

Appendix D

Area Weighted Suitability

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Wilder Reach 1 AWS

Flow (cfs)	Walleye fry	Walleye juvenile	Walleye adult	Walleye spawning	Fallfish fry	Fallfish juvenile	Fallfish adult	Fallfish spawning	White Sucker fry	White Sucker juvenile/adult	White Sucker spawning
700	30.37	34.85	107.56	13.62	90.89	100.09	282.25	45.75	302.2	171.24	6.01
1000	21.48	32.02	91.35	16.01	87	104.21	297.45	46.19	278.86	173.97	6.65
2000	12.15	23.22	60.33	24.47	60.21	101.24	307.15	39.02	191.28	141.03	6.44
3000	10.89	18.95	53.52	32.52	44.91	84.93	284.93	28.1	142.74	104.56	3.47
4000	11.78	16.82	51.31	36.76	36.59	73.11	257.54	22.2	112.35	82.17	4.96
5000	13.55	15.57	51.35	39.99	29.73	60.24	231.18	17.82	95.18	66.74	3.94
6000	13.56	15.31	51.2	39.94	24.2	49.01	207.54	13.56	87.47	57.47	2.52
7000	12.85	15.15	50.47	36.04	20.17	41.62	187.88	10.11	83.56	52.38	1.65
8000	12.14	14.77	50.5	31.11	16.73	35.98	171.36	7.98	81.05	49.13	1.03
9000	11.67	14.29	51.06	26.99	14.28	30.31	157.59	6.19	78.98	46.59	0.67
10000	11.28	13.79	50.96	23.68	11.93	25.9	146.86	4.97	77.34	44.58	0.52
11000	10.48	13.44	49.4	19.6	10.52	23.08	138.09	4.09	76.28	43.22	0.51
12000	9.62	13.14	47.92	14.47	9.54	21.05	130.69	3.51	75.33	42.55	0.71
13000	8.47	12.89	46.17	11.11	9.08	19.76	124.57	3.04	74.82	42.02	0.88
14000	7.23	12.43	44.59	8.88	8.32	18.52	119.46	2.65	73.98	41.55	1.16
15000	6.17	11.94	43.02	7.02	7.87	17.54	115.12	2.26	73.45	41.13	1.27
16000	5.25	11.42	41.8	5.24	7.21	16.48	111.35	2.05	73.29	40.5	1.36
17000	4.44	10.87	40.66	3.86	7.11	15.85	108.52	1.88	73.78	40.13	1.41
18000	3.75	10.31	39.22	3.21	6.95	15.38	106.51	1.74	74.25	40.15	1.54
19000	3.12	9.78	37.91	2.96	6.75	15.1	105.22	1.56	74.54	40.45	1.7
20000	2.77	9.27	36.7	2.8	6.25	14.63	104.45	1.4	74.03	40.6	1.83
21000	2.46	8.8	35.55	2.75	5.91	14.15	104.06	1.31	73.5	40.8	1.69
22000	2.15	8.37	34.49	2.8	5.72	13.65	103.83	1.22	73.23	40.95	1.61
23000	1.86	7.99	33.54	2.87	5.57	13.07	103.7	1.35	73.01	41.18	1.6
24000	1.6	7.65	32.63	2.94	5.64	12.94	103.83	1.42	72.49	41.47	1.59
25000	1.37	7.31	31.8	3.03	5.5	12.72	104.03	1.44	72.06	41.55	1.68

Wilder Reach 1 AWS

Flow (cfs)	Longnose Dace fry	Longnose Dace juvenile	Longnose Dace adult	Tessellated Darter adult	Sea Lamprey spawning	Macro-invertebrates	Smallmouth Bass fry	Smallmouth Bass juvenile	Smallmouth Bass adult	Smallmouth Bass spawning
700	44.72	11.64	19.55	21.49	0.96	10.26	50.85	105.05	94.41	73.33
1000	43.49	12.99	22.19	23.16	1.27	18.17	45.77	116.25	103.98	65.22
2000	33.33	11.82	23.92	23.72	2.06	40.76	36.59	132.49	102.21	41.5
3000	23.64	7.37	14.61	17.41	1.55	52.59	31.89	133.15	91.88	33.12
4000	19.54	7.89	11.22	14.2	1.82	58.43	25.76	125.66	82.2	26.1
5000	13.93	5.3	10.32	10.47	2.31	60.37	21.24	115.84	72.83	22.96
6000	10.56	3.38	7.4	7.89	2.13	59.51	18.36	104.27	65.47	20.75
7000	8.19	2.41	4.95	5.59	1.32	56.72	16.21	92.84	59.28	18.92
8000	6.67	1.66	3.69	4.05	0.82	53.09	14.3	82.46	53.59	17.23
9000	5.58	1.08	2.69	2.99	0.46	49.33	12.51	73.71	48.84	15.71
10000	4.9	0.69	2.1	2.46	0.23	45.84	10.71	66.43	44.95	14.49
11000	4.36	0.62	1.65	2.11	0.1	42.66	9.21	60.41	41.83	13.65
12000	4.29	0.62	1.59	2.2	0.02	39.72	8.15	55.47	39.27	12.3
13000	4.23	0.63	1.59	2.37	0.01	37.15	7.44	51.42	37.17	10.69
14000	4.48	0.68	1.84	2.59	0.01	34.88	7.04	48.21	35.51	9.15
15000	4.55	0.67	2.01	2.79	0.01	32.88	6.7	45.64	34.28	8.07
16000	4.62	0.68	2.13	2.88	0.02	31.1	6.53	43.58	33.31	7.29
17000	4.71	0.74	2.27	3.02	0.02	29.62	6.39	41.99	32.56	6.61
18000	5.01	0.83	2.29	3.11	0.03	28.38	6.41	40.68	31.9	6.09
19000	5.29	0.86	2.51	3.35	0.03	27.36	6.42	39.58	31.36	5.64
20000	5.29	0.84	2.53	3.44	0.04	26.47	6.54	38.66	30.96	5.31
21000	5.2	0.77	2.52	3.38	0.04	25.68	6.51	37.93	30.66	5.03
22000	4.94	0.81	2.52	3.15	0.05	24.94	6.44	37.28	30.41	4.78
23000	4.7	1	2.63	3.19	0.09	24.32	6.39	36.68	30.2	4.56
24000	4.65	1.1	2.62	3.16	0.14	23.69	6.27	36.21	30.03	4.29
25000	4.66	1.36	2.66	3.25	0.19	23.16	6.26	35.76	29.86	4.12

Wilder Reach 1 AWS

Flow (cfs)	Shallow-Fast	Shallow-Slow	Deep-Fast	Deep-Slow	DWM	Co-Occurring Mussels
700	0	95.84	18.19	278.22	96.20	168.73
1000	1.75	91.07	30.83	284.78	101.22	177.09
2000	7.44	61.71	101.48	259.94	93.55	184.25
3000	3.85	48.94	191.19	206.33	80.06	178.43
4000	5.29	38.38	252.27	162.61	63.23	168.95
5000	8.37	27.06	306.26	122.81	45.86	157.50
6000	5.84	20.82	340.21	103.13	32.50	143.27
7000	4.34	17.23	353.86	97.73	25.30	129.07
8000	2.88	15.65	364.95	92.15	21.16	115.31
9000	1.91	15.54	374.01	86.71	18.31	102.35
10000	0.45	15.32	377.74	87.11	16.59	90.91
11000	0.41	14.57	381.61	87.3	15.35	80.62
12000	0.18	15.31	383.46	88.27	14.41	71.66
13000	0.18	16.7	385.41	87.88	13.81	63.86
14000	0.26	16.09	389.4	86.44	13.30	57.19
15000	1.31	16.52	392.41	84.67	12.98	51.52
16000	2.01	20.53	397.31	80.94	12.73	46.63
17000	1.88	20.98	399.9	81.12	12.48	42.45
18000	2.49	21.53	401.86	81.35	12.21	38.85
19000	2.28	21.53	403.43	82.59	12.05	35.92
20000	1.9	20.71	406.82	82.61	11.79	33.36
21000	3.82	19.82	409.18	81.94	11.55	31.24
22000	2.64	22.05	412.76	80.06	11.40	29.41
23000	3.15	19.94	413.85	82.56	11.25	27.90
24000	3.02	17.5	415.67	85.42	11.13	26.63
25000	2.59	17.87	418.08	85.81	10.95	25.22

Wilder Reach 2 AWS

Flow (cfs)	Walleye fry	Walleye juvenile	Walleye adult	Walleye spawning	Fallfish fry	Fallfish juvenile	Fallfish adult	Fallfish spawning	White Sucker fry	White Sucker juvenile/adult	White Sucker spawning
700	10.84	15.7	60.74	20.08	58.2	86.59	197.37	26.15	180.42	106.17	8.42
1000	10.13	14.56	49.51	24.82	52.84	84.96	205.7	23.55	156.19	94.76	6.85
2000	8.6	12.72	38.31	33.58	44.01	77.78	197.21	18.91	99.21	59.75	9.7
3000	7.76	11.3	36.48	42.01	39	65.45	171.83	16.44	75.76	44.78	11.01
4000	7.3	10.14	34.96	47.18	34.39	56.12	151.1	16.09	64.65	38.39	13.91
5000	6.44	9.39	33.62	49.24	26.34	49.13	134.65	14.7	57.54	34.66	9.77
6000	6.02	8.73	31.72	51.45	22.28	40.77	120.39	10.08	54.11	31.82	5.09
7000	5.76	8.12	29.19	50.22	18.95	33.33	107.81	6.57	50.8	30.54	3.24
8000	5.77	7.7	26.75	46.02	16.68	27.5	97.94	4.64	47.14	29.78	2.94
9000	5.46	7.57	24.39	42.46	14.5	23.24	90.07	3.44	44.01	28.85	3.16
10000	4.79	7.5	22.4	38.72	12.29	19.96	83.82	2.6	41.67	27.65	2.67
11000	4.19	7.33	21.12	34.24	10.9	17.39	78.81	1.93	39.63	26.31	2.28
12000	3.54	7.07	20.32	29.09	9.7	14.9	74.62	1.45	37.54	24.78	1.99
13000	3.03	6.69	19.66	24.24	8.84	12.75	71.02	1.23	35.72	23.38	1.81
14000	2.61	6.35	19.04	20.15	8	11.17	67.97	1.19	34.19	22.11	1.53
15000	2.25	6.02	18.3	16.82	7.07	10.36	65.35	1.21	33.02	20.83	1.2
16000	1.96	5.68	17.59	14.08	6.11	9.88	63.21	1.15	31.91	19.73	0.98
17000	1.73	5.37	17.05	11.75	5.45	9.35	61.27	1.09	30.99	18.74	0.77
18000	1.53	5.1	16.51	9.8	5.18	8.8	59.45	1.03	29.95	17.94	0.62
19000	1.32	4.84	15.97	8.18	4.83	8.31	57.78	1.04	29.15	17.23	0.47
20000	1.13	4.59	15.43	6.82	4.62	7.92	56.31	1.07	28.65	16.63	0.36
21000	1.01	4.35	14.91	5.77	4.29	7.69	54.98	1.09	28.13	16.2	0.28
22000	0.88	4.12	14.47	5	4.19	7.45	53.82	1.13	27.59	15.88	0.27
23000	0.74	3.92	14.06	4.42	4.49	7.25	52.67	1.11	27.25	15.55	0.29
24000	0.62	3.73	13.69	4.01	5.56	6.95	51.55	1.17	27.17	15.27	0.36
25000	0.51	3.55	13.35	3.68	6.57	6.77	50.52	1.44	27.31	15.05	0.47

Wilder Reach 2 AWS

Flow (cfs)	Longnose Dace fry	Longnose Dace juvenile	Longnose Dace adult	Tessellated Darter adult	Sea Lamprey spawning	Macro-invertebrates	Smallmouth Bass fry	Smallmouth Bass juvenile	Smallmouth Bass adult	Smallmouth Bass spawning
700	34.17	15.62	31.53	26.93	3.89	28.23	42.69	97.63	80.16	45.6
1000	31.33	11.7	25.66	23.73	3.2	36.75	33.33	104.75	84.13	38.02
2000	27.05	13.87	24.37	22.32	4.45	57.44	18.45	108.28	76.19	19.84
3000	24.65	13.08	24.89	21.97	6.34	64.03	14.36	101.74	66.03	14.35
4000	23.94	13.95	26.7	23.04	7.84	67.5	11.54	91.15	57.47	11.28
5000	18.9	10.3	22.39	20.11	8.37	67.97	9.08	79.63	50	9.17
6000	14.18	5.42	15.41	14.1	6.31	65.61	7.68	69.25	43.79	7.27
7000	11.85	3.75	10.83	10.29	3.89	63	6.71	60.29	38.9	6.03
8000	9.83	3.82	8.77	8.41	3.19	60.92	5.9	53.43	35.28	5.13
9000	7.91	3.27	7.59	7.18	3.28	58.48	5.2	47.93	32.49	4.51
10000	6.4	2.27	6.09	5.79	3.04	54.13	4.64	43.35	30.23	3.92
11000	5.53	2.11	5.22	4.88	2.55	50.08	4.24	39.55	28.31	3.33
12000	4.82	1.82	4.83	4.35	2.33	46.23	3.82	36.34	26.56	2.94
13000	4.54	1.53	4.42	3.91	2.17	42.7	3.4	33.72	24.99	2.63
14000	4.44	1.57	3.85	3.64	1.87	39.58	3.02	31.38	23.49	2.41
15000	4.19	1.51	3.29	3.35	1.47	36.4	2.77	29.41	22.14	2.21
16000	3.87	1.37	2.81	3.01	0.96	33.42	2.57	27.73	20.93	1.99
17000	3.62	1.03	2.45	2.72	0.56	30.7	2.41	26.28	19.85	1.81
18000	3.3	0.75	2.15	2.36	0.36	28.29	2.27	24.98	18.9	1.71
19000	2.98	0.58	1.78	2.05	0.21	26.21	2.2	23.78	17.99	1.65
20000	2.76	0.5	1.49	1.81	0.09	24.34	2.18	22.7	17.15	1.54
21000	2.54	0.45	1.2	1.64	0.03	22.68	2.19	21.74	16.39	1.49
22000	2.43	0.44	1	1.51	0.02	21.2	2.2	20.86	15.68	1.47
23000	2.44	0.43	0.89	1.41	0.01	19.87	2.23	20.08	15.06	1.44
24000	2.67	0.49	0.92	1.42	0	18.67	2.27	19.39	14.54	1.44
25000	3.04	0.6	1.01	1.47	0	17.61	2.38	18.77	14.08	1.52

Wilder Reach 2 AWS

Flow (cfs)	Shallow-Fast	Shallow-Slow	Deep-Fast	Deep-Slow	DWM	Co-Occurring Mussels
700	12.23	57.75	24.97	193.49	84.58	108.73
1000	12.54	48.69	47.59	192.56	87.93	113.40
2000	15.92	40.77	138.93	137.85	71.52	119.42
3000	21.91	35.05	204.06	94.91	42.73	119.69
4000	24.55	29.98	239.3	78.98	28.87	115.46
5000	21.6	22.79	267.31	69.43	22.09	104.27
6000	18.29	20.33	285.01	63.36	18.26	90.36
7000	12.73	19.97	301.35	58.41	15.89	76.81
8000	11.12	15.21	315.66	56.08	14.05	65.16
9000	10.4	11.61	324.77	54.03	12.53	55.90
10000	9.52	9.11	331.4	53.2	11.17	48.50
11000	9.94	8.87	337.14	50.56	10.07	42.83
12000	8.69	8.71	342.26	49.11	8.85	38.35
13000	6.89	9.58	348.35	46.59	7.76	34.66
14000	6.46	9.09	351.55	46.09	6.79	31.46
15000	5.19	8.3	357.28	43.34	6.12	28.90
16000	4.29	7.44	361.76	41.38	5.51	26.61
17000	3.77	7.17	364.27	40.78	4.95	24.69
18000	2.69	7.36	367.01	39.75	4.51	23.02
19000	1.87	8.07	369.79	38.69	4.16	21.59
20000	0.99	7.49	373.59	36.95	3.91	20.31
21000	0.54	7.7	376.37	35.27	3.68	19.13
22000	0.26	8.01	377.88	34.79	3.59	18.09
23000	0.51	9.24	379.96	33.5	3.51	17.22
24000	0.52	9.95	381.6	32.75	3.46	16.47
25000	0.42	11.16	382.26	33.01	3.45	15.81

Wilder Reach 3 AWS

Flow (cfs)	Walleye fry	Walleye juvenile	Walleye adult	Walleye spawning	Fallfish fry	Fallfish juvenile	Fallfish adult	Fallfish spawning	White Sucker fry	White Sucker juvenile/adult	White Sucker spawning
700	2.07	8.01	22.77	21.65	125.73	158.99	216.67	78.08	174.02	160.66	16.06
1000	1.55	6.29	16.65	27.26	123.04	163.23	216.19	81.71	134.07	131.87	19.47
2000	1.56	4.02	15.96	50.9	117.01	161.56	181.38	88.55	67.9	66.6	31.63
3000	0.57	2.73	18.01	79.59	88.33	159.23	151.48	88.81	36.65	40.76	30.88
4000	0.25	1.97	17.56	101.78	62.24	138.63	123.53	75.15	22.44	26.31	20.42
5000	0.25	1.55	15.81	114.7	49.46	111.44	100.77	60.06	16.45	18.66	13.3
6000	0.25	1.32	13.95	123.17	37.9	86.78	82.54	45.9	12.87	14.35	10.37
7000	0.27	1.14	12.21	126.53	27.86	68.7	67.05	34.06	11.01	11.55	8
8000	0.34	1.01	10.44	126.25	20.66	54.39	53.93	23.63	9.95	9.85	5.68
9000	0.45	0.94	8.81	122.39	15.95	42.25	43.45	15.9	9.44	8.77	3.88
10000	0.45	0.94	7.44	116.07	12.73	32.94	35.51	11.01	9.44	8.1	3.01
11000	0.44	0.96	6.27	108.68	11.67	26.35	30	8.16	9.84	7.87	2.82
12000	0.4	0.98	5.26	99.29	11.79	21.85	26.29	6.86	9.97	7.98	3.51
13000	0.34	1	4.51	88.61	12.25	19.05	23.72	6.51	9.87	8.16	5.12
14000	0.29	0.97	4.03	76.88	11.04	17.39	21.88	6.9	9.5	8.28	6.52
15000	0.26	0.94	3.75	65.35	9.4	16.38	20.68	7.47	9.2	8.32	6.52
16000	0.24	0.92	3.62	54.41	8.31	15.41	19.91	6.96	9.19	8.36	5.34
17000	0.23	0.9	3.53	44.99	7.45	13.75	19.34	5.88	9.45	8.33	3.9
18000	0.23	0.87	3.31	36.85	6.55	12.24	18.81	4.93	9.47	8.27	2.65
19000	0.21	0.84	3.14	30.57	5.73	11.17	18.38	4.27	9.52	8.27	1.73
20000	0.19	0.82	3.01	25.39	5.08	10.39	18.11	3.74	9.54	8.32	1.14
21000	0.16	0.79	2.87	21.56	4.51	9.69	17.89	3.26	9.53	8.36	0.78
22000	0.14	0.77	2.76	18.52	4	8.98	17.69	2.84	9.39	8.42	0.58
23000	0.11	0.75	2.67	16.21	3.61	8.25	17.51	2.49	9.36	8.47	0.49
24000	0.1	0.72	2.6	14.52	3.28	7.56	17.36	2.17	9.32	8.45	0.44
25000	0.07	0.7	2.51	13.07	2.99	7.02	17.23	1.92	9.32	8.48	0.41

Wilder Reach 3 AWS

Flow (cfs)	Longnose Dace fry	Longnose Dace juvenile	Longnose Dace adult	Tessellated Darter adult	Sea Lamprey spawning	Macro-invertebrates	Smallmouth Bass fry	Smallmouth Bass juvenile	Smallmouth Bass adult	Smallmouth Bass spawning
700	66.35	29.13	46.23	42.58	6.6	30.98	62.79	115.47	95.42	79.13
1000	70.85	34.9	53.32	48.62	8.47	49.04	50.09	121.78	92.09	62.46
2000	86.48	52.52	79.05	70.44	12.69	92.74	31.43	121.93	72.58	37.63
3000	76.94	50.24	82.57	74.49	15.94	118.98	18.47	111.75	58.86	25.61
4000	54.35	31.78	66.84	57.82	14.68	131.61	10.97	97.27	49.26	20.41
5000	34	18.86	49.06	41.78	12.07	135.21	6.98	81.3	41.44	16.4
6000	25.4	13.9	34.36	31.42	9.81	133.56	4.77	66.14	34.56	12.99
7000	17.9	10.34	23.63	23.33	8.1	129.16	3.63	53.36	28.83	9.87
8000	12.78	6.79	16.19	16.84	5.85	122.46	3.14	43.12	24.29	7.78
9000	9.69	4.73	11.32	12	4.36	114.96	2.78	35.2	20.88	6.55
10000	7.78	3.6	8.37	8.75	3.17	107.17	2.59	29.07	18.25	5.51
11000	7.14	3.22	6.8	7.01	2.13	99.03	2.59	24.33	16.18	4.85
12000	7.39	3.75	6.51	6.66	1.58	90.88	2.64	20.64	14.57	4.27
13000	8.62	4.98	7.42	7.4	1.55	83.1	2.68	17.84	13.25	3.78
14000	8.9	5.93	8.59	8.5	1.97	76.02	2.59	15.66	12.07	3.46
15000	8	5.55	9.19	8.88	2.74	69.2	2.43	13.91	11.04	3.26
16000	6.8	4.13	8.89	8.21	3.23	62.71	2.31	12.55	10.18	3.17
17000	5.78	2.83	7.81	7.02	3.1	56.82	2.26	11.36	9.4	3.13
18000	4.84	1.91	6.54	5.84	2.57	51.64	2.25	10.36	8.74	3.07
19000	4.1	1.38	5.26	4.8	1.98	47.21	2.23	9.51	8.12	2.99
20000	3.64	1.18	4.04	4.05	1.48	43.28	2.16	8.81	7.5	2.87
21000	3.23	1.04	2.92	3.36	0.99	39.87	2.08	8.23	6.94	2.7
22000	2.88	0.94	2.09	2.8	0.58	36.83	1.98	7.74	6.46	2.5
23000	2.59	0.82	1.59	2.35	0.28	34.08	1.93	7.3	6.07	2.28
24000	2.3	0.72	1.34	2	0.14	31.58	1.86	6.95	5.74	2.1
25000	2.01	0.63	1.27	1.74	0.14	29.33	1.79	6.67	5.43	1.95

Wilder Reach 3 AWS

Flow (cfs)	Shallow-Fast	Shallow-Slow	Deep-Fast	Deep-Slow	DWM	Co-Occurring Mussels
700	15.27	104.21	19.66	199.06	196.87	249.14
1000	14.79	111.13	66.51	169.02	200.06	265.54
2000	27.19	105.99	193.5	78.6	150.76	298.55
3000	45.99	64.86	274.02	33.23	86.26	297.32
4000	56.76	33.82	314.32	21.34	42.82	274.92
5000	42.13	27.14	346.15	18.81	25.91	242.94
6000	33.1	18.61	373.1	14.56	16.32	205.62
7000	21.16	13.29	396.6	10.72	11.04	169.11
8000	15.15	12.71	407.6	8.48	8.03	136.52
9000	14.01	11.24	413.48	7.44	6.10	109.03
10000	10.32	9.05	419.91	9.16	4.86	87.15
11000	8.16	11.24	423.14	8.79	4.66	70.39
12000	6.26	13.99	426.34	9	4.58	57.97
13000	6.34	13.39	429.62	9.56	4.69	49.34
14000	8.15	11.47	431.1	9.63	4.55	42.09
15000	9.02	10.8	433.23	8.91	4.24	35.42
16000	9.71	9.43	435.17	8.59	3.99	29.95
17000	9.51	8.55	436.86	8.72	4.23	25.94
18000	8.82	8.7	438.91	7.89	4.06	22.57
19000	7.46	8.02	441.04	8.49	3.86	19.76
20000	6.21	7.7	442.63	9.12	3.68	17.68
21000	4.04	7.46	445.52	9.3	3.49	16.04
22000	2.88	5.97	448.18	9.89	3.25	14.71
23000	2.2	6.02	449.72	9.59	3.05	13.63
24000	2.32	6.44	450.06	9.37	2.97	12.67
25000	1.79	6.83	450.88	9.34	2.84	11.85

Wilder All AWS

Flow (cfs)	Walleye fry	Walleye juvenile	Walleye adult	Walleye spawning	Fallfish fry	Fallfish juvenile	Fallfish adult	Fallfish spawning	White Sucker fry	White Sucker juvenile/adult	White Sucker spawning
700	14.16	19.28	62.83	18.52	92.33	116.15	231.77	50.59	217.93	146.33	10.29
1000	10.85	17.38	51.75	22.8	88.38	118.43	239.28	51.14	188.53	133.5	11.17
2000	7.31	13.12	37.73	36.62	74.66	114.54	227.58	49.66	118.38	88.65	16.26
3000	6.28	10.82	35.62	51.97	58.07	104.39	201.66	45.39	84.03	62.89	15.45
4000	6.31	9.48	34.25	62.75	44.78	90.33	176.25	38.6	65.55	48.48	13.25
5000	6.61	8.68	33.22	68.96	35.48	74.4	154.38	31.47	55.55	39.57	9.09
6000	6.48	8.3	31.9	72.61	28.33	59.44	135.68	23.66	50.67	34.12	6.09
7000	6.17	7.99	30.23	72.1	22.44	48.32	119.78	17.28	47.67	31.07	4.38
8000	5.96	7.68	28.83	69.03	18.08	39.61	106.61	12.33	45.28	29.17	3.27
9000	5.75	7.46	27.68	65.18	14.93	32.15	95.91	8.67	43.41	27.66	2.6
10000	5.4	7.28	26.52	60.68	12.33	26.41	87.61	6.29	42.11	26.39	2.09
11000	4.94	7.11	25.19	55.32	11.04	22.36	81.2	4.8	41.24	25.42	1.89
12000	4.43	6.94	24.1	48.7	10.38	19.32	76.13	4	40.29	24.74	2.1
13000	3.87	6.73	23.05	42.32	10.1	17.23	72.06	3.66	39.5	24.18	2.66
14000	3.31	6.46	22.16	36.18	9.16	15.73	68.76	3.65	38.6	23.65	3.14
15000	2.84	6.19	21.31	30.48	8.14	14.79	66.07	3.73	37.94	23.11	3.07
16000	2.44	5.9	20.64	25.21	7.23	13.95	63.88	3.46	37.52	22.56	2.62
17000	2.09	5.61	20.06	20.72	6.69	13	62.12	3.01	37.47	22.1	2.07
18000	1.8	5.33	19.33	17.05	6.23	12.14	60.69	2.62	37.29	21.82	1.62
19000	1.52	5.06	18.67	14.25	5.77	11.52	59.57	2.33	37.14	21.7	1.31
20000	1.34	4.8	18.05	11.96	5.31	10.97	58.75	2.11	36.82	21.57	1.11
21000	1.19	4.57	17.46	10.27	4.89	10.5	58.11	1.92	36.47	21.5	0.92
22000	1.04	4.34	16.93	8.98	4.62	10.01	57.58	1.75	36.16	21.47	0.82
23000	0.89	4.14	16.46	8.01	4.54	9.49	57.11	1.67	35.97	21.45	0.79
24000	0.76	3.96	16.02	7.31	4.79	9.12	56.73	1.6	35.76	21.45	0.79
25000	0.64	3.79	15.61	6.73	4.98	8.79	56.41	1.61	35.66	21.41	0.84

Wilder All AWS

Flow (cfs)	Longnose Dace fry	Longnose Dace juvenile	Longnose Dace adult	Tessellated Darter adult	Sea Lamprey spawning	Macro-invertebrates	Smallmouth Bass fry	Smallmouth Bass juvenile	Smallmouth Bass adult	Smallmouth Bass spawning
700	48.79	19.01	32.73	30.59	3.88	23.32	52.34	106.25	90.11	66.3
1000	49.03	20.18	34.14	32.19	4.4	34.96	43.21	114.42	93.37	55.39
2000	49.74	26.63	43.22	39.49	6.53	64.26	28.88	120.92	83.43	33.09
3000	42.49	24.13	41.57	38.73	8.11	79.39	21.51	115.46	71.97	24.39
4000	33.07	18.17	35.59	32.24	8.25	86.81	15.98	104.54	62.69	19.29
5000	22.52	11.64	27.72	24.49	7.68	88.85	12.32	92.02	54.48	16.18
6000	16.9	7.7	19.38	18.09	6.16	87.22	10.15	79.6	47.66	13.66
7000	12.76	5.6	13.36	13.29	4.52	83.93	8.74	68.5	42.05	11.57
8000	9.82	4.15	9.69	9.92	3.34	79.74	7.68	59.32	37.44	10
9000	7.77	3.06	7.28	7.49	2.74	75.12	6.75	51.92	33.79	8.87
10000	6.39	2.21	5.58	5.73	2.17	69.85	5.91	45.92	30.87	7.92
11000	5.71	2.01	4.6	4.72	1.6	64.67	5.29	41.07	28.51	7.23
12000	5.54	2.1	4.36	4.45	1.32	59.62	4.82	37.13	26.54	6.46
13000	5.86	2.44	4.54	4.62	1.25	54.92	4.47	33.98	24.89	5.66
14000	6	2.79	4.84	4.99	1.3	50.71	4.18	31.41	23.45	4.98
15000	5.63	2.64	4.92	5.09	1.44	46.65	3.94	29.32	22.24	4.49
16000	5.13	2.1	4.7	4.77	1.44	42.84	3.77	27.63	21.24	4.13
17000	4.73	1.56	4.25	4.31	1.26	39.42	3.66	26.22	20.37	3.83
18000	4.39	1.18	3.72	3.81	1.02	36.43	3.62	25.02	19.61	3.61
19000	4.12	0.95	3.23	3.43	0.77	33.88	3.59	23.98	18.92	3.42
20000	3.89	0.85	2.71	3.12	0.56	31.61	3.6	23.08	18.3	3.23
21000	3.65	0.76	2.23	2.81	0.37	29.63	3.56	22.33	17.76	3.06
22000	3.4	0.74	1.87	2.49	0.22	27.85	3.51	21.66	17.28	2.91
23000	3.23	0.75	1.7	2.32	0.13	26.26	3.48	21.06	16.88	2.75
24000	3.19	0.77	1.62	2.19	0.09	24.79	3.43	20.56	16.54	2.6
25000	3.21	0.86	1.64	2.14	0.11	23.49	3.44	20.11	16.22	2.52

Wilder All AWS

Flow (cfs)	Shallow-Fast	Shallow-Slow	Deep-Fast	Deep-Slow	DWM	Co-Occurring Mussels
700	9.29	86.32	20.91	223.07	127.39	177.10
1000	9.8	84.21	48.69	214.47	131.23	187.05
2000	17.07	70.26	145.67	157.1	106.25	202.82
3000	24.38	49.94	224.17	109.84	70.04	200.58
4000	29.46	34.05	269.59	86.24	44.93	188.32
5000	24.42	25.7	307.41	69.26	31.17	169.82
6000	19.37	19.89	333.63	59.38	22.23	147.67
7000	12.92	16.76	351.58	54.67	17.27	125.93
8000	9.83	14.48	363.69	51.31	14.28	106.32
9000	8.88	12.76	371.65	48.51	12.18	89.52
10000	6.83	11.12	377.27	48.96	10.74	75.77
11000	6.21	11.56	381.53	48.04	9.92	64.73
12000	5.07	12.7	384.91	47.95	9.18	56.04
13000	4.51	13.23	388.68	47.2	8.67	49.29
14000	5.02	12.2	391.54	46.59	8.14	43.55
15000	5.26	11.85	395.13	44.87	7.70	38.55
16000	5.43	12.4	398.86	42.9	7.34	34.31
17000	5.15	12.16	401.11	42.8	7.16	30.92
18000	4.76	12.45	403.36	42.26	6.86	28.02
19000	3.95	12.45	405.52	42.52	6.63	25.63
20000	3.1	11.88	408.42	42.18	6.40	23.66
21000	2.82	11.57	411.1	41.48	6.18	22.01
22000	1.94	11.88	413.68	40.91	6.02	20.61
23000	1.96	11.61	415.25	41.2	5.88	19.45
24000	1.96	11.19	416.5	41.81	5.79	18.46
25000	1.6	11.84	417.79	42.02	5.69	17.50

Bellows Falls AWS

Flow (cfs)	American Shad juvenile	American Shad adult	American Shad spawning	Walleye fry	Walleye juvenile	Walleye adult	Walleye spawning	Fallfish fry	Fallfish juvenile	Fallfish adult	Fallfish spawning
1300	320.08	239.391	197.627	14.16	19.28	62.83	18.52	92.33	116.15	231.77	50.59
2300	345.176	289.032	258.499	10.85	17.38	51.75	22.8	88.38	118.43	239.28	51.14
3300	348.063	325.053	298.284	7.31	13.12	37.73	36.62	74.66	114.54	227.58	49.66
4300	341.461	352.217	324.903	6.28	10.82	35.62	51.97	58.07	104.39	201.66	45.39
5300	331.132	372.385	341.332	6.31	9.48	34.25	62.75	44.78	90.33	176.25	38.6
6300	318.659	386.306	351.701	6.61	8.68	33.22	68.96	35.48	74.4	154.38	31.47
7300	305.901	394.652	357.881	6.48	8.3	31.9	72.61	28.33	59.44	135.68	23.66
8300	292.398	399.433	360.549	6.17	7.99	30.23	72.1	22.44	48.32	119.78	17.28
9300	279.18	401.786	360.969	5.96	7.68	28.83	69.03	18.08	39.61	106.61	12.33
10300	266.643	401.874	360.089	5.75	7.46	27.68	65.18	14.93	32.15	95.91	8.67
11300	254.182	399.941	358.173	5.4	7.28	26.52	60.68	12.33	26.41	87.61	6.29
12300	241.845	395.92	355.479	4.94	7.11	25.19	55.32	11.04	22.36	81.2	4.8
13300	229.715	389.886	351.896	4.43	6.94	24.1	48.7	10.38	19.32	76.13	4
14300	217.894	382.416	347.546	3.87	6.73	23.05	42.32	10.1	17.23	72.06	3.66
15300	206.598	373.71	342.658	3.31	6.46	22.16	36.18	9.16	15.73	68.76	3.65
16300	195.864	364.181	336.788	2.84	6.19	21.31	30.48	8.14	14.79	66.07	3.73
17300	185.625	354.23	329.784	2.44	5.9	20.64	25.21	7.23	13.95	63.88	3.46
18300	175.868	343.903	321.847	2.09	5.61	20.06	20.72	6.69	13	62.12	3.01
19300	166.68	333.485	313.276	1.8	5.33	19.33	17.05	6.23	12.14	60.69	2.62
20300	158.146	322.982	303.895	1.52	5.06	18.67	14.25	5.77	11.52	59.57	2.33
21300	150.203	312.486	293.982	1.34	4.8	18.05	11.96	5.31	10.97	58.75	2.11
22300	142.84	302.213	283.711	1.19	4.57	17.46	10.27	4.89	10.5	58.11	1.92
23300	136.048	292.244	273.355	1.04	4.34	16.93	8.98	4.62	10.01	57.58	1.75
24300	129.863	282.566	263.004	0.89	4.14	16.46	8.01	4.54	9.49	57.11	1.67
25300	124.199	273.389	252.751	0.76	3.96	16.02	7.31	4.79	9.12	56.73	1.6

Bellows Falls AWS

Flow (cfs)	White Sucker fry	White Sucker juvenile/adult	White Sucker spawning	Longnose Dace fry	Longnose Dace juvenile	Longnose Dace adult	Tessellated Darter adult	Sea Lamprey spawning	Macro-invertebrates
1300	217.93	146.33	10.29	48.79	19.01	32.73	30.59	3.88	23.32
2300	188.53	133.5	11.17	49.03	20.18	34.14	32.19	4.4	34.96
3300	118.38	88.65	16.26	49.74	26.63	43.22	39.49	6.53	64.26
4300	84.03	62.89	15.45	42.49	24.13	41.57	38.73	8.11	79.39
5300	65.55	48.48	13.25	33.07	18.17	35.59	32.24	8.25	86.81
6300	55.55	39.57	9.09	22.52	11.64	27.72	24.49	7.68	88.85
7300	50.67	34.12	6.09	16.9	7.7	19.38	18.09	6.16	87.22
8300	47.67	31.07	4.38	12.76	5.6	13.36	13.29	4.52	83.93
9300	45.28	29.17	3.27	9.82	4.15	9.69	9.92	3.34	79.74
10300	43.41	27.66	2.6	7.77	3.06	7.28	7.49	2.74	75.12
11300	42.11	26.39	2.09	6.39	2.21	5.58	5.73	2.17	69.85
12300	41.24	25.42	1.89	5.71	2.01	4.6	4.72	1.6	64.67
13300	40.29	24.74	2.1	5.54	2.1	4.36	4.45	1.32	59.62
14300	39.5	24.18	2.66	5.86	2.44	4.54	4.62	1.25	54.92
15300	38.6	23.65	3.14	6	2.79	4.84	4.99	1.3	50.71
16300	37.94	23.11	3.07	5.63	2.64	4.92	5.09	1.44	46.65
17300	37.52	22.56	2.62	5.13	2.1	4.7	4.77	1.44	42.84
18300	37.47	22.1	2.07	4.73	1.56	4.25	4.31	1.26	39.42
19300	37.29	21.82	1.62	4.39	1.18	3.72	3.81	1.02	36.43
20300	37.14	21.7	1.31	4.12	0.95	3.23	3.43	0.77	33.88
21300	36.82	21.57	1.11	3.89	0.85	2.71	3.12	0.56	31.61
22300	36.47	21.5	0.92	3.65	0.76	2.23	2.81	0.37	29.63
23300	36.16	21.47	0.82	3.4	0.74	1.87	2.49	0.22	27.85
24300	35.97	21.45	0.79	3.23	0.75	1.7	2.32	0.13	26.26
25300	35.76	21.45	0.79	3.19	0.77	1.62	2.19	0.09	24.79

Bellows Falls AWS

Flow (cfs)	Smallmouth Bass fry	Smallmouth Bass juvenile	Smallmouth Bass adult	Smallmouth Bass spawning	Shallow-Fast	Shallow-Slow	Deep-Fast	Deep-Slow
1300	52.34	106.25	90.11	66.3	9.29	86.32	20.91	223.07
2300	43.21	114.42	93.37	55.39	9.8	84.21	48.69	214.47
3300	28.88	120.92	83.43	33.09	17.07	70.26	145.67	157.1
4300	21.51	115.46	71.97	24.39	24.38	49.94	224.17	109.84
5300	15.98	104.54	62.69	19.29	29.46	34.05	269.59	86.24
6300	12.32	92.02	54.48	16.18	24.42	25.7	307.41	69.26
7300	10.15	79.6	47.66	13.66	19.37	19.89	333.63	59.38
8300	8.74	68.5	42.05	11.57	12.92	16.76	351.58	54.67
9300	7.68	59.32	37.44	10	9.83	14.48	363.69	51.31
10300	6.75	51.92	33.79	8.87	8.88	12.76	371.65	48.51
11300	5.91	45.92	30.87	7.92	6.83	11.12	377.27	48.96
12300	5.29	41.07	28.51	7.23	6.21	11.56	381.53	48.04
13300	4.82	37.13	26.54	6.46	5.07	12.7	384.91	47.95
14300	4.47	33.98	24.89	5.66	4.51	13.23	388.68	47.2
15300	4.18	31.41	23.45	4.98	5.02	12.2	391.54	46.59
16300	3.94	29.32	22.24	4.49	5.26	11.85	395.13	44.87
17300	3.77	27.63	21.24	4.13	5.43	12.4	398.86	42.9
18300	3.66	26.22	20.37	3.83	5.15	12.16	401.11	42.8
19300	3.62	25.02	19.61	3.61	4.76	12.45	403.36	42.26
20300	3.59	23.98	18.92	3.42	3.95	12.45	405.52	42.52
21300	3.6	23.08	18.3	3.23	3.1	11.88	408.42	42.18
22300	3.56	22.33	17.76	3.06	2.82	11.57	411.1	41.48
23300	3.51	21.66	17.28	2.91	1.94	11.88	413.68	40.91
24300	3.48	21.06	16.88	2.75	1.96	11.61	415.25	41.2
25300	3.43	20.56	16.54	2.6	1.96	11.19	416.5	41.81

Bellows Falls AWS

Flow (cfs)	DWM	Co-Occurring Mussels
1300	118.16	186.32
2000	110.60	192.28
3000	90.86	190.60
4000	75.61	182.37
5000	59.18	171.79
6000	45.69	160.57
7000	37.58	148.49
8000	32.37	135.41
9000	28.72	122.59
10000	26.02	110.91
11000	23.75	100.29
12000	21.75	90.91
13000	20.43	82.33
14000	19.39	74.88
15000	18.50	68.39
16000	17.57	62.65
17000	16.70	57.53
18000	15.98	52.99
19000	15.51	48.96
20000	15.11	45.52
21000	14.62	42.46
22000	14.19	39.71
23000	13.85	37.34
24000	13.45	35.19
25000	13.02	33.25

Bellows Falls Bypassed Reach AWS (Low Velocity Calibration)

Flow (cfs)	American Shad juvenile	American Shad adult	American Shad spawning	Walleye fry	Walleye juvenile	Walleye adult	Walleye spawning	Fallfish fry	Fallfish juvenile	Fallfish adult	Fallfish spawning
100	29.49	4.28	14.12	0.05	0	0	1.01	5.89	19.01	23.34	2.86
200	33.58	8.49	20.58	0.33	0	0	3.63	6.41	20.31	25.22	3.89
300	34.25	11.93	24.99	0.48	0.01	0.01	5.95	6.3	19.99	25.23	4.27
400	34.94	14.43	28.31	0.51	0.06	0.02	7.33	6.47	19.27	25.46	4.44
500	35.58	16.16	30.38	0.48	0.15	0.04	8.24	6.52	18.48	24.99	4.46
600	36.16	17.61	31.93	0.45	0.21	0.08	8.69	6.48	18.24	24.5	4.36
700	36.63	18.82	33.16	0.43	0.26	0.13	8.93	6.37	18.04	24.25	4.1
800	37	19.79	34.15	0.41	0.3	0.2	9.01	6.14	18.09	24.1	3.88
900	37.38	20.53	34.99	0.38	0.33	0.35	9.3	6.21	18.37	23.92	3.68
1000	37.75	21.05	35.65	0.36	0.33	0.62	9.67	6.28	18.32	23.77	3.52
1100	38.23	21.32	36.21	0.34	0.34	0.88	9.9	6.19	17.94	23.76	3.36
1200	38.68	21.55	36.79	0.33	0.34	1.11	10.29	6.01	17.6	23.86	3.24
1300	38.96	21.7	37.25	0.32	0.34	1.3	10.76	5.81	17.46	23.85	3.23
1400	39.15	21.76	37.61	0.31	0.34	1.51	11.35	5.61	17.6	23.86	3.19
1500	39.3	21.87	37.97	0.3	0.34	1.72	12.16	5.39	17.61	23.94	3.13
1600	39.32	21.92	38.2	0.29	0.34	1.88	12.86	5.15	17.43	24	3.02
1700	39.25	21.93	38.36	0.28	0.34	2.01	13.47	4.96	17.14	24.04	2.88
1800	39.14	21.91	38.51	0.27	0.33	2.09	14.15	4.86	16.81	24.07	2.75
1900	39.03	21.97	38.73	0.27	0.33	2.12	14.8	4.78	16.59	24.15	2.59
2000	38.87	22.07	38.86	0.26	0.33	2.11	15.41	4.66	16.37	24.2	2.44
2100	38.66	22.2	38.91	0.25	0.32	2.11	15.93	4.5	16.08	24.27	2.3
2200	38.4	22.32	38.93	0.23	0.32	2.1	16.31	4.32	15.79	24.3	2.23
2300	38.12	22.47	38.96	0.22	0.31	2.08	16.62	4.16	15.48	24.36	2.19
2400	37.85	22.64	39.04	0.22	0.31	2.07	16.87	4.04	15.17	24.48	2.19
2500	37.58	22.78	39.14	0.21	0.31	2.05	17.02	3.96	14.89	24.59	2.2

Bellows Falls Bypassed Reach AWS (Low Velocity Calibration)

Flow (cfs)	White Sucker fry	White Sucker juvenile/adult	White Sucker spawning	Longnose Dace fry	Longnose Dace juvenile	Longnose Dace adult	Tessellated Darter adult	Sea Lamprey spawning	Macro-invertebrates
100	30.57	17.11	0.94	23.66	3.29	27.9	16.47	0.93	23.21
200	25.79	15.58	1.06	20.25	3.06	25.32	15.22	1.49	38.55
300	23.06	14.65	0.84	17.19	2.55	20.94	13.61	1.5	46.62
400	22.37	14.11	0.67	16.15	2.46	18.79	12.23	1.35	50.3
500	21.65	13.61	0.71	16.4	2.81	18.93	11.9	1.29	52.87
600	20.77	13.27	0.83	16.82	3.38	20.16	12.51	1.46	55.47
700	20.42	12.96	0.99	17.19	3.97	21.63	13.2	1.84	57.41
800	20.5	12.77	1.15	17.12	4.43	23.22	13.89	2.19	58.69
900	20.74	12.72	1.33	16.73	4.79	24.66	14.5	2.74	59.78
1000	21	12.77	1.57	16.47	4.96	25.97	15.12	3.3	60.61
1100	21.28	12.81	1.78	17.09	5.02	27.16	15.78	3.87	61.28
1200	21.7	12.83	1.94	17.34	5.06	28.14	16.22	4.43	61.89
1300	22.06	12.87	2.05	16.95	5.05	28.66	16.47	5.02	62.4
1400	22.35	12.96	2.1	16.6	4.83	28.99	16.45	5.48	62.67
1500	22.55	13.07	2.1	16.12	4.57	29.11	16.29	5.85	62.72
1600	22.69	13.23	2.07	15.87	4.2	28.96	15.99	6.13	62.62
1700	22.76	13.41	2	15.54	3.85	28.49	15.56	6.33	62.42
1800	22.79	13.63	1.91	15.16	3.55	27.93	15.05	6.45	62.19
1900	22.77	13.87	1.85	14.7	3.33	27.24	14.53	6.5	61.99
2000	22.78	14.14	1.83	14.17	3.14	26.44	14	6.46	61.69
2100	22.79	14.46	1.83	13.72	2.98	25.52	13.46	6.38	61.32
2200	22.73	14.7	1.86	13.31	2.82	24.5	12.92	6.26	60.91
2300	22.63	14.89	1.88	12.97	2.7	23.51	12.42	6.14	60.42
2400	22.46	15.04	1.9	12.61	2.6	22.56	11.97	6	59.89
2500	22.29	15.17	1.93	12.26	2.51	21.58	11.56	5.84	59.4

Bellows Falls Bypassed Reach AWS (Low Velocity Calibration)

Flow (cfs)	Smallmouth Bass fry	Smallmouth Bass juvenile	Smallmouth Bass adult	Smallmouth Bass spawning	Shallow-Fast	Shallow-Slow	Deep-Fast	Deep-Slow
100	27.41	33.43	14.53	1.13	12.9	46.41	10.36	9.64
200	22.15	36.88	17.43	2.42	17.11	34.64	24.75	13.07
300	19.62	35.92	18.34	3.69	14.4	31.23	38.94	10.86
400	18.29	34.55	18.59	4.1	13.61	31.79	46.83	13.51
500	17.6	32.85	18.09	4.06	13.91	32.75	51.98	14.24
600	16.81	31.53	17.79	4	18.11	31.26	55.82	13.75
700	16.13	30.57	17.59	3.96	21.91	31.27	57.75	13.68
800	15.79	29.88	17.43	3.93	26.11	28.97	60.19	14.64
900	15.71	29.3	17.23	3.9	24.51	31.43	63.74	14.55
1000	15.69	28.9	17	3.91	24.83	31.35	67.63	14.69
1100	15.68	28.6	16.77	3.93	27.83	29.91	69.56	14.62
1200	15.81	28.4	16.62	3.92	28.48	29	72.56	14.49
1300	15.94	28.22	16.45	3.9	29.94	27.09	74.57	14.85
1400	16.06	28.09	16.32	3.89	31.71	26.6	75.4	14.48
1500	16.19	28.11	16.28	3.9	33.25	26.21	75.58	14.77
1600	16.33	28.16	16.25	3.95	35.07	25	76.25	14.92
1700	16.51	28.27	16.31	4.02	36.54	24.39	77.32	14.59
1800	16.72	28.35	16.34	4.09	36.94	23.62	78.62	14.82
1900	16.89	28.49	16.42	4.14	37.51	22.9	79.54	15.14
2000	16.98	28.67	16.55	4.16	38.24	22.1	80.93	14.9
2100	17.13	28.85	16.7	4.18	36.88	22.28	83.31	14.84
2200	17.27	28.97	16.83	4.17	36.53	22.52	84.27	14.95
2300	17.41	29.11	16.99	4.15	36.46	20.83	85.8	16.06
2400	17.56	29.27	17.17	4.13	36.27	20.79	87.06	15.88
2500	1.15	33.11	23.71	1.92	2.4	7.83	480.49	63.72

Bellows Falls Bypassed Reach AWS (Middle Flow Velocity Calibration)

Flow (cfs)	American Shad juvenile	American Shad adult	American Shad spawning	Walleye fry	Walleye juvenile	Walleye adult	Walleye spawning	Fallfish fry	Fallfish juvenile	Fallfish adult	Fallfish spawning
100	29.78	4.77	14.75	0.18	0	0	0.99	5.24	18.47	25.62	2.41
200	34.11	9.04	21.69	0.64	0.01	0.01	2.94	5.66	21.05	25.65	3.5
300	34.77	13.17	25.96	0.84	0.03	0.02	5.17	5.61	19.94	23.95	3.72
400	34.68	16.65	29.35	0.84	0.16	0.04	7.42	5.91	18.04	22.17	3.78
500	34.64	19.14	32.3	0.8	0.28	0.09	9.04	6.54	16.2	20.91	3.69
600	34.59	20.64	34.79	0.77	0.38	0.16	9.97	6.74	15.48	20.33	3.54
700	34.39	21.41	36.45	0.74	0.47	0.26	10.27	6.87	15.44	20.07	3.47
800	34.13	21.41	37.37	0.72	0.52	0.43	10.27	6.84	15.81	20.11	3.48
900	33.54	20.58	37.28	0.7	0.55	0.73	10.13	6.77	15.96	19.96	3.43
1000	34.17	20.35	37.48	0.68	0.56	1.1	9.99	6.88	17.03	20.59	3.5
1100	34.41	19.86	37.12	0.66	0.57	1.48	9.65	6.89	17.54	21.18	3.51
1200	34.47	19.33	36.44	0.64	0.57	1.83	9.23	6.77	18.11	21.7	3.52
1300	34.58	18.77	35.84	0.63	0.57	2.19	8.77	6.64	18.61	22.3	3.59
1400	34.66	18.1	35.21	0.6	0.58	2.52	8.18	6.44	18.83	22.9	3.59
1500	34.8	17.62	34.43	0.59	0.58	2.83	7.73	6.2	18.77	23.47	3.51
1600	35.04	17.27	33.57	0.57	0.58	3.07	7.38	5.97	18.7	24.03	3.4
1700	35.26	17.02	32.65	0.56	0.58	3.25	7.29	5.78	18.66	24.56	3.24
1800	35.47	16.94	31.85	0.56	0.57	3.33	7.56	5.65	18.69	25.09	3.08
1900	35.71	17.02	31.23	0.55	0.57	3.34	8.08	5.53	18.7	25.56	2.9
2000	35.95	17.24	30.71	0.54	0.56	3.33	8.66	5.39	18.74	25.98	2.72
2100	36.11	17.51	30.34	0.53	0.56	3.31	9.28	5.21	18.73	26.35	2.56
2200	36.24	17.83	30.19	0.52	0.55	3.31	9.84	5.01	18.69	26.7	2.45
2300	36.35	18.21	30.21	0.51	0.55	3.31	10.41	4.8	18.58	27.07	2.39
2400	36.43	18.58	30.31	0.49	0.54	3.32	10.94	4.64	18.42	27.45	2.36
2500	36.49	18.93	30.44	0.48	0.54	3.33	11.39	4.54	18.27	27.8	2.37

Bellows Falls Bypassed Reach AWS (Middle Flow Velocity Calibration)

Flow (cfs)	White Sucker fry	White Sucker juvenile/adult	White Sucker spawning	Longnose Dace fry	Longnose Dace juvenile	Longnose Dace adult	Tessellated Darter adult	Sea Lamprey spawning	Macro-invertebrates
100	28.63	17.9	0.65	24.99	2.85	28.7	17.17	0.67	22.29
200	21.99	11.74	0.68	20.41	2.58	25.3	15.38	1.06	41.62
300	20.9	10.03	0.46	15.94	1.9	21.2	13.15	1.26	51.91
400	21.59	10.39	0.35	13.74	1.49	17.75	10.87	1.21	55.89
500	22.83	10.91	0.41	13.6	1.66	16.23	9.74	1.08	57.82
600	24.16	11.25	0.52	14.12	2.18	16.4	9.66	1.13	58.74
700	25.26	11.71	0.7	15.03	2.74	17.26	10.09	1.39	59.09
800	26.22	12.16	0.88	15.95	3.15	18.17	10.67	1.64	58.93
900	26.86	12.58	0.99	16.32	3.47	18.77	11.11	1.97	58.61
1000	28.32	13.29	1.22	17.48	4.07	20.26	12.13	2.34	58.63
1100	29.23	13.84	1.42	18.33	4.55	21.44	12.82	2.68	57.99
1200	29.83	14.31	1.6	18.65	4.87	22.58	13.39	3.05	57.24
1300	30.11	14.81	1.76	18.72	5.02	23.63	13.86	3.49	56.29
1400	30.19	15.24	1.83	18.63	4.86	24.46	14.16	3.88	55.2
1500	30.25	15.7	1.85	18.47	4.54	25.08	14.39	4.24	54.04
1600	30.25	16.17	1.83	18.37	4.18	25.59	14.47	4.52	52.99
1700	30.12	16.61	1.76	18.02	3.85	25.86	14.39	4.74	52.15
1800	29.95	17.05	1.7	17.52	3.59	25.87	14.26	4.91	51.39
1900	29.77	17.5	1.65	16.9	3.37	25.6	13.99	4.98	50.81
2000	29.64	17.91	1.63	16.3	3.18	25.17	13.63	4.97	50.25
2100	29.48	18.25	1.63	15.81	3	24.57	13.28	4.98	49.63
2200	29.35	18.54	1.65	15.36	2.81	23.83	12.88	4.99	49.05
2300	29.18	18.8	1.67	14.89	2.64	23.01	12.49	4.97	48.48
2400	29.01	19.06	1.69	14.4	2.45	22.16	12.07	4.95	47.95
2500	28.84	19.3	1.72	13.88	2.3	21.25	11.68	4.88	47.44

Bellows Falls Bypassed Reach AWS (Middle Flow Velocity Calibration)

Flow (cfs)	Smallmouth Bass fry	Smallmouth Bass juvenile	Smallmouth Bass adult	Smallmouth Bass spawning	Shallow-Fast	Shallow-Slow	Deep-Fast	Deep-Slow
100	26.75	36.06	16.71	1.24	12.37	47.5	11	9.53
200	16.22	39.83	17.77	2.89	18.56	34.39	29.22	7.64
300	14.79	36.64	16.7	5.09	17.32	28.74	43.39	7.04
400	14.68	32.61	15.58	5.66	14.79	28.91	50.1	12.09
500	15.36	28.73	14.75	5.87	14.49	32.61	54.47	11.96
600	16.32	26.08	14.22	5.96	14.54	35.42	58.28	11.72
700	17.29	24.36	13.94	5.88	17.15	34.47	60.25	13.54
800	18.14	23.37	13.74	5.74	18.73	34.47	62.72	14.84
900	18.72	22.41	13.41	5.64	20.93	33.23	64.29	15.7
1000	20.04	22.6	13.4	5.55	21.13	35.74	67.09	15.57
1100	20.87	22.77	13.48	5.5	21.74	36.09	69.62	15.48
1200	21.56	22.94	13.56	5.49	22.33	35.7	71.71	15.38
1300	22.16	23.35	13.68	5.49	22.85	34.98	73.64	15.45
1400	22.6	23.86	13.78	5.54	25.21	33.91	74.39	15.29
1500	22.93	24.42	13.98	5.59	27.18	32.23	74.96	15.99
1600	23.22	25.06	14.23	5.66	27.48	31.95	76.66	15.68
1700	23.24	25.7	14.53	5.75	28.37	31.97	77.49	15.27
1800	23.11	26.37	14.9	5.84	29.31	31.82	78.03	15.09
1900	22.94	27.08	15.36	5.89	29.96	31.12	79.17	15.23
2000	22.77	27.79	15.83	5.93	31.73	29.49	79.53	15.88
2100	22.6	28.44	16.28	5.97	32.11	27.6	80.39	17.57
2200	22.46	29.07	16.74	6	32.91	26.71	80.96	17.99
2300	22.33	29.63	17.22	6.02	32.15	24.72	83.5	18.94
2400	22.18	30.16	17.7	6.04	32.38	24.96	83.75	18.91
2500	22.04	30.62	18.17	6.04	30.85	23.61	86.92	19.26

Vernon AWS (Turners Falls Impoundment Elevation 180.6 ft)

Flow (cfs)	American Shad juvenile	American Shad adult	American Shad spawning	Walleye fry	Walleye juvenile	Walleye adult	Walleye spawning	Fallfish fry	Fallfish juvenile	Fallfish adult	Fallfish spawning
1200	217.83	186.63	114.95	18.78	36.84	108.99	11.43	100.41	88.81	315.59	52.83
2000	227.99	199.91	145.68	16.6	28.77	77.25	18.18	96.07	91.37	310.02	58.56
3000	233.54	210.3	175.18	15.1	23.83	59.27	29.46	82.94	97.69	289.65	67.65
4000	232.9	219.85	192.72	14.83	21.73	51.23	39.82	71.54	102.21	265.42	66.64
5000	230.59	229.75	205.53	15.37	20.56	47.92	50.47	61.9	93.01	245.71	60.11
6000	227.14	241.32	216.48	15.73	19.36	46.54	61.52	54.65	83.92	228.49	51.26
7000	222.47	252.24	225.26	15.46	19.25	45.78	68.52	48.83	75.76	213.17	43.63
8000	219.88	263.07	233.45	14.05	19.07	44.89	71.63	46.39	70.47	201.84	38.7
9000	217.92	274.64	241.66	12.15	19.44	43.81	71.63	42.69	66.44	193.66	34.53
10000	214.59	283.95	249.05	10.97	19.29	43.07	70.43	38	62.5	184.84	30.26
11000	210.47	291.05	254.4	9.6	19.04	42.99	68.01	32.79	56.68	176.87	26.24
12000	206.92	297.79	259.1	8.14	18.57	44.04	64.2	27.73	49.7	170.46	22.25
13000	202.37	302.5	262.12	7.18	17.86	44.78	59.44	23.43	42.13	163.81	17.86
14000	199.16	308.52	264.92	6.3	17.22	45.8	54.16	19.02	35.74	158.61	13.62
15000	194.49	310.44	265.46	5.56	16.44	44.99	49.19	15.33	32.2	152.97	9.96
16000	190.14	312.38	265	4.93	15.76	43.99	43.96	11.86	28.87	147.93	7.29
17000	186.06	313.35	264.39	4.44	15.13	42.99	39.63	9.71	25.84	143.3	5.5
18000	181.59	311.94	262.21	4	14.43	41.75	34.98	7.89	22.88	138.61	4
19000	177.69	310.62	260.61	3.6	13.72	40.67	29.21	6.66	20.18	134.51	2.79
20000	173.7	308.24	258.68	3.27	13.11	39.67	23.94	5.51	17.78	130.56	1.87
21000	169.6	305.53	256.43	2.98	12.5	38.82	19.25	4.46	16	127.08	1.13
22000	165.88	303.02	254.16	2.66	11.87	37.94	13.98	3.73	14.73	124.21	0.59
23000	161.62	298.87	250.52	2.38	11.22	36.84	11.07	3.22	13.8	120.96	0.33
24000	157.77	296.2	248.09	2.06	10.54	35.84	8.5	2.79	12.85	117.88	0.11
25000	153.39	292.45	244.98	1.76	9.89	34.99	7.01	2.43	11.82	115	0.04

Vernon AWS (Turners Falls Impoundment Elevation 180.6 ft)

Flow (cfs)	White Sucker fry	White Sucker juvenile/adult	White Sucker spawning	Longnose Dace fry	Longnose Dace juvenile	Longnose Dace adult	Tessellated Darter adult	Sea Lamprey spawning	Macro-invertebrates
1200	335.01	188.52	14.72	57.62	23.99	30.81	29.96	2.58	11.93
2000	253.32	160.91	26.78	66.48	36.51	45.06	44.44	6.63	31.31
3000	178.76	116.87	36.56	70.7	44.76	58.51	56.76	13.47	56.67
4000	138.98	86.8	35.61	62.77	42.49	62.52	58.06	19.11	77.46
5000	115.57	69.94	28.28	52.43	29.8	58.3	51.61	20.14	88.28
6000	99.73	60.21	19.42	44	18.78	46.72	42.58	17.59	93.29
7000	91.35	54.62	12.44	36.92	13.46	34.29	33.89	13.03	95.2
8000	86.07	51.89	9.83	31.51	11.3	24.81	27.51	8.12	95.05
9000	81.82	50.58	8.66	26.03	9.92	17.45	22.24	5.31	93.56
10000	77.89	49.43	7.75	22.11	8.9	14.99	18.52	3.92	90.7
11000	74.16	48.52	6.61	18.97	7.63	13.22	15.94	3.16	86.5
12000	70.29	47.92	4.79	15.84	5.74	11.27	13.48	2.24	81.23
13000	67.16	46.58	3.14	12.7	3.86	8.9	10.91	1.65	76.05
14000	64.73	45.04	1.79	9.78	1.97	6.07	8.45	0.8	70.72
15000	62.15	43.31	1.28	7.65	1.37	3.83	6.9	0.43	65.98
16000	59.54	41.28	1.05	5.95	1.04	2.65	5.56	0.27	61.39
17000	57.14	39.33	0.86	4.48	0.58	1.65	4.06	0.07	57.17
18000	55	37.36	0.77	3.66	0.33	1.22	3.22	0.04	53.36
19000	53.22	35.5	0.69	3.17	0.23	0.97	2.84	0.03	49.83
20000	51.53	33.9	0.79	3.03	0.21	0.76	2.65	0.01	46.9
21000	49.97	32.24	0.84	2.96	0.18	0.73	2.53	0.01	44.32
22000	48.52	30.67	0.7	2.57	0.15	0.69	2.35	0.01	41.84
23000	47.23	29.3	0.59	2.41	0.12	0.67	2.21	0.01	39.89
24000	46.21	27.94	0.54	2.22	0.11	0.68	2.04	0.01	38.02
25000	45.09	26.66	0.42	2.03	0.1	0.54	1.79	0.01	36.56

Vernon AWS (Turners Falls Impoundment Elevation 180.6 ft)

Flow (cfs)	Smallmouth Bass fry	Smallmouth Bass juvenile	Smallmouth Bass adult	Smallmouth Bass spawning	Shallow-Fast	Shallow-Slow	Deep-Fast	Deep-Slow
1200	34.37	82.34	73.77	60.9	0.53	123.48	23.28	317.41
2000	27.17	86.99	71.98	41.41	13.14	109.21	50.53	298.87
3000	19.93	85.23	61.03	23.95	35.44	91.16	117.4	241.17
4000	16.07	82.6	53.13	17.99	54.17	69.39	185.48	184.92
5000	14	79	48.64	16	53.99	60.41	236.98	151.1
6000	12.82	74.15	45.13	15.8	52.07	52.47	279.39	125.19
7000	12.22	68.88	42.17	17.3	35.41	42.81	333.81	104.42
8000	12.08	64.33	39.86	17.65	24.33	32.1	363.97	101.99
9000	11.36	60.85	38.64	16.89	15.54	29.42	385.58	96.92
10000	10.33	57.5	37.03	15.8	11.86	25.14	401.75	91.83
11000	9.72	54.77	35.51	15.22	10.56	20.38	412.54	88.91
12000	9.06	52.83	34.45	14.94	10.06	17.45	421.17	85.75
13000	8.1	50.83	33.4	14.54	8.49	15.05	431.72	81.21
14000	7.13	49.29	32.71	14.1	4.93	12.14	439.57	81.27
15000	6.3	47.27	31.75	13.64	3.39	9.91	446.37	79.63
16000	5.3	45.55	30.94	12.91	2.52	9.61	450.31	78.71
17000	4.4	43.79	30.13	11.96	2.18	9.64	454.24	76.87
18000	3.74	42.02	29.24	10.18	2.65	10.11	455.98	76.03
19000	3.14	40.51	28.33	8.03	2.03	9.11	461.15	74.19
20000	2.62	38.99	27.42	6.38	2.15	8.22	464.14	73.31
21000	2.2	37.57	26.55	5.23	2.23	8.81	469.23	69.15
22000	1.8	36.38	25.78	4.14	3.14	8.32	471.95	67.46
23000	1.53	35.14	24.96	3.34	2.88	8.38	475.17	65.61
24000	1.34	34.15	24.34	2.54	2.26	8.39	478.62	63.98
25000	1.15	33.11	23.71	1.92	2.4	7.83	480.49	63.72

Vernon AWS (Turners Falls Impoundment Elevation 180.6 ft)

Flow (cfs)	Co-Occurring Mussels
1600	145.85
1800	145.06
2000	143.95
3000	142.05
4000	139.58
5000	134.09
6000	125.51
7440	112.13
9120	101.14
10595	92.65
12070	84.89
13900	75.39
15960	69.78
17100	65.11
18000	54.04
20000	50.19
22000	47.42
24000	45.28
25000	50.87

Vernon AWS - Turners Falls Impoundment Elevation 175.6 ft (NAVD88)

Flow (cfs)	American Shad	American Shad	American Shad	Walleye fry	Walleye juvenile	Walleye adult	Walleye spawning	Fallfish fry	Fallfish juvenile	Fallfish adult	Fallfish spawning
1200	138.44	125.77	93.87	10.47	23.43	69.45	21.13	51.54	60.72	161.44	34.82
2000	144.23	138.12	116.41	10.46	20.12	57.39	29.99	45.41	61.7	164.98	34.36
3000	146.83	149.27	132.15	11.15	17.13	46.26	34	38.98	60.01	164.67	31.49
4000	150.95	161.18	143.3	11.76	15.88	41.19	37.75	40.55	53.16	161.67	28.08
5000	158.85	173.38	156.46	11.67	15.46	39	44.25	46.31	50.48	159.28	26.18
6000	166.57	185.8	170.67	11.8	15.46	37.8	52.71	46.5	50.89	156.23	28.39
7000	170.89	198.32	184.49	12.32	15.45	37.12	62.76	41.45	55.07	152.53	31.35
8000	173.09	210.56	196.98	12.14	15.35	36.74	71.02	38.45	54.16	148.27	28.98
9000	175.18	222.38	208.02	10.77	15.77	36.05	75.24	37.23	52.71	146.2	27.82
10000	175.69	233.2	217.54	9.51	15.89	35.19	74.27	37.04	50.06	143.77	26.01
11000	175.98	242.4	225.57	8.35	15.96	34.4	70.7	33.88	47.37	141.22	24.54
12000	175.26	249.59	232.06	7.1	15.8	34.08	66.66	30.2	46.24	138.93	22.46
13000	173.87	255.6	237.15	5.94	15.46	34	63.21	25.82	43.54	136.69	19.53
14000	171.83	260.79	240.82	5.01	15.05	34.64	60.25	22.24	37.37	133.81	15.67
15000	169.49	265.46	243.06	4.3	14.54	35.5	56.96	18.92	31.29	130.51	11.67
16000	167.07	269.5	244.31	3.63	14.04	36.56	53.61	15.61	26.06	127.41	8.3
17000	164.48	272.87	244.6	3.08	13.44	36.7	49.95	12.44	22.64	124.32	5.31
18000	161.7	275.14	244.36	2.61	12.83	35.88	45	9.69	20.38	121.17	2.97
19000	158.95	276.78	243.73	2.33	12.2	35.01	40.58	7.78	18.31	118.06	1.79
20000	156.08	277.18	242.52	2.15	11.59	34.09	36.61	6.37	16.39	115.06	1.12
21000	153.06	276.37	240.88	1.98	10.97	33.22	31.99	5.51	14.9	112.31	0.68
22000	150.14	274.87	239.01	1.77	10.39	32.32	27.28	4.74	13.64	109.66	0.39
23000	147.18	273.05	236.88	1.58	9.88	31.44	22.65	4.12	12.8	107.26	0.22
24000	144.15	270.92	234.58	1.39	9.37	30.56	17.63	3.54	12.21	105	0.12
25000	141.13	268.49	232.17	1.21	8.84	29.73	13.45	3.2	11.57	102.87	0.08

Vernon AWS - Turners Falls Impoundment Elevation 175.6 ft (NAVD88)

Flow (cfs)	White Sucker	White Sucker	White Sucker	Longnose Dace	Longnose Dace	Longnose Dace	Tessellated Darter	Sea Lamprey	Macroinvertebrates
1200	162.69	59.27	17.35	42.92	16.91	33.82	32.37	11.03	29.48
2000	133.72	49.59	19.85	41.17	18.65	32.27	32.26	10.86	45.92
3000	105.35	41.47	20.43	34.72	17.54	30.25	28.08	12.13	64.41
4000	91.96	36.53	24.88	32.33	18.69	32.32	28.26	16.31	81.01
5000	84.98	34.43	32.93	35.16	23.07	39.28	33.88	24.53	98.49
6000	80.46	33.35	33.77	38.65	23.88	43.97	38.85	31.53	107.31
7000	77.78	34.28	28.22	38.35	22.8	42.39	39.14	30.49	111.64
8000	75.06	35.86	19.49	33.64	17.7	36.8	33.99	24.96	110.6
9000	72.41	38.97	13.26	28.51	11.35	30.86	28.21	17.93	107.14
10000	69.45	40.81	9.29	24.77	8.6	22.88	23.19	11.71	102.57
11000	67.08	41.95	9.32	21.67	7.73	16.73	19.87	7.86	98.46
12000	64.41	42.56	8.72	18.09	7.25	13.49	17.24	6.76	93.85
13000	61.7	42.64	7.54	13.72	5.61	12.08	14.16	6.08	88.9
14000	59.35	42.13	5.21	10.74	2.8	9.81	11.25	5.49	82.45
15000	57.03	40.99	2.87	8.92	1.51	7.24	8.74	4.15	76.22
16000	54.93	39.62	1.73	7.39	1.1	5.1	7	2.42	70.45
17000	52.83	38.07	1.33	6.17	0.88	3.16	5.74	1.16	65.23
18000	50.64	36.44	1.16	4.99	0.66	2.11	4.53	0.5	60.56
19000	48.71	34.75	0.94	4.03	0.37	1.56	3.38	0.12	56.22
20000	47.19	33.11	0.8	3.46	0.24	1.31	2.76	0.06	52.41
21000	46.17	31.73	0.71	3.15	0.19	0.99	2.51	0.05	48.93
22000	45.12	30.49	0.77	3	0.19	0.76	2.36	0.01	45.86
23000	44.05	29.33	0.85	2.89	0.18	0.72	2.26	0.01	43.07
24000	43.13	28.18	0.77	2.65	0.16	0.73	2.09	0.01	40.6
25000	42.29	27.19	0.66	2.45	0.13	0.69	1.95	0.01	38.54

Vernon AWS - Turners Falls Impoundment Elevation 175.6 ft (NAVD88)

Flow (cfs)	Smallmouth Bass	Smallmouth Bass	Smallmouth Bass	Smallmouth Bass	Shallow-Fast	Shallow-Slow	Deep-Fast	Deep-Slow
1200	15.61	56.35	46.49	19.85	25.64	102.82	50.59	144.85
2000	12.31	59.64	44.21	14.06	33.62	108.47	85.6	131.1
3000	9.89	59.7	39.4	11.72	57.01	75.22	146.69	108.77
4000	9.22	57.77	36.41	10.43	63.54	70.53	199.73	94.27
5000	8.9	54.62	34.21	9.33	78.17	59.74	234.8	94.23
6000	9.4	51.43	32.15	8.86	82.2	51.63	264.59	87.36
7000	10.11	48.83	30.31	8.67	86.4	39.83	292.23	78.91
8000	10.58	47.03	29.08	8.97	71.11	36.13	322.31	76.12
9000	10.54	46.21	28.79	10.27	56.35	32.53	347.61	75.28
10000	9.58	45.68	28.88	12.17	36.37	30.04	377.48	76.8
11000	8.95	44.59	28.79	12.1	27.43	20.34	398.24	80.02
12000	8.56	43.33	28.64	11.9	20.19	18.54	416.28	75.32
13000	8.23	42.19	28.35	11.82	18.04	14.67	426.98	72.68
14000	7.49	41.06	27.88	11.66	14.72	12.84	434.28	72.58
15000	6.68	39.81	27.45	11.46	12.15	12.24	440.31	71.7
16000	5.87	38.58	27	11	8.67	9.21	446.6	73.34
17000	5.06	37.34	26.41	10.48	6.1	8.9	452.86	71.45
18000	4.28	36.04	25.74	9.78	3.96	8.72	457.27	70.97
19000	3.53	34.78	25.03	9.18	2.99	9.12	463.06	67.77
20000	2.97	33.63	24.34	8.31	3.54	8.61	465.83	66.44
21000	2.55	32.58	23.64	6.79	3.05	8.35	470.8	63.86
22000	2.19	31.59	22.96	5.29	2.17	8.11	473.79	63.46
23000	1.91	30.68	22.37	4.17	2.64	8.06	476.97	61.15
24000	1.68	29.89	21.86	3.24	2.86	8.67	478.9	60
25000	1.44	29.15	21.39	2.55	3.1	9.02	479.86	59.73

Vernon AWS - Turners Falls Impoundment Elevation 176.6 ft (NAVD88)

Flow (cfs)	American Shad	American Shad	American Shad	Walleye fry	Walleye juvenile	Walleye adult	Walleye spawning	Fallfish fry	Fallfish juvenile	Fallfish adult	Fallfish spawning
1200	136.45	124.47	92.84	10.29	23.17	68.38	20.62	49.75	59.18	161.69	32.68
2000	143.28	137.24	115.43	10.38	19.98	56.94	28.29	44.94	61.37	166.02	33.29
3000	146.9	149.4	131.64	11.01	17.08	46.07	32.93	38.58	61.04	166.33	31.71
4000	151.93	162.18	143.68	11.71	15.85	41.25	37.05	40.38	53.97	163.94	28.3
5000	160.6	175.1	157.54	11.76	15.45	39.19	43.87	47.09	51.38	161.77	26.7
6000	169.08	188.12	172.55	12.07	15.48	38.11	52.92	47.1	52.01	158.99	29.59
7000	173.7	201.21	186.98	12.58	15.56	37.43	63.39	41.93	56.88	155.38	32.24
8000	176.24	213.95	199.97	12.29	15.57	37.15	71.99	38.85	55.28	151.13	29.73
9000	178.51	226.44	211.27	10.86	16.01	36.57	76.13	38	53.96	149.06	28.62
10000	179.42	237.77	221.17	9.6	16.1	35.73	75.03	37.99	51.24	146.59	26.75
11000	179.72	247.18	229.36	8.38	16.17	35.08	71.61	34.13	48.83	144.01	25.41
12000	178.82	254.59	235.88	7.1	16.02	34.69	67.54	30.57	47.74	141.69	23.05
13000	177.35	260.6	240.87	5.9	15.67	34.73	64.13	25.95	44.56	139.23	20.15
14000	175.1	265.77	244.25	5.01	15.22	35.51	60.75	22.37	37.99	136.06	16.17
15000	172.63	270.41	246.25	4.27	14.69	36.55	56.82	18.87	31.08	132.63	12.04
16000	170.03	274.35	247.22	3.6	14.19	37.54	53.46	15.46	26.04	129.42	8.47
17000	167.21	277.4	247.28	3.05	13.54	37.26	49.82	12.17	23.06	126.21	5.31
18000	164.26	279.35	246.82	2.58	12.94	36.39	45.17	9.45	20.78	122.98	3.05
19000	161.27	280.41	245.91	2.3	12.3	35.46	40.74	7.76	18.64	119.74	1.95
20000	158.11	280.1	244.42	2.15	11.68	34.51	36.53	6.38	16.74	116.65	1.25
21000	154.87	278.76	242.57	1.95	11.06	33.63	31.69	5.59	15.18	113.78	0.77
22000	151.72	276.88	240.46	1.76	10.5	32.74	26.97	4.85	13.85	111.05	0.46
23000	148.59	274.72	238.11	1.57	9.98	31.84	22.2	4.16	12.98	108.57	0.26
24000	145.41	272.3	235.63	1.4	9.46	30.9	17.18	3.62	12.38	106.3	0.14
25000	142.2	269.65	233	1.21	8.92	30.04	13.4	3.23	11.73	104.06	0.08

Vernon AWS - Turners Falls Impoundment Elevation 176.6 ft (NAVD88)

Flow (cfs)	White Sucker	White Sucker	White Sucker	Longnose Dace	Longnose Dace	Longnose Dace	Tessellated Darter	Sea Lamprey	Macroinvertebrates
1200	162.28	61.01	15.58	40.56	15.09	31.52	30.2	10.62	28.87
2000	133.85	50.78	18.6	40.26	17.76	30.33	30.7	10.63	45
3000	105.65	42.59	19.65	34.07	16.93	29.24	27.4	11.91	63.59
4000	92.33	37.45	24.43	32.25	18.36	31.8	27.93	15.56	80.33
5000	85.59	35.27	32.51	35.37	23	39.17	33.87	24.04	97.81
6000	80.99	34.09	33.8	39.3	24.47	44.53	39.58	31.09	106.97
7000	78.44	34.94	27.76	38.62	22.9	42.59	39.44	29.99	111.2
8000	75.7	36.49	19.03	33.81	17.08	36.93	33.99	24.09	110.35
9000	73.11	39.6	12.57	28.55	11.1	30.28	27.97	17.05	106.7
10000	70.24	41.47	9.44	25.07	8.89	22.25	23.11	10.71	102.43
11000	67.77	42.56	9.49	21.96	8.06	16.41	20.01	7.35	98.19
12000	65.07	43.05	8.62	18.2	7.61	13.64	17.17	6.29	93.46
13000	62.3	43.14	7.18	13.67	6.22	12.2	14.14	5.37	88.26
14000	60	42.57	5.21	10.94	3.35	10.22	11.44	4.65	81.71
15000	57.7	41.38	3.13	8.94	1.66	7.62	9	3.65	75.5
16000	55.58	40.01	1.86	7.24	1.12	5.31	7.19	2.2	69.79
17000	53.46	38.5	1.3	6.02	0.87	3.23	5.79	1.1	64.65
18000	51.32	36.87	1.06	4.74	0.65	2.09	4.43	0.49	60.03
19000	49.39	35.18	0.88	3.92	0.38	1.5	3.29	0.11	55.85
20000	47.92	33.55	0.76	3.4	0.25	1.26	2.7	0.07	52.11
21000	46.87	32.2	0.65	3.09	0.19	0.97	2.42	0.05	48.74
22000	45.9	30.95	0.72	2.99	0.19	0.77	2.3	0.02	45.69
23000	44.83	29.76	0.79	2.89	0.18	0.72	2.21	0.01	42.93
24000	43.87	28.63	0.71	2.61	0.16	0.74	2.1	0.01	40.52
25000	42.95	27.66	0.61	2.48	0.13	0.69	1.97	0.01	38.51

Vernon AWS - Turners Falls Impoundment Elevation 176.6 ft (NAVD88)

Flow (cfs)	Smallmouth Bass	Smallmouth Bass	Smallmouth Bass	Smallmouth Bass	Shallow-Fast	Shallow-Slow	Deep-Fast	Deep-Slow
1200	16.03	56.01	46.13	20.17	25.88	102.56	49.61	144.18
2000	12.62	59.7	43.96	14.17	32.84	108.95	87.02	128.6
3000	10.01	60.02	39.47	11.94	55.17	74.72	145.34	111.86
4000	9.27	58.21	36.64	10.68	61.14	68.82	201.67	93.94
5000	9.02	55.17	34.52	9.6	73.44	61.13	238.15	95.2
6000	9.53	52.12	32.52	9.17	81.19	51.15	265.86	88.61
7000	10.25	49.7	30.75	8.98	84.02	40.47	294.56	79.4
8000	10.69	47.96	29.61	9.34	68.55	34.83	325.03	78.14
9000	10.62	47.18	29.39	10.85	52.91	33.64	351.16	75.89
10000	9.68	46.62	29.49	12.62	31.53	29.61	382.26	78.84
11000	9.04	45.42	29.35	12.38	25.49	21.06	399.97	80.49
12000	8.65	44.18	29.19	12.18	17.92	18.97	418.03	75.84
13000	8.31	43.02	28.8	12.11	15.59	14.64	428.93	73.63
14000	7.53	41.88	28.33	11.95	13.82	13.17	434.18	73.67
15000	6.69	40.6	27.88	11.73	10.97	12.51	440.67	72.55
16000	5.87	39.3	27.41	11.27	7.14	9.43	447.64	73.9
17000	5.04	37.96	26.79	10.74	5.34	8.63	452.92	72.76
18000	4.29	36.62	26.11	10.04	3.37	8.87	457.66	71.36
19000	3.59	35.3	25.36	9.35	3.21	9.04	462	68.97
20000	3.03	34.1	24.63	8.23	3.08	9.31	465.48	66.98
21000	2.6	33.01	23.9	6.47	2.99	8.57	470.42	64.38
22000	2.26	31.98	23.21	5.09	1.98	8.34	473.19	64.18
23000	1.98	31.02	22.59	3.98	2.17	8.8	475.87	62.13
24000	1.72	30.18	22.06	3.12	2.86	8.56	478.22	60.7
25000	1.49	29.41	21.56	2.46	2.9	8.89	479.88	60.06

Vernon AWS - Turners Falls Impoundment Elevation 177.6 ft (NAVD88)

Flow (cfs)	American Shad	American Shad	American Shad	Walleye fry	Walleye juvenile	Walleye adult	Walleye spawning	Fallfish fry	Fallfish juvenile	Fallfish adult	Fallfish spawning
1200	141.52	128.14	94.66	10.26	23.63	68.77	20.17	51.68	61.92	175.96	32.7
2000	148.04	140.97	118.15	10.31	20.46	57.34	27.69	46.6	63.24	181.01	32.66
3000	151.41	153.34	134.62	11.03	17.46	46.57	31.7	39.42	62.51	178.62	31.67
4000	156.7	166.18	146.77	11.79	16.12	41.91	35.47	42.65	54.98	173.92	28.26
5000	166.2	179.13	161.06	11.8	15.67	39.78	42.37	50.49	52.62	169.64	28.08
6000	174.63	192.15	176.49	12.09	15.7	38.71	52.31	48.25	55.05	165.82	32.82
7000	178.83	205.26	190.87	12.67	15.79	38.09	63.77	42.54	59.56	161.21	33.53
8000	180.99	218.39	203.63	12.45	15.82	37.86	72.6	39.38	56.99	156.4	30.77
9000	182.97	231.28	214.75	11.05	16.2	37.42	76.15	38.71	55.4	153.87	29.49
10000	184	242.97	224.65	9.74	16.41	36.62	74.62	38.53	52.57	151.15	27.6
11000	184.12	252.47	232.75	8.47	16.5	36.01	71.28	34.31	50.57	148.44	26.04
12000	183.03	260.04	239.22	7.14	16.35	35.64	67.51	30.62	49.15	145.89	23.41
13000	181.38	266.26	244.15	5.91	15.96	35.95	64.29	25.75	45.08	142.93	20.49
14000	178.92	271.61	247.37	5.06	15.46	36.77	60.48	22.1	38.53	139.36	16.37
15000	176.32	276.38	249.27	4.28	14.91	37.97	56.09	18.65	30.93	135.75	12.26
16000	173.54	280.49	250.1	3.6	14.35	38.62	52.47	15.18	26.01	132.37	8.63
17000	170.51	283.44	250.1	3.06	13.7	38.02	48.52	11.9	23.44	129.03	5.45
18000	167.45	285.24	249.51	2.62	13.07	37.1	44.03	9.33	21.13	125.68	3.4
19000	164.28	285.92	248.44	2.33	12.43	36.13	40.02	7.69	18.92	122.36	2.22
20000	160.97	285.16	246.84	2.15	11.78	35.16	35.54	6.37	17.04	119.17	1.41
21000	157.65	283.64	244.88	1.91	11.16	34.34	30.53	5.51	15.45	116.19	0.86
22000	154.42	281.65	242.7	1.73	10.61	33.46	25.79	4.78	14.07	113.42	0.52
23000	151.18	279.42	240.29	1.55	10.07	32.53	20.73	4.03	13.21	110.86	0.28
24000	147.9	276.95	237.79	1.37	9.53	31.55	15.9	3.53	12.54	108.52	0.14
25000	144.56	274.29	235.12	1.18	8.95	30.67	12.66	3.11	11.85	106.19	0.08

Vernon AWS - Turners Falls Impoundment Elevation 177.6 ft (NAVD88)

Flow (cfs)	White Sucker	White Sucker	White Sucker	Longnose Dace	Longnose Dace	Longnose Dace	Tessellated Darter	Sea Lamprey	Macroinvertebrates
1200	179.78	76.86	13.13	38.31	13.04	27.36	26.8	10.02	26.8
2000	141.88	62.76	16.8	38.18	16.57	27.42	27.7	10.17	42.9
3000	109.27	49.53	19.21	33	16.88	28.33	26.29	11.77	61.77
4000	94.32	41.67	25.28	32.54	19.05	31.94	27.83	16	79.06
5000	87.27	38.08	34.5	37.27	24.68	41.36	35.78	25.46	97.05
6000	82.32	36.16	34.63	41.47	26.23	46.73	41.86	31.52	105.79
7000	79.56	36.43	26.95	39.37	22.82	43.56	40.23	29.46	109.45
8000	76.47	37.69	17.77	33.82	15.73	36.99	33.76	22.6	108.62
9000	74.06	40.72	11.39	28.43	10.58	28.89	27.4	15.49	105.11
10000	71.22	42.53	9.49	24.98	8.98	20.95	22.72	9.47	101.21
11000	68.6	43.43	9.41	21.86	8.31	15.68	19.78	6.67	96.91
12000	65.82	43.72	8.4	18.01	7.8	13.57	16.82	5.6	92.21
13000	63.02	43.79	6.68	13.89	6.32	12.11	14	4.64	86.71
14000	60.77	43.14	4.44	10.79	3.71	10.1	11.17	3.73	80.36
15000	58.58	41.81	2.68	8.69	1.77	7.5	8.69	2.76	74.18
16000	56.48	40.47	1.66	7.04	1.13	5.04	7.03	1.6	68.55
17000	54.29	38.97	1.08	5.76	0.86	3	5.53	0.83	63.5
18000	52.07	37.32	0.87	4.52	0.58	1.93	4.09	0.3	58.9
19000	50.15	35.63	0.74	3.7	0.33	1.4	3.04	0.07	54.84
20000	48.71	33.98	0.66	3.27	0.23	1.16	2.56	0.05	51.18
21000	47.66	32.6	0.63	2.97	0.19	0.87	2.31	0.04	47.93
22000	46.61	31.33	0.68	2.88	0.18	0.69	2.2	0.01	44.97
23000	45.55	30.12	0.69	2.69	0.16	0.69	2.05	0.01	42.3
24000	44.58	29.02	0.62	2.4	0.14	0.69	1.99	0.01	40.09
25000	43.68	28.07	0.52	2.31	0.11	0.64	1.9	0.01	38.1

Vernon AWS - Turners Falls Impoundment Elevation 177.6 ft (NAVD88)

Flow (cfs)	Smallmouth Bass	Smallmouth Bass	Smallmouth Bass	Smallmouth Bass	Shallow-Fast	Shallow-Slow	Deep-Fast	Deep-Slow
1200	18.87	58.46	48.43	23.46	21.84	109.09	41.41	162.17
2000	14.18	62.29	45.98	15.21	27.8	102.63	88.53	141.54
3000	10.63	62.34	41.27	12.49	48.38	73.73	147.72	120.98
4000	9.61	60.27	38.08	11.09	55.7	69.48	203.4	104.97
5000	9.22	56.88	35.72	10.04	73.57	61.22	239.27	98.17
6000	9.75	53.81	33.49	9.57	81.55	50.34	267.98	90.39
7000	10.48	51.4	31.67	9.38	80.95	41.48	297.21	81
8000	10.82	49.57	30.55	9.94	65.6	35.68	327.63	78.66
9000	10.74	48.73	30.32	12.07	44.95	35.23	358.74	76.56
10000	9.85	48	30.37	13.19	29.26	27.48	384.73	81.96
11000	9.17	46.63	30.19	12.77	23.14	21.55	401.83	81.74
12000	8.73	45.33	29.94	12.56	16.15	19.17	419.49	76.39
13000	8.35	44.14	29.44	12.46	15.02	14.43	429.33	74.45
14000	7.53	42.98	28.93	12.29	13.34	13.52	434.84	73.77
15000	6.72	41.67	28.47	12.03	9.46	11.57	441.98	74.01
16000	5.89	40.32	27.97	11.59	5.59	9.96	448.81	74.04
17000	5.03	38.91	27.34	11.02	3.77	8.54	453.73	73.92
18000	4.27	37.47	26.63	10.3	2.56	8.81	456.62	73.69
19000	3.61	36.1	25.87	9.49	2.94	9.33	461.86	69.45
20000	3.06	34.87	25.1	8.07	2.73	9.58	464.98	67.9
21000	2.63	33.74	24.34	6.32	2.74	7.98	469.84	66.16
22000	2.28	32.67	23.63	4.97	2.09	8.46	472.58	64.92
23000	1.99	31.67	23	3.87	1.95	9.18	475.64	62.74
24000	1.74	30.81	22.45	3.04	3.16	8.54	477.7	61.37
25000	1.51	30.02	21.93	2.39	2.57	8.77	479.28	61.5

Vernon AWS - Turners Falls Impoundment Elevation 178.6 ft (NAVD88)

Flow (cfs)	American Shad	American Shad	American Shad	Walleye fry	Walleye juvenile	Walleye adult	Walleye spawning	Fallfish fry	Fallfish juvenile	Fallfish adult	Fallfish spawning
1200	159.54	141.58	99.86	11.47	26.18	74	20.78	59.67	72.04	215.73	37.8
2000	165.52	155.28	128.05	11.16	22.18	60.54	29.37	50.68	70.14	219.37	37.12
3000	167.56	167.38	146.24	11.94	18.74	49.26	32.52	45.48	64.9	209.28	33.15
4000	173.44	178.88	158.96	12.5	17.1	43.78	36.51	52.21	60.45	196.72	31.39
5000	181.84	190.75	172.88	12.21	16.54	41.34	43.63	54.76	59.28	187.17	35.25
6000	187.02	202.72	187.13	12.77	16.43	40.04	55.09	49.86	63.88	179.63	39.3
7000	189.1	214.96	199.91	13.34	16.36	39.46	66.46	43.91	63.33	172.42	36
8000	189.37	227.8	211.14	12.91	16.48	39.21	73.77	40.12	59.75	165.62	32.59
9000	190.32	240.15	221.18	11.36	16.71	38.77	75.86	40.23	57.59	161.6	30.67
10000	190.7	251.21	230.3	9.9	16.98	37.89	74.25	38.81	54.49	157.81	28.72
11000	189.84	260.16	237.73	8.54	16.98	37.34	71.2	34.69	52.72	154.28	26.55
12000	188.08	267.3	243.65	7.15	16.75	37.07	67.72	30.28	50.31	151	23.62
13000	185.81	273.2	248.13	5.89	16.31	37.58	64.28	25.51	45.33	147.16	20.49
14000	182.95	278.24	251	5.07	15.71	38.27	59.92	21.8	38.72	143.04	16.35
15000	180.09	282.77	252.66	4.24	15.15	39.35	55.29	18.29	31.36	139.15	12.32
16000	177.01	286.66	253.33	3.58	14.5	39.57	51.22	14.76	26.42	135.55	8.67
17000	173.74	289.25	253.18	3.06	13.85	38.8	46.89	11.55	23.61	132.03	5.59
18000	170.53	290.89	252.47	2.64	13.2	37.82	42.58	9.33	21.2	128.53	3.73
19000	167.22	291.21	251.21	2.35	12.53	36.78	38.7	7.67	18.92	125.1	2.5
20000	163.74	290.12	249.54	2.09	11.86	35.85	34.15	6.53	17.12	121.89	1.59
21000	160.36	288.44	247.59	1.89	11.26	35.04	29.31	5.47	15.43	118.93	0.98
22000	157	286.4	245.37	1.71	10.71	34.23	24.56	4.7	14.28	116.24	0.57
23000	153.63	284.12	242.93	1.54	10.15	33.28	19.4	4.04	13.44	113.7	0.29
24000	150.27	281.67	240.37	1.36	9.55	32.31	14.78	3.51	12.67	111.23	0.14
25000	146.84	279.08	237.58	1.17	8.96	31.45	11.83	3.01	11.97	108.89	0.06

Vernon AWS - Turners Falls Impoundment Elevation 178.6 ft (NAVD88)

Flow (cfs)	White Sucker	White Sucker	White Sucker	Longnose Dace	Longnose Dace	Longnose Dace	Tessellated Darter	Sea Lamprey	Macroinvertebrates
1200	222.87	118.09	13.74	39.05	15.26	25.74	24.66	8.35	23.56
2000	163.73	94.08	17.52	38.12	17.98	28.97	28.22	9.44	39.8
3000	121.31	66.85	21.07	34.52	19.16	30.74	27.94	11.34	60.39
4000	101.98	51.94	31.13	38.14	24.38	38.31	33.2	17.98	80.37
5000	93.03	44.42	37.75	43.4	29.74	48.56	43.03	28	96.46
6000	85.86	41.1	34.09	44.69	28.21	49.89	45.7	31	104.39
7000	81.83	39.62	24.22	40.24	21.34	44.23	40.28	26.74	106.55
8000	78.18	40.07	15.43	33.34	13.77	35.69	32.82	19.68	105.93
9000	75.88	42.52	10.17	28.19	10.17	26.33	26.24	12.74	102.97
10000	72.74	44.19	9.57	24.76	9.09	19.26	22.27	7.99	99.47
11000	69.95	44.63	9	21.6	8.44	15.11	19.24	6.16	95.2
12000	66.88	44.65	7.89	17.61	7.68	13.28	16.21	4.84	90.44
13000	64.08	44.65	5.99	14	6.03	11.72	13.54	3.85	84.86
14000	61.82	43.84	3.84	10.56	3.79	9.56	10.78	3.07	78.87
15000	59.7	42.5	2.34	8.52	1.92	7.22	8.55	2.09	72.83
16000	57.59	41.07	1.54	6.9	1.17	4.62	6.92	1.16	67.41
17000	55.32	39.59	1	5.43	0.81	2.8	5.38	0.62	62.51
18000	53.14	37.91	0.79	4.28	0.45	1.76	3.97	0.21	57.95
19000	51.23	36.29	0.66	3.65	0.28	1.28	3.11	0.05	53.97
20000	49.76	34.72	0.58	3.28	0.2	0.96	2.7	0.04	50.4
21000	48.53	33.29	0.66	3.09	0.19	0.72	2.49	0.01	47.23
22000	47.35	31.99	0.72	2.93	0.16	0.68	2.35	0.01	44.37
23000	46.17	30.75	0.62	2.64	0.14	0.67	2.12	0.01	41.8
24000	45.25	29.6	0.54	2.44	0.11	0.64	2.03	0.01	39.64
25000	44.39	28.6	0.48	2.36	0.1	0.62	1.95	0	37.72

Vernon AWS - Turners Falls Impoundment Elevation 178.6 ft (NAVD88)

Flow (cfs)	Smallmouth Bass	Smallmouth Bass	Smallmouth Bass	Smallmouth Bass	Shallow-Fast	Shallow-Slow	Deep-Fast	Deep-Slow
1200	25.83	65.78	56.07	36.02	19.2	103.55	30.37	206.11
2000	17.77	68.96	52.68	20.15	22.35	87.37	78.47	190.74
3000	12.57	68.02	46.1	14.29	36.85	68.48	146.63	154.19
4000	10.63	65.16	41.65	12.45	53.27	71.28	203.08	127.27
5000	10.11	61.43	38.5	11.4	66.5	61.64	244.28	107.55
6000	10.42	58.04	35.74	10.65	78.52	48.65	270.48	97.19
7000	11.07	55.06	33.66	10.45	73.25	41.35	305.87	83.43
8000	11.05	52.62	32.36	11.29	58.65	35.38	334.56	81.64
9000	10.92	51.27	31.92	13.77	35.64	35.86	368.81	78.62
10000	10.09	49.92	31.73	13.85	24.07	27.59	390.41	83.03
11000	9.33	48.27	31.34	13.26	18.97	21.59	405.65	83.43
12000	8.87	46.81	30.87	13	15.45	18.67	418.81	78.93
13000	8.38	45.49	30.24	12.86	13.49	14.56	429.53	76.3
14000	7.54	44.21	29.68	12.68	12.26	13.66	435.68	74.47
15000	6.74	42.88	29.18	12.33	8.13	11.17	443.18	75.03
16000	5.91	41.44	28.61	11.91	4.75	10.34	448.5	75.43
17000	5.02	39.97	28	11.27	3.03	9.25	453.46	74.86
18000	4.24	38.47	27.27	10.53	2	9.8	456.53	74.23
19000	3.62	37.05	26.5	9.55	2.43	9.93	460.98	70.9
20000	3.05	35.78	25.68	7.9	1.72	9.48	464.63	70.03
21000	2.6	34.61	24.92	6.21	1.63	8.6	470.34	66.8
22000	2.26	33.54	24.23	4.9	1.61	8.84	472.61	65.65
23000	1.93	32.55	23.58	3.81	2.29	9.34	474.96	63.59
24000	1.64	31.69	23.01	2.98	2.22	8.8	477.85	62.79
25000	1.44	30.9	22.49	2.33	2.61	8.24	479.5	62.46

Vernon AWS - Turners Falls Impoundment Elevation 179.6 ft (NAVD88)

Flow (cfs)	American Shad	American Shad	American Shad	Walleye fry	Walleye juvenile	Walleye adult	Walleye spawning	Fallfish fry	Fallfish juvenile	Fallfish adult	Fallfish spawning
1200	180.44	161.04	106.06	14.09	30.24	84.69	16.35	64.48	79.85	261.47	44.24
2000	189.19	176.39	135.68	13.33	24.89	67.76	26.09	61.45	73.83	263.77	40.12
3000	197.03	189.11	161.69	13.88	20.83	53.84	33.62	67.54	72.83	249.47	40.5
4000	204.14	199.86	177.84	13.43	19.07	47.21	39.43	65.82	74.71	230.64	47.51
5000	207.25	210.26	191.12	13.38	18.42	44.15	48.2	59.5	78.44	215.78	51
6000	207.64	220.85	203.07	13.84	17.86	42.55	60.77	52.14	75.73	203.5	46.15
7000	206.28	232.63	213.56	14.37	17.35	42.17	69.69	45.94	69.89	192.35	39.87
8000	205.72	245.08	222.93	13.22	17.55	41.74	73.78	44.41	65.97	184.31	36.2
9000	204.44	256.44	231.73	11.54	17.75	41.05	74.44	42.51	61.75	176.8	33.15
10000	202.77	266.27	239.58	10.08	17.92	40.04	72.94	38.58	58.97	170.46	30.37
11000	200.21	274.24	245.99	8.63	17.8	39.64	70.34	34.46	56.17	165.1	26.95
12000	197.22	280.69	251.06	7.16	17.48	39.85	67.27	29.47	51.15	160.15	23.73
13000	193.8	285.88	254.62	6.02	16.89	40.43	63.19	24.85	44.92	154.88	19.89
14000	190.25	290.29	256.96	5.12	16.23	41.3	58.24	21.17	37.77	149.87	15.78
15000	186.73	294.25	258.18	4.24	15.57	41.89	53.66	17.44	31.89	145.29	11.96
16000	183.04	297.34	258.52	3.56	14.85	41.21	49.08	13.84	28.14	141.11	8.34
17000	179.37	299.29	258.14	3.08	14.16	40.24	44.15	10.85	24.82	137.06	5.74
18000	175.73	300.15	257.14	2.67	13.46	39.14	39.61	8.79	21.77	132.99	4.13
19000	171.96	299.48	255.52	2.35	12.75	37.99	35.08	7.3	19.29	129.27	2.87
20000	168.23	297.79	253.64	2.02	12.06	37.02	30.16	6.22	17.25	125.77	1.93
21000	164.64	295.63	251.56	1.83	11.47	36.14	25.57	5.23	15.61	122.66	1.23
22000	161.02	293.18	249.3	1.65	10.89	35.26	20.67	4.39	14.5	119.89	0.71
23000	157.44	290.55	246.88	1.46	10.24	34.31	15.74	3.75	13.54	117.2	0.36
24000	153.83	287.94	244.19	1.27	9.6	33.42	12.44	3.13	12.75	114.61	0.16
25000	150.09	285.02	241.27	1.07	8.99	32.63	10.09	2.76	12.06	112.21	0.06

Vernon AWS - Turners Falls Impoundment Elevation 179.6 ft (NAVD88)

Flow (cfs)	White Sucker	White Sucker	White Sucker	Longnose Dace	Longnose Dace	Longnose Dace	Tessellated Darter	Sea Lamprey	Macroinvertebrates
1200	267.86	156.41	11.37	41.06	16.92	26.44	25.58	3.95	18.83
2000	199.68	128.69	18.46	42.22	20.29	32.32	30.1	6.49	35.46
3000	145.82	91.04	30.2	47.53	29.37	41.07	37.71	12.85	59.97
4000	119.71	68.02	40.25	53.89	37.33	53.83	49.33	22.17	81.03
5000	103.7	56.89	37.71	52.13	35.82	57.58	52.86	27.5	94
6000	92.45	50.18	28.54	46.16	25.69	52.31	46.78	26.08	99.67
7000	85.79	46.64	18.39	39.37	16.22	41.97	38.39	20.37	101.26
8000	81.62	46.36	11.63	32.91	12.1	31.09	30.7	13.73	100.56
9000	77.74	46.42	9.81	28.3	10.45	22.58	25.37	8.51	98.99
10000	74.64	46.49	9.06	24.11	9.37	16.81	21.33	5.96	95.89
11000	71.97	46.44	7.94	20.53	8.39	14.36	17.8	4.54	91.75
12000	68.54	46.38	6.51	17.01	6.99	12.63	15.11	3.49	86.69
13000	65.75	46.06	4.46	13.71	5.03	10.54	12.44	2.59	81.24
14000	63.38	45	2.73	10.55	3.12	8.17	9.9	1.88	75.65
15000	61.13	43.6	1.78	8.19	1.81	5.83	8.03	1.08	70.27
16000	58.92	41.95	1.21	6.61	1.2	3.61	6.43	0.57	65.18
17000	56.65	40.27	0.87	5.06	0.73	2.22	4.72	0.25	60.54
18000	54.6	38.52	0.72	4.1	0.4	1.44	3.57	0.05	56.27
19000	52.84	36.82	0.68	3.47	0.27	1.14	3	0.04	52.46
20000	51.38	35.34	0.65	3.1	0.21	0.82	2.65	0.03	49.04
21000	50.01	33.94	0.75	2.99	0.19	0.73	2.48	0.01	46
22000	48.79	32.56	0.71	2.74	0.15	0.68	2.23	0.01	43.25
23000	47.69	31.31	0.57	2.5	0.13	0.62	2.09	0.01	40.83
24000	46.87	30.17	0.54	2.31	0.11	0.65	2.01	0.01	38.75
25000	45.98	29.23	0.44	2.09	0.1	0.53	1.81	0.01	36.91

Vernon AWS - Turners Falls Impoundment Elevation 179.6 ft (NAVD88)

Flow (cfs)	Smallmouth Bass	Smallmouth Bass	Smallmouth Bass	Smallmouth Bass	Shallow-Fast	Shallow-Slow	Deep-Fast	Deep-Slow
1200	29.39	73.52	64.55	44.76	10.25	90.54	31.34	257.61
2000	22.19	76.97	61.94	28.87	14.34	81.4	59.43	252.71
3000	15.7	75.57	53.29	18.02	36.2	91.06	136.12	195.45
4000	13.08	72.79	47.09	14.64	52.57	75.67	202.91	148.85
5000	11.9	69.44	43.07	13.16	67.45	59.4	235.55	131.33
6000	11.66	65.71	39.95	12.43	67.65	48.17	278.27	108.2
7000	11.69	61.68	37.58	12.77	60.83	40.86	312.33	94.86
8000	11.71	58.67	36.12	14.95	36.93	39.9	354.76	85.14
9000	10.92	56.15	35.12	15.34	25.62	29.12	379.04	89.72
10000	10.05	53.54	34.23	14.58	19.24	24.07	396.69	88.17
11000	9.54	51.34	33.4	14.08	14.28	21.8	409.81	85.13
12000	9.09	49.55	32.49	13.84	11.86	17.92	420.92	82.25
13000	8.42	47.95	31.68	13.59	11.66	15.02	429.88	78.58
14000	7.51	46.41	31	13.35	8.61	13.62	437.9	76.68
15000	6.65	44.89	30.38	12.91	5.35	10.62	445.14	77.1
16000	5.74	43.35	29.72	12.41	3.43	9.17	448.86	78.38
17000	4.82	41.73	29.04	11.73	2.16	9.46	454.08	75.9
18000	4.11	40.09	28.26	10.88	2.93	9.55	455.89	75.22
19000	3.51	38.6	27.43	9.43	2.35	9.41	460.4	73.04
20000	2.98	37.19	26.58	7.46	1.45	9.33	464.48	71.53
21000	2.51	35.91	25.78	5.98	2.15	8.36	468.68	68.98
22000	2.16	34.74	25.03	4.72	2.27	9.08	471.89	66.5
23000	1.83	33.67	24.34	3.71	2.87	8.86	473.6	65.92
24000	1.6	32.73	23.73	2.9	2.49	8.17	477.29	64.46
25000	1.45	31.88	23.19	2.21	2.41	8.13	478.43	64.63

Vernon AWS - Turners Falls Impoundment Elevation 181.6 ft (NAVD88)

Flow (cfs)	American Shad	American Shad	American Shad	Walleye fry	Walleye juvenile	Walleye adult	Walleye spawning	Fallfish fry	Fallfish juvenile	Fallfish adult	Fallfish spawning
1200	253.95	209.52	122.38	24.88	45.49	136.14	11.63	106.89	114.65	370.1	72.43
2000	268.13	226.88	157.78	21.16	35.43	92.06	15	103.04	123.14	373.26	77.73
3000	272.51	239.84	191.04	19.95	29.23	70.58	21.81	86.6	124.66	356.18	79.16
4000	268.78	252.09	211.19	20.08	25.63	60.64	31.52	73.76	118.71	327.69	74.87
5000	262.57	263.67	223.34	19.72	23.96	56.21	40.68	65.85	105.8	301	66.01
6000	255.93	274.63	232.78	18.82	23.06	53.15	49.65	58.3	93.38	275.92	55.9
7000	251.21	284.59	240.97	17.24	22.64	51.27	56.6	53.31	85.64	256.28	47.59
8000	245.98	293.92	248.41	14.72	22.32	49.8	61.53	47.41	78.62	239.42	40.04
9000	240.2	302.25	255.1	12.6	21.85	49.19	63.67	41.51	70.66	223.99	33.91
10000	234.21	309.51	260.59	10.91	21.26	49.51	63.36	35.42	62.1	210.17	28.76
11000	228.12	315.51	264.9	9.12	20.62	50.26	61.25	30.01	53.7	198.08	23.7
12000	222.13	320.69	268.17	7.64	19.74	50.8	57.55	25.55	45.27	187.8	18.79
13000	216.58	324.79	270.36	6.47	18.81	50.76	53.22	20.88	39.05	179.2	14.4
14000	211.06	327.8	271.71	5.37	17.93	49.73	48.29	16.74	35.16	172.03	10.65
15000	205.89	329.73	272.05	4.53	17.05	48.48	43.15	13.26	31.79	165.68	8.13
16000	200.97	330.03	271.53	3.99	16.25	47.18	38.76	11.15	28.68	159.99	6.27
17000	196.18	328.93	270.39	3.47	15.41	45.95	33.79	9.28	25.58	154.65	4.69
18000	191.61	327.17	268.72	2.96	14.63	44.61	28.01	7.91	22.86	149.84	3.39
19000	187.28	324.95	266.69	2.45	13.95	43.36	22.38	6.57	20.25	145.6	2.3
20000	183.11	322.61	264.41	2.03	13.25	42.1	16.47	5.52	18.33	142.09	1.43
21000	179.03	320.1	261.89	1.67	12.54	40.89	11.75	4.79	16.8	139	0.77
22000	174.96	317.46	259.14	1.4	11.74	39.79	8.31	4.1	15.56	136.11	0.33
23000	170.83	314.61	256.28	1.2	10.98	38.75	5.96	3.57	14.36	133.64	0.09
24000	166.79	311.68	253.3	1.12	10.29	37.89	4.54	3.16	12.87	131.49	0.03
25000	162.84	308.9	250.21	1.15	9.65	36.9	3.24	2.87	11.44	129.61	0.02

Vernon AWS - Turners Falls Impoundment Elevation 181.6 ft (NAVD88)

Flow (cfs)	White Sucker	White Sucker	White Sucker	Longnose Dace	Longnose Dace	Longnose Dace	Tessellated Darter	Sea Lamprey	Macroinvertebrates
1200	422.02	226.68	9.89	68.13	20.54	32.39	30.36	1.4	4.42
2000	328.3	208.37	14.33	73.18	26.78	47.29	44.32	3.83	20.73
3000	232.56	160.95	15.31	68.52	24.42	49.05	47.36	5.79	43.49
4000	174.8	122.15	11.88	54.56	19.96	42.92	42.34	6.76	62.29
5000	139.99	97.35	9.37	43.22	14.9	33.64	35.38	6.02	73.32
6000	117.58	81.12	7.96	35.79	11.94	23.96	28.91	4.67	79.43
7000	103.52	71.5	7.1	30.31	10.36	18.23	23.83	3.8	82.46
8000	94.72	64.95	6.46	25.65	9.25	15.58	19.79	2.86	83.43
9000	88.28	59.66	5.64	21.75	8.02	13.57	16.75	2.2	82.56
10000	83.01	56.34	4.57	18.87	6.51	12	14.49	1.86	80.3
11000	78.4	54.3	3.27	15.78	4.9	9.93	12.16	1.38	77
12000	74.52	52.42	2.08	12.95	3.24	7.62	9.77	0.99	72.84
13000	71.58	50.72	1.32	10.43	1.9	5.45	7.76	0.54	68.49
14000	69.48	49.09	0.82	8.24	1.27	3.46	6.21	0.32	64.12
15000	67.17	47.18	0.52	6.34	0.93	2.04	4.69	0.15	59.89
16000	65.04	45.39	0.43	4.73	0.53	1.26	3.39	0.04	55.9
17000	63.24	43.68	0.37	3.72	0.29	0.93	2.62	0.03	52.18
18000	61.73	42.18	0.31	3.17	0.18	0.72	2.24	0.02	48.73
19000	60.21	40.83	0.36	3	0.15	0.52	2.11	0	45.59
20000	58.77	39.38	0.37	2.83	0.12	0.48	1.92	0	42.69
21000	57.34	38.04	0.33	2.55	0.1	0.48	1.83	0	40.29
22000	56.05	36.88	0.28	2.41	0.08	0.47	1.87	0	38.2
23000	54.92	35.75	0.24	2.3	0.07	0.4	1.73	0	36.37
24000	53.91	34.61	0.2	2.12	0.08	0.37	1.53	0	34.8
25000	52.89	33.51	0.21	1.88	0.07	0.35	1.36	0	33.43

Vernon AWS - Turners Falls Impoundment Elevation 181.6 ft (NAVD88)

Flow (cfs)	Smallmouth Bass	Smallmouth Bass	Smallmouth Bass	Smallmouth Bass	Shallow-Fast	Shallow-Slow	Deep-Fast	Deep-Slow
1200	47.56	93.25	83.2	81.68	0	120.52	2.58	375.45
2000	38.47	103.39	85.83	60.72	1.47	112.02	37.29	351.12
3000	26.76	105.26	76.96	42.05	22.07	85.58	102.73	295.87
4000	20.99	101.73	67.73	34.51	24.84	68.47	180.13	238.07
5000	17.15	95.97	61.04	30.43	16.43	51.81	245.35	203.78
6000	14.98	88.28	55.65	26.48	14.72	41	287.76	178.58
7000	14.11	80.9	51.33	23.64	12.11	35.52	334.9	143.82
8000	13.25	74.63	47.76	21.4	7.51	30.97	369.17	122.08
9000	11.97	69.17	44.4	19.37	8.03	26.51	386.66	110.25
10000	10.95	64.74	41.62	18.11	6.33	22.91	401.84	101.94
11000	10.05	61.15	39.45	17.26	6.52	19.74	412.22	96.44
12000	9.06	58.04	37.74	16.53	4.33	17.58	423.25	91.33
13000	8.16	55.34	36.43	15.87	2.81	13.98	433.52	87.46
14000	7.28	52.97	35.27	15.27	2.21	11.43	441.13	84.56
15000	6.53	50.83	34.2	14.52	0.99	10.24	445.88	83.93
16000	5.73	48.8	33.21	13.41	0.66	11.02	449.04	82.07
17000	4.95	46.96	32.32	11.46	0.52	12.36	451.18	80.82
18000	4.21	45.25	31.36	9.28	0.48	10.22	454.36	81.53
19000	3.64	43.62	30.44	7.46	0.31	10.26	456.31	81.19
20000	3.18	42.19	29.64	5.95	0.31	10.91	460.05	78.5
21000	2.75	40.88	28.89	4.82	0.67	11.44	462.44	76.85
22000	2.39	39.78	28.15	3.87	0.7	9.93	464.87	77.09
23000	2.16	38.75	27.49	3.05	0.8	9.31	467.48	76.28
24000	1.98	37.79	26.93	2.33	0.79	9.06	471.49	73.9
25000	1.86	36.94	26.42	1.79	0.83	8.74	473.95	73.1

Vernon AWS - Turners Falls Impoundment Elevation 182.6 ft (NAVD88)

Flow (cfs)	American Shad	American Shad	American Shad	Walleye fry	Walleye juvenile	Walleye adult	Walleye spawning	Fallfish fry	Fallfish juvenile	Fallfish adult	Fallfish spawning
1200	268.33	238.7	126.06	39.55	55.5	171.71	12.92	87.58	107.45	415.91	63.2
2000	286.18	260.25	161.58	29.56	44.12	113.72	14.09	87.6	115.58	427.88	65.41
3000	293.73	274.59	198.96	25.94	36.61	83.76	17	78.51	117.93	415.17	65.59
4000	292.09	285.55	222.16	24.2	32.79	70.94	22.02	67.4	116.24	386.46	62.58
5000	288.2	295.81	236.46	22.67	30.62	64.48	28.27	61.58	109.69	356.6	56.83
6000	282.41	305.75	245.88	20.45	28.74	61.42	35.38	55.02	97.53	328.32	48.94
7000	275.52	314.98	253.45	18.08	27.15	60.33	41.67	47.73	84.38	300.92	41.07
8000	268.02	323.28	259.7	15.5	25.83	60.25	46.3	40.73	72.93	276.68	33.99
9000	259.91	330.55	265.01	13.11	24.73	60.76	49.69	34.7	62.91	255.48	27.62
10000	252	336.86	269.6	11.28	23.54	60.82	51.26	29.82	53.68	237.19	22.08
11000	244.45	342.01	273.35	9.49	22.42	60.05	50.58	24.91	46.61	221.39	17.2
12000	236.98	345.72	276.14	7.9	21.3	58.25	47.75	20.47	41.51	207.86	13.09
13000	229.76	347.94	277.81	6.68	20.11	56.22	44.07	16.6	37.55	196.56	10.07
14000	222.66	348.41	278.46	5.73	19.07	54.24	40.27	13.76	34.04	186.94	8.01
15000	215.84	347.08	278.25	4.91	18.06	52.49	36.65	11.71	30.67	178.63	6.27
16000	209.44	344.53	277.17	4.19	17.08	50.88	32.06	9.82	27.41	171.13	4.84
17000	203.57	341.29	275.46	3.61	16.2	49.28	26.88	8.35	24.55	164.48	3.63
18000	198.04	337.54	273.2	3.02	15.43	47.72	21.97	7.05	21.9	158.55	2.58
19000	192.85	333.64	270.6	2.53	14.69	46.1	16.87	5.9	19.83	153.46	1.68
20000	187.79	329.85	267.77	2.11	13.95	44.49	12.39	4.97	18.35	149.19	0.97
21000	182.93	326.21	264.72	1.75	13.14	43.01	9.09	4.38	17.04	145.41	0.48
22000	178.23	322.61	261.44	1.47	12.33	41.64	6.65	3.91	15.89	141.91	0.17
23000	173.6	318.74	258.09	1.27	11.59	40.46	5.01	3.47	14.55	138.88	0.04
24000	169.12	314.88	254.68	1.24	10.91	39.38	3.87	3.17	13.11	136.31	0.02
25000	164.83	311.18	251.28	1.21	10.28	38.14	3.01	2.89	11.81	134.06	0.01

Vernon AWS - Turners Falls Impoundment Elevation 182.6 ft (NAVD88)

Flow (cfs)	White Sucker	White Sucker	White Sucker	Longnose Dace	Longnose Dace	Longnose Dace	Tessellated Darter	Sea Lamprey	Macroinvertebrates
1200	471.19	252.23	1.96	39.79	5.41	12.15	13.61	0.17	0.86
2000	384.54	248.16	2.76	41.59	7.59	15.81	19.43	0.63	10.59
3000	279.75	201.39	3.33	39.11	8.46	15.42	21.51	0.94	28.77
4000	212.29	155.31	3.53	33.9	8.22	13.63	19.83	1.09	45.96
5000	169.02	123.95	3.76	28.15	7.68	12.6	17.25	1.07	57.85
6000	139.85	103.17	3.76	24.38	6.99	11.74	15.35	0.96	64.37
7000	119.11	88.29	3.41	21.59	6.09	11.04	13.91	1	67.79
8000	105.01	77.77	2.83	18.92	5.09	10.06	12.37	0.88	69.22
9000	95.94	70.32	2.1	15.92	4.01	8.51	10.65	0.76	69.22
10000	88.71	64.54	1.44	13.23	2.89	6.88	8.91	0.6	68.01
11000	83.35	60.29	0.99	10.92	1.87	5.19	7.3	0.39	65.88
12000	79.33	57.19	0.68	8.95	1.31	3.61	6.03	0.24	63.17
13000	76.28	54.67	0.47	7.11	0.97	2.24	4.84	0.15	60.14
14000	73.41	52.19	0.39	5.53	0.7	1.34	3.71	0.07	56.93
15000	70.91	49.9	0.33	4.17	0.4	0.88	2.75	0.03	53.86
16000	68.97	47.74	0.28	3.41	0.23	0.76	2.18	0.02	50.86
17000	67.43	46.07	0.24	2.96	0.15	0.64	1.89	0.02	47.99
18000	65.9	44.58	0.26	2.81	0.13	0.46	1.82	0	45.33
19000	64.28	43	0.28	2.69	0.11	0.38	1.72	0	42.84
20000	62.74	41.56	0.26	2.4	0.09	0.4	1.63	0	40.61
21000	61.1	40.24	0.22	2.23	0.07	0.38	1.68	0	38.69
22000	59.72	39.01	0.2	2.15	0.06	0.38	1.62	0	36.94
23000	58.66	37.84	0.18	2.05	0.06	0.31	1.51	0	35.42
24000	57.71	36.78	0.18	1.94	0.07	0.31	1.4	0	34.08
25000	56.72	35.75	0.18	1.77	0.07	0.29	1.27	0	32.91

Vernon AWS - Turners Falls Impoundment Elevation 182.6 ft (NAVD88)

Flow (cfs)	Smallmouth Bass	Smallmouth Bass	Smallmouth Bass	Smallmouth Bass	Shallow-Fast	Shallow-Slow	Deep-Fast	Deep-Slow
1200	47.72	102.28	94.44	117.53	0	63.34	0	454.03
2000	42.47	114.92	102.56	97.53	0	55.94	12.87	450.89
3000	30.18	118.29	94.34	65.27	0.34	52.04	82.45	387.79
4000	23.79	114.76	83.39	49.09	1.4	44.72	164.15	316.37
5000	20.5	108.78	74.64	40.06	1.41	39.1	229.84	258.78
6000	18.18	101.41	67.58	33.81	2.82	33	279.56	215.25
7000	15.95	93.28	61.29	29.11	2.52	30.04	313.63	185.78
8000	14.06	85.48	55.68	25.62	2.18	26.48	354.38	150.25
9000	12.51	78.85	51.05	23.21	1.97	23.58	379.79	129.48
10000	11.04	73.09	47.24	21.33	0.87	20.48	396.81	118.1
11000	9.86	68.15	44.24	19.84	0.3	17.89	410.62	108.55
12000	8.84	63.88	41.84	18.57	0.3	13.88	423.01	101.37
13000	7.98	60.23	39.84	17.42	0.21	12.26	432.4	95.17
14000	7.21	57.06	38.13	16.12	0.31	10.32	438.01	92.93
15000	6.42	54.23	36.65	14.61	0.54	11.07	442.5	88.81
16000	5.69	51.77	35.31	12.4	0.52	12.62	446.22	85.78
17000	4.99	49.63	34.09	10.32	0.37	10.27	449.42	86.59
18000	4.34	47.61	32.95	8.53	0.13	10.13	451.42	86.14
19000	3.76	45.73	31.9	7.02	0.14	11.2	453.78	84.09
20000	3.35	44.11	30.96	5.85	0.35	11.03	457.43	81.71
21000	2.96	42.64	30.08	4.85	0.36	11.22	459.21	81.2
22000	2.63	41.37	29.3	3.95	0.46	10.43	462.55	79.87
23000	2.41	40.21	28.58	3.17	0.83	9.63	464.66	79.42
24000	2.26	39.14	27.93	2.51	0.66	8.67	465.7	80.8
25000	2.12	38.17	27.37	1.98	0.68	8.72	469.2	78.38

Vernon AWS - Turners Falls Impoundment Elevation 182.6 ft (NAVD88)

Flow (cfs)	Co-Occurring Mussels
1600	200.94
1800	200.01
2000	198.63
3000	195.13
4000	191.38
5000	182.55
6000	172.22
7440	154.30
9120	135.49
10595	120.35
12070	107.06
13900	93.48
15960	81.70
17100	76.61
18000	73.24
20000	67.07
22000	62.49
24000	59.07
25000	57.64

Vernon AWS - Turners Falls Impoundment Elevation 183.6 ft (NAVD88)

Flow (cfs)	American Shad	American Shad	American Shad	Walleye fry	Walleye juvenile	Walleye adult	Walleye spawning	Fallfish fry	Fallfish juvenile	Fallfish adult	Fallfish spawning
1200	271.15	270.51	129.11	50.22	73.87	224.01	11.73	56.06	83.72	450.68	40.22
2000	296.41	294.95	160.98	36.52	58.76	150.9	12.46	58.75	91.83	467.53	41.7
3000	308.14	310.3	199.46	30.07	47.5	107.62	13.51	56.41	92.81	465.1	40.84
4000	310.1	320.14	226.98	27.14	41.03	89.77	15.97	50.78	90.16	440.08	38.33
5000	306.68	328.59	244.06	24.85	36.88	82.28	19.45	44.46	84.09	406.9	34.32
6000	300.65	336.61	254.64	22.33	33.78	79	23.28	38.85	75.49	373.16	29.53
7000	293.41	344.26	261.64	19.49	31.38	77.4	28.01	33.68	67.12	342.89	24.48
8000	285.24	351.52	267.2	16.21	29.36	75.34	31.67	28.82	59.21	314.47	19.58
9000	276.69	358.15	271.79	13.49	27.6	73.02	33.84	24.42	52.61	289.23	15.41
10000	268.1	363.64	275.73	11.54	26.02	70.57	35.22	20.52	47.27	267.56	12.23
11000	259.62	367.56	278.92	9.77	24.51	68	35.68	17.38	42.75	248.68	9.89
12000	251.16	369.04	281.3	8.32	23.09	65.26	35.03	14.81	38.68	232.36	7.98
13000	242.85	368.52	282.84	7.24	21.63	62.71	33.16	12.7	34.9	218.05	6.37
14000	234.68	366.56	283.4	6.25	20.28	60.4	29.77	10.96	31.34	205.66	5.03
15000	226.94	363.69	283	5.32	19.06	58.11	25.48	9.28	28.1	194.96	3.85
16000	219.6	360.05	281.87	4.34	18.06	56.07	20.95	7.96	25.27	185.58	2.83
17000	212.77	355.83	280.15	3.6	17.15	54.05	16.33	6.7	22.84	177.54	1.93
18000	206.44	351.25	277.78	3.04	16.25	51.87	12.15	5.63	20.96	170.58	1.21
19000	200.41	346.48	274.93	2.58	15.39	49.79	9	4.75	19.5	164.49	0.67
20000	194.54	341.69	271.68	2.17	14.45	47.89	6.55	4.21	18.15	158.96	0.31
21000	188.94	337	268.19	1.88	13.58	46.06	4.89	3.73	16.73	154.14	0.1
22000	183.57	332.32	264.58	1.72	12.77	44.56	3.82	3.38	15.15	150.04	0.05
23000	178.44	327.66	260.91	1.62	12.05	43.19	2.87	3.14	13.6	146.48	0.03
24000	173.55	322.98	257.18	1.57	11.37	41.65	2.22	2.88	12.26	143.38	0.02
25000	168.87	318.58	253.39	1.51	10.76	40.25	1.52	2.64	11.33	140.65	0.01

Vernon AWS - Turners Falls Impoundment Elevation 183.6 ft (NAVD88)

Flow (cfs)	White Sucker	White Sucker	White Sucker	Longnose Dace	Longnose Dace	Longnose Dace	Tessellated Darter	Sea Lamprey	Macroinvertebrates
1200	506.86	239.53	0.54	15.45	1.29	2.17	3.08	0	0.06
2000	437.75	258.36	0.83	16.57	1.94	3.46	4.71	0.02	4.07
3000	334.57	228.27	1.07	16.98	2.46	4.74	6.17	0.07	15.85
4000	254.3	185.77	1.16	16.46	2.65	5.47	6.96	0.13	28.74
5000	200.11	150.02	1.11	15.39	2.61	5.56	7.22	0.19	39.72
6000	162.29	123.79	0.97	13.98	2.35	5.2	7.01	0.22	47.27
7000	136.6	104.64	0.8	12.34	1.93	4.58	6.44	0.22	51.56
8000	118.13	91.06	0.65	10.62	1.47	3.79	5.68	0.19	53.77
9000	105.71	81.14	0.5	9.01	1.12	2.95	4.94	0.15	54.6
10000	97.27	73.64	0.38	7.46	0.89	2.18	4.24	0.11	54.48
11000	90.7	67.51	0.31	6.07	0.73	1.48	3.52	0.08	53.68
12000	85.35	62.56	0.29	4.85	0.56	0.95	2.88	0.04	52.43
13000	81.3	58.71	0.26	3.82	0.35	0.68	2.28	0.02	50.77
14000	78.36	55.59	0.23	3.14	0.2	0.62	1.82	0.02	48.84
15000	76.11	53	0.19	2.8	0.13	0.56	1.57	0.01	46.77
16000	74.28	50.7	0.19	2.64	0.11	0.45	1.51	0.01	44.65
17000	72.41	48.56	0.2	2.55	0.11	0.3	1.48	0	42.54
18000	70.62	46.78	0.22	2.37	0.09	0.3	1.43	0	40.57
19000	68.76	45.23	0.2	2.12	0.07	0.31	1.37	0	38.87
20000	66.93	43.82	0.17	2.04	0.06	0.31	1.44	0	37.32
21000	65.36	42.43	0.16	1.99	0.05	0.3	1.45	0	35.87
22000	64.03	41.02	0.14	1.91	0.05	0.25	1.36	0	34.59
23000	62.93	39.75	0.14	1.8	0.05	0.25	1.26	0	33.43
24000	61.85	38.57	0.15	1.67	0.06	0.25	1.18	0	32.44
25000	60.76	37.45	0.13	1.54	0.06	0.25	1.08	0	31.61

Vernon AWS - Turners Falls Impoundment Elevation 183.6 ft (NAVD88)

Flow (cfs)	Smallmouth Bass	Smallmouth Bass	Smallmouth Bass	Smallmouth Bass	Shallow-Fast	Shallow-Slow	Deep-Fast	Deep-Slow
1200	40.51	103.02	98.85	114.25	0	33.87	0	497.01
2000	40.21	117.78	113.1	106.89	0	33	1.57	496.87
3000	32.02	124.62	108.65	79.16	0	31.14	37.23	463.85
4000	25.09	123.37	97.15	59.15	0	28.82	123.74	380.44
5000	21.04	118.97	86.94	48.54	0	26.64	188.52	318.84
6000	18.14	112.3	78.25	41.37	0.15	23.81	247.72	263.31
7000	15.75	104.83	70.95	36.08	0.22	19.41	295.38	221.11
8000	13.68	96.55	64.38	31.81	0.23	17.47	325.55	193.8
9000	11.94	88.72	58.74	28.29	0.2	15.11	359.92	162.8
10000	10.56	81.89	54	25.33	0.33	13.04	383.8	141.9
11000	9.47	75.9	50.02	22.78	0.24	11.35	398.53	130.24
12000	8.56	70.65	46.73	20.24	0.1	10.47	412.81	118.24
13000	7.69	66.09	44.03	17.52	0.14	11.41	422.85	108.41
14000	6.86	62.17	41.73	14.6	0.27	12.91	432.04	99.43
15000	6.13	58.8	39.73	12.31	0.42	12.07	437.95	95.85
16000	5.4	55.88	37.97	10.29	0.13	10.37	442.99	93.95
17000	4.75	53.24	36.45	8.6	0	10.94	444.93	92.77
18000	4.14	50.87	35.15	7.26	0	10.85	448.55	90.33
19000	3.64	48.72	33.89	6.11	0.19	11.2	450.39	89.15
20000	3.24	46.83	32.75	5.1	0.25	10.82	455.28	85.91
21000	2.94	45.18	31.75	4.15	0.19	10.56	457.31	85.39
22000	2.69	43.66	30.87	3.35	0.32	9.92	459.81	84.55
23000	2.49	42.35	30.08	2.71	0.49	9.08	462.42	83.8
24000	2.36	41.14	29.33	2.12	0.61	8.62	463.87	83.87
25000	2.22	40.07	28.7	1.68	0.05	9.11	466.79	82.01

Vernon AWS - Turners Falls Impoundment Elevation 184.6 ft (NAVD88)

Flow (cfs)	American Shad	American Shad	American Shad	Walleye fry	Walleye juvenile	Walleye adult	Walleye spawning	Fallfish fry	Fallfish juvenile	Fallfish adult	Fallfish spawning
1200	265.09	296.42	129.89	57.58	85.23	301.9	10.12	25.66	51.5	461.1	16.47
2000	296.25	323.24	158.23	43.67	69.12	210.97	10.55	28.53	59.02	481.18	17.34
3000	311.14	340.9	194.41	34.05	55.91	147.28	10.97	28.38	62.52	487.44	16.36
4000	315.98	350.62	224.3	29.37	47.85	118.14	11.82	26.67	63.1	470.89	14.89
5000	314.99	357.95	244.43	25.78	42.59	103.17	13.28	23.99	62.21	441.39	13.25
6000	310.75	364.37	257.43	22.38	38.56	94.04	15.05	21.39	59.71	408.5	11.69
7000	304.1	370.08	265.34	18.8	35.5	88.88	17.05	19.06	56.07	376.89	10.23
8000	295.9	374.94	270.77	15.75	32.99	85.08	19.32	16.93	51.83	347.28	8.8
9000	287.19	378.84	274.91	13.59	30.69	81.76	20.76	14.96	47.1	319.75	7.42
10000	278.18	381.77	278.22	12.17	28.58	78.54	21.66	13.21	42.43	295.37	6.2
11000	269.19	383.49	280.93	10.85	26.63	75.39	21.86	11.66	38.24	273.84	5.13
12000	260.38	383.6	283.08	9.58	24.85	72.44	21.3	10.24	34.44	255.1	4.13
13000	251.76	382.23	284.62	8.41	23.22	69.61	19.72	8.87	31.18	238.84	3.23
14000	243.29	379.58	285.5	7.31	21.78	67.04	16.82	7.68	28.37	224.45	2.43
15000	235.1	376.12	285.61	6.41	20.51	64.33	13.29	6.6	25.89	212.03	1.73
16000	227.28	372.01	284.68	5.6	19.36	61.68	10.16	5.6	23.86	201.32	1.17
17000	219.66	367.5	282.86	4.84	18.32	59.19	7.97	4.76	22.19	192.04	0.73
18000	212.39	362.54	280.41	4.22	17.26	56.84	6.02	4.21	20.66	183.8	0.4
19000	205.51	357.2	277.43	3.7	16.25	54.47	4.5	3.77	19.09	176.49	0.18
20000	199.07	351.68	274.05	3.26	15.32	52.35	3.54	3.39	17.4	169.95	0.07
21000	192.94	346.14	270.31	2.97	14.47	50.44	2.78	3.14	15.78	164.3	0.04
22000	187.13	340.69	266.36	2.79	13.69	48.51	2.1	2.94	14.23	159.32	0.03
23000	181.64	335.53	262.34	2.66	12.98	46.61	1.61	2.75	12.94	154.89	0.02
24000	176.41	330.59	258.23	2.53	12.34	44.99	1.14	2.53	12	151	0.01
25000	171.43	325.93	254.05	2.41	11.74	43.51	0.79	2.46	11.3	147.55	0.01

Vernon AWS - Turners Falls Impoundment Elevation 184.6 ft (NAVD88)

Flow (cfs)	White Sucker	White Sucker	White Sucker	Longnose Dace	Longnose Dace	Longnose Dace	Tessellated Darter	Sea Lamprey	Macroinvertebrates
1200	524.49	208.94	0.1	7.09	0.23	0.58	0.87	0	0.01
2000	470.96	244.87	0.14	7.3	0.35	0.88	1.37	0	1.38
3000	376.91	232.27	0.19	7.34	0.45	1.13	1.86	0	8.22
4000	291.89	199.44	0.21	7.13	0.5	1.23	2.17	0	16.86
5000	230.59	166.63	0.21	6.71	0.51	1.23	2.33	0.01	25.39
6000	186.52	138.81	0.21	6.16	0.49	1.13	2.35	0.01	32.16
7000	156.23	117.35	0.21	5.49	0.46	0.95	2.26	0.02	37.03
8000	134.81	101.13	0.21	4.82	0.43	0.75	2.13	0.02	40.13
9000	118.83	89.2	0.21	4.17	0.36	0.58	1.96	0.01	41.96
10000	107.36	80.12	0.21	3.55	0.26	0.51	1.74	0.01	42.91
11000	99.17	72.81	0.2	3.05	0.18	0.51	1.54	0.01	43.22
12000	92.83	66.7	0.19	2.75	0.12	0.48	1.39	0.01	43.02
13000	88.11	61.94	0.18	2.6	0.1	0.43	1.33	0.01	42.46
14000	84.73	58.1	0.18	2.52	0.09	0.34	1.32	0	41.59
15000	81.67	54.85	0.18	2.44	0.09	0.25	1.28	0	40.5
16000	79.09	52.02	0.19	2.28	0.07	0.26	1.25	0	39.35
17000	76.74	49.55	0.18	2.06	0.06	0.28	1.23	0	38.24
18000	74.42	47.41	0.15	1.98	0.05	0.27	1.28	0	37.1
19000	72.25	45.56	0.14	1.92	0.05	0.27	1.28	0	35.98
20000	70.35	43.92	0.13	1.89	0.04	0.24	1.26	0	34.94
21000	68.8	42.38	0.12	1.78	0.04	0.21	1.2	0	33.98
22000	67.31	40.9	0.12	1.68	0.05	0.21	1.13	0	33.08
23000	65.91	39.47	0.13	1.58	0.05	0.22	1.06	0	32.31
24000	64.69	38.11	0.13	1.49	0.06	0.23	1.01	0	31.68
25000	63.49	36.86	0.11	1.4	0.05	0.22	0.93	0	31.12

Vernon AWS - Turners Falls Impoundment Elevation 184.6 ft (NAVD88)

Flow (cfs)	Smallmouth Bass	Smallmouth Bass	Smallmouth Bass	Smallmouth Bass	Shallow-Fast	Shallow-Slow	Deep-Fast	Deep-Slow
1200	28.21	101.11	96.53	102.52	0	17.96	0	518.34
2000	28.93	117.5	115.33	100.12	0	17.88	0	518.81
3000	25.98	126.78	116.06	85.28	0	17.12	13.05	507.06
4000	21.61	127.72	106.57	66.12	0	16.17	80.52	441.17
5000	18.34	124.75	96.42	54.72	0	14.57	150.62	373.37
6000	15.95	119.61	87.45	46.73	0	13.02	210.31	315.97
7000	13.98	112.79	79.42	40.22	0.03	11.67	265.55	262.91
8000	12.37	104.98	72.2	34.82	0	10.32	303.35	227.4
9000	11.06	97.13	65.82	29.81	0	10.91	333.73	197.49
10000	9.86	89.74	60.3	25.09	0.03	11.77	364.36	167.06
11000	8.81	83.19	55.63	20.85	0.11	12.37	385.01	146.94
12000	7.89	77.35	51.65	17.48	0.11	12.21	399.24	134.39
13000	7.04	72.24	48.29	14.7	0.05	10.84	412.76	123.52
14000	6.27	67.74	45.43	12.27	0	10.74	424.78	112.41
15000	5.56	63.77	42.99	10.27	0	11.03	430.19	107.75
16000	4.93	60.28	40.9	8.69	0	11.14	437.05	101.7
17000	4.35	57.22	39.07	7.34	0	11.36	441.22	98.33
18000	3.85	54.55	37.46	6.18	0.05	11.7	445.13	95.04
19000	3.42	52.15	36.03	5.11	0.09	10.57	447.05	95.53
20000	3.05	49.95	34.7	4.2	0.19	10.64	450.79	92.65
21000	2.75	48	33.53	3.42	0.19	9.9	453.72	91.5
22000	2.55	46.24	32.49	2.79	0.15	9.3	457.41	89.46
23000	2.37	44.7	31.55	2.19	0	9	461	87.28
24000	2.24	43.37	30.7	1.75	0.05	8.98	463.57	85.59
25000	2.15	42.11	29.91	1.48	0.05	8.56	464.93	85.55