2008 Tuolumne River
Supplemental Data Report – Final Data

Submitted To:
Turlock Irrigation District
Modesto Irrigation District

Prepared By:
FISHBIO Environmental, LLC

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Table 1.1. Daily Chinook salmon catch at Grayson in the north and south trap, 2008.

Julian Week	Date	North Trap	South Trap	Combined	Julian Week	Date	North Trap	South Trap	Combined
5	1/29/2008	1	0	1	12	3/21/2008	0	0	0
5	1/30/2008	3	0	3	12	3/22/2008	0	0	0
5	1/31/2008	1	1	2	12	3/23/2008	1	0	1
5	2/1/2008	7	6	13	12	3/24/2008	0	0	0
5	2/2/2008	4	8	12	13	3/25/2008	0	0	0
5	2/3/2008	0	0	0	13	3/26/2008	0	0	0
5	2/4/2008	1	0	1	13	3/27/2008	0	0	0
6	2/5/2008	0	0	0	13	3/28/2008	0	0	0
6	2/6/2008	0	0	0	13	3/29/2008	0	0	0
6	2/7/2008	0	1	1	13	3/30/2008	0	0	0
6	2/8/2008	1	0	1	13	3/31/2008	0	0	0
6	2/9/2008	0	0	0	14	4/1/2008	1	1	2
6	2/10/2008	0	0	0	14	4/2/2008	0	0	0
6	2/11/2008	0	0	0	14	4/3/2008	1	0	1
7	2/12/2008	0	0	0	14	4/4/2008	0	0	0
7	2/13/2008	0	0	0	14	4/5/2008	0	0	0
7	2/14/2008	0	0	0	14	4/6/2008	0	0	0
7	2/15/2008	0	0	0	14	4/7/2008	0	1	1
7	2/16/2008	0	0	0	15	4/8/2008	0	0	0
7	2/17/2008	0	0	0	15	4/9/2008	1	1	2
7	2/18/2008	0	0	0	15	4/10/2008	0	0	0
8	2/19/2008	0	0	0	15	4/11/2008	0	0	0
8	2/20/2008	0	0	0	15	4/12/2008	0	0	0
8	2/21/2008	0	0	0	15	4/13/2008	0	0	0
8	2/22/2008	0	0	0	15	4/14/2008	2	0	2
8	2/23/2008	0	0	0	16	4/15/2008	0	0	0
8	2/24/2008	0	0	0	16	4/16/2008	0	0	0
8	2/25/2008	0	0	0	16	4/17/2008	0	0	0
9	2/26/2008	0	0	0	16	4/18/2008	0	0	0
9	2/27/2008	1	0	1	16	4/19/2008	0	1	1
9	2/28/2008	6	15	21	16	4/20/2008	0	0	0
9	2/29/2008	27	46	73	16	4/21/2008	0	0	0
9	3/1/2008	1	5	6	17	4/22/2008	2	1	3
9	3/2/2008	0	2	2	17	4/23/2008	3	0	3
9	3/3/2008	0	0	0	17	4/24/2008	0	1	1
10	3/4/2008	0	0	0	17	4/25/2008	3	0	3
10	3/5/2008	1	0	1	17	4/26/2008	0	1	1
10	3/6/2008	0	0	0	17	4/27/2008	1	6	7
10	3/7/2008	0	0	0	17	4/28/2008	0	1	1
10	3/8/2008	0	0	0	18	4/29/2008	2	1	3
10	3/9/2008	0	0	0	18	4/30/2008	1	0	1
10	3/10/2008	0	0	0	18	5/1/2008	1	0	1
11	3/11/2008	0	0	0	18	5/2/2008	2	0	2
11	3/12/2008	0	0	0	18	5/3/2008	1	0	1
11	3/13/2008	0	0	0	18	5/4/2008	0	0	0
11	3/14/2008	0	0	0	18	5/5/2008	1	0	1
11	3/15/2008	0	0	0	19	5/6/2008	0	0	0
11	3/16/2008	0	0	0	19	5/7/2008	3	3	6
11	3/17/2008	0	0	0	19	5/8/2008	1	0	1
12	3/18/2008	0	0	0	19	5/9/2008	0	0	0
12	3/19/2008	0	0	0	19	5/10/2008	2	0	2
12	3/20/2008	0	0	0	19	5/11/2008	0	2	2

Table 1.1 continued

Julian Week	Date	North Trap	South Trap	Combined
19	5/12/2008	1	0	1
20	5/13/2008	0	0	0
20	5/14/2008	0	1	1
20	5/15/2008	1	0	1
20	5/16/2008	0	0	0
20	5/17/2008	0	0	0
20	5/18/2008	1	0	1
20	5/19/2008	1	1	2
21	5/20/2008	0	0	0
21	5/21/2008	0	0	0
21	5/22/2008	0	0	0
21	5/23/2008	0	0	0
21	5/24/2008	0	0	0
21	5/25/2008	0	0	0
21	5/26/2008	0	0	0
22	5/27/2008	0	0	0
22	5/28/2008	0	0	0
22	5/29/2008	0	0	0
22	5/30/2008	0	0	0
22	5/31/2008	0	0	0
22	6/1/2008	0	0	0
22	6/2/2008	0	0	0
23	6/3/2008	0	0	0
23	6/4/2008	0	0	0

ns = no sample

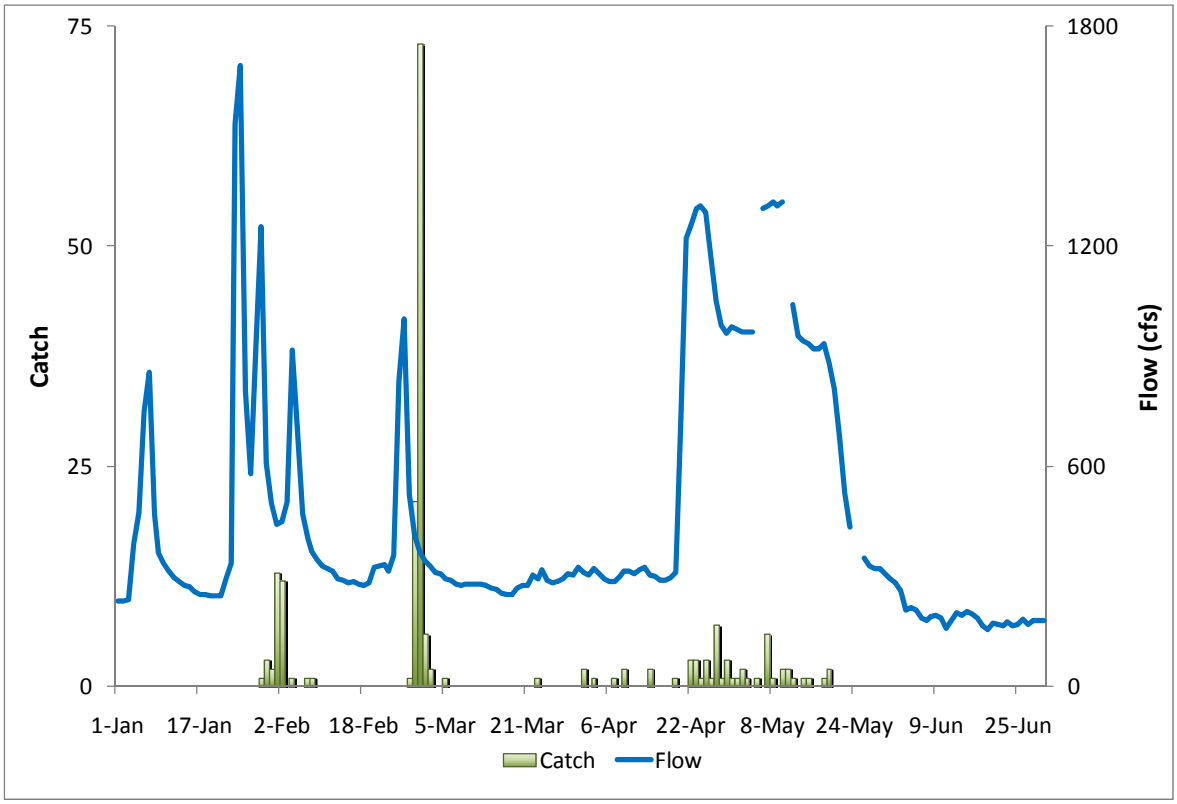

Figure 1.1. Daily Chinook salmon catch at Grayson and flow at Modesto (MOD), 2008.

Table 1.2. Daily Chinook salmon mean forklength at Grayson in the north and south trap, 2008.

Julian Week	Date	North Trap Length (mm)	South Trap Length (mm)	Combined Length (mm)	Julian Week	Date	North Trap Length (mm)	South Trap Length (mm)	Combined Length (mm)
5	1/29/2008	36	-	36	12	3/21/2008	-	-	-
5	1/30/2008	66	-	66	12	3/22/2008	-	-	-
5	1/31/2008	35	38	37	12	3/23/2008	83	-	83
5	2/1/2008	47	38	43	12	3/24/2008	-	-	-
5	2/2/2008	38	47	44	13	3/25/2008	-	-	-
5	2/3/2008	-	-	-	13	3/26/2008	-	-	-
5	2/4/2008	38	-	38	13	3/27/2008	-	-	-
6	2/5/2008	-	-	-	13	3/28/2008	-	-	-
6	2/6/2008	-	-	-	13	3/29/2008	-	-	-
6	2/7/2008	-	40	40	13	3/30/2008	-	-	-
6	2/8/2008	38	-	38	13	3/31/2008	-	-	-
6	2/9/2008	-	-	-	14	4/1/2008	99	83	91
6	2/10/2008	-	-	-	14	4/2/2008	-	-	-
6	2/11/2008	-	-	-	14	4/3/2008	97	-	97
7	2/12/2008	-	-	-	14	4/4/2008	-	-	-
7	2/13/2008	-	-	-	14	4/5/2008	-	-	-
7	2/14/2008	-	-	-	14	4/6/2008	-	-	-
7	2/15/2008	-	-	-	14	4/7/2008	-	88	88
7	2/16/2008	-	-	-	15	4/8/2008	-	-	-
7	2/17/2008	-	-	-	15	4/9/2008	74	83	79
7	2/18/2008	-	-	-	15	4/10/2008	-	-	-
8	2/19/2008	-	-	-	15	4/11/2008	-	-	-
8	2/20/2008	-	-	-	15	4/12/2008	-	-	-
8	2/21/2008	-	-	-	15	4/13/2008	-	-	-
8	2/22/2008	-	-	-	15	4/14/2008	97	-	97
8	2/23/2008	-	-	-	16	4/15/2008	-	-	-
8	2/24/2008	-	-	-	16	4/16/2008	-	-	-
8	2/25/2008	-	-	-	16	4/17/2008	-	-	-
9	2/26/2008	-	-	-	16	4/18/2008	-	-	-
9	2/27/2008	117	-	117	16	4/19/2008	-	80	80
9	2/28/2008	39	42	41	16	4/20/2008	-	-	-
9	2/29/2008	40	40	40	16	4/21/2008	-	-	-
9	3/1/2008	94	38	47	17	4/22/2008	78	88	81
9	3/2/2008	-	38	38	17	4/23/2008	85	-	85
9	3/3/2008	-	-	-	17	4/24/2008	-	91	91
10	3/4/2008	-	-	-	17	4/25/2008	86	-	86
10	3/5/2008	40	-	40	17	4/26/2008	-	91	91
10	3/6/2008	-	-	-	17	4/27/2008	80	89	88
10	3/7/2008	-	-	-	17	4/28/2008	-	79	79
10	3/8/2008	-	-	-	18	4/29/2008	84	86	85
10	3/9/2008	-	-	-	18	4/30/2008	95	-	95
10	3/10/2008	-	-	-	18	5/1/2008	89	-	89
11	3/11/2008	-	-	-	18	5/2/2008	92	-	92
11	3/12/2008	-	-	-	18	5/3/2008	88	-	88
11	3/13/2008	-	-	-	18	5/4/2008	-	-	-
11	3/14/2008	-	-	-	18	5/5/2008	95	-	95
11	3/15/2008	-	-	-	19	5/6/2008	-	-	-
11	3/16/2008	-	-	-	19	5/7/2008	89	86	88
11	3/17/2008	-	-	-	19	5/8/2008	92	-	92
12	3/18/2008	-	-	-	19	5/9/2008	-	-	-
12	3/19/2008	-	-	-	19	5/10/2008	90	-	90
12	3/20/2008	-	-	-	19	5/11/2008	-	88	88

Table 1.2 continued

Julian Week	Date	North Trap Length (mm)	South Trap Length (mm)	Combined Length (mm)
19	5/12/2008	83	-	83
20	5/13/2008	-	-	-
20	5/14/2008	-	93	93
20	5/15/2008	90	-	90
20	5/16/2008	-	-	-
20	5/17/2008	-	-	-
20	5/18/2008	100	-	100
20	5/19/2008	98	89	94
21	5/20/2008	-	-	-
21	5/21/2008	-	-	-
21	5/22/2008	-	-	-
21	5/23/2008	-	-	-
21	5/24/2008	-	-	-
21	5/25/2008	-	-	-
21	5/26/2008	-	-	-
22	5/27/2008	-	-	-
22	5/28/2008	-	-	-
22	5/29/2008	-	-	-
22	5/30/2008	-	-	-
22	5/31/2008	-	-	-
22	6/1/2008	-	-	-
22	6/2/2008	-	-	-
23	6/3/2008	-	-	-
23	6/4/2008	-	-	-

ns = no sample

Table1. 3. Daily Chinook salmon minimum, average, and maximum forklengths at Grayson, 2008.

Julian Week	Date	Min	Average	Max	Julian Week	Date	Min	Average	Max
5	1/29/2008	36	36	36	12	3/21/2008	-	-	-
5	1/30/2008	37	66	85	12	3/22/2008	-	-	-
5	1/31/2008	35	37	38	12	3/23/2008	83	83	83
5	2/1/2008	36	43	104	12	3/24/2008	-	-	-
5	2/2/2008	37	44	110	13	3/25/2008	-	-	-
5	2/3/2008	-	-	-	13	3/26/2008	-	-	-
5	2/4/2008	38	38	38	13	3/27/2008	-	-	-
6	2/5/2008	-	-	-	13	3/28/2008	-	-	-
6	2/6/2008	-	-	-	13	3/29/2008	-	-	-
6	2/7/2008	40	40	40	13	3/30/2008	-	-	-
6	2/8/2008	38	38	38	13	3/31/2008	-	-	-
6	2/9/2008	-	-	-	14	4/1/2008	83	91	99
6	2/10/2008	-	-	-	14	4/2/2008	-	-	-
6	2/11/2008	-	-	-	14	4/3/2008	97	97	97
7	2/12/2008	-	-	-	14	4/4/2008	-	-	-
7	2/13/2008	-	-	-	14	4/5/2008	-	-	-
7	2/14/2008	-	-	-	14	4/6/2008	-	-	-
7	2/15/2008	-	-	-	14	4/7/2008	88	88	88
7	2/16/2008	-	-	-	15	4/8/2008	-	-	-
7	2/17/2008	-	-	-	15	4/9/2008	74	79	83
7	2/18/2008	-	-	-	15	4/10/2008	-	-	-
8	2/19/2008	-	-	-	15	4/11/2008	-	-	-
8	2/20/2008	-	-	-	15	4/12/2008	-	-	-
8	2/21/2008	-	-	-	15	4/13/2008	-	-	-
8	2/22/2008	-	-	-	15	4/14/2008	96	97	98
8	2/23/2008	-	-	-	16	4/15/2008	-	-	-
8	2/24/2008	-	-	-	16	4/16/2008	-	-	-
8	2/25/2008	-	-	-	16	4/17/2008	-	-	-
9	2/26/2008	-	-	-	16	4/18/2008	-	-	-
9	2/27/2008	117	117	117	16	4/19/2008	80	80	80
9	2/28/2008	35	41	106	16	4/20/2008	-	-	-
9	2/29/2008	35	40	102	16	4/21/2008	-	-	-
9	3/1/2008	36	47	94	17	4/22/2008	77	81	88
9	3/2/2008	37	38	38	17	4/23/2008	72	85	95
9	3/3/2008	-	-	-	17	4/24/2008	91	91	91
10	3/4/2008	-	-	-	17	4/25/2008	84	86	90
10	3/5/2008	40	40	40	17	4/26/2008	91	91	91
10	3/6/2008	-	-	-	17	4/27/2008	80	88	95
10	3/7/2008	-	-	-	17	4/28/2008	79	79	79
10	3/8/2008	-	-	-	18	4/29/2008	79	85	89
10	3/9/2008	-	-	-	18	4/30/2008	95	95	95
10	3/10/2008	-	-	-	18	5/1/2008	89	89	89
11	3/11/2008	-	-	-	18	5/2/2008	90	92	94
11	3/12/2008	-	-	-	18	5/3/2008	88	88	88
11	3/13/2008	-	-	-	18	5/4/2008	-	-	-
11	3/14/2008	-	-	-	18	5/5/2008	95	95	95
11	3/15/2008	-	-	-	19	5/6/2008	-	-	-
11	3/16/2008	-	-	-	19	5/7/2008	81	88	94
11	3/17/2008	-	-	-	19	5/8/2008	92	92	92
12	3/18/2008	-	-	-	19	5/9/2008	-	-	-
12	3/19/2008	-	-	-	19	5/10/2008	88	90	91
12	3/20/2008	-	-	-	19	5/11/2008	78	88	98

Table 1.3 continued

Julian Week	Date	Min	Average	Max
19	5/12/2008	83	83	83
20	5/13/2008	-	-	-
20	5/14/2008	93	93	93
20	5/15/2008	90	90	90
20	5/16/2008	-	-	-
20	5/17/2008	-	-	-
20	5/18/2008	100	100	100
20	5/19/2008	89	94	98
21	5/20/2008	-	-	-
21	5/21/2008	-	-	-
21	5/22/2008	-	-	-
21	5/23/2008	-	-	-
21	5/24/2008	-	-	-
21	5/25/2008	-	-	-
21	5/26/2008	-	-	-
22	5/27/2008	-	-	-
22	5/28/2008	-	-	-
22	5/29/2008	-	-	-
22	5/30/2008	-	-	-
22	5/31/2008	-	-	-
22	6/1/2008	-	-	-
22	6/2/2008	-	-	-
23	6/3/2008	-	-	-
23	6/4/2008	-	-	-

ns = no sample

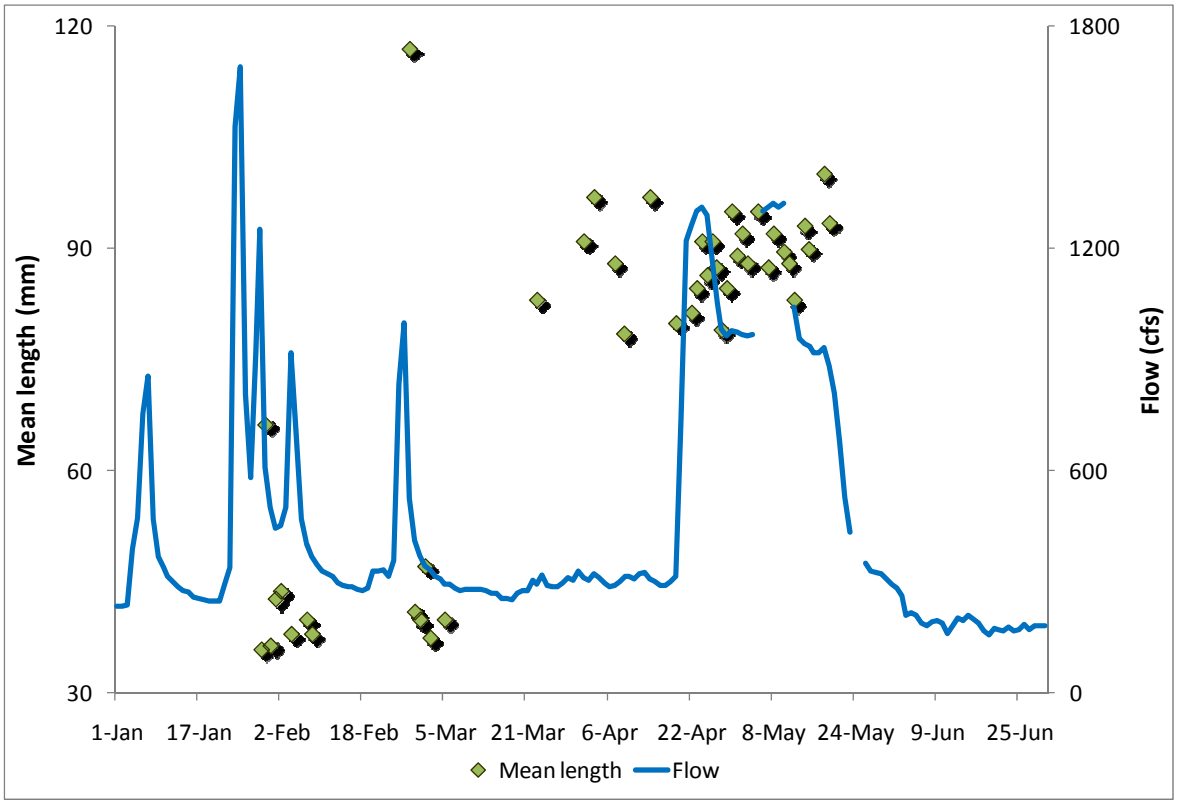

Figure 1.2. Daily Chinook salmon mean length at Grayson and flow at Modesto (MOD), 2008.

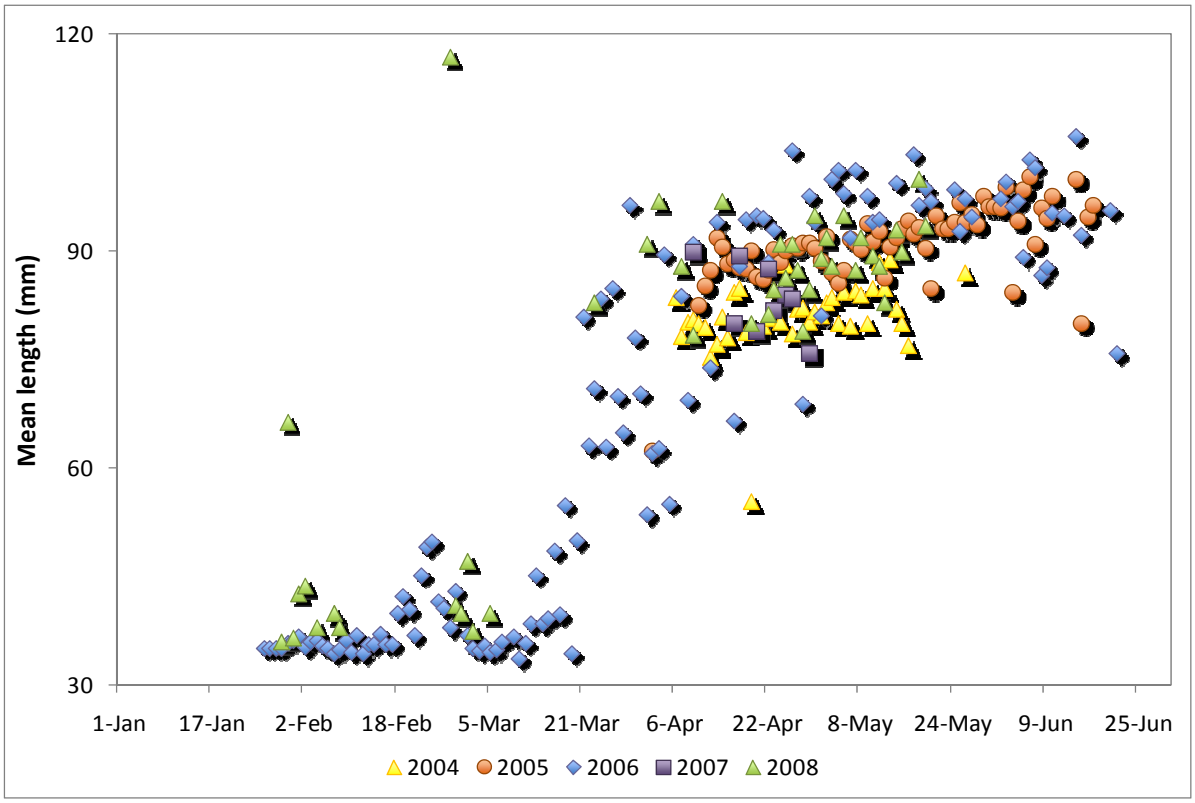

Figure 1.3. Daily Chinook salmon mean length at Grayson, 2004 through 2008.

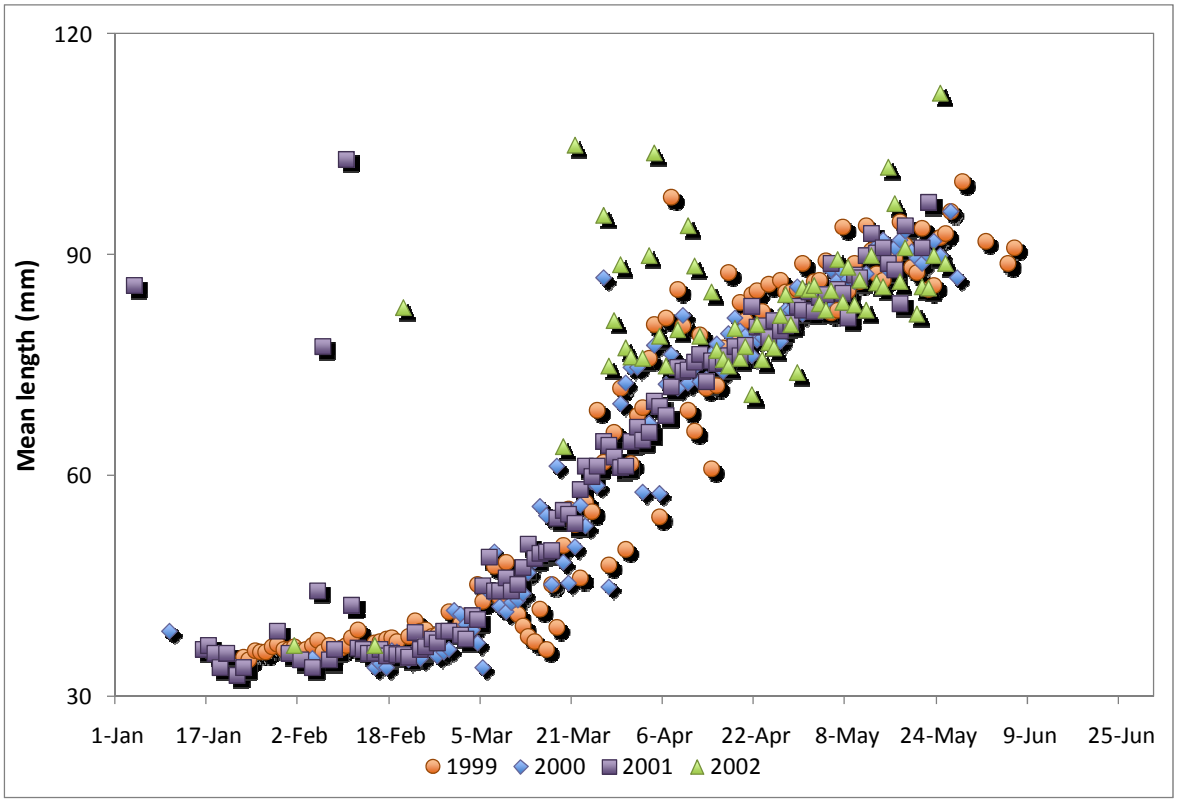

Figure 1.4. Daily Chinook salmon mean length at Grayson, 1999 through 2002.

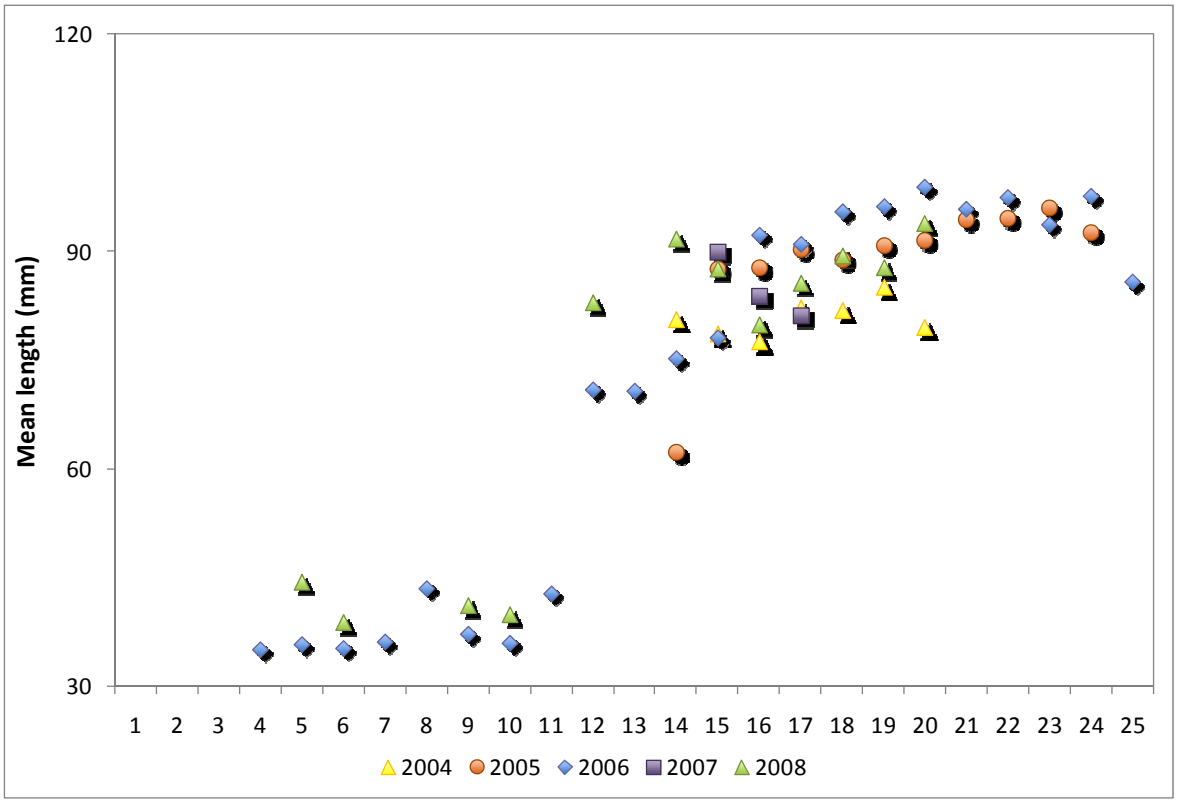

Figure 1.5. Chinook salmon mean length by julian week at Grayson, 2004 through 2008.

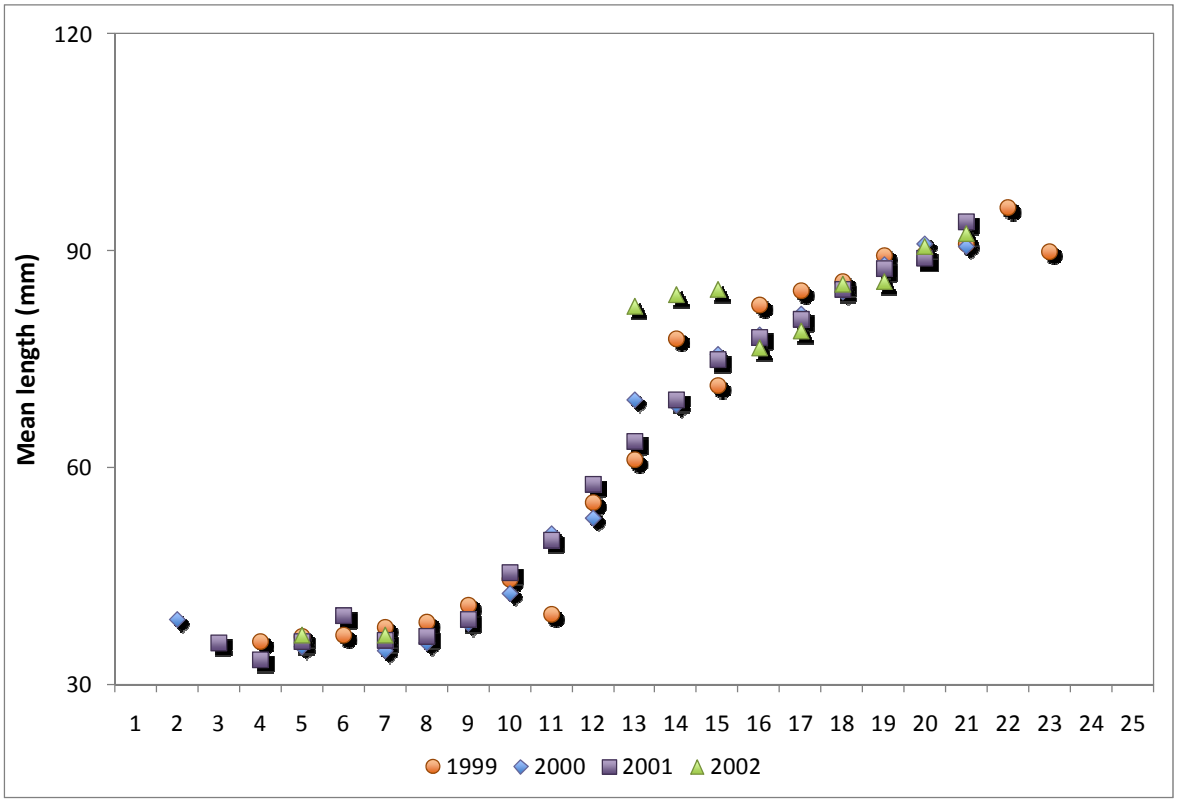

Figure 1.6. Chinook salmon mean length by julian week at Grayson, 1999 through 2002.

Table 1.4. Length frequency distributions of Chinook salmon captured at Grayson, 2008.

Julian Week	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	Total
5		26	2			1	1		1	1	32
6		1	1								2
7											
8											
9		79	17	2				1	3	1	103
10			1								1
11											
12							1				1
13							1	1			
14							1	1			2
15						1	1	2			4
16						2	2				4
17						3	9	6			18
18							2	4			6
19						1	6	5			12
20							1	3	1		5
21											
22											
Total		106	21	2		8	25	23	5	2	190
% of Total		55.8%	11.1%	1.1%		4.2%	13.2%	12.1%	2.6%	1.1%	

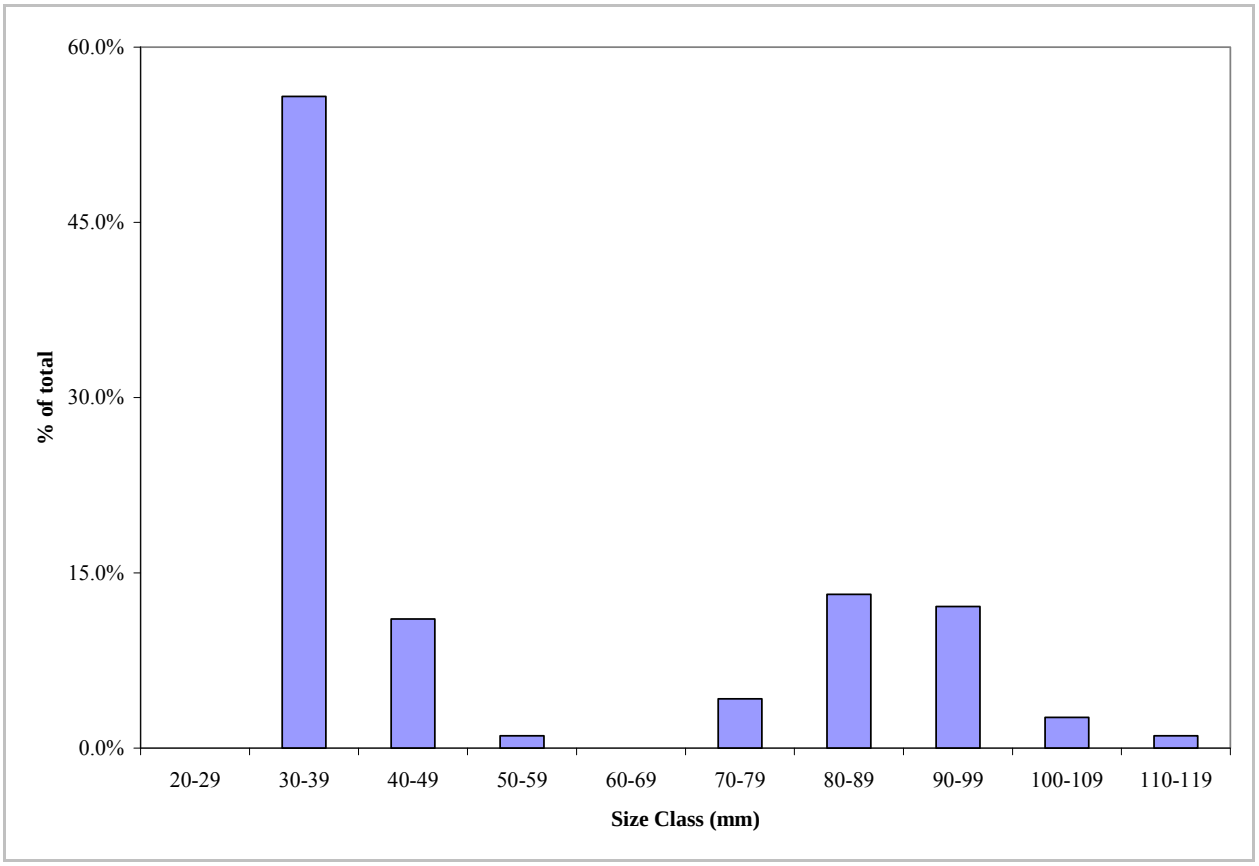

Figure 1.7. Length frequency distribution of Chinook salmon captured at Grayson, 2008.

Table 1.5. Daily Chinook salmon mean weight at Grayson, 2008.

Julian Week	Date	Weight (g)	Julian Week	Date	Weight (g)
5	1/29/2008	0.3	12	3/21/2008	-
5	1/30/2008	3.9	12	3/22/2008	-
5	1/31/2008	0.4	12	3/23/2008	7.2
5	2/1/2008	1.3	12	3/24/2008	-
5	2/2/2008	1.5	13	3/25/2008	-
5	2/3/2008	-	13	3/26/2008	-
5	2/4/2008	0.4	13	3/27/2008	-
6	2/5/2008	-	13	3/28/2008	-
6	2/6/2008	-	13	3/29/2008	-
6	2/7/2008	0.5	13	3/30/2008	-
6	2/8/2008	0.5	13	3/31/2008	-
6	2/9/2008	-	14	4/1/2008	8.1
6	2/10/2008	-	14	4/2/2008	-
6	2/11/2008	-	14	4/3/2008	10.3
7	2/12/2008	-	14	4/4/2008	-
7	2/13/2008	-	14	4/5/2008	-
7	2/14/2008	-	14	4/6/2008	-
7	2/15/2008	-	14	4/7/2008	8.1
7	2/16/2008	-	15	4/8/2008	-
7	2/17/2008	-	15	4/9/2008	5.0
7	2/18/2008	-	15	4/10/2008	-
8	2/19/2008	-	15	4/11/2008	-
8	2/20/2008	-	15	4/12/2008	-
8	2/21/2008	-	15	4/13/2008	-
8	2/22/2008	-	15	4/14/2008	9.3
8	2/23/2008	-	16	4/15/2008	-
8	2/24/2008	-	16	4/16/2008	-
8	2/25/2008	-	16	4/17/2008	-
9	2/26/2008	-	16	4/18/2008	-
9	2/27/2008	17.4	16	4/19/2008	5.7
9	2/28/2008	1.2	16	4/20/2008	-
9	2/29/2008	1.2	16	4/21/2008	-
9	3/1/2008	-	17	4/22/2008	6.1
9	3/2/2008	-	17	4/23/2008	6.9
9	3/3/2008	-	17	4/24/2008	8.8
10	3/4/2008	-	17	4/25/2008	7.2
10	3/5/2008	0.6	17	4/26/2008	7.7
10	3/6/2008	-	17	4/27/2008	6.7
10	3/7/2008	-	17	4/28/2008	5.1
10	3/8/2008	-	18	4/29/2008	6.5
10	3/9/2008	-	18	4/30/2008	9.4
10	3/10/2008	-	18	5/1/2008	8.2
11	3/11/2008	-	18	5/2/2008	8.2
11	3/12/2008	-	18	5/3/2008	7.7
11	3/13/2008	-	18	5/4/2008	-
11	3/14/2008	-	18	5/5/2008	8.8
11	3/15/2008	-	19	5/6/2008	-
11	3/16/2008	-	19	5/7/2008	7.2
11	3/17/2008	-	19	5/8/2008	9.1
12	3/18/2008	-	19	5/9/2008	-
12	3/19/2008	-	19	5/10/2008	8.5
12	3/20/2008	-	19	5/11/2008	6.0

Table 1.5 continued

Julian Week	Date	Weight (g)
19	5/12/2008	-
20	5/13/2008	-
20	5/14/2008	8.2
20	5/15/2008	-
20	5/16/2008	-
20	5/17/2008	-
20	5/18/2008	-
20	5/19/2008	8.5
21	5/20/2008	-
21	5/21/2008	-
21	5/22/2008	-
21	5/23/2008	-
21	5/24/2008	-
21	5/25/2008	-
21	5/26/2008	-
22	5/27/2008	-
22	5/28/2008	-
22	5/29/2008	-
22	5/30/2008	-
22	5/31/2008	-
22	6/1/2008	-
22	6/2/2008	-
23	6/3/2008	-
23	6/4/2008	-

Table 1.6. Grayson release and recapture data, 2008.

Release Code	Release Location	Release Date	Release Time	Fish Stock	# Released	# Recaptured	TE (%)	Mean Length at Release (mm)	Mean Length at Recapture (mm)	Flow at LGN (cfs)
G1-2008	Grayson	3/1/2008	18:54	Wild	73	5	6.8%	38	38	162
G2-2008	Grayson	4/15/2008	20:50	Hatchery	1131	109	9.6%	77	76	165
G3-2008	Grayson	4/25/2008	20:38	Hatchery	1005	17	1.7%	86	84	1310
G4-2008	Grayson	5/7/2008	20:40	Hatchery	526	8	1.5%	96	96	1310
G5-2008	Grayson	5/14/2008	20:40	Hatchery	519	13	2.5%	93	91	808
G6-2008	Grayson	5/21/2008	20:45	Hatchery	515	19	3.7%	92	91	314

Table 1.7. Daily recapture data of trap efficiency fish released at Grayson, 2008.

Batch Date	G1-2008	G2-2008	G3-2008	G4-2008	G5-2008	G6-2008
1/29/2008						
1/30/2008						
1/31/2008						
2/1/2008						
2/2/2008						
2/3/2008						
2/4/2008						
2/5/2008						
2/6/2008						
2/7/2008						
2/8/2008						
2/9/2008						
2/10/2008						
2/11/2008						
2/12/2008						
2/13/2008						
2/14/2008						
2/15/2008						
2/16/2008						
2/17/2008						
2/18/2008						
2/19/2008						
2/20/2008						
2/21/2008						
2/22/2008						
2/23/2008						
2/24/2008						
2/25/2008						
2/26/2008						
2/27/2008						
2/28/2008						
2/29/2008						
3/1/2008						
3/2/2008	5					
3/3/2008						
3/4/2008						
3/5/2008						
3/6/2008						
3/7/2008						
3/8/2008						
3/9/2008						
3/10/2008						
3/11/2008						
3/12/2008						
3/13/2008						
3/14/2008						
3/15/2008						
3/16/2008						
3/17/2008						
3/18/2008						
3/19/2008						
3/20/2008						

Table 1.7 continued

Batch Date	G1-2008	G2-2008	G3-2008	G4-2008	G5-2008	G6-2008
3/21/2008						
3/22/2008						
3/23/2008						
3/24/2008						
3/25/2008						
3/26/2008						
3/27/2008						
3/28/2008						
3/29/2008						
3/30/2008						
3/31/2008						
4/1/2008						
4/2/2008						
4/3/2008						
4/4/2008						
4/5/2008						
4/6/2008						
4/7/2008						
4/8/2008						
4/9/2008						
4/10/2008						
4/11/2008						
4/12/2008						
4/13/2008						
4/14/2008						
4/15/2008						
4/16/2008		102				
4/17/2008		6				
4/18/2008		1				
4/19/2008						
4/20/2008						
4/21/2008						
4/22/2008						
4/23/2008						
4/24/2008						
4/25/2008						
4/26/2008			16			
4/27/2008						
4/28/2008						
4/29/2008						
4/30/2008						
5/1/2008						
5/2/2008						
5/3/2008						
5/4/2008						
5/5/2008						
5/6/2008			1			
5/7/2008						
5/8/2008				8		
5/9/2008						
5/10/2008						
5/11/2008						

Table 1.7 continued

Batch Date	G1-2008	G2-2008	G3-2008	G4-2008	G5-2008	G6-2008
5/12/2008						
5/13/2008						
5/14/2008						
5/15/2008					13	
5/16/2008						
5/17/2008						
5/18/2008						
5/19/2008						
5/20/2008						
5/21/2008						2
5/22/2008						17
5/23/2008						
5/24/2008						
5/25/2008						
5/26/2008						
5/27/2008						
5/28/2008						
5/29/2008						
5/30/2008						
5/31/2008						
6/1/2008						
6/2/2008						
6/3/2008						
6/4/2008						
Total	5	109	17	8	13	19
	G1-2008	**G2-2008**	**G3-2008**	**G4-2008**	**G5-2008**	**G6-2008**

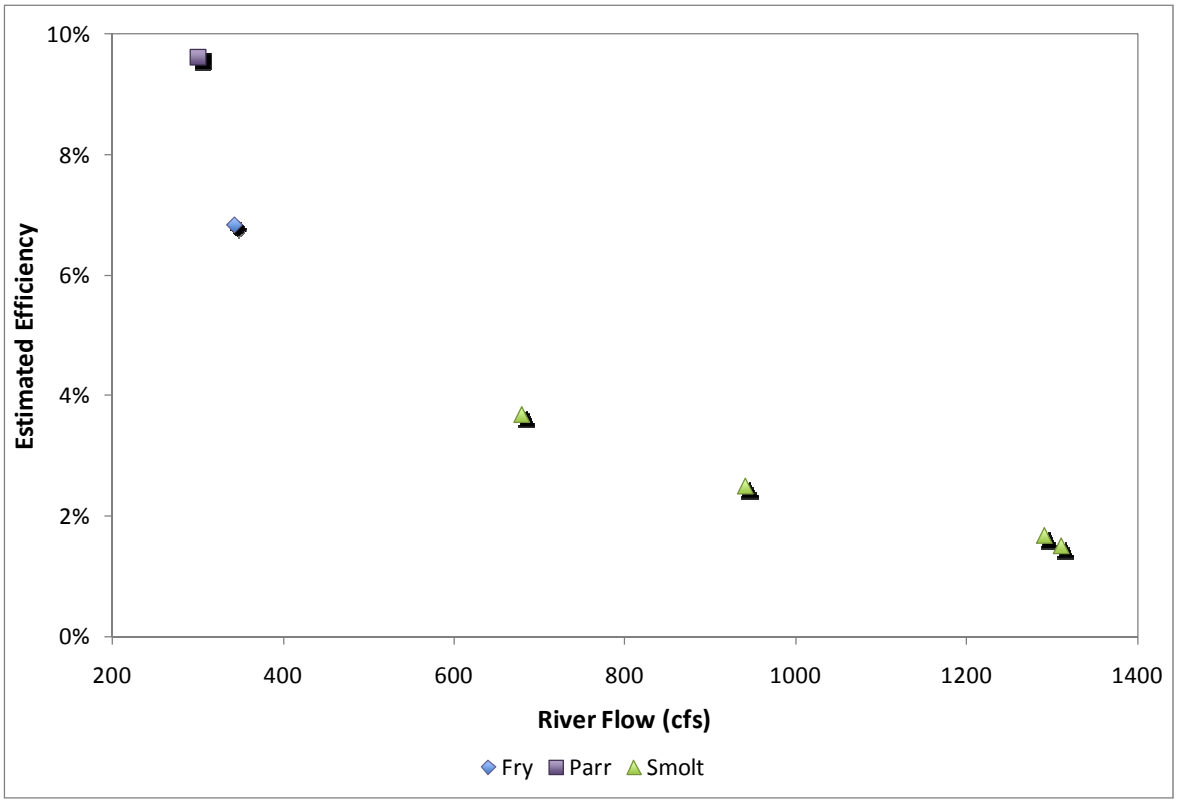

Figure 1.8. Estimated trap efficiency at Grayson and flow at Modesto (MOD) by lifestage, 2008.

Table 1.8. Date, time, length, weight, and smolt index of *O. mykiss* captured at Grayson, 2008.

Station	Sample Date	Time	Species	Length (mm)	Weight	Count	Smolt Index	Mortality
TU005N	2/28/2008	12:15	RBT	200	78.3	1	5	No
TU005S	3/31/2008	10:45	RBT	224	102.3	1	5	No

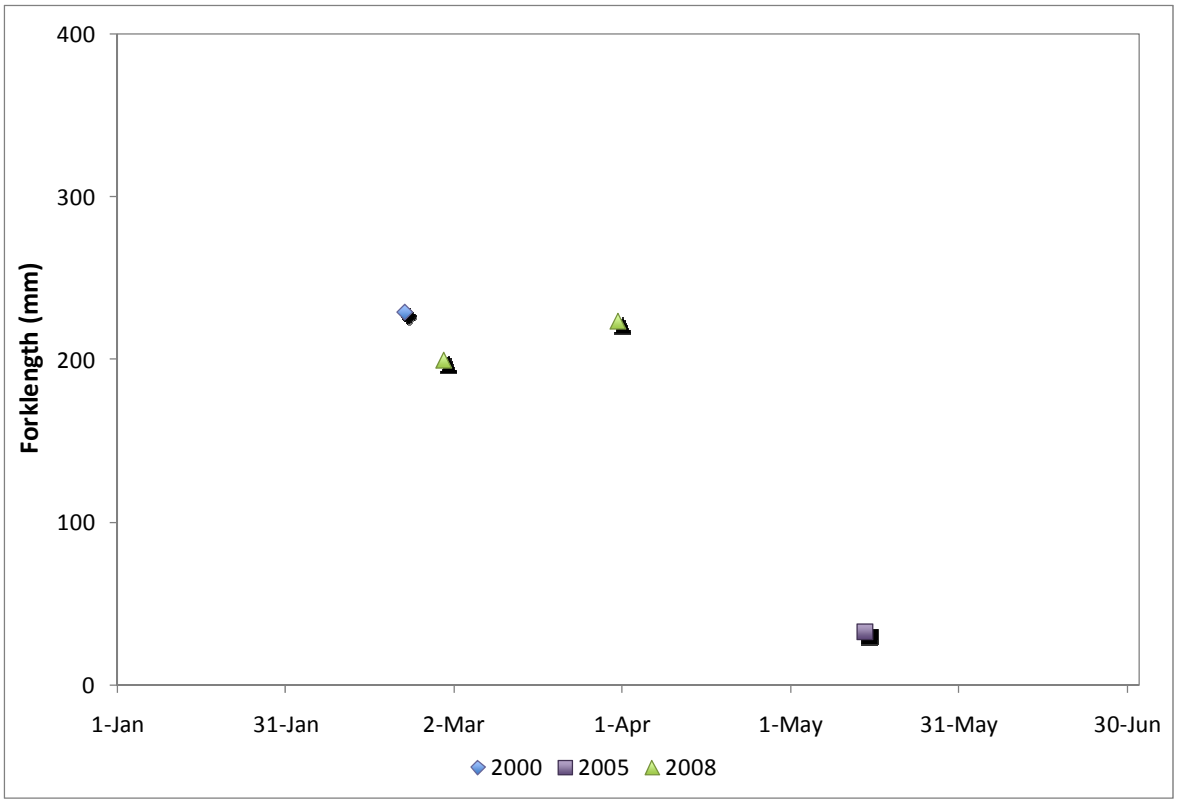

Figure 1.9. Forklength of *O. mykiss* captured at Grayson, 1999 through 2008.

Table 1.9. Daily catch of non-salmonids captured at Grayson, 2008.

Batch Date	AMS	BAS	BGS	BKB	BKS	BRB	C	CHC	GF	GSF	GSN	HH	LAM
1/29/2008			1										4
1/30/2008	1	1	2	1									6
1/31/2008				1									30
2/1/2008			3								1		300
2/2/2008			1	1									215
2/3/2008			3	1									37
2/4/2008		3	1								1		122
2/5/2008			2	1							2		10
2/6/2008			1								2		7
2/7/2008			6					1			1		
2/8/2008								1					17
2/9/2008			1	1									16
2/10/2008								1			3		11
2/11/2008											2		
2/12/2008			1									1	
2/13/2008													
2/14/2008											1		2
2/15/2008													
2/16/2008													1
2/17/2008													
2/18/2008													1
2/19/2008													
2/20/2008													
2/21/2008													
2/22/2008													
2/23/2008												1	
2/24/2008													
2/25/2008													
2/26/2008													
2/27/2008			8								2		9
2/28/2008								4			1		50
2/29/2008			1	1				2			2		1100
3/1/2008								1					38
3/2/2008			2										29
3/3/2008													
3/4/2008													
3/5/2008										1			
3/6/2008													
3/7/2008													
3/8/2008			1								1		
3/9/2008													
3/10/2008											1		
3/11/2008											1		
3/12/2008								2					
3/13/2008													
3/14/2008								1					
3/15/2008			1								1		
3/16/2008								1					
3/17/2008													
3/18/2008													
3/19/2008								1					
3/20/2008								1					

Table 1.9 continued

Batch Date	AMS	BAS	BGS	BKB	BKS	BRB	C	CHC	GF	GSF	GSN	HH	LAM
3/21/2008			1										
3/22/2008													
3/23/2008			2			1							
3/24/2008								1					
3/25/2008			1										
3/26/2008								1					
3/27/2008													
3/28/2008													
3/29/2008													
3/30/2008													
3/31/2008													
4/1/2008								1					
4/2/2008													
4/3/2008								1					
4/4/2008			1										
4/5/2008			1										
4/6/2008													
4/7/2008													
4/8/2008													
4/9/2008											1		
4/10/2008													
4/11/2008													
4/12/2008													
4/13/2008													
4/14/2008													
4/15/2008									1				
4/16/2008			1										
4/17/2008													
4/18/2008													
4/19/2008					1								
4/20/2008													
4/21/2008													
4/22/2008													57
4/23/2008			1										25
4/24/2008													3
4/25/2008													
4/26/2008											1		
4/27/2008			2		1								
4/28/2008			1										
4/29/2008													
4/30/2008			2										
5/1/2008			1										
5/2/2008													
5/3/2008													
5/4/2008													
5/5/2008													
5/6/2008													
5/7/2008													
5/8/2008								1					
5/9/2008			1										
5/10/2008													
5/11/2008													

Table 1.9 continued

Batch Date	AMS	BAS	BGS	BKB	BKS	BRB	C	CHC	GF	GSF	GSN	HH	LAM
5/12/2008		3											
5/13/2008		4											
5/14/2008		2											
5/15/2008			1										
5/16/2008			2										
5/17/2008													
5/18/2008		3											
5/19/2008		15											
5/20/2008		3											
5/21/2008		10											
5/22/2008		27	1				1						1
5/23/2008		35											
5/24/2008		6					1						
5/25/2008		35											
5/26/2008		17	1										
5/27/2008		15					1						
5/28/2008		12											
5/29/2008		2											
5/30/2008		9											
5/31/2008		7											
6/1/2008		13					1						
6/2/2008		19											
6/3/2008		4											
6/4/2008		10											
Totals	1	255	55	7	2	1	4	21	1	1	24	2	2091
	AMS	**BAS**	**BGS**	**BKB**	**BKS**	**BRB**	**C**	**CHC**	**GF**	**GSF**	**GSN**	**HH**	**LAM**

Table 1.9 continued

Batch Date	LMB	MQK	MSS	PRS	RES	RSN	SASQ	SASU	SMB	TFS	UNID	W	WHC
1/29/2008													1
1/30/2008	2	13	2		7				2				
1/31/2008		4	1		4				5			2	
2/1/2008		1	9	1	7		1		5				
2/2/2008	1	4		1	2				4				
2/3/2008		2			2				6			1	1
2/4/2008		1	4		8	2				1			
2/5/2008			2		1				1				1
2/6/2008	1	2	4		2				4				
2/7/2008			1		7	4	1						2
2/8/2008		1			8				1				2
2/9/2008		2			4				1				2
2/10/2008		3	1	1	1				1				
2/11/2008		3	1	1	6	5							2
2/12/2008					1	10							7
2/13/2008			1		1	15							4
2/14/2008		1			1	5							9
2/15/2008					3								3
2/16/2008						4							4
2/17/2008											1		3
2/18/2008					1	6							5
2/19/2008						1							2
2/20/2008						2							1
2/21/2008						2			2				3
2/22/2008						1			1				6
2/23/2008						4							11
2/24/2008						1							7
2/25/2008		1				1							6
2/26/2008													4
2/27/2008		1			2				3				2
2/28/2008	1	1		2	5		3		14		1		6
2/29/2008		1	4	1	5		10		24				30
3/1/2008	2				1				8				14
3/2/2008		2	1		1	1			6				16
3/3/2008									3				10
3/4/2008						2			2				17
3/5/2008			1			2			1				5
3/6/2008					3	2			1				14
3/7/2008						2			3				7
3/8/2008									1				22
3/9/2008		1							2				20
3/10/2008					2		1		3				27
3/11/2008		1				4	1						23
3/12/2008		1				2							31
3/13/2008									2				22
3/14/2008						1			1				33
3/15/2008						2			2				14
3/16/2008						2			3				14
3/17/2008						1							7
3/18/2008						2							16
3/19/2008						6							23
3/20/2008						4							16

Table 1.9 continued

Batch Date	LMB	MQK	MSS	PRS	RES	RSN	SASQ	SASU	SMB	TFS	UNID	W	WHC
3/21/2008					3				2				22
3/22/2008									1				34
3/23/2008						1			3				88
3/24/2008					1	1			1				73
3/25/2008									3				26
3/26/2008	1					2							46
3/27/2008													25
3/28/2008									1				5
3/29/2008													17
3/30/2008													17
3/31/2008									1				3
4/1/2008									1				20
4/2/2008													1
4/3/2008									1				9
4/4/2008									1				42
4/5/2008					8								24
4/6/2008						4							8
4/7/2008									2				15
4/8/2008						9			1				7
4/9/2008		1				4							6
4/10/2008						1							13
4/11/2008						5							6
4/12/2008						7			1				17
4/13/2008					1	6							41
4/14/2008						5			1				81
4/15/2008						2			5				61
4/16/2008						4			4				29
4/17/2008			1			1		2					8
4/18/2008		1				2		2					5
4/19/2008						3							10
4/20/2008													1
4/21/2008	1												
4/22/2008	12	1			6		1	8	65				16
4/23/2008	6	2			3	1		4	31			2	10
4/24/2008	4	1			2	2			4			1	14
4/25/2008		7	3		3	4		50	7				8
4/26/2008			1		3	2		26	5			1	17
4/27/2008		1				2		16	1				22
4/28/2008					5	3		2	1				26
4/29/2008		1			1			1	3				27
4/30/2008		1			2	1		1	1				16
5/1/2008					1	2		2				1	18
5/2/2008	1	1						19					9
5/3/2008		1				1		45					12
5/4/2008			1		1			14					10
5/5/2008						2		10					5
5/6/2008		1				3		5					15
5/7/2008		2			1	1		23	6				15
5/8/2008		1			1		2	4	1				12
5/9/2008								4					4
5/10/2008	1	4						10					10
5/11/2008		4				1		9					10

Table 1.9 continued

Batch Date	LMB	MQK	MSS	PRS	RES	RSN	SASQ	SASU	SMB	TFS	UNID	W	WHC
5/12/2008		1					1	5	2				11
5/13/2008								7	4				11
5/14/2008		2				7		15	2				14
5/15/2008						1		1	2				21
5/16/2008		1				1							10
5/17/2008													12
5/18/2008		1				1		3	1				15
5/19/2008									1				6
5/20/2008						1			2				8
5/21/2008						8		2	2				3
5/22/2008					1	4		8	2				15
5/23/2008						8			1			1	8
5/24/2008					3			1					9
5/25/2008						2			1				2
5/26/2008		2	1			1			1				3
5/27/2008			1		1	2			1				8
5/28/2008						1			3				3
5/29/2008									1			1	3
5/30/2008													7
5/31/2008									3				4
6/1/2008			1										7
6/2/2008								3	2				6
6/3/2008			1					3	4				7
6/4/2008		2						7	2				
Totals	33	85	42	7	132	215	21	312	303	1	2	10	1704
	LMB	**MQK**	**MSS**	**PRS**	**RES**	**RSN**	**SASQ**	**SASU**	**SMB**	**TFS**	**UNID**	**W**	**WHC**

Table 1.10. Daily number measured and mean lengths of non-salmonids at Grayson, 2008.

	AMS		BAS		BGS		BKB		BKS		BRB	
Batch Date	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)
1/29/2008					1	165						
1/30/2008	1	130	1	21	2	148	1	245				
1/31/2008							1	212				
2/1/2008					3	88						
2/2/2008					1	44	1	245				
2/3/2008					3	48	1	182				
2/4/2008			3	78	1	56						
2/5/2008					2	152	1	214				
2/6/2008					1	42						
2/7/2008					6	50						
2/8/2008												
2/9/2008					1	52	1	138				
2/10/2008												
2/11/2008												
2/12/2008					1	38						
2/13/2008												
2/14/2008												
2/15/2008												
2/16/2008												
2/17/2008												
2/18/2008												
2/19/2008												
2/20/2008												
2/21/2008												
2/22/2008												
2/23/2008												
2/24/2008												
2/25/2008												
2/26/2008												
2/27/2008					8	93						
2/28/2008												
2/29/2008					1	160	1	108				
3/1/2008												
3/2/2008					2	134						
3/3/2008												
3/4/2008												
3/5/2008												
3/6/2008												
3/7/2008												
3/8/2008					1	56						
3/9/2008												
3/10/2008												
3/11/2008												
3/12/2008												
3/13/2008												
3/14/2008												
3/15/2008					1	68						
3/16/2008												
3/17/2008												
3/18/2008												

Table 1.10 continued

	AMS		BAS		BGS		BKB		BKS		BRB	
Batch Date	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)
3/19/2008												
3/20/2008												
3/21/2008					1	32						
3/22/2008												
3/23/2008					2	100					1	145
3/24/2008												
3/25/2008					1	34						
3/26/2008												
3/27/2008												
3/28/2008												
3/29/2008												
3/30/2008												
3/31/2008												
4/1/2008												
4/2/2008												
4/3/2008												
4/4/2008					1	147						
4/5/2008					1	27						
4/6/2008												
4/7/2008												
4/8/2008												
4/9/2008												
4/10/2008												
4/11/2008												
4/12/2008												
4/13/2008												
4/14/2008												
4/15/2008												
4/16/2008					1	44						
4/17/2008												
4/18/2008												
4/19/2008									1	75		
4/20/2008												
4/21/2008												
4/22/2008												
4/23/2008					1	77						
4/24/2008												
4/25/2008												
4/26/2008												
4/27/2008					2	41			1	66		
4/28/2008					1	44						
4/29/2008												
4/30/2008					2	48						
5/1/2008					1	80						
5/2/2008												
5/3/2008												
5/4/2008												
5/5/2008												
5/6/2008												
5/7/2008												

Table 1.10 continued

	AMS		BAS		BGS		BKB		BKS		BRB	
Batch Date	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)
5/8/2008												
5/9/2008					1	125						
5/10/2008												
5/11/2008												
5/12/2008			3	19								
5/13/2008			4	19								
5/14/2008			2	18								
5/15/2008					1	56						
5/16/2008					2	110						
5/17/2008												
5/18/2008			3	22								
5/19/2008			15	18								
5/20/2008			3	22								
5/21/2008			10	19								
5/22/2008			27	22	1	53						
5/23/2008			35	23								
5/24/2008			6	25								
5/25/2008			35	21								
5/26/2008			17	20	1	46						
5/27/2008			15	20								
5/28/2008			12	21								
5/29/2008			2	17								
5/30/2008			9	20								
5/31/2008			7	23								
6/1/2008			13	22								
6/2/2008			19	22								
6/3/2008			4	23								
6/4/2008			10	24								
	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)
	AMS		BAS		BGS		BKB		BKS		BRB	

Table 1.10 continued

	C		CHC		GF		GSF		GSN		HH	
Batch Date	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)
1/29/2008												
1/30/2008												
1/31/2008												
2/1/2008									1	90		
2/2/2008												
2/3/2008												
2/4/2008									1	153		
2/5/2008									2	98		
2/6/2008									2	44		
2/7/2008			1	103					1	87		
2/8/2008			1	62								
2/9/2008												
2/10/2008			1	117					3	106		
2/11/2008									2	116		
2/12/2008											1	150
2/13/2008												
2/14/2008									1	70		
2/15/2008												
2/16/2008												
2/17/2008												
2/18/2008												
2/19/2008												
2/20/2008												
2/21/2008												
2/22/2008												
2/23/2008											1	73
2/24/2008												
2/25/2008												
2/26/2008												
2/27/2008									2	89		
2/28/2008			4	202					1	107		
2/29/2008			2	50					2	74		
3/1/2008			1	102								
3/2/2008												
3/3/2008												
3/4/2008												
3/5/2008							1	42				
3/6/2008												
3/7/2008												
3/8/2008									1	103		
3/9/2008												
3/10/2008									1	46		
3/11/2008									1	58		
3/12/2008			2	97								
3/13/2008												
3/14/2008			1	535								
3/15/2008									1	75		
3/16/2008			1	108								
3/17/2008												
3/18/2008												

Table 1.10 continued

	C		CHC		GF		GSF		GSN		HH	
Batch Date	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)
3/19/2008			1	116								
3/20/2008			1	463								
3/21/2008												
3/22/2008												
3/23/2008												
3/24/2008			1	108								
3/25/2008												
3/26/2008			1	112								
3/27/2008												
3/28/2008												
3/29/2008												
3/30/2008												
3/31/2008												
4/1/2008			1	86								
4/2/2008												
4/3/2008			1	123								
4/4/2008												
4/5/2008												
4/6/2008												
4/7/2008												
4/8/2008												
4/9/2008									1	53		
4/10/2008												
4/11/2008												
4/12/2008												
4/13/2008												
4/14/2008												
4/15/2008					1	265						
4/16/2008												
4/17/2008												
4/18/2008												
4/19/2008												
4/20/2008												
4/21/2008												
4/22/2008												
4/23/2008												
4/24/2008												
4/25/2008												
4/26/2008									1	108		
4/27/2008												
4/28/2008												
4/29/2008												
4/30/2008												
5/1/2008												
5/2/2008												
5/3/2008												
5/4/2008												
5/5/2008												
5/6/2008												
5/7/2008												

Table 1.10 continued

Batch Date	C # Meas.	C Length (mm)	CHC # Meas.	CHC Length (mm)	GF # Meas.	GF Length (mm)	GSF # Meas.	GSF Length (mm)	GSN # Meas.	GSN Length (mm)	HH # Meas.	HH Length (mm)
5/8/2008			1	72								
5/9/2008												
5/10/2008												
5/11/2008												
5/12/2008												
5/13/2008												
5/14/2008												
5/15/2008												
5/16/2008												
5/17/2008												
5/18/2008												
5/19/2008												
5/20/2008												
5/21/2008												
5/22/2008	1	152										
5/23/2008												
5/24/2008	1	29										
5/25/2008												
5/26/2008												
5/27/2008	1	22										
5/28/2008												
5/29/2008												
5/30/2008												
5/31/2008												
6/1/2008	1	22										
6/2/2008												
6/3/2008												
6/4/2008												
	# Meas.	**Length (mm)**	**# Meas.**	**Length (mm)**	**# Meas.**	**Length (mm)**	**# Meas.**	**Length (mm)**	**# Meas.**	**Length (mm)**	**# Meas.**	**Length (mm)**
	C		**CHC**		**GF**		**GSF**		**GSN**		**HH**	

Table 1.10 continued

	LAM		LMB		MQK		MSS		PRS		RES	
Batch Date	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)
1/29/2008	4											
1/30/2008	6		2	66	13	31	2	73			7	57
1/31/2008	30				4	27	1	90			4	60
2/1/2008	300				1	32	9	74	1	88	7	55
2/2/2008	215		1	190	4	31			1	77	2	106
2/3/2008	37				2	30					2	115
2/4/2008	122				1	26	4	84			8	56
2/5/2008	10						2	87			1	71
2/6/2008	7		1	385	2	27	4	91			2	51
2/7/2008							1	73			7	51
2/8/2008	17				1	26					8	56
2/9/2008	16				2	24					4	56
2/10/2008	11				3	29	1	44	1	194	1	55
2/11/2008					3	34	1	88	1	99	6	48
2/12/2008											1	57
2/13/2008							1	59			1	66
2/14/2008	2				1	36					1	58
2/15/2008											3	52
2/16/2008	1											
2/17/2008												
2/18/2008	1										1	71
2/19/2008												
2/20/2008												
2/21/2008												
2/22/2008												
2/23/2008												
2/24/2008												
2/25/2008					1	32						
2/26/2008												
2/27/2008	9				1	30					2	123
2/28/2008	50		1	87	1	32			2	83	5	68
2/29/2008	1100				1	30	4	78	1	71	5	67
3/1/2008	38		2	156							1	63
3/2/2008	29				2	29	1	74			1	62
3/3/2008												
3/4/2008												
3/5/2008							1	58				
3/6/2008											3	51
3/7/2008												
3/8/2008												
3/9/2008					1	34						
3/10/2008											2	49
3/11/2008					1	28						
3/12/2008					1	28						
3/13/2008												
3/14/2008												
3/15/2008												
3/16/2008												
3/17/2008												
3/18/2008												

Table 1.10 continued

	LAM		LMB		MQK		MSS		PRS		RES	
Batch Date	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)
3/19/2008												
3/20/2008												
3/21/2008											3	46
3/22/2008												
3/23/2008												
3/24/2008											1	61
3/25/2008												
3/26/2008			1	290								
3/27/2008												
3/28/2008												
3/29/2008												
3/30/2008												
3/31/2008												
4/1/2008												
4/2/2008												
4/3/2008												
4/4/2008												
4/5/2008											8	53
4/6/2008												
4/7/2008												
4/8/2008												
4/9/2008					1	46						
4/10/2008												
4/11/2008												
4/12/2008												
4/13/2008											1	65
4/14/2008												
4/15/2008												
4/16/2008												
4/17/2008							1	91				
4/18/2008					1	36						
4/19/2008												
4/20/2008												
4/21/2008			1	91								
4/22/2008	57		12	99	1	42					6	61
4/23/2008	25		6		2	29					3	67
4/24/2008	3		4	98	1	27					2	52
4/25/2008					7	28	3	82			3	79
4/26/2008							1	72			3	62
4/27/2008					1	32						
4/28/2008											5	54
4/29/2008					1	35					1	64
4/30/2008					1	38					2	67
5/1/2008											1	75
5/2/2008			1	110	1	32						
5/3/2008					1	39						
5/4/2008							1	90			1	72
5/5/2008												
5/6/2008					1	23						
5/7/2008					2	31					1	73

Table 1.10 continued

	LAM		LMB		MQK		MSS		PRS		RES	
Batch Date	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)
5/8/2008					1	36					1	68
5/9/2008												
5/10/2008			1	31	4	32						
5/11/2008					4	37						
5/12/2008					1	32						
5/13/2008												
5/14/2008					2	32						
5/15/2008												
5/16/2008					1	40						
5/17/2008												
5/18/2008					1	28						
5/19/2008												
5/20/2008												
5/21/2008												
5/22/2008	1										1	54
5/23/2008												
5/24/2008											3	51
5/25/2008												
5/26/2008					2	35	1	112				
5/27/2008							1	20			1	65
5/28/2008												
5/29/2008												
5/30/2008												
5/31/2008												
6/1/2008							1	23				
6/2/2008												
6/3/2008							1	20				
6/4/2008					2	26						
	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)
	LAM		LMB		MQK		MSS		PRS		RES	

Table 1.10 continued

	RSN		SASQ		SASU		SMB		TFS		UNID	
Batch Date	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)
1/29/2008												
1/30/2008							2	75				
1/31/2008							5	98				
2/1/2008			1	140			5	85				
2/2/2008							4	77				
2/3/2008							6	91				
2/4/2008	2	92							1	118		
2/5/2008							1	93				
2/6/2008							4	87				
2/7/2008	4	45	1	142								
2/8/2008							1	67				
2/9/2008							1	93				
2/10/2008							1	104				
2/11/2008	5	48										
2/12/2008	10	47										
2/13/2008	15	44										
2/14/2008	5	47										
2/15/2008												
2/16/2008	4	46										
2/17/2008											1	21
2/18/2008	6	42										
2/19/2008	1	44										
2/20/2008	2	40										
2/21/2008	2	41					2	113				
2/22/2008	1	36					1	395				
2/23/2008	4	45										
2/24/2008	1	40										
2/25/2008	1	42										
2/26/2008												
2/27/2008							3	104				
2/28/2008			3	69			14	101			1	67
2/29/2008			10	90			24	97				
3/1/2008							8	99				
3/2/2008	1	38					6	119				
3/3/2008							3	99				
3/4/2008	2	45					2	80				
3/5/2008	2	45					1	106				
3/6/2008	2	46					1	112				
3/7/2008	2	35					3	107				
3/8/2008							1	112				
3/9/2008							2	92				
3/10/2008			1	73			3	111				
3/11/2008	4	45	1	54								
3/12/2008	2	47										
3/13/2008							2	97				
3/14/2008	1	50					1	113				
3/15/2008	2	43					2	106				
3/16/2008	2	48					3	113				
3/17/2008	1	38										
3/18/2008	2	47										

Table 1.10 continued

	RSN		SASQ		SASU		SMB		TFS		UNID	
Batch Date	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)
3/19/2008	6	45										
3/20/2008	4	50										
3/21/2008							2	118				
3/22/2008							1	119				
3/23/2008	1	55					3	105				
3/24/2008	1	44					1	103				
3/25/2008							3	170				
3/26/2008	2	51										
3/27/2008												
3/28/2008							1	320				
3/29/2008												
3/30/2008												
3/31/2008							1	126				
4/1/2008							1	89				
4/2/2008												
4/3/2008							1	117				
4/4/2008							1	97				
4/5/2008												
4/6/2008	4	51										
4/7/2008							2	97				
4/8/2008	9	52					1	112				
4/9/2008	4	51										
4/10/2008	1	51										
4/11/2008	5	47										
4/12/2008	7	50					1	315				
4/13/2008	6	52										
4/14/2008	5	52					1	113				
4/15/2008	2	46					5	105				
4/16/2008	4	51					4	95				
4/17/2008	1	57			2	28						
4/18/2008	2	55			2	24						
4/19/2008	3	53										
4/20/2008												
4/21/2008												
4/22/2008			1	45	8	27	65	103				
4/23/2008	1	47			4	28	31	102				
4/24/2008	2	44					4	93				
4/25/2008	4	51			50	23	7	100				
4/26/2008	2	48			26	26	5	114				
4/27/2008	2	50			16	23	1	104				
4/28/2008	3	53			2	28	1	124				
4/29/2008					1	36	3	94				
4/30/2008	1	49			1	31	1	126				
5/1/2008	2	52			2	26						
5/2/2008					19	24						
5/3/2008	1	59			45	28						
5/4/2008					14	28						
5/5/2008	2	53			10	27						
5/6/2008	3	56			5	26						
5/7/2008	1	45			23	27	6	105				

Table 1.10 continued

	RSN		SASQ		SASU		SMB		TFS		UNID	
Batch Date	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)
5/8/2008			2	159	4	31	1	280				
5/9/2008					4	30						
5/10/2008					10	33						
5/11/2008	1	44			9	31						
5/12/2008			1	46	5	29	2	129				
5/13/2008					7	31	4	196				
5/14/2008	7	50			15	29	2	190				
5/15/2008	1	43			1	23	2	106				
5/16/2008	1	58										
5/17/2008												
5/18/2008	1	50			3	28	1	270				
5/19/2008							1	238				
5/20/2008	1	37					2	108				
5/21/2008	8	53			2	31	2	27				
5/22/2008	4	46			8	29	2	187				
5/23/2008	8	49					1	275				
5/24/2008					1	□3						
5/25/2008	2	44					1	271				
5/26/2008	1	58					1	295				
5/27/2008	2	51					1	29				
5/28/2008	1	50					3	169				
5/29/2008							1	295				
5/30/2008												
5/31/2008							3	205				
6/1/2008												
6/2/2008					3	17	2	130				
6/3/2008					3	20	4	237				
6/4/2008					7	20	2	199				
	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)	# Meas.	Length (mm)
	RSN		SASQ		SASU		SMB		TFS		UNID	

Table 1.10 continued

	W		WHC	
Batch Date	# Meas.	Length (mm)	# Meas.	Length (mm)
1/29/2008			1	58
1/30/2008				
1/31/2008	2	163		
2/1/2008				
2/2/2008				
2/3/2008	1	175	1	42
2/4/2008				
2/5/2008			1	52
2/6/2008				
2/7/2008			2	101
2/8/2008			2	62
2/9/2008			2	62
2/10/2008				
2/11/2008			2	58
2/12/2008			7	54
2/13/2008			4	71
2/14/2008			9	57
2/15/2008			3	70
2/16/2008			4	60
2/17/2008			3	53
2/18/2008			5	63
2/19/2008			2	61
2/20/2008			1	60
2/21/2008			3	67
2/22/2008			6	61
2/23/2008			11	66
2/24/2008			7	65
2/25/2008			6	65
2/26/2008			4	55
2/27/2008			2	46
2/28/2008			6	51
2/29/2008			30	59
3/1/2008			14	61
3/2/2008			16	68
3/3/2008			10	46
3/4/2008			17	57
3/5/2008			5	55
3/6/2008			14	59
3/7/2008			7	59
3/8/2008			22	60
3/9/2008			20	61
3/10/2008			27	61
3/11/2008			23	70
3/12/2008			31	63
3/13/2008			22	62
3/14/2008			33	62
3/15/2008			14	60
3/16/2008			14	64
3/17/2008			7	64
3/18/2008			16	60

	W		WHC	
Batch Date	# Meas.	Length (mm)	# Meas.	Length (mm)
3/19/2008			23	71
3/20/2008			16	62
3/21/2008			22	63
3/22/2008			34	65
3/23/2008			88	64
3/24/2008			73	65
3/25/2008			26	72
3/26/2008			46	64
3/27/2008			25	61
3/28/2008			5	61
3/29/2008			17	59
3/30/2008			17	68
3/31/2008			3	66
4/1/2008			20	70
4/2/2008			1	39
4/3/2008			9	61
4/4/2008			42	52
4/5/2008			24	61
4/6/2008			8	59
4/7/2008			15	60
4/8/2008			7	65
4/9/2008			6	57
4/10/2008			13	64
4/11/2008			6	71
4/12/2008			17	72
4/13/2008			41	69
4/14/2008			81	62
4/15/2008			61	69
4/16/2008			29	82
4/17/2008			8	70
4/18/2008			5	55
4/19/2008			10	67
4/20/2008			1	62
4/21/2008				
4/22/2008			16	66
4/23/2008	2	63	10	65
4/24/2008	1	68	14	70
4/25/2008			8	61
4/26/2008	1	72	17	62
4/27/2008			22	67
4/28/2008			26	67
4/29/2008			27	67
4/30/2008			16	70
5/1/2008	1	70	18	72
5/2/2008			9	69
5/3/2008			12	86
5/4/2008			10	63
5/5/2008			5	80
5/6/2008			15	60
5/7/2008			15	62

Table 1.10 continued

	W		WHC	
Batch Date	# Meas.	Length (mm)	# Meas.	Length (mm)
5/8/2008			12	69
5/9/2008			4	61
5/10/2008			10	63
5/11/2008			10	65
5/12/2008			11	68
5/13/2008			11	74
5/14/2008			14	83
5/15/2008			21	77
5/16/2008			10	59
5/17/2008			12	84
5/18/2008			15	90
5/19/2008			6	87
5/20/2008			8	72
5/21/2008			3	77
5/22/2008			15	66
5/23/2008	1	76	8	59
5/24/2008			9	86
5/25/2008			2	129
5/26/2008			3	142
5/27/2008			8	108
5/28/2008			3	115
5/29/2008	1	63	3	131
5/30/2008			7	105
5/31/2008			4	128
6/1/2008			7	170
6/2/2008			6	93
6/3/2008			7	99
6/4/2008				
	# Meas.	Length (mm)	# Meas.	Length (mm)
	W		WHC	

Table 1.11. North Trap environmental data at Grayson, 2008.

Date	Time Trap Checked	Revolutions	Time/ Rev Before	Time/ Rev After	Water Velocity	Turbidity (NTU)	Stream Gauge	Dissolved Oxygen (mg/L)	Water Temperature (F)	Weather Code	Debris Level	Condition Code	Gear Status
1/28/2008	14:00	-	-	-	-	-	3.9	-	-	CLR	-	4	0
1/29/2008	15:00	266	-	19.9	2.37	59.4	5.9	9.38	48.2	CLD	Heavy	3	-
1/30/2008	17:15	3828	31.1	31.97	2.21	41.5	3.72	9.27	49.6	CLR	Light	1	-
1/31/2008	13:30	2143	34	36.6	1.92	44.1	3.3	9.02	49	CLD	Light	1	-
2/1/2008	12:15	2135	46.9	44.6	1.87	95.7	3.2	9.09	48.7	CLR	Light	2	-
2/2/2008	13:00	-	51.7	54	1.53	41.6	2.95	9.11	48.2	CLD	Light	1	-
2/3/2008	11:15	1895	36.9	35.8	2.02	18.8	3.32	9.32	47.8	CLD	Light	1	-
2/4/2008	14:30	2375	-	26.1	2.71	40.8	4.28		48.5	CLR	Medium	3	-
2/5/2008	15:15	3479	33.5	29.4	2.17	29.6	3.94	10.29	48.9	CLR	Light	2	-
2/6/2008	9:30	1962	39.6	38	1.9	14	3.96		46.7	CLR	Light	1	-
2/7/2008	13:30	2286	53.7	56	1.55	16.7	2.94	9.56	48	CLR	Light	1	-
2/8/2008	12:30	1423	61.2	69.2	1.68	44.8	2.8	9.43	50.9	CLR	Light	1	-
2/9/2008	12:15	1290	80	64.5	1.6	21.1	2.69	9.18	50.7	CLR	Light	1	-
2/10/2008	11:15	1354	63.7	58.3	1.27	12.8	2.66	9.18	51.2	CLR	Light	1	-
2/11/2008	12:45	775	90.7	49.7	1.37	7.15	2.6	9.4	54.8	CLR	Light	2	-
2/12/2008	12:30	1149	91	90	1.3	5.51	2.58	9.22	53	CLR	Light	1	-
2/13/2008	11:30	815	162	192	1.18	4.38	2.52	8.9	52	CLD	Light	1	-
2/14/2008	10:30	-	237	80	1.27	3.84	2.6	9.07	49	CLR	Light	1	-
2/15/2008	11:30	-	-	56.6	1.35	2.76	2.47	7.8	47	CLR	Light	3	-
2/16/2008	10:45	-	78	87	1.38	3.37	2.45	9.62	52	CLR	Light	1	-
2/17/2008	10:30	-	-	58.5	1.24	3.21	2.42	-	52.8	CLR	Light	3	-
2/18/2008	11:30	-	75.3	88	1.2	1.73	2.4	10.18	52.7	CLR	Light	1	-
2/19/2008	12:00	767	-	87.6	1.11	1.72	2.4	10.25	53	CLD	Light	3	-
2/20/2008	11:15	894	-	50	1.6	2.88	2.65	10.4	54.8	CLD	Light	3	-
2/21/2008	11:30	800	-	63.9	1.61	3.76	2.52	10.48	53.4	RAN	Light	3	-
2/22/2008	11:30	1275	85.4	59.1	1.45	-	-	9.2	54	CLD	Light	1	-
2/23/2008	11:45	859	77.7	74.6	1.19	2.36	2.51	9.08	51.9	CLD	Light	2	-
2/24/2008	11:30	868	95.5	94.7	1.22	4.52	2.59	9.1	52.7	CLD	Light	1	-
2/25/2008	12:45	468	-	67.5	1.31	6.87	2.75	9.31	54.1	CLR	Heavy	3	-
2/26/2008	13:45	161	-	22.1	2.55	55.7	5.18	9.03	53.2	CLR	Heavy	3	-
2/27/2008	13:45	2777	37.2	33.8	1.87	24.5	3.45	-	55.4	CLD	Heavy	2	-
2/28/2008	12:15	1964	50	43.9	1.36	67	3	8.2	55.7	CLR	Light	1	-
2/29/2008	12:00	1550	65.4	51	1.41	64.1	2.8	8.74	56.4	CLR	Light	1	-
3/1/2008	12:00	598	-	56.2	1.4	25.9	2.69	8.3	57	CLD	Light	3	-

Date	Time Trap Checked	Revolutions	Time/ Rev Before	Time/ Rev After	Water Velocity	Turbidity (NTU)	Stream Gauge	Dissolved Oxygen (mg/L)	Water Temperature (F)	Weather Code	Debris Level	Condition Code	Gear Status
3/1/2008	18:30	405	-	-	-	27.2	2.68		59	NIT	Light	1	-
3/1/2008	20:15	501	-	-	-	27.2	-	-	-	NIT	Light	1	-
3/1/2008	21:15	536	-	-	-	27.2	-	-	-	NIT	Light	1	-
3/2/2008	12:00	1169	107	76.7	1.23	14.1	2.66	8.9	54.3	CLR	Light	1	-
3/3/2008	12:00	208	-	81.8	1.21	8.54	2.58	8.74	55.5	CLR	Light	3	-
3/4/2008	12:00	630	-	59.4	1.21	6.21	2.55	-	57.3	CLR	Light	3	-
3/5/2008	12:30	1274	-	50.2	1.4	4.68	2.52	8.7	57.3	CLR	Medium	3	-
3/6/2008	12:15	1329	71.8	54.7	1.21	1.79	2.5	9.02	57	CLD	Light	1	-
3/7/2008	10:15	1037	91.5	69.6	1.34	7.74	2.48	8.71	55.4	CLR	Light	2	-
3/8/2008	11:30	1274	71.8	65.6	1.34	4.09	2.45	8.61	59	CLD	Medium	2	-
3/9/2008	11:15	445	-	58.6	1.13	4.92	2.45	8.44	57.3	CLR	Light	3	-
3/10/2008	11:30	1194	86.4	65.5	1.36	4.97	2.44	8.44	58.1	CLD	Light	1	-
3/11/2008	11:45	1100	94.7	67.1	1.29	3.95	2.44		60.4	CLR	Light	1	-
3/12/2008	12:15	939	97.8	64	1.26	2.89	2.45		60	CLR	Light	1	-
3/13/2008	11:45	1041	85.1	66.7	1.17	11.9	2.42	8.59	60	CLD	Light	1	-
3/14/2008	11:45	462	-	64	1.23	2.52	2.42	8.97	59	CLR	Light	3	-
3/15/2008	10:15	1105	100	64.5	1.38	5.97	2.46	8.97	53.9	CLD	Light	1	-
3/16/2008	10:30	1172	94.8	75.8	1.22	2.5	2.39	9.3	51.2	CLR	Medium	1	-
3/17/2008	12:45	599	-	76	1.17	3.06	2.38	9.6	55	CLR	Medium	3	-
3/18/2008	12:45	1020	98.5	71	1.14	1.44	2.36	9.58	56.1	CLR	Light	1	-
3/19/2008	13:00	934	102	79.3	1.21	1.42	2.36	9.35	58.1	CLR	Light	1	-
3/20/2008	12:45	164	-	67	1.25	4.96	2.42	9.17	57.7	CLR	Light	3	-
3/21/2008	11:30	928	195.1	128.8	1.12	2.28	2.25	8.99	56.1	CLR	Light	1	-
3/22/2008	10:15	790	89.1	68.3	1.25	2.35	2.4	8.33	56.1	CLR	Light	1	-
3/23/2008	9:30	1095	96.3	89.6	1.28	4.14	2.43	7.69	59	CLR	Medium	2	-
3/24/2008	13:00	962	-	62.4	1.3	4.02	2.45	8.66	52.5	CLR	Medium	3	-
3/25/2008	13:15	714	-	63.3	1.43	4.95	2.49	-	62	CLD	Medium	3	-
3/26/2008	11:30	1060	106	70.3	1.36	4.71	2.39		61	CLR	Light	1	-
3/27/2008	11:30	1030	104	88.9	1.08	2.82	2.44	7.48	60	CLR	Light	1	-
3/28/2008	11:15	989	-	61.9	1.23	4.04	2.52	7.61	59.9	CLR	Light	3	-
3/29/2008	10:00	1000	83.7	61.8	1.35	3.03	2.54		62.6	CLD	Light	1	-
3/30/2008	9:30	1344	69.4	59	1.28	3.23	2.64	7.33	59.3	CLR	Medium	1	-
3/31/2008	11:00	352	-	55.7	1.18	2.84	2.66	7.8	58.8	CLR	Light	3	-
4/1/2008	13:30	1218	-	68.4	1.22	6.6	2.6	7.73	63.1	CLR	Light	3	-
4/2/2008	15:00	601	-	65.1	-	7.32	2.5	9.37	64.7	CLD	Light	3	-
4/3/2008	13:00	1112	70.3	60	1.35	4.68	2.64	8.68	64.4	CLR	Light	1	-

Date	Time Trap Checked	Revolutions	Time/ Rev Before	Time/ Rev After	Water Velocity	Turbidity (NTU)	Stream Gauge	Dissolved Oxygen (mg/L)	Water Temperature (F)	Weather Code	Debris Level	Condition Code	Gear Status
4/4/2008	11:45	200	-	65.1	1.21	5.39	2.55	8.55	63.8	CLR	Light	3	-
4/5/2008	9:30	1058	84.8	62.9	1.24	4.21	2.55	-	61.3	CLR	Light	2	-
4/6/2008	9:45	221	-	71.1	1.12	4.12	2.52	7.38	62.4	CLR	Light	3	-
4/7/2008	11:30	917	73.8	55.2	1.28	2.87	2.54	8.67	60.8	CLR	Medium	2	-
4/8/2008	12:30	1131	113.6	67.8	1.1	3.37	2.45	8.43	63.6	CLD	Light	1	-
4/9/2008	12:15	929	-	68.8	1.21	4.31	2.47	8.57	63.3	CLR	Medium	3	-
4/10/2008	12:00	-	-	56.1	1.48	5.53	2.58	-	64.4	CLR	Light	3	-
4/11/2008	11:30	-	76	62.3	1.37	-	2.58	7.98	66	CLR	Light	1	-
4/12/2008	10:45	166	-	56.5	-	5.69	2.54	7.66	66.2	CLR	Light	3	-
4/13/2008	10:45	580	-	50.3	1.4	5.7	2.66	7.49	67.6	CLR	Light	3	-
4/14/2008	13:00	1472	115.8	86.3	1.4	4.39	2.58	7.94	70.1	CLR	Light	2	-
4/15/2008	12:00	957	61.5	51.5	1.46	4.24	2.6	8	64.5	CLR	Medium	2	-
4/15/2008	20:15	504	-	-	-	4.79	1.54		68	NIT	Light	1	-
4/15/2008	23:30	685	-	-	-	4.79	1.54	-	-	NIT	Light	1	-
4/16/2008	0:30	726	-	-	-	4.79	1.54	-	-	NIT	Light	1	-
4/16/2008	12:45	1231	-	60.6	1.24	3.45	2.5	8.63	64.9	CLR	Light	3	-
4/17/2008	11:45	1094	87.5	69.8	1.27	2.62	2.48	7.98	66	CLR	Medium	1	-
4/18/2008	12:15	999	101.1	77.9	1.24	3.11	2.45	7.95	68.3	CLR	Light	2	-
4/19/2008	10:15	761	85.4	58.9	1.46	8.04	2.52	7.53	65.8	CLR	Light	2	-
4/20/2008	10:45	396	-	75.2	1.1	4.05	2.58	7.97	62.2	CLR	Light	3	-
4/21/2008	10:15	324	-	19	2.67	9.29	5.17	7.87	60	CLR	Heavy	3	-
4/21/2008	20:15	1615	-	-	-	-	5.34	-	-	NIT	Medium	2	-
4/22/2008	12:15	1802	-	19.6	2.4	4.05	5.43	9.06	57	CLD	Light	3	-
4/22/2008	19:00	1195	-	-	-	-	5.49		-	NIT	Light	1	-
4/23/2008	12:00	3824	-	18.7	2.77	3.56	5.7		57.2	CLD	Medium	3	-
4/23/2008	19:15	636	-	-	-	4.71	5.72	-	56	CLR	Medium	3	-
4/24/2008	12:45	1032	-	17.6	2.59	4.29	5.78	9.23	57	CLR	Light	3	-
4/24/2008	19:00	1176	-	-	-	5.63	5.78		57	CLR	Light	1	-
4/25/2008	12:30	4615	18.5	18	2.92	2.66	5.78	9.08	57.9	CLR	Light	1	-
4/25/2008	19:30	578	-	-	-	2.99	5.78		58	CLR	Light	1	-
4/25/2008	22:45	-	-	-	-	2.99	2.58	-	58	NIT	Light	1	-
4/25/2008	23:45	-	-	-	-	2.99	2.58	-	58	NIT	Light	1	-
4/26/2008	13:00	-	20	17.5	2.6	7.36	5.5	9.52	60	CLR	Light	2	-
4/26/2008	21:15	1516	-	-	-	3.12	5.48		62	NIT	Light	1	-
4/27/2008	12:15	-	22.5	19	2.51	2.81	5.22	9.21	61.7	CLR	Light	1	-
4/28/2008	13:15	4059	26	20.4	2.4	5.72	4.91	9.09	64	CLR	Light	1	-

Date	Time Trap Checked	Revolutions	Time/ Rev Before	Time/ Rev After	Water Velocity	Turbidity (NTU)	Stream Gauge	Dissolved Oxygen (mg/L)	Water Temperature (F)	Weather Code	Debris Level	Condition Code	Gear Status
4/29/2008	14:15	3900	27.1	21.2	2.59	2.55	4.85		63.6	CLR	Light	1	-
4/30/2008	9:30	2930	26	23.2	2.31	2.13	4.87	8.48	60.2	CLR	Light	2	-
5/1/2008	13:00	3895	26.2	21.8	2.24	4.54	4.86	8.7	60.4	CLR	Light	-	-
5/2/2008	12:30	3002	26.9	20.4	2.44	6.69	4.89	9.12	60.9	CLR	Light	1	-
5/3/2008	12:30	3446	26.4	23.2	2.51	3.34	4.84	8.86	60.9	CLR	Light	1	-
5/4/2008	10:15	2667	28.5	23.1	2.39	2.73	4.86	8.72	61.1	CLR	Light	1	-
5/5/2008	12:15	88	24.9	21.7	2.55	3.69	5.01	8.74	62.2	CLR	Light	1	-
5/6/2008	13:30	3595	-	19	2.79	3.06	5.81	8.87	62	CLR	Light	3	-
5/7/2008	12:30	4000	22.4	19.04	2.82	2.85	5.78	8.84	62.2	CLR	Light	1	-
5/7/2008	20:15	-	-	-	-	2.62	5.79	9.04	63.5	NIT	Light	1	-
5/7/2008	22:30	161	-	-	-	2.62	5.82	-	63.5	NIT	Light	1	-
5/7/2008	23:30	351	-	-	-	2.62	5.81	9.04	63.5	NIT	Light	1	-
5/8/2008	12:15	2644	22	19.3	2.93	2.37	5.86	8.96	61.7	CLR	Light	1	-
5/9/2008	12:00	1842	-	18.6	2.89	1.8	5.8	9.67	61.1	CLR	Light	3	-
5/10/2008	11:30	4408	22	17.8	2.9	2.66	5.87	9.4	60.4	CLR	Light	1	-
5/11/2008	10:30	3798	-	18.1	2.62	2.58	5.88	9.9	60.6	CLR	Light	3	-
5/12/2008	12:15	4694	22.8	21.2	2.54	2.68	5.22	9.36	62	CLR	Medium	1	-
5/13/2008	11:30	3525	27.6	21.9	2.28	3.17	4.99	9.52	62	CLR	Light	1	-
5/14/2008	13:15	3625	31.6	26.3	2.11	3.98	4.7	9.1	64.7	CLR	Light	1	-
5/14/2008	20:15	557	-	-	-	3.85	4.7	9.51	66.5	NIT	Light	3	-
5/14/2008	22:30	320	-	-	-	3.85	4.71	9.51	66.5	NIT	Light	1	-
5/14/2008	23:30	452	-	-	-	3.85	4.71	9.51	66.5	NIT	Light	1	-
5/15/2008	12:00	2136	28.1	23.8	2.38	1.56	4.76	8.47	65.3	CLR	Light	1	-
5/16/2008	11:45	3105	34	25.7	3.3	-	4.6	7.72	67.2	CLR	Medium	1	-
5/17/2008	10:00	2615	36.4	26.2	2.15	1.56	4.65	7.51	67.1	CLR	Medium	1	-
5/18/2008	10:30	3036	32.4	29.2	2.28	2.81	4.68	7.29	68	CLR	Medium	1	-
5/19/2008	11:30	2645	33.8	25.2	2.43	2.11	4.62	7.41	67.8	CLR	Light	1	-
5/20/2008	12:30	2865	38.1	26.8	2.05	3.04	4.39	7.34	68.3	CLD	Light	2	-
5/21/2008	12:00	428	-	30.8	1.93	2.75	4.14	7.37	66.2	CLR	Light	3	-
5/21/2008	20:00	898	-	-	-	2.7	4	7.39	67.1	NIT	Light	1	-
5/21/2008	22:30	1164	-	-	-	2.7	3.99	7.39	67.1	NIT	Light	1	-
5/21/2008	23:30	1260	-	-	-	2.7	3.99	7.39	67.1	NIT	Light	1	-
5/22/2008	12:15	2360	50.1	44.5	2.01	5.21	3.66	7.73	64.7	CLR	Light	1	-
5/23/2008	12:15	1578	73.6	49.9	1.43	1.89	1.32	7.32	65.3	CLR	Light	2	-
5/24/2008	9:15	1455	60.9	45.2	1.57	6.78	3.08	6.8	64.7	RAN	Light	1	-
5/25/2008	9:00	1570	60.8	47.3	1.6	5.71	3	6.25	62.7	CLD	Light	1	-

Date	Time Trap Checked	Revolutions	Time/ Rev Before	Time/ Rev After	Water Velocity	Turbidity (NTU)	Stream Gauge	Dissolved Oxygen (mg/L)	Water Temperature (F)	Weather Code	Debris Level	Condition Code	Gear Status
5/26/2008	8:45	1515	71.7	51.9	1.4	3.17	2.94	6.62	64.2	CLR	Light	1	-
5/27/2008	11:15	1405	79	64.7	1.43	2.56	2.89	6.56	65.8	CLD	Light	1	-
5/28/2008	10:30	1092	110	60	1.37	3.48	2.8	7.25	65	CLR	Light	1	-
5/29/2008	10:30	1187	75.1	56	1.43	1.65	2.8	6.69	66.7	CLR	Light	1	-
5/30/2008	11:45	1318	97.7	71.7	1.3	2.75	1	6.97	69.4	CLR	Light	1	-
5/31/2008	9:15	341	-	62.4	1.58	3.8	1.05	6.67	68	CLR	Light	3	-
6/1/2008	9:00	1085	98.2	58.4	1.46	2.61	1	6.31	68.5	CLR	Medium	1	-
6/2/2008	11:15	1403	87.9	67.8	2.77	2.77	0.88	7.16	69.9	CLR	Medium	1	-
6/3/2008	11:45	899	-	131.3	1.13	2.75	0.68	7.24	71.4	CLR	Medium	3	-
6/4/2008	11:45	137	-	-	1.14	2.92	0.64	7.2	70.7	CLR	Light	3	3

Table 1.12. South Trap environmental data at Grayson, 2008.

Date	Time Trap Checked	Revolutions	Time/ Rev Before	Time/ Rev After	Water Velocity	Turbidity (NTU)	Stream Gauge	Dissolved Oxygen (mg/L)	Water Temperature (F)	Weather Code	Debris Level	Condition Code	Gear Status
1/28/2008	14:00	-	-	-	-	-	3.9	-	-	CLR	-	4	0
1/29/2008	14:45	1246	-	15.8	3.13	59.4	5.9	9.38	48.2	CLD	Heavy	3	-
1/30/2008	16:45	4376	27.4	24.6	2.25	41.5	3.72	9.27	49.6	CLR	Light	1	-
1/31/2008	13:15	571	28.2	29.3	1.75	44.1	3.3	9.02	49	CLD	Light	1	-
2/1/2008	12:00	571	30.4	30.7	1.97	95.7	3.2	9.09	48.7	CLR	Light	1	-
2/2/2008	12:45	575	40	41.5	1.44	41.6	2.95	9.11	48.2	CLD	Light	1	-
2/3/2008	11:00	1099	28.6	28.1	1.92	18.8	3.32	9.32	47.8	CLD	Light	1	-
2/4/2008	14:15	99	-	22.4	2.29	40.8	4.28	8.54	48.5	CLR	Medium	3	-
2/5/2008	15:00	-	-	24.8	2.27	29.6	3.94	-	48.9	CLR	Light	3	-
2/6/2008	9:00	2363	30.5	30.6	1.78	14	3.96	-	46.7	CLR	Light	2	-
2/7/2008	13:30	1575	38.9	47.7	1.59	16.7	2.94	9.56	48	CLR	Light	1	-
2/8/2008	12:15	1948	46.4	44.1	1.5	44.8	2.8	9.43	50.9	CLR	Light	1	-
2/9/2008	12:00	1726	55.7	55	1.35	21.1	2.69	9.46	50.7	CLR	Light	-	-
2/10/2008	11:00	1516	60.6	60.23	1.28	12.8	2.66	9.18	51.2	CLR	Light	1	-
2/11/2008	12:30	1476	59.6	40.5	1.37	7.15	2.6	9.4	54.8	CLR	Light	1	-
2/12/2008	12:30	1331	71.9	74.4	1.2	5.51	2.58	9.22	53	CLR	Light	1	-
2/13/2008	11:15	1014	64	67	1.19	4.38	2.52	8.9	52	CLD	Light	1	-
2/14/2008	10:15	814	112.2	80.3	1.3	3.84	2.6	9.07	49	CLR	Light	1	-
2/15/2008	11:00	1098	84.7	74.3	1.15	2.76	2.47	7.8	47	CLR	Light	1	-
2/16/2008	10:30	999	85.3	70.4	1.28	3.37	2.45	9.62	52	CLR	Light	1	-
2/17/2008	10:15	978	67	64.2	1.34	3.21	2.42	9.7	52.8	CLR	Light	1	-
2/18/2008	11:15	670	88	67.5	1.2	1.73	2.4	10.18	52.7	CLR	Light	1	-
2/19/2008	11:45	66	-	62	1.34	1.72	2.4	10.25	53	CLD	Light	3	-
2/20/2008	11:00	1383	50	41.9	1.71	2.88	2.65	10.4	54.8	CLR	Light	1	-
2/21/2008	11:15	1623	62	48.4	1.41	3.76	2.52	10.48	53.4	RAN	Light	2	-
2/22/2008	11:15	1477	60.7	51.6	1.4	-	-	9.2	54	CLD	Light	1	-
2/23/2008	11:30	1099	-	60.3	1.34	2.36	2.51	9.08	51.9	CLD	Light	3	-
2/24/2008	11:15	1248	65.8	53.9	1.54	4.52	2.59	9.1	52.7	CLD	Light	1	-
2/25/2008	12:15	1240	-	47.7	1.55	6.87	2.75	9.31	54.1	CLD	Heavy	3	-
2/26/2008	13:30	770	-	68.1	2.44	55.7	5.18	9.03	53.2	CLR	Very Heavy	3	-
2/27/2008	13:15	543	-	29.9	1.94	24.5	3.45	8.85	55.4	CLD	Light	3	-
2/28/2008	11:45	2401	39.2	36.8	1.7	67	3	8.2	55.7	CLR	Light	1	-
2/29/2008	11:45	1982	48.3	42.2	1.51	64.1	2.8	8.04	56.4	CLR	Light	1	-
3/1/2008	11:45	1346	-	69.1	1.45	25.9	2.69	8.3	57	CLD	Light	3	-

Date	Time Trap Checked	Revolutions	Time/ Rev Before	Time/ Rev After	Water Velocity	Turbidity (NTU)	Stream Gauge	Dissolved Oxygen (mg/L)	Water Temperature (F)	Weather Code	Debris Level	Condition Code	Gear Status
3/1/2008	18:15	469	-	-	-	27.2	2.68	-	59	NIT	Light	1	-
3/1/2008	20:15	627	-	-	-	27.2	-	-	-	NIT	Light	1	-
3/1/2008	21:15	691	-	-	-	27.2	-	-	-	NIT	Light	1	-
3/2/2008	11:45	1596	64.2	55	1.25	14.1	2.66	8.9	54.3	CLR	Light	1	-
3/3/2008	11:30	1447	72.1	55.6	1.08	8.54	2.58	8.74	55.5	CLR	Light	1	-
3/4/2008	11:45	1272	79.2	37.4	1.31	6.21	2.55	8.7	57.3	CLR	Light	1	-
3/5/2008	12:15	971	-	41.5	1.47	4.68	2.52	8.7	57.3	CLR	Light	3	-
3/6/2008	12:00	1675	54.3	43.4	1.62	1.79	2.5	-	57	CLD	Light	1	-
3/7/2008	10:00	997	-	41.8	1.3	7.74	2.48	8.71	55.4	CLD	Light	3	-
3/8/2008	11:15	1681	64.4	48.2	1.36	4.09	2.45	8.61	59	CLD	Light	1	-
3/9/2008	11:00	1426	65.7	50.8	1.32	4.92	2.45	8.44	57.3	CLR	Light	1	-
3/10/2008	11:00	1321	77.1	50.3	1.28	4.97	2.44	8.44	58.1	CLD	Light	1	-
3/11/2008	11:30	1226	88.4	52.4	1.33	3.95	2.44	8.4	60.4	CLR	Light	1	-
3/12/2008	12:00	1310	75.9	47.4	1.31	2.89	2.42	-	60	CLR	Light	1	-
3/13/2008	11:30	1340	70.2	50.7	1.36	11.9	2.42	8.59	60	CLD	Light	1	-
3/14/2008	11:30	1337	72.6	49.4	1.1	2.52	2.42	8.97	59	CLD	Light	1	-
3/15/2008	10:00	1323	72.8	51.7	1.31	5.97	2.46	8.97	53.9	CLD	Light	1	-
3/16/2008	10:15	1295	92.7	66.8	1.18	2.5	2.39	9.3	51.2	CLR	Light	1	-
3/17/2008	12:15	914	-	50.9	1.32	3.06	2.38	9.6	55	CLR	Light	3	-
3/18/2008	12:30	1366	73.9	56	1.23	1.44	2.36	9.58	56.1	CLR	Light	1	-
3/19/2008	12:45	1269	74	54	1.25	1.42	2.36	9.35	58.1	CLR	Light	1	-
3/20/2008	12:30	1321	76.3	51.1	1.36	4.96	2.42	9.17	57.7	CLR	Light	1	-
3/21/2008	11:15	1207	106.8	77.1	1.13	2.28	2.25	8.99	56.1	CLR	Light	1	-
3/22/2008	9:45	1125	74.6	53.4	1.21	2.35	2.4	8.33	56.1	CLR	Light	1	-
3/23/2008	9:15	1125	-	51.1	1.32	4.14	2.43	7.69	59	CLR	Light	3	-
3/24/2008	12:45	1620	77.5	51.7	1.36	4.02	2.45	8.66	62.5	CLR	Medium	1	-
3/25/2008	13:00	860	-	46.4	1.32	4.95	2.49	-	62	CLD	Medium	3	-
3/26/2008	11:00	1354	80	55	1.28	4.71	2.39	-	61	CLR	Light	1	-
3/27/2008	11:15	964	-	52.2	1.32	2.82	2.44	7.48	60	CLR	Light	3	-
3/28/2008	11:00	617	-	40.1	1.43	4.04	2.52	7.61	59.9	CLR	Light	3	-
3/29/2008	9:45	1541	54.8	42.6	1.31	3.03	2.54	7.23	62.6	CLD	Light	1	-
3/30/2008	9:15	1631	58.5	40	1.5	3.23	2.64	7.33	59.3	CLR	Light	1	-
3/31/2008	10:45	1732	71.8	47.9	1.28	2.84	2.65	7.8	58.8	CLR	Light	1	-
4/1/2008	13:15	1440	66	54.1	1.3	6.6	2.6	7.73	63.1	CLR	Light	1	-
4/2/2008	14:45	631	-	50.3	-	7.32	2.5	9.37	64.7	CLD	Light	3	-
4/3/2008	12:45	1360	59.8	45.6	1.39	4.68	2.64	8.68	64.4	CLR	Light	1	-

Date	Time Trap Checked	Revolutions	Time/ Rev Before	Time/ Rev After	Water Velocity	Turbidity (NTU)	Stream Gauge	Dissolved Oxygen (mg/L)	Water Temperature (F)	Weather Code	Debris Level	Condition Code	Gear Status
4/4/2008	11:30	1157	-	49.6	1.35	5.39	2.55	8.55	63.8	CLR	Light	3	-
4/5/2008	9:15	1305	68.8	48.75	1.37	4.21	2.55	7.99	61.3	CLR	Light	1	-
4/6/2008	9:30	1520	73	56.7	1.28	4.12	2.52	7.83	62.4	CLR	Light	1	-
4/7/2008	11:00	1377	78	66	1.33	2.87	2.54	8.67	60.8	CLR	Light	1	-
4/8/2008	12:15	1400	79.8	56.3	1.3	3.37	2.45	8.43	63.6	CLD	Light	1	-
4/9/2008	12:00	1265	75.9	55.9	1.24	4.31	2.47	8.57	63.3	CLR	Light	1	-
4/10/2008	11:30	1340	70	56.3	1.2	5.53	2.58	8.12	64.4	CLR	Light	1	-
4/11/2008	11:15	686	-	45.7	1.47	-	2.58	7.89	66	CLR	Light	3	-
4/12/2008	10:40	1503	66.5	50.1	-	5.69	2.54	7.66	66.2	CLR	Light	1	-
4/13/2008	10:15	1595	60	40.1	1.43	5.7	2.66	7.49	67.6	CLR	Light	1	-
4/14/2008	12:45	1809	60.5	71.5	1.41	4.39	2.58	7.94	70.1	CLR	Light	1	-
4/15/2008	11:45	1484	58.7	65.2	1.37	4.24	2.6	8	64.5	CLR	Light	1	-
4/15/2008	20:00	587	-	-	-	4.79	1.54	-	68	NIT	Light	1	-
4/15/2008	23:15	829	-	-	-	4.79	1.54	-	-	NIT	Light	1	-
4/16/2008	0:15	903	-	-	-	4.79	1.54	-	-	NIT	Light	1	-
4/16/2008	12:30	1607	64.8	53.4	1.38	3.45	2.5	8.63	64.9	CLR	Light	1	-
4/17/2008	11:30	1364	69.1	48.3	1.41	2.62	2.48	7.98	66	CLR	Light	1	-
4/18/2008	12:00	1407	76.1	50.8	1.23	3.11	2.45	7.95	68.3	CLR	Light	1	-
4/19/2008	10:00	985	-	53.4	1.49	8.04	2.52	7.53	65.8	CLR	Light	3	-
4/20/2008	10:30	583	-	47	1.33	4.05	2.58	7.97	62.2	CLR	Light	3	-
4/21/2008	10:30	399	-	19.1	2.65	9.29	5.17	7.87	60	CLR	Heavy	3	-
4/21/2008	20:00	1625	-	-	-	-	5.34	-	-	NIT	Medium	2	-
4/22/2008	11:45	2871	-	18.9	2.53	4.05	5.43	9.06	57	CLD	Light	3	-
4/22/2008	18:45	1255	-	-	-	-	5.49	-	-	NIT	Light	1	-
4/23/2008	11:45	2107	-	18.3	2.8	3.56	5.7	8.76	57.2	CLD	Light	3	-
4/23/2008	19:00	1445	-	-	-	4.71	5.72	-	56	CLR	Light	2	-
4/24/2008	12:30	3205	21	17.2	2.79	4.29	5.78	9.23	57	CLR	Light	1	-
4/24/2008	18:45	1346	-	-	-	5.63	5.78	-	57	CLR	Light	1	-
4/25/2008	12:15	4669	21.4	17.1	2.89	2.66	5.78	9.08	57.9	CLR	Light	1	-
4/25/2008	19:15	1433	-	-	-	2.99	5.78	-	58	CLR	Light	1	-
4/25/2008	22:30	2027	-	-	-	2.99	2.58	-	58	NIT	Light	1	-
4/25/2008	23:30	2195	-	-	-	2.99	2.58	-	58	NIT	Light	1	-
4/26/2008	12:45	4424	24.9	19	2.45	7.36	2.5	9.52	60	CLR	Light	1	-
4/26/2008	21:00	658	-	-	-	3.12	5.48	-	62	NIT	Light	1	-
4/27/2008	12:00	2247	25.9	19.2	2.6	2.81	5.22	9.21	61.7	CLR	Light	1	-
4/28/2008	13:00	4020	25.4	19.3	2.39	5.72	4.91	9.09	64	CLR	Light	2	-

Date	Time Trap Checked	Revolutions	Time/ Rev Before	Time/ Rev After	Water Velocity	Turbidity (NTU)	Stream Gauge	Dissolved Oxygen (mg/L)	Water Temperature (F)	Weather Code	Debris Level	Condition Code	Gear Status
4/29/2008	13:45	-	25.5	29.1	2.58	2.55	4.85	8.9	63.6	CLR	Light	1	-
4/30/2008	9:15	3018	28.7	20.6	2.55	2.13	4.87	8.48	60.2	CLR	Light	1	-
5/1/2008	12:30	4122	27.1	20.8	2.55	4.54	4.86	8.76	60.4	CLR	Light	1	-
5/2/2008	12:15	-	23.9	19.7	2.59	6.69	4.89	9.12	60.9	CLR	Light	2	-
5/3/2008	12:15	3603	25.7	20.6	2.53	3.34	4.84	8.86	60.9	CLR	Light	1	-
5/4/2008	10:00	695	27.8	19.5	2.55	2.73	4.86	8.72	61.1	CLR	Light	1	-
5/5/2008	12:00	3290	24.5	20.9	2.68	3.69	5.01	8.74	62.2	CLR	Light	1	-
5/6/2008	13:00	-	21.9	15.9	3.05	3.06	5.81	8.87	62	CLR	Light	2	-
5/7/2008	12:15	503	20.4	17.1	2.95	2.85	5.78	8.84	62.2	CLR	Light	1	-
5/7/2008	20:00	-	-	-	-	2.62	5.79	9.04	63.5	NIT	Light	1	-
5/7/2008	22:15	-	-	-	-	2.62	5.82	9.04	63.5	NIT	Light	1	-
5/7/2008	23:15	-	-	-	-	2.62	5.81	9.04	63.5	NIT	Light	1	-
5/8/2008	12:00	-	21.3	19.6	3.19	2.37	5.86	8.76	61.7	CLR	Light	1	-
5/9/2008	11:45	-	-	20	3.08	1.8	5.8	-	61.6	CLR	Light	3	-
5/10/2008	11:15	-	23	18.2	2.9	2.66	5.87	9.4	60.4	CLR	Light	1	-
5/11/2008	10:15	-	23.7	16.7	2.75	2.58	5.88	9.9	60.6	CLR	Light	2	-
5/12/2008	12:00	-	24.8	21.4	2.57	2.68	5.22	9.36	62	CLR	Medium	1	-
5/13/2008	11:00	-	26.7	22.7	2.61	3.17	4.99	9.52	62	CLR	Light	1	-
5/14/2008	13:00	3427	29.5	24.8	2.22	3.98	4.7	9.1	64.7	CLR	Light	1	-
5/14/2008	20:00	960	-	-	-	3.85	4.7	9.51	66.5	NIT	Light	1	-
5/14/2008	22:15	1261	-	-	-	3.85	4.71	9.51	66.5	NIT	Light	1	-
5/14/2008	23:15	1385	-	-	-	3.85	4.71	9.51	66.5	NIT	Light	1	-
5/15/2008	11:45	2378	35.3	24.2	2.53	1.56	4.76	8.47	65.3	CLR	Light	1	-
5/16/2008	11:30	173	31.73	27.1	3.33	-	4.6	-	67.2	CLR	Light	2	-
5/17/2008	9:45	882	-	23.4	2.39	1.56	4.65	7.51	67.1	CLR	Light	3	-
5/18/2008	10:15	3568	25.3	21.3	2.43	2.81	4.68	7.29	68	CLR	Medium	2	-
5/19/2008	11:15	666	-	25.4	2.37	2.11	-	7.41	67.8	CLR	Light	3	-
5/20/2008	12:15	2982	37.6	23.7	2.12	3.04	4.39	7.34	68.3	CLR	Light	1	-
5/21/2008	11:45	2884	38.3	33.2	2.01	2.75	4.14	7.37	66.2	CLR	Light	1	-
5/21/2008	19:45	562	-	-	-	2.7	4	7.39	67.1	NIT	Light	3	-
5/21/2008	22:15	288	-	-	-	2.7	3.99	7.39	67.1	NIT	Light	1	-
5/21/2008	23:15	386	-	-	-	2.7	3.99	7.39	67.1	NIT	Light	1	-
5/22/2008	12:00	1688	40.1	33.9	1.82	5.2	3.66	7.73	64.7	CLR	Light	1	-
5/23/2008	12:00	1896	58	36.3	1.85	1.89	1.32	7.32	65.3	CLR	Light	1	-
5/24/2008	9:00	1734	52.8	48.4	1.6	6.78	3.08	6.8	64.7	RAN	Light	1	-
5/25/2008	8:45	1915	49.5	44.4	1.67	5.71	3	6.25	62.7	CLD	Light	1	-

Date	Time Trap Checked	Revolutions	Time/ Rev Before	Time/ Rev After	Water Velocity	Turbidity (NTU)	Stream Gauge	Dissolved Oxygen (mg/L)	Water Temperature (F)	Weather Code	Debris Level	Condition Code	Gear Status
5/26/2008	8:30	1966	53.3	42.5	1.7	3.17	2.94	6.62	64.2	CLR	Light	1	-
5/27/2008	11:00	1720	63.9	45.2	1.56	2.56	2.89	6.56	65.8	CLD	Light	1	-
5/28/2008	10:15	1370	72	40	1.44	3.48	2.8	7.25	65	CLR	Light	1	-
5/29/2008	10:15	1751	55.3	42.2	1.57	1.65	2.8	6.69	66.7	CLR	Light	1	-
5/30/2008	11:30	1725	66.9	55.9	1.43	2.75	1	6.97	69.4	CLR	Light	1	-
5/31/2008	8:45	1328	-	48.7	1.59	3.8	1.05	6.67	68	CLR	Light	3	-
6/1/2008	8:45	1371	73.4	54.1	1.52	2.61	1	6.31	68.5	CLR	Light	1	-
6/2/2008	11:00	1485	86.8	60.2	1.37	2.77	0.88	7.16	69.9	CLR	Light	1	-
6/3/2008	11:30	1190	120.4	82.9	1.27	2.75	0.68	7.24	71.4	CLR	Light	1	-
6/4/2008	11:30	984	115.2	-	1.12	2.92	0.64	7.2	70.7	CLR	Light	1	3

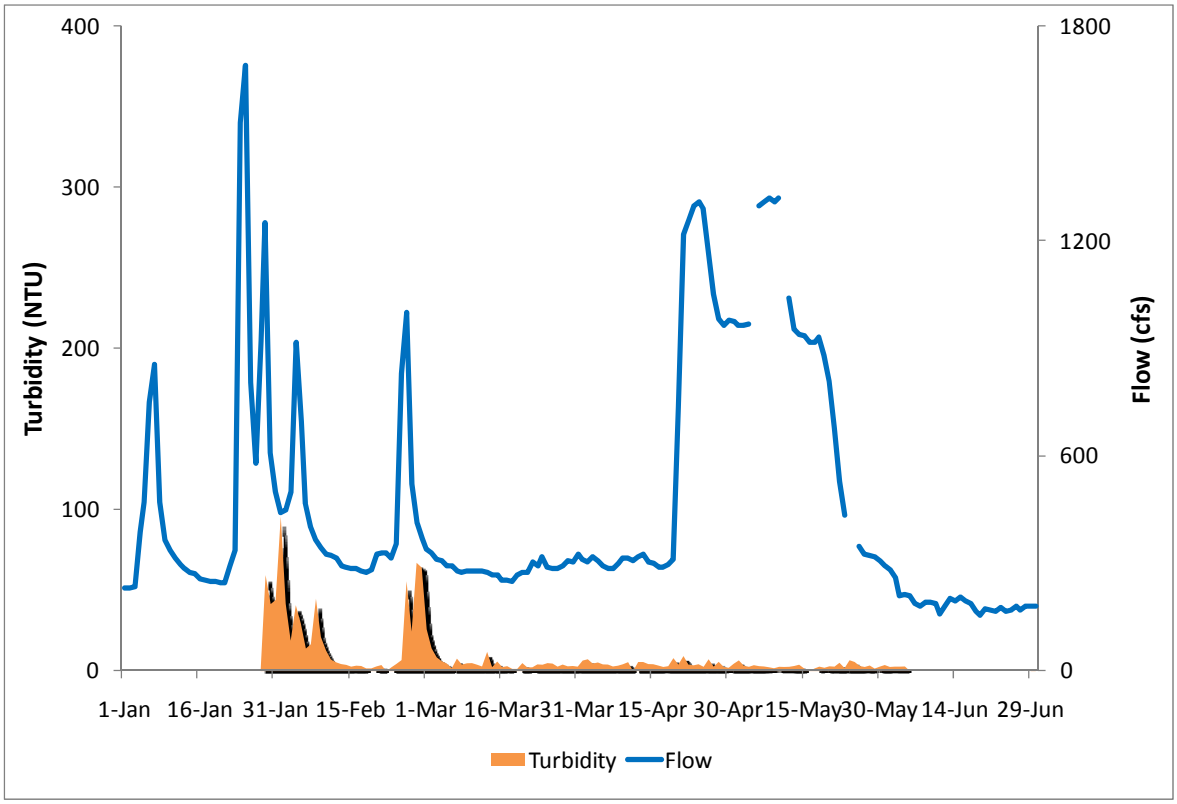

Figure 1.10. Daily instantaneous turbidity at Grayson and flow at Modesto (MOD), 2008.

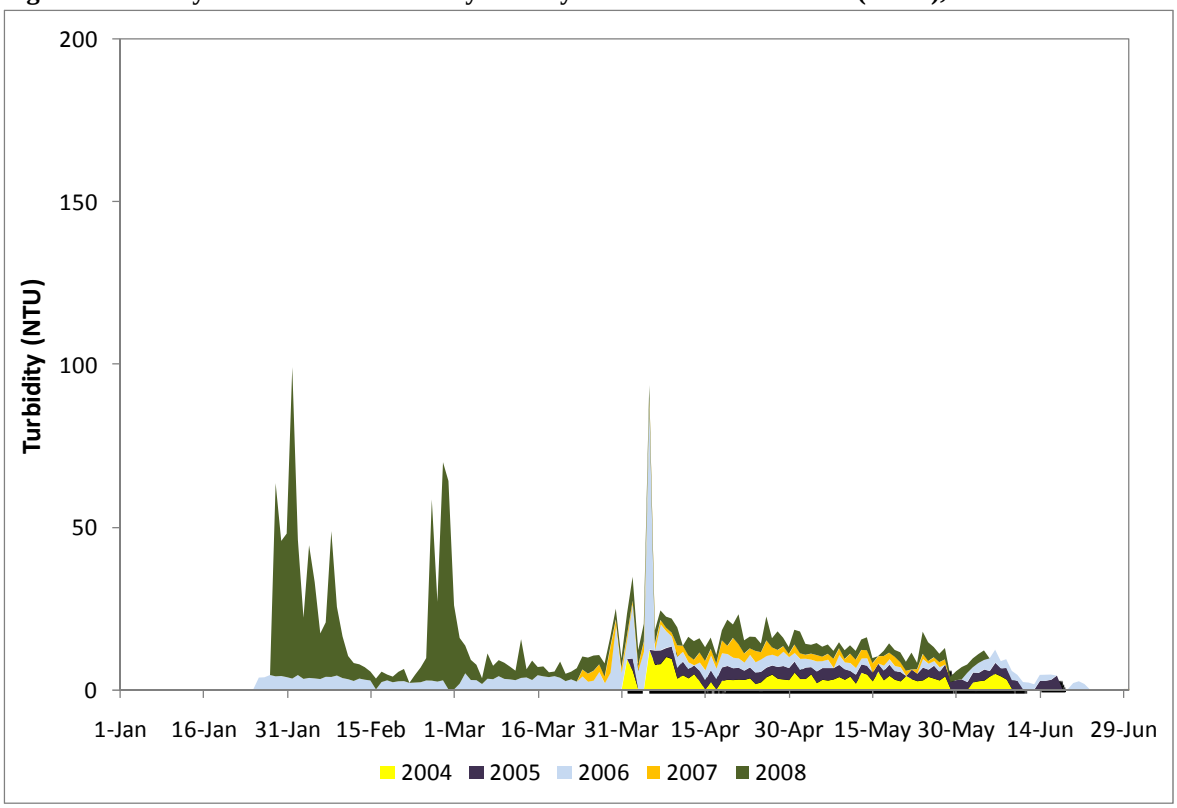

Figure 1.11. Daily instantaneous turbidity at Grayson, 2004 through 2008.

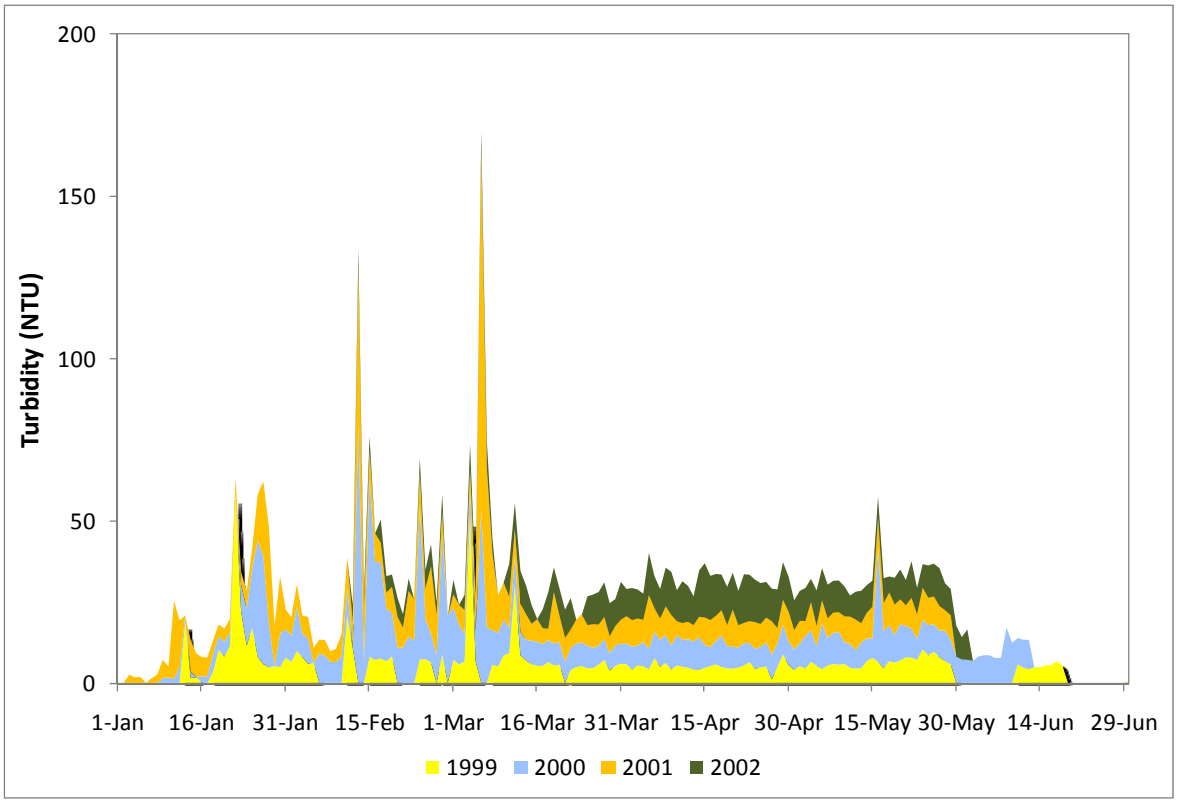

Figure 1.12. Daily instantaneous turbidity at Grayson, 1999 through 2002.

Section 2. Waterford Rotary Screw Trap

Table 2.1. Daily Chinook salmon catch at Waterford, 2008.

Julian Week	Date	Count	Julian Week	Date	Count
2	8-Jan	30	9	29-Feb	118
2	9-Jan	14	9	1-Mar	46
2	10-Jan	1	9	2-Mar	31
2	11-Jan	19	9	3-Mar	24
2	12-Jan	39	10	4-Mar	16
2	13-Jan	10	10	5-Mar	14
2	14-Jan	4	10	6-Mar	4
3	15-Jan	6	10	7-Mar	3
3	16-Jan	18	10	8-Mar	4
3	17-Jan	5	10	9-Mar	16
3	18-Jan	12	10	10-Mar	21
3	19-Jan	15	11	11-Mar	14
3	20-Jan	6	11	12-Mar	24
3	21-Jan	5	11	13-Mar	13
4	22-Jan	6	11	14-Mar	18
4	23-Jan	2	11	15-Mar	7
4	24-Jan	26	11	16-Mar	7
4	25-Jan	236	11	17-Mar	21
4	26-Jan	101	12	18-Mar	21
4	27-Jan	21	12	19-Mar	7
4	28-Jan	68	12	20-Mar	14
5	29-Jan	129	12	21-Mar	8
5	30-Jan	140	12	22-Mar	3
5	31-Jan	59	12	23-Mar	4
5	1-Feb	39	12	24-Mar	4
5	2-Feb	41	13	25-Mar	6
5	3-Feb	13	13	26-Mar	6
5	4-Feb	29	13	27-Mar	9
6	5-Feb	71	13	28-Mar	8
6	6-Feb	43	13	29-Mar	9
6	7-Feb	104	13	30-Mar	13
6	8-Feb	63	13	31-Mar	9
6	9-Feb	24	14	1-Apr	19
6	10-Feb	7	14	2-Apr	11
6	11-Feb	3	14	3-Apr	13
7	12-Feb	34	14	4-Apr	1
7	13-Feb	35	14	5-Apr	7
7	14-Feb	18	14	6-Apr	14
7	15-Feb	29	14	7-Apr	23
7	16-Feb	7	15	8-Apr	12
7	17-Feb	13	15	9-Apr	22
7	18-Feb	2	15	10-Apr	29
8	19-Feb	2	15	11-Apr	30
8	20-Feb	0	15	12-Apr	20
8	21-Feb	0	15	13-Apr	16
8	22-Feb	4	15	14-Apr	19
8	23-Feb	27	16	15-Apr	25
8	24-Feb	19	16	16-Apr	33
8	25-Feb	2	16	17-Apr	31
9	26-Feb	6	16	18-Apr	26
9	27-Feb	151	16	19-Apr	13
9	28-Feb	115	16	20-Apr	10

Table 2.1 continued

Julian Week	Date	Count
16	21-Apr	0
17	22-Apr	1
17	23-Apr	8
17	24-Apr	9
17	25-Apr	9
17	26-Apr	17
17	27-Apr	22
17	28-Apr	19
18	29-Apr	25
18	30-Apr	11
18	1-May	16
18	2-May	15
18	3-May	10
18	4-May	3
18	5-May	16
19	6-May	5
19	7-May	13
19	8-May	0
19	9-May	1
19	10-May	2
19	11-May	0
19	12-May	1
20	13-May	50
20	14-May	20
20	15-May	44
20	16-May	55
20	17-May	53
20	18-May	24
20	19-May	28
21	20-May	21
21	21-May	29
21	22-May	27
21	23-May	6
21	24-May	1
21	25-May	8
21	26-May	2
22	27-May	7
22	28-May	1
22	29-May	0
22	30-May	1
22	31-May	1
22	1-Jun	0
22	2-Jun	0

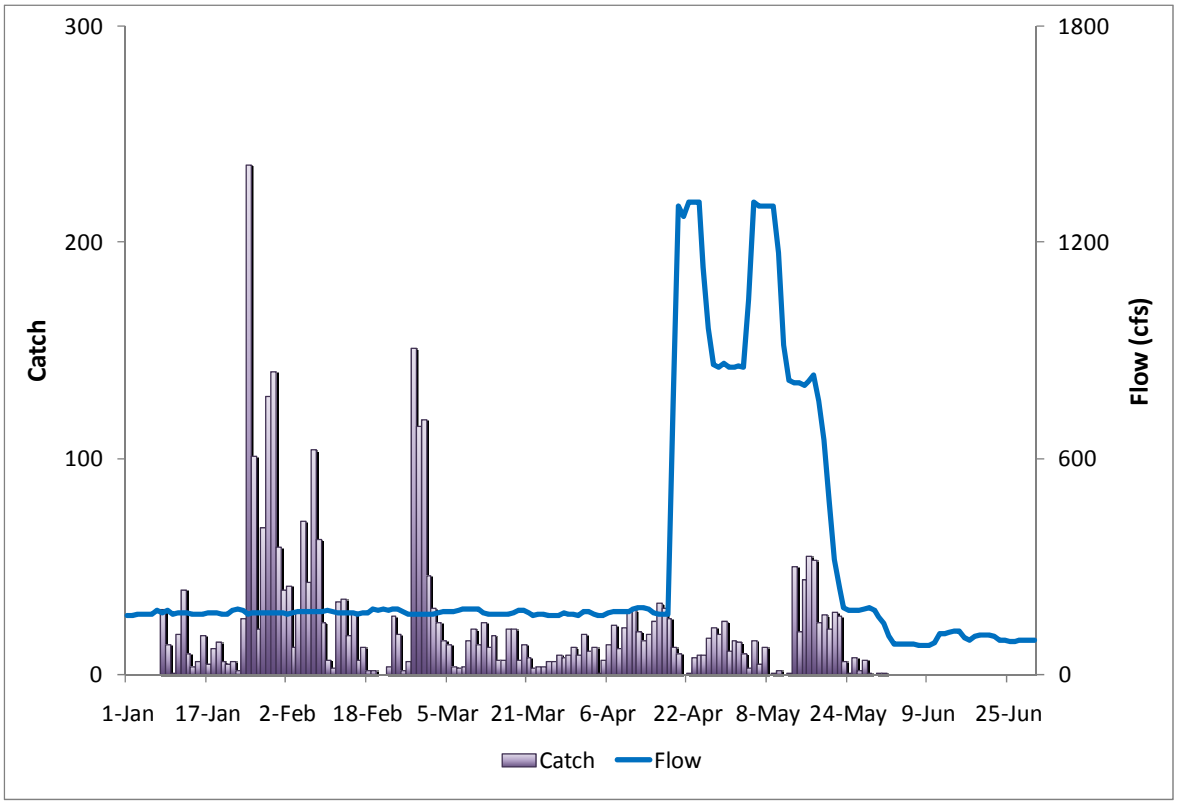

Figure 2.1. Daily Chinook salmon catch at Waterford and flow at La Grange (LGN), 2008.

Table 2.2. Daily Chinook salmon mean forklength at Waterford, 2008.

Julian Week	Date	Length (mm)	Julian Week	Date	Length (mm)
2	8-Jan	46	9	29-Feb	41
2	9-Jan	36	9	1-Mar	40
2	10-Jan	37	9	2-Mar	41
2	11-Jan	37	9	3-Mar	42
2	12-Jan	38	10	4-Mar	43
2	13-Jan	41	10	5-Mar	49
2	14-Jan	37	10	6-Mar	62
3	15-Jan	44	10	7-Mar	44
3	16-Jan	36	10	8-Mar	44
3	17-Jan	37	10	9-Mar	41
3	18-Jan	40	10	10-Mar	39
3	19-Jan	40	11	11-Mar	39
3	20-Jan	37	11	12-Mar	38
3	21-Jan	47	11	13-Mar	48
4	22-Jan	37	11	14-Mar	44
4	23-Jan	37	11	15-Mar	37
4	24-Jan	42	11	16-Mar	41
4	25-Jan	39	11	17-Mar	60
4	26-Jan	39	12	18-Mar	55
4	27-Jan	42	12	19-Mar	53
4	28-Jan	40	12	20-Mar	48
5	29-Jan	43	12	21-Mar	63
5	30-Jan	39	12	22-Mar	95
5	31-Jan	40	12	23-Mar	55
5	1-Feb	37	12	24-Mar	72
5	2-Feb	37	13	25-Mar	72
5	3-Feb	38	13	26-Mar	77
5	4-Feb	38	13	27-Mar	68
6	5-Feb	37	13	28-Mar	77
6	6-Feb	40	13	29-Mar	64
6	7-Feb	38	13	30-Mar	65
6	8-Feb	38	13	31-Mar	75
6	9-Feb	37	14	1-Apr	77
6	10-Feb	38	14	2-Apr	82
6	11-Feb	38	14	3-Apr	79
7	12-Feb	39	14	4-Apr	72
7	13-Feb	37	14	5-Apr	81
7	14-Feb	37	14	6-Apr	83
7	15-Feb	37	14	7-Apr	83
7	16-Feb	36	15	8-Apr	75
7	17-Feb	37	15	9-Apr	83
7	18-Feb	39	15	10-Apr	80
8	19-Feb	37	15	11-Apr	79
8	20-Feb	-	15	12-Apr	79
8	21-Feb	-	15	13-Apr	80
8	22-Feb	38	15	14-Apr	82
8	23-Feb	38	16	15-Apr	82
8	24-Feb	39	16	16-Apr	81
8	25-Feb	36	16	17-Apr	81
9	26-Feb	41	16	18-Apr	82
9	27-Feb	43	16	19-Apr	84
9	28-Feb	41	16	20-Apr	83

Table 2.2 continued

Julian Week	Date	Length (mm)
16	21-Apr	-
17	22-Apr	79
17	23-Apr	84
17	24-Apr	79
17	25-Apr	75
17	26-Apr	80
17	27-Apr	80
17	28-Apr	77
18	29-Apr	78
18	30-Apr	79
18	1-May	87
18	2-May	78
18	3-May	83
18	4-May	78
18	5-May	87
19	6-May	85
19	7-May	86
19	8-May	-
19	9-May	84
19	10-May	79
19	11-May	-
19	12-May	88
20	13-May	90
20	14-May	90
20	15-May	88
20	16-May	90
20	17-May	84
20	18-May	87
20	19-May	89
21	20-May	93
21	21-May	90
21	22-May	88
21	23-May	90
21	24-May	90
21	25-May	84
21	26-May	85
22	27-May	83
22	28-May	74
22	29-May	-
22	30-May	84
22	31-May	84
22	1-Jun	-
22	2-Jun	-

Table 2.3. Daily Chinook salmon minimum, average, and maximum forklengths at Waterford, 2008.

Julian Week	Date	Min	Average	Max		Julian Week	Date	Min	Average	Max
2	8-Jan	35	46	89		9	29-Feb	34	41	56
2	9-Jan	33	36	37		9	1-Mar	35	40	59
2	10-Jan	37	37	37		9	2-Mar	35	41	65
2	11-Jan	35	37	38		9	3-Mar	35	42	65
2	12-Jan	35	38	95		10	4-Mar	35	43	64
2	13-Jan	36	41	77		10	5-Mar	35	49	105
2	14-Jan	37	37	37		10	6-Mar	53	62	68
3	15-Jan	33	44	83		10	7-Mar	35	44	58
3	16-Jan	35	36	38		10	8-Mar	36	44	62
3	17-Jan	36	37	38		10	9-Mar	33	41	68
3	18-Jan	36	40	78		10	10-Mar	35	39	61
3	19-Jan	36	40	85		11	11-Mar	34	39	71
3	20-Jan	36	37	38		11	12-Mar	34	38	67
3	21-Jan	36	47	90		11	13-Mar	35	48	76
4	22-Jan	36	37	38		11	14-Mar	35	44	75
4	23-Jan	36	37	38		11	15-Mar	35	37	39
4	24-Jan	36	42	100		11	16-Mar	36	41	67
4	25-Jan	33	39	95		11	17-Mar	34	60	80
4	26-Jan	33	39	86		12	18-Mar	35	55	83
4	27-Jan	34	42	90		12	19-Mar	38	53	70
4	28-Jan	35	40	128		12	20-Mar	35	48	75
5	29-Jan	35	43	89		12	21-Mar	35	63	150
5	30-Jan	34	39	89		12	22-Mar	57	95	151
5	31-Jan	34	40	105		12	23-Mar	38	55	75
5	1-Feb	35	37	42		12	24-Mar	65	72	76
5	2-Feb	34	37	38		13	25-Mar	38	72	82
5	3-Feb	36	38	44		13	26-Mar	67	77	92
5	4-Feb	36	38	43		13	27-Mar	37	68	85
6	5-Feb	34	37	46		13	28-Mar	56	77	87
6	6-Feb	34	40	86		13	29-Mar	33	64	87
6	7-Feb	35	38	46		13	30-Mar	33	65	84
6	8-Feb	36	38	46		13	31-Mar	34	75	90
6	9-Feb	35	37	43		14	1-Apr	37	77	88
6	10-Feb	36	38	42		14	2-Apr	67	82	90
6	11-Feb	37	38	38		14	3-Apr	72	79	88
7	12-Feb	36	39	102		14	4-Apr	72	72	72
7	13-Feb	35	37	50		14	5-Apr	67	81	92
7	14-Feb	35	37	40		14	6-Apr	66	83	91
7	15-Feb	35	37	39		14	7-Apr	72	83	95
7	16-Feb	34	36	39		15	8-Apr	34	75	92
7	17-Feb	35	37	44		15	9-Apr	71	83	96
7	18-Feb	37	39	41		15	10-Apr	68	80	95
8	19-Feb	36	37	37		15	11-Apr	68	79	96
8	20-Feb	-	-	-		15	12-Apr	65	79	99
8	21-Feb	-	-	-		15	13-Apr	62	80	94
8	22-Feb	37	38	39		15	14-Apr	70	82	97
8	23-Feb	36	38	52		16	15-Apr	68	82	97
8	24-Feb	34	39	57		16	16-Apr	70	81	95
8	25-Feb	35	36	37		16	17-Apr	68	81	90
9	26-Feb	35	41	60		16	18-Apr	74	82	94
9	27-Feb	31	43	105		16	19-Apr	72	84	93
9	28-Feb	34	41	105		16	20-Apr	76	83	94

Table 2.3 continued

Julian Week	Date	Count
16	21-Apr	0
17	22-Apr	1
17	23-Apr	8
17	24-Apr	9
17	25-Apr	9
17	26-Apr	17
17	27-Apr	22
17	28-Apr	19
18	29-Apr	25
18	30-Apr	11
18	1-May	16
18	2-May	15
18	3-May	10
18	4-May	3
18	5-May	16
19	6-May	5
19	7-May	13
19	8-May	0
19	9-May	1
19	10-May	2
19	11-May	0
19	12-May	1
20	13-May	50
20	14-May	20
20	15-May	44
20	16-May	55
20	17-May	53
20	18-May	24
20	19-May	28
21	20-May	21
21	21-May	29
21	22-May	27
21	23-May	6
21	24-May	1
21	25-May	8
21	26-May	2
22	27-May	7
22	28-May	1
22	29-May	0
22	30-May	1
22	31-May	1
22	1-Jun	0
22	2-Jun	0

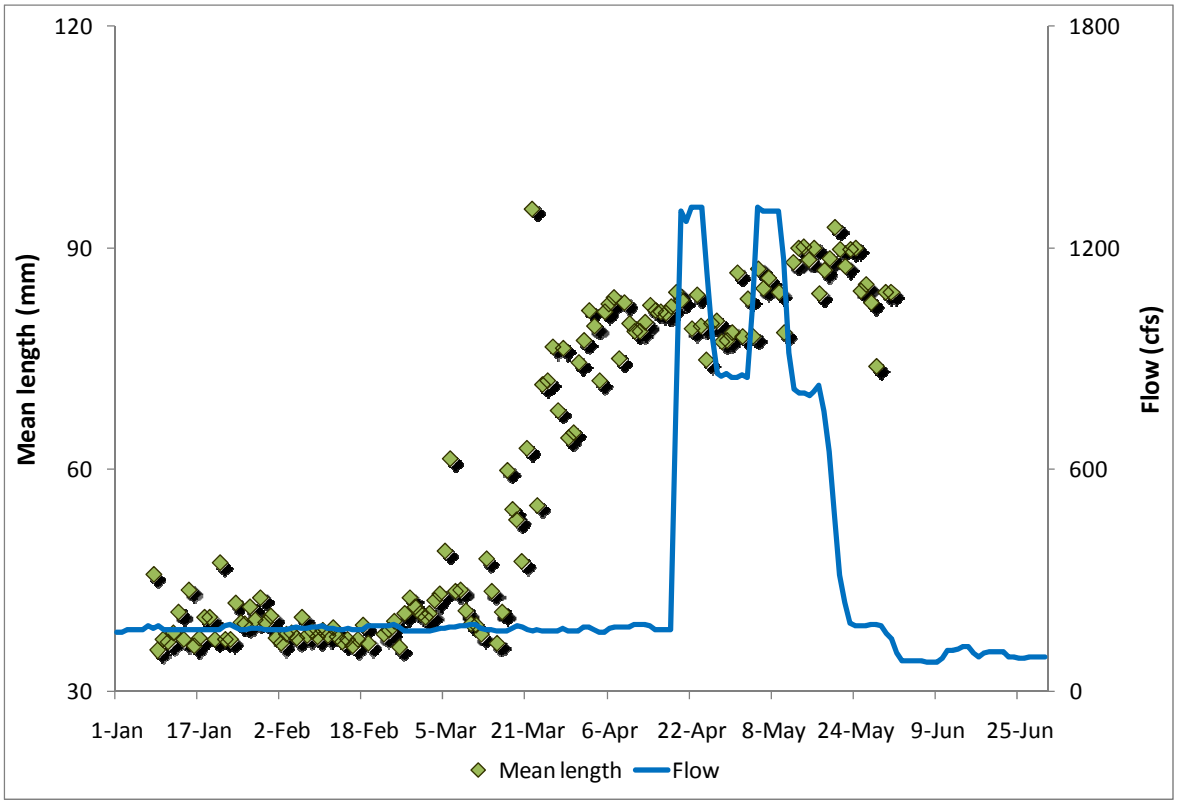

Figure 2.2. Daily Chinook salmon mean length at Waterford and flow at La Grange (LGN), 2008.

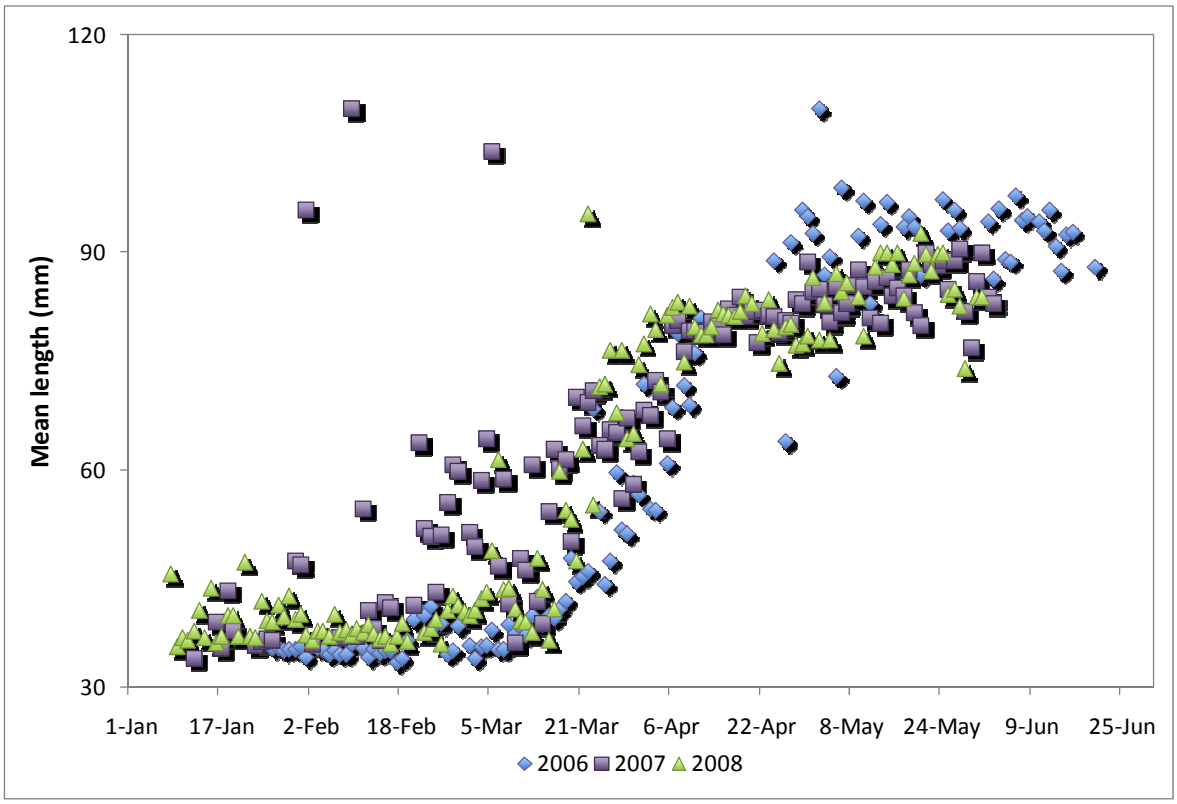

Figure 2.3. Daily Chinook salmon mean length at Waterford, 2006 through 2008.

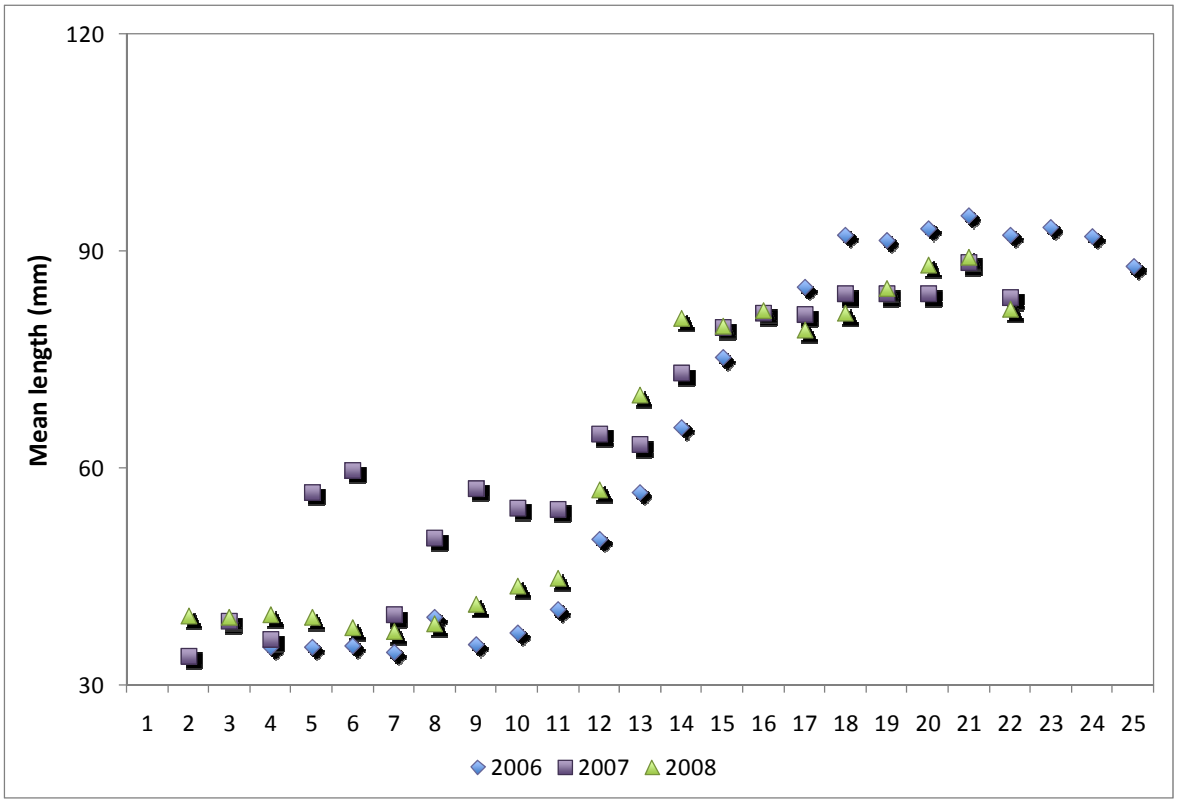

Figure 2.4. Julian week Chinook salmon mean length at Waterford, 2006 through 2008.

Table 2.4. Forklength distributions of Chinook salmon captured at Waterford, 2008.

Julian Week	Forklength Interval (mm)															Total
	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150-159	160-169	
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
2	-	108	-	-	2	2	4	1	-	-	-	-	-	-	-	117
3	-	63	-	-	-	1	2	1	-	-	-	-	-	-	-	67
4	-	248	8	-	-	5	6	2	1	-	1	-	-	-	-	271
5	-	290	15	-	-	4	10	-	1	-	-	-	-	-	-	320
6	-	225	20	-	-	-	2	-	-	-	-	-	-	-	-	247
7	-	131	3	1	-	-	-	-	1	-	-	-	-	-	-	136
8	-	49	2	3	-	-	-	-	-	-	-	-	-	-	-	54
9	-	208	40	29	9	-	-	1	4	-	-	-	-	-	-	291
10	-	52	5	9	11	-	-	-	1	-	-	-	-	-	-	78
11	-	76	1	5	9	12	1	-	-	-	-	-	-	-	-	104
12	-	27	-	7	7	16	2	-	-	-	-	-	-	2	-	61
13	-	9	-	3	7	18	21	2	-	-	-	-	-	-	-	60
14	-	1	-	-	6	26	45	10	-	-	-	-	-	-	-	88
15	-	2	-	-	5	70	44	24	-	-	-	-	-	-	-	145
16	-	-	-	-	3	45	73	17	-	-	-	-	-	-	-	138
17	-	2	-	-	-	42	37	4	-	-	-	-	-	-	-	85
18	-	2	-	1	2	23	54	14	-	-	-	-	-	-	-	96
19	-	-	-	1	-	3	12	6	-	-	-	-	-	-	-	22
20	-	5	-	-	-	13	127	108	10	1	-	-	-	-	-	264
21	-	-	-	-	-	4	46	35	9	-	-	-	-	-	-	94
22	-	-	-	-	-	2	6	1	-	-	-	-	-	-	-	9
23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Total	0	1498	94	59	61	286	492	226	27	1	1	0	0	2	0	2,747
% of Total	0.0	54.5	3.4	2.1	2.2	10.4	17.9	8.2	1.0	0.0	0.0	0.0	0.0	0.1	0.0	

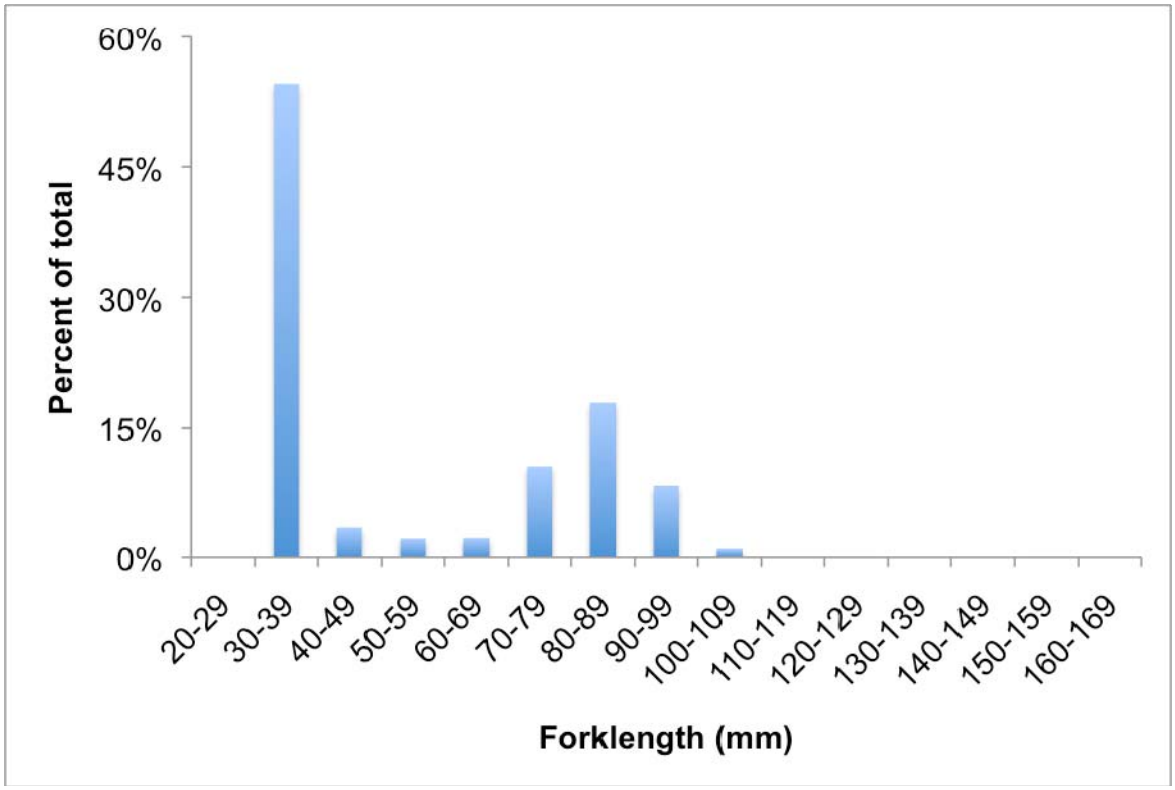

Figure 2.5. Length frequency distribution of Chinook salmon captured at Waterford.

Table 2.5. Daily Chinook salmon mean weight at Waterford, 2008.

Julian Week	Date	Weight (g)	Julian Week	Date	Weight (g)
2	1/8/2008	-	9	2/29/2008	-
2	1/9/2008	0.4	9	3/1/2008	-
2	1/10/2008	0.5	9	3/2/2008	2.0
2	1/11/2008	0.4	9	3/3/2008	0.9
2	1/12/2008	0.9	10	3/4/2008	0.9
2	1/13/2008	4.5	10	3/5/2008	1.7
2	1/14/2008	0.4	10	3/6/2008	2.7
3	1/15/2008	0.3	10	3/7/2008	1.2
3	1/16/2008	0.4	10	3/8/2008	1.0
3	1/17/2008	0.4	10	3/9/2008	2.8
3	1/18/2008	0.7	10	3/10/2008	0.6
3	1/19/2008	0.8	11	3/11/2008	0.7
3	1/20/2008	0.4	11	3/12/2008	0.6
3	1/21/2008	1.9	11	3/13/2008	1.6
4	1/22/2008	-	11	3/14/2008	1.1
4	1/23/2008	0.3	11	3/15/2008	0.4
4	1/24/2008	1.6	11	3/16/2008	-
4	1/25/2008	6.6	11	3/17/2008	2.8
4	1/26/2008	5.3	12	3/18/2008	2.4
4	1/27/2008	1.1	12	3/19/2008	1.9
4	1/28/2008	0.9	12	3/20/2008	1.4
5	1/29/2008	3.0	12	3/21/2008	6.5
5	1/30/2008	6.0	12	3/22/2008	3.7
5	1/31/2008	8.5	12	3/23/2008	2.6
5	2/1/2008	-	12	3/24/2008	4.1
5	2/2/2008	-	13	3/25/2008	4.4
5	2/3/2008	-	13	3/26/2008	4.6
5	2/4/2008	0.4	13	3/27/2008	3.9
6	2/5/2008	-	13	3/28/2008	5.2
6	2/6/2008	6.5	13	3/29/2008	-
6	2/7/2008	-	13	3/30/2008	3.8
6	2/8/2008	-	13	3/31/2008	5.2
6	2/9/2008	-	14	4/1/2008	5.5
6	2/10/2008	-	14	4/2/2008	6.1
6	2/11/2008	0.5	14	4/3/2008	5.5
7	2/12/2008	11.0	14	4/4/2008	3.9
7	2/13/2008	-	14	4/5/2008	6.0
7	2/14/2008	0.4	14	4/6/2008	7.1
7	2/15/2008	0.3	14	4/7/2008	6.3
7	2/16/2008	0.4	15	4/8/2008	5.3
7	2/17/2008	0.6	15	4/9/2008	6.5
7	2/18/2008	0.4	15	4/10/2008	-
8	2/19/2008	0.4	15	4/11/2008	-
8	2/20/2008	-	15	4/12/2008	-
8	2/21/2008	-	15	4/13/2008	-
8	2/22/2008	0.5	15	4/14/2008	6.4
8	2/23/2008	0.5	16	4/15/2008	6.2
8	2/24/2008	0.6	16	4/16/2008	6.6
8	2/25/2008	0.4	16	4/17/2008	5.8
9	2/26/2008	0.7	16	4/18/2008	-
9	2/27/2008	1.1	16	4/19/2008	-
9	2/28/2008	7.4	16	4/20/2008	-

Table 2.5 continued

Julian Week	Date	Weight (g)
16	4/21/2008	-
17	4/22/2008	5.9
17	4/23/2008	6.7
17	4/24/2008	5.3
17	4/25/2008	5.3
17	4/26/2008	-
17	4/27/2008	5.6
17	4/28/2008	5.3
18	4/29/2008	5.4
18	4/30/2008	5.7
18	5/1/2008	-
18	5/2/2008	-
18	5/3/2008	-
18	5/4/2008	-
18	5/5/2008	7.2
19	5/6/2008	6.6
19	5/7/2008	6.9
19	5/8/2008	-
19	5/9/2008	6.3
19	5/10/2008	6.2
19	5/11/2008	-
19	5/12/2008	-
20	5/13/2008	7.4
20	5/14/2008	8.5
20	5/15/2008	-
20	5/16/2008	7.3
20	5/17/2008	-
20	5/18/2008	-
20	5/19/2008	-
21	5/20/2008	8.6
21	5/21/2008	8.1
21	5/22/2008	6.9
21	5/23/2008	-
21	5/24/2008	-
21	5/25/2008	-
21	5/26/2008	7.3
22	5/27/2008	6.5
22	5/28/2008	4.5
22	5/29/2008	-
22	5/30/2008	-
22	5/31/2008	6.1
22	6/1/2008	-
22	6/2/2008	-

Table 2.6. Waterford release and recapture data, 2008.

Designated Release Code	Release Location	Release Date	Release Time	Fish Stock	Adjusted # Released	Number Recaptured	% Recaptured	Mean Length at Release (mm)	Mean Length at Recapture (mm)	Flow at LGN (cfs)
W1-2008	Waterford	1/13/2008	18:15	Wild	32	11	34.4%	37	37	287
W2-2008	Waterford	1/26/2008	18:40	Wild	132	15	11.4%	36	36	806
W3-2008	Waterford	1/27/2008	18:15	Wild	98	13	13.3%	37	37	579
W4-2008	Waterford	1/31/2008	18:30	Wild	131	12	9.2%	37	38	500
W5-2008	Waterford	2/1/2008	18:24	Wild	55	9	16.4%	37	37	444
W6-2008	Waterford	2/6/2008	18:25	Wild	64	6	9.4%	37	37	470
W7-2008	Waterford	2/13/2008	18:20	Wild	33	11	33.3%	37	37	295
W8-2008	Waterford	2/28/2008	18:45	Wild	140	20	14.3%	38	38	414
W9-2008	Waterford	5/16/2008	20:45	Wild	41	5	12.2%	88	88	918

Table 2.7. Daily recapture data of trap efficiency fish released at Waterford, 2008.

Batch Date	W1-2008	W2-2008	W3-2008	W4-2008	W5-2008	W6-2008	W7-2008	W8-2008	W9-2008
1/8/2008									
1/9/2008									
1/10/2008									
1/11/2008									
1/12/2008									
1/13/2008									
1/14/2008	11								
1/15/2008									
1/16/2008									
1/17/2008									
1/18/2008									
1/19/2008									
1/20/2008									
1/21/2008									
1/22/2008									
1/23/2008									
1/24/2008									
1/25/2008									
1/26/2008									
1/27/2008		15							
1/28/2008			13						
1/29/2008									
1/30/2008									
1/31/2008									
2/1/2008				11					
2/2/2008				1	9				
2/3/2008									
2/4/2008									
2/5/2008									
2/6/2008									
2/7/2008						6			
2/8/2008									
2/9/2008									
2/10/2008									
2/11/2008									
2/12/2008									
2/13/2008									
2/14/2008							10		
2/15/2008									
2/16/2008							1		
2/17/2008									
2/18/2008									
2/19/2008									
2/20/2008									
2/21/2008									
2/22/2008									
2/23/2008									
2/24/2008									
2/25/2008									
2/26/2008									
2/27/2008									
2/28/2008									

Table 2.7 continued

Batch Date	W1-2008	W2-2008	W3-2008	W4-2008	W5-2008	W6-2008	W7-2008	W8-2008	W9-2008
2/29/2008								20	
3/1/2008									
3/2/2008									
3/3/2008									
3/4/2008									
3/5/2008									
3/6/2008									
3/7/2008									
3/8/2008									
3/9/2008									
3/10/2008									
3/11/2008									
3/12/2008									
3/13/2008									
3/14/2008									
3/15/2008									
3/16/2008									
3/17/2008									
3/18/2008									
3/19/2008									
3/20/2008									
3/21/2008									
3/22/2008									
3/23/2008									
3/24/2008									
3/25/2008									
3/26/2008									
3/27/2008									
3/28/2008									
3/29/2008									
3/30/2008									
3/31/2008									
4/1/2008									
4/2/2008									
4/3/2008									
4/4/2008									
4/5/2008									
4/6/2008									
4/7/2008									
4/8/2008									
4/9/2008									
4/10/2008									
4/11/2008									
4/12/2008									
4/13/2008									
4/14/2008									
4/15/2008									
4/16/2008									
4/17/2008									
4/18/2008									
4/19/2008									
4/20/2008									

Table 2.7 continued

Batch Date	W1-2008	W2-2008	W3-2008	W4-2008	W5-2008	W6-2008	W7-2008	W8-2008	W9-2008
4/21/2008									
4/22/2008									
4/23/2008									
4/24/2008									
4/25/2008									
4/26/2008									
4/27/2008									
4/28/2008									
4/29/2008									
4/30/2008									
5/1/2008									
5/2/2008									
5/3/2008									
5/4/2008									
5/5/2008									
5/6/2008									
5/7/2008									
5/8/2008									
5/9/2008									
5/10/2008									
5/11/2008									
5/12/2008									
5/13/2008									
5/14/2008									
5/15/2008									
5/16/2008									
5/17/2008									5
5/18/2008									
5/19/2008									
5/20/2008									
5/21/2008									
5/22/2008									
5/23/2008									
5/24/2008									
5/25/2008									
5/26/2008									
5/27/2008									
5/28/2008									
5/29/2008									
5/30/2008									
5/31/2008									
6/1/2008									
6/2/2008									
Totals	11 **W1-2008**	15 **W2-2008**	13 **W3-2008**	12 **W4-2008**	9 **W5-2008**	6 **W6-2008**	11 **W7-2008**	20 **W8-2008**	5 **W9-2008**

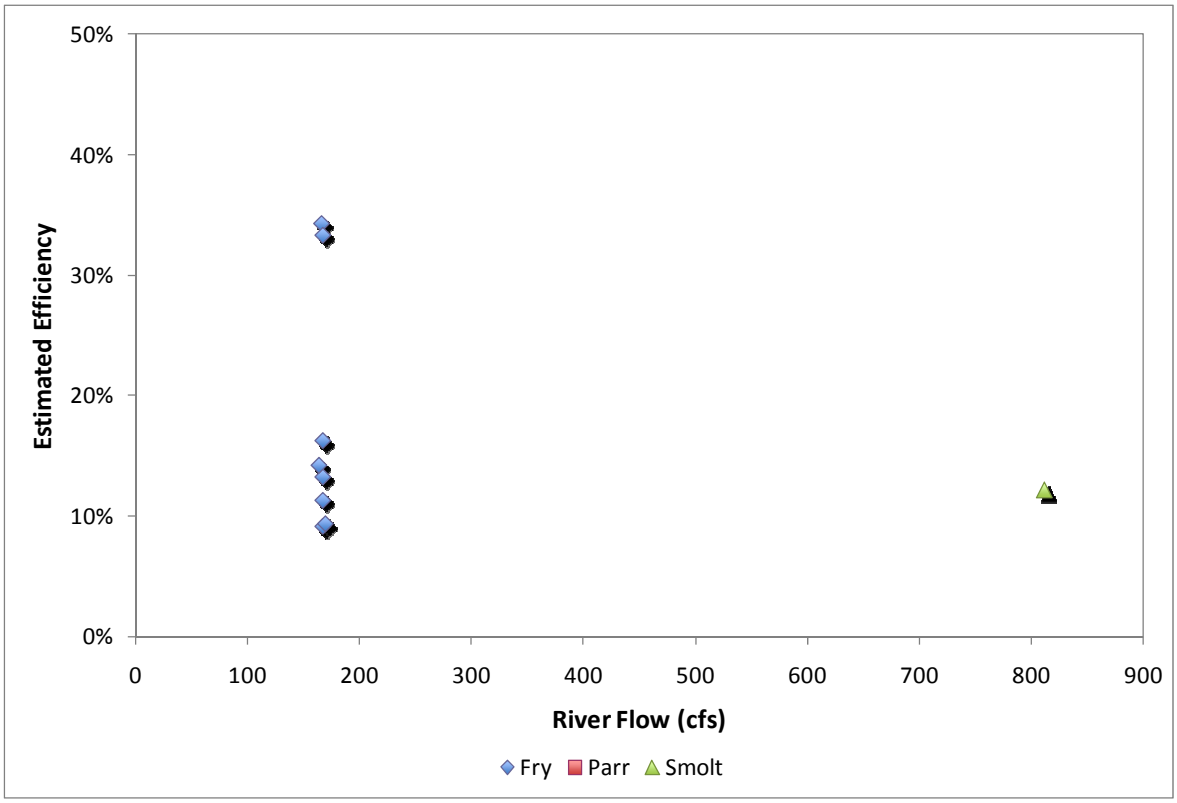

Figure 2.6. Estimated trap efficiency at Waterford and flow at LaGrange (LGN)cfs) by lifestage, 2008.

Table 2.8. Date, time, length, weight, and smolt index for *O. mykiss* captured at Waterford, 2008.

Station	Sample Date	Time	Species	Length (mm)	Weight	Count	Smolt Index	Mortality
TU030X	1/26/2008	10:00	RBT	105	89.2	1	5	No
TU030X	1/28/2008	21:30	RBT	249	-	1	n/p	Yes
TU030X	1/28/2008	21:30	RBT	205	87.4	1	5	No
TU030X	1/29/2008	12:15	RBT	268	173.0	1	5	No
TU030X	1/29/2008	12:15	RBT	224	112.3	1	5	No
TU030X	2/26/2008	17:15	RBT	100	10.5	1	3	No
TU030X	2/27/2008	10:30	RBT	205	91.1	1	5	No
TU030X	4/16/2008	14:00	RBT	261	181.5	1	5	No
TU030X	5/23/2008	14:30	RBT	58	2.5	1	3	No

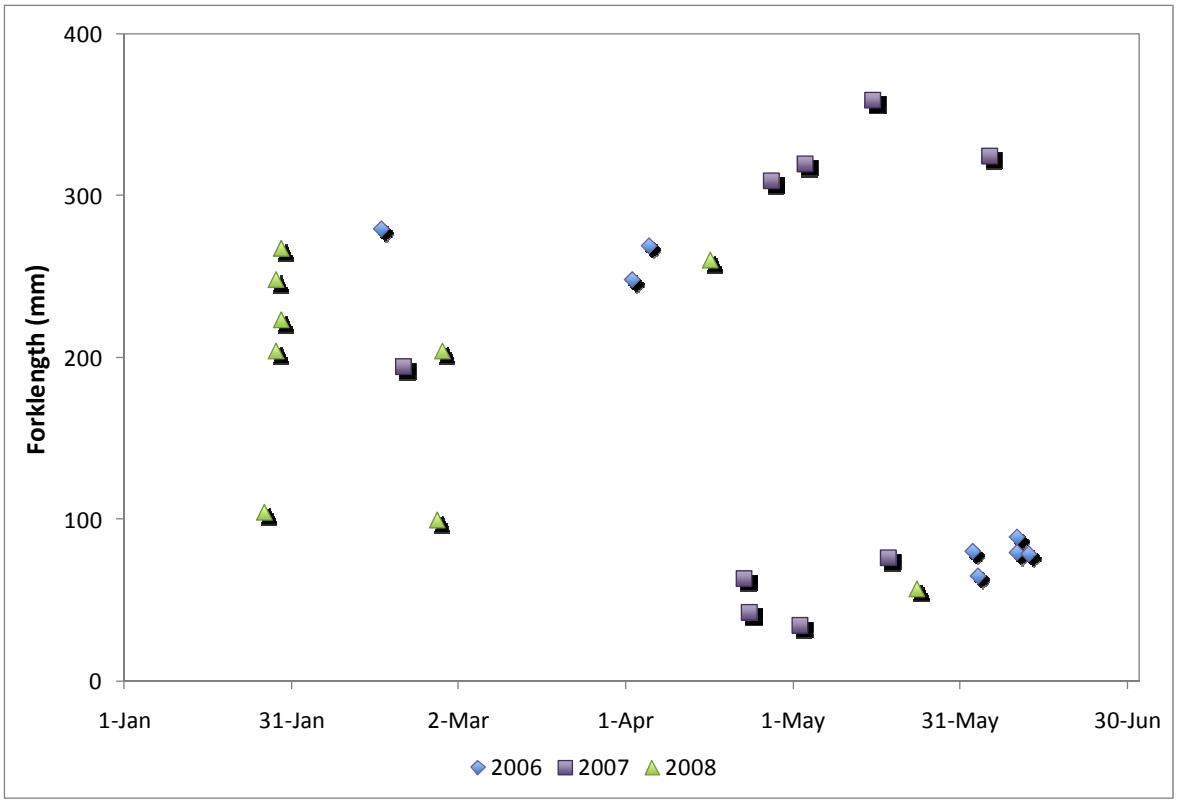

Figure 2.7. Forklength of *O. mykiss* captured at Waterford, 2006 through 2008.

Table 2.9. Daily catch of non-salmonids at Waterford, 2008.

Batch Date	BGS	BKB	BRB	CHC	GSF	GSN	HH	LAM	LMB	MQK	PRS	RES	RSN	SASQ	SASU	SMB	W	WHC
1/8/2008	3	2		2			3	1100			4			4	1			
1/9/2008	11	3	1	2			4	74						3	1			3
1/10/2008	10	1		2			18				2	1		3	2			1
1/11/2008	10						2	10			2	3		3				2
1/12/2008	3										1	1		1				
1/13/2008	4					1	1					1		1				
1/14/2008	13	1						5	1		1	3						1
1/15/2008	4						3								1			1
1/16/2008	2							2	1		1			1				
1/17/2008	6						3				3							1
1/18/2008	3	1							1			1			1			
1/19/2008	1						2		1		1	1				1		
1/20/2008															1	1		
1/21/2008	1	1					1				2							1
1/22/2008											1							1
1/23/2008	2														1			
1/24/2008	1						1		1					2				
1/25/2008	1	2		1			1	4000			6	1		5	4			
1/26/2008	3						3	256	1		2			11	9			
1/27/2008	1	3					3	338			2				4			1
1/28/2008	6	1					12	129		1	2	2		5	7			
1/29/2008	1					1	3	44			2		1	8	7			
1/30/2008	3					1		1100			3		3	2	6			
1/31/2008						1	6	307			1			2				
2/1/2008	2					2	8	455			1			5		1	1	
2/2/2008	1			2		7	1	42			2		2	2	1			
2/3/2008						2	1	3			1							
2/4/2008							4				1			3	1			
2/5/2008						6	4	15			4			8	5			
2/6/2008						1	1	26			1			2	3			1
2/7/2008						2	1	25	1		4			3	1			
2/8/2008		1				6								1				1
2/9/2008						4	1			1	3			1				1
2/10/2008											3	1						2
2/11/2008	1			1							1							2
2/12/2008	1						1											4
2/13/2008						1								1				3
2/14/2008														1	1			1
2/15/2008				1														
2/16/2008											1							
2/17/2008		1		1														1
2/18/2008	2										1			1				1
2/19/2008											1							2
2/20/2008																		
2/21/2008											1			2				
2/22/2008														1				2
2/23/2008		1												2				1
2/24/2008											1			2				2
2/25/2008							2				2			8				2
2/26/2008	1					2								15				
2/27/2008	1	2				2	2	210			3			17	4	1		1
2/28/2008	1	4	1	1		2	1	1500			1			4	5	1	1	6
2/29/2008				1		5		170					1	7	3		1	2
3/1/2008		1				2								5				2
3/2/2008						2	1				1			1			1	5
3/3/2008	3					2	1								1			8
3/4/2008	1						1				4			1				4
3/5/2008											1				1			6
3/6/2008															1			1

Table 2.9 continued

Batch Date	BGS	BKB	BRB	CHC	GSF	GSN	HH	LAM	LMB	MQK	PRS	RES	RSN	SASQ	SASU	SMB	W	WHC
3/7/2008						1								2				2
3/8/2008											1							4
3/9/2008	1										1			1				
3/10/2008	1						1				1			1				3
3/11/2008	1					1												2
3/12/2008											1				1			1
3/13/2008											1							1
3/14/2008	1													2		1		2
3/15/2008	4													1				1
3/16/2008	1																	2
3/17/2008														1	1			
3/18/2008	1																	
3/19/2008	1										2							1
3/20/2008																		2
3/21/2008	5																	1
3/22/2008	1																1	1
3/23/2008									1									
3/24/2008											1					1	1	1
3/25/2008	1						1									1		3
3/26/2008																1		8
3/27/2008	1						1				1					2		8
3/28/2008								1						1				7
3/29/2008	2			2				1						3		2		8
3/30/2008														1	1	1		2
3/31/2008								1							1	1		3
4/1/2008											1					1		6
4/2/2008														3				3
4/3/2008							1											1
4/4/2008																		1
4/5/2008					1		1	2			1			2	1	2		4
4/6/2008							1				1					1		2
4/7/2008	1						1							1	1		1	6
4/8/2008							1							1				1
4/9/2008	2						1									1		6
4/10/2008				1											1			2
4/11/2008	1			1														
4/12/2008														2	1	1	2	6
4/13/2008															1	2	1	6
4/14/2008	2																	12
4/15/2008														1		1	3	3
4/16/2008	2						1										2	
4/17/2008																		
4/18/2008							1											
4/19/2008	1																1	5
4/20/2008	2						2					1			1			1
4/21/2008							1								2		1	1
4/22/2008	1									1				1	4	1	1	2
4/23/2008	2			3				14						1	2			9
4/24/2008				2		4	2	5				3	1	5	7			3
4/25/2008	1					1		6						3	5	1		3
4/26/2008	1			1		1								3				3
4/27/2008	1			2		1						1		4				4
4/28/2008												1		2	4			12
4/29/2008						1	1					3		1				4
4/30/2008												2		2				1
5/1/2008					1			7							1			6
5/2/2008																		1
5/3/2008							2							1				1
5/4/2008																		1

Table 2.9 continued

Batch Date	BGS	BKB	BRB	CHC	GSF	GSN	HH	LAM	LMB	MQK	PRS	RES	RSN	SASQ	SASU	SMB	W	WHC
5/5/2008								2				1					1	2
5/6/2008								1						9				6
5/7/2008														4		1		1
5/8/2008														1				
5/9/2008														4				1
5/10/2008				1				2				1		2			2	
5/11/2008								1				1						
5/12/2008														1				1
5/13/2008	2													5			1	
5/14/2008														1				2
5/15/2008	1													1	2			2
5/16/2008												4		1				
5/17/2008	2			1				2				2		1	2			4
5/18/2008												1		1				3
5/19/2008							1					1					2	2
5/20/2008															1			
5/21/2008											1	5					2	
5/22/2008																	1	2
5/23/2008	1														1	2		1
5/24/2008	2																	1
5/25/2008							1								1	1		
5/26/2008							1									3		
5/27/2008														1			1	1
5/28/2008														1				1
5/29/2008	1													1				2
5/30/2008	1															1	1	2
5/31/2008	1							2						1		1		4
6/1/2008							2									2		2
6/2/2008	1						1									1		
Totals	153	25	2	28	2	62	121	9858	8	3	87	42	8	225	114	38	29	292
	BGS	**BKB**	**BRB**	**CHC**	**GSF**	**GSN**	**HH**	**LAM**	**LMB**	**MQK**	**PRS**	**RES**	**RSN**	**SASQ**	**SASU**	**SMB**	**W**	**WHC**

Table 2.10. Daily number measured and mean lengths of non-salmonids at Waterford, 2008.

	BGS		BKB		BRB		CHC		GSF		GSN	
Batch Date	# Measured	Length (mm)	# Measured	Length (mm)	# Measured	Length (mm)	# Measured	Length (mm)	# Measured	Length (mm)	# Measured	Length (mm)
1/8/2008	3	48	2	93			2	161				
1/9/2008	11	59	3	90	1	78	2	94				
1/10/2008	10	52	1	92			2	78				
1/11/2008	10	49										
1/12/2008	3	43										
1/13/2008	4	52									1	118
1/14/2008	13	52	1	90								
1/15/2008	4	54										
1/16/2008	2	59										
1/17/2008	6	51										
1/18/2008	3	64	1	78								
1/19/2008	1	61										
1/20/2008												
1/21/2008	1	68	1	109								
1/22/2008												
1/23/2008	2	56										
1/24/2008	1	56										
1/25/2008	1	61	2	60			1	57				
1/26/2008	3	48										
1/27/2008	1	33	3	82								
1/28/2008	6	70	1	85								
1/29/2008	1	50									1	100
1/30/2008	3	75									1	100
1/31/2008											1	98
2/1/2008	2	49									2	93
2/2/2008	1	37					2	113			7	99
2/3/2008											2	84
2/4/2008												
2/5/2008											6	99
2/6/2008											1	112
2/7/2008											2	94
2/8/2008			1	75							6	106
2/9/2008											4	93
2/10/2008												
2/11/2008	1	54					1	126				
2/12/2008	1	38										
2/13/2008											1	104
2/14/2008												
2/15/2008												
2/16/2008												
2/17/2008			1	220			1	82				
2/18/2008	2	62										
2/19/2008												
2/20/2008												
2/21/2008												
2/22/2008												
2/23/2008			1	121								
2/24/2008												
2/25/2008												
2/26/2008	1	75									2	93
2/27/2008	1	145	2	93							2	90
2/28/2008	1	55	4	125	1	310	1	80			2	106
2/29/2008							1	75			5	96
3/1/2008			1	86							2	115
3/2/2008											2	105
3/3/2008	3	55									2	84
3/4/2008	1	52										

Table 2.10 continued

Batch Date	BGS # Measured	BGS Length (mm)	BKB # Measured	BKB Length (mm)	BRB # Measured	BRB Length (mm)	CHC # Measured	CHC Length (mm)	GSF # Measured	GSF Length (mm)	GSN # Measured	GSN Length (mm)
3/5/2008												
3/6/2008												
3/7/2008											1	95
3/8/2008												
3/9/2008	1	67										
3/10/2008	1	35										
3/11/2008	1	55									1	71
3/12/2008												
3/13/2008												
3/14/2008	1	50										
3/15/2008	4	56										
3/16/2008	1	60										
3/17/2008												
3/18/2008	1	46										
3/19/2008	1	52										
3/20/2008												
3/21/2008	5	52										
3/22/2008	1	48										
3/23/2008												
3/24/2008												
3/25/2008	1	55										
3/26/2008												
3/27/2008	1	60										
3/28/2008												
3/29/2008	2	70					2	78				
3/30/2008												
3/31/2008												
4/1/2008												
4/2/2008												
4/3/2008												
4/4/2008												
4/5/2008									1	67		
4/6/2008												
4/7/2008	1	152										
4/8/2008												
4/9/2008	2	59										
4/10/2008							1	85				
4/11/2008	1	55					1	84				
4/12/2008												
4/13/2008												
4/14/2008	2	67										
4/15/2008												
4/16/2008	2	57										
4/17/2008												
4/18/2008												
4/19/2008	1	70										
4/20/2008	2	71										
4/21/2008												
4/22/2008	1	42										
4/23/2008	2	97					3	85				
4/24/2008							2	83			4	114
4/25/2008	1	58									1	64
4/26/2008	1	69					1	95			1	62
4/27/2008	1	131					2	82			1	108
4/28/2008												
4/29/2008											1	47
4/30/2008												
5/1/2008									1	92		
5/2/2008												

Table 2.10 continued

Batch Date	BGS # Measured	BGS Length (mm)	BKB # Measured	BKB Length (mm)	BRB # Measured	BRB Length (mm)	CHC # Measured	CHC Length (mm)	GSF # Measured	GSF Length (mm)	GSN # Measured	GSN Length (mm)
5/3/2008												
5/4/2008												
5/5/2008												
5/6/2008												
5/7/2008												
5/8/2008												
5/9/2008												
5/10/2008							1	114				
5/11/2008												
5/12/2008												
5/13/2008	2	68										
5/14/2008												
5/15/2008	1	131										
5/16/2008												
5/17/2008	2	51					1	72				
5/18/2008												
5/19/2008												
5/20/2008												
5/21/2008												
5/22/2008												
5/23/2008	1	62										
5/24/2008	2	67										
5/25/2008												
5/26/2008												
5/27/2008												
5/28/2008												
5/29/2008	1	88										
5/30/2008	1	127										
5/31/2008	1	103										
6/1/2008												
6/2/2008	1	93										
	BGS		BKB		BRB		CHC		GSF		GSN	

Table 2.10 continued

	HH		LMB		MQK		PRS		RES		RSN	
Batch Date	# Measured	Length (mm)	# Measured	Length (mm)	# Measured	Length (mm)	# Measured	Length (mm)	# Measured	Length (mm)	# Measured	Length (mm)
1/8/2008	3	119					4	87				
1/9/2008	4	74										
1/10/2008	17	87					2	86	1	55		
1/11/2008	2	72					2	87	3	70		
1/12/2008							1	85	1	61		
1/13/2008	1	58							1	57		
1/14/2008			1	82			1	80	3	57		
1/15/2008	3	97										
1/16/2008			1	80			1	68				
1/17/2008	3	71					3	82				
1/18/2008			1	60					1	69		
1/19/2008	2	116	1	66			1	66	1	95		
1/20/2008												
1/21/2008	1	79					2	84				
1/22/2008							1	78				
1/23/2008												
1/24/2008	1	91	1	56								
1/25/2008	1	114					6	91	1	48		
1/26/2008	3	119	1	91			2	89				
1/27/2008	3	100					2	89				
1/28/2008	12	81			1	30	2	82	2	66		
1/29/2008	3	118					2	80			1	86
1/30/2008							3	74			3	82
1/31/2008	6	116					1	80				
2/1/2008	8	85					1	67				
2/2/2008	1	119					2	76			1	105
2/3/2008	1	73					1	65				
2/4/2008	4	95					1	62				
2/5/2008	4	96					4	80				
2/6/2008	1	135					1	59				
2/7/2008	1	78	1	77			4	75				
2/8/2008												
2/9/2008	1	65			1	24	3	70				
2/10/2008							3	81	1	60		
2/11/2008							1	80				
2/12/2008	1	205										
2/13/2008												
2/14/2008												
2/15/2008												
2/16/2008							1	86				
2/17/2008												
2/18/2008							1	81				
2/19/2008							1	75				
2/20/2008												
2/21/2008							1	66				
2/22/2008												
2/23/2008												
2/24/2008							1	75				
2/25/2008	2	106					2	83				
2/26/2008												
2/27/2008	2	150					2	82				
2/28/2008	1	110					1	99				

Table 2.10 continued

	HH		LMB		MQK		PRS		RES		RSN	
Batch Date	# Measured	Length (mm)	# Measured	Length (mm)	# Measured	Length (mm)	# Measured	Length (mm)	# Measured	Length (mm)	# Measured	Length (mm)
2/29/2008											1	100
3/1/2008												
3/2/2008	1	135					1	92				
3/3/2008	1	50										
3/4/2008	1	79					4	74				
3/5/2008							1	80				
3/6/2008												
3/7/2008												
3/8/2008							1	73				
3/9/2008							1	85				
3/10/2008	1	60					1	83				
3/11/2008												
3/12/2008							1	75				
3/13/2008							1	76				
3/14/2008												
3/15/2008												
3/16/2008												
3/17/2008												
3/18/2008												
3/19/2008							2	79				
3/20/2008												
3/21/2008												
3/22/2008												
3/23/2008			1	260								
3/24/2008							1	74				
3/25/2008	1	88										
3/26/2008												
3/27/2008	1	210					1	85				
3/28/2008												
3/29/2008												
3/30/2008												
3/31/2008												
4/1/2008							1	80				
4/2/2008												
4/3/2008	1	62										
4/4/2008												
4/5/2008	1	91					1	74				
4/6/2008	1	80					1	79				
4/7/2008	1	71										
4/8/2008	1	135										
4/9/2008	1	120										
4/10/2008												
4/11/2008												
4/12/2008												
4/13/2008												
4/14/2008												
4/15/2008												
4/16/2008	1	88										
4/17/2008												
4/18/2008	1	99										
4/19/2008												
4/20/2008	2	114							1	68		
4/21/2008	1	115										
4/22/2008					1	36						
4/23/2008												
4/24/2008	2	51							3	66	1	66

Table 2.10 continued

Batch Date	HH # Measured	HH Length (mm)	LMB # Measured	LMB Length (mm)	MQK # Measured	MQK Length (mm)	PRS # Measured	PRS Length (mm)	RES # Measured	RES Length (mm)	RSN # Measured	RSN Length (mm)
4/26/2008												
4/27/2008									1	53		
4/28/2008									1	62		
4/29/2008	1	100							3	70		
4/30/2008									2	73		
5/1/2008												
5/2/2008												
5/3/2008	2	67										
5/4/2008												
5/5/2008									1	73		
5/6/2008												
5/7/2008												
5/8/2008												
5/9/2008												
5/10/2008									1	82		
5/11/2008									1	61		
5/12/2008												
5/13/2008												
5/14/2008												
5/15/2008												
5/16/2008									3	85		
5/17/2008									2	79		
5/18/2008									1	74		
5/19/2008	1	68							1	77		
5/20/2008												
5/21/2008							1	72	5	84		
5/22/2008												
5/23/2008												
5/24/2008												
5/25/2008	1	152										
5/26/2008	1	79										
5/27/2008												
5/28/2008												
5/29/2008												
5/30/2008												
5/31/2008												
6/1/2008	2	140										
6/2/2008	1	140										
	HH		LMB		MQK		PRS		RES		RSN	

Table 2.10 continued

	SASQ		SASU		SMB		W		WHC	
Batch Date	# Measured	Length (mm)	# Measured	Length (mm)	# Measured	Length (mm)	# Measured	Length (mm)	# Measured	Length (mm)
1/8/2008	4	108	1	110						
1/9/2008	3	104	1	92					3	63
1/10/2008	3	100	2	84					1	64
1/11/2008	3	93							2	72
1/12/2008	1	100								
1/13/2008	1	138								
1/14/2008									1	71
1/15/2008			1	128					1	57
1/16/2008	1	97								
1/17/2008									1	70
1/18/2008			1	110						
1/19/2008					1	97				
1/20/2008			1	95	1	94				
1/21/2008									1	71
1/22/2008									1	92
1/23/2008			1	620						
1/24/2008	2	94								
1/25/2008	5	111	4	100						
1/26/2008	11	100	9	105						
1/27/2008			4	118					1	69
1/28/2008	5	80	7	118						
1/29/2008	8	101	7	88						
1/30/2008	2	87	6	81						
1/31/2008	2	80								
2/1/2008	5	84			1	81	1	44		
2/2/2008	2	65	1	98						
2/3/2008										
2/4/2008	3	90	1	88						
2/5/2008	8	96	5	98						
2/6/2008	2	67	3	118					1	74
2/7/2008	3	90	1	109						
2/8/2008	1	100							1	61
2/9/2008	1	39							1	51
2/10/2008									2	69
2/11/2008									2	74
2/12/2008									4	69
2/13/2008	1	103							3	81
2/14/2008	1	75	1	135					1	78
2/15/2008										
2/16/2008										
2/17/2008									1	70
2/18/2008	1	80							1	50
2/19/2008									2	71
2/20/2008										
2/21/2008	2	118								
2/22/2008	1	65							2	74
2/23/2008	2	86							1	77
2/24/2008	2	82							2	69
2/25/2008	8	92							2	76
2/26/2008	15	79								

Table 2.10 continued

Batch Date	SASQ # Measured	SASU Length (mm)	SMB # Measured	W Length (mm)	WHC # Measured	Length (mm)	# Measured	Length (mm)	# Measured	Length (mm)
2/27/2008	17	87	4	81	1	300			1	50
2/28/2008	4	80	5	104	1	106	1	63	6	76
2/29/2008	7	77	3	72			1	70	2	49
3/1/2008	5	91							2	76
3/2/2008	1	49					1	62	5	63
3/3/2008			1	92					8	61
3/4/2008	1	72							4	72
3/5/2008			1	88					6	71
3/6/2008			1	143					1	100
3/7/2008	2	59							2	70
3/8/2008									4	58
3/9/2008	1	98								
3/10/2008	1	50							3	62
3/11/2008									2	68
3/12/2008			1	66					1	72
3/13/2008									1	60
3/14/2008	2	55			1	182			2	61
3/15/2008	1	74							1	68
3/16/2008									2	63
3/17/2008	1	128	1	85						
3/18/2008										
3/19/2008									1	66
3/20/2008									2	54
3/21/2008									1	62
3/22/2008							1	52	1	60
3/23/2008										
3/24/2008					1	103	1	55	1	85
3/25/2008					1	167			3	56
3/26/2008					1	201			8	64
3/27/2008					2	113			8	69
3/28/2008	1	100							7	68
3/29/2008	3	75			2	145			8	69
3/30/2008	1	74	1	123	1	192			2	88
3/31/2008			1	118	1	185			3	76
4/1/2008					1	103			6	67
4/2/2008	3	93							3	60
4/3/2008									1	58
4/4/2008									1	258
4/5/2008	2	91	1	101	2	145			4	63
4/6/2008					1	102			2	60
4/7/2008	1	92	1	175			1	78	6	63
4/8/2008	1	96							1	79
4/9/2008					1	110			6	66
4/10/2008			1	155					2	61
4/11/2008										
4/12/2008	2	142	1	137	1	98	2	62	6	93
4/13/2008			1	104	2	106	1	60	6	123
4/14/2008									12	118
4/15/2008	1	58			1	107	3	63	3	192
4/16/2008							2	79		
4/17/2008										

Table 2.10 continued

Batch Date	SASQ # Measured	SASU Length (mm)	SMB # Measured	W Length (mm)	WHC # Measured	Length (mm)	# Measured	Length (mm)	# Measured	Length (mm)
4/18/2008										
4/19/2008							1	70	5	93
4/20/2008			1	52					1	245
4/21/2008			2	28			1	57	1	72
4/22/2008	1	87	4	24	1	81	1	78	2	101
4/23/2008	1	63	2	44					9	56
4/24/2008	5	66	7	60					3	69
4/25/2008	3	64	5	48	1	106			3	69
4/26/2008	3	53							3	64
4/27/2008	4	56							4	54
4/28/2008	2	58	4	51					12	65
4/29/2008	1	112							4	76
4/30/2008	2	78							1	70
5/1/2008									6	73
5/2/2008									1	69
5/3/2008	1	67							1	60
5/4/2008									1	72
5/5/2008							1	85	2	73
5/6/2008	9	73							6	62
5/7/2008	4	68			1	111			1	73
5/8/2008	1	140								
5/9/2008	4	64							1	73
5/10/2008	2	63					2	67		
5/11/2008										
5/12/2008	1	66							1	46
5/13/2008	5	69					1	74		
5/14/2008	1	143							2	65
5/15/2008	1	72	2	52					2	161
5/16/2008	1	102								
5/17/2008	1	68	2	33					4	68
5/18/2008	1	82							3	68
5/19/2008							2	93	2	77
5/20/2008			1	39						
5/21/2008							2	85		
5/22/2008							1	75	2	97
5/23/2008			1	105	2	107			1	78
5/24/2008									1	43
5/25/2008			1	31	1	130				
5/26/2008					3	129				
5/27/2008	1	196					1	77	1	58
5/28/2008	1	156							1	230
5/29/2008	1	153							2	260
5/30/2008					1	123	1	87	2	259
5/31/2008	1	156			1	173			4	233
6/1/2008					2	160			2	151
6/2/2008					1	107				
	SASQ		**SASU**		**SMB**		**W**		**WHC**	

Table 2.11. Environmental data at Waterford, 2008.

Date	Time Trap Checked	Revolutions	Time/ Rev Before	Time/ Rev After	Water Velocity	Turbidity	Stream Gauge	Dissolved Oxygen (mg/L)	Water Temperature	Weather Code	Debris Level	Condition Code	Gear Status
1/7/2008	14:00	-	-	-	-	-	1.05	-	-	CLR	-	4	0
1/8/2008	12:45	-	37.3	37.6	1.33	46.8	1.1	9.92	49.5	RAN	Medium	1	-
1/9/2008	11:15	1937	38.7	38.5	1.35	16.4	1.12	9.79	48.3	CLD	Light	1	-
1/10/2008	11:15	1393	39.8	38	1.5	8.12	1.1	10.99	49.6	CLD	Light	1	-
1/11/2008	11:00	-	41.4	38.3	1.4	6.02	1.08	10.86	50	CLD	Light	1	-
1/12/2008	8:30	-	40	40.3	1.3	5	1.05	10.87	50	CLD	Light	1	-
1/13/2008	8:15	-	40.6	40.3	1.28	3.86	1.06	-	52	CLD	Light	1	-
1/13/2008	18:00	877	-	-	-	5.54	1.06	-	52	CLR	Light	1	-
1/13/2008	19:45	1035	-	-	-	5.54	1.06	-	52	NIT	Light	1	-
1/13/2008	20:45	1135	-	-	-	5.54	1.06	11.31	52	NIT	Light	1	-
1/14/2008	10:45	2417	40.22	41.2	1.33	4.5	1.06	9.62	50.5	CLR	Light	1	-
1/15/2008	11:30	-	41.28	41.4	1.36	3.04	1	10.76	50	CLD	Light	1	-
1/16/2008	12:30	2108	40.52	42.3	1.41	2.75	1	11.25	49	CLR	Light	1	-
1/17/2008	12:00	1890	-	42.2	1.35	1.82	1	11.42	-	CLR	Light	3	-
1/18/2008	12:15	2060	42.2	43.6	1.29	2.4	1	11.2	49	CLR	Light	1	-
1/19/2008	9:30	1791	42.1	41.5	1.26	1.3	1	10.64	46	CLR	Light	1	-
1/20/2008	9:30	2020	43.1	43	1.4	1.84	1.01	11.12	-	CLR	Light	1	-
1/21/2008	11:30	2156	42.7	44.1	1.4	1.64	1	10.5	49	CLD	Light	1	-
1/22/2008	11:45	2079	40	40	1.4	2	1.09	10.44	48.7	RAN	Light	1	-
1/23/2008	11:45	941	38.6	37.4	1.71	11.79	1.32	10.09	48.7	RAN	Medium	2	-
1/24/2008	12:45	-	15.7	15.6	3.05	200	1.95	-	46	RAN	Heavy	3	-
1/24/2008	20:45	1679	-	-	-	150	1.66	10.15	47	CLD	Medium	1	-
1/25/2008	10:15	3703	25	24.8	1.72	151	1.4	-	46.7	CLD	Medium	1	-
1/25/2008	20:15	1317	-	-	-	63.3	1.3	10.35	-	NIT	Light	1	-
1/26/2008	10:00	2876	33.7	34.2	1.49	75.2	1.2	-	48.3	CLD	Light	1	-
1/26/2008	18:30	882	-	-	-	41.1	1.26	-	49	NIT	Light	1	-
1/26/2008	20:00	1065	-	-	-	-	-	-	-	NIT	Light	1	-
1/26/2008	21:00	1142	-	-	-	-	1.26	9.84	-	NIT	Light	1	-
1/27/2008	10:00	2419	35.4	34.7	1.45	18.6	1.18	-	50.3	CLD	Medium	2	-
1/27/2008	18:00	873	-	-	-	14.3	1.3	-	52	NIT	Light	1	-
1/27/2008	19:30	1067	-	-	-	-	-	-	52	NIT	Light	1	-
1/27/2008	20:30	1184	-	-	-	-	-	-	52	NIT	Light	1	-
1/28/2008	12:45	3132	27.1	25.4	1.77	35.6	1.4	-	50.3	CLD	Heavy	2	-
1/28/2008	21:30	1117	-	-	-	-	1.52	9.8	-	NIT	Heavy	▪	-
1/29/2008	12:15	1929	30.2	30.4	1.66	411	1.28	-	48	CLD	Heavy	2	-
1/29/2008	20:15	893	-	-	-	228	1.2	10.2	-	NIT	Light	1	-

Date	Time Trap Checked	Revolutions	Time/ Rev Before	Time/ Rev After	Water Velocity	Turbidity	Stream Gauge	Dissolved Oxygen (mg/L)	Water Temperature	Weather Code	Debris Level	Condition Code	Gear Status
1/30/2008	14:00	2744	33.2	33.6	1.64	35.1	1.18	9.87	49.6	CLR	Light	1	-
1/31/2008	11:30	1021	36	35.8	1.44	15.7	1.14	-	49.4	CLD	Light	1	-
1/31/2008	18:00	1021	-	-	-	9.64	1.14	-	-	NIT	Light	1	-
1/31/2008	19:45	-	-	-	-	9.64	1.14	-	-	NIT	Light	1	-
1/31/2008	20:45	-	-	-	-	9.64	1.14	9.7	-	NIT	Light	1	-
2/1/2008	10:30	-	34.4	34.2	1.6	9.33	1.1	10.03	48.9	CLR	Light	1	-
2/1/2008	18:00	0	-	-	-	6.82	1.12	-	50.7	NIT	Light	1	-
2/1/2008	19:45	176	-	-	-	6.82	1.12	-	50.7	NIT	Light	1	-
2/1/2008	20:45	276	-	-	-	6.82	1.12	9.8	50.7	NIT	Light	1	-
2/2/2008	10:30	1593	37.5	37.6	1.35	9.65	1.11	10.28	48.9	CLD	Light	1	-
2/3/2008	9:15	2193	36.4	35.8	1.34	6.41	1.18	9.87	48	CLD	Light	1	-
2/4/2008	12:45	3082	30.9	32.4	1.41	34.4	1.25	10.39	49.4	CLR	Medium	1	-
2/5/2008	13:00	2337	34.5	35.3	1.56	119	1.15	10.74	50.1	CLR	Light	1	-
2/6/2008	12:15	1051	36	37.7	1.31	14	1.1	10.37	49.6	CLR	Light	1	-
2/6/2008	18:00	389	-	-	-	-	1.1	-	51.2	NIT	Light	1	-
2/6/2008	19:45	548	-	-	-	-	1.1	-	51.2	NIT	Light	1	-
2/6/2008	21:00	-	-	-	-	-	-	10.15	-	NIT	Light	1	-
2/7/2008	11:45	2030	52.2	48.4	1.2	5.63	1.1	10.25	50	CLR	Light	1	-
2/8/2008	11:15	2131	39.2	39	1.33	5.62	1.08	10.2	52.5	CLR	Light	1	-
2/9/2008	10:15	2070	41.1	40.7	1.45	4.54	1.08	9.95	50.9	CLR	Light	1	-
2/10/2008	9:45	2063	40.6	42.1	1.31	6.82	1.08	9.73	51.6	FOG	Light	1	-
2/11/2008	11:00	1967	48.2	41.6	1.26	4.45	1.05	9.9	52.8	CLR	Light	3	-
2/12/2008	10:45	2052	42.7	44.3	1.24	3.09	1.05	9.49	51	CLR	Light	1	-
2/13/2008	12:30	2070	45	44	1.2	-	1.05	-	52	CLR	Light	1	-
2/13/2008	17:45	426	-	-	-	2.6	1.04	-	52	NIT	Light	1	-
2/13/2008	19:30	574	-	-	-	-	1.04	-	52	NIT	Light	1	-
2/13/2008	20:30	654	-	-	-	-	1.04	8.79	52	NIT	Light	1	-
2/14/2008	8:45	1579	45.8	47	1.04	1.98	1.01	9.17	52	CLR	Light	2	-
2/15/2008	13:00	2120	48.1	45.8	1.25	2.49	1.02	10.08	48	CLR	Light	1	-
2/16/2008	9:15	1528	49.1	48.9	1.17	2.8	1	10.21	50	CLR	Light	1	-
2/17/2008	9:00	435	53.3	48.4	1.12	1.9	1.04	10.67	50	CLR	Light	1	-
2/18/2008	10:00	1707	55.2	49.4	1.12	2.37	1.01	10.34	51.4	CLD	Light	1	-
2/19/2008	10:15	1646	59	50	0.92	1.41	1.2	10.76	52.7	CLD	Light	1	-
2/20/2008	9:00	1673	46	40.6	1.13	1.89	1.17	11	52.5	CLD	Light	1	-
2/21/2008	12:45	2041	55.6	41.6	1.3	2.89	1.13	9.38	53.4	RAN	Light	1	-
2/22/2008	12:15	1741	52	42.3	1.1	15.1	1.15	9.77	53.6	CLD	Light	1	-
2/23/2008	13:00	1927	48.6	41.8	1.36	5.61	1.12	9.47	51.6	CLD	Light	1	-
2/24/2008	9:30	1640	47.2	40.4	1.43	1.43	1.14	9.66	50.7	CLD	Light	1	-

Date	Time Trap Checked	Revolutions	Time/ Rev Before	Time/ Rev After	Water Velocity	Turbidity	Stream Gauge	Dissolved Oxygen (mg/L)	Water Temperature	Weather Code	Debris Level	Condition Code	Gear Status
2/25/2008	10:45	1981	-	19.5	2.23	25	1.72	8.7	51.8	CLR	Heavy	3	-
2/26/2008	17:15	595	-	35.3	0.99	93.8	1.2	8.9	55.2	CLR	Medium	3	-
2/27/2008	10:30	1605	42.7	36	1.13	17.2	1.16	9.3	54.3	CLR	Light	1	-
2/28/2008	13:00	2401	46.5	43.5	1.12	13	1.1	9.12	58	CLR	Light	1	-
2/28/2008	18:15	378	-	-	-	8.26	1.1	9.04	57.9	NIT	Light	1	-
2/28/2008	□□□□□□53	531	-	-	-	8.26	1.1	-	57.5	NIT	Light	1	-
2/28/2008	21:15	626	-	-	-	-	1.1	9.7	-	NIT	Light	1	-
2/29/2008	14:00	2019	45	42.6	1.22	2.22	1.1	9.33	59	CLR	Light	1	-
3/1/2008	13:45	1934	62	58.4	1.2	6.18	1.08	10.08	58.2	CLD	Light	1	-
3/2/2008	13:30	1855	32.9	26.1	1.15	3.24	-	10.11	55.7	CLR	Light	1	-
3/3/2008	13:00	1767	47.6	44.5	1	5.07	1.05	10.24	56.4	CLR	Light	1	-
3/4/2008	13:45	1817	50.5	46.7	1.08	3.44	1.98	10.12	57.3	CLR	Light	1	-
3/5/2008	14:00	1702	52.5	48.5	1.13	3.33	1.09	10.02	57.5	CLR	Light	1	-
3/6/2008	13:30	1550	58.6	48.9	1.02	3.38	1.06	9.56	56.8	CLD	Light	1	-
3/7/2008	11:15	1530	55.8	46.4	0.96	4.09	1.03	9.91	55	CLR	Light	1	-
3/8/2008	13:00	1769	53.6	42.7	1.25	3.09	1.07	9.62	57.9	CLR	Light	1	-
3/9/2008	12:30	1555	53	42.3	1.28	1.93	1.06	9.01	57.5	CLR	Light	1	-
3/10/2008	12:45	1630	56.5	47.8	1.2	2.81	1.06	9.47	57.9	CLR	Light	1	-
3/11/2008	13:30	1630	60.7	44	1.21	2.36	1.06	-	59.3	CLR	Light	1	-
3/12/2008	13:30	1658	57	42.7	1.22	3.34	1.06	9.02	58	CLR	Light	1	-
3/13/2008	13:15	1641	54.8	50	1.2	2.4	1	9.82	58	CLR	Light	1	-
3/14/2008	13:00	1602	71.3	48.1	1.3	1.89	1	9.57	57.5	CLD	Light	1	-
3/15/2008	11:15	1525	57.5	45.5	1.2	2.77	1.1	10.6	54.6	CLD	Light	1	-
3/16/2008	12:00	1685	58.4	48.5	1.07	2.43	1.01	10.02	52.3	CLR	Light	1	-
3/17/2008	14:00	1775	56.7	46.3	1.21	1.89	1.01	11.07	53.9	CLR	Light	1	-
3/18/2008	14:45	1714	55	49	1.29	2.19	1	10.22	55.4	CLR	Light	1	-
3/19/2008	14:15	1627	53	48.6	1.05	3.04	1.05	10.09	57.2	CLR	Light	1	-
3/20/2008	13:45	1637	55.1	49.1	1.28	0.58	1.02	9.83	57.9	CLR	Light	1	-
3/21/2008	13:15	1591	56.6	43.3	1.18	1.75	1.04	9.32	56.8	CLR	Light	1	-
3/22/2008	12:00	1660	55	49.7	1.11	4.38	1.01	-	57	CLR	Light	1	-
3/23/2008	11:00	1572	54.7	43.5	1.1	1.77	1.01	9.12	58.8	CLR	Light	1	-
3/24/2008	14:15	1972	52.9	44.1	1.12	2.07	1.01	-	62	CLR	Light	1	-
3/25/2008	14:30	1802	53.7	46.7	-	1.92	1	-	62	CLD	Light	1	-
3/26/2008	12:45	1639	52.3	46.6	1.33	1.13	1	8.58	-	CLR	Light	1	-
3/27/2008	12:30	1801	48.1	42.6	1.3	3.1	1.1	8.37	59.3	CLR	Light	1	-
3/28/2008	12:15	1844	48.8	42.8	1.25	3.33	1.02	8.12	59.3	CLR	Light	1	-
3/29/2008	12:00	1987	44.1	39.6	1.35	2.37	1.06	7.92	61.5	CLD	Light	1	-
3/30/2008	10:30	1881	45	42.3	1.31	2.17	1.02	8.25	58.6	CLD	Light	1	-

Date	Time Trap Checked	Revolutions	Time/ Rev Before	Time/ Rev After	Water Velocity	Turbidity	Stream Gauge	Dissolved Oxygen (mg/L)	Water Temperature	Weather Code	Debris Level	Condition Code	Gear Status
3/31/2008	12:15	2095	45.6	41.4	1.1	1.53	1.02	8.77	60	CLR	Light	1	-
4/1/2008	14:30	2172	48.1	44.2	1.13	1.19	1.02	9.72	62.7	CLR	Light	1	-
4/2/2008	16:00	2097	46.1	42.8	-	2.48	1.04	9.07	62.9	CLD	Light	1	-
4/3/2008	14:15	1877	43.8	43.4	1.47	2.14	1	8.97	63.8	CLR	Light	1	-
4/4/2008	12:45	45	-	36.5	1.41	1.86	1	8.65	63.1	CLR	Light	3	-
4/5/2008	11:15	2090	40.1	38.1	1.29	2.09	1.01	8.56	62.2	CLR	Light	1	-
4/6/2008	11:00	2175	40	37.2	1.07	3.55	1.01	9.02	62.4	CLR	Light	1	-
4/7/2008	13:15	2473	38.1	35.7	1.35	4.72	-	8.87	63.1	-	Light	-	-
4/8/2008	14:00	2398	38.3	36.5	1.25	2.18	1.04	9.31	62.9	CLD	Light	1	-
4/9/2008	13:30	2423	35.9	33.3	1.14	2.41	1.08	8.88	61.8	CLR	Light	1	-
4/10/2008	13:15	2428	35	35.4	1.45	2.04	1.05	8.94	63.1	CLR	Light	1	-
4/11/2008	13:00	2502	30.7	36.9	1.67	1.34	1.05	8.51	64.5	CLR	Light	1	-
4/12/2008	12:30	2377	35.2	34.4	-	3.06	1	8.61	66.3	CLR	Light	1	-
4/13/2008	12:45	2630	49.3	44	1.55	3.35	1.1	8.63	67.2	CLR	Light	1	-
4/14/2008	14:45	2855	46	43.3	1.61	2.75	1.11	9.19	69.9	CLR	Light	1	-
4/15/2008	14:30	2615	48.9	32.8	1.45	2.64	1.05	9.17	65.3	CLR	Light	1	-
4/16/2008	14:00	2424	36.3	31.9	1.52	3.75	1.04	8.96	64.5	CLR	Light	1	-
4/17/2008	13:15	2424	39.4	33.5	1.5	3.12	1.01	9.3	64.2	CLR	Light	1	-
4/18/2008	14:00	2547	35.4	30.2	1.53	2.12	1.09	8.5	66.2	CLR	Medium	1	-
4/19/2008	12:30	2448	34	29.1	1.8	2.91	1	9.56	66.2	CLR	Light	1	-
4/20/2008	13:15	1135	-	67.7	0.74	5.37	3.68	-	55.4	CLR	Medium	3	-
4/20/2008	20:15	424	-	-	-	-	2.76	9.7	-	NIT	Light	1	-
4/21/2008	12:45	1530	48.9	-	0.94	2.38	3.81	9.73	54.5	CLR	Light	1	-
4/22/2008	14:00	2793	30.9	16.1	2.07	1.41	3.83	9.35	55	CLD	Medium	1	-
4/23/2008	13:45	5099	16.3	14.2	3.69	1.61	3.86	10.23	55	CLD	Heavy	1	-
4/24/2008	14:15	6745	14.5	12.3	4.1	2.25	3.88	7.63	55.4	CLR	Heavy	2	-
4/25/2008	15:15	6789	14.2	13.8	3.75	1.28	3.58	10.16	56.8	CLR	Heavy	1	-
4/26/2008	15:15	6402	14	12.9	3.89	1.89	3.2	10.75	58.2	CLR	Heavy	1	-
4/27/2008	14:45	3641	13.4	13.5	3.93	1.13	2.89	10.36	59	CLR	Medium	1	-
4/28/2008	14:45	6333	14.6	13.9	3.42	2.21	2.79	10.31	59.9	CLD	Light	1	-
4/29/2008	15:45	6555	13.9	13.7	3.68	0.93	2.83	9.44	59.9	CLR	Medium	1	-
4/30/2008	11:00	5043	14.4	13.8	3.74	1.21	2.79	10.51	56.4	CLR	Medium	1	-
5/1/2008	14:15	7130	14.2	13.3	3.5	1.68	3.8	10.58	57.9	CLR	Medium	2	-
5/2/2008	14:30	6390	14.8	12.4	3.66	1.39	2.79	10.2	57.7	CLR	Light	1	-
5/3/2008	14:30	6334	14.2	13.6	3.53	1.54	2.78	10.1	58.1	CLR	Light	1	-
5/4/2008	13:30	5989	14.4	13.1	3.52	1.21	2.8	10.14	58.6	CLR	Light	-	-
5/5/2008	14:15	4359	-	12	3.13	1.9	3.76	10.45	57.2	CLR	Heavy	3	-
5/6/2008	15:15	6842	15.6	12.4	4.02	1.14	3.8	10.41	58.1	CLR	VeryHeavy	1	-

Date	Time Trap Checked	Revolutions	Time/ Rev Before	Time/ Rev After	Water Velocity	Turbidity	Stream Gauge	Dissolved Oxygen (mg/L)	Water Temperature	Weather Code	Debris Level	Condition Code	Gear Status
5/7/2008	14:00	4742	44.5	37.4	1.66	1.74	3.8	9.97	57.7	CLR	Heavy	2	-
5/8/2008	13:15	2644	31	31.3	1.83	0.96	4.8	10.8	57.2	CLR	Light	1	-
5/9/2008	13:30	4901	14.2	14.6	2.95	0.97	4.8	12.12	56.4	CLR	Medium	1	-
5/10/2008	17:00	6220	15.6	14.9	3.32	1.33	3.76	10.83	58.2	CLR	Heavy	1	-
5/11/2008	12:45	1754	18.3	18.1	2.65	1.24	3.11	-	57.5	CLR	Medium	1	-
5/12/2008	14:00	-	-	14.5	2.96	1.6	3.8	10.5	58.8	CLR	Light	1	-
5/13/2008	12:45	1406	14.3	14.3	3.62	1.27	2.75	11.3	58.2	CLR	Light	1	-
5/14/2008	15:30	6857	13.3	13.3	3.65	2.25	2.7	10	60.6	CLR	Medium	1	-
5/15/2008	13:00	5701	13.7	13.6	4.09	0.74	2.75	9.17	60.2	CLR	Light	1	-
5/16/2008	12:45	6312	13.8	13.4	3.77	0.67	2.7	9.27	61.8	CLR	Light	1	-
5/16/2008	20:15	1517	-	-	-	0.77	2.67	9.27	63.6	NIT	Light	1	-
5/16/2008	22:00	1587	-	-	-	0.77	2.67	9.27	63.6	NIT	Light	1	-
5/16/2008	23:00	-	-	-	-	0.77	2.67	8.73	63.6	NIT	Light	1	-
5/17/2008	11:15	3499	13.8	13.3	3.85	1.1	2.67	8.94	61.3	CLR	Light	1	-
5/18/2008	12:15	6611	13.9	13.2	3.59	1.39	2.7	9.05	61.8	CLR	Heavy	1	-
5/19/2008	13:00	6296	14	14	3.75	1.52	1.3	8.99	62.4	CLR	Medium	2	-
5/20/2008	14:15	6114	16	15.4	3.5	0.97	2.17	9.12	63.1	CLR	Light	1	-
5/21/2008	14:00	4983	13.5	13.1	1.77	1.7	1.7	8.89	63.8	CLR	Light	1	-
5/22/2008	13:30	3701	25.3	26	2.25	0.83	1.4	8.61	62.4	CLR	Light	1	-
5/23/2008	14:30	3111	35.4	33.4	1.82	0.97	1.2	7.69	64.9	CLD	Light	1	-
5/24/2008	10:30	1867	42.8	41.4	1.41	4.41	1.07	8.09	64.2	CLD	Light	1	-
5/25/2008	10:30	-	48	40.4	1.47	3.13	1.05	8.15	61.8	CLD	Light	1	-
5/26/2008	10:00	-	□□□40.5	40.5	1.29	0.8	1.05	8.17	61.8	CLR	Light	1	-
5/27/2008	12:30	-	44	44.7	1.43	0.87	1.05	8.13	64.7	RAN	Light	1	-
5/28/2008	11:45	-	45.9	47	1.29	0.72	1.05	7.98	65.3	CLR	Light	1	-
5/29/2008	11:15	-	44.1	44	1.13	0.76	1	8.12	67	CLR	Light	1	-
5/30/2008	13:00	-	32.6	32.7	1.37	1.02	0.98	7.66	68.3	CLR	Medium	1	-
5/31/2008	10:30	-	48.5	49	1.34	0.32	0.93	7.64	67.8	CLR	Light	2	-
6/1/2008	10:15	-	50.1	48.5	1.43	2.34	0.93	8.17	68.3	CLR	Medium	2	-
6/2/2008	12:45	-	-	171.4	1.1	1.24	0.69	-	70.5	CLR	Light	3	3

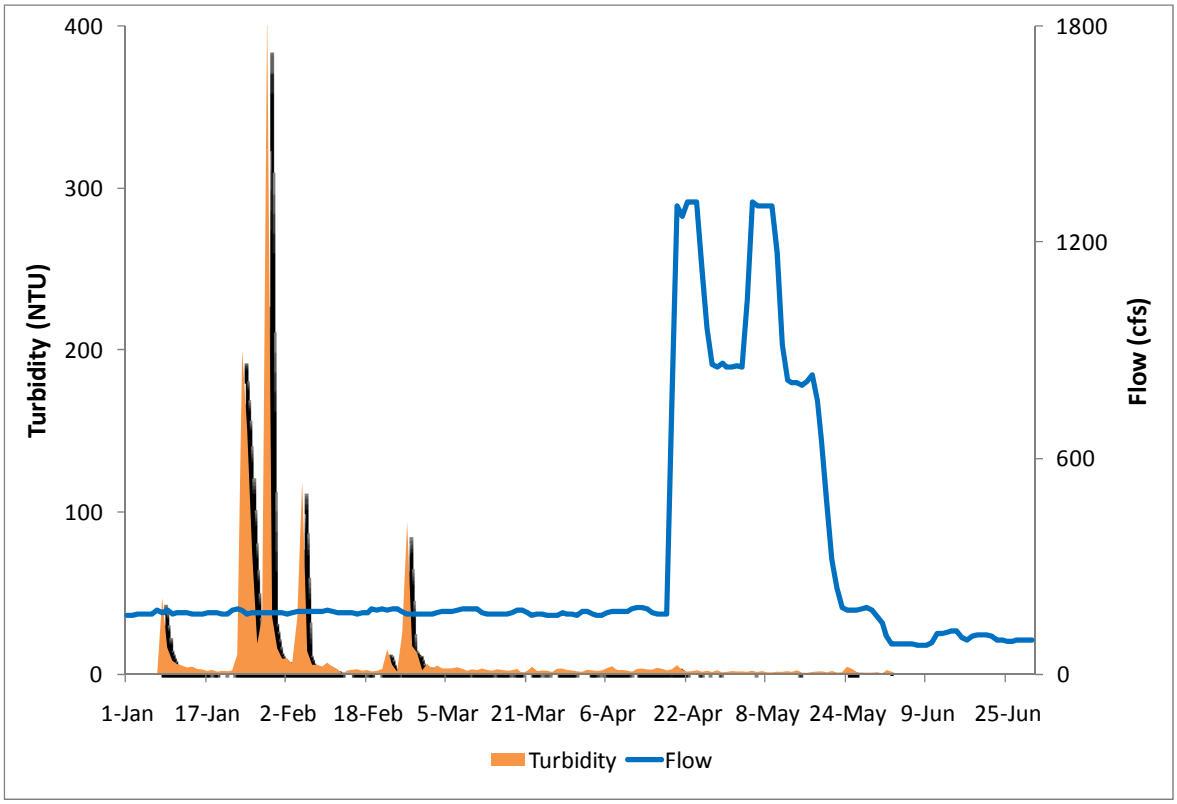

Figure 2.8. Daily instantaneous turbidity at Waterford and flow at LaGrange (LGN), 2008.

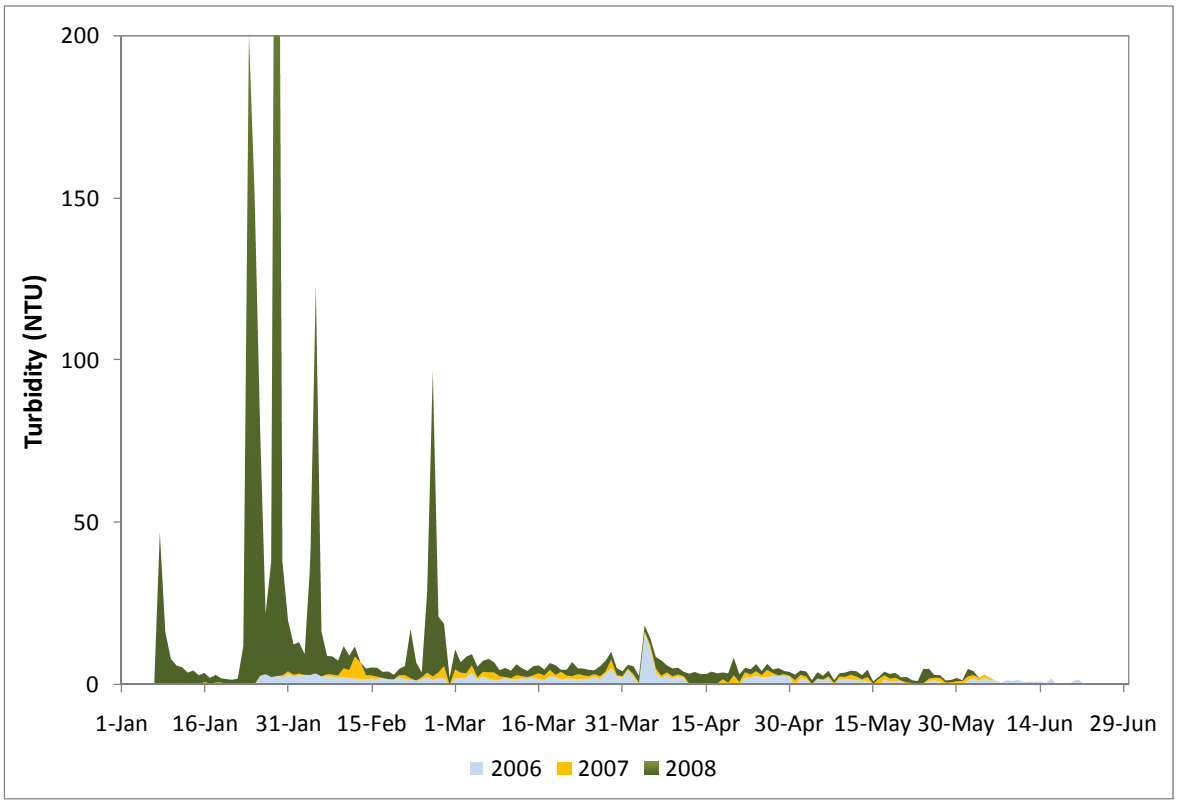

Figure 2.9. Daily instantaneous turbidity at Waterford, 2006 through 2008.

Section 3. Grayson and Waterford Comparisons

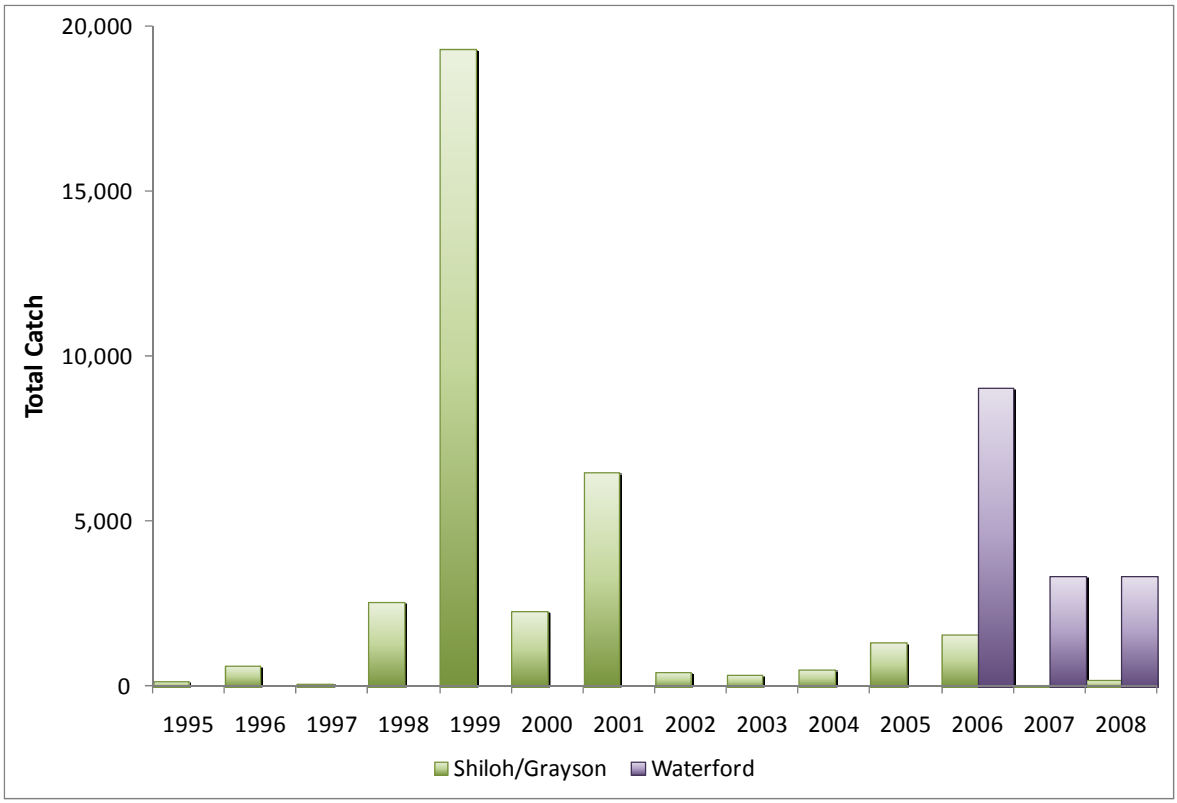

Figure 3.1. Annual Chinook salmon catch at Shiloh (1995 through 1998), Grayson (1999 through 2008), and Waterford (2006 through 2008).

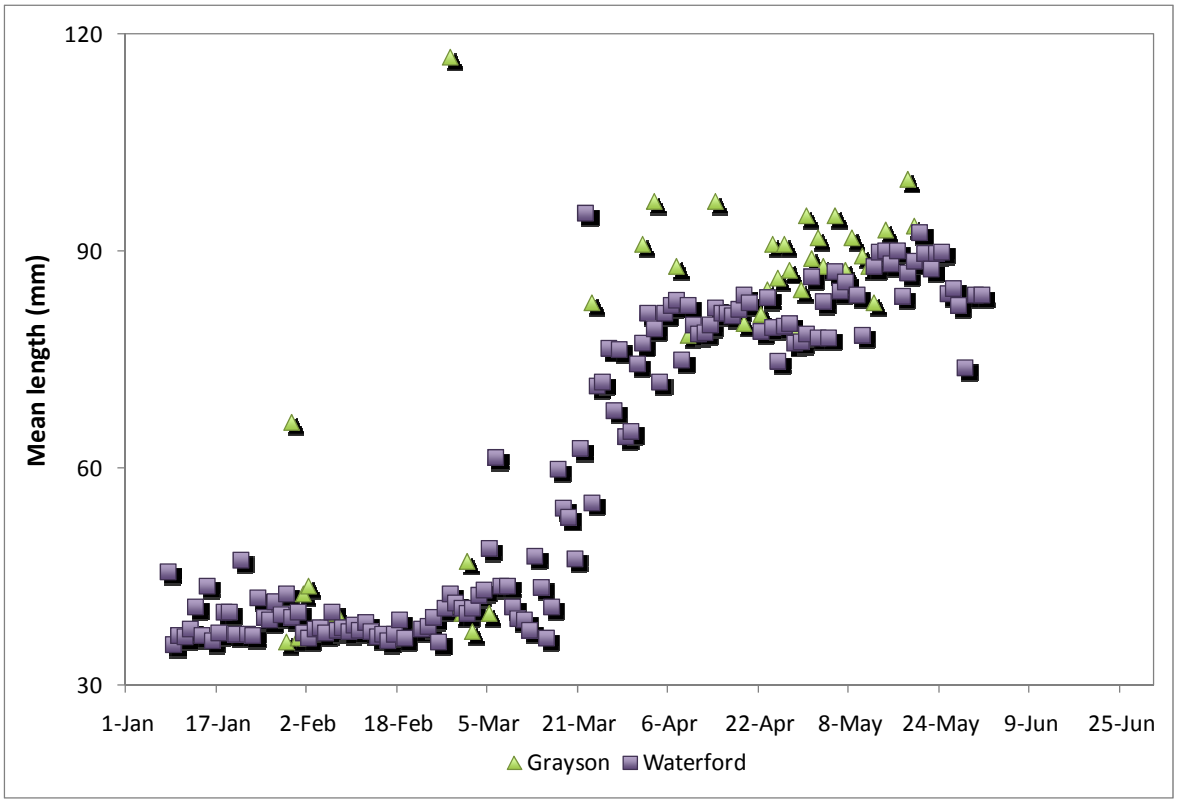

Figure 3.2. Daily Chinook salmon mean length at Grayson and Waterford, 2008.

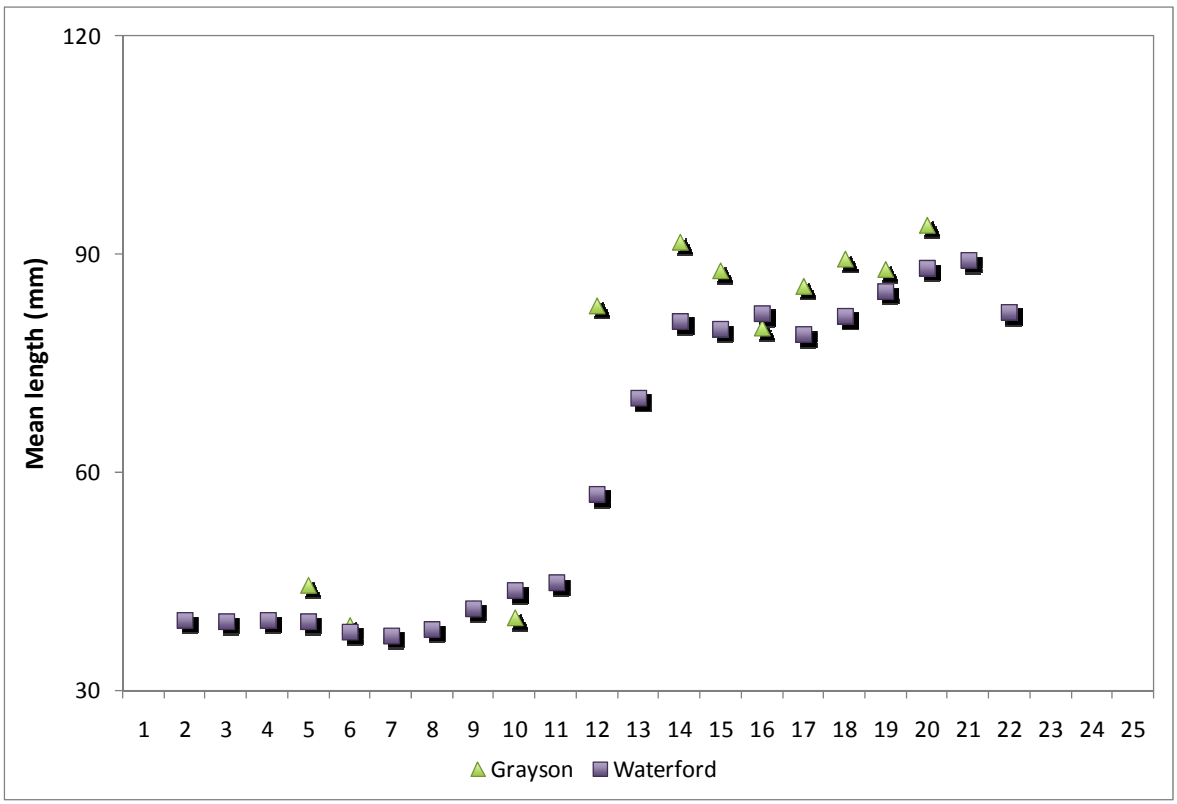

Figure 3.3. Chinook salmon mean length by julian week at Grayson and Waterford, 2008.

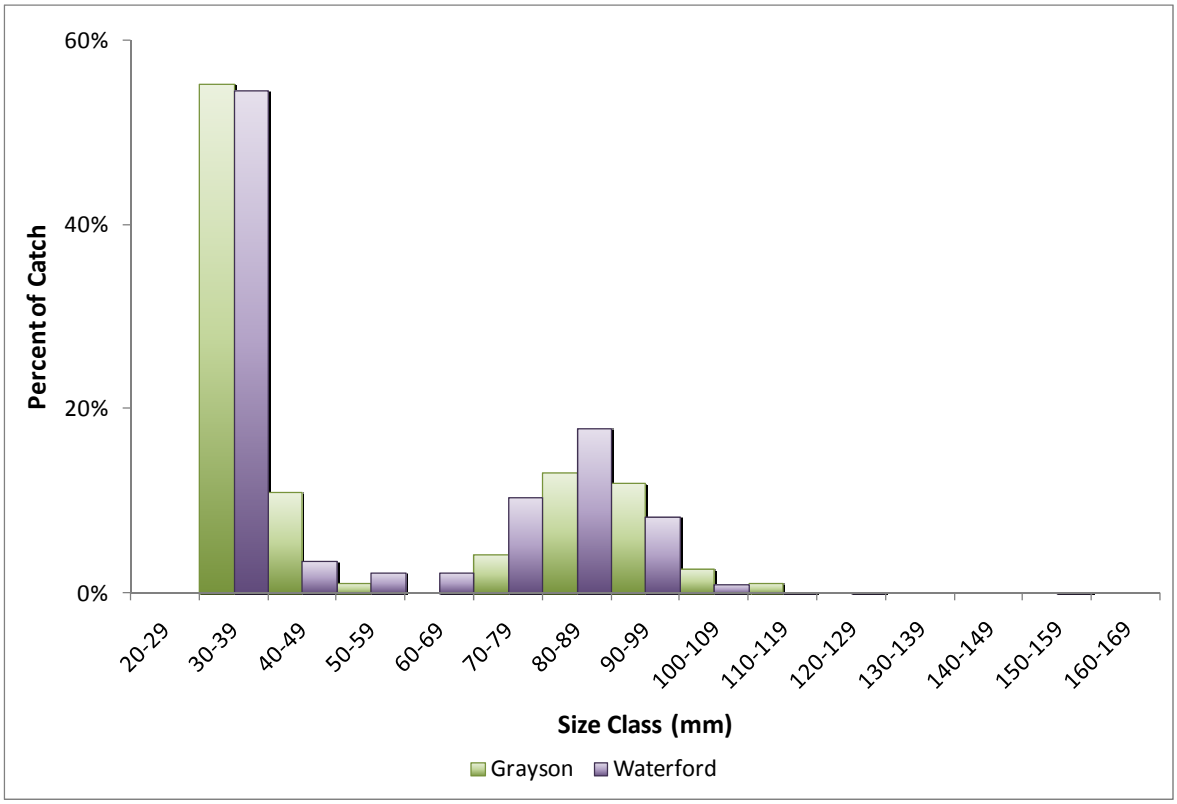

Figure 3.4. Length frequency distribution of Chinook salmon captured at Grayson and Waterford, 2008.

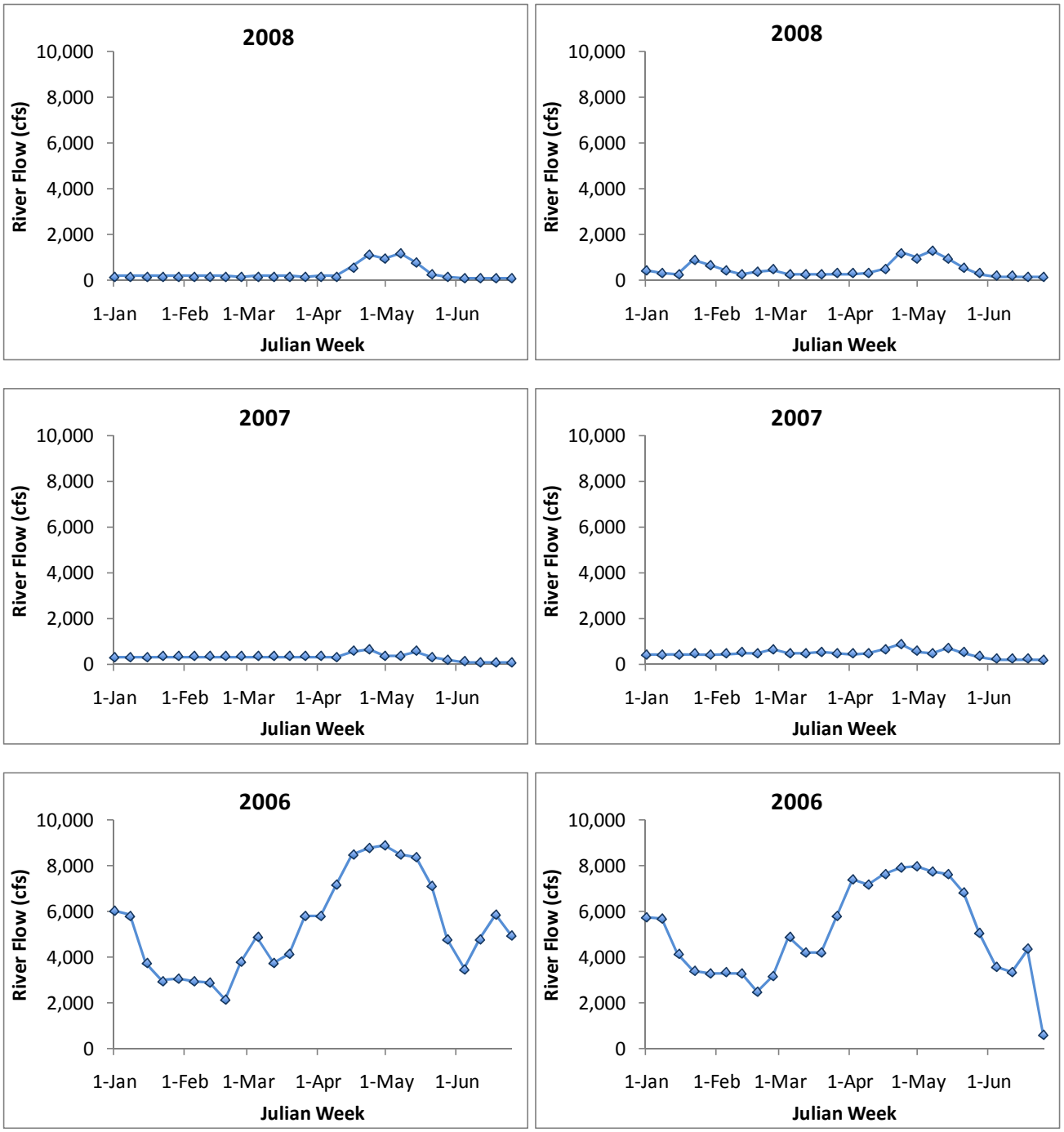

Figure 3.5. Average flow at La Grange (LGN; left side) and Modesto (MOD; right side) by julian week; 2006 through 2008.

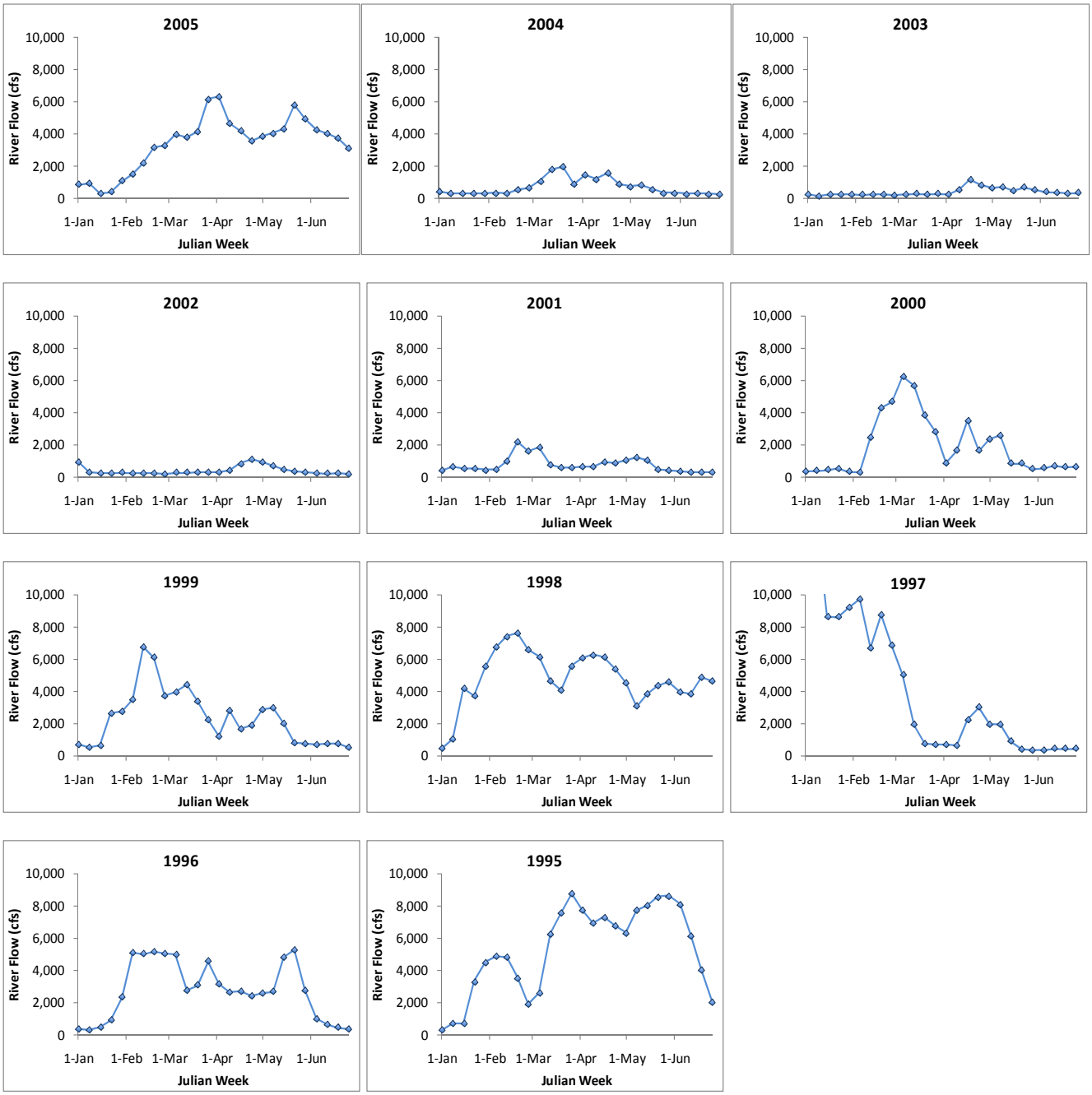

Figure 3.6. Average flow at Modesto (MOD); 1995 through 2005. In 2007 average MOD flow during Julian week 1 (Jan. 1 to Jan. 7) was 20,381 cfs and 14,729 cfs during Julian week 2 (Jan. 8 through Jan. 14).

Appendix 1: List of species captured in the Tuolumne River by Grayson and Waterford rotary screw traps.

Code	Common Name	Scientific Name
	Catfish Family	
BKB	Black Bullhead	*Ameiurus melas*
BRB	Brown Bullhead	*Ictalurus nebulosus*
CHC	Channel Catfish	*Ictalurus punctatus*
WHC	White Catfish	*Ictalurus catus*
	Cyprinidae Family	
C	Common Carp	*Cyprinus carpio*
GF	Goldfish	*Carassius auratus*
	Sculpin Family	
PRS	Prickly Sculpin	*Cottus asper*
	Silverside Family	
MSS	Inland Silverside	*Menidia beryllina*
	Herring Family	
TFS	Threadfin Shad	*Dorosoma petenense*
	Lamprey Family	
LAM	Lamprey - unidentified species	Not applicable
	Livebearer Family	
MQK	Western Mosquitofish	*Gambusia affinis*
	Minnow Family	
HH	Hardhead	*Mylopharodon conocephalus*
GSN	Golden Shiner	*Notemigonus crysoleucas*
RSN	Red Shiner	*Cyprinella lutrennsis*
SASQ	Sacramento Pikeminnow	*Ptychochelius grandis*
	Salmonidae Family	
CHN	Chinook Salmon	*Oncorhynchus tshawytscha*
RBT	Rainbow/steelhead Trout	*Oncorhynchus mykiss*
	Sucker Family	
SASU	Sacramento Sucker	*Catostomus occidentalis*
	Sunfish Family	
BGS	Bluegill Sunfish	*Lepomis macrochirus*
BAS	Unidentified Bass	Not Applicable
BKS	Black Crappie	*Pomoxis nigromaculatus*
GSF	Green Sunfish	*Lepomis cyanellus*
LMB	Largemouth Bass	*Micropterus salmoides*
RES	Redear Sunfish	*Lepomis microlophus*
SMB	Smallmouth Bass	*Micropterus dolomieu*
W	Warmouth	*Lepomis gulosus*

Code	Common Name	Scientific Name
	Other	
UNID	Unidentified Species	Not applicable
	Marked Chinook	
AFO	Anal Fin Orange	Not applicable
BCO	Bottom Caudal Orange	Not applicable
CFO	Caudal Fin Orange	Not applicable
CFY	Caudal Fin Yellow	Not applicable
DFO	Dorsal Fin Orange	Not applicable

Appendix 2: Smolt Index Descriptions

Smolt Index	Life Stage	Criteria
1	Yolk-sac Fry	- Newly emerged with visible yolk sac
2	Fry	- Recently emerged with sac absorbed (button up fry) - Pigmentation undeveloped
3	Parr	- Darkly pigmented with distinct parr marks - No silvery coloration - Scales firmly set
4	Silvery Parr	- Parr marks visible but faded - Intermediate degree of silvering
5	Smolt	- Parr marks highly faded or absent - Bright silver or nearly white coloration - Scales easily shed (deciduous) - Black trailing edge on caudal fin - More slender body
6	Adult	> 300 mm FL - If < 300 mm FL, must be extruding eggs or milt