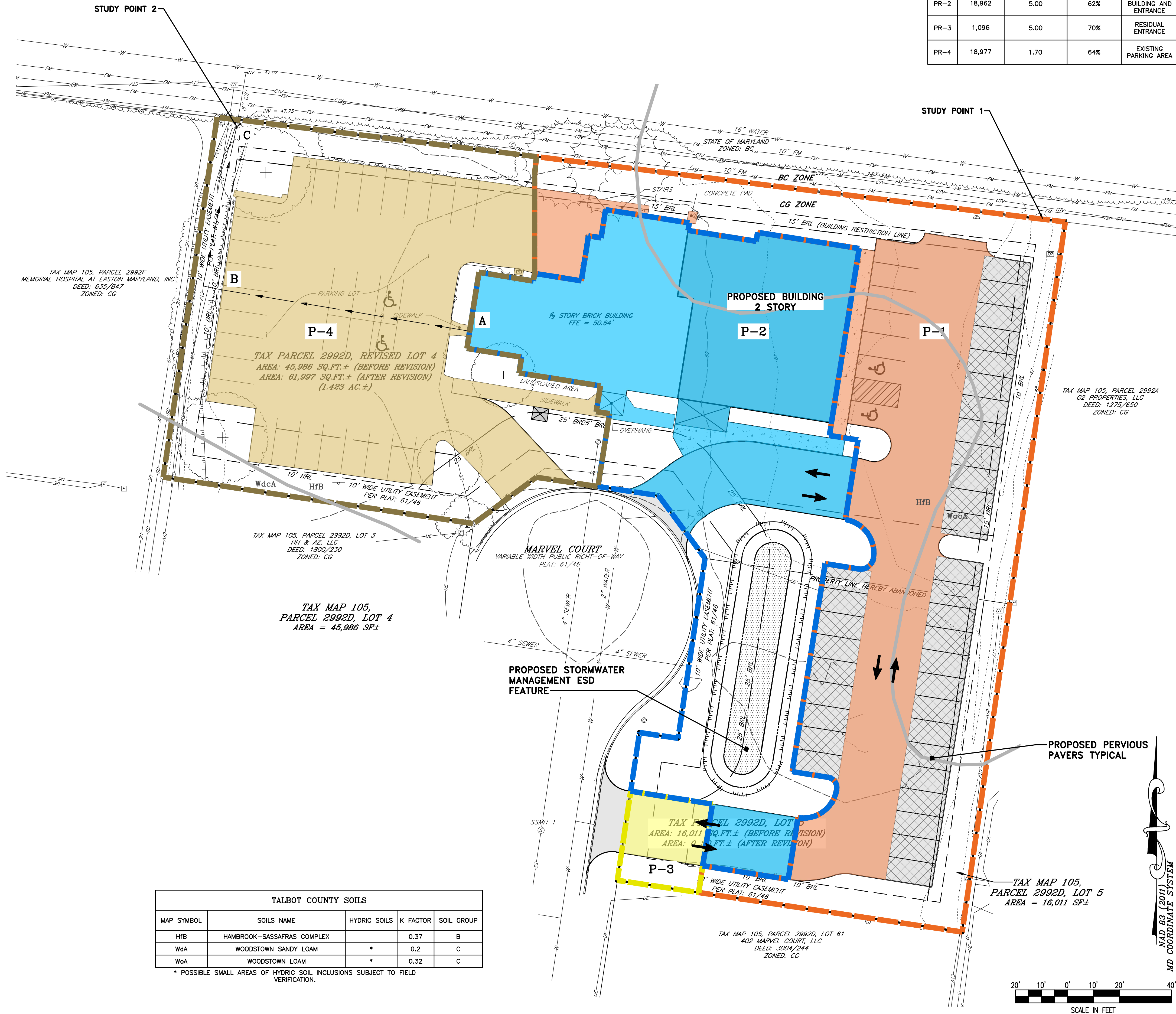
ON THE LANDS OF
NOVA SIXA, LLC
AND
406 MARVEL COURT, LLC

ISSUED FOR:	DATE:	BY:
AGENCY REVIEW	05/31/24	BCE

SHEET No. 2 OF 2 DATE: _____

SCALE:	JOB No. 230464
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FILE No.	1026
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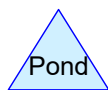
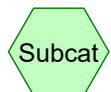
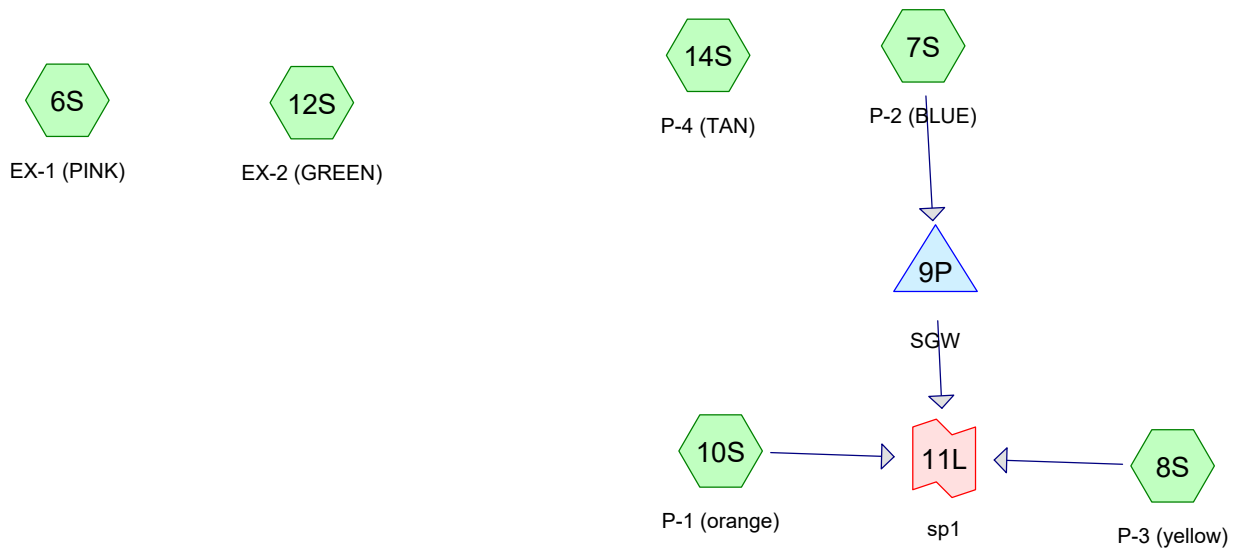
TALBOT COUNTY SOILS				
MAP SYMBOL	SOILS NAME	HYDRIC SOILS	K FACTOR	SOIL GROUP
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WoA	WOODSTOWN LOAM	*	0.32	C

* POSSIBLE SMALL AREAS OF HYDRIC SOIL INCLUSIONS SUBJECT TO FIELD VERIFICATION.

- | | |
|---|--------------------------|
|  | IRON ROD FOUND |
|  | CONCRETE MONUMENT FOUND |
|  | CABLE TV PEDESTAL |
|  | CIRCUIT BREAKER PANEL |
|  | ELECTRIC PEDESTAL |
|  | ELECTRIC TRANSFORMER |
|  | ELECTRIC METER |
|  | ELECTRIC HANDHOLE |
|  | LAMP POLE |
|  | SANITARY SEWER CLEAN OUT |
|  | SANITARY SEWER MANHOLE |
|  | SEPTIC TANK |
|  | TELEPHONE PEDESTAL |
|  | HVAC UNIT |
|  | SINGLE POST SIGN |
|  | WATER METER |
|  | WATER FAUCET |
|  | FLOOD ZONE LINE |
|  | SURFACE ELEVATION |
|  | MAJOR CONTOUR |
|  | MINOR CONTOUR |
|  | CHAINLINK FENCE |

APPENDIX C

HydroCAD Report



Routing Diagram for 230463-CONCEPT
 Prepared by {enter your company name here}, Printed 5/31/2024
 HydroCAD® 10.00-17 s/n 03788 © 2016 HydroCAD Software Solutions LLC

230463-CONCEPT

Prepared by {enter your company name here}

HydroCAD® 10.00-17 s/n 03788 © 2016 HydroCAD Software Solutions LLC

230464 - Prelim HydroCAD
Type II 24-hr 2 Rainfall=3.40"

Printed 5/31/2024

Page 2

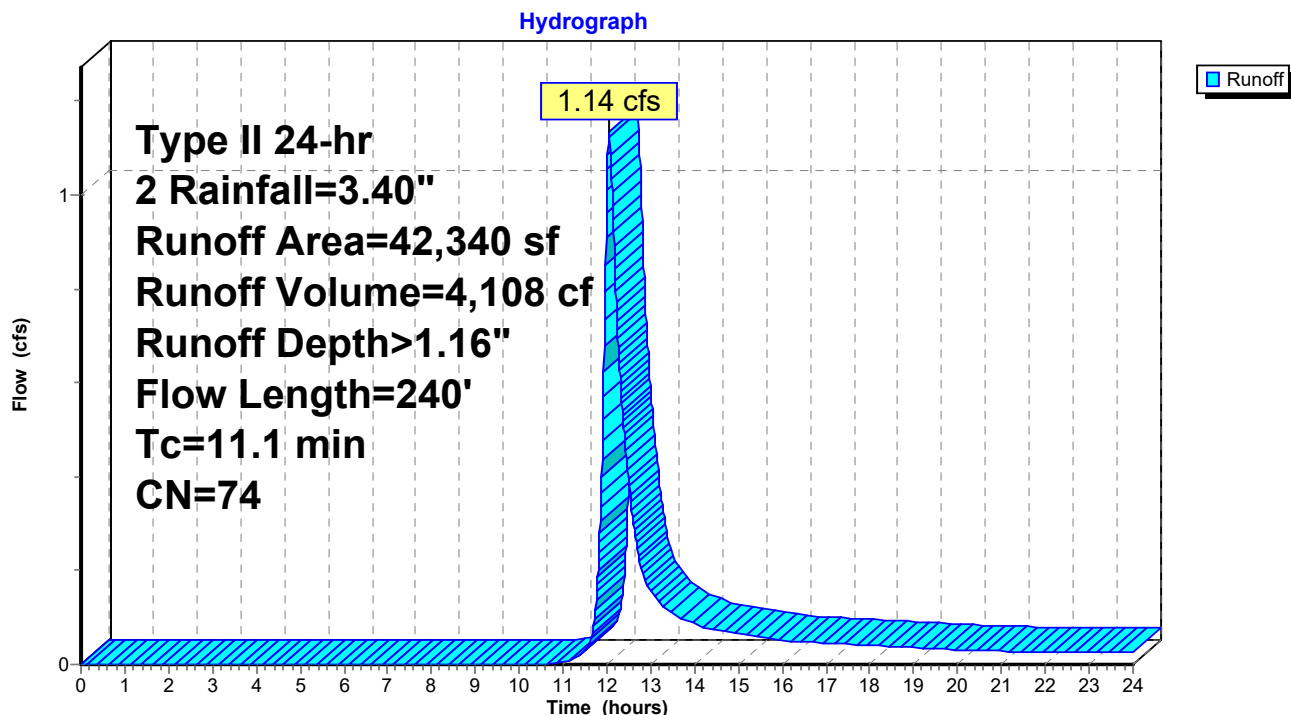
Summary for Subcatchment 6S: EX-1 (PINK)

Runoff = 1.14 cfs @ 12.06 hrs, Volume= 4,108 cf, Depth> 1.16"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type II 24-hr 2 Rainfall=3.40"

Area (sf)	CN	Description
27,537	61	>75% Grass cover, Good, HSG B
14,803	98	Paved parking, HSG C
42,340	74	Weighted Average
27,537		65.04% Pervious Area
14,803		34.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	30	0.0200	1.11		Sheet Flow, a-b Smooth surfaces n= 0.011 P2= 3.40"
9.5	100	0.0200	0.18		Sheet Flow, b-c Grass: Short n= 0.150 P2= 3.40"
1.2	110	0.0100	1.50		Shallow Concentrated Flow, c-d Grassed Waterway Kv= 15.0 fps
11.1	240	Total			

Subcatchment 6S: EX-1 (PINK)

230463-CONCEPT

Prepared by {enter your company name here}

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230464 - Prelim HydroCAD
Type II 24-hr 2 Rainfall=3.40"

Printed 5/31/2024

Page 3

Summary for Subcatchment 7S: P-2 (BLUE)

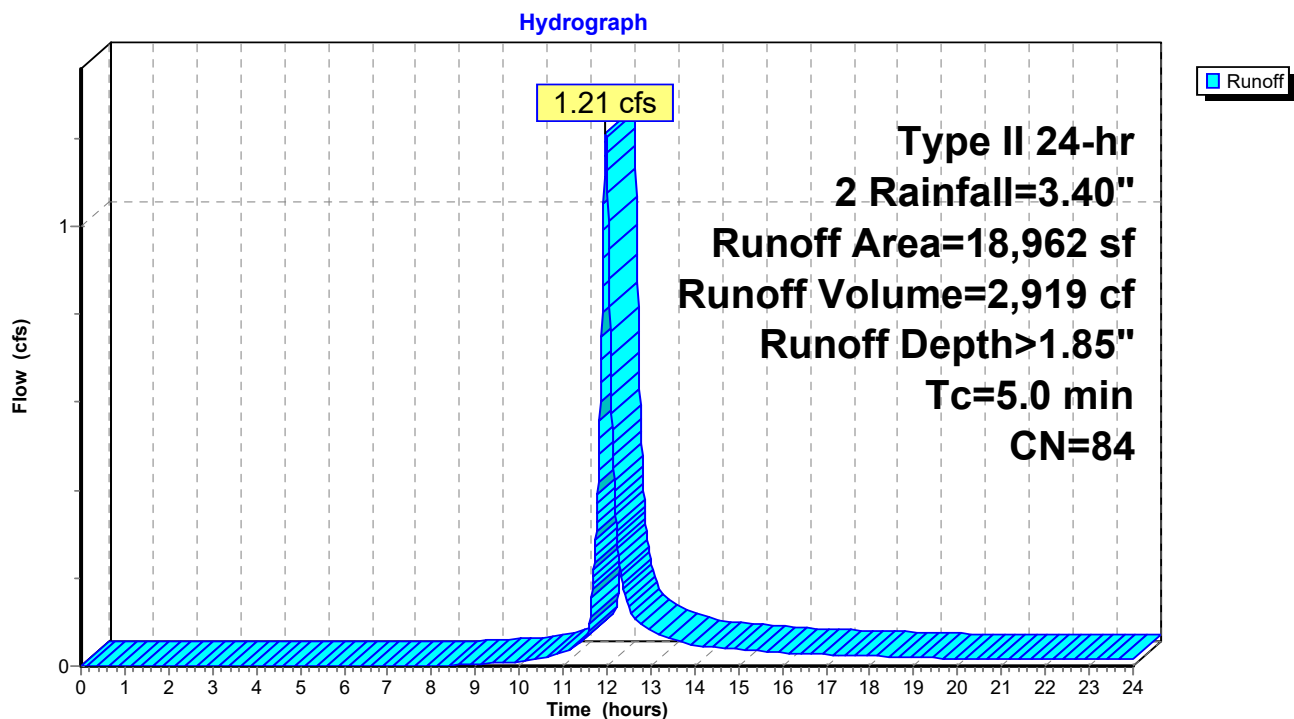
Runoff = 1.21 cfs @ 11.98 hrs, Volume= 2,919 cf, Depth> 1.85"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type II 24-hr 2 Rainfall=3.40"

Area (sf)	CN	Description
11,694	98	Paved parking, HSG C
7,268	61	>75% Grass cover, Good, HSG B
18,962	84	Weighted Average
7,268		38.33% Pervious Area
11,694		61.67% Impervious Area

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

Subcatchment 7S: P-2 (BLUE)



230463-CONCEPT

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230464 - Prelim HydroCAD
Type II 24-hr 2 Rainfall=3.40"

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Page 4

Summary for Subcatchment 8S: P-3 (yellow)

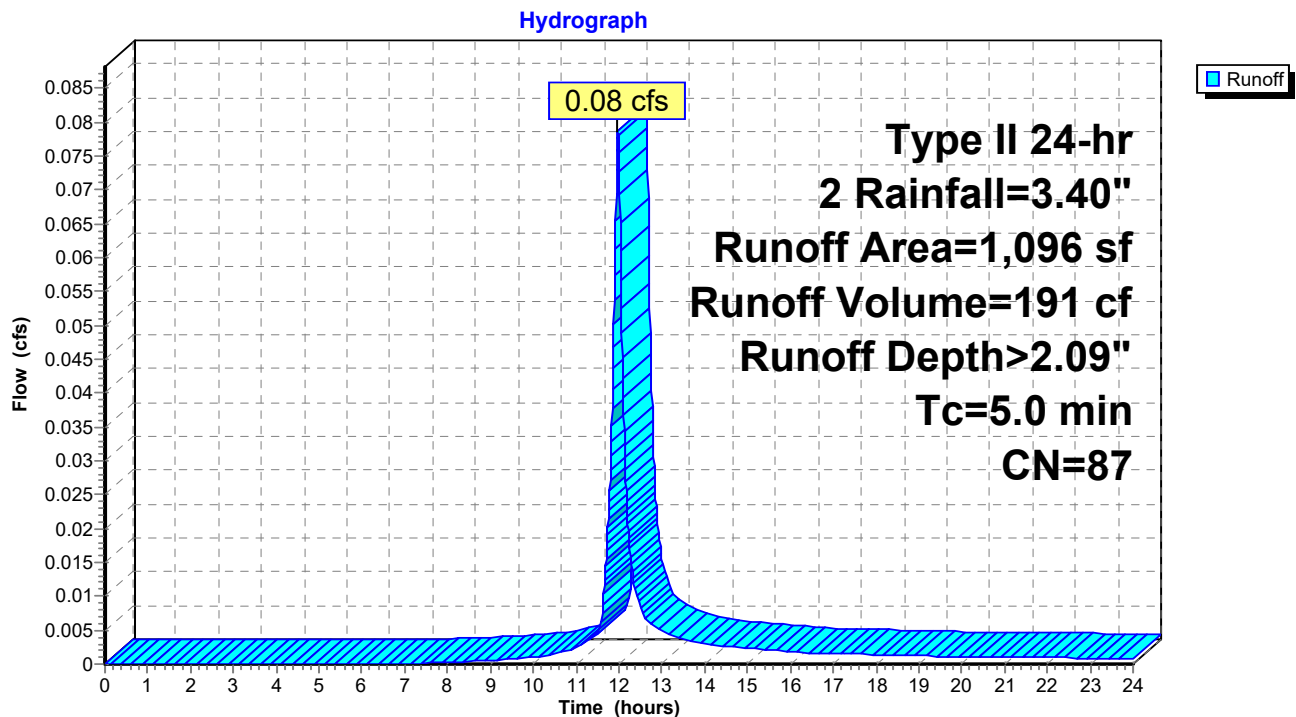
Runoff = 0.08 cfs @ 11.97 hrs, Volume= 191 cf, Depth> 2.09"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type II 24-hr 2 Rainfall=3.40"

Area (sf)	CN	Description
762	98	Paved parking, HSG C
334	61	>75% Grass cover, Good, HSG B
1,096	87	Weighted Average
334		30.47% Pervious Area
762		69.53% Impervious Area

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

Subcatchment 8S: P-3 (yellow)



230463-CONCEPT

Prepared by {enter your company name here}

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230464 - Prelim HydroCAD
Type II 24-hr 2 Rainfall=3.40"

Printed 5/31/2024

Page 5

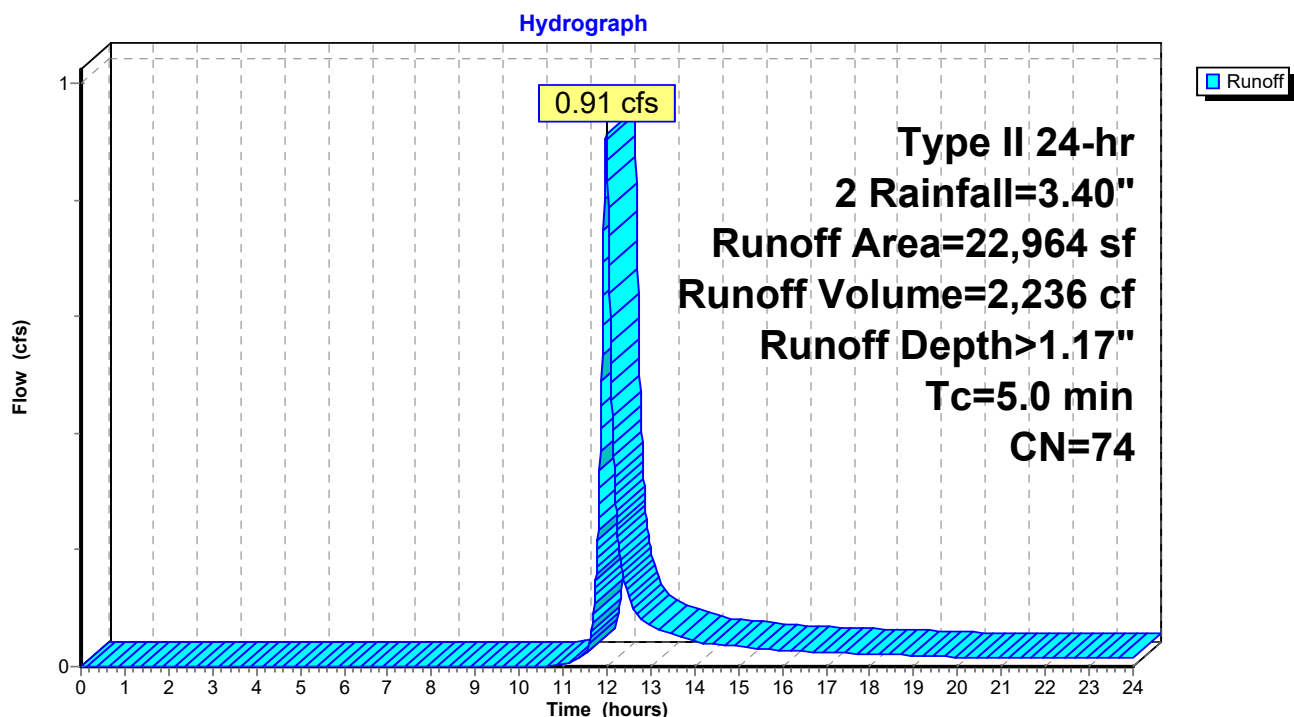
Summary for Subcatchment 10S: P-1 (orange)

Runoff = 0.91 cfs @ 11.98 hrs, Volume= 2,236 cf, Depth> 1.17"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type II 24-hr 2 Rainfall=3.40"

Area (sf)	CN	Description
9,268	98	Paved parking, HSG C
5,670	55	Woods, Good, HSG B
8,026	61	>75% Grass cover, Good, HSG B
22,964	74	Weighted Average
13,696		59.64% Pervious Area
9,268		40.36% Impervious Area

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

Subcatchment 10S: P-1 (orange)

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Type II 24-hr 2 Rainfall=3.40"

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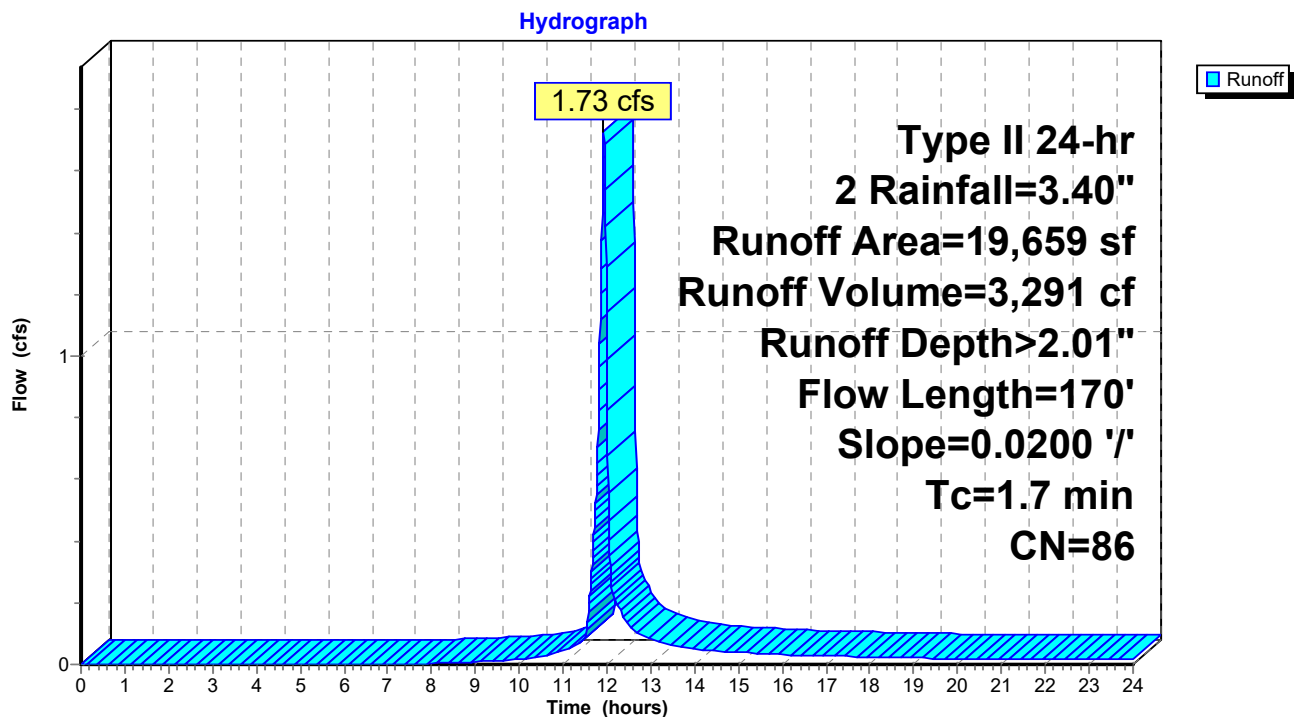
Summary for Subcatchment 12S: EX-2 (GREEN)

Runoff = 1.73 cfs @ 11.93 hrs, Volume= 3,291 cf, Depth> 2.01"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type II 24-hr 2 Rainfall=3.40"

Area (sf)	CN	Description
13,479	98	Paved parking, HSG C
6,180	61	>75% Grass cover, Good, HSG B
19,659	86	Weighted Average
6,180		31.44% Pervious Area
13,479		68.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0200	1.42		Sheet Flow, A-B
					Smooth surfaces n= 0.011 P2= 3.40"
0.5	70	0.0200	2.12		Shallow Concentrated Flow, B-C
					Grassed Waterway Kv= 15.0 fps
1.7	170	Total			

Subcatchment 12S: EX-2 (GREEN)

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Type II 24-hr 2 Rainfall=3.40"

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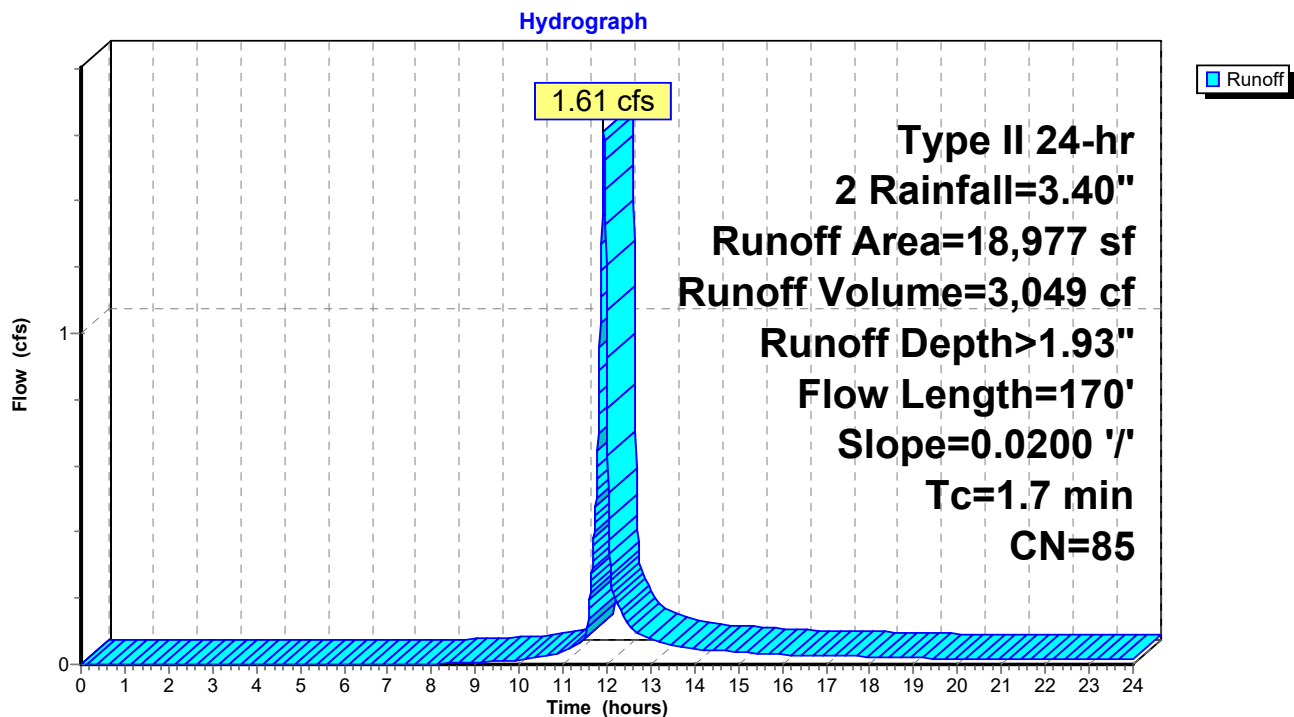
Summary for Subcatchment 14S: P-4 (TAN)

Runoff = 1.61 cfs @ 11.93 hrs, Volume= 3,049 cf, Depth> 1.93"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type II 24-hr 2 Rainfall=3.40"

Area (sf)	CN	Description
12,198	98	Paved parking, HSG C
6,779	61	>75% Grass cover, Good, HSG B
18,977	85	Weighted Average
6,779		35.72% Pervious Area
12,198		64.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0200	1.42		Sheet Flow, a-b Smooth surfaces n= 0.011 P2= 3.40"
0.5	70	0.0200	2.12		Shallow Concentrated Flow, b-c Grassed Waterway Kv= 15.0 fps
1.7	170	Total			

Subcatchment 14S: P-4 (TAN)

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Type II 24-hr 2 Rainfall=3.40"

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Summary for Pond 9P: SGW

Inflow Area = 18,962 sf, 61.67% Impervious, Inflow Depth > 1.85" for 2 event
 Inflow = 1.21 cfs @ 11.98 hrs, Volume= 2,919 cf
 Outflow = 0.03 cfs @ 16.83 hrs, Volume= 679 cf, Atten= 98%, Lag= 291.3 min
 Primary = 0.03 cfs @ 16.83 hrs, Volume= 679 cf
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 48.81' @ 16.83 hrs Surf.Area= 2,296 sf Storage= 2,286 cf

Plug-Flow detention time= 450.1 min calculated for 679 cf (23% of inflow)

Center-of-Mass det. time= 315.1 min (1,139.6 - 824.5)

Volume	Invert	Avail.Storage	Storage Description			
#1	45.49'	4,094 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
45.49	1,220	196.0	0.0	0	0	1,220
45.50	1,220	196.0	0.0	0	0	1,222
47.49	1,220	196.0	0.0	0	0	1,612
47.50	1,220	196.0	100.0	12	12	1,614
49.50	2,992	247.0	100.0	4,082	4,094	3,466

Device	Routing	Invert	Outlet Devices
#1	Primary	47.25'	8.0" Round Culvert L= 162.0' RCP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 47.25' / 45.25' S= 0.0123 ' S= 0.0123 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.35 sf
#2	Device 1	48.75'	6.0" W x 3.0" H Vert. Orifice/Grate C= 0.600
#3	Device 1	49.00'	10.7' long Sharp-Crested Rectangular Weir 0 End Contraction(s)
#4	Secondary	49.25'	6.0' long x 2.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.03 cfs @ 16.83 hrs HW=48.81' TW=0.00' (Dynamic Tailwater)

1=Culvert (Passes 0.03 cfs of 1.58 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.03 cfs @ 0.81 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=45.49' (Free Discharge)

4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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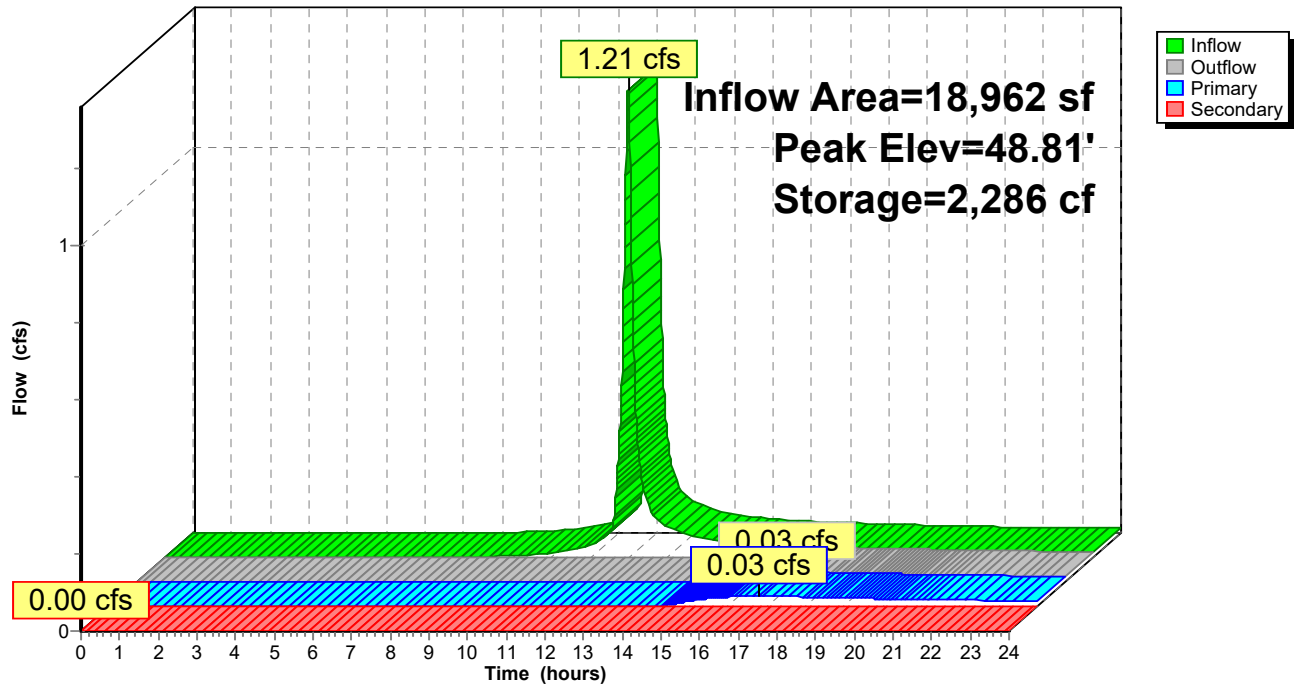
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Pond 9P: SGW

Hydrograph



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Type II 24-hr 2 Rainfall=3.40"

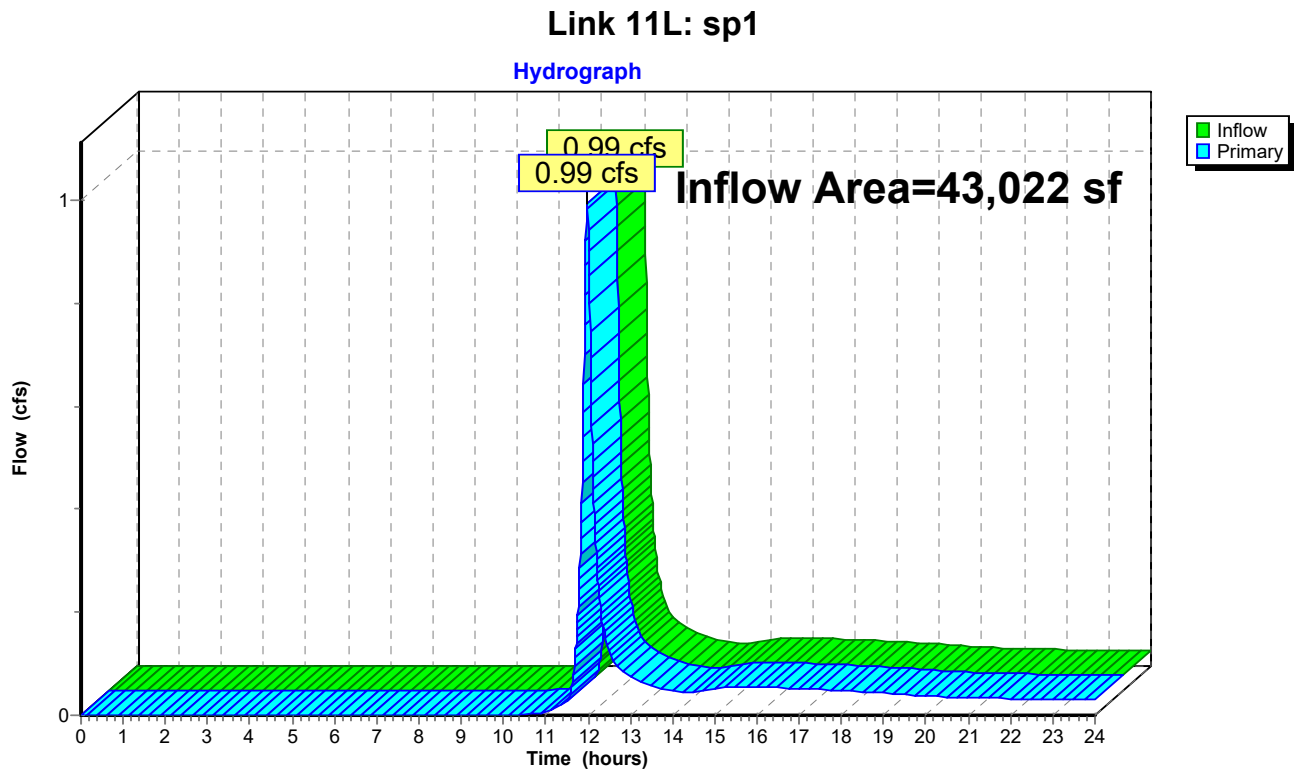
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Summary for Link 11L: sp1

Inflow Area = 43,022 sf, 50.50% Impervious, Inflow Depth > 0.87" for 2 event
Inflow = 0.99 cfs @ 11.98 hrs, Volume= 3,106 cf
Primary = 0.99 cfs @ 11.98 hrs, Volume= 3,106 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs



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Type II 24-hr 10 Rainfall=5.30"

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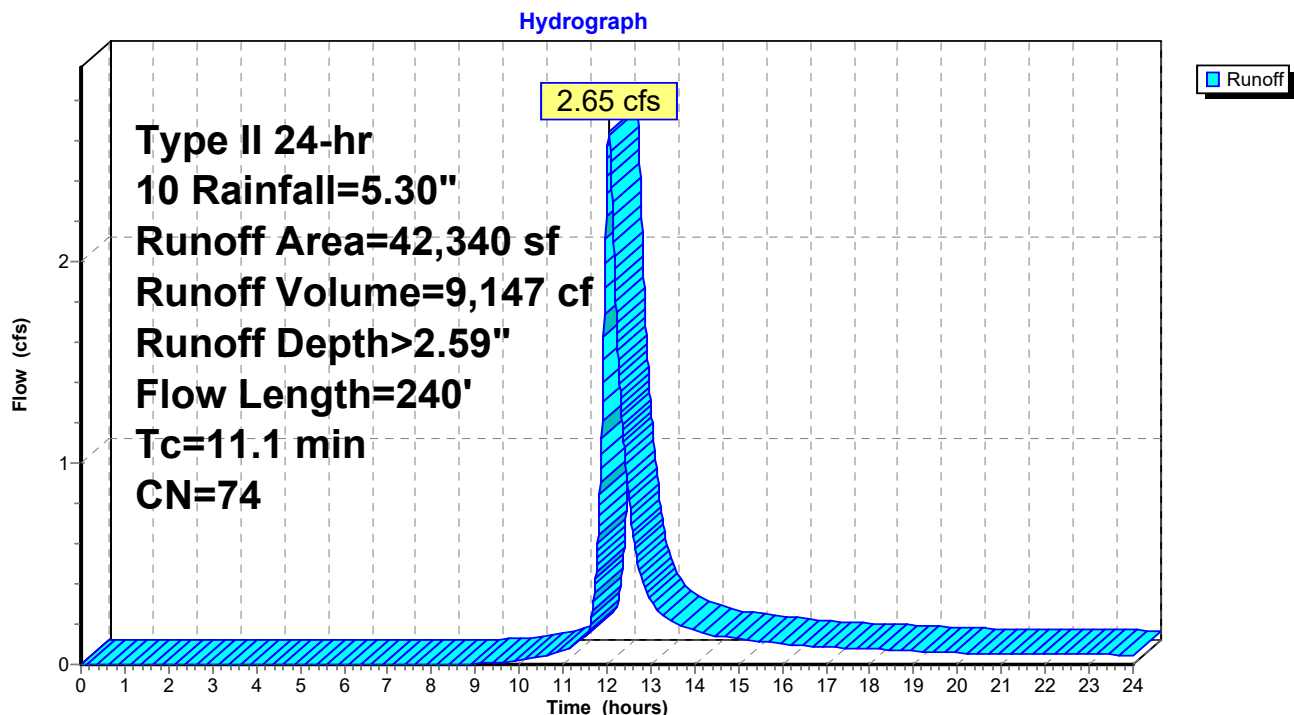
Summary for Subcatchment 6S: EX-1 (PINK)

Runoff = 2.65 cfs @ 12.04 hrs, Volume= 9,147 cf, Depth> 2.59"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type II 24-hr 10 Rainfall=5.30"

Area (sf)	CN	Description
27,537	61	>75% Grass cover, Good, HSG B
14,803	98	Paved parking, HSG C
42,340	74	Weighted Average
27,537		65.04% Pervious Area
14,803		34.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	30	0.0200	1.11		Sheet Flow, a-b Smooth surfaces n= 0.011 P2= 3.40"
9.5	100	0.0200	0.18		Sheet Flow, b-c Grass: Short n= 0.150 P2= 3.40"
1.2	110	0.0100	1.50		Shallow Concentrated Flow, c-d Grassed Waterway Kv= 15.0 fps
11.1	240	Total			

Subcatchment 6S: EX-1 (PINK)

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Type II 24-hr 10 Rainfall=5.30"

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Summary for Subcatchment 7S: P-2 (BLUE)

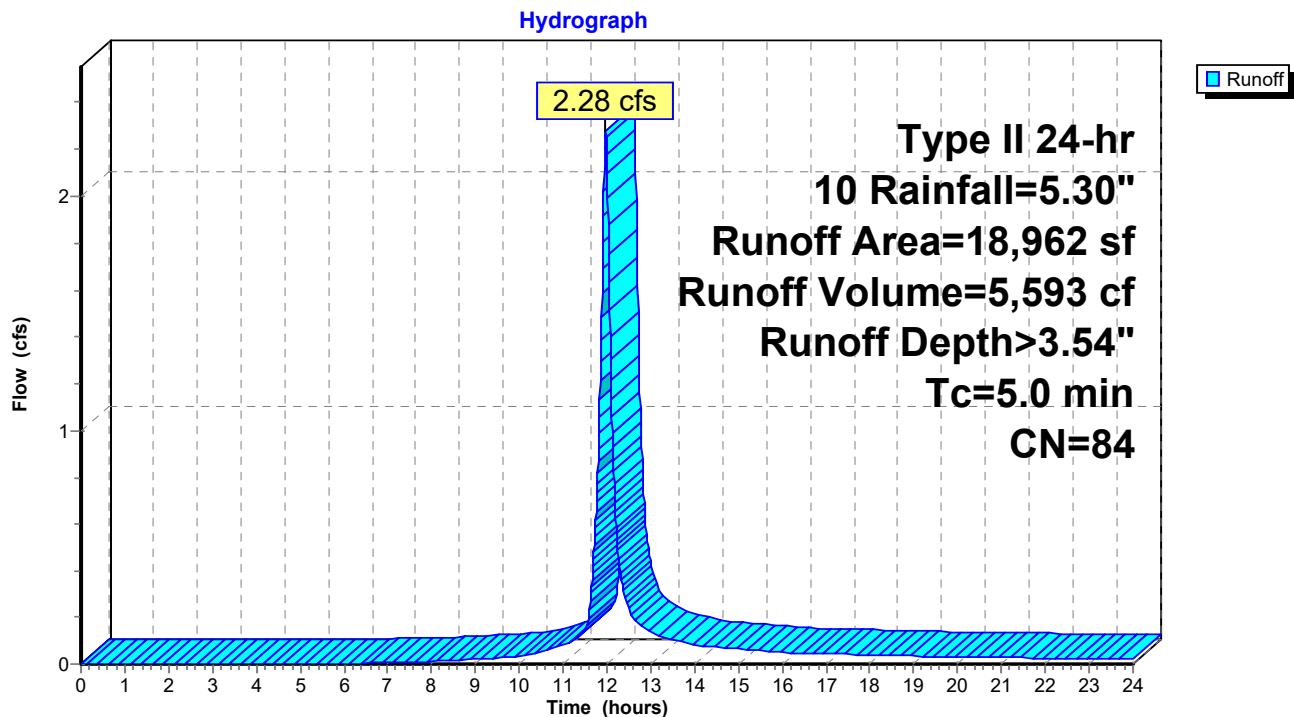
Runoff = 2.28 cfs @ 11.97 hrs, Volume= 5,593 cf, Depth> 3.54"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type II 24-hr 10 Rainfall=5.30"

Area (sf)	CN	Description
11,694	98	Paved parking, HSG C
7,268	61	>75% Grass cover, Good, HSG B
18,962	84	Weighted Average
7,268		38.33% Pervious Area
11,694		61.67% Impervious Area

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

Subcatchment 7S: P-2 (BLUE)



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Type II 24-hr 10 Rainfall=5.30"

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Summary for Subcatchment 8S: P-3 (yellow)

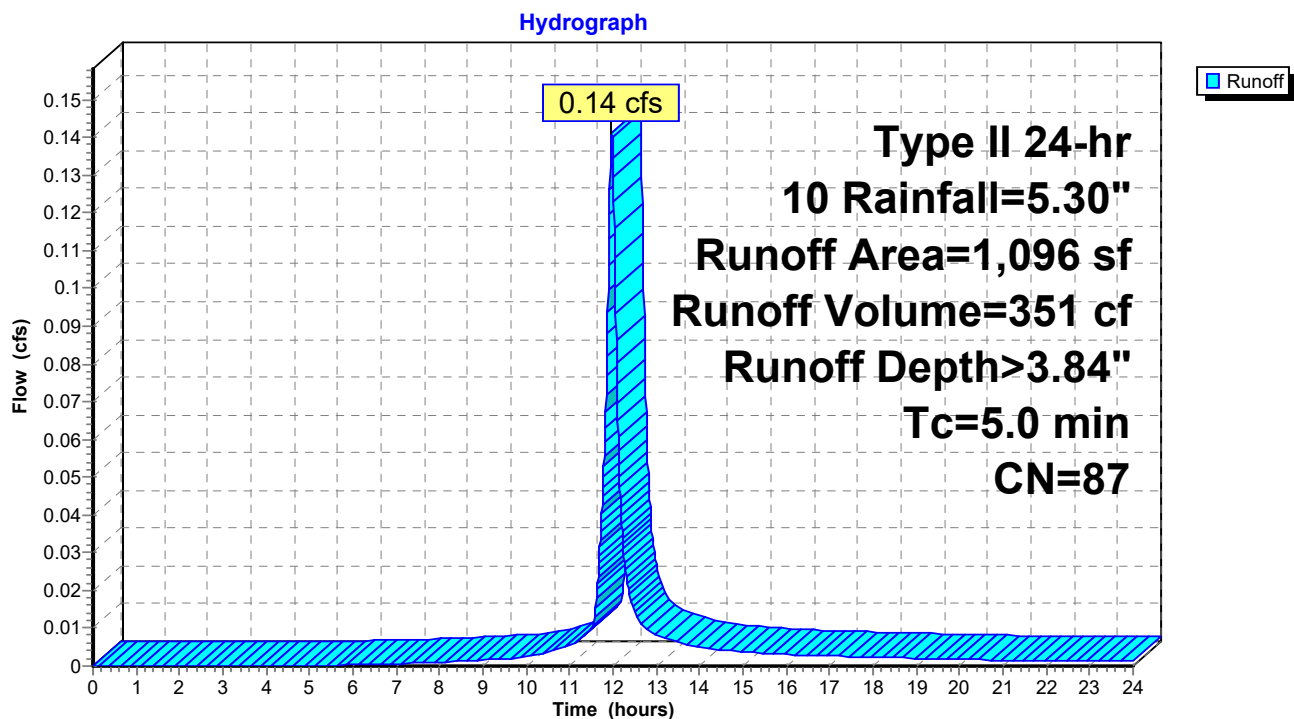
Runoff = 0.14 cfs @ 11.97 hrs, Volume= 351 cf, Depth> 3.84"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type II 24-hr 10 Rainfall=5.30"

Area (sf)	CN	Description
762	98	Paved parking, HSG C
334	61	>75% Grass cover, Good, HSG B
1,096	87	Weighted Average
334		30.47% Pervious Area
762		69.53% Impervious Area

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

Subcatchment 8S: P-3 (yellow)



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Type II 24-hr 10 Rainfall=5.30"

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Summary for Subcatchment 10S: P-1 (orange)

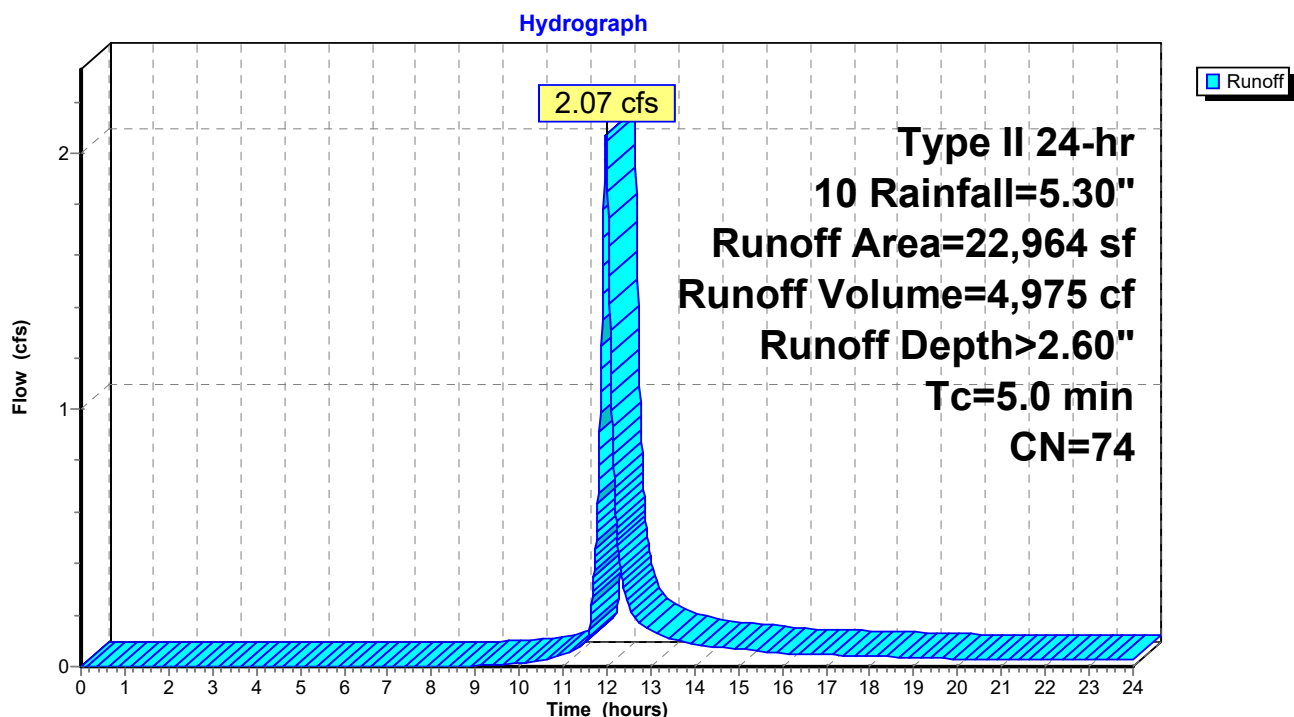
Runoff = 2.07 cfs @ 11.98 hrs, Volume= 4,975 cf, Depth> 2.60"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type II 24-hr 10 Rainfall=5.30"

Area (sf)	CN	Description
9,268	98	Paved parking, HSG C
5,670	55	Woods, Good, HSG B
8,026	61	>75% Grass cover, Good, HSG B
22,964	74	Weighted Average
13,696		59.64% Pervious Area
9,268		40.36% Impervious Area

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

Subcatchment 10S: P-1 (orange)



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Type II 24-hr 10 Rainfall=5.30"

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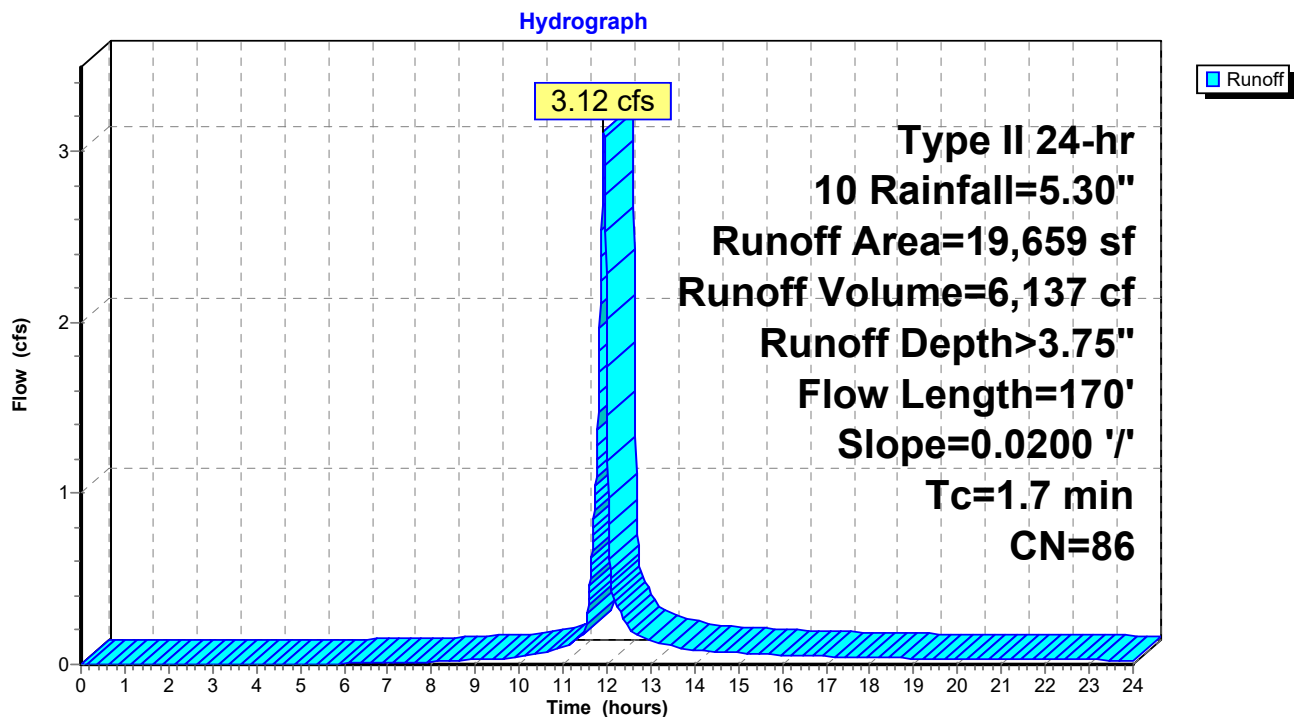
Summary for Subcatchment 12S: EX-2 (GREEN)

Runoff = 3.12 cfs @ 11.93 hrs, Volume= 6,137 cf, Depth> 3.75"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type II 24-hr 10 Rainfall=5.30"

Area (sf)	CN	Description
13,479	98	Paved parking, HSG C
6,180	61	>75% Grass cover, Good, HSG B
19,659	86	Weighted Average
6,180		31.44% Pervious Area
13,479		68.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0200	1.42		Sheet Flow, A-B
					Smooth surfaces n= 0.011 P2= 3.40"
0.5	70	0.0200	2.12		Shallow Concentrated Flow, B-C
					Grassed Waterway Kv= 15.0 fps
1.7	170	Total			

Subcatchment 12S: EX-2 (GREEN)

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Type II 24-hr 10 Rainfall=5.30"

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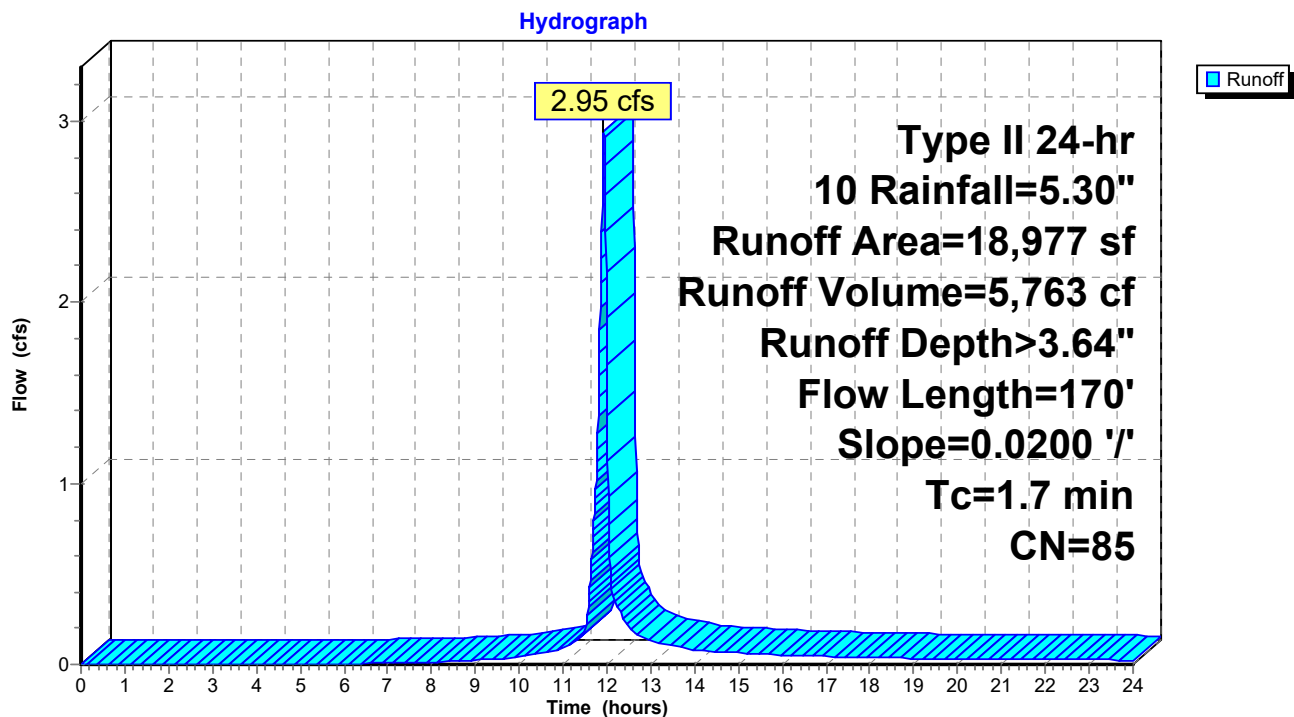
Summary for Subcatchment 14S: P-4 (TAN)

Runoff = 2.95 cfs @ 11.93 hrs, Volume= 5,763 cf, Depth> 3.64"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type II 24-hr 10 Rainfall=5.30"

Area (sf)	CN	Description
12,198	98	Paved parking, HSG C
6,779	61	>75% Grass cover, Good, HSG B
18,977	85	Weighted Average
6,779		35.72% Pervious Area
12,198		64.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0200	1.42		Sheet Flow, a-b Smooth surfaces n= 0.011 P2= 3.40"
0.5	70	0.0200	2.12		Shallow Concentrated Flow, b-c Grassed Waterway Kv= 15.0 fps
1.7	170	Total			

Subcatchment 14S: P-4 (TAN)

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Type II 24-hr 10 Rainfall=5.30"

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Summary for Pond 9P: SGW

Inflow Area = 18,962 sf, 61.67% Impervious, Inflow Depth > 3.54" for 10 event
 Inflow = 2.28 cfs @ 11.97 hrs, Volume= 5,593 cf
 Outflow = 0.67 cfs @ 12.18 hrs, Volume= 3,312 cf, Atten= 71%, Lag= 12.7 min
 Primary = 0.67 cfs @ 12.18 hrs, Volume= 3,312 cf
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 49.05' @ 12.18 hrs Surf.Area= 2,528 sf Storage= 2,861 cf

Plug-Flow detention time= 216.4 min calculated for 3,312 cf (59% of inflow)
 Center-of-Mass det. time= 109.4 min (915.5 - 806.1)

Volume	Invert	Avail.Storage	Storage Description			
#1	45.49'	4,094 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
45.49	1,220	196.0	0.0	0	0	1,220
45.50	1,220	196.0	0.0	0	0	1,222
47.49	1,220	196.0	0.0	0	0	1,612
47.50	1,220	196.0	100.0	12	12	1,614
49.50	2,992	247.0	100.0	4,082	4,094	3,466

Device	Routing	Invert	Outlet Devices
#1	Primary	47.25'	8.0" Round Culvert L= 162.0' RCP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 47.25' / 45.25' S= 0.0123 ' S= 0.0123 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.35 sf
#2	Device 1	48.75'	6.0" W x 3.0" H Vert. Orifice/Grate C= 0.600
#3	Device 1	49.00'	10.7' long Sharp-Crested Rectangular Weir 0 End Contraction(s)
#4	Secondary	49.25'	6.0' long x 2.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.67 cfs @ 12.18 hrs HW=49.05' TW=0.00' (Dynamic Tailwater)

↑ **1=Culvert** (Passes 0.67 cfs of 1.64 cfs potential flow)
 ↑ **2=Orifice/Grate** (Orifice Controls 0.25 cfs @ 1.98 fps)
 ↑ **3=Sharp-Crested Rectangular Weir** (Weir Controls 0.42 cfs @ 0.75 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=45.49' (Free Discharge)

↑ **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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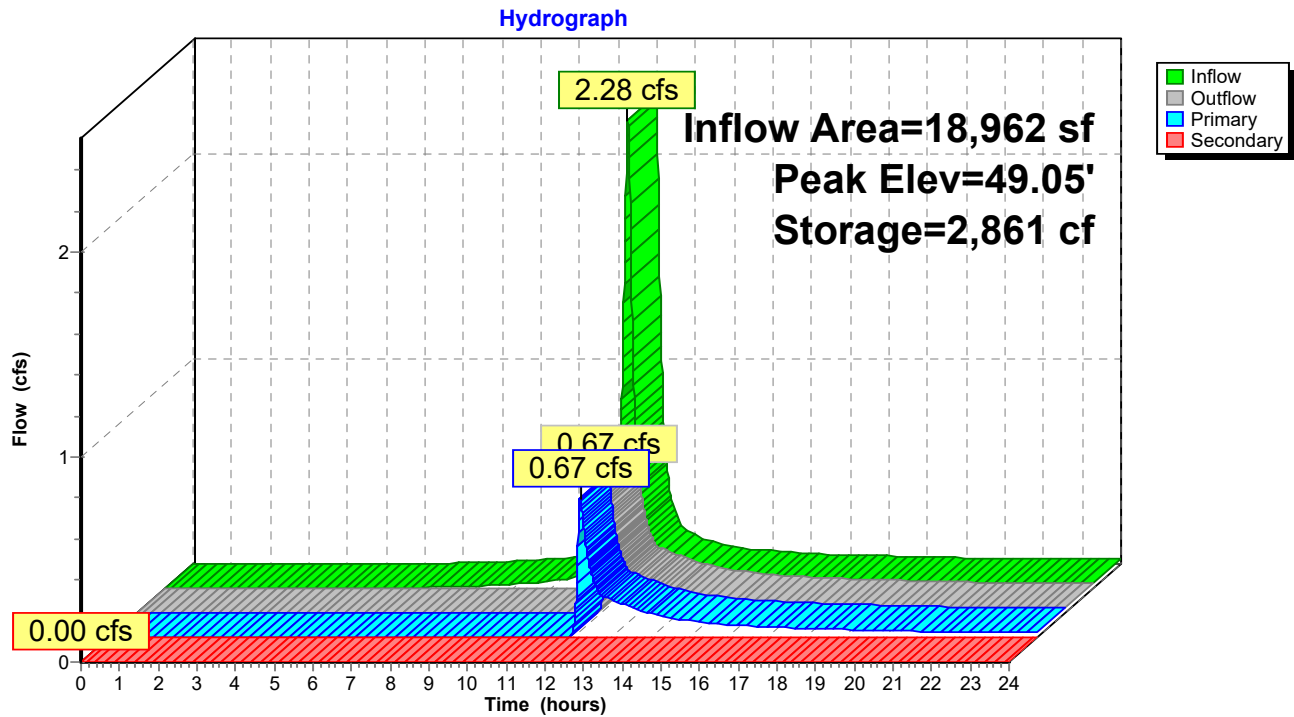
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Pond 9P: SGW



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Type II 24-hr 10 Rainfall=5.30"

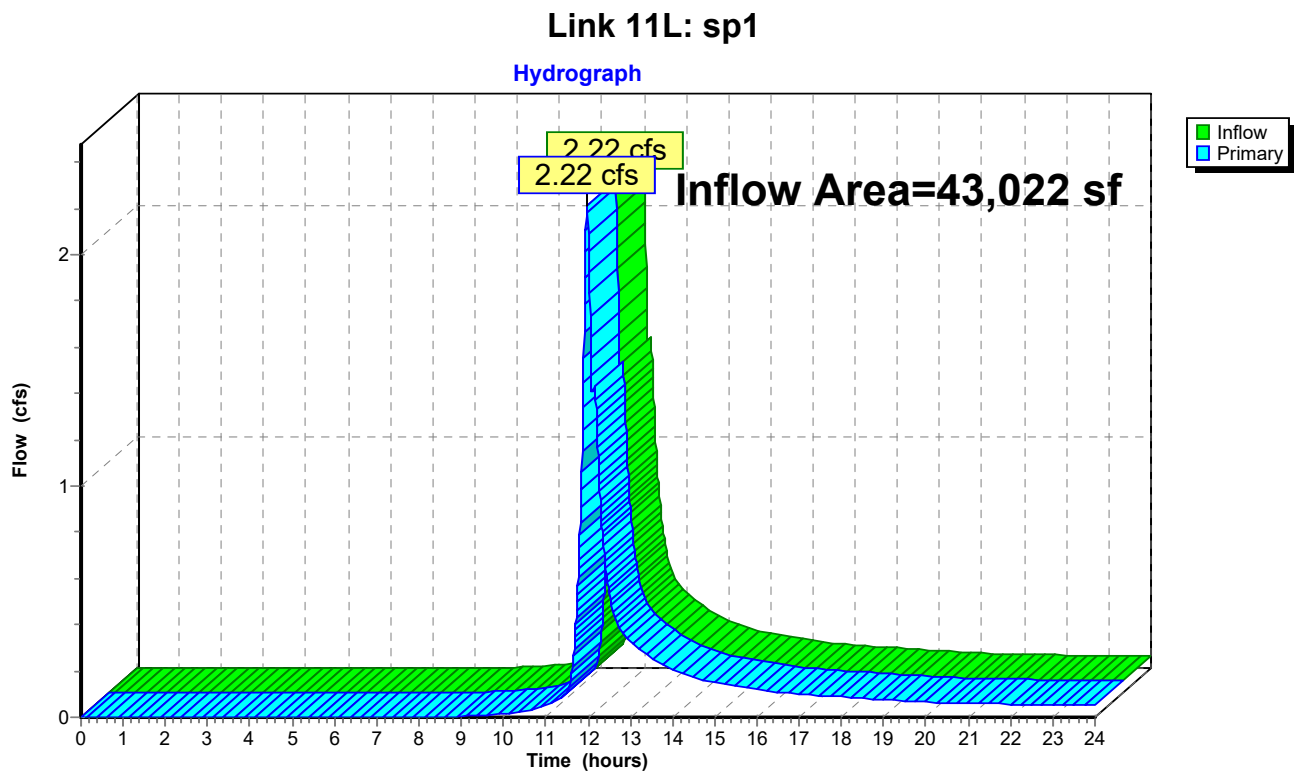
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Summary for Link 11L: sp1

Inflow Area = 43,022 sf, 50.50% Impervious, Inflow Depth > 2.41" for 10 event
Inflow = 2.22 cfs @ 11.98 hrs, Volume= 8,638 cf
Primary = 2.22 cfs @ 11.98 hrs, Volume= 8,638 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs



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Type II 24-hr 100 Rainfall=7.60"

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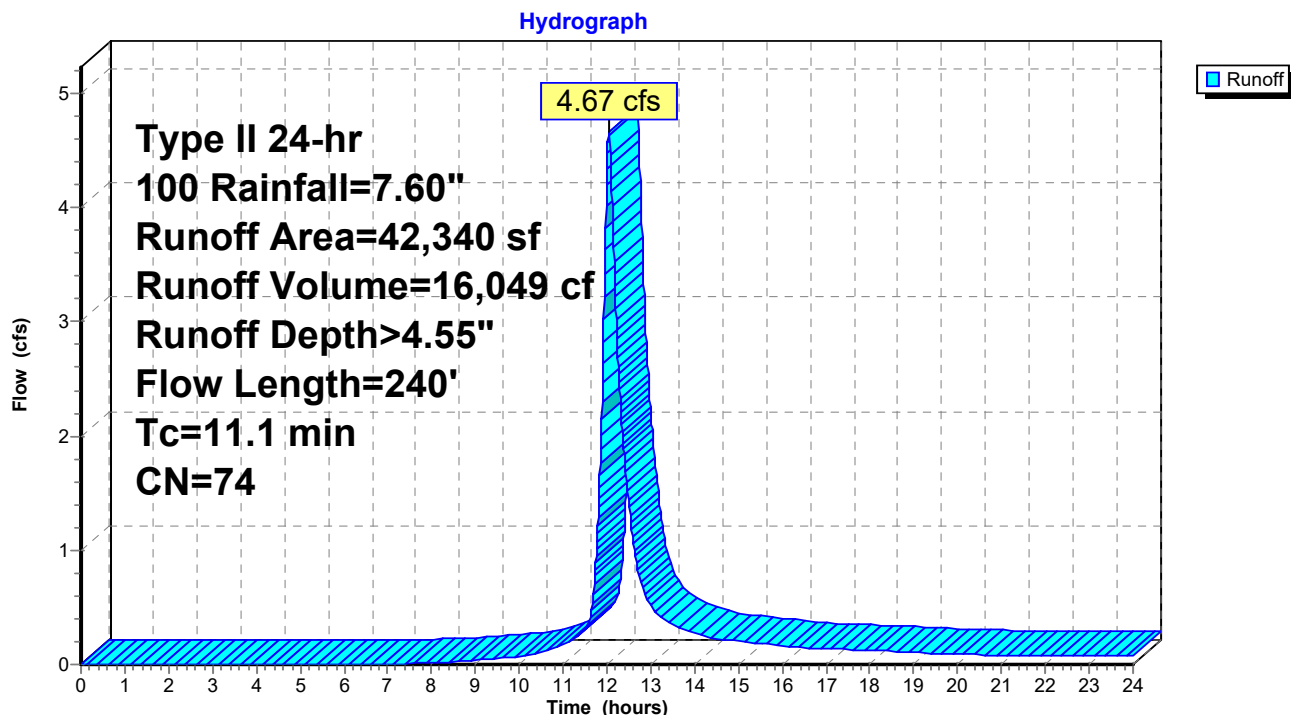
Summary for Subcatchment 6S: EX-1 (PINK)

Runoff = 4.67 cfs @ 12.04 hrs, Volume= 16,049 cf, Depth> 4.55"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type II 24-hr 100 Rainfall=7.60"

Area (sf)	CN	Description
27,537	61	>75% Grass cover, Good, HSG B
14,803	98	Paved parking, HSG C
42,340	74	Weighted Average
27,537		65.04% Pervious Area
14,803		34.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	30	0.0200	1.11		Sheet Flow, a-b Smooth surfaces n= 0.011 P2= 3.40"
9.5	100	0.0200	0.18		Sheet Flow, b-c Grass: Short n= 0.150 P2= 3.40"
1.2	110	0.0100	1.50		Shallow Concentrated Flow, c-d Grassed Waterway Kv= 15.0 fps
11.1	240	Total			

Subcatchment 6S: EX-1 (PINK)

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Summary for Subcatchment 7S: P-2 (BLUE)

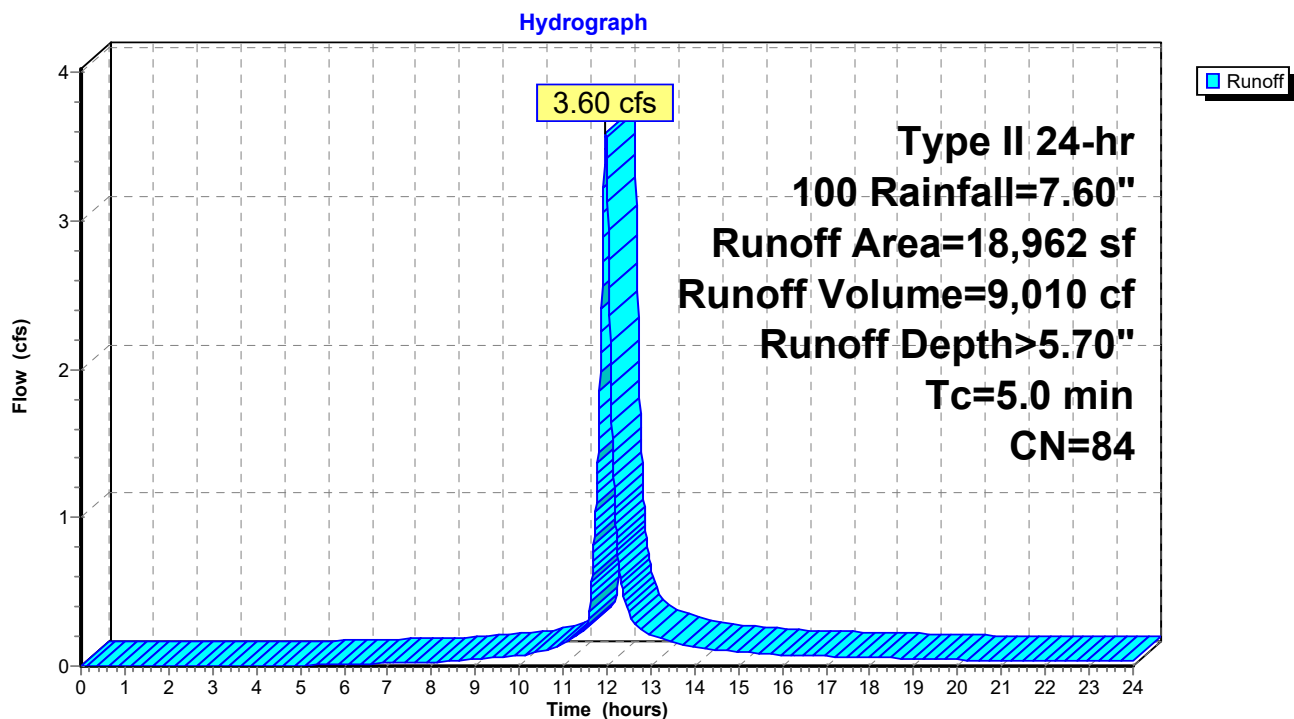
Runoff = 3.60 cfs @ 11.97 hrs, Volume= 9,010 cf, Depth> 5.70"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type II 24-hr 100 Rainfall=7.60"

Area (sf)	CN	Description
11,694	98	Paved parking, HSG C
7,268	61	>75% Grass cover, Good, HSG B
18,962	84	Weighted Average
7,268		38.33% Pervious Area
11,694		61.67% Impervious Area

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

Subcatchment 7S: P-2 (BLUE)



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Type II 24-hr 100 Rainfall=7.60"

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Summary for Subcatchment 8S: P-3 (yellow)

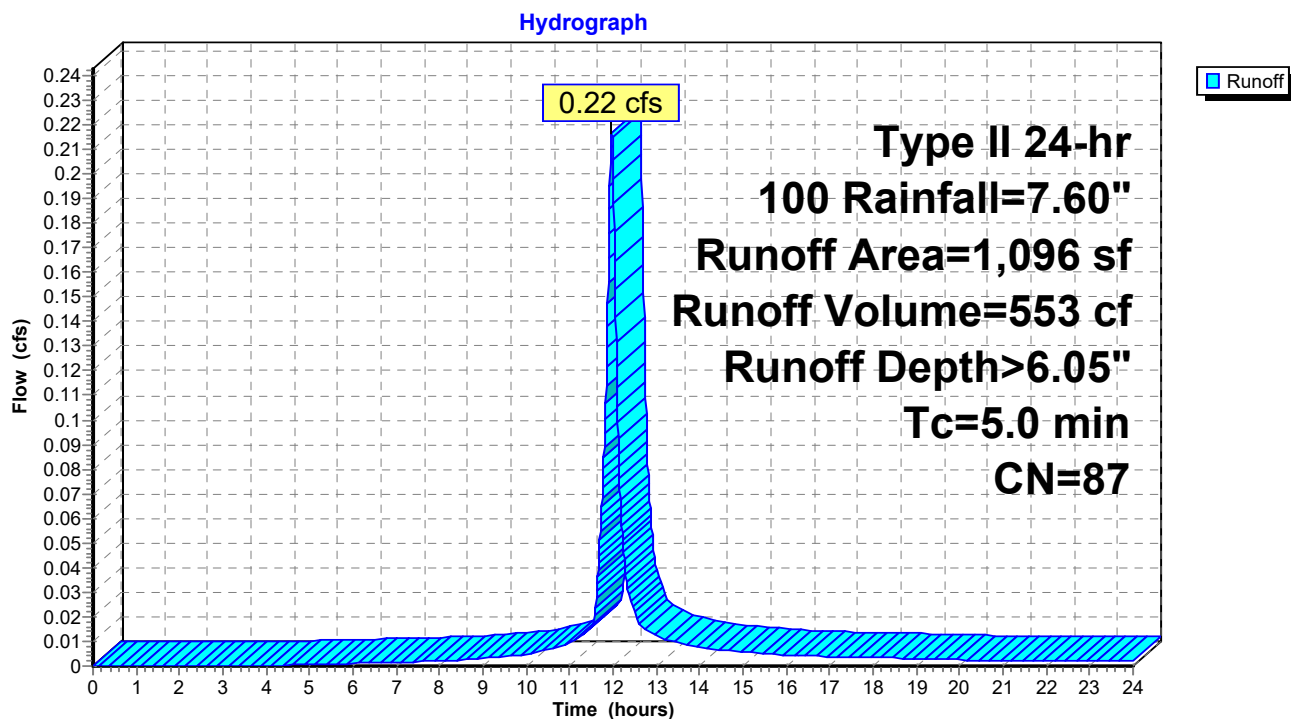
Runoff = 0.22 cfs @ 11.97 hrs, Volume= 553 cf, Depth> 6.05"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type II 24-hr 100 Rainfall=7.60"

Area (sf)	CN	Description
762	98	Paved parking, HSG C
334	61	>75% Grass cover, Good, HSG B
1,096	87	Weighted Average
334		30.47% Pervious Area
762		69.53% Impervious Area

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

Subcatchment 8S: P-3 (yellow)



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Summary for Subcatchment 10S: P-1 (orange)

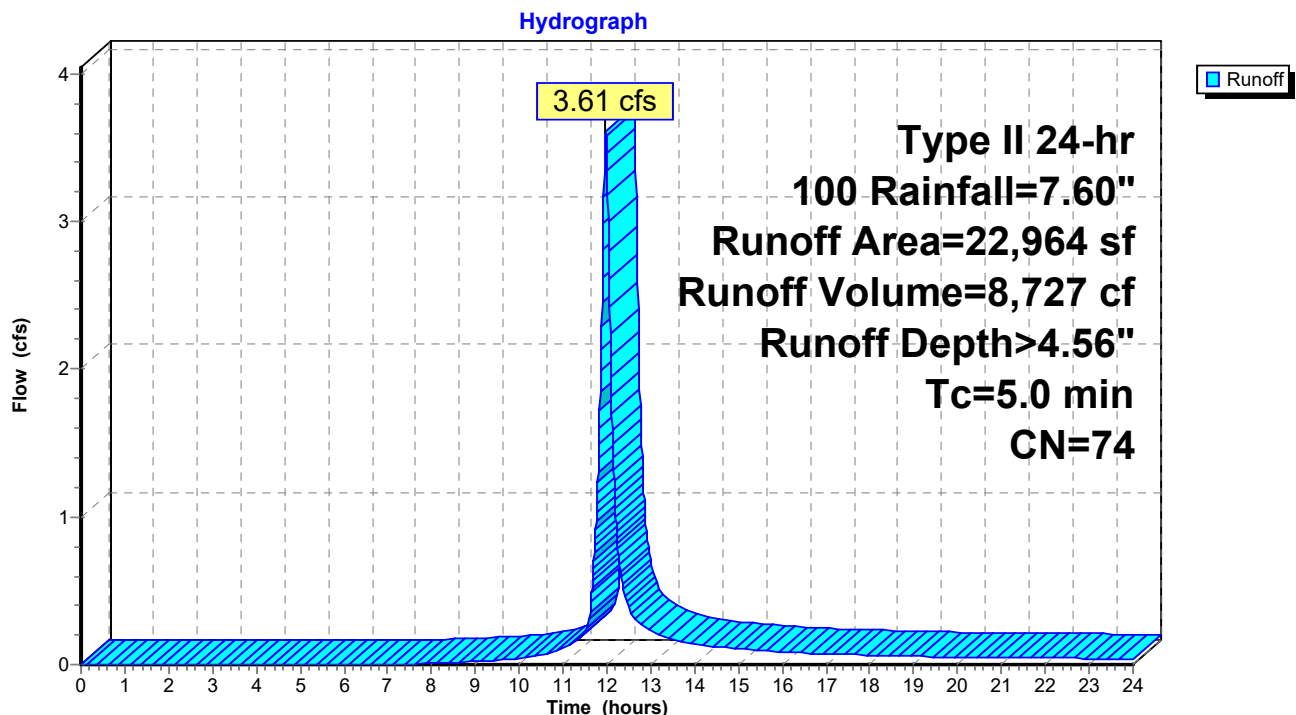
Runoff = 3.61 cfs @ 11.97 hrs, Volume= 8,727 cf, Depth> 4.56"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type II 24-hr 100 Rainfall=7.60"

Area (sf)	CN	Description
9,268	98	Paved parking, HSG C
5,670	55	Woods, Good, HSG B
8,026	61	>75% Grass cover, Good, HSG B
22,964	74	Weighted Average
13,696		59.64% Pervious Area
9,268		40.36% Impervious Area

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

Subcatchment 10S: P-1 (orange)



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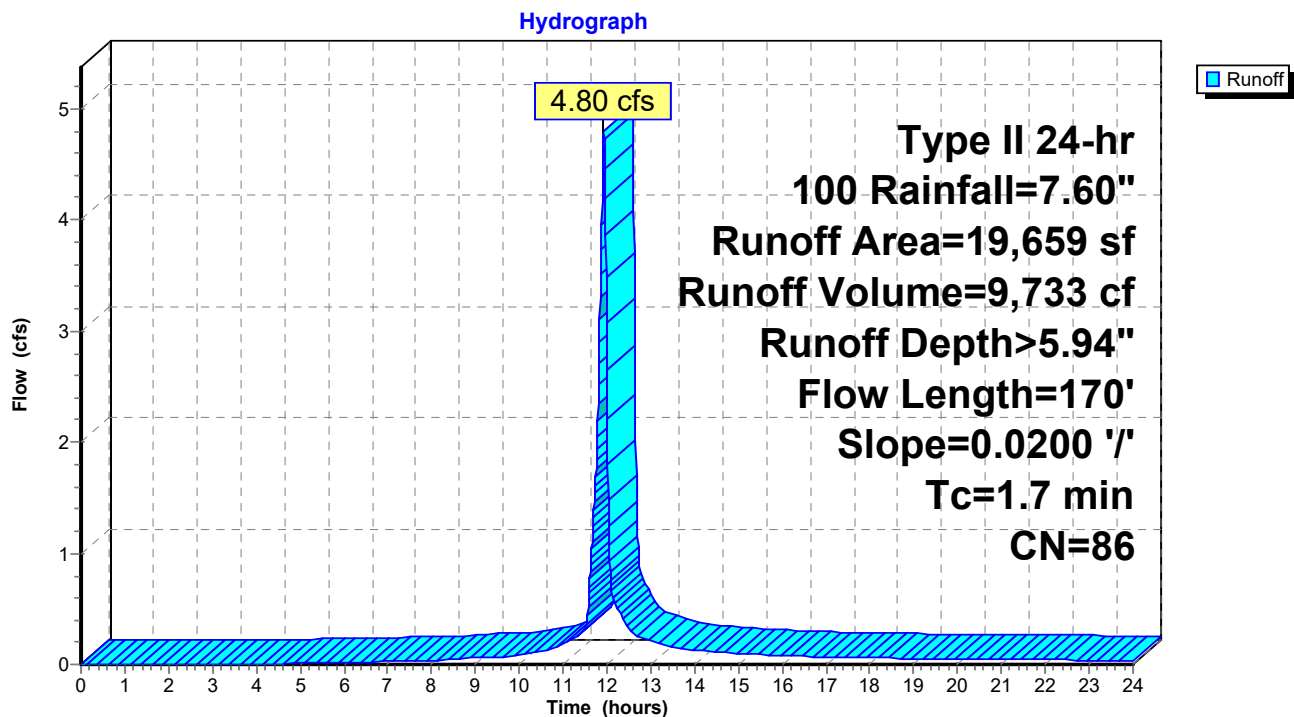
Summary for Subcatchment 12S: EX-2 (GREEN)

Runoff = 4.80 cfs @ 11.93 hrs, Volume= 9,733 cf, Depth> 5.94"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type II 24-hr 100 Rainfall=7.60"

Area (sf)	CN	Description
13,479	98	Paved parking, HSG C
6,180	61	>75% Grass cover, Good, HSG B
19,659	86	Weighted Average
6,180		31.44% Pervious Area
13,479		68.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0200	1.42		Sheet Flow, A-B
					Smooth surfaces n= 0.011 P2= 3.40"
0.5	70	0.0200	2.12		Shallow Concentrated Flow, B-C
					Grassed Waterway Kv= 15.0 fps
1.7	170	Total			

Subcatchment 12S: EX-2 (GREEN)

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Type II 24-hr 100 Rainfall=7.60"

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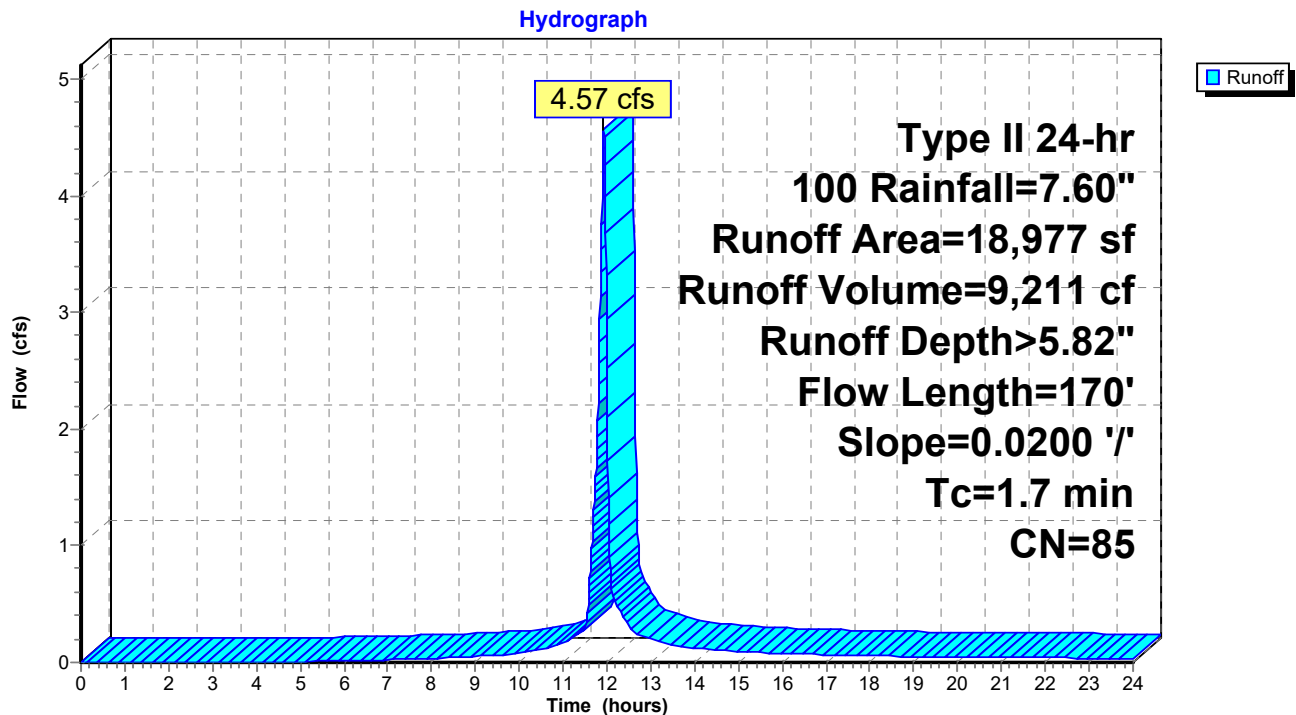
Summary for Subcatchment 14S: P-4 (TAN)

Runoff = 4.57 cfs @ 11.93 hrs, Volume= 9,211 cf, Depth> 5.82"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type II 24-hr 100 Rainfall=7.60"

Area (sf)	CN	Description
12,198	98	Paved parking, HSG C
6,779	61	>75% Grass cover, Good, HSG B
18,977	85	Weighted Average
6,779		35.72% Pervious Area
12,198		64.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0200	1.42		Sheet Flow, a-b Smooth surfaces n= 0.011 P2= 3.40"
0.5	70	0.0200	2.12		Shallow Concentrated Flow, b-c Grassed Waterway Kv= 15.0 fps
1.7	170	Total			

Subcatchment 14S: P-4 (TAN)

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Type II 24-hr 100 Rainfall=7.60"

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Summary for Pond 9P: SGW

Inflow Area = 18,962 sf, 61.67% Impervious, Inflow Depth > 5.70" for 100 event
 Inflow = 3.60 cfs @ 11.97 hrs, Volume= 9,010 cf
 Outflow = 2.11 cfs @ 12.08 hrs, Volume= 6,686 cf, Atten= 41%, Lag= 6.2 min
 Primary = 1.71 cfs @ 12.08 hrs, Volume= 6,519 cf
 Secondary = 0.40 cfs @ 12.08 hrs, Volume= 167 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 49.34' @ 12.08 hrs Surf.Area= 2,819 sf Storage= 3,622 cf

Plug-Flow detention time= 158.9 min calculated for 6,684 cf (74% of inflow)
 Center-of-Mass det. time= 69.3 min (862.0 - 792.7)

Volume	Invert	Avail.Storage	Storage Description			
#1	45.49'	4,094 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
45.49	1,220	196.0	0.0	0	0	1,220
45.50	1,220	196.0	0.0	0	0	1,222
47.49	1,220	196.0	0.0	0	0	1,612
47.50	1,220	196.0	100.0	12	12	1,614
49.50	2,992	247.0	100.0	4,082	4,094	3,466

Device	Routing	Invert	Outlet Devices
#1	Primary	47.25'	8.0" Round Culvert L= 162.0' RCP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 47.25' / 45.25' S= 0.0123 ' S= 0.0123 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.35 sf
#2	Device 1	48.75'	6.0" W x 3.0" H Vert. Orifice/Grate C= 0.600
#3	Device 1	49.00'	10.7' long Sharp-Crested Rectangular Weir 0 End Contraction(s)
#4	Secondary	49.25'	6.0' long x 2.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=1.71 cfs @ 12.08 hrs HW=49.34' TW=0.00' (Dynamic Tailwater)

- 1=Culvert (Barrel Controls 1.71 cfs @ 4.91 fps)
- 2=Orifice/Grate (Passes < 0.41 cfs potential flow)
- 3=Sharp-Crested Rectangular Weir (Passes < 6.86 cfs potential flow)

Secondary OutFlow Max=0.39 cfs @ 12.08 hrs HW=49.34' (Free Discharge)

- 4=Broad-Crested Rectangular Weir (Weir Controls 0.39 cfs @ 0.75 fps)

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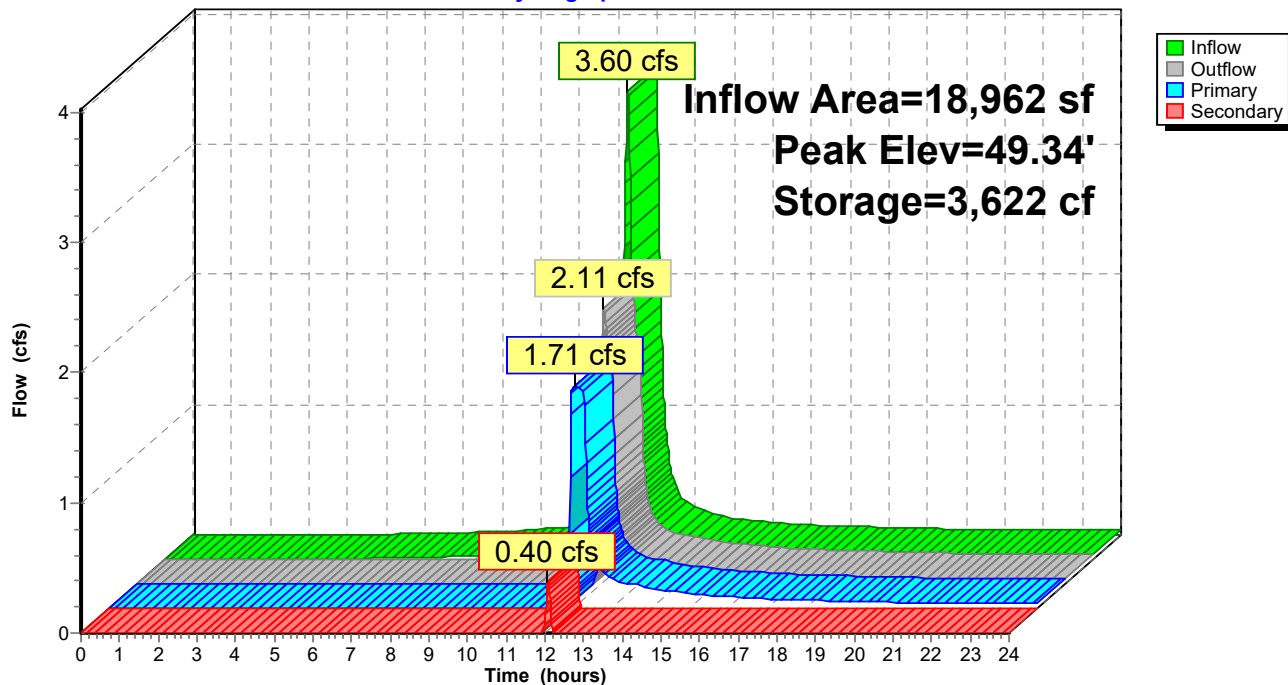
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Pond 9P: SGW

Hydrograph



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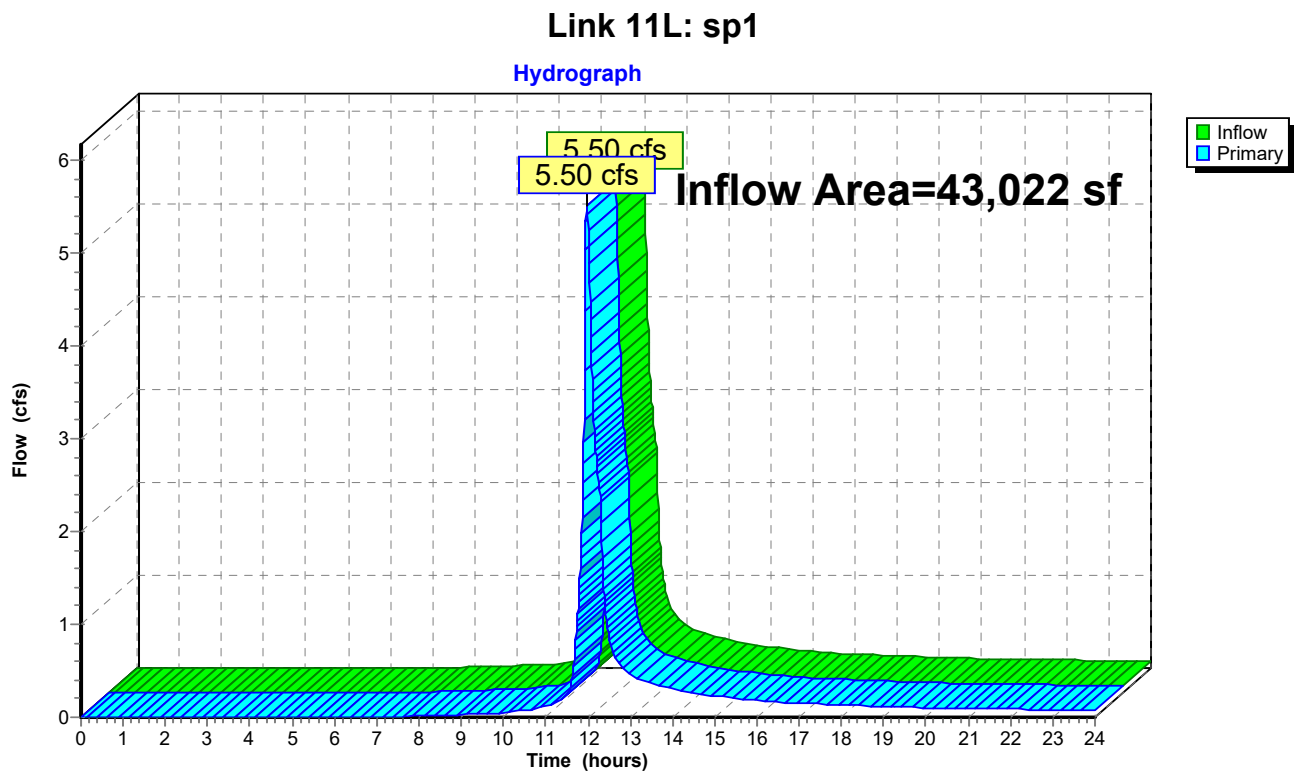
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Summary for Link 11L: sp1

Inflow Area = 43,022 sf, 50.50% Impervious, Inflow Depth > 4.41" for 100 event
Inflow = 5.50 cfs @ 11.98 hrs, Volume= 15,799 cf
Primary = 5.50 cfs @ 11.98 hrs, Volume= 15,799 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs



APPENDIX E

Field Boring at Proposed SGW Locations

Conducted by Matt Rajacich

Lane Engineering, LLC

May 29, 2024

Soil Image

Borehole Depth (ft)



0 to 1

Topsoil

2 to 5

Clean Sands