STORMWATER REPORT

Proposed Site Redevelopment
592 Washington Street
Wellesley, MA 02482

Prepared for: ***592 Washington LLC***
869 Worcester Street
Wellesley, MA 02482

Prepared by: ***MetroWest Engineering, Inc.***
75 Franklin Street
Framingham, MA 01702
(508) 626-0063

Submittal: November, 2025

STORMWATER REPORT INDEX:

CHAPTER 1: HYDROLOGIC ANALYSIS

Hydrologic Analysis:
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Introduction

The project site is located at 592 Washington Street in Wellesley, Massachusetts. The subject property is bound westerly by Washington Street (Route 16), commercial properties to the north and south, and by the Wellesley Green Condominiums to the east. The locus is shown on *Figure One: Locus Map, 592 Washington Street, Wellesley MA*.

Existing Conditions

The subject parcel (shown as Assessors' Map 124, Lot 17) has an area of approximately 35,861 square feet (0.82 acres) and is presently improved with two commercial buildings, a paved parking lot, an existing stormwater management system and supporting utilities.

The lot is mostly covered by impervious surfaces with small amounts of landscaped and lawn areas located in the front yard and along the perimeter of the parking lot. Existing topography is relatively flat with elevations decreasing from higher elevations along the anterior commercial building to lower elevations along the perimeter of the property. There are no bordering vegetated wetlands or Wetland Resource Areas located on or within 200-feet of the subject property.

Soil Conditions

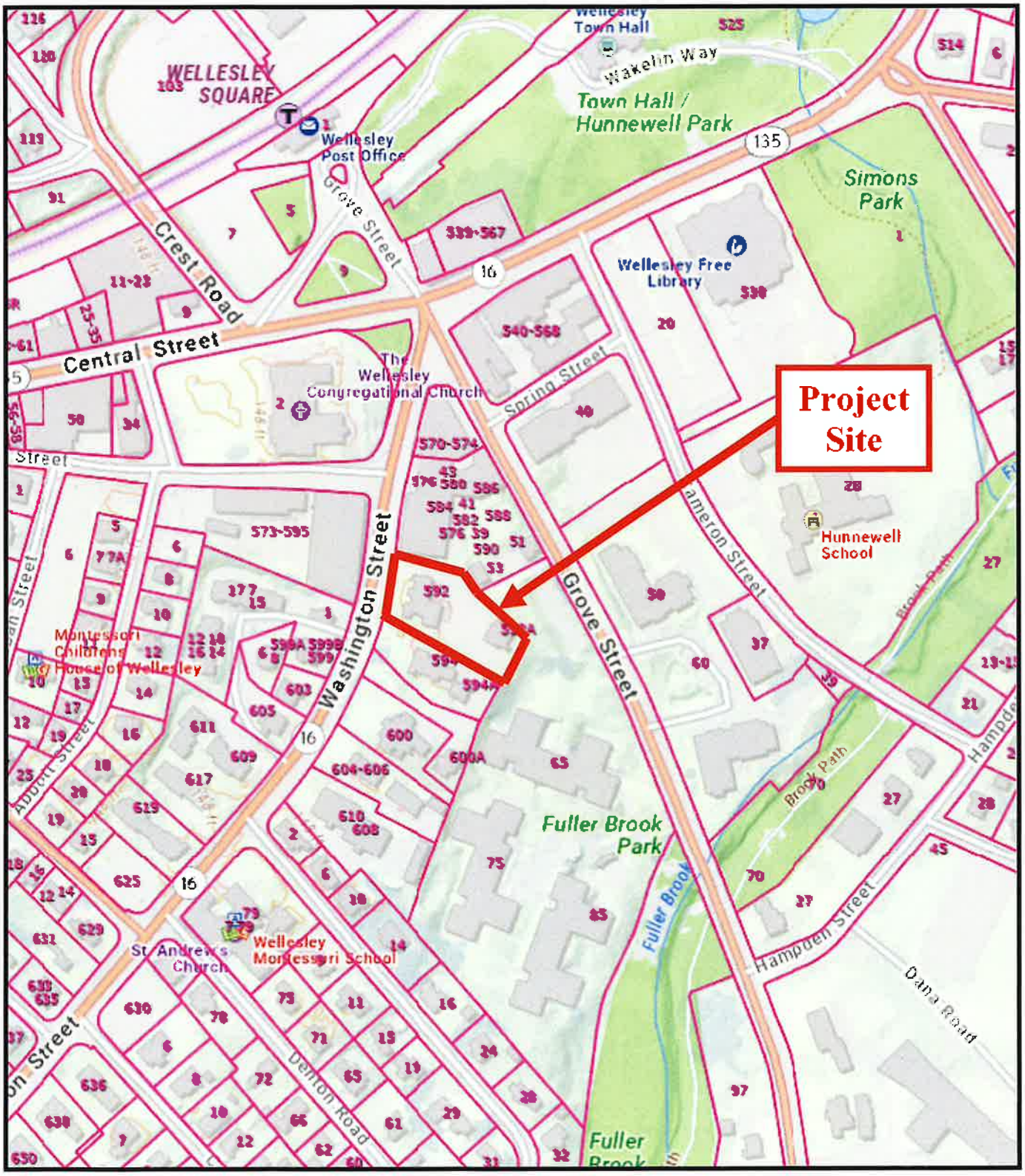
According to the NRCS Soil Survey, soils on the site belong to the Urban Land (602) soil series and are not classified within a Hydrologic Soil Group. A Hydrologic Soil Group rating of "A" was given to the associated terrain curve numbers to determine peak runoff rates and volumes leaving the project site based on on-site soil testing.

An on-site soil evaluation consisting of one deep test pit, DTH-1, was performed by MetroWest Engineering Inc. on August 8, 2023. The test pit was excavated within a landscaped area, approximately 13-feet south of the anterior commercial building. DTH-1 revealed A and B soil horizons to a depth of three-feet below the surface. C-horizon soil horizons consisted of sandy soils to depths of approximately ten-feet below the surface. Weak redoximorphic features were observed at an approximate depth of nine-feet below ground surface, though said features were not distinct enough to confirm the presence of water with confidence. No weeping or standing water was observed in DTH-1.

Proposed Redevelopment

The site redevelopment program includes razing the rear commercial building and a portion of the front commercial building, followed by the construction of new 19-unit multi-family apartment building, underground off-street parking garage, a new stormwater management system, hardscape, landscape areas and supporting utilities. The

Figure One: Locus Map
592 Washington Street, Wellesley MA



rear existing commercial building, formerly known as the Page Waterman Framing Gallery, and rear portions of the existing commercial building, currently occupied by AnnieMac Home Mortgage, located at the front of the property will be razed. Additionally, the existing parking lot and existing stormwater management system will be removed.

The demolition phase will then be followed by the construction of a new 11,774 square foot addition to the rear of the AnnieMac Home Mortgage building. With renovations to the existing building and the new rear addition, the 14,725 square foot building will house 19 residential dwelling units. The multi-family building will also feature an underground parking garage for off-street vehicle parking and bicycle storage, outdoor roof decks, private unit balconies and an elevator. The underground parking garage will provide 36 parking spaces and 28 bicycle storage spaces that will be accessed by a garage ramp located north of the AnnieMac Home Mortgage building.

The property presently contains 27,969 square feet of impervious area. Redevelopment of the property will decrease impervious area by 7,314 square feet for a total post-development impervious area of 20,655 square feet.

Drainage Approach

The subject property has an existing stormwater management system that controls a portion of stormwater runoff leaving the site. The existing stormwater management system consists of deep-sump catch basins and three, 4-foot diameter precast concrete drywells. The existing drywells are scattered across the existing parking lot. Stormwater runoff from the existing parking lot and the roofs of the two commercial buildings flow to the existing drywells where the runoff is then recharged back into the ground. These drywells mitigate stormwater runoff from the parking lot for small duration storm events.

A new stormwater management system is proposed to capture, treat and recharge stormwater runoff from proposed impervious areas. The new stormwater management system will consist of area drains, junction boxes, trench drains, catch basins, roof downspouts, roof drains, drain lines, two precast concrete drywells and a subsurface infiltration system. The proposed primary subsurface infiltration system consists of 28 Shea precast concrete leaching chambers surrounded by two-feet of double-washed stone, and is located along the front side of the existing building along Washington Street. Stormwater runoff from the garage ramp, outdoor patio area and the front roof half of the proposed apartment building will be captured, treated and recharged through the primary system. The remaining roof half and the side lawn areas will be captured and recharged back through by the two precast concrete drywells.

The goal of the proposed stormwater management system is to reduce runoff rates and volumes for all design storms compared to the existing condition and to promote groundwater recharge through the use of drywells and the proposed primary subsurface infiltration system. Overall reductions in runoff rates and volumes can be found in the

Model Results section of this report and detailed hydrologic analysis and basin models can be found within Appendix A.

Hydrologic Analysis

A hydrologic analysis of the project has been performed to establish pre-development conditions, assess post-development impacts and evaluate the effectiveness of the proposed stormwater management system. The analysis employs an SCS TR-55 hydrologic computer model and analyzes design storms with return periods of 2, 10, 25 and 100-years. Precipitation depths were derived from NOAA Atlas 14 and set at 3.30, 5.20, 6.40 and 8.20-inches for the 2, 10, 25 and 100-year, 24-hour, storms respectively. Time of concentration values were determined by the LAG Method or manually entered at five minutes for watersheds having relatively small areas or hydraulic lengths to allow for the use of a three-minute time interval for all hydrograph computations. Longest flow path segment properties for both pre- and post-development models are shown on Figures Two and Three respectively.

Existing Condition

The existing conditions model analyzes the site as six drainage basins; Existing Conditions Basins One through Six.

Existing Conditions Basin 1 (E.C.B.-1) has an area of 4,140 square feet and flows in a northwest direction to Design Point A located in the northwestern corner of the property along Washington Street. Stormwater runoff then runs along the street gutter line and eventually discharges into the municipal stormwater system.

Existing Conditions Basin 2 (E.C.B.-2) has an area of 6,451 square feet and flows in a southwesterly direction to Design Point B located in the southwestern corner of the property. Stormwater runoff then runs along the street gutter line and eventually discharges into the municipal stormwater system.

Existing Conditions Basin 3 (E.C.B.-3) has an area of 3,296 square feet and flows in a northerly direction to an existing on-site drywell, Existing Drywell-1, located in the northern portion of the existing parking lot. Any stormwater overflow from the drywell flows to Design Point C located along the northern property line.

Existing Conditions Basin 4 (E.C.B.-4) has an area of 8,096 square feet and flows in a northeast direction to an existing on-site drywell, Existing Drywell-2, located in the northeast part of the existing parking lot. Any stormwater overflow from the drywell flows to Design Point C located along the northern property line.

Existing Conditions Basin 5 (E.C.B.-5) has an area of 11,128 square feet and flows in a southeastern direction to an existing on-site drywell, Existing Drywell-3, located in the southern portion of the existing parking lot. Any stormwater overflow from the drywell flows to Design Point D located along the southern property line.

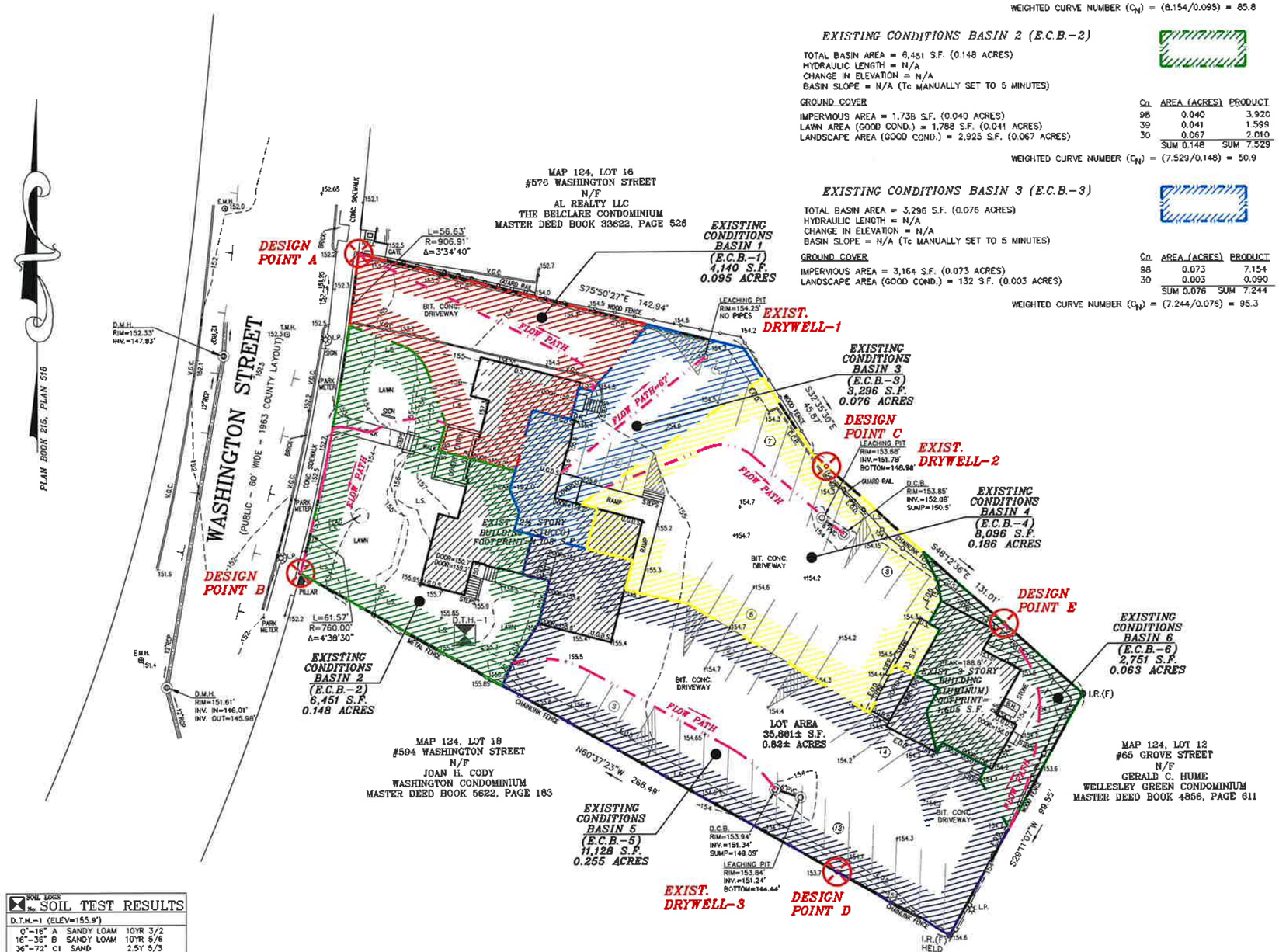
NOTES:

1. SUBJECT PARCEL IS SHOWN AS ASSESSORS MAP 124, LOT 17. RECORD TITLE FROM CERTIFICATE #214101.
2. THE PROPERTY DESCRIBED ON THIS SURVEY DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD AREA AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY; THE PROPERTY LIES WITHIN ZONE "X" OF THE FLOOD INSURANCE RATE MAP IDENTIFIED AS MAP NUMBER 25021C0016F, BEARING AN EFFECTIVE DATE OF JULY 8, 2025.

USDA SOIL CLASSIFICATION

SOIL NUMBER	SOIL SERIES	HYDROLOGIC SOIL GROUP
602	URBAN LAND (0 TO 15% SLOPES)	-*

*HYDROLOGIC SOIL GROUP A WAS USED IN DETERMINING THE WEIGHTED CURVE NUMBERS FOR EACH WATERSHED BASIN.



SOIL TEST RESULTS

SOIL LOGS No.

D.T.H.-1 (ELEV=155.9')

0"-16" A	SANDY LOAM	10YR 3/2
16"-36" B	SANDY LOAM	10YR 5/6
36"-72" C1	SAND	2.5Y 5/3
72"-120" C2	SAND	2.5Y 5/4

C1 HORIZON HAS 40% GRAVEL
POSSIBLE MOTTLING @106"
NO STANDING OR WEEPING WATER
NO REFUSAL
ESTIMATED HIGH WATER=BELOW 147.1'

DATE: AUGUST 08, 2023

BY: BRIAN NELSON, SOIL EVALUATOR

INSPECTOR: NONE F.B. 757, PAGE 02

EXISTING CONDITIONS BASIN PROPERTIES:

EXISTING CONDITIONS BASIN 1 (E.C.B.-1)

TOTAL BASIN AREA = 4,140 S.F. (0.095 ACRES)
HYDRAULIC LENGTH = N/A
CHANGE IN ELEVATION = N/A
BASIN SLOPE = N/A (Tc MANUALLY SET TO 5 MINUTES)

GROUND COVER	Cn	AREA (ACRES)	PRODUCT
IMPERVIOUS AREA = 3,382 S.F. (0.078 ACRES)	98	0.078	7.644
LANDSCAPE AREA (GOOD COND.) = 758 S.F. (0.017 ACRES)	30	0.017	0.510
		SUM 0.095	SUM 8.154

WEIGHTED CURVE NUMBER (C_N) = (8.154/0.095) = 85.8

EXISTING CONDITIONS BASIN 2 (E.C.B.-2)

TOTAL BASIN AREA = 6,451 S.F. (0.148 ACRES)
HYDRAULIC LENGTH = N/A
CHANGE IN ELEVATION = N/A
BASIN SLOPE = N/A (Tc MANUALLY SET TO 5 MINUTES)

GROUND COVER	Cn	AREA (ACRES)	PRODUCT
IMPERVIOUS AREA = 1,738 S.F. (0.040 ACRES)	98	0.040	3.920
LAWN AREA (GOOD COND.) = 1,788 S.F. (0.041 ACRES)	39	0.041	1.599
LANDSCAPE AREA (GOOD COND.) = 2,925 S.F. (0.067 ACRES)	30	0.067	2.010
		SUM 0.148	SUM 7.529

WEIGHTED CURVE NUMBER (C_N) = (7.529/0.148) = 50.9

EXISTING CONDITIONS BASIN 3 (E.C.B.-3)

TOTAL BASIN AREA = 3,296 S.F. (0.076 ACRES)
HYDRAULIC LENGTH = N/A
CHANGE IN ELEVATION = N/A
BASIN SLOPE = N/A (Tc MANUALLY SET TO 5 MINUTES)

GROUND COVER	Cn	AREA (ACRES)	PRODUCT
IMPERVIOUS AREA = 3,164 S.F. (0.073 ACRES)	98	0.073	7.154
LANDSCAPE AREA (GOOD COND.) = 132 S.F. (0.003 ACRES)	30	0.003	0.090
		SUM 0.076	SUM 7.244

WEIGHTED CURVE NUMBER (C_N) = (7.244/0.076) = 95.3

EXISTING CONDITIONS BASIN 4 (E.C.B.-4)

TOTAL BASIN AREA = 8,096 S.F. (0.186 ACRES)
HYDRAULIC LENGTH = N/A
CHANGE IN ELEVATION = N/A
BASIN SLOPE = N/A (Tc MANUALLY SET TO 5 MINUTES)

GROUND COVER	Cn	AREA (ACRES)	PRODUCT
IMPERVIOUS AREA = 7,647 S.F. (0.176 ACRES)	98	0.176	17.248
GRAVEL AREA (GOOD COND.) = 86 S.F. (0.002 ACRES)	76	0.002	0.152
LANDSCAPE AREA (GOOD COND.) = 363 S.F. (0.008 ACRES)	30	0.008	0.240
		SUM 0.186	SUM 17.640

WEIGHTED CURVE NUMBER (C_N) = (17.640/0.186) = 94.8

EXISTING CONDITIONS BASIN 5 (E.C.B.-5)

TOTAL BASIN AREA = 11,128 S.F. (0.255 ACRES)
HYDRAULIC LENGTH = N/A
CHANGE IN ELEVATION = N/A
BASIN SLOPE = N/A (Tc MANUALLY SET TO 5 MINUTES)

GROUND COVER	Cn	AREA (ACRES)	PRODUCT
IMPERVIOUS AREA = 10,084 S.F. (0.231 ACRES)	98	0.231	22.638
LAWN AREA (GOOD COND.) = 411 S.F. (0.009 ACRES)	39	0.009	0.351
LANDSCAPE AREA (GOOD COND.) = 633 S.F. (0.015 ACRES)	30	0.015	0.450
		SUM 0.255	SUM 23.439

WEIGHTED CURVE NUMBER (C_N) = (23.439/0.255) = 91.9

EXISTING CONDITIONS BASIN 6 (E.C.B.-6)

TOTAL BASIN AREA = 2,751 S.F. (0.063 ACRES)
HYDRAULIC LENGTH = N/A
CHANGE IN ELEVATION = N/A
BASIN SLOPE = N/A (Tc MANUALLY SET TO 5 MINUTES)

GROUND COVER	Cn	AREA (ACRES)	PRODUCT
IMPERVIOUS AREA = 1,954 S.F. (0.045 ACRES)	98	0.045	4.410
GRAVEL AREA (GOOD COND.) = 394 S.F. (0.009 ACRES)	76	0.009	0.684
LAWN AREA (GOOD COND.) = 61 S.F. (0.001 ACRES)	39	0.001	0.039
LANDSCAPE AREA (GOOD COND.) = 342 S.F. (0.008 ACRES)	30	0.008	0.240
		SUM 0.063	SUM 5.373

WEIGHTED CURVE NUMBER (C_N) = (5.373/0.063) = 85.3

FOR METROWEST ENGINEERING, INC. DATE
ROBERT A. GEMMA, P.E. # 31967 (CIVIL)

GRAPHIC SCALE
1 inch = 20 ft.
(FEET) 0 5 10 20 40 80
(METERS) 0 5 10 20 30

FIGURE TWO

EXISTING CONDITIONS WATERSHED DELINEATION PLAN
#592 WASHINGTON STREET
IN
WELLESLEY, MASS

PREPARED FOR:
LYX GROUP
96 ROCKWOOD STREET
BOSTON, MA 02130

PROPERTY OF:
THE WATERMAN REALTY MANAGEMENT LIMITED PARTNERSHIP
592A WASHINGTON STREET
WELLESLEY, MA 02482

ENGINEERS & SURVEYORS:
MWE
METROWEST ENGINEERING, INC.
75 FRANKLIN STREET
FRAMINGHAM, MA 01702
TELE.: (508)626-0063
EMAIL: INFO@MWENGINEERING.COM

SHEET 1 OF 1		DATE: NOVEMBER 22, 2025
CALC'D BY: BTN	FIELD BK: 753	CAD FILE: BEHREND_EC_HYDRO.dwg
DRAFTER: CJC	PROJECT: WEL_WAS4	DWG FILE:

Existing Conditions Basin 6 (E.C.B.-6) has an area of 2,751 square feet and flows in a northerly direction to Design Point E located along the northern property line.

The Existing Conditions Basins are shown on Figure Two, *Existing Conditions Watershed Delineation Plan* and information for all Existing Conditions Basins is listed on the plan and below.

Existing Conditions Basin 1 (E.C.B.-1)
Basin area = 4,140 square feet
Impervious area = 3,382 square feet, curve number = 98.0
Landscape area (good condition) = 758 square feet, curve number = 30.0
Hydrologic soil group A
Weighted curve number = 85.8
Basin slope = n/a
Hydraulic length = n/a
Time of concentration = 5.0 minutes (Manually Set)

Existing Conditions Basin 2 (E.C.B.-2)
Basin area = 6,451 square feet
Impervious area = 1,738 square feet, curve number = 98.0
Lawn area (good condition) = 1,788 square feet, curve number = 39.0
Landscape area (good condition) = 2,925 square feet, curve number = 30.0
Hydrologic soil group A
Weighted curve number = 50.9
Basin slope = n/a
Hydraulic length = n/a
Time of concentration = 5.0 minutes (Manually Set)

Existing Conditions Basin 3 (E.C.B.-3)
Basin area = 3,296 square feet
Impervious area = 3,164 square feet, curve number = 98.0
Landscape area (good condition) = 132 square feet, curve number = 30.0
Hydrologic soil group A
Weighted curve number = 95.3
Basin slope = n/a
Hydraulic length = n/a
Time of concentration = 5.0 minutes (Manually Set)

Existing Conditions Basin 4 (E.C.B.-4)
Basin area = 8,096 square feet
Impervious area = 7,647 square feet, curve number = 98.0
Gravel area (good condition) = 86 square feet, curve number = 76.0
Landscape area (good condition) = 363 square feet, curve number = 30.0
Hydrologic soil group A
Weighted curve number = 94.8

Basin slope = n/a
Hydraulic length = n/a
Time of concentration = 5.0 minutes (Manually Set)

Existing Conditions Basin 5 (E.C.B.-5)
Basin area = 11,128 square feet
Impervious area = 10,084 square feet, curve number = 98.0
Lawn area (good condition) = 411 square feet, curve number = 39.0
Landscape area (good condition) = 633 square feet, curve number = 30.0
Hydrologic soil group A
Weighted curve number = 91.9
Basin slope = n/a
Hydraulic length = n/a
Time of concentration = 5.0 minutes (Manually Set)

Existing Conditions Basin 6 (E.C.B.-6)
Basin area = 2,751 square feet
Impervious area = 1,954 square feet, curve number = 98.0
Gravel area (good condition) = 394 square feet, curve number = 76.0
Lawn area (good condition) = 61 square feet, curve number = 39.0
Landscape area (good condition) = 342 square feet, curve number = 30.0
Hydrologic soil group A
Weighted curve number = 85.3
Basin slope = n/a
Hydraulic length = n/a
Time of concentration = 5.0 minutes (Manually Set)

Proposed Condition

The proposed condition model analyzes the site as eight Post-Development drainage basins, Post-Development Basins One through Eight.

Post-Development Basin 1 (P.D.B.-1) has an area of 1,134 square feet and flows in a northwest direction to Design Point A located in the northwestern corner of the property along Washington Street. Stormwater runoff then runs along the street gutter line and eventually discharges into the municipal stormwater system.

Post-Development Basin 2 (P.D.B.-2) has an area of 3,580 square feet and flows in a southwesterly direction to Design Point B located in the southwestern corner of the property. Stormwater runoff then runs along the street gutter line and eventually discharges into the municipal stormwater system.

Post-Development Basin 3 (P.D.B.-3) has an area of 7,612 square feet and flows in a northerly direction to a proposed on-site drywell, Proposed Drywell-1, located north of the proposed building. Any stormwater overflow from the drywell flows to Design Point C located along the northern property line.

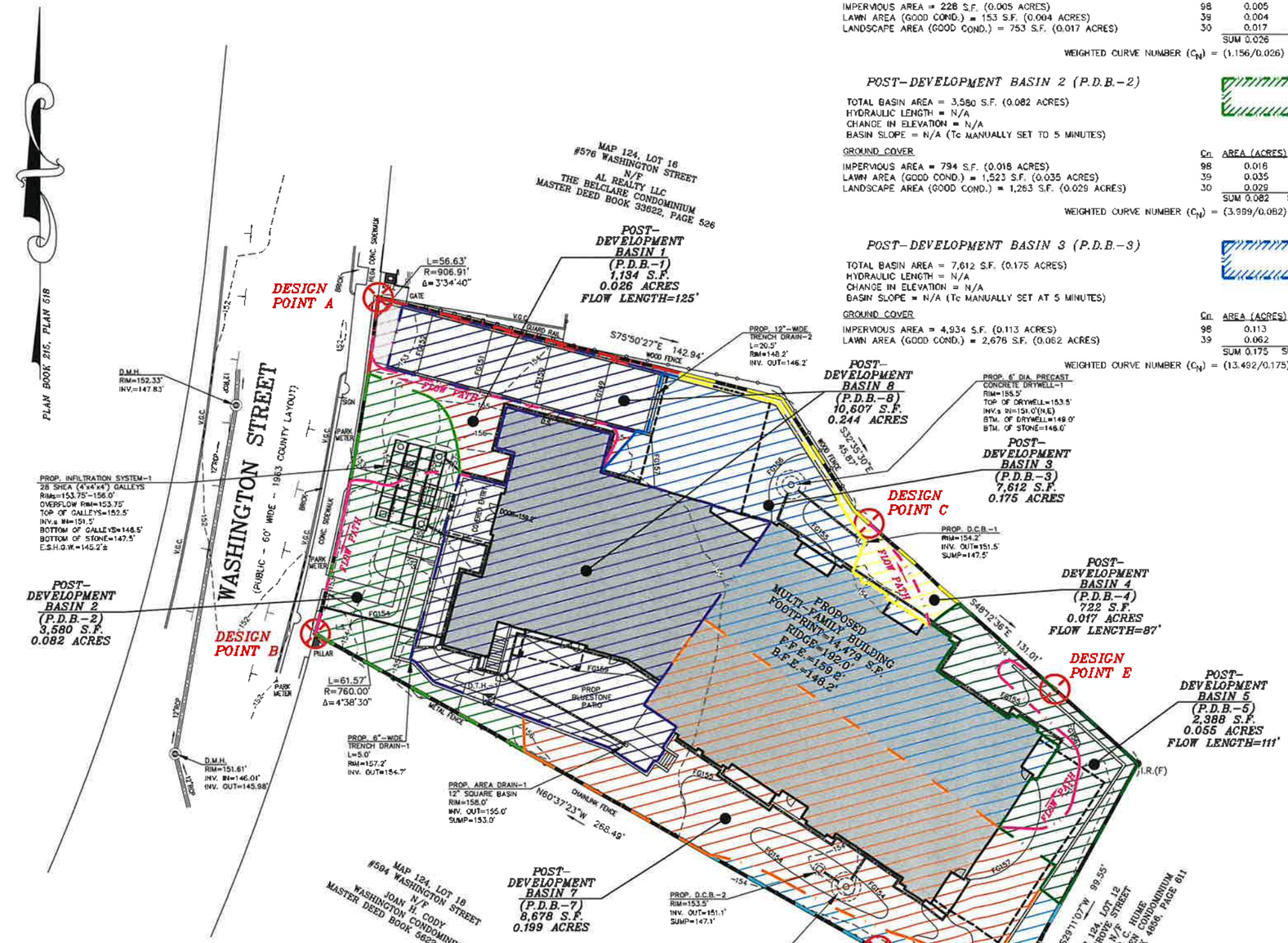
NOTES:

1. SUBJECT PARCEL IS SHOWN AS ASSESSORS MAP 124, LOT 17. RECORD TITLE FROM CERTIFICATE #214101.
2. THE PROPERTY DESCRIBED ON THIS SURVEY DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD AREA AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY; THE PROPERTY LIES WITHIN ZONE "X" OF THE FLOOD INSURANCE RATE MAP IDENTIFIED AS MAP NUMBER 25021C0016F, BEARING AN EFFECTIVE DATE OF JULY 8, 2025.

USDA SOIL CLASSIFICATION

SOIL NUMBER	SOIL SERIES	HYDROLOGIC SOIL GROUP
602	URBAN LAND (0 TO 15% SLOPES)	-*

*HYDROLOGIC SOIL GROUP A WAS USED IN DETERMINING THE WEIGHTED CURVE NUMBERS FOR EACH WATERSHED BASIN.



SOIL TEST RESULTS

SOIL LOGS No.

O.T.H.-1 (ELEV=155.9')		
0"-16"	A SANDY LOAM	10YR 3/2
16"-36"	B SANDY LOAM	10YR 5/6
36"-72"	C1 SAND	2.5Y 5/3
72"-120"	C2 SAND	2.5Y 5/4

C1 HORIZON HAS 40% GRAVEL
POSSIBLE MOTTLING @106"
NO STANDING OR WEEPING WATER
NO REFUSAL
ESTIMATED HIGH WATER=BELOW 147.1'

DATE: AUGUST 08, 2023
BY: BRIAN NELSON, SOIL EVALUATOR
INSPECTOR: NONE P.B. 757, PAGE 02

POST-DEVELOPMENT BASIN PROPERTIES:

POST-DEVELOPMENT BASIN 1 (P.D.B.-1)

TOTAL BASIN AREA = 1,134 S.F. (0.026 ACRES)
HYDRAULIC LENGTH = 125 FEET
CHANGE IN ELEVATION = 4.9 FEET
BASIN SLOPE = 0.0392 (3.92%)

GROUND COVER	Cn	AREA (ACRES)	PRODUCT
IMPERVIOUS AREA = 228 S.F. (0.005 ACRES)	98	0.005	0.490
LAWN AREA (GOOD COND.) = 153 S.F. (0.004 ACRES)	39	0.004	0.156
LANDSCAPE AREA (GOOD COND.) = 753 S.F. (0.017 ACRES)	30	0.017	0.510
		SUM 0.026	SUM 1.156

WEIGHTED CURVE NUMBER (C_N) = (1.156/0.026) = 44.5

POST-DEVELOPMENT BASIN 2 (P.D.B.-2)

TOTAL BASIN AREA = 3,580 S.F. (0.082 ACRES)
HYDRAULIC LENGTH = N/A
CHANGE IN ELEVATION = N/A
BASIN SLOPE = N/A (Tc MANUALLY SET TO 5 MINUTES)

GROUND COVER	Cn	AREA (ACRES)	PRODUCT
IMPERVIOUS AREA = 794 S.F. (0.018 ACRES)	98	0.018	1.764
LAWN AREA (GOOD COND.) = 1,523 S.F. (0.035 ACRES)	39	0.035	1.365
LANDSCAPE AREA (GOOD COND.) = 1,263 S.F. (0.029 ACRES)	30	0.029	0.870
		SUM 0.082	SUM 3.999

WEIGHTED CURVE NUMBER (C_N) = (3.999/0.082) = 48.8

POST-DEVELOPMENT BASIN 3 (P.D.B.-3)

TOTAL BASIN AREA = 7,612 S.F. (0.175 ACRES)
HYDRAULIC LENGTH = N/A
CHANGE IN ELEVATION = N/A
BASIN SLOPE = N/A (Tc MANUALLY SET AT 5 MINUTES)

GROUND COVER	Cn	AREA (ACRES)	PRODUCT
IMPERVIOUS AREA = 4,934 S.F. (0.113 ACRES)	98	0.113	11.074
LAWN AREA (GOOD COND.) = 2,678 S.F. (0.062 ACRES)	39	0.062	2.418
		SUM 0.175	SUM 13.492

WEIGHTED CURVE NUMBER (C_N) = (13.492/0.175) = 77.1

POST-DEVELOPMENT BASIN 4 (P.D.B.-4)

TOTAL BASIN AREA = 722 S.F. (0.017 ACRES)
HYDRAULIC LENGTH = 87
CHANGE IN ELEVATION = 0.8
BASIN SLOPE = 0.0092 (0.92%)

GROUND COVER	Cn	AREA (ACRES)	PRODUCT
LAWN AREA (GOOD COND.) = 722 S.F. (0.017 ACRES)	39	0.017	0.663
		SUM 0.017	SUM 0.663

WEIGHTED CURVE NUMBER (C_N) = (0.663/0.017) = 39.0

POST-DEVELOPMENT BASIN 5 (P.D.B.-5)

TOTAL BASIN AREA = 2,388 S.F. (0.055 ACRES)
HYDRAULIC LENGTH = 111 FEET
CHANGE IN ELEVATION = 3.9 FEET
BASIN SLOPE = 0.0351 (3.51%)

GROUND COVER	Cn	AREA (ACRES)	PRODUCT
IMPERVIOUS AREA = 103 S.F. (0.002 ACRES)	98	0.002	0.196
LAWN AREA (GOOD COND.) = 2,285 S.F. (0.053 ACRES)	39	0.053	2.067
		SUM 0.055	SUM 2.263

WEIGHTED CURVE NUMBER (C_N) = (2.263/0.055) = 41.1

POST-DEVELOPMENT BASIN 6 (P.D.B.-6)

TOTAL BASIN AREA = 1,165 S.F. (0.027 ACRES)
HYDRAULIC LENGTH = N/A
CHANGE IN ELEVATION = N/A
BASIN SLOPE = N/A (Tc MANUALLY SET TO 5 MINUTES)

GROUND COVER	Cn	AREA (ACRES)	PRODUCT
IMPERVIOUS AREA = 36 S.F. (0.001 ACRES)	98	0.001	0.098
LAWN AREA (GOOD COND.) = 1,129 S.F. (0.026 ACRES)	39	0.026	1.014
		SUM 0.027	SUM 1.112

WEIGHTED CURVE NUMBER (C_N) = (1.112/0.027) = 41.2

POST-DEVELOPMENT BASIN 7 (P.D.B.-7)

TOTAL BASIN AREA = 8,678 S.F. (0.199 ACRES)
HYDRAULIC LENGTH = N/A
CHANGE IN ELEVATION = N/A
BASIN SLOPE = N/A (Tc MANUALLY SET TO 5 MINUTES)

GROUND COVER	Cn	AREA (ACRES)	PRODUCT
IMPERVIOUS AREA = 4,687 S.F. (0.108 ACRES)	98	0.108	10.584
LAWN AREA (GOOD COND.) = 3,335 S.F. (0.077 ACRES)	39	0.076	2.964
LANDSCAPE AREA (GOOD COND.) = 656 S.F. (0.015 ACRES)	30	0.015	0.450
		SUM 0.199	SUM 13.998

WEIGHTED CURVE NUMBER (C_N) = (13.998/0.199) = 70.3

POST-DEVELOPMENT BASIN 8 (P.D.B.-8)

TOTAL BASIN AREA = 10,607 S.F. (0.244 ACRES)
HYDRAULIC LENGTH = N/A
CHANGE IN ELEVATION = N/A
BASIN SLOPE = N/A (Tc MANUALLY SET TO 5 MINUTES)

GROUND COVER	Cn	AREA (ACRES)	PRODUCT
IMPERVIOUS AREA = 9,873 S.F. (0.227 ACRES)	98	0.227	22.246
LANDSCAPE AREA (GOOD COND.) = 734 S.F. (0.017 ACRES)	30	0.017	0.510
		SUM 0.244	SUM 22.756

WEIGHTED CURVE NUMBER (C_N) = (22.756/0.244) = 93.3

GRAPHIC SCALE
1 inch = 20 ft.
20 0 10 20 40 (FEET) 80
0 5 10 20 (METERS) 30

FIGURE THREE

POST-DEVELOPMENT WATERSHED DELINEATION PLAN
#592 WASHINGTON STREET
IN
WELLESLEY, MASS

PREPARED FOR:
592 WASHINGTON LLC
869 WORCESTER STREET
WELLESLEY, MA 02482

PROPERTY OF:
592 WASHINGTON LLC
869 WORCESTER STREET
WELLESLEY, MA 02482

ENGINEERS & SURVEYORS:
MWE
METROWEST ENGINEERING, INC.
75 FRANKLIN STREET
FRAMINGHAM, MA 01702
TELE.: (508)626-0063
EMAIL: INFO@MWENGINEERING.COM

FOR METROWEST ENGINEERING, INC. DATE
ROBERT A. GEMMA, P.E. # 31967 (CIVIL)

SHEET 1 OF 1		DATE: NOVEMBER 22, 2025
CALC'D BY: BTN	FIELD BK: 753	CAD FILE: BEHREND_PD_HYDRO.dwg
DRAFTER: CJC	PROJECT: WEL_WAS4	DWG FILE:

Post-Development Basin 4 (P.D.B.-4) has an area of 722 square feet and flows in a northern direction to Design Point C located along the northern property line.

Post-Development Basin 5 (P.D.B.-5) has an area of 2,388 square feet and flows in a northern direction to Design Point E located along the northern property line.

Post-Development Basin 6 (P.D.B.-6) has an area of 1,165 square feet and flows in a southern direction to Design Point D located along the southern property line.

Post-Development Basin 7 (P.D.B.-7) has an area of 8,678 square feet and flows in a southerly direction to a proposed on-site drywell, Proposed Drywell-2, located south of the proposed building. Any stormwater overflow from the drywell flows to Design Point D located along the southern property line.

Post-Development Basin 8 (P.D.B.-8) has an area of 10,607 square feet and flows into proposed subsurface system 1. Stormwater runoff from the garage ramp, patio area and the front roof half of the proposed building will be collected, routed and discharged into proposed infiltration system 1 located in the front yard. Any overflow from the infiltration system will be routed to Design Pont B.

The Proposed Conditions Basins are shown on Figure Three, *The Post Development Watershed Delineation Plan* and information for all Post Development Basins is listed on the plan and shown below.

Post-Development Basin 1 (P.D.B.-1)
Basin area = 1,134 square feet
Impervious area = 228 square feet, curve number = 98.0
Lawn area (good condition) = 153 square feet, curve number = 39.0
Landscape area (good condition) = 753 square feet, curve number = 30.0
Hydrologic soil group A
Weighted curve number = 44.5
Basin slope = 3.92%
Hydraulic length = 125 feet
Time of concentration = 7.8 minutes (LAG Method)

Post-Development Basin 2 (P.D.B.-2)
Basin area = 3,580 square feet
Impervious area = 794 square feet, curve number = 98.0
Lawn area (good condition) = 1,523 square feet, curve number = 39.0
Landscape area (good condition) = 1,263 square feet, curve number = 30.0
Hydrologic soil group A
Weighted curve number = 48.8
Basin slope = n/a
Hydraulic length = n/a
Time of concentration = 5.0 minutes (Manually Set)

Post-Development Basin 3 (P.D.B.-3)
Basin area = 7,612 square feet
Impervious area = 4,934 square feet, curve number = 98.0
Lawn area (good condition) = 2,678 square feet, curve number = 39.0
Hydrologic soil group A
Weighted curve number = 77.1
Basin slope = n/a
Hydraulic length = n/a
Time of concentration = 5.0 minutes (Manually Set)

Post-Development Basin 4 (P.D.B.-4)
Basin area = 722 square feet
Lawn area (good condition) = 722 square feet, curve number = 39.0
Hydrologic soil group A
Weighted curve number = 39.0
Basin slope = 0.92%
Hydraulic length = 87 feet
Time of concentration = 14.0 minutes (LAG Method)

Post-Development Basin 5 (P.D.B.-5)
Basin area = 2,388 square feet
Impervious area = 103 square feet, curve number = 98.0
Lawn area (good condition) = 2,285 square feet, curve number = 39.0
Hydrologic soil group A
Weighted curve number = 41.1
Basin slope = 3.51%
Hydraulic length = 111 feet
Time of concentration = 8.2 minutes (LAG Method)

Post-Development Basin 6 (P.D.B.-6)
Basin area = 1,165 square feet
Impervious area = 36 square feet, curve number = 98.0
Lawn area (good condition) = 1,129 square feet, curve number = 39.0
Hydrologic soil group A
Weighted curve number = 41.2
Basin slope = n/a
Hydraulic length = n/a
Time of concentration = 5.0 minutes (Manually Set)

Post-Development Basin 7 (P.D.B.-7)
Basin area = 8,678 square feet
Impervious area = 4,687 square feet, curve number = 98.0
Lawn area (good condition) = 3,335 square feet, curve number = 39.0
Landscape area (good condition) = 656 square feet, curve number = 30.0
Hydrologic soil group A
Weighted curve number = 70.3
Basin slope = n/a
Hydraulic length = n/a
Time of concentration = 5.0 minutes (Manually Set)

Post-Development Basin 8 (P.D.B.-8)
Basin area = 10,607 square feet
Impervious area = 9,873 square feet, curve number = 98.0
Landscape area (good condition) = 734 square feet, curve number = 30.0
Hydrologic soil group A
Weighted curve number = 93.3
Basin slope = n/a
Hydraulic length = n/a
Time of concentration = 5.0 minutes (Manually Set)

Infiltration Systems

Existing Drywell 1 (Northwest Drywell)

Basic geometry:	Circular, Precast Concrete Drywell
System type:	4.0-ft. diameter by 4.0-ft. deep
	Precast Concrete Leaching Drywell
	Estimated Storage Capacity = 58 cubic feet or 434 gallons
Infiltration rate:	8.27 inches per hour

Existing Drywell 2 (Northeast Drywell)

Basic geometry:	Circular, Precast Concrete Drywell
System type:	4.0-ft. diameter by 4.0-ft. deep
	Precast Concrete Leaching Drywell
	Estimated Storage Capacity = 58 cubic feet or 434 gallons
Infiltration rate:	8.27 inches per hour

Existing Drywell 3 (South Drywell)

Basic geometry:	Circular, Precast Concrete Drywell
System type:	4.0-ft. diameter by 7.0-ft. deep
	Precast Concrete Leaching Drywell
	Estimated Storage Capacity = 98 cubic feet or 733 gallons
Infiltration rate:	8.27 inches per hour

Proposed Drywell 1

Basic geometry:	Circular, Precast Concrete Drywell
System type:	6.0-ft. diameter by 4.5-ft. deep
	Shea Precast Concrete Leaching Drywell; 700 gallons
	Storage Capacity = 208 cubic feet or 1,556 gallons
Infiltration rate:	8.27 inches per hour over 79 square foot bed

Proposed Drywell 2

Basic geometry:	Circular, Precast Concrete Drywell
System type:	6.0-ft. diameter by 6.5-ft. deep
	Shea Precast Concrete Leaching Drywell; 1,000 gallons
	Storage Capacity = 301 cubic feet or 2,252 gallons
Infiltration rate:	8.27 inches per hour over 79 square foot bed

Proposed Subsurface Infiltration System 1

Basic geometry:	Rectangular shaped basin
System type:	22-ft. wide by 32-ft long by 4-ft. deep
	Shea Precast Concrete Leaching Galleys; 360 gallons each
	Use 28 Galleys, 4-ft. wide by 4-ft. long by 4-ft deep
	Storage Capacity = 1,870 cubic feet or 13,989 gallons
Infiltration rate:	8.27 inches per hour over 701 square foot bed

The proposed condition model analyzes the infiltration systems using a reservoir-analysis method. Consistent with DEP stormwater management standards, design infiltration rates are based on the Rawls table for soils with sandy textures.

Model Results

The model results for the design points A through E are shown in Tables One through Twelve below:

Table One: Comparison of Pre- and Post-Development Peak Runoff Rates at Design Point A (Washington Street)

Drainage Basin	2-year storm	10-year storm	25-year storm	100-year storm
E.C.B.-1	0.19 CFS	0.35 CFS	0.45 CFS	0.60 CFS
P.D.B.-1	0.00 CFS	0.01 CFS	0.02 CFS	0.04 CFS
Difference	-0.19 CFS	-0.34 CFS	-0.43 CFS	-0.56 CFS

Table Two: Comparison of Pre- and Post-Development Runoff Volumes at Design Point A (Washington Street)

Drainage Basin	2-year storm	10-year storm	25-year storm	100-year storm
E.C.B.-1	616 CF	1,175 CF	1,542 CF	2,102 CF
P.D.B.-1	4 CF	43 CF	82 CF	158 CF
Difference	-612 CF	-1,132 CF	-1,460 CF	-1,944 CF

Table Three: Comparison of Pre- and Post-Development Peak Runoff Rates at Design Point B (Washington Street)

Drainage Basin	2-year storm	10-year storm	25-year storm	100-year storm
E.C.B.-2	0.01 CFS	0.09 CFS	0.18 CFS	0.35 CFS
P.D.B.-2 + Overflow from Prop. Infilt. Sys.-1	0.00 CFS	0.04 CFS	0.08 CFS	0.59 CFS
Difference	-0.01 CFS	-0.05 CFS	-0.10 CFS	+0.24 CFS

Table Four: Comparison of Pre- and Post-Development Runoff Volumes at Design Point B (Washington Street)

Drainage Basin	2-year storm	10-year storm	25-year storm	100-year storm
E.C.B.-2	86 CF	417 CF	713 CF	1,244 CF
P.D.B.-2 + Overflow from Prop. Infilt. Sys.-1	34 CF	197 CF	349 CF	771 CF
Difference	-52 CF	-220 CF	-364 CF	-473 CF

Table Five: Comparison of Pre- and Post-Development Peak Runoff Rates at Design Point C

Drainage Basin	2-year storm	10-year storm	25-year storm	100-year storm
Overflows from Exist. Drywells 1 & 2	0.69 CFS	1.12 CFS	1.40 CFS	1.81 CFS
P.D.B.-4 + Overflow from Prop. Drywell-1	0.18 CFS	0.58 CFS	0.73 CFS	0.98 CFS
Difference	-0.51 CFS	-0.54 CFS	-0.67 CFS	-0.83 CFS

Table Six: Comparison of Pre- and Post-Development Runoff Volumes at Design Point C

Drainage Basin	2-year storm	10-year storm	25-year storm	100-year storm
Overflows from Exist. Drywells 1 & 2	2,199 CF	3,877 CF	4,941 CF	6,543 CF
P.D.B.-4 + Overflow from Prop. Drywell-1	495 CF	1,410 CF	2,035 CF	3,030 CF
Difference	-1,704 CF	-2,467 CF	-2,906 CF	-3,513 CF

Table Seven: Comparison of Pre- and Post-Development Peak Runoff Rates at Design Point D

Drainage Basin	2-year storm	10-year storm	25-year storm	100-year storm
Overflow from Exist. Drywell-3	0.62 CFS	1.06 CFS	1.33 CFS	1.72 CFS
P.D.B.-6 + Overflow from Prop. Drywell-2	0.34 CFS	0.48 CFS	0.73 CFS	1.09 CFS
Difference	-0.28 CFS	-0.72 CFS	-0.60 CFS	-0.63 CFS

Table Eight: Comparison of Pre- and Post-Development Runoff Volumes at Design Point D

Drainage Basin	2-year storm	10-year storm	25-year storm	100-year storm
Overflow from Exist. Drywell-3	1,978 CF	3,571 CF	4,594 CF	6,139 CF
P.D.B.-6 + Overflow from Prop. Drywell-2	212 CF	1,186 CF	1,840 CF	2,916 CF
Difference	-1,766 CF	-2,385 CF	-2,754 CF	-3,223 CF

Table Nine: Comparison of Pre- and Post-Development Peak Runoff Rates at Design Point E

Drainage Basin	2-year storm	10-year storm	25-year storm	100-year storm
E.C.B.-6	0.12 CFS	0.23 CFS	0.30 CFS	0.40 CFS
P.D.B.-5	0.00 CFS	0.01 CFS	0.02 CFS	0.06 CFS
Difference	-0.12 CFS	-0.22 CFS	-0.28 CFS	-0.34 CFS

Table Ten: Comparison of Pre- and Post-Development Runoff Volumes at Design Point E

Drainage Basin	2-year storm	10-year storm	25-year storm	100-year storm
E.C.B.-6	400 CF	768 CF	1,011 CF	1,381 CF
P.D.B.-5	2 CF	61 CF	131 CF	271 CF
Difference	-398 CF	-707 CF	-880 CF	-1,110 CF

Table Eleven: Comparison of Total Pre- and Post-Development Peak Runoff Rates Leaving the Project Site

Drainage Basin	2-year storm	10-year storm	25-year storm	100-year storm
Total Existing	1.62 CFS	2.84 CFS	3.65 CFS	4.87 CFS
Total Proposed	0.18 CFS	1.09 CFS	1.43 CFS	2.34 CFS
Difference	-1.44 CFS	-1.75 CFS	-2.22 CFS	-2.53 CFS

Table Twelve: Comparison of Total Pre- and Post-Development Runoff Volumes Leaving the Project Site

Drainage Basin	2-year storm	10-year storm	25-year storm	100-year storm
Total Existing	5,280 CF	9,808 CF	12,800 CF	17,409 CF
Total Proposed	748 CF	2,897 CF	4,437 CF	7,147 CF
Difference	-4,532 CF	-6,911 CF	-8,363 CF	-10,262 CF

Conclusion

The results provided in Tables One through Twelve demonstrate that the project, with the stormwater controls in place, will result in an overall decrease in both peak runoff rates and total runoff volume discharged from the project site.

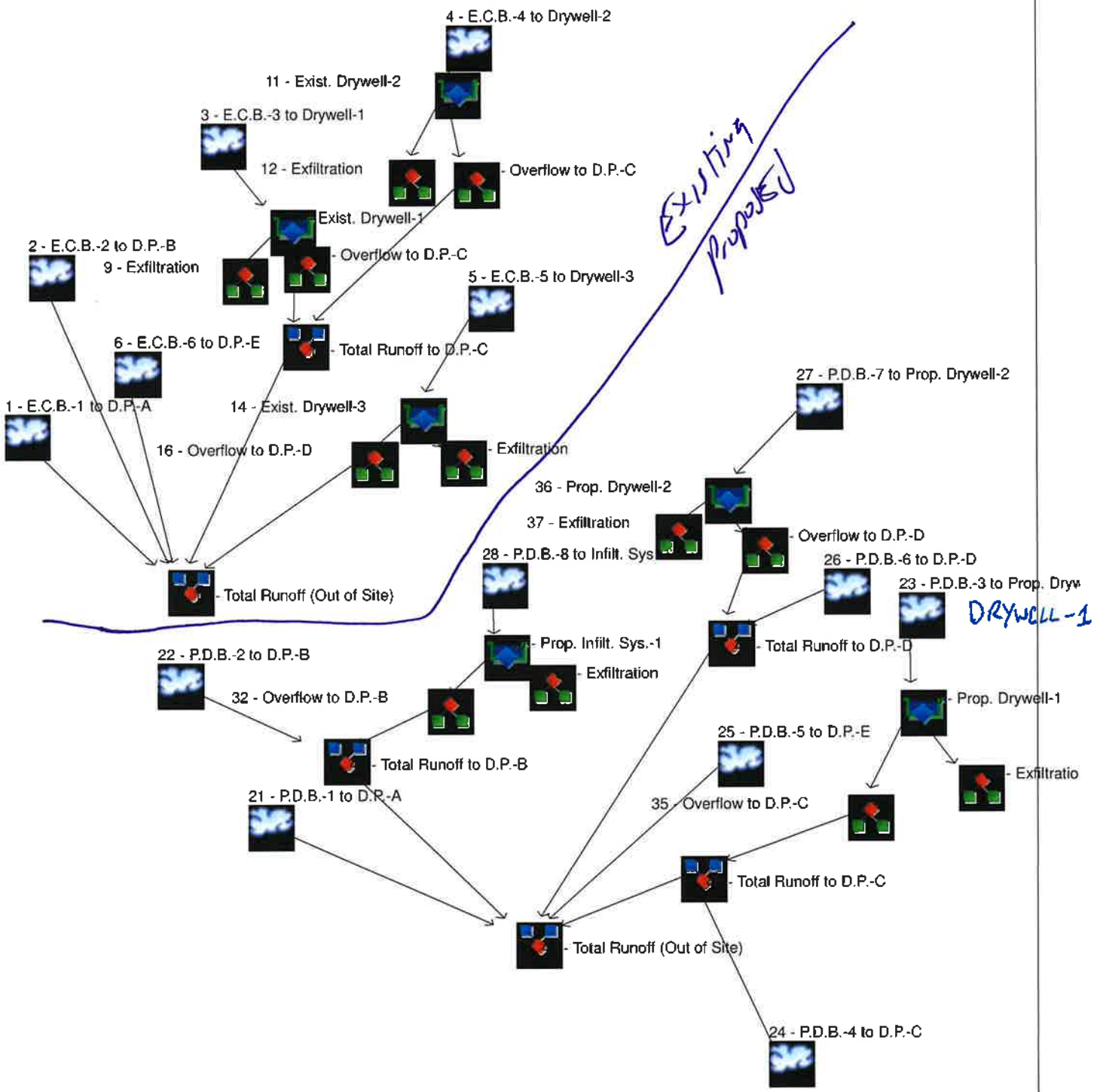
Additionally, the project will increase onsite stormwater recharge, reducing impacts to the municipal stormwater drainage system. The project will not impact the municipal stormwater drainage system or abutting properties.

The stormwater management system as designed is consistent with MADEP Stormwater Management Policy and accepted design practice.

Appendix A:
Hydrologic Assessment

Watershed Model Schematic

Hydraflow Hydrographs by Intelisolve v9.22



2-Year Storm, Pre- and Post-Development

Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.22

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	0.185	3	726	616	----	------	------	E.C.B.-1 to D.P.-A
2	SCS Runoff	0.007	3	744	86	----	------	------	E.C.B.-2 to D.P.-B
3	SCS Runoff	0.201	3	726	717	----	------	------	E.C.B.-3 to Drywell-1
4	SCS Runoff	0.487	3	726	1,723	----	------	------	E.C.B.-4 to Drywell-2
5	SCS Runoff	0.617	3	726	2,114	----	------	------	E.C.B.-5 to Drywell-3
6	SCS Runoff	0.120	3	726	400	----	------	------	E.C.B.-6 to D.P.-E
8	Reservoir	0.202	3	726	661	3	154.29	56.7	Exist. Drywell-1
9	Diversion1	0.002	3	492	67	8	------	------	Exfiltration
10	Diversion2	0.202	3	726	594	8	------	------	Overflow to D.P.-C
11	Reservoir	0.487	3	726	1,667	4	153.93	57.0	Exist. Drywell-2
12	Diversion1	0.002	3	399	62	11	------	------	Exfiltration
13	Diversion2	0.487	3	726	1,606	11	------	------	Overflow to D.P.-C
14	Reservoir	0.621	3	726	2,016	5	154.38	98.0	Exist. Drywell-3
15	Diversion1	0.002	3	567	38	14	------	------	Exfiltration
16	Diversion2	0.621	3	726	1,978	14	------	------	Overflow to D.P.-D
18	Combine	0.688	3	726	2,199	10, 13,	------	------	Total Runoff to D.P.-C
19	Combine	1.615	3	726	5,280	1, 2, 6, 16, 18	------	------	Total Runoff (Out of Site)
21	SCS Runoff	0.000	3	915	4	----	------	------	P.D.B.-1 to D.P.-A
22	SCS Runoff	0.002	3	750	34	----	------	------	P.D.B.-2 to D.P.-B
23	SCS Runoff	0.226	3	726	768	----	------	------	P.D.B.-3 to Prop. Drywell-1
24	SCS Runoff	0.000	3	1329	0	----	------	------	P.D.B.-4 to D.P.-C
25	SCS Runoff	0.000	3	1326	2	----	------	------	P.D.B.-5 to D.P.-E
26	SCS Runoff	0.000	3	1326	1	----	------	------	P.D.B.-6 to D.P.-D
27	SCS Runoff	0.168	3	726	611	----	------	------	P.D.B.-7 to Prop. Drywell-2
28	SCS Runoff	0.615	3	726	2,135	----	------	------	P.D.B.-8 to Infilt. Sys.-1
30	Reservoir	0.158	3	750	2,135	28	149.68	534	Prop. Infilt. Sys.-1
31	Diversion1	0.158	3	750	2,135	30	------	------	Exfiltration
32	Diversion2	0.000	3	1344	0	30	------	------	Overflow to D.P.-B
33	Reservoir	0.182	3	732	561	23	154.50	208	Prop. Drywell-1
34	Diversion1	0.009	3	711	66	33	------	------	Exfiltration
35	Diversion2	0.182	3	732	495	33	------	------	Overflow to D.P.-C
36	Reservoir	0.034	3	825	311	27	154.23	300	Prop. Drywell-2

Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.22

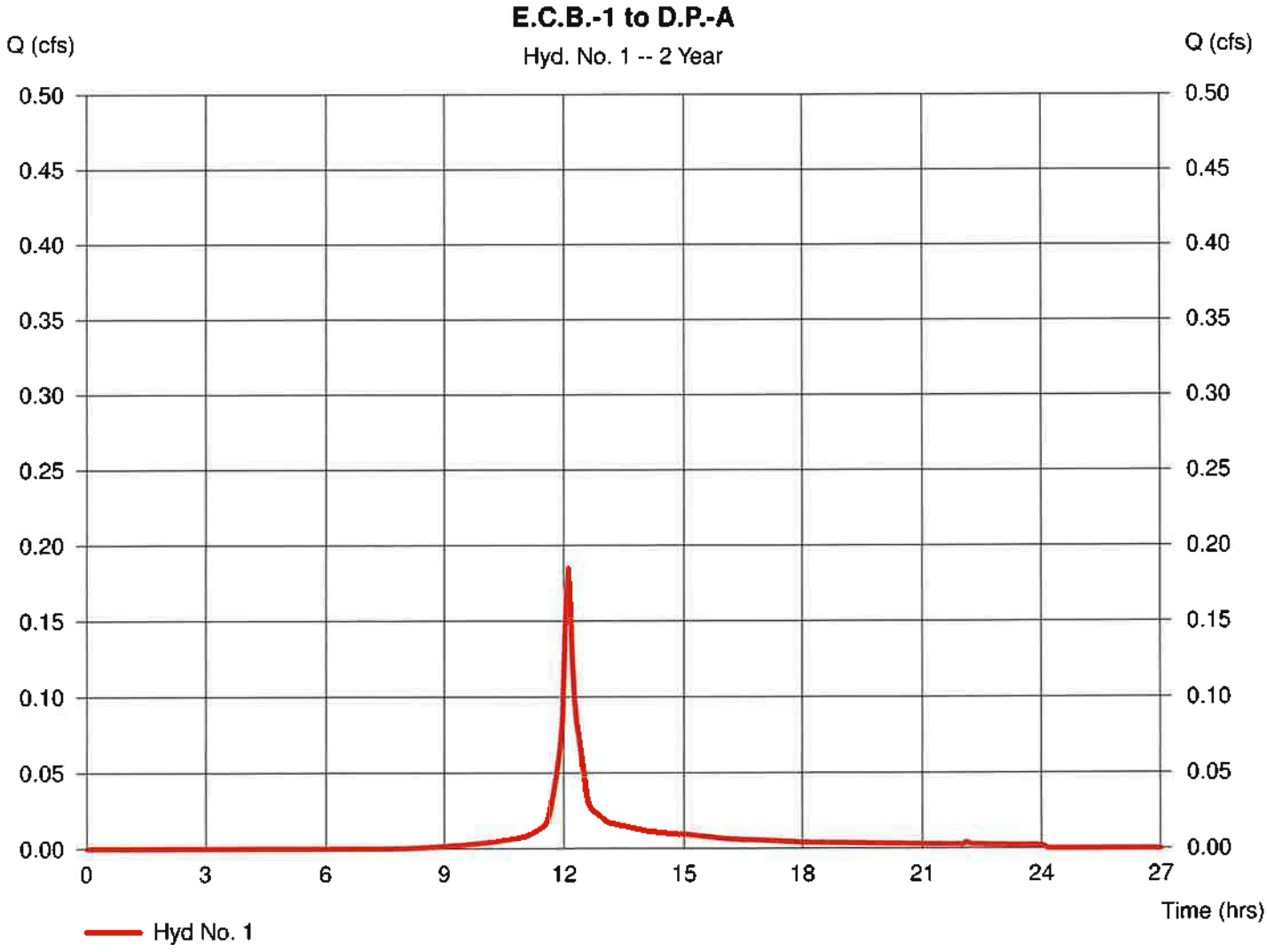
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description
37	Diversion1	0.009	3	723	101	36	------	------	Exfiltration
38	Diversion2	0.034	3	825	211	36	------	------	Overflow to D.P.-D
40	Combine	0.002	3	750	34	22, 32,	------	------	Total Runoff to D.P.-B
41	Combine	0.182	3	732	495	24, 35,	------	------	Total Runoff to D.P.-C
42	Combine	0.034	3	825	212	26, 38,	------	------	Total Runoff to D.P.-D
43	Combine	0.182	3	732	748	21, 25, 40, 41, 42	------	------	Total Runoff (Out of Site)

Hydrograph Report

Hyd. No. 1

E.C.B.-1 to D.P.-A

Hydrograph type	= SCS Runoff	Peak discharge	= 0.185 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 616 cuft
Drainage area	= 0.095 ac	Curve number	= 85.8
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.30 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

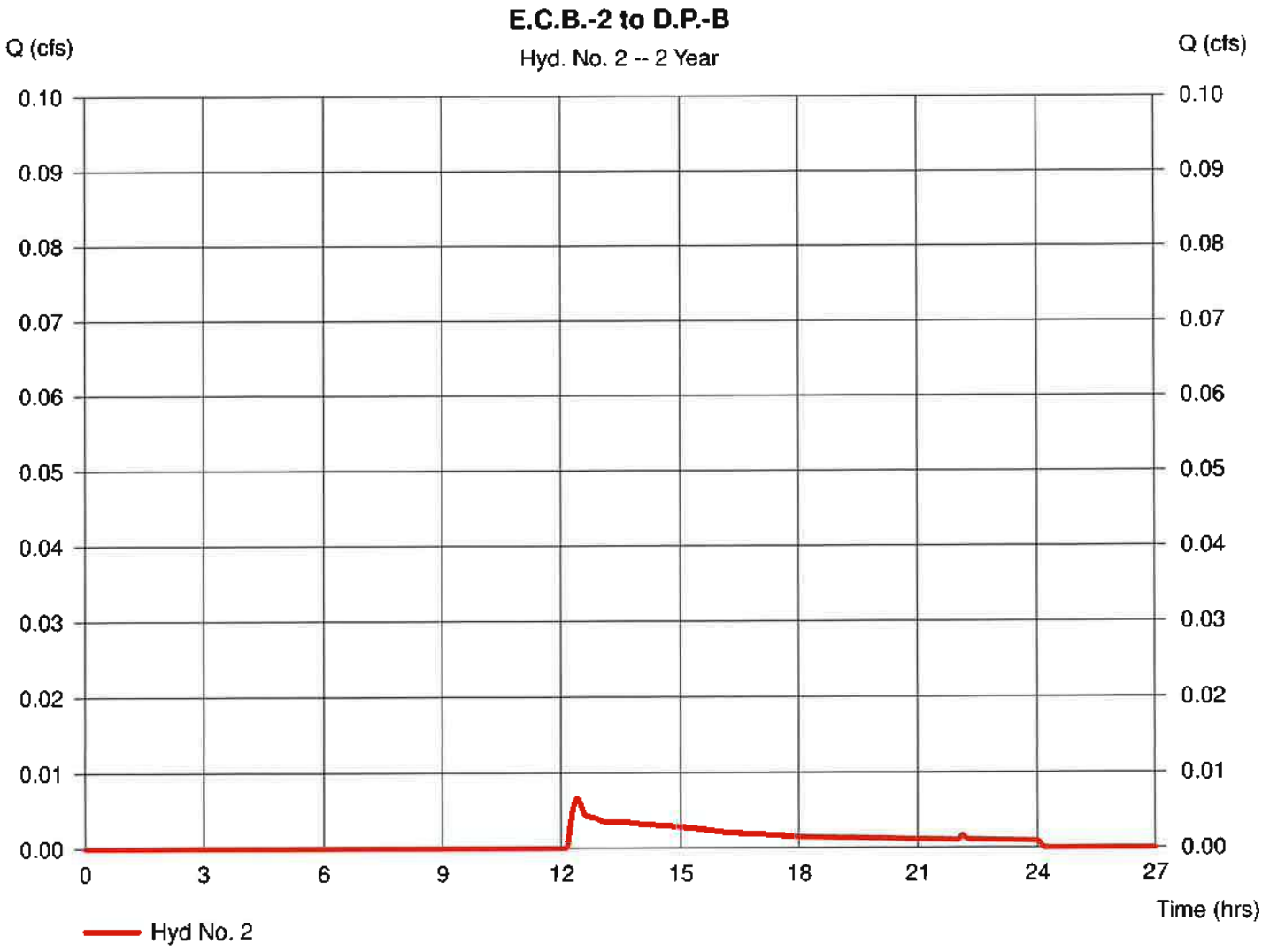


Hydrograph Report

Hyd. No. 2

E.C.B.-2 to D.P.-B

Hydrograph type	= SCS Runoff	Peak discharge	= 0.007 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.40 hrs
Time interval	= 3 min	Hyd. volume	= 86 cuft
Drainage area	= 0.148 ac	Curve number	= 50.9
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.30 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

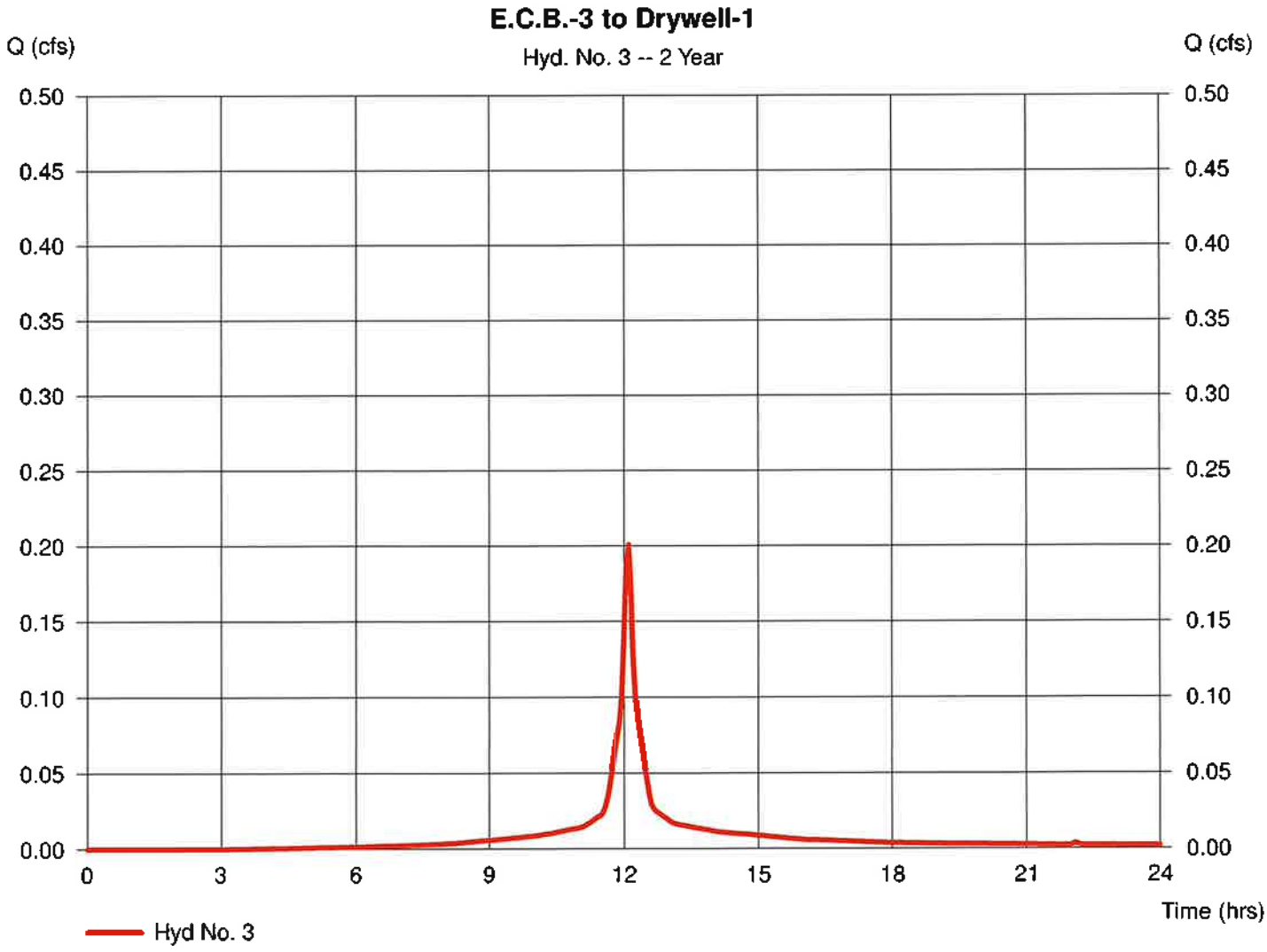


Hydrograph Report

Hyd. No. 3

E.C.B.-3 to Drywell-1

Hydrograph type	= SCS Runoff	Peak discharge	= 0.201 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 717 cuft
Drainage area	= 0.076 ac	Curve number	= 95.3
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.30 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

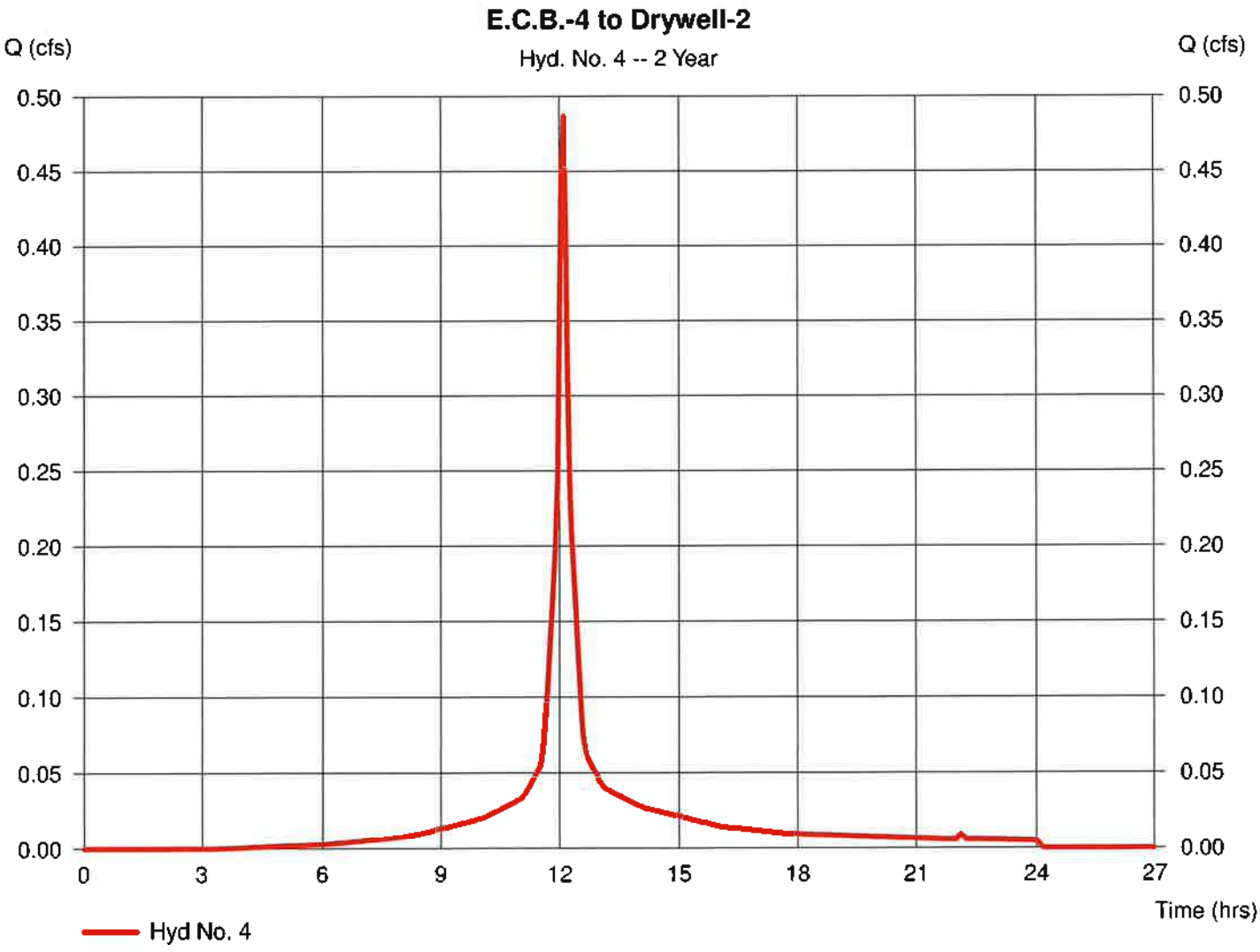


Hydrograph Report

Hyd. No. 4

E.C.B.-4 to Drywell-2

Hydrograph type	= SCS Runoff	Peak discharge	= 0.487 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 1,723 cuft
Drainage area	= 0.186 ac	Curve number	= 94.8
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.30 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

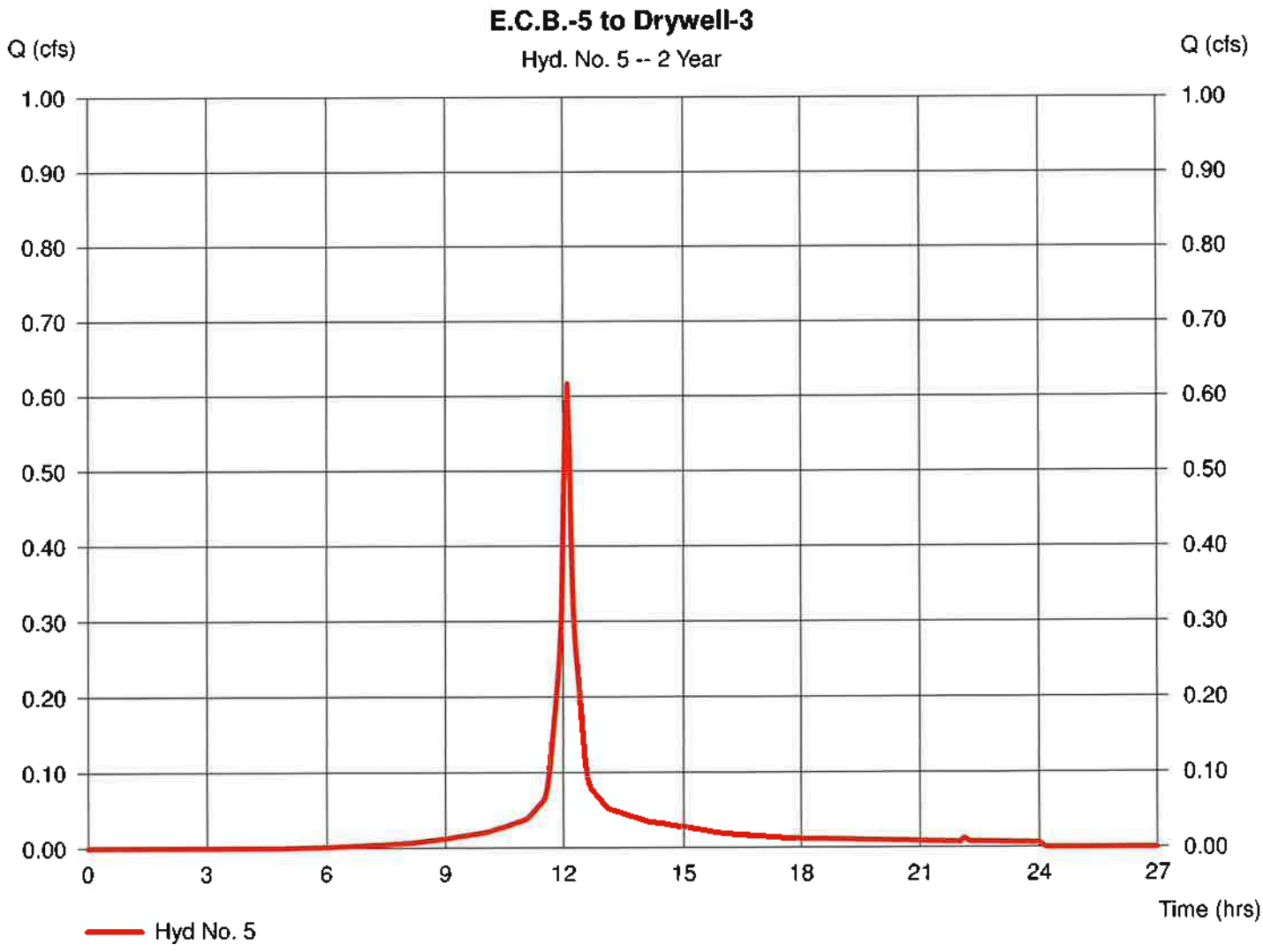


Hydrograph Report

Hyd. No. 5

E.C.B.-5 to Drywell-3

Hydrograph type	= SCS Runoff	Peak discharge	= 0.617 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 2,114 cuft
Drainage area	= 0.255 ac	Curve number	= 91.9
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.30 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

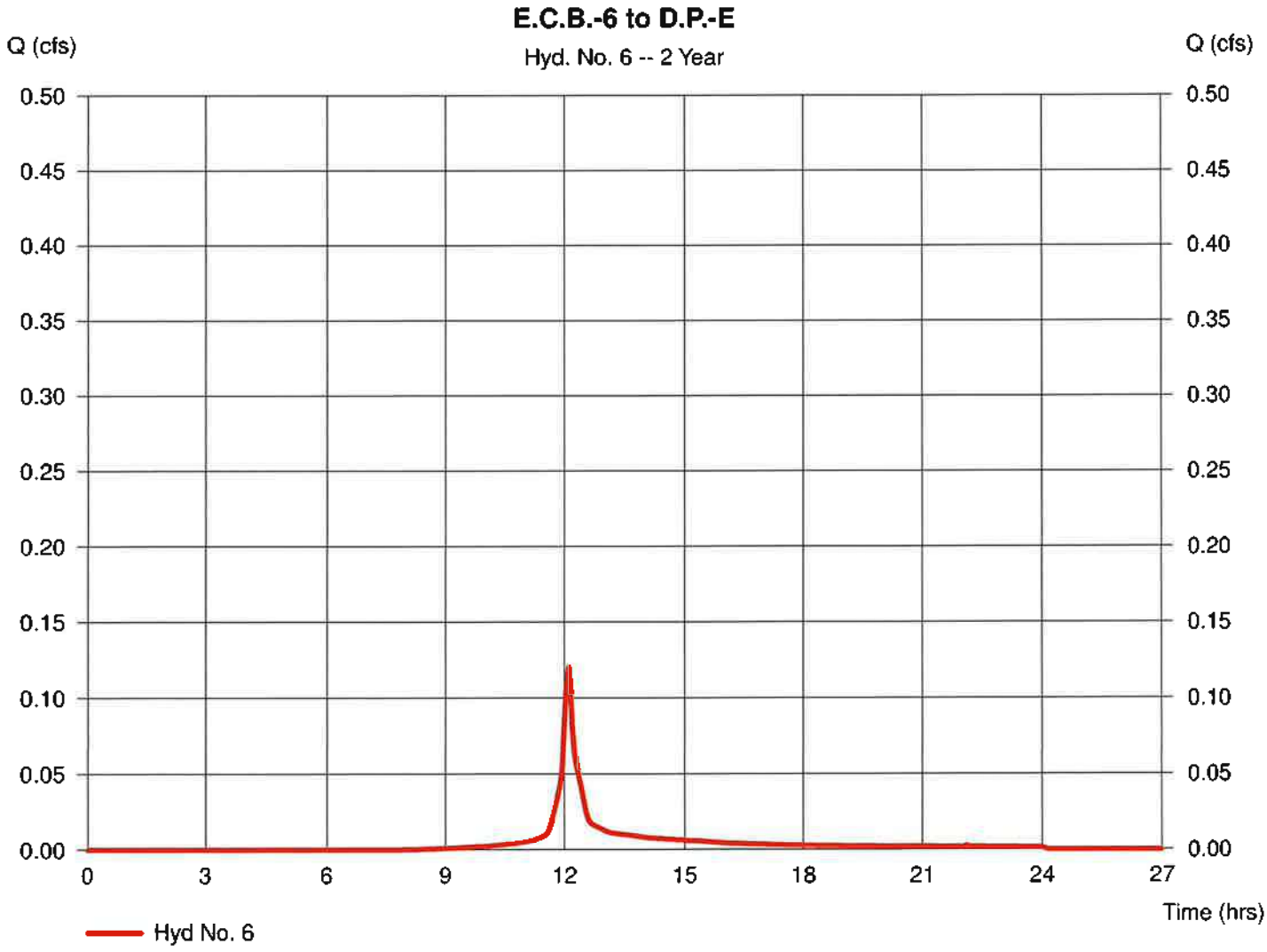


Hydrograph Report

Hyd. No. 6

E.C.B.-6 to D.P.-E

Hydrograph type	= SCS Runoff	Peak discharge	= 0.120 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 400 cuft
Drainage area	= 0.063 ac	Curve number	= 85.3
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.30 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

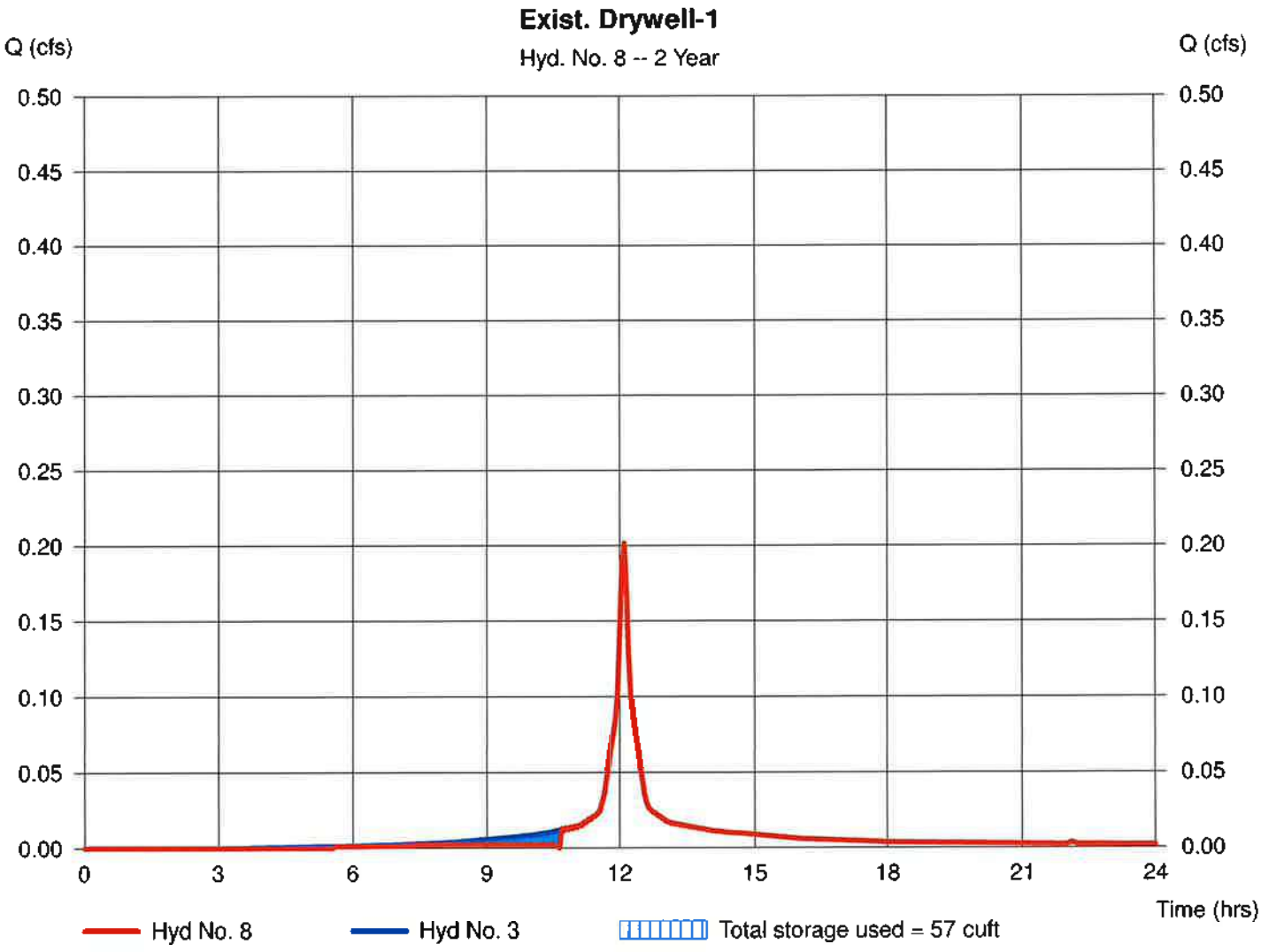
Hydraflow Hydrographs by Intelisolve v9.22 — Sunday, Nov 23, 2025

Hyd. No. 8

Exist. Drywell-1

Hydrograph type	= Reservoir	Peak discharge	= 0.202 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 661 cuft
Inflow hyd. No.	= 3 - E.C.B.-3 to Drywell-1	Max. Elevation	= 154.29 ft
Reservoir name	= Exist. Drywell-1	Max. Storage	= 57 cuft

Storage Indication method used. Outflow includes exfiltration.



Pond Report

Hydraflow Hydrographs by Intelisolve v9.22 — Sunday, Nov 23, 2025

Pond No. 1 - Exist. Drywell-1

Pond Data

Contours - User-defined contour areas. Average end area method used for volume calculation. Begining Elevation = 149.35 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	149.35	13	0	0
1.00	150.35	13	13	13
2.00	151.35	13	13	25
3.00	152.35	13	13	38
4.00	153.35	13	13	50
5.00	154.35	01	7	57
5.50	154.85	01	1	58

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 0.00	0.00	0.00	0.00
Span (in)	= 0.00	0.00	0.00	0.00
No. Barrels	= 0	0	0	0
Invert El. (ft)	= 0.00	0.00	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 8.00	0.00	0.00	0.00
Crest El. (ft)	= 154.25	0.00	0.00	0.00
Weir Coeff.	= 2.60	3.33	3.33	3.33
Weir Type	= Broad	---	---	---
Multi-Stage	= No	No	No	No

Exfil.(in/hr) = 8.270 (by Contour)

TW Elev. (ft) = 0.00

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

Stage / Storage / Discharge Table

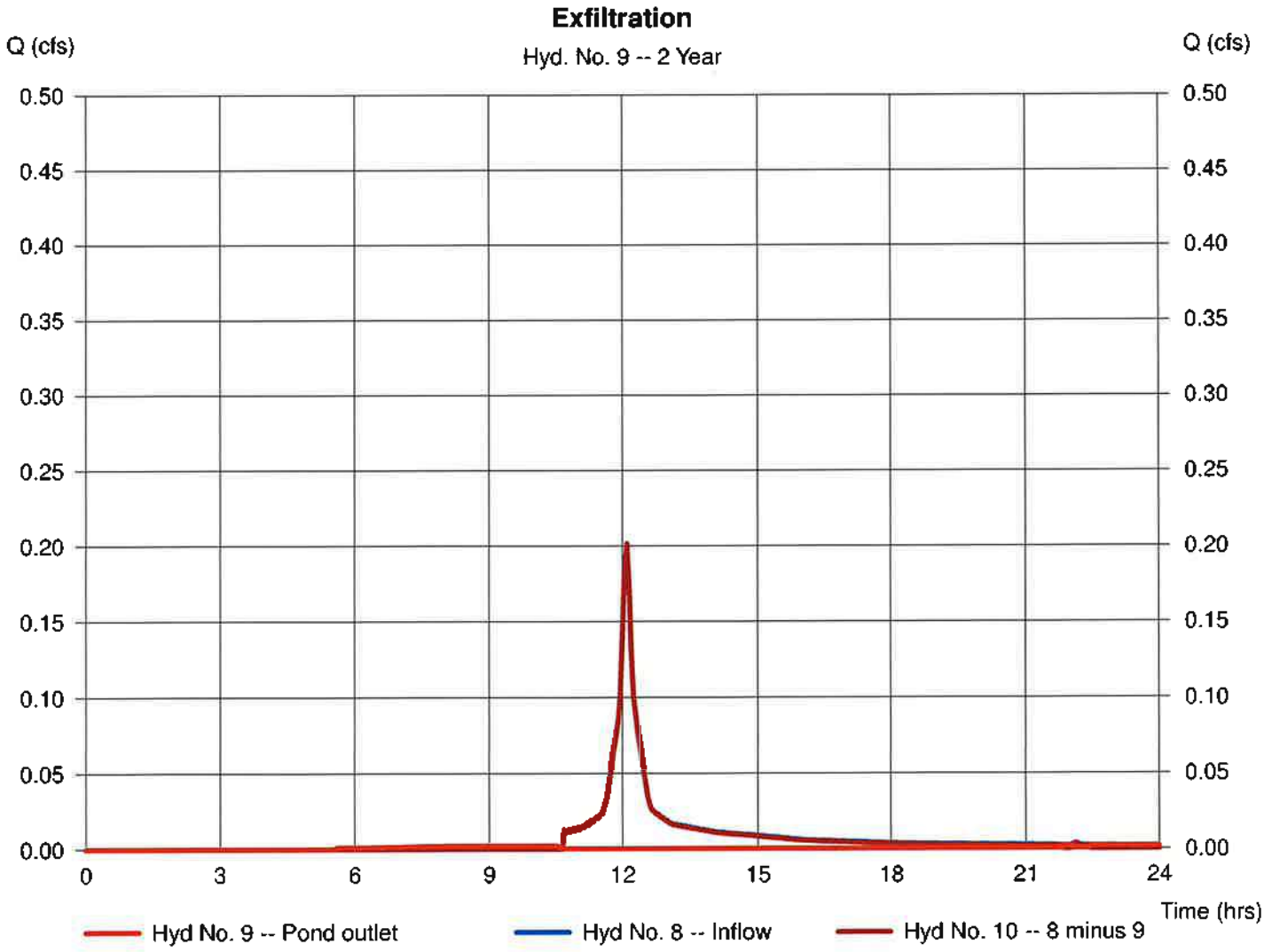
Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	149.35	---	---	---	---	0.00	---	---	---	0.000	---	0.000
1.00	13	150.35	---	---	---	---	0.00	---	---	---	0.002	---	0.002
2.00	25	151.35	---	---	---	---	0.00	---	---	---	0.002	---	0.002
3.00	38	152.35	---	---	---	---	0.00	---	---	---	0.002	---	0.002
4.00	50	153.35	---	---	---	---	0.00	---	---	---	0.002	---	0.002
5.00	57	154.35	---	---	---	---	0.66	---	---	---	0.000	---	0.658
5.50	58	154.85	---	---	---	---	9.67	---	---	---	0.000	---	9.667

Hydrograph Report

Hyd. No. 9

Exfiltration

Hydrograph type	= Diversion1	Peak discharge	= 0.002 cfs
Storm frequency	= 2 yrs	Time to peak	= 8.20 hrs
Time interval	= 3 min	Hyd. volume	= 67 cuft
Inflow hydrograph	= 8 - Exist. Drywell-1	2nd diverted hyd.	= 10
Diversion method	= Pond - Exist. Drywell-1	Pond structure	= Exfiltration

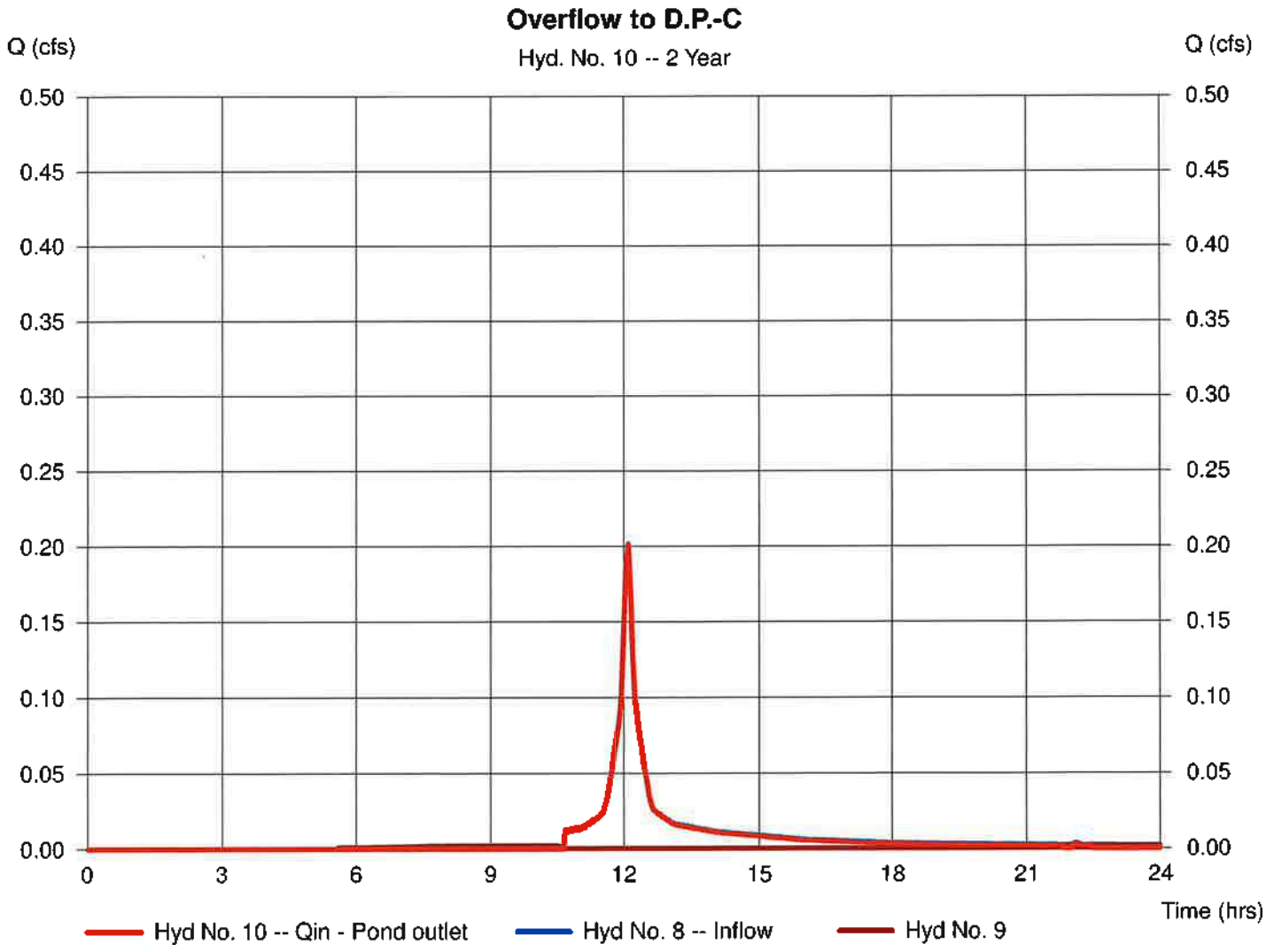


Hydrograph Report

Hyd. No. 10

Overflow to D.P.-C

Hydrograph type	= Diversion2	Peak discharge	= 0.202 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 594 cuft
Inflow hydrograph	= 8 - Exist. Drywell-1	2nd diverted hyd.	= 9
Diversion method	= Pond - Exist. Drywell-1	Pond structure	= Exfiltration



Hydrograph Report

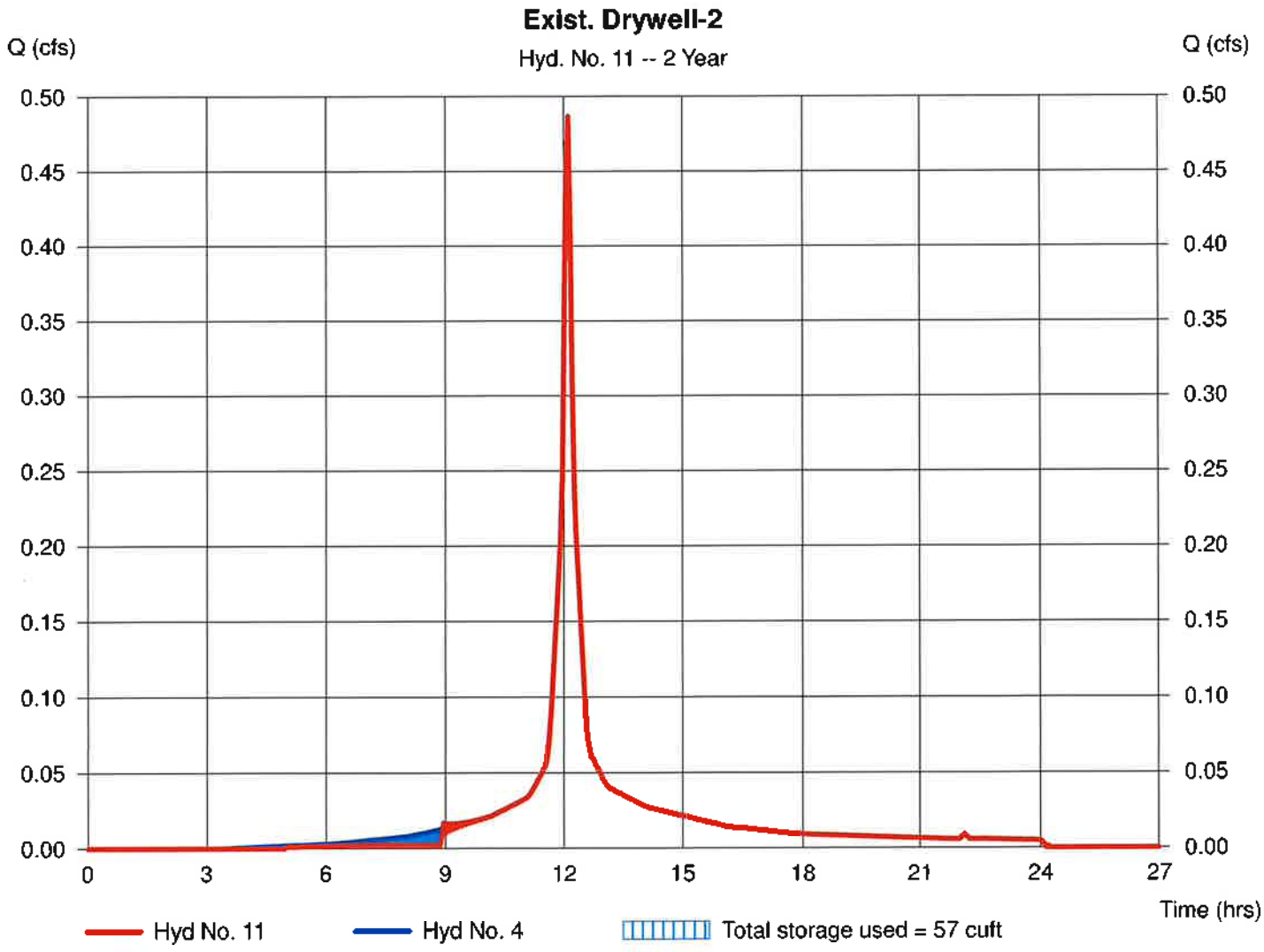
Hydraflow Hydrographs by Intelisolve v9.22 — Sunday, Nov 23, 2025

Hyd. No. 11

Exist. Drywell-2

Hydrograph type	= Reservoir	Peak discharge	= 0.487 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 1,667 cuft
Inflow hyd. No.	= 4 - E.C.B.-4 to Drywell-2	Max. Elevation	= 153.93 ft
Reservoir name	= Exist. Drywell-2	Max. Storage	= 57 cuft

Storage Indication method used. Outflow includes exfiltration.



Pond Report

Pond No. 2 - Exist. Drywell-2

Pond Data

Contours - User-defined contour areas. Average end area method used for volume calculation. Begining Elevation = 148.98 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	148.98	13	0	0
1.00	149.98	13	13	13
2.00	150.98	13	13	25
3.00	151.98	13	13	38
4.00	152.98	13	13	51
5.00	153.98	01	7	57
5.50	154.48	01	1	58

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 0.00	0.00	0.00	0.00
Span (in)	= 0.00	0.00	0.00	0.00
No. Barrels	= 0	0	0	0
Invert El. (ft)	= 0.00	0.00	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 8.00	0.00	0.00	0.00
Crest El. (ft)	= 153.85	0.00	0.00	0.00
Weir Coeff.	= 2.60	3.33	3.33	3.33
Weir Type	= Broad	---	---	---
Multi-Stage	= No	No	No	No

Exfil.(in/hr) = 8.270 (by Contour)

TW Elev. (ft) = 0.00

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

Stage / Storage / Discharge Table

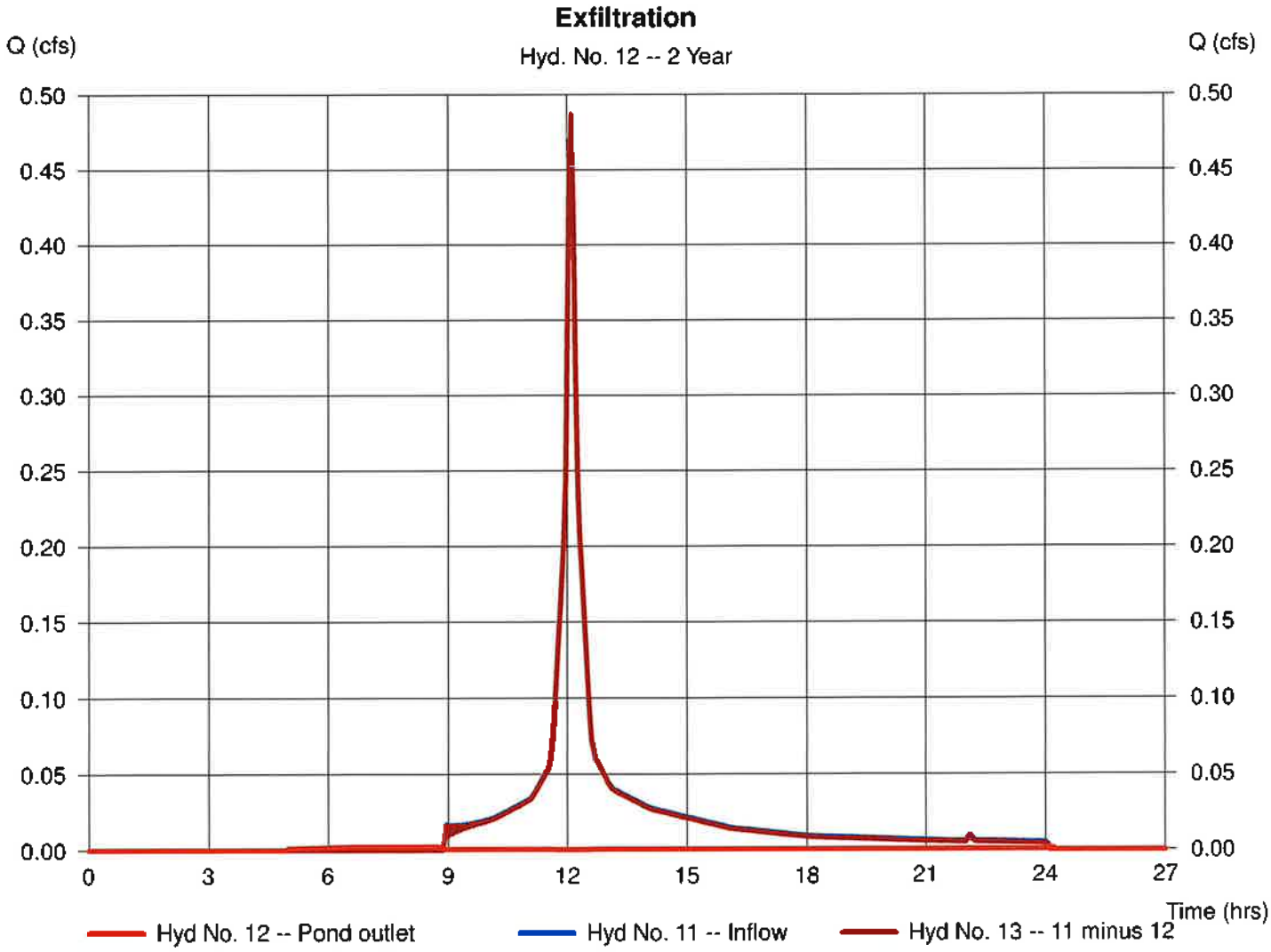
Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	148.98	---	---	---	---	0.00	---	---	---	0.000	---	0.000
1.00	13	149.98	---	---	---	---	0.00	---	---	---	0.002	---	0.002
2.00	25	150.98	---	---	---	---	0.00	---	---	---	0.002	---	0.002
3.00	38	151.98	---	---	---	---	0.00	---	---	---	0.002	---	0.002
4.00	51	152.98	---	---	---	---	0.00	---	---	---	0.002	---	0.002
5.00	57	153.98	---	---	---	---	0.97	---	---	---	0.000	---	0.975
5.50	58	154.48	---	---	---	---	10.40	---	---	---	0.000	---	10.40

Hydrograph Report

Hyd. No. 12

Exfiltration

Hydrograph type	= Diversion1	Peak discharge	= 0.002 cfs
Storm frequency	= 2 yrs	Time to peak	= 6.65 hrs
Time interval	= 3 min	Hyd. volume	= 62 cuft
Inflow hydrograph	= 11 - Exist. Drywell-2	2nd diverted hyd.	= 13
Diversion method	= Pond - Exist. Drywell-2	Pond structure	= Exfiltration

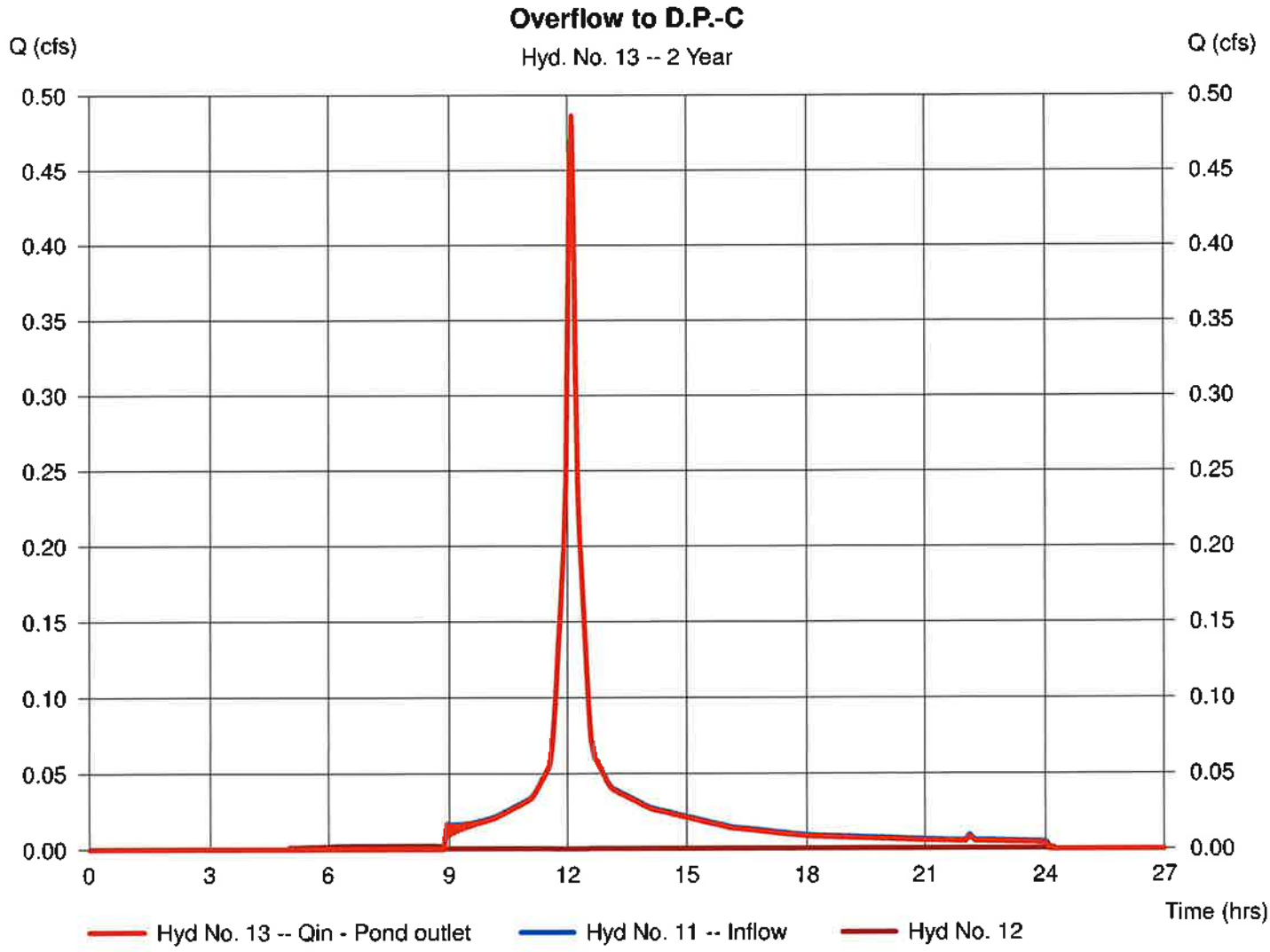


Hydrograph Report

Hyd. No. 13

Overflow to D.P.-C

Hydrograph type	= Diversion2	Peak discharge	= 0.487 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 1,606 cuft
Inflow hydrograph	= 11 - Exist. Drywell-2	2nd diverted hyd.	= 12
Diversion method	= Pond - Exist. Drywell-2	Pond structure	= Exfiltration



Hydrograph Report

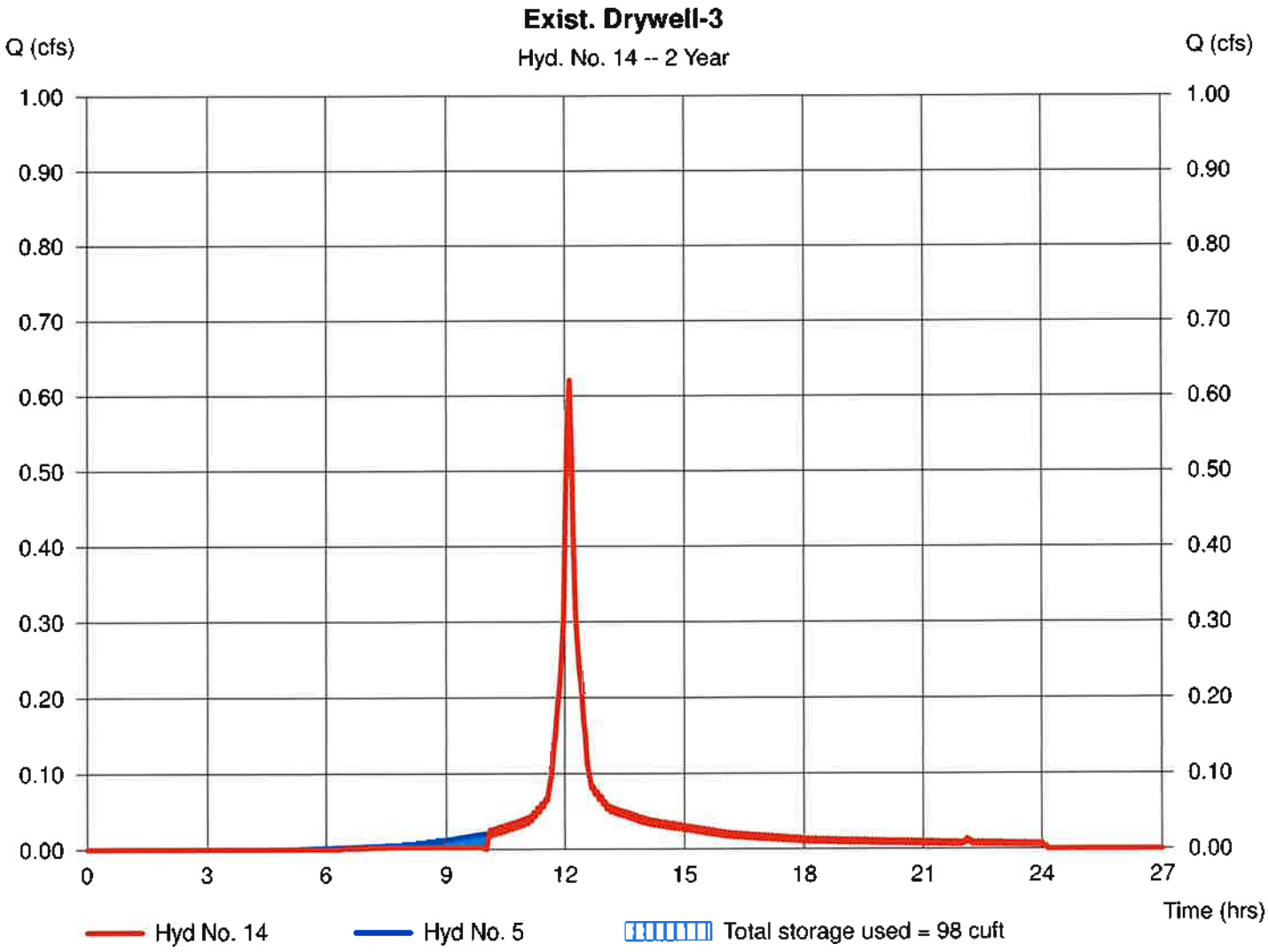
Hydraflow Hydrographs by Intelisolve v9.22 — Sunday, Nov 23, 2025

Hyd. No. 14

Exist. Drywell-3

Hydrograph type	= Reservoir	Peak discharge	= 0.621 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 2,016 cuft
Inflow hyd. No.	= 5 - E.C.B.-5 to Drywell-3	Max. Elevation	= 154.38 ft
Reservoir name	= Exist. Drywell-3	Max. Storage	= 98 cuft

Storage Indication method used. Outflow includes exfiltration.



Pond Report

Pond No. 3 - Exist. Drywell-3

Pond Data

Contours - User-defined contour areas. Average end area method used for volume calculation. Begining Elevation = 144.44 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	144.44	13	0	0
1.00	145.44	13	13	13
2.00	146.44	13	13	25
3.00	147.44	13	13	38
4.00	148.44	13	13	51
5.00	149.44	13	13	63
6.00	150.44	13	13	76
7.00	151.44	13	13	89
8.00	152.44	01	7	96
9.00	153.44	01	1	97
10.00	154.44	01	1	98

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 0.00	0.00	0.00	0.00
Span (in)	= 0.00	0.00	0.00	0.00
No. Barrels	= 0	0	0	0
Invert El. (ft)	= 0.00	0.00	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 8.00	0.00	0.00	0.00
Crest El. (ft)	= 153.94	0.00	0.00	0.00
Weir Coeff.	= 2.60	3.33	3.33	3.33
Weir Type	= Broad	---	---	---
Multi-Stage	= No	No	No	No

Exfil.(in/hr) = 8.270 (by Contour)

TW Elev. (ft) = 0.00

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

Stage / Storage / Discharge Table

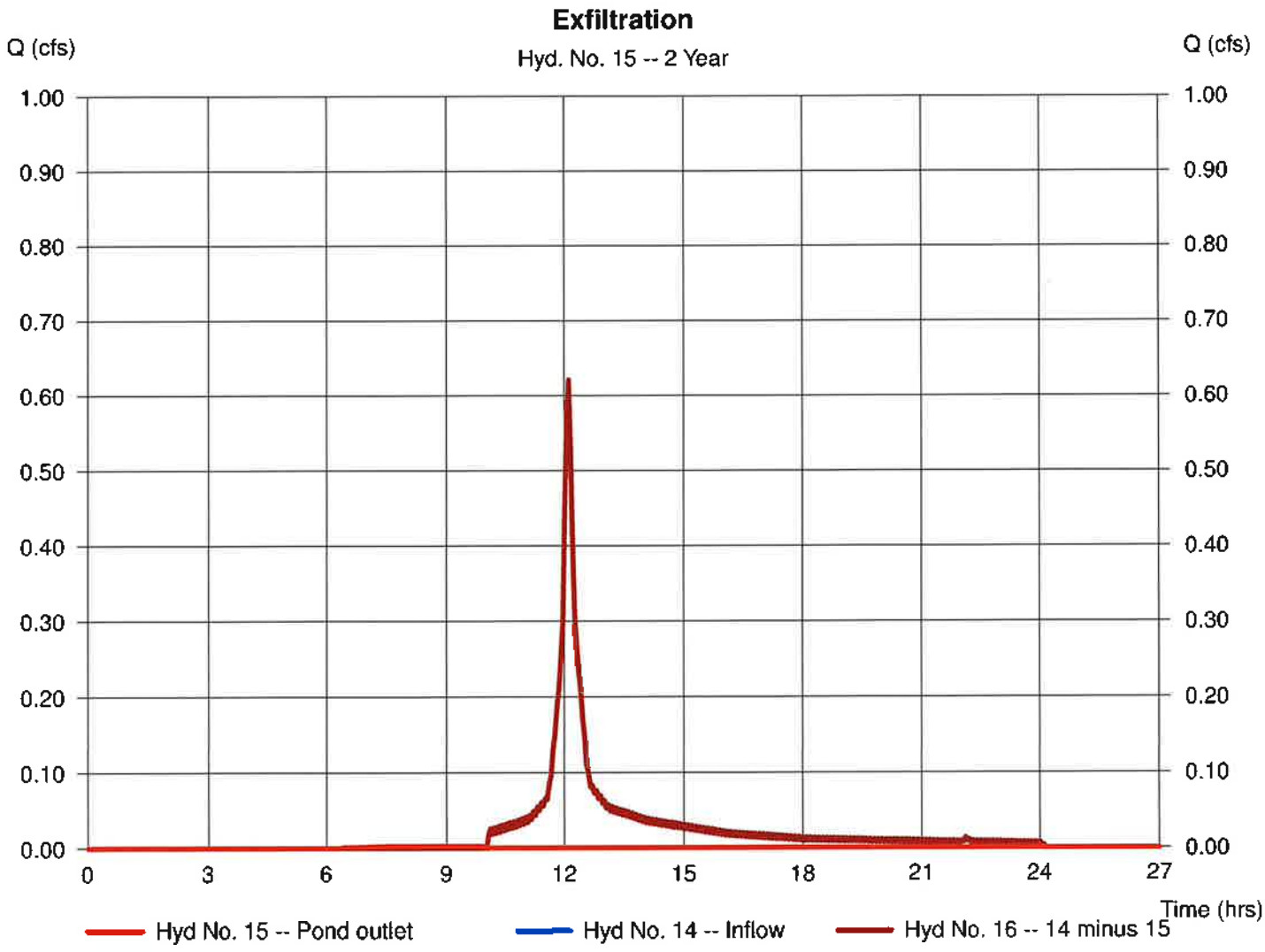
Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	144.44	---	---	---	---	0.00	---	---	---	0.000	---	0.000
1.00	13	145.44	---	---	---	---	0.00	---	---	---	0.002	---	0.002
2.00	25	146.44	---	---	---	---	0.00	---	---	---	0.002	---	0.002
3.00	38	147.44	---	---	---	---	0.00	---	---	---	0.002	---	0.002
4.00	51	148.44	---	---	---	---	0.00	---	---	---	0.002	---	0.002
5.00	63	149.44	---	---	---	---	0.00	---	---	---	0.002	---	0.002
6.00	76	150.44	---	---	---	---	0.00	---	---	---	0.002	---	0.002
7.00	89	151.44	---	---	---	---	0.00	---	---	---	0.002	---	0.002
8.00	96	152.44	---	---	---	---	0.00	---	---	---	0.000	---	0.000
9.00	97	153.44	---	---	---	---	0.00	---	---	---	0.000	---	0.000
10.00	98	154.44	---	---	---	---	7.35	---	---	---	0.000	---	7.354

Hydrograph Report

Hyd. No. 15

Exfiltration

Hydrograph type	= Diversion1	Peak discharge	= 0.002 cfs
Storm frequency	= 2 yrs	Time to peak	= 9.45 hrs
Time interval	= 3 min	Hyd. volume	= 38 cuft
Inflow hydrograph	= 14 - Exist. Drywell-3	2nd diverted hyd.	= 16
Diversion method	= Pond - Exist. Drywell-3	Pond structure	= Exfiltration

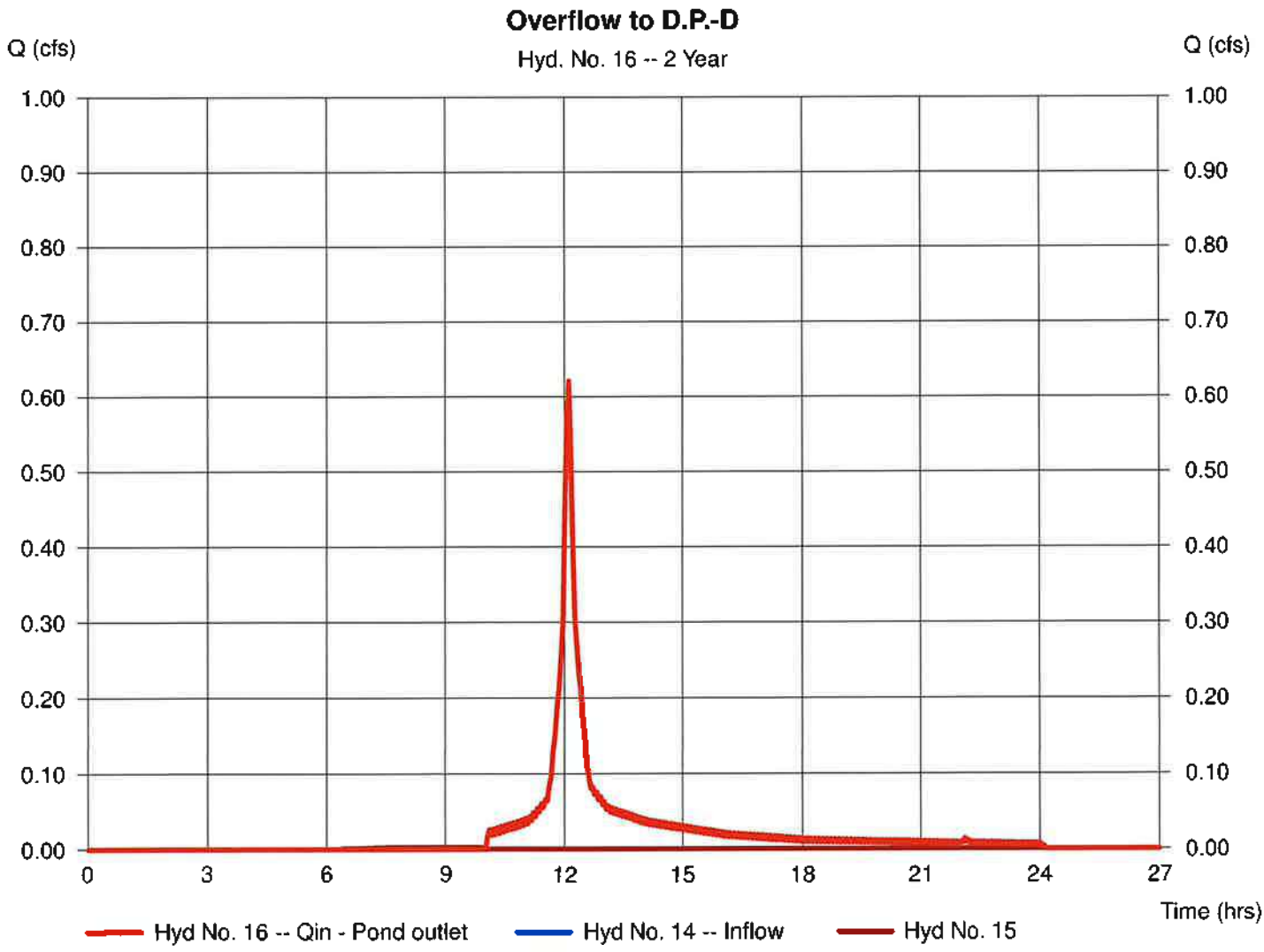


Hydrograph Report

Hyd. No. 16

Overflow to D.P.-D

Hydrograph type	= Diversion2	Peak discharge	= 0.621 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 1,978 cuft
Inflow hydrograph	= 14 - Exist. Drywell-3	2nd diverted hyd.	= 15
Diversion method	= Pond - Exist. Drywell-3	Pond structure	= Exfiltration

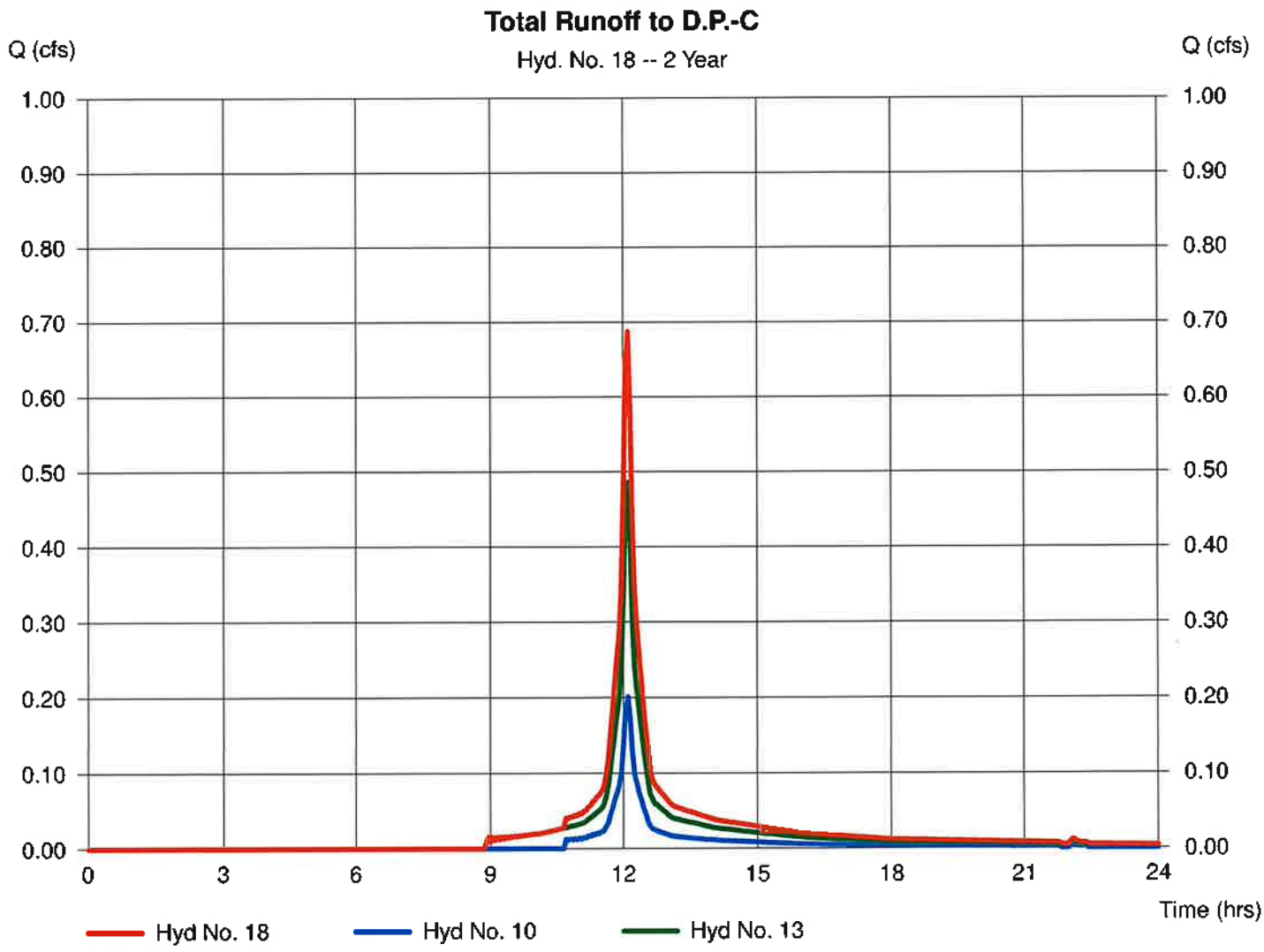


Hydrograph Report

Hyd. No. 18

Total Runoff to D.P.-C

Hydrograph type	= Combine	Peak discharge	= 0.688 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 2,199 cuft
Inflow hyds.	= 10, 13	Contrib. drain. area	= 0.000 ac

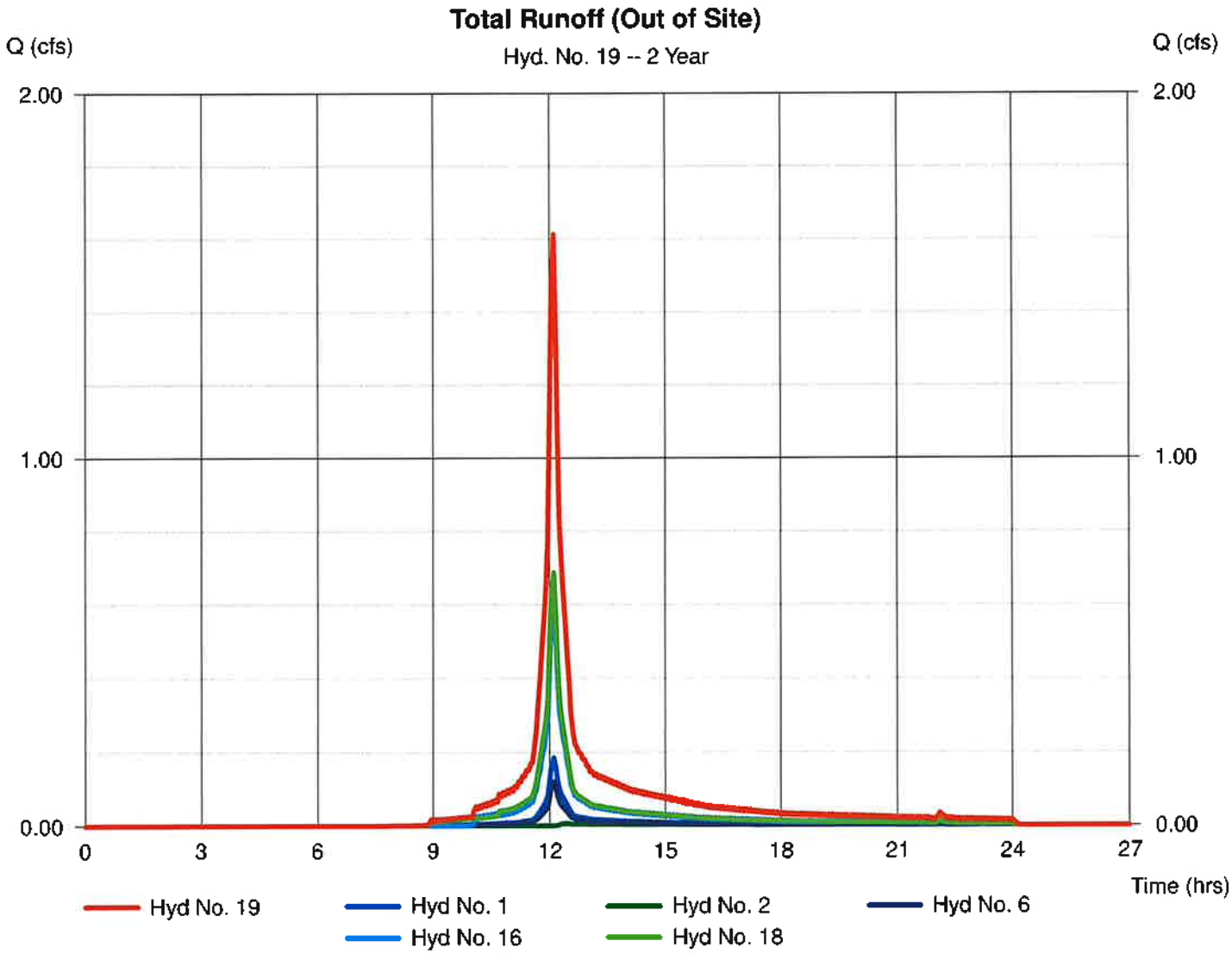


Hydrograph Report

Hyd. No. 19

Total Runoff (Out of Site)

Hydrograph type	= Combine	Peak discharge	= 1.615 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 5,280 cuft
Inflow hyds.	= 1, 2, 6, 16, 18	Contrib. drain. area	= 0.306 ac

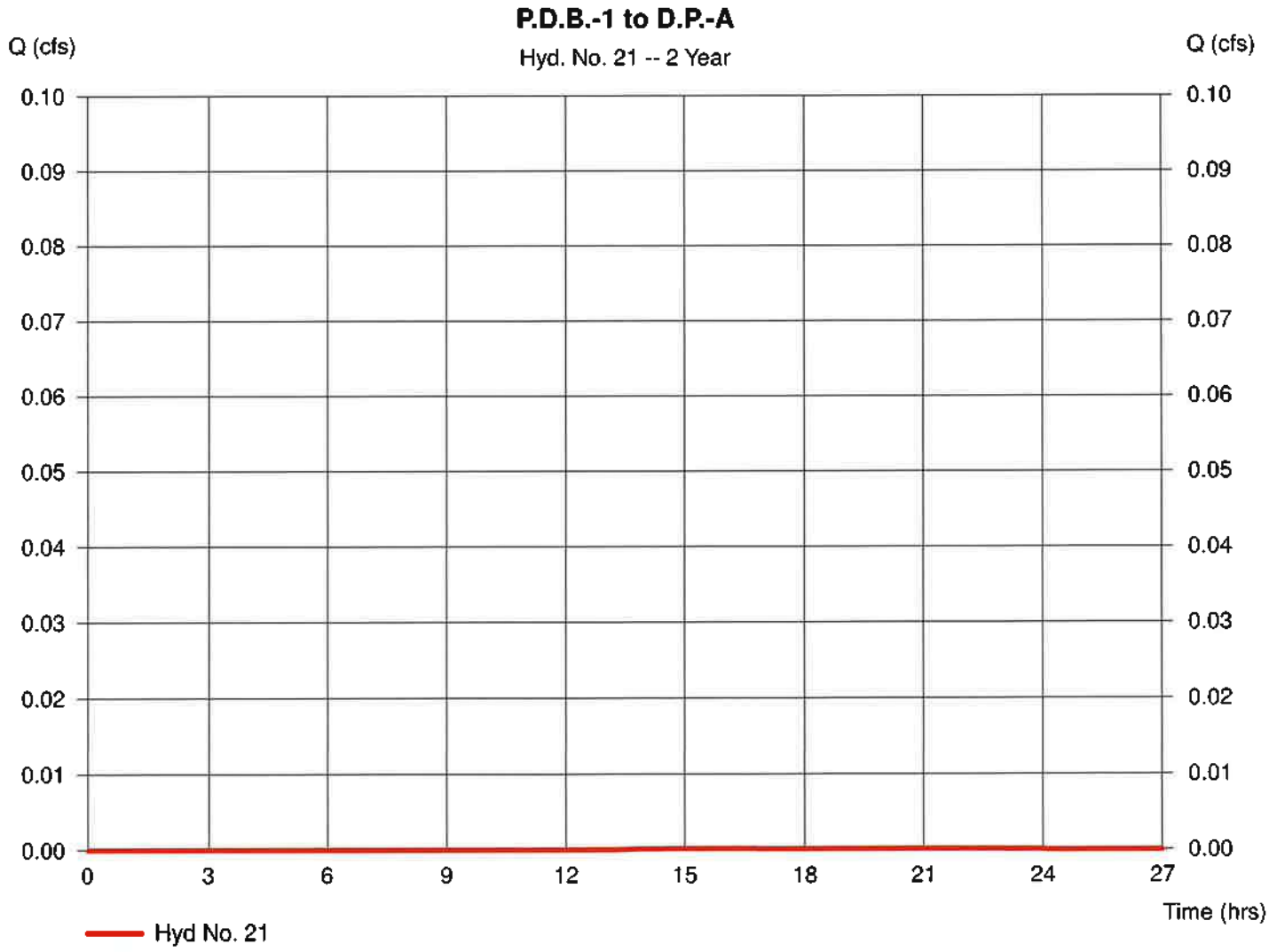


Hydrograph Report

Hyd. No. 21

P.D.B.-1 to D.P.-A

Hydrograph type	= SCS Runoff	Peak discharge	= 0.000 cfs
Storm frequency	= 2 yrs	Time to peak	= 15.25 hrs
Time interval	= 3 min	Hyd. volume	= 4 cuft
Drainage area	= 0.026 ac	Curve number	= 44.5
Basin Slope	= 3.9 %	Hydraulic length	= 125 ft
Tc method	= LAG	Time of conc. (Tc)	= 7.80 min
Total precip.	= 3.30 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

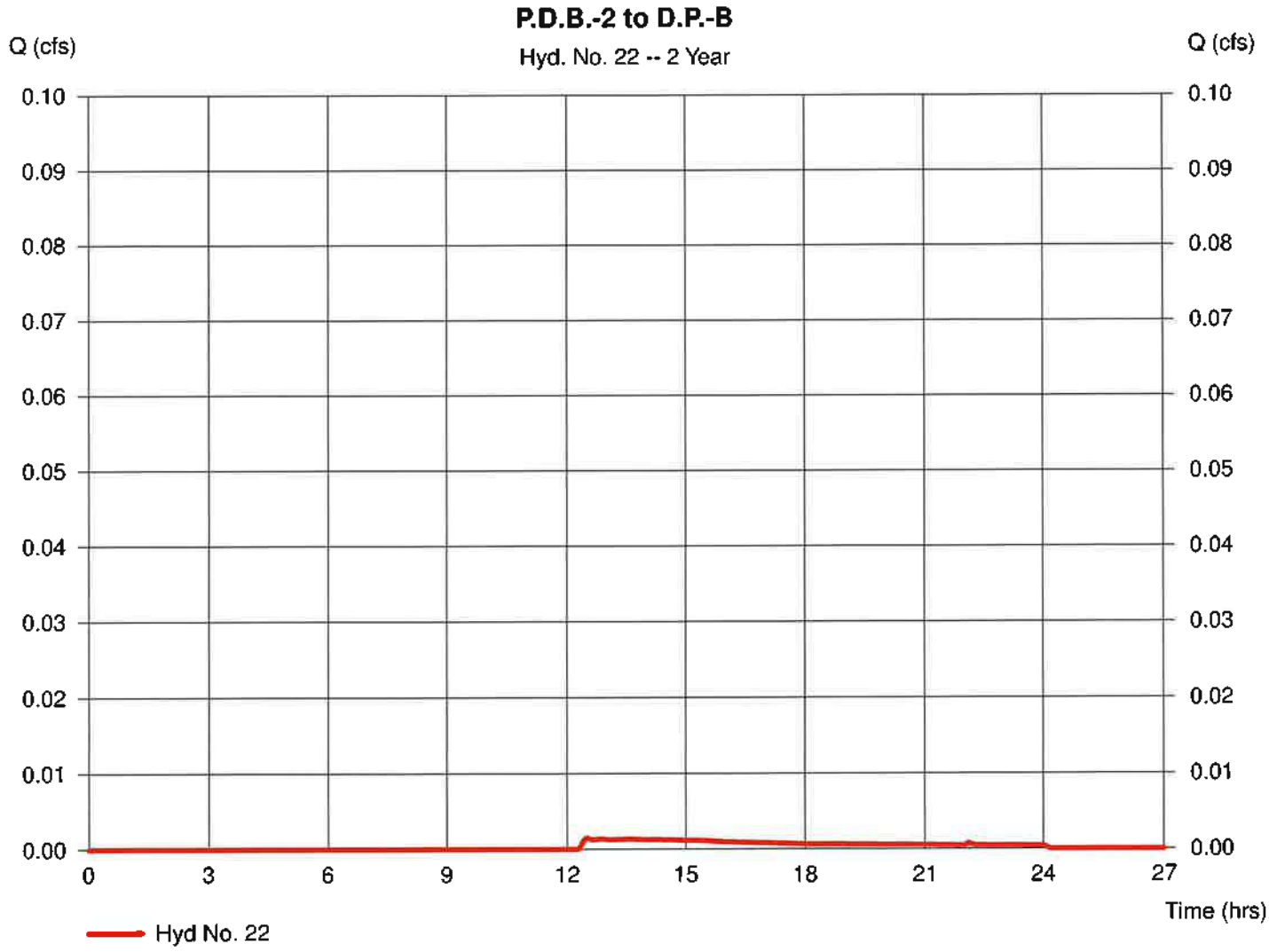


Hydrograph Report

Hyd. No. 22

P.D.B.-2 to D.P.-B

Hydrograph type	= SCS Runoff	Peak discharge	= 0.002 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.50 hrs
Time interval	= 3 min	Hyd. volume	= 34 cuft
Drainage area	= 0.082 ac	Curve number	= 48.8
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.30 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

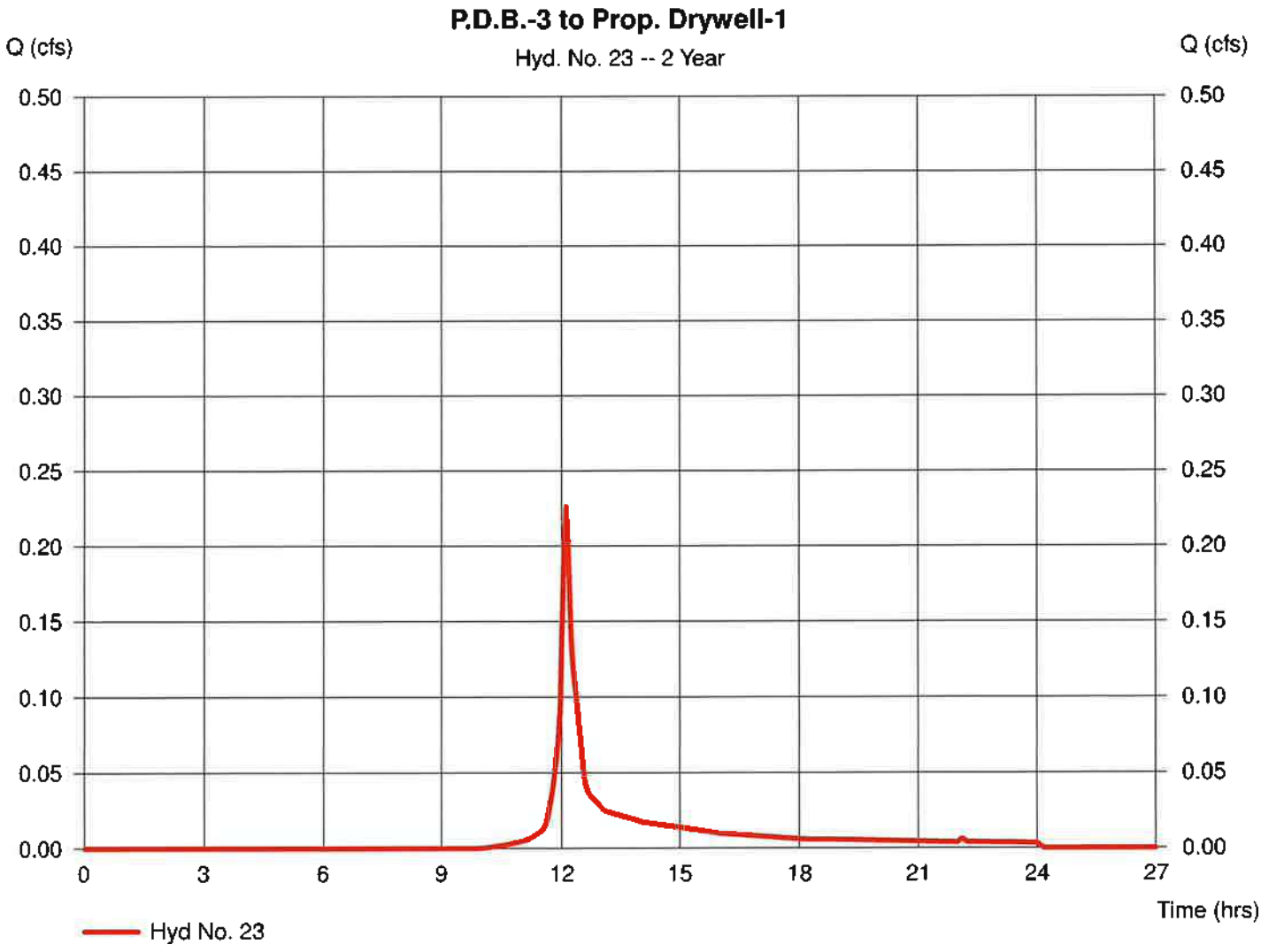


Hydrograph Report

Hyd. No. 23

P.D.B.-3 to Prop. Drywell-1

Hydrograph type	= SCS Runoff	Peak discharge	= 0.226 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 768 cuft
Drainage area	= 0.175 ac	Curve number	= 77.1
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.30 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

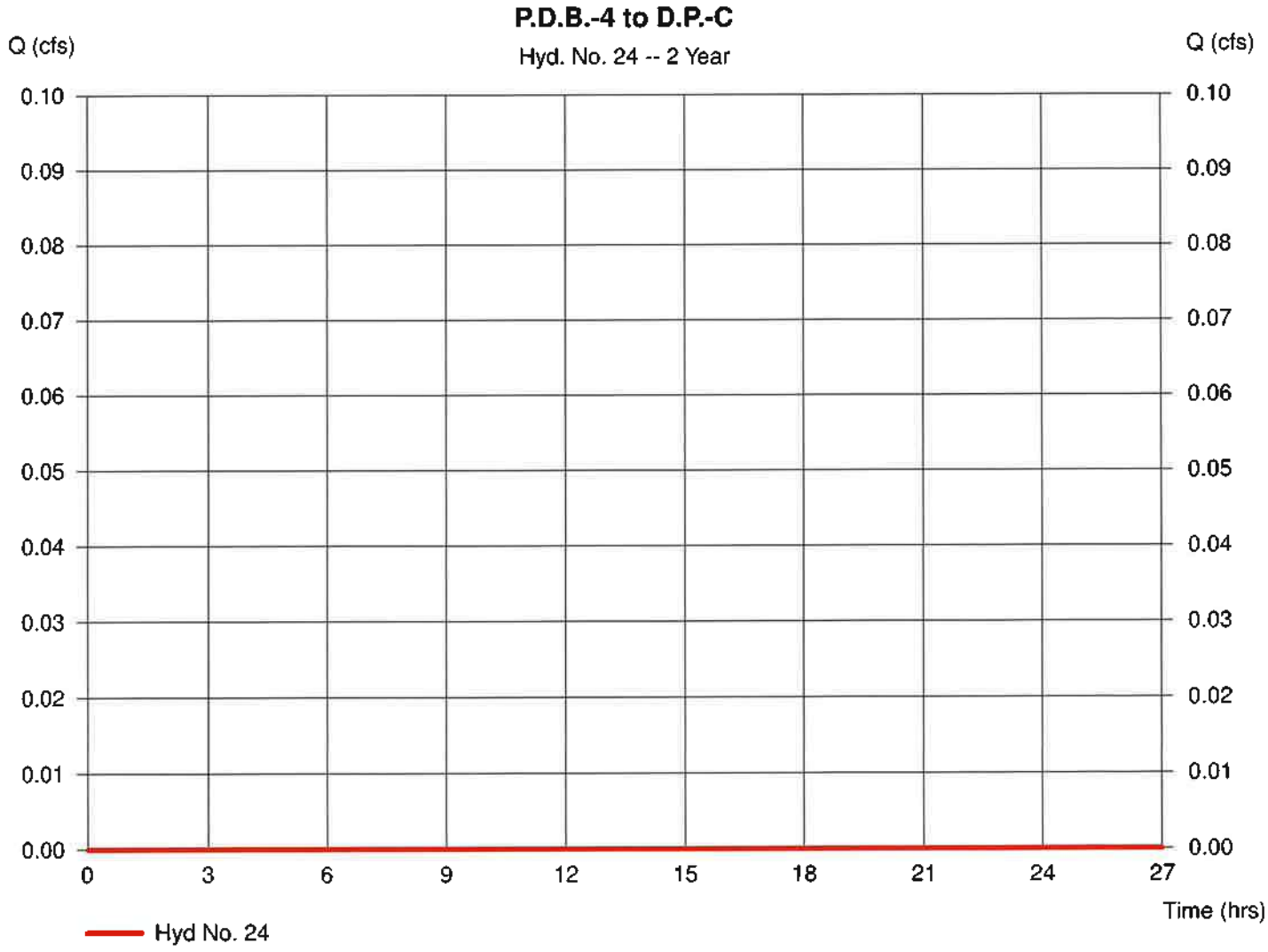


Hydrograph Report

Hyd. No. 24

P.D.B.-4 to D.P.-C

Hydrograph type	= SCS Runoff	Peak discharge	= 0.000 cfs
Storm frequency	= 2 yrs	Time to peak	= 22.15 hrs
Time interval	= 3 min	Hyd. volume	= 0 cuft
Drainage area	= 0.017 ac	Curve number	= 39
Basin Slope	= 0.9 %	Hydraulic length	= 87 ft
Tc method	= LAG	Time of conc. (Tc)	= 14.00 min
Total precip.	= 3.30 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

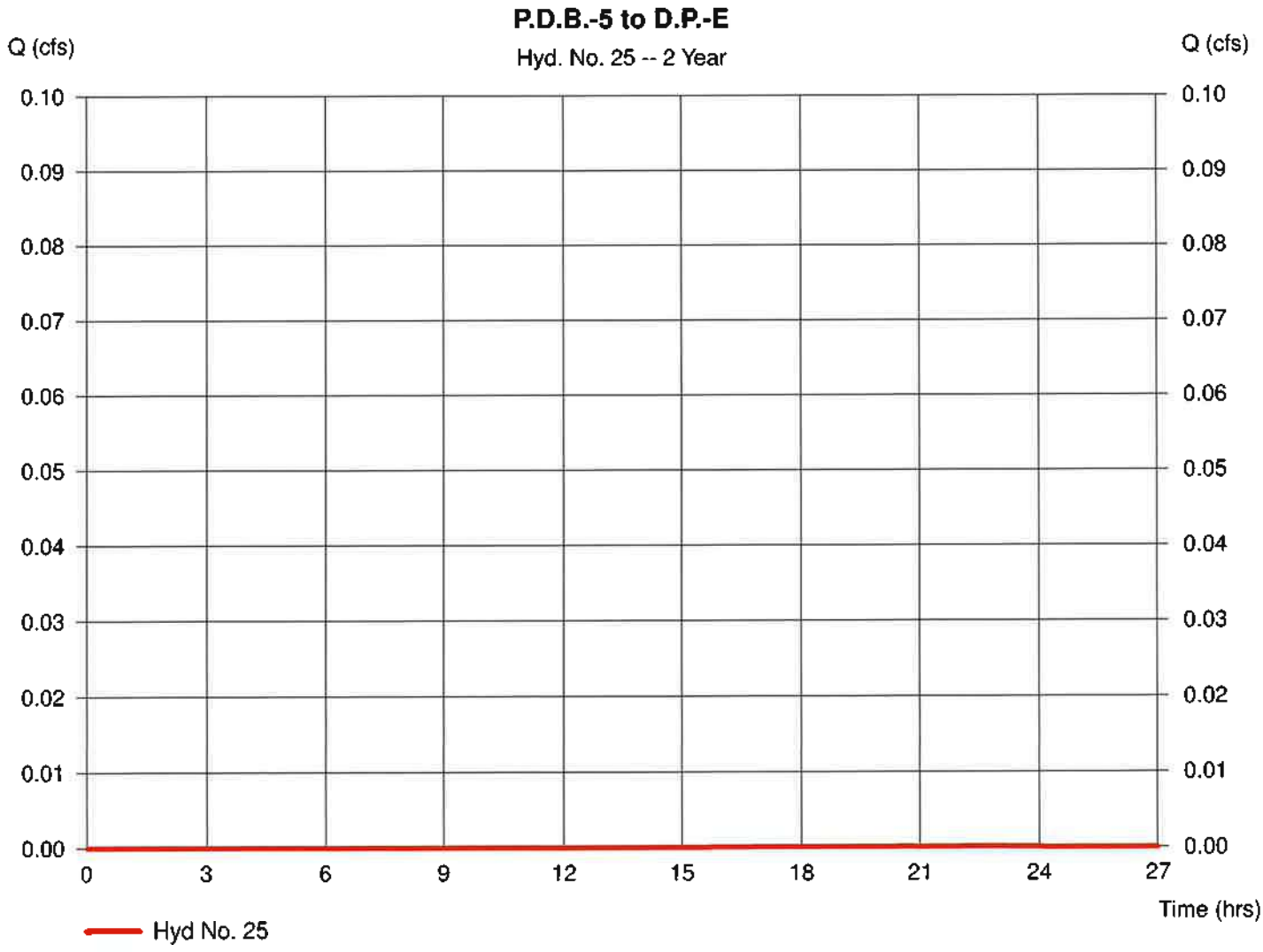


Hydrograph Report

Hyd. No. 25

P.D.B.-5 to D.P.-E

Hydrograph type	= SCS Runoff	Peak discharge	= 0.000 cfs
Storm frequency	= 2 yrs	Time to peak	= 22.10 hrs
Time interval	= 3 min	Hyd. volume	= 2 cuft
Drainage area	= 0.055 ac	Curve number	= 41.1
Basin Slope	= 3.5 %	Hydraulic length	= 111 ft
Tc method	= LAG	Time of conc. (Tc)	= 8.20 min
Total precip.	= 3.30 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

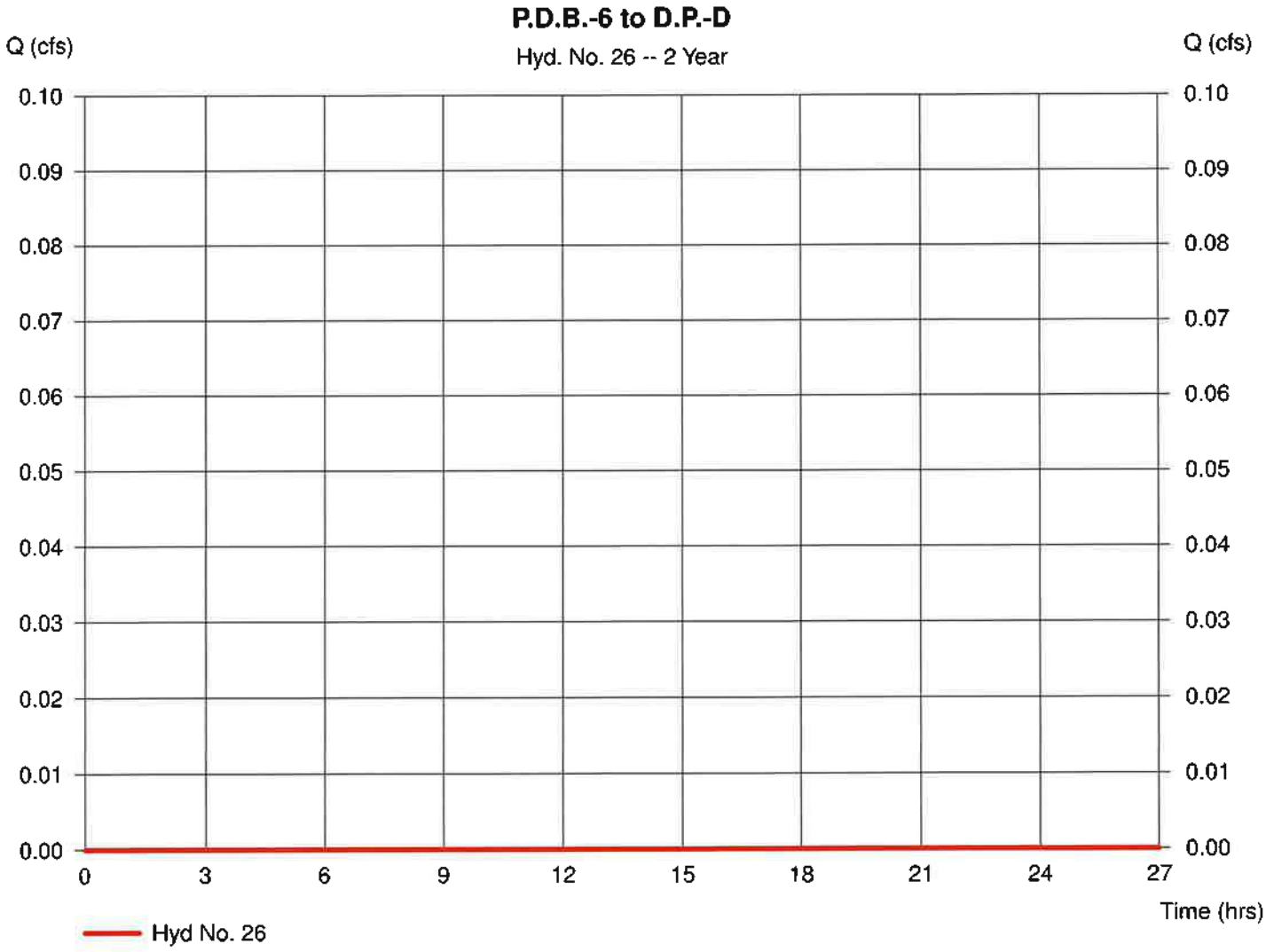


Hydrograph Report

Hyd. No. 26

P.D.B.-6 to D.P.-D

Hydrograph type	= SCS Runoff	Peak discharge	= 0.000 cfs
Storm frequency	= 2 yrs	Time to peak	= 22.10 hrs
Time interval	= 3 min	Hyd. volume	= 1 cuft
Drainage area	= 0.027 ac	Curve number	= 41.2
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.30 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

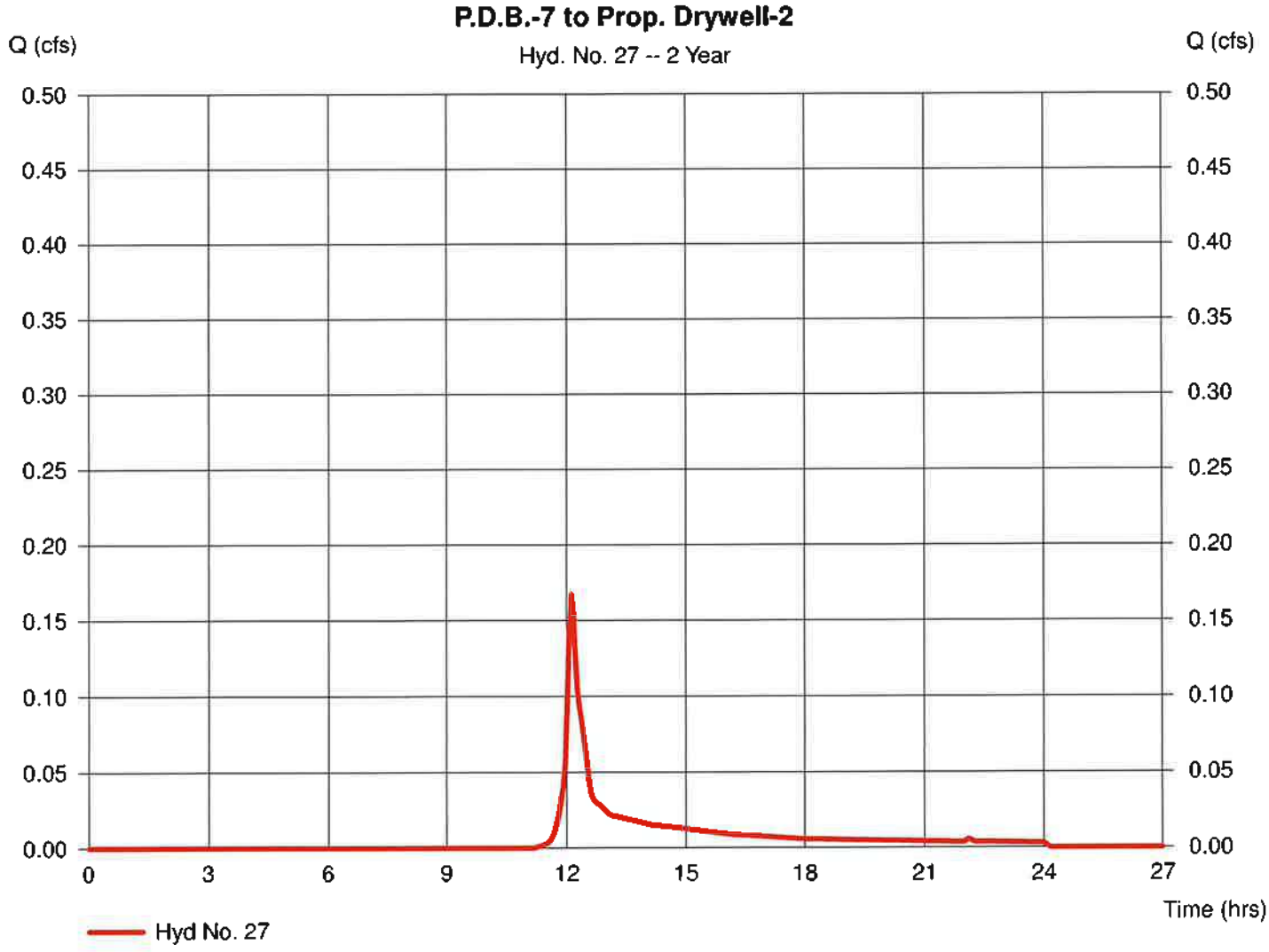


Hydrograph Report

Hyd. No. 27

P.D.B.-7 to Prop. Drywell-2

Hydrograph type	= SCS Runoff	Peak discharge	= 0.168 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 611 cuft
Drainage area	= 0.199 ac	Curve number	= 70.3
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.30 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

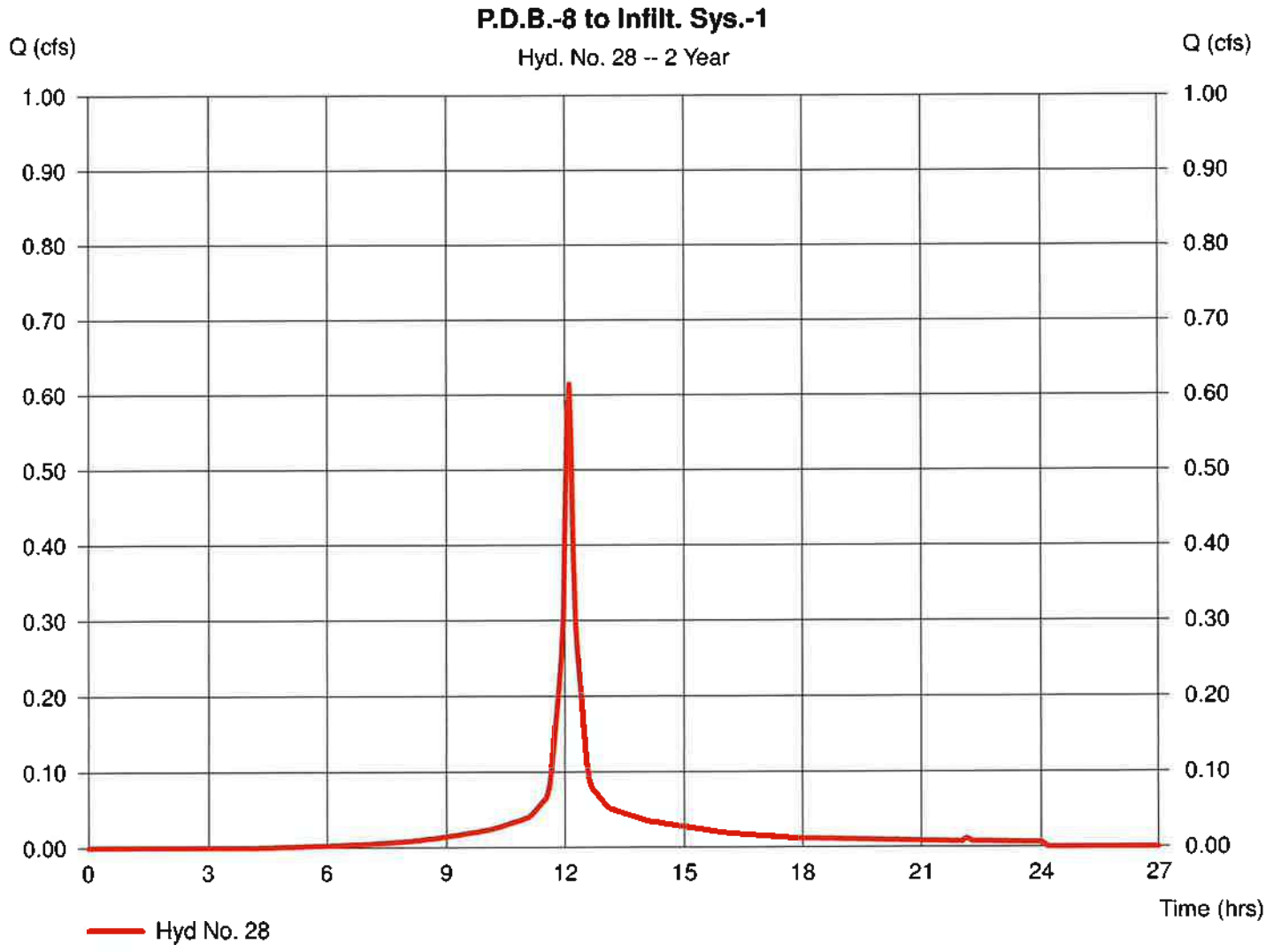


Hydrograph Report

Hyd. No. 28

P.D.B.-8 to Infilt. Sys.-1

Hydrograph type	= SCS Runoff	Peak discharge	= 0.615 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 2,135 cuft
Drainage area	= 0.244 ac	Curve number	= 93.3
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.30 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

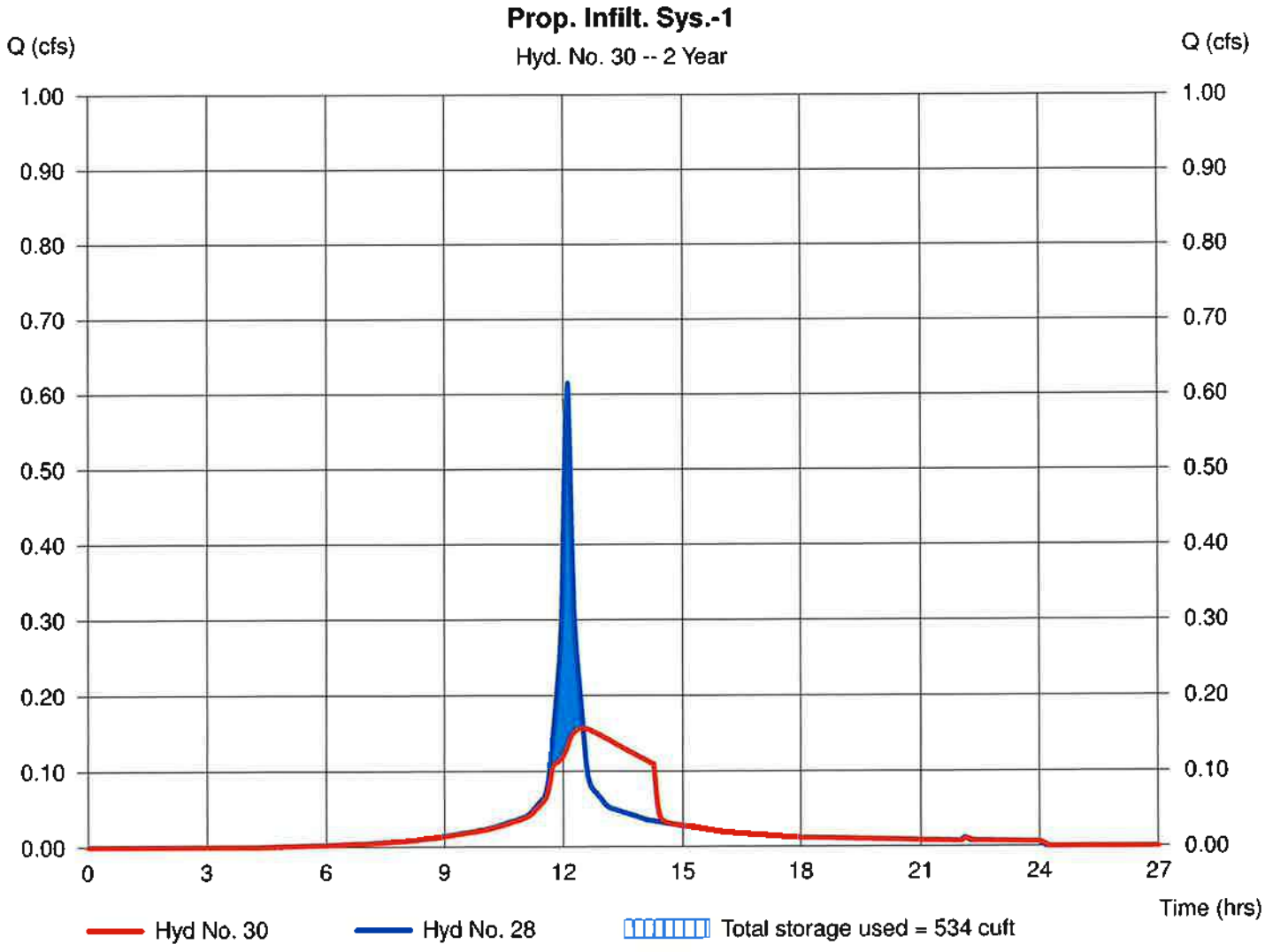
Hydraflow Hydrographs by Intelisolve v9.22 — Sunday, Nov 23, 2025

Hyd. No. 30

Prop. Infilt. Sys.-1

Hydrograph type	= Reservoir	Peak discharge	= 0.158 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.50 hrs
Time interval	= 3 min	Hyd. volume	= 2,135 cuft
Inflow hyd. No.	= 28 - P.D.B.-8 to Infilt. Sys.-1	Max. Elevation	= 149.68 ft
Reservoir name	= Prop. Infilt. Sys-1	Max. Storage	= 534 cuft

Storage Indication method used. Outflow includes exfiltration.



Pond Report

Pond No. 6 - Prop. Infilt. Sys-1

Pond Data

UG Chambers - Invert elev. = 148.50 ft, Rise x Span = 4.00 x 4.00 ft, Barrel Len = 4.00 ft, No. Barrels = 28, Slope = 0.00%, Headers = No
Encasement - Invert elev. = 148.50 ft, Width = 5.00 ft, Height = 5.50 ft, Voids = 6.00%

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	148.50	n/a	0	0
0.55	149.05	n/a	250	250
1.10	149.60	n/a	250	500
1.65	150.15	n/a	250	750
2.20	150.70	n/a	250	1,001
2.75	151.25	n/a	250	1,251
3.30	151.80	n/a	250	1,501
3.85	152.35	n/a	250	1,751
4.40	152.90	n/a	82	1,833
4.95	153.45	n/a	18	1,851
5.50	154.00	n/a	18	1,870

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 0.00	0.00	0.00	0.00
Span (in)	= 0.00	0.00	0.00	0.00
No. Barrels	= 0	0	0	0
Invert El. (ft)	= 0.00	0.00	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 8.00	0.00	0.00	0.00
Crest El. (ft)	= 153.75	0.00	0.00	0.00
Weir Coeff.	= 2.60	3.33	3.33	3.33
Weir Type	= Broad	---	---	---
Multi-Stage	= No	No	No	No

Exfil.(in/hr) = 8.270 (by Wet area)
TW Elev. (ft) = 0.00

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

Stage / Storage / Discharge Table

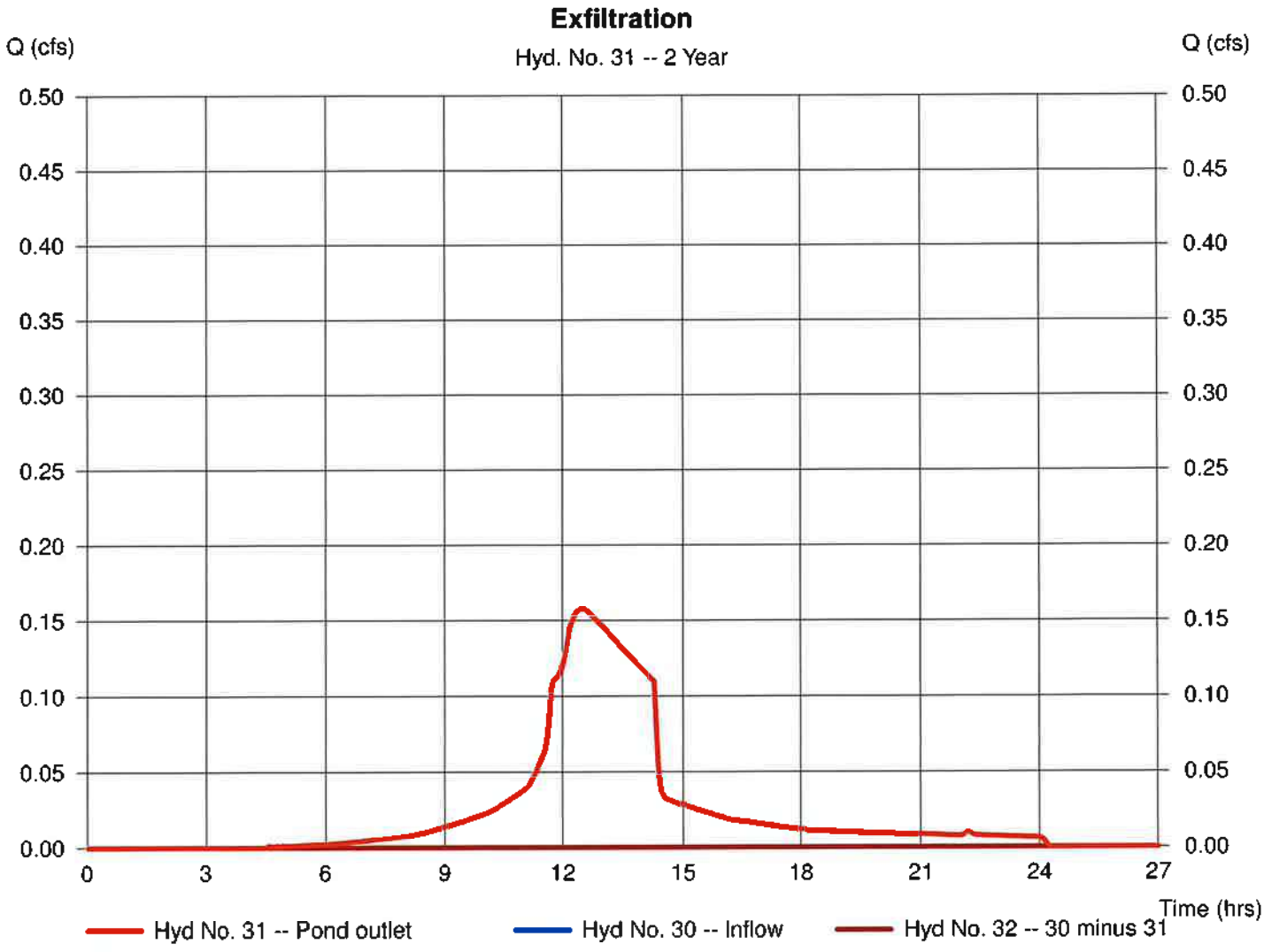
Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	148.50	---	---	---	---	0.00	---	---	---	0.000	---	0.000
0.55	250	149.05	---	---	---	---	0.00	---	---	---	0.131	---	0.131
1.10	500	149.60	---	---	---	---	0.00	---	---	---	0.154	---	0.154
1.65	750	150.15	---	---	---	---	0.00	---	---	---	0.178	---	0.178
2.20	1,001	150.70	---	---	---	---	0.00	---	---	---	0.202	---	0.202
2.75	1,251	151.25	---	---	---	---	0.00	---	---	---	0.225	---	0.225
3.30	1,501	151.80	---	---	---	---	0.00	---	---	---	0.249	---	0.249
3.85	1,751	152.35	---	---	---	---	0.00	---	---	---	0.272	---	0.272
4.40	1,833	152.90	---	---	---	---	0.00	---	---	---	0.296	---	0.296
4.95	1,851	153.45	---	---	---	---	0.00	---	---	---	0.319	---	0.319
5.50	1,870	154.00	---	---	---	---	2.60	---	---	---	0.343	---	2.943

Hydrograph Report

Hyd. No. 31

Exfiltration

Hydrograph type	=	Diversion1	Peak discharge	=	0.158 cfs
Storm frequency	=	2 yrs	Time to peak	=	12.50 hrs
Time interval	=	3 min	Hyd. volume	=	2,135 cuft
Inflow hydrograph	=	30 - Prop. Infilt. Sys.-1	2nd diverted hyd.	=	32
Diversion method	=	Pond - Prop. Infilt. Sys-1	Pond structure	=	Exfiltration

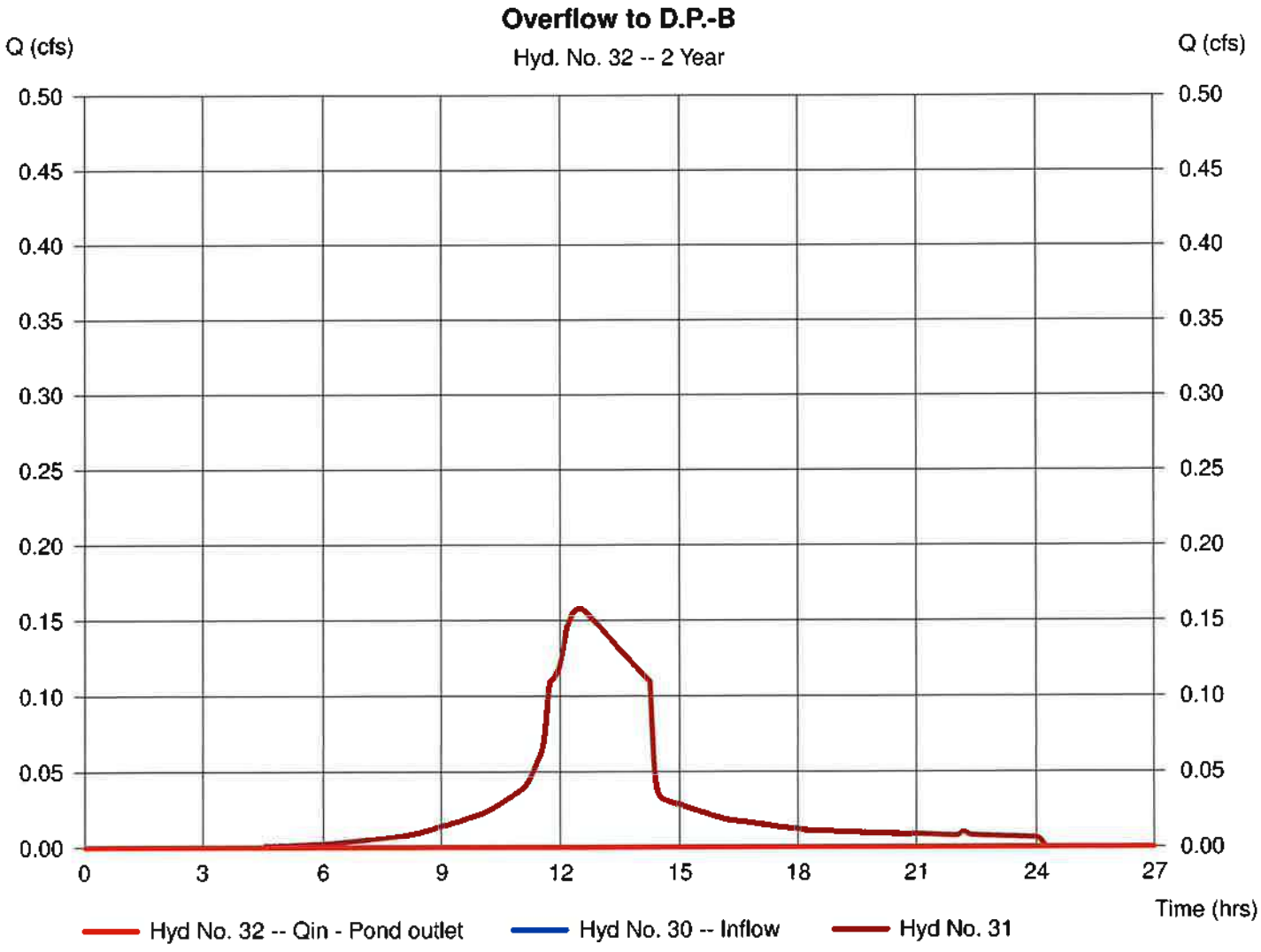


Hydrograph Report

Hyd. No. 32

Overflow to D.P.-B

Hydrograph type	= Diversion2	Peak discharge	= 0.000 cfs
Storm frequency	= 2 yrs	Time to peak	= 22.40 hrs
Time interval	= 3 min	Hyd. volume	= 0 cuft
Inflow hydrograph	= 30 - Prop. Infilt. Sys.-1	2nd diverted hyd.	= 31
Diversion method	= Pond - Prop. Infilt. Sys-1	Pond structure	= Exfiltration



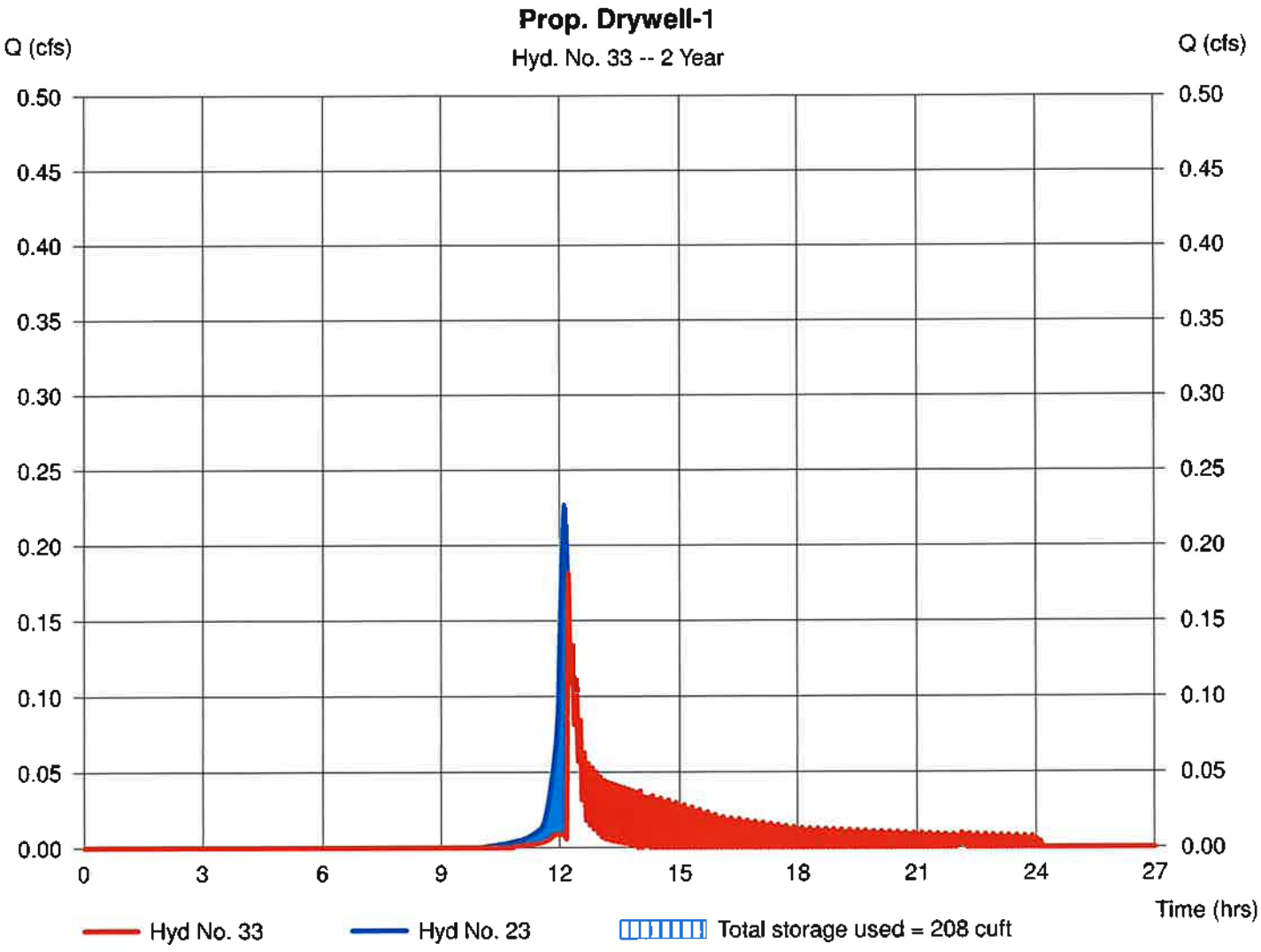
Hydrograph Report

Hyd. No. 33

Prop. Drywell-1

Hydrograph type	= Reservoir	Peak discharge	= 0.182 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.20 hrs
Time interval	= 3 min	Hyd. volume	= 561 cuft
Inflow hyd. No.	= 23 - P.D.B.-3 to Prop. Drywell-1	Max. Elevation	= 154.50 ft
Reservoir name	= Prop. Drywell-1	Max. Storage	= 208 cuft

Storage Indication method used. Outflow includes exfiltration.



Pond Report

Pond No. 7 - Prop. Drywell-1

Pond Data

Contours - User-defined contour areas. Average end area method used for volume calculation. Begining Elevation = 149.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	149.00	46	0	0
1.00	150.00	46	46	46
2.00	151.00	46	46	92
3.00	152.00	46	46	138
4.00	153.00	46	46	184
5.00	154.00	01	24	208
5.50	154.50	01	1	208

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 0.00	0.00	0.00	0.00
Span (in)	= 0.00	0.00	0.00	0.00
No. Barrels	= 0	0	0	0
Invert El. (ft)	= 0.00	0.00	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 8.00	0.00	0.00	0.00
Crest El. (ft)	= 154.20	0.00	0.00	0.00
Weir Coeff.	= 2.60	3.33	3.33	3.33
Weir Type	= Broad	---	---	---
Multi-Stage	= No	No	No	No

Exfil.(in/hr) = 8.270 (by Contour)

TW Elev. (ft) = 0.00

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

Stage / Storage / Discharge Table

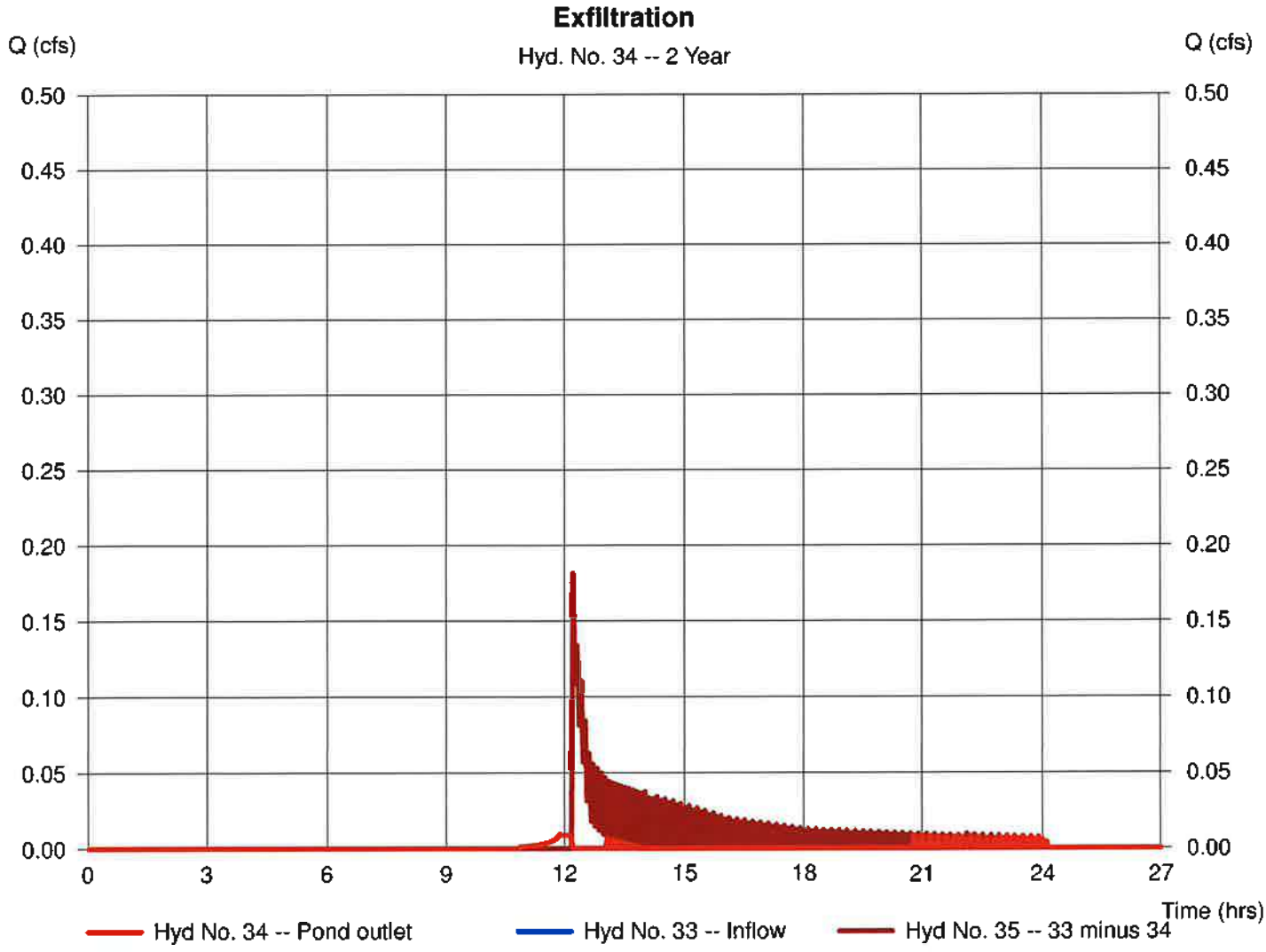
Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	149.00	---	---	---	---	0.00	---	---	---	0.000	---	0.000
1.00	46	150.00	---	---	---	---	0.00	---	---	---	0.009	---	0.009
2.00	92	151.00	---	---	---	---	0.00	---	---	---	0.009	---	0.009
3.00	138	152.00	---	---	---	---	0.00	---	---	---	0.009	---	0.009
4.00	184	153.00	---	---	---	---	0.00	---	---	---	0.009	---	0.009
5.00	208	154.00	---	---	---	---	0.00	---	---	---	0.000	---	0.000
5.50	208	154.50	---	---	---	---	3.42	---	---	---	0.000	---	3.418

Hydrograph Report

Hyd. No. 34

Exfiltration

Hydrograph type	= Diversion1	Peak discharge	= 0.009 cfs
Storm frequency	= 2 yrs	Time to peak	= 11.85 hrs
Time interval	= 3 min	Hyd. volume	= 66 cuft
Inflow hydrograph	= 33 - Prop. Drywell-1	2nd diverted hyd.	= 35
Diversion method	= Pond - Prop. Drywell-1	Pond structure	= Exfiltration

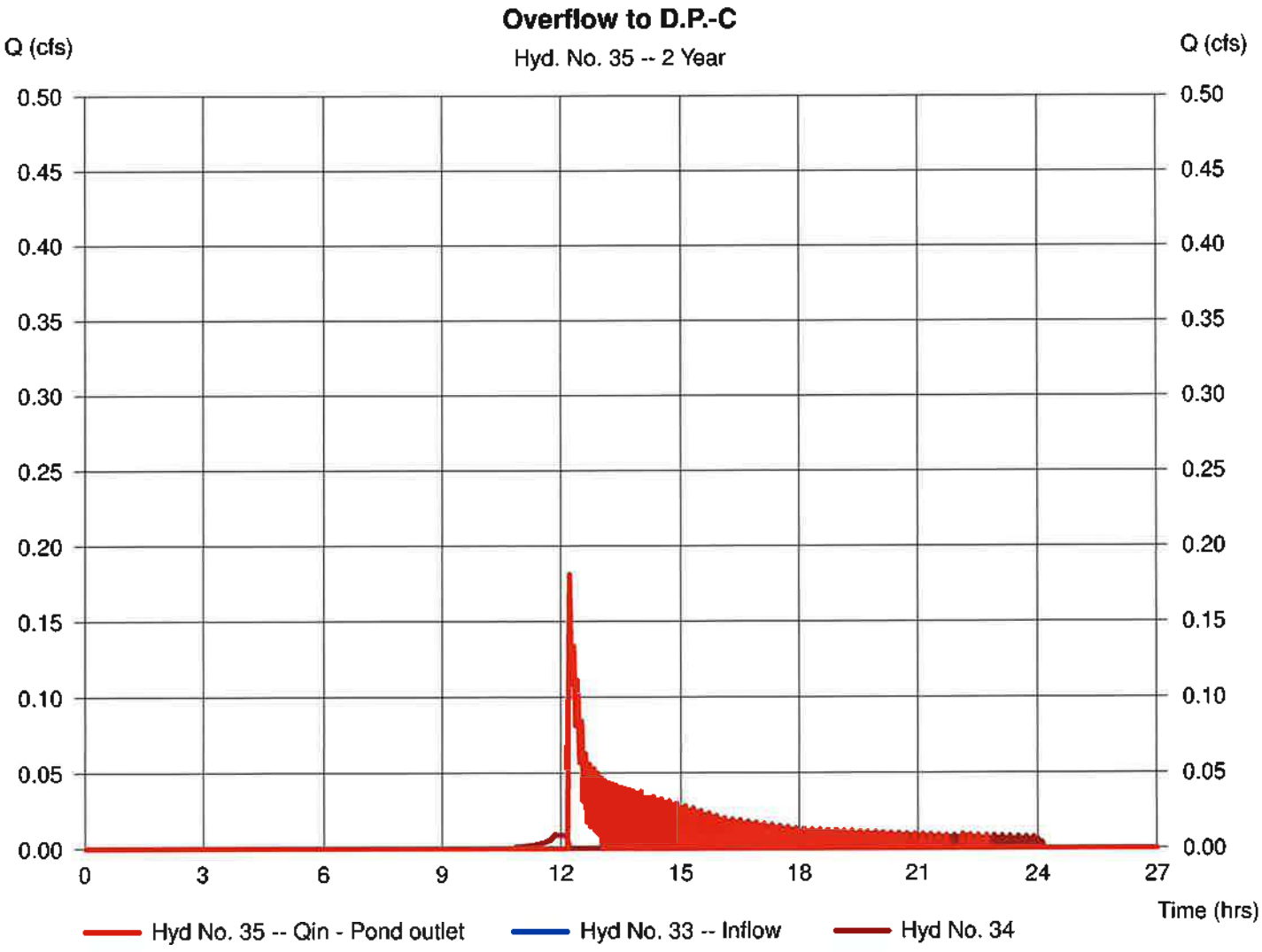


Hydrograph Report

Hyd. No. 35

Overflow to D.P.-C

Hydrograph type	= Diversion2	Peak discharge	= 0.182 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.20 hrs
Time interval	= 3 min	Hyd. volume	= 495 cuft
Inflow hydrograph	= 33 - Prop. Drywell-1	2nd diverted hyd.	= 34
Diversion method	= Pond - Prop. Drywell-1	Pond structure	= Exfiltration



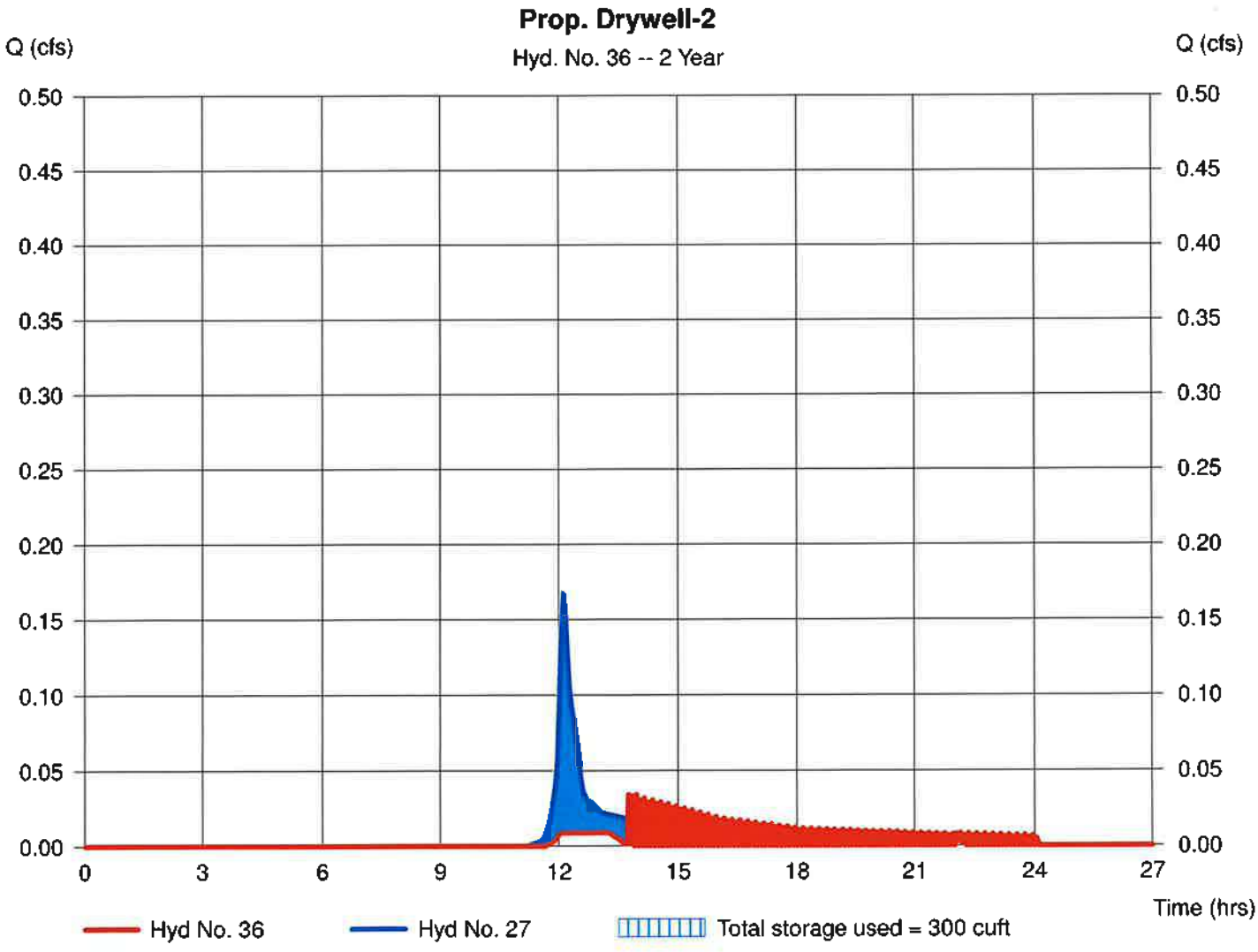
Hydrograph Report

Hyd. No. 36

Prop. Drywell-2

Hydrograph type	= Reservoir	Peak discharge	= 0.034 cfs
Storm frequency	= 2 yrs	Time to peak	= 13.75 hrs
Time interval	= 3 min	Hyd. volume	= 311 cuft
Inflow hyd. No.	= 27 - P.D.B.-7 to Prop. Drywell-2	Max. Elevation	= 154.23 ft
Reservoir name	= Prop. Drywell-2	Max. Storage	= 300 cuft

Storage Indication method used. Outflow includes exfiltration.



Pond Report

Pond No. 8 - Prop. Drywell-2

Pond Data

Contours - User-defined contour areas. Average end area method used for volume calculation. Begining Elevation = 146.25 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	146.25	46	0	0
1.00	147.25	46	46	46
2.00	148.25	46	46	92
3.00	149.25	46	46	138
4.00	150.25	46	46	184
5.00	151.25	46	46	230
6.00	152.25	46	46	276
7.00	153.25	01	24	300
8.00	154.25	01	1	301

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 0.00	0.00	0.00	0.00
Span (in)	= 0.00	0.00	0.00	0.00
No. Barrels	= 0	0	0	0
Invert El. (ft)	= 0.00	0.00	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 8.00	0.00	0.00	0.00
Crest El. (ft)	= 153.50	0.00	0.00	0.00
Weir Coeff.	= 2.60	3.33	3.33	3.33
Weir Type	= Broad	---	---	---
Multi-Stage	= No	No	No	No

Exfil.(in/hr) = 8.270 (by Contour)

TW Elev. (ft) = 0.00

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

Stage / Storage / Discharge Table

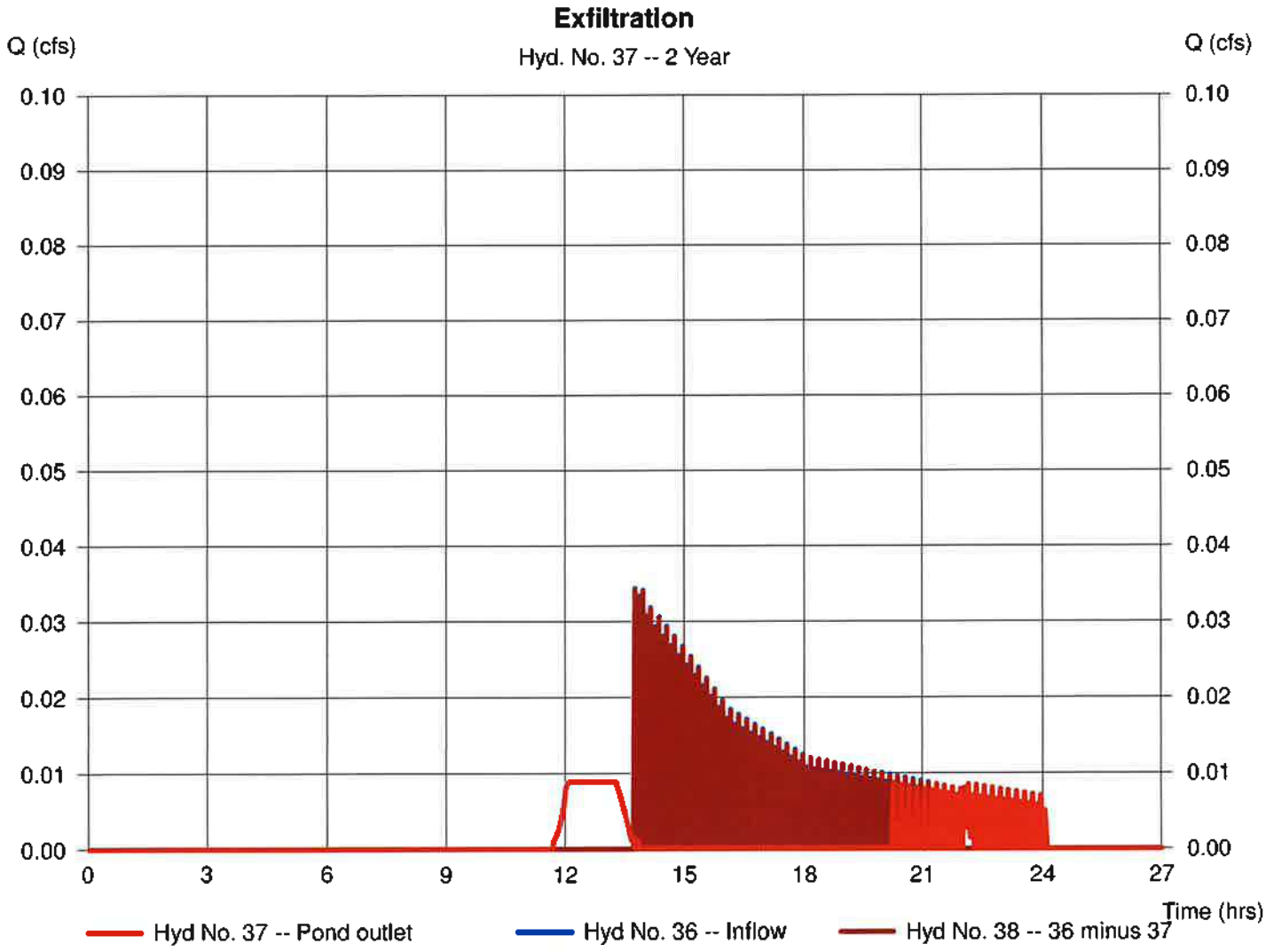
Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	146.25	---	---	---	---	0.00	---	---	---	0.000	---	0.000
1.00	46	147.25	---	---	---	---	0.00	---	---	---	0.009	---	0.009
2.00	92	148.25	---	---	---	---	0.00	---	---	---	0.009	---	0.009
3.00	138	149.25	---	---	---	---	0.00	---	---	---	0.009	---	0.009
4.00	184	150.25	---	---	---	---	0.00	---	---	---	0.009	---	0.009
5.00	230	151.25	---	---	---	---	0.00	---	---	---	0.009	---	0.009
6.00	276	152.25	---	---	---	---	0.00	---	---	---	0.009	---	0.009
7.00	300	153.25	---	---	---	---	0.00	---	---	---	0.000	---	0.000
8.00	301	154.25	---	---	---	---	13.51	---	---	---	0.000	---	13.51

Hydrograph Report

Hyd. No. 37

Exfiltration

Hydrograph type	= Diversion1	Peak discharge	= 0.009 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.05 hrs
Time interval	= 3 min	Hyd. volume	= 101 cuft
Inflow hydrograph	= 36 - Prop. Drywell-2	2nd diverted hyd.	= 38
Diversion method	= Pond - Prop. Drywell-2	Pond structure	= Exfiltration

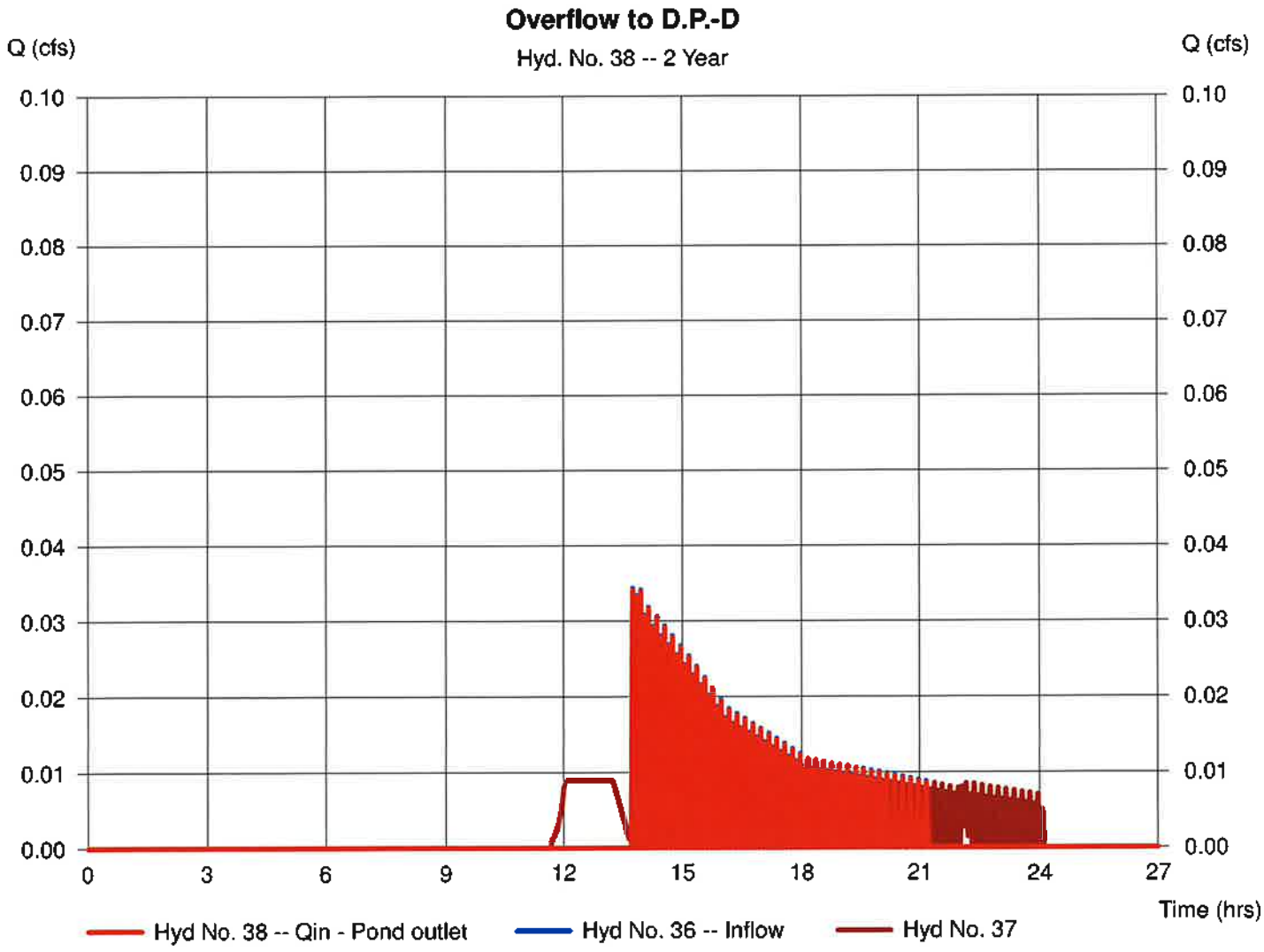


Hydrograph Report

Hyd. No. 38

Overflow to D.P.-D

Hydrograph type	= Diversion2	Peak discharge	= 0.034 cfs
Storm frequency	= 2 yrs	Time to peak	= 13.75 hrs
Time interval	= 3 min	Hyd. volume	= 211 cuft
Inflow hydrograph	= 36 - Prop. Drywell-2	2nd diverted hyd.	= 37
Diversion method	= Pond - Prop. Drywell-2	Pond structure	= Exfiltration

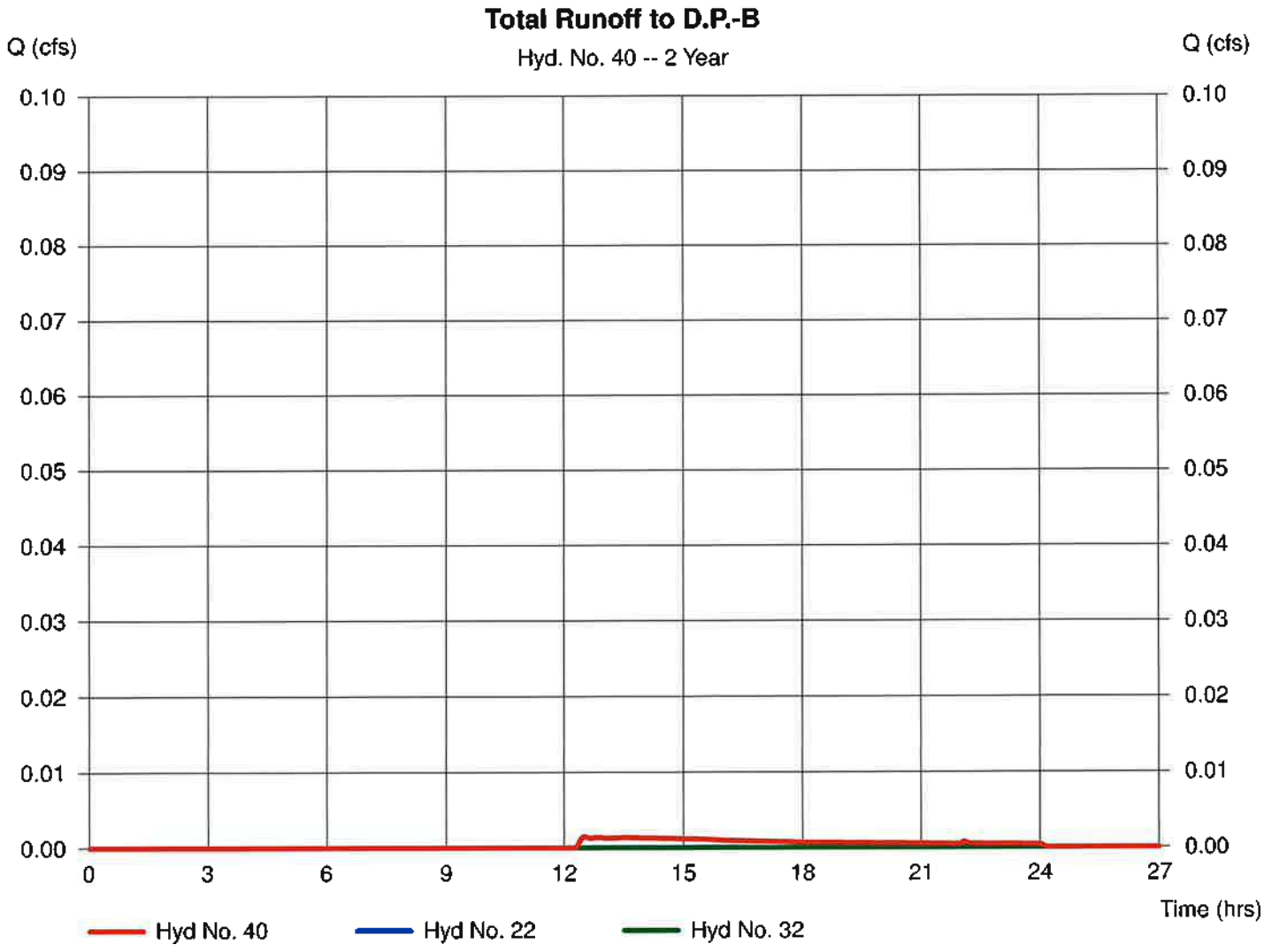


Hydrograph Report

Hyd. No. 40

Total Runoff to D.P.-B

Hydrograph type	= Combine	Peak discharge	= 0.002 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.50 hrs
Time interval	= 3 min	Hyd. volume	= 34 cuft
Inflow hyds.	= 22, 32	Contrib. drain. area	= 0.082 ac

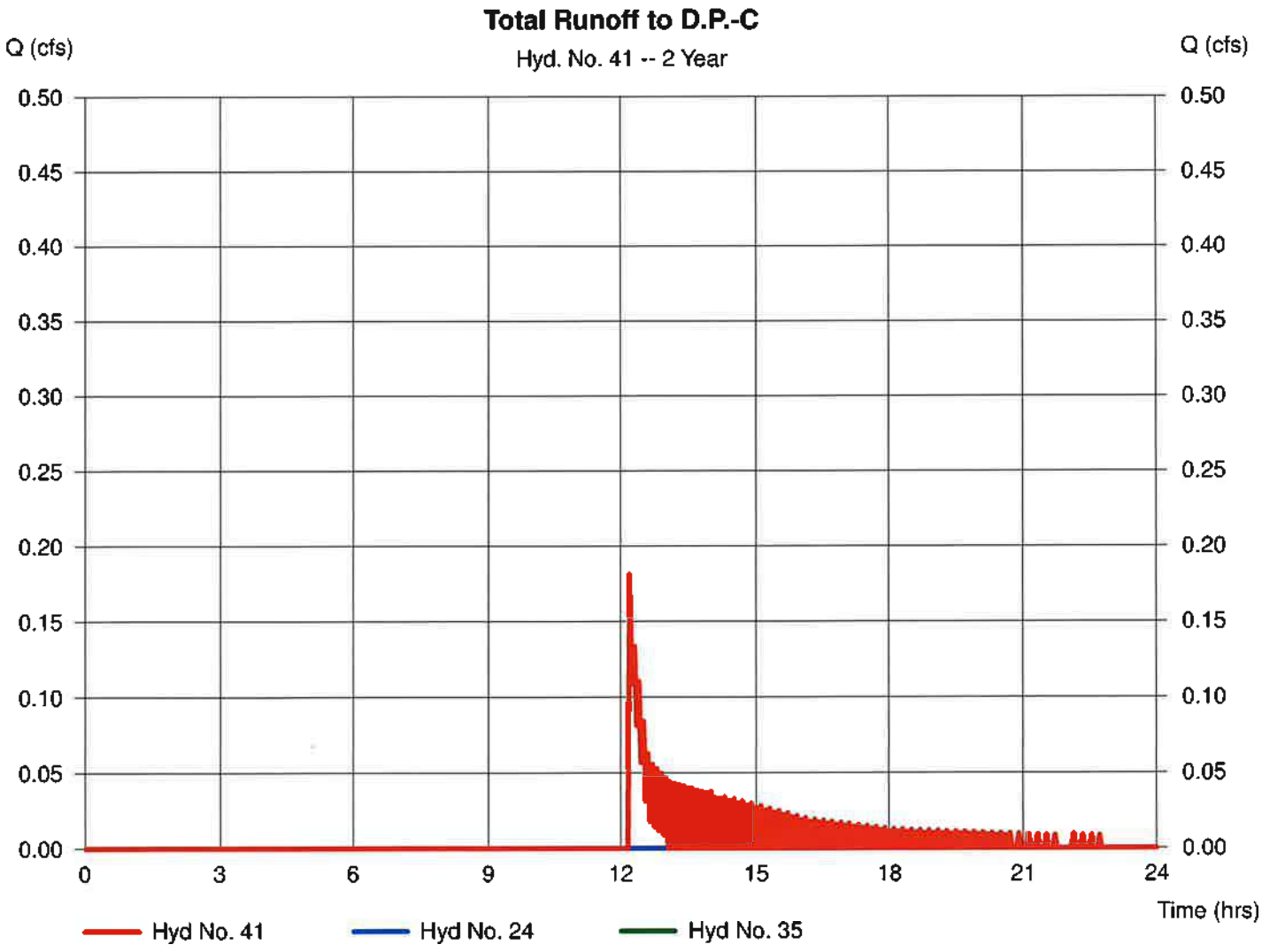


Hydrograph Report

Hyd. No. 41

Total Runoff to D.P.-C

Hydrograph type	= Combine	Peak discharge	= 0.182 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.20 hrs
Time interval	= 3 min	Hyd. volume	= 495 cuft
Inflow hyds.	= 24, 35	Contrib. drain. area	= 0.017 ac

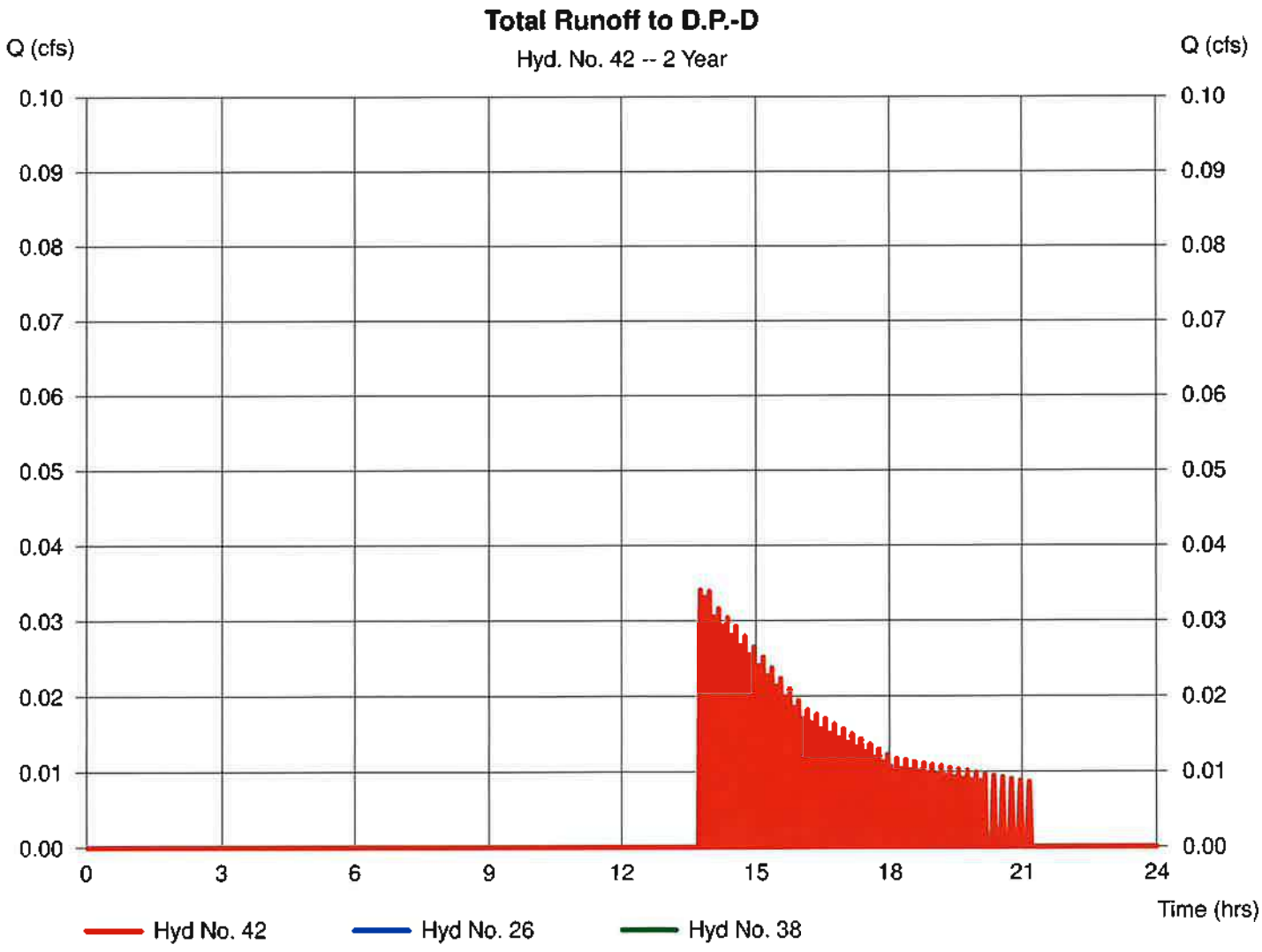


Hydrograph Report

Hyd. No. 42

Total Runoff to D.P.-D

Hydrograph type	= Combine	Peak discharge	= 0.034 cfs
Storm frequency	= 2 yrs	Time to peak	= 13.75 hrs
Time interval	= 3 min	Hyd. volume	= 212 cuft
Inflow hyds.	= 26, 38	Contrib. drain. area	= 0.027 ac

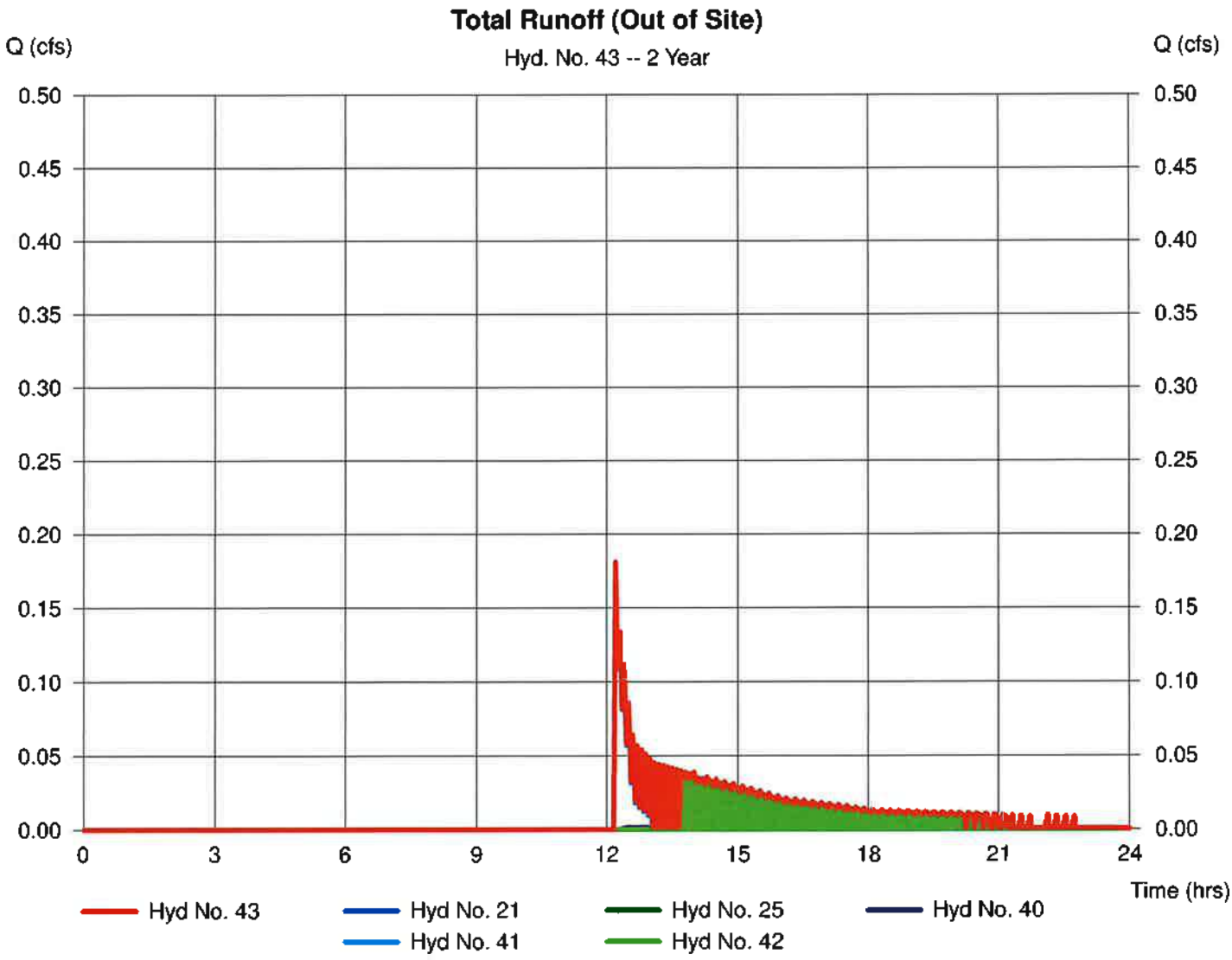


Hydrograph Report

Hyd. No. 43

Total Runoff (Out of Site)

Hydrograph type	= Combine	Peak discharge	= 0.182 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.20 hrs
Time interval	= 3 min	Hyd. volume	= 748 cuft
Inflow hyds.	= 21, 25, 40, 41, 42	Contrib. drain. area	= 0.081 ac



10-Year Storm, Pre- and Post-Development

Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.22

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	0.347	3	726	1,175	----	------	------	E.C.B.-1 to D.P.-A
2	SCS Runoff	0.088	3	729	417	----	------	------	E.C.B.-2 to D.P.-B
3	SCS Runoff	0.328	3	726	1,203	----	------	------	E.C.B.-3 to Drywell-1
4	SCS Runoff	0.797	3	726	2,909	----	------	------	E.C.B.-4 to Drywell-2
5	SCS Runoff	1.050	3	726	3,709	----	------	------	E.C.B.-5 to Drywell-3
6	SCS Runoff	0.227	3	726	768	----	------	------	E.C.B.-6 to D.P.-E
8	Reservoir	0.326	3	726	1,146	3	154.35	56.9	Exist. Drywell-1
9	Diversion1	0.002	3	369	60	8	------	------	Exfiltration
10	Diversion2	0.326	3	726	1,087	8	------	------	Overflow to D.P.-C
11	Reservoir	0.797	3	726	2,853	4	153.96	57.3	Exist. Drywell-2
12	Diversion1	0.002	3	273	62	11	------	------	Exfiltration
13	Diversion2	0.797	3	726	2,791	11	------	------	Overflow to D.P.-C
14	Reservoir	1.058	3	726	3,611	5	154.44	98.0	Exist. Drywell-3
15	Diversion1	0.002	3	456	40	14	------	------	Exfiltration
16	Diversion2	1.058	3	726	3,571	14	------	------	Overflow to D.P.-D
18	Combine	1.123	3	726	3,877	10, 13,	------	------	Total Runoff to D.P.-C
19	Combine	2.841	3	726	9,808	1, 2, 6, 16, 18	------	------	Total Runoff (Out of Site)
21	SCS Runoff	0.005	3	735	43	----	------	------	P.D.B.-1 to D.P.-A
22	SCS Runoff	0.037	3	729	197	----	------	------	P.D.B.-2 to D.P.-B
23	SCS Runoff	0.502	3	726	1,668	----	------	------	P.D.B.-3 to Prop. Drywell-1
24	SCS Runoff	0.001	3	750	15	----	------	------	P.D.B.-4 to D.P.-C
25	SCS Runoff	0.006	3	744	61	----	------	------	P.D.B.-5 to D.P.-E
26	SCS Runoff	0.003	3	744	30	----	------	------	P.D.B.-6 to D.P.-D
27	SCS Runoff	0.445	3	726	1,497	----	------	------	P.D.B.-7 to Prop. Drywell-2
28	SCS Runoff	1.026	3	726	3,676	----	------	------	P.D.B.-8 to Infilt. Sys.-1
30	Reservoir	0.210	3	750	3,676	28	150.90	1,090	Prop. Infilt. Sys.-1
31	Diversion1	0.210	3	750	3,676	30	------	------	Exfiltration
32	Diversion2	0.000	3	1326	0	30	------	------	Overflow to D.P.-B
33	Reservoir	0.580	3	723	1,460	23	154.32	208	Prop. Drywell-1
34	Diversion1	0.009	3	660	65	33	------	------	Exfiltration
35	Diversion2	0.580	3	723	1,395	33	------	------	Overflow to D.P.-C
36	Reservoir	0.480	3	729	1,197	27	154.25	300	Prop. Drywell-2

Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.22

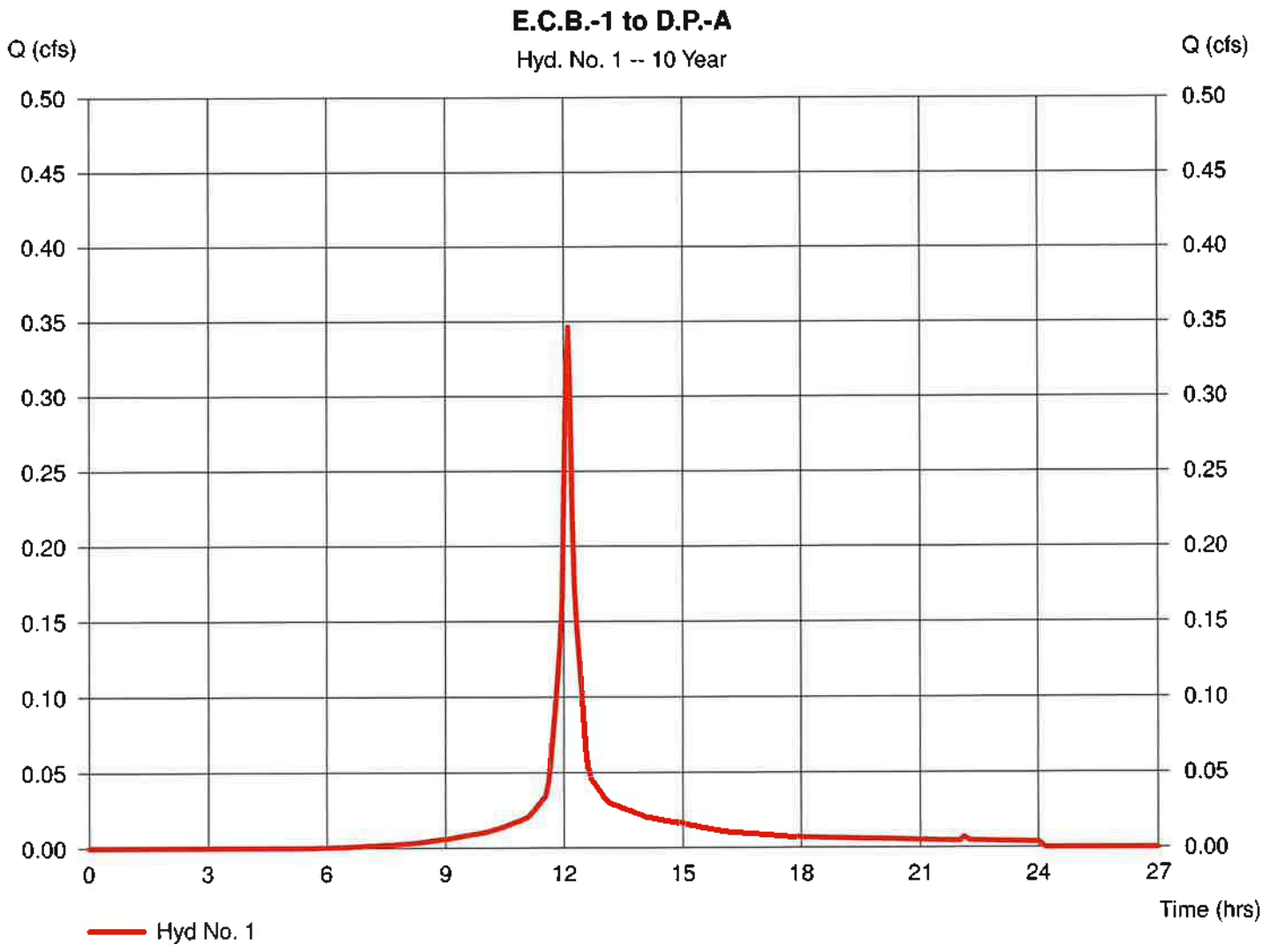
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description
37	Diversion1	0.009	3	693	42	36	------	------	Exfiltration
38	Diversion2	0.480	3	729	1,156	36	------	------	Overflow to D.P.-D
40	Combine	0.037	3	729	197	22, 32,	------	------	Total Runoff to D.P.-B
41	Combine	0.580	3	723	1,410	24, 35,	------	------	Total Runoff to D.P.-C
42	Combine	0.481	3	729	1,186	26, 38,	------	------	Total Runoff to D.P.-D
43	Combine	1.089	3	729	2,897	21, 25, 40, 41, 42	------	------	Total Runoff (Out of Site)

Hydrograph Report

Hyd. No. 1

E.C.B.-1 to D.P.-A

Hydrograph type	= SCS Runoff	Peak discharge	= 0.347 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 1,175 cuft
Drainage area	= 0.095 ac	Curve number	= 85.8
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 5.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

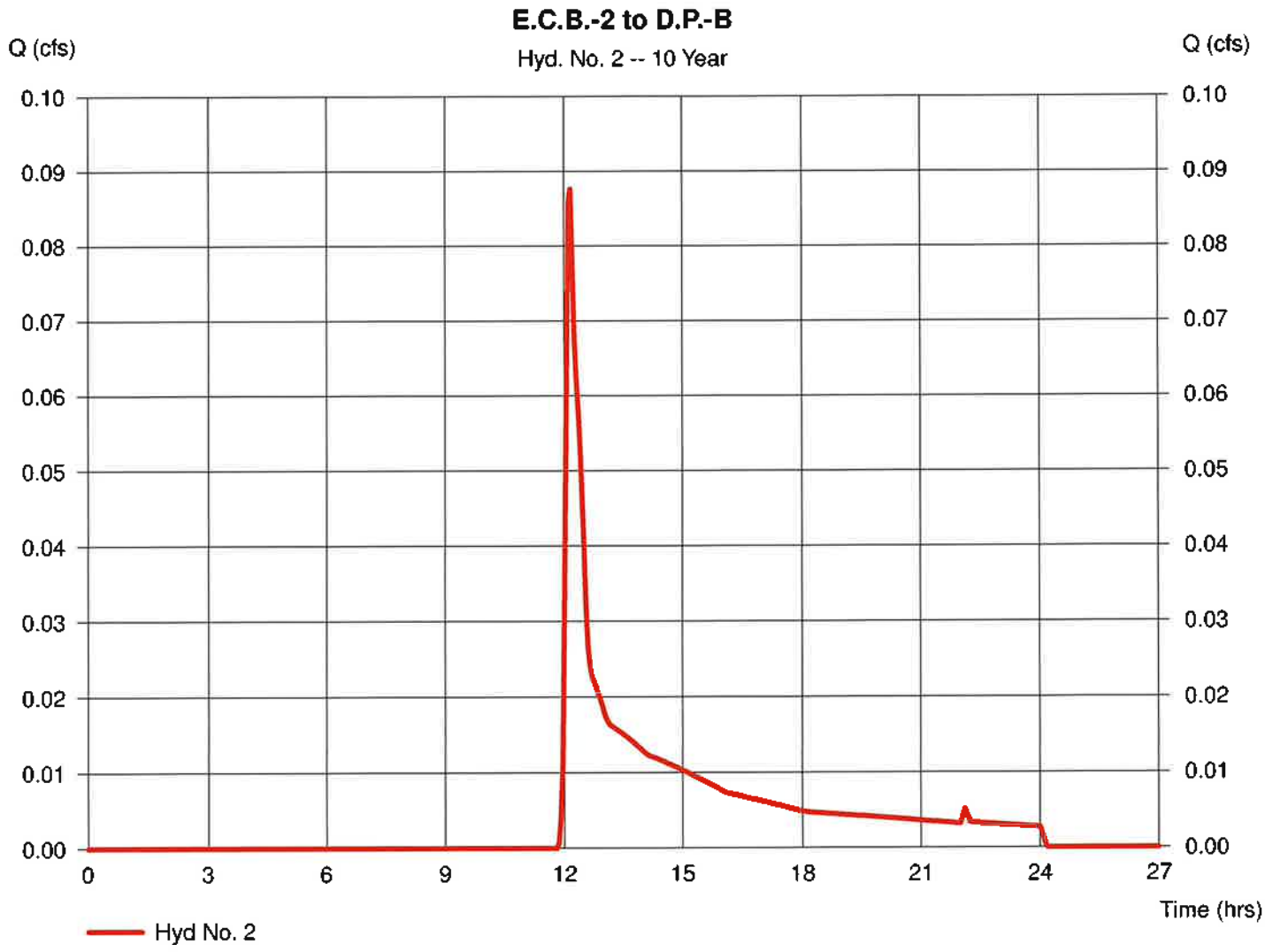


Hydrograph Report

Hyd. No. 2

E.C.B.-2 to D.P.-B

Hydrograph type	= SCS Runoff	Peak discharge	= 0.088 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.15 hrs
Time interval	= 3 min	Hyd. volume	= 417 cuft
Drainage area	= 0.148 ac	Curve number	= 50.9
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 5.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

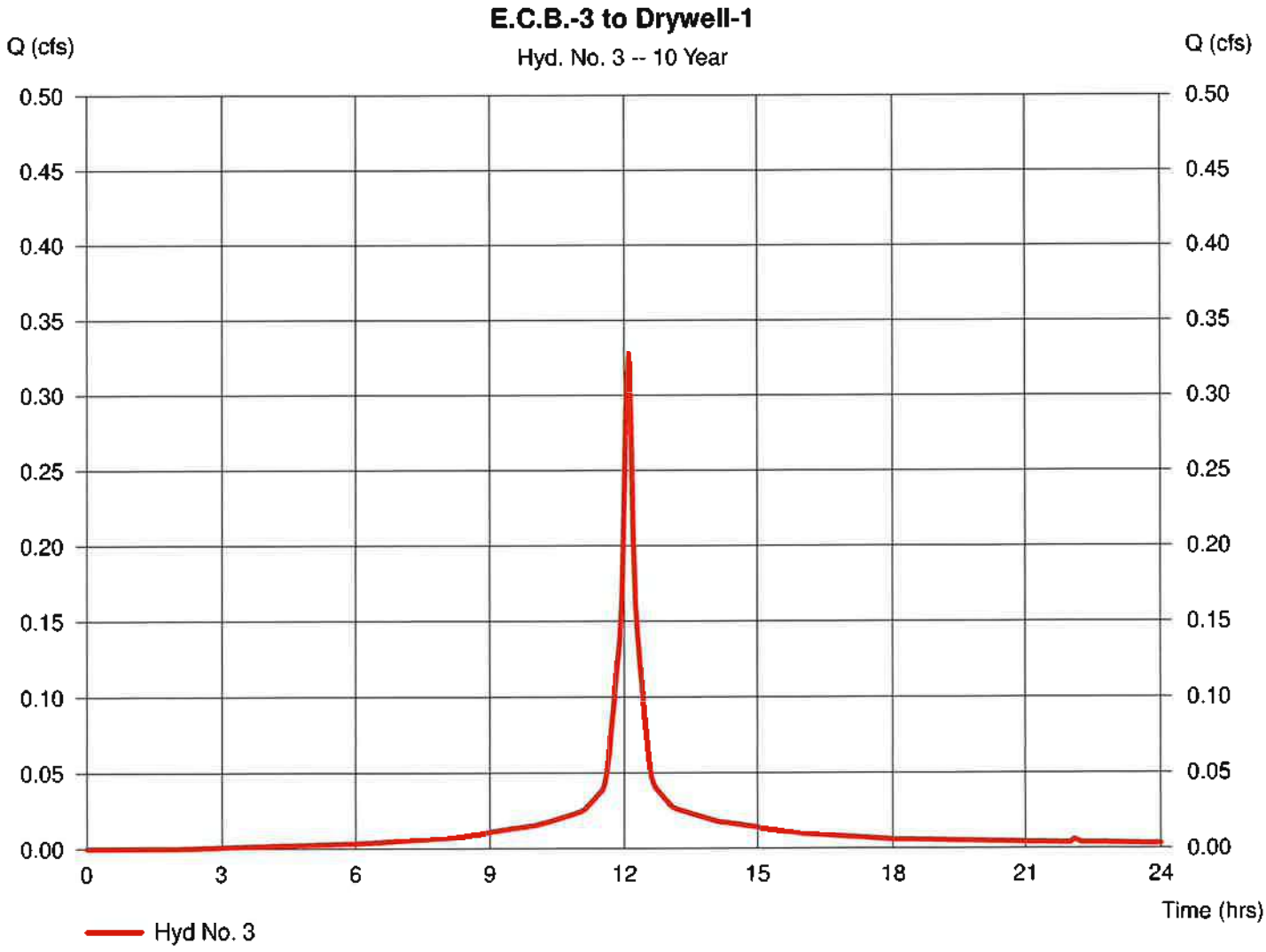


Hydrograph Report

Hyd. No. 3

E.C.B.-3 to Drywell-1

Hydrograph type	= SCS Runoff	Peak discharge	= 0.328 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 1,203 cuft
Drainage area	= 0.076 ac	Curve number	= 95.3
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 5.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

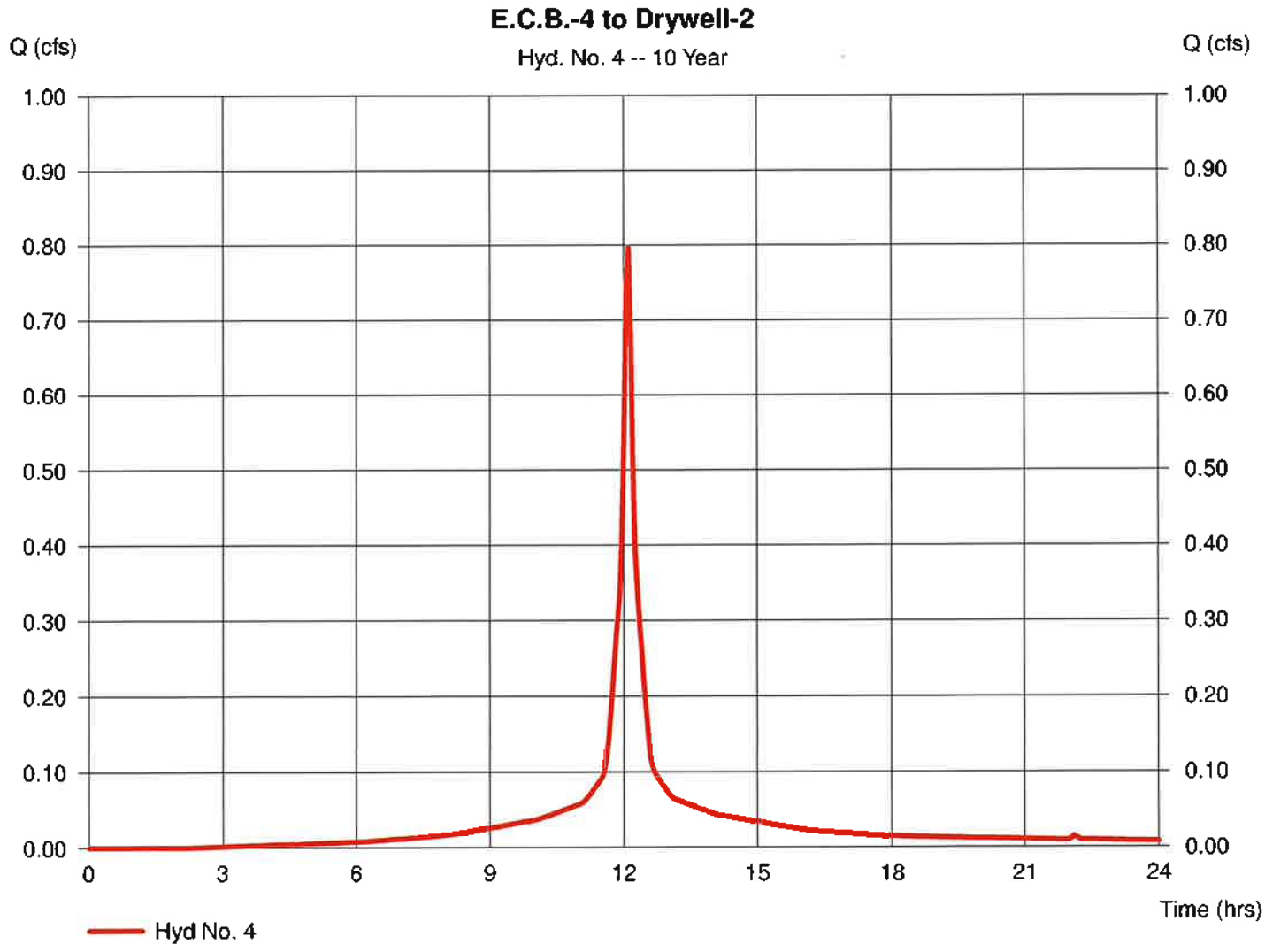


Hydrograph Report

Hyd. No. 4

E.C.B.-4 to Drywell-2

Hydrograph type	= SCS Runoff	Peak discharge	= 0.797 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 2,909 cuft
Drainage area	= 0.186 ac	Curve number	= 94.8
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 5.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

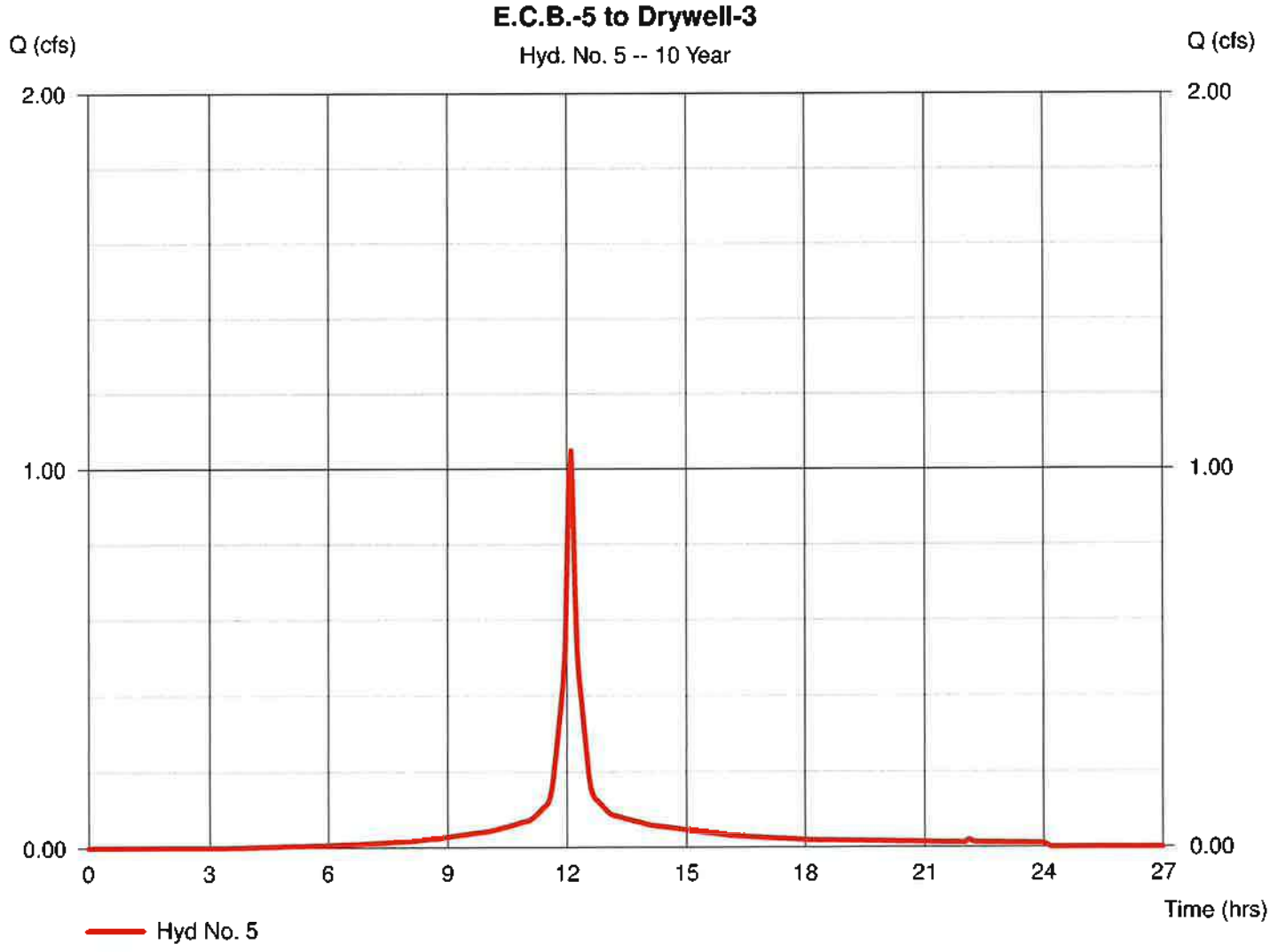


Hydrograph Report

Hyd. No. 5

E.C.B.-5 to Drywell-3

Hydrograph type	= SCS Runoff	Peak discharge	= 1.050 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 3,709 cuft
Drainage area	= 0.255 ac	Curve number	= 91.9
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 5.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

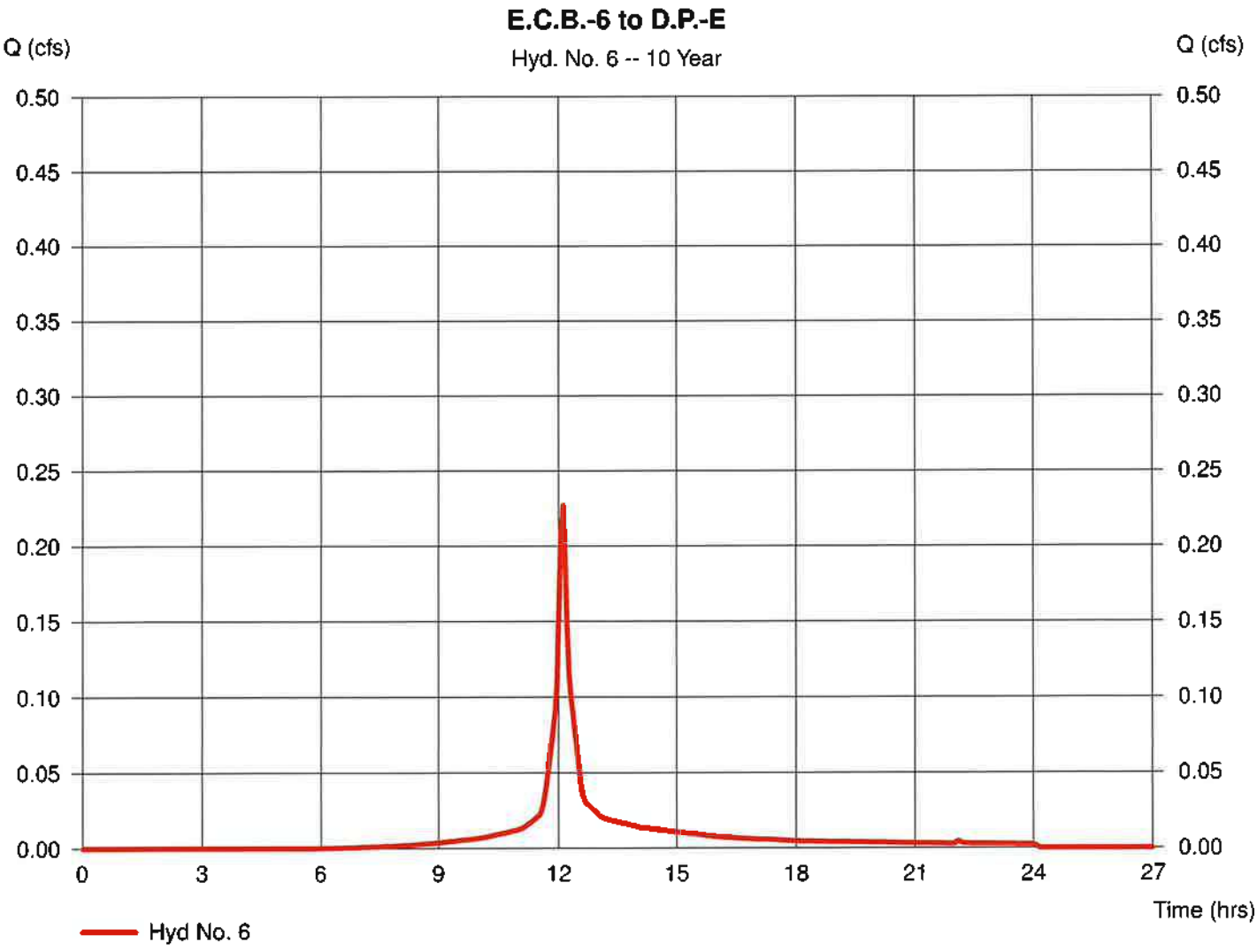


Hydrograph Report

Hyd. No. 6

E.C.B.-6 to D.P.-E

Hydrograph type	= SCS Runoff	Peak discharge	= 0.227 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 768 cuft
Drainage area	= 0.063 ac	Curve number	= 85.3
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 5.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

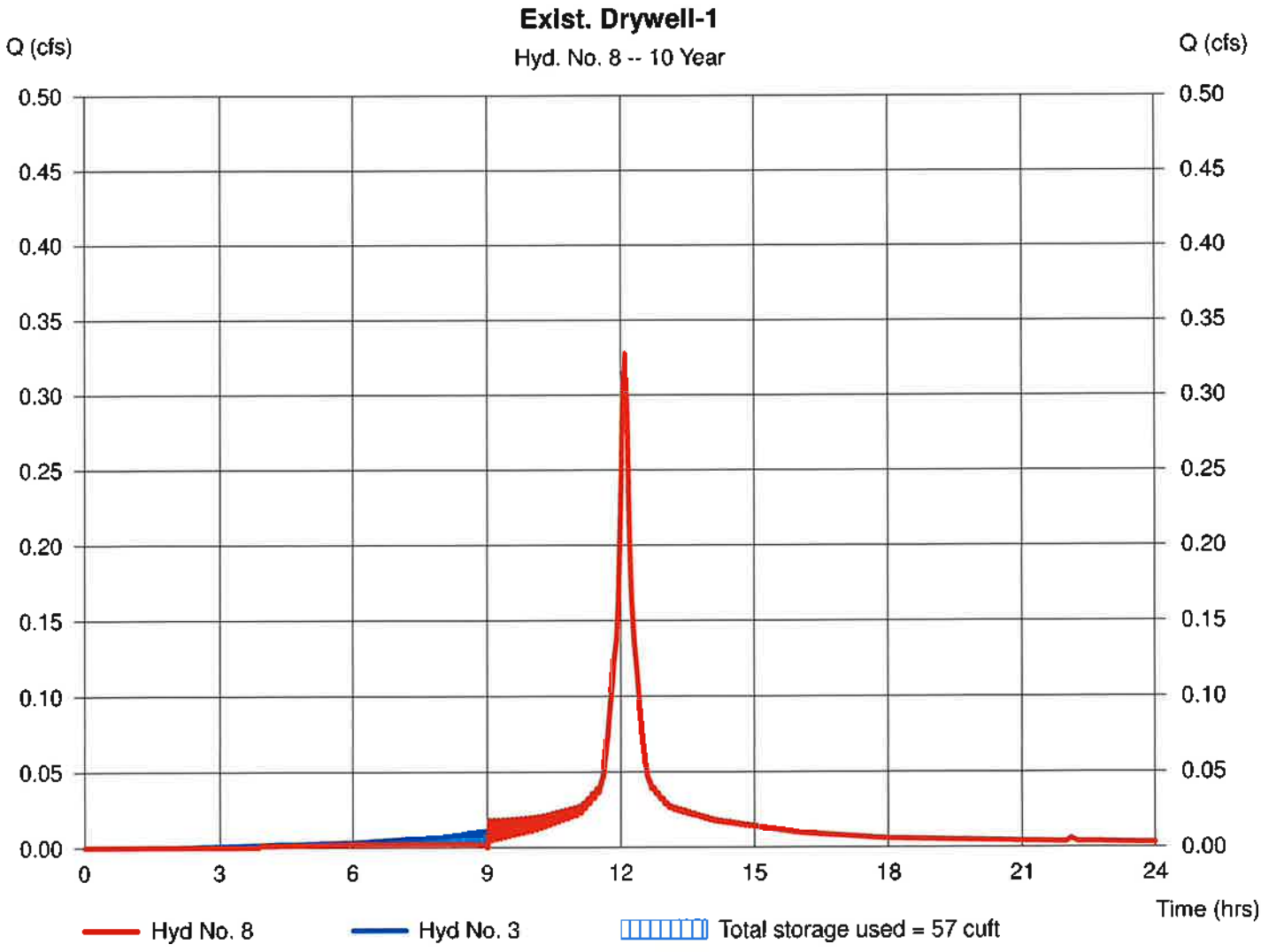
Hydraflow Hydrographs by Intelisolve v9.22 — Sunday, Nov 23, 2025

Hyd. No. 8

Exist. Drywell-1

Hydrograph type	= Reservoir	Peak discharge	= 0.326 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 1,146 cuft
Inflow hyd. No.	= 3 - E.C.B.-3 to Drywell-1	Max. Elevation	= 154.35 ft
Reservoir name	= Exist. Drywell-1	Max. Storage	= 57 cuft

Storage Indication method used. Outflow includes exfiltration.

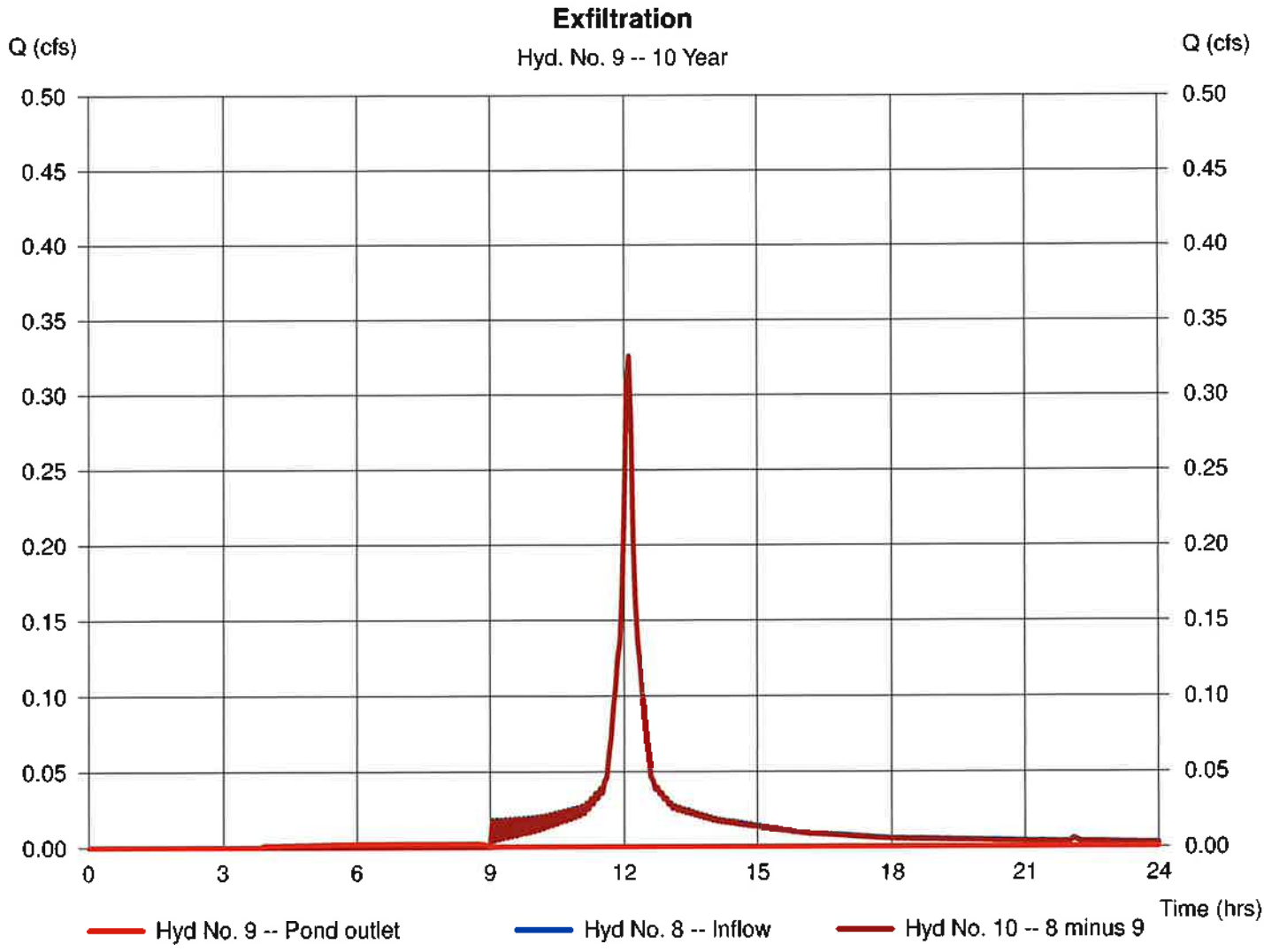


Hydrograph Report

Hyd. No. 9

Exfiltration

Hydrograph type	= Diversion1	Peak discharge	= 0.002 cfs
Storm frequency	= 10 yrs	Time to peak	= 6.15 hrs
Time interval	= 3 min	Hyd. volume	= 60 cuft
Inflow hydrograph	= 8 - Exist. Drywell-1	2nd diverted hyd.	= 10
Diversion method	= Pond - Exist. Drywell-1	Pond structure	= Exfiltration

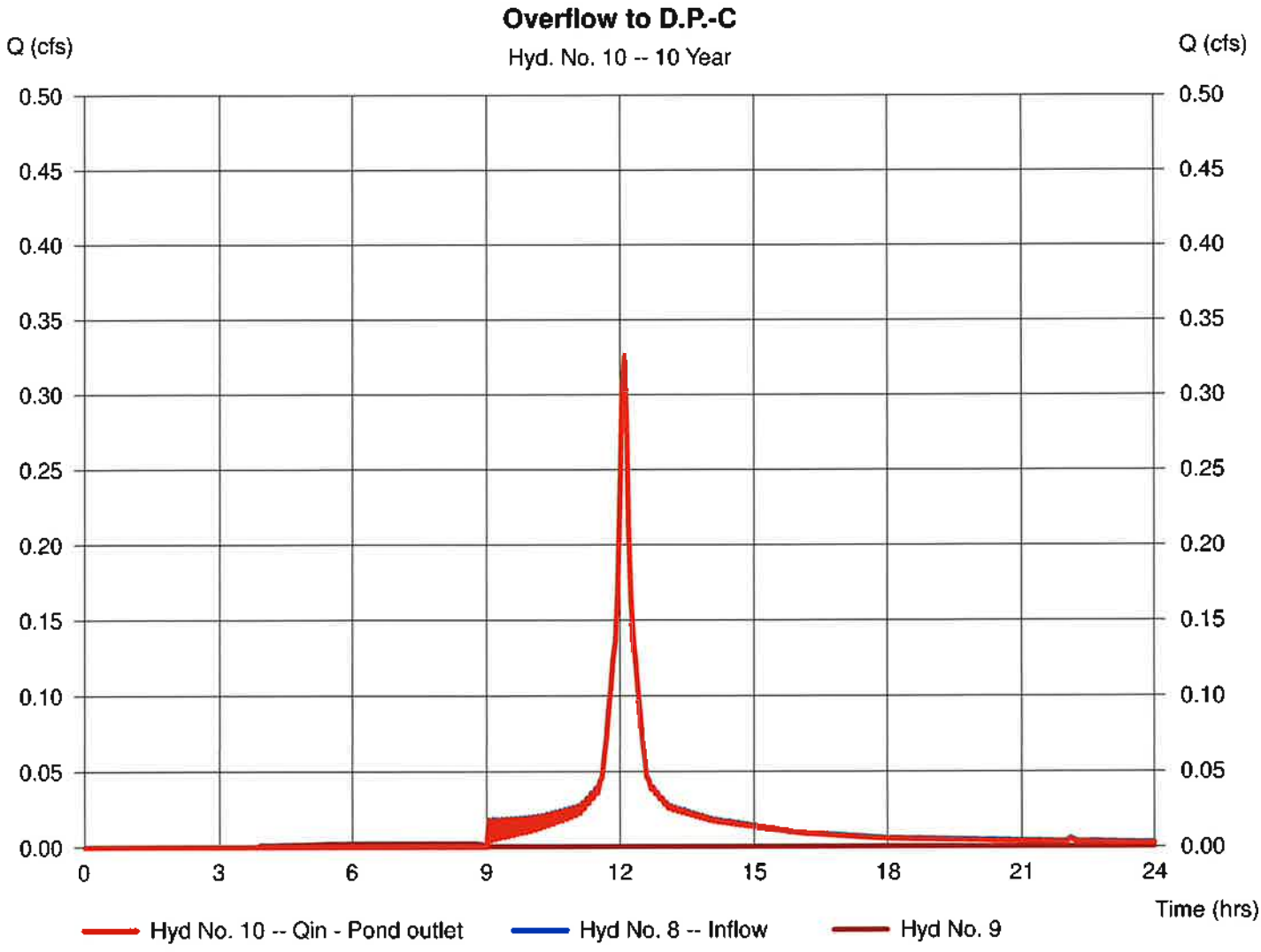


Hydrograph Report

Hyd. No. 10

Overflow to D.P.-C

Hydrograph type	= Diversion2	Peak discharge	= 0.326 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 1,087 cuft
Inflow hydrograph	= 8 - Exist. Drywell-1	2nd diverted hyd.	= 9
Diversion method	= Pond - Exist. Drywell-1	Pond structure	= Exfiltration



Hydrograph Report

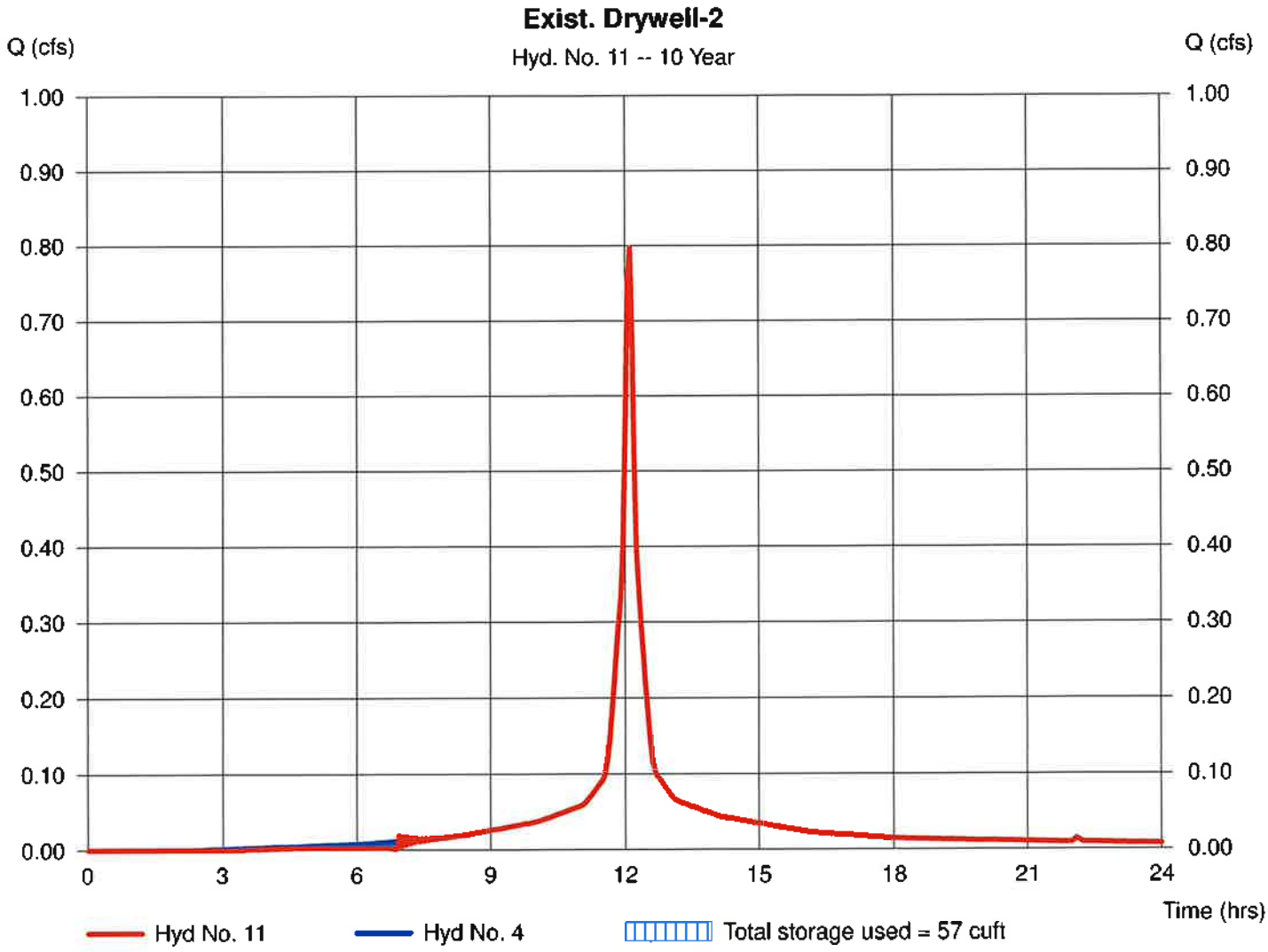
Hydraflow Hydrographs by Intelisolve v9.22 — Sunday, Nov 23, 2025

Hyd. No. 11

Exist. Drywell-2

Hydrograph type	= Reservoir	Peak discharge	= 0.797 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 2,853 cuft
Inflow hyd. No.	= 4 - E.C.B.-4 to Drywell-2	Max. Elevation	= 153.96 ft
Reservoir name	= Exist. Drywell-2	Max. Storage	= 57 cuft

Storage Indication method used. Outflow includes exfiltration.

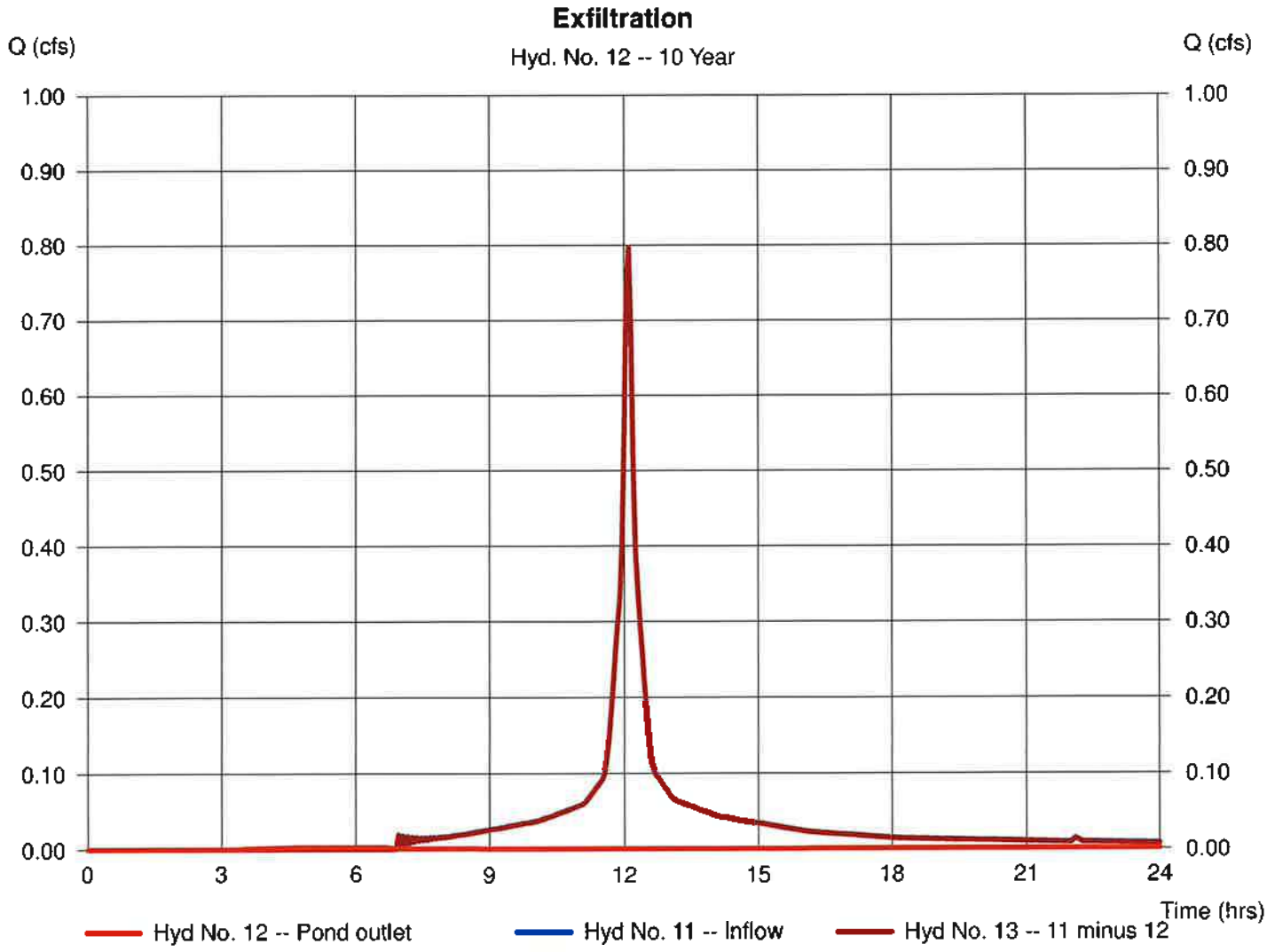


Hydrograph Report

Hyd. No. 12

Exfiltration

Hydrograph type	= Diversion1	Peak discharge	= 0.002 cfs
Storm frequency	= 10 yrs	Time to peak	= 4.55 hrs
Time interval	= 3 min	Hyd. volume	= 62 cuft
Inflow hydrograph	= 11 - Exist. Drywell-2	2nd diverted hyd.	= 13
Diversion method	= Pond - Exist. Drywell-2	Pond structure	= Exfiltration

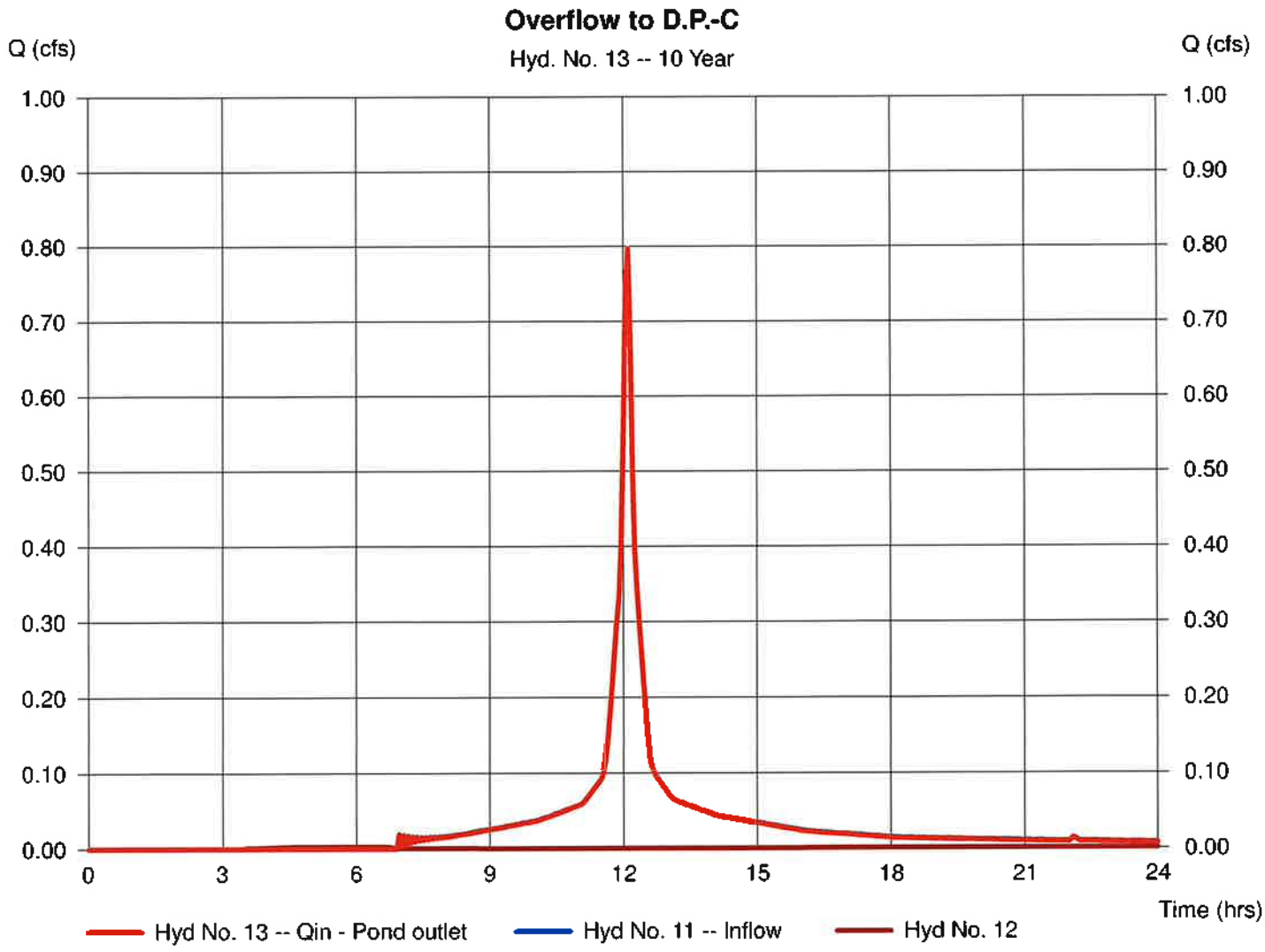


Hydrograph Report

Hyd. No. 13

Overflow to D.P.-C

Hydrograph type	= Diversion2	Peak discharge	= 0.797 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 2,791 cuft
Inflow hydrograph	= 11 - Exist. Drywell-2	2nd diverted hyd.	= 12
Diversion method	= Pond - Exist. Drywell-2	Pond structure	= Exfiltration



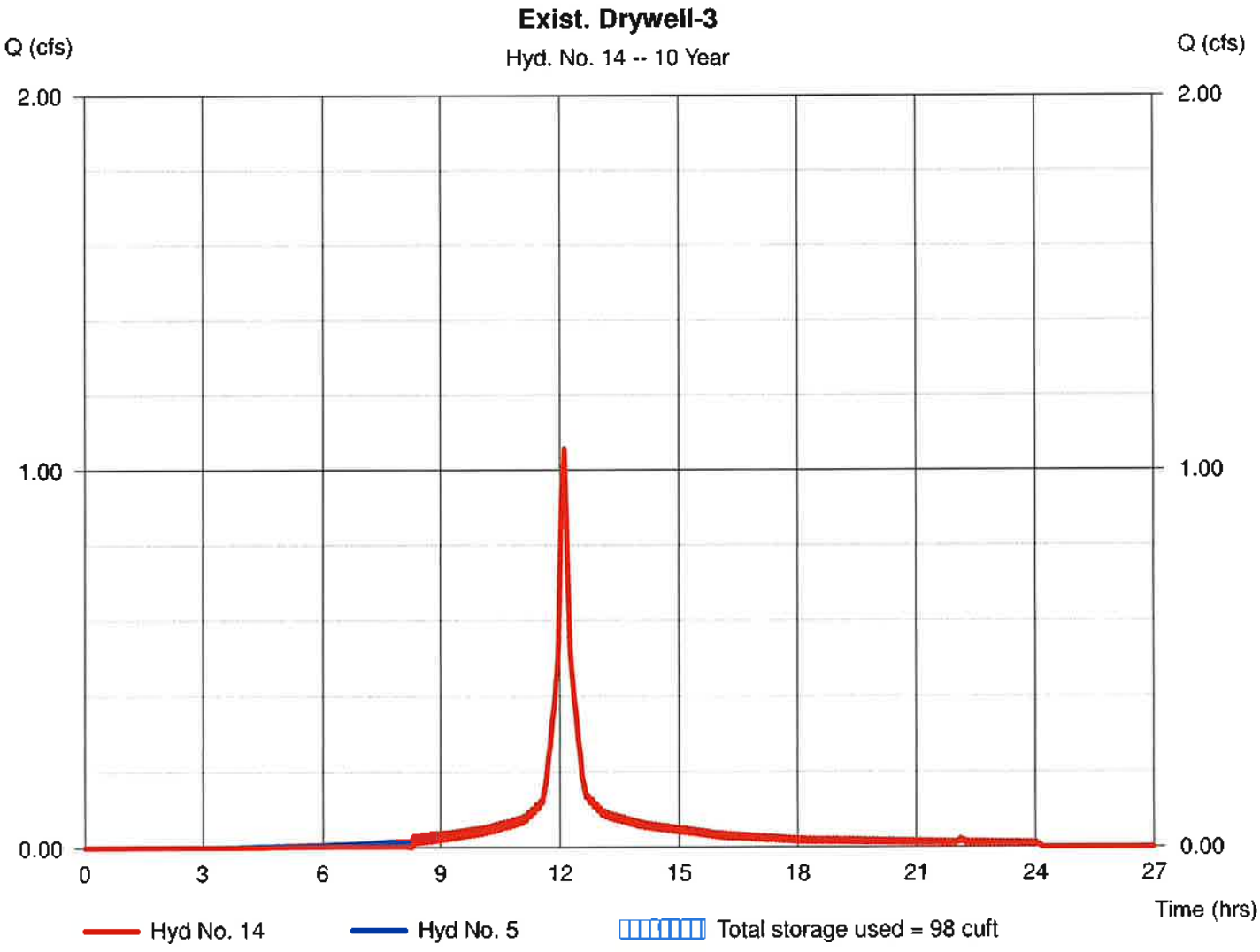
Hydrograph Report

Hyd. No. 14

Exist. Drywell-3

Hydrograph type	=	Reservoir	Peak discharge	=	1.058 cfs
Storm frequency	=	10 yrs	Time to peak	=	12.10 hrs
Time interval	=	3 min	Hyd. volume	=	3,611 cuft
Inflow hyd. No.	=	5 - E.C.B.-5 to Drywell-3	Max. Elevation	=	154.44 ft
Reservoir name	=	Exist. Drywell-3	Max. Storage	=	98 cuft

Storage Indication method used. Outflow includes exfiltration.



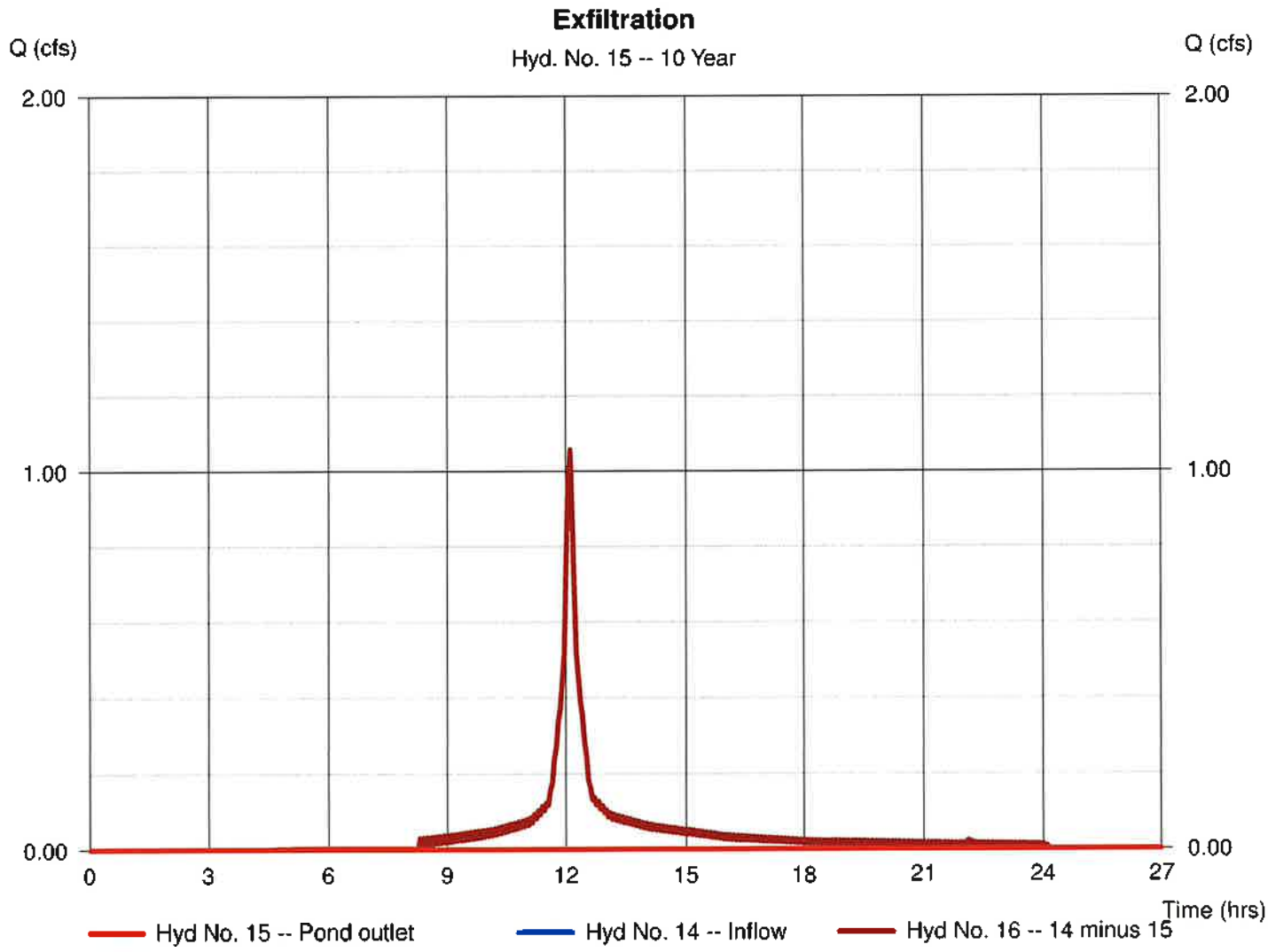
Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.22 — Sunday, Nov 23, 2025

Hyd. No. 15

Exfiltration

Hydrograph type	= Diversion1	Peak discharge	= 0.002 cfs
Storm frequency	= 10 yrs	Time to peak	= 7.60 hrs
Time interval	= 3 min	Hyd. volume	= 40 cuft
Inflow hydrograph	= 14 - Exist. Drywell-3	2nd diverted hyd.	= 16
Diversion method	= Pond - Exist. Drywell-3	Pond structure	= Exfiltration

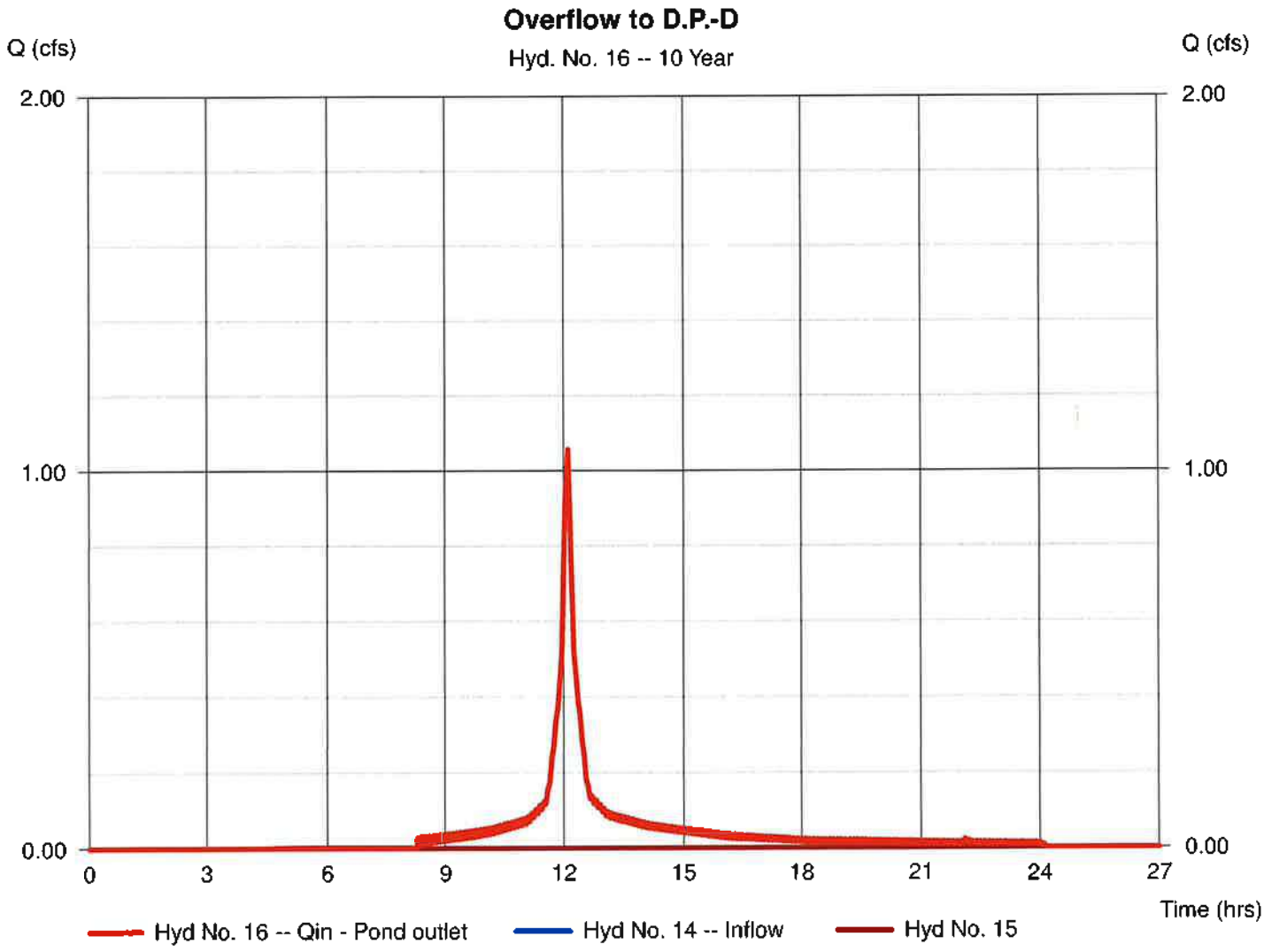


Hydrograph Report

Hyd. No. 16

Overflow to D.P.-D

Hydrograph type	=	Diversion2	Peak discharge	=	1.058 cfs
Storm frequency	=	10 yrs	Time to peak	=	12.10 hrs
Time interval	=	3 min	Hyd. volume	=	3,571 cuft
Inflow hydrograph	=	14 - Exist. Drywell-3	2nd diverted hyd.	=	15
Diversion method	=	Pond - Exist. Drywell-3	Pond structure	=	Exfiltration

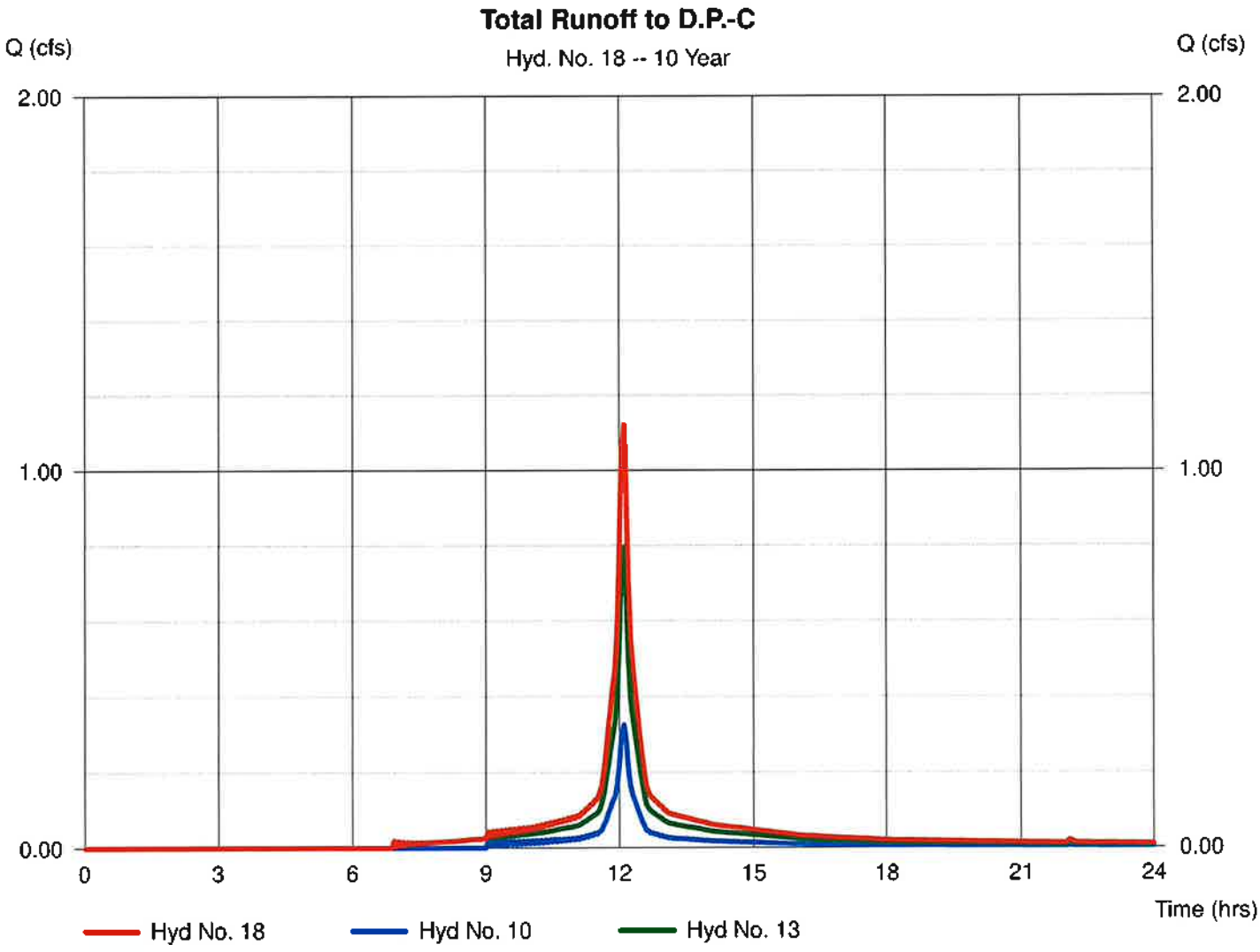


Hydrograph Report

Hyd. No. 18

Total Runoff to D.P.-C

Hydrograph type	= Combine	Peak discharge	= 1.123 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 3,877 cuft
Inflow hyds.	= 10, 13	Contrib. drain. area	= 0.000 ac

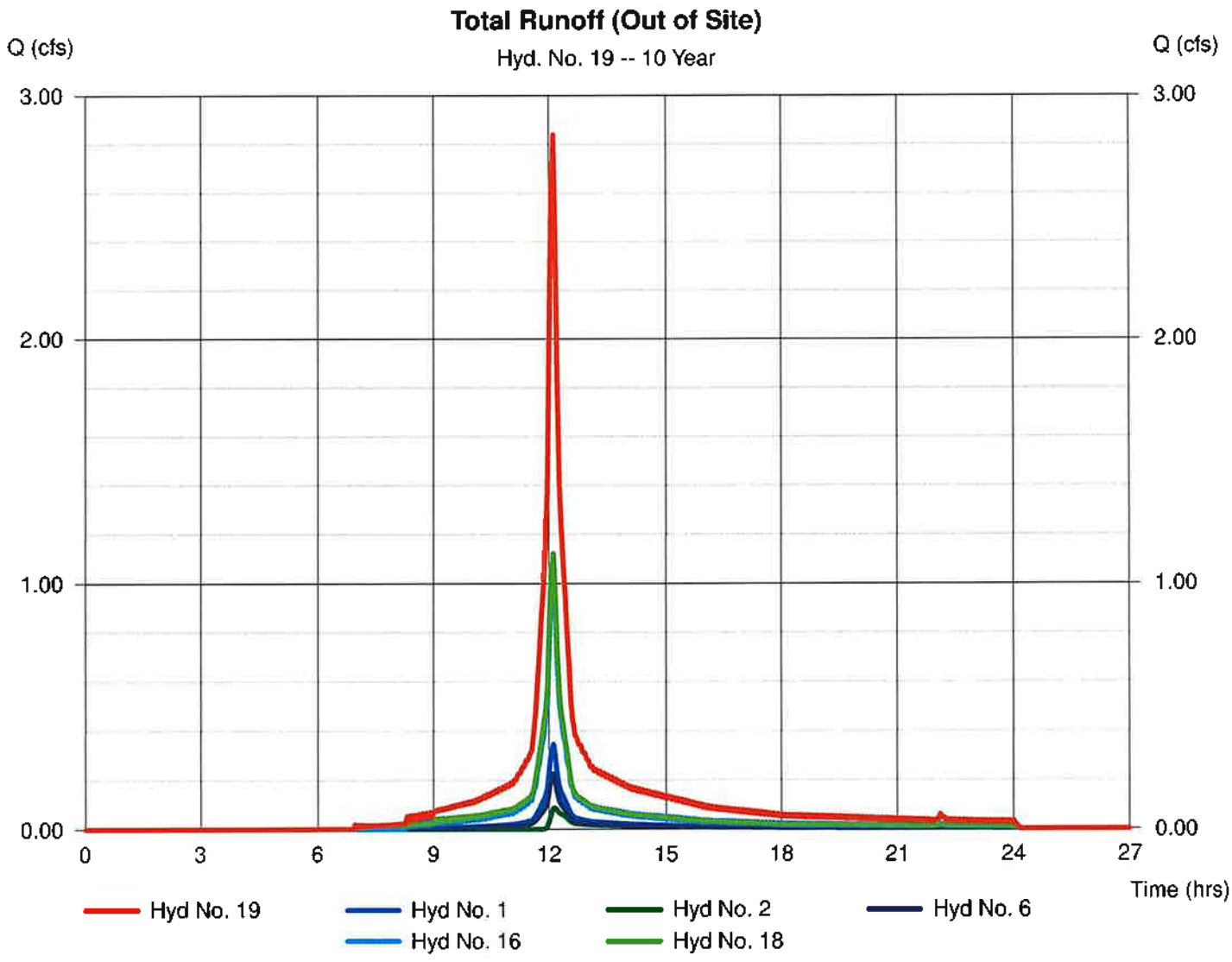


Hydrograph Report

Hyd. No. 19

Total Runoff (Out of Site)

Hydrograph type	= Combine	Peak discharge	= 2.841 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 9,808 cuft
Inflow hyds.	= 1, 2, 6, 16, 18	Contrib. drain. area	= 0.306 ac

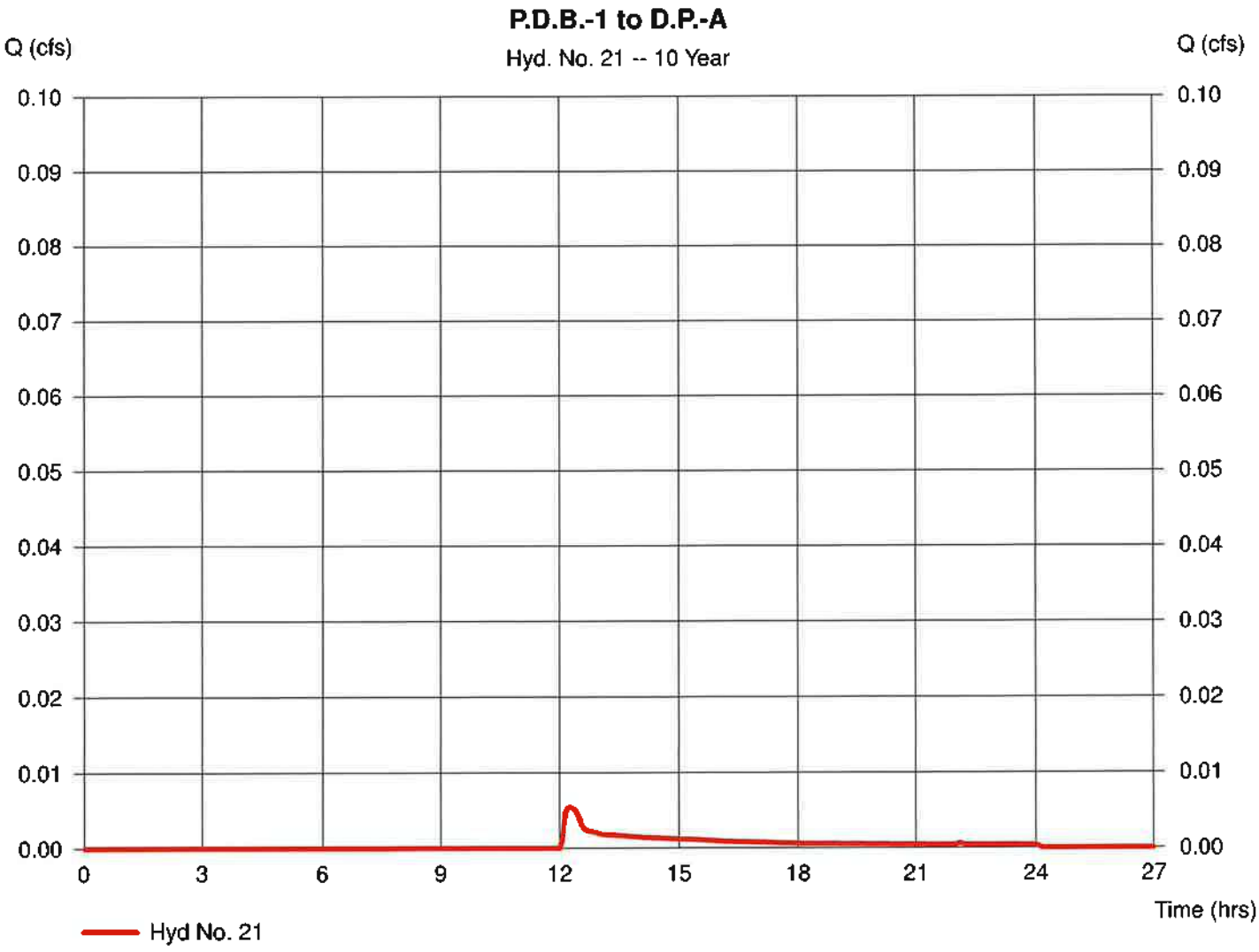


Hydrograph Report

Hyd. No. 21

P.D.B.-1 to D.P.-A

Hydrograph type	= SCS Runoff	Peak discharge	= 0.005 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.25 hrs
Time interval	= 3 min	Hyd. volume	= 43 cuft
Drainage area	= 0.026 ac	Curve number	= 44.5
Basin Slope	= 3.9 %	Hydraulic length	= 125 ft
Tc method	= LAG	Time of conc. (Tc)	= 7.80 min
Total precip.	= 5.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

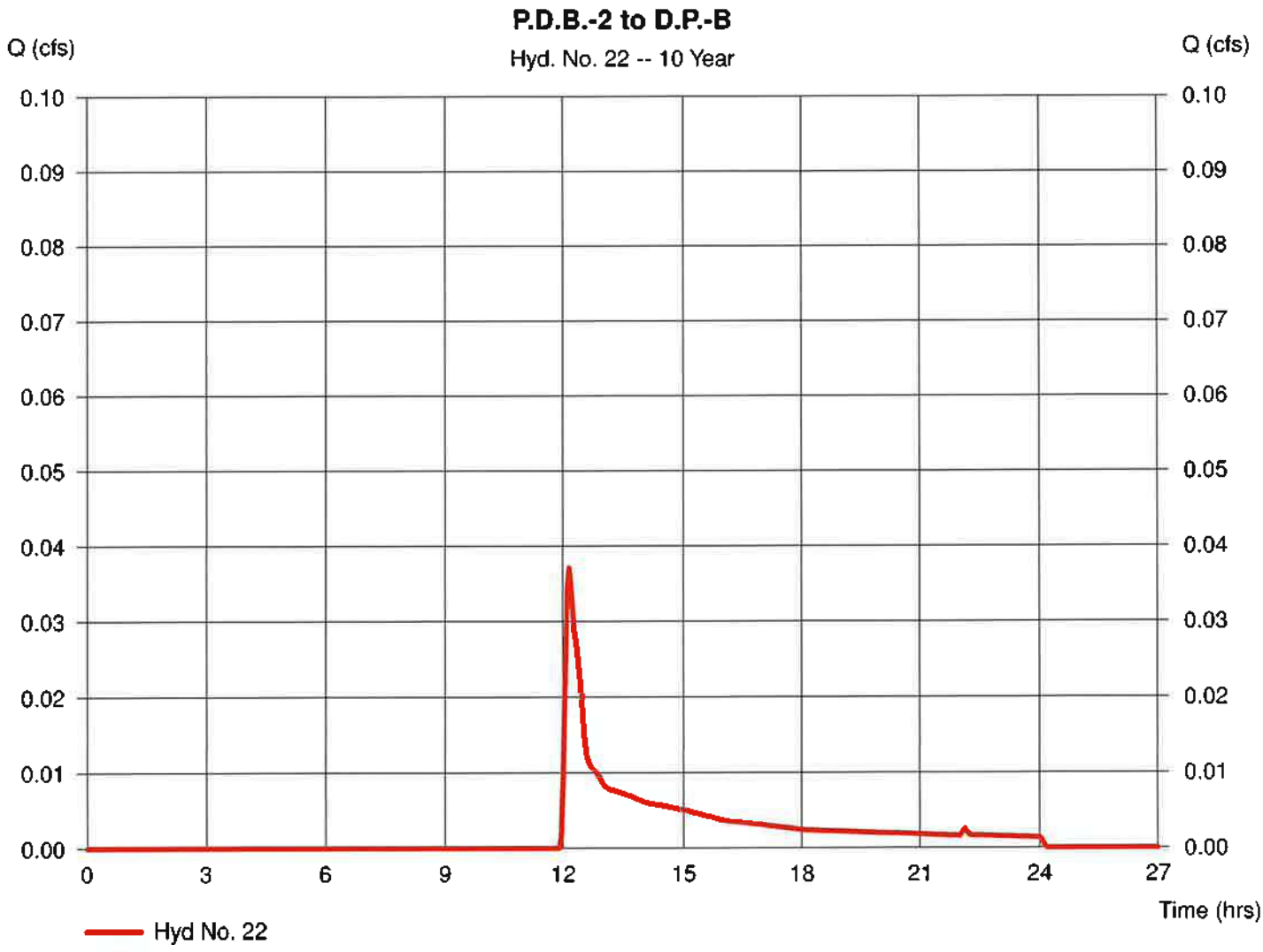


Hydrograph Report

Hyd. No. 22

P.D.B.-2 to D.P.-B

Hydrograph type	= SCS Runoff	Peak discharge	= 0.037 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.15 hrs
Time interval	= 3 min	Hyd. volume	= 197 cuft
Drainage area	= 0.082 ac	Curve number	= 48.8
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 5.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

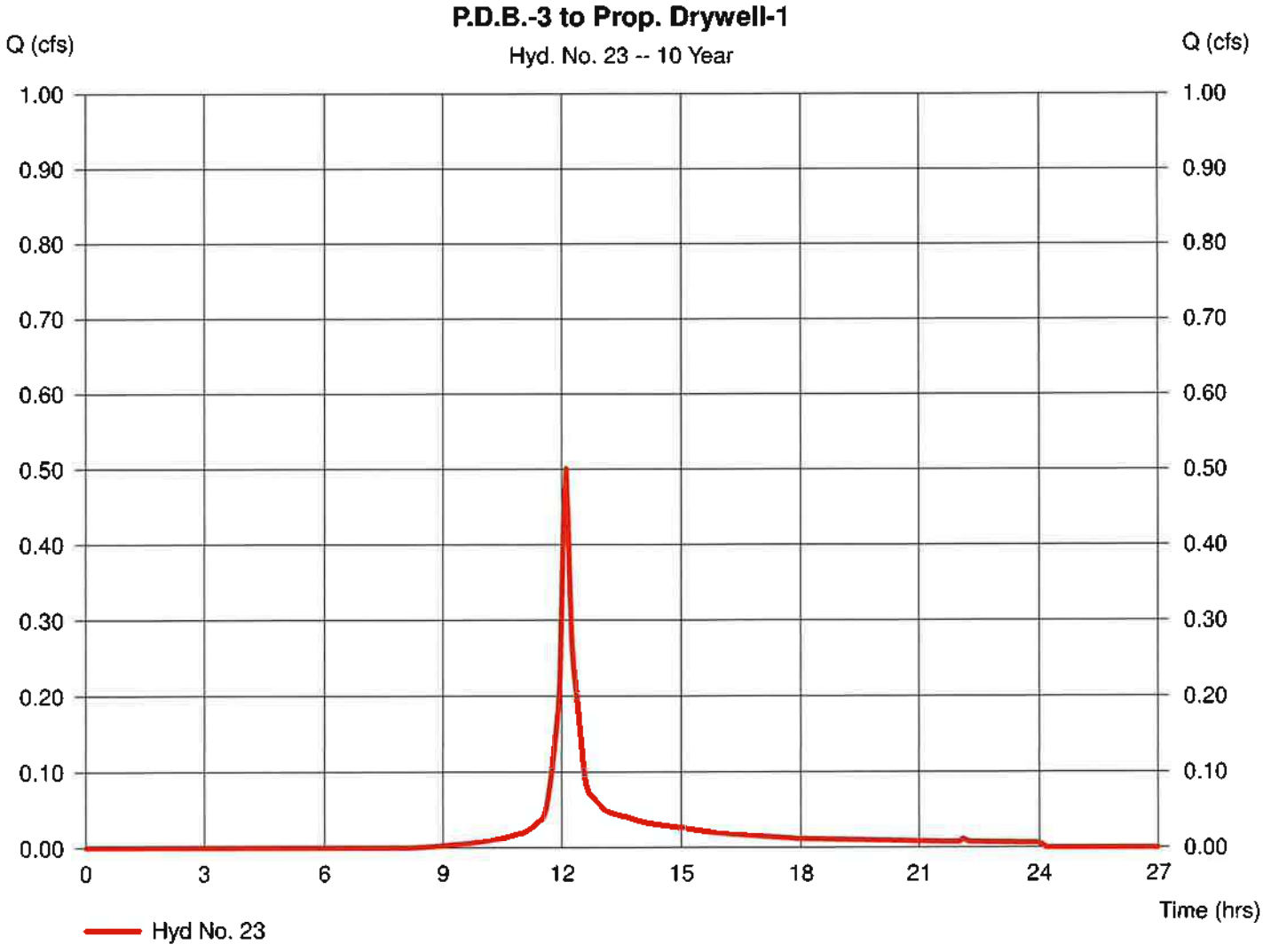


Hydrograph Report

Hyd. No. 23

P.D.B.-3 to Prop. Drywell-1

Hydrograph type	= SCS Runoff	Peak discharge	= 0.502 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 1,668 cuft
Drainage area	= 0.175 ac	Curve number	= 77.1
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 5.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

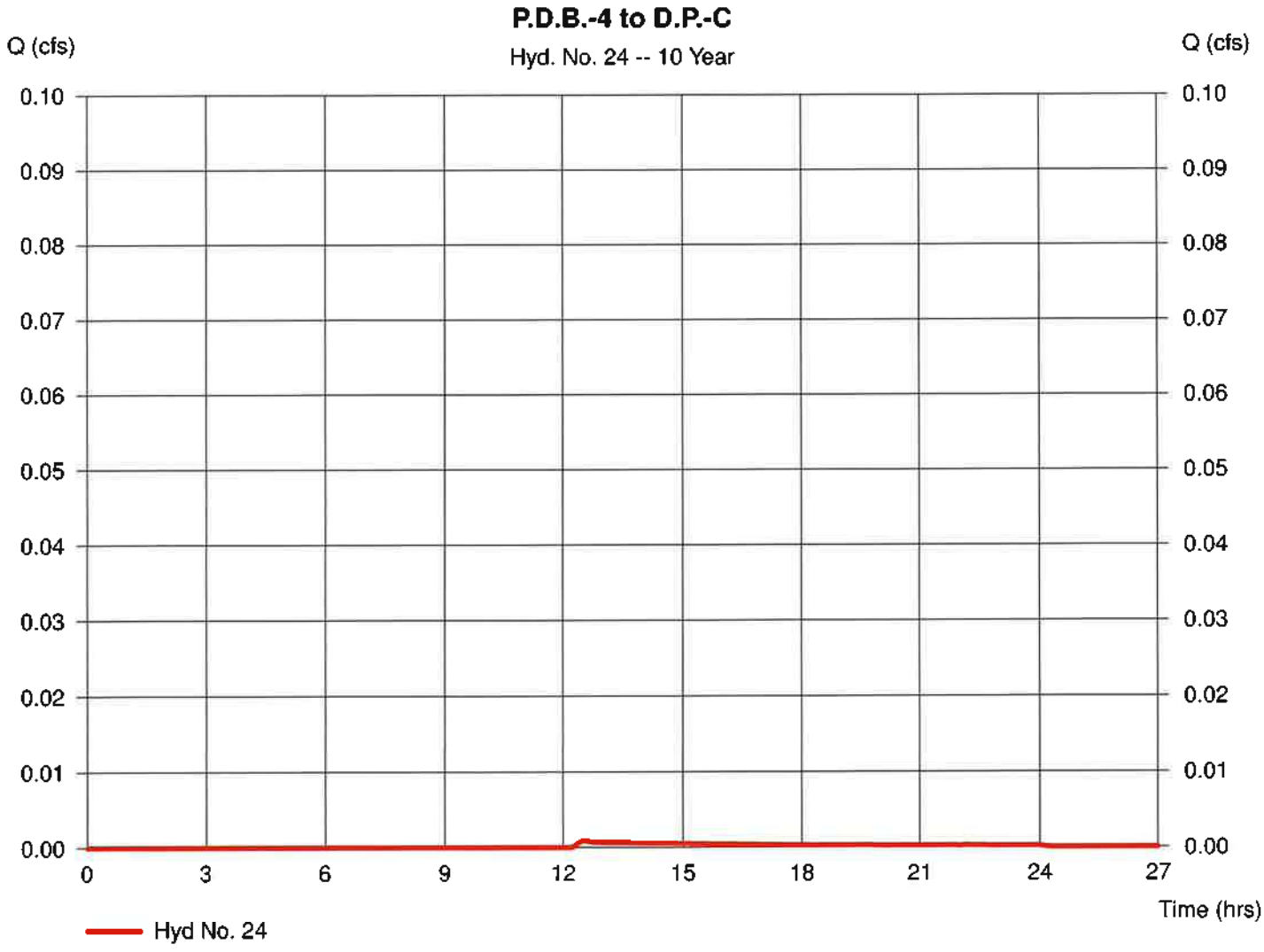


Hydrograph Report

Hyd. No. 24

P.D.B.-4 to D.P.-C

Hydrograph type	= SCS Runoff	Peak discharge	= 0.001 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.50 hrs
Time interval	= 3 min	Hyd. volume	= 15 cuft
Drainage area	= 0.017 ac	Curve number	= 39
Basin Slope	= 0.9 %	Hydraulic length	= 87 ft
Tc method	= LAG	Time of conc. (Tc)	= 14.00 min
Total precip.	= 5.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

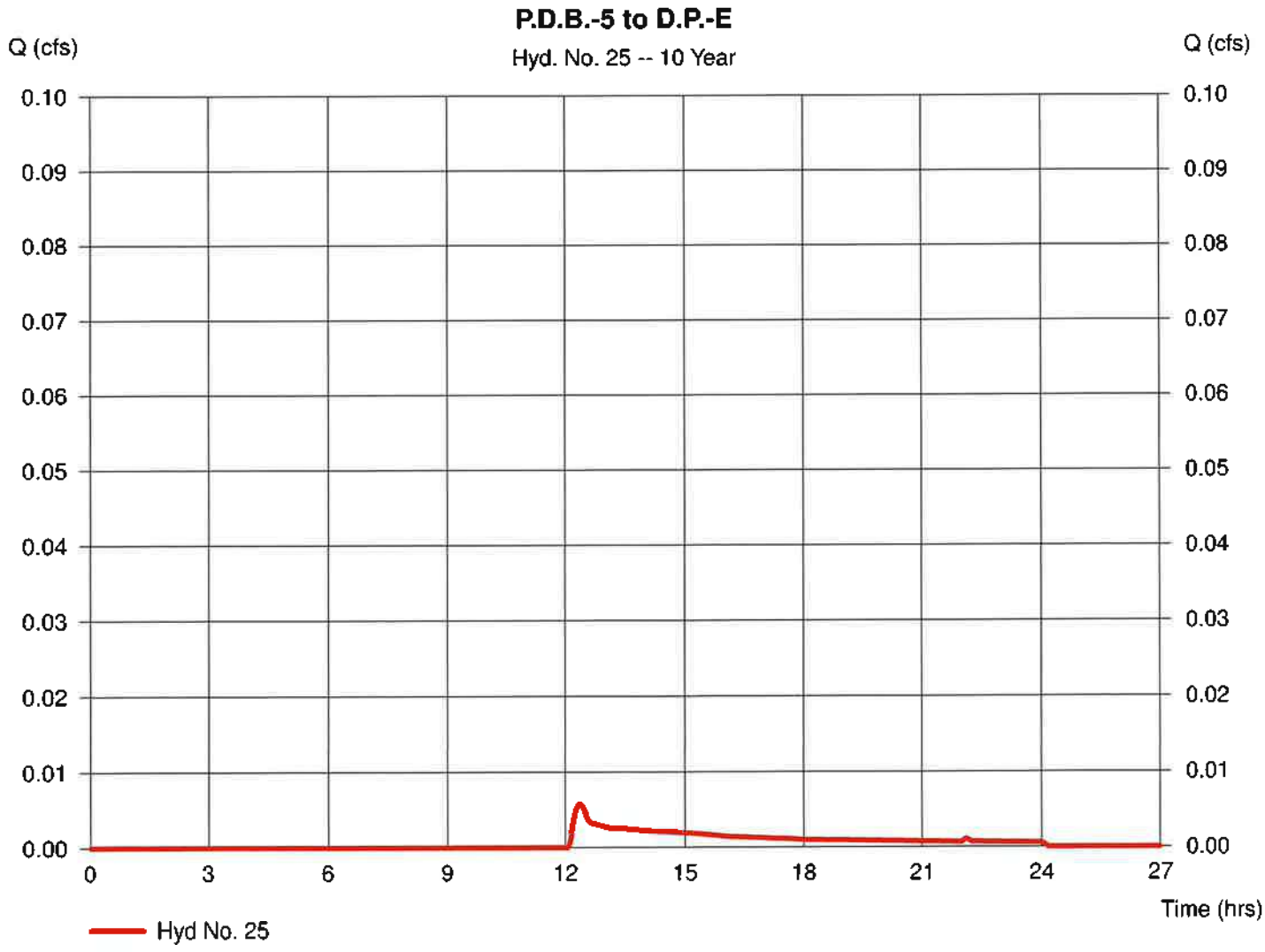


Hydrograph Report

Hyd. No. 25

P.D.B.-5 to D.P.-E

Hydrograph type	= SCS Runoff	Peak discharge	= 0.006 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.40 hrs
Time interval	= 3 min	Hyd. volume	= 61 cuft
Drainage area	= 0.055 ac	Curve number	= 41.1
Basin Slope	= 3.5 %	Hydraulic length	= 111 ft
Tc method	= LAG	Time of conc. (Tc)	= 8.20 min
Total precip.	= 5.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

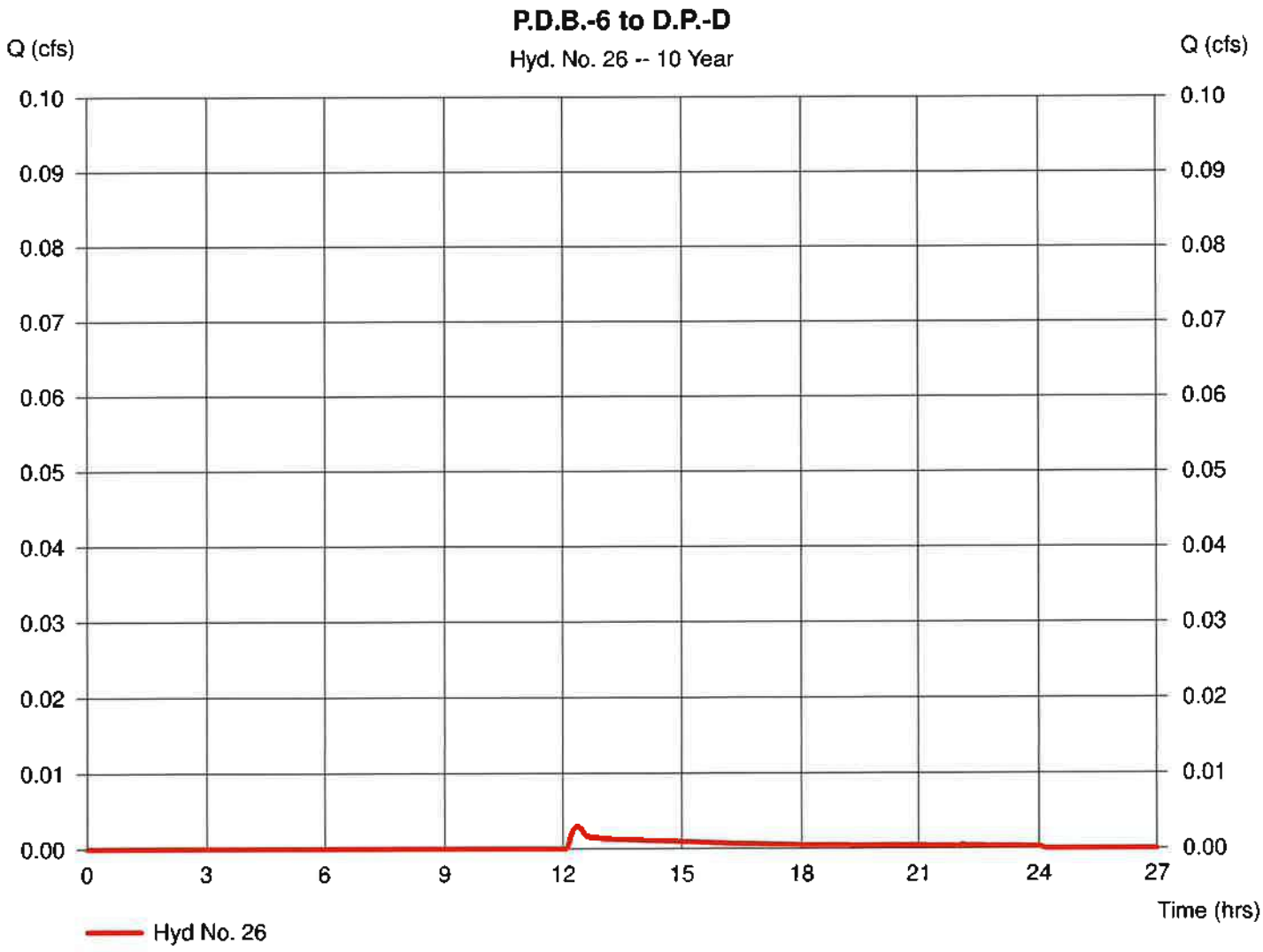


Hydrograph Report

Hyd. No. 26

P.D.B.-6 to D.P.-D

Hydrograph type	= SCS Runoff	Peak discharge	= 0.003 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.40 hrs
Time interval	= 3 min	Hyd. volume	= 30 cuft
Drainage area	= 0.027 ac	Curve number	= 41.2
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 5.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

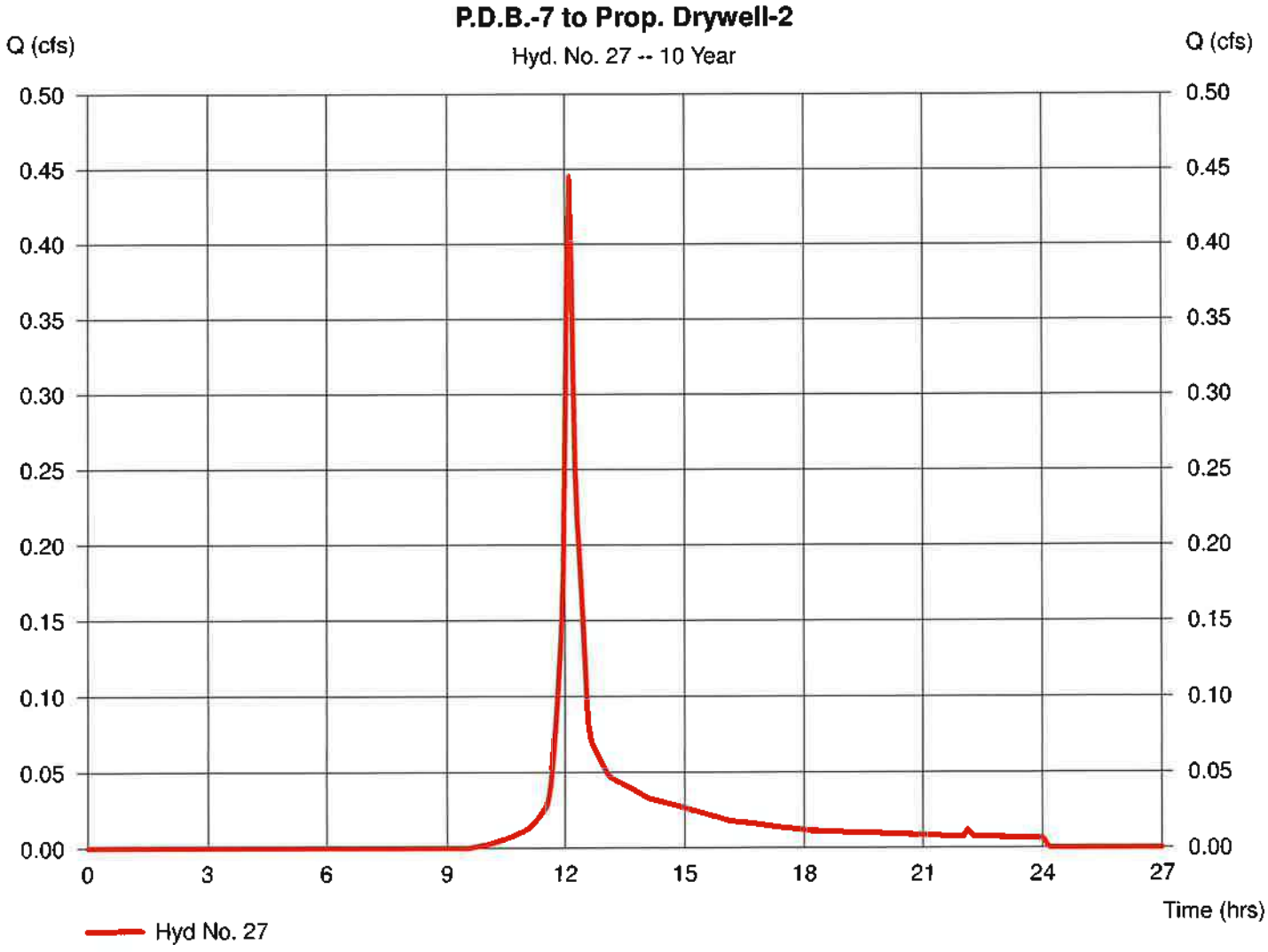


Hydrograph Report

Hyd. No. 27

P.D.B.-7 to Prop. Drywell-2

Hydrograph type	= SCS Runoff	Peak discharge	= 0.445 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 1,497 cuft
Drainage area	= 0.199 ac	Curve number	= 70.3
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 5.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

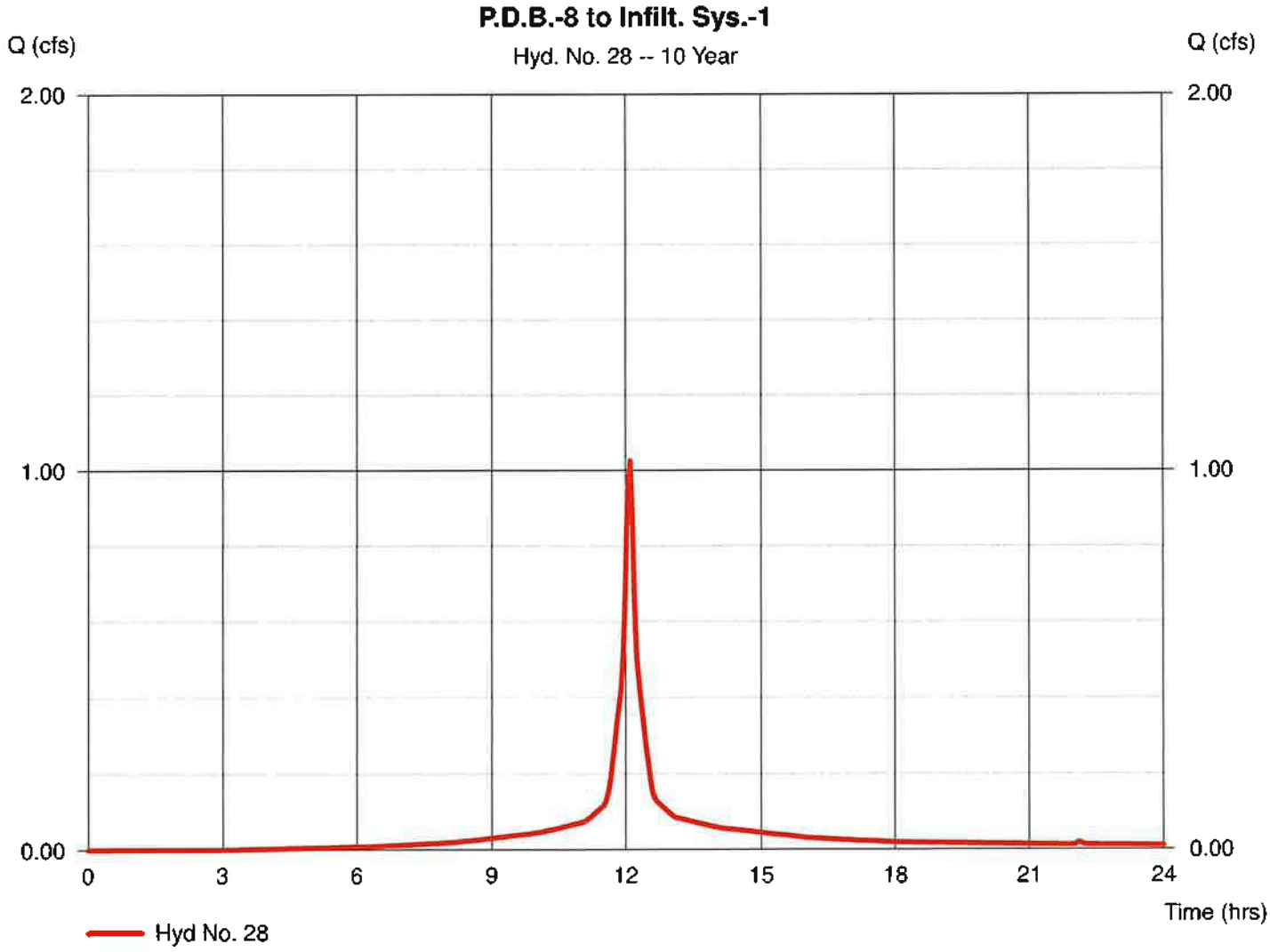


Hydrograph Report

Hyd. No. 28

P.D.B.-8 to Infilt. Sys.-1

Hydrograph type	= SCS Runoff	Peak discharge	= 1.026 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 3,676 cuft
Drainage area	= 0.244 ac	Curve number	= 93.3
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 5.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

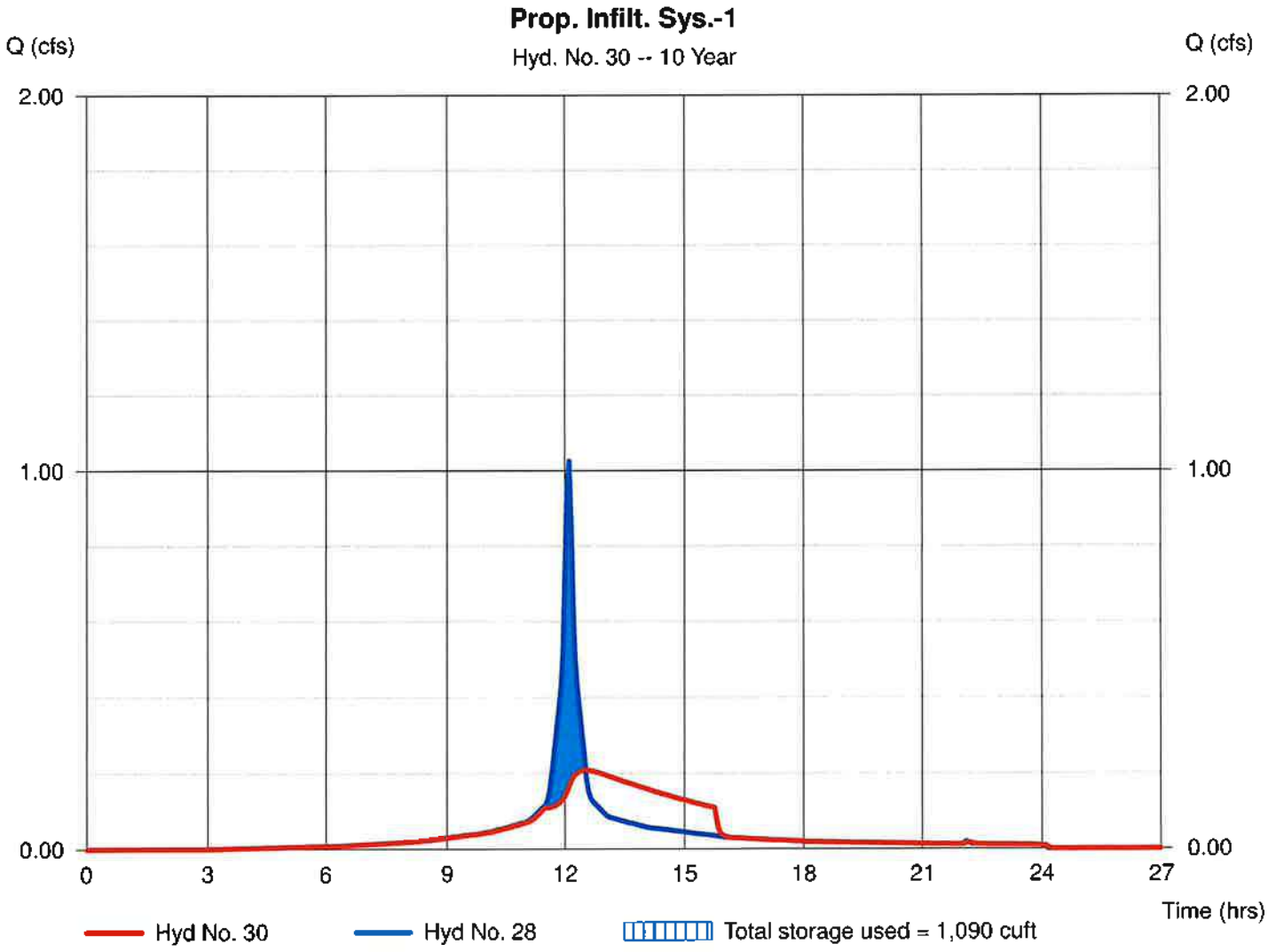
Hydraflow Hydrographs by Intelisolve v9.22 — Sunday, Nov 23, 2025

Hyd. No. 30

Prop. Infilt. Sys.-1

Hydrograph type	= Reservoir	Peak discharge	= 0.210 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.50 hrs
Time interval	= 3 min	Hyd. volume	= 3,676 cuft
Inflow hyd. No.	= 28 - P.D.B.-8 to Infilt. Sys.-1	Max. Elevation	= 150.90 ft
Reservoir name	= Prop. Infilt. Sys-1	Max. Storage	= 1,090 cuft

Storage Indication method used. Outflow includes exfiltration.

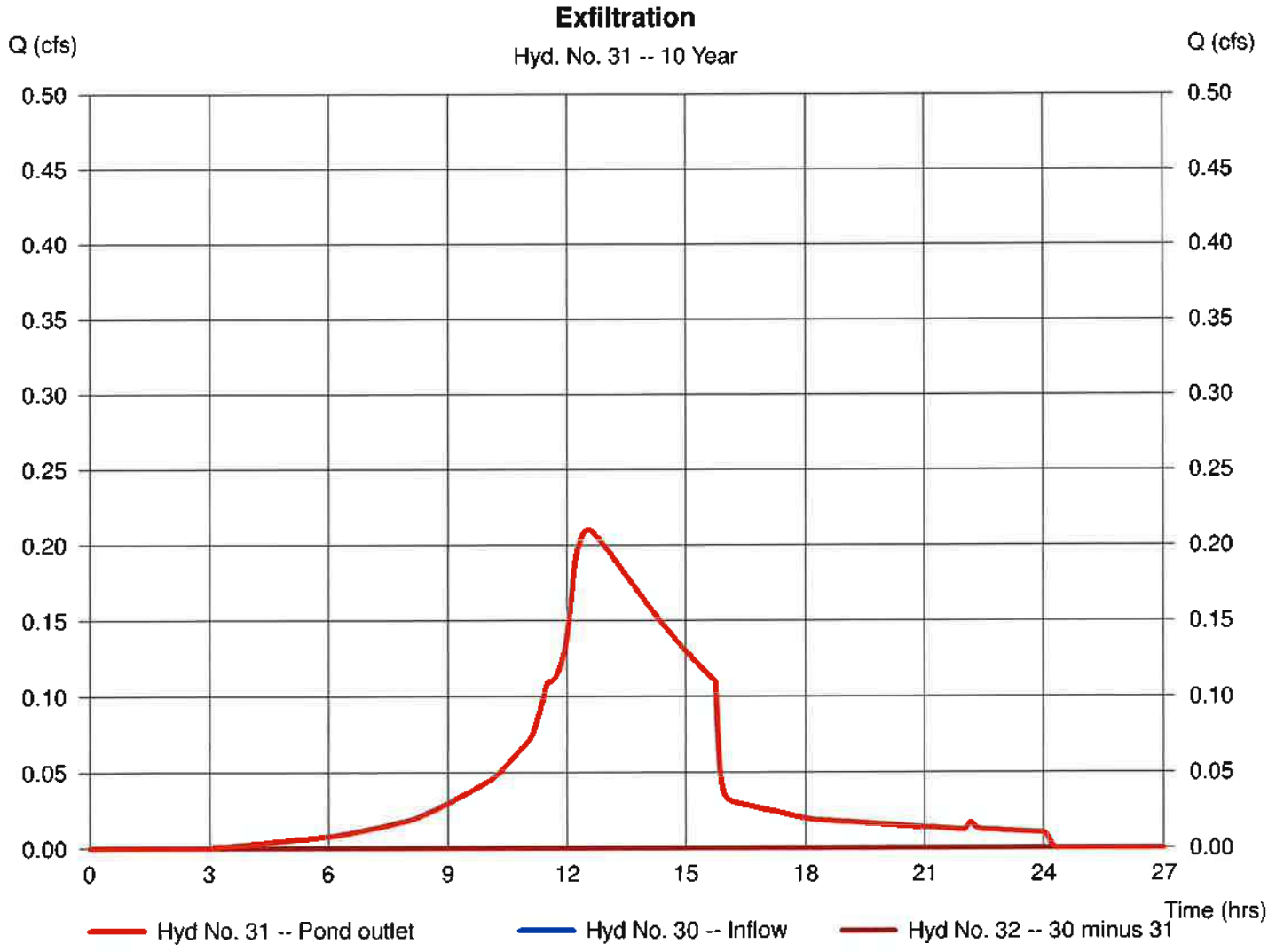


Hydrograph Report

Hyd. No. 31

Exfiltration

Hydrograph type	=	Diversion1	Peak discharge	=	0.210 cfs
Storm frequency	=	10 yrs	Time to peak	=	12.50 hrs
Time interval	=	3 min	Hyd. volume	=	3,676 cuft
Inflow hydrograph	=	30 - Prop. Infilt. Sys.-1	2nd diverted hyd.	=	32
Diversion method	=	Pond - Prop. Infilt. Sys-1	Pond structure	=	Exfiltration

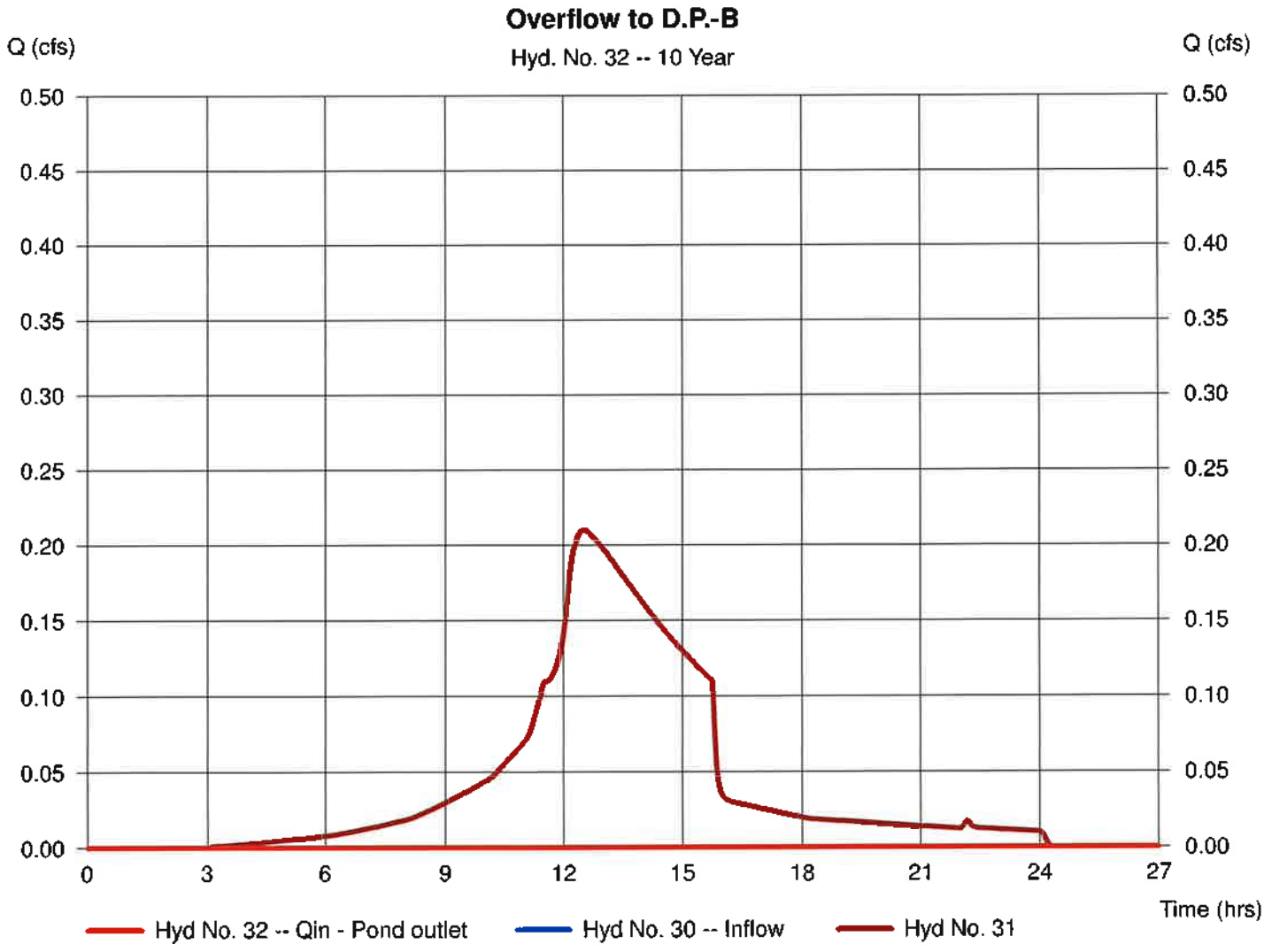


Hydrograph Report

Hyd. No. 32

Overflow to D.P.-B

Hydrograph type	= Diversion2	Peak discharge	= 0.000 cfs
Storm frequency	= 10 yrs	Time to peak	= 22.10 hrs
Time interval	= 3 min	Hyd. volume	= 0 cuft
Inflow hydrograph	= 30 - Prop. Infilt. Sys.-1	2nd diverted hyd.	= 31
Diversion method	= Pond - Prop. Infilt. Sys-1	Pond structure	= Exfiltration



Hydrograph Report

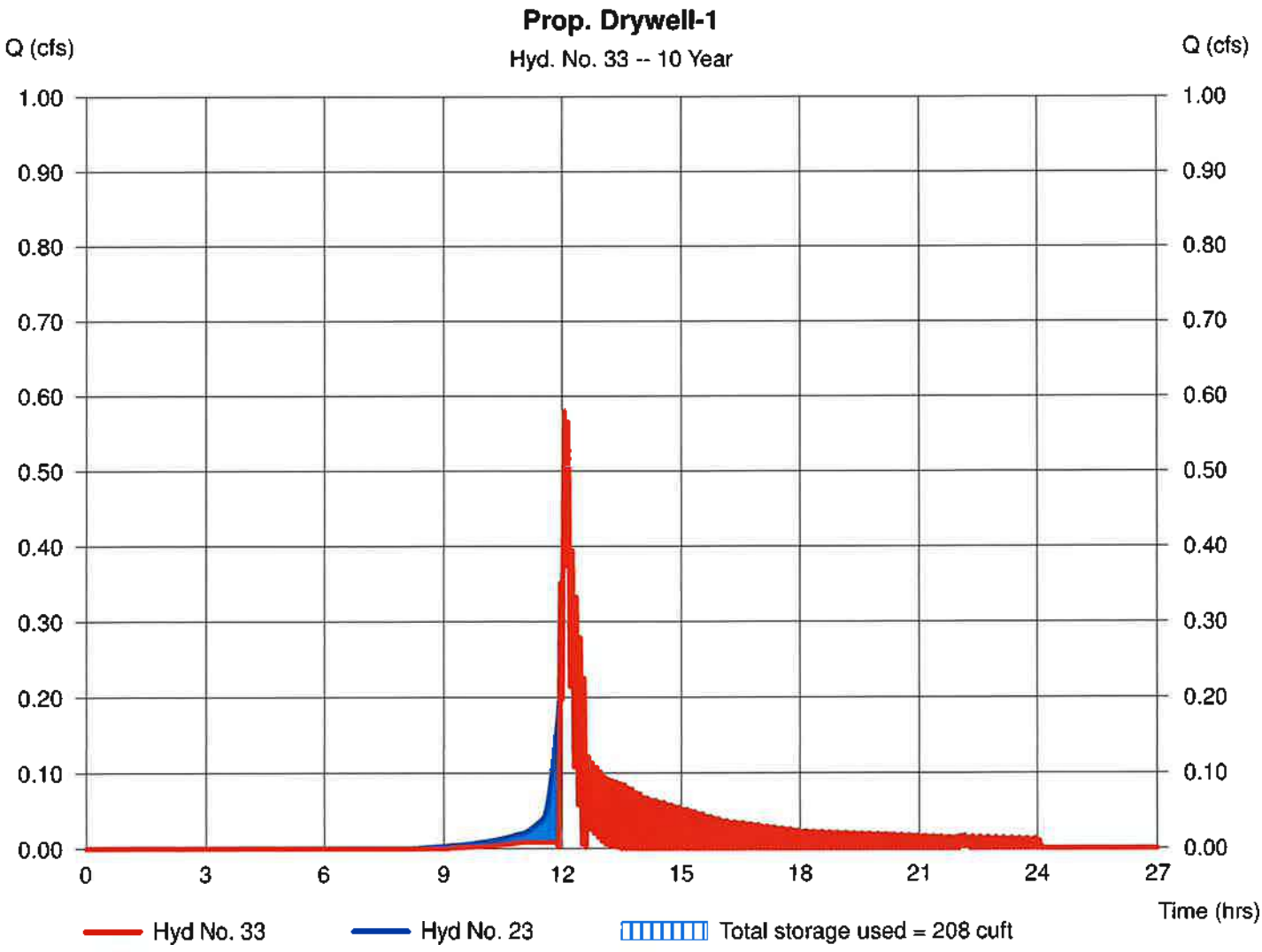
Hydraflow Hydrographs by Intelisolve v9.22 — Sunday, Nov 23, 2025

Hyd. No. 33

Prop. Drywell-1

Hydrograph type	= Reservoir	Peak discharge	= 0.580 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.05 hrs
Time interval	= 3 min	Hyd. volume	= 1,460 cuft
Inflow hyd. No.	= 23 - P.D.B.-3 to Prop. Drywell-1	Max. Elevation	= 154.32 ft
Reservoir name	= Prop. Drywell-1	Max. Storage	= 208 cuft

Storage Indication method used. Outflow includes exfiltration.

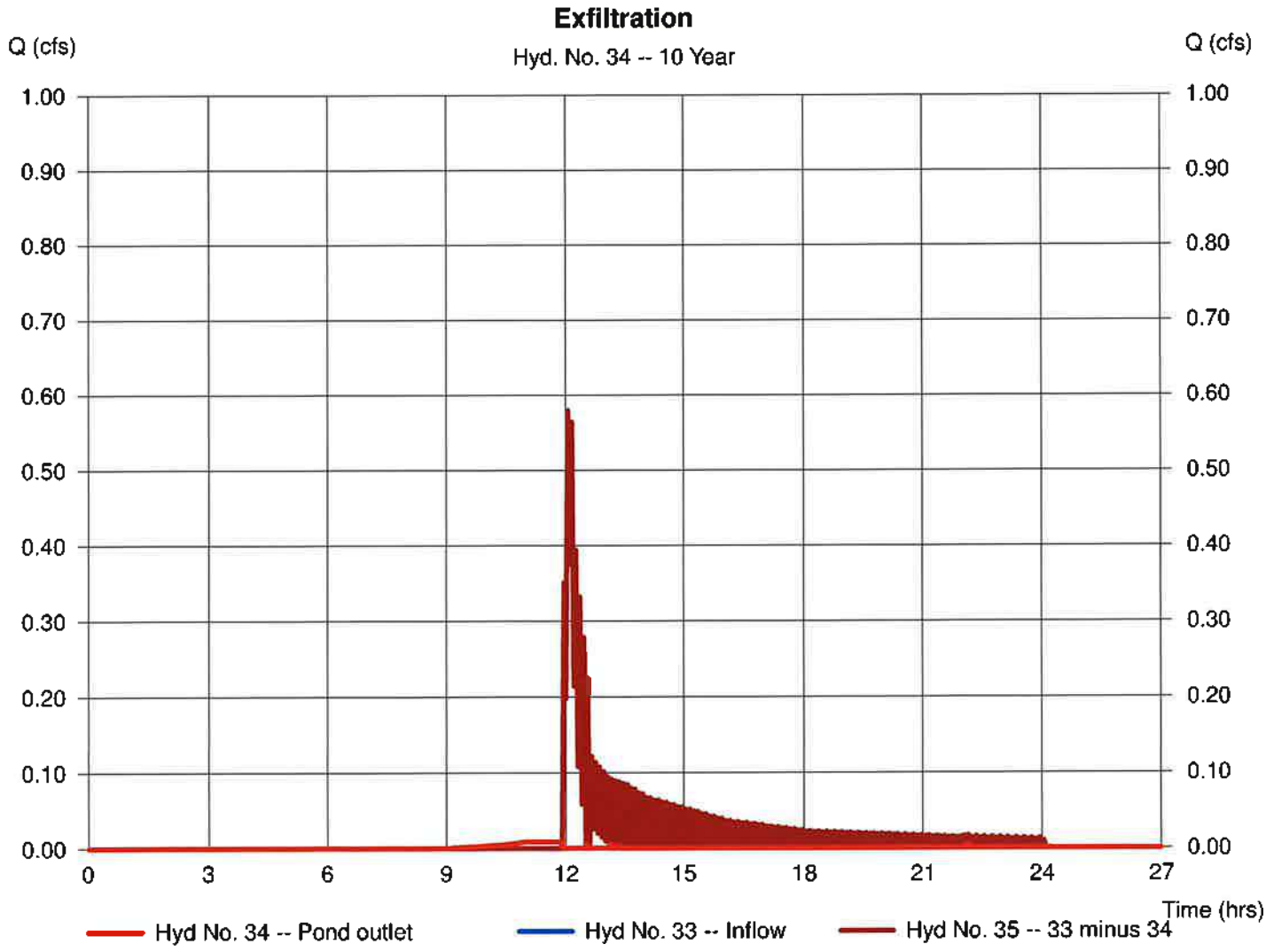


Hydrograph Report

Hyd. No. 34

Exfiltration

Hydrograph type	= Diversion1	Peak discharge	= 0.009 cfs
Storm frequency	= 10 yrs	Time to peak	= 11.00 hrs
Time interval	= 3 min	Hyd. volume	= 65 cuft
Inflow hydrograph	= 33 - Prop. Drywell-1	2nd diverted hyd.	= 35
Diversion method	= Pond - Prop. Drywell-1	Pond structure	= Exfiltration

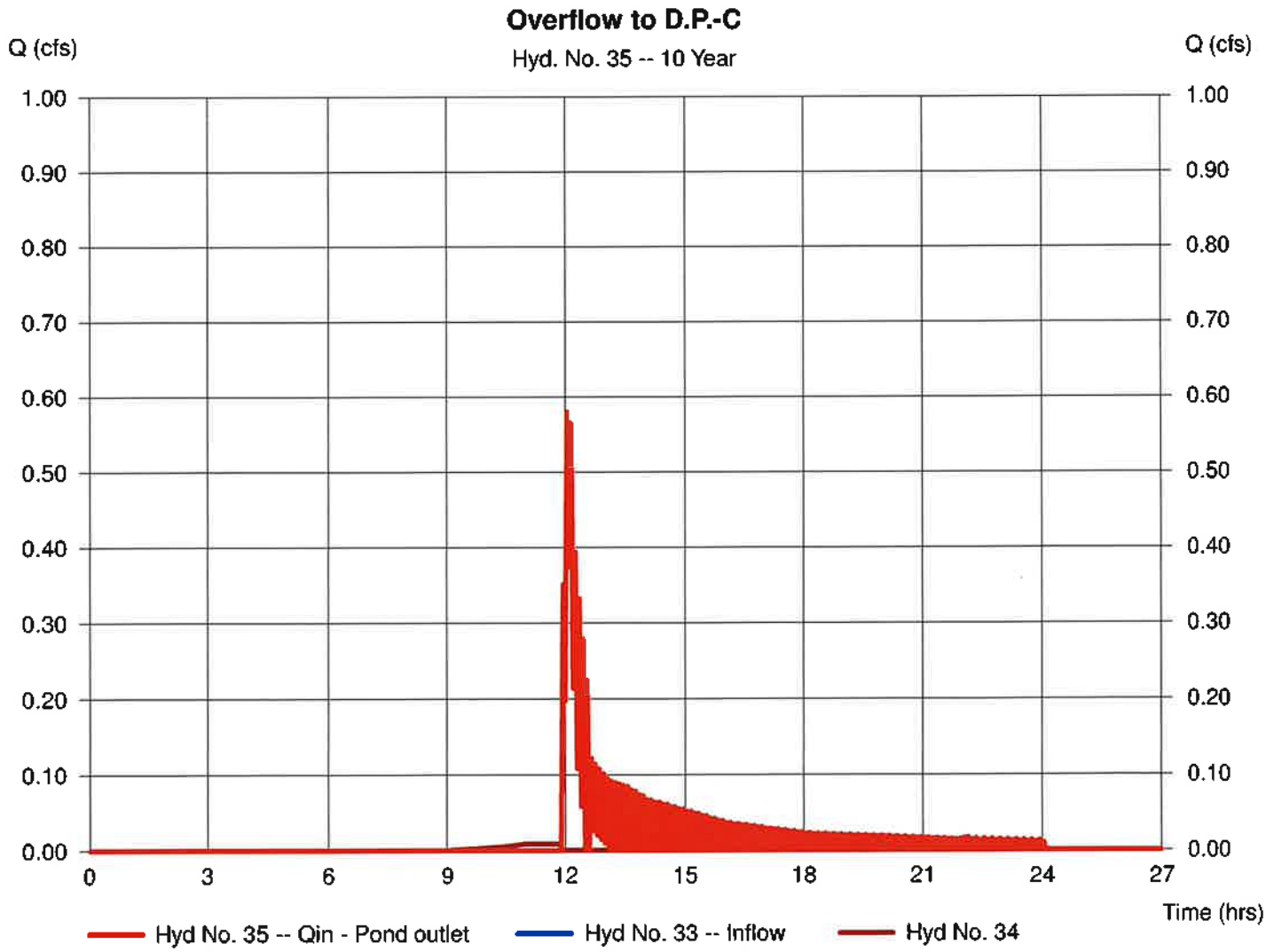


Hydrograph Report

Hyd. No. 35

Overflow to D.P.-C

Hydrograph type	= Diversion2	Peak discharge	= 0.580 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.05 hrs
Time interval	= 3 min	Hyd. volume	= 1,395 cuft
Inflow hydrograph	= 33 - Prop. Drywell-1	2nd diverted hyd.	= 34
Diversion method	= Pond - Prop. Drywell-1	Pond structure	= Exfiltration



Hydrograph Report

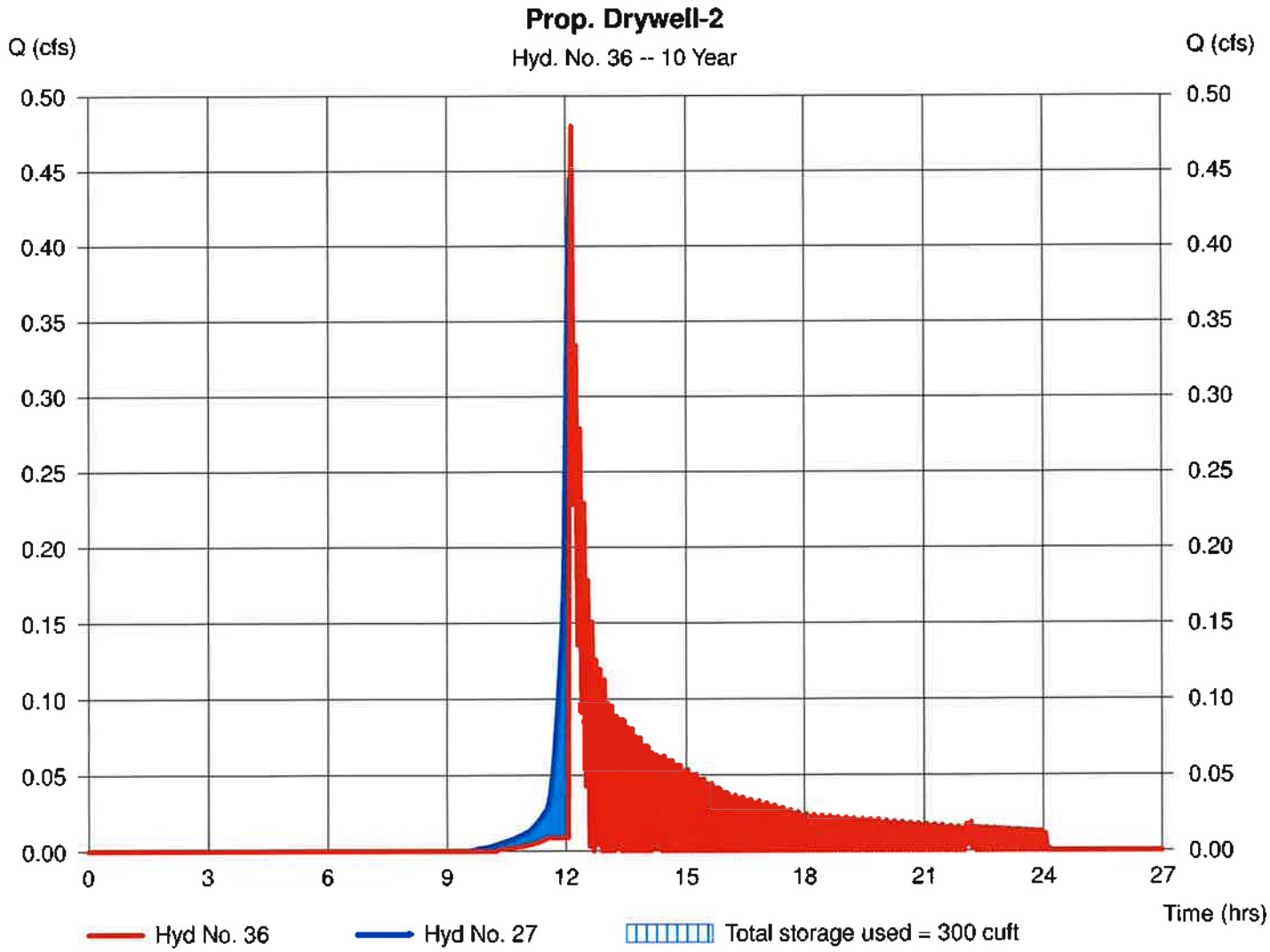
Hydraflow Hydrographs by Intelisolve v9.22 — Sunday, Nov 23, 2025

Hyd. No. 36

Prop. Drywell-2

Hydrograph type	= Reservoir	Peak discharge	= 0.480 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.15 hrs
Time interval	= 3 min	Hyd. volume	= 1,197 cuft
Inflow hyd. No.	= 27 - P.D.B.-7 to Prop. Drywell-2	Max. Elevation	= 154.25 ft
Reservoir name	= Prop. Drywell-2	Max. Storage	= 300 cuft

Storage Indication method used. Outflow includes exfiltration.

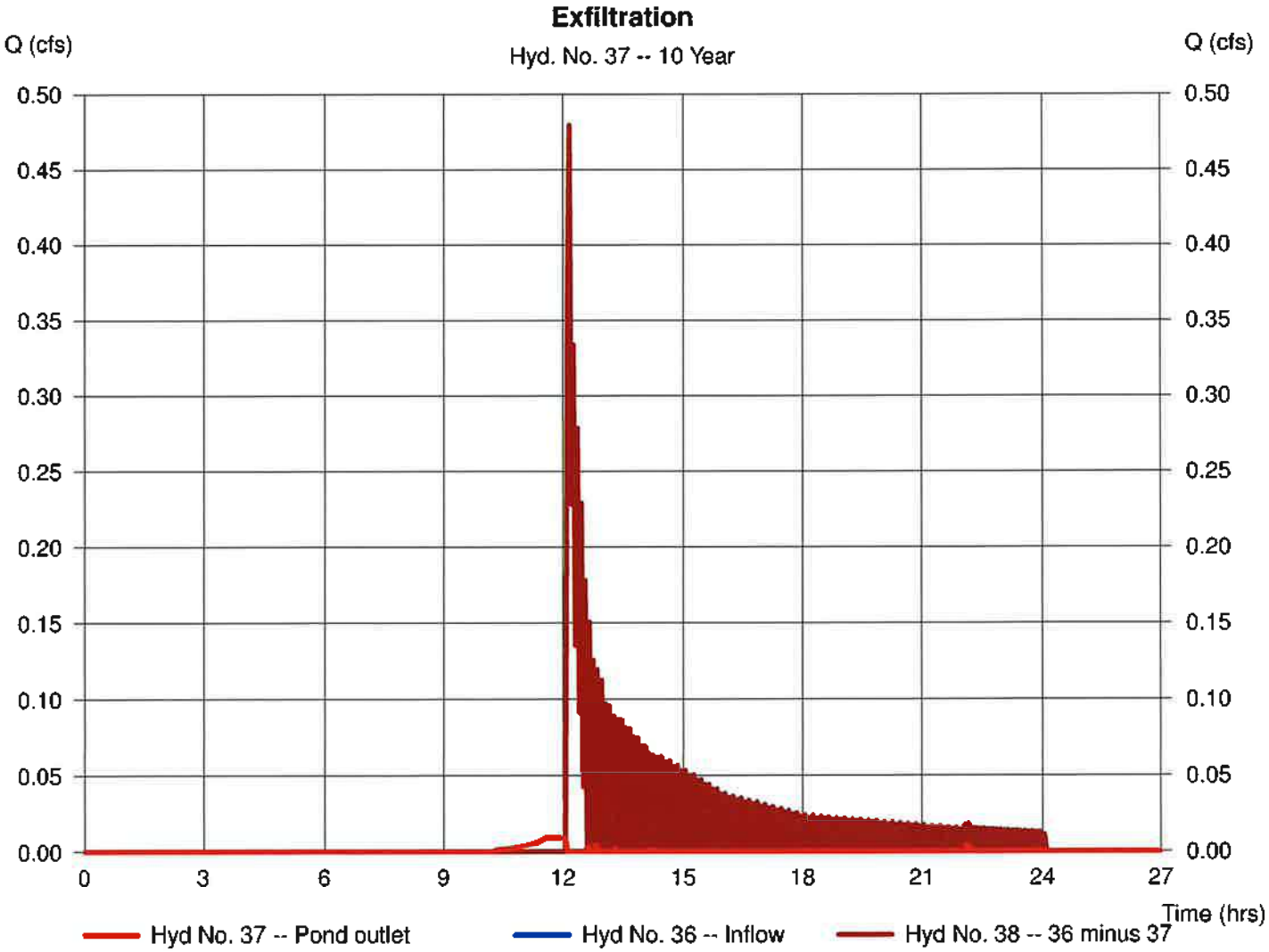


Hydrograph Report

Hyd. No. 37

Exfiltration

Hydrograph type	=	Diversion1	Peak discharge	=	0.009 cfs
Storm frequency	=	10 yrs	Time to peak	=	11.55 hrs
Time interval	=	3 min	Hyd. volume	=	42 cuft
Inflow hydrograph	=	36 - Prop. Drywell-2	2nd diverted hyd.	=	38
Diversion method	=	Pond - Prop. Drywell-2	Pond structure	=	Exfiltration

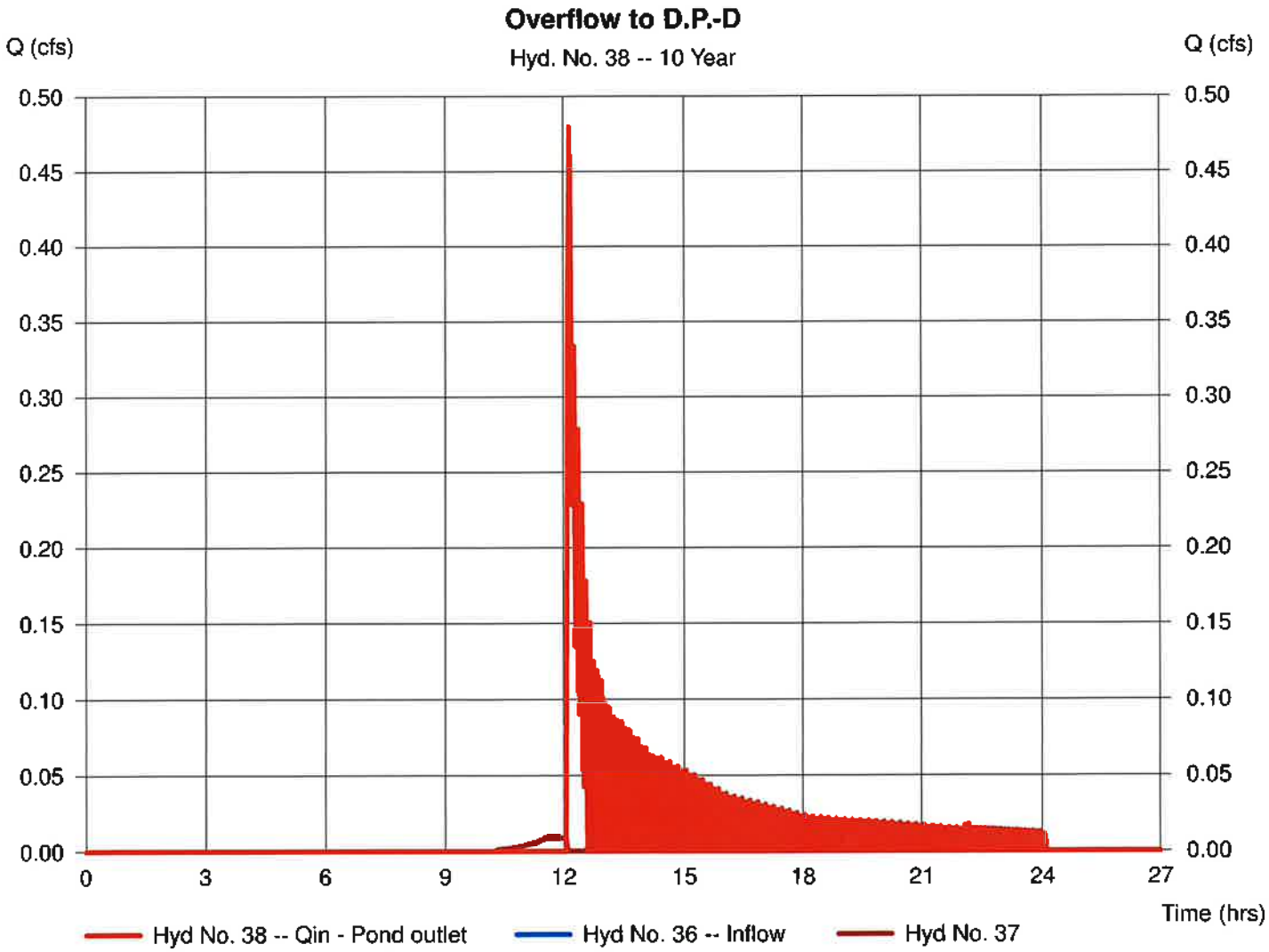


Hydrograph Report

Hyd. No. 38

Overflow to D.P.-D

Hydrograph type	= Diversion2	Peak discharge	= 0.480 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.15 hrs
Time interval	= 3 min	Hyd. volume	= 1,156 cuft
Inflow hydrograph	= 36 - Prop. Drywell-2	2nd diverted hyd.	= 37
Diversion method	= Pond - Prop. Drywell-2	Pond structure	= Exfiltration

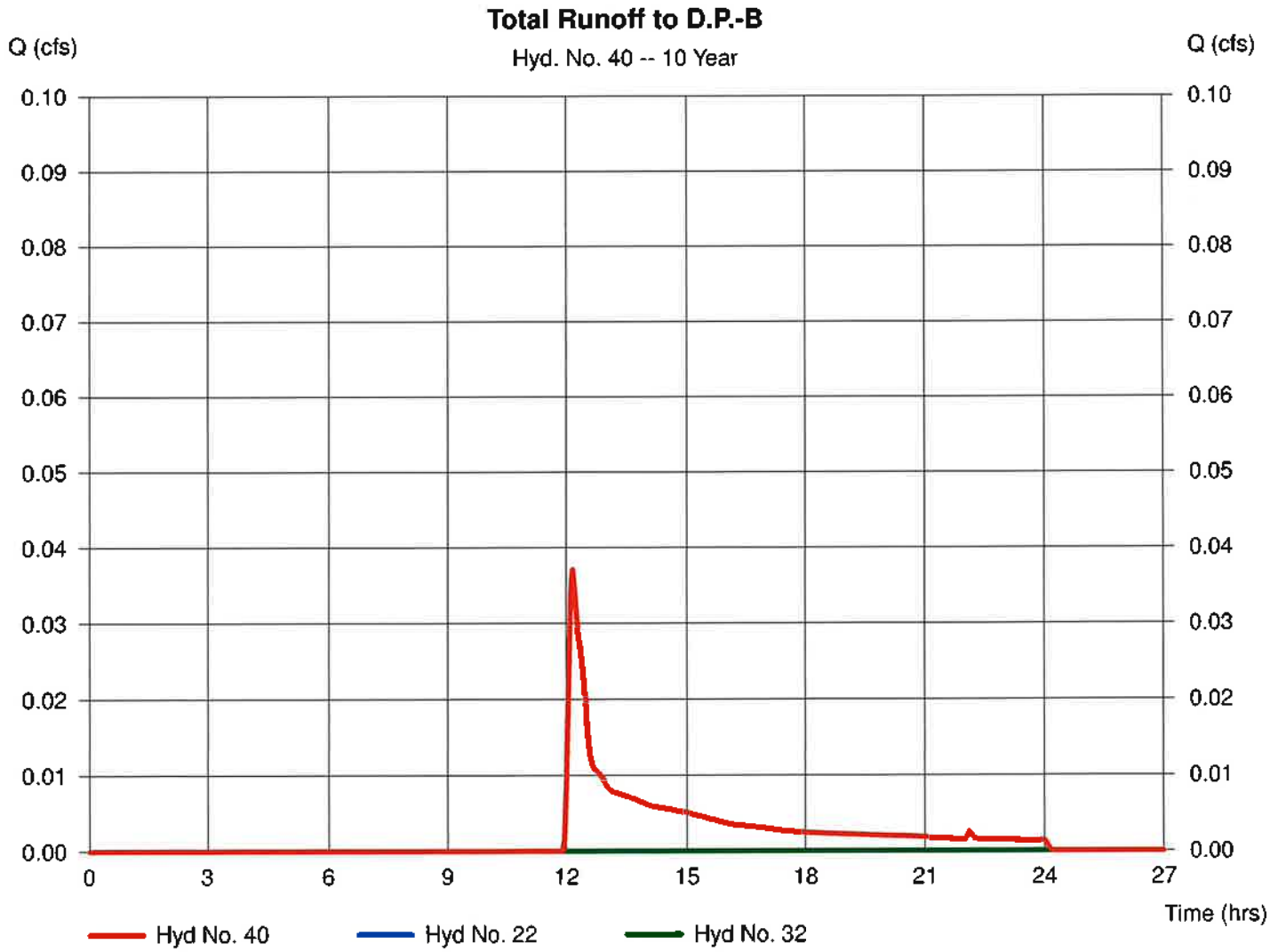


Hydrograph Report

Hyd. No. 40

Total Runoff to D.P.-B

Hydrograph type	= Combine	Peak discharge	= 0.037 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.15 hrs
Time interval	= 3 min	Hyd. volume	= 197 cuft
Inflow hyds.	= 22, 32	Contrib. drain. area	= 0.082 ac

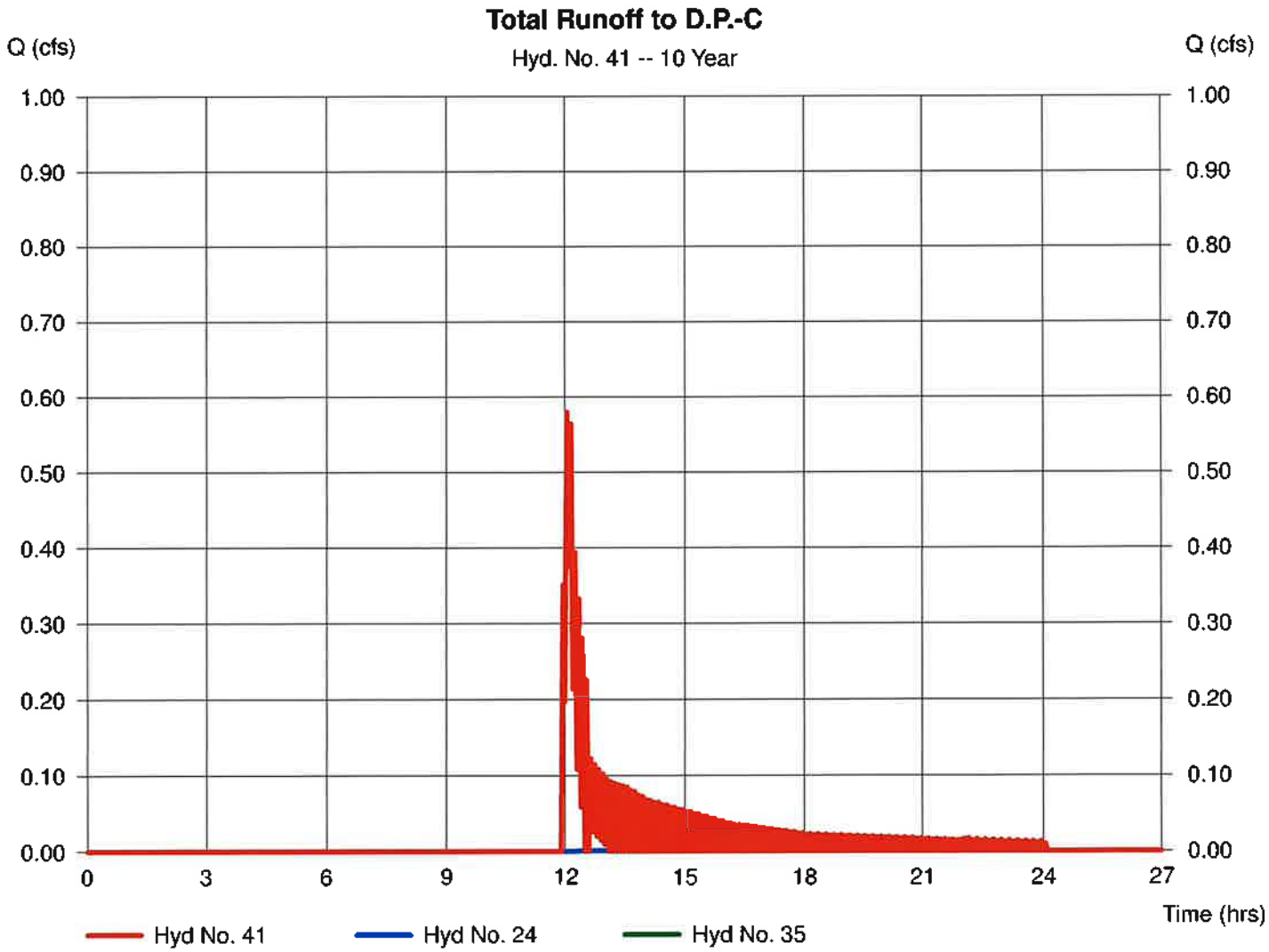


Hydrograph Report

Hyd. No. 41

Total Runoff to D.P.-C

Hydrograph type	= Combine	Peak discharge	= 0.580 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.05 hrs
Time interval	= 3 min	Hyd. volume	= 1,410 cuft
Inflow hyds.	= 24, 35	Contrib. drain. area	= 0.017 ac

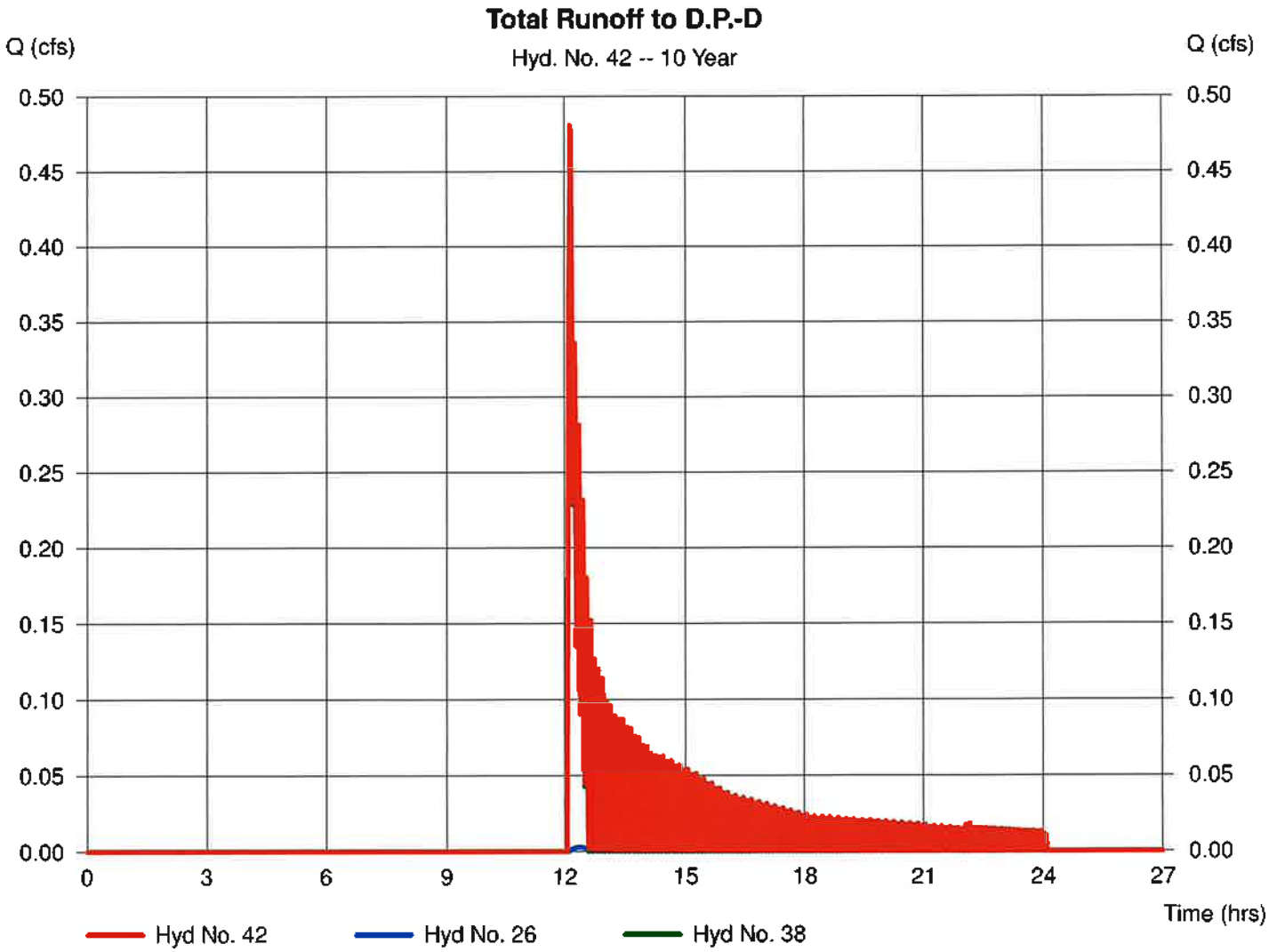


Hydrograph Report

Hyd. No. 42

Total Runoff to D.P.-D

Hydrograph type	= Combine	Peak discharge	= 0.481 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.15 hrs
Time interval	= 3 min	Hyd. volume	= 1,186 cuft
Inflow hyds.	= 26, 38	Contrib. drain. area	= 0.027 ac

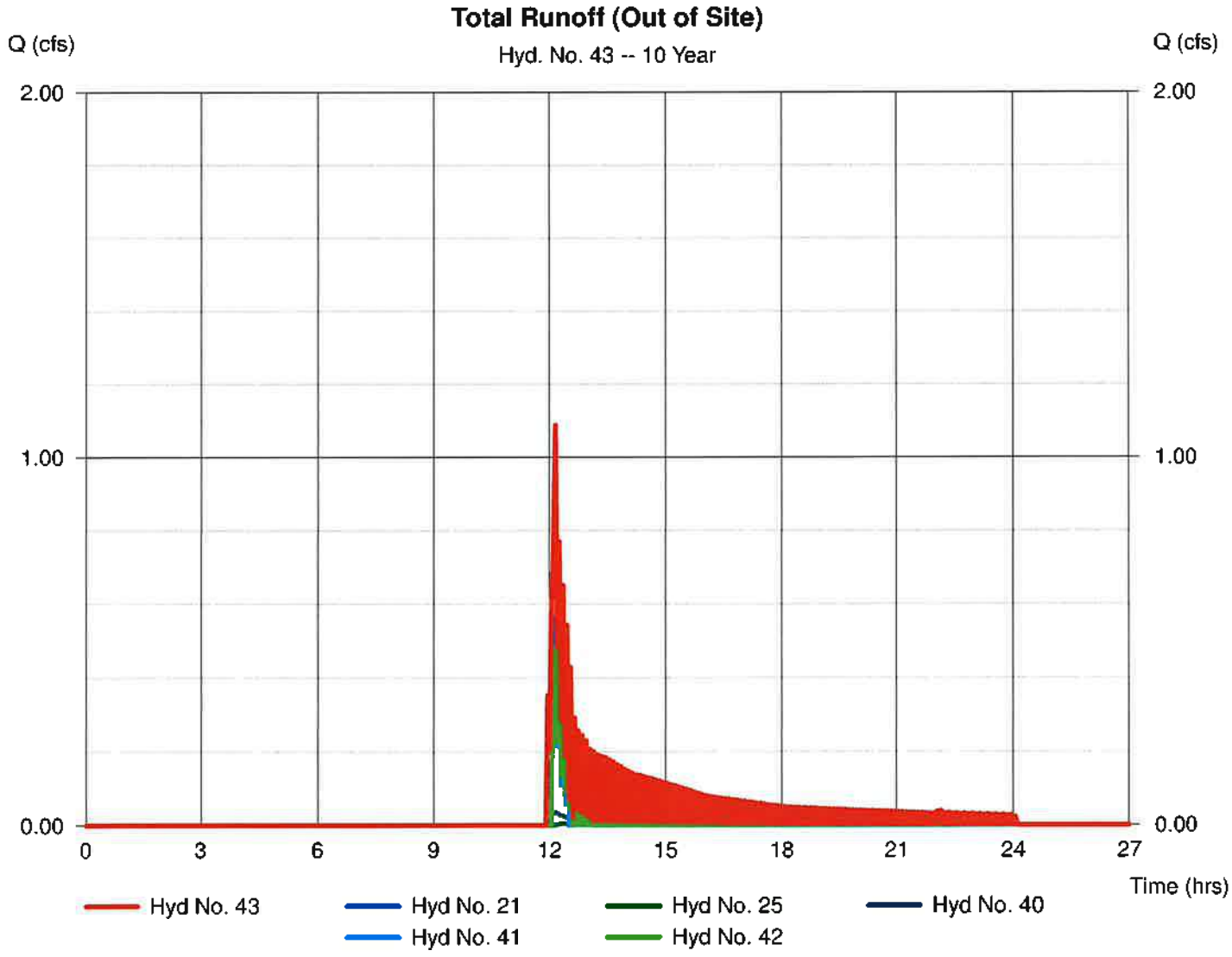


Hydrograph Report

Hyd. No. 43

Total Runoff (Out of Site)

Hydrograph type	= Combine	Peak discharge	= 1.089 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.15 hrs
Time interval	= 3 min	Hyd. volume	= 2,897 cuft
Inflow hyds.	= 21, 25, 40, 41, 42	Contrib. drain. area	= 0.081 ac



25-Year Storm, Pre- and Post-Development

Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.22

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	0.449	3	726	1,542	----	------	------	E.C.B.-1 to D.P.-A
2	SCS Runoff	0.181	3	726	713	----	------	------	E.C.B.-2 to D.P.-B
3	SCS Runoff	0.407	3	726	1,511	----	------	------	E.C.B.-3 to Drywell-1
4	SCS Runoff	0.991	3	726	3,662	----	------	------	E.C.B.-4 to Drywell-2
5	SCS Runoff	1.320	3	726	4,731	----	------	------	E.C.B.-5 to Drywell-3
6	SCS Runoff	0.295	3	726	1,011	----	------	------	E.C.B.-6 to D.P.-E
8	Reservoir	0.407	3	726	1,455	3	154.32	56.9	Exist. Drywell-1
9	Diversion1	0.002	3	303	60	8	------	------	Exfiltration
10	Diversion2	0.407	3	726	1,395	8	------	------	Overflow to D.P.-C
11	Reservoir	0.992	3	726	3,606	4	154.02	57.4	Exist. Drywell-2
12	Diversion1	0.002	3	228	60	11	------	------	Exfiltration
13	Diversion2	0.992	3	726	3,546	11	------	------	Overflow to D.P.-C
14	Reservoir	1.328	3	726	4,633	5	154.44	98.1	Exist. Drywell-3
15	Diversion1	0.002	3	402	39	14	------	------	Exfiltration
16	Diversion2	1.328	3	726	4,594	14	------	------	Overflow to D.P.-D
18	Combine	1.399	3	726	4,941	10, 13,	------	------	Total Runoff to D.P.-C
19	Combine	3.652	3	726	12,800	1, 2, 6, 16, 18	------	------	Total Runoff (Out of Site)
21	SCS Runoff	0.016	3	729	82	----	------	------	P.D.B.-1 to D.P.-A
22	SCS Runoff	0.083	3	726	349	----	------	------	P.D.B.-2 to D.P.-B
23	SCS Runoff	0.686	3	726	2,288	----	------	------	P.D.B.-3 to Prop. Drywell-1
24	SCS Runoff	0.004	3	741	35	----	------	------	P.D.B.-4 to D.P.-C
25	SCS Runoff	0.020	3	732	131	----	------	------	P.D.B.-5 to D.P.-E
26	SCS Runoff	0.010	3	732	65	----	------	------	P.D.B.-6 to D.P.-D
27	SCS Runoff	0.642	3	726	2,137	----	------	------	P.D.B.-7 to Prop. Drywell-2
28	SCS Runoff	1.283	3	726	4,660	----	------	------	P.D.B.-8 to Infilt. Sys.-1
30	Reservoir	0.245	3	753	4,660	28	151.71	1,460	Prop. Infilt. Sys.-1
31	Diversion1	0.245	3	753	4,660	30	------	------	Exfiltration
32	Diversion2	0.000	3	612	0	30	------	------	Overflow to D.P.-B
33	Reservoir	0.731	3	723	2,080	23	154.31	208	Prop. Drywell-1
34	Diversion1	0.009	3	618	80	33	------	------	Exfiltration
35	Diversion2	0.731	3	723	2,000	33	------	------	Overflow to D.P.-C
36	Reservoir	0.724	3	726	1,837	27	154.25	300	Prop. Drywell-2

Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.22

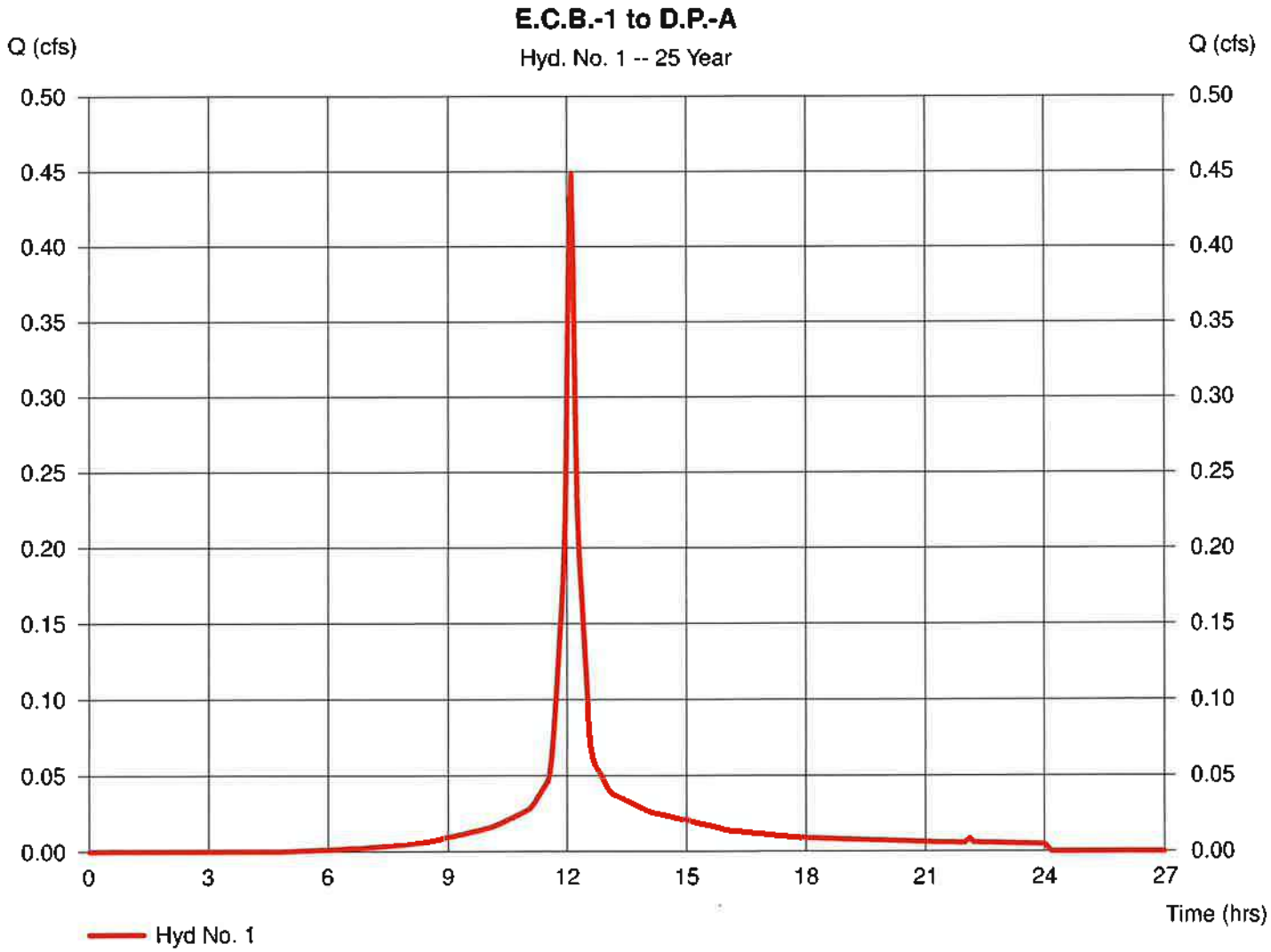
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description
37	Diversion1	0.009	3	660	62	36	------	------	Exfiltration
38	Diversion2	0.724	3	726	1,775	36	------	------	Overflow to D.P.-D
40	Combine	0.083	3	726	349	22, 32,	------	------	Total Runoff to D.P.-B
41	Combine	0.731	3	723	2,035	24, 35,	------	------	Total Runoff to D.P.-C
42	Combine	0.732	3	726	1,840	26, 38,	------	------	Total Runoff to D.P.-D
43	Combine	1.427	3	726	4,437	21, 25, 40, 41, 42	------	------	Total Runoff (Out of Site)

Hydrograph Report

Hyd. No. 1

E.C.B.-1 to D.P.-A

Hydrograph type	= SCS Runoff	Peak discharge	= 0.449 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 1,542 cuft
Drainage area	= 0.095 ac	Curve number	= 85.8
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.40 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

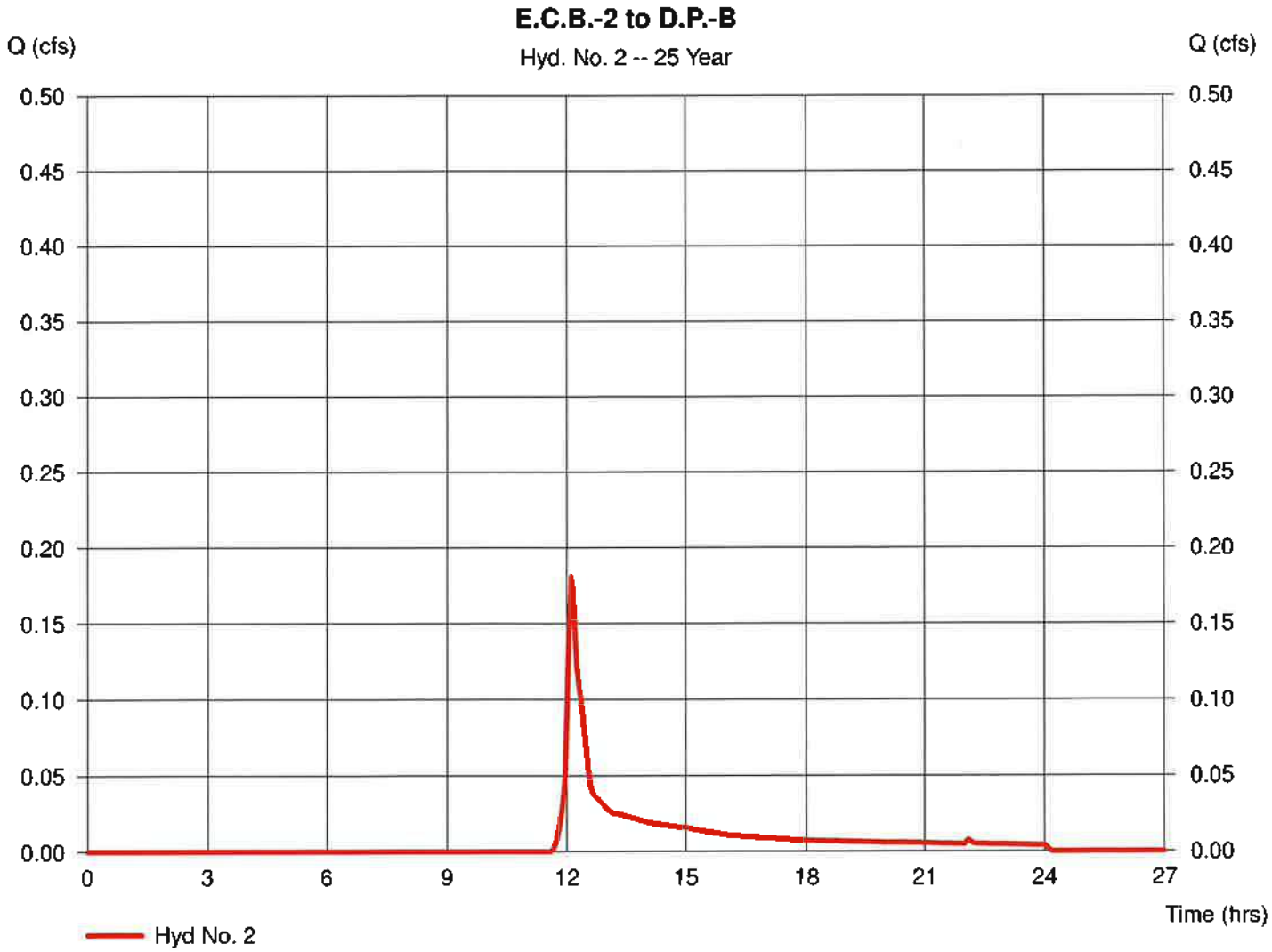


Hydrograph Report

Hyd. No. 2

E.C.B.-2 to D.P.-B

Hydrograph type	= SCS Runoff	Peak discharge	= 0.181 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 713 cuft
Drainage area	= 0.148 ac	Curve number	= 50.9
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.40 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

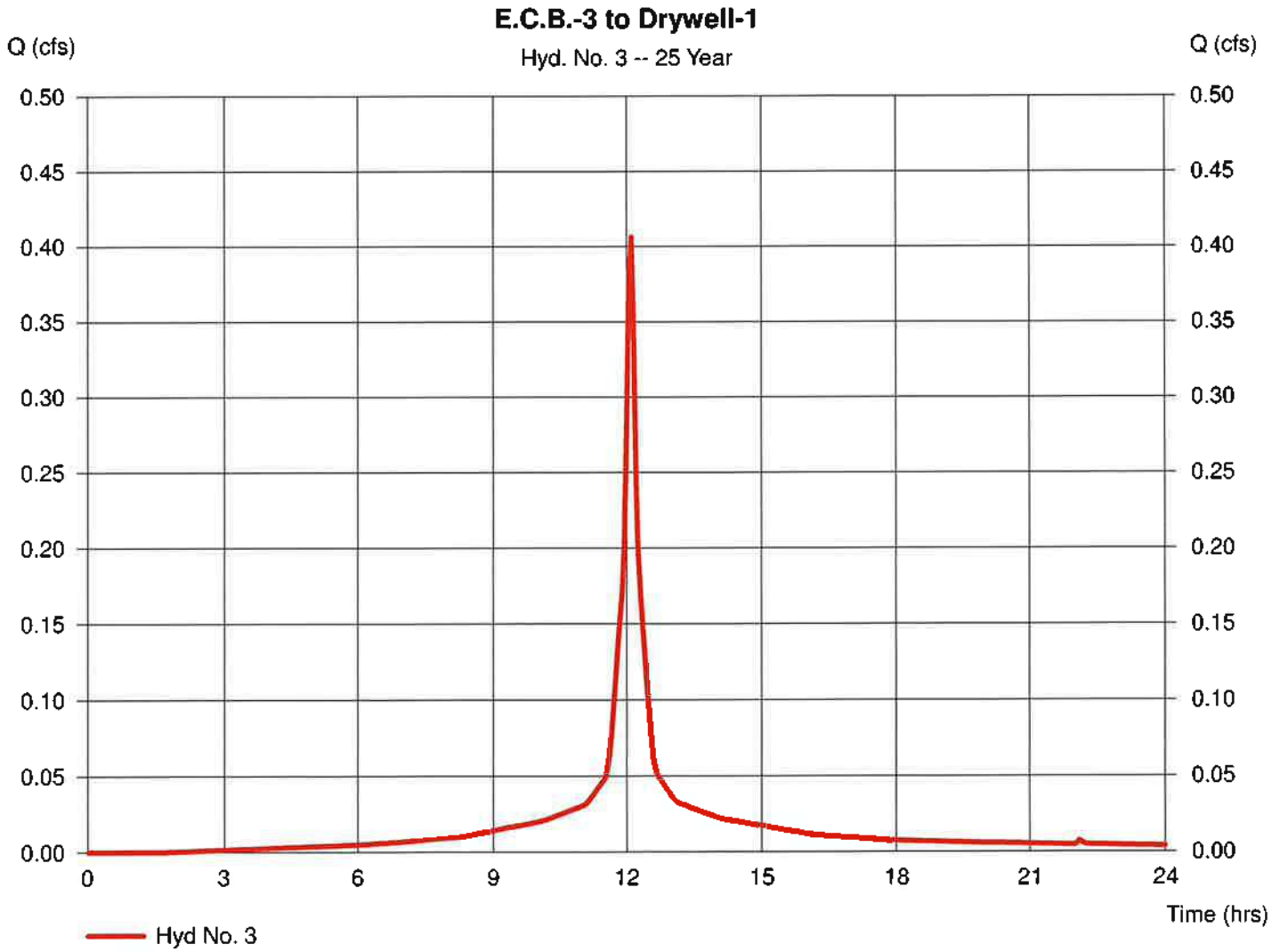


Hydrograph Report

Hyd. No. 3

E.C.B.-3 to Drywell-1

Hydrograph type	= SCS Runoff	Peak discharge	= 0.407 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 1,511 cuft
Drainage area	= 0.076 ac	Curve number	= 95.3
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.40 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

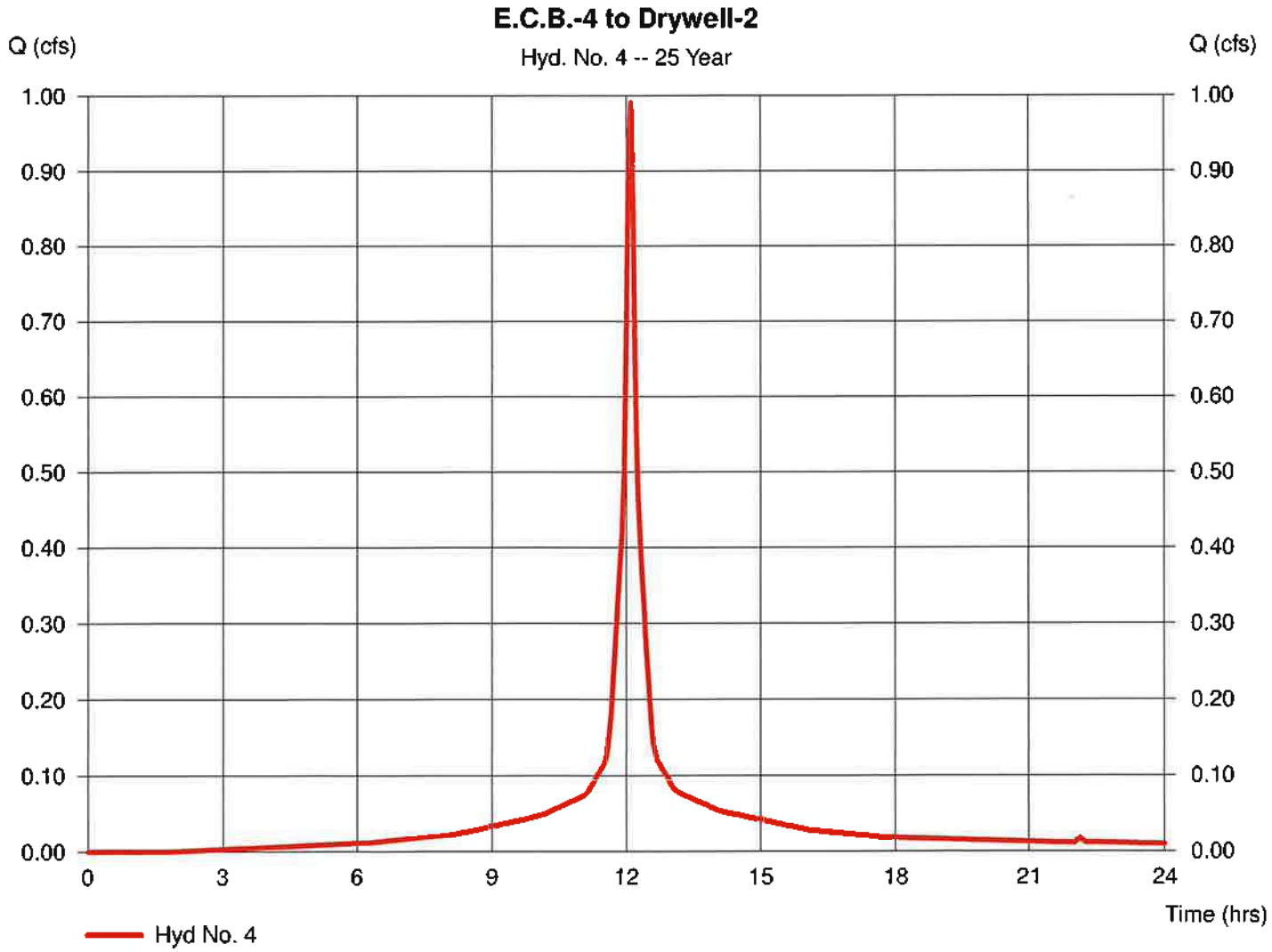


Hydrograph Report

Hyd. No. 4

E.C.B.-4 to Drywell-2

Hydrograph type	= SCS Runoff	Peak discharge	= 0.991 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 3,662 cuft
Drainage area	= 0.186 ac	Curve number	= 94.8
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.40 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

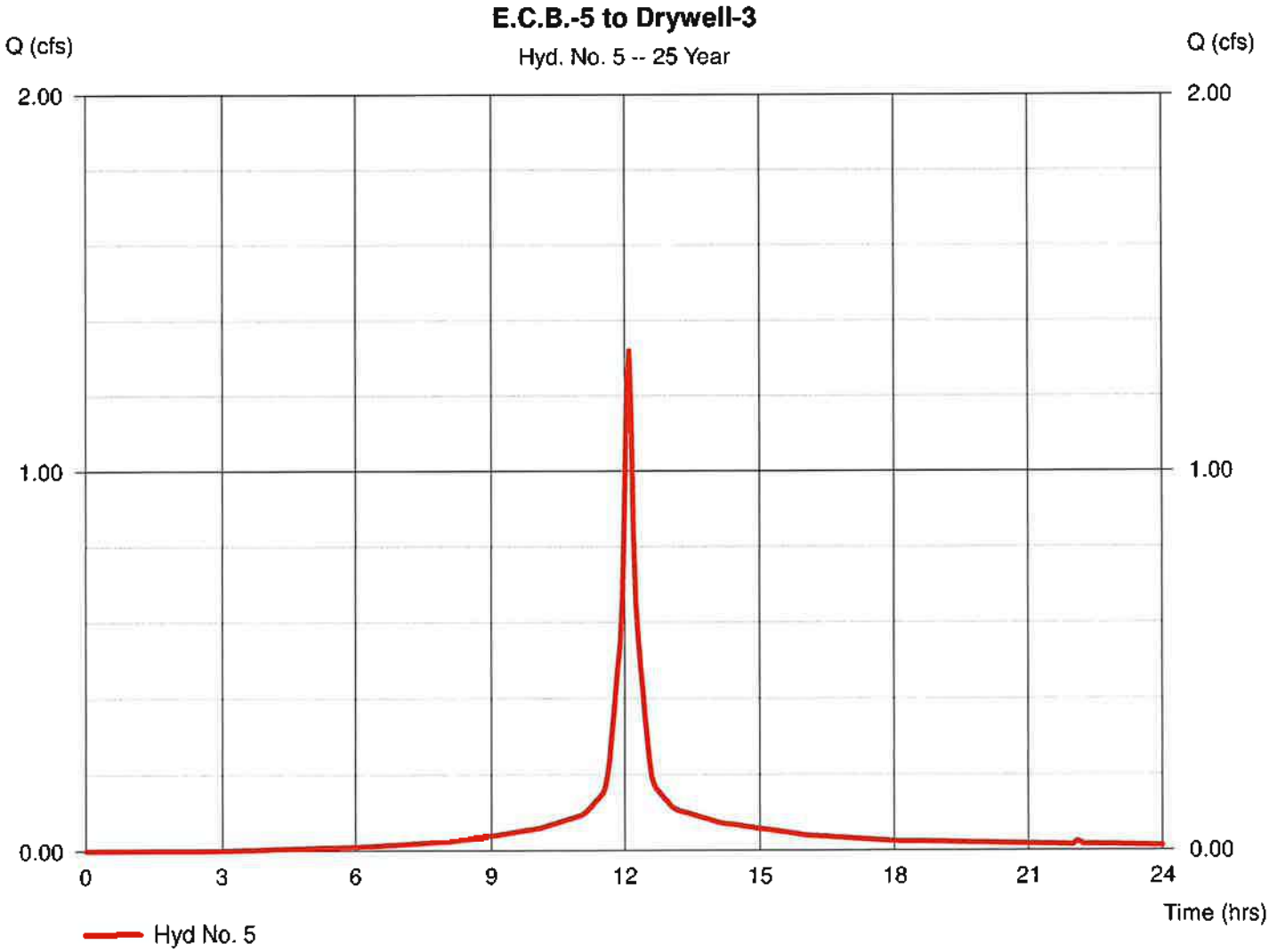


Hydrograph Report

Hyd. No. 5

E.C.B.-5 to Drywell-3

Hydrograph type	= SCS Runoff	Peak discharge	= 1.320 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 4,731 cuft
Drainage area	= 0.255 ac	Curve number	= 91.9
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.40 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

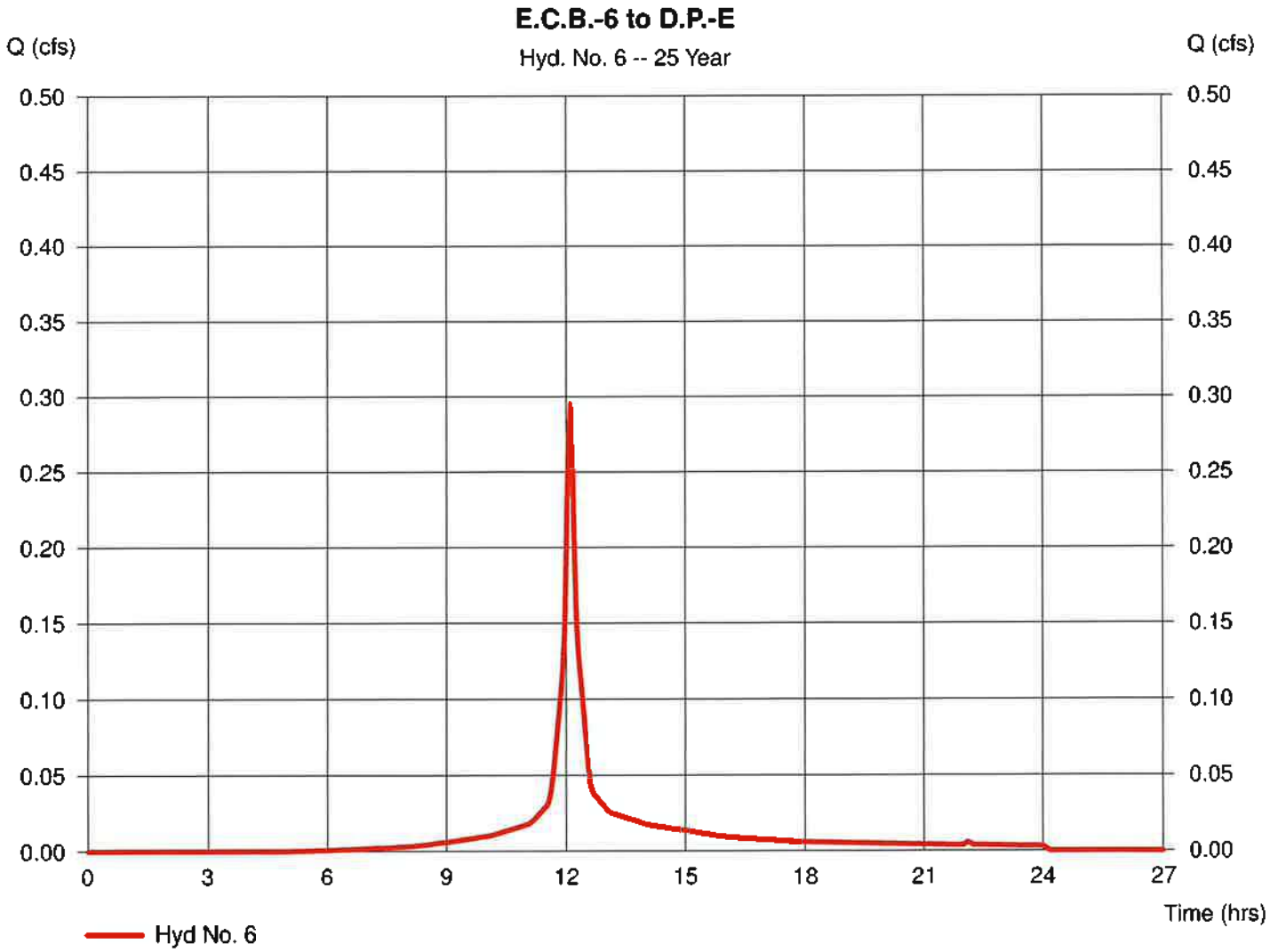


Hydrograph Report

Hyd. No. 6

E.C.B.-6 to D.P.-E

Hydrograph type	= SCS Runoff	Peak discharge	= 0.295 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 1,011 cuft
Drainage area	= 0.063 ac	Curve number	= 85.3
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.40 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



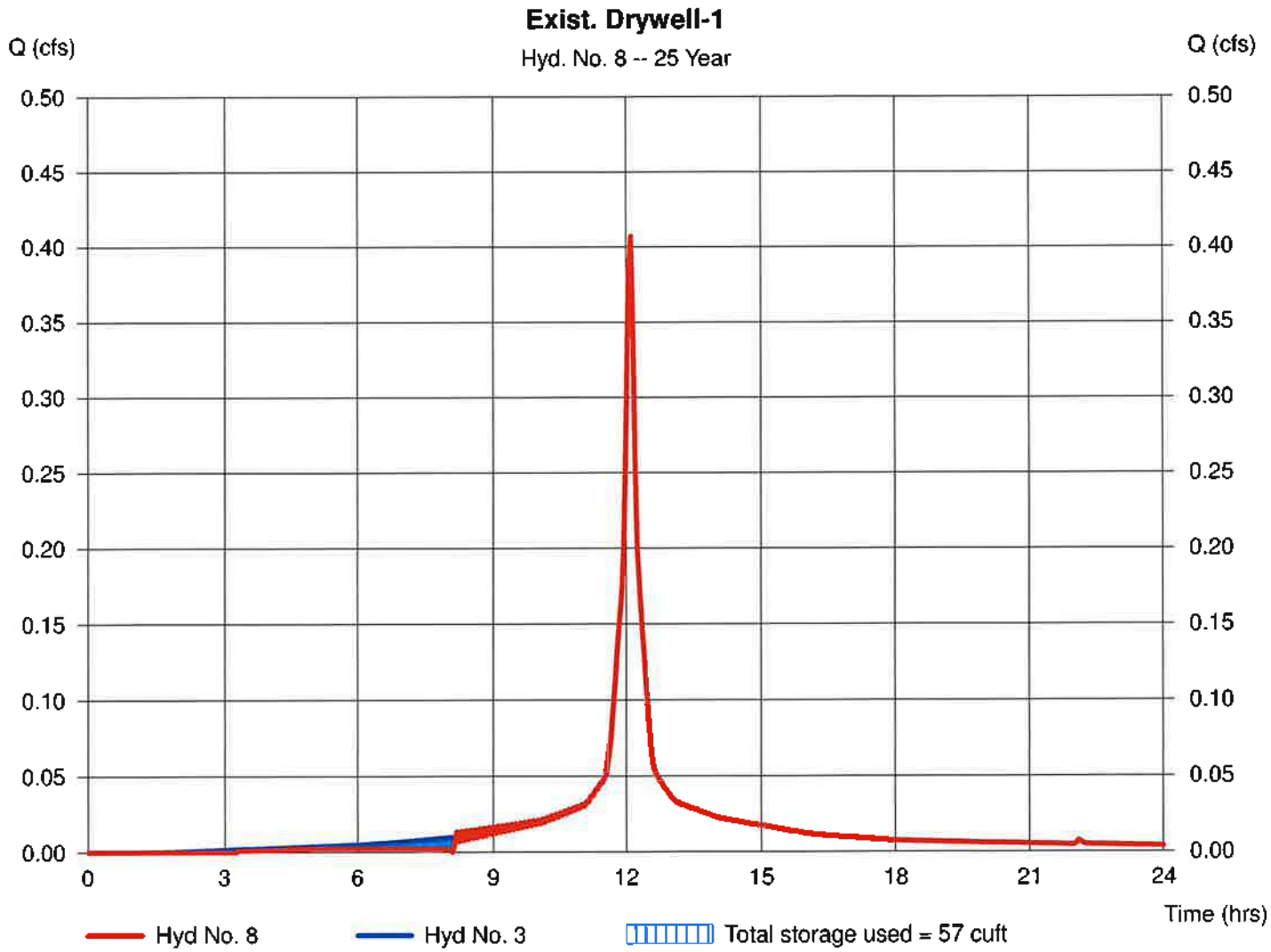
Hydrograph Report

Hyd. No. 8

Exist. Drywell-1

Hydrograph type	= Reservoir	Peak discharge	= 0.407 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 1,455 cuft
Inflow hyd. No.	= 3 - E.C.B.-3 to Drywell-1	Max. Elevation	= 154.32 ft
Reservoir name	= Exist. Drywell-1	Max. Storage	= 57 cuft

Storage Indication method used. Outflow includes exfiltration.

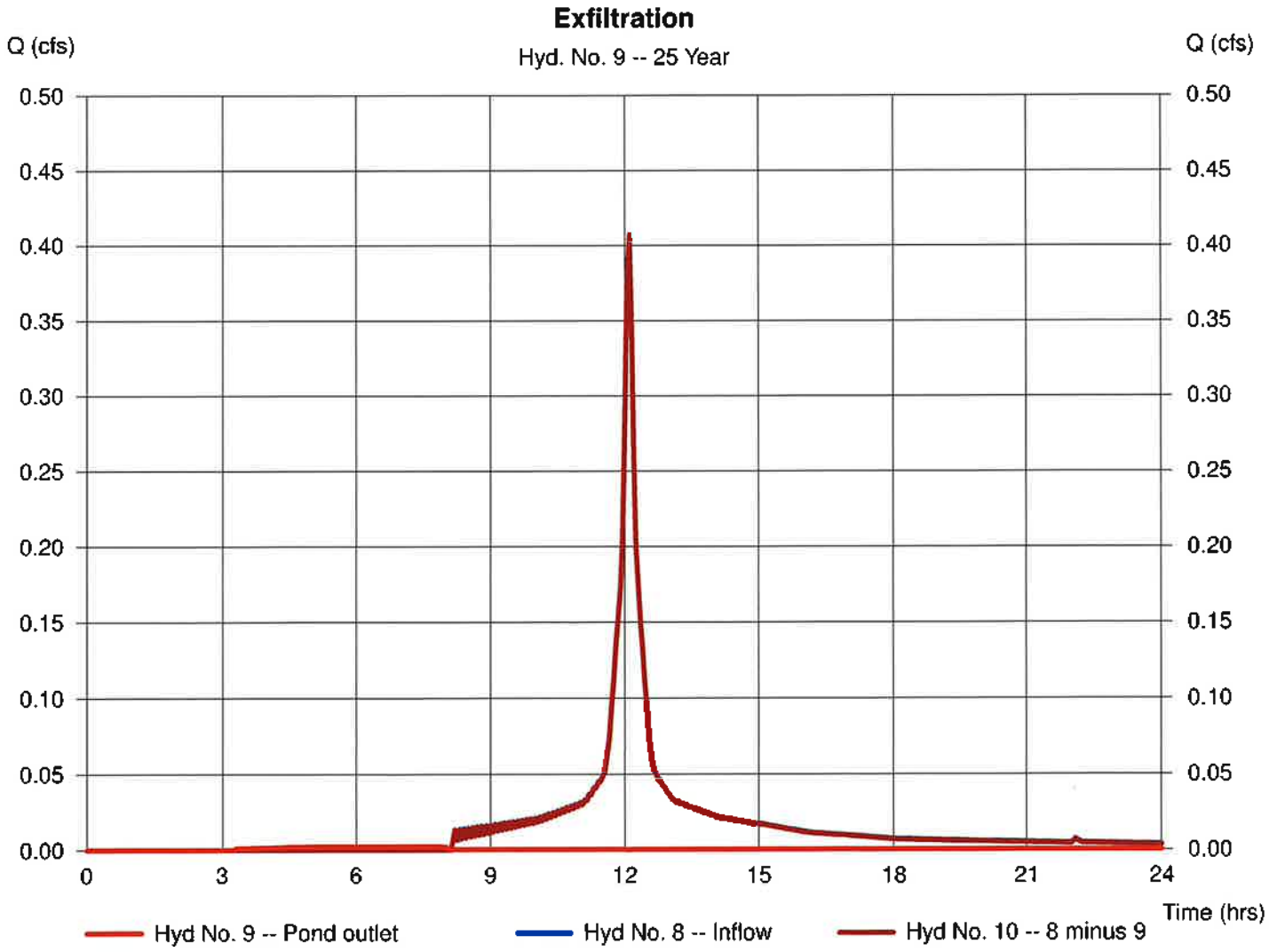


Hydrograph Report

Hyd. No. 9

Exfiltration

Hydrograph type	= Diversion1	Peak discharge	= 0.002 cfs
Storm frequency	= 25 yrs	Time to peak	= 5.05 hrs
Time interval	= 3 min	Hyd. volume	= 60 cuft
Inflow hydrograph	= 8 - Exist. Drywell-1	2nd diverted hyd.	= 10
Diversion method	= Pond - Exist. Drywell-1	Pond structure	= Exfiltration

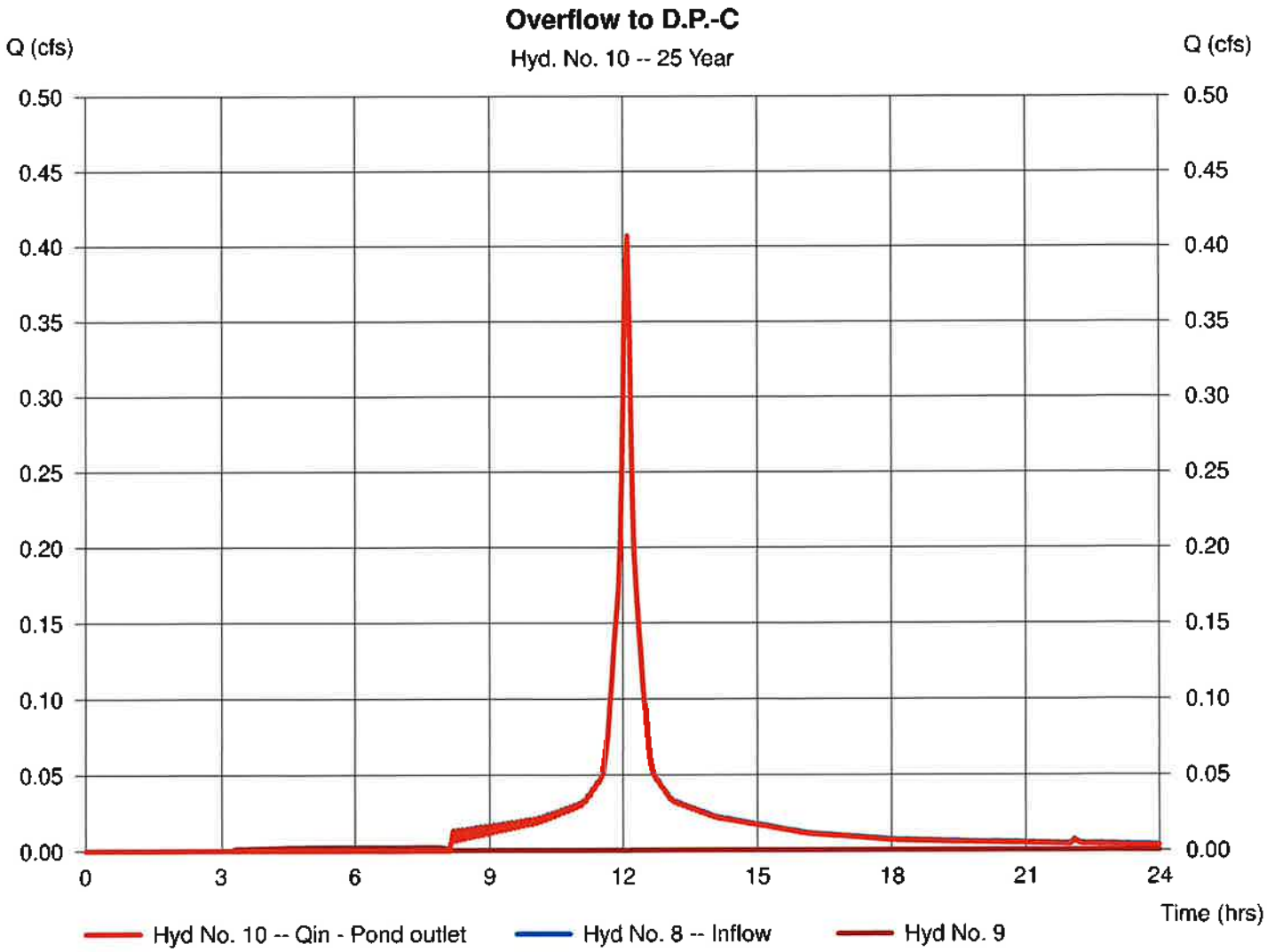


Hydrograph Report

Hyd. No. 10

Overflow to D.P.-C

Hydrograph type	= Diversion2	Peak discharge	= 0.407 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 1,395 cuft
Inflow hydrograph	= 8 - Exist. Drywell-1	2nd diverted hyd.	= 9
Diversion method	= Pond - Exist. Drywell-1	Pond structure	= Exfiltration



Hydrograph Report

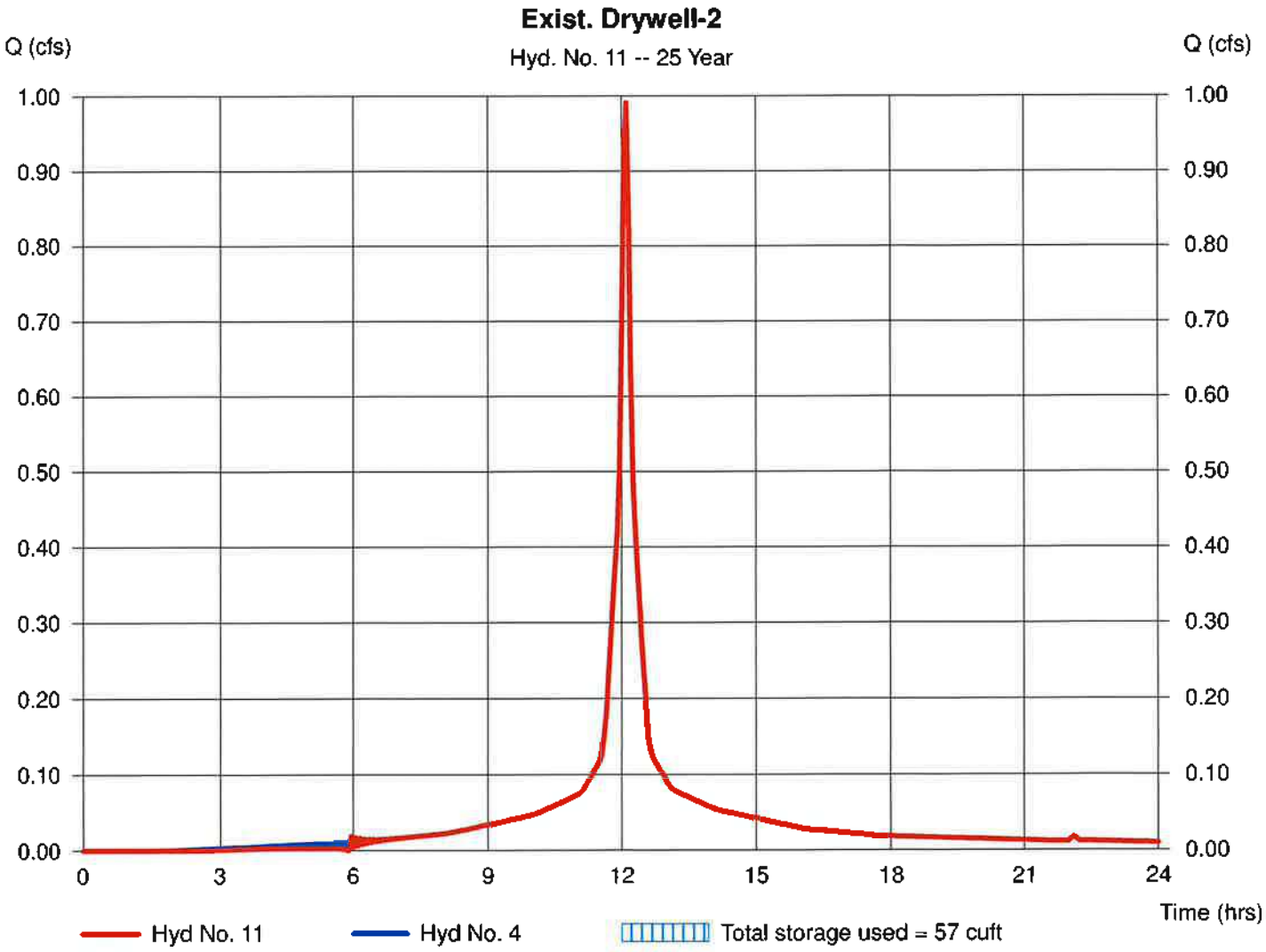
Hydraflow Hydrographs by Intelisolve v9.22 — Sunday, Nov 23, 2025

Hyd. No. 11

Exist. Drywell-2

Hydrograph type	= Reservoir	Peak discharge	= 0.992 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 3,606 cuft
Inflow hyd. No.	= 4 - E.C.B.-4 to Drywell-2	Max. Elevation	= 154.02 ft
Reservoir name	= Exist. Drywell-2	Max. Storage	= 57 cuft

Storage Indication method used. Outflow includes exfiltration.

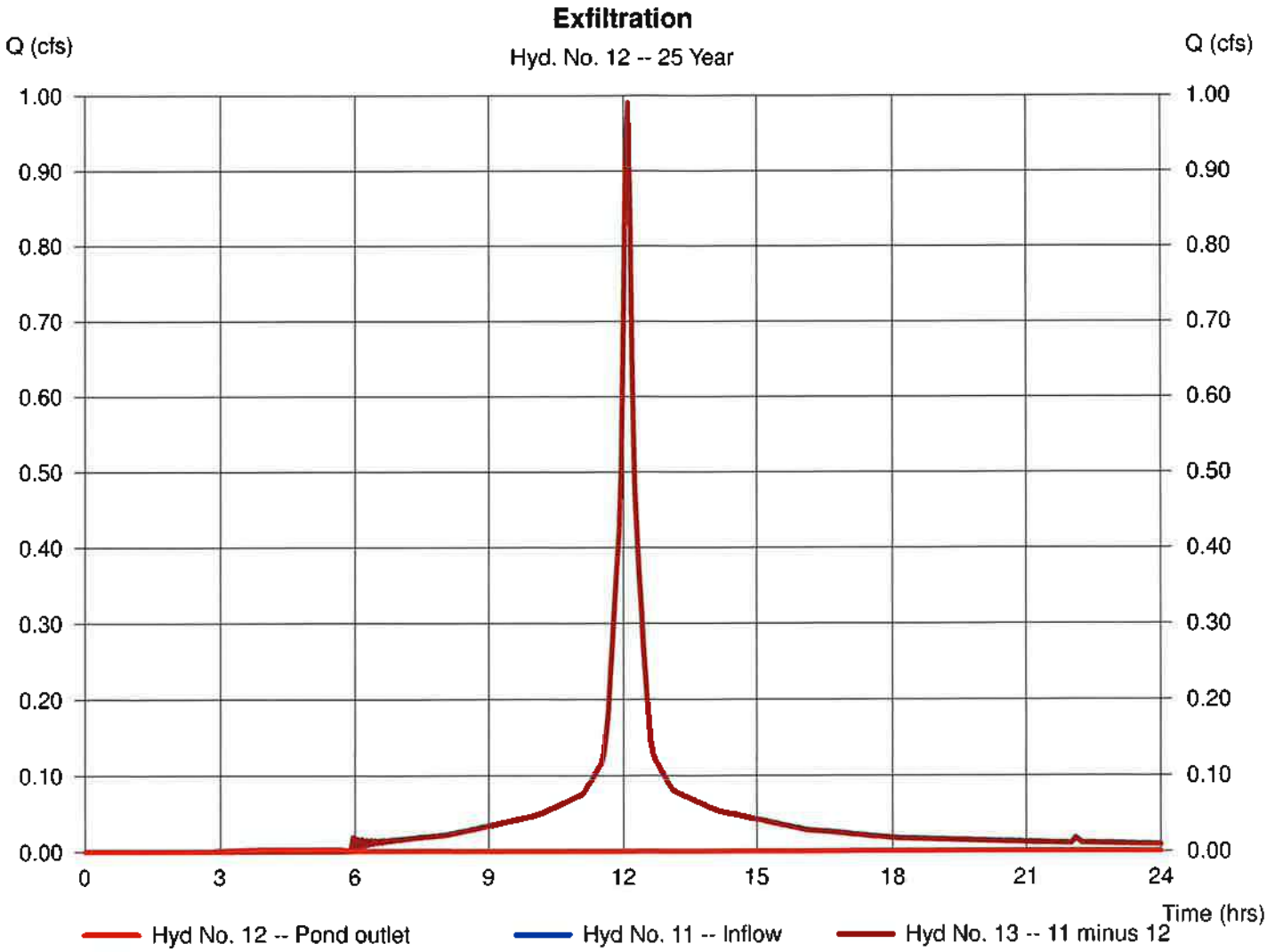


Hydrograph Report

Hyd. No. 12

Exfiltration

Hydrograph type	= Diversion1	Peak discharge	= 0.002 cfs
Storm frequency	= 25 yrs	Time to peak	= 3.80 hrs
Time interval	= 3 min	Hyd. volume	= 60 cuft
Inflow hydrograph	= 11 - Exist. Drywell-2	2nd diverted hyd.	= 13
Diversion method	= Pond - Exist. Drywell-2	Pond structure	= Exfiltration

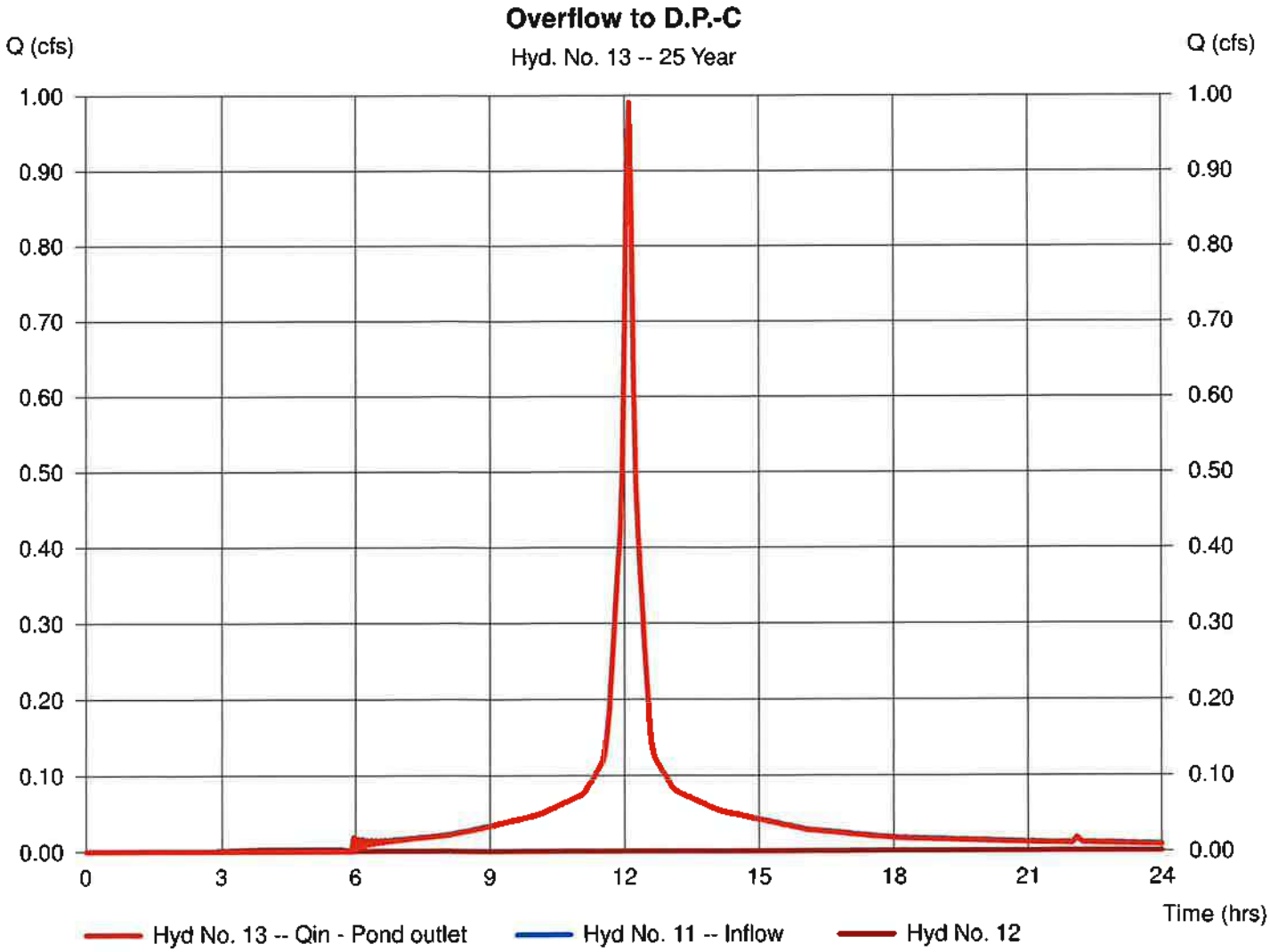


Hydrograph Report

Hyd. No. 13

Overflow to D.P.-C

Hydrograph type	= Diversion2	Peak discharge	= 0.992 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 3,546 cuft
Inflow hydrograph	= 11 - Exist. Drywell-2	2nd diverted hyd.	= 12
Diversion method	= Pond - Exist. Drywell-2	Pond structure	= Exfiltration



Hydrograph Report

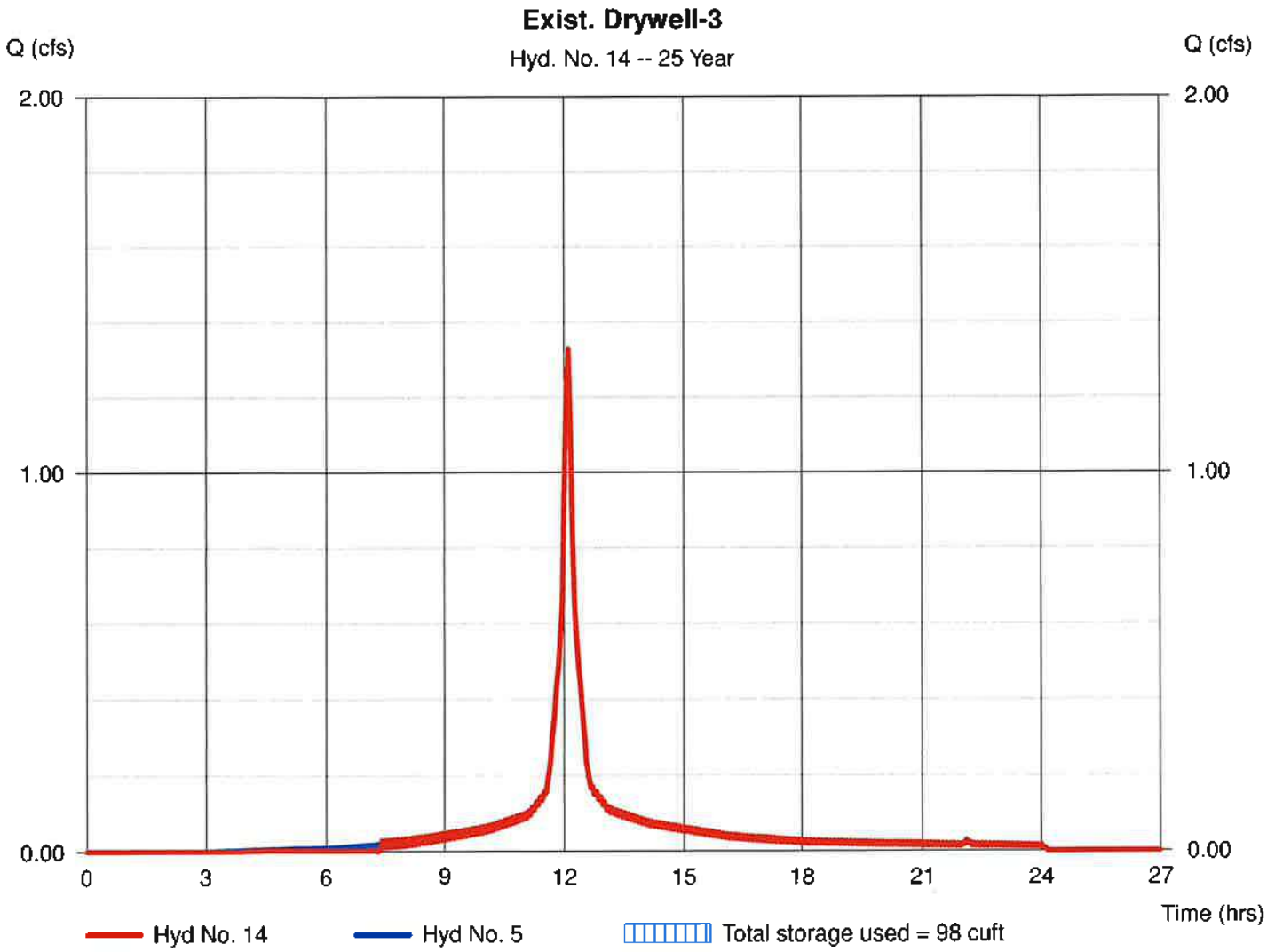
Hydraflow Hydrographs by Intelisolve v9.22 — Sunday, Nov 23, 2025

Hyd. No. 14

Exist. Drywell-3

Hydrograph type	= Reservoir	Peak discharge	= 1.328 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 4,633 cuft
Inflow hyd. No.	= 5 - E.C.B.-5 to Drywell-3	Max. Elevation	= 154.44 ft
Reservoir name	= Exist. Drywell-3	Max. Storage	= 98 cuft

Storage Indication method used. Outflow includes exfiltration.

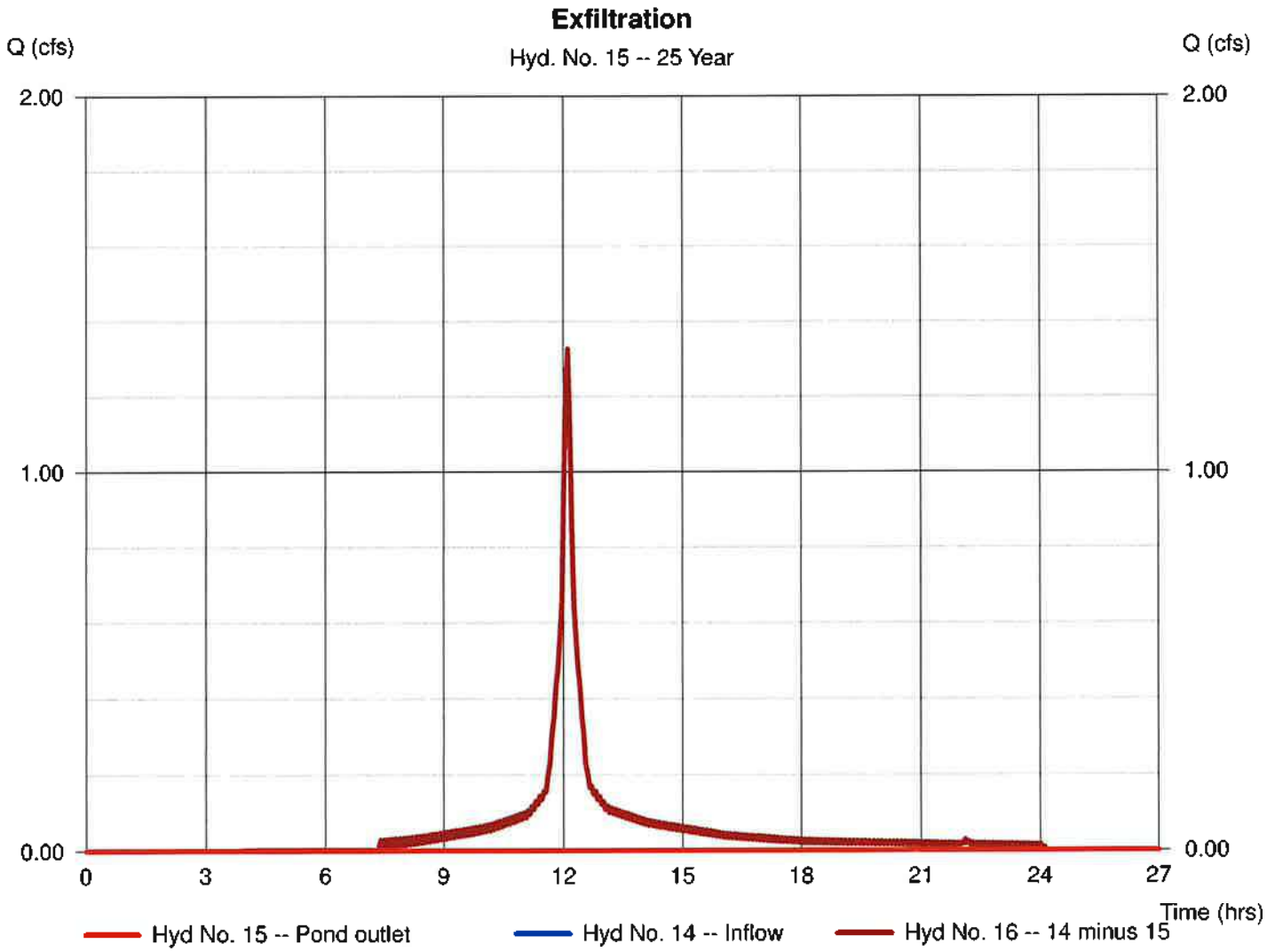


Hydrograph Report

Hyd. No. 15

Exfiltration

Hydrograph type	= Diversion1	Peak discharge	= 0.002 cfs
Storm frequency	= 25 yrs	Time to peak	= 6.70 hrs
Time interval	= 3 min	Hyd. volume	= 39 cuft
Inflow hydrograph	= 14 - Exist. Drywell-3	2nd diverted hyd.	= 16
Diversion method	= Pond - Exist. Drywell-3	Pond structure	= Exfiltration

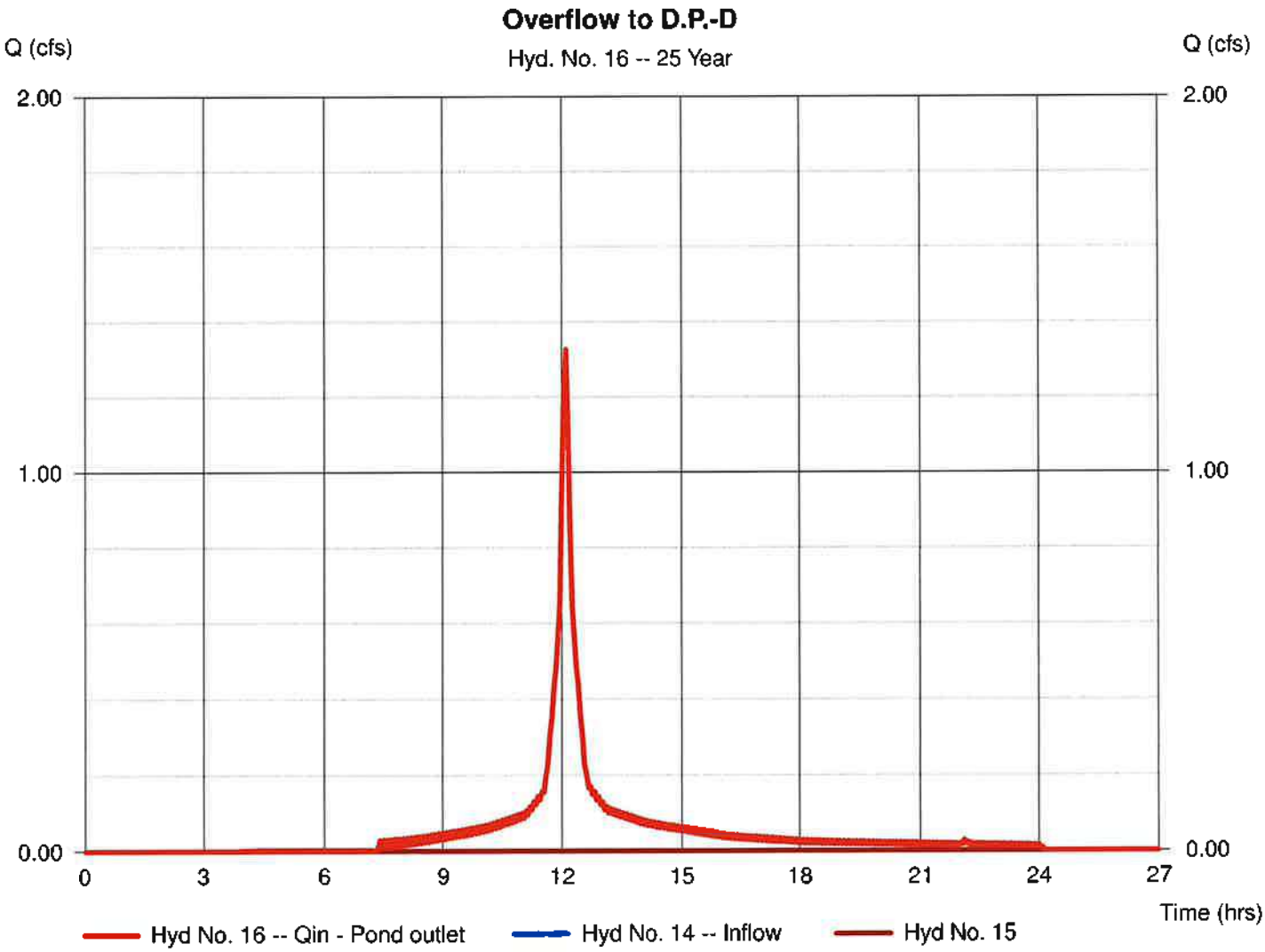


Hydrograph Report

Hyd. No. 16

Overflow to D.P.-D

Hydrograph type	= Diversion2	Peak discharge	= 1.328 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 4,594 cuft
Inflow hydrograph	= 14 - Exist. Drywell-3	2nd diverted hyd.	= 15
Diversion method	= Pond - Exist. Drywell-3	Pond structure	= Exfiltration

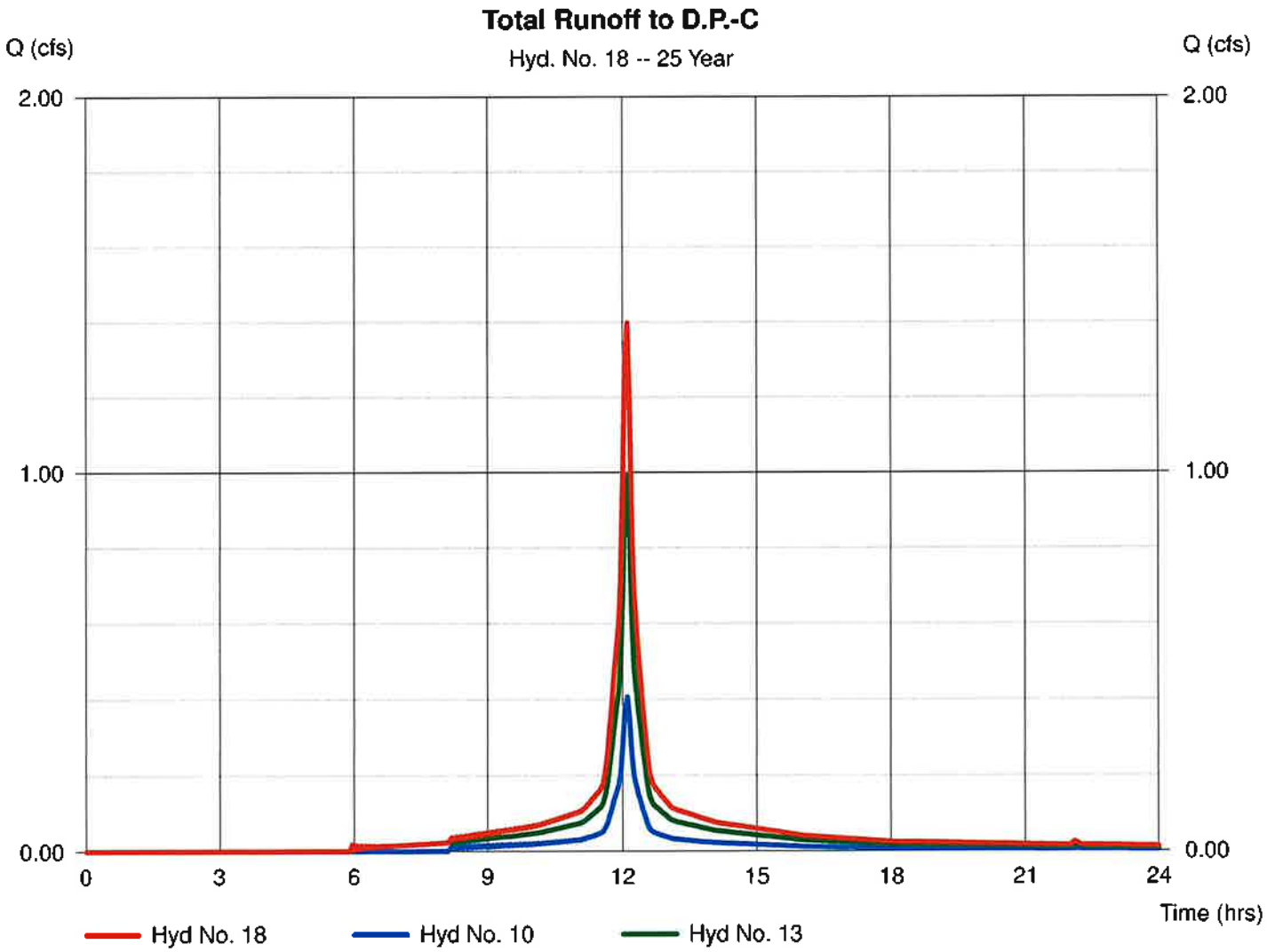


Hydrograph Report

Hyd. No. 18

Total Runoff to D.P.-C

Hydrograph type	= Combine	Peak discharge	= 1.399 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 4,941 cuft
Inflow hyds.	= 10, 13	Contrib. drain. area	= 0.000 ac

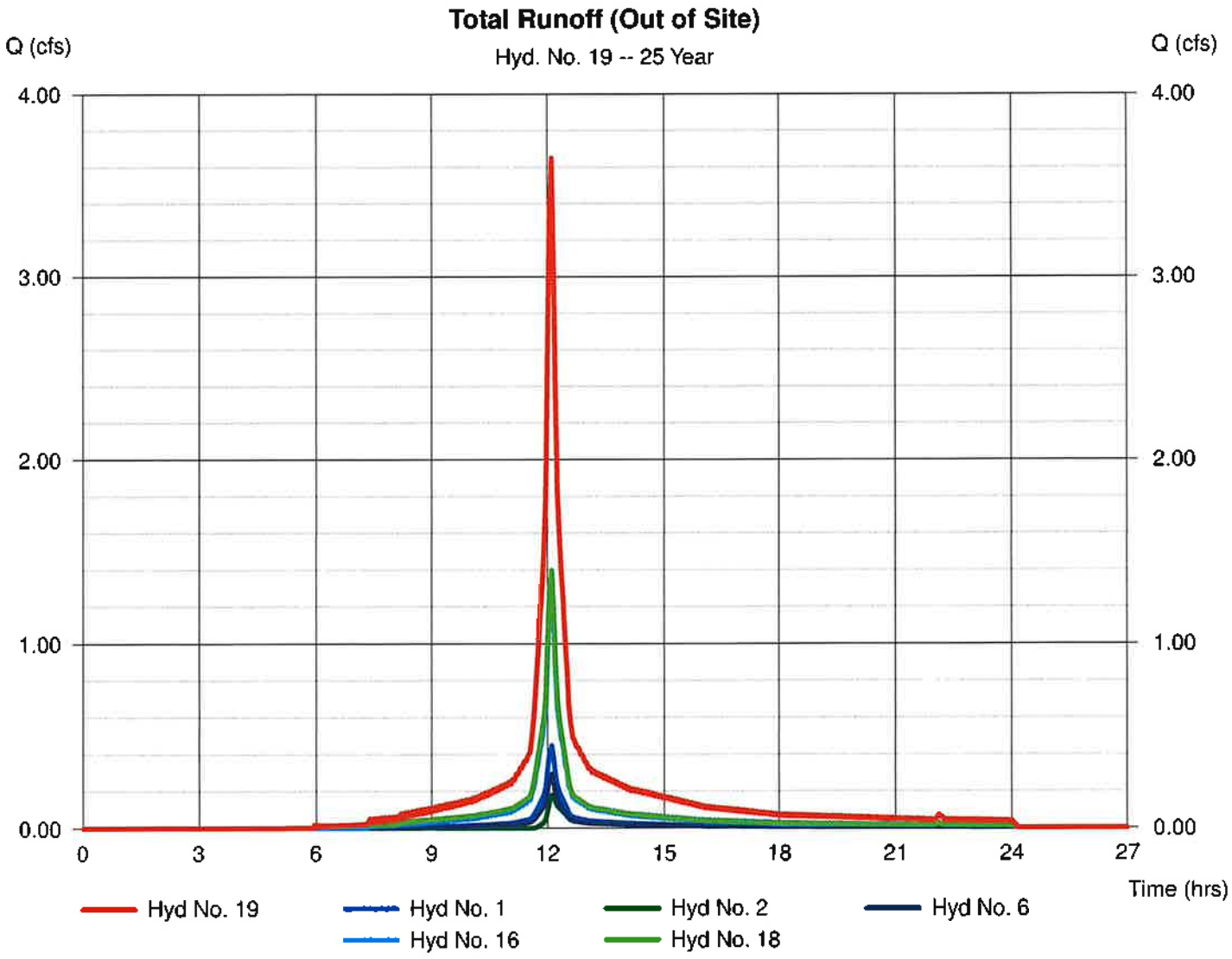


Hydrograph Report

Hyd. No. 19

Total Runoff (Out of Site)

Hydrograph type	= Combine	Peak discharge	= 3.652 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 12,800 cuft
Inflow hyds.	= 1, 2, 6, 16, 18	Contrib. drain. area	= 0.306 ac

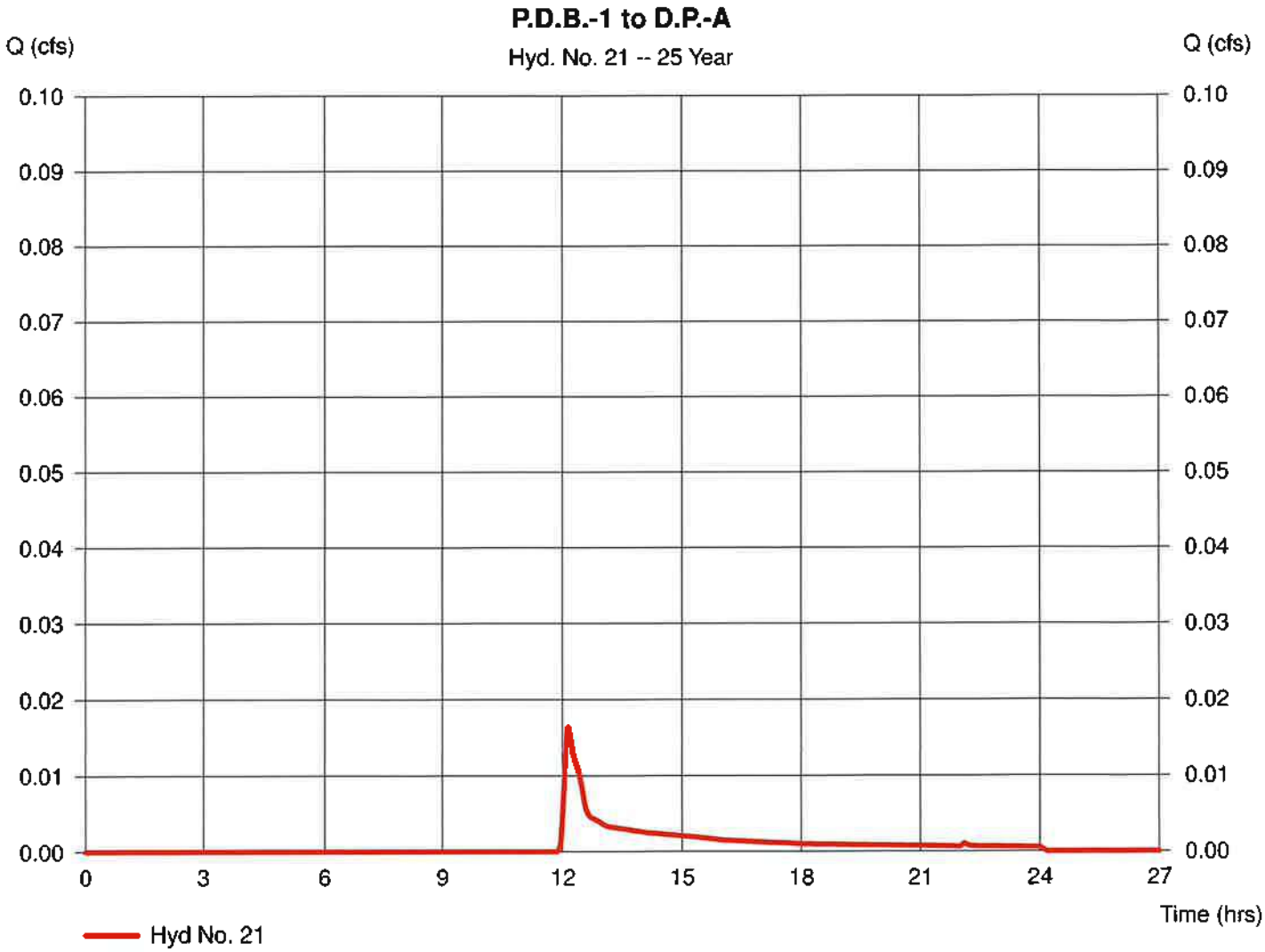


Hydrograph Report

Hyd. No. 21

P.D.B.-1 to D.P.-A

Hydrograph type	= SCS Runoff	Peak discharge	= 0.016 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.15 hrs
Time interval	= 3 min	Hyd. volume	= 82 cuft
Drainage area	= 0.026 ac	Curve number	= 44.5
Basin Slope	= 3.9 %	Hydraulic length	= 125 ft
Tc method	= LAG	Time of conc. (Tc)	= 7.80 min
Total precip.	= 6.40 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

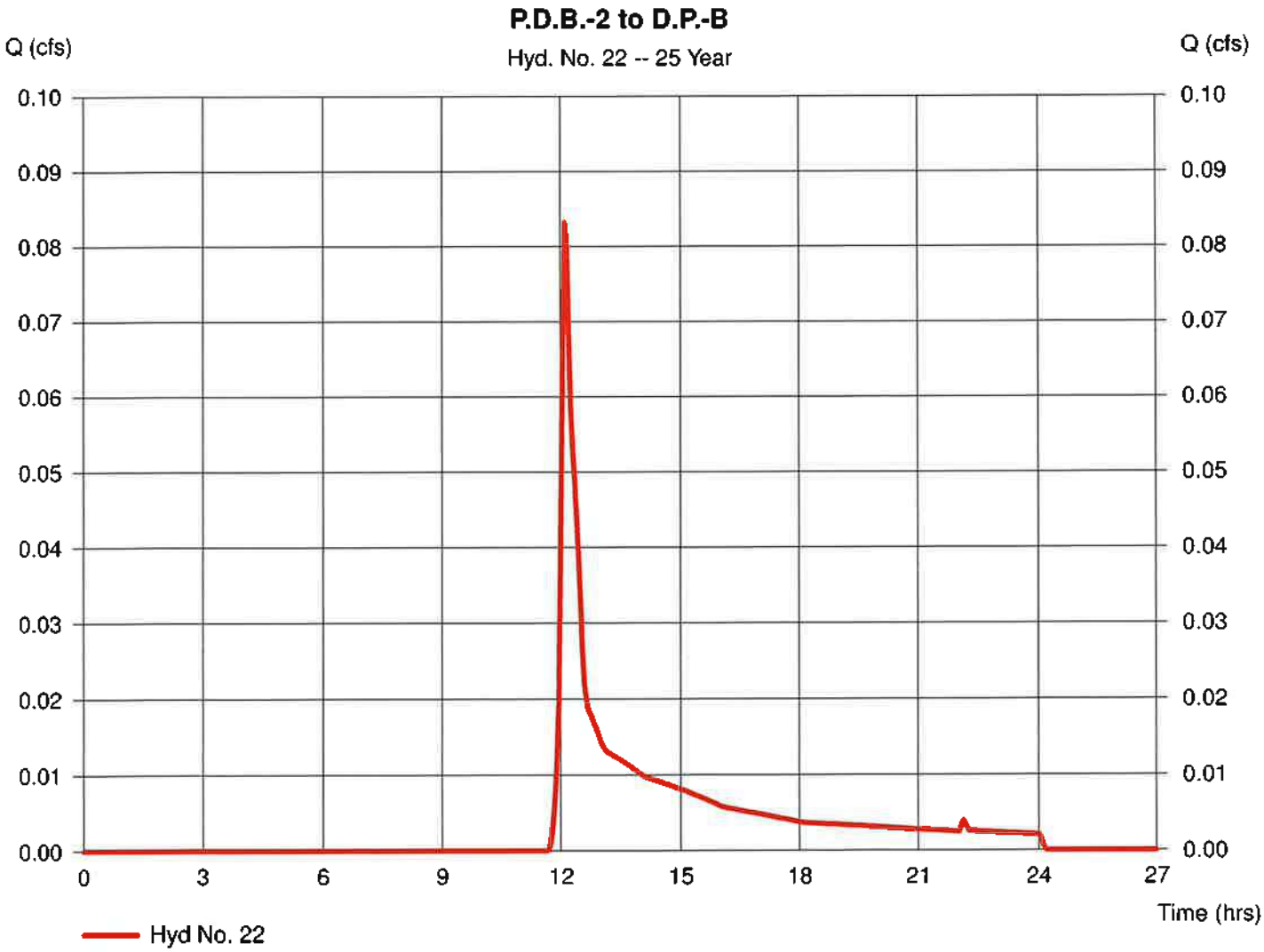


Hydrograph Report

Hyd. No. 22

P.D.B.-2 to D.P.-B

Hydrograph type	= SCS Runoff	Peak discharge	= 0.083 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 349 cuft
Drainage area	= 0.082 ac	Curve number	= 48.8
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.40 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

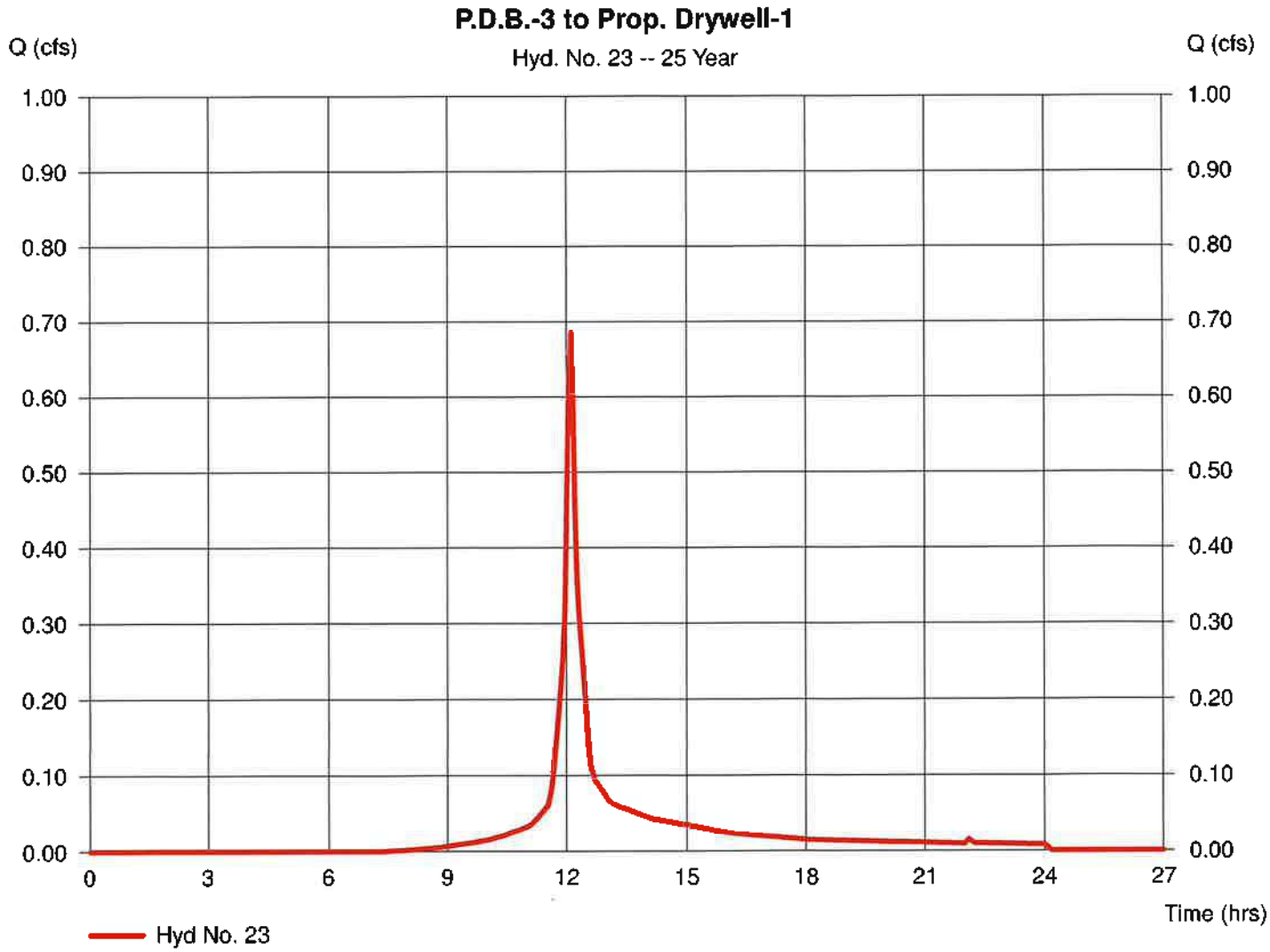


Hydrograph Report

Hyd. No. 23

P.D.B.-3 to Prop. Drywell-1

Hydrograph type	= SCS Runoff	Peak discharge	= 0.686 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 2,288 cuft
Drainage area	= 0.175 ac	Curve number	= 77.1
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.40 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

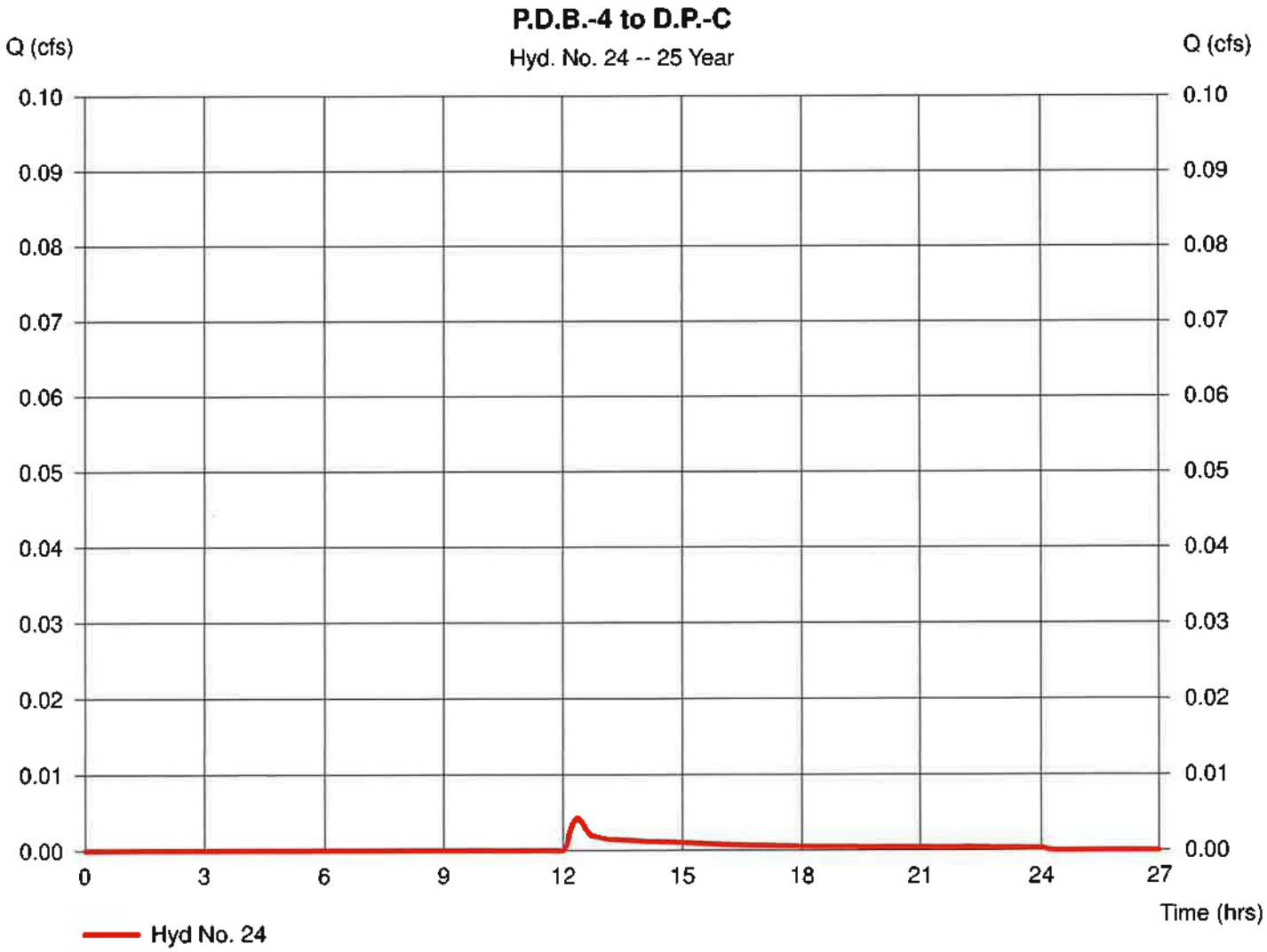


Hydrograph Report

Hyd. No. 24

P.D.B.-4 to D.P.-C

Hydrograph type	= SCS Runoff	Peak discharge	= 0.004 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.35 hrs
Time interval	= 3 min	Hyd. volume	= 35 cuft
Drainage area	= 0.017 ac	Curve number	= 39
Basin Slope	= 0.9 %	Hydraulic length	= 87 ft
Tc method	= LAG	Time of conc. (Tc)	= 14.00 min
Total precip.	= 6.40 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

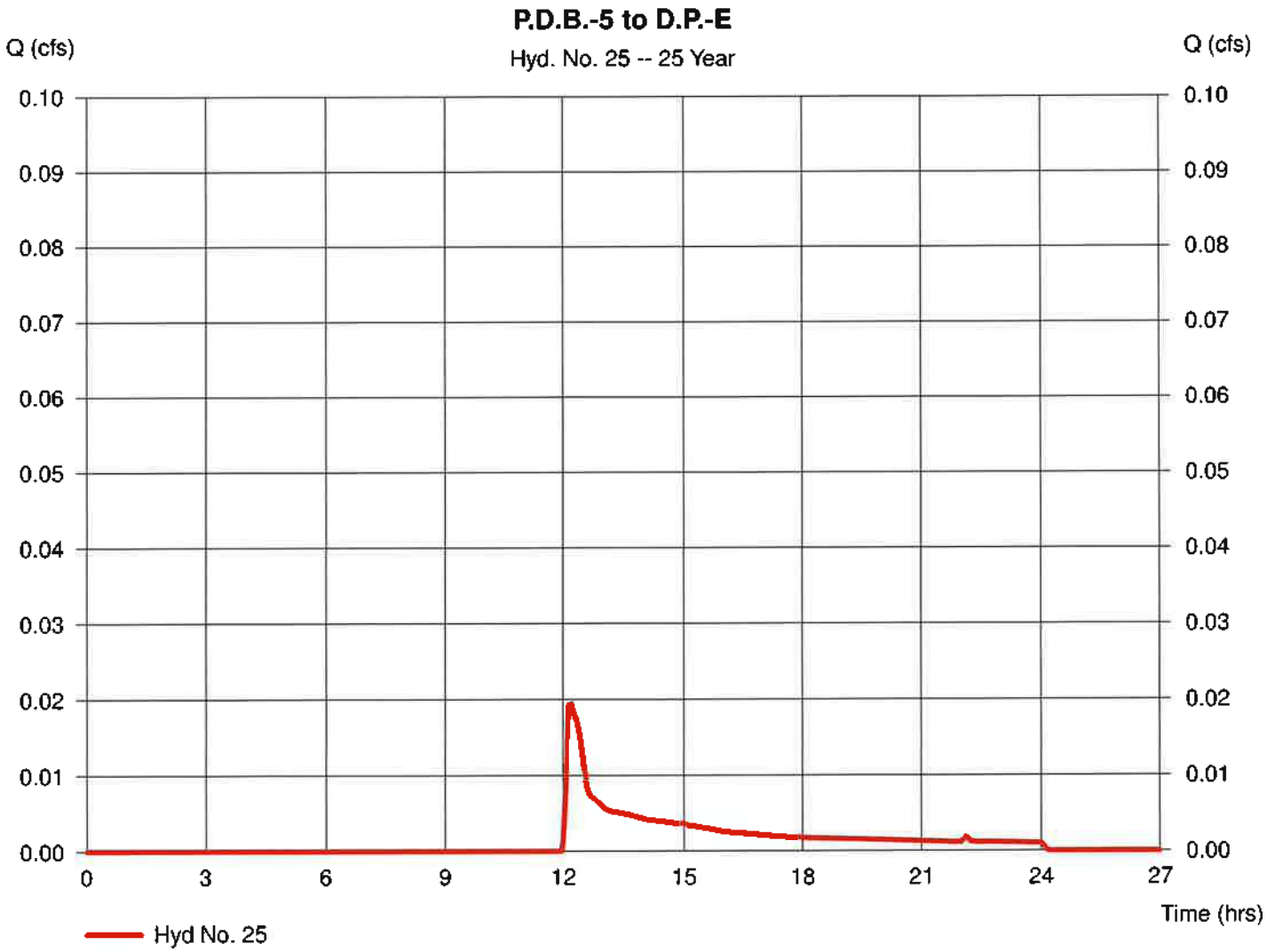


Hydrograph Report

Hyd. No. 25

P.D.B.-5 to D.P.-E

Hydrograph type	= SCS Runoff	Peak discharge	= 0.020 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.20 hrs
Time interval	= 3 min	Hyd. volume	= 131 cuft
Drainage area	= 0.055 ac	Curve number	= 41.1
Basin Slope	= 3.5 %	Hydraulic length	= 111 ft
Tc method	= LAG	Time of conc. (Tc)	= 8.20 min
Total precip.	= 6.40 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

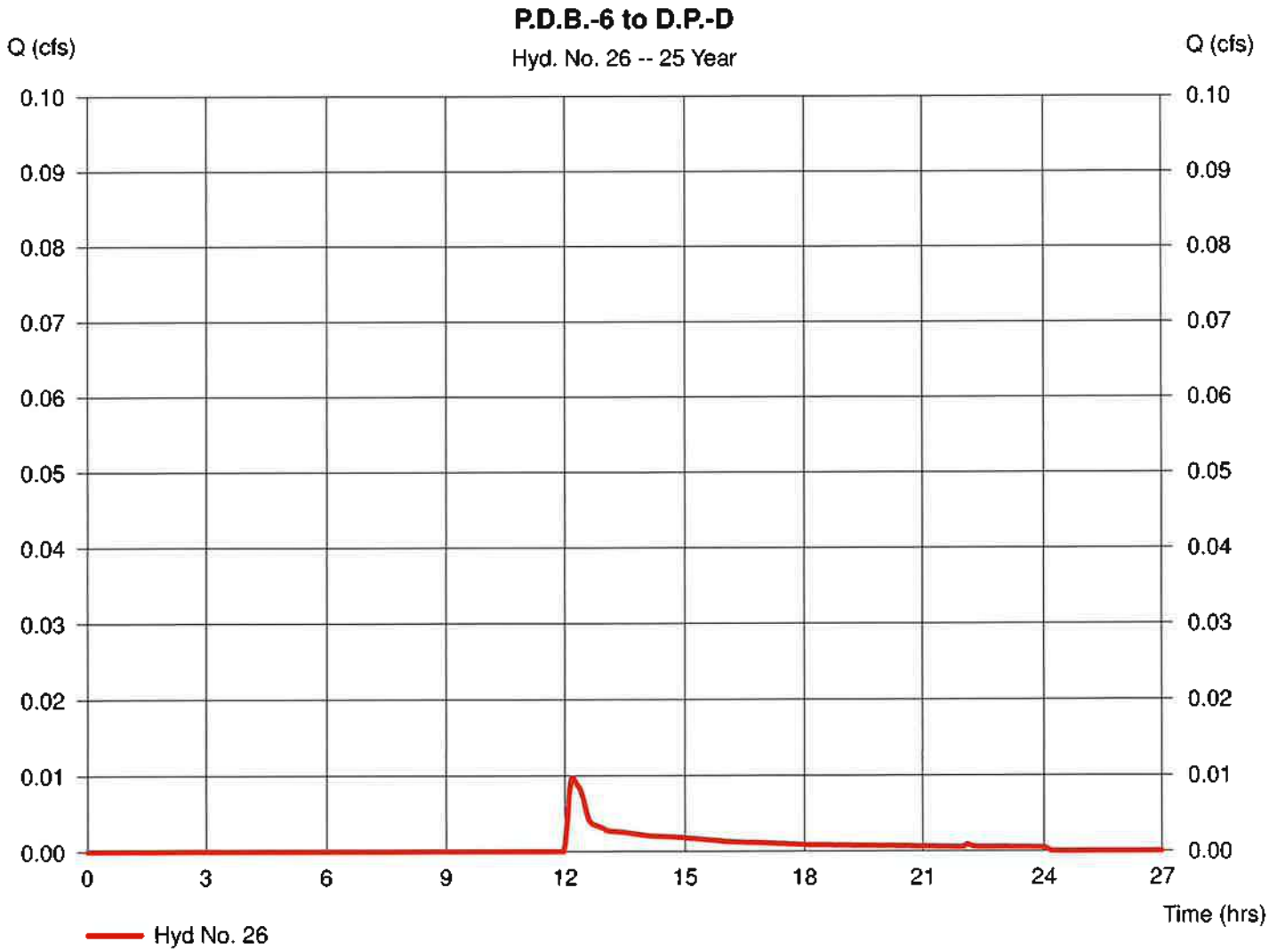


Hydrograph Report

Hyd. No. 26

P.D.B.-6 to D.P.-D

Hydrograph type	= SCS Runoff	Peak discharge	= 0.010 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.20 hrs
Time interval	= 3 min	Hyd. volume	= 65 cuft
Drainage area	= 0.027 ac	Curve number	= 41.2
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.40 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

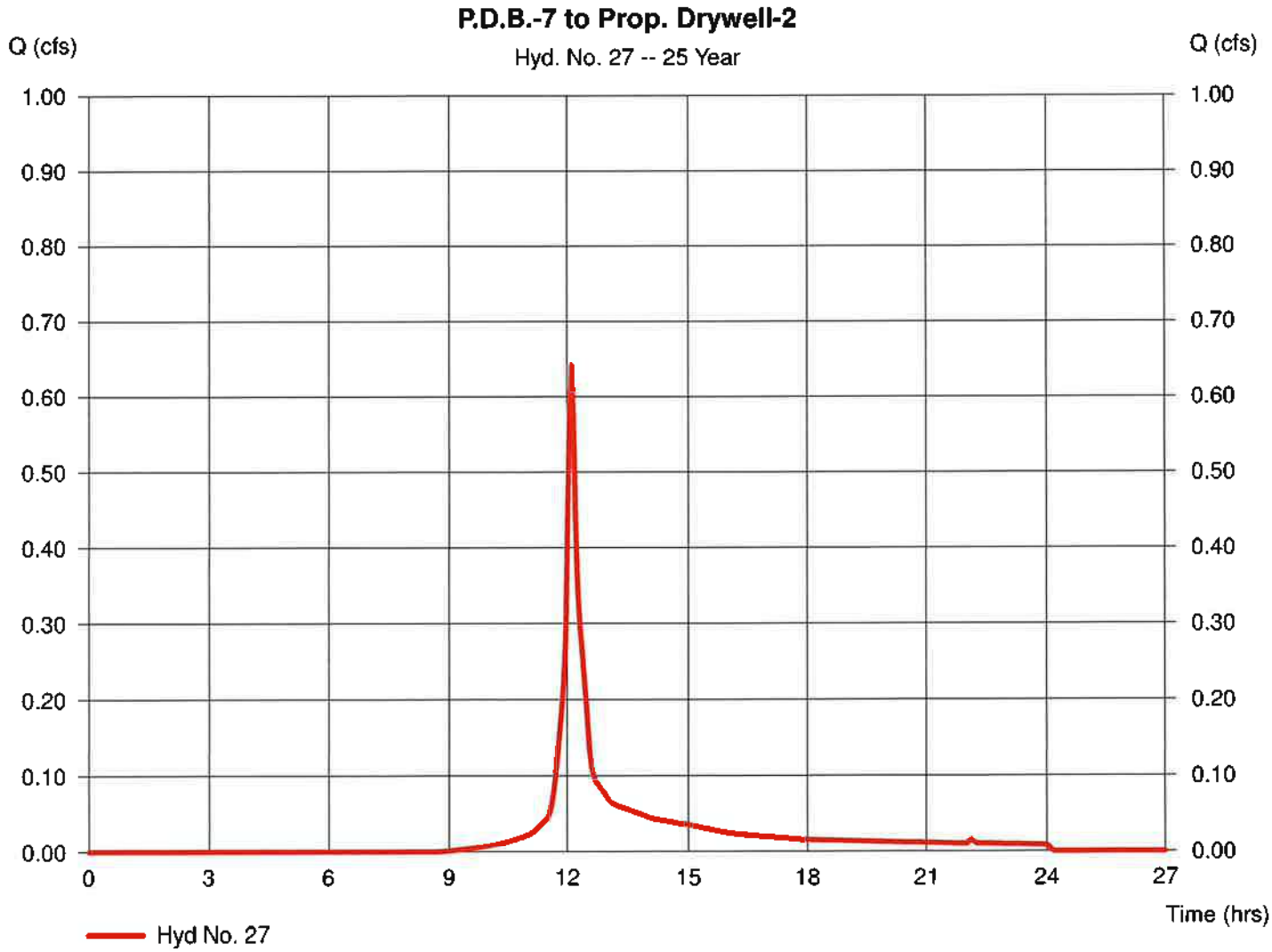


Hydrograph Report

Hyd. No. 27

P.D.B.-7 to Prop. Drywell-2

Hydrograph type	= SCS Runoff	Peak discharge	= 0.642 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 2,137 cuft
Drainage area	= 0.199 ac	Curve number	= 70.3
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.40 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

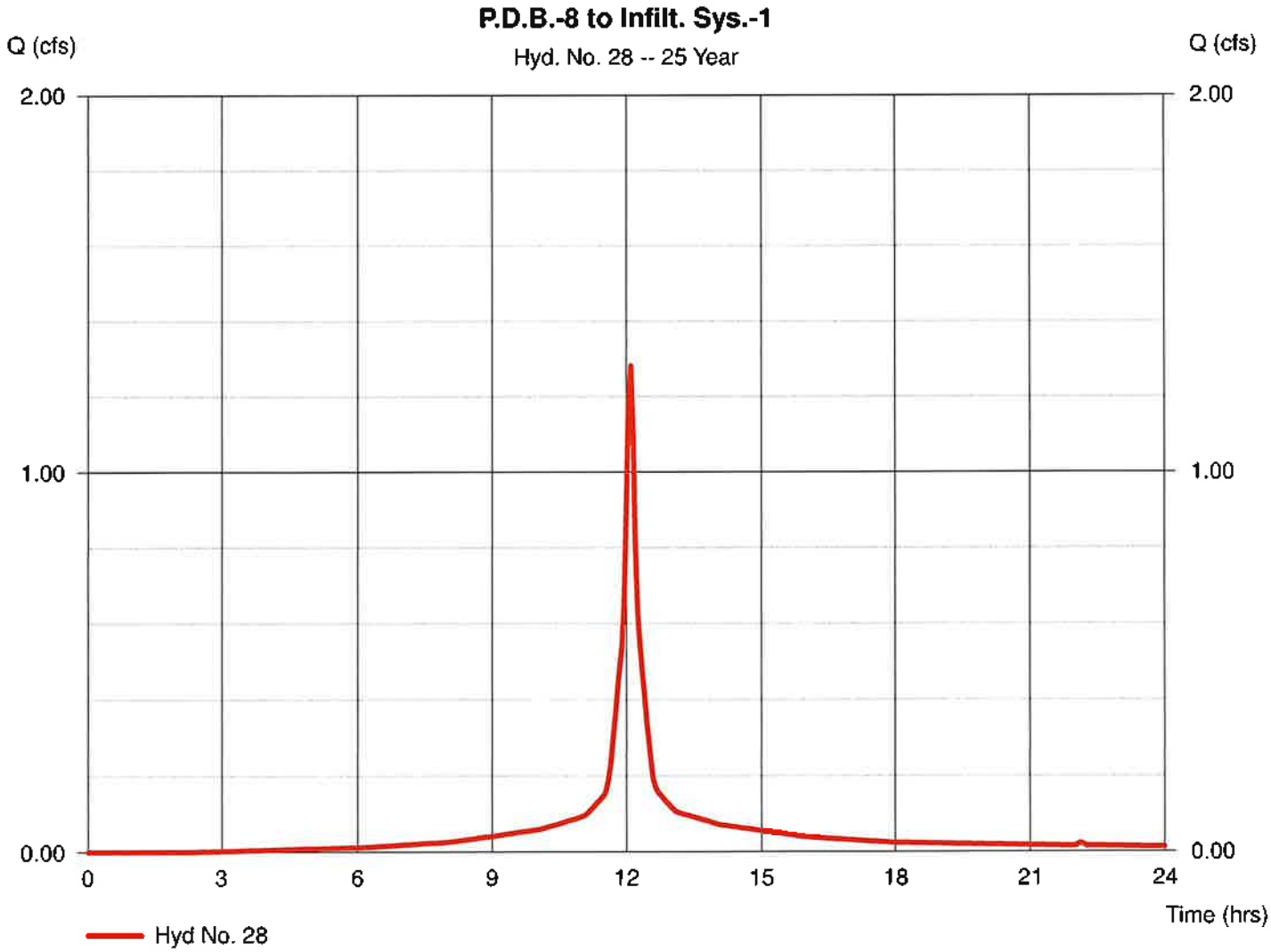


Hydrograph Report

Hyd. No. 28

P.D.B.-8 to Infilt. Sys.-1

Hydrograph type	= SCS Runoff	Peak discharge	= 1.283 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 4,660 cuft
Drainage area	= 0.244 ac	Curve number	= 93.3
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.40 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



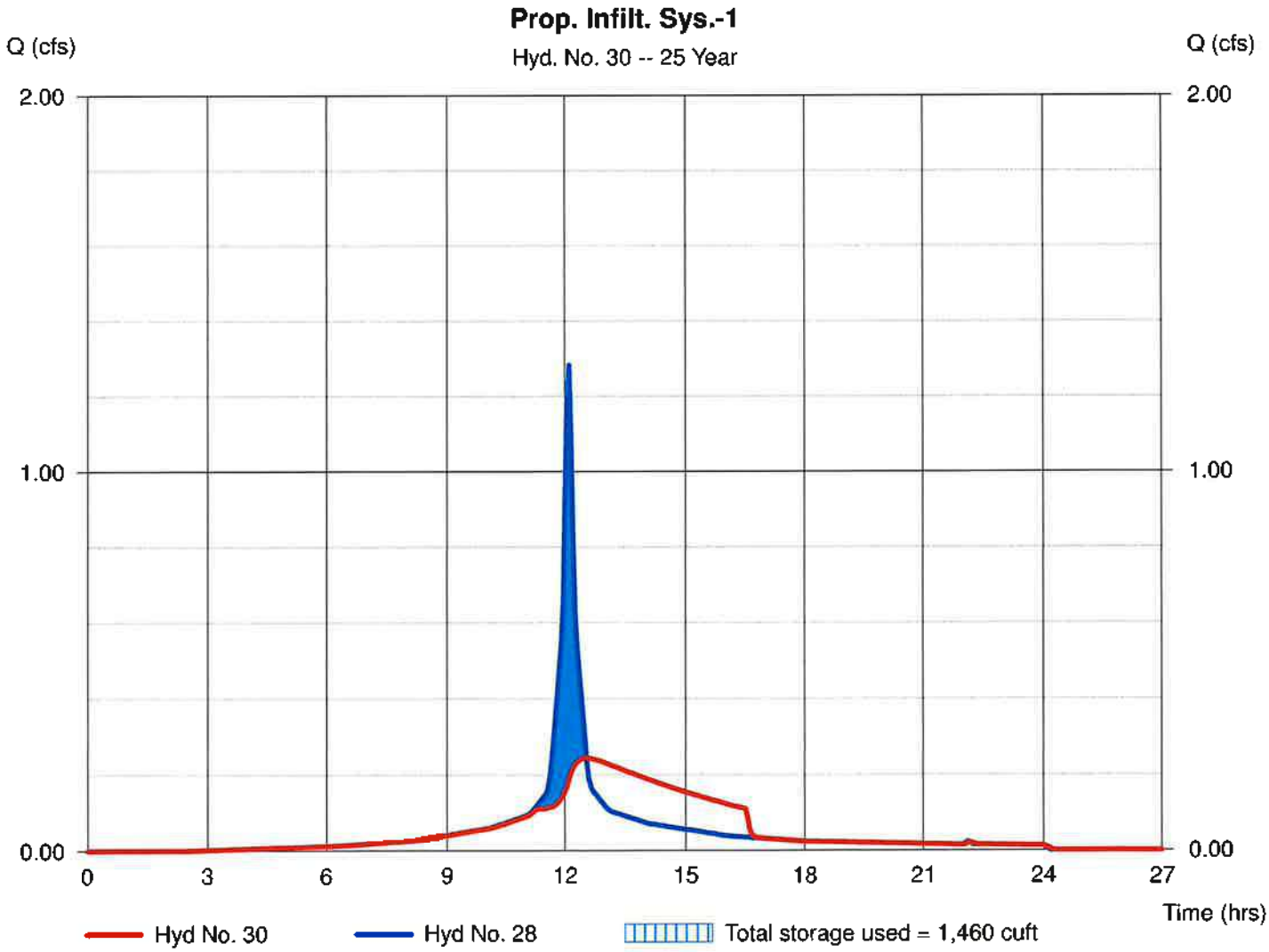
Hydrograph Report

Hyd. No. 30

Prop. Infilt. Sys.-1

Hydrograph type	= Reservoir	Peak discharge	= 0.245 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.55 hrs
Time interval	= 3 min	Hyd. volume	= 4,660 cuft
Inflow hyd. No.	= 28 - P.D.B.-8 to Infilt. Sys.-1	Max. Elevation	= 151.71 ft
Reservoir name	= Prop. Infilt. Sys-1	Max. Storage	= 1,460 cuft

Storage Indication method used. Outflow includes exfiltration.

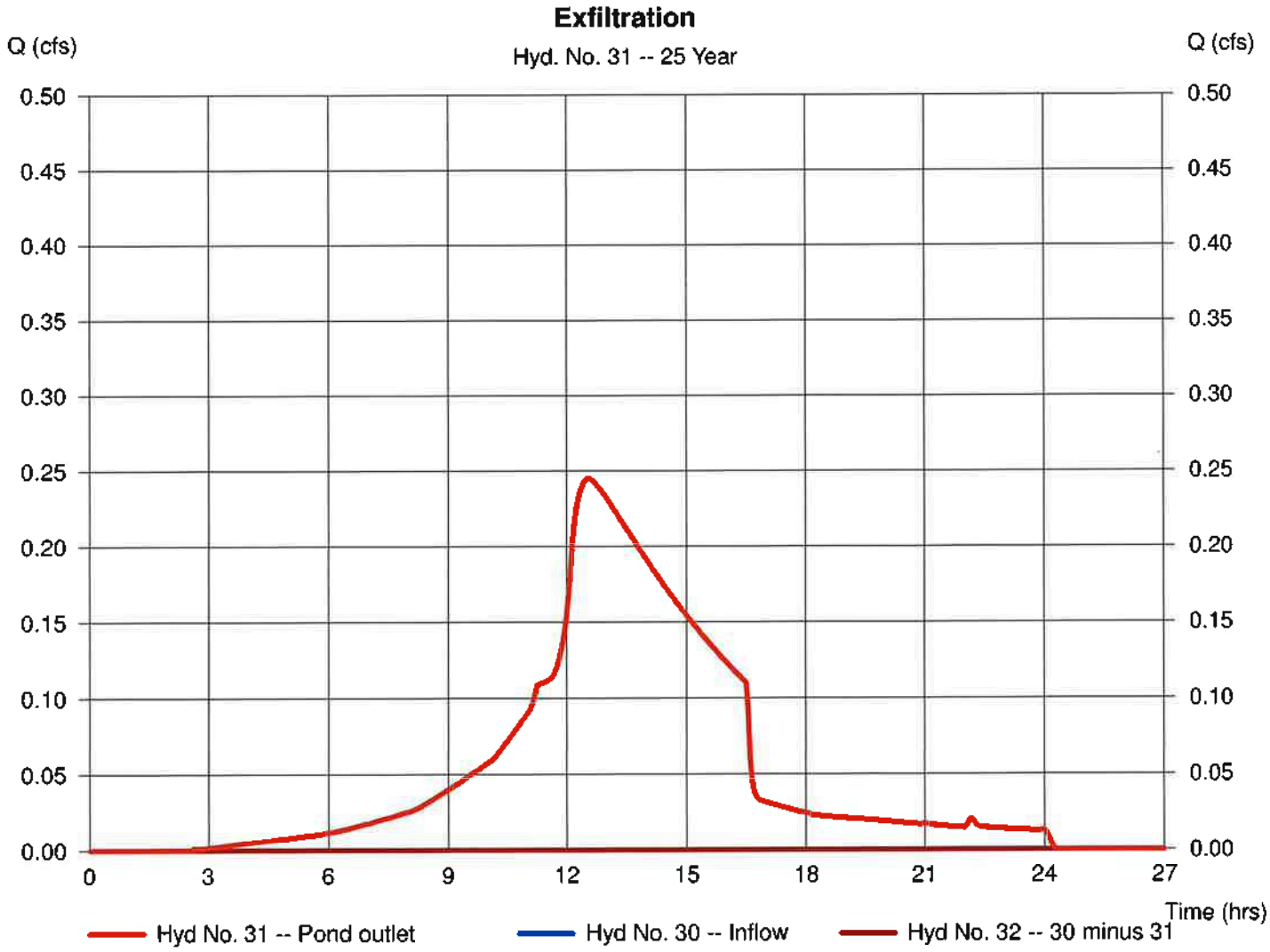


Hydrograph Report

Hyd. No. 31

Exfiltration

Hydrograph type	=	Diversion1	Peak discharge	=	0.245 cfs
Storm frequency	=	25 yrs	Time to peak	=	12.55 hrs
Time interval	=	3 min	Hyd. volume	=	4,660 cuft
Inflow hydrograph	=	30 - Prop. Infilt. Sys.-1	2nd diverted hyd.	=	32
Diversion method	=	Pond - Prop. Infilt. Sys-1	Pond structure	=	Exfiltration

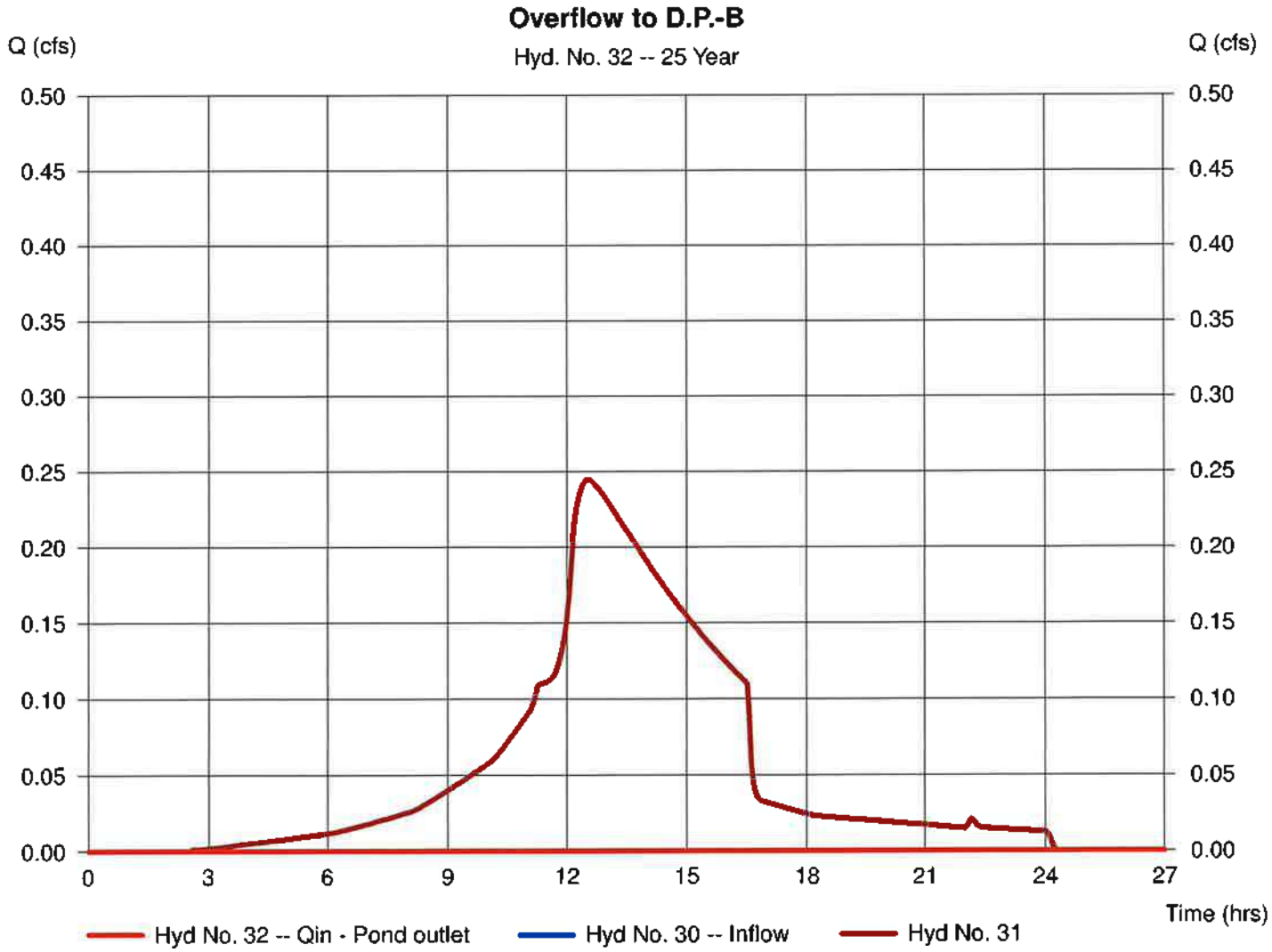


Hydrograph Report

Hyd. No. 32

Overflow to D.P.-B

Hydrograph type	= Diversion2	Peak discharge	= 0.000 cfs
Storm frequency	= 25 yrs	Time to peak	= 10.20 hrs
Time interval	= 3 min	Hyd. volume	= 0 cuft
Inflow hydrograph	= 30 - Prop. Infilt. Sys.-1	2nd diverted hyd.	= 31
Diversion method	= Pond - Prop. Infilt. Sys-1	Pond structure	= Exfiltration



Hydrograph Report

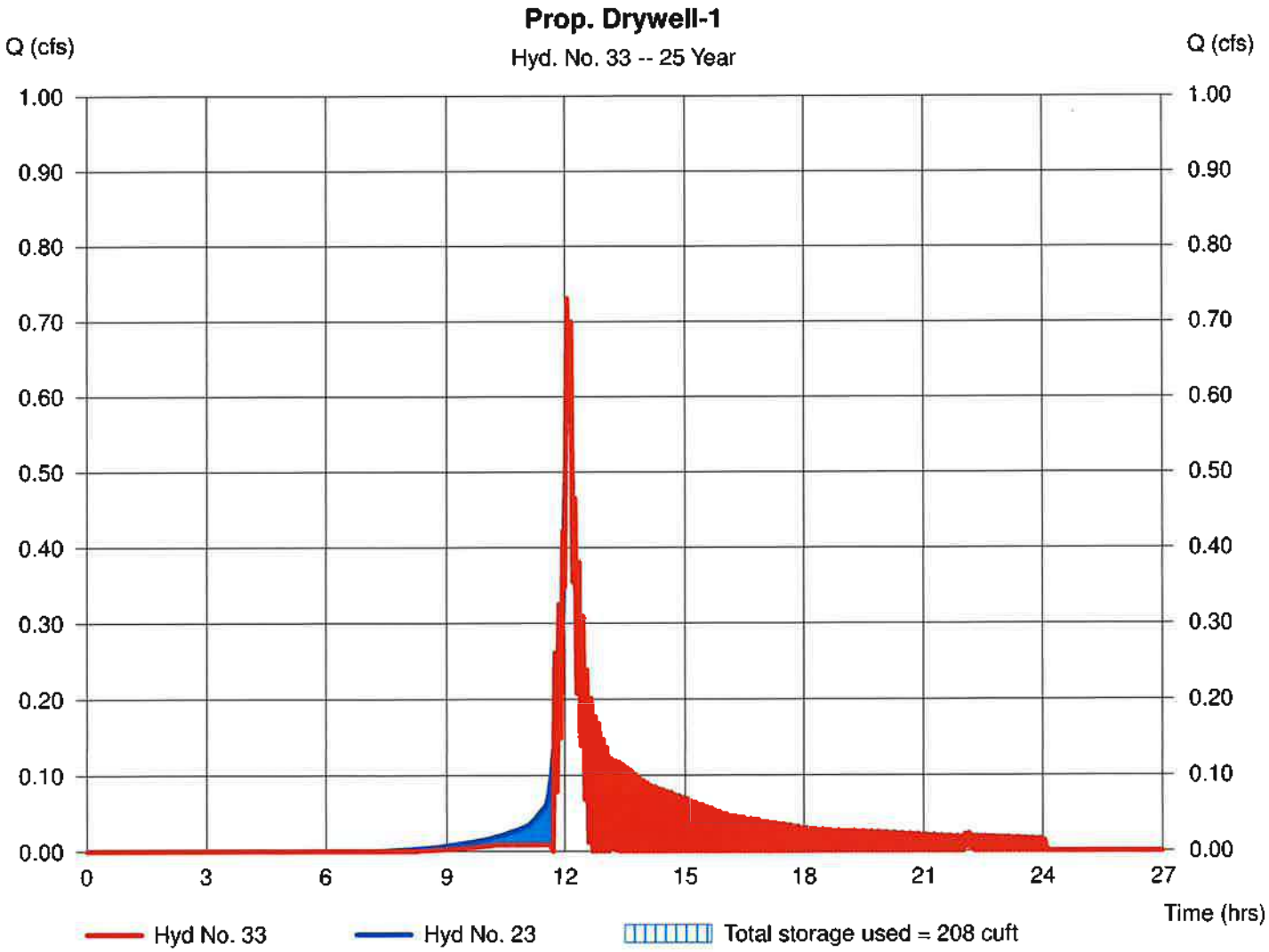
Hydraflow Hydrographs by Intelisolve v9.22 — Sunday, Nov 23, 2025

Hyd. No. 33

Prop. Drywell-1

Hydrograph type	= Reservoir	Peak discharge	= 0.731 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.05 hrs
Time interval	= 3 min	Hyd. volume	= 2,080 cuft
Inflow hyd. No.	= 23 - P.D.B.-3 to Prop. Drywell-1	Max. Elevation	= 154.31 ft
Reservoir name	= Prop. Drywell-1	Max. Storage	= 208 cuft

Storage Indication method used. Outflow includes exfiltration.

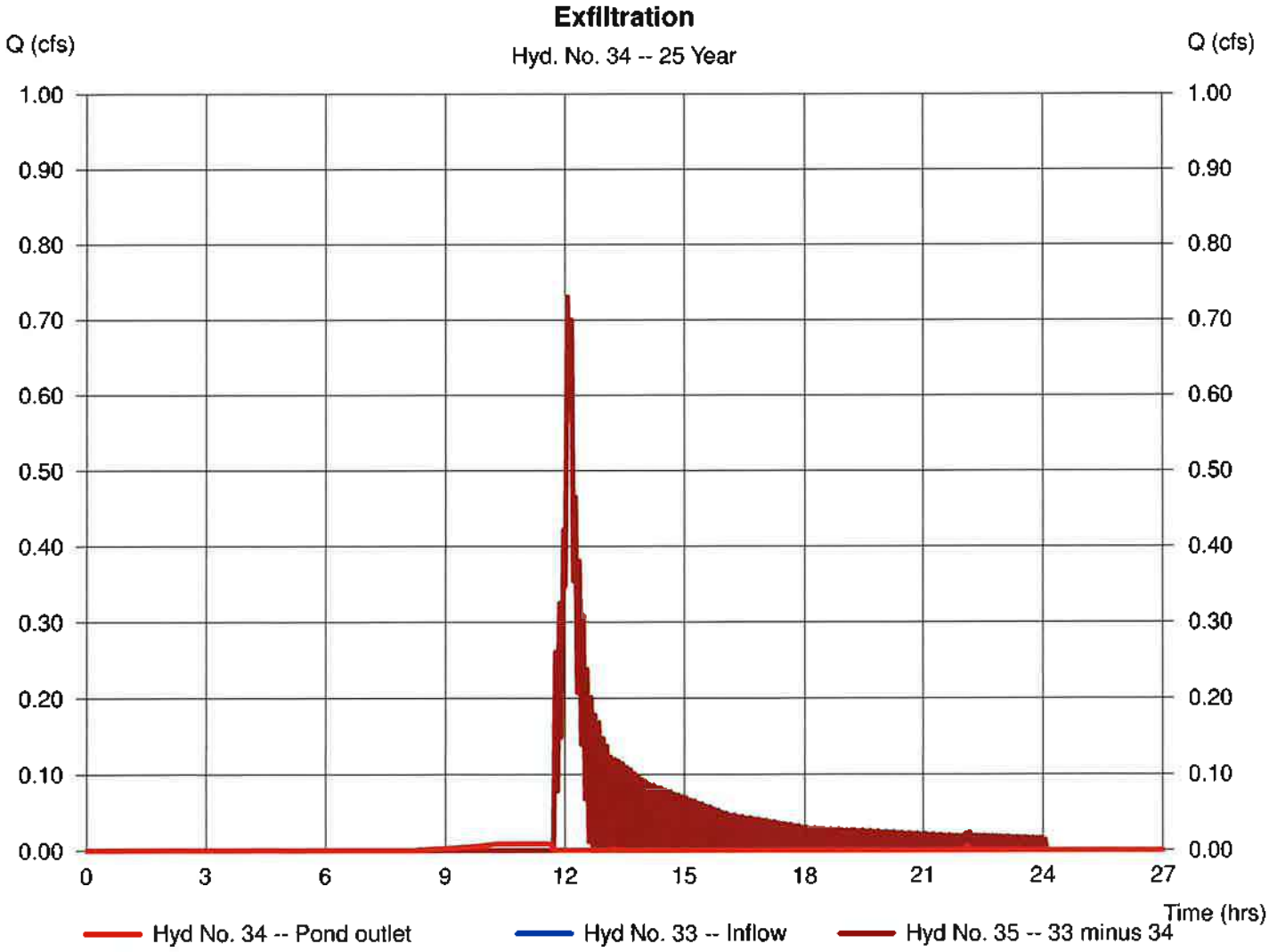


Hydrograph Report

Hyd. No. 34

Exfiltration

Hydrograph type	= Diversion1	Peak discharge	= 0.009 cfs
Storm frequency	= 25 yrs	Time to peak	= 10.30 hrs
Time interval	= 3 min	Hyd. volume	= 80 cuft
Inflow hydrograph	= 33 - Prop. Drywell-1	2nd diverted hyd.	= 35
Diversion method	= Pond - Prop. Drywell-1	Pond structure	= Exfiltration

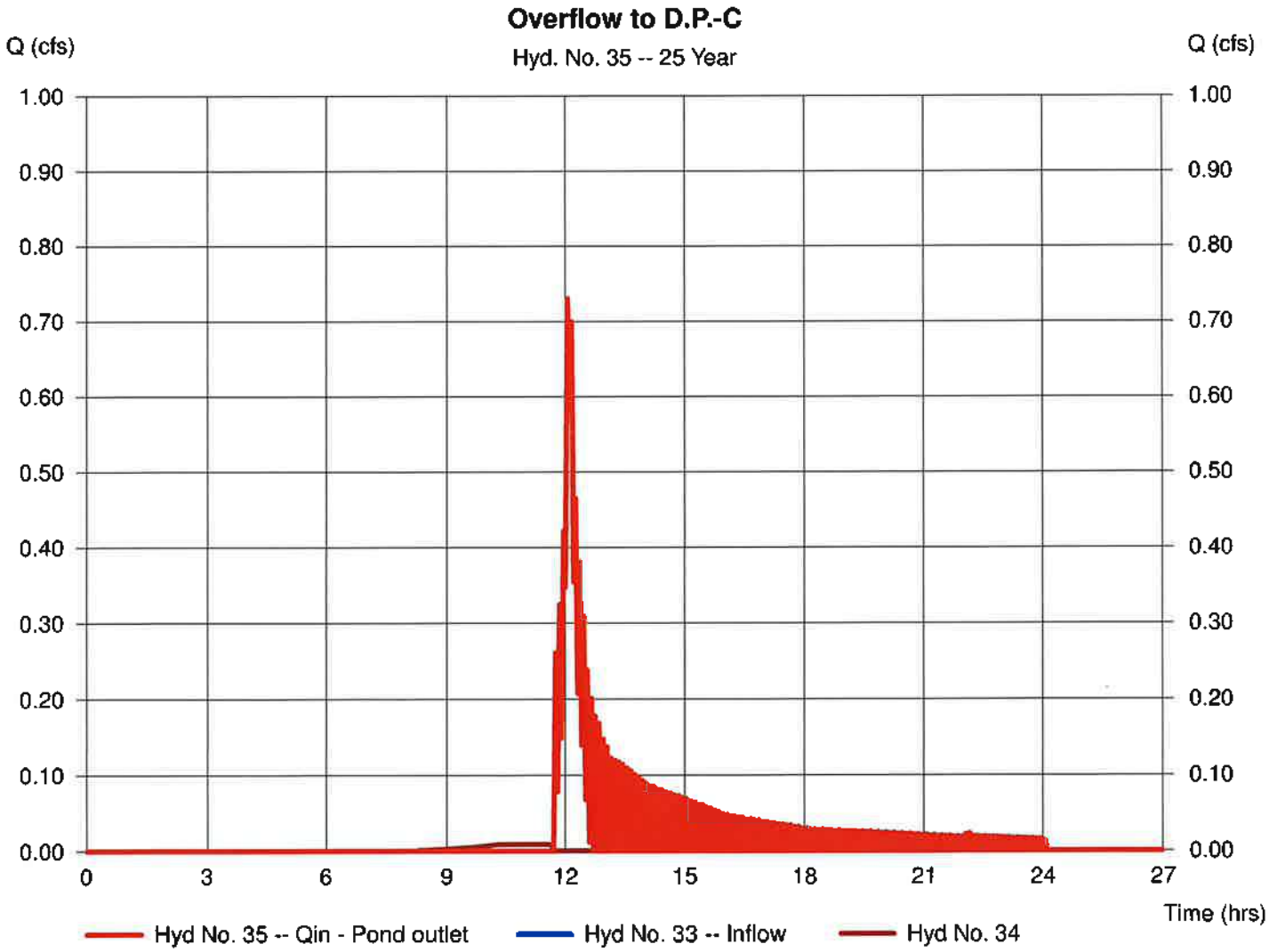


Hydrograph Report

Hyd. No. 35

Overflow to D.P.-C

Hydrograph type	= Diversion2	Peak discharge	= 0.731 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.05 hrs
Time interval	= 3 min	Hyd. volume	= 2,000 cuft
Inflow hydrograph	= 33 - Prop. Drywell-1	2nd diverted hyd.	= 34
Diversion method	= Pond - Prop. Drywell-1	Pond structure	= Exfiltration



Hydrograph Report

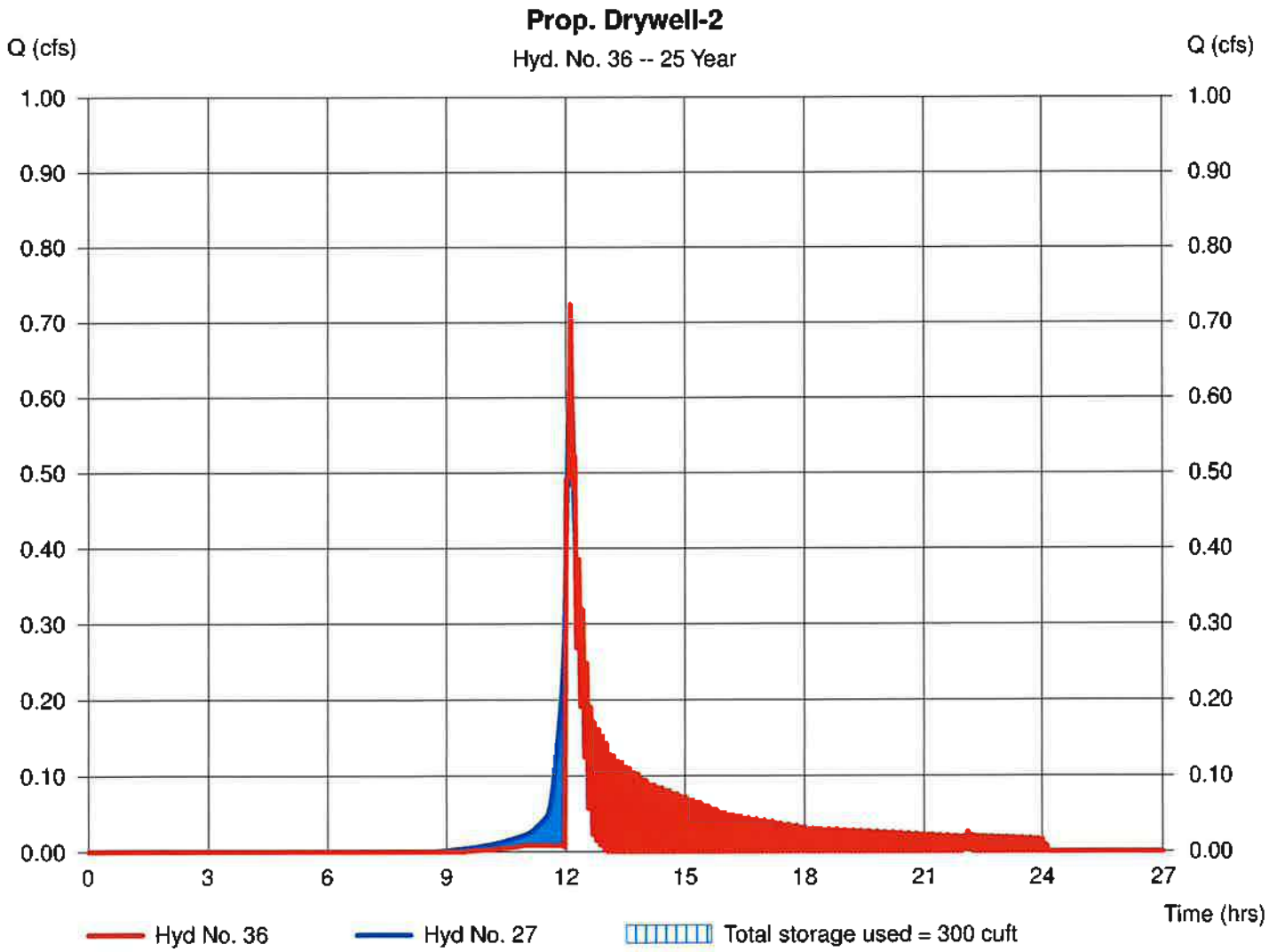
Hydraflow Hydrographs by Intelisolve v9.22 — Sunday, Nov 23, 2025

Hyd. No. 36

Prop. Drywell-2

Hydrograph type	= Reservoir	Peak discharge	= 0.724 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 1,837 cuft
Inflow hyd. No.	= 27 - P.D.B.-7 to Prop. Drywell-2	Max. Elevation	= 154.25 ft
Reservoir name	= Prop. Drywell-2	Max. Storage	= 300 cuft

Storage Indication method used. Outflow includes exfiltration.

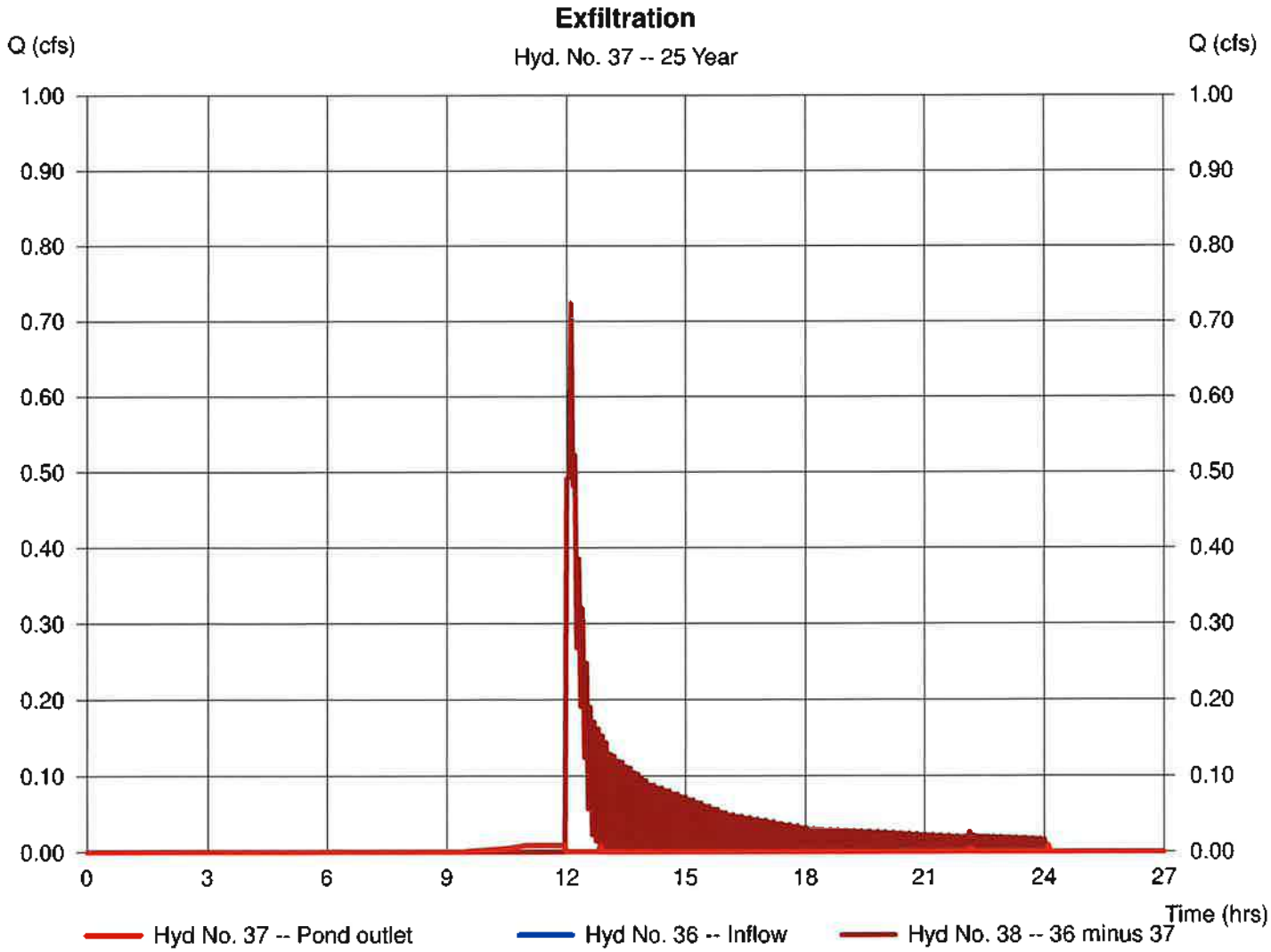


Hydrograph Report

Hyd. No. 37

Exfiltration

Hydrograph type	=	Diversion1	Peak discharge	=	0.009 cfs
Storm frequency	=	25 yrs	Time to peak	=	11.00 hrs
Time interval	=	3 min	Hyd. volume	=	62 cuft
Inflow hydrograph	=	36 - Prop. Drywell-2	2nd diverted hyd.	=	38
Diversion method	=	Pond - Prop. Drywell-2	Pond structure	=	Exfiltration

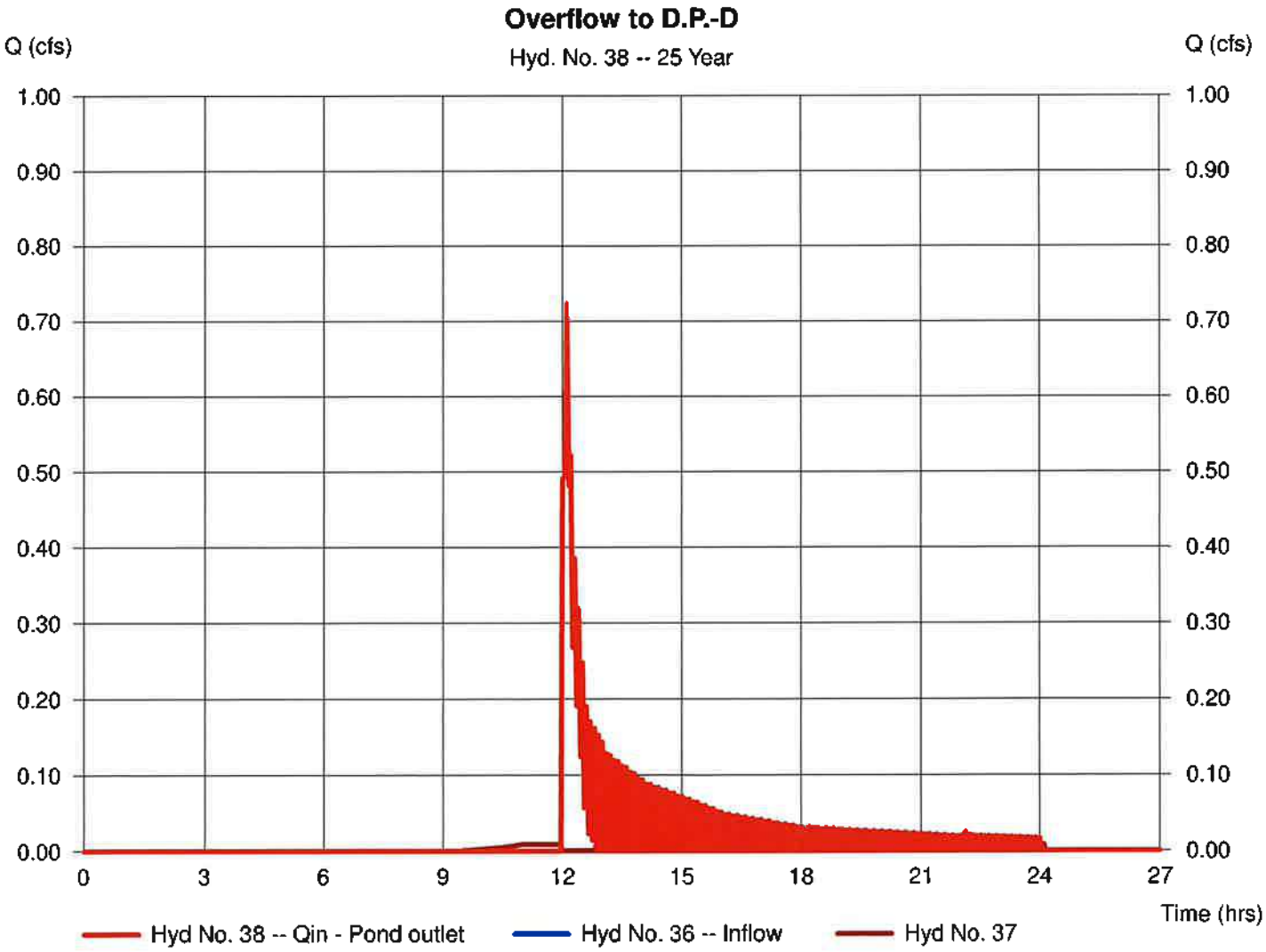


Hydrograph Report

Hyd. No. 38

Overflow to D.P.-D

Hydrograph type	= Diversion2	Peak discharge	= 0.724 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 1,775 cuft
Inflow hydrograph	= 36 - Prop. Drywell-2	2nd diverted hyd.	= 37
Diversion method	= Pond - Prop. Drywell-2	Pond structure	= Exfiltration

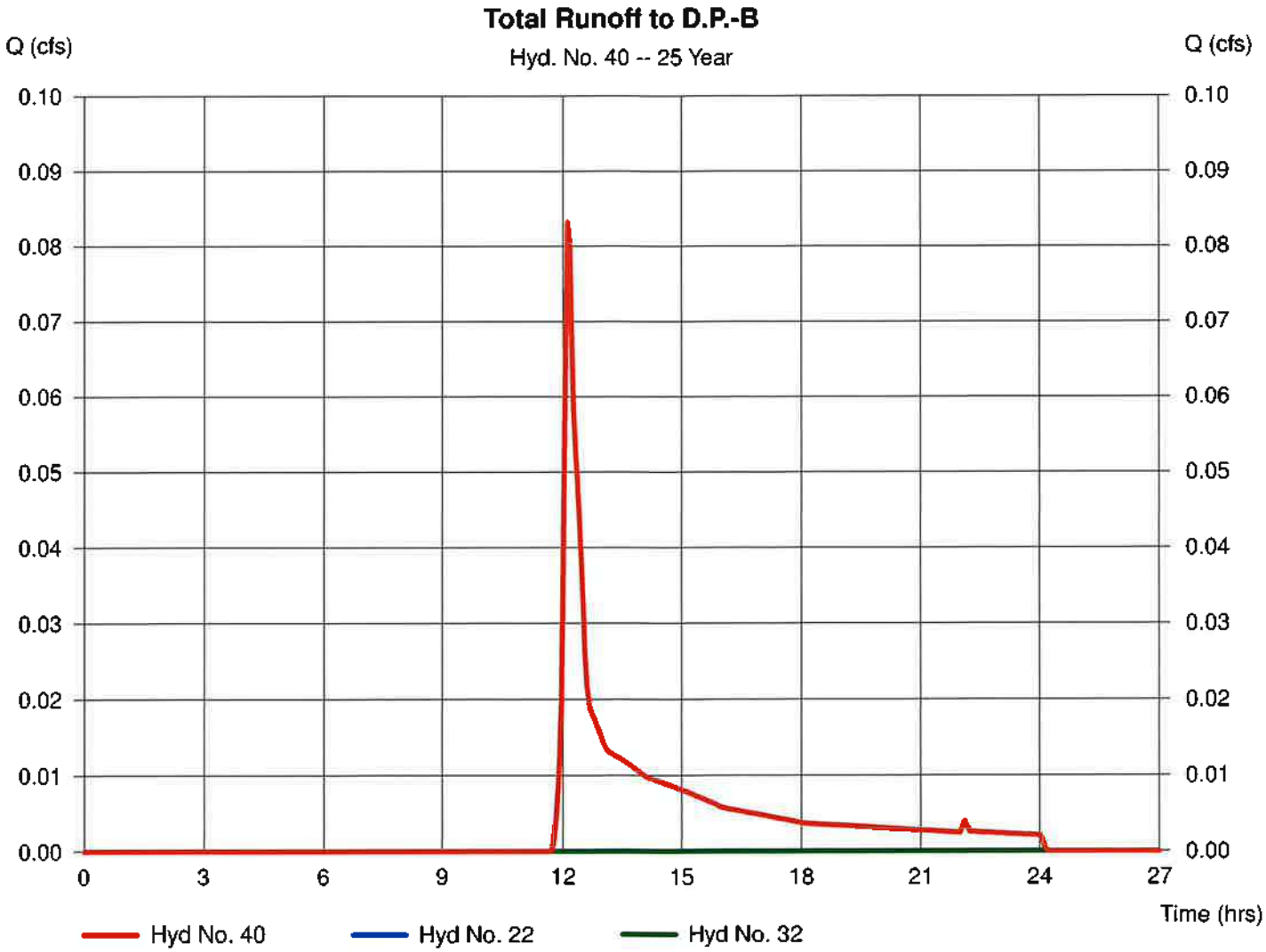


Hydrograph Report

Hyd. No. 40

Total Runoff to D.P.-B

Hydrograph type	= Combine	Peak discharge	= 0.083 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 349 cuft
Inflow hyds.	= 22, 32	Contrib. drain. area	= 0.082 ac

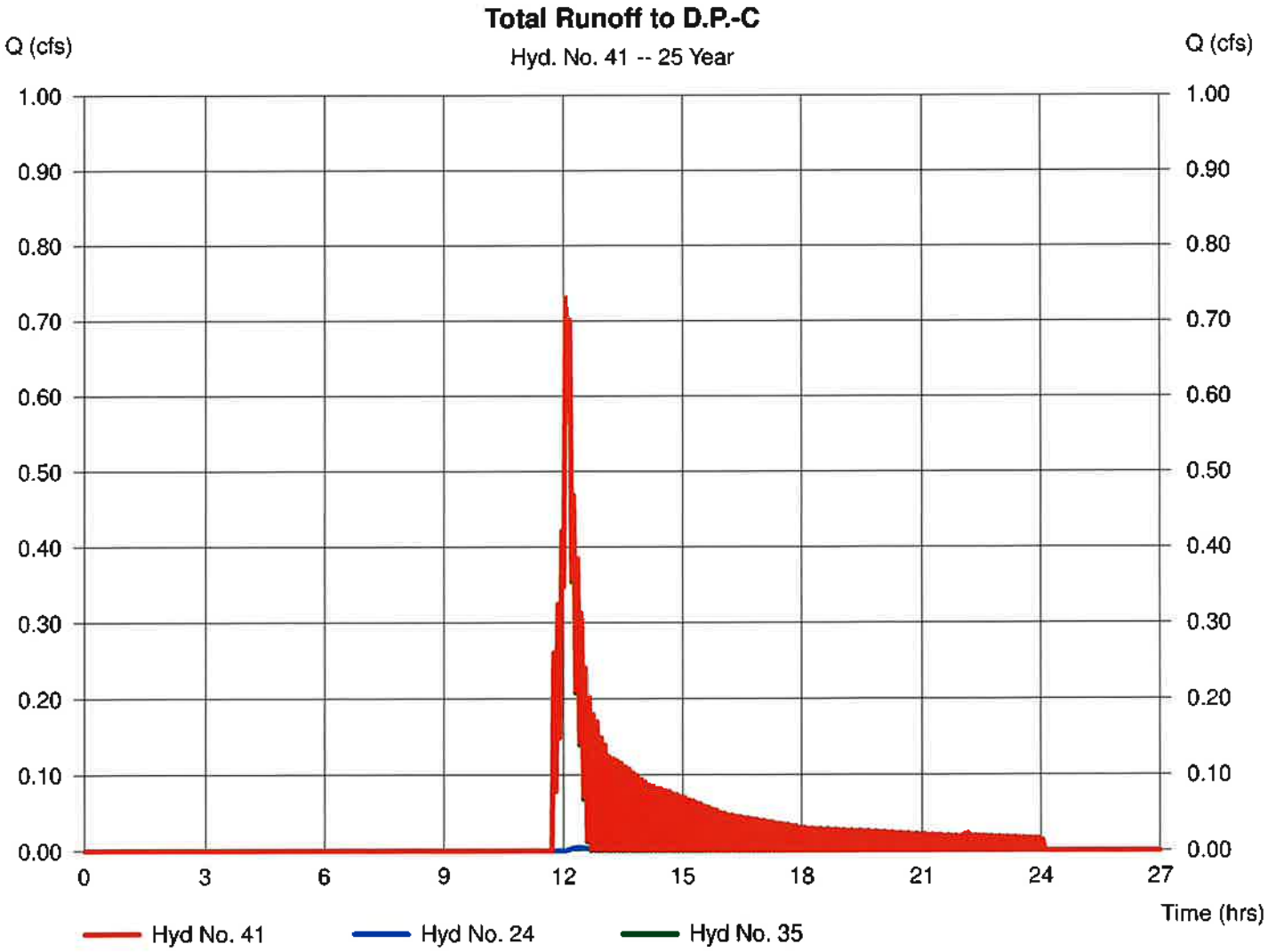


Hydrograph Report

Hyd. No. 41

Total Runoff to D.P.-C

Hydrograph type	= Combine	Peak discharge	= 0.731 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.05 hrs
Time interval	= 3 min	Hyd. volume	= 2,035 cuft
Inflow hyds.	= 24, 35	Contrib. drain. area	= 0.017 ac

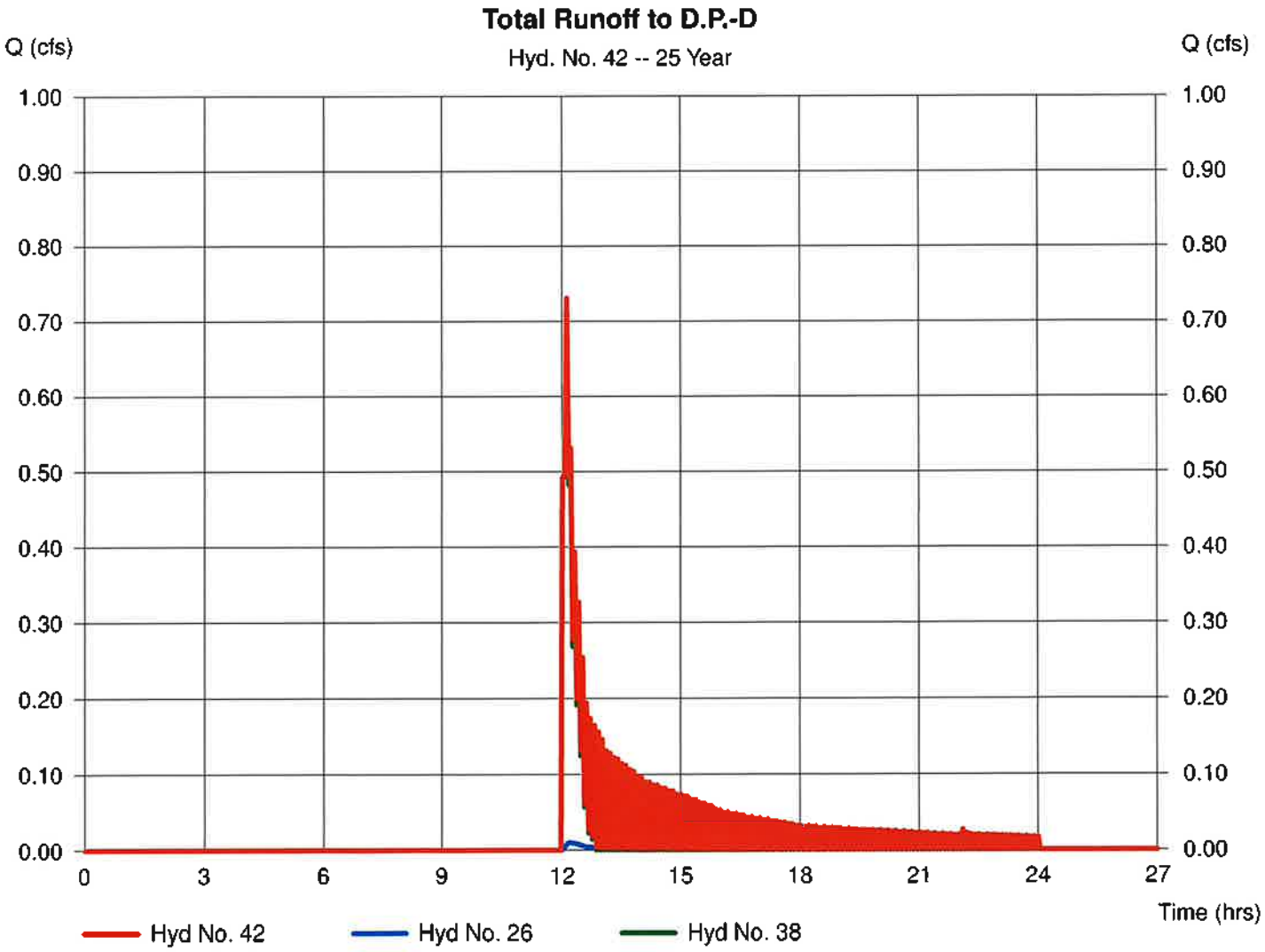


Hydrograph Report

Hyd. No. 42

Total Runoff to D.P.-D

Hydrograph type	= Combine	Peak discharge	= 0.732 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 1,840 cuft
Inflow hyds.	= 26, 38	Contrib. drain. area	= 0.027 ac

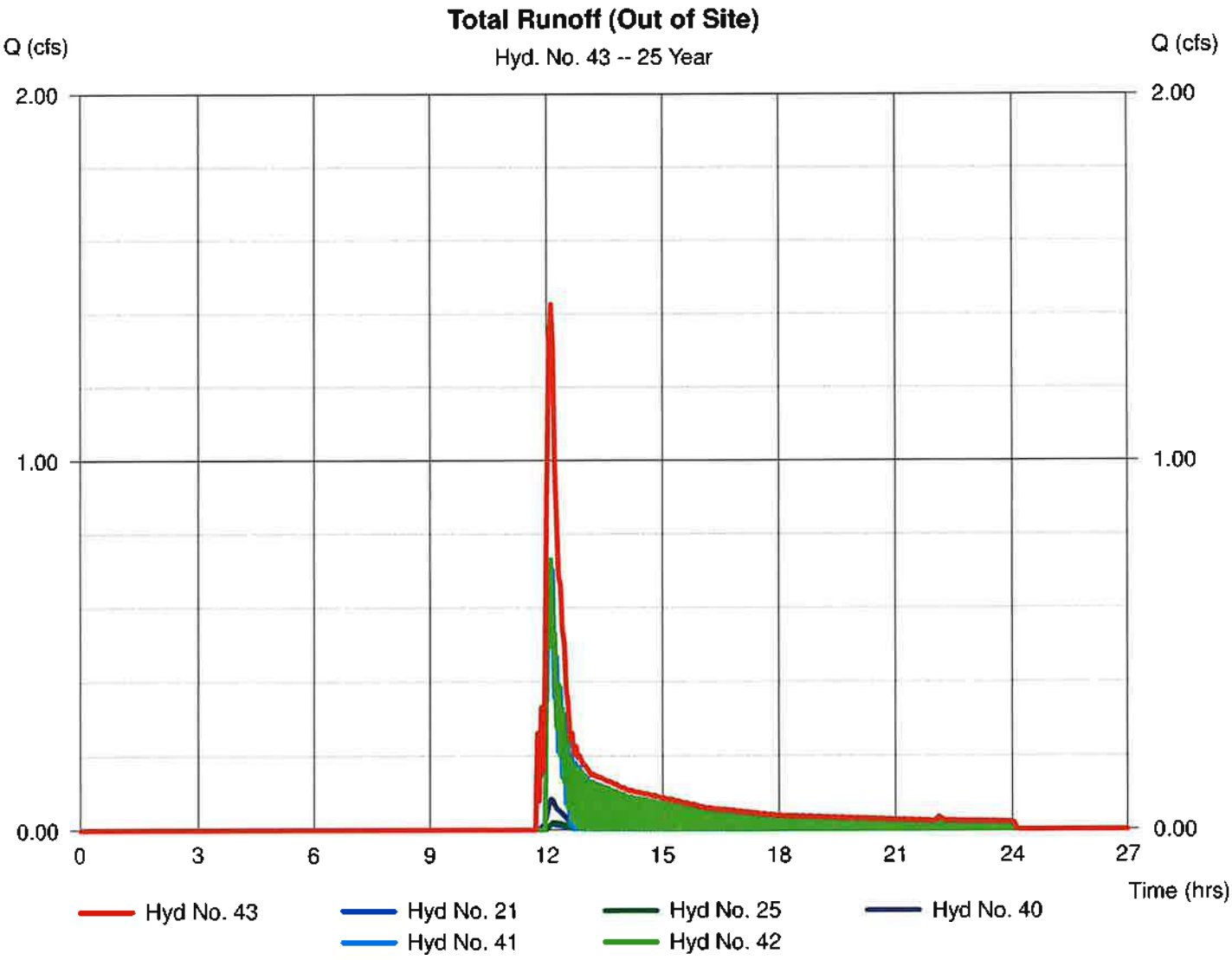


Hydrograph Report

Hyd. No. 43

Total Runoff (Out of Site)

Hydrograph type	= Combine	Peak discharge	= 1.427 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 4,437 cuft
Inflow hyds.	= 21, 25, 40, 41, 42	Contrib. drain. area	= 0.081 ac



100-Year Storm, Pre- and Post-Development

Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.22

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	0.602	3	726	2,102	----	------	------	E.C.B.-1 to D.P.-A
2	SCS Runoff	0.350	3	726	1,244	----	------	------	E.C.B.-2 to D.P.-B
3	SCS Runoff	0.525	3	726	1,975	----	------	------	E.C.B.-3 to Drywell-1
4	SCS Runoff	1.281	3	726	4,796	----	------	------	E.C.B.-4 to Drywell-2
5	SCS Runoff	1.722	3	726	6,274	----	------	------	E.C.B.-5 to Drywell-3
6	SCS Runoff	0.397	3	726	1,381	----	------	------	E.C.B.-6 to D.P.-E
8	Reservoir	0.525	3	726	1,919	3	154.34	57.1	Exist. Drywell-1
9	Diversion1	0.002	3	240	59	8	------	------	Exfiltration
10	Diversion2	0.525	3	726	1,860	8	------	------	Overflow to D.P.-C
11	Reservoir	1.280	3	726	4,740	4	154.06	57.4	Exist. Drywell-2
12	Diversion1	0.002	3	183	57	11	------	------	Exfiltration
13	Diversion2	1.280	3	726	4,683	11	------	------	Overflow to D.P.-C
14	Reservoir	1.717	3	726	6,176	5	154.44	98.1	Exist. Drywell-3
15	Diversion1	0.002	3	333	37	14	------	------	Exfiltration
16	Diversion2	1.717	3	726	6,139	14	------	------	Overflow to D.P.-D
18	Combine	1.805	3	726	6,543	10, 13,	------	------	Total Runoff to D.P.-C
19	Combine	4.871	3	726	17,409	1, 2, 6, 16, 18	------	------	Total Runoff (Out of Site)
21	SCS Runoff	0.040	3	726	158	----	------	------	P.D.B.-1 to D.P.-A
22	SCS Runoff	0.172	3	726	626	----	------	------	P.D.B.-2 to D.P.-B
23	SCS Runoff	0.968	3	726	3,258	----	------	------	P.D.B.-3 to Prop. Drywell-1
24	SCS Runoff	0.014	3	735	77	----	------	------	P.D.B.-4 to D.P.-C
25	SCS Runoff	0.060	3	726	271	----	------	------	P.D.B.-5 to D.P.-E
26	SCS Runoff	0.030	3	726	134	----	------	------	P.D.B.-6 to D.P.-D
27	SCS Runoff	0.951	3	726	3,164	----	------	------	P.D.B.-7 to Prop. Drywell-2
28	SCS Runoff	1.665	3	726	6,142	----	------	------	P.D.B.-8 to Infilt. Sys.-1
30	Reservoir	0.840	3	741	6,142	28	153.83	1,864	Prop. Infilt. Sys.-1
31	Diversion1	0.336	3	741	5,997	30	------	------	Exfiltration
32	Diversion2	0.504	3	741	145	30	------	------	Overflow to D.P.-B
33	Reservoir	0.970	3	726	3,050	23	154.48	208	Prop. Drywell-1
34	Diversion1	0.009	3	564	96	33	------	------	Exfiltration
35	Diversion2	0.970	3	726	2,954	33	------	------	Overflow to D.P.-C
36	Reservoir	1.056	3	726	2,864	27	154.13	300	Prop. Drywell-2

Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.22

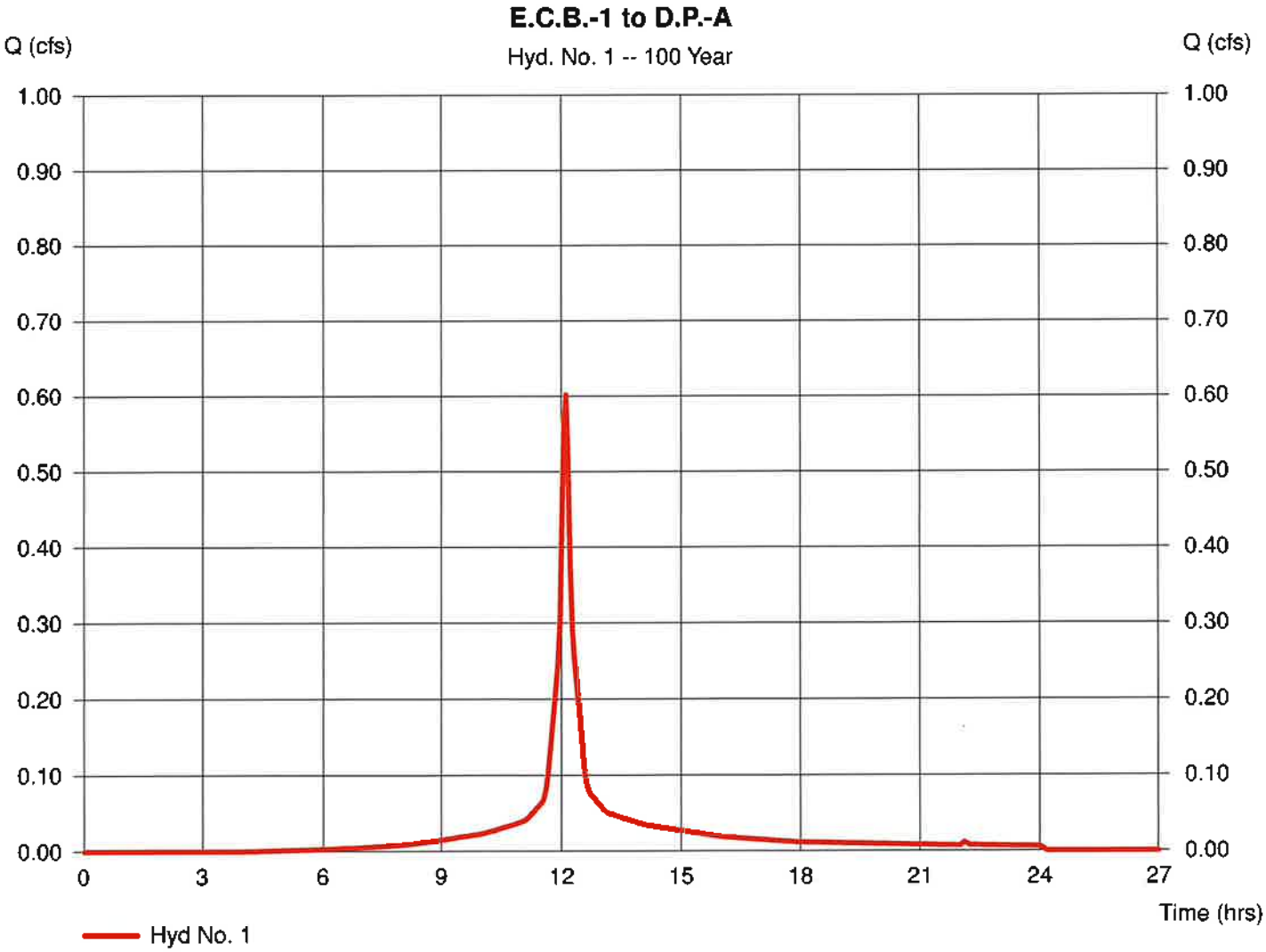
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description
37	Diversion1	0.009	3	609	82	36	------	------	Exfiltration
38	Diversion2	1.056	3	726	2,782	36	------	------	Overflow to D.P.-D
40	Combine	0.591	3	741	771	22, 32,	------	------	Total Runoff to D.P.-B
41	Combine	0.979	3	726	3,030	24, 35,	------	------	Total Runoff to D.P.-C
42	Combine	1.086	3	726	2,916	26, 38,	------	------	Total Runoff to D.P.-D
43	Combine	2.337	3	726	7,147	21, 25, 40, 41, 42	------	------	Total Runoff (Out of Site)

Hydrograph Report

Hyd. No. 1

E.C.B.-1 to D.P.-A

Hydrograph type	= SCS Runoff	Peak discharge	= 0.602 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 2,102 cuft
Drainage area	= 0.095 ac	Curve number	= 85.8
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 8.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

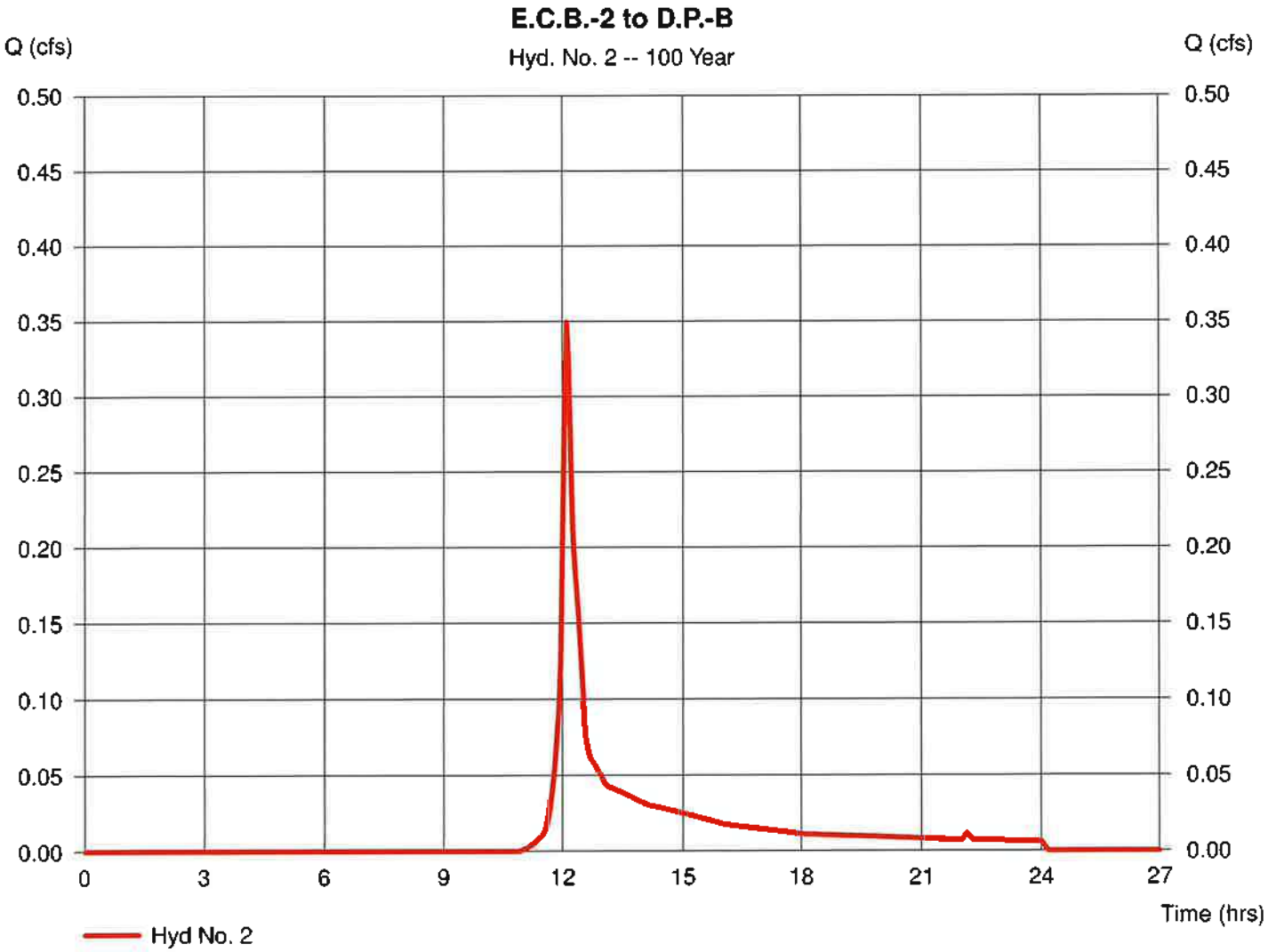


Hydrograph Report

Hyd. No. 2

E.C.B.-2 to D.P.-B

Hydrograph type	= SCS Runoff	Peak discharge	= 0.350 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 1,244 cuft
Drainage area	= 0.148 ac	Curve number	= 50.9
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 8.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

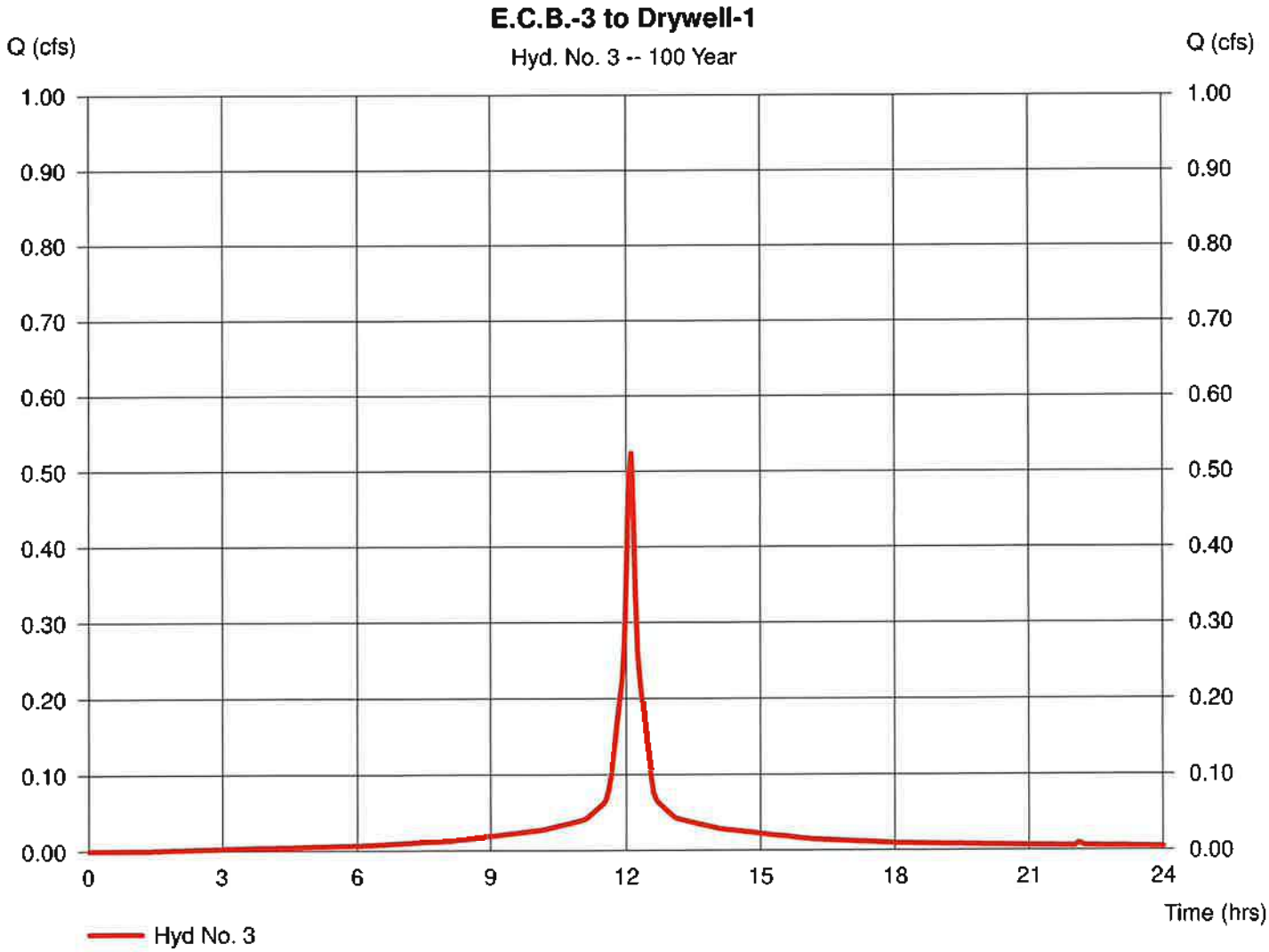


Hydrograph Report

Hyd. No. 3

E.C.B.-3 to Drywell-1

Hydrograph type	= SCS Runoff	Peak discharge	= 0.525 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 1,975 cuft
Drainage area	= 0.076 ac	Curve number	= 95.3
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 8.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

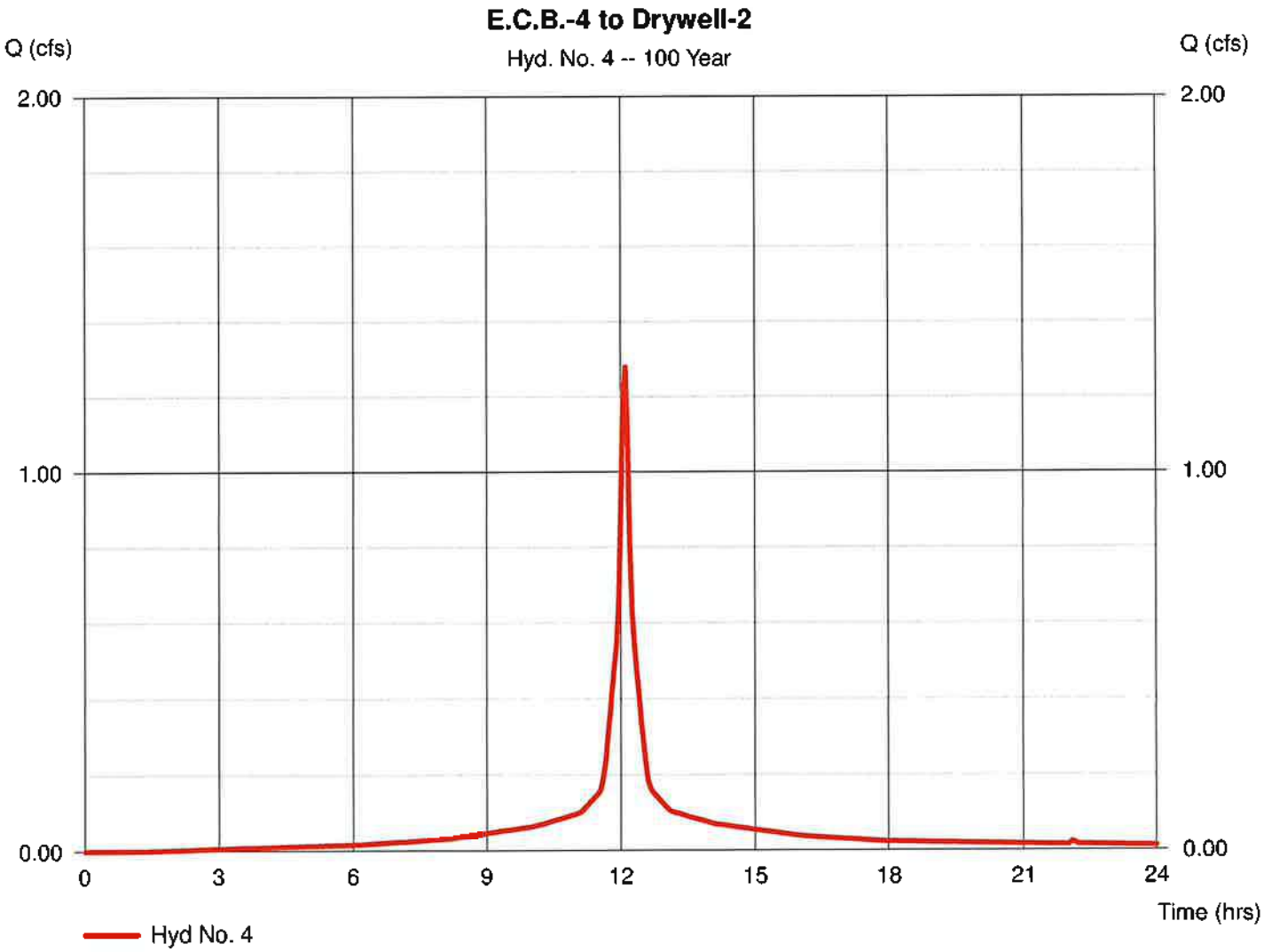


Hydrograph Report

Hyd. No. 4

E.C.B.-4 to Drywell-2

Hydrograph type	= SCS Runoff	Peak discharge	= 1.281 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 4,796 cuft
Drainage area	= 0.186 ac	Curve number	= 94.8
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 8.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

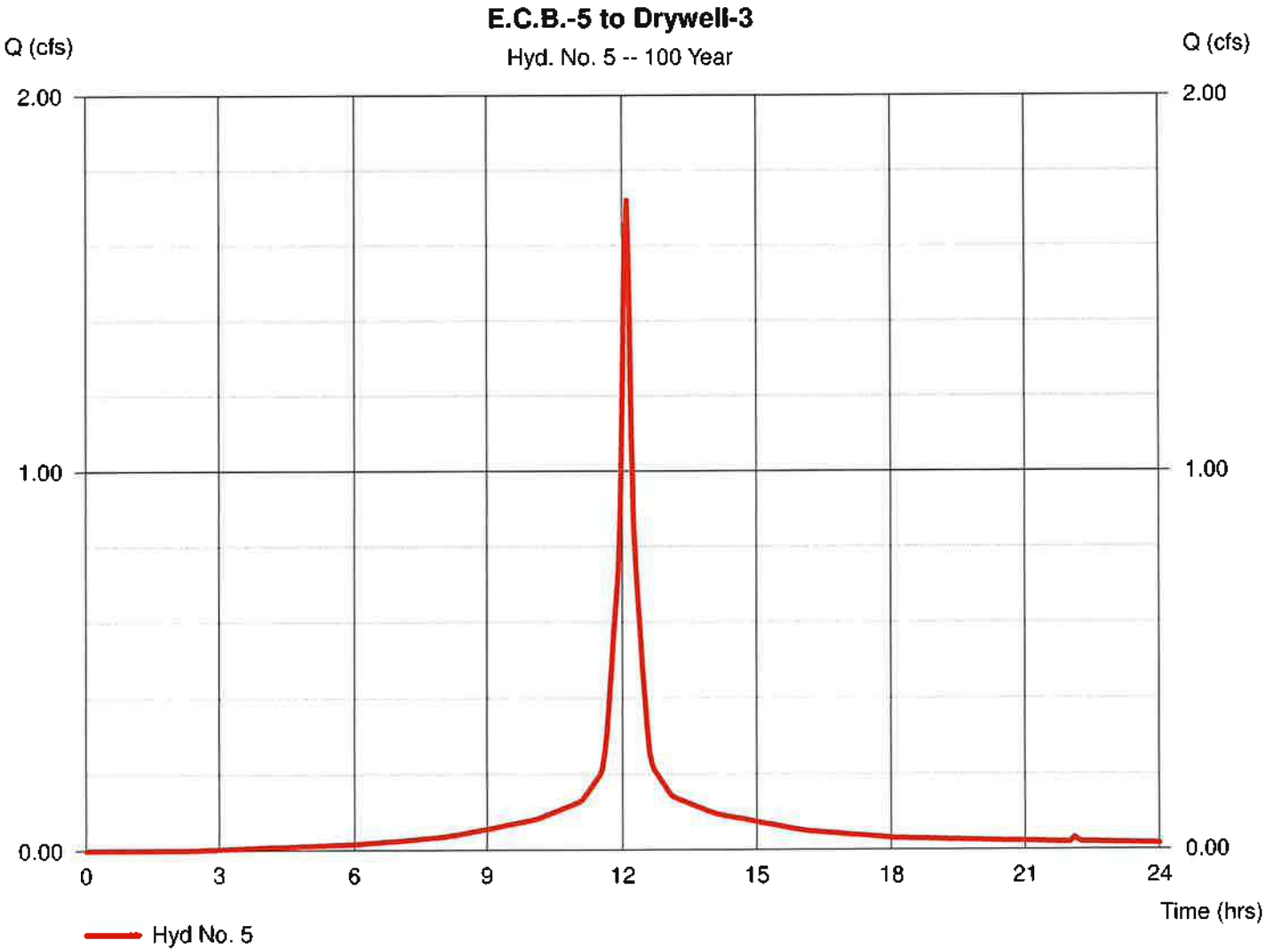


Hydrograph Report

Hyd. No. 5

E.C.B.-5 to Drywell-3

Hydrograph type	= SCS Runoff	Peak discharge	= 1.722 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 6,274 cuft
Drainage area	= 0.255 ac	Curve number	= 91.9
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 8.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

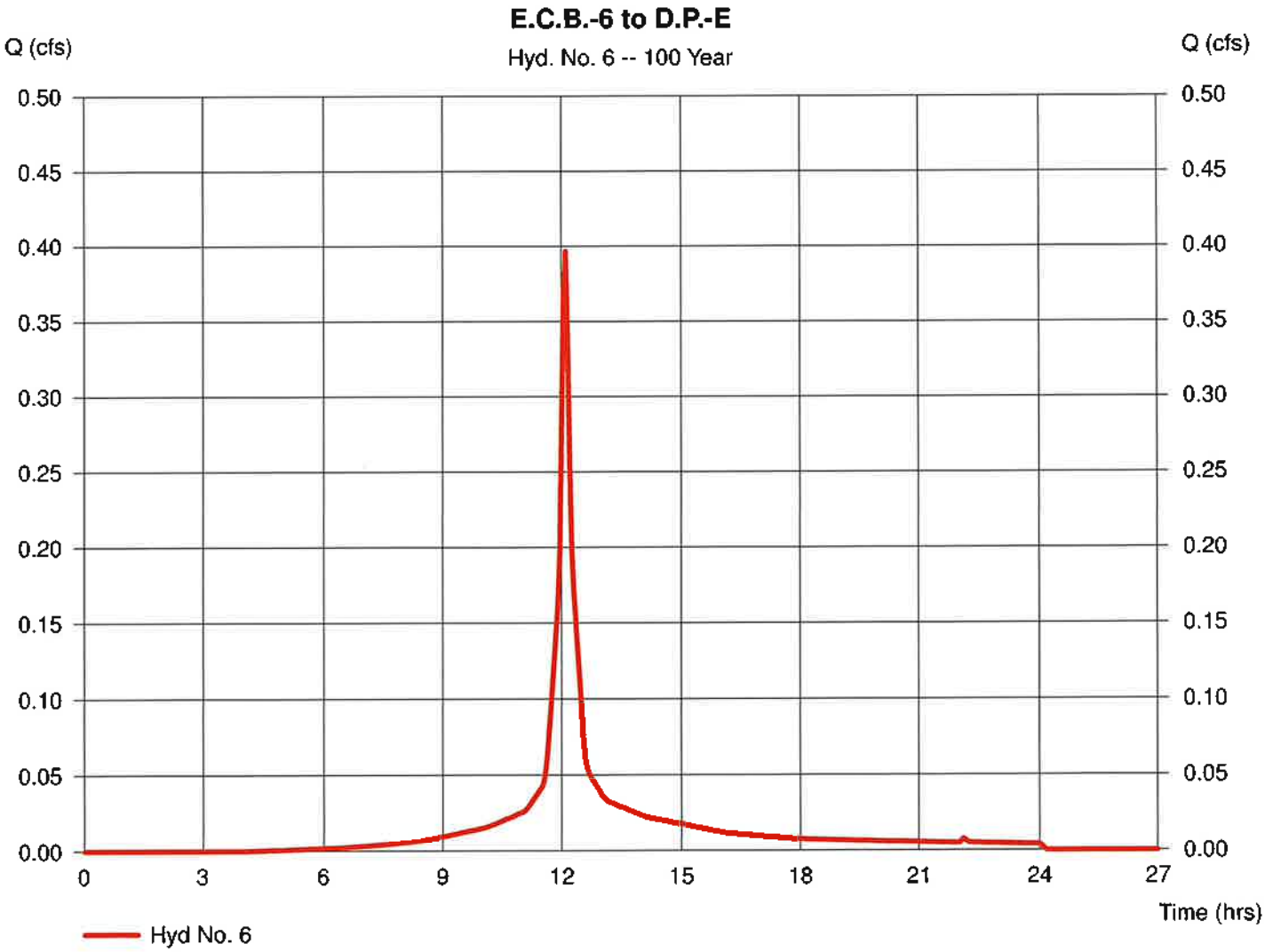


Hydrograph Report

Hyd. No. 6

E.C.B.-6 to D.P.-E

Hydrograph type	= SCS Runoff	Peak discharge	= 0.397 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 1,381 cuft
Drainage area	= 0.063 ac	Curve number	= 85.3
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 8.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

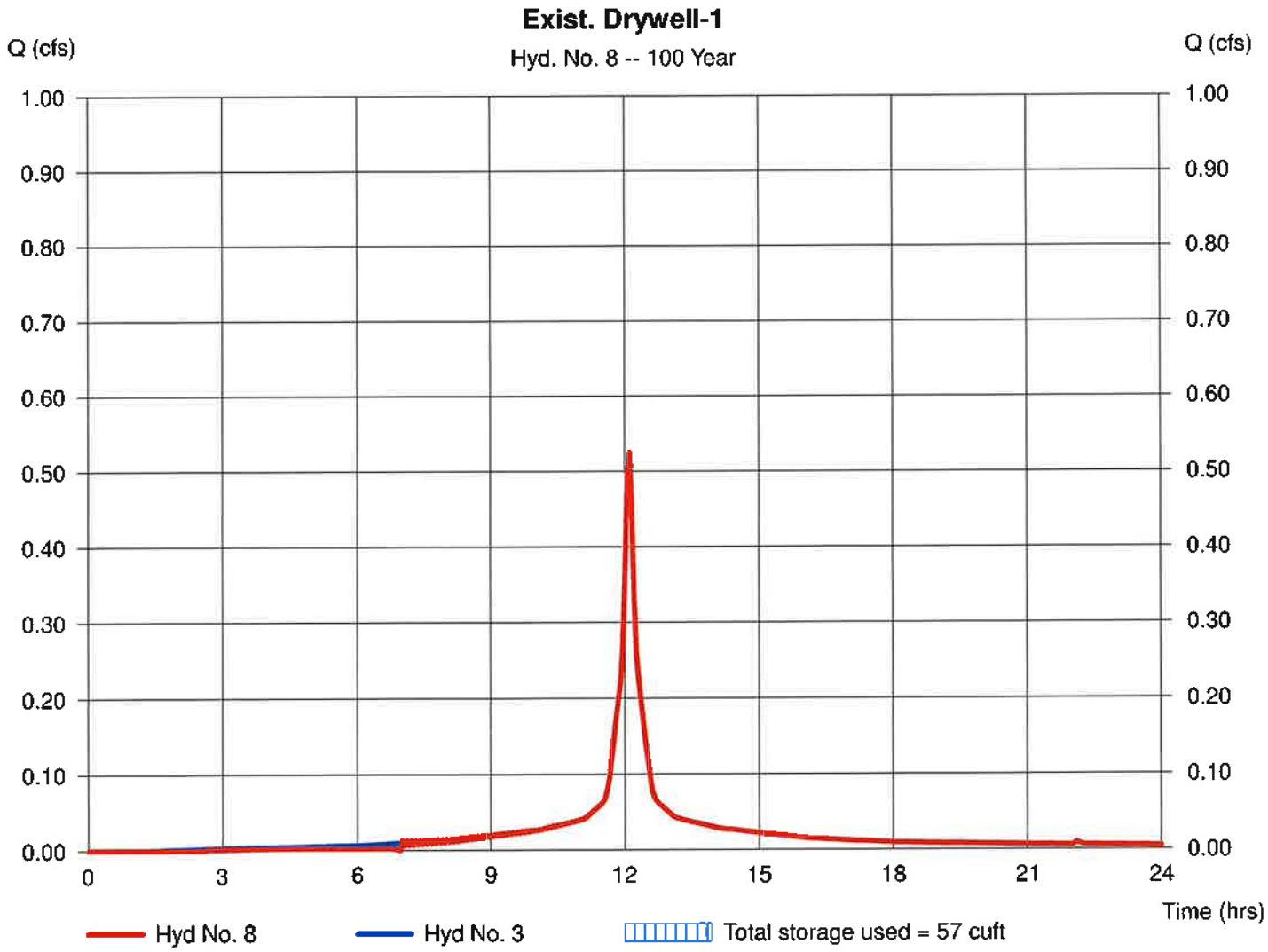
Hydraflow Hydrographs by Intelisolve v9.22 — Sunday, Nov 23, 2025

Hyd. No. 8

Exist. Drywell-1

Hydrograph type	= Reservoir	Peak discharge	= 0.525 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 1,919 cuft
Inflow hyd. No.	= 3 - E.C.B.-3 to Drywell-1	Max. Elevation	= 154.34 ft
Reservoir name	= Exist. Drywell-1	Max. Storage	= 57 cuft

Storage Indication method used. Outflow includes exfiltration.

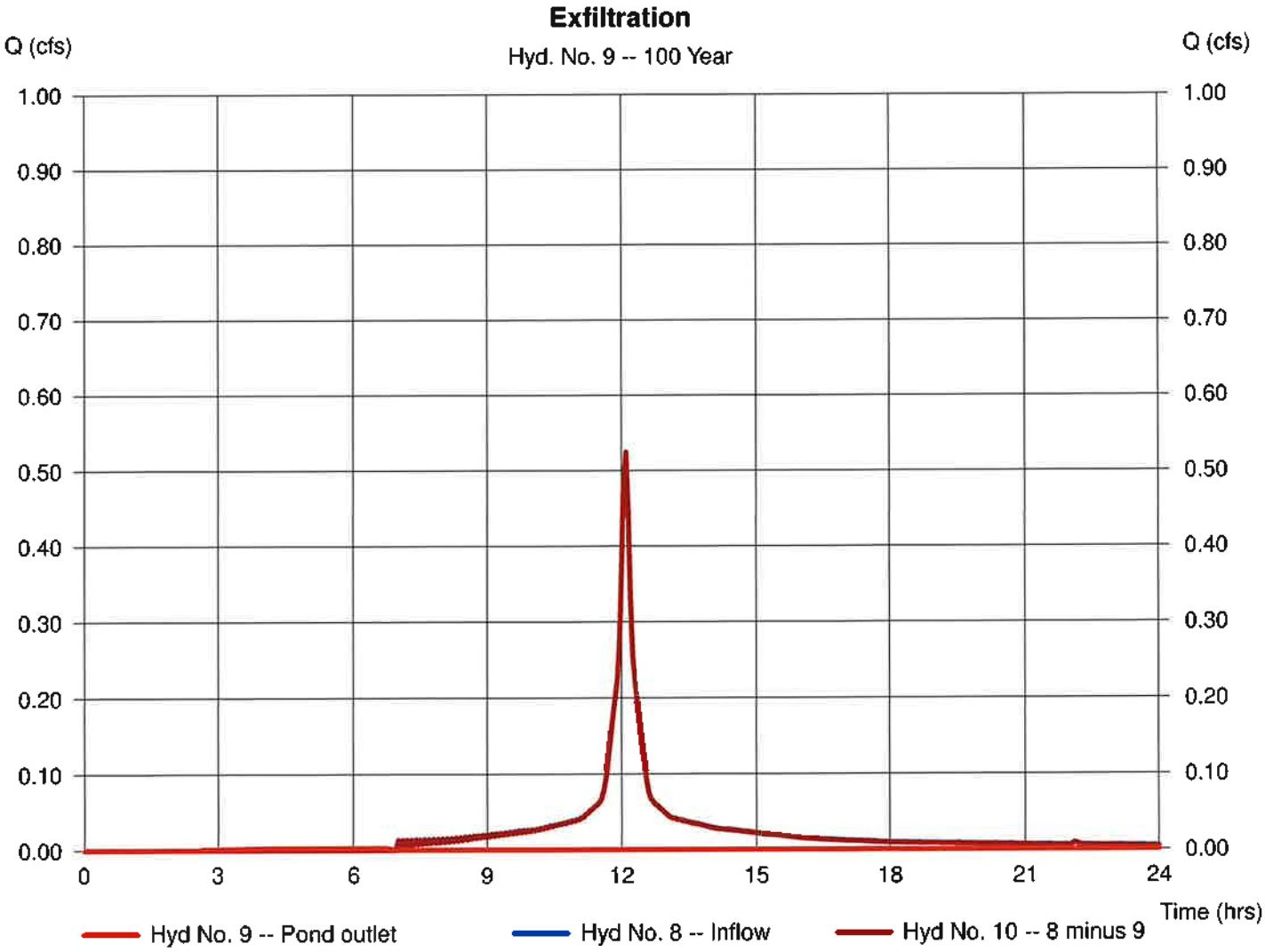


Hydrograph Report

Hyd. No. 9

Exfiltration

Hydrograph type	= Diversion1	Peak discharge	= 0.002 cfs
Storm frequency	= 100 yrs	Time to peak	= 4.00 hrs
Time interval	= 3 min	Hyd. volume	= 59 cuft
Inflow hydrograph	= 8 - Exist. Drywell-1	2nd diverted hyd.	= 10
Diversion method	= Pond - Exist. Drywell-1	Pond structure	= Exfiltration

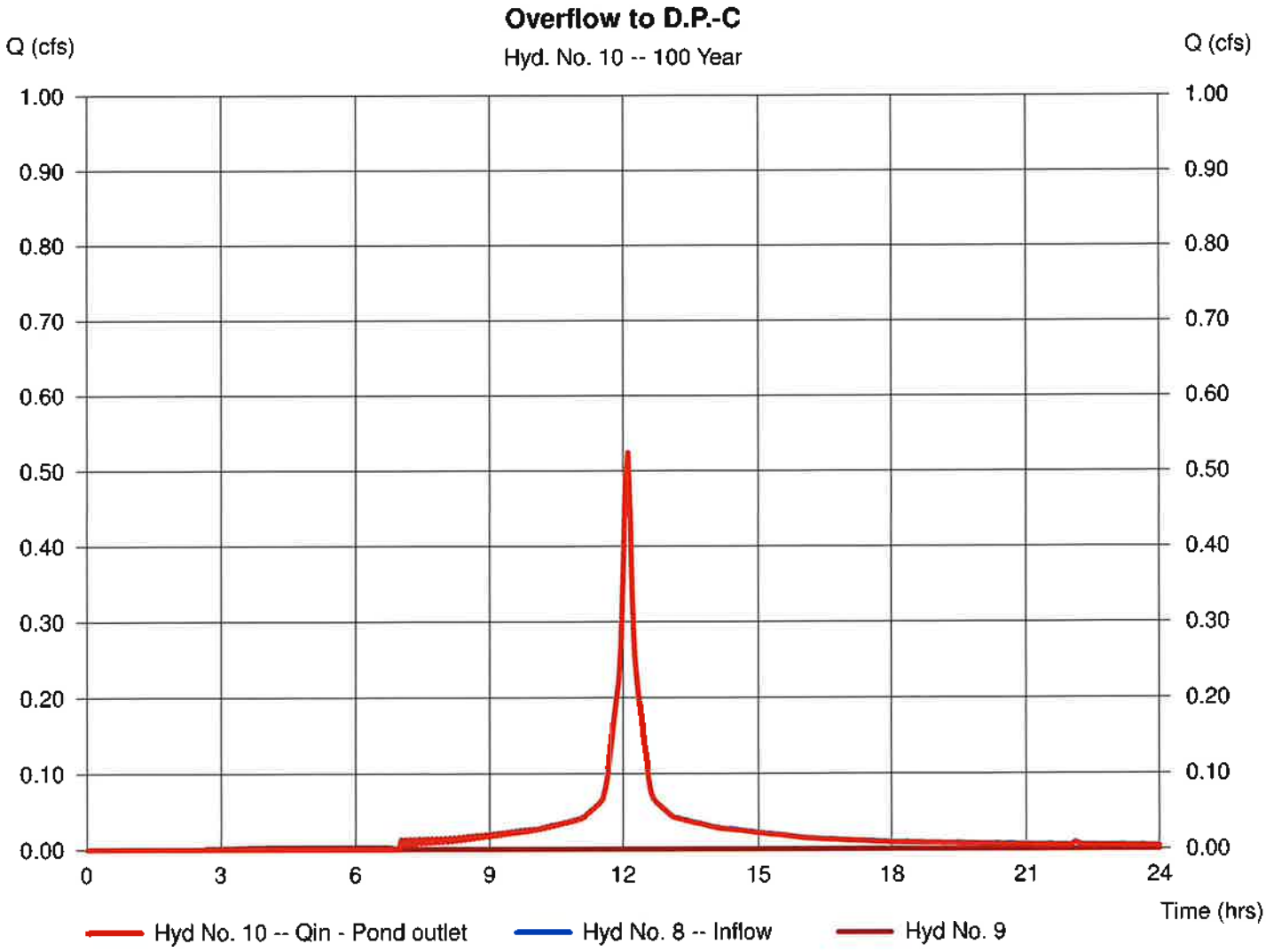


Hydrograph Report

Hyd. No. 10

Overflow to D.P.-C

Hydrograph type	= Diversion2	Peak discharge	= 0.525 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 1,860 cuft
Inflow hydrograph	= 8 - Exist. Drywell-1	2nd diverted hyd.	= 9
Diversion method	= Pond - Exist. Drywell-1	Pond structure	= Exfiltration



Hydrograph Report

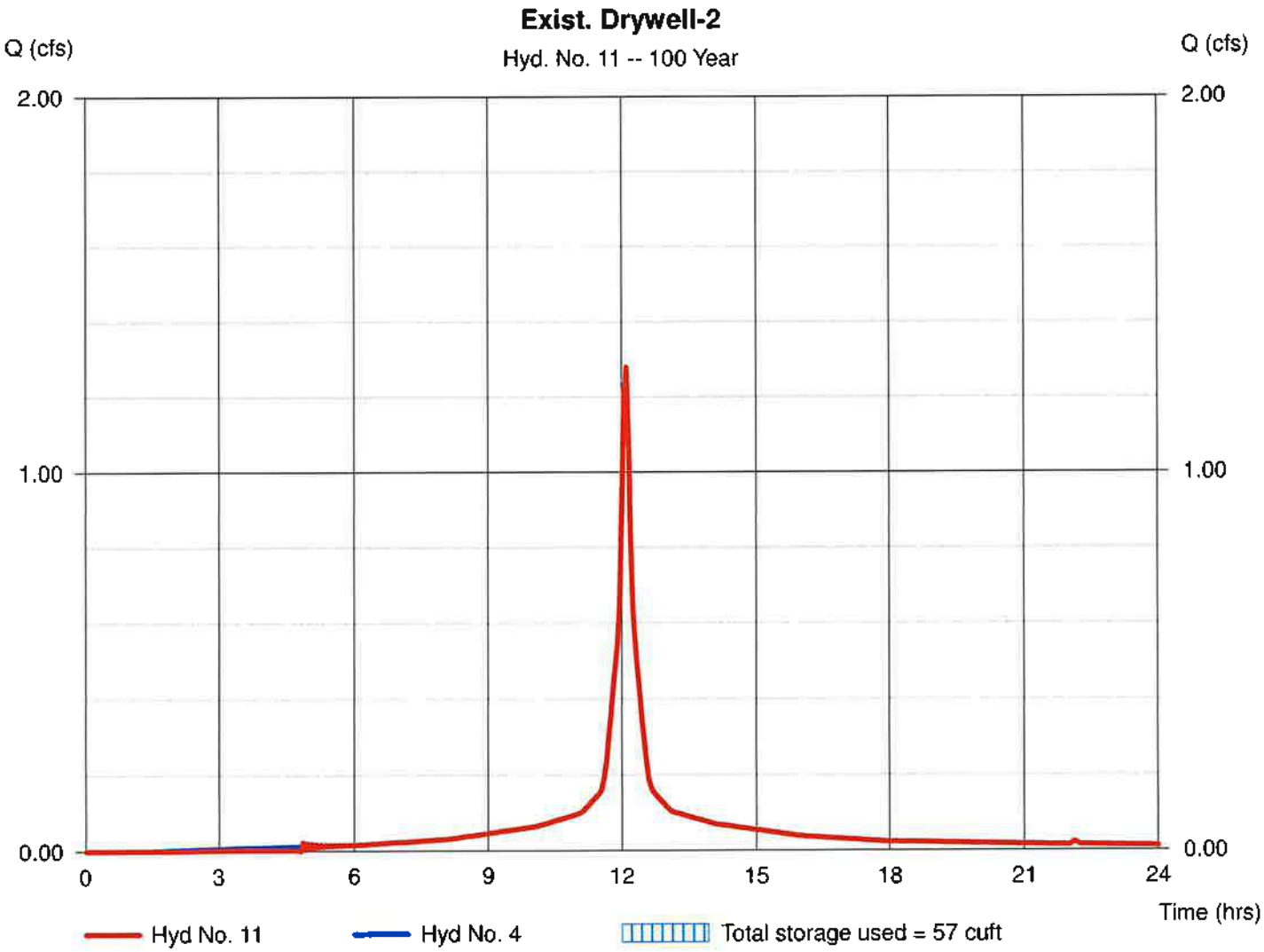
Hydraflow Hydrographs by Intelisolve v9.22 — Sunday, Nov 23, 2025

Hyd. No. 11

Exist. Drywell-2

Hydrograph type	= Reservoir	Peak discharge	= 1.280 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 4,740 cuft
Inflow hyd. No.	= 4 - E.C.B.-4 to Drywell-2	Max. Elevation	= 154.06 ft
Reservoir name	= Exist. Drywell-2	Max. Storage	= 57 cuft

Storage Indication method used. Outflow includes exfiltration.

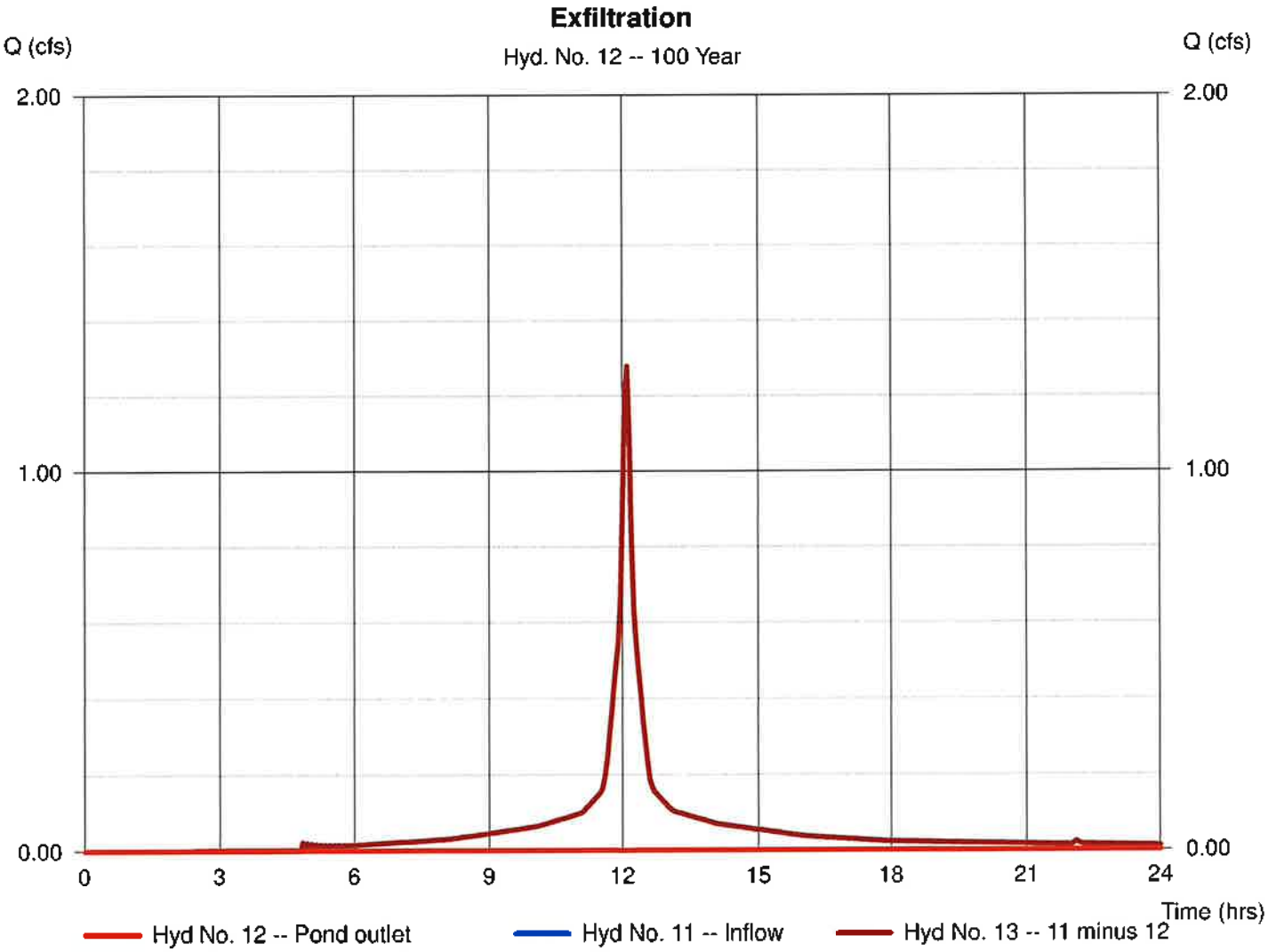


Hydrograph Report

Hyd. No. 12

Exfiltration

Hydrograph type	=	Diversion1	Peak discharge	=	0.002 cfs
Storm frequency	=	100 yrs	Time to peak	=	3.05 hrs
Time interval	=	3 min	Hyd. volume	=	57 cuft
Inflow hydrograph	=	11 - Exist. Drywell-2	2nd diverted hyd.	=	13
Diversion method	=	Pond - Exist. Drywell-2	Pond structure	=	Exfiltration

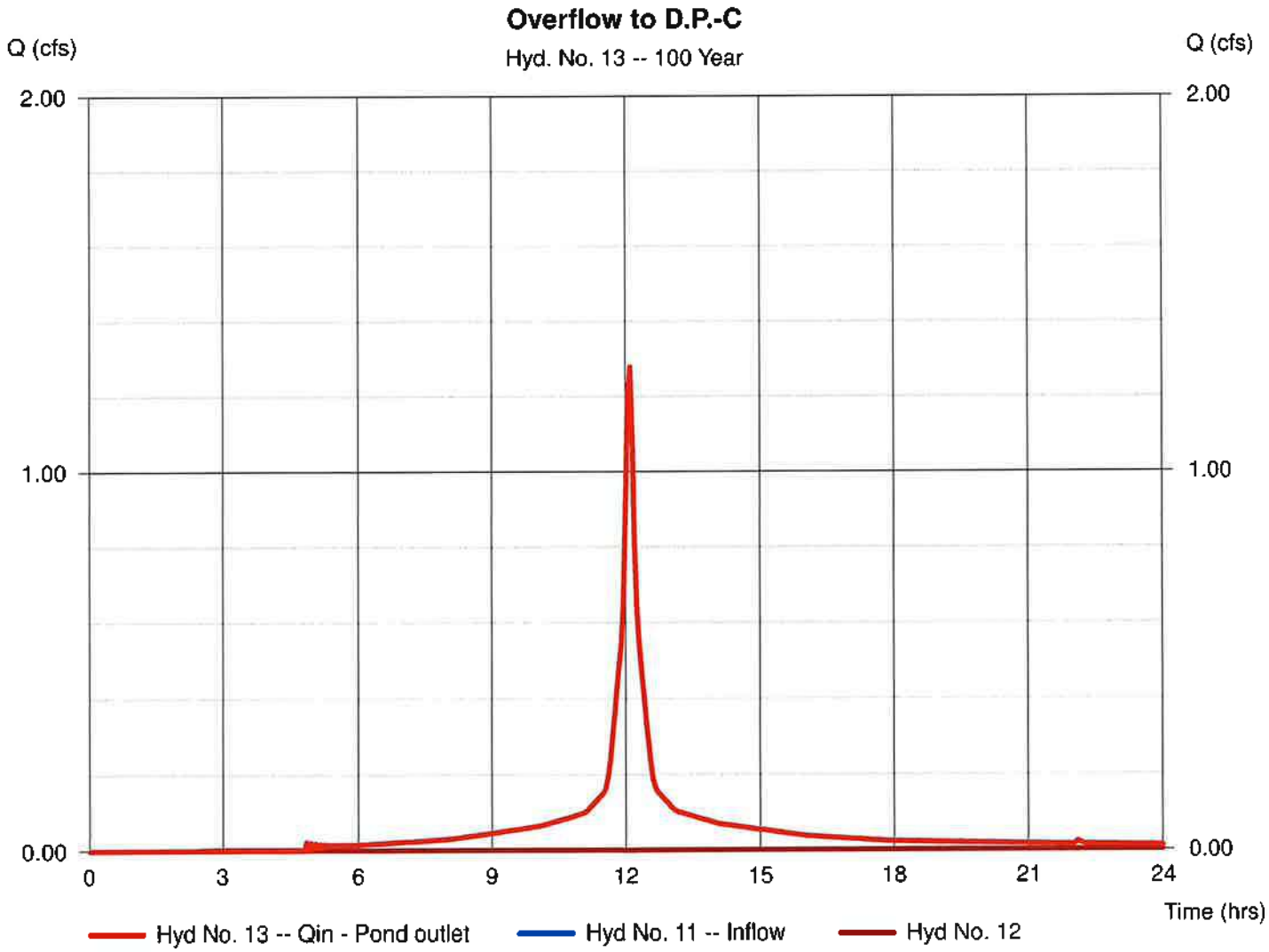


Hydrograph Report

Hyd. No. 13

Overflow to D.P.-C

Hydrograph type	= Diversion2	Peak discharge	= 1.280 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 4,683 cuft
Inflow hydrograph	= 11 - Exist. Drywell-2	2nd diverted hyd.	= 12
Diversion method	= Pond - Exist. Drywell-2	Pond structure	= Exfiltration



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.22

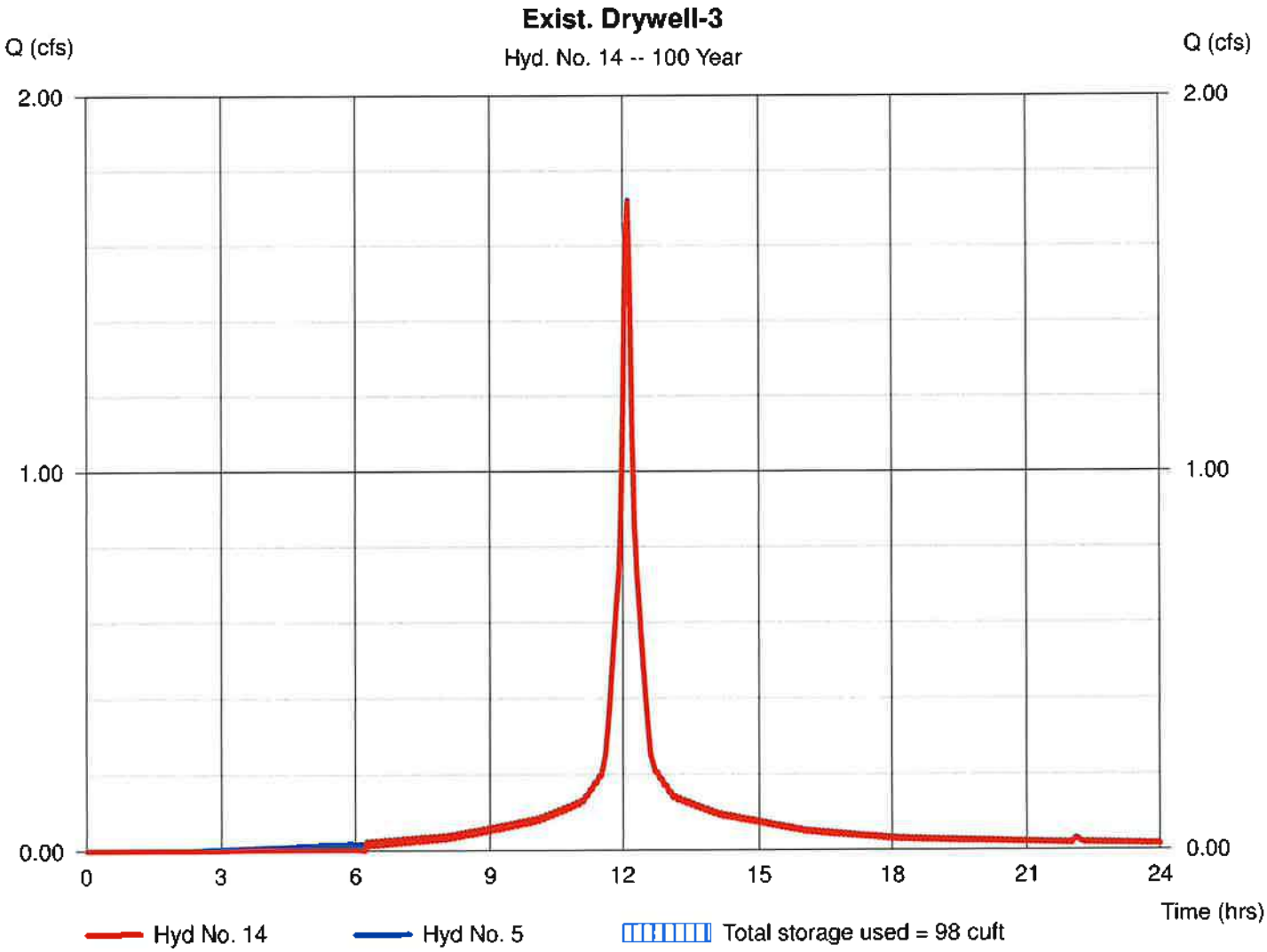
Sunday, Nov 23, 2025

Hyd. No. 14

Exist. Drywell-3

Hydrograph type	= Reservoir	Peak discharge	= 1.717 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 6,176 cuft
Inflow hyd. No.	= 5 - E.C.B.-5 to Drywell-3	Max. Elevation	= 154.44 ft
Reservoir name	= Exist. Drywell-3	Max. Storage	= 98 cuft

Storage Indication method used. Outflow includes exfiltration.

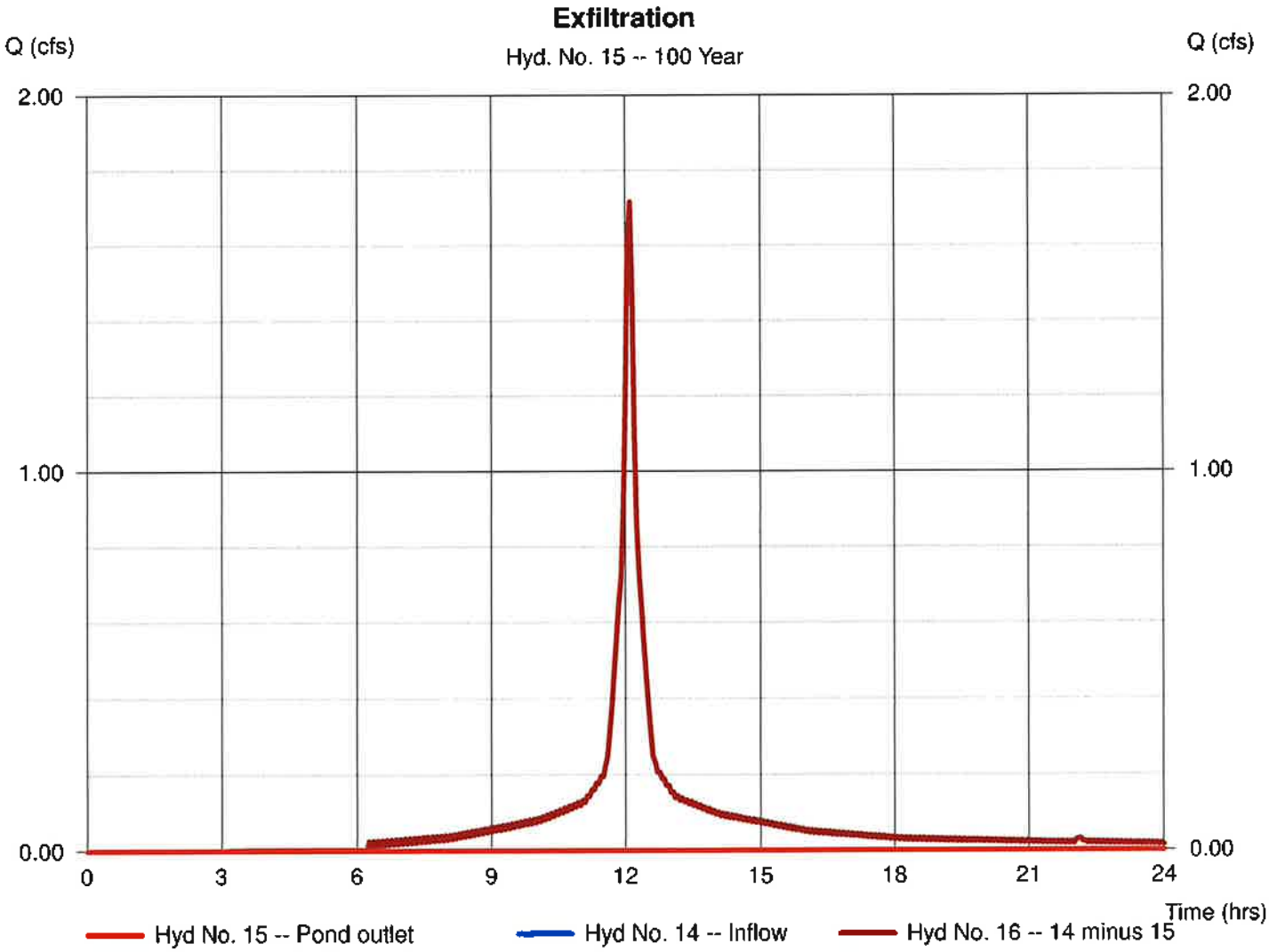


Hydrograph Report

Hyd. No. 15

Exfiltration

Hydrograph type	= Diversion1	Peak discharge	= 0.002 cfs
Storm frequency	= 100 yrs	Time to peak	= 5.55 hrs
Time interval	= 3 min	Hyd. volume	= 37 cuft
Inflow hydrograph	= 14 - Exist. Drywell-3	2nd diverted hyd.	= 16
Diversion method	= Pond - Exist. Drywell-3	Pond structure	= Exfiltration

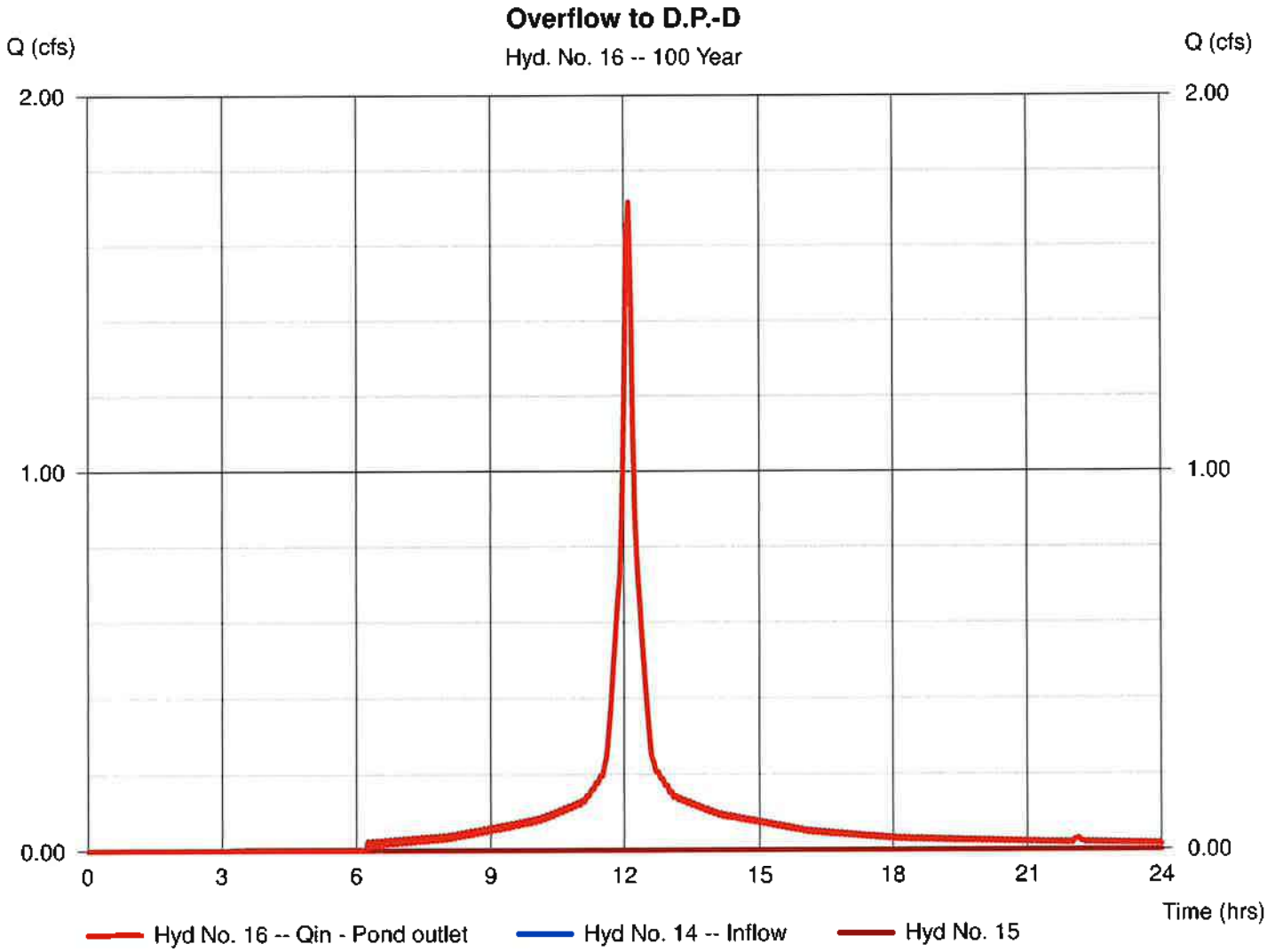


Hydrograph Report

Hyd. No. 16

Overflow to D.P.-D

Hydrograph type	= Diversion2	Peak discharge	= 1.717 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 6,139 cuft
Inflow hydrograph	= 14 - Exist. Drywell-3	2nd diverted hyd.	= 15
Diversion method	= Pond - Exist. Drywell-3	Pond structure	= Exfiltration

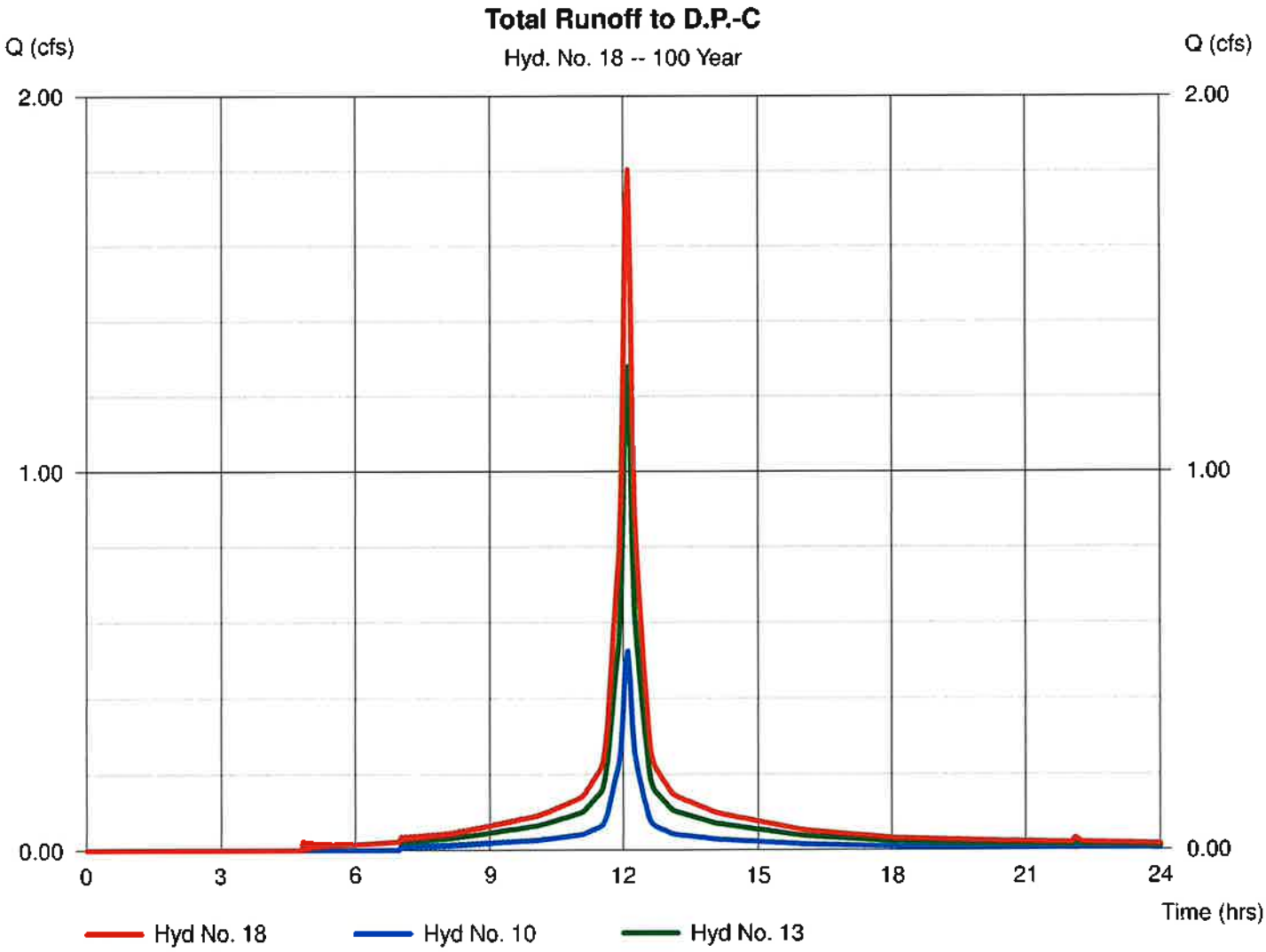


Hydrograph Report

Hyd. No. 18

Total Runoff to D.P.-C

Hydrograph type	= Combine	Peak discharge	= 1.805 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 6,543 cuft
Inflow hyds.	= 10, 13	Contrib. drain. area	= 0.000 ac

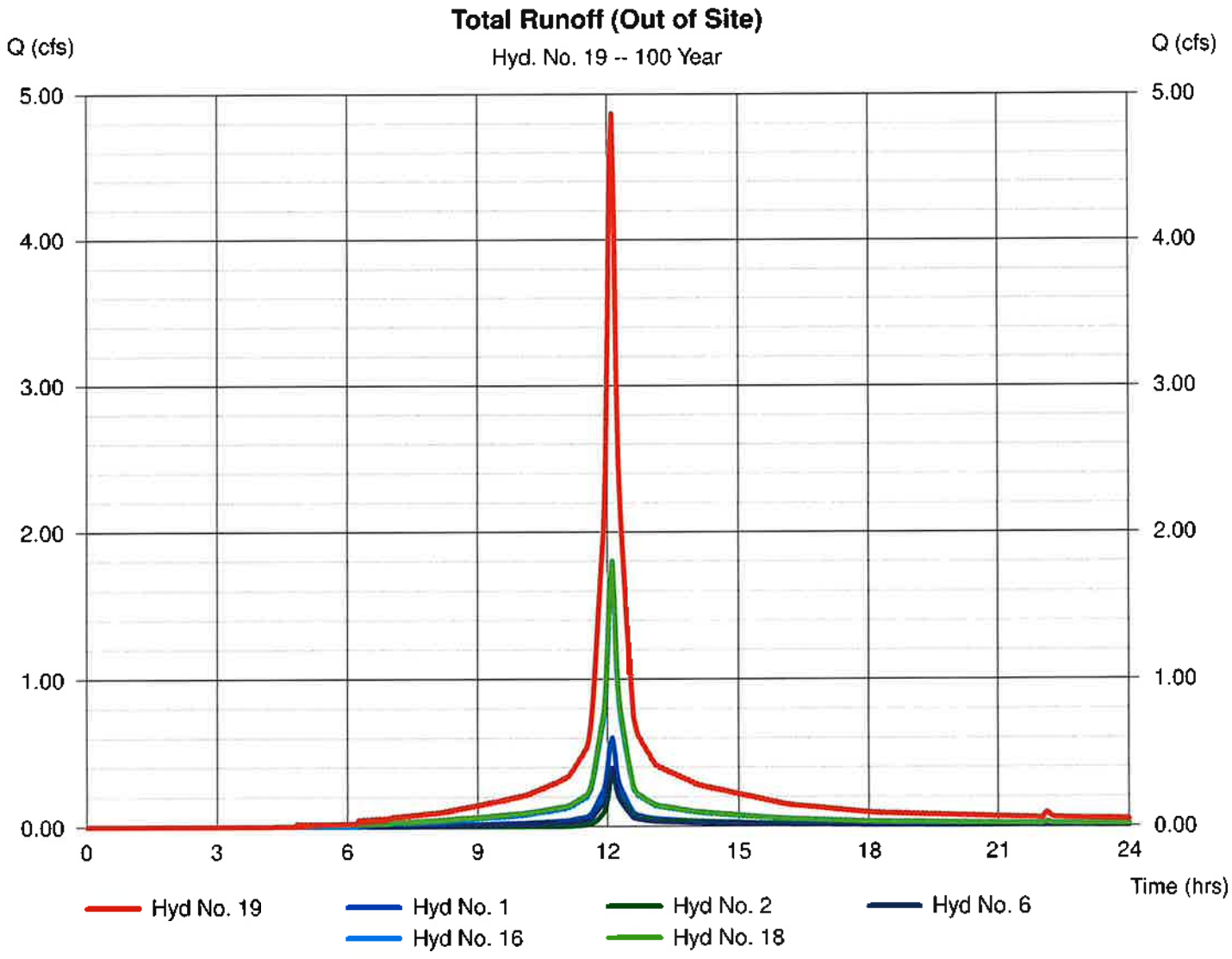


Hydrograph Report

Hyd. No. 19

Total Runoff (Out of Site)

Hydrograph type	= Combine	Peak discharge	= 4.871 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 17,409 cuft
Inflow hyds.	= 1, 2, 6, 16, 18	Contrib. drain. area	= 0.306 ac

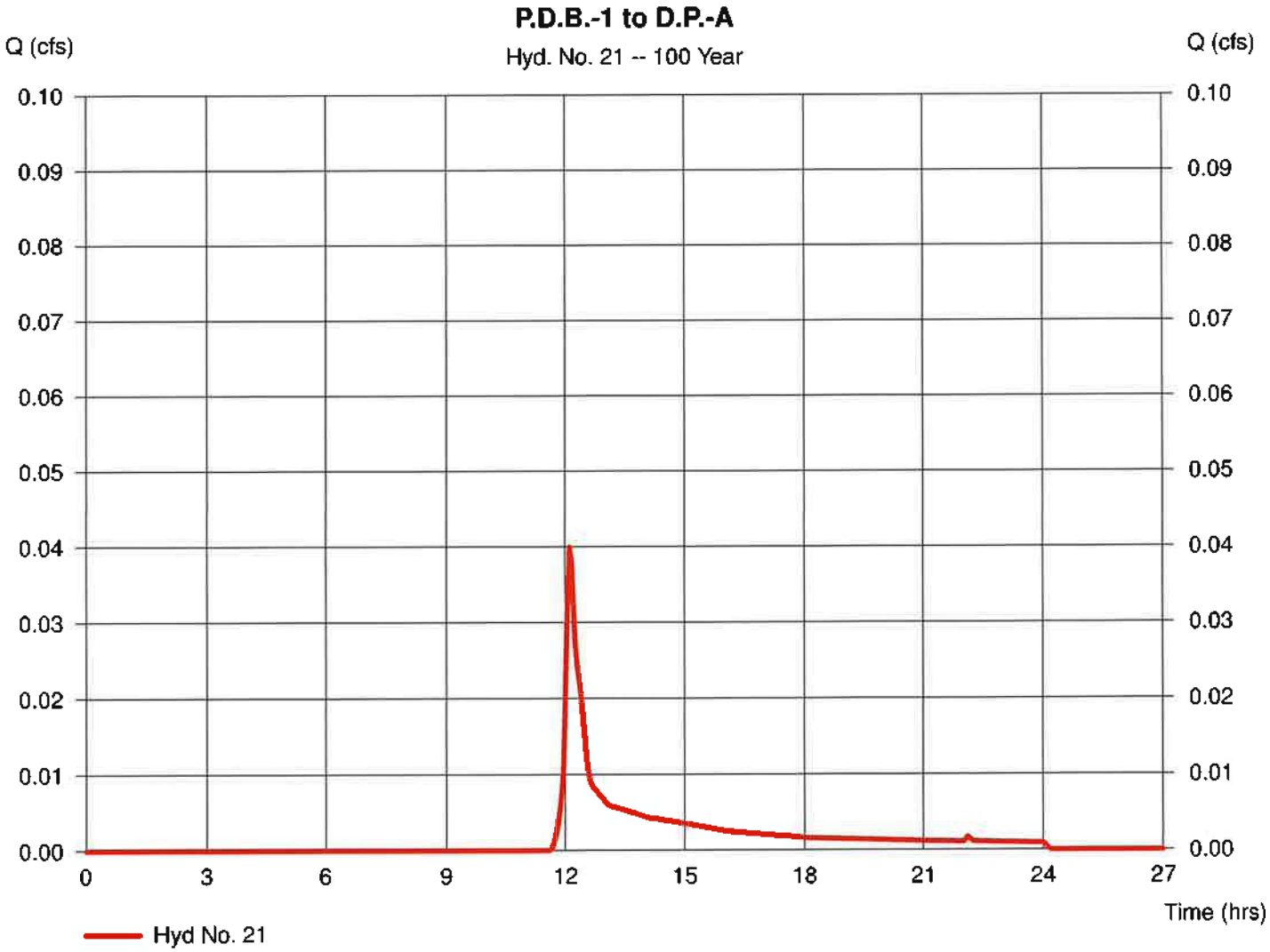


Hydrograph Report

Hyd. No. 21

P.D.B.-1 to D.P.-A

Hydrograph type	= SCS Runoff	Peak discharge	= 0.040 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 158 cuft
Drainage area	= 0.026 ac	Curve number	= 44.5
Basin Slope	= 3.9 %	Hydraulic length	= 125 ft
Tc method	= LAG	Time of conc. (Tc)	= 7.80 min
Total precip.	= 8.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

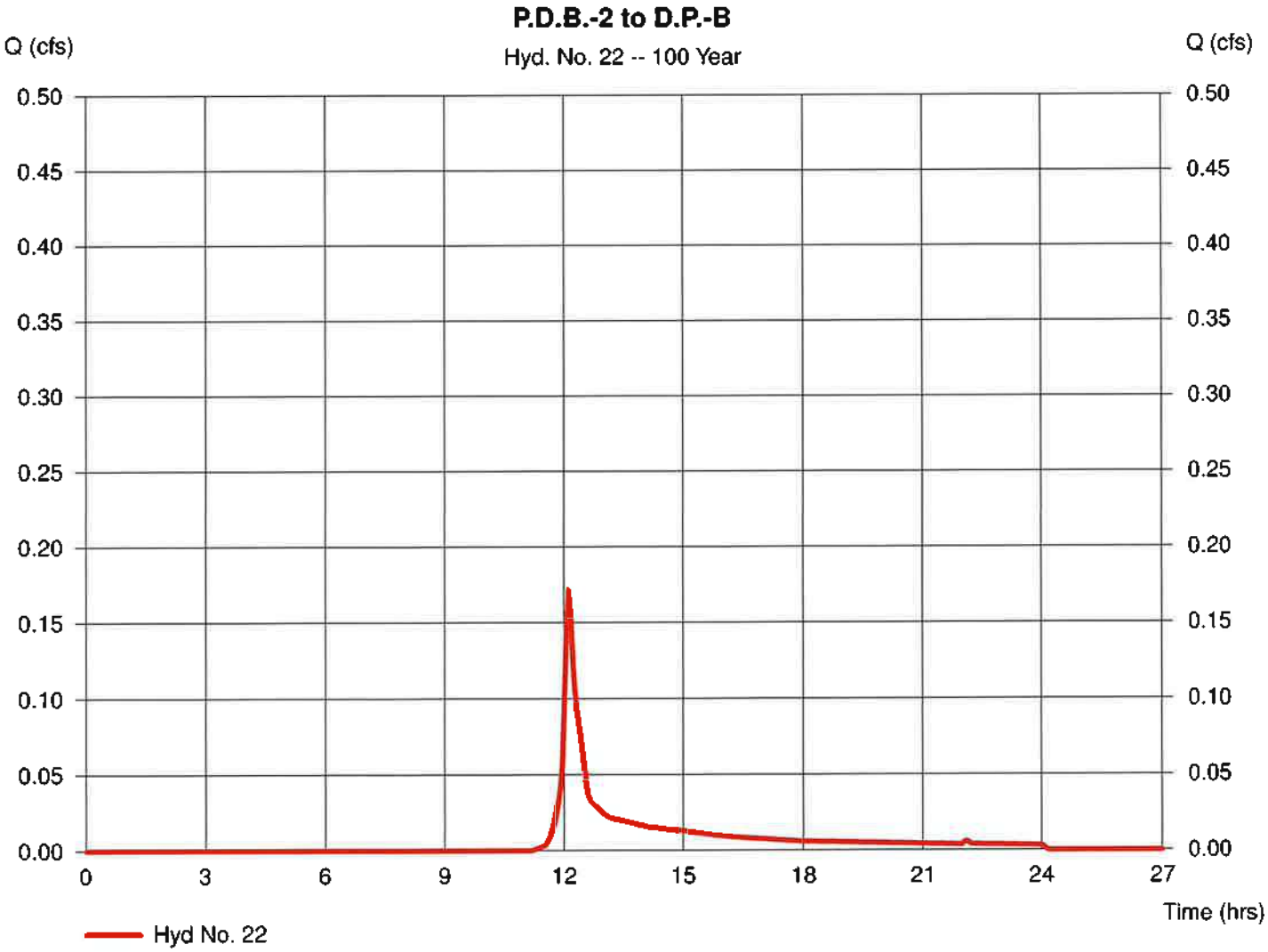


Hydrograph Report

Hyd. No. 22

P.D.B.-2 to D.P.-B

Hydrograph type	= SCS Runoff	Peak discharge	= 0.172 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 626 cuft
Drainage area	= 0.082 ac	Curve number	= 48.8
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 8.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

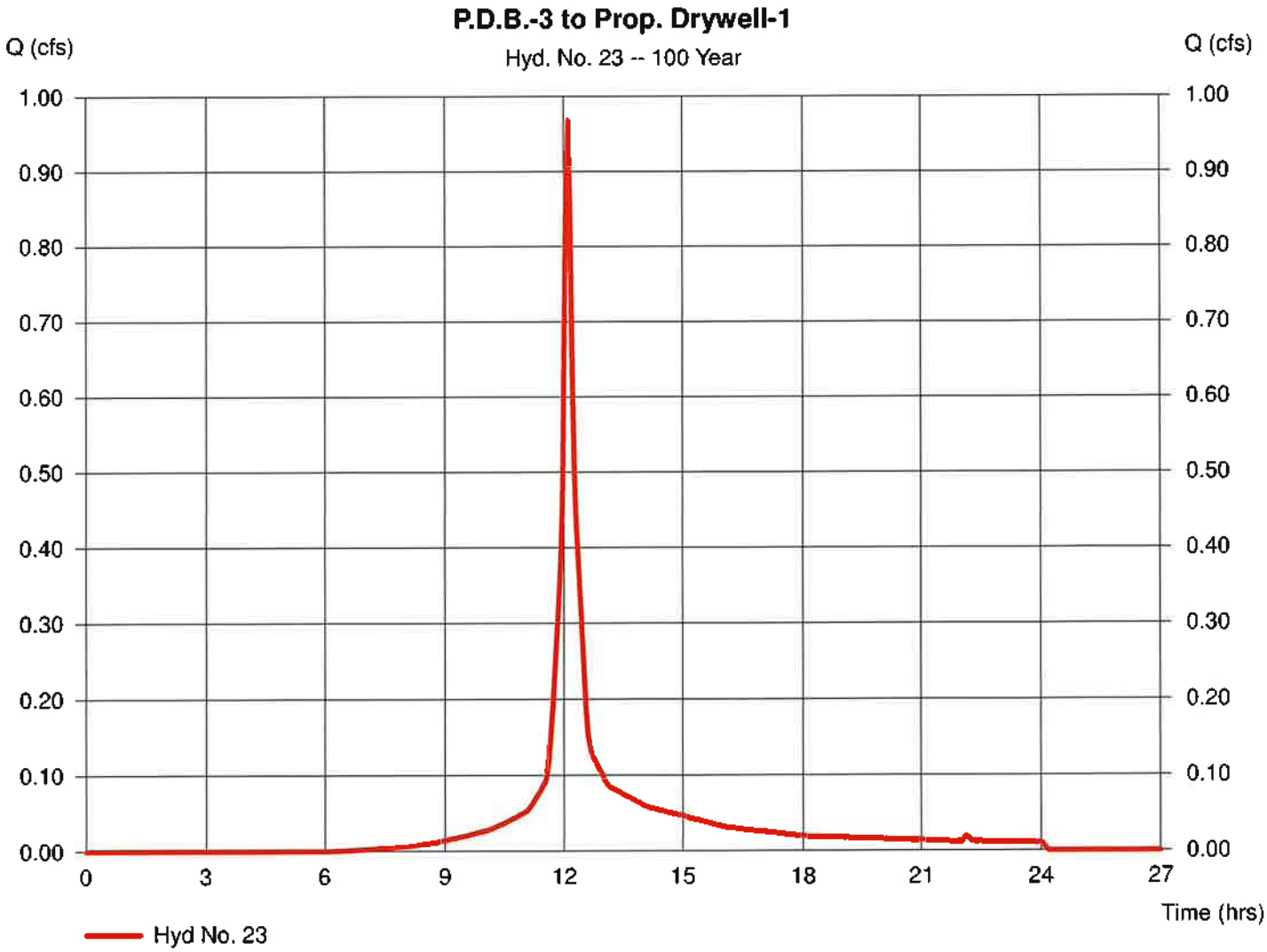


Hydrograph Report

Hyd. No. 23

P.D.B.-3 to Prop. Drywell-1

Hydrograph type	= SCS Runoff	Peak discharge	= 0.968 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 3,258 cuft
Drainage area	= 0.175 ac	Curve number	= 77.1
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 8.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

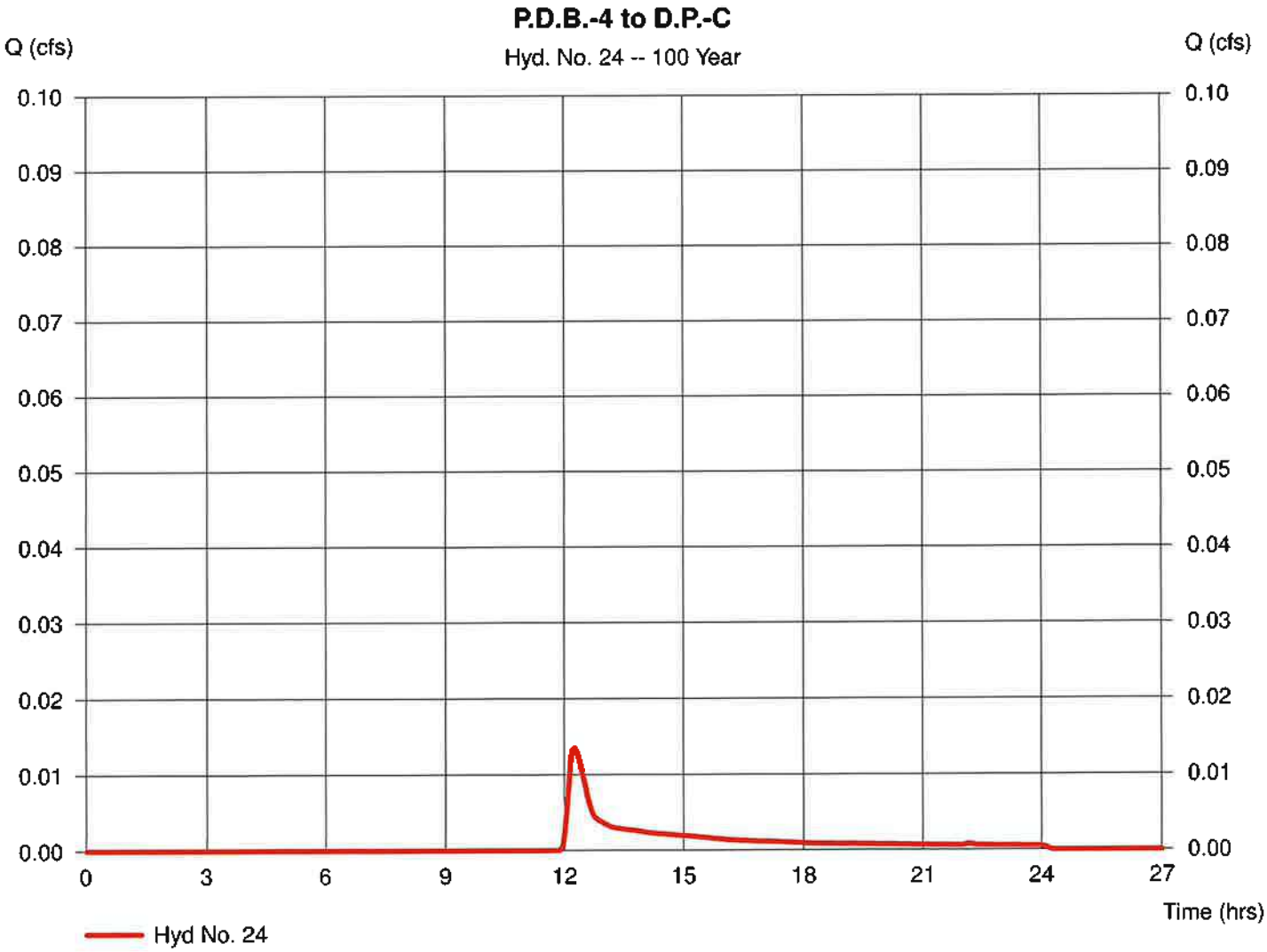


Hydrograph Report

Hyd. No. 24

P.D.B.-4 to D.P.-C

Hydrograph type	= SCS Runoff	Peak discharge	= 0.014 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.25 hrs
Time interval	= 3 min	Hyd. volume	= 77 cuft
Drainage area	= 0.017 ac	Curve number	= 39
Basin Slope	= 0.9 %	Hydraulic length	= 87 ft
Tc method	= LAG	Time of conc. (Tc)	= 14.00 min
Total precip.	= 8.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

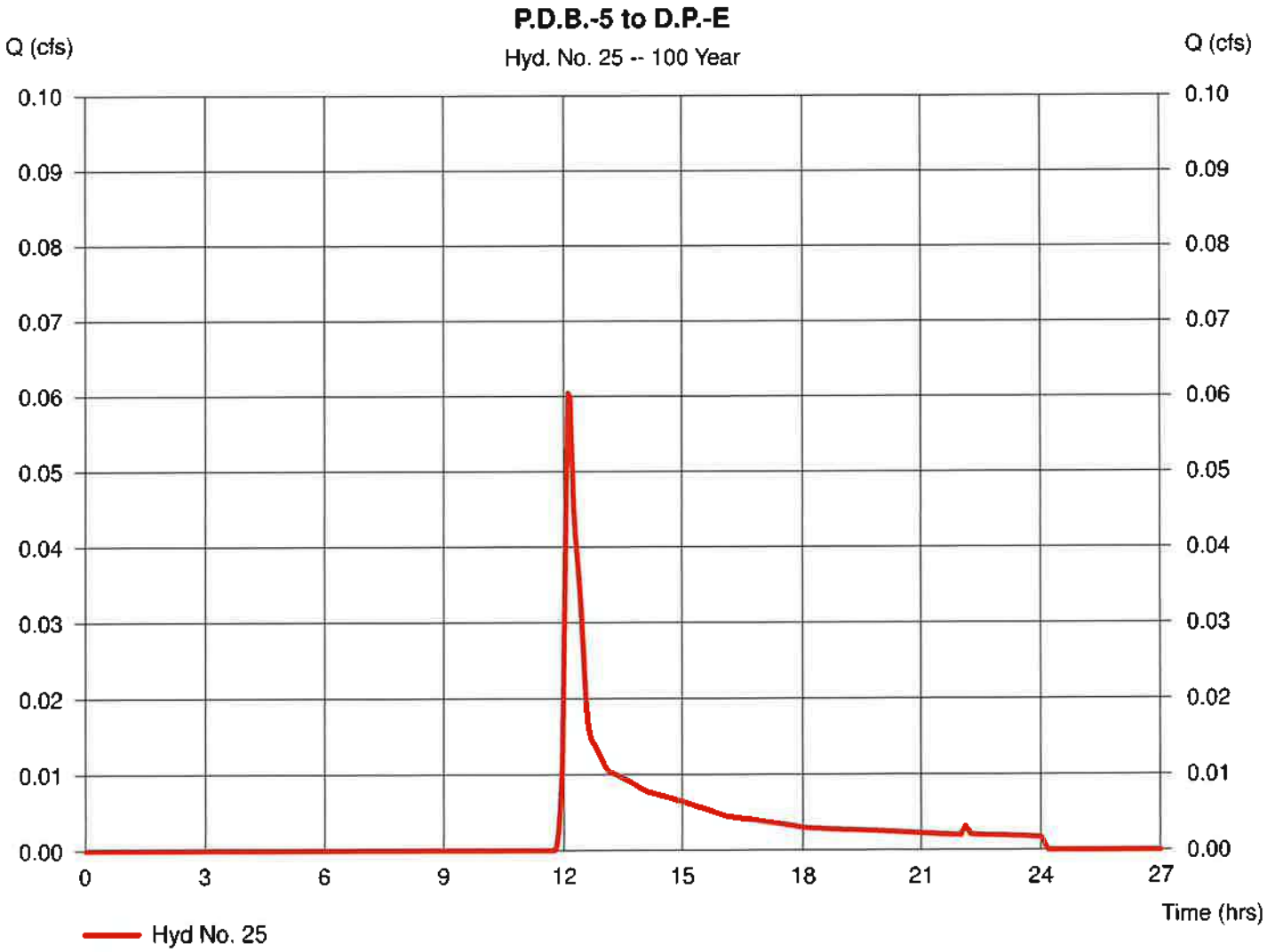


Hydrograph Report

Hyd. No. 25

P.D.B.-5 to D.P.-E

Hydrograph type	= SCS Runoff	Peak discharge	= 0.060 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 271 cuft
Drainage area	= 0.055 ac	Curve number	= 41.1
Basin Slope	= 3.5 %	Hydraulic length	= 111 ft
Tc method	= LAG	Time of conc. (Tc)	= 8.20 min
Total precip.	= 8.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

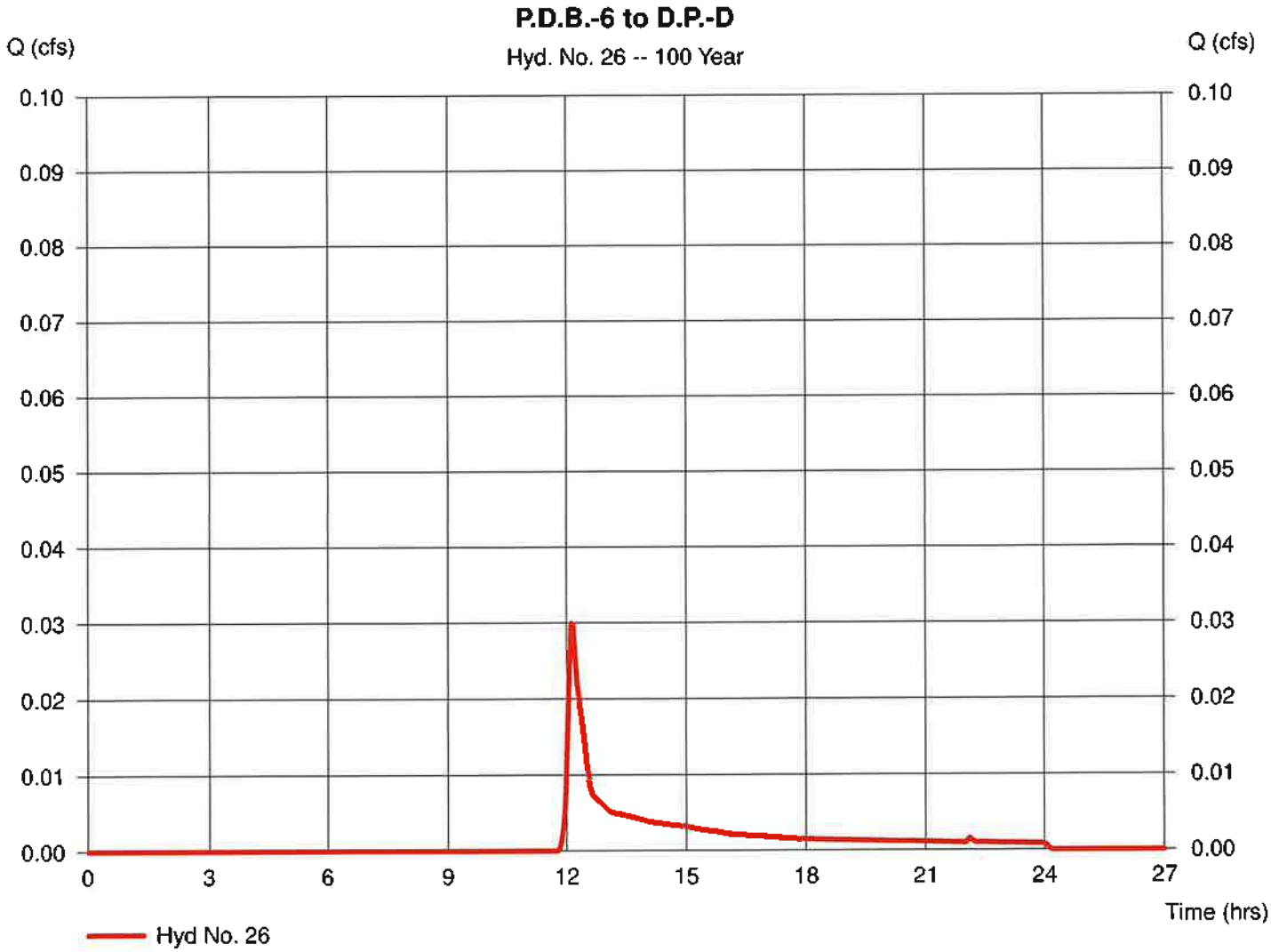


Hydrograph Report

Hyd. No. 26

P.D.B.-6 to D.P.-D

Hydrograph type	= SCS Runoff	Peak discharge	= 0.030 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 134 cuft
Drainage area	= 0.027 ac	Curve number	= 41.2
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 8.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

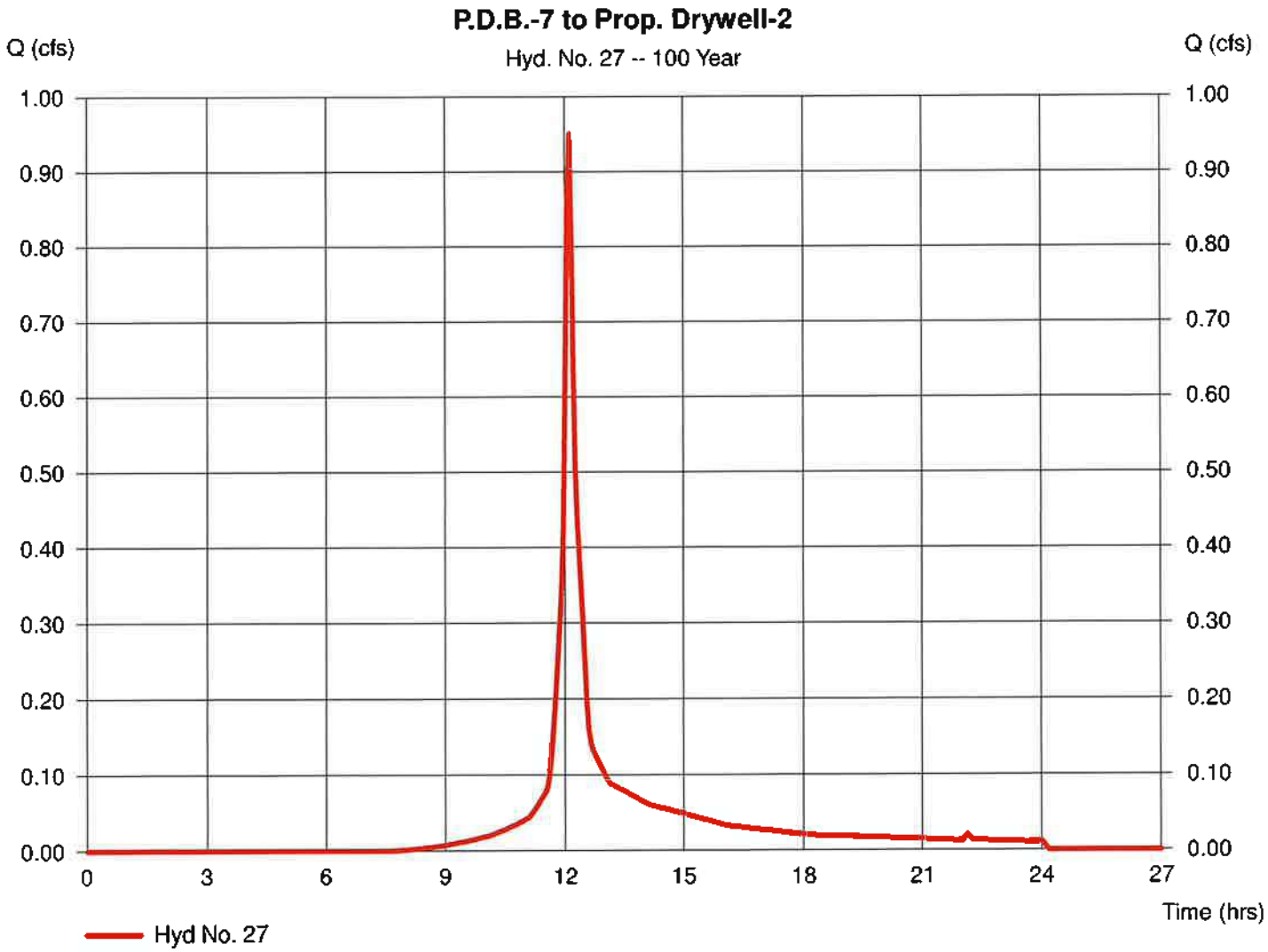


Hydrograph Report

Hyd. No. 27

P.D.B.-7 to Prop. Drywell-2

Hydrograph type	= SCS Runoff	Peak discharge	= 0.951 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 3,164 cuft
Drainage area	= 0.199 ac	Curve number	= 70.3
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 8.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

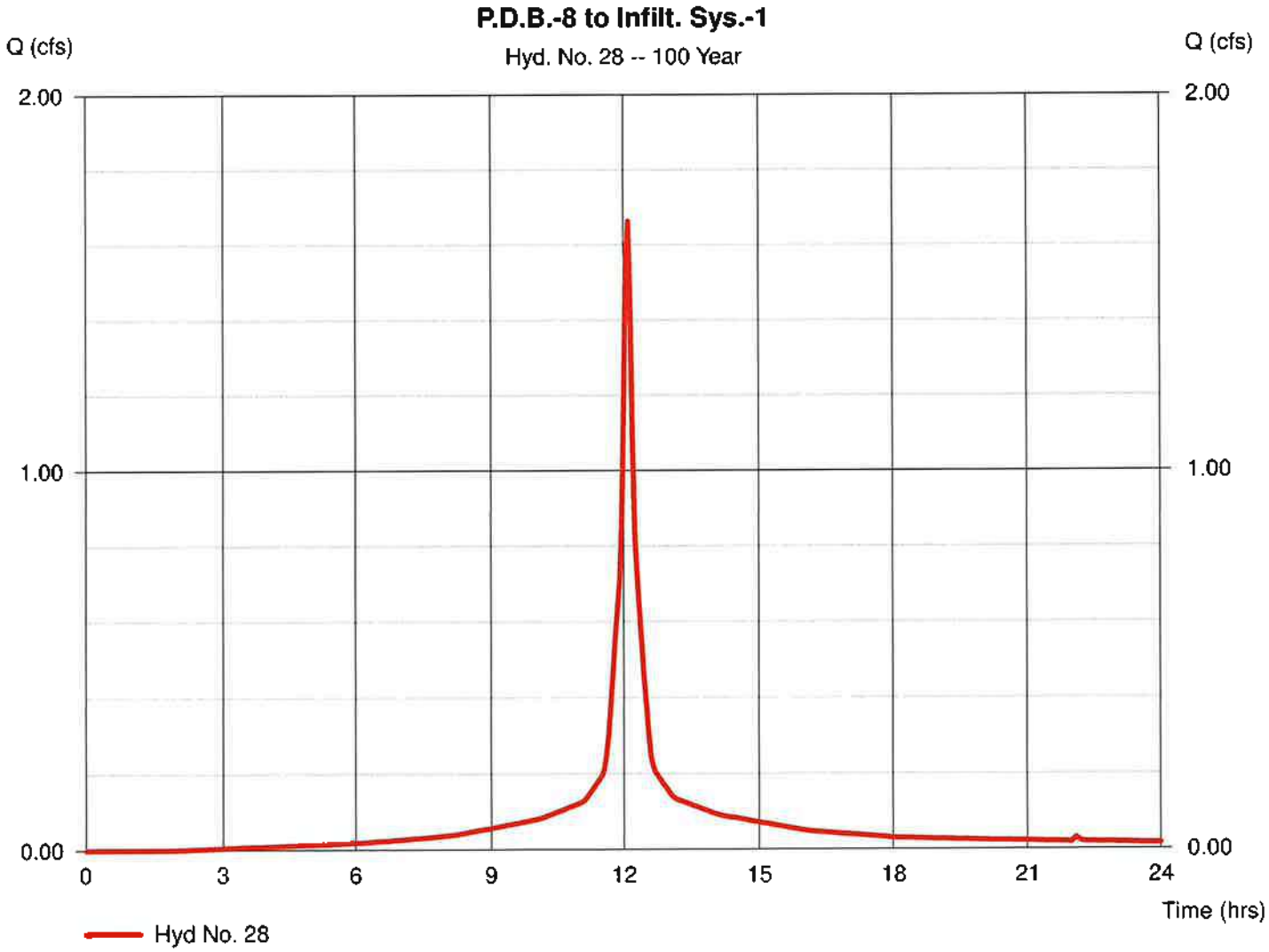


Hydrograph Report

Hyd. No. 28

P.D.B.-8 to Infilt. Sys.-1

Hydrograph type	= SCS Runoff	Peak discharge	= 1.665 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 6,142 cuft
Drainage area	= 0.244 ac	Curve number	= 93.3
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 5.00 min
Total precip.	= 8.20 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

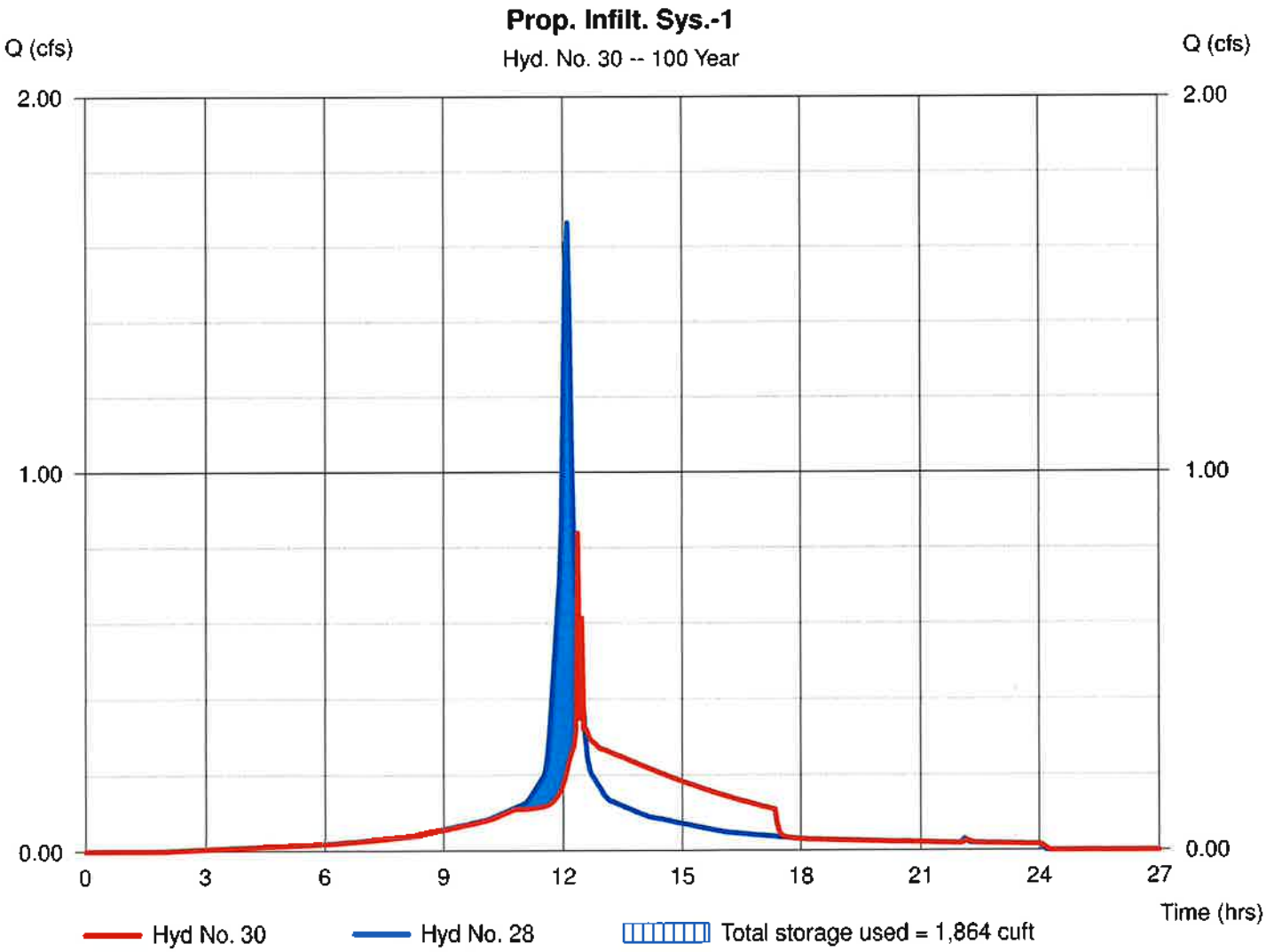
Hydraflow Hydrographs by Intelisolve v9.22 — Sunday, Nov 23, 2025

Hyd. No. 30

Prop. Infilt. Sys.-1

Hydrograph type	= Reservoir	Peak discharge	= 0.840 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.35 hrs
Time interval	= 3 min	Hyd. volume	= 6,142 cuft
Inflow hyd. No.	= 28 - P.D.B.-8 to Infilt. Sys.-1	Max. Elevation	= 153.83 ft
Reservoir name	= Prop. Infilt. Sys-1	Max. Storage	= 1,864 cuft

Storage Indication method used. Outflow includes exfiltration.

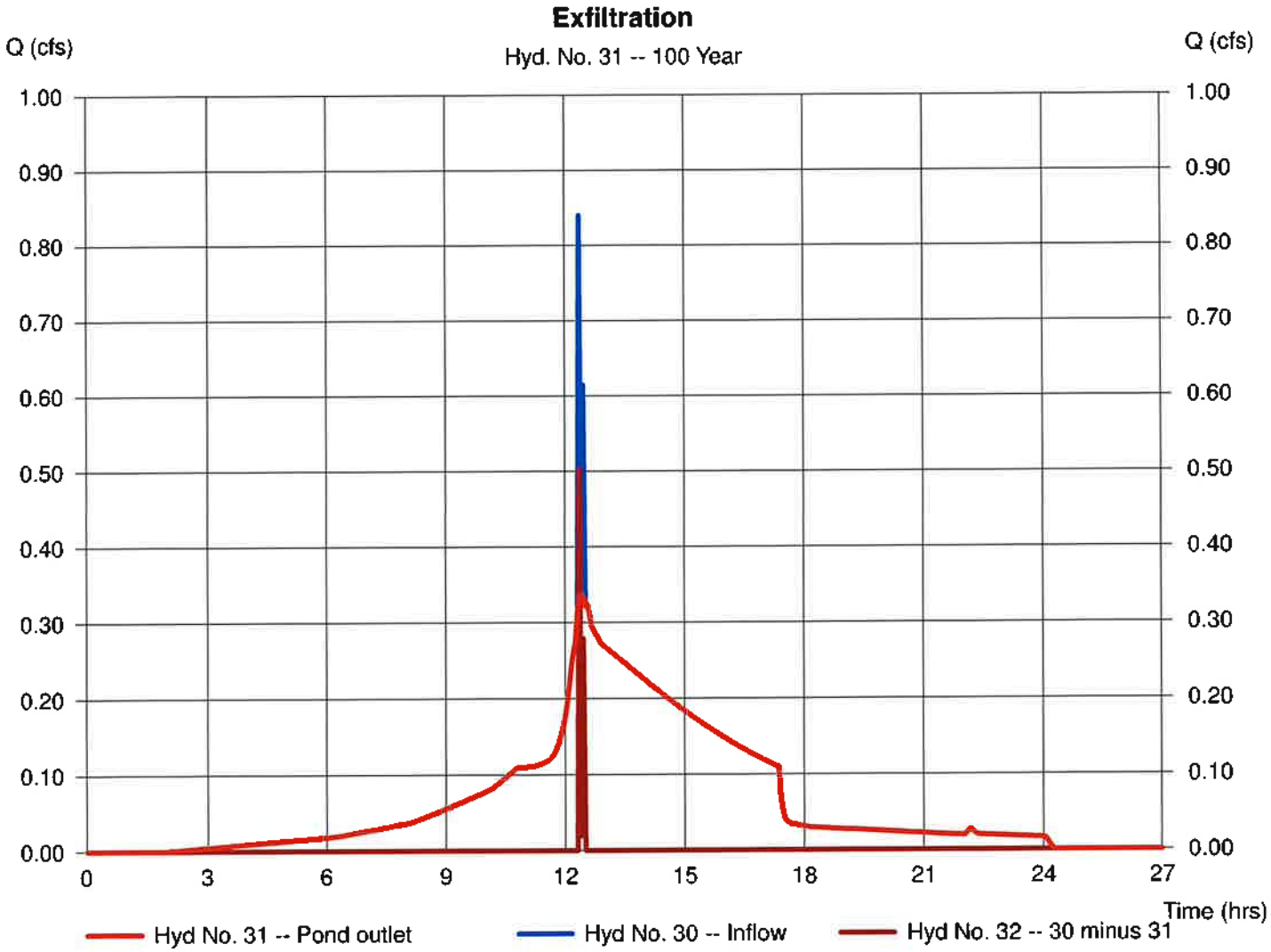


Hydrograph Report

Hyd. No. 31

Exfiltration

Hydrograph type	= Diversion1	Peak discharge	= 0.336 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.35 hrs
Time interval	= 3 min	Hyd. volume	= 5,997 cuft
Inflow hydrograph	= 30 - Prop. Infilt. Sys.-1	2nd diverted hyd.	= 32
Diversion method	= Pond - Prop. Infilt. Sys-1	Pond structure	= Exfiltration

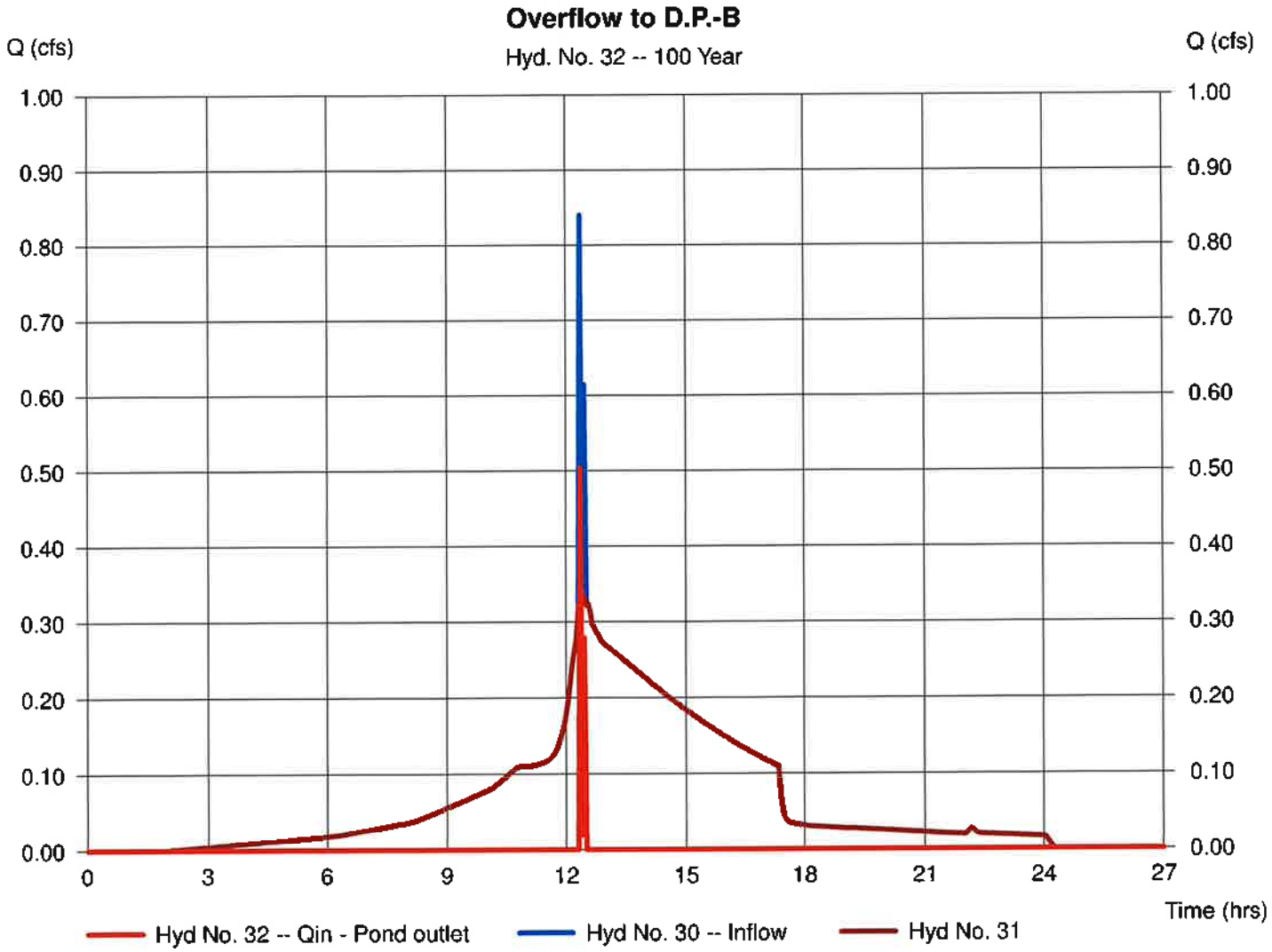


Hydrograph Report

Hyd. No. 32

Overflow to D.P.-B

Hydrograph type	= Diversion2	Peak discharge	= 0.504 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.35 hrs
Time interval	= 3 min	Hyd. volume	= 145 cuft
Inflow hydrograph	= 30 - Prop. Infilt. Sys.-1	2nd diverted hyd.	= 31
Diversion method	= Pond - Prop. Infilt. Sys-1	Pond structure	= Exfiltration



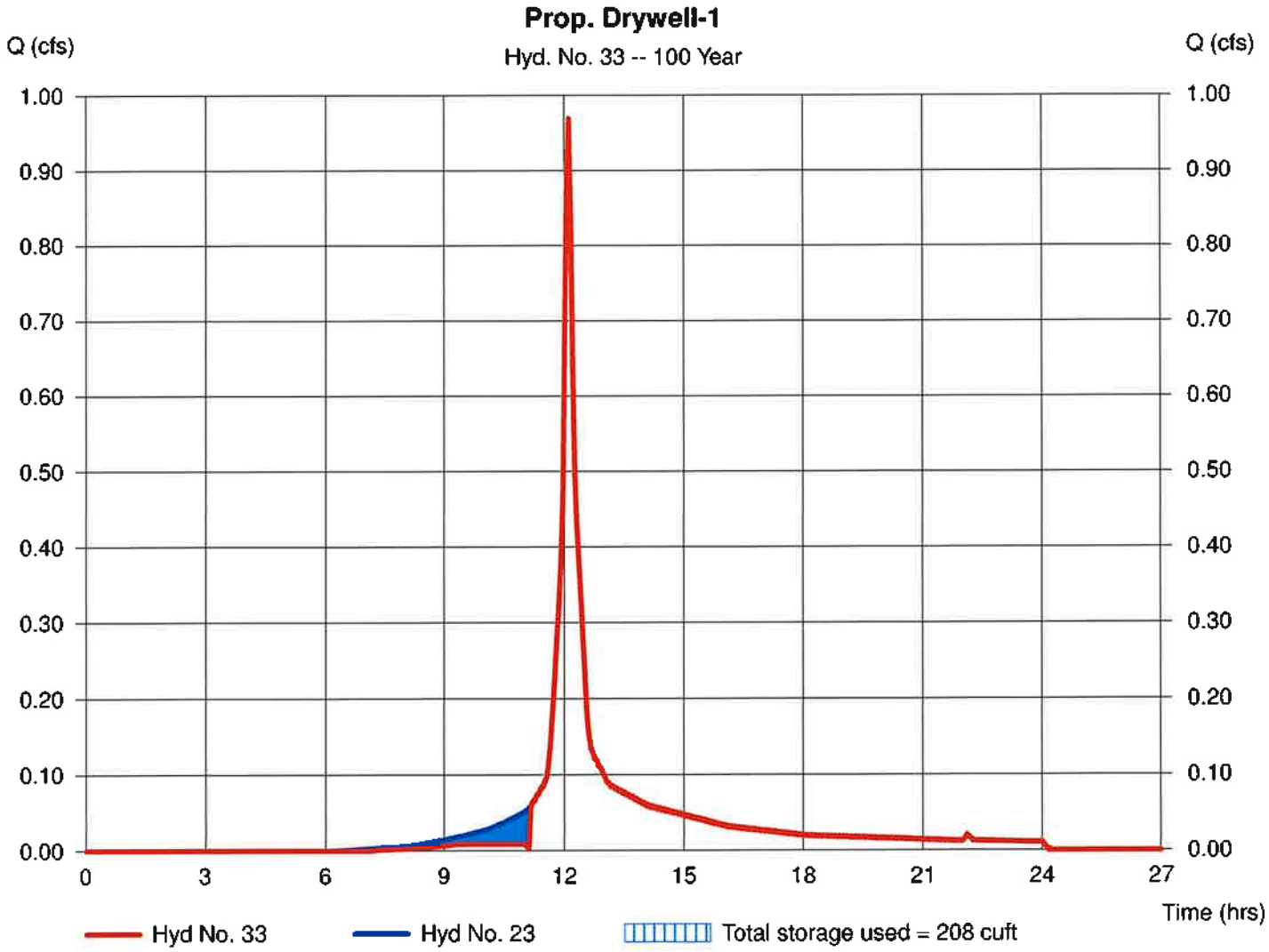
Hydrograph Report

Hyd. No. 33

Prop. Drywell-1

Hydrograph type	= Reservoir	Peak discharge	= 0.970 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 3,050 cuft
Inflow hyd. No.	= 23 - P.D.B.-3 to Prop. Drywell-1	Max. Elevation	= 154.48 ft
Reservoir name	= Prop. Drywell-1	Max. Storage	= 208 cuft

Storage Indication method used. Outflow includes exfiltration.

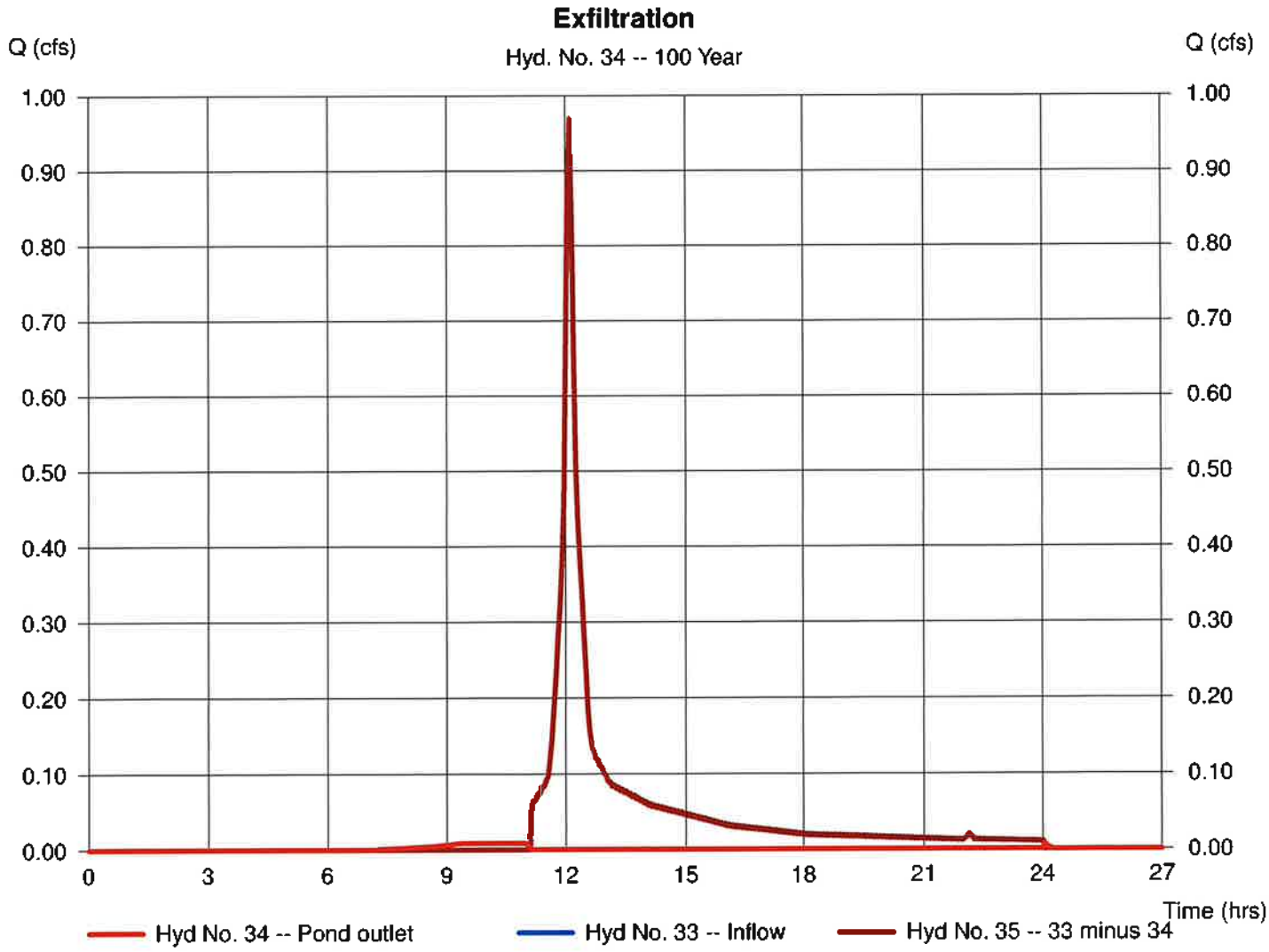


Hydrograph Report

Hyd. No. 34

Exfiltration

Hydrograph type	= Diversion1	Peak discharge	= 0.009 cfs
Storm frequency	= 100 yrs	Time to peak	= 9.40 hrs
Time interval	= 3 min	Hyd. volume	= 96 cuft
Inflow hydrograph	= 33 - Prop. Drywell-1	2nd diverted hyd.	= 35
Diversion method	= Pond - Prop. Drywell-1	Pond structure	= Exfiltration

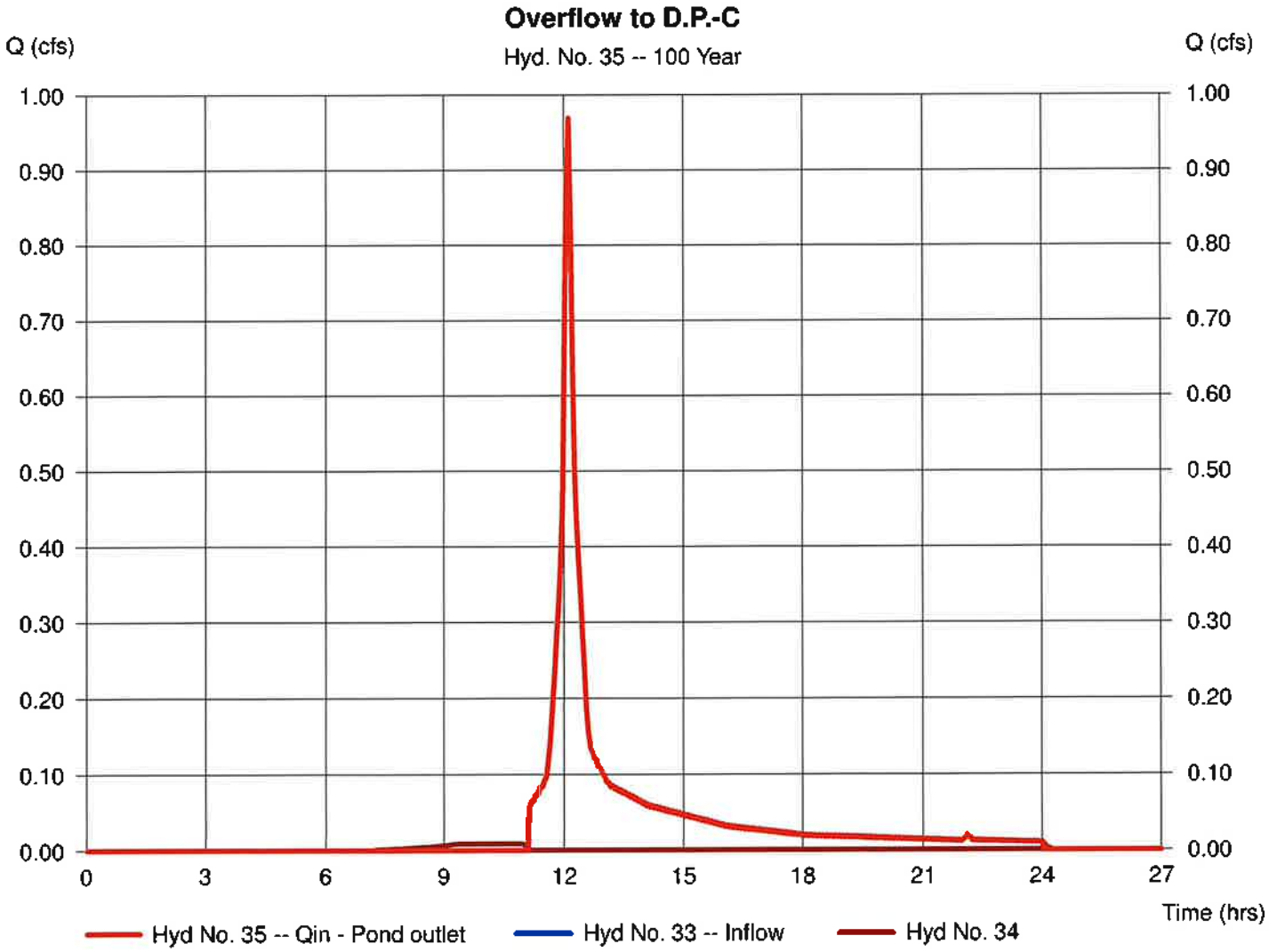


Hydrograph Report

Hyd. No. 35

Overflow to D.P.-C

Hydrograph type	= Diversion2	Peak discharge	= 0.970 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 2,954 cuft
Inflow hydrograph	= 33 - Prop. Drywell-1	2nd diverted hyd.	= 34
Diversion method	= Pond - Prop. Drywell-1	Pond structure	= Exfiltration



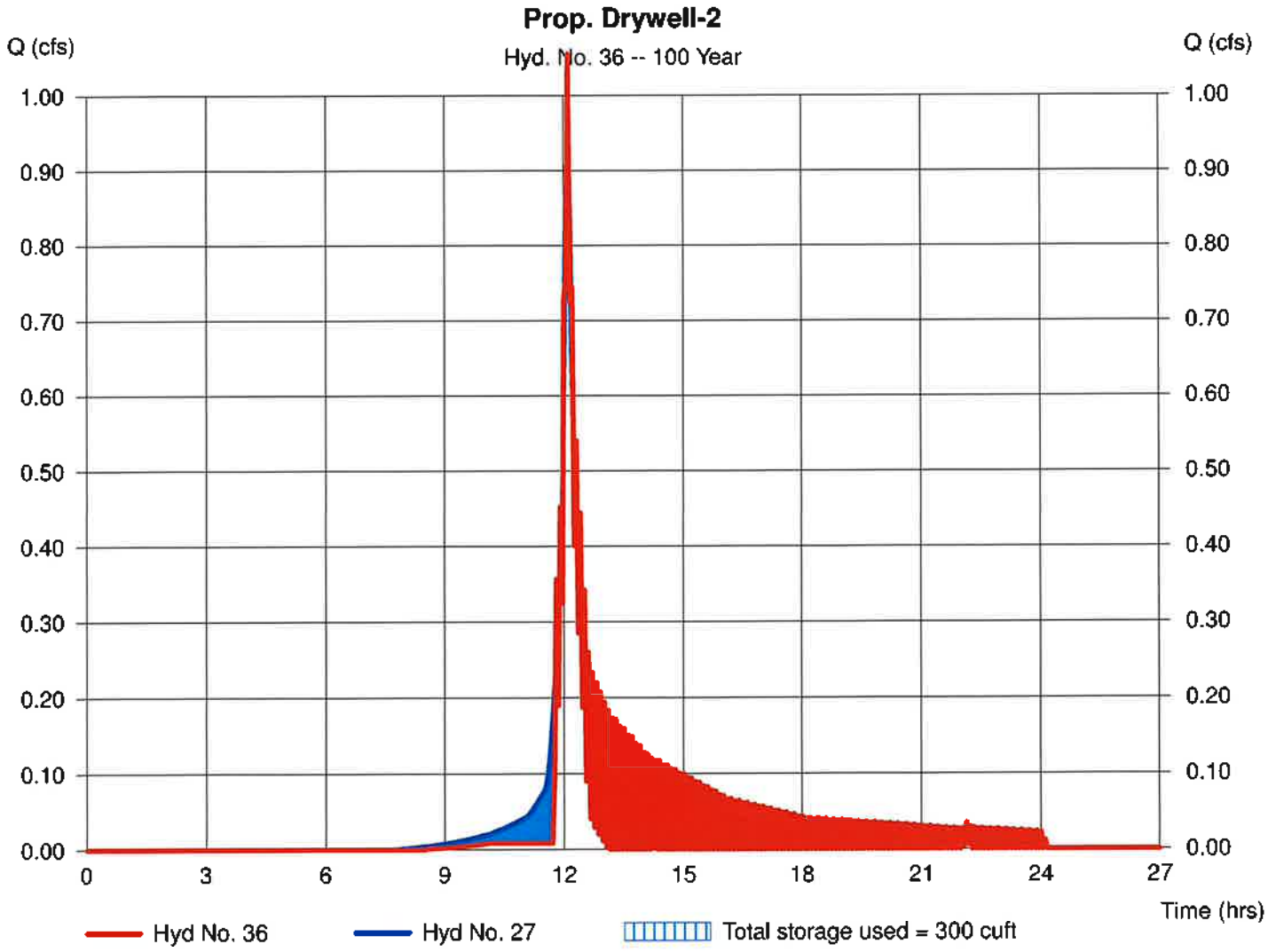
Hydrograph Report

Hyd. No. 36

Prop. Drywell-2

Hydrograph type	= Reservoir	Peak discharge	= 1.056 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 2,864 cuft
Inflow hyd. No.	= 27 - P.D.B.-7 to Prop. Drywell-2	Max. Elevation	= 154.13 ft
Reservoir name	= Prop. Drywell-2	Max. Storage	= 300 cuft

Storage Indication method used. Outflow includes exfiltration.

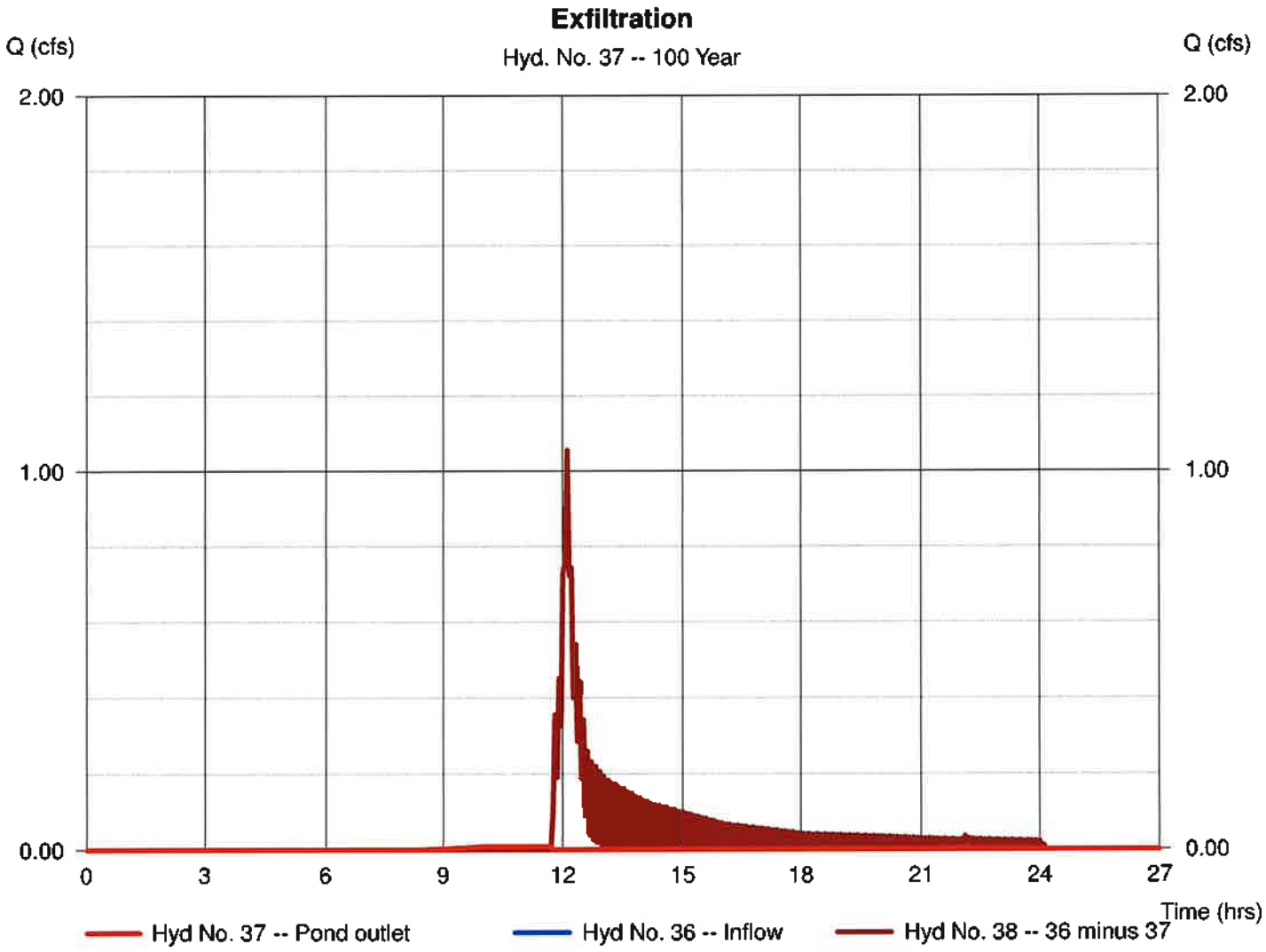


Hydrograph Report

Hyd. No. 37

Exfiltration

Hydrograph type	= Diversion1	Peak discharge	= 0.009 cfs
Storm frequency	= 100 yrs	Time to peak	= 10.15 hrs
Time interval	= 3 min	Hyd. volume	= 82 cuft
Inflow hydrograph	= 36 - Prop. Drywell-2	2nd diverted hyd.	= 38
Diversion method	= Pond - Prop. Drywell-2	Pond structure	= Exfiltration

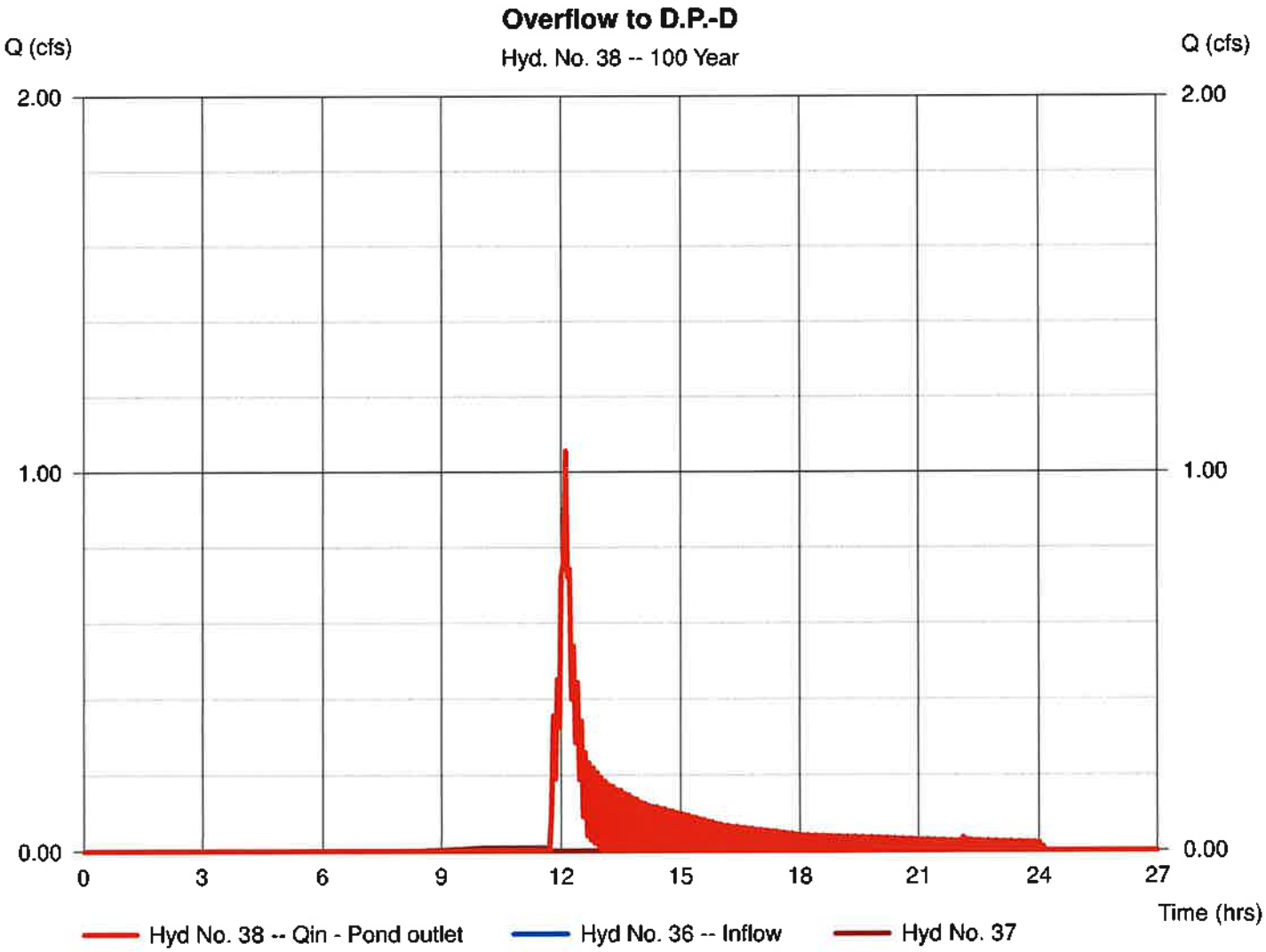


Hydrograph Report

Hyd. No. 38

Overflow to D.P.-D

Hydrograph type	= Diversion2	Peak discharge	= 1.056 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 2,782 cuft
Inflow hydrograph	= 36 - Prop. Drywell-2	2nd diverted hyd.	= 37
Diversion method	= Pond - Prop. Drywell-2	Pond structure	= Exfiltration

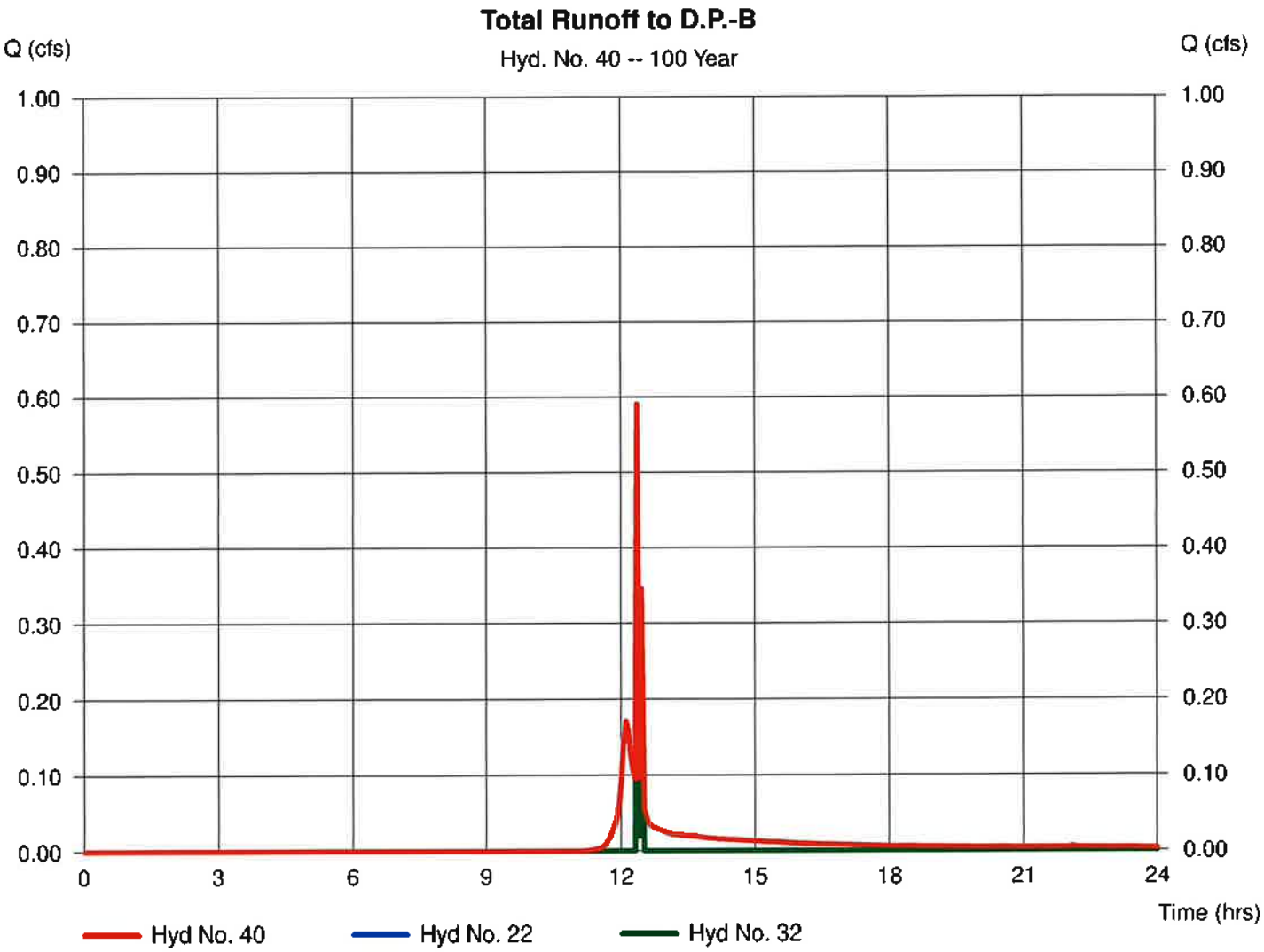


Hydrograph Report

Hyd. No. 40

Total Runoff to D.P.-B

Hydrograph type	= Combine	Peak discharge	= 0.591 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.35 hrs
Time interval	= 3 min	Hyd. volume	= 771 cuft
Inflow hyds.	= 22, 32	Contrib. drain. area	= 0.082 ac

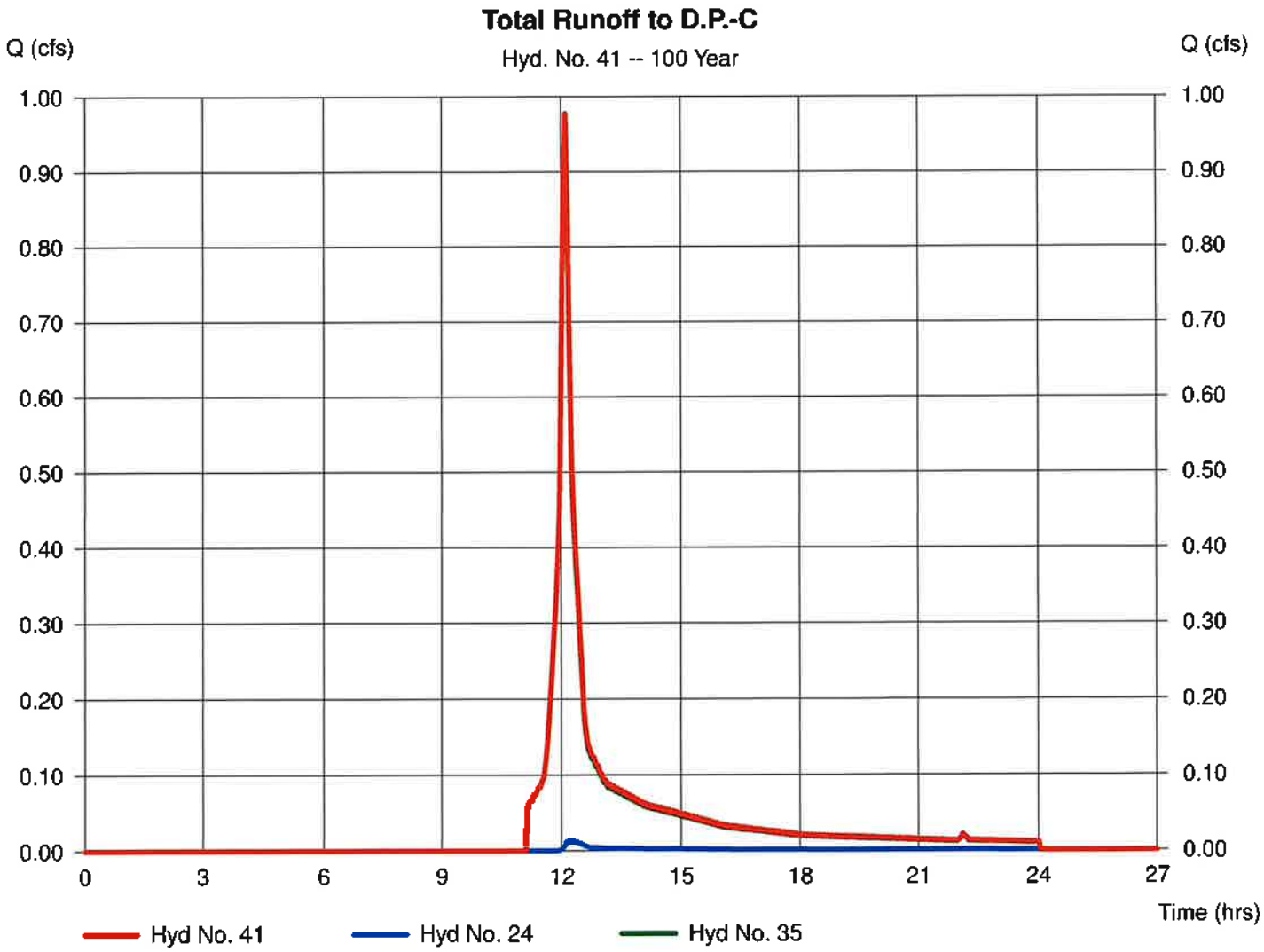


Hydrograph Report

Hyd. No. 41

Total Runoff to D.P.-C

Hydrograph type	= Combine	Peak discharge	= 0.979 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 3,030 cuft
Inflow hyds.	= 24, 35	Contrib. drain. area	= 0.017 ac

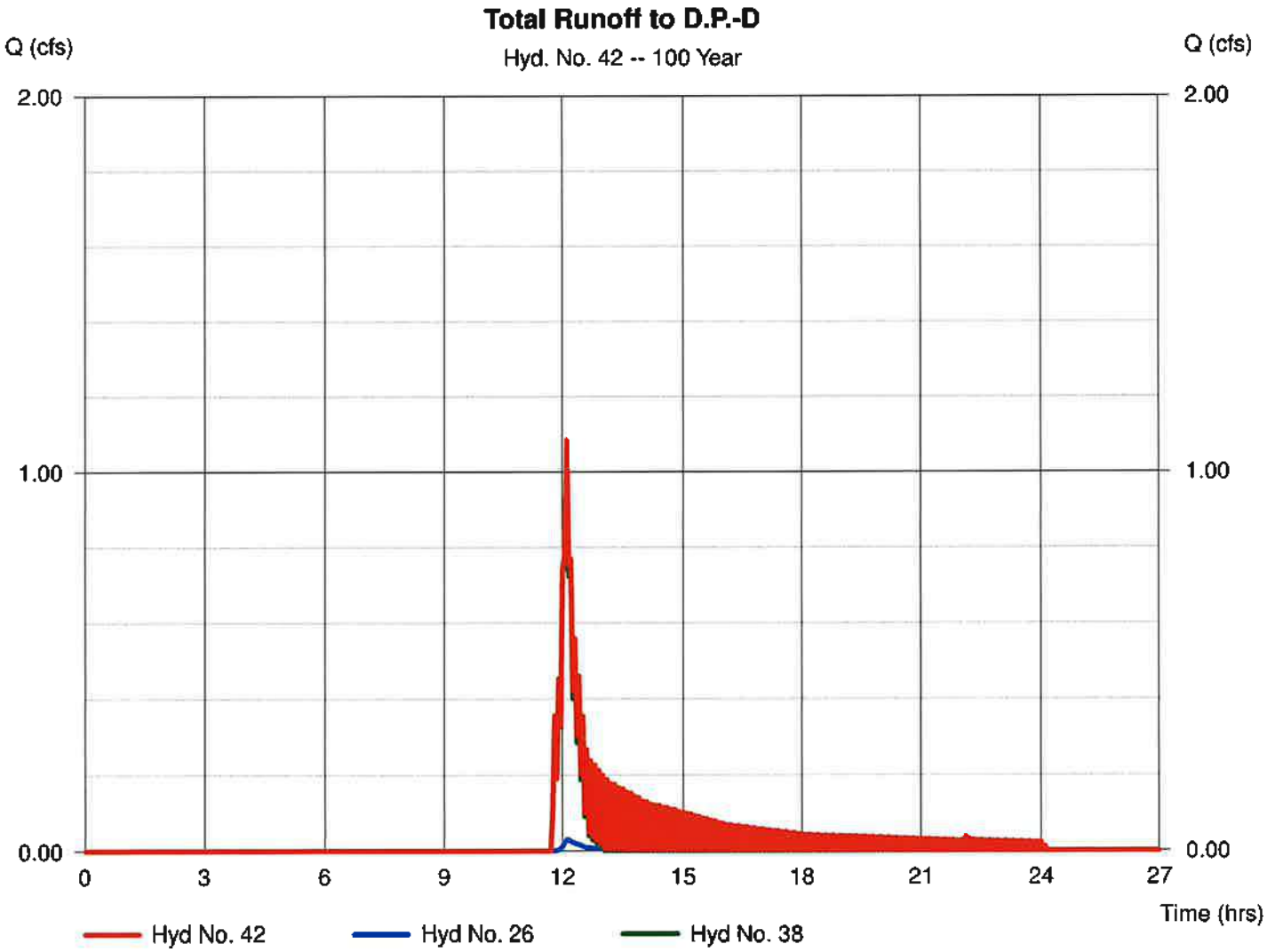


Hydrograph Report

Hyd. No. 42

Total Runoff to D.P.-D

Hydrograph type	= Combine	Peak discharge	= 1.086 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 2,916 cuft
Inflow hyds.	= 26, 38	Contrib. drain. area	= 0.027 ac

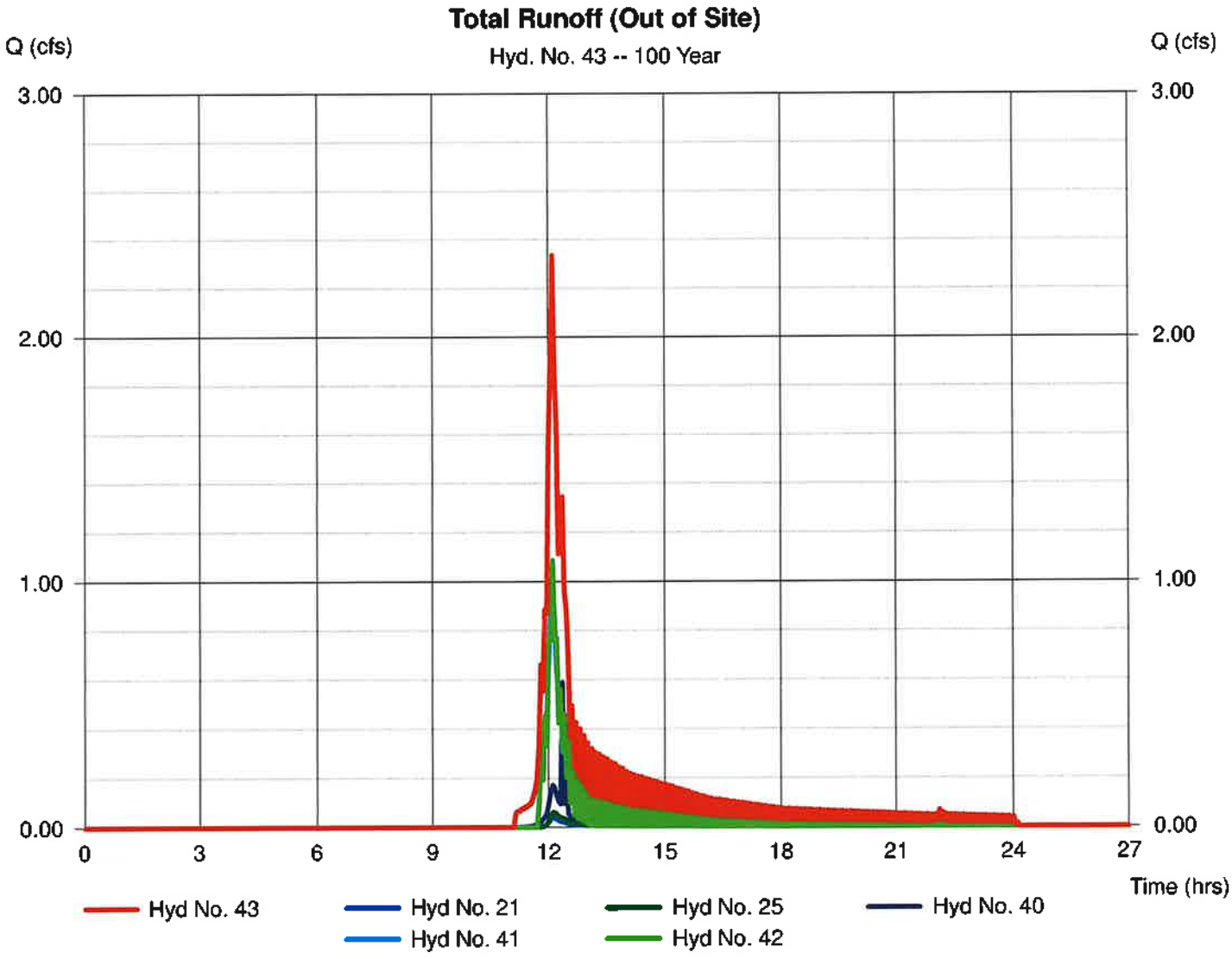


Hydrograph Report

Hyd. No. 43

Total Runoff (Out of Site)

Hydrograph type	= Combine	Peak discharge	= 2.337 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 7,147 cuft
Inflow hyds.	= 21, 25, 40, 41, 42	Contrib. drain. area	= 0.081 ac



Appendix B:
NRCS Soil Survey Data

Soil Map—Norfolk and Suffolk Counties, Massachusetts

Map Scale: 1:3,740 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:25,000.

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

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

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

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: Norfolk and Suffolk Counties, Massachusetts
Survey Area Data: Version 21, Sep 5, 2025

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

Date(s) aerial images were photographed: May 22, 2022—Jun 5, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
51	Swansea muck, 0 to 1 percent slopes	3.5	5.9%
254A	Merrimac fine sandy loam, 0 to 3 percent slopes	0.3	0.5%
254B	Merrimac fine sandy loam, 3 to 8 percent slopes	0.9	1.4%
602	Urban land, 0 to 15 percent slopes	44.3	74.0%
626B	Merrimac-Urban land complex, 0 to 8 percent slopes	7.5	12.6%
653	Udorthents, sandy	2.4	4.0%
655	Udorthents, wet substratum	1.0	1.6%
Totals for Area of Interest		**60.0**	**100.0%**

CHAPTER 2: CHECKLIST FOR STORMWATER REPORT

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

A. Introduction

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.

A Stormwater Report must be submitted with the Notice of Intent permit application to document compliance with the Stormwater Management Standards. The following checklist is NOT a substitute for the Stormwater Report (which should provide more substantive and detailed information) but is offered here as a tool to help the applicant organize their Stormwater Management documentation for their Report and for the reviewer to assess this information in a consistent format. As noted in the Checklist, the Stormwater Report must contain the engineering computations and supporting information set forth in Volume 3 of the Massachusetts Stormwater Handbook. The Stormwater Report must be prepared and certified by a Registered Professional Engineer (RPE) licensed in the Commonwealth.

The Stormwater Report must include:

- The Stormwater Checklist completed and stamped by a Registered Professional Engineer (see page 2) that certifies that the Stormwater Report contains all required submittals.[1] This Checklist is to be used as the cover for the completed Stormwater Report.
- Applicant/Project Name
- Project Address
- Name of Firm and Registered Professional Engineer that prepared the Report
- Long-Term Pollution Prevention Plan required by Standards 4-6
- Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan required by Standard 8[2]
- Operation and Maintenance Plan required by Standard 9

In addition to all plans and supporting information, the Stormwater Report must include a brief narrative describing stormwater management practices, including environmentally sensitive site design and LID techniques, along with a diagram depicting runoff through the proposed BMP treatment train. Plans are required to show existing and proposed conditions, identify all wetland resource areas, NRCS soil types, critical areas, Land Uses with Higher Potential Pollutant Loads (LUHPPL), and any areas on the site where infiltration rate is greater than 2.4 inches per hour. The Plans shall identify the drainage areas for both existing and proposed conditions at a scale that enables verification of supporting calculations.

As noted in the Checklist, the Stormwater Management Report shall document compliance with each of the Stormwater Management Standards as provided in the Massachusetts Stormwater Handbook. The soils evaluation and calculations shall be done using the methodologies set forth in Volume 3 of the Massachusetts Stormwater Handbook.

To ensure that the Stormwater Report is complete, applicants are required to fill in the Stormwater Report Checklist by checking the box to indicate that the specified information has been included in the Stormwater Report. If any of the information specified in the checklist has not been submitted, the applicant must provide an explanation. The completed Stormwater Report Checklist and Certification must be submitted with the Stormwater Report.

[1] The Stormwater Report may also include the Illicit Discharge Compliance Statement required by Standard 10. If not included in the Stormwater Report, the Illicit Discharge Compliance Statement must be submitted prior to the discharge of stormwater runoff to the post-construction best management practices.

[2] For some complex projects, it may not be possible to include the Construction Period Erosion and Sedimentation Control Plan in the Stormwater Report. In that event, the issuing authority has the discretion to issue an Order of Conditions that approves the project and includes a condition requiring the proponent to submit the Construction Period Erosion and Sedimentation Control Plan before commencing any land disturbance activity on the site.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

B. Stormwater Checklist and Certification

The following checklist is intended to serve as a guide for applicants as to the elements that ordinarily need to be addressed in a complete Stormwater Report. The checklist is also intended to provide conservation commissions and other reviewing authorities with a summary of the components necessary for a comprehensive Stormwater Report that addresses the ten Stormwater Standards.

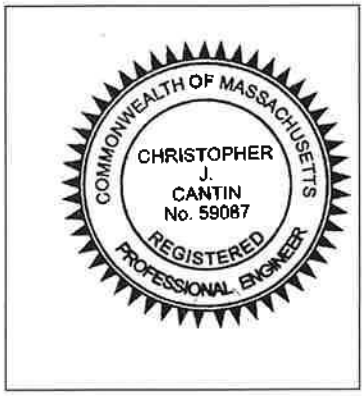
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the item is not applicable (N.A.) and provide the reasons for that determination.

A complete checklist must include the Certification set forth below signed by the Registered Professional Engineer who prepared the Stormwater Report.

Registered Professional Engineer's Certification

I have reviewed the Stormwater Report, including the soil evaluation, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan (if included), the Long-term Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement (if included) and the plans showing the stormwater management system, and have determined that they have been prepared in accordance with the requirements of the Stormwater Management Standards as further elaborated by the Massachusetts Stormwater Handbook. I have also determined that the information presented in the Stormwater Checklist is accurate and that the information presented in the Stormwater Report accurately reflects conditions at the site as of the date of this permit application.

Registered Professional Engineer Block and Signature



Christopher Cantin 11/24/25
Signature and Date (METROWEST ENGINEERING, INC)

Checklist

Project Type: Is the application for new development, redevelopment, or a mix of new and redevelopment?

☐ New development

☒ Redevelopment

☐ Mix of New Development and Redevelopment

Checklist for Stormwater Report

Checklist (continued)

LID Measures: Stormwater Standards require LID measures to be considered. Document what environmentally sensitive design and LID Techniques were considered during the planning and design of the project:

- ☒ No disturbance to any Wetland Resource Areas
- ☒ Site Design Practices (e.g. clustered development, reduced frontage setbacks)
- ☒ Reduced Impervious Area (Redevelopment Only)
- ☐ Minimizing disturbance to existing trees and shrubs
- ☐ LID Site Design Credit Requested:
  - ☐ Credit 1
  - ☐ Credit 2
  - ☐ Credit 3
- ☐ Use of "country drainage" versus curb and gutter conveyance and pipe
- ☐ Bioretention Cells (includes Rain Gardens)
- ☐ Constructed Stormwater Wetlands (includes Gravel Wetlands designs)
- ☐ Treebox Filter
- ☐ Water Quality Swale
- ☐ Grass Channel
- ☐ Green Roof
- ☒ Other (describe): Subsurface Infiltration System and drywells

Standard 1: No New Untreated Discharges

- ☒ No new untreated discharges
- ☒ Outlets have been designed so there is no erosion or scour to wetlands and waters of the Commonwealth
- ☒ Supporting calculations specified in Volume 3 of the Massachusetts Stormwater Handbook included.

Checklist for Stormwater Report

Checklist (continued)

Standard 2: Peak Rate Attenuation

☐ Standard 2 waiver requested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to coastal flooding.

☒ Evaluation provided to determine whether off-site flooding increases during the 100-year 24-hour storm.

☒ Calculations provided to show that post-development peak discharge rates do not exceed pre-development rates for the 2-year and 10-year 24-hour storms. If evaluation shows that off-site flooding increases during the 100-year 24-hour storm, calculations are also provided to show that post-development peak discharge rates do not exceed pre-development rates for the 100-year 24-hour storm.

Standard 3: Recharge

☒ Soil Analysis provided.

☒ Required Recharge Volume calculation provided.

☐ Required Recharge volume reduced through use of the LID site Design Credits.

☒ Sizing the infiltration, BMPs is based on the following method: Check the method used.

☒ Static ☐ Simple Dynamic ☐ Dynamic Field[1]

☒ Runoff from all impervious areas at the site discharging to the infiltration BMP.

☐ Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.

☒ Recharge BMPs have been sized to infiltrate the Required Recharge Volume.

☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume *only* to the maximum extent practicable for the following reason:

- ☐ Site is comprised solely of C and D soils and/or bedrock at the land surface
- ☐ M.G.L. c. 21E sites pursuant to 310 CMR 40.0000
- ☐ Solid Waste Landfill pursuant to 310 CMR 19.000
- ☐ Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.

☒ Calculations showing that the infiltration BMPs will drain in 72 hours are provided.

☐ Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.

[1] 80% TSS removal is required prior to discharge to infiltration BMP if Dynamic Field method is used.

Checklist for Stormwater Report

Checklist (continued)

Standard 3: Recharge (continued)

☐ The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.

☐ Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

Standard 4: Water Quality

The Long-Term Pollution Prevention Plan typically includes the following:

- Good housekeeping practices;
- Provisions for storing materials and waste products inside or under cover;
- Vehicle washing controls;
- Requirements for routine inspections and maintenance of stormwater BMPs;
- Spill prevention and response plans;
- Provisions for maintenance of lawns, gardens, and other landscaped areas;
- Requirements for storage and use of fertilizers, herbicides, and pesticides;
- Pet waste management provisions;
- Provisions for operation and management of septic systems;
- Provisions for solid waste management;
- Snow disposal and plowing plans relative to Wetland Resource Areas;
- Winter Road Salt and/or Sand Use and Storage restrictions;
- Street sweeping schedules;
- Provisions for prevention of illicit discharges to the stormwater management system;
- Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
- Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;
- List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.

☒ A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.

☒ Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge:

- ☐ is within the Zone II or Interim Wellhead Protection Area
- ☐ is near or to other critical areas
- ☒ is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
- ☐ involves runoff from land uses with higher potential pollutant loads.

☐ The Required Water Quality Volume is reduced through use of the LID site Design Credits.

☒ Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.

Checklist for Stormwater Report

Checklist (continued)

Standard 4: Water Quality (continued)

☒ The BMP is sized (and calculations provided) based on:

☒ The ½" or 1" Water Quality Volume or

☐ The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.

☒ The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.

☐ A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.

Standard 5: Land Uses With Higher Potential Pollutant Loads (LUHPPLs)

☐ The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report.

☐ The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted ***prior to*** the discharge of stormwater to the post-construction stormwater BMPs.

☒ The NPDES Multi-Sector General Permit does ***not*** cover the land use.

☐ LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.

☒ All exposure has been eliminated.

☐ All exposure has ***not*** been eliminated and all BMPs selected are on MassDEP LUHPPL list.

☐ The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.

Standard 6: Critical Areas

☐ The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.

☐ Critical areas and BMPs are identified in the Stormwater Report.

Checklist for Stormwater Report

Checklist (continued)

Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maximum extent practicable

☒ The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:

- ☐ Limited Project
- ☐ Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.
- ☐ Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area
- ☐ Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff
- ☐ Bike Path and/or Foot Path
- ☒ Redevelopment Project
- ☐ Redevelopment portion of mix of new and redevelopment.

☐ Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report.

☒ The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control

A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan must include the following information:

- Narrative;
- Construction Period Operation and Maintenance Plan;
- Names of Persons or Entity Responsible for Plan Compliance;
- Construction Period Pollution Prevention Measures;
- Erosion and Sedimentation Control Plan Drawings;
- Detail drawings and specifications for erosion control BMPs, including sizing calculations;
- Vegetation Planning;
- Site Development Plan;
- Construction Sequencing Plan;
- Sequencing of Erosion and Sedimentation Controls;
- Operation and Maintenance of Erosion and Sedimentation Controls;
- Inspection Schedule;
- Maintenance Schedule;
- Inspection and Maintenance Log Form.

☐ A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.

Checklist for Stormwater Report

Checklist (continued)

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control (continued)

☐ The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has ***not*** been included in the Stormwater Report but will be submitted ***before*** land disturbance begins.

☒ The project is ***not*** covered by a NPDES Construction General Permit.

☐ The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the Stormwater Report.

☐ The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.

Standard 9: Operation and Maintenance Plan

☒ The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:

- ☒ Name of the stormwater management system owners;
- ☒ Party responsible for operation and maintenance;
- ☒ Schedule for implementation of routine and non-routine maintenance tasks;
- ☒ Plan showing the location of all stormwater BMPs maintenance access areas;
- ☐ Description and delineation of public safety features;
- ☐ Estimated operation and maintenance budget; and
- ☒ Operation and Maintenance Log Form.

☐ The responsible party is ***not*** the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:

- ☐ A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;
- ☐ A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.

Standard 10: Prohibition of Illicit Discharges

☒ The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;

☒ An Illicit Discharge Compliance Statement is attached;

☐ NO Illicit Discharge Compliance Statement is attached but will be submitted ***prior to*** the discharge of any stormwater to post-construction BMPs.

CHAPTER 3: LID MEASURES

Chapter 3:

Low Impact Development (LID) approaches were reviewed in terms of minimizing environmental impacts. These LID measures included utilizing existing developed space by installing a subsurface infiltration system, drywells and reducing impervious areas. Stormwater from the project will be managed by the use of a proposed subsurface infiltration system and drywells:

1. Stormwater runoff from the front roof half of the proposed building, patio area and the garage ramp will be captured, treated, stored and recharged by a subsurface infiltration system, located in the front of the property.
2. Stormwater runoff the rear roof half of the proposed building and side lawn areas will be captured and recharged into drywells, located north and south of the proposed building.

LID measures:

Design of the project has utilized Low Impact Development (LID) techniques to the maximum extent practicable. The following LID approaches have been employed in the design of this project:

Proposed Subsurface Infiltration System

The proposed project will recharge stormwater runoff through a proposed subsurface infiltration system. The proposed infiltration system is located west of the proposed building complex. The proposed infiltration system consists of 28 Shea precast concrete leaching galleys with two-feet of double-washed stone surrounding the chambers. Runoff rates and volumes leaving the project site towards Washington Street will be significantly reduced for all storm events.

Proposed Drywells

The proposed project will also recharge stormwater runoff through two proposed precast concrete drywells. The proposed drywells are located north and south of the proposed building complex. The proposed drywells with be surrounded by two-feet of double-washed stone. Runoff rates and volumes leaving the project site towards the northern and southern abutters will be significantly reduced for all storm events.

Reduce Impervious Areas

The proposed project will reduce total impervious surfaces by approximately 7,314 square feet. The result of reducing impervious will subsequently reduce stormwater runoff leaving the project site.

CHAPTER 4: STORMWATER MANAGEMENT STANDARDS 1 & 2

Chapter 4:

Standard 1: No New Untreated Discharges

- No New Untreated Discharges will occur in the post-development condition.
- All discharges off site will be treated using both structural and non-structural Best Management Practices (deep sump catch basins, stormwater preparatory units, etc.) to remove TSS and other pollutants.
- Runoff from proposed impervious areas will be collected and recharged using a subsurface infiltration system and drywells, thereby decreasing discharge to the street, municipal storm sewer and abutting properties in comparison to pre-development conditions.
- Supporting calculations specified in Volume 3 are attached with the Hydrologic Analysis, Chapter 1.

Standard 2: Peak Rate Attenuation

- The Hydrologic Analysis provided in Chapter 1 demonstrates that there will be no increase in off-site flooding in the post-development state during the 100-year 24-hour storm.
- The Hydrologic Analysis provided in Chapter 1, Tables One through Twelve, demonstrate that the peak runoff rates will be reduced in the post development state during the 100-year 24-hour storm event. The tables shown below demonstrates that peak runoff rates and total volumes in the post-development condition will be significantly reduced in comparison to the pre-development condition for runoff leaving the project site for all storm events.

Table Eleven: Comparison of Total Pre- and Post-Development Peak Runoff Rates Leaving the Project Site

Drainage Basin	2-year storm	10-year storm	25-year storm	100-year storm
Total Existing	1.62 CFS	2.84 CFS	3.65 CFS	4.87 CFS
Total Proposed	0.18 CFS	1.09 CFS	1.43 CFS	2.34 CFS
Difference	-1.44 CFS	-1.75 CFS	-2.22 CFS	-2.53 CFS

Table Twelve: Comparison of Total Pre- and Post-Development Runoff Volumes Leaving the Project Site

Drainage Basin	2-year storm	10-year storm	25-year storm	100-year storm
Total Existing	5,280 CF	9,808 CF	12,800 CF	17,409 CF
Total Proposed	748 CF	2,897 CF	4,437 CF	7,147 CF
Difference	-4,532 CF	-6,911 CF	-8,363 CF	-10,262 CF

CHAPTER 5: STORMWATER MANAGEMENT STANDARD 3

Chapter 5:

Standard 3: Recharge

- **Soil Data is provided on the Existing Conditions Site Plan and watershed delineation plans**
- **The required recharge volume calculations:**

  The required Recharge Volume is based on sandy soils with a NRCS Hydrologic Group rating of A and a Target Depth Factor (F) of 0.60-inch. Below is the calculation for the required recharge volume for new impervious area added to the project site:

  Required Recharge Volume
  Rv = (F) x (New Impervious Area)
  Rv = (0.60 inch /12) x (0 square feet of New Impervious Area)
  Rv = 0 cubic feet.

- The sizing of the infiltration BMP's is based on a "Static Method."
- Runoff from the roof of the proposed building, patio area and garage ramp will be discharged into an infiltration BMP.
- The recharge BMP's have been sized to infiltrate the required Recharge Volume:

Existing Drywell 1 (Northwest Drywell)

Basic geometry:	Circular, Precast Concrete Drywell
System type:	4.0-ft. diameter by 4.0-ft. deep
	Precast Concrete Leaching Drywell
	Estimated Storage Capacity = 58 cubic feet or 434 gallons
Infiltration rate:	8.27 inches per hour

Existing Drywell 2 (Northeast Drywell)

Basic geometry:	Circular, Precast Concrete Drywell
System type:	4.0-ft. diameter by 4.0-ft. deep
	Precast Concrete Leaching Drywell
	Estimated Storage Capacity = 58 cubic feet or 434 gallons
Infiltration rate:	8.27 inches per hour

Existing Drywell 3 (South Drywell)

Basic geometry:	Circular, Precast Concrete Drywell
System type:	4.0-ft. diameter by 7.0-ft. deep
	Precast Concrete Leaching Drywell
	Estimated Storage Capacity = 98 cubic feet or 733 gallons
Infiltration rate:	8.27 inches per hour

Chapter 5: (continued)

Proposed Drywell 1

Basic geometry:	Circular, Precast Concrete Drywell
System type:	6.0-ft. diameter by 4.5-ft. deep
	Shea Precast Concrete Leaching Drywell; 700 gallons
	Storage Capacity = 208 cubic feet or 1,556 gallons
Infiltration rate:	8.27 inches per hour over 79 square foot bed

Proposed Drywell 2

Basic geometry:	Circular, Precast Concrete Drywell
System type:	6.0-ft. diameter by 6.5-ft. deep
	Shea Precast Concrete Leaching Drywell; 1,000 gallons
	Storage Capacity = 301 cubic feet or 2,252 gallons
Infiltration rate:	8.27 inches per hour over 79 square foot bed

Proposed Subsurface Infiltration System 1

Basic geometry:	Rectangular shaped basin
System type:	22-ft. wide by 32-ft long by 4-ft. deep
	Shea Precast Concrete Leaching Galleys; 360 gallons each
	Use 28 Galleys, 4-ft. wide by 4-ft. long by 4-ft deep
	Storage Capacity = 1,870 cubic feet or 13,989 gallons
Infiltration rate:	8.27 inches per hour over 701 square foot bed

Recharge Volumes from Hydrologic Analysis, Chapter 1.

Proposed Drywell 1

2-Year Recharge Volume = 66 cubic feet
10-Year Recharge Volume = 65 cubic feet
25-Year Recharge Volume = 80 cubic feet
100-Year Recharge Volume = 96 cubic feet

Proposed Drywell 2

2-Year Recharge Volume = 101 cubic feet
10-Year Recharge Volume = 41 cubic feet
25-Year Recharge Volume = 62 cubic feet
100-Year Recharge Volume = 82 cubic feet

Proposed Infiltration System 1

2-Year Recharge Volume = 2,135 cubic feet
10-Year Recharge Volume = 3,676 cubic feet
25-Year Recharge Volume = 4,660 cubic feet
100-Year Recharge Volume = 5,997 cubic feet

Chapter 5: (continued)

Total Proposed Recharge Volume

2-Year Recharge Volume = 2,302 cubic feet
10-Year Recharge Volume = 3,782 cubic feet
25-Year Recharge Volume = 4,802 cubic feet
100-Year Recharge Volume = 6,175 cubic feet

- A more detailed analysis of the storage and infiltration capacities for the infiltration system and drywells can be found in the Hydrologic Analysis, Chapter 1.

- Below are the calculations showing that the Infiltration BMP's will drain in 72 hours:

Proposed Drywell 1 (Based on Rv)

$$Time_{drawdown} = \frac{(Rv)}{(K) \times (Bottom\ Area)}$$

$$Time_{drawdown} = \frac{(0\ cubic\ feet)}{(8.27\ inches/hour)(1\ foot/\ 12\ inches) \times (79\ square\ feet)}$$

$Time_{drawdown}$ = **0.0 hours < 72 hours**

Proposed Drywell 1 (Based on System Full)

$$Time_{drawdown} = \frac{(Rv)}{(K) \times (Bottom\ Area)}$$

$$Time_{drawdown} = \frac{(208\ cubic\ feet)}{(8.27\ inches/hour)(1\ foot/\ 12\ inches) \times (79\ square\ feet)}$$

$Time_{drawdown}$ = **3.8 hours < 72 hours**

Proposed Drywell 2 (Based on Rv)

$$Time_{drawdown} = \frac{(Rv)}{(K) \times (Bottom\ Area)}$$

$$Time_{drawdown} = \frac{(0\ cubic\ feet)}{(8.27\ inches/hour)(1\ foot/\ 12\ inches) \times (79\ square\ feet)}$$

$Time_{drawdown}$ = **0.0 hours < 72 hours**

Chapter 5: (continued)

Proposed Drywell 2 (Based on System Full)

$$Time_{drawdown} = \frac{(Rv)}{(K) \times (Bottom\ Area)}$$

$$Time_{drawdown} = \frac{(301\ cubic\ feet)}{(8.27\ inches/hour)(1\ foot/\ 12\ inches) \times (79\ square\ feet)}$$

$Time_{drawdown}$ = **5.5 hours < 72 hours**

Proposed Infiltration System 1 (Based on Rv)

$$Time_{drawdown} = \frac{(Rv)}{(K) \times (Bottom\ Area)}$$

$$Time_{drawdown} = \frac{(0\ cubic\ feet)}{(8.27\ inches/hour)(1\ foot/\ 12\ inches) \times (701\ square\ feet)}$$

$Time_{drawdown}$ = **0.0 hours < 72 hours**

Subsurface Infiltration System 1 (Based on System Full)

$$Time_{drawdown} = \frac{(Rv)}{(K) \times (Bottom\ Area)}$$

$$Time_{drawdown} = \frac{(1{,}870\ cubic\ feet)}{(8.27\ inches/hour)(1\ foot/\ 12\ inches) \times (701\ square\ feet)}$$

$Time_{drawdown}$ = **3.9 hours < 72 hours**

- The bottom of proposed infiltration system 1 has two-feet or greater of separation to seasonal high ground water table and fully stores runoff from the 25-year, 24-hour design storm.

CHAPTER 6: LONG-TERM POLLUTION PREVENTION PLAN STORMWATER MANAGEMENT STANDARDS 4-6

Chapter 6:

Long-Term Pollution Prevention Plan:

- The Operation and Maintenance Plan from Chapter 10. address all necessary aspects of the Long-Term Pollution Prevention Plan

Standard 4: Water Quality

- Approximately 53% TSS Removal will be achieved prior to discharging to an infiltration BMP.
- Stormwater Runoff to be treated for Water Quality is based on 1-inch of runoff due to the post-development condition of exfiltrating soils with an infiltration rate greater than 8.27-inches per hour.
    - Requirement Amount of Runoff to be Treated
      for a Portion of the Project site = (1.0 inch) x (impervious area)
      = (1.0 inch)/(1/12) x (2,031 square feet)
      = **169 cubic feet**
- Below is a TSS Removal calculation for a single sub basin on the post-development site for the garage ramp:

TSS Treatment Basin 1

Driveway sweeping - **5% (BMP1)**
Stormceptor 450 – **50% (BMP2)**
Subsurface Infiltration System – **80% (BMP3)**

Driveway Sweeping:
Average Annual Load (1.00) * BMP1 Removal Rate (0.05) = **0.05**
(0.95 of the TSS load remains)

Stormceptor 450:
TSS load remaining (0.95) * BMP2 Removal Rate (0.50) = **0.48**
(0.47 of the TSS load remains)

Subsurface Infiltration System:
TSS load remaining (0.47) * BMP3 Removal Rate (0.80) = **0.38**
(0.09 of the TSS load remains)

Final TSS Removal Rate: 1.00 – 0.09= 0.91 **(91% TSS Removal)**

Chapter 6: (continued)

Standard 5: Land Use with Higher Potential Pollutant Loads

- The project does not include land uses with Higher Potential Pollutant Loads.

Standard 6: Critical Areas

- The project does not affect a critical area as defined by the MADEP Stormwater Handbook.

Total Suspended Solids Removal Calculation

Location: **#592 Washington Street, Wellesley MA**

TSS Removal Calculation Worksheet

B BMP[1]	C TSS Removal Rate[1]	D Starting TSS Load*	E Amount Removed (C*D)	F Remaining Load (D-E)
Street Sweeping - 5%	0.05	1.00	0.05	0.95
Proprietary Treatment Practice	0.50	0.95	0.48	0.47
Subsurface Infiltration Structure	0.80	0.47	0.38	0.09
	0.00	0.09	0.00	0.09
	0.00	0.09	0.00	0.09

Total TSS Removal = **91%**

Project: **592 Washington Street**
Prepared By: **CJC**
Date: **24-Nov-25**

*Equals remaining load from previous BMP (E) which enters the BMP

CHAPTER 7: STORMWATER MANAGEMENT STANDARD 7

Chapter 7:

Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maximum extent practicable

- The project will result in a decrease of impervious area by 7,314 square feet and, therefore, is considered redevelopment only.
- The project will comply with Stormwater Management Policy to the maximum extent practicable.

CHAPTER 8: STORMWATER MANAGEMENT
STANDARD 8

Chapter 8:

Standard 8: Construction Period Pollution and Erosion and Sedimentation Control

- The project does not require coverage under a NPDES general construction permit as the project will disturb less than an acre of land.

CHAPTER 9: OPERATION AND MAINTENANCE PLAN STORMWATER MANAGEMENT STANDARD 9

Chapter 9:

Standard 9: Operation and Maintenance Plan

- An Operation and Maintenance Plan (O&M) has been prepared identifying basic maintenance needs and practices to maintain stormwater structures and infiltration BMPs.

Stormwater Operation and Maintenance Plan:
Proposed Site Redevelopment
592 Washington Street, Wellesley MA

Prepared for: ***592 Washington LLC***
869 Worcester Street
Wellesley, MA 02482

Prepared by: ***MetroWest Engineering, Inc.***
75 Franklin Street
Framingham, MA 01702
(508) 626-0063

November, 2025

Table of Contents

Stormwater Operation and Maintenance Plan
Proposed Site Redevelopment – 592 Washington Street, Wellesley
Prepared By: MetroWest Engineering Inc.

General

The project site is located at 592 Washington Street in Wellesley, Massachusetts. The subject property is bound westerly by Washington Street (Route 16), commercial properties to the north and south, and by the Wellesley Green Condominiums to the east. The subject parcel (shown as Assessors' Map 124, Lot 17) has an area of approximately 35,861 square feet (0.82 acres) and is presently improved with two commercial buildings, a paved parking lot, an existing stormwater management system and supporting utilities.

The lot is mostly covered by impervious surfaces with small amounts of landscaped and lawn areas located in the front yard and along the perimeter of the parking lot. Existing topography is relatively flat with elevations decreasing from higher elevations along the anterior commercial building to lower elevations along the perimeter of the property.

The proposed site improvements include the construction of two new duplexes along Everit Avenue, a paved parking area in the center of the property and a new stormwater management system.

Resource Areas

There are no bordering vegetated wetlands or Wetland Resource Areas located on or within 200-feet of the subject property.

Drainage Approach

The subject property has an existing stormwater management system that controls a portion of stormwater runoff leaving the site. The existing stormwater management system consists of deep-sump catch basins and three, 4-foot diameter precast concrete drywells. The existing drywells scattered across the existing parking lot. Stormwater runoff from the existing parking lot and the roofs of the two commercial buildings flow to the existing drywells where the runoff is then recharged back into the ground. These drywells were likely installed to mitigate stormwater runoff from the parking lot for small duration storm events.

A new stormwater management system is proposed to capture, treat and recharge stormwater runoff from proposed impervious areas. The new stormwater management system will consist of area drains, junction boxes, trench drains, catch basins, roof downspouts, roof drains, drain lines, two precast concrete drywells and a subsurface infiltration system. The proposed subsurface infiltration system consists of 28 Shea precast concrete leaching chambers surrounded by two-feet of double-washed stone. Stormwater runoff from the garage ramp, outdoor patio area and the front roof half of the proposed apartment building will be captured, treated and recharged back into the ground. The remaining roof half and the side lawn areas will be captured and recharged

back into the ground by the two precast concrete drywells. The goal of the proposed stormwater management system is to reduce runoff rates and volumes for all design storms compared to the existing condition and to promote groundwater recharge through the use of drywells and a proposed subsurface infiltration system.

Maintenance Requirements

The project's stormwater collection and treatment system is designed to collect and treat stormwater so that all discharges from the system are in compliance with all local, state and federal environmental regulations. Periodic routine inspection and maintenance of the system is critical if the system is to continue to meet required performance standards.

Responsible Party

The property owner **shall** be responsible for all maintenance and repair activities throughout the site relating to the grounds, pavement surface, stormwater collection system, subsurface infiltration system and drywells. Contact information for the owner/responsible party is listed below:

Owner/Responsible Party
592 Washington LLC
869 Worcester Street
Wellesley, MA 02482

If ownership of the subject property changes, the new owner shall become the responsible party. This Operation and Maintenance Plan shall run with the land.

The owner/responsible party shall be responsible for the implementation of this Operation and Maintenance Plan and the proper training of employees to ensure compliance with all daily and long-term aspects of the plan.

Required Maintenance

Grounds

All slopes shall be inspected and any exposed areas or other locations susceptible to erosion shall be stabilized with mulch, sod, seed, stone or other suitable measures. All litter and trash shall be picked up and removed from all paved, landscaped and wooded areas on a regular basis. All grass clippings, leaves, brush and other natural materials will be transported to an approved composting facility. No clippings or leaves will be deposited in wooded areas or on abutting Properties.

Fertilizers and pesticides shall be applied in accordance with manufacturer's instructions and all applicable local and state regulations. They shall be applied sparingly by trained personnel.

Garage Ramp Driveway

The driveway area shall be cleaned and swept weekly by a landscape contractor to remove sediments. All sediment removed shall be disposed of in accordance with DEP policy and requirements for the disposal of road sediments.

During winter months the use of de-icing compounds shall be kept to a minimum. Untreated sand shall be used to the minimum extent necessary to provide for tire traction. During extreme events sand treated with a non-sodium de-icer may be used.

Area Drains, Catch Basins and Junction Boxes

All area drains, catch basins and junction boxes shall include a deep sump and an MDC type oil/water separation hood. Catch basin sumps shall be cleaned and inspected twice per year, once in the spring and again in the fall. Pipe inlets, outlets and MDC hoods shall be inspected at the time of the sump cleaning and shall be immediately repaired as necessary. All sediment removed shall be disposed of in accordance with DEP policy and requirements for the disposal of road sediments.

Roof Gutters

Building gutters shall be cleaned twice per year, in the spring and fall. Leaves, pine needles and similar materials shall be removed from the gutters and disposed of by the landscaping contractor for the property.

Infiltration System and Drywells

Infiltration system and Drywells shall be inspected twice per year to evaluate sediment accumulation with one inspection occurring during a storm event. Routine inspection for sediment accumulation shall consist of the inspection of each chamber where an inlet is located. An inspection port cover is located at each point. Any sediment that has entered into the system at the inlet locations shall be removed and disposed of in accordance with MADEP policy.

The systems shall also be observed at least once per year during a major storm event. A major storm event shall be defined for this Operation and Maintenance Plan as one in which the 24-hour rainfall volume exceeds one-inch. The inspection shall include removal of an inspection port cover to measure the water depth inside the system. The inspection should take place after at least one-inch of rainfall has fallen and prior to the end of storm. Following the inspection, the precipitation volume, based upon the nearest reporting weather station, should be recorded in the inspection log book.

Snow Removal

There shall be no storage or stockpiling of snow within the garage ramp of the project site. Driveway de-icing materials shall be stored inside the building or a location that is protected from precipitation and wind. De-icing material shall consist of sand mixed with a non-sodium

based de-icing agent. Snow shall be removed from all drain inlets immediately after a snow event to prevent the accumulation of ice on the garage ramp.

Storage and Use of Chemicals

Chemical storage on the site shall be limited and all chemicals stored on site and shall be done in accordance with the manufacturer's recommendations and all applicable local and state regulations.

Hazardous Waste

All hazardous waste materials shall be stored and disposed of in accordance with all applicable local and state regulations. In the event of an accident or spill involving and/or other hazardous materials the facilities manager shall contact a hazardous waste removal contractor and immediately notify local and state regulatory agencies.

There shall be no illicit discharges into the stormwater management system.

Recommended Personnel

A commercial contractor should be engaged to perform the periodic cleaning and inspections required for the drainage systems. A landscape contractor may perform gutter cleaning.

A professional engineer with expertise in drainage systems, hydrology or similar sciences should perform an annual inspection of the system and should evaluate the stormwater management system during a major storm event.

Record Keeping

A logbook or other record should be maintained for all inspection, cleaning and maintenance activities. The logs or records should be provided to the drainage professional engaged to perform the annual inspection of the drainage systems. An annual report should be prepared by the drainage professional to summarize inspection and maintenance activities, review the performance of the infiltration system, and provide recommendations for repair or remedial measures required to maintain the performance of the system. The annual report should be submitted to the property owner and operator and kept on site.

Emergency Contacts

In the event of a major drainage system failure, a release of dangerous materials or other unforeseen accident, the following organizations may be contacted:

Town of Wellesley Health Department
(781) 235-0135

Town of Wellesley Planning Board
(781) 431-1019 ext. 2232

Town of Wellesley Building Department
(781) 431-1019

MetroWest Engineering, Inc. (Design Engineer)
(508) 626-0063

Form 1 - *INSPECTION REPORT FORM FOR STABILIZATION MEASURES*

INSPECTOR: _____ DATE: _____

Days since last rainfall: _____ Amount of Last Rainfall: _____inches

Area	Date last disturbed	Date of next Disturbance	Stabilized?	Stabilized With	Condition

Comments and Stabilization Required:

_____
_____
_____
_____
_____
_____
_____
_____

To be performed by:_____ **On or Before:** _____

Form 2 - *INSPECTION FORM FOR DRAIN CATCH BASIN (D.C.B. OR D.D.C.B.)*
Ongoing Maintenance

STRUCTURE NUMBER: _____
INSPECTOR: _____
DATE: _____
Days since last rainfall: _____ Amount of Last Rainfall: _____inches

Structure Number	Rim Elev.	Sediment Depth	Condition	Date and Description of Cleaning

Comments and Maintenance Required:

_____
_____
_____
_____
_____
_____
_____
_____

To be performed by:_____ **On or Before:** _____

Form 3 - *INSPECTION FORM FOR INFILTRATION SYSTEM 1*
Ongoing Maintenance

STRUCTURE NUMBER: _____
INSPECTOR: _____
DATE: _____
Days since last rainfall: _____
Amount of Last Rainfall: _____inches

Rim Location	Rim Elev.	Sediment Depth	Condition	Date and Description of Cleaning

Comments and Maintenance Required:

_____
_____
_____
_____
_____
_____
_____
_____

To be performed by:_____ **On or Before:** _____

Form 4 - *INSPECTION FORM FOR DRYWELLS 1 & 2*
Ongoing Maintenance

STRUCTURE NUMBER: _____
INSPECTOR: _____
DATE: _____
Days since last rainfall: _____
Amount of Last Rainfall: _____inches

Rim Location	Rim Elev.	Sediment Depth	Condition	Date and Description of Cleaning

Comments and Maintenance Required:

_____
_____
_____
_____
_____
_____
_____
_____

To be performed by:_____ **On or Before:** _____

CHAPTER 10: STORMWATER MANAGEMENT STANDARD 10

Chapter 10:

Standard 10: Prohibition of Illicit Discharges

- The Long Term Pollution Prevention Plan includes the required measures to prevent the illicit discharges.
- All Catch basins and drain inlets shall be labeled with signage to prohibit the release of any illicit substance into the drainage system.
- All operations and managers of the facility will be provided with training and education concerning the danger of illicit discharges into the drainage system.

Illicit Discharge Certification

I have read Standard 10 of the Massachusetts Stormwater Management Policy regarding Illicit Discharges. I have also studied the Proposed Site Plans and Stormwater Operation and Maintenance Plan and am aware of the components of the Stormwater Management System proposed at the proposed project located on 592 Washington Street in Wellsley, Massachusetts. I hereby certify that there will be no illicit discharges, as defined by the Policy, from the site through any part of the Stormwater Management System.

_____
Signature

_____
Name and Title Date