

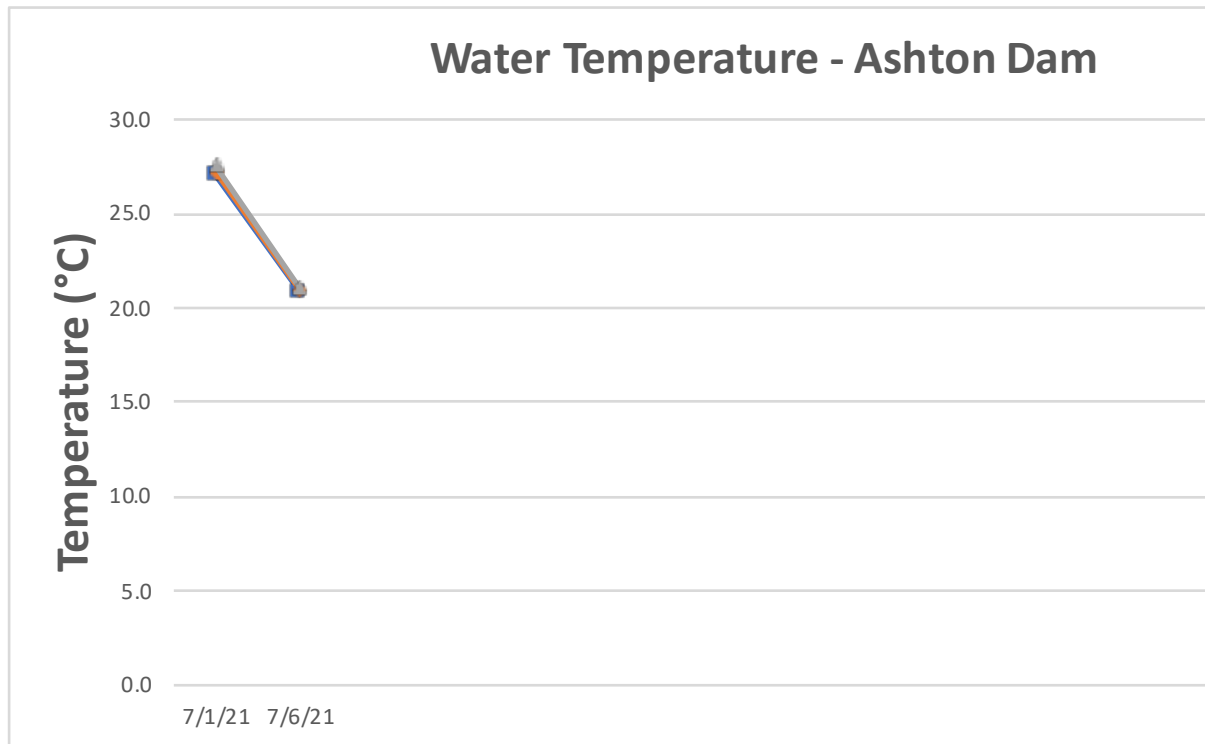
Appendix E

Water Quality Sampling Summary Flow Duration Curves

2021 Ashton Dam WQ Sampling Rounds

Cumberland, RI
Blackstone River

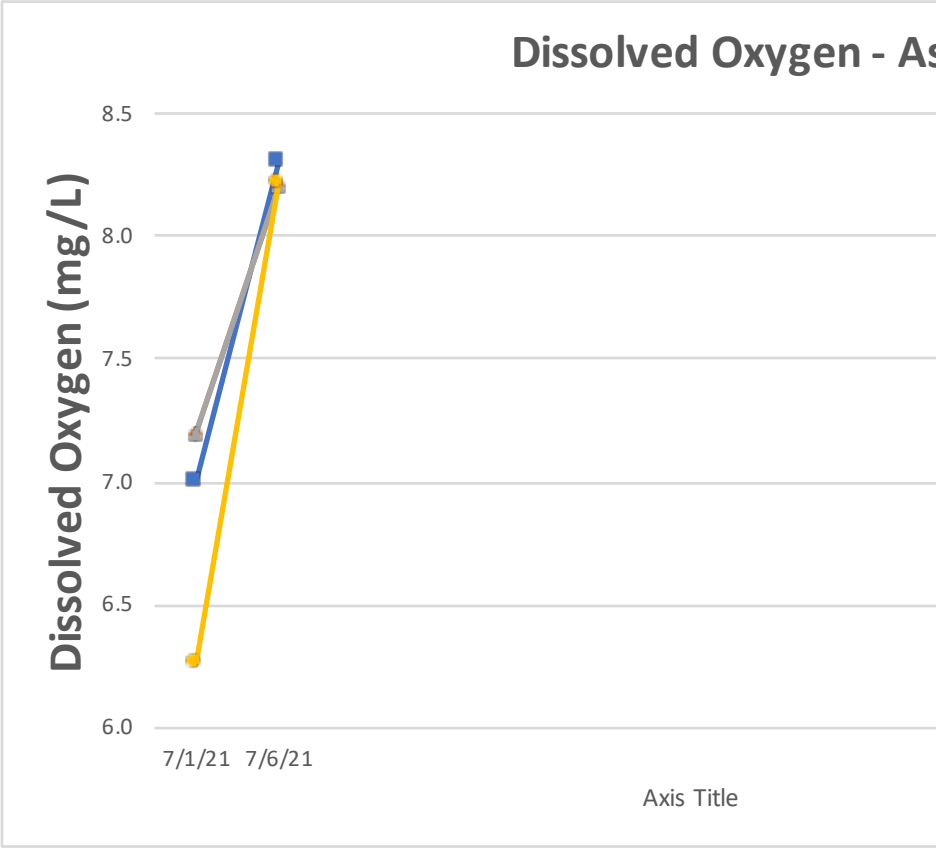
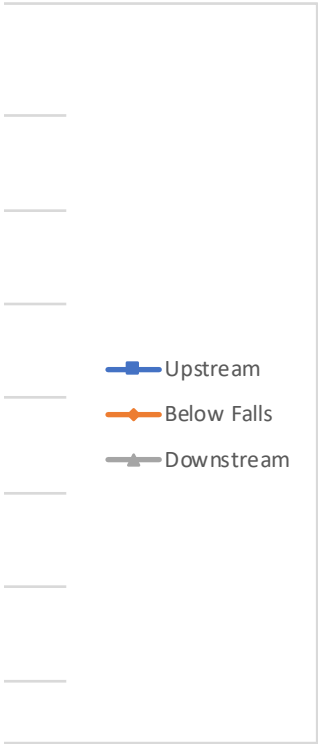
Date	Precipitation (cm)*	Flow (cfs)**	<i>Upstream</i>		<i>Below Falls</i>	
			Temp (°C)	DO (mg/L)	Temp (°C)	DO (mg/L)
7/1/21	0.000	258.67	27.0	7.0	27.2	7.2
7/6/21	1.161	2216.67	20.8	8.3	20.9	8.2



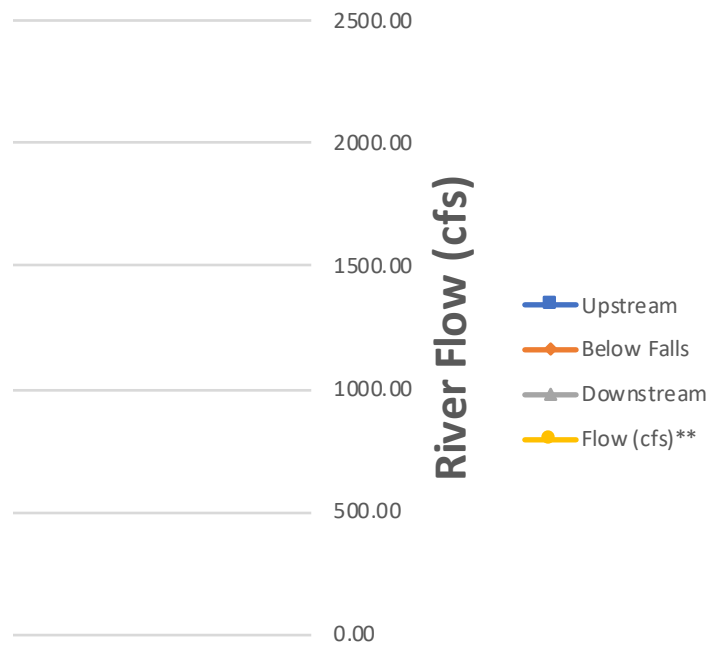
* sum of prior 3 days
** average of prior 3 days

Downstream	
Temp (°C)	DO (mg/L)
27.5	7.2
21.0	8.2

Drainage Area Ratio
1.028846



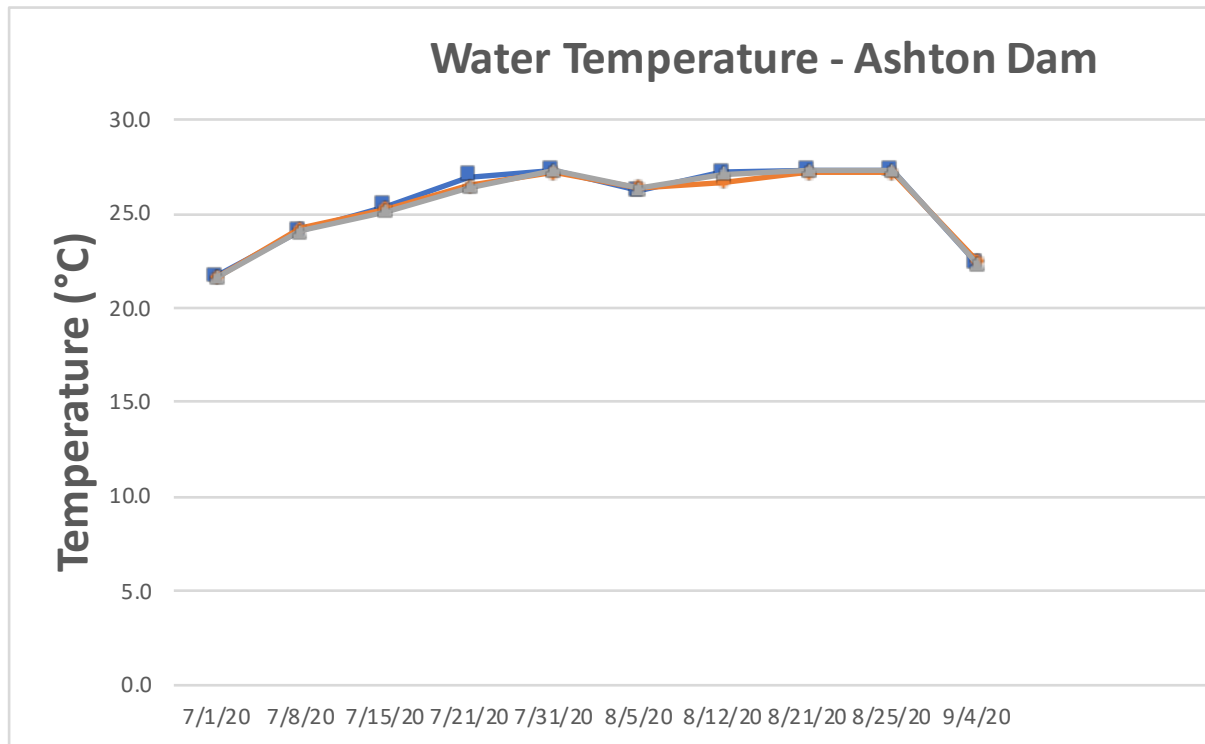
shton Dam



2020 Ashton Dam WQ Sampling Rounds

Cumberland, RI
Blackstone River

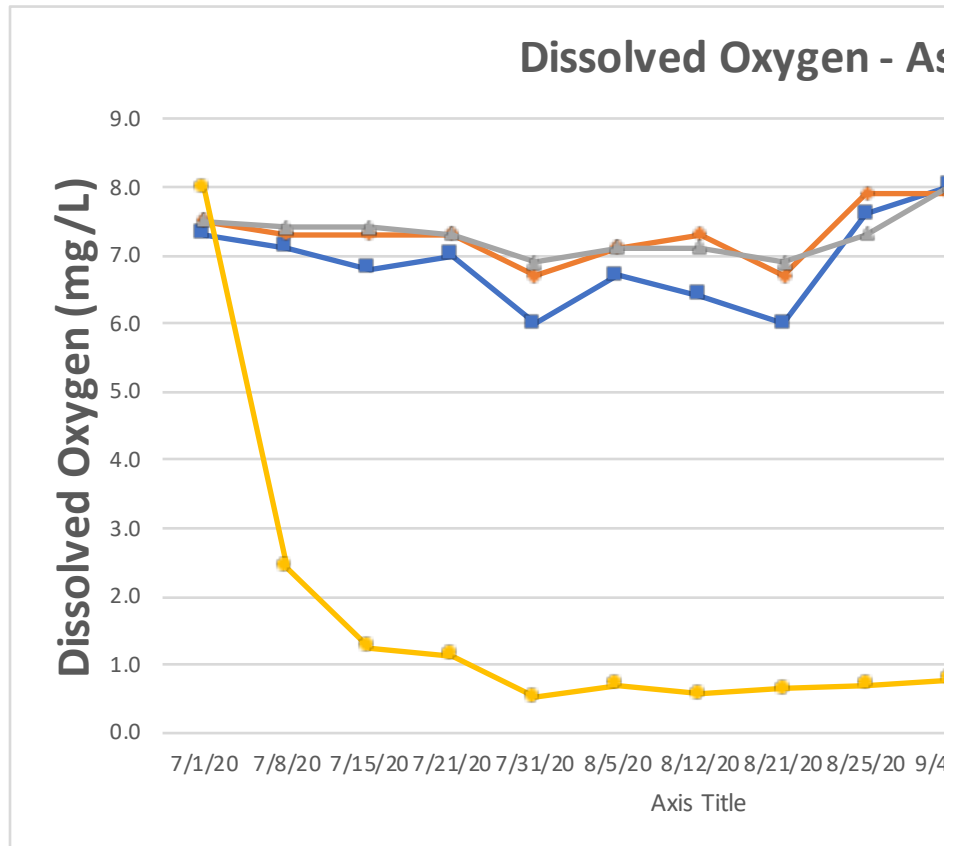
Date	Precipitation (cm)*	Flow (cfs)**	<i>Upstream</i>		<i>Below Falls</i>	
			Temp (°C)	DO (mg/L)	Temp (°C)	DO (mg/L)
7/1/20	2.896	1243.33	21.7	7.3	21.6	7.5
7/8/20	0.076	378.33	24.1	7.1	24.2	7.3
7/15/20	2.439	195.67	25.4	6.8	25.3	7.3
7/21/20	0.000	177.67	27.0	7.0	26.5	7.3
7/31/20	0.254	82.07	27.3	6.0	27.2	6.7
8/5/20	0.838	110.47	26.2	6.7	26.4	7.1
8/12/20	0.010	88.63	27.2	6.4	26.7	7.3
8/21/20	0.140	101.53	27.3	6.0	27.2	6.7
8/25/20	0.380	109.27	27.3	7.6	27.2	7.9
9/4/20	0.410	121.67	22.4	8.0	22.5	7.9



* sum of prior 3 days
 ** average of prior 3 days

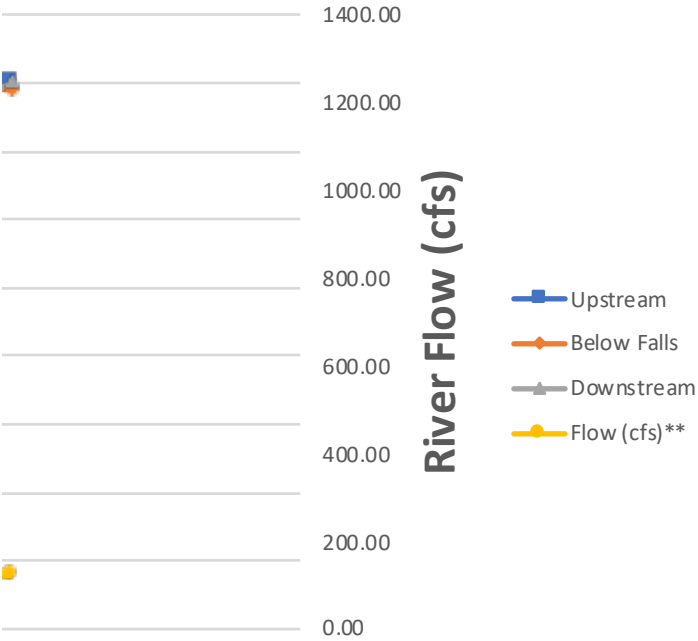
<i>Downstream</i>	
Temp (°C)	DO (mg/L)
21.6	7.5
24.1	7.4
25.1	7.4
26.4	7.3
27.3	6.9
26.3	7.1
27.1	7.1
27.3	6.9
27.3	7.3
22.4	8.0

Drainage Area Ratio
 1.028846



Upstream
 Below Falls
 Downstream

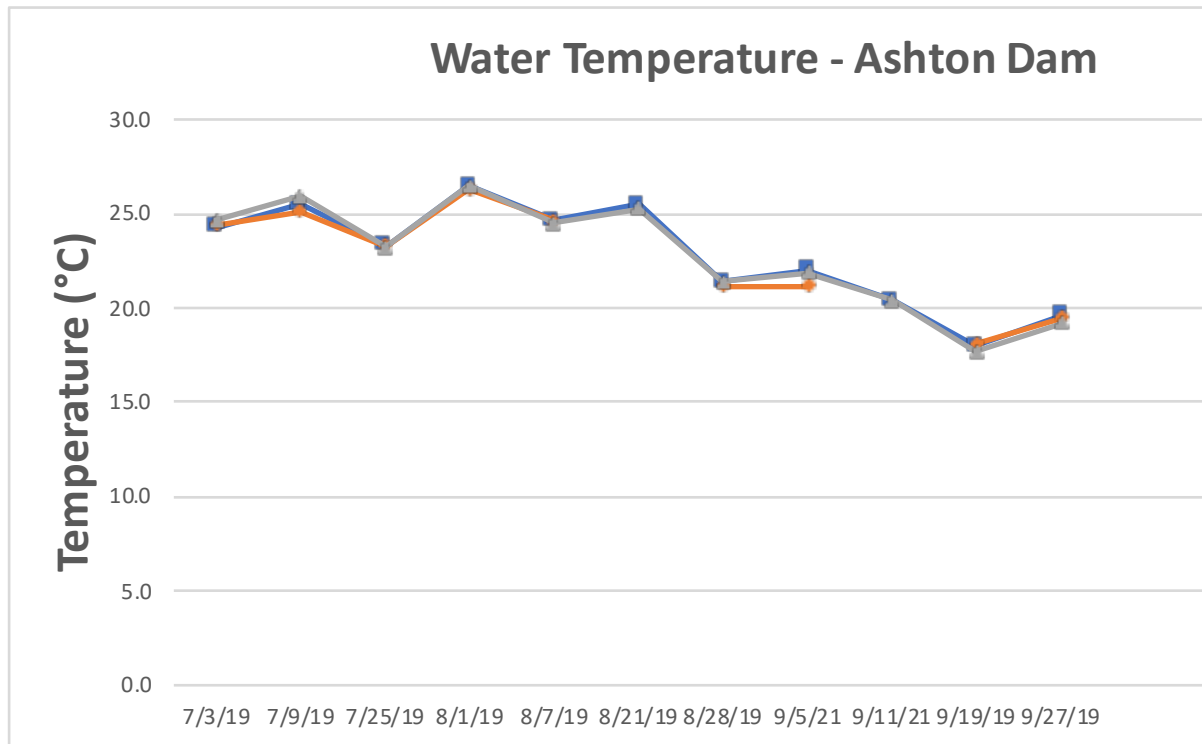
shton Dam



2019 Ashton Dam WQ Sampling Rounds

Cumberland, RI
Blackstone River

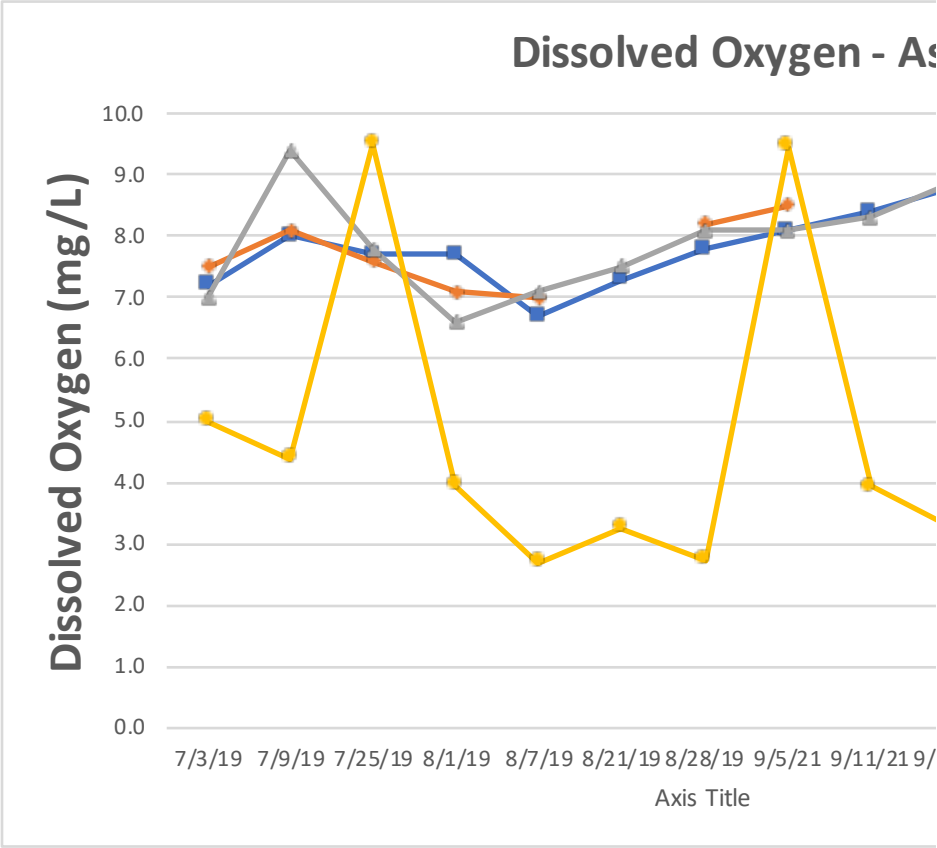
Date	Precipitation (cm)*	Flow (cfs)**	<i>Upstream</i>		<i>Below Falls</i>	
			Temp (°C)	DO (mg/L)	Temp (°C)	DO (mg/L)
7/3/19	0.178	350.00	24.3	7.2	24.4	7.5
7/9/19	0.914	306.67	25.5	8.0	25.1	8.1
7/25/19	2.743	665.33	23.3	7.7	23.3	7.6
8/1/19	0.051	276.00	26.5	7.7	26.3	7.1
8/7/19	0.000	189.00	24.6	6.7	24.6	7.0
8/21/19	0.356	228.33	25.5	7.3		
8/28/19	0.000	191.33	21.4	7.8	21.2	8.2
9/5/21	0.762	662.33	22.0	8.1	21.2	8.5
9/11/21	0.000	274.67	20.4	8.4		
9/19/19	0.000	228.33	18.0	8.8	18.1	8.8
9/27/19	0.076	142.00	19.6	8.4	19.5	8.5



* sum of prior 3 days
** average of prior 3 days

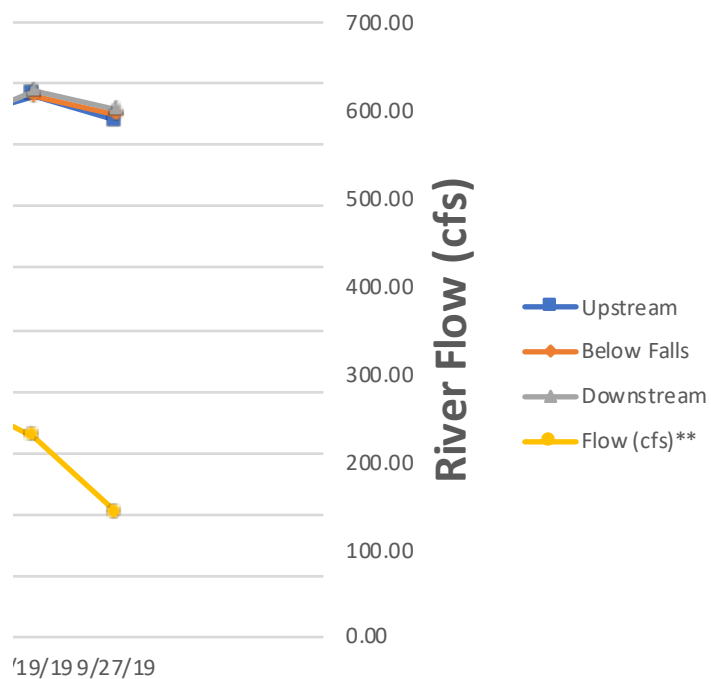
Downstream	
Temp (°C)	DO (mg/L)
24.6	7.0
25.9	9.4
23.2	7.8
26.5	6.6
24.5	7.1
25.3	7.5
21.4	8.1
21.9	8.1
20.4	8.3
17.7	8.9
19.2	8.6

Drainage Area Ratio
1.028846



Upstream
Below Falls
Downstream

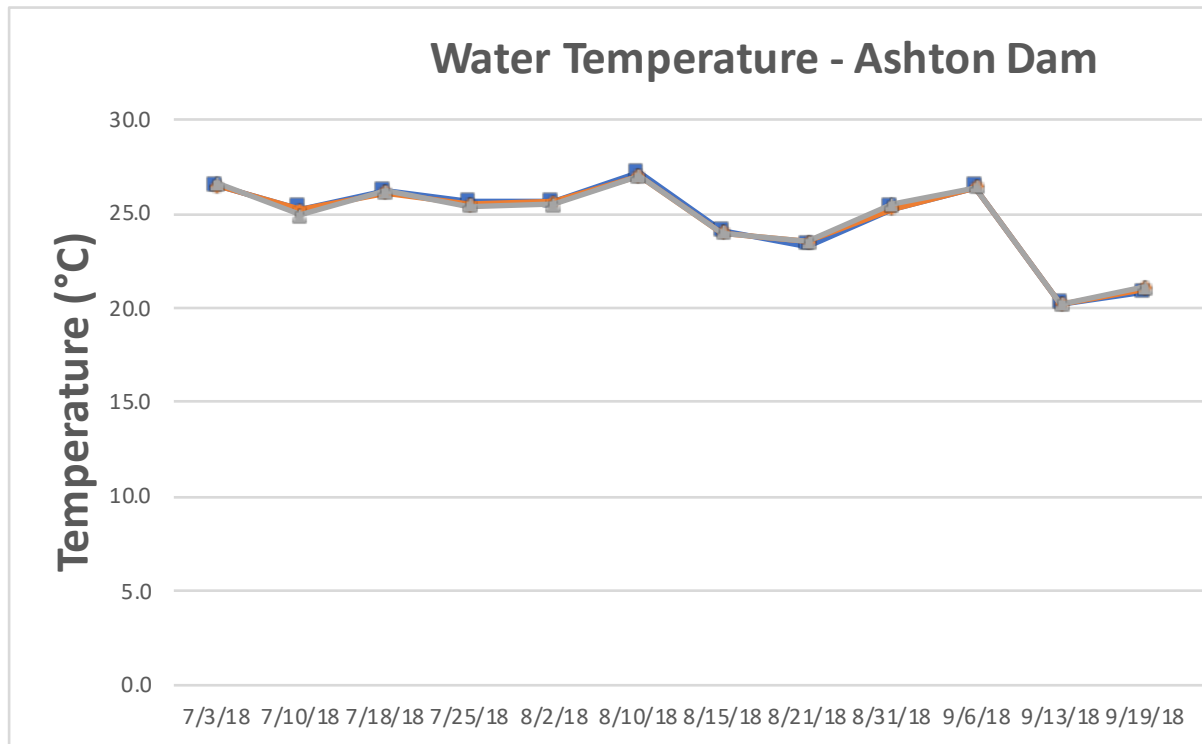
shton Dam



2018 Ashton Dam WQ Sampling Rounds

Cumberland, RI
Blackstone River

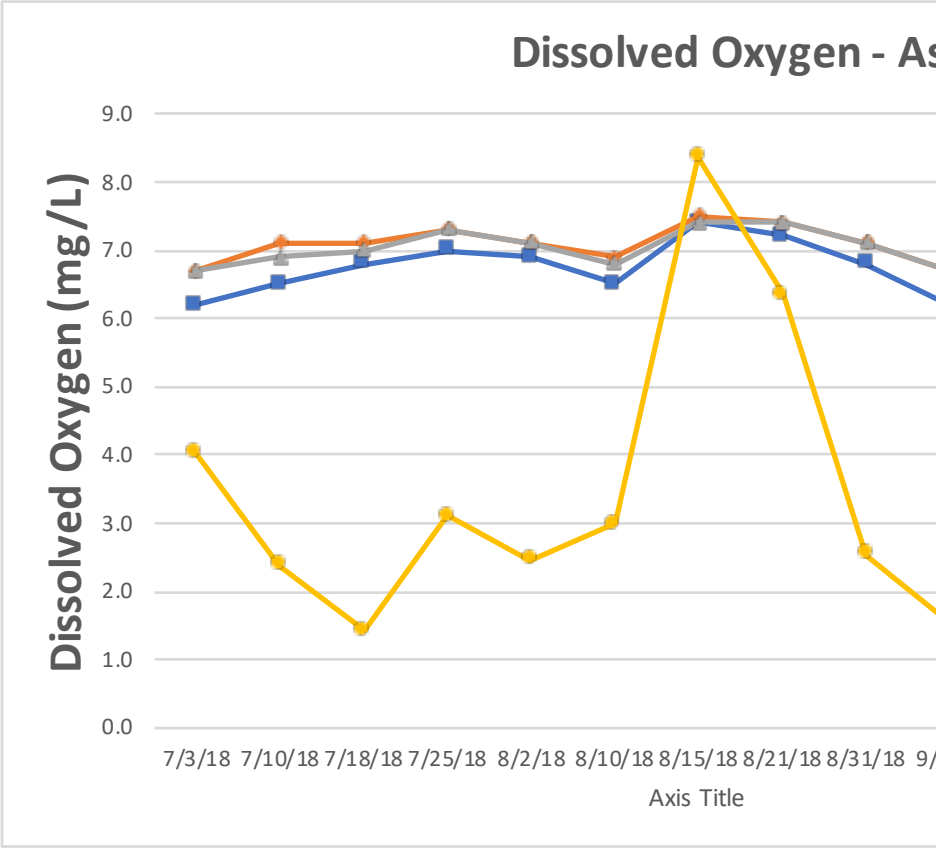
Date	Precipitation (cm)*	Flow (cfs)**	<i>Upstream</i>		<i>Below Falls</i>	
			Temp (°C)	DO (mg/L)	Temp (°C)	DO (mg/L)
7/3/18	0.000	402.62	26.5	6.2	26.5	6.7
7/10/18	0.000	237.66	25.3	6.5	25.2	7.1
7/18/18	4.064	143.01	26.2	6.8	26.1	7.1
7/25/18	1.348	309.68	25.6	7.0	25.5	7.3
8/2/18	0.102	246.92	25.6	6.9	25.6	7.1
8/10/18	0.500	299.05	27.2	6.5	27.0	6.9
8/15/18	4.500	835.77	24.1	7.4	24.0	7.5
8/21/18	2.560	635.00	23.3	7.2	23.5	7.4
8/31/18	0.000	253.00	25.3	6.8	25.3	7.1
9/6/18	0.000	156.67	26.4	6.2	26.4	6.7
9/13/18	4.880	453.00	20.2	7.8	20.2	8.0
9/19/18	1.350	769.67	20.8	8.0	21.0	7.9



* sum of prior 3 days
** average of prior 3 days

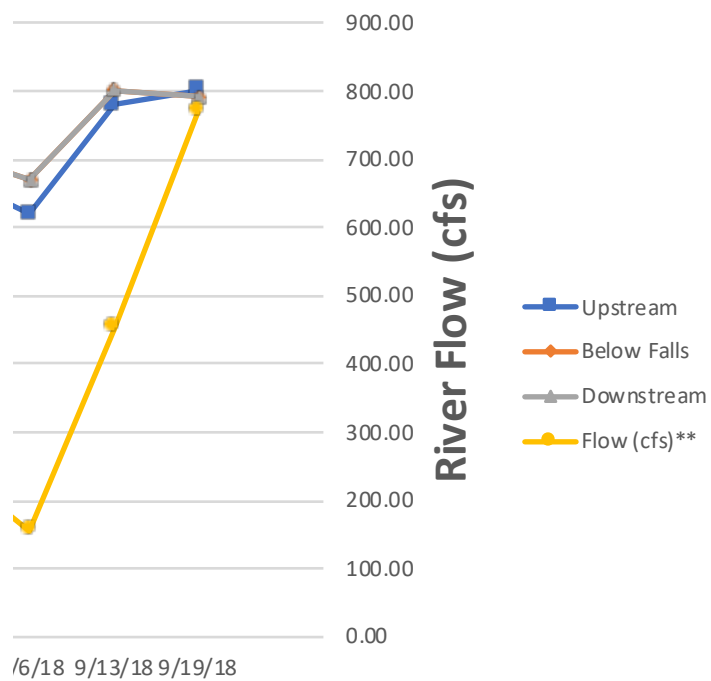
Downstream	
Temp (°C)	DO (mg/L)
26.6	6.7
24.9	6.9
26.2	7.0
25.4	7.3
25.5	7.1
27.0	6.8
24.0	7.4
23.5	7.4
25.5	7.1
26.4	6.7
20.2	8.0
21.1	7.9

Drainage Area Ratio
1.028846



Upstream
Below Falls
Downstream

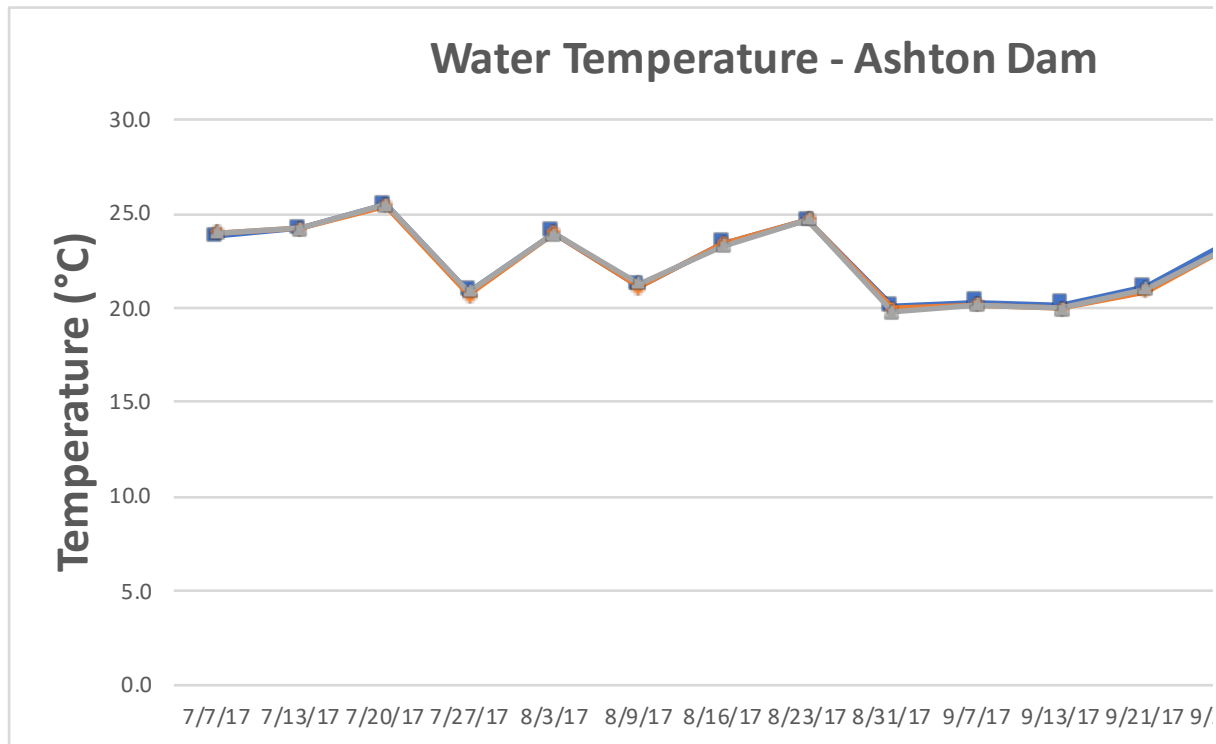
shton Dam



2017 Ashton Dam WQ Sampling Rounds

Cumberland, RI
Blackstone River

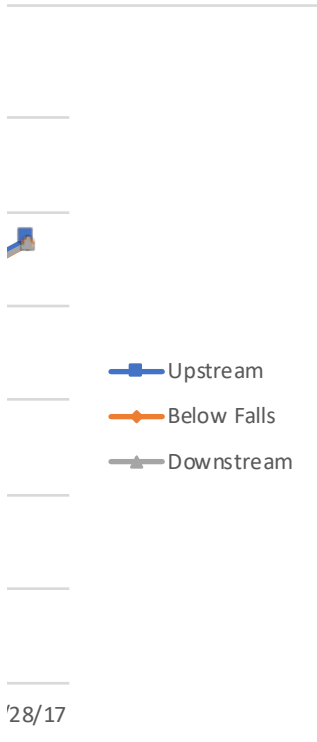
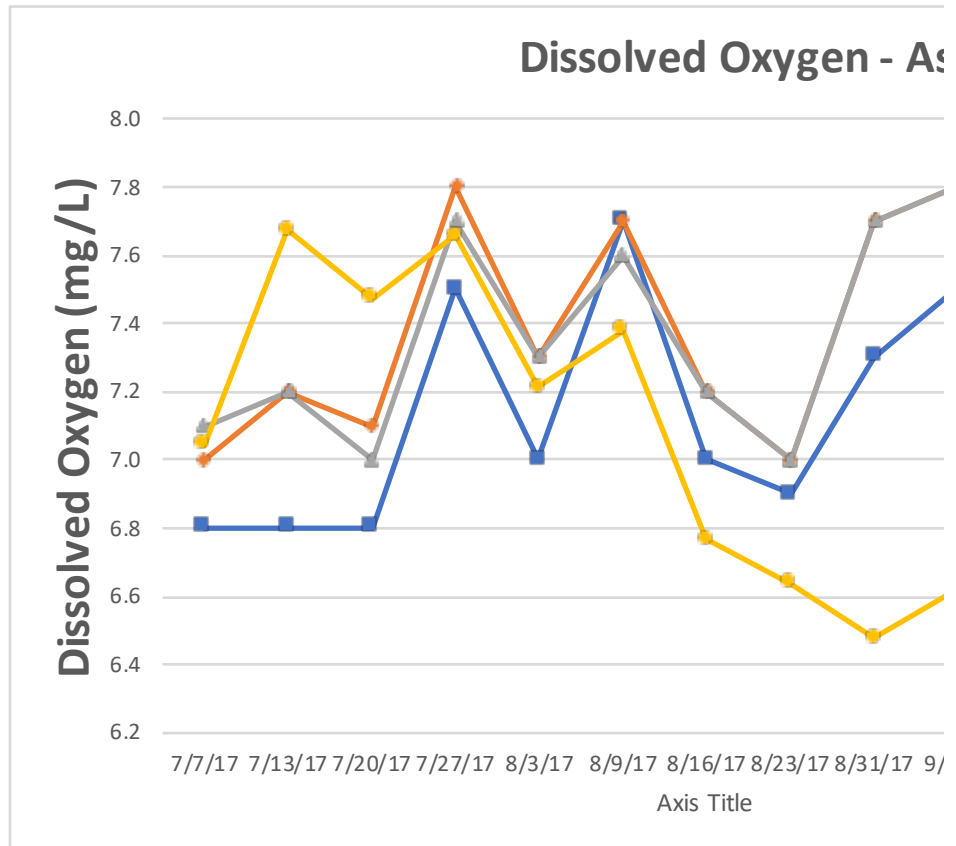
Date	Precipitation (cm)*	Flow (cfs)**	<i>Upstream</i>		<i>Below Falls</i>	
			Temp (°C)	DO (mg/L)	Temp (°C)	DO (mg/L)
7/7/17	0.000	281.22	23.8	6.8	24.0	7.0
7/13/17	3.310	491.45	24.2	6.8	24.2	7.2
7/20/17	0.000	424.23	25.5	6.8	25.4	7.1
7/27/17	1.400	485.27	20.9	7.5	20.7	7.8
8/3/17	0.000	337.12	24.0	7.0	24.0	7.3
8/9/17	0.150	393.36	21.2	7.7	21.1	7.7
8/16/17	0.130	188.96	23.4	7.0	23.4	7.2
8/23/17	0.000	145.75	24.6	6.9	24.7	7.0
8/31/17	0.660	92.94	20.1	7.3	20.0	7.7
9/7/17	1.420	140.95	20.3	7.5	20.2	7.8
9/13/17	0.000	193.08	20.2	7.4	20.0	7.7
9/21/17	0.690	137.87	21.1	7.2	20.9	7.6
9/28/17	0.000	133.75	23.6	6.9	23.3	7.2



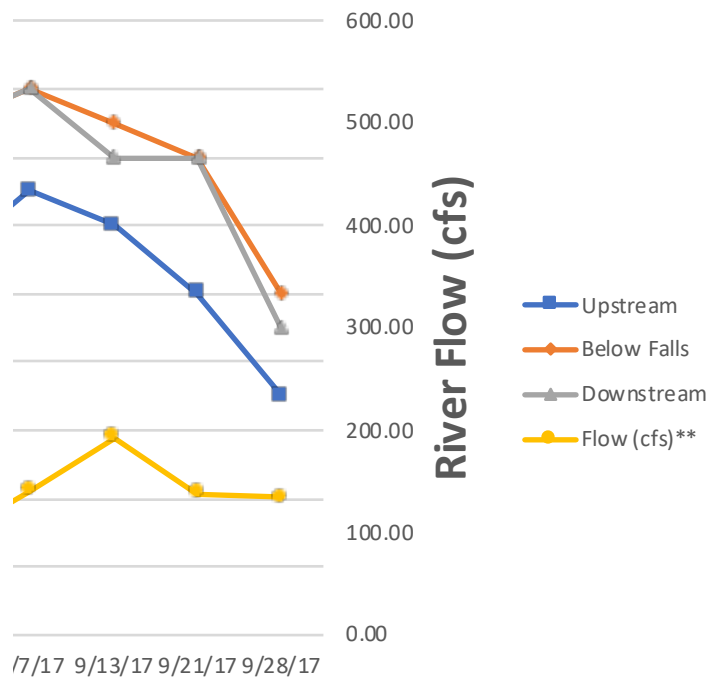
* sum of prior 3 days
 ** average of prior 3 days

<i>Downstream</i>	
Temp (°C)	DO (mg/L)
24.0	7.1
24.2	7.2
25.5	7.0
20.9	7.7
23.9	7.3
21.3	7.6
23.3	7.2
24.7	7.0
19.8	7.7
20.2	7.8
20.0	7.6
21.0	7.6
23.3	7.1

Drainage Area Ratio
 1.028846



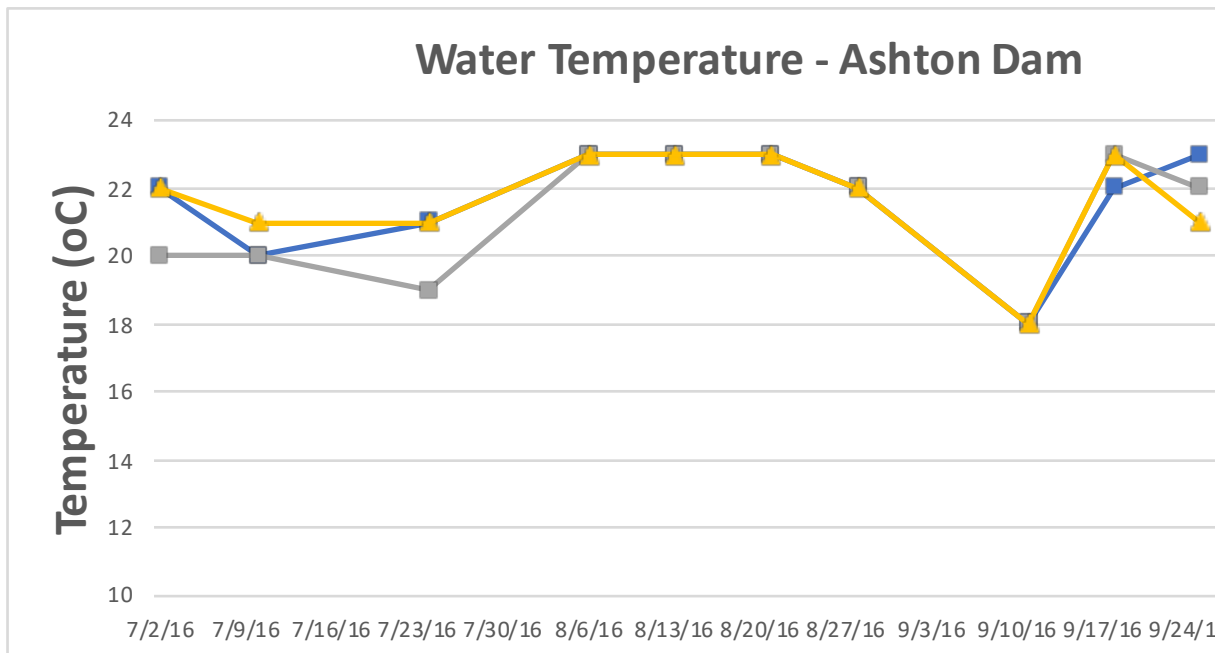
Shotton Dam



2016 Ashton Dam WQ Sampling Rounds

Cumberland, RI
Blackstone River

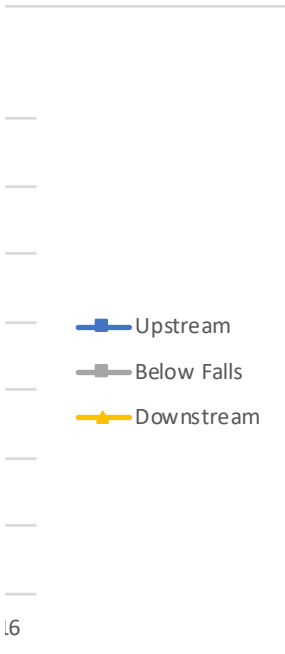
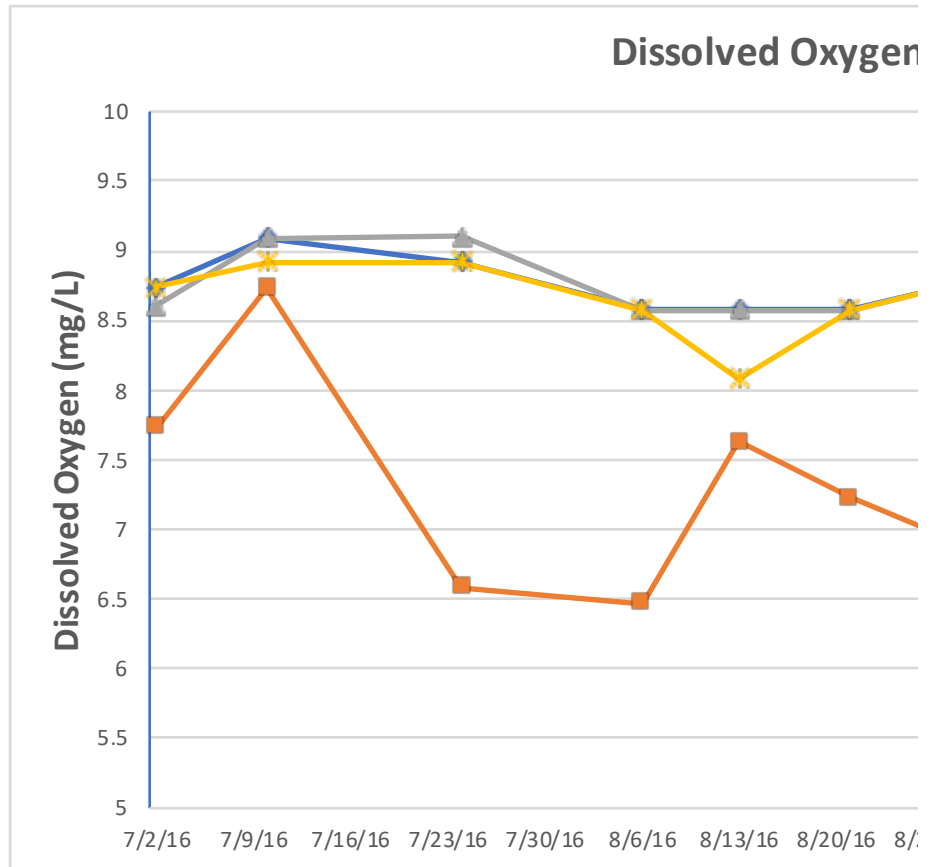
Date	Precipitation (cm)*	Flow (cfs)**	<i>Upstream</i>		<i>Below Falls</i>	
			Temp (°C)	DO (mg/L)	Temp (°C)	DO (mg/L)
7/2/16	0.305	164.27	22	8.74	20	8.6
7/10/16	0.000	223.95	20	9.09	20	9.09
7/24/16	0.000	95.00	21	8.92	19	9.1
8/6/16	0.000	88.48	23	8.58	23	8.58
8/13/16	0.940	157.58	23	8.58	23	8.58
8/21/16	0.000	133.41	23	8.58	23	8.58
8/28/16	0.000	116.60	22	8.74	22	8.74
9/11/16	0.051	60.36	18	9.47	18	9.47
9/18/16	0.000	78.88	22	8.71	23	8.52
9/25/16	1.041	115.06	23	8.58	22	8.74



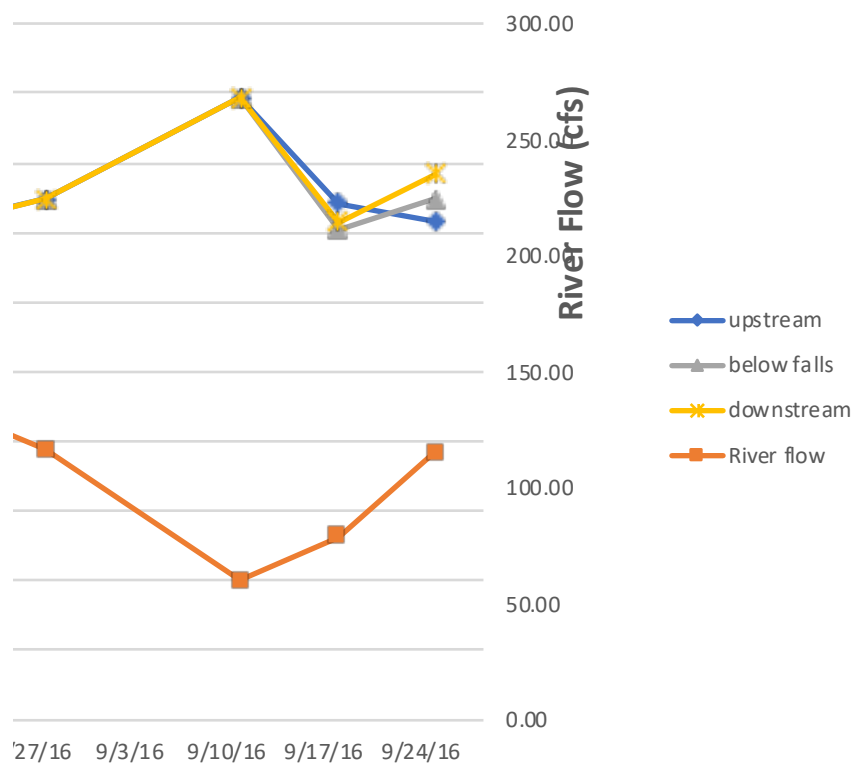
* sum of prior 3 days
 ** average of prior 3 days

<i>Downstream</i>	
Temp (°C)	DO (mg/L)
22	8.74
21	8.92
21	8.92
23	8.58
23	8.08
23	8.58
22	8.74
18	9.47
23	8.58
21	8.92

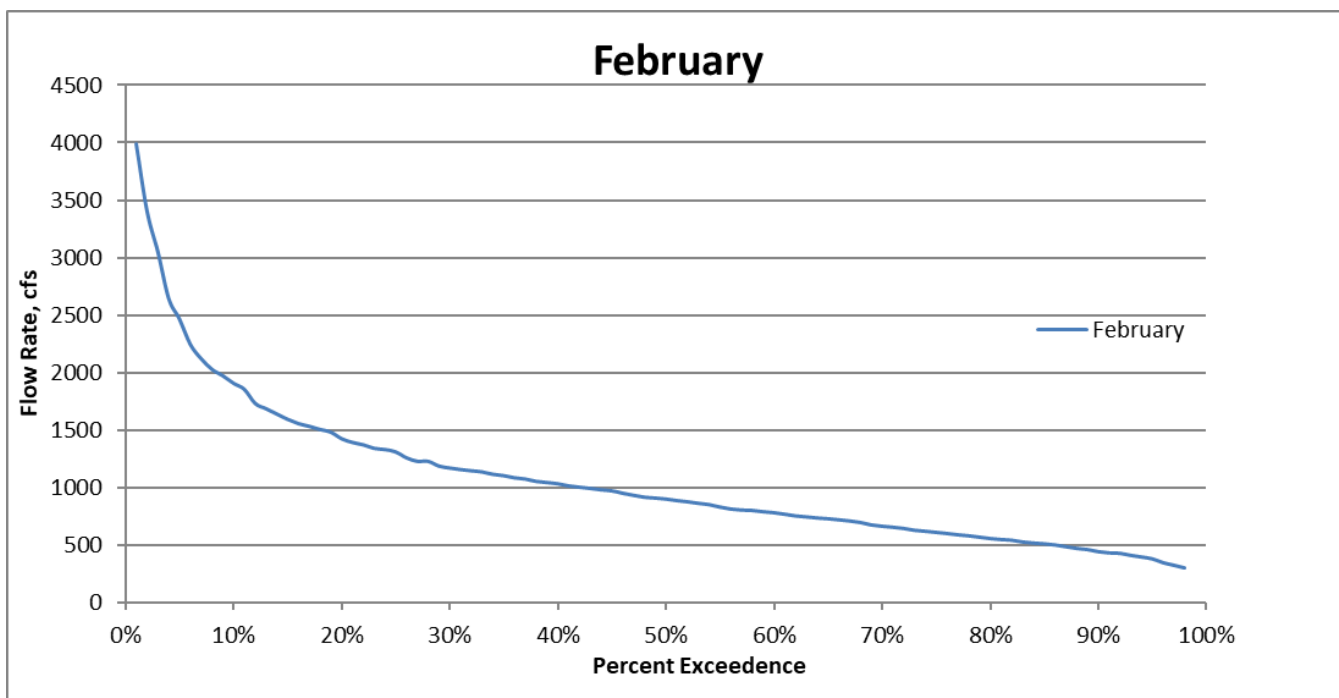
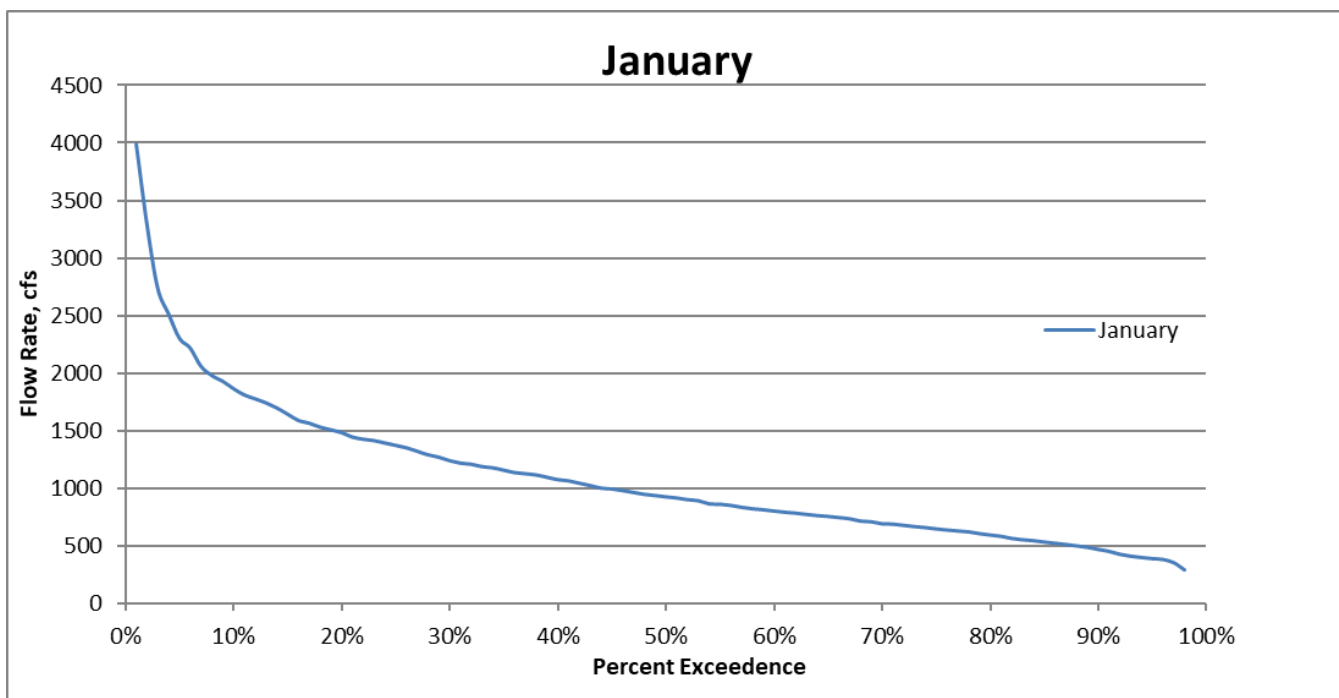
Drainage Area Ratio
 1.028846

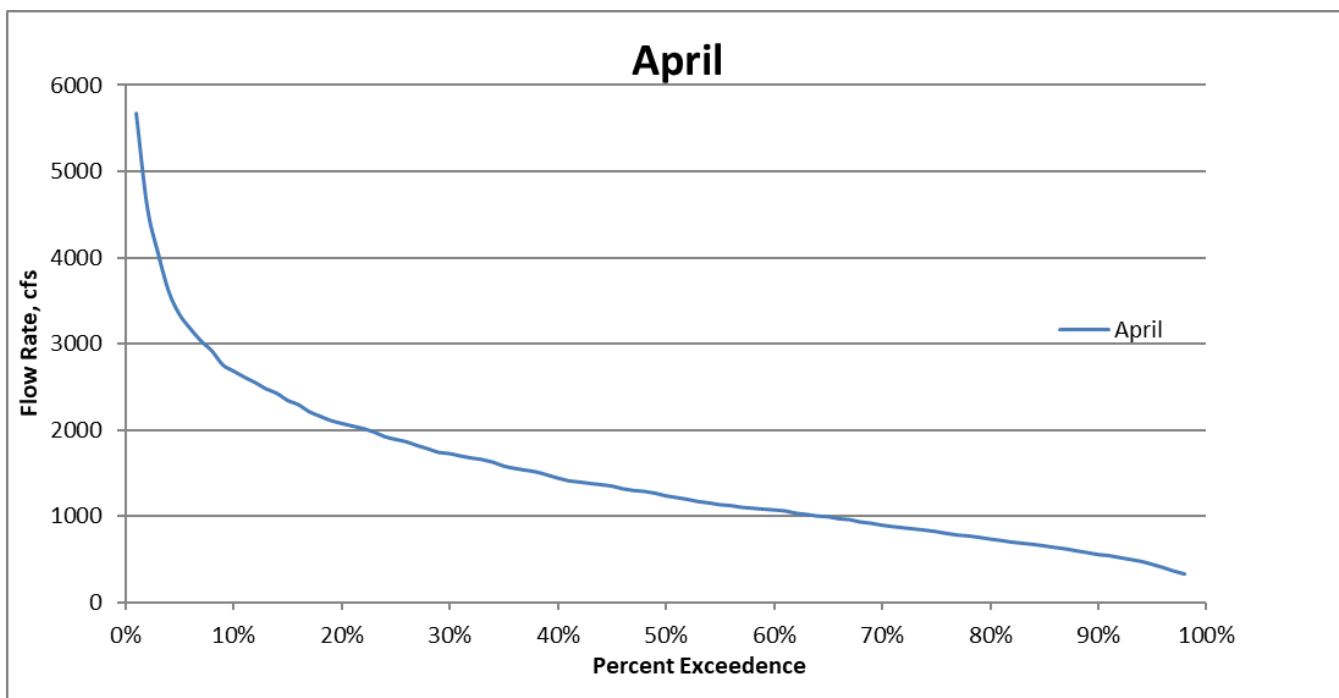
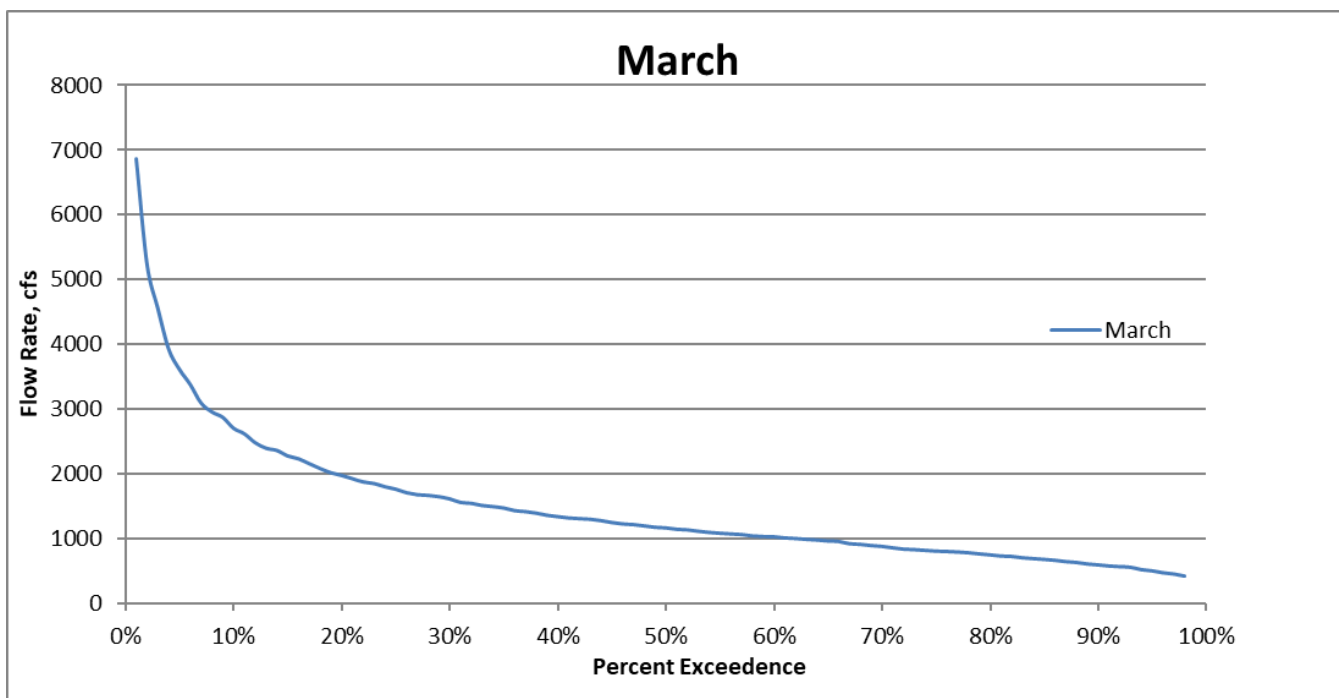


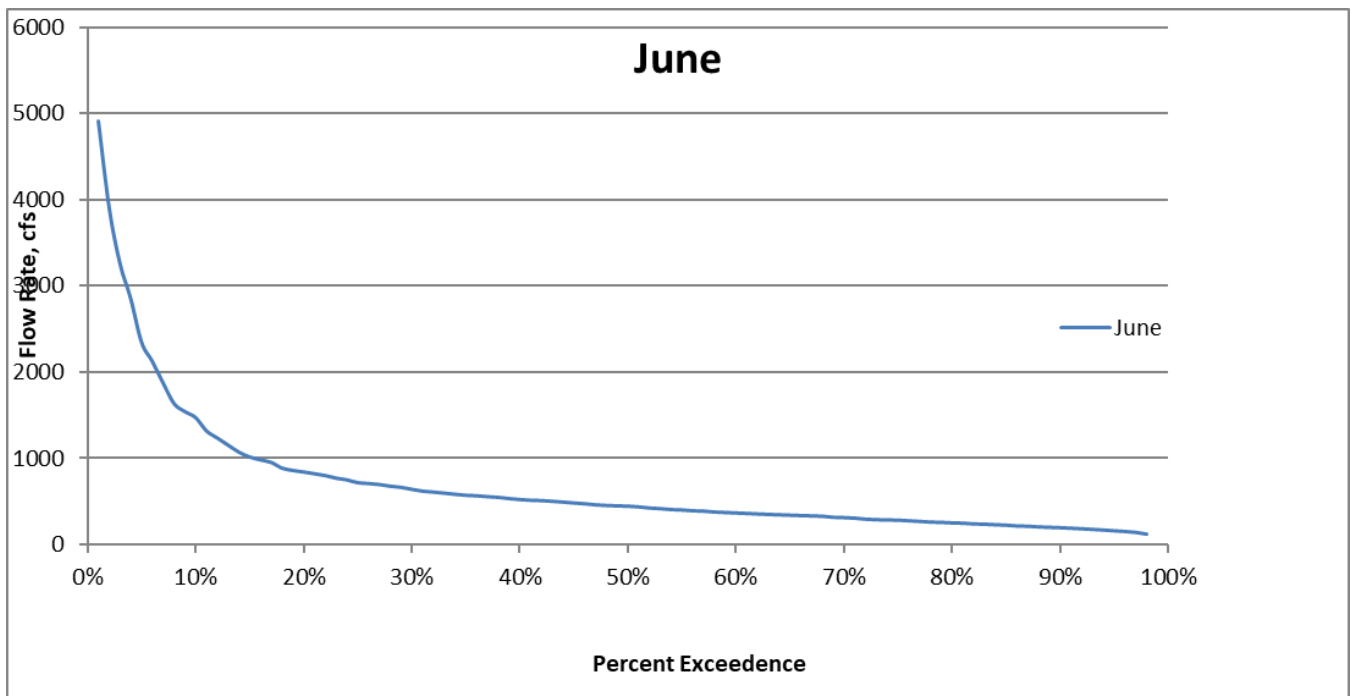
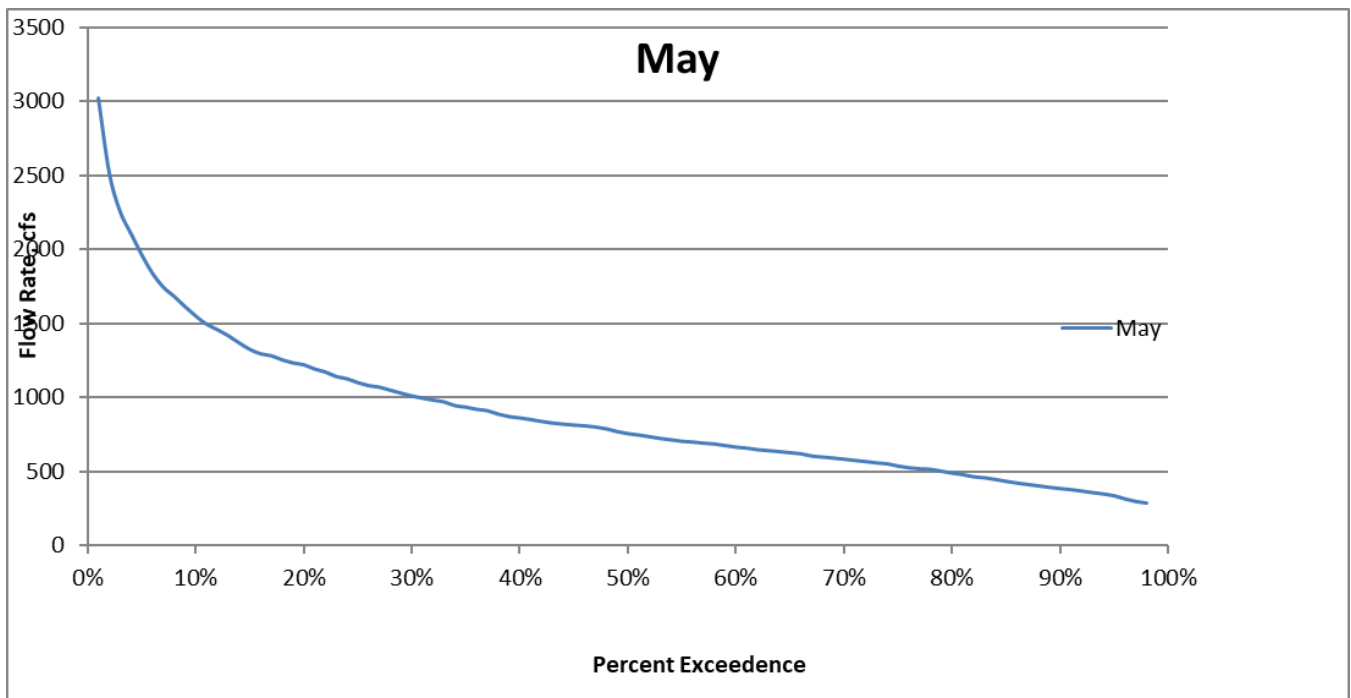
1 - Ashton Dam

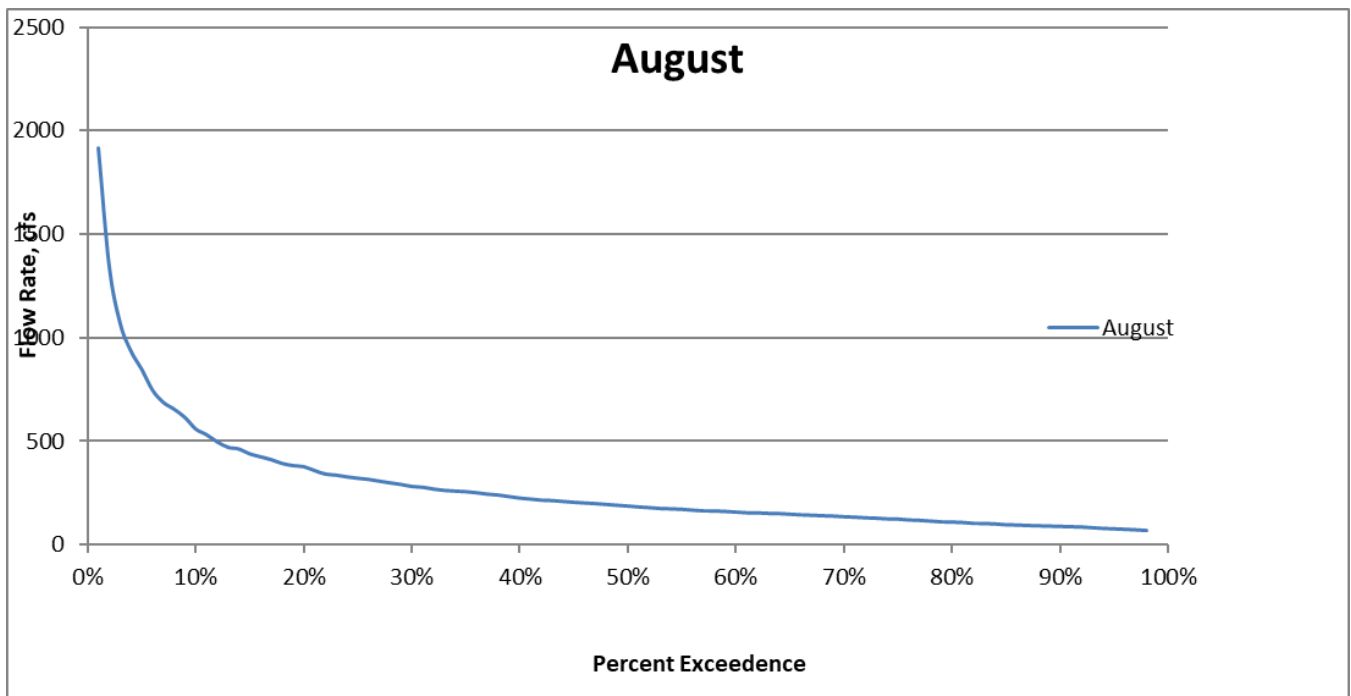
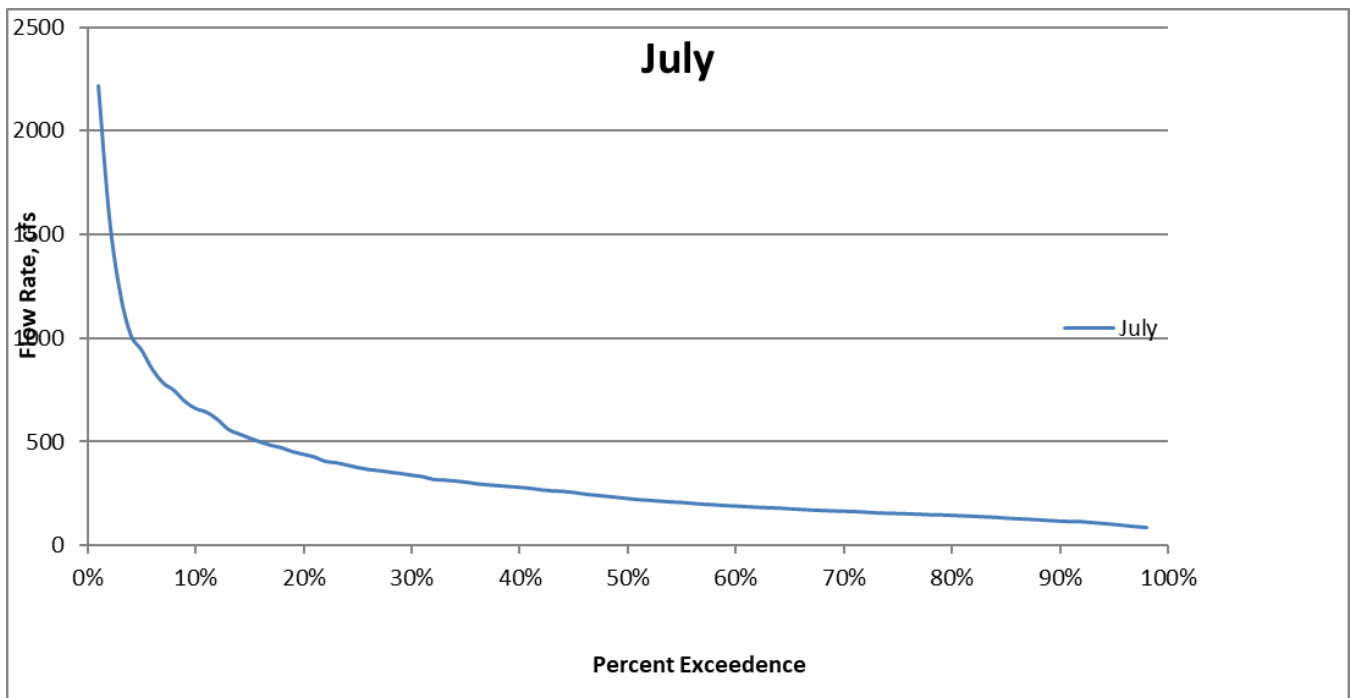


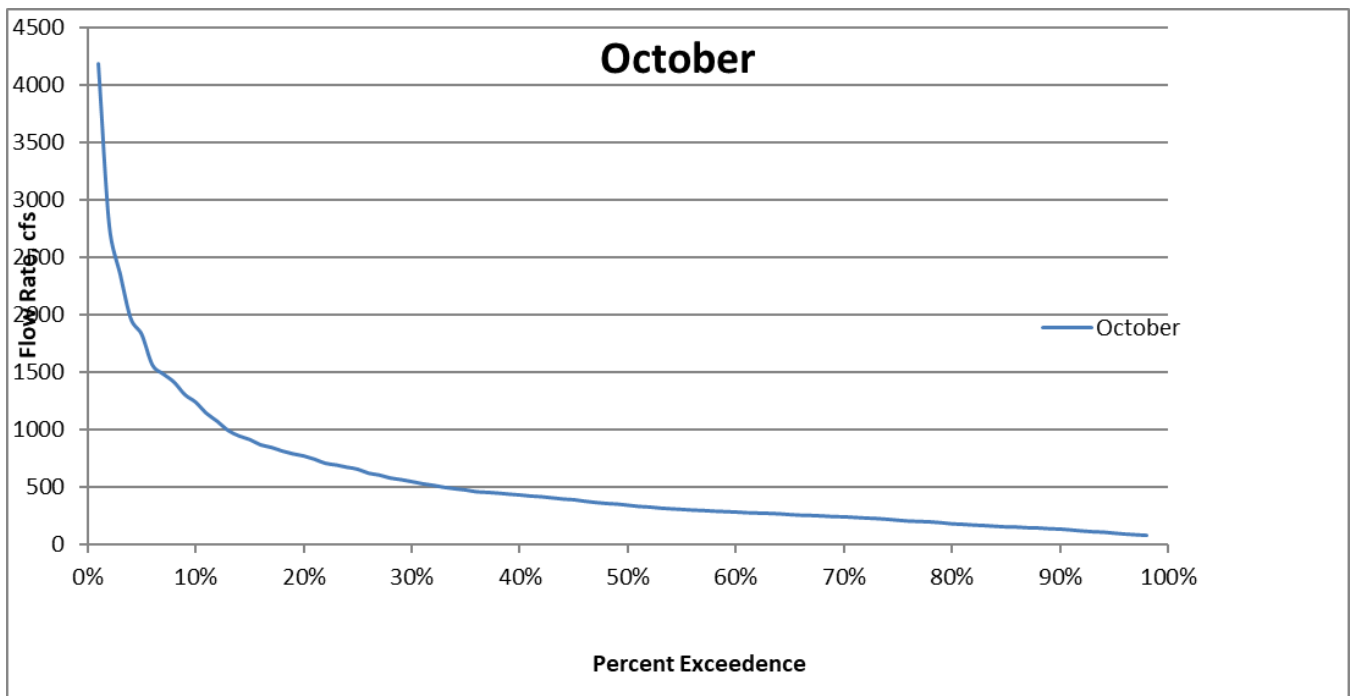
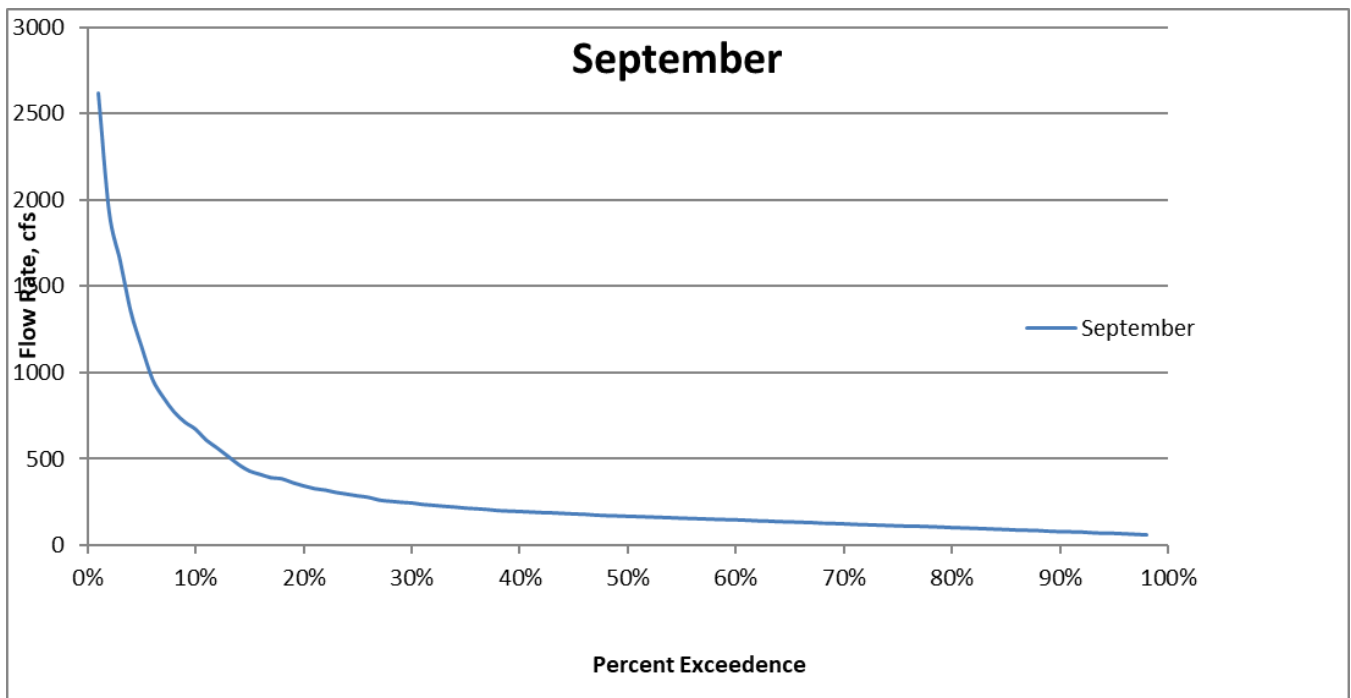
Monthly Flow Curves for the Blackstone River at Ashton Dam

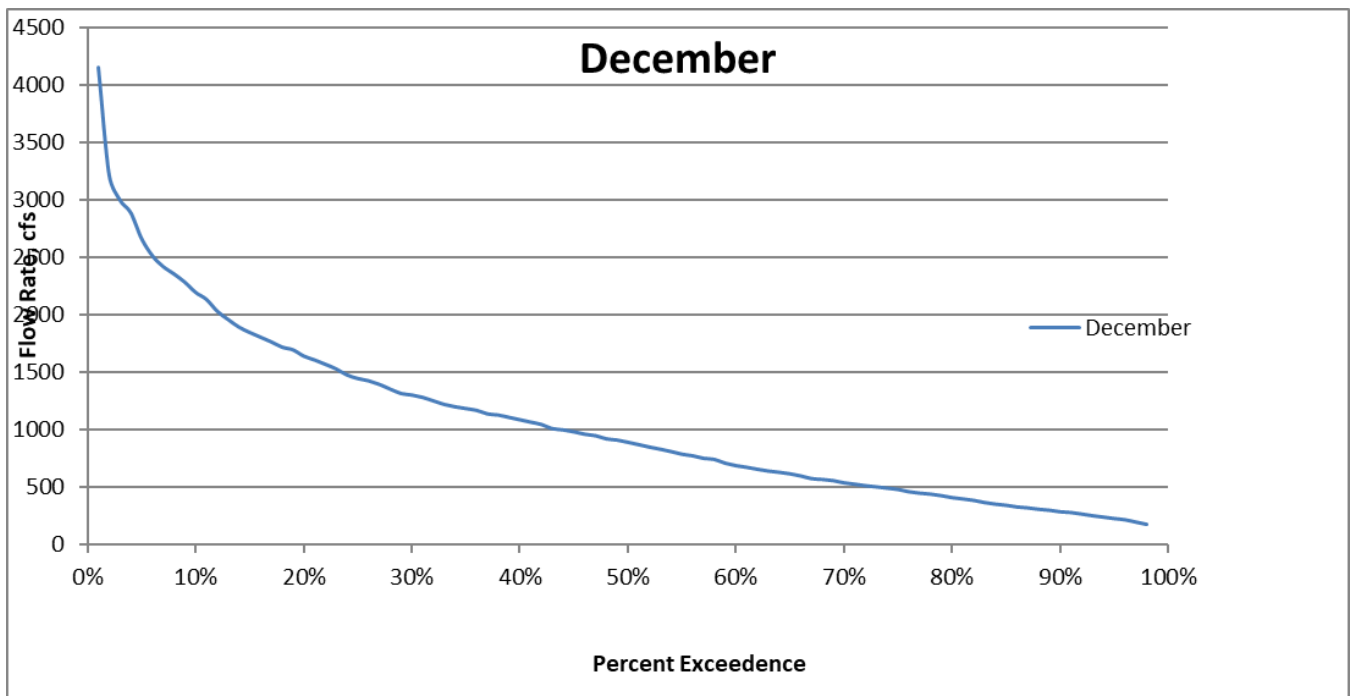
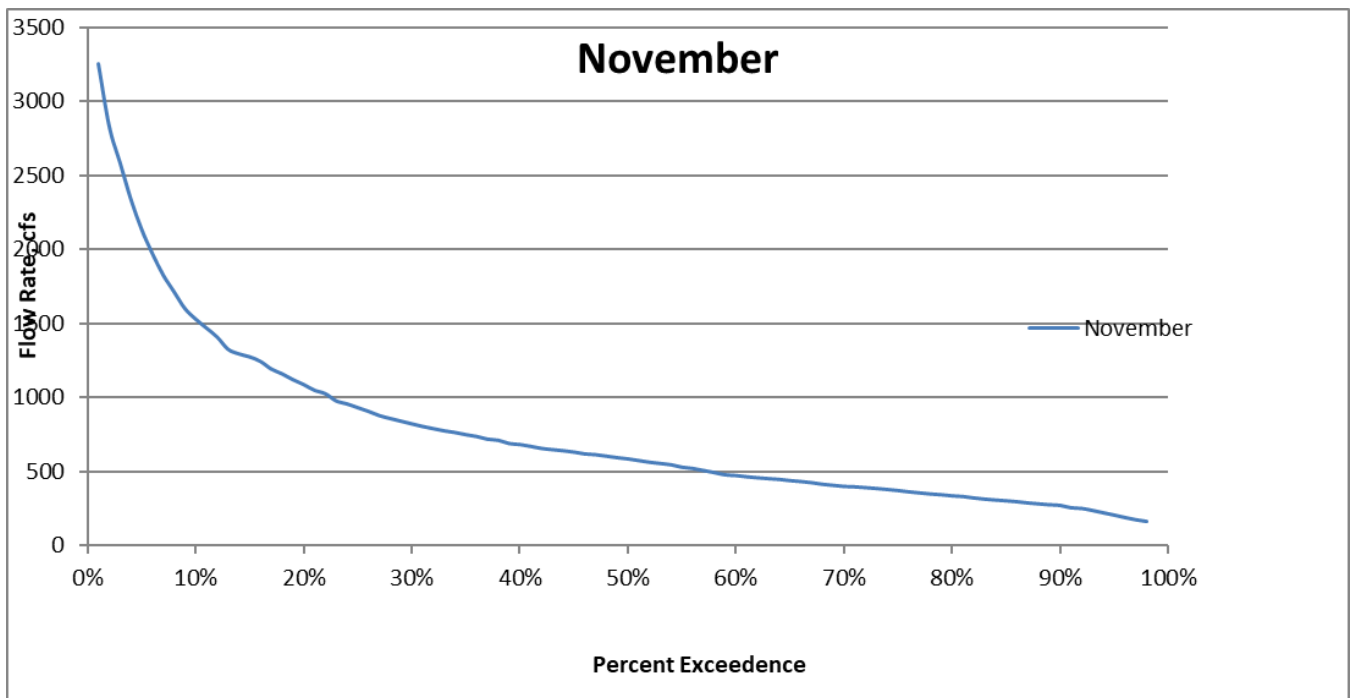












Attachment 2
Single Line Diagram