DRAINAGE REPORT

PRELIMINARY & FINAL
SITE PLAN

Prepared for

SMILES REAL ESTATE, LLC.

3640 Trenton – Princeton Road
Block 6701, Lot 1, Lawrence Township
Mercer County, New Jersey

Prepared By:

MEH Consulting Engineers, Inc.
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(973) 239-2626

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NJ PE Lic. No. 38475

File Number 21-011
Date: March 29, 2021

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A. Location Map

B. Soil Map

C. Existing & Proposed Drainage Area Maps

D. Existing Hydrographs

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A. INTRODUCTION

The project site is known as Lot 1, Block 6701 in Lawrence Township, Mercer County, New Jersey. The total area of the property is 3.261acres and 3.00 acres. The property is located in the EP-1 zoning district of Lawrence Township, an "Environmental Protection 1" zone. Refer to **Appendix A** (Zoning Map). Smiles Real Estate, LLC is proposing to develop the existing house/office and converting it into a medical office. This work will entail the following modifications:

1. Add 7 new parking spaces including Van Accessible parking space.
2. Provide barrier free handicap accessible facility.
3. Existing Pool to be removed and replaced with top soil and lawn area.

B. EXISTING SITE CONDITIONS

The site is known as Lot 1, Block 6701 in the Township of Lawrence, Mercer County, New Jersey. Currently, the property is utilized as residential dwelling/ home office. The subject property borders Lots 2 & 81 in Block 7.01 on the south, Trenton-Princeton Road on the west and Province Line Road on the east. The property slopes in three different directions as indicated on the Topographic survey map. The highest point of the northern portion of the site is (±109.50') and the highest portion of the other two areas is (±104.50') located at the western entrance. Please refer to Existing Drainage Area Map, D-1.

C. PROPOSED SITE IMPROVEMENTS

Smiles Real Estate, LLC is proposing to develop the existing house/office and converting it into a medical office. The total area of disturbance is ±4,486 S.F. This work will entail the following modifications:

1. Add 7 new parking spaces including Van Accessible parking space.
2. C barrier free handicap accessible facility.
3. Add new dumpster.
3. Existing Pool to be converted into a pond with Koi fish.

The property will continue to be accessed from Trenton - Princeton Road and Province Line Road. The project will be built in one phase.

D. STORM WATER ANALYSIS CALCULATIONS

METHOD OF CALCULATION

Drainage calculations presented in this report are based on the following:

1. Stormwater Runoff calculations are based on the SCS TR-55 tabular hydrograph method.

New Jersey Region C Rainfall Distribution has been used to generate existing and post-development hydrographs.

DESIGN RAINFALL STORM FREQUENCY	MERCER COUNTY 24-HOUR RAINFALL (inches)
2	3.31
10	5.01
25	6.19
100	8.33

(Refer to computer printout in this report)

E. SOIL TYPES

As can be seen from the "Soil Survey of Mercer County" prepared by the U.S. Department of Agriculture, Soil Conservation Service, the Soil Types on this site are **QukB** – Quackertown Silty Loam (2-6% slopes), **QumD2** – Quackertown Channery Silty Loam (6-12% slopes), **QukC2** – Quackertown Silty Loam (6-12% slopes), and **BucC2** – Bucks Silt Loam (6-12% slopes). A copy of the Soil Map can be found in **Appendix B**.

F. Tc VALUES

1- Existing Condition:
Refer to Existing Drainage Area Maps, Sheet D-1 for (Existing **Tc** values in this report).

2- Proposed Condition:
Refer to Proposed Drainage Area Map, Sheet D-2 for (Proposed **Tc** values in this report).

G. C_N VALUES

EXISTING AND PROPOSED CONDITIONS:

"CN" Computations of the Existing & Proposed Conditions were calculated by utilizing the SCS Curve Number Table 2-2(a, b & c). See original design criteria values in this report.

Impervious Area (Building, Pavement, and Concrete) ....."C_N" = 98
Open Space (Lawn – soil group C) ....."C_N" = 74

H. DRAINAGE AREAS

For Existing & Proposed drainage area details, refer to sheets (D-1 & D-2) in **Appendix C**.

I. SUMMARY OF EXISTING AND PROPOSED FLOWS

The total disturbed area of property is ±4,393 S.F. The existing hydrographs can be found in **Appendix E** and the proposed hydrographs can be found in **Appendix F**. The results of the existing and proposed hydrograph computations are summarized below.

Existing Flow Breakdown

Storm Event (years)	Existing Flow (cfs)
2	4.498
10	9.311
25	12.91
100	19.71

Proposed Flows Breakdown

Storm Event (years)	Proposed Flow (cfs)
2	4.566
10	9.383
25	12.98
100	19.81

J. CONCLUSION

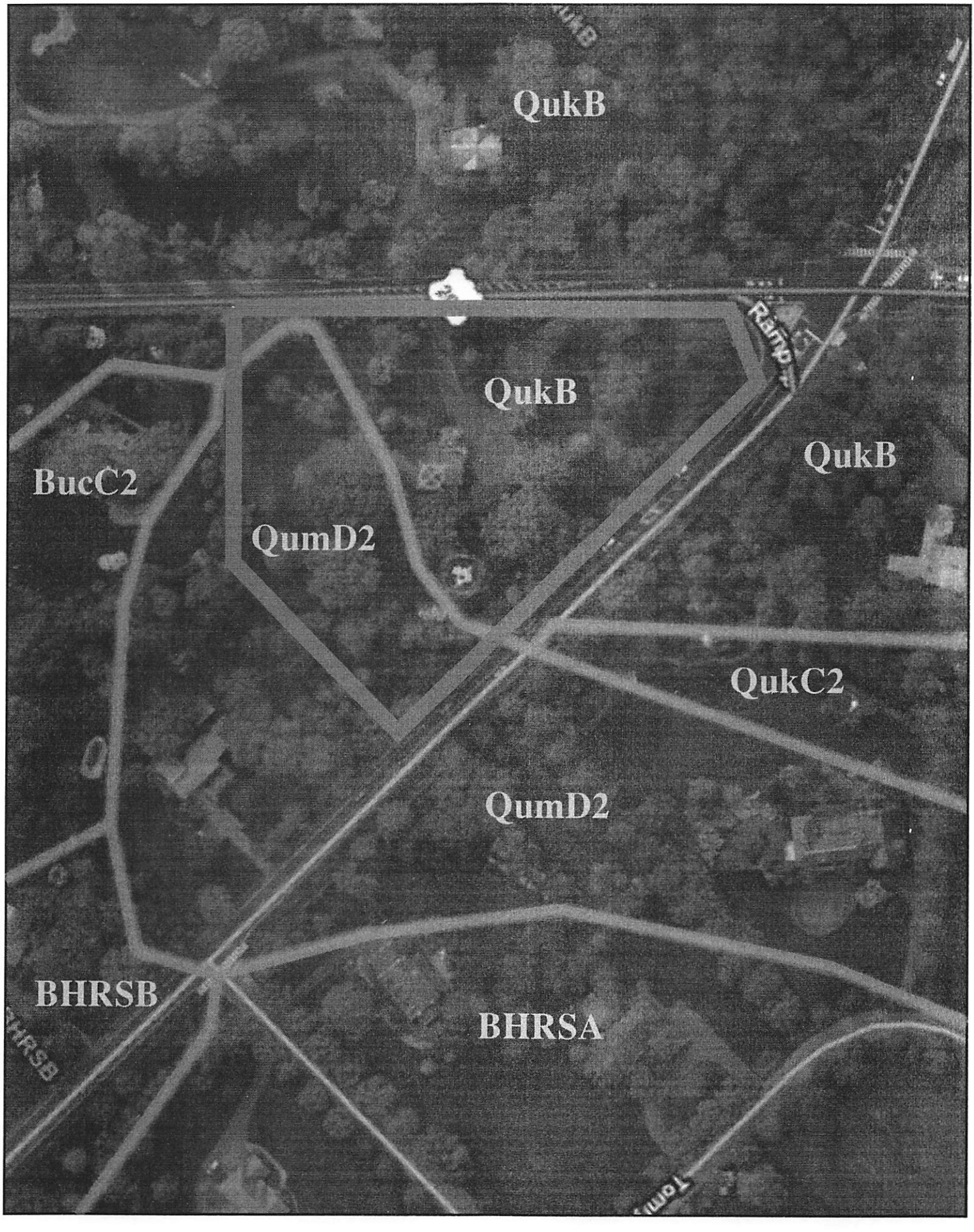
As can be seen above, the proposed development should not have a negative impact to the surrounding properties as a result of this Site Improvement.

A. LOCATION MAP

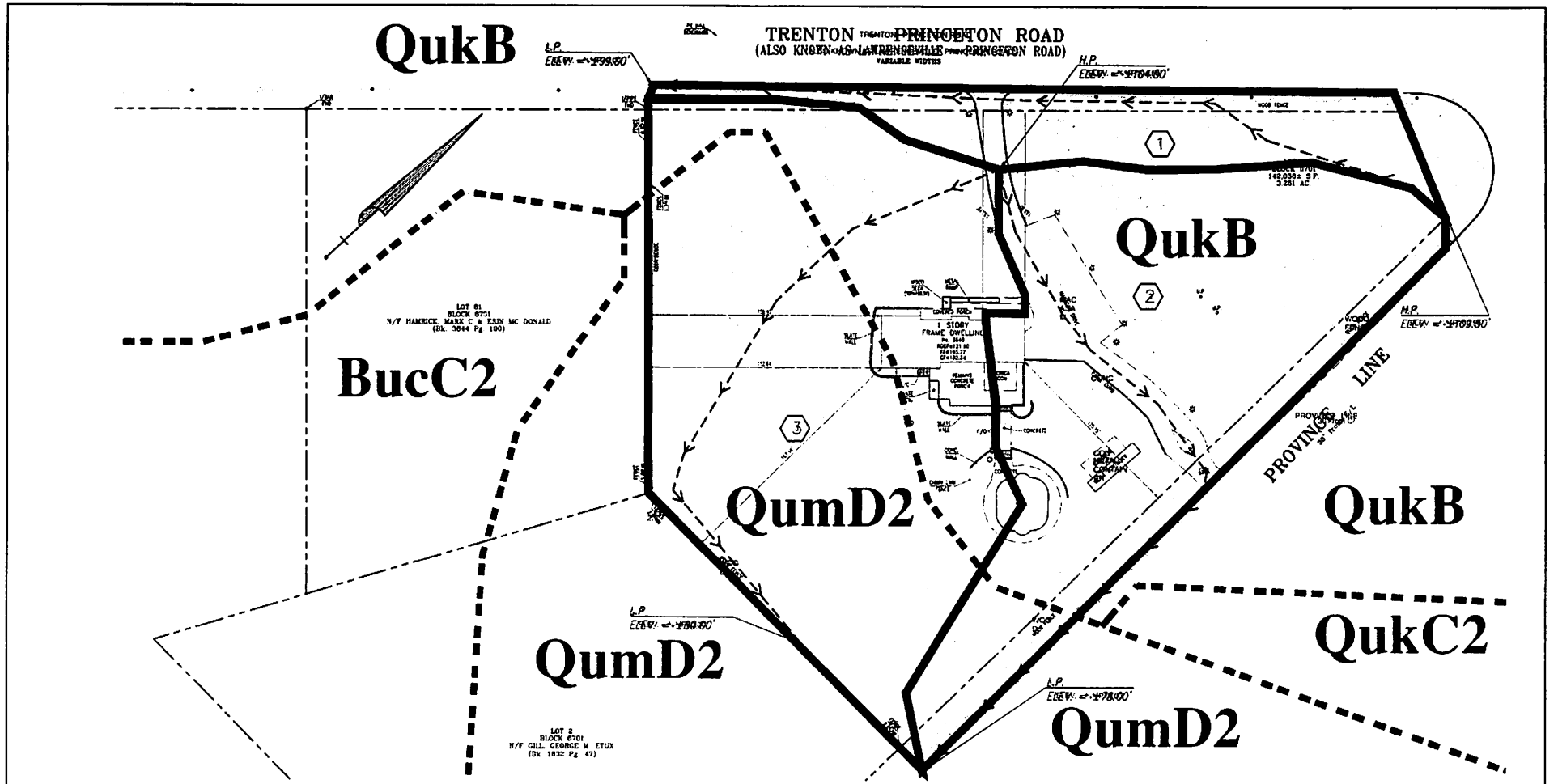
LOCATION MAP

B. SOIL MAP

SOIL MAP



C. EXISTING & PROPOSED DRAINAGE AREA MAPS



EXISTING DRAINAGE AREA BREAKDOWN

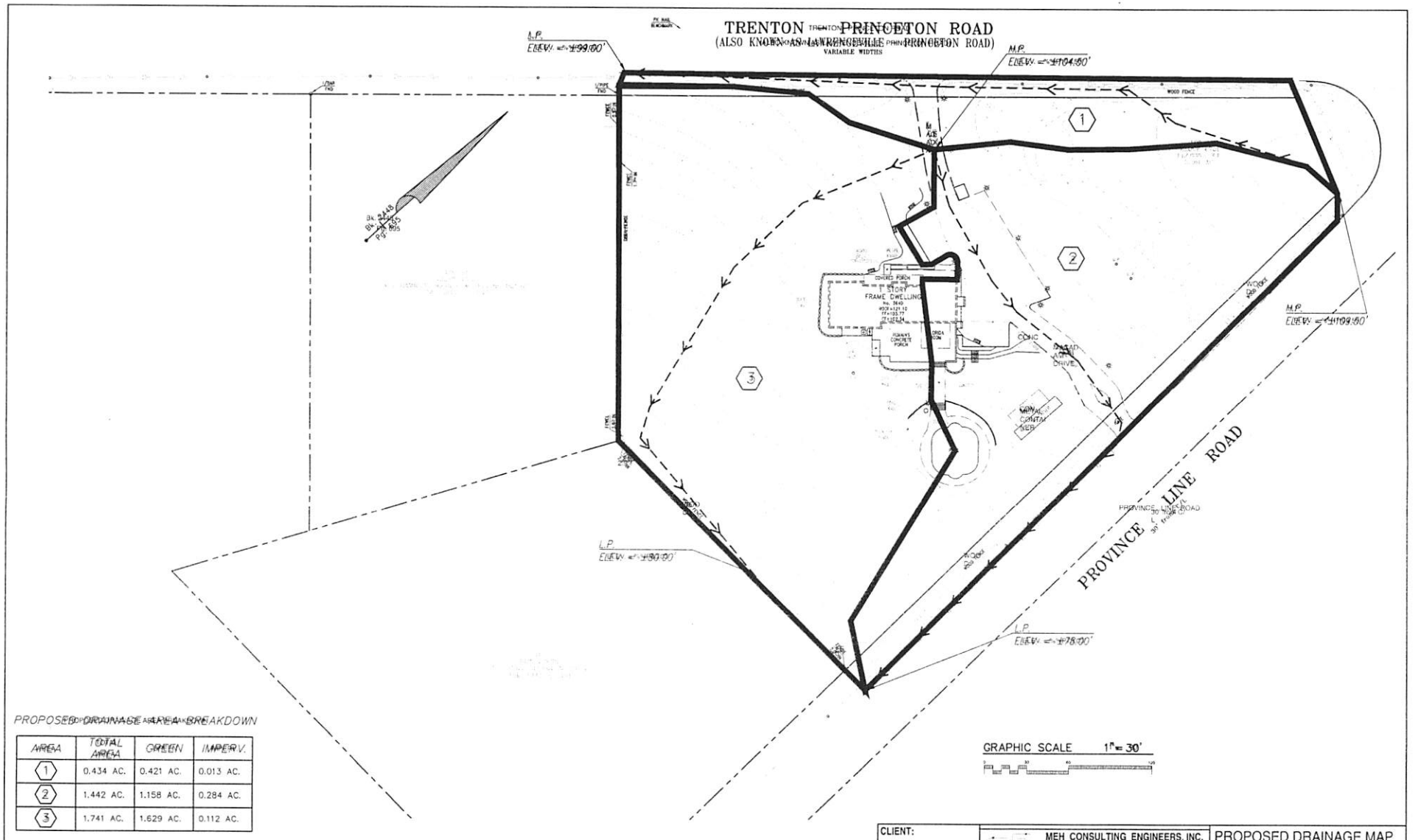
AREA	TOTAL AREA	GREEN	IMPERV.
1	0.434 AC.	0.421 AC.	0.013 AC.
2	1.420 AC.	1.169 AC.	0.251 AC.
3	1.763 AC.	1.659 AC.	0.104 AC.

TOTAL PROPOSED DRAINAGE AREA = 3.647 ACRES *

* ALL DRAINAGE AREAS ASSUMED TO BE HYDROLOGIC GROUP D "PEDIC" SOILS.

GRAPHIC SCALE 1" = 30'

CLIENT:	MEH CONSULTING ENGINEERS, INC.	EXISTING DRAINAGE MAP
SALES REAL ESTATE, LLC.	CIVIL ENGINEERS - STRUCTURAL ENGINEERS ENVIRONMENTAL AND HYDRAULIC ENGINEERS	PROPOSED SITE IMPROVEMENT FOR SALES REAL ESTATE, LLC.
	MOHAMMED EL-HAWWAT, P.E. DATE: 03-29-2021	DATE 03-29-2021 SCALE AS SHOWN DRAWN BY MEH SHEET D-1
1 FOR FILING 03-29-2021		JOB NO. 21-031



PROPOSED DRAINAGE AREA BREAKDOWN

AREA	TOTAL AREA	GREEN	IMPERV.
1	0.434 AC.	0.421 AC.	0.013 AC.
2	1.442 AC.	1.158 AC.	0.284 AC.
3	1.741 AC.	1.629 AC.	0.112 AC.

TOTAL PROPOSED DRAINAGE AREA = 3.617 ACRES *

* ALL DRAINAGE AREAS SOILS ARE HYDROLOGIC SOILS TYPE 'C'

No.	REVISION	DATE
1	FOR FILING	03-29-2021

CLIENT:
SMILES REAL ESTATE, LLC.
1640 TRENTON - PRINCETON ROAD
TOWNSHIP OF LAWRENCE
MERCER COUNTY, NEW JERSEY

MEH CONSULTING ENGINEERS, INC.
www.mehengineers.com
CIVIL ENGINEERS - STRUCTURAL ENGINEERS
ENVIRONMENTAL AND HYDRAULIC ENGINEERS
825 BLOOMFIELD AVENUE SUITE 108
VERONA, NEW JERSEY 07044
PHONE: (973) 239-7616 FAX: (973) 239-6238
MOHAMMED EL-HAWWAT, P.E.
DATE: 03-29-2021

PROPOSED DRAINAGE MAP

PROPOSED SITE IMPROVEMENT
ON
SMILES REAL ESTATE, LLC.
LOT 1, BLOCK 4701
TOWNSHIP OF LAWRENCE
MERCER COUNTY, NEW JERSEY

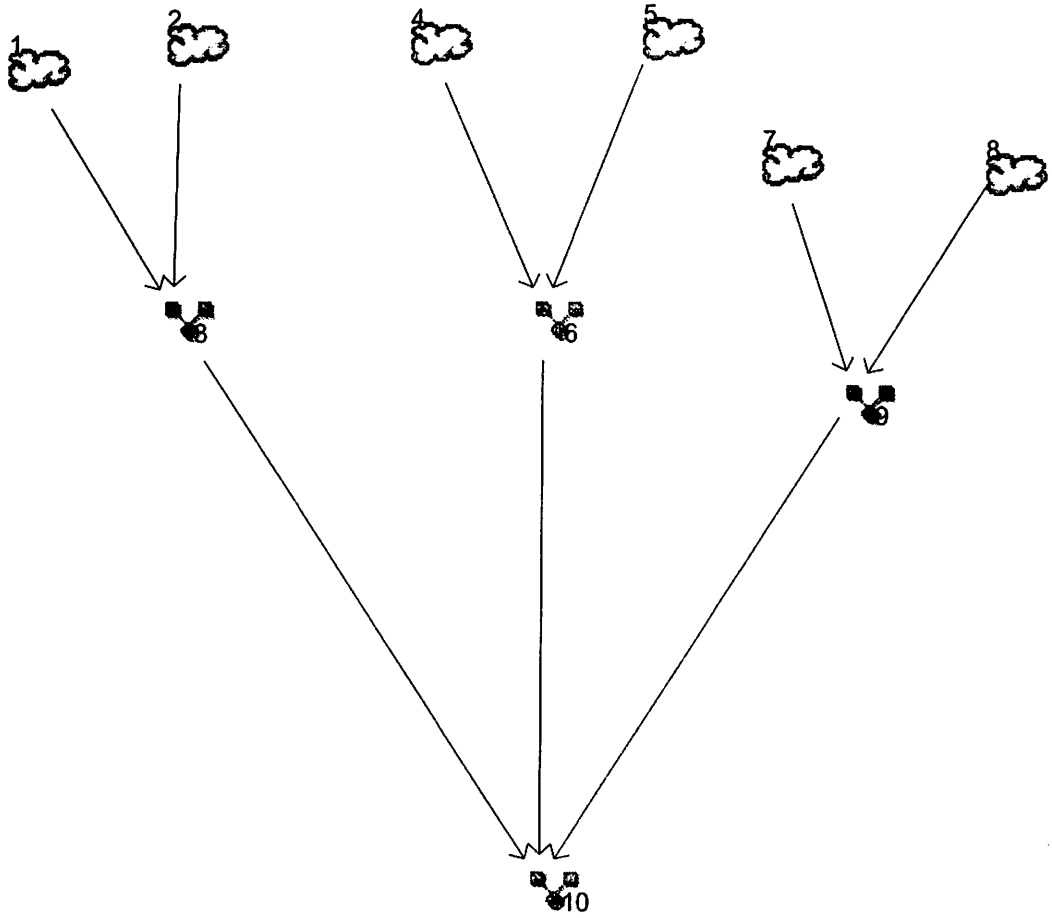
DATE: 03-29-2021 SCALE: 1"=30' DRAWN BY: (MH) SHEET
JOB: 21-011 CONTROL: 1-3414 CHECKED BY: MEH

D-2

D. EXISTING HYDROGRAPHS

Watershed Model Schematic

Hydraflow Hydrographs by Intelisolve v9.2



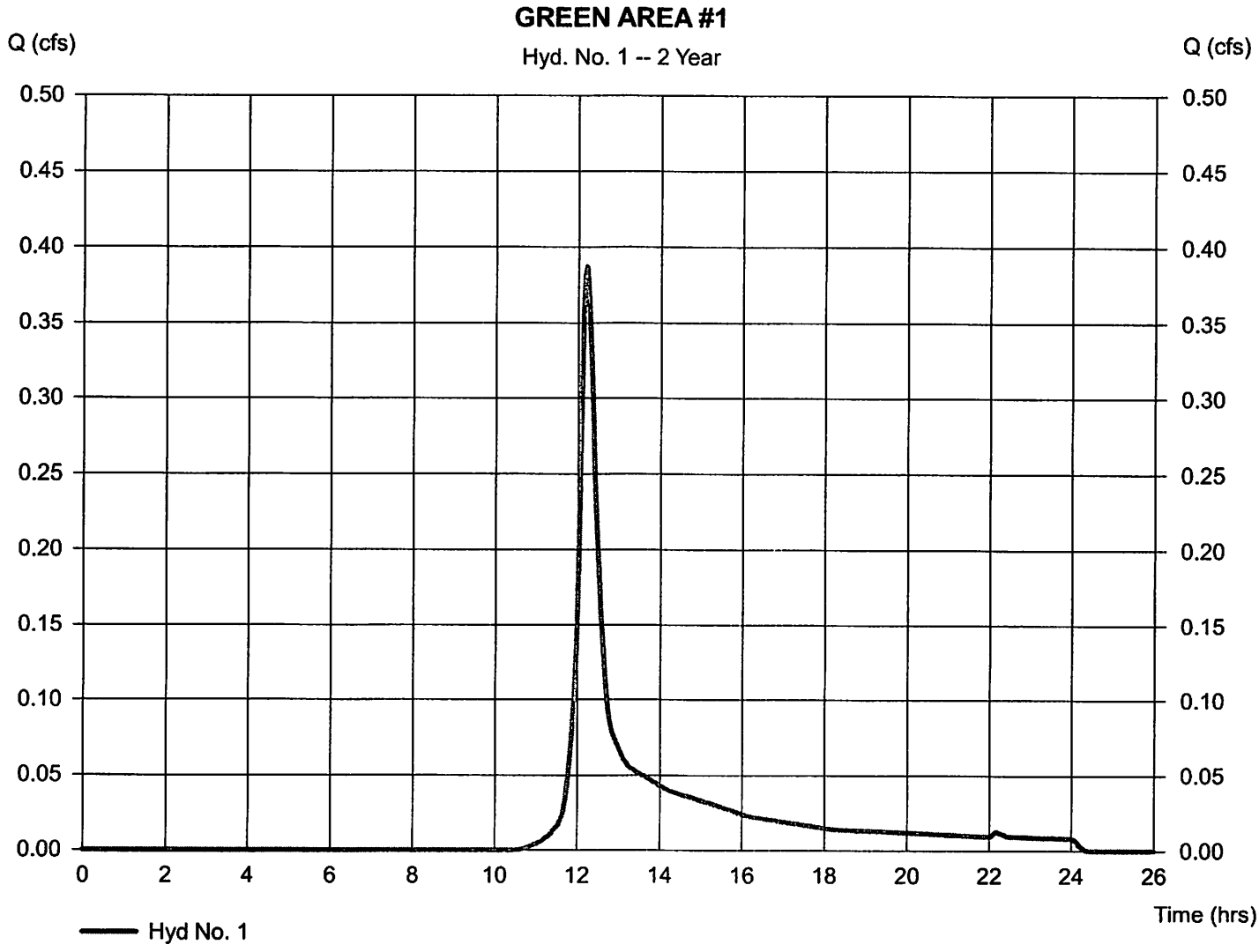
Hydrograph Report

Hyd. No. 1

GREEN AREA #1

Hydrograph type	= SCS Runoff	Peak discharge	= 0.387 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.20 hrs
Time interval	= 2 min	Hyd. volume	= 1,651 cuft
Drainage area	= 0.420 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 15.50 min
Total precip.	= 3.31 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.421 x 74)] / 0.420



TR55 Tc Worksheet

Hyd. No. 1

GREEN AREA #1

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.150		0.011		0.011		
Flow length (ft)	= 100.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 3.30		0.00		0.00		
Land slope (%)	= 1.00		0.00		0.00		
Travel Time (min)	**= 12.73**	**+**	**0.00**	**+**	**0.00**	**=**	**12.73**
Shallow Concentrated Flow							
Flow length (ft)	= 408.00		0.00		0.00		
Watercourse slope (%)	= 2.30		0.00		0.00		
Surface description	= Unpaved		Paved		Paved		
Average velocity (ft/s)	= 2.45		0.00		0.00		
Travel Time (min)	**= 2.78**	**+**	**0.00**	**+**	**0.00**	**=**	**2.78**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 1.00		0.00		0.00		
Manning's n-value	= 0.013		0.015		0.015		
Velocity (ft/s)	= 0.00		0.00		0.00		
Flow length (ft)	= 0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

Total Travel Time, Tc ..... 15.50 min

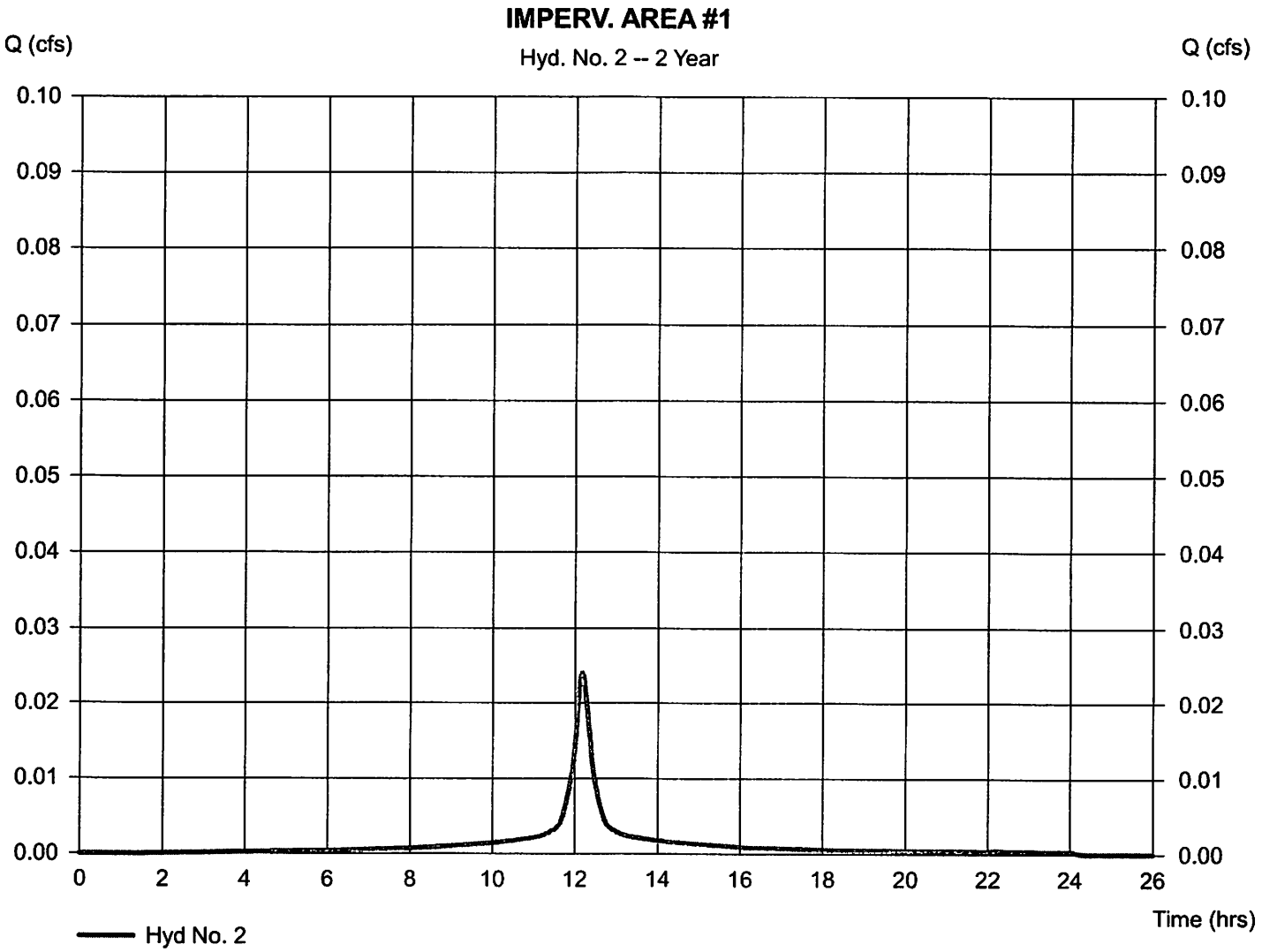
Hydrograph Report

Hyd. No. 2

IMPERV. AREA #1

Hydrograph type	= SCS Runoff	Peak discharge	= 0.024 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.17 hrs
Time interval	= 2 min	Hyd. volume	= 109 cuft
Drainage area	= 0.010 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 15.50 min
Total precip.	= 3.31 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.010 x 98)] / 0.010



TR55 Tc Worksheet

Hyd. No. 2

IMPERV. AREA #1

Description	A	B	C	Totals
Sheet Flow				
Manning's n-value	= 0.150	0.011	0.011	
Flow length (ft)	= 100.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 3.30	0.00	0.00	
Land slope (%)	= 1.00	0.00	0.00	
Travel Time (min)	**= 12.73**	**+ 0.00**	**+ 0.00**	**= 12.73**
Shallow Concentrated Flow				
Flow length (ft)	= 408.00	0.00	0.00	
Watercourse slope (%)	= 2.30	0.00	0.00	
Surface description	= Unpaved	Paved	Paved	
Average velocity (ft/s)	= 2.45	0.00	0.00	
Travel Time (min)	**= 2.78**	**+ 0.00**	**+ 0.00**	**= 2.78**
Channel Flow				
X sectional flow area (sqft)	= 0.00	0.00	0.00	
Wetted perimeter (ft)	= 0.00	0.00	0.00	
Channel slope (%)	= 1.00	0.00	0.00	
Manning's n-value	= 0.013	0.015	0.015	
Velocity (ft/s)	= 0.00	0.00	0.00	
Flow length (ft)	= 0.0	0.0	0.0	
Travel Time (min)	**= 0.00**	**+ 0.00**	**+ 0.00**	**= 0.00**

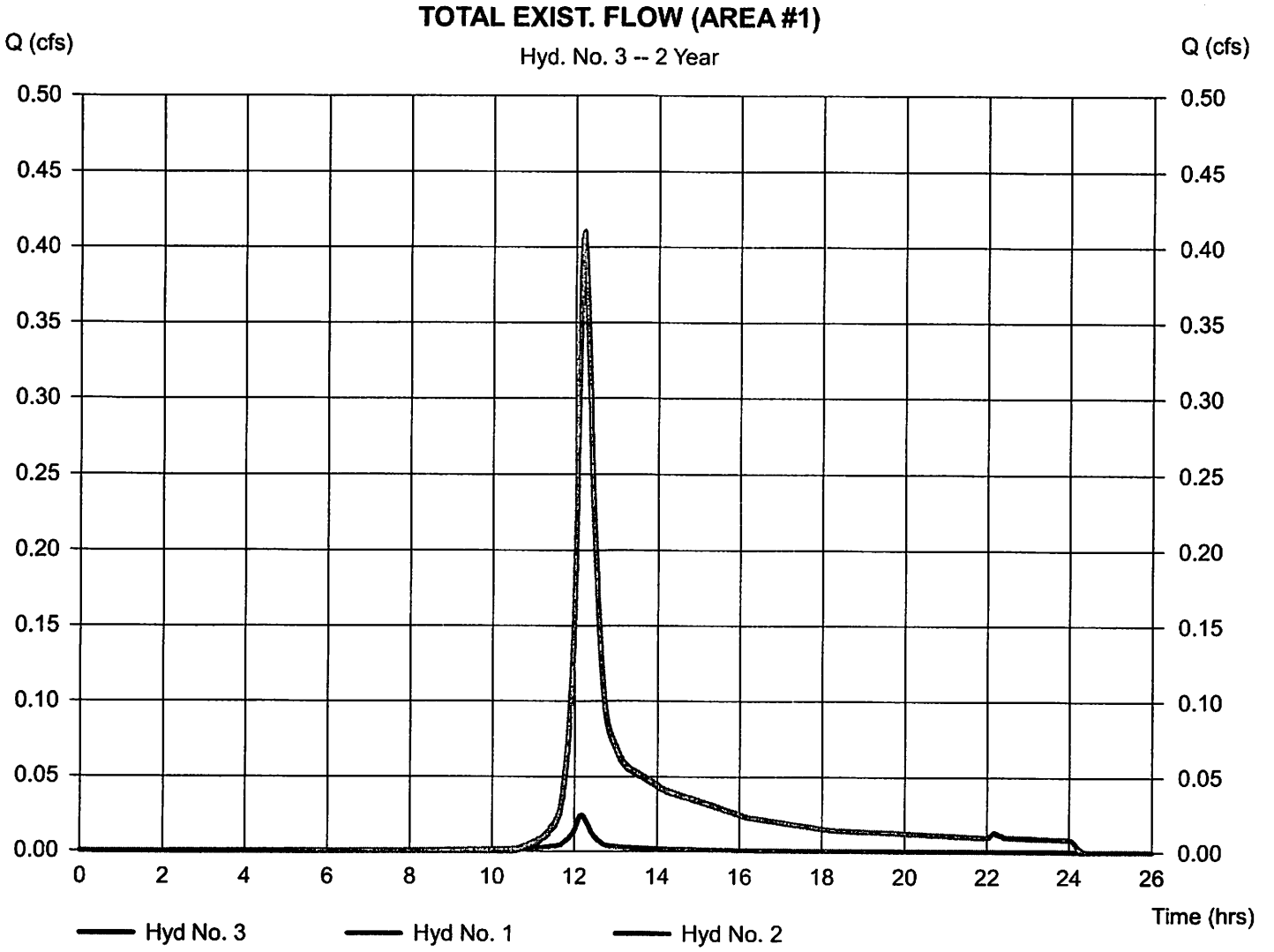
Total Travel Time, Tc ..... **15.50 min**

Hydrograph Report

Hyd. No. 3

TOTAL EXIST. FLOW (AREA #1)

Hydrograph type	= Combine	Peak discharge	= 0.411 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.20 hrs
Time interval	= 2 min	Hyd. volume	= 1,760 cuft
Inflow hyds.	= 1, 2	Contrib. drain. area	= 0.430 ac



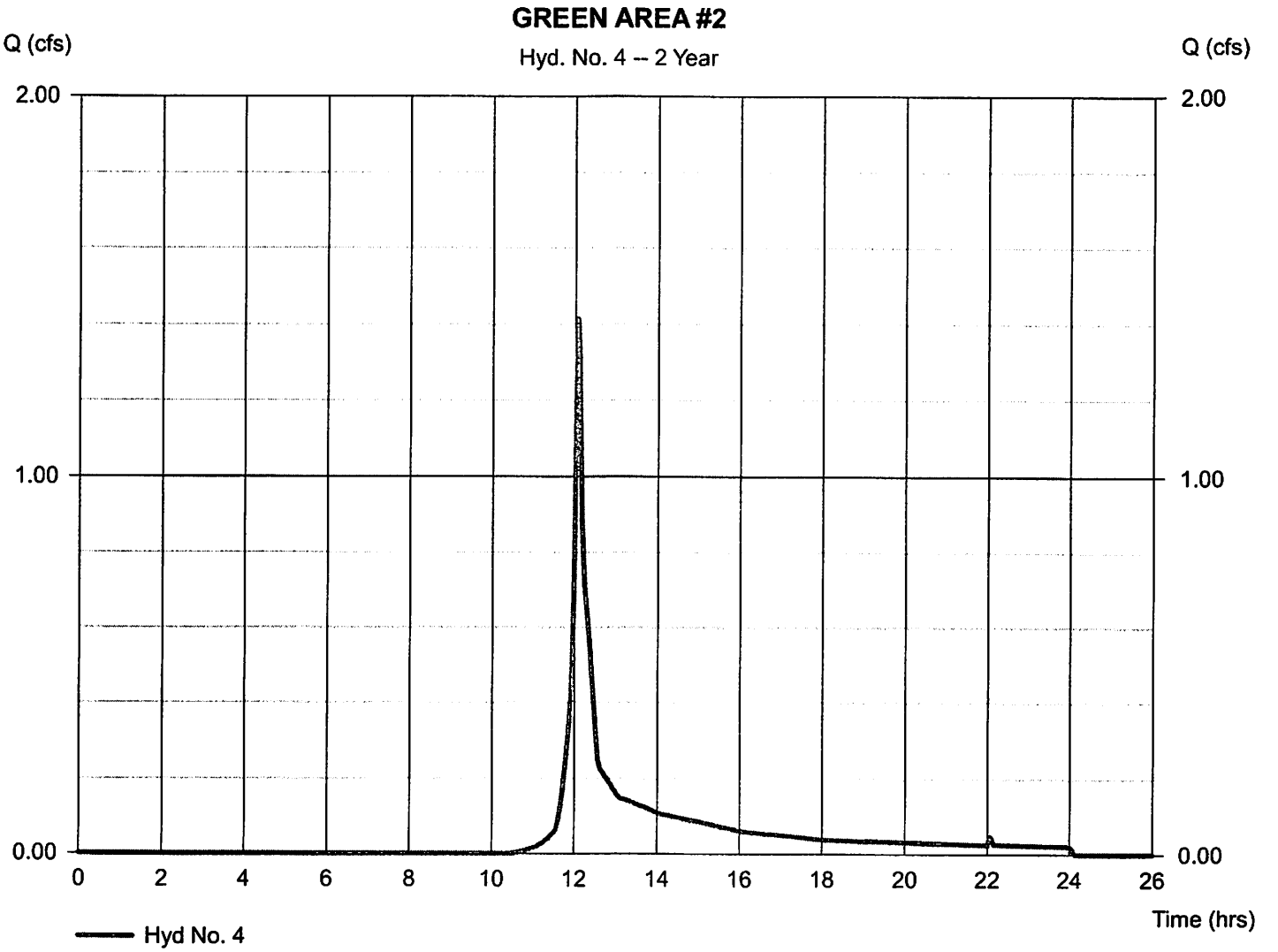
Hydrograph Report

Hyd. No. 4

GREEN AREA #2

Hydrograph type	= SCS Runoff	Peak discharge	= 1.414 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 4,422 cuft
Drainage area	= 1.170 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 3.31 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.170 x 74)] / 1.170



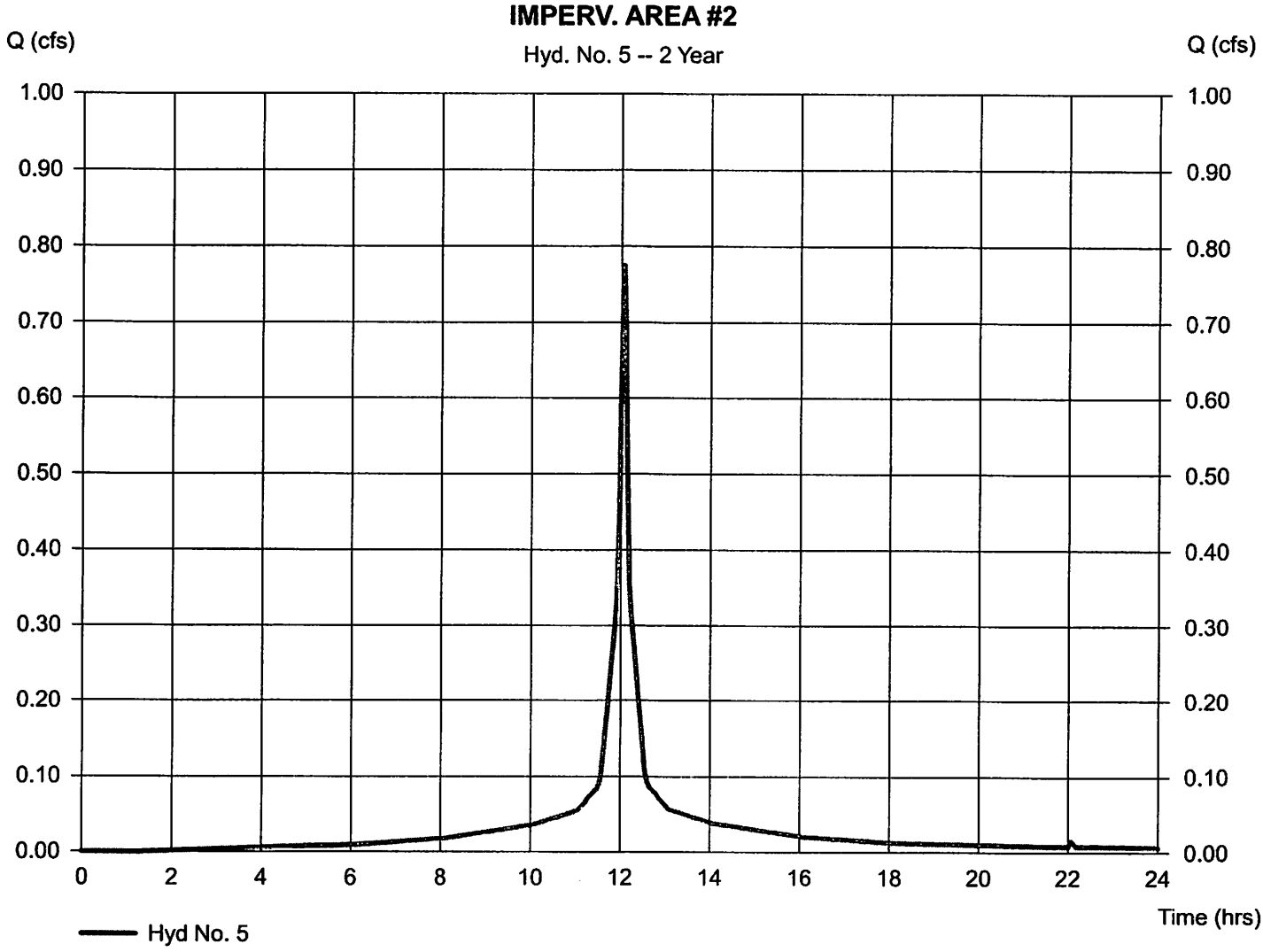
Hydrograph Report

Hyd. No. 5

IMPERV. AREA #2

Hydrograph type	= SCS Runoff	Peak discharge	= 0.775 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 2,618 cuft
Drainage area	= 0.250 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 3.31 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.251 x 98)] / 0.250

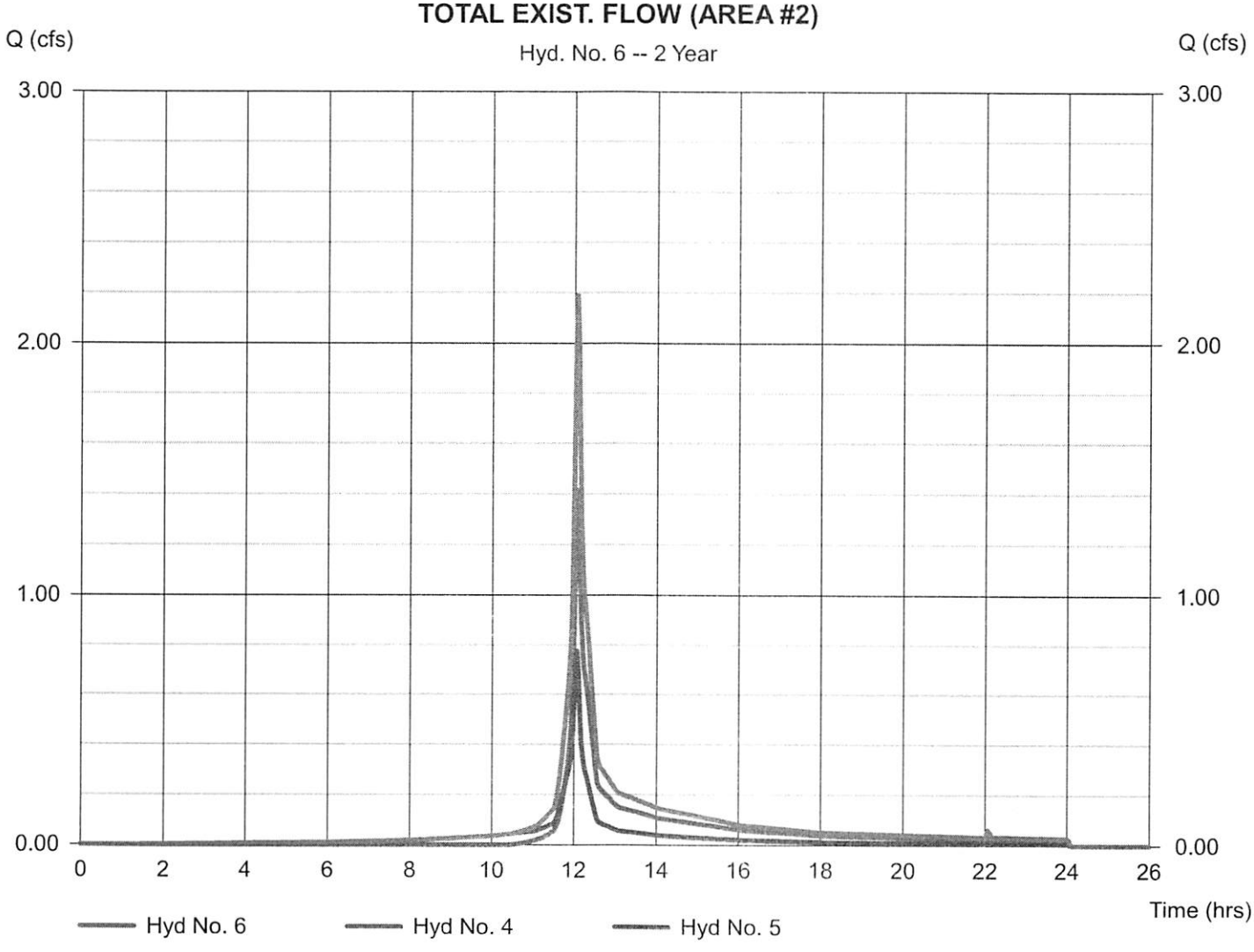


Hydrograph Report

Hyd. No. 6

TOTAL EXIST. FLOW (AREA #2)

Hydrograph type	= Combine	Peak discharge	= 2.189 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 7,040 cuft
Inflow hyds.	= 4, 5	Contrib. drain. area	= 1.420 ac



Hydrograph Report

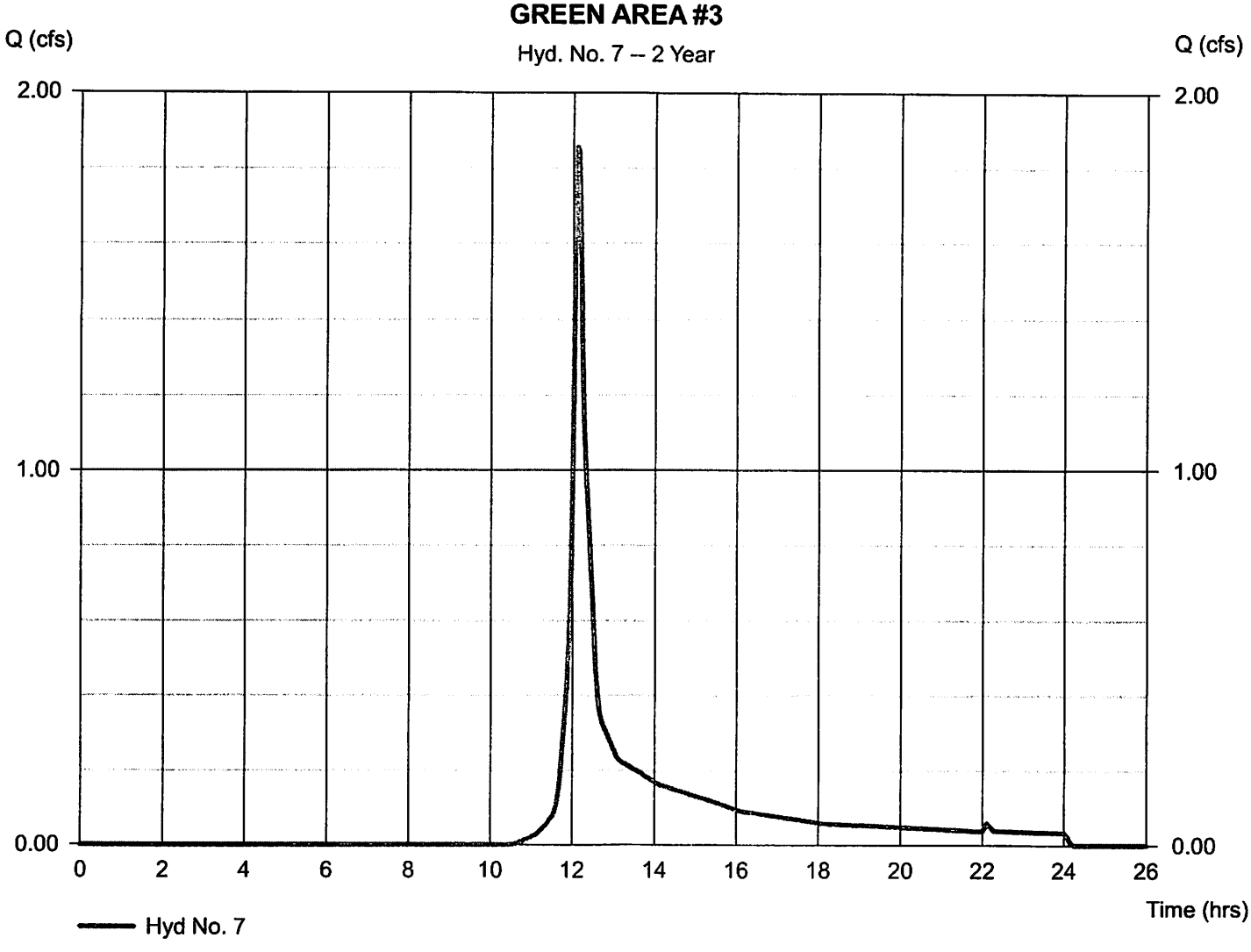
Hydraflow Hydrographs by Intelisolve v9.2 — Sunday, Mar 28, 2021

Hyd. No. 7

GREEN AREA #3

Hydrograph type	= SCS Runoff	Peak discharge	= 1.855 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 6,692 cuft
Drainage area	= 1.660 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 8.70 min
Total precip.	= 3.31 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.659 x 74)] / 1.660



TR55 Tc Worksheet

Hyd. No. 7

GREEN AREA #3

Description	A	B	C	Totals
Sheet Flow				
Manning's n-value	= 0.150	0.011	0.011	
Flow length (ft)	= 100.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 3.30	0.00	0.00	
Land slope (%)	= 4.00	0.00	0.00	
Travel Time (min)	**= 7.31** +	**0.00** +	**0.00** =	**7.31**
Shallow Concentrated Flow				
Flow length (ft)	= 347.00	0.00	0.00	
Watercourse slope (%)	= 6.48	0.00	0.00	
Surface description	= Unpaved	Paved	Paved	
Average velocity (ft/s)	= 4.11	0.00	0.00	
Travel Time (min)	**= 1.41** +	**0.00** +	**0.00** =	**1.41**
Channel Flow				
X sectional flow area (sqft)	= 0.00	0.00	0.00	
Wetted perimeter (ft)	= 0.00	0.00	0.00	
Channel slope (%)	= 0.00	0.00	0.00	
Manning's n-value	= 0.013	0.015	0.015	
Velocity (ft/s)	= 0.00	0.00	0.00	
Flow length (ft)	= 0.0	0.0	0.0	
Travel Time (min)	**= 0.00** +	**0.00** +	**0.00** =	**0.00**

Total Travel Time, Tc ..... **8.70 min**

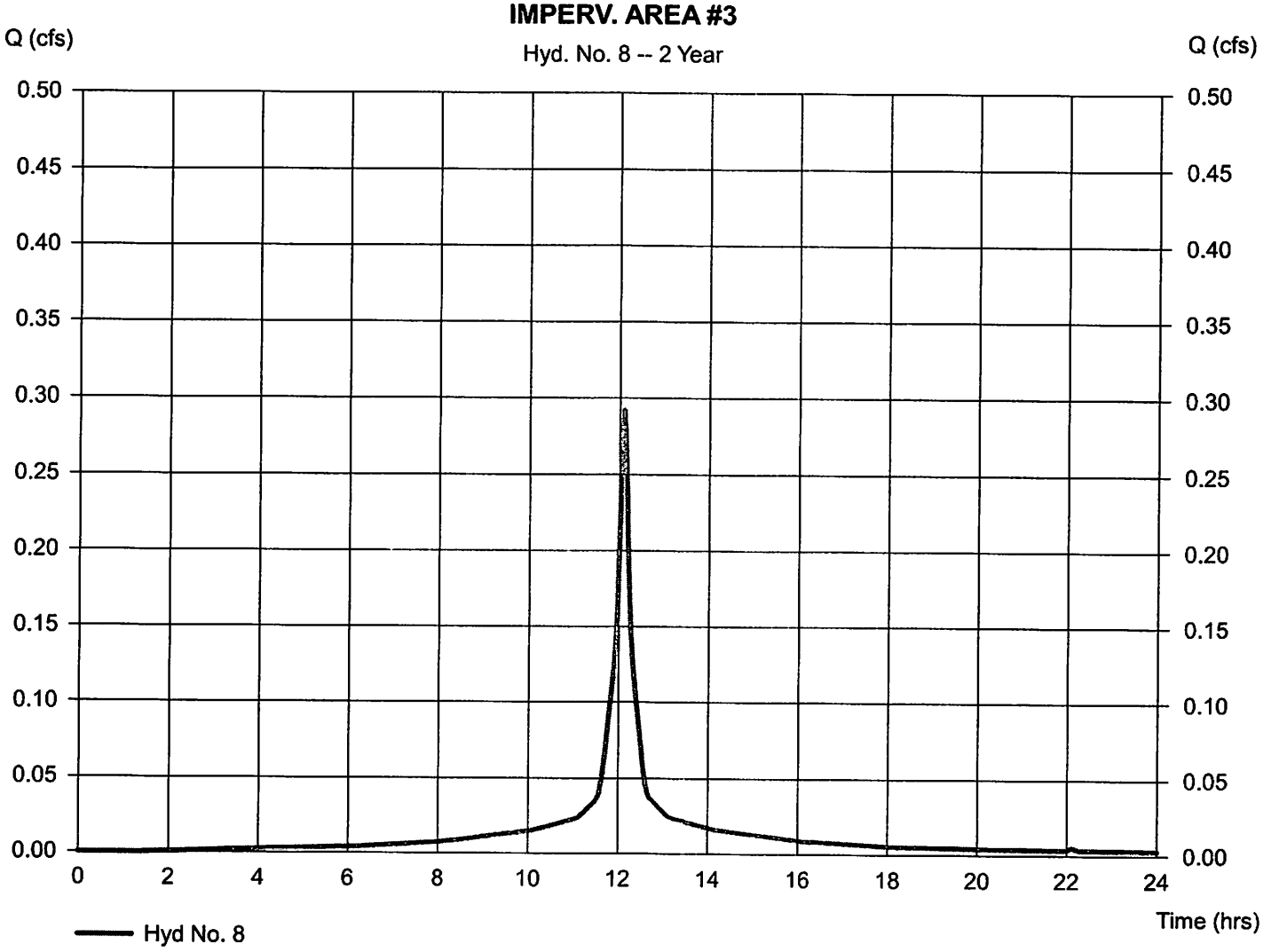
Hydrograph Report

Hyd. No. 8

IMPERV. AREA #3

Hydrograph type	= SCS Runoff	Peak discharge	= 0.292 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 1,117 cuft
Drainage area	= 0.100 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 8.70 min
Total precip.	= 3.31 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.104 x 98)] / 0.100



TR55 Tc Worksheet

Hyd. No. 8

IMPERV. AREA #3

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.150		0.011		0.011		
Flow length (ft)	= 100.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 3.30		0.00		0.00		
Land slope (%)	= 4.00		0.00		0.00		
Travel Time (min)	**= 7.31**	**+**	**0.00**	**+**	**0.00**	**=**	**7.31**
Shallow Concentrated Flow							
Flow length (ft)	= 347.00		0.00		0.00		
Watercourse slope (%)	= 6.48		0.00		0.00		
Surface description	= Unpaved		Paved		Paved		
Average velocity (ft/s)	= 4.11		0.00		0.00		
Travel Time (min)	**= 1.41**	**+**	**0.00**	**+**	**0.00**	**=**	**1.41**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.013		0.015		0.015		
Velocity (ft/s)	= 0.00		0.00		0.00		
Flow length (ft)	= 0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

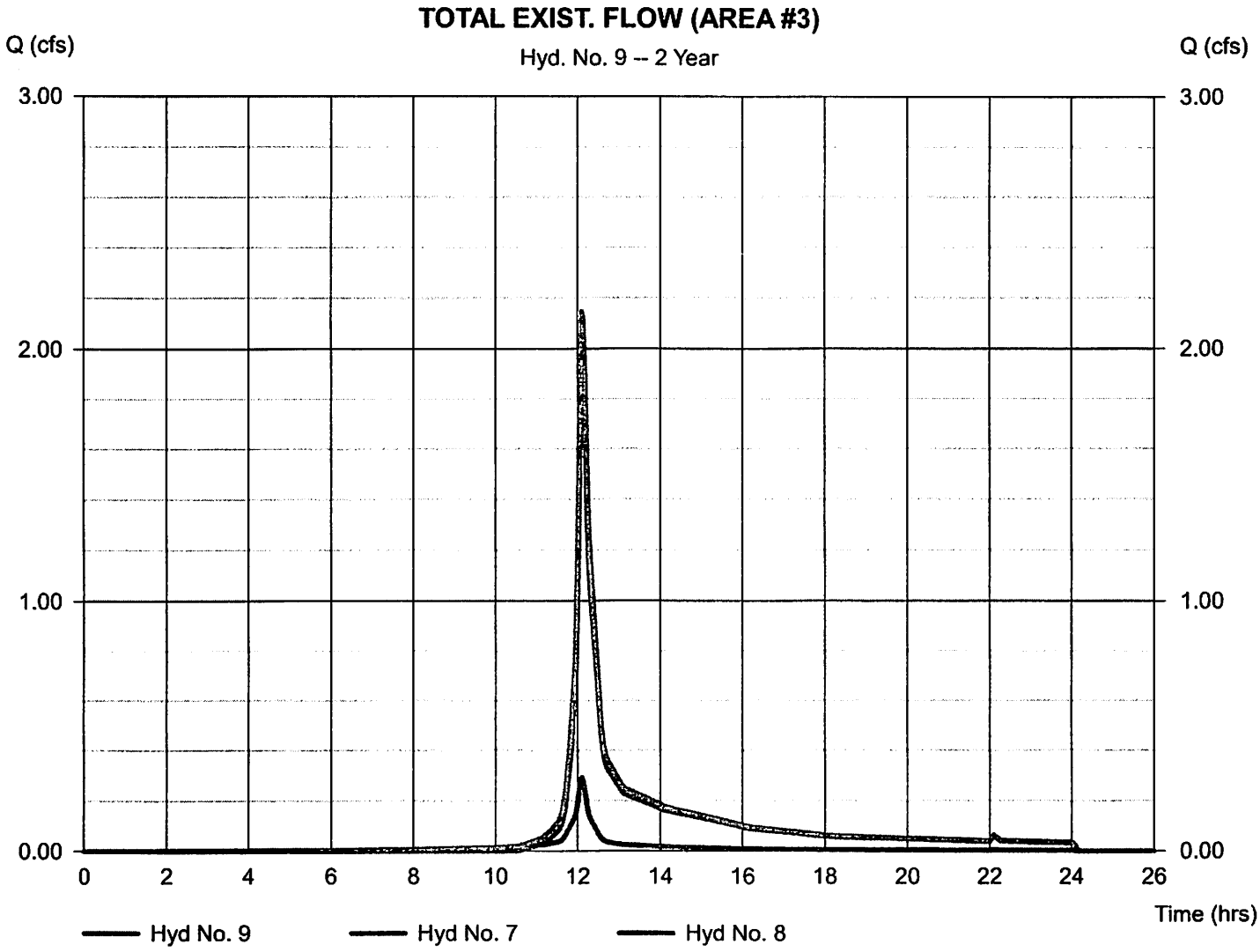
Total Travel Time, Tc ..... **8.70 min**

Hydrograph Report

Hyd. No. 9

TOTAL EXIST. FLOW (AREA #3)

Hydrograph type	= Combine	Peak discharge	= 2.147 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 7,809 cuft
Inflow hyds.	= 7, 8	Contrib. drain. area	= 1.760 ac

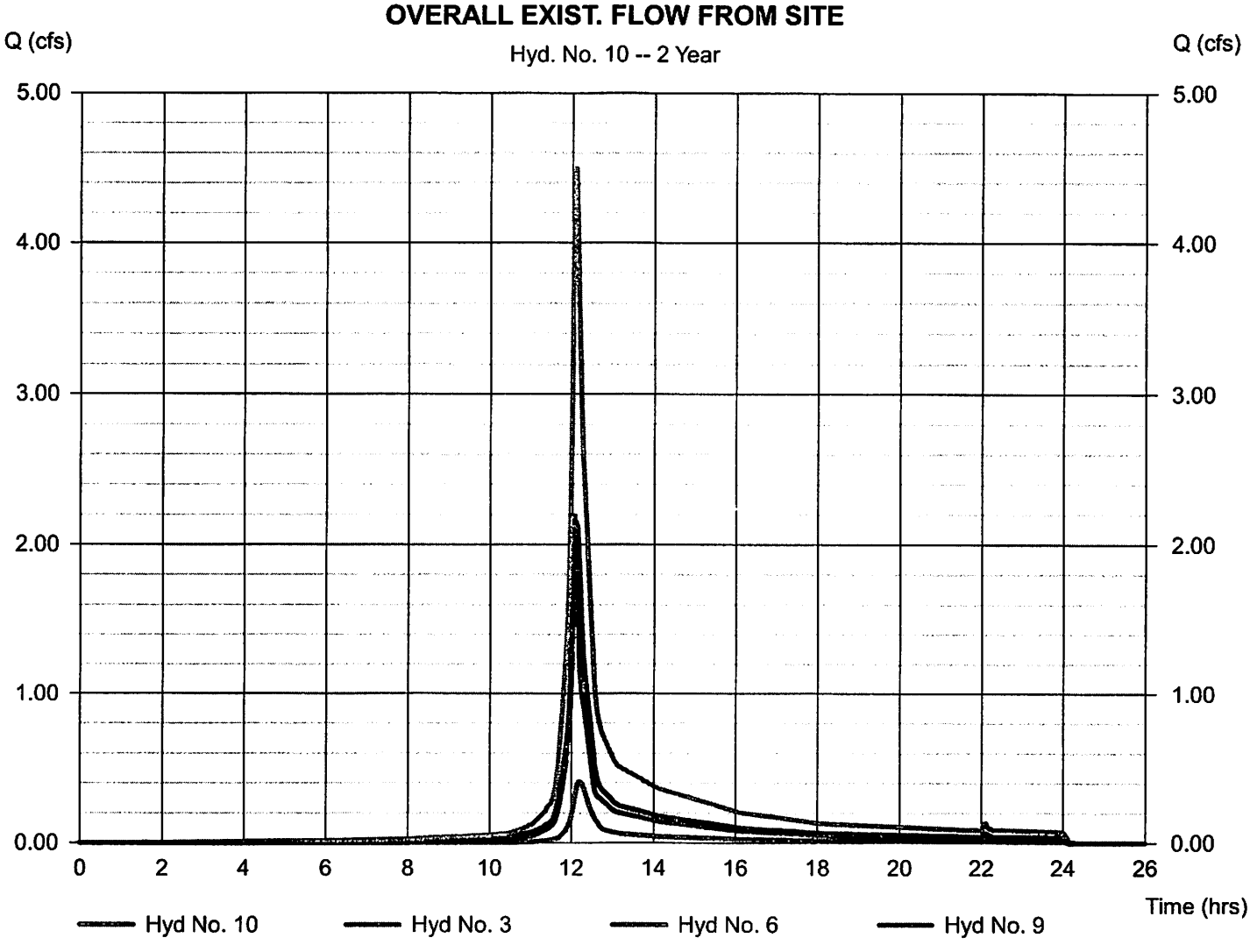


Hydrograph Report

Hyd. No. 10

OVERALL EXIST. FLOW FROM SITE

Hydrograph type	= Combine	Peak discharge	= 4.498 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 16,609 cuft
Inflow hyds.	= 3, 6, 9	Contrib. drain. area	= 0.000 ac



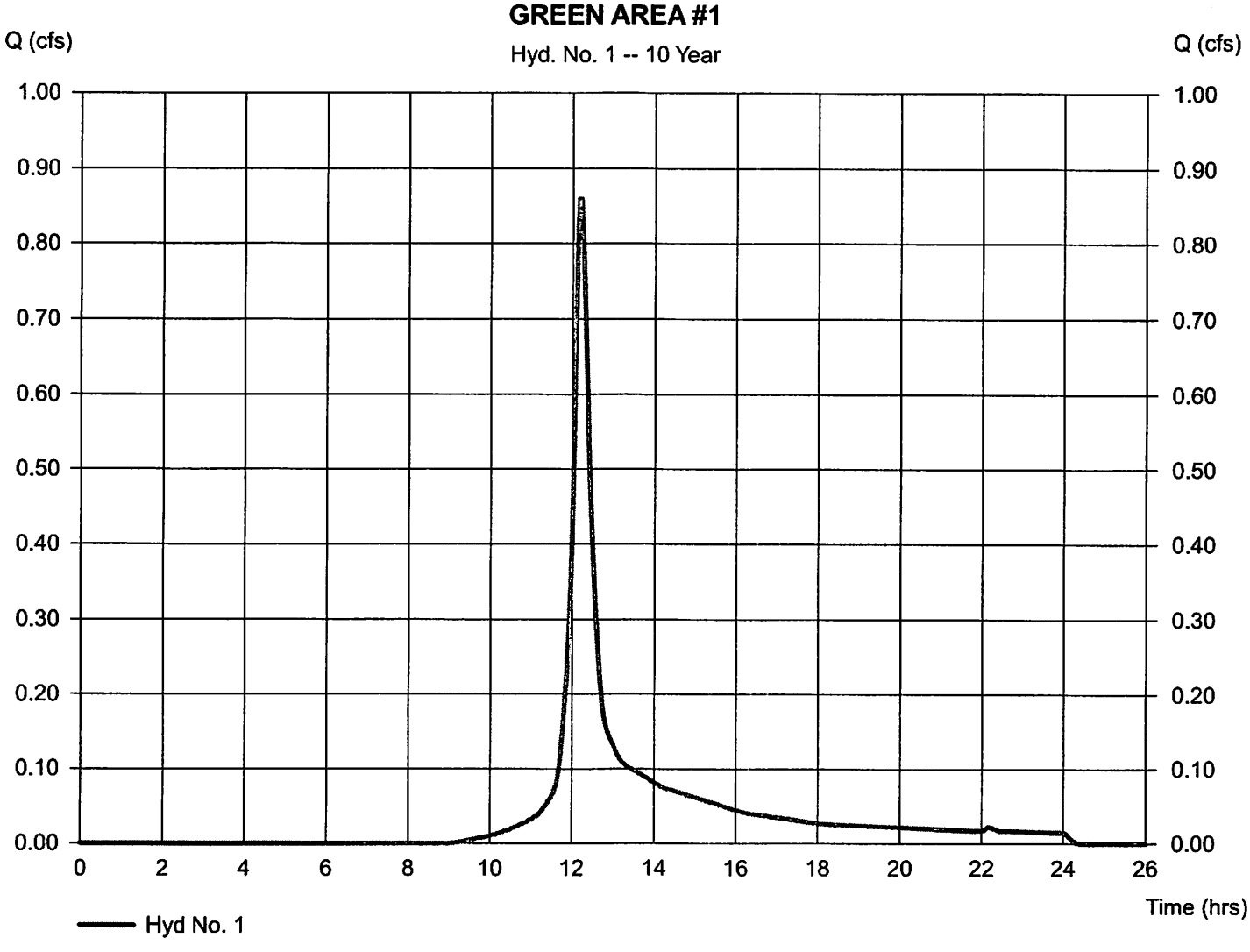
Hydrograph Report

Hyd. No. 1

GREEN AREA #1

Hydrograph type	= SCS Runoff	Peak discharge	= 0.859 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.20 hrs
Time interval	= 2 min	Hyd. volume	= 3,526 cuft
Drainage area	= 0.420 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 15.50 min
Total precip.	= 5.01 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.421 x 74)] / 0.420



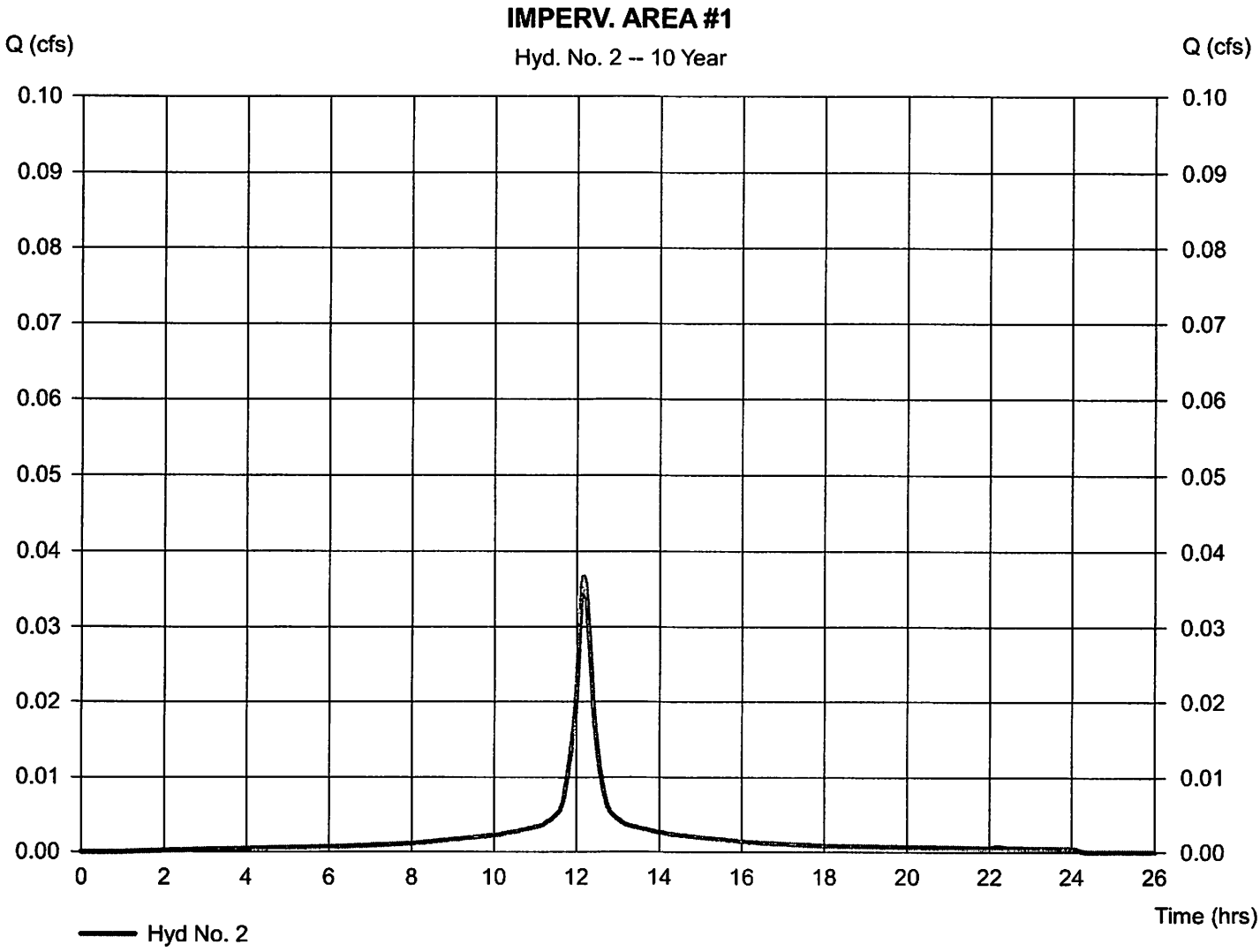
Hydrograph Report

Hyd. No. 2

IMPERV. AREA #1

Hydrograph type	= SCS Runoff	Peak discharge	= 0.037 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.17 hrs
Time interval	= 2 min	Hyd. volume	= 169 cuft
Drainage area	= 0.010 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 15.50 min
Total precip.	= 5.01 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.010 x 98)] / 0.010

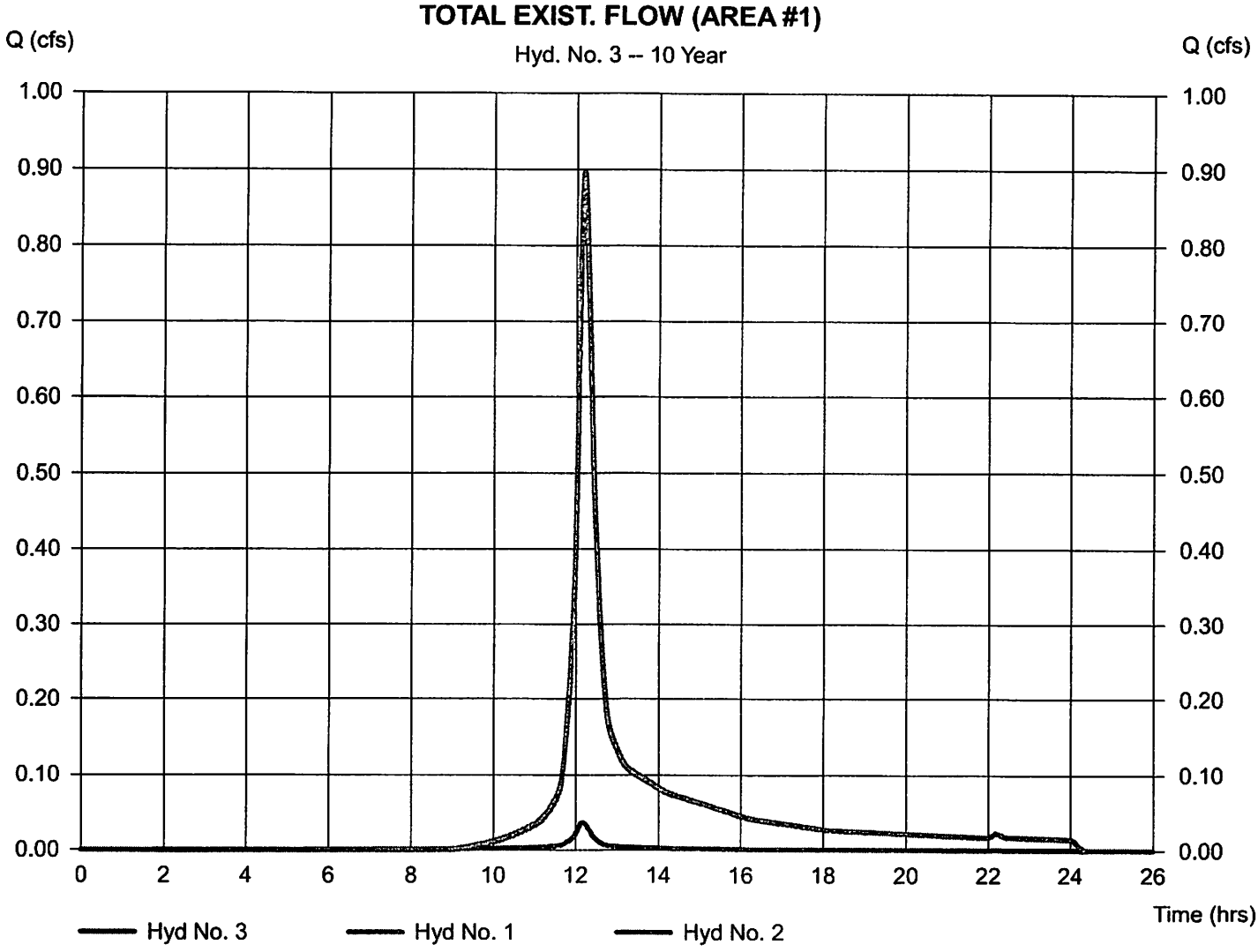


Hydrograph Report

Hyd. No. 3

TOTAL EXIST. FLOW (AREA #1)

Hydrograph type	= Combine	Peak discharge	= 0.895 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.17 hrs
Time interval	= 2 min	Hyd. volume	= 3,695 cuft
Inflow hyds.	= 1, 2	Contrib. drain. area	= 0.430 ac



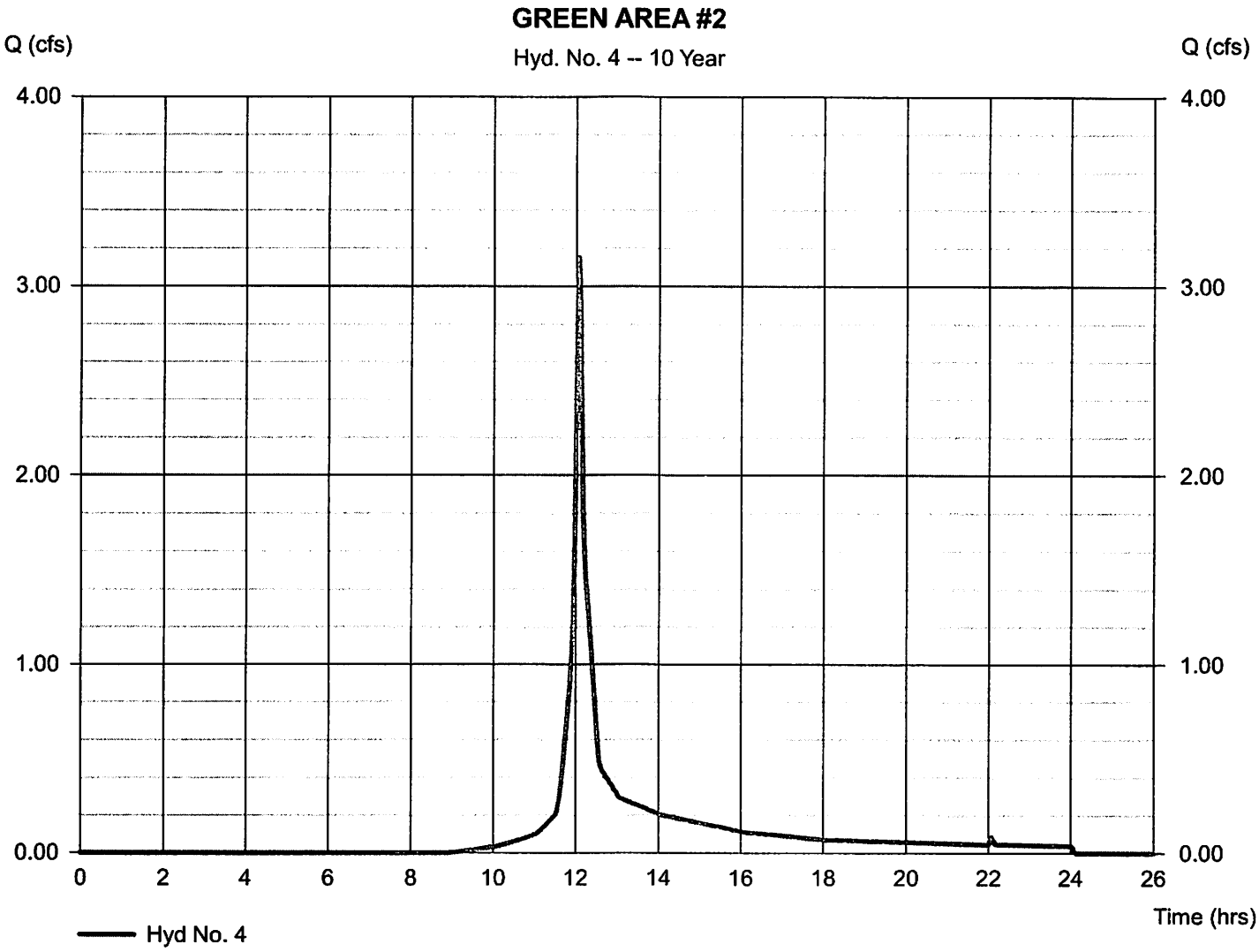
Hydrograph Report

Hyd. No. 4

GREEN AREA #2

Hydrograph type	= SCS Runoff	Peak discharge	= 3.149 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 9,445 cuft
Drainage area	= 1.170 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 5.01 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.170 x 74)] / 1.170



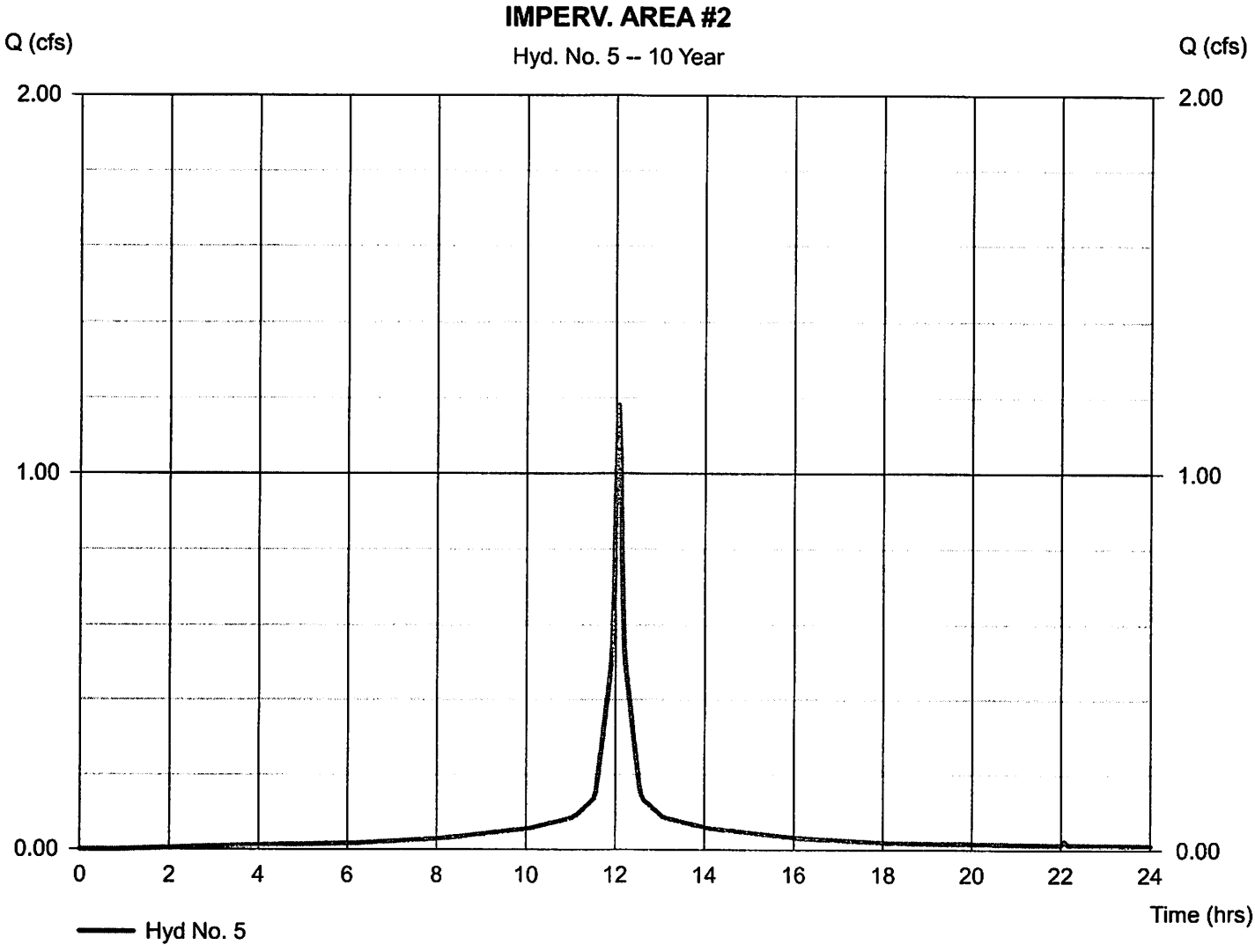
Hydrograph Report

Hyd. No. 5

IMPERV. AREA #2

Hydrograph type	= SCS Runoff	Peak discharge	= 1.181 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 4,061 cuft
Drainage area	= 0.250 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 5.01 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.251 x 98)] / 0.250

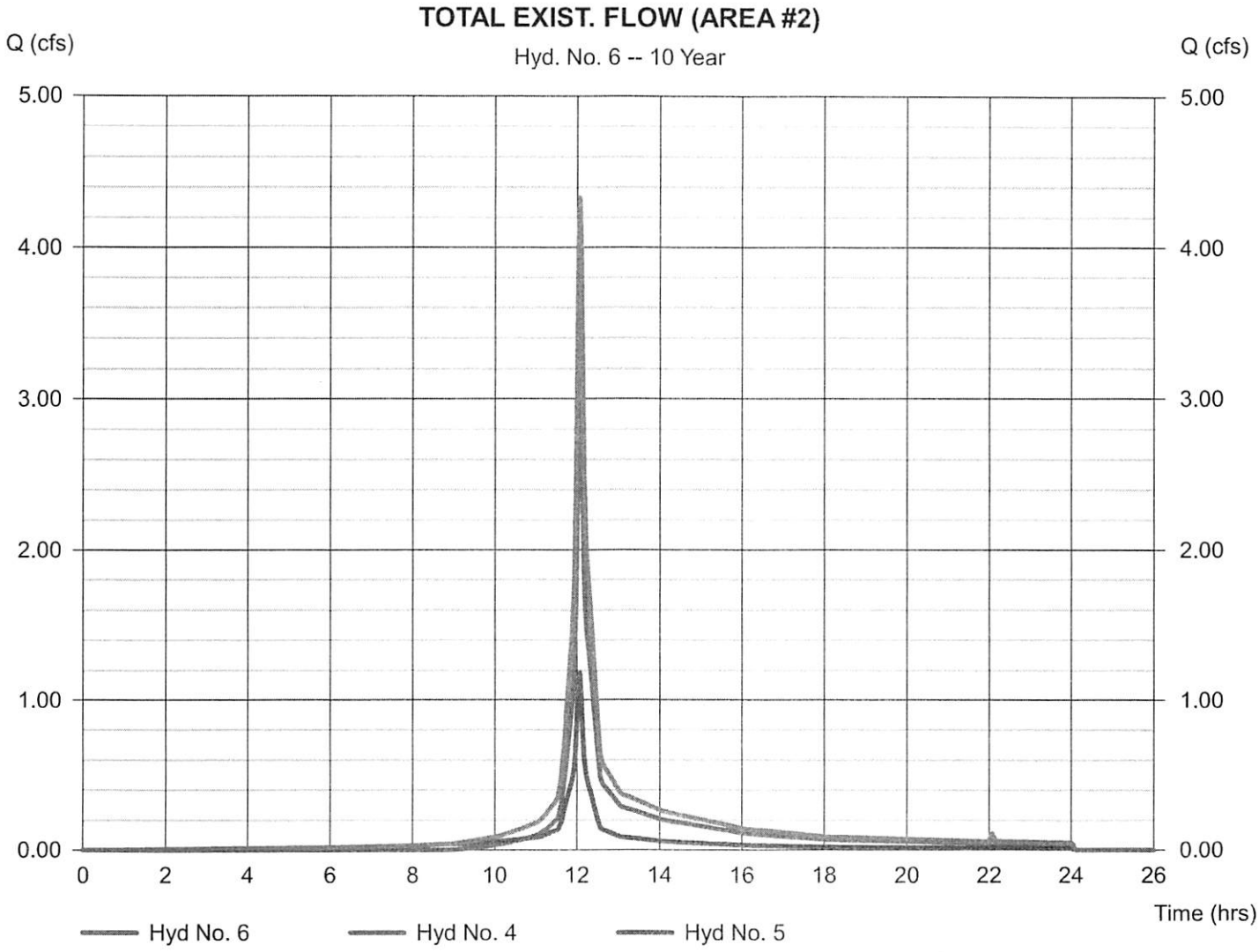


Hydrograph Report

Hyd. No. 6

TOTAL EXIST. FLOW (AREA #2)

Hydrograph type	= Combine	Peak discharge	= 4.331 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 13,506 cuft
Inflow hyds.	= 4, 5	Contrib. drain. area	= 1.420 ac



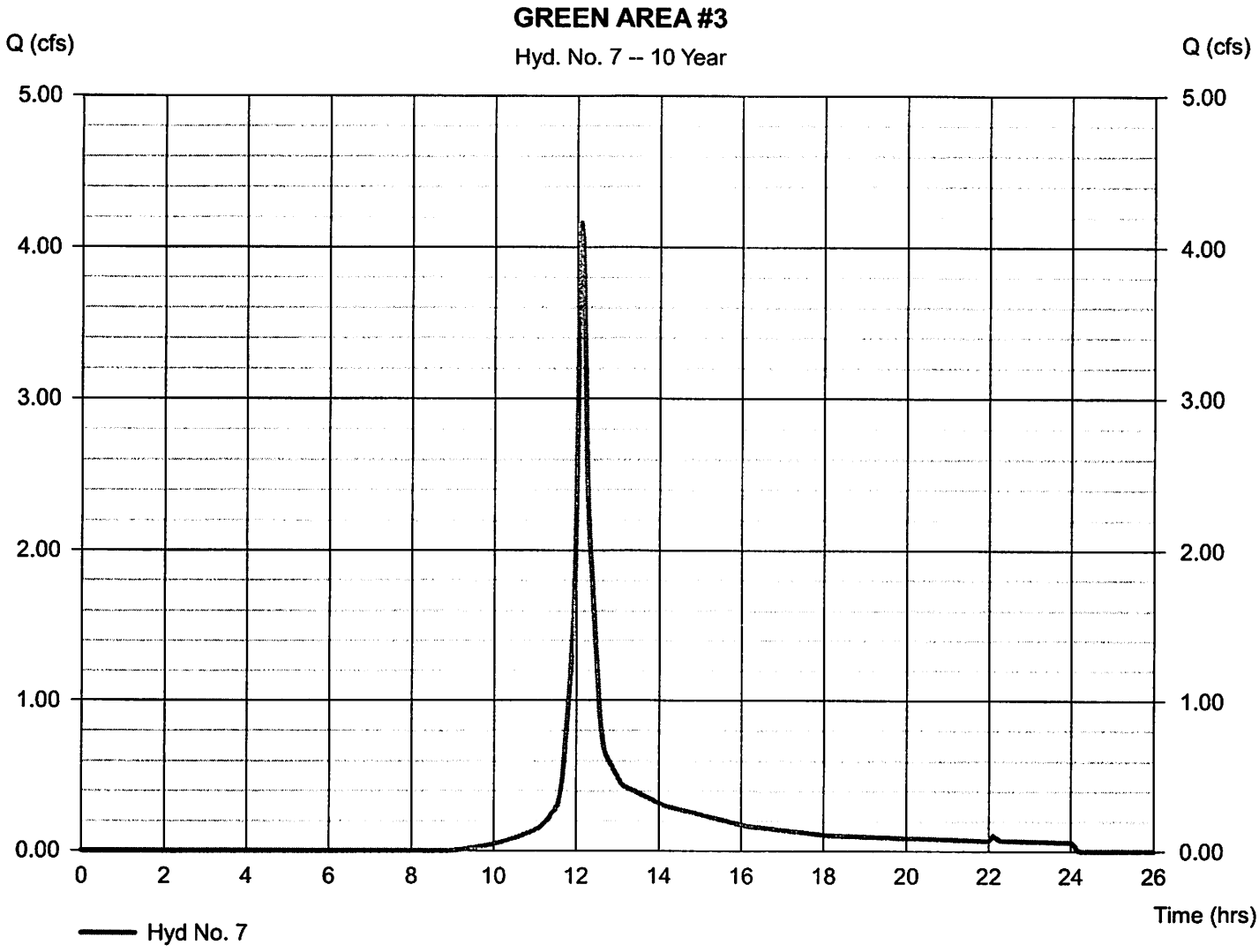
Hydrograph Report

Hyd. No. 7

GREEN AREA #3

Hydrograph type	= SCS Runoff	Peak discharge	= 4.160 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 14,295 cuft
Drainage area	= 1.660 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 8.70 min
Total precip.	= 5.01 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.659 x 74)] / 1.660



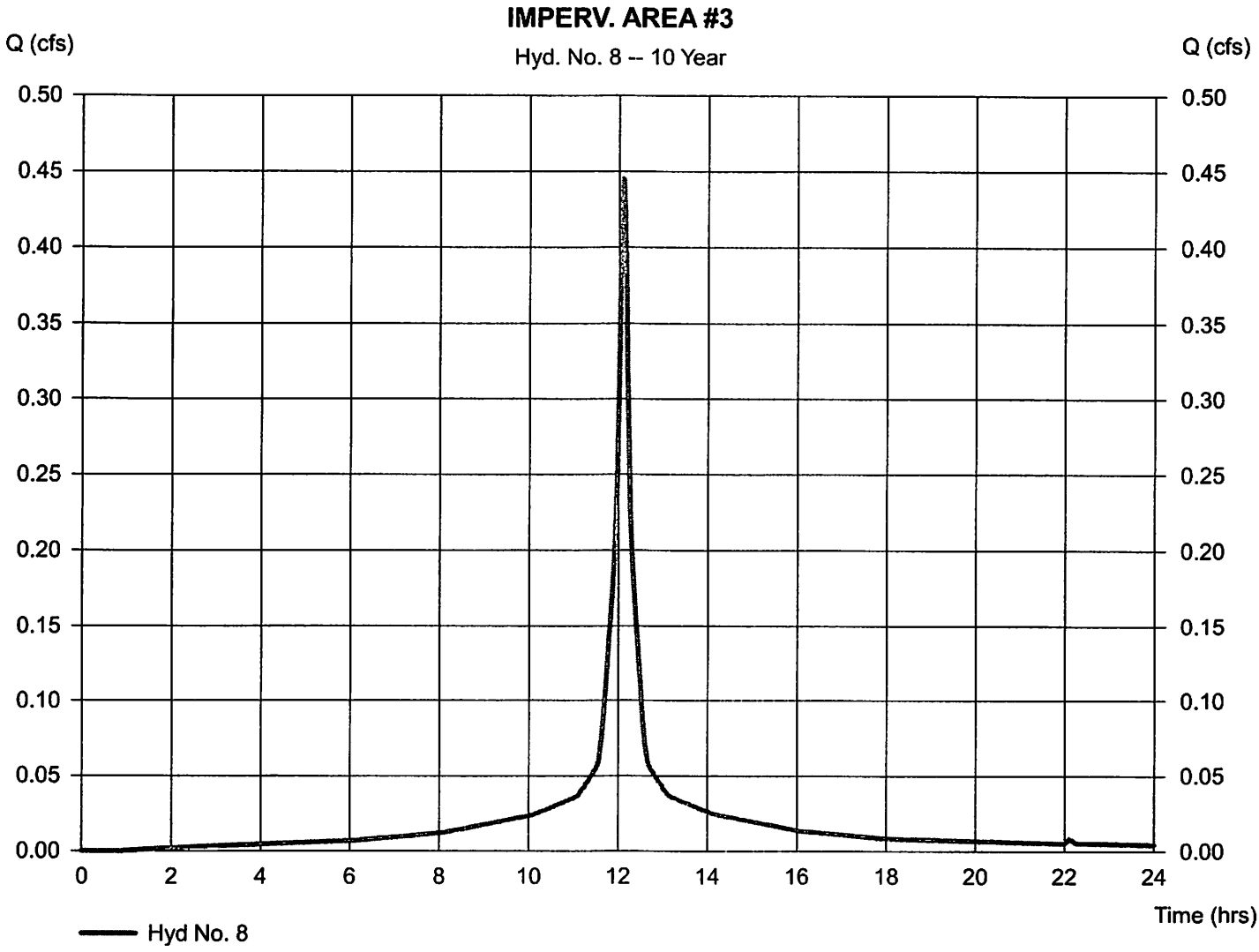
Hydrograph Report

Hyd. No. 8

IMPERV. AREA #3

Hydrograph type	= SCS Runoff	Peak discharge	= 0.445 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 1,733 cuft
Drainage area	= 0.100 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 8.70 min
Total precip.	= 5.01 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.104 x 98)] / 0.100

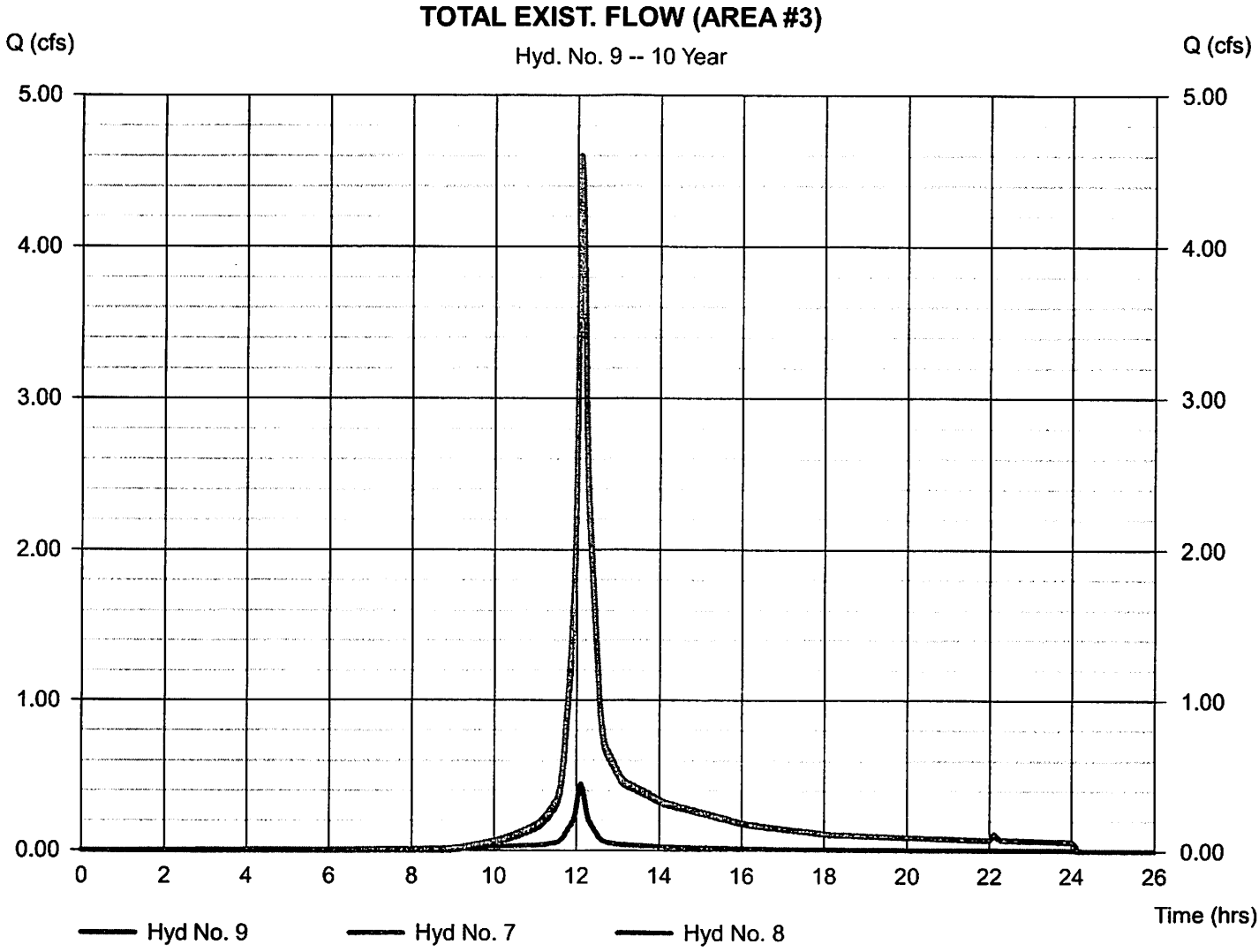


Hydrograph Report

Hyd. No. 9

TOTAL EXIST. FLOW (AREA #3)

Hydrograph type	= Combine	Peak discharge	= 4.605 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 16,027 cuft
Inflow hyds.	= 7, 8	Contrib. drain. area	= 1.760 ac

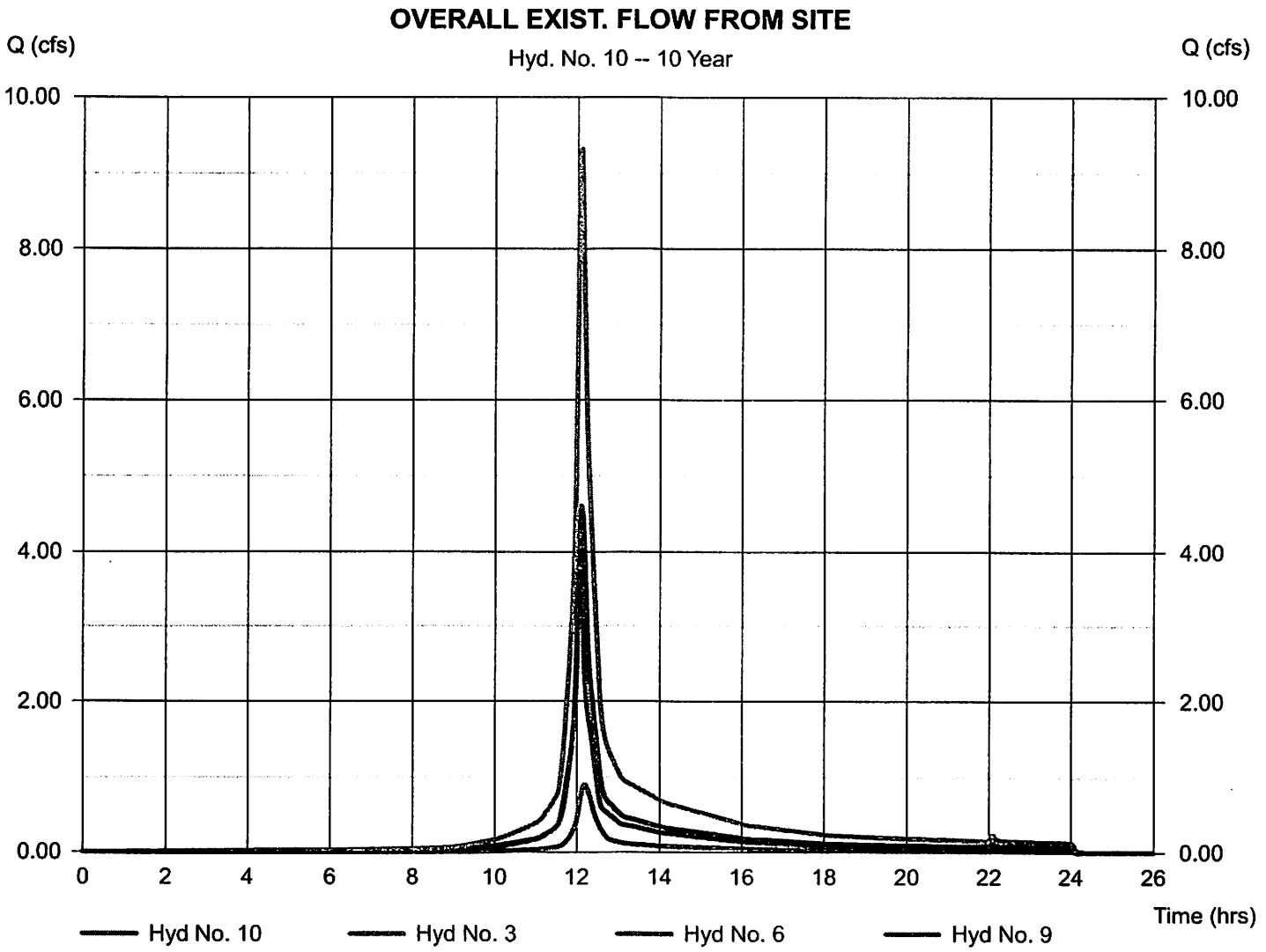


Hydrograph Report

Hyd. No. 10

OVERALL EXIST. FLOW FROM SITE

Hydrograph type	= Combine	Peak discharge	= 9.311 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 33,229 cuft
Inflow hyds.	= 3, 6, 9	Contrib. drain. area	= 0.000 ac



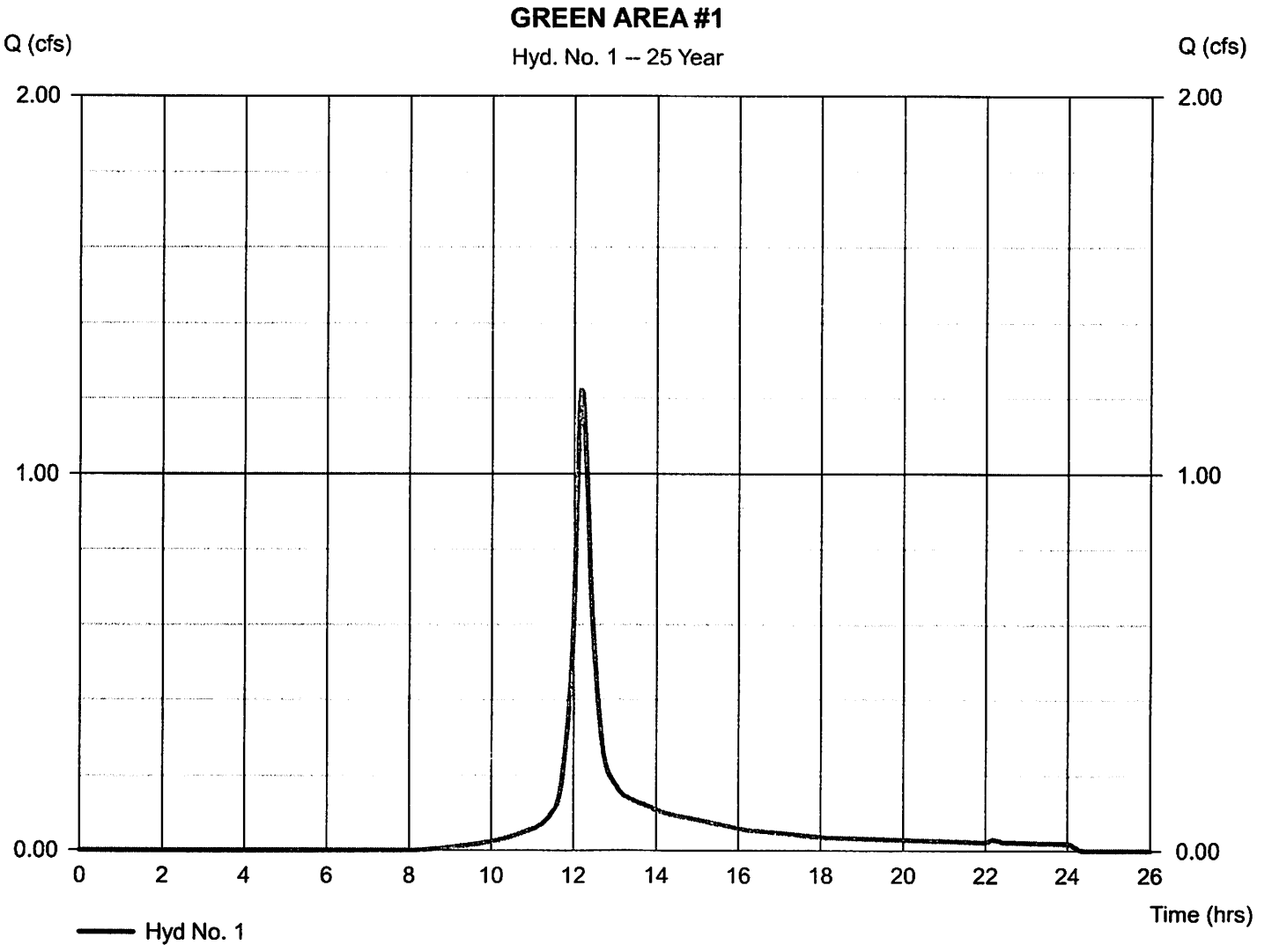
Hydrograph Report

Hyd. No. 1

GREEN AREA #1

Hydrograph type	= SCS Runoff	Peak discharge	= 1.221 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.17 hrs
Time interval	= 2 min	Hyd. volume	= 4,973 cuft
Drainage area	= 0.420 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 15.50 min
Total precip.	= 6.19 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.421 x 74)] / 0.420



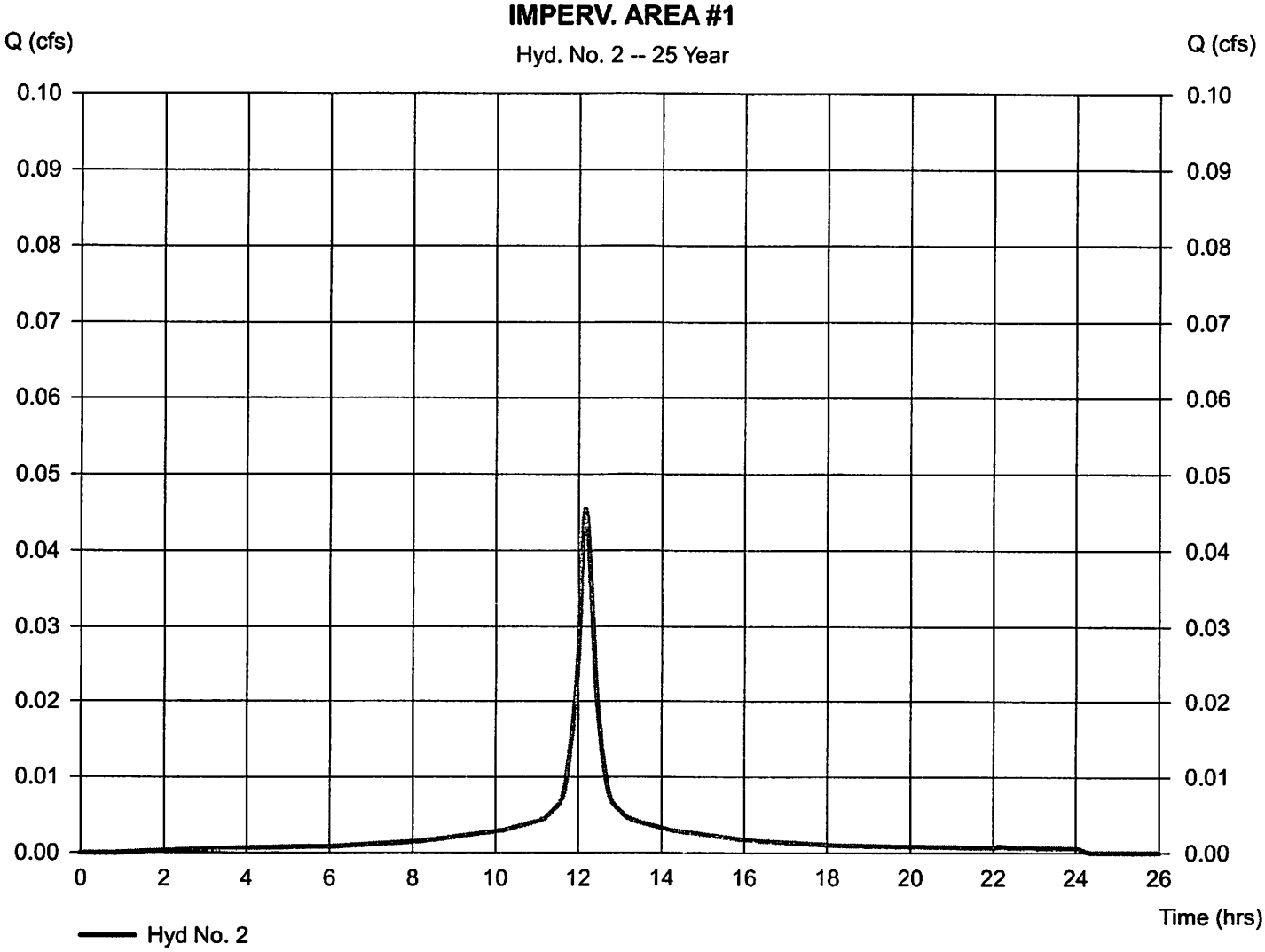
Hydrograph Report

Hyd. No. 2

IMPERV. AREA #1

Hydrograph type	= SCS Runoff	Peak discharge	= 0.045 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.17 hrs
Time interval	= 2 min	Hyd. volume	= 211 cuft
Drainage area	= 0.010 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 15.50 min
Total precip.	= 6.19 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.010 x 98)] / 0.010

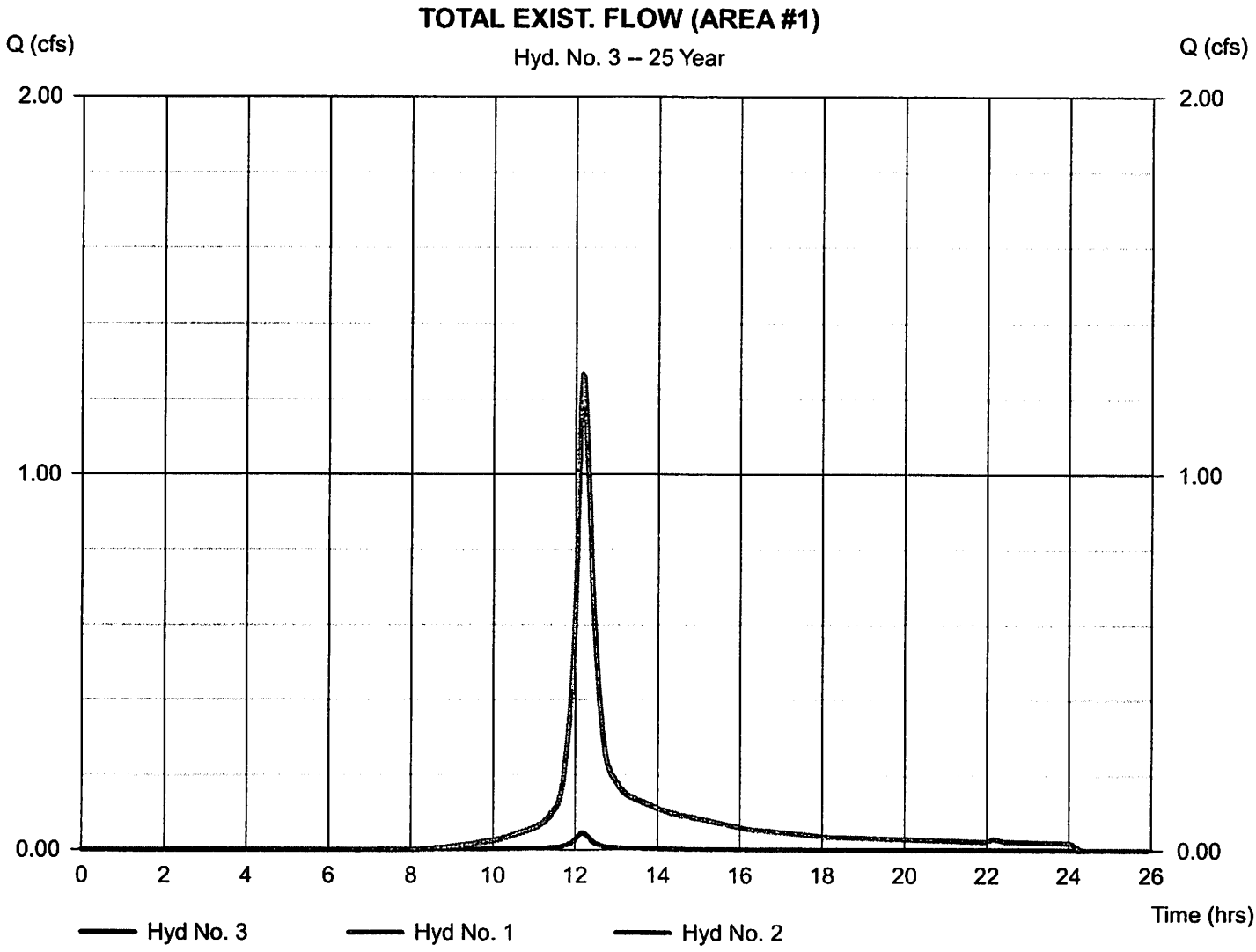


Hydrograph Report

Hyd. No. 3

TOTAL EXIST. FLOW (AREA #1)

Hydrograph type	= Combine	Peak discharge	= 1.266 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.17 hrs
Time interval	= 2 min	Hyd. volume	= 5,183 cuft
Inflow hyds.	= 1, 2	Contrib. drain. area	= 0.430 ac



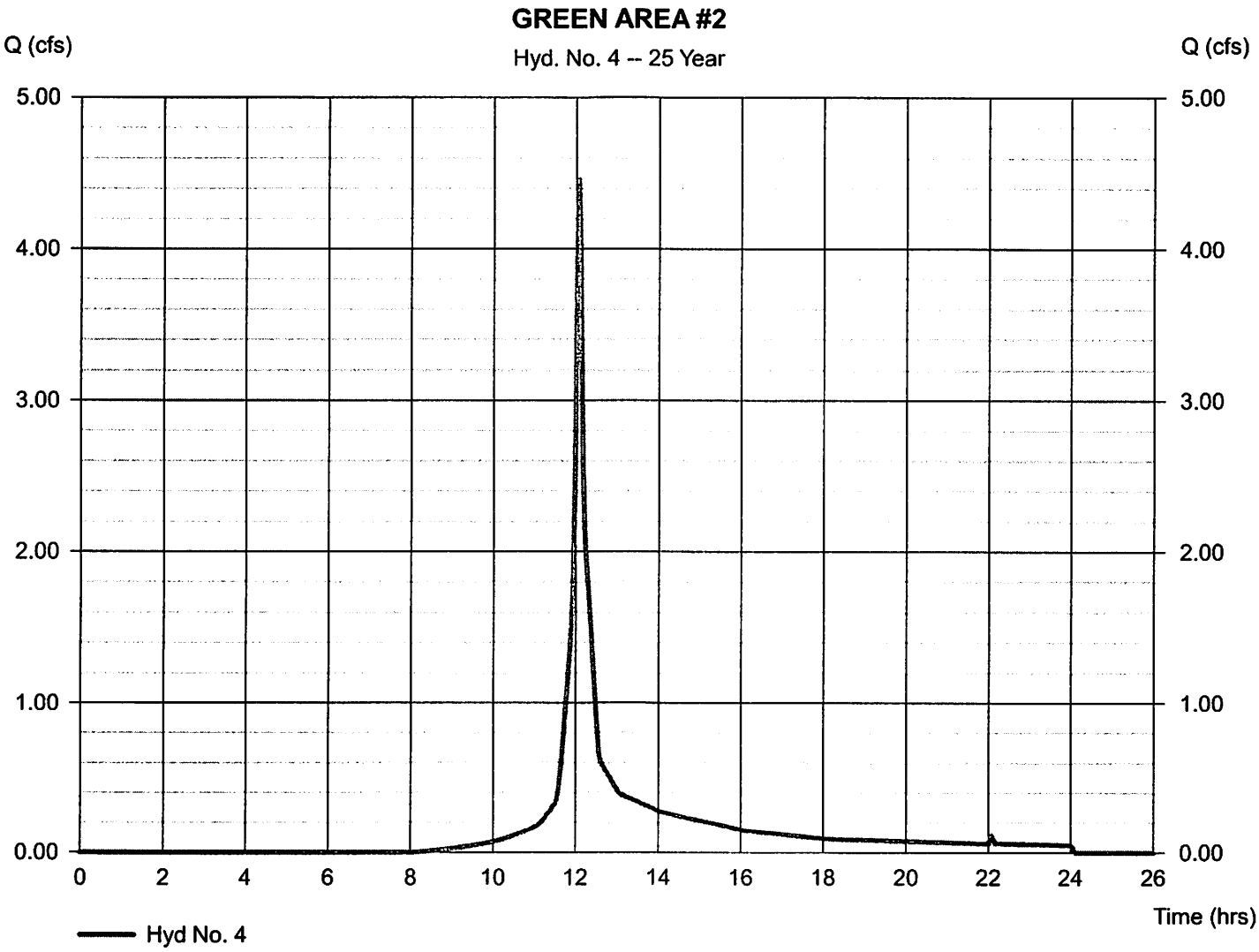
Hydrograph Report

Hyd. No. 4

GREEN AREA #2

Hydrograph type	= SCS Runoff	Peak discharge	= 4.458 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 13,320 cuft
Drainage area	= 1.170 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 6.19 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.170 x 74)] / 1.170



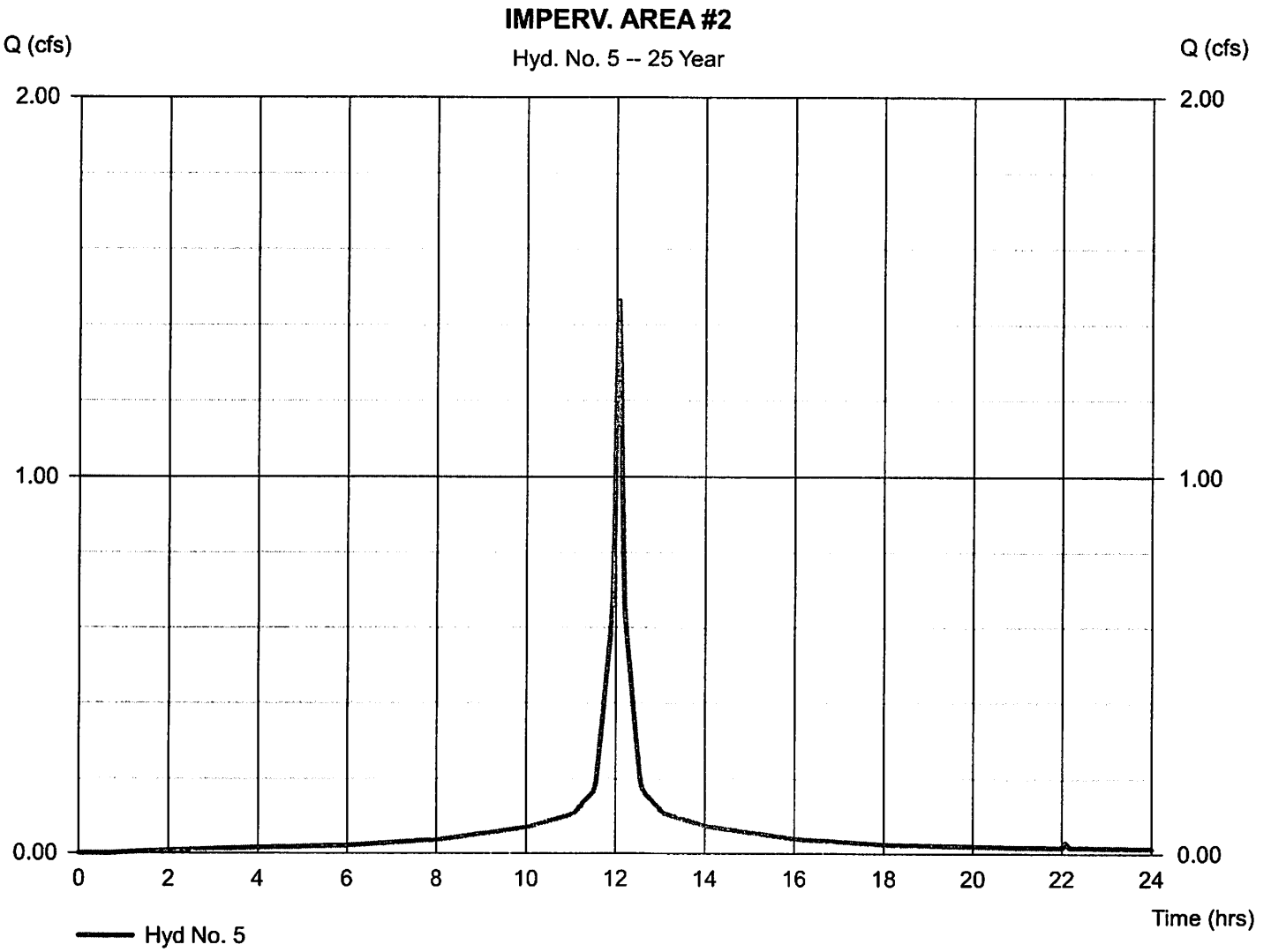
Hydrograph Report

Hyd. No. 5

IMPERV. AREA #2

Hydrograph type	= SCS Runoff	Peak discharge	= 1.462 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 5,064 cuft
Drainage area	= 0.250 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 6.19 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.251 x 98)] / 0.250

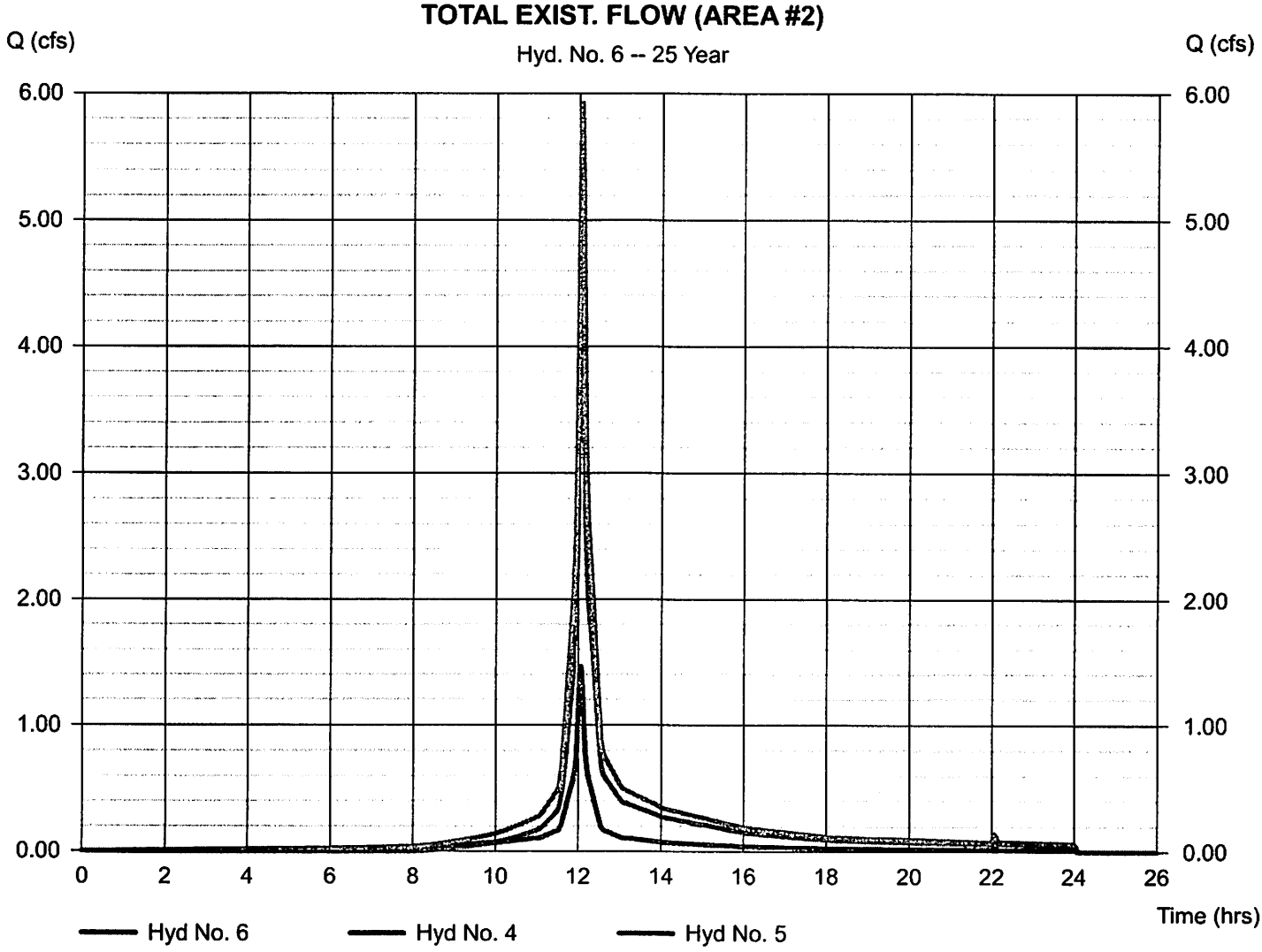


Hydrograph Report

Hyd. No. 6

TOTAL EXIST. FLOW (AREA #2)

Hydrograph type	= Combine	Peak discharge	= 5.920 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 18,383 cuft
Inflow hyds.	= 4, 5	Contrib. drain. area	= 1.420 ac



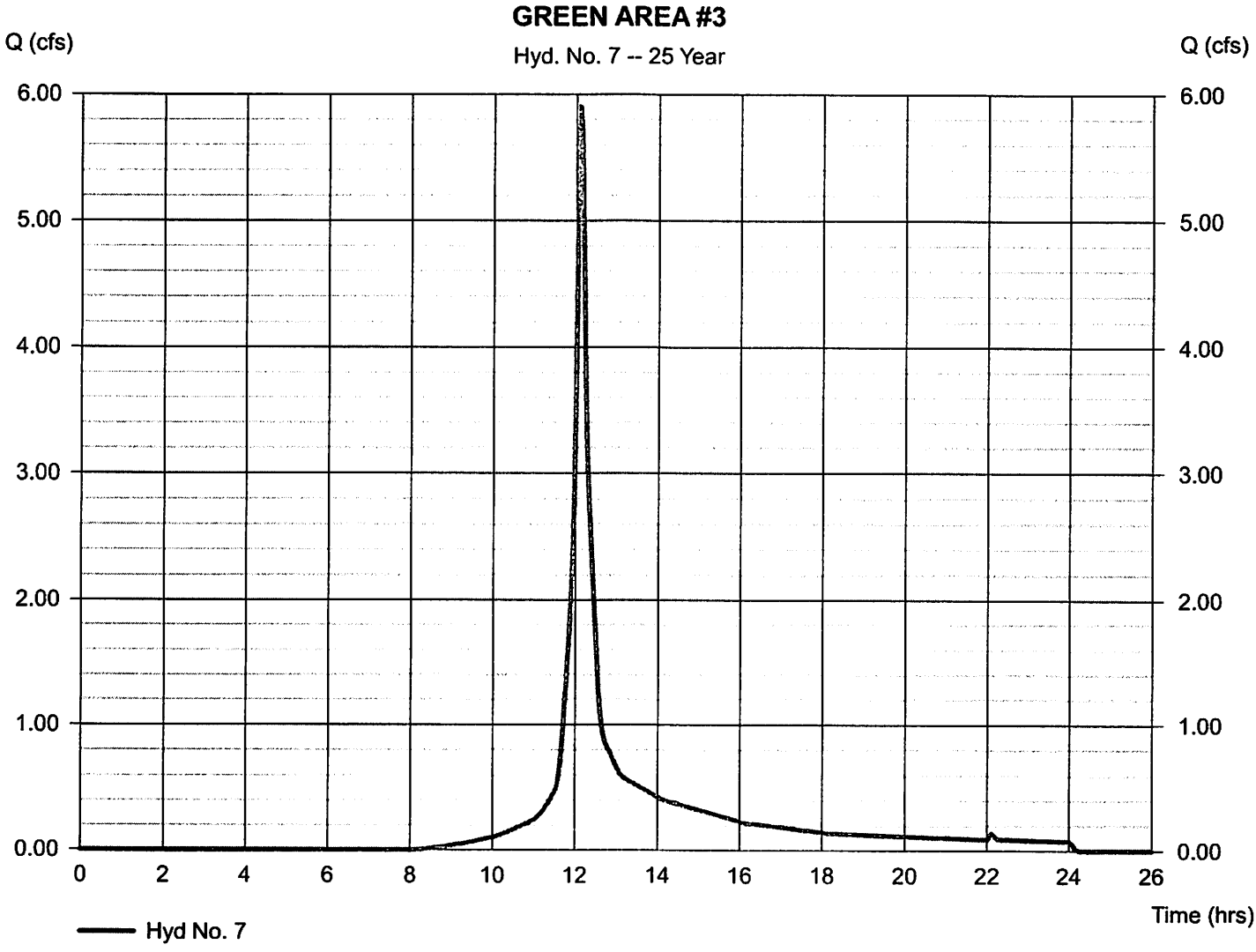
Hydrograph Report

Hyd. No. 7

GREEN AREA #3

Hydrograph type	= SCS Runoff	Peak discharge	= 5.902 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 20,158 cuft
Drainage area	= 1.660 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 8.70 min
Total precip.	= 6.19 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.659 x 74)] / 1.660



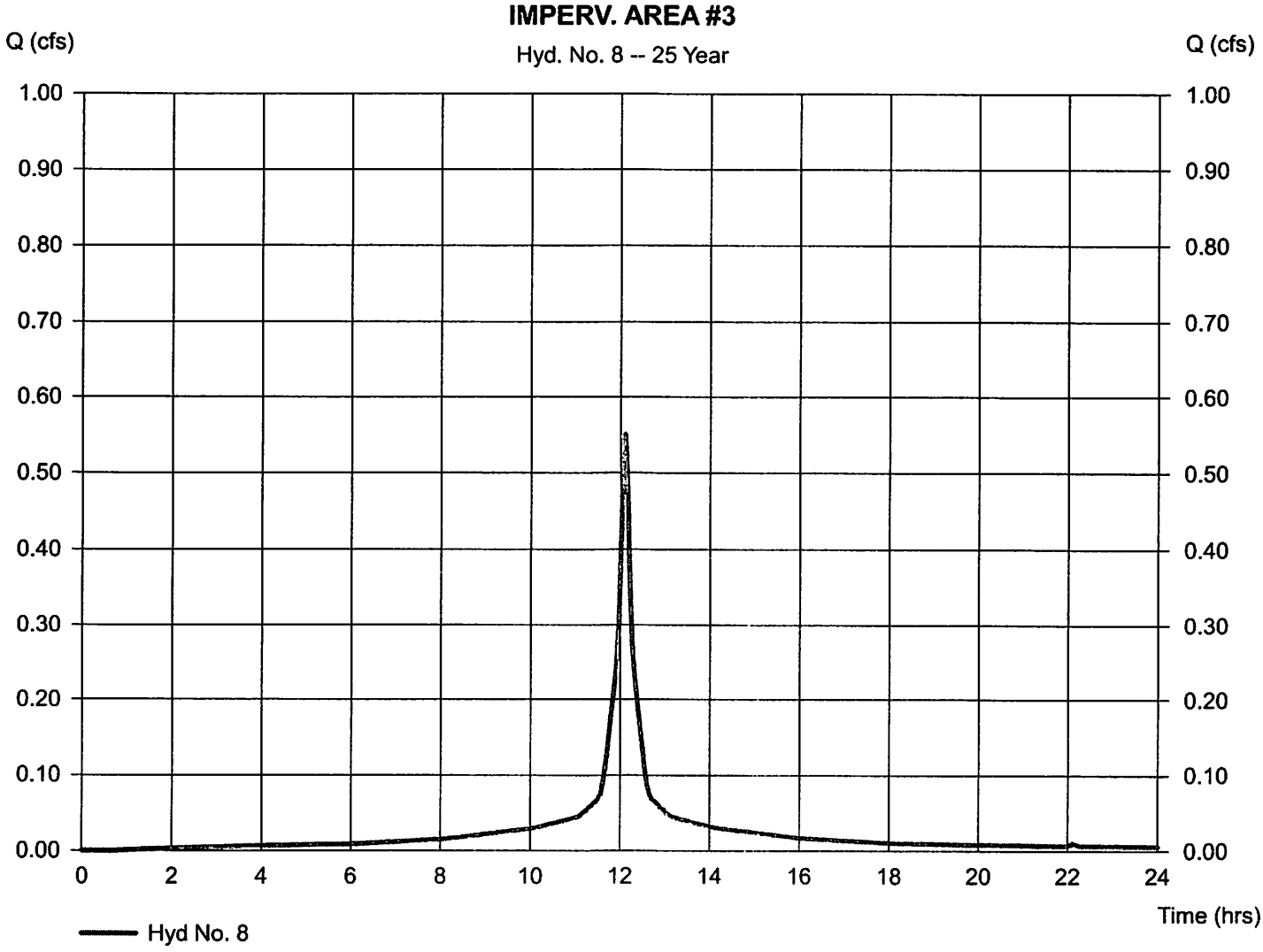
Hydrograph Report

Hyd. No. 8

IMPERV. AREA #3

Hydrograph type	= SCS Runoff	Peak discharge	= 0.551 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 2,160 cuft
Drainage area	= 0.100 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 8.70 min
Total precip.	= 6.19 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.104 x 98)] / 0.100

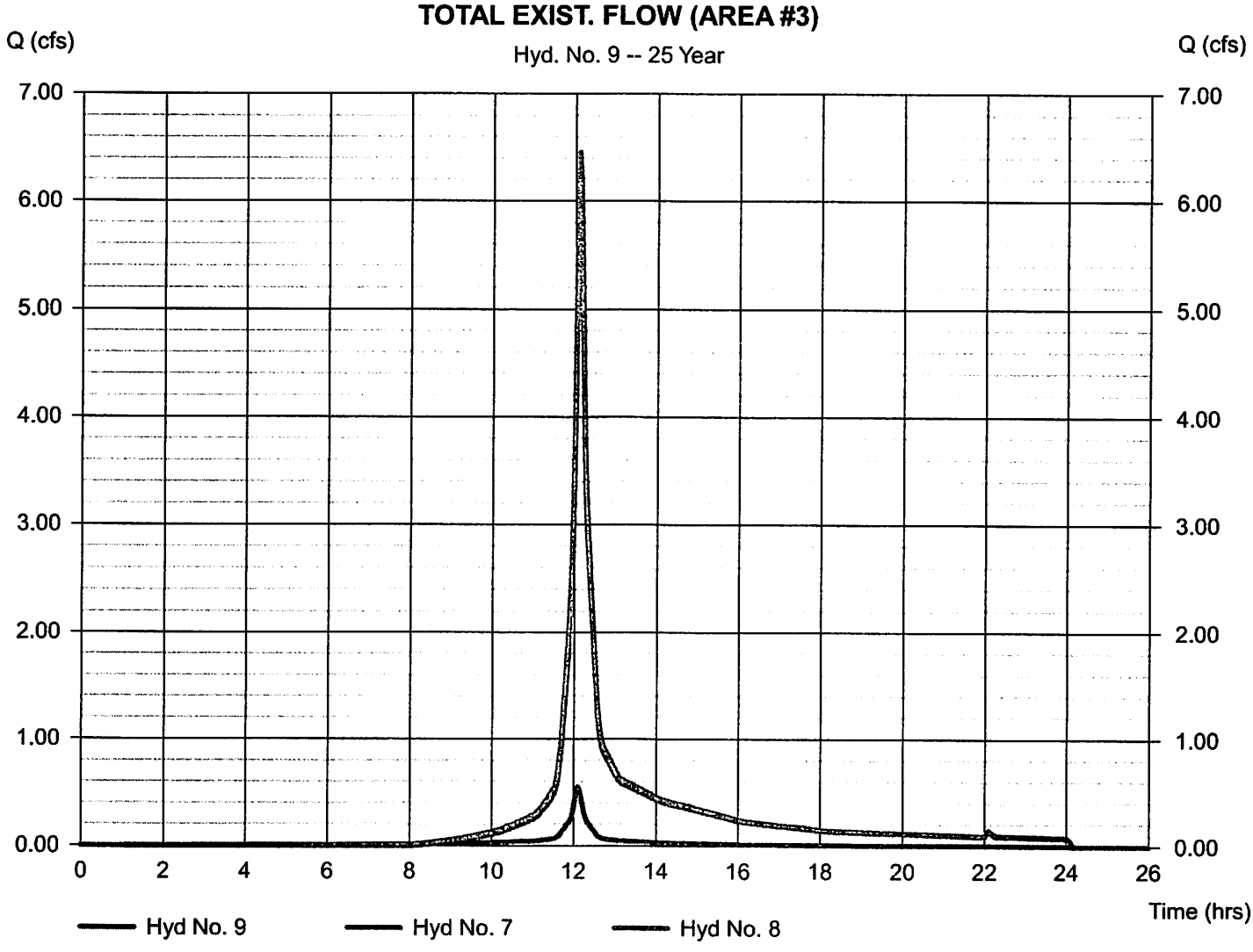


Hydrograph Report

Hyd. No. 9

TOTAL EXIST. FLOW (AREA #3)

Hydrograph type	= Combine	Peak discharge	= 6.453 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 22,319 cuft
Inflow hyds.	= 7, 8	Contrib. drain. area	= 1.760 ac

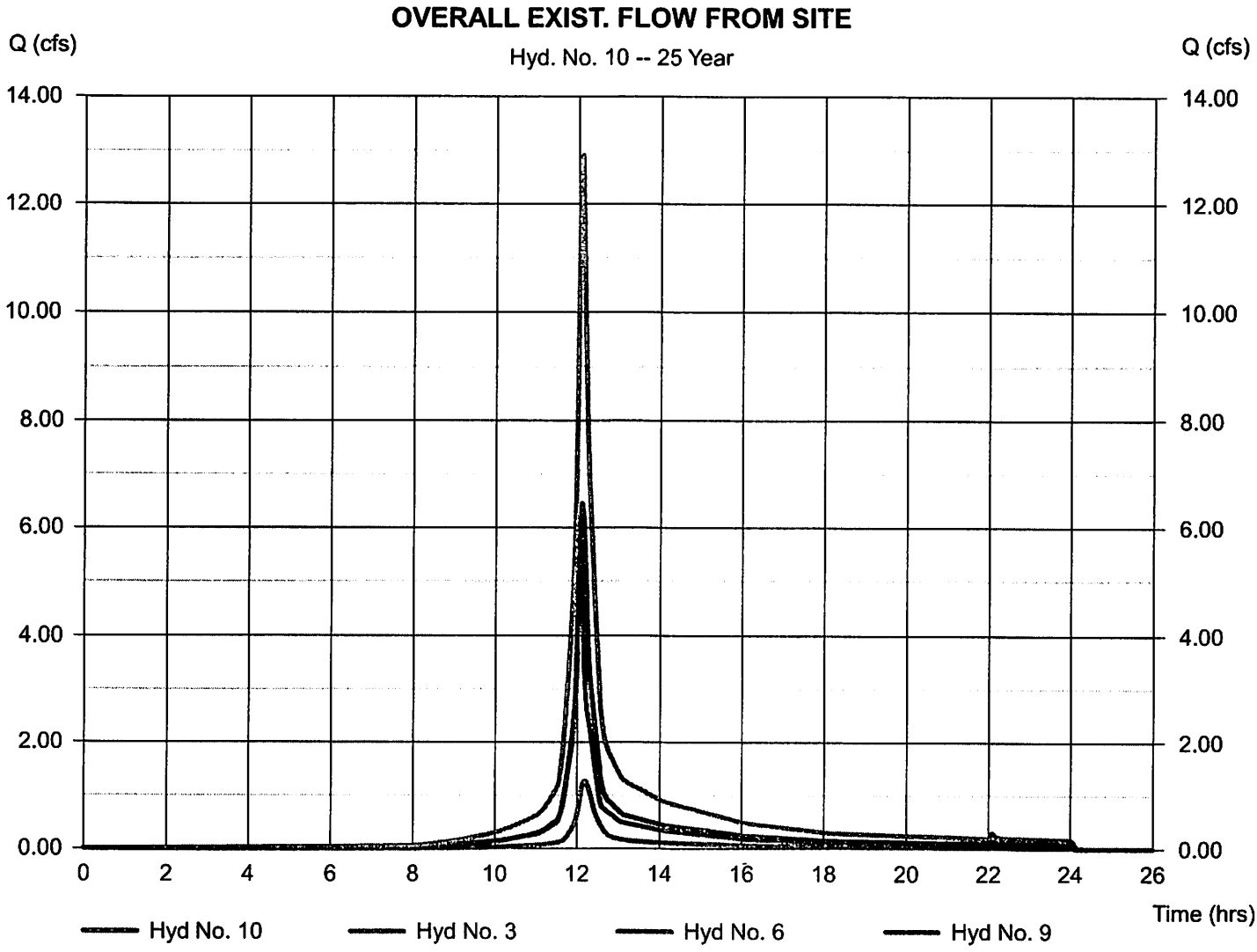


Hydrograph Report

Hyd. No. 10

OVERALL EXIST. FLOW FROM SITE

Hydrograph type	= Combine	Peak discharge	= 12.91 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 45,885 cuft
Inflow hyds.	= 3, 6, 9	Contrib. drain. area	= 0.000 ac



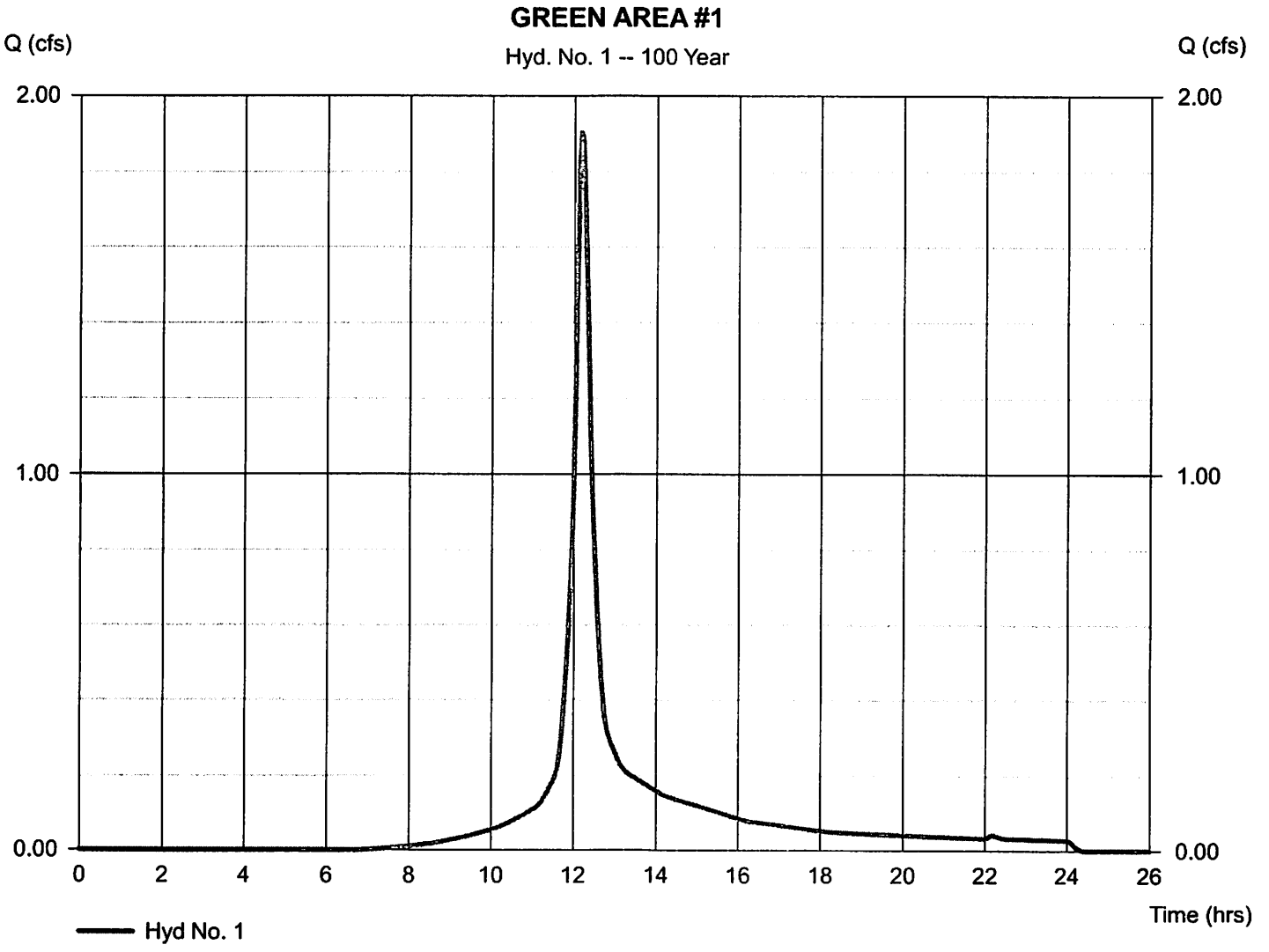
Hydrograph Report

Hyd. No. 1

GREEN AREA #1

Hydrograph type	= SCS Runoff	Peak discharge	= 1.903 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.17 hrs
Time interval	= 2 min	Hyd. volume	= 7,762 cuft
Drainage area	= 0.420 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 15.50 min
Total precip.	= 8.33 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.421 x 74)] / 0.420



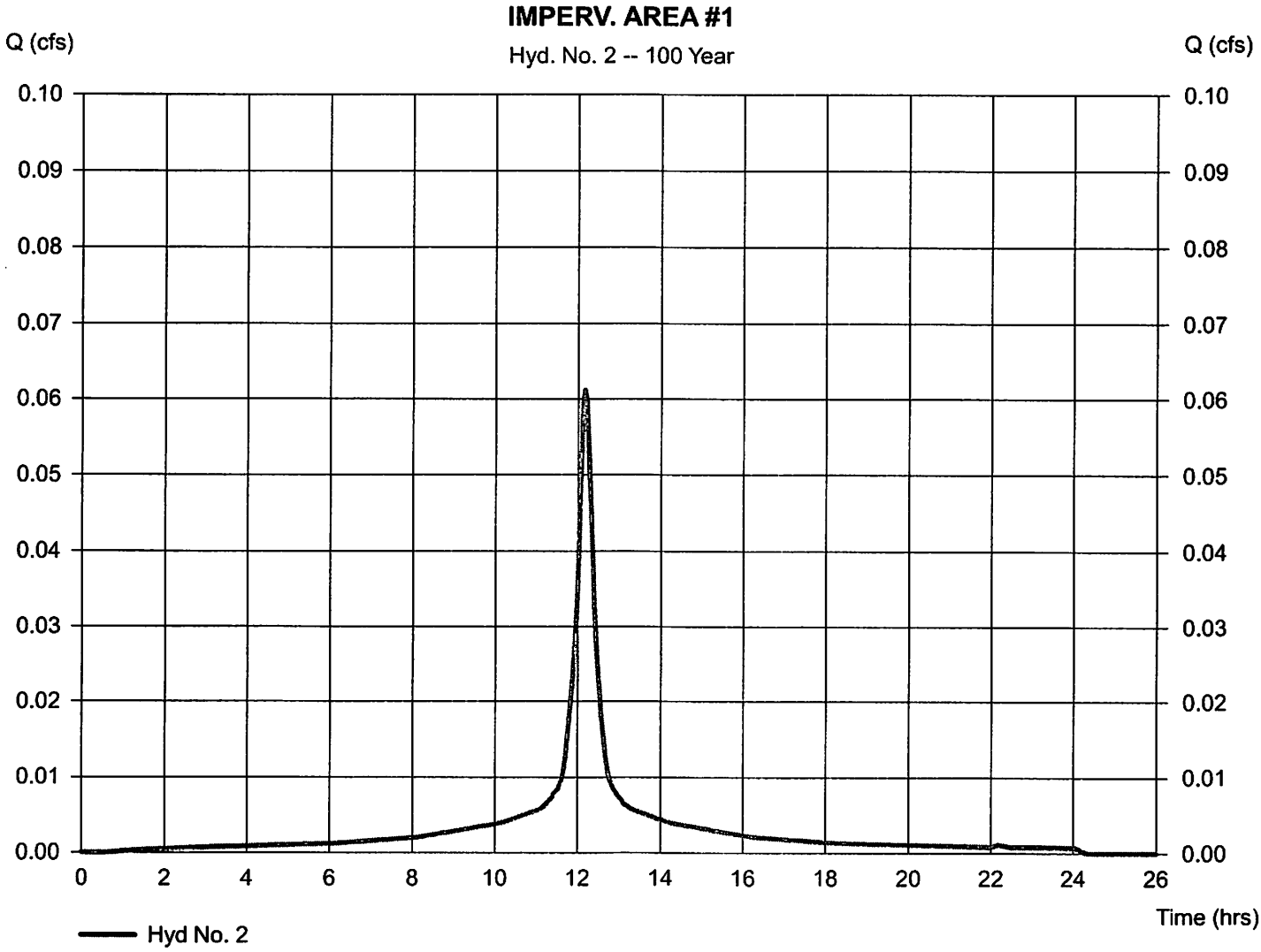
Hydrograph Report

Hyd. No. 2

IMPERV. AREA #1

Hydrograph type	= SCS Runoff	Peak discharge	= 0.061 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.17 hrs
Time interval	= 2 min	Hyd. volume	= 286 cuft
Drainage area	= 0.010 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 15.50 min
Total precip.	= 8.33 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.010 x 98)] / 0.010

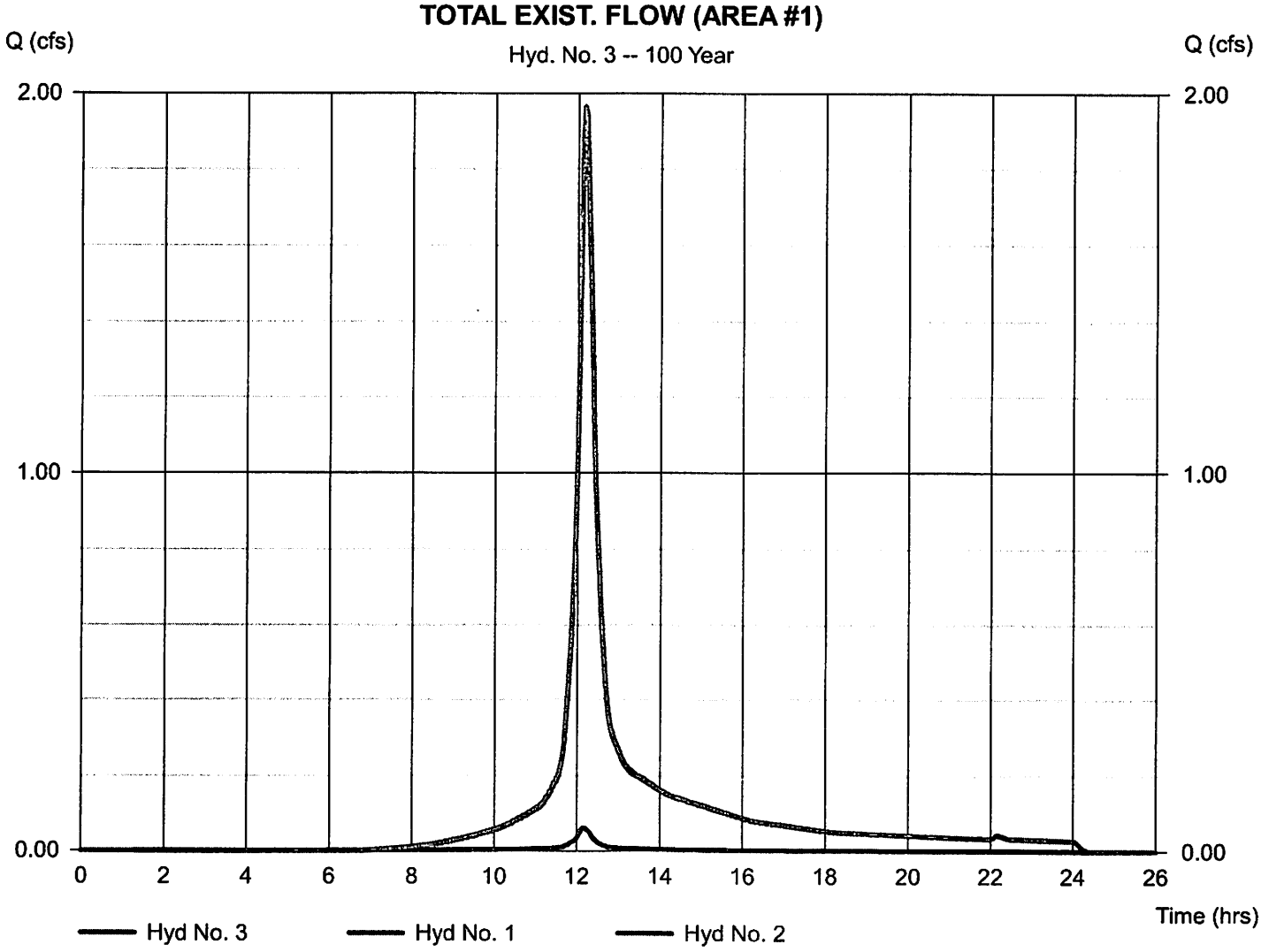


Hydrograph Report

Hyd. No. 3

TOTAL EXIST. FLOW (AREA #1)

Hydrograph type	= Combine	Peak discharge	= 1.965 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.17 hrs
Time interval	= 2 min	Hyd. volume	= 8,049 cuft
Inflow hyds.	= 1, 2	Contrib. drain. area	= 0.430 ac



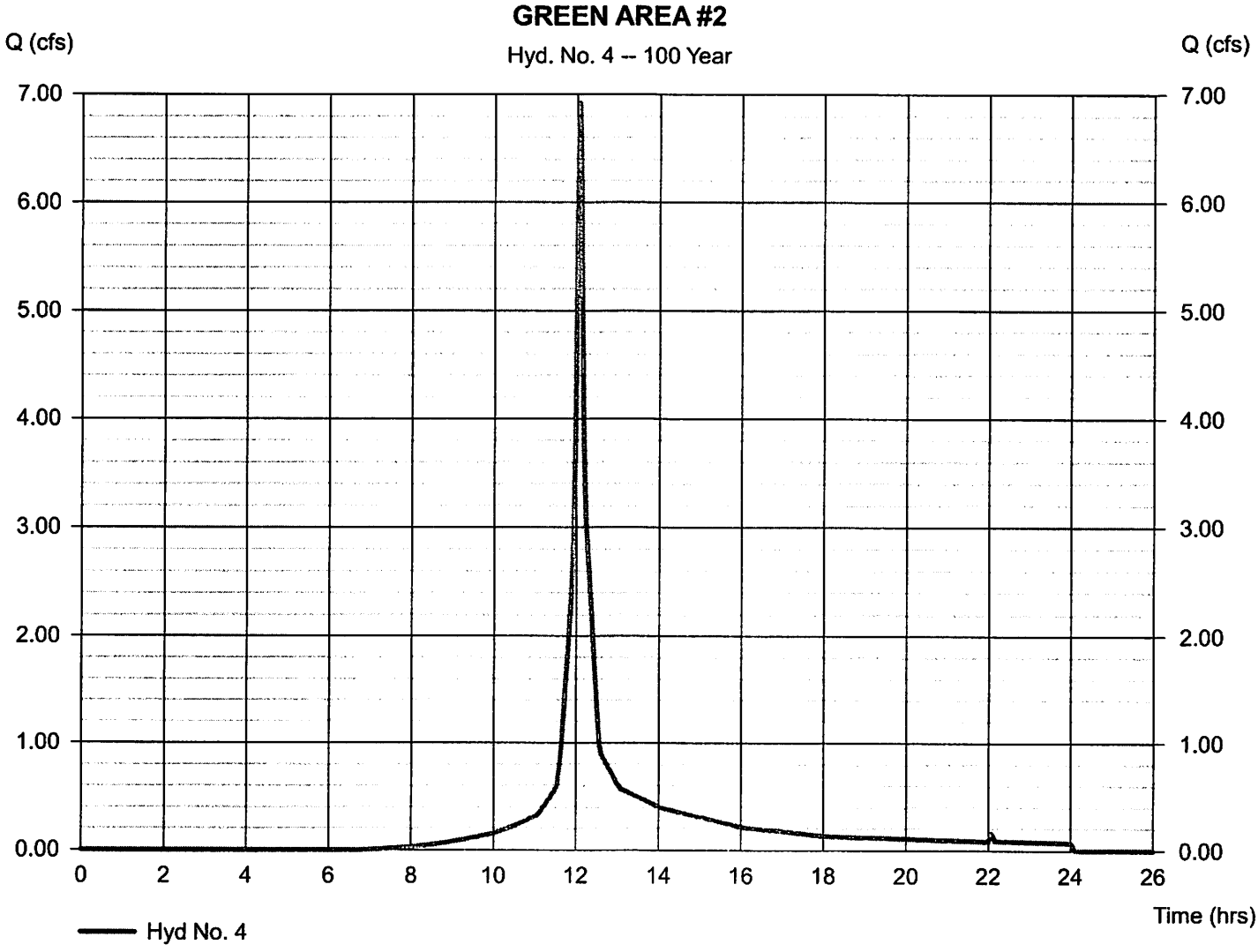
Hydrograph Report

Hyd. No. 4

GREEN AREA #2

Hydrograph type	= SCS Runoff	Peak discharge	= 6.920 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 20,792 cuft
Drainage area	= 1.170 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 8.33 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.170 x 74)] / 1.170



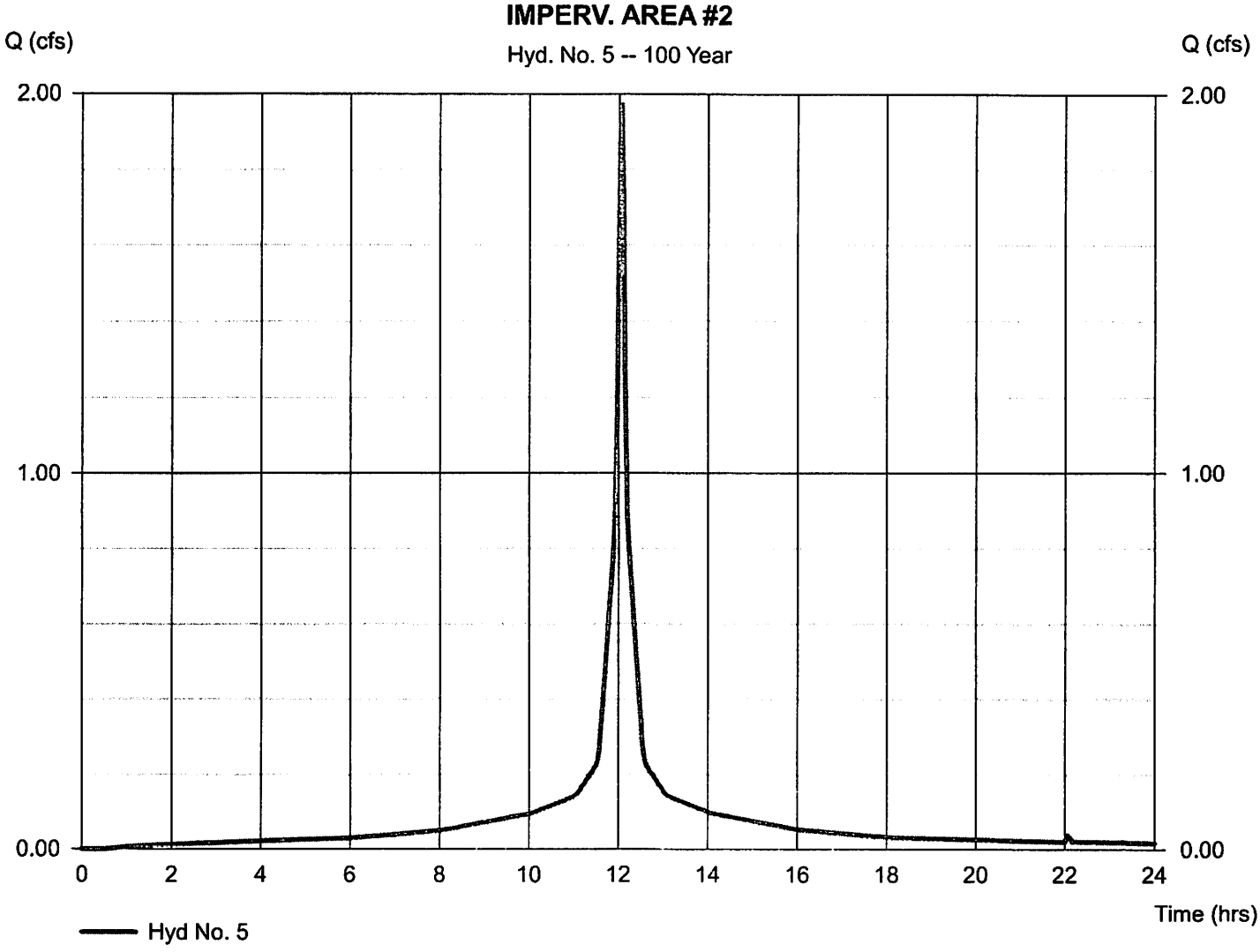
Hydrograph Report

Hyd. No. 5

IMPERV. AREA #2

Hydrograph type	= SCS Runoff	Peak discharge	= 1.971 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 6,883 cuft
Drainage area	= 0.250 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 8.33 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.251 x 98)] / 0.250

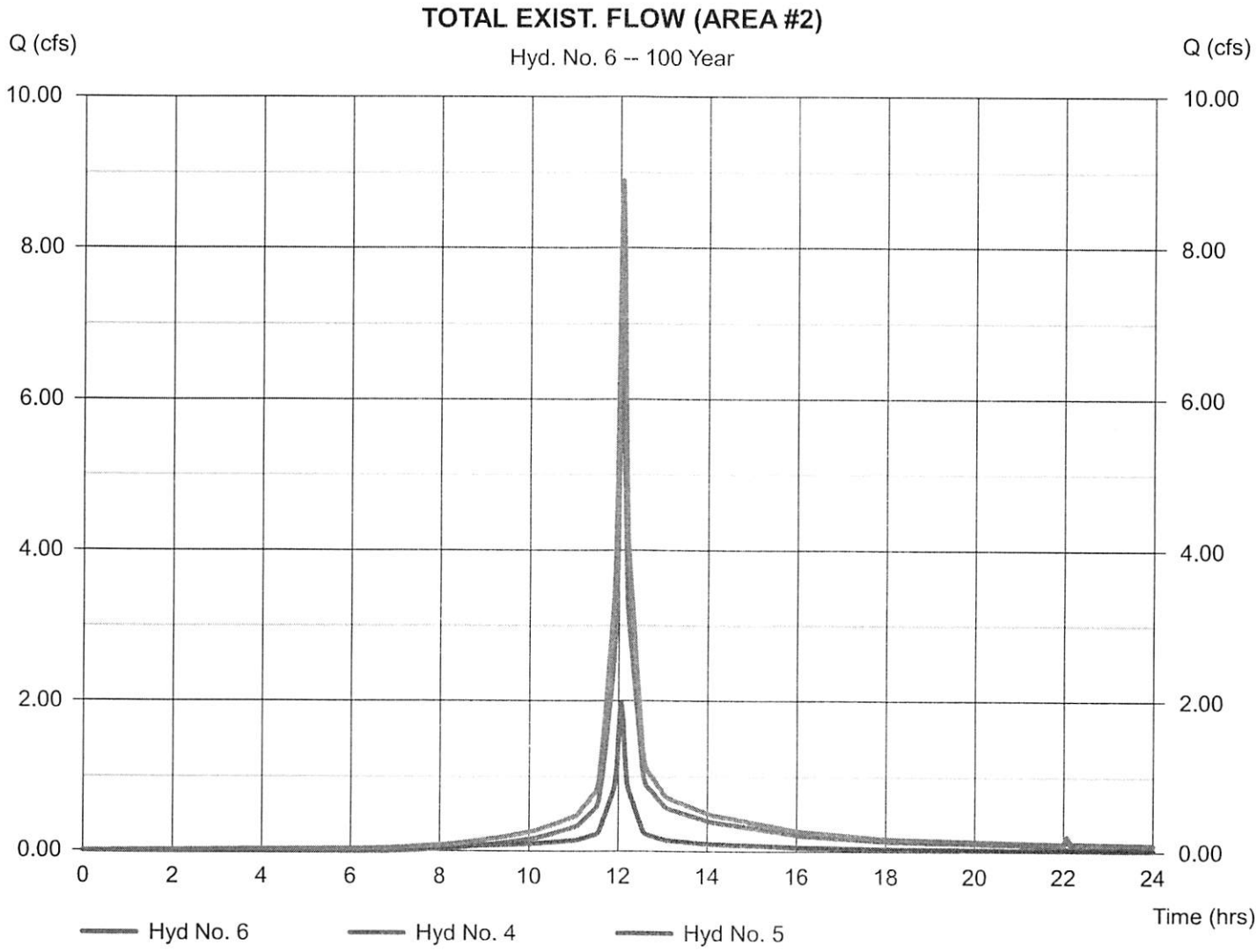


Hydrograph Report

Hyd. No. 6

TOTAL EXIST. FLOW (AREA #2)

Hydrograph type	= Combine	Peak discharge	= 8.891 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 27,674 cuft
Inflow hyds.	= 4, 5	Contrib. drain. area	= 1.420 ac



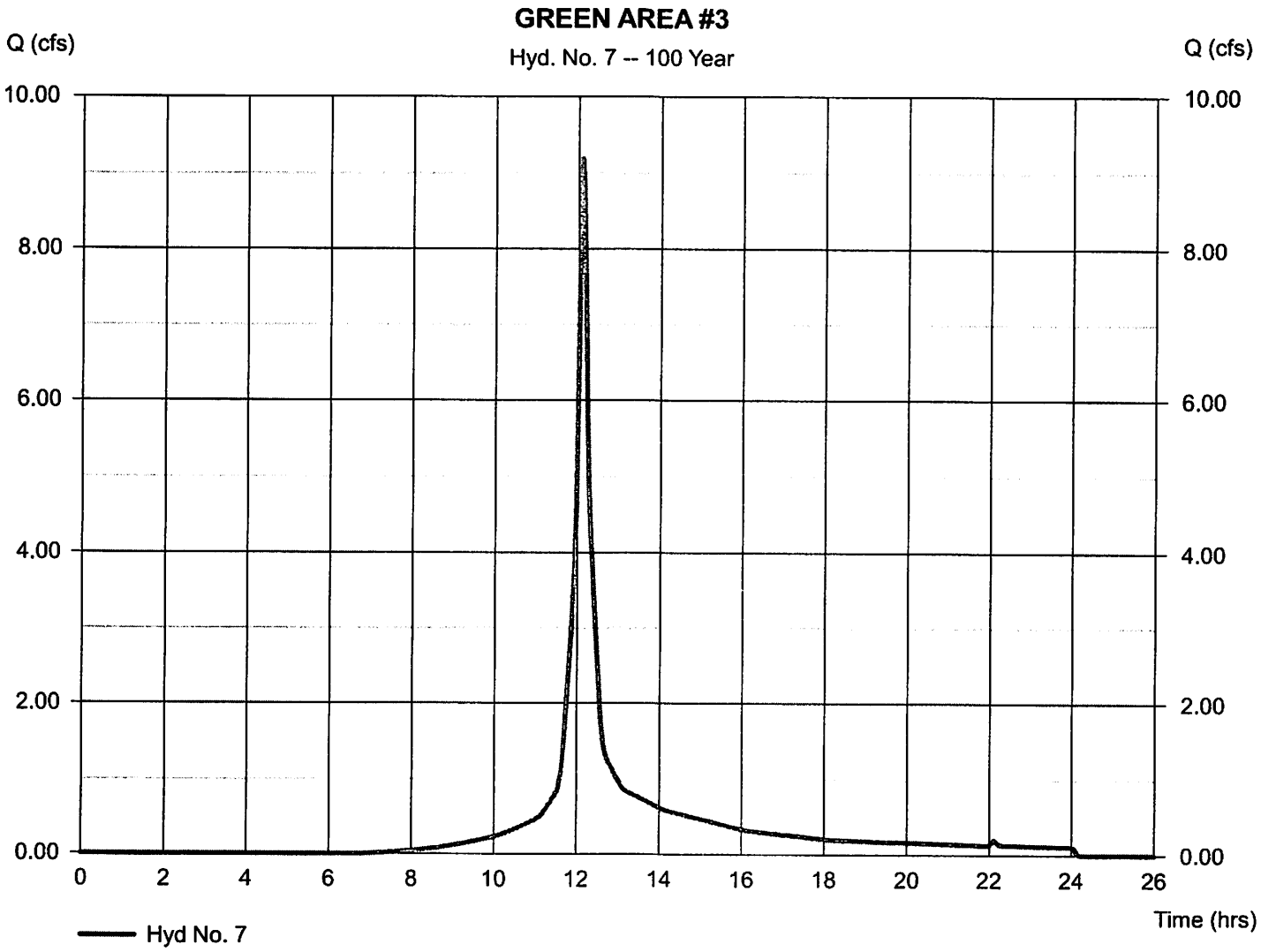
Hydrograph Report

Hyd. No. 7

GREEN AREA #3

Hydrograph type	= SCS Runoff	Peak discharge	= 9.185 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 31,466 cuft
Drainage area	= 1.660 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 8.70 min
Total precip.	= 8.33 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.659 x 74)] / 1.660



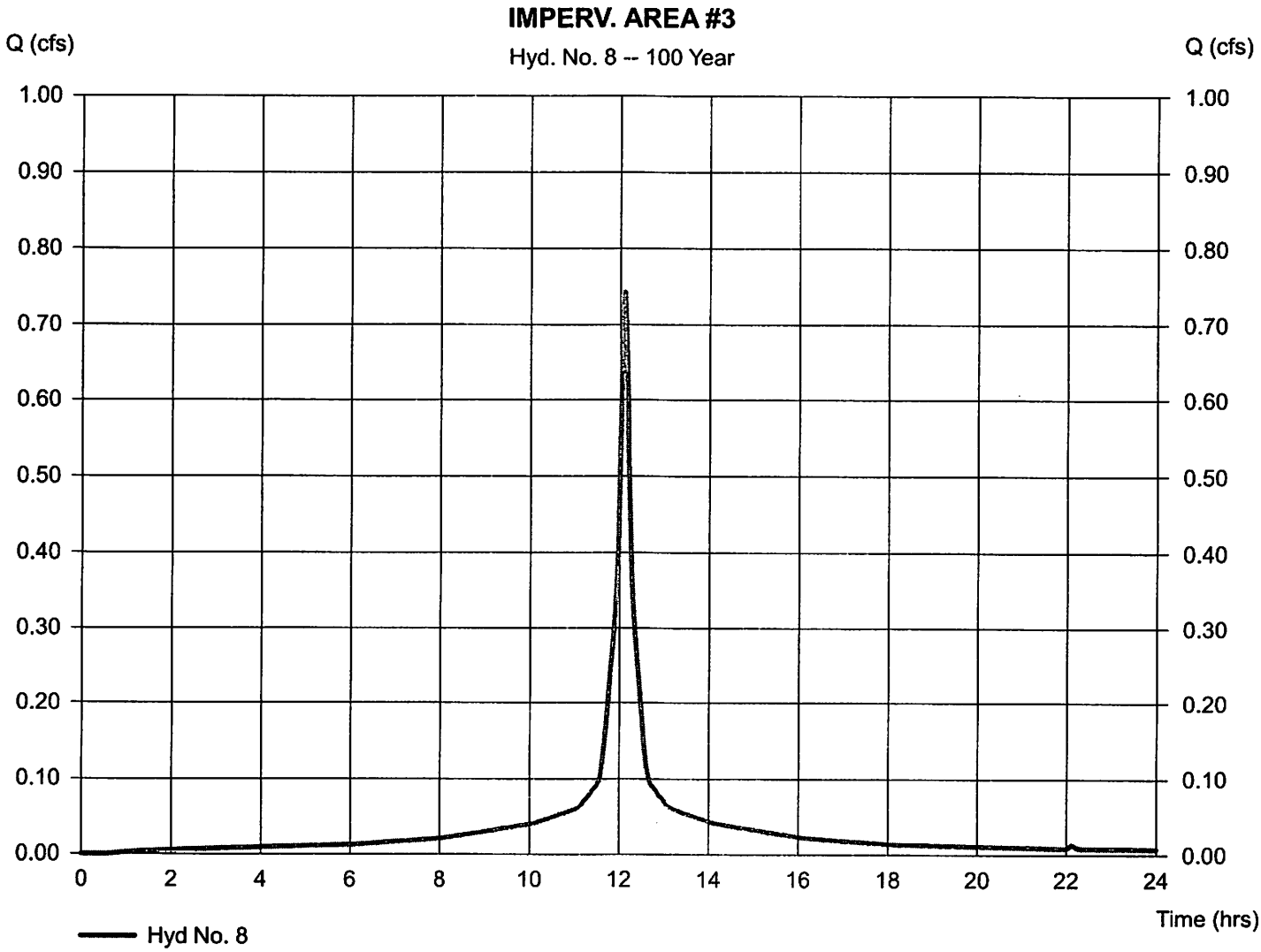
Hydrograph Report

Hyd. No. 8

IMPERV. AREA #3

Hydrograph type	= SCS Runoff	Peak discharge	= 0.743 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 2,937 cuft
Drainage area	= 0.100 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 8.70 min
Total precip.	= 8.33 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.104 x 98)] / 0.100

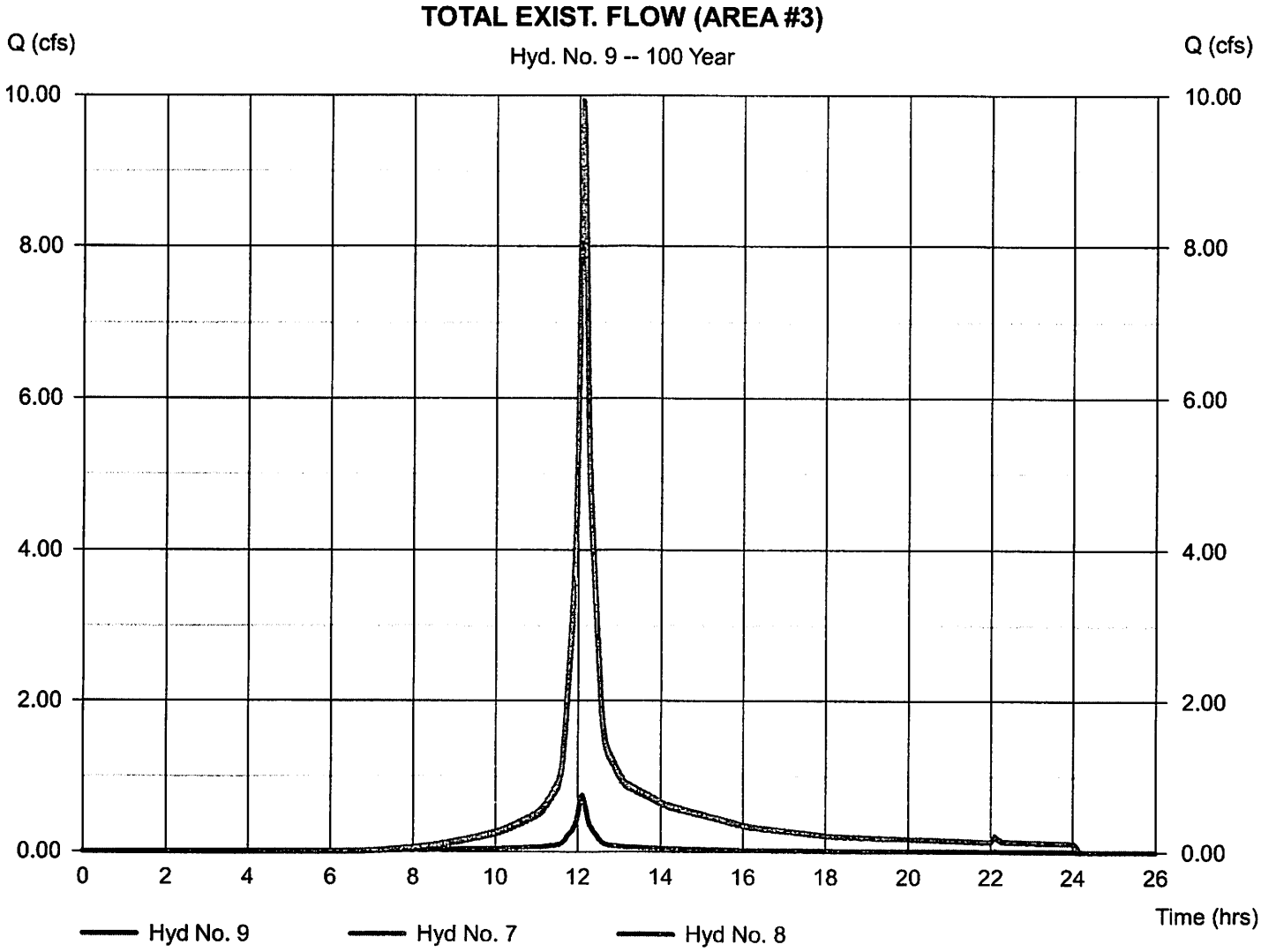


Hydrograph Report

Hyd. No. 9

TOTAL EXIST. FLOW (AREA #3)

Hydrograph type	= Combine	Peak discharge	= 9.928 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 34,403 cuft
Inflow hyds.	= 7, 8	Contrib. drain. area	= 1.760 ac

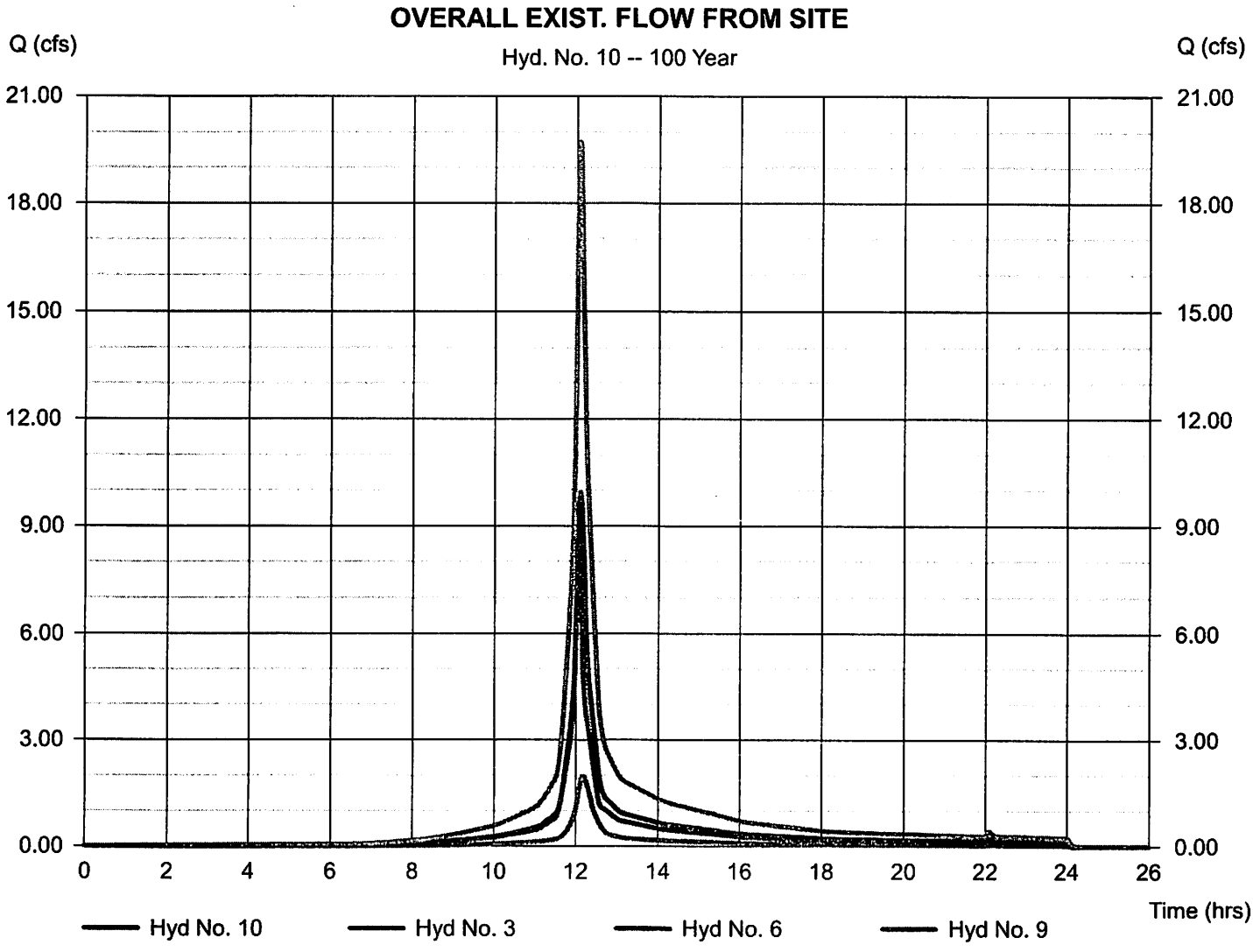


Hydrograph Report

Hyd. No. 10

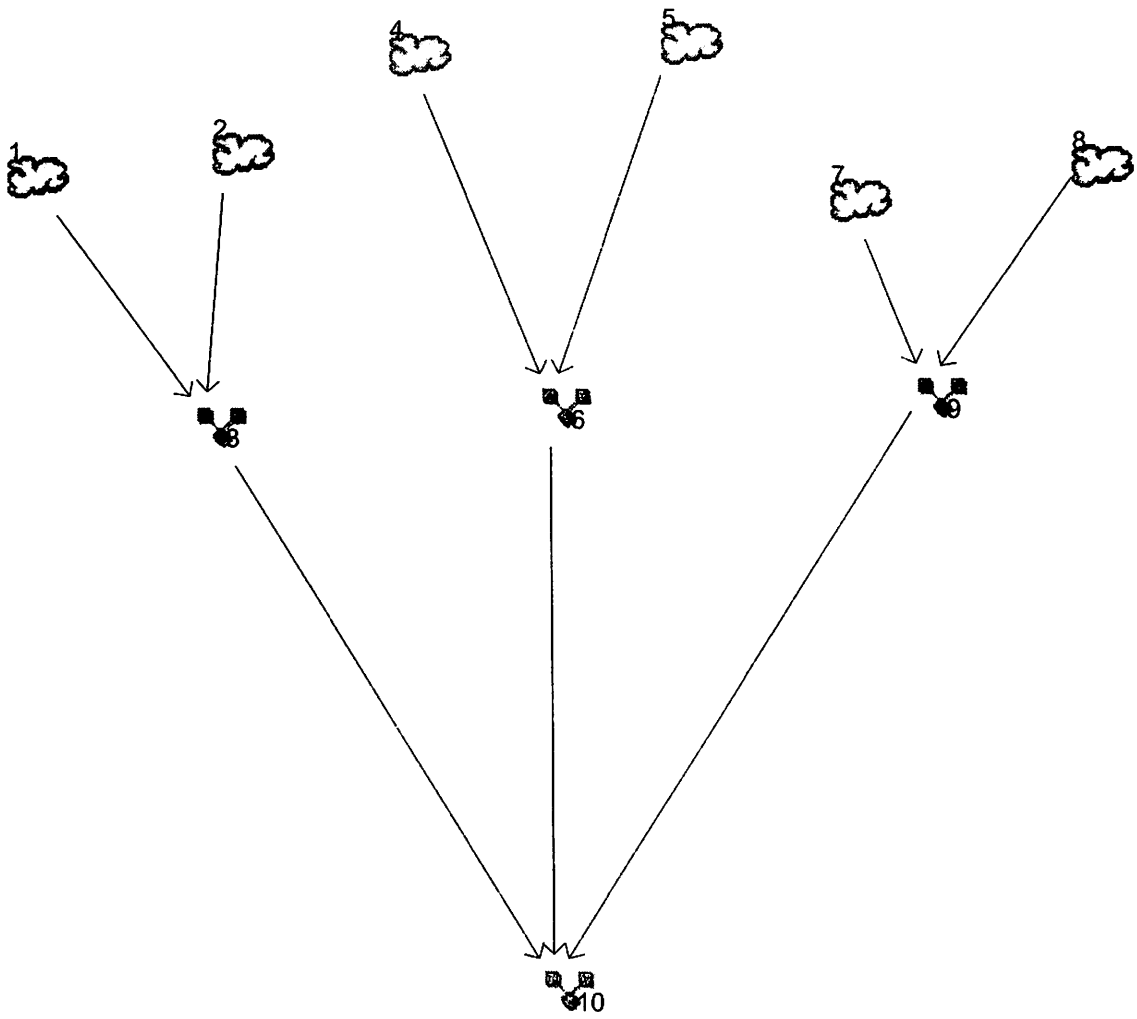
OVERALL EXIST. FLOW FROM SITE

Hydrograph type	= Combine	Peak discharge	= 19.71 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 70,125 cuft
Inflow hyds.	= 3, 6, 9	Contrib. drain. area	= 0.000 ac



E. PROPOSED HYDROGRAPHS

Watershed Model Schematic



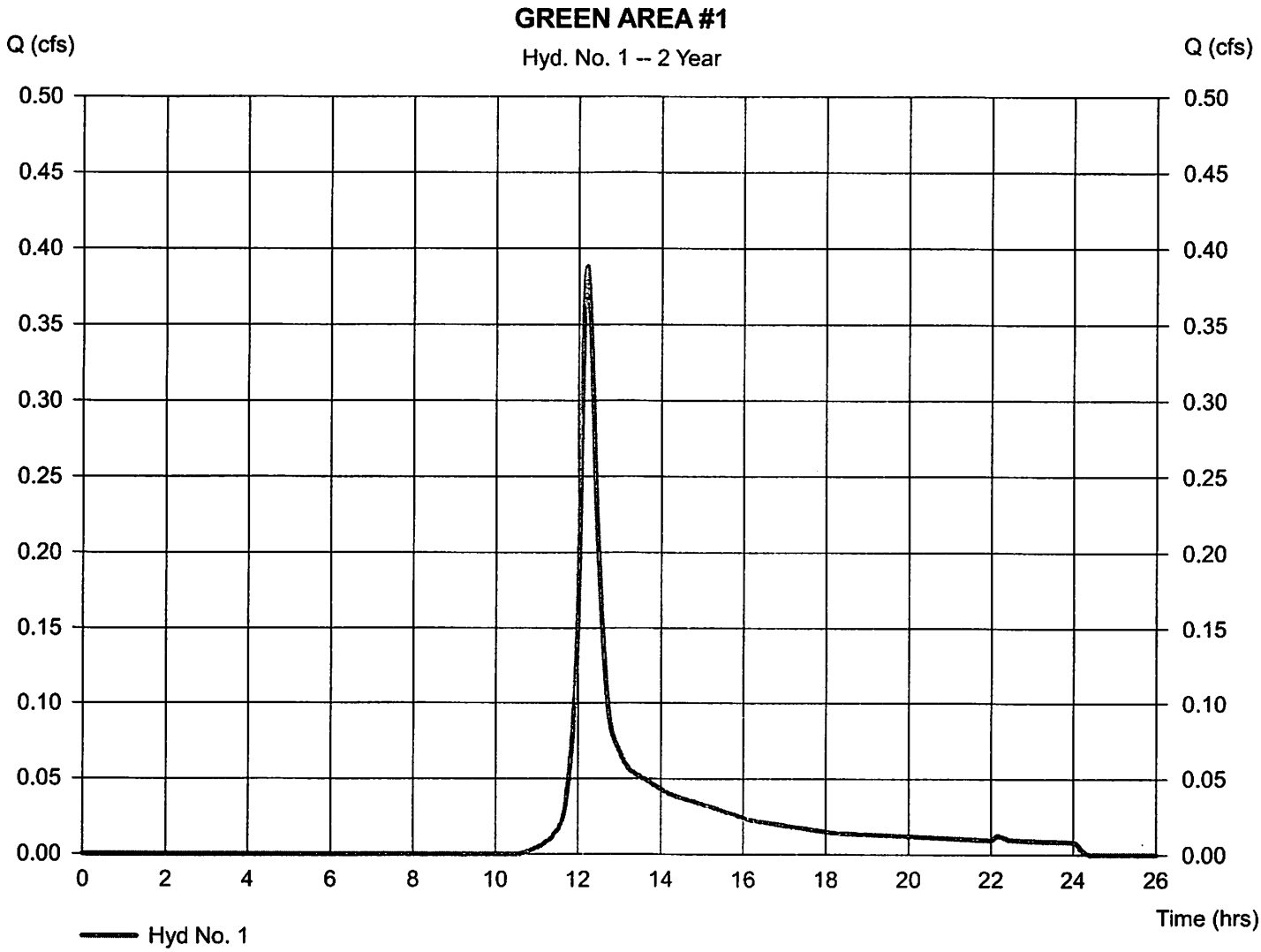
Hydrograph Report

Hyd. No. 1

GREEN AREA #1

Hydrograph type	= SCS Runoff	Peak discharge	= 0.388 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.20 hrs
Time interval	= 2 min	Hyd. volume	= 1,655 cuft
Drainage area	= 0.421 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 15.50 min
Total precip.	= 3.31 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.421 x 74)] / 0.421



TR55 Tc Worksheet

Hyd. No. 1

GREEN AREA #1

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.150		0.011		0.011		
Flow length (ft)	= 100.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 3.30		0.00		0.00		
Land slope (%)	= 1.00		0.00		0.00		
Travel Time (min)	**= 12.73**	**+**	**0.00**	**+**	**0.00**	**=**	**12.73**
Shallow Concentrated Flow							
Flow length (ft)	= 408.00		0.00		0.00		
Watercourse slope (%)	= 2.30		0.00		0.00		
Surface description	= Unpaved		Paved		Paved		
Average velocity (ft/s)	= 2.45		0.00		0.00		
Travel Time (min)	**= 2.78**	**+**	**0.00**	**+**	**0.00**	**=**	**2.78**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 1.00		0.00		0.00		
Manning's n-value	= 0.013		0.015		0.015		
Velocity (ft/s)	= 0.00		0.00		0.00		
Flow length (ft)	= 0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

Total Travel Time, Tc ..... **15.50 min**

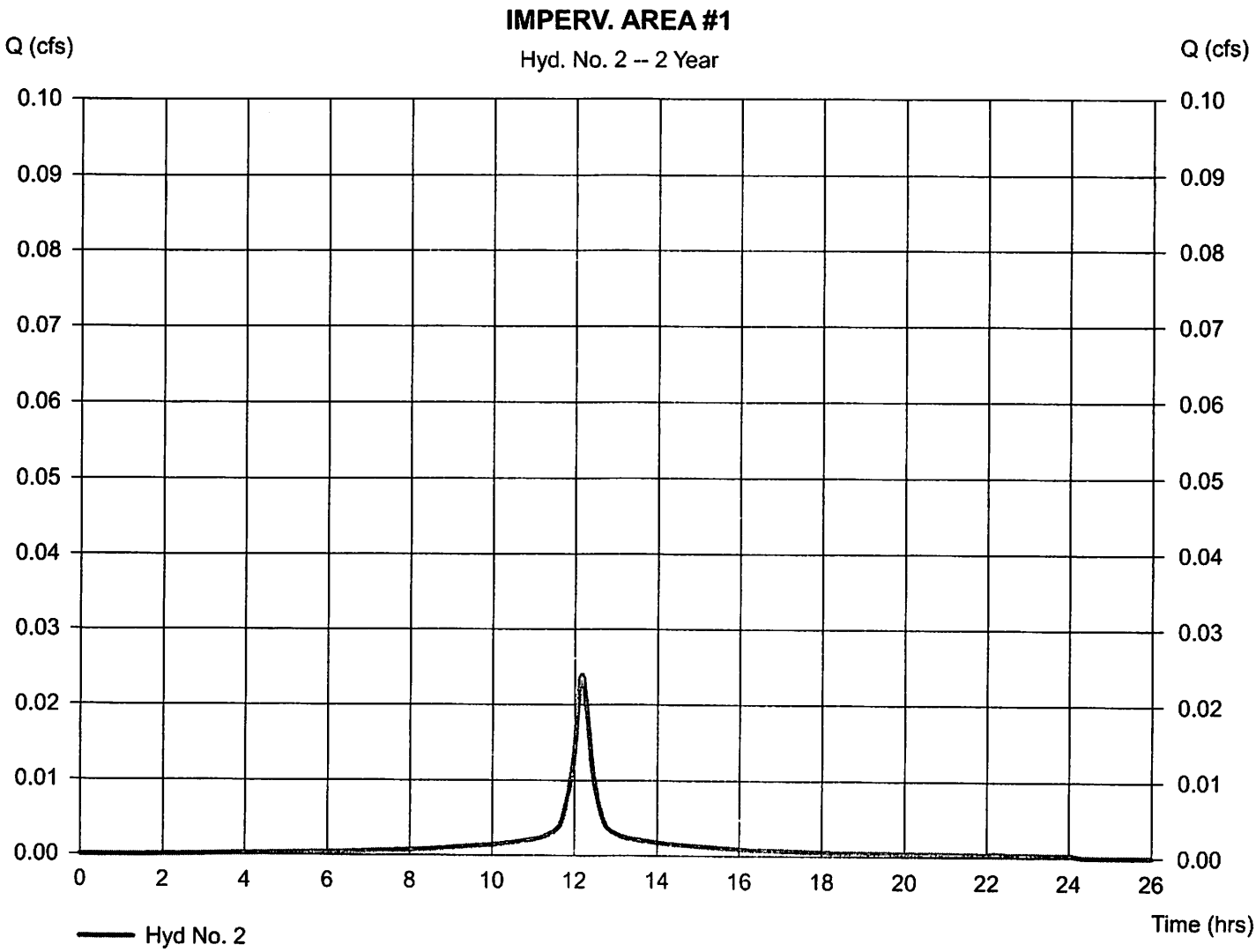
Hydrograph Report

Hyd. No. 2

IMPERV. AREA #1

Hydrograph type	= SCS Runoff	Peak discharge	= 0.024 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.17 hrs
Time interval	= 2 min	Hyd. volume	= 109 cuft
Drainage area	= 0.010 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 15.50 min
Total precip.	= 3.31 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.013 x 98)] / 0.010



TR55 Tc Worksheet

Hyd. No. 2

IMPERV. AREA #1

Description	A	B	C	Totals
Sheet Flow				
Manning's n-value	= 0.150	0.011	0.011	
Flow length (ft)	= 100.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 3.30	0.00	0.00	
Land slope (%)	= 1.00	0.00	0.00	
Travel Time (min)	**= 12.73**	**+ 0.00**	**+ 0.00**	**= 12.73**
Shallow Concentrated Flow				
Flow length (ft)	= 408.00	0.00	0.00	
Watercourse slope (%)	= 2.30	0.00	0.00	
Surface description	= Unpaved	Paved	Paved	
Average velocity (ft/s)	= 2.45	0.00	0.00	
Travel Time (min)	**= 2.78**	**+ 0.00**	**+ 0.00**	**= 2.78**
Channel Flow				
X sectional flow area (sqft)	= 0.00	0.00	0.00	
Wetted perimeter (ft)	= 0.00	0.00	0.00	
Channel slope (%)	= 1.00	0.00	0.00	
Manning's n-value	= 0.013	0.015	0.015	
Velocity (ft/s)	= 0.00	0.00	0.00	
Flow length (ft)	= 0.0	0.0	0.0	
Travel Time (min)	**= 0.00**	**+ 0.00**	**+ 0.00**	**= 0.00**

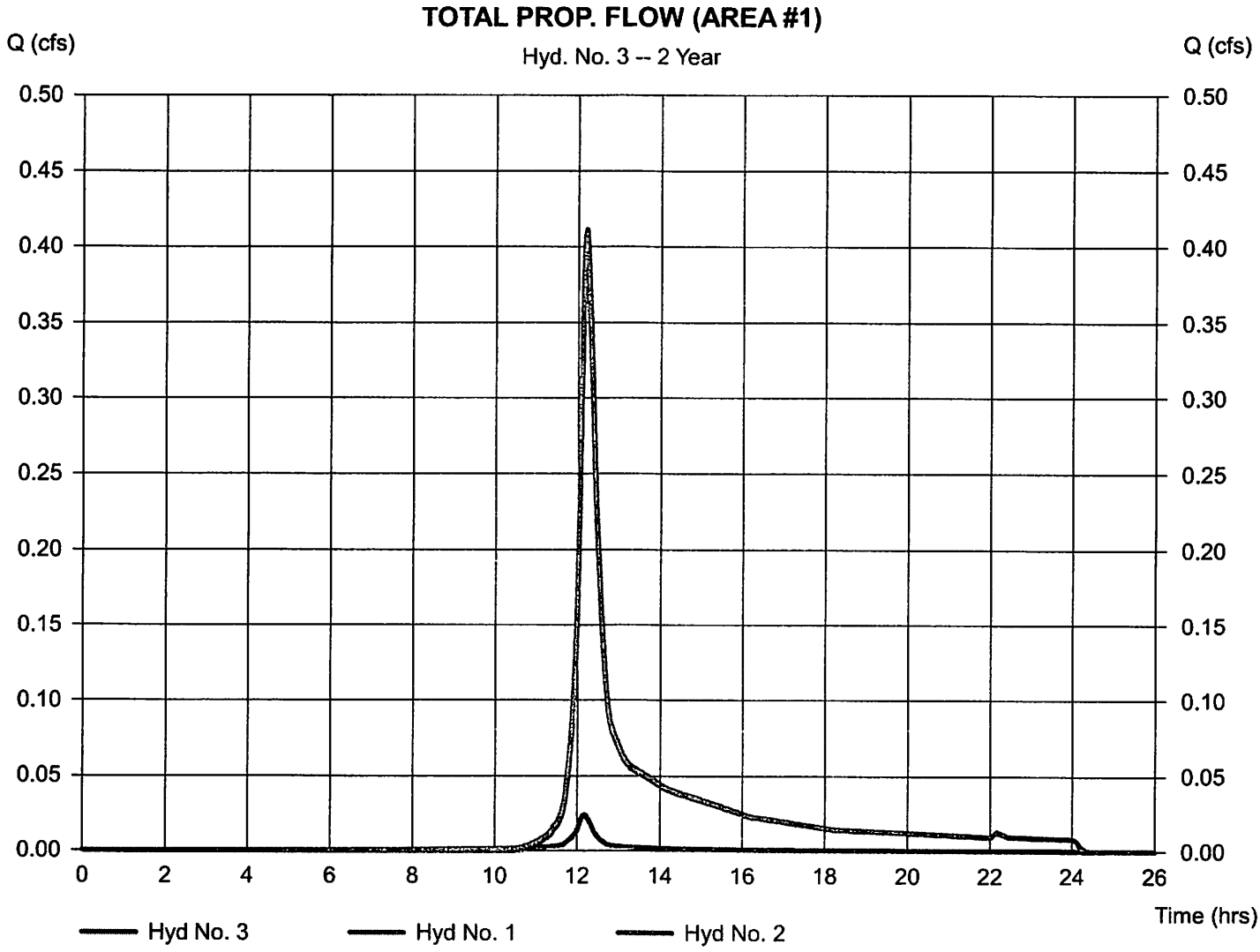
Total Travel Time, Tc ..... 15.50 min

Hydrograph Report

Hyd. No. 3

TOTAL PROP. FLOW (AREA #1)

Hydrograph type	= Combine	Peak discharge	= 0.411 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.20 hrs
Time interval	= 2 min	Hyd. volume	= 1,764 cuft
Inflow hyds.	= 1, 2	Contrib. drain. area	= 0.431 ac



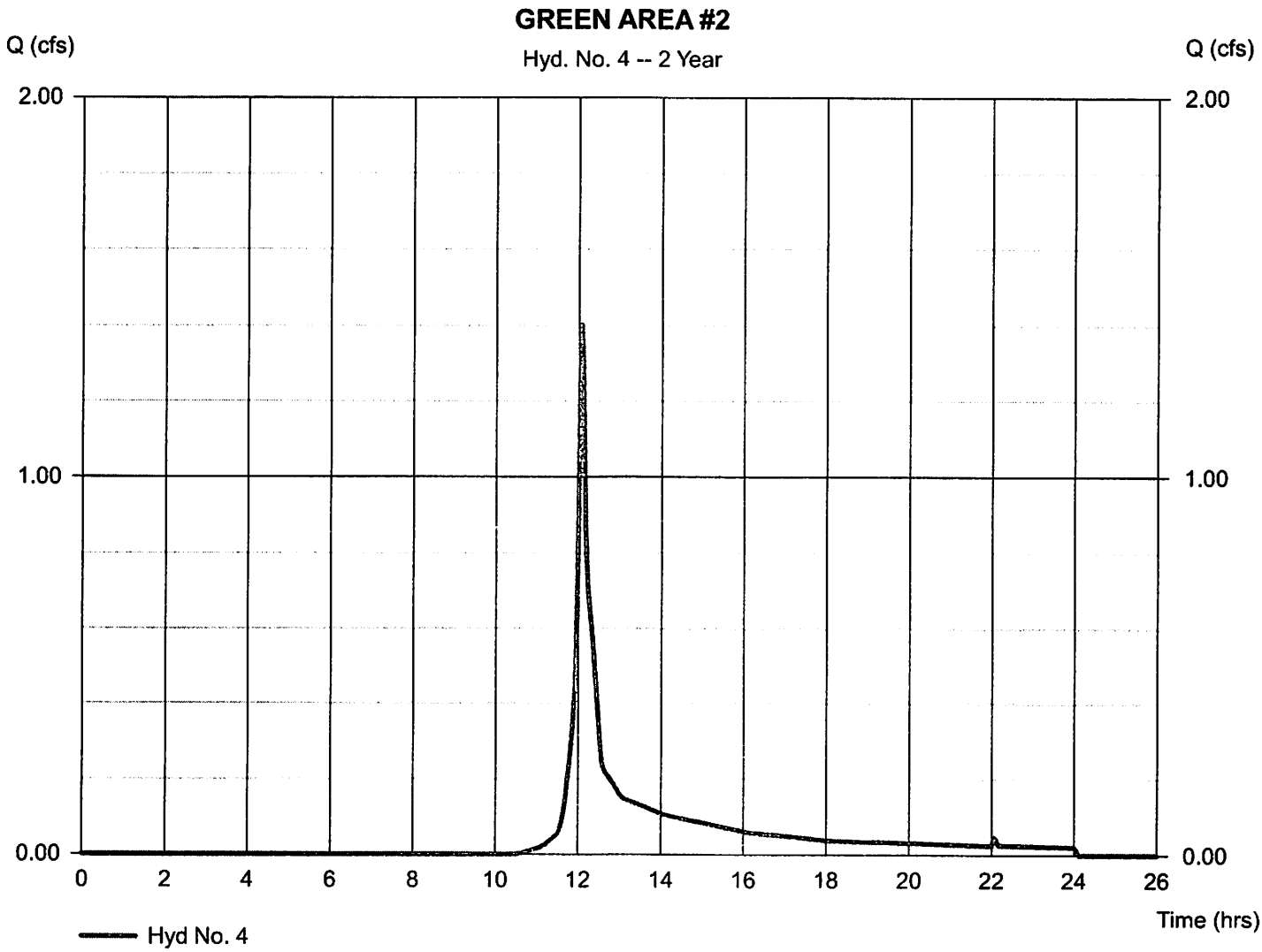
Hydrograph Report

Hyd. No. 4

GREEN AREA #2

Hydrograph type	= SCS Runoff	Peak discharge	= 1.402 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 4,384 cuft
Drainage area	= 1.160 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 3.31 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.158 x 74)] / 1.160



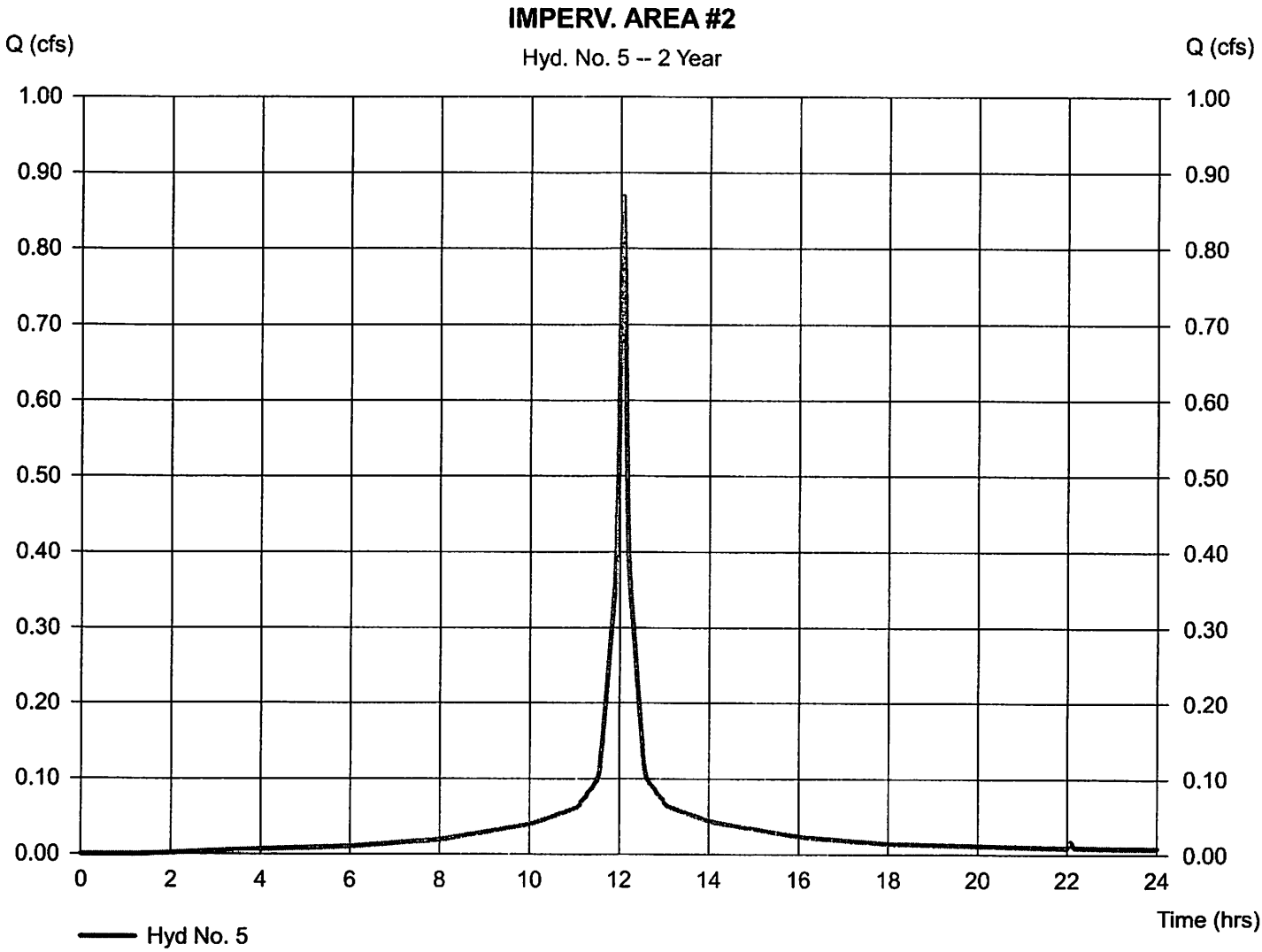
Hydrograph Report

Hyd. No. 5

IMPERV. AREA #2

Hydrograph type	= SCS Runoff	Peak discharge	= 0.868 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 2,932 cuft
Drainage area	= 0.280 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 3.31 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.284 x 98)] / 0.280

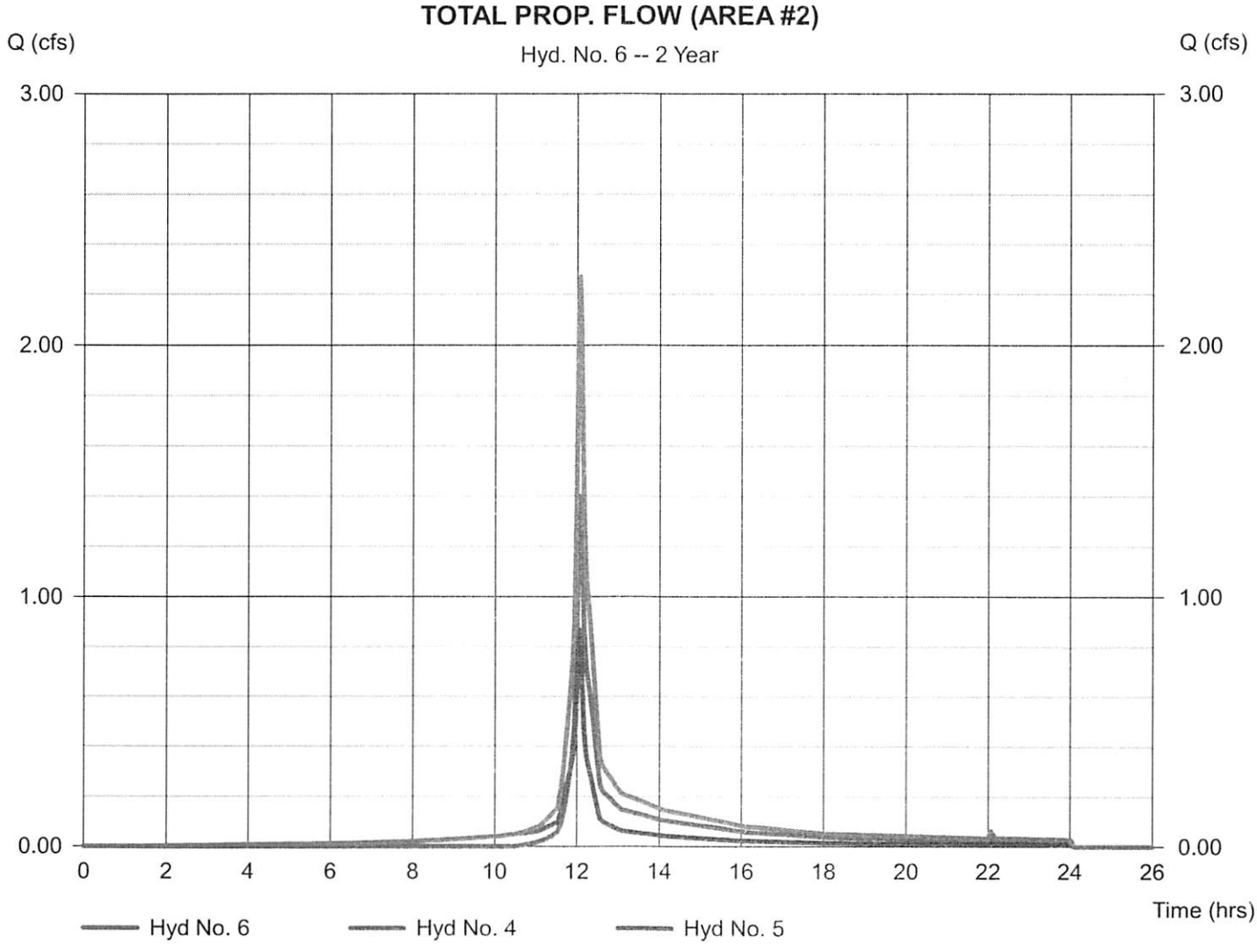


Hydrograph Report

Hyd. No. 6

TOTAL PROP. FLOW (AREA #2)

Hydrograph type	= Combine	Peak discharge	= 2.270 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 7,316 cuft
Inflow hyds.	= 4, 5	Contrib. drain. area	= 1.440 ac



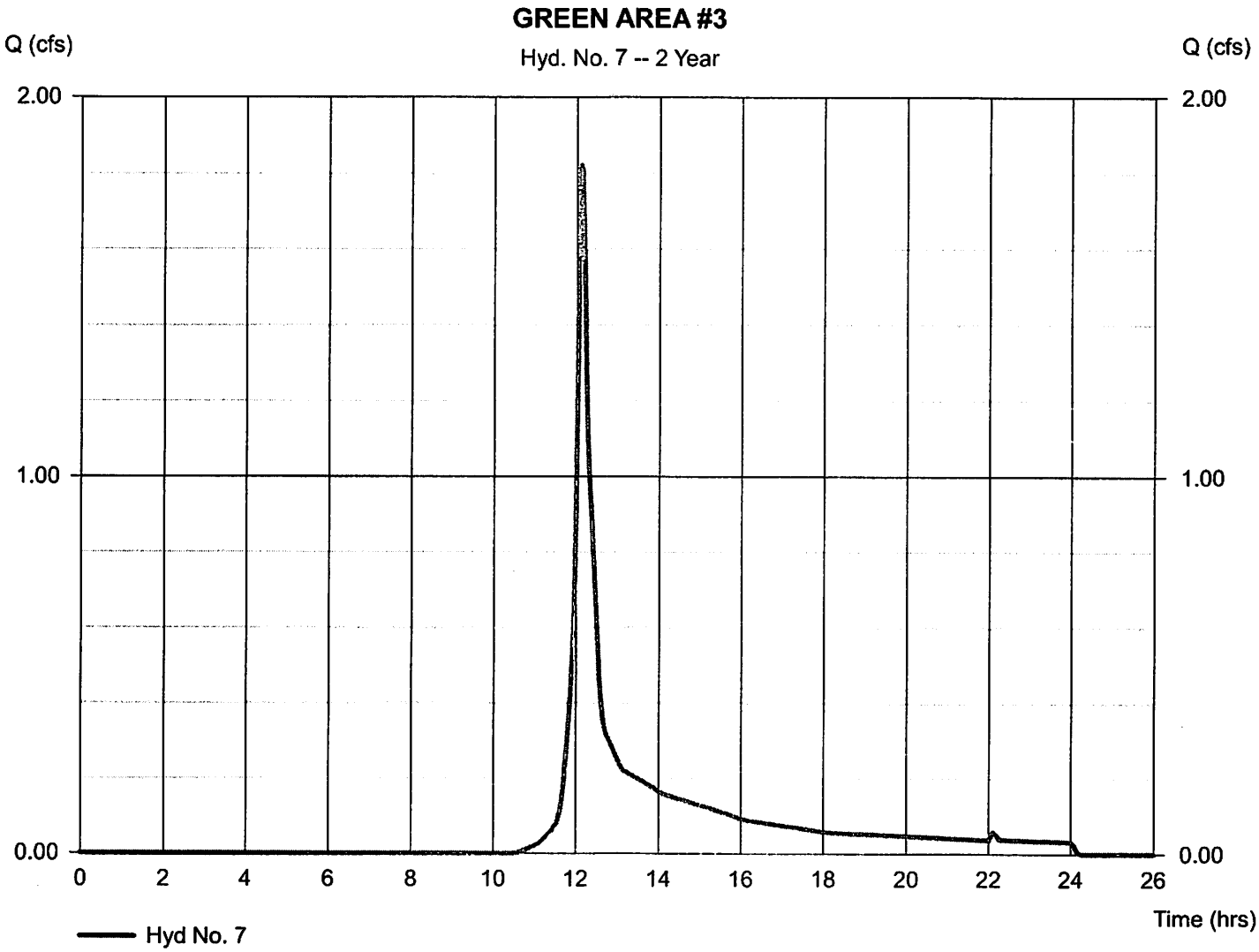
Hydrograph Report

Hyd. No. 7

GREEN AREA #3

Hydrograph type	= SCS Runoff	Peak discharge	= 1.822 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 6,572 cuft
Drainage area	= 1.630 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 8.70 min
Total precip.	= 3.31 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.629 x 74)] / 1.630



TR55 Tc Worksheet

Hyd. No. 7

GREEN AREA #3

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.150		0.011		0.011		
Flow length (ft)	= 100.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 3.30		0.00		0.00		
Land slope (%)	= 4.00		0.00		0.00		
Travel Time (min)	**= 7.31**	**+**	**0.00**	**+**	**0.00**	**=**	**7.31**
Shallow Concentrated Flow							
Flow length (ft)	= 347.00		0.00		0.00		
Watercourse slope (%)	= 6.48		0.00		0.00		
Surface description	= Unpaved		Paved		Paved		
Average velocity (ft/s)	= 4.11		0.00		0.00		
Travel Time (min)	**= 1.41**	**+**	**0.00**	**+**	**0.00**	**=**	**1.41**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.013		0.015		0.015		
Velocity (ft/s)	= 0.00		0.00		0.00		
Flow length (ft)	= 0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

Total Travel Time, Tc ..... **8.70 min**

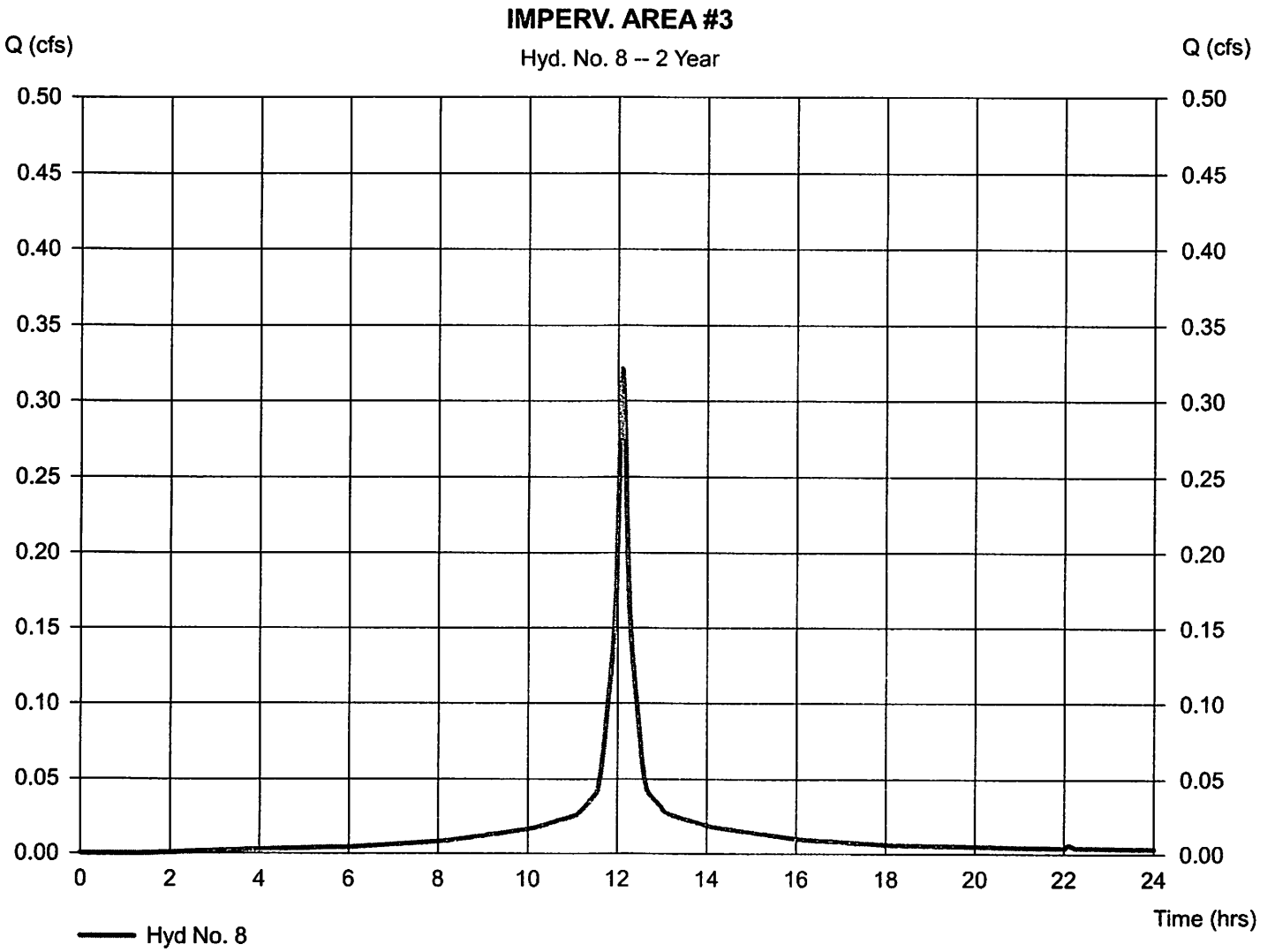
Hydrograph Report

Hyd. No. 8

IMPERV. AREA #3

Hydrograph type	= SCS Runoff	Peak discharge	= 0.321 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 1,229 cuft
Drainage area	= 0.110 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 8.70 min
Total precip.	= 3.31 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.112 x 98)] / 0.110



TR55 Tc Worksheet

Hyd. No. 8

IMPERV. AREA #3

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.150		0.011		0.011		
Flow length (ft)	= 100.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 3.30		0.00		0.00		
Land slope (%)	= 4.00		0.00		0.00		
Travel Time (min)	**= 7.31**	**+**	**0.00**	**+**	**0.00**	**=**	**7.31**
Shallow Concentrated Flow							
Flow length (ft)	= 347.00		0.00		0.00		
Watercourse slope (%)	= 6.48		0.00		0.00		
Surface description	= Unpaved		Paved		Paved		
Average velocity (ft/s)	= 4.11		0.00		0.00		
Travel Time (min)	**= 1.41**	**+**	**0.00**	**+**	**0.00**	**=**	**1.41**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.013		0.015		0.015		
Velocity (ft/s)	= 0.00		0.00		0.00		
Flow length (ft)	= 0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

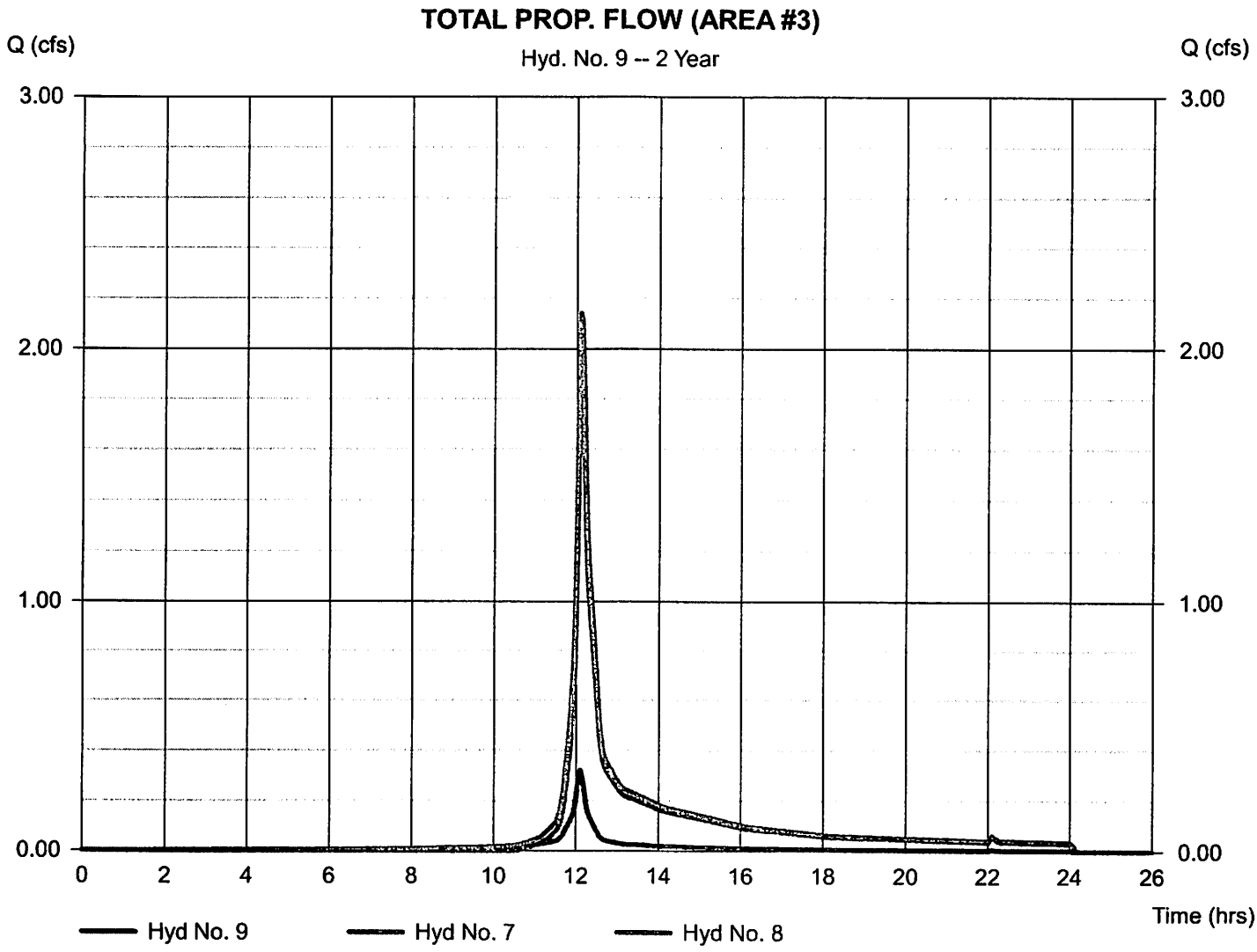
Total Travel Time, Tc ..... **8.70 min**

Hydrograph Report

Hyd. No. 9

TOTAL PROP. FLOW (AREA #3)

Hydrograph type	= Combine	Peak discharge	= 2.143 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 7,800 cuft
Inflow hyds.	= 7, 8	Contrib. drain. area	= 1.740 ac

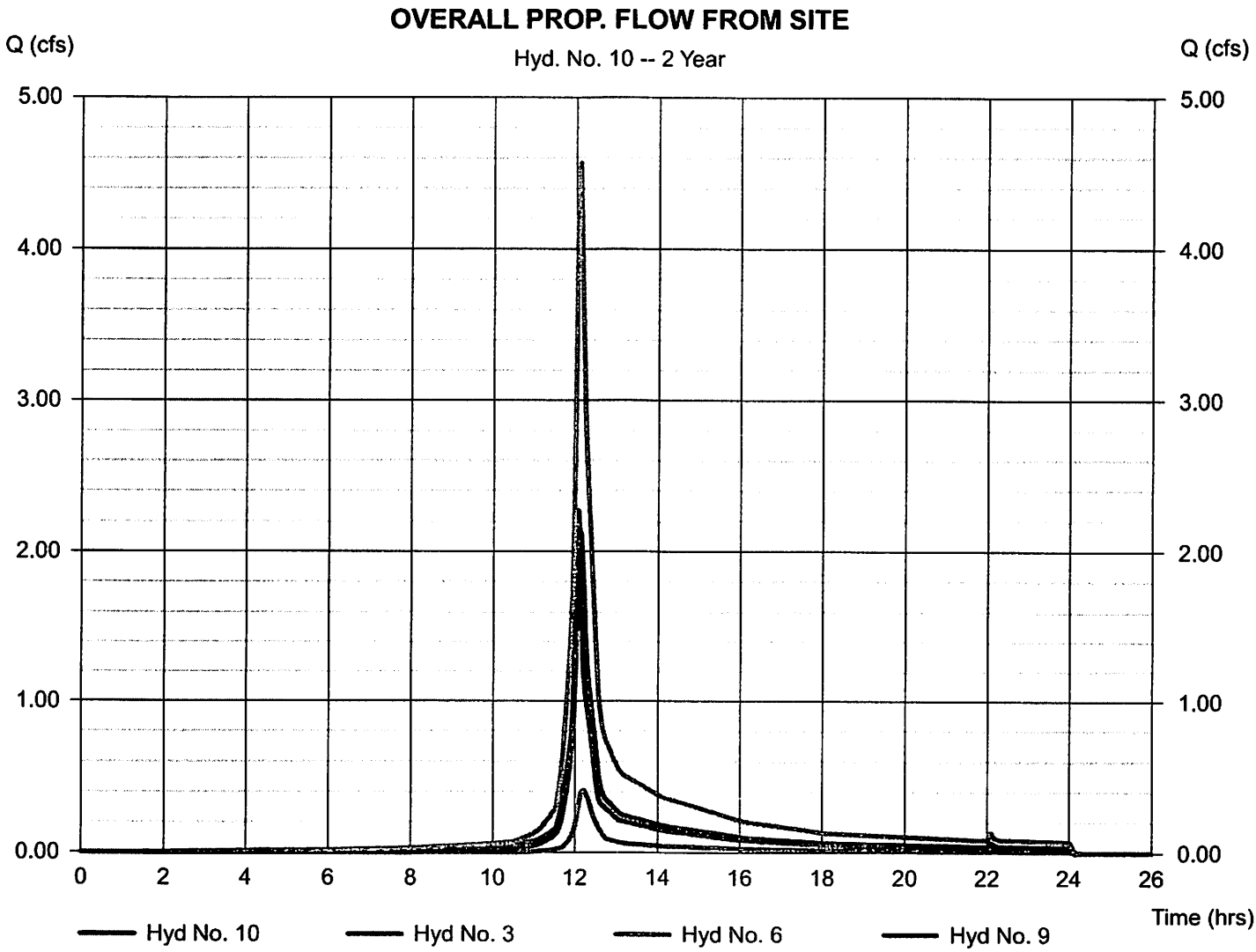


Hydrograph Report

Hyd. No. 10

OVERALL PROP. FLOW FROM SITE

Hydrograph type	= Combine	Peak discharge	= 4.566 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 16,880 cuft
Inflow hyds.	= 3, 6, 9	Contrib. drain. area	= 0.000 ac



Hydrograph Report

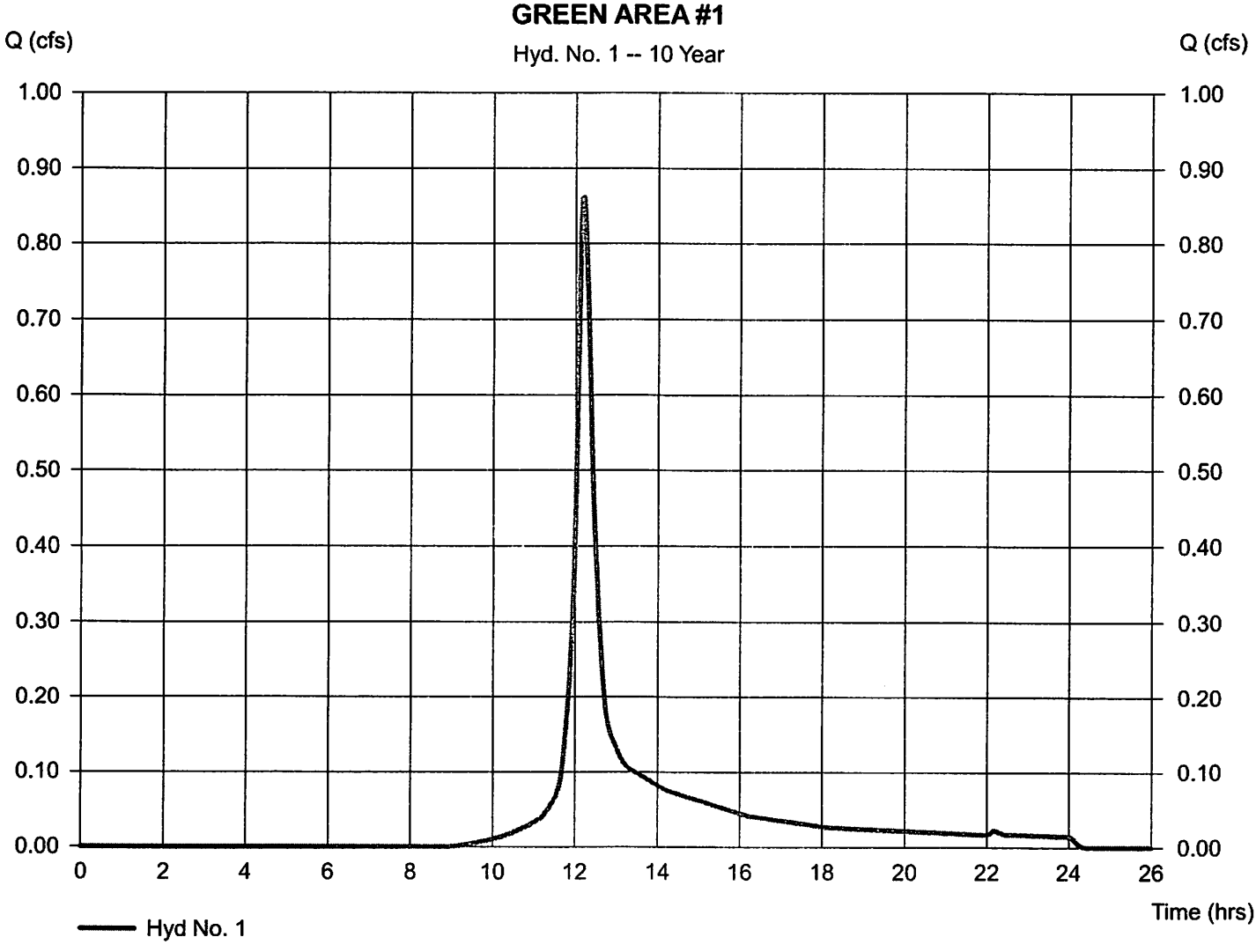
Hydraflow Hydrographs by Intelisolve v9.2 — Sunday, Mar 28, 2021

Hyd. No. 1

GREEN AREA #1

Hydrograph type	= SCS Runoff	Peak discharge	= 0.861 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.20 hrs
Time interval	= 2 min	Hyd. volume	= 3,535 cuft
Drainage area	= 0.421 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 15.50 min
Total precip.	= 5.01 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.421 x 74)] / 0.421



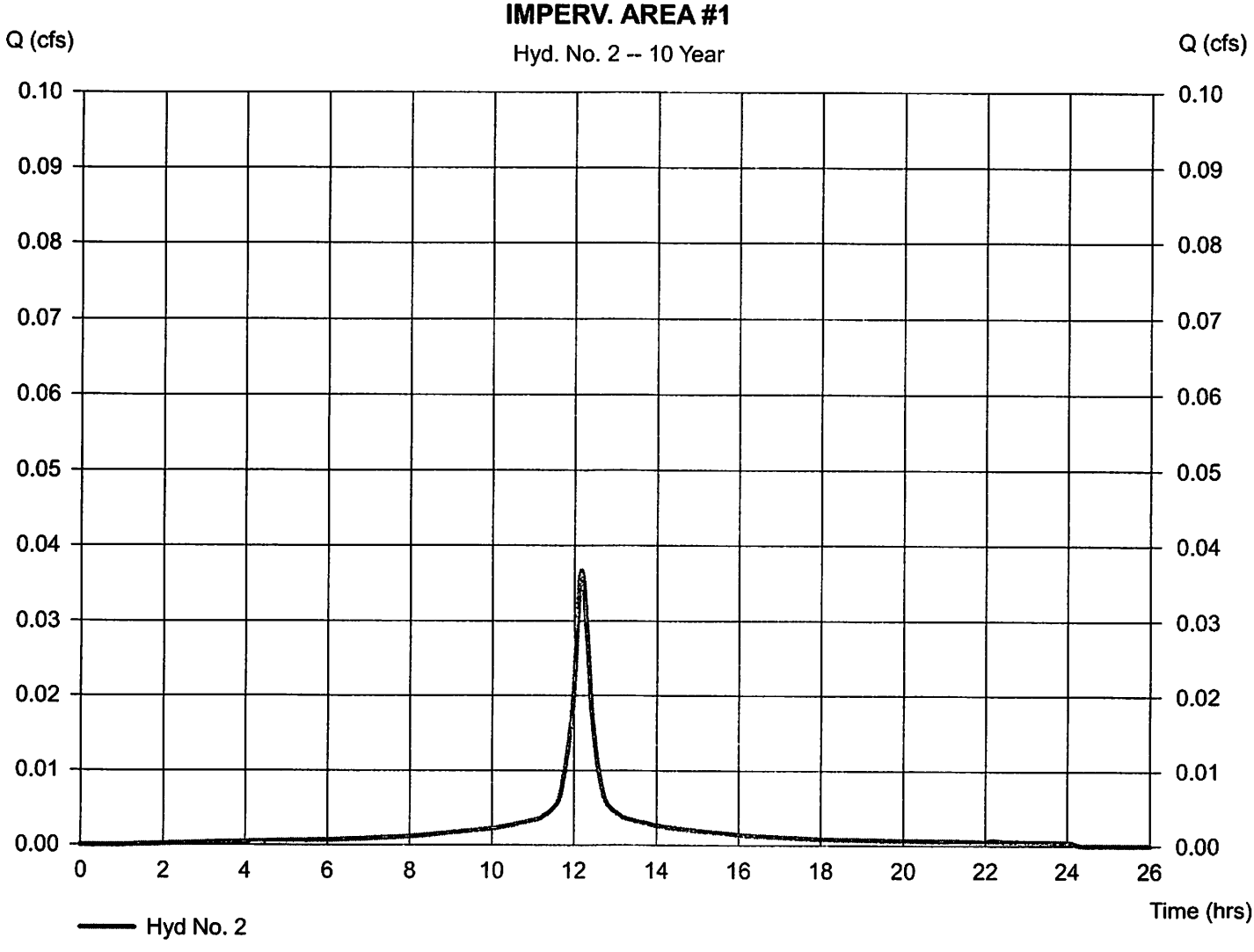
Hydrograph Report

Hyd. No. 2

IMPERV. AREA #1

Hydrograph type	= SCS Runoff	Peak discharge	= 0.037 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.17 hrs
Time interval	= 2 min	Hyd. volume	= 169 cuft
Drainage area	= 0.010 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 15.50 min
Total precip.	= 5.01 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.013 x 98)] / 0.010

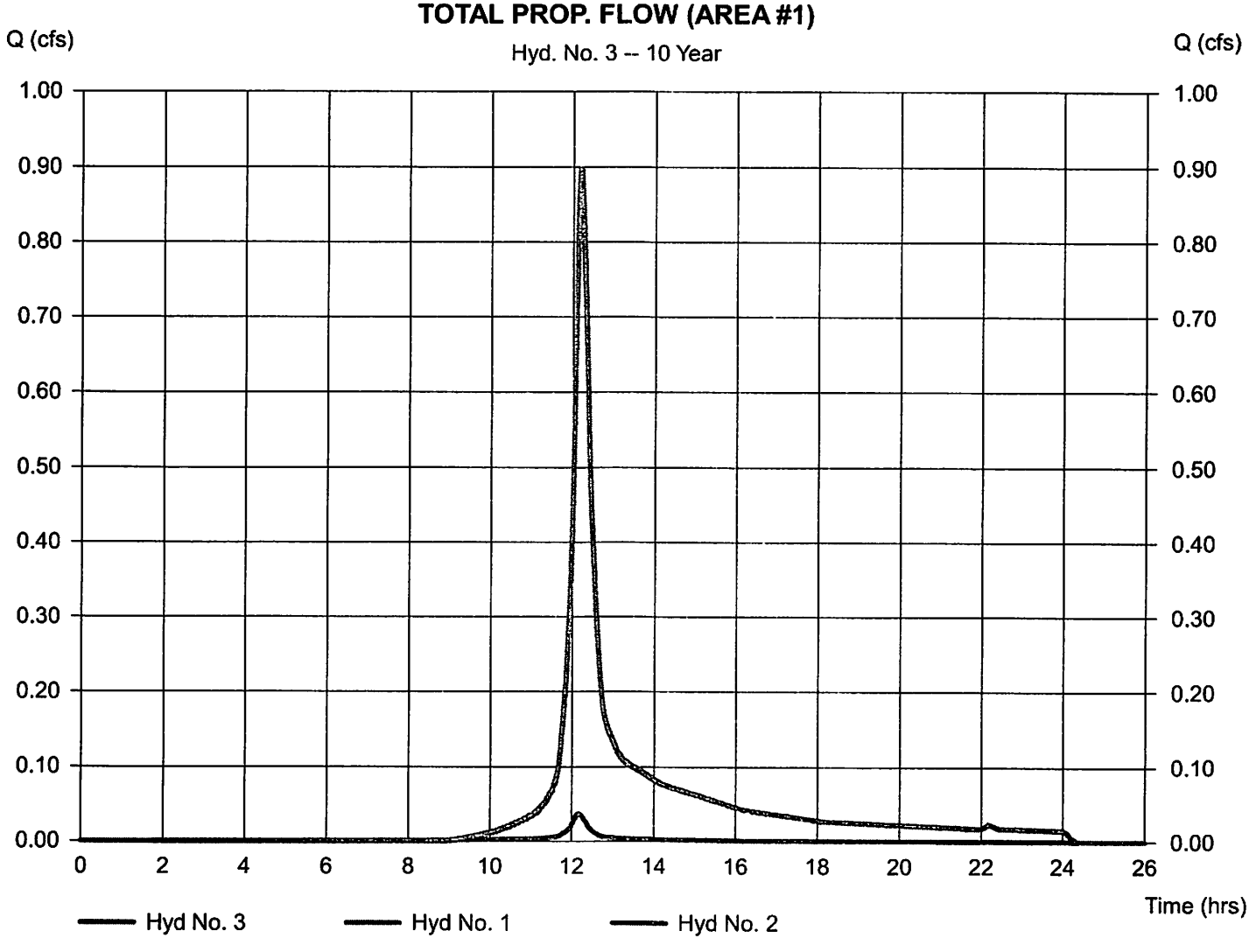


Hydrograph Report

Hyd. No. 3

TOTAL PROP. FLOW (AREA #1)

Hydrograph type	= Combine	Peak discharge	= 0.898 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.17 hrs
Time interval	= 2 min	Hyd. volume	= 3,704 cuft
Inflow hyds.	= 1, 2	Contrib. drain. area	= 0.431 ac



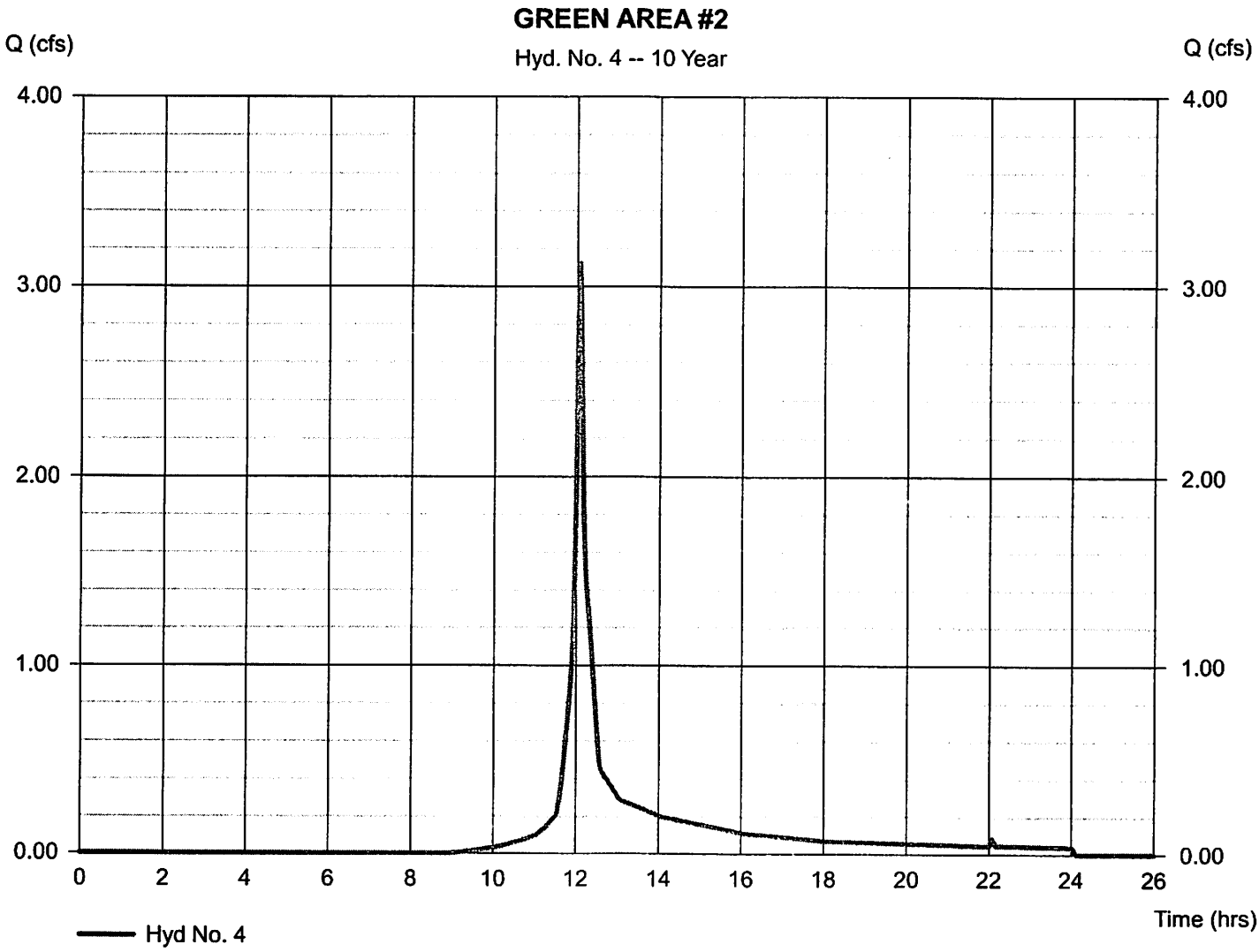
Hydrograph Report

Hyd. No. 4

GREEN AREA #2

Hydrograph type	= SCS Runoff	Peak discharge	= 3.122 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 9,365 cuft
Drainage area	= 1.160 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 5.01 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.158 x 74)] / 1.160



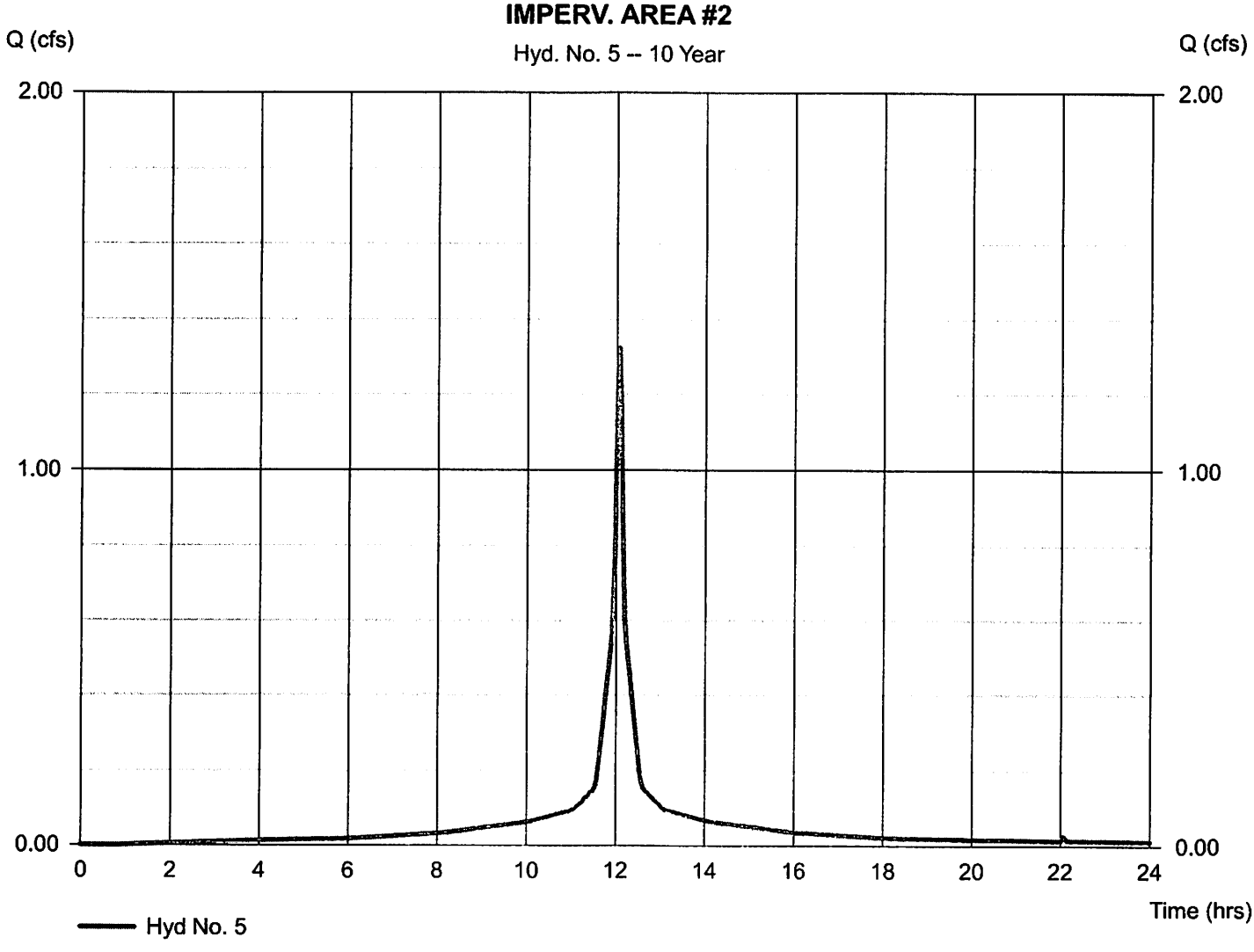
Hydrograph Report

Hyd. No. 5

IMPERV. AREA #2

Hydrograph type	= SCS Runoff	Peak discharge	= 1.323 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 4,548 cuft
Drainage area	= 0.280 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 5.01 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.284 x 98)] / 0.280

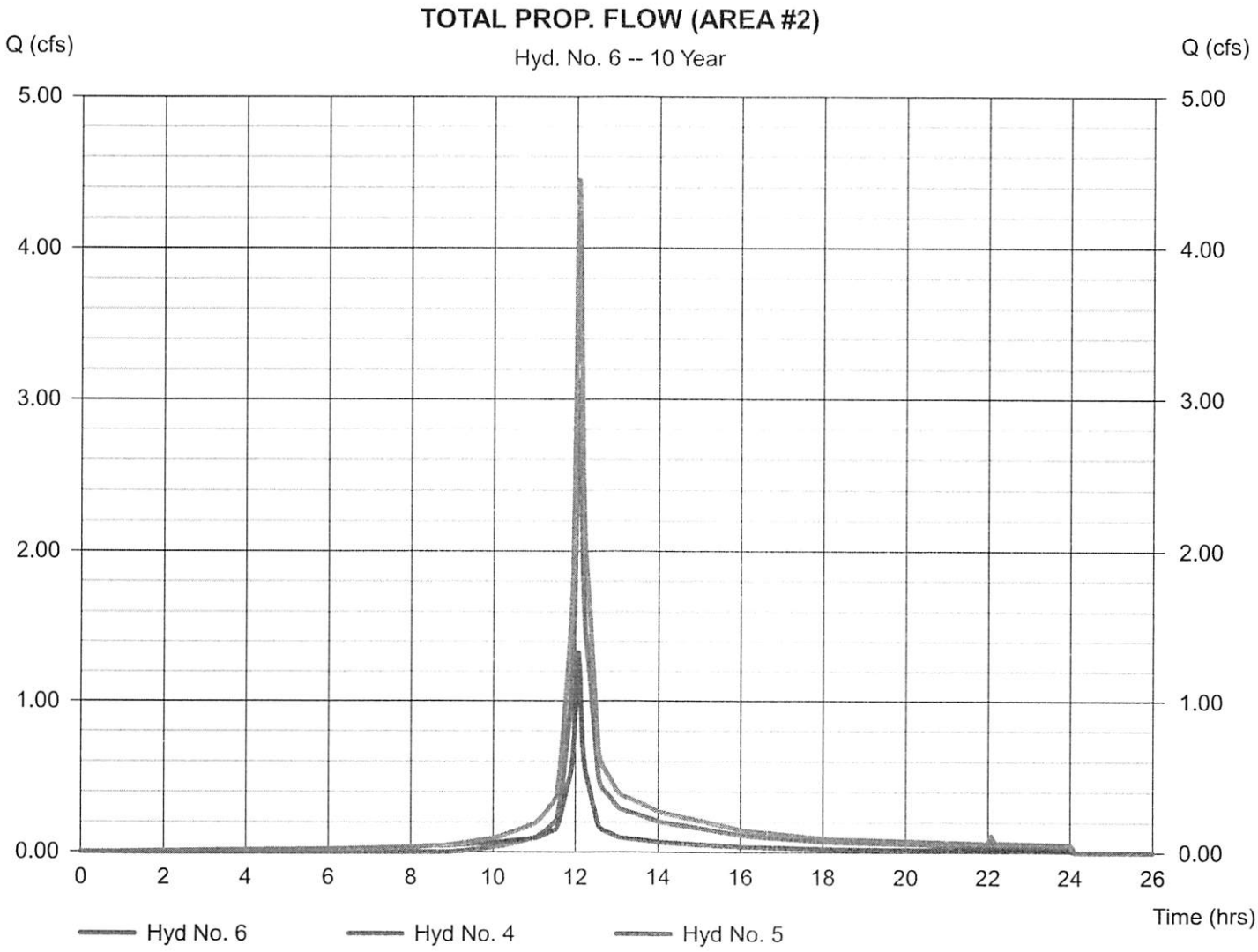


Hydrograph Report

Hyd. No. 6

TOTAL PROP. FLOW (AREA #2)

Hydrograph type	= Combine	Peak discharge	= 4.445 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 13,913 cuft
Inflow hyds.	= 4, 5	Contrib. drain. area	= 1.440 ac



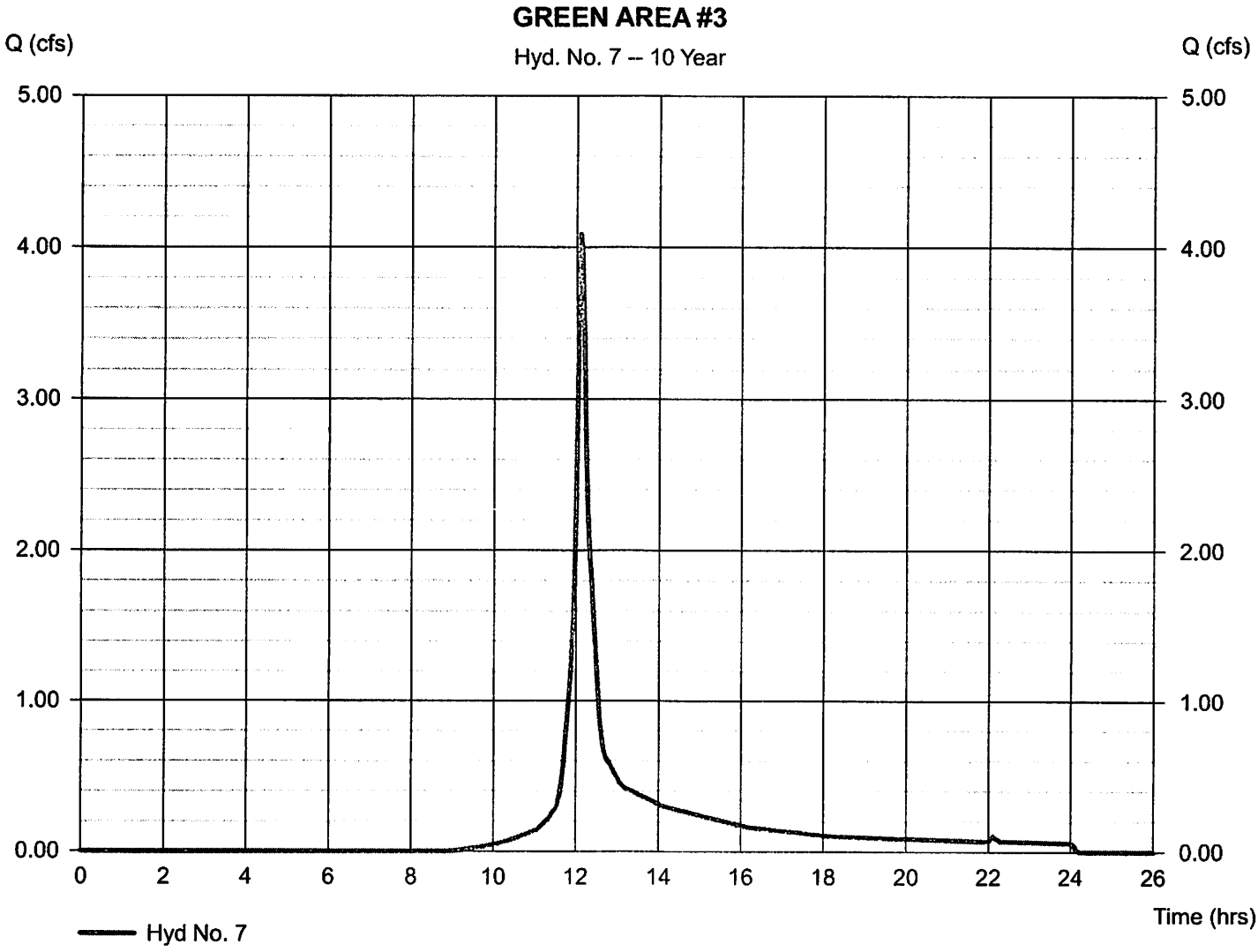
Hydrograph Report

Hyd. No. 7

GREEN AREA #3

Hydrograph type	= SCS Runoff	Peak discharge	= 4.085 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 14,036 cuft
Drainage area	= 1.630 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 8.70 min
Total precip.	= 5.01 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.629 x 74)] / 1.630



Hydrograph Report

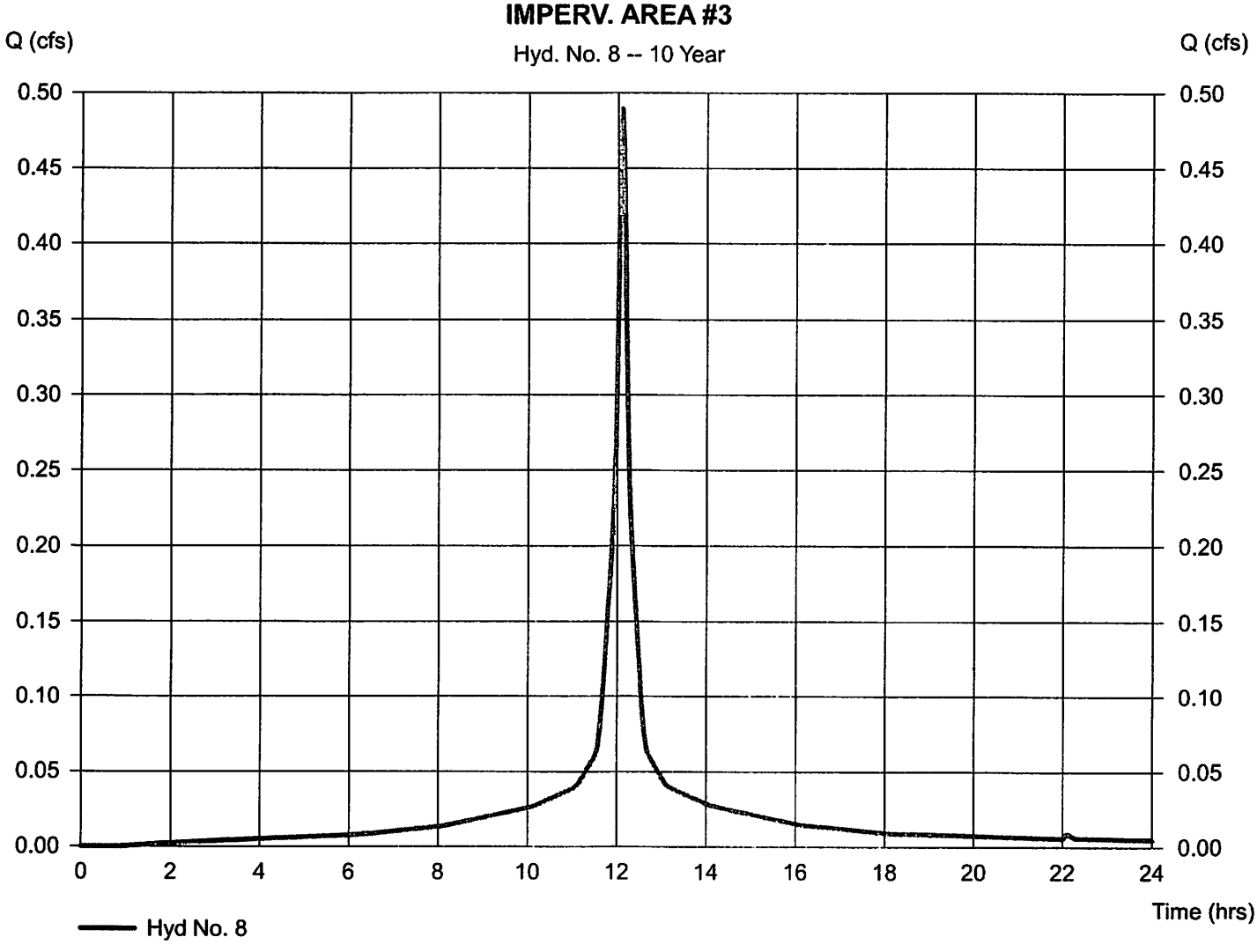
Hydraflow Hydrographs by Intelisolve v9.2 — Sunday, Mar 28, 2021

Hyd. No. 8

IMPERV. AREA #3

Hydrograph type	= SCS Runoff	Peak discharge	= 0.489 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 1,906 cuft
Drainage area	= 0.110 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 8.70 min
Total precip.	= 5.01 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.112 x 98)] / 0.110

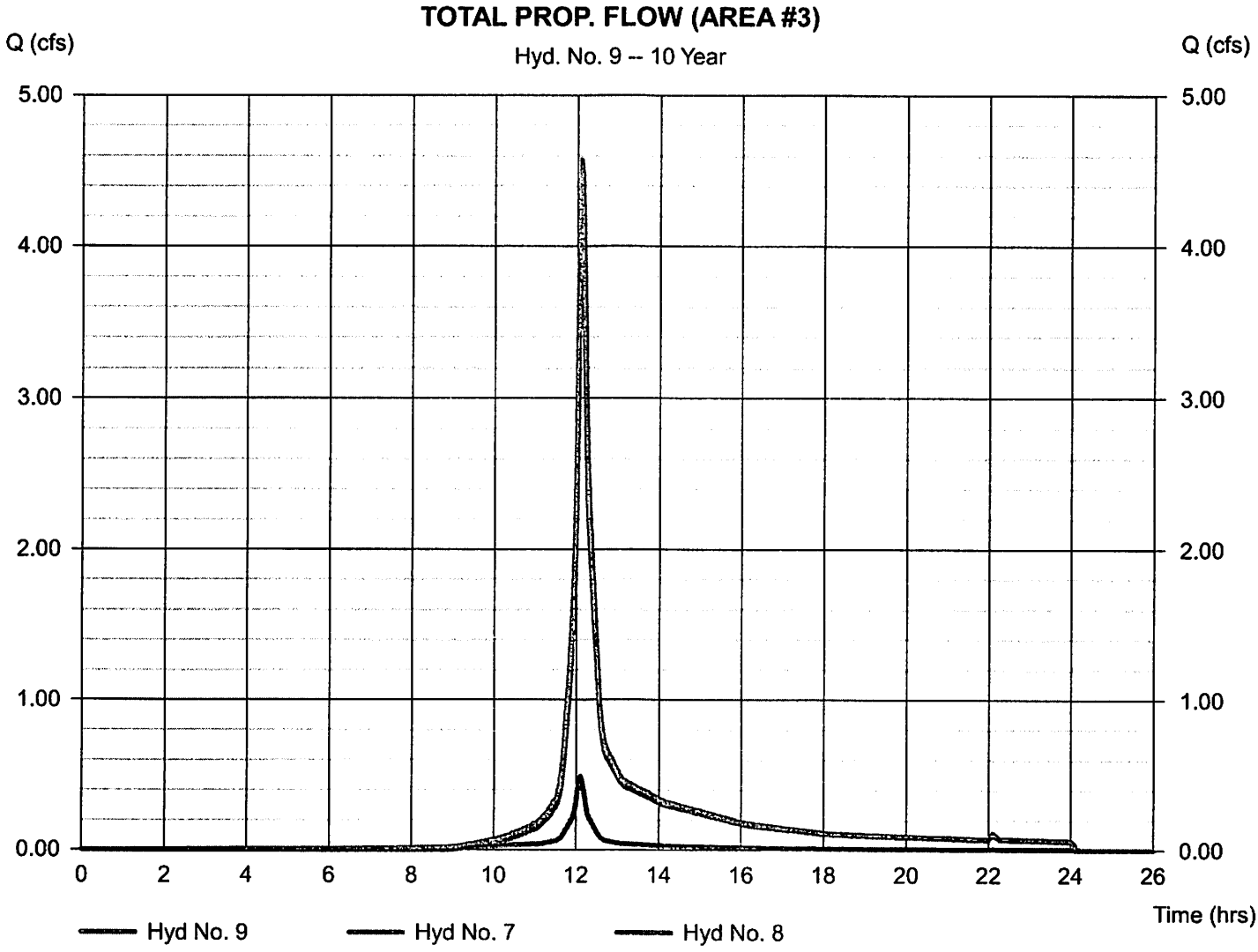


Hydrograph Report

Hyd. No. 9

TOTAL PROP. FLOW (AREA #3)

Hydrograph type	= Combine	Peak discharge	= 4.574 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 15,942 cuft
Inflow hyds.	= 7, 8	Contrib. drain. area	= 1.740 ac

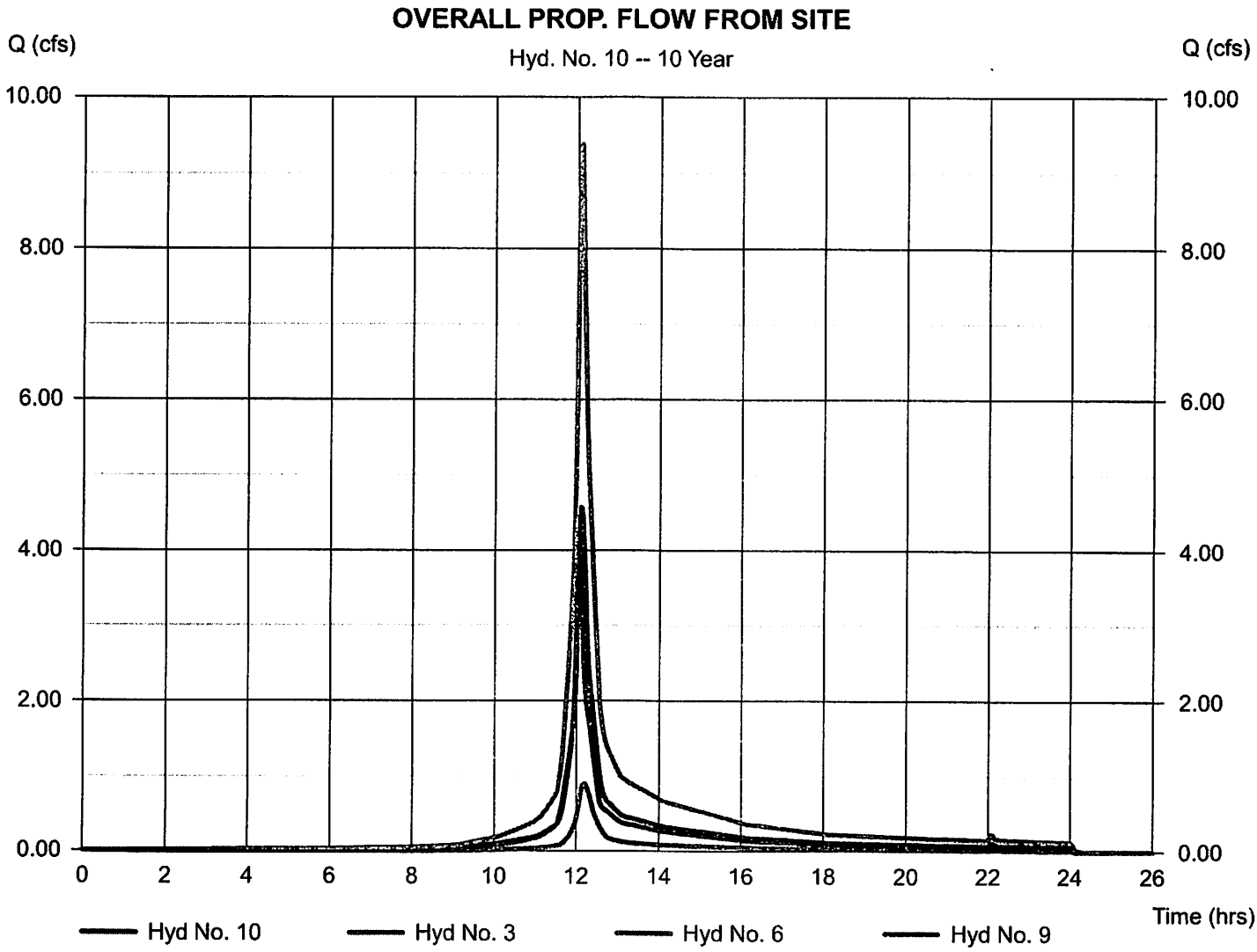


Hydrograph Report

Hyd. No. 10

OVERALL PROP. FLOW FROM SITE

Hydrograph type	= Combine	Peak discharge	= 9.383 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 33,559 cuft
Inflow hyds.	= 3, 6, 9	Contrib. drain. area	= 0.000 ac



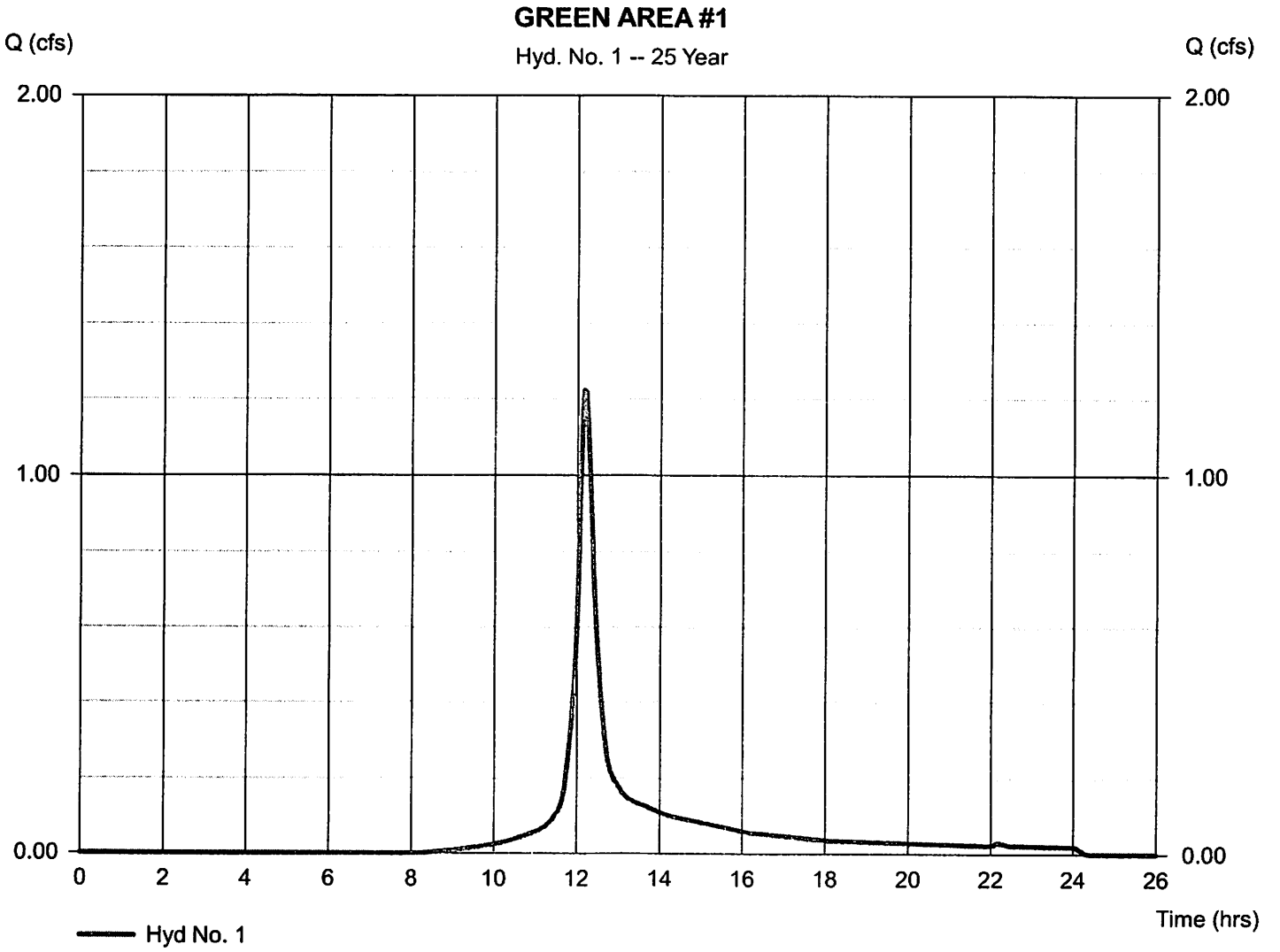
Hydrograph Report

Hyd. No. 1

GREEN AREA #1

Hydrograph type	= SCS Runoff	Peak discharge	= 1.224 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.17 hrs
Time interval	= 2 min	Hyd. volume	= 4,985 cuft
Drainage area	= 0.421 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 15.50 min
Total precip.	= 6.19 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.421 x 74)] / 0.421



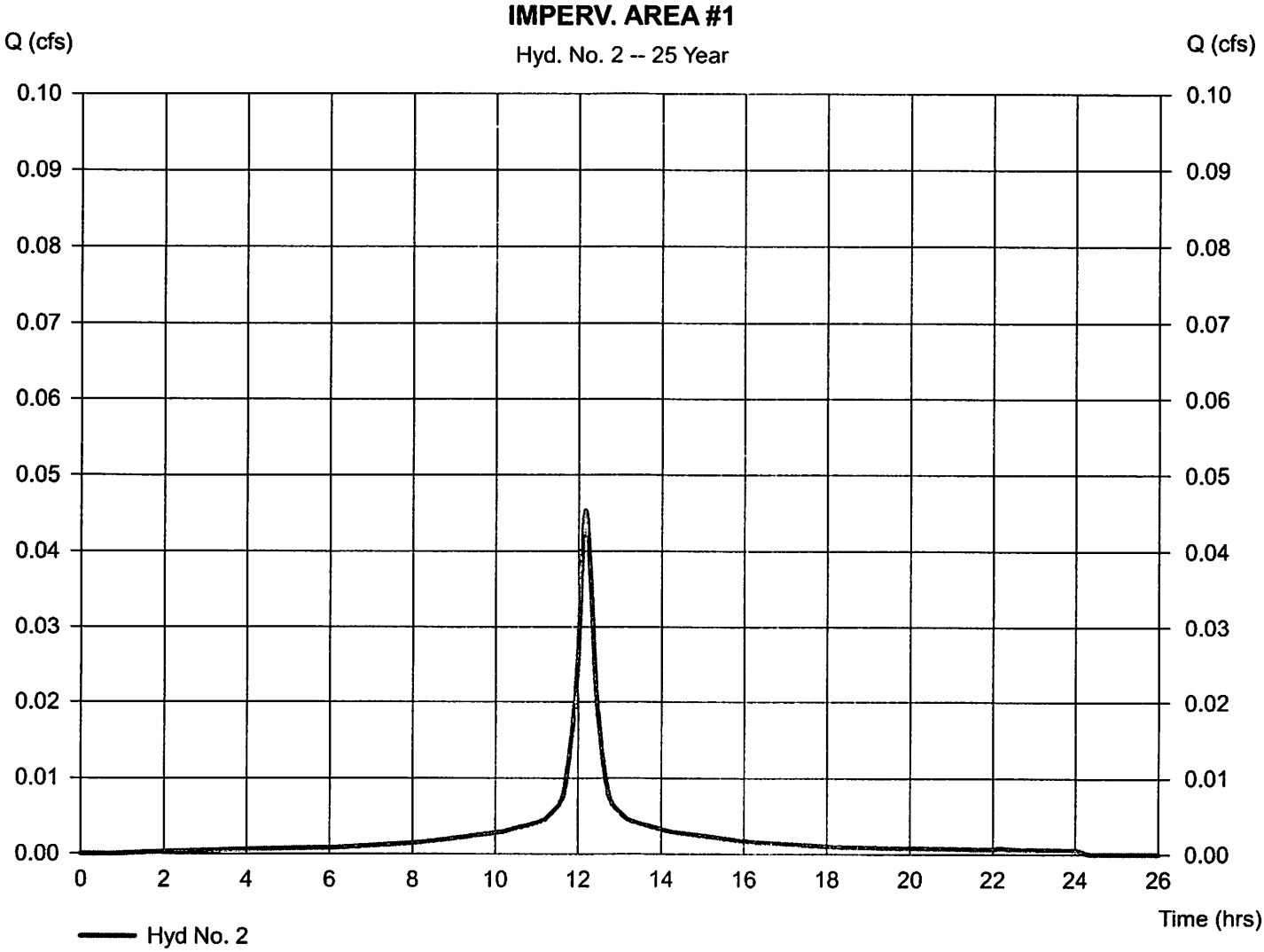
Hydrograph Report

Hyd. No. 2

IMPERV. AREA #1

Hydrograph type	= SCS Runoff	Peak discharge	= 0.045 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.17 hrs
Time interval	= 2 min	Hyd. volume	= 211 cuft
Drainage area	= 0.010 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 15.50 min
Total precip.	= 6.19 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.013 x 98)] / 0.010

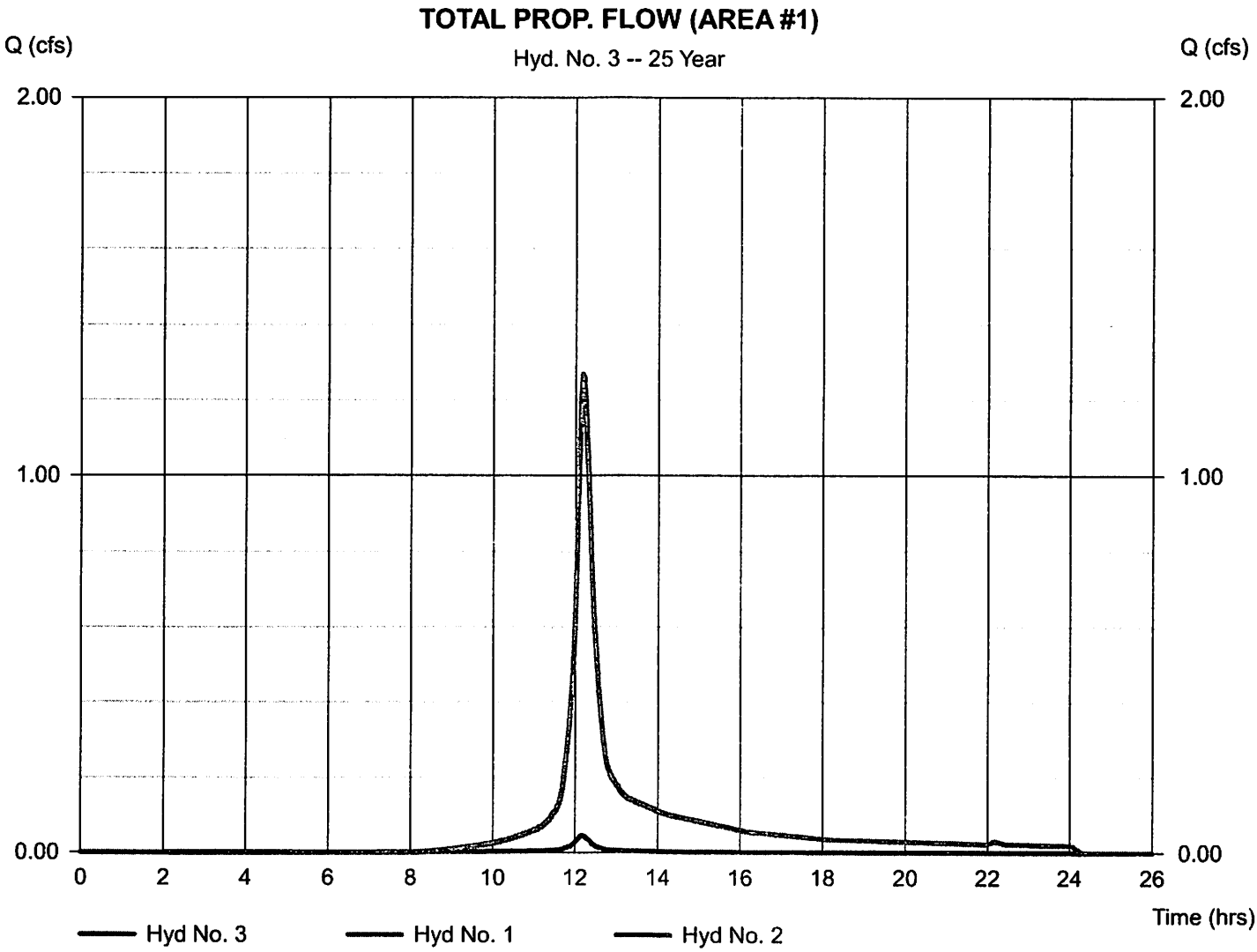


Hydrograph Report

Hyd. No. 3

TOTAL PROP. FLOW (AREA #1)

Hydrograph type	= Combine	Peak discharge	= 1.269 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.17 hrs
Time interval	= 2 min	Hyd. volume	= 5,195 cuft
Inflow hyds.	= 1, 2	Contrib. drain. area	= 0.431 ac



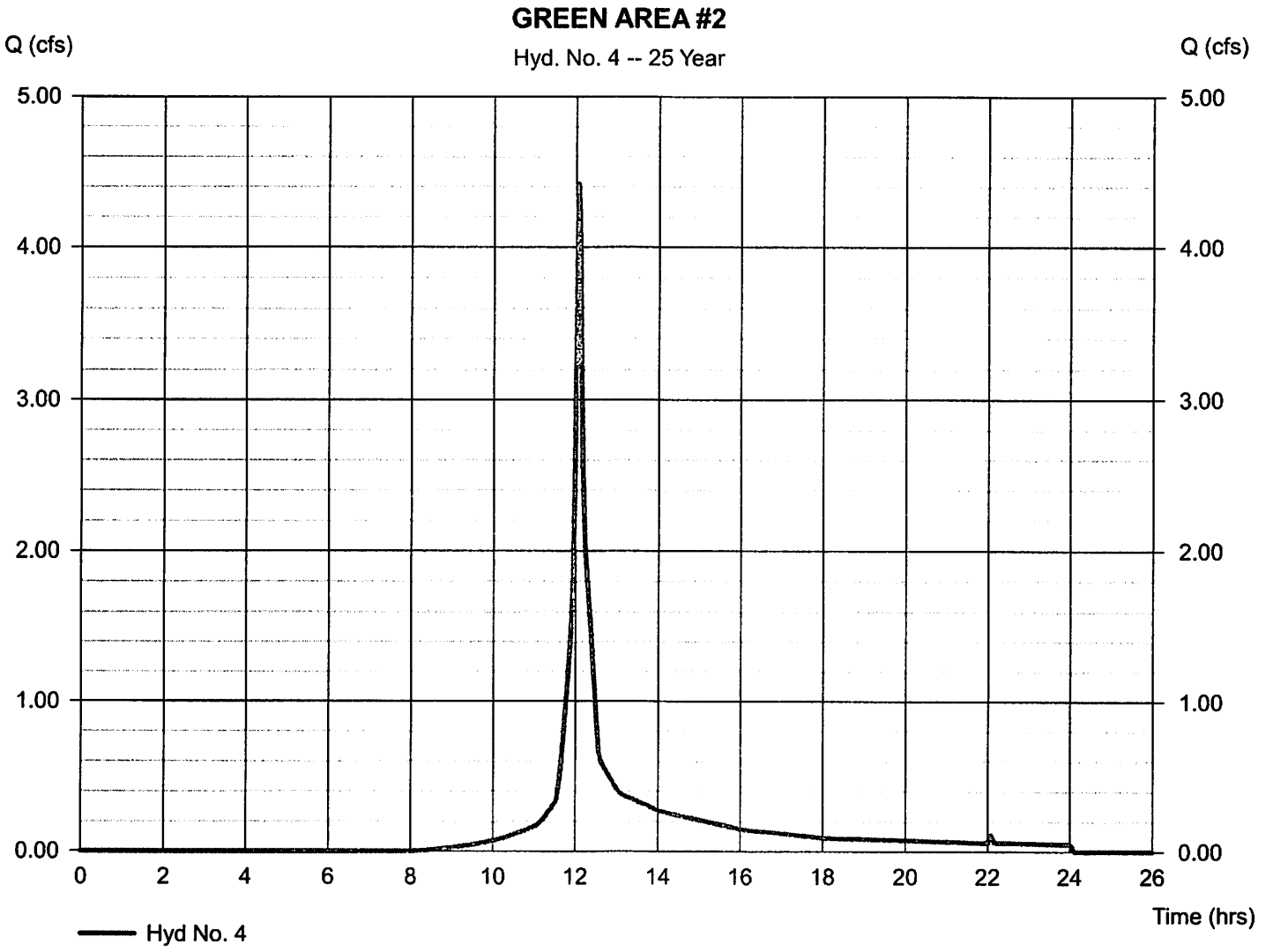
Hydrograph Report

Hyd. No. 4

GREEN AREA #2

Hydrograph type	= SCS Runoff	Peak discharge	= 4.420 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 13,206 cuft
Drainage area	= 1.160 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 6.19 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.158 x 74)] / 1.160



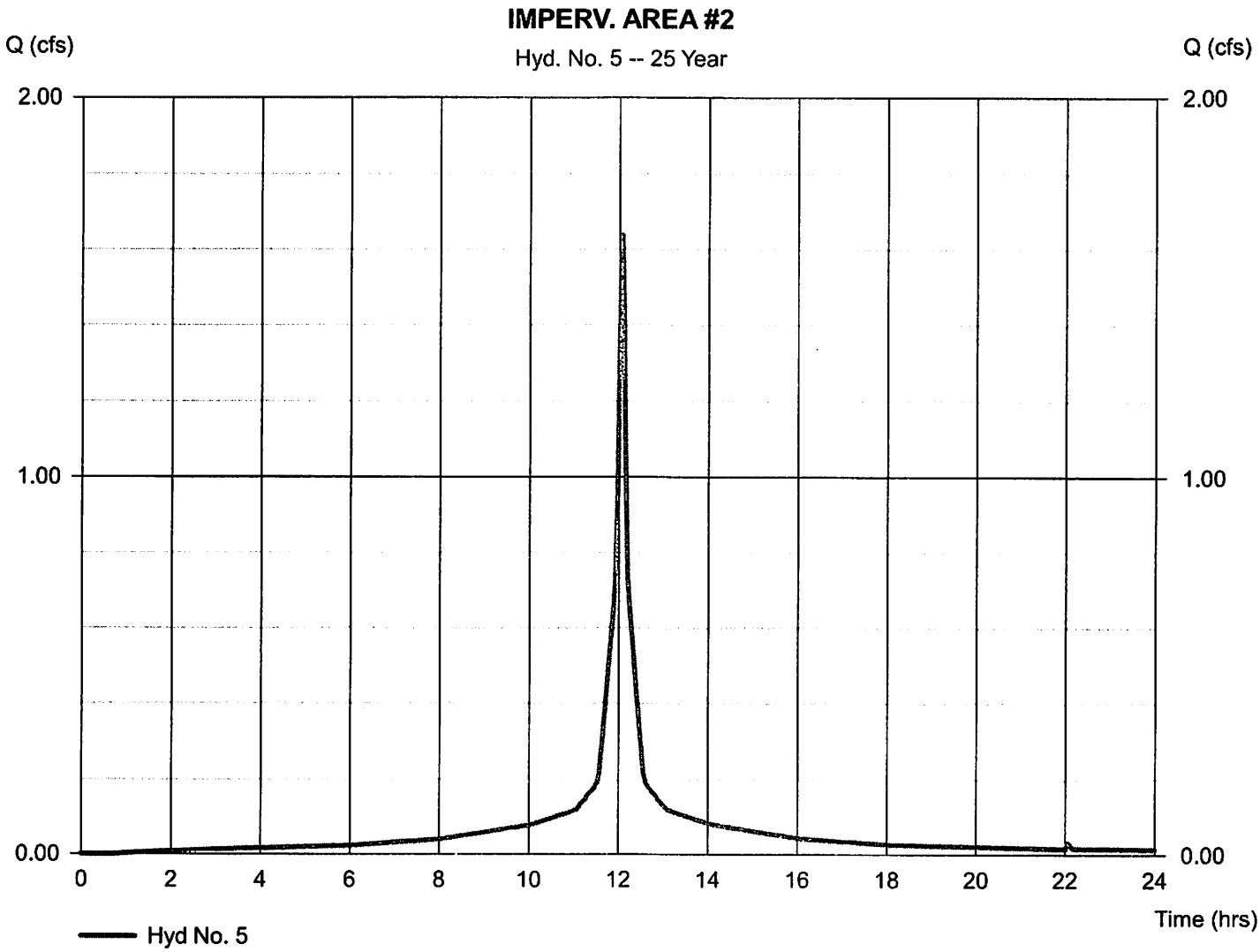
Hydrograph Report

Hyd. No. 5

IMPERV. AREA #2

Hydrograph type	= SCS Runoff	Peak discharge	= 1.638 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 5,671 cuft
Drainage area	= 0.280 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 6.19 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.284 x 98)] / 0.280

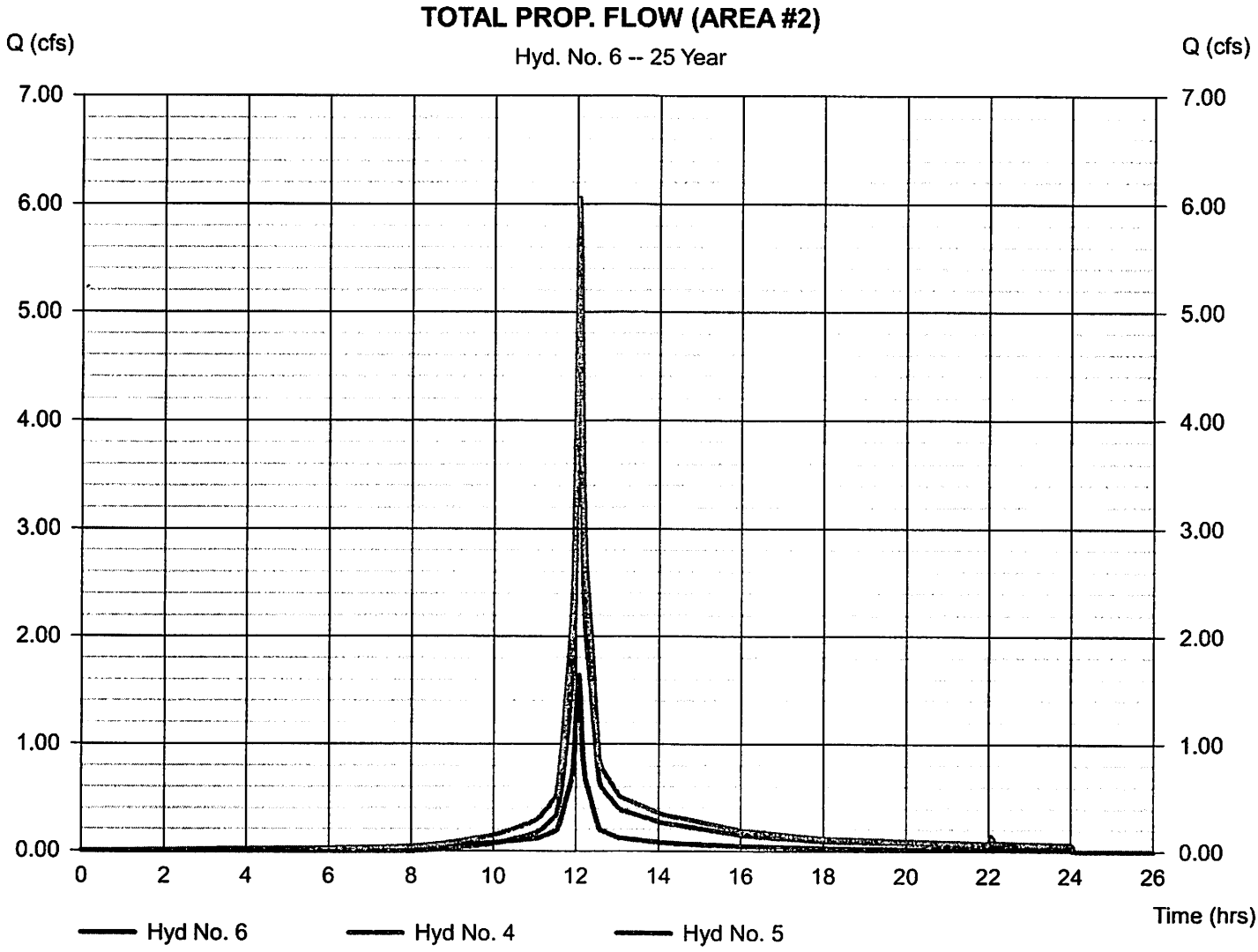


Hydrograph Report

Hyd. No. 6

TOTAL PROP. FLOW (AREA #2)

Hydrograph type	= Combine	Peak discharge	= 6.057 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 18,877 cuft
Inflow hyds.	= 4, 5	Contrib. drain. area	= 1.440 ac



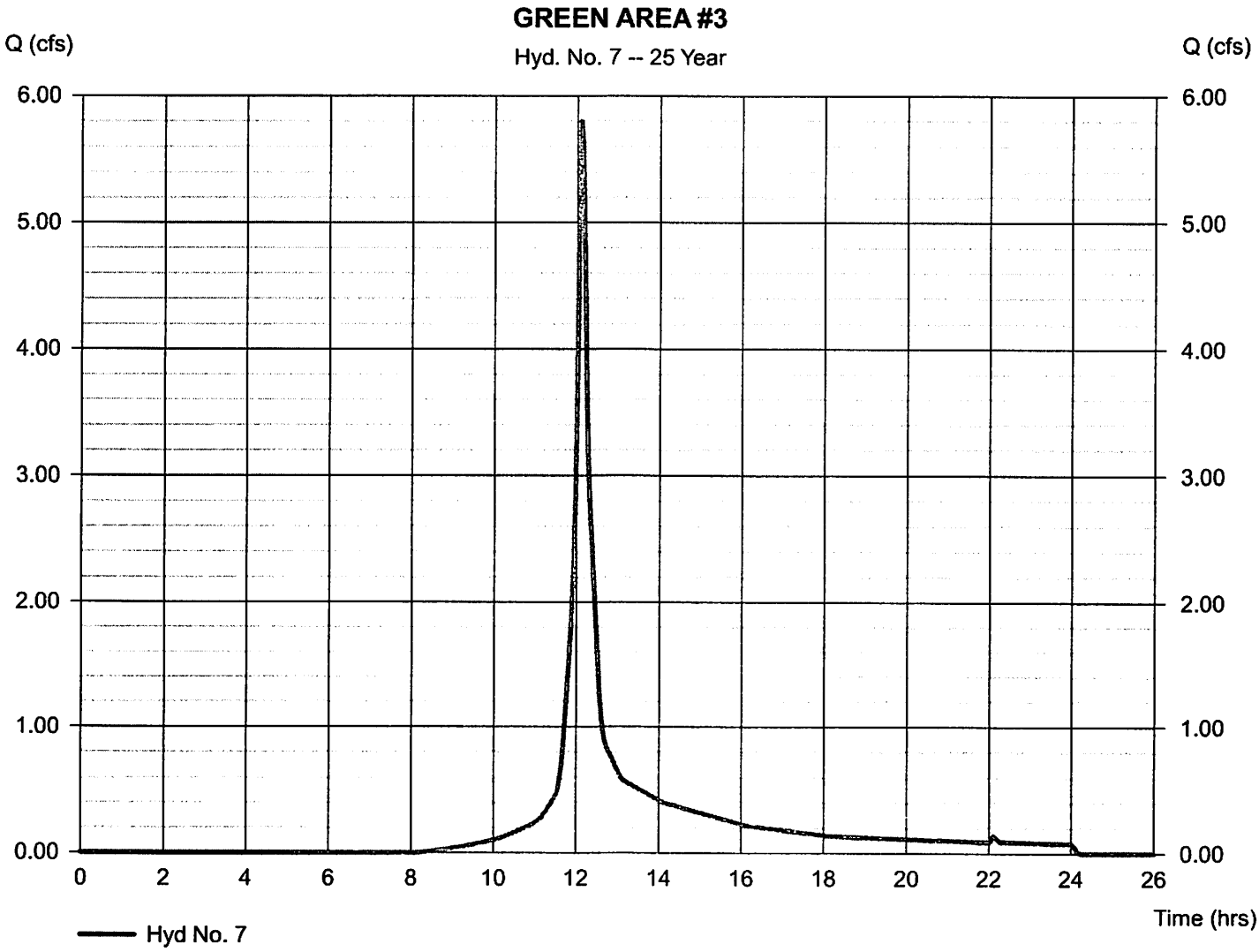
Hydrograph Report

Hyd. No. 7

GREEN AREA #3

Hydrograph type	= SCS Runoff	Peak discharge	= 5.795 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 19,794 cuft
Drainage area	= 1.630 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 8.70 min
Total precip.	= 6.19 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.629 x 74)] / 1.630



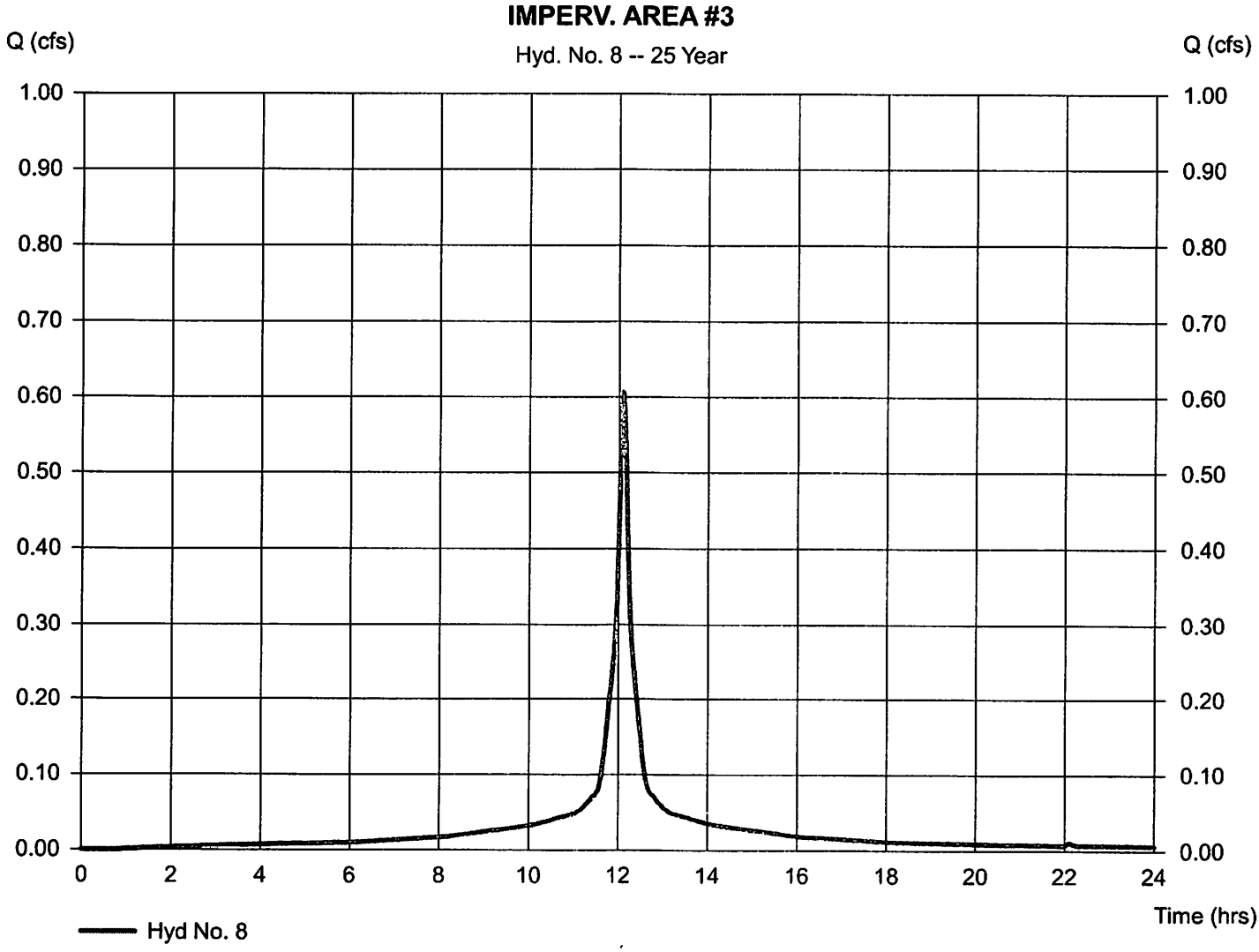
Hydrograph Report

Hyd. No. 8

IMPERV. AREA #3

Hydrograph type	= SCS Runoff	Peak discharge	= 0.606 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 2,376 cuft
Drainage area	= 0.110 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 8.70 min
Total precip.	= 6.19 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.112 x 98)] / 0.110

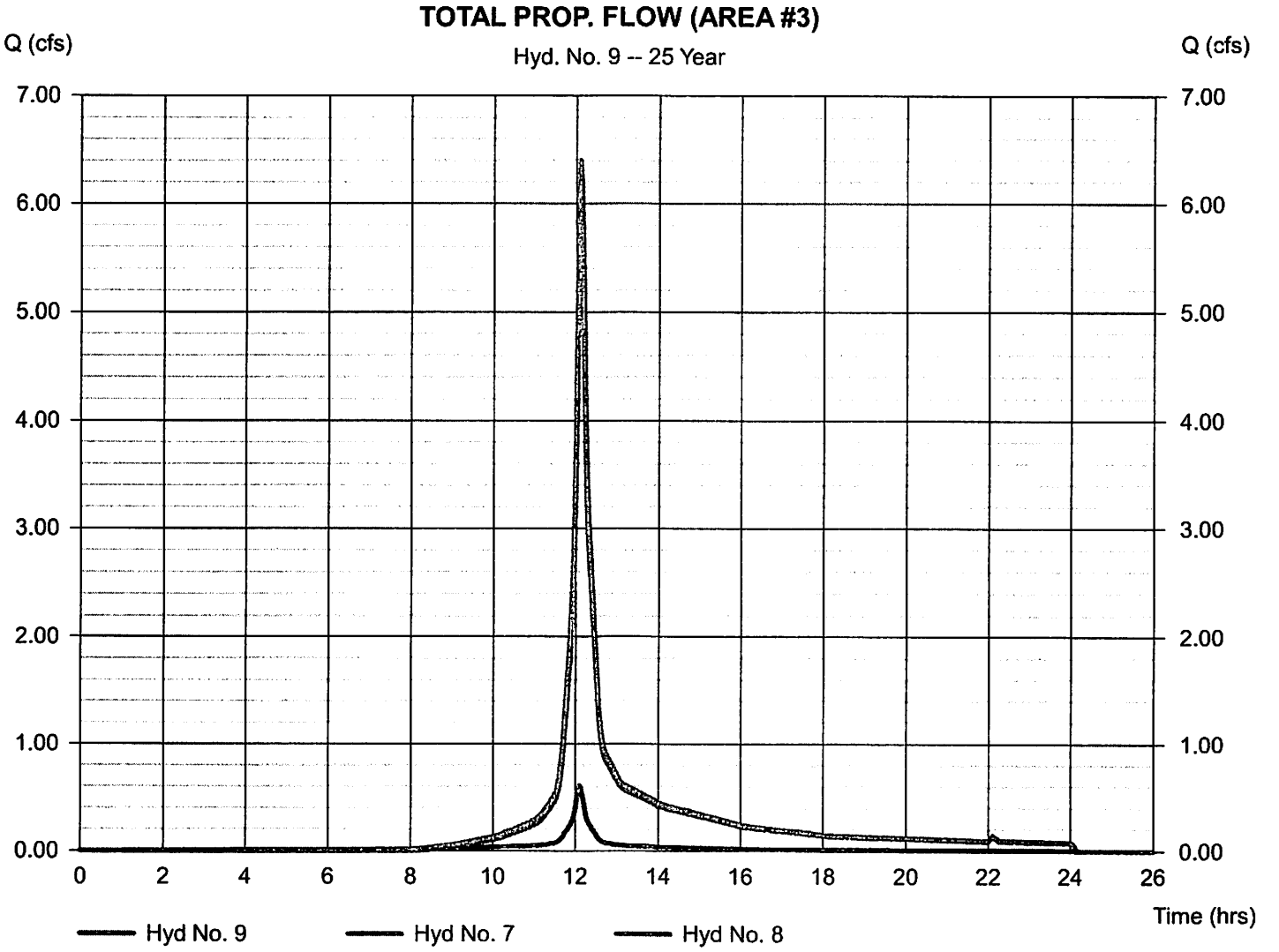


Hydrograph Report

Hyd. No. 9

TOTAL PROP. FLOW (AREA #3)

Hydrograph type	= Combine	Peak discharge	= 6.401 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 22,170 cuft
Inflow hyds.	= 7, 8	Contrib. drain. area	= 1.740 ac

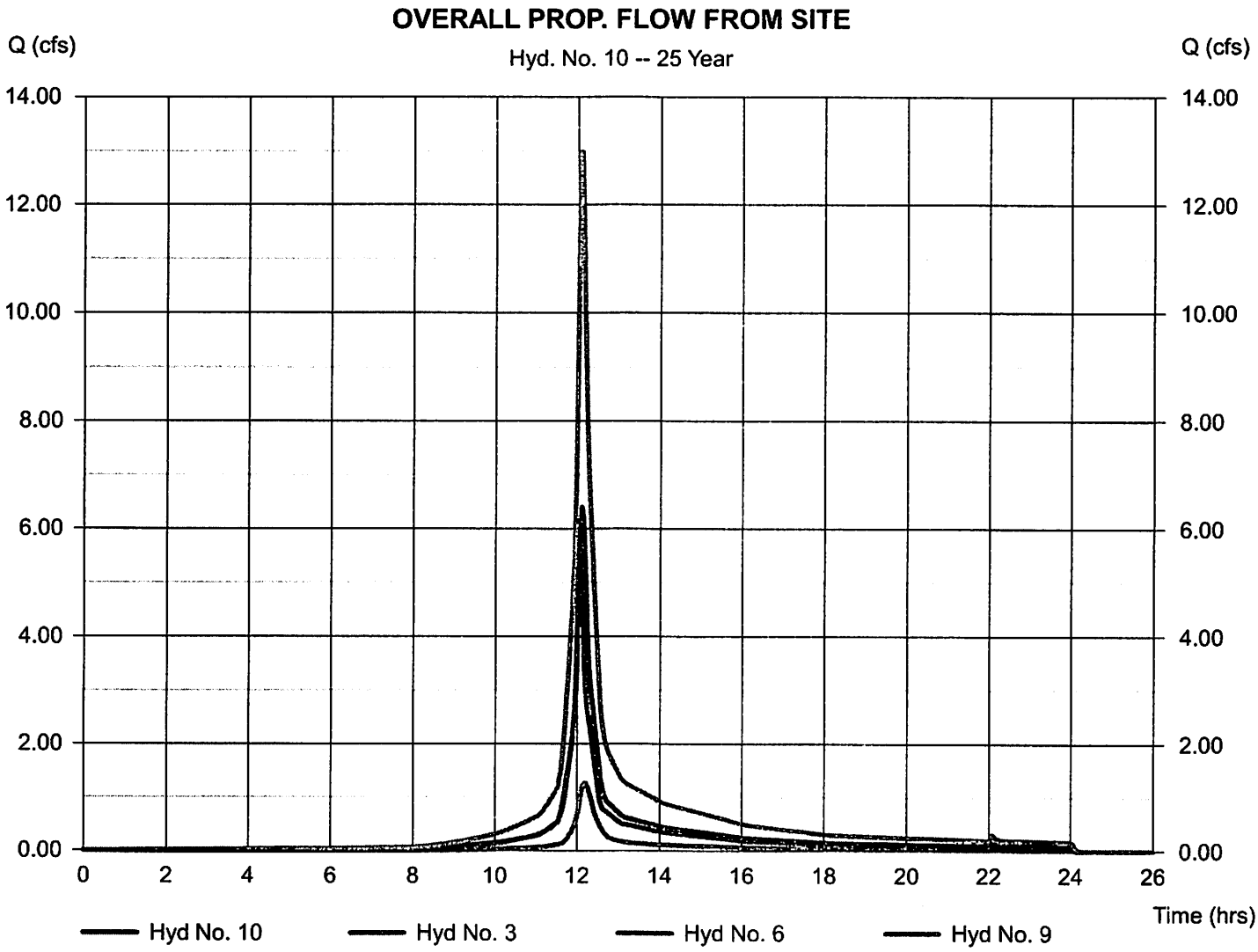


Hydrograph Report

Hyd. No. 10

OVERALL PROP. FLOW FROM SITE

Hydrograph type	= Combine	Peak discharge	= 12.98 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 46,243 cuft
Inflow hyds.	= 3, 6, 9	Contrib. drain. area	= 0.000 ac



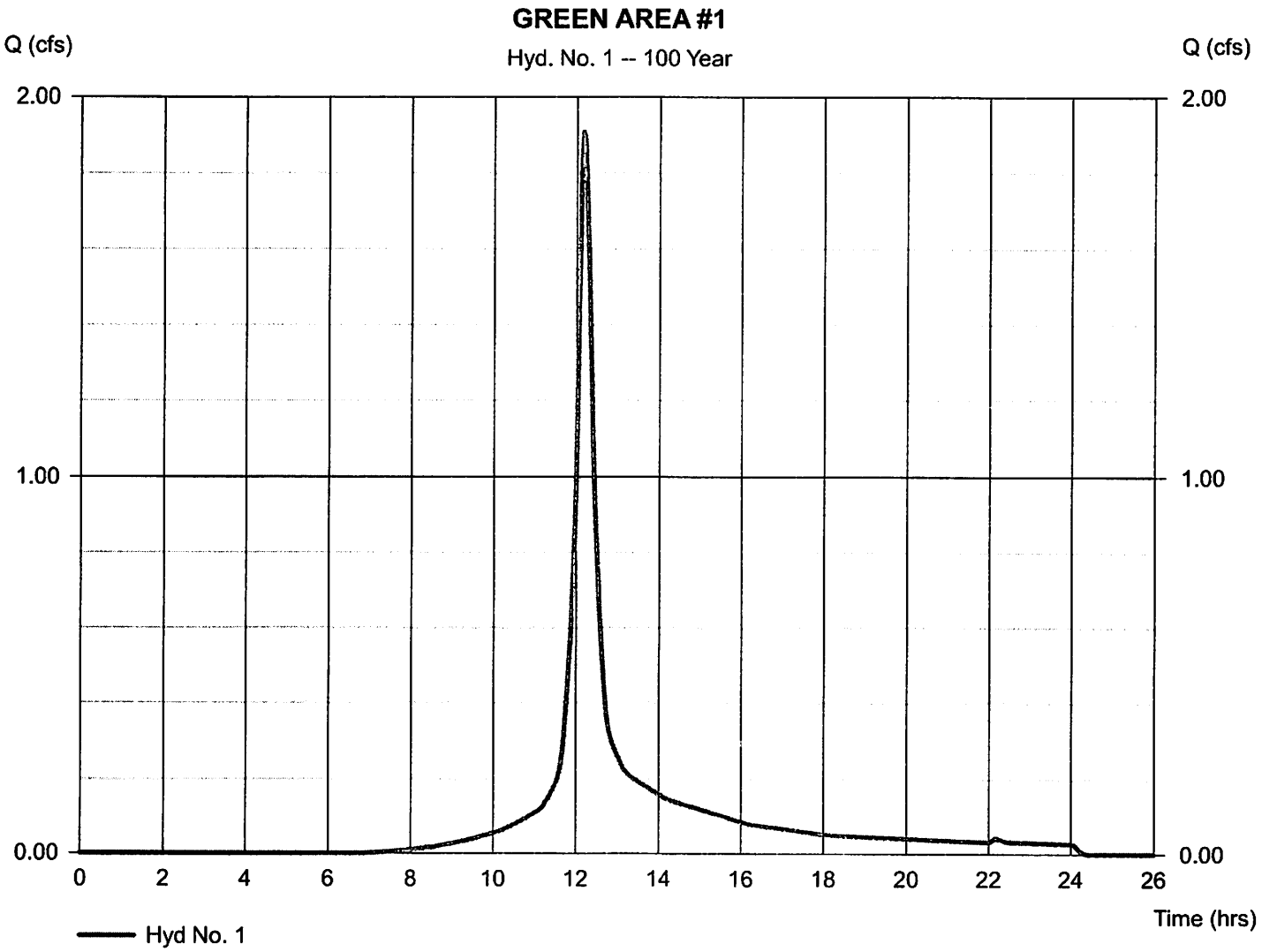
Hydrograph Report

Hyd. No. 1

GREEN AREA #1

Hydrograph type	= SCS Runoff	Peak discharge	= 1.908 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.17 hrs
Time interval	= 2 min	Hyd. volume	= 7,781 cuft
Drainage area	= 0.421 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 15.50 min
Total precip.	= 8.33 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.421 x 74)] / 0.421



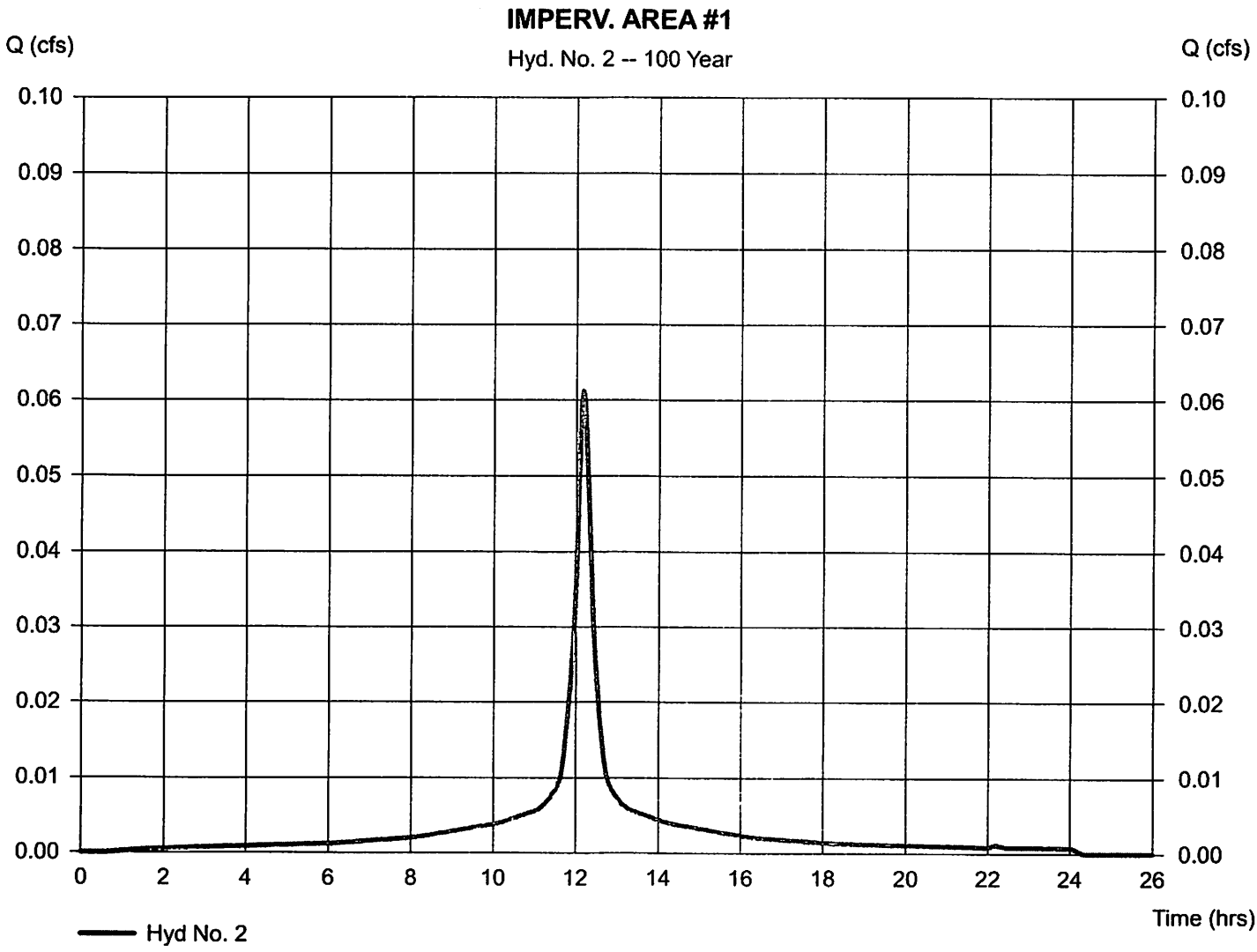
Hydrograph Report

Hyd. No. 2

IMPERV. AREA #1

Hydrograph type	= SCS Runoff	Peak discharge	= 0.061 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.17 hrs
Time interval	= 2 min	Hyd. volume	= 286 cuft
Drainage area	= 0.010 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 15.50 min
Total precip.	= 8.33 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.013 x 98)] / 0.010

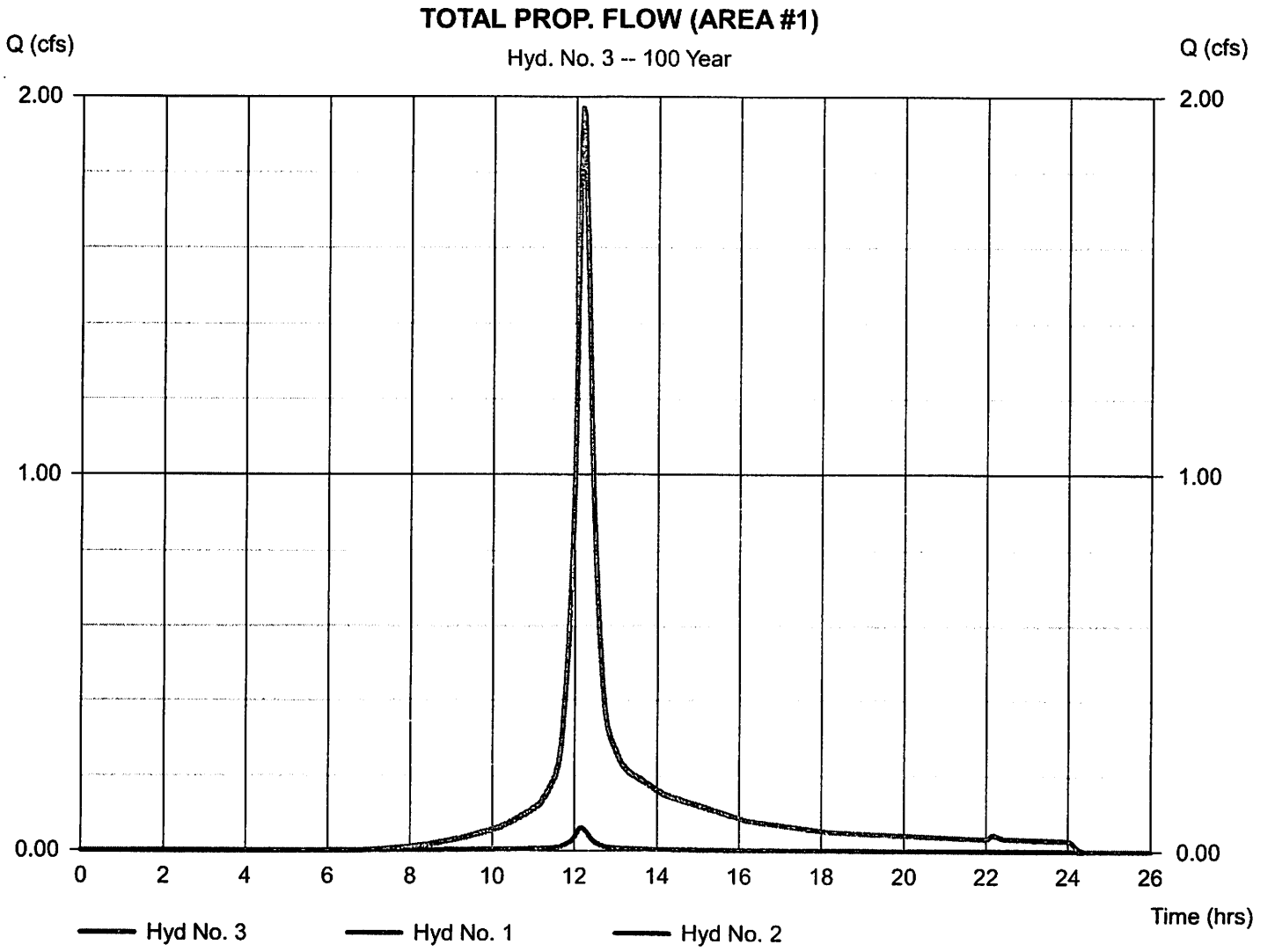


Hydrograph Report

Hyd. No. 3

TOTAL PROP. FLOW (AREA #1)

Hydrograph type	= Combine	Peak discharge	= 1.969 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.17 hrs
Time interval	= 2 min	Hyd. volume	= 8,067 cuft
Inflow hyds.	= 1, 2	Contrib. drain. area	= 0.431 ac



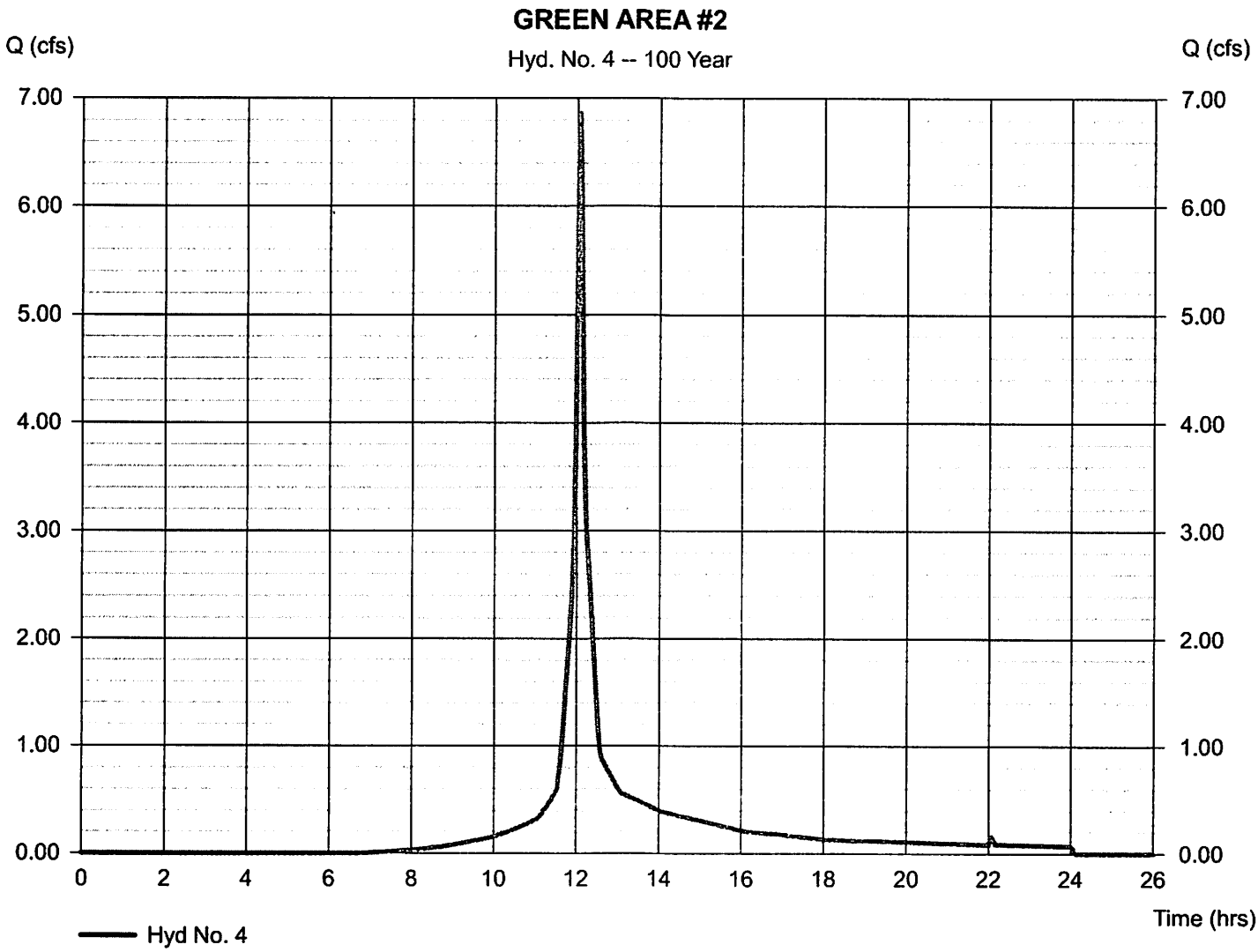
Hydrograph Report

Hyd. No. 4

GREEN AREA #2

Hydrograph type	= SCS Runoff	Peak discharge	= 6.860 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 20,614 cuft
Drainage area	= 1.160 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 8.33 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.158 x 74)] / 1.160



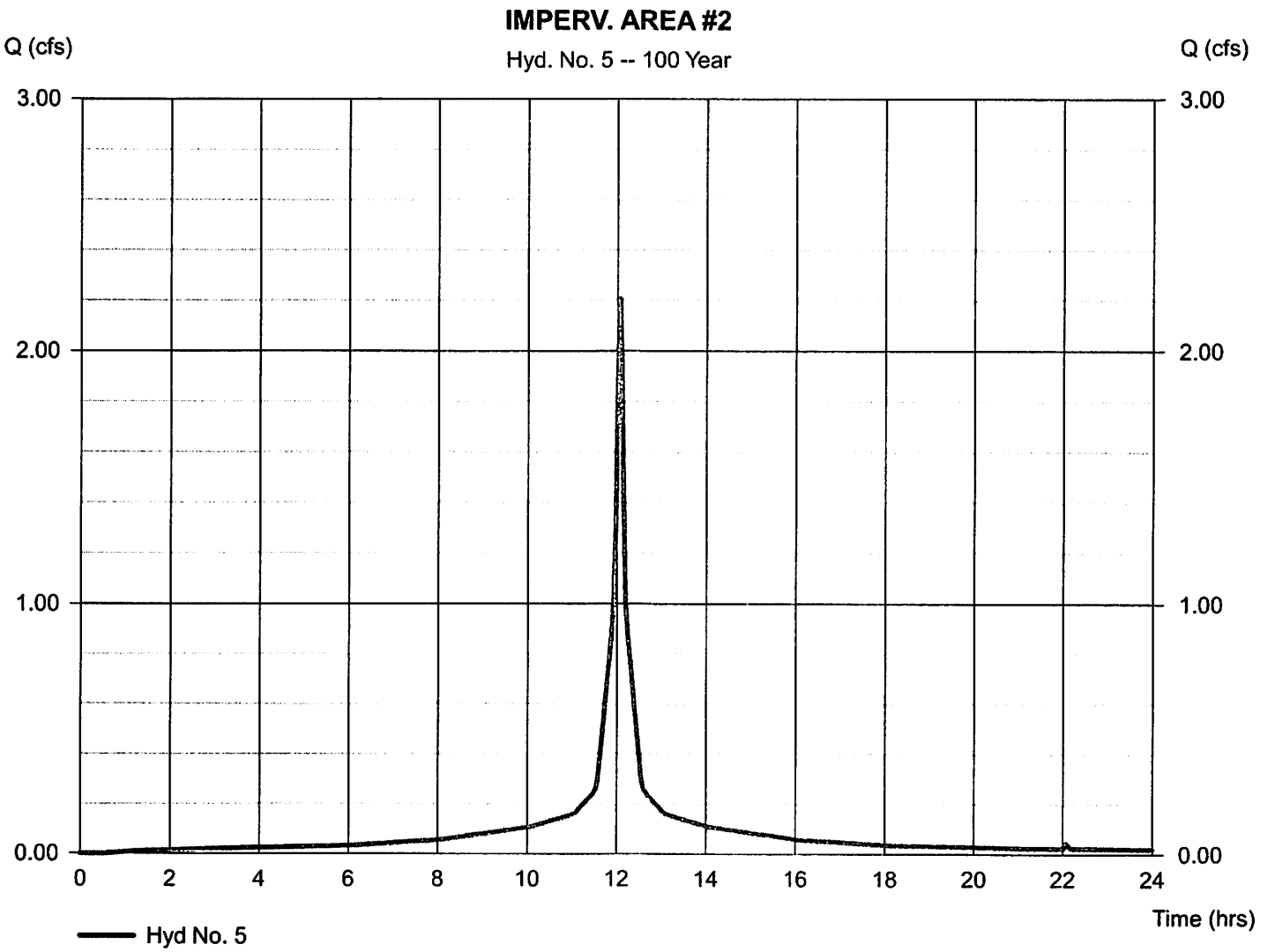
Hydrograph Report

Hyd. No. 5

IMPERV. AREA #2

Hydrograph type	= SCS Runoff	Peak discharge	= 2.208 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 7,709 cuft
Drainage area	= 0.280 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 8.33 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.284 x 98)] / 0.280

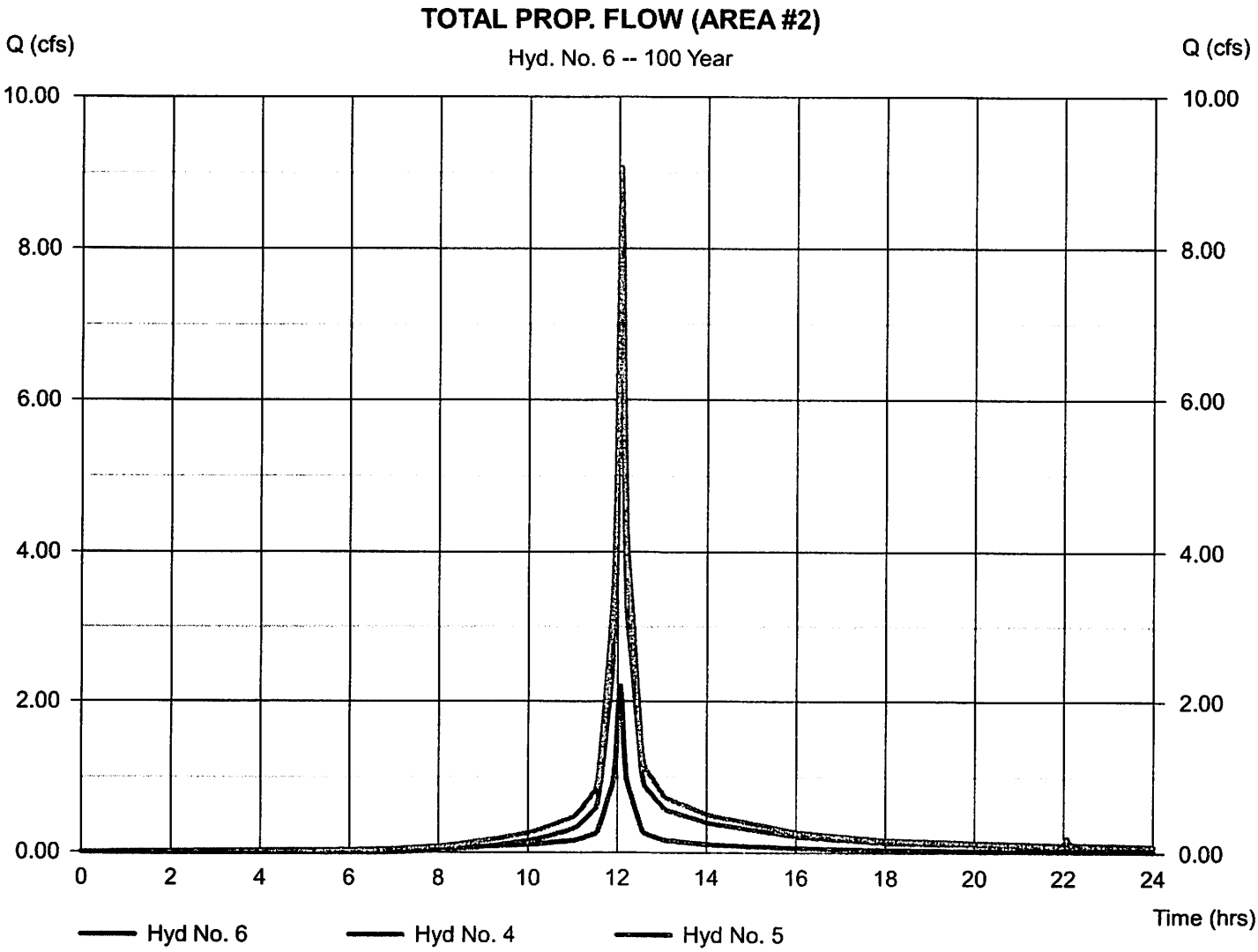


Hydrograph Report

Hyd. No. 6

TOTAL PROP. FLOW (AREA #2)

Hydrograph type	= Combine	Peak discharge	= 9.068 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 28,323 cuft
Inflow hyds.	= 4, 5	Contrib. drain. area	= 1.440 ac



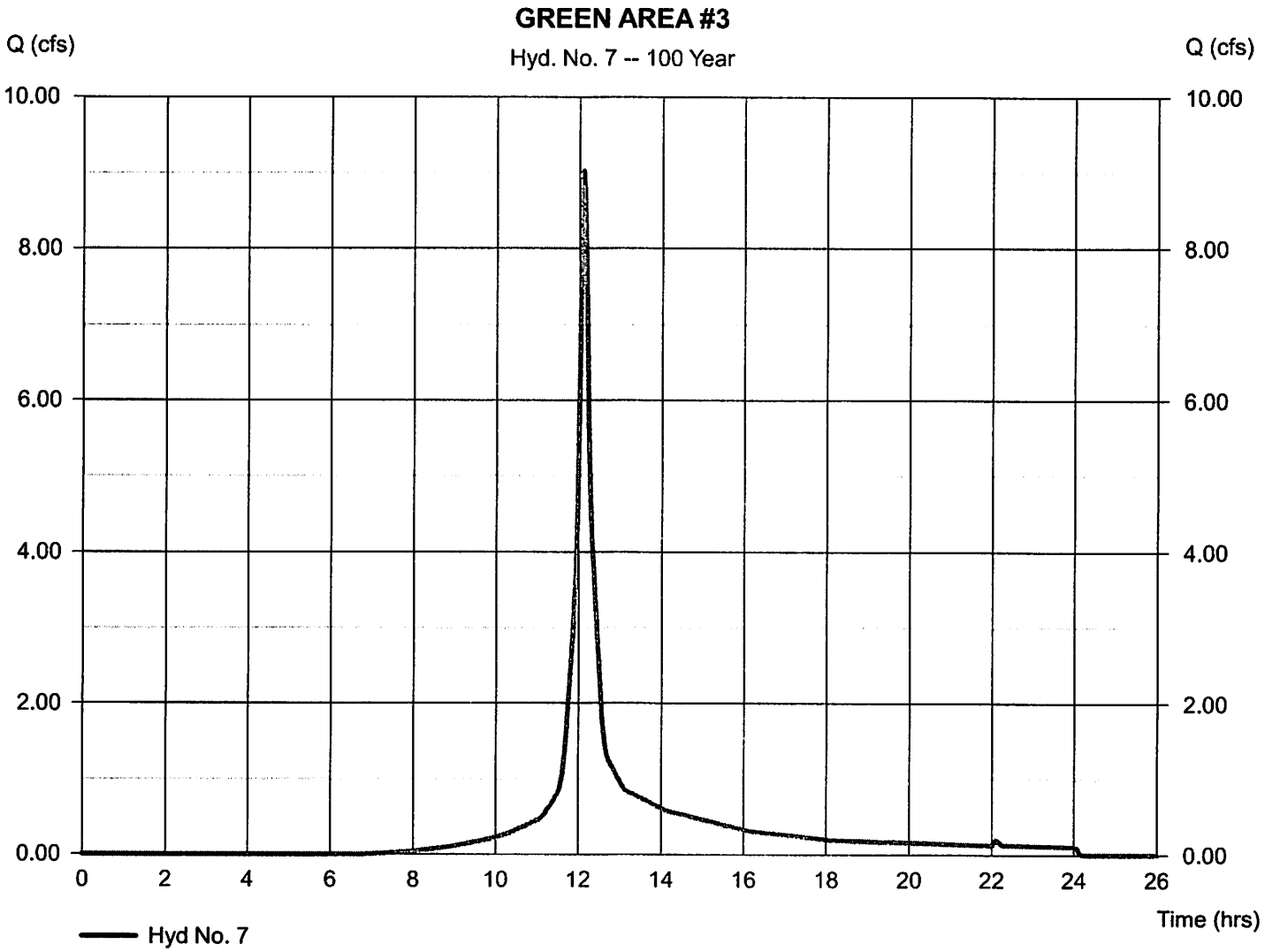
Hydrograph Report

Hyd. No. 7

GREEN AREA #3

Hydrograph type	= SCS Runoff	Peak discharge	= 9.019 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 30,897 cuft
Drainage area	= 1.630 ac	Curve number	= 74*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 8.70 min
Total precip.	= 8.33 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.629 x 74)] / 1.630



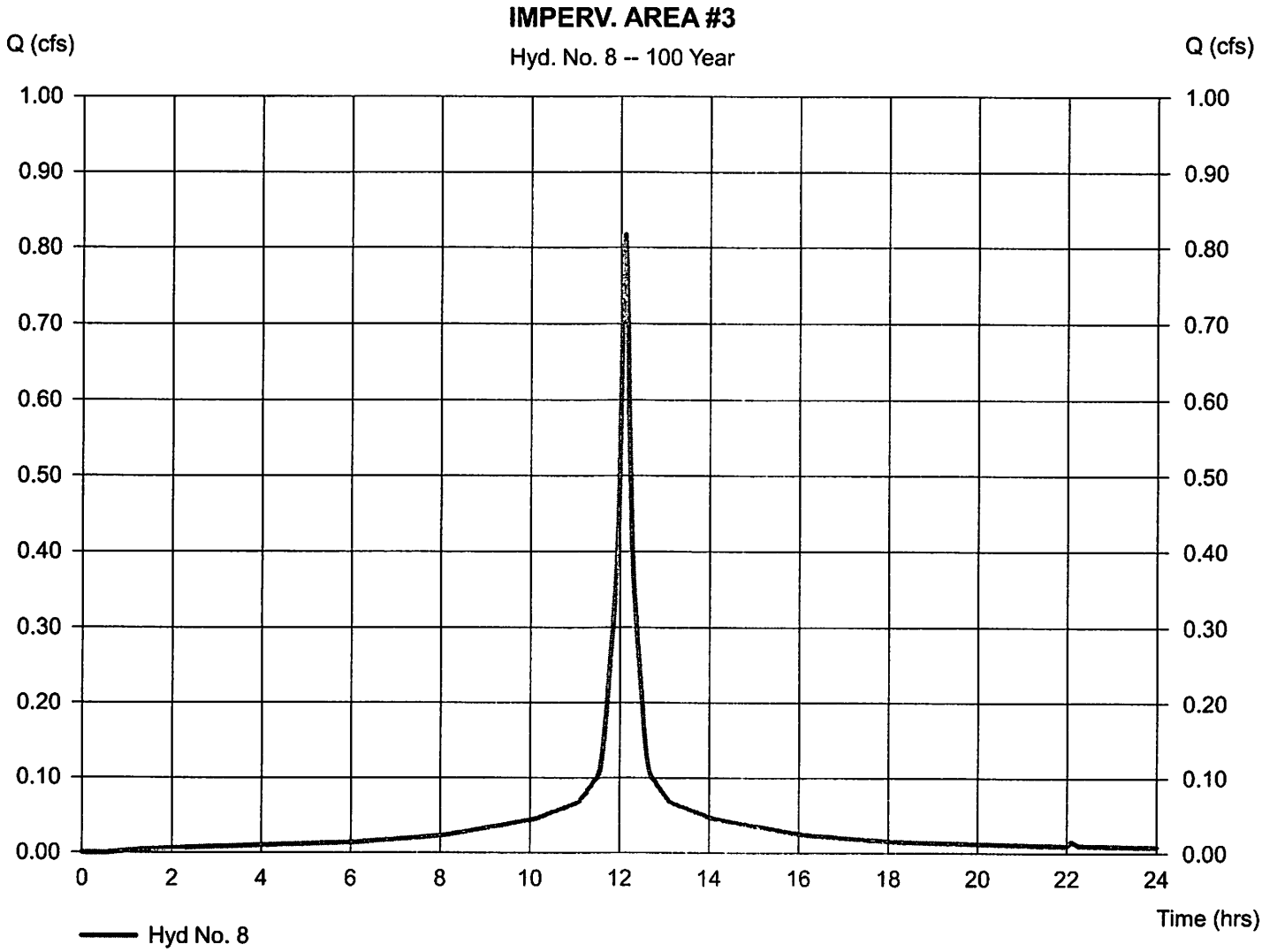
Hydrograph Report

Hyd. No. 8

IMPERV. AREA #3

Hydrograph type	= SCS Runoff	Peak discharge	= 0.817 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 3,230 cuft
Drainage area	= 0.110 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 8.70 min
Total precip.	= 8.33 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.112 x 98)] / 0.110

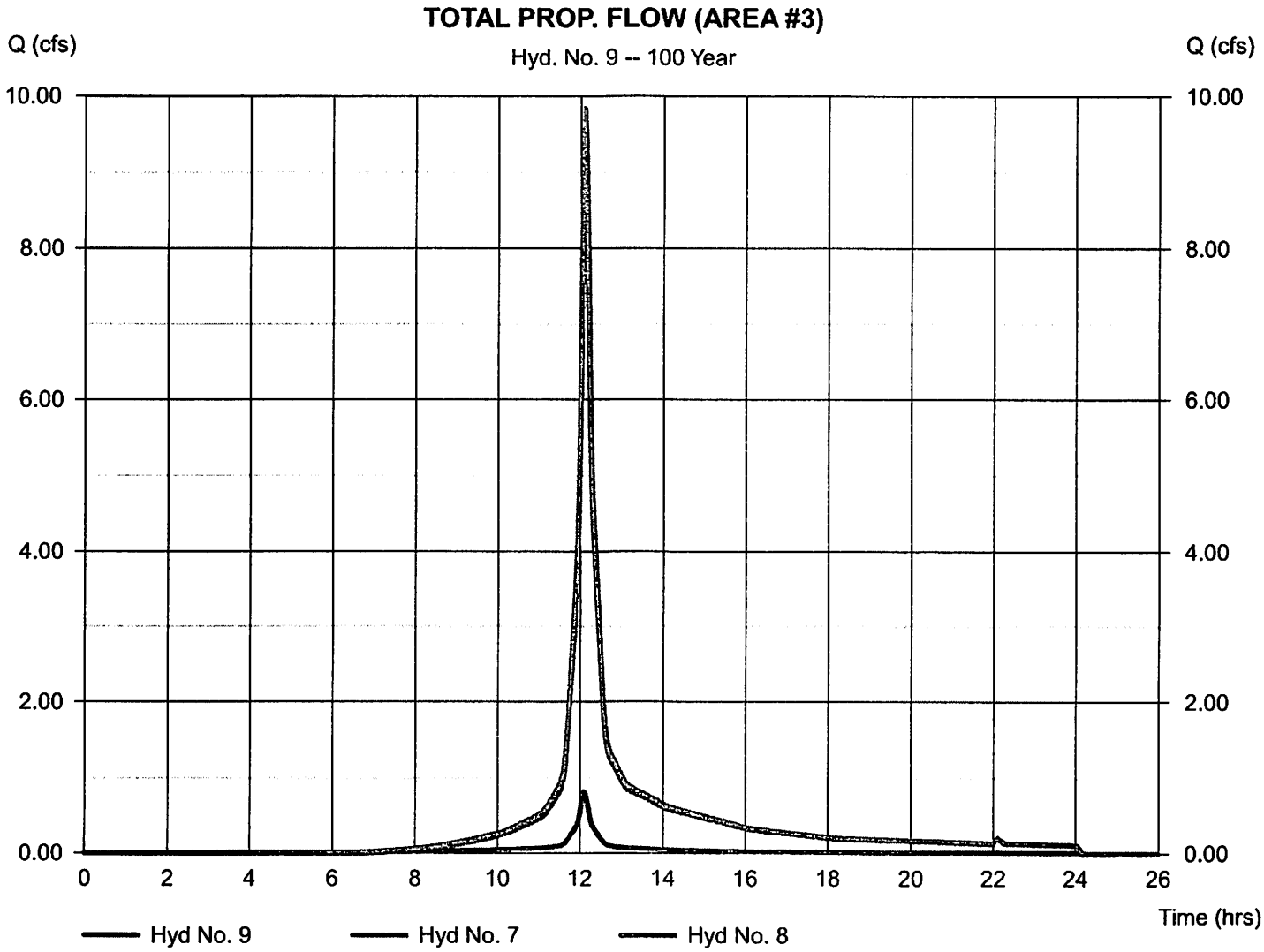


Hydrograph Report

Hyd. No. 9

TOTAL PROP. FLOW (AREA #3)

Hydrograph type	= Combine	Peak discharge	= 9.836 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 34,127 cuft
Inflow hyds.	= 7, 8	Contrib. drain. area	= 1.740 ac



Hydrograph Report

Hyd. No. 10

OVERALL PROP. FLOW FROM SITE

Hydrograph type	= Combine	Peak discharge	= 19.81 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 70,517 cuft
Inflow hyds.	= 3, 6, 9	Contrib. drain. area	= 0.000 ac