

STORMWATER ANALYSIS

FOR

CARRIE SUE CLAUSI

RE-SUBDIVISION OF PROPERTY

AT

**TARTIA ROAD & TOWN FARM ROAD
EAST HAMPTON, CONNECTICUT**

PREPARED BY

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PROJECT NARRATIVE

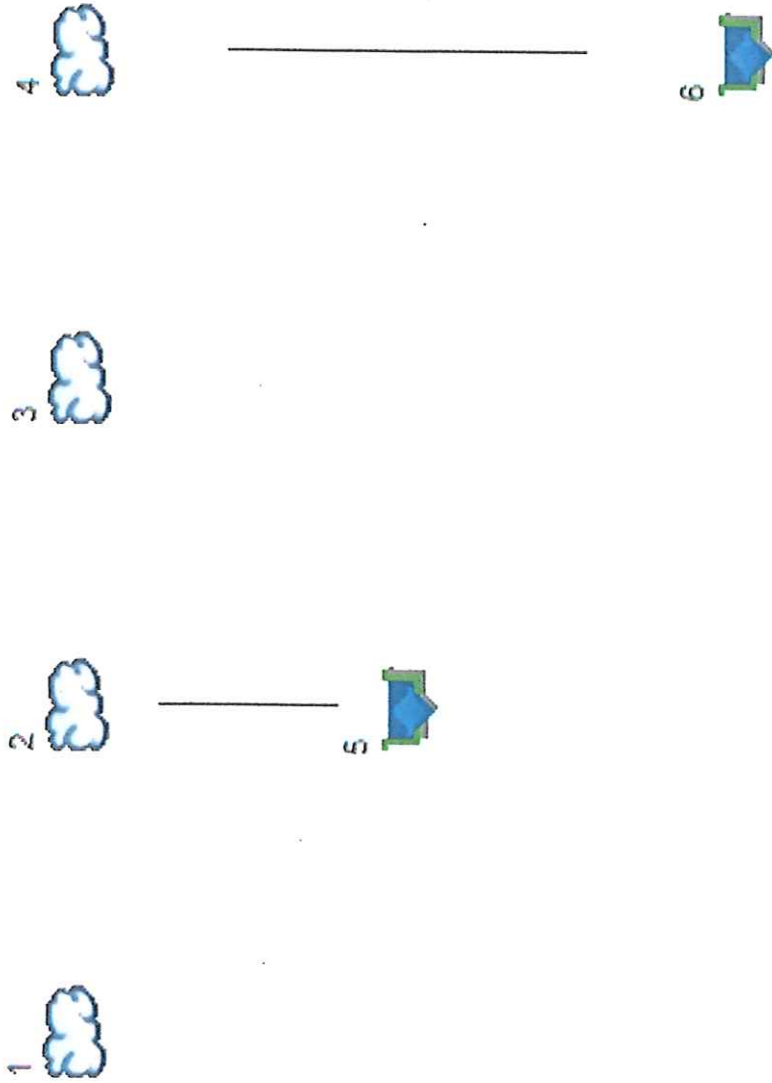
The property fronts along Tartia Road and Town Farm Road and contains 17.0413 acres of wooded land. The northern part of the site contains a brook and related wetland corridor.

The project proposes to subdivide the parcel into two lots, all to be served by an individual on-site well and subsurface sewage disposal system. The lots will be accessed off different sections of Tartia Road. Each lot will have its own water quality / detention basin to collect and store surface water runoff from the developed area of each lot.

STORMWATER ANALYSIS & METHODOLOGY

This analysis uses the SCS TR-55 program by Intellisolve to generate the various runoff hydrographs and times of concentration using the current NOAA-14 rainfall frequency tables for this specific site location. The results of peak flow rates for the 2, 10, and 100 year events have been computed for this analysis for pre & post conditions for the total parcel area, the results of which are summarized on the following sheets labeled "Hydrograph Summary Report". Individual watershed hydrographs have been printed for pre & post development conditions and are shown in this report. Time of concentration, T_c , have been determined for this watershed using the TR-55 method. Note that throughout this analysis, lot ID numbers, ie 7-2 and 7-3, are used for detention basin designs. It is noted that no exfiltration values are used in these basin designs.

The water quality volumes (WQV) from runoff of a one inch rainfall of the impervious surface areas on each lot has been computed and are less than storage volumes required for the individual detention basins. WQV: Lot 7-2 = 472 cf Lot 7-3 = 664 cf
The USDA soil mapping for the entirety of the proposed site development areas indicate soils in a hydrologic group "C" category.



Legend

<u>Hyd.</u>	<u>Origin</u>	<u>Description</u>
1	SCS Runoff	Lot 7-2 Ex. Conditions
2	SCS Runoff	Lot 7-2 Prop. Conditions
3	SCS Runoff	Lot 7-3 Ex. Conditions
4	SCS Runoff	Lot 7-3 Prop. Conditions
5	Reservoir	LOT 7-2 Det. Basin
6	Reservoir	LOT 7-3 Det. Basin

Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (cuft)	Hydrograph description	
1	SCS Runoff	1.82	6	732	7,775	----	-----	-----	Lot 7-2 Ex. Conditions	
2	SCS Runoff	2.09	6	732	8,902	----	-----	-----	Lot 7-2 Prop. Conditions	
3	SCS Runoff	1.01	15	750	6,617	----	-----	-----	Lot 7-3 Ex. Conditions	
4	SCS Runoff	1.40	12	744	8,075	----	-----	-----	Lot 7-3 Prop. Conditions	
5	Reservoir	1.73	6	738	8,682	2	355.09	926	LOT 7-2 Det. Basin	
6	Reservoir	1.10	12	756	7,298	4	390.33	2,095	LOT 7-3 Det. Basin	
CLAUSI- TARTIA ROAD.gpw					Return Period: 10 Year			Monday, Apr 25 2022, 9:23 PM		

Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (cuft)	Hydrograph description
1	SCS Runoff	0.80	6	732	3,560	---	-----	-----	Lot 7-2 Ex. Conditions
2	SCS Runoff	1.00	6	732	4,340	---	-----	-----	Lot 7-2 Prop. Conditions
3	SCS Runoff	0.45	15	750	3,030	---	-----	-----	Lot 7-3 Ex. Conditions
4	SCS Runoff	0.70	12	744	4,053	---	-----	-----	Lot 7-3 Prop. Conditions
5	Reservoir	0.93	6	738	4,120	2	354.49	490	LOT 7-2 Det. Basin
6	Reservoir	0.45	12	768	3,276	4	389.78	1,324	LOT 7-3 Det. Basin
CLAUSI- TARTIA ROAD.gpw					Return Period: 2 Year		Monday, Apr 25 2022, 9:23 PM		

Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (cuft)	Hydrograph description
1	SCS Runoff	3.61	6	732	15,472	---	-----	-----	Lot 7-2 Ex. Conditions
2	SCS Runoff	3.93	6	732	16,960	---	-----	-----	Lot 7-2 Prop. Conditions
3	SCS Runoff	2.02	15	750	13,167	---	-----	-----	Lot 7-3 Ex. Conditions
4	SCS Runoff	2.57	12	744	15,071	---	-----	-----	Lot 7-3 Prop. Conditions
5	Reservoir	2.72	6	744	16,740	2	356.32	2,186	LOT 7-2 Det. Basin
6	Reservoir	1.94	12	756	14,294	4	390.99	3,183	LOT 7-3 Det. Basin
CLAUSI- TARTIA ROAD.gpw					Return Period: 100 Year		Monday, Apr 25 2022, 9:23 PM		

WATERSHED DATA

Project: Clark - 2 Lot Re-Subdivision

Sht No: 1

Description: Watershed Data

Date: 4-22-22

Lot 7-2 (Hyd. Group "c")

Ex. Conditions - Woods - 0.94 ac.

RCN - 73

$T_c = 15.3$ min.

Proposed Conditions - Lawn - 0.81 ac

RCN - 74

ImperVIOUS - 0.13 ac

" - 98

0.94 ac

WQV: $\frac{0.13 \times 43,560 \text{ SF/ac}}{12} = 472 \text{ CF}$

$T_c = 2.6$ min.
(used 10 min)

Lot 7-3

Ex. Conditions - Woods - 0.803 ac

RCN - 73

$T_c = 36.6$ min.

Proposed Conditions - Lawn - 0.62 ac.

RCN - 74

- ImperVIOUS - 0.183 ac.

" - 98

0.803 ac.

WQV: $\frac{0.183 \times 43,560 \text{ SF/ac}}{12} = 664 \text{ CF}$ $T_c = 18.8$ min.

TR55 Tc Worksheet

Hyd. No. 1

Lot 7-2 Ex. Conditions

<u>Description</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>Totals</u>
Sheet Flow				
Manning's n-value	= 0.400	0.011	0.011	
Flow length (ft)	= 100.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 3.40	0.00	0.00	
Land slope (%)	= 5.50	0.00	0.00	
Travel Time (min)	= 13.90	+ 0.00	+ 0.00	= 13.90
Shallow Concentrated Flow				
Flow length (ft)	= 410.00	0.00	0.00	
Watercourse slope (%)	= 9.27	0.00	0.00	
Surface description	= Unpaved	Paved	Paved	
Average velocity (ft/s)	= 4.91	0.00	0.00	
Travel Time (min)	= 1.39	+ 0.00	+ 0.00	= 1.39
Channel Flow				
X sectional flow area (sqft)	= 0.00	0.00	0.00	
Wetted perimeter (ft)	= 0.00	0.00	0.00	
Channel slope (%)	= 0.00	0.00	0.00	
Manning's n-value	= 0.015	0.015	0.015	
Velocity (ft/s)	= 0.00	0.00	0.00	
Flow length (ft)	= 0.0	0.0	0.0	
Travel Time (min)	= 0.00	+ 0.00	+ 0.00	= 0.00
Total Travel Time, Tc				15.29 min

TR55 Tc Worksheet

Hyd. No. 3

Lot 7-3 Ex. Conditions

<u>Description</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>Totals</u>
Sheet Flow				
Manning's n-value	= 0.350	0.011	0.011	
Flow length (ft)	= 160.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 3.40	0.00	0.00	
Land slope (%)	= 1.00	0.00	0.00	
Travel Time (min)	= 35.98	+ 0.00	+ 0.00	= 35.98
Shallow Concentrated Flow				
Flow length (ft)	= 145.00	0.00	0.00	
Watercourse slope (%)	= 5.00	0.00	0.00	
Surface description	= Unpaved	Unpaved	Paved	
Average velocity (ft/s)	= 3.61	0.00	0.00	
Travel Time (min)	= 0.67	+ 0.00	+ 0.00	= 0.67
Channel Flow				
X sectional flow area (sqft)	= 0.00	0.00	0.00	
Wetted perimeter (ft)	= 0.00	0.00	0.00	
Channel slope (%)	= 0.00	0.00	0.00	
Manning's n-value	= 0.015	0.015	0.015	
Velocity (ft/s)	= 0.00	0.00	0.00	
Flow length (ft)	= 0.0	0.0	0.0	
Travel Time (min)	= 0.00	+ 0.00	+ 0.00	= 0.00
Total Travel Time, Tc				36.65 min

TR55 Tc Worksheet

Hyd. No. 4

Lot 7-3 Prop. Conditions

<u>Description</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>Totals</u>
Sheet Flow				
Manning's n-value	= 0.013	0.350	0.011	
Flow length (ft)	= 110.0	65.0	0.0	
Two-year 24-hr precip. (in)	= 3.40	3.40	0.00	
Land slope (%)	= 1.00	1.18	0.00	
Travel Time (min)	= 1.91	+	16.38	+
				0.00 = 18.29
Shallow Concentrated Flow				
Flow length (ft)	= 115.00	0.00	0.00	
Watercourse slope (%)	= 4.80	0.00	0.00	
Surface description	= Unpaved	Unpaved	Paved	
Average velocity (ft/s)	= 3.53	0.00	0.00	
Travel Time (min)	= 0.54	+	0.00	+
				0.00 = 0.54
Channel Flow				
X sectional flow area (sqft)	= 0.00	0.00	0.00	
Wetted perimeter (ft)	= 0.00	0.00	0.00	
Channel slope (%)	= 0.00	0.00	0.00	
Manning's n-value	= 0.015	0.015	0.015	
Velocity (ft/s)	= 0.00	0.00	0.00	
Flow length (ft)	= 0.0	0.0	0.0	
Travel Time (min)	= 0.00	+	0.00	+
				0.00 = 0.00
Total Travel Time, Tc				18.84 min



NOAA Atlas 14, Volume 10, Version 3
Location name: East Hampton, Connecticut, USA*
Latitude: 41.5505°, Longitude: -72.4702°
Elevation: 391.1 ft**
 * source: ESRI Maps
 ** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

[PF_tabular](#) | [PF_graphical](#) | [Maps & aeriels](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.334 (0.258-0.419)	0.404 (0.312-0.508)	0.519 (0.400-0.654)	0.614 (0.471-0.778)	0.745 (0.554-0.984)	0.844 (0.614-1.14)	0.947 (0.671-1.32)	1.06 (0.714-1.51)	1.23 (0.796-1.81)	1.37 (0.865-2.04)
10-min	0.473 (0.366-0.594)	0.573 (0.443-0.719)	0.736 (0.567-0.928)	0.871 (0.667-1.10)	1.06 (0.784-1.39)	1.20 (0.871-1.61)	1.34 (0.951-1.87)	1.51 (1.01-2.14)	1.74 (1.13-2.56)	1.94 (1.23-2.90)
15-min	0.557 (0.431-0.699)	0.674 (0.521-0.846)	0.865 (0.666-1.09)	1.02 (0.784-1.30)	1.24 (0.923-1.64)	1.41 (1.02-1.89)	1.58 (1.12-2.20)	1.77 (1.19-2.52)	2.05 (1.33-3.01)	2.28 (1.44-3.41)
30-min	0.762 (0.589-0.956)	0.922 (0.712-1.16)	1.18 (0.912-1.49)	1.40 (1.07-1.78)	1.70 (1.26-2.24)	1.92 (1.40-2.59)	2.16 (1.53-3.01)	2.42 (1.63-3.44)	2.80 (1.81-4.11)	3.11 (1.97-4.65)
60-min	0.967 (0.748-1.21)	1.17 (0.904-1.47)	1.50 (1.16-1.89)	1.78 (1.36-2.25)	2.15 (1.60-2.85)	2.44 (1.78-3.29)	2.74 (1.94-3.82)	3.07 (2.07-4.37)	3.55 (2.30-5.22)	3.95 (2.50-5.90)
2-hr	1.28 (0.998-1.59)	1.54 (1.20-1.92)	1.95 (1.52-2.44)	2.30 (1.78-2.90)	2.78 (2.08-3.65)	3.14 (2.31-4.20)	3.52 (2.52-4.88)	3.96 (2.67-5.58)	4.60 (2.99-6.70)	5.14 (3.27-7.63)
3-hr	1.49 (1.17-1.86)	1.79 (1.40-2.22)	2.27 (1.77-2.83)	2.67 (2.07-3.34)	3.22 (2.42-4.20)	3.63 (2.68-4.84)	4.06 (2.92-5.62)	4.58 (3.10-6.42)	5.34 (3.48-7.73)	5.98 (3.81-8.82)
6-hr	1.92 (1.52-2.36)	2.29 (1.81-2.83)	2.90 (2.29-3.59)	3.41 (2.67-4.24)	4.11 (3.12-5.34)	4.63 (3.45-6.14)	5.19 (3.76-7.14)	5.85 (3.98-8.15)	6.85 (4.47-9.83)	7.69 (4.91-11.2)
12-hr	2.38 (1.90-2.92)	2.86 (2.28-3.51)	3.65 (2.90-4.48)	4.30 (3.39-5.31)	5.19 (3.97-6.69)	5.86 (4.39-7.70)	6.57 (4.79-8.97)	7.42 (5.07-10.2)	8.69 (5.70-12.4)	9.76 (6.25-14.1)
24-hr	2.80 (2.26-3.41)	3.40 (2.74-4.14)	4.38 (3.51-5.34)	5.19 (4.14-6.37)	6.31 (4.87-8.08)	7.14 (5.39-9.33)	8.03 (5.90-10.9)	9.11 (6.25-12.5)	10.8 (7.08-15.2)	12.2 (7.81-17.5)
2-day	3.14 (2.55-3.79)	3.86 (3.13-4.66)	5.04 (4.07-6.10)	6.02 (4.83-7.32)	7.36 (5.73-9.38)	8.35 (6.37-10.9)	9.43 (7.01-12.8)	10.8 (7.43-14.6)	12.9 (8.52-18.0)	14.7 (9.49-21.0)
3-day	3.40 (2.78-4.09)	4.19 (3.42-5.04)	5.48 (4.46-6.61)	6.55 (5.29-7.94)	8.02 (6.27-10.2)	9.10 (6.97-11.8)	10.3 (7.68-13.9)	11.8 (8.14-15.9)	14.1 (9.35-19.7)	16.2 (10.4-22.9)
4-day	3.65 (2.99-4.37)	4.49 (3.68-5.38)	5.86 (4.78-7.04)	6.99 (5.67-8.44)	8.55 (6.71-10.8)	9.70 (7.45-12.5)	11.0 (8.20-14.7)	12.5 (8.68-16.9)	15.0 (9.96-20.8)	17.2 (11.1-24.2)
7-day	4.35 (3.59-5.17)	5.28 (4.36-6.29)	6.81 (5.59-8.14)	8.07 (6.59-9.70)	9.82 (7.75-12.3)	11.1 (8.57-14.2)	12.5 (9.38-16.7)	14.3 (9.90-19.0)	17.0 (11.3-23.3)	19.3 (12.5-27.0)
10-day	5.04 (4.19-5.98)	6.03 (5.00-7.16)	7.65 (6.32-9.11)	8.99 (7.38-10.8)	10.8 (8.58-13.5)	12.2 (9.45-15.5)	13.7 (10.3-18.1)	15.5 (10.8-20.6)	18.2 (12.2-25.0)	20.6 (13.4-28.7)
20-day	7.23 (6.06-8.52)	8.30 (6.95-9.78)	10.0 (8.38-11.9)	11.5 (9.52-13.7)	13.5 (10.7-16.6)	15.0 (11.6-18.8)	16.6 (12.4-21.4)	18.3 (12.9-24.1)	20.9 (14.0-28.2)	22.9 (14.9-31.6)
30-day	9.08 (7.65-10.6)	10.2 (8.57-12.0)	12.0 (10.1-14.1)	13.5 (11.2-16.0)	15.6 (12.4-19.0)	17.2 (13.3-21.3)	18.8 (14.0-23.9)	20.4 (14.4-26.7)	22.7 (15.3-30.6)	24.5 (16.0-33.5)
45-day	11.4 (9.65-13.3)	12.5 (10.6-14.7)	14.4 (12.2-16.9)	16.0 (13.4-18.8)	18.1 (14.5-21.9)	19.8 (15.4-24.3)	21.5 (16.0-27.0)	23.0 (16.3-29.9)	25.1 (16.9-33.5)	26.5 (17.3-36.1)
60-day	13.3 (11.3-15.5)	14.5 (12.3-16.9)	16.5 (13.9-19.2)	18.1 (15.2-21.2)	20.3 (16.3-24.4)	22.1 (17.2-26.9)	23.7 (17.7-29.6)	25.3 (18.0-32.7)	27.1 (18.3-36.1)	28.3 (18.5-38.5)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

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PF graphical

**PRE & POST DEVELOPMENT
RUNOFF HYDROGRAPHS**

Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Tuesday, Apr 26 2022, 8:20 AM

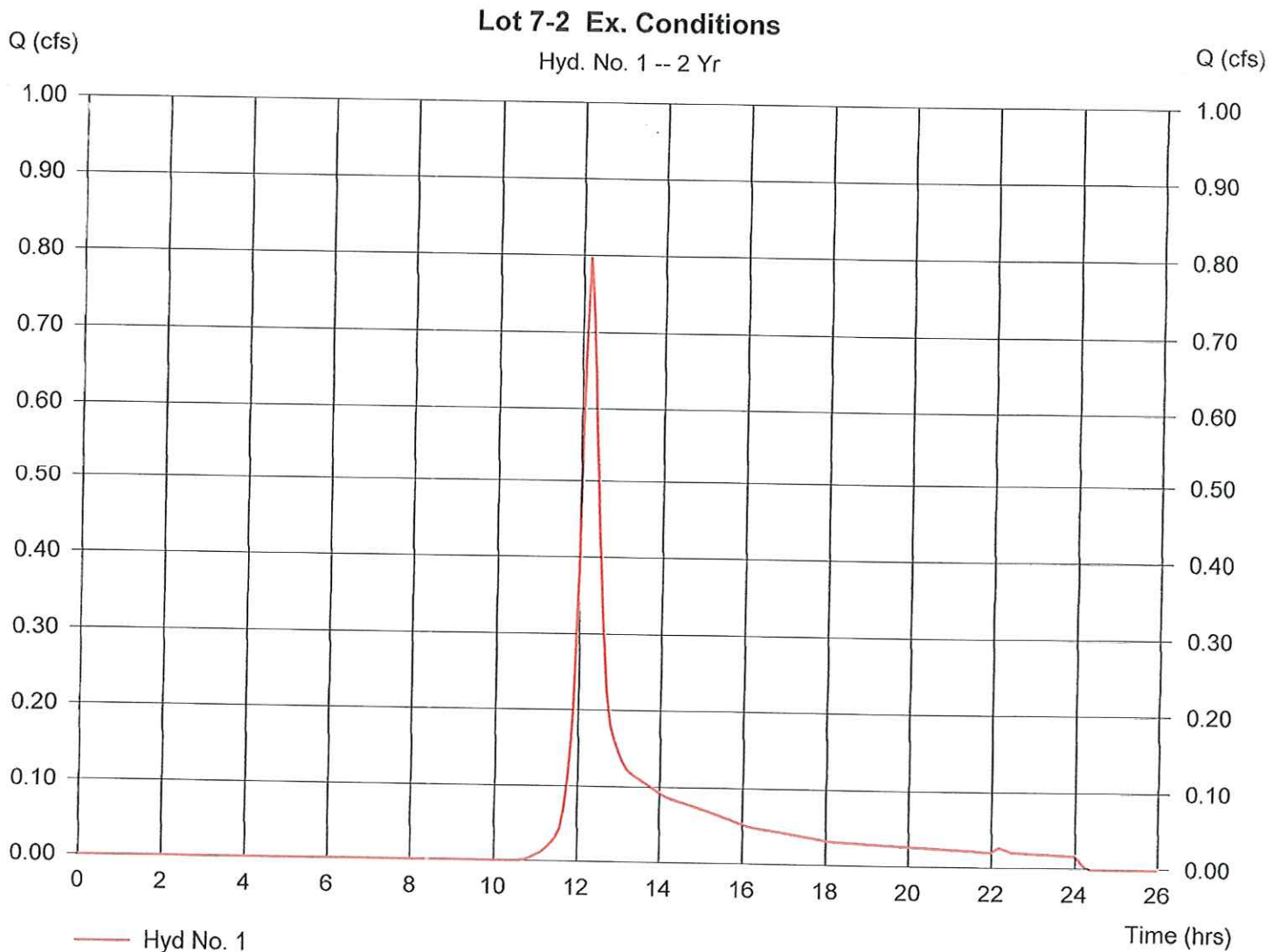
Hyd. No. 1

Lot 7-2 Ex. Conditions

Hydrograph type = SCS Runoff
Storm frequency = 2 yrs
Drainage area = 0.94 ac
Basin Slope = 0.0 %
Tc method = TR55
Total precip. = 3.40 in
Storm duration = 24 hrs

Peak discharge = 0.80 cfs
Time interval = 6 min
Curve number = 73
Hydraulic length = 0 ft
Time of conc. (Tc) = 15.29097 min
Distribution = Type III
Shape factor = 484

Hydrograph Volume = 3,560 cuft



Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Tuesday, Apr 26 2022, 8:20 AM

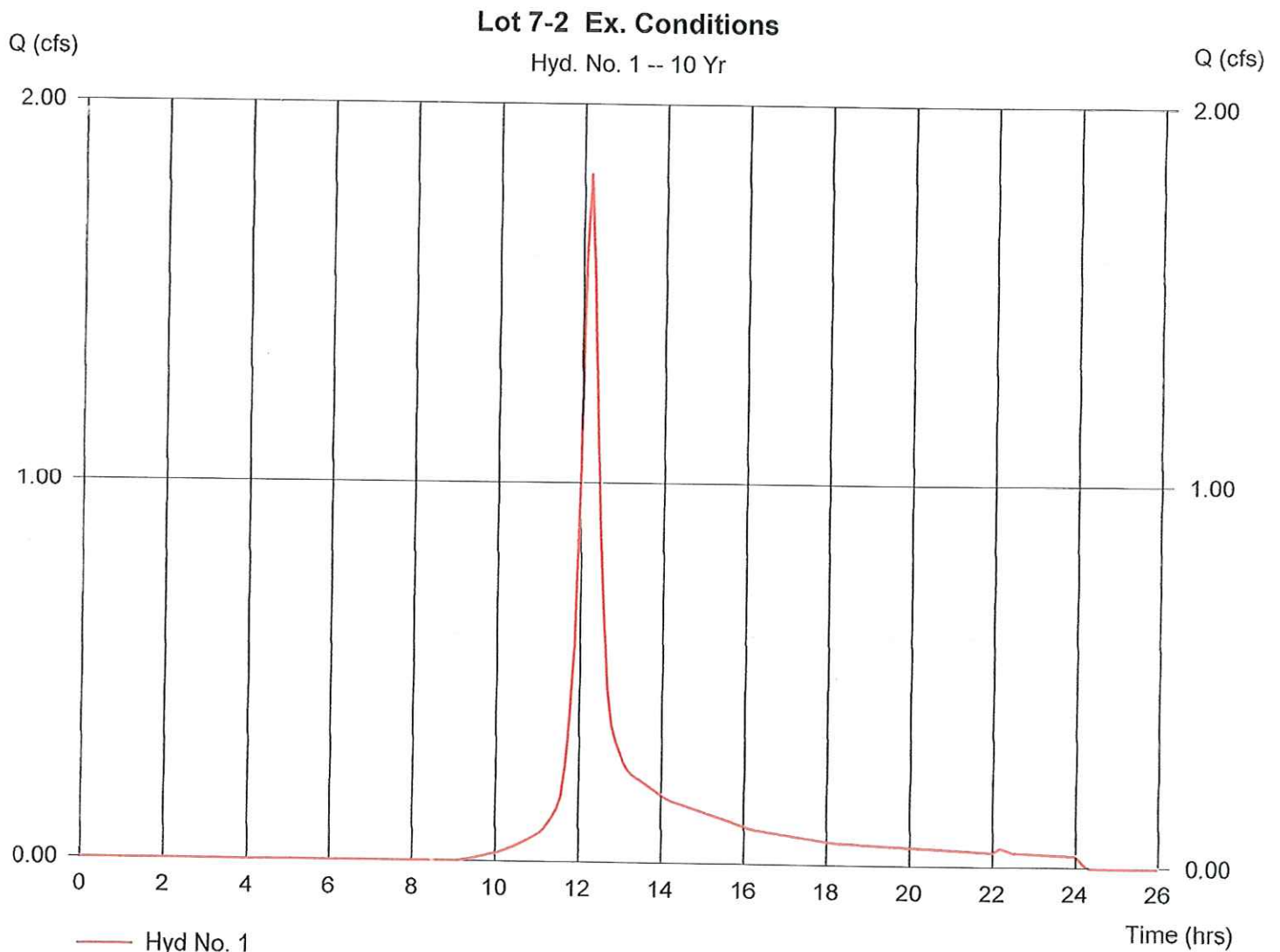
Hyd. No. 1

Lot 7-2 Ex. Conditions

Hydrograph type = SCS Runoff
Storm frequency = 10 yrs
Drainage area = 0.94 ac
Basin Slope = 0.0 %
Tc method = TR55
Total precip. = 5.19 in
Storm duration = 24 hrs

Peak discharge = 1.82 cfs
Time interval = 6 min
Curve number = 73
Hydraulic length = 0 ft
Time of conc. (Tc) = 15.29097 min
Distribution = Type III
Shape factor = 484

Hydrograph Volume = 7,775 cuft



Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Tuesday, Apr 26 2022, 8:20 AM

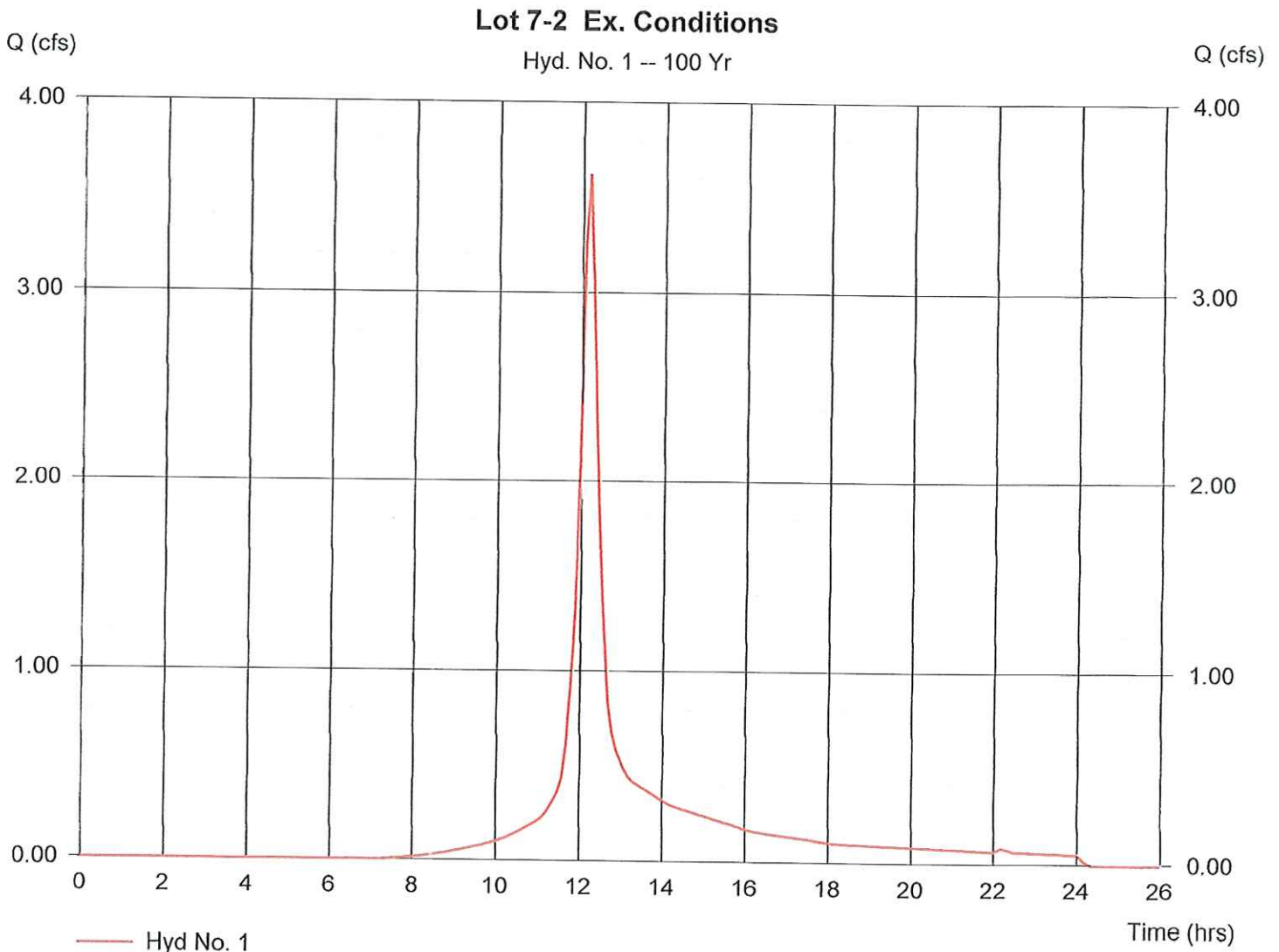
Hyd. No. 1

Lot 7-2 Ex. Conditions

Hydrograph type = SCS Runoff
Storm frequency = 100 yrs
Drainage area = 0.94 ac
Basin Slope = 0.0 %
Tc method = TR55
Total precip. = 8.03 in
Storm duration = 24 hrs

Peak discharge = 3.61 cfs
Time interval = 6 min
Curve number = 73
Hydraulic length = 0 ft
Time of conc. (Tc) = 15.29097 min
Distribution = Type III
Shape factor = 484

Hydrograph Volume = 15,472 cuft



Hydrograph Plot

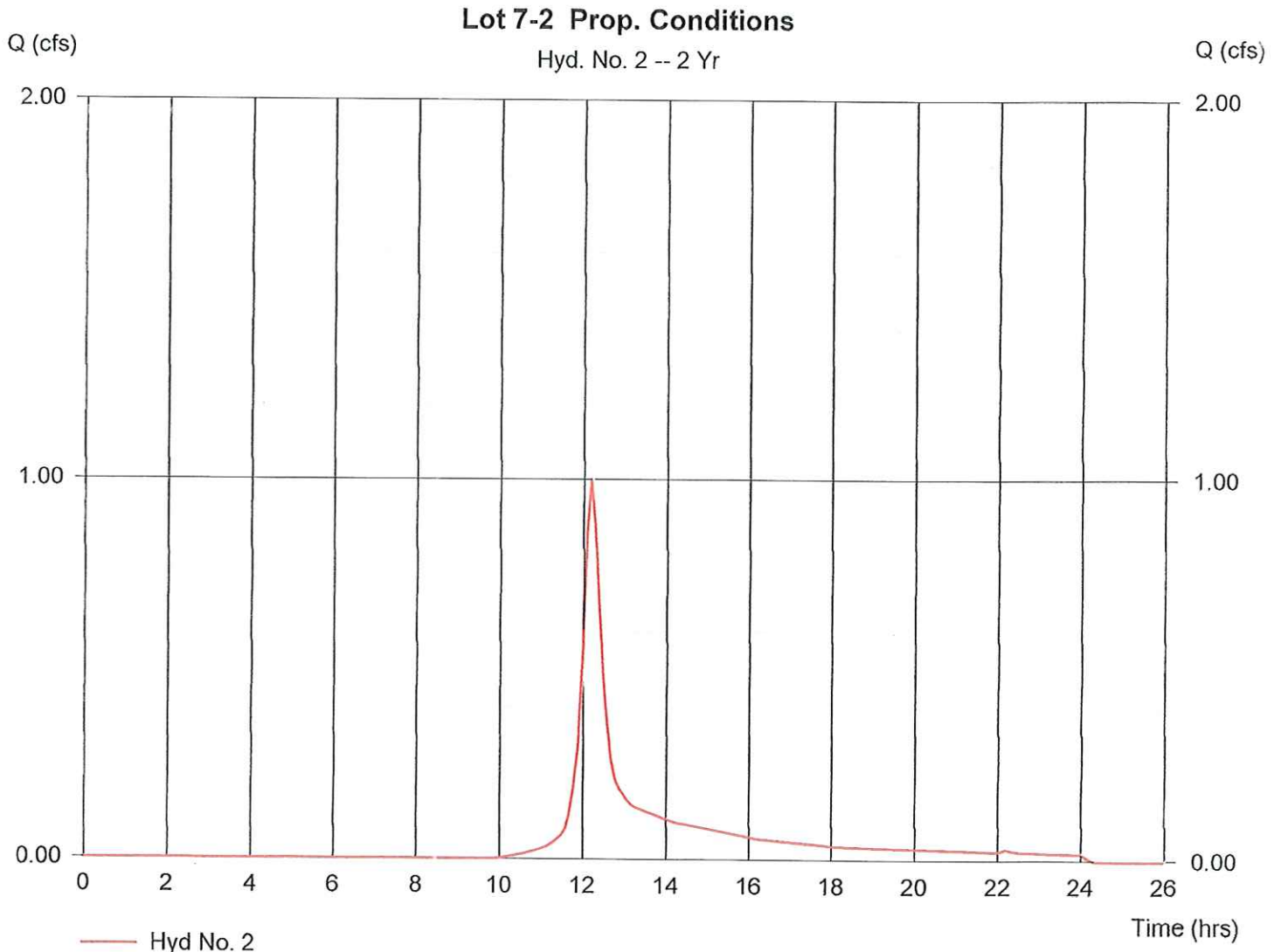
Hyd. No. 2

Lot 7-2 Prop. Conditions

Hydrograph type = SCS Runoff
Storm frequency = 2 yrs
Drainage area = 0.94 ac
Basin Slope = 0.0 %
Tc method = USER
Total precip. = 3.40 in
Storm duration = 24 hrs

Peak discharge = 1.00 cfs
Time interval = 6 min
Curve number = 77
Hydraulic length = 0 ft
Time of conc. (Tc) = 10 min
Distribution = Type III
Shape factor = 484

Hydrograph Volume = 4,340 cuft



Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Tuesday, Apr 26 2022, 8:21 AM

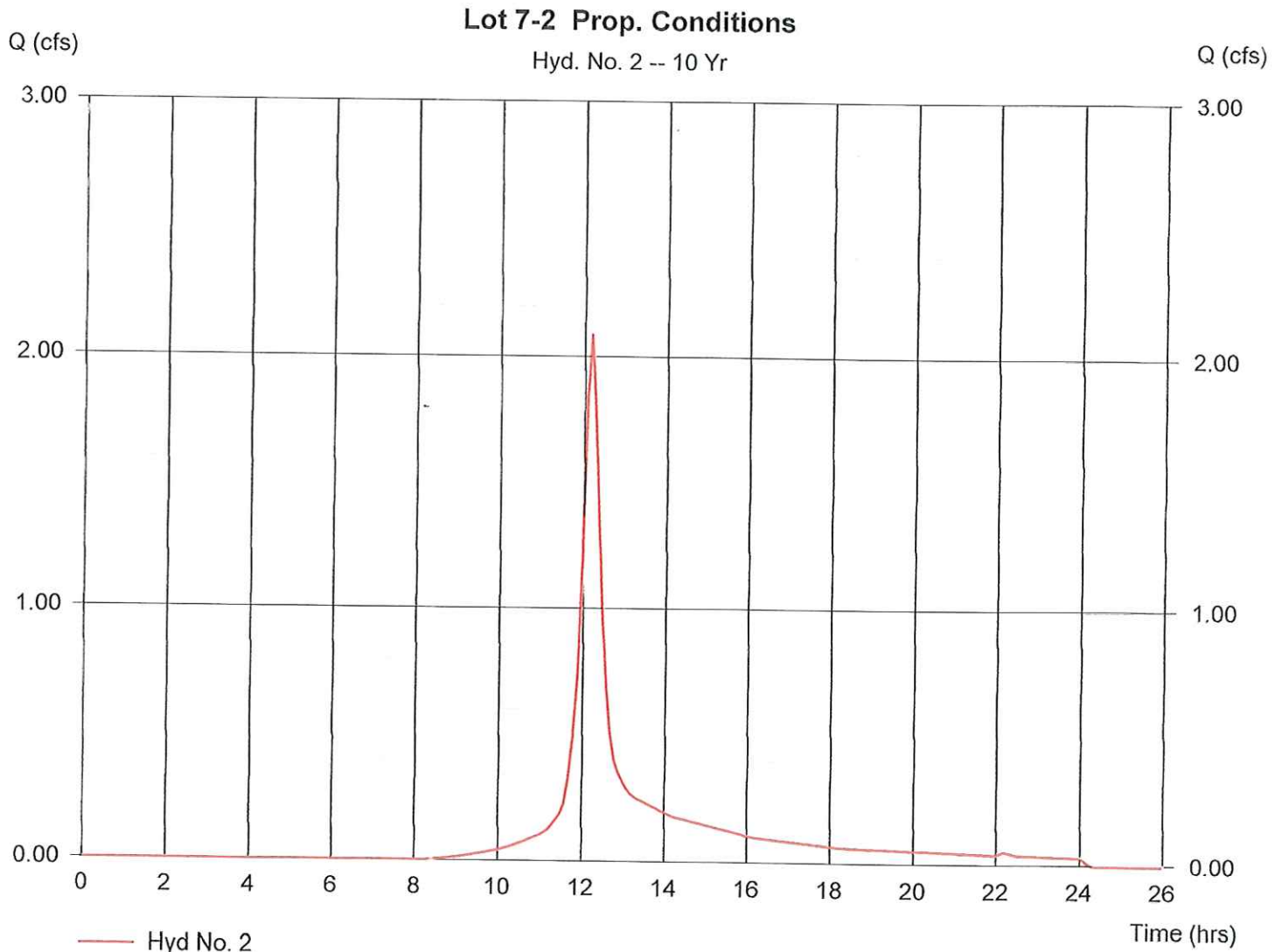
Hyd. No. 2

Lot 7-2 Prop. Conditions

Hydrograph type = SCS Runoff
Storm frequency = 10 yrs
Drainage area = 0.94 ac
Basin Slope = 0.0 %
Tc method = USER
Total precip. = 5.19 in
Storm duration = 24 hrs

Peak discharge = 2.09 cfs
Time interval = 6 min
Curve number = 77
Hydraulic length = 0 ft
Time of conc. (Tc) = 10 min
Distribution = Type III
Shape factor = 484

Hydrograph Volume = 8,902 cuft



Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Tuesday, Apr 26 2022, 8:21 AM

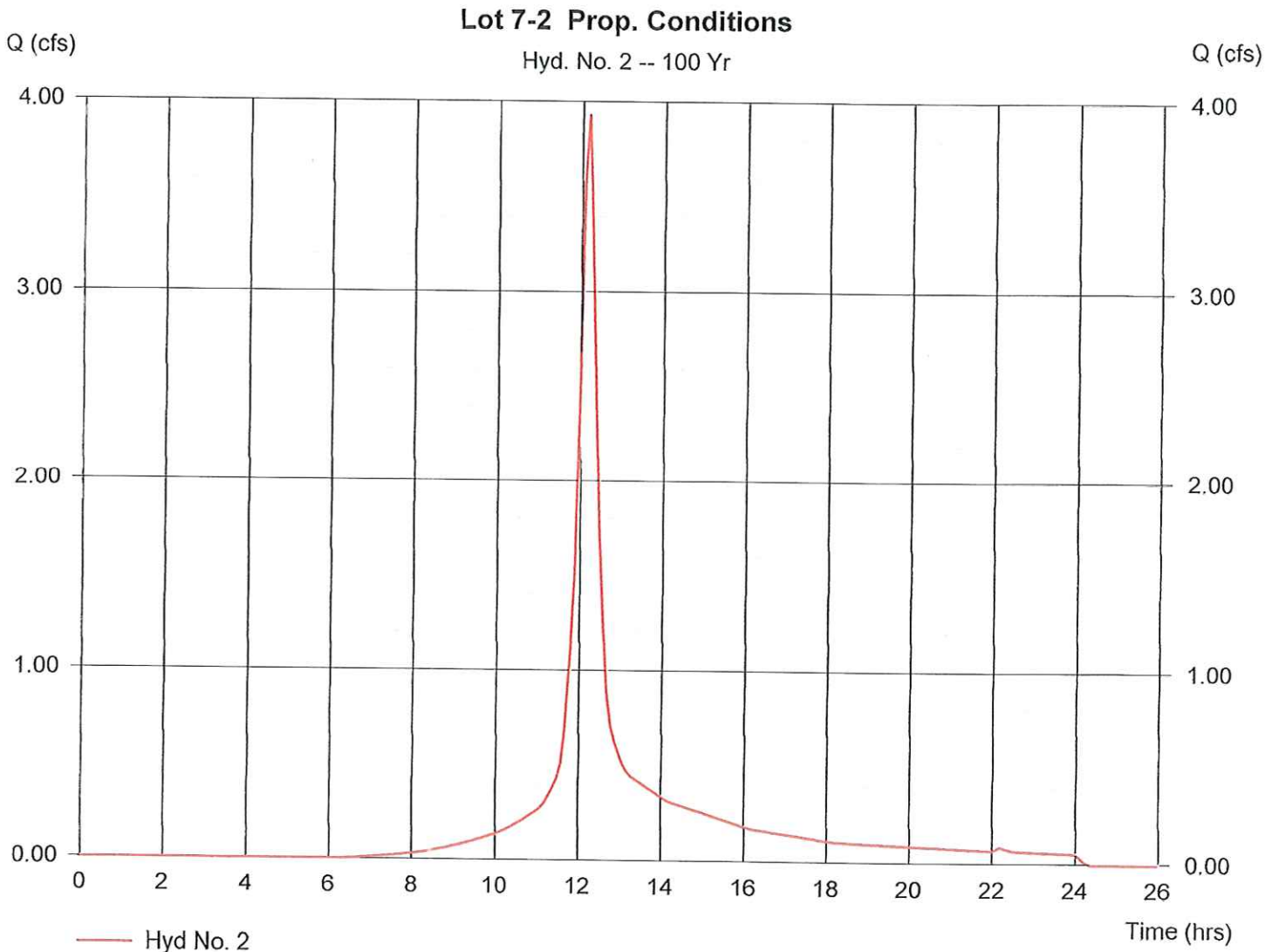
Hyd. No. 2

Lot 7-2 Prop. Conditions

Hydrograph type = SCS Runoff
Storm frequency = 100 yrs
Drainage area = 0.94 ac
Basin Slope = 0.0 %
Tc method = USER
Total precip. = 8.03 in
Storm duration = 24 hrs

Peak discharge = 3.93 cfs
Time interval = 6 min
Curve number = 77
Hydraulic length = 0 ft
Time of conc. (Tc) = 10 min
Distribution = Type III
Shape factor = 484

Hydrograph Volume = 16,960 cuft



Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Tuesday, Apr 26 2022, 8:22 AM

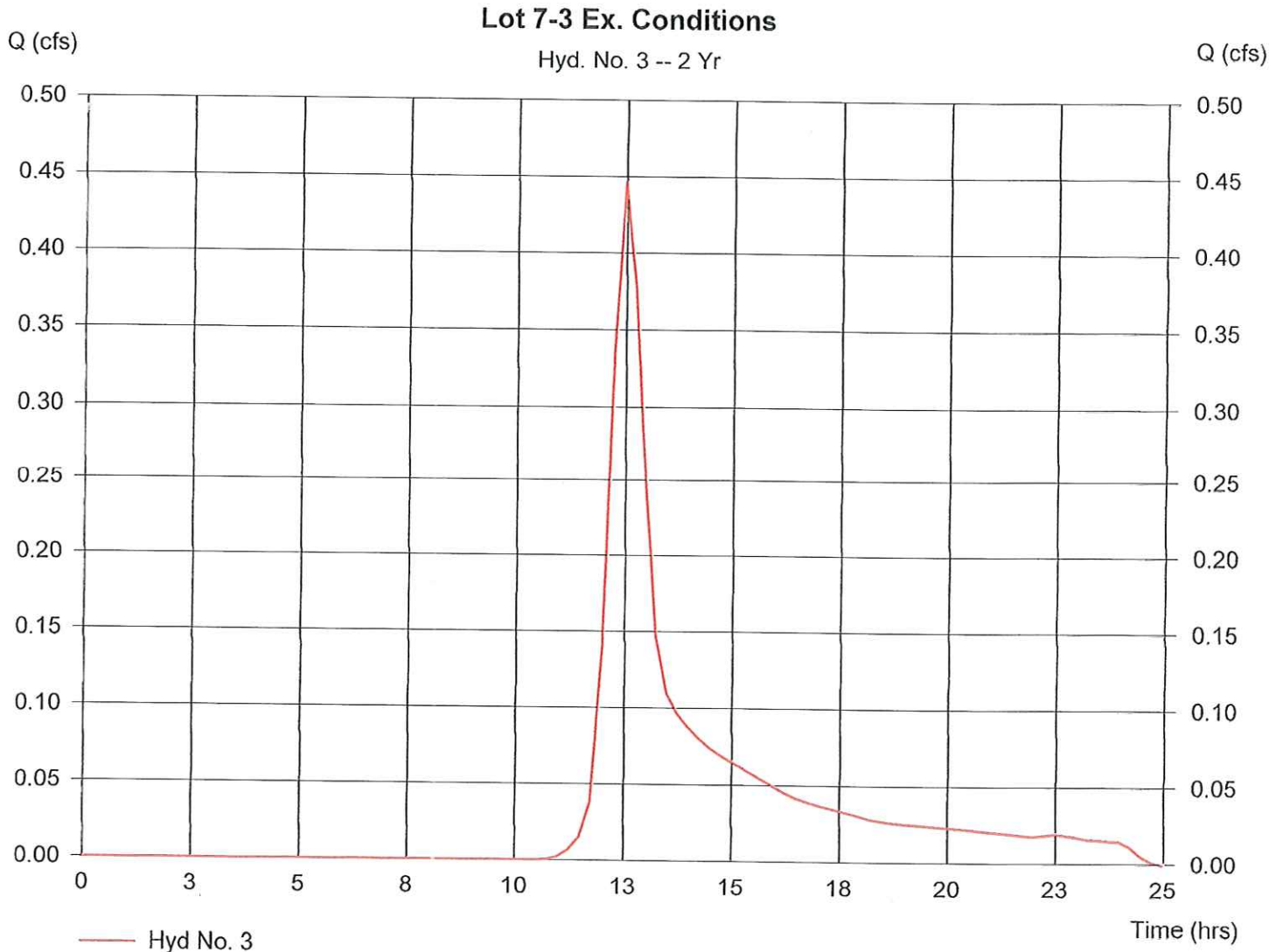
Hyd. No. 3

Lot 7-3 Ex. Conditions

Hydrograph type = SCS Runoff
Storm frequency = 2 yrs
Drainage area = 0.80 ac
Basin Slope = 0.0 %
Tc method = TR55
Total precip. = 3.40 in
Storm duration = 24 hrs

Peak discharge = 0.45 cfs
Time interval = 15 min
Curve number = 73
Hydraulic length = 0 ft
Time of conc. (Tc) = 36.64977 min
Distribution = Type III
Shape factor = 484

Hydrograph Volume = 3,030 cuft



Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Tuesday, Apr 26 2022, 8:22 AM

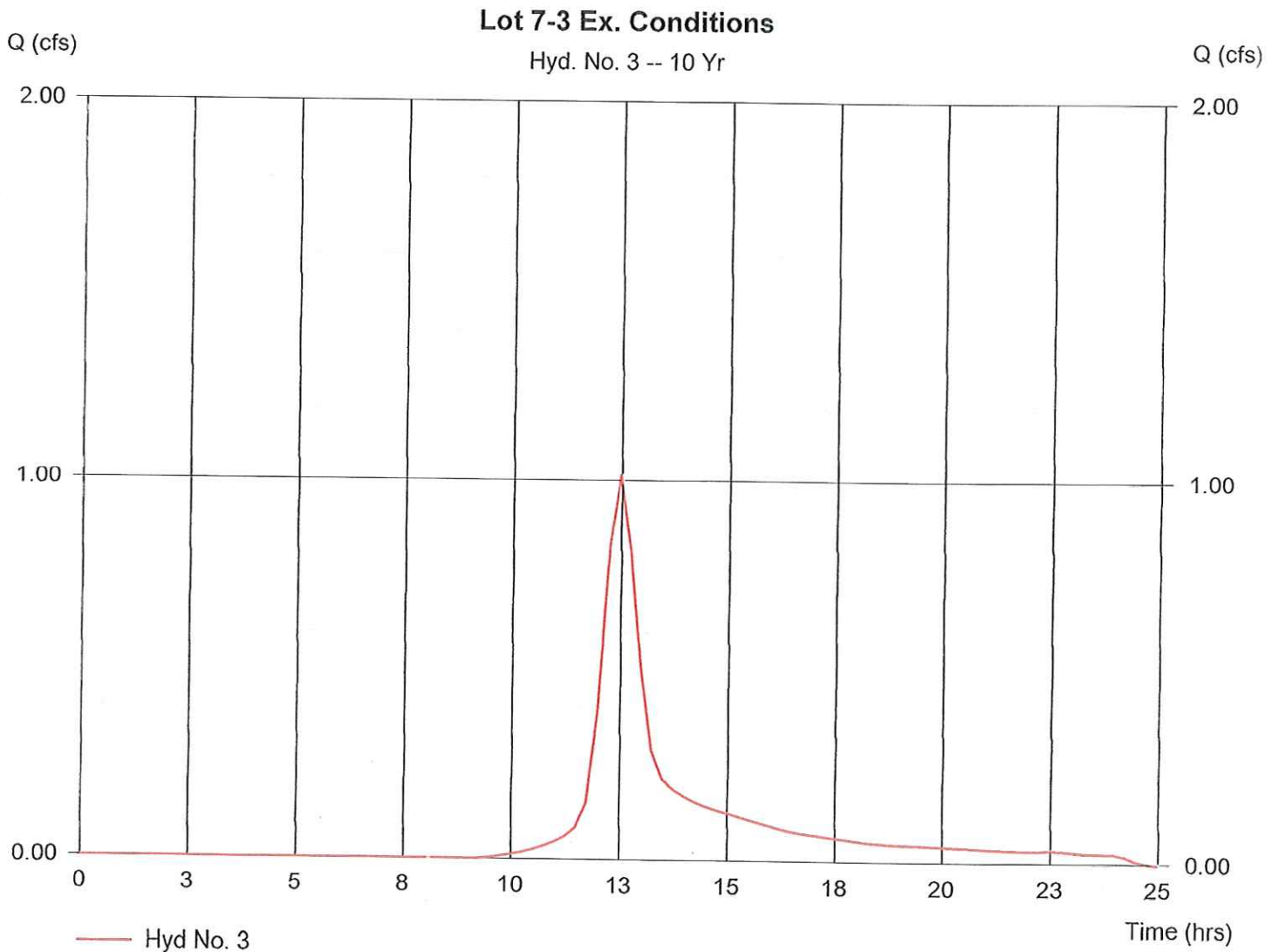
Hyd. No. 3

Lot 7-3 Ex. Conditions

Hydrograph type = SCS Runoff
Storm frequency = 10 yrs
Drainage area = 0.80 ac
Basin Slope = 0.0 %
Tc method = TR55
Total precip. = 5.19 in
Storm duration = 24 hrs

Peak discharge = 1.01 cfs
Time interval = 15 min
Curve number = 73
Hydraulic length = 0 ft
Time of conc. (Tc) = 36.64977 min
Distribution = Type III
Shape factor = 484

Hydrograph Volume = 6,617 cuft



Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Tuesday, Apr 26 2022, 8:22 AM

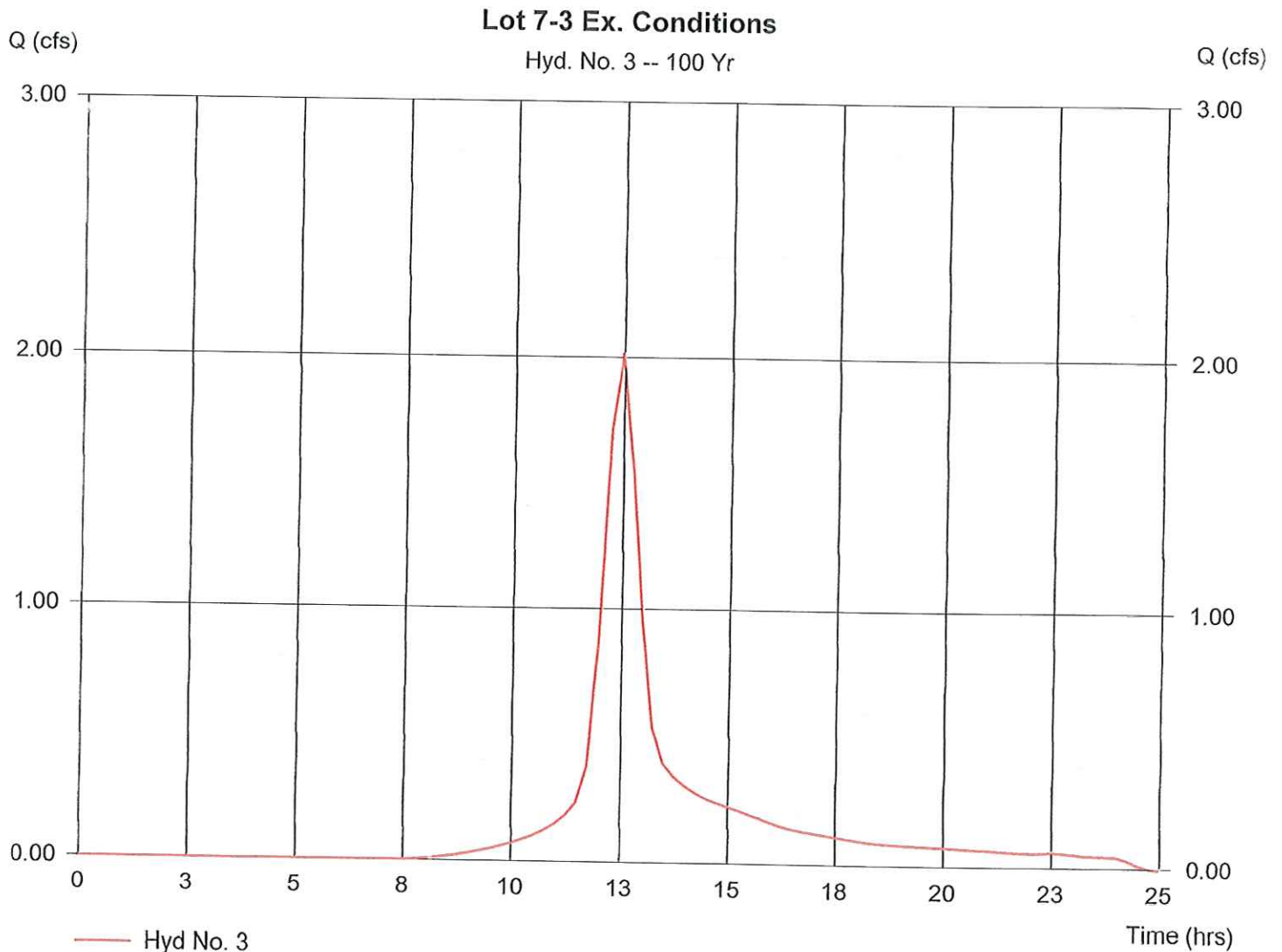
Hyd. No. 3

Lot 7-3 Ex. Conditions

Hydrograph type = SCS Runoff
Storm frequency = 100 yrs
Drainage area = 0.80 ac
Basin Slope = 0.0 %
Tc method = TR55
Total precip. = 8.03 in
Storm duration = 24 hrs

Peak discharge = 2.02 cfs
Time interval = 15 min
Curve number = 73
Hydraulic length = 0 ft
Time of conc. (Tc) = 36.64977 min
Distribution = Type III
Shape factor = 484

Hydrograph Volume = 13,167 cuft



Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Tuesday, Apr 26 2022, 8:22 AM

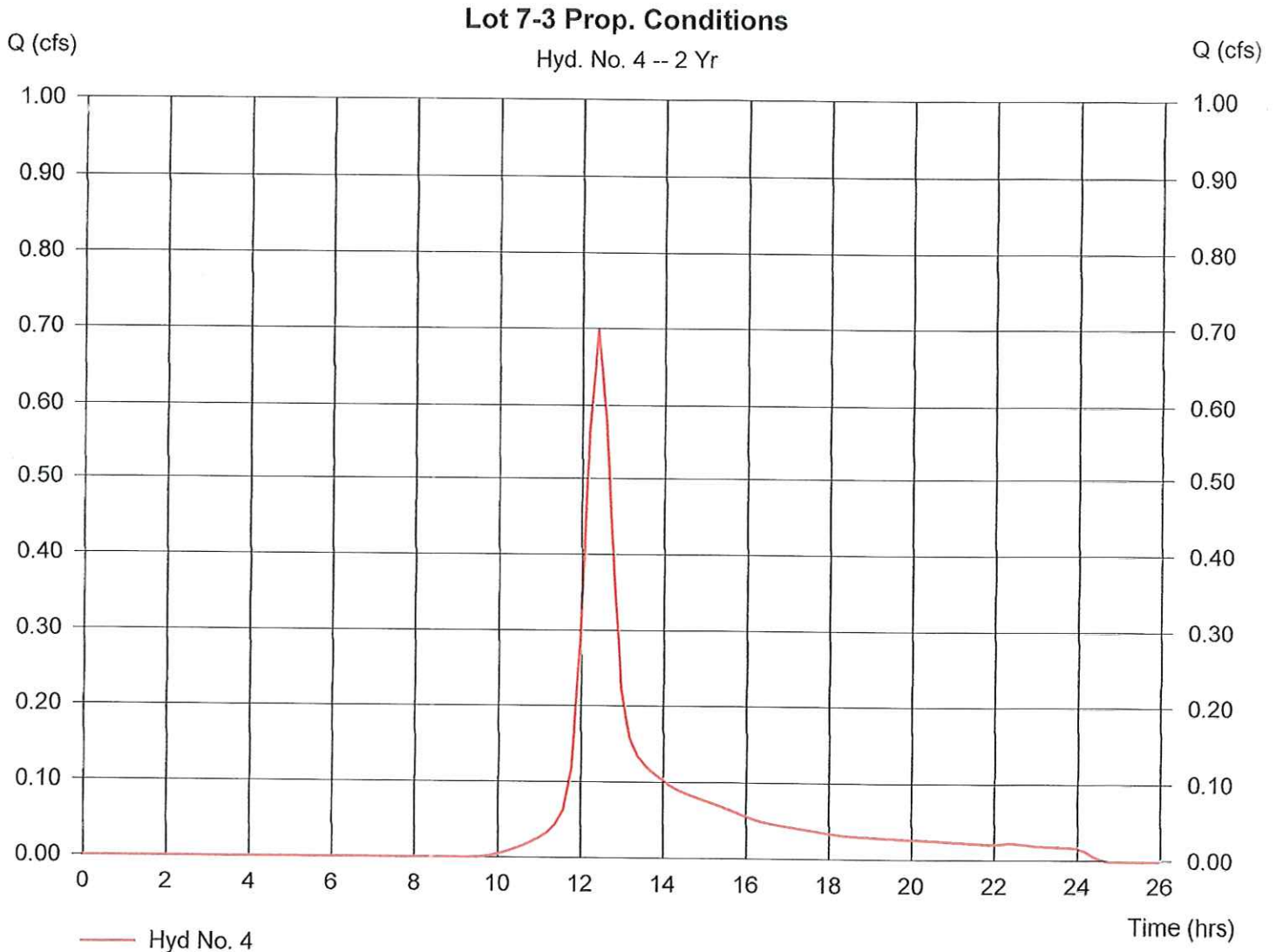
Hyd. No. 4

Lot 7-3 Prop. Conditions

Hydrograph type = SCS Runoff
Storm frequency = 2 yrs
Drainage area = 0.80 ac
Basin Slope = 0.0 %
Tc method = TR55
Total precip. = 3.40 in
Storm duration = 24 hrs

Peak discharge = 0.70 cfs
Time interval = 12 min
Curve number = 79
Hydraulic length = 0 ft
Time of conc. (Tc) = 18.83656 min
Distribution = Type III
Shape factor = 484

Hydrograph Volume = 4,053 cuft



Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Tuesday, Apr 26 2022, 8:22 AM

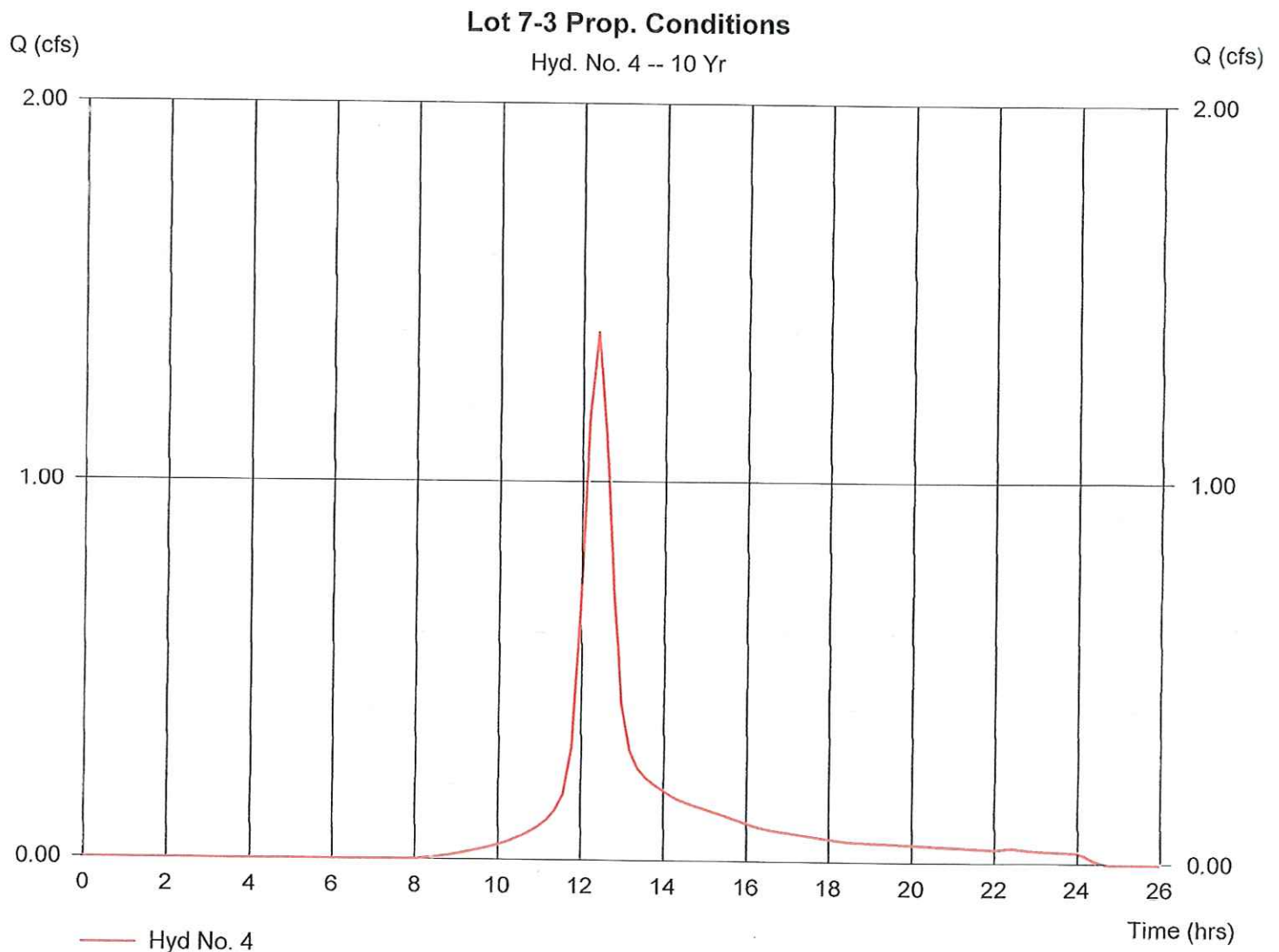
Hyd. No. 4

Lot 7-3 Prop. Conditions

Hydrograph type = SCS Runoff
Storm frequency = 10 yrs
Drainage area = 0.80 ac
Basin Slope = 0.0 %
Tc method = TR55
Total precip. = 5.19 in
Storm duration = 24 hrs

Peak discharge = 1.40 cfs
Time interval = 12 min
Curve number = 79
Hydraulic length = 0 ft
Time of conc. (Tc) = 18.83656 min
Distribution = Type III
Shape factor = 484

Hydrograph Volume = 8,075 cuft



Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Tuesday, Apr 26 2022, 8:22 AM

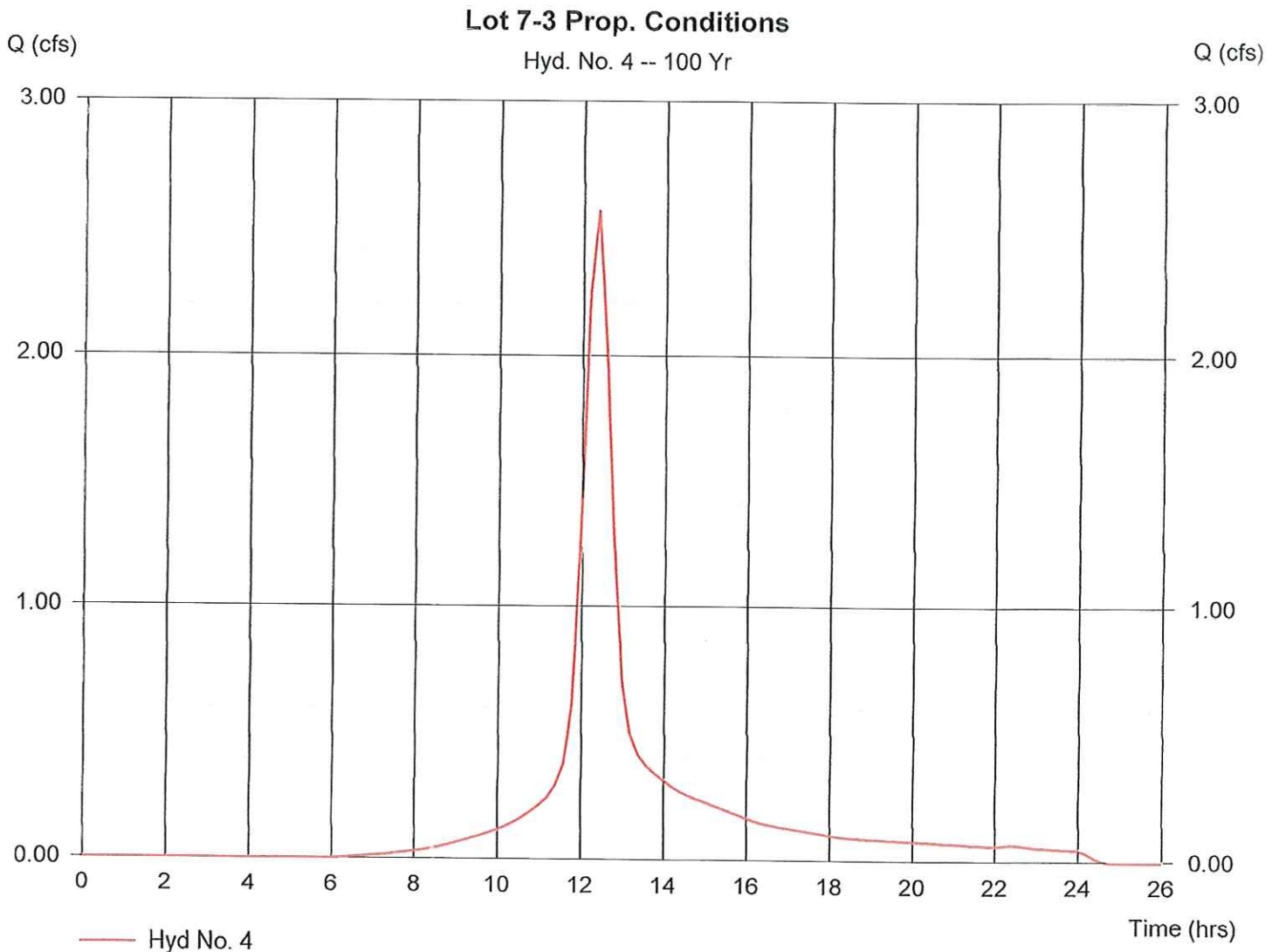
Hyd. No. 4

Lot 7-3 Prop. Conditions

Hydrograph type = SCS Runoff
Storm frequency = 100 yrs
Drainage area = 0.80 ac
Basin Slope = 0.0 %
Tc method = TR55
Total precip. = 8.03 in
Storm duration = 24 hrs

Peak discharge = 2.57 cfs
Time interval = 12 min
Curve number = 79
Hydraulic length = 0 ft
Time of conc. (Tc) = 18.83656 min
Distribution = Type III
Shape factor = 484

Hydrograph Volume = 15,071 cuft



DETENTION BASIN DESIGN

STORM WATER QUALITY / DETENTION BASIN DESIGN

Because of the small developed watershed areas (lot 7-2 , 0.94 acres and lot 7-3 ,0.803 acres) versus the total 19.2944 acre subdivision, individual hydrographs were created for just the proposed developed areas on each lot. A printout of all the watersheds and detention basin discharge rates, titled "Hydrograph Summary Report", is attached with this chapter.

The detention basins used on each are laid out to intercept the sheet flow runoff from the developed portion of each lot with a diversion swale needed on lot 7-3. The design dimensions for each basin are listed below. The top of the berm and all basin slopes will be seeded / stabilized with a no mow conservation mix.

Basin dimensions for lot-7-2: bottom length= 60 LF, bottom width= 6 ft, bottom elev.= 353.5', basin depth= 3.0 ft, top of berm elev.= 356.5', side slopes= 2H:1V
Outlets, two- 6" PVC pipes, FL in=354.0', length=15LF, s=6.6%

Basin dimensions for lot-7-3: bottom length= 80 LF, bottom width= 10 ft, bottom elev.= 388.5', basin depth= 2.5 ft, top of berm elev.= 391.0', side slopes= 2H:1V
Outlets, - 6" PVC pipe, FL in= 389.3', length=15LF, s=8.6%
- 6" PVC pipe, FL in= 390.0', length=14LF, s=13.0%

Below is a summary comparing the existing condition watershed runoff rates to the detention basin outlet flow rates.

SUMMARY OF PEAK STORMWATER RUNOFF RATES (cfs)

Watershed	Storm Event		
	2 year	10 year	100 year
<u>LOT 7-2</u>			
Existing Conditions	0.8	1.82	3.61
Proposed Det. Basin Discharge	0.93	1.73	2.72
	Change: + 0.13	-0.09	-0.89
<u>LOT 7-3</u>			
Existing Conditions	0.45	1.01	2.02
Proposed Det. Basin Discharge	0.45	1.10	1.94
	Change: 0.00	+0.09	-0.08

For the entire subdivision property there is a slight increase of 0.13 cfs for the 2 year storm, a zero net change for the 10 year storm and a 0.97 cfs decrease for the 100 year event.

Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (cuft)	Hydrograph description	
1	SCS Runoff	0.80	6	732	3,560	---	----	----	Lot 7-2 Ex. Conditions	
2	SCS Runoff	1.00	6	732	4,340	---	----	----	Lot 7-2 Prop. Conditions	
3	SCS Runoff	0.45	15	750	3,030	---	----	----	Lot 7-3 Ex. Conditions	
4	SCS Runoff	0.70	12	744	4,053	---	----	----	Lot 7-3 Prop. Conditions	
5	Reservoir	0.93	6	738	4,120	2	354.49	490	LOT 7-2 Det. Basin	
6	Reservoir	0.45	12	768	3,276	4	389.78	1,324	LOT 7-3 Det. Basin	
CLAUSI- TARTIA ROAD.gpw				Return Period: 2 Year			Monday, Apr 25 2022, 9:23 PM			

Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (cuft)	Hydrograph description	
1	SCS Runoff	1.82	6	732	7,775	----	-----	-----	Lot 7-2 Ex. Conditions	
2	SCS Runoff	2.09	6	732	8,902	----	-----	-----	Lot 7-2 Prop. Conditions	
3	SCS Runoff	1.01	15	750	6,617	----	-----	-----	Lot 7-3 Ex. Conditions	
4	SCS Runoff	1.40	12	744	8,075	----	-----	-----	Lot 7-3 Prop. Conditions	
5	Reservoir	1.73	6	738	8,682	2	355.09	926	LOT 7-2 Det. Basin	
6	Reservoir	1.10	12	756	7,298	4	390.33	2,095	LOT 7-3 Det. Basin	
CLAUSI- TARTIA ROAD.gpw					Return Period: 10 Year		Monday, Apr 25 2022, 9:23 PM			

Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (cuft)	Hydrograph description	
1	SCS Runoff	3.61	6	732	15,472	----	-----	-----	Lot 7-2 Ex. Conditions	
2	SCS Runoff	3.93	6	732	16,960	----	-----	-----	Lot 7-2 Prop. Conditions	
3	SCS Runoff	2.02	15	750	13,167	----	-----	-----	Lot 7-3 Ex. Conditions	
4	SCS Runoff	2.57	12	744	15,071	----	-----	-----	Lot 7-3 Prop. Conditions	
5	Reservoir	2.72	6	744	16,740	2	356.32	2,186	LOT 7-2 Det. Basin	
6	Reservoir	1.94	12	756	14,294	4	390.99	3,183	LOT 7-3 Det. Basin	
CLAUSI- TARTIA ROAD.gpw					Return Period: 100 Year		Monday, Apr 25 2022, 9:23 PM			

Pond Report

Hydraflow Hydrographs by Intelisolve

Tuesday, Apr 26 2022, 8:26 AM

Pond No. 1 - Lot 7-2 Det. Basin

Pond Data

Bottom LxW = 60.0 x 6.0 ft Side slope = 2.0:1 Bottom elev. = 353.50 ft Depth = 3.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	353.50	360	0	0
0.15	353.65	400	57	57
0.30	353.80	441	63	120
0.45	353.95	482	69	189
0.60	354.10	524	75	265
0.75	354.25	567	82	346
0.90	354.40	611	88	435
1.05	354.55	655	95	530
1.20	354.70	700	102	631
1.35	354.85	746	108	740
1.50	355.00	792	115	855
1.65	355.15	839	122	977
1.80	355.30	887	129	1,107
1.95	355.45	936	137	1,243
2.10	355.60	985	144	1,388
2.25	355.75	1,035	151	1,539
2.40	355.90	1,086	159	1,698
2.55	356.05	1,137	167	1,865
2.70	356.20	1,189	174	2,039
2.85	356.35	1,242	182	2,222
3.00	356.50	1,296	190	2,412

Culvert / Orifice Structures

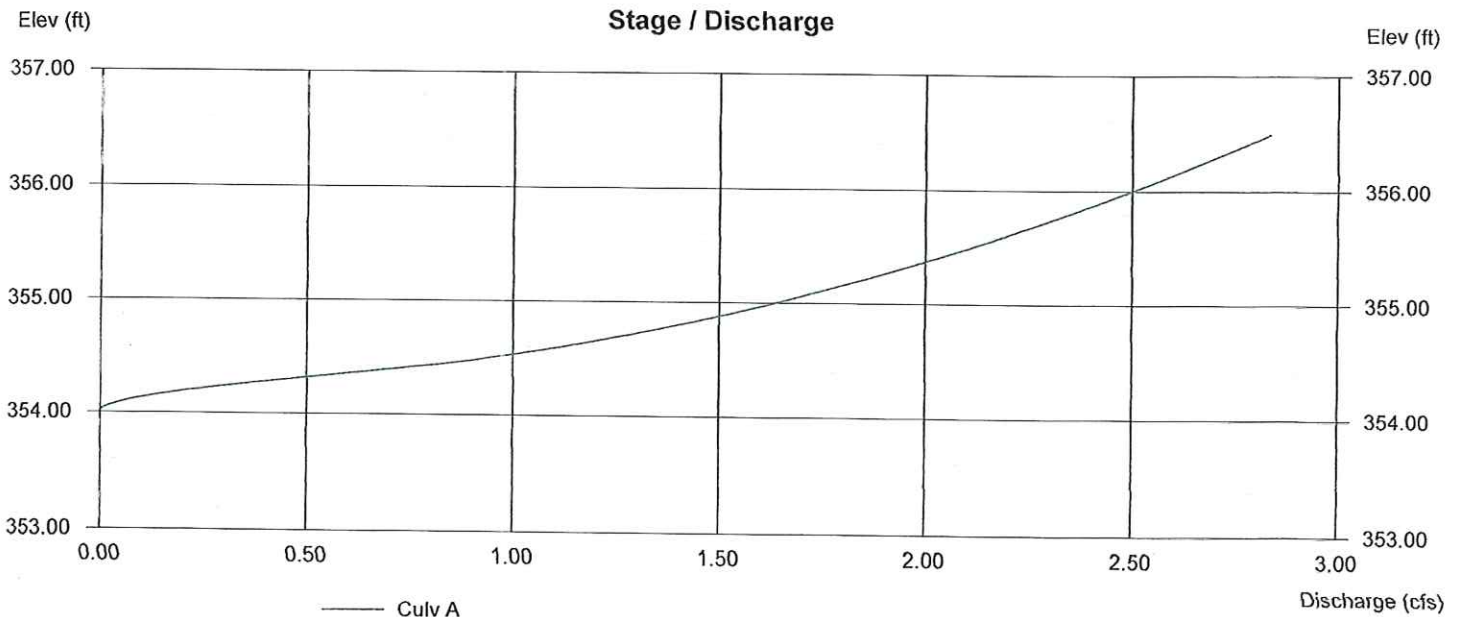
	[A]	[B]	[C]	[D]
Rise (in)	= 6.00	0.00	0.00	0.00
Span (in)	= 6.00	0.00	0.00	0.00
No. Barrels	= 2	0	0	0
Invert El. (ft)	= 354.00	0.00	0.00	0.00
Length (ft)	= 15.00	0.00	0.00	0.00
Slope (%)	= 6.60	0.00	0.00	0.00
N-Value	= .013	.000	.000	.000
Orif. Coeff.	= 0.60	0.00	0.00	0.00
Multi-Stage	= n/a	No	No	No

Weir Structures

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

Exfiltration = 0.000 in/hr (Wet area) Tailwater Elev. = 0.00 ft

Note: Culvert/Orifice outflows have been analyzed under inlet and outlet control.



Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Tuesday, Apr 26 2022, 8:26 AM

Hyd. No. 5

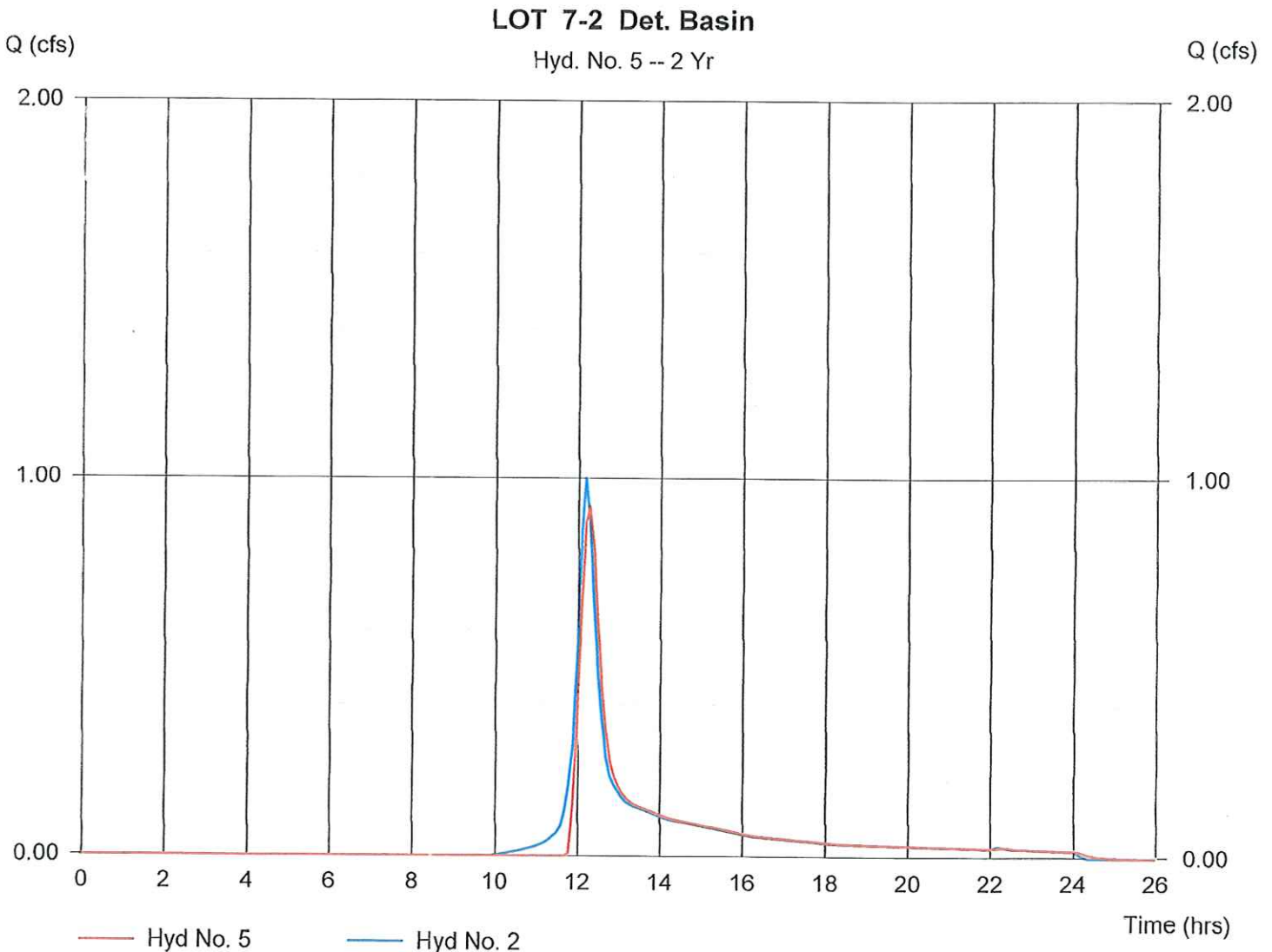
LOT 7-2 Det. Basin

Hydrograph type = Reservoir
Storm frequency = 2 yrs
Inflow hyd. No. = 2
Reservoir name = Lot 7-2 Det. Basin

Peak discharge = 0.93 cfs
Time interval = 6 min
Max. Elevation = 354.49 ft
Max. Storage = 490 cuft

Storage Indication method used.

Hydrograph Volume = 4,120 cuft



Pond Report

Hydraflow Hydrographs by Intelisolve

Tuesday, Apr 26 2022, 8:26 AM

Pond No. 1 - Lot 7-2 Det. Basin

Pond Data

Bottom LxW = 60.0 x 6.0 ft Side slope = 2.0:1 Bottom elev. = 353.50 ft Depth = 3.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	353.50	360	0	0
0.15	353.65	400	57	57
0.30	353.80	441	63	120
0.45	353.95	482	69	189
0.60	354.10	524	75	265
0.75	354.25	567	82	346
0.90	354.40	611	88	435
1.05	354.55	655	95	530
1.20	354.70	700	102	631
1.35	354.85	746	108	740
1.50	355.00	792	115	855
1.65	355.15	839	122	977
1.80	355.30	887	129	1,107
1.95	355.45	936	137	1,243
2.10	355.60	985	144	1,388
2.25	355.75	1,035	151	1,539
2.40	355.90	1,086	159	1,698
2.55	356.05	1,137	167	1,865
2.70	356.20	1,189	174	2,039
2.85	356.35	1,242	182	2,222
3.00	356.50	1,296	190	2,412

Culvert / Orifice Structures

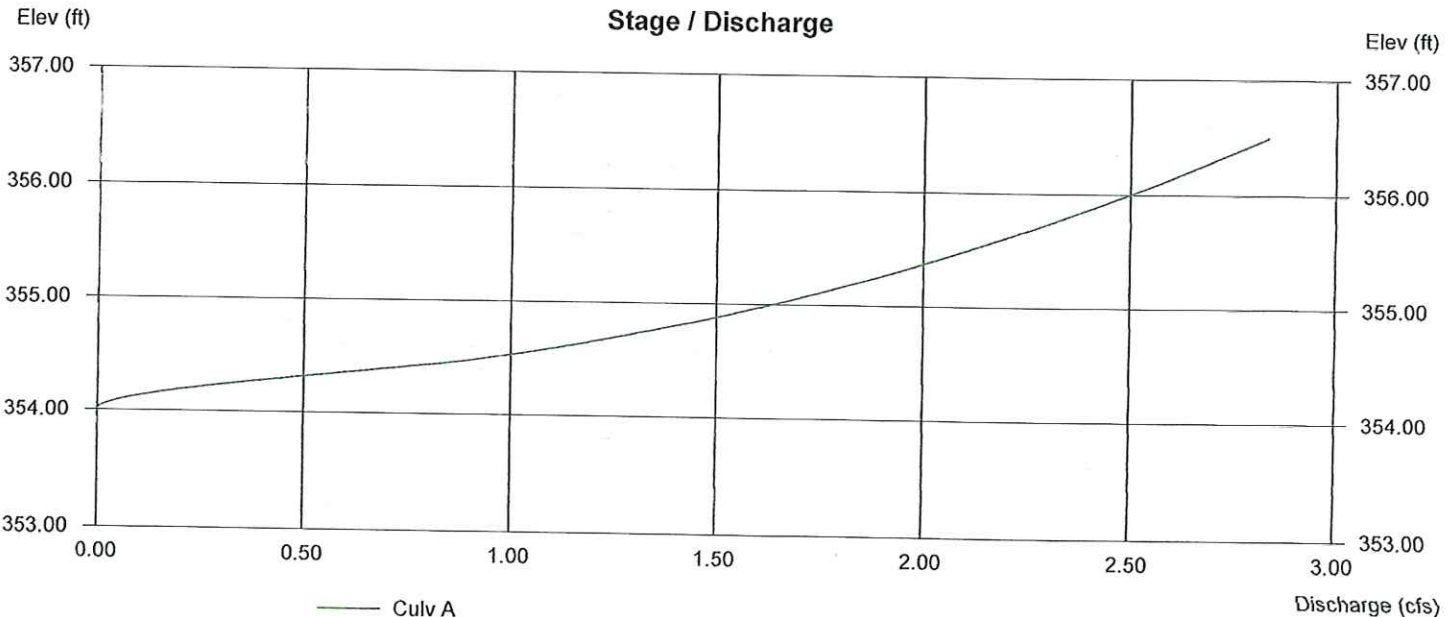
	[A]	[B]	[C]	[D]
Rise (in)	= 6.00	0.00	0.00	0.00
Span (in)	= 6.00	0.00	0.00	0.00
No. Barrels	= 2	0	0	0
Invert El. (ft)	= 354.00	0.00	0.00	0.00
Length (ft)	= 15.00	0.00	0.00	0.00
Slope (%)	= 6.60	0.00	0.00	0.00
N-Value	= .013	.000	.000	.000
Orif. Coeff.	= 0.60	0.00	0.00	0.00
Multi-Stage	= n/a	No	No	No

Weir Structures

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

Exfiltration = 0.000 in/hr (Wet area) Tailwater Elev. = 0.00 ft

Note: Culvert/Orifice outflows have been analyzed under inlet and outlet control.



Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Tuesday, Apr 26 2022, 8:26 AM

Hyd. No. 5

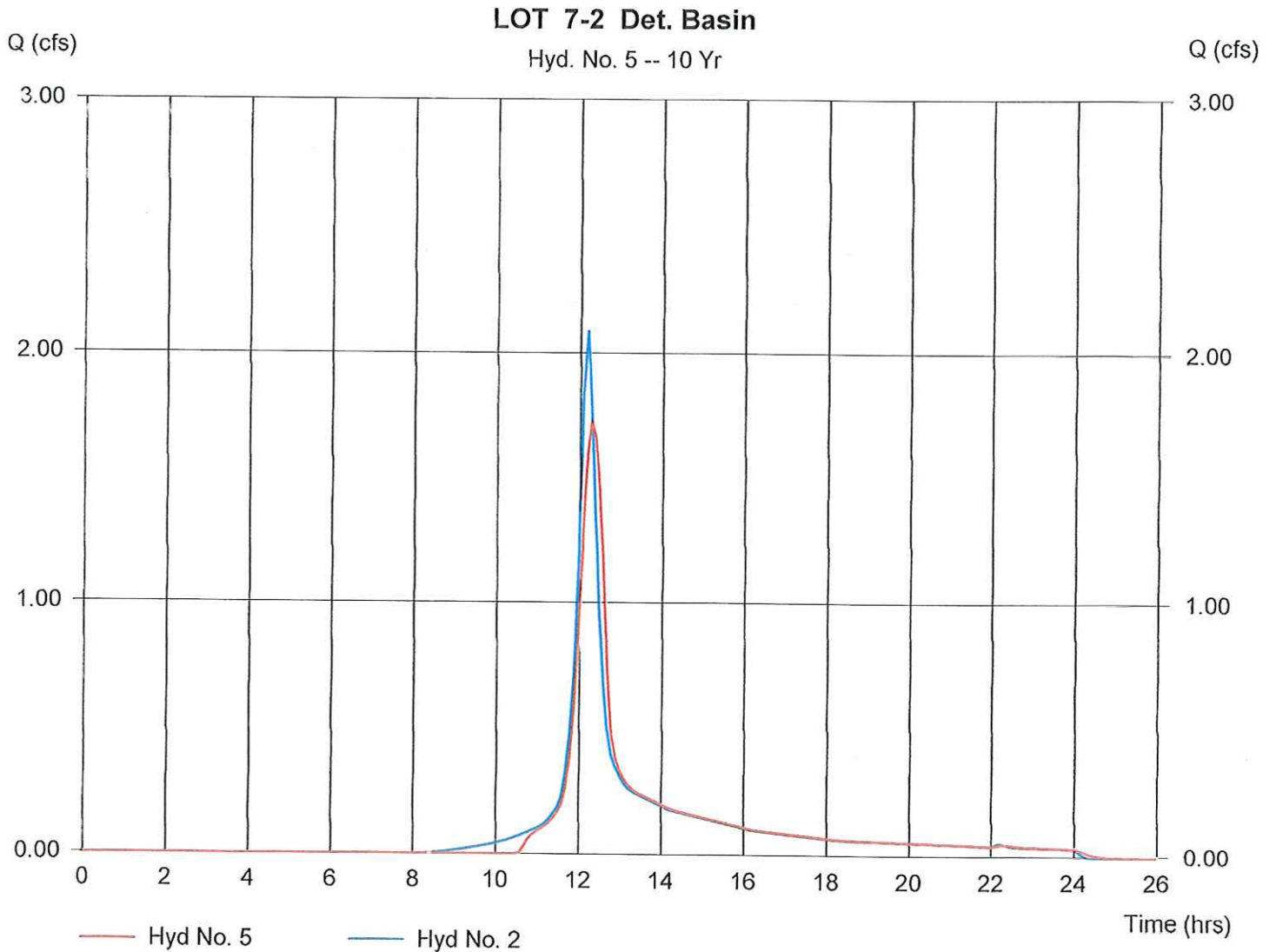
LOT 7-2 Det. Basin

Hydrograph type = Reservoir
Storm frequency = 10 yrs
Inflow hyd. No. = 2
Reservoir name = Lot 7-2 Det. Basin

Peak discharge = 1.73 cfs
Time interval = 6 min
Max. Elevation = 355.09 ft
Max. Storage = 926 cuft

Storage Indication method used.

Hydrograph Volume = 8,682 cuft



Pond Report

Hydraflow Hydrographs by Intelisolve

Tuesday, Apr 26 2022, 8:26 AM

Pond No. 1 - Lot 7-2 Det. Basin

Pond Data

Bottom LxW = 60.0 x 6.0 ft Side slope = 2.0:1 Bottom elev. = 353.50 ft Depth = 3.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	353.50	360	0	0
0.15	353.65	400	57	57
0.30	353.80	441	63	120
0.45	353.95	482	69	189
0.60	354.10	524	75	265
0.75	354.25	567	82	346
0.90	354.40	611	88	435
1.05	354.55	655	95	530
1.20	354.70	700	102	631
1.35	354.85	746	108	740
1.50	355.00	792	115	855
1.65	355.15	839	122	977
1.80	355.30	887	129	1,107
1.95	355.45	936	137	1,243
2.10	355.60	985	144	1,388
2.25	355.75	1,035	151	1,539
2.40	355.90	1,086	159	1,698
2.55	356.05	1,137	167	1,865
2.70	356.20	1,189	174	2,039
2.85	356.35	1,242	182	2,222
3.00	356.50	1,296	190	2,412

Culvert / Orifice Structures

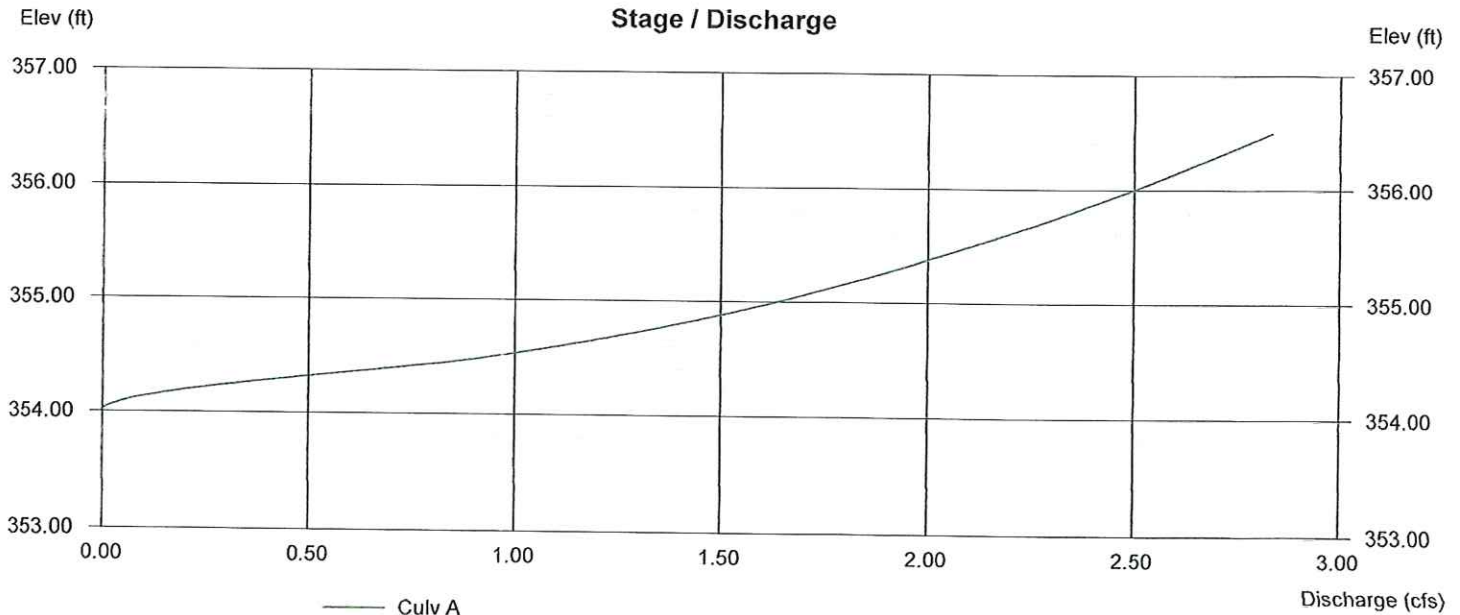
	[A]	[B]	[C]	[D]
Rise (in)	= 6.00	0.00	0.00	0.00
Span (in)	= 6.00	0.00	0.00	0.00
No. Barrels	= 2	0	0	0
Invert El. (ft)	= 354.00	0.00	0.00	0.00
Length (ft)	= 15.00	0.00	0.00	0.00
Slope (%)	= 6.60	0.00	0.00	0.00
N-Value	= .013	.000	.000	.000
Orif. Coeff.	= 0.60	0.00	0.00	0.00
Multi-Stage	= n/a	No	No	No

Weir Structures

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

Exfiltration = 0.000 in/hr (Wet area) Tailwater Elev. = 0.00 ft

Note: Culvert/Orifice outflows have been analyzed under inlet and outlet control.



Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Tuesday, Apr 26 2022, 8:26 AM

Hyd. No. 5

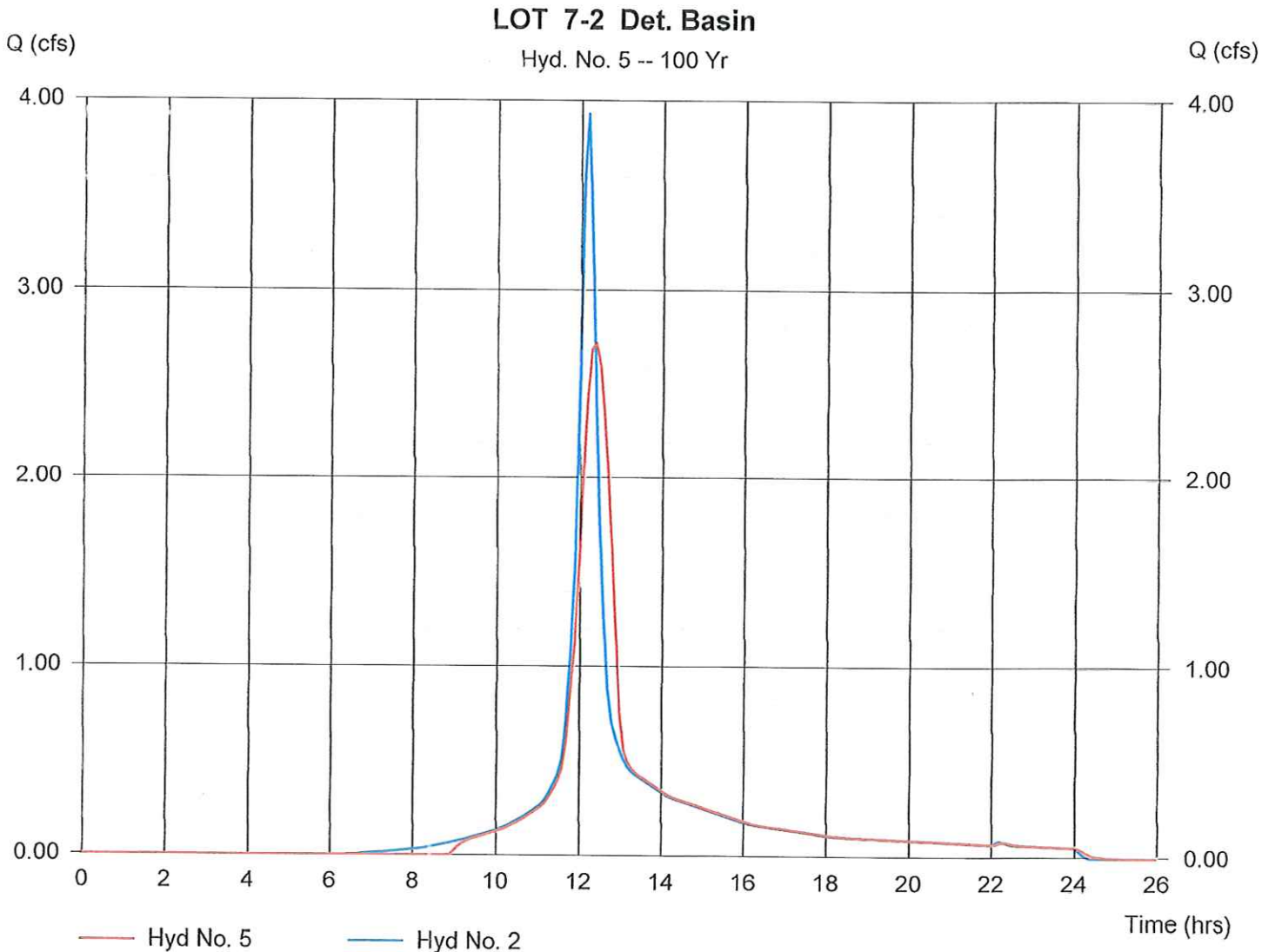
LOT 7-2 Det. Basin

Hydrograph type = Reservoir
Storm frequency = 100 yrs
Inflow hyd. No. = 2
Reservoir name = Lot 7-2 Det. Basin

Peak discharge = 2.72 cfs
Time interval = 6 min
Max. Elevation = 356.32 ft
Max. Storage = 2,186 cuft

Storage Indication method used.

Hydrograph Volume = 16,740 cuft





Pond Report

Hydraflow Hydrographs by Intelisolve

Tuesday, Apr 26 2022, 8:28 AM

Pond No. 2 - LOT 7-3 Det. Basin

Pond Data

Bottom LxW = 80.0 x 10.0 ft Side slope = 2.0:1 Bottom elev. = 388.50 ft Depth = 2.50 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	388.50	800	0	0
0.13	388.63	845	103	103
0.25	388.75	891	109	211
0.38	388.88	937	114	326
0.50	389.00	984	120	446
0.63	389.13	1,031	126	572
0.75	389.25	1,079	132	703
0.88	389.38	1,127	138	841
1.00	389.50	1,176	144	985
1.13	389.63	1,225	150	1,135
1.25	389.75	1,275	156	1,292
1.38	389.88	1,325	163	1,454
1.50	390.00	1,376	169	1,623
1.63	390.13	1,427	175	1,798
1.75	390.25	1,479	182	1,980
1.88	390.38	1,531	188	2,168
2.00	390.50	1,584	195	2,363
2.13	390.63	1,637	201	2,564
2.25	390.75	1,691	208	2,772
2.38	390.88	1,745	215	2,987
2.50	391.00	1,800	222	3,208

Culvert / Orifice Structures

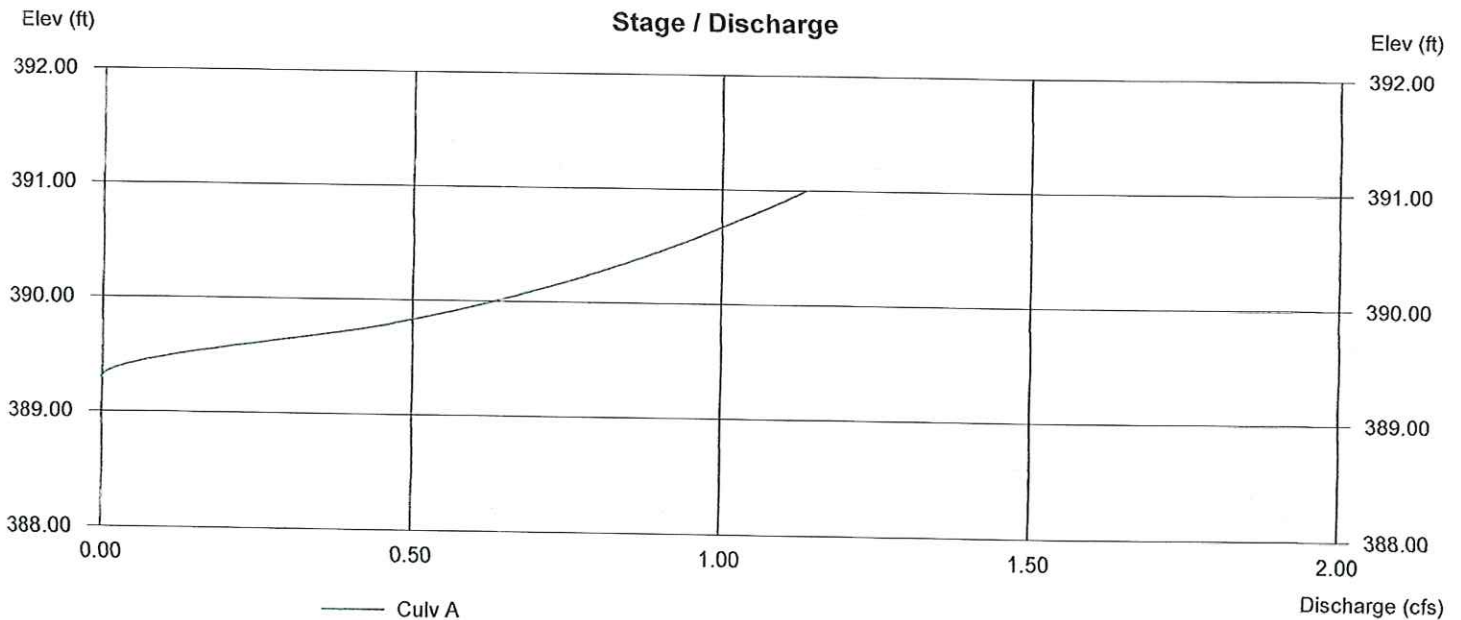
	[A]	[B]	[C]	[D]
Rise (in)	= 6.00	6.00	0.00	0.00
Span (in)	= 6.00	6.00	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 389.30	390.00	0.00	0.00
Length (ft)	= 15.00	14.00	0.00	0.00
Slope (%)	= 8.60	13.00	0.00	0.00
N-Value	= .013	.013	.000	.000
Orif. Coeff.	= 0.60	0.60	0.00	0.00
Multi-Stage	= n/a	No	No	No

Weir Structures

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

Exfiltration = 0.000 in/hr (Wet area) Tailwater Elev. = 0.00 ft

Note: Culvert/Orifice outflows have been analyzed under inlet and outlet control.



Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Tuesday, Apr 26 2022, 8:28 AM

Hyd. No. 6

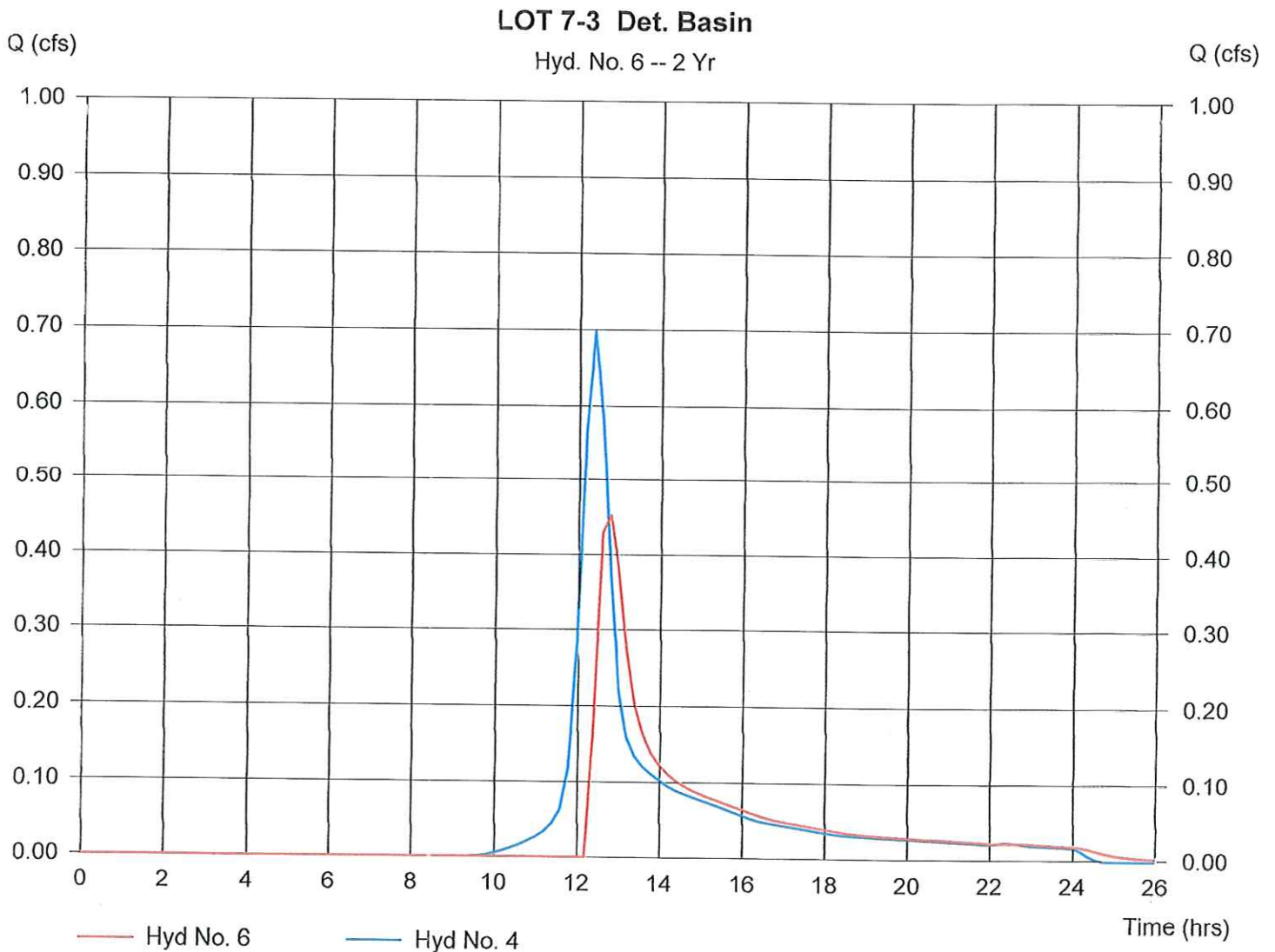
LOT 7-3 Det. Basin

Hydrograph type = Reservoir
Storm frequency = 2 yrs
Inflow hyd. No. = 4
Reservoir name = LOT 7-3 Det. Basin

Peak discharge = 0.45 cfs
Time interval = 12 min
Max. Elevation = 389.78 ft
Max. Storage = 1,324 cuft

Storage Indication method used.

Hydrograph Volume = 3,276 cuft



Pond Report

Hydraflow Hydrographs by Intelisolve

Tuesday, Apr 26 2022, 8:28 AM

Pond No. 2 - LOT 7-3 Det. Basin

Pond Data

Bottom LxW = 80.0 x 10.0 ft Side slope = 2.0:1 Bottom elev. = 388.50 ft Depth = 2.50 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	388.50	800	0	0
0.13	388.63	845	103	103
0.25	388.75	891	109	211
0.38	388.88	937	114	326
0.50	389.00	984	120	446
0.63	389.13	1,031	126	572
0.75	389.25	1,079	132	703
0.88	389.38	1,127	138	841
1.00	389.50	1,176	144	985
1.13	389.63	1,225	150	1,135
1.25	389.75	1,275	156	1,292
1.38	389.88	1,325	163	1,454
1.50	390.00	1,376	169	1,623
1.63	390.13	1,427	175	1,798
1.75	390.25	1,479	182	1,980
1.88	390.38	1,531	188	2,168
2.00	390.50	1,584	195	2,363
2.13	390.63	1,637	201	2,564
2.25	390.75	1,691	208	2,772
2.38	390.88	1,745	215	2,987
2.50	391.00	1,800	222	3,208

Culvert / Orifice Structures

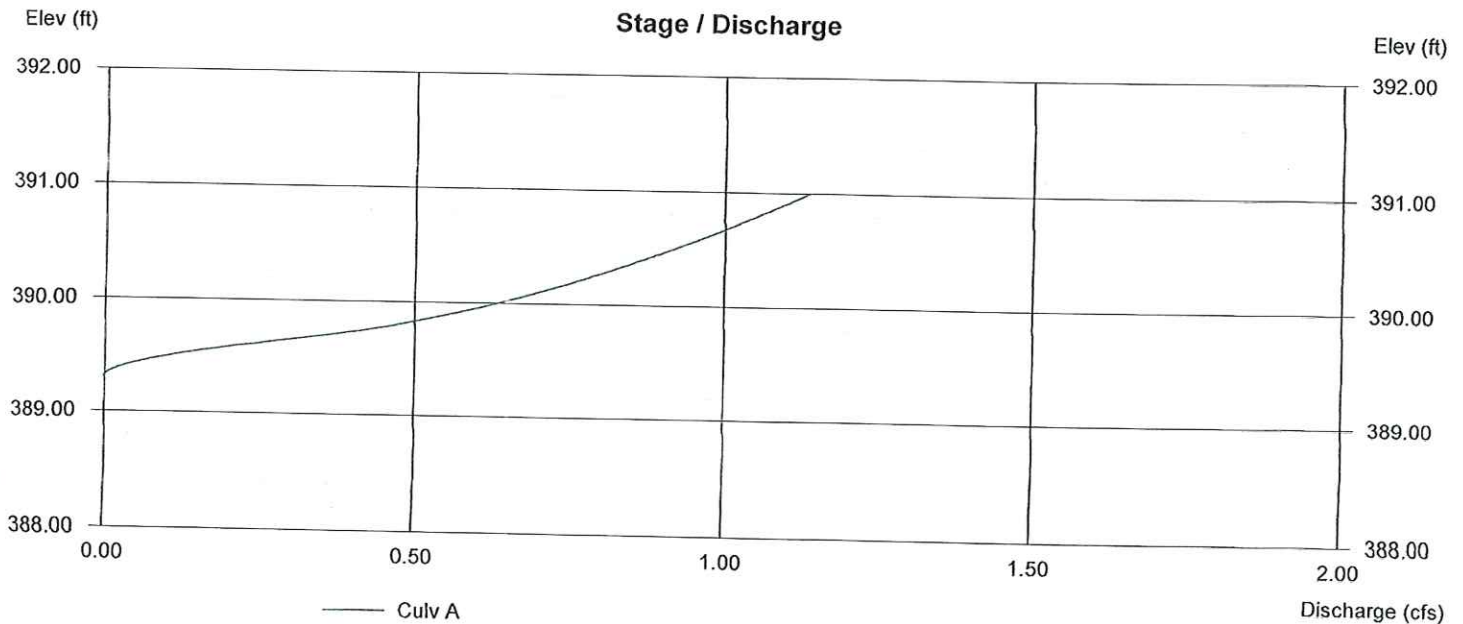
	[A]	[B]	[C]	[D]
Rise (in)	= 6.00	6.00	0.00	0.00
Span (in)	= 6.00	6.00	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 389.30	390.00	0.00	0.00
Length (ft)	= 15.00	14.00	0.00	0.00
Slope (%)	= 8.60	13.00	0.00	0.00
N-Value	= .013	.013	.000	.000
Orif. Coeff.	= 0.60	0.60	0.00	0.00
Multi-Stage	= n/a	No	No	No

Weir Structures

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

Exfiltration = 0.000 in/hr (Wet area) Tailwater Elev. = 0.00 ft

Note: Culvert/Orifice outflows have been analyzed under inlet and outlet control.



Hydrograph Plot

Hydraflow Hydrographs by Intellisolve

Tuesday, Apr 26 2022, 8:28 AM

Hyd. No. 6

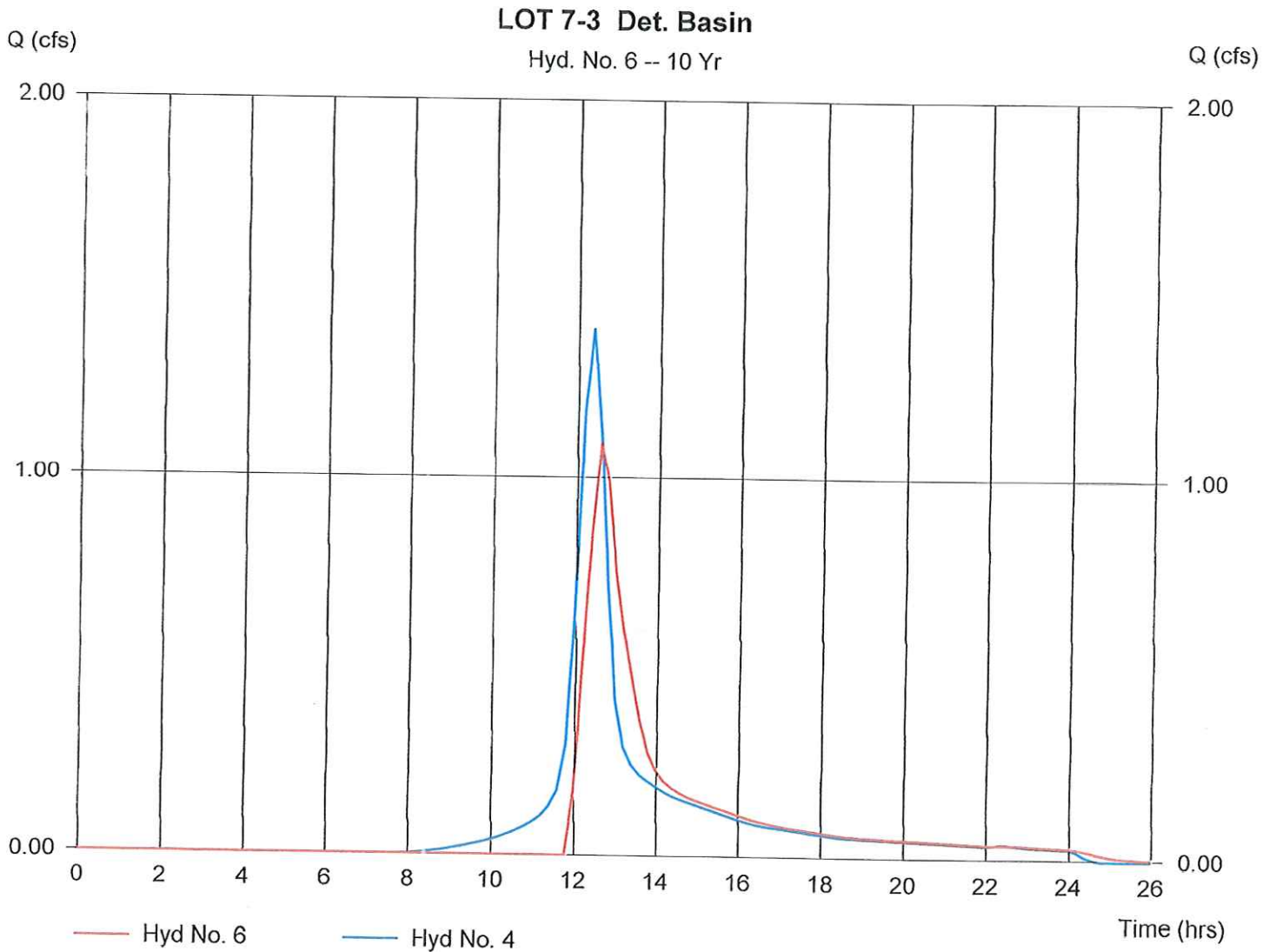
LOT 7-3 Det. Basin

Hydrograph type = Reservoir
Storm frequency = 10 yrs
Inflow hyd. No. = 4
Reservoir name = LOT 7-3 Det. Basin

Peak discharge = 1.10 cfs
Time interval = 12 min
Max. Elevation = 390.33 ft
Max. Storage = 2,095 cuft

Storage Indication method used.

Hydrograph Volume = 7,298 cuft



Pond Report

Hydraflow Hydrographs by Intelisolve

Tuesday, Apr 26 2022, 8:28 AM

Pond No. 2 - LOT 7-3 Det. Basin

Pond Data

Bottom LxW = 80.0 x 10.0 ft Side slope = 2.0:1 Bottom elev. = 388.50 ft Depth = 2.50 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	388.50	800	0	0
0.13	388.63	845	103	103
0.25	388.75	891	109	211
0.38	388.88	937	114	326
0.50	389.00	984	120	446
0.63	389.13	1,031	126	572
0.75	389.25	1,079	132	703
0.88	389.38	1,127	138	841
1.00	389.50	1,176	144	985
1.13	389.63	1,225	150	1,135
1.25	389.75	1,275	156	1,292
1.38	389.88	1,325	163	1,454
1.50	390.00	1,376	169	1,623
1.63	390.13	1,427	175	1,798
1.75	390.25	1,479	182	1,980
1.88	390.38	1,531	188	2,168
2.00	390.50	1,584	195	2,363
2.13	390.63	1,637	201	2,564
2.25	390.75	1,691	208	2,772
2.38	390.88	1,745	215	2,987
2.50	391.00	1,800	222	3,208

Culvert / Orifice Structures

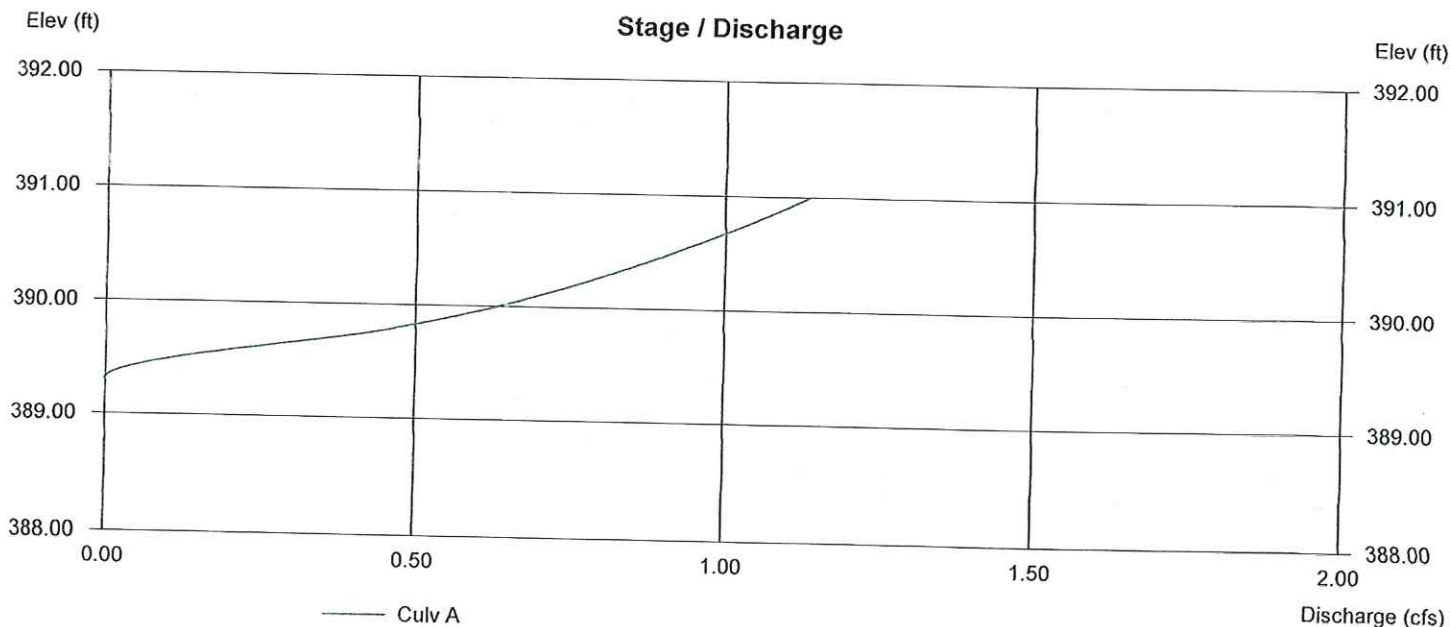
	[A]	[B]	[C]	[D]
Rise (in)	= 6.00	6.00	0.00	0.00
Span (in)	= 6.00	6.00	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 389.30	390.00	0.00	0.00
Length (ft)	= 15.00	14.00	0.00	0.00
Slope (%)	= 8.60	13.00	0.00	0.00
N-Value	= .013	.013	.000	.000
Orif. Coeff.	= 0.60	0.60	0.00	0.00
Multi-Stage	= n/a	No	No	No

Weir Structures

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

Exfiltration = 0.000 in/hr (Wet area) Tailwater Elev. = 0.00 ft

Note: Culvert/Orifice outflows have been analyzed under inlet and outlet control.



Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Tuesday, Apr 26 2022, 8:28 AM

Hyd. No. 6

LOT 7-3 Det. Basin

Hydrograph type = Reservoir
Storm frequency = 100 yrs
Inflow hyd. No. = 4
Reservoir name = LOT 7-3 Det. Basin

Peak discharge = 1.94 cfs
Time interval = 12 min
Max. Elevation = 390.99 ft
Max. Storage = 3,183 cuft

Storage Indication method used.

Hydrograph Volume = 14,294 cuft

