Bryant Admin Parking

Stormwater Management Report

City of Bryant, Saline County, Arkansas

Original Submittal:
February 20, 2023

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I. Pre-Development Conditions

This project involves constructing a new parking lot on the west side of an existing building located at 1511 N. Reynolds Road in the city limits of Bryant, Arkansas. This is the old Summerwood Petro office that is being converted into the Bryant Schools Administration office.

The site currently has a detention pond on the west side, but this pond will be removed for the new parking lot. Considering this, the site detention will be designed as though the pre-development condition is undeveloped.

II. Post-Development Conditions

The project proposes to add a new parking lot on the west (back) side of the existing building. Since the existing detention pond is being removed, a new detention pond is proposed at the southwest corner of the site. Approximately 65% of the site will flow through the detention pond and 35% will drain through the northwest corner.

III. Design Considerations

The detention for this project was designed using the rational method. The pre-development flow, post development flow and detention volume were determined by the attached calculations are summarized below. The calculations were compiled using Autodesk Hydraflow, information used is attached to this report.

Summary Table:

Description	Pre-Development	Post-Development	Pond Elevation
2-Year Storm	5.12 cfs	4.95 cfs	426.22
5-Year Storm	5.98 cfs	5.73 cfs	426.32
10-Year Storm	6.62 cfs	6.29 cfs	426.39
25-Year Storm	7.57 cfs	7.12 cfs	426.50
50-Year Storm	8.32 cfs	7.77 cfs	426.59
100-Year Storm	9.07 cfs	8.42 cfs	426.67

IV. Conclusion

Post-development flow will be less than the pre-development flow for the 2-100 year storm events. The pond will detain the 100-yr storm by utilizing a storage volume of 3,820 CF. The pond has an available volume of 7,327 CF and will store the 100-year storm w/ 1' of freeboard available. The outlet structure will utilize a 6" storm pipe.

Please consider this report and let me know if any additional information is required.

Sincerely,

Josh Minton, PE



HYDRAULIC CALCULATIONS

Pre-Development MAP

Note: Consider entire site to be undeveloped since ex. Det. Pond will be removed.



Scale: 1" = 100'

Post Development MAP

D.A. 1

$A_{TOTAL} = 1.2\ Ac$

$A_{HARD\ SURF} = 0.7\ Ac \quad C = 0.9$

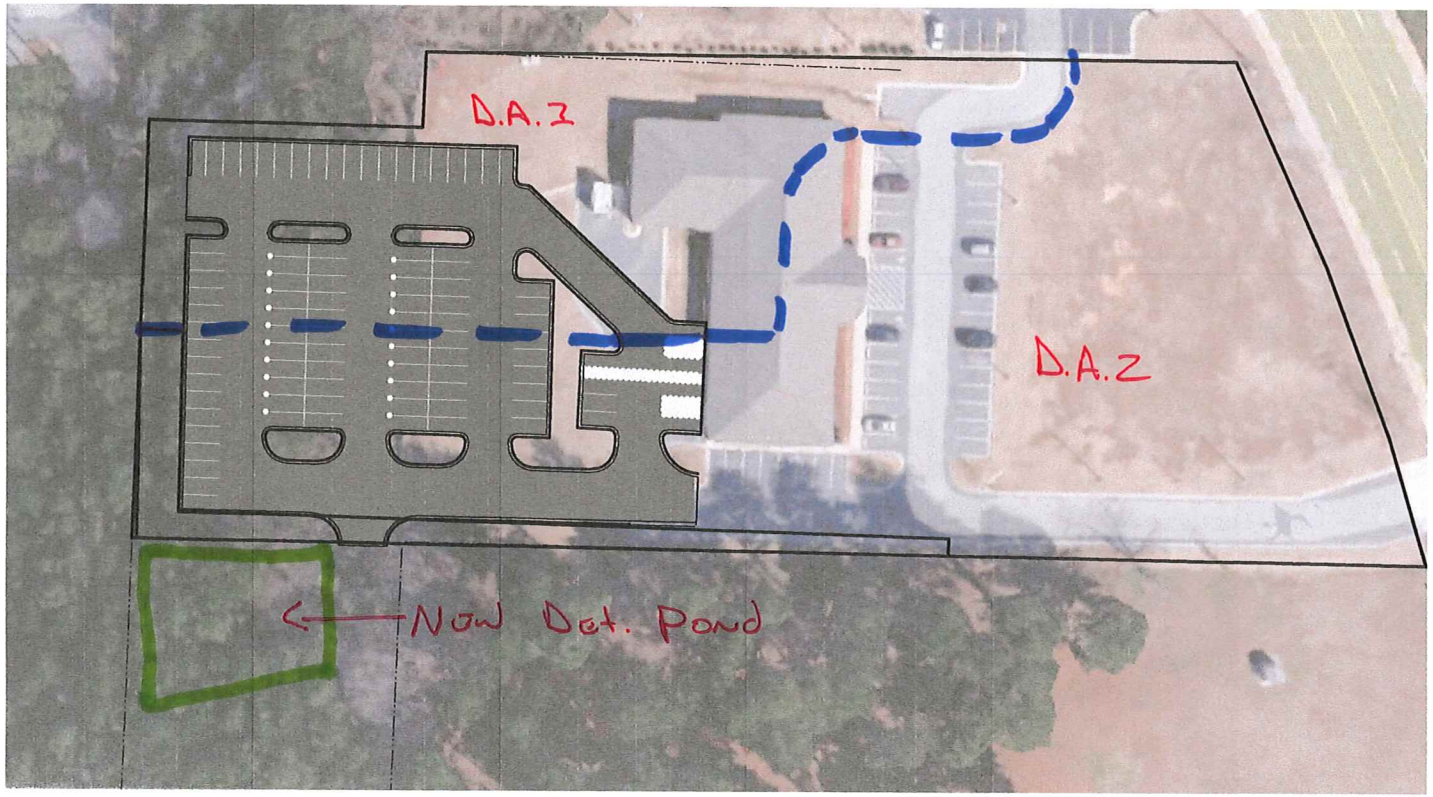
$A_{GRASS} = 0.5\ Ac \quad C = 0.25$

D.A. 2

$A_{TOTAL} = 2.4\ Ac$

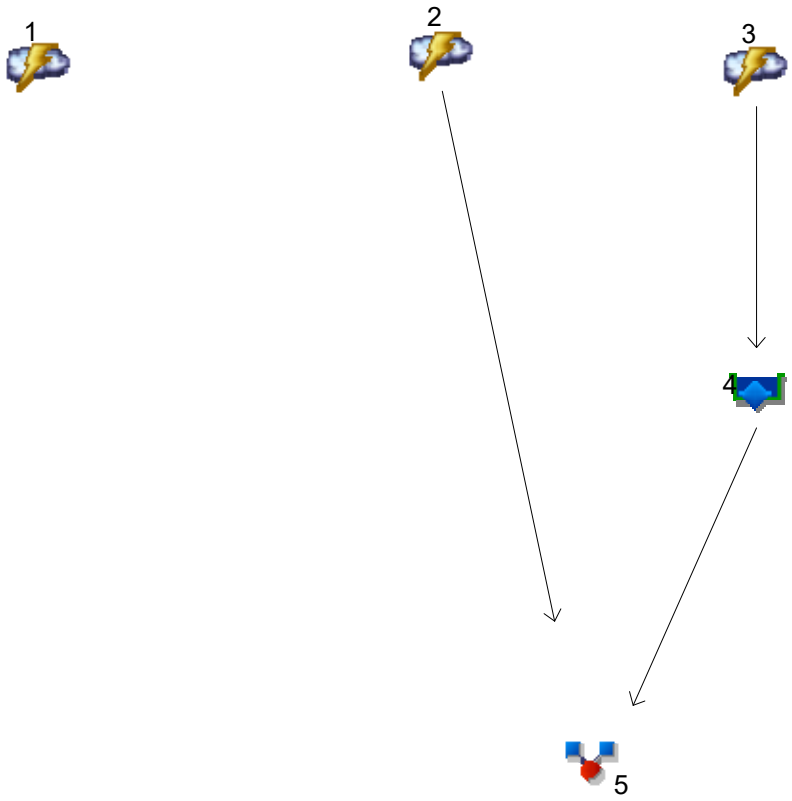
$A_{HS} = 1.2\ Ac \quad C = 0.9$

$A_{GRASS} = 1.2\ Ac \quad C = 0.25$



SCALE: 1" = 100'

Watershed Model Schematic



Legend

Hyd.	Origin	Description
1	Rational	Pre-Development
2	Rational	Post Dev DA 1
3	Rational	Post Dev. DA 2
4	Reservoir	Detention Pond
5	Combine	Total Post Dev

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

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	Rational	5.127	1	5	1,538	------	------	------	Pre-Development
2	Rational	4.307	1	5	1,292	------	------	------	Post Dev DA 1
3	Rational	7.930	1	5	2,379	------	------	------	Post Dev. DA 2
4	Reservoir	0.817	1	9	2,375	3	426.22	2,087	Detention Pond
5	Combine	4.953	1	5	3,667	2, 4	------	------	Total Post Dev

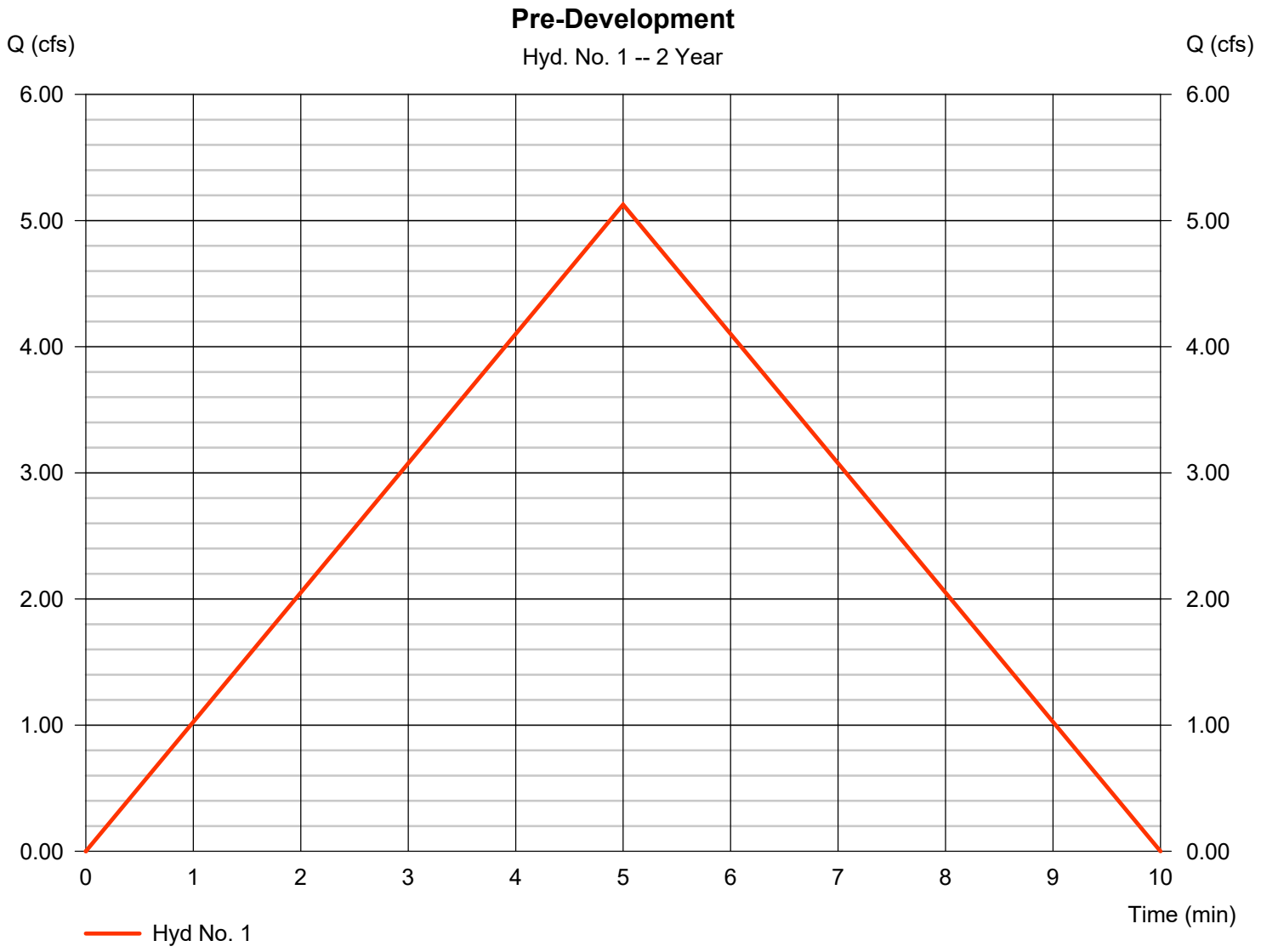
Hydrograph Report

Hyd. No. 1

Pre-Development

Hydrograph type	=	Rational	Peak discharge	=	5.127 cfs
Storm frequency	=	2 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	1,538 cuft
Drainage area	=	3.600 ac	Runoff coeff.	=	0.25*
Intensity	=	5.697 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Pulaski County.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(5.900 x 0.25) + (5.200 x 0.90)] / 3.600



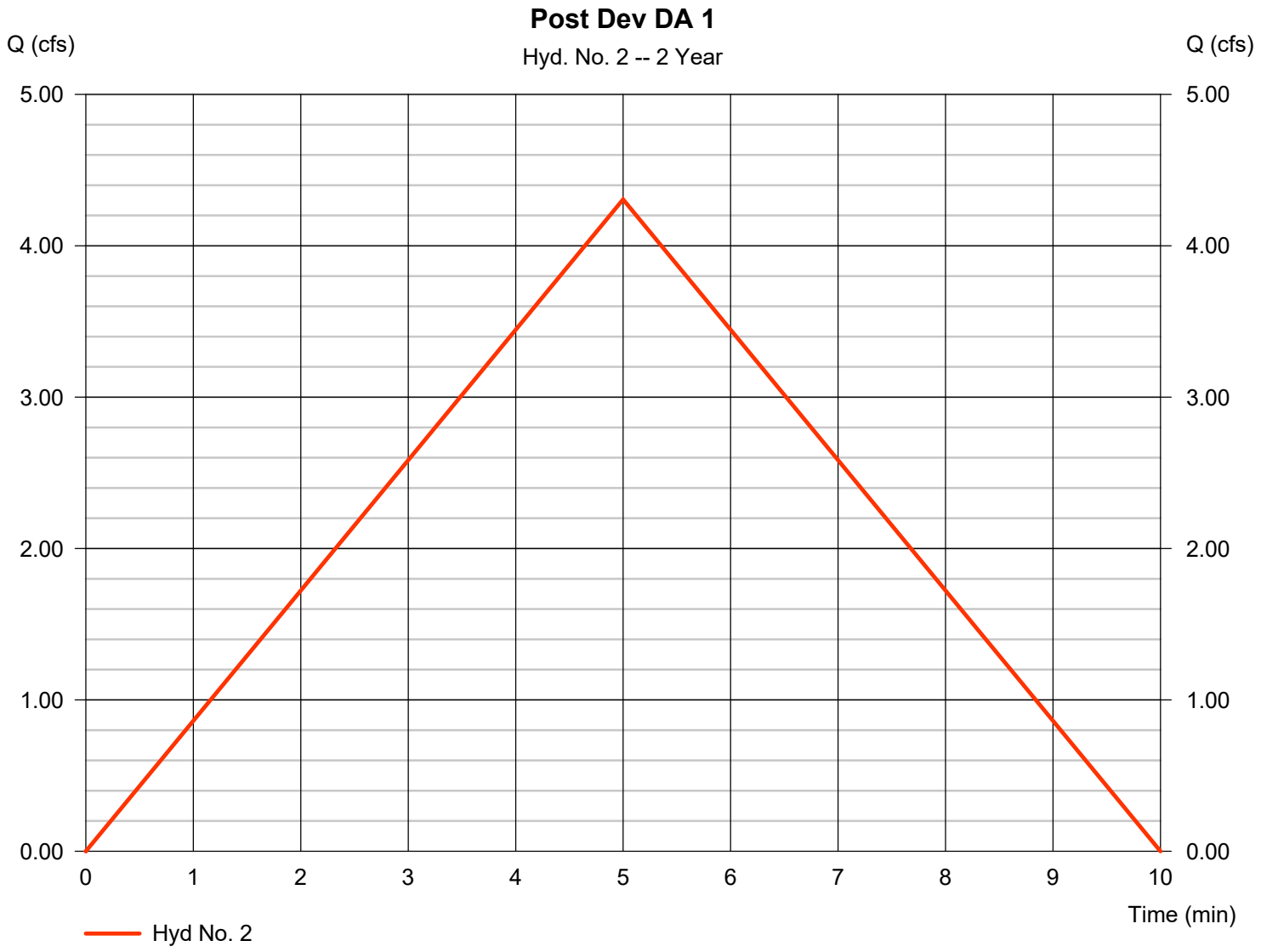
Hydrograph Report

Hyd. No. 2

Post Dev DA 1

Hydrograph type	=	Rational	Peak discharge	=	4.307 cfs
Storm frequency	=	2 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	1,292 cuft
Drainage area	=	1.200 ac	Runoff coeff.	=	0.63*
Intensity	=	5.697 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Pulaski County.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(0.700 x 0.90) + (0.500 x 0.25)] / 1.200



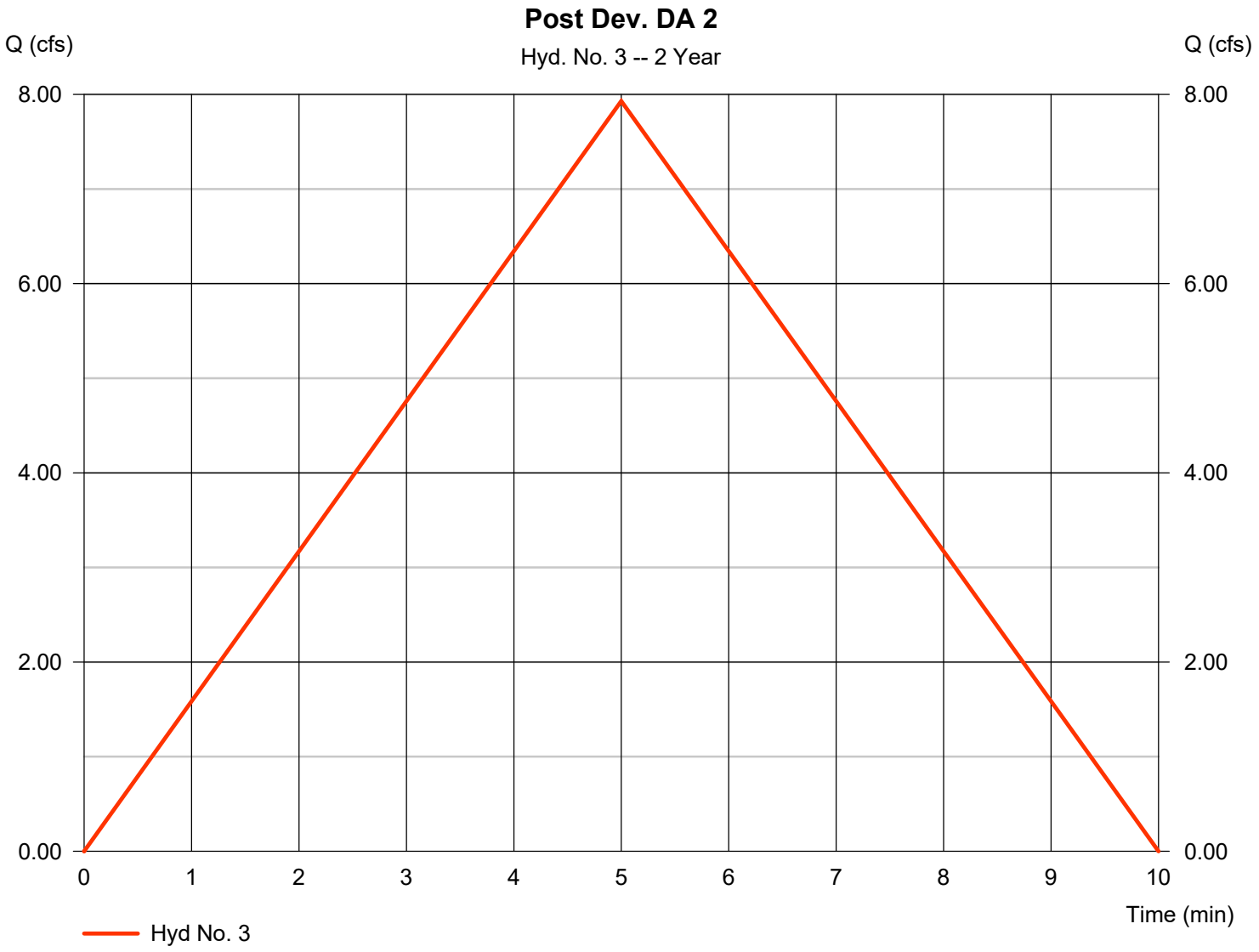
Hydrograph Report

Hyd. No. 3

Post Dev. DA 2

Hydrograph type	=	Rational	Peak discharge	=	7.930 cfs
Storm frequency	=	2 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	2,379 cuft
Drainage area	=	2.400 ac	Runoff coeff.	=	0.58*
Intensity	=	5.697 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Pulaski County.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.200 x 0.90) + (1.200 x 0.25)] / 2.400



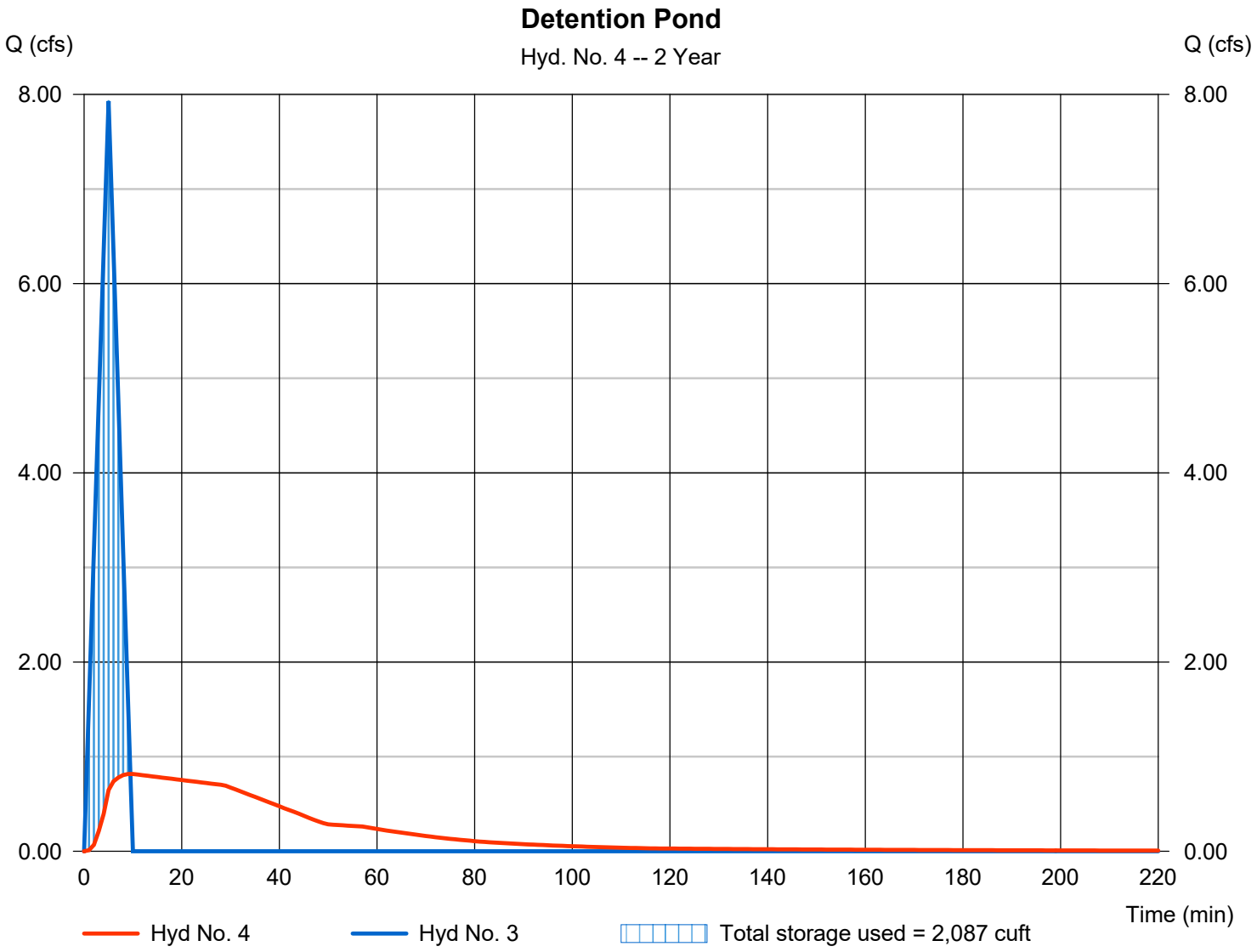
Hydrograph Report

Hyd. No. 4

Detention Pond

Hydrograph type	=	Reservoir	Peak discharge	=	0.817 cfs
Storm frequency	=	2 yrs	Time to peak	=	9 min
Time interval	=	1 min	Hyd. volume	=	2,375 cuft
Inflow hyd. No.	=	3 - Post Dev. DA 2	Max. Elevation	=	426.22 ft
Reservoir name	=	Det. Pond	Max. Storage	=	2,087 cuft

Storage Indication method used.



Pond Report

Pond No. 1 - Det. Pond

Pond Data

Contours -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 425.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	425.00	00	0	0
1.00	426.00	3,700	1,233	1,233
2.00	427.00	4,000	3,849	5,082
2.50	427.50	5,000	2,245	7,327

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 6.00	0.00	0.00	0.00
Span (in)	= 6.00	0.00	0.00	0.00
No. Barrels	= 1	0	0	0
Invert El. (ft)	= 425.00	0.00	0.00	0.00
Length (ft)	= 20.00	0.00	0.00	0.00
Slope (%)	= 0.50	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

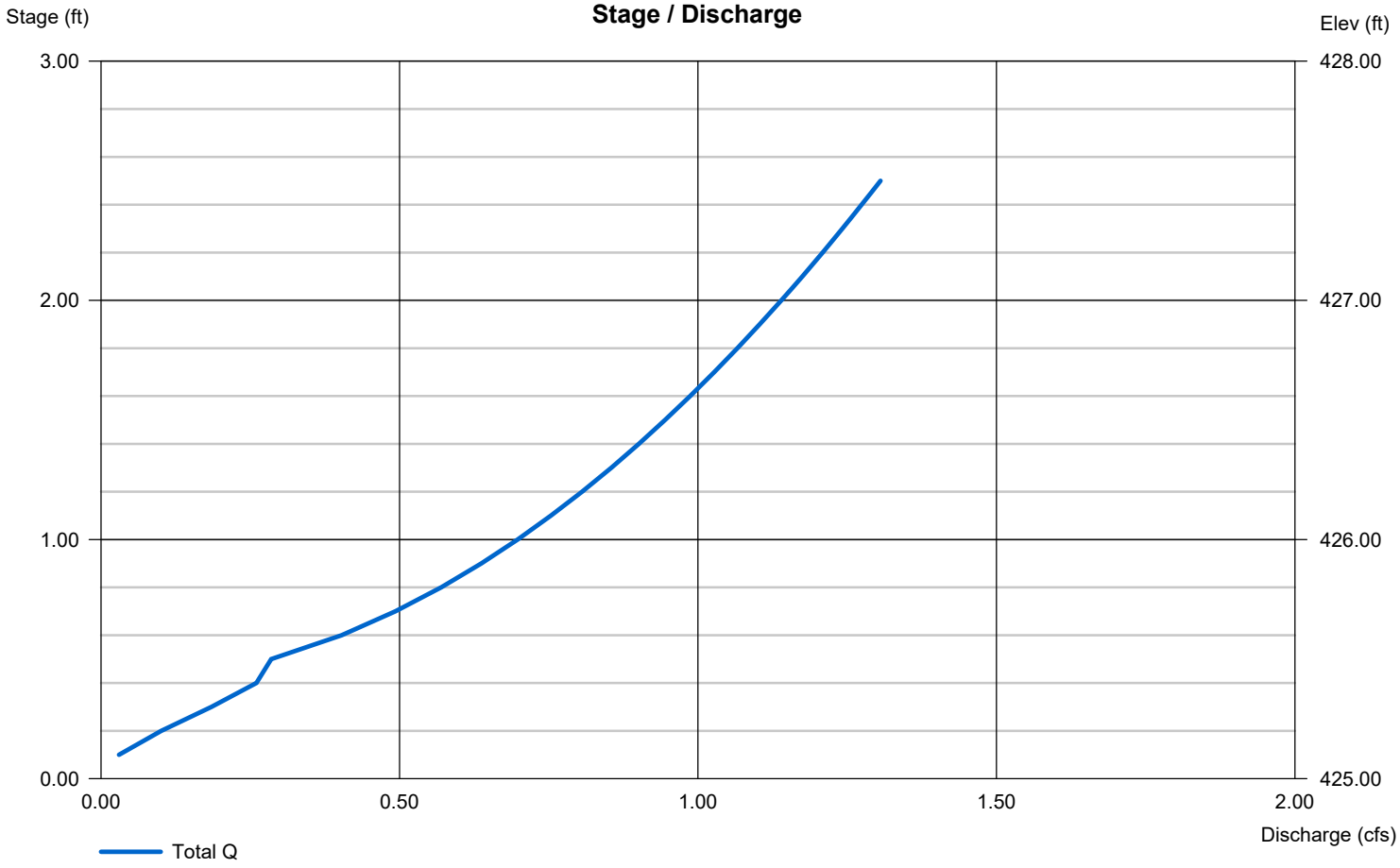
Weir Structures

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

Exfil.(in/hr) = 0.000 (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).

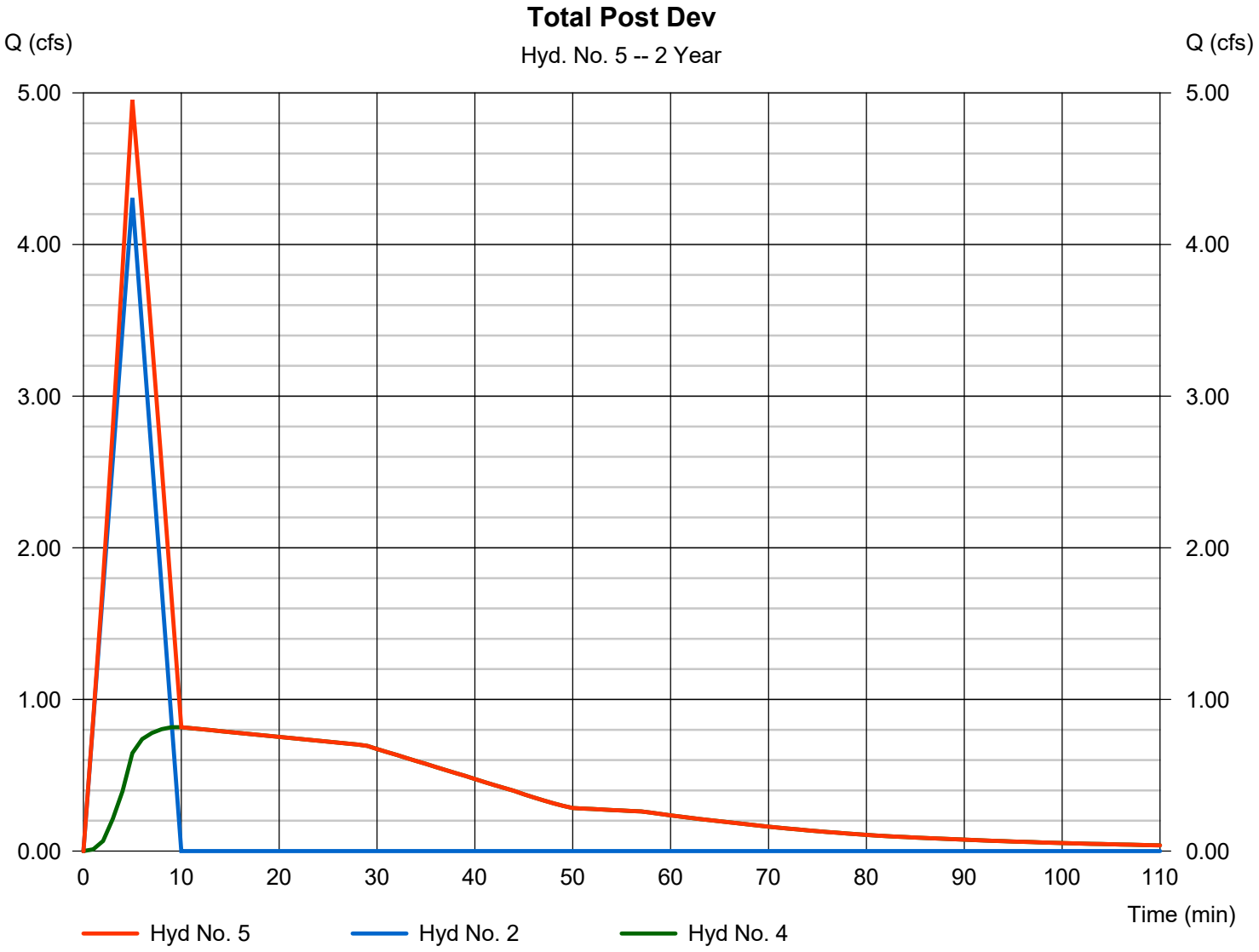


Hydrograph Report

Hyd. No. 5

Total Post Dev

Hydrograph type	= Combine	Peak discharge	= 4.953 cfs
Storm frequency	= 2 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 3,667 cuft
Inflow hyds.	= 2, 4	Contrib. drain. area	= 1.200 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

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	Rational	5.977	1	5	1,793	------	------	------	Pre-Development
2	Rational	5.021	1	5	1,506	------	------	------	Post Dev DA 1
3	Rational	9.245	1	5	2,774	------	------	------	Post Dev. DA 2
4	Reservoir	0.863	1	10	2,769	3	426.32	2,456	Detention Pond
5	Combine	5.731	1	5	4,276	2, 4	------	------	Total Post Dev

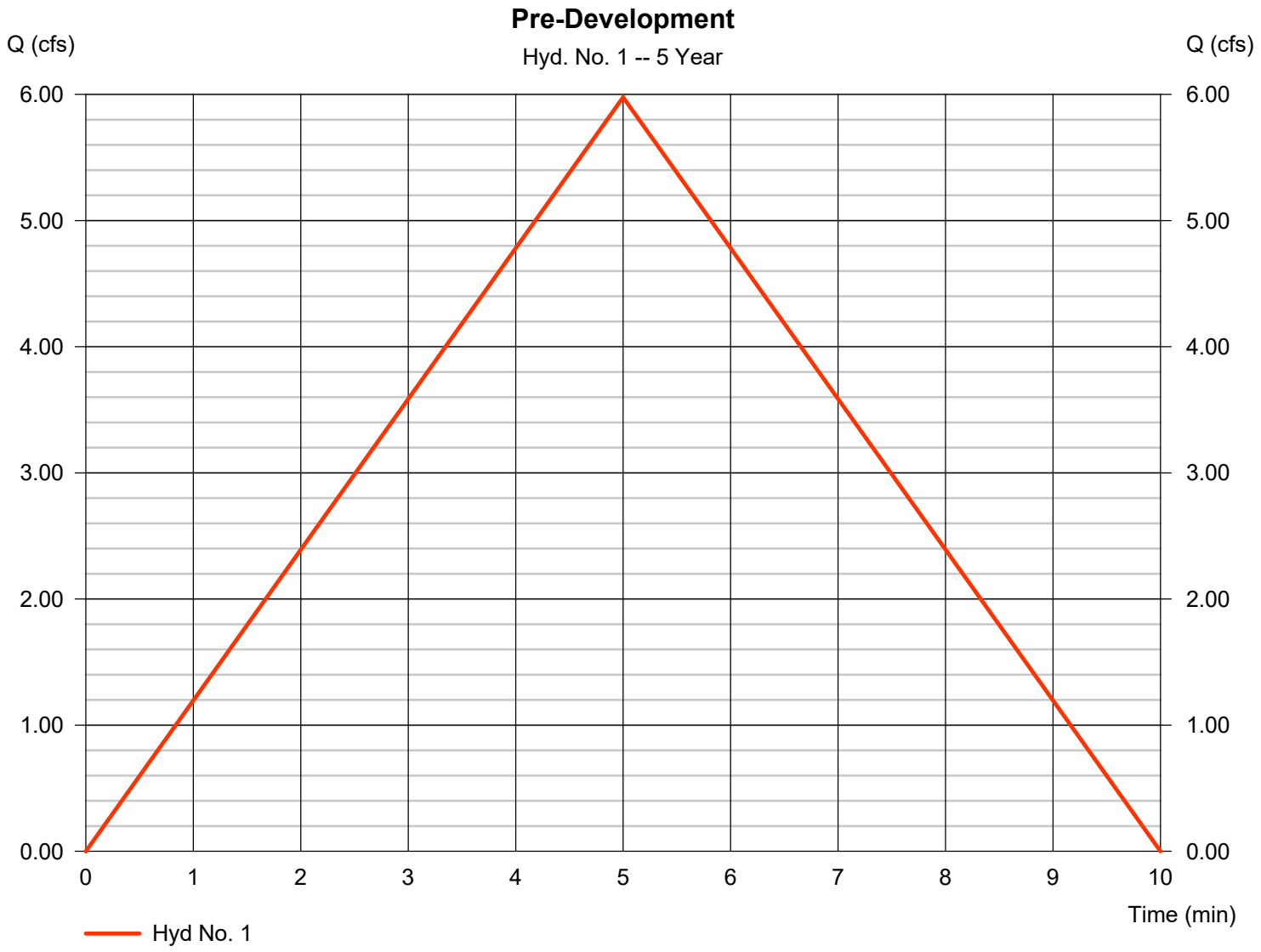
Hydrograph Report

Hyd. No. 1

Pre-Development

Hydrograph type	=	Rational	Peak discharge	=	5.977 cfs
Storm frequency	=	5 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	1,793 cuft
Drainage area	=	3.600 ac	Runoff coeff.	=	0.25*
Intensity	=	6.642 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Pulaski County.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(5.900 x 0.25) + (5.200 x 0.90)] / 3.600



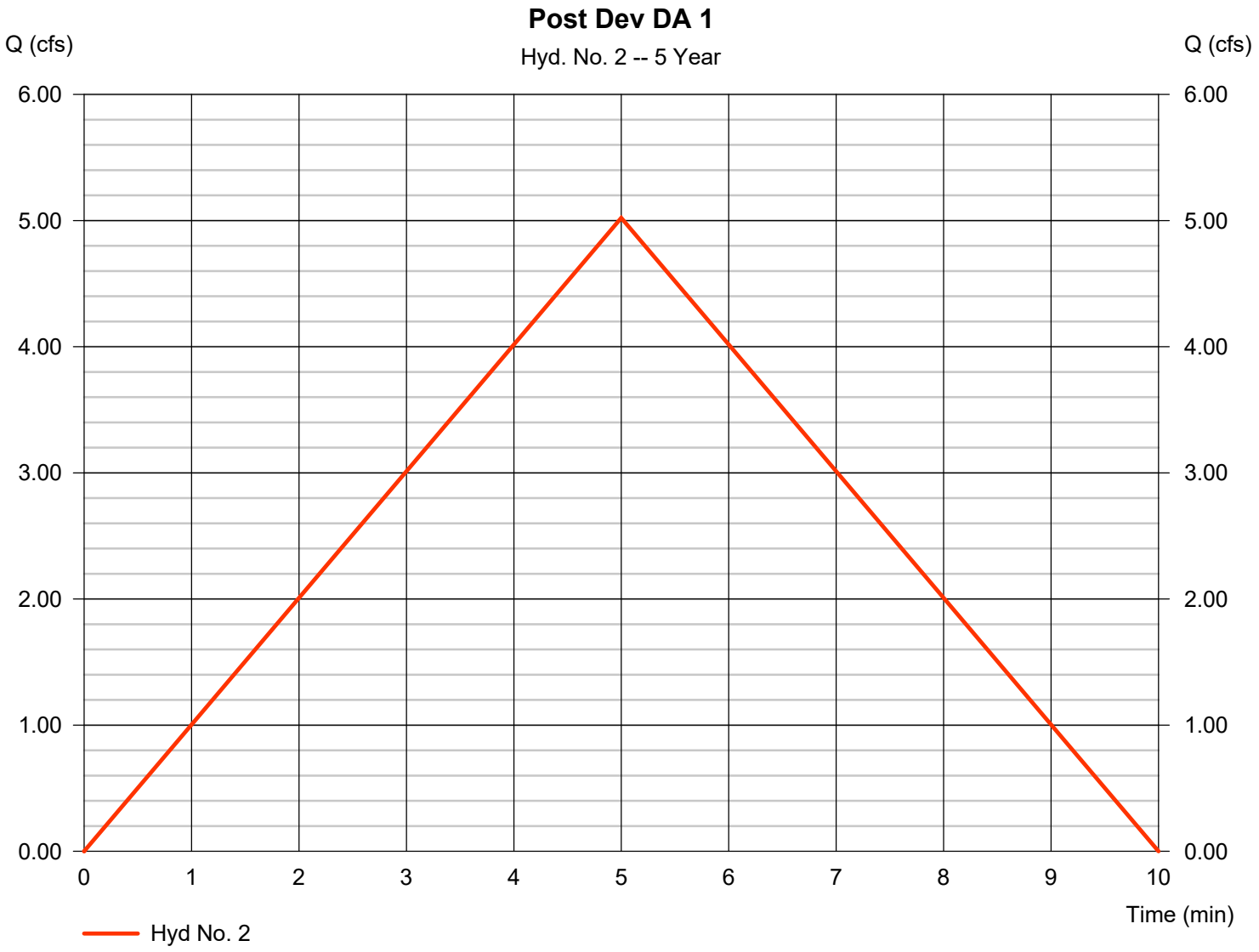
Hydrograph Report

Hyd. No. 2

Post Dev DA 1

Hydrograph type	=	Rational	Peak discharge	=	5.021 cfs
Storm frequency	=	5 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	1,506 cuft
Drainage area	=	1.200 ac	Runoff coeff.	=	0.63*
Intensity	=	6.642 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Pulaski County.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(0.700 x 0.90) + (0.500 x 0.25)] / 1.200



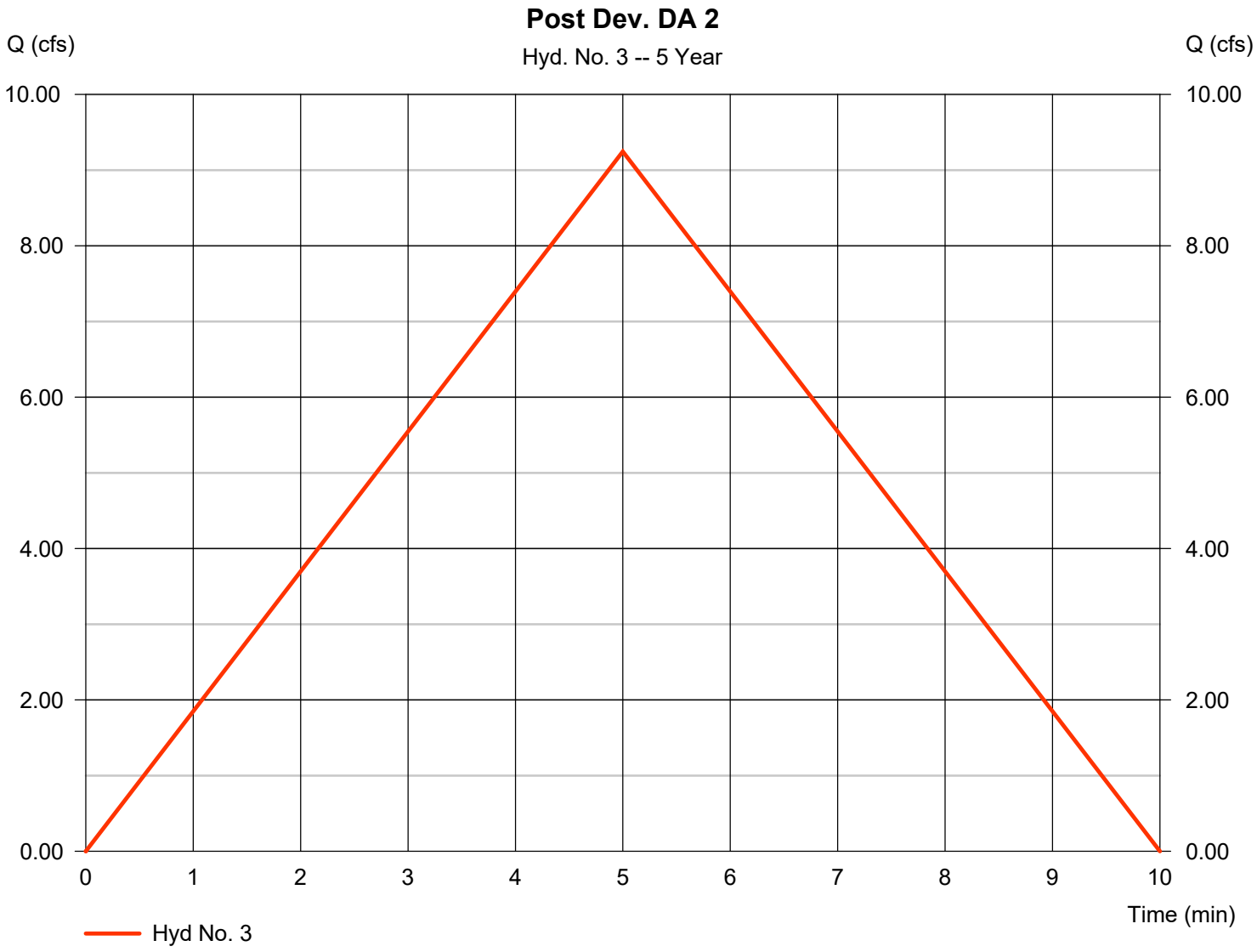
Hydrograph Report

Hyd. No. 3

Post Dev. DA 2

Hydrograph type	=	Rational	Peak discharge	=	9.245 cfs
Storm frequency	=	5 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	2,774 cuft
Drainage area	=	2.400 ac	Runoff coeff.	=	0.58*
Intensity	=	6.642 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Pulaski County.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.200 x 0.90) + (1.200 x 0.25)] / 2.400



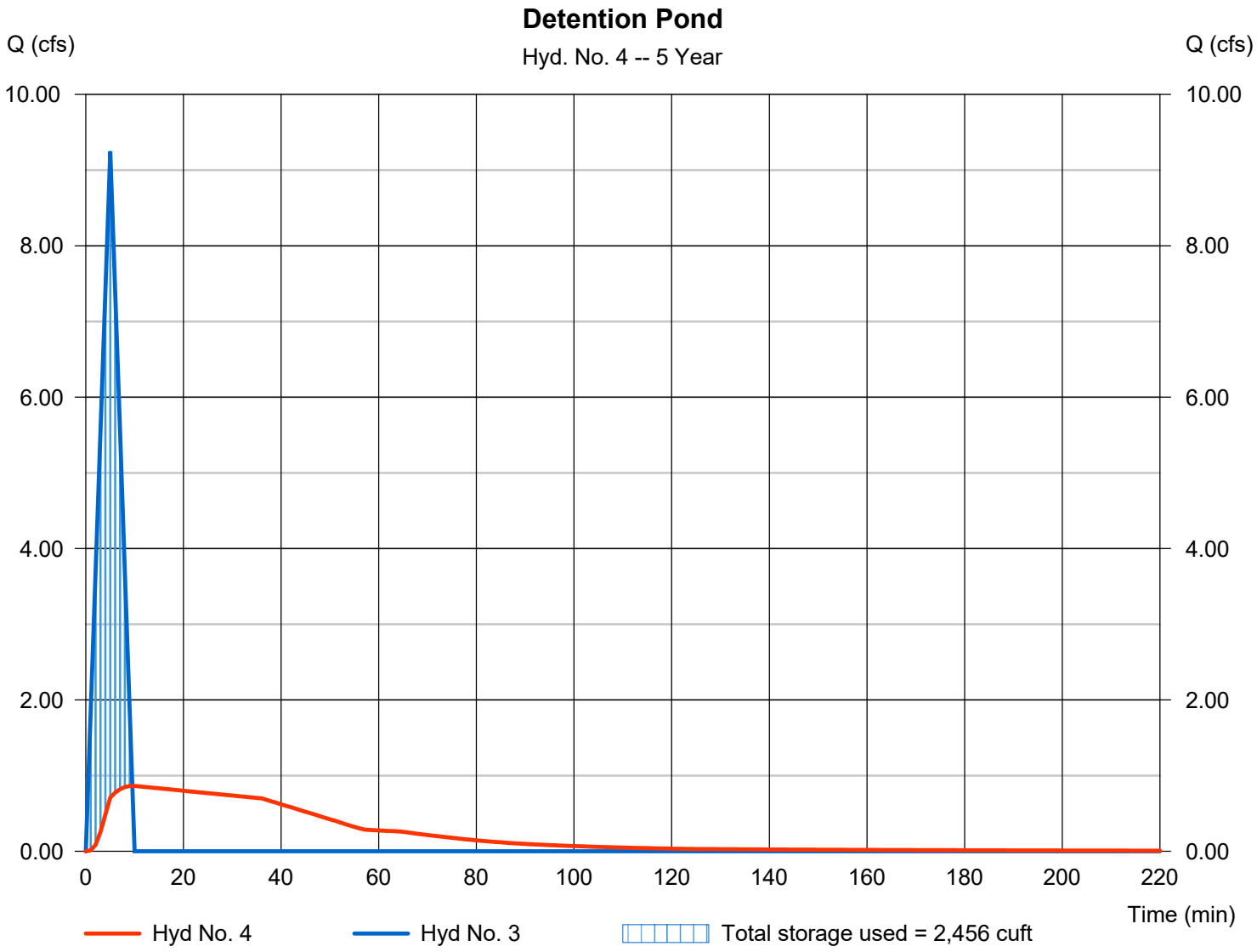
Hydrograph Report

Hyd. No. 4

Detention Pond

Hydrograph type	=	Reservoir	Peak discharge	=	0.863 cfs
Storm frequency	=	5 yrs	Time to peak	=	10 min
Time interval	=	1 min	Hyd. volume	=	2,769 cuft
Inflow hyd. No.	=	3 - Post Dev. DA 2	Max. Elevation	=	426.32 ft
Reservoir name	=	Det. Pond	Max. Storage	=	2,456 cuft

Storage Indication method used.

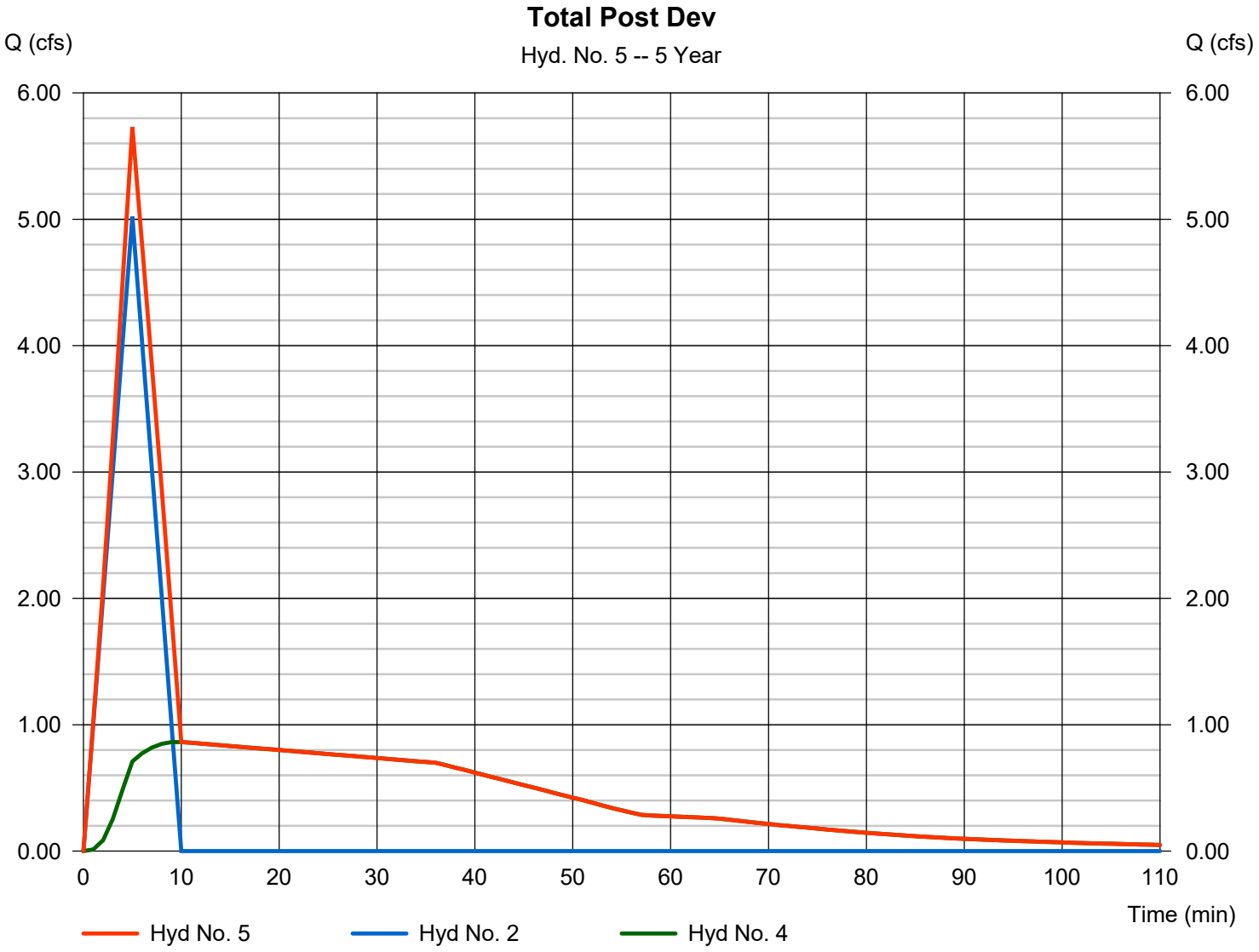


Hydrograph Report

Hyd. No. 5

Total Post Dev

Hydrograph type	= Combine	Peak discharge	= 5.731 cfs
Storm frequency	= 5 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 4,276 cuft
Inflow hyds.	= 2, 4	Contrib. drain. area	= 1.200 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

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	Rational	6.616	1	5	1,985	------	------	------	Pre-Development
2	Rational	5.558	1	5	1,667	------	------	------	Post Dev DA 1
3	Rational	10.23	1	5	3,070	------	------	------	Post Dev. DA 2
4	Reservoir	0.897	1	10	3,066	3	426.39	2,738	Detention Pond
5	Combine	6.288	1	5	4,733	2, 4	------	------	Total Post Dev

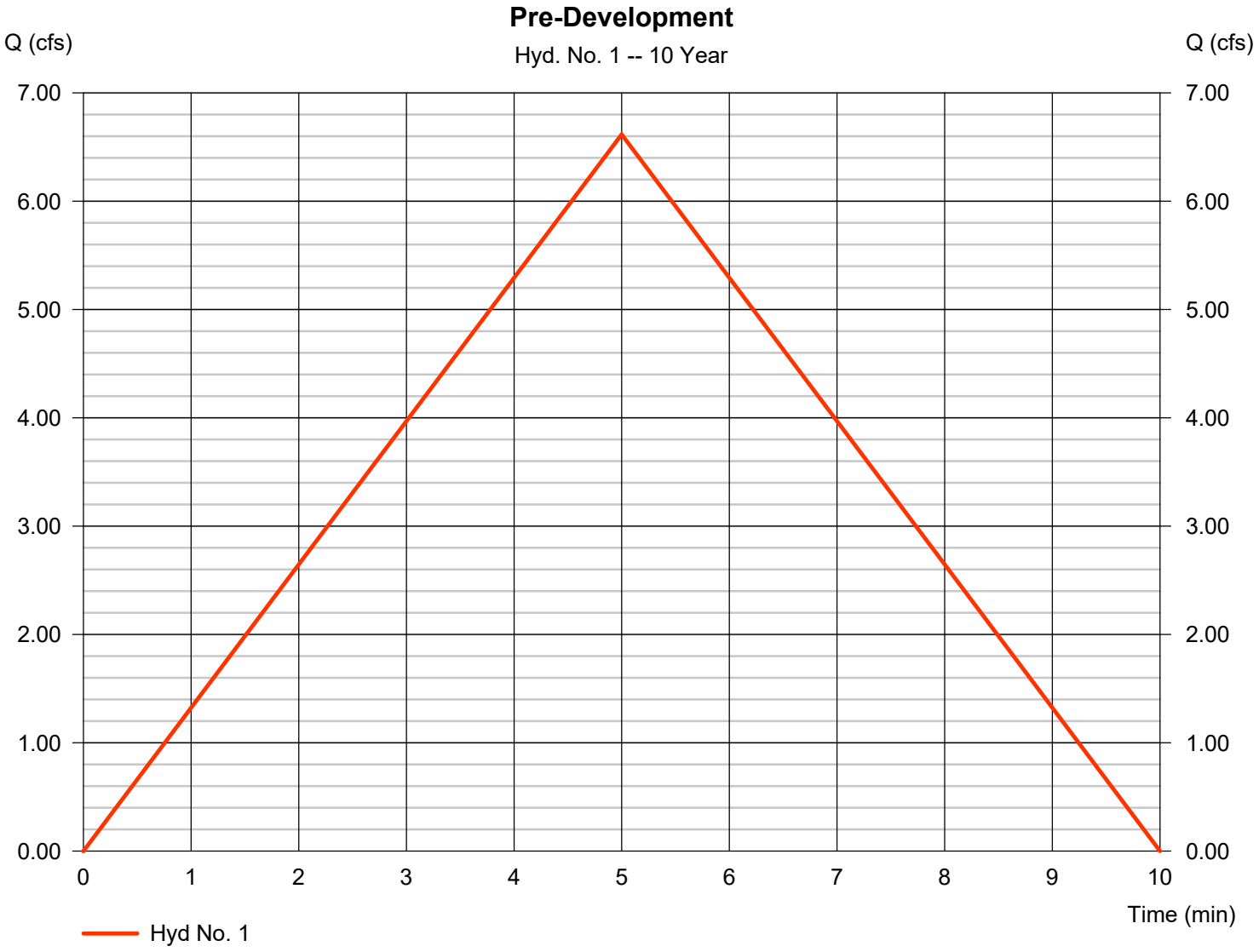
Hydrograph Report

Hyd. No. 1

Pre-Development

Hydrograph type	=	Rational	Peak discharge	=	6.616 cfs
Storm frequency	=	10 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	1,985 cuft
Drainage area	=	3.600 ac	Runoff coeff.	=	0.25*
Intensity	=	7.351 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Pulaski County.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(5.900 x 0.25) + (5.200 x 0.90)] / 3.600



Hydrograph Report

Hyd. No. 2

Post Dev DA 1

Hydrograph type	=	Rational	Peak discharge	=	5.558 cfs
Storm frequency	=	10 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	1,667 cuft
Drainage area	=	1.200 ac	Runoff coeff.	=	0.63*
Intensity	=	7.351 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Pulaski County.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(0.700 x 0.90) + (0.500 x 0.25)] / 1.200



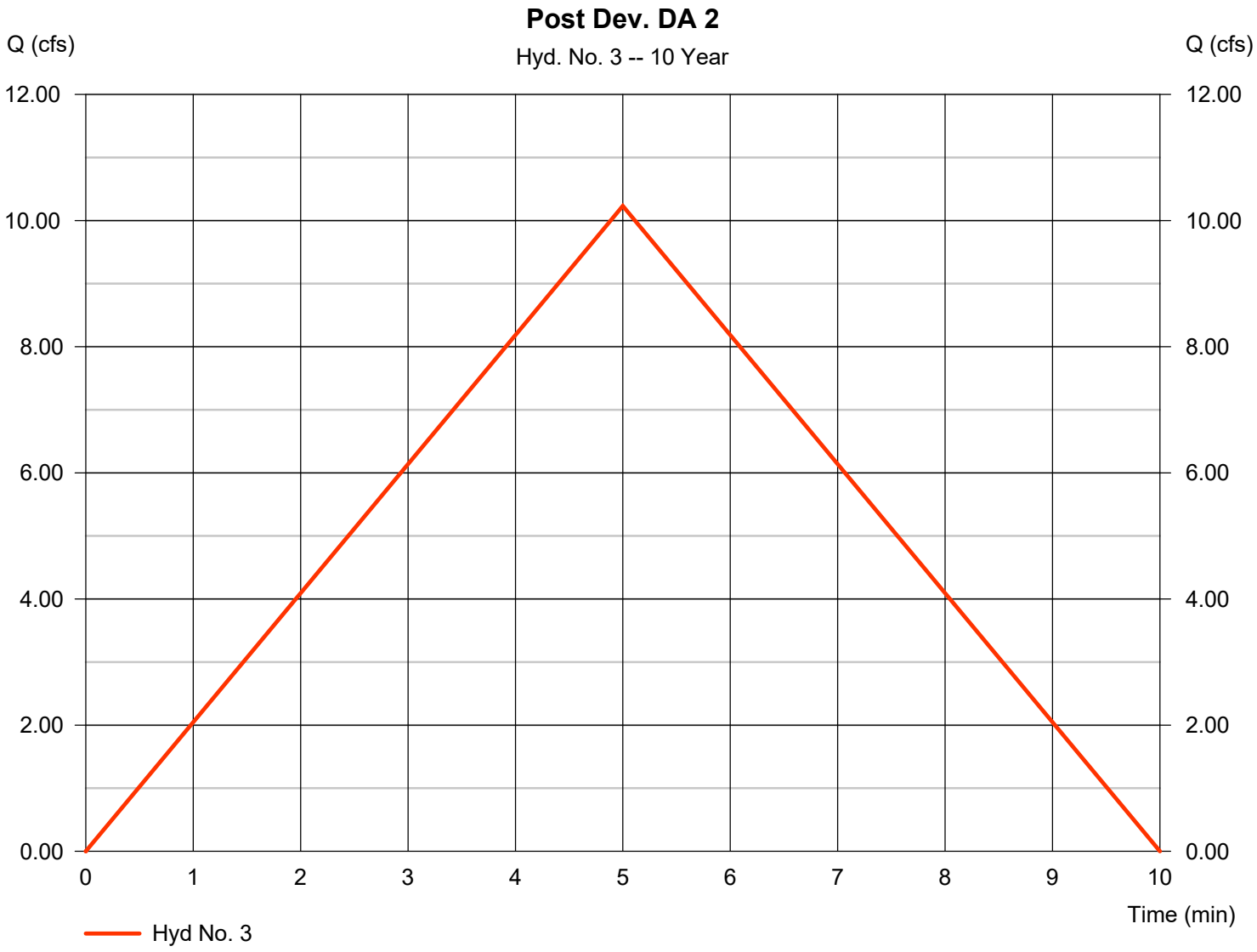
Hydrograph Report

Hyd. No. 3

Post Dev. DA 2

Hydrograph type	=	Rational	Peak discharge	=	10.23 cfs
Storm frequency	=	10 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	3,070 cuft
Drainage area	=	2.400 ac	Runoff coeff.	=	0.58*
Intensity	=	7.351 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Pulaski County.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.200 x 0.90) + (1.200 x 0.25)] / 2.400



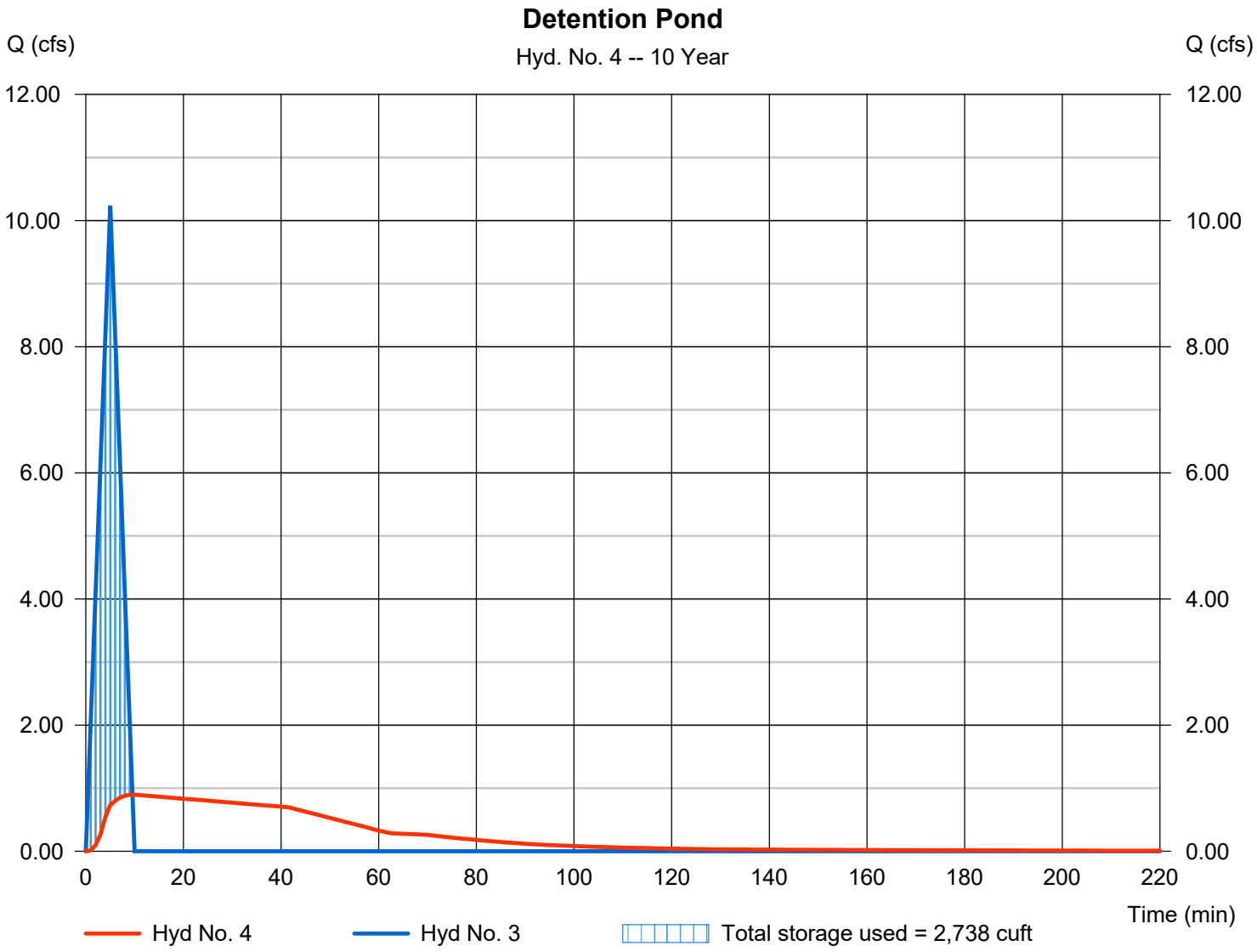
Hydrograph Report

Hyd. No. 4

Detention Pond

Hydrograph type	=	Reservoir	Peak discharge	=	0.897 cfs
Storm frequency	=	10 yrs	Time to peak	=	10 min
Time interval	=	1 min	Hyd. volume	=	3,066 cuft
Inflow hyd. No.	=	3 - Post Dev. DA 2	Max. Elevation	=	426.39 ft
Reservoir name	=	Det. Pond	Max. Storage	=	2,738 cuft

Storage Indication method used.

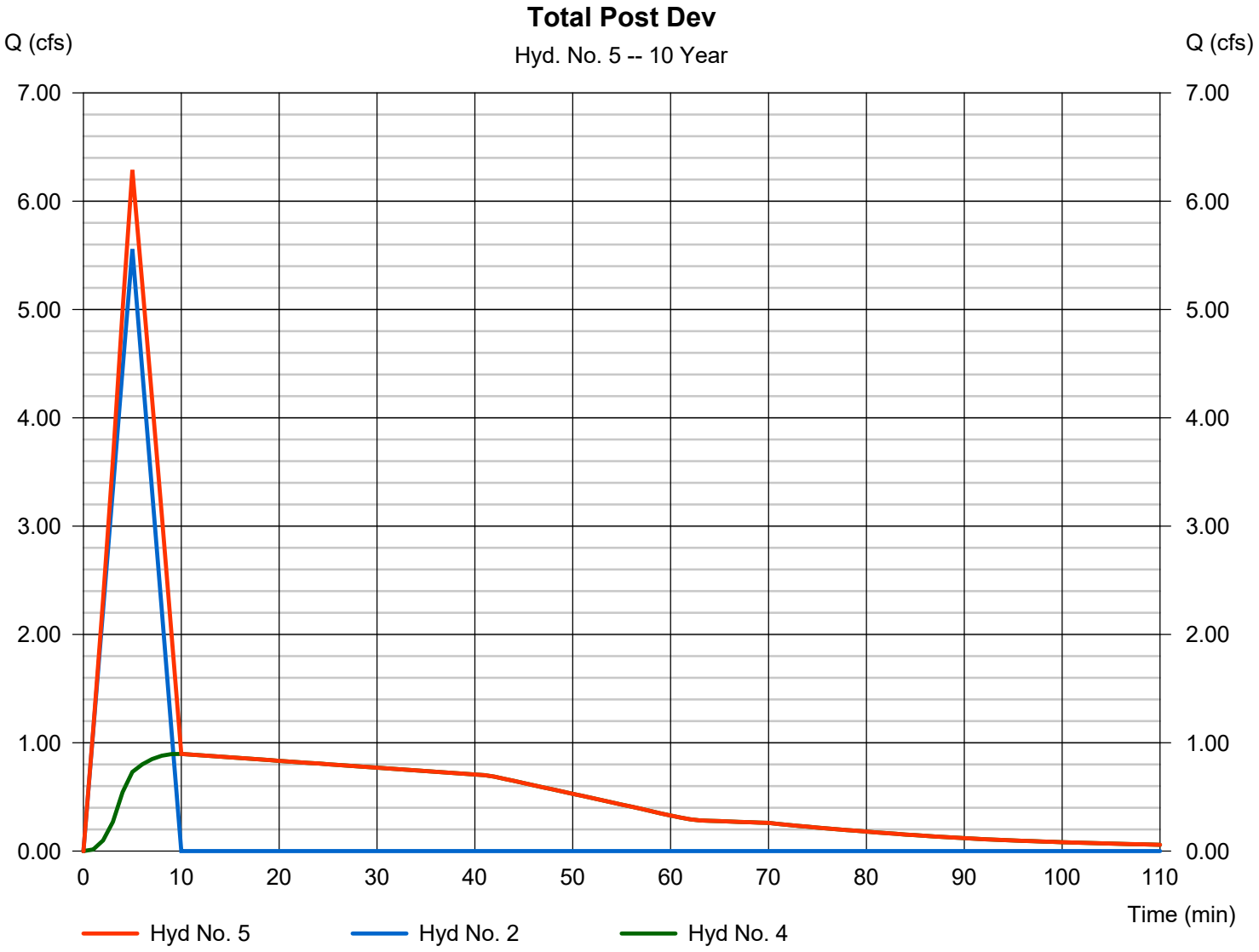


Hydrograph Report

Hyd. No. 5

Total Post Dev

Hydrograph type	= Combine	Peak discharge	= 6.288 cfs
Storm frequency	= 10 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 4,733 cuft
Inflow hyds.	= 2, 4	Contrib. drain. area	= 1.200 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

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	Rational	7.566	1	5	2,270	------	------	------	Pre-Development
2	Rational	6.355	1	5	1,907	------	------	------	Post Dev DA 1
3	Rational	11.70	1	5	3,511	------	------	------	Post Dev. DA 2
4	Reservoir	0.945	1	10	3,506	3	426.50	3,158	Detention Pond
5	Combine	7.116	1	5	5,413	2, 4	------	------	Total Post Dev

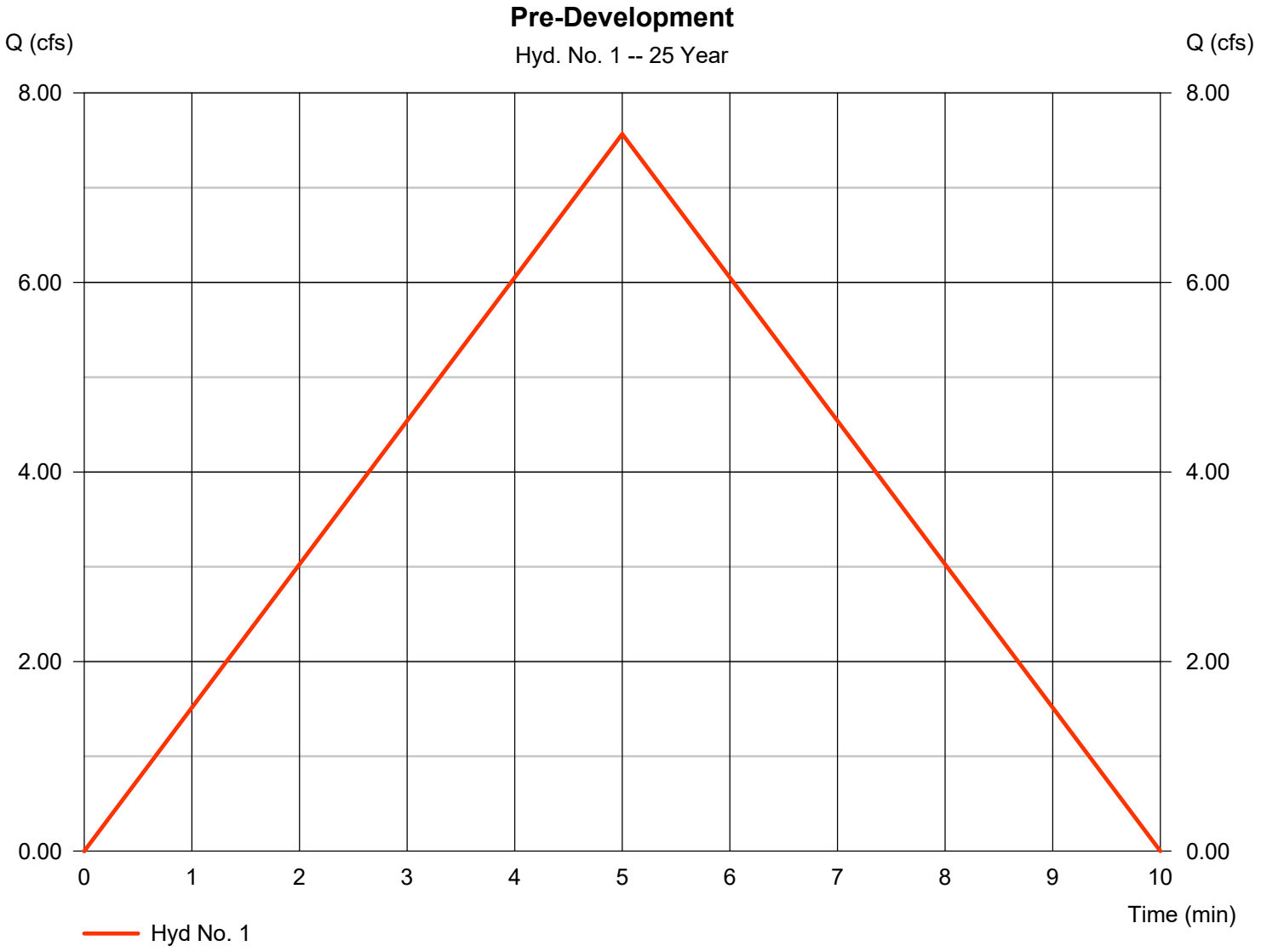
Hydrograph Report

Hyd. No. 1

Pre-Development

Hydrograph type	=	Rational	Peak discharge	=	7.566 cfs
Storm frequency	=	25 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	2,270 cuft
Drainage area	=	3.600 ac	Runoff coeff.	=	0.25*
Intensity	=	8.406 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Pulaski County.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(5.900 x 0.25) + (5.200 x 0.90)] / 3.600



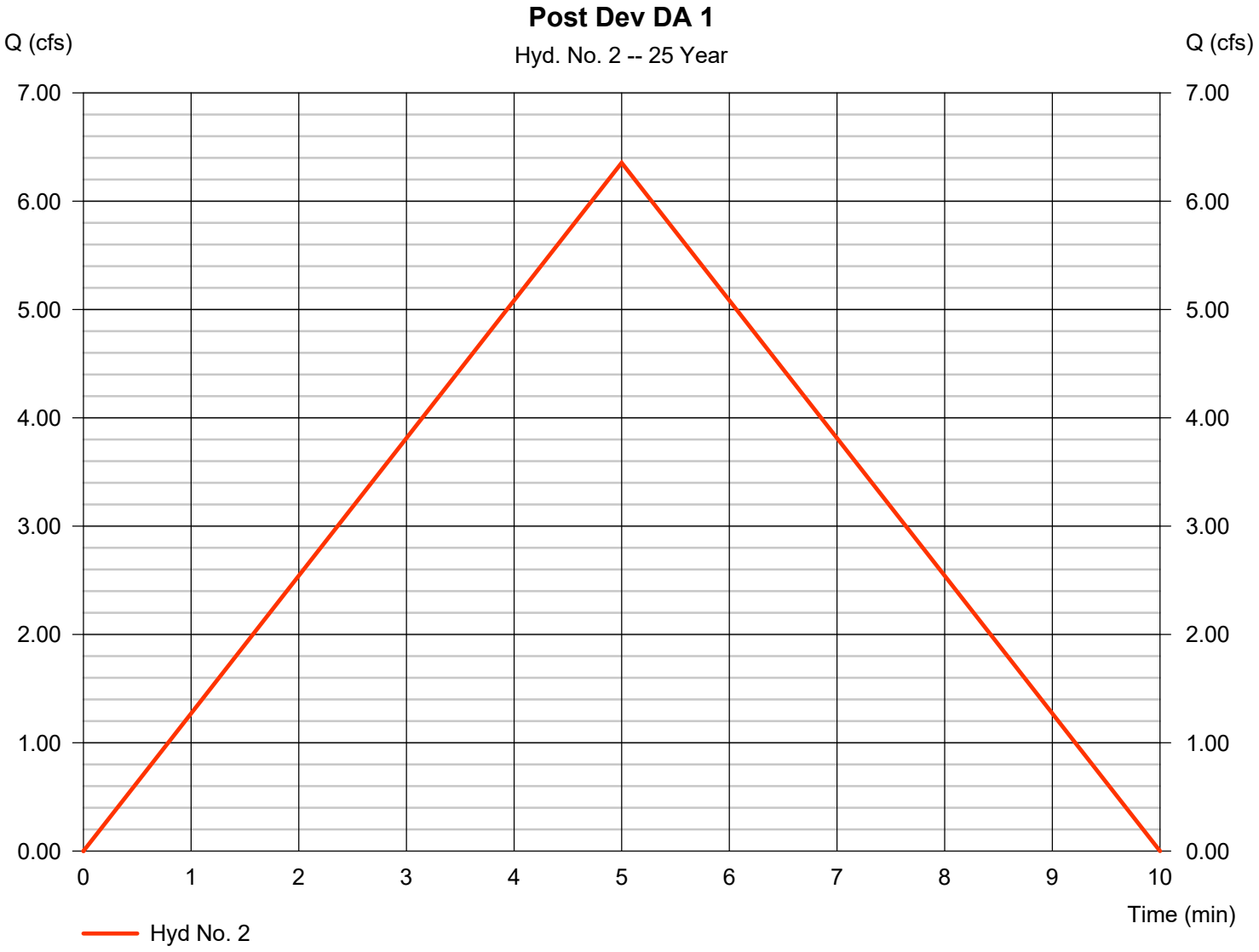
Hydrograph Report

Hyd. No. 2

Post Dev DA 1

Hydrograph type	=	Rational	Peak discharge	=	6.355 cfs
Storm frequency	=	25 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	1,907 cuft
Drainage area	=	1.200 ac	Runoff coeff.	=	0.63*
Intensity	=	8.406 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Pulaski County.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(0.700 x 0.90) + (0.500 x 0.25)] / 1.200



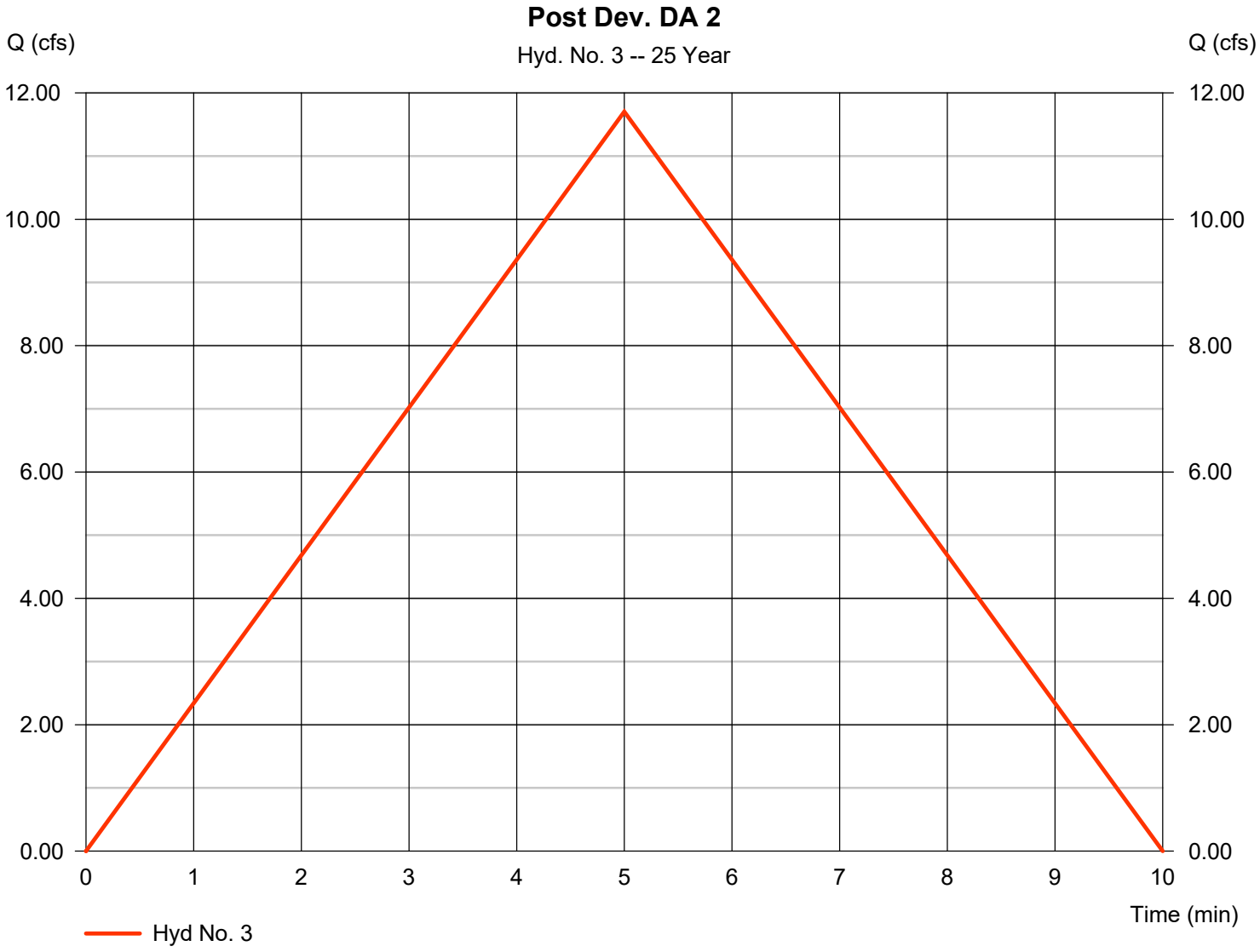
Hydrograph Report

Hyd. No. 3

Post Dev. DA 2

Hydrograph type	=	Rational	Peak discharge	=	11.70 cfs
Storm frequency	=	25 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	3,511 cuft
Drainage area	=	2.400 ac	Runoff coeff.	=	0.58*
Intensity	=	8.406 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Pulaski County.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.200 x 0.90) + (1.200 x 0.25)] / 2.400



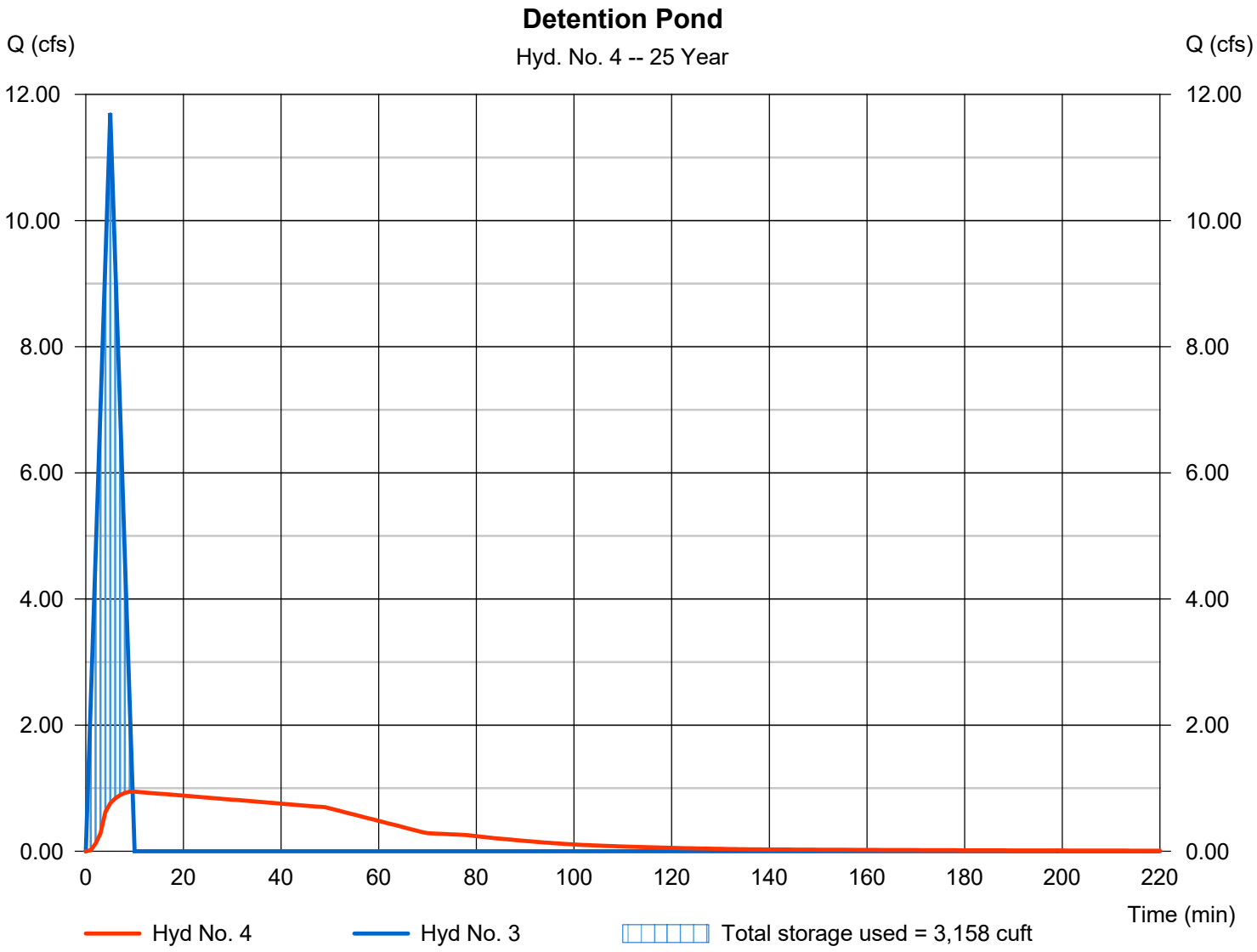
Hydrograph Report

Hyd. No. 4

Detention Pond

Hydrograph type	=	Reservoir	Peak discharge	=	0.945 cfs
Storm frequency	=	25 yrs	Time to peak	=	10 min
Time interval	=	1 min	Hyd. volume	=	3,506 cuft
Inflow hyd. No.	=	3 - Post Dev. DA 2	Max. Elevation	=	426.50 ft
Reservoir name	=	Det. Pond	Max. Storage	=	3,158 cuft

Storage Indication method used.

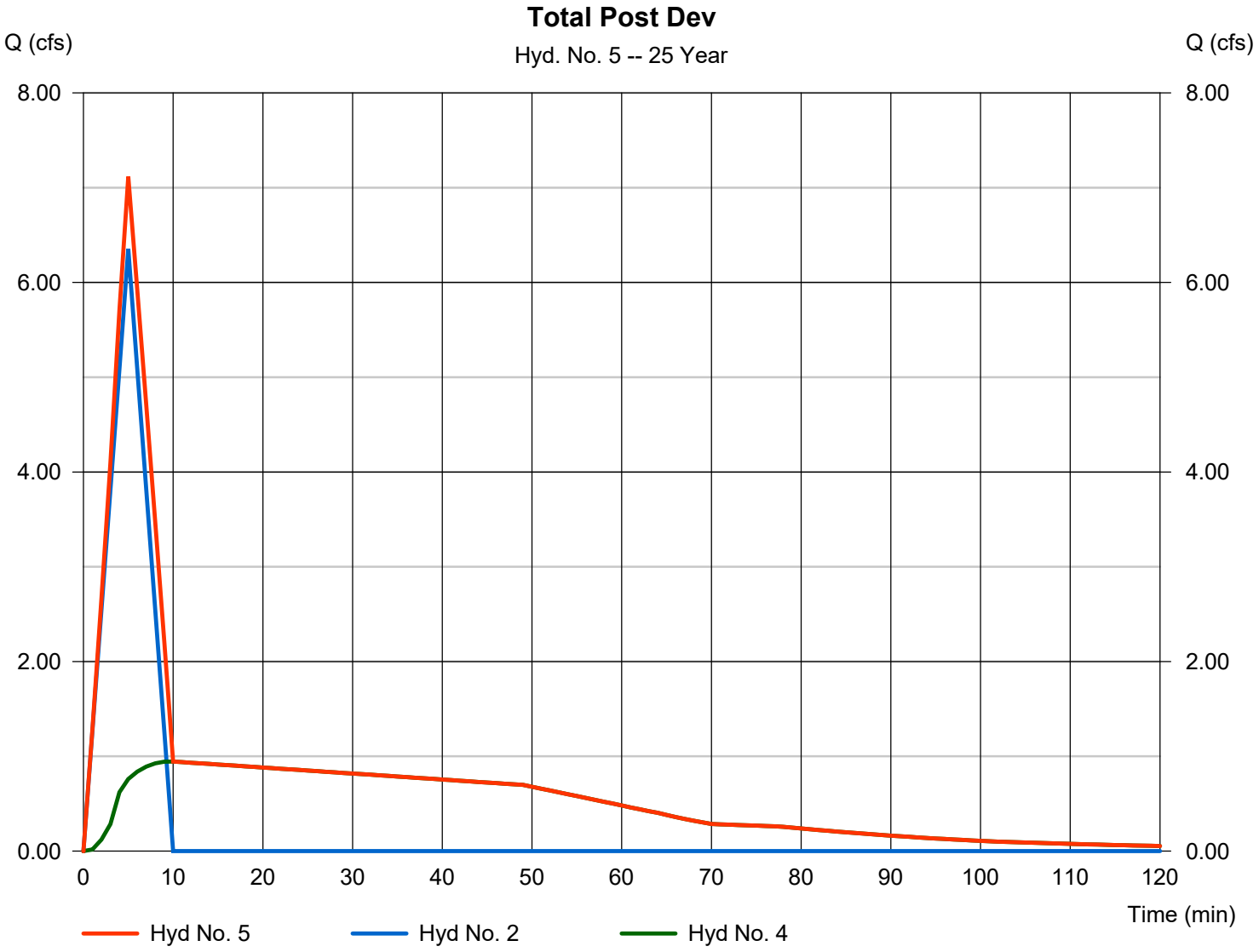


Hydrograph Report

Hyd. No. 5

Total Post Dev

Hydrograph type	= Combine	Peak discharge	= 7.116 cfs
Storm frequency	= 25 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 5,413 cuft
Inflow hyds.	= 2, 4	Contrib. drain. area	= 1.200 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

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	Rational	8.316	1	5	2,495	------	------	------	Pre-Development
2	Rational	6.985	1	5	2,096	------	------	------	Post Dev DA 1
3	Rational	12.86	1	5	3,859	------	------	------	Post Dev. DA 2
4	Reservoir	0.981	1	10	3,854	3	426.59	3,488	Detention Pond
5	Combine	7.769	1	5	5,950	2, 4	------	------	Total Post Dev

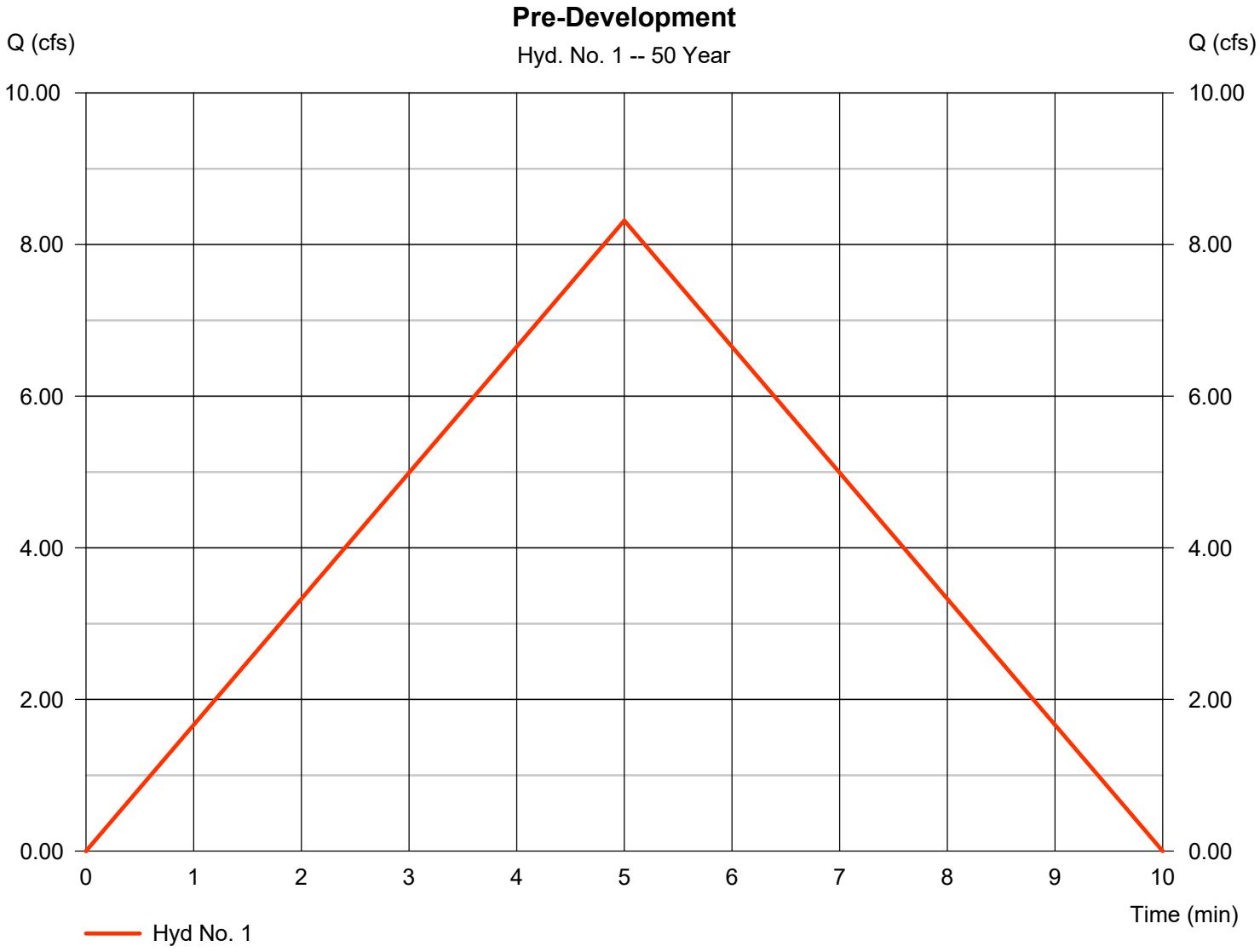
Hydrograph Report

Hyd. No. 1

Pre-Development

Hydrograph type	=	Rational	Peak discharge	=	8.316 cfs
Storm frequency	=	50 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	2,495 cuft
Drainage area	=	3.600 ac	Runoff coeff.	=	0.25*
Intensity	=	9.240 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Pulaski County.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(5.900 x 0.25) + (5.200 x 0.90)] / 3.600



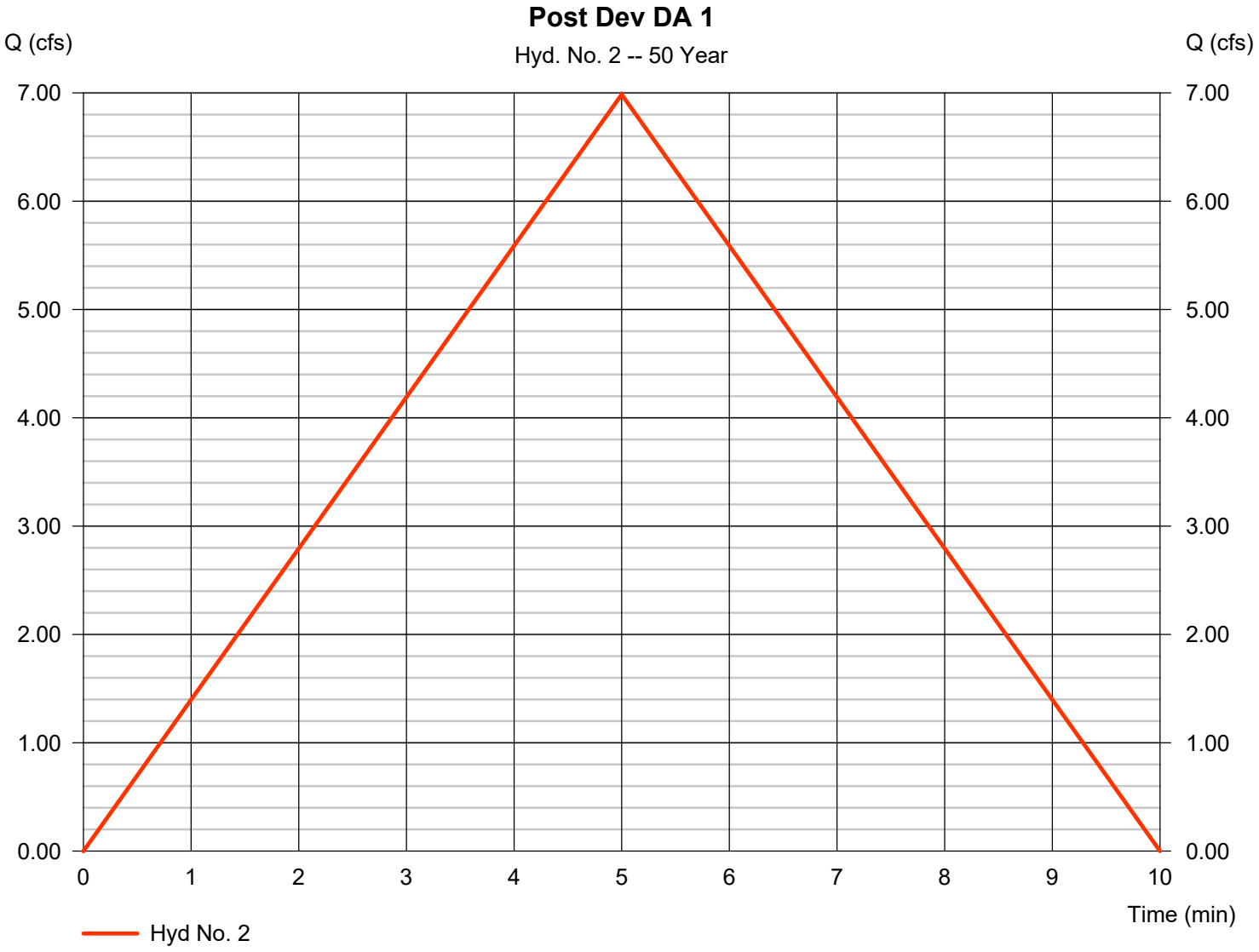
Hydrograph Report

Hyd. No. 2

Post Dev DA 1

Hydrograph type	=	Rational	Peak discharge	=	6.985 cfs
Storm frequency	=	50 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	2,096 cuft
Drainage area	=	1.200 ac	Runoff coeff.	=	0.63*
Intensity	=	9.240 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Pulaski County.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(0.700 x 0.90) + (0.500 x 0.25)] / 1.200



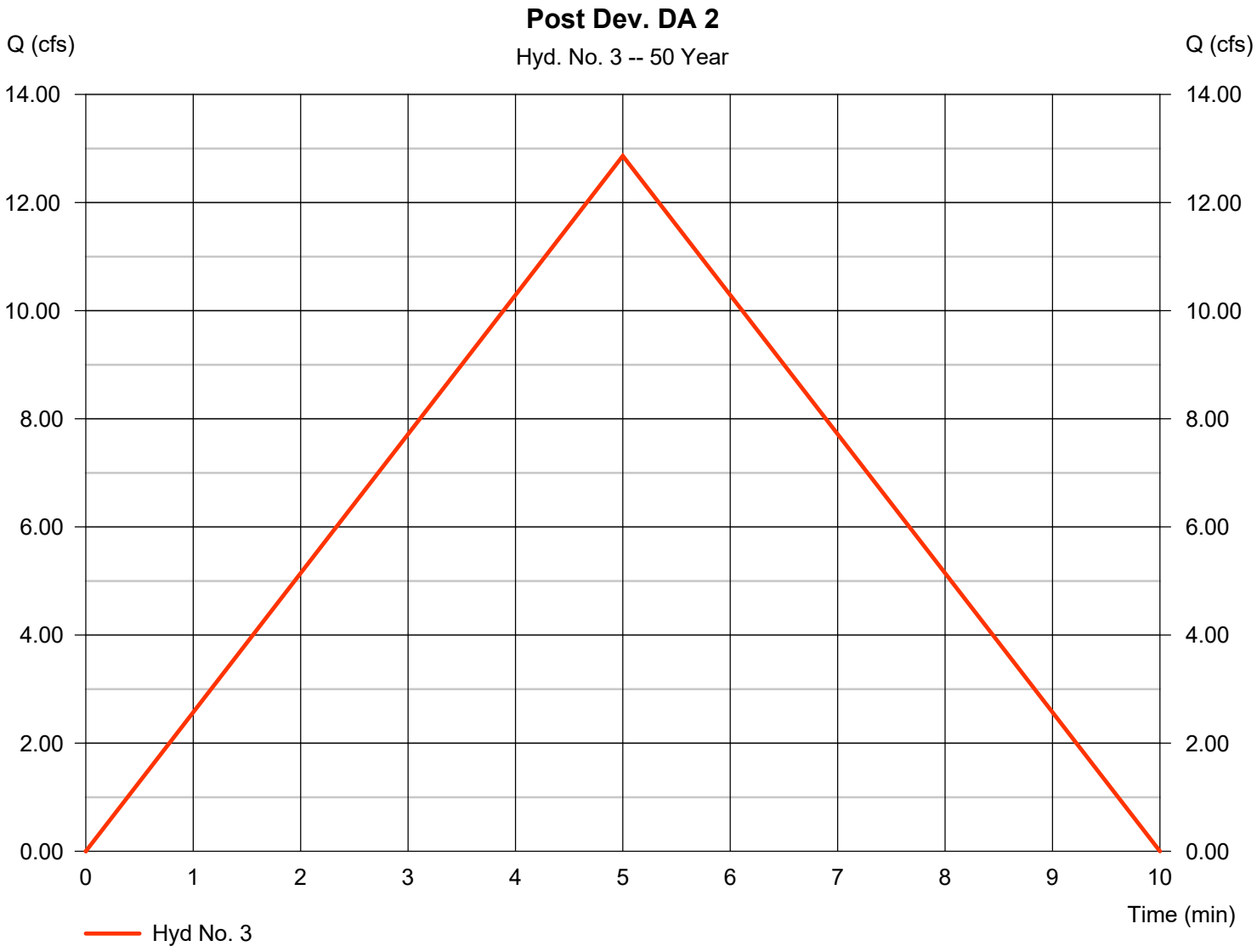
Hydrograph Report

Hyd. No. 3

Post Dev. DA 2

Hydrograph type	=	Rational	Peak discharge	=	12.86 cfs
Storm frequency	=	50 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	3,859 cuft
Drainage area	=	2.400 ac	Runoff coeff.	=	0.58*
Intensity	=	9.240 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Pulaski County.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.200 x 0.90) + (1.200 x 0.25)] / 2.400



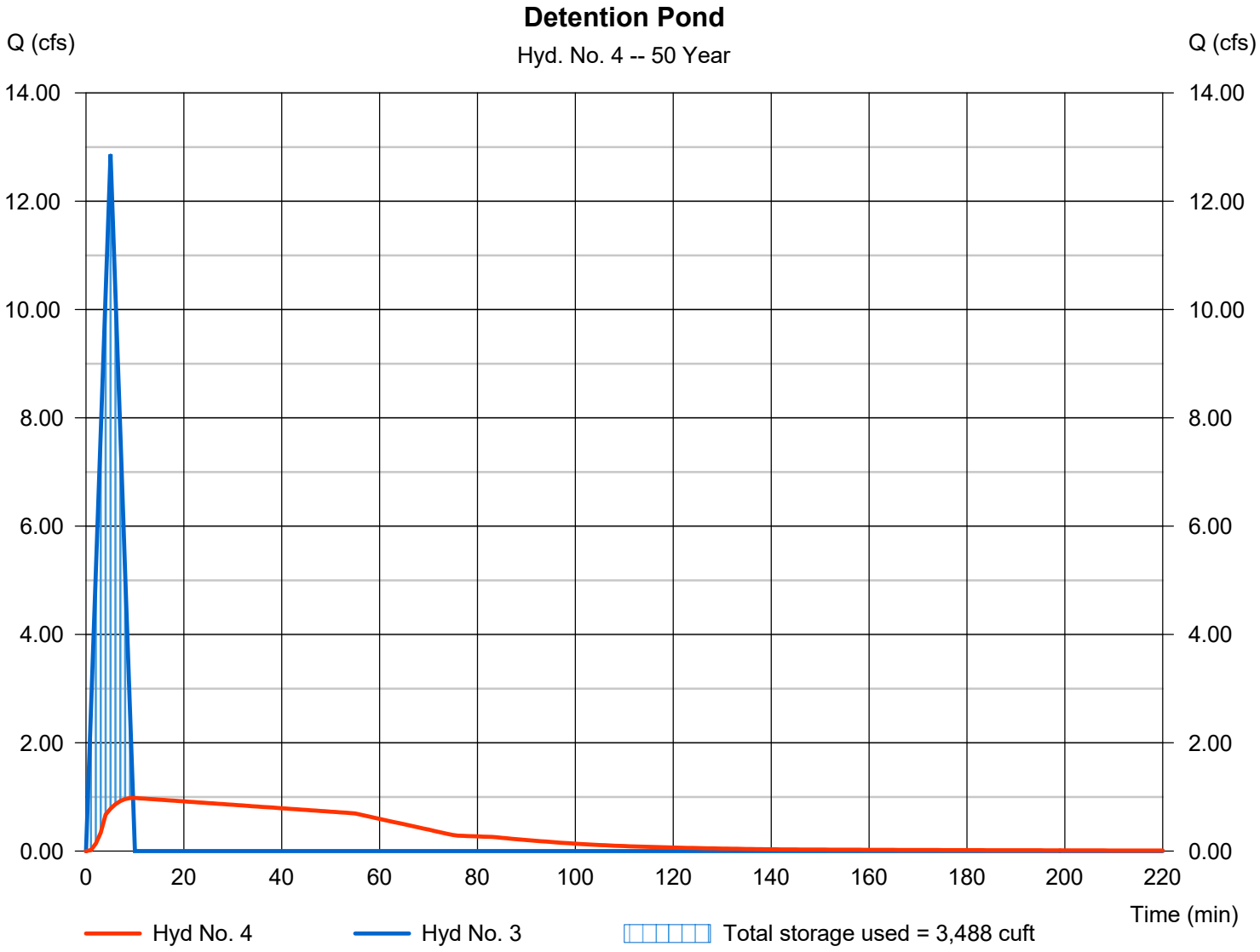
Hydrograph Report

Hyd. No. 4

Detention Pond

Hydrograph type	=	Reservoir	Peak discharge	=	0.981 cfs
Storm frequency	=	50 yrs	Time to peak	=	10 min
Time interval	=	1 min	Hyd. volume	=	3,854 cuft
Inflow hyd. No.	=	3 - Post Dev. DA 2	Max. Elevation	=	426.59 ft
Reservoir name	=	Det. Pond	Max. Storage	=	3,488 cuft

Storage Indication method used.

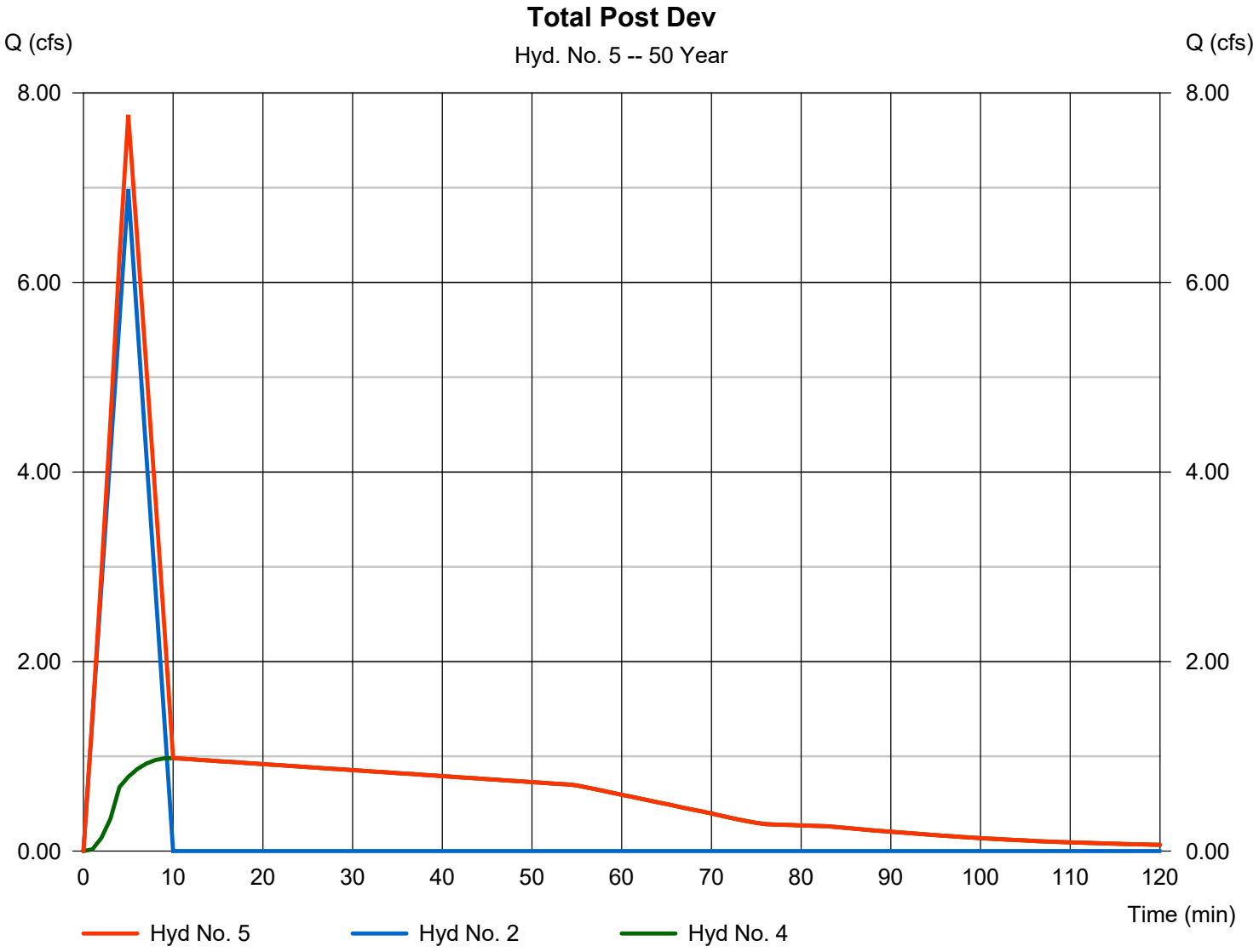


Hydrograph Report

Hyd. No. 5

Total Post Dev

Hydrograph type	= Combine	Peak discharge	= 7.769 cfs
Storm frequency	= 50 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 5,950 cuft
Inflow hyds.	= 2, 4	Contrib. drain. area	= 1.200 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

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	Rational	9.068	1	5	2,720	------	------	------	Pre-Development
2	Rational	7.617	1	5	2,285	------	------	------	Post Dev DA 1
3	Rational	14.02	1	5	4,207	------	------	------	Post Dev. DA 2
4	Reservoir	1.016	1	10	4,203	3	426.67	3,820	Detention Pond
5	Combine	8.423	1	5	6,488	2, 4	------	------	Total Post Dev

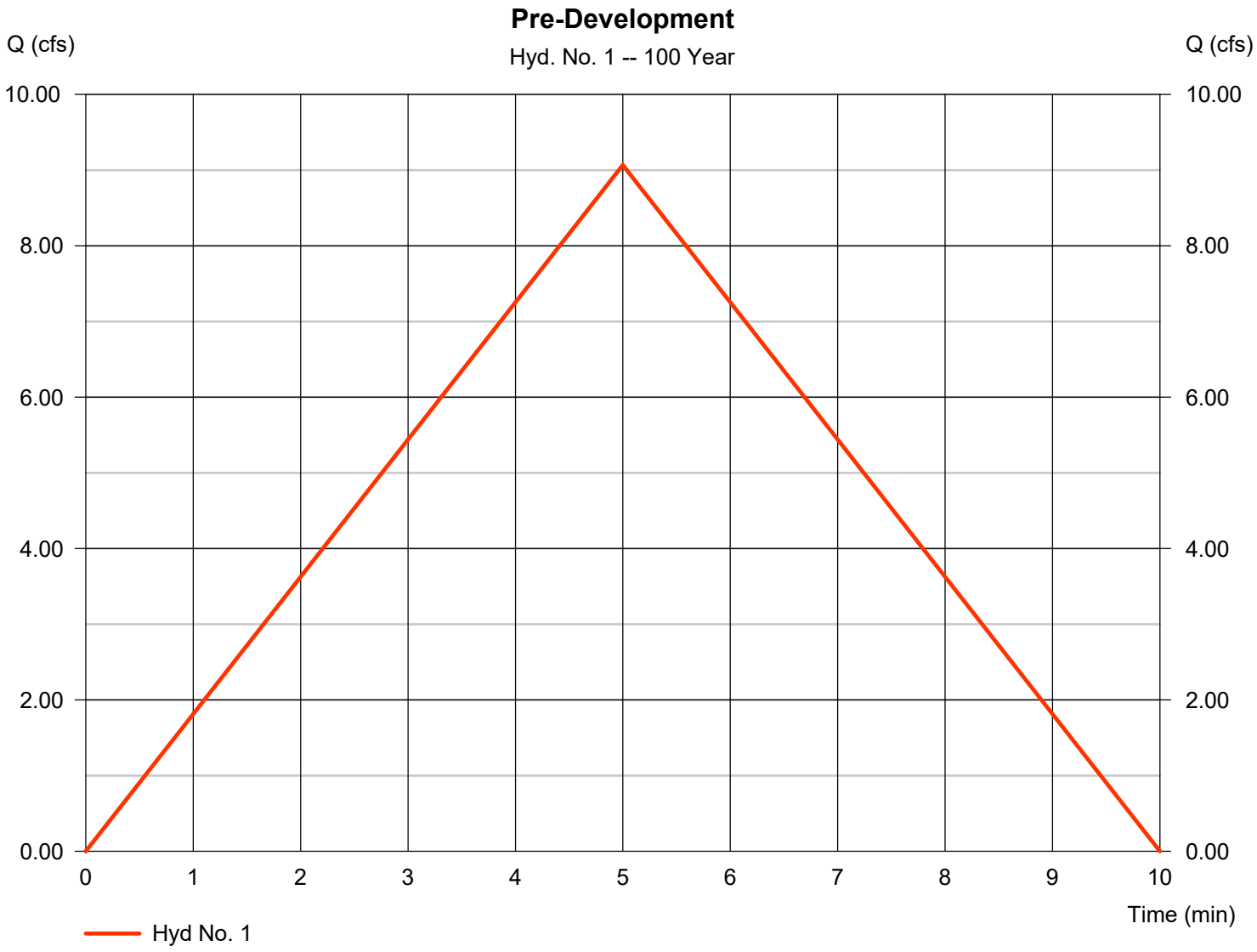
Hydrograph Report

Hyd. No. 1

Pre-Development

Hydrograph type	=	Rational	Peak discharge	=	9.068 cfs
Storm frequency	=	100 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	2,720 cuft
Drainage area	=	3.600 ac	Runoff coeff.	=	0.25*
Intensity	=	10.075 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Pulaski County.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(5.900 x 0.25) + (5.200 x 0.90)] / 3.600



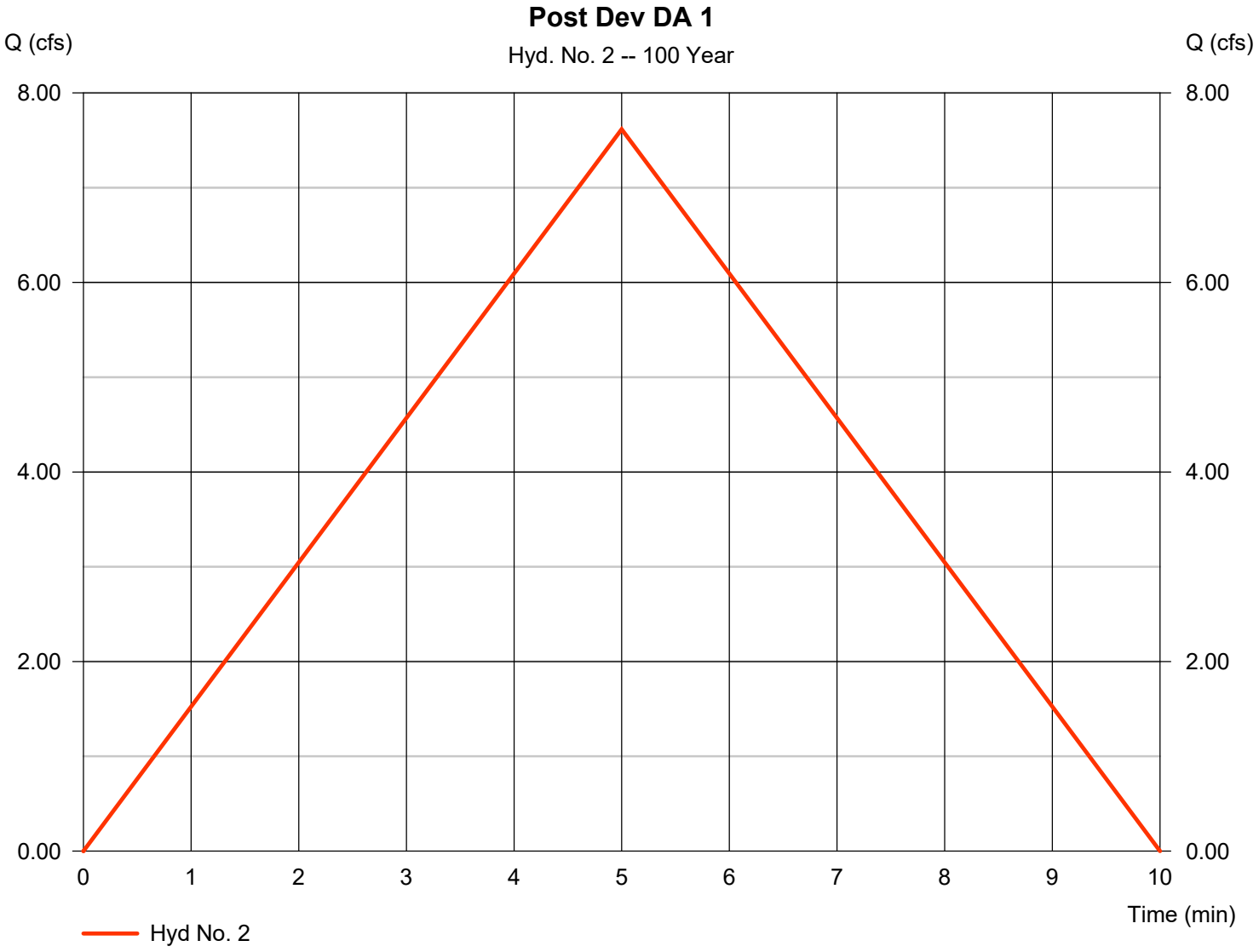
Hydrograph Report

Hyd. No. 2

Post Dev DA 1

Hydrograph type	=	Rational	Peak discharge	=	7.617 cfs
Storm frequency	=	100 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	2,285 cuft
Drainage area	=	1.200 ac	Runoff coeff.	=	0.63*
Intensity	=	10.075 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Pulaski County.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(0.700 x 0.90) + (0.500 x 0.25)] / 1.200



Hydrograph Report

Hyd. No. 3

Post Dev. DA 2

Hydrograph type	=	Rational	Peak discharge	=	14.02 cfs
Storm frequency	=	100 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	4,207 cuft
Drainage area	=	2.400 ac	Runoff coeff.	=	0.58*
Intensity	=	10.075 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Pulaski County.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.200 x 0.90) + (1.200 x 0.25)] / 2.400



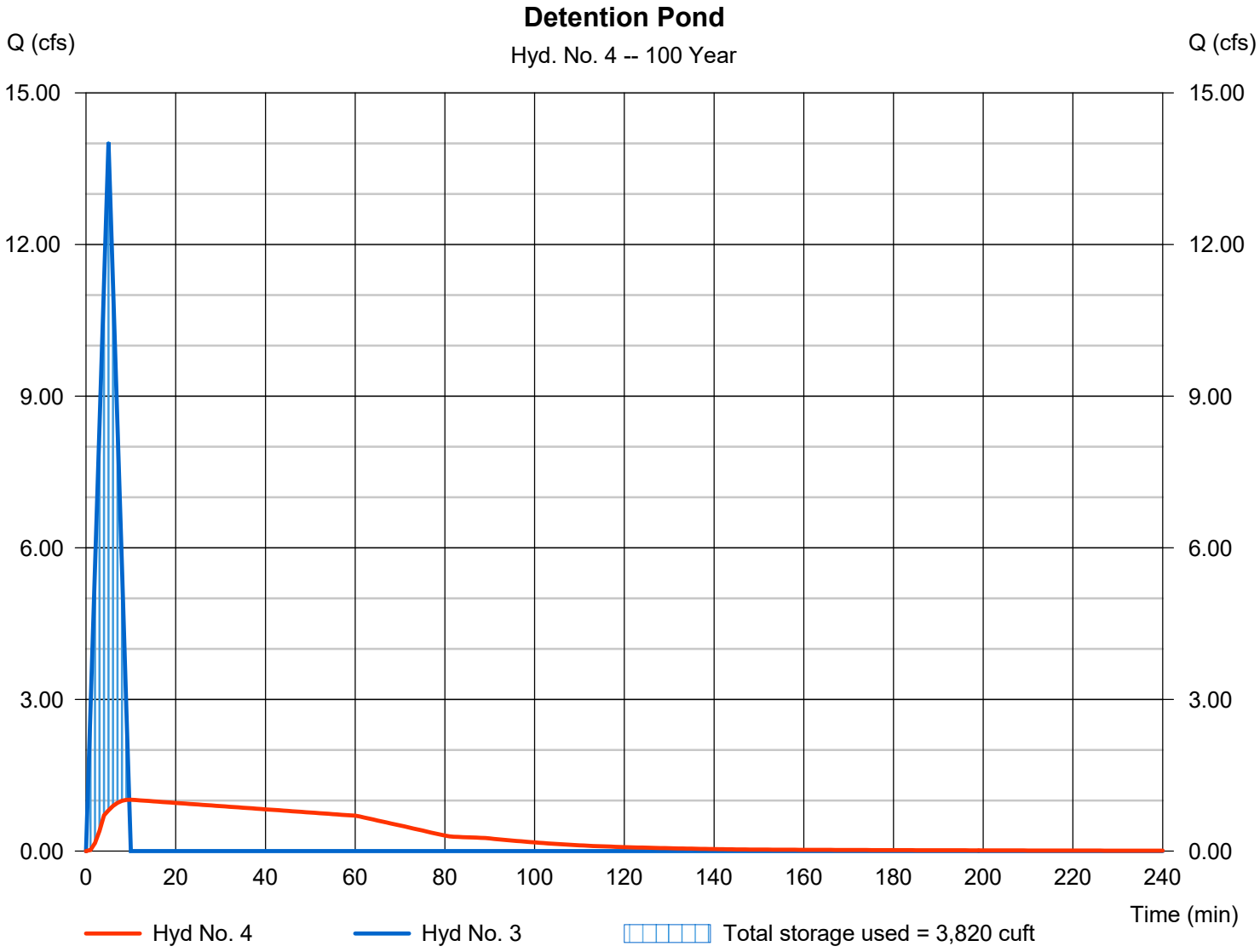
Hydrograph Report

Hyd. No. 4

Detention Pond

Hydrograph type	=	Reservoir	Peak discharge	=	1.016 cfs
Storm frequency	=	100 yrs	Time to peak	=	10 min
Time interval	=	1 min	Hyd. volume	=	4,203 cuft
Inflow hyd. No.	=	3 - Post Dev. DA 2	Max. Elevation	=	426.67 ft
Reservoir name	=	Det. Pond	Max. Storage	=	3,820 cuft

Storage Indication method used.



Hydrograph Report

Hyd. No. 5

Total Post Dev

Hydrograph type	= Combine	Peak discharge	= 8.423 cfs
Storm frequency	= 100 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 6,488 cuft
Inflow hyds.	= 2, 4	Contrib. drain. area	= 1.200 ac

