

# Nelson Engineering Associates, Inc.

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Drainage System Design Report  
Preliminary and Final Site Plan

## Syed Brothers Management, LLC

Tax Block 4104, Tax Lot 15  
Township of Neptune  
Monmouth County, New Jersey

**Date:**

April 27, 2020  
Revised March 18, 2021  
Revised May 13, 2022

**Prepared By:**



**(SEAL)**  
Matthew R. DuBois, PE  
File Number: 190403



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### **Scope of Project:**

The subject property, 3655 Route 33, is currently developed as a Gulf station along the highway frontage with approximately one third of an acre of open lawn in the rear of the site. The lot drains overland in an generally southwesterly direction toward Route 33 and the catch basins at the intersection of Route 33 with West Jumping Brook Road.

The applicant is seeking to expand the existing building to provide 3 additional service bays as well as a second floor office. The improvements will also consist of additional parking in the rear of the building and a subsurface stormwater management system to control the runoff from the new improvements.

The hydrograph generation uses the NRCS<sup>1</sup> method, the Time of Concentration calculations use TR-55<sup>2</sup>. The calculations use the latest NRCS precipitation values from the Long Branch / Oakhurst weather station which exceed the standard precipitation values for Monmouth County at [njstormwater.org/rainfalldata.htm](http://njstormwater.org/rainfalldata.htm)

### **Applicability of Stormwater Regulations:**

“Major Development” is defined in the ordinance as “any "development" that provides for ultimately disturbing one (1) or more acres of land or increasing impervious surface by one-quarter (1/4) acre or more. Disturbance for the purpose of this rule is the placement of impervious surface or exposure and/or movement of soil or bedrock or clearing, cutting, or removing of vegetation.”

The project proposes to disturb 0.45 acres including a storm sewer connection and sidewalk construction in the West Jumping Brook Road right-of-way. The impervious area is increased by 7,137 square feet (0.16 acres). Therefore the project is not a “Major Development” and is not subject to the requirements of the Stormwater Management ordinance at Section 528. Therefore, the project has been designed to comply with the requirements of the Standards for Soil Erosion and Sediment Control in New Jersey.

### **Stormwater Runoff Summary:**

The project captures runoff from the roof of the addition and the new parking area through the use of roof drains, grading, and storm inlets. Runoff is then directed to an underground detention basin consisting of four lengths of 36” diameter pipe, each 120 feet long. The stormwater is then held and slowly released to the storm drain at the intersection of West Jumping Brook Road and Route 33 where the site previously discharged.

The front of the property remains largely unchanged with 0.429 acres of impervious continuing to enter the inlet via overland flow. The undisturbed impervious surfaces in the southern areas of the site are not included in this evaluation.

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<sup>1</sup> United States National Resources Conservation Service, formerly the United States Soil Conservation Service

<sup>2</sup> *Urban Hydrology for Small Watersheds* by the United States Department of Agriculture

**Existing Conditions within the Area of Development:**

	Impervious	Open Space	Total Existing
2 Year Peak Rate	0.355 cfs	0.001 cfs	0.355 cfs
10 Year Peak Rate	0.552 cfs	0.028 cfs	0.552 cfs
100 Year Peak Rate	0.949 cfs	0.519 cfs	1.466 cfs

**Basin Operations:**

	Impervious	Open Space	Total to Basin	Basin Discharge
2 Year Peak Rate	0.814 cfs	0 cfs	0.814 cfs	0.155 cfs
10 Year Peak Rate	1.269 cfs	0.010 cfs	1.269 cfs	0.190 cfs
100 Year Peak Rate	2.179 cfs	0.192 cfs	2.371 cfs	0.259 cfs

**Proposed Conditions within the Area of Development:**

	Basin Discharge	Uncontrolled Impervious	Uncontrolled Open Space	Total Developed
2 Year Peak Rate	0.155 cfs	0.026 cfs	0 cfs	0.161 cfs
10 Year Peak Rate	0.190 cfs	0.041 cfs	0.005 cfs	0.204 cfs
100 Year Peak Rate	0.259 cfs	0.070 cfs	0.101 cfs	0.379 cfs

**Compliance with the Standard for Off-Site Stability:**

This section analyzes the two main areas of concern; the point of discharge for each system, and the downstream impacts from the proposed stormwater management systems.

**Point of Discharge Stability:**

Where there is a well defined waterway below the point of discharge, Point of Discharge Stability can be demonstrated by retaining pre-developed runoff characteristics. The proposed stormwater management system discharges to an existing storm sewer system with new peak discharge rates below currently existing rates.

**Downstream of the Point of Discharge:**

In lieu of performing a comprehensive watershed analysis, a detention facility can be designed to reduce peak flows to 50% and 75% respectively of the pre-development peak rate.

**Downstream Stability Peak Rates:**

	Total Existing	Total Developed	Post-development Peak Reduction
2 Year Peak Rate	0.355 cfs	0.161 cfs	45.4 %
10 Year Peak Rate	0.552 cfs	0.204 cfs	36.9 %
100 Year Peak Rate	1.466 cfs	0.379 cfs	25.9 %

For both the 2 and 10 year return period storm events, the peak rate of runoff is reduced to levels at least 50% and 75% of existing.

**Conclusion:**

The project meets the requirements of the Standards for Soil Erosion and Sediment Control in New Jersey by capturing the runoff from the proposed addition and new parking area and releasing it at rates less than 50% and 75% of the pre-development peak rates for the 2 and 10 year storm events.

## **WORKSHEETS**

<b>WORKSHEET #2 : RUN-OFF CURVE NUMBER AND RUN-OFF</b>						
PROJECT:	190403 Syed Brothers Management, LLC	BY:	DHB	DATE:	05/13/2022	
LOCATION:	Neptune Township	CHK:		DATE:		
CIRCLE ONE:	<input checked="" type="checkbox"/> PRESENT DEVELOPED	Area to be Undisturbed				
<b>1. RUN-OFF CURVE NUMBER (CN)</b>						
SOIL NAME AND HYDROLOGIC SOIL	COVER DESCRIPTION (type, treatment, hydrologic group condition, percent impervious, (appendix A) unconnected/connected impervious area)	CN	AREA	PRODUCT OF CN x AREA		
			ACRES			
		Table 2-2	Fig. 2-3	Fig. 2-4	MI**2	
					%	
EvuB / KkhB	Impervious areas	98		0.429	42.04	
HSG A					0.00	
					0.00	
					0.00	
					0.00	
					0.00	
					0.00	
					0.00	
					TOTALS =	0.429
						42.04
CN (weighted) =	total product =	42.042	=	98.00	USE CN =	98
	total area	0.429				
<b>2. RUN-OFF</b>						
FREQUENCY.....(yr.)		STORM #1	STORM #2	STORM #3		
RAINFALL, P (24 HOUR).....(in.)						
RUN-OFF, Q.....(in.)						
(Use P and CN with table 2-1, fig. 2-1, or eqs. 2-3 and 2-4.)						

WORKSHEET #2 : RUN-OFF CURVE NUMBER AND RUN-OFF					
PROJECT:	190403 Syed Brothers Management, LLC	BY:	DHB	DATE:	05/13/2022
LOCATION:	Nentune Township	CHK:		DATE:	
CIRCLE ONE:	<input checked="" type="checkbox"/> PRESENT DEVELOPED	Existing Site ~ Area to Be Disturbed			
<b>1. RUN-OFF CURVE NUMBER (CN)</b>					
SOIL NAME AND HYDROLOGIC SOIL GROUP (APPENDIX A)	COVER DESCRIPTION (type, treatment, hydrologic condition, percent impervious, unconnected/connected impervious area)	CN	AREA	PRODUCT OF CN x AREA	
EvuB / KkhB	Impervious areas	98	ACRES		
HSG A	Open Space	39	MI**2		
			%		
				0.108	10.58
				0.340	13.26
				0.00	0.00
				0.00	0.00
				0.00	0.00
				0.00	0.00
				TOTALS =	0.448
					23.84
CN (weighted) =	total product = total area	23.844 0.448	=	53.22	USE CN =
<b>2. RUN-OFF</b>		STORM #1	STORM #2	STORM #3	
FREQUENCY.....(yr.)					
RAINFALL, P (24 HOUR).....(in.)					
RUN-OFF, Q.....(in.)					

<b>WORKSHEET #2 : RUN-OFF CURVE NUMBER AND RUN-OFF</b>						
PROJECT:	190403 Syed Brothers Management, LLC	BY:	DHB	DATE:	05/13/2022	
LOCATION:	Neptune Township	CHK:		DATE:		
CIRCLE ONE:	PRESENT <u>DEVELOPED</u>	Flow to Detention Basin				
<b>1. RUN-OFF CURVE NUMBER (CN)</b>						
SOIL NAME AND HYDROLOGIC SOIL GROUP (APPENDIX A)	COVER DESCRIPTION (type, treatment, hydrologic condition, percent impervious, unconnected/connected impervious area)	CN	AREA ACRES	PRODUCT OF CN x AREA MI**2 %		
EvuB / KkhB	Impervious areas	98	0.248	24.30		
HSG A	Open Space	39	0.126	4.91		
				0.00		
				0.00		
				0.00		
				0.00		
				0.00		
				TOTALS = 0.374	29.22	
CN (weighted) =	total product = 29.218	= 78.12	USE CN =	78		
total area	0.374					
<b>2. RUN-OFF</b>						
FREQUENCY.....(yr.)		STORM #1	STORM #2	STORM #3		
RAINFALL, P (24 HOUR).....(in.)						
RUN-OFF, Q.....(in.)						
(Use P and CN with table 2-1, fig. 2-1, or eqs. 2-3 and 2-4.)						

# TR55 Tc Worksheet

Hydraflow Hydrographs by InteliSolve v9.24

## Hyd. No. 3

Existing Open Space

<u>Description</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>Totals</u>
<b>Sheet Flow</b>				
Manning's n-value	= 0.150	0.011	0.011	
Flow length (ft)	= 85.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 3.40	0.00	0.00	
Land slope (%)	= 3.80	0.00	0.00	
<b>Travel Time (min)</b>	<b>= 6.46</b>	<b>+ 0.00</b>	<b>+ 0.00</b>	<b>= 6.46</b>
<b>Shallow Concentrated Flow</b>				
Flow length (ft)	= 0.00	0.00	0.00	
Watercourse slope (%)	= 0.00	0.00	0.00	
Surface description	= Unpaved	Paved	Paved	
Average velocity (ft/s)	= 0.00	0.00	0.00	
<b>Travel Time (min)</b>	<b>= 0.00</b>	<b>+ 0.00</b>	<b>+ 0.00</b>	<b>= 0.00</b>
<b>Channel Flow</b>				
X sectional flow area (sqft)	= 0.00	0.00	0.00	
Wetted perimeter (ft)	= 0.00	0.00	0.00	
Channel slope (%)	= 0.00	0.00	0.00	
Manning's n-value	= 0.015	0.015	0.015	
Velocity (ft/s)	= 0.00	0.00	0.00	
Flow length (ft)	= 0.0	0.0	0.0	
<b>Travel Time (min)</b>	<b>= 0.00</b>	<b>+ 0.00</b>	<b>+ 0.00</b>	<b>= 0.00</b>
<b>Total Travel Time, Tc .....</b>				<b>6.50 min</b>



## HYDROGRAPHS

# Hydrograph Return Period Recap

Hydraflow Hydrographs by InteliSolve v9.24

Hyd. No.	Hydrograph type (origin)	Inflow Hyd(s)	Peak Outflow (cfs)								Hydrograph description
			1-Yr	2-Yr	3-Yr	5-Yr	10-Yr	25-Yr	50-Yr	100-Yr	
1	SCS Runoff	----	-----	1.408	-----	-----	2.195	-----	-----	3.770	Undisturbed Area
2	SCS Runoff	----	-----	0.355	-----	-----	0.552	-----	-----	0.949	Existing Impervious
3	SCS Runoff	----	-----	0.001	-----	-----	0.028	-----	-----	0.519	Existing Open Space
4	Combine	2, 3	-----	0.355	-----	-----	0.552	-----	-----	1.466	Total Existing Runoff
5	SCS Runoff	----	-----	0.814	-----	-----	1.269	-----	-----	2.179	Controlled Impervious
6	SCS Runoff	----	-----	0.000	-----	-----	0.010	-----	-----	0.192	Controlled Open Space
7	Combine	5, 6	-----	0.814	-----	-----	1.269	-----	-----	2.371	Total to Basin
8	Reservoir	7	-----	0.155	-----	-----	0.190	-----	-----	0.259	Routed Basin
9	SCS Runoff	----	-----	0.026	-----	-----	0.041	-----	-----	0.070	Uncontrolled Impervious
10	SCS Runoff	----	-----	0.000	-----	-----	0.005	-----	-----	0.101	Uncontrolled Open Space
11	Combine	8, 9, 10	-----	0.161	-----	-----	0.204	-----	-----	0.379	Total Developed Runoff

# Hydrograph Summary Report

Hydraflow Hydrographs by Intelsolve v9.24

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description
1	SCS Runoff	1.408	2	724	4,769	----	----	----	Undisturbed Area
2	SCS Runoff	0.355	2	724	1,201	----	----	----	Existing Impervious
3	SCS Runoff	0.001	2	1324	10	----	----	----	Existing Open Space
4	Combine	0.355	2	724	1,211	2, 3	----	----	Total Existing Runoff
5	SCS Runoff	0.814	2	724	2,757	----	----	----	Controlled Impervious
6	SCS Runoff	0.000	2	1324	4	----	----	----	Controlled Open Space
7	Combine	0.814	2	724	2,761	5, 6	----	----	Total to Basin
8	Reservoir	0.155	2	748	2,760	7	91.19	822	Routed Basin
9	SCS Runoff	0.026	2	724	89	----	----	----	Uncontrolled Impervious
10	SCS Runoff	0.000	2	1324	2	----	----	----	Uncontrolled Open Space
11	Combine	0.161	2	726	2,861	8, 9, 10	----	----	Total Developed Runoff

190403 Drainage 05-13-2022 (new rainfall) Return Period: 2 Year

Friday, May 13, 2022

# Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.24

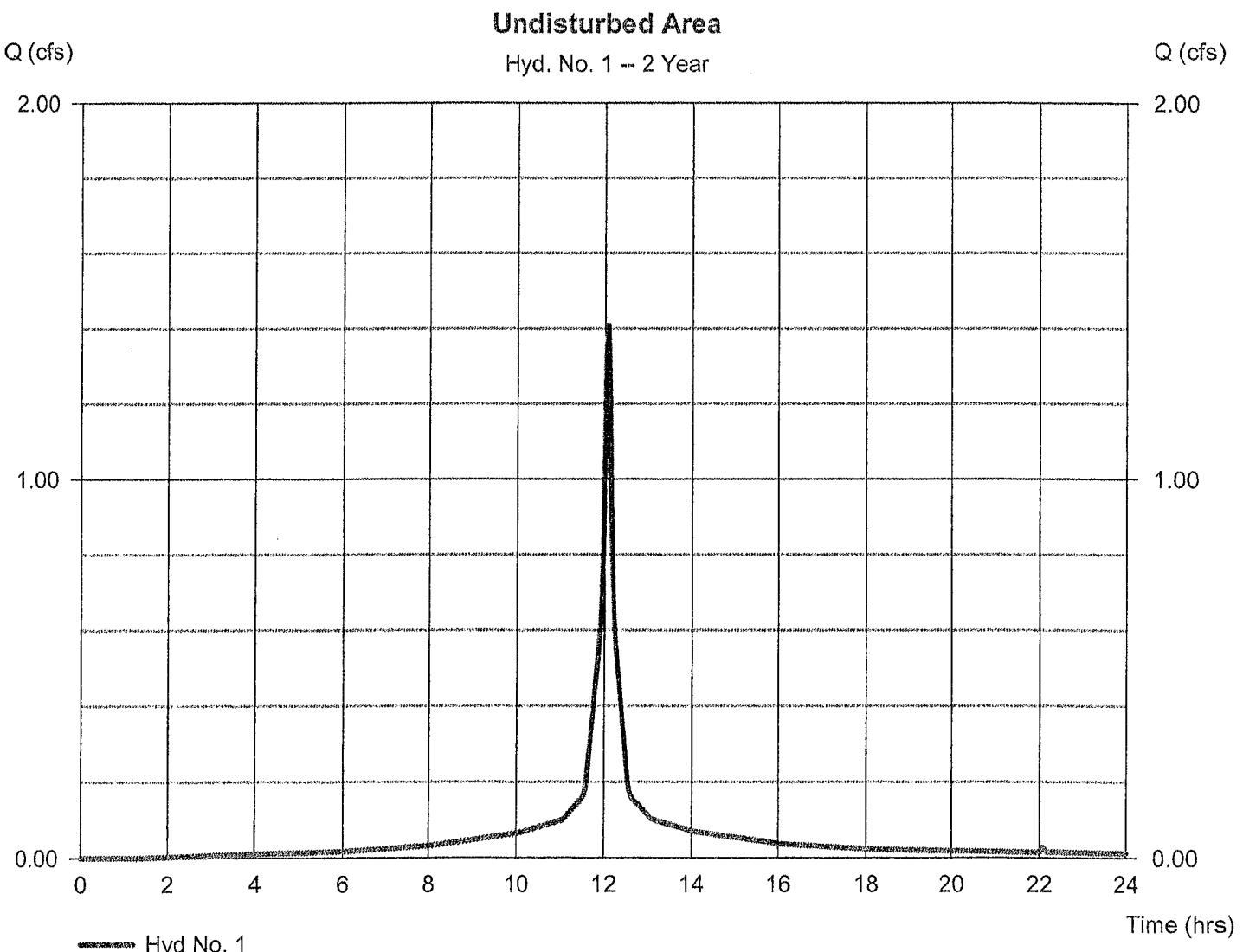
Friday, May 13, 2022

## Hyd. No. 1

### Undisturbed Area

Hydrograph type = SCS Runoff  
Storm frequency = 2 yrs  
Time interval = 2 min  
Drainage area = 0.429 ac  
Basin Slope = 0.0 %  
Tc method = USER  
Total precip. = 3.50 in  
Storm duration = 24 hrs

Peak discharge = 1.408 cfs  
Time to peak = 12.07 hrs  
Hyd. volume = 4,769 cuft  
Curve number = 98  
Hydraulic length = 0 ft  
Time of conc. (Tc) = 6.00 min  
Distribution = Type III  
Shape factor = 484



# Hydrograph Report

Hydraflow Hydrographs by InteliSolve v9.24

Friday, May 13, 2022

## Hyd. No. 1

### Undisturbed Area

Hydrograph type	= SCS Runoff	Peak discharge	= 1.408 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 4,769 cuft
Drainage area	= 0.429 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.0 min
Total precip.	= 3.50 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

### Hydrograph Discharge Table

(Printed values >= 20.00% of Qp.)

#### Time -- Outflow (hrs      cfs)

11.67	0.293
11.70	0.334
11.73	0.375
11.77	0.416
11.80	0.457
11.83	0.499
11.87	0.540
11.90	0.582
11.93	0.654
11.97	0.817
12.00	1.082
12.03	1.338
12.07	1.408 <<
12.10	1.249
12.13	0.981
12.17	0.758
12.20	0.636
12.23	0.574
12.27	0.533
12.30	0.491
12.33	0.450
12.37	0.409
12.40	0.368
12.43	0.326
12.47	0.285

...End

# Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.24

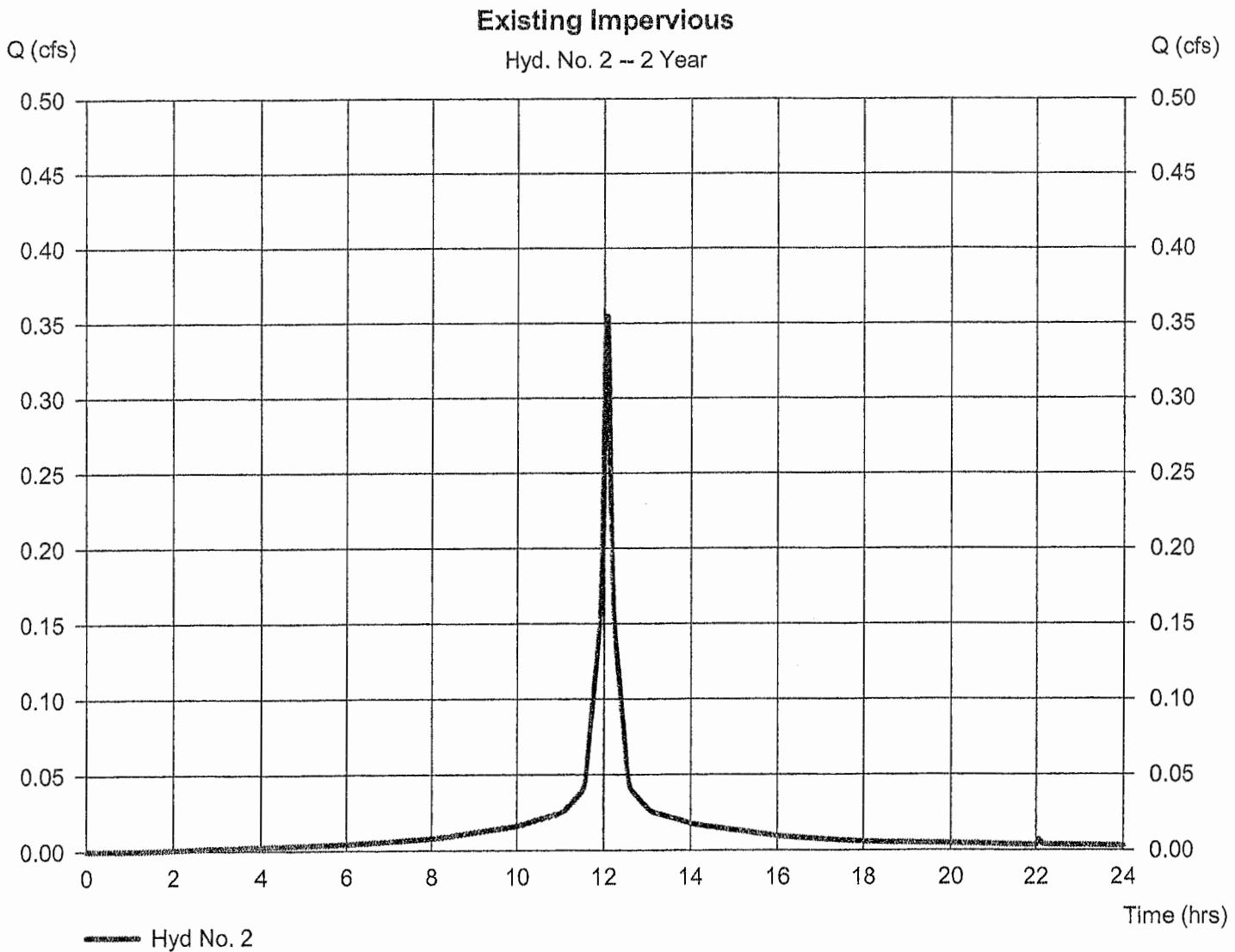
Friday, May 13, 2022

## Hyd. No. 2

### Existing Impervious

Hydrograph type = SCS Runoff  
Storm frequency = 2 yrs  
Time interval = 2 min  
Drainage area = 0.108 ac  
Basin Slope = 0.0 %  
Tc method = USER  
Total precip. = 3.50 in  
Storm duration = 24 hrs

Peak discharge = 0.355 cfs  
Time to peak = 12.07 hrs  
Hyd. volume = 1,201 cuft  
Curve number = 98  
Hydraulic length = 0 ft  
Time of conc. (Tc) = 6.00 min  
Distribution = Type III  
Shape factor = 484



# Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.24

Friday, May 13, 2022

## Hyd. No. 2

### Existing Impervious

Hydrograph type	= SCS Runoff	Peak discharge	= 0.355 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 1,201 cuft
Drainage area	= 0.108 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.0 min
Total precip.	= 3.50 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

### Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

#### Time -- Outflow (hrs      cfs)

11.67	0.074
11.70	0.084
11.73	0.094
11.77	0.105
11.80	0.115
11.83	0.126
11.87	0.136
11.90	0.146
11.93	0.165
11.97	0.206
12.00	0.272
12.03	0.337
12.07	0.355 <<
12.10	0.314
12.13	0.247
12.17	0.191
12.20	0.160
12.23	0.144
12.27	0.134
12.30	0.124
12.33	0.113
12.37	0.103
12.40	0.093
12.43	0.082
12.47	0.072

*...End*

# Hydrograph Report

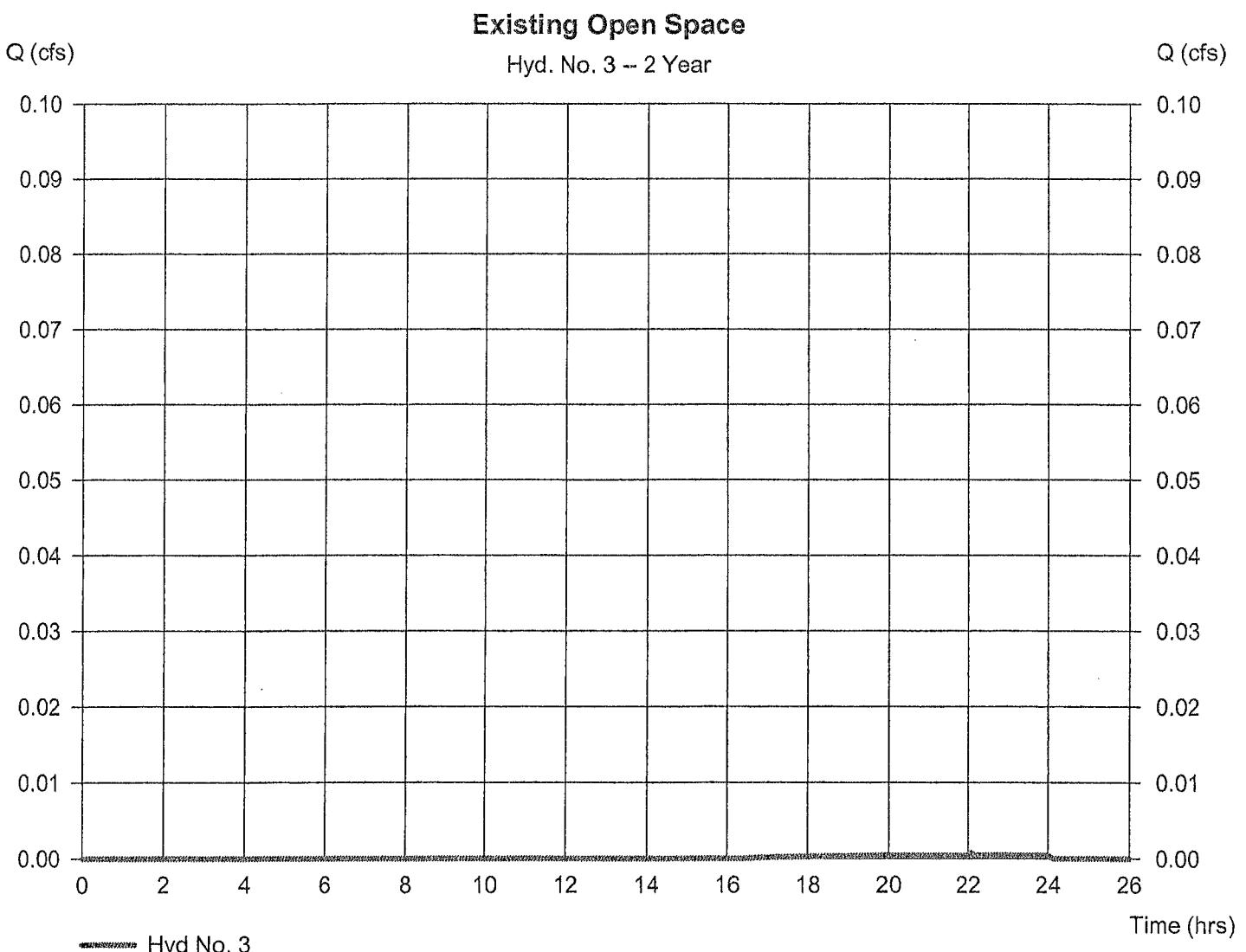
Hydraflow Hydrographs by Intellisolve v9.24

Friday, May 13, 2022

## Hyd. No. 3

### Existing Open Space

Hydrograph type	= SCS Runoff	Peak discharge	= 0.001 cfs
Storm frequency	= 2 yrs	Time to peak	= 22.07 hrs
Time interval	= 2 min	Hyd. volume	= 10 cuft
Drainage area	= 0.340 ac	Curve number	= 39
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.50 min
Total precip.	= 3.50 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

Hydraflow Hydrographs by InteliSolve v9.24

Friday, May 13, 2022

## Hyd. No. 3

### Existing Open Space

Hydrograph type	= SCS Runoff	Peak discharge	= 0.001 cfs
Storm frequency	= 2 yrs	Time to peak	= 22.07 hrs
Time interval	= 2 min	Hyd. volume	= 10 cuft
Drainage area	= 0.340 ac	Curve number	= 39
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.5 min
Total precip.	= 3.50 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

### Hydrograph Discharge Table

{ Printed values >= 20.00% of Qp. }

Time -- Outflow (hrs cfs)							
17.07	0.000	18.30	0.000	19.53	0.000	20.77	0.000
17.10	0.000	18.33	0.000	19.57	0.000	20.80	0.000
17.13	0.000	18.37	0.000	19.60	0.000	20.83	0.000
17.17	0.000	18.40	0.000	19.63	0.000	20.87	0.000
17.20	0.000	18.43	0.000	19.67	0.000	20.90	0.000
17.23	0.000	18.47	0.000	19.70	0.000	20.93	0.000
17.27	0.000	18.50	0.000	19.73	0.000	20.97	0.000
17.30	0.000	18.53	0.000	19.77	0.000	21.00	0.000
17.33	0.000	18.57	0.000	19.80	0.000	21.03	0.000
17.37	0.000	18.60	0.000	19.83	0.000	21.07	0.000
17.40	0.000	18.63	0.000	19.87	0.000	21.10	0.000
17.43	0.000	18.67	0.000	19.90	0.000	21.13	0.000
17.47	0.000	18.70	0.000	19.93	0.000	21.17	0.000
17.50	0.000	18.73	0.000	19.97	0.000	21.20	0.000
17.53	0.000	18.77	0.000	20.00	0.000	21.23	0.000
17.57	0.000	18.80	0.000	20.03	0.000	21.27	0.000
17.60	0.000	18.83	0.000	20.07	0.000	21.30	0.000
17.63	0.000	18.87	0.000	20.10	0.000	21.33	0.000
17.67	0.000	18.90	0.000	20.13	0.000	21.37	0.000
17.70	0.000	18.93	0.000	20.17	0.000	21.40	0.000
17.73	0.000	18.97	0.000	20.20	0.000	21.43	0.000
17.77	0.000	19.00	0.000	20.23	0.000	21.47	0.000
17.80	0.000	19.03	0.000	20.27	0.000	21.50	0.000
17.83	0.000	19.07	0.000	20.30	0.000	21.53	0.000
17.87	0.000	19.10	0.000	20.33	0.000	21.57	0.000
17.90	0.000	19.13	0.000	20.37	0.000	21.60	0.000
17.93	0.000	19.17	0.000	20.40	0.000	21.63	0.000
17.97	0.000	19.20	0.000	20.43	0.000	21.67	0.000
18.00	0.000	19.23	0.000	20.47	0.000	21.70	0.000
18.03	0.000	19.27	0.000	20.50	0.000	21.73	0.000
18.07	0.000	19.30	0.000	20.53	0.000	21.77	0.000
18.10	0.000	19.33	0.000	20.57	0.000	21.80	0.000
18.13	0.000	19.37	0.000	20.60	0.000	21.83	0.000
18.17	0.000	19.40	0.000	20.63	0.000	21.87	0.000
18.20	0.000	19.43	0.000	20.67	0.000	21.90	0.000
18.23	0.000	19.47	0.000	20.70	0.000	21.93	0.000
18.27	0.000	19.50	0.000	20.73	0.000	21.97	0.000

Continues on next page...

**Hydrograph Discharge Table**

Time -- Outflow (hrs cfs)		Time -- Outflow (hrs cfs)	
22.00	0.000	23.77	0.000
22.03	0.001	23.80	0.000
22.07	0.001 <<	23.83	0.000
22.10	0.001	23.87	0.000
22.13	0.001	23.90	0.000
22.17	0.000	23.93	0.000
22.20	0.000	23.97	0.000
22.23	0.000	24.00	0.000
22.27	0.000	24.03	0.000
22.30	0.000	24.07	0.000
22.33	0.000		
22.37	0.000	...End	
22.40	0.000		
22.43	0.000		
22.47	0.000		
22.50	0.000		
22.53	0.000		
22.57	0.000		
22.60	0.000		
22.63	0.000		
22.67	0.000		
22.70	0.000		
22.73	0.000		
22.77	0.000		
22.80	0.000		
22.83	0.000		
22.87	0.000		
22.90	0.000		
22.93	0.000		
22.97	0.000		
23.00	0.000		
23.03	0.000		
23.07	0.000		
23.10	0.000		
23.13	0.000		
23.17	0.000		
23.20	0.000		
23.23	0.000		
23.27	0.000		
23.30	0.000		
23.33	0.000		
23.37	0.000		
23.40	0.000		
23.43	0.000		
23.47	0.000		
23.50	0.000		
23.53	0.000		
23.57	0.000		
23.60	0.000		
23.63	0.000		
23.67	0.000		
23.70	0.000		
23.73	0.000		

# Hydrograph Report

Hydraflow Hydrographs by Intellsolve v9.24

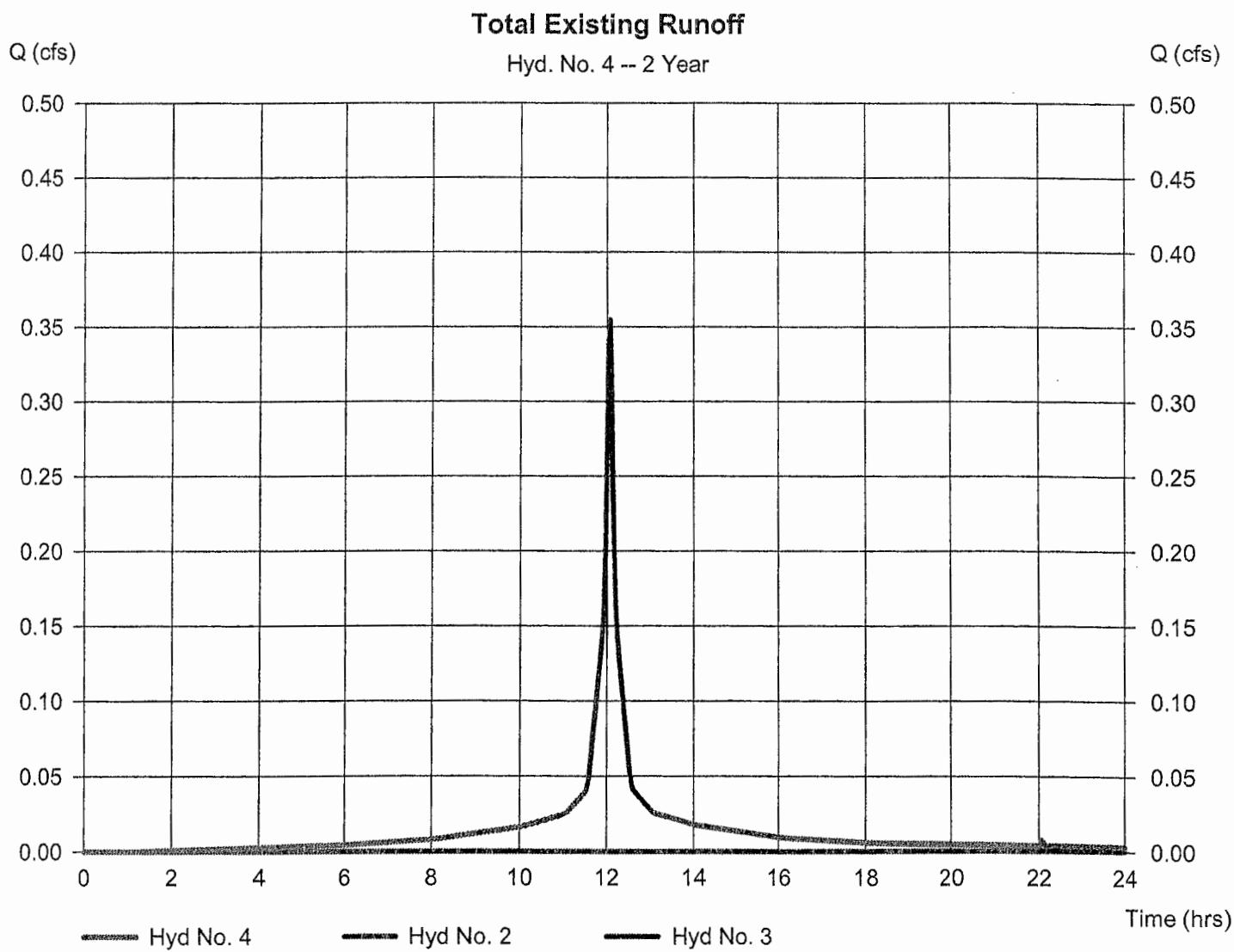
Friday, May 13, 2022

## Hyd. No. 4

### Total Existing Runoff

Hydrograph type = Combine  
Storm frequency = 2 yrs  
Time interval = 2 min  
Inflow hyds. = 2, 3

Peak discharge = 0.355 cfs  
Time to peak = 12.07 hrs  
Hyd. volume = 1,211 cuft  
Contrib. drain. area= 0.448 ac



# Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.24

Friday, May 13, 2022

## Hyd. No. 4

### Total Existing Runoff

Hydrograph type	= Combine	Peak discharge	= 0.355 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 1,211 cuft
Inflow hyds.	= 2, 3	Contrib. drain. area	= 0.448 ac

### Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

Time (hrs)	Hyd. 2 + (cfs)	Hyd. 3 = (cfs)	Outflow (cfs)
11.67	0.074	0.000	0.074
11.70	0.084	0.000	0.084
11.73	0.094	0.000	0.094
11.77	0.105	0.000	0.105
11.80	0.115	0.000	0.115
11.83	0.126	0.000	0.126
11.87	0.136	0.000	0.136
11.90	0.146	0.000	0.146
11.93	0.165	0.000	0.165
11.97	0.206	0.000	0.206
12.00	0.272	0.000	0.272
12.03	0.337	0.000	0.337
12.07	0.355 <<	0.000	0.355 <<
12.10	0.314	0.000	0.314
12.13	0.247	0.000	0.247
12.17	0.191	0.000	0.191
12.20	0.160	0.000	0.160
12.23	0.144	0.000	0.144
12.27	0.134	0.000	0.134
12.30	0.124	0.000	0.124
12.33	0.113	0.000	0.113
12.37	0.103	0.000	0.103
12.40	0.093	0.000	0.093
12.43	0.082	0.000	0.082
12.47	0.072	0.000	0.072

...End

# Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.24

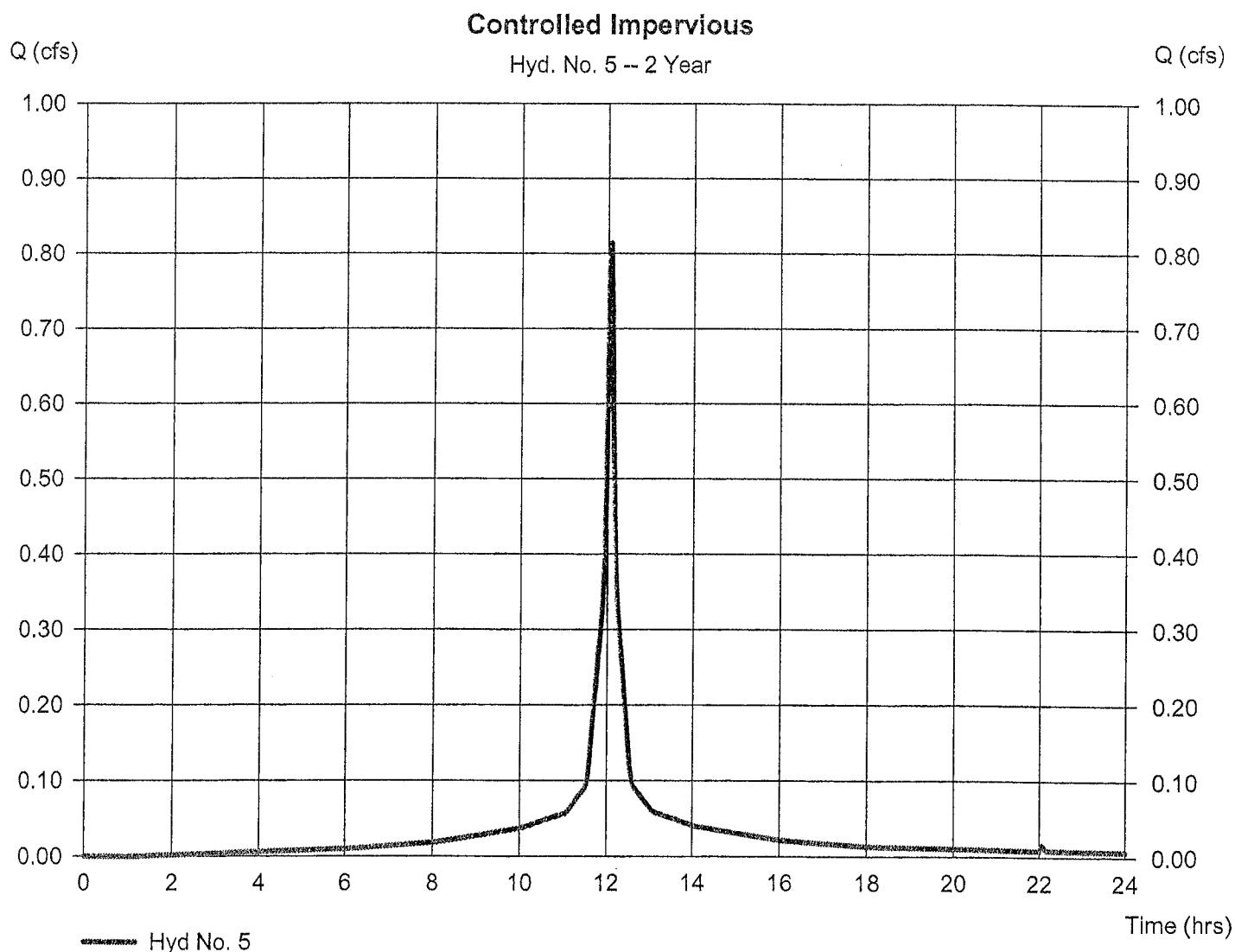
Friday, May 13, 2022

## Hyd. No. 5

### Controlled Impervious

Hydrograph type = SCS Runoff  
Storm frequency = 2 yrs  
Time interval = 2 min  
Drainage area = 0.248 ac  
Basin Slope = 0.0 %  
Tc method = USER  
Total precip. = 3.50 in  
Storm duration = 24 hrs

Peak discharge = 0.814 cfs  
Time to peak = 12.07 hrs  
Hyd. volume = 2,757 cuft  
Curve number = 98  
Hydraulic length = 0 ft  
Time of conc. (Tc) = 6.00 min  
Distribution = Type III  
Shape factor = 484



# Hydrograph Report

Hydraflow Hydrographs by Intellsolve v9.24

Friday, May 13, 2022

## Hyd. No. 5

Controlled Impervious

Hydrograph type	= SCS Runoff	Peak discharge	= 0.814 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 2,757 cuft
Drainage area	= 0.248 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.0 min
Total precip.	= 3.50 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

## Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

Time -- Outflow  
(hrs      cfs)

11.67	0.169
11.70	0.193
11.73	0.217
11.77	0.241
11.80	0.264
11.83	0.288
11.87	0.312
11.90	0.336
11.93	0.378
11.97	0.472
12.00	0.625
12.03	0.774
12.07	0.814 <<
12.10	0.722
12.13	0.567
12.17	0.438
12.20	0.367
12.23	0.332
12.27	0.308
12.30	0.284
12.33	0.260
12.37	0.236
12.40	0.213
12.43	0.189
12.47	0.165

...End

# Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.24

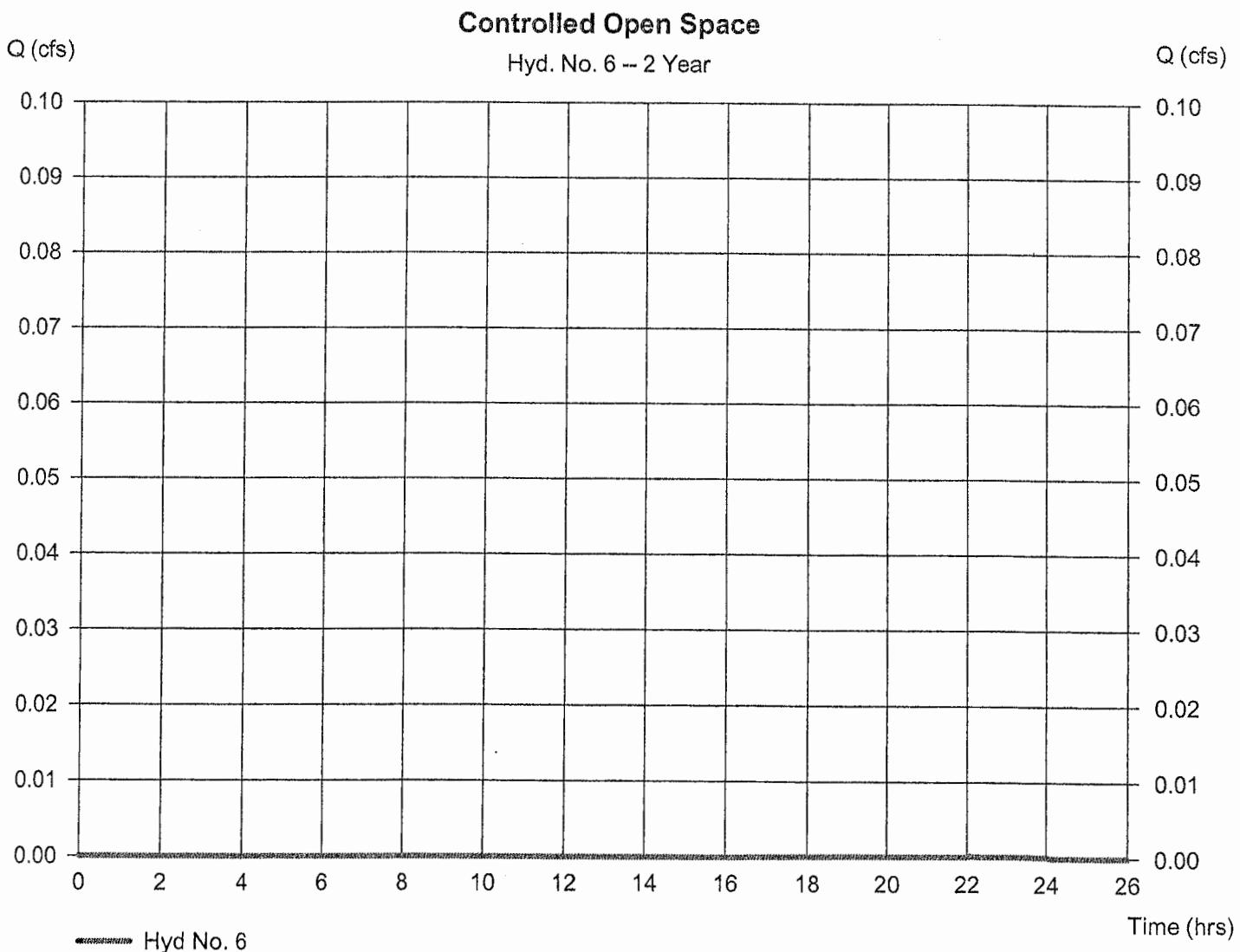
Friday, May 13, 2022

## Hyd. No. 6

### Controlled Open Space

Hydrograph type = SCS Runoff  
Storm frequency = 2 yrs  
Time interval = 2 min  
Drainage area = 0.126 ac  
Basin Slope = 0.0 %  
Tc method = USER  
Total precip. = 3.50 in  
Storm duration = 24 hrs

Peak discharge = 0.000 cfs  
Time to peak = 22.07 hrs  
Hyd. volume = 4 cuft  
Curve number = 39  
Hydraulic length = 0 ft  
Time of conc. (Tc) = 6.00 min  
Distribution = Type III  
Shape factor = 484



# Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.24

Friday, May 13, 2022

## Hyd. No. 6

Controlled Open Space

Hydrograph type	= SCS Runoff	Peak discharge	= 0.000 cfs
Storm frequency	= 2 yrs	Time to peak	= 22.07 hrs
Time interval	= 2 min	Hyd. volume	= 4 cuft
Drainage area	= 0.126 ac	Curve number	= 39
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.0 min
Total precip.	= 3.50 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

## Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

Time -- Outflow (hrs cfs)							
17.07	0.000	18.30	0.000	19.53	0.000	20.77	0.000
17.10	0.000	18.33	0.000	19.57	0.000	20.80	0.000
17.13	0.000	18.37	0.000	19.60	0.000	20.83	0.000
17.17	0.000	18.40	0.000	19.63	0.000	20.87	0.000
17.20	0.000	18.43	0.000	19.67	0.000	20.90	0.000
17.23	0.000	18.47	0.000	19.70	0.000	20.93	0.000
17.27	0.000	18.50	0.000	19.73	0.000	20.97	0.000
17.30	0.000	18.53	0.000	19.77	0.000	21.00	0.000
17.33	0.000	18.57	0.000	19.80	0.000	21.03	0.000
17.37	0.000	18.60	0.000	19.83	0.000	21.07	0.000
17.40	0.000	18.63	0.000	19.87	0.000	21.10	0.000
17.43	0.000	18.67	0.000	19.90	0.000	21.13	0.000
17.47	0.000	18.70	0.000	19.93	0.000	21.17	0.000
17.50	0.000	18.73	0.000	19.97	0.000	21.20	0.000
17.53	0.000	18.77	0.000	20.00	0.000	21.23	0.000
17.57	0.000	18.80	0.000	20.03	0.000	21.27	0.000
17.60	0.000	18.83	0.000	20.07	0.000	21.30	0.000
17.63	0.000	18.87	0.000	20.10	0.000	21.33	0.000
17.67	0.000	18.90	0.000	20.13	0.000	21.37	0.000
17.70	0.000	18.93	0.000	20.17	0.000	21.40	0.000
17.73	0.000	18.97	0.000	20.20	0.000	21.43	0.000
17.77	0.000	19.00	0.000	20.23	0.000	21.47	0.000
17.80	0.000	19.03	0.000	20.27	0.000	21.50	0.000
17.83	0.000	19.07	0.000	20.30	0.000	21.53	0.000
17.87	0.000	19.10	0.000	20.33	0.000	21.57	0.000
17.90	0.000	19.13	0.000	20.37	0.000	21.60	0.000
17.93	0.000	19.17	0.000	20.40	0.000	21.63	0.000
17.97	0.000	19.20	0.000	20.43	0.000	21.67	0.000
18.00	0.000	19.23	0.000	20.47	0.000	21.70	0.000
18.03	0.000	19.27	0.000	20.50	0.000	21.73	0.000
18.07	0.000	19.30	0.000	20.53	0.000	21.77	0.000
18.10	0.000	19.33	0.000	20.57	0.000	21.80	0.000
18.13	0.000	19.37	0.000	20.60	0.000	21.83	0.000
18.17	0.000	19.40	0.000	20.63	0.000	21.87	0.000
18.20	0.000	19.43	0.000	20.67	0.000	21.90	0.000
18.23	0.000	19.47	0.000	20.70	0.000	21.93	0.000
18.27	0.000	19.50	0.000	20.73	0.000	21.97	0.000

Continues on next page...

**Hydrograph Discharge Table**

Time -- Outflow (hrs cfs)		Time -- Outflow (hrs cfs)	
22.00	0.000	23.77	0.000
22.03	0.000	23.80	0.000
22.07	0.000 <<	23.83	0.000
22.10	0.000	23.87	0.000
22.13	0.000	23.90	0.000
22.17	0.000	23.93	0.000
22.20	0.000	23.97	0.000
22.23	0.000	24.00	0.000
22.27	0.000	24.03	0.000
22.30	0.000	24.07	0.000
22.33	0.000		
22.37	0.000	...End	
22.40	0.000		
22.43	0.000		
22.47	0.000		
22.50	0.000		
22.53	0.000		
22.57	0.000		
22.60	0.000		
22.63	0.000		
22.67	0.000		
22.70	0.000		
22.73	0.000		
22.77	0.000		
22.80	0.000		
22.83	0.000		
22.87	0.000		
22.90	0.000		
22.93	0.000		
22.97	0.000		
23.00	0.000		
23.03	0.000		
23.07	0.000		
23.10	0.000		
23.13	0.000		
23.17	0.000		
23.20	0.000		
23.23	0.000		
23.27	0.000		
23.30	0.000		
23.33	0.000		
23.37	0.000		
23.40	0.000		
23.43	0.000		
23.47	0.000		
23.50	0.000		
23.53	0.000		
23.57	0.000		
23.60	0.000		
23.63	0.000		
23.67	0.000		
23.70	0.000		
23.73	0.000		

# Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.24

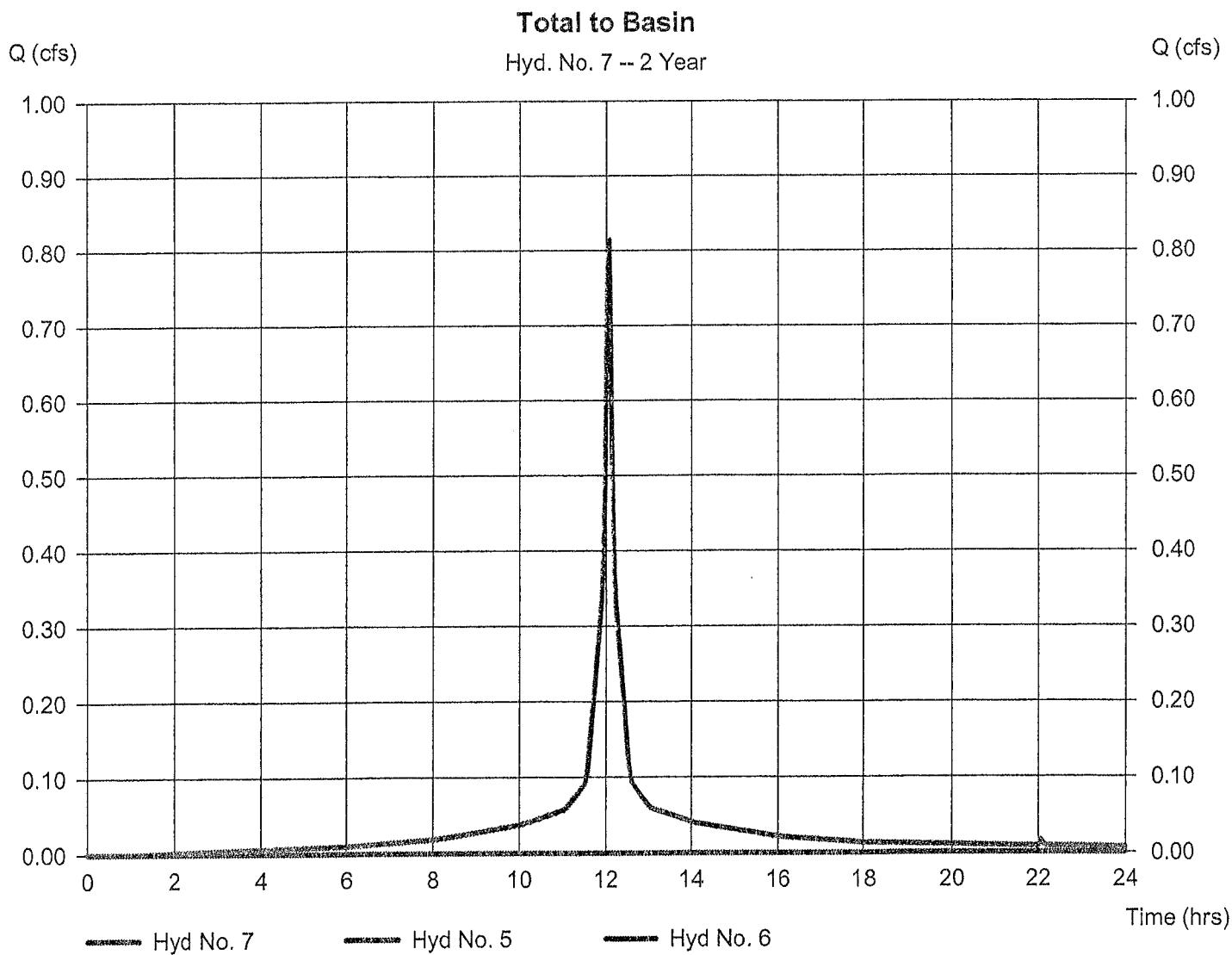
Friday, May 13, 2022

## Hyd. No. 7

### Total to Basin

Hydrograph type = Combine  
Storm frequency = 2 yrs  
Time interval = 2 min  
Inflow hyds. = 5, 6

Peak discharge = 0.814 cfs  
Time to peak = 12.07 hrs  
Hyd. volume = 2,761 cuft  
Contrib. drain. area= 0.374 ac



# Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.24

Friday, May 13, 2022

## Hyd. No. 7

Total to Basin

Hydrograph type	= Combine	Peak discharge	= 0.814 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 2,761 cuft
Inflow hyds.	= 5, 6	Contrib. drain. area	= 0.374 ac

## Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

Time (hrs)	Hyd. 5 + (cfs)	Hyd. 6 = (cfs)	Outflow (cfs)
11.67	0.169	0.000	0.169
11.70	0.193	0.000	0.193
11.73	0.217	0.000	0.217
11.77	0.241	0.000	0.241
11.80	0.264	0.000	0.264
11.83	0.288	0.000	0.288
11.87	0.312	0.000	0.312
11.90	0.336	0.000	0.336
11.93	0.378	0.000	0.378
11.97	0.472	0.000	0.472
12.00	0.625	0.000	0.625
12.03	0.774	0.000	0.774
12.07	0.814 <<	0.000	0.814 <<
12.10	0.722	0.000	0.722
12.13	0.567	0.000	0.567
12.17	0.438	0.000	0.438
12.20	0.367	0.000	0.367
12.23	0.332	0.000	0.332
12.27	0.308	0.000	0.308
12.30	0.284	0.000	0.284
12.33	0.260	0.000	0.260
12.37	0.236	0.000	0.236
12.40	0.213	0.000	0.213
12.43	0.189	0.000	0.189
12.47	0.165	0.000	0.165

...End

# Hydrograph Report

Hydraflow Hydrographs by InteliSolve v9.24

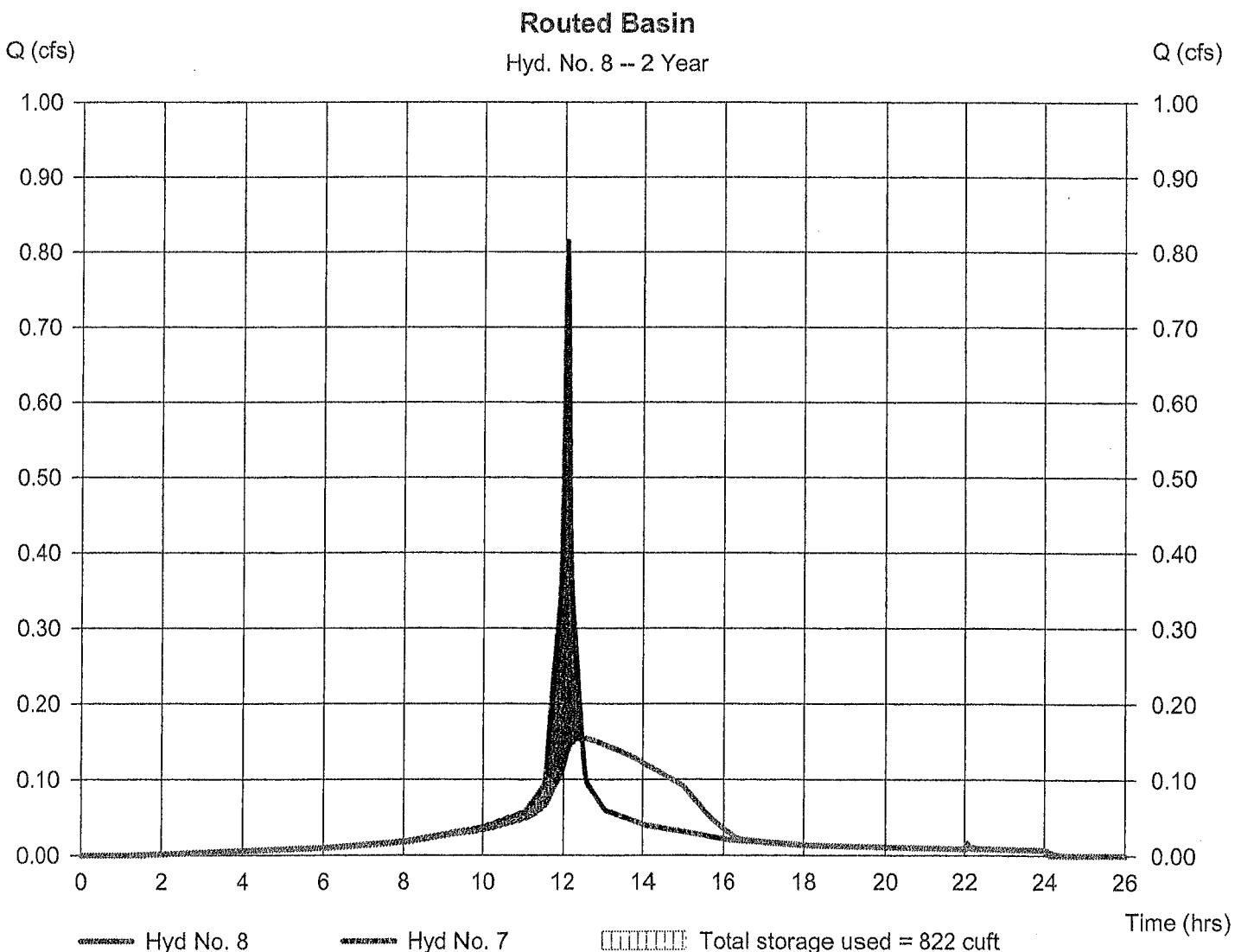
Friday, May 13, 2022

## Hyd. No. 8

### Routed Basin

Hydrograph type	= Reservoir	Peak discharge	= 0.155 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.47 hrs
Time interval	= 2 min	Hyd. volume	= 2,760 cuft
Inflow hyd. No.	= 7 - Total to Basin	Max. Elevation	= 91.19 ft
Reservoir name	= (4) 36 inch Pipe Field 120 ft long	Max. Storage	= 822 cuft

Storage Indication method used.



# Hydrograph Report

Hydraflow Hydrographs by Intellsolve v9.24

Friday, May 13, 2022

## Hyd. No. 8

### Routed Basin

Hydrograph type	= Reservoir	Peak discharge	= 0.155 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.47 hrs
Time interval	= 2 min	Hyd. volume	= 2,760 cuft
Inflow hyd. No.	= 7 - Total to Basin	Reservoir name	= (4) 36 inch Pipe
Max. Elevation	= 91.19 ft	Max. Storage	= 822 cuft

Storage Indication method used.

### Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
9.67	0.034	90.34	0.372	0.031	----	----	----	----	----	----	----	0.031
9.70	0.034	90.34	0.372	0.031	----	----	----	----	----	----	----	0.031
9.73	0.035	90.34	0.372	0.032	----	----	----	----	----	----	----	0.032
9.77	0.035	90.34	0.372	0.032	----	----	----	----	----	----	----	0.032
9.80	0.035	90.34	0.372	0.032	----	----	----	----	----	----	----	0.032
9.83	0.035	90.34	0.372	0.033	----	----	----	----	----	----	----	0.033
9.87	0.036	90.34	0.372	0.033	----	----	----	----	----	----	----	0.033
9.90	0.036	90.34	0.372	0.033	----	----	----	----	----	----	----	0.033
9.93	0.036	90.34	0.372	0.033	----	----	----	----	----	----	----	0.033
9.97	0.037	90.34	0.372	0.034	----	----	----	----	----	----	----	0.034
10.00	0.037	90.34	0.372	0.034	----	----	----	----	----	----	----	0.034
10.03	0.038	90.35	0.372	0.034	----	----	----	----	----	----	----	0.034
10.07	0.038	90.35	0.372	0.035	----	----	----	----	----	----	----	0.035
10.10	0.039	90.35	0.372	0.035	----	----	----	----	----	----	----	0.035
10.13	0.039	90.35	0.372	0.035	----	----	----	----	----	----	----	0.035
10.17	0.040	90.35	0.372	0.036	----	----	----	----	----	----	----	0.036
10.20	0.040	90.35	0.372	0.036	----	----	----	----	----	----	----	0.036
10.23	0.041	90.35	0.372	0.037	----	----	----	----	----	----	----	0.037
10.27	0.042	90.35	0.372	0.037	----	----	----	----	----	----	----	0.037
10.30	0.042	90.35	0.372	0.038	----	----	----	----	----	----	----	0.038
10.33	0.043	90.35	0.372	0.038	----	----	----	----	----	----	----	0.038
10.37	0.044	90.36	0.372	0.039	----	----	----	----	----	----	----	0.039
10.40	0.044	90.36	0.372	0.039	----	----	----	----	----	----	----	0.039
10.43	0.045	90.36	0.372	0.040	----	----	----	----	----	----	----	0.040
10.47	0.046	90.36	0.372	0.040	----	----	----	----	----	----	----	0.040
10.50	0.046	90.36	0.372	0.041	----	----	----	----	----	----	----	0.041
10.53	0.047	90.36	0.372	0.041	----	----	----	----	----	----	----	0.041
10.57	0.048	90.36	0.372	0.042	----	----	----	----	----	----	----	0.042
10.60	0.048	90.37	0.372	0.042	----	----	----	----	----	----	----	0.042
10.63	0.049	90.37	0.372	0.043	----	----	----	----	----	----	----	0.043
10.67	0.050	90.37	0.372	0.043	----	----	----	----	----	----	----	0.043
10.70	0.050	90.37	0.372	0.044	----	----	----	----	----	----	----	0.044
10.73	0.051	90.37	0.372	0.044	----	----	----	----	----	----	----	0.044
10.77	0.052	90.37	0.372	0.045	----	----	----	----	----	----	----	0.045
10.80	0.052	90.38	0.372	0.045	----	----	----	----	----	----	----	0.045
10.83	0.053	90.38	0.372	0.046	----	----	----	----	----	----	----	0.046
10.87	0.054	90.38	0.372	0.046	----	----	----	----	----	----	----	0.046
10.90	0.054	90.38	0.372	0.047	----	----	----	----	----	----	----	0.047
10.93	0.055	90.38	0.372	0.047	----	----	----	----	----	----	----	0.047
10.97	0.056	90.39	0.372	0.048	----	----	----	----	----	----	----	0.048

Continues on next page...

**Hydrograph Discharge Table**

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
11.00	0.056	90.39	0.372	0.049	----	----	----	----	----	----	----	0.049
11.03	0.057	90.39	0.372	0.049	----	----	----	----	----	----	----	0.049
11.07	0.059	90.39	0.372	0.050	----	----	----	----	----	----	----	0.050
11.10	0.061	90.39	0.372	0.050	----	----	----	----	----	----	----	0.050
11.13	0.063	90.40	0.372	0.051	----	----	----	----	----	----	----	0.051
11.17	0.065	90.40	0.372	0.052	----	----	----	----	----	----	----	0.052
11.20	0.068	90.40	0.372	0.053	----	----	----	----	----	----	----	0.053
11.23	0.070	90.41	0.372	0.054	----	----	----	----	----	----	----	0.054
11.27	0.073	90.41	0.372	0.055	----	----	----	----	----	----	----	0.055
11.30	0.075	90.42	0.372	0.056	----	----	----	----	----	----	----	0.056
11.33	0.078	90.42	0.372	0.057	----	----	----	----	----	----	----	0.057
11.37	0.080	90.43	0.372	0.059	----	----	----	----	----	----	----	0.059
11.40	0.083	90.43	0.372	0.060	----	----	----	----	----	----	----	0.060
11.43	0.085	90.44	0.372	0.061	----	----	----	----	----	----	----	0.061
11.47	0.088	90.45	0.372	0.063	----	----	----	----	----	----	----	0.063
11.50	0.090	90.45	0.372	0.064	----	----	----	----	----	----	----	0.064
11.53	0.095	90.46	0.372	0.065	----	----	----	----	----	----	----	0.065
11.57	0.106	90.47	0.372	0.067	----	----	----	----	----	----	----	0.067
11.60	0.124	90.48	0.372	0.069	----	----	----	----	----	----	----	0.069
11.63	0.146	90.50	0.372	0.073	----	----	----	----	----	----	----	0.073
11.67	0.169	90.52	0.372	0.076	----	----	----	----	----	----	----	0.076
11.70	0.193	90.54	0.372	0.081	----	----	----	----	----	----	----	0.081
11.73	0.217	90.57	0.372	0.086	----	----	----	----	----	----	----	0.086
11.77	0.241	90.61	0.372	0.091	----	----	----	----	----	----	----	0.091
11.80	0.264	90.63	0.372	0.094	----	----	----	----	----	----	----	0.094
11.83	0.288	90.65	0.372	0.097	----	----	----	----	----	----	----	0.097
11.87	0.312	90.67	0.372	0.100	----	----	----	----	----	----	----	0.100
11.90	0.336	90.70	0.372	0.104	----	----	----	----	----	----	----	0.104
11.93	0.378	90.73	0.372	0.107	----	----	----	----	----	----	----	0.107
11.97	0.472	90.76	0.372	0.112	----	----	----	----	----	----	----	0.112
12.00	0.625	90.81	0.372	0.118	----	----	----	----	----	----	----	0.118
12.03	0.774	90.88	0.372	0.125	----	----	----	----	----	----	----	0.125
12.07	0.814 <<	90.95	0.372	0.132	----	----	----	----	----	----	----	0.132
12.10	0.722	91.01	0.372	0.138	----	----	----	----	----	----	----	0.138
12.13	0.567	91.05	0.372	0.142	----	----	----	----	----	----	----	0.142
12.17	0.438	91.09	0.372	0.146	----	----	----	----	----	----	----	0.146
12.20	0.367	91.11	0.372	0.148	----	----	----	----	----	----	----	0.148
12.23	0.332	91.13	0.372	0.149	----	----	----	----	----	----	----	0.149
12.27	0.308	91.14	0.372	0.151	----	----	----	----	----	----	----	0.151
12.30	0.284	91.16	0.372	0.152	----	----	----	----	----	----	----	0.152
12.33	0.260	91.17	0.372	0.153	----	----	----	----	----	----	----	0.153
12.37	0.236	91.18	0.372	0.154	----	----	----	----	----	----	----	0.154
12.40	0.213	91.18	0.372	0.154	----	----	----	----	----	----	----	0.154
12.43	0.189	91.19	0.372	0.155	----	----	----	----	----	----	----	0.155
12.47	0.165	91.19 <<	0.372	0.155	----	----	----	----	----	----	----	0.155 <<
12.50	0.141	91.19	0.372	0.155	----	----	----	----	----	----	----	0.155
12.53	0.119	91.19	0.372	0.155	----	----	----	----	----	----	----	0.155
12.57	0.104	91.18	0.372	0.154	----	----	----	----	----	----	----	0.154
12.60	0.096	91.18	0.372	0.154	----	----	----	----	----	----	----	0.154
12.63	0.092	91.17	0.372	0.153	----	----	----	----	----	----	----	0.153
12.67	0.089	91.17	0.372	0.153	----	----	----	----	----	----	----	0.153
12.70	0.087	91.16	0.372	0.152	----	----	----	----	----	----	----	0.152
12.73	0.084	91.16	0.372	0.152	----	----	----	----	----	----	----	0.152
12.77	0.082	91.15	0.372	0.151	----	----	----	----	----	----	----	0.151

Continues on next page...

## Hydrograph Discharge Table

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
12.80	0.079	91.14	0.372	0.151	----	----	----	----	----	----	----	0.151
12.83	0.077	91.14	0.372	0.150	----	----	----	----	----	----	----	0.150
12.87	0.074	91.13	0.372	0.149	----	----	----	----	----	----	----	0.149
12.90	0.072	91.12	0.372	0.149	----	----	----	----	----	----	----	0.149
12.93	0.069	91.11	0.372	0.148	----	----	----	----	----	----	----	0.148
12.97	0.067	91.11	0.372	0.147	----	----	----	----	----	----	----	0.147
13.00	0.064	91.10	0.372	0.147	----	----	----	----	----	----	----	0.147
13.03	0.062	91.09	0.372	0.146	----	----	----	----	----	----	----	0.146
13.07	0.060	91.08	0.372	0.145	----	----	----	----	----	----	----	0.145
13.10	0.059	91.08	0.372	0.145	----	----	----	----	----	----	----	0.145
13.13	0.058	91.07	0.372	0.144	----	----	----	----	----	----	----	0.144
13.17	0.058	91.06	0.372	0.143	----	----	----	----	----	----	----	0.143
13.20	0.057	91.05	0.372	0.142	----	----	----	----	----	----	----	0.142
13.23	0.056	91.05	0.372	0.142	----	----	----	----	----	----	----	0.142
13.27	0.056	91.04	0.372	0.141	----	----	----	----	----	----	----	0.141
13.30	0.055	91.03	0.372	0.140	----	----	----	----	----	----	----	0.140
13.33	0.054	91.02	0.372	0.139	----	----	----	----	----	----	----	0.139
13.37	0.054	91.01	0.372	0.139	----	----	----	----	----	----	----	0.139
13.40	0.053	91.01	0.372	0.138	----	----	----	----	----	----	----	0.138
13.43	0.052	91.00	0.372	0.137	----	----	----	----	----	----	----	0.137
13.47	0.052	90.99	0.372	0.136	----	----	----	----	----	----	----	0.136
13.50	0.051	90.98	0.372	0.136	----	----	----	----	----	----	----	0.136
13.53	0.050	90.98	0.372	0.135	----	----	----	----	----	----	----	0.135
13.57	0.050	90.97	0.372	0.134	----	----	----	----	----	----	----	0.134
13.60	0.049	90.96	0.372	0.133	----	----	----	----	----	----	----	0.133
13.63	0.048	90.95	0.372	0.133	----	----	----	----	----	----	----	0.133
13.67	0.048	90.94	0.372	0.132	----	----	----	----	----	----	----	0.132
13.70	0.047	90.94	0.372	0.131	----	----	----	----	----	----	----	0.131
13.73	0.046	90.93	0.372	0.130	----	----	----	----	----	----	----	0.130
13.77	0.046	90.92	0.372	0.129	----	----	----	----	----	----	----	0.129
13.80	0.045	90.91	0.372	0.128	----	----	----	----	----	----	----	0.128
13.83	0.044	90.90	0.372	0.127	----	----	----	----	----	----	----	0.127
13.87	0.044	90.89	0.372	0.126	----	----	----	----	----	----	----	0.126
13.90	0.043	90.88	0.372	0.125	----	----	----	----	----	----	----	0.125
13.93	0.043	90.87	0.372	0.124	----	----	----	----	----	----	----	0.124
13.97	0.042	90.86	0.372	0.123	----	----	----	----	----	----	----	0.123
14.00	0.041	90.85	0.372	0.122	----	----	----	----	----	----	----	0.122
14.03	0.041	90.85	0.372	0.121	----	----	----	----	----	----	----	0.121
14.07	0.040	90.84	0.372	0.120	----	----	----	----	----	----	----	0.120
14.10	0.040	90.83	0.372	0.119	----	----	----	----	----	----	----	0.119
14.13	0.039	90.82	0.372	0.118	----	----	----	----	----	----	----	0.118
14.17	0.039	90.81	0.372	0.117	----	----	----	----	----	----	----	0.117
14.20	0.039	90.80	0.372	0.116	----	----	----	----	----	----	----	0.116
14.23	0.038	90.79	0.372	0.115	----	----	----	----	----	----	----	0.115
14.27	0.038	90.78	0.372	0.114	----	----	----	----	----	----	----	0.114
14.30	0.038	90.77	0.372	0.113	----	----	----	----	----	----	----	0.113
14.33	0.037	90.77	0.372	0.112	----	----	----	----	----	----	----	0.112
14.37	0.037	90.76	0.372	0.111	----	----	----	----	----	----	----	0.111
14.40	0.037	90.75	0.372	0.110	----	----	----	----	----	----	----	0.110
14.43	0.037	90.74	0.372	0.109	----	----	----	----	----	----	----	0.109
14.47	0.036	90.73	0.372	0.108	----	----	----	----	----	----	----	0.108
14.50	0.036	90.72	0.372	0.107	----	----	----	----	----	----	----	0.107
14.53	0.036	90.72	0.372	0.106	----	----	----	----	----	----	----	0.106
14.57	0.035	90.71	0.372	0.105	----	----	----	----	----	----	----	0.105

Continues on next page...

## Hydrograph Discharge Table

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
14.60	0.035	90.70	0.372	0.104	----	----	----	----	----	----	----	0.104
14.63	0.035	90.69	0.372	0.103	----	----	----	----	----	----	----	0.103
14.67	0.034	90.68	0.372	0.102	----	----	----	----	----	----	----	0.102
14.70	0.034	90.68	0.372	0.101	----	----	----	----	----	----	----	0.101
14.73	0.034	90.67	0.372	0.100	----	----	----	----	----	----	----	0.100
14.77	0.033	90.66	0.372	0.099	----	----	----	----	----	----	----	0.099
14.80	0.033	90.65	0.372	0.098	----	----	----	----	----	----	----	0.098
14.83	0.033	90.65	0.372	0.097	----	----	----	----	----	----	----	0.097
14.87	0.032	90.64	0.372	0.096	----	----	----	----	----	----	----	0.096
14.90	0.032	90.63	0.372	0.094	----	----	----	----	----	----	----	0.094
14.93	0.032	90.62	0.372	0.093	----	----	----	----	----	----	----	0.093
14.97	0.032	90.62	0.372	0.092	----	----	----	----	----	----	----	0.092
15.00	0.031	90.61	0.372	0.091	----	----	----	----	----	----	----	0.091
15.03	0.031	90.59	0.372	0.089	----	----	----	----	----	----	----	0.089
15.07	0.031	90.58	0.372	0.087	----	----	----	----	----	----	----	0.087
15.10	0.030	90.57	0.372	0.084	----	----	----	----	----	----	----	0.084
15.13	0.030	90.55	0.372	0.082	----	----	----	----	----	----	----	0.082
15.17	0.030	90.54	0.372	0.080	----	----	----	----	----	----	----	0.080
15.20	0.029	90.53	0.372	0.078	----	----	----	----	----	----	----	0.078
15.23	0.029	90.51	0.372	0.076	----	----	----	----	----	----	----	0.076
15.27	0.029	90.50	0.372	0.074	----	----	----	----	----	----	----	0.074
15.30	0.028	90.49	0.372	0.072	----	----	----	----	----	----	----	0.072
15.33	0.028	90.48	0.372	0.070	----	----	----	----	----	----	----	0.070
15.37	0.028	90.47	0.372	0.068	----	----	----	----	----	----	----	0.068
15.40	0.027	90.46	0.372	0.066	----	----	----	----	----	----	----	0.066
15.43	0.027	90.45	0.372	0.064	----	----	----	----	----	----	----	0.064
15.47	0.027	90.44	0.372	0.062	----	----	----	----	----	----	----	0.062
15.50	0.027	90.43	0.372	0.060	----	----	----	----	----	----	----	0.060
15.53	0.026	90.42	0.372	0.058	----	----	----	----	----	----	----	0.058
15.57	0.026	90.42	0.372	0.056	----	----	----	----	----	----	----	0.056
15.60	0.026	90.41	0.372	0.054	----	----	----	----	----	----	----	0.054
15.63	0.025	90.40	0.372	0.052	----	----	----	----	----	----	----	0.052
15.67	0.025	90.40	0.372	0.051	----	----	----	----	----	----	----	0.051
15.70	0.025	90.39	0.372	0.049	----	----	----	----	----	----	----	0.049
15.73	0.024	90.38	0.372	0.047	----	----	----	----	----	----	----	0.047
15.77	0.024	90.38	0.372	0.045	----	----	----	----	----	----	----	0.045
15.80	0.024	90.37	0.372	0.044	----	----	----	----	----	----	----	0.044
15.83	0.023	90.37	0.372	0.042	----	----	----	----	----	----	----	0.042
15.87	0.023	90.36	0.372	0.041	----	----	----	----	----	----	----	0.041
15.90	0.023	90.36	0.372	0.039	----	----	----	----	----	----	----	0.039
15.93	0.022	90.35	0.372	0.038	----	----	----	----	----	----	----	0.038
15.97	0.022	90.35	0.372	0.036	----	----	----	----	----	----	----	0.036
16.00	0.022	90.35	0.372	0.035	----	----	----	----	----	----	----	0.035
16.03	0.022	90.34	0.372	0.034	----	----	----	----	----	----	----	0.034
16.07	0.021	90.34	0.372	0.033	----	----	----	----	----	----	----	0.033
16.10	0.021	90.34	0.372	0.032	----	----	----	----	----	----	----	0.032

...End

# Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.24

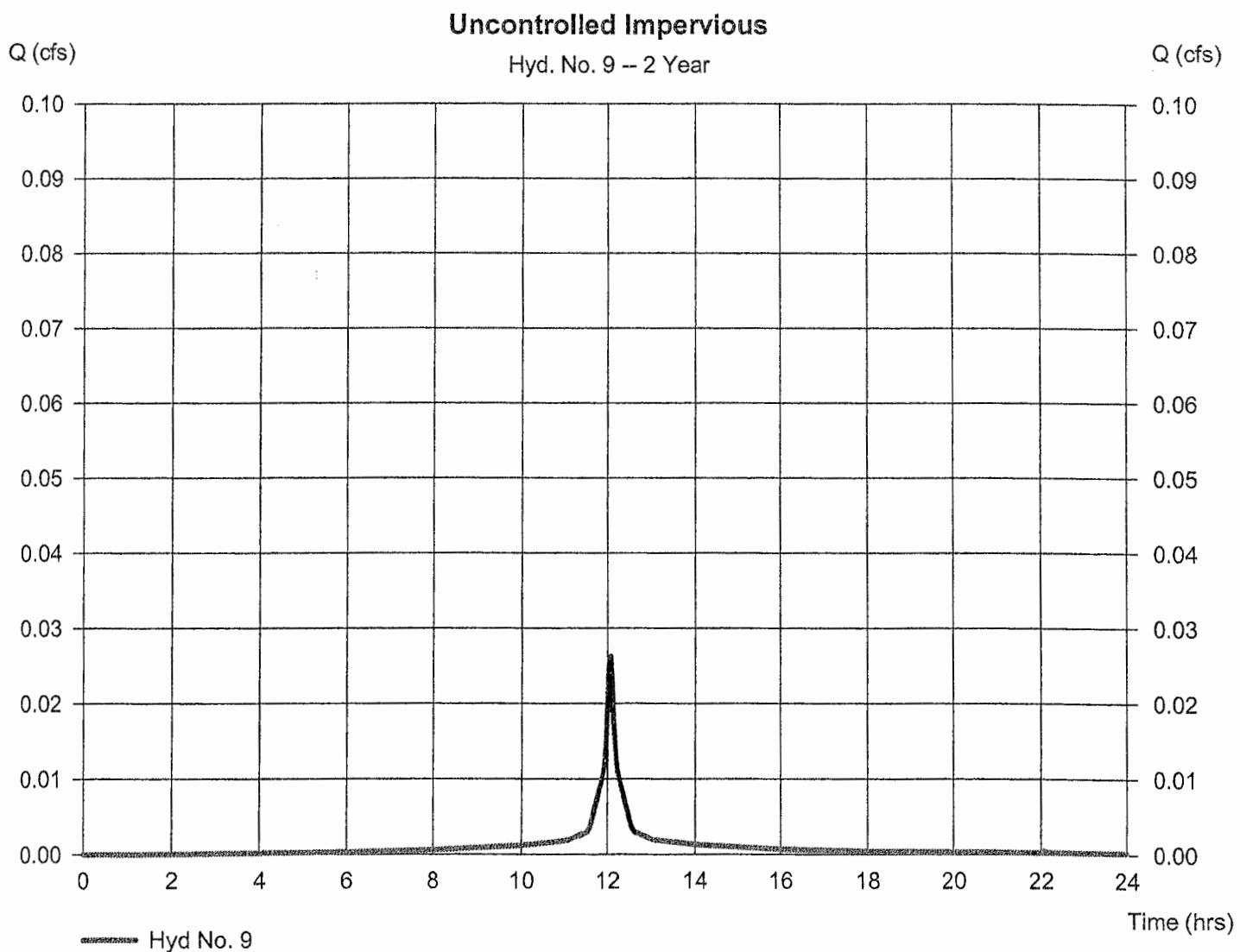
Friday, May 13, 2022

## Hyd. No. 9

### Uncontrolled Impervious

Hydrograph type = SCS Runoff  
Storm frequency = 2 yrs  
Time interval = 2 min  
Drainage area = 0.008 ac  
Basin Slope = 0.0 %  
Tc method = USER  
Total precip. = 3.50 in  
Storm duration = 24 hrs

Peak discharge = 0.026 cfs  
Time to peak = 12.07 hrs  
Hyd. volume = 89 cuft  
Curve number = 98  
Hydraulic length = 0 ft  
Time of conc. (Tc) = 6.00 min  
Distribution = Type III  
Shape factor = 484



# Hydrograph Report

Hydraflow Hydrographs by Intelsolve v9.24

Friday, May 13, 2022

## Hyd. No. 9

Uncontrolled Impervious

Hydrograph type	= SCS Runoff	Peak discharge	= 0.026 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 89 cuft
Drainage area	= 0.008 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.0 min
Total precip.	= 3.50 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

## Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

Time -- Outflow  
(hrs      cfs)

11.67	0.005
11.70	0.006
11.73	0.007
11.77	0.008
11.80	0.009
11.83	0.009
11.87	0.010
11.90	0.011
11.93	0.012
11.97	0.015
12.00	0.020
12.03	0.025
12.07	0.026 <<
12.10	0.023
12.13	0.018
12.17	0.014
12.20	0.012
12.23	0.011
12.27	0.010
12.30	0.009
12.33	0.008
12.37	0.008
12.40	0.007
12.43	0.006
12.47	0.005

...End

# Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.24

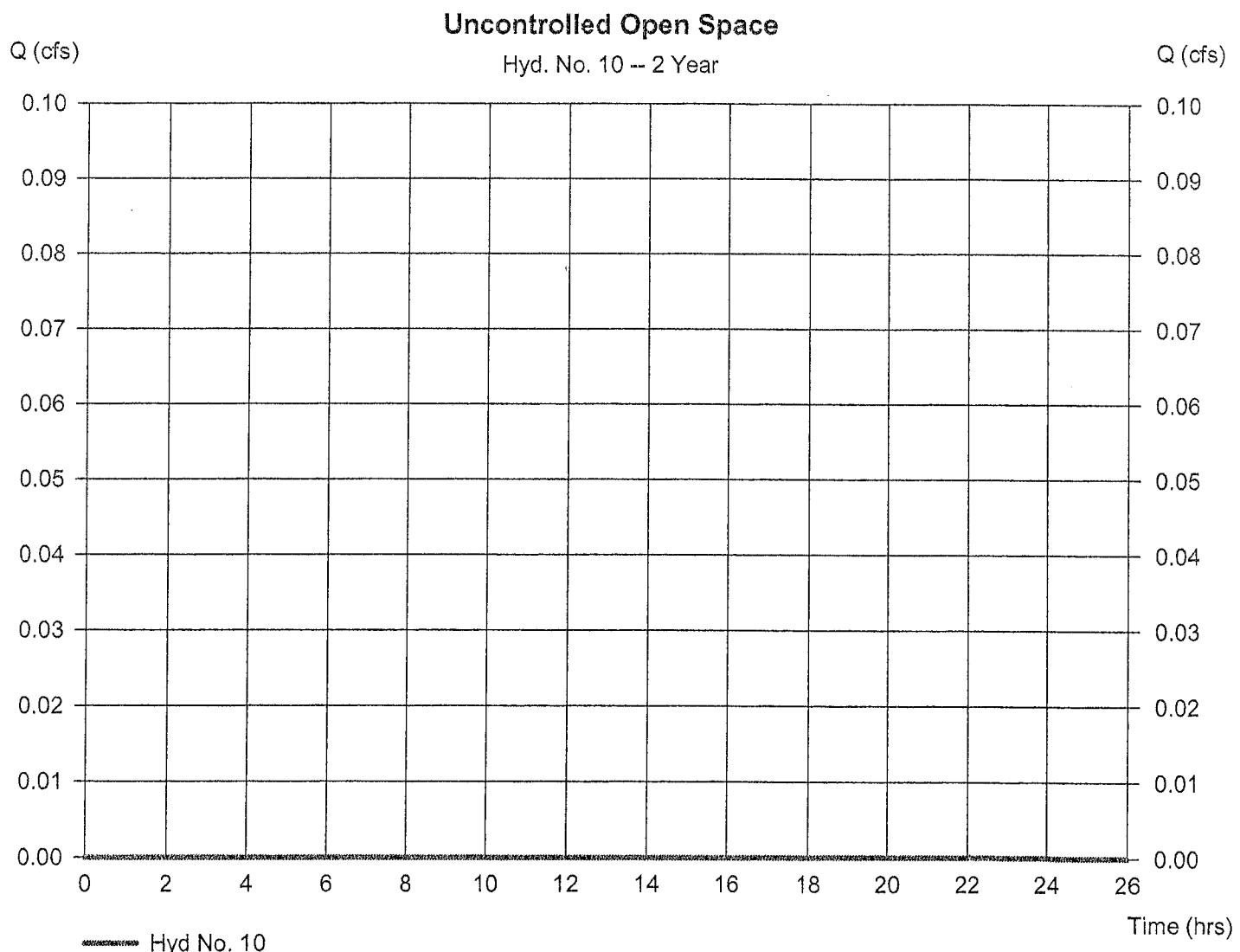
Friday, May 13, 2022

## Hyd. No. 10

### Uncontrolled Open Space

Hydrograph type = SCS Runoff  
Storm frequency = 2 yrs  
Time interval = 2 min  
Drainage area = 0.066 ac  
Basin Slope = 0.0 %  
Tc method = USER  
Total precip. = 3.50 in  
Storm duration = 24 hrs

Peak discharge = 0.000 cfs  
Time to peak = 22.07 hrs  
Hyd. volume = 2 cuft  
Curve number = 39  
Hydraulic length = 0 ft  
Time of conc. (Tc) = 6.00 min  
Distribution = Type III  
Shape factor = 484



# Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.24

Friday, May 13, 2022

## Hyd. No. 10

### Uncontrolled Open Space

Hydrograph type	= SCS Runoff	Peak discharge	= 0.000 cfs
Storm frequency	= 2 yrs	Time to peak	= 22.07 hrs
Time interval	= 2 min	Hyd. volume	= 2 cuft
Drainage area	= 0.066 ac	Curve number	= 39
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.0 min
Total precip.	= 3.50 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

### Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

Time -- Outflow (hrs)	Outflow cfs)						
17.07	0.000	18.30	0.000	19.53	0.000	20.77	0.000
17.10	0.000	18.33	0.000	19.57	0.000	20.80	0.000
17.13	0.000	18.37	0.000	19.60	0.000	20.83	0.000
17.17	0.000	18.40	0.000	19.63	0.000	20.87	0.000
17.20	0.000	18.43	0.000	19.67	0.000	20.90	0.000
17.23	0.000	18.47	0.000	19.70	0.000	20.93	0.000
17.27	0.000	18.50	0.000	19.73	0.000	20.97	0.000
17.30	0.000	18.53	0.000	19.77	0.000	21.00	0.000
17.33	0.000	18.57	0.000	19.80	0.000	21.03	0.000
17.37	0.000	18.60	0.000	19.83	0.000	21.07	0.000
17.40	0.000	18.63	0.000	19.87	0.000	21.10	0.000
17.43	0.000	18.67	0.000	19.90	0.000	21.13	0.000
17.47	0.000	18.70	0.000	19.93	0.000	21.17	0.000
17.50	0.000	18.73	0.000	19.97	0.000	21.20	0.000
17.53	0.000	18.77	0.000	20.00	0.000	21.23	0.000
17.57	0.000	18.80	0.000	20.03	0.000	21.27	0.000
17.60	0.000	18.83	0.000	20.07	0.000	21.30	0.000
17.63	0.000	18.87	0.000	20.10	0.000	21.33	0.000
17.67	0.000	18.90	0.000	20.13	0.000	21.37	0.000
17.70	0.000	18.93	0.000	20.17	0.000	21.40	0.000
17.73	0.000	18.97	0.000	20.20	0.000	21.43	0.000
17.77	0.000	19.00	0.000	20.23	0.000	21.47	0.000
17.80	0.000	19.03	0.000	20.27	0.000	21.50	0.000
17.83	0.000	19.07	0.000	20.30	0.000	21.53	0.000
17.87	0.000	19.10	0.000	20.33	0.000	21.57	0.000
17.90	0.000	19.13	0.000	20.37	0.000	21.60	0.000
17.93	0.000	19.17	0.000	20.40	0.000	21.63	0.000
17.97	0.000	19.20	0.000	20.43	0.000	21.67	0.000
18.00	0.000	19.23	0.000	20.47	0.000	21.70	0.000
18.03	0.000	19.27	0.000	20.50	0.000	21.73	0.000
18.07	0.000	19.30	0.000	20.53	0.000	21.77	0.000
18.10	0.000	19.33	0.000	20.57	0.000	21.80	0.000
18.13	0.000	19.37	0.000	20.60	0.000	21.83	0.000
18.17	0.000	19.40	0.000	20.63	0.000	21.87	0.000
18.20	0.000	19.43	0.000	20.67	0.000	21.90	0.000
18.23	0.000	19.47	0.000	20.70	0.000	21.93	0.000
18.27	0.000	19.50	0.000	20.73	0.000	21.97	0.000

Continues on next page...

**Hydrograph Discharge Table**

Time -- Outflow (hrs      cfs)		Time -- Outflow (hrs      cfs)	
22.00	0.000	23.77	0.000
22.03	0.000	23.80	0.000
22.07	0.000 <<	23.83	0.000
22.10	0.000	23.87	0.000
22.13	0.000	23.90	0.000
22.17	0.000	23.93	0.000
22.20	0.000	23.97	0.000
22.23	0.000	24.00	0.000
22.27	0.000	24.03	0.000
22.30	0.000	24.07	0.000
22.33	0.000		
22.37	0.000	...End	
22.40	0.000		
22.43	0.000		
22.47	0.000		
22.50	0.000		
22.53	0.000		
22.57	0.000		
22.60	0.000		
22.63	0.000		
22.67	0.000		
22.70	0.000		
22.73	0.000		
22.77	0.000		
22.80	0.000		
22.83	0.000		
22.87	0.000		
22.90	0.000		
22.93	0.000		
22.97	0.000		
23.00	0.000		
23.03	0.000		
23.07	0.000		
23.10	0.000		
23.13	0.000		
23.17	0.000		
23.20	0.000		
23.23	0.000		
23.27	0.000		
23.30	0.000		
23.33	0.000		
23.37	0.000		
23.40	0.000		
23.43	0.000		
23.47	0.000		
23.50	0.000		
23.53	0.000		
23.57	0.000		
23.60	0.000		
23.63	0.000		
23.67	0.000		
23.70	0.000		
23.73	0.000		

# Hydrograph Report

Hydraflow Hydrographs by InteliSolve v9.24

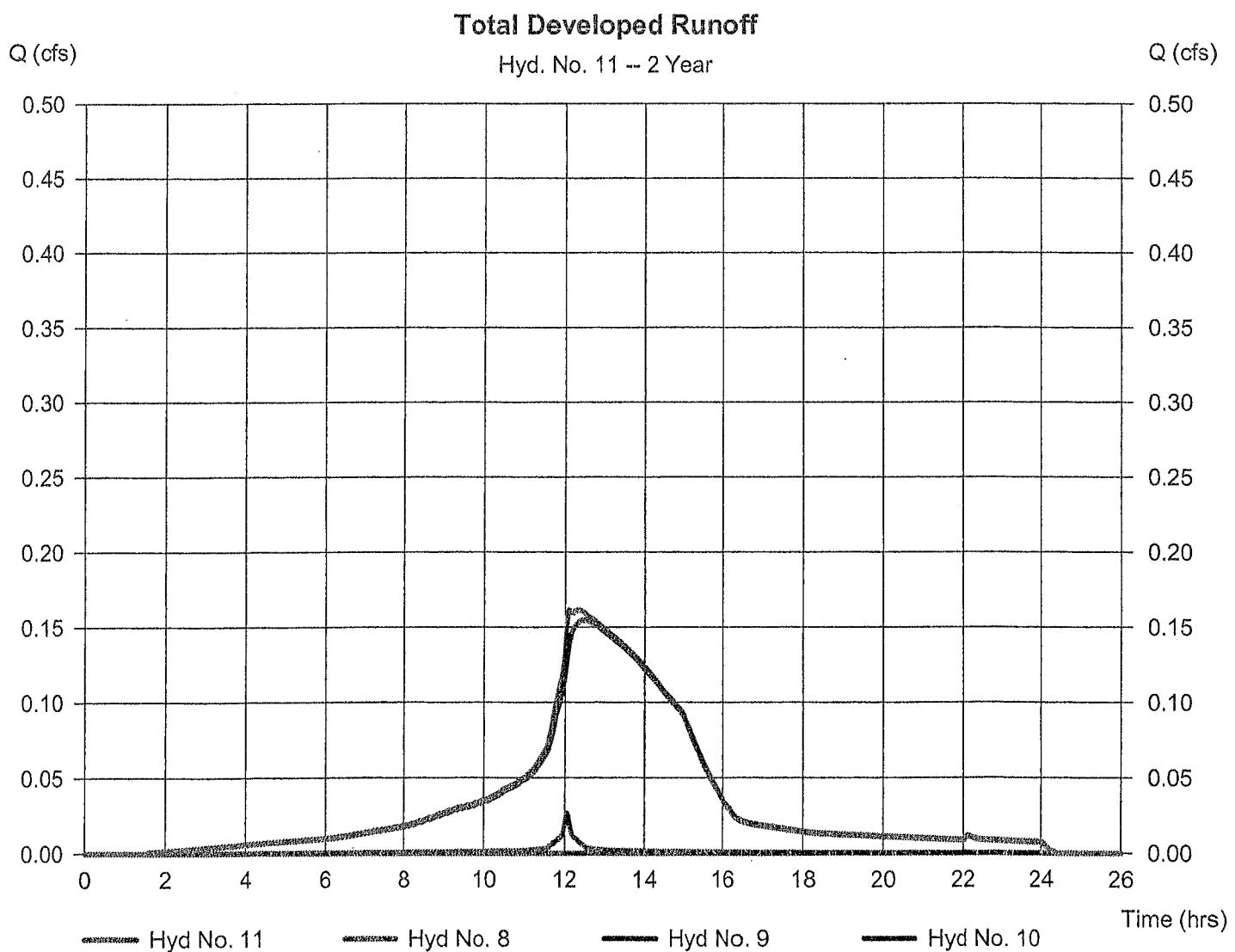
Friday, May 13, 2022

## Hyd. No. 11

### Total Developed Runoff

Hydrograph type = Combine  
Storm frequency = 2 yrs  
Time interval = 2 min  
Inflow hyds. = 8, 9, 10

Peak discharge = 0.161 cfs  
Time to peak = 12.10 hrs  
Hyd. volume = 2,851 cuft  
Contrib. drain. area= 0.074 ac



# Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.24

Friday, May 13, 2022

## Hyd. No. 11

### Total Developed Runoff

Hydrograph type	= Combine	Peak discharge	= 0.161 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 2,851 cuft
Inflow hyds.	= 8, 9, 10	Contrib. drain. area	= 0.074 ac

### Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

Time (hrs)	Hyd. 8 + (cfs)	Hyd. 9 + (cfs)	Hyd. 10 = (cfs)	Outflow (cfs)
9.67	0.031	0.001	0.000	0.032
9.70	0.031	0.001	0.000	0.033
9.73	0.032	0.001	0.000	0.033
9.77	0.032	0.001	0.000	0.033
9.80	0.032	0.001	0.000	0.033
9.83	0.033	0.001	0.000	0.034
9.87	0.033	0.001	0.000	0.034
9.90	0.033	0.001	0.000	0.034
9.93	0.033	0.001	0.000	0.035
9.97	0.034	0.001	0.000	0.035
10.00	0.034	0.001	0.000	0.035
10.03	0.034	0.001	0.000	0.036
10.07	0.035	0.001	0.000	0.036
10.10	0.035	0.001	0.000	0.036
10.13	0.035	0.001	0.000	0.037
10.17	0.036	0.001	0.000	0.037
10.20	0.036	0.001	0.000	0.037
10.23	0.037	0.001	0.000	0.038
10.27	0.037	0.001	0.000	0.038
10.30	0.038	0.001	0.000	0.039
10.33	0.038	0.001	0.000	0.039
10.37	0.039	0.001	0.000	0.040
10.40	0.039	0.001	0.000	0.040
10.43	0.040	0.001	0.000	0.041
10.47	0.040	0.001	0.000	0.042
10.50	0.041	0.001	0.000	0.042
10.53	0.041	0.002	0.000	0.043
10.57	0.042	0.002	0.000	0.043
10.60	0.042	0.002	0.000	0.044
10.63	0.043	0.002	0.000	0.044
10.67	0.043	0.002	0.000	0.045
10.70	0.044	0.002	0.000	0.045
10.73	0.044	0.002	0.000	0.046
10.77	0.045	0.002	0.000	0.046
10.80	0.045	0.002	0.000	0.047
10.83	0.046	0.002	0.000	0.047
10.87	0.046	0.002	0.000	0.048
10.90	0.047	0.002	0.000	0.049
10.93	0.047	0.002	0.000	0.049
10.97	0.048	0.002	0.000	0.050
11.00	0.049	0.002	0.000	0.050
11.03	0.049	0.002	0.000	0.051

Continues on next page...

**Hydrograph Discharge Table**

Time (hrs)	Hyd. 8 + (cfs)	Hyd. 9 + (cfs)	Hyd. 10 = (cfs)	Outflow (cfs)
11.07	0.050	0.002	0.000	0.052
11.10	0.050	0.002	0.000	0.052
11.13	0.051	0.002	0.000	0.053
11.17	0.052	0.002	0.000	0.054
11.20	0.053	0.002	0.000	0.055
11.23	0.054	0.002	0.000	0.056
11.27	0.055	0.002	0.000	0.057
11.30	0.056	0.002	0.000	0.059
11.33	0.057	0.003	0.000	0.060
11.37	0.059	0.003	0.000	0.061
11.40	0.060	0.003	0.000	0.062
11.43	0.061	0.003	0.000	0.064
11.47	0.063	0.003	0.000	0.065
11.50	0.064	0.003	0.000	0.067
11.53	0.065	0.003	0.000	0.068
11.57	0.067	0.003	0.000	0.071
11.60	0.069	0.004	0.000	0.073
11.63	0.073	0.005	0.000	0.077
11.67	0.076	0.005	0.000	0.082
11.70	0.081	0.006	0.000	0.087
11.73	0.086	0.007	0.000	0.093
11.77	0.091	0.008	0.000	0.099
11.80	0.094	0.009	0.000	0.103
11.83	0.097	0.009	0.000	0.106
11.87	0.100	0.010	0.000	0.110
11.90	0.104	0.011	0.000	0.114
11.93	0.107	0.012	0.000	0.119
11.97	0.112	0.015	0.000	0.127
12.00	0.118	0.020	0.000	0.138
12.03	0.125	0.025	0.000	0.150
12.07	0.132	0.026 <<	0.000	0.159
12.10	0.138	0.023	0.000	0.161 <<
12.13	0.142	0.018	0.000	0.161
12.17	0.146	0.014	0.000	0.160
12.20	0.148	0.012	0.000	0.160
12.23	0.149	0.011	0.000	0.160
12.27	0.151	0.010	0.000	0.161
12.30	0.152	0.009	0.000	0.161
12.33	0.153	0.008	0.000	0.161
12.37	0.154	0.008	0.000	0.161
12.40	0.154	0.007	0.000	0.161
12.43	0.155	0.006	0.000	0.161
12.47	0.155 <<	0.005	0.000	0.160
12.50	0.155	0.005	0.000	0.159
12.53	0.155	0.004	0.000	0.158
12.57	0.154	0.003	0.000	0.158
12.60	0.154	0.003	0.000	0.157
12.63	0.153	0.003	0.000	0.156
12.67	0.153	0.003	0.000	0.156
12.70	0.152	0.003	0.000	0.155
12.73	0.152	0.003	0.000	0.154
12.77	0.151	0.003	0.000	0.154
12.80	0.151	0.003	0.000	0.153
12.83	0.150	0.002	0.000	0.153

Continues on next page...

**Hydrograph Discharge Table**

Time (hrs)	Hyd. 8 + (cfs)	Hyd. 9 + (cfs)	Hyd. 10 = (cfs)	Outflow (cfs)
12.87	0.149	0.002	0.000	0.152
12.90	0.149	0.002	0.000	0.151
12.93	0.148	0.002	0.000	0.150
12.97	0.147	0.002	0.000	0.150
13.00	0.147	0.002	0.000	0.149
13.03	0.146	0.002	0.000	0.148
13.07	0.145	0.002	0.000	0.147
13.10	0.145	0.002	0.000	0.147
13.13	0.144	0.002	0.000	0.146
13.17	0.143	0.002	0.000	0.145
13.20	0.142	0.002	0.000	0.144
13.23	0.142	0.002	0.000	0.144
13.27	0.141	0.002	0.000	0.143
13.30	0.140	0.002	0.000	0.142
13.33	0.139	0.002	0.000	0.141
13.37	0.139	0.002	0.000	0.140
13.40	0.138	0.002	0.000	0.140
13.43	0.137	0.002	0.000	0.139
13.47	0.136	0.002	0.000	0.138
13.50	0.136	0.002	0.000	0.137
13.53	0.135	0.002	0.000	0.136
13.57	0.134	0.002	0.000	0.136
13.60	0.133	0.002	0.000	0.135
13.63	0.133	0.002	0.000	0.134
13.67	0.132	0.002	0.000	0.133
13.70	0.131	0.002	0.000	0.132
13.73	0.130	0.001	0.000	0.132
13.77	0.129	0.001	0.000	0.131
13.80	0.128	0.001	0.000	0.130
13.83	0.127	0.001	0.000	0.129
13.87	0.126	0.001	0.000	0.128
13.90	0.125	0.001	0.000	0.127
13.93	0.124	0.001	0.000	0.126
13.97	0.123	0.001	0.000	0.125
14.00	0.122	0.001	0.000	0.124
14.03	0.121	0.001	0.000	0.123
14.07	0.120	0.001	0.000	0.121
14.10	0.119	0.001	0.000	0.120
14.13	0.118	0.001	0.000	0.119
14.17	0.117	0.001	0.000	0.118
14.20	0.116	0.001	0.000	0.117
14.23	0.115	0.001	0.000	0.116
14.27	0.114	0.001	0.000	0.115
14.30	0.113	0.001	0.000	0.114
14.33	0.112	0.001	0.000	0.113
14.37	0.111	0.001	0.000	0.112
14.40	0.110	0.001	0.000	0.111
14.43	0.109	0.001	0.000	0.110
14.47	0.108	0.001	0.000	0.109
14.50	0.107	0.001	0.000	0.108
14.53	0.106	0.001	0.000	0.107
14.57	0.105	0.001	0.000	0.106
14.60	0.104	0.001	0.000	0.105
14.63	0.103	0.001	0.000	0.104

Continues on next page...

**Hydrograph Discharge Table**

Time (hrs)	Hyd. 8 + (cfs)	Hyd. 9 + (cfs)	Hyd. 10 = (cfs)	Outflow (cfs)
14.67	0.102	0.001	0.000	0.103
14.70	0.101	0.001	0.000	0.102
14.73	0.100	0.001	0.000	0.101
14.77	0.099	0.001	0.000	0.100
14.80	0.098	0.001	0.000	0.099
14.83	0.097	0.001	0.000	0.098
14.87	0.096	0.001	0.000	0.097
14.90	0.094	0.001	0.000	0.096
14.93	0.093	0.001	0.000	0.094
14.97	0.092	0.001	0.000	0.093
15.00	0.091	0.001	0.000	0.092
15.03	0.089	0.001	0.000	0.090
15.07	0.087	0.001	0.000	0.088
15.10	0.084	0.001	0.000	0.085
15.13	0.082	0.001	0.000	0.083
15.17	0.080	0.001	0.000	0.081
15.20	0.078	0.001	0.000	0.079
15.23	0.076	0.001	0.000	0.077
15.27	0.074	0.001	0.000	0.075
15.30	0.072	0.001	0.000	0.073
15.33	0.070	0.001	0.000	0.071
15.37	0.068	0.001	0.000	0.068
15.40	0.066	0.001	0.000	0.067
15.43	0.064	0.001	0.000	0.065
15.47	0.062	0.001	0.000	0.063
15.50	0.060	0.001	0.000	0.061
15.53	0.058	0.001	0.000	0.059
15.57	0.056	0.001	0.000	0.057
15.60	0.054	0.001	0.000	0.055
15.63	0.052	0.001	0.000	0.053
15.67	0.051	0.001	0.000	0.052
15.70	0.049	0.001	0.000	0.050
15.73	0.047	0.001	0.000	0.048
15.77	0.045	0.001	0.000	0.046
15.80	0.044	0.001	0.000	0.045
15.83	0.042	0.001	0.000	0.043
15.87	0.041	0.001	0.000	0.042
15.90	0.039	0.001	0.000	0.040
15.93	0.038	0.001	0.000	0.039
15.97	0.036	0.001	0.000	0.037
16.00	0.035	0.001	0.000	0.036
16.03	0.034	0.001	0.000	0.034
16.07	0.033	0.001	0.000	0.033

*...End*

# Hydrograph Summary Report

Hydraflow Hydrographs by Intellisolve v9.24

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description
1	SCS Runoff	2.195	2	724	7,566	----	----	----	Undisturbed Area
2	SCS Runoff	0.552	2	724	1,905	----	----	----	Existing Impervious
3	SCS Runoff	0.028	2	742	339	----	----	----	Existing Open Space
4	Combine	0.552	2	724	2,244	2, 3	----	----	Total Existing Runoff
5	SCS Runoff	1.269	2	724	4,374	----	----	----	Controlled Impervious
6	SCS Runoff	0.010	2	742	126	----	----	----	Controlled Open Space
7	Combine	1.269	2	724	4,500	5, 6	----	----	Total to Basin
8	Reservoir	0.190	2	752	4,499	7	91.64	1,471	Routed Basin
9	SCS Runoff	0.041	2	724	141	----	----	----	Uncontrolled Impervious
10	SCS Runoff	0.005	2	742	66	----	----	----	Uncontrolled Open Space
11	Combine	0.204	2	742	4,706	8, 9, 10	----	----	Total Developed Runoff

190403 Drainage 05-13-2022 (new rainfall). Return Period: 10 Year

Friday, May 13, 2022

# Hydrograph Report

Hydraflow Hydrographs by Intelsolve v9.24

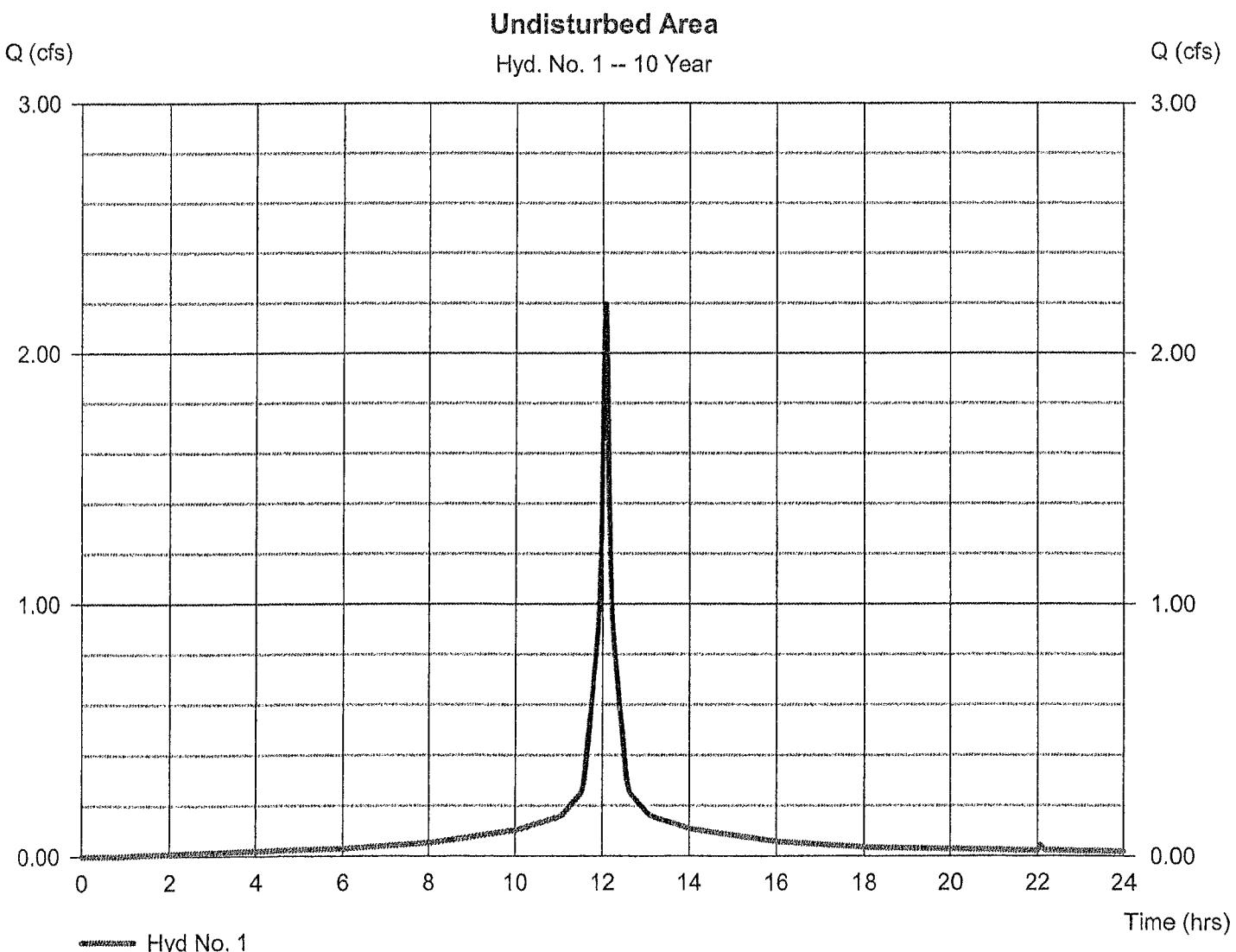
Friday, May 13, 2022

## Hyd. No. 1

### Undisturbed Area

Hydrograph type = SCS Runoff  
Storm frequency = 10 yrs  
Time interval = 2 min  
Drainage area = 0.429 ac  
Basin Slope = 0.0 %  
Tc method = USER  
Total precip. = 5.42 in  
Storm duration = 24 hrs

Peak discharge = 2.195 cfs  
Time to peak = 12.07 hrs  
Hyd. volume = 7,566 cuft  
Curve number = 98  
Hydraulic length = 0 ft  
Time of conc. (Tc) = 6.00 min  
Distribution = Type III  
Shape factor = 484



# Hydrograph Report

Hydraflow Hydrographs by InteliSolve v9.24

Friday, May 13, 2022

## Hyd. No. 1

### Undisturbed Area

Hydrograph type	= SCS Runoff	Peak discharge	= 2.195 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 7,566 cuft
Drainage area	= 0.429 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.0 min
Total precip.	= 5.42 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

### Hydrograph Discharge Table

(Printed values >= 20.00% of Qp.)

#### Time -- Outflow

(hrs      cfs)

11.67	0.460
11.70	0.524
11.73	0.588
11.77	0.652
11.80	0.717
11.83	0.781
11.87	0.845
11.90	0.910
11.93	1.022
11.97	1.276
12.00	1.688
12.03	2.087
12.07	2.195 <<
12.10	1.945
12.13	1.527
12.17	1.180
12.20	0.989
12.23	0.893
12.27	0.828
12.30	0.764
12.33	0.700
12.37	0.636
12.40	0.572
12.43	0.507
12.47	0.443

...End

# Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.24

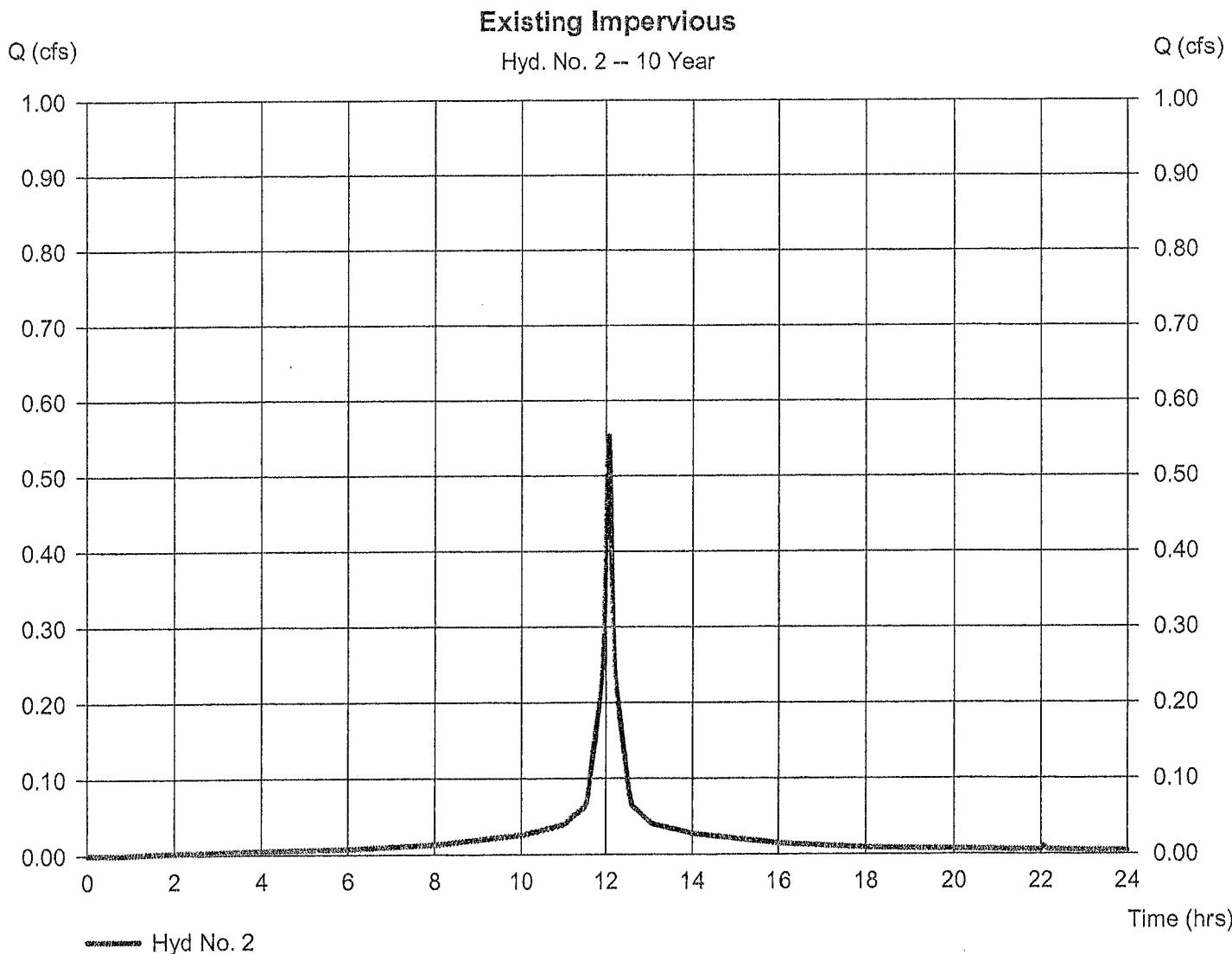
Friday, May 13, 2022

## Hyd. No. 2

### Existing Impervious

Hydrograph type = SCS Runoff  
Storm frequency = 10 yrs  
Time interval = 2 min  
Drainage area = 0.108 ac  
Basin Slope = 0.0 %  
Tc method = USER  
Total precip. = 5.42 in  
Storm duration = 24 hrs

Peak discharge = 0.552 cfs  
Time to peak = 12.07 hrs  
Hyd. volume = 1,905 cuft  
Curve number = 98  
Hydraulic length = 0 ft  
Time of conc. (Tc) = 6.00 min  
Distribution = Type III  
Shape factor = 484



# Hydrograph Report

Hydraflow Hydrographs by Intelsolve v9.24

Friday, May 13, 2022

## Hyd. No. 2

### Existing Impervious

Hydrograph type	= SCS Runoff	Peak discharge	= 0.552 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 1,905 cuft
Drainage area	= 0.108 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.0 min
Total precip.	= 5.42 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

### Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

#### Time -- Outflow (hrs      cfs)

11.67	0.116
11.70	0.132
11.73	0.148
11.77	0.164
11.80	0.180
11.83	0.197
11.87	0.213
11.90	0.229
11.93	0.257
11.97	0.321
12.00	0.425
12.03	0.525
12.07	0.552 <<
12.10	0.490
12.13	0.384
12.17	0.297
12.20	0.249
12.23	0.225
12.27	0.209
12.30	0.192
12.33	0.176
12.37	0.160
12.40	0.144
12.43	0.128
12.47	0.112

...End

# Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.24

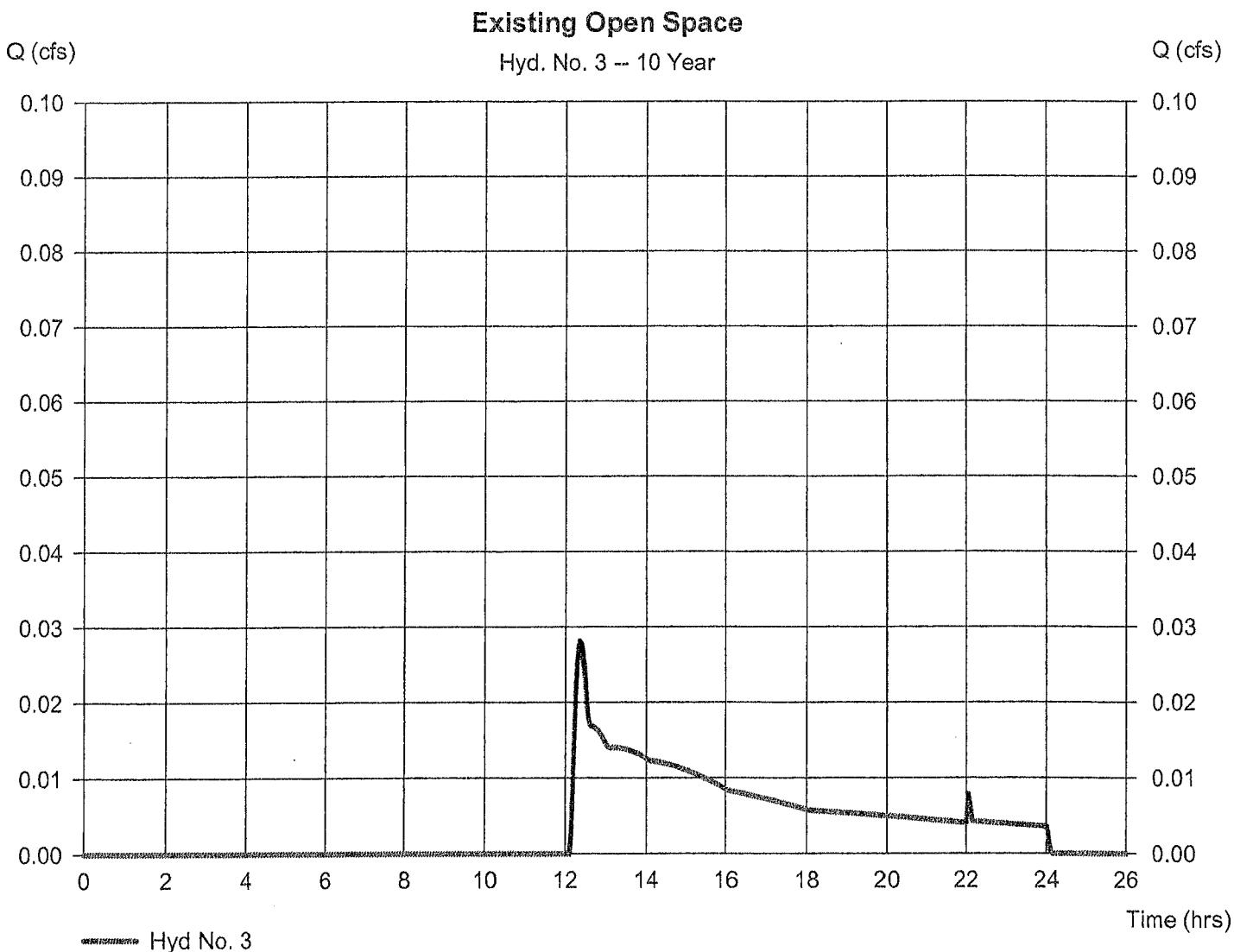
Friday, May 13, 2022

## Hyd. No. 3

### Existing Open Space

Hydrograph type = SCS Runoff  
Storm frequency = 10 yrs  
Time interval = 2 min  
Drainage area = 0.340 ac  
Basin Slope = 0.0 %  
Tc method = TR55  
Total precip. = 5.42 in  
Storm duration = 24 hrs

Peak discharge = 0.028 cfs  
Time to peak = 12.37 hrs  
Hyd. volume = 339 cuft  
Curve number = 39  
Hydraulic length = 0 ft  
Time of conc. (Tc) = 6.50 min  
Distribution = Type III  
Shape factor = 484



# Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.24

Friday, May 13, 2022

## Hyd. No. 3

### Existing Open Space

Hydrograph type	= SCS Runoff	Peak discharge	= 0.028 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.37 hrs
Time interval	= 2 min	Hyd. volume	= 339 cuft
Drainage area	= 0.340 ac	Curve number	= 39
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.5 min
Total precip.	= 5.42 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

### Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

Time -- Outflow (hrs      cfs)		Time -- Outflow (hrs      cfs)		Time -- Outflow (hrs      cfs)		Time -- Outflow (hrs      cfs)	
12.17	0.006	13.40	0.014	14.63	0.012	15.87	0.009
12.20	0.012	13.43	0.014	14.67	0.012	15.90	0.009
12.23	0.018	13.47	0.014	14.70	0.012	15.93	0.009
12.27	0.022	13.50	0.014	14.73	0.012	15.97	0.009
12.30	0.025	13.53	0.014	14.77	0.011	16.00	0.009
12.33	0.027	13.57	0.014	14.80	0.011	16.03	0.008
12.37	0.028 <<	13.60	0.014	14.83	0.011	16.07	0.008
12.40	0.028	13.63	0.014	14.87	0.011	16.10	0.008
12.43	0.027	13.67	0.013	14.90	0.011	16.13	0.008
12.47	0.025	13.70	0.013	14.93	0.011	16.17	0.008
12.50	0.023	13.73	0.013	14.97	0.011	16.20	0.008
12.53	0.020	13.77	0.013	15.00	0.011	16.23	0.008
12.57	0.018	13.80	0.013	15.03	0.011	16.27	0.008
12.60	0.017	13.83	0.013	15.07	0.011	16.30	0.008
12.63	0.017	13.87	0.013	15.10	0.011	16.33	0.008
12.67	0.017	13.90	0.013	15.13	0.011	16.37	0.008
12.70	0.017	13.93	0.013	15.17	0.011	16.40	0.008
12.73	0.017	13.97	0.013	15.20	0.011	16.43	0.008
12.77	0.017	14.00	0.013	15.23	0.011	16.47	0.008
12.80	0.016	14.03	0.012	15.27	0.010	16.50	0.008
12.83	0.016	14.07	0.012	15.30	0.010	16.53	0.008
12.87	0.016	14.10	0.012	15.33	0.010	16.57	0.008
12.90	0.016	14.13	0.012	15.37	0.010	16.60	0.008
12.93	0.015	14.17	0.012	15.40	0.010	16.63	0.008
12.97	0.015	14.20	0.012	15.43	0.010	16.67	0.008
13.00	0.015	14.23	0.012	15.47	0.010	16.70	0.008
13.03	0.014	14.27	0.012	15.50	0.010	16.73	0.008
13.07	0.014	14.30	0.012	15.53	0.010	16.77	0.008
13.10	0.014	14.33	0.012	15.57	0.010	16.80	0.008
13.13	0.014	14.37	0.012	15.60	0.010	16.83	0.007
13.17	0.014	14.40	0.012	15.63	0.010	16.87	0.007
13.20	0.014	14.43	0.012	15.67	0.009	16.90	0.007
13.23	0.014	14.47	0.012	15.70	0.009	16.93	0.007
13.27	0.014	14.50	0.012	15.73	0.009	16.97	0.007
13.30	0.014	14.53	0.012	15.77	0.009	17.00	0.007
13.33	0.014	14.57	0.012	15.80	0.009	17.03	0.007
13.37	0.014	14.60	0.012	15.83	0.009	17.07	0.007

Continues on next page...

### Hydrograph Discharge Table

Time -- Outflow  
(hrs      cfs)

17.10	0.007
17.13	0.007
17.17	0.007
17.20	0.007
17.23	0.007
17.27	0.007
17.30	0.007
17.33	0.007
17.37	0.007
17.40	0.007
17.43	0.007
17.47	0.007
17.50	0.007
17.53	0.007
17.57	0.006
17.60	0.006
17.63	0.006
17.67	0.006
17.70	0.006
17.73	0.006
17.77	0.006
17.80	0.006
17.83	0.006
17.87	0.006
17.90	0.006
17.93	0.006
17.97	0.006
18.00	0.006
18.03	0.006
18.07	0.006
18.10	0.006
18.13	0.006
18.17	0.006
18.20	0.006
18.23	0.006
18.27	0.006
18.30	0.006
18.33	0.006
18.37	0.006

*...End*

# Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.24

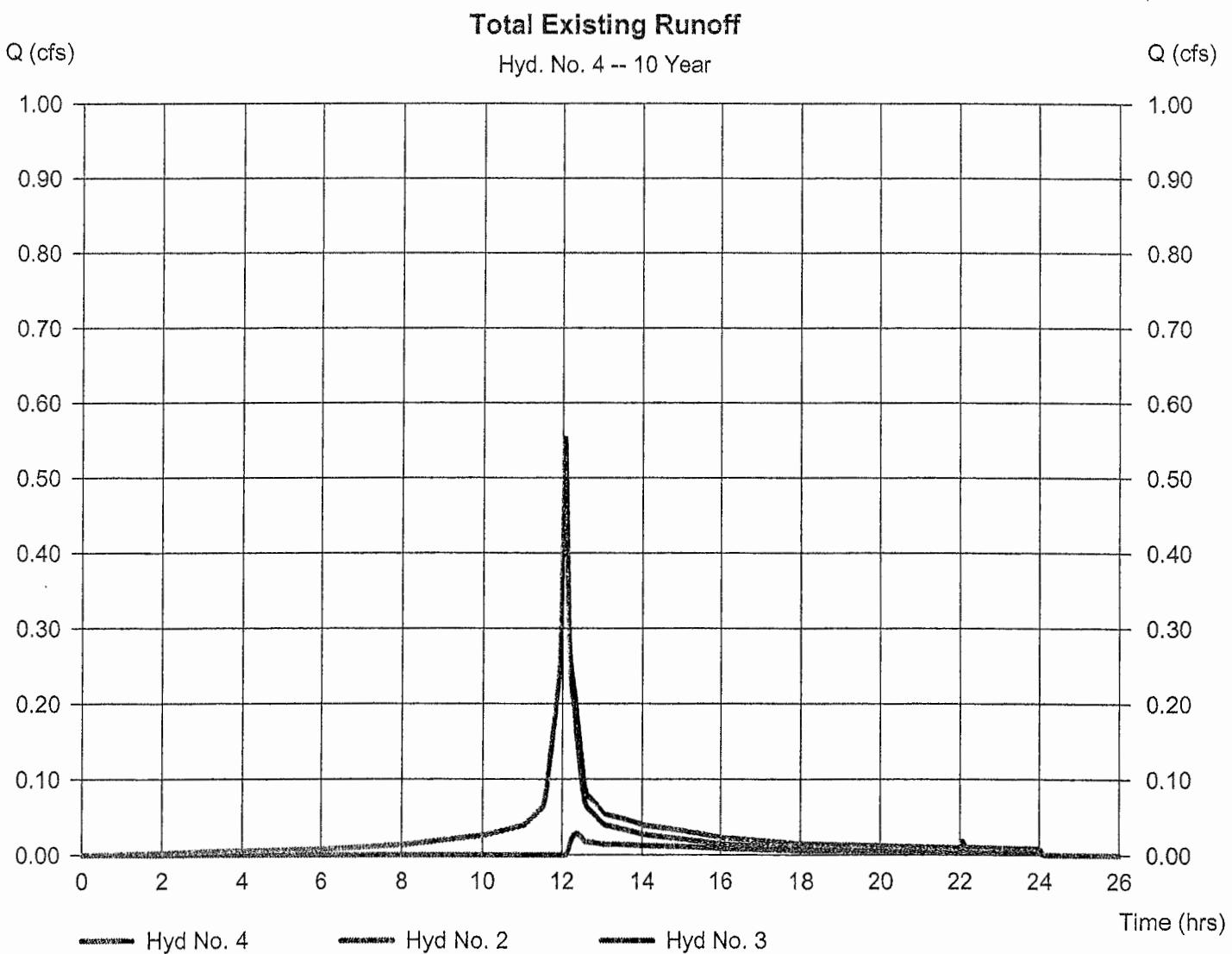
Friday, May 13, 2022

## Hyd. No. 4

### Total Existing Runoff

Hydrograph type = Combine  
Storm frequency = 10 yrs  
Time interval = 2 min  
Inflow hyds. = 2, 3

Peak discharge = 0.552 cfs  
Time to peak = 12.07 hrs  
Hyd. volume = 2,244 cuft  
Contrib. drain. area= 0.448 ac



# Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.24

Friday, May 13, 2022

## Hyd. No. 4

### Total Existing Runoff

Hydrograph type	= Combine	Peak discharge	= 0.552 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 2,244 cuft
Inflow hyds.	= 2, 3	Contrib. drain. area	= 0.448 ac

### Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

Time (hrs)	Hyd. 2 + (cfs)	Hyd. 3 = (cfs)	Outflow (cfs)
11.67	0.116	0.000	0.116
11.70	0.132	0.000	0.132
11.73	0.148	0.000	0.148
11.77	0.164	0.000	0.164
11.80	0.180	0.000	0.180
11.83	0.197	0.000	0.197
11.87	0.213	0.000	0.213
11.90	0.229	0.000	0.229
11.93	0.257	0.000	0.257
11.97	0.321	0.000	0.321
12.00	0.425	0.000	0.425
12.03	0.525	0.000	0.525
12.07	0.552 <<	0.000	0.552 <<
12.10	0.490	0.000	0.490
12.13	0.384	0.002	0.386
12.17	0.297	0.006	0.303
12.20	0.249	0.012	0.261
12.23	0.225	0.018	0.243
12.27	0.209	0.022	0.231
12.30	0.192	0.025	0.218
12.33	0.176	0.027	0.203
12.37	0.160	0.028 <<	0.188
12.40	0.144	0.028	0.172
12.43	0.128	0.027	0.155
12.47	0.112	0.025	0.137
12.50	0.095	0.023	0.118

...End

# Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.24

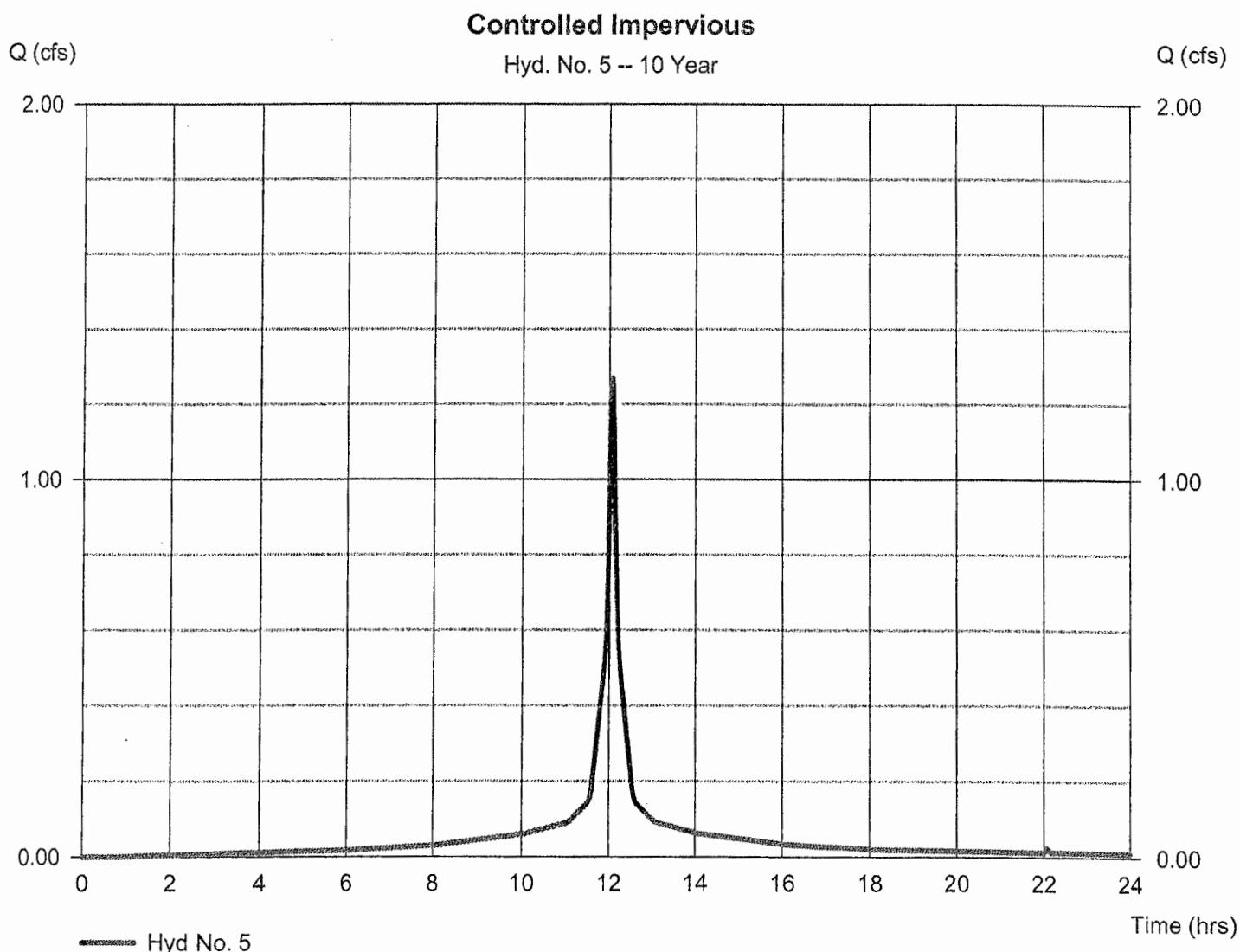
Friday, May 13, 2022

## Hyd. No. 5

### Controlled Impervious

Hydrograph type = SCS Runoff  
Storm frequency = 10 yrs  
Time interval = 2 min  
Drainage area = 0.248 ac  
Basin Slope = 0.0 %  
Tc method = USER  
Total precip. = 5.42 in  
Storm duration = 24 hrs

Peak discharge = 1.269 cfs  
Time to peak = 12.07 hrs  
Hyd. volume = 4,374 cuft  
Curve number = 98  
Hydraulic length = 0 ft  
Time of conc. (Tc) = 6.00 min  
Distribution = Type III  
Shape factor = 484



# Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.24

Friday, May 13, 2022

## Hyd. No. 5

Controlled Impervious

Hydrograph type	= SCS Runoff	Peak discharge	= 1.269 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 4,374 cuft
Drainage area	= 0.248 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.0 min
Total precip.	= 5.42 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

## Hydrograph Discharge Table

(Printed values >= 20.00% of Qp.)

### Time -- Outflow (hrs      cfs)

11.67	0.266
11.70	0.303
11.73	0.340
11.77	0.377
11.80	0.414
11.83	0.451
11.87	0.489
11.90	0.526
11.93	0.591
11.97	0.738
12.00	0.976
12.03	1.206
12.07	1.269 <<
12.10	1.124
12.13	0.883
12.17	0.682
12.20	0.572
12.23	0.516
12.27	0.479
12.30	0.442
12.33	0.405
12.37	0.368
12.40	0.330
12.43	0.293
12.47	0.256

...End

# Hydrograph Report

Hydraflow Hydrographs by Intelsolve v9.24

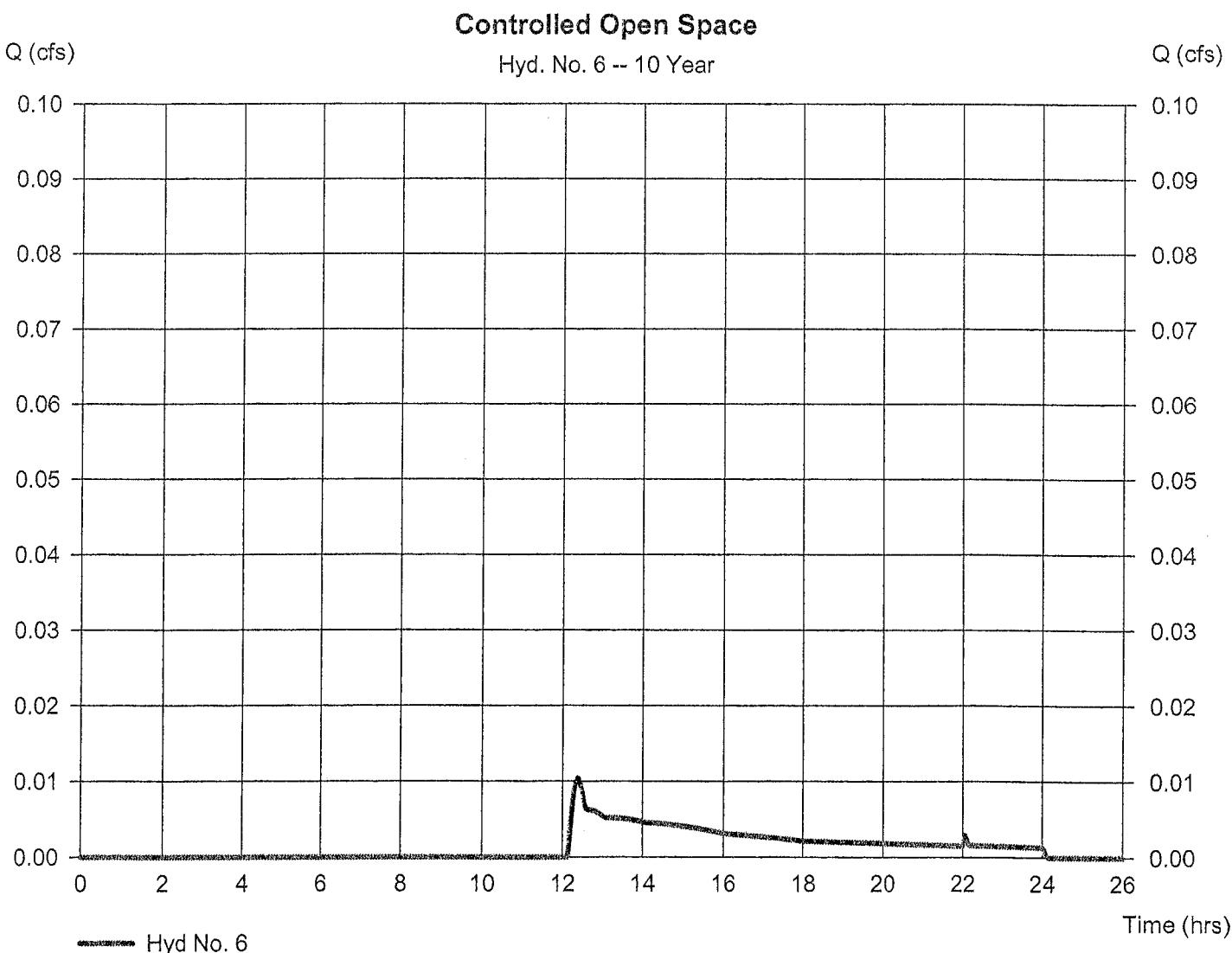
Friday, May 13, 2022

## Hyd. No. 6

### Controlled Open Space

Hydrograph type = SCS Runoff  
Storm frequency = 10 yrs  
Time interval = 2 min  
Drainage area = 0.126 ac  
Basin Slope = 0.0 %  
Tc method = USER  
Total precip. = 5.42 in  
Storm duration = 24 hrs

Peak discharge = 0.010 cfs  
Time to peak = 12.37 hrs  
Hyd. volume = 126 cuft  
Curve number = 39  
Hydraulic length = 0 ft  
Time of conc. (Tc) = 6.00 min  
Distribution = Type III  
Shape factor = 484



# Hydrograph Report

Hydraflow Hydrographs by Intellsolve v9.24

Friday, May 13, 2022

## Hyd. No. 6

### Controlled Open Space

Hydrograph type	= SCS Runoff	Peak discharge	= 0.010 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.37 hrs
Time interval	= 2 min	Hyd. volume	= 126 cuft
Drainage area	= 0.126 ac	Curve number	= 39
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.0 min
Total precip.	= 5.42 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

### Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

Time -- Outflow (hrs cfs)		Time -- Outflow (hrs cfs)		Time -- Outflow (hrs cfs)		Time -- Outflow (hrs cfs)	
12.17	0.002	13.40	0.005	14.63	0.004	15.87	0.003
12.20	0.004	13.43	0.005	14.67	0.004	15.90	0.003
12.23	0.007	13.47	0.005	14.70	0.004	15.93	0.003
12.27	0.008	13.50	0.005	14.73	0.004	15.97	0.003
12.30	0.009	13.53	0.005	14.77	0.004	16.00	0.003
12.33	0.010	13.57	0.005	14.80	0.004	16.03	0.003
12.37	0.010 <<	13.60	0.005	14.83	0.004	16.07	0.003
12.40	0.010	13.63	0.005	14.87	0.004	16.10	0.003
12.43	0.010	13.67	0.005	14.90	0.004	16.13	0.003
12.47	0.009	13.70	0.005	14.93	0.004	16.17	0.003
12.50	0.008	13.73	0.005	14.97	0.004	16.20	0.003
12.53	0.007	13.77	0.005	15.00	0.004	16.23	0.003
12.57	0.007	13.80	0.005	15.03	0.004	16.27	0.003
12.60	0.006	13.83	0.005	15.07	0.004	16.30	0.003
12.63	0.006	13.87	0.005	15.10	0.004	16.33	0.003
12.67	0.006	13.90	0.005	15.13	0.004	16.37	0.003
12.70	0.006	13.93	0.005	15.17	0.004	16.40	0.003
12.73	0.006	13.97	0.005	15.20	0.004	16.43	0.003
12.77	0.006	14.00	0.005	15.23	0.004	16.47	0.003
12.80	0.006	14.03	0.005	15.27	0.004	16.50	0.003
12.83	0.006	14.07	0.005	15.30	0.004	16.53	0.003
12.87	0.006	14.10	0.005	15.33	0.004	16.57	0.003
12.90	0.006	14.13	0.005	15.37	0.004	16.60	0.003
12.93	0.006	14.17	0.005	15.40	0.004	16.63	0.003
12.97	0.006	14.20	0.005	15.43	0.004	16.67	0.003
13.00	0.005	14.23	0.005	15.47	0.004	16.70	0.003
13.03	0.005	14.27	0.005	15.50	0.004	16.73	0.003
13.07	0.005	14.30	0.004	15.53	0.004	16.77	0.003
13.10	0.005	14.33	0.004	15.57	0.004	16.80	0.003
13.13	0.005	14.37	0.004	15.60	0.004	16.83	0.003
13.17	0.005	14.40	0.004	15.63	0.004	16.87	0.003
13.20	0.005	14.43	0.004	15.67	0.004	16.90	0.003
13.23	0.005	14.47	0.004	15.70	0.003	16.93	0.003
13.27	0.005	14.50	0.004	15.73	0.003	16.97	0.003
13.30	0.005	14.53	0.004	15.77	0.003	17.00	0.003
13.33	0.005	14.57	0.004	15.80	0.003	17.03	0.003
13.37	0.005	14.60	0.004	15.83	0.003	17.07	0.003

Continues on next page...

### Hydrograph Discharge Table

Time -- Outflow  
(hrs      cfs)

17.10	0.003
17.13	0.003
17.17	0.003
17.20	0.003
17.23	0.003
17.27	0.003
17.30	0.003
17.33	0.003
17.37	0.003
17.40	0.002
17.43	0.002
17.47	0.002
17.50	0.002
17.53	0.002
17.57	0.002
17.60	0.002
17.63	0.002
17.67	0.002
17.70	0.002
17.73	0.002
17.77	0.002
17.80	0.002
17.83	0.002
17.87	0.002
17.90	0.002
17.93	0.002
17.97	0.002
18.00	0.002
18.03	0.002
18.07	0.002
18.10	0.002
18.13	0.002
18.17	0.002
18.20	0.002
18.23	0.002
18.27	0.002
18.30	0.002
18.33	0.002
18.37	0.002

*...End*

# Hydrograph Report

Hydraflow Hydrographs by Intelsolve v9.24

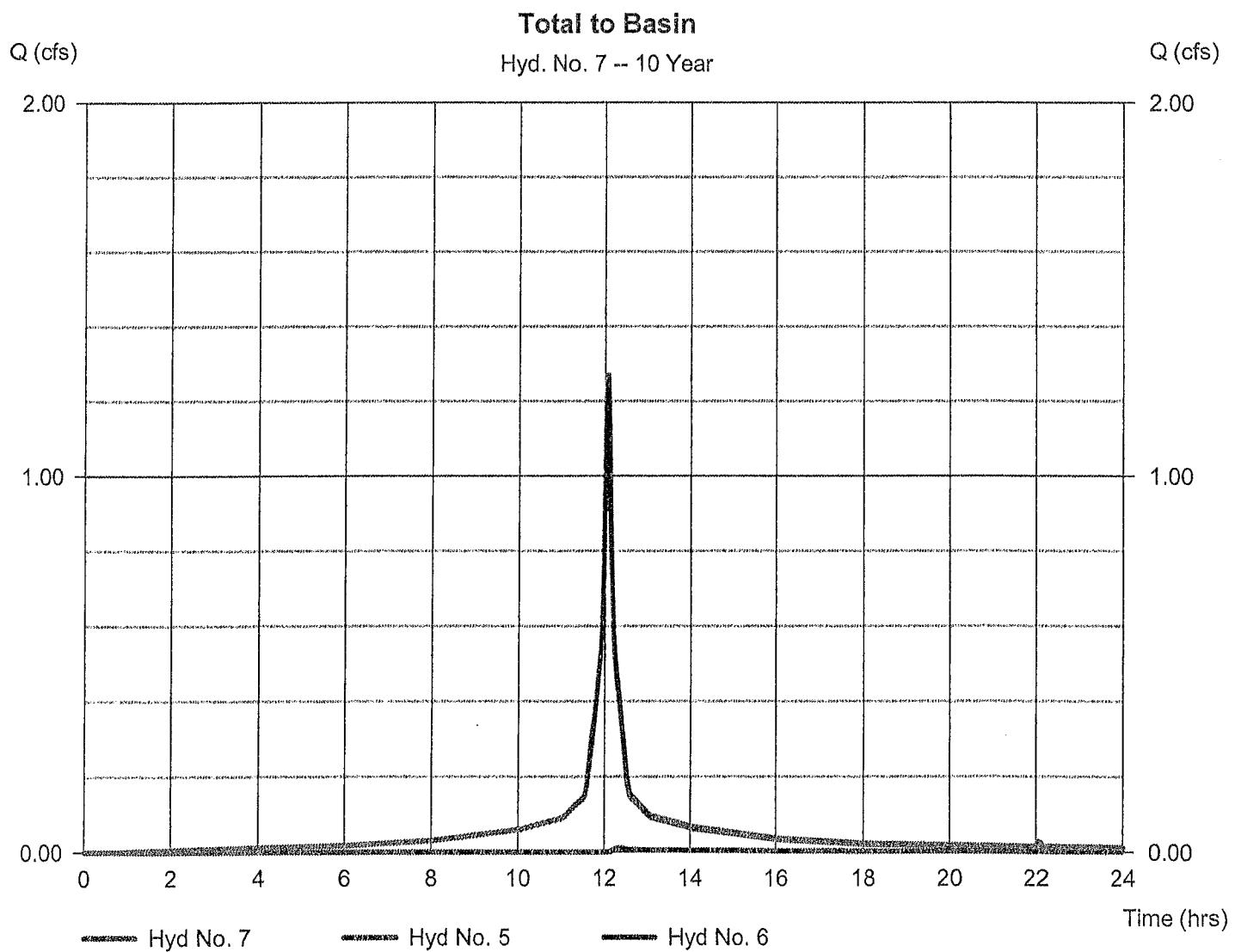
Friday, May 13, 2022

## Hyd. No. 7

### Total to Basin

Hydrograph type = Combine  
Storm frequency = 10 yrs  
Time interval = 2 min  
Inflow hyds. = 5, 6

Peak discharge = 1.269 cfs  
Time to peak = 12.07 hrs  
Hyd. volume = 4,500 cuft  
Contrib. drain. area= 0.374 ac



# Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.24

Friday, May 13, 2022

## Hyd. No. 7

Total to Basin

Hydrograph type	= Combine	Peak discharge = 1.269 cfs
Storm frequency	= 10 yrs	Time to peak = 12.07 hrs
Time interval	= 2 min	Hyd. volume = 4,500 cuft
Inflow hyds.	= 5, 6	Contrib. drain. area= 0.374 ac

## Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

Time (hrs)	Hyd. 5 + (cfs)	Hyd. 6 = (cfs)	Outflow (cfs)
11.67	0.266	0.000	0.266
11.70	0.303	0.000	0.303
11.73	0.340	0.000	0.340
11.77	0.377	0.000	0.377
11.80	0.414	0.000	0.414
11.83	0.451	0.000	0.451
11.87	0.489	0.000	0.489
11.90	0.526	0.000	0.526
11.93	0.591	0.000	0.591
11.97	0.738	0.000	0.738
12.00	0.976	0.000	0.976
12.03	1.206	0.000	1.206
12.07	1.269 <<	0.000	1.269 <<
12.10	1.124	0.000	1.124
12.13	0.883	0.001	0.883
12.17	0.682	0.002	0.684
12.20	0.572	0.004	0.576
12.23	0.516	0.007	0.523
12.27	0.479	0.008	0.487
12.30	0.442	0.009	0.451
12.33	0.405	0.010	0.415
12.37	0.368	0.010 <<	0.378
12.40	0.330	0.010	0.341
12.43	0.293	0.010	0.303
12.47	0.256	0.009	0.265

...End

# Hydrograph Report

Hydraflow Hydrographs by Intellsolve v9.24

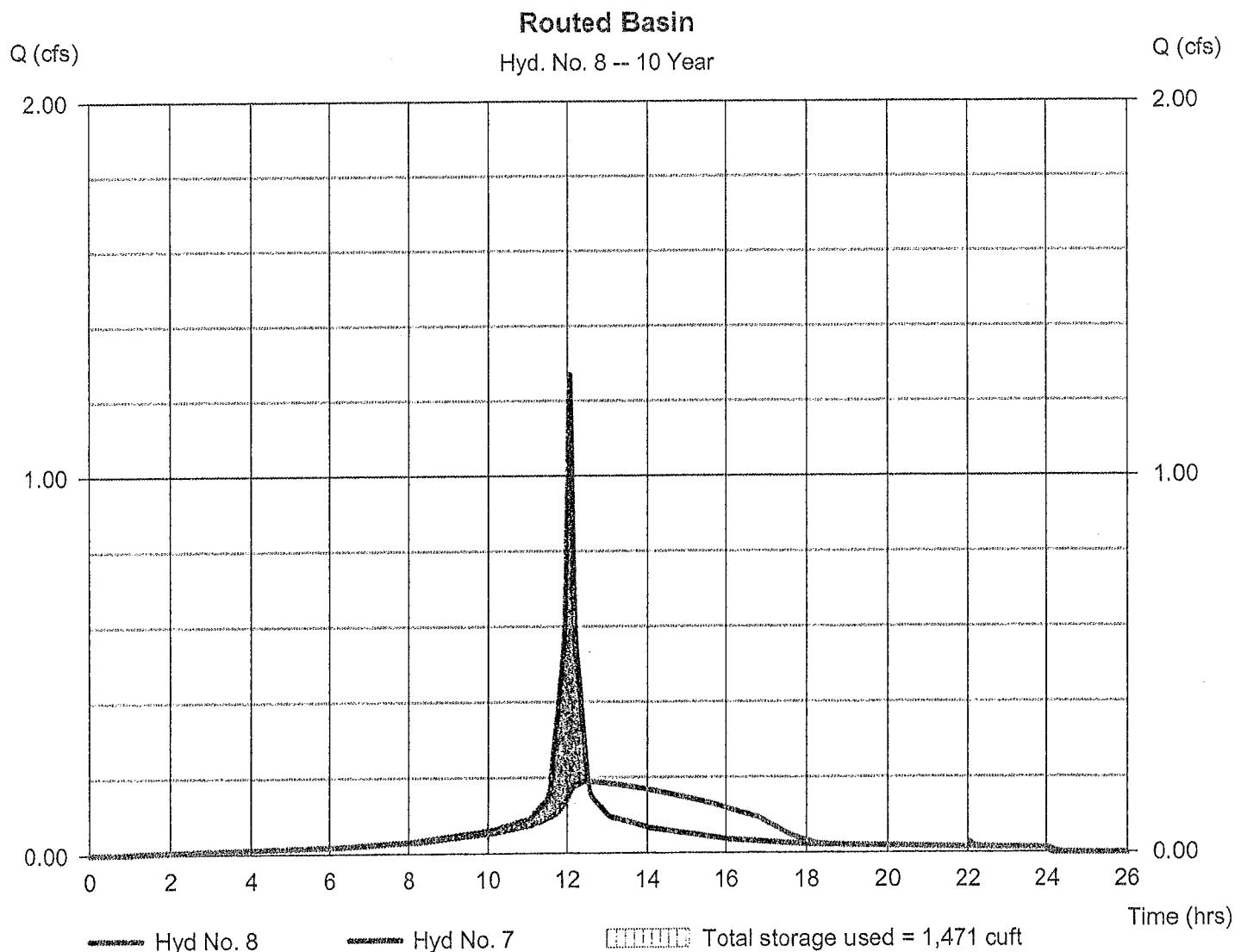
Friday, May 13, 2022

## Hyd. No. 8

### Routed Basin

Hydrograph type	= Reservoir	Peak discharge	= 0.190 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.53 hrs
Time interval	= 2 min	Hyd. volume	= 4,499 cuft
Inflow hyd. No.	= 7 - Total to Basin	Max. Elevation	= 91.64 ft
Reservoir name	= (4) 36 inch Pipe Field 120 ft long	Max. Storage	= 1,471 cuft

Storage Indication method used.



# Hydrograph Report

Hydraflow Hydrographs by Intellsolve v9.24

Friday, May 13, 2022

## Hyd. No. 8

### Routed Basin

Hydrograph type	= Reservoir	Peak discharge	= 0.190 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.53 hrs
Time interval	= 2 min	Hyd. volume	= 4,499 cuft
Inflow hyd. No.	= 7 - Total to Basin	Reservoir name	= (4) 36 inch Pipe
Max. Elevation	= 91.64 ft	Max. Storage	= 1,471 cuft

Storage Indication method used.

### Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
8.90	0.043	90.36	0.372	0.038	----	----	----	----	----	----	----	0.038
8.93	0.044	90.36	0.372	0.039	----	----	----	----	----	----	----	0.039
8.97	0.044	90.36	0.372	0.039	----	----	----	----	----	----	----	0.039
9.00	0.045	90.36	0.372	0.040	----	----	----	----	----	----	----	0.040
9.03	0.045	90.36	0.372	0.040	----	----	----	----	----	----	----	0.040
9.07	0.046	90.36	0.372	0.041	----	----	----	----	----	----	----	0.041
9.10	0.046	90.36	0.372	0.041	----	----	----	----	----	----	----	0.041
9.13	0.047	90.36	0.372	0.042	----	----	----	----	----	----	----	0.042
9.17	0.047	90.37	0.372	0.042	----	----	----	----	----	----	----	0.042
9.20	0.048	90.37	0.372	0.042	----	----	----	----	----	----	----	0.042
9.23	0.048	90.37	0.372	0.043	----	----	----	----	----	----	----	0.043
9.27	0.049	90.37	0.372	0.043	----	----	----	----	----	----	----	0.043
9.30	0.049	90.37	0.372	0.043	----	----	----	----	----	----	----	0.043
9.33	0.050	90.37	0.372	0.044	----	----	----	----	----	----	----	0.044
9.37	0.050	90.37	0.372	0.044	----	----	----	----	----	----	----	0.044
9.40	0.051	90.38	0.372	0.045	----	----	----	----	----	----	----	0.045
9.43	0.051	90.38	0.372	0.045	----	----	----	----	----	----	----	0.045
9.47	0.052	90.38	0.372	0.046	----	----	----	----	----	----	----	0.046
9.50	0.052	90.38	0.372	0.046	----	----	----	----	----	----	----	0.046
9.53	0.053	90.38	0.372	0.047	----	----	----	----	----	----	----	0.047
9.57	0.053	90.38	0.372	0.047	----	----	----	----	----	----	----	0.047
9.60	0.054	90.38	0.372	0.047	----	----	----	----	----	----	----	0.047
9.63	0.054	90.39	0.372	0.048	----	----	----	----	----	----	----	0.048
9.67	0.055	90.39	0.372	0.048	----	----	----	----	----	----	----	0.048
9.70	0.055	90.39	0.372	0.049	----	----	----	----	----	----	----	0.049
9.73	0.056	90.39	0.372	0.049	----	----	----	----	----	----	----	0.049
9.77	0.056	90.39	0.372	0.050	----	----	----	----	----	----	----	0.050
9.80	0.057	90.39	0.372	0.050	----	----	----	----	----	----	----	0.050
9.83	0.057	90.40	0.372	0.051	----	----	----	----	----	----	----	0.051
9.87	0.058	90.40	0.372	0.051	----	----	----	----	----	----	----	0.051
9.90	0.058	90.40	0.372	0.051	----	----	----	----	----	----	----	0.051
9.93	0.059	90.40	0.372	0.052	----	----	----	----	----	----	----	0.052
9.97	0.059	90.40	0.372	0.052	----	----	----	----	----	----	----	0.052
10.00	0.060	90.40	0.372	0.053	----	----	----	----	----	----	----	0.053
10.03	0.060	90.41	0.372	0.053	----	----	----	----	----	----	----	0.053
10.07	0.061	90.41	0.372	0.054	----	----	----	----	----	----	----	0.054
10.10	0.062	90.41	0.372	0.054	----	----	----	----	----	----	----	0.054
10.13	0.063	90.41	0.372	0.055	----	----	----	----	----	----	----	0.055
10.17	0.064	90.41	0.372	0.055	----	----	----	----	----	----	----	0.055
10.20	0.065	90.42	0.372	0.056	----	----	----	----	----	----	----	0.056

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**Hydrograph Discharge Table**

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
10.23	0.066	90.42	0.372	0.056	---	---	---	---	---	---	---	0.056
10.27	0.067	90.42	0.372	0.057	---	---	---	---	---	---	---	0.057
10.30	0.068	90.42	0.372	0.057	---	---	---	---	---	---	---	0.057
10.33	0.069	90.43	0.372	0.058	---	---	---	---	---	---	---	0.058
10.37	0.070	90.43	0.372	0.059	---	---	---	---	---	---	---	0.059
10.40	0.071	90.43	0.372	0.059	---	---	---	---	---	---	---	0.059
10.43	0.072	90.43	0.372	0.060	---	---	---	---	---	---	---	0.060
10.47	0.073	90.44	0.372	0.061	---	---	---	---	---	---	---	0.061
10.50	0.074	90.44	0.372	0.061	---	---	---	---	---	---	---	0.061
10.53	0.075	90.44	0.372	0.062	---	---	---	---	---	---	---	0.062
10.57	0.076	90.45	0.372	0.063	---	---	---	---	---	---	---	0.063
10.60	0.077	90.45	0.372	0.064	---	---	---	---	---	---	---	0.064
10.63	0.078	90.45	0.372	0.064	---	---	---	---	---	---	---	0.064
10.67	0.079	90.46	0.372	0.065	---	---	---	---	---	---	---	0.065
10.70	0.080	90.46	0.372	0.066	---	---	---	---	---	---	---	0.066
10.73	0.081	90.46	0.372	0.066	---	---	---	---	---	---	---	0.066
10.77	0.082	90.47	0.372	0.067	---	---	---	---	---	---	---	0.067
10.80	0.083	90.47	0.372	0.068	---	---	---	---	---	---	---	0.068
10.83	0.084	90.48	0.372	0.069	---	---	---	---	---	---	---	0.069
10.87	0.085	90.48	0.372	0.069	---	---	---	---	---	---	---	0.069
10.90	0.086	90.48	0.372	0.070	---	---	---	---	---	---	---	0.070
10.93	0.087	90.49	0.372	0.071	---	---	---	---	---	---	---	0.071
10.97	0.088	90.49	0.372	0.072	---	---	---	---	---	---	---	0.072
11.00	0.089	90.50	0.372	0.073	---	---	---	---	---	---	---	0.073
11.03	0.091	90.50	0.372	0.073	---	---	---	---	---	---	---	0.073
11.07	0.093	90.50	0.372	0.074	---	---	---	---	---	---	---	0.074
11.10	0.096	90.51	0.372	0.075	---	---	---	---	---	---	---	0.075
11.13	0.099	90.52	0.372	0.076	---	---	---	---	---	---	---	0.076
11.17	0.103	90.52	0.372	0.077	---	---	---	---	---	---	---	0.077
11.20	0.107	90.53	0.372	0.078	---	---	---	---	---	---	---	0.078
11.23	0.111	90.54	0.372	0.080	---	---	---	---	---	---	---	0.080
11.27	0.115	90.54	0.372	0.081	---	---	---	---	---	---	---	0.081
11.30	0.119	90.55	0.372	0.083	---	---	---	---	---	---	---	0.083
11.33	0.123	90.56	0.372	0.084	---	---	---	---	---	---	---	0.084
11.37	0.127	90.57	0.372	0.086	---	---	---	---	---	---	---	0.086
11.40	0.130	90.58	0.372	0.087	---	---	---	---	---	---	---	0.087
11.43	0.134	90.59	0.372	0.089	---	---	---	---	---	---	---	0.089
11.47	0.138	90.61	0.372	0.091	---	---	---	---	---	---	---	0.091
11.50	0.142	90.62	0.372	0.092	---	---	---	---	---	---	---	0.092
11.53	0.149	90.62	0.372	0.093	---	---	---	---	---	---	---	0.093
11.57	0.166	90.63	0.372	0.094	---	---	---	---	---	---	---	0.094
11.60	0.194	90.64	0.372	0.095	---	---	---	---	---	---	---	0.095
11.63	0.229	90.65	0.372	0.097	---	---	---	---	---	---	---	0.097
11.67	0.266	90.67	0.372	0.100	---	---	---	---	---	---	---	0.100
11.70	0.303	90.69	0.372	0.102	---	---	---	---	---	---	---	0.102
11.73	0.340	90.71	0.372	0.106	---	---	---	---	---	---	---	0.106
11.77	0.377	90.74	0.372	0.109	---	---	---	---	---	---	---	0.109
11.80	0.414	90.78	0.372	0.113	---	---	---	---	---	---	---	0.113
11.83	0.451	90.81	0.372	0.118	---	---	---	---	---	---	---	0.118
11.87	0.489	90.85	0.372	0.122	---	---	---	---	---	---	---	0.122
11.90	0.526	90.90	0.372	0.127	---	---	---	---	---	---	---	0.127
11.93	0.591	90.94	0.372	0.131	---	---	---	---	---	---	---	0.131
11.97	0.738	90.99	0.372	0.136	---	---	---	---	---	---	---	0.136
12.00	0.976	91.06	0.372	0.143	---	---	---	---	---	---	---	0.143

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## Hydrograph Discharge Table

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
12.03	1.206	91.14	0.372	0.151	----	----	----	----	----	----	----	0.151
12.07	1.269 <<	91.24	0.372	0.159	----	----	----	----	----	----	----	0.159
12.10	1.124	91.33	0.372	0.166	----	----	----	----	----	----	----	0.166
12.13	0.883	91.39	0.372	0.172	----	----	----	----	----	----	----	0.172
12.17	0.684	91.44	0.372	0.176	----	----	----	----	----	----	----	0.176
12.20	0.576	91.48	0.372	0.178	----	----	----	----	----	----	----	0.178
12.23	0.523	91.51	0.372	0.181	----	----	----	----	----	----	----	0.181
12.27	0.487	91.54	0.372	0.183	----	----	----	----	----	----	----	0.183
12.30	0.451	91.56	0.372	0.184	----	----	----	----	----	----	----	0.184
12.33	0.415	91.58	0.372	0.186	----	----	----	----	----	----	----	0.186
12.37	0.378	91.60	0.372	0.187	----	----	----	----	----	----	----	0.187
12.40	0.341	91.61	0.372	0.188	----	----	----	----	----	----	----	0.188
12.43	0.303	91.62	0.372	0.189	----	----	----	----	----	----	----	0.189
12.47	0.265	91.63	0.372	0.189	----	----	----	----	----	----	----	0.189
12.50	0.227	91.63	0.372	0.190	----	----	----	----	----	----	----	0.190
12.53	0.192	91.64 <<	0.372	0.190	----	----	----	----	----	----	----	0.190 <<
12.57	0.168	91.63	0.372	0.190	----	----	----	----	----	----	----	0.190
12.60	0.155	91.63	0.372	0.189	----	----	----	----	----	----	----	0.189
12.63	0.149	91.63	0.372	0.189	----	----	----	----	----	----	----	0.189
12.67	0.145	91.63	0.372	0.189	----	----	----	----	----	----	----	0.189
12.70	0.141	91.62	0.372	0.189	----	----	----	----	----	----	----	0.189
12.73	0.137	91.62	0.372	0.188	----	----	----	----	----	----	----	0.188
12.77	0.133	91.61	0.372	0.188	----	----	----	----	----	----	----	0.188
12.80	0.129	91.61	0.372	0.188	----	----	----	----	----	----	----	0.188
12.83	0.125	91.61	0.372	0.188	----	----	----	----	----	----	----	0.188
12.87	0.121	91.60	0.372	0.187	----	----	----	----	----	----	----	0.187
12.90	0.117	91.59	0.372	0.187	----	----	----	----	----	----	----	0.187
12.93	0.113	91.59	0.372	0.186	----	----	----	----	----	----	----	0.186
12.97	0.109	91.58	0.372	0.186	----	----	----	----	----	----	----	0.186
13.00	0.105	91.58	0.372	0.185	----	----	----	----	----	----	----	0.185
13.03	0.101	91.57	0.372	0.185	----	----	----	----	----	----	----	0.185
13.07	0.099	91.56	0.372	0.185	----	----	----	----	----	----	----	0.185
13.10	0.097	91.56	0.372	0.184	----	----	----	----	----	----	----	0.184
13.13	0.096	91.55	0.372	0.184	----	----	----	----	----	----	----	0.184
13.17	0.095	91.54	0.372	0.183	----	----	----	----	----	----	----	0.183
13.20	0.094	91.54	0.372	0.182	----	----	----	----	----	----	----	0.182
13.23	0.093	91.53	0.372	0.182	----	----	----	----	----	----	----	0.182
13.27	0.091	91.52	0.372	0.181	----	----	----	----	----	----	----	0.181
13.30	0.090	91.51	0.372	0.181	----	----	----	----	----	----	----	0.181
13.33	0.089	91.51	0.372	0.180	----	----	----	----	----	----	----	0.180
13.37	0.088	91.50	0.372	0.180	----	----	----	----	----	----	----	0.180
13.40	0.087	91.49	0.372	0.179	----	----	----	----	----	----	----	0.179
13.43	0.086	91.48	0.372	0.179	----	----	----	----	----	----	----	0.179
13.47	0.085	91.48	0.372	0.178	----	----	----	----	----	----	----	0.178
13.50	0.084	91.47	0.372	0.177	----	----	----	----	----	----	----	0.177
13.53	0.083	91.46	0.372	0.177	----	----	----	----	----	----	----	0.177
13.57	0.082	91.45	0.372	0.176	----	----	----	----	----	----	----	0.176
13.60	0.081	91.45	0.372	0.176	----	----	----	----	----	----	----	0.176
13.63	0.080	91.44	0.372	0.175	----	----	----	----	----	----	----	0.175
13.67	0.079	91.43	0.372	0.174	----	----	----	----	----	----	----	0.174
13.70	0.078	91.42	0.372	0.174	----	----	----	----	----	----	----	0.174
13.73	0.077	91.41	0.372	0.173	----	----	----	----	----	----	----	0.173
13.77	0.076	91.41	0.372	0.173	----	----	----	----	----	----	----	0.173
13.80	0.075	91.40	0.372	0.172	----	----	----	----	----	----	----	0.172

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**Hydrograph Discharge Table**

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
13.83	0.074	91.39	0.372	0.171	----	----	----	----	----	----	----	0.171
13.87	0.073	91.38	0.372	0.171	----	----	----	----	----	----	----	0.171
13.90	0.072	91.37	0.372	0.170	----	----	----	----	----	----	----	0.170
13.93	0.071	91.37	0.372	0.169	----	----	----	----	----	----	----	0.169
13.97	0.070	91.36	0.372	0.169	----	----	----	----	----	----	----	0.169
14.00	0.069	91.35	0.372	0.168	----	----	----	----	----	----	----	0.168
14.03	0.068	91.34	0.372	0.167	----	----	----	----	----	----	----	0.167
14.07	0.067	91.33	0.372	0.167	----	----	----	----	----	----	----	0.167
14.10	0.066	91.33	0.372	0.166	----	----	----	----	----	----	----	0.166
14.13	0.066	91.32	0.372	0.165	----	----	----	----	----	----	----	0.165
14.17	0.065	91.31	0.372	0.165	----	----	----	----	----	----	----	0.165
14.20	0.065	91.30	0.372	0.164	----	----	----	----	----	----	----	0.164
14.23	0.064	91.29	0.372	0.163	----	----	----	----	----	----	----	0.163
14.27	0.064	91.28	0.372	0.163	----	----	----	----	----	----	----	0.163
14.30	0.063	91.28	0.372	0.162	----	----	----	----	----	----	----	0.162
14.33	0.063	91.27	0.372	0.161	----	----	----	----	----	----	----	0.161
14.37	0.062	91.26	0.372	0.161	----	----	----	----	----	----	----	0.161
14.40	0.062	91.25	0.372	0.160	----	----	----	----	----	----	----	0.160
14.43	0.061	91.24	0.372	0.159	----	----	----	----	----	----	----	0.159
14.47	0.061	91.24	0.372	0.159	----	----	----	----	----	----	----	0.159
14.50	0.060	91.23	0.372	0.158	----	----	----	----	----	----	----	0.158
14.53	0.060	91.22	0.372	0.157	----	----	----	----	----	----	----	0.157
14.57	0.059	91.21	0.372	0.156	----	----	----	----	----	----	----	0.156
14.60	0.059	91.20	0.372	0.156	----	----	----	----	----	----	----	0.156
14.63	0.058	91.19	0.372	0.155	----	----	----	----	----	----	----	0.155
14.67	0.058	91.18	0.372	0.154	----	----	----	----	----	----	----	0.154
14.70	0.057	91.17	0.372	0.153	----	----	----	----	----	----	----	0.153
14.73	0.057	91.16	0.372	0.153	----	----	----	----	----	----	----	0.153
14.77	0.056	91.16	0.372	0.152	----	----	----	----	----	----	----	0.152
14.80	0.056	91.15	0.372	0.151	----	----	----	----	----	----	----	0.151
14.83	0.055	91.14	0.372	0.150	----	----	----	----	----	----	----	0.150
14.87	0.055	91.13	0.372	0.149	----	----	----	----	----	----	----	0.149
14.90	0.054	91.12	0.372	0.149	----	----	----	----	----	----	----	0.149
14.93	0.054	91.11	0.372	0.148	----	----	----	----	----	----	----	0.148
14.97	0.053	91.10	0.372	0.147	----	----	----	----	----	----	----	0.147
15.00	0.053	91.09	0.372	0.146	----	----	----	----	----	----	----	0.146
15.03	0.052	91.09	0.372	0.146	----	----	----	----	----	----	----	0.146
15.07	0.052	91.08	0.372	0.145	----	----	----	----	----	----	----	0.145
15.10	0.051	91.07	0.372	0.144	----	----	----	----	----	----	----	0.144
15.13	0.051	91.06	0.372	0.143	----	----	----	----	----	----	----	0.143
15.17	0.050	91.05	0.372	0.142	----	----	----	----	----	----	----	0.142
15.20	0.049	91.04	0.372	0.142	----	----	----	----	----	----	----	0.142
15.23	0.049	91.04	0.372	0.141	----	----	----	----	----	----	----	0.141
15.27	0.048	91.03	0.372	0.140	----	----	----	----	----	----	----	0.140
15.30	0.048	91.02	0.372	0.139	----	----	----	----	----	----	----	0.139
15.33	0.047	91.01	0.372	0.138	----	----	----	----	----	----	----	0.138
15.37	0.047	91.00	0.372	0.137	----	----	----	----	----	----	----	0.137
15.40	0.046	90.99	0.372	0.137	----	----	----	----	----	----	----	0.137
15.43	0.046	90.99	0.372	0.136	----	----	----	----	----	----	----	0.136
15.47	0.045	90.98	0.372	0.135	----	----	----	----	----	----	----	0.135
15.50	0.045	90.97	0.372	0.134	----	----	----	----	----	----	----	0.134
15.53	0.044	90.96	0.372	0.133	----	----	----	----	----	----	----	0.133
15.57	0.044	90.95	0.372	0.133	----	----	----	----	----	----	----	0.133
15.60	0.043	90.94	0.372	0.132	----	----	----	----	----	----	----	0.132

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## Hydrograph Discharge Table

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
15.63	0.043	90.94	0.372	0.131	----	----	----	----	----	----	----	0.131
15.67	0.042	90.93	0.372	0.130	----	----	----	----	----	----	----	0.130
15.70	0.042	90.92	0.372	0.129	----	----	----	----	----	----	----	0.129
15.73	0.041	90.91	0.372	0.128	----	----	----	----	----	----	----	0.128
15.77	0.041	90.90	0.372	0.127	----	----	----	----	----	----	----	0.127
15.80	0.040	90.89	0.372	0.126	----	----	----	----	----	----	----	0.126
15.83	0.040	90.88	0.372	0.125	----	----	----	----	----	----	----	0.125
15.87	0.039	90.87	0.372	0.124	----	----	----	----	----	----	----	0.124
15.90	0.039	90.86	0.372	0.123	----	----	----	----	----	----	----	0.123
15.93	0.038	90.85	0.372	0.122	----	----	----	----	----	----	----	0.122
15.97	0.038	90.84	0.372	0.121	----	----	----	----	----	----	----	0.121
16.00	0.037	90.83	0.372	0.120	----	----	----	----	----	----	----	0.120
16.03	0.037	90.82	0.372	0.119	----	----	----	----	----	----	----	0.119
16.07	0.036	90.81	0.372	0.118	----	----	----	----	----	----	----	0.118
16.10	0.036	90.80	0.372	0.116	----	----	----	----	----	----	----	0.116
16.13	0.036	90.79	0.372	0.115	----	----	----	----	----	----	----	0.115
16.17	0.035	90.79	0.372	0.114	----	----	----	----	----	----	----	0.114
16.20	0.035	90.78	0.372	0.113	----	----	----	----	----	----	----	0.113
16.23	0.035	90.77	0.372	0.112	----	----	----	----	----	----	----	0.112
16.27	0.035	90.76	0.372	0.111	----	----	----	----	----	----	----	0.111
16.30	0.034	90.75	0.372	0.110	----	----	----	----	----	----	----	0.110
16.33	0.034	90.74	0.372	0.109	----	----	----	----	----	----	----	0.109
16.37	0.034	90.73	0.372	0.108	----	----	----	----	----	----	----	0.108
16.40	0.034	90.72	0.372	0.107	----	----	----	----	----	----	----	0.107
16.43	0.034	90.72	0.372	0.106	----	----	----	----	----	----	----	0.106
16.47	0.033	90.71	0.372	0.105	----	----	----	----	----	----	----	0.105
16.50	0.033	90.70	0.372	0.104	----	----	----	----	----	----	----	0.104
16.53	0.033	90.69	0.372	0.103	----	----	----	----	----	----	----	0.103
16.57	0.033	90.68	0.372	0.102	----	----	----	----	----	----	----	0.102
16.60	0.032	90.68	0.372	0.101	----	----	----	----	----	----	----	0.101
16.63	0.032	90.67	0.372	0.099	----	----	----	----	----	----	----	0.099
16.67	0.032	90.66	0.372	0.098	----	----	----	----	----	----	----	0.098
16.70	0.032	90.65	0.372	0.097	----	----	----	----	----	----	----	0.097
16.73	0.032	90.64	0.372	0.096	----	----	----	----	----	----	----	0.096
16.77	0.031	90.64	0.372	0.095	----	----	----	----	----	----	----	0.095
16.80	0.031	90.63	0.372	0.094	----	----	----	----	----	----	----	0.094
16.83	0.031	90.62	0.372	0.093	----	----	----	----	----	----	----	0.093
16.87	0.031	90.62	0.372	0.092	----	----	----	----	----	----	----	0.092
16.90	0.030	90.61	0.372	0.091	----	----	----	----	----	----	----	0.091
16.93	0.030	90.59	0.372	0.088	----	----	----	----	----	----	----	0.088
16.97	0.030	90.58	0.372	0.086	----	----	----	----	----	----	----	0.086
17.00	0.030	90.56	0.372	0.084	----	----	----	----	----	----	----	0.084
17.03	0.029	90.55	0.372	0.082	----	----	----	----	----	----	----	0.082
17.07	0.029	90.53	0.372	0.080	----	----	----	----	----	----	----	0.080
17.10	0.029	90.52	0.372	0.077	----	----	----	----	----	----	----	0.077
17.13	0.029	90.51	0.372	0.075	----	----	----	----	----	----	----	0.075
17.17	0.029	90.50	0.372	0.073	----	----	----	----	----	----	----	0.073
17.20	0.028	90.49	0.372	0.071	----	----	----	----	----	----	----	0.071
17.23	0.028	90.48	0.372	0.069	----	----	----	----	----	----	----	0.069
17.27	0.028	90.47	0.372	0.067	----	----	----	----	----	----	----	0.067
17.30	0.028	90.46	0.372	0.065	----	----	----	----	----	----	----	0.065
17.33	0.027	90.45	0.372	0.063	----	----	----	----	----	----	----	0.063
17.37	0.027	90.44	0.372	0.061	----	----	----	----	----	----	----	0.061
17.40	0.027	90.43	0.372	0.059	----	----	----	----	----	----	----	0.059

Continues on next page...

Routed Basin

### Hydrograph Discharge Table

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
17.43	0.027	90.42	0.372	0.057	----	----	----	----	----	----	----	0.057
17.47	0.027	90.42	0.372	0.056	----	----	----	----	----	----	----	0.056
17.50	0.026	90.41	0.372	0.054	----	----	----	----	----	----	----	0.054
17.53	0.026	90.40	0.372	0.052	----	----	----	----	----	----	----	0.052
17.57	0.026	90.39	0.372	0.050	----	----	----	----	----	----	----	0.050
17.60	0.026	90.39	0.372	0.049	----	----	----	----	----	----	----	0.049
17.63	0.025	90.38	0.372	0.047	----	----	----	----	----	----	----	0.047
17.67	0.025	90.38	0.372	0.045	----	----	----	----	----	----	----	0.045
17.70	0.025	90.37	0.372	0.044	----	----	----	----	----	----	----	0.044
17.73	0.025	90.37	0.372	0.043	----	----	----	----	----	----	----	0.043
17.77	0.024	90.36	0.372	0.041	----	----	----	----	----	----	----	0.041
17.80	0.024	90.36	0.372	0.040	----	----	----	----	----	----	----	0.040
17.83	0.024	90.36	0.372	0.038	----	----	----	----	----	----	----	0.038

...End

# Hydrograph Report

Hydraflow Hydrographs by InteliSolve v9.24

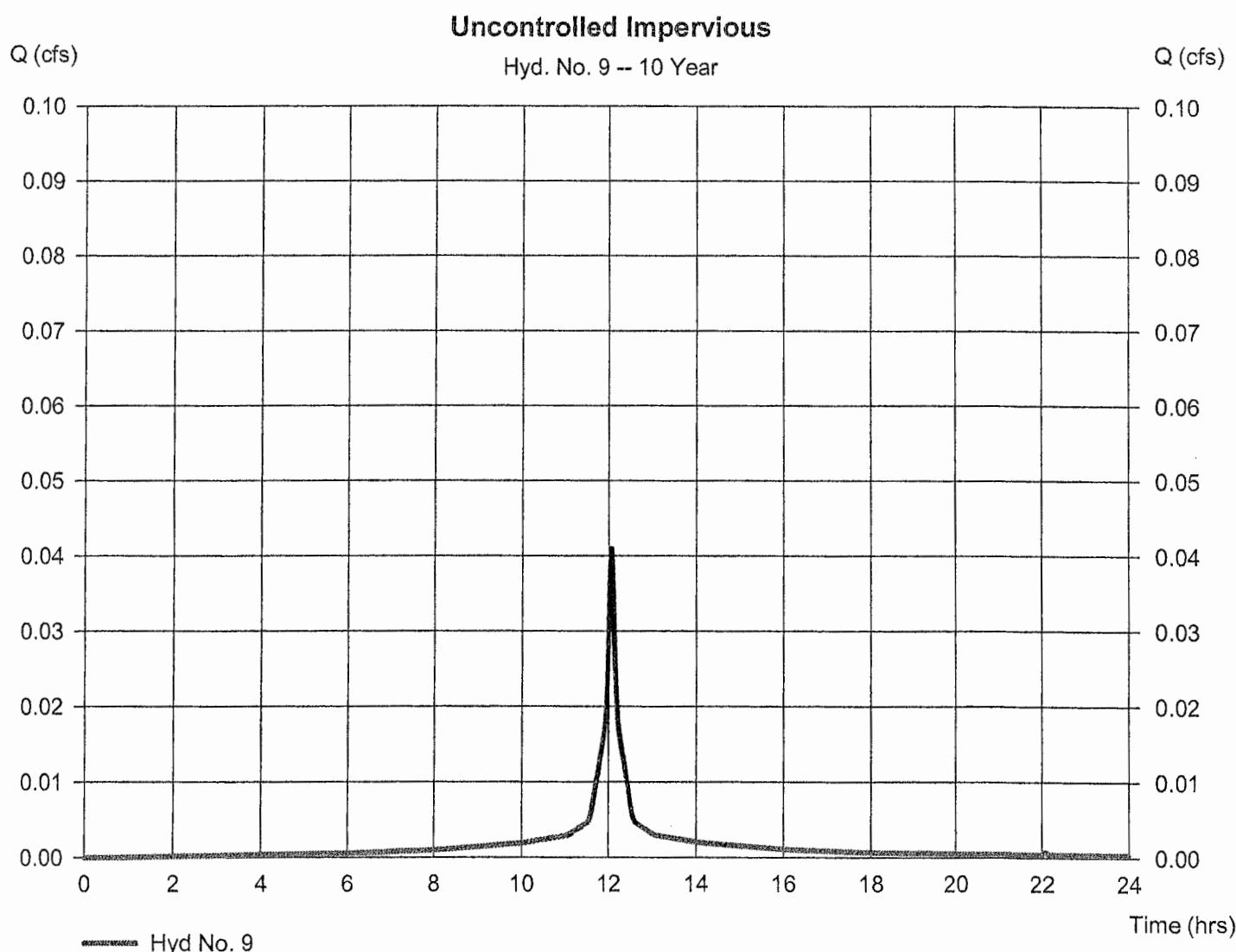
Friday, May 13, 2022

## Hyd. No. 9

### Uncontrolled Impervious

Hydrograph type = SCS Runoff  
Storm frequency = 10 yrs  
Time interval = 2 min  
Drainage area = 0.008 ac  
Basin Slope = 0.0 %  
Tc method = USER  
Total precip. = 5.42 in  
Storm duration = 24 hrs

Peak discharge = 0.041 cfs  
Time to peak = 12.07 hrs  
Hyd. volume = 141 cuft  
Curve number = 98  
Hydraulic length = 0 ft  
Time of conc. (Tc) = 6.00 min  
Distribution = Type III  
Shape factor = 484



# Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.24

Friday, May 13, 2022

## Hyd. No. 9

Uncontrolled Impervious

Hydrograph type	= SCS Runoff	Peak discharge	= 0.041 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 141 cuft
Drainage area	= 0.008 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.0 min
Total precip.	= 5.42 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

## Hydrograph Discharge Table

(Printed values >= 20.00% of Qp.)

### Time -- Outflow (hrs      cfs)

11.67	0.009
11.70	0.010
11.73	0.011
11.77	0.012
11.80	0.013
11.83	0.015
11.87	0.016
11.90	0.017
11.93	0.019
11.97	0.024
12.00	0.031
12.03	0.039
12.07	0.041 <<
12.10	0.036
12.13	0.028
12.17	0.022
12.20	0.018
12.23	0.017
12.27	0.015
12.30	0.014
12.33	0.013
12.37	0.012
12.40	0.011
12.43	0.009
12.47	0.008

...End

# Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.24

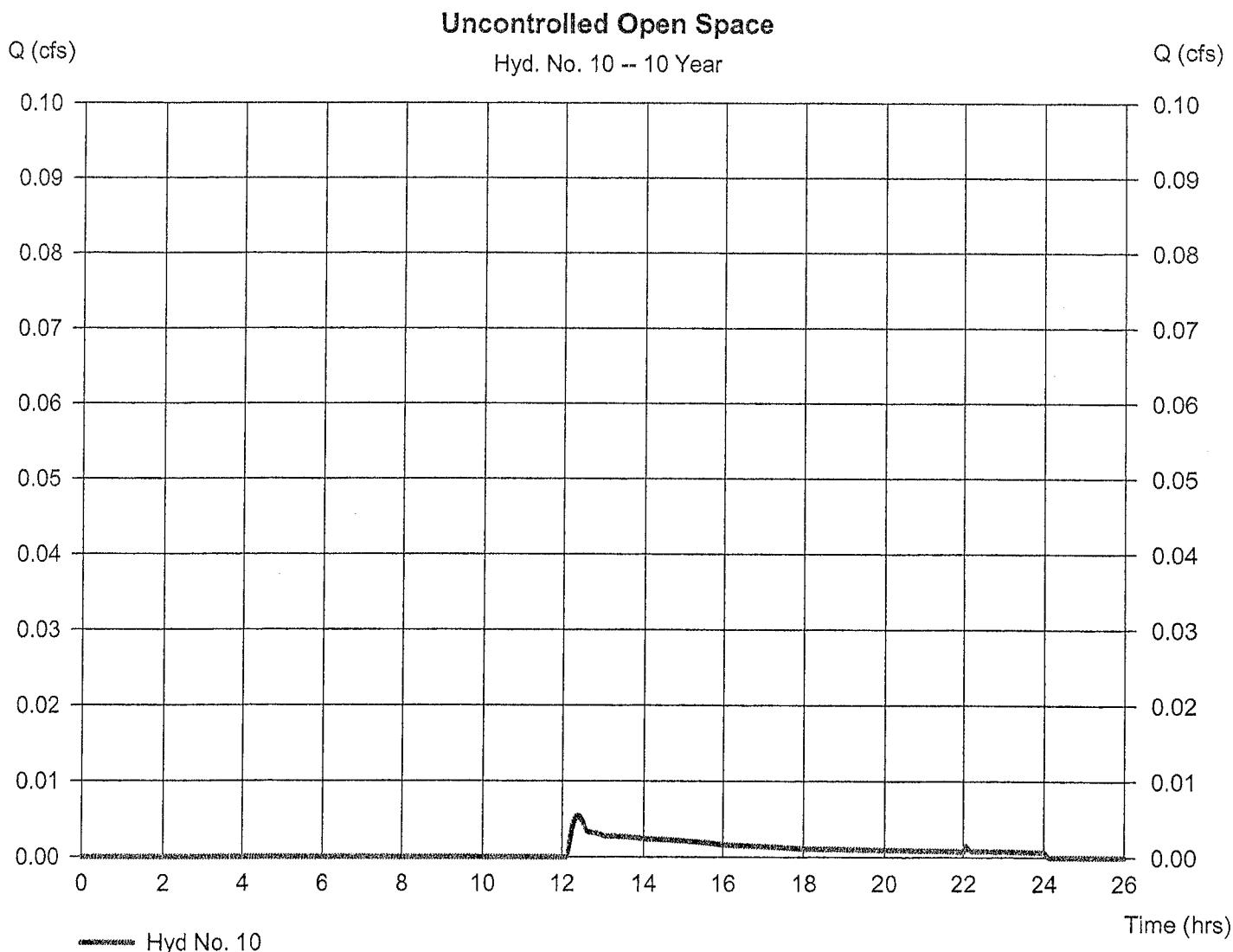
Friday, May 13, 2022

## Hyd. No. 10

### Uncontrolled Open Space

Hydrograph type = SCS Runoff  
Storm frequency = 10 yrs  
Time interval = 2 min  
Drainage area = 0.066 ac  
Basin Slope = 0.0 %  
Tc method = USER  
Total precip. = 5.42 in  
Storm duration = 24 hrs

Peak discharge = 0.005 cfs  
Time to peak = 12.37 hrs  
Hyd. volume = 66 cuft  
Curve number = 39  
Hydraulic length = 0 ft  
Time of conc. (Tc) = 6.00 min  
Distribution = Type III  
Shape factor = 484



# Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.24

Friday, May 13, 2022

## Hyd. No. 10

### Uncontrolled Open Space

Hydrograph type	= SCS Runoff	Peak discharge	= 0.005 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.37 hrs
Time interval	= 2 min	Hyd. volume	= 66 cuft
Drainage area	= 0.066 ac	Curve number	= 39
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.0 min
Total precip.	= 5.42 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

### Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

Time -- Outflow (hrs      cfs)		Time -- Outflow (hrs      cfs)		Time -- Outflow (hrs      cfs)		Time -- Outflow (hrs      cfs)	
12.17	0.001	13.40	0.003	14.63	0.002	15.87	0.002
12.20	0.002	13.43	0.003	14.67	0.002	15.90	0.002
12.23	0.003	13.47	0.003	14.70	0.002	15.93	0.002
12.27	0.004	13.50	0.003	14.73	0.002	15.97	0.002
12.30	0.005	13.53	0.003	14.77	0.002	16.00	0.002
12.33	0.005	13.57	0.003	14.80	0.002	16.03	0.002
12.37	0.005 <<	13.60	0.003	14.83	0.002	16.07	0.002
12.40	0.005	13.63	0.003	14.87	0.002	16.10	0.002
12.43	0.005	13.67	0.003	14.90	0.002	16.13	0.002
12.47	0.005	13.70	0.003	14.93	0.002	16.17	0.002
12.50	0.004	13.73	0.003	14.97	0.002	16.20	0.002
12.53	0.004	13.77	0.003	15.00	0.002	16.23	0.002
12.57	0.003	13.80	0.003	15.03	0.002	16.27	0.002
12.60	0.003	13.83	0.003	15.07	0.002	16.30	0.002
12.63	0.003	13.87	0.003	15.10	0.002	16.33	0.002
12.67	0.003	13.90	0.002	15.13	0.002	16.37	0.002
12.70	0.003	13.93	0.002	15.17	0.002	16.40	0.002
12.73	0.003	13.97	0.002	15.20	0.002	16.43	0.002
12.77	0.003	14.00	0.002	15.23	0.002	16.47	0.002
12.80	0.003	14.03	0.002	15.27	0.002	16.50	0.002
12.83	0.003	14.07	0.002	15.30	0.002	16.53	0.002
12.87	0.003	14.10	0.002	15.33	0.002	16.57	0.002
12.90	0.003	14.13	0.002	15.37	0.002	16.60	0.002
12.93	0.003	14.17	0.002	15.40	0.002	16.63	0.001
12.97	0.003	14.20	0.002	15.43	0.002	16.67	0.001
13.00	0.003	14.23	0.002	15.47	0.002	16.70	0.001
13.03	0.003	14.27	0.002	15.50	0.002	16.73	0.001
13.07	0.003	14.30	0.002	15.53	0.002	16.77	0.001
13.10	0.003	14.33	0.002	15.57	0.002	16.80	0.001
13.13	0.003	14.37	0.002	15.60	0.002	16.83	0.001
13.17	0.003	14.40	0.002	15.63	0.002	16.87	0.001
13.20	0.003	14.43	0.002	15.67	0.002	16.90	0.001
13.23	0.003	14.47	0.002	15.70	0.002	16.93	0.001
13.27	0.003	14.50	0.002	15.73	0.002	16.97	0.001
13.30	0.003	14.53	0.002	15.77	0.002	17.00	0.001
13.33	0.003	14.57	0.002	15.80	0.002	17.03	0.001
13.37	0.003	14.60	0.002	15.83	0.002	17.07	0.001

Continues on next page...

### Hydrograph Discharge Table

Time -- Outflow  
(hrs      cfs)

17.10	0.001
17.13	0.001
17.17	0.001
17.20	0.001
17.23	0.001
17.27	0.001
17.30	0.001
17.33	0.001
17.37	0.001
17.40	0.001
17.43	0.001
17.47	0.001
17.50	0.001
17.53	0.001
17.57	0.001
17.60	0.001
17.63	0.001
17.67	0.001
17.70	0.001
17.73	0.001
17.77	0.001
17.80	0.001
17.83	0.001
17.87	0.001
17.90	0.001
17.93	0.001
17.97	0.001
18.00	0.001
18.03	0.001
18.07	0.001
18.10	0.001
18.13	0.001
18.17	0.001
18.20	0.001
18.23	0.001
18.27	0.001
18.30	0.001
18.33	0.001
18.37	0.001

*...End*

# Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.24

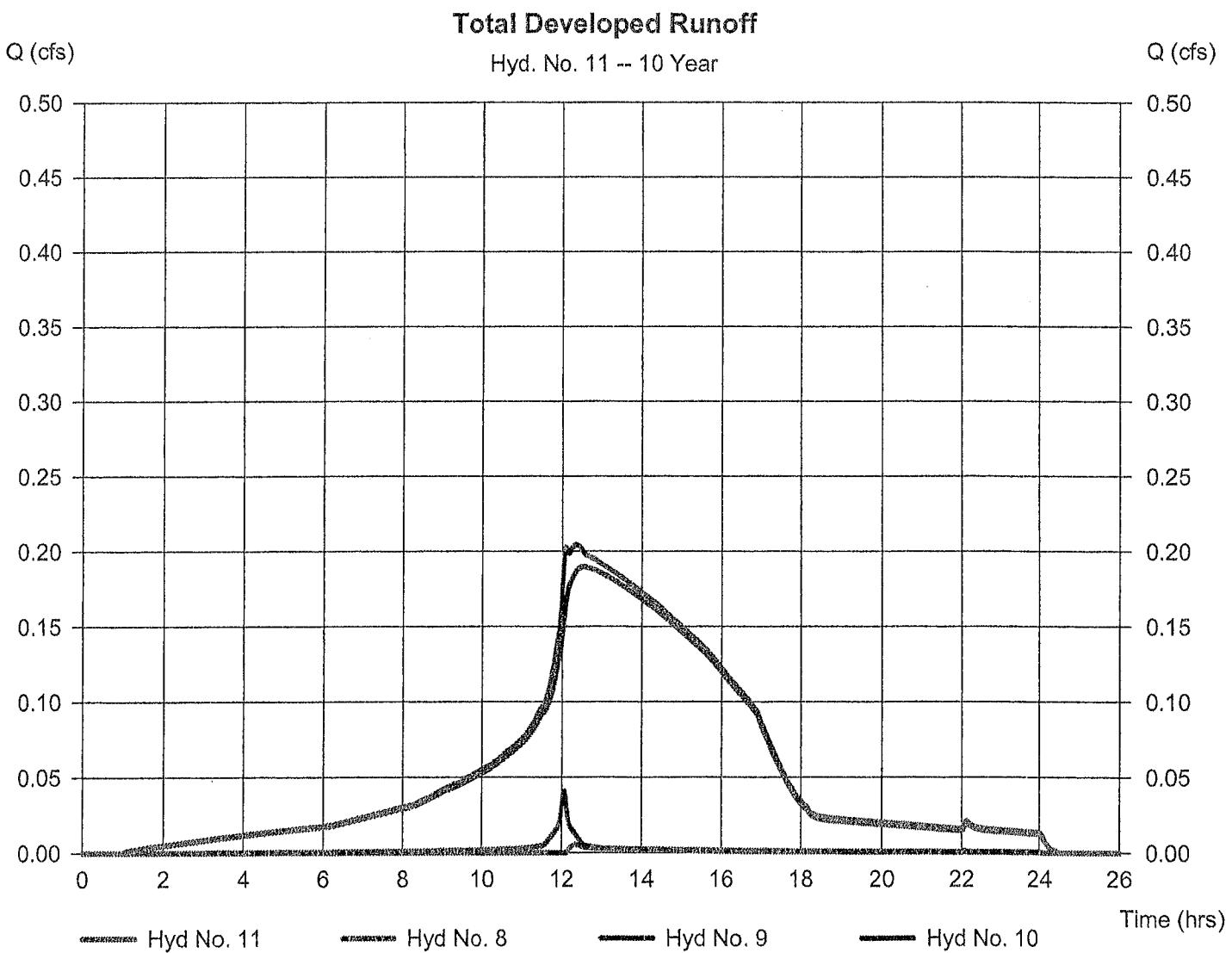
Friday, May 13, 2022

## Hyd. No. 11

### Total Developed Runoff

Hydrograph type = Combine  
Storm frequency = 10 yrs  
Time interval = 2 min  
Inflow hyds. = 8, 9, 10

Peak discharge = 0.204 cfs  
Time to peak = 12.37 hrs  
Hyd. volume = 4,706 cuft.  
Contrib. drain. area= 0.074 ac



# Hydrograph Report

Hydraflow Hydrographs by InteliSolve v9.24

Friday, May 13, 2022

## Hyd. No. 11

### Total Developed Runoff

Hydrograph type	= Combine	Peak discharge	= 0.204 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.37 hrs
Time interval	= 2 min	Hyd. volume	= 4,706 cuft
Inflow hyds.	= 8, 9, 10	Contrib. drain. area	= 0.074 ac

### Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

Time (hrs)	Hyd. 8 + (cfs)	Hyd. 9 + (cfs)	Hyd. 10 = (cfs)	Outflow (cfs)
9.00	0.040	0.001	0.000	0.041
9.03	0.040	0.001	0.000	0.042
9.07	0.041	0.001	0.000	0.042
9.10	0.041	0.001	0.000	0.043
9.13	0.042	0.002	0.000	0.043
9.17	0.042	0.002	0.000	0.043
9.20	0.042	0.002	0.000	0.044
9.23	0.043	0.002	0.000	0.044
9.27	0.043	0.002	0.000	0.045
9.30	0.043	0.002	0.000	0.045
9.33	0.044	0.002	0.000	0.046
9.37	0.044	0.002	0.000	0.046
9.40	0.045	0.002	0.000	0.046
9.43	0.045	0.002	0.000	0.047
9.47	0.046	0.002	0.000	0.047
9.50	0.046	0.002	0.000	0.048
9.53	0.047	0.002	0.000	0.048
9.57	0.047	0.002	0.000	0.049
9.60	0.047	0.002	0.000	0.049
9.63	0.048	0.002	0.000	0.050
9.67	0.048	0.002	0.000	0.050
9.70	0.049	0.002	0.000	0.051
9.73	0.049	0.002	0.000	0.051
9.77	0.050	0.002	0.000	0.052
9.80	0.050	0.002	0.000	0.052
9.83	0.051	0.002	0.000	0.052
9.87	0.051	0.002	0.000	0.053
9.90	0.051	0.002	0.000	0.053
9.93	0.052	0.002	0.000	0.054
9.97	0.052	0.002	0.000	0.054
10.00	0.053	0.002	0.000	0.055
10.03	0.053	0.002	0.000	0.055
10.07	0.054	0.002	0.000	0.056
10.10	0.054	0.002	0.000	0.056
10.13	0.055	0.002	0.000	0.057
10.17	0.055	0.002	0.000	0.057
10.20	0.056	0.002	0.000	0.058
10.23	0.056	0.002	0.000	0.058
10.27	0.057	0.002	0.000	0.059
10.30	0.057	0.002	0.000	0.060
10.33	0.058	0.002	0.000	0.060
10.37	0.059	0.002	0.000	0.061

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**Hydrograph Discharge Table**

Time (hrs)	Hyd. 8 + (cfs)	Hyd. 9 + (cfs)	Hyd. 10 = (cfs)	Outflow (cfs)
10.40	0.059	0.002	0.000	0.062
10.43	0.060	0.002	0.000	0.062
10.47	0.061	0.002	0.000	0.063
10.50	0.061	0.002	0.000	0.064
10.53	0.062	0.002	0.000	0.064
10.57	0.063	0.002	0.000	0.065
10.60	0.064	0.002	0.000	0.066
10.63	0.064	0.003	0.000	0.067
10.67	0.065	0.003	0.000	0.068
10.70	0.066	0.003	0.000	0.068
10.73	0.066	0.003	0.000	0.069
10.77	0.067	0.003	0.000	0.070
10.80	0.068	0.003	0.000	0.071
10.83	0.069	0.003	0.000	0.071
10.87	0.069	0.003	0.000	0.072
10.90	0.070	0.003	0.000	0.073
10.93	0.071	0.003	0.000	0.074
10.97	0.072	0.003	0.000	0.075
11.00	0.073	0.003	0.000	0.075
11.03	0.073	0.003	0.000	0.076
11.07	0.074	0.003	0.000	0.077
11.10	0.075	0.003	0.000	0.078
11.13	0.076	0.003	0.000	0.079
11.17	0.077	0.003	0.000	0.081
11.20	0.078	0.003	0.000	0.082
11.23	0.080	0.004	0.000	0.083
11.27	0.081	0.004	0.000	0.085
11.30	0.083	0.004	0.000	0.086
11.33	0.084	0.004	0.000	0.088
11.37	0.086	0.004	0.000	0.090
11.40	0.087	0.004	0.000	0.092
11.43	0.089	0.004	0.000	0.093
11.47	0.091	0.004	0.000	0.095
11.50	0.092	0.005	0.000	0.097
11.53	0.093	0.005	0.000	0.098
11.57	0.094	0.005	0.000	0.099
11.60	0.095	0.006	0.000	0.102
11.63	0.097	0.007	0.000	0.105
11.67	0.100	0.009	0.000	0.108
11.70	0.102	0.010	0.000	0.112
11.73	0.106	0.011	0.000	0.117
11.77	0.109	0.012	0.000	0.121
11.80	0.113	0.013	0.000	0.127
11.83	0.118	0.015	0.000	0.132
11.87	0.122	0.016	0.000	0.138
11.90	0.127	0.017	0.000	0.144
11.93	0.131	0.019	0.000	0.151
11.97	0.136	0.024	0.000	0.160
12.00	0.143	0.031	0.000	0.174
12.03	0.151	0.039	0.000	0.190
12.07	0.159	0.041 <<	0.000	0.200
12.10	0.166	0.036	0.000	0.203
12.13	0.172	0.028	0.000	0.200
12.17	0.176	0.022	0.001	0.199

Continues on next page...

**Hydrograph Discharge Table**

Time (hrs)	Hyd. 8 + (cfs)	Hyd. 9 + (cfs)	Hyd. 10 = (cfs)	Outflow (cfs)
12.20	0.178	0.018	0.002	0.199
12.23	0.181	0.017	0.003	0.201
12.27	0.183	0.015	0.004	0.202
12.30	0.184	0.014	0.005	0.204
12.33	0.186	0.013	0.005	0.204
12.37	0.187	0.012	0.005 <<	0.204 <<
12.40	0.188	0.011	0.005	0.204
12.43	0.189	0.009	0.005	0.203
12.47	0.189	0.008	0.005	0.202
12.50	0.190	0.007	0.004	0.201
12.53	0.190 <<	0.006	0.004	0.199
12.57	0.190	0.005	0.003	0.198
12.60	0.189	0.005	0.003	0.198
12.63	0.189	0.005	0.003	0.197
12.67	0.189	0.004	0.003	0.197
12.70	0.189	0.004	0.003	0.196
12.73	0.188	0.004	0.003	0.196
12.77	0.188	0.004	0.003	0.195
12.80	0.188	0.004	0.003	0.195
12.83	0.188	0.004	0.003	0.194
12.87	0.187	0.004	0.003	0.194
12.90	0.187	0.004	0.003	0.193
12.93	0.186	0.003	0.003	0.193
12.97	0.186	0.003	0.003	0.192
13.00	0.185	0.003	0.003	0.192
13.03	0.185	0.003	0.003	0.191
13.07	0.185	0.003	0.003	0.190
13.10	0.184	0.003	0.003	0.190
13.13	0.184	0.003	0.003	0.189
13.17	0.183	0.003	0.003	0.189
13.20	0.182	0.003	0.003	0.188
13.23	0.182	0.003	0.003	0.187
13.27	0.181	0.003	0.003	0.187
13.30	0.181	0.003	0.003	0.186
13.33	0.180	0.003	0.003	0.186
13.37	0.180	0.003	0.003	0.185
13.40	0.179	0.003	0.003	0.184
13.43	0.179	0.003	0.003	0.184
13.47	0.178	0.003	0.003	0.183
13.50	0.177	0.003	0.003	0.183
13.53	0.177	0.003	0.003	0.182
13.57	0.176	0.002	0.003	0.181
13.60	0.176	0.002	0.003	0.181
13.63	0.175	0.002	0.003	0.180
13.67	0.174	0.002	0.003	0.179
13.70	0.174	0.002	0.003	0.179
13.73	0.173	0.002	0.003	0.178
13.77	0.173	0.002	0.003	0.177
13.80	0.172	0.002	0.003	0.177
13.83	0.171	0.002	0.003	0.176
13.87	0.171	0.002	0.003	0.175
13.90	0.170	0.002	0.002	0.175
13.93	0.169	0.002	0.002	0.174
13.97	0.169	0.002	0.002	0.173

Continues on next page...

**Hydrograph Discharge Table**

Time (hrs)	Hyd. 8 + (cfs)	Hyd. 9 + (cfs)	Hyd. 10 = (cfs)	Outflow (cfs)
14.00	0.168	0.002	0.002	0.173
14.03	0.167	0.002	0.002	0.172
14.07	0.167	0.002	0.002	0.171
14.10	0.166	0.002	0.002	0.171
14.13	0.165	0.002	0.002	0.170
14.17	0.165	0.002	0.002	0.169
14.20	0.164	0.002	0.002	0.168
14.23	0.163	0.002	0.002	0.168
14.27	0.163	0.002	0.002	0.167
14.30	0.162	0.002	0.002	0.166
14.33	0.161	0.002	0.002	0.166
14.37	0.161	0.002	0.002	0.165
14.40	0.160	0.002	0.002	0.164
14.43	0.159	0.002	0.002	0.164
14.47	0.159	0.002	0.002	0.163
14.50	0.158	0.002	0.002	0.162
14.53	0.157	0.002	0.002	0.161
14.57	0.156	0.002	0.002	0.160
14.60	0.156	0.002	0.002	0.160
14.63	0.155	0.002	0.002	0.159
14.67	0.154	0.002	0.002	0.158
14.70	0.153	0.002	0.002	0.157
14.73	0.153	0.002	0.002	0.156
14.77	0.152	0.002	0.002	0.155
14.80	0.151	0.002	0.002	0.154
14.83	0.150	0.002	0.002	0.153
14.87	0.149	0.002	0.002	0.152
14.90	0.149	0.002	0.002	0.152
14.93	0.148	0.002	0.002	0.152
14.97	0.147	0.002	0.002	0.151
15.00	0.146	0.002	0.002	0.150
15.03	0.146	0.002	0.002	0.149
15.07	0.145	0.002	0.002	0.148
15.10	0.144	0.002	0.002	0.148
15.13	0.143	0.002	0.002	0.147
15.17	0.142	0.001	0.002	0.146
15.20	0.142	0.001	0.002	0.145
15.23	0.141	0.001	0.002	0.144
15.27	0.140	0.001	0.002	0.143
15.30	0.139	0.001	0.002	0.143
15.33	0.138	0.001	0.002	0.142
15.37	0.137	0.001	0.002	0.141
15.40	0.137	0.001	0.002	0.140
15.43	0.136	0.001	0.002	0.139
15.47	0.135	0.001	0.002	0.138
15.50	0.134	0.001	0.002	0.137
15.53	0.133	0.001	0.002	0.137
15.57	0.133	0.001	0.002	0.136
15.60	0.132	0.001	0.002	0.135
15.63	0.131	0.001	0.002	0.134
15.67	0.130	0.001	0.002	0.133
15.70	0.129	0.001	0.002	0.132
15.73	0.128	0.001	0.002	0.131
15.77	0.127	0.001	0.002	0.130

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**Hydrograph Discharge Table**

Time (hrs)	Hyd. 8 + (cfs)	Hyd. 9 + (cfs)	Hyd. 10 = (cfs)	Outflow (cfs)
15.80	0.126	0.001	0.002	0.129
15.83	0.125	0.001	0.002	0.128
15.87	0.124	0.001	0.002	0.127
15.90	0.123	0.001	0.002	0.126
15.93	0.122	0.001	0.002	0.125
15.97	0.121	0.001	0.002	0.123
16.00	0.120	0.001	0.002	0.122
16.03	0.119	0.001	0.002	0.121
16.07	0.118	0.001	0.002	0.120
16.10	0.116	0.001	0.002	0.119
16.13	0.115	0.001	0.002	0.118
16.17	0.114	0.001	0.002	0.117
16.20	0.113	0.001	0.002	0.116
16.23	0.112	0.001	0.002	0.115
16.27	0.111	0.001	0.002	0.114
16.30	0.110	0.001	0.002	0.113
16.33	0.109	0.001	0.002	0.112
16.37	0.108	0.001	0.002	0.110
16.40	0.107	0.001	0.002	0.109
16.43	0.106	0.001	0.002	0.108
16.47	0.105	0.001	0.002	0.107
16.50	0.104	0.001	0.002	0.106
16.53	0.103	0.001	0.002	0.105
16.57	0.102	0.001	0.002	0.104
16.60	0.101	0.001	0.002	0.103
16.63	0.099	0.001	0.001	0.102
16.67	0.098	0.001	0.001	0.101
16.70	0.097	0.001	0.001	0.100
16.73	0.096	0.001	0.001	0.099
16.77	0.095	0.001	0.001	0.098
16.80	0.094	0.001	0.001	0.097
16.83	0.093	0.001	0.001	0.096
16.87	0.092	0.001	0.001	0.095
16.90	0.091	0.001	0.001	0.093
16.93	0.088	0.001	0.001	0.091
16.97	0.086	0.001	0.001	0.088
17.00	0.084	0.001	0.001	0.086
17.03	0.082	0.001	0.001	0.084
17.07	0.080	0.001	0.001	0.082
17.10	0.077	0.001	0.001	0.080
17.13	0.075	0.001	0.001	0.077
17.17	0.073	0.001	0.001	0.075
17.20	0.071	0.001	0.001	0.073
17.23	0.069	0.001	0.001	0.071
17.27	0.067	0.001	0.001	0.069
17.30	0.065	0.001	0.001	0.067
17.33	0.063	0.001	0.001	0.065
17.37	0.061	0.001	0.001	0.063
17.40	0.059	0.001	0.001	0.061
17.43	0.057	0.001	0.001	0.060
17.47	0.056	0.001	0.001	0.058
17.50	0.054	0.001	0.001	0.056
17.53	0.052	0.001	0.001	0.054
17.57	0.050	0.001	0.001	0.052

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Total Developed Runoff

### Hydrograph Discharge Table

Time (hrs)	Hyd. 8 + (cfs)	Hyd. 9 + (cfs)	Hyd. 10 = (cfs)	Outflow (cfs)
17.60	0.049	0.001	0.001	0.051
17.63	0.047	0.001	0.001	0.049
17.67	0.045	0.001	0.001	0.047
17.70	0.044	0.001	0.001	0.046
17.73	0.043	0.001	0.001	0.045
17.77	0.041	0.001	0.001	0.043
17.80	0.040	0.001	0.001	0.042

*...End*

# Hydrograph Summary Report

Hydraflow Hydrographs by InteliSolve v9.24

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description
1	SCS Runoff	3.770	2	724	13,197	----	----	----	Undisturbed Area
2	SCS Runoff	0.949	2	724	3,322	----	----	----	Existing Impervious
3	SCS Runoff	0.519	2	726	2,009	----	----	----	Existing Open Space
4	Combine	1.466	2	724	5,332	2, 3	----	----	Total Existing Runoff
5	SCS Runoff	2.179	2	724	7,629	----	----	----	Controlled Impervious
6	SCS Runoff	0.192	2	726	745	----	----	----	Controlled Open Space
7	Combine	2.371	2	724	8,374	5, 6	----	----	Total to Basin
8	Reservoir	0.259	2	764	8,373	7	92.79	3,144	Routed Basin
9	SCS Runoff	0.070	2	724	246	----	----	----	Uncontrolled Impervious
10	SCS Runoff	0.101	2	726	390	----	----	----	Uncontrolled Open Space
11	Combine	0.379	2	726	9,009	8, 9, 10	----	----	Total Developed Runoff

190403 Drainage 05-13-2022 (new rainfall). Return Period: 100 Year

Friday, May 13, 2022

# Hydrograph Report

Hydraflow Hydrographs by Intellsolve v9.24

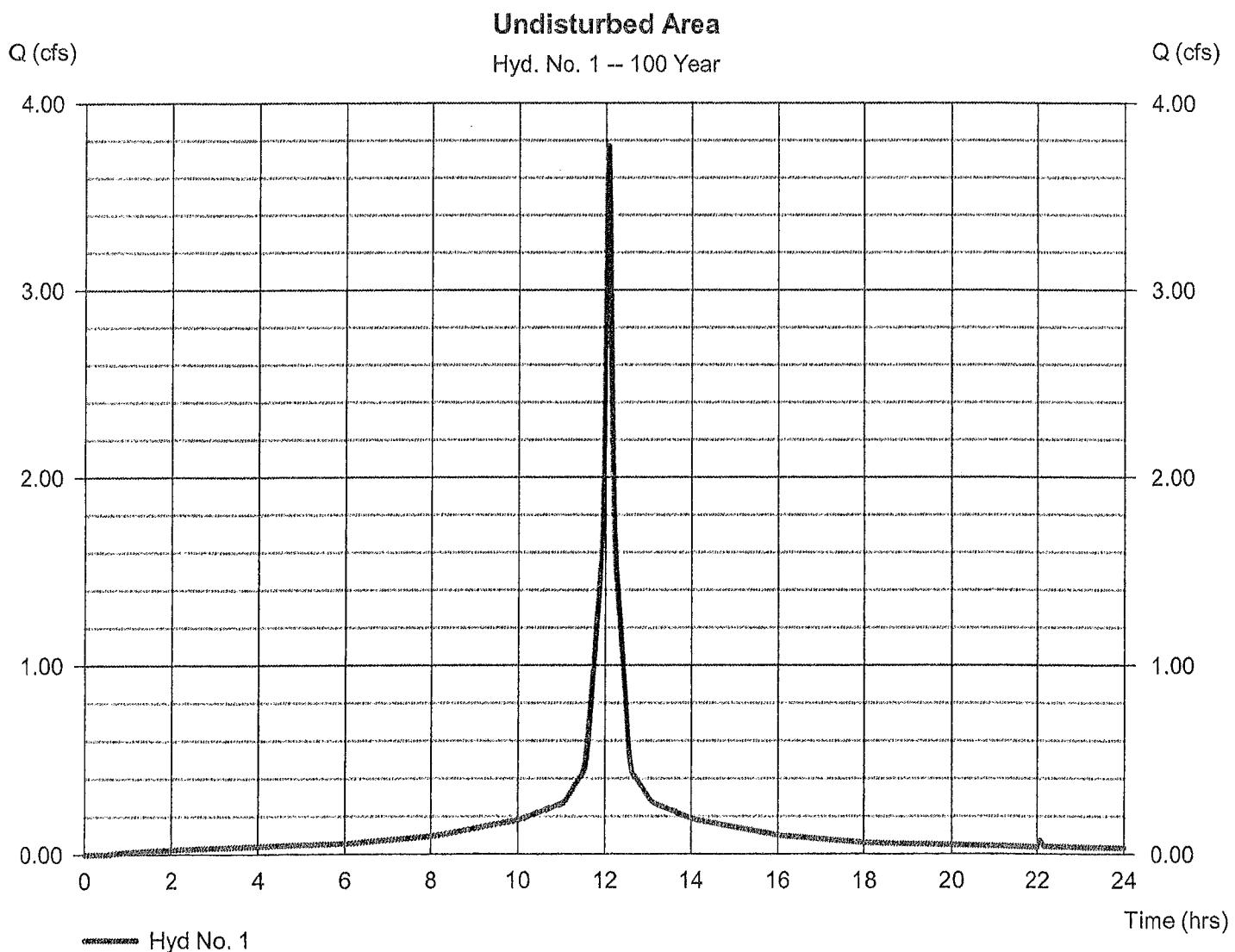
Friday, May 13, 2022

## Hyd. No. 1

### Undisturbed Area

Hydrograph type = SCS Runoff  
Storm frequency = 100 yrs  
Time interval = 2 min  
Drainage area = 0.429 ac  
Basin Slope = 0.0 %  
Tc method = USER  
Total precip. = 9.28 in  
Storm duration = 24 hrs

Peak discharge = 3.770 cfs  
Time to peak = 12.07 hrs  
Hyd. volume = 13,197 cuft  
Curve number = 98  
Hydraulic length = 0 ft  
Time of conc. (Tc) = 6.00 min  
Distribution = Type III  
Shape factor = 484



# Hydrograph Report

Hydraflow Hydrographs by InteliSolve v9.24

Friday, May 13, 2022

## Hyd. No. 1

### Undisturbed Area

Hydrograph type	= SCS Runoff	Peak discharge	= 3.770 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 13,197 cuft
Drainage area	= 0.429 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.0 min
Total precip.	= 9.28 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

### Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

#### Time -- Outflow (hrs      cfs)

11.67	0.794
11.70	0.904
11.73	1.014
11.77	1.124
11.80	1.235
11.83	1.345
11.87	1.455
11.90	1.566
11.93	1.758
11.97	2.195
12.00	2.901
12.03	3.586
12.07	3.770 <<
12.10	3.340
12.13	2.622
12.17	2.025
12.20	1.697
12.23	1.532
12.27	1.421
12.30	1.311
12.33	1.201
12.37	1.091
12.40	0.980
12.43	0.870
12.47	0.760

...End

# Hydrograph Report

Hydraflow Hydrographs by Intelsolve v9.24

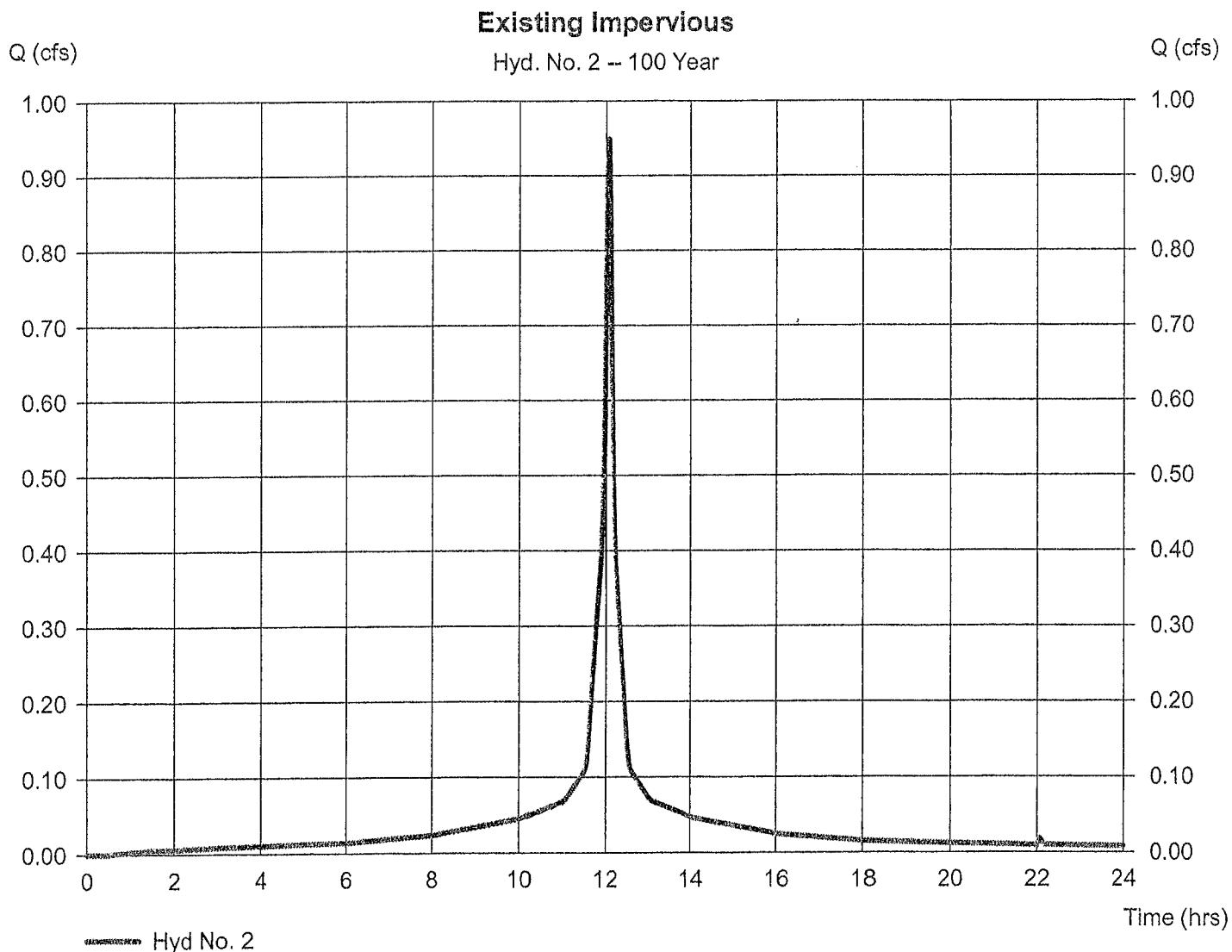
Friday, May 13, 2022

## Hyd. No. 2

### Existing Impervious

Hydrograph type = SCS Runoff  
Storm frequency = 100 yrs  
Time interval = 2 min  
Drainage area = 0.108 ac  
Basin Slope = 0.0 %  
Tc method = USER  
Total precip. = 9.28 in  
Storm duration = 24 hrs

Peak discharge = 0.949 cfs  
Time to peak = 12.07 hrs  
Hyd. volume = 3,322 cuft  
Curve number = 98  
Hydraulic length = 0 ft  
Time of conc. (Tc) = 6.00 min  
Distribution = Type III  
Shape factor = 484



# Hydrograph Report

Hydraflow Hydrographs by InteliSolve v9.24

Friday, May 13, 2022

## Hyd. No. 2

### Existing Impervious

Hydrograph type	= SCS Runoff	Peak discharge	= 0.949 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 3,322 cuft
Drainage area	= 0.108 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.0 min
Total precip.	= 9.28 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

### Hydrograph Discharge Table

(Printed values >= 20.00% of Qp.)

#### Time -- Outflow (hrs      cfs)

11.67	0.200
11.70	0.228
11.73	0.255
11.77	0.283
11.80	0.311
11.83	0.339
11.87	0.366
11.90	0.394
11.93	0.443
11.97	0.552
12.00	0.730
12.03	0.903
12.07	0.949 <<
12.10	0.841
12.13	0.660
12.17	0.510
12.20	0.427
12.23	0.386
12.27	0.358
12.30	0.330
12.33	0.302
12.37	0.275
12.40	0.247
12.43	0.219
12.47	0.191

...End

# Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.24

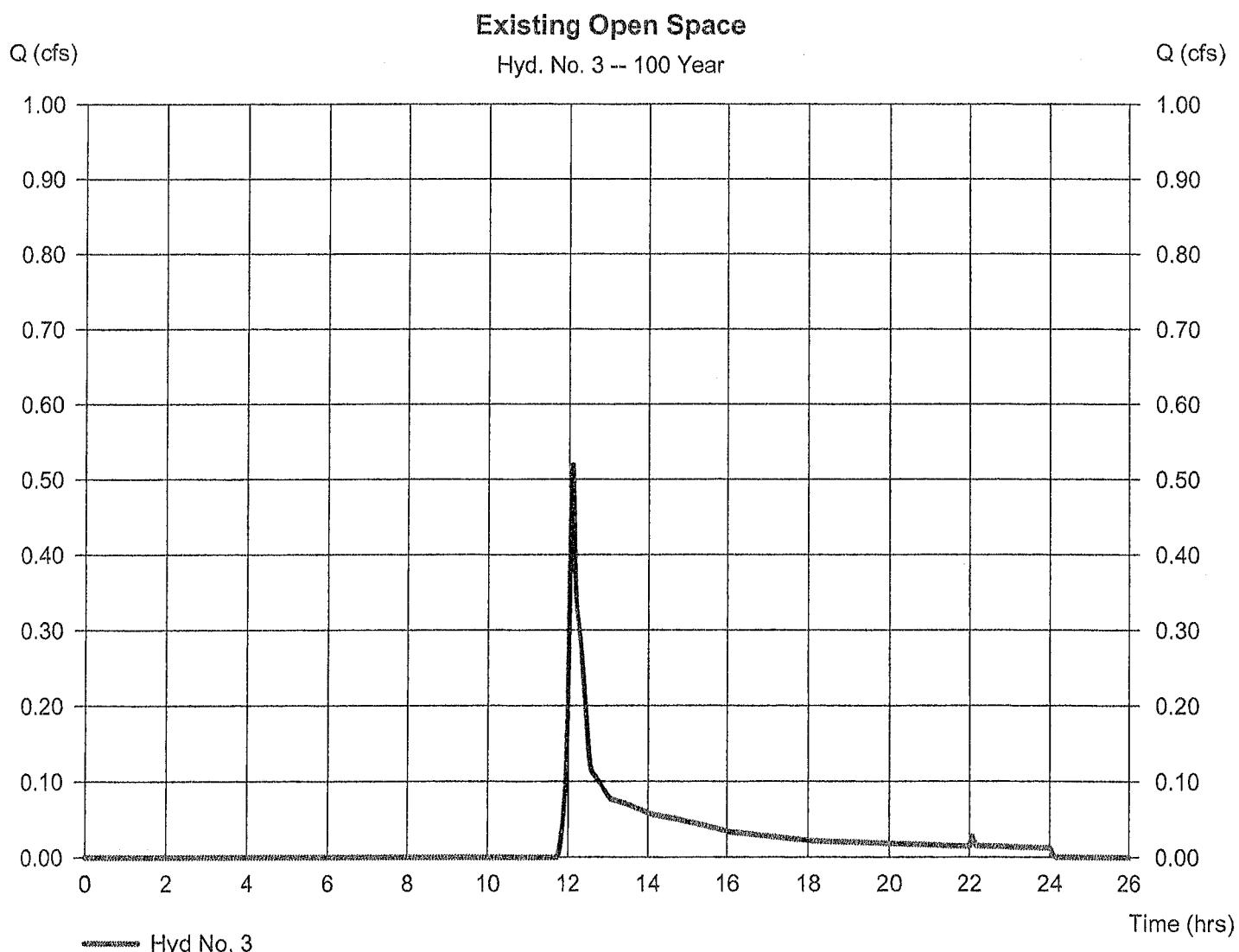
Friday, May 13, 2022

## Hyd. No. 3

### Existing Open Space

Hydrograph type = SCS Runoff  
Storm frequency = 100 yrs  
Time interval = 2 min  
Drainage area = 0.340 ac  
Basin Slope = 0.0 %  
Tc method = TR55  
Total precip. = 9.28 in  
Storm duration = 24 hrs

Peak discharge = 0.519 cfs  
Time to peak = 12.10 hrs  
Hyd. volume = 2,009 cuft  
Curve number = 39  
Hydraulic length = 0 ft  
Time of conc. (Tc) = 6.50 min  
Distribution = Type III  
Shape factor = 484



# Hydrograph Report

Hydraflow Hydrographs by InteliSolve v9.24

Friday, May 13, 2022

## Hyd. No. 3

### Existing Open Space

Hydrograph type	= SCS Runoff	Peak discharge	= 0.519 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 2,009 cuft
Drainage area	= 0.340 ac	Curve number	= 39
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.5 min
Total precip.	= 9.28 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

### Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

#### Time -- Outflow

(hrs      cfs)

11.93	0.107
11.97	0.170
12.00	0.281
12.03	0.420
12.07	0.517
12.10	0.519 <<
12.13	0.452
12.17	0.379
12.20	0.338
12.23	0.319
12.27	0.307
12.30	0.292
12.33	0.275
12.37	0.256
12.40	0.235
12.43	0.213
12.47	0.189
12.50	0.164
12.53	0.140
12.57	0.123
12.60	0.114
12.63	0.110
12.67	0.108
12.70	0.106

*...End*

# Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.24

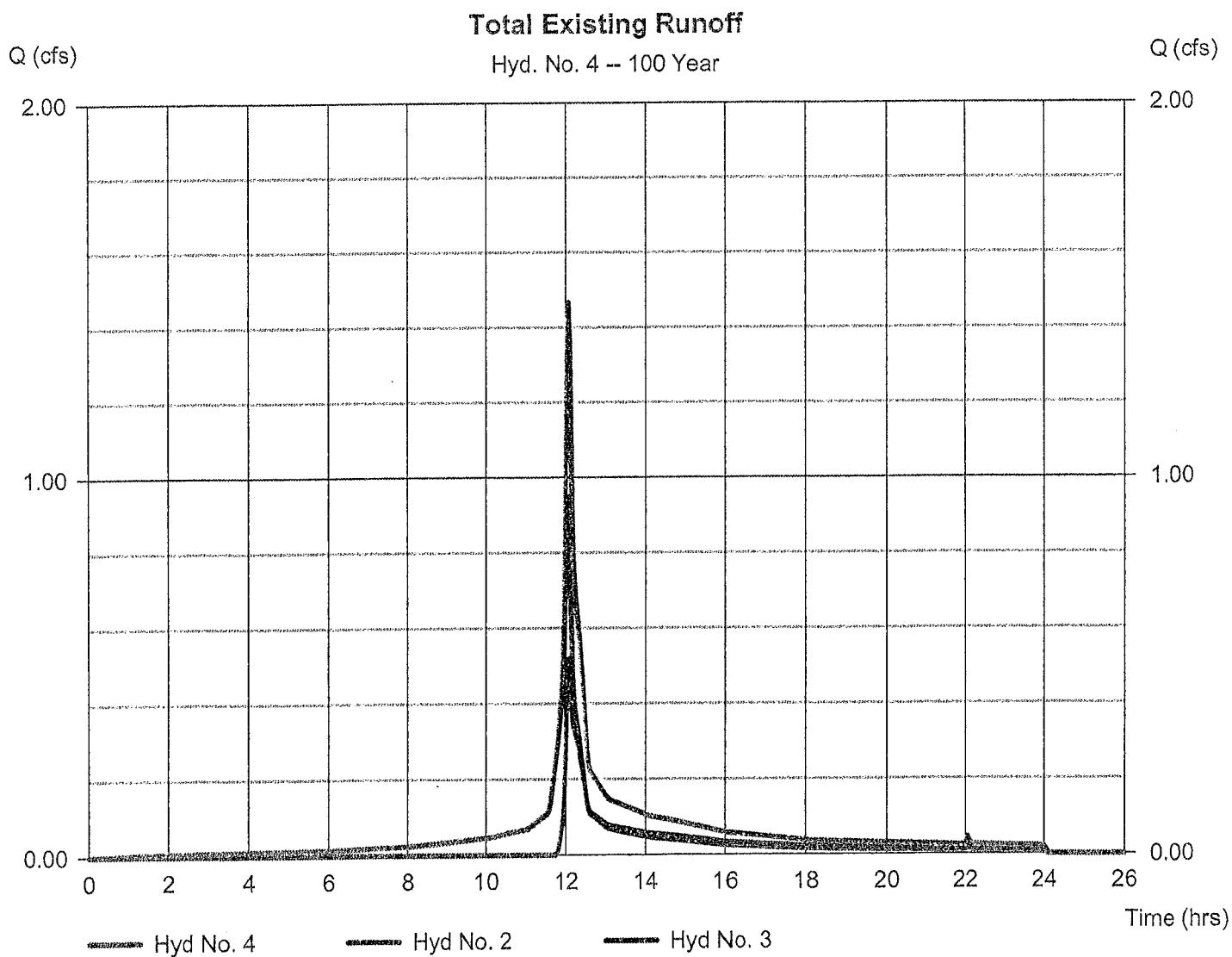
Friday, May 13, 2022

## Hyd. No. 4

### Total Existing Runoff

Hydrograph type = Combine  
Storm frequency = 100 yrs  
Time interval = 2 min  
Inflow hyds. = 2, 3

Peak discharge = 1.466 cfs  
Time to peak = 12.07 hrs  
Hyd. volume = 5,332 cuft  
Contrib. drain. area= 0.448 ac



# Hydrograph Report

Hydraflow Hydrographs by Intelsolve v9.24

Friday, May 13, 2022

## Hyd. No. 4

### Total Existing Runoff

Hydrograph type	= Combine	Peak discharge	= 1.466 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 5,332 cuft
Inflow hyds.	= 2, 3	Contrib. drain. area	= 0.448 ac

### Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

Time (hrs)	Hyd. 2 + (cfs)	Hyd. 3 = (cfs)	Outflow (cfs)
11.80	0.311	0.018	0.329
11.83	0.339	0.034	0.372
11.87	0.366	0.053	0.419
11.90	0.394	0.075	0.469
11.93	0.443	0.107	0.550
11.97	0.552	0.170	0.722
12.00	0.730	0.281	1.011
12.03	0.903	0.420	1.323
12.07	0.949 <<	0.517	1.466 <<
12.10	0.841	0.519 <<	1.360
12.13	0.660	0.452	1.112
12.17	0.510	0.379	0.889
12.20	0.427	0.338	0.765
12.23	0.386	0.319	0.705
12.27	0.358	0.307	0.665
12.30	0.330	0.292	0.622
12.33	0.302	0.275	0.578
12.37	0.275	0.256	0.531
12.40	0.247	0.235	0.482
12.43	0.219	0.213	0.432
12.47	0.191	0.189	0.380
12.50	0.164	0.164	0.327

...End

# Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.24

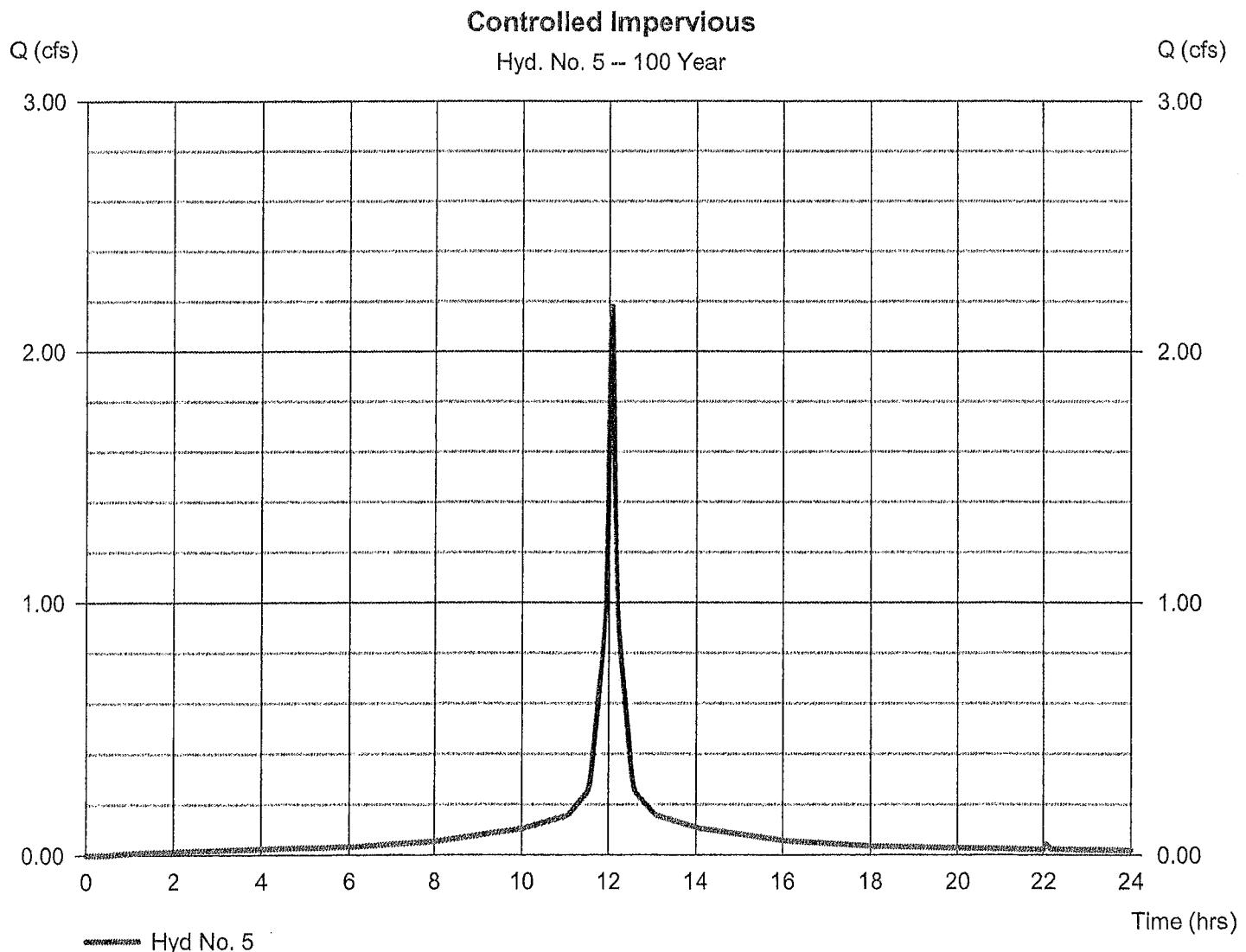
Friday, May 13, 2022

## Hyd. No. 5

### Controlled Impervious

Hydrograph type = SCS Runoff  
Storm frequency = 100 yrs  
Time interval = 2 min  
Drainage area = 0.248 ac  
Basin Slope = 0.0 %  
Tc method = USER  
Total precip. = 9.28 in  
Storm duration = 24 hrs

Peak discharge = 2.179 cfs  
Time to peak = 12.07 hrs  
Hyd. volume = 7,629 cuft  
Curve number = 98  
Hydraulic length = 0 ft  
Time of conc. (Tc) = 6.00 min  
Distribution = Type III  
Shape factor = 484



# Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.24

Friday, May 13, 2022

## Hyd. No. 5

### Controlled Impervious

Hydrograph type	= SCS Runoff	Peak discharge	= 2.179 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 7,629 cuft
Drainage area	= 0.248 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.0 min
Total precip.	= 9.28 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

### Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

#### Time -- Outflow

(hrs      cfs)

11.67	0.459
11.70	0.523
11.73	0.586
11.77	0.650
11.80	0.714
11.83	0.777
11.87	0.841
11.90	0.905
11.93	1.016
11.97	1.269
12.00	1.677
12.03	2.073
12.07	2.179 <<
12.10	1.931
12.13	1.516
12.17	1.170
12.20	0.981
12.23	0.886
12.27	0.822
12.30	0.758
12.33	0.694
12.37	0.630
12.40	0.567
12.43	0.503
12.47	0.439

...End

# Hydrograph Report

Hydraflow Hydrographs by Intelsolve v9.24

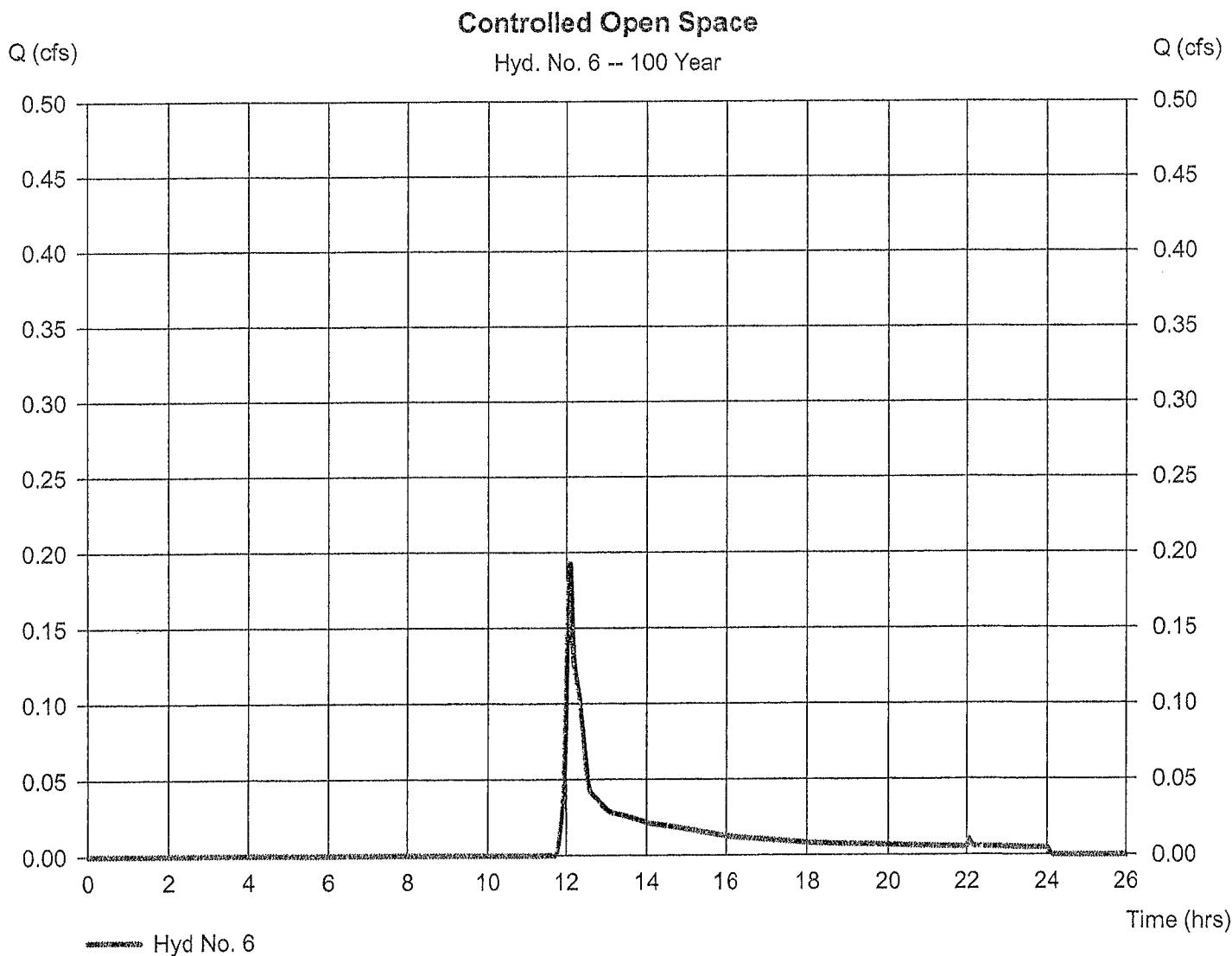
Friday, May 13, 2022

## Hyd. No. 6

### Controlled Open Space

Hydrograph type = SCS Runoff  
Storm frequency = 100 yrs  
Time interval = 2 min  
Drainage area = 0.126 ac  
Basin Slope = 0.0 %  
Tc method = USER  
Total precip. = 9.28 in  
Storm duration = 24 hrs

Peak discharge = 0.192 cfs  
Time to peak = 12.10 hrs  
Hyd. volume = 745 cuft  
Curve number = 39  
Hydraulic length = 0 ft  
Time of conc. (Tc) = 6.00 min  
Distribution = Type III  
Shape factor = 484



# Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.24

Friday, May 13, 2022

## Hyd. No. 6

Controlled Open Space

Hydrograph type	= SCS Runoff	Peak discharge	= 0.192 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 745 cuft
Drainage area	= 0.126 ac	Curve number	= 39
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.0 min
Total precip.	= 9.28 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

## Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

### Time -- Outflow (hrs      cfs)

11.93	0.040
11.97	0.063
12.00	0.104
12.03	0.156
12.07	0.191
12.10	0.192 <<
12.13	0.167
12.17	0.140
12.20	0.125
12.23	0.118
12.27	0.114
12.30	0.108
12.33	0.102
12.37	0.095
12.40	0.087
12.43	0.079
12.47	0.070
12.50	0.061
12.53	0.052
12.57	0.046
12.60	0.042
12.63	0.041
12.67	0.040
12.70	0.039

*...End*

# Hydrograph Report

Hydraflow Hydrographs by Intelsolve v9.24

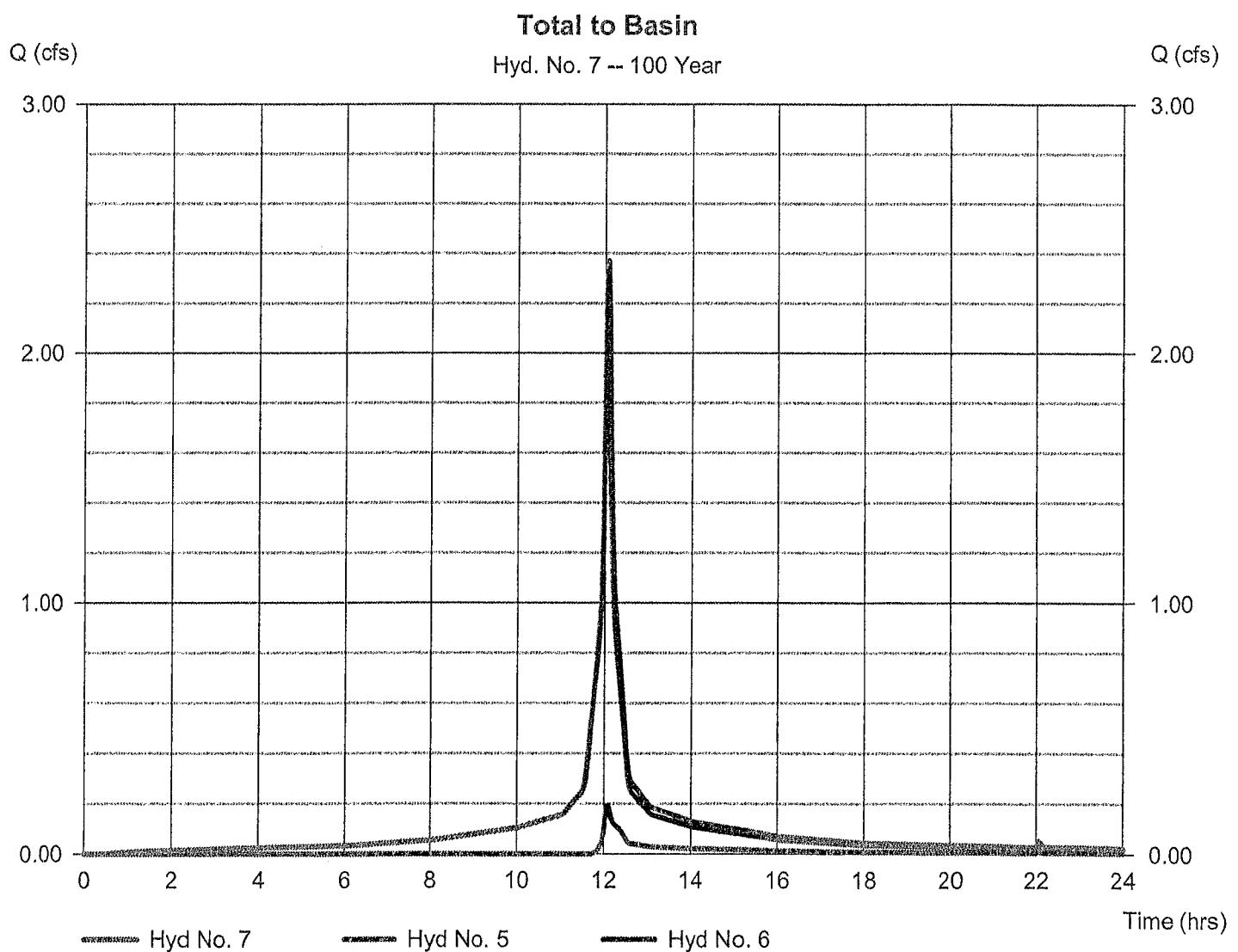
Friday, May 13, 2022

## Hyd. No. 7

Total to Basin

Hydrograph type = Combine  
Storm frequency = 100 yrs  
Time interval = 2 min  
Inflow hyds. = 5, 6

Peak discharge = 2.371 cfs  
Time to peak = 12.07 hrs  
Hyd. volume = 8,374 cuft  
Contrib. drain. area= 0.374 ac



# Hydrograph Report

Hydraflow Hydrographs by InteliSolve v9.24

Friday, May 13, 2022

## Hyd. No. 7

Total to Basin

Hydrograph type	= Combine	Peak discharge	= 2.371 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 8,374 cuft
Inflow hyds.	= 5, 6	Contrib. drain. area	= 0.374 ac

## Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

Time (hrs)	Hyd. 5 + (cfs)	Hyd. 6 = (cfs)	Outflow (cfs)
11.70	0.523	0.000	0.523
11.73	0.586	0.001	0.587
11.77	0.650	0.003	0.653
11.80	0.714	0.007	0.721
11.83	0.777	0.012	0.790
11.87	0.841	0.019	0.861
11.90	0.905	0.028	0.933
11.93	1.016	0.040	1.056
11.97	1.269	0.063	1.332
12.00	1.677	0.104	1.781
12.03	2.073	0.156	2.229
12.07	2.179 <<	0.191	2.371 <<
12.10	1.931	0.192 <<	2.123
12.13	1.516	0.167	1.683
12.17	1.170	0.140	1.311
12.20	0.981	0.125	1.106
12.23	0.886	0.118	1.004
12.27	0.822	0.114	0.935
12.30	0.758	0.108	0.866
12.33	0.694	0.102	0.796
12.37	0.630	0.095	0.725
12.40	0.567	0.087	0.654
12.43	0.503	0.079	0.582
12.47	0.439	0.070	0.509

...End

# Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.24

Friday, May 13, 2022

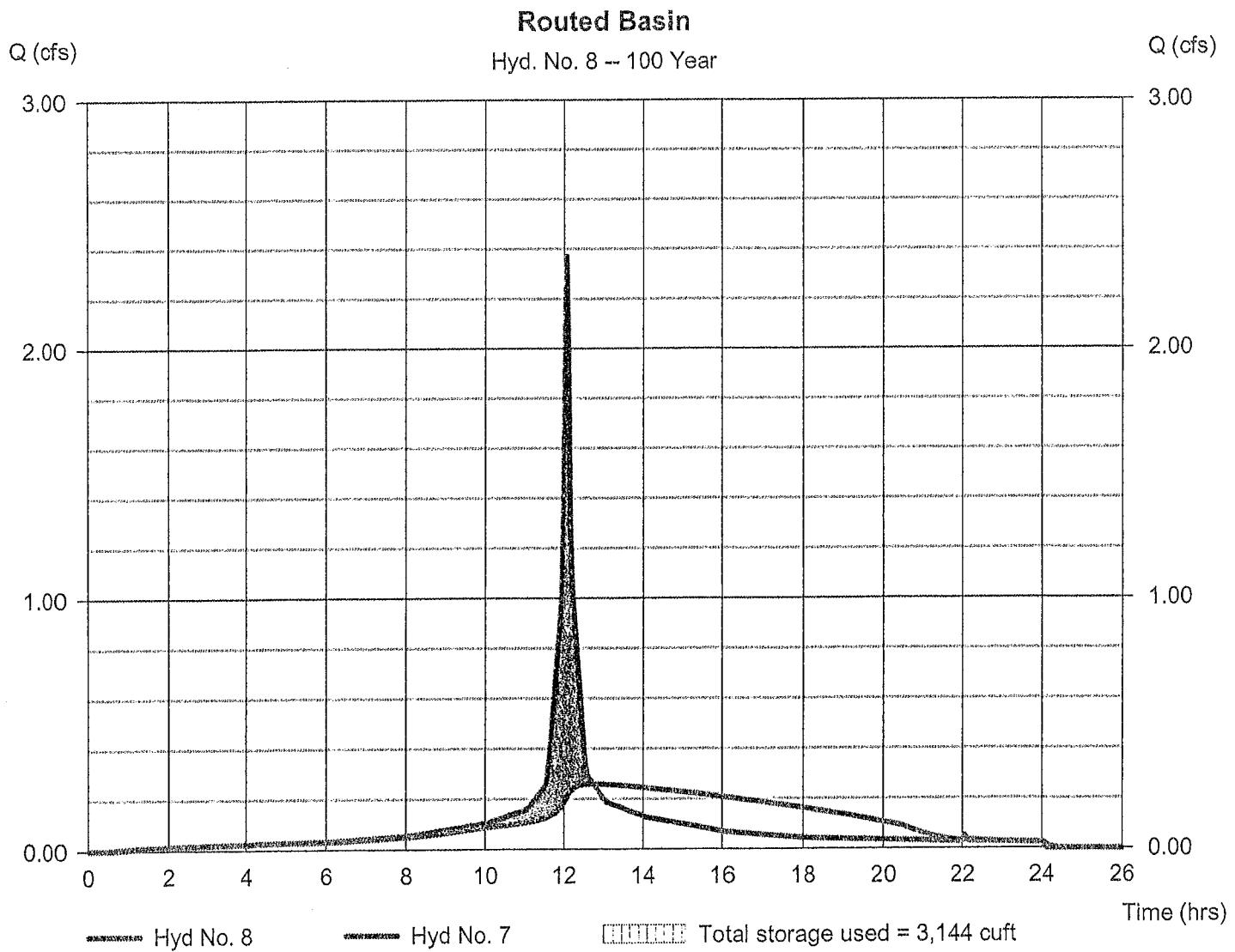
## Hyd. No. 8

### Routed Basin

Hydrograph type = Reservoir  
Storm frequency = 100 yrs  
Time interval = 2 min  
Inflow hyd. No. = 7 - Total to Basin  
Reservoir name = (4) 36 inch Pipe Field 120 ft long

Peak discharge = 0.259 cfs  
Time to peak = 12.73 hrs  
Hyd. volume = 8,373 cuft  
Max. Elevation = 92.79 ft  
Max. Storage = 3,144 cuft

Storage Indication method used.



# Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.24

Friday, May 13, 2022

## Hyd. No. 8

### Routed Basin

Hydrograph type	= Reservoir	Peak discharge	= 0.259 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.73 hrs
Time interval	= 2 min	Hyd. volume	= 8,373 cuft
Inflow hyd. No.	= 7 - Total to Basin	Reservoir name	= (4) 36 inch Pipe
Max. Elevation	= 92.79 ft	Max. Storage	= 3,144 cuft

Storage Indication method used.

### Hydrograph Discharge Table

(Printed values >= 20.00% of Qp.)

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
8.23	0.059	90.40	0.372	0.052	----	----	----	----	----	----	----	0.052
8.27	0.060	90.40	0.372	0.053	----	----	----	----	----	----	----	0.053
8.30	0.061	90.41	0.372	0.053	----	----	----	----	----	----	----	0.053
8.33	0.062	90.41	0.372	0.054	----	----	----	----	----	----	----	0.054
8.37	0.063	90.41	0.372	0.054	----	----	----	----	----	----	----	0.054
8.40	0.063	90.41	0.372	0.055	----	----	----	----	----	----	----	0.055
8.43	0.064	90.41	0.372	0.055	----	----	----	----	----	----	----	0.055
8.47	0.065	90.42	0.372	0.056	----	----	----	----	----	----	----	0.056
8.50	0.066	90.42	0.372	0.056	----	----	----	----	----	----	----	0.056
8.53	0.067	90.42	0.372	0.057	----	----	----	----	----	----	----	0.057
8.57	0.068	90.42	0.372	0.058	----	----	----	----	----	----	----	0.058
8.60	0.068	90.43	0.372	0.058	----	----	----	----	----	----	----	0.058
8.63	0.069	90.43	0.372	0.059	----	----	----	----	----	----	----	0.059
8.67	0.070	90.43	0.372	0.059	----	----	----	----	----	----	----	0.059
8.70	0.071	90.43	0.372	0.060	----	----	----	----	----	----	----	0.060
8.73	0.072	90.44	0.372	0.061	----	----	----	----	----	----	----	0.061
8.77	0.073	90.44	0.372	0.061	----	----	----	----	----	----	----	0.061
8.80	0.074	90.44	0.372	0.062	----	----	----	----	----	----	----	0.062
8.83	0.074	90.45	0.372	0.063	----	----	----	----	----	----	----	0.063
8.87	0.075	90.45	0.372	0.063	----	----	----	----	----	----	----	0.063
8.90	0.076	90.45	0.372	0.064	----	----	----	----	----	----	----	0.064
8.93	0.077	90.45	0.372	0.065	----	----	----	----	----	----	----	0.065
8.97	0.078	90.46	0.372	0.065	----	----	----	----	----	----	----	0.065
9.00	0.079	90.46	0.372	0.066	----	----	----	----	----	----	----	0.066
9.03	0.079	90.46	0.372	0.067	----	----	----	----	----	----	----	0.067
9.07	0.080	90.47	0.372	0.067	----	----	----	----	----	----	----	0.067
9.10	0.081	90.47	0.372	0.068	----	----	----	----	----	----	----	0.068
9.13	0.082	90.47	0.372	0.069	----	----	----	----	----	----	----	0.069
9.17	0.083	90.48	0.372	0.069	----	----	----	----	----	----	----	0.069
9.20	0.084	90.48	0.372	0.070	----	----	----	----	----	----	----	0.070
9.23	0.084	90.48	0.372	0.071	----	----	----	----	----	----	----	0.071
9.27	0.085	90.49	0.372	0.071	----	----	----	----	----	----	----	0.071
9.30	0.086	90.49	0.372	0.072	----	----	----	----	----	----	----	0.072
9.33	0.087	90.50	0.372	0.073	----	----	----	----	----	----	----	0.073
9.37	0.088	90.50	0.372	0.073	----	----	----	----	----	----	----	0.073
9.40	0.089	90.50	0.372	0.074	----	----	----	----	----	----	----	0.074
9.43	0.090	90.51	0.372	0.075	----	----	----	----	----	----	----	0.075
9.47	0.090	90.51	0.372	0.075	----	----	----	----	----	----	----	0.075
9.50	0.091	90.51	0.372	0.076	----	----	----	----	----	----	----	0.076
9.53	0.092	90.52	0.372	0.077	----	----	----	----	----	----	----	0.077

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## Hydrograph Discharge Table

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
9.57	0.093	90.52	0.372	0.077	----	----	----	----	----	----	----	0.077
9.60	0.094	90.53	0.372	0.078	----	----	----	----	----	----	----	0.078
9.63	0.095	90.53	0.372	0.079	----	----	----	----	----	----	----	0.079
9.67	0.095	90.53	0.372	0.079	----	----	----	----	----	----	----	0.079
9.70	0.096	90.54	0.372	0.080	----	----	----	----	----	----	----	0.080
9.73	0.097	90.54	0.372	0.081	----	----	----	----	----	----	----	0.081
9.77	0.098	90.55	0.372	0.082	----	----	----	----	----	----	----	0.082
9.80	0.099	90.55	0.372	0.082	----	----	----	----	----	----	----	0.082
9.83	0.100	90.56	0.372	0.083	----	----	----	----	----	----	----	0.083
9.87	0.100	90.56	0.372	0.084	----	----	----	----	----	----	----	0.084
9.90	0.101	90.56	0.372	0.084	----	----	----	----	----	----	----	0.084
9.93	0.102	90.57	0.372	0.085	----	----	----	----	----	----	----	0.085
9.97	0.103	90.57	0.372	0.086	----	----	----	----	----	----	----	0.086
10.00	0.104	90.58	0.372	0.086	----	----	----	----	----	----	----	0.086
10.03	0.105	90.58	0.372	0.087	----	----	----	----	----	----	----	0.087
10.07	0.106	90.59	0.372	0.088	----	----	----	----	----	----	----	0.088
10.10	0.107	90.59	0.372	0.088	----	----	----	----	----	----	----	0.088
10.13	0.109	90.60	0.372	0.089	----	----	----	----	----	----	----	0.089
10.17	0.111	90.60	0.372	0.090	----	----	----	----	----	----	----	0.090
10.20	0.113	90.61	0.372	0.091	----	----	----	----	----	----	----	0.091
10.23	0.114	90.61	0.372	0.092	----	----	----	----	----	----	----	0.092
10.27	0.116	90.61	0.372	0.092	----	----	----	----	----	----	----	0.092
10.30	0.118	90.62	0.372	0.092	----	----	----	----	----	----	----	0.092
10.33	0.120	90.62	0.372	0.093	----	----	----	----	----	----	----	0.093
10.37	0.121	90.62	0.372	0.093	----	----	----	----	----	----	----	0.093
10.40	0.123	90.63	0.372	0.094	----	----	----	----	----	----	----	0.094
10.43	0.125	90.63	0.372	0.094	----	----	----	----	----	----	----	0.094
10.47	0.127	90.63	0.372	0.095	----	----	----	----	----	----	----	0.095
10.50	0.128	90.64	0.372	0.095	----	----	----	----	----	----	----	0.095
10.53	0.130	90.64	0.372	0.096	----	----	----	----	----	----	----	0.096
10.57	0.132	90.65	0.372	0.096	----	----	----	----	----	----	----	0.096
10.60	0.134	90.65	0.372	0.097	----	----	----	----	----	----	----	0.097
10.63	0.135	90.65	0.372	0.098	----	----	----	----	----	----	----	0.098
10.67	0.137	90.66	0.372	0.098	----	----	----	----	----	----	----	0.098
10.70	0.139	90.66	0.372	0.099	----	----	----	----	----	----	----	0.099
10.73	0.141	90.67	0.372	0.099	----	----	----	----	----	----	----	0.099
10.77	0.142	90.67	0.372	0.100	----	----	----	----	----	----	----	0.100
10.80	0.144	90.68	0.372	0.101	----	----	----	----	----	----	----	0.101
10.83	0.146	90.68	0.372	0.101	----	----	----	----	----	----	----	0.101
10.87	0.148	90.69	0.372	0.102	----	----	----	----	----	----	----	0.102
10.90	0.149	90.69	0.372	0.103	----	----	----	----	----	----	----	0.103
10.93	0.151	90.70	0.372	0.104	----	----	----	----	----	----	----	0.104
10.97	0.153	90.70	0.372	0.104	----	----	----	----	----	----	----	0.104
11.00	0.155	90.71	0.372	0.105	----	----	----	----	----	----	----	0.105
11.03	0.157	90.71	0.372	0.106	----	----	----	----	----	----	----	0.106
11.07	0.160	90.72	0.372	0.106	----	----	----	----	----	----	----	0.106
11.10	0.166	90.73	0.372	0.107	----	----	----	----	----	----	----	0.107
11.13	0.172	90.73	0.372	0.108	----	----	----	----	----	----	----	0.108
11.17	0.179	90.74	0.372	0.109	----	----	----	----	----	----	----	0.109
11.20	0.185	90.75	0.372	0.110	----	----	----	----	----	----	----	0.110
11.23	0.192	90.76	0.372	0.111	----	----	----	----	----	----	----	0.111
11.27	0.199	90.77	0.372	0.112	----	----	----	----	----	----	----	0.112
11.30	0.205	90.78	0.372	0.114	----	----	----	----	----	----	----	0.114
11.33	0.212	90.79	0.372	0.115	----	----	----	----	----	----	----	0.115

Continues on next page...

## Hydrograph Discharge Table

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
11.37	0.219	90.80	0.372	0.116	----	----	----	----	----	----	----	0.116
11.40	0.225	90.81	0.372	0.118	----	----	----	----	----	----	----	0.118
11.43	0.232	90.83	0.372	0.119	----	----	----	----	----	----	----	0.119
11.47	0.239	90.84	0.372	0.121	----	----	----	----	----	----	----	0.121
11.50	0.245	90.85	0.372	0.122	----	----	----	----	----	----	----	0.122
11.53	0.258	90.87	0.372	0.124	----	----	----	----	----	----	----	0.124
11.57	0.287	90.89	0.372	0.126	----	----	----	----	----	----	----	0.126
11.60	0.335	90.91	0.372	0.128	----	----	----	----	----	----	----	0.128
11.63	0.395	90.93	0.372	0.130	----	----	----	----	----	----	----	0.130
11.67	0.459	90.96	0.372	0.133	----	----	----	----	----	----	----	0.133
11.70	0.523	90.99	0.372	0.136	----	----	----	----	----	----	----	0.136
11.73	0.587	91.03	0.372	0.140	----	----	----	----	----	----	----	0.140
11.77	0.653	91.07	0.372	0.144	----	----	----	----	----	----	----	0.144
11.80	0.721	91.12	0.372	0.149	----	----	----	----	----	----	----	0.149
11.83	0.790	91.18	0.372	0.154	----	----	----	----	----	----	----	0.154
11.87	0.861	91.24	0.372	0.159	----	----	----	----	----	----	----	0.159
11.90	0.933	91.30	0.372	0.164	----	----	----	----	----	----	----	0.164
11.93	1.056	91.37	0.372	0.170	----	----	----	----	----	----	----	0.170
11.97	1.332	91.45	0.372	0.176	----	----	----	----	----	----	----	0.176
12.00	1.781	91.56	0.372	0.184	----	----	----	----	----	----	----	0.184
12.03	2.229	91.71	0.372	0.195	----	----	----	----	----	----	----	0.195
12.07	2.371 <<	91.87	0.372	0.206	----	----	----	----	----	----	----	0.206
12.10	2.123	92.03	0.372	0.216	----	----	----	----	----	----	----	0.216
12.13	1.683	92.16	0.372	0.224	----	----	----	----	----	----	----	0.224
12.17	1.311	92.27	0.372	0.230	----	----	----	----	----	----	----	0.230
12.20	1.106	92.35	0.372	0.235	----	----	----	----	----	----	----	0.235
12.23	1.004	92.42	0.372	0.239	----	----	----	----	----	----	----	0.239
12.27	0.935	92.48	0.372	0.242	----	----	----	----	----	----	----	0.242
12.30	0.866	92.53	0.372	0.245	----	----	----	----	----	----	----	0.245
12.33	0.796	92.59	0.372	0.248	----	----	----	----	----	----	----	0.248
12.37	0.725	92.63	0.372	0.251	----	----	----	----	----	----	----	0.251
12.40	0.654	92.68	0.372	0.253	----	----	----	----	----	----	----	0.253
12.43	0.582	92.71	0.372	0.255	----	----	----	----	----	----	----	0.255
12.47	0.509	92.73	0.372	0.256	----	----	----	----	----	----	----	0.256
12.50	0.436	92.75	0.372	0.257	----	----	----	----	----	----	----	0.257
12.53	0.369	92.77	0.372	0.258	----	----	----	----	----	----	----	0.258
12.57	0.322	92.78	0.372	0.258	----	----	----	----	----	----	----	0.258
12.60	0.297	92.78	0.372	0.258	----	----	----	----	----	----	----	0.258
12.63	0.285	92.78	0.372	0.259	----	----	----	----	----	----	----	0.259
12.67	0.278	92.79	0.372	0.259	----	----	----	----	----	----	----	0.259
12.70	0.270	92.79	0.372	0.259	----	----	----	----	----	----	----	0.259
12.73	0.263	92.79 <<	0.372	0.259	----	----	----	----	----	----	----	0.259 <<
12.77	0.255	92.79	0.372	0.259	----	----	----	----	----	----	----	0.259
12.80	0.247	92.79	0.372	0.259	----	----	----	----	----	----	----	0.259
12.83	0.240	92.79	0.372	0.259	----	----	----	----	----	----	----	0.259
12.87	0.232	92.78	0.372	0.259	----	----	----	----	----	----	----	0.259
12.90	0.225	92.78	0.372	0.258	----	----	----	----	----	----	----	0.258
12.93	0.217	92.78	0.372	0.258	----	----	----	----	----	----	----	0.258
12.97	0.209	92.77	0.372	0.258	----	----	----	----	----	----	----	0.258
13.00	0.201	92.77	0.372	0.258	----	----	----	----	----	----	----	0.258
13.03	0.194	92.76	0.372	0.258	----	----	----	----	----	----	----	0.258
13.07	0.189	92.76	0.372	0.257	----	----	----	----	----	----	----	0.257
13.10	0.185	92.75	0.372	0.257	----	----	----	----	----	----	----	0.257
13.13	0.183	92.74	0.372	0.257	----	----	----	----	----	----	----	0.257

Continues on next page...

## Hydrograph Discharge Table

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
13.17	0.181	92.74	0.372	0.256	----	----	----	----	----	----	----	0.256
13.20	0.179	92.73	0.372	0.256	----	----	----	----	----	----	----	0.256
13.23	0.177	92.72	0.372	0.255	----	----	----	----	----	----	----	0.255
13.27	0.175	92.72	0.372	0.255	----	----	----	----	----	----	----	0.255
13.30	0.173	92.71	0.372	0.255	----	----	----	----	----	----	----	0.255
13.33	0.171	92.70	0.372	0.254	----	----	----	----	----	----	----	0.254
13.37	0.169	92.69	0.372	0.254	----	----	----	----	----	----	----	0.254
13.40	0.167	92.69	0.372	0.253	----	----	----	----	----	----	----	0.253
13.43	0.165	92.68	0.372	0.253	----	----	----	----	----	----	----	0.253
13.47	0.164	92.67	0.372	0.253	----	----	----	----	----	----	----	0.253
13.50	0.162	92.66	0.372	0.252	----	----	----	----	----	----	----	0.252
13.53	0.160	92.65	0.372	0.252	----	----	----	----	----	----	----	0.252
13.57	0.158	92.64	0.372	0.251	----	----	----	----	----	----	----	0.251
13.60	0.156	92.64	0.372	0.251	----	----	----	----	----	----	----	0.251
13.63	0.154	92.63	0.372	0.250	----	----	----	----	----	----	----	0.250
13.67	0.152	92.62	0.372	0.250	----	----	----	----	----	----	----	0.250
13.70	0.150	92.61	0.372	0.249	----	----	----	----	----	----	----	0.249
13.73	0.148	92.60	0.372	0.249	----	----	----	----	----	----	----	0.249
13.77	0.146	92.59	0.372	0.248	----	----	----	----	----	----	----	0.248
13.80	0.144	92.58	0.372	0.248	----	----	----	----	----	----	----	0.248
13.83	0.142	92.57	0.372	0.247	----	----	----	----	----	----	----	0.247
13.87	0.140	92.56	0.372	0.247	----	----	----	----	----	----	----	0.247
13.90	0.137	92.55	0.372	0.246	----	----	----	----	----	----	----	0.246
13.93	0.135	92.54	0.372	0.246	----	----	----	----	----	----	----	0.246
13.97	0.133	92.53	0.372	0.245	----	----	----	----	----	----	----	0.245
14.00	0.131	92.52	0.372	0.245	----	----	----	----	----	----	----	0.245
14.03	0.129	92.51	0.372	0.244	----	----	----	----	----	----	----	0.244
14.07	0.128	92.50	0.372	0.243	----	----	----	----	----	----	----	0.243
14.10	0.127	92.49	0.372	0.243	----	----	----	----	----	----	----	0.243
14.13	0.126	92.48	0.372	0.242	----	----	----	----	----	----	----	0.242
14.17	0.125	92.47	0.372	0.242	----	----	----	----	----	----	----	0.242
14.20	0.124	92.46	0.372	0.241	----	----	----	----	----	----	----	0.241
14.23	0.123	92.45	0.372	0.241	----	----	----	----	----	----	----	0.241
14.27	0.122	92.44	0.372	0.240	----	----	----	----	----	----	----	0.240
14.30	0.121	92.43	0.372	0.240	----	----	----	----	----	----	----	0.240
14.33	0.120	92.42	0.372	0.239	----	----	----	----	----	----	----	0.239
14.37	0.119	92.41	0.372	0.238	----	----	----	----	----	----	----	0.238
14.40	0.118	92.40	0.372	0.238	----	----	----	----	----	----	----	0.238
14.43	0.117	92.39	0.372	0.237	----	----	----	----	----	----	----	0.237
14.47	0.116	92.38	0.372	0.237	----	----	----	----	----	----	----	0.237
14.50	0.115	92.37	0.372	0.236	----	----	----	----	----	----	----	0.236
14.53	0.114	92.36	0.372	0.236	----	----	----	----	----	----	----	0.236
14.57	0.113	92.35	0.372	0.235	----	----	----	----	----	----	----	0.235
14.60	0.112	92.34	0.372	0.235	----	----	----	----	----	----	----	0.235
14.63	0.111	92.33	0.372	0.234	----	----	----	----	----	----	----	0.234
14.67	0.110	92.32	0.372	0.233	----	----	----	----	----	----	----	0.233
14.70	0.109	92.31	0.372	0.233	----	----	----	----	----	----	----	0.233
14.73	0.108	92.30	0.372	0.232	----	----	----	----	----	----	----	0.232
14.77	0.107	92.29	0.372	0.232	----	----	----	----	----	----	----	0.232
14.80	0.106	92.28	0.372	0.231	----	----	----	----	----	----	----	0.231
14.83	0.105	92.27	0.372	0.230	----	----	----	----	----	----	----	0.230
14.87	0.104	92.26	0.372	0.230	----	----	----	----	----	----	----	0.230
14.90	0.103	92.25	0.372	0.229	----	----	----	----	----	----	----	0.229
14.93	0.102	92.24	0.372	0.229	----	----	----	----	----	----	----	0.229

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## Hydrograph Discharge Table

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
14.97	0.101	92.23	0.372	0.228	----	----	----	----	----	----	----	0.228
15.00	0.101	92.22	0.372	0.227	----	----	----	----	----	----	----	0.227
15.03	0.100	92.21	0.372	0.227	----	----	----	----	----	----	----	0.227
15.07	0.099	92.20	0.372	0.226	----	----	----	----	----	----	----	0.226
15.10	0.098	92.19	0.372	0.225	----	----	----	----	----	----	----	0.225
15.13	0.097	92.18	0.372	0.225	----	----	----	----	----	----	----	0.225
15.17	0.096	92.17	0.372	0.224	----	----	----	----	----	----	----	0.224
15.20	0.095	92.16	0.372	0.224	----	----	----	----	----	----	----	0.224
15.23	0.094	92.15	0.372	0.223	----	----	----	----	----	----	----	0.223
15.27	0.093	92.14	0.372	0.222	----	----	----	----	----	----	----	0.222
15.30	0.092	92.13	0.372	0.222	----	----	----	----	----	----	----	0.222
15.33	0.091	92.12	0.372	0.221	----	----	----	----	----	----	----	0.221
15.37	0.090	92.11	0.372	0.221	----	----	----	----	----	----	----	0.221
15.40	0.089	92.10	0.372	0.220	----	----	----	----	----	----	----	0.220
15.43	0.088	92.08	0.372	0.219	----	----	----	----	----	----	----	0.219
15.47	0.087	92.07	0.372	0.219	----	----	----	----	----	----	----	0.219
15.50	0.086	92.06	0.372	0.218	----	----	----	----	----	----	----	0.218
15.53	0.085	92.05	0.372	0.217	----	----	----	----	----	----	----	0.217
15.57	0.084	92.04	0.372	0.217	----	----	----	----	----	----	----	0.217
15.60	0.083	92.03	0.372	0.216	----	----	----	----	----	----	----	0.216
15.63	0.082	92.02	0.372	0.215	----	----	----	----	----	----	----	0.215
15.67	0.081	92.01	0.372	0.215	----	----	----	----	----	----	----	0.215
15.70	0.080	92.00	0.372	0.214	----	----	----	----	----	----	----	0.214
15.73	0.079	91.99	0.372	0.213	----	----	----	----	----	----	----	0.213
15.77	0.078	91.98	0.372	0.213	----	----	----	----	----	----	----	0.213
15.80	0.077	91.97	0.372	0.212	----	----	----	----	----	----	----	0.212
15.83	0.076	91.96	0.372	0.211	----	----	----	----	----	----	----	0.211
15.87	0.075	91.95	0.372	0.211	----	----	----	----	----	----	----	0.211
15.90	0.074	91.94	0.372	0.210	----	----	----	----	----	----	----	0.210
15.93	0.073	91.93	0.372	0.209	----	----	----	----	----	----	----	0.209
15.97	0.072	91.92	0.372	0.209	----	----	----	----	----	----	----	0.209
16.00	0.071	91.91	0.372	0.208	----	----	----	----	----	----	----	0.208
16.03	0.070	91.89	0.372	0.207	----	----	----	----	----	----	----	0.207
16.07	0.069	91.88	0.372	0.207	----	----	----	----	----	----	----	0.207
16.10	0.068	91.87	0.372	0.206	----	----	----	----	----	----	----	0.206
16.13	0.068	91.86	0.372	0.205	----	----	----	----	----	----	----	0.205
16.17	0.068	91.85	0.372	0.204	----	----	----	----	----	----	----	0.204
16.20	0.067	91.84	0.372	0.204	----	----	----	----	----	----	----	0.204
16.23	0.067	91.83	0.372	0.203	----	----	----	----	----	----	----	0.203
16.27	0.066	91.82	0.372	0.202	----	----	----	----	----	----	----	0.202
16.30	0.066	91.81	0.372	0.202	----	----	----	----	----	----	----	0.202
16.33	0.065	91.80	0.372	0.201	----	----	----	----	----	----	----	0.201
16.37	0.065	91.79	0.372	0.200	----	----	----	----	----	----	----	0.200
16.40	0.065	91.78	0.372	0.199	----	----	----	----	----	----	----	0.199
16.43	0.064	91.77	0.372	0.199	----	----	----	----	----	----	----	0.199
16.47	0.064	91.76	0.372	0.198	----	----	----	----	----	----	----	0.198
16.50	0.063	91.74	0.372	0.197	----	----	----	----	----	----	----	0.197
16.53	0.063	91.73	0.372	0.197	----	----	----	----	----	----	----	0.197
16.57	0.062	91.72	0.372	0.196	----	----	----	----	----	----	----	0.196
16.60	0.062	91.71	0.372	0.195	----	----	----	----	----	----	----	0.195
16.63	0.062	91.70	0.372	0.194	----	----	----	----	----	----	----	0.194
16.67	0.061	91.69	0.372	0.194	----	----	----	----	----	----	----	0.194
16.70	0.061	91.68	0.372	0.193	----	----	----	----	----	----	----	0.193
16.73	0.060	91.67	0.372	0.192	----	----	----	----	----	----	----	0.192

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**Hydrograph Discharge Table**

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
16.77	0.060	91.66	0.372	0.191	----	----	----	----	----	----	----	0.191
16.80	0.059	91.65	0.372	0.191	----	----	----	----	----	----	----	0.191
16.83	0.059	91.64	0.372	0.190	----	----	----	----	----	----	----	0.190
16.87	0.058	91.63	0.372	0.189	----	----	----	----	----	----	----	0.189
16.90	0.058	91.62	0.372	0.189	----	----	----	----	----	----	----	0.189
16.93	0.058	91.61	0.372	0.188	----	----	----	----	----	----	----	0.188
16.97	0.057	91.60	0.372	0.187	----	----	----	----	----	----	----	0.187
17.00	0.057	91.59	0.372	0.186	----	----	----	----	----	----	----	0.186
17.03	0.056	91.58	0.372	0.186	----	----	----	----	----	----	----	0.186
17.07	0.056	91.57	0.372	0.185	----	----	----	----	----	----	----	0.185
17.10	0.055	91.56	0.372	0.184	----	----	----	----	----	----	----	0.184
17.13	0.055	91.55	0.372	0.183	----	----	----	----	----	----	----	0.183
17.17	0.055	91.54	0.372	0.183	----	----	----	----	----	----	----	0.183
17.20	0.054	91.53	0.372	0.182	----	----	----	----	----	----	----	0.182
17.23	0.054	91.52	0.372	0.181	----	----	----	----	----	----	----	0.181
17.27	0.053	91.51	0.372	0.180	----	----	----	----	----	----	----	0.180
17.30	0.053	91.50	0.372	0.180	----	----	----	----	----	----	----	0.180
17.33	0.052	91.49	0.372	0.179	----	----	----	----	----	----	----	0.179
17.37	0.052	91.48	0.372	0.178	----	----	----	----	----	----	----	0.178
17.40	0.051	91.47	0.372	0.177	----	----	----	----	----	----	----	0.177
17.43	0.051	91.45	0.372	0.176	----	----	----	----	----	----	----	0.176
17.47	0.051	91.44	0.372	0.176	----	----	----	----	----	----	----	0.176
17.50	0.050	91.43	0.372	0.175	----	----	----	----	----	----	----	0.175
17.53	0.050	91.42	0.372	0.174	----	----	----	----	----	----	----	0.174
17.57	0.049	91.41	0.372	0.173	----	----	----	----	----	----	----	0.173
17.60	0.049	91.40	0.372	0.172	----	----	----	----	----	----	----	0.172
17.63	0.048	91.39	0.372	0.172	----	----	----	----	----	----	----	0.172
17.67	0.048	91.38	0.372	0.171	----	----	----	----	----	----	----	0.171
17.70	0.048	91.37	0.372	0.170	----	----	----	----	----	----	----	0.170
17.73	0.047	91.36	0.372	0.169	----	----	----	----	----	----	----	0.169
17.77	0.047	91.35	0.372	0.168	----	----	----	----	----	----	----	0.168
17.80	0.046	91.34	0.372	0.168	----	----	----	----	----	----	----	0.168
17.83	0.046	91.33	0.372	0.167	----	----	----	----	----	----	----	0.167
17.87	0.045	91.32	0.372	0.166	----	----	----	----	----	----	----	0.166
17.90	0.045	91.31	0.372	0.165	----	----	----	----	----	----	----	0.165
17.93	0.044	91.30	0.372	0.164	----	----	----	----	----	----	----	0.164
17.97	0.044	91.29	0.372	0.164	----	----	----	----	----	----	----	0.164
18.00	0.044	91.28	0.372	0.163	----	----	----	----	----	----	----	0.163
18.03	0.043	91.27	0.372	0.162	----	----	----	----	----	----	----	0.162
18.07	0.043	91.26	0.372	0.161	----	----	----	----	----	----	----	0.161
18.10	0.043	91.25	0.372	0.160	----	----	----	----	----	----	----	0.160
18.13	0.043	91.25	0.372	0.160	----	----	----	----	----	----	----	0.160
18.17	0.042	91.24	0.372	0.159	----	----	----	----	----	----	----	0.159
18.20	0.042	91.22	0.372	0.158	----	----	----	----	----	----	----	0.158
18.23	0.042	91.21	0.372	0.157	----	----	----	----	----	----	----	0.157
18.27	0.042	91.20	0.372	0.156	----	----	----	----	----	----	----	0.156
18.30	0.042	91.19	0.372	0.155	----	----	----	----	----	----	----	0.155
18.33	0.042	91.18	0.372	0.154	----	----	----	----	----	----	----	0.154
18.37	0.042	91.17	0.372	0.153	----	----	----	----	----	----	----	0.153
18.40	0.041	91.16	0.372	0.152	----	----	----	----	----	----	----	0.152
18.43	0.041	91.15	0.372	0.152	----	----	----	----	----	----	----	0.152
18.47	0.041	91.14	0.372	0.151	----	----	----	----	----	----	----	0.151
18.50	0.041	91.13	0.372	0.150	----	----	----	----	----	----	----	0.150
18.53	0.041	91.12	0.372	0.149	----	----	----	----	----	----	----	0.149

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**Hydrograph Discharge Table**

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
18.57	0.041	91.11	0.372	0.148	----	----	----	----	----	----	----	0.148
18.60	0.041	91.10	0.372	0.147	----	----	----	----	----	----	----	0.147
18.63	0.041	91.09	0.372	0.146	----	----	----	----	----	----	----	0.146
18.67	0.040	91.08	0.372	0.145	----	----	----	----	----	----	----	0.145
18.70	0.040	91.07	0.372	0.144	----	----	----	----	----	----	----	0.144
18.73	0.040	91.06	0.372	0.143	----	----	----	----	----	----	----	0.143
18.77	0.040	91.06	0.372	0.143	----	----	----	----	----	----	----	0.143
18.80	0.040	91.05	0.372	0.142	----	----	----	----	----	----	----	0.142
18.83	0.040	91.04	0.372	0.141	----	----	----	----	----	----	----	0.141
18.87	0.040	91.03	0.372	0.140	----	----	----	----	----	----	----	0.140
18.90	0.040	91.02	0.372	0.139	----	----	----	----	----	----	----	0.139
18.93	0.039	91.01	0.372	0.138	----	----	----	----	----	----	----	0.138
18.97	0.039	91.00	0.372	0.137	----	----	----	----	----	----	----	0.137
19.00	0.039	90.99	0.372	0.136	----	----	----	----	----	----	----	0.136
19.03	0.039	90.98	0.372	0.136	----	----	----	----	----	----	----	0.136
19.07	0.039	90.97	0.372	0.135	----	----	----	----	----	----	----	0.135
19.10	0.039	90.96	0.372	0.134	----	----	----	----	----	----	----	0.134
19.13	0.039	90.96	0.372	0.133	----	----	----	----	----	----	----	0.133
19.17	0.038	90.95	0.372	0.132	----	----	----	----	----	----	----	0.132
19.20	0.038	90.94	0.372	0.131	----	----	----	----	----	----	----	0.131
19.23	0.038	90.93	0.372	0.130	----	----	----	----	----	----	----	0.130
19.27	0.038	90.92	0.372	0.129	----	----	----	----	----	----	----	0.129
19.30	0.038	90.91	0.372	0.128	----	----	----	----	----	----	----	0.128
19.33	0.038	90.90	0.372	0.127	----	----	----	----	----	----	----	0.127
19.37	0.038	90.89	0.372	0.126	----	----	----	----	----	----	----	0.126
19.40	0.038	90.88	0.372	0.125	----	----	----	----	----	----	----	0.125
19.43	0.037	90.87	0.372	0.124	----	----	----	----	----	----	----	0.124
19.47	0.037	90.86	0.372	0.123	----	----	----	----	----	----	----	0.123
19.50	0.037	90.85	0.372	0.122	----	----	----	----	----	----	----	0.122
19.53	0.037	90.84	0.372	0.121	----	----	----	----	----	----	----	0.121
19.57	0.037	90.83	0.372	0.120	----	----	----	----	----	----	----	0.120
19.60	0.037	90.82	0.372	0.119	----	----	----	----	----	----	----	0.119
19.63	0.037	90.81	0.372	0.117	----	----	----	----	----	----	----	0.117
19.67	0.037	90.80	0.372	0.116	----	----	----	----	----	----	----	0.116
19.70	0.036	90.79	0.372	0.115	----	----	----	----	----	----	----	0.115
19.73	0.036	90.79	0.372	0.114	----	----	----	----	----	----	----	0.114
19.77	0.036	90.78	0.372	0.113	----	----	----	----	----	----	----	0.113
19.80	0.036	90.77	0.372	0.112	----	----	----	----	----	----	----	0.112
19.83	0.036	90.76	0.372	0.111	----	----	----	----	----	----	----	0.111
19.87	0.036	90.75	0.372	0.110	----	----	----	----	----	----	----	0.110
19.90	0.036	90.74	0.372	0.109	----	----	----	----	----	----	----	0.109
19.93	0.035	90.73	0.372	0.108	----	----	----	----	----	----	----	0.108
19.97	0.035	90.73	0.372	0.107	----	----	----	----	----	----	----	0.107
20.00	0.035	90.72	0.372	0.106	----	----	----	----	----	----	----	0.106
20.03	0.035	90.71	0.372	0.105	----	----	----	----	----	----	----	0.105
20.07	0.035	90.70	0.372	0.104	----	----	----	----	----	----	----	0.104
20.10	0.035	90.69	0.372	0.103	----	----	----	----	----	----	----	0.103
20.13	0.035	90.69	0.372	0.102	----	----	----	----	----	----	----	0.102
20.17	0.035	90.68	0.372	0.101	----	----	----	----	----	----	----	0.101
20.20	0.034	90.67	0.372	0.100	----	----	----	----	----	----	----	0.100
20.23	0.034	90.66	0.372	0.099	----	----	----	----	----	----	----	0.099
20.27	0.034	90.66	0.372	0.098	----	----	----	----	----	----	----	0.098
20.30	0.034	90.65	0.372	0.097	----	----	----	----	----	----	----	0.097
20.33	0.034	90.64	0.372	0.096	----	----	----	----	----	----	----	0.096

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**Hydrograph Discharge Table**

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
20.37	0.034	90.63	0.372	0.095	----	----	----	----	----	----	----	0.095
20.40	0.034	90.63	0.372	0.094	----	----	----	----	----	----	----	0.094
20.43	0.033	90.62	0.372	0.093	----	----	----	----	----	----	----	0.093
20.47	0.033	90.61	0.372	0.092	----	----	----	----	----	----	----	0.092
20.50	0.033	90.60	0.372	0.090	----	----	----	----	----	----	----	0.090
20.53	0.033	90.59	0.372	0.088	----	----	----	----	----	----	----	0.088
20.57	0.033	90.57	0.372	0.086	----	----	----	----	----	----	----	0.086
20.60	0.033	90.56	0.372	0.083	----	----	----	----	----	----	----	0.083
20.63	0.033	90.55	0.372	0.081	----	----	----	----	----	----	----	0.081
20.67	0.033	90.53	0.372	0.079	----	----	----	----	----	----	----	0.079
20.70	0.032	90.52	0.372	0.077	----	----	----	----	----	----	----	0.077
20.73	0.032	90.51	0.372	0.075	----	----	----	----	----	----	----	0.075
20.77	0.032	90.50	0.372	0.073	----	----	----	----	----	----	----	0.073
20.80	0.032	90.49	0.372	0.072	----	----	----	----	----	----	----	0.072
20.83	0.032	90.48	0.372	0.070	----	----	----	----	----	----	----	0.070
20.87	0.032	90.47	0.372	0.068	----	----	----	----	----	----	----	0.068
20.90	0.032	90.46	0.372	0.066	----	----	----	----	----	----	----	0.066
20.93	0.032	90.45	0.372	0.064	----	----	----	----	----	----	----	0.064
20.97	0.031	90.45	0.372	0.063	----	----	----	----	----	----	----	0.063
21.00	0.031	90.44	0.372	0.061	----	----	----	----	----	----	----	0.061
21.03	0.031	90.43	0.372	0.059	----	----	----	----	----	----	----	0.059
21.07	0.031	90.42	0.372	0.058	----	----	----	----	----	----	----	0.058
21.10	0.031	90.42	0.372	0.056	----	----	----	----	----	----	----	0.056
21.13	0.031	90.41	0.372	0.054	----	----	----	----	----	----	----	0.054
21.17	0.031	90.40	0.372	0.053	----	----	----	----	----	----	----	0.053

*...End*

# Hydrograph Report

Hydraflow Hydrographs by Intellsolve v9.24

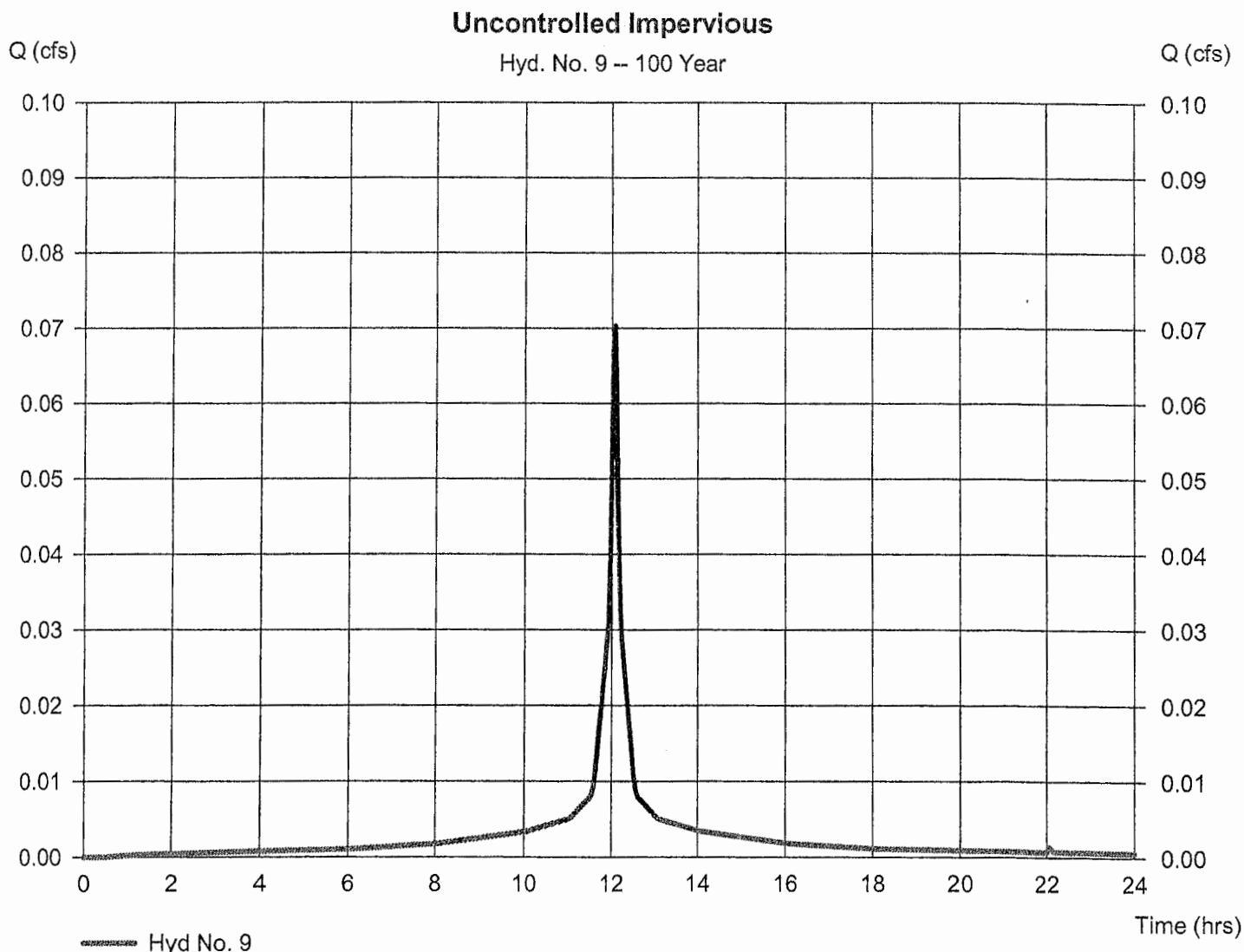
Friday, May 13, 2022

## Hyd. No. 9

### Uncontrolled Impervious

Hydrograph type = SCS Runoff  
Storm frequency = 100 yrs  
Time interval = 2 min  
Drainage area = 0.008 ac  
Basin Slope = 0.0 %  
Tc method = USER  
Total precip. = 9.28 in  
Storm duration = 24 hrs

Peak discharge = 0.070 cfs  
Time to peak = 12.07 hrs  
Hyd. volume = 246 cuft  
Curve number = 98  
Hydraulic length = 0 ft  
Time of conc. (Tc) = 6.00 min  
Distribution = Type III  
Shape factor = 484



# Hydrograph Report

Hydraflow Hydrographs by InteliSolve v9.24

Friday, May 13, 2022

## Hyd. No. 9

### Uncontrolled Impervious

Hydrograph type	= SCS Runoff	Peak discharge	= 0.070 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 246 cuft
Drainage area	= 0.008 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.0 min
Total precip.	= 9.28 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

### Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

#### Time -- Outflow (hrs      cfs)

11.67	0.015
11.70	0.017
11.73	0.019
11.77	0.021
11.80	0.023
11.83	0.025
11.87	0.027
11.90	0.029
11.93	0.033
11.97	0.041
12.00	0.054
12.03	0.067
12.07	0.070 <<
12.10	0.062
12.13	0.049
12.17	0.038
12.20	0.032
12.23	0.029
12.27	0.027
12.30	0.024
12.33	0.022
12.37	0.020
12.40	0.018
12.43	0.016
12.47	0.014

...End

# Hydrograph Report

Hydraflow Hydrographs by Intelsolve v9.24

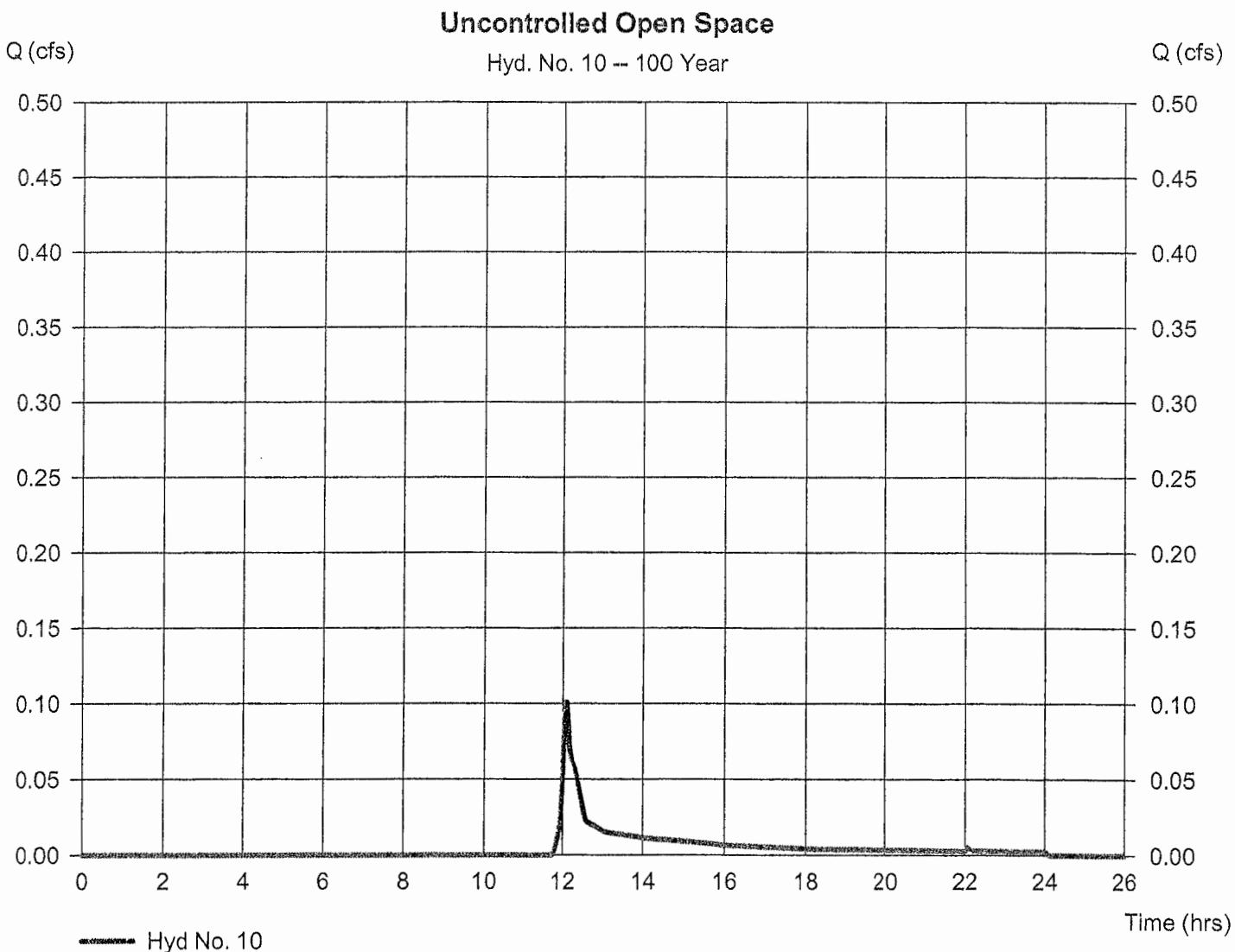
Friday, May 13, 2022

## Hyd. No. 10

### Uncontrolled Open Space

Hydrograph type = SCS Runoff  
Storm frequency = 100 yrs  
Time interval = 2 min  
Drainage area = 0.066 ac  
Basin Slope = 0.0 %  
Tc method = USER  
Total precip. = 9.28 in  
Storm duration = 24 hrs

Peak discharge = 0.101 cfs  
Time to peak = 12.10 hrs  
Hyd. volume = 390 cuft  
Curve number = 39  
Hydraulic length = 0 ft  
Time of conc. (Tc) = 6.00 min  
Distribution = Type III  
Shape factor = 484



# Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.24

Friday, May 13, 2022

## Hyd. No. 10

### Uncontrolled Open Space

Hydrograph type	= SCS Runoff	Peak discharge	= 0.101 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 390 cuft
Drainage area	= 0.066 ac	Curve number	= 39
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.0 min
Total precip.	= 9.28 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

### Hydrograph Discharge Table

(Printed values >= 20.00% of Qp.)

#### Time -- Outflow (hrs      cfs)

11.93	0.021
11.97	0.033
12.00	0.054
12.03	0.082
12.07	0.100
12.10	0.101 <<
12.13	0.088
12.17	0.074
12.20	0.066
12.23	0.062
12.27	0.060
12.30	0.057
12.33	0.053
12.37	0.050
12.40	0.046
12.43	0.041
12.47	0.037
12.50	0.032
12.53	0.027
12.57	0.024
12.60	0.022
12.63	0.021
12.67	0.021
12.70	0.021

...End

# Hydrograph Report

Hydraflow Hydrographs by InteliSolve v9.24

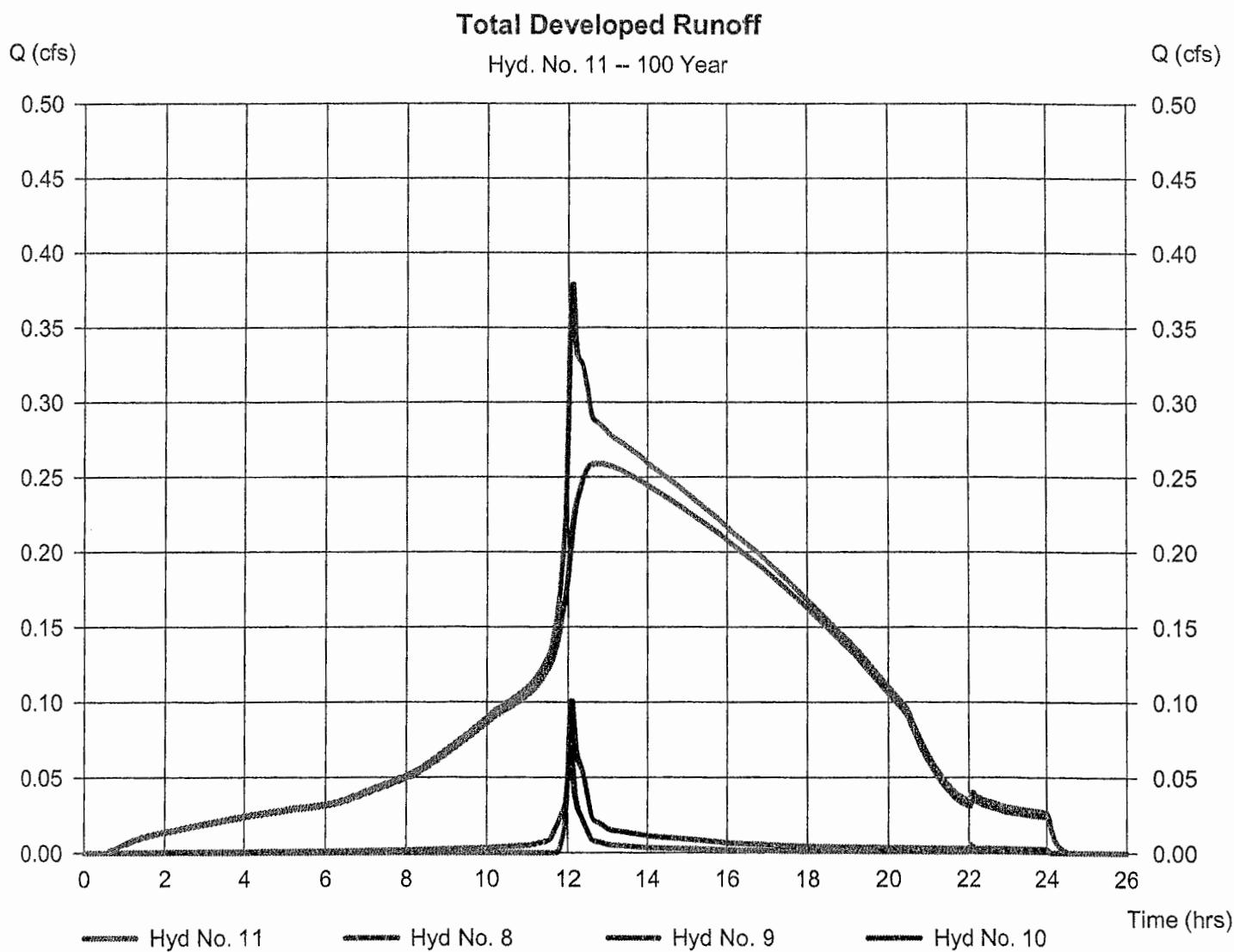
Friday, May 13, 2022

## Hyd. No. 11

### Total Developed Runoff

Hydrograph type = Combine  
Storm frequency = 100 yrs  
Time interval = 2 min  
Inflow hyds. = 8, 9, 10

Peak discharge = 0.379 cfs  
Time to peak = 12.10 hrs  
Hyd. volume = 9,009 cuft  
Contrib. drain. area= 0.074 ac



# Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.24

Friday, May 13, 2022

## Hyd. No. 11

### Total Developed Runoff

Hydrograph type = Combine  
Storm frequency = 100 yrs  
Time interval = 2 min  
Inflow hyds. = 8, 9, 10

Peak discharge = 0.379 cfs  
Time to peak = 12.10 hrs  
Hyd. volume = 9,009 cuft  
Contrib. drain. area= 0.074 ac

### Hydrograph Discharge Table

( Printed values >= 20.00% of Qp.)

Time (hrs)	Hyd. 8 + (cfs)	Hyd. 9 + (cfs)	Hyd. 10 = (cfs)	Outflow (cfs)
9.37	0.073	0.003	0.000	0.076
9.40	0.074	0.003	0.000	0.077
9.43	0.075	0.003	0.000	0.077
9.47	0.075	0.003	0.000	0.078
9.50	0.076	0.003	0.000	0.079
9.53	0.077	0.003	0.000	0.080
9.57	0.077	0.003	0.000	0.080
9.60	0.078	0.003	0.000	0.081
9.63	0.079	0.003	0.000	0.082
9.67	0.079	0.003	0.000	0.082
9.70	0.080	0.003	0.000	0.083
9.73	0.081	0.003	0.000	0.084
9.77	0.082	0.003	0.000	0.085
9.80	0.082	0.003	0.000	0.085
9.83	0.083	0.003	0.000	0.086
9.87	0.084	0.003	0.000	0.087
9.90	0.084	0.003	0.000	0.088
9.93	0.085	0.003	0.000	0.088
9.97	0.086	0.003	0.000	0.089
10.00	0.086	0.003	0.000	0.090
10.03	0.087	0.003	0.000	0.090
10.07	0.088	0.003	0.000	0.091
10.10	0.088	0.003	0.000	0.092
10.13	0.089	0.004	0.000	0.093
10.17	0.090	0.004	0.000	0.094
10.20	0.091	0.004	0.000	0.094
10.23	0.092	0.004	0.000	0.095
10.27	0.092	0.004	0.000	0.096
10.30	0.092	0.004	0.000	0.096
10.33	0.093	0.004	0.000	0.097
10.37	0.093	0.004	0.000	0.097
10.40	0.094	0.004	0.000	0.098
10.43	0.094	0.004	0.000	0.098
10.47	0.095	0.004	0.000	0.099
10.50	0.095	0.004	0.000	0.099
10.53	0.096	0.004	0.000	0.100
10.57	0.096	0.004	0.000	0.101
10.60	0.097	0.004	0.000	0.101
10.63	0.098	0.004	0.000	0.102
10.67	0.098	0.004	0.000	0.103
10.70	0.099	0.004	0.000	0.103
10.73	0.099	0.005	0.000	0.104

Continues on next page...

**Hydrograph Discharge Table**

Time (hrs)	Hyd. 8 + (cfs)	Hyd. 9 + (cfs)	Hyd. 10 = (cfs)	Outflow (cfs)
10.77	0.100	0.005	0.000	0.105
10.80	0.101	0.005	0.000	0.105
10.83	0.101	0.005	0.000	0.106
10.87	0.102	0.005	0.000	0.107
10.90	0.103	0.005	0.000	0.108
10.93	0.104	0.005	0.000	0.108
10.97	0.104	0.005	0.000	0.109
11.00	0.105	0.005	0.000	0.110
11.03	0.106	0.005	0.000	0.111
11.07	0.106	0.005	0.000	0.112
11.10	0.107	0.005	0.000	0.113
11.13	0.108	0.006	0.000	0.114
11.17	0.109	0.006	0.000	0.115
11.20	0.110	0.006	0.000	0.116
11.23	0.111	0.006	0.000	0.117
11.27	0.112	0.006	0.000	0.119
11.30	0.114	0.007	0.000	0.120
11.33	0.115	0.007	0.000	0.122
11.37	0.116	0.007	0.000	0.123
11.40	0.118	0.007	0.000	0.125
11.43	0.119	0.007	0.000	0.127
11.47	0.121	0.008	0.000	0.128
11.50	0.122	0.008	0.000	0.130
11.53	0.124	0.008	0.000	0.132
11.57	0.126	0.009	0.000	0.135
11.60	0.128	0.011	0.000	0.139
11.63	0.130	0.013	0.000	0.143
11.67	0.133	0.015	0.000	0.148
11.70	0.136	0.017	0.000	0.153
11.73	0.140	0.019	0.000	0.159
11.77	0.144	0.021	0.001	0.167
11.80	0.149	0.023	0.004	0.175
11.83	0.154	0.025	0.007	0.185
11.87	0.159	0.027	0.010	0.196
11.90	0.164	0.029	0.015	0.208
11.93	0.170	0.033	0.021	0.223
11.97	0.176	0.041	0.033	0.250
12.00	0.184	0.054	0.054	0.293
12.03	0.195	0.067	0.082	0.343
12.07	0.206	0.070 <<	0.100	0.376
12.10	0.216	0.062	0.101 <<	0.379 <<
12.13	0.224	0.049	0.088	0.361
12.17	0.230	0.038	0.074	0.342
12.20	0.235	0.032	0.066	0.332
12.23	0.239	0.029	0.062	0.329
12.27	0.242	0.027	0.060	0.328
12.30	0.245	0.024	0.057	0.327
12.33	0.248	0.022	0.053	0.324
12.37	0.251	0.020	0.050	0.321
12.40	0.253	0.018	0.046	0.317
12.43	0.255	0.016	0.041	0.312
12.47	0.256	0.014	0.037	0.307
12.50	0.257	0.012	0.032	0.301
12.53	0.258	0.010	0.027	0.295

Continues on next page...

**Hydrograph Discharge Table**

Time (hrs)	Hyd. 8 + (cfs)	Hyd. 9 + (cfs)	Hyd. 10 = (cfs)	Outflow (cfs)
12.57	0.258	0.009	0.024	0.291
12.60	0.258	0.008	0.022	0.289
12.63	0.259	0.008	0.021	0.288
12.67	0.259	0.008	0.021	0.287
12.70	0.259	0.007	0.021	0.287
12.73	0.259 <<	0.007	0.020	0.286
12.77	0.259	0.007	0.020	0.286
12.80	0.259	0.007	0.019	0.285
12.83	0.259	0.007	0.019	0.284
12.87	0.259	0.006	0.018	0.283
12.90	0.258	0.006	0.018	0.282
12.93	0.258	0.006	0.017	0.281
12.97	0.258	0.006	0.017	0.280
13.00	0.258	0.006	0.016	0.279
13.03	0.258	0.005	0.016	0.278
13.07	0.257	0.005	0.015	0.278
13.10	0.257	0.005	0.015	0.277
13.13	0.257	0.005	0.015	0.276
13.17	0.256	0.005	0.015	0.276
13.20	0.256	0.005	0.015	0.275
13.23	0.255	0.005	0.014	0.275
13.27	0.255	0.005	0.014	0.274
13.30	0.255	0.005	0.014	0.274
13.33	0.254	0.005	0.014	0.273
13.37	0.254	0.005	0.014	0.272
13.40	0.253	0.005	0.014	0.272
13.43	0.253	0.004	0.014	0.271
13.47	0.253	0.004	0.014	0.271
13.50	0.252	0.004	0.013	0.270
13.53	0.252	0.004	0.013	0.269
13.57	0.251	0.004	0.013	0.269
13.60	0.251	0.004	0.013	0.268
13.63	0.250	0.004	0.013	0.267
13.67	0.250	0.004	0.013	0.267
13.70	0.249	0.004	0.013	0.266
13.73	0.249	0.004	0.013	0.265
13.77	0.248	0.004	0.012	0.265
13.80	0.248	0.004	0.012	0.264
13.83	0.247	0.004	0.012	0.263
13.87	0.247	0.004	0.012	0.263
13.90	0.246	0.004	0.012	0.262
13.93	0.246	0.004	0.012	0.261
13.97	0.245	0.004	0.012	0.260
14.00	0.245	0.004	0.011	0.259
14.03	0.244	0.003	0.011	0.259
14.07	0.243	0.003	0.011	0.258
14.10	0.243	0.003	0.011	0.257
14.13	0.242	0.003	0.011	0.257
14.17	0.242	0.003	0.011	0.256
14.20	0.241	0.003	0.011	0.255
14.23	0.241	0.003	0.011	0.255
14.27	0.240	0.003	0.011	0.254
14.30	0.240	0.003	0.011	0.253
14.33	0.239	0.003	0.011	0.253

Continues on next page...

**Hydrograph Discharge Table**

Time (hrs)	Hyd. 8 + (cfs)	Hyd. 9 + (cfs)	Hyd. 10 = (cfs)	Outflow (cfs)
14.37	0.238	0.003	0.011	0.252
14.40	0.238	0.003	0.010	0.252
14.43	0.237	0.003	0.010	0.251
14.47	0.237	0.003	0.010	0.250
14.50	0.236	0.003	0.010	0.250
14.53	0.236	0.003	0.010	0.249
14.57	0.235	0.003	0.010	0.248
14.60	0.235	0.003	0.010	0.248
14.63	0.234	0.003	0.010	0.247
14.67	0.233	0.003	0.010	0.246
14.70	0.233	0.003	0.010	0.245
14.73	0.232	0.003	0.010	0.245
14.77	0.232	0.003	0.010	0.244
14.80	0.231	0.003	0.010	0.243
14.83	0.230	0.003	0.010	0.243
14.87	0.230	0.003	0.009	0.242
14.90	0.229	0.003	0.009	0.241
14.93	0.229	0.003	0.009	0.241
14.97	0.228	0.003	0.009	0.240
15.00	0.227	0.003	0.009	0.239
15.03	0.227	0.003	0.009	0.238
15.07	0.226	0.003	0.009	0.238
15.10	0.225	0.003	0.009	0.237
15.13	0.225	0.003	0.009	0.236
15.17	0.224	0.003	0.009	0.236
15.20	0.224	0.003	0.009	0.235
15.23	0.223	0.002	0.009	0.234
15.27	0.222	0.002	0.009	0.233
15.30	0.222	0.002	0.008	0.233
15.33	0.221	0.002	0.008	0.232
15.37	0.221	0.002	0.008	0.231
15.40	0.220	0.002	0.008	0.230
15.43	0.219	0.002	0.008	0.230
15.47	0.219	0.002	0.008	0.229
15.50	0.218	0.002	0.008	0.228
15.53	0.217	0.002	0.008	0.227
15.57	0.217	0.002	0.008	0.227
15.60	0.216	0.002	0.008	0.226
15.63	0.215	0.002	0.008	0.225
15.67	0.215	0.002	0.008	0.224
15.70	0.214	0.002	0.007	0.224
15.73	0.213	0.002	0.007	0.223
15.77	0.213	0.002	0.007	0.222
15.80	0.212	0.002	0.007	0.221
15.83	0.211	0.002	0.007	0.220
15.87	0.211	0.002	0.007	0.220
15.90	0.210	0.002	0.007	0.219
15.93	0.209	0.002	0.007	0.218
15.97	0.209	0.002	0.007	0.217
16.00	0.208	0.002	0.007	0.216
16.03	0.207	0.002	0.007	0.216
16.07	0.207	0.002	0.007	0.215
16.10	0.206	0.002	0.006	0.214
16.13	0.205	0.002	0.006	0.213

Continues on next page...

**Hydrograph Discharge Table**

Time (hrs)	Hyd. 8 + (cfs)	Hyd. 9 + (cfs)	Hyd. 10 = (cfs)	Outflow (cfs)
16.17	0.204	0.002	0.006	0.213
16.20	0.204	0.002	0.006	0.212
16.23	0.203	0.002	0.006	0.211
16.27	0.202	0.002	0.006	0.210
16.30	0.202	0.002	0.006	0.210
16.33	0.201	0.002	0.006	0.209
16.37	0.200	0.002	0.006	0.208
16.40	0.199	0.002	0.006	0.207
16.43	0.199	0.002	0.006	0.206
16.47	0.198	0.002	0.006	0.206
16.50	0.197	0.002	0.006	0.205
16.53	0.197	0.002	0.006	0.204
16.57	0.196	0.002	0.006	0.203
16.60	0.195	0.002	0.006	0.203
16.63	0.194	0.002	0.006	0.202
16.67	0.194	0.002	0.006	0.201
16.70	0.193	0.002	0.006	0.200
16.73	0.192	0.002	0.006	0.200
16.77	0.191	0.002	0.006	0.199
16.80	0.191	0.002	0.006	0.198
16.83	0.190	0.002	0.006	0.197
16.87	0.189	0.002	0.006	0.196
16.90	0.189	0.002	0.006	0.196
16.93	0.188	0.002	0.006	0.195
16.97	0.187	0.002	0.005	0.194
17.00	0.186	0.001	0.005	0.193
17.03	0.186	0.001	0.005	0.193
17.07	0.185	0.001	0.005	0.192
17.10	0.184	0.001	0.005	0.191
17.13	0.183	0.001	0.005	0.190
17.17	0.183	0.001	0.005	0.189
17.20	0.182	0.001	0.005	0.188
17.23	0.181	0.001	0.005	0.188
17.27	0.180	0.001	0.005	0.187
17.30	0.180	0.001	0.005	0.186
17.33	0.179	0.001	0.005	0.185
17.37	0.178	0.001	0.005	0.184
17.40	0.177	0.001	0.005	0.183
17.43	0.176	0.001	0.005	0.183
17.47	0.176	0.001	0.005	0.182
17.50	0.175	0.001	0.005	0.181
17.53	0.174	0.001	0.005	0.180
17.57	0.173	0.001	0.005	0.179
17.60	0.172	0.001	0.005	0.178
17.63	0.172	0.001	0.005	0.178
17.67	0.171	0.001	0.005	0.177
17.70	0.170	0.001	0.005	0.176
17.73	0.169	0.001	0.005	0.175
17.77	0.168	0.001	0.005	0.174
17.80	0.168	0.001	0.005	0.173
17.83	0.167	0.001	0.004	0.173
17.87	0.166	0.001	0.004	0.172
17.90	0.165	0.001	0.004	0.171
17.93	0.164	0.001	0.004	0.170

Continues on next page...

**Hydrograph Discharge Table**

Time (hrs)	Hyd. 8 + (cfs)	Hyd. 9 + (cfs)	Hyd. 10 = (cfs)	Outflow (cfs)
17.97	0.164	0.001	0.004	0.169
18.00	0.163	0.001	0.004	0.168
18.03	0.162	0.001	0.004	0.167
18.07	0.161	0.001	0.004	0.166
18.10	0.160	0.001	0.004	0.166
18.13	0.160	0.001	0.004	0.165
18.17	0.159	0.001	0.004	0.164
18.20	0.158	0.001	0.004	0.163
18.23	0.157	0.001	0.004	0.162
18.27	0.156	0.001	0.004	0.161
18.30	0.155	0.001	0.004	0.160
18.33	0.154	0.001	0.004	0.159
18.37	0.153	0.001	0.004	0.158
18.40	0.152	0.001	0.004	0.158
18.43	0.152	0.001	0.004	0.157
18.47	0.151	0.001	0.004	0.156
18.50	0.150	0.001	0.004	0.155
18.53	0.149	0.001	0.004	0.154
18.57	0.148	0.001	0.004	0.153
18.60	0.147	0.001	0.004	0.152
18.63	0.146	0.001	0.004	0.151
18.67	0.145	0.001	0.004	0.150
18.70	0.144	0.001	0.004	0.149
18.73	0.143	0.001	0.004	0.149
18.77	0.143	0.001	0.004	0.148
18.80	0.142	0.001	0.004	0.147
18.83	0.141	0.001	0.004	0.146
18.87	0.140	0.001	0.004	0.145
18.90	0.139	0.001	0.004	0.144
18.93	0.138	0.001	0.004	0.143
18.97	0.137	0.001	0.004	0.142
19.00	0.136	0.001	0.004	0.141
19.03	0.136	0.001	0.004	0.140
19.07	0.135	0.001	0.004	0.140
19.10	0.134	0.001	0.004	0.139
19.13	0.133	0.001	0.004	0.138
19.17	0.132	0.001	0.004	0.137
19.20	0.131	0.001	0.004	0.136
19.23	0.130	0.001	0.004	0.135
19.27	0.129	0.001	0.004	0.134
19.30	0.128	0.001	0.004	0.133
19.33	0.127	0.001	0.004	0.132
19.37	0.126	0.001	0.004	0.131
19.40	0.125	0.001	0.004	0.130
19.43	0.124	0.001	0.004	0.129
19.47	0.123	0.001	0.004	0.128
19.50	0.122	0.001	0.004	0.126
19.53	0.121	0.001	0.004	0.125
19.57	0.120	0.001	0.004	0.124
19.60	0.119	0.001	0.004	0.123
19.63	0.117	0.001	0.004	0.122
19.67	0.116	0.001	0.004	0.121
19.70	0.115	0.001	0.004	0.120
19.73	0.114	0.001	0.004	0.119

Continues on next page...

**Hydrograph Discharge Table**

Time (hrs)	Hyd. 8 + (cfs)	Hyd. 9 + (cfs)	Hyd. 10 = (cfs)	Outflow (cfs)
19.77	0.113	0.001	0.004	0.118
19.80	0.112	0.001	0.004	0.117
19.83	0.111	0.001	0.004	0.116
19.87	0.110	0.001	0.004	0.115
19.90	0.109	0.001	0.004	0.114
19.93	0.108	0.001	0.004	0.113
19.97	0.107	0.001	0.004	0.111
20.00	0.106	0.001	0.004	0.110
20.03	0.105	0.001	0.004	0.109
20.07	0.104	0.001	0.004	0.108
20.10	0.103	0.001	0.003	0.107
20.13	0.102	0.001	0.003	0.106
20.17	0.101	0.001	0.003	0.105
20.20	0.100	0.001	0.003	0.104
20.23	0.099	0.001	0.003	0.103
20.27	0.098	0.001	0.003	0.102
20.30	0.097	0.001	0.003	0.101
20.33	0.096	0.001	0.003	0.100
20.37	0.095	0.001	0.003	0.099
20.40	0.094	0.001	0.003	0.098
20.43	0.093	0.001	0.003	0.097
20.47	0.092	0.001	0.003	0.096
20.50	0.090	0.001	0.003	0.094
20.53	0.088	0.001	0.003	0.092
20.57	0.086	0.001	0.003	0.090
20.60	0.083	0.001	0.003	0.088
20.63	0.081	0.001	0.003	0.086
20.67	0.079	0.001	0.003	0.084
20.70	0.077	0.001	0.003	0.082
20.73	0.075	0.001	0.003	0.080
20.77	0.073	0.001	0.003	0.078

*...End*

## **APPENDIX**

# Pond Report

Hydraflow Hydrographs by Intellisolve v9.24

Friday, May 13, 2022

## Pond No. 1 - (4) 36 inch Pipe Field 120 ft long

### Pond Data

UG Chambers - Invert elev. = 90.30 ft, Rise x Span = 3.00 x 3.00 ft, Barrel Len = 120.00 ft, No. Barrels = 4, Slope = 0.10%, Headers = Yes

### Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	90.30	n/a	0	0
0.31	90.61	n/a	147	147
0.62	90.92	n/a	326	473
0.94	91.24	n/a	409	882
1.25	91.55	n/a	455	1,337
1.56	91.86	n/a	476	1,814
1.87	92.17	n/a	477	2,290
2.18	92.48	n/a	455	2,745
2.50	92.80	n/a	409	3,154
2.81	93.11	n/a	326	3,480
3.12	93.42	n/a	147	3,627

### Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 12.00	2.50	0.00	0.00
Span (in)	= 12.00	2.50	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 90.00	90.08	0.00	0.00
Length (ft)	= 136.00	0.50	0.00	0.00
Slope (%)	= 0.50	1.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	No	No

### Weir Structures

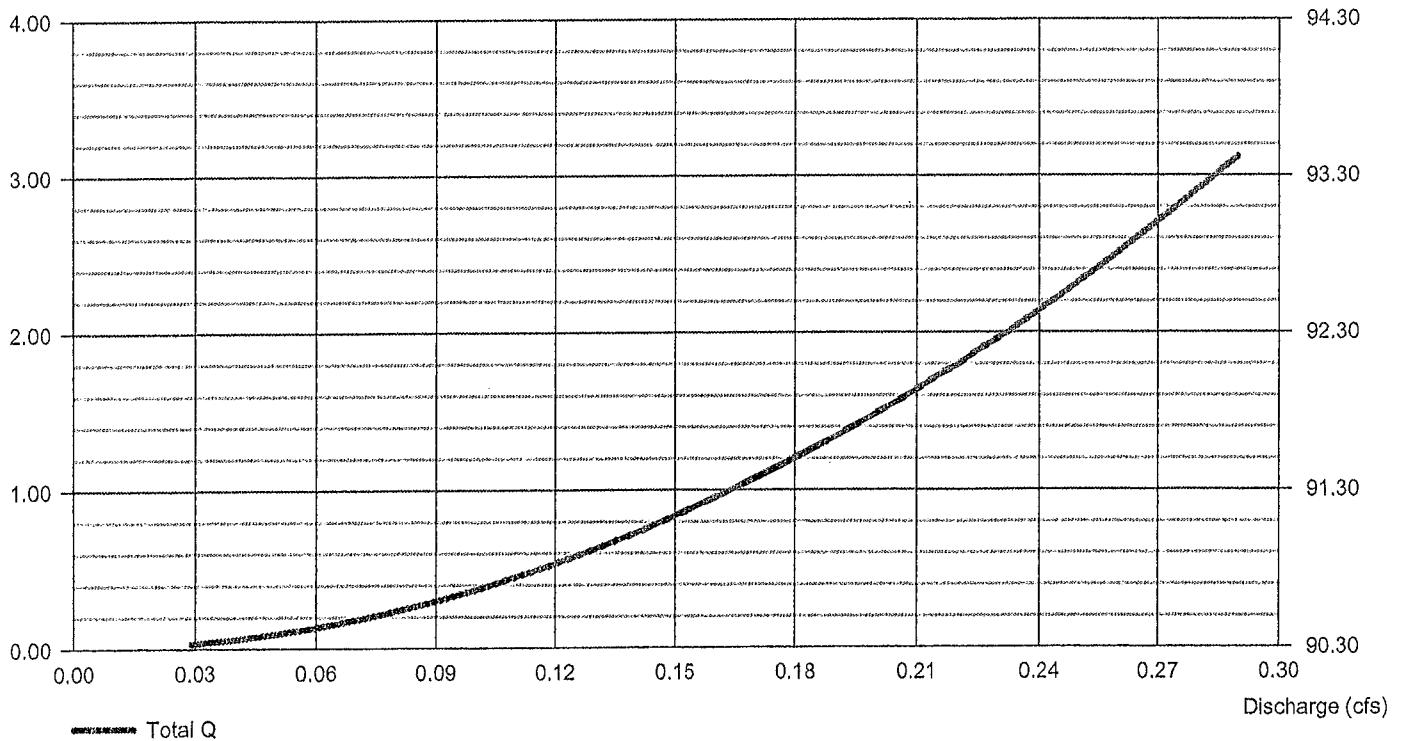
	[A]	[B]	[C]	[D]
Crest Len (ft)	= 4.00	0.00	0.00	0.00
Crest El. (ft)	= 93.50	0.00	0.00	0.00
Weir Coeff.	= 2.60	3.33	3.33	3.33
Weir Type	= Broad	---	---	---
Multi-Stage	= Yes	No	No	No

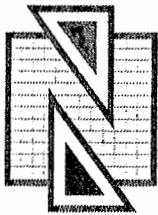
Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (io) and submergence (s).

Stage (ft)

### Stage / Discharge

Elev (ft)





# Nelson Engineering Associates, Inc.

1750 Bloomsbury Avenue • Ocean, NJ 07712  
(732) 918-2180 • FAX: (732) 918-0697

3655 Highway 33  
Neptune Township, Monmouth County, NJ

NEAI File # 190403

Date & Time: Monday August 19, 2019 at 8:30 AM  
Witnessed By: N/A

Weather conditions at time of test: 75° F, partly cloudy  
From: N/A  
page 1 of 2

<u>Soil Log</u>	Ground Surface Elevation: 98.1	SB#1 Soil boring at west portion of recahrge system
<u>Depth</u>	<u>Description</u>	<u>Munsell</u>
0" - 22"	Topsoil, pale brown dry silt loam with 5% gravel and a clear (2.5" Max) boundary	10 YR 6/3
22" - 40"	Very pale brown sandy loam, subangular structure, dry, friable, and with a clear (2.5" Max.) boundary	10 YR 7/3
40" - 51"	Light gray sand, fine granular structure, dry, friable, and with a clear (2.5" Max.) boundary	10 YR 7/2
51" - 65"	Light yellowish brown silty sand, fine granular structure, moist, friable, and with a clear (2.5" Max.) boundary	10 YR 6/4
65" - 70"	Reddish yellow sand with some silt and 10% gravel throughout, medium to fine granular structure, moist, loose, and with a clear (2.5" Max.) boundary	7.5 YR 6/8
70" - 77"	Light yellowish brown sandy clay loam with 10% gravel throughout, massive structure, moist, slightly plastic, and with a clear (2.5" Max.) boundary	10 YR 6/4
77" - 90"	Yellow clay coated sand with 20% gravel throughout, medium granular structure, moist, loose and slightly sticky, boring terminated at 90" due to excessively coarse fragments	10 YR 7/6

No water seepage encountered      Expected seasonal high water table (SHWT) elevation: deeper than 90.6  
Depth to expected seasonal high water table (SHWT): deeper than 90" = 7.5'      Sample taken at 60"

<u>Soil Log</u>	Ground Surface Elevation: 99.4	SB#2 Soil boring at east portion of recahrge system
<u>Depth</u>	<u>Description</u>	<u>Munsell</u>
0" - 16"	Topsoil, pale brown dry silt loam with 5% gravel and a clear (2.5" Max) boundary	10 YR 6/3
16" - 25"	Very pale brown sandy loam, subangular structure, dry, friable, and with a clear (2.5" Max.) boundary	10 YR 7/3

25" - 108" Light yellowish brown silty sand with 25% gravel throughout,  
medium to fine granular structure, moist, and friable 10 YR 6/4

No water seepage encountered Expected seasonal high water table (SHWT) elevation: deeper than 90.4  
Depth to expected seasonal high water table (SHWT): deeper than 108" = 9.0' Sample taken at 60"

The expected seasonal high water table (SHWT) elevation at the proposed recharge system is deeper than  
elevation 90.4. It is recommended to set the bottom of any recharge structure at least two feet above at the SHWT  
(elevation 92.4 or higher).

---

*Matthew R. DuBois, P.E.*  
Matthew R. DuBois, P.E.  
(SEAL)

*8/19/2019*  
Date



Nelson Engineering Associates Inc.



# Nelson Engineering Associates, Inc.

1750 Bloomsbury Avenue • Ocean, NJ 07712  
(732) 918-2180 • FAX: (732) 918-0697

## CONSTANT HEAD TUBE PERMEAMETER TEST

3655 Highway 33  
Neptune Township, Monmouth County, NJ

NEAI File # 190403

Date of test: Monday August 19, 2019

### SB#1

Sample Depth: 60"

	Undisturbed	Disturbed
SAMPLE LENGTH (CM) =	7.4	7.4
SAMPLE AREA (CM <sup>2</sup> ) =	31.65	31.65
TIME (SEC) =	600	600
VOLUME (ML) =	92	95
HEAD (CM) =	49.9	49.9
PERMEABILITY (CM/SEC) =	0.0007	0.0007
PERMEABILITY (IN/HR) =	1.0	1.1
PERMEABILITY CLASS =	K-2	K-2

### SB#2

Sample Depth: 60"

	REPLICATE A	REPLICATE B
SAMPLE LENGTH (CM) =	7.4	7.4
SAMPLE AREA (CM <sup>2</sup> ) =	31.65	31.65
TIME (SEC) =	300	300
VOLUME (ML) =	210	195
HEAD (CM) =	49.9	50.1
PERMEABILITY (CM/SEC) =	0.0033	0.0030
PERMEABILITY (IN/HR) =	4.6	4.3
PERMEABILITY CLASS =	K-3	K-3

I hereby certify, to the best of my professional knowledge and belief, that the above information is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58: 10A- et. Seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

  
Matthew R. DuBois, P.E.

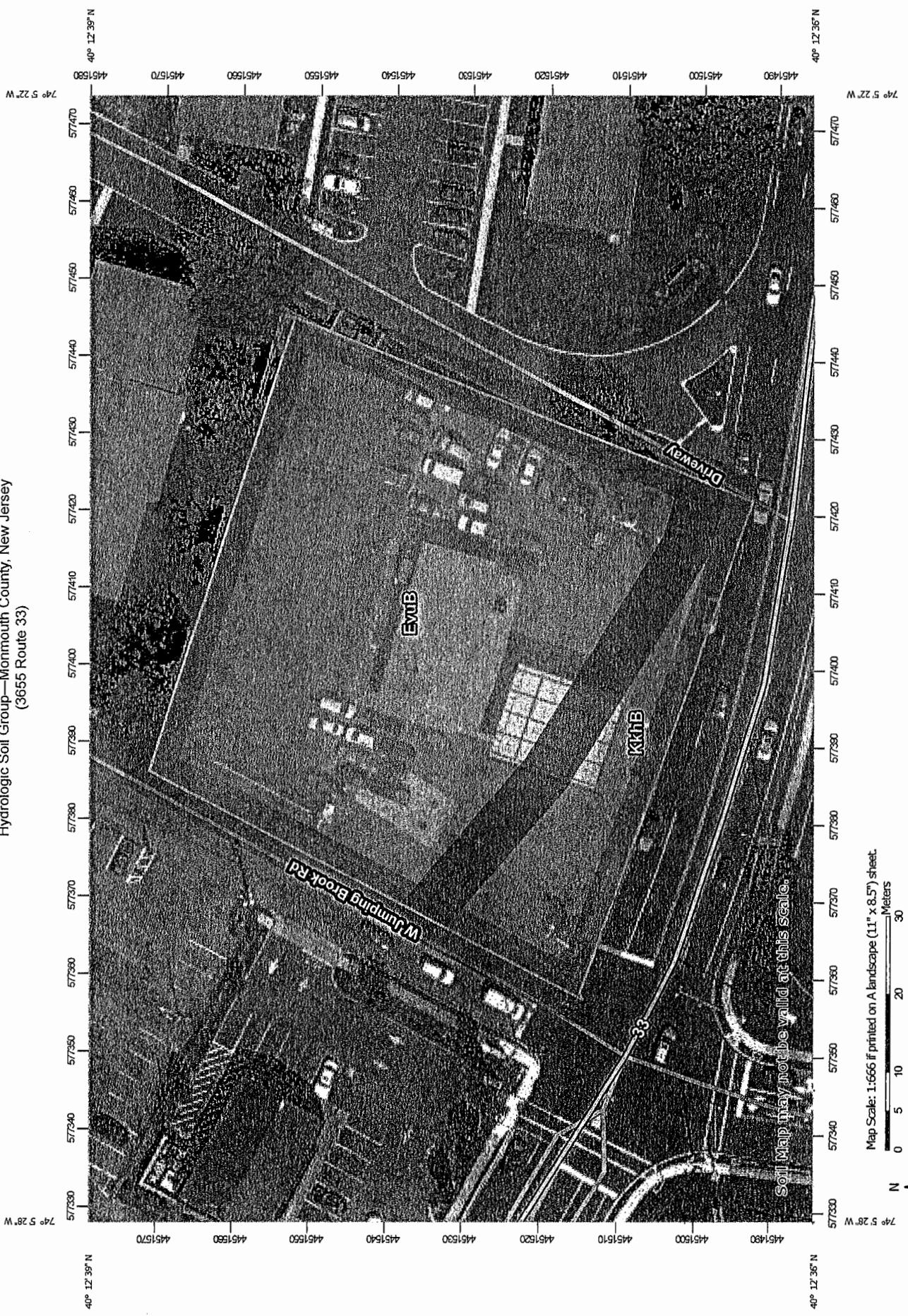
8/19/2019

Date

(SEAL)

MORE THAN 20 IN/HR = K-5  
6 - 20 IN/HR = K-4  
2 - 6 IN/HR = K-3  
0.6 - 2 IN/HR = K-2  
0.2 - 0.6 IN/HR = K-1  
LESS THAN 0.2 IN/HR = K-0

Hydrologic Soil Group—Monmouth County, New Jersey  
(3655 Route 33)



## MAP LEGEND

<b>Area of Interest (AOI)</b>	<input type="checkbox"/>	C
Area of Interest (AOI)	<input checked="" type="checkbox"/>	C/D
<b>Soils</b>	<input type="checkbox"/>	D
<b>Soil Rating Polygons</b>	<input type="checkbox"/>	Not rated or not available
A	<input checked="" type="checkbox"/>	
A/D	<input type="checkbox"/>	Water Features
B	<input type="checkbox"/>	Streams and Canals
B/D	<input type="checkbox"/>	
C	<input type="checkbox"/>	Transportation
C/D	<input type="checkbox"/>	Rails
D	<input type="checkbox"/>	Interstate Highways
Not rated or not available	<input type="checkbox"/>	US Routes
<b>Soil Rating Lines</b>	<input type="checkbox"/>	Major Roads
A	<input type="checkbox"/>	Local Roads
A/D	<input type="checkbox"/>	
B	<input type="checkbox"/>	
B/D	<input type="checkbox"/>	
C	<input type="checkbox"/>	Background
C/D	<input type="checkbox"/>	Aerial Photography
D	<input type="checkbox"/>	
Not rated or not available	<input type="checkbox"/>	
<b>Soil Rating Points</b>	<input type="checkbox"/>	
A	<input type="checkbox"/>	
A/D	<input type="checkbox"/>	
B	<input type="checkbox"/>	
B/D	<input type="checkbox"/>	
Not rated or not available	<input type="checkbox"/>	

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

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

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

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

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: Monmouth County, New Jersey  
Survey Area Data: Version 13, Sep 16, 2019

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

Date(s) aerial images were photographed: Jun 26, 2019—Jun 29, 2019

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.

## Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
EvuB	Evesboro-Urban land complex, 0 to 5 percent slopes	A	0.8	79.5%
KkhB	Klej loamy sand-Urban land complex, 0 to 5 percent slopes	A/D	0.2	20.5%
<b>Totals for Area of Interest</b>			<b>1.0</b>	<b>100.0%</b>

### Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

# Hydraflow Rainfall Report

Hydraflow Hydrographs by Intellsolve v9.24

Friday, May 13, 2022

Return Period (Yrs)	Intensity-Duration-Frequency Equation Coefficients (FHA)			
	B	D	E	(N/A)
1	9.7593	0.1000	0.5221	-----
2	10.8385	0.1000	0.5273	-----
3	0.0000	0.0000	0.0000	-----
5	15.8614	0.8000	0.5510	-----
10	21.9951	1.6000	0.6074	-----
25	24.1485	1.4000	0.5819	-----
50	18.3455	0.1000	0.4866	-----
100	28.4205	1.4000	0.5762	-----

File name: SandyHook.idf

$$\text{Intensity} = B / (T_c + D)^E$$

Return Period (Yrs)	Intensity Values (in/hr)											
	5 min	10	15	20	25	30	35	40	45	50	55	60
1	4.17	2.92	2.37	2.04	1.81	1.65	1.52	1.42	1.34	1.26	1.20	1.15
2	4.59	3.20	2.59	2.23	1.98	1.80	1.66	1.55	1.45	1.38	1.31	1.25
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	6.02	4.28	3.47	2.98	2.65	2.40	2.21	2.06	1.93	1.82	1.73	1.65
10	6.99	4.96	3.99	3.40	3.00	2.70	2.47	2.28	2.13	2.00	1.89	1.80
25	8.20	5.86	4.74	4.06	3.60	3.25	2.98	2.77	2.59	2.44	2.31	2.20
50	8.30	5.95	4.90	4.26	3.82	3.50	3.25	3.04	2.87	2.73	2.61	2.50
100	9.75	6.99	5.67	4.86	4.31	3.90	3.58	3.33	3.11	2.94	2.78	2.65

Tc = time in minutes. Values may exceed 60.

Precip. file name: Oakhurst 2018.pcp

Storm Distribution	Rainfall Precipitation Table (in)							
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
SCS 24-hour	2.88	3.50	0.00	4.53	5.42	6.77	7.96	9.28
SCS 6-Hr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-1st	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-2nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-3rd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-4th	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-Indy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Custom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

