

CITY OF O'FALLON
COMMUNITY DEVELOPMENT DEPARTMENT
ACCEPTED FOR CONSTRUCTION
BY: [Signature] DATE: JAN. 4, 2013
PROFESSIONAL ENGINEER'S SEAL
INDICATES RESPONSIBILITY FOR DESIGN

Detention Analysis
S.A.K. CONSTRUCTION
STORAGE YARD
O'FALLON, MISSOURI
(Musler Engineering Project No. 11-1230)
1013 Hoff Rd.

Prepared For:

S.A.K. CONSTRUCTION
864 Hoff Road
O'Fallon, Missouri 63366

Performed by:

Musler Engineering Company
32 Portwest Court
Saint Charles, MO 63303-5985

June 2011
Revised: August 2012



11.5.12

CITY OF FALLON
COMMUNITY DEVELOPMENT DEPARTMENT
ACCEPTED FOR CONSTRUCTION
BY: _____ DATE: _____
PROFESSIONAL ENGINEER'S SEAL
INDICATES RESPONSIBILITY FOR DESIGN

Professional Analysis
S.A.K. CONSTRUCTION
STORAGE YARD
OF FALLON, NEVADA
(All work done under Project No. 12-12-1)

Prepared For
S.A.K. CONSTRUCTION
8800 Hill Road
Fallon, Nevada 89407

Performed by
James Engineering Company
2210 West Court
Spokane, WA 99201

June 2011
Project Number 2011



WATER QUALITY & DETENTION ANALYSIS
S.A.K. CONSTRUCTION
STORAGE YARD

INTRODUCTION

At the request of S.A.K. Construction, we have conducted an analysis for detention and water quality for a dry detention basin.

SITE AND PROJECT DESCRIPTION

The S.A.K. Construction Storage Yard is located at 1012 Hoff Road in the City of O'Fallon, Saint Charles County, Missouri. The site is located on the west side of Hoff Road, approximately 0.8 miles north of the intersection with West Terra Lane. The site area for the S.A.K. Construction Storage Yard is approximately 10.00 acres, but has been sized for possible future development. The drainage area of the proposed improvement enters an un-named creek to the west of the site and is tributary to Peruque Creek.

METHODOLOGY AND DETENTION ANALYSIS

The storm run-off for the 2 year, 15 year, 25 year and 100 year – 20 minute storm events was determined using the Rational Method. The detention was analyzed using "Hydraflow Hydrographs 2007" (see Appendix). The time of concentration from the water quality analysis was used for this analysis also.

The project drains to the Peruque Creek watershed through an unnamed tributary

The table below shows the results for the basin.

HYDROLOGIC AND DETENTION SUMMARY TABLE

Storm Event	Pr. Flow to Basin	Max Allow. Outflow	Total Outflow	ELEV
2 yr.-20 min.	14.17 cfs ✓	5.97 cfs	4.52 cfs ✓	557.17
15 yr.-20 min.	22.95 cfs ✓	9.70 cfs	5.45 cfs ✓	557.86
25 yr.-20 min.	28.33 cfs ✓	11.94 cfs	6.54 cfs ✓	558.23
100 yr.-20 min.	36.25 cfs ✓	15.31 cfs	9.29 cfs ✓	558.71

- Top of dam = 561.25 ✓
- 100yr. high water = 558.71 ✓
- Freeboard = 2.54 feet ✓
- 100yr. high water with low flow blocked = 559.06 ✓
- Freeboard with low flow blocked = 2.19 feet ✓
- 100yr. high water with 2-year sediment = 558.76
- Freeboard with 2-year sediment = ~~2.47~~ feet 2.49 FEET

The detention basin will act as a sediment storage basin, and using the City's annual sediment storage chart will require 1,200 cu. ft. of storage over 2 years. Hydrograph 4 takes into account

150 cu. ft./ac

the sediment in the basin. The sediment had minimal impact on the basin, and detention for all storm events was achieved.

APPENDIX

CALCULATIONS
S.A.K. CONSTRUCTION
STORAGE YARD

Hydrologic Soil Types:

Soil Type 48B & 48C – Weller – Soil Group C

Proposed Conditions:

To detention basin: 7.48 acres ✓

Grass, good condition:	1.30 acres ✓	CN = 74
Gravel:	6.13 acres ✓	CN = 89
Building:	0.05 acres ✓	CN = 98

$$CN = [(1.30ac.)(74) + (6.13ac.)(89) + (0.05ac.)(98)/7.48ac.] = 86 ✓$$

NOTE: All Curve Numbers determined from "Urban Hydrology for Small Watersheds – Technical Release No. 55", Table 2-2, Runoff curve numbers for selected agricultural, suburban and urban land use. (Antecedent moisture condition II and $I_a = 0.2S$).

Overall Site:

$$Q=(PI)A$$

PI Factors:

Grass/Natural Conditions (5% impervious – including City of O'Fallon run-off factors):

PI = 1.15 (2 year – 20 minute) ✓
= 1.87 (15 year – 20 minute) ✓
= 2.30 (25 year – 20 minute) ✓
= 2.95 (100 year – 20 minute) ✓

Gravel Conditions (65% impervious – including City of O'Fallon run-off factors):

PI = 1.97 (2 year – 20 minute) ✓
= 3.19 (15 year – 20 minute) ✓
= 3.94 (25 year – 20 minute) ✓
= 5.04 (100 year – 20 minute) ✓

Pavement/Roof Conditions (100% impervious – including City of O'Fallon run-off factors):

$$\begin{aligned} \text{PI} &= 2.39 \text{ (2 year – 20 minute)} \checkmark \\ &= 3.85 \text{ (15 year – 20 minute)} \checkmark \\ &= 4.75 \text{ (25 year – 20 minute)} \checkmark \\ &= 6.08 \text{ (100 year – 20 minute)} \checkmark \end{aligned}$$

Note: City of O'Fallon Run-off Factors are as follows:

$$\begin{aligned} \text{2 year} &= 1.0 \checkmark \\ \text{15 year} &= 1.1 \checkmark \\ \text{25 year} &= 1.15 \checkmark \\ \text{100 year} &= 1.25 \text{ } 1.29 \end{aligned}$$

Site Area: 10.00 acres \checkmark

Existing Conditions:

Ex A Northeast to Hoff Road Ditch: 1.03 acres \checkmark
Grass: 1.03 acres \checkmark

$$\begin{aligned} Q_{2\text{yr}} &= (1.03\text{ac.})(1.15) = 1.18 \text{ cfs} \checkmark \\ Q_{15\text{yr}} &= (1.03\text{ac.})(1.87) = 1.93 \text{ cfs} \checkmark \\ Q_{25\text{yr}} &= (1.03\text{ac.})(2.30) = 2.37 \text{ cfs} \checkmark \\ Q_{100\text{yr}} &= (1.03\text{ac.})(2.95) = 3.04 \text{ cfs} \checkmark \end{aligned}$$

Ex B Southeast to Hoff Road Ditch: 0.89 acres \checkmark
Pavement: 0.03 acres \checkmark
Grass: 0.86 acres \checkmark

$$\begin{aligned} Q_{2\text{yr}} &= (0.03\text{ac.})(2.39) + (0.86\text{ac.})(1.15) = 1.06 \text{ cfs} \checkmark \\ Q_{15\text{yr}} &= (0.03\text{ac.})(3.85) + (0.86\text{ac.})(1.87) = 1.72 \text{ cfs} \checkmark \\ Q_{25\text{yr}} &= (0.03\text{ac.})(4.75) + (0.86\text{ac.})(2.30) = 2.12 \text{ cfs} \checkmark \\ Q_{100\text{yr}} &= (0.03\text{ac.})(6.08) + (0.86\text{ac.})(2.95) = 2.72 \text{ cfs} \checkmark \end{aligned}$$

Ex C South to field Ditch: 2.76 acres \checkmark
Pavement: 0.02 acres \checkmark
Grass: 2.74 acres \checkmark

$$\begin{aligned} Q_{2\text{yr}} &= (0.02\text{ac.})(2.39) + (2.74\text{ac.})(1.15) = 3.20 \text{ cfs} \checkmark \\ Q_{15\text{yr}} &= (0.02\text{ac.})(3.85) + (2.74\text{ac.})(1.87) = 5.20 \text{ cfs} \checkmark \\ Q_{25\text{yr}} &= (0.02\text{ac.})(4.75) + (2.74\text{ac.})(2.30) = 6.40 \text{ cfs} \checkmark \\ Q_{100\text{yr}} &= (0.02\text{ac.})(6.08) + (2.74\text{ac.})(2.95) = 8.20 \text{ cfs} \checkmark \end{aligned}$$

Ex D West to creek: 4.76 acres
 Roof/Pavement: 0.18 acres ✓
 Offsite: 0.20 acres ✓
 Grass: 4.58 acres ✓

$$Q_{2yr} = (0.18ac.)(2.39) + (0.20ac.)(2.39) + (4.58ac.)(1.15) = 6.18 \text{ cfs} ✓$$

$$Q_{15yr} = (0.18ac.)(3.85) + (0.20ac.)(3.85) + (4.58ac.)(1.87) = 10.03 \text{ cfs} ✓$$

$$Q_{25yr} = (0.18ac.)(4.75) + (0.20ac.)(3.85) + (4.58ac.)(2.30) = 12.34 \text{ cfs} ✓$$

$$Q_{100yr} = (0.18ac.)(6.08) + (0.20ac.)(6.08) + (4.58ac.)(2.95) = 15.83 \text{ cfs} ✓$$

4.75

Ex E Northwest to Junkyard: 0.56 acres
 Grass: 0.56 acres ✓

$$Q_{2yr} = (0.56ac.)(1.15) = 0.64 \text{ cfs} ✓$$

$$Q_{15yr} = (0.56ac.)(1.87) = 1.05 \text{ cfs} ✓$$

$$Q_{25yr} = (0.56ac.)(2.30) = 1.29 \text{ cfs} ✓$$

$$Q_{100yr} = (0.56ac.)(2.95) = 1.65 \text{ cfs} ✓$$

2yr = 12.26

Proposed Conditions:

Pr A Northeast to Hoff Road Ditch: 0.45 acres
 Pavement: 0.02 acres ✓
 Grass: 0.43 acres ✓

$$Q_{2yr} = (0.02ac.)(2.39) + (0.43ac.)(1.15) = 0.54 \text{ cfs} ✓$$

$$Q_{15yr} = (0.02ac.)(3.85) + (0.43ac.)(1.87) = 0.88 \text{ cfs} ✓$$

$$Q_{25yr} = (0.02ac.)(4.75) + (0.43ac.)(2.30) = 1.08 \text{ cfs} ✓$$

$$Q_{100yr} = (0.02ac.)(6.08) + (0.43ac.)(2.95) = 1.39 \text{ cfs} ✓$$

Pr B Southeast to Hoff Road Ditch: 0.51 acres
 Pavement: 0.11 acres ✓
 Gravel: 0.04 acres ✓
 Grass: 0.36 acres ✓

$$Q_{2yr} = (0.11ac.)(2.39) + (0.04ac.)(1.97) + (0.36ac.)(1.15) = 0.76 \text{ cfs} ✓$$

$$Q_{15yr} = (0.11ac.)(3.85) + (0.04ac.)(3.19) + (0.36ac.)(1.87) = 1.22 \text{ cfs} ✓$$

$$Q_{25yr} = (0.11ac.)(4.75) + (0.04ac.)(3.94) + (0.36ac.)(2.30) = 1.51 \text{ cfs} ✓$$

$$Q_{100yr} = (0.11ac.)(6.08) + (0.04ac.)(5.04) + (0.36ac.)(2.95) = 1.93 \text{ cfs} ✓$$

Pr C South to field Ditch: 0.60 acres
 Grass: 0.60 acres ✓

$$Q_{2yr} = (0.60ac.)(1.15) = 0.69 \text{ cfs} ✓$$

$$Q_{15yr} = (0.60ac.)(1.87) = 1.12 \text{ cfs} ✓$$

$$Q_{25yr} = (0.60ac.)(2.30) = 1.38 \text{ cfs} ✓$$

$$Q_{100yr} = (0.60ac.)(2.95) = 1.77 \text{ cfs} ✓$$

Pr D West to detention basin: 7.68 acres

Roof/Pavement: 0.05 acres ✓
Offsite: 0.20 acres ✓
Gravel: 6.13 acres ✓
Grass: 1.30 acres ✓

$$Q_{2yr} = (0.05ac.)(2.39) + (0.20ac.)(2.39) + (6.13ac.)(1.97) + (1.30ac.)(1.15) = 14.17 \text{ cfs} \checkmark$$

$$Q_{15yr} = (0.05ac.)(3.85) + (0.20ac.)(3.85) + (6.13ac.)(3.19) + (1.30ac.)(1.87) = 22.95 \text{ cfs} \checkmark$$

$$Q_{25yr} = (0.05ac.)(4.75) + (0.20ac.)(3.85) + (6.13ac.)(3.94) + (1.30ac.)(2.30) = 28.33 \text{ cfs} \checkmark$$

$$Q_{100yr} = (0.05ac.)(6.08) + (0.20ac.)(6.08) + (6.13ac.)(5.04) + (1.30ac.)(2.95) = 36.25 \text{ cfs} \checkmark$$

Pr E By-pass detention basin west to creek: 0.84 acres

Gravel: 0.01 acres ✓
Grass: 0.83 acres ✓

$$Q_{2yr} = (0.01ac.)(1.97) + (0.83ac.)(1.15) = 0.97 \text{ cfs} \checkmark$$

$$Q_{15yr} = (0.01ac.)(3.19) + (0.83ac.)(1.87) = 1.58 \text{ cfs} \checkmark$$

$$Q_{25yr} = (0.01ac.)(3.94) + (0.83ac.)(2.30) = 1.95 \text{ cfs} \checkmark$$

$$Q_{100yr} = (0.01ac.)(5.04) + (0.83ac.)(2.95) = 2.50 \text{ cfs} \checkmark$$

Pr F Northwest to Junkyard: 0.12 acres

Grass: 0.12 acres ✓

$$Q_{2yr} = (0.12ac.)(1.15) = 0.14 \text{ cfs} \checkmark$$

$$Q_{15yr} = (0.12ac.)(1.87) = 0.22 \text{ cfs} \checkmark$$

$$Q_{25yr} = (0.12ac.)(2.30) = 0.28 \text{ cfs} \checkmark$$

$$Q_{100yr} = (0.12ac.)(2.95) = 0.35 \text{ cfs} \checkmark$$

Differential Run-off:

$$Q_{2yr} = 17.27 - 12.26 = 5.01 \text{ cfs} \checkmark$$

$$Q_{15yr} = 27.97 - 19.93 = 8.04 \text{ cfs} \checkmark$$

$$Q_{25yr} = 34.53 - 24.52 = 10.01 \text{ cfs} \checkmark$$

$$Q_{100yr} = 44.19 - 31.44 = 12.75 \text{ cfs} \checkmark$$

Allowable discharge from the detention basin

$$Q_{2yr} = 6.18 - 0.97 = 5.21 \text{ cfs} \checkmark$$

$$Q_{15yr} = 10.03 - 1.58 = 8.45 \text{ cfs} \checkmark$$

$$Q_{25yr} = 12.34 - 1.95 = 10.39 \text{ cfs} \checkmark$$

$$Q_{100yr} = 15.83 - 2.50 = 13.33 \text{ cfs} \checkmark$$

Actual discharge versus allowable discharge for detention basin:

$$\begin{aligned}Q_{2yr} &= 5.08 \text{ cfs} < 5.21 \text{ cfs} \\Q_{15yr} &= 7.47 \text{ cfs} < 8.45 \text{ cfs} \\Q_{25yr} &= 9.70 \text{ cfs} < 10.39 \text{ cfs} \\Q_{100yr} &= 12.83 \text{ cfs} < 13.33 \text{ cfs}\end{aligned}$$

Actual discharge versus allowable discharge for detention basin with Low Flow Blocked:

$$\begin{aligned}Q_{2yr} &= 0.69 \text{ cfs} < 5.21 \text{ cfs} \\Q_{15yr} &= 3.95 \text{ cfs} < 8.45 \text{ cfs} \\Q_{25yr} &= 6.02 \text{ cfs} < 10.39 \text{ cfs} \\Q_{100yr} &= 13.24 \text{ cfs} < 13.33 \text{ cfs}\end{aligned}$$

Actual discharge versus allowable discharge for detention basin with 2 year sediment:

$$\begin{aligned}Q_{2yr} &= 5.15 \text{ cfs} < 5.21 \text{ cfs} \\Q_{15yr} &= 7.71 \text{ cfs} < 8.45 \text{ cfs} \\Q_{25yr} &= 9.95 \text{ cfs} < 10.39 \text{ cfs} \\Q_{100yr} &= 13.21 \text{ cfs} < 13.33 \text{ cfs}\end{aligned}$$

Hydrograph Return Period Recap

Hydraflow Hydrographs by Intelisolve v9.2

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	Manual	—	—	14.17	—	—	22.95	28.33	—	36.25	Proposed to Basin
2	Reservoir	1	—	4.520	—	—	5.453	6.536	—	9.292	Detention Basin
3	Reservoir	1	—	0.000	—	—	0.705	2.378	—	4.721	Low Flow Blocked
4	Reservoir	1	—	4.621	—	—	5.555	6.796	—	9.630	With 2yr sediment

Hydrograph Summary Report

Hydraflow Hydrographs by Intellisolve v9.2

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	Manual	14.17	1	7	17,004	---	---	---	Proposed to Basin
2	Reservoir	4.520	1	25	17,000	1	557.17	12,295	Detention Basin
3	Reservoir	0.000	1	n/a	0	1	557.52	17,004	Low Flow Blocked
4	Reservoir	4.621	1	25	17,001	1	557.24	12,023	With 2yr sediment
11-1230-half-way-to-future.gpw					Return Period: 2 Year			Wednesday, Sep 12, 2012	

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Sep 12, 2012

Hyd. No. 1

Proposed to Basin

Hydrograph type = Manual
Storm frequency = 2 yrs
Time interval = 1 min

Peak discharge = 14.17 cfs
Time to peak = 7 min
Hyd. volume = 43,500 cuft

Hydrograph Discharge Table

(Printed values >= 10.00% of Qp.)

Time -- Outflow
(min cfs)

1	2.020
2	4.050
3	6.070
4	8.100
5	10.12
6	12.15
7	14.17 <<
8	14.17 <<
9	14.17 <<
10	14.17 <<
11	14.17 <<
12	14.17 <<
13	14.17 <<
14	14.17 <<
15	14.17 <<
16	14.17 <<
17	14.17 <<
18	14.17 <<
19	14.17 <<
20	14.17 <<
21	12.15
22	10.12
23	8.100
24	6.070
25	4.050
26	2.020

...End

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

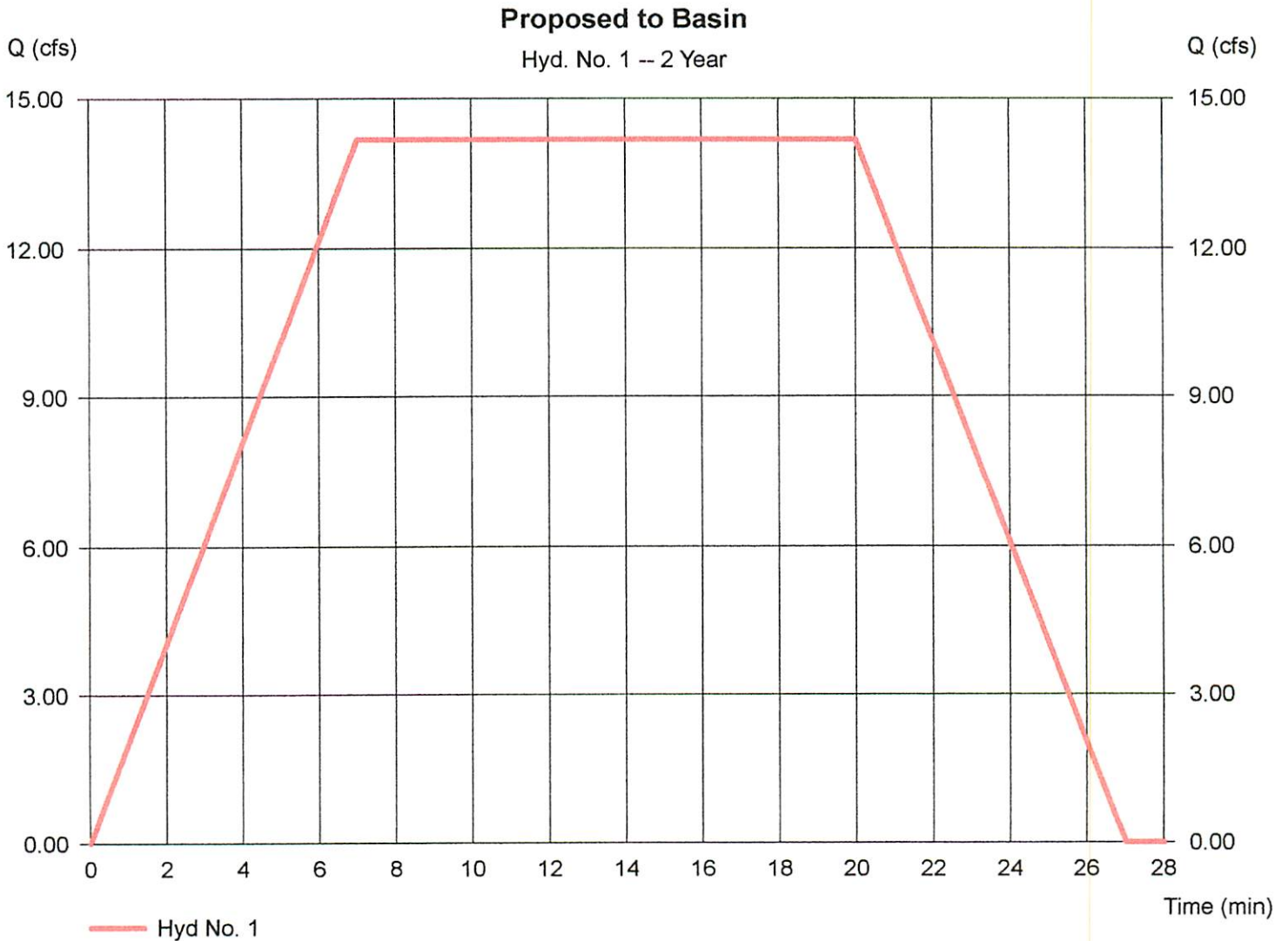
Wednesday, Sep 12, 2012

Hyd. No. 1

Proposed to Basin

Hydrograph type = Manual
Storm frequency = 2 yrs
Time interval = 1 min

Peak discharge = 14.17 cfs
Time to peak = 7 min
Hyd. volume = 17,004 cuft



Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.2

Wednesday, Sep 12, 2012

Hyd. No. 2

Detention Basin

Hydrograph type	= Reservoir	Peak discharge	= 4.520 cfs
Storm frequency	= 2 yrs	Time to peak	= 25 min
Time interval	= 1 min	Hyd. volume	= 43,496 cuft
Inflow hyd. No.	= 1 - Proposed to Basin	Reservoir name	= Detention Basin
Max. Elevation	= 557.17 ft	Max. Storage	= 12,295 cuft

Storage Indication method used.

(Printed values >= 10.00% of Qp.)

Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
4	8.100	555.44	0.628	0.625	---	---	---	---	---	---	---	0.625
5	10.12	555.67	1.263	1.256	---	---	---	---	---	---	---	1.256
6	12.15	555.94	2.158	2.158	---	---	---	---	---	---	---	2.158
7	14.17 <<	556.07	2.541	2.540	---	---	---	---	---	---	---	2.540
8	14.17 <<	556.15	2.731	2.730	---	---	---	---	---	---	---	2.730
9	14.17 <<	556.24	2.916	2.916	---	---	---	---	---	---	---	2.916
10	14.17 <<	556.33	3.102	3.091	---	---	---	---	---	---	---	3.091
11	14.17 <<	556.41	3.285	3.250	---	---	---	---	---	---	---	3.250
12	14.17 <<	556.49	3.404	3.401	---	---	---	---	---	---	---	3.401
13	14.17 <<	556.58	3.585	3.550	---	---	---	---	---	---	---	3.550
14	14.17 <<	556.66	3.717	3.695	---	---	---	---	---	---	---	3.695
15	14.17 <<	556.74	3.830	3.830	---	---	---	---	---	---	---	3.830
16	14.17 <<	556.81	3.963	3.953	---	---	---	---	---	---	---	3.953
17	14.17 <<	556.89	4.148	4.079	---	---	---	---	---	---	---	4.079
18	14.17 <<	556.97	4.261	4.205	---	---	---	---	---	---	---	4.205
19	14.17 <<	557.03	4.340	4.296	---	---	---	---	---	---	---	4.296
20	14.17 <<	557.07	4.399	4.364	---	---	---	---	---	---	---	4.364
21	12.15	557.11	4.453	4.424	---	---	---	---	---	---	---	4.424
22	10.12	557.14	4.494	4.469	---	---	---	---	---	---	---	4.469
23	8.100	557.16	4.523	4.500	---	---	---	---	---	---	---	4.500
24	6.070	557.17	4.538	4.517	---	---	---	---	---	---	---	4.517
25	4.050	557.17 <<	4.542	4.520	---	---	---	---	---	---	---	4.520 <<
26	2.020	557.16	4.533	4.511	---	---	---	---	---	---	---	4.511
27	0.000	557.15	4.511	4.487	---	---	---	---	---	---	---	4.487
28	0.000	557.13	4.484	4.457	---	---	---	---	---	---	---	4.457
29	0.000	557.11	4.456	4.428	---	---	---	---	---	---	---	4.428
30	0.000	557.09	4.429	4.398	---	---	---	---	---	---	---	4.398
31	0.000	557.07	4.403	4.368	---	---	---	---	---	---	---	4.368
32	0.000	557.05	4.376	4.338	---	---	---	---	---	---	---	4.338
33	0.000	557.03	4.350	4.308	---	---	---	---	---	---	---	4.308
34	0.000	557.01	4.324	4.278	---	---	---	---	---	---	---	4.278
35	0.000	556.99	4.293	4.243	---	---	---	---	---	---	---	4.243
36	0.000	556.96	4.249	4.190	---	---	---	---	---	---	---	4.190
37	0.000	556.93	4.206	4.138	---	---	---	---	---	---	---	4.138
38	0.000	556.90	4.159	4.087	---	---	---	---	---	---	---	4.087
39	0.000	556.86	4.085	4.036	---	---	---	---	---	---	---	4.036
40	0.000	556.83	4.012	3.986	---	---	---	---	---	---	---	3.986
41	0.000	556.80	3.940	3.937	---	---	---	---	---	---	---	3.937
42	0.000	556.77	3.890	3.890	---	---	---	---	---	---	---	3.890
43	0.000	556.74	3.844	3.844	---	---	---	---	---	---	---	3.844

Continues on next page...

Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
44	0.000	556.72	3.799	3.799	---	---	---	---	---	---	---	3.799
45	0.000	556.69	3.757	3.751	---	---	---	---	---	---	---	3.751
46	0.000	556.66	3.720	3.699	---	---	---	---	---	---	---	3.699
47	0.000	556.63	3.682	3.649	---	---	---	---	---	---	---	3.649
48	0.000	556.60	3.645	3.599	---	---	---	---	---	---	---	3.599
49	0.000	556.57	3.585	3.549	---	---	---	---	---	---	---	3.549
50	0.000	556.55	3.523	3.500	---	---	---	---	---	---	---	3.500
51	0.000	556.52	3.462	3.452	---	---	---	---	---	---	---	3.452
52	0.000	556.49	3.406	3.404	---	---	---	---	---	---	---	3.404
53	0.000	556.47	3.369	3.357	---	---	---	---	---	---	---	3.357
54	0.000	556.44	3.333	3.311	---	---	---	---	---	---	---	3.311
55	0.000	556.42	3.297	3.265	---	---	---	---	---	---	---	3.265
56	0.000	556.39	3.256	3.219	---	---	---	---	---	---	---	3.219
57	0.000	556.37	3.200	3.173	---	---	---	---	---	---	---	3.173
58	0.000	556.35	3.145	3.127	---	---	---	---	---	---	---	3.127
59	0.000	556.32	3.091	3.082	---	---	---	---	---	---	---	3.082
60	0.000	556.30	3.038	3.038	---	---	---	---	---	---	---	3.038
61	0.000	556.27	2.989	2.989	---	---	---	---	---	---	---	2.989
62	0.000	556.25	2.941	2.941	---	---	---	---	---	---	---	2.940
63	0.000	556.23	2.893	2.893	---	---	---	---	---	---	---	2.893
64	0.000	556.21	2.846	2.846	---	---	---	---	---	---	---	2.846
65	0.000	556.19	2.800	2.800	---	---	---	---	---	---	---	2.800
66	0.000	556.17	2.755	2.754	---	---	---	---	---	---	---	2.754
67	0.000	556.14	2.710	2.710	---	---	---	---	---	---	---	2.710
68	0.000	556.12	2.666	2.665	---	---	---	---	---	---	---	2.665
69	0.000	556.10	2.622	2.622	---	---	---	---	---	---	---	2.622
70	0.000	556.08	2.579	2.579	---	---	---	---	---	---	---	2.579
71	0.000	556.06	2.537	2.537	---	---	---	---	---	---	---	2.537
72	0.000	556.04	2.496	2.495	---	---	---	---	---	---	---	2.495
73	0.000	556.03	2.455	2.455	---	---	---	---	---	---	---	2.454
74	0.000	556.01	2.414	2.414	---	---	---	---	---	---	---	2.414
75	0.000	555.96	2.249	2.249	---	---	---	---	---	---	---	2.249
76	0.000	555.90	2.017	2.017	---	---	---	---	---	---	---	2.017
77	0.000	555.85	1.826	1.826	---	---	---	---	---	---	---	1.826
78	0.000	555.80	1.654	1.654	---	---	---	---	---	---	---	1.654
79	0.000	555.75	1.511	1.511	---	---	---	---	---	---	---	1.511
80	0.000	555.71	1.381	1.380	---	---	---	---	---	---	---	1.381
81	0.000	555.67	1.272	1.266	---	---	---	---	---	---	---	1.266
82	0.000	555.64	1.177	1.162	---	---	---	---	---	---	---	1.162
83	0.000	555.61	1.089	1.067	---	---	---	---	---	---	---	1.067
84	0.000	555.58	1.007	0.987	---	---	---	---	---	---	---	0.987
85	0.000	555.55	0.931	0.915	---	---	---	---	---	---	---	0.915
86	0.000	555.53	0.861	0.848	---	---	---	---	---	---	---	0.848
87	0.000	555.50	0.795	0.786	---	---	---	---	---	---	---	0.786
88	0.000	555.48	0.739	0.732	---	---	---	---	---	---	---	0.732
89	0.000	555.46	0.687	0.682	---	---	---	---	---	---	---	0.682
90	0.000	555.44	0.639	0.636	---	---	---	---	---	---	---	0.636
91	0.000	555.43	0.595	0.592	---	---	---	---	---	---	---	0.592
92	0.000	555.41	0.553	0.552	---	---	---	---	---	---	---	0.552
93	0.000	555.40	0.517	0.516	---	---	---	---	---	---	---	0.516
94	0.000	555.38	0.488	0.488	---	---	---	---	---	---	---	0.488
95	0.000	555.37	0.461	0.461	---	---	---	---	---	---	---	0.461

...End

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Sep 12, 2012

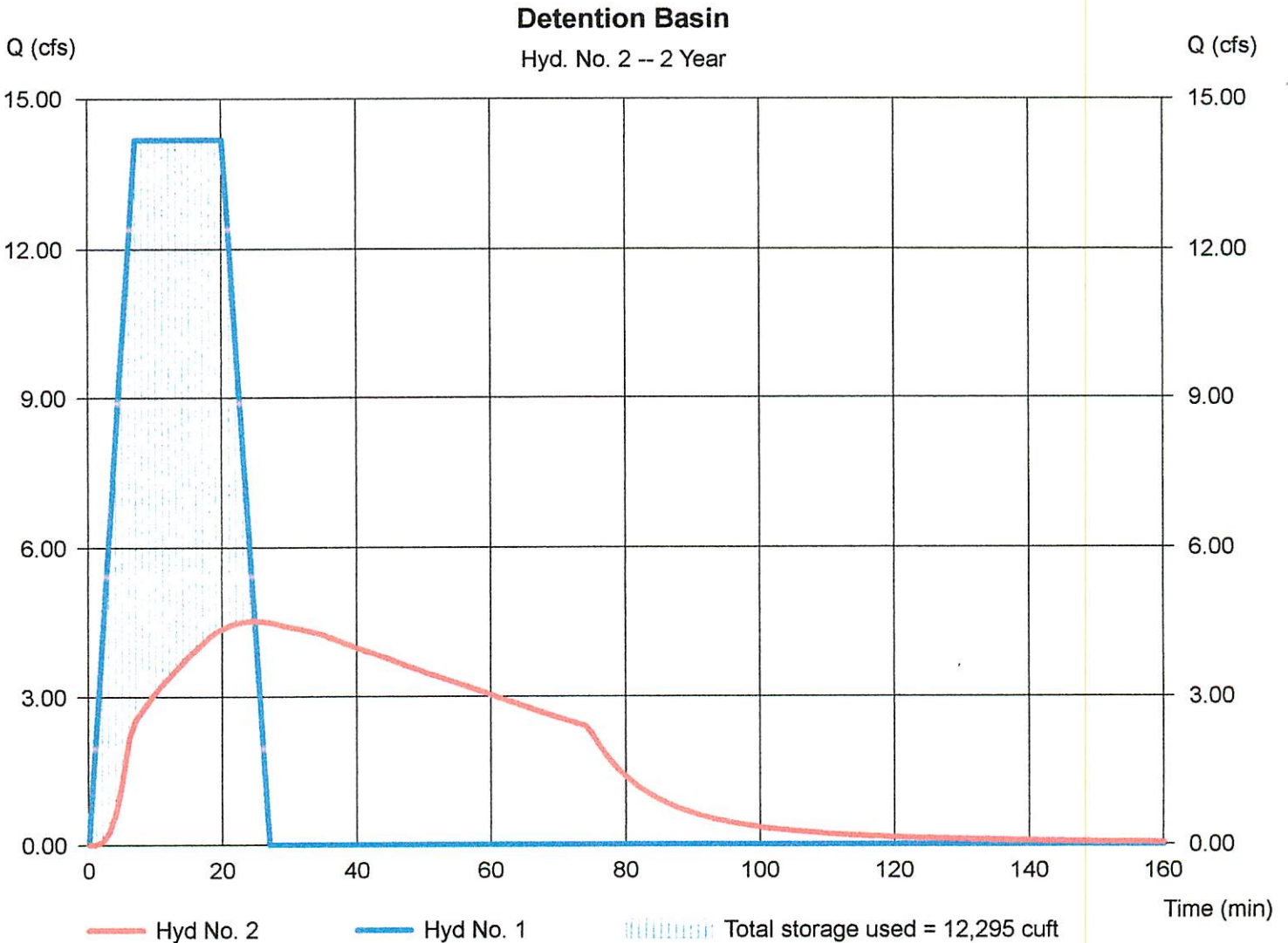
Hyd. No. 2

Detention Basin

Hydrograph type = Reservoir
Storm frequency = 2 yrs
Time interval = 1 min
Inflow hyd. No. = 1 - Proposed to Basin
Reservoir name = Detention Basin

Peak discharge = 4.520 cfs
Time to peak = 25 min
Hyd. volume = 17,000 cuft
Max. Elevation = 557.17 ft
Max. Storage = 12,295 cuft

Storage Indication method used.



Pond Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Sep 12, 2012

Pond No. 1 - Detention Basin

Pond Data

Contours - User-defined contour areas. Average end area method used for volume calculation. Beginning Elevation = 555.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	555.00	00	0	0
1.00	556.00	4,244	2,122	2,122
2.00	557.00	11,445	7,845	9,967
3.00	558.00	15,812	13,629	23,595
4.00	559.00	17,542	16,677	40,272
5.00	560.00	19,330	18,436	58,708
6.00	561.00	21,173	20,252	78,960

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 24.00	12.00	10.00	0.00
Span (in)	= 24.00	10.00	17.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 555.00	555.00	557.95	0.00
Length (ft)	= 30.00	0.00	0.00	0.00
Slope (%)	= 3.00	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	Yes	Yes	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 12.57	0.00	0.00	0.00
Crest El. (ft)	= 559.90	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Riser	—	—	—
Multi-Stage	= Yes	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	Civ A cfs	Civ B cfs	Civ 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	555.00	0.00	0.00	0.00	—	0.00	—	—	—	—	—	0.000
1.00	2,122	556.00	2.40 ic	2.40 ic	0.00	—	0.00	—	—	—	—	—	2.399
2.00	9,967	557.00	4.30 ic	4.26 ic	0.00	—	0.00	—	—	—	—	—	4.256
3.00	23,595	558.00	5.76 ic	5.63 ic	0.05 ic	—	0.00	—	—	—	—	—	5.684
4.00	40,272	559.00	10.88 ic	6.32 ic	4.52 ic	—	0.00	—	—	—	—	—	10.84
5.00	58,708	560.00	15.48 ic	6.89 ic	7.26 ic	—	1.32	—	—	—	—	—	15.48
6.00	78,960	561.00	33.13 ic	1.80 ic	2.55 ic	—	28.79 s	—	—	—	—	—	33.13

Pond Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Sep 12, 2012

Pond No. 1 - Detention Basin

Pond Data

Contours - User-defined contour areas. Average end area method used for volume calculation. Beginning Elevation = 555.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	555.00	00	0	0
1.00	556.00	4,244	2,122	2,122
2.00	557.00	11,445	7,845	9,967
3.00	558.00	15,812	13,629	23,595
4.00	559.00	17,542	16,677	40,272
5.00	560.00	19,330	18,436	58,708
6.00	561.00	21,173	20,252	78,960

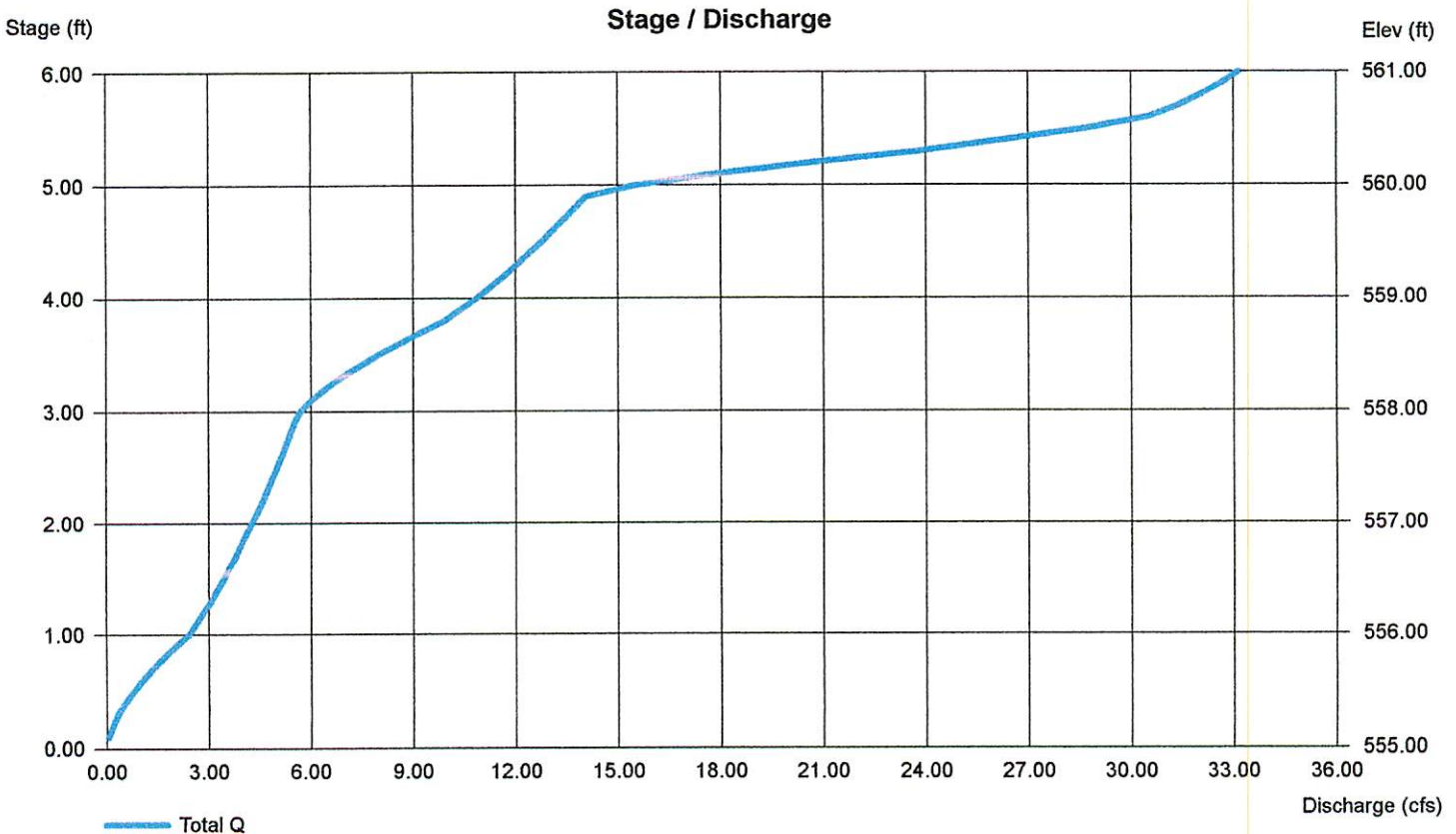
Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 24.00	12.00	10.00	0.00
Span (in)	= 24.00	10.00	17.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 555.00	555.00	557.95	0.00
Length (ft)	= 30.00	0.00	0.00	0.00
Slope (%)	= 3.00	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	Yes	Yes	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 12.57	0.00	0.00	0.00
Crest El. (ft)	= 559.90	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Riser	---	---	---
Multi-Stage	= Yes	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).



Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.2

Wednesday, Sep 12, 2012

Hyd. No. 3

Low Flow Blocked

Hydrograph type	= Reservoir	Peak discharge	= 0.000 cfs
Storm frequency	= 2 yrs	Time to peak	= n/a
Time interval	= 1 min	Hyd. volume	= 21,243 cuft
Inflow hyd. No.	= 1 - Proposed to Basin	Reservoir name	= Detention Basin -
Max. Elevation	= 557.52 ft	Max. Storage	= 17,004 cuft

Storage Indication method used.

...End

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Sep 12, 2012

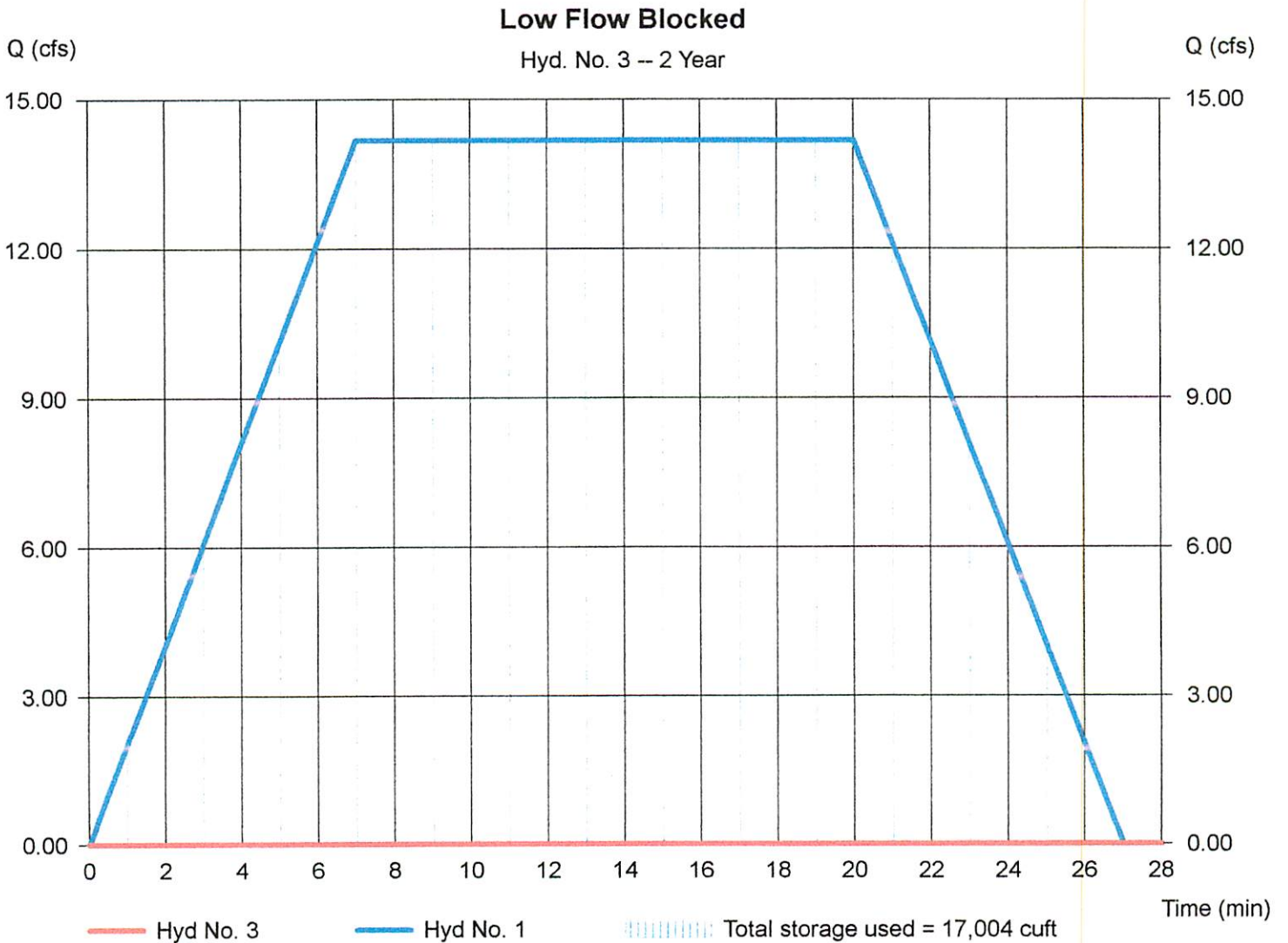
Hyd. No. 3

Low Flow Blocked

Hydrograph type = Reservoir
Storm frequency = 2 yrs
Time interval = 1 min
Inflow hyd. No. = 1 - Proposed to Basin
Reservoir name = Detention Basin - LFB

Peak discharge = 0.000 cfs
Time to peak = n/a
Hyd. volume = 0 cuft
Max. Elevation = 557.52 ft
Max. Storage = 17,004 cuft

Storage Indication method used.



Pond Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Sep 12, 2012

Pond No. 2 - Detention Basin - LFB

Pond Data

Contours - User-defined contour areas. Average end area method used for volume calculation. Beginning Elevation = 555.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	555.00	00	0	0
1.00	556.00	4,244	2,122	2,122
2.00	557.00	11,445	7,845	9,967
3.00	558.00	15,812	13,629	23,595
4.00	559.00	17,542	16,677	40,272
5.00	560.00	19,330	18,436	58,708
6.00	561.00	21,173	20,252	78,960

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 24.00	Inactive	10.00	0.00
Span (in)	= 24.00	10.00	17.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 555.00	555.00	557.95	0.00
Length (ft)	= 30.00	0.00	0.00	0.00
Slope (%)	= 3.00	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	Yes	Yes	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 12.57	0.00	0.00	0.00
Crest El. (ft)	= 559.90	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Riser	—	—	—
Multi-Stage	= Yes	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	Civ A cfs	Civ B cfs	Civ 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	555.00	0.00	0.00	0.00	—	0.00	—	—	—	—	—	0.000
1.00	2,122	556.00	0.00	0.00	0.00	—	0.00	—	—	—	—	—	0.000
2.00	9,967	557.00	0.00	0.00	0.00	—	0.00	—	—	—	—	—	0.000
3.00	23,595	558.00	0.06 ic	0.00	0.05 ic	—	0.00	—	—	—	—	—	0.054
4.00	40,272	559.00	4.58 ic	0.00	4.52 ic	—	0.00	—	—	—	—	—	4.524
5.00	58,708	560.00	8.60 ic	0.00	7.26 ic	—	1.32	—	—	—	—	—	8.588
6.00	78,960	561.00	33.03 ic	0.00	2.73 ic	—	30.30 s	—	—	—	—	—	33.03

Pond Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Sep 12, 2012

Pond No. 2 - Detention Basin - LFB

Pond Data

Contours - User-defined contour areas. Average end area method used for volume calculation. Beginning Elevation = 555.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	555.00	00	0	0
1.00	556.00	4,244	2,122	2,122
2.00	557.00	11,445	7,845	9,967
3.00	558.00	15,812	13,629	23,595
4.00	559.00	17,542	16,677	40,272
5.00	560.00	19,330	18,436	58,708
6.00	561.00	21,173	20,252	78,960

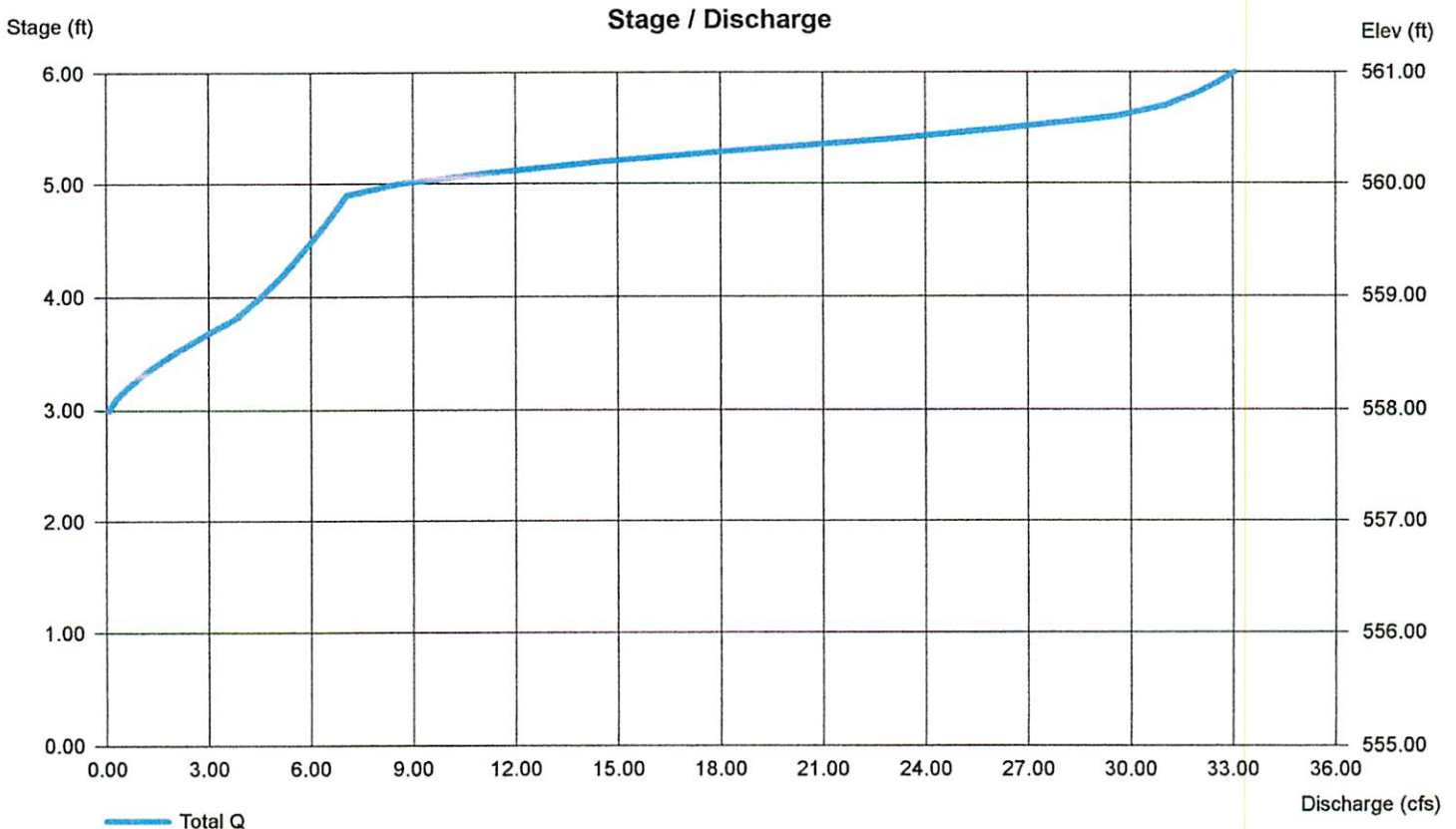
Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 24.00	Inactive	10.00	0.00
Span (in)	= 24.00	10.00	17.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 555.00	555.00	557.95	0.00
Length (ft)	= 30.00	0.00	0.00	0.00
Slope (%)	= 3.00	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	Yes	Yes	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 12.57	0.00	0.00	0.00
Crest El. (ft)	= 559.90	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Riser	---	---	---
Multi-Stage	= Yes	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).



Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.2

Wednesday, Sep 12, 2012

Hyd. No. 4

With 2yr sediment

Hydrograph type = Reservoir
 Storm frequency = 2 yrs
 Time interval = 1 min
 Inflow hyd. No. = 1 - Proposed to Basin
 Max. Elevation = 557.24 ft

Peak discharge = 4.621 cfs
 Time to peak = 25 min
 Hyd. volume = 43,497 cuft
 Reservoir name = Detention Basin -
 Max. Storage = 12,023 cuft

Storage Indication method used.

Hydrograph Discharge Table

(Printed values >= 10.00% of Qp.)

Time (min)	Inflow cfs	Elevation ft	Civ A cfs	Civ B cfs	Civ C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
4	8.100	555.60	1.056	1.033	---	---	---	---	---	---	---	1.033
5	10.12	555.90	2.000	1.999	---	---	---	---	---	---	---	1.999
6	12.15	556.05	2.510	2.510	---	---	---	---	---	---	---	2.510
7	14.17 <<	556.14	2.699	2.698	---	---	---	---	---	---	---	2.698
8	14.17 <<	556.23	2.900	2.900	---	---	---	---	---	---	---	2.900
9	14.17 <<	556.33	3.101	3.091	---	---	---	---	---	---	---	3.091
10	14.17 <<	556.42	3.295	3.262	---	---	---	---	---	---	---	3.262
11	14.17 <<	556.51	3.428	3.425	---	---	---	---	---	---	---	3.425
12	14.17 <<	556.59	3.631	3.585	---	---	---	---	---	---	---	3.585
13	14.17 <<	556.68	3.751	3.742	---	---	---	---	---	---	---	3.742
14	14.17 <<	556.77	3.880	3.880	---	---	---	---	---	---	---	3.880
15	14.17 <<	556.85	4.055	4.015	---	---	---	---	---	---	---	4.015
16	14.17 <<	556.94	4.217	4.152	---	---	---	---	---	---	---	4.152
17	14.17 <<	557.01	4.318	4.272	---	---	---	---	---	---	---	4.272
18	14.17 <<	557.05	4.378	4.340	---	---	---	---	---	---	---	4.340
19	14.17 <<	557.10	4.437	4.407	---	---	---	---	---	---	---	4.407
20	14.17 <<	557.14	4.497	4.472	---	---	---	---	---	---	---	4.472
21	12.15	557.18	4.551	4.530	---	---	---	---	---	---	---	4.530
22	10.12	557.21	4.591	4.574	---	---	---	---	---	---	---	4.574
23	8.100	557.23	4.619	4.603	---	---	---	---	---	---	---	4.603
24	6.070	557.24	4.635	4.619	---	---	---	---	---	---	---	4.619
25	4.050	557.24 <<	4.638	4.622	---	---	---	---	---	---	---	4.621 <<
26	2.020	557.23	4.628	4.611	---	---	---	---	---	---	---	4.611
27	0.000	557.22	4.605	4.588	---	---	---	---	---	---	---	4.588
28	0.000	557.20	4.577	4.558	---	---	---	---	---	---	---	4.559
29	0.000	557.18	4.549	4.528	---	---	---	---	---	---	---	4.528
30	0.000	557.16	4.521	4.498	---	---	---	---	---	---	---	4.498
31	0.000	557.14	4.494	4.468	---	---	---	---	---	---	---	4.468
32	0.000	557.12	4.466	4.439	---	---	---	---	---	---	---	4.439
33	0.000	557.10	4.439	4.409	---	---	---	---	---	---	---	4.409
34	0.000	557.08	4.412	4.379	---	---	---	---	---	---	---	4.379
35	0.000	557.06	4.386	4.348	---	---	---	---	---	---	---	4.349
36	0.000	557.04	4.359	4.319	---	---	---	---	---	---	---	4.319
37	0.000	557.02	4.333	4.289	---	---	---	---	---	---	---	4.289
38	0.000	557.00	4.307	4.259	---	---	---	---	---	---	---	4.259
39	0.000	556.97	4.262	4.205	---	---	---	---	---	---	---	4.205
40	0.000	556.93	4.215	4.149	---	---	---	---	---	---	---	4.149
41	0.000	556.90	4.168	4.093	---	---	---	---	---	---	---	4.093
42	0.000	556.87	4.088	4.038	---	---	---	---	---	---	---	4.038
43	0.000	556.83	4.009	3.984	---	---	---	---	---	---	---	3.984

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With 2yr sediment

Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
44	0.000	556.80	3.931	3.930	---	---	---	---	---	---	---	3.931
45	0.000	556.77	3.881	3.880	---	---	---	---	---	---	---	3.880
46	0.000	556.74	3.831	3.831	---	---	---	---	---	---	---	3.831
47	0.000	556.70	3.782	3.782	---	---	---	---	---	---	---	3.782
48	0.000	556.67	3.740	3.727	---	---	---	---	---	---	---	3.727
49	0.000	556.64	3.699	3.672	---	---	---	---	---	---	---	3.672
50	0.000	556.61	3.659	3.618	---	---	---	---	---	---	---	3.618
51	0.000	556.58	3.603	3.564	---	---	---	---	---	---	---	3.564
52	0.000	556.55	3.536	3.510	---	---	---	---	---	---	---	3.510
53	0.000	556.52	3.470	3.458	---	---	---	---	---	---	---	3.458
54	0.000	556.50	3.408	3.406	---	---	---	---	---	---	---	3.406
55	0.000	556.47	3.368	3.355	---	---	---	---	---	---	---	3.355
56	0.000	556.44	3.329	3.305	---	---	---	---	---	---	---	3.305
57	0.000	556.41	3.290	3.256	---	---	---	---	---	---	---	3.256
58	0.000	556.39	3.240	3.206	---	---	---	---	---	---	---	3.206
59	0.000	556.36	3.180	3.156	---	---	---	---	---	---	---	3.156
60	0.000	556.33	3.121	3.107	---	---	---	---	---	---	---	3.107
61	0.000	556.31	3.063	3.059	---	---	---	---	---	---	---	3.059
62	0.000	556.28	3.008	3.007	---	---	---	---	---	---	---	3.007
63	0.000	556.26	2.955	2.955	---	---	---	---	---	---	---	2.955
64	0.000	556.23	2.904	2.903	---	---	---	---	---	---	---	2.903
65	0.000	556.21	2.853	2.853	---	---	---	---	---	---	---	2.853
66	0.000	556.19	2.803	2.803	---	---	---	---	---	---	---	2.803
67	0.000	556.16	2.753	2.753	---	---	---	---	---	---	---	2.753
68	0.000	556.14	2.705	2.705	---	---	---	---	---	---	---	2.705
69	0.000	556.12	2.657	2.657	---	---	---	---	---	---	---	2.657
70	0.000	556.10	2.610	2.610	---	---	---	---	---	---	---	2.610
71	0.000	556.08	2.564	2.564	---	---	---	---	---	---	---	2.564
72	0.000	556.06	2.519	2.518	---	---	---	---	---	---	---	2.518
73	0.000	556.03	2.474	2.474	---	---	---	---	---	---	---	2.474
74	0.000	556.01	2.430	2.430	---	---	---	---	---	---	---	2.430
75	0.000	555.98	2.305	2.305	---	---	---	---	---	---	---	2.305
76	0.000	555.89	1.984	1.984	---	---	---	---	---	---	---	1.984
77	0.000	555.82	1.727	1.727	---	---	---	---	---	---	---	1.726
78	0.000	555.75	1.517	1.517	---	---	---	---	---	---	---	1.517
79	0.000	555.70	1.338	1.337	---	---	---	---	---	---	---	1.337
80	0.000	555.65	1.200	1.187	---	---	---	---	---	---	---	1.188
81	0.000	555.60	1.077	1.054	---	---	---	---	---	---	---	1.054
82	0.000	555.56	0.965	0.947	---	---	---	---	---	---	---	0.947
83	0.000	555.53	0.865	0.852	---	---	---	---	---	---	---	0.852
84	0.000	555.50	0.776	0.767	---	---	---	---	---	---	---	0.767
85	0.000	555.47	0.701	0.695	---	---	---	---	---	---	---	0.695
86	0.000	555.44	0.634	0.630	---	---	---	---	---	---	---	0.630
87	0.000	555.42	0.573	0.571	---	---	---	---	---	---	---	0.571
88	0.000	555.40	0.519	0.519	---	---	---	---	---	---	---	0.519
89	0.000	555.38	0.480	0.480	---	---	---	---	---	---	---	0.480

...End

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

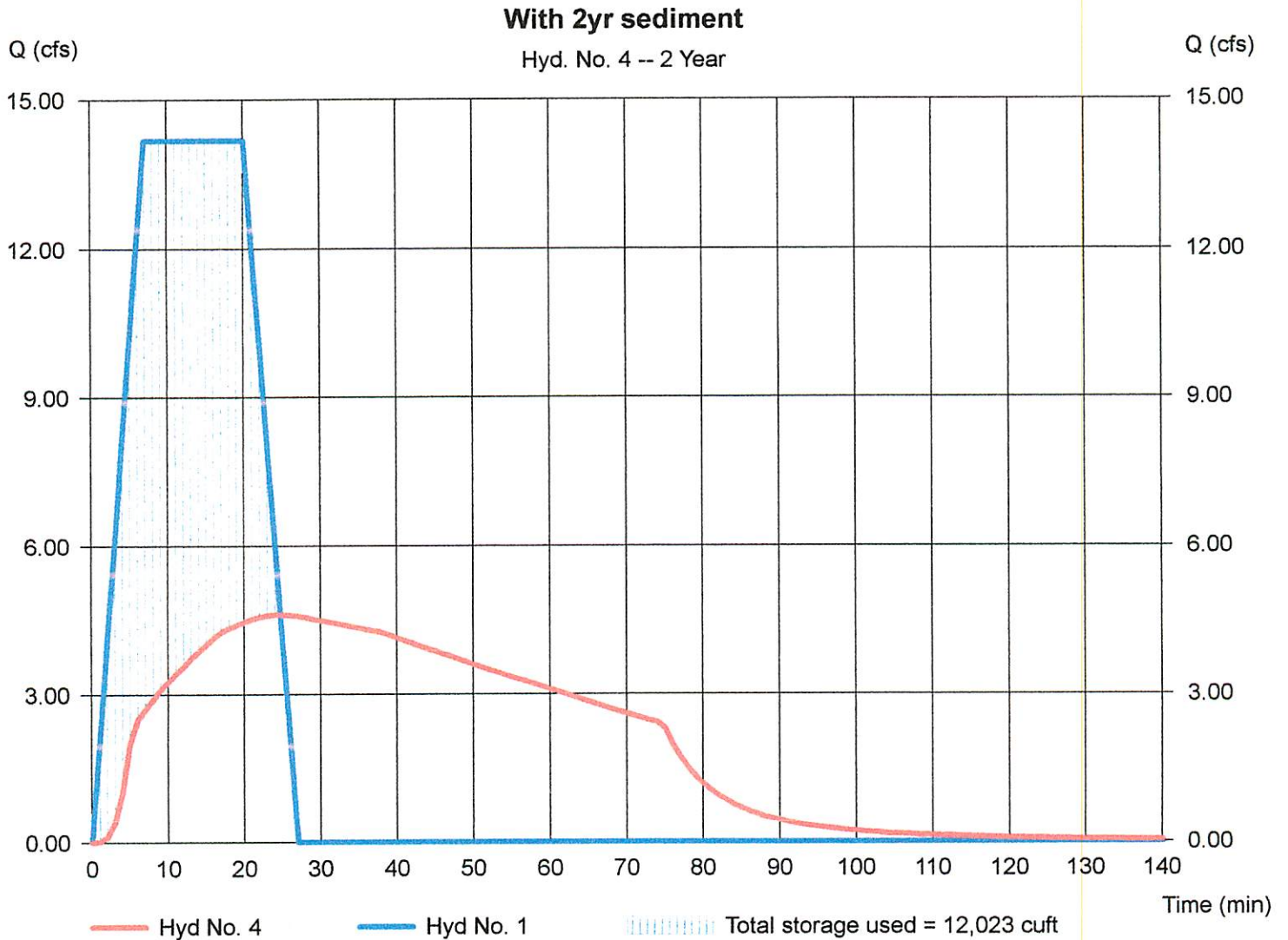
Wednesday, Sep 12, 2012

Hyd. No. 4

With 2yr sediment

Hydrograph type	= Reservoir	Peak discharge	= 4.621 cfs
Storm frequency	= 2 yrs	Time to peak	= 25 min
Time interval	= 1 min	Hyd. volume	= 17,001 cuft
Inflow hyd. No.	= 1 - Proposed to Basin	Max. Elevation	= 557.24 ft
Reservoir name	= Detention Basin - Sediment	Max. Storage	= 12,023 cuft

Storage Indication method used.



Pond Report

Hydraflow Hydrographs by Intefisolve v9.2

Wednesday, Sep 12, 2012

Pond No. 3 - Detention Basin - Sediment

Pond Data

Contours - User-defined contour areas. Average end area method used for volume calculation. Begning Elevation = 555.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	555.00	00	0	0
1.00	556.00	3,044	1,522	1,522
2.00	557.00	11,445	7,245	8,767
3.00	558.00	15,812	13,629	22,395
4.00	559.00	17,542	16,677	39,072
5.00	560.00	19,330	18,436	57,508
6.00	561.00	21,173	20,252	77,760

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 24.00	12.00	10.00	0.00
Span (in)	= 24.00	10.00	17.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 555.00	555.00	557.95	0.00
Length (ft)	= 30.00	0.00	0.00	0.00
Slope (%)	= 3.00	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	Yes	Yes	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 12.57	0.00	0.00	0.00
Crest El. (ft)	= 559.90	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Riser	—	—	—
Multi-Stage	= Yes	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	Civ A cfs	Civ B cfs	Civ 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	555.00	0.00	0.00	0.00	—	0.00	—	—	—	—	—	0.000
1.00	1,522	556.00	2.40 ic	2.40 ic	0.00	—	0.00	—	—	—	—	—	2.399
2.00	8,767	557.00	4.30 ic	4.26 ic	0.00	—	0.00	—	—	—	—	—	4.256
3.00	22,395	558.00	5.76 ic	5.63 ic	0.05 ic	—	0.00	—	—	—	—	—	5.684
4.00	39,072	559.00	10.88 ic	6.32 ic	4.52 ic	—	0.00	—	—	—	—	—	10.84
5.00	57,508	560.00	15.48 ic	6.89 ic	7.26 ic	—	1.32	—	—	—	—	—	15.48
6.00	77,760	561.00	33.13 ic	1.80 ic	2.55 ic	—	28.79 s	—	—	—	—	—	33.13

Pond Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Sep 12, 2012

Pond No. 3 - Detention Basin - Sediment

Pond Data

Contours - User-defined contour areas. Average end area method used for volume calculation. Beginning Elevation = 555.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	555.00	00	0	0
1.00	556.00	3,044	1,522	1,522
2.00	557.00	11,445	7,245	8,767
3.00	558.00	15,812	13,629	22,395
4.00	559.00	17,542	16,677	39,072
5.00	560.00	19,330	18,436	57,508
6.00	561.00	21,173	20,252	77,760

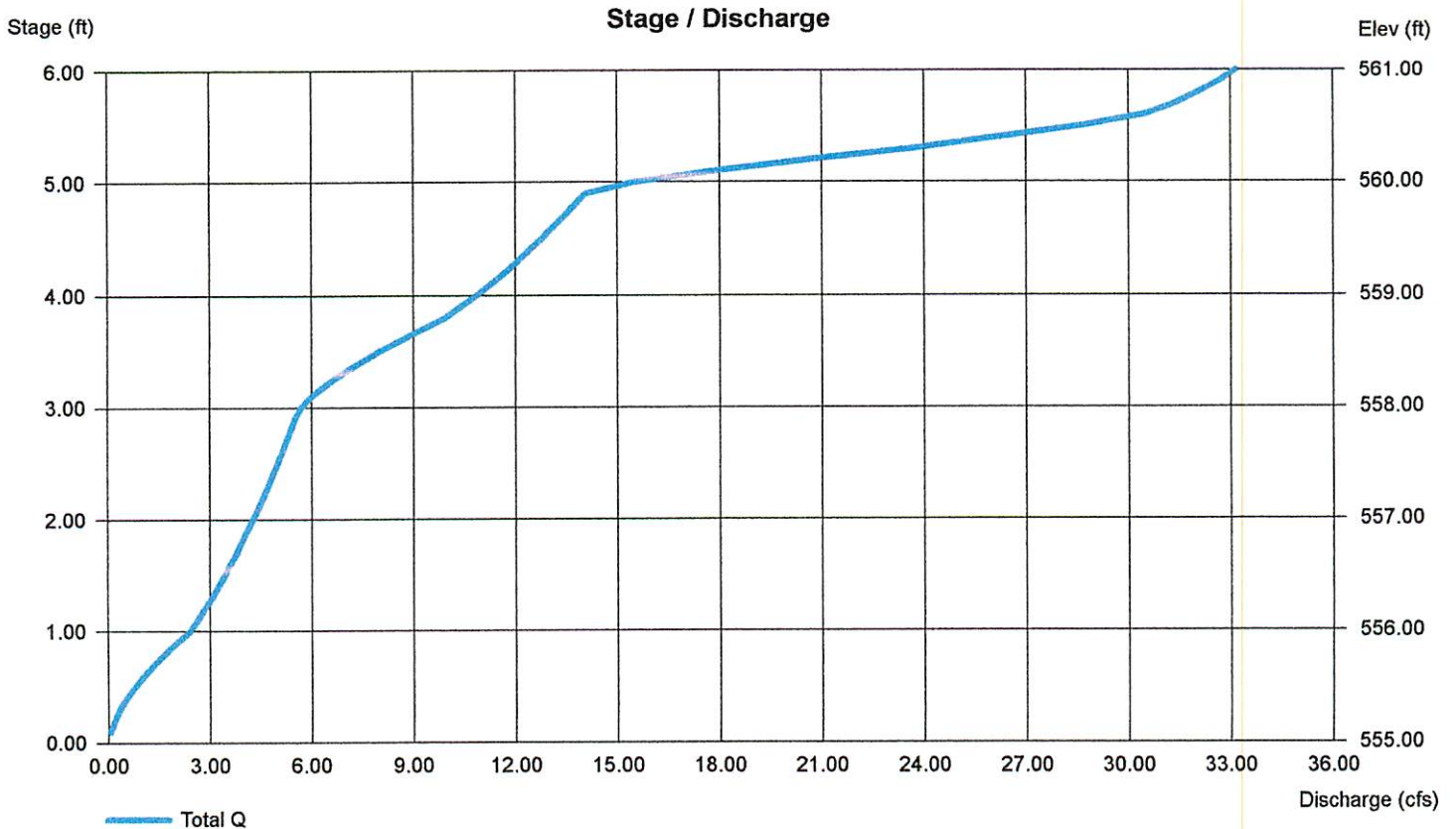
Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 24.00	12.00	10.00	0.00
Span (in)	= 24.00	10.00	17.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 555.00	555.00	557.95	0.00
Length (ft)	= 30.00	0.00	0.00	0.00
Slope (%)	= 3.00	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	Yes	Yes	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 12.57	0.00	0.00	0.00
Crest El. (ft)	= 559.90	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Riser	---	---	---
Multi-Stage	= Yes	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).



Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.2

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	Manual	22.95	1	7	27,540	—	—	—	Proposed to Basin	
2	Reservoir	5.453	1	25	27,536	1	557.86	21,638	Detention Basin	
3	Reservoir	0.705	1	27	5,283	1	558.23	27,360	Low Flow Blocked	
4	Reservoir	5.555	1	25	27,537	1	557.93	21,398	With 2yr sediment	
11-1230-half-way-to-future.gpw					Return Period: ¹⁵ / 10 Year			Wednesday, Sep 12, 2012		

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Sep 12, 2012

Hyd. No. 1

Proposed to Basin

Hydrograph type = Manual
Storm frequency = ~~10 yrs~~ 15 yr
Time interval = 1 min

Peak discharge = 22.95 cfs
Time to peak = 7 min
Hyd. volume = 43,500 cuft

Hydrograph Discharge Table

(Printed values \geq 10.00% of Qp.)

Time -- Outflow
(min cfs)

1	3.280
2	6.560
3	9.840
4	13.11
5	16.39
6	19.67
7	22.95 <<
8	22.95 <<
9	22.95 <<
10	22.95 <<
11	22.95 <<
12	22.95 <<
13	22.95 <<
14	22.95 <<
15	22.95 <<
16	22.95 <<
17	22.95 <<
18	22.95 <<
19	22.95 <<
20	22.95 <<
21	19.67
22	16.39
23	13.11
24	9.840
25	6.560
26	3.280

...End

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

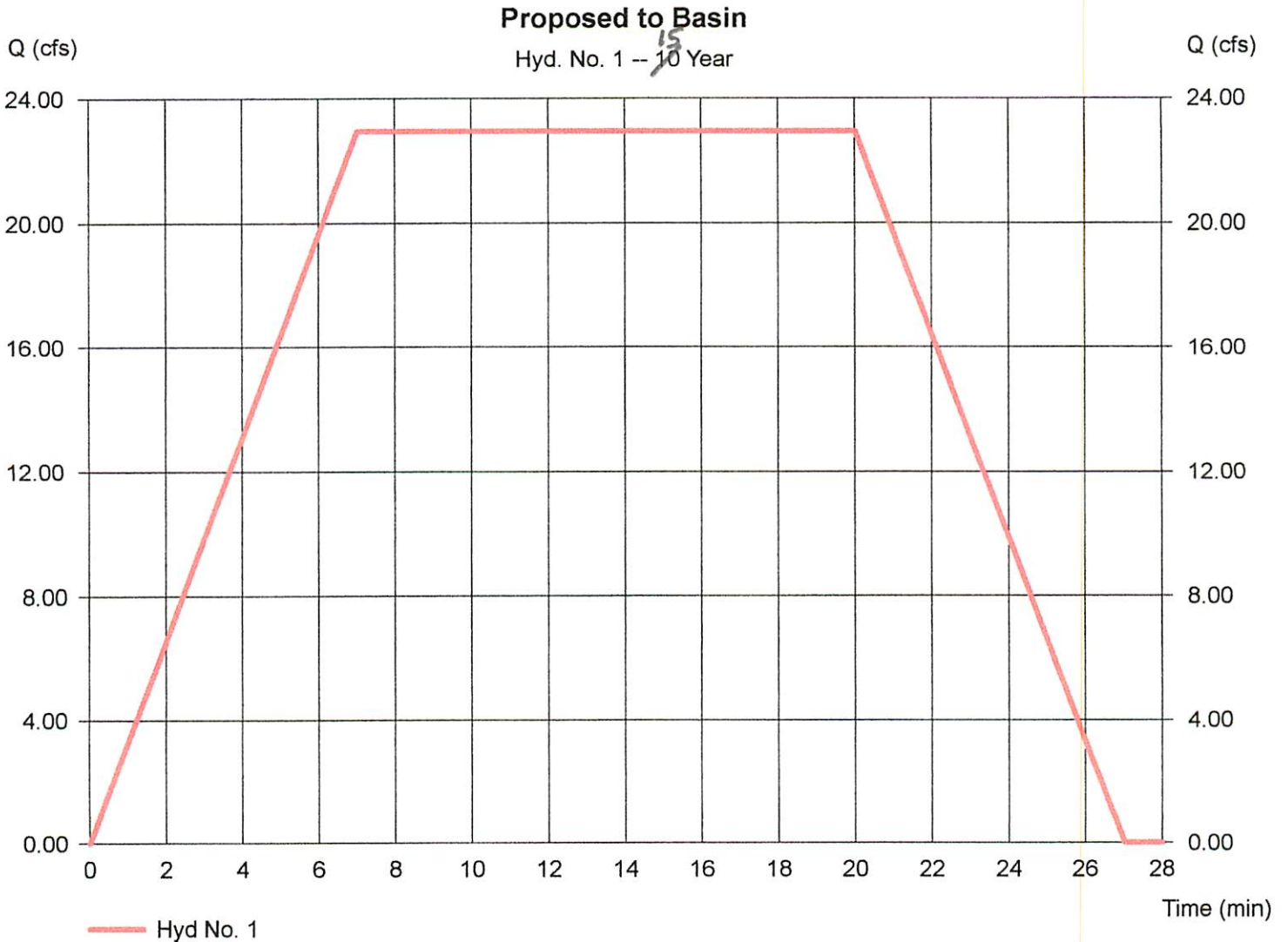
Wednesday, Sep 12, 2012

Hyd. No. 1

Proposed to Basin

Hydrograph type = Manual
Storm frequency = ~~10 yrs~~ 15 yr
Time interval = 1 min

Peak discharge = 22.95 cfs
Time to peak = 7 min
Hyd. volume = 27,540 cuft



Hydrograph Report

Hydraflow Hydrographs by Intefisolve v9.2

Wednesday, Sep 12, 2012

Hyd. No. 2

Detention Basin

Hydrograph type	= Reservoir	Peak discharge	= 5.453 cfs
Storm frequency	= 10 yrs 15 yr	Time to peak	= 25 min
Time interval	= 1 min	Hyd. volume	= 43,496 cuft
Inflow hyd. No.	= 1 - Proposed to Basin	Reservoir name	= Detention Basin
Max. Elevation	= 557.86 ft	Max. Storage	= 21,638 cuft

Storage Indication method used.

(Printed values >= 10.00% of Qp.)

Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
4	13.11	555.70	1.353	1.353	---	---	---	---	---	---	---	1.353
5	16.39	556.02	2.437	2.437	---	---	---	---	---	---	---	2.437
6	19.67	556.14	2.692	2.692	---	---	---	---	---	---	---	2.692
7	22.95 <<	556.28	2.994	2.994	---	---	---	---	---	---	---	2.994
8	22.95 <<	556.43	3.312	3.284	---	---	---	---	---	---	---	3.284
9	22.95 <<	556.58	3.593	3.556	---	---	---	---	---	---	---	3.556
10	22.95 <<	556.73	3.815	3.815	---	---	---	---	---	---	---	3.815
11	22.95 <<	556.87	4.100	4.046	---	---	---	---	---	---	---	4.046
12	22.95 <<	557.01	4.316	4.270	---	---	---	---	---	---	---	4.270
13	22.95 <<	557.09	4.430	4.398	---	---	---	---	---	---	---	4.398
14	22.95 <<	557.17	4.543	4.522	---	---	---	---	---	---	---	4.522
15	22.95 <<	557.25	4.657	4.642	---	---	---	---	---	---	---	4.642
16	22.95 <<	557.33	4.771	4.758	---	---	---	---	---	---	---	4.758
17	22.95 <<	557.41	4.886	4.871	---	---	---	---	---	---	---	4.871
18	22.95 <<	557.49	5.001	4.980	---	---	---	---	---	---	---	4.980
19	22.95 <<	557.57	5.116	5.086	---	---	---	---	---	---	---	5.086
20	22.95 <<	557.65	5.232	5.190	---	---	---	---	---	---	---	5.190
21	19.67	557.72	5.336	5.281	---	---	---	---	---	---	---	5.281
22	16.39	557.78	5.420	5.353	---	---	---	---	---	---	---	5.353
23	13.11	557.82	5.482	5.405	---	---	---	---	---	---	---	5.405
24	9.840	557.84	5.522	5.438	---	---	---	---	---	---	---	5.438
25	6.560	557.86 <<	5.540	5.453	---	---	---	---	---	---	---	5.453 <<
26	3.280	557.85	5.537	5.450	---	---	---	---	---	---	---	5.450
27	0.000	557.84	5.511	5.430	---	---	---	---	---	---	---	5.429
28	0.000	557.81	5.475	5.400	---	---	---	---	---	---	---	5.400
29	0.000	557.79	5.440	5.370	---	---	---	---	---	---	---	5.370
30	0.000	557.77	5.405	5.340	---	---	---	---	---	---	---	5.340
31	0.000	557.74	5.370	5.310	---	---	---	---	---	---	---	5.310
32	0.000	557.72	5.335	5.280	---	---	---	---	---	---	---	5.280
33	0.000	557.70	5.301	5.251	---	---	---	---	---	---	---	5.251
34	0.000	557.67	5.267	5.220	---	---	---	---	---	---	---	5.220
35	0.000	557.65	5.233	5.191	---	---	---	---	---	---	---	5.191
36	0.000	557.63	5.199	5.161	---	---	---	---	---	---	---	5.161
37	0.000	557.60	5.166	5.131	---	---	---	---	---	---	---	5.131
38	0.000	557.58	5.133	5.101	---	---	---	---	---	---	---	5.101
39	0.000	557.56	5.100	5.071	---	---	---	---	---	---	---	5.071
40	0.000	557.54	5.067	5.041	---	---	---	---	---	---	---	5.041
41	0.000	557.52	5.035	5.011	---	---	---	---	---	---	---	5.011
42	0.000	557.49	5.003	4.982	---	---	---	---	---	---	---	4.982
43	0.000	557.47	4.971	4.952	---	---	---	---	---	---	---	4.952

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Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
44	0.000	557.45	4.940	4.922	---	---	---	---	---	---	---	4.922
45	0.000	557.43	4.908	4.892	---	---	---	---	---	---	---	4.892
46	0.000	557.41	4.877	4.862	---	---	---	---	---	---	---	4.862
47	0.000	557.39	4.846	4.832	---	---	---	---	---	---	---	4.832
48	0.000	557.36	4.816	4.802	---	---	---	---	---	---	---	4.802
49	0.000	557.34	4.786	4.772	---	---	---	---	---	---	---	4.772
50	0.000	557.32	4.756	4.743	---	---	---	---	---	---	---	4.743
51	0.000	557.30	4.726	4.713	---	---	---	---	---	---	---	4.713
52	0.000	557.28	4.697	4.683	---	---	---	---	---	---	---	4.683
53	0.000	557.26	4.668	4.653	---	---	---	---	---	---	---	4.653
54	0.000	557.24	4.639	4.623	---	---	---	---	---	---	---	4.623
55	0.000	557.22	4.610	4.593	---	---	---	---	---	---	---	4.593
56	0.000	557.20	4.582	4.564	---	---	---	---	---	---	---	4.564
57	0.000	557.18	4.554	4.533	---	---	---	---	---	---	---	4.533
58	0.000	557.16	4.526	4.503	---	---	---	---	---	---	---	4.503
59	0.000	557.14	4.498	4.473	---	---	---	---	---	---	---	4.473
60	0.000	557.12	4.471	4.444	---	---	---	---	---	---	---	4.444
61	0.000	557.10	4.443	4.414	---	---	---	---	---	---	---	4.414
62	0.000	557.08	4.417	4.384	---	---	---	---	---	---	---	4.384
63	0.000	557.06	4.390	4.354	---	---	---	---	---	---	---	4.354
64	0.000	557.04	4.364	4.324	---	---	---	---	---	---	---	4.324
65	0.000	557.02	4.338	4.294	---	---	---	---	---	---	---	4.294
66	0.000	557.01	4.312	4.264	---	---	---	---	---	---	---	4.264
67	0.000	556.98	4.272	4.218	---	---	---	---	---	---	---	4.218
68	0.000	556.94	4.229	4.166	---	---	---	---	---	---	---	4.166
69	0.000	556.91	4.186	4.114	---	---	---	---	---	---	---	4.114
70	0.000	556.88	4.124	4.063	---	---	---	---	---	---	---	4.063
71	0.000	556.85	4.051	4.013	---	---	---	---	---	---	---	4.013
72	0.000	556.82	3.978	3.963	---	---	---	---	---	---	---	3.963
73	0.000	556.79	3.915	3.915	---	---	---	---	---	---	---	3.915
74	0.000	556.76	3.869	3.868	---	---	---	---	---	---	---	3.868
75	0.000	556.73	3.823	3.823	---	---	---	---	---	---	---	3.823
76	0.000	556.70	3.778	3.778	---	---	---	---	---	---	---	3.778
77	0.000	556.67	3.740	3.727	---	---	---	---	---	---	---	3.727
78	0.000	556.64	3.702	3.676	---	---	---	---	---	---	---	3.676
79	0.000	556.62	3.665	3.625	---	---	---	---	---	---	---	3.625
80	0.000	556.59	3.618	3.575	---	---	---	---	---	---	---	3.575
81	0.000	556.56	3.556	3.526	---	---	---	---	---	---	---	3.526
82	0.000	556.54	3.495	3.477	---	---	---	---	---	---	---	3.477
83	0.000	556.51	3.434	3.430	---	---	---	---	---	---	---	3.429
84	0.000	556.48	3.389	3.382	---	---	---	---	---	---	---	3.382
85	0.000	556.46	3.352	3.335	---	---	---	---	---	---	---	3.335
86	0.000	556.43	3.316	3.289	---	---	---	---	---	---	---	3.289
87	0.000	556.41	3.280	3.244	---	---	---	---	---	---	---	3.244
88	0.000	556.38	3.230	3.197	---	---	---	---	---	---	---	3.198
89	0.000	556.36	3.175	3.152	---	---	---	---	---	---	---	3.152
90	0.000	556.33	3.120	3.106	---	---	---	---	---	---	---	3.106
91	0.000	556.31	3.066	3.062	---	---	---	---	---	---	---	3.062
92	0.000	556.29	3.015	3.015	---	---	---	---	---	---	---	3.015
93	0.000	556.26	2.966	2.966	---	---	---	---	---	---	---	2.966
94	0.000	556.24	2.918	2.918	---	---	---	---	---	---	---	2.918
95	0.000	556.22	2.871	2.871	---	---	---	---	---	---	---	2.871
96	0.000	556.20	2.825	2.825	---	---	---	---	---	---	---	2.825
97	0.000	556.18	2.779	2.779	---	---	---	---	---	---	---	2.779

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Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
98	0.000	556.16	2.734	2.733	---	---	---	---	---	---	---	2.733
99	0.000	556.13	2.689	2.689	---	---	---	---	---	---	---	2.689
100	0.000	556.11	2.645	2.645	---	---	---	---	---	---	---	2.645
101	0.000	556.09	2.602	2.602	---	---	---	---	---	---	---	2.602
102	0.000	556.07	2.560	2.559	---	---	---	---	---	---	---	2.559
103	0.000	556.06	2.518	2.517	---	---	---	---	---	---	---	2.517
104	0.000	556.04	2.476	2.476	---	---	---	---	---	---	---	2.476
105	0.000	556.02	2.436	2.436	---	---	---	---	---	---	---	2.436
106	0.000	556.00	2.380	2.380	---	---	---	---	---	---	---	2.380
107	0.000	555.93	2.135	2.135	---	---	---	---	---	---	---	2.135
108	0.000	555.87	1.924	1.923	---	---	---	---	---	---	---	1.923
109	0.000	555.82	1.741	1.741	---	---	---	---	---	---	---	1.741
110	0.000	555.78	1.584	1.584	---	---	---	---	---	---	---	1.584
111	0.000	555.73	1.447	1.447	---	---	---	---	---	---	---	1.447
112	0.000	555.69	1.325	1.323	---	---	---	---	---	---	---	1.323
113	0.000	555.66	1.225	1.215	---	---	---	---	---	---	---	1.215
114	0.000	555.62	1.134	1.116	---	---	---	---	---	---	---	1.116
115	0.000	555.59	1.049	1.027	---	---	---	---	---	---	---	1.027
116	0.000	555.57	0.970	0.952	---	---	---	---	---	---	---	0.952
117	0.000	555.54	0.897	0.882	---	---	---	---	---	---	---	0.882
118	0.000	555.52	0.829	0.818	---	---	---	---	---	---	---	0.818
119	0.000	555.49	0.767	0.759	---	---	---	---	---	---	---	0.759
120	0.000	555.47	0.714	0.708	---	---	---	---	---	---	---	0.708
121	0.000	555.45	0.664	0.659	---	---	---	---	---	---	---	0.659
122	0.000	555.44	0.618	0.615	---	---	---	---	---	---	---	0.614
123	0.000	555.42	0.574	0.573	---	---	---	---	---	---	---	0.573

...End

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Sep 12, 2012

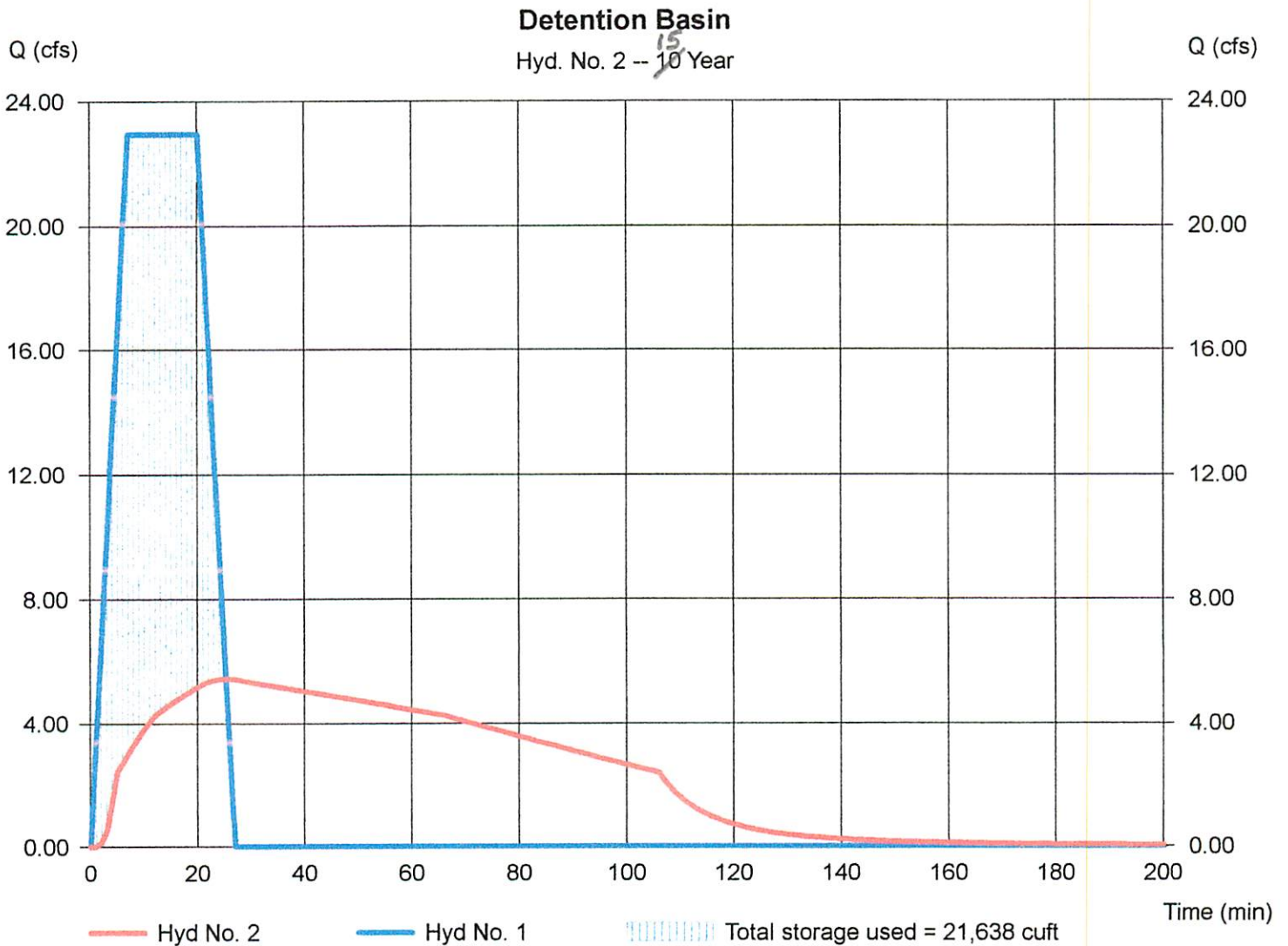
Hyd. No. 2

Detention Basin

Hydrograph type = Reservoir
Storm frequency = ~~10 yrs~~ 15 yr
Time interval = 1 min
Inflow hyd. No. = 1 - Proposed to Basin
Reservoir name = Detention Basin

Peak discharge = 5.453 cfs
Time to peak = 25 min
Hyd. volume = 27,536 cuft
Max. Elevation = 557.86 ft
Max. Storage = 21,638 cuft

Storage Indication method used.



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Sep 12, 2012

Hyd. No. 3

Low Flow Blocked

Hydrograph type	= Reservoir	Peak discharge	= 0.705 cfs
Storm frequency	= 10 yrs 15yr	Time to peak	= 27 min
Time interval	= 1 min	Hyd. volume	= 21,243 cuft
Inflow hyd. No.	= 1 - Proposed to Basin	Reservoir name	= Detention Basin -
Max. Elevation	= 558.23 ft	Max. Storage	= 27,360 cuft

Storage Indication method used.

(Printed values \geq 10.00% of Qp.)

Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
21	19.67	558.02	0.112	---	0.108	---	---	---	---	---	---	0.108
22	16.39	558.09	0.264	---	0.253	---	---	---	---	---	---	0.253
23	13.11	558.14	0.417	---	0.410	---	---	---	---	---	---	0.409
24	9.840	558.18	0.540	---	0.537	---	---	---	---	---	---	0.537
25	6.560	558.21	0.631	---	0.631	---	---	---	---	---	---	0.631
26	3.280	558.22	0.693	---	0.691	---	---	---	---	---	---	0.691
27	0.000	558.23 <<	0.707	---	0.705	---	---	---	---	---	---	0.705 <<
28	0.000	558.22	0.696	---	0.695	---	---	---	---	---	---	0.695
29	0.000	558.22	0.686	---	0.685	---	---	---	---	---	---	0.685
30	0.000	558.22	0.677	---	0.675	---	---	---	---	---	---	0.675
31	0.000	558.22	0.667	---	0.666	---	---	---	---	---	---	0.666
32	0.000	558.21	0.657	---	0.656	---	---	---	---	---	---	0.656
33	0.000	558.21	0.648	---	0.647	---	---	---	---	---	---	0.647
34	0.000	558.21	0.639	---	0.638	---	---	---	---	---	---	0.638
35	0.000	558.21	0.629	---	0.629	---	---	---	---	---	---	0.629
36	0.000	558.20	0.620	---	0.620	---	---	---	---	---	---	0.620
37	0.000	558.20	0.612	---	0.611	---	---	---	---	---	---	0.611
38	0.000	558.20	0.603	---	0.603	---	---	---	---	---	---	0.603
39	0.000	558.20	0.596	---	0.596	---	---	---	---	---	---	0.596
40	0.000	558.20	0.590	---	0.589	---	---	---	---	---	---	0.589
41	0.000	558.19	0.583	---	0.582	---	---	---	---	---	---	0.582
42	0.000	558.19	0.576	---	0.575	---	---	---	---	---	---	0.575
43	0.000	558.19	0.570	---	0.569	---	---	---	---	---	---	0.569
44	0.000	558.19	0.564	---	0.562	---	---	---	---	---	---	0.562
45	0.000	558.19	0.557	---	0.556	---	---	---	---	---	---	0.556
46	0.000	558.18	0.551	---	0.549	---	---	---	---	---	---	0.549
47	0.000	558.18	0.545	---	0.543	---	---	---	---	---	---	0.543
48	0.000	558.18	0.539	---	0.537	---	---	---	---	---	---	0.537
49	0.000	558.18	0.533	---	0.530	---	---	---	---	---	---	0.530
50	0.000	558.18	0.527	---	0.524	---	---	---	---	---	---	0.524
51	0.000	558.17	0.521	---	0.518	---	---	---	---	---	---	0.518
52	0.000	558.17	0.516	---	0.512	---	---	---	---	---	---	0.512
53	0.000	558.17	0.510	---	0.506	---	---	---	---	---	---	0.506
54	0.000	558.17	0.504	---	0.500	---	---	---	---	---	---	0.500
55	0.000	558.17	0.499	---	0.495	---	---	---	---	---	---	0.495
56	0.000	558.16	0.493	---	0.489	---	---	---	---	---	---	0.489
57	0.000	558.16	0.488	---	0.483	---	---	---	---	---	---	0.483
58	0.000	558.16	0.483	---	0.478	---	---	---	---	---	---	0.478
59	0.000	558.16	0.477	---	0.472	---	---	---	---	---	---	0.472
60	0.000	558.16	0.472	---	0.467	---	---	---	---	---	---	0.467

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Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
61	0.000	558.16	0.467	---	0.462	---	---	---	---	---	---	0.461
62	0.000	558.15	0.462	---	0.456	---	---	---	---	---	---	0.456
63	0.000	558.15	0.457	---	0.451	---	---	---	---	---	---	0.451
64	0.000	558.15	0.452	---	0.446	---	---	---	---	---	---	0.446
65	0.000	558.15	0.447	---	0.440	---	---	---	---	---	---	0.440
66	0.000	558.15	0.442	---	0.435	---	---	---	---	---	---	0.435
67	0.000	558.15	0.437	---	0.430	---	---	---	---	---	---	0.430
68	0.000	558.15	0.432	---	0.425	---	---	---	---	---	---	0.425
69	0.000	558.14	0.428	---	0.421	---	---	---	---	---	---	0.420
70	0.000	558.14	0.423	---	0.416	---	---	---	---	---	---	0.416
71	0.000	558.14	0.418	---	0.411	---	---	---	---	---	---	0.411
72	0.000	558.14	0.414	---	0.406	---	---	---	---	---	---	0.406
73	0.000	558.14	0.409	---	0.401	---	---	---	---	---	---	0.401
74	0.000	558.14	0.405	---	0.397	---	---	---	---	---	---	0.397
75	0.000	558.13	0.400	---	0.392	---	---	---	---	---	---	0.392
76	0.000	558.13	0.396	---	0.388	---	---	---	---	---	---	0.388
77	0.000	558.13	0.392	---	0.383	---	---	---	---	---	---	0.383
78	0.000	558.13	0.387	---	0.379	---	---	---	---	---	---	0.379
79	0.000	558.13	0.383	---	0.374	---	---	---	---	---	---	0.374
80	0.000	558.13	0.379	---	0.370	---	---	---	---	---	---	0.370
81	0.000	558.13	0.375	---	0.366	---	---	---	---	---	---	0.366
82	0.000	558.13	0.371	---	0.362	---	---	---	---	---	---	0.362
83	0.000	558.12	0.367	---	0.357	---	---	---	---	---	---	0.357
84	0.000	558.12	0.363	---	0.353	---	---	---	---	---	---	0.353
85	0.000	558.12	0.359	---	0.349	---	---	---	---	---	---	0.349
86	0.000	558.12	0.355	---	0.345	---	---	---	---	---	---	0.345
87	0.000	558.12	0.351	---	0.341	---	---	---	---	---	---	0.341
88	0.000	558.12	0.347	---	0.337	---	---	---	---	---	---	0.337
89	0.000	558.12	0.344	---	0.333	---	---	---	---	---	---	0.333
90	0.000	558.12	0.340	---	0.330	---	---	---	---	---	---	0.329
91	0.000	558.11	0.336	---	0.326	---	---	---	---	---	---	0.326
92	0.000	558.11	0.333	---	0.322	---	---	---	---	---	---	0.322
93	0.000	558.11	0.329	---	0.318	---	---	---	---	---	---	0.318
94	0.000	558.11	0.326	---	0.315	---	---	---	---	---	---	0.315
95	0.000	558.11	0.322	---	0.311	---	---	---	---	---	---	0.311
96	0.000	558.11	0.319	---	0.307	---	---	---	---	---	---	0.307
97	0.000	558.11	0.315	---	0.304	---	---	---	---	---	---	0.304
98	0.000	558.11	0.312	---	0.300	---	---	---	---	---	---	0.300
99	0.000	558.11	0.309	---	0.297	---	---	---	---	---	---	0.297
100	0.000	558.10	0.305	---	0.293	---	---	---	---	---	---	0.293
101	0.000	558.10	0.302	---	0.290	---	---	---	---	---	---	0.290
102	0.000	558.10	0.299	---	0.287	---	---	---	---	---	---	0.287
103	0.000	558.10	0.295	---	0.283	---	---	---	---	---	---	0.283
104	0.000	558.10	0.292	---	0.280	---	---	---	---	---	---	0.280
105	0.000	558.10	0.290	---	0.278	---	---	---	---	---	---	0.278
106	0.000	558.10	0.288	---	0.276	---	---	---	---	---	---	0.276
107	0.000	558.10	0.285	---	0.273	---	---	---	---	---	---	0.273
108	0.000	558.10	0.283	---	0.271	---	---	---	---	---	---	0.271
109	0.000	558.10	0.281	---	0.269	---	---	---	---	---	---	0.269
110	0.000	558.09	0.278	---	0.267	---	---	---	---	---	---	0.267
111	0.000	558.09	0.276	---	0.265	---	---	---	---	---	---	0.265
112	0.000	558.09	0.274	---	0.262	---	---	---	---	---	---	0.262
113	0.000	558.09	0.272	---	0.260	---	---	---	---	---	---	0.260
114	0.000	558.09	0.269	---	0.258	---	---	---	---	---	---	0.258

Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
115	0.000	558.09	0.267	---	0.256	---	---	---	---	---	---	0.256
116	0.000	558.09	0.265	---	0.254	---	---	---	---	---	---	0.254
117	0.000	558.09	0.263	---	0.252	---	---	---	---	---	---	0.252
118	0.000	558.09	0.261	---	0.250	---	---	---	---	---	---	0.250
119	0.000	558.09	0.259	---	0.248	---	---	---	---	---	---	0.248
120	0.000	558.08	0.257	---	0.246	---	---	---	---	---	---	0.246
121	0.000	558.08	0.255	---	0.244	---	---	---	---	---	---	0.244
122	0.000	558.08	0.252	---	0.242	---	---	---	---	---	---	0.242
123	0.000	558.08	0.250	---	0.240	---	---	---	---	---	---	0.240
124	0.000	558.08	0.248	---	0.238	---	---	---	---	---	---	0.238
125	0.000	558.08	0.246	---	0.236	---	---	---	---	---	---	0.236
126	0.000	558.08	0.244	---	0.234	---	---	---	---	---	---	0.234
127	0.000	558.08	0.242	---	0.232	---	---	---	---	---	---	0.232
128	0.000	558.08	0.240	---	0.230	---	---	---	---	---	---	0.230
129	0.000	558.08	0.238	---	0.228	---	---	---	---	---	---	0.228
130	0.000	558.08	0.236	---	0.227	---	---	---	---	---	---	0.227
131	0.000	558.08	0.235	---	0.225	---	---	---	---	---	---	0.225
132	0.000	558.07	0.233	---	0.223	---	---	---	---	---	---	0.223
133	0.000	558.07	0.231	---	0.221	---	---	---	---	---	---	0.221
134	0.000	558.07	0.229	---	0.219	---	---	---	---	---	---	0.219
135	0.000	558.07	0.227	---	0.218	---	---	---	---	---	---	0.218
136	0.000	558.07	0.225	---	0.216	---	---	---	---	---	---	0.216
137	0.000	558.07	0.223	---	0.214	---	---	---	---	---	---	0.214
138	0.000	558.07	0.221	---	0.212	---	---	---	---	---	---	0.212
139	0.000	558.07	0.220	---	0.211	---	---	---	---	---	---	0.211
140	0.000	558.07	0.218	---	0.209	---	---	---	---	---	---	0.209
141	0.000	558.07	0.216	---	0.207	---	---	---	---	---	---	0.207
142	0.000	558.07	0.214	---	0.206	---	---	---	---	---	---	0.206
143	0.000	558.07	0.213	---	0.204	---	---	---	---	---	---	0.204
144	0.000	558.07	0.211	---	0.202	---	---	---	---	---	---	0.202
145	0.000	558.06	0.209	---	0.201	---	---	---	---	---	---	0.201
146	0.000	558.06	0.207	---	0.199	---	---	---	---	---	---	0.199
147	0.000	558.06	0.206	---	0.197	---	---	---	---	---	---	0.197
148	0.000	558.06	0.204	---	0.196	---	---	---	---	---	---	0.196
149	0.000	558.06	0.202	---	0.194	---	---	---	---	---	---	0.194
150	0.000	558.06	0.201	---	0.193	---	---	---	---	---	---	0.193
151	0.000	558.06	0.199	---	0.191	---	---	---	---	---	---	0.191
152	0.000	558.06	0.197	---	0.190	---	---	---	---	---	---	0.189
153	0.000	558.06	0.196	---	0.188	---	---	---	---	---	---	0.188
154	0.000	558.06	0.194	---	0.186	---	---	---	---	---	---	0.186
155	0.000	558.06	0.193	---	0.185	---	---	---	---	---	---	0.185
156	0.000	558.06	0.191	---	0.183	---	---	---	---	---	---	0.183
157	0.000	558.06	0.190	---	0.182	---	---	---	---	---	---	0.182
158	0.000	558.06	0.188	---	0.180	---	---	---	---	---	---	0.180
159	0.000	558.06	0.186	---	0.179	---	---	---	---	---	---	0.179
160	0.000	558.05	0.185	---	0.178	---	---	---	---	---	---	0.178
161	0.000	558.05	0.183	---	0.176	---	---	---	---	---	---	0.176
162	0.000	558.05	0.182	---	0.175	---	---	---	---	---	---	0.175
163	0.000	558.05	0.180	---	0.173	---	---	---	---	---	---	0.173
164	0.000	558.05	0.179	---	0.172	---	---	---	---	---	---	0.172
165	0.000	558.05	0.177	---	0.170	---	---	---	---	---	---	0.170
166	0.000	558.05	0.176	---	0.169	---	---	---	---	---	---	0.169
167	0.000	558.05	0.175	---	0.168	---	---	---	---	---	---	0.168
168	0.000	558.05	0.173	---	0.166	---	---	---	---	---	---	0.166

Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
169	0.000	558.05	0.172	---	0.165	---	---	---	---	---	---	0.165
170	0.000	558.05	0.170	---	0.164	---	---	---	---	---	---	0.164
171	0.000	558.05	0.169	---	0.162	---	---	---	---	---	---	0.162
172	0.000	558.05	0.168	---	0.161	---	---	---	---	---	---	0.161
173	0.000	558.05	0.166	---	0.160	---	---	---	---	---	---	0.160
174	0.000	558.05	0.165	---	0.158	---	---	---	---	---	---	0.158
175	0.000	558.05	0.164	---	0.157	---	---	---	---	---	---	0.157
176	0.000	558.05	0.162	---	0.156	---	---	---	---	---	---	0.156
177	0.000	558.04	0.161	---	0.155	---	---	---	---	---	---	0.155
178	0.000	558.04	0.160	---	0.153	---	---	---	---	---	---	0.153
179	0.000	558.04	0.158	---	0.152	---	---	---	---	---	---	0.152
180	0.000	558.04	0.157	---	0.151	---	---	---	---	---	---	0.151
181	0.000	558.04	0.156	---	0.150	---	---	---	---	---	---	0.150
182	0.000	558.04	0.154	---	0.149	---	---	---	---	---	---	0.148
183	0.000	558.04	0.153	---	0.147	---	---	---	---	---	---	0.147
184	0.000	558.04	0.152	---	0.146	---	---	---	---	---	---	0.146
185	0.000	558.04	0.151	---	0.145	---	---	---	---	---	---	0.145
186	0.000	558.04	0.149	---	0.144	---	---	---	---	---	---	0.144
187	0.000	558.04	0.148	---	0.143	---	---	---	---	---	---	0.143
188	0.000	558.04	0.147	---	0.141	---	---	---	---	---	---	0.141
189	0.000	558.04	0.146	---	0.140	---	---	---	---	---	---	0.140
190	0.000	558.04	0.145	---	0.139	---	---	---	---	---	---	0.139
191	0.000	558.04	0.143	---	0.138	---	---	---	---	---	---	0.138
192	0.000	558.04	0.142	---	0.137	---	---	---	---	---	---	0.137
193	0.000	558.04	0.141	---	0.136	---	---	---	---	---	---	0.136
194	0.000	558.04	0.140	---	0.135	---	---	---	---	---	---	0.135
195	0.000	558.04	0.139	---	0.134	---	---	---	---	---	---	0.134
196	0.000	558.03	0.138	---	0.132	---	---	---	---	---	---	0.132
197	0.000	558.03	0.137	---	0.131	---	---	---	---	---	---	0.131
198	0.000	558.03	0.135	---	0.130	---	---	---	---	---	---	0.130
199	0.000	558.03	0.134	---	0.129	---	---	---	---	---	---	0.129
200	0.000	558.03	0.133	---	0.128	---	---	---	---	---	---	0.128
201	0.000	558.03	0.132	---	0.127	---	---	---	---	---	---	0.127
202	0.000	558.03	0.131	---	0.126	---	---	---	---	---	---	0.126
203	0.000	558.03	0.130	---	0.125	---	---	---	---	---	---	0.125
204	0.000	558.03	0.129	---	0.124	---	---	---	---	---	---	0.124
205	0.000	558.03	0.128	---	0.123	---	---	---	---	---	---	0.123
206	0.000	558.03	0.127	---	0.122	---	---	---	---	---	---	0.122
207	0.000	558.03	0.126	---	0.121	---	---	---	---	---	---	0.121
208	0.000	558.03	0.125	---	0.120	---	---	---	---	---	---	0.120
209	0.000	558.03	0.124	---	0.119	---	---	---	---	---	---	0.119
210	0.000	558.03	0.123	---	0.118	---	---	---	---	---	---	0.118
211	0.000	558.03	0.122	---	0.117	---	---	---	---	---	---	0.117
212	0.000	558.03	0.121	---	0.116	---	---	---	---	---	---	0.116
213	0.000	558.03	0.120	---	0.115	---	---	---	---	---	---	0.115
214	0.000	558.03	0.119	---	0.114	---	---	---	---	---	---	0.114
215	0.000	558.03	0.118	---	0.113	---	---	---	---	---	---	0.113
216	0.000	558.03	0.117	---	0.113	---	---	---	---	---	---	0.113
217	0.000	558.03	0.116	---	0.112	---	---	---	---	---	---	0.112
218	0.000	558.03	0.115	---	0.111	---	---	---	---	---	---	0.111
219	0.000	558.02	0.114	---	0.110	---	---	---	---	---	---	0.110
220	0.000	558.02	0.113	---	0.109	---	---	---	---	---	---	0.109
221	0.000	558.02	0.112	---	0.108	---	---	---	---	---	---	0.108
222	0.000	558.02	0.111	---	0.107	---	---	---	---	---	---	0.107

Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
223	0.000	558.02	0.110	---	0.106	---	---	---	---	---	---	0.106
224	0.000	558.02	0.109	---	0.105	---	---	---	---	---	---	0.105
225	0.000	558.02	0.108	---	0.105	---	---	---	---	---	---	0.105
226	0.000	558.02	0.108	---	0.104	---	---	---	---	---	---	0.104
227	0.000	558.02	0.107	---	0.103	---	---	---	---	---	---	0.103
228	0.000	558.02	0.106	---	0.102	---	---	---	---	---	---	0.102
229	0.000	558.02	0.105	---	0.101	---	---	---	---	---	---	0.101
230	0.000	558.02	0.104	---	0.100	---	---	---	---	---	---	0.100
231	0.000	558.02	0.103	---	0.100	---	---	---	---	---	---	0.100
232	0.000	558.02	0.102	---	0.099	---	---	---	---	---	---	0.099
233	0.000	558.02	0.101	---	0.098	---	---	---	---	---	---	0.098
234	0.000	558.02	0.101	---	0.097	---	---	---	---	---	---	0.097
235	0.000	558.02	0.100	---	0.096	---	---	---	---	---	---	0.096
236	0.000	558.02	0.099	---	0.096	---	---	---	---	---	---	0.096
237	0.000	558.02	0.098	---	0.095	---	---	---	---	---	---	0.095
238	0.000	558.02	0.097	---	0.094	---	---	---	---	---	---	0.094
239	0.000	558.02	0.097	---	0.093	---	---	---	---	---	---	0.093
240	0.000	558.02	0.096	---	0.093	---	---	---	---	---	---	0.093
241	0.000	558.02	0.095	---	0.092	---	---	---	---	---	---	0.092
242	0.000	558.02	0.094	---	0.091	---	---	---	---	---	---	0.091
243	0.000	558.02	0.094	---	0.090	---	---	---	---	---	---	0.090
244	0.000	558.02	0.093	---	0.090	---	---	---	---	---	---	0.090
245	0.000	558.02	0.092	---	0.089	---	---	---	---	---	---	0.089
246	0.000	558.02	0.091	---	0.088	---	---	---	---	---	---	0.088
247	0.000	558.01	0.090	---	0.087	---	---	---	---	---	---	0.087
248	0.000	558.01	0.090	---	0.087	---	---	---	---	---	---	0.087
249	0.000	558.01	0.089	---	0.086	---	---	---	---	---	---	0.086
250	0.000	558.01	0.088	---	0.085	---	---	---	---	---	---	0.085
251	0.000	558.01	0.088	---	0.085	---	---	---	---	---	---	0.085
252	0.000	558.01	0.087	---	0.084	---	---	---	---	---	---	0.084
253	0.000	558.01	0.086	---	0.083	---	---	---	---	---	---	0.083
254	0.000	558.01	0.085	---	0.083	---	---	---	---	---	---	0.083
255	0.000	558.01	0.085	---	0.082	---	---	---	---	---	---	0.082
256	0.000	558.01	0.084	---	0.081	---	---	---	---	---	---	0.081
257	0.000	558.01	0.083	---	0.081	---	---	---	---	---	---	0.081
258	0.000	558.01	0.083	---	0.080	---	---	---	---	---	---	0.080
259	0.000	558.01	0.082	---	0.079	---	---	---	---	---	---	0.079
260	0.000	558.01	0.081	---	0.079	---	---	---	---	---	---	0.079
261	0.000	558.01	0.081	---	0.078	---	---	---	---	---	---	0.078
262	0.000	558.01	0.080	---	0.077	---	---	---	---	---	---	0.077
263	0.000	558.01	0.079	---	0.077	---	---	---	---	---	---	0.077
264	0.000	558.01	0.079	---	0.076	---	---	---	---	---	---	0.076
265	0.000	558.01	0.078	---	0.076	---	---	---	---	---	---	0.076
266	0.000	558.01	0.077	---	0.075	---	---	---	---	---	---	0.075
267	0.000	558.01	0.077	---	0.074	---	---	---	---	---	---	0.074
268	0.000	558.01	0.076	---	0.074	---	---	---	---	---	---	0.074
269	0.000	558.01	0.075	---	0.073	---	---	---	---	---	---	0.073
270	0.000	558.01	0.075	---	0.073	---	---	---	---	---	---	0.073
271	0.000	558.01	0.074	---	0.072	---	---	---	---	---	---	0.072
272	0.000	558.01	0.074	---	0.071	---	---	---	---	---	---	0.071
273	0.000	558.01	0.073	---	0.071	---	---	---	---	---	---	0.071

...End

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Sep 12, 2012

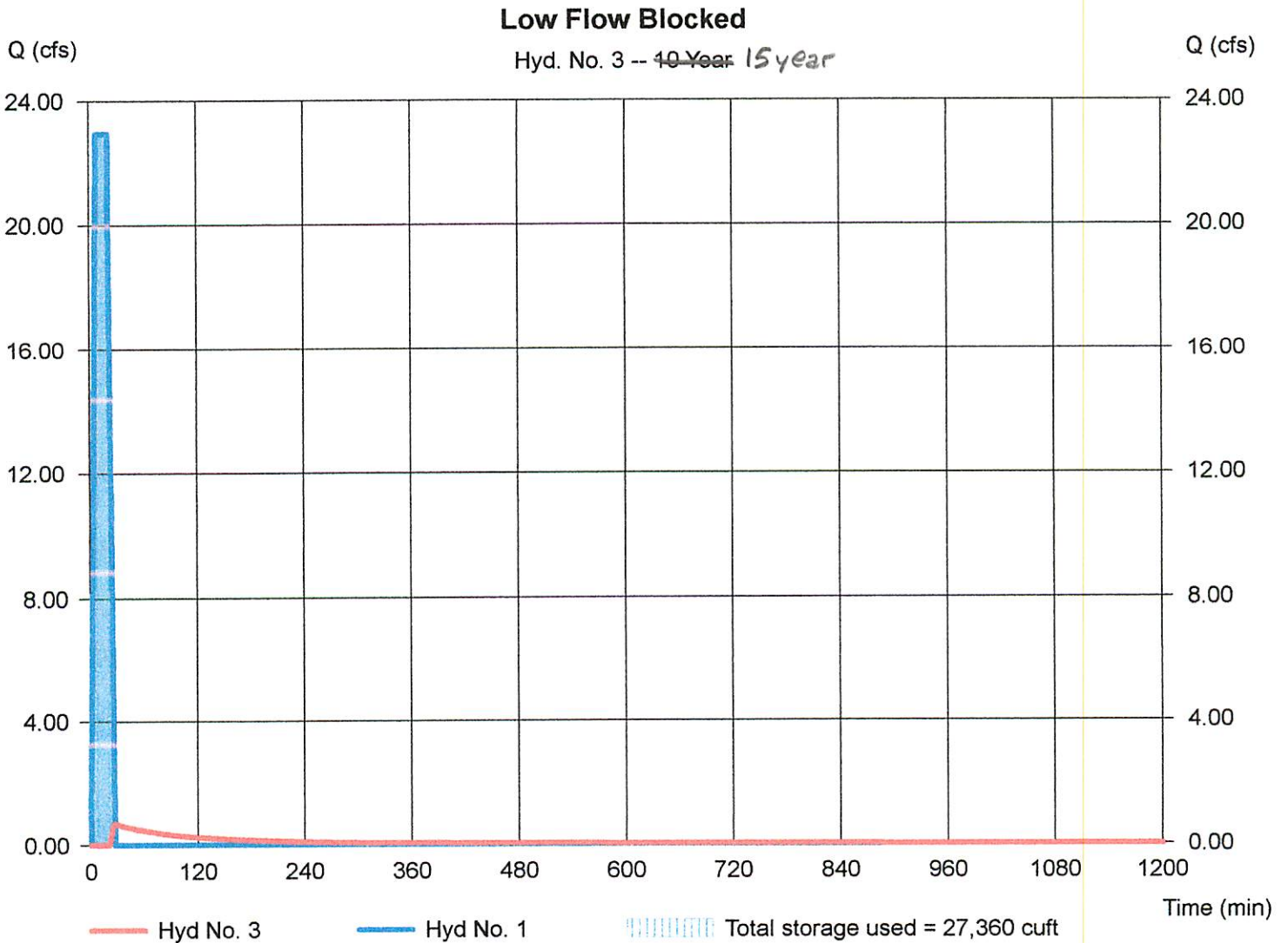
Hyd. No. 3

Low Flow Blocked

Hydrograph type = Reservoir
Storm frequency = ~~10 yrs~~ 15 yr
Time interval = 1 min
Inflow hyd. No. = 1 - Proposed to Basin
Reservoir name = Detention Basin - LFB

Peak discharge = 0.705 cfs
Time to peak = 27 min
Hyd. volume = 5,283 cuft
Max. Elevation = 558.23 ft
Max. Storage = 27,360 cuft

Storage Indication method used.



Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.2

Wednesday, Sep 12, 2012

Hyd. No. 4

With 2yr sediment

Hydrograph type = Reservoir
 Storm frequency = ~~10 yrs~~ 15 yr
 Time interval = 1 min
 Inflow hyd. No. = 1 - Proposed to Basin
 Max. Elevation = 557.93 ft

Peak discharge = 5.555 cfs
 Time to peak = 25 min
 Hyd. volume = 43,497 cuft
 Reservoir name = Detention Basin -
 Max. Storage = 21,398 cuft

Storage Indication method used.

(Printed values >= 10.00% of Qp.)

Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
3	9.840	555.55	0.933	0.916	---	---	---	---	---	---	---	0.916
4	13.11	555.94	2.184	2.184	---	---	---	---	---	---	---	2.184
5	16.39	556.09	2.595	2.594	---	---	---	---	---	---	---	2.594
6	19.67	556.22	2.866	2.866	---	---	---	---	---	---	---	2.866
7	22.95 <<	556.37	3.199	3.172	---	---	---	---	---	---	---	3.172
8	22.95 <<	556.53	3.485	3.470	---	---	---	---	---	---	---	3.470
9	22.95 <<	556.69	3.764	3.760	---	---	---	---	---	---	---	3.760
10	22.95 <<	556.85	4.048	4.011	---	---	---	---	---	---	---	4.011
11	22.95 <<	557.00	4.308	4.261	---	---	---	---	---	---	---	4.261
12	22.95 <<	557.08	4.422	4.389	---	---	---	---	---	---	---	4.389
13	22.95 <<	557.17	4.535	4.513	---	---	---	---	---	---	---	4.513
14	22.95 <<	557.25	4.649	4.633	---	---	---	---	---	---	---	4.633
15	22.95 <<	557.33	4.763	4.750	---	---	---	---	---	---	---	4.750
16	22.95 <<	557.41	4.878	4.863	---	---	---	---	---	---	---	4.863
17	22.95 <<	557.49	4.993	4.972	---	---	---	---	---	---	---	4.972
18	22.95 <<	557.57	5.108	5.079	---	---	---	---	---	---	---	5.079
19	22.95 <<	557.64	5.224	5.182	---	---	---	---	---	---	---	5.182
20	22.95 <<	557.72	5.339	5.284	---	---	---	---	---	---	---	5.284
21	19.67	557.79	5.444	5.373	---	---	---	---	---	---	---	5.373
22	16.39	557.85	5.527	5.443	---	---	---	---	---	---	---	5.443
23	13.11	557.89	5.589	5.494	---	---	---	---	---	---	---	5.494
24	9.840	557.92	5.629	5.526	0.008	---	---	---	---	---	---	5.534
25	6.560	557.93 <<	5.646	5.540	0.014	---	---	---	---	---	---	5.555 <<
26	3.280	557.92	5.642	5.537	0.013	---	---	---	---	---	---	5.550
27	0.000	557.91	5.616	5.516	0.004	---	---	---	---	---	---	5.520
28	0.000	557.88	5.580	5.486	---	---	---	---	---	---	---	5.486
29	0.000	557.86	5.543	5.456	---	---	---	---	---	---	---	5.456
30	0.000	557.83	5.507	5.426	---	---	---	---	---	---	---	5.426
31	0.000	557.81	5.472	5.396	---	---	---	---	---	---	---	5.396
32	0.000	557.79	5.436	5.367	---	---	---	---	---	---	---	5.367
33	0.000	557.76	5.401	5.337	---	---	---	---	---	---	---	5.337
34	0.000	557.74	5.366	5.307	---	---	---	---	---	---	---	5.307
35	0.000	557.72	5.331	5.277	---	---	---	---	---	---	---	5.277
36	0.000	557.69	5.297	5.247	---	---	---	---	---	---	---	5.247
37	0.000	557.67	5.263	5.217	---	---	---	---	---	---	---	5.217
38	0.000	557.65	5.229	5.187	---	---	---	---	---	---	---	5.187
39	0.000	557.62	5.195	5.157	---	---	---	---	---	---	---	5.157
40	0.000	557.60	5.162	5.128	---	---	---	---	---	---	---	5.128
41	0.000	557.58	5.129	5.098	---	---	---	---	---	---	---	5.098
42	0.000	557.56	5.096	5.068	---	---	---	---	---	---	---	5.068

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Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
43	0.000	557.54	5.064	5.038	---	---	---	---	---	---	---	5.038
44	0.000	557.51	5.031	5.008	---	---	---	---	---	---	---	5.008
45	0.000	557.49	4.999	4.978	---	---	---	---	---	---	---	4.978
46	0.000	557.47	4.968	4.948	---	---	---	---	---	---	---	4.948
47	0.000	557.45	4.936	4.918	---	---	---	---	---	---	---	4.918
48	0.000	557.43	4.905	4.888	---	---	---	---	---	---	---	4.889
49	0.000	557.40	4.874	4.859	---	---	---	---	---	---	---	4.859
50	0.000	557.38	4.843	4.829	---	---	---	---	---	---	---	4.829
51	0.000	557.36	4.813	4.799	---	---	---	---	---	---	---	4.799
52	0.000	557.34	4.782	4.769	---	---	---	---	---	---	---	4.769
53	0.000	557.32	4.753	4.739	---	---	---	---	---	---	---	4.739
54	0.000	557.30	4.723	4.710	---	---	---	---	---	---	---	4.710
55	0.000	557.28	4.694	4.679	---	---	---	---	---	---	---	4.679
56	0.000	557.26	4.664	4.649	---	---	---	---	---	---	---	4.649
57	0.000	557.24	4.636	4.619	---	---	---	---	---	---	---	4.619
58	0.000	557.22	4.607	4.590	---	---	---	---	---	---	---	4.590
59	0.000	557.20	4.578	4.560	---	---	---	---	---	---	---	4.560
60	0.000	557.18	4.550	4.530	---	---	---	---	---	---	---	4.530
61	0.000	557.16	4.523	4.500	---	---	---	---	---	---	---	4.500
62	0.000	557.14	4.495	4.470	---	---	---	---	---	---	---	4.470
63	0.000	557.12	4.468	4.440	---	---	---	---	---	---	---	4.440
64	0.000	557.10	4.440	4.411	---	---	---	---	---	---	---	4.411
65	0.000	557.08	4.414	4.380	---	---	---	---	---	---	---	4.380
66	0.000	557.06	4.387	4.350	---	---	---	---	---	---	---	4.350
67	0.000	557.04	4.361	4.320	---	---	---	---	---	---	---	4.320
68	0.000	557.02	4.335	4.291	---	---	---	---	---	---	---	4.291
69	0.000	557.00	4.309	4.261	---	---	---	---	---	---	---	4.261
70	0.000	556.97	4.264	4.208	---	---	---	---	---	---	---	4.208
71	0.000	556.94	4.217	4.152	---	---	---	---	---	---	---	4.152
72	0.000	556.90	4.171	4.096	---	---	---	---	---	---	---	4.096
73	0.000	556.87	4.092	4.041	---	---	---	---	---	---	---	4.041
74	0.000	556.83	4.013	3.987	---	---	---	---	---	---	---	3.987
75	0.000	556.80	3.935	3.933	---	---	---	---	---	---	---	3.933
76	0.000	556.77	3.883	3.883	---	---	---	---	---	---	---	3.883
77	0.000	556.74	3.834	3.834	---	---	---	---	---	---	---	3.834
78	0.000	556.71	3.785	3.785	---	---	---	---	---	---	---	3.785
79	0.000	556.67	3.742	3.730	---	---	---	---	---	---	---	3.730
80	0.000	556.64	3.702	3.675	---	---	---	---	---	---	---	3.675
81	0.000	556.61	3.662	3.621	---	---	---	---	---	---	---	3.621
82	0.000	556.58	3.607	3.567	---	---	---	---	---	---	---	3.567
83	0.000	556.56	3.540	3.513	---	---	---	---	---	---	---	3.513
84	0.000	556.53	3.474	3.461	---	---	---	---	---	---	---	3.461
85	0.000	556.50	3.410	3.409	---	---	---	---	---	---	---	3.409
86	0.000	556.47	3.370	3.358	---	---	---	---	---	---	---	3.358
87	0.000	556.44	3.331	3.308	---	---	---	---	---	---	---	3.308
88	0.000	556.41	3.292	3.258	---	---	---	---	---	---	---	3.258
89	0.000	556.39	3.244	3.209	---	---	---	---	---	---	---	3.209
90	0.000	556.36	3.183	3.159	---	---	---	---	---	---	---	3.159
91	0.000	556.34	3.124	3.110	---	---	---	---	---	---	---	3.110
92	0.000	556.31	3.066	3.061	---	---	---	---	---	---	---	3.061
93	0.000	556.29	3.011	3.010	---	---	---	---	---	---	---	3.010
94	0.000	556.26	2.958	2.958	---	---	---	---	---	---	---	2.958
95	0.000	556.24	2.906	2.906	---	---	---	---	---	---	---	2.906
96	0.000	556.21	2.856	2.855	---	---	---	---	---	---	---	2.856

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With 2yr sediment

Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
97	0.000	556.19	2.805	2.805	---	---	---	---	---	---	---	2.805
98	0.000	556.17	2.756	2.756	---	---	---	---	---	---	---	2.756
99	0.000	556.14	2.708	2.707	---	---	---	---	---	---	---	2.707
100	0.000	556.12	2.660	2.659	---	---	---	---	---	---	---	2.659
101	0.000	556.10	2.613	2.613	---	---	---	---	---	---	---	2.613
102	0.000	556.08	2.567	2.566	---	---	---	---	---	---	---	2.566
103	0.000	556.06	2.521	2.521	---	---	---	---	---	---	---	2.521
104	0.000	556.04	2.476	2.476	---	---	---	---	---	---	---	2.476
105	0.000	556.02	2.432	2.432	---	---	---	---	---	---	---	2.432
106	0.000	555.98	2.324	2.324	---	---	---	---	---	---	---	2.324
107	0.000	555.90	1.999	1.999	---	---	---	---	---	---	---	1.999
108	0.000	555.82	1.740	1.739	---	---	---	---	---	---	---	1.740
109	0.000	555.76	1.527	1.527	---	---	---	---	---	---	---	1.527
110	0.000	555.70	1.347	1.346	---	---	---	---	---	---	---	1.346
111	0.000	555.65	1.207	1.195	---	---	---	---	---	---	---	1.195
112	0.000	555.61	1.083	1.061	---	---	---	---	---	---	---	1.061
113	0.000	555.57	0.971	0.953	---	---	---	---	---	---	---	0.953
114	0.000	555.53	0.870	0.857	---	---	---	---	---	---	---	0.857
115	0.000	555.50	0.780	0.772	---	---	---	---	---	---	---	0.771
116	0.000	555.47	0.705	0.699	---	---	---	---	---	---	---	0.699
117	0.000	555.44	0.637	0.634	---	---	---	---	---	---	---	0.634
118	0.000	555.42	0.576	0.574	---	---	---	---	---	---	---	0.574

...End

Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.2

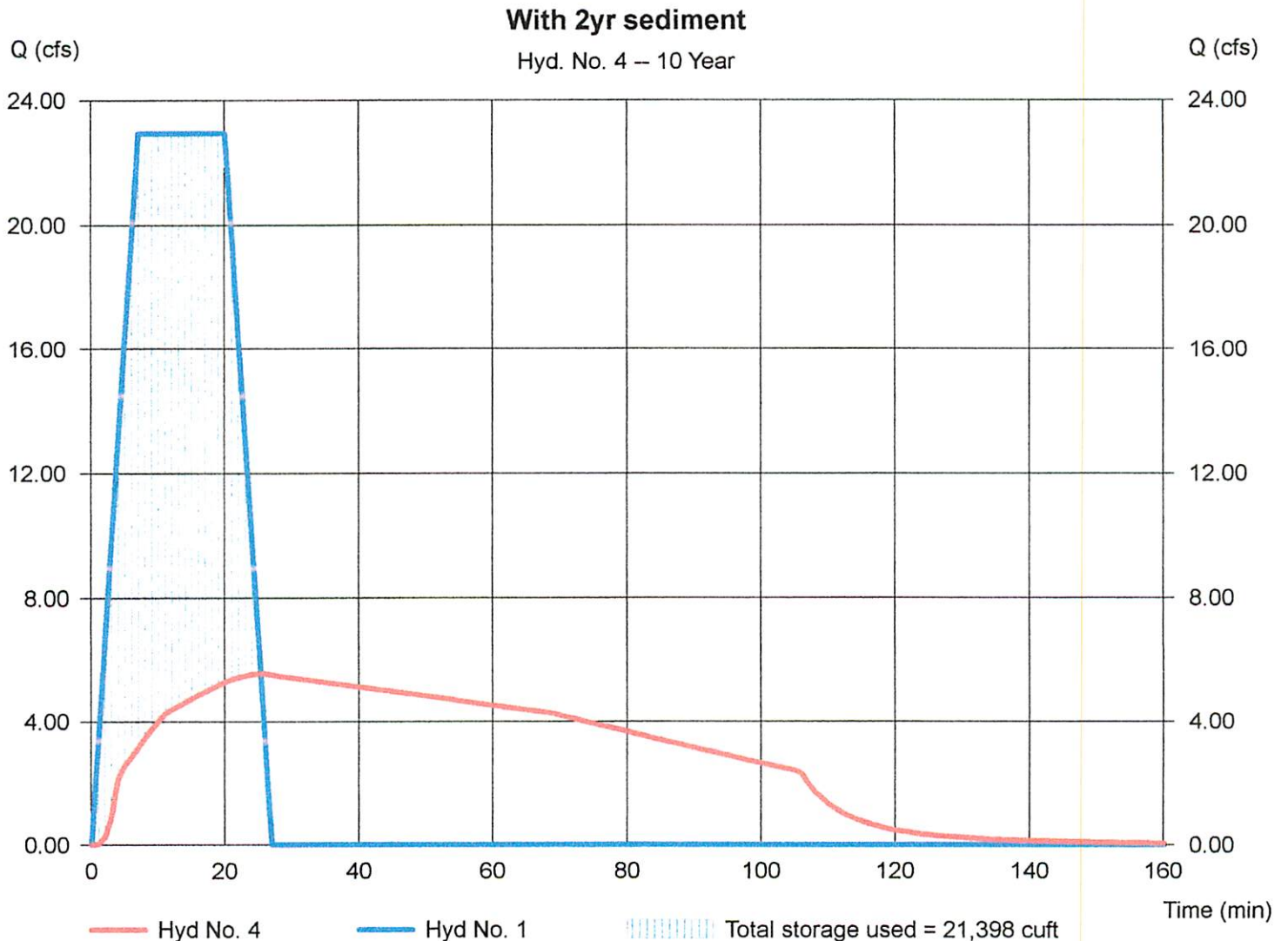
Wednesday, Sep 12, 2012

Hyd. No. 4

With 2yr sediment

Hydrograph type	= Reservoir	Peak discharge	= 5.555 cfs
Storm frequency	= 10 yrs 15yr	Time to peak	= 25 min
Time interval	= 1 min	Hyd. volume	= 27,537 cuft
Inflow hyd. No.	= 1 - Proposed to Basin	Max. Elevation	= 557.93 ft
Reservoir name	= Detention Basin - Sediment	Max. Storage	= 21,398 cuft

Storage Indication method used.



Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.2

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	Manual	28.33	1	7	33,996	---	---	---	Proposed to Basin	
2	Reservoir	6.536	1	25	33,992	1	558.23	27,380	Detention Basin	
3	Reservoir	2.378	1	26	11,739	1	558.58	33,158	Low Flow Blocked	
4	Reservoir	6.796	1	25	33,993	1	558.28	27,103	With 2yr sediment	
11-1230-half-way-to-future.gpw					Return Period: 25 Year			Wednesday, Sep 12, 2012		

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Sep 12, 2012

Hyd. No. 1

Proposed to Basin

Hydrograph type = Manual
Storm frequency = 25 yrs
Time interval = 1 min

Peak discharge = 28.33 cfs
Time to peak = 7 min
Hyd. volume = 43,500 cuft

Hydrograph Discharge Table

(Printed values \geq 10.00% of Qp.)

Time -- Outflow (min cfs)

1	4.050
2	8.090
3	12.14
4	16.19
5	20.24
6	24.28
7	28.33 <<
8	28.33 <<
9	28.33 <<
10	28.33 <<
11	28.33 <<
12	28.33 <<
13	28.33 <<
14	28.33 <<
15	28.33 <<
16	28.33 <<
17	28.33 <<
18	28.33 <<
19	28.33 <<
20	28.33 <<
21	24.28
22	20.24
23	16.19
24	12.14
25	8.090
26	4.050

...End

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

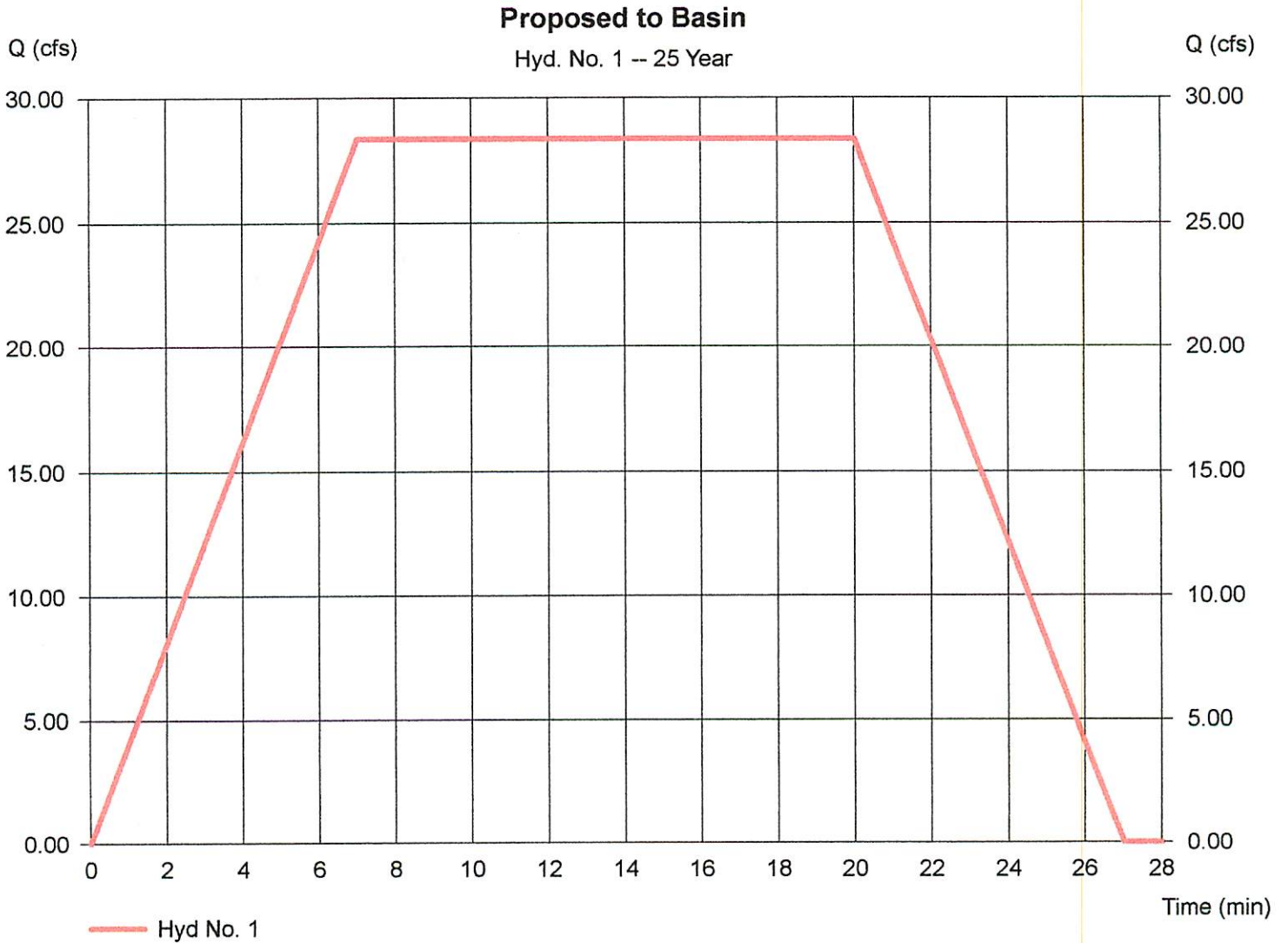
Wednesday, Sep 12, 2012

Hyd. No. 1

Proposed to Basin

Hydrograph type = Manual
Storm frequency = 25 yrs
Time interval = 1 min

Peak discharge = 28.33 cfs
Time to peak = 7 min
Hyd. volume = 33,996 cuft



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Sep 12, 2012

Hyd. No. 2

Detention Basin

Hydrograph type	= Reservoir	Peak discharge	= 6.536 cfs
Storm frequency	= 25 yrs	Time to peak	= 25 min
Time interval	= 1 min	Hyd. volume	= 43,496 cuft
Inflow hyd. No.	= 1 - Proposed to Basin	Reservoir name	= Detention Basin
Max. Elevation	= 558.23 ft	Max. Storage	= 27,380 cuft

Storage indication method used.

(Printed values >= 10.00% of Qp.)

Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
3	12.14	555.50	0.777	0.768	---	---	---	---	---	---	---	0.768
4	16.19	555.86	1.876	1.876	---	---	---	---	---	---	---	1.876
5	20.24	556.08	2.581	2.581	---	---	---	---	---	---	---	2.581
6	24.28	556.23	2.901	2.901	---	---	---	---	---	---	---	2.901
7	28.33 <<	556.41	3.287	3.252	---	---	---	---	---	---	---	3.252
8	28.33 <<	556.60	3.645	3.599	---	---	---	---	---	---	---	3.599
9	28.33 <<	556.79	3.915	3.915	---	---	---	---	---	---	---	3.915
10	28.33 <<	556.98	4.271	4.216	---	---	---	---	---	---	---	4.216
11	28.33 <<	557.09	4.431	4.400	---	---	---	---	---	---	---	4.400
12	28.33 <<	557.20	4.578	4.559	---	---	---	---	---	---	---	4.559
13	28.33 <<	557.30	4.725	4.712	---	---	---	---	---	---	---	4.712
14	28.33 <<	557.40	4.874	4.859	---	---	---	---	---	---	---	4.859
15	28.33 <<	557.51	5.023	5.001	---	---	---	---	---	---	---	5.001
16	28.33 <<	557.61	5.173	5.138	---	---	---	---	---	---	---	5.138
17	28.33 <<	557.71	5.324	5.271	---	---	---	---	---	---	---	5.271
18	28.33 <<	557.81	5.475	5.399	---	---	---	---	---	---	---	5.399
19	28.33 <<	557.91	5.626	5.524	0.007	---	---	---	---	---	---	5.532
20	28.33 <<	558.01	5.792	5.641	0.079	---	---	---	---	---	---	5.720
21	24.28	558.08	6.017	5.712	0.246	---	---	---	---	---	---	5.958
22	20.24	558.14	6.213	5.761	0.419	---	---	---	---	---	---	6.180
23	16.19	558.19	6.361	5.795	0.558	---	---	---	---	---	---	6.353
24	12.14	558.21	6.475	5.817	0.658	---	---	---	---	---	---	6.475
25	8.090	558.23 <<	6.536	5.826	0.710	---	---	---	---	---	---	6.536 <<
26	4.050	558.23	6.528	5.825	0.703	---	---	---	---	---	---	6.528
27	0.000	558.21	6.452	5.813	0.639	---	---	---	---	---	---	6.453
28	0.000	558.19	6.361	5.795	0.558	---	---	---	---	---	---	6.354
29	0.000	558.16	6.283	5.777	0.485	---	---	---	---	---	---	6.262
30	0.000	558.14	6.206	5.760	0.413	---	---	---	---	---	---	6.172
31	0.000	558.12	6.130	5.742	0.342	---	---	---	---	---	---	6.084
32	0.000	558.10	6.056	5.724	0.274	---	---	---	---	---	---	5.999
33	0.000	558.08	5.990	5.704	0.226	---	---	---	---	---	---	5.929
34	0.000	558.05	5.925	5.683	0.178	---	---	---	---	---	---	5.861
35	0.000	558.03	5.861	5.663	0.130	---	---	---	---	---	---	5.793
36	0.000	558.01	5.797	5.642	0.083	---	---	---	---	---	---	5.726
37	0.000	557.99	5.743	5.619	0.049	---	---	---	---	---	---	5.668
38	0.000	557.97	5.706	5.588	0.036	---	---	---	---	---	---	5.624
39	0.000	557.94	5.668	5.558	0.022	---	---	---	---	---	---	5.580
40	0.000	557.92	5.631	5.528	0.009	---	---	---	---	---	---	5.537
41	0.000	557.89	5.594	5.498	---	---	---	---	---	---	---	5.498
42	0.000	557.87	5.558	5.468	---	---	---	---	---	---	---	5.468

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Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
43	0.000	557.84	5.522	5.438	---	---	---	---	---	---	---	5.438
44	0.000	557.82	5.486	5.409	---	---	---	---	---	---	---	5.409
45	0.000	557.80	5.450	5.379	---	---	---	---	---	---	---	5.379
46	0.000	557.77	5.415	5.349	---	---	---	---	---	---	---	5.349
47	0.000	557.75	5.380	5.319	---	---	---	---	---	---	---	5.319
48	0.000	557.73	5.345	5.289	---	---	---	---	---	---	---	5.289
49	0.000	557.70	5.311	5.259	---	---	---	---	---	---	---	5.259
50	0.000	557.68	5.277	5.229	---	---	---	---	---	---	---	5.229
51	0.000	557.66	5.243	5.199	---	---	---	---	---	---	---	5.199
52	0.000	557.63	5.209	5.170	---	---	---	---	---	---	---	5.170
53	0.000	557.61	5.175	5.140	---	---	---	---	---	---	---	5.140
54	0.000	557.59	5.142	5.110	---	---	---	---	---	---	---	5.110
55	0.000	557.57	5.109	5.080	---	---	---	---	---	---	---	5.080
56	0.000	557.54	5.077	5.050	---	---	---	---	---	---	---	5.050
57	0.000	557.52	5.044	5.020	---	---	---	---	---	---	---	5.020
58	0.000	557.50	5.012	4.991	---	---	---	---	---	---	---	4.991
59	0.000	557.48	4.980	4.960	---	---	---	---	---	---	---	4.960
60	0.000	557.46	4.949	4.930	---	---	---	---	---	---	---	4.930
61	0.000	557.43	4.917	4.901	---	---	---	---	---	---	---	4.901
62	0.000	557.41	4.886	4.871	---	---	---	---	---	---	---	4.871
63	0.000	557.39	4.855	4.841	---	---	---	---	---	---	---	4.841
64	0.000	557.37	4.825	4.811	---	---	---	---	---	---	---	4.811
65	0.000	557.35	4.795	4.781	---	---	---	---	---	---	---	4.781
66	0.000	557.33	4.765	4.751	---	---	---	---	---	---	---	4.751
67	0.000	557.31	4.735	4.722	---	---	---	---	---	---	---	4.722
68	0.000	557.29	4.705	4.692	---	---	---	---	---	---	---	4.692
69	0.000	557.27	4.676	4.662	---	---	---	---	---	---	---	4.662
70	0.000	557.25	4.647	4.632	---	---	---	---	---	---	---	4.632
71	0.000	557.23	4.619	4.602	---	---	---	---	---	---	---	4.602
72	0.000	557.21	4.590	4.572	---	---	---	---	---	---	---	4.572
73	0.000	557.19	4.562	4.542	---	---	---	---	---	---	---	4.542
74	0.000	557.17	4.534	4.512	---	---	---	---	---	---	---	4.512
75	0.000	557.15	4.506	4.482	---	---	---	---	---	---	---	4.482
76	0.000	557.13	4.479	4.452	---	---	---	---	---	---	---	4.452
77	0.000	557.11	4.452	4.423	---	---	---	---	---	---	---	4.423
78	0.000	557.09	4.425	4.393	---	---	---	---	---	---	---	4.393
79	0.000	557.07	4.398	4.362	---	---	---	---	---	---	---	4.362
80	0.000	557.05	4.372	4.332	---	---	---	---	---	---	---	4.332
81	0.000	557.03	4.345	4.303	---	---	---	---	---	---	---	4.303
82	0.000	557.01	4.319	4.273	---	---	---	---	---	---	---	4.273
83	0.000	556.99	4.285	4.234	---	---	---	---	---	---	---	4.234
84	0.000	556.95	4.242	4.181	---	---	---	---	---	---	---	4.181
85	0.000	556.92	4.198	4.129	---	---	---	---	---	---	---	4.129
86	0.000	556.89	4.146	4.078	---	---	---	---	---	---	---	4.078
87	0.000	556.86	4.072	4.027	---	---	---	---	---	---	---	4.027
88	0.000	556.83	3.999	3.977	---	---	---	---	---	---	---	3.977
89	0.000	556.80	3.929	3.928	---	---	---	---	---	---	---	3.928
90	0.000	556.77	3.882	3.882	---	---	---	---	---	---	---	3.882
91	0.000	556.74	3.837	3.836	---	---	---	---	---	---	---	3.836
92	0.000	556.71	3.791	3.791	---	---	---	---	---	---	---	3.791
93	0.000	556.68	3.751	3.742	---	---	---	---	---	---	---	3.742
94	0.000	556.65	3.713	3.691	---	---	---	---	---	---	---	3.691
95	0.000	556.62	3.676	3.640	---	---	---	---	---	---	---	3.640
96	0.000	556.60	3.636	3.590	---	---	---	---	---	---	---	3.590

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Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
97	0.000	556.57	3.574	3.541	---	---	---	---	---	---	---	3.541
98	0.000	556.54	3.513	3.492	---	---	---	---	---	---	---	3.492
99	0.000	556.52	3.452	3.444	---	---	---	---	---	---	---	3.444
100	0.000	556.49	3.400	3.396	---	---	---	---	---	---	---	3.396
101	0.000	556.46	3.363	3.349	---	---	---	---	---	---	---	3.349
102	0.000	556.44	3.327	3.303	---	---	---	---	---	---	---	3.303
103	0.000	556.41	3.291	3.257	---	---	---	---	---	---	---	3.257
104	0.000	556.39	3.246	3.211	---	---	---	---	---	---	---	3.211
105	0.000	556.37	3.191	3.165	---	---	---	---	---	---	---	3.165
106	0.000	556.34	3.136	3.120	---	---	---	---	---	---	---	3.120
107	0.000	556.32	3.082	3.075	---	---	---	---	---	---	---	3.075
108	0.000	556.29	3.029	3.029	---	---	---	---	---	---	---	3.029
109	0.000	556.27	2.980	2.980	---	---	---	---	---	---	---	2.980
110	0.000	556.25	2.932	2.932	---	---	---	---	---	---	---	2.932
111	0.000	556.23	2.885	2.885	---	---	---	---	---	---	---	2.885
112	0.000	556.20	2.839	2.838	---	---	---	---	---	---	---	2.838
113	0.000	556.18	2.792	2.792	---	---	---	---	---	---	---	2.792
114	0.000	556.16	2.747	2.747	---	---	---	---	---	---	---	2.747
115	0.000	556.14	2.702	2.702	---	---	---	---	---	---	---	2.702
116	0.000	556.12	2.658	2.658	---	---	---	---	---	---	---	2.658
117	0.000	556.10	2.615	2.614	---	---	---	---	---	---	---	2.614
118	0.000	556.08	2.572	2.572	---	---	---	---	---	---	---	2.572
119	0.000	556.06	2.530	2.530	---	---	---	---	---	---	---	2.530
120	0.000	556.04	2.488	2.488	---	---	---	---	---	---	---	2.488
121	0.000	556.02	2.448	2.448	---	---	---	---	---	---	---	2.448
122	0.000	556.00	2.408	2.408	---	---	---	---	---	---	---	2.407
123	0.000	555.95	2.206	2.206	---	---	---	---	---	---	---	2.206
124	0.000	555.89	1.982	1.982	---	---	---	---	---	---	---	1.982
125	0.000	555.84	1.794	1.794	---	---	---	---	---	---	---	1.794
126	0.000	555.79	1.628	1.628	---	---	---	---	---	---	---	1.628
127	0.000	555.74	1.487	1.487	---	---	---	---	---	---	---	1.487
128	0.000	555.70	1.359	1.359	---	---	---	---	---	---	---	1.359
129	0.000	555.67	1.255	1.247	---	---	---	---	---	---	---	1.247
130	0.000	555.63	1.161	1.145	---	---	---	---	---	---	---	1.145
131	0.000	555.60	1.074	1.051	---	---	---	---	---	---	---	1.051
132	0.000	555.57	0.993	0.974	---	---	---	---	---	---	---	0.974
133	0.000	555.55	0.918	0.903	---	---	---	---	---	---	---	0.903
134	0.000	555.52	0.849	0.837	---	---	---	---	---	---	---	0.837
135	0.000	555.50	0.784	0.776	---	---	---	---	---	---	---	0.776
136	0.000	555.48	0.729	0.723	---	---	---	---	---	---	---	0.723
137	0.000	555.46	0.679	0.674	---	---	---	---	---	---	---	0.674

...End

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Sep 12, 2012

Hyd. No. 2

Detention Basin

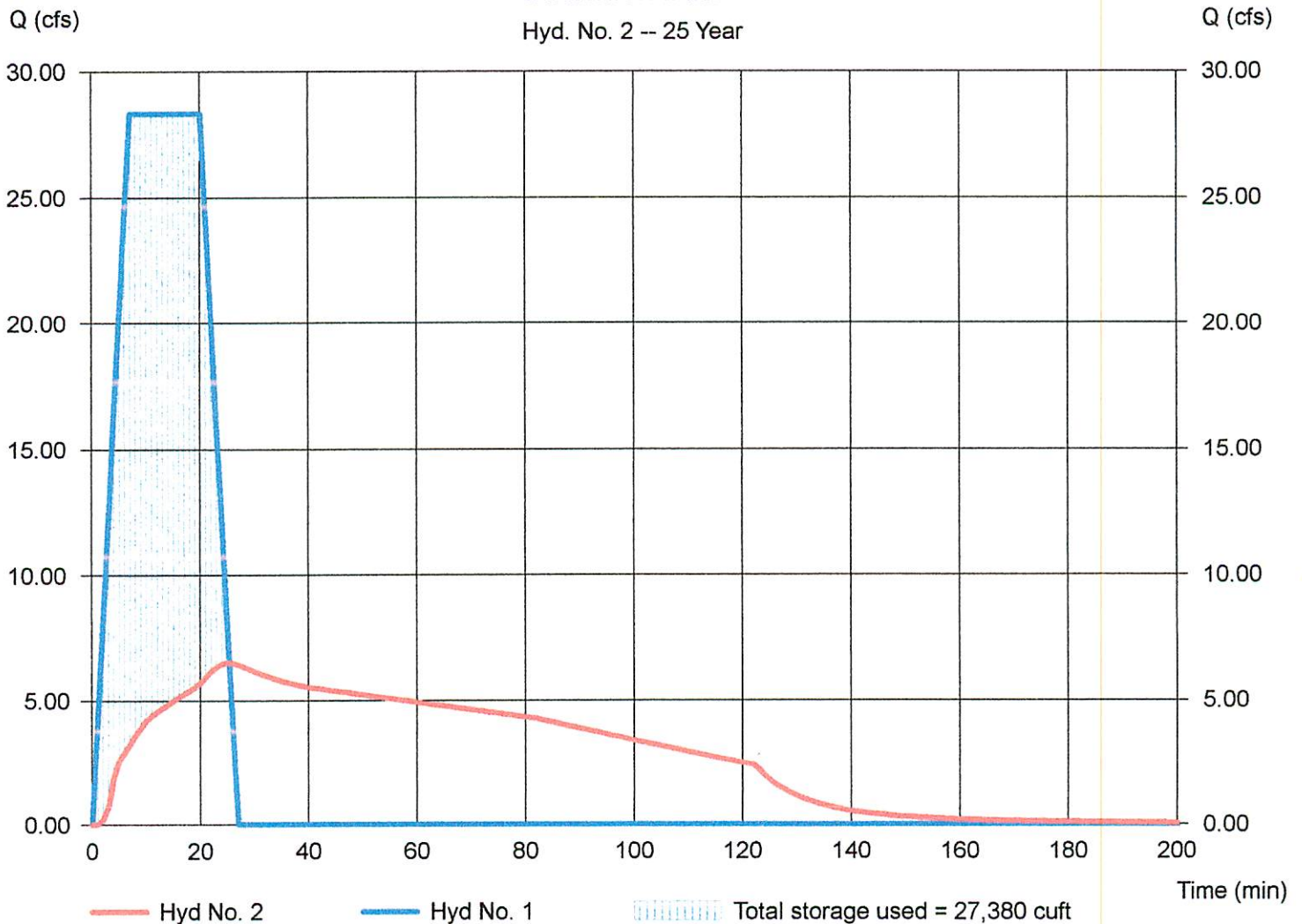
Hydrograph type = Reservoir
Storm frequency = 25 yrs
Time interval = 1 min
Inflow hyd. No. = 1 - Proposed to Basin
Reservoir name = Detention Basin

Peak discharge = 6.536 cfs
Time to peak = 25 min
Hyd. volume = 33,992 cuft
Max. Elevation = 558.23 ft
Max. Storage = 27,380 cuft

Storage Indication method used.

Detention Basin

Hyd. No. 2 -- 25 Year



Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.2

Wednesday, Sep 12, 2012

Hyd. No. 3

Low Flow Blocked

Hydrograph type = Reservoir
 Storm frequency = 25 yrs
 Time interval = 1 min
 Inflow hyd. No. = 1 - Proposed to Basin
 Max. Elevation = 558.58 ft

Peak discharge = 2.378 cfs
 Time to peak = 26 min
 Hyd. volume = 21,243 cuft
 Reservoir name = Detention Basin -
 Max. Storage = 33,158 cuft

Storage Indication method used.

(Printed values >= 10.00% of Qp.)

Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Civ A cfs	Civ B cfs	Civ C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
19	28.33 <<	558.16	0.489	----	0.485	----	----	----	----	----	----	0.485
20	28.33 <<	558.26	0.856	----	0.851	----	----	----	----	----	----	0.851
21	24.28	558.35	1.262	----	1.244	----	----	----	----	----	----	1.244
22	20.24	558.43	1.629	----	1.602	----	----	----	----	----	----	1.602
23	16.19	558.49	1.930	----	1.905	----	----	----	----	----	----	1.905
24	12.14	558.53	2.179	----	2.144	----	----	----	----	----	----	2.144
25	8.090	558.56	2.349	----	2.303	----	----	----	----	----	----	2.303
26	4.050	558.57 <<	2.429	----	2.378	----	----	----	----	----	----	2.378 <<
27	0.000	558.57	2.421	----	2.371	----	----	----	----	----	----	2.371
28	0.000	558.56	2.371	----	2.324	----	----	----	----	----	----	2.324
29	0.000	558.56	2.321	----	2.277	----	----	----	----	----	----	2.277
30	0.000	558.55	2.273	----	2.232	----	----	----	----	----	----	2.232
31	0.000	558.54	2.226	----	2.187	----	----	----	----	----	----	2.187
32	0.000	558.53	2.179	----	2.144	----	----	----	----	----	----	2.144
33	0.000	558.52	2.134	----	2.101	----	----	----	----	----	----	2.101
34	0.000	558.52	2.089	----	2.059	----	----	----	----	----	----	2.059
35	0.000	558.51	2.045	----	2.018	----	----	----	----	----	----	2.018
36	0.000	558.50	2.003	----	1.978	----	----	----	----	----	----	1.978
37	0.000	558.49	1.965	----	1.940	----	----	----	----	----	----	1.941
38	0.000	558.49	1.930	----	1.905	----	----	----	----	----	----	1.905
39	0.000	558.48	1.896	----	1.871	----	----	----	----	----	----	1.870
40	0.000	558.47	1.862	----	1.836	----	----	----	----	----	----	1.836
41	0.000	558.47	1.828	----	1.803	----	----	----	----	----	----	1.803
42	0.000	558.46	1.796	----	1.770	----	----	----	----	----	----	1.770
43	0.000	558.46	1.764	----	1.738	----	----	----	----	----	----	1.738
44	0.000	558.45	1.733	----	1.706	----	----	----	----	----	----	1.706
45	0.000	558.44	1.702	----	1.675	----	----	----	----	----	----	1.675
46	0.000	558.44	1.672	----	1.645	----	----	----	----	----	----	1.645
47	0.000	558.43	1.642	----	1.615	----	----	----	----	----	----	1.615
48	0.000	558.43	1.612	----	1.585	----	----	----	----	----	----	1.585
49	0.000	558.42	1.584	----	1.556	----	----	----	----	----	----	1.556
50	0.000	558.41	1.556	----	1.528	----	----	----	----	----	----	1.528
51	0.000	558.41	1.528	----	1.500	----	----	----	----	----	----	1.500
52	0.000	558.40	1.501	----	1.473	----	----	----	----	----	----	1.473
53	0.000	558.40	1.475	----	1.447	----	----	----	----	----	----	1.447
54	0.000	558.39	1.450	----	1.423	----	----	----	----	----	----	1.423
55	0.000	558.39	1.426	----	1.400	----	----	----	----	----	----	1.400
56	0.000	558.38	1.402	----	1.377	----	----	----	----	----	----	1.377
57	0.000	558.38	1.378	----	1.355	----	----	----	----	----	----	1.355
58	0.000	558.37	1.355	----	1.333	----	----	----	----	----	----	1.333

Continues on next page...

Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
59	0.000	558.37	1.333	---	1.311	---	---	---	---	---	---	1.311
60	0.000	558.36	1.310	---	1.289	---	---	---	---	---	---	1.290
61	0.000	558.36	1.288	---	1.269	---	---	---	---	---	---	1.268
62	0.000	558.35	1.266	---	1.248	---	---	---	---	---	---	1.248
63	0.000	558.35	1.245	---	1.227	---	---	---	---	---	---	1.227
64	0.000	558.35	1.224	---	1.207	---	---	---	---	---	---	1.207
65	0.000	558.34	1.204	---	1.188	---	---	---	---	---	---	1.188
66	0.000	558.34	1.183	---	1.168	---	---	---	---	---	---	1.168
67	0.000	558.33	1.163	---	1.149	---	---	---	---	---	---	1.149
68	0.000	558.33	1.144	---	1.131	---	---	---	---	---	---	1.131
69	0.000	558.32	1.124	---	1.112	---	---	---	---	---	---	1.112
70	0.000	558.32	1.105	---	1.094	---	---	---	---	---	---	1.094
71	0.000	558.32	1.087	---	1.076	---	---	---	---	---	---	1.076
72	0.000	558.31	1.068	---	1.059	---	---	---	---	---	---	1.059
73	0.000	558.31	1.050	---	1.041	---	---	---	---	---	---	1.041
74	0.000	558.31	1.032	---	1.024	---	---	---	---	---	---	1.024
75	0.000	558.30	1.015	---	1.008	---	---	---	---	---	---	1.008
76	0.000	558.30	0.999	---	0.992	---	---	---	---	---	---	0.992
77	0.000	558.29	0.984	---	0.978	---	---	---	---	---	---	0.978
78	0.000	558.29	0.970	---	0.964	---	---	---	---	---	---	0.964
79	0.000	558.29	0.957	---	0.951	---	---	---	---	---	---	0.951
80	0.000	558.28	0.943	---	0.937	---	---	---	---	---	---	0.937
81	0.000	558.28	0.929	---	0.924	---	---	---	---	---	---	0.924
82	0.000	558.28	0.916	---	0.911	---	---	---	---	---	---	0.911
83	0.000	558.27	0.903	---	0.898	---	---	---	---	---	---	0.898
84	0.000	558.27	0.890	---	0.885	---	---	---	---	---	---	0.885
85	0.000	558.27	0.878	---	0.873	---	---	---	---	---	---	0.873
86	0.000	558.27	0.865	---	0.861	---	---	---	---	---	---	0.861
87	0.000	558.26	0.853	---	0.848	---	---	---	---	---	---	0.848
88	0.000	558.26	0.840	---	0.837	---	---	---	---	---	---	0.836
89	0.000	558.26	0.828	---	0.825	---	---	---	---	---	---	0.825
90	0.000	558.25	0.816	---	0.813	---	---	---	---	---	---	0.813
91	0.000	558.25	0.805	---	0.801	---	---	---	---	---	---	0.801
92	0.000	558.25	0.793	---	0.790	---	---	---	---	---	---	0.790
93	0.000	558.24	0.782	---	0.779	---	---	---	---	---	---	0.779
94	0.000	558.24	0.771	---	0.768	---	---	---	---	---	---	0.768
95	0.000	558.24	0.760	---	0.757	---	---	---	---	---	---	0.757
96	0.000	558.24	0.749	---	0.746	---	---	---	---	---	---	0.746
97	0.000	558.23	0.738	---	0.736	---	---	---	---	---	---	0.736
98	0.000	558.23	0.727	---	0.725	---	---	---	---	---	---	0.725
99	0.000	558.23	0.717	---	0.715	---	---	---	---	---	---	0.715
100	0.000	558.23	0.707	---	0.705	---	---	---	---	---	---	0.705
101	0.000	558.22	0.697	---	0.695	---	---	---	---	---	---	0.695
102	0.000	558.22	0.687	---	0.685	---	---	---	---	---	---	0.685
103	0.000	558.22	0.677	---	0.676	---	---	---	---	---	---	0.676
104	0.000	558.22	0.667	---	0.666	---	---	---	---	---	---	0.666
105	0.000	558.21	0.658	---	0.657	---	---	---	---	---	---	0.657
106	0.000	558.21	0.648	---	0.647	---	---	---	---	---	---	0.647
107	0.000	558.21	0.639	---	0.638	---	---	---	---	---	---	0.638
108	0.000	558.21	0.630	---	0.629	---	---	---	---	---	---	0.629
109	0.000	558.20	0.621	---	0.620	---	---	---	---	---	---	0.620
110	0.000	558.20	0.612	---	0.612	---	---	---	---	---	---	0.612
111	0.000	558.20	0.603	---	0.603	---	---	---	---	---	---	0.603
112	0.000	558.20	0.596	---	0.596	---	---	---	---	---	---	0.596

Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
113	0.000	558.20	0.590	---	0.589	---	---	---	---	---	---	0.589
114	0.000	558.19	0.583	---	0.582	---	---	---	---	---	---	0.582
115	0.000	558.19	0.577	---	0.576	---	---	---	---	---	---	0.576
116	0.000	558.19	0.570	---	0.569	---	---	---	---	---	---	0.569
117	0.000	558.19	0.564	---	0.562	---	---	---	---	---	---	0.562
118	0.000	558.19	0.558	---	0.556	---	---	---	---	---	---	0.556
119	0.000	558.18	0.552	---	0.550	---	---	---	---	---	---	0.549
120	0.000	558.18	0.545	---	0.543	---	---	---	---	---	---	0.543
121	0.000	558.18	0.539	---	0.537	---	---	---	---	---	---	0.537
122	0.000	558.18	0.533	---	0.531	---	---	---	---	---	---	0.531
123	0.000	558.18	0.528	---	0.525	---	---	---	---	---	---	0.525
124	0.000	558.17	0.522	---	0.518	---	---	---	---	---	---	0.518
125	0.000	558.17	0.516	---	0.513	---	---	---	---	---	---	0.512
126	0.000	558.17	0.510	---	0.507	---	---	---	---	---	---	0.507
127	0.000	558.17	0.505	---	0.501	---	---	---	---	---	---	0.501
128	0.000	558.17	0.499	---	0.495	---	---	---	---	---	---	0.495
129	0.000	558.16	0.494	---	0.489	---	---	---	---	---	---	0.489
130	0.000	558.16	0.488	---	0.484	---	---	---	---	---	---	0.484
131	0.000	558.16	0.483	---	0.478	---	---	---	---	---	---	0.478
132	0.000	558.16	0.478	---	0.473	---	---	---	---	---	---	0.472
133	0.000	558.16	0.472	---	0.467	---	---	---	---	---	---	0.467
134	0.000	558.16	0.467	---	0.462	---	---	---	---	---	---	0.462
135	0.000	558.15	0.462	---	0.456	---	---	---	---	---	---	0.456
136	0.000	558.15	0.457	---	0.451	---	---	---	---	---	---	0.451
137	0.000	558.15	0.452	---	0.446	---	---	---	---	---	---	0.446
138	0.000	558.15	0.447	---	0.441	---	---	---	---	---	---	0.441
139	0.000	558.15	0.442	---	0.436	---	---	---	---	---	---	0.436
140	0.000	558.15	0.437	---	0.431	---	---	---	---	---	---	0.431
141	0.000	558.15	0.432	---	0.426	---	---	---	---	---	---	0.426
142	0.000	558.14	0.428	---	0.421	---	---	---	---	---	---	0.421
143	0.000	558.14	0.423	---	0.416	---	---	---	---	---	---	0.416
144	0.000	558.14	0.418	---	0.411	---	---	---	---	---	---	0.411
145	0.000	558.14	0.414	---	0.406	---	---	---	---	---	---	0.406
146	0.000	558.14	0.409	---	0.402	---	---	---	---	---	---	0.402
147	0.000	558.14	0.405	---	0.397	---	---	---	---	---	---	0.397
148	0.000	558.13	0.400	---	0.392	---	---	---	---	---	---	0.392
149	0.000	558.13	0.396	---	0.388	---	---	---	---	---	---	0.388
150	0.000	558.13	0.392	---	0.383	---	---	---	---	---	---	0.383
151	0.000	558.13	0.388	---	0.379	---	---	---	---	---	---	0.379
152	0.000	558.13	0.383	---	0.374	---	---	---	---	---	---	0.375
153	0.000	558.13	0.379	---	0.370	---	---	---	---	---	---	0.370
154	0.000	558.13	0.375	---	0.366	---	---	---	---	---	---	0.366
155	0.000	558.13	0.371	---	0.362	---	---	---	---	---	---	0.362
156	0.000	558.12	0.367	---	0.358	---	---	---	---	---	---	0.358
157	0.000	558.12	0.363	---	0.353	---	---	---	---	---	---	0.353
158	0.000	558.12	0.359	---	0.349	---	---	---	---	---	---	0.349
159	0.000	558.12	0.355	---	0.345	---	---	---	---	---	---	0.345
160	0.000	558.12	0.351	---	0.341	---	---	---	---	---	---	0.341
161	0.000	558.12	0.348	---	0.337	---	---	---	---	---	---	0.337
162	0.000	558.12	0.344	---	0.333	---	---	---	---	---	---	0.333
163	0.000	558.12	0.340	---	0.330	---	---	---	---	---	---	0.330
164	0.000	558.11	0.336	---	0.326	---	---	---	---	---	---	0.326
165	0.000	558.11	0.333	---	0.322	---	---	---	---	---	---	0.322
166	0.000	558.11	0.329	---	0.318	---	---	---	---	---	---	0.318

Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
167	0.000	558.11	0.326	---	0.315	---	---	---	---	---	---	0.315
168	0.000	558.11	0.322	---	0.311	---	---	---	---	---	---	0.311
169	0.000	558.11	0.319	---	0.307	---	---	---	---	---	---	0.307
170	0.000	558.11	0.315	---	0.304	---	---	---	---	---	---	0.304
171	0.000	558.11	0.312	---	0.300	---	---	---	---	---	---	0.300
172	0.000	558.11	0.309	---	0.297	---	---	---	---	---	---	0.297
173	0.000	558.10	0.305	---	0.294	---	---	---	---	---	---	0.293
174	0.000	558.10	0.302	---	0.290	---	---	---	---	---	---	0.290
175	0.000	558.10	0.299	---	0.287	---	---	---	---	---	---	0.287
176	0.000	558.10	0.296	---	0.283	---	---	---	---	---	---	0.283
177	0.000	558.10	0.292	---	0.280	---	---	---	---	---	---	0.280
178	0.000	558.10	0.290	---	0.278	---	---	---	---	---	---	0.278
179	0.000	558.10	0.288	---	0.276	---	---	---	---	---	---	0.276
180	0.000	558.10	0.285	---	0.273	---	---	---	---	---	---	0.273
181	0.000	558.10	0.283	---	0.271	---	---	---	---	---	---	0.271
182	0.000	558.10	0.281	---	0.269	---	---	---	---	---	---	0.269
183	0.000	558.09	0.279	---	0.267	---	---	---	---	---	---	0.267
184	0.000	558.09	0.276	---	0.265	---	---	---	---	---	---	0.265
185	0.000	558.09	0.274	---	0.262	---	---	---	---	---	---	0.262
186	0.000	558.09	0.272	---	0.260	---	---	---	---	---	---	0.260
187	0.000	558.09	0.270	---	0.258	---	---	---	---	---	---	0.258
188	0.000	558.09	0.267	---	0.256	---	---	---	---	---	---	0.256
189	0.000	558.09	0.265	---	0.254	---	---	---	---	---	---	0.254
190	0.000	558.09	0.263	---	0.252	---	---	---	---	---	---	0.252
191	0.000	558.09	0.261	---	0.250	---	---	---	---	---	---	0.250
192	0.000	558.09	0.259	---	0.248	---	---	---	---	---	---	0.248
193	0.000	558.08	0.257	---	0.246	---	---	---	---	---	---	0.246
194	0.000	558.08	0.255	---	0.244	---	---	---	---	---	---	0.244
195	0.000	558.08	0.252	---	0.242	---	---	---	---	---	---	0.242
196	0.000	558.08	0.250	---	0.240	---	---	---	---	---	---	0.240
197	0.000	558.08	0.248	---	0.238	---	---	---	---	---	---	0.238

...End

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Sep 12, 2012

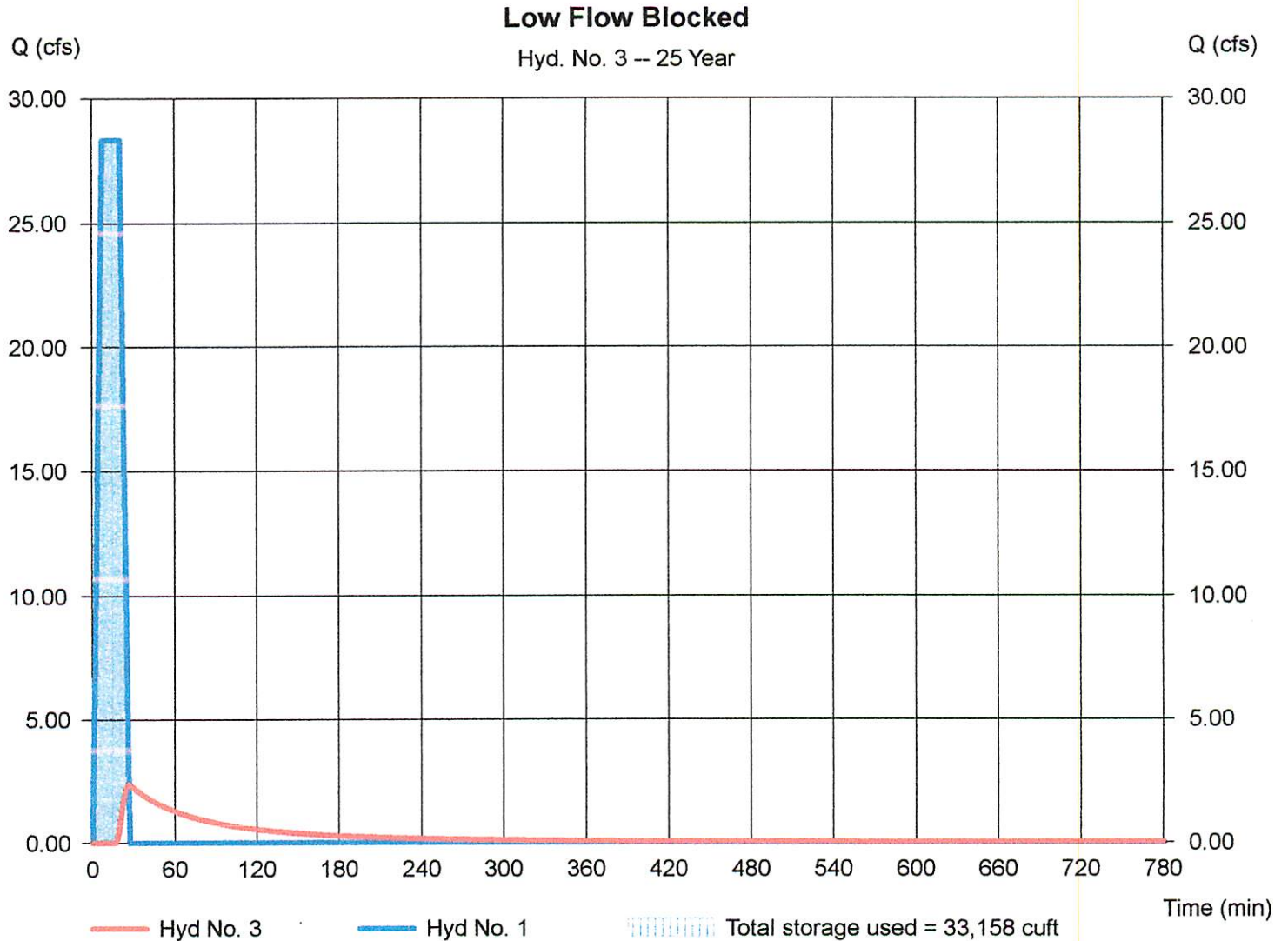
Hyd. No. 3

Low Flow Blocked

Hydrograph type = Reservoir
Storm frequency = 25 yrs
Time interval = 1 min
Inflow hyd. No. = 1 - Proposed to Basin
Reservoir name = Detention Basin - LFB

Peak discharge = 2.378 cfs
Time to peak = 26 min
Hyd. volume = 11,739 cuft
Max. Elevation = 558.58 ft
Max. Storage = 33,158 cuft

Storage Indication method used.



Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.2

Wednesday, Sep 12, 2012

Hyd. No. 4

With 2yr sediment

Hydrograph type = Reservoir
 Storm frequency = 25 yrs
 Time interval = 1 min
 Inflow hyd. No. = 1 - Proposed to Basin
 Max. Elevation = 558.28 ft

Peak discharge = 6.796 cfs
 Time to peak = 25 min
 Hyd. volume = 43,497 cuft
 Reservoir name = Detention Basin -
 Max. Storage = 27,103 cuft

Storage Indication method used.

Hydrograph Discharge Table

(Printed values >= 10.00% of Qp.)

Time (min)	Inflow cfs	Elevation ft	Civ A cfs	Civ B cfs	Civ C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
3	12.14	555.68	1.282	1.276	---	---	---	---	---	---	---	1.276
4	16.19	556.03	2.472	2.472	---	---	---	---	---	---	---	2.472
5	20.24	556.16	2.751	2.750	---	---	---	---	---	---	---	2.750
6	24.28	556.32	3.096	3.086	---	---	---	---	---	---	---	3.086
7	28.33 <<	556.51	3.446	3.439	---	---	---	---	---	---	---	3.439
8	28.33 <<	556.72	3.805	3.805	---	---	---	---	---	---	---	3.805
9	28.33 <<	556.92	4.196	4.127	---	---	---	---	---	---	---	4.127
10	28.33 <<	557.06	4.393	4.357	---	---	---	---	---	---	---	4.357
11	28.33 <<	557.17	4.539	4.518	---	---	---	---	---	---	---	4.518
12	28.33 <<	557.27	4.687	4.672	---	---	---	---	---	---	---	4.672
13	28.33 <<	557.38	4.835	4.821	---	---	---	---	---	---	---	4.821
14	28.33 <<	557.48	4.984	4.964	---	---	---	---	---	---	---	4.964
15	28.33 <<	557.58	5.134	5.102	---	---	---	---	---	---	---	5.102
16	28.33 <<	557.69	5.284	5.236	---	---	---	---	---	---	---	5.236
17	28.33 <<	557.79	5.435	5.366	---	---	---	---	---	---	---	5.366
18	28.33 <<	557.89	5.587	5.492	---	---	---	---	---	---	---	5.492
19	28.33 <<	557.99	5.738	5.614	0.047	---	---	---	---	---	---	5.662
20	28.33 <<	558.07	5.974	5.699	0.214	---	---	---	---	---	---	5.913
21	24.28	558.14	6.215	5.762	0.422	---	---	---	---	---	---	6.183
22	20.24	558.20	6.415	5.807	0.608	---	---	---	---	---	---	6.415
23	16.19	558.24	6.613	5.838	0.774	---	---	---	---	---	---	6.613
24	12.14	558.27	6.739	5.858	0.881	---	---	---	---	---	---	6.739
25	8.090	558.28 <<	6.796	5.867	0.928	---	---	---	---	---	---	6.796 <<
26	4.050	558.28	6.784	5.865	0.918	---	---	---	---	---	---	6.784
27	0.000	558.26	6.704	5.853	0.851	---	---	---	---	---	---	6.704
28	0.000	558.24	6.591	5.835	0.756	---	---	---	---	---	---	6.591
29	0.000	558.22	6.481	5.818	0.664	---	---	---	---	---	---	6.481
30	0.000	558.19	6.382	5.800	0.578	---	---	---	---	---	---	6.378
31	0.000	558.17	6.303	5.782	0.504	---	---	---	---	---	---	6.286
32	0.000	558.15	6.226	5.764	0.432	---	---	---	---	---	---	6.196
33	0.000	558.12	6.150	5.747	0.360	---	---	---	---	---	---	6.107
34	0.000	558.10	6.074	5.729	0.290	---	---	---	---	---	---	6.019
35	0.000	558.08	6.007	5.709	0.238	---	---	---	---	---	---	5.947
36	0.000	558.06	5.942	5.688	0.190	---	---	---	---	---	---	5.878
37	0.000	558.04	5.877	5.668	0.143	---	---	---	---	---	---	5.810
38	0.000	558.02	5.813	5.648	0.095	---	---	---	---	---	---	5.743
39	0.000	558.00	5.753	5.627	0.052	---	---	---	---	---	---	5.679
40	0.000	557.97	5.715	5.596	0.039	---	---	---	---	---	---	5.635
41	0.000	557.95	5.678	5.566	0.026	---	---	---	---	---	---	5.592
42	0.000	557.92	5.641	5.536	0.013	---	---	---	---	---	---	5.548

Continues on next page...

With 2yr sediment

Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
43	0.000	557.90	5.604	5.506	---	---	---	---	---	---	---	5.506
44	0.000	557.87	5.568	5.476	---	---	---	---	---	---	---	5.476
45	0.000	557.85	5.531	5.446	---	---	---	---	---	---	---	5.446
46	0.000	557.83	5.495	5.416	---	---	---	---	---	---	---	5.416
47	0.000	557.80	5.460	5.387	---	---	---	---	---	---	---	5.387
48	0.000	557.78	5.424	5.357	---	---	---	---	---	---	---	5.357
49	0.000	557.76	5.389	5.327	---	---	---	---	---	---	---	5.327
50	0.000	557.73	5.354	5.297	---	---	---	---	---	---	---	5.297
51	0.000	557.71	5.320	5.267	---	---	---	---	---	---	---	5.267
52	0.000	557.69	5.285	5.237	---	---	---	---	---	---	---	5.237
53	0.000	557.66	5.251	5.207	---	---	---	---	---	---	---	5.207
54	0.000	557.64	5.218	5.177	---	---	---	---	---	---	---	5.177
55	0.000	557.62	5.184	5.148	---	---	---	---	---	---	---	5.148
56	0.000	557.59	5.151	5.118	---	---	---	---	---	---	---	5.118
57	0.000	557.57	5.118	5.088	---	---	---	---	---	---	---	5.088
58	0.000	557.55	5.085	5.058	---	---	---	---	---	---	---	5.058
59	0.000	557.53	5.053	5.028	---	---	---	---	---	---	---	5.028
60	0.000	557.51	5.020	4.998	---	---	---	---	---	---	---	4.998
61	0.000	557.48	4.989	4.968	---	---	---	---	---	---	---	4.968
62	0.000	557.46	4.957	4.938	---	---	---	---	---	---	---	4.938
63	0.000	557.44	4.926	4.908	---	---	---	---	---	---	---	4.908
64	0.000	557.42	4.894	4.879	---	---	---	---	---	---	---	4.879
65	0.000	557.40	4.863	4.849	---	---	---	---	---	---	---	4.849
66	0.000	557.38	4.833	4.819	---	---	---	---	---	---	---	4.819
67	0.000	557.35	4.803	4.789	---	---	---	---	---	---	---	4.789
68	0.000	557.33	4.772	4.759	---	---	---	---	---	---	---	4.759
69	0.000	557.31	4.743	4.729	---	---	---	---	---	---	---	4.729
70	0.000	557.29	4.713	4.700	---	---	---	---	---	---	---	4.700
71	0.000	557.27	4.684	4.669	---	---	---	---	---	---	---	4.669
72	0.000	557.25	4.655	4.639	---	---	---	---	---	---	---	4.639
73	0.000	557.23	4.626	4.610	---	---	---	---	---	---	---	4.610
74	0.000	557.21	4.597	4.580	---	---	---	---	---	---	---	4.580
75	0.000	557.19	4.569	4.550	---	---	---	---	---	---	---	4.550
76	0.000	557.17	4.541	4.520	---	---	---	---	---	---	---	4.520
77	0.000	557.15	4.513	4.490	---	---	---	---	---	---	---	4.490
78	0.000	557.13	4.486	4.460	---	---	---	---	---	---	---	4.460
79	0.000	557.11	4.459	4.430	---	---	---	---	---	---	---	4.430
80	0.000	557.09	4.432	4.401	---	---	---	---	---	---	---	4.401
81	0.000	557.07	4.405	4.370	---	---	---	---	---	---	---	4.370
82	0.000	557.05	4.378	4.340	---	---	---	---	---	---	---	4.340
83	0.000	557.03	4.352	4.310	---	---	---	---	---	---	---	4.310
84	0.000	557.02	4.326	4.281	---	---	---	---	---	---	---	4.281
85	0.000	556.99	4.296	4.247	---	---	---	---	---	---	---	4.247
86	0.000	556.96	4.249	4.190	---	---	---	---	---	---	---	4.190
87	0.000	556.92	4.202	4.133	---	---	---	---	---	---	---	4.133
88	0.000	556.89	4.146	4.078	---	---	---	---	---	---	---	4.078
89	0.000	556.86	4.066	4.023	---	---	---	---	---	---	---	4.023
90	0.000	556.82	3.987	3.969	---	---	---	---	---	---	---	3.969
91	0.000	556.79	3.917	3.917	---	---	---	---	---	---	---	3.917
92	0.000	556.76	3.867	3.867	---	---	---	---	---	---	---	3.867
93	0.000	556.73	3.818	3.817	---	---	---	---	---	---	---	3.817
94	0.000	556.70	3.770	3.768	---	---	---	---	---	---	---	3.768
95	0.000	556.66	3.729	3.712	---	---	---	---	---	---	---	3.712
96	0.000	556.63	3.688	3.657	---	---	---	---	---	---	---	3.657

Continues on next page...

With 2yr sediment

Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
97	0.000	556.60	3.648	3.603	---	---	---	---	---	---	---	3.603
98	0.000	556.57	3.585	3.549	---	---	---	---	---	---	---	3.549
99	0.000	556.55	3.518	3.496	---	---	---	---	---	---	---	3.496
100	0.000	556.52	3.452	3.444	---	---	---	---	---	---	---	3.444
101	0.000	556.49	3.397	3.392	---	---	---	---	---	---	---	3.392
102	0.000	556.46	3.357	3.342	---	---	---	---	---	---	---	3.342
103	0.000	556.43	3.318	3.291	---	---	---	---	---	---	---	3.292
104	0.000	556.41	3.279	3.242	---	---	---	---	---	---	---	3.242
105	0.000	556.38	3.224	3.192	---	---	---	---	---	---	---	3.192
106	0.000	556.35	3.164	3.143	---	---	---	---	---	---	---	3.143
107	0.000	556.33	3.105	3.094	---	---	---	---	---	---	---	3.094
108	0.000	556.30	3.046	3.045	---	---	---	---	---	---	---	3.046
109	0.000	556.28	2.993	2.993	---	---	---	---	---	---	---	2.993
110	0.000	556.25	2.941	2.941	---	---	---	---	---	---	---	2.941
111	0.000	556.23	2.889	2.889	---	---	---	---	---	---	---	2.889
112	0.000	556.20	2.839	2.839	---	---	---	---	---	---	---	2.839
113	0.000	556.18	2.789	2.789	---	---	---	---	---	---	---	2.789
114	0.000	556.16	2.740	2.740	---	---	---	---	---	---	---	2.740
115	0.000	556.14	2.692	2.691	---	---	---	---	---	---	---	2.691
116	0.000	556.11	2.644	2.644	---	---	---	---	---	---	---	2.644
117	0.000	556.09	2.598	2.597	---	---	---	---	---	---	---	2.597
118	0.000	556.07	2.551	2.551	---	---	---	---	---	---	---	2.551
119	0.000	556.05	2.506	2.506	---	---	---	---	---	---	---	2.506
120	0.000	556.03	2.462	2.462	---	---	---	---	---	---	---	2.462
121	0.000	556.01	2.418	2.418	---	---	---	---	---	---	---	2.418
122	0.000	555.95	2.212	2.212	---	---	---	---	---	---	---	2.212
123	0.000	555.87	1.910	1.910	---	---	---	---	---	---	---	1.910
124	0.000	555.80	1.662	1.662	---	---	---	---	---	---	---	1.662
125	0.000	555.74	1.466	1.465	---	---	---	---	---	---	---	1.466
126	0.000	555.68	1.299	1.295	---	---	---	---	---	---	---	1.295
127	0.000	555.64	1.165	1.150	---	---	---	---	---	---	---	1.150
128	0.000	555.59	1.045	1.023	---	---	---	---	---	---	---	1.023
129	0.000	555.55	0.937	0.920	---	---	---	---	---	---	---	0.920
130	0.000	555.52	0.840	0.828	---	---	---	---	---	---	---	0.828
131	0.000	555.49	0.754	0.747	---	---	---	---	---	---	---	0.747

...End

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

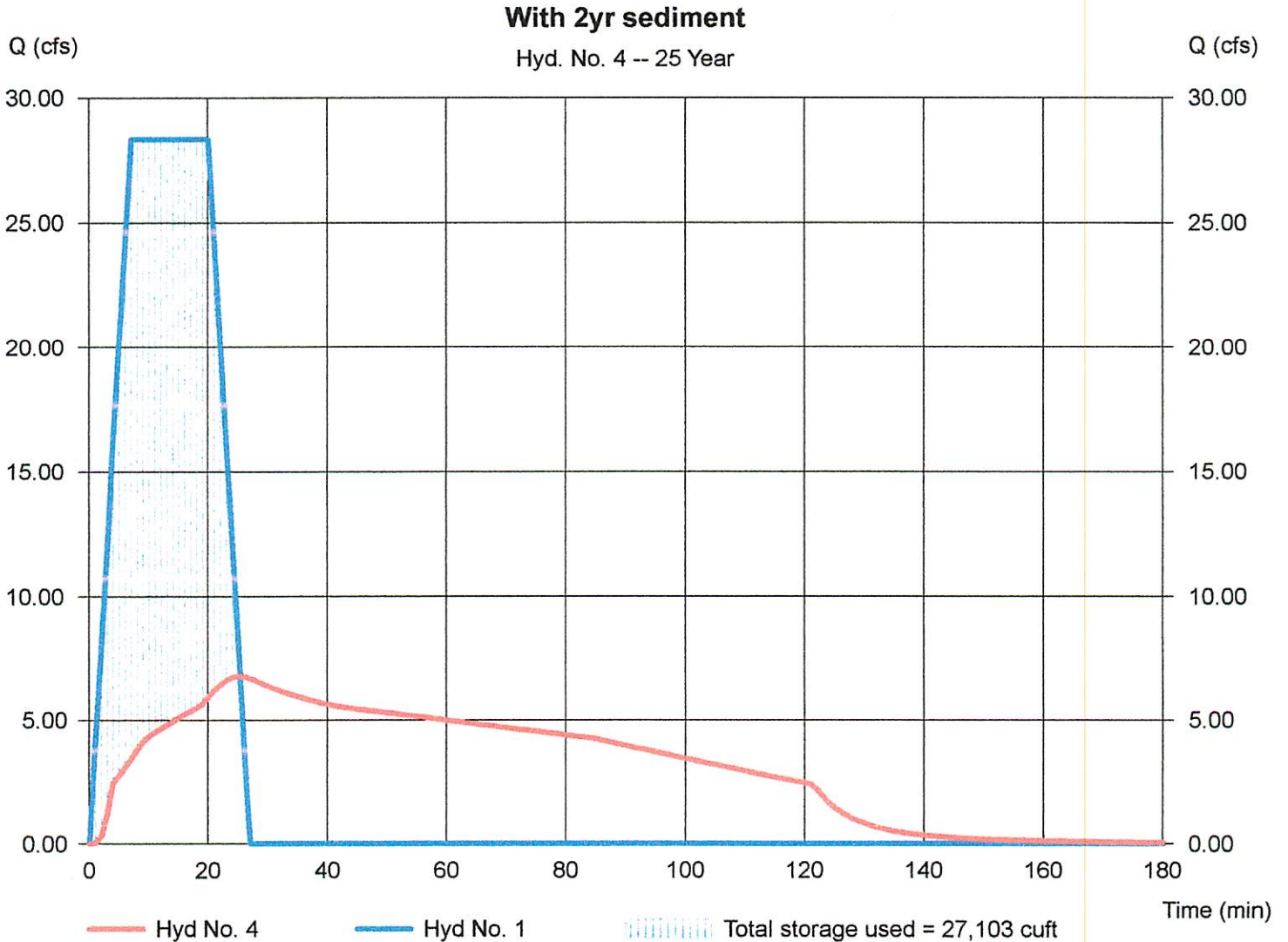
Wednesday, Sep 12, 2012

Hyd. No. 4

With 2yr sediment

Hydrograph type	= Reservoir	Peak discharge	= 6.796 cfs
Storm frequency	= 25 yrs	Time to peak	= 25 min
Time interval	= 1 min	Hyd. volume	= 33,993 cuft
Inflow hyd. No.	= 1 - Proposed to Basin	Max. Elevation	= 558.28 ft
Reservoir name	= Detention Basin - Sediment	Max. Storage	= 27,103 cuft

Storage Indication method used.



Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.2

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	Manual	36.25	1	7	43,500	—	—	—	Proposed to Basin	
2	Reservoir	9.292	1	25	43,496	1	558.71	35,377	Detention Basin	
3	Reservoir	4.721	1	26	21,243	1	559.06	41,329	Low Flow Blocked	
4	Reservoir	9.630	1	25	43,497	1	558.76	35,037	With 2yr sediment	
11-1230-half-way-to-future.gpw					Return Period: 100 Year			Wednesday, Sep 12, 2012		

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Sep 12, 2012

Hyd. No. 1

Proposed to Basin

Hydrograph type = Manual
Storm frequency = 100 yrs
Time interval = 1 min

Peak discharge = 36.25 cfs
Time to peak = 7 min
Hyd. volume = 43,500 cuft

Hydrograph Discharge Table

(Printed values \geq 10.00% of Qp.)

Time -- Outflow
(min cfs)

1	5.180
2	10.36
3	15.54
4	20.71
5	25.89
6	31.07
7	36.25 <<
8	36.25 <<
9	36.25 <<
10	36.25 <<
11	36.25 <<
12	36.25 <<
13	36.25 <<
14	36.25 <<
15	36.25 <<
16	36.25 <<
17	36.25 <<
18	36.25 <<
19	36.25 <<
20	36.25 <<
21	31.07
22	25.89
23	20.71
24	15.54
25	10.36
26	5.180

...End

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

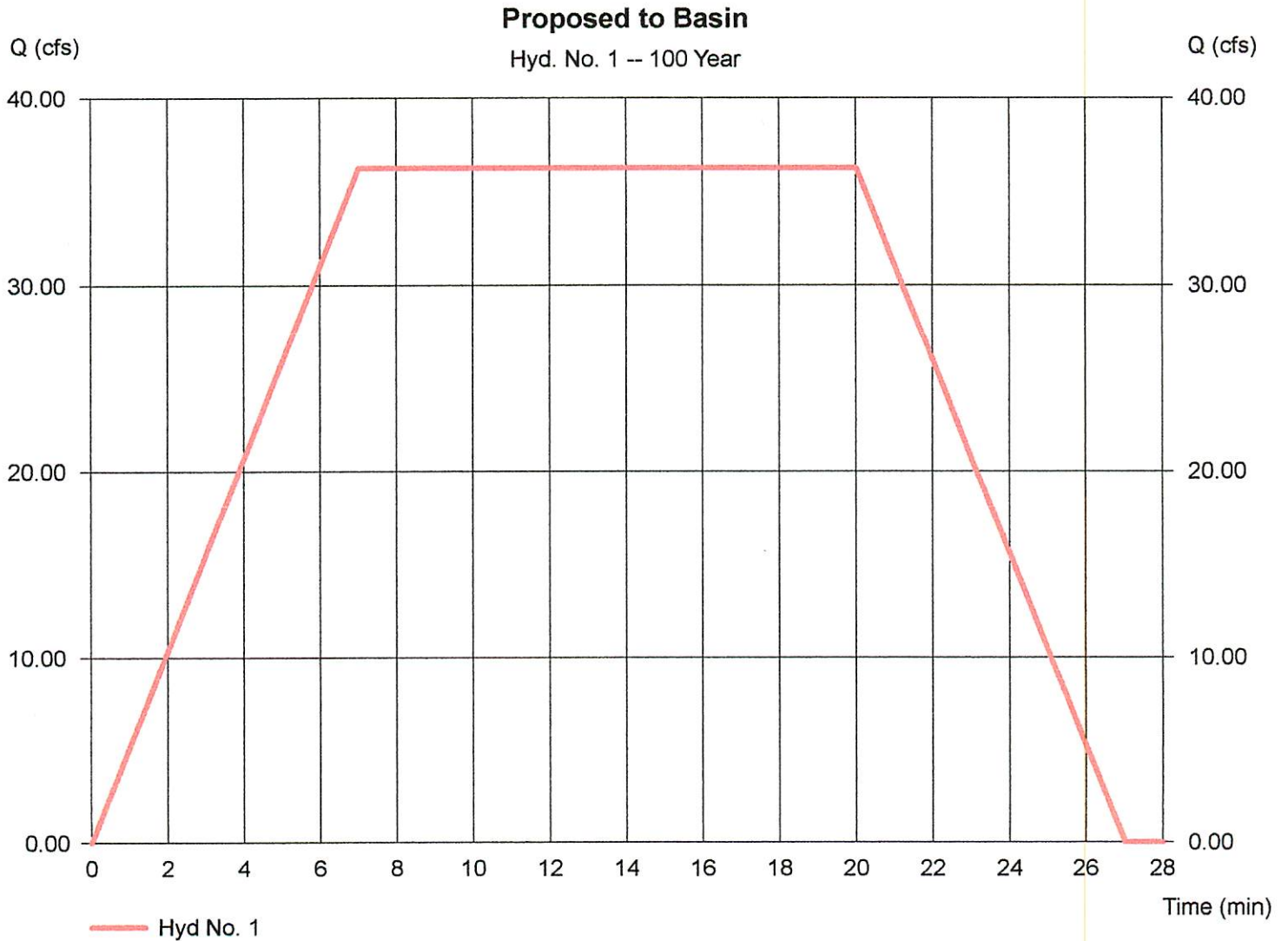
Wednesday, Sep 12, 2012

Hyd. No. 1

Proposed to Basin

Hydrograph type = Manual
Storm frequency = 100 yrs
Time interval = 1 min

Peak discharge = 36.25 cfs
Time to peak = 7 min
Hyd. volume = 43,500 cuft



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Sep 12, 2012

Hyd. No. 2

Detention Basin

Hydrograph type	= Reservoir	Peak discharge	= 9.292 cfs
Storm frequency	= 100 yrs	Time to peak	= 25 min
Time interval	= 1 min	Hyd. volume	= 43,496 cuft
Inflow hyd. No.	= 1 - Proposed to Basin	Reservoir name	= Detention Basin
Max. Elevation	= 558.71 ft	Max. Storage	= 35,377 cuft

Storage Indication method used.

(Printed values >= 10.00% of Qp.)

Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
3	15.54	555.63	1.159	1.143	---	---	---	---	---	---	---	1.143
4	20.71	556.03	2.454	2.454	---	---	---	---	---	---	---	2.454
5	25.89	556.18	2.795	2.795	---	---	---	---	---	---	---	2.795
6	31.07	556.38	3.222	3.191	---	---	---	---	---	---	---	3.191
7	36.25 <<	556.61	3.656	3.613	---	---	---	---	---	---	---	3.613
8	36.25 <<	556.86	4.069	4.025	---	---	---	---	---	---	---	4.025
9	36.25 <<	557.06	4.387	4.350	---	---	---	---	---	---	---	4.350
10	36.25 <<	557.20	4.582	4.564	---	---	---	---	---	---	---	4.564
11	36.25 <<	557.34	4.779	4.766	---	---	---	---	---	---	---	4.766
12	36.25 <<	557.48	4.978	4.959	---	---	---	---	---	---	---	4.959
13	36.25 <<	557.61	5.179	5.143	---	---	---	---	---	---	---	5.143
14	36.25 <<	557.75	5.382	5.320	---	---	---	---	---	---	---	5.320
15	36.25 <<	557.89	5.585	5.491	---	---	---	---	---	---	---	5.491
16	36.25 <<	558.02	5.811	5.647	0.093	---	---	---	---	---	---	5.740
17	36.25 <<	558.13	6.155	5.748	0.366	---	---	---	---	---	---	6.114
18	36.25 <<	558.23	6.570	5.832	0.738	---	---	---	---	---	---	6.570
19	36.25 <<	558.34	7.120	5.907	1.181	---	---	---	---	---	---	7.088
20	36.25 <<	558.44	7.700	5.976	1.680	---	---	---	---	---	---	7.656
21	31.07	558.54	8.206	6.034	2.171	---	---	---	---	---	---	8.205
22	25.89	558.61	8.656	6.076	2.579	---	---	---	---	---	---	8.655
23	20.71	558.66	8.994	6.100	2.894	---	---	---	---	---	---	8.994
24	15.54	558.69	9.206	6.115	3.090	---	---	---	---	---	---	9.205
25	10.36	558.71 <<	9.298	6.121	3.171	---	---	---	---	---	---	9.292 <<
26	5.180	558.70	9.258	6.119	3.138	---	---	---	---	---	---	9.257
27	0.000	558.68	9.103	6.108	2.995	---	---	---	---	---	---	9.102
28	0.000	558.64	8.892	6.093	2.799	---	---	---	---	---	---	8.892
29	0.000	558.61	8.687	6.078	2.608	---	---	---	---	---	---	8.686
30	0.000	558.58	8.491	6.062	2.429	---	---	---	---	---	---	8.491
31	0.000	558.55	8.303	6.044	2.259	---	---	---	---	---	---	8.303
32	0.000	558.52	8.120	6.026	2.094	---	---	---	---	---	---	8.120
33	0.000	558.49	7.949	6.008	1.935	---	---	---	---	---	---	7.943
34	0.000	558.47	7.808	5.990	1.790	---	---	---	---	---	---	7.780
35	0.000	558.44	7.670	5.972	1.649	---	---	---	---	---	---	7.621
36	0.000	558.41	7.535	5.954	1.510	---	---	---	---	---	---	7.464
37	0.000	558.38	7.386	5.937	1.383	---	---	---	---	---	---	7.320
38	0.000	558.36	7.229	5.919	1.263	---	---	---	---	---	---	7.183
39	0.000	558.33	7.075	5.902	1.147	---	---	---	---	---	---	7.049
40	0.000	558.31	6.923	5.885	1.032	---	---	---	---	---	---	6.917
41	0.000	558.28	6.797	5.868	0.930	---	---	---	---	---	---	6.797
42	0.000	558.26	6.683	5.849	0.834	---	---	---	---	---	---	6.683

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Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
43	0.000	558.23	6.571	5.832	0.739	---	---	---	---	---	---	6.571
44	0.000	558.21	6.461	5.814	0.647	---	---	---	---	---	---	6.461
45	0.000	558.19	6.368	5.797	0.564	---	---	---	---	---	---	6.361
46	0.000	558.17	6.289	5.779	0.491	---	---	---	---	---	---	6.270
47	0.000	558.14	6.212	5.761	0.419	---	---	---	---	---	---	6.179
48	0.000	558.12	6.136	5.743	0.347	---	---	---	---	---	---	6.091
49	0.000	558.10	6.061	5.726	0.278	---	---	---	---	---	---	6.004
50	0.000	558.08	5.995	5.705	0.229	---	---	---	---	---	---	5.935
51	0.000	558.06	5.930	5.685	0.181	---	---	---	---	---	---	5.866
52	0.000	558.04	5.866	5.664	0.134	---	---	---	---	---	---	5.798
53	0.000	558.01	5.802	5.644	0.087	---	---	---	---	---	---	5.731
54	0.000	557.99	5.746	5.621	0.050	---	---	---	---	---	---	5.671
55	0.000	557.97	5.709	5.591	0.037	---	---	---	---	---	---	5.627
56	0.000	557.94	5.671	5.560	0.023	---	---	---	---	---	---	5.584
57	0.000	557.92	5.634	5.530	0.010	---	---	---	---	---	---	5.541
58	0.000	557.89	5.597	5.501	---	---	---	---	---	---	---	5.501
59	0.000	557.87	5.561	5.471	---	---	---	---	---	---	---	5.471
60	0.000	557.85	5.525	5.441	---	---	---	---	---	---	---	5.441
61	0.000	557.82	5.489	5.411	---	---	---	---	---	---	---	5.411
62	0.000	557.80	5.453	5.381	---	---	---	---	---	---	---	5.381
63	0.000	557.77	5.418	5.351	---	---	---	---	---	---	---	5.351
64	0.000	557.75	5.383	5.321	---	---	---	---	---	---	---	5.321
65	0.000	557.73	5.348	5.291	---	---	---	---	---	---	---	5.291
66	0.000	557.70	5.313	5.262	---	---	---	---	---	---	---	5.262
67	0.000	557.68	5.279	5.232	---	---	---	---	---	---	---	5.232
68	0.000	557.66	5.245	5.202	---	---	---	---	---	---	---	5.202
69	0.000	557.64	5.212	5.172	---	---	---	---	---	---	---	5.172
70	0.000	557.61	5.178	5.142	---	---	---	---	---	---	---	5.142
71	0.000	557.59	5.145	5.112	---	---	---	---	---	---	---	5.112
72	0.000	557.57	5.112	5.082	---	---	---	---	---	---	---	5.082
73	0.000	557.55	5.079	5.052	---	---	---	---	---	---	---	5.052
74	0.000	557.52	5.047	5.023	---	---	---	---	---	---	---	5.023
75	0.000	557.50	5.015	4.993	---	---	---	---	---	---	---	4.993
76	0.000	557.48	4.983	4.963	---	---	---	---	---	---	---	4.963
77	0.000	557.46	4.951	4.933	---	---	---	---	---	---	---	4.933
78	0.000	557.44	4.920	4.903	---	---	---	---	---	---	---	4.903
79	0.000	557.41	4.889	4.873	---	---	---	---	---	---	---	4.873
80	0.000	557.39	4.858	4.844	---	---	---	---	---	---	---	4.844
81	0.000	557.37	4.827	4.813	---	---	---	---	---	---	---	4.813
82	0.000	557.35	4.797	4.783	---	---	---	---	---	---	---	4.783
83	0.000	557.33	4.767	4.754	---	---	---	---	---	---	---	4.754
84	0.000	557.31	4.737	4.724	---	---	---	---	---	---	---	4.724
85	0.000	557.29	4.708	4.694	---	---	---	---	---	---	---	4.694
86	0.000	557.27	4.679	4.664	---	---	---	---	---	---	---	4.664
87	0.000	557.25	4.650	4.634	---	---	---	---	---	---	---	4.634
88	0.000	557.23	4.621	4.604	---	---	---	---	---	---	---	4.604
89	0.000	557.21	4.592	4.575	---	---	---	---	---	---	---	4.575
90	0.000	557.19	4.564	4.545	---	---	---	---	---	---	---	4.545
91	0.000	557.17	4.536	4.514	---	---	---	---	---	---	---	4.514
92	0.000	557.15	4.508	4.484	---	---	---	---	---	---	---	4.484
93	0.000	557.13	4.481	4.455	---	---	---	---	---	---	---	4.455
94	0.000	557.11	4.454	4.425	---	---	---	---	---	---	---	4.425
95	0.000	557.09	4.427	4.395	---	---	---	---	---	---	---	4.395
96	0.000	557.07	4.400	4.365	---	---	---	---	---	---	---	4.365

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Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
97	0.000	557.05	4.374	4.335	---	---	---	---	---	---	---	4.335
98	0.000	557.03	4.347	4.305	---	---	---	---	---	---	---	4.305
99	0.000	557.01	4.321	4.275	---	---	---	---	---	---	---	4.275
100	0.000	556.99	4.289	4.238	---	---	---	---	---	---	---	4.238
101	0.000	556.96	4.245	4.185	---	---	---	---	---	---	---	4.185
102	0.000	556.92	4.202	4.133	---	---	---	---	---	---	---	4.133
103	0.000	556.89	4.152	4.082	---	---	---	---	---	---	---	4.082
104	0.000	556.86	4.078	4.031	---	---	---	---	---	---	---	4.031
105	0.000	556.83	4.005	3.981	---	---	---	---	---	---	---	3.981
106	0.000	556.80	3.933	3.932	---	---	---	---	---	---	---	3.932
107	0.000	556.77	3.886	3.886	---	---	---	---	---	---	---	3.886
108	0.000	556.74	3.840	3.840	---	---	---	---	---	---	---	3.840
109	0.000	556.71	3.795	3.795	---	---	---	---	---	---	---	3.795
110	0.000	556.68	3.754	3.746	---	---	---	---	---	---	---	3.746
111	0.000	556.66	3.716	3.695	---	---	---	---	---	---	---	3.695
112	0.000	556.63	3.679	3.644	---	---	---	---	---	---	---	3.644
113	0.000	556.60	3.641	3.594	---	---	---	---	---	---	---	3.594
114	0.000	556.57	3.579	3.544	---	---	---	---	---	---	---	3.544
115	0.000	556.55	3.517	3.496	---	---	---	---	---	---	---	3.496
116	0.000	556.52	3.456	3.447	---	---	---	---	---	---	---	3.447
117	0.000	556.49	3.403	3.400	---	---	---	---	---	---	---	3.400
118	0.000	556.47	3.366	3.353	---	---	---	---	---	---	---	3.353
119	0.000	556.44	3.330	3.306	---	---	---	---	---	---	---	3.306
120	0.000	556.42	3.294	3.261	---	---	---	---	---	---	---	3.261
121	0.000	556.39	3.251	3.215	---	---	---	---	---	---	---	3.215
122	0.000	556.37	3.195	3.169	---	---	---	---	---	---	---	3.169
123	0.000	556.34	3.140	3.123	---	---	---	---	---	---	---	3.123
124	0.000	556.32	3.086	3.078	---	---	---	---	---	---	---	3.078
125	0.000	556.30	3.033	3.033	---	---	---	---	---	---	---	3.033
126	0.000	556.27	2.984	2.984	---	---	---	---	---	---	---	2.984
127	0.000	556.25	2.936	2.936	---	---	---	---	---	---	---	2.936
128	0.000	556.23	2.889	2.889	---	---	---	---	---	---	---	2.889
129	0.000	556.21	2.842	2.842	---	---	---	---	---	---	---	2.842
130	0.000	556.18	2.796	2.796	---	---	---	---	---	---	---	2.796
131	0.000	556.16	2.750	2.750	---	---	---	---	---	---	---	2.750
132	0.000	556.14	2.706	2.705	---	---	---	---	---	---	---	2.705
133	0.000	556.12	2.662	2.661	---	---	---	---	---	---	---	2.661
134	0.000	556.10	2.618	2.618	---	---	---	---	---	---	---	2.618
135	0.000	556.08	2.575	2.575	---	---	---	---	---	---	---	2.575
136	0.000	556.06	2.533	2.533	---	---	---	---	---	---	---	2.533
137	0.000	556.04	2.492	2.492	---	---	---	---	---	---	---	2.491
138	0.000	556.02	2.451	2.451	---	---	---	---	---	---	---	2.451
139	0.000	556.01	2.411	2.411	---	---	---	---	---	---	---	2.411
140	0.000	555.95	2.226	2.225	---	---	---	---	---	---	---	2.225
141	0.000	555.90	1.998	1.998	---	---	---	---	---	---	---	1.998
142	0.000	555.84	1.809	1.809	---	---	---	---	---	---	---	1.809
143	0.000	555.79	1.640	1.640	---	---	---	---	---	---	---	1.640
144	0.000	555.75	1.498	1.498	---	---	---	---	---	---	---	1.498
145	0.000	555.71	1.369	1.369	---	---	---	---	---	---	---	1.369
146	0.000	555.67	1.263	1.256	---	---	---	---	---	---	---	1.256
147	0.000	555.64	1.168	1.153	---	---	---	---	---	---	---	1.153
148	0.000	555.61	1.081	1.059	---	---	---	---	---	---	---	1.059
149	0.000	555.58	1.000	0.980	---	---	---	---	---	---	---	0.980

...End

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

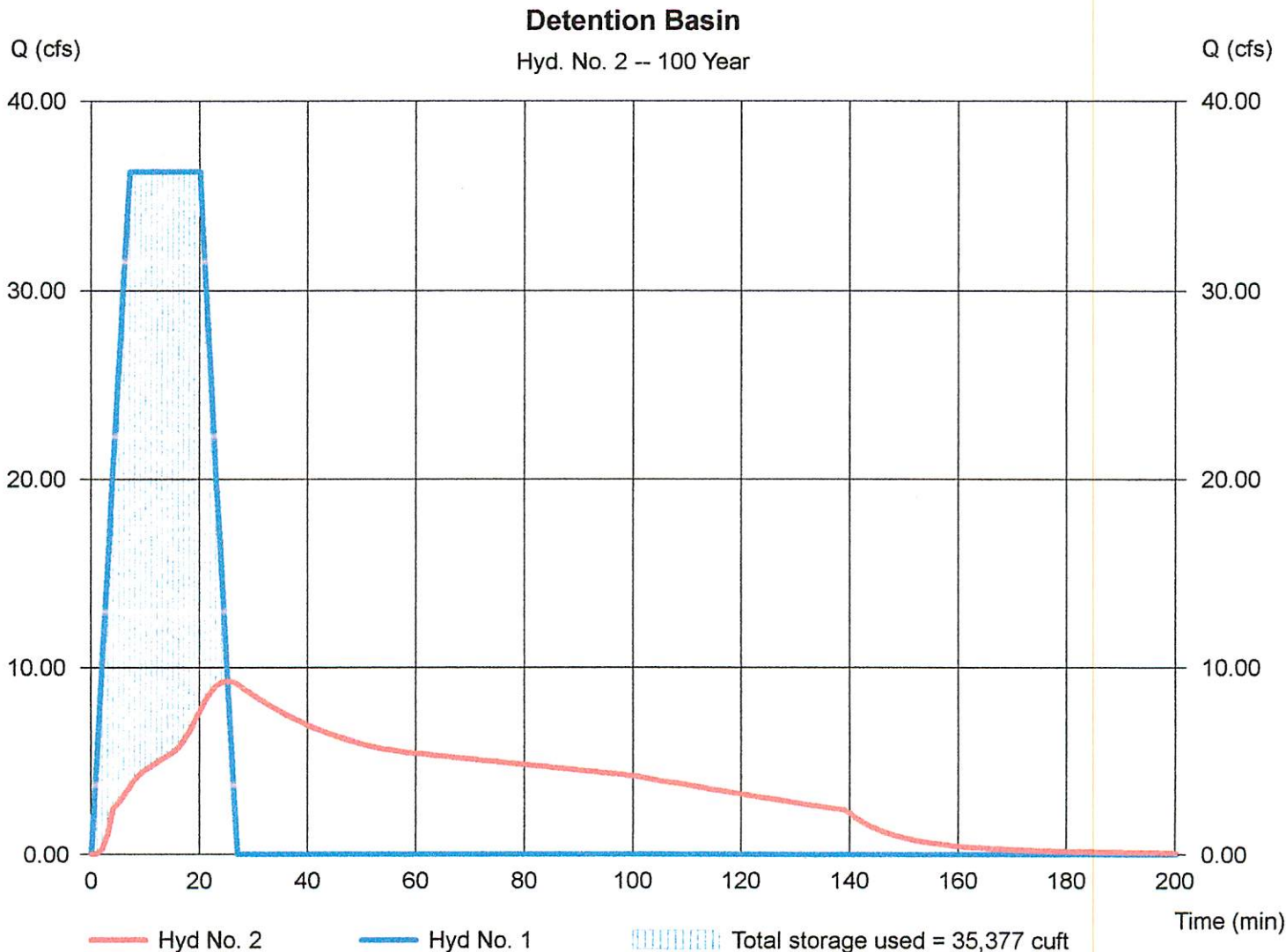
Wednesday, Sep 12, 2012

Hyd. No. 2

Detention Basin

Hydrograph type	= Reservoir	Peak discharge	= 9.292 cfs
Storm frequency	= 100 yrs	Time to peak	= 25 min
Time interval	= 1 min	Hyd. volume	= 43,496 cuft
Inflow hyd. No.	= 1 - Proposed to Basin	Max. Elevation	= 558.71 ft
Reservoir name	= Detention Basin	Max. Storage	= 35,377 cuft

Storage Indication method used.



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Sep 12, 2012

Hyd. No. 3

Low Flow Blocked

Hydrograph type	= Reservoir	Peak discharge	= 4.721 cfs
Storm frequency	= 100 yrs	Time to peak	= 26 min
Time interval	= 1 min	Hyd. volume	= 21,243 cuft
Inflow hyd. No.	= 1 - Proposed to Basin	Reservoir name	= Detention Basin -
Max. Elevation	= 559.06 ft	Max. Storage	= 41,329 cuft

Storage Indication method used.

Hydrograph Discharge Table

(Printed values >= 10.00% of Qp.)

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
16	36.25 <<	558.21	0.656	---	0.655	---	---	---	---	---	---	0.655
17	36.25 <<	558.34	1.198	---	1.183	---	---	---	---	---	---	1.183
18	36.25 <<	558.47	1.816	---	1.790	---	---	---	---	---	---	1.790
19	36.25 <<	558.59	2.517	---	2.461	---	---	---	---	---	---	2.461
20	36.25 <<	558.71	3.204	---	3.183	---	---	---	---	---	---	3.183
21	31.07	558.82	3.839	---	3.811	---	---	---	---	---	---	3.811
22	25.89	558.90	4.189	---	4.169	---	---	---	---	---	---	4.169
23	20.71	558.97	4.473	---	4.425	---	---	---	---	---	---	4.425
24	15.54	559.02	4.640	---	4.594	---	---	---	---	---	---	4.594
25	10.36	559.05	4.718	---	4.687	---	---	---	---	---	---	4.687
26	5.180	559.06 <<	4.746	---	4.721	---	---	---	---	---	---	4.721 <<
27	0.000	559.05	4.726	---	4.697	---	---	---	---	---	---	4.697
28	0.000	559.04	4.683	---	4.645	---	---	---	---	---	---	4.645
29	0.000	559.02	4.640	---	4.593	---	---	---	---	---	---	4.593
30	0.000	559.01	4.598	---	4.542	---	---	---	---	---	---	4.542
31	0.000	558.99	4.540	---	4.485	---	---	---	---	---	---	4.485
32	0.000	558.97	4.473	---	4.425	---	---	---	---	---	---	4.425
33	0.000	558.96	4.408	---	4.366	---	---	---	---	---	---	4.366
34	0.000	558.94	4.343	---	4.308	---	---	---	---	---	---	4.308
35	0.000	558.93	4.279	---	4.251	---	---	---	---	---	---	4.251
36	0.000	558.91	4.216	---	4.194	---	---	---	---	---	---	4.194
37	0.000	558.90	4.155	---	4.137	---	---	---	---	---	---	4.137
38	0.000	558.88	4.096	---	4.076	---	---	---	---	---	---	4.076
39	0.000	558.87	4.038	---	4.017	---	---	---	---	---	---	4.017
40	0.000	558.85	3.981	---	3.958	---	---	---	---	---	---	3.958
41	0.000	558.84	3.925	---	3.900	---	---	---	---	---	---	3.900
42	0.000	558.82	3.870	---	3.843	---	---	---	---	---	---	3.843
43	0.000	558.81	3.815	---	3.787	---	---	---	---	---	---	3.787
44	0.000	558.80	3.757	---	3.727	---	---	---	---	---	---	3.727
45	0.000	558.78	3.675	---	3.646	---	---	---	---	---	---	3.646
46	0.000	558.77	3.594	---	3.567	---	---	---	---	---	---	3.567
47	0.000	558.76	3.515	---	3.490	---	---	---	---	---	---	3.490
48	0.000	558.75	3.438	---	3.414	---	---	---	---	---	---	3.414
49	0.000	558.73	3.363	---	3.340	---	---	---	---	---	---	3.340
50	0.000	558.72	3.289	---	3.267	---	---	---	---	---	---	3.268
51	0.000	558.71	3.217	---	3.197	---	---	---	---	---	---	3.197
52	0.000	558.70	3.147	---	3.127	---	---	---	---	---	---	3.127
53	0.000	558.69	3.084	---	3.060	---	---	---	---	---	---	3.060
54	0.000	558.68	3.023	---	2.994	---	---	---	---	---	---	2.994
55	0.000	558.67	2.963	---	2.930	---	---	---	---	---	---	2.930

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Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
56	0.000	558.66	2.904	---	2.867	---	---	---	---	---	---	2.867
57	0.000	558.65	2.847	---	2.805	---	---	---	---	---	---	2.805
58	0.000	558.64	2.790	---	2.745	---	---	---	---	---	---	2.745
59	0.000	558.63	2.735	---	2.686	---	---	---	---	---	---	2.686
60	0.000	558.62	2.681	---	2.628	---	---	---	---	---	---	2.628
61	0.000	558.61	2.629	---	2.571	---	---	---	---	---	---	2.571
62	0.000	558.60	2.576	---	2.517	---	---	---	---	---	---	2.517
63	0.000	558.59	2.523	---	2.467	---	---	---	---	---	---	2.467
64	0.000	558.58	2.471	---	2.417	---	---	---	---	---	---	2.417
65	0.000	558.57	2.419	---	2.369	---	---	---	---	---	---	2.369
66	0.000	558.56	2.369	---	2.322	---	---	---	---	---	---	2.322
67	0.000	558.56	2.319	---	2.275	---	---	---	---	---	---	2.275
68	0.000	558.55	2.271	---	2.230	---	---	---	---	---	---	2.230
69	0.000	558.54	2.224	---	2.186	---	---	---	---	---	---	2.185
70	0.000	558.53	2.177	---	2.142	---	---	---	---	---	---	2.142
71	0.000	558.52	2.132	---	2.099	---	---	---	---	---	---	2.099
72	0.000	558.52	2.087	---	2.057	---	---	---	---	---	---	2.057
73	0.000	558.51	2.044	---	2.016	---	---	---	---	---	---	2.016
74	0.000	558.50	2.001	---	1.976	---	---	---	---	---	---	1.976
75	0.000	558.49	1.964	---	1.939	---	---	---	---	---	---	1.939
76	0.000	558.49	1.928	---	1.904	---	---	---	---	---	---	1.904
77	0.000	558.48	1.894	---	1.869	---	---	---	---	---	---	1.869
78	0.000	558.47	1.860	---	1.835	---	---	---	---	---	---	1.835
79	0.000	558.47	1.827	---	1.802	---	---	---	---	---	---	1.802
80	0.000	558.46	1.795	---	1.769	---	---	---	---	---	---	1.769
81	0.000	558.45	1.763	---	1.736	---	---	---	---	---	---	1.736
82	0.000	558.45	1.731	---	1.705	---	---	---	---	---	---	1.705
83	0.000	558.44	1.700	---	1.674	---	---	---	---	---	---	1.674
84	0.000	558.44	1.670	---	1.643	---	---	---	---	---	---	1.643
85	0.000	558.43	1.641	---	1.613	---	---	---	---	---	---	1.613
86	0.000	558.43	1.612	---	1.584	---	---	---	---	---	---	1.584
87	0.000	558.42	1.583	---	1.555	---	---	---	---	---	---	1.555
88	0.000	558.41	1.555	---	1.527	---	---	---	---	---	---	1.527
89	0.000	558.41	1.527	---	1.499	---	---	---	---	---	---	1.499
90	0.000	558.40	1.500	---	1.472	---	---	---	---	---	---	1.472
91	0.000	558.40	1.474	---	1.446	---	---	---	---	---	---	1.446
92	0.000	558.39	1.449	---	1.422	---	---	---	---	---	---	1.422
93	0.000	558.39	1.425	---	1.399	---	---	---	---	---	---	1.399
94	0.000	558.38	1.401	---	1.376	---	---	---	---	---	---	1.376
95	0.000	558.38	1.378	---	1.354	---	---	---	---	---	---	1.354
96	0.000	558.37	1.354	---	1.332	---	---	---	---	---	---	1.332
97	0.000	558.37	1.332	---	1.310	---	---	---	---	---	---	1.310
98	0.000	558.36	1.309	---	1.289	---	---	---	---	---	---	1.289
99	0.000	558.36	1.287	---	1.268	---	---	---	---	---	---	1.268
100	0.000	558.35	1.266	---	1.247	---	---	---	---	---	---	1.247
101	0.000	558.35	1.244	---	1.227	---	---	---	---	---	---	1.227
102	0.000	558.35	1.223	---	1.207	---	---	---	---	---	---	1.207
103	0.000	558.34	1.203	---	1.187	---	---	---	---	---	---	1.187
104	0.000	558.34	1.182	---	1.167	---	---	---	---	---	---	1.168
105	0.000	558.33	1.162	---	1.149	---	---	---	---	---	---	1.149
106	0.000	558.33	1.143	---	1.130	---	---	---	---	---	---	1.130
107	0.000	558.32	1.123	---	1.111	---	---	---	---	---	---	1.111
108	0.000	558.32	1.104	---	1.093	---	---	---	---	---	---	1.093
109	0.000	558.32	1.086	---	1.075	---	---	---	---	---	---	1.075

Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
110	0.000	558.31	1.067	---	1.058	---	---	---	---	---	---	1.058
111	0.000	558.31	1.049	---	1.041	---	---	---	---	---	---	1.041
112	0.000	558.31	1.032	---	1.024	---	---	---	---	---	---	1.024
113	0.000	558.30	1.014	---	1.007	---	---	---	---	---	---	1.007
114	0.000	558.30	0.998	---	0.992	---	---	---	---	---	---	0.992
115	0.000	558.29	0.984	---	0.978	---	---	---	---	---	---	0.978
116	0.000	558.29	0.970	---	0.964	---	---	---	---	---	---	0.964
117	0.000	558.29	0.956	---	0.950	---	---	---	---	---	---	0.950
118	0.000	558.28	0.942	---	0.937	---	---	---	---	---	---	0.937
119	0.000	558.28	0.929	---	0.923	---	---	---	---	---	---	0.923
120	0.000	558.28	0.916	---	0.910	---	---	---	---	---	---	0.910
121	0.000	558.27	0.903	---	0.898	---	---	---	---	---	---	0.898
122	0.000	558.27	0.890	---	0.885	---	---	---	---	---	---	0.885
123	0.000	558.27	0.877	---	0.872	---	---	---	---	---	---	0.872
124	0.000	558.27	0.864	---	0.860	---	---	---	---	---	---	0.860
125	0.000	558.26	0.852	---	0.848	---	---	---	---	---	---	0.848
126	0.000	558.26	0.840	---	0.836	---	---	---	---	---	---	0.836
127	0.000	558.26	0.828	---	0.824	---	---	---	---	---	---	0.824
128	0.000	558.25	0.816	---	0.813	---	---	---	---	---	---	0.812
129	0.000	558.25	0.804	---	0.801	---	---	---	---	---	---	0.801
130	0.000	558.25	0.793	---	0.790	---	---	---	---	---	---	0.790
131	0.000	558.24	0.782	---	0.779	---	---	---	---	---	---	0.779
132	0.000	558.24	0.770	---	0.767	---	---	---	---	---	---	0.768
133	0.000	558.24	0.759	---	0.757	---	---	---	---	---	---	0.757
134	0.000	558.24	0.748	---	0.746	---	---	---	---	---	---	0.746
135	0.000	558.23	0.738	---	0.736	---	---	---	---	---	---	0.735
136	0.000	558.23	0.727	---	0.725	---	---	---	---	---	---	0.725
137	0.000	558.23	0.717	---	0.715	---	---	---	---	---	---	0.715
138	0.000	558.23	0.706	---	0.705	---	---	---	---	---	---	0.705
139	0.000	558.22	0.696	---	0.695	---	---	---	---	---	---	0.695
140	0.000	558.22	0.686	---	0.685	---	---	---	---	---	---	0.685
141	0.000	558.22	0.677	---	0.675	---	---	---	---	---	---	0.675
142	0.000	558.22	0.667	---	0.666	---	---	---	---	---	---	0.666
143	0.000	558.21	0.657	---	0.656	---	---	---	---	---	---	0.656
144	0.000	558.21	0.648	---	0.647	---	---	---	---	---	---	0.647
145	0.000	558.21	0.639	---	0.638	---	---	---	---	---	---	0.638
146	0.000	558.21	0.629	---	0.629	---	---	---	---	---	---	0.629
147	0.000	558.20	0.620	---	0.620	---	---	---	---	---	---	0.620
148	0.000	558.20	0.612	---	0.611	---	---	---	---	---	---	0.611
149	0.000	558.20	0.603	---	0.603	---	---	---	---	---	---	0.603
150	0.000	558.20	0.596	---	0.596	---	---	---	---	---	---	0.596
151	0.000	558.20	0.590	---	0.589	---	---	---	---	---	---	0.589
152	0.000	558.19	0.583	---	0.582	---	---	---	---	---	---	0.582
153	0.000	558.19	0.576	---	0.575	---	---	---	---	---	---	0.575
154	0.000	558.19	0.570	---	0.569	---	---	---	---	---	---	0.569
155	0.000	558.19	0.564	---	0.562	---	---	---	---	---	---	0.562
156	0.000	558.19	0.557	---	0.556	---	---	---	---	---	---	0.556
157	0.000	558.18	0.551	---	0.549	---	---	---	---	---	---	0.549
158	0.000	558.18	0.545	---	0.543	---	---	---	---	---	---	0.543
159	0.000	558.18	0.539	---	0.537	---	---	---	---	---	---	0.537
160	0.000	558.18	0.533	---	0.530	---	---	---	---	---	---	0.530
161	0.000	558.18	0.527	---	0.524	---	---	---	---	---	---	0.524
162	0.000	558.17	0.521	---	0.518	---	---	---	---	---	---	0.518
163	0.000	558.17	0.516	---	0.512	---	---	---	---	---	---	0.512

Low Flow Blocked

Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
164	0.000	558.17	0.510	----	0.506	----	----	----	----	----	----	0.506
165	0.000	558.17	0.504	----	0.500	----	----	----	----	----	----	0.500
166	0.000	558.17	0.499	----	0.495	----	----	----	----	----	----	0.495
167	0.000	558.16	0.493	----	0.489	----	----	----	----	----	----	0.489
168	0.000	558.16	0.488	----	0.483	----	----	----	----	----	----	0.483
169	0.000	558.16	0.483	----	0.478	----	----	----	----	----	----	0.478
170	0.000	558.16	0.477	----	0.472	----	----	----	----	----	----	0.472

...End

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Sep 12, 2012

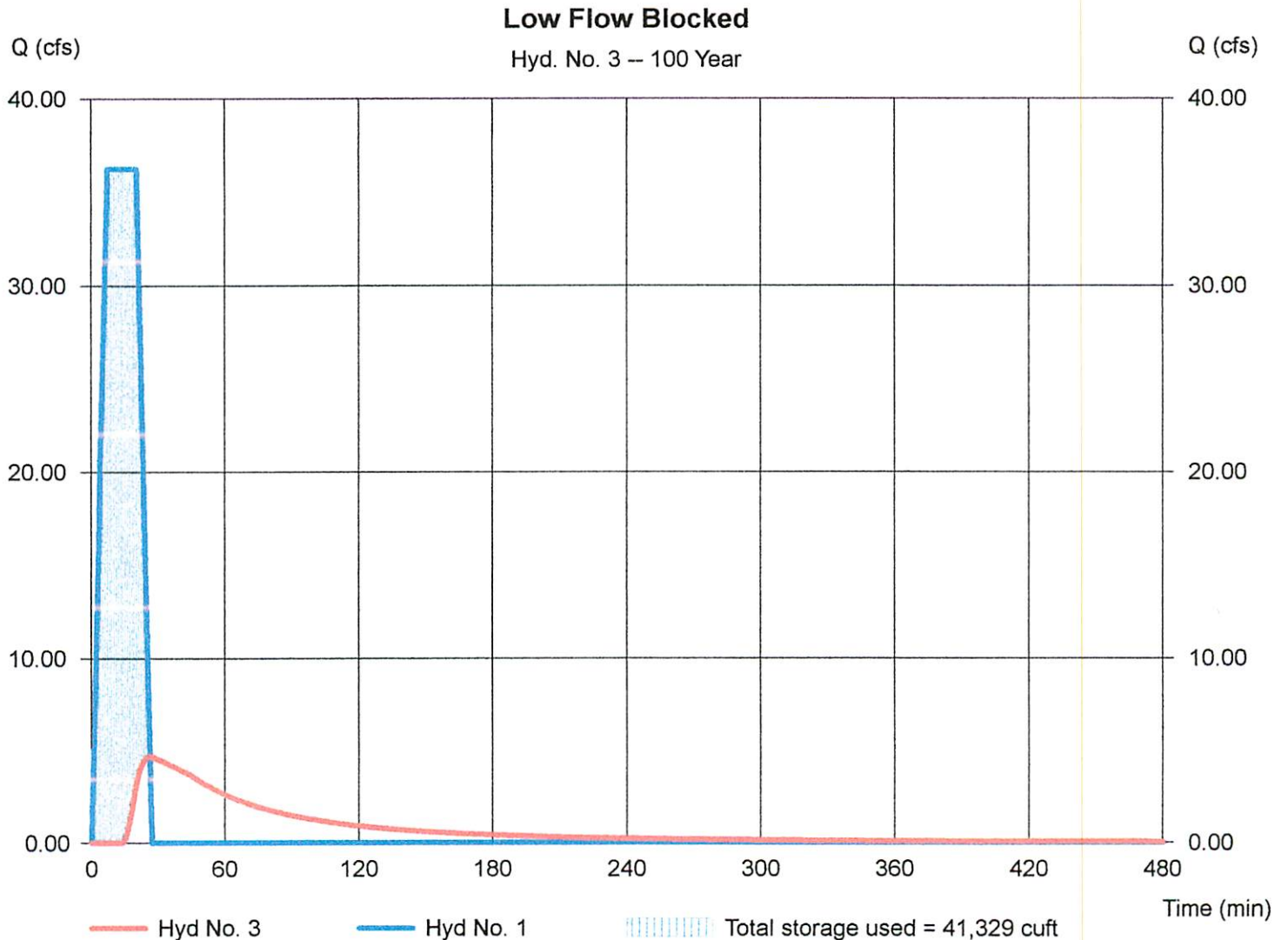
Hyd. No. 3

Low Flow Blocked

Hydrograph type = Reservoir
Storm frequency = 100 yrs
Time interval = 1 min
Inflow hyd. No. = 1 - Proposed to Basin
Reservoir name = Detention Basin - LFB

Peak discharge = 4.721 cfs
Time to peak = 26 min
Hyd. volume = 21,243 cuft
Max. Elevation = 559.06 ft
Max. Storage = 41,329 cuft

Storage Indication method used.



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Sep 12, 2012

Hyd. No. 4

With 2yr sediment

Hydrograph type	= Reservoir	Peak discharge	= 9.630 cfs
Storm frequency	= 100 yrs	Time to peak	= 25 min
Time interval	= 1 min	Hyd. volume	= 43,497 cuft
Inflow hyd. No.	= 1 - Proposed to Basin	Reservoir name	= Detention Basin -
Max. Elevation	= 558.76 ft	Max. Storage	= 35,037 cuft

Storage Indication method used.

Hydrograph Discharge Table

(Printed values >= 10.00% of Qp.)

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
3	15.54	555.86	1.873	1.873	---	---	---	---	---	---	---	1.873
4	20.71	556.10	2.619	2.619	---	---	---	---	---	---	---	2.619
5	25.89	556.27	2.982	2.982	---	---	---	---	---	---	---	2.982
6	31.07	556.48	3.387	3.379	---	---	---	---	---	---	---	3.379
7	36.25 <<	556.73	3.822	3.822	---	---	---	---	---	---	---	3.822
8	36.25 <<	557.00	4.301	4.252	---	---	---	---	---	---	---	4.252
9	36.25 <<	557.14	4.497	4.472	---	---	---	---	---	---	---	4.472
10	36.25 <<	557.28	4.693	4.679	---	---	---	---	---	---	---	4.679
11	36.25 <<	557.42	4.892	4.876	---	---	---	---	---	---	---	4.876
12	36.25 <<	557.55	5.092	5.064	---	---	---	---	---	---	---	5.064
13	36.25 <<	557.69	5.293	5.244	---	---	---	---	---	---	---	5.244
14	36.25 <<	557.83	5.497	5.417	---	---	---	---	---	---	---	5.417
15	36.25 <<	557.96	5.701	5.584	0.034	---	---	---	---	---	---	5.618
16	36.25 <<	558.08	6.000	5.707	0.233	---	---	---	---	---	---	5.940
17	36.25 <<	558.19	6.366	5.796	0.563	---	---	---	---	---	---	6.359
18	36.25 <<	558.29	6.852	5.876	0.976	---	---	---	---	---	---	6.852
19	36.25 <<	558.40	7.476	5.947	1.451	---	---	---	---	---	---	7.398
20	36.25 <<	558.50	7.990	6.013	1.977	---	---	---	---	---	---	7.990
21	31.07	558.59	8.557	6.068	2.488	---	---	---	---	---	---	8.557
22	25.89	558.66	9.016	6.102	2.914	---	---	---	---	---	---	9.015
23	20.71	558.71	9.360	6.125	3.222	---	---	---	---	---	---	9.346
24	15.54	558.75	9.593	6.139	3.412	---	---	---	---	---	---	9.551
25	10.36	558.76 <<	9.683	6.145	3.485	---	---	---	---	---	---	9.630 <<
26	5.180	558.75	9.634	6.142	3.445	---	---	---	---	---	---	9.587
27	0.000	558.73	9.448	6.130	3.294	---	---	---	---	---	---	9.424
28	0.000	558.69	9.205	6.115	3.090	---	---	---	---	---	---	9.205
29	0.000	558.66	8.992	6.100	2.892	---	---	---	---	---	---	8.992
30	0.000	558.63	8.784	6.085	2.698	---	---	---	---	---	---	8.784
31	0.000	558.60	8.582	6.071	2.511	---	---	---	---	---	---	8.581
32	0.000	558.57	8.392	6.052	2.340	---	---	---	---	---	---	8.392
33	0.000	558.54	8.207	6.034	2.173	---	---	---	---	---	---	8.207
34	0.000	558.51	8.026	6.017	2.009	---	---	---	---	---	---	8.026
35	0.000	558.48	7.875	5.999	1.859	---	---	---	---	---	---	7.858
36	0.000	558.45	7.735	5.981	1.716	---	---	---	---	---	---	7.697
37	0.000	558.42	7.599	5.963	1.576	---	---	---	---	---	---	7.539
38	0.000	558.40	7.462	5.945	1.440	---	---	---	---	---	---	7.386
39	0.000	558.37	7.303	5.928	1.320	---	---	---	---	---	---	7.248
40	0.000	558.34	7.148	5.910	1.202	---	---	---	---	---	---	7.112
41	0.000	558.32	6.995	5.893	1.086	---	---	---	---	---	---	6.979
42	0.000	558.29	6.852	5.876	0.976	---	---	---	---	---	---	6.852

Continues on next page...

With 2yr sediment

Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
43	0.000	558.27	6.738	5.858	0.879	---	---	---	---	---	---	6.737
44	0.000	558.25	6.624	5.840	0.784	---	---	---	---	---	---	6.624
45	0.000	558.22	6.513	5.823	0.691	---	---	---	---	---	---	6.513
46	0.000	558.20	6.405	5.805	0.600	---	---	---	---	---	---	6.405
47	0.000	558.18	6.326	5.787	0.526	---	---	---	---	---	---	6.313
48	0.000	558.15	6.249	5.769	0.453	---	---	---	---	---	---	6.222
49	0.000	558.13	6.172	5.752	0.381	---	---	---	---	---	---	6.133
50	0.000	558.11	6.096	5.734	0.310	---	---	---	---	---	---	6.045
51	0.000	558.09	6.026	5.715	0.252	---	---	---	---	---	---	5.968
52	0.000	558.07	5.961	5.694	0.204	---	---	---	---	---	---	5.899
53	0.000	558.05	5.896	5.674	0.157	---	---	---	---	---	---	5.830
54	0.000	558.02	5.832	5.654	0.109	---	---	---	---	---	---	5.763
55	0.000	558.00	5.769	5.634	0.063	---	---	---	---	---	---	5.696
56	0.000	557.98	5.726	5.605	0.043	---	---	---	---	---	---	5.648
57	0.000	557.95	5.689	5.575	0.030	---	---	---	---	---	---	5.604
58	0.000	557.93	5.652	5.545	0.016	---	---	---	---	---	---	5.561
59	0.000	557.91	5.615	5.515	0.003	---	---	---	---	---	---	5.518
60	0.000	557.88	5.578	5.485	---	---	---	---	---	---	---	5.485
61	0.000	557.86	5.542	5.455	---	---	---	---	---	---	---	5.455
62	0.000	557.83	5.506	5.425	---	---	---	---	---	---	---	5.425
63	0.000	557.81	5.470	5.395	---	---	---	---	---	---	---	5.395
64	0.000	557.79	5.435	5.365	---	---	---	---	---	---	---	5.365
65	0.000	557.76	5.400	5.335	---	---	---	---	---	---	---	5.335
66	0.000	557.74	5.365	5.306	---	---	---	---	---	---	---	5.306
67	0.000	557.72	5.330	5.276	---	---	---	---	---	---	---	5.276
68	0.000	557.69	5.295	5.246	---	---	---	---	---	---	---	5.246
69	0.000	557.67	5.261	5.216	---	---	---	---	---	---	---	5.216
70	0.000	557.65	5.228	5.186	---	---	---	---	---	---	---	5.186
71	0.000	557.62	5.194	5.156	---	---	---	---	---	---	---	5.156
72	0.000	557.60	5.161	5.127	---	---	---	---	---	---	---	5.127
73	0.000	557.58	5.128	5.097	---	---	---	---	---	---	---	5.097
74	0.000	557.56	5.095	5.067	---	---	---	---	---	---	---	5.067
75	0.000	557.53	5.062	5.037	---	---	---	---	---	---	---	5.037
76	0.000	557.51	5.030	5.007	---	---	---	---	---	---	---	5.007
77	0.000	557.49	4.998	4.977	---	---	---	---	---	---	---	4.977
78	0.000	557.47	4.966	4.947	---	---	---	---	---	---	---	4.947
79	0.000	557.45	4.935	4.917	---	---	---	---	---	---	---	4.917
80	0.000	557.43	4.904	4.887	---	---	---	---	---	---	---	4.887
81	0.000	557.40	4.873	4.858	---	---	---	---	---	---	---	4.858
82	0.000	557.38	4.842	4.828	---	---	---	---	---	---	---	4.828
83	0.000	557.36	4.812	4.798	---	---	---	---	---	---	---	4.798
84	0.000	557.34	4.781	4.768	---	---	---	---	---	---	---	4.768
85	0.000	557.32	4.751	4.738	---	---	---	---	---	---	---	4.738
86	0.000	557.30	4.722	4.709	---	---	---	---	---	---	---	4.709
87	0.000	557.28	4.692	4.678	---	---	---	---	---	---	---	4.678
88	0.000	557.26	4.663	4.648	---	---	---	---	---	---	---	4.648
89	0.000	557.24	4.635	4.618	---	---	---	---	---	---	---	4.618
90	0.000	557.22	4.606	4.589	---	---	---	---	---	---	---	4.589
91	0.000	557.20	4.577	4.559	---	---	---	---	---	---	---	4.559
92	0.000	557.18	4.549	4.529	---	---	---	---	---	---	---	4.529
93	0.000	557.16	4.522	4.499	---	---	---	---	---	---	---	4.499
94	0.000	557.14	4.494	4.469	---	---	---	---	---	---	---	4.469
95	0.000	557.12	4.467	4.439	---	---	---	---	---	---	---	4.439
96	0.000	557.10	4.439	4.410	---	---	---	---	---	---	---	4.410

Continues on next page...

With 2yr sediment

Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
97	0.000	557.08	4.413	4.379	---	---	---	---	---	---	---	4.379
98	0.000	557.06	4.386	4.349	---	---	---	---	---	---	---	4.349
99	0.000	557.04	4.360	4.319	---	---	---	---	---	---	---	4.319
100	0.000	557.02	4.334	4.289	---	---	---	---	---	---	---	4.290
101	0.000	557.00	4.308	4.260	---	---	---	---	---	---	---	4.260
102	0.000	556.97	4.263	4.206	---	---	---	---	---	---	---	4.206
103	0.000	556.93	4.216	4.150	---	---	---	---	---	---	---	4.150
104	0.000	556.90	4.169	4.094	---	---	---	---	---	---	---	4.094
105	0.000	556.87	4.089	4.039	---	---	---	---	---	---	---	4.039
106	0.000	556.83	4.010	3.985	---	---	---	---	---	---	---	3.985
107	0.000	556.80	3.932	3.931	---	---	---	---	---	---	---	3.932
108	0.000	556.77	3.882	3.881	---	---	---	---	---	---	---	3.881
109	0.000	556.74	3.832	3.832	---	---	---	---	---	---	---	3.832
110	0.000	556.70	3.783	3.783	---	---	---	---	---	---	---	3.783
111	0.000	556.67	3.741	3.728	---	---	---	---	---	---	---	3.728
112	0.000	556.64	3.700	3.673	---	---	---	---	---	---	---	3.673
113	0.000	556.61	3.660	3.619	---	---	---	---	---	---	---	3.619
114	0.000	556.58	3.604	3.565	---	---	---	---	---	---	---	3.565
115	0.000	556.55	3.537	3.511	---	---	---	---	---	---	---	3.511
116	0.000	556.53	3.471	3.459	---	---	---	---	---	---	---	3.459
117	0.000	556.50	3.409	3.407	---	---	---	---	---	---	---	3.407
118	0.000	556.47	3.369	3.356	---	---	---	---	---	---	---	3.356
119	0.000	556.44	3.329	3.306	---	---	---	---	---	---	---	3.306
120	0.000	556.41	3.291	3.257	---	---	---	---	---	---	---	3.257
121	0.000	556.39	3.241	3.207	---	---	---	---	---	---	---	3.207
122	0.000	556.36	3.181	3.157	---	---	---	---	---	---	---	3.157
123	0.000	556.33	3.122	3.108	---	---	---	---	---	---	---	3.108
124	0.000	556.31	3.064	3.060	---	---	---	---	---	---	---	3.060
125	0.000	556.28	3.009	3.008	---	---	---	---	---	---	---	3.008
126	0.000	556.26	2.956	2.956	---	---	---	---	---	---	---	2.956
127	0.000	556.24	2.904	2.904	---	---	---	---	---	---	---	2.904
128	0.000	556.21	2.854	2.854	---	---	---	---	---	---	---	2.854
129	0.000	556.19	2.804	2.804	---	---	---	---	---	---	---	2.804
130	0.000	556.17	2.754	2.754	---	---	---	---	---	---	---	2.754
131	0.000	556.14	2.706	2.706	---	---	---	---	---	---	---	2.705
132	0.000	556.12	2.658	2.658	---	---	---	---	---	---	---	2.658
133	0.000	556.10	2.611	2.611	---	---	---	---	---	---	---	2.611
134	0.000	556.08	2.565	2.565	---	---	---	---	---	---	---	2.565
135	0.000	556.06	2.519	2.519	---	---	---	---	---	---	---	2.519
136	0.000	556.04	2.475	2.475	---	---	---	---	---	---	---	2.475
137	0.000	556.01	2.431	2.431	---	---	---	---	---	---	---	2.431
138	0.000	555.98	2.312	2.312	---	---	---	---	---	---	---	2.312
139	0.000	555.89	1.989	1.989	---	---	---	---	---	---	---	1.989
140	0.000	555.82	1.731	1.731	---	---	---	---	---	---	---	1.731
141	0.000	555.76	1.520	1.520	---	---	---	---	---	---	---	1.520
142	0.000	555.70	1.341	1.340	---	---	---	---	---	---	---	1.340
143	0.000	555.65	1.202	1.190	---	---	---	---	---	---	---	1.190
144	0.000	555.60	1.079	1.057	---	---	---	---	---	---	---	1.057

...End

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Sep 12, 2012

Hyd. No. 4

With 2yr sediment

Hydrograph type	= Reservoir	Peak discharge	= 9.630 cfs
Storm frequency	= 100 yrs	Time to peak	= 25 min
Time interval	= 1 min	Hyd. volume	= 43,497 cuft
Inflow hyd. No.	= 1 - Proposed to Basin	Max. Elevation	= 558.76 ft
Reservoir name	= Detention Basin - Sediment	Max. Storage	= 35,037 cuft

Storage Indication method used.

