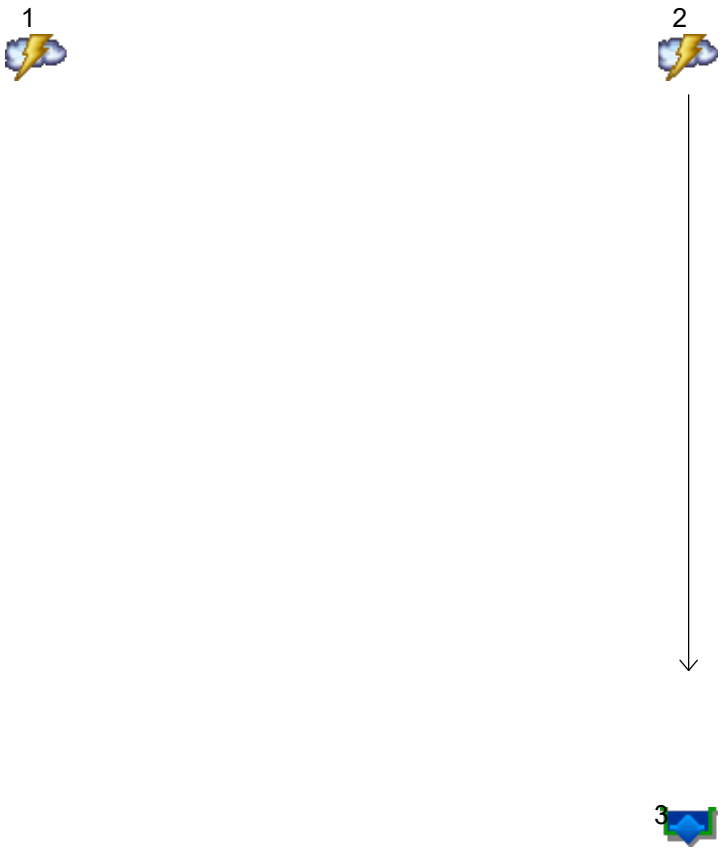
Watershed Model Schematic



Hydrograph Return Period Recap

Hyd. No.	Hydrograph type (origin)	Inflow hyd(s)	Peak Outflow (cfs)								Hydrograph Description
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
1	Rational	------	-------	17.06	-------	20.35	22.76	26.30	29.07	31.83	PRE
2	Rational	------	-------	45.97	-------	53.05	58.45	66.60	73.00	79.40	POST
3	Reservoir	2	-------	13.30	-------	15.70	17.53	20.38	22.58	25.53	2 NW POND 1

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

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	17.06	1	14	14,330	------	------	------	PRE
2	Rational	45.97	1	5	13,792	------	------	------	POST
3	Reservoir	13.30	1	9	13,787	2	382.08	10,153	2 NW POND 1

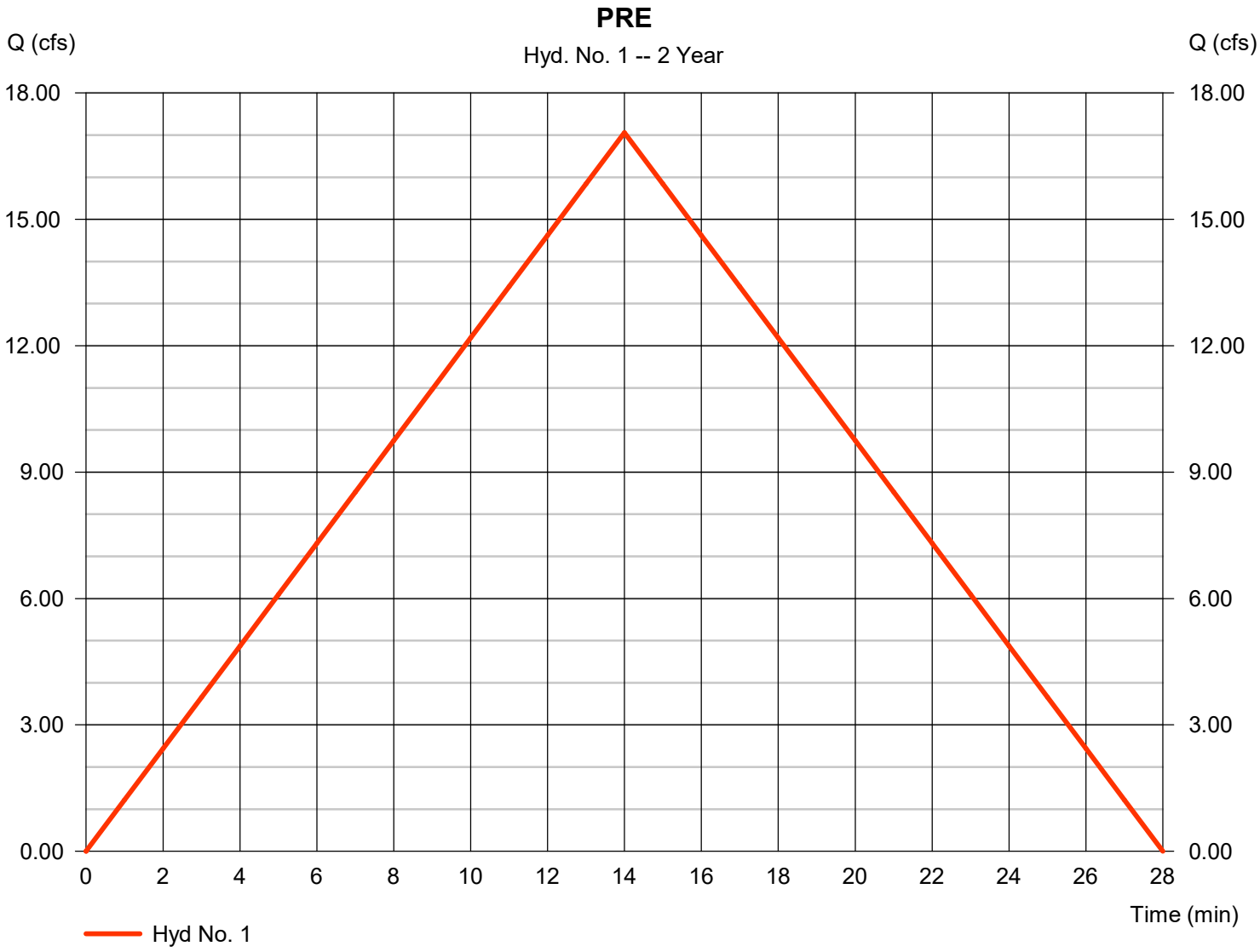
Hydrograph Report

Hyd. No. 1

PRE

Hydrograph type	=	Rational	Peak discharge	=	17.06 cfs
Storm frequency	=	2 yrs	Time to peak	=	14 min
Time interval	=	1 min	Hyd. volume	=	14,330 cuft
Drainage area	=	8.500 ac	Runoff coeff.	=	0.5*
Intensity	=	4.014 in/hr	Tc by User	=	14.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.600 x 0.40) + (0.160 x 0.95)] / 8.500



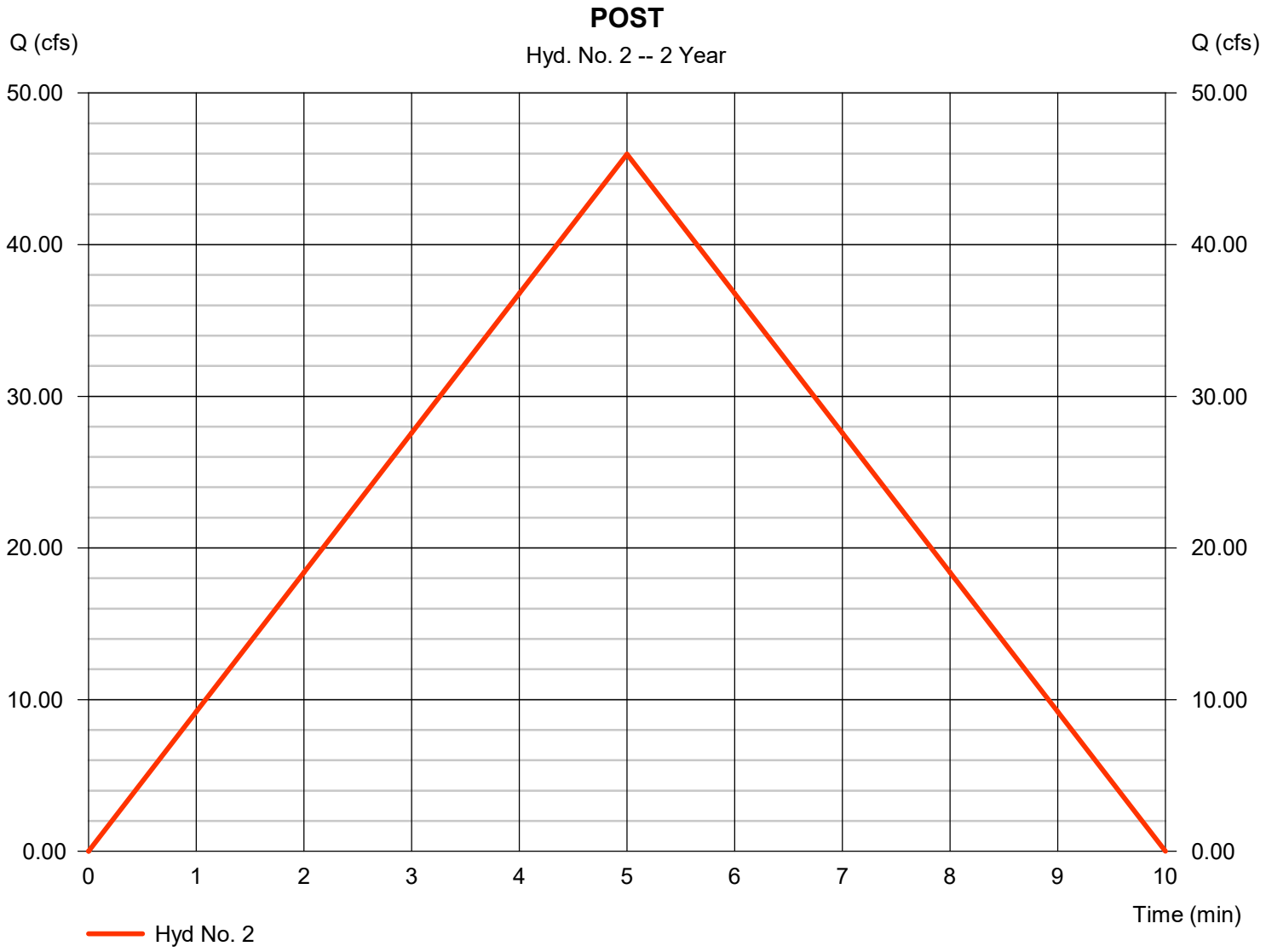
Hydrograph Report

Hyd. No. 2

POST

Hydrograph type	=	Rational	Peak discharge	=	45.97 cfs
Storm frequency	=	2 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	13,792 cuft
Drainage area	=	8.500 ac	Runoff coeff.	=	0.95*
Intensity	=	5.693 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(0.300 x 0.40) + (1.460 x 0.95)] / 8.500



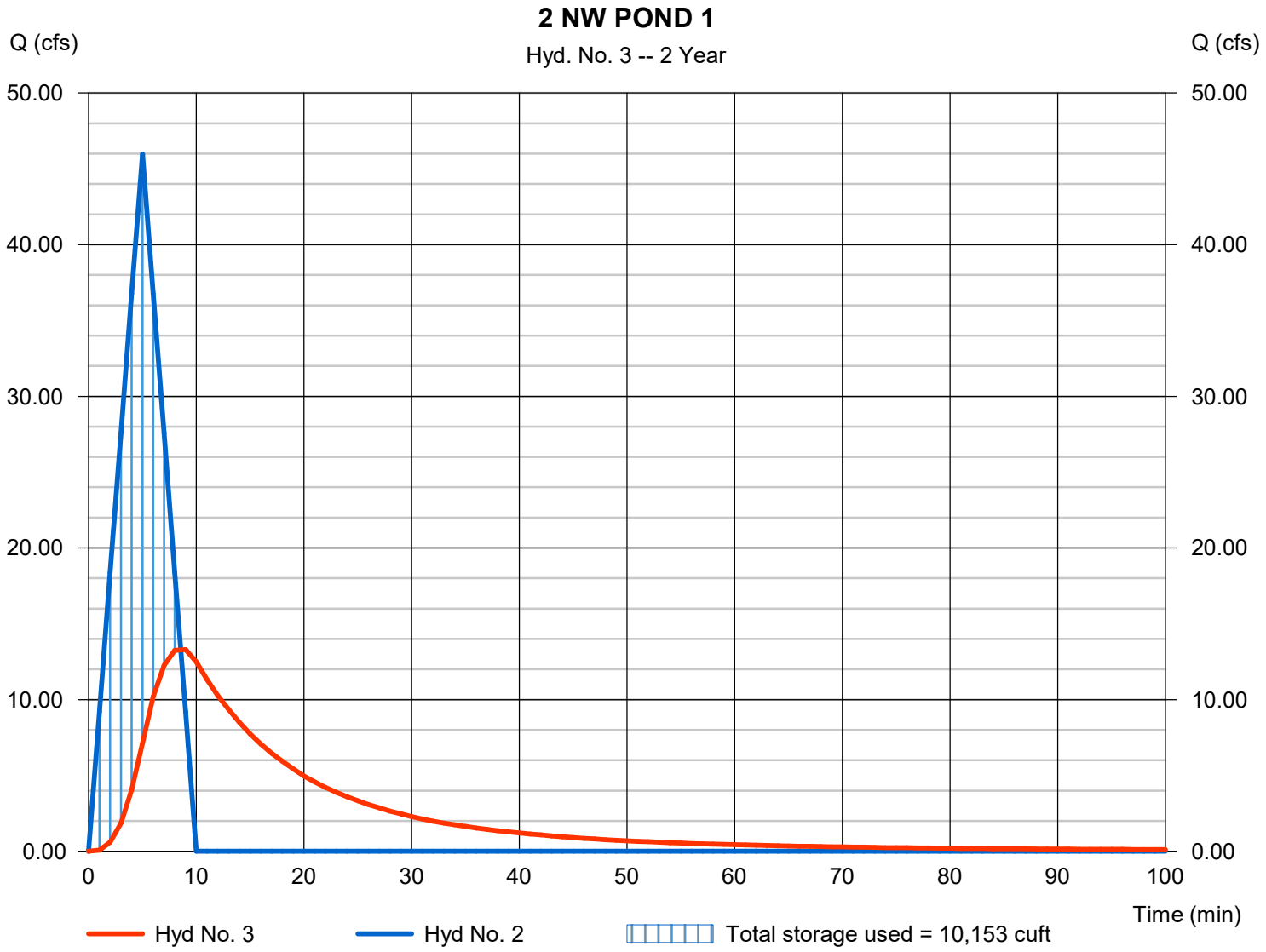
Hydrograph Report

Hyd. No. 3

2 NW POND 1

Hydrograph type	=	Reservoir	Peak discharge	=	13.30 cfs
Storm frequency	=	2 yrs	Time to peak	=	9 min
Time interval	=	1 min	Hyd. volume	=	13,787 cuft
Inflow hyd. No.	=	2 - POST	Max. Elevation	=	382.08 ft
Reservoir name	=	NW POND 1	Max. Storage	=	10,153 cuft

Storage Indication method used.



Pond Report

Pond No. 2 - NW POND 1

Pond Data

Trapezoid -Bottom L x W = 80.0 x 50.0 ft, Side slope = 3.00:1, Bottom elev. = 380.00 ft, Depth = 4.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	380.00	4,000	0	0
0.40	380.40	4,318	1,663	1,663
0.80	380.80	4,647	1,793	3,456
1.20	381.20	4,988	1,927	5,382
1.60	381.60	5,340	2,065	7,448
2.00	382.00	5,704	2,208	9,656
2.40	382.40	6,079	2,356	12,012
2.80	382.80	6,466	2,509	14,521
3.20	383.20	6,865	2,666	17,187
3.60	383.60	7,275	2,827	20,014
4.00	384.00	7,696	2,994	23,008

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)	= 380.00	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)	= 1.70	20.00	0.00	0.00
Crest El. (ft)	= 380.00	383.10	0.00	0.00
Weir Coeff.	= 2.60	2.60	3.33	3.33
Weir Type	= Broad	Broad	---	---
Multi-Stage	= No	No	No	No

Exfil.(in/hr) = 0.000 (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	380.00	---	---	---	---	0.00	0.00	---	---	---	---	0.000
0.40	1,663	380.40	---	---	---	---	1.12	0.00	---	---	---	---	1.118
0.80	3,456	380.80	---	---	---	---	3.16	0.00	---	---	---	---	3.163
1.20	5,382	381.20	---	---	---	---	5.81	0.00	---	---	---	---	5.810
1.60	7,448	381.60	---	---	---	---	8.95	0.00	---	---	---	---	8.946
2.00	9,656	382.00	---	---	---	---	12.50	0.00	---	---	---	---	12.50
2.40	12,012	382.40	---	---	---	---	16.43	0.00	---	---	---	---	16.43
2.80	14,521	382.80	---	---	---	---	20.71	0.00	---	---	---	---	20.71
3.20	17,187	383.20	---	---	---	---	25.30	1.64	---	---	---	---	26.95
3.60	20,014	383.60	---	---	---	---	30.19	18.38	---	---	---	---	48.58
4.00	23,008	384.00	---	---	---	---	35.36	44.40	---	---	---	---	79.76

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

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	20.35	1	14	17,096	------	------	------	PRE
2	Rational	53.05	1	5	15,916	------	------	------	POST
3	Reservoir	15.70	1	9	15,911	2	382.33	11,589	2 NW POND 1

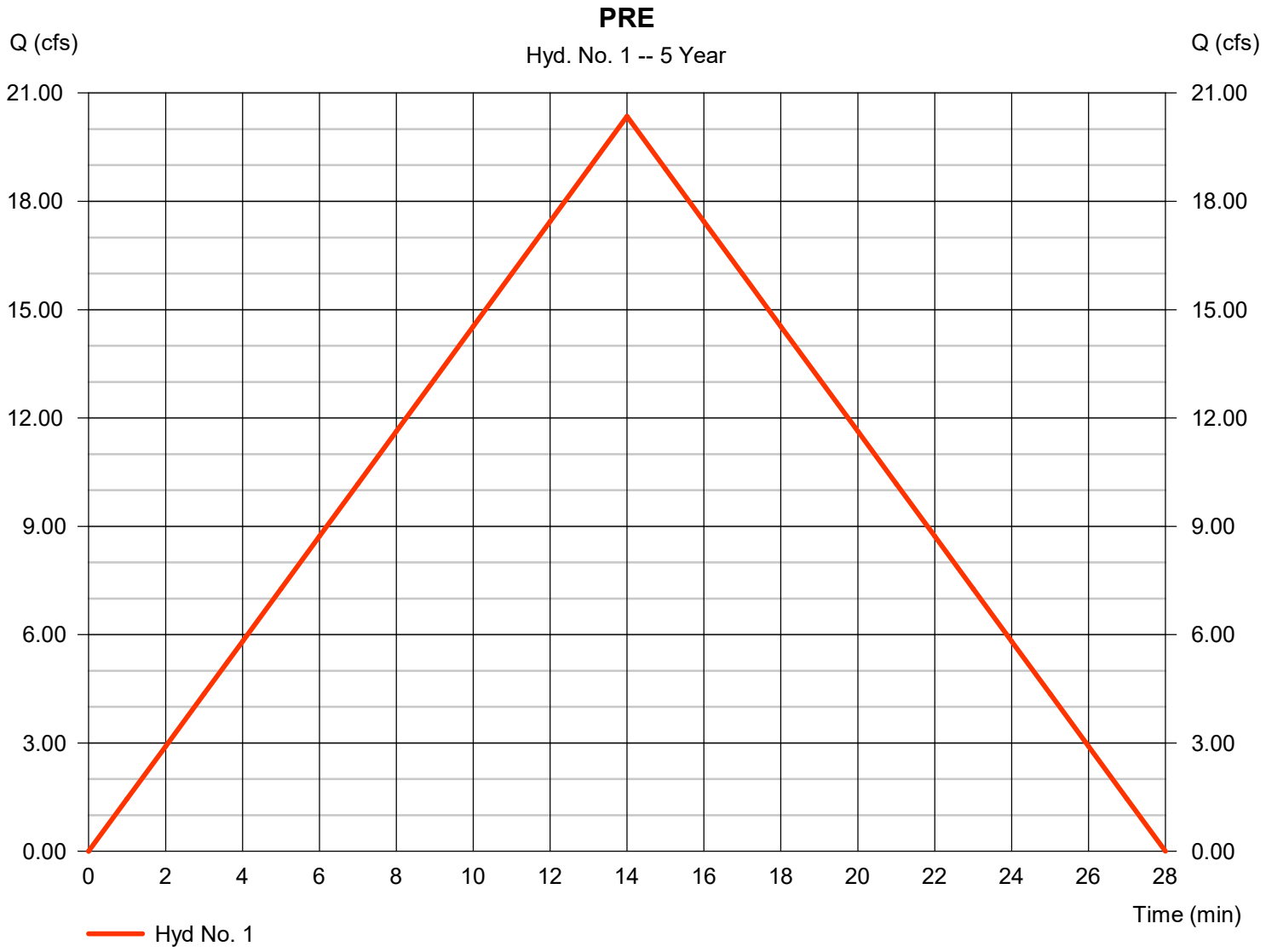
Hydrograph Report

Hyd. No. 1

PRE

Hydrograph type	=	Rational	Peak discharge	=	20.35 cfs
Storm frequency	=	5 yrs	Time to peak	=	14 min
Time interval	=	1 min	Hyd. volume	=	17,096 cuft
Drainage area	=	8.500 ac	Runoff coeff.	=	0.5*
Intensity	=	4.789 in/hr	Tc by User	=	14.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.600 x 0.40) + (0.160 x 0.95)] / 8.500



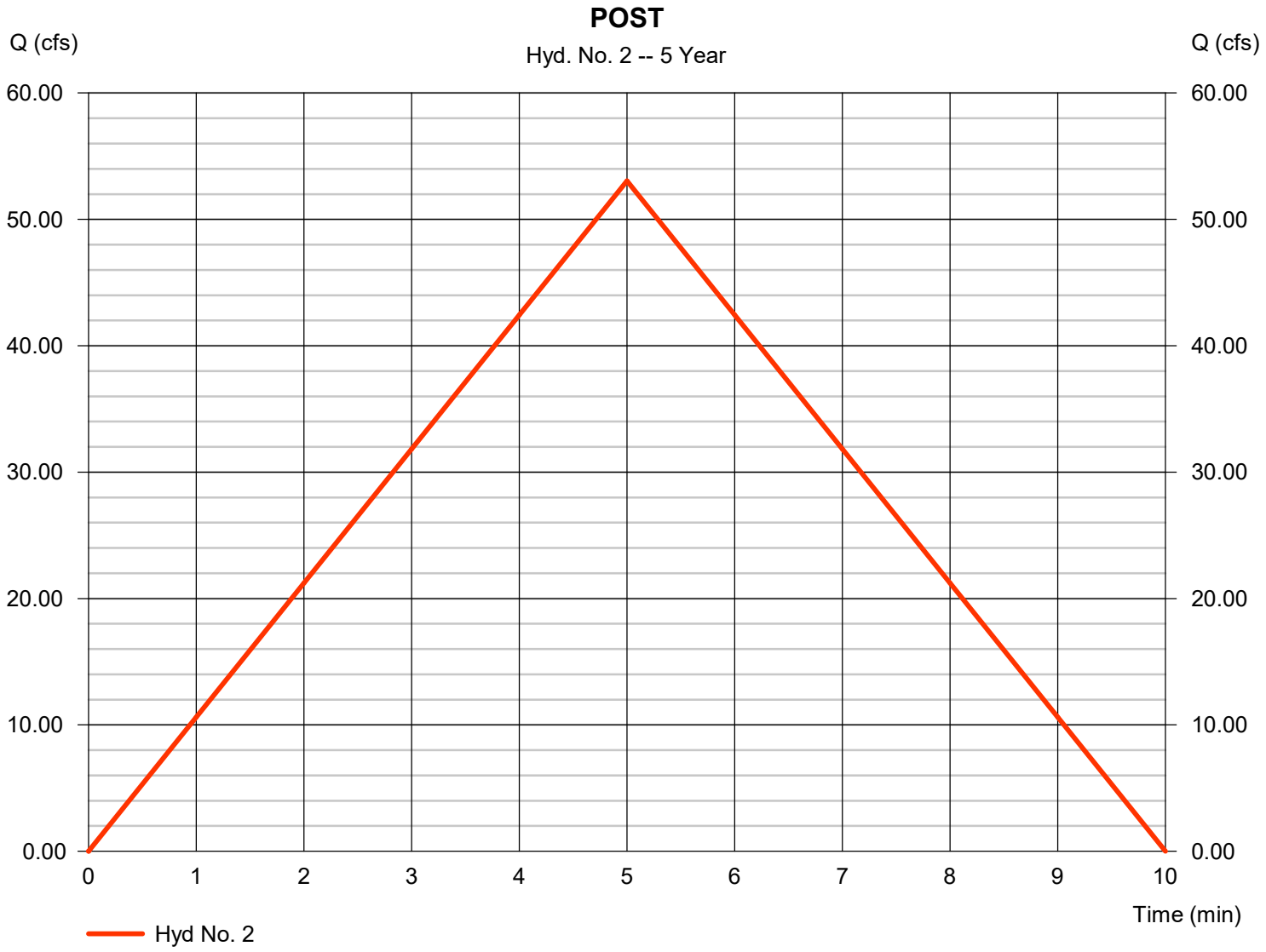
Hydrograph Report

Hyd. No. 2

POST

Hydrograph type	=	Rational	Peak discharge	=	53.05 cfs
Storm frequency	=	5 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	15,916 cuft
Drainage area	=	8.500 ac	Runoff coeff.	=	0.95*
Intensity	=	6.570 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(0.300 x 0.40) + (1.460 x 0.95)] / 8.500



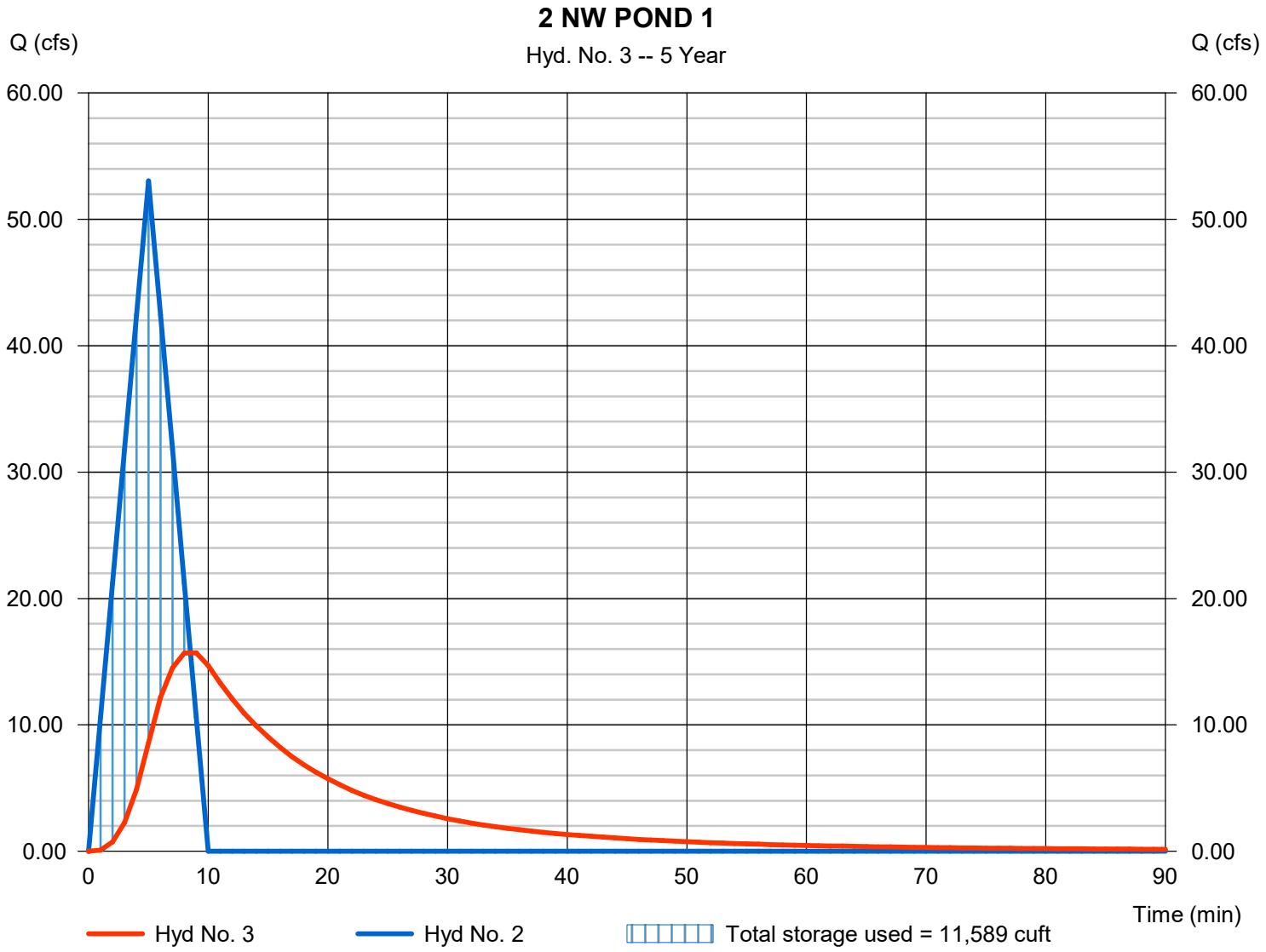
Hydrograph Report

Hyd. No. 3

2 NW POND 1

Hydrograph type	=	Reservoir	Peak discharge	=	15.70 cfs
Storm frequency	=	5 yrs	Time to peak	=	9 min
Time interval	=	1 min	Hyd. volume	=	15,911 cuft
Inflow hyd. No.	=	2 - POST	Max. Elevation	=	382.33 ft
Reservoir name	=	NW POND 1	Max. Storage	=	11,589 cuft

Storage Indication method used.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

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	22.76	1	14	19,117	------	------	------	PRE
2	Rational	58.45	1	5	17,534	------	------	------	POST
3	Reservoir	17.53	1	8	17,530	2	382.51	12,677	2 NW POND 1

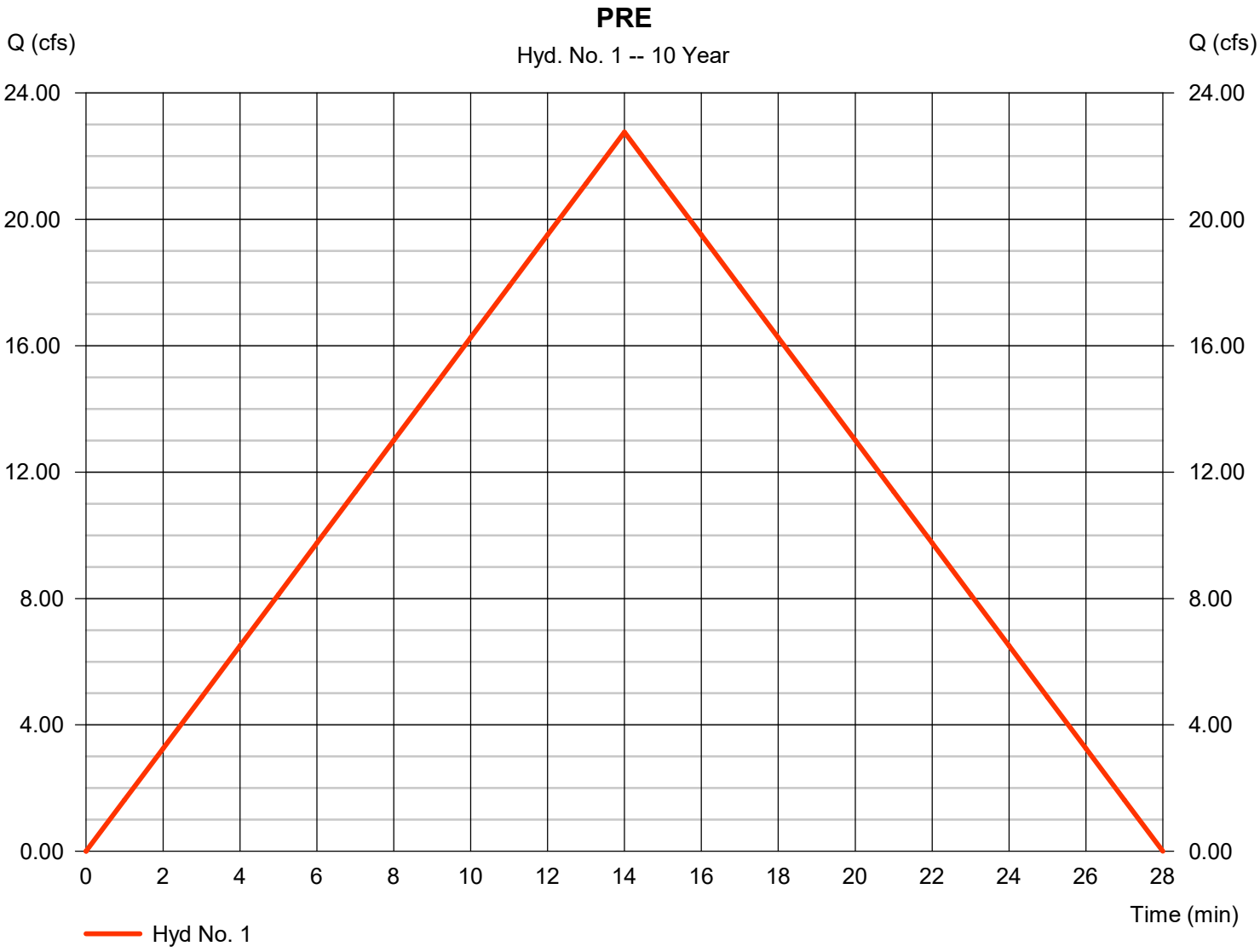
Hydrograph Report

Hyd. No. 1

PRE

Hydrograph type	=	Rational	Peak discharge	=	22.76 cfs
Storm frequency	=	10 yrs	Time to peak	=	14 min
Time interval	=	1 min	Hyd. volume	=	19,117 cuft
Drainage area	=	8.500 ac	Runoff coeff.	=	0.5*
Intensity	=	5.355 in/hr	Tc by User	=	14.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.600 x 0.40) + (0.160 x 0.95)] / 8.500



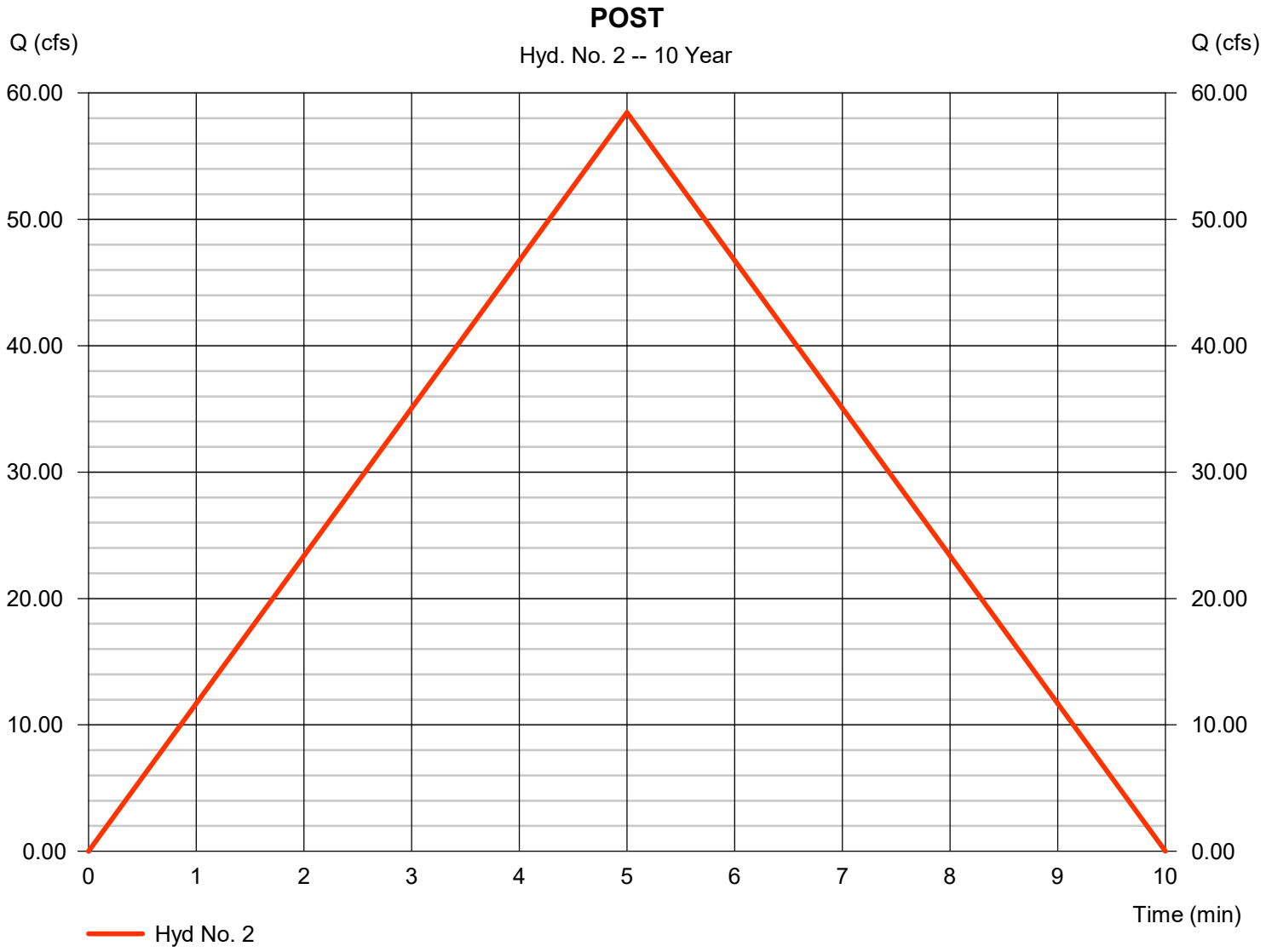
Hydrograph Report

Hyd. No. 2

POST

Hydrograph type	=	Rational	Peak discharge	=	58.45 cfs
Storm frequency	=	10 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	17,534 cuft
Drainage area	=	8.500 ac	Runoff coeff.	=	0.95*
Intensity	=	7.238 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(0.300 x 0.40) + (1.460 x 0.95)] / 8.500



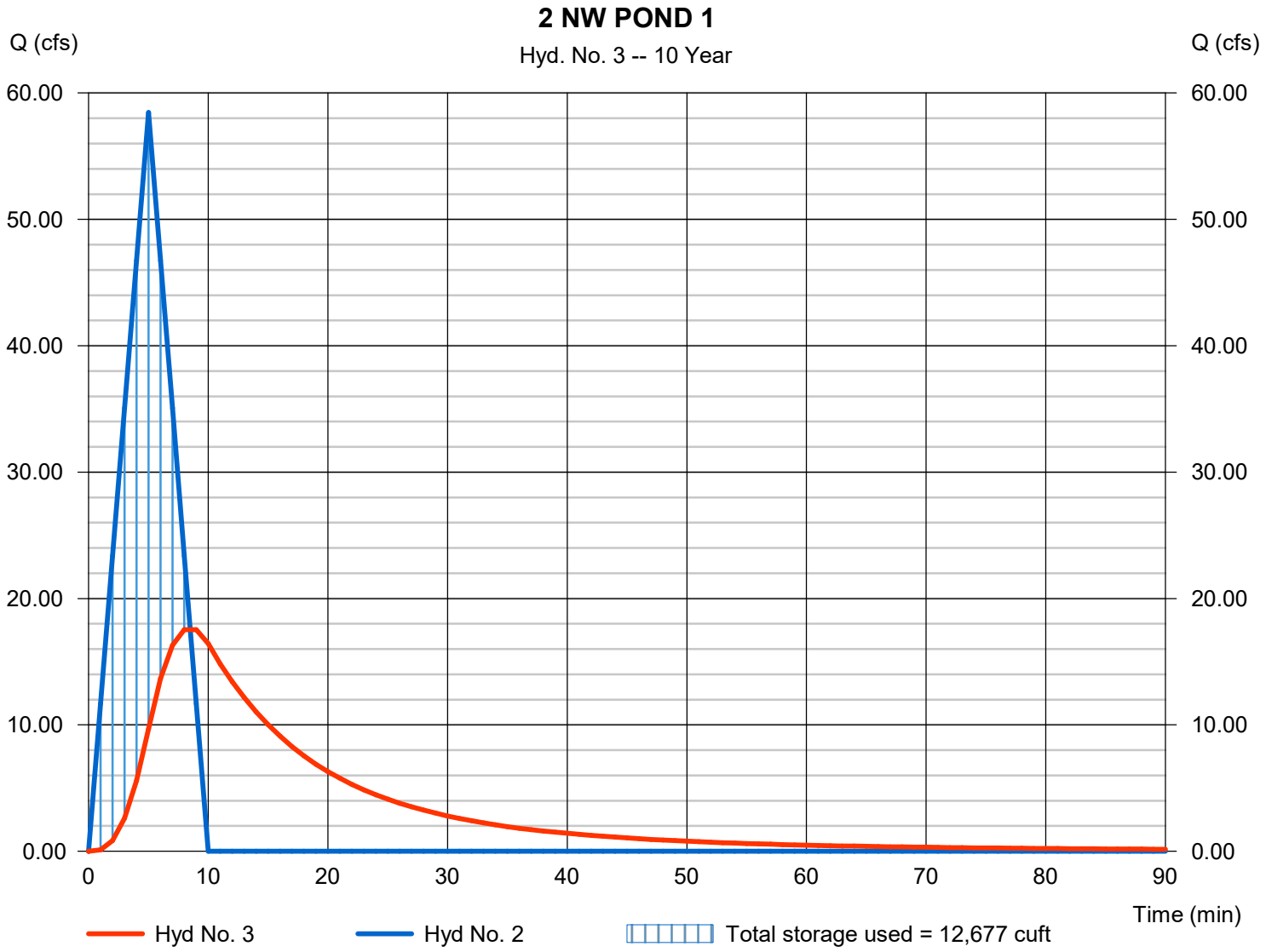
Hydrograph Report

Hyd. No. 3

2 NW POND 1

Hydrograph type	=	Reservoir	Peak discharge	=	17.53 cfs
Storm frequency	=	10 yrs	Time to peak	=	8 min
Time interval	=	1 min	Hyd. volume	=	17,530 cuft
Inflow hyd. No.	=	2 - POST	Max. Elevation	=	382.51 ft
Reservoir name	=	NW POND 1	Max. Storage	=	12,677 cuft

Storage Indication method used.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

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	26.30	1	14	22,090	------	------	------	PRE
2	Rational	66.60	1	5	19,979	------	------	------	POST
3	Reservoir	20.38	1	8	19,974	2	382.77	14,334	2 NW POND 1

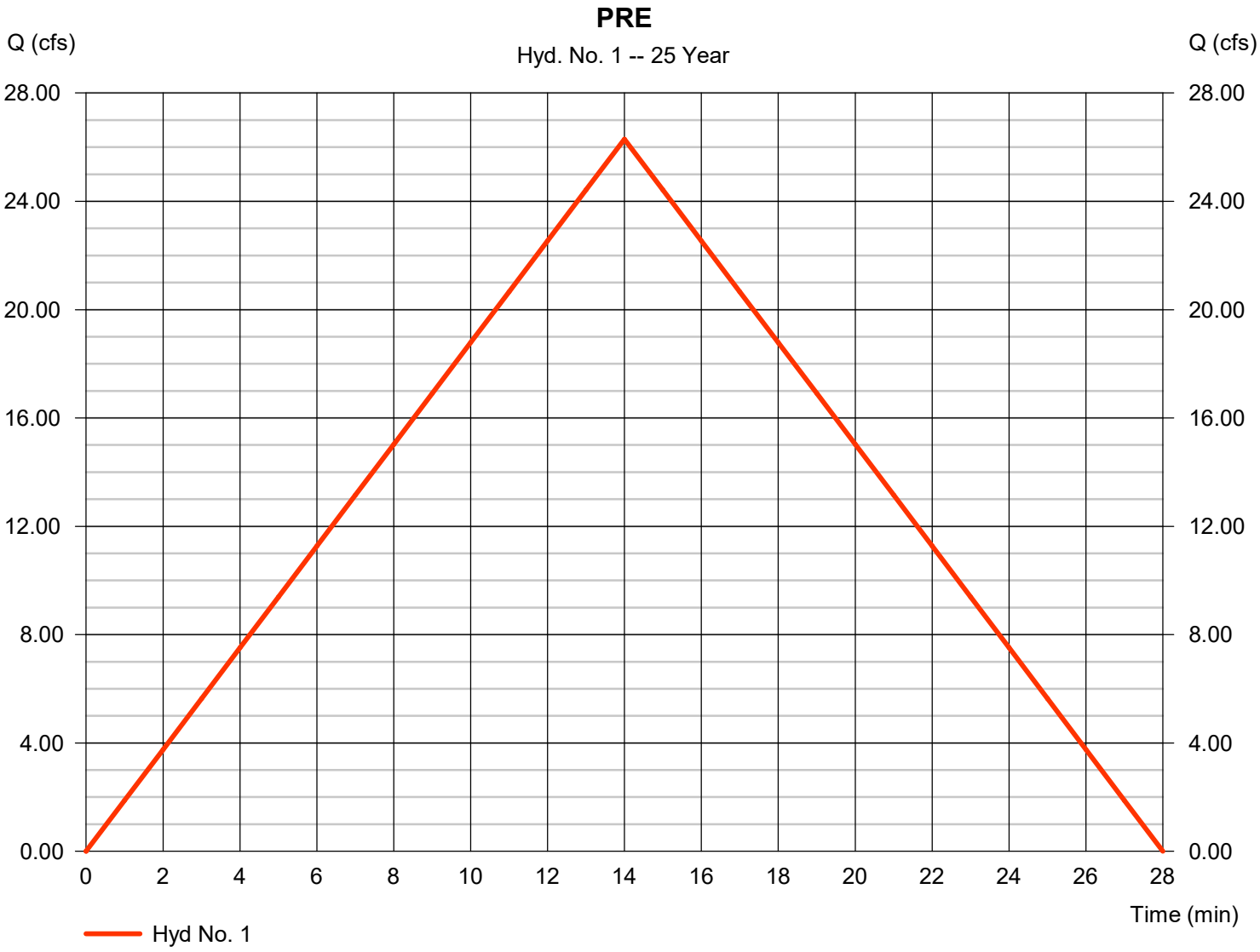
Hydrograph Report

Hyd. No. 1

PRE

Hydrograph type	=	Rational	Peak discharge	=	26.30 cfs
Storm frequency	=	25 yrs	Time to peak	=	14 min
Time interval	=	1 min	Hyd. volume	=	22,090 cuft
Drainage area	=	8.500 ac	Runoff coeff.	=	0.5*
Intensity	=	6.188 in/hr	Tc by User	=	14.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.600 x 0.40) + (0.160 x 0.95)] / 8.500



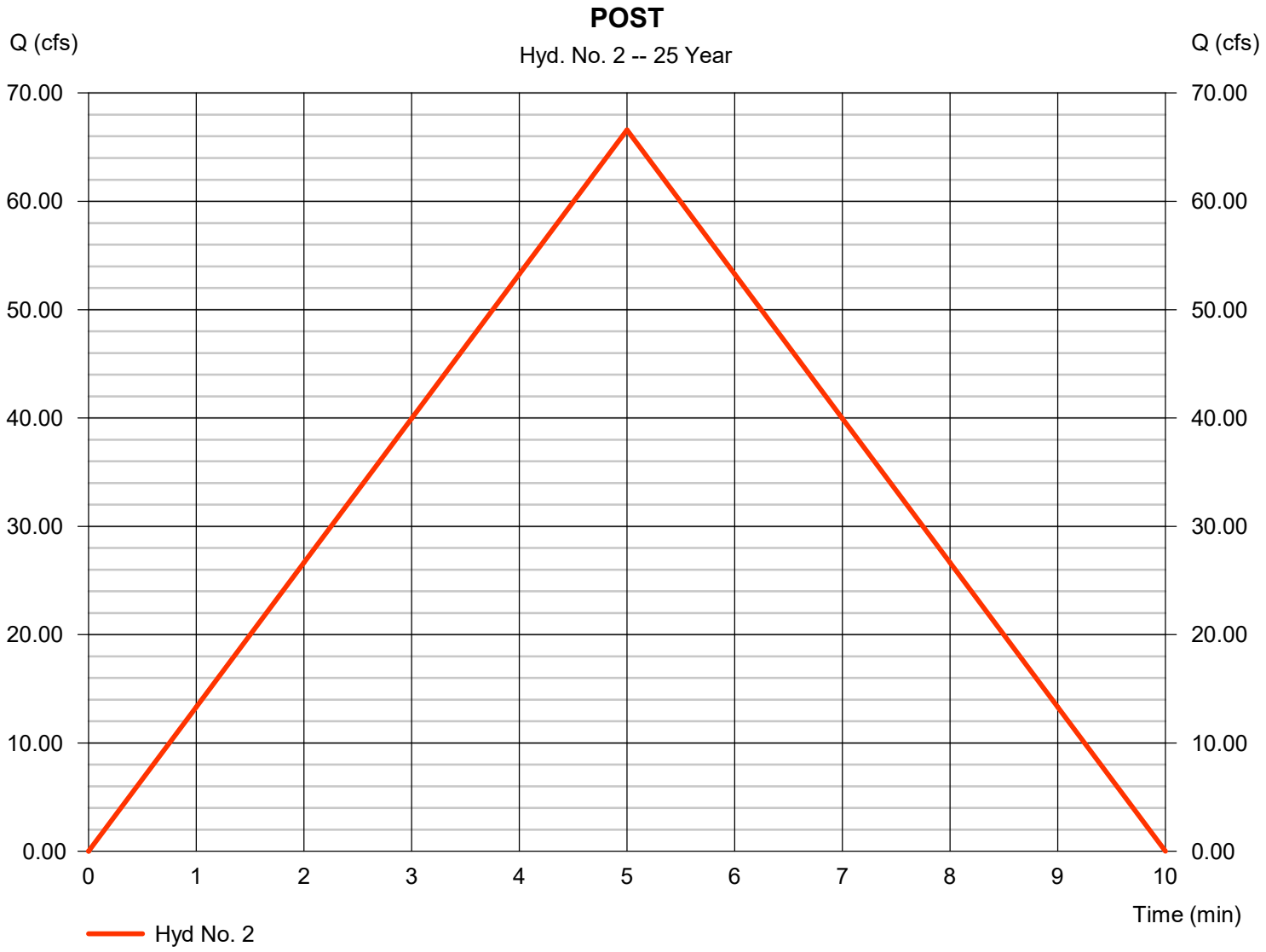
Hydrograph Report

Hyd. No. 2

POST

Hydrograph type	=	Rational	Peak discharge	=	66.60 cfs
Storm frequency	=	25 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	19,979 cuft
Drainage area	=	8.500 ac	Runoff coeff.	=	0.95*
Intensity	=	8.247 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(0.300 x 0.40) + (1.460 x 0.95)] / 8.500



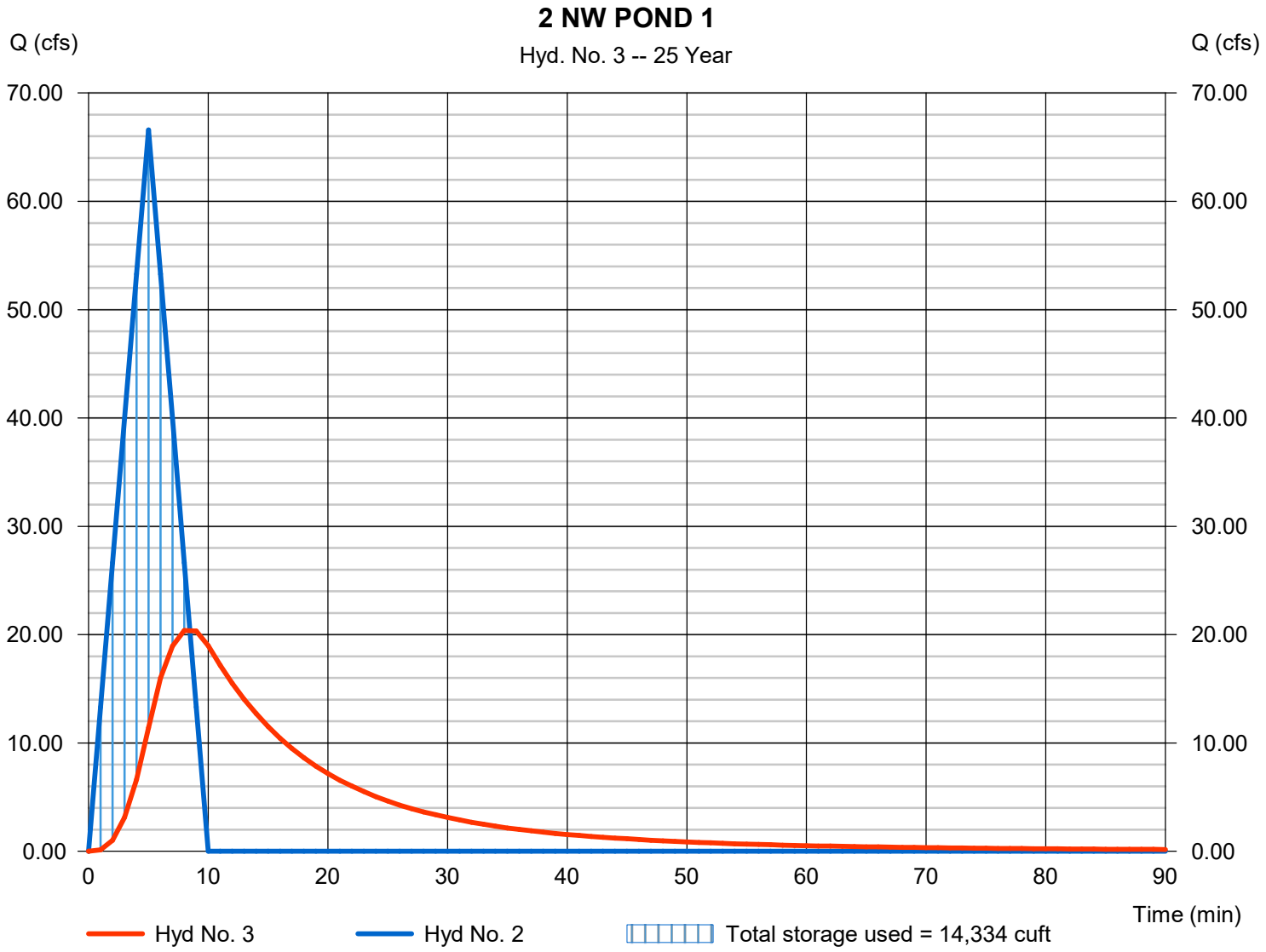
Hydrograph Report

Hyd. No. 3

2 NW POND 1

Hydrograph type	=	Reservoir	Peak discharge	=	20.38 cfs
Storm frequency	=	25 yrs	Time to peak	=	8 min
Time interval	=	1 min	Hyd. volume	=	19,974 cuft
Inflow hyd. No.	=	2 - POST	Max. Elevation	=	382.77 ft
Reservoir name	=	NW POND 1	Max. Storage	=	14,334 cuft

Storage Indication method used.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

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	29.07	1	14	24,417	------	------	------	PRE
2	Rational	73.00	1	5	21,901	------	------	------	POST
3	Reservoir	22.58	1	8	21,896	2	382.97	15,631	2 NW POND 1

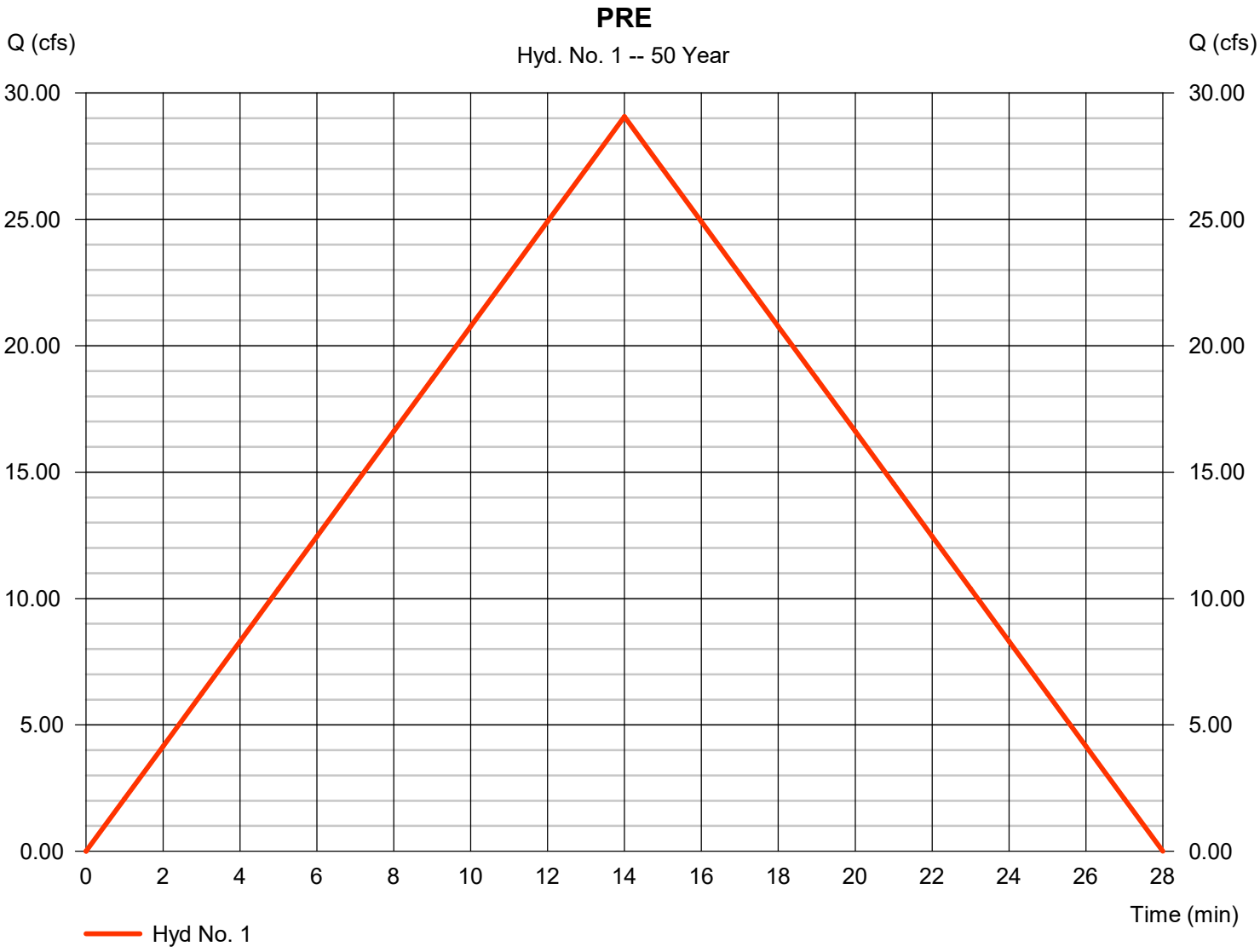
Hydrograph Report

Hyd. No. 1

PRE

Hydrograph type	=	Rational	Peak discharge	=	29.07 cfs
Storm frequency	=	50 yrs	Time to peak	=	14 min
Time interval	=	1 min	Hyd. volume	=	24,417 cuft
Drainage area	=	8.500 ac	Runoff coeff.	=	0.5*
Intensity	=	6.840 in/hr	Tc by User	=	14.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.600 x 0.40) + (0.160 x 0.95)] / 8.500



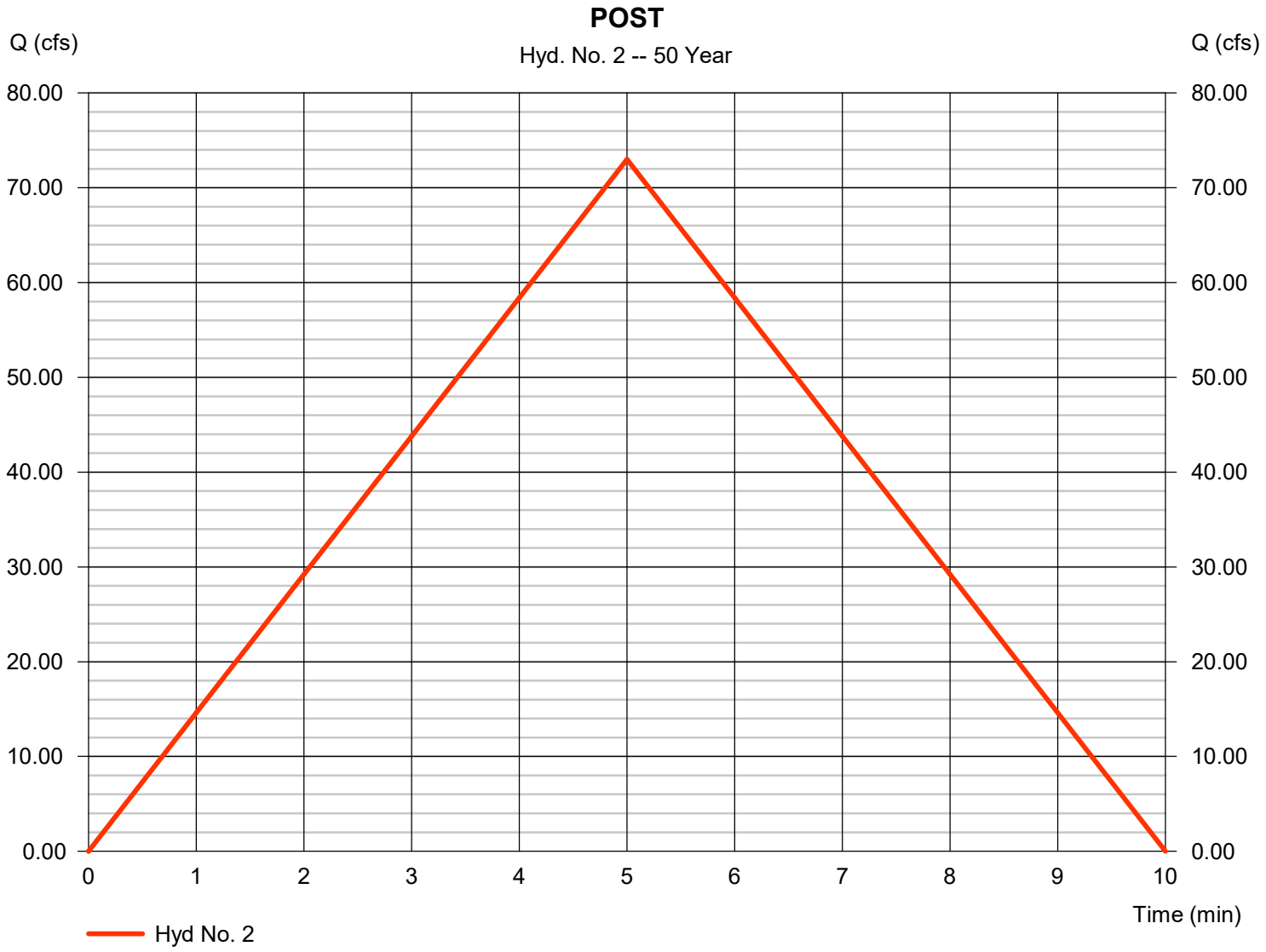
Hydrograph Report

Hyd. No. 2

POST

Hydrograph type	=	Rational	Peak discharge	=	73.00 cfs
Storm frequency	=	50 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	21,901 cuft
Drainage area	=	8.500 ac	Runoff coeff.	=	0.95*
Intensity	=	9.041 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(0.300 x 0.40) + (1.460 x 0.95)] / 8.500



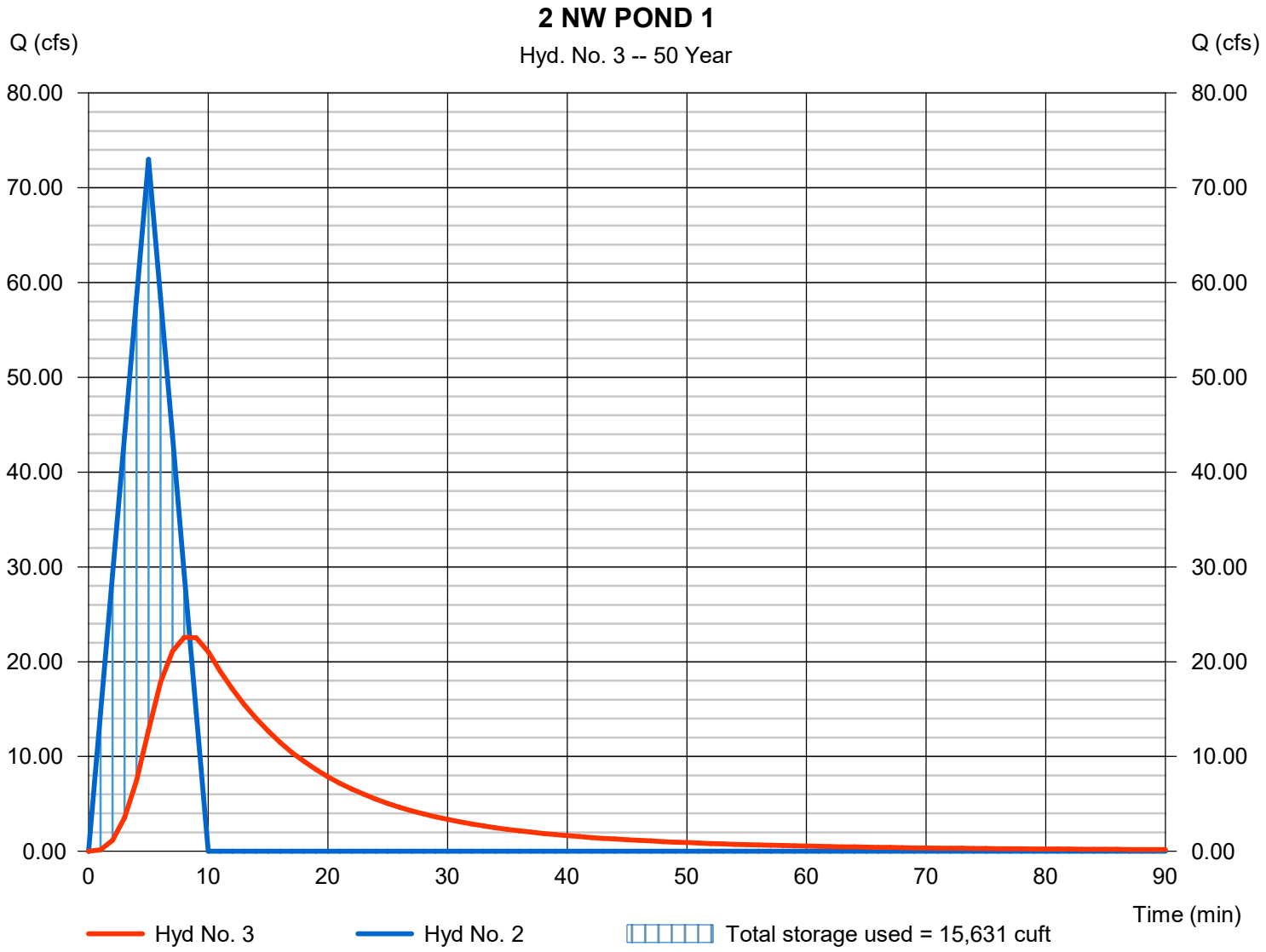
Hydrograph Report

Hyd. No. 3

2 NW POND 1

Hydrograph type	=	Reservoir	Peak discharge	=	22.58 cfs
Storm frequency	=	50 yrs	Time to peak	=	8 min
Time interval	=	1 min	Hyd. volume	=	21,896 cuft
Inflow hyd. No.	=	2 - POST	Max. Elevation	=	382.97 ft
Reservoir name	=	NW POND 1	Max. Storage	=	15,631 cuft

Storage Indication method used.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

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	31.83	1	14	26,734	------	------	------	PRE
2	Rational	79.40	1	5	23,820	------	------	------	POST
3	Reservoir	25.53	1	8	23,815	2	383.16	16,904	2 NW POND 1

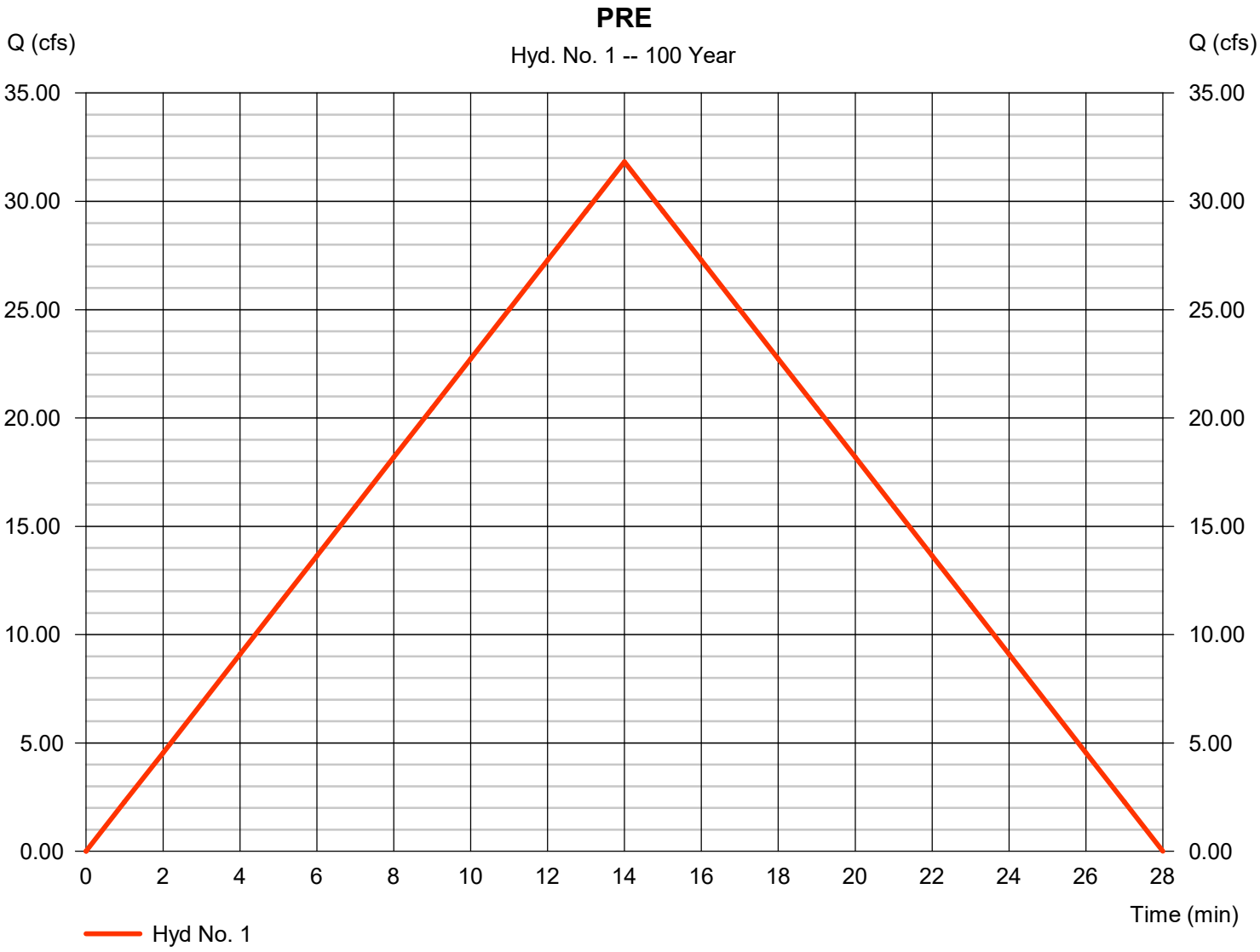
Hydrograph Report

Hyd. No. 1

PRE

Hydrograph type	=	Rational	Peak discharge	=	31.83 cfs
Storm frequency	=	100 yrs	Time to peak	=	14 min
Time interval	=	1 min	Hyd. volume	=	26,734 cuft
Drainage area	=	8.500 ac	Runoff coeff.	=	0.5*
Intensity	=	7.488 in/hr	Tc by User	=	14.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.600 x 0.40) + (0.160 x 0.95)] / 8.500



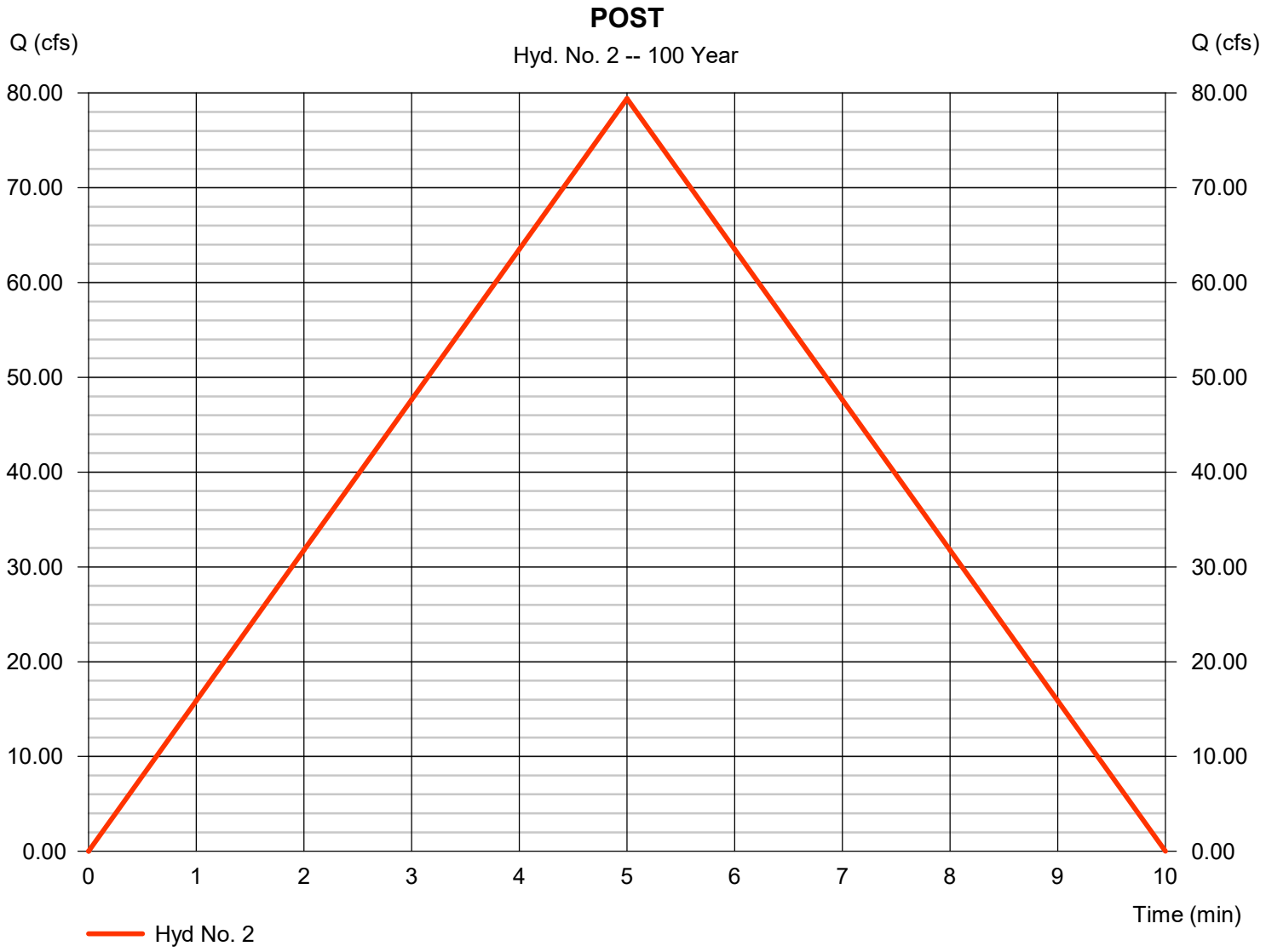
Hydrograph Report

Hyd. No. 2

POST

Hydrograph type	=	Rational	Peak discharge	=	79.40 cfs
Storm frequency	=	100 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	23,820 cuft
Drainage area	=	8.500 ac	Runoff coeff.	=	0.95*
Intensity	=	9.833 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(0.300 x 0.40) + (1.460 x 0.95)] / 8.500



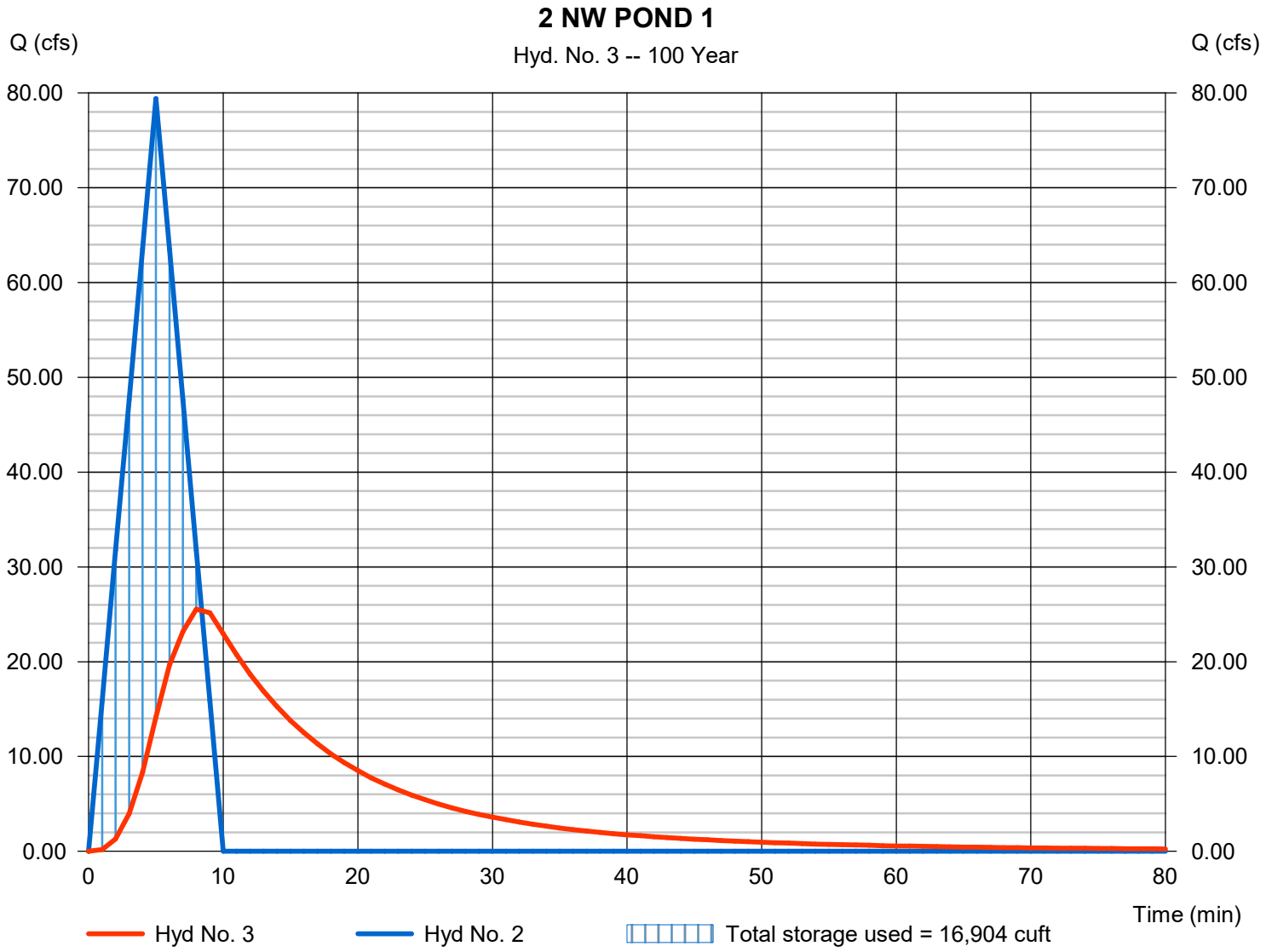
Hydrograph Report

Hyd. No. 3

2 NW POND 1

Hydrograph type	=	Reservoir	Peak discharge	=	25.53 cfs
Storm frequency	=	100 yrs	Time to peak	=	8 min
Time interval	=	1 min	Hyd. volume	=	23,815 cuft
Inflow hyd. No.	=	2 - POST	Max. Elevation	=	383.16 ft
Reservoir name	=	NW POND 1	Max. Storage	=	16,904 cuft

Storage Indication method used.



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