

Hydrograph Report

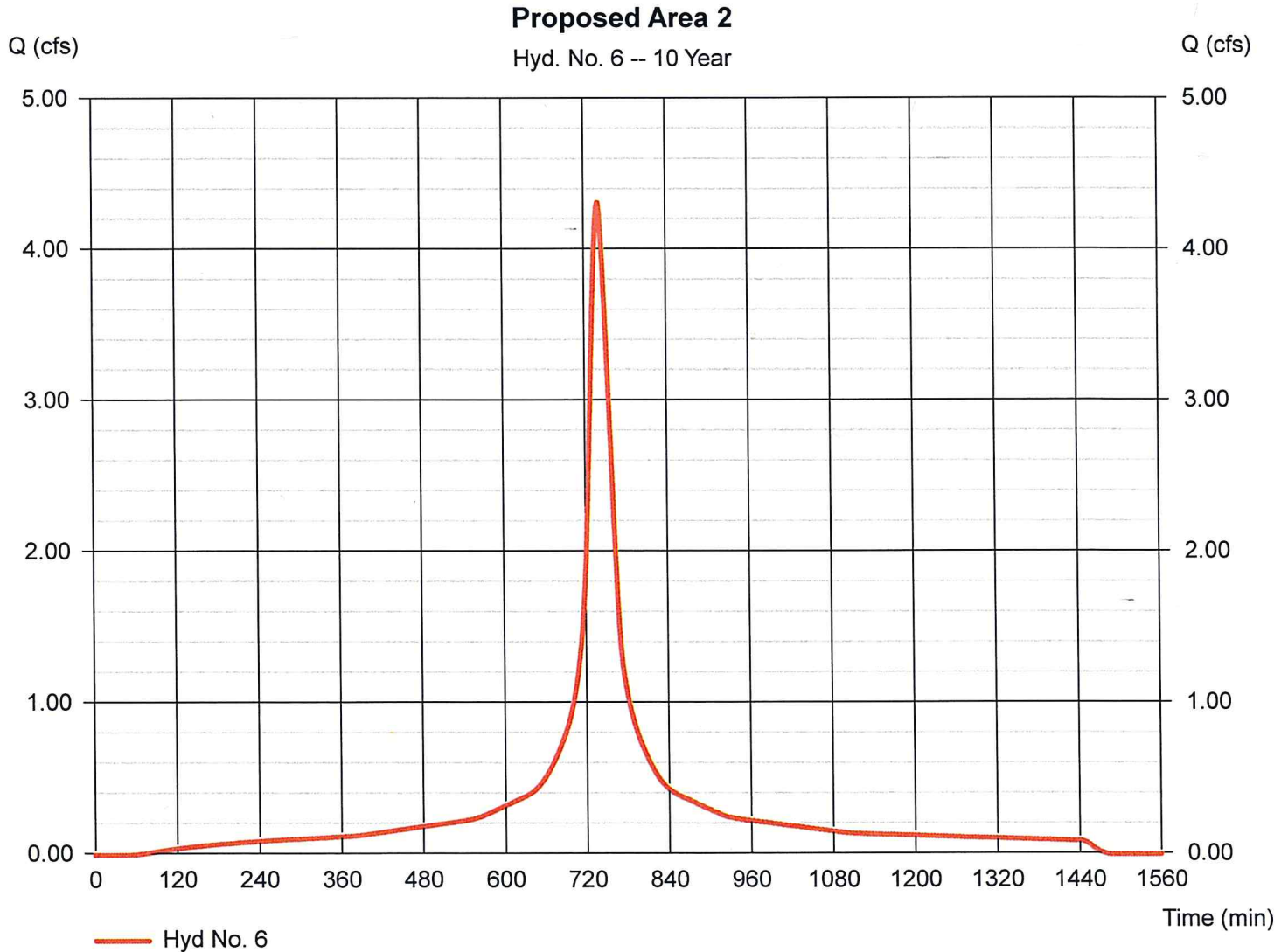
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

Thursday, Jun 20, 2024

Hyd. No. 6

Proposed Area 2

Hydrograph type	= SCS Runoff	Peak discharge	= 4.317 cfs
Storm frequency	= 10 yrs	Time to peak	= 741 min
Time interval	= 1 min	Hyd. volume	= 27,408 cuft
Drainage area	= 1.540 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 28.89 min
Total precip.	= 5.14 in	Distribution	= Custom
Storm duration	= NOAA Type D Distribution 1 min.cds	Shape factor	= 484



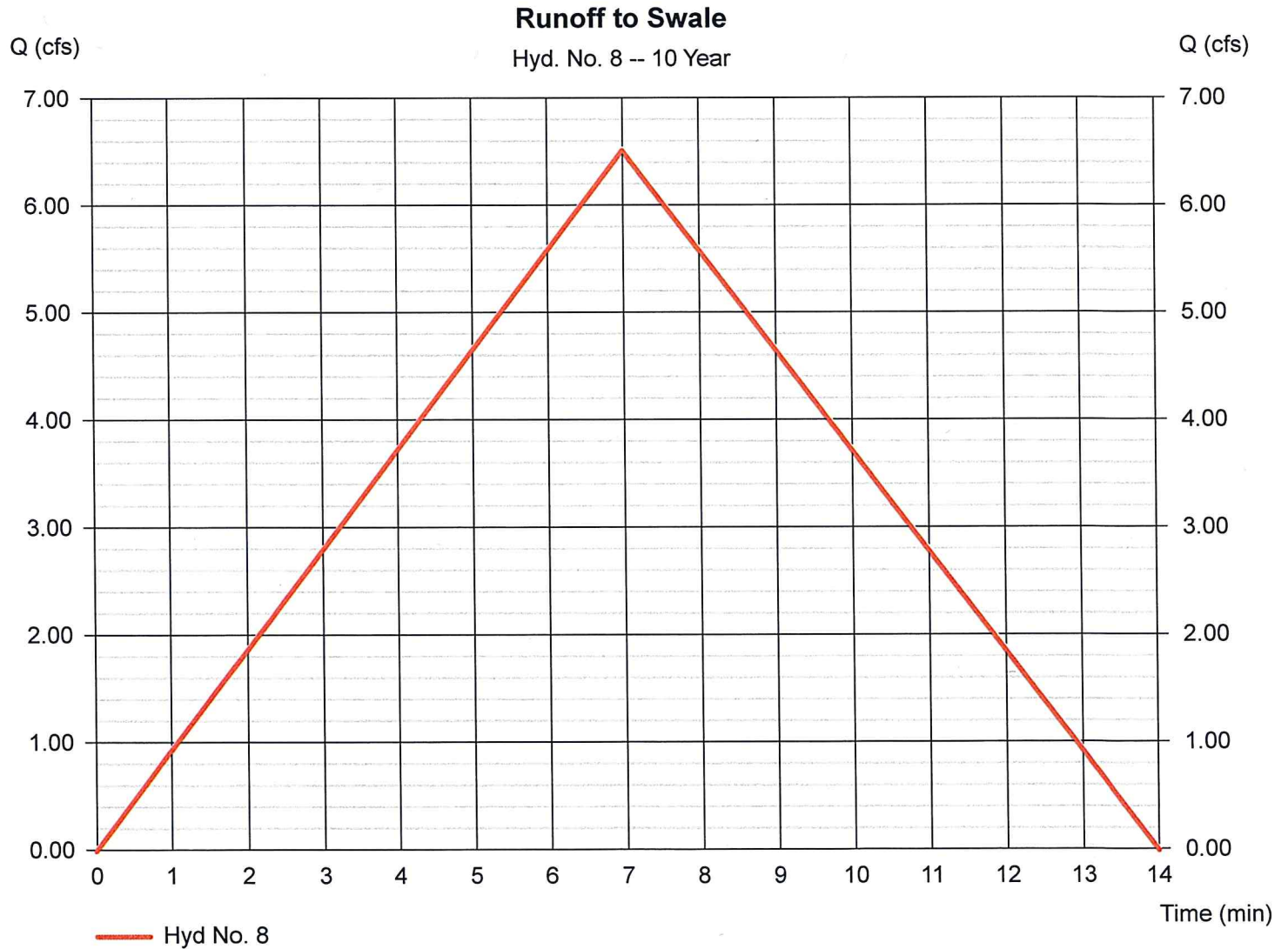
Hydrograph Report

Hyd. No. 8

Runoff to Swale

Hydrograph type = Rational
Storm frequency = 10 yrs
Time interval = 1 min
Drainage area = 1.300 ac
Intensity = 6.270 in/hr
IDF Curve = GSD-60 NOAA.IDF

Peak discharge = 6.520 cfs
Time to peak = 7 min
Hyd. volume = 2,739 cuft
Runoff coeff. = 0.8
Tc by User = 7.00 min
Asc/Rec limb fact = 1/1



Hydrograph Summary Report

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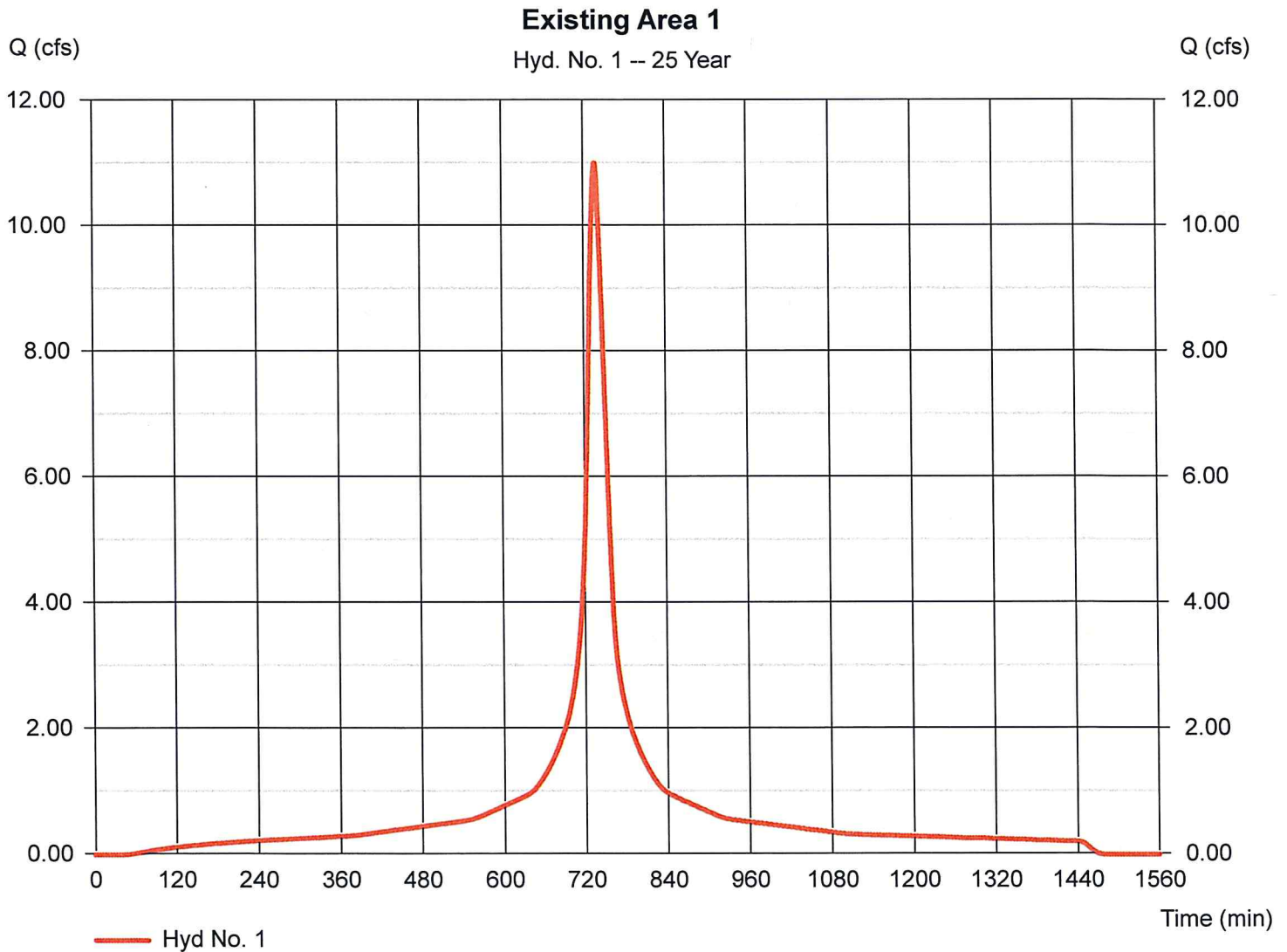
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description
1	SCS Runoff	11.01	1	738	64,489	----	----	----	Existing Area 1
2	SCS Runoff	14.90	2	738	88,294	----	----	----	Proposed Area 1
3	Reservoir	14.79	2	740	88,294	2	206.32	2,297	forebay
4	Reservoir	9.485	2	758	88,225	3	208.10	32,675	Water Quality Basin
5	SCS Runoff	8.943	1	741	57,132	----	----	----	Existing Area 2
6	SCS Runoff	5.217	1	741	33,327	----	----	----	Proposed Area 2
8	Rational	7.855	1	7	3,299	----	----	----	Runoff to Swale

Hydrograph Report

Hyd. No. 1

Existing Area 1

Hydrograph type	= SCS Runoff	Peak discharge	= 11.01 cfs
Storm frequency	= 25 yrs	Time to peak	= 738 min
Time interval	= 1 min	Hyd. volume	= 64,489 cuft
Drainage area	= 2.980 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 24.91 min
Total precip.	= 6.20 in	Distribution	= Custom
Storm duration	= NOAA Type D Distribution 1 min.cds	Shape factor	= 484



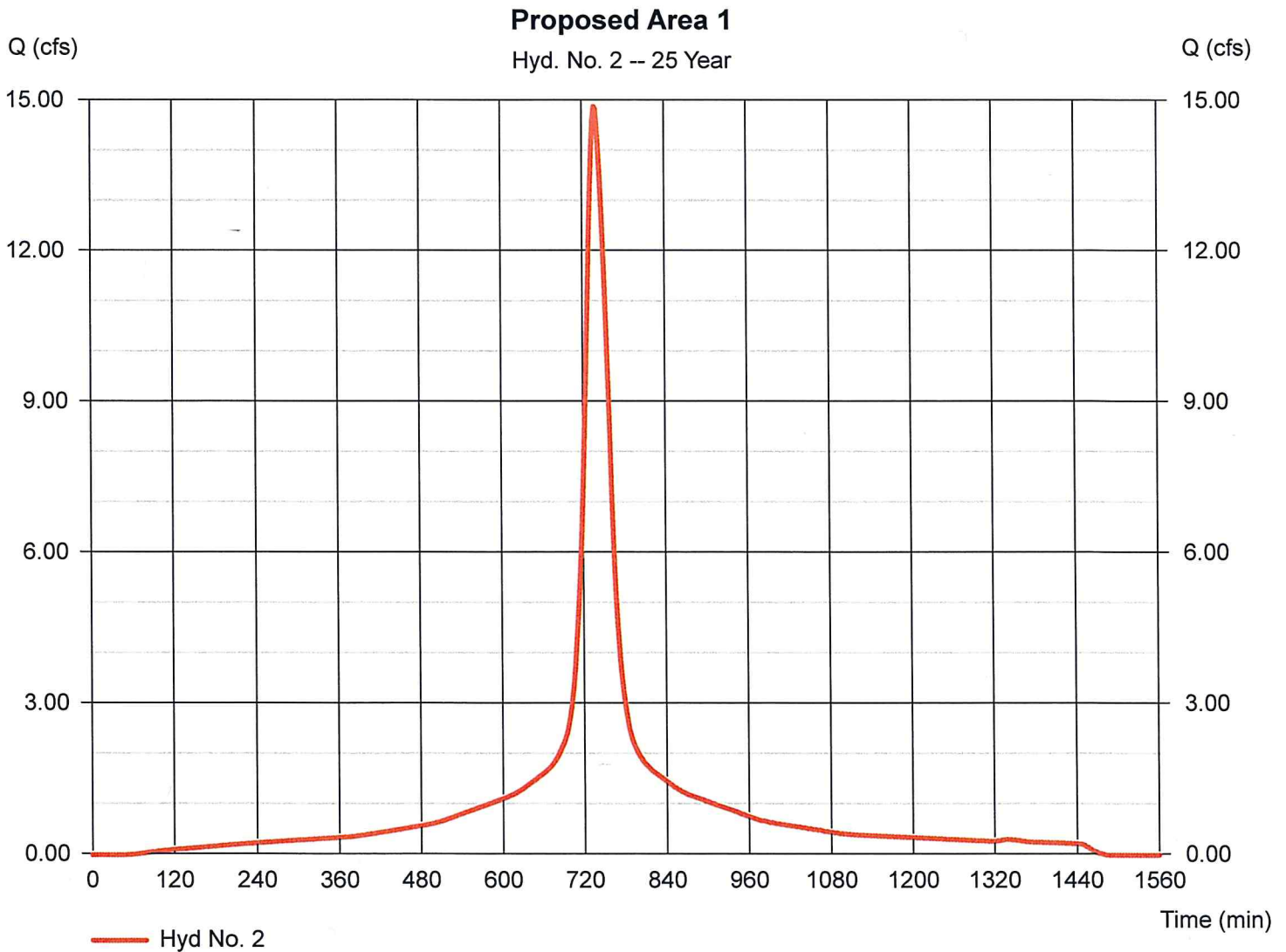
Hydrograph Report

Hyd. No. 2

Proposed Area 1

Hydrograph type = SCS Runoff
Storm frequency = 25 yrs
Time interval = 2 min
Drainage area = 4.080 ac
Basin Slope = 0.0 %
Tc method = TR55
Total precip. = 6.20 in
Storm duration = 24 hrs

Peak discharge = 14.90 cfs
Time to peak = 738 min
Hyd. volume = 88,294 cuft
Curve number = 98
Hydraulic length = 0 ft
Time of conc. (Tc) = 28.64 min
Distribution = Type III
Shape factor = 484



Hydrograph Report

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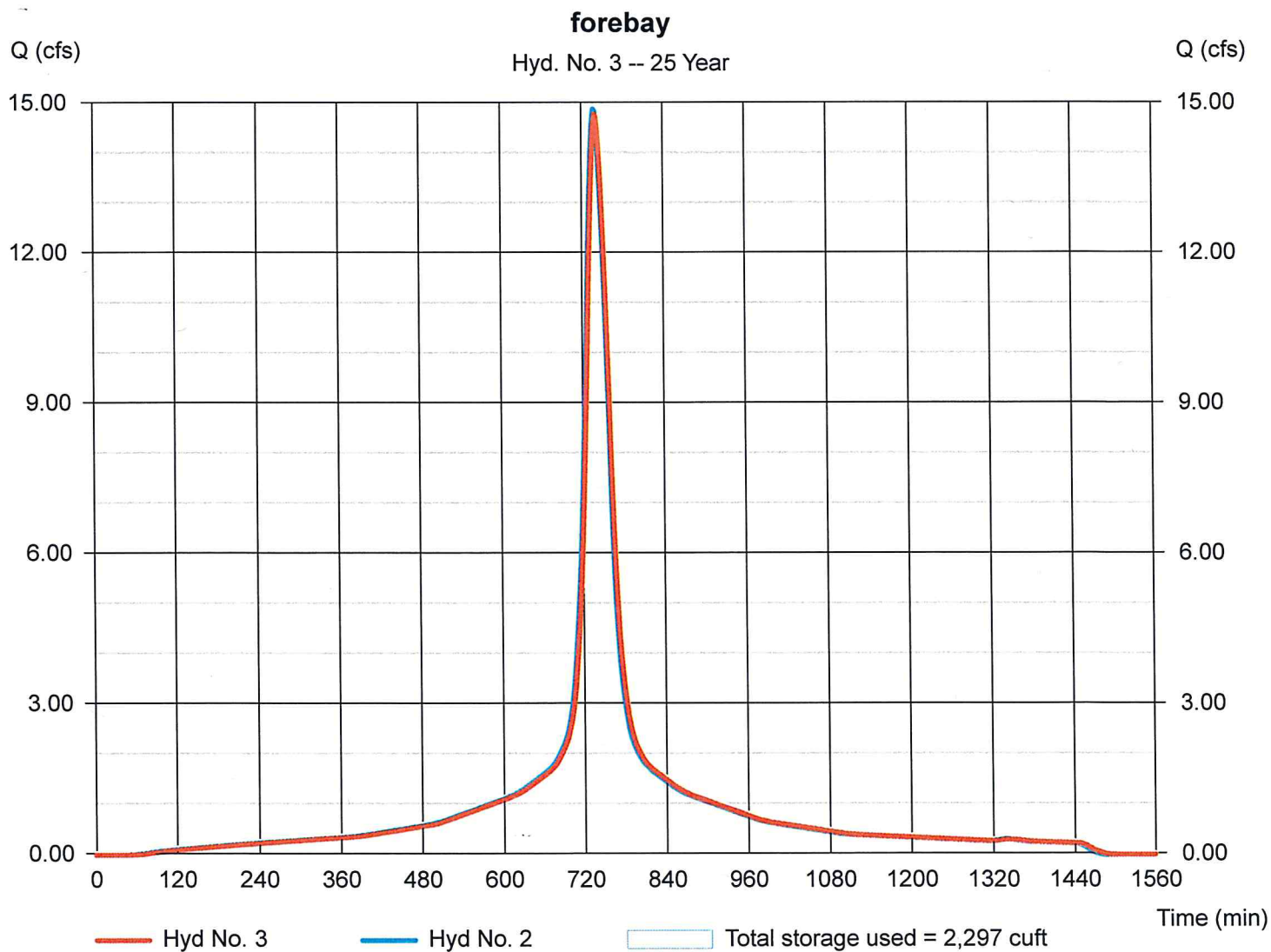
Thursday, Jun 20, 2024

Hyd. No. 3

forebay

Hydrograph type	= Reservoir	Peak discharge	= 14.79 cfs
Storm frequency	= 25 yrs	Time to peak	= 740 min
Time interval	= 2 min	Hyd. volume	= 88,294 cuft
Inflow hyd. No.	= 2 - Proposed Area 1	Max. Elevation	= 206.32 ft
Reservoir name	= forebay	Max. Storage	= 2,297 cuft

Storage Indication method used.



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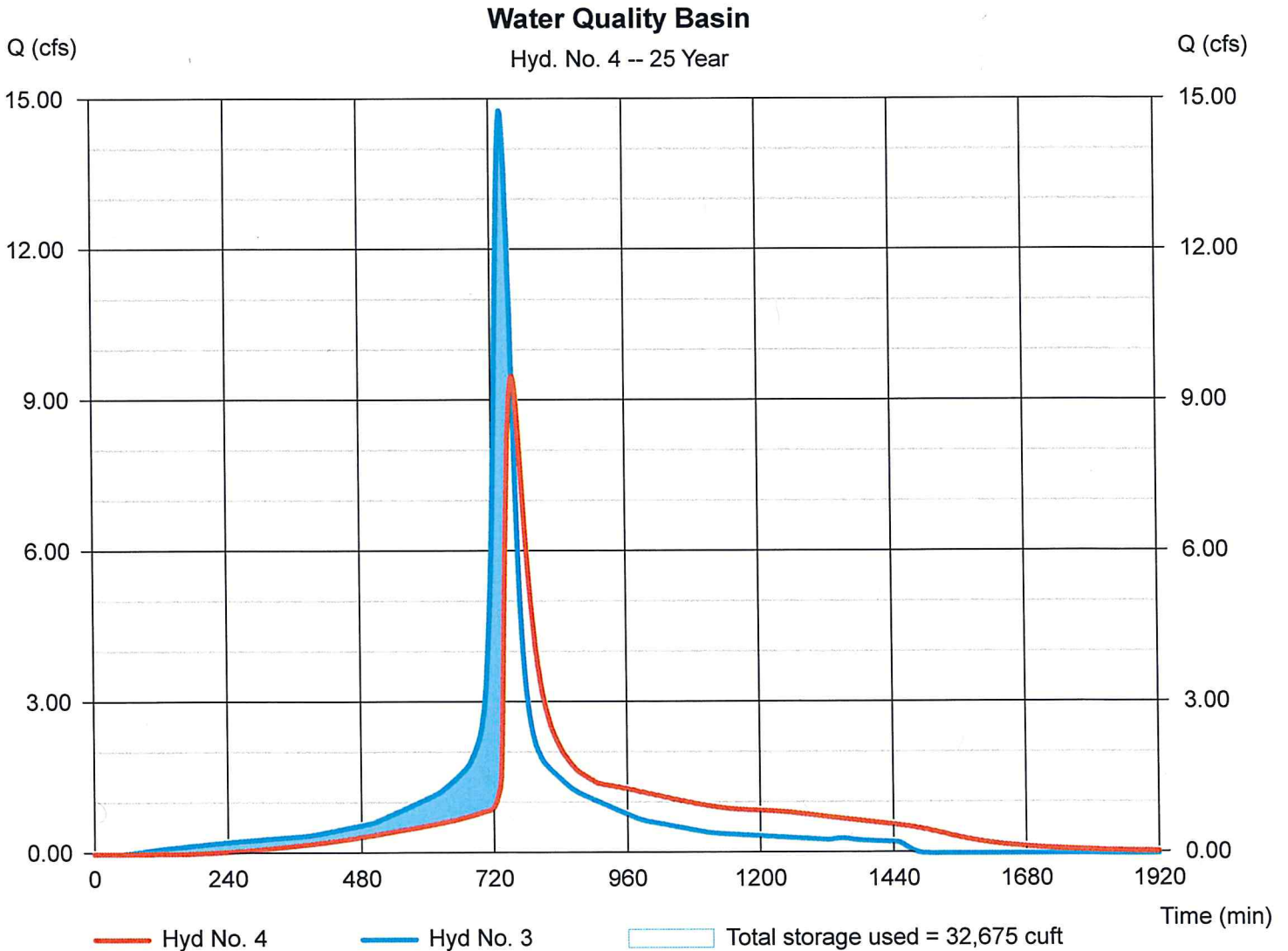
Hyd. No. 4

Water Quality Basin

Hydrograph type = Reservoir
Storm frequency = 25 yrs
Time interval = 2 min
Inflow hyd. No. = 3 - forebay
Reservoir name = Pond 1

Peak discharge = 9.485 cfs
Time to peak = 758 min
Hyd. volume = 88,225 cuft
Max. Elevation = 208.10 ft
Max. Storage = 32,675 cuft

Storage Indication method used.



Hydrograph Report

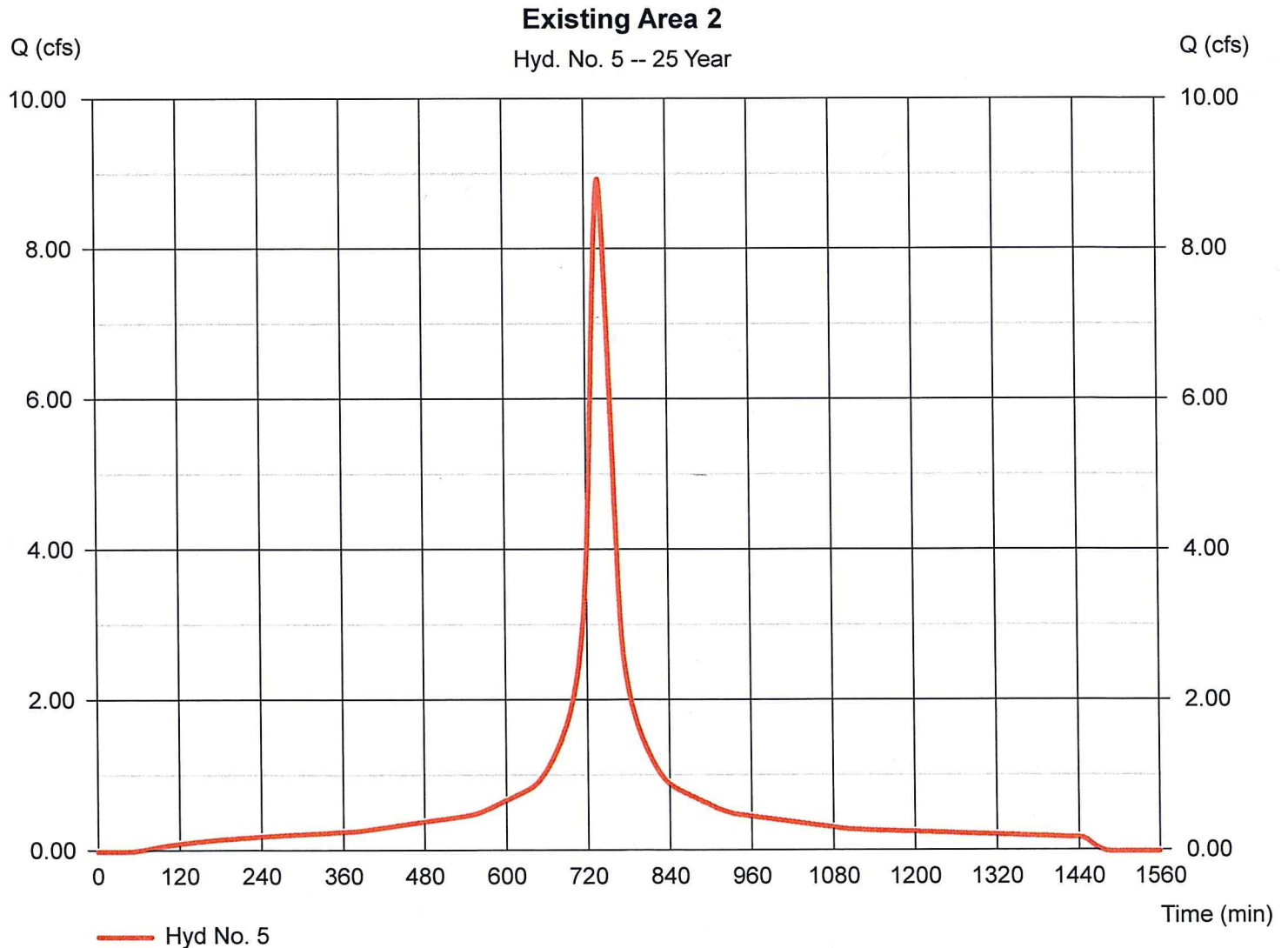
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Hyd. No. 5

Existing Area 2

Hydrograph type	= SCS Runoff	Peak discharge	= 8.943 cfs
Storm frequency	= 25 yrs	Time to peak	= 741 min
Time interval	= 1 min	Hyd. volume	= 57,132 cuft
Drainage area	= 2.640 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 28.89 min
Total precip.	= 6.20 in	Distribution	= Custom
Storm duration	= NOAA Type D Distribution 1 min.cds	Shape factor	= 484



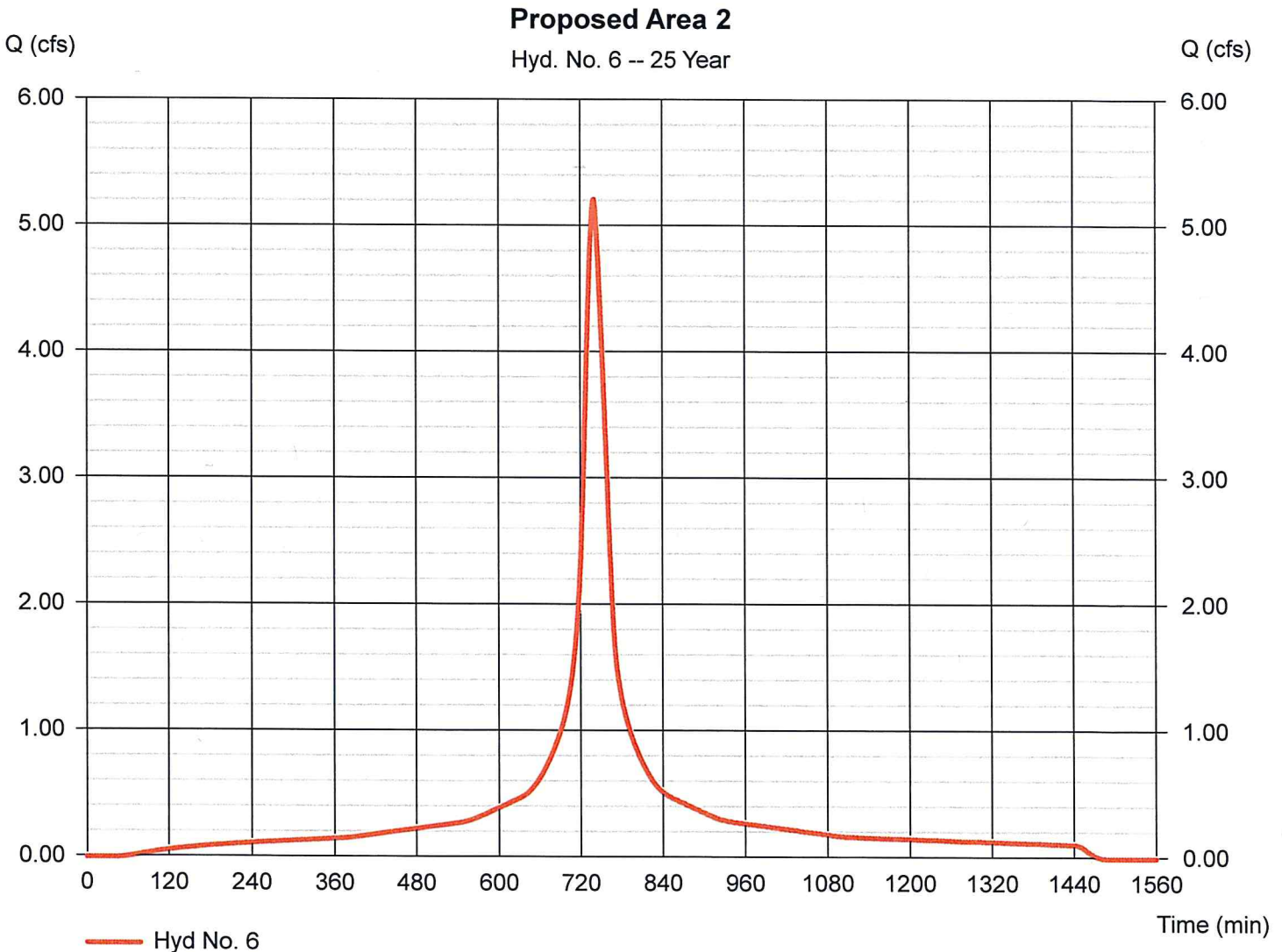
Hydrograph Report

Hyd. No. 6

Proposed Area 2

Hydrograph type = SCS Runoff
Storm frequency = 25 yrs
Time interval = 1 min
Drainage area = 1.540 ac
Basin Slope = 0.0 %
Tc method = TR55
Total precip. = 6.20 in
Storm duration = NOAA Type D Distribution 1 min.cds

Peak discharge = 5.217 cfs
Time to peak = 741 min
Hyd. volume = 33,327 cuft
Curve number = 98
Hydraulic length = 0 ft
Time of conc. (Tc) = 28.89 min
Distribution = Custom
Shape factor = 484



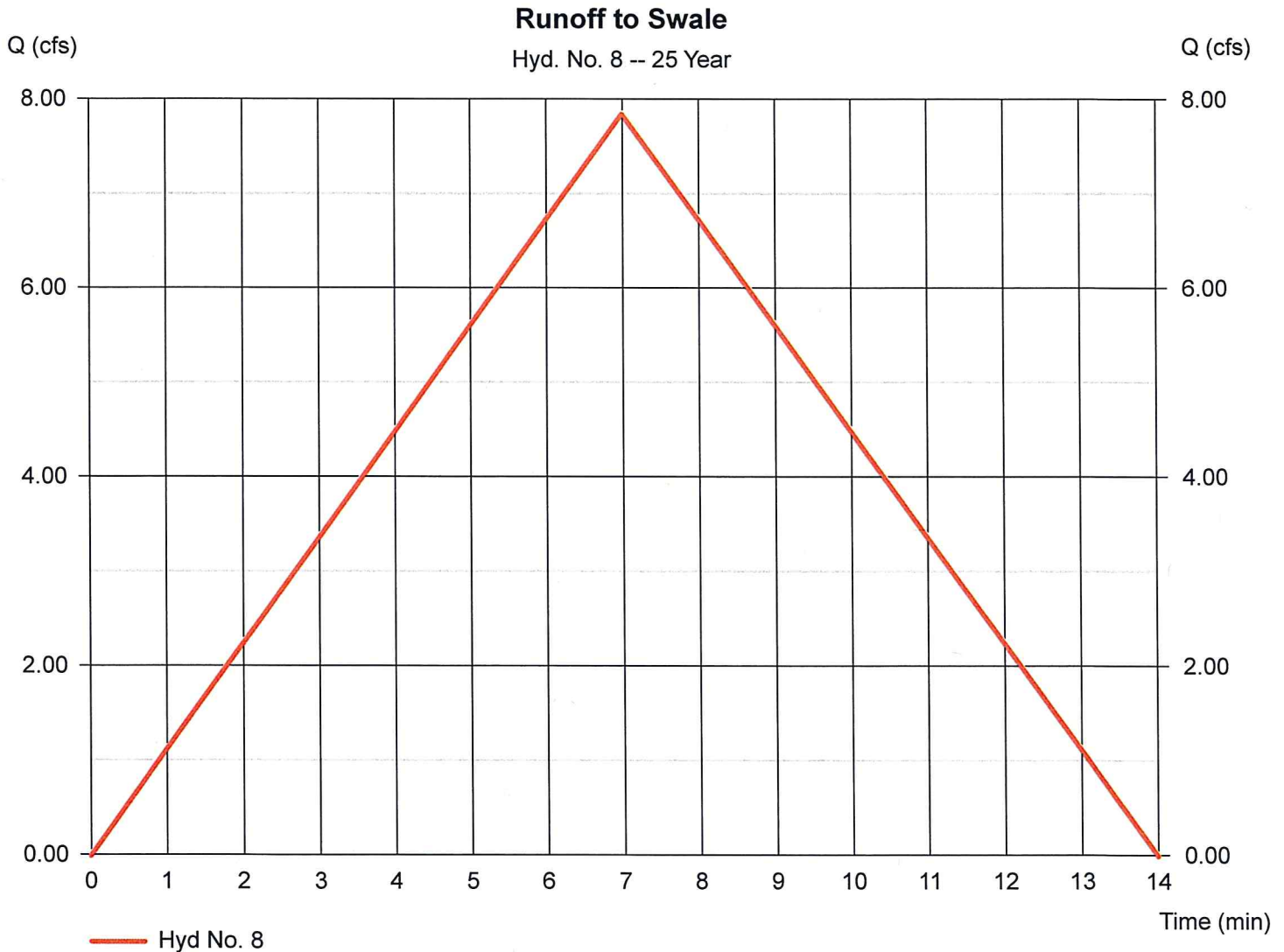
Hydrograph Report

Hyd. No. 8

Runoff to Swale

Hydrograph type = Rational
Storm frequency = 25 yrs
Time interval = 1 min
Drainage area = 1.300 ac
Intensity = 7.553 in/hr
IDF Curve = GSD-60 NOAA.IDF

Peak discharge = 7.855 cfs
Time to peak = 7 min
Hyd. volume = 3,299 cuft
Runoff coeff. = 0.8
Tc by User = 7.00 min
Asc/Rec limb fact = 1/1



Hydrograph Summary Report

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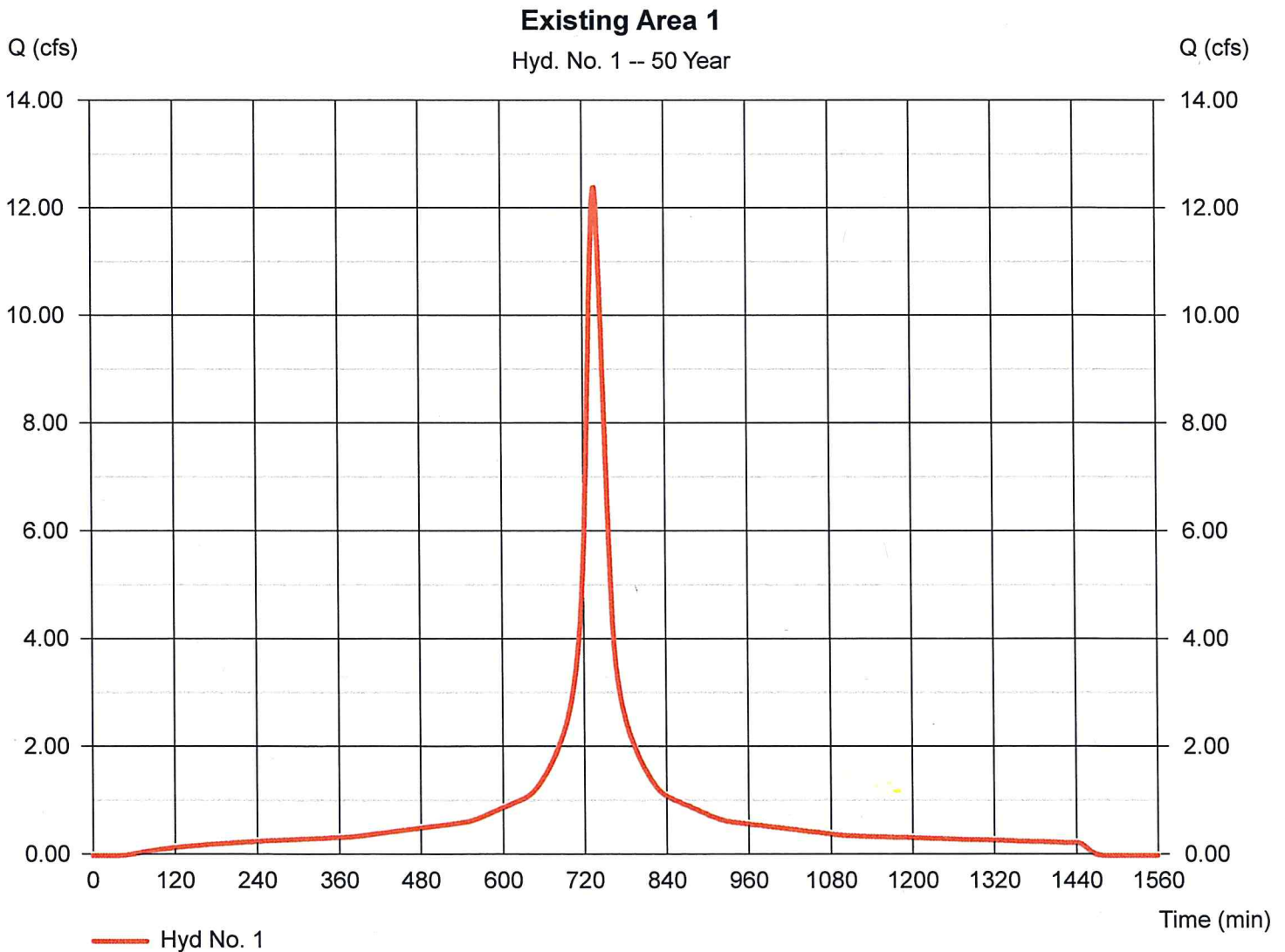
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description
1	SCS Runoff	12.40	1	738	72,919	-----	-----	-----	Existing Area 1
2	SCS Runoff	16.79	2	738	99,836	-----	-----	-----	Proposed Area 1
3	Reservoir	16.67	2	740	99,835	2	206.39	2,488	forebay
4	Reservoir	11.66	2	756	99,767	3	208.21	34,618	Water Quality Basin
5	SCS Runoff	10.08	1	741	64,600	-----	-----	-----	Existing Area 2
6	SCS Runoff	5.878	1	741	37,683	-----	-----	-----	Proposed Area 2
8	Rational	8.844	1	7	3,715	-----	-----	-----	Runoff to Swale
GSD 69 - Drainage Calculations - SCS					Return Period: 50 Year			Thursday, Jun 20, 2024	

Hydrograph Report

Hyd. No. 1

Existing Area 1

Hydrograph type	= SCS Runoff	Peak discharge	= 12.40 cfs
Storm frequency	= 50 yrs	Time to peak	= 738 min
Time interval	= 1 min	Hyd. volume	= 72,919 cuft
Drainage area	= 2.980 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 24.91 min
Total precip.	= 6.98 in	Distribution	= Custom
Storm duration	= NOAA Type D Distribution 1 min.cds	Shape factor	= 484



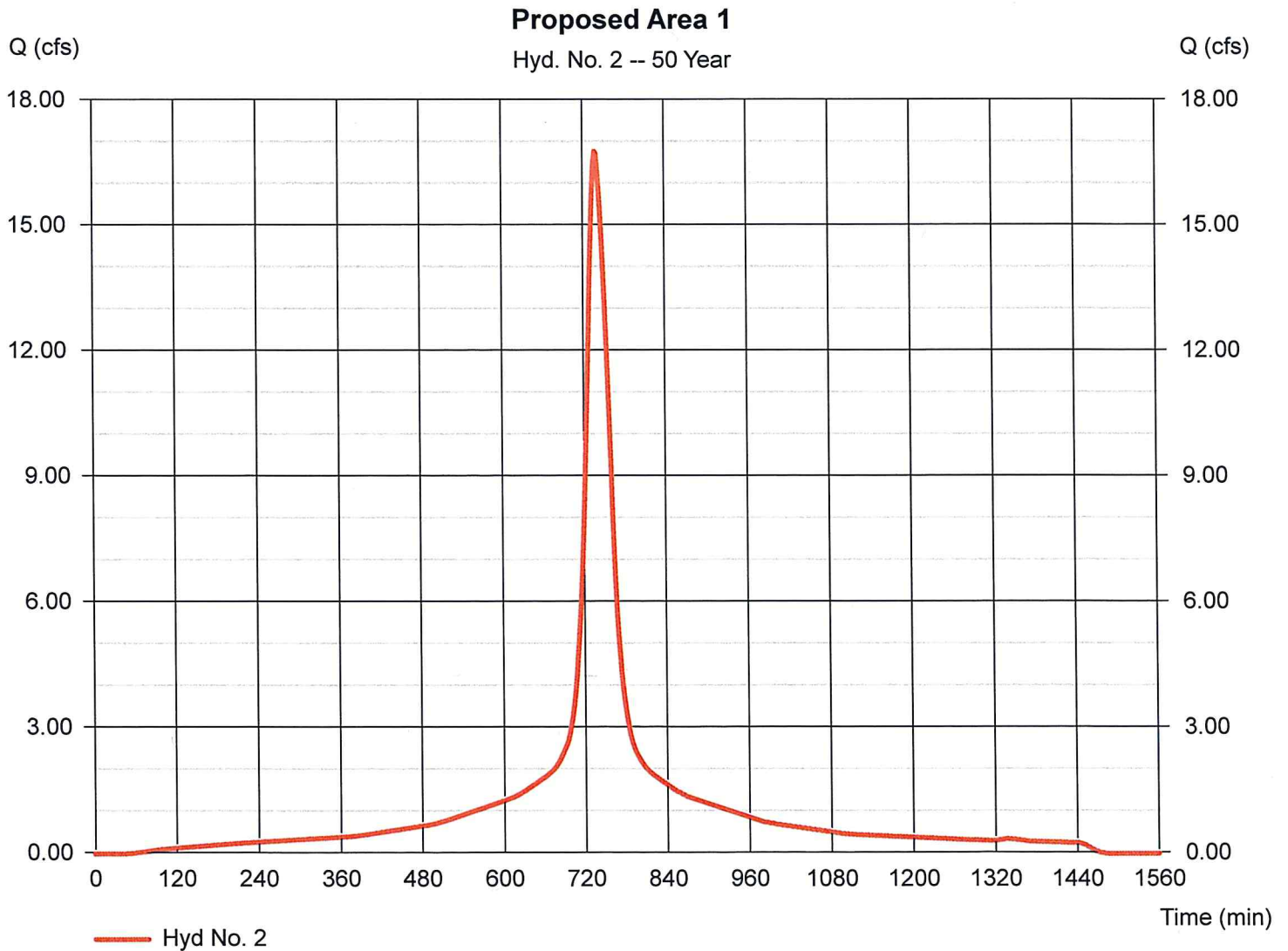
Hydrograph Report

Hyd. No. 2

Proposed Area 1

Hydrograph type = SCS Runoff
Storm frequency = 50 yrs
Time interval = 2 min
Drainage area = 4.080 ac
Basin Slope = 0.0 %
Tc method = TR55
Total precip. = 6.98 in
Storm duration = 24 hrs

Peak discharge = 16.79 cfs
Time to peak = 738 min
Hyd. volume = 99,836 cuft
Curve number = 98
Hydraulic length = 0 ft
Time of conc. (Tc) = 28.64 min
Distribution = Type III
Shape factor = 484



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

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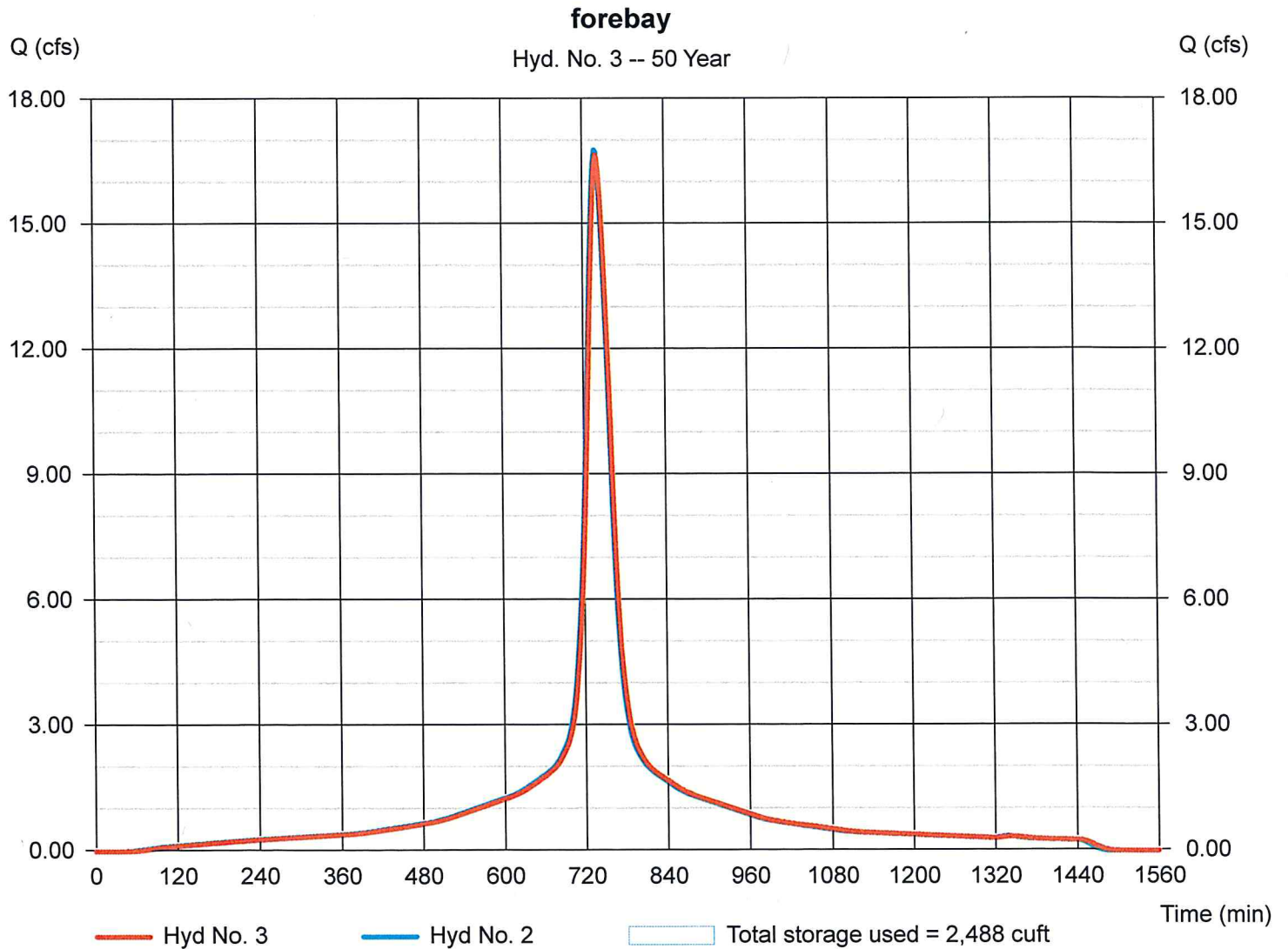
Hyd. No. 3

forebay

Hydrograph type = Reservoir
 Storm frequency = 50 yrs
 Time interval = 2 min
 Inflow hyd. No. = 2 - Proposed Area 1
 Reservoir name = forebay

Peak discharge = 16.67 cfs
 Time to peak = 740 min
 Hyd. volume = 99,835 cuft
 Max. Elevation = 206.39 ft
 Max. Storage = 2,488 cuft

Storage Indication method used.



Hydrograph Report

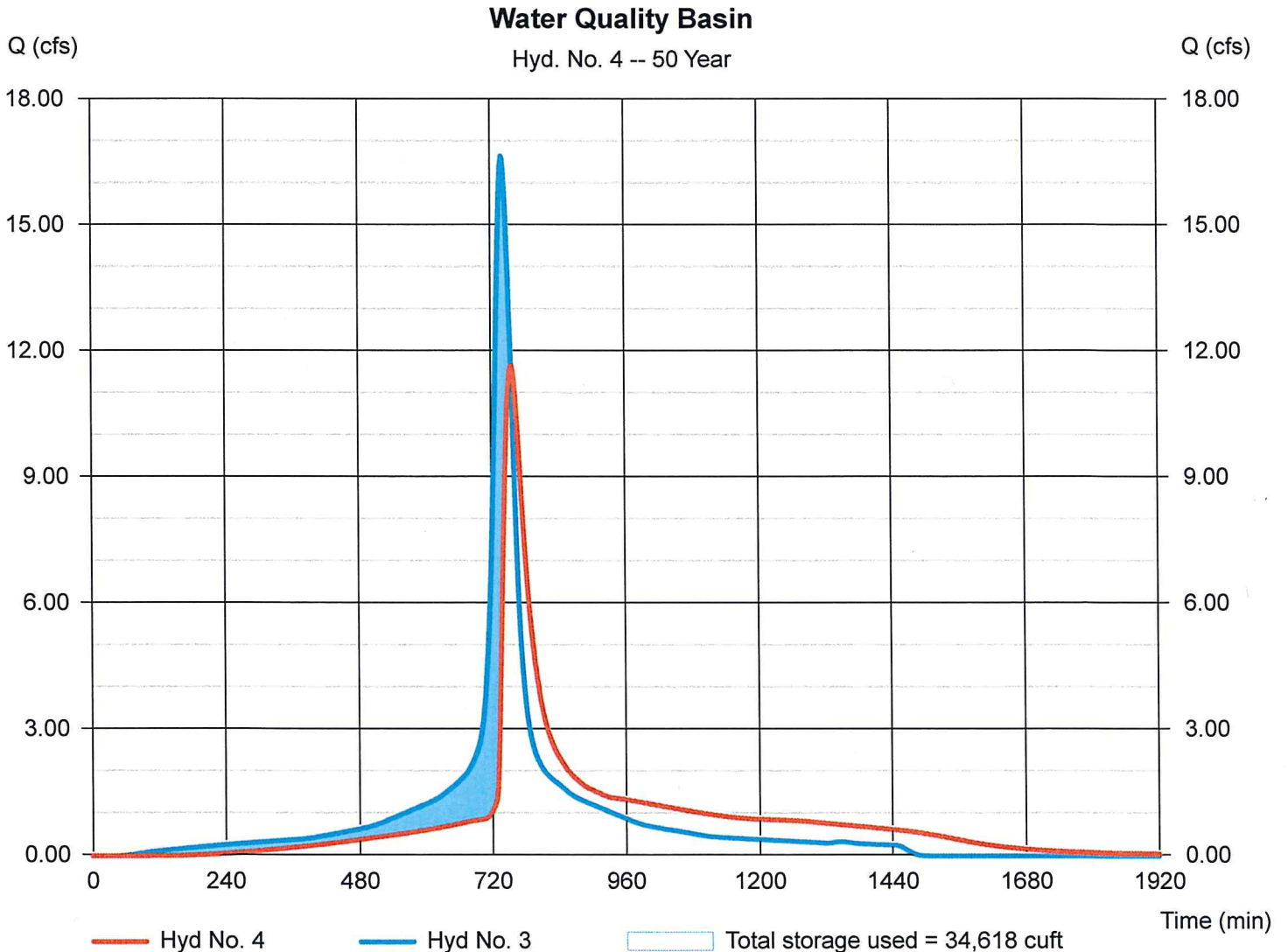
Hyd. No. 4

Water Quality Basin

Hydrograph type = Reservoir
Storm frequency = 50 yrs
Time interval = 2 min
Inflow hyd. No. = 3 - forebay
Reservoir name = Pond 1

Peak discharge = 11.66 cfs
Time to peak = 756 min
Hyd. volume = 99,767 cuft
Max. Elevation = 208.21 ft
Max. Storage = 34,618 cuft

Storage Indication method used.

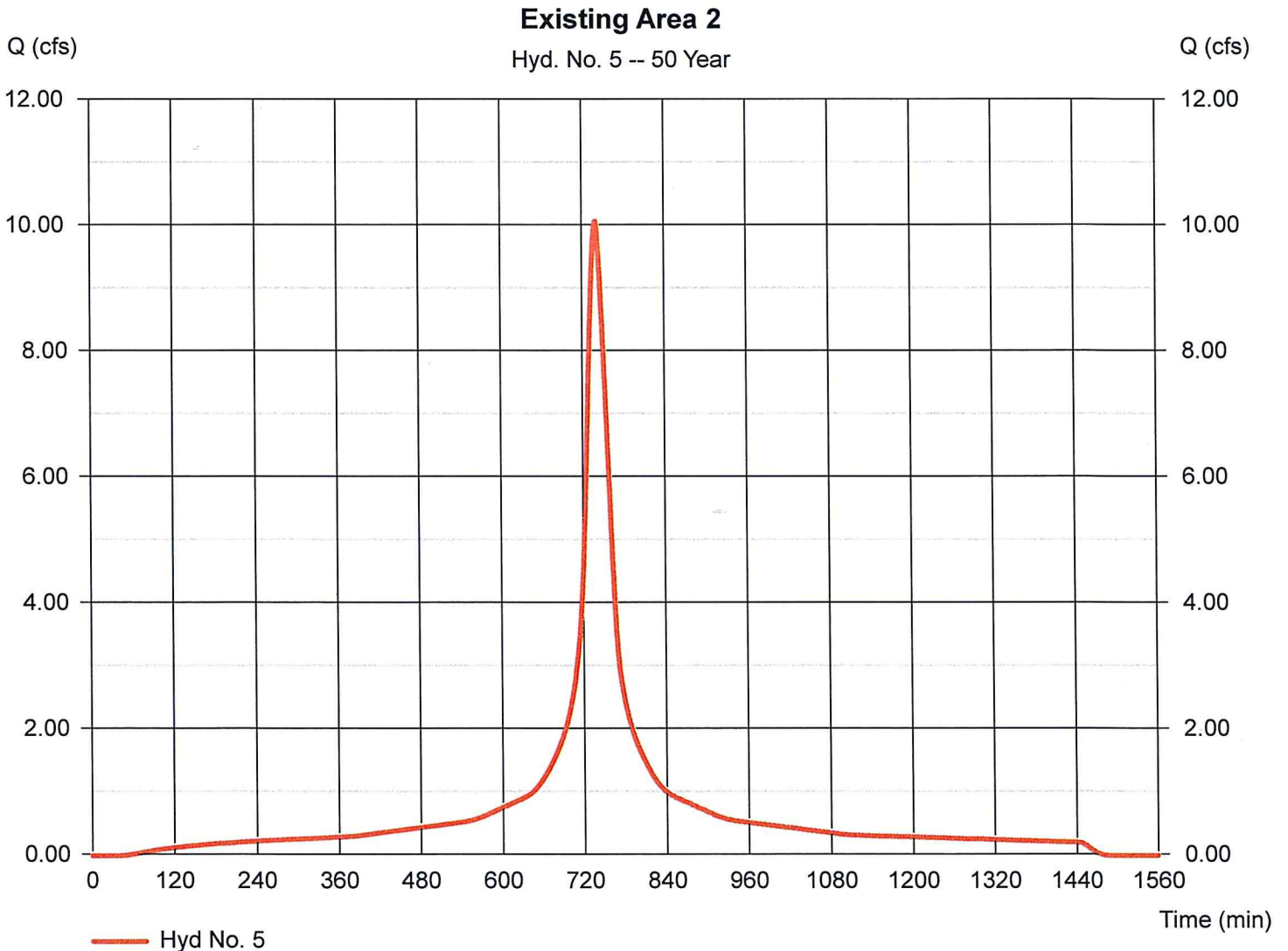


Hydrograph Report

Hyd. No. 5

Existing Area 2

Hydrograph type	= SCS Runoff	Peak discharge	= 10.08 cfs
Storm frequency	= 50 yrs	Time to peak	= 741 min
Time interval	= 1 min	Hyd. volume	= 64,600 cuft
Drainage area	= 2.640 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 28.89 min
Total precip.	= 6.98 in	Distribution	= Custom
Storm duration	= NOAA Type D Distribution 1 min.cds	Shape factor	= 484

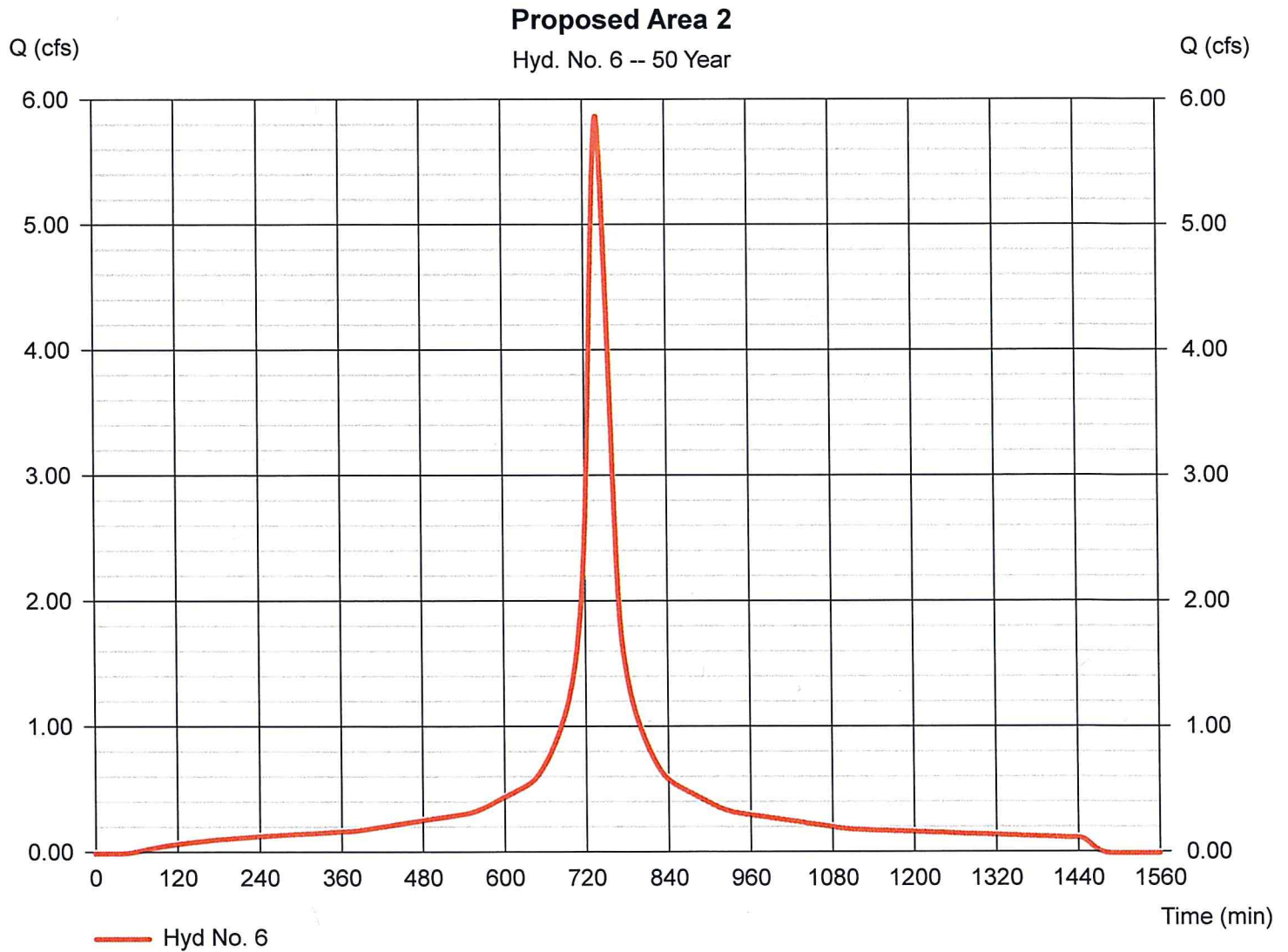


Hydrograph Report

Hyd. No. 6

Proposed Area 2

Hydrograph type	= SCS Runoff	Peak discharge	= 5.878 cfs
Storm frequency	= 50 yrs	Time to peak	= 741 min
Time interval	= 1 min	Hyd. volume	= 37,683 cuft
Drainage area	= 1.540 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 28.89 min
Total precip.	= 6.98 in	Distribution	= Custom
Storm duration	= NOAA Type D Distribution 1 min.cds	Shape factor	= 484



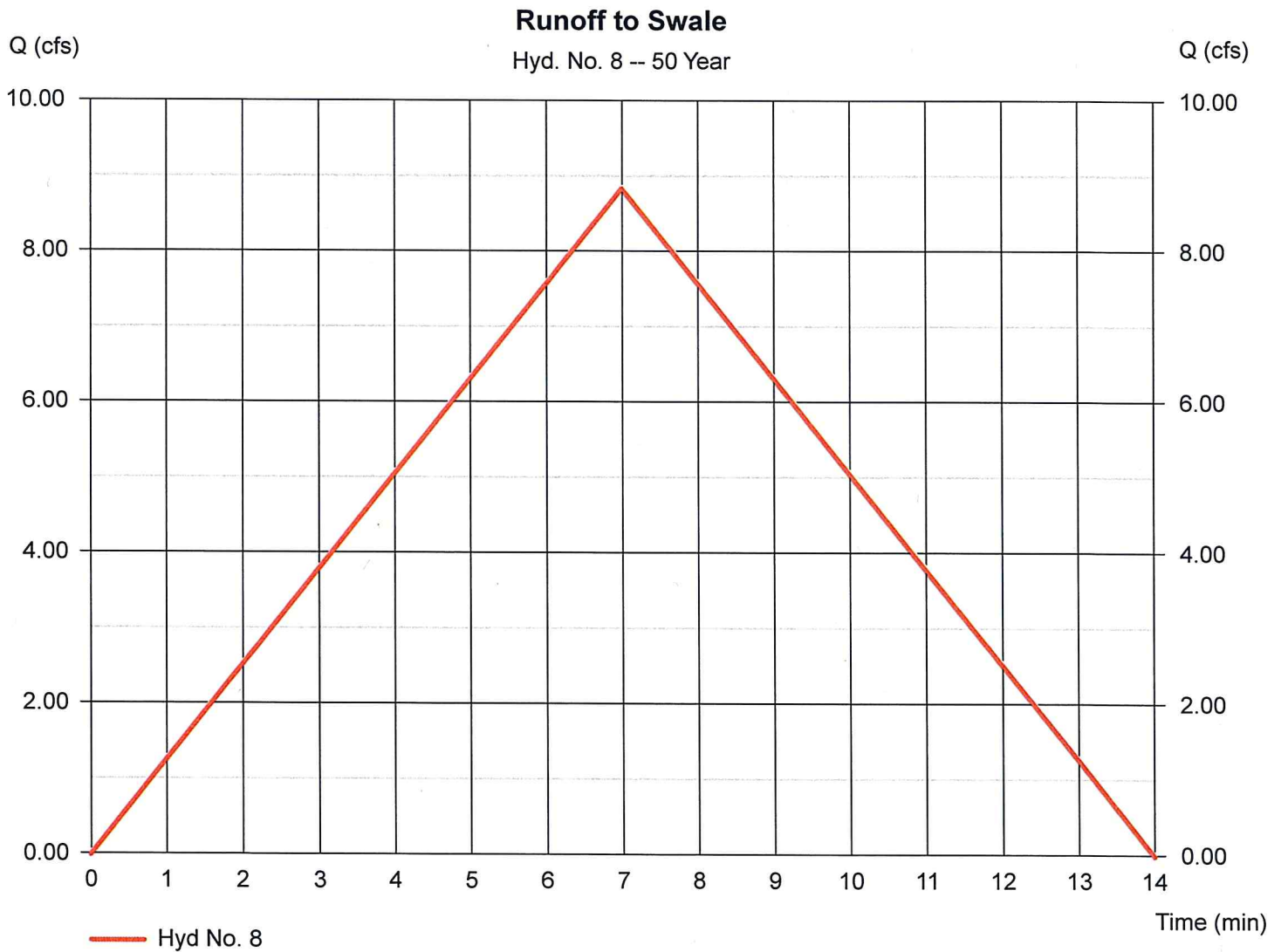
Hydrograph Report

Hyd. No. 8

Runoff to Swale

Hydrograph type = Rational
Storm frequency = 50 yrs
Time interval = 1 min
Drainage area = 1.300 ac
Intensity = 8.504 in/hr
IDF Curve = GSD-60 NOAA.IDF

Peak discharge = 8.844 cfs
Time to peak = 7 min
Hyd. volume = 3,715 cuft
Runoff coeff. = 0.8
Tc by User = 7.00 min
Asc/Rec limb fact = 1/1



Hydrograph Summary Report

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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	13.91	1	738	81,999	-----	-----	-----	Existing Area 1
2	SCS Runoff	18.82	2	738	112,268	-----	-----	-----	Proposed Area 1
3	Reservoir	18.71	2	740	112,267	2	206.46	2,687	forebay
4	Reservoir	13.90	2	756	112,198	3	208.31	36,515	Water Quality Basin
5	SCS Runoff	11.30	1	741	72,644	-----	-----	-----	Existing Area 2
6	SCS Runoff	6.590	1	741	42,375	-----	-----	-----	Proposed Area 2
8	Rational	9.904	1	7	4,160	-----	-----	-----	Runoff to Swale

Hydrograph Report

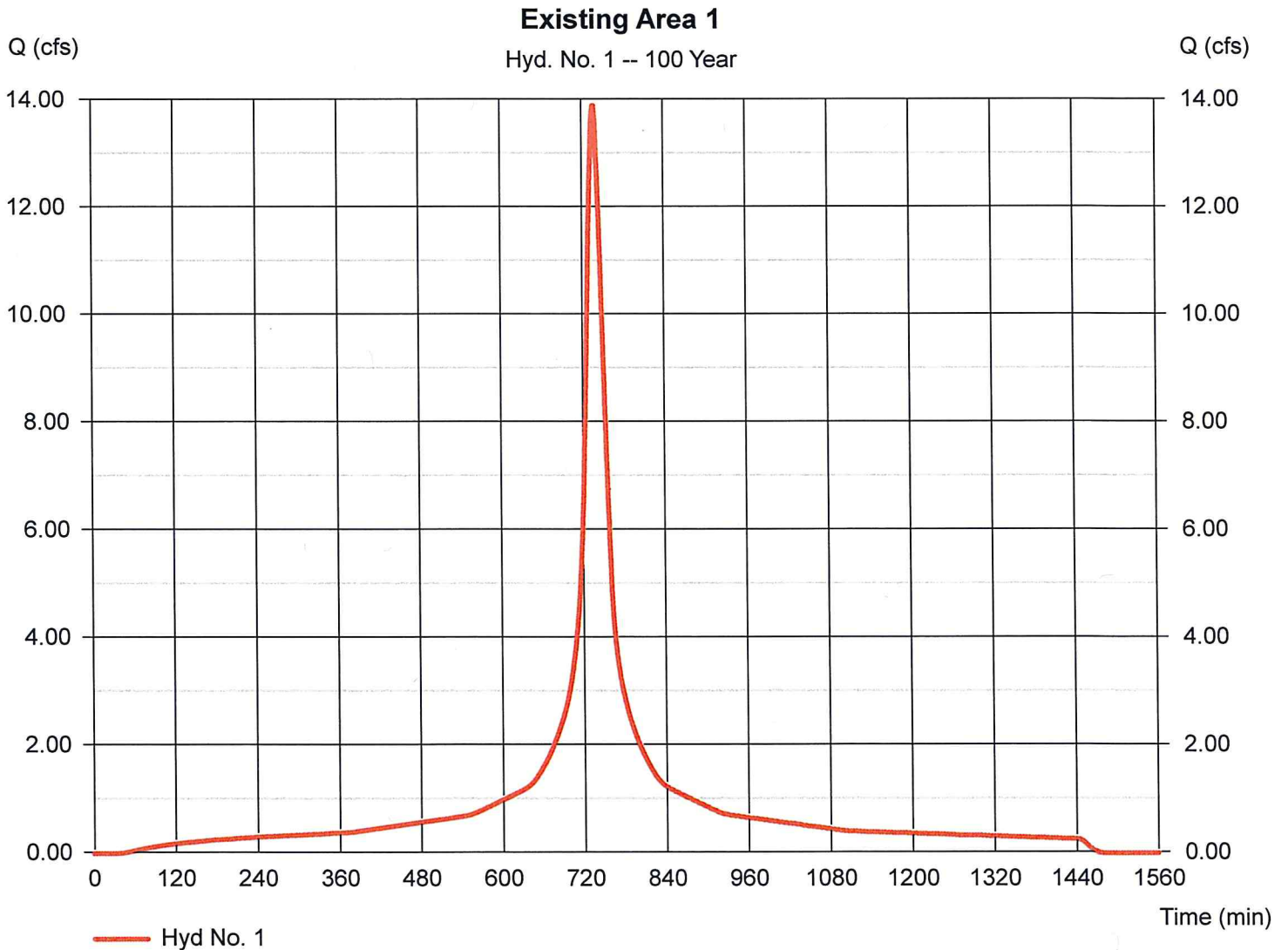
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Hyd. No. 1

Existing Area 1

Hydrograph type	= SCS Runoff	Peak discharge	= 13.91 cfs
Storm frequency	= 100 yrs	Time to peak	= 738 min
Time interval	= 1 min	Hyd. volume	= 81,999 cuft
Drainage area	= 2.980 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 24.91 min
Total precip.	= 7.82 in	Distribution	= Custom
Storm duration	= NOAA Type D Distribution 1 min.cds	Shape factor	= 484



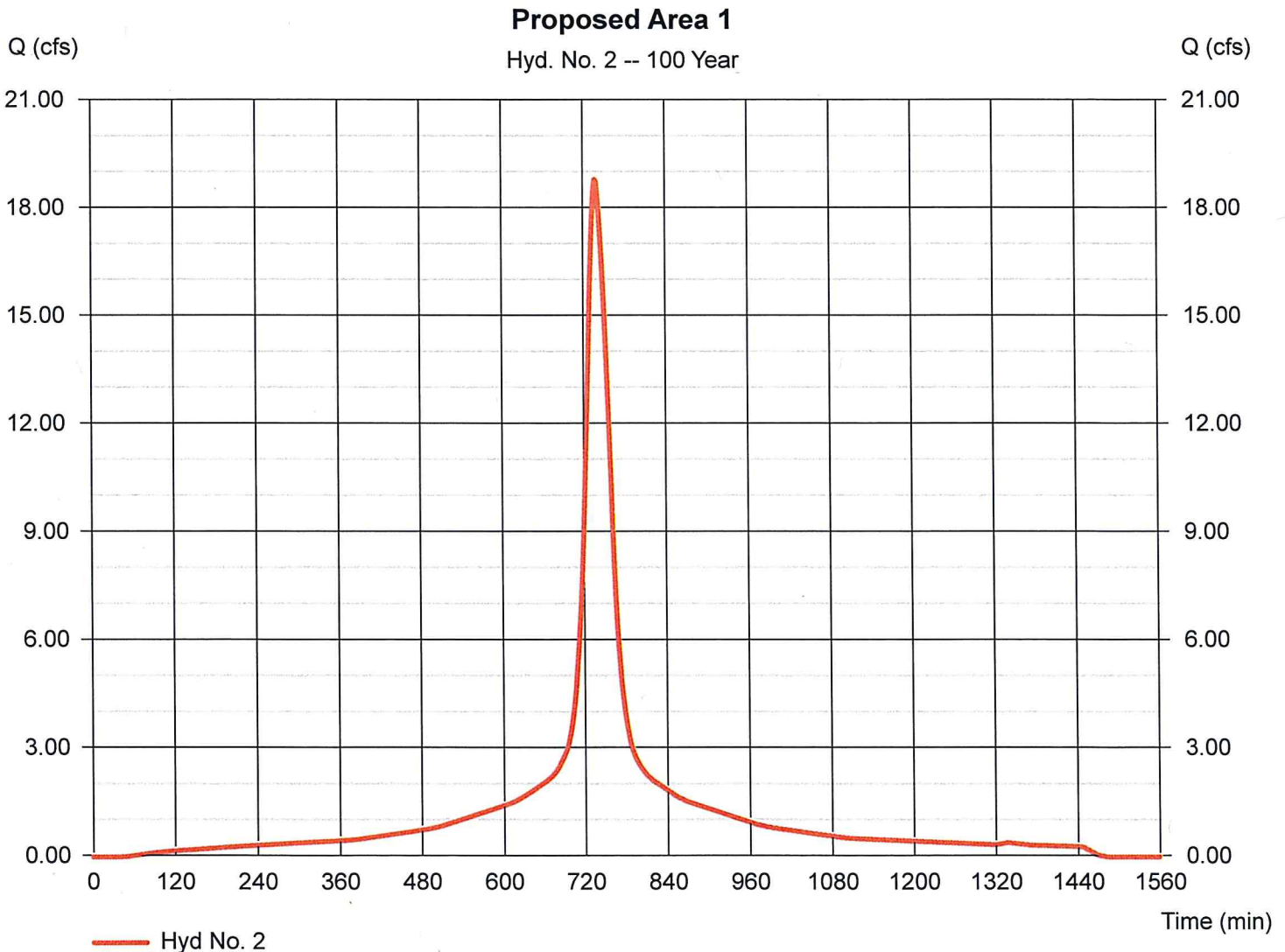
Hydrograph Report

Hyd. No. 2

Proposed Area 1

Hydrograph type = SCS Runoff
Storm frequency = 100 yrs
Time interval = 2 min
Drainage area = 4.080 ac
Basin Slope = 0.0 %
Tc method = TR55
Total precip. = 7.82 in
Storm duration = 24 hrs

Peak discharge = 18.82 cfs
Time to peak = 738 min
Hyd. volume = 112,268 cuft
Curve number = 98
Hydraulic length = 0 ft
Time of conc. (Tc) = 28.64 min
Distribution = Type III
Shape factor = 484



Hydrograph Report

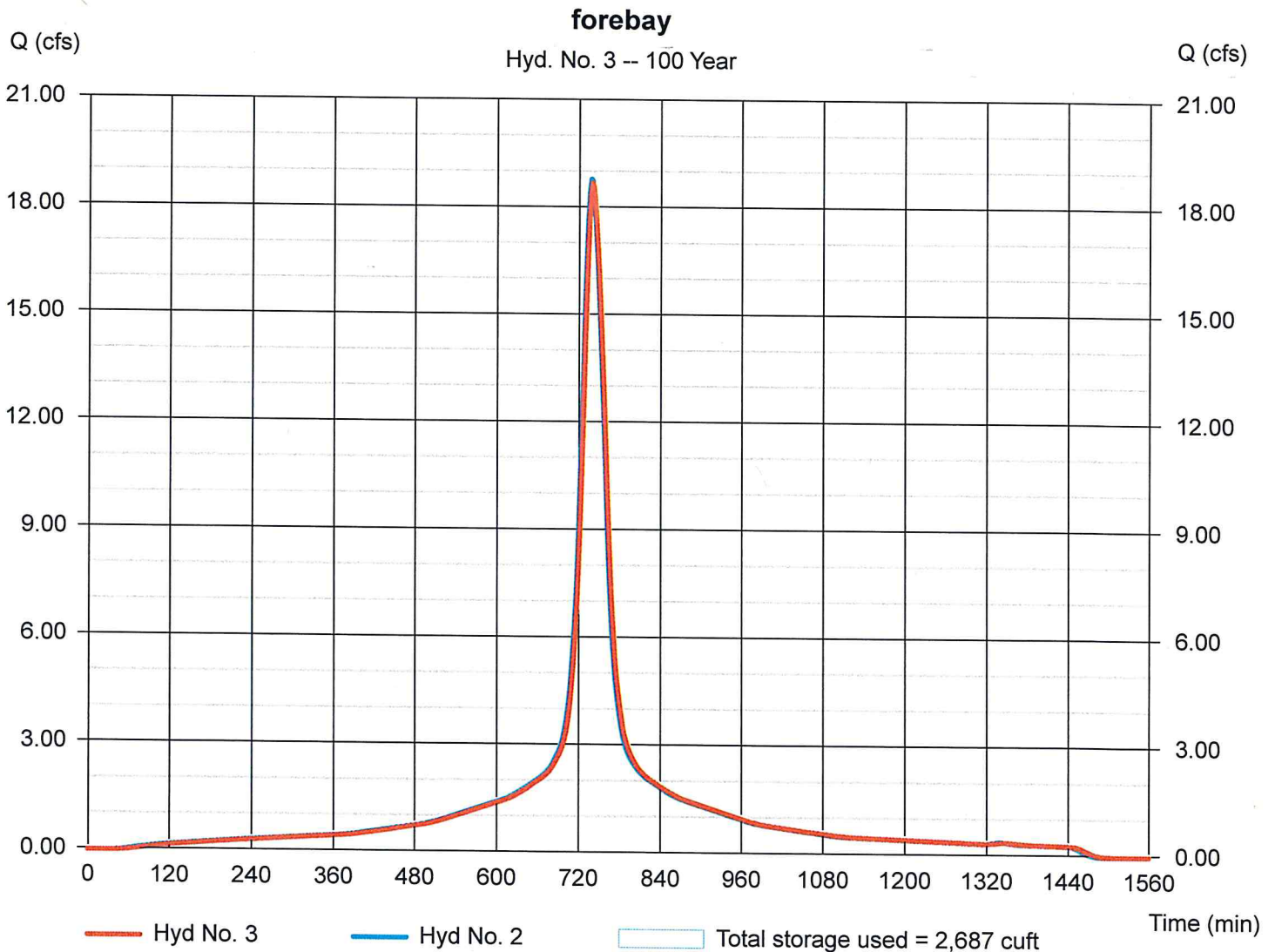
Hyd. No. 3

forebay

Hydrograph type = Reservoir
Storm frequency = 100 yrs
Time interval = 2 min
Inflow hyd. No. = 2 - Proposed Area 1
Reservoir name = forebay

Peak discharge = 18.71 cfs
Time to peak = 740 min
Hyd. volume = 112,267 cuft
Max. Elevation = 206.46 ft
Max. Storage = 2,687 cuft

Storage Indication method used.



Hydrograph Report

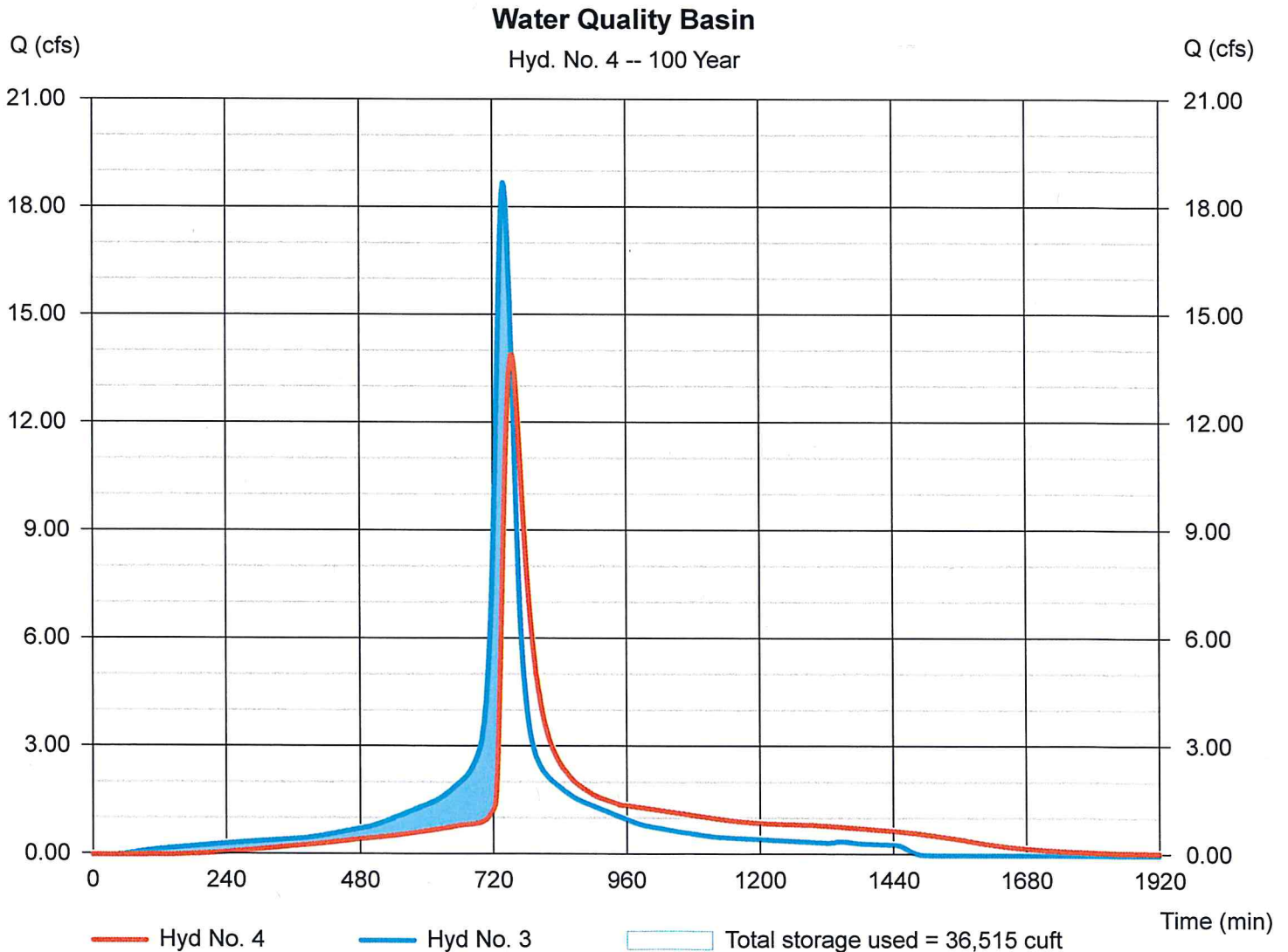
Hyd. No. 4

Water Quality Basin

Hydrograph type = Reservoir
Storm frequency = 100 yrs
Time interval = 2 min
Inflow hyd. No. = 3 - forebay
Reservoir name = Pond 1

Peak discharge = 13.90 cfs
Time to peak = 756 min
Hyd. volume = 112,198 cuft
Max. Elevation = 208.31 ft
Max. Storage = 36,515 cuft

Storage Indication method used.



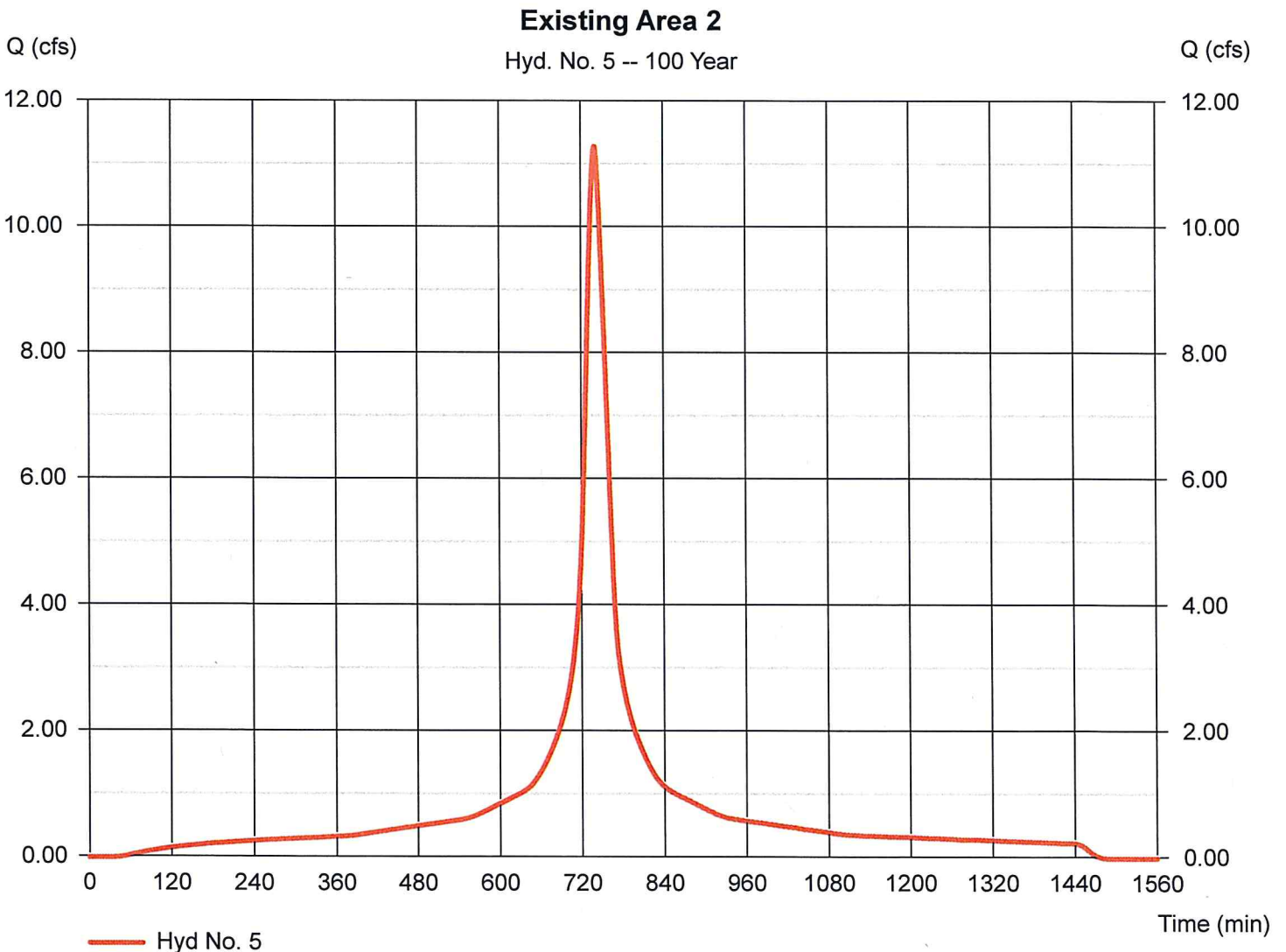
Hydrograph Report

Hyd. No. 5

Existing Area 2

Hydrograph type = SCS Runoff
Storm frequency = 100 yrs
Time interval = 1 min
Drainage area = 2.640 ac
Basin Slope = 0.0 %
Tc method = TR55
Total precip. = 7.82 in
Storm duration = NOAA Type D Distribution 1 min.cds

Peak discharge = 11.30 cfs
Time to peak = 741 min
Hyd. volume = 72,644 cuft
Curve number = 98
Hydraulic length = 0 ft
Time of conc. (Tc) = 28.89 min
Distribution = Custom
Shape factor = 484



Hydrograph Report

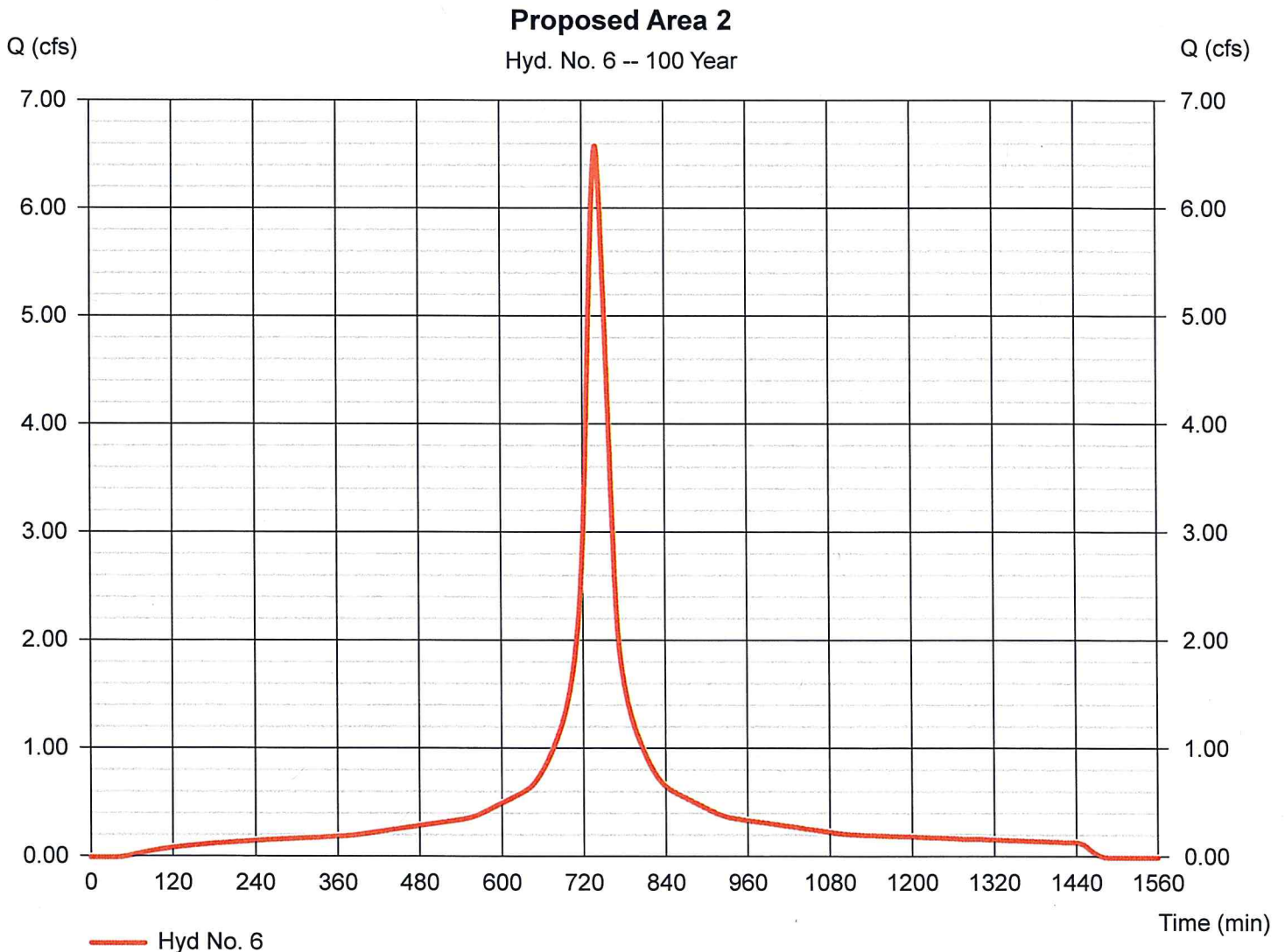
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Hyd. No. 6

Proposed Area 2

Hydrograph type	= SCS Runoff	Peak discharge	= 6.590 cfs
Storm frequency	= 100 yrs	Time to peak	= 741 min
Time interval	= 1 min	Hyd. volume	= 42,375 cuft
Drainage area	= 1.540 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 28.89 min
Total precip.	= 7.82 in	Distribution	= Custom
Storm duration	= NOAA Type D Distribution 1 min.cds	Shape factor	= 484



Hydrograph Report

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Hyd. No. 8

Runoff to Swale

Hydrograph type = Rational
Storm frequency = 100 yrs
Time interval = 1 min
Drainage area = 1.300 ac
Intensity = 9.523 in/hr
IDF Curve = GSD-60 NOAA.IDF

Peak discharge = 9.904 cfs
Time to peak = 7 min
Hyd. volume = 4,160 cuft
Runoff coeff. = 0.8
Tc by User = 7.00 min
Asc/Rec limb fact = 1/1

