DYMAR

APPENDIX B - STORM WATER ANALYSIS

DYMAR

2 YEAR STORM

Hydrograph 2-yr Summary

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Flow (cfs)	Time to Peak (hrs)	Hydrograph Volume (cuft)	Inflow Hyd(s)	Maximum Elevation (ft)	Maximum Storage (cuft)
1	Rational	Pre DA A @ AP 1	1.650	0.23	1,851	----		
2	Rational	Pre DA B @ AP 2	0.705	0.38	1,298	----		
3	Rational	Post DA A1	1.578	0.23	1,770	----		
4	Rational	Post DA A2 (Roof& Drivewa	0.959	0.08	384	----		
5	Pond Route	Route DA A2	0.786	0.10	340	4	958.56	70.8
6	Junction	Post Flow @ AP 1	1.640	0.23	2,092	3, 5		
7	Rational	Post DA B1	0.571	0.38	1,052	----		
8	Rational	Post DA B2	0.822	0.08	329	----		
9	Pond Route	Route DA B2	0.328	0.15	258	8	958.78	153
10	Rational	Post DA B3	1.598	0.08	640	----		
11	Pond Route	Route DA B3	0.000	3.92	0.000	10	965.19	591
12	Junction	Post Flow @ AP2	0.615	0.25	1,302	7, 9, 11		

Hydrograph Report

Project Name:

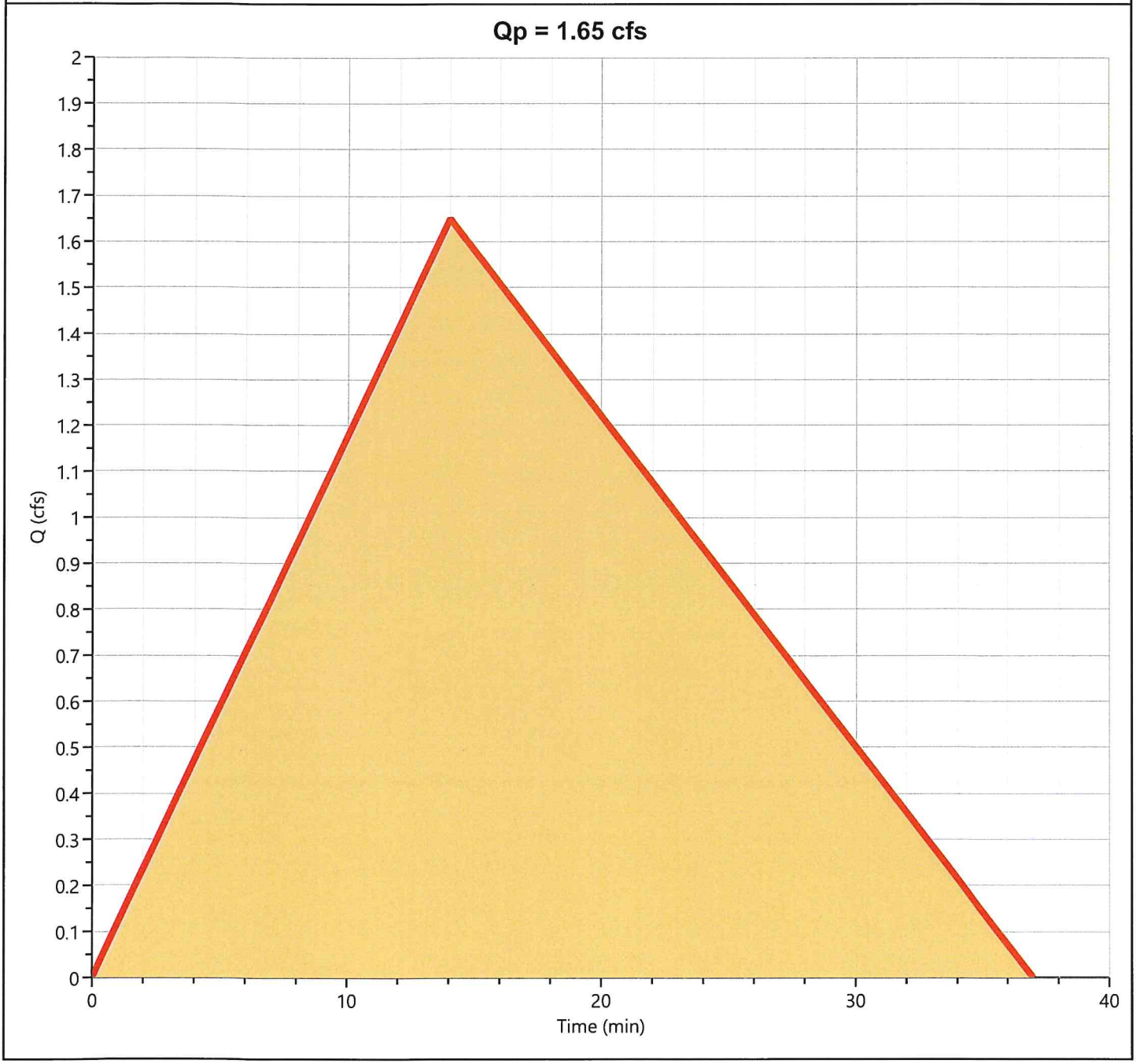
Hydrology Studio v 3.0.0.18

04-08-2021

Pre DA A @ AP 1

Hyd. No. 1

Hydrograph Type	= Rational	Peak Flow	= 1.650 cfs
Storm Frequency	= 2-yr	Time to Peak	= 0.23 hrs
Time Interval	= 1 min	Runoff Volume	= 1,851 cuft
Drainage Area	= 2.46 ac	Runoff Coeff.	= 0.22
Tc Method	= User	Time of Conc. (Tc)	= 14.0 min
IDF Curve	= Project0996.idf	Intensity	= 3.05 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	= 1/1.67



Hydrograph Report

Project Name:

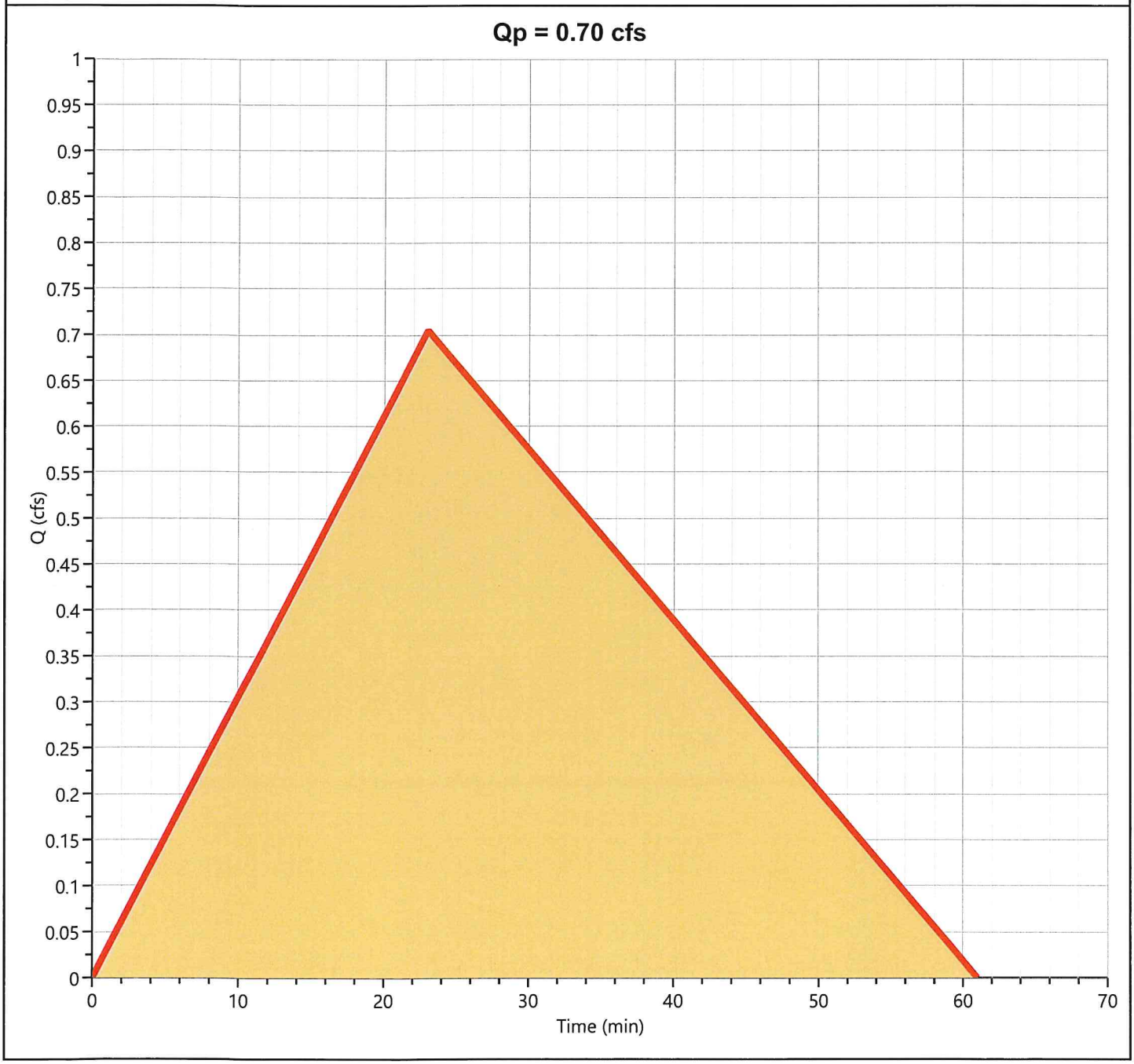
Hydrology Studio v 3.0.0.18

04-08-2021

Pre DA B @ AP 2

Hyd. No. 2

Hydrograph Type	= Rational	Peak Flow	= 0.705 cfs
Storm Frequency	= 2-yr	Time to Peak	= 0.38 hrs
Time Interval	= 1 min	Runoff Volume	= 1,298 cuft
Drainage Area	= 1.29 ac	Runoff Coeff.	= 0.24
Tc Method	= User	Time of Conc. (Tc)	= 23.0 min
IDF Curve	= Project0996.idf	Intensity	= 2.28 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	= 1/1.67



Hydrograph Report

Project Name:

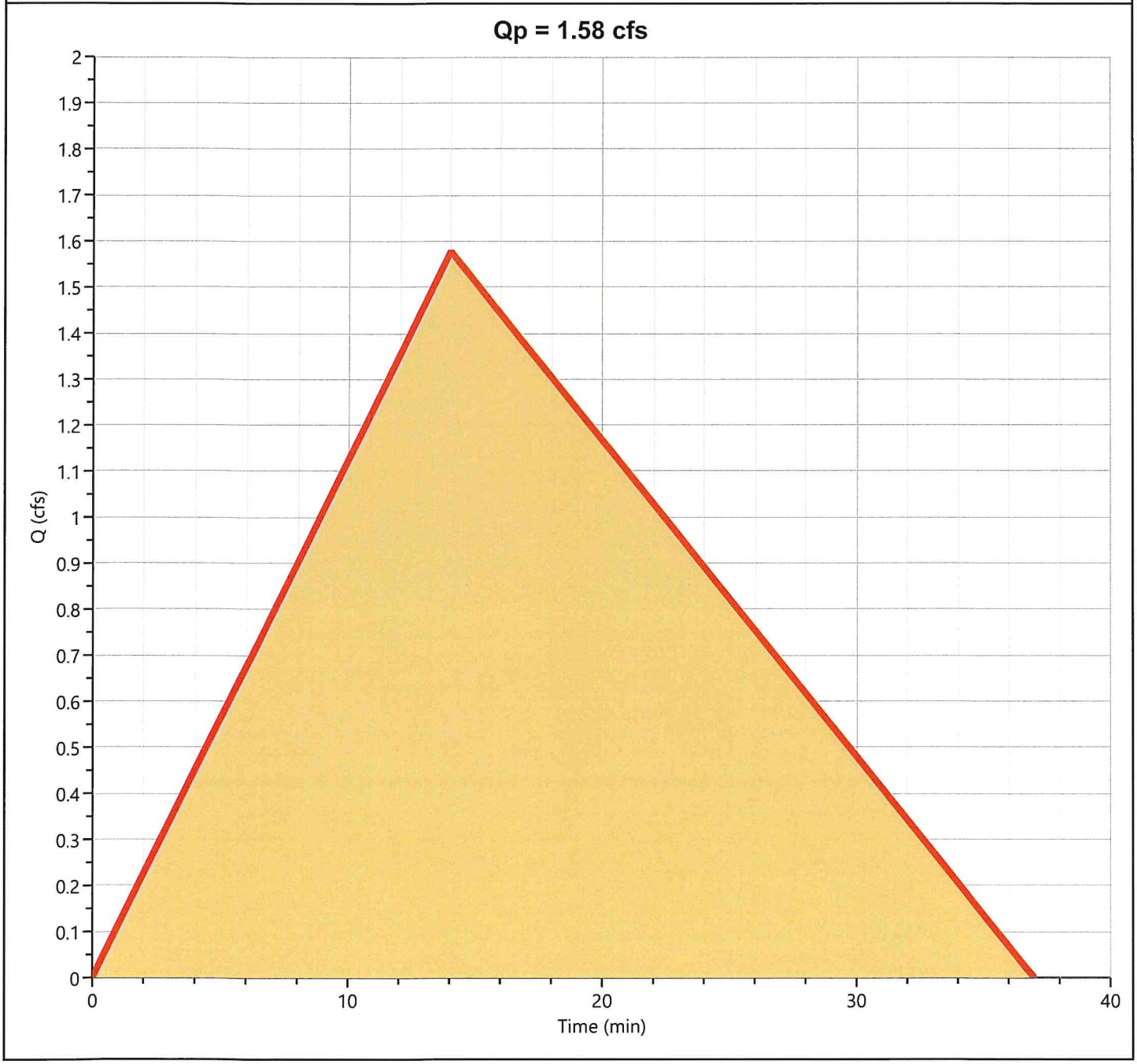
Hydrology Studio v 3.0.0.18

04-08-2021

Post DA A1

Hyd. No. 3

Hydrograph Type	= Rational	Peak Flow	= 1.578 cfs
Storm Frequency	= 2-yr	Time to Peak	= 0.23 hrs
Time Interval	= 1 min	Runoff Volume	= 1,770 cuft
Drainage Area	= 2.25 ac	Runoff Coeff.	= 0.23
Tc Method	= User	Time of Conc. (Tc)	= 14.0 min
IDF Curve	= Project0996.idf	Intensity	= 3.05 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	= 1/1.67



Hydrograph Report

Project Name:

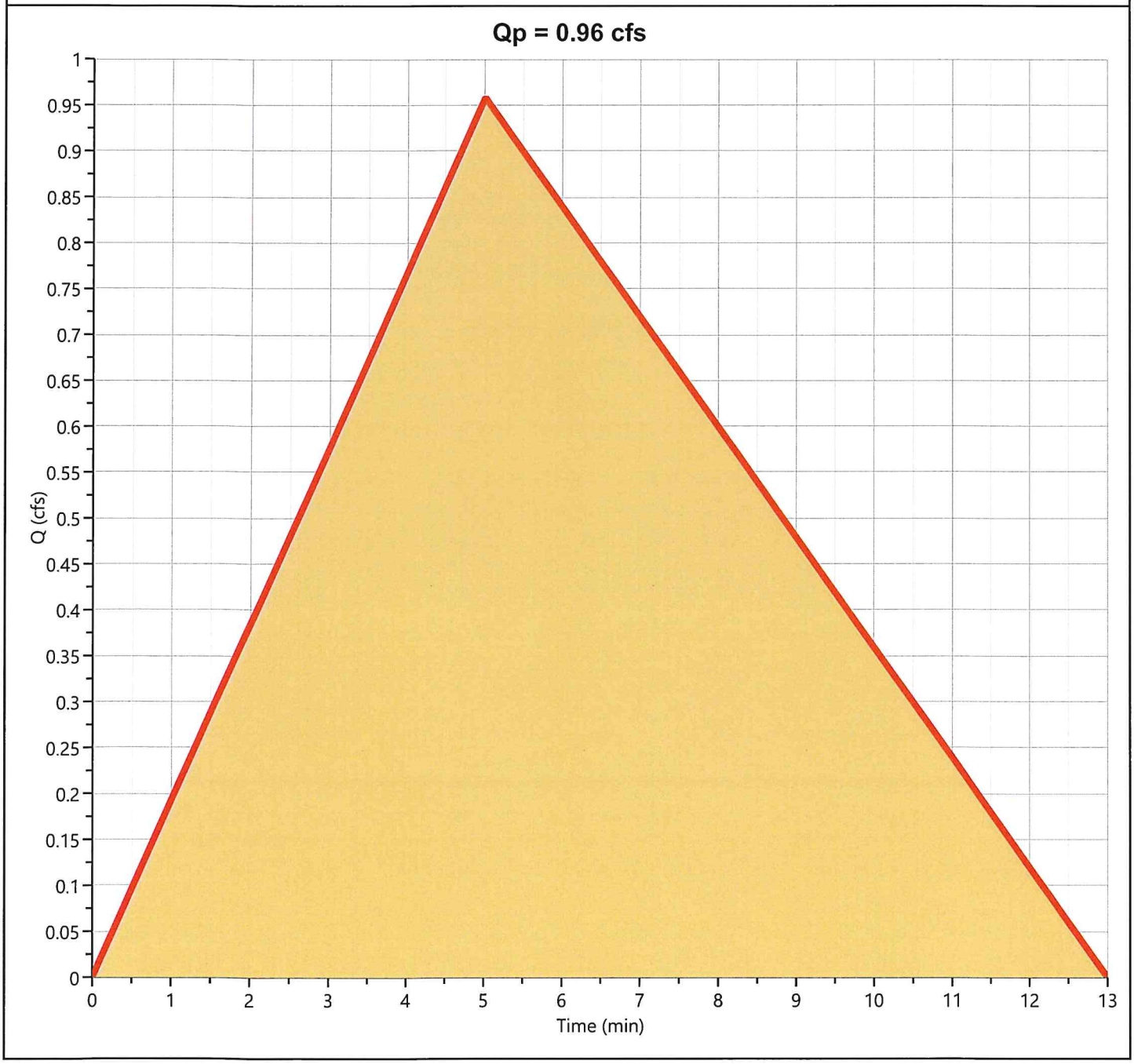
Hydrology Studio v 3.0.0.18

04-08-2021

Post DA A2 (Roof& Drivewa

Hyd. No. 4

Hydrograph Type	= Rational	Peak Flow	= 0.959 cfs
Storm Frequency	= 2-yr	Time to Peak	= 0.08 hrs
Time Interval	= 1 min	Runoff Volume	= 384 cuft
Drainage Area	= 0.21 ac	Runoff Coeff.	= 0.9
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
IDF Curve	= Project0996.idf	Intensity	= 5.07 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	= 1/1.67



Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

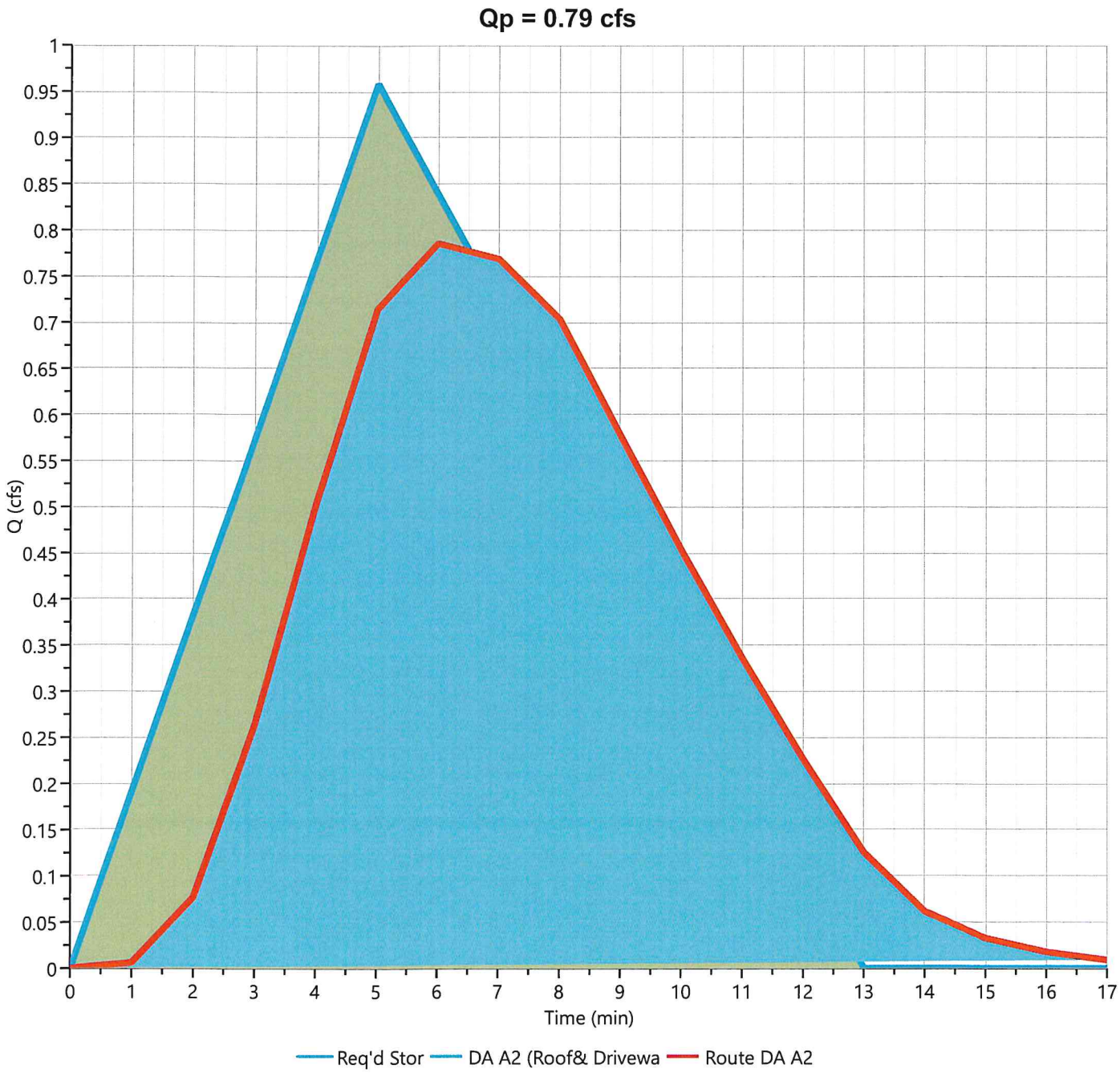
Route DA A2

Hyd. No. 5

Hydrograph Type	= Pond Route	Peak Flow	= 0.786 cfs
Storm Frequency	= 2-yr	Time to Peak	= 0.10 hrs
Time Interval	= 1 min	Hydrograph Volume	= 340 cuft
Inflow Hydrograph	= 4 - DA A2 (Roof& Drivewa	Max. Elevation	= 958.56 ft
Pond Name	= UGDB1	Max. Storage	= 70.8 cuft

Pond Routing by Storage Indication Method

Center of mass detention time = 1 min



Hydrograph Report

Project Name:

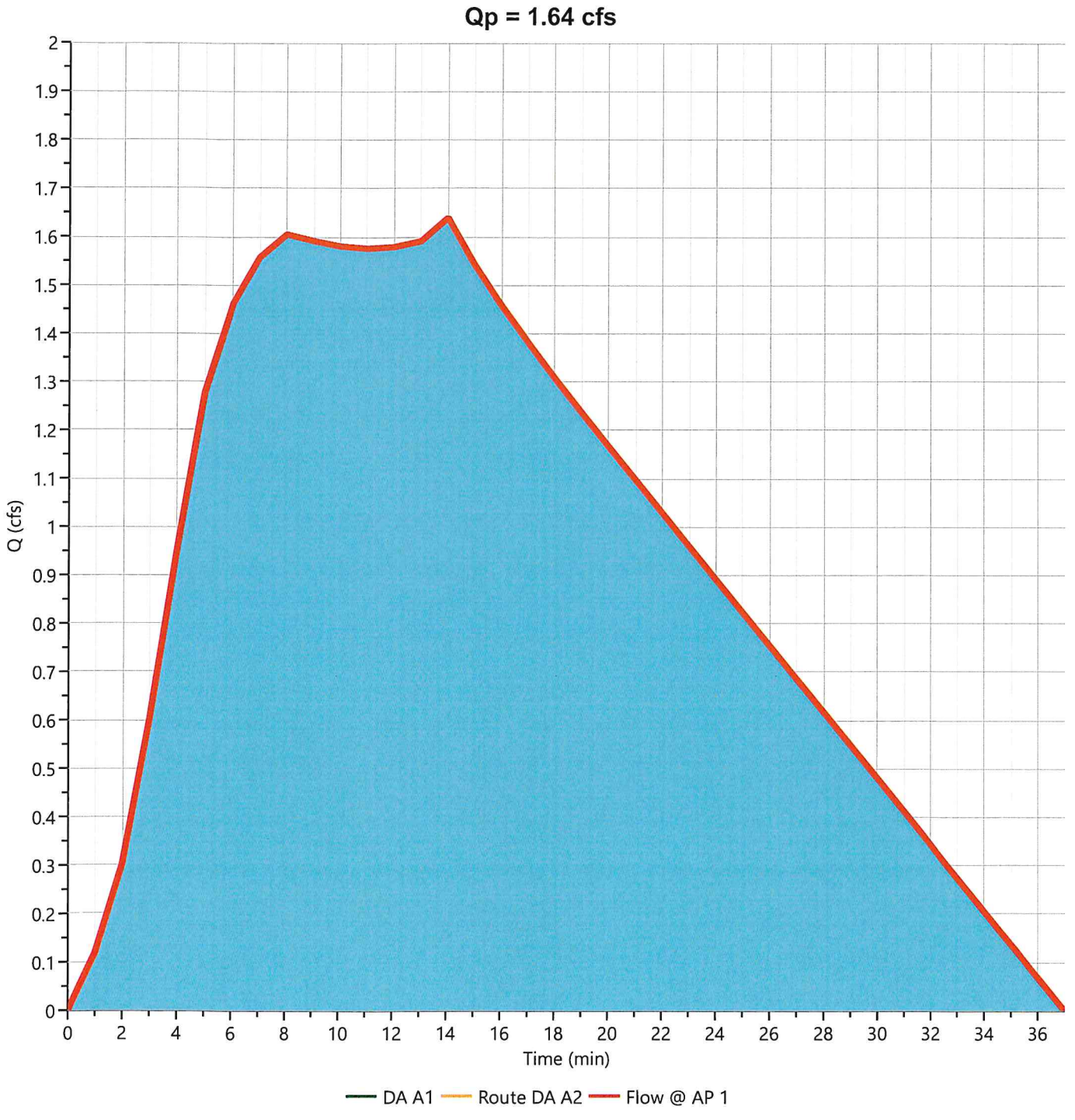
Hydrology Studio v 3.0.0.18

04-08-2021

Post Flow @ AP 1

Hyd. No. 6

Hydrograph Type	= Junction	Peak Flow	= 1.640 cfs
Storm Frequency	= 2-yr	Time to Peak	= 0.23 hrs
Time Interval	= 1 min	Hydrograph Volume	= 2,092 cuft
Inflow Hydrographs	= 3, 5	Total Contrib. Area	= 2.25 ac



Hydrograph Report

Project Name:

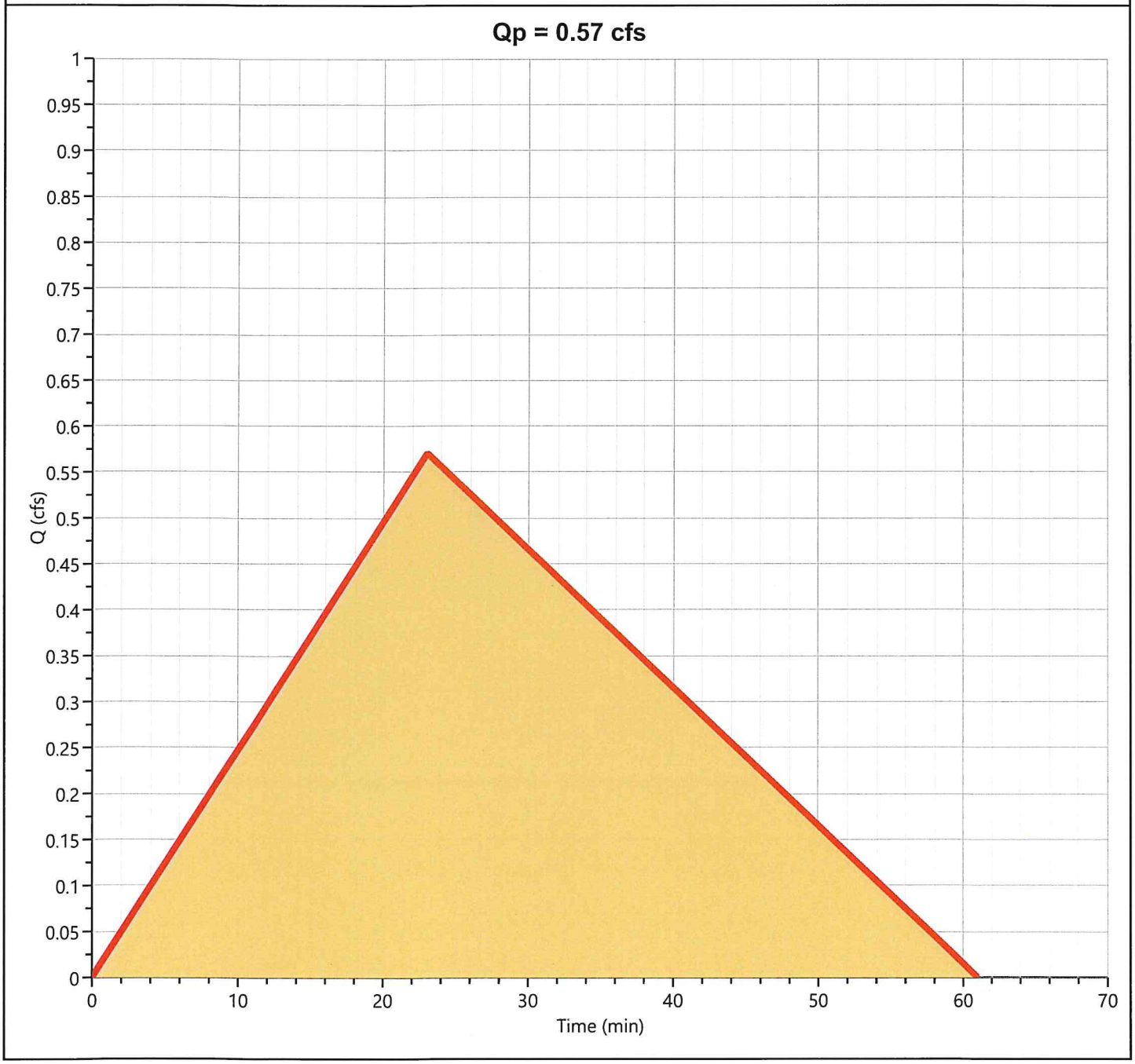
Hydrology Studio v 3.0.0.18

04-08-2021

Post DA B1

Hyd. No. 7

Hydrograph Type	= Rational	Peak Flow	= 0.571 cfs
Storm Frequency	= 2-yr	Time to Peak	= 0.38 hrs
Time Interval	= 1 min	Runoff Volume	= 1,052 cuft
Drainage Area	= 0.76 ac	Runoff Coeff.	= 0.33
Tc Method	= User	Time of Conc. (Tc)	= 23.0 min
IDF Curve	= Project0996.idf	Intensity	= 2.28 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	= 1/1.67



Hydrograph Report

Project Name:

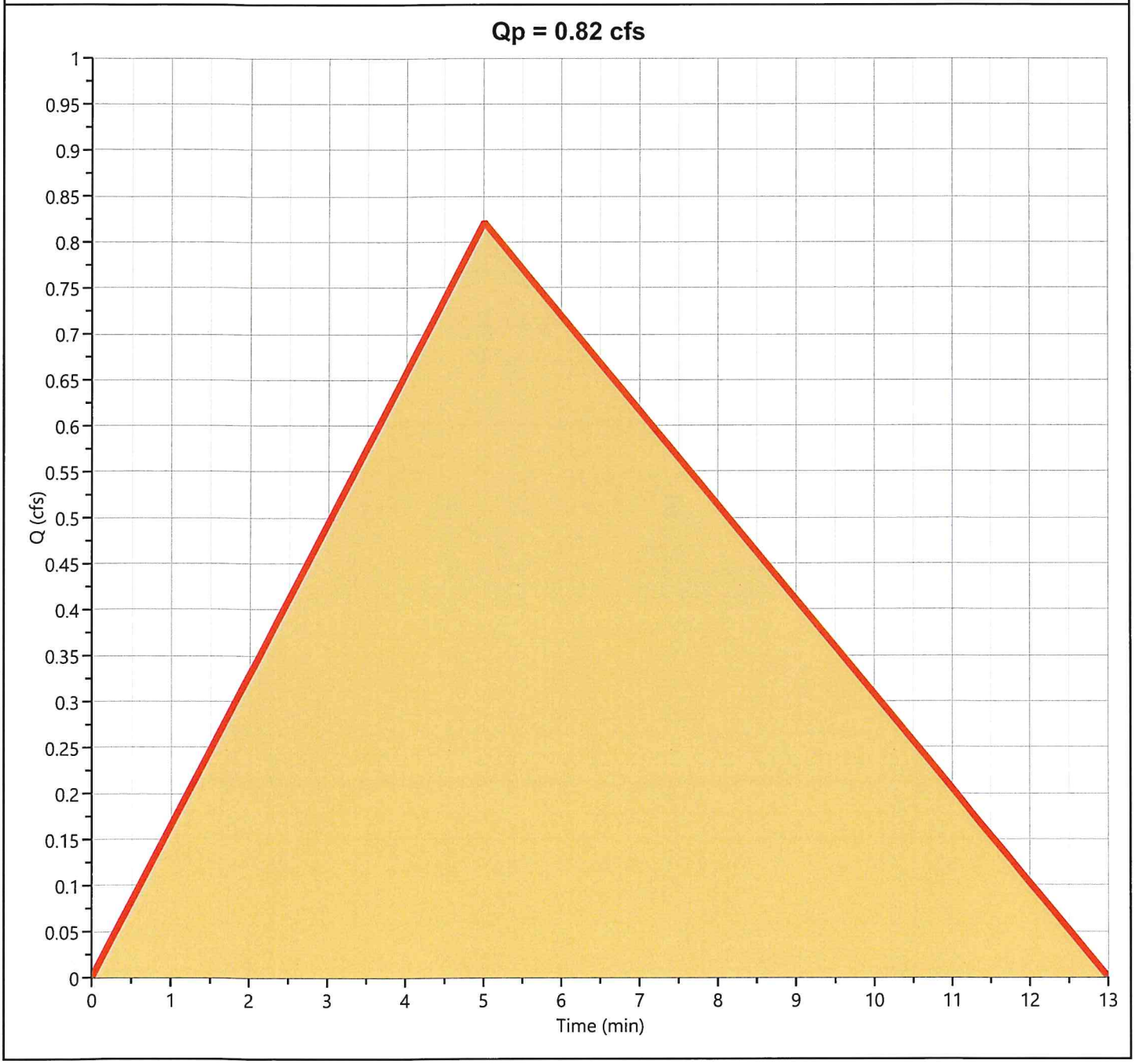
Hydrology Studio v 3.0.0.18

04-08-2021

Post DA B2

Hyd. No. 8

Hydrograph Type	= Rational	Peak Flow	= 0.822 cfs
Storm Frequency	= 2-yr	Time to Peak	= 0.08 hrs
Time Interval	= 1 min	Runoff Volume	= 329 cuft
Drainage Area	= 0.18 ac	Runoff Coeff.	= 0.9
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
IDF Curve	= Project0996.idf	Intensity	= 5.07 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	= 1/1.67



Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

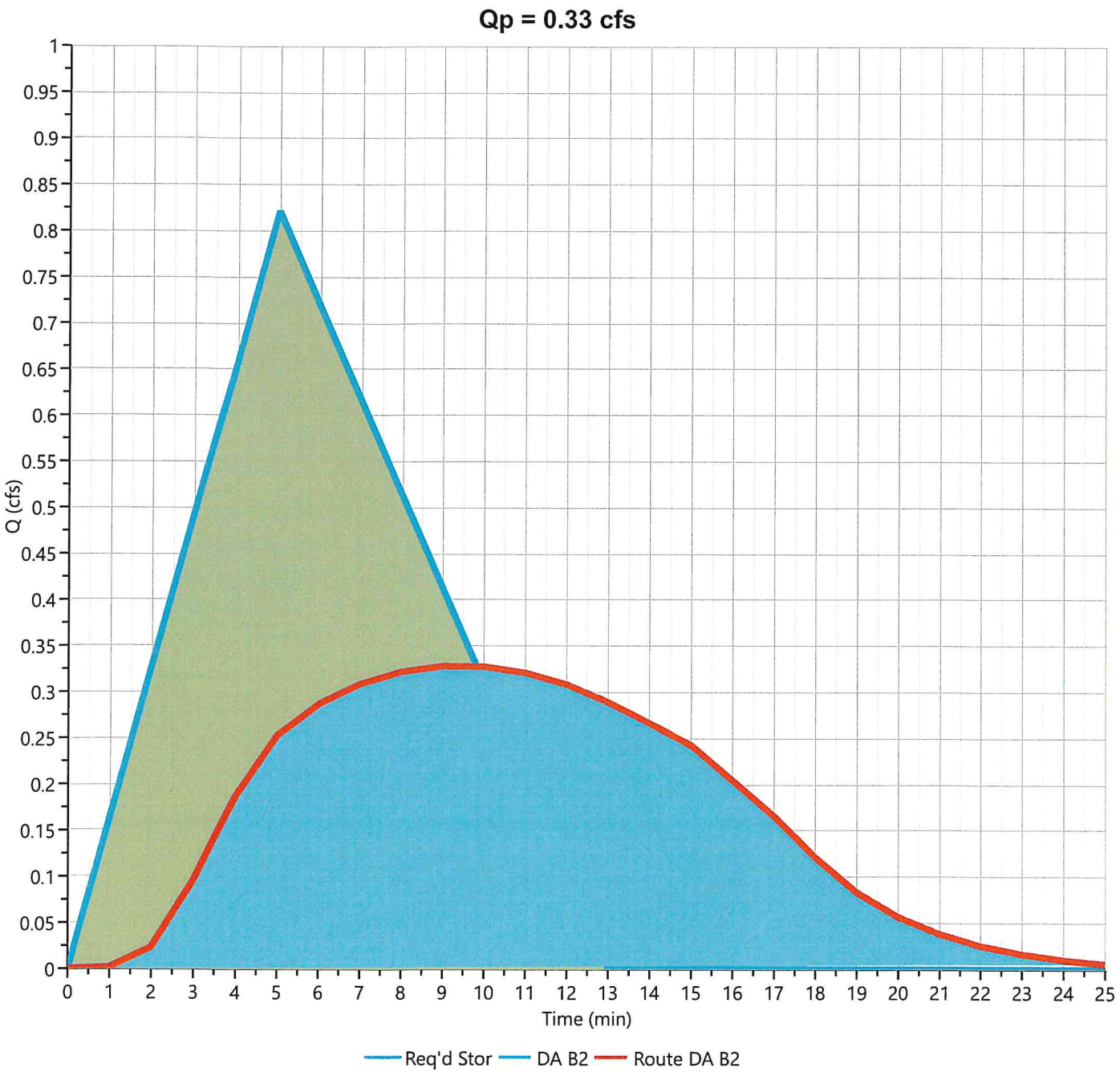
Route DA B2

Hyd. No. 9

Hydrograph Type	= Pond Route	Peak Flow	= 0.328 cfs
Storm Frequency	= 2-yr	Time to Peak	= 0.15 hrs
Time Interval	= 1 min	Hydrograph Volume	= 258 cuft
Inflow Hydrograph	= 8 - DA B2	Max. Elevation	= 958.78 ft
Pond Name	= UGB2	Max. Storage	= 153 cuft

Pond Routing by Storage Indication Method

Center of mass detention time = 5 min



Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

Post DA B3

Hyd. No. 10

Hydrograph Type	= Rational	Peak Flow	= 1.598 cfs
Storm Frequency	= 2-yr	Time to Peak	= 0.08 hrs
Time Interval	= 1 min	Runoff Volume	= 640 cuft
Drainage Area	= 0.35 ac	Runoff Coeff.	= 0.9
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
IDF Curve	= Project0996.idf	Intensity	= 5.07 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	= 1/1.67

Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

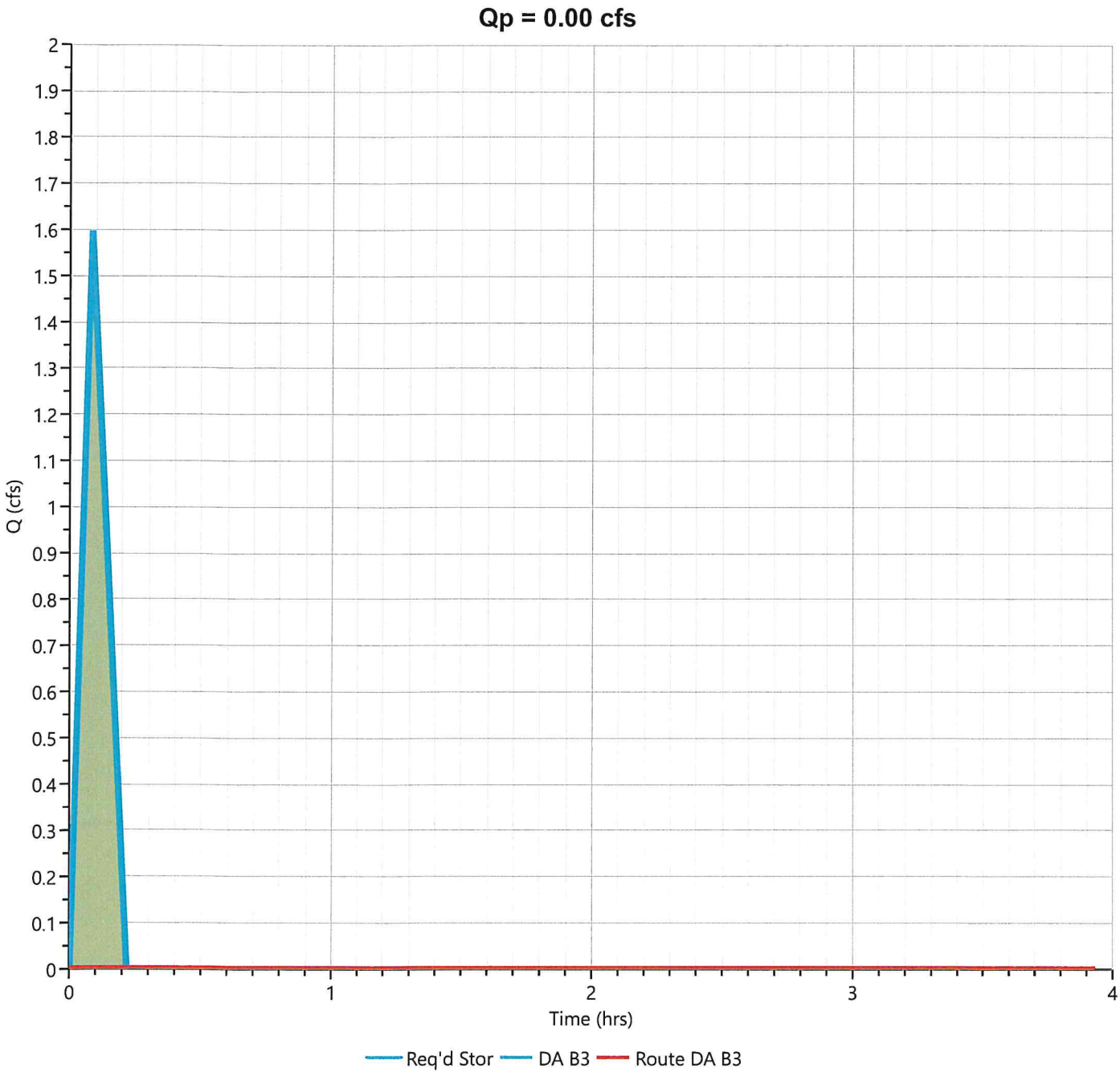
Route DA B3

Hyd. No. 11

Hydrograph Type	= Pond Route	Peak Flow	= 0.000 cfs
Storm Frequency	= 2-yr	Time to Peak	= 3.92 hrs
Time Interval	= 1 min	Hydrograph Volume	= 0.000 cuft
Inflow Hydrograph	= 10 - DA B3	Max. Elevation	= 965.19 ft
Pond Name	= Rain Garden	Max. Storage	= 591 cuft

Pond Routing by Storage Indication Method

Center of mass detention time = 3.82 hrs



Hydrograph Report

Project Name:

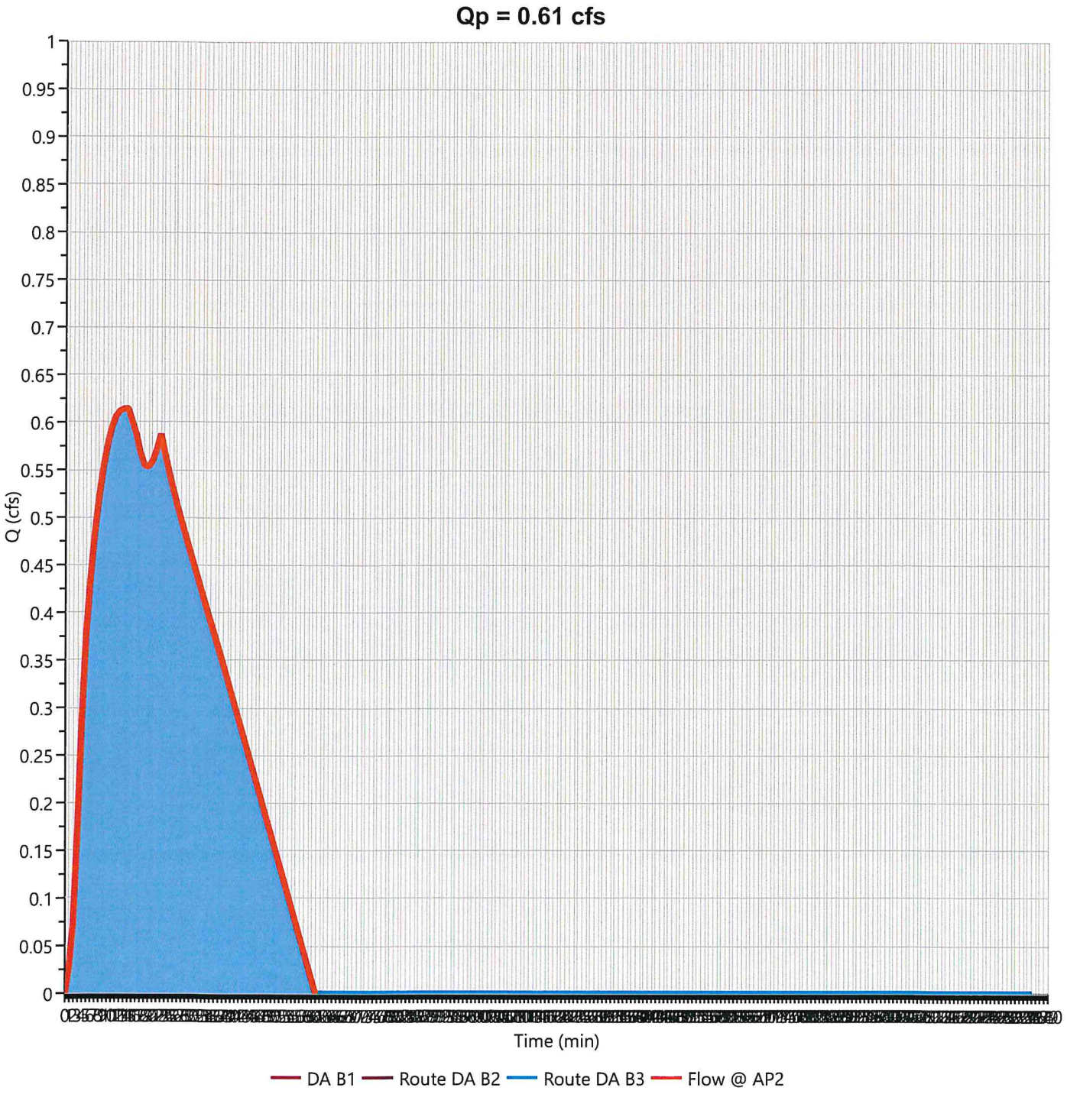
Hydrology Studio v 3.0.0.18

04-08-2021

Post Flow @ AP2

Hyd. No. 12

Hydrograph Type	= Junction	Peak Flow	= 0.615 cfs
Storm Frequency	= 2-yr	Time to Peak	= 0.25 hrs
Time Interval	= 1 min	Hydrograph Volume	= 1,302 cuft
Inflow Hydrographs	= 7, 9, 11	Total Contrib. Area	= 0.76 ac



DYMAR

5 YEAR STORM

Hydrograph 5-yr Summary

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Flow (cfs)	Time to Peak (hrs)	Hydrograph Volume (cuft)	Inflow Hyd(s)	Maximum Elevation (ft)	Maximum Storage (cuft)
1	Rational	Pre DA A @ AP 1	2.060	0.23	2,310	----		
2	Rational	Pre DA B @ AP 2	0.878	0.38	1,617	----		
3	Rational	Post DA A1	1.969	0.23	2,208	----		
4	Rational	Post DA A2 (Roof& Drivewa	1.194	0.08	478	----		
5	Pond Route	Route DA A2	0.942	0.10	431	4	958.65	88.7
6	Junction	Post Flow @ AP 1	2.042	0.15	2,617	3, 5		
7	Rational	Post DA B1	0.711	0.38	1,310	----		
8	Rational	Post DA B2	1.023	0.08	410	----		
9	Pond Route	Route DA B2	0.377	0.17	330	8	958.98	205
10	Rational	Post DA B3	1.989	0.08	797	----		
11	Pond Route	Route DA B3	0.000	5.82	0.000	10	965.39	741
12	Junction	Post Flow @ AP2	0.777	0.28	1,631	7, 9, 11		

Hydrograph Report

Project Name:

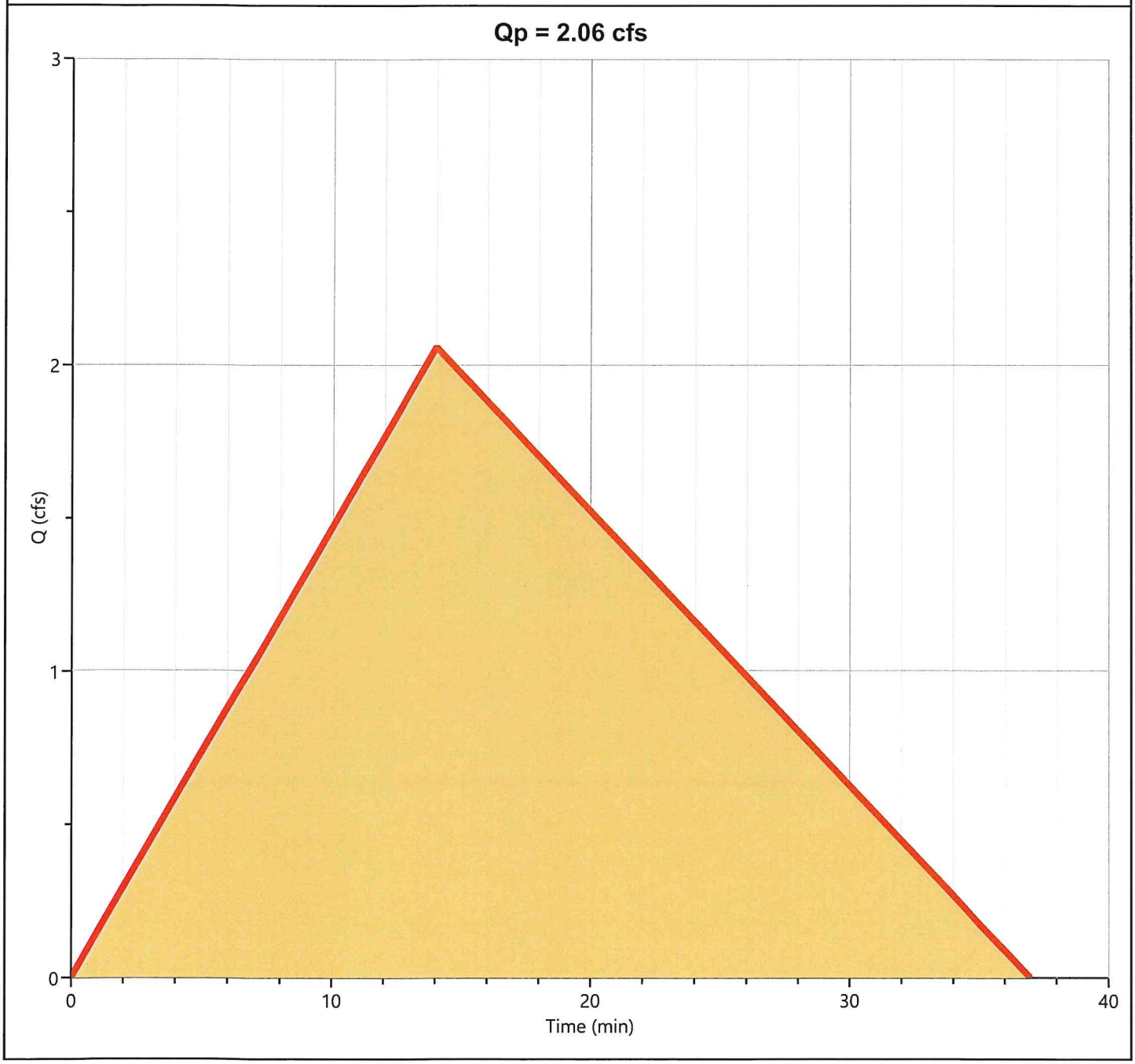
Hydrology Studio v 3.0.0.18

04-08-2021

Pre DA A @ AP 1

Hyd. No. 1

Hydrograph Type	= Rational	Peak Flow	= 2.060 cfs
Storm Frequency	= 5-yr	Time to Peak	= 0.23 hrs
Time Interval	= 1 min	Runoff Volume	= 2,310 cuft
Drainage Area	= 2.46 ac	Runoff Coeff.	= 0.22
Tc Method	= User	Time of Conc. (Tc)	= 14.0 min
IDF Curve	= Project0996.idf	Intensity	= 3.81 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	= 1/1.67



Hydrograph Report

Project Name:

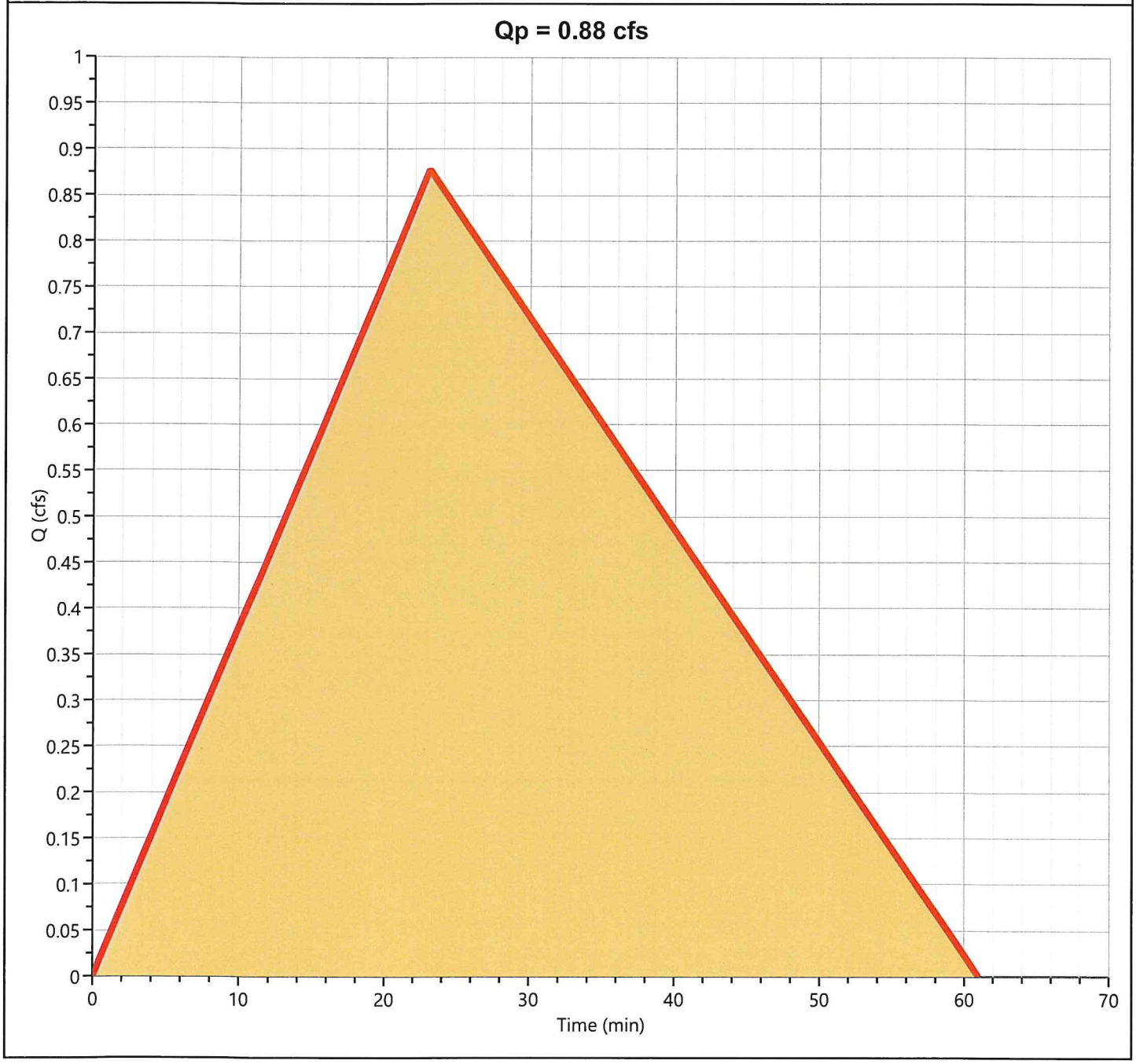
Hydrology Studio v 3.0.0.18

04-08-2021

Pre DA B @ AP 2

Hyd. No. 2

Hydrograph Type	= Rational	Peak Flow	= 0.878 cfs
Storm Frequency	= 5-yr	Time to Peak	= 0.38 hrs
Time Interval	= 1 min	Runoff Volume	= 1,617 cuft
Drainage Area	= 1.29 ac	Runoff Coeff.	= 0.24
Tc Method	= User	Time of Conc. (Tc)	= 23.0 min
IDF Curve	= Project0996.idf	Intensity	= 2.84 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	= 1/1.67



Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

Post DA A1

Hyd. No. 3

Hydrograph Type	= Rational	Peak Flow	= 1.969 cfs
Storm Frequency	= 5-yr	Time to Peak	= 0.23 hrs
Time Interval	= 1 min	Runoff Volume	= 2,208 cuft
Drainage Area	= 2.25 ac	Runoff Coeff.	= 0.23
Tc Method	= User	Time of Conc. (Tc)	= 14.0 min
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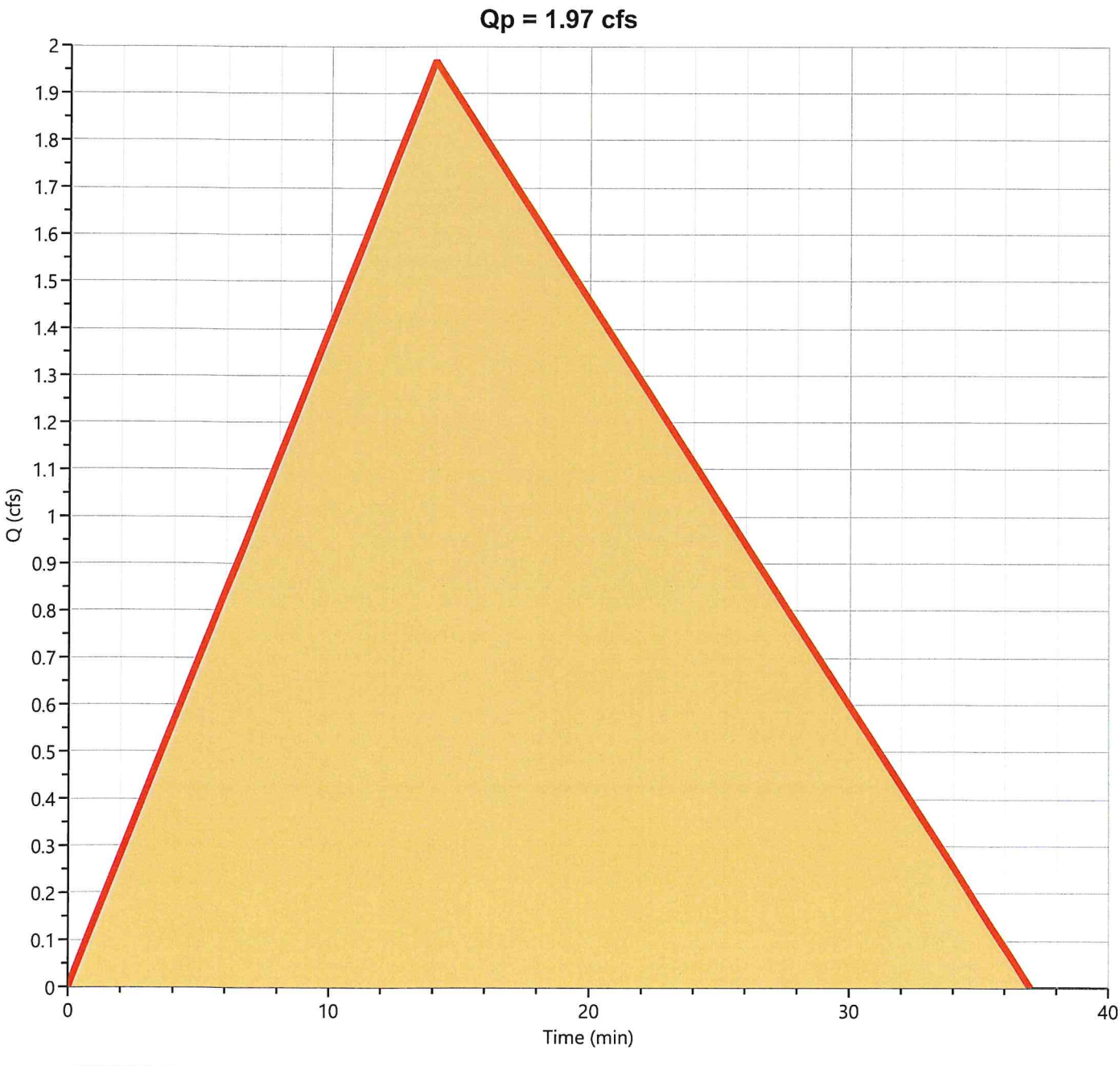


Hydrograph Report

Project Name:

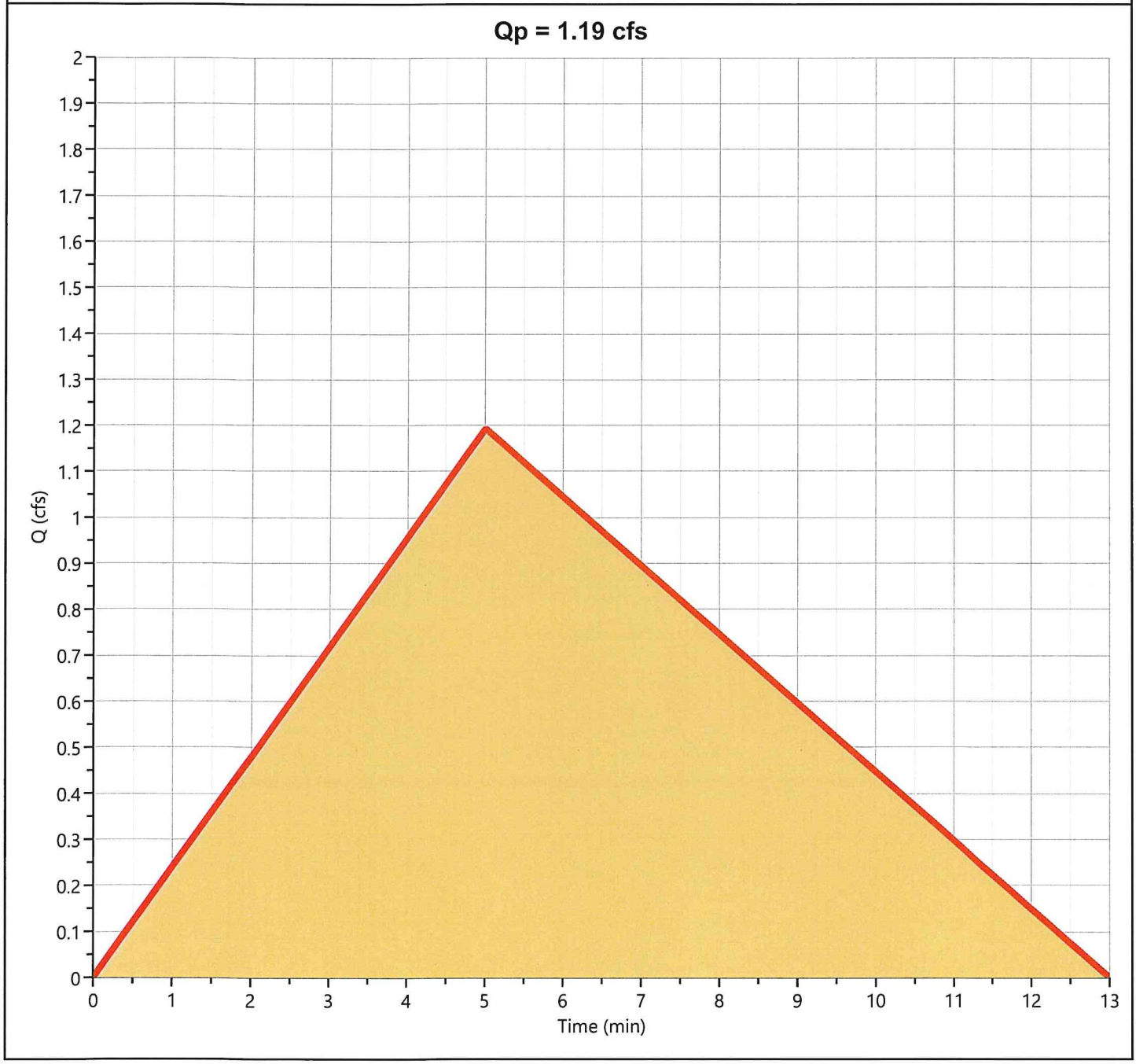
Hydrology Studio v 3.0.0.18

04-08-2021

Post DA A2 (Roof& Drivewa

Hyd. No. 4

Hydrograph Type	= Rational	Peak Flow	= 1.194 cfs
Storm Frequency	= 5-yr	Time to Peak	= 0.08 hrs
Time Interval	= 1 min	Runoff Volume	= 478 cuft
Drainage Area	= 0.21 ac	Runoff Coeff.	= 0.9
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
IDF Curve	= Project0996.idf	Intensity	= 6.32 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	= 1/1.67



Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

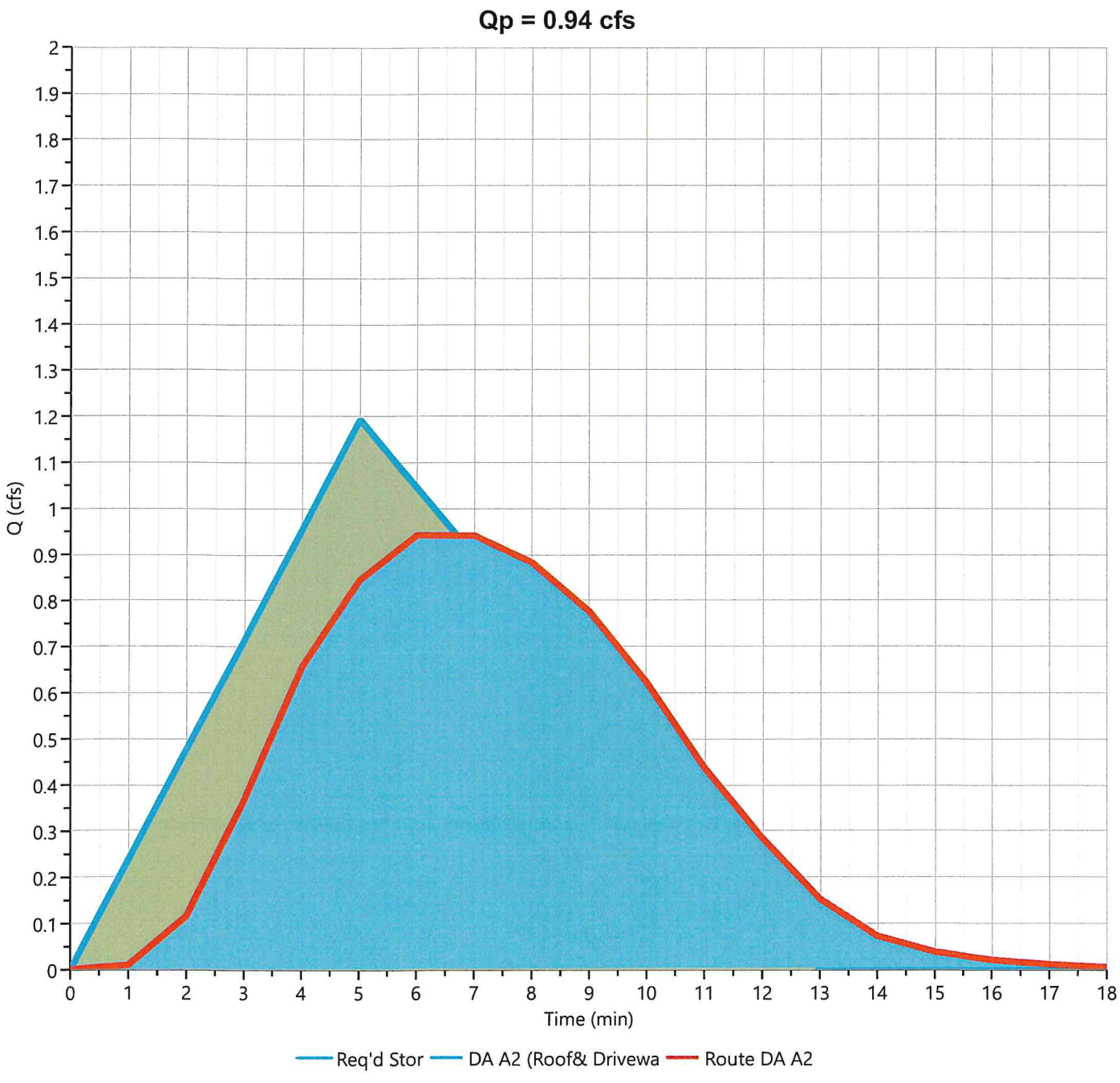
Route DA A2

Hyd. No. 5

Hydrograph Type	= Pond Route	Peak Flow	= 0.942 cfs
Storm Frequency	= 5-yr	Time to Peak	= 0.10 hrs
Time Interval	= 1 min	Hydrograph Volume	= 431 cuft
Inflow Hydrograph	= 4 - DA A2 (Roof& Drivewa	Max. Elevation	= 958.65 ft
Pond Name	= UGDB1	Max. Storage	= 88.7 cuft

Pond Routing by Storage Indication Method

Center of mass detention time = 1 min



Hydrograph Report

Project Name:

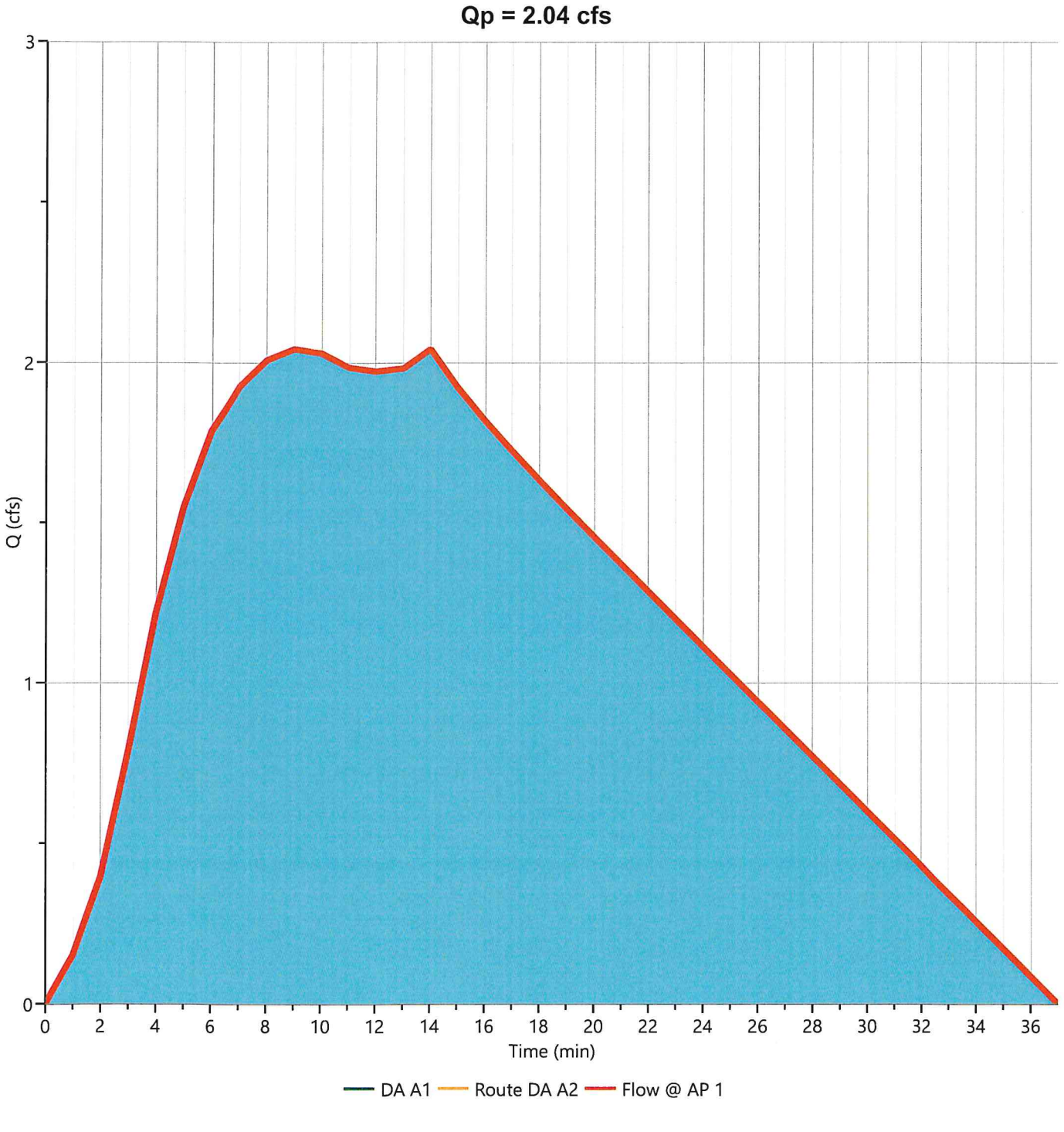
Hydrology Studio v 3.0.0.18

04-08-2021

Post Flow @ AP 1

Hyd. No. 6

Hydrograph Type	= Junction	Peak Flow	= 2.042 cfs
Storm Frequency	= 5-yr	Time to Peak	= 0.15 hrs
Time Interval	= 1 min	Hydrograph Volume	= 2,617 cuft
Inflow Hydrographs	= 3, 5	Total Contrib. Area	= 2.25 ac



Hydrograph Report

Project Name:

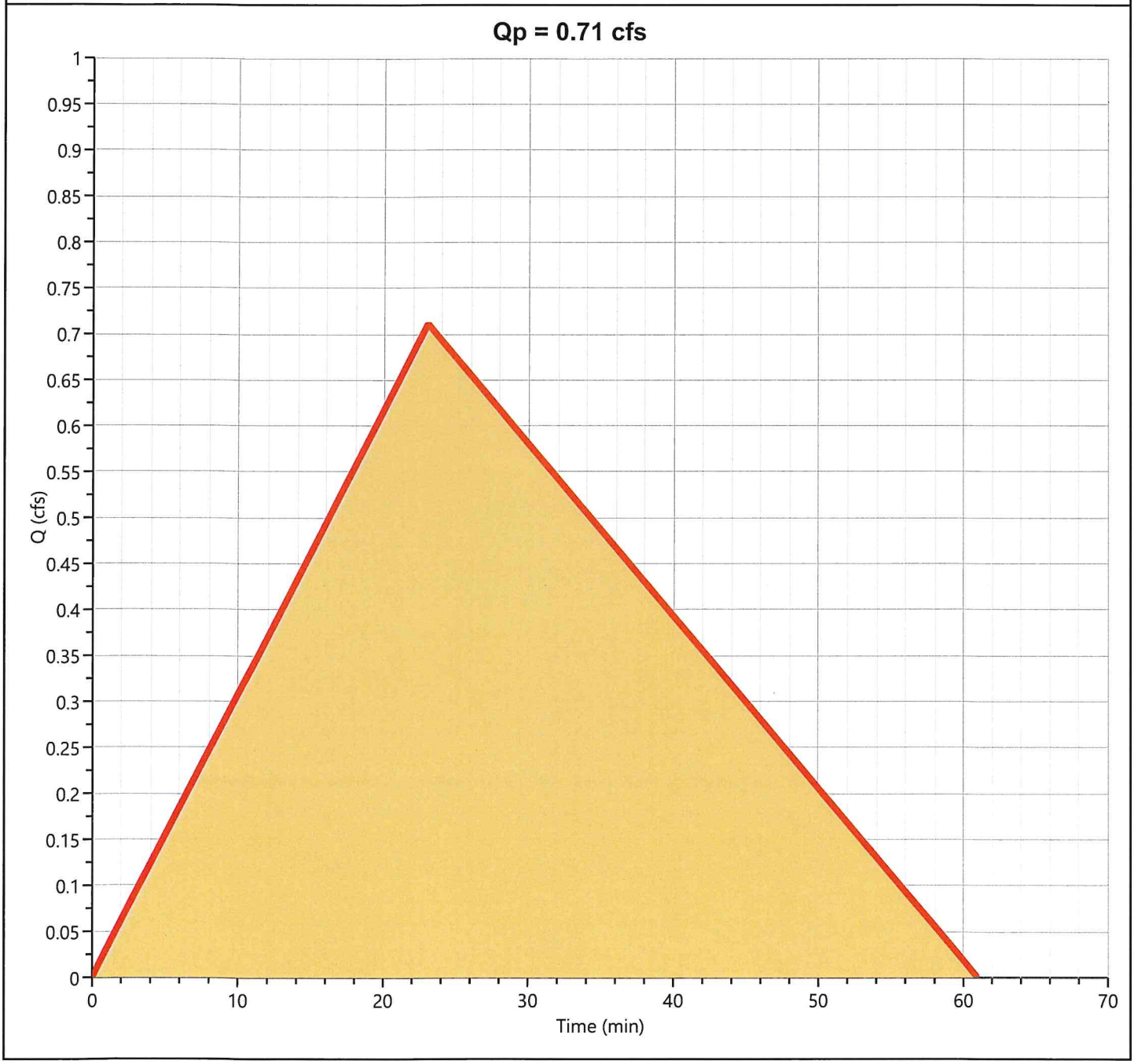
Hydrology Studio v 3.0.0.18

04-08-2021

Post DA B1

Hyd. No. 7

Hydrograph Type	= Rational	Peak Flow	= 0.711 cfs
Storm Frequency	= 5-yr	Time to Peak	= 0.38 hrs
Time Interval	= 1 min	Runoff Volume	= 1,310 cuft
Drainage Area	= 0.76 ac	Runoff Coeff.	= 0.33
Tc Method	= User	Time of Conc. (Tc)	= 23.0 min
IDF Curve	= Project0996.idf	Intensity	= 2.84 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	= 1/1.67



Hydrograph Report

Project Name:

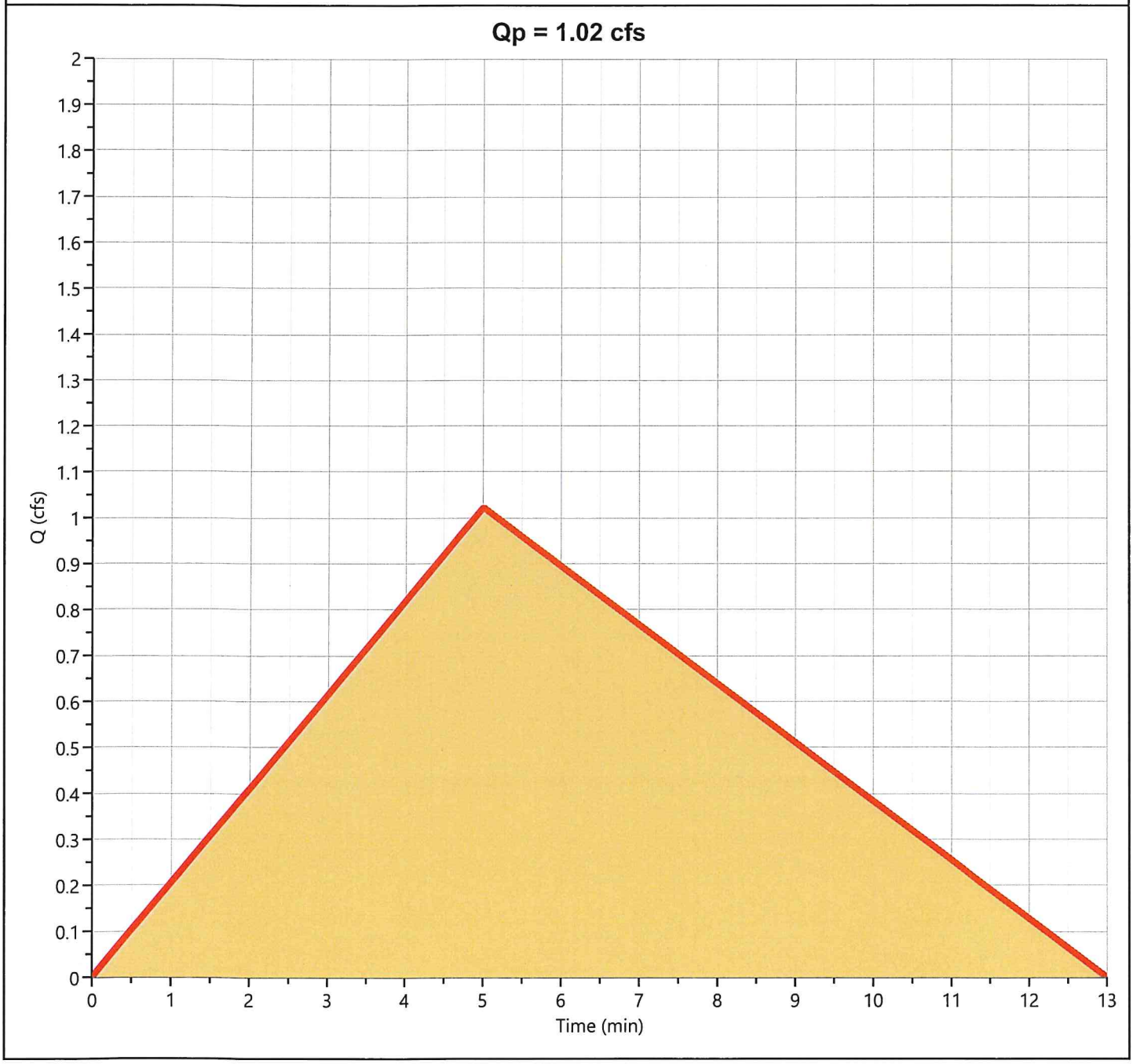
Hydrology Studio v 3.0.0.18

04-08-2021

Post DA B2

Hyd. No. 8

Hydrograph Type	= Rational	Peak Flow	= 1.023 cfs
Storm Frequency	= 5-yr	Time to Peak	= 0.08 hrs
Time Interval	= 1 min	Runoff Volume	= 410 cuft
Drainage Area	= 0.18 ac	Runoff Coeff.	= 0.9
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
IDF Curve	= Project0996.idf	Intensity	= 6.32 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	= 1/1.67



Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

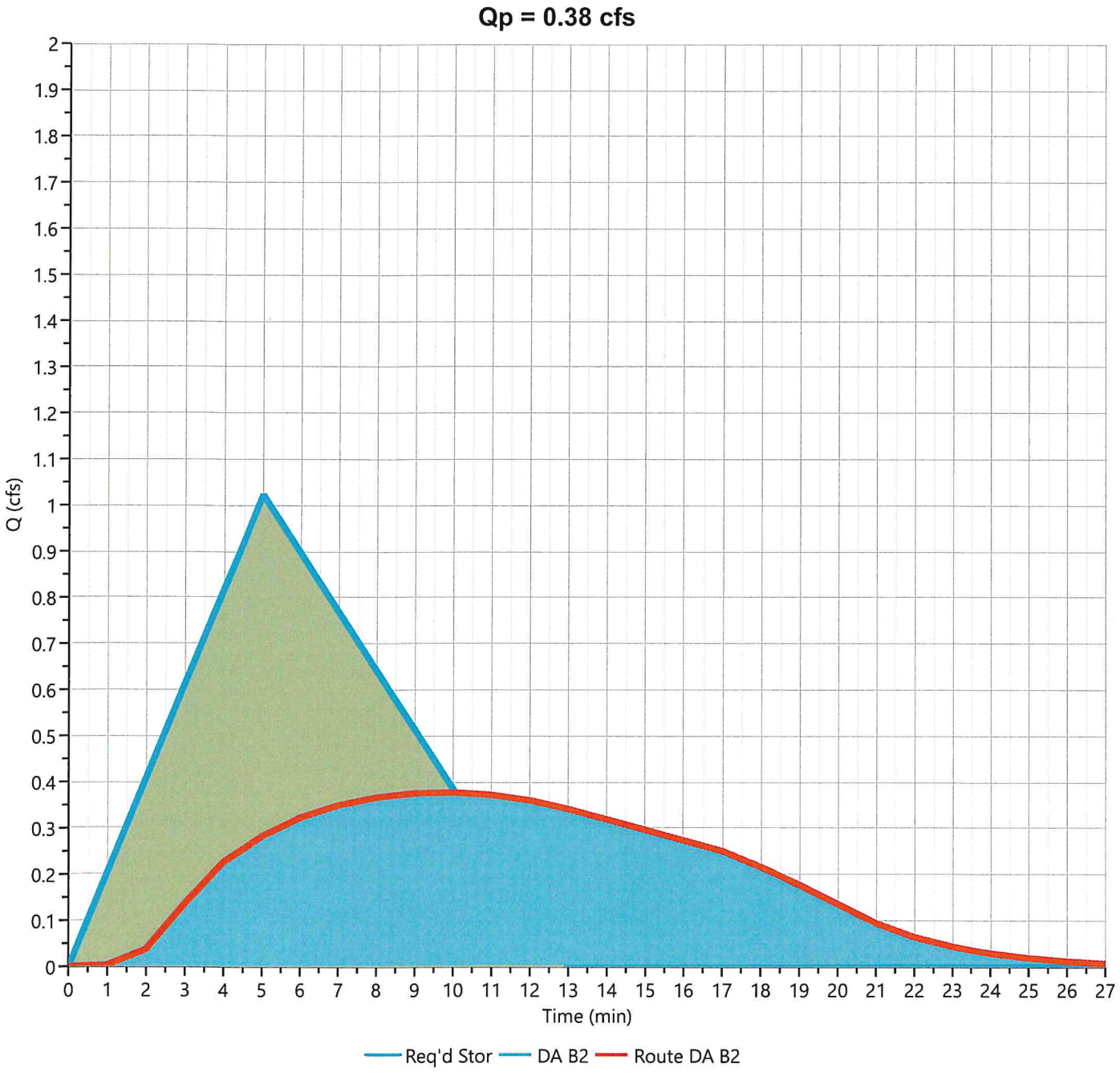
Route DA B2

Hyd. No. 9

Hydrograph Type	= Pond Route	Peak Flow	= 0.377 cfs
Storm Frequency	= 5-yr	Time to Peak	= 0.17 hrs
Time Interval	= 1 min	Hydrograph Volume	= 330 cuft
Inflow Hydrograph	= 8 - DA B2	Max. Elevation	= 958.98 ft
Pond Name	= UGB2	Max. Storage	= 205 cuft

Pond Routing by Storage Indication Method

Center of mass detention time = 6 min



Hydrograph Report

Project Name:

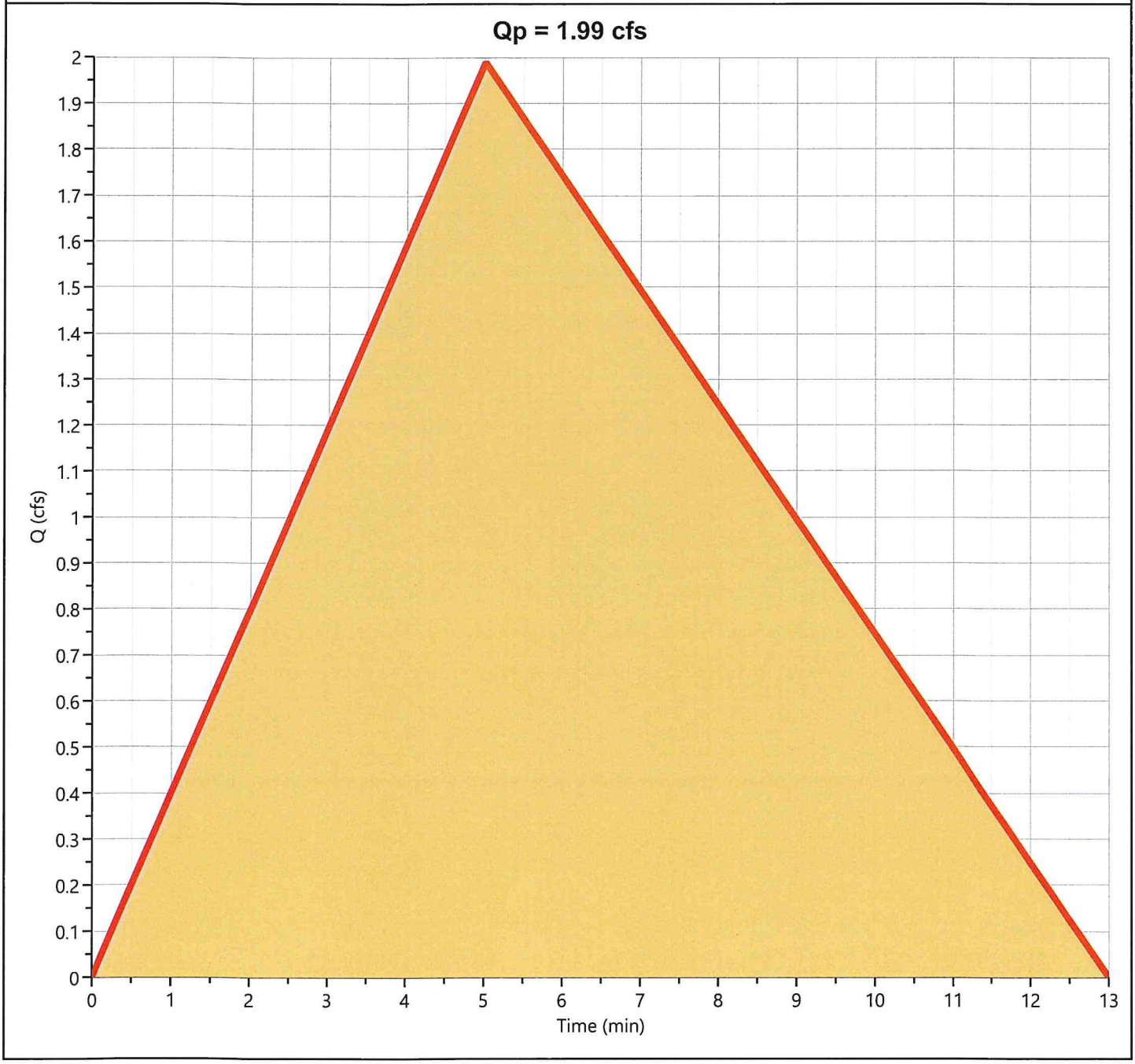
Hydrology Studio v 3.0.0.18

04-08-2021

Post DA B3

Hyd. No. 10

Hydrograph Type	= Rational	Peak Flow	= 1.989 cfs
Storm Frequency	= 5-yr	Time to Peak	= 0.08 hrs
Time Interval	= 1 min	Runoff Volume	= 797 cuft
Drainage Area	= 0.35 ac	Runoff Coeff.	= 0.9
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
IDF Curve	= Project0996.idf	Intensity	= 6.32 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	= 1/1.67



Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

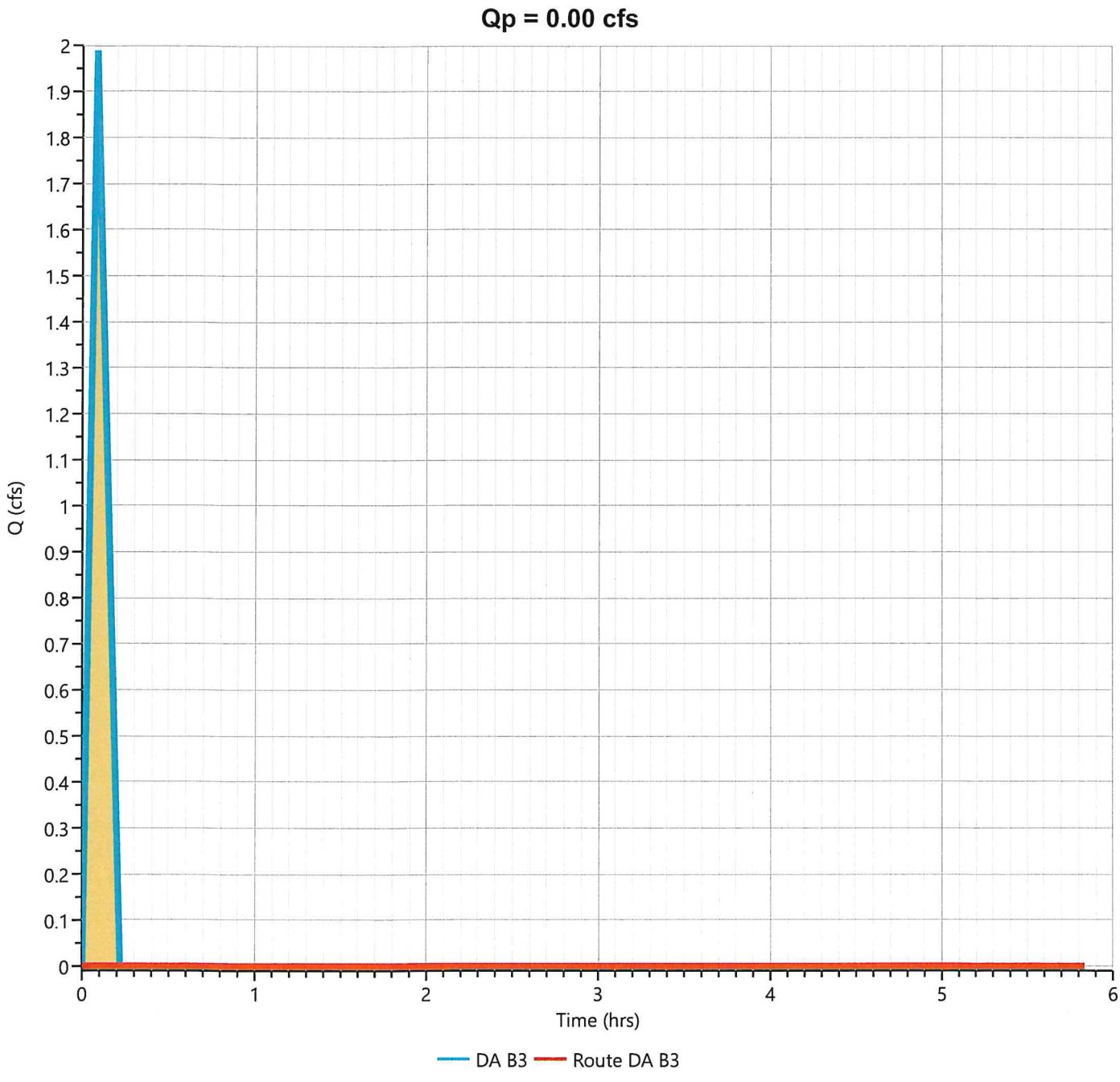
Route DA B3

Hyd. No. 11

Hydrograph Type	= Pond Route	Peak Flow	= 0.000 cfs
Storm Frequency	= 5-yr	Time to Peak	= 5.82 hrs
Time Interval	= 1 min	Hydrograph Volume	= 0.000 cuft
Inflow Hydrograph	= 10 - DA B3	Max. Elevation	= 965.39 ft
Pond Name	= Rain Garden	Max. Storage	= 741 cuft

Pond Routing by Storage Indication Method

Center of mass detention time = 5.75 hrs



Hydrograph Report

Project Name:

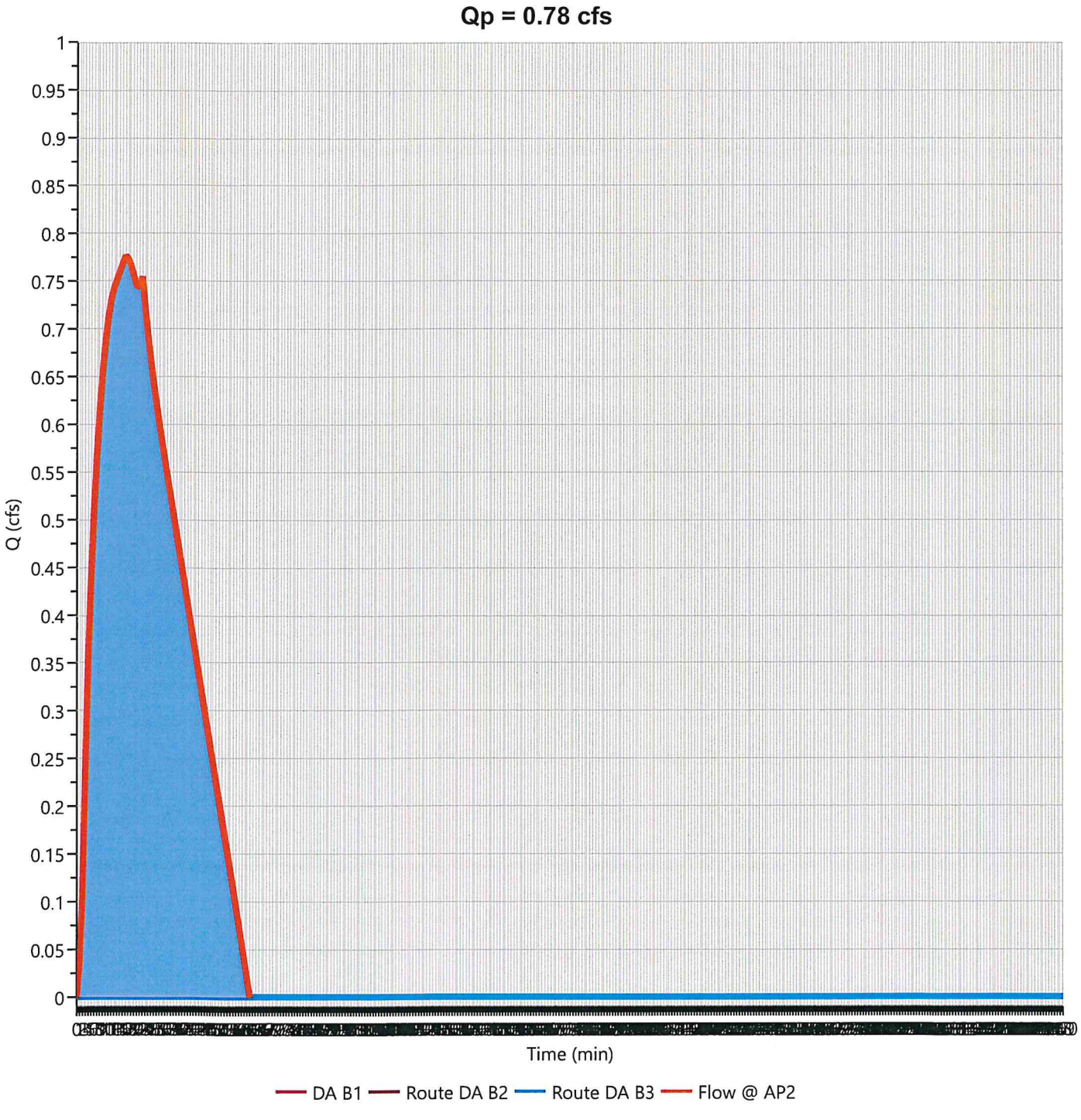
Hydrology Studio v 3.0.0.18

04-08-2021

Post Flow @ AP2

Hyd. No. 12

Hydrograph Type	= Junction	Peak Flow	= 0.777 cfs
Storm Frequency	= 5-yr	Time to Peak	= 0.28 hrs
Time Interval	= 1 min	Hydrograph Volume	= 1,631 cuft
Inflow Hydrographs	= 7, 9, 11	Total Contrib. Area	= 0.76 ac



DYMAR

10 YEAR STORM

Hydrograph 10-yr Summary

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Flow (cfs)	Time to Peak (hrs)	Hydrograph Volume (cuft)	Inflow Hyd(s)	Maximum Elevation (ft)	Maximum Storage (cuft)
1	Rational	Pre DA A @ AP 1	2.393	0.23	2,683	----		
2	Rational	Pre DA B @ AP 2	1.020	0.38	1,880	----		
3	Rational	Post DA A1	2.288	0.23	2,566	----		
4	Rational	Post DA A2 (Roof& Drivewa	1.388	0.08	556	----		
5	Pond Route	Route DA A2	1.069	0.12	506	4	958.75	108
6	Junction	Post Flow @ AP 1	2.414	0.17	3,046	3, 5		
7	Rational	Post DA B1	0.827	0.38	1,523	----		
8	Rational	Post DA B2	1.190	0.08	477	----		
9	Pond Route	Route DA B2	0.416	0.17	390	8	959.15	249
10	Rational	Post DA B3	2.314	0.08	927	----		
11	Pond Route	Route DA B3	0.000	5.68	0.000	10	965.56	865
12	Junction	Post Flow @ AP2	0.929	0.32	1,902	7, 9, 11		

Hydrograph Report

Project Name:

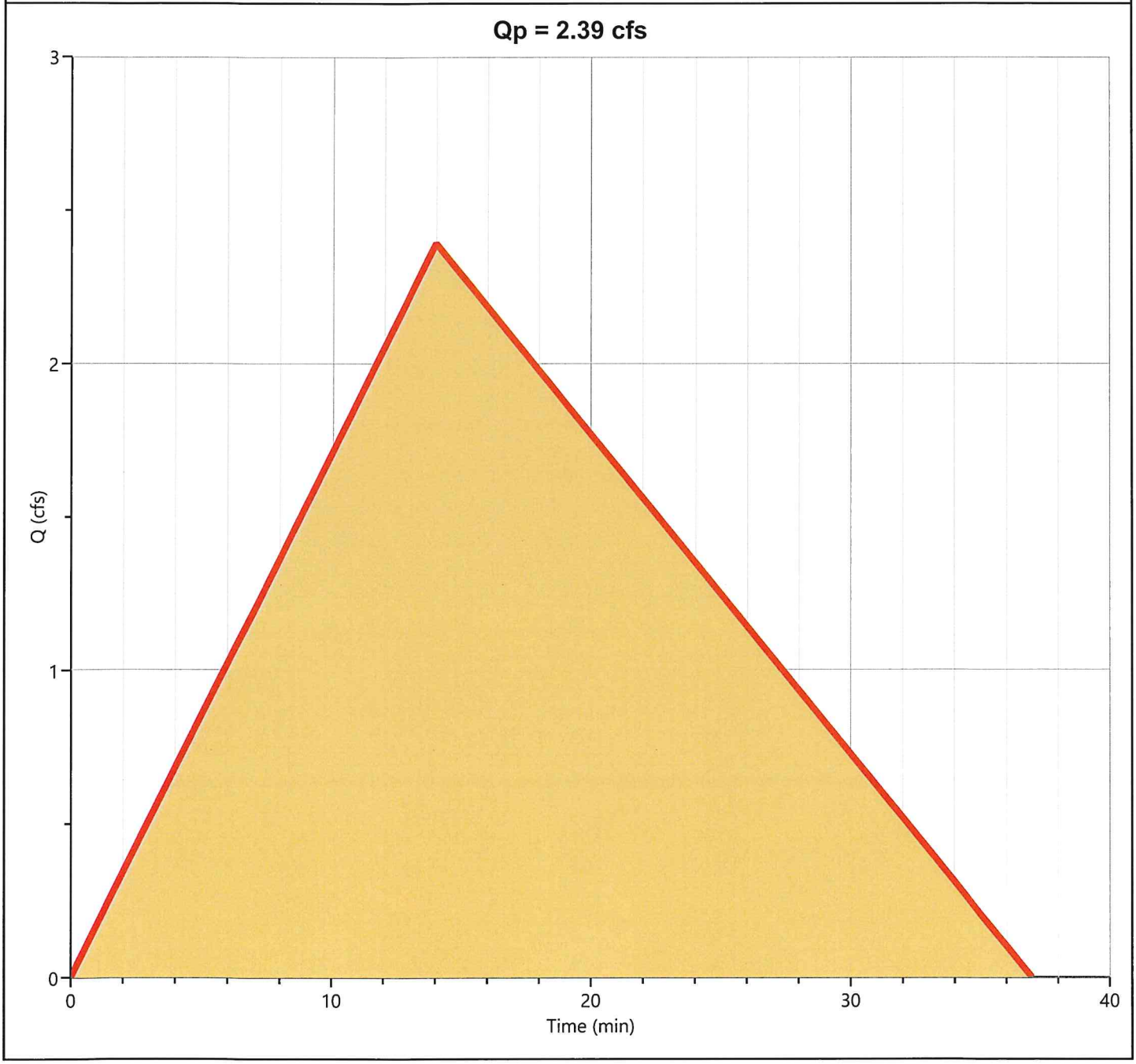
Hydrology Studio v 3.0.0.18

04-08-2021

Pre DA A @ AP 1

Hyd. No. 1

Hydrograph Type	= Rational	Peak Flow	= 2.393 cfs
Storm Frequency	= 10-yr	Time to Peak	= 0.23 hrs
Time Interval	= 1 min	Runoff Volume	= 2,683 cuft
Drainage Area	= 2.46 ac	Runoff Coeff.	= 0.22
Tc Method	= User	Time of Conc. (Tc)	= 14.0 min
IDF Curve	= Project0996.idf	Intensity	= 4.42 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	= 1/1.67



Hydrograph Report

Project Name:

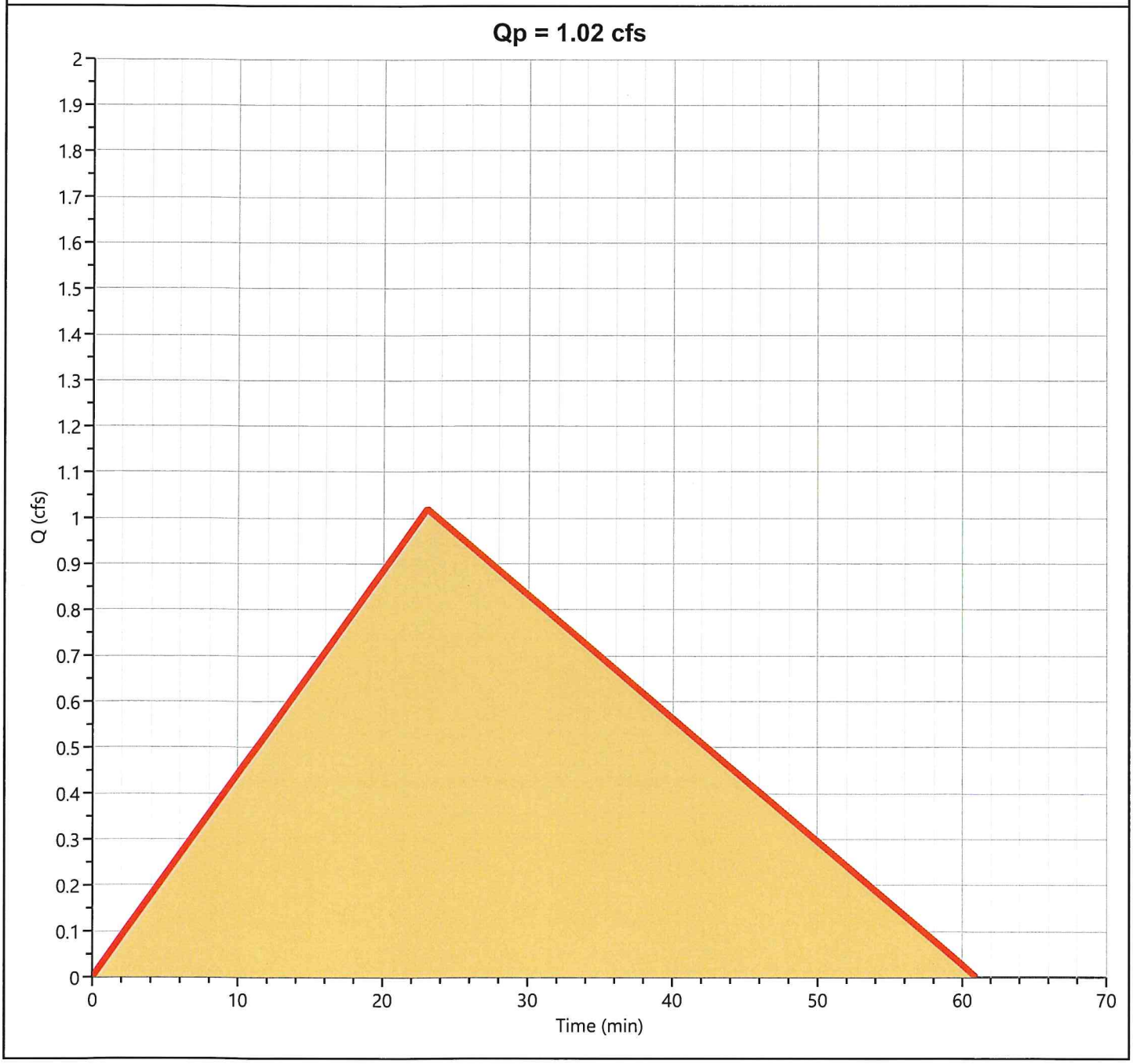
Hydrology Studio v 3.0.0.18

04-08-2021

Pre DA B @ AP 2

Hyd. No. 2

Hydrograph Type	= Rational	Peak Flow	= 1.020 cfs
Storm Frequency	= 10-yr	Time to Peak	= 0.38 hrs
Time Interval	= 1 min	Runoff Volume	= 1,880 cuft
Drainage Area	= 1.29 ac	Runoff Coeff.	= 0.24
Tc Method	= User	Time of Conc. (Tc)	= 23.0 min
IDF Curve	= Project0996.idf	Intensity	= 3.30 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	= 1/1.67



Hydrograph Report

Project Name:

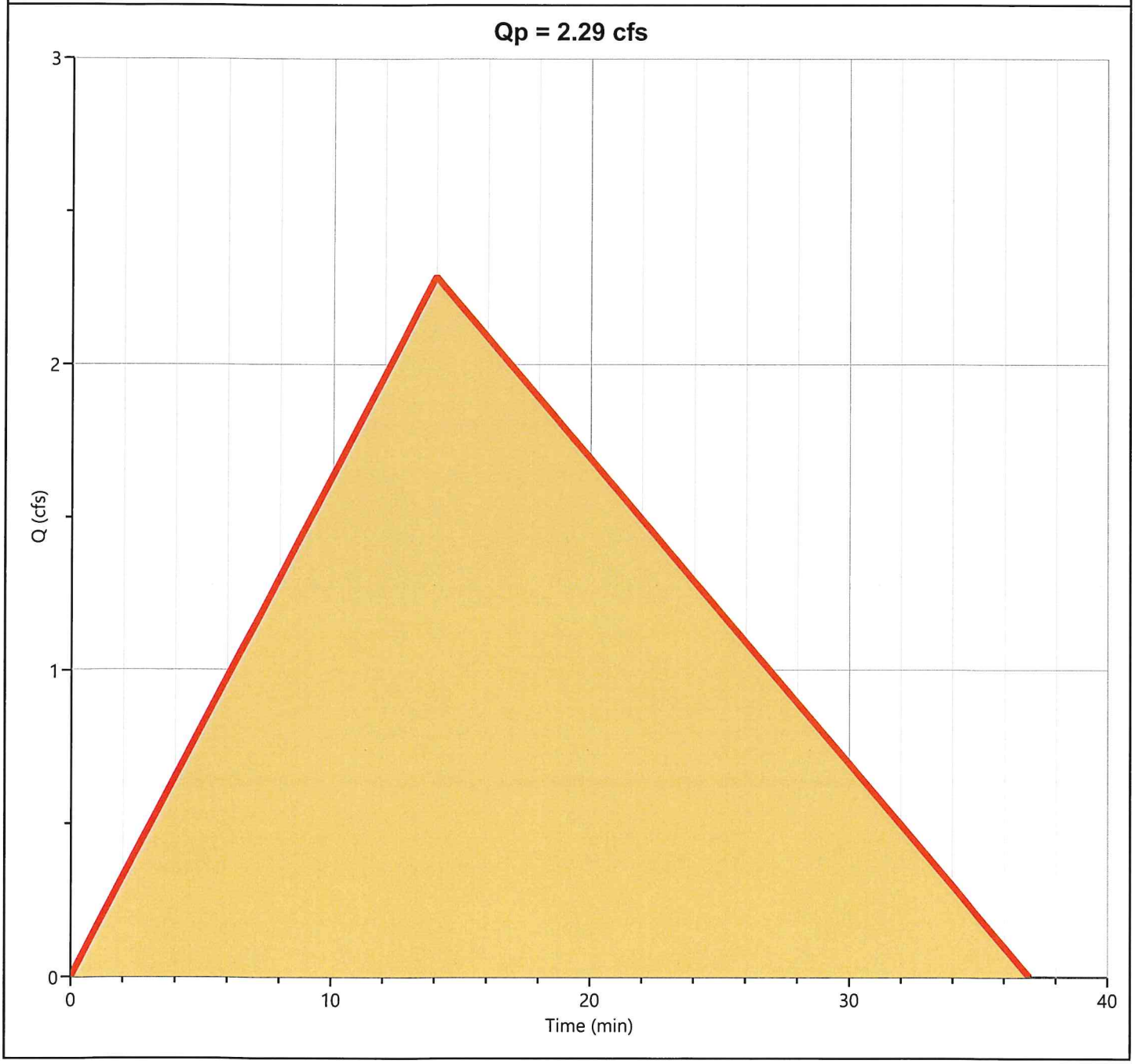
Hydrology Studio v 3.0.0.18

04-08-2021

Post DA A1

Hyd. No. 3

Hydrograph Type	= Rational	Peak Flow	= 2.288 cfs
Storm Frequency	= 10-yr	Time to Peak	= 0.23 hrs
Time Interval	= 1 min	Runoff Volume	= 2,566 cuft
Drainage Area	= 2.25 ac	Runoff Coeff.	= 0.23
Tc Method	= User	Time of Conc. (Tc)	= 14.0 min
IDF Curve	= Project0996.idf	Intensity	= 4.42 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	= 1/1.67



Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

Post DA A2 (Roof& Drivewa

Hyd. No. 4

Hydrograph Type	= Rational	Peak Flow	= 1.388 cfs
Storm Frequency	= 10-yr	Time to Peak	= 0.08 hrs
Time Interval	= 1 min	Runoff Volume	= 556 cuft
Drainage Area	= 0.21 ac	Runoff Coeff.	= 0.9
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
IDF Curve	= Project0996.idf	Intensity	= 7.34 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	= 1/1.67

Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

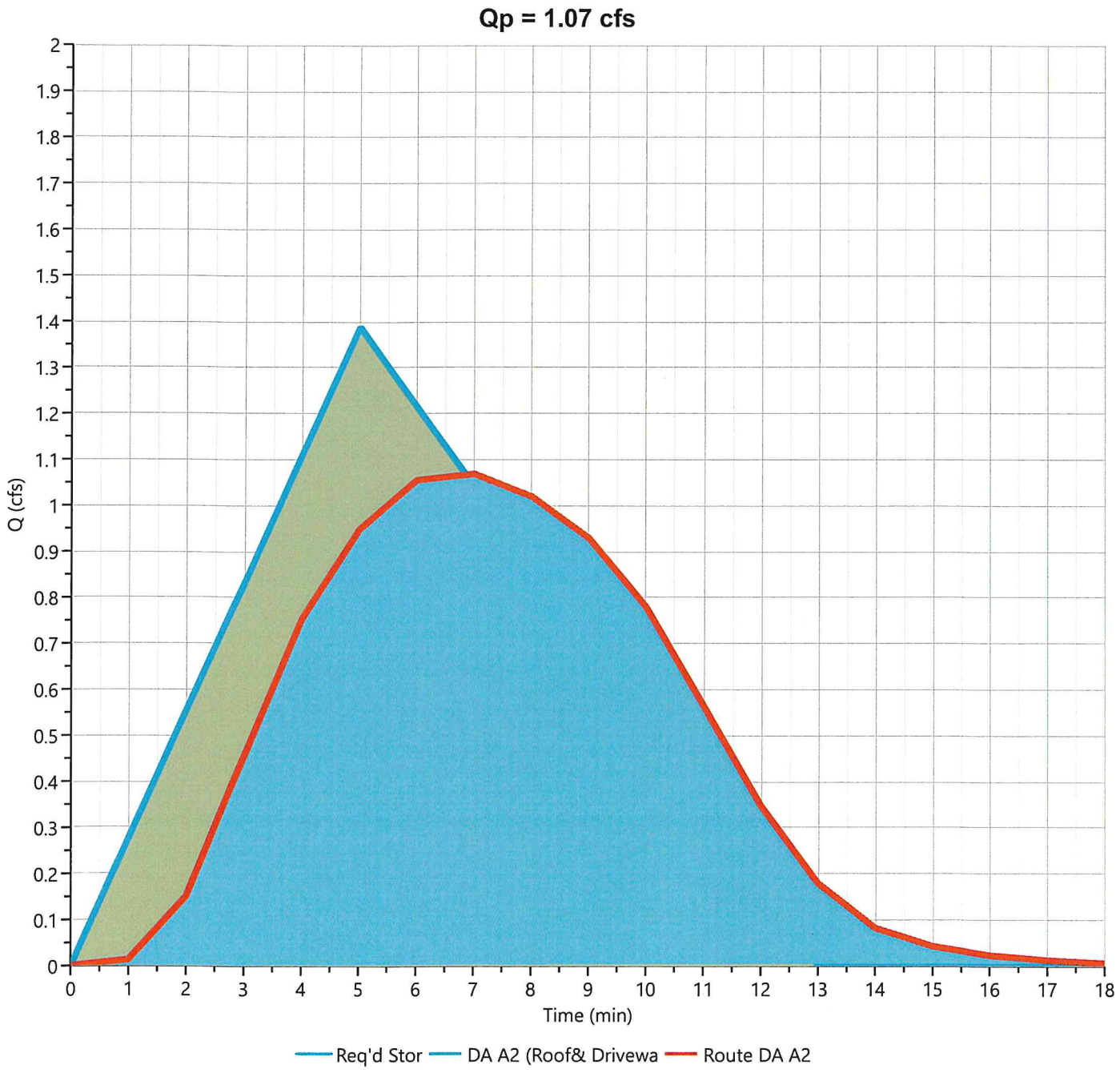
Route DA A2

Hyd. No. 5

Hydrograph Type	= Pond Route	Peak Flow	= 1.069 cfs
Storm Frequency	= 10-yr	Time to Peak	= 0.12 hrs
Time Interval	= 1 min	Hydrograph Volume	= 506 cuft
Inflow Hydrograph	= 4 - DA A2 (Roof& Drivewa	Max. Elevation	= 958.75 ft
Pond Name	= UGDB1	Max. Storage	= 108 cuft

Pond Routing by Storage Indication Method

Center of mass detention time = 1 min



Hydrograph Report

Project Name:

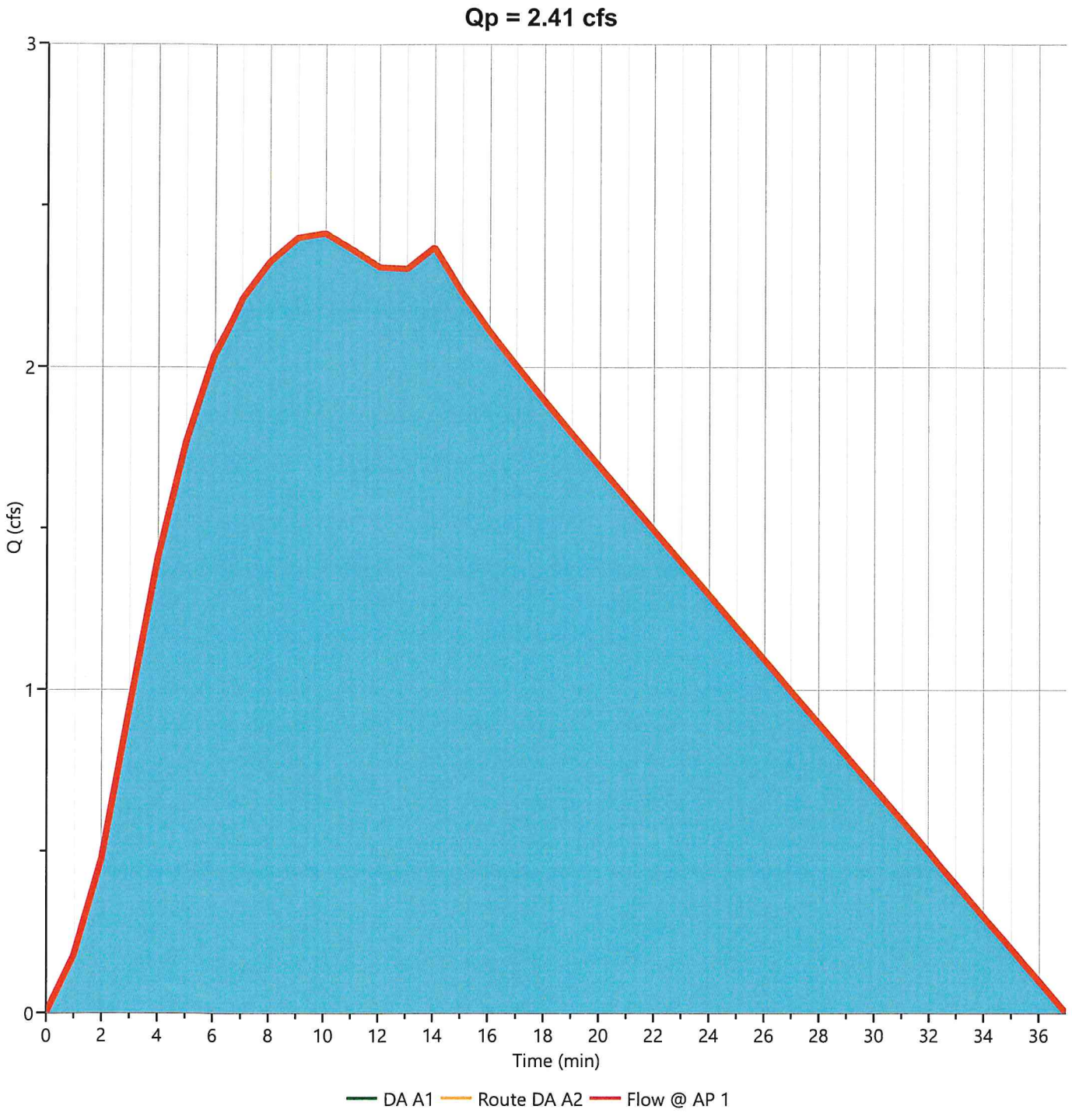
Hydrology Studio v 3.0.0.18

04-08-2021

Post Flow @ AP 1

Hyd. No. 6

Hydrograph Type	= Junction	Peak Flow	= 2.414 cfs
Storm Frequency	= 10-yr	Time to Peak	= 0.17 hrs
Time Interval	= 1 min	Hydrograph Volume	= 3,046 cuft
Inflow Hydrographs	= 3, 5	Total Contrib. Area	= 2.25 ac



Hydrograph Report

Project Name:

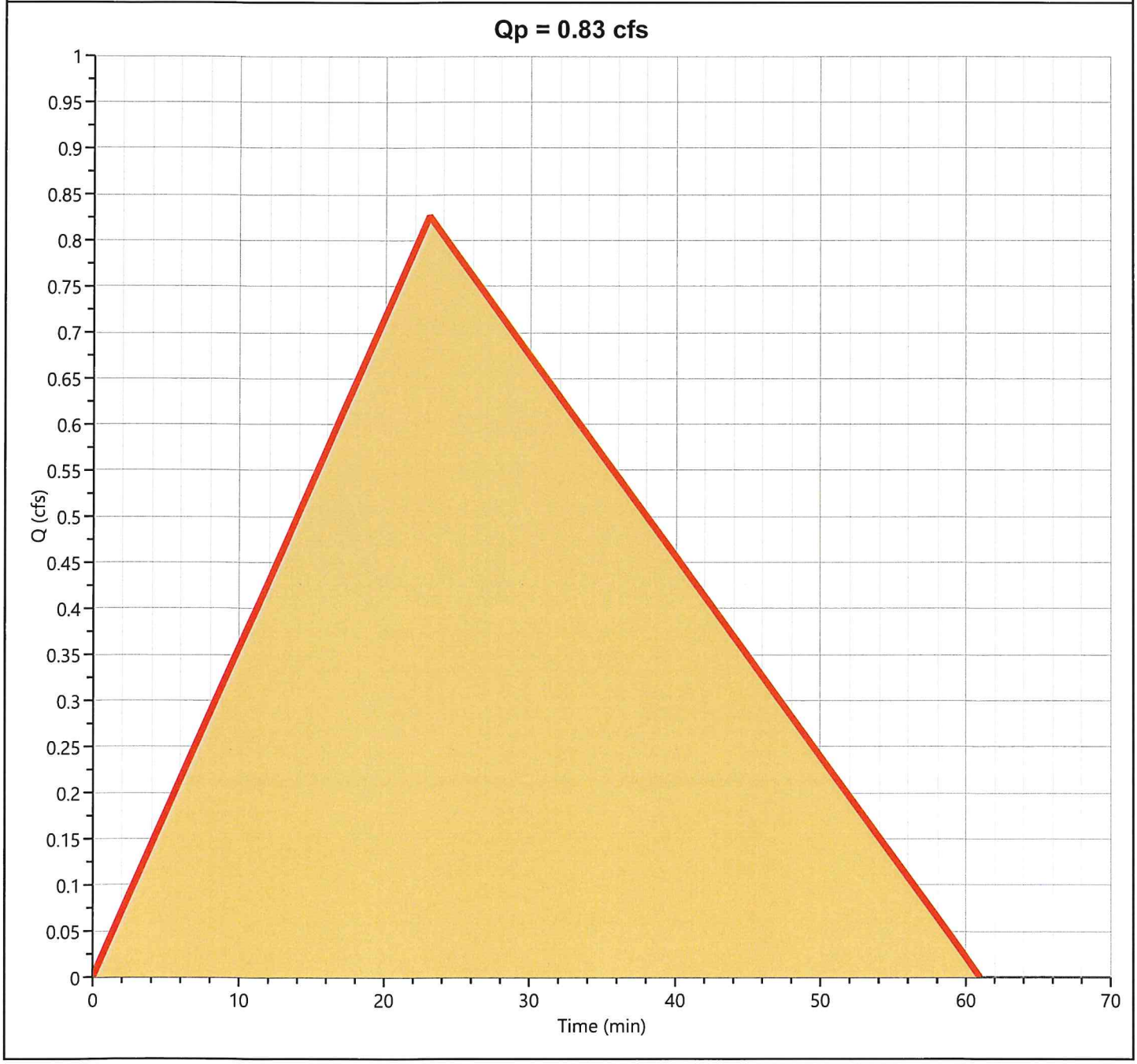
Hydrology Studio v 3.0.0.18

04-08-2021

Post DA B1

Hyd. No. 7

Hydrograph Type	= Rational	Peak Flow	= 0.827 cfs
Storm Frequency	= 10-yr	Time to Peak	= 0.38 hrs
Time Interval	= 1 min	Runoff Volume	= 1,523 cuft
Drainage Area	= 0.76 ac	Runoff Coeff.	= 0.33
Tc Method	= User	Time of Conc. (Tc)	= 23.0 min
IDF Curve	= Project0996.idf	Intensity	= 3.30 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	= 1/1.67



Hydrograph Report

Project Name:

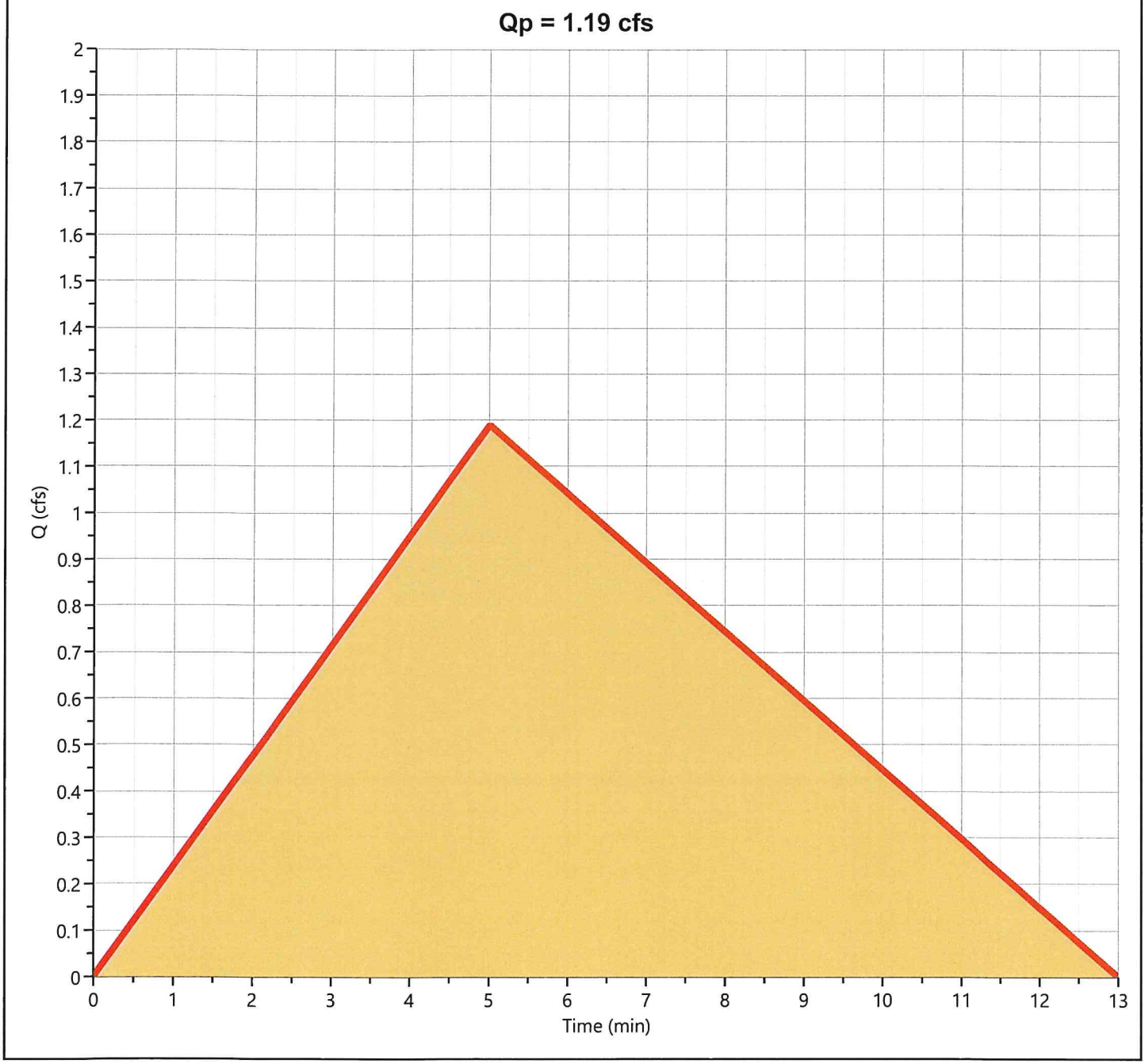
Hydrology Studio v 3.0.0.18

04-08-2021

Post DA B2

Hyd. No. 8

Hydrograph Type	= Rational	Peak Flow	= 1.190 cfs
Storm Frequency	= 10-yr	Time to Peak	= 0.08 hrs
Time Interval	= 1 min	Runoff Volume	= 477 cuft
Drainage Area	= 0.18 ac	Runoff Coeff.	= 0.9
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
IDF Curve	= Project0996.idf	Intensity	= 7.34 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	= 1/1.67



Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

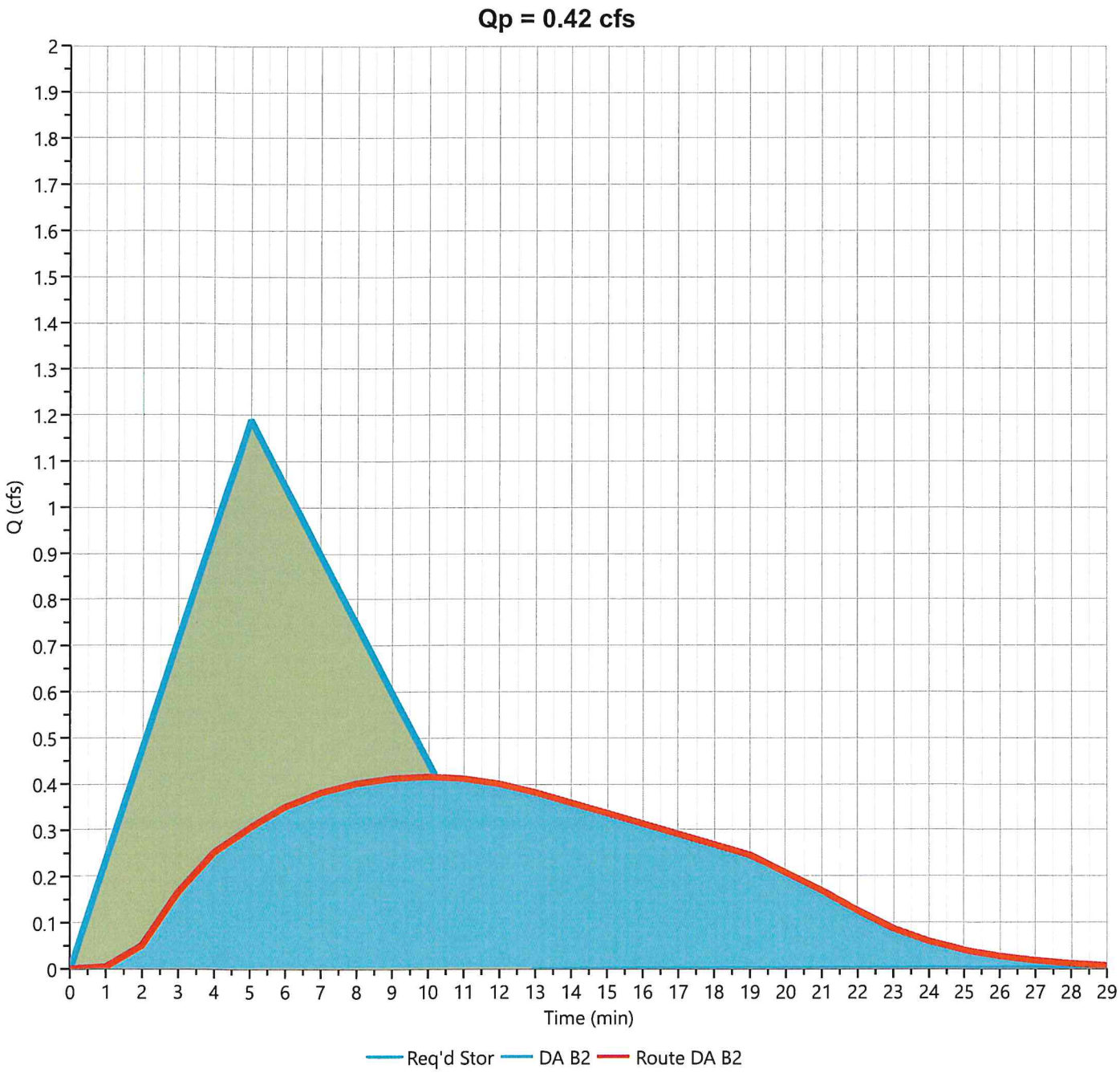
Route DA B2

Hyd. No. 9

Hydrograph Type	= Pond Route	Peak Flow	= 0.416 cfs
Storm Frequency	= 10-yr	Time to Peak	= 0.17 hrs
Time Interval	= 1 min	Hydrograph Volume	= 390 cuft
Inflow Hydrograph	= 8 - DA B2	Max. Elevation	= 959.15 ft
Pond Name	= UGB2	Max. Storage	= 249 cuft

Pond Routing by Storage Indication Method

Center of mass detention time = 6 min



Hydrograph Report

Project Name:

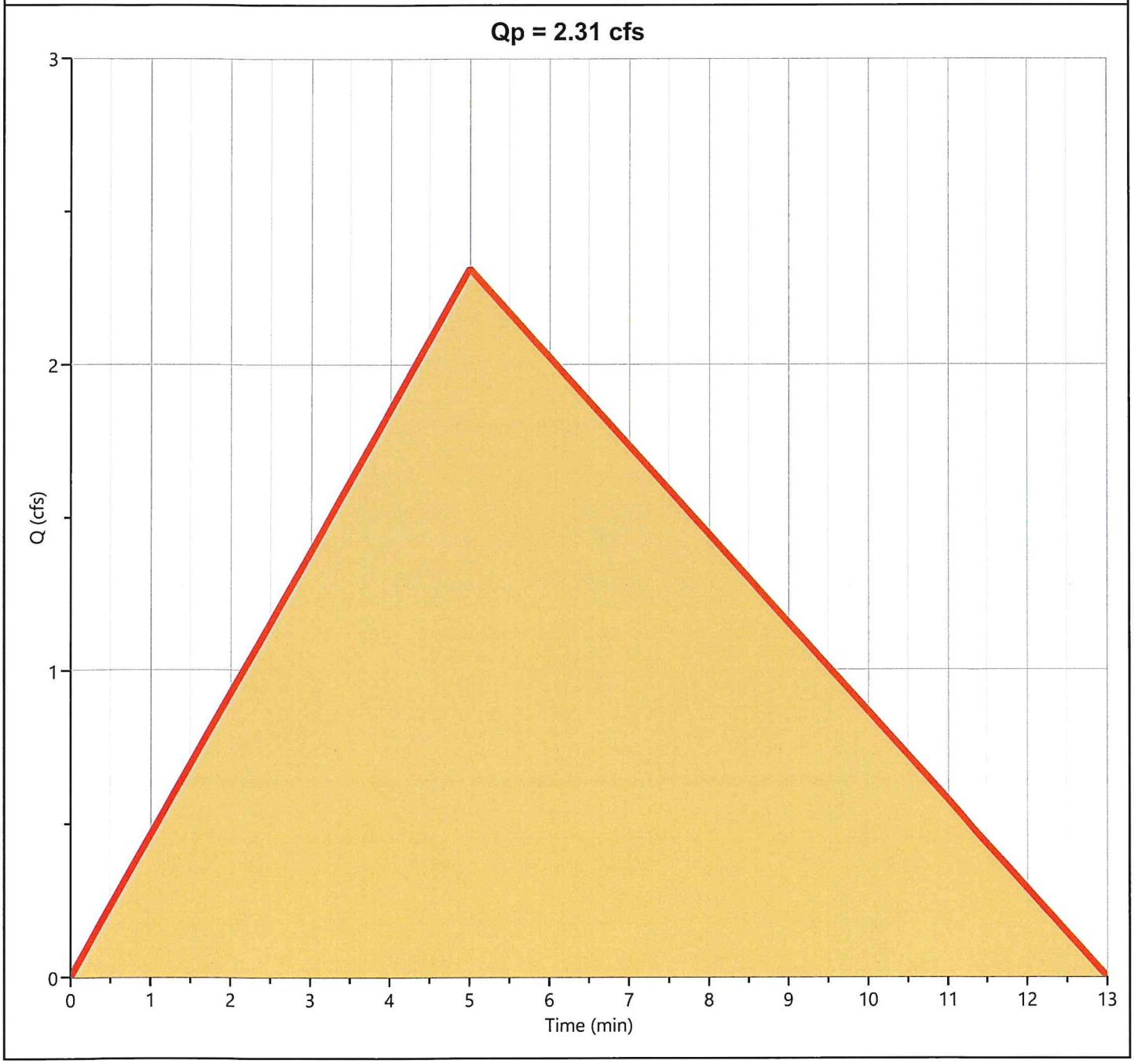
Hydrology Studio v 3.0.0.18

04-08-2021

Post DA B3

Hyd. No. 10

Hydrograph Type	= Rational	Peak Flow	= 2.314 cfs
Storm Frequency	= 10-yr	Time to Peak	= 0.08 hrs
Time Interval	= 1 min	Runoff Volume	= 927 cuft
Drainage Area	= 0.35 ac	Runoff Coeff.	= 0.9
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
IDF Curve	= Project0996.idf	Intensity	= 7.34 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	= 1/1.67



Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.18

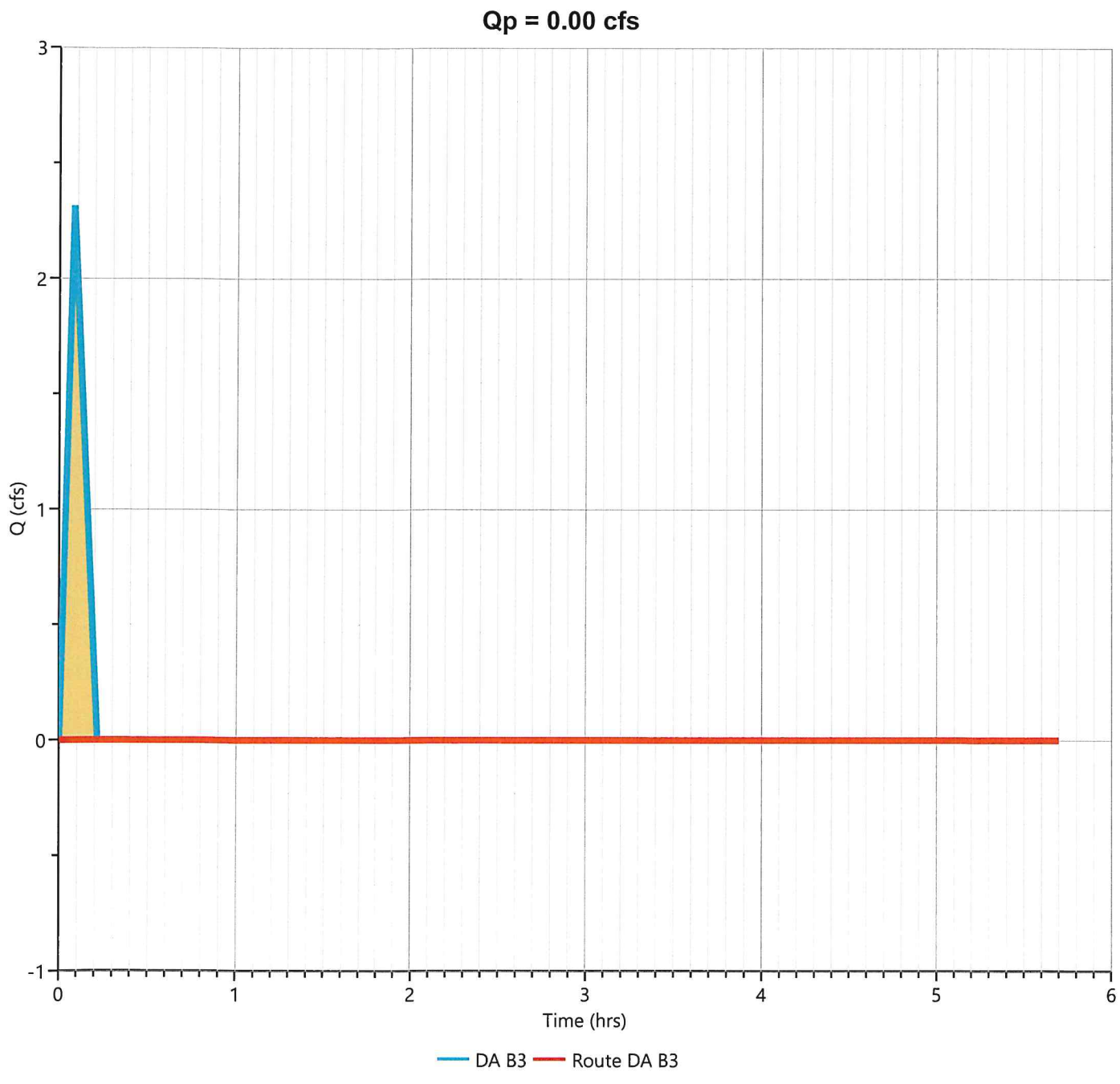
04-08-2021

Route DA B3

Hyd. No. 11

Hydrograph Type	= Pond Route	Peak Flow	= 0.000 cfs
Storm Frequency	= 10-yr	Time to Peak	= 5.68 hrs
Time Interval	= 1 min	Hydrograph Volume	= 0.000 cuft
Inflow Hydrograph	= 10 - DA B3	Max. Elevation	= 965.56 ft
Pond Name	= Rain Garden	Max. Storage	= 865 cuft

Pond Routing by Storage Indication Method



Hydrograph Report

Project Name:

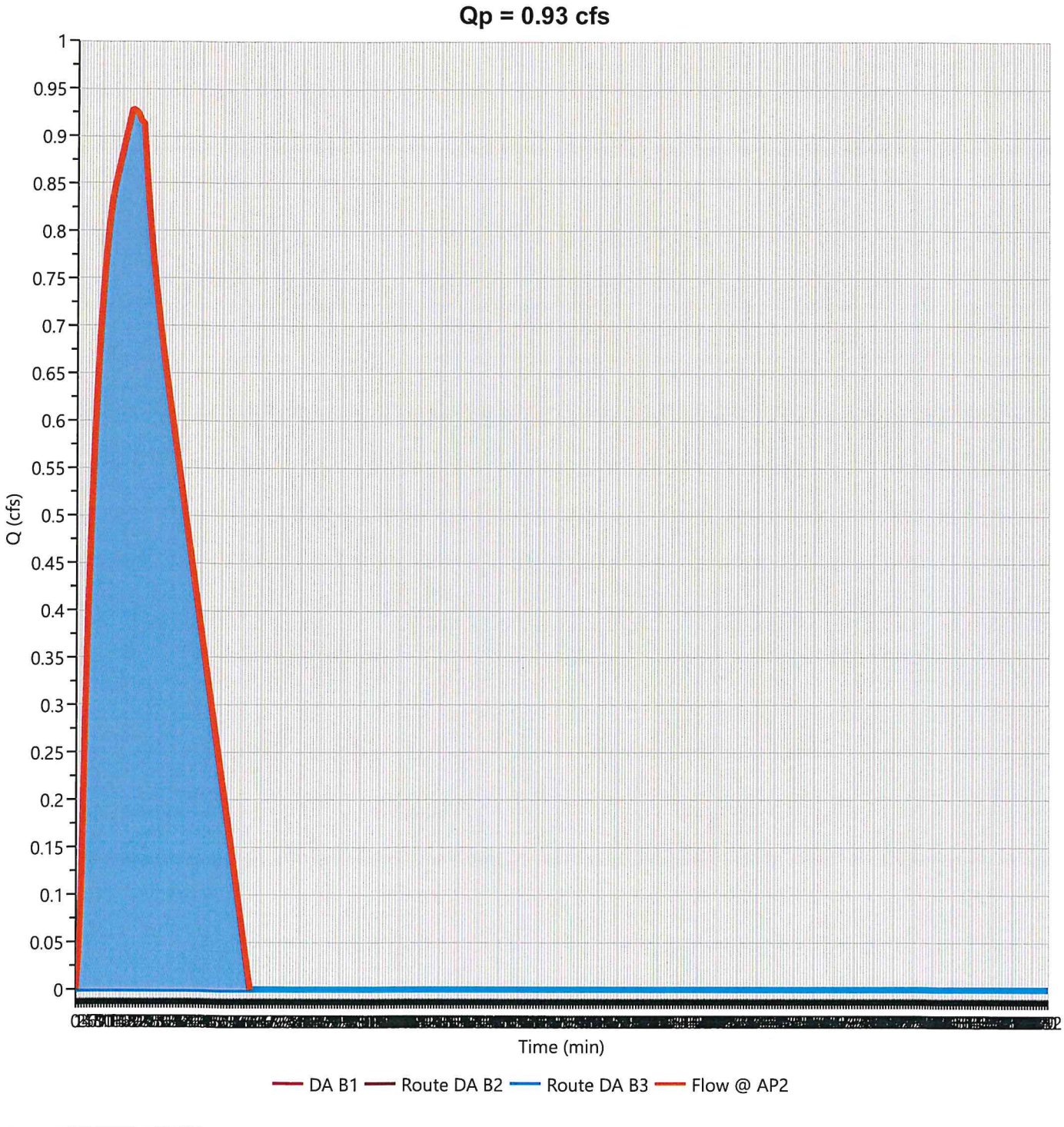
Hydrology Studio v 3.0.0.18

04-08-2021

Post Flow @ AP2

Hyd. No. 12

Hydrograph Type	= Junction	Peak Flow	= 0.929 cfs
Storm Frequency	= 10-yr	Time to Peak	= 0.32 hrs
Time Interval	= 1 min	Hydrograph Volume	= 1,902 cuft
Inflow Hydrographs	= 7, 9, 11	Total Contrib. Area	= 0.76 ac



DYMAR

25 YEAR STORM

Hydrograph 25-yr Summary

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Flow (cfs)	Time to Peak (hrs)	Hydrograph Volume (cuft)	Inflow Hyd(s)	Maximum Elevation (ft)	Maximum Storage (cuft)
1	Rational	Pre DA A @ AP 1	3.138	0.23	3,519	----		
2	Rational	Pre DA B @ AP 2	1.336	0.38	2,462	----		
3	Rational	Post DA A1	3.001	0.23	3,365	----		
4	Rational	Post DA A2 (Roof& Drivewa	1.821	0.08	729	----		
5	Pond Route	Route DA A2	1.345	0.12	674	4	958.98	155
6	Junction	Post Flow @ AP 1	3.248	0.18	4,004	3, 5		
7	Rational	Post DA B1	1.083	0.38	1,995	----		
8	Rational	Post DA B2	1.561	0.08	625	----		
9	Pond Route	Route DA B2	0.496	0.17	524	8	959.56	352
10	Rational	Post DA B3	3.035	0.08	1,216	----		
11	Pond Route	Route DA B3	0.000	0.02	0.000	10	965.93	1,142
12	Junction	Post Flow @ AP2	1.313	0.38	2,505	7, 9, 11		

Hydrograph Report

Project Name:

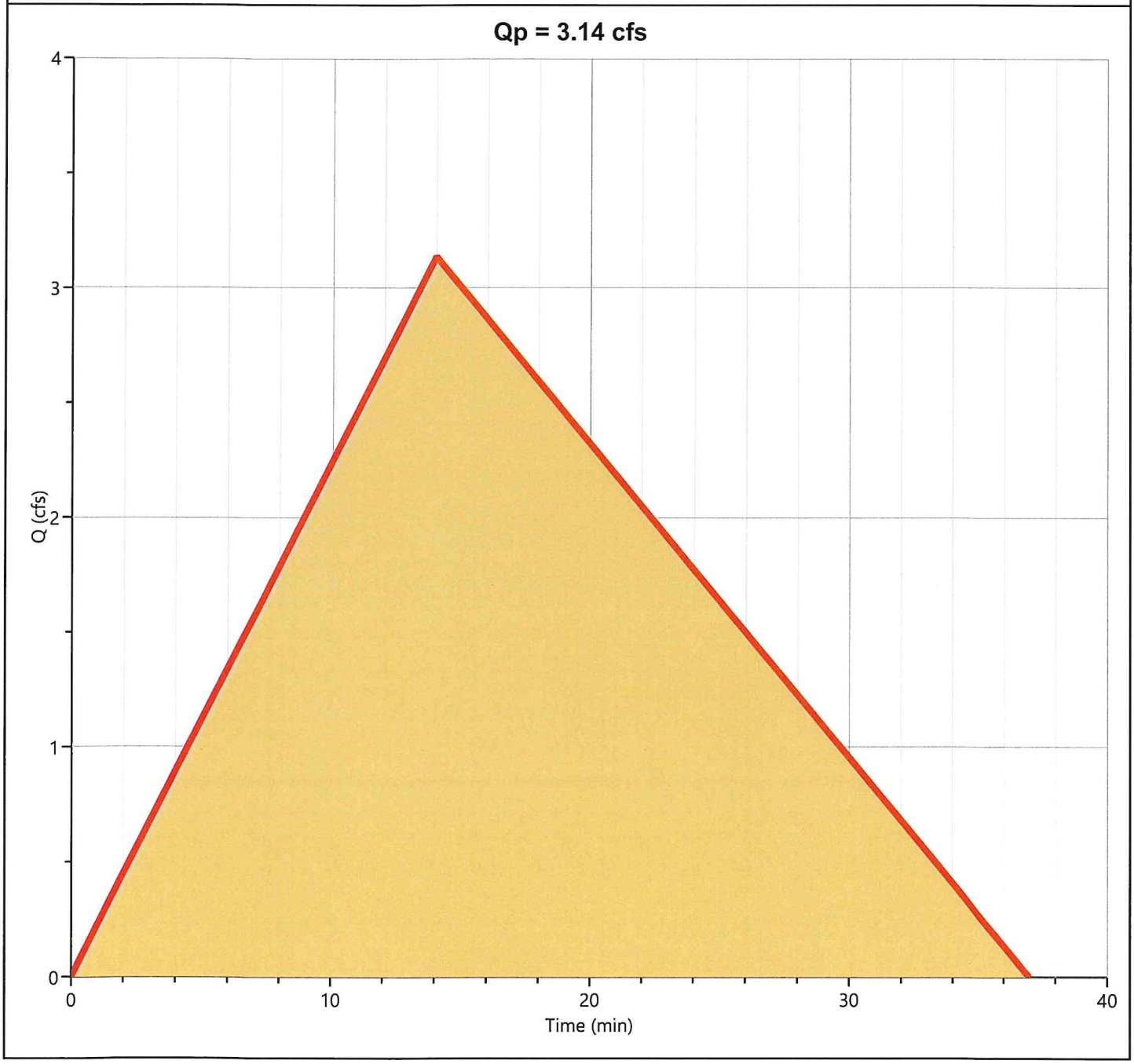
Hydrology Studio v 3.0.0.18

04-08-2021

Pre DA A @ AP 1

Hyd. No. 1

Hydrograph Type	= Rational	Peak Flow	= 3.138 cfs
Storm Frequency	= 25-yr	Time to Peak	= 0.23 hrs
Time Interval	= 1 min	Runoff Volume	= 3,519 cuft
Drainage Area	= 2.46 ac	Runoff Coeff.	= 0.22
Tc Method	= User	Time of Conc. (Tc)	= 14.0 min
IDF Curve	= Project0996.idf	Intensity	= 5.27 in/hr
Freq. Corr. Factor	= 1.10	Asc/Rec Limb Factors	= 1/1.67



Hydrograph Report

Project Name:

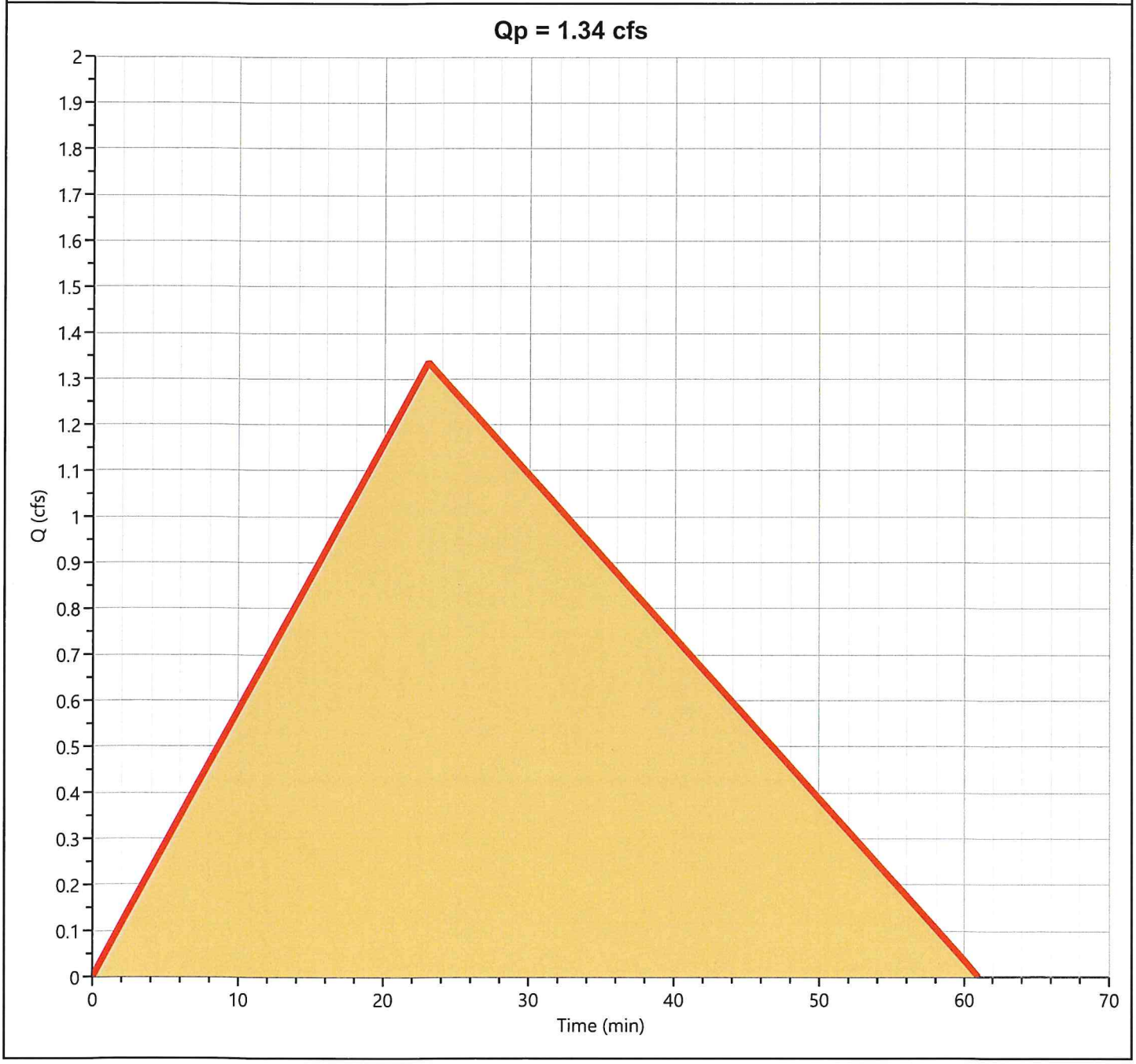
Hydrology Studio v 3.0.0.18

04-08-2021

Pre DA B @ AP 2

Hyd. No. 2

Hydrograph Type	= Rational	Peak Flow	= 1.336 cfs
Storm Frequency	= 25-yr	Time to Peak	= 0.38 hrs
Time Interval	= 1 min	Runoff Volume	= 2,462 cuft
Drainage Area	= 1.29 ac	Runoff Coeff.	= 0.24
Tc Method	= User	Time of Conc. (Tc)	= 23.0 min
IDF Curve	= Project0996.idf	Intensity	= 3.92 in/hr
Freq. Corr. Factor	= 1.10	Asc/Rec Limb Factors	= 1/1.67



Hydrograph Report

Project Name:

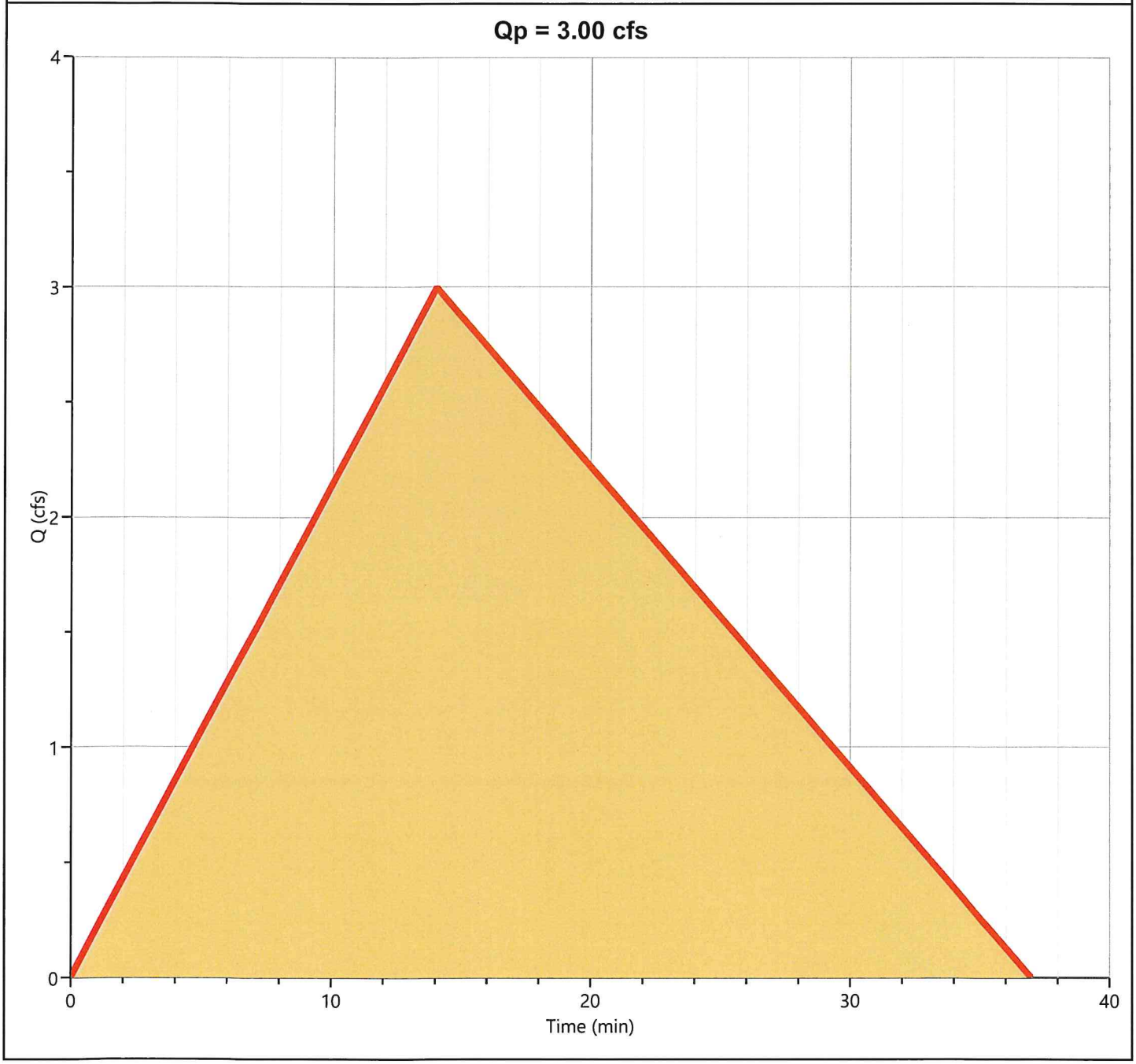
Hydrology Studio v 3.0.0.18

04-08-2021

Post DA A1

Hyd. No. 3

Hydrograph Type	= Rational	Peak Flow	= 3.001 cfs
Storm Frequency	= 25-yr	Time to Peak	= 0.23 hrs
Time Interval	= 1 min	Runoff Volume	= 3,365 cuft
Drainage Area	= 2.25 ac	Runoff Coeff.	= 0.23
Tc Method	= User	Time of Conc. (Tc)	= 14.0 min
IDF Curve	= Project0996.idf	Intensity	= 5.27 in/hr
Freq. Corr. Factor	= 1.10	Asc/Rec Limb Factors	= 1/1.67



Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

Post DA A2 (Roof& Drivewa

Hyd. No. 4

Hydrograph Type	= Rational	Peak Flow	= 1.821 cfs
Storm Frequency	= 25-yr	Time to Peak	= 0.08 hrs
Time Interval	= 1 min	Runoff Volume	= 729 cuft
Drainage Area	= 0.21 ac	Runoff Coeff.	= 0.9
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
IDF Curve	= Project0996.idf	Intensity	= 8.76 in/hr
Freq. Corr. Factor	= 1.10	Asc/Rec Limb Factors	= 1/1.67

Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

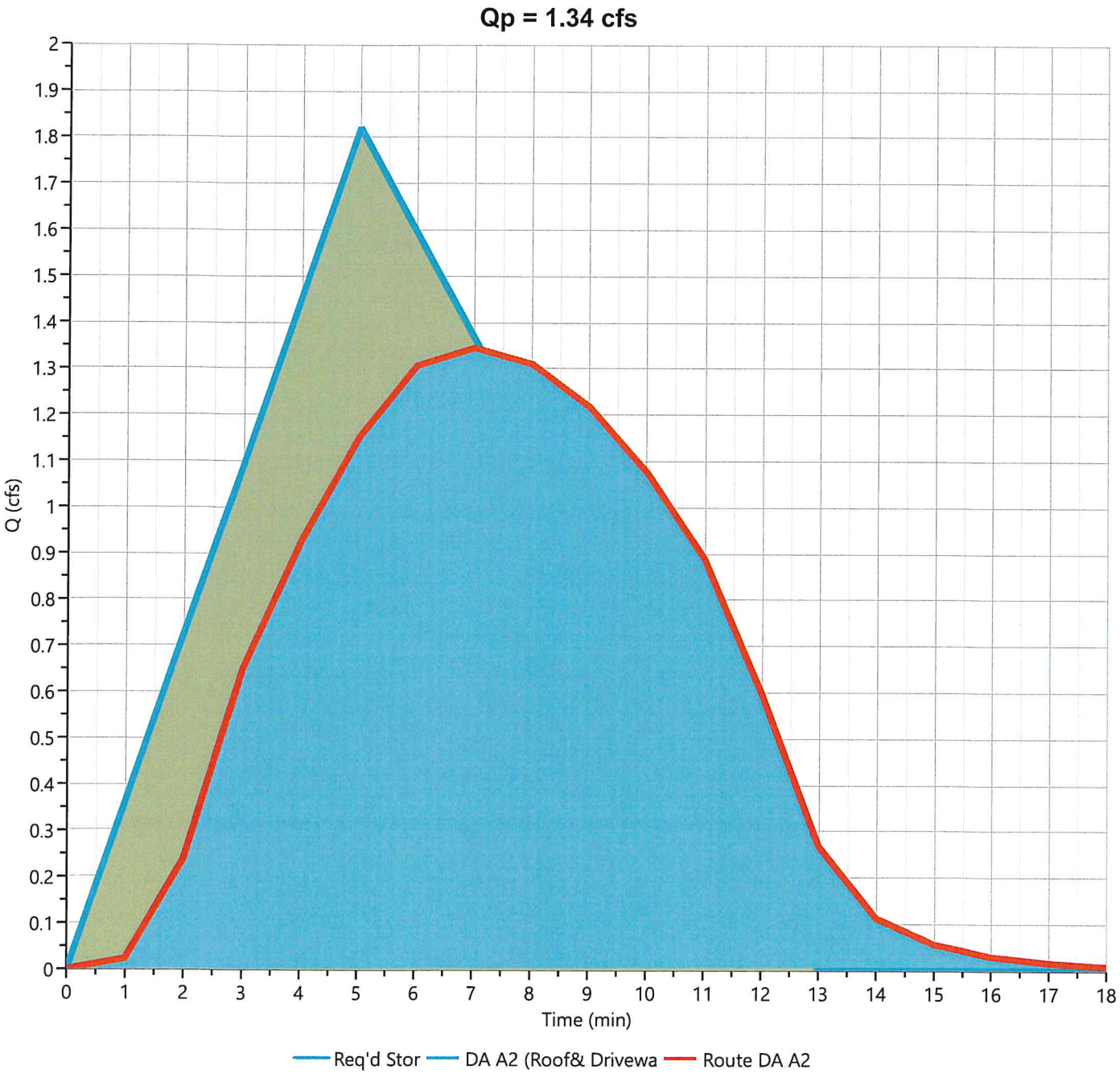
Route DA A2

Hyd. No. 5

Hydrograph Type	= Pond Route	Peak Flow	= 1.345 cfs
Storm Frequency	= 25-yr	Time to Peak	= 0.12 hrs
Time Interval	= 1 min	Hydrograph Volume	= 674 cuft
Inflow Hydrograph	= 4 - DA A2 (Roof& Drivewa	Max. Elevation	= 958.98 ft
Pond Name	= UGDB1	Max. Storage	= 155 cuft

Pond Routing by Storage Indication Method

Center of mass detention time = 2 min



Hydrograph Report

Project Name:

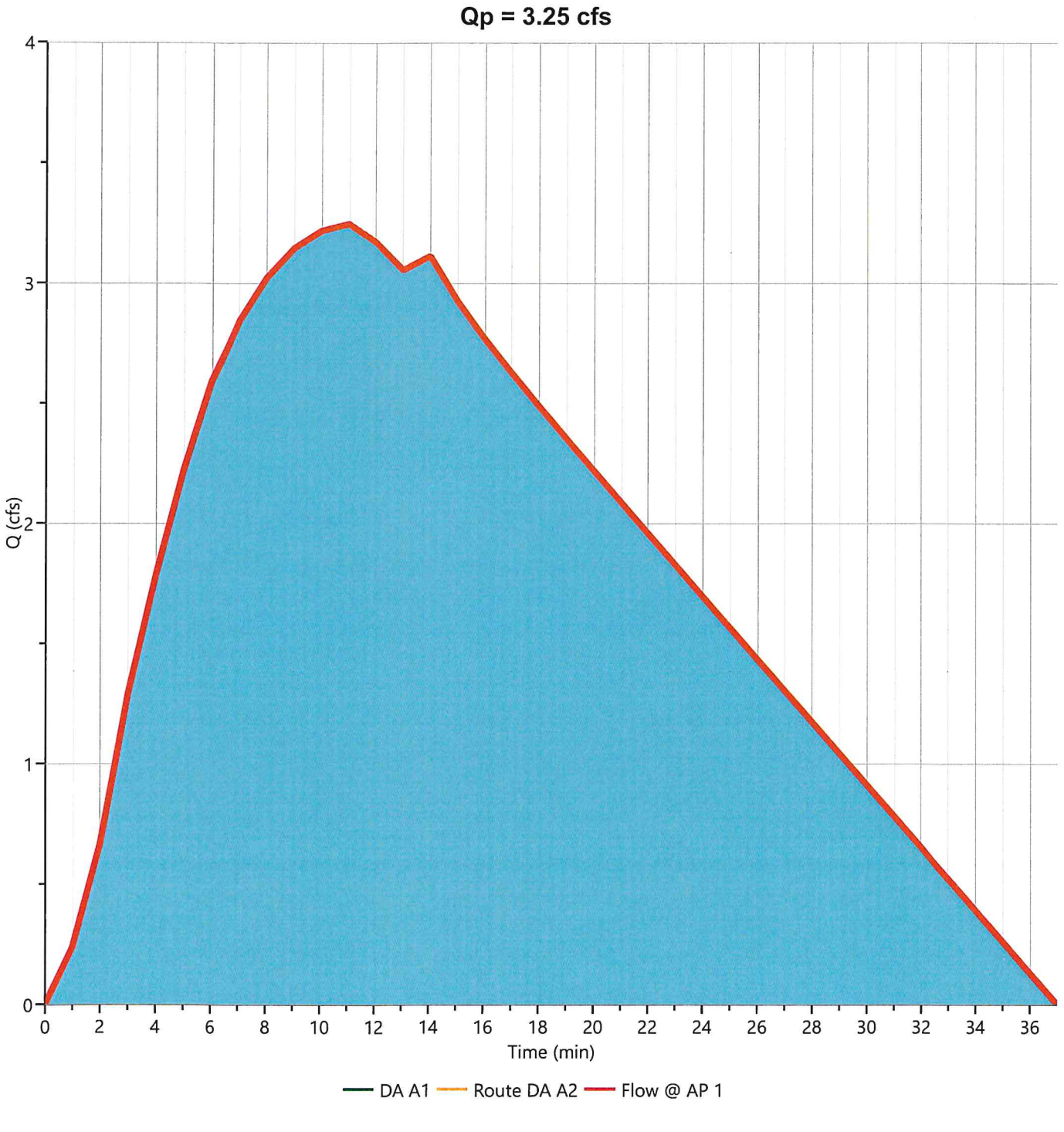
Hydrology Studio v 3.0.0.18

04-08-2021

Post Flow @ AP 1

Hyd. No. 6

Hydrograph Type	= Junction	Peak Flow	= 3.248 cfs
Storm Frequency	= 25-yr	Time to Peak	= 0.18 hrs
Time Interval	= 1 min	Hydrograph Volume	= 4,004 cuft
Inflow Hydrographs	= 3, 5	Total Contrib. Area	= 2.25 ac



Hydrograph Report

Project Name:

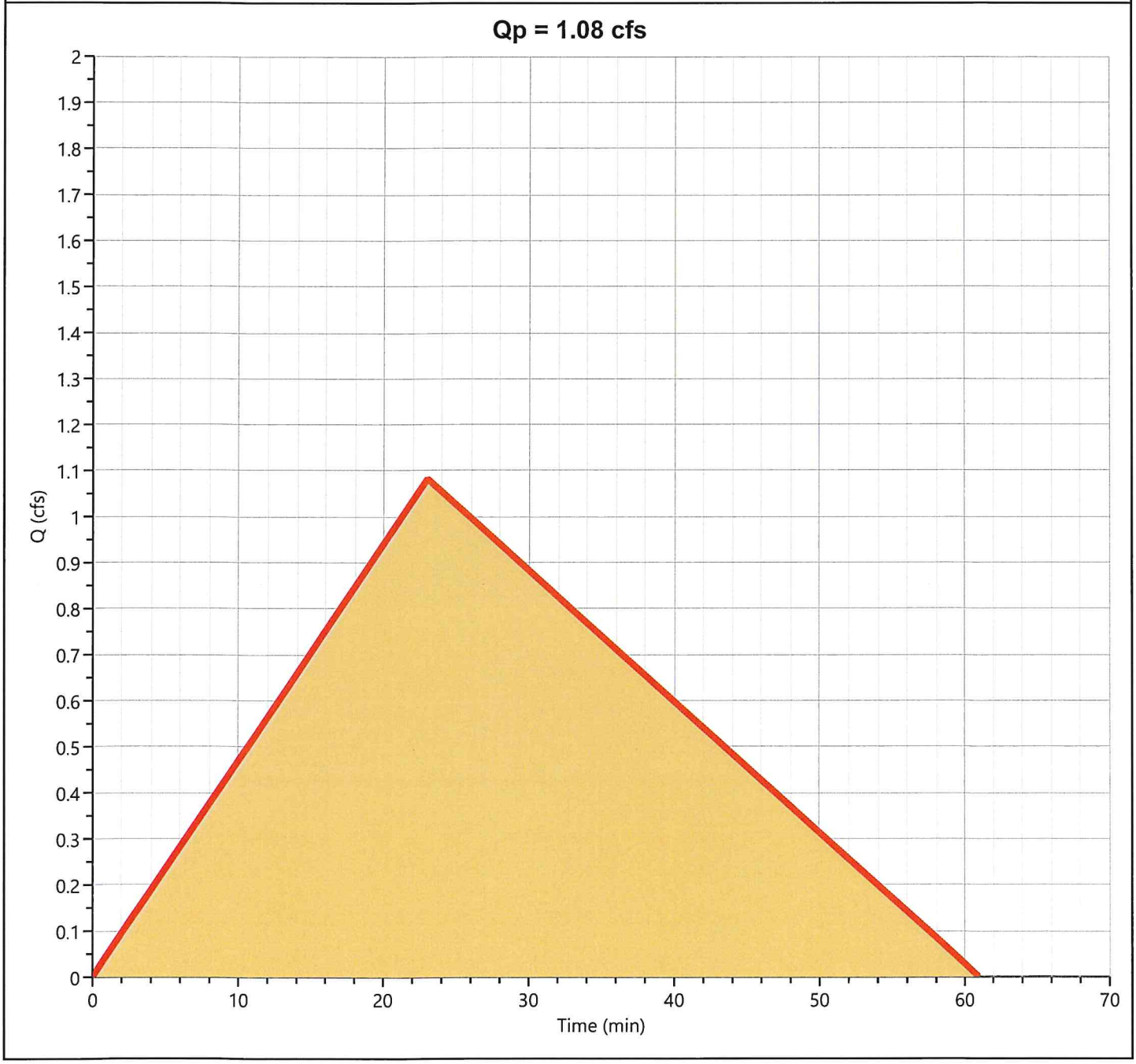
Hydrology Studio v 3.0.0.18

04-08-2021

Post DA B1

Hyd. No. 7

Hydrograph Type	= Rational	Peak Flow	= 1.083 cfs
Storm Frequency	= 25-yr	Time to Peak	= 0.38 hrs
Time Interval	= 1 min	Runoff Volume	= 1,995 cuft
Drainage Area	= 0.76 ac	Runoff Coeff.	= 0.33
Tc Method	= User	Time of Conc. (Tc)	= 23.0 min
IDF Curve	= Project0996.idf	Intensity	= 3.92 in/hr
Freq. Corr. Factor	= 1.10	Asc/Rec Limb Factors	= 1/1.67



Hydrograph Report

Project Name:

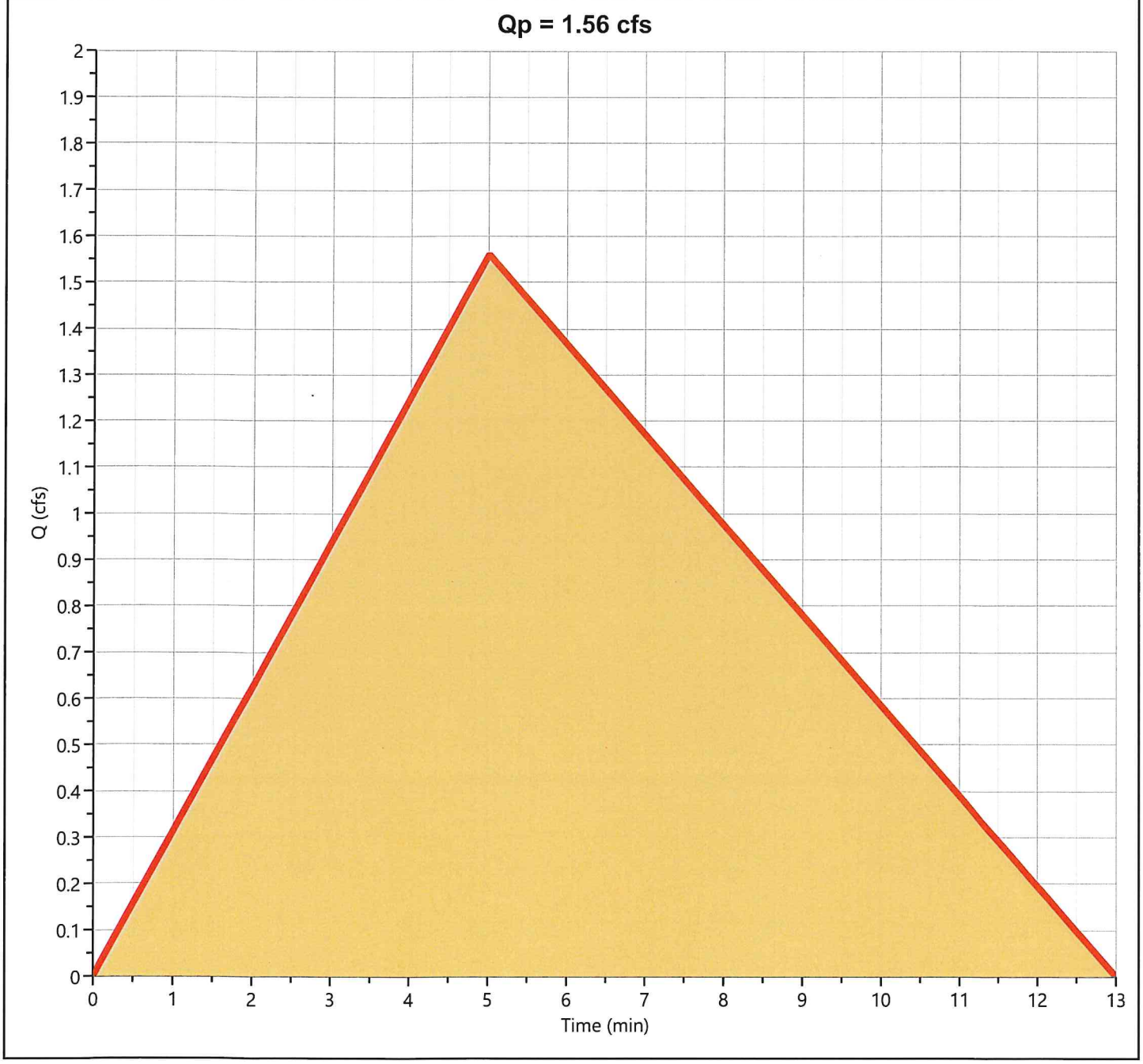
Hydrology Studio v 3.0.0.18

04-08-2021

Post DA B2

Hyd. No. 8

Hydrograph Type	= Rational	Peak Flow	= 1.561 cfs
Storm Frequency	= 25-yr	Time to Peak	= 0.08 hrs
Time Interval	= 1 min	Runoff Volume	= 625 cuft
Drainage Area	= 0.18 ac	Runoff Coeff.	= 0.9
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
IDF Curve	= Project0996.idf	Intensity	= 8.76 in/hr
Freq. Corr. Factor	= 1.10	Asc/Rec Limb Factors	= 1/1.67



Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

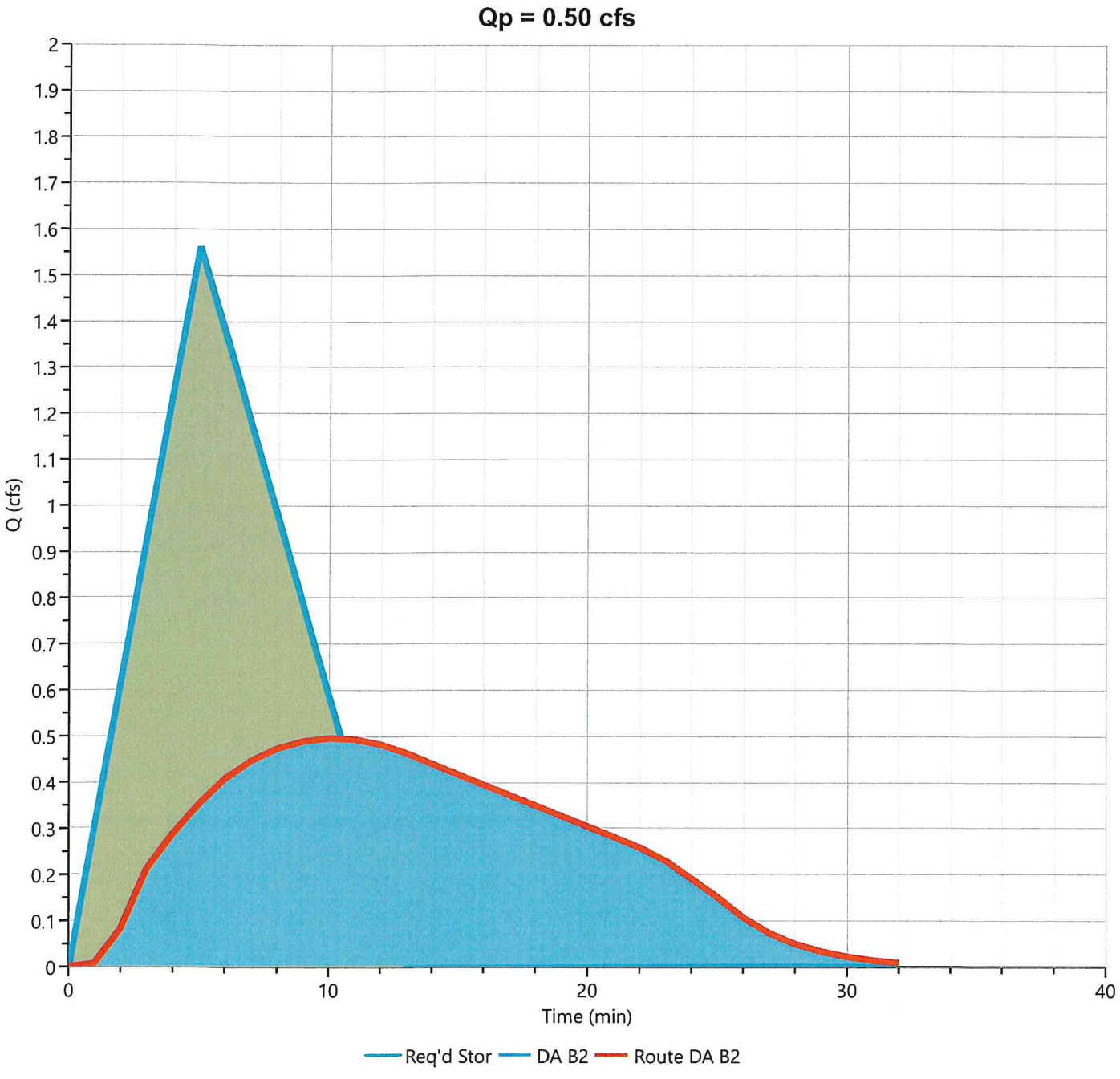
Route DA B2

Hyd. No. 9

Hydrograph Type	= Pond Route	Peak Flow	= 0.496 cfs
Storm Frequency	= 25-yr	Time to Peak	= 0.17 hrs
Time Interval	= 1 min	Hydrograph Volume	= 524 cuft
Inflow Hydrograph	= 8 - DA B2	Max. Elevation	= 959.56 ft
Pond Name	= UGB2	Max. Storage	= 352 cuft

Pond Routing by Storage Indication Method

Center of mass detention time = 7 min



Hydrograph Report

Project Name:

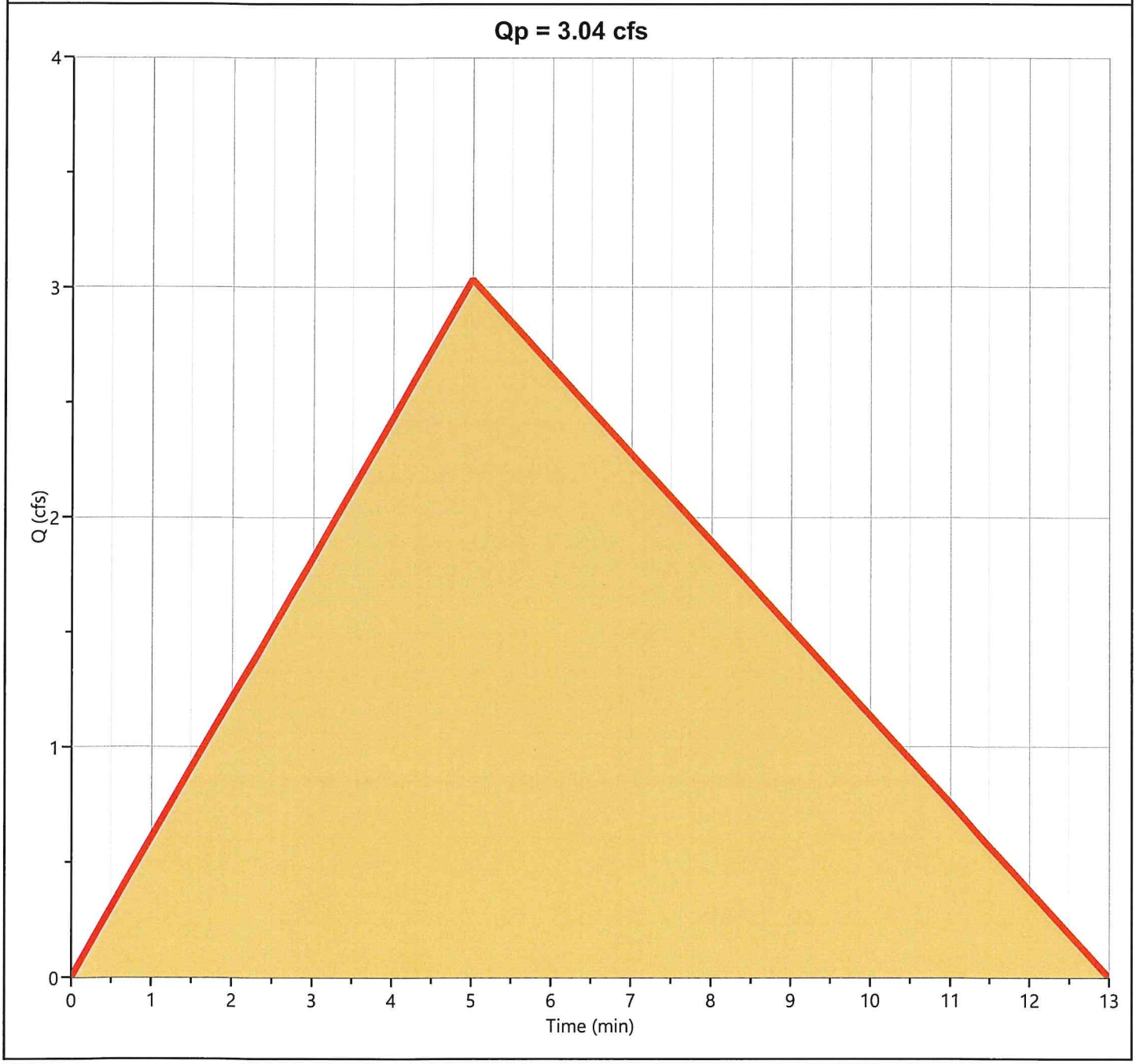
Hydrology Studio v 3.0.0.18

04-08-2021

Post DA B3

Hyd. No. 10

Hydrograph Type	= Rational	Peak Flow	= 3.035 cfs
Storm Frequency	= 25-yr	Time to Peak	= 0.08 hrs
Time Interval	= 1 min	Runoff Volume	= 1,216 cuft
Drainage Area	= 0.35 ac	Runoff Coeff.	= 0.9
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
IDF Curve	= Project0996.idf	Intensity	= 8.76 in/hr
Freq. Corr. Factor	= 1.10	Asc/Rec Limb Factors	= 1/1.67



Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.18

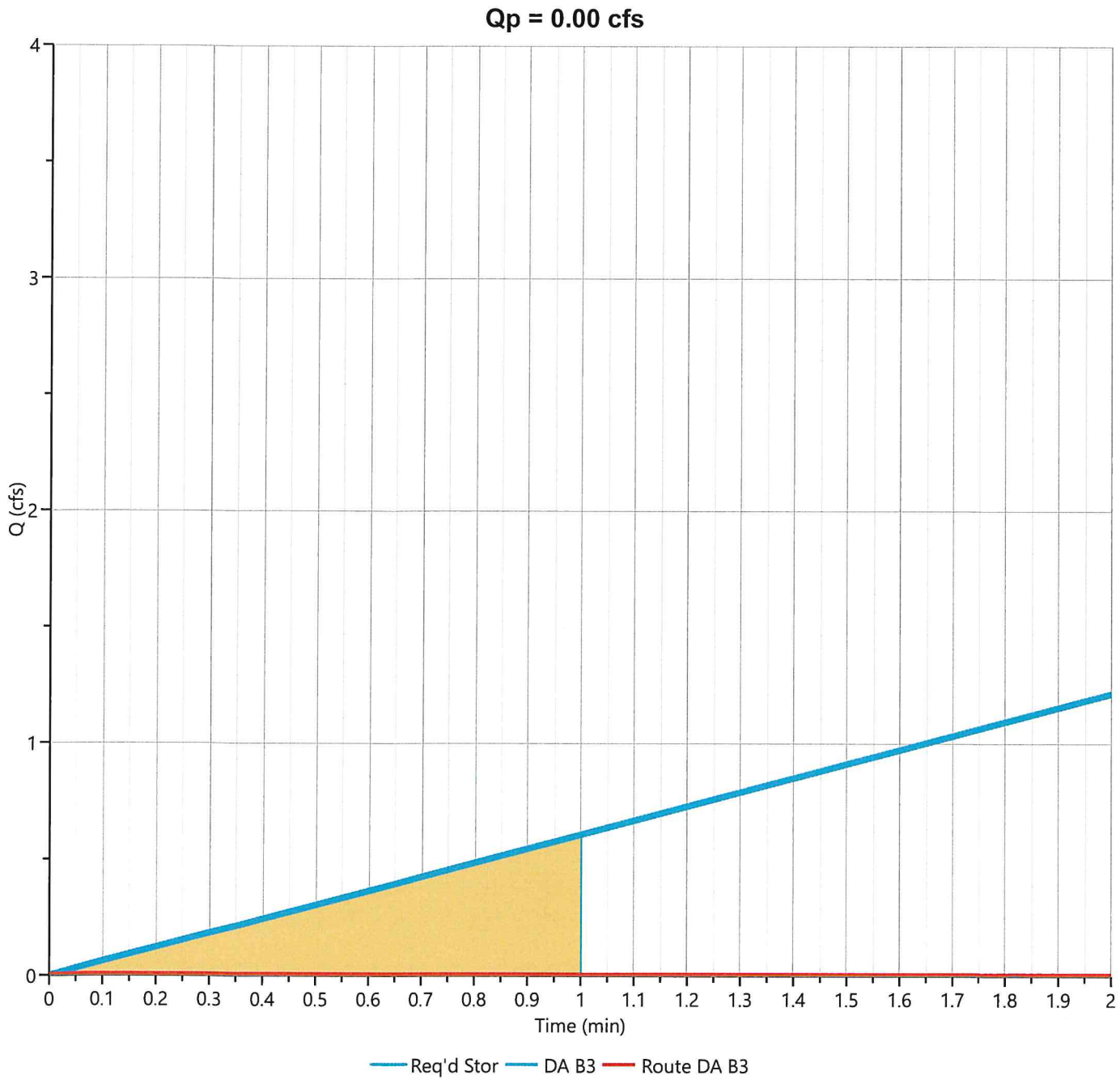
04-08-2021

Route DA B3

Hyd. No. 11

Hydrograph Type	= Pond Route	Peak Flow	= 0.000 cfs
Storm Frequency	= 25-yr	Time to Peak	= 0.02 hrs
Time Interval	= 1 min	Hydrograph Volume	= 0.000 cuft
Inflow Hydrograph	= 10 - DA B3	Max. Elevation	= 965.93 ft
Pond Name	= Rain Garden	Max. Storage	= 1,142 cuft

Pond Routing by Storage Indication Method



Hydrograph Report

Project Name:

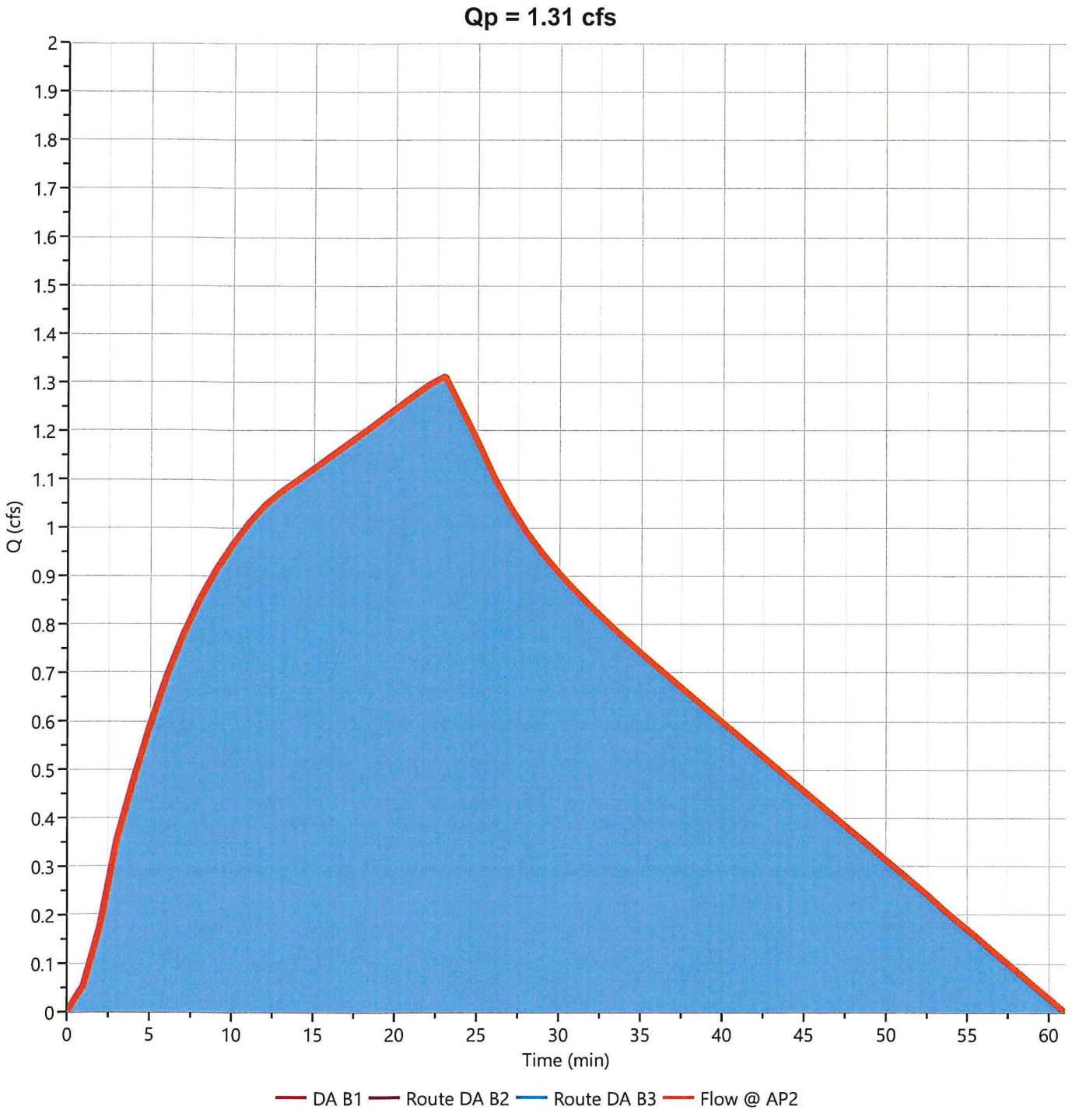
Hydrology Studio v 3.0.0.18

04-08-2021

Post Flow @ AP2

Hyd. No. 12

Hydrograph Type	= Junction	Peak Flow	= 1.313 cfs
Storm Frequency	= 25-yr	Time to Peak	= 0.38 hrs
Time Interval	= 1 min	Hydrograph Volume	= 2,505 cuft
Inflow Hydrographs	= 7, 9, 11	Total Contrib. Area	= 0.76 ac



DYMAR

POND REPORT

Pond Report

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

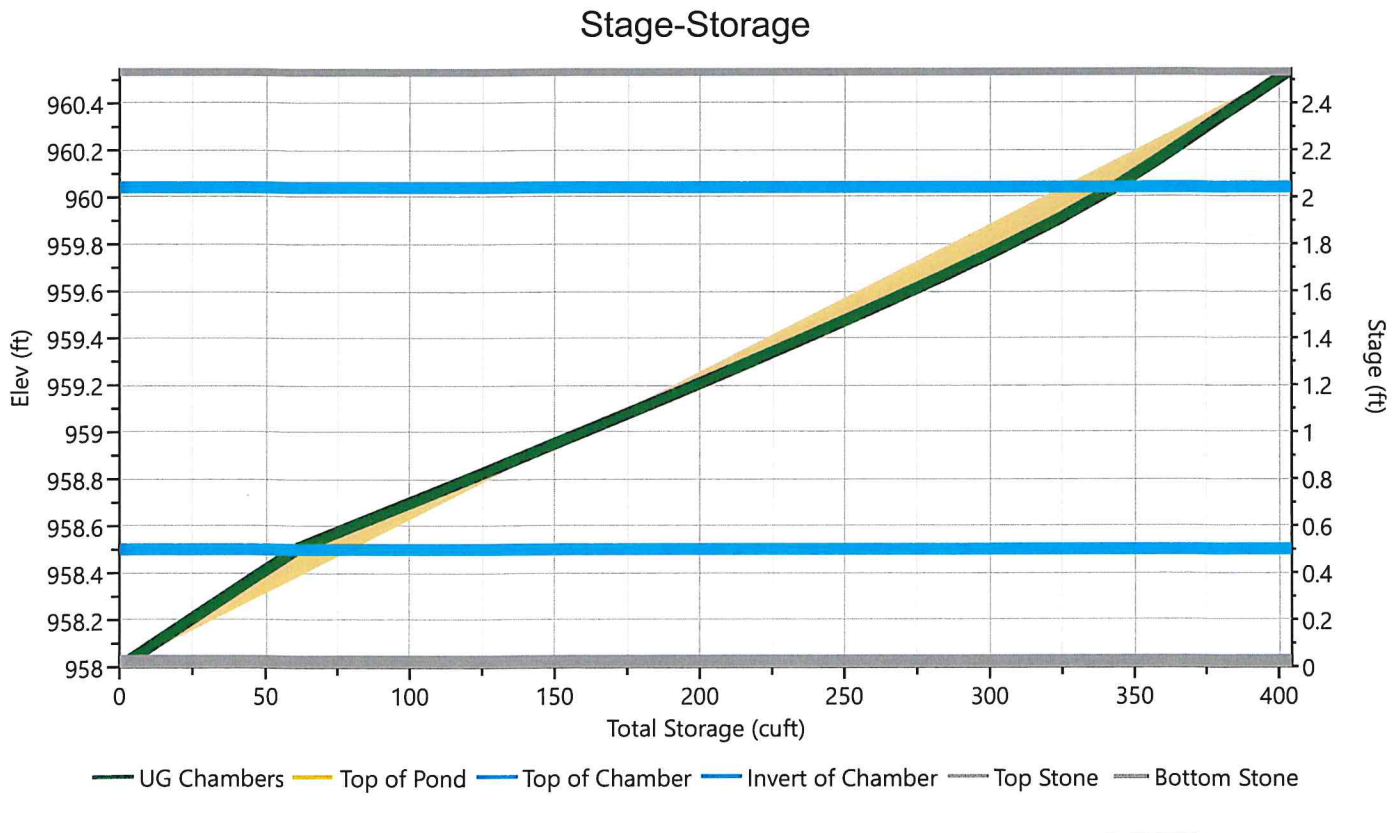
UGDB1

Stage-Storage

Cultec Recharger® 150XLHD Chamber	
Description	**Input**
Chamber Height, in	18.5
Chamber Shape	Arch
Chamber Width, in	33
Installed Length, ft	10.25
No. Chambers	6
Bare Chamber Stor, cuft	163
No. Rows	1
Space Between Rows, in	6
Stone Above, in	6
Stone Below, in	6
Stone Sides, in	12
Stone Ends, in	12
Encasement Voids, %	40.00
Encasement Bottom Elevation, ft	958.00

Stage / Storage Table

Stage (in)	Elevation (ft)	Contour Area (sqft)	Incr. Storage (cuft)	Total Storage (cuft)
0.0	958.00	302	0.000	0.000
1.5	958.13	302	15.3	15.3
3.1	958.25	302	15.3	30.7
4.6	958.38	302	15.3	46.0
6.1	958.51	302	15.6	61.6
7.6	958.64	302	25.5	87.2
9.2	958.76	302	25.5	113
10.7	958.89	302	25.3	138
12.2	959.02	302	25.1	163
13.7	959.14	302	24.8	188
15.3	959.27	302	24.4	212
16.8	959.40	302	23.9	236
18.3	959.53	302	23.3	260
19.8	959.65	302	22.6	282
21.4	959.78	302	21.6	304
22.9	959.91	302	20.3	324
24.4	960.03	302	18.3	342
25.9	960.16	302	16.1	358
27.5	960.29	302	15.3	374
29.0	960.41	302	15.3	389
30.5	960.54	302	15.3	404



Pond Report

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

UGDB1

Stage-Discharge

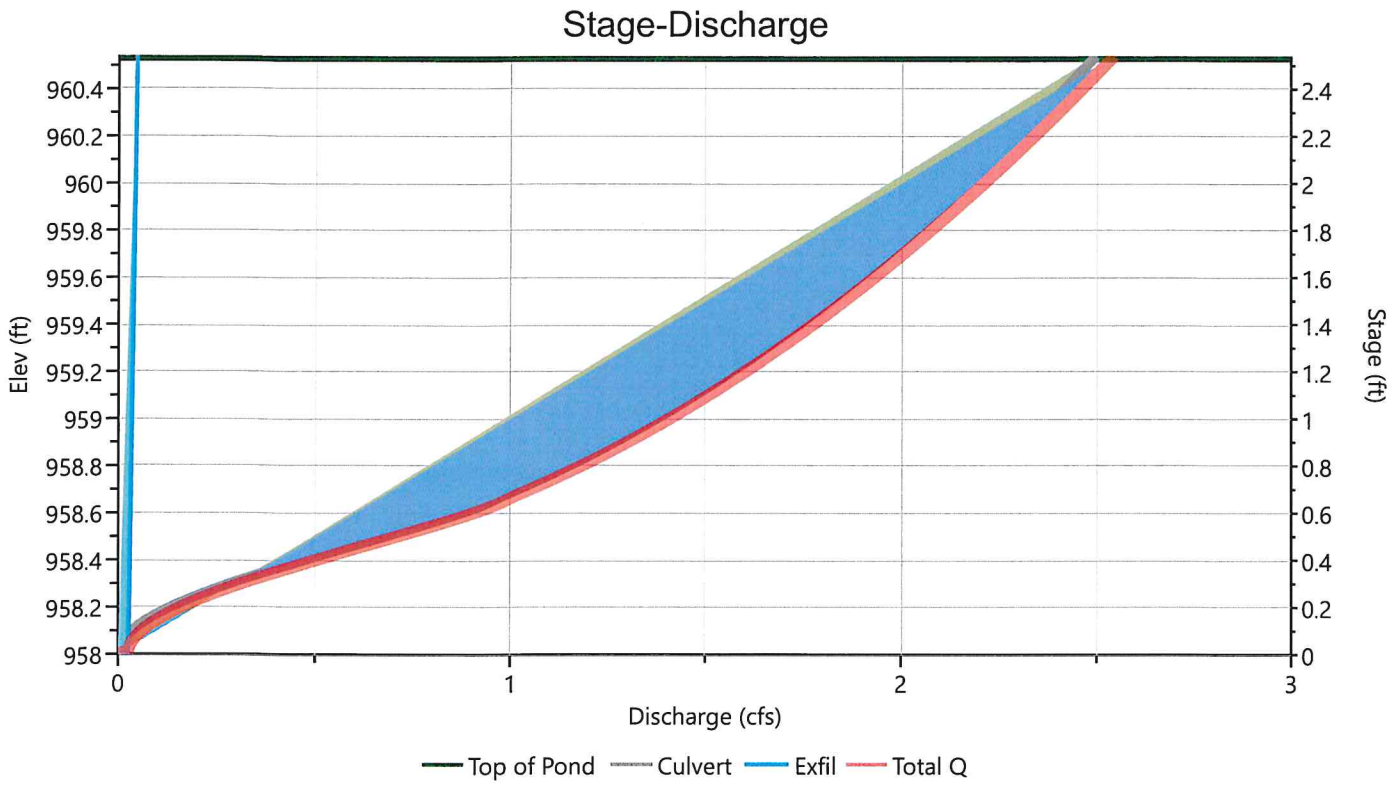
Culvert / Orifices	Culvert	Orifices		
		1	2	3
Rise, in	8			
Span, in	8			
No. Barrels	1			
Invert Elevation, ft	958.00			
Orifice Coefficient, Co	0.60			
Length, ft	40			
Barrel Slope, %	8			
N-Value, n	0.012			

Weirs	Riser*	Weirs		
		1	2	3
Shape / Type				
Crest Elevation, ft				
Crest Length, ft				
Angle, deg				
Weir Coefficient, Cw				

Perforated Riser	
Hole Diameter, in	
No. holes	
Invert Elevation, ft	
Height, ft	
Orifice Coefficient, Co	

Ancillary	
Exfiltration, in/hr	3.75**

*Routes through Culvert. **Exfiltration extracted from outflow hydrograph. Rate applied to contours.



Pond Report

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

UGDB1

Stage-Storage-Discharge Summary

Stage (ft)	Elev. (ft)	Storage (cuft)	Culvert (cfs)	Orifices, cfs			Riser (cfs)	Weirs, cfs			Pf Riser (cfs)	Exfil (cfs)	User (cfs)	Total (cfs)
				1	2	3		1	2	3				
0.00	958.00	0.000	0.000									0.000		0.000
0.13	958.13	15.3	0.056 ic									0.027		0.084
0.25	958.25	30.7	0.210 ic									0.028		0.238
0.38	958.38	46.0	0.434 ic									0.029		0.463
0.51	958.51	61.6	0.693 ic									0.030		0.724
0.64	958.64	87.2	0.931 ic									0.031		0.963
0.76	958.76	113	1.101 ic									0.032		1.133
0.89	958.89	138	1.253 ic									0.033		1.287
1.02	959.02	163	1.389 ic									0.034		1.423
1.14	959.14	188	1.513 ic									0.035		1.548
1.27	959.27	212	1.627 ic									0.036		1.663
1.40	959.40	236	1.734 ic									0.037		1.771
1.53	959.53	260	1.835 ic									0.038		1.873
1.65	959.65	282	1.930 ic									0.039		1.969
1.78	959.78	304	2.021 ic									0.040		2.061
1.91	959.91	324	2.108 ic									0.041		2.149
2.03	960.03	342	2.191 ic									0.042		2.233
2.16	960.16	358	2.272 ic									0.043		2.315
2.29	960.29	374	2.349 ic									0.044		2.393
2.41	960.41	389	2.424 ic									0.045		2.470
2.54	960.54	404	2.497 ic									0.046		2.544

Suffix key: ic = inlet control, oc = outlet control, s = submerged weir

Pond Report

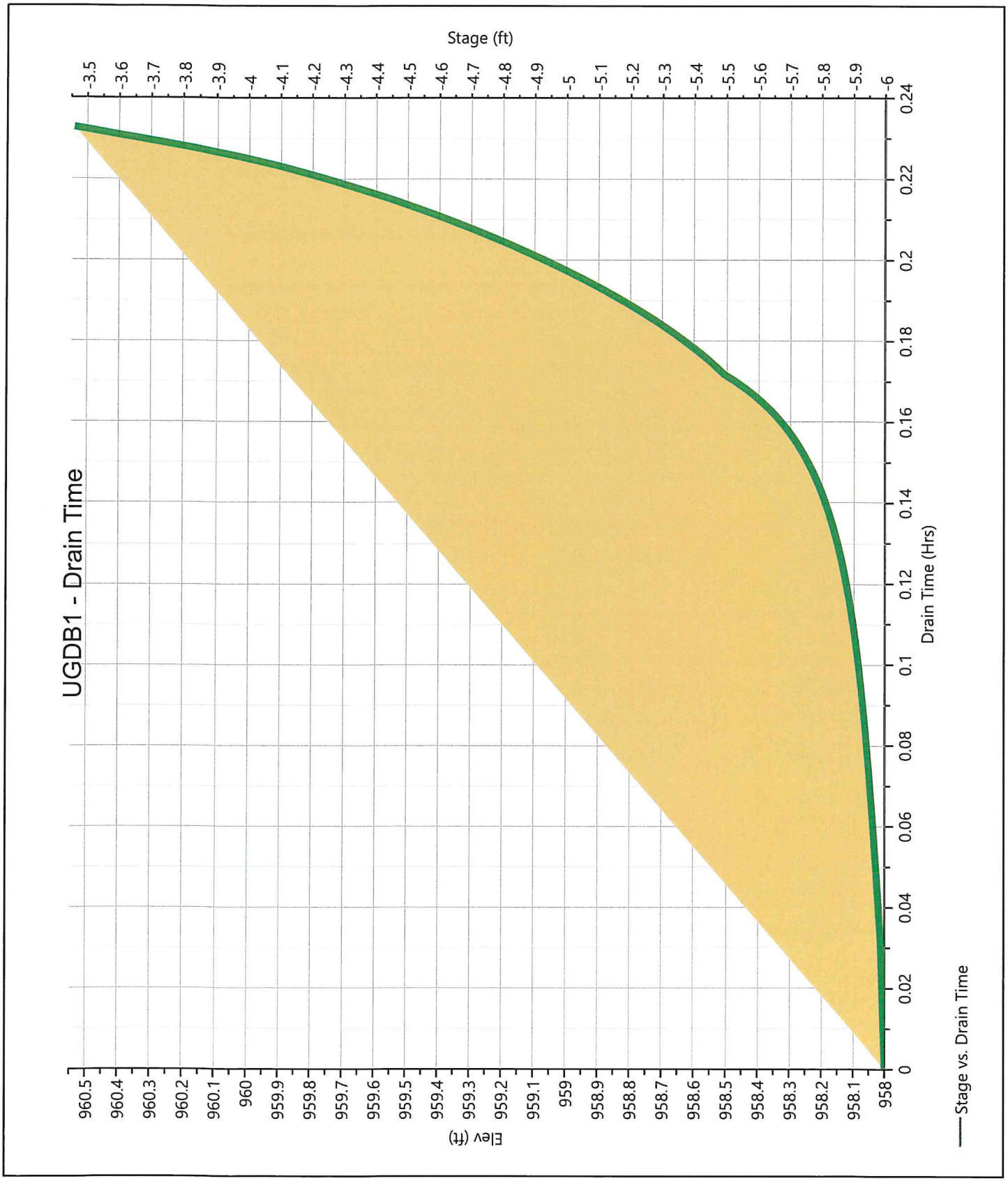
Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

UGDB1

Pond Drawdown



Pond Report

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

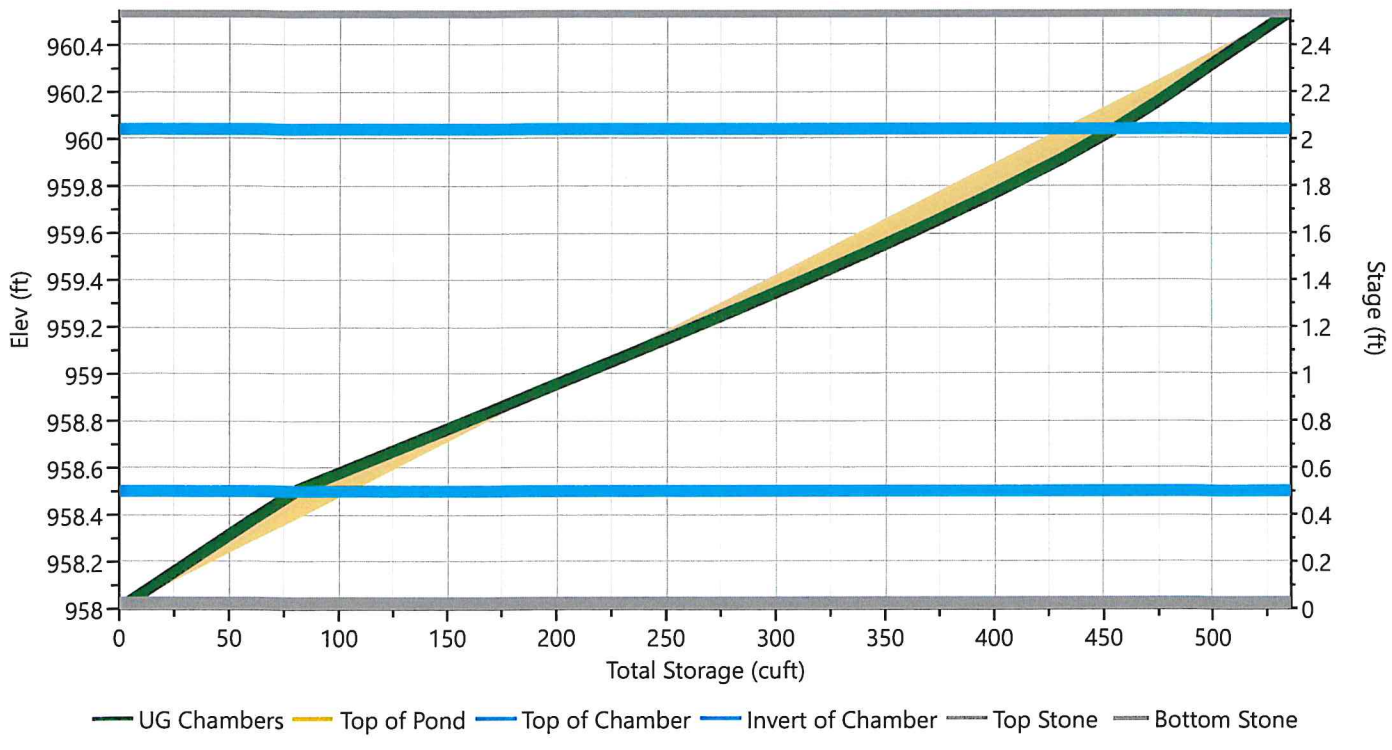
UGB2

Stage-Storage

Cultec Recharger® 150XLHD Chamber	
Description	**Input**
Chamber Height, in	18.5
Chamber Shape	Arch
Chamber Width, in	33
Installed Length, ft	10.25
No. Chambers	8
Bare Chamber Stor, cuft	217
No. Rows	1
Space Between Rows, in	6
Stone Above, in	6
Stone Below, in	6
Stone Sides, in	12
Stone Ends, in	12
Encasement Voids, %	40.00
Encasement Bottom Elevation, ft	958.00

Stage / Storage Table

Stage (in)	Elevation (ft)	Contour Area (sqft)	Incr. Storage (cuft)	Total Storage (cuft)
0.0	958.00	399	0.000	0.000
1.5	958.13	399	20.3	20.3
3.1	958.25	399	20.3	40.6
4.6	958.38	399	20.3	60.8
6.1	958.51	399	20.7	81.5
7.6	958.64	399	33.9	115
9.2	958.76	399	33.8	149
10.7	958.89	399	33.6	183
12.2	959.02	399	33.3	216
13.7	959.14	399	32.9	249
15.3	959.27	399	32.4	281
16.8	959.40	399	31.7	313
18.3	959.53	399	30.9	344
19.8	959.65	399	29.9	374
21.4	959.78	399	28.6	403
22.9	959.91	399	26.9	430
24.4	960.03	399	24.2	454
25.9	960.16	399	21.3	475
27.5	960.29	399	20.3	495
29.0	960.41	399	20.3	516
30.5	960.54	399	20.3	536



Pond Report

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

UGB2

Stage-Discharge

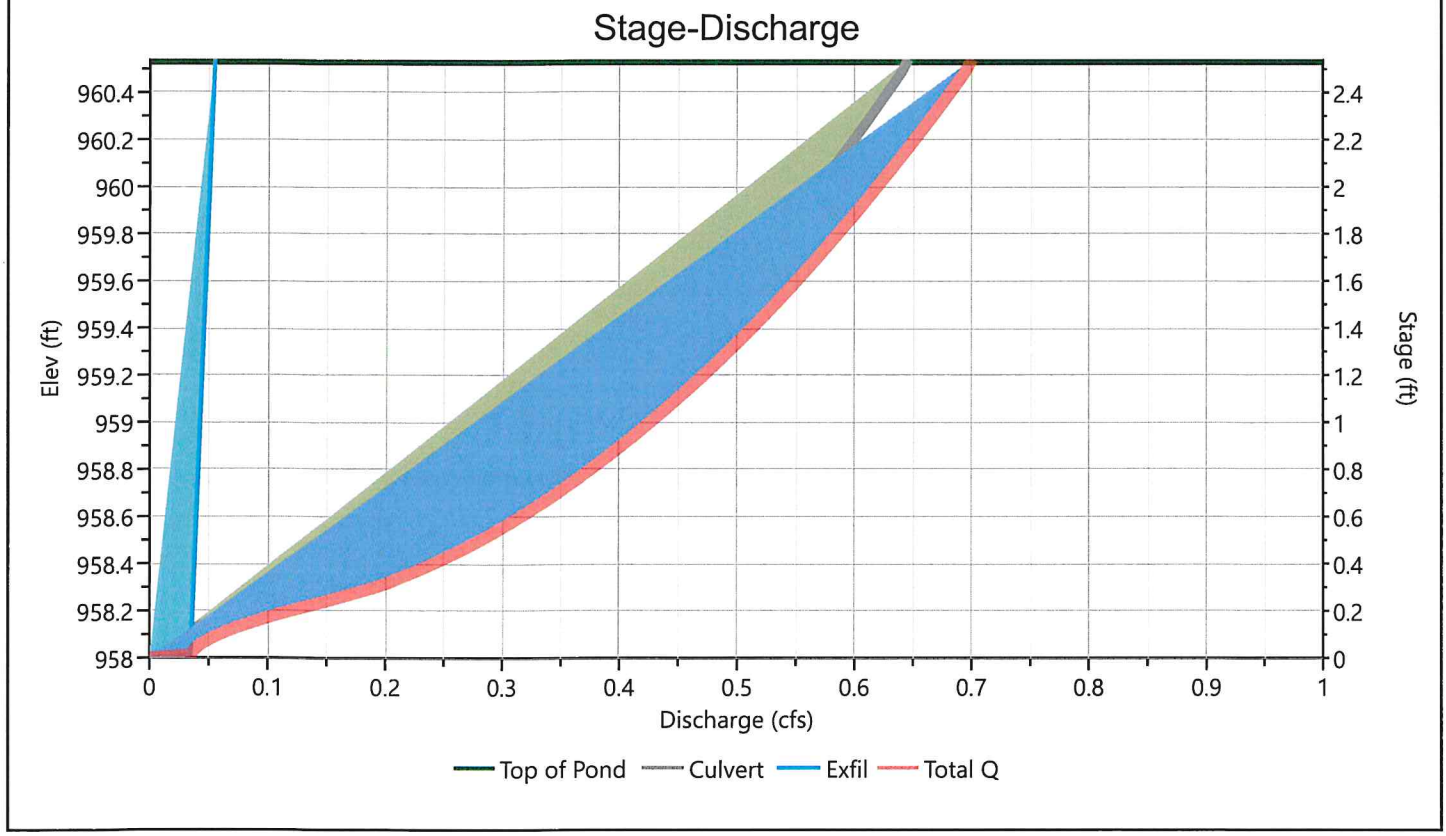
Culvert / Orifices	Culvert	Orifices		
		1	2	3
Rise, in	4			
Span, in	4			
No. Barrels	1			
Invert Elevation, ft	958.00			
Orifice Coefficient, Co	0.60			
Length, ft	20			
Barrel Slope, %	5			
N-Value, n	0.012			

Weirs	Riser*	Weirs		
		1	2	3
Shape / Type				
Crest Elevation, ft				
Crest Length, ft				
Angle, deg				
Weir Coefficient, Cw				

Perforated Riser	
Hole Diameter, in	
No. holes	
Invert Elevation, ft	
Height, ft	
Orifice Coefficient, Co	

Ancillary	
Exfiltration, in/hr	3.75**

*Routes through Culvert. **Exfiltration extracted from outflow hydrograph. Rate applied to contours.



Pond Report

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

UGB2

Stage-Storage-Discharge Summary

Stage (ft)	Elev. (ft)	Storage (cuft)	Culvert (cfs)	Orifices, cfs			Riser (cfs)	Weirs, cfs			Pf Riser (cfs)	Exfil (cfs)	User (cfs)	Total (cfs)
				1	2	3		1	2	3				
0.00	958.00	0.000	0.000									0.000		0.000
0.13	958.13	20.3	0.037 ic									0.036		0.073
0.25	958.25	40.6	0.123 ic									0.037		0.159
0.38	958.38	60.8	0.195 ic									0.038		0.232
0.51	958.51	81.5	0.246 ic									0.039		0.284
0.64	958.64	115	0.288 ic									0.040		0.327
0.76	958.76	149	0.324 ic									0.041		0.365
0.89	958.89	183	0.357 ic									0.042		0.399
1.02	959.02	216	0.387 ic									0.043		0.430
1.14	959.14	249	0.415 ic									0.044		0.459
1.27	959.27	281	0.441 ic									0.045		0.486
1.40	959.40	313	0.466 ic									0.046		0.512
1.53	959.53	344	0.490 ic									0.047		0.536
1.65	959.65	374	0.512 ic									0.048		0.560
1.78	959.78	403	0.534 ic									0.049		0.582
1.91	959.91	430	0.554 ic									0.050		0.604
2.03	960.03	454	0.574 ic									0.051		0.625
2.16	960.16	475	0.593 ic									0.052		0.645
2.29	960.29	495	0.612 ic									0.053		0.664
2.41	960.41	516	0.630 ic									0.054		0.684
2.54	960.54	536	0.645 oc									0.055		0.700

Suffix key: ic = inlet control, oc = outlet control, s = submerged weir

Pond Report

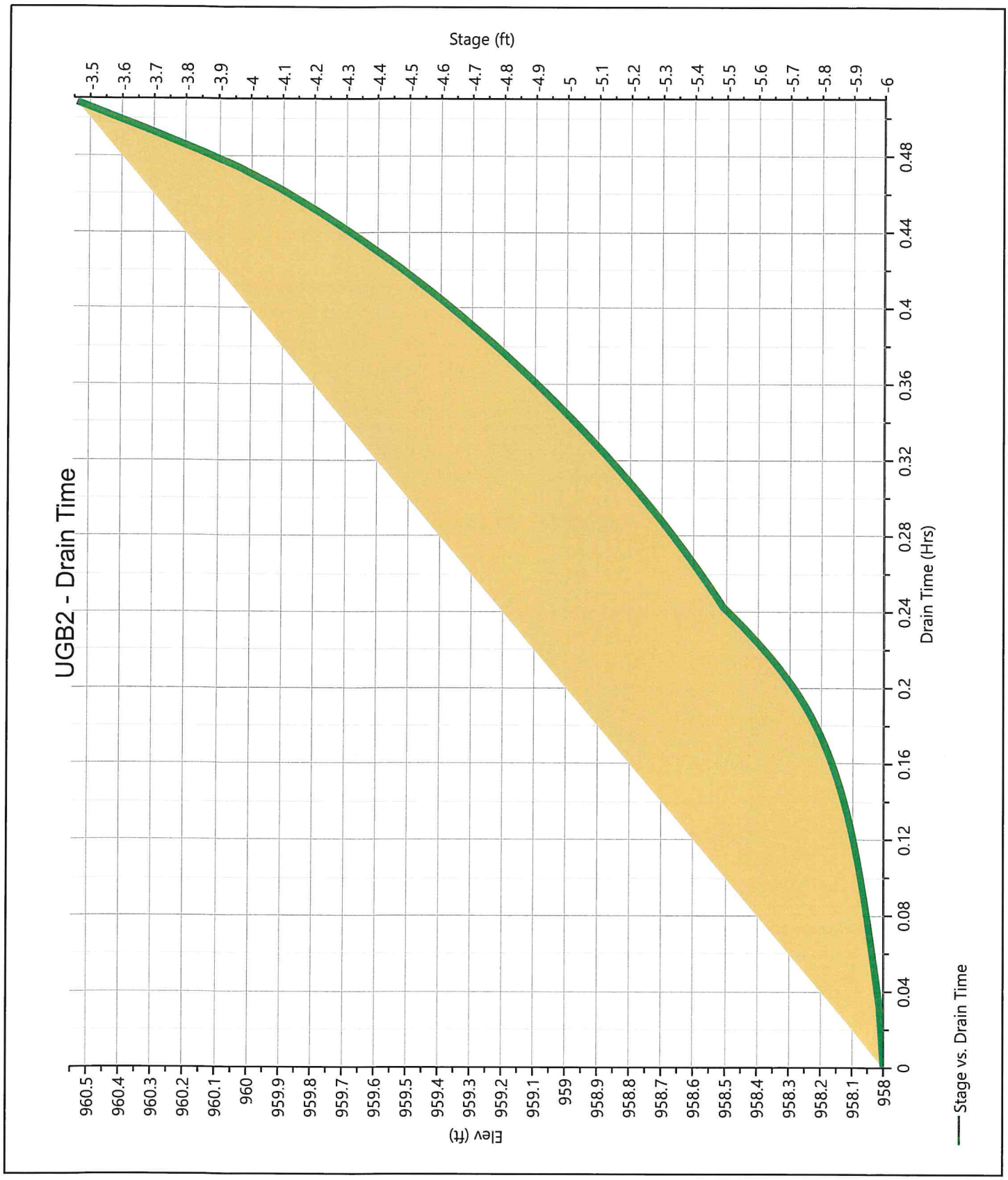
Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

UGB2

Pond Drawdown



Pond Report

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

Rain Garden

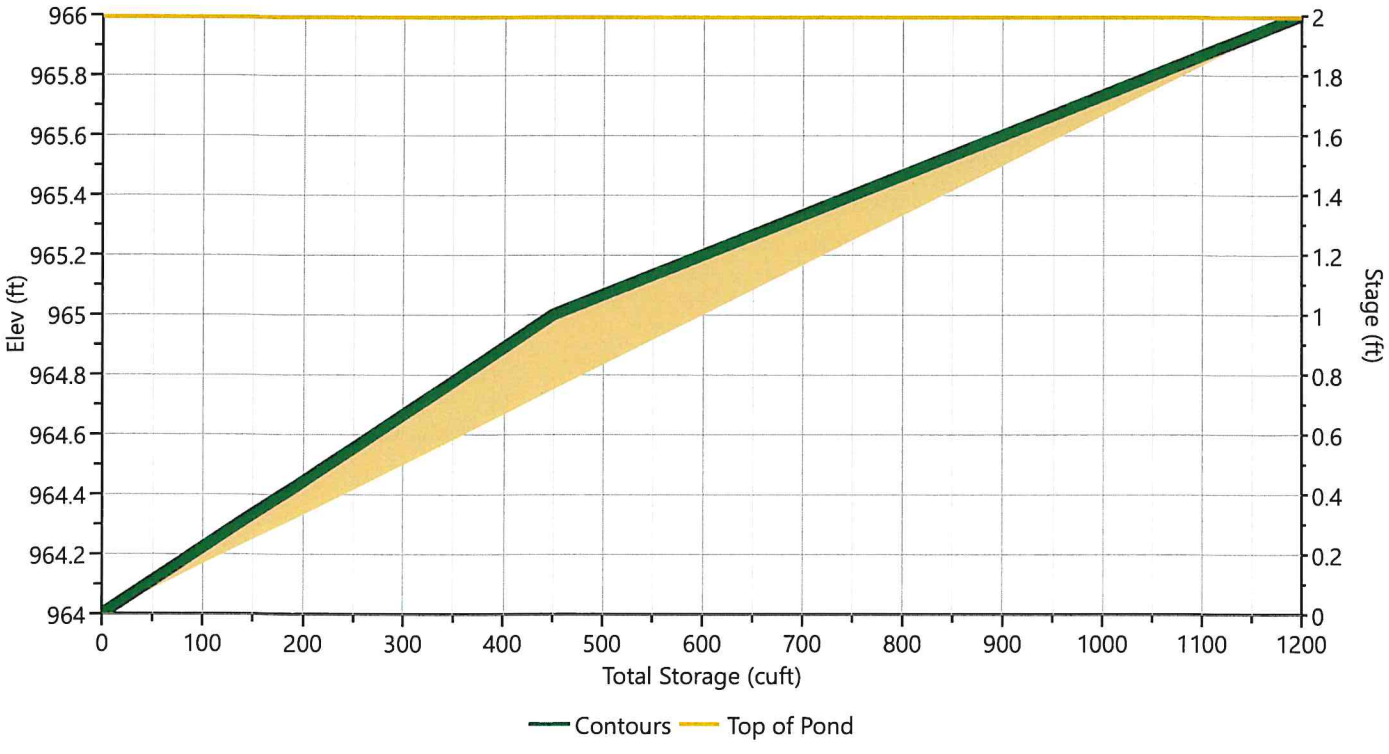
Stage-Storage

User Defined Contours

Description	Input
Bottom Elevation, ft	964.00
Voids (%)	100.00
Volume Calc	None

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour Area (sqft)	Incr. Storage (cuft)	Total Storage (cuft)
0.00	964.00	300	0.000	0.000
1.00	965.00	600	450	450
2.00	966.00	900	750	1,200



Pond Report

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

Rain Garden

Stage-Discharge

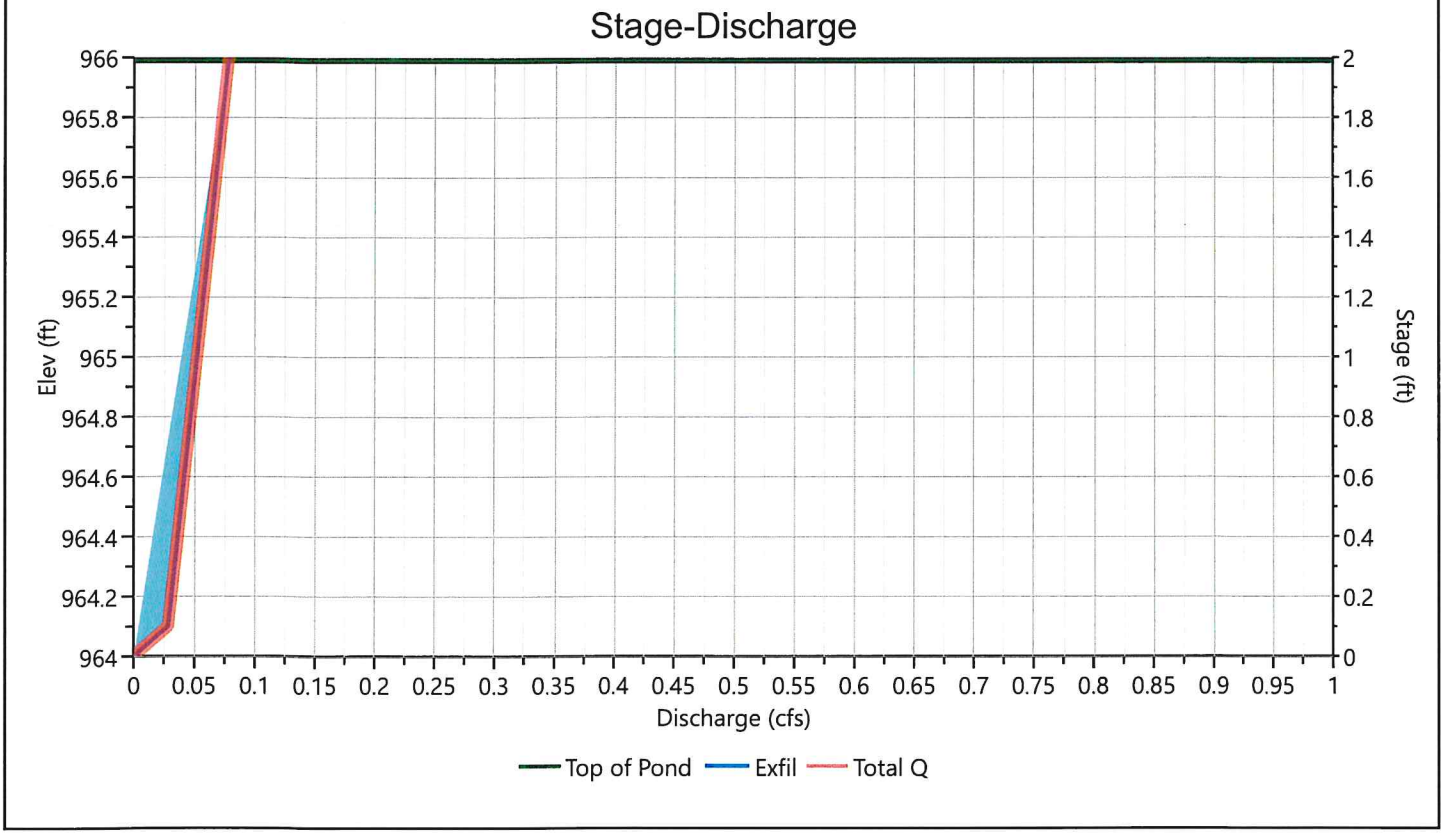
Culvert / Orifices	Culvert	Orifices		
		1	2	3
Rise, in				
Span, in				
No. Barrels				
Invert Elevation, ft				
Orifice Coefficient, Co				
Length, ft				
Barrel Slope, %				
N-Value, n	0.000			

Weirs	Riser*	Weirs		
		1	2	3
Shape / Type	Circular			
Crest Elevation, ft	965.5			
Crest Length, ft	1			
Angle, deg				
Weir Coefficient, Cw	3.3			

Orifice Plate	
Orifice Dia, in	
No. Orifices	
Invert Elevation, ft	
Height, ft	
Orifice Coefficient, Co	

Ancillary	
Exfiltration, in/hr	3.75**

*Routes through Culvert. **Exfiltration extracted from outflow hydrograph. Rate applied to contours.



Pond Report

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

Rain Garden

Stage-Storage-Discharge Summary

Stage (ft)	Elev. (ft)	Storage (cuft)	Culvert (cfs)	Orifices, cfs			Riser (cfs)	Weirs, cfs			Pf Riser (cfs)	Exfil (cfs)	User (cfs)	Total (cfs)
				1	2	3		1	2	3				
0.00	964.00	0.000					0.000					0.000		0.000
1.00	965.00	450					0.000					0.052		0.052
2.00	966.00	1,200					0.000					0.078		0.078

Suffix key: ic = inlet control, oc = outlet control, s = submerged weir

Pond Report

Project Name:

Hydrology Studio v 3.0.0.18

04-08-2021

Rain Garden

Pond Drawdown