

BERTIN ENGINEERING

66 GLEN AVENUE
GLEN ROCK, NEW JERSEY 07452
(201) 670-6688
FAX (201) 670-9788

JOB
SHEET NO.
CALCULATED BY
CHECKED BY
SCALE

25-254: Building Modification - Dover, NJ

1	OF	4
JRB	DATE	3/30/2026
CJB	DATE	3/30/2026

STORMWATER DRAINAGE ANALYSIS

**BUILDING MODIFICATION
BLOCK 9.01, LOT 6
570 MOUNT PLEASANT AVENUE
TOWNSHIP OF DOVER, MORRIS COUNTY, NEW JERSEY**

BE# 25-254

MARCH 30, 2026



Calisto J. Bertin, P.E. Lic. No 28845

BERTIN ENGINEERING

66 GLEN AVENUE
 GLEN ROCK, NEW JERSEY 07452
 (201) 670-6688
 FAX (201) 670-9788

JOB
 SHEET NO.
 CALCULATED BY
 CHECKED BY
 SCALE

25-254: Building Modification - Dover, NJ

2	OF	4
JRB	DATE	3/30/2026
CJB	DATE	3/30/2026

II. STORMWATER DRAINAGE CALCULATIONS**1. DESIGN CRITERIA**

All hydrographs and peak flow rates were calculated utilizing the Technical Release 55 (TR-55) method.

Rainfall distribution = D

County precipitation depths (P) for the 2, 10 & 100 year storm events have been adjusted for current and future precipitations based on N.J.A.C. 7:8-5.7(c) & (d).

2. EXISTING RUNOFF**I) Area of Concern:**

Drainage Area	Total (acres)	Pervious (acres)	Impervious (acres)
Existing	0.661	0.107	0.554

The existing drainage area is located in soils with a HSG rating of D (see Soil Boundary Map).

CN Values (Hydrologic Group D), Pervious = 74
 Impervious = 98

II) Peak Discharge (as determined by TR-55):

Existing Drainage Area (Pervious)						
Frequency (year)	Curve Number	T _c (min)	Current		Future	
			Rainfall, P (in)	Peak Discharge (cfs)	Rainfall, P (in)	Peak Discharge (cfs)
2	74	15.6	3.58	0.12	4.35	0.17
10			5.40	0.25	6.71	0.35
100			8.85	0.52	12.19	0.79

Existing Drainage Area (Impervious)						
Frequency (year)	Curve Number	T _c (min)	Current		Future	
			Rainfall, P (in)	Peak Discharge (cfs)	Rainfall, P (in)	Peak Discharge (cfs)
2	98	2.1	3.58	1.92	4.35	1.92
10			5.40	2.85	6.71	2.85
100			8.85	4.56	12.19	4.56

CURRENT: Existing Drainage Area						
Storm (year)	Pervious		Impervious		Combined	
	Peak (cfs)	Time (hr)	Peak (cfs)	Time (hr)	Peak (cfs)	Time (hr)
2	0.12	12.23	1.92	12.10	2.80	12.10
10	0.25	12.22	2.85	12.10	4.25	12.10
100	0.52	12.22	4.56	12.10	6.93	12.10

BERTIN ENGINEERING

66 GLEN AVENUE
 GLEN ROCK, NEW JERSEY 07452
 (201) 670-6688
 FAX (201) 670-9788

JOB
 SHEET NO.
 CALCULATED BY
 CHECKED BY
 SCALE

25-254: Building Modification - Dover, NJ

3	OF	4
JRB	DATE	3/30/2026
CJB	DATE	3/30/2026

4. EXISTING VS. PROPOSED RUNOFF

CURRENT: Proposed Drainage Area				
Frequency (year)	Existing (cfs)	Proposed (cfs)	Change (cfs)	% Exist.
2	2.80	2.73	0.07	97.5%
10	4.25	4.18	0.07	98.3%
100	6.93	6.86	0.07	99.0%

FUTURE: Proposed Drainage Area				
Frequency (year)	Existing (cfs)	Proposed (cfs)	Change (cfs)	% Exist.
2	2.91	0.68	2.23	23.3%
10	5.63	1.22	4.41	21.6%
100	12.16	2.48	9.68	20.4%

The calculations indicate that the proposed site redevelopment with infiltration decreases the surface runoff for the three design storms. As per N.J.A.C. 7:8-5.6(b)3, the required rate reductions have been met for both the Current and Future precipitation depths.

The limit of disturbance of the project is less than 1 acre and will not increase impervious surfaces by more than 1/4 acre. As a result, the project is not a "Major Development" as defined by NJAC 7:8 and therefore not required to meet the groundwater recharge, water quality and water quantity requirements. The site has been designed to have the proposed runoff peak rates for the 2, 10 & 100-year storm events less than the existing runoff peak rates.

5. WATER QUALITY DESIGN

Existing On-Site Motor Vehicle Surface:	3.290 ac
Proposed On-Site Motor Vehicle Surface:	3.251 ac
Net Increase in Untreated Impervious Surfaces:	-0.039 ac

Since the proposed amount of motor vehicle surfaces is not increased by 0.25 acre, no water quality measures are required.

Hydrologic Soil Group—Morris County, New Jersey
(Soil Boundary Map)



Soil Map may not be valid at this scale.

Map Scale: 1:1,920 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CarAt	Catden muck, 0 to 2 percent slopes, frequently flooded	B/D	3.3	20.4%
HhmCa	Hibernia loam, 3 to 15 percent slopes, stony	C	0.0	0.0%
RobCb	Rockaway sandy loam, 8 to 15 percent slopes, very stony	C	2.9	18.0%
RocB	Rockaway gravelly sandy loam, 3 to 8 percent slopes	C	6.3	39.1%
RocC	Rockaway gravelly sandy loam, 8 to 15 percent slopes	C	3.7	22.5%
Totals for Area of Interest			16.2	100.0%

Watershed Model Schematic	1
2 - Year	
Summary Report	2
Hydrograph Reports	3
Hydrograph No. 1, SCS Runoff, Existing (Pervious)	3
TR-55 Tc Worksheet	4
Hydrograph No. 2, SCS Runoff, Existing (Impervious)	5
TR-55 Tc Worksheet	6
Hydrograph No. 3, Combine, Existing	7
Hydrograph No. 4, SCS Runoff, Proposed (Pervious)	8
TR-55 Tc Worksheet	9
Hydrograph No. 5, SCS Runoff, Proposed (Impervious)	10
TR-55 Tc Worksheet	11
Hydrograph No. 6, Combine, Proposed	12
10 - Year	
Summary Report	13
Hydrograph Reports	14
Hydrograph No. 1, SCS Runoff, Existing (Pervious)	14
Hydrograph No. 2, SCS Runoff, Existing (Impervious)	15
Hydrograph No. 3, Combine, Existing	16
Hydrograph No. 4, SCS Runoff, Proposed (Pervious)	17
Hydrograph No. 5, SCS Runoff, Proposed (Impervious)	18
Hydrograph No. 6, Combine, Proposed	19
100 - Year	
Summary Report	20
Hydrograph Reports	21
Hydrograph No. 1, SCS Runoff, Existing (Pervious)	21
Hydrograph No. 2, SCS Runoff, Existing (Impervious)	22
Hydrograph No. 3, Combine, Existing	23
Hydrograph No. 4, SCS Runoff, Proposed (Pervious)	24
Hydrograph No. 5, SCS Runoff, Proposed (Impervious)	25
Hydrograph No. 6, Combine, Proposed	26

Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.25

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description
1	SCS Runoff	0.116	1	734	509	----	----	----	Existing (Pervious)
2	SCS Runoff	1.917	1	726	6,234	----	----	----	Existing (Impervious)
3	Combine	2.797	1	726	9,002	1, 2	----	----	Existing
4	SCS Runoff	0.196	1	728	651	----	----	----	Proposed (Pervious)
5	SCS Runoff	1.786	1	726	5,806	----	----	----	Proposed (Impervious)
6	Combine	2.726	1	726	8,738	4, 5	----	----	Proposed
25-254(C).gpw					Return Period: 2 Year			Tuesday, Mar 31, 2026	

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve v9.25

Hyd. No. 1

Existing (Pervious)

<u>Description</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>Totals</u>
Sheet Flow				
Manning's n-value	= 0.240	0.011	0.011	
Flow length (ft)	= 100.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 3.54	0.00	0.00	
Land slope (%)	= 1.60	0.00	0.00	
Travel Time (min)	= 14.83	+ 0.00	+ 0.00	= 14.83
Shallow Concentrated Flow				
Flow length (ft)	= 124.00	0.00	0.00	
Watercourse slope (%)	= 2.00	0.00	0.00	
Surface description	= Paved	Paved	Paved	
Average velocity (ft/s)	= 2.87	0.00	0.00	
Travel Time (min)	= 0.72	+ 0.00	+ 0.00	= 0.72
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				15.60 min

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve v9.25

Hyd. No. 2

Existing (Impervious)

<u>Description</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>Totals</u>
Sheet Flow				
Manning's n-value	= 0.011	0.011	0.011	
Flow length (ft)	= 100.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 3.54	0.00	0.00	
Land slope (%)	= 2.80	0.00	0.00	
Travel Time (min)	= 1.01	+ 0.00	+ 0.00	= 1.01
Shallow Concentrated Flow				
Flow length (ft)	= 167.00	0.00	0.00	
Watercourse slope (%)	= 1.50	0.00	0.00	
Surface description	= Paved	Paved	Paved	
Average velocity (ft/s)	= 2.49	0.00	0.00	
Travel Time (min)	= 1.12	+ 0.00	+ 0.00	= 1.12
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				2.10 min

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.25

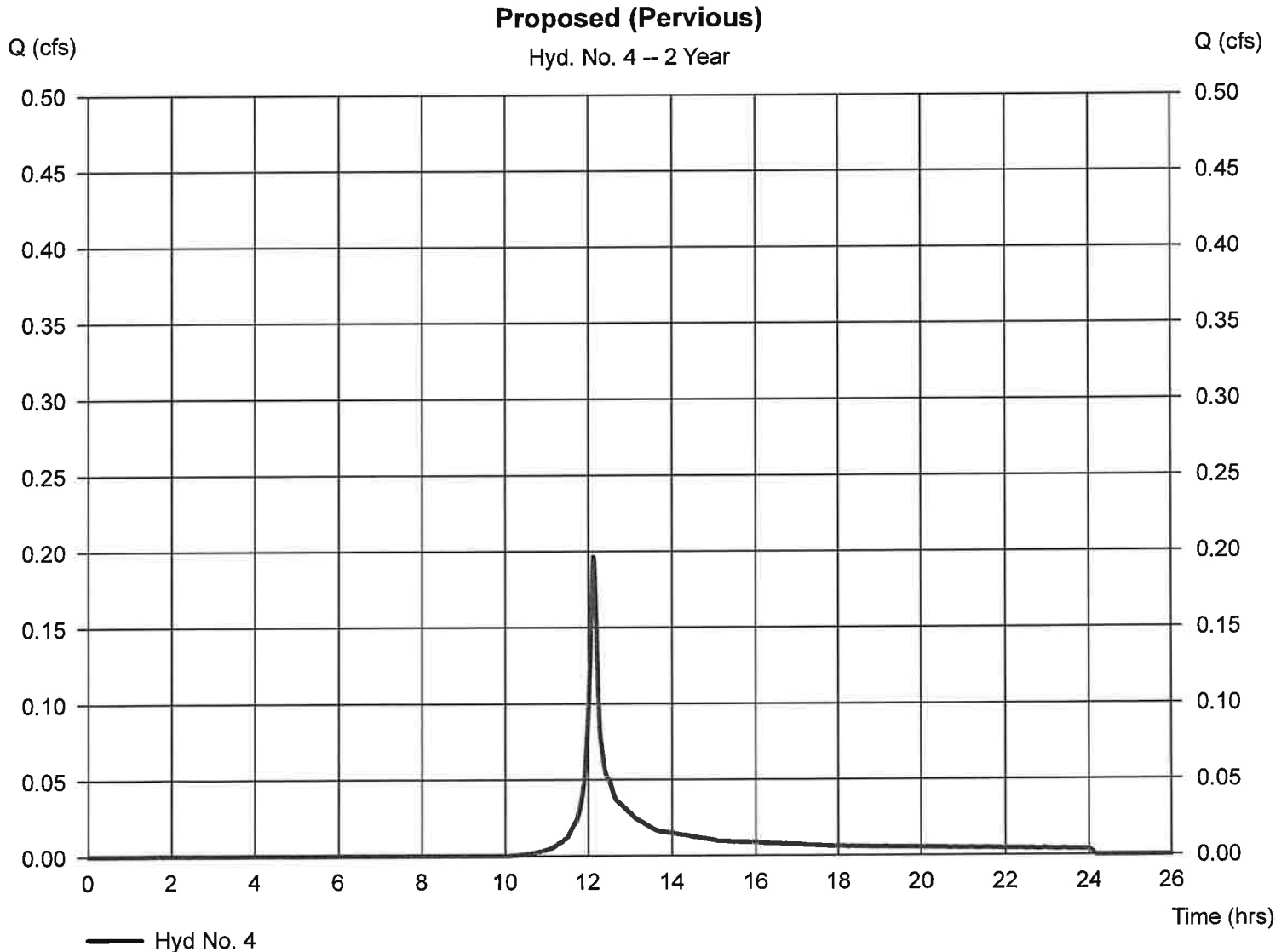
Tuesday, Mar 31, 2026

Hyd. No. 4

Proposed (Pervious)

Hydrograph type = SCS Runoff
 Storm frequency = 2 yrs
 Time interval = 1 min
 Drainage area = 0.145 ac
 Basin Slope = 0.0 %
 Tc method = TR55
 Total precip. = 3.58 in
 Storm duration = NOAA_D.cds

Peak discharge = 0.196 cfs
 Time to peak = 12.13 hrs
 Hyd. volume = 651 cuft
 Curve number = 74
 Hydraulic length = 0 ft
 Time of conc. (Tc) = 7.10 min
 Distribution = Custom
 Shape factor = 484



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.25

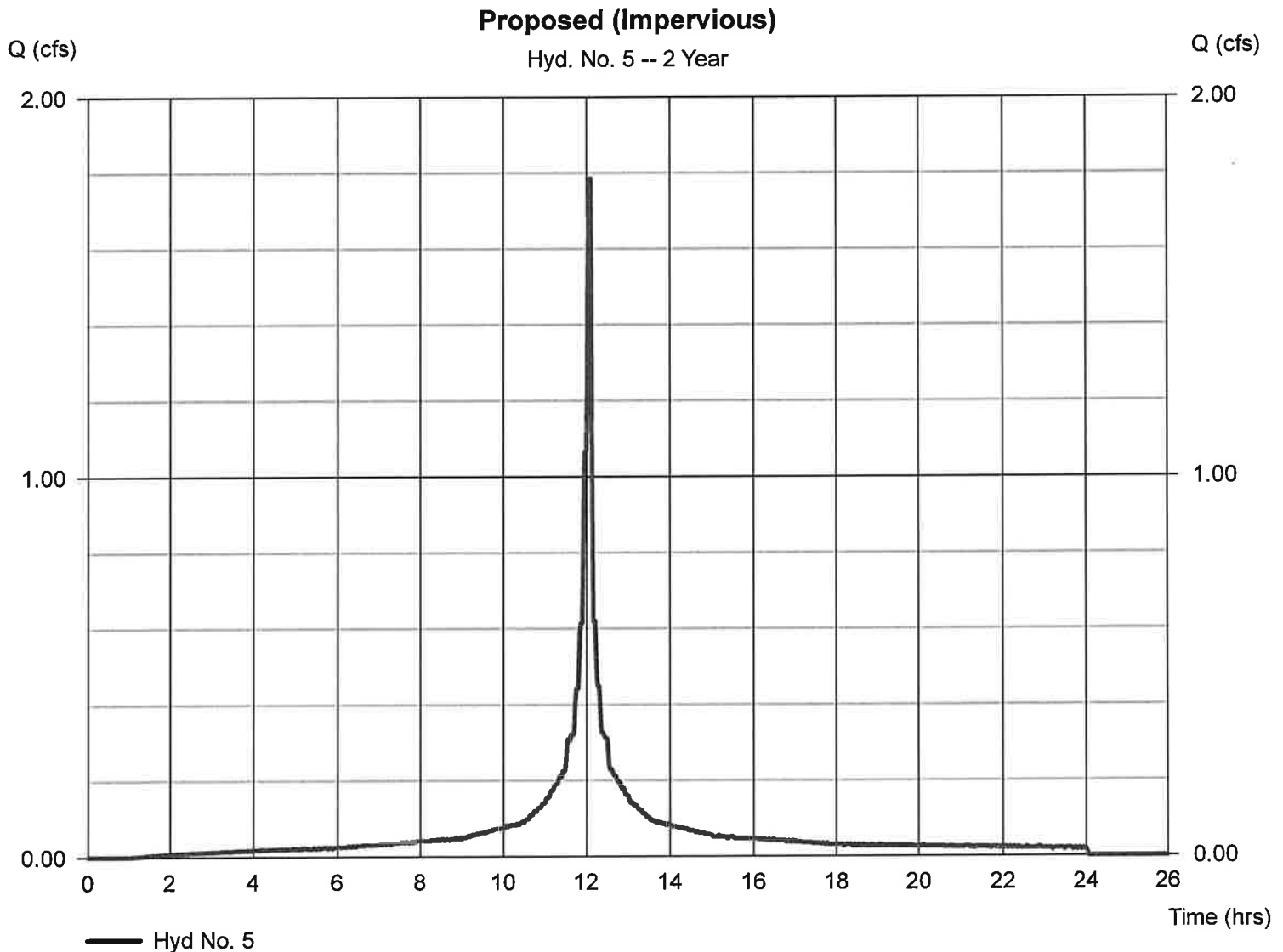
Tuesday, Mar 31, 2026

Hyd. No. 5

Proposed (Impervious)

Hydrograph type = SCS Runoff
 Storm frequency = 2 yrs
 Time interval = 1 min
 Drainage area = 0.516 ac
 Basin Slope = 0.0 %
 Tc method = TR55
 Total precip. = 3.58 in
 Storm duration = NOAA_D.cds

Peak discharge = 1.786 cfs
 Time to peak = 12.10 hrs
 Hyd. volume = 5,806 cuft
 Curve number = 98
 Hydraulic length = 0 ft
 Time of conc. (Tc) = 1.70 min
 Distribution = Custom
 Shape factor = 484



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.25

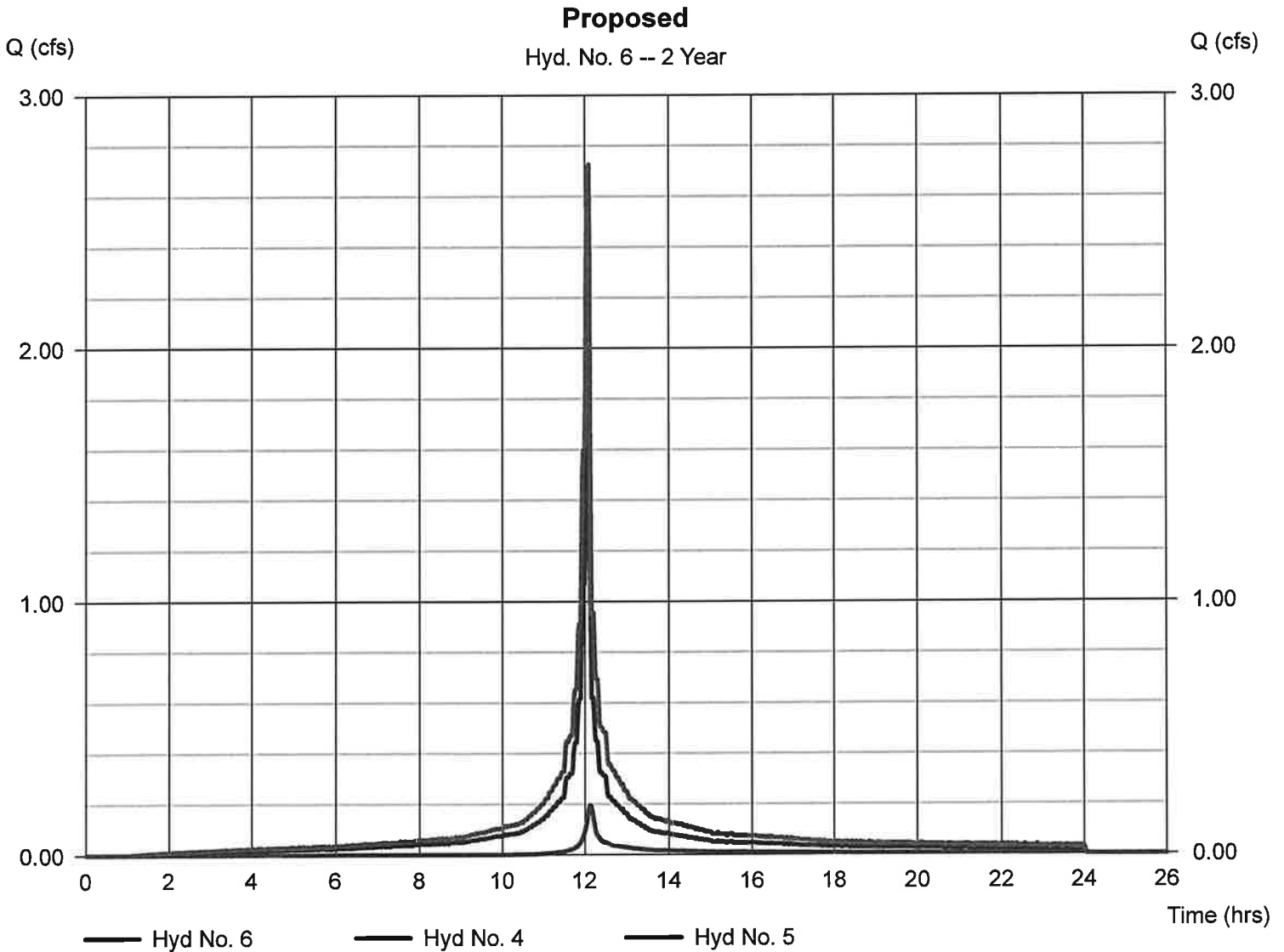
Tuesday, Mar 31, 2026

Hyd. No. 6

Proposed

Hydrograph type = Combine
Storm frequency = 2 yrs
Time interval = 1 min
Inflow hyds. = 4, 5

Peak discharge = 2.726 cfs
Time to peak = 12.10 hrs
Hyd. volume = 8,738 cuft
Contrib. drain. area = 0.661 ac



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.25

Tuesday, Mar 31, 2026

Hyd. No. 1

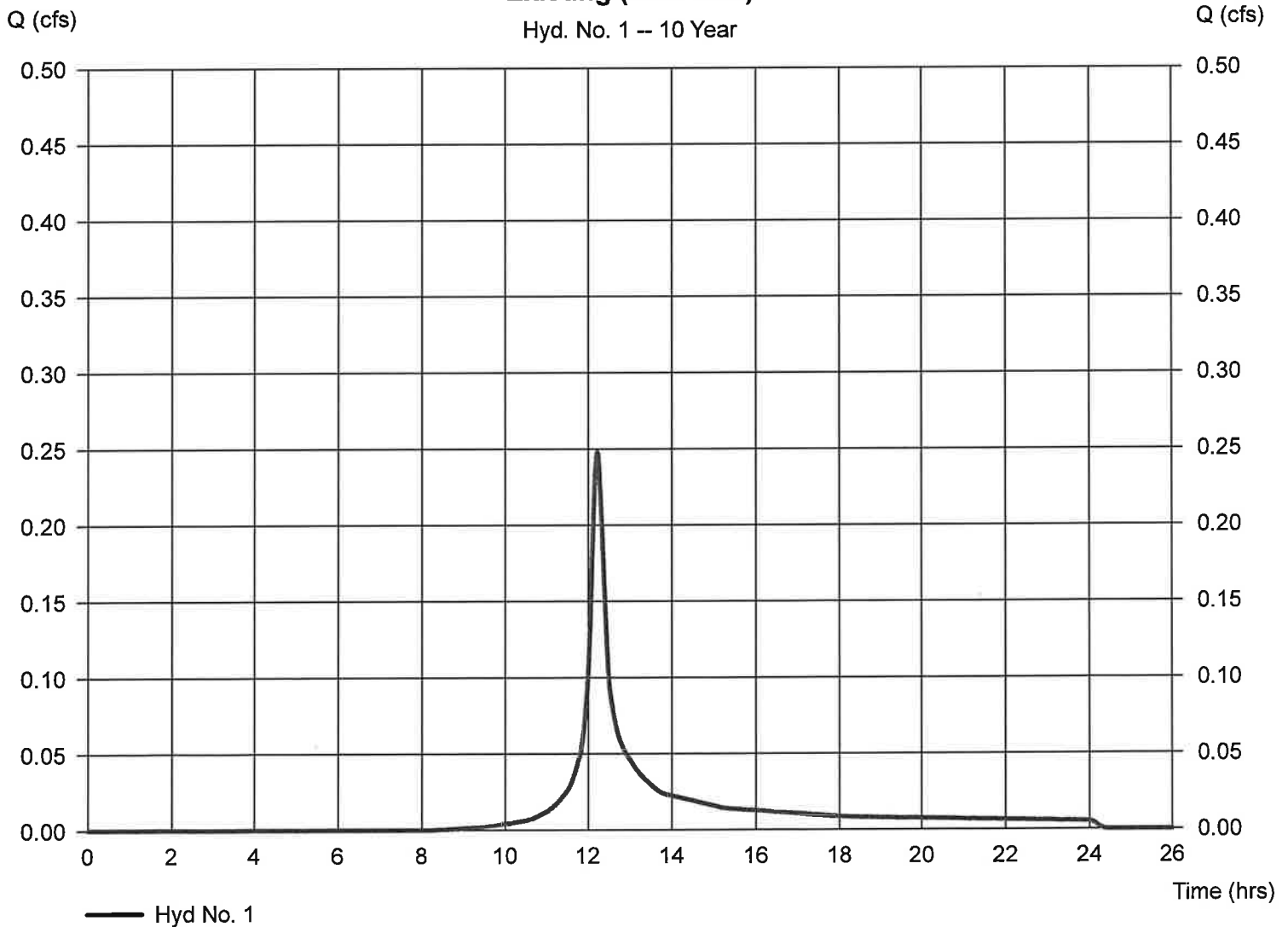
Existing (Pervious)

Hydrograph type = SCS Runoff
 Storm frequency = 10 yrs
 Time interval = 1 min
 Drainage area = 0.107 ac
 Basin Slope = 0.0 %
 Tc method = TR55
 Total precip. = 5.40 in
 Storm duration = NOAA_D.cds

Peak discharge = 0.248 cfs
 Time to peak = 12.22 hrs
 Hyd. volume = 1,057 cuft
 Curve number = 74
 Hydraulic length = 0 ft
 Time of conc. (Tc) = 15.60 min
 Distribution = Custom
 Shape factor = 484

Existing (Pervious)

Hyd. No. 1 -- 10 Year



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.25

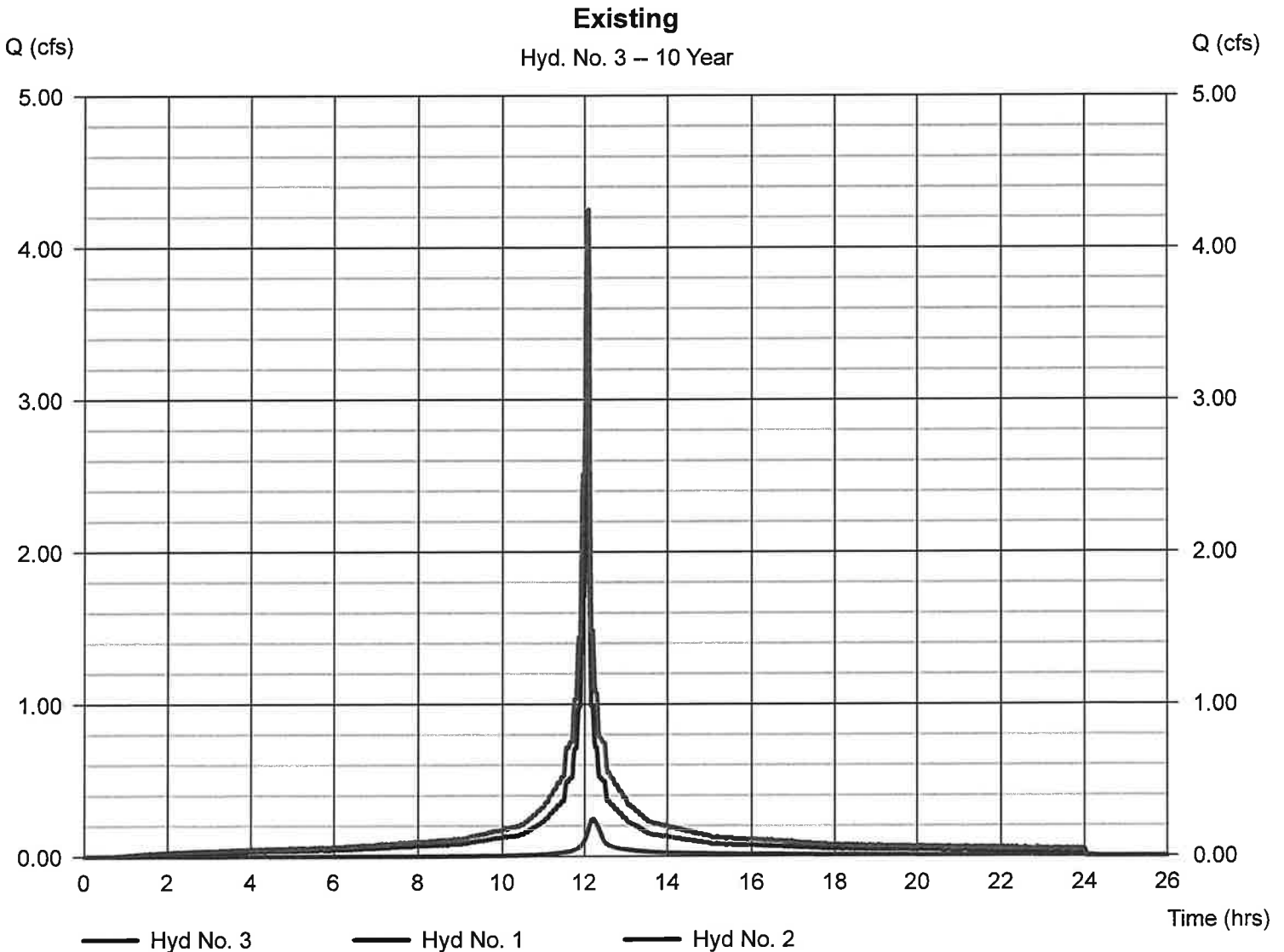
Tuesday, Mar 31, 2026

Hyd. No. 3

Existing

Hydrograph type = Combine
Storm frequency = 10 yrs
Time interval = 1 min
Inflow hyds. = 1, 2

Peak discharge = 4.251 cfs
Time to peak = 12.10 hrs
Hyd. volume = 13,853 cuft
Contrib. drain. area = 0.661 ac



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.25

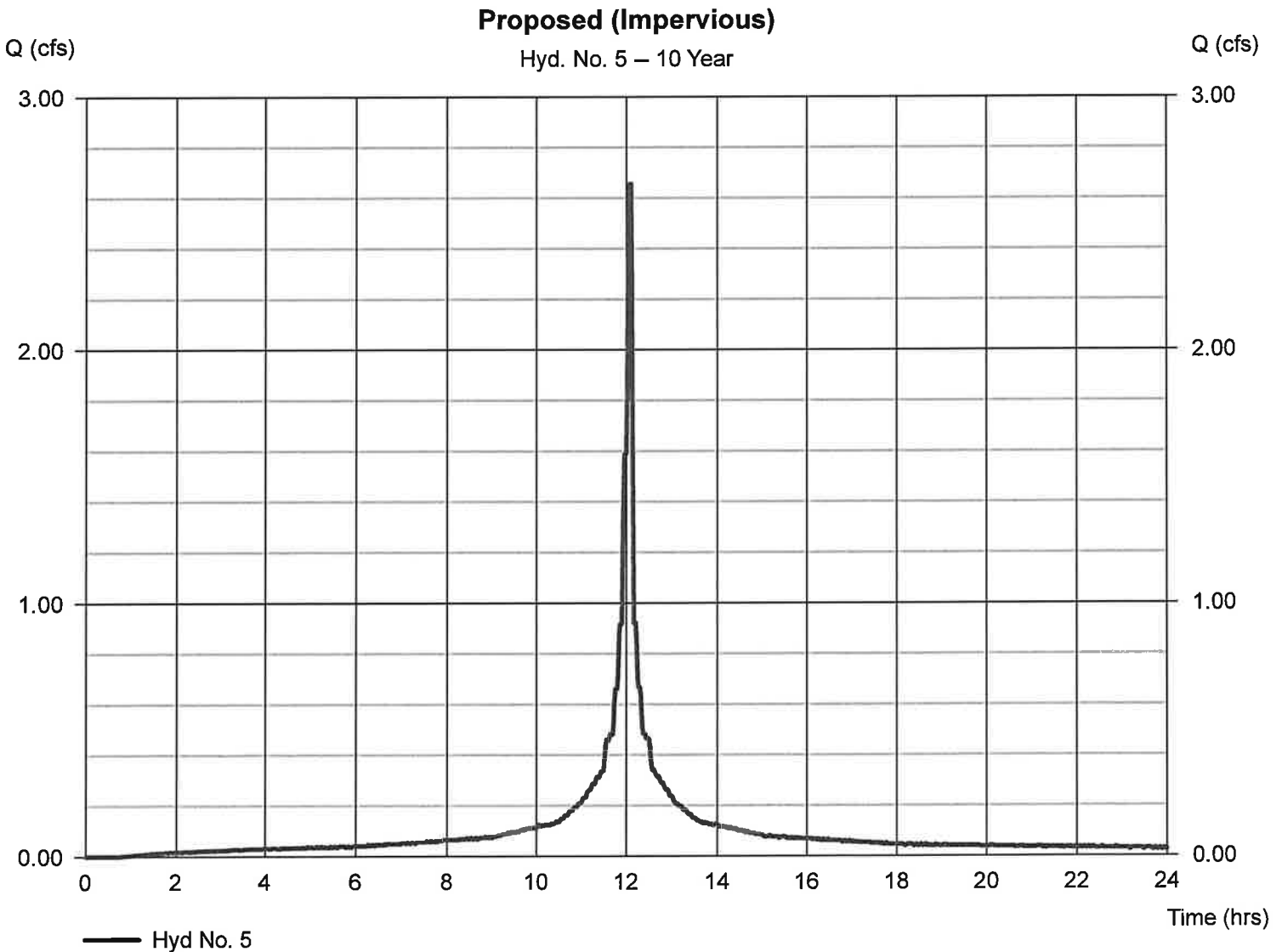
Tuesday, Mar 31, 2026

Hyd. No. 5

Proposed (Impervious)

Hydrograph type = SCS Runoff
 Storm frequency = 10 yrs
 Time interval = 1 min
 Drainage area = 0.516 ac
 Basin Slope = 0.0 %
 Tc method = TR55
 Total precip. = 5.40 in
 Storm duration = NOAA_D.cds

Peak discharge = 2.656 cfs
 Time to peak = 12.10 hrs
 Hyd. volume = 8,785 cuft
 Curve number = 98
 Hydraulic length = 0 ft
 Time of conc. (Tc) = 1.70 min
 Distribution = Custom
 Shape factor = 484



Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.25

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description	
1	SCS Runoff	0.521	1	733	2,239	----	----	----	Existing (Pervious)	
2	SCS Runoff	4.557	1	726	15,290	----	----	----	Existing (Impervious)	
3	Combine	6.927	1	726	22,856	1, 2	----	----	Existing	
4	SCS Runoff	0.815	1	728	2,689	----	----	----	Proposed (Pervious)	
5	SCS Runoff	4.244	1	726	14,241	----	----	----	Proposed (Impervious)	
6	Combine	6.857	1	726	22,485	4, 5	----	----	Proposed	
25-254(C).gpw					Return Period: 100 Year			Tuesday, Mar 31, 2026		

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.25

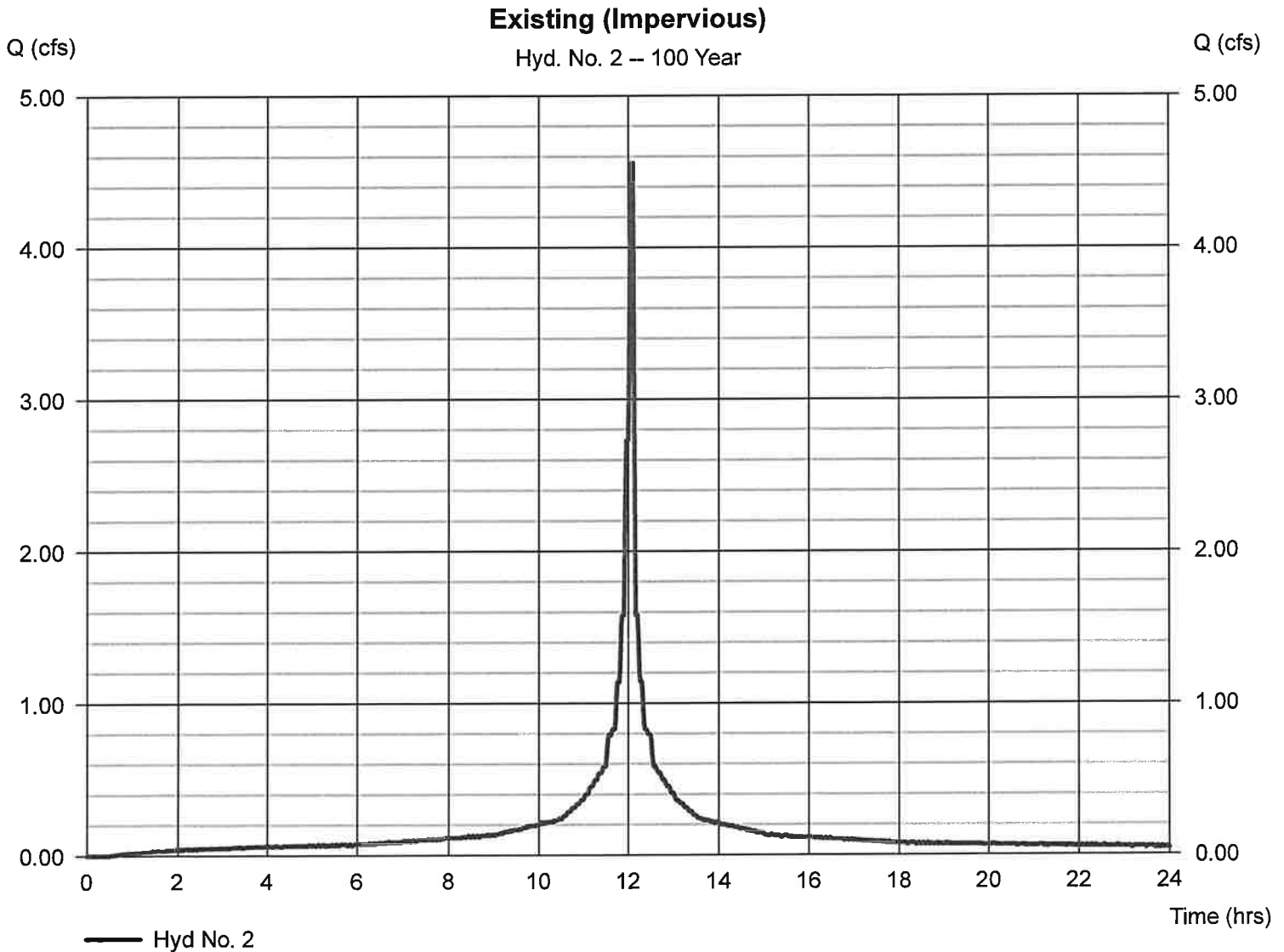
Tuesday, Mar 31, 2026

Hyd. No. 2

Existing (Impervious)

Hydrograph type = SCS Runoff
 Storm frequency = 100 yrs
 Time interval = 1 min
 Drainage area = 0.554 ac
 Basin Slope = 0.0 %
 Tc method = TR55
 Total precip. = 8.85 in
 Storm duration = NOAA_D.cds

Peak discharge = 4.557 cfs
 Time to peak = 12.10 hrs
 Hyd. volume = 15,290 cuft
 Curve number = 98
 Hydraulic length = 0 ft
 Time of conc. (Tc) = 2.10 min
 Distribution = Custom
 Shape factor = 484



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.25

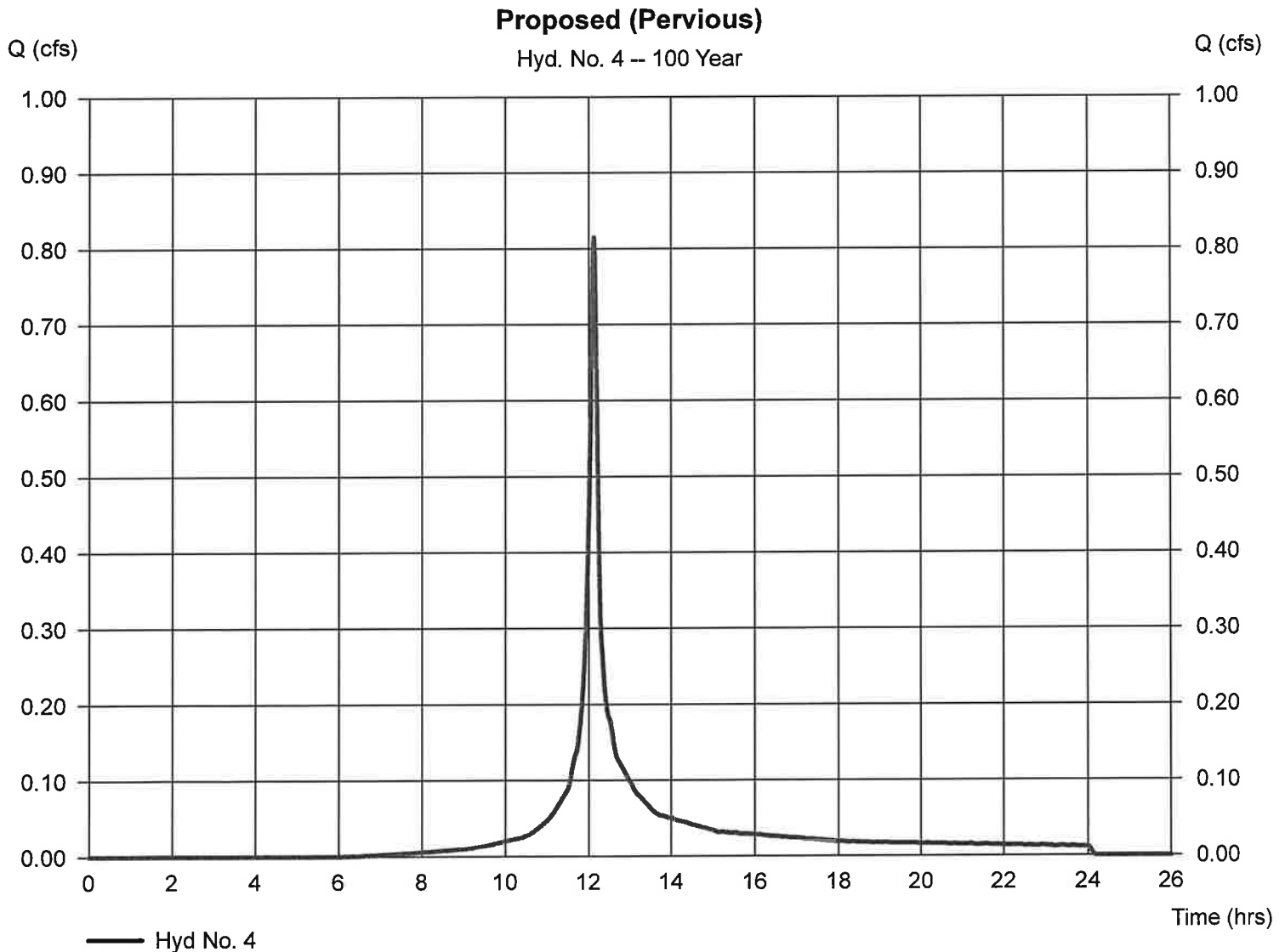
Tuesday, Mar 31, 2026

Hyd. No. 4

Proposed (Pervious)

Hydrograph type = SCS Runoff
 Storm frequency = 100 yrs
 Time interval = 1 min
 Drainage area = 0.145 ac
 Basin Slope = 0.0 %
 Tc method = TR55
 Total precip. = 8.85 in
 Storm duration = NOAA_D.cds

Peak discharge = 0.815 cfs
 Time to peak = 12.13 hrs
 Hyd. volume = 2,689 cuft
 Curve number = 74
 Hydraulic length = 0 ft
 Time of conc. (Tc) = 7.10 min
 Distribution = Custom
 Shape factor = 484



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.25

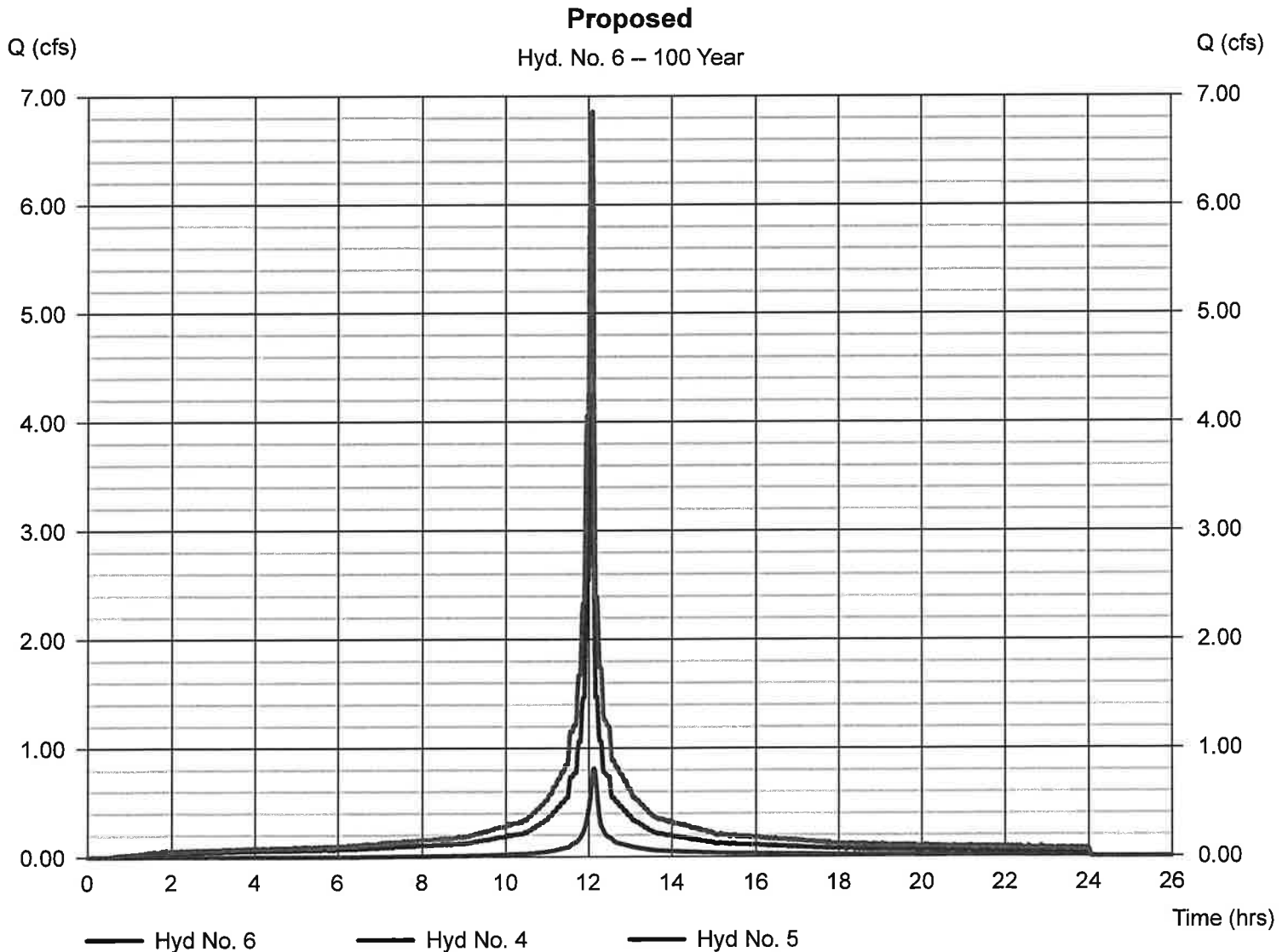
Tuesday, Mar 31, 2026

Hyd. No. 6

Proposed

Hydrograph type = Combine
Storm frequency = 100 yrs
Time interval = 1 min
Inflow hyds. = 4, 5

Peak discharge = 6.857 cfs
Time to peak = 12.10 hrs
Hyd. volume = 22,485 cuft
Contrib. drain. area = 0.661 ac



Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.25

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description	
1	SCS Runoff	0.170	1	733	731	----	----	----	Existing (Pervious)	
2	SCS Runoff	1.917	1	726	6,234	----	----	----	Existing (Impervious)	
3	Combine	2.797	1	726	9,002	1, 2	----	----	Existing	
4	SCS Runoff	0.196	1	728	651	----	----	----	Proposed (Pervious)	
5	SCS Runoff	1.786	1	726	5,806	----	----	----	Proposed (Impervious)	
6	Combine	2.726	1	726	8,738	4, 5	----	----	Proposed	
25-254(F).gpw					Return Period: 2 Year			Tuesday, Mar 31, 2026		

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.25

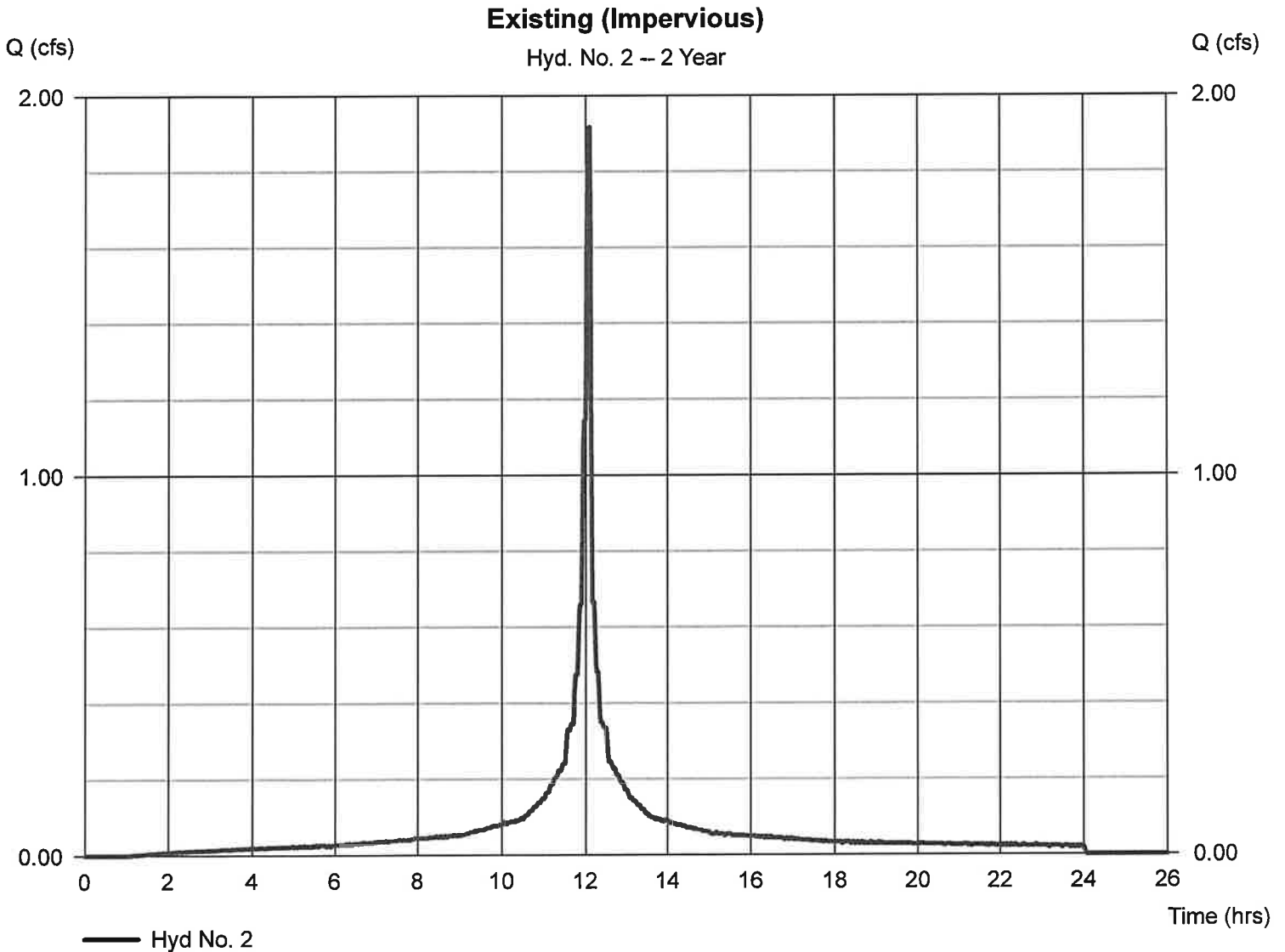
Tuesday, Mar 31, 2026

Hyd. No. 2

Existing (Impervious)

Hydrograph type = SCS Runoff
 Storm frequency = 2 yrs
 Time interval = 1 min
 Drainage area = 0.554 ac
 Basin Slope = 0.0 %
 Tc method = TR55
 Total precip. = 4.35 in
 Storm duration = NOAA_D.cds

Peak discharge = 1.917 cfs
 Time to peak = 12.10 hrs
 Hyd. volume = 6,234 cuft
 Curve number = 98
 Hydraulic length = 0 ft
 Time of conc. (Tc) = 2.10 min
 Distribution = Custom
 Shape factor = 484



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.25

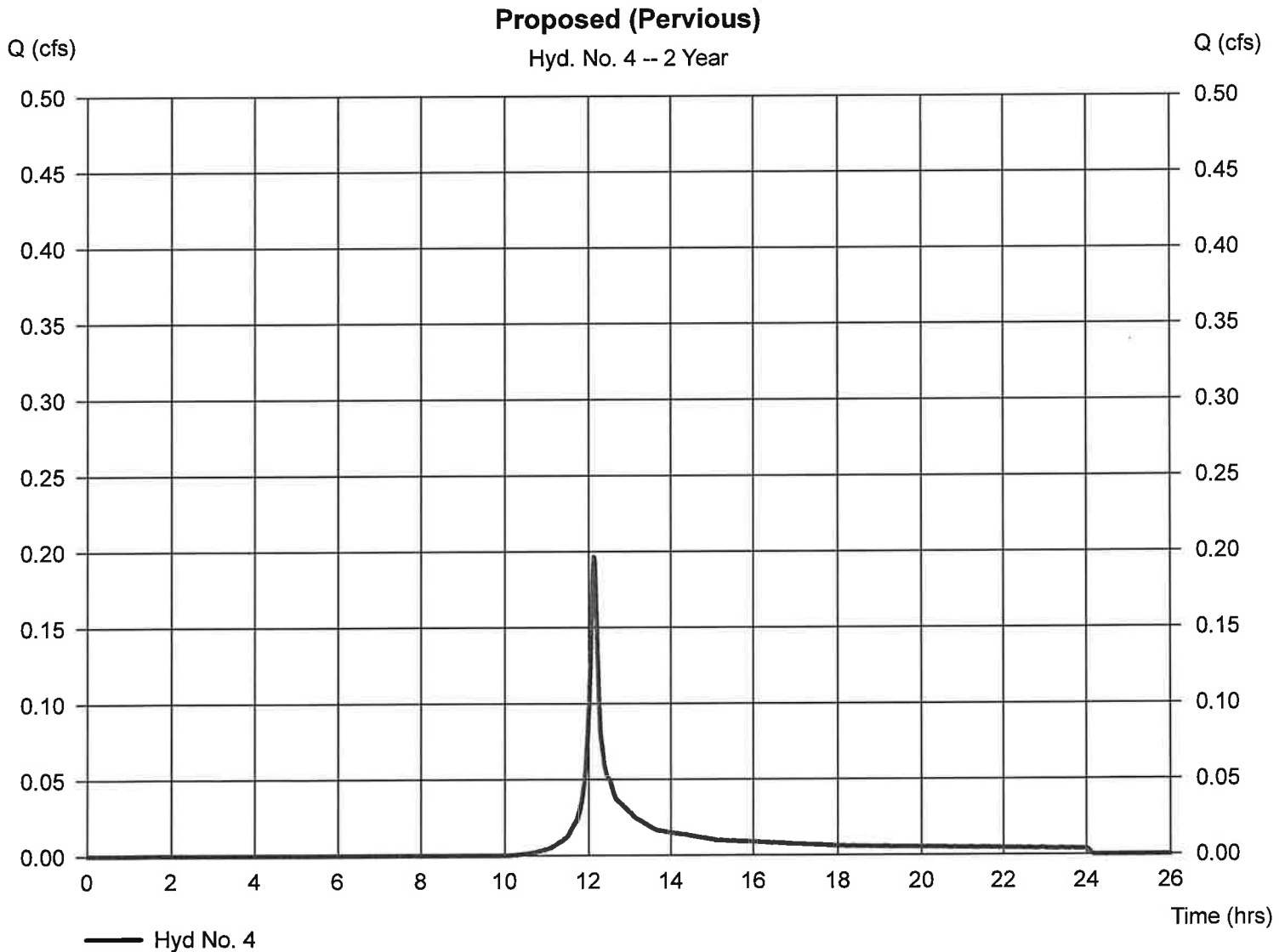
Tuesday, Mar 31, 2026

Hyd. No. 4

Proposed (Pervious)

Hydrograph type = SCS Runoff
 Storm frequency = 2 yrs
 Time interval = 1 min
 Drainage area = 0.145 ac
 Basin Slope = 0.0 %
 Tc method = TR55
 Total precip. = 4.35 in
 Storm duration = NOAA_D.cds

Peak discharge = 0.196 cfs
 Time to peak = 12.13 hrs
 Hyd. volume = 651 cuft
 Curve number = 74
 Hydraulic length = 0 ft
 Time of conc. (Tc) = 7.10 min
 Distribution = Custom
 Shape factor = 484



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.25

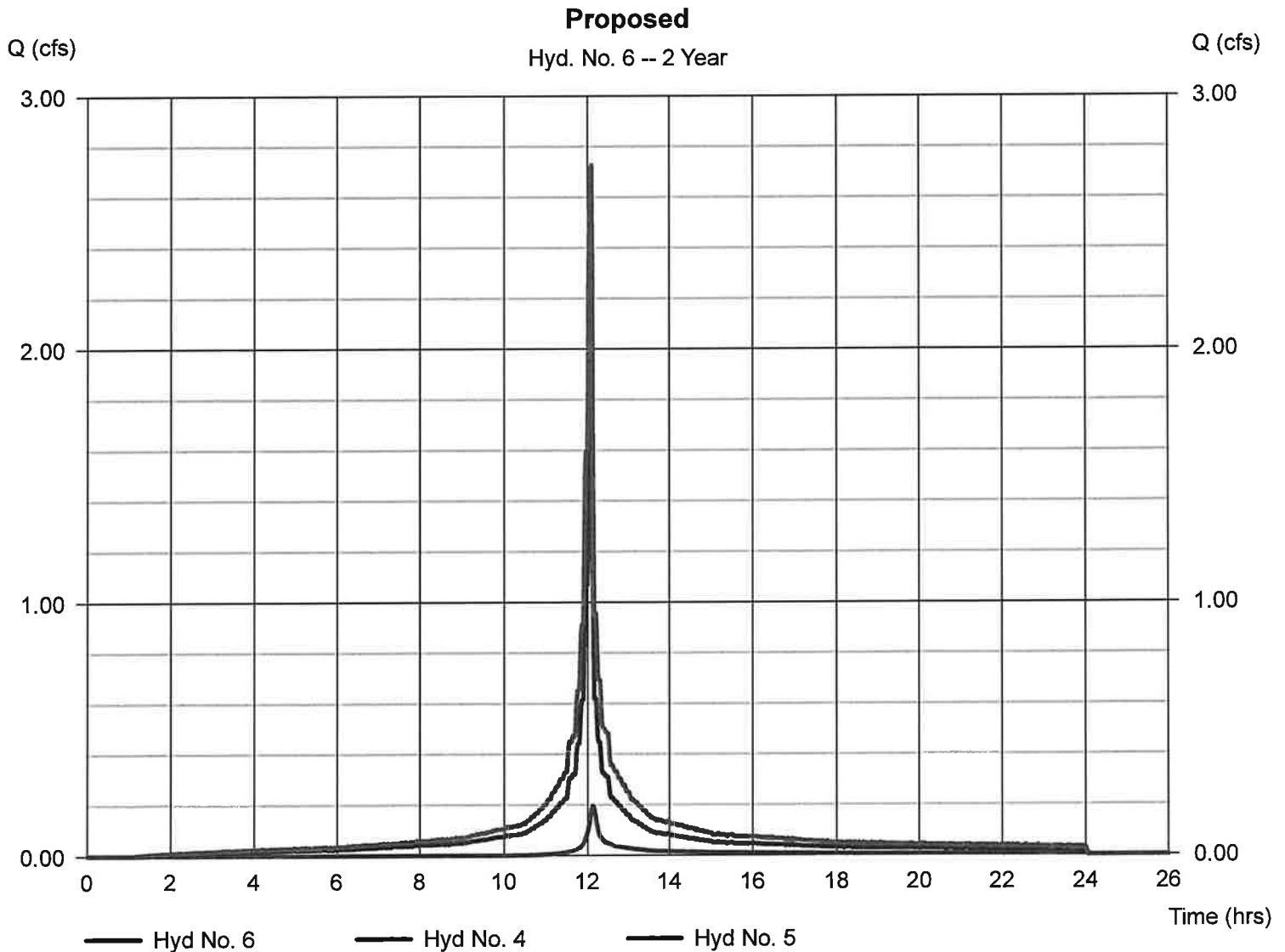
Tuesday, Mar 31, 2026

Hyd. No. 6

Proposed

Hydrograph type = Combine
Storm frequency = 2 yrs
Time interval = 1 min
Inflow hyds. = 4, 5

Peak discharge = 2.726 cfs
Time to peak = 12.10 hrs
Hyd. volume = 8,738 cuft
Contrib. drain. area = 0.661 ac



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.25

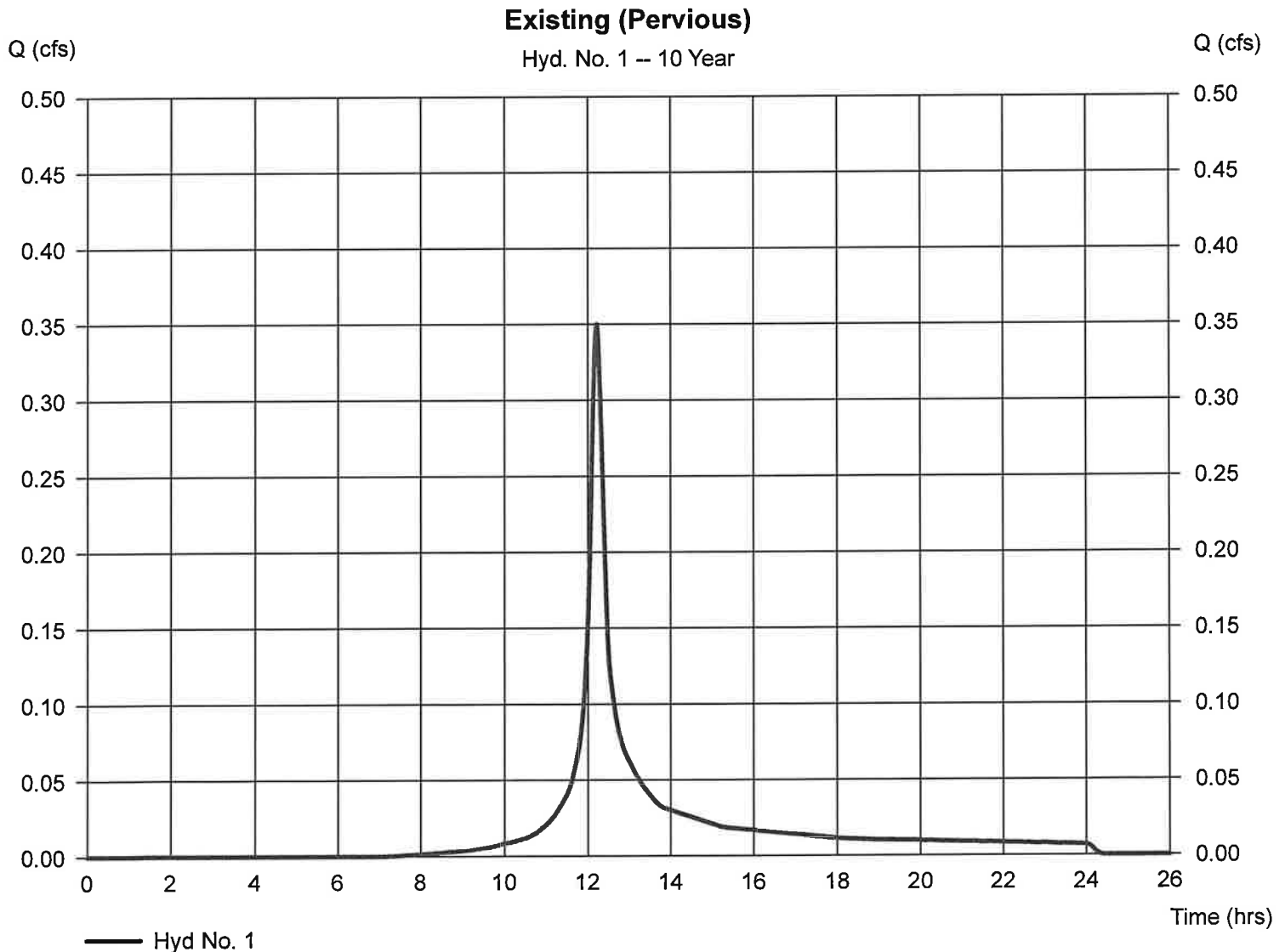
Tuesday, Mar 31, 2026

Hyd. No. 1

Existing (Pervious)

Hydrograph type = SCS Runoff
 Storm frequency = 10 yrs
 Time interval = 1 min
 Drainage area = 0.107 ac
 Basin Slope = 0.0 %
 Tc method = TR55
 Total precip. = 6.71 in
 Storm duration = NOAA_D.cds

Peak discharge = 0.350 cfs
 Time to peak = 12.22 hrs
 Hyd. volume = 1,491 cuft
 Curve number = 74
 Hydraulic length = 0 ft
 Time of conc. (Tc) = 15.60 min
 Distribution = Custom
 Shape factor = 484



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.25

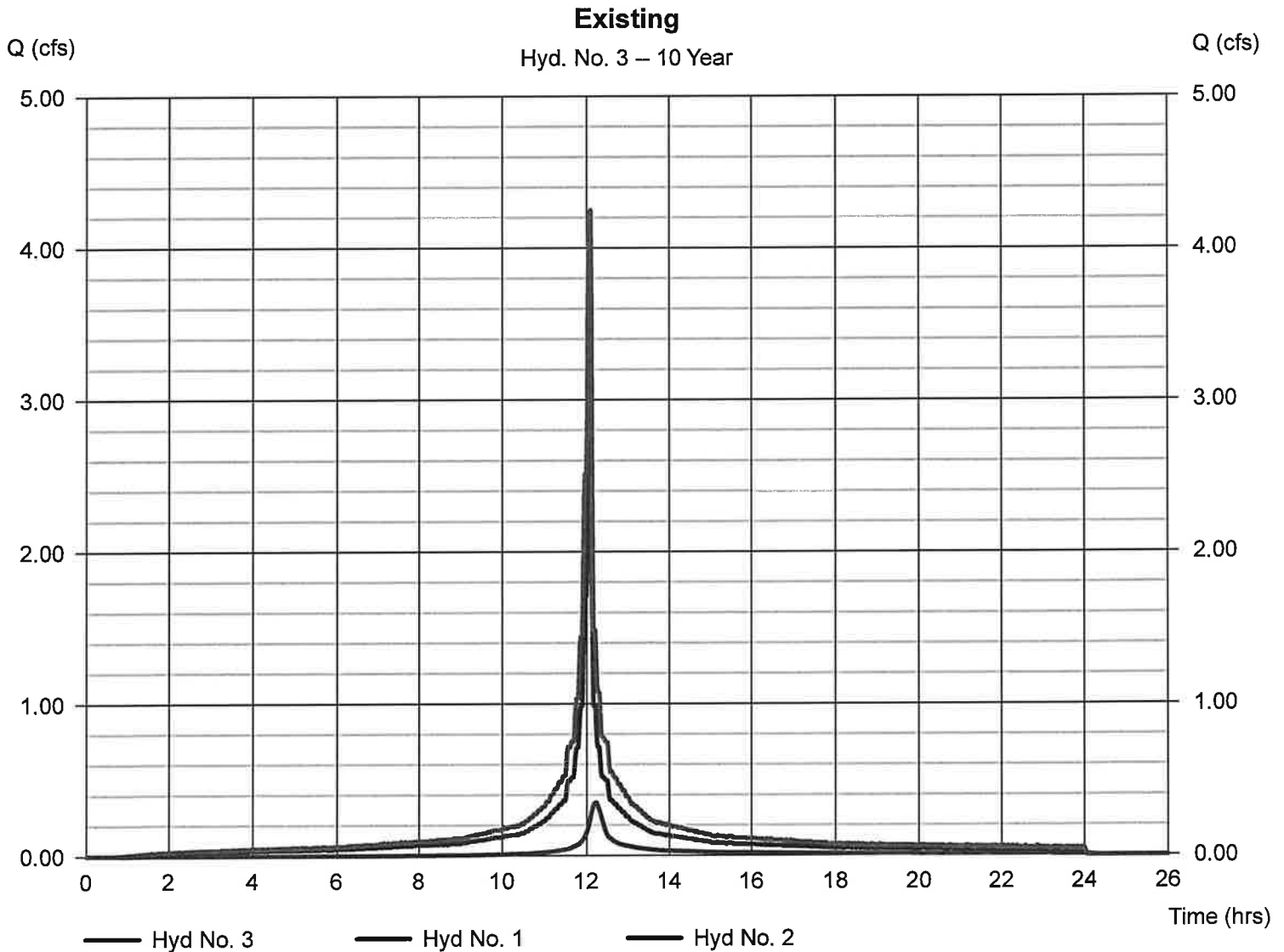
Tuesday, Mar 31, 2026

Hyd. No. 3

Existing

Hydrograph type = Combine
Storm frequency = 10 yrs
Time interval = 1 min
Inflow hyds. = 1, 2

Peak discharge = 4.251 cfs
Time to peak = 12.10 hrs
Hyd. volume = 13,853 cuft
Contrib. drain. area = 0.661 ac



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.25

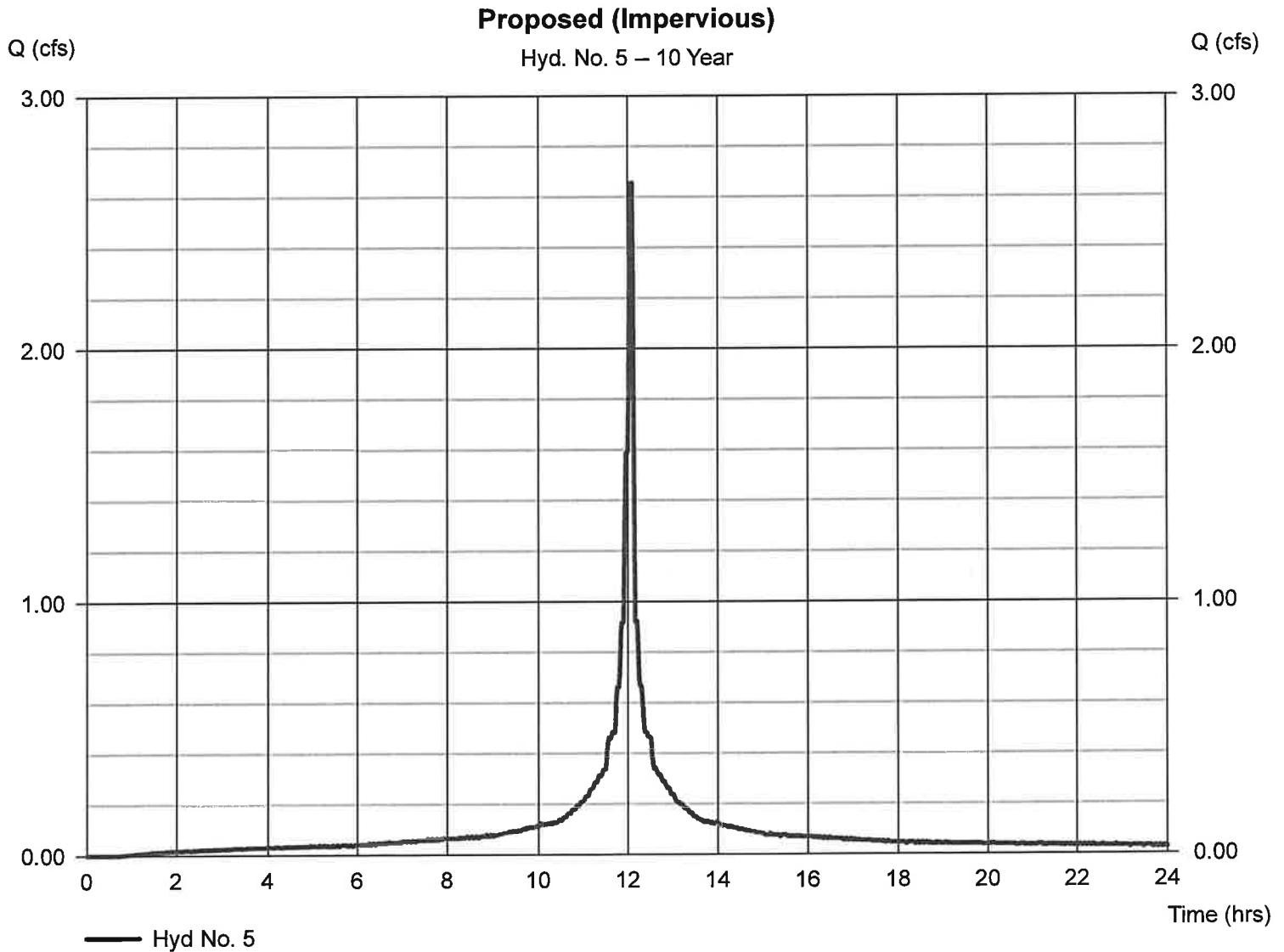
Tuesday, Mar 31, 2026

Hyd. No. 5

Proposed (Impervious)

Hydrograph type = SCS Runoff
 Storm frequency = 10 yrs
 Time interval = 1 min
 Drainage area = 0.516 ac
 Basin Slope = 0.0 %
 Tc method = TR55
 Total precip. = 6.71 in
 Storm duration = NOAA_D.cds

Peak discharge = 2.656 cfs
 Time to peak = 12.10 hrs
 Hyd. volume = 8,785 cuft
 Curve number = 98
 Hydraulic length = 0 ft
 Time of conc. (Tc) = 1.70 min
 Distribution = Custom
 Shape factor = 484



Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.25

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description	
1	SCS Runoff	0.792	1	733	3,459	----	----	----	Existing (Pervious)	
2	SCS Runoff	4.557	1	726	15,290	----	----	----	Existing (Impervious)	
3	Combine	6.927	1	726	22,856	1, 2	----	----	Existing	
4	SCS Runoff	0.815	1	728	2,689	----	----	----	Proposed (Pervious)	
5	SCS Runoff	4.244	1	726	14,241	----	----	----	Proposed (Impervious)	
6	Combine	6.857	1	726	22,485	4, 5	----	----	Proposed	
25-254(F).gpw					Return Period: 100 Year			Tuesday, Mar 31, 2026		

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.25

Tuesday, Mar 31, 2026

Hyd. No. 2

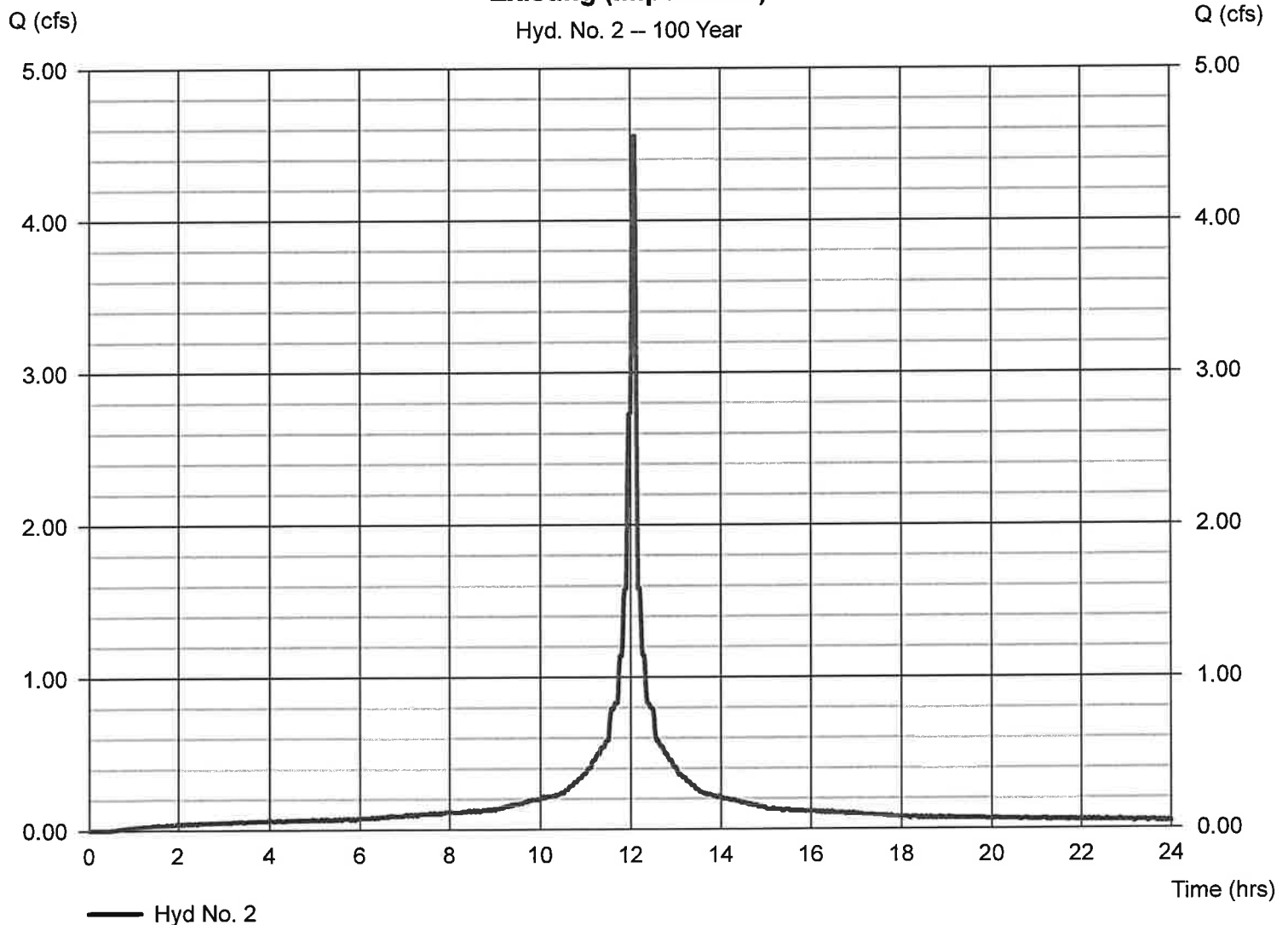
Existing (Impervious)

Hydrograph type = SCS Runoff
 Storm frequency = 100 yrs
 Time interval = 1 min
 Drainage area = 0.554 ac
 Basin Slope = 0.0 %
 Tc method = TR55
 Total precip. = 12.19 in
 Storm duration = NOAA_D.cds

Peak discharge = 4.557 cfs
 Time to peak = 12.10 hrs
 Hyd. volume = 15,290 cuft
 Curve number = 98
 Hydraulic length = 0 ft
 Time of conc. (Tc) = 2.10 min
 Distribution = Custom
 Shape factor = 484

Existing (Impervious)

Hyd. No. 2 -- 100 Year



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.25

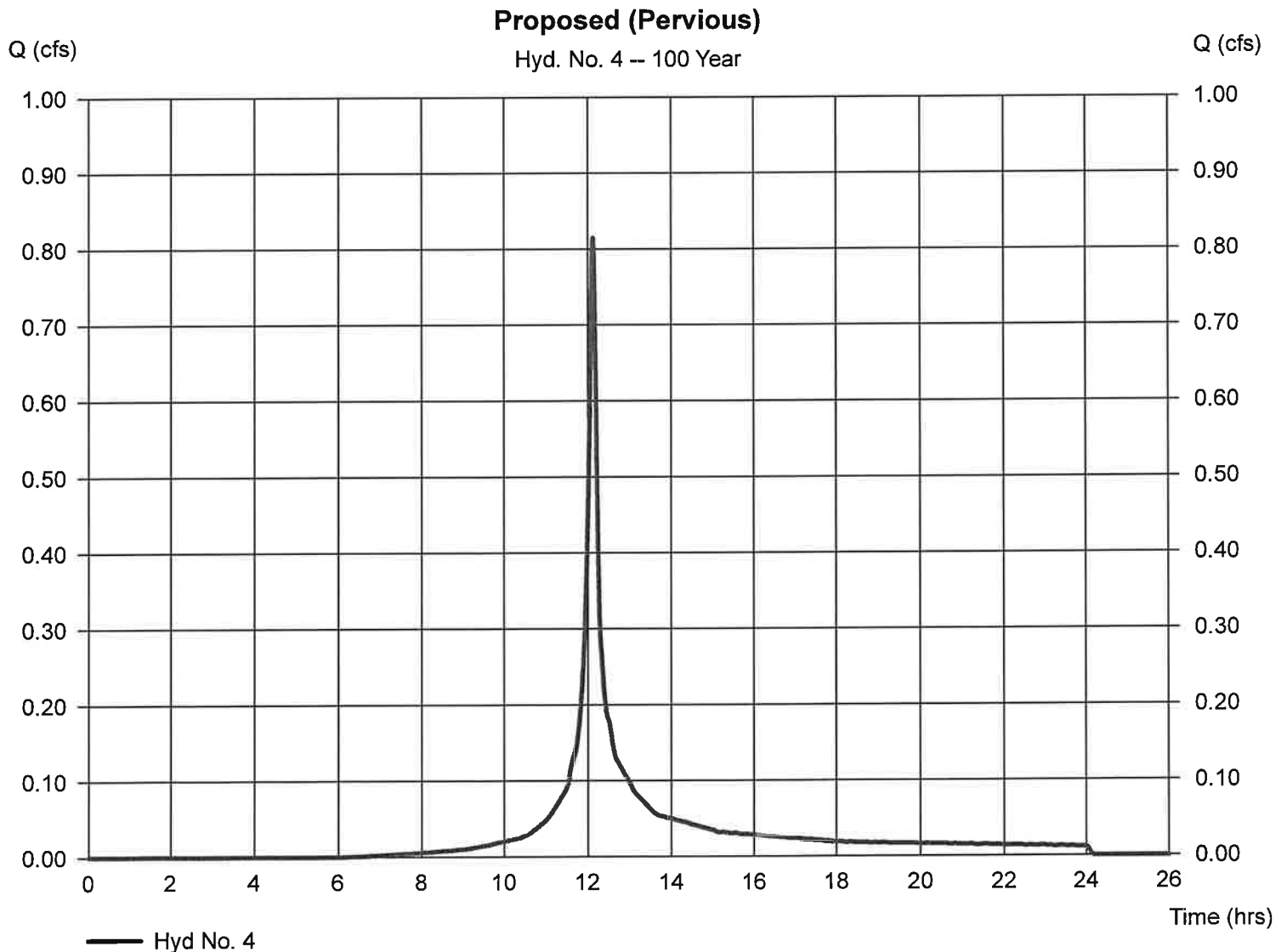
Tuesday, Mar 31, 2026

Hyd. No. 4

Proposed (Pervious)

Hydrograph type = SCS Runoff
 Storm frequency = 100 yrs
 Time interval = 1 min
 Drainage area = 0.145 ac
 Basin Slope = 0.0 %
 Tc method = TR55
 Total precip. = 12.19 in
 Storm duration = NOAA_D.cds

Peak discharge = 0.815 cfs
 Time to peak = 12.13 hrs
 Hyd. volume = 2,689 cuft
 Curve number = 74
 Hydraulic length = 0 ft
 Time of conc. (Tc) = 7.10 min
 Distribution = Custom
 Shape factor = 484



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.25

Tuesday, Mar 31, 2026

Hyd. No. 6

Proposed

Hydrograph type = Combine
 Storm frequency = 100 yrs
 Time interval = 1 min
 Inflow hyds. = 4, 5

Peak discharge = 6.857 cfs
 Time to peak = 12.10 hrs
 Hyd. volume = 22,485 cuft
 Contrib. drain. area = 0.661 ac

