PROJECT NAME: Miramar M2 Program
PROJECT NO.: 06-1373-027.4000
DISCHARGE DATA

STREAM NAME: Aimaokatalok East Inflow
LOCATION: East Inflow of Aimaokatalok Lake
COORDINATES: 443539 m E, 7509431 m N (NAD 83)

MEASUREMENT DATE: 13 August 2006
METER NUMBER: Marsh-McBirney

MEASUREMENT BY: NS/KM
COMPUTATIONS BY: TJ/NS

MEASUREMENT START TIME: 1533 h
MEASUREMENT END TIME: 1552 h

STATION	DISTANCE TO RIGHT D/S BANK (m)	ICE THICKNESS (m)	DEPTH (m)	VELOCITY 0.2 Depth (m/s)	VELOCITY 0.8 Depth (m/s)	VELOCITY 0.6 Depth (m/s)	WIDTH (m)	DISCHARGE (m^3/s)
Right Bank	13.00		0.00			0.00	0.10	0.000
1	12.80		0.10			-0.02	0.30	-0.001
2	12.40		0.15			0.03	0.30	0.001
3	12.20		0.13			0.01	0.30	0.000
4	11.80		0.18			0.03	0.25	0.001
5	11.70		0.38			0.03	0.20	0.002
6	11.40		0.41			0.02	0.35	0.003
7	11.00		0.45			0.06	0.45	0.012
8	10.50		0.50			0.06	0.50	0.015
9	10.00		0.55			0.08	0.40	0.018
10	9.70		0.59			0.05	0.30	0.009
11	9.40		0.59			0.02	0.35	0.004
12	9.00		0.63			0.09	0.45	0.026
13	8.50		0.52			0.19	0.50	0.049
14	8.00		0.61			0.18	0.50	0.055
15	7.50		0.59			0.10	0.50	0.030
16	7.00		0.49			0.10	0.50	0.025
17	6.50		0.36			0.08	0.50	0.014
18	6.00		0.43			0.08	0.50	0.017
19	5.50		0.41			0.10	0.50	0.021
20	5.00		0.24			0.05	0.50	0.006
21	4.50		0.20			0.03	0.50	0.003
22	4.00		0.18			0.01	0.50	0.001
Left Bank	3.50		0.00			0.00	0.25	0.000
								0.311

PROJECT NAME: Miramar M2 Program
PROJECT NO.: 06-1373-027.4000
DISCHARGE DATA

STREAM NAME: Aimaokatalok East Inflow **MEASUREMENT DATE: 10 September 2006**
LOCATION: East Inflow of Aimaokatalok Lake **METER NUMBER: Marsh-McBirney**
COORDINATES: 443539 m E, 7509431 m N (NAD 83)

MEASUREMENT BY: KK/PE **MEASUREMENT START TIME: 1113 h**
COMPUTATIONS BY: TJ/NS **MEASUREMENT END TIME: 1135 h**

STATION	DISTANCE TO RIGHT D/S BANK (m)	ICE THICKNESS (m)	DEPTH (m)	VELOCITY 0.2 Depth (m/s)	VELOCITY 0.8 Depth (m/s)	VELOCITY 0.6 Depth (m/s)	WIDTH (m)	DISCHARGE (m^3/s)
Left Bank	0.00		0.00			0.00	0.35	0.000
1	0.70		0.48			0.45	0.70	0.151
2	1.40		0.26			0.18	0.70	0.033
3	2.10		0.23			0.28	0.70	0.045
4	2.80		0.21			0.39	0.70	0.057
5	3.50		0.18			0.50	0.70	0.063
6	4.20		0.32			0.31	0.70	0.069
7	4.90		0.14			0.09	0.70	0.009
8	5.60		0.07			0.55	0.70	0.027
9	6.30		0.17			0.12	0.70	0.014
10	7.00		0.05			0.32	0.50	0.008
11	7.30		0.02			0.13	0.17	0.000
Right Bank	7.33		0.00			0.00	0.02	0.000
								0.477

Snow Course Survey Raw Data – Open Lake Plots (2006-2007)

Location	OL-06-1		**Location**	OL-06-2		**Location**	OL-06-3	
Date:	01-May-06		**Date:**	01-May-06		**Date:**	01-May-06	
Density			**Density**			**Density**		
Depth	**Weight**	**Density**	**Depth**	**Weight**	**Density**	**Depth**	**Weight**	**Density**
[cm]	[kg]	[g/cm^3]	[cm]	[kg]	[g/cm^3]	[cm]	[kg]	[g/cm^3]
21.0	2.30	0.292	18.5	2.32	0.351	15.5	2.32	0.419
24.5	2.38	0.309	24.5	2.42	0.339	11.0	2.04	0.131
29.7	2.44	0.292	24.5	2.36	0.295	14.0	2.18	0.284
Average:		**0.298**	**Average:**		**0.328**	**Average:**		**0.278**

Depth	**Snow Water Equivalent**		**Depth**	**Snow Water Equivalent**		**Depth**	**Snow Water Equivalent**	
[cm]	[mm]		[cm]	[mm]		[cm]	[mm]	
30	89.3		18	59.1		17	47.3	
25	74.4		18	59.1		17	47.3	
18	53.6		14	45.9		19	52.8	
15	44.7		23	75.5		16	44.5	
13	38.7		29	95.2		13	36.1	
11	32.7		26	85.3		10	27.8	
14	41.7		21	68.9		9	25.0	
16	47.6		16	52.5		11	30.6	
13	38.7		15	49.2		10	27.8	
11	32.7		18	59.1		8	22.2	
20	59.5		17	55.8		8	22.2	
24	71.5		22	72.2		10	27.8	
26	77.4		31	101.7		9	25.0	
34	101.2		27	88.6		7	19.5	
37	110.2		27	88.6		8	22.2	
35	104.2		23	75.5		14	38.9	
33	98.2		25	82.0		12	33.4	
28	83.4		24	78.8		7	19.5	
26	77.4		25	82.0		16	44.5	
29	86.3		22	72.2		17	47.3	
31	92.3		24	78.8		16	44.5	
30	89.3		24	78.8		15	41.7	
28	83.4		27	88.6		7	19.5	
28	83.4		27	88.6		7	19.5	
26	77.4		19	62.4		9	25.0	
24	71.5		19	62.4		6	16.7	
18	53.6		21	68.9		9	25.0	
33	98.2		29	95.2		8	22.2	
26	77.4		28	91.9		9	25.0	
26	77.4		23	75.5		15	41.7	
24.3	**72.2**	**Average**	**22.7**	**74.6**	**Average**	**11.3**	**31.4**	**Average**

Snow Course Survey Raw Data – Open Lake Plots (2006-2007) **(continued)**

Location	OL-07-1		
Date:	04-May-07		(m)
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
23	2.21	1.90	0.243
15	2.12	1.90	0.265
13	2.00	1.90	0.139
Average:			**0.216**

Depth	**Snow Water Equivalent**	
[cm]	[mm]	
27	58.2	
28	60.4	
12	25.9	
14	30.2	
13	28.0	
14	30.2	
14	30.2	
14	30.2	
15	32.3	
28	60.4	
26	56.0	
27	58.2	
24	51.7	
25	53.9	
36	77.6	
27	58.2	
25	53.9	
17	36.6	
20	43.1	
13	28.0	
13	28.0	
14	30.2	
15	32.3	
13	28.0	
42	90.5	
27	58.2	
25	53.9	
32	69.0	
25	53.9	
34	73.3	
22.0	**47.4**	**Average**

Location	OL-07-02		
Date:	28-Apr-07		(m)
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
34	3.19	2.51	0.361
34	3.18	2.51	0.356
64	3.91	2.51	0.395
Average:			**0.370**

Depth	**Snow Water Equivalent**	
[cm]	[mm]	
35	129.6	
35	129.6	
25	92.6	
25	92.6	
24	88.9	
20	74.1	
20	74.1	
35	129.6	
25	92.6	
45	166.7	
35	129.6	
27	100.0	
35	129.6	
36	133.3	
21	77.8	
15	55.6	
28	103.7	
38	140.8	
19	70.4	
30	111.1	
25	92.6	
15	55.6	
18	66.7	
28	103.7	
25	92.6	
21	77.8	
29	107.4	
24	88.9	
24	88.9	
19	70.4	
26.7	**98.9**	**Average**

Location	OL-07-03		
Date:	28-Apr-07		(m)
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
16	2.61	2.50	0.124
20	2.61	2.50	0.099
21	2.63	2.50	0.112
Average:			**0.112**

Depth	**Snow Water Equivalent**	
[cm]	[mm]	
17	19.0	
16	17.9	
18	20.1	
17	19.0	
24	26.8	
26	29.0	
20	22.3	
20	22.3	
14	15.6	
22	24.6	
15	16.8	
11	12.3	
16	17.9	
20	22.3	
15	16.8	
21	23.5	
21	23.5	
17	19.0	
25	27.9	
20	22.3	
17	19.0	
14	15.6	
11	12.3	
10	11.2	
13	14.5	
17	19.0	
18	20.1	
20	22.3	
18	20.1	
23	25.7	
17.9	**20.0**	**Average**

Snow Course Survey Raw Data – Exposed Lowland Plots (2006-2007)

Location	EL-06-01		
Date:	01-May-06		
Density			
Depth	Weight	Tare	Density
[cm]	[kg]	[kg]	[g/cm^3]
35.7	2.34	1.96	0.192
27.0	2.36	1.96	0.267
30.5	2.12	1.96	0.095
Average:			**0.185**

Depth	Snow Water Equivalent	
[cm]	[mm]	
32	59.1	
23	42.5	
29	53.6	
40	73.9	
35	64.6	
31	57.3	
46	85.0	
40	73.9	
44	81.3	
39	72.0	
39	72.0	
45	83.1	
38	70.2	
41	75.7	
39	72.0	
43	79.4	
50	92.3	
45	83.1	
39	72.0	
39	72.0	
51	94.2	
48	88.7	
33	60.9	
34	62.8	
35	64.6	
35	64.6	
33	60.9	
41	75.7	
37	68.3	
39	72.0	
38.8	**71.6**	**Average**

Location	EL-06-02		
Date:	01-May-06		
Density			
Depth	Weight	Tare	Density
[cm]	[kg]	[kg]	[g/cm^3]
38.0	2.46	1.96	0.237
26.5	2.28	1.96	0.218
38.0	2.56	1.96	0.285
Average:			**0.247**

Depth	Snow Water Equivalent	
[cm]	[mm]	
41	101.2	
34	83.9	
47	116.0	
42	103.6	
37	91.3	
45	111.0	
35	86.4	
27	66.6	
38	93.8	
39	96.2	
29	71.6	
26	64.2	
38	93.8	
25	61.7	
37	91.3	
31	76.5	
28	69.1	
37	91.3	
38	93.8	
31	76.5	
34	83.9	
25	61.7	
30	74.0	
34	83.9	
36	88.8	
39	96.2	
52	128.3	
37	91.3	
40	98.7	
43	106.1	
35.8	**88.4**	**Average**

Location	EL-06-03		
Date:	01-May-06		
Density			
Depth	Weight	Tare	Density
[cm]	[kg]	[kg]	[g/cm^3]
33.5	2.42	1.96	0.248
17.0	2.26	1.96	0.318
11.0	2.18	1.96	0.361
Average:			**0.309**

Depth	Snow Water Equivalent	
[cm]	[mm]	
9	27.8	
14	43.3	
5	15.5	
13	40.2	
11	34.0	
29	89.6	
39	120.5	
57	176.2	
43	132.9	
46	142.2	
47	145.2	
39	120.5	
36	111.3	
39	120.5	
41	126.7	
25	77.3	
27	83.4	
23	71.1	
28	86.5	
17	52.5	
20	61.8	
26	80.3	
14	43.3	
10	30.9	
11	34.0	
14	43.3	
18	55.6	
8	24.7	
10	30.9	
11	34.0	
24.3	**75.2**	**Average**

Snow Course Survey Raw Data – Exposed Lowland Plots (2006-2007) (continued)

Location	EL-07-01		
Date:	04-May-07		(m)
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
32	2.12	1.88	0.135
39	2.21	1.88	0.153
46	2.45	1.88	0.224
Average:			**0.171**

Depth	Snow Water Equivalent	
[cm]	[mm]	
34	58.0	
39	66.5	
36	61.4	
39	66.5	
46	78.4	
26	44.3	
32	54.6	
40	68.2	
46	78.4	
53	90.4	
40	68.2	
40	68.2	
36	61.4	
35	59.7	
36	61.4	
59	100.6	
31	52.9	
38	64.8	
41	69.9	
40	68.2	
26	44.3	
35	59.7	
45	76.7	
50	85.3	
51	87.0	
50	85.3	
34	58.0	
35	59.7	
45	76.7	
45	76.7	
40.1	**68.4**	**Average**

Location	EL-07-02		
Date:	28-Apr-07		(m)
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
22	2.58	2.5	0.066
28	2.67	2.5	0.110
30	2.66	2.5	0.096
Average:			**0.090**

Depth	Snow Water Equivalent	
[cm]	[mm]	
21	19.0	
51	46.1	
23	20.8	
29	26.2	
51	46.1	
23	20.8	
36	32.6	
36	32.6	
39	35.3	
37	33.5	
41	37.1	
37	33.5	
34	30.8	
36	32.6	
48	43.4	
25	22.6	
38	34.4	
21	19.0	
50	45.2	
35	31.7	
37	33.5	
28	25.3	
39	35.3	
41	37.1	
43	38.9	
44	39.8	
41	37.1	
42	38.0	
48	43.4	
29	26.2	
36.8	**33.3**	**Average**

Location	EL-07-03		
Date:	28-Apr-07		(m)
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
23	2.66	2.63	0.024
45	2.74	2.63	0.044
44	2.89	2.63	0.107
Average:			**0.058**

Depth	Snow Water Equivalent	
[cm]	[mm]	
17	9.9	
33	19.2	
32	18.6	
10	5.8	
12	7.0	
22	12.8	
1	0.6	
21	12.2	
17	9.9	
56	32.5	
15	8.7	
11	6.4	
15	8.7	
26	15.1	
36	20.9	
30	17.4	
32	18.6	
28	16.3	
5	2.9	
20	11.6	
7	4.1	
21	12.2	
18	10.5	
18	10.5	
21	12.2	
28	16.3	
25	14.5	
11	6.4	
44	25.6	
14	8.1	
21.5	**12.5**	**Average**

Snow Course Survey Raw Data – Sheltered Lowland Plots (2006-2007)

Location	SL-06-01		
Date:	01-May-06		
Density			
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
18.0	2.10	1.96	0.140
25.5	2.26	1.96	0.212
26.3	2.28	1.96	0.220
Average:			**0.191**

Depth	**Snow Water Equivalent**	
[cm]	[mm]	
23	43.9	
9	17.2	
25	47.7	
22	42.0	
26	49.6	
40	76.3	
31	59.1	
33	62.9	
35	66.8	
41	78.2	
45	85.8	
53	101.1	
62	118.3	
47	89.6	
66	125.9	
63	120.2	
35	66.8	
29	55.3	
17	32.4	
23	43.9	
16	30.5	
8	15.3	
7	13.4	
19	36.2	
13	24.8	
26	49.6	
18	34.3	
27	51.5	
17	32.4	
21	40.1	
29.9	**57.0**	**Average**

Location	SL-06-02		
Date:	01-May-06		
Density			
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
38.0	2.52	1.96	0.266
19.0	2.20	1.96	0.228
24.3	2.32	1.96	0.267
Average:			**0.254**

Depth	**Snow Water Equivalent**	
[cm]	[mm]	
40	101.5	
40	101.5	
49	124.3	
27	68.5	
40	101.5	
42	106.6	
40	101.5	
36	91.3	
43	109.1	
17	43.1	
12	30.4	
14	35.5	
13	33.0	
18	45.7	
26	66.0	
13	33.0	
31	78.7	
70	177.6	
62	157.3	
42	106.6	
30	76.1	
26	66.0	
48	121.8	
44	111.6	
13	33.0	
16	40.6	
28	71.0	
1	2.5	
19	48.2	
27	68.5	
30.9	**78.4**	**Average**

Location	SL-06-03		
Date:	01-May-06		
Density			
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
26.0	2.34	1.96	0.264
30.5	2.28	1.96	0.189
31.5	2.36	1.96	0.229
Average:			**0.227**

Depth	**Snow Water Equivalent**	
[cm]	[mm]	
23	52.3	
26	59.1	
27	61.4	
30	68.2	
26	59.1	
31	70.5	
13	29.6	
26	59.1	
29	65.9	
31	70.5	
28	63.7	
25	56.8	
25	56.8	
18	40.9	
16	36.4	
12	27.3	
19	43.2	
11	25.0	
14	31.8	
19	43.2	
21	47.8	
28	63.7	
22	50.0	
25	56.8	
24	54.6	
23	52.3	
25	56.8	
19	43.2	
16	36.4	
11	25.0	
22.1	**50.3**	**Average**

Snow Course Survey Raw Data – Sheltered Lowland Plots (2006-2007) (continued)

Location	SL-07-01		
Date:		04-May-07	(m)
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
22.0	1.97	1.87	0.082
56.0	2.37	1.87	0.161
66.0	2.66	1.87	0.216
Average:			**0.153**

Depth	**SWE**	
[cm]	[mm]	
41	62.7	
30	45.9	
20	30.6	
61	93.4	
26	39.8	
26	39.8	
40	61.2	
35	53.6	
31	47.4	
31	47.4	
34	52.0	
47	71.9	
40	61.2	
32	49.0	
36	55.1	
74	113.3	
111	169.9	
48	73.5	
51	78.1	
46	70.4	
35	53.6	
45	68.9	
26	39.8	
27	41.3	
22	33.7	
24	36.7	
48	73.5	
92	140.8	
81	124.0	
64	97.9	
44.1	**67.5**	**Average**

Location	SL-07-02		
Date:		05-May-07	(m)
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
24.0	2.01	1.83	0.133
42.0	1.96	1.83	0.056
27.5	2.12	1.83	0.190
Average:			**0.126**

Depth	**SWE**	
[cm]	[mm]	
53	67.0	
54	68.3	
36	45.5	
49	61.9	
60	75.8	
33	41.7	
51	64.5	
53	67.0	
42	53.1	
34	43.0	
48	60.7	
29	36.7	
44	55.6	
29	36.7	
33	41.7	
43	54.4	
35	44.2	
45	56.9	
48	60.7	
37	46.8	
50	63.2	
60	75.8	
38	48.0	
50	63.2	
45	56.9	
35	44.2	
20	25.3	
38	48.0	
19	24.0	
25	31.6	
41.2	**52.1**	**Average**

Location	SL-07-03		
Date:		02-May-07	(m)
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
45.0	2.27	1.94	0.132
21.0	2.01	1.94	0.058
27.0	2.01	1.94	0.045
Average:			**0.079**

Depth	**SWE**	
[cm]	[mm]	
34	26.7	
34	26.7	
25	19.6	
34	26.7	
36	28.3	
39	30.6	
33	25.9	
33	25.9	
35	27.5	
40	31.4	
39	30.6	
22	17.3	
25	19.6	
42	33.0	
26	20.4	
31	24.3	
23	18.1	
13	10.2	
20	15.7	
24	18.8	
25	19.6	
28	22.0	
30	23.6	
22	17.3	
54	42.4	
25	19.6	
24	18.8	
36	28.3	
36	28.3	
28	22.0	
30.5	**24.0**	**Average**

Snow Course Survey Raw Data – North Aspect Plots (2006-2007)

Location	NA-06-01		
Date:	01-May-06		
Density			
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
37.0	2.52	1.96	0.273
35.8	2.56	1.96	0.302
44.7	2.72	1.96	0.307
Average:			**0.294**

Depth	**Snow Water Equivalent**	
[cm]	[mm]	
40	117.6	
35	102.9	
31	91.2	
47	138.2	
36	105.9	
38	111.8	
43	126.5	
41	120.6	
39	114.7	
42	123.5	
50	147.1	
44	129.4	
40	117.6	
40	117.6	
40	117.6	
46	135.3	
36	105.9	
27	79.4	
43	126.5	
43	126.5	
55	161.8	
43	126.5	
54	158.8	
29	85.3	
35	102.9	
29	85.3	
41	120.6	
59	173.5	
42	123.5	
39	114.7	
40.9	**120.3**	**Average**

Location	NA-06-02		
Date:	01-May-06		
Density			
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
38.0	2.58	1.96	0.294
13.5	2.16	1.96	0.267
39.2	2.64	1.96	0.313
Average:			**0.292**

Depth	**Snow Water Equivalent**	
[cm]	[mm]	
50	145.8	
40	116.6	
72	209.9	
76	221.6	
66	192.4	
54	157.5	
38	110.8	
39	113.7	
22	64.1	
19	55.4	
19	55.4	
13	37.9	
20	58.3	
21	61.2	
15	43.7	
33	96.2	
63	183.7	
53	154.5	
33	96.2	
35	102.1	
42	122.5	
54	157.5	
70	204.1	
58	169.1	
69	201.2	
41	119.6	
37	107.9	
23	67.1	
36	105.0	
45	131.2	
41.9	**122.1**	**Average**

Location	NA-06-03		
Date:	01-May-06		
Density			
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
41.0	2.76	1.96	0.352
33.0	2.58	1.96	0.339
27.0	2.48	1.96	0.348
Average:			**0.346**

Depth	**Snow Water Equivalent**	
[cm]	[mm]	
68	235.4	
55	190.4	
55	190.4	
47	162.7	
52	180.0	
35	121.2	
50	173.1	
60	207.7	
35	121.2	
27	93.5	
27	93.5	
37	128.1	
48	166.2	
46	159.3	
35	121.2	
32	110.8	
32	110.8	
43	148.9	
47	162.7	
34	117.7	
47	162.7	
65	225.0	
52	180.0	
45	155.8	
70	242.4	
38	131.6	
34	117.7	
30	103.9	
22	76.2	
28	96.9	
43.2	**129.6**	**Average**

Snow Course Survey Raw Data – North Aspect Plots (2006-2007) (continued)

Location	NA-07-01		
Date:		04-May-07	(m)
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
25	1.97	1.73	0.173
27	1.94	1.73	0.140
16	1.96	1.73	0.259
Average:			**0.191**

Depth	**SWE**	
[cm]	[mm]	
20	38.2	
14	26.7	
31	59.2	
22	42.0	
23	43.9	
26	49.7	
48	91.7	
19	36.3	
23	43.9	
23	43.9	
22	42.0	
7	13.4	
23	43.9	
27	51.6	
39	74.5	
32	61.1	
10	19.1	
16	30.6	
19	36.3	
12	22.9	
42	80.2	
36	68.8	
39	74.5	
35	66.8	
42	80.2	
31	59.2	
18	34.4	
20	38.2	
21	40.1	
23	43.9	
25.4	**48.6**	**Average**

Location	NA-07-02		
Date:		02-May-07	(m)
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
25.5	2.04	1.79	0.177
14	1.93	1.79	0.180
20	1.90	1.79	0.099
Average:			**0.152**

Depth	**SWE**	
[cm]	[mm]	
56	85.2	
3	4.6	
24	36.5	
25	38.1	
48	73.1	
25	38.1	
15	22.8	
15	22.8	
2	3.0	
70	106.5	
51	77.6	
40	60.9	
30	45.7	
31	47.2	
24	36.5	
37	56.3	
21	32.0	
23	35.0	
12	18.3	
33	50.2	
44	67.0	
19	28.9	
25	38.1	
12	18.3	
27	41.1	
31	47.2	
29	44.1	
36	54.8	
14	21.3	
57	86.8	
29.3	**44.6**	**Average**

Location	NA-07-03		
Date:		28-Apr-07	(m)
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
49	3.32	2.49	0.306
56	3.34	2.49	0.274
79	3.46	2.49	0.222
Average:			**0.267**

Depth	**SWE**	
[cm]	[mm]	
54	144.2	
52	138.9	
35	93.5	
36	96.1	
37	98.8	
45	120.2	
51	136.2	
25	66.8	
67	178.9	
26	69.4	
52	138.9	
16	42.7	
42	112.2	
42	112.2	
44	117.5	
42	112.2	
43	114.8	
45	120.2	
37	98.8	
36	96.1	
49	130.8	
31	82.8	
44	117.5	
57	152.2	
35	93.5	
38	101.5	
19	50.7	
30	80.1	
40	106.8	
42	112.2	
40.4	**107.9**	**Average**

Snow Course Survey Raw Data – East Aspect Plots (2006-2007)

Location	EA-06-01		
Date:	01-May-06		
Density			
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
12.0	2.18	1.96	0.331
32.0	2.42	1.96	0.259
20.5	2.24	1.96	0.246
Average:			**0.279**

Depth	**Snow Water Equivalent**	
[cm]	[mm]	
30	83.7	
23	64.1	
28	78.1	
37	103.2	
29	80.9	
30	83.7	
44	122.7	
38	106.0	
24	66.9	
21	58.6	
15	41.8	
17	47.4	
14	39.0	
15	41.8	
9	25.1	
22	61.4	
17	47.4	
26	72.5	
22	61.4	
17	47.4	
34	94.8	
16	44.6	
11	30.7	
35	97.6	
32	89.2	
19	53.0	
20	55.8	
4	11.2	
10	27.9	
27	75.3	
22.9	**63.8**	**Average**

Location	EA-06-02		
Date:	01-May-06		
Density			
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
28.0	2.22	1.96	0.168
27.0	2.30	1.96	0.227
17.5	2.20	1.96	0.247
Average:			**0.214**

Depth	**Snow Water Equivalent**	
[cm]	[mm]	
31	66.4	
20	42.8	
42	89.9	
20	42.8	
24	51.4	
13	27.8	
11	23.5	
20	42.8	
34	72.8	
44	94.2	
41	87.8	
58	124.2	
73	156.3	
58	124.2	
47	100.6	
40	85.6	
22	47.1	
25	53.5	
12	25.7	
20	42.8	
19	40.7	
26	55.7	
27	57.8	
31	66.4	
27	57.8	
41	87.8	
29	62.1	
38	81.4	
19	40.7	
21	45.0	
31.1	**66.6**	**Average**

Location	EA-06-03		
Date:	01-May-06		
Density			
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
28.0	2.32	1.96	0.232
9.0	2.14	1.96	0.361
13.0	2.24	1.96	0.389
Average:			**0.327**

Depth	**Snow Water Equivalent**	
[cm]	[mm]	
8	26.2	
30	98.2	
18	58.9	
21	68.7	
36	117.8	
60	196.3	
40	130.9	
35	114.5	
30	98.2	
29	94.9	
26	85.1	
21	68.7	
22	72.0	
17	55.6	
6	19.6	
5	16.4	
5	16.4	
11	36.0	
7	22.9	
10	32.7	
21	68.7	
19	62.2	
8	26.2	
22	72.0	
27	88.3	
27	88.3	
47	153.8	
26	85.1	
23	75.3	
24	78.5	
22.7	**74.3**	**Average**

Snow Course Survey Raw Data – East Aspect Plots (2006-2007) **(continued)**

Location	EA-07-01		
Date:		04-May-07	(m)
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
26	2.02	1.85	0.118
29.5	1.99	1.85	0.086
18	1.93	1.85	0.080
Average:			**0.095**

Depth	**Snow Water Equivalent**	
[cm]	[mm]	
41	38.8	
22	20.8	
18	17.0	
19	18.0	
30	28.4	
27	25.5	
14	13.2	
26	24.6	
11	10.4	
30	28.4	
29	27.4	
33	31.2	
35	33.1	
25	23.7	
17	16.1	
28	26.5	
20	18.9	
25	23.7	
21	19.9	
26	24.6	
26	24.6	
34	32.2	
20	18.9	
31	29.3	
40	37.8	
36	34.1	
37	35.0	
24	22.7	
19	18.0	
25	23.7	
26.3	**24.9**	**Average**

Location	EA-07-02		
Date:		28-Apr-07	(m)
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
45	2.98	2.56	0.168
47	2.88	2.56	0.123
54	3.003	2.56	0.148
Average:			**0.146**

Depth	**Snow Water Equivalent**	
[cm]	[mm]	
35	51.3	
27	39.5	
38	55.6	
57	83.5	
63	92.3	
54	79.1	
56	82.0	
44	64.4	
25	36.6	
60	87.9	
54	79.1	
76	111.3	
73	106.9	
52	76.1	
45	65.9	
47	68.8	
56	82.0	
35	51.3	
40	58.6	
54	79.1	
56	82.0	
60	87.9	
72	105.4	
54	79.1	
93	136.2	
28	41.0	
88	128.9	
80	117.1	
109	159.6	
79	115.7	
57.0	**83.5**	**Average**

Location	EA-07-3		
Date:		04-May-07	(m)
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
22	1.98	1.87	0.090
42	2.22	1.87	0.150
45	2.26	1.87	0.156
Average:			**0.132**

Depth	**Snow Water Equivalent**	
[cm]	[mm]	
35	46.3	
40	52.9	
37	49.0	
40	52.9	
45	59.5	
15	19.8	
12	15.9	
33	43.7	
39	51.6	
10	13.2	
15	19.8	
45	59.5	
48	63.5	
35	46.3	
35	46.3	
36	47.6	
19	25.1	
34	45.0	
21	27.8	
33	43.7	
35	46.3	
15	19.8	
20	26.5	
24	31.8	
34	45.0	
40	52.9	
31	41.0	
44	58.2	
25	33.1	
56	74.1	
31.7	**41.9**	**Average**

Snow Course Survey Raw Data – South Aspect Plots (2006-2007)

Location	SA-06-01		
Date:	01-May-06		
Density			
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
38.0	2.52	1.96	0.266
19.0	2.20	1.96	0.228
24.3	2.32	1.96	0.267
Average:			**0.254**

Depth	**Snow Water Equivalent**	
[cm]	[mm]	
21	53.3	
16	40.6	
24	60.9	
16	40.6	
26	66.0	
18	45.7	
26	66.0	
14	35.5	
26	66.0	
9	22.8	
27	68.5	
28	71.0	
11	27.9	
31	78.7	
39	99.0	
39	99.0	
45	114.2	
57	144.6	
43	109.1	
58	147.2	
64	162.4	
68	172.5	
19	48.2	
23	58.4	
31	78.7	
16	40.6	
14	35.5	
19	48.2	
20	50.7	
19	48.2	
28.9	**73.3**	**Average**

Location	SA-06-02		
Date:	01-May-06		
Density			
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
7.00	2.06	1.96	0.258
12.0	2.12	1.96	0.241
19.0	2.22	1.96	0.247
Average:			**0.248**

Depth	**Snow Water Equivalent**	
[cm]	[mm]	
8	19.9	
1	2.5	
6	14.9	
11	27.3	
11	27.3	
19	47.2	
7	17.4	
11	27.3	
6	14.9	
17	42.2	
29	72.0	
8	19.9	
19	47.2	
7	17.4	
15	37.3	
6	14.9	
2	5.0	
11	27.3	
6	14.9	
4	9.9	
13	32.3	
13	32.3	
9	22.4	
7	17.4	
4	9.9	
6	14.9	
11	27.3	
4	9.9	
9	22.4	
13	32.3	
9.8	**24.3**	**Average**

Location	SA-06-03		
Date:	01-May-06		
Density			
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
18.5	2.18	1.96	0.215
38.5	2.62	1.96	0.309
25.0	2.46	1.96	0.361
Average:			**0.295**

Depth	**Snow Water Equivalent**	
[cm]	[mm]	
27	79.6	
19	56.0	
18	53.1	
31	91.4	
21	61.9	
44	129.8	
19	56.0	
13	38.3	
7	20.6	
27	79.6	
22	64.9	
32	94.4	
0	0.0	
44	129.8	
47	138.6	
53	156.3	
63	185.8	
47	138.6	
44	129.8	
14	41.3	
19	56.0	
13	38.3	
5	14.7	
7	20.6	
43	126.8	
45	132.7	
76	224.2	
46	135.7	
54	159.3	
49	144.5	
31.6	**93.3**	**Average**

Snow Course Survey Raw Data – South Aspect Plots (2006-2007) (continued)

Location	SA-07-01		
Date:		04-May-07	(m)
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
35	2.34	1.90	0.227
30	2.01	1.90	0.066
25	1.99	1.90	0.065
Average:			**0.119**

Depth	**SWE**	
[cm]	[mm]	
41	48.9	
38	45.3	
48	57.3	
38	45.3	
30	35.8	
34	40.6	
40	47.7	
32	38.2	
21	25.1	
22	26.3	
29	34.6	
43	51.3	
41	48.9	
36	43.0	
43	51.3	
43	51.3	
39	46.5	
32	38.2	
32	38.2	
32	38.2	
45	53.7	
31	37.0	
13	15.5	
23	27.4	
16	19.1	
31	37.0	
46	54.9	
48	57.3	
37	44.2	
45	53.7	
35.0	**41.7**	**Average**

Location	SA-07-02		
Date:		28-Apr-07	(m)
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
30	2.76	2.48	0.168
29	2.66	2.48	0.112
48	2.76	2.48	0.105
Average:			**0.129**

Depth	**SWE**	
[cm]	[mm]	
7	9.0	
27	34.7	
74	95.1	
26	33.4	
23	29.6	
39	50.1	
21	27.0	
13	16.7	
1	1.3	
3	3.9	
18	23.1	
18	23.1	
13	16.7	
27	34.7	
38	48.9	
28	36.0	
4	5.1	
14	18.0	
18	23.1	
48	61.7	
38	48.9	
29	37.3	
33	42.4	
24	30.9	
14	18.0	
51	65.6	
25	32.1	
18	23.1	
12	15.4	
19	24.4	
24.1	**31.0**	**Average**

Location	SA-07-03		
Date:		04-May-07	(m)
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
25	1.90	1.82	0.058
36	2.33	1.82	0.256
30	2.21	1.82	0.235
Average:			**0.183**

Depth	**SWE**	
[cm]	[mm]	
24	43.8	
13	23.7	
4	7.3	
48	87.7	
48	87.7	
43	78.5	
11	20.1	
9	16.4	
20	36.5	
11	20.1	
4	7.3	
2	3.7	
17	31.1	
44	80.4	
31	56.6	
105	191.8	
2	3.7	
22	40.2	
57	104.1	
70	127.9	
30	54.8	
30	54.8	
9	16.4	
15	27.4	
16	29.2	
77	140.6	
44	80.4	
9	16.4	
19	34.7	
13	23.7	
28.2	**51.6**	**Average**

Snow Course Survey Raw Data – West Aspect Plots (2006-2007)

Location	WA-06-01		
Date:	01-May-06		
Density			
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
18.0	2.16	1.96	0.200
16.7	2.18	1.96	0.238
16.0	2.12	1.96	0.180
Average:			**0.280**

Depth	**Snow Water Equivalent**	
[cm]	[mm]	
27	55.7	
29	59.8	
30	61.9	
37	76.3	
10	20.6	
9	18.6	
7	14.4	
6	12.4	
10	20.6	
7	14.4	
14	28.9	
20	41.2	
17	35.1	
17	35.1	
11	22.7	
10	20.6	
20	41.2	
7	14.4	
16	33.0	
25	51.6	
21	43.3	
18	37.1	
32	66.0	
23	47.4	
25	51.6	
15	30.9	
24	49.5	
14	28.9	
2	4.1	
1	2.1	
16.8	**34.6**	**Average**

Location	WA-06-02		
Date:	01-May-06		
Density			
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
77.0	3.24	1.96	0.300
30.0	2.44	1.96	0.289
26.5	2.48	1.96	0.354
Average:			**0.250**

Depth	**Snow Water Equivalent**	
[cm]	[mm]	
36	113.1	
34	106.8	
23	72.3	
14	44.0	
35	110.0	
76	238.8	
73	229.4	
55	172.8	
46	144.6	
38	119.4	
30	94.3	
34	106.8	
36	113.1	
33	103.7	
49	154.0	
74	232.5	
71	223.1	
90	282.8	
28	88.0	
7	22.0	
26	81.7	
37	116.3	
55	172.8	
66	207.4	
83	260.8	
73	229.4	
72	226.3	
40	125.7	
20	62.9	
20	62.9	
45.8	**143.9**	**Average**

Location	WA-05-03		
Date:	01-May-06		
Density			
Depth	**Weight**	**Tare**	**Density**
[cm]	[kg]	[kg]	[g/cm^3]
85.5	3.36	1.96	0.295
28.0	2.28	1.96	0.206
18.0	2.26	1.96	0.301
Average:			**0.244**

Depth	**Snow Water Equivalent**	
[cm]	[mm]	
88	235.4	
38	101.6	
15	40.1	
14	37.4	
24	64.2	
32	85.6	
37	99.0	
21	56.2	
26	69.5	
41	109.7	
56	149.8	
88	235.4	
59	157.8	
56	149.8	
88	235.4	
36	96.3	
27	72.2	
33	88.3	
20	53.5	
13	34.8	
22	58.8	
27	72.2	
16	42.8	
13	34.8	
26	69.5	
41	109.7	
63	168.5	
93	248.8	
32	85.6	
28	74.9	
39.1	**104.6**	**Average**

Snow Course Survey Raw Data – West Aspect Plots (2006-2007) (continued)

Location	WA-07-01		
Date:		29-Apr-07	(m)
Depth	Weight	Tare	Density
[cm]	[kg]	[kg]	[g/cm^3]
14	1.91	1.82	0.116
25	2.03	1.82	0.152
18	1.96	1.82	0.140
Average:			**0.136**

Depth	SWE	
[cm]	[mm]	
24	32.6	
17	23.1	
21	28.6	
30	40.8	
34	46.2	
29	39.4	
14	19.0	
36	49.0	
18	24.5	
20	27.2	
35	47.6	
43	58.5	
36	49.0	
33	44.9	
14	19.0	
12	16.3	
22	29.9	
16	21.8	
20	27.2	
45	61.2	
34	46.2	
44	59.8	
31	42.2	
57	77.5	
48	65.3	
20	27.2	
36	49.0	
29	39.4	
32	43.5	
42	57.1	
29.7	**40.4**	**Average**

Location	WA-07-02		
Date:		28-Apr-07	(m)
Depth	Weight	Tare	Density
[cm]	[kg]	[kg]	[g/cm^3]
29	2.69	2.47	0.137
40	2.98	2.47	0.230
35	2.77	2.47	0.155
Average:			**0.174**

Depth	SWE	
[cm]	[mm]	
34	59.1	
46	80.0	
62	107.8	
83	144.3	
31	53.9	
16	27.8	
49	85.2	
34	59.1	
66	114.8	
42	73.0	
16	27.8	
16	27.8	
48	83.5	
24	41.7	
16	27.8	
20	34.8	
8	13.9	
24	41.7	
82	142.6	
66	114.8	
16	27.8	
69	120.0	
37	64.3	
20	34.8	
44	76.5	
73	126.9	
58	100.8	
71	123.5	
75	130.4	
105	182.6	
45.0	**78.3**	**Average**

Location	WA-07-03		
Date:		28-Apr-07	(m)
Depth	Weight	Tare	Density
[cm]	[kg]	[kg]	[g/cm^3]
80	3.006	2.49	0.116
79	3.48	2.49	0.226
72	3.35	2.49	0.216
Average:			**0.186**

Depth	SWE	
[cm]	[mm]	
111	206.5	
112	208.3	
114	212.1	
100	186.0	
57	106.0	
54	100.4	
56	104.2	
65	120.9	
77	143.2	
114	212.1	
112	208.3	
121	225.1	
102	189.7	
87	161.8	
59	109.8	
120	223.2	
120	223.2	
121	225.1	
50	93.0	
38	70.7	
40	74.4	
47	87.4	
36	67.0	
44	81.8	
39	72.5	
64	119.1	
53	98.6	
67	124.6	
110	204.6	
130	241.8	
80.7	**150.1**	**Average**

APPENDIX B

WATER QUALITY

APPENDIX B1

WATER QUALITY GUIDELINES, TROPHIC CLASSIFICATION, AND PHYSICO-CHEMICAL CLASSIFICATION

B1.0 WATER QUALITY GUIDELINES, TROPHIC CLASSIFICATIONS, AND PHYSICO-CHEMICAL CLASSIFICATIONS

The following descriptions are provided to give a brief explanation of the water quality guidelines used and the toxicity modifying factors (i.e., pH, temperature, hardness), when applicable, as well as the trophic status and physico-chemical classifications for lakes.

B1.1 WATER QUALITY GUIDELINES

B1.1.1 Aluminum

The freshwater CWQG for aluminum is dependent on the pH of the waterbody as follows (CCME 1999, 2007a):

- 5.0 micrograms per litre (µg/L) for waters with pH < 6.5; and
- 100 µg/L for waters with pH ≥ 6.5.

B1.1.2 Ammonia

The freshwater CWQGs for ammonia are dependent on water temperature and pH (Table B1-1). Ammonia is highly soluble in water, and these two environmental parameters affect whether it is present in an un-ionized (NH_3) or ionized (NH_4^+) form (CCME 1999, 2007a). The speciation of ammonia is important, as the un-ionized form is more toxic to aquatic life than the ionized form due to its ability to diffuse across biological membranes more easily (CCME 1999). An increase of one pH unit can cause un-ionized ammonia concentrations to increase nearly ten-fold; a 5°C temperature increase can cause a 40 to 50% increase in un-ionized ammonia (CCME 1999). The term 'total ammonia' is the sum of NH_3 and NH_4^+. CWQGs for total ammonia were as follows:

Table B1-1 Canadian Water Quality Guidelines for Total Ammonia

pH	Water Temperature (°C)	CWQG – Ammonia (mg N/L)	CWQG Application
6.0	5 10 15	122.4 81.6 55.8	temperature 3 to 7°C; pH 5.3 to 6.2 temperature 8 to 12°C; pH 5.3 to 6.2 temperature 13 to 17°C; pH 5.3 to 6.2
6.5	5 10 15	38.6 25.9 17.6	temperature 3 to 7°C; pH 6.3 to 6.7 temperature 8 to 12°C; pH 6.3 to 6.7 temperature 13 to 17°C; pH 6.3 to 6.7
7.0	5 10 15	12.4 8.2 5.6	temperature 3 to 7°C; pH 6.8 to 7.2 temperature 8 to 12°C; pH 6.8 to 7.2 temperature 13 to 17°C; pH 6.8 to 7.2
7.5	5 10 15	3.9 2.6 1.8	temperature 3 to 7°C; pH 7.3 to 7.7 temperature 8 to 12°C; pH 7.3 to 7.7 temperature 13 to 17°C; pH 7.3 to 7.7
8.0	5 10 15	1.2 0.8 0.6	temperature 3 to 7°C; pH 7.8 to 8.2 temperature 8 to 12°C; pH 7.8 to 8.2 temperature 13 to 17°C; pH 7.8 to 8.2
8.5	5 10 15	0.4 0.3 0.2	temperature 3 to 7°C; pH 8.3 to 8.7 temperature 8 to 12°C; pH 8.3 to 8.7 temperature 13 to 17°C; pH 8.3 to 8.7

Notes: CWQG = Canadian Water Quality Guideline; °C = degrees Celsius; mg/L = milligrams per litre.
Source: CCME 1999.

B1.1.3 Cadmium

The freshwater CWQG for cadmium is dependent on water hardness. Site specific guidelines can be calculated by the following formula:

$$\text{CWQG cadmium} = 10^{\{0.86[\log(\text{hardness})]-3.2\}}$$

where the CWQG is measured in µg/L and hardness is measured as calcium carbonate ($CaCO_3$) equivalents in mg/L (CCME 1999, 2007a) (Table B1-2).

Table B1-2 Hardness-Adjusted Total Cadmium Guidelines

Total Hardness (mg $CaCO_3$/L)	CWQG Total Cadmium (µg/L)	Total Hardness (mg $CaCO_3$/L)	CWQG Total Cadmium (µg/L)
5.0 to 7.3	0.003	87.5 to 90.8	0.030
7.4 to 9.8	0.004	90.9 to 94.3	0.031
9.9 to 12.4	0.005	94.4 to 97.8	0.032
12.5 to 15.0	0.006	97.9 to 101.3	0.033
15.1 to 17.7	0.007	101.4 to 104.8	0.034
17.8 to 20.5	0.008	104.9 to 108.4	0.035
20.6 to 23.4	0.009	109.3 to 111.9	0.036
23.5 to 26.3	0.010	112.0 to 115.5	0.037
26.4 to 29.2	0.011	115.6 to 119.1	0.038
29.3 to 32.2	0.012	119.2 to 122.7	0.039
32.3 to 35.2	0.013	122.8 to 126.3	0.040
35.3 to 38.2	0.014	126.4 to 130.0	0.041
38.3 to 41.3	0.015	131.1 to 133.6	0.042
41.4 to 44.4	0.016	133.7 to 137.3	0.043
44.5 to 47.6	0.017	137.4 to 141.0	0.044
47.7 to 50.8	0.018	141.1 to 144.7	0.045
50.9 to 54.0	0.019	144.8 to 148.4	0.046
54.1 to 57.2	0.020	148.5 to 152.1	0.047
57.3 to 60.5	0.021	152.2 to 155.8	0.048
60.6 to 63.8	0.022	155.9 to 159.5	0.049
63.9 to 67.1	0.023	159.6 to 163.3	0.050
67.2 to 70.4	0.024	163.4 to 167.1	0.051
70.5 to 73.8	0.025	167.2 to 170.9	0.052
73.9 to 77.1	0.026	171.0 to 174.6	0.053
77.2 to 80.5	0.027	175.0 to 178.4	0.054
80.6 to 83.9	0.028	178.5 to 182.3	0.055
84.0 to 87.4	0.029	182.4 to 186.1	0.056

Notes: $CaCO_3$ = Calcium Carbonate; CWQG = Canadian Water Quality Guideline; mg/L = milligrams per litre; µg/L = micrograms per litre

The marine CWQG for total cadmium is 0.12 µg/L (CCME 2007a). Site specific guidelines are not calculated for marine systems.

B1.1.4 Chromium

The CWQGs for chromium are based on oxidation states, with trivalent (Cr[III]) being the most stable and hexavalent (Cr[VI]) being strongly oxidizing (CCME 1999). Cr(VI) is very soluble and mobile, with potentially long residence times in surface water and aerobic soils. Cr(VI) is generally more toxic than Cr(III) because of its high oxidizing potential, high solubility, and ease at which it can permeate biological membranes. In addition, up to 60% of chromium in surface waters can exist in the Cr(VI) state. Cr(III) is less toxic in comparison to Cr(VI) because it forms highly insoluble compounds that have a tendency to adsorb to surfaces (CCME 1999).

In addition, total chromium includes particulate chromium because the samples are not filtered. This can be problematic, particularly in spring when erosion and turbidity are high, as chromium measurements may exceed guidelines, but biota do not suffer any adverse effects (CCME 1999).

The following guidelines were used for assessing total chromium concentrations:

- 1.0 µg/L for sublethal toxicity effects (CCME 2007a); and
- 16 µg/L for acute toxicity effects (USEPA 2008).

B1.1.5 Copper

The CWQGs for copper are dependent on water hardness (measured as $CaCO_3$) as follows (Table B1-3) (CCME 1999, 2007a):

Table B1-3 Canadian Water Quality Guidelines for Copper

Water Hardness (mg $CaCO_3$/L)	CWQG – Copper (µg/L)
<120	2
120 to 180	3
>180	4

Notes: CWQG = Canadian Water Quality Guideline; $CaCO_3$ = calcium carbonate; mg/L = milligrams per litre; µg/L = micrograms per litre. Source: CCME 1999.

B1.1.6 Lead

The CWQGs for lead are dependent on water hardness (measured as $CaCO_3$) as follows (Table B1-4) (CCME 1999, 2007a):

Table B1-4 Canadian Water Quality Guidelines for Lead

Water Hardness (mg $CaCO_3$/L)	CWQG – Lead (µg/L)
0 to 60	1
60 to 120	2
120 to 180	4
>180	7

Notes: CWQG = Canadian Water Quality Guideline; $CaCO_3$ = calcium carbonate; mg/L = milligrams per litre; µg/L = micrograms per litre. Source: CCME 1999.

B1.1.7 Nickel

The CWQGs for nickel are dependant on water hardness (measured as $CaCO_3$) as follows (Table B1-5) (CCME 1999, 2007a):

Table B1-5 Canadian Water Quality Guidelines for Nickel

Water Hardness (mg $CaCO_3$/L)	CWQG – Nickel (µg/L)
0 to 60	25
60 to 120	65
120 to 180	110
>180	150

Notes: CWQG = Canadian Water Quality Guideline; $CaCO_3$ = calcium carbonate; mg/L = milligrams per litre; µg/L = micrograms per litre. Source: CCME 1999.

B1.1.8 Zinc

Both sublethal and acute guidelines for zinc were compared to existing concentrations in waterbodies within the Project area. For sublethal toxicity, the CWQG of 30 µg/L (CCME 2007a) was used. While this guideline is conservative, it does not take into account water hardness. Therefore, the USEPA (2008) guideline, which is adjusted for water hardness, was included for acute toxicity. Zinc concentrations were adjusted for water hardness based on the following equation:

$$\text{WQG total zinc} = \exp\{0.8473*[\ln(\text{hardness})]+0.884\}$$

Acute toxicity values for ranges of water hardness found in the waterbodies within the Project Area are summarized in (Table B1-6).

Table B1-6 Hardness-Adjusted Total Zinc Acute Toxicity Guidelines

Total Hardness (mg $CaCO_3$/L)	WQG - Total Zinc (µg/L)	Total Hardness (mg $CaCO_3$/L)	WQG - Total Zinc (µg/L)	Total Hardness (mg $CaCO_3$/L)	WQG - Total Zinc (µg/L)	Total Hardness (mg $CaCO_3$/L)	WQG - Total Zinc (µg/L)
7.0 to 7.5	13	43.8 to 44.5	60	87.0 to 88.0	107	134.0 to 134.9	154
7.6 to 8.2	14	44.6 to 45.4	61	88.1 to 88.9	108	135.0 to 135.9	155
8.3 to 8.9	15	45.5 to 46.3	62	88.9 to 89.8	109	136.0 to 137.0	156
9.0 to 9.5	16	46.4 to 47.2	63	89.9 to 90.8	110	137.1 to 138.0	157
9.6 to 10.2	17	47.3 to 48.1	64	90.9 to 91.8	111	138.1 to 139.0	158
10.3 to 10.9	18	48.2 to 48.9	65	91.9 to 92.7	112	139.1 to 140.1	159
11.0 to 11.6	19	49.0 to 49.8	66	92.8 to 93.7	113	140.2 to 141.1	160
11.7 to 12.4	20	49.9 to 50.7	67	93.8 to 94.7	114	141.2 to 142.1	161
12.5 to 13.1	21	50.8 to 51.6	68	94.8 to 95.7	115	142.2 to 143.2	162
13.2 to 13.8	22	51.7 to 52.5	69	95.8 to 96.6	116	143.3 to 144.2	163
13.9 to 14.5	23	52.6 to 53.4	70	96.7 to 97.6	117	144.3 to 145.3	164
14.6 to 15.3	24	53.5 to 54.3	71	97.7 to 98.6	118	145.4 to 146.4	165
15.4 to 16.0	25	54.4 to 55.2	72	98.7 to 99.6	119	146.4 to 147.3	166
16.1 to 16.8	26	55.3 to 56.1	73	99.7 to 100.6	120	147.4 to 148.4	167
16.9 to 17.5	27	56.2 to 57.0	74	100.7 to 101.6	121	148.5 to 149.4	168
17.6 to 18.3	28	57.1 to 57.9	75	101.7 to 102.5	122	149.5 to 150.5	169
18.4 to 19.0	29	58.0 to 58.8	76	102.6 to 103.5	123	150.6 to 151.5	170
19.1 to 19.8	30	58.9 to 59.7	77	103.6 to 104.5	124	151.6 to 152.6	171
19.9 to 20.6	31	59.8 to 60.6	78	104.6 to 105.5	125	152.7 to 153.6	172
20.7 to 21.4	32	60.7 to 61.5	79	105.6 to 106.5	126	153.7 to 154.7	173
21.5 to 22.1	33	61.6 to 62.4	80	106.6 to 107.5	127	154.8 to 155.7	174
22.2 to 22.9	34	62.5 to 63.4	81	107.6 to 108.5	128	155.8 to 156.8	175
23.0 to 23.7	35	63.5 to 64.3	82	108.6 to 109.5	129	156.9 to 157.9	176
23.8 to 24.5	36	64.4 to 65.2	83	109.6 to 110.5	130	158.0 to 158.9	177
24.6 to 25.3	37	65.3 to 66.1	84	110.6 to 111.5	131	159.0 to 160.0	178
25.4 to 26.1	38	66.2 to 67.1	85	111.6 to 112.5	132	160.1 to 161.0	179
26.2 to 26.9	39	67.2 to 68.0	86	112.6 to 113.5	133	161.1 to 162.1	180
27.0 to 27.7	40	68.1 to 68.9	87	113.6 to 114.5	134	162.2 to 163.2	181
27.8 to 28.5	41	69.0 to 69.8	88	114.6 to 115.5	135	163.3 to 164.2	182
28.6 to 29.3	42	69.9 to 70.8	89	115.6 to 116.5	136	164.3 to 165.3	183
29.4 to 30.2	43	70.9 to 71.7	90	116.6 to 117.5	137	165.4 to 166.3	184
30.3 to 31.0	44	71.8 to 72.6	91	117.6 to 118.6	138	166.4 to 167.4	185
31.1 to 31.8	45	72.7 to 73.6	92	119.7 to 119.6	139	167.5 to 168.5	186
31.9 to 32.6	46	73.7 to 74.5	93	119.7 to 120.6	140	168.6 to 169.5	187
32.7 to 33.5	47	74.6 to 75.4	94	120.7 to 121.6	141	169.6 to 170.6	188
33.6 to 34.3	48	75.5 to 76.4	95	121.7 to 122.6	142	170.7 to 171.7	189
34.4 to 35.1	49	76.5 to 77.4	96	122.7 to 123.6	143	171.8 to 172.7	190
35.2 to 36.0	50	77.5 to 78.3	97	123.7 to 124.6	144	172.8 to 173.8	191
36.1 to 36.8	51	78.4 to 79.3	98	124.7 to 125.7	145	173.9 to 174.9	192
36.9 to 37.7	52	79.4 to 80.2	99	125.8 to 126.7	146	175.0 to 176.0	193
37.8 to 38.5	53	80.3 to 81.2	100	126.8 to 127.7	147	176.1 to 177.0	194
38.6 to 39.4	54	81.3 to 82.1	101	127.8 to 128.7	148	177.1 to 178.1	195
39.5 to 40.2	55	82.2 to 83.1	102	128.8 to 129.9	149	178.2 to 179.2	196
40.3 to 41.1	56	83.2 to 84.0	103	129.9 to 130.8	150	179.3 to 180.3	197
41.2 to 41.9	57	84.1 to 85.0	104	130.9 to 131.8	151	180.4 to 181.3	198
42.0 to 42.8	58	85.1 to 86.0	105	131.9 to 132.8	152	181.4 to 182.4	199
42.9 to 43.7	59	86.1 to 86.9	106	132.9 to 133.9	153	182.5 to 183.5	200

B1.2 TROPHIC STATUS CLASSIFICATION

Nutrient concentrations (i.e., phosphorus, nitrogen) and productivity (e.g., Chl *a*) can be used to classify lakes into trophic categories. Classifying lakes based on trophic status is useful for assessing potential effects resulting from nutrient loading.

At present, there are no CWQGs for total phosphorus. There are also no CWQGs for total phosphorus toxicity. CCME suggests the following series of Trigger Ranges for the prevention of eutrophication (Table B1-7), but not toxicity (CCME 2004):

Table B1-7 Canadian Council of Ministers for the Environment Trigger Ranges for Phosphorus

Productivity	Total Phosphorus Trigger Ranges (µg/L)
ultra-oligotrophic	<4
oligotrophic	4 to 10
mesotrophic	10 to 20
meso-eutrophic	20 to 35
eutrophic	35 to 100
hyper-eutrophic	>100

Notes: µg/L = micrograms per litre. Source: CCME 2004

There are no guidelines for Chl *a* because this is a measure of algal productivity within the water column and is not related to toxicity. The Organisation for Economic Co-operation and Development (OECD) developed a classification system based on a worldwide study of lake fertility (Mitchell and Prepas 1990). The OECD trophic classification system is based on the following maximum Chl *a* concentrations (Table B1-8):

Table B1-8 OECD Productivity Classification System based on Maximum Chlorophyll *a* Concentrations

Productivity	Chlorophyll *a* (µg/L)
oligotrophic	<8
oligo-mesotrophic	occasionally over 8
mesotrophic	8 to 25
eutrophic	26 to 75
hyper-eutrophic	>75

Notes: µg/L = micrograms per litre. Source: Mitchell and Prepas 1990.

In marine systems, nitrogen is often the limiting nutrient rather than phosphorus, which is typically the limiting nutrient in freshwater systems (CCME 2007b). Phosphorus may be limiting in marine environments during periods of high freshwater flows, but these effects are temporary (CCME 2007b).

A similar approach to classifying marine trophic status is based on the Trophic Index for Marine Systems (TRIX) (CCME 2007b). While there are other marine classification systems (e.g., National Oceanographic and Atmospheric Administration Index, OSPAR Comprehensive Procedure Index), the TRIX has been applied to the Project because of its similarity to the freshwater classification system. TRIX is based on the following criteria (Table B1-9):

Table B1-9 Trophic Index for Marine Systems based on Total Nitrogen, Total Phosphorus, Chlorophyll *a,* and Secchi Depth

Trophic Status	Total Nitrogen (mg/m^3)	Total Phosphorus (mg/m^3)	Chlorophyll *a* (µg/L)	Secchi Depth (m)
Oligotrophic	<260	<10	<1	>6
Mesotrophic	≥260 to 350	≥10 to 30	≥1 to 3	3 to ≤6
Eutrophic	≥350 to 400	≥30 to 40	≥3 to 5	1.5 to ≤3
Hyper-eutrophic	>400	>40	>5	<1.5

mg/m^3= milligrams per cubic metre; µg/L = micrograms per litre; m = metre; > = greater than; ≥ = greater than or equal to; < = less than; ≤ = less than or equal to. Source: CCME 2007b

B1.3 PHYSICO-CHEMICAL CLASSIFICATION

B1.3.1 Salinity

The analysis of total dissolved solids (TDS) is used to provide a measure of the total major ion content of water, which is indicative of salinity. Salinity was assessed on the following scale (Table B1-10) (Mitchell and Prepas 1990):

Table B1-10 Salinity Classification Based Total Dissolved Solids Concentration

Salinity Classification	Total Dissolved Solids (mg/L)
fresh	<500
slightly saline	500 to 1000
moderately saline	1000 to 5000
saline	>5000

Notes: mg/L = milligrams per litre; < = less than; > = greater than. Source: Mitchell and Prepas 1990.

B1.3.2 Water Hardness

Water hardness is primary caused by the presence of calcium and magnesium salts in water, although other polyvalent ions can contribute to total hardness. Water hardness was assessed on the following scale (Table B1-11) (Weiner 2000):

Table B1-11 Calcium Carbonate Water Hardness Classification

Water Hardness Classification	Calcium Carbonate (mg $CaCO_3$/L)
soft	<75
moderately hard	75 to 120
hard	120 to 200
very hard	>200

Notes: $CaCO_3$ = calcium carbonate; mg/L = milligrams per litre; < = less than; > = greater than.
Source: Weiner 2000.

B1.3.3 Acid Neutralizing Capacity

Total alkalinity is a common measure of the acid neutralizing capacity of water. As such, it can be used to provide an indication of the sensitivity of a waterbody to acid deposition. According to Saffran and Trew (1996), acid sensitivity ranges of lakes are based on total alkalinity measured as $CaCO_3$; however, these sensitivity ranges are based solely on lentic data (standing waters), and there is no information for lotic (flowing) waters. Acid sensitivity ranges of lakes are defined as follows (Table B1-12):

Table B1-12 Acid Neutralizing Capacity based on Calcium Carbonate Alkalinity

Acid Neutralizing Capacity	Alkalinity (mg $CaCO_3$/L)
high acid sensitivity	<10
moderate acid sensitivity	11 to 20
low acid sensitivity	21 to 40
negligible acid sensitivity	>40

Notes: $CaCO_3$ = calcium carbonate; mg/L = milligrams per litre; < = less than; > = greater than.
Source: Saffran and Trew 1996.

APPENDIX B2
QUALITY ASSURANCE / QUALITY CONTROL

Appendix B2 QUALITY ASSURANCE/QUALITY CONTROL

Quality assurance/quality control (QA/QC) procedures and requirements are an important aspect of any field or laboratory testing program. The objective of good QA/QC practices is having appropriate methodology in place so that field sampling, data entry, data analysis, and report preparation produce technically sound and scientifically defensible results.

B2.1 QA/QC METHODS

Detailed specific work instructions (SWIs) outlining each field task were provided to the field personnel prior to the field program. Samples were collected by experienced personnel and were labelled, preserved, and shipped according to Golder's Technical Procedures 8.23-0: *Basic Limnology and Bathymetric Procedures* and 8.3-1: *Surface Water Sampling Methods* (unpublished file information). Additionally, the calibration and routine testing of all field equipment (i.e., water meter) was regularly conducted according to the manufacturer's recommendations.

In addition, detailed field notes were recorded in pencil in waterproof field notebooks. Field data were checked at the end of each day for completeness and accuracy. Chain-of-Custody (COC) forms were used to track all sample shipments from the field to the applicable analytical laboratory.

Blank and duplicate samples were included as part of the water quality QA/QC for lakes and rivers (Table 3.8 in report text).

Field blanks and equipment blanks were used to determine if sample contamination might have occurred during water sample collection, sample handling, or laboratory analytical procedures. Field blanks are a set of separate sample bottles filled in the field with a sample of deionized water, which are then shipped to the laboratiory with the field samples. Equipment blanks are also separate sample bottles filled in the field with deionized water that has been poured through decontaminated field equipment, such as the Kemmerer water sampler, prior to the collection of field samples.

A duplicate water sample (duplicate) is a second water sample collected at a sampling station using the same methods as the first field sample. Duplicates are collected to assess variability introduced during sample collection, sample handling, and laboratory analytical procedures. In 2006, duplicates were taken at the top of the water column on each of the Stickleback Lake sampling dates, as well as at Windy Ouflow on the September sampling date. In 2007, duplicates

were taken at the top of the water column on each of the Stickleback Lake sampling dates, as well as at Windy Ouflow (July), Pelvic Outflow (August) and Ogama Outflow (September).

All blank and duplicate samples were submitted to appropriate laboratories and tested for the same major parameters as the field samples.

Although parameter results should not have been detected in the field or equipment blanks, parameter concentrations were considered notable if they were greater than five times the corresponding MRV. This threshold is based on the Practical Quantitation Limit defined by USEPA (1985), which takes into account the potential for data accuracy error when parameter concentrations approach or are below MRVs.

Notable results observed in the blanks were evaluated relative to parameter concentrations observed in field samples collected during the corresponding sampling trip to determine if sample contamination was limited to that particular QC sample or was apparent in other samples collected at that time. If, based on this comparison, sample contamination did not appear to have been an isolated error, field data were flagged and interpreted with this limitation in mind.

For all calculations, including relative percent difference (RPD), values below the MRV were set to half the MRV. Differences between parameter concentrations in the duplicate water samples were considered notable if:

- the RPD was greater than 20 percent (%); and
- the concentration was greater than five times the relevant reported MRV.

This threshold takes into account the potential for analytical uncertainty when concentrations approach MRVs (Weiner 2000). These criteria are consistent with those used by analytical laboratories for their internal QC procedures. Variability between duplicate and internal laboratory split samples was rated as follows:

- ***low***, if less than 10% of the parameters included in the duplicate or split sample analysis were notably different from one another;
- ***moderate***, if 10 to 30% of the parameters included in the duplicate or split sample analysis were notably different from one another; and
- ***high***, if more than 30% of the parameters included in the duplicate or split sample analysis were notably different from one another.

B2.2 QA/QC RESULTS

Field and equipment blanks were analyzed for physical parameters (e.g., lab pH, lab conductivity), total and dissolved nutrients, organic carbon, major ions, total and dissolved metals, radium-226, totals cyanide, fluoride, and sulphide. Laboratory results are presented in Table B2-2. Notables in the blanks were common (Table B2-1; only parameters with reported MRVs are presented); however, greater than half of the notables had concentrations far less than the corresponding parameter concentrations from the field samples. Notables with concentrations similar to corresponding field samples rarely occurred for parameters of concern, such as ammonia, aluminum, mercury, etc. This suggests that contamination of field samples had little effect on interpretation of the data.

Duplicate samples were analyzed for the same parameters as field and equipment blanks, with the exception of three dissolved metals (thallium, tin, and titanium) (Table B2-2; only parameters with reported MRVs are presented). Thirteen percent of all parameters showed differences greater than 20%, indicating that laboratory variability was moderate.

Table B2-1. Analytical results for QA/QC samples, 2006-2007

Parameter	Units	Fickle Duck Lake Field Blank (Ant Lake)						Reference Outflow Equipment Blank (Bug Lake)		
		18-Jul-06	17-Aug-06	10-Sep-06	21-Jul-07	20-Aug-07	9-Sep-07	18-Jul-06	17-Aug-06	11-Sep-06
Physical Parameters										
Alkalinity, Total ($CaCO_3$)	mg/L	1.8	2.0	2.0	2.5	2.2	2.6	1.8	2.3	3.1
Hardness, Total ($CaCO_3$)	mg/L	0.1	0.13	0.09	0.09	0.09	0.05	0.05	0.09	0.04
Conductivity	µS/cm	1.4	1.4	1.4	1.0	1.1	1.6	1.2	1.0	1.6
pH	units	5.6	5.6	5.7	-	-	-	5.6	6.0	6.6
TDS (Calculated)	mg/L	4.4	4.0	4.0	6.0	5.6	4.3	3.9	4.1	4.6
Total Suspended Solids	mg/L	<1	<1	<1	<1	1	<1	<1	<1	<1
Color, True	TCU	<1	<1	<1	< 1	< 1	< 1	<1	7	<1
Nutrients										
Phosphorus, Total	mg/L	0.013	0.011	0.019	0.001	0.001	0.002	0.006	0.006	0.014
Total Kjeldahl Nitrogen	mg/L	0.09	<0.01	<0.01	< 0.01	< 0.01	0.01	0.01	<0.01	<0.01
Ammonia-N	mg/L	0.026	0.006	0.003	0.009	0.006	0.006	0.002	0.003	0.002
Nitrite-N	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Nitrate-N	mg/L	0.005	0.013	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.005
Organics										
Carbon Part	mg/L	<0.02	0.06	<0.02	< 0.2	< 0.2	0.04	<0.02	<0.02	<0.02
Dissolved Organic Carbon	mg/L	0.4	0.2	<0.2	< 0.001	0.3	< 0.001	0.3	0.4	<0.2
Major Ions										
Calcium (Total)	mg/L	0.0065	0.0558	<0.004	0.0122	< 0.004	0.0172	0.0146	0.0080	0.0135
Calcium (Dissolved)	mg/L	0.0049	0.0174	<0.004	0.0078	< 0.004	0.0170	<0.004	<0.004	0.0061
Chloride (Cl)	mg/L	0.6	<0.3	<0.3	0.4	< 0.3	< 0.3	<0.3	<0.3	<0.3
Magnesium (Total)	mg/L	0.0006	0.0033	0.0004	0.0018	0.0010	0.0041	0.0032	0.0015	0.0034
Magnesium (Dissolved)	mg/L	0.0002	0.0019	0.0001	0.0018	0.0010	0.0040	0.0017	0.0001	0.0025
Potassium (Total)	mg/L	<0.002	<0.002	<0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	<0.002
Potassium (Dissolved)	mg/L	<0.002	<0.002	<0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	<0.002
Sodium (Total)	mg/L	<0.002	<0.002	<0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	<0.002
Sodium (Dissolved)	mg/L	<0.002	<0.002	<0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	<0.002
Sulphate (SO_4)	mg/L	<3	<3	<3	< 3	< 3	< 3	<3	<3	<3
Anions	meq/L	0.10	0.09	0.09	0.10	0.09	0.10	0.08	0.09	0.11
Cations	meq/L	0.03	0.03	0.02	0.09	0.09	0.02	0.02	0.02	0.02
Ion Balance	N/A	0.30	0.29	0.28	0.83	0.95	0.24	0.28	0.26	0.21
Total Metals										
Aluminum (Al)	µg/L	0.6	<0.5	<0.5	0.8	< 0.5	0.7	0.6	0.6	<0.5
Antimony (Sb)	µg/L	0.001	0.003	0.002	0.003	0.001	0.003	0.002	0.003	<0.0005
Arsenic (As)	µg/L	0.009	<0.002	<0.002	0.003	< 0.02	0.019	<0.002	<0.002	0.006
Barium (Ba)	µg/L	0.034	0.281	0.012	0.025	0.016	0.092	0.084	0.042	0.062
Beryllium (Be)	µg/L	<0.003	<0.003	0.008	< 0.003	< 0.003	< 0.003	<0.003	<0.003	<0.003
Bismuth (Bi)	µg/L	0.002	0.012	<0.001	< 0.001	< 0.001	< 0.001	0.004	0.004	0.004
Boron (B)	µg/L	0.55	0.21	0.34	0.30	0.28	0.93	0.35	0.31	0.40
Cadmium (Cd)	µg/L	0.0053	0.0031	<0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	0.0030
Chromium (Cr)	µg/L	0.09	<0.03	<0.03	0.06	< 0.03	0.08	<0.04	<0.03	0.04
Cobalt (Co)	µg/L	0.001	0.006	<0.001	< 0.001	< 0.001	< 0.001	<0.001	0.001	0.003
Copper (Cu)	µg/L	0.10	0.33	0.06	< 0.05	0.06	0.06	<0.05	0.06	0.06
Iron (Fe)	µg/L	<2	<2	<2	< 2	< 2	< 2	<2	<2	<2
Lead (Pb)	µg/L	0.013	0.187	0.007	< 0.001	0.048	0.041	0.017	0.012	0.103
Manganese (Mn)	µg/L	0.005	0.067	0.015	0.034	0.059	0.328	0.020	0.021	0.048
Mercury (Hg)	ng/L	<0.6	<0.6	1.7	2.0	< 0.6	< 0.6	<0.6	3.6	1.4
Molybdenum (Mo)	µg/L	0.003	0.068	<0.001	<0.001	0.002	0.002	0.004	0.045	0.004
Nickel (Ni)	µg/L	0.034	0.289	0.015	< 0.005	< 0.005	0.020	0.011	0.256	0.129
Selenium (Se)	µg/L	<0.1	<0.04	0.2	< 0.1	< 0.1	< 0.1	<0.1	<0.04	<0.1
Silver (Ag)	µg/L	0.0022	0.0063	0.0015	0.0010	0.0026	0.0016	0.0016	0.0077	0.0012
Strontium (Sr)	µg/L	0.0490	0.3170	0.0106	0.0122	0.0178	0.0656	0.0498	0.0258	0.0577
Thallium (Tl)	µg/L	0.0064	<0.0003	0.0031	0.0005	<0.0003	<0.0003	0.0036	<0.0003	0.0047
Tin (Sn)	µg/L	<0.03	<0.03	<0.03	1.52	0.05	0.10	0.13	0.34	0.50
Uranium (U)	µg/L	0.0003	0.0007	0.0001	0.0001	<0.0001	0.0003	0.0003	0.0002	0.0003
Vanadium (V)	µg/L	0.017	0.080	0.013	0.017	< 0.01	0.027	<0.005	<0.01	0.042
Zinc (Zn)	µg/L	0.27	0.41	0.42	0.40	0.37	0.31	0.31	0.33	0.39
Dissolved Metals										
Aluminum (Al)	µg/L	<0.2	<0.2	<0.2	<0.02	<0.02	0.2	<0.2	<0.2	<0.2
Antimony (Sb)	µg/L	0.001	0.003	0.002	0.003	0.001	0.003	0.002	0.003	<0.0005
Arsenic (As)	µg/L	0.009	<0.002	<0.002	0.003	0.006	0.019	<0.002	<0.002	0.006
Barium (Ba)	µg/L	<0.004	0.054	<0.004	< 0.004	0.006	0.091	<0.004	<0.004	0.007
Beryllium (Be)	µg/L	<0.003	<0.003	<0.003	< 0.003	< 0.003	< 0.003	<0.003	<0.003	<0.003
Boron (B)	µg/L	0.28	0.18	0.28	0.07	0.26	0.20	0.29	0.27	0.31
Cadmium (Cd)	µg/L	0.0024	<0.002	<0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	<0.002
Chromium (Cr)	µg/L	<0.04	<0.03	<0.03	0.06	< 0.03	0.08	<0.04	<0.03	0.04
Cobalt (Co)	µg/L	<0.001	0.001	<0.001	< 0.001	< 0.001	0.005	0.001	<0.001	<0.001
Copper (Cu)	µg/L	<0.05	0.22	0.06	< 0.05	0.06	0.06	<0.05	<0.05	0.06
Iron (Fe)	µg/L	<2	<2	<2	< 2	< 2	< 2	<2	<2	<2
Lead (Pb)	µg/L	0.004	0.004	0.007	< 0.001	< 0.001	0.017	0.004	<0.001	0.008
Manganese (Mn)	µg/L	<0.003	0.008	0.014	< 0.003	0.032	0.325	<0.003	<0.003	0.041
Molybdenum (Mo)	µg/L	0.003	0.011	<0.001	< 0.001	< 0.001	0.002	0.001	0.006	0.004
Nickel (Ni)	µg/L	0.013	<0.005	<0.005	< 0.005	< 0.005	0.020	0.005	<0.005	0.022
Selenium (Se)	µg/L	<0.1	<0.04	<0.1	< 0.1	< 0.1	< 0.1	<0.1	<0.04	<0.1
Silver (Ag)	µg/L	0.0011	0.0036	0.0010	0.0010	0.0026	< 0.0005	0.0013	0.0045	<0.0005
Strontium (Sr)	µg/L	0.049	0.169	0.010	0.012	0.018	0.065	0.014	<0.004	0.030
Uranium (U)	µg/L	0.0001	0.0003	0.0001	0.0001	< 0.0001	< 0.0001	0.0003	<0.0001	0.0001
Vanadium (V)	µg/L	0.02	<0.005	0.01	< 0.01	< 0.01	0.03	<0.005	<0.01	0.01
Zinc (Zn)	µg/L	0.24	0.21	0.35	0.30	0.26	0.21	0.21	0.26	0.26
Other										
Cyanide, Total	mg/L	0.001	<0.001	<0.001	< 0.02	< 0.02	< 0.02	<0.001	<0.001	<0.001
Fluoride (F)	mg/L	0.01	<0.01	<0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01
Sulphide	mg/L	<0.001	<0.001	<0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.001

Rep - Replicate sample

Table B2-1. Analytical results for QA/QC samples, 2006-2007

Parameter	Units	Reference Outflow Equipment Blank (Bug Lake)				Patch Lake Equipment Blank (Slim Lake)						
		23-Jun-07	21-Jul-07	20-Aug-07	9-Sep-07	22-Jul-06	15-Aug-06	8-Sep-06	24-May-07	18-Jul-07	18-Aug-07	13-Sep-07
Physical Parameters												
Alkalinity, Total ($CaCO_3$)	mg/L	1.9	2.3	2.1	2.3	2.0	2.0	2.0	2.1	2.3	2.5	2.3
Hardness, Total ($CaCO_3$)	mg/L	0.03	0.08	0.08	0.02	0.08	0.05	0.03	0.08	0.56	0.2	0.06
Conductivity	µS/cm	1.2	1.0	1.3	1.2	1.3	1.3	1.4	1.6	1.2	4.2	1.7
pH	units	-	-	-	-	5.8	5.5	5.8	-	-	-	-
TDS (Calculated)	mg/L	4.8	5.9	5.7	4.3	4.0	3.8	4.2	5.6	7.4	7.1	4.2
Total Suspended Solids	mg/L	<1	<1	<1	<1	1	<1	<1	< 1	< 1	< 1	< 1
Color, True	TCU	< 1	< 1	< 1	< 1	<1	3	<1	< 1	< 1	< 1	< 1
Nutrients												
Phosphorus, Total	mg/L	< 0.001	0.003	0.001	0.001	0.005	0.012	0.013	0.001	0.003	0.002	< 0.001
Total Kjeldahl Nitrogen	mg/L	< 0.01	0.01	< 0.01	< 0.01	0.01	0.01	<0.01	0.02	0.02	0.02	< 0.01
Ammonia-N	mg/L	0.009	0.008	0.008	0.005	0.002	0.005	0.005	0.005	0.012	0.009	0.008
Nitrite-N	mg/L	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001
Nitrate-N	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	< 0.005	< 0.005	< 0.005	< 0.005
Organics												
Carbon Part	mg/L	< 0.2	< 0.2	< 0.2	0.05	<0.02	<0.02	0.05	< 0.2	< 0.2	0.30	< 0.2
Dissolved Organic Carbon	mg/L	< 0.001	< 0.001	0.3	0.3	0.3	0.3	0.3	< 0.001	< 0.001	< 0.001	< 0.001
Major Ions												
Calcium (Total)	mg/L	0.0152	0.0049	< 0.004	0.0333	0.0162	0.0158	0.0057	0.0204	0.0953	0.0172	< 0.004
Calcium (Dissolved)	mg/L	0.0059	0.0048	< 0.004	0.0227	0.0051	<0.004	<0.004	< 0.004	0.0818	0.0118	< 0.004
Chloride (Cl)	mg/L	< 0.3	0.4	< 0.3	0.4	<0.3	<0.3	0.3	0.5	0.5	1.1	< 0.3
Magnesium (Total)	mg/L	0.0016	0.0004	0.0006	0.0015	0.0043	0.0052	0.0033	0.0031	0.078	0.0446	0.0055
Magnesium (Dissolved)	mg/L	0.0012	0.0004	0.0006	0.0015	0.0025	0.0023	0.0020	0.0008	0.0676	0.0301	0.0043
Potassium (Total)	mg/L	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	<0.002	< 0.002	0.03	< 0.002	< 0.002
Potassium (Dissolved)	mg/L	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	<0.002	< 0.002	0.03	< 0.002	< 0.002
Sodium (Total)	mg/L	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	<0.002	< 0.002	0.4	0.3	< 0.002
Sodium (Dissolved)	mg/L	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	<0.002	< 0.002	0.4	0.3	< 0.002
Sulphate (SO_4)	mg/L	< 3	< 3	< 3	< 3	<3	<3	<3	< 3	< 3	< 3	< 3
Anions	meq/L	0.09	0.11	0.09	0.10	0.09	0.08	0.09	0.1	0.11	0.12	0.09
Cations	meq/L	0.06	0.09	0.09	0.02	0.02	0.02	0.02	0.08	0.16	0.11	0.03
Ion Balance	N/A	0.67	0.82	1.05	0.24	0.28	0.29	0.25	0.81	1.42	0.92	0.29
Total Metals												
Aluminum (Al)	µg/L	< 0.5	0.9	0.6	1.0	0.5	<0.5	<0.5	< 0.5	10.9	11.2	< 0.5
Antimony (Sb)	µg/L	0.010	0.002	0.004	0.002	0.004	0.002	0.003	0.0038	0.0038	0.0044	0.0012
Arsenic (As)	µg/L	0.006	0.005	0.019	< 0.002	0.044	0.025	0.013	< 0.02	0.0181	0.0314	0.0045
Barium (Ba)	µg/L	0.010	0.039	0.024	0.093	0.033	0.096	0.021	0.0246	0.0827	0.0809	0.0589
Beryllium (Be)	µg/L	< 0.003	< 0.003	< 0.003	< 0.003	<0.003	<0.003	<0.003	< 0.003	< 0.003	< 0.003	< 0.003
Bismuth (Bi)	µg/L	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	0.002	<0.001	< 0.001	< 0.001	< 0.001	< 0.001
Boron (B)	µg/L	0.29	0.78	<0.05	0.33	0.35	0.33	0.28	0.36	0.552	0.307	0.07
Cadmium (Cd)	µg/L	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	<0.002	< 0.002	< 0.002	< 0.002	< 0.002
Chromium (Cr)	µg/L	0.09	0.09	< 0.03	< 0.03	0.07	<0.03	0.04	0.059	< 0.03	0.209	< 0.03
Cobalt (Co)	µg/L	< 0.001	0.002	< 0.001	0.004	<0.001	0.001	<0.001	0.0036	0.0046	0.0073	< 0.001
Copper (Cu)	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	0.25	0.06	0.07	0.0542	< 0.05	< 0.05	< 0.05
Iron (Fe)	µg/L	< 2	< 2	< 2	< 2	<2	<2	<2	< 2	< 2	8.3	< 2
Lead (Pb)	µg/L	< 0.001	< 0.001	0.004	0.037	0.014	0.011	0.015	0.0306	< 0.001	0.0047	0.0081
Manganese (Mn)	µg/L	0.103	0.007	< 0.003	0.154	0.032	0.052	0.041	0.0192	0.077	0.151	< 0.003
Mercury (Hg)	ng/L	< 0.6	< 0.6	< 0.6	< 0.6	3.6	1.0	0.9	< 0.6	< 0.6	< 0.6	1.1
Molybdenum (Mo)	µg/L	0.065	<0.001	<0.001	<0.001	0.002	0.002	0.002	0.0051	0.0346	0.0179	0.0074
Nickel (Ni)	µg/L	0.020	< 0.005	< 0.005	0.016	0.023	0.006	0.022	0.0144	< 0.005	< 0.005	0.0076
Selenium (Se)	µg/L	< 0.1	0.1	< 0.1	< 0.1	0.3	<0.04	<0.1	< 0.04	< 0.1	< 0.1	< 0.1
Silver (Ag)	µg/L	0.0015	0.0110	< 0.0005	0.0013	0.0029	0.0023	0.0011	0.001	0.034	< 0.0005	0.0108
Strontium (Sr)	µg/L	0.0488	0.0218	0.0231	0.1050	0.0645	0.0877	0.0497	0.0345	0.465	0.29	0.0652
Thallium (Tl)	µg/L	0.0007	0.0009	<0.0003	0.0011	0.0050	0.0033	0.0051	< 0.0003	< 0.0003	0.0003	< 0.0003
Tin (Sn)	µg/L	< 0.03	< 0.03	< 0.03	< 0.03	0.31	0.44	0.28	< 0.03	2	0.405	0.0468
Uranium (U)	µg/L	0.0002	0.0002	<0.0001	0.0003	<0.0001	0.0001	0.0001	0.0004	0.0019	0.0106	0.0003
Vanadium (V)	µg/L	0.050	0.033	< 0.01	0.008	0.019	<0.01	<0.01	0.0676	0.0262	0.0757	0.0655
Zinc (Zn)	µg/L	0.16	0.42	0.46	0.33	0.38	0.40	0.35	0.346	3.77	0.15	0.355
Dissolved Metals												
Aluminum (Al)	µg/L	<0.02	<0.02	<0.02	<0.02	0.4	<0.2	<0.2	< 0.2	< 0.2	< 0.2	< 0.2
Antimony (Sb)	µg/L	0.010	0.002	0.004	0.002	0.004	0.002	0.003	0.00375	0.00374	0.0044	0.00114
Arsenic (As)	µg/L	0.005	0.005	0.019	< 0.002	0.044	0.024	0.012	< 0.02	0.0179	< 0.002	0.00448
Barium (Ba)	µg/L	0.006	< 0.004	< 0.004	0.030	<0.004	0.013	0.006	< 0.004	0.0224	< 0.004	< 0.004
Beryllium (Be)	µg/L	< 0.003	< 0.003	< 0.003	< 0.003	<0.003	<0.003	<0.003	< 0.003	< 0.003	< 0.003	< 0.003
Boron (B)	µg/L	0.24	0.17	< 0.03	0.06	0.31	0.27	0.27	0.276	0.097	0.282	< 0.03
Cadmium (Cd)	µg/L	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	<0.002	< 0.002	< 0.002	< 0.002	< 0.002
Chromium (Cr)	µg/L	0.08	0.08	< 0.03	0.08	0.06	<0.03	0.04	< 0.03	< 0.03	0.047	< 0.03
Cobalt (Co)	µg/L	< 0.001	0.002	< 0.001	0.003	<0.001	<0.001	<0.001	< 0.001	0.0034	< 0.001	< 0.001
Copper (Cu)	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	0.14	<0.05	0.07	0.0537	< 0.05	< 0.05	< 0.05
Iron (Fe)	µg/L	< 2	< 2	< 2	< 2	<2	<2	<2	< 2	< 2	< 2	< 2
Lead (Pb)	µg/L	< 0.001	< 0.001	< 0.001	0.007	0.008	0.004	0.015	0.019	< 0.001	< 0.001	0.008
Manganese (Mn)	µg/L	0.102	< 0.003	< 0.003	0.152	0.017	0.027	0.041	< 0.003	0.0301	< 0.003	< 0.003
Molybdenum (Mo)	µg/L	0.014	< 0.001	< 0.001	0.012	<0.001	0.002	0.002	0.0018	0.0335	0.0047	< 0.001
Nickel (Ni)	µg/L	0.007	< 0.005	< 0.005	0.016	0.008	<0.005	0.021	0.0143	< 0.005	< 0.005	0.0075
Selenium (Se)	µg/L	< 0.1	< 0.1	< 0.1	< 0.1	0.3	<0.04	<0.1	< 0.04	< 0.1	< 0.1	< 0.1
Silver (Ag)	µg/L	0.0008	0.0010	< 0.0005	0.0009	0.0024	0.0015	0.0005	0.001	0.009	< 0.0005	0.0072
Strontium (Sr)	µg/L	0.048	0.022	0.023	0.102	0.026	0.025	0.050	0.0281	0.46	0.307	0.0645
Uranium (U)	µg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.0001	0.0001	0.0001	< 0.0001	0.0005	< 0.0001	< 0.0001
Vanadium (V)	µg/L	< 0.01	0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	0.0121	< 0.01	< 0.01	0.0648
Zinc (Zn)	µg/L	< 0.05	0.31	0.30	0.22	0.24	0.20	0.25	0.271	1.85	0.13	0.254
Other												
Cyanide, Total	mg/L	< 0.02	< 0.02	< 0.02	< 0.02	<0.001	<0.001	<0.001	0.09	< 0.02	< 0.02	0.07
Fluoride (F)	mg/L	0.08	0.14	< 0.01	< 0.01	<0.01	<0.01	<0.01	< 0.01	0.13	< 0.01	< 0.01
Sulphide	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001

Rep - Replicate sample

Table B2-1. Analytical results for QA/QC samples, 2006-2007

Parameter	Units	Patch Outflow Field Blank (Wolf Outflow)		Stickleback Lake Duplicate (Fly Lake)							
		22-Jul-06	22-Jun-07	17-Jul-06		17-Aug-06		10-Sep-06		21-Jul-07	21-Jul-07
				Rep 1	Rep 2	Rep 1	Rep 2	Rep 1	Rep 2	Rep 1	Rep 2
Physical Parameters											
Alkalinity, Total ($CaCO_3$)	mg/L	2.0	1.9	32.9	32.8	33.8	33.9	33.6	33.7	35.9	35.8
Hardness, Total ($CaCO_3$)	mg/L	0.08	0.08	66.8	67.6	70.7	71.3	70.9	69.2	70	70.5
Conductivity	µS/cm	1.1	1.4	239.0	239.0	242.0	241.0	252.0	252.0	248.0	247.0
pH	units	5.7	-	7.7	7.7	7.7	7.7	7.6	7.7	-	-
TDS (Calculated)	mg/L	3.9	5.1	111.0	111.0	117.0	118.0	118.0	117.0	125.0	125.0
Total Suspended Solids	mg/L	1	< 1	<1	<1	<1	<1	<1	<1	<1	<1
Color, True	TCU	<1	3	<1	<1	<1	14	<1	<1	5	5
Nutrients											
Phosphorus, Total	mg/L	<0.001	< 0.001	0.013	0.014	0.03	0.028	0.033	0.025	0.013	0.015
Total Kjeldahl Nitrogen	mg/L	0.01	< 0.01	0.40	0.33	0.40	0.39	0.36	0.36	0.39	0.37
Ammonia-N	mg/L	0.004	0.01	0.01	0.007	0.013	0.01	0.008	0.005	0.015	0.012
Nitrite-N	mg/L	<0.001	< 0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Nitrate-N	mg/L	<0.005	< 0.005	<0.005	<0.005	<0.005	0.005	0.012	<0.005	<0.005	<0.005
Organics											
Carbon Part	mg/L	<0.02	0.30	0.17	0.20	0.26	0.22	0.30	0.30	0.31	0.22
Dissolved Organic Carbon	mg/L	0.4	< 0.001	4.2	4.4	4.7	4.9	4.5	4.5	4.4	4.3
Major Ions											
Calcium (Total)	mg/L	<0.004	< 0.004	17.1000	16.9000	17.6000	17.6000	18.3000	17.5000	17.4000	17.5000
Calcium (Dissolved)	mg/L	<0.004	< 0.004	15.6000	15.9000	16.5000	16.1000	17.0000	17.3000	16.4000	16.9000
Chloride (Cl)	mg/L	<0.3	< 0.3	51.1	50.9	53.1	53.7	55.1	54.5	58.4	< 0.3
Magnesium (Total)	mg/L	0.0005	0.0007	6.2200	6.2000	6.3700	6.4500	6.6600	6.2200	6.2000	6.1700
Magnesium (Dissolved)	mg/L	0.0004	0.0004	5.6600	5.8500	5.7900	5.6000	6.1400	6.1600	5.8800	5.9000
Potassium (Total)	mg/L	<0.002	< 0.002	1.71	1.70	1.77	1.80	1.88	1.78	1.79	1.78
Potassium (Dissolved)	mg/L	<0.002	< 0.002	1.55	1.61	1.65	1.61	1.72	1.75	1.67	1.70
Sodium (Total)	mg/L	<0.002	< 0.002	14.7	14.7	15.5	15.1	15.9	14.8	14.9	14.7
Sodium (Dissolved)	mg/L	<0.002	< 0.002	13.6	14.0	13.9	13.3	14.7	14.8	14.2	14.0
Sulphate (SO_4)	mg/L	<3	< 3	<3	<3	<3	<3	<3	<3	< 3	< 3
Anions	meq/L	0.09	0.09	2.14	2.14	2.21	2.23	2.27	2.25	2.43	2.43
Cations	meq/L	0.02	0.07	1.99	2.00	2.12	2.15	2.12	2.07	2.20	2.20
Ion Balance	N/A	0.29	0.79	0.93	0.93	0.96	0.96	0.94	0.92	0.91	0.91
Total Metals											
Aluminum (Al)	µg/L	0.6	< 0.5	7.4	5.0	12.2	9.6	12.1	13.0	6.3	10.0
Antimony (Sb)	µg/L	0.002	0.0025	0.006	0.006	0.008	0.008	0.007	0.012	0.005	0.005
Arsenic (As)	µg/L	0.017	0.008	0.377	0.370	0.451	0.490	0.481	0.435	0.458	0.441
Barium (Ba)	µg/L	0.015	0.0591	5.450	5.260	5.410	5.500	5.570	5.310	6.320	6.390
Beryllium (Be)	µg/L	<0.003	< 0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	< 0.003	<0.003
Bismuth (Bi)	µg/L	<0.001	0.0099	0.002	0.002	0.004	0.003	0.002	<0.001	< 0.001	<0.001
Boron (B)	µg/L	0.45	1.05	16.30	17.30	18.70	18.20	19.30	18.80	18.40	18.20
Cadmium (Cd)	µg/L	<0.002	< 0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0027	< 0.002	<0.002
Chromium (Cr)	µg/L	<0.03	0.041	0.12	0.11	0.10	0.11	0.11	0.06	0.11	0.12
Cobalt (Co)	µg/L	<0.001	< 0.001	0.022	0.025	0.035	0.033	0.021	0.020	0.023	0.033
Copper (Cu)	µg/L	0.29	< 0.05	0.50	0.47	0.89	2.02	0.82	0.33	0.31	0.23
Iron (Fe)	µg/L	<2	< 2	53.3	51.0	105.0	106.0	31.9	28.8	65.7	99.3
Lead (Pb)	µg/L	0.033	< 0.001	0.046	0.049	0.114	0.114	0.051	0.038	0.236	0.002
Manganese (Mn)	µg/L	0.010	< 0.003	5.970	6.460	11.300	11.700	4.760	4.430	7.440	12.700
Mercury (Hg)	ng/L	-	0.7	<0.6	<0.6	47.0	14.0	7.0	7.0	1.5	2.1
Molybdenum (Mo)	µg/L	0.003	0.0185	0.039	0.035	0.234	0.055	0.050	0.050	0.011	0.016
Nickel (Ni)	µg/L	0.010	< 0.005	<0.005	<0.005	0.199	0.059	0.095	0.082	0.057	0.016
Selenium (Se)	µg/L	<0.1	< 0.1	0.4	0.4	0.6	0.5	0.6	0.5	0.6	0.7
Silver (Ag)	µg/L	0.0020	0.0009	<0.0005	0.0009	0.0011	0.0018	0.0009	0.0006	0.0010	0.0010
Strontium (Sr)	µg/L	0.0092	0.016	99.5000	97.0000	102.0000	101.0000	103.0000	100.0000	98.2000	99.5000
Thallium (Tl)	µg/L	0.0015	0.0017	0.0122	0.0129	0.0026	0.0069	0.0136	0.0124	0.0048	0.0048
Tin (Sn)	µg/L	<0.03	< 0.03	17.00	24.90	3.10	6.14	2.01	0.17	1.25	0.98
Uranium (U)	µg/L	0.0001	0.0004	0.0111	0.0110	0.0102	0.0103	0.0099	0.0104	0.0082	0.0085
Vanadium (V)	µg/L	<0.01	< 0.01	0.039	0.045	0.168	0.028	0.036	0.020	< 0.01	0.021
Zinc (Zn)	µg/L	0.40	0.384	2.22	0.85	3.74	6.63	1.54	0.78	2.06	3.63
Dissolved Metals											
Aluminum (Al)	µg/L	<0.2	< 0.2	0.9	1.0	0.4	0.5	0.6	0.5	<0.02	<0.02
Antimony (Sb)	µg/L	0.002	0.0025	0.006	0.006	0.008	0.008	0.007	0.011	0.005	0.005
Arsenic (As)	µg/L	0.017	0.0079	0.311	0.345	0.367	0.406	0.395	0.386	0.411	0.368
Barium (Ba)	µg/L	<0.004	< 0.004	4.730	4.820	4.780	4.770	5.120	5.070	5.870	5.970
Beryllium (Be)	µg/L	<0.003	< 0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	< 0.003	<0.003
Boron (B)	µg/L	0.33	-	14.50	15.60	16.70	15.40	17.10	17.30	17.00	16.90
Cadmium (Cd)	µg/L	<0.002	< 0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0021	< 0.002	<0.002
Chromium (Cr)	µg/L	<0.03	0.03	0.12	0.11	0.10	0.07	0.11	0.05	0.11	0.10
Cobalt (Co)	µg/L	<0.001	< 0.001	0.006	0.009	0.015	0.012	0.005	0.007	0.009	0.010
Copper (Cu)	µg/L	<0.05	< 0.05	0.35	0.39	0.64	1.34	0.63	0.32	0.21	0.18
Iron (Fe)	µg/L	<2	< 2	<2	<2	<2	<2	<2	<2	3.5	3.1
Lead (Pb)	µg/L	0.033	< 0.001	0.033	0.034	0.093	0.091	0.039	0.037	< 0.001	<0.001
Manganese (Mn)	µg/L	0.010	< 0.003	0.098	0.101	0.134	0.150	0.241	0.252	0.076	0.103
Molybdenum (Mo)	µg/L	<0.001	0.0074	0.029	0.035	0.048	0.047	0.047	0.046	0.011	0.010
Nickel (Ni)	µg/L	0.010	< 0.005	<0.005	<0.005	0.026	0.048	<0.005	0.018	0.010	<0.005
Selenium (Se)	µg/L	<0.1	< 0.1	0.4	0.4	0.4	0.3	0.6	0.5	0.6	0.5
Silver (Ag)	µg/L	0.0005	0.0007	<0.0005	<0.0005	0.0009	0.0009	<0.0005	<0.0005	0.0010	0.0010
Strontium (Sr)	µg/L	0.008	0.0158	90.1	92.1	94.2	92.4	98.3	99.9	95.5	96.2
Uranium (U)	µg/L	<0.0001	0.0004	0.0078	0.0080	0.0072	0.0068	0.0057	0.0059	0.0063	0.0064
Vanadium (V)	µg/L	<0.01	< 0.01	0.04	0.04	<0.01	<0.01	0.04	0.02	< 0.01	0.02
Zinc (Zn)	µg/L	0.32	< 0.05	2.14	0.74	2.49	2.43	1.52	0.78	1.14	2.30
Other											
Cyanide, Total	mg/L	<0.001	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	< 0.02	<0.001
Fluoride (F)	mg/L	<0.01	0.07	0.04	0.04	0.03	0.01	0.05	0.05	0.37	0.38
Sulphide	mg/L	<0.001	< 0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	< 0.001	<0.001

Rep - Replicate sample

Table B2-1. Analytical results for QA/QC samples, 2006-2007

Parameter	Units	Stickleback Lake Duplicate (Fly Lake)				Windy Outflow Duplicate (Hope Outflow)		Windy Outflow Duplicate (Hope Outflow)		Pelvic Outflow Duplicate (Hope Outflow)	
		20-Aug-07	20-Aug-07	9-Sep-07	9-Sep-07	9-Sep-06		19-Jul-07		18-Aug-07	
		Rep 1	Rep 2	Rep 1	Rep 2	Rep 1	Rep 2	Rep 1	Rep 2	Rep 1	Rep 2
Physical Parameters											
Alkalinity, Total ($CaCO_3$)	mg/L	34.2	34.2	34.4	34.9	48.0	48.0	39.2	39.7	22.3	22.5
Hardness, Total ($CaCO_3$)	mg/L	70.9	70.5	71.2	69	68.2	68.6	52.4	54.4	34.8	35.4
Conductivity	µS/cm	246.0	246.0	250.0	248.0	437.0	437.0	327.0	329.0	248.0	251.0
pH	units	-	-	-	-	8.1	8.0	-	-	-	-
TDS (Calculated)	mg/L	122.0	122.0	122.0	122.0	214.0	211.0	169.0	168.0	126.0	126.0
Total Suspended Solids	mg/L	1	1	<1	<1	<1	<1	< 1	<1	8	8
Color, True	TCU	< 1	<1	< 1	<1	<1	<1	7	7	9	6
Nutrients											
Phosphorus, Total	mg/L	0.011	0.012	0.011	0.011	0.019	0.024	0.004	0.007	0.045	0.041
Total Kjeldahl Nitrogen	mg/L	0.37	0.38	0.39	0.4	0.11	0.11	0.1	0.11	0.65	0.61
Ammonia-N	mg/L	0.01	0.012	0.009	0.034	0.002	0.003	0.009	0.008	0.008	0.009
Nitrite-N	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	< 0.001	<0.001	< 0.001	<0.001
Nitrate-N	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.005	< 0.005	<0.005
Organics											
Carbon Part	mg/L	0.35	0.32	0.40	0.17	0.14	0.07	1.2	0.08	5.2	1.61
Dissolved Organic Carbon	mg/L	4.2	4.5	4.7	4.6	1.9	2.0	< 0.001	1.5	< 0.001	5.9
Major Ions											
Calcium (Total)	mg/L	17.0000	16.8000	17.2000	17.6000	11.5000	11.8000	8.9300	9.0500	4.3900	4.4900
Calcium (Dissolved)	mg/L	16.6000	16.5000	16.8000	16.9000	11.2000	11.2000	8.7800	8.6400	4.2500	4.3200
Chloride (Cl)	mg/L	54.9	< 0.3	56.5	< 0.3	95.8	94.9	78.8	78.5	60.5	61.2
Magnesium (Total)	mg/L	6.6200	6.4800	6.6400	6.9000	9.5800	9.5000	6.9000	7.2500	5.7700	6.1800
Magnesium (Dissolved)	mg/L	6.4200	6.2400	6.5000	6.5700	9.5200	9.1700	6.8300	6.9100	5.7600	6.0500
Potassium (Total)	mg/L	1.79	1.76	1.88	1.94	3.89	3.94	2.77	2.77	2.10	2.13
Potassium (Dissolved)	mg/L	1.74	1.73	1.83	1.84	3.83	3.79	2.72	2.63	1.88	1.91
Sodium (Total)	mg/L	16.3	15.9	16.1	16.8	55.3	54.8	38.6	39.2	30.6	30.8
Sodium (Dissolved)	mg/L	15.9	15.3	16.0	16.5	55.1	53.0	38.4	37.7	30.6	30.5
Sulphate (SO_4)	mg/L	< 3	< 3	< 3	< 3	11	9	5	4	5	5
Anions	meq/L	2.28	2.28	2.32	2.37	3.90	3.84	3.12	3.17	2.26	2.27
Cations	meq/L	2.25	2.25	2.21	2.11	3.76	3.75	2.95	2.97	2.24	2.25
Ion Balance	N/A	0.99	0.99	0.95	0.89	0.96	0.98	0.95	0.94	0.99	0.99
Total Metals											
Aluminum (Al)	µg/L	10.8	10.4	9.3	10.5	48.7	65.4	34.0	26.8	307	380
Antimony (Sb)	µg/L	0.006	0.035	0.005	0.009	0.056	0.056	0.041	0.042	0.018	0.017
Arsenic (As)	µg/L	0.440	0.450	0.472	0.466	0.650	0.722	0.418	0.452	0.638	0.692
Barium (Ba)	µg/L	6.010	6.110	5.710	5.880	2.350	2.520	2.050	1.890	4.910	6.290
Beryllium (Be)	µg/L	< 0.003	<0.003	< 0.003	<0.003	<0.003	<0.003	0.005	<0.003	0.010	0.010
Bismuth (Bi)	µg/L	< 0.001	<0.001	< 0.001	<0.001	0.005	0.002	< 0.001	0.003	0.002	0.011
Boron (B)	µg/L	16.10	15.70	17.90	17.40	46.50	48.00	37.40	40.90	22.50	26.50
Cadmium (Cd)	µg/L	< 0.002	<0.002	0.0026	0.0049	0.0039	0.0037	< 0.002	<0.002	0.0063	0.0053
Chromium (Cr)	µg/L	0.04	0.07	0.15	0.18	0.29	0.35	0.22	0.27	0.64	0.69
Cobalt (Co)	µg/L	0.033	0.032	0.035	0.034	0.019	0.029	0.027	0.015	0.112	0.129
Copper (Cu)	µg/L	0.32	1.03	0.34	0.85	0.83	0.89	0.59	0.57	1.45	1.50
Iron (Fe)	µg/L	64.3	58.6	49.7	40.4	66.5	80.7	77.1	49.6	333.0	421.0
Lead (Pb)	µg/L	0.008	0.014	0.022	0.028	0.045	0.050	0.022	0.008	0.109	0.128
Manganese (Mn)	µg/L	8.750	8.520	7.530	7.570	1.450	1.630	1.960	1.120	38.400	48.200
Mercury (Hg)	ng/L	< 0.6	<0.6	0.8	<0.6	<0.6	<0.6	< 0.6	<0.6	< 0.6	< 0.6
Molybdenum (Mo)	µg/L	0.027	0.025	0.034	0.042	0.676	0.704	0.397	0.402	0.187	1.400
Nickel (Ni)	µg/L	0.163	0.121	0.134	0.017	0.104	0.112	0.083	0.082	0.532	0.207
Selenium (Se)	µg/L	0.5	0.5	0.7	0.8	2.0	2.2	1.0	1.3	0.8	0.6
Silver (Ag)	µg/L	0.0011	<0.0005	0.0016	0.0026	0.0012	0.0011	0.0200	<0.0005	< 0.0005	< 0.0005
Strontium (Sr)	µg/L	101.0000	101.0000	99.9000	102.0000	58.3000	58.9000	44.9000	44.9000	32.0000	33.9000
Thallium (Tl)	µg/L	<0.0003	<0.0003	<0.0003	0.0012	0.0125	0.0116	< 0.0003	0.0044	0.0053	0.0066
Tin (Sn)	µg/L	0.11	0.85	0.11	1.16	0.04	0.04	< 0.03	<0.03	0.03	<0.03
Uranium (U)	µg/L	0.0086	0.0085	0.0101	0.0099	0.2480	0.2590	0.0531	0.0454	0.0503	0.0534
Vanadium (V)	µg/L	< 0.01	0.020	< 0.01	0.058	0.082	0.134	0.049	0.044	0.505	0.676
Zinc (Zn)	µg/L	2.06	1.65	1.34	1.62	0.80	1.35	0.78	0.94	1.44	2.05
Dissolved Metals											
Aluminum (Al)	µg/L	<0.02	<0.02	0.2	0.6	5.5	5.4	2.8	2.5	12.0	12.5
Antimony (Sb)	µg/L	0.006	0.034	0.005	0.008	0.056	0.056	0.041	0.042	0.018	0.017
Arsenic (As)	µg/L	0.402	0.387	0.412	0.406	0.580	0.657	0.361	0.396	0.483	0.458
Barium (Ba)	µg/L	5.680	5.650	5.320	5.350	1.830	1.800	1.710	1.620	1.290	1.320
Beryllium (Be)	µg/L	< 0.003	<0.003	< 0.003	<0.003	<0.003	<0.003	0.004	<0.003	< 0.003	<0.003
Boron (B)	µg/L	15.50	14.70	15.40	15.80	44.80	45.40	36.60	37.90	22.50	22.90
Cadmium (Cd)	µg/L	< 0.002	<0.002	< 0.002	0.0049	0.0039	0.0037	< 0.002	<0.002	< 0.002	<0.002
Chromium (Cr)	µg/L	0.04	0.06	0.15	0.18	0.29	0.35	0.22	0.21	0.12	0.12
Cobalt (Co)	µg/L	0.010	0.013	0.013	0.013	0.003	0.005	0.006	0.005	0.002	0.002
Copper (Cu)	µg/L	0.31	0.78	0.34	0.84	0.79	0.76	0.49	0.38	0.94	1.06
Iron (Fe)	µg/L	2.9	2.0		<2	6.3	11.0	7.7	9.7	31.4	30.9
Lead (Pb)	µg/L	0.004	<0.001	0.005	0.014	0.030	0.028	< 0.001	<0.001	0.003	0.003
Manganese (Mn)	µg/L	0.094	0.100	0.312	0.293	0.108	0.101	0.104	0.059	< 0.003	<0.003
Molybdenum (Mo)	µg/L	0.020	0.022	0.034	0.042	0.669	0.678	0.393	0.396	0.178	0.191
Nickel (Ni)	µg/L	0.114	0.120	0.058	0.012	0.064	0.058	0.082	0.056	0.120	0.123
Selenium (Se)	µg/L	0.4	0.5	0.6	0.5	1.5	1.4	0.8	0.9	0.6	0.7
Silver (Ag)	µg/L	< 0.0005	<0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	0.0198	<0.0005	< 0.0005	<0.0005
Strontium (Sr)	µg/L	98.7	98.6	99.8	102.0	56.8	56.2	44.5	43.9	32.0	32.9
Uranium (U)	µg/L	0.0071	0.0069	0.0072	0.0080	0.1530	0.1480	0.0336	0.0322	0.0202	0.0208
Vanadium (V)	µg/L	< 0.01	<0.01	< 0.01	0.03	0.08	0.07	< 0.01	<0.01	0.03	0.05
Zinc (Zn)	µg/L	2.04	1.63	1.33	1.60	0.79	0.63	0.77	0.93	1.43	1.64
Other											
Cyanide, Total	mg/L	< 0.02	<0.001	< 0.02	<0.001	<0.001	<0.001	0.120	<0.005	1.980	<0.005
Fluoride (F)	mg/L	0.03	0.02	0.04	0.04	0.09	0.08	0.18	1.65	0.05	0.04
Sulphide	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	< 0.001	<0.001	< 0.001	<0.001

Rep - Replicate sample

Table B2-1. Analytical results for QA/QC samples, 2006-2007

Parameter	Units	Ogama Outflow Duplicate (Hope Outflow)	
		17-Sep-07	
		Rep 1	Rep 2
Physical Parameters			
Alkalinity, Total ($CaCO_3$)	mg/L	24.8	27.5
Hardness, Total ($CaCO_3$)	mg/L	47.7	46.8
Conductivity	µS/cm	283.0	285.0
pH	units	-	-
TDS (Calculated)	mg/L	143.0	143.0
Total Suspended Solids	mg/L	5	4
Color, True	TCU	32	32
Nutrients			
Phosphorus, Total	mg/L	0.030	0.030
Total Kjeldahl Nitrogen	mg/L	0.64	0.65
Ammonia-N	mg/L	0.018	0.016
Nitrite-N	mg/L	< 0.001	<0.001
Nitrate-N	mg/L	< 0.005	<0.005
Organics			
Carbon Part	mg/L	7.7	1.54
Dissolved Organic Carbon	mg/L	< 0.001	8.0
Major Ions			
Calcium (Total)	mg/L	7.3900	7.2500
Calcium (Dissolved)	mg/L	7.0800	7.1200
Chloride (Cl)	mg/L	71.6	71.1
Magnesium (Total)	mg/L	6.8700	6.8400
Magnesium (Dissolved)	mg/L	6.6600	6.6900
Potassium (Total)	mg/L	2.36	2.33
Potassium (Dissolved)	mg/L	2.20	2.21
Sodium (Total)	mg/L	33.7	33.5
Sodium (Dissolved)	mg/L	32.9	32.9
Sulphate (SO_4)	mg/L	4	4
Anions	meq/L	2.60	2.63
Cations	meq/L	2.56	2.53
Ion Balance	N/A	0.99	0.96
Total Metals			
Aluminum (Al)	µg/L	198	221
Antimony (Sb)	µg/L	0.017	0.016
Arsenic (As)	µg/L	0.456	0.469
Barium (Ba)	µg/L	5.390	5.630
Beryllium (Be)	µg/L	< 0.003	0.008
Bismuth (Bi)	µg/L	0.002	0.001
Boron (B)	µg/L	23.00	22.50
Cadmium (Cd)	µg/L	0.0064	0.0040
Chromium (Cr)	µg/L	0.43	0.44
Cobalt (Co)	µg/L	0.067	0.077
Copper (Cu)	µg/L	1.68	1.67
Iron (Fe)	µg/L	181.0	209.0
Lead (Pb)	µg/L	0.119	0.097
Manganese (Mn)	µg/L	12.800	15.000
Mercury (Hg)	ng/L	< 0.6	< 0.6
Molybdenum (Mo)	µg/L	0.323	0.229
Nickel (Ni)	µg/L	0.883	0.915
Selenium (Se)	µg/L	0.7	0.7
Silver (Ag)	µg/L	0.0025	0.0010
Strontium (Sr)	µg/L	44.6000	44.4000
Thallium (Tl)	µg/L	0.0031	0.0027
Tin (Sn)	µg/L	< 0.03	<0.03
Uranium (U)	µg/L	0.0541	0.0556
Vanadium (V)	µg/L	0.829	0.880
Zinc (Zn)	µg/L	1.07	1.01
Dissolved Metals			
Aluminum (Al)	µg/L	51.2	49.4
Antimony (Sb)	µg/L	0.017	0.016
Arsenic (As)	µg/L	0.426	0.399
Barium (Ba)	µg/L	3.040	3.080
Beryllium (Be)	µg/L	< 0.003	0.006
Boron (B)	µg/L	21.40	21.50
Cadmium (Cd)	µg/L	0.0034	0.0035
Chromium (Cr)	µg/L	0.29	0.26
Cobalt (Co)	µg/L	0.019	0.019
Copper (Cu)	µg/L	1.50	1.37
Iron (Fe)	µg/L	45.0	42.4
Lead (Pb)	µg/L	0.118	0.096
Manganese (Mn)	µg/L	0.796	0.558
Molybdenum (Mo)	µg/L	0.215	0.210
Nickel (Ni)	µg/L	0.600	0.609
Selenium (Se)	µg/L	0.6	0.5
Silver (Ag)	µg/L	< 0.0005	<0.0005
Strontium (Sr)	µg/L	42.8	42.4
Uranium (U)	µg/L	0.0458	0.0450
Vanadium (V)	µg/L	0.61	0.57
Zinc (Zn)	µg/L	1.06	0.36
Other			
Cyanide, Total	mg/L	0.520	0.001
Fluoride (F)	mg/L	0.06	0.06
Sulphide	mg/L	< 0.001	<0.001

Rep - Replicate sample

Table B2-2. Notable results for QA/QC equipment blank and field blank samples, 2006-2007

Parameter	Units	MRV	Fickle Duck Lake Field Blank (Ant Lake)						Reference Outflow Equipment Blank (Bug Lake)		
			18-Jul-06	17-Aug-06	10-Sep-06	21-Jul-07	20-Aug-07	9-Sep-07	18-Jul-06	17-Aug-06	11-Sep-06
Physical Parameters											
Alkalinity, Total (CaCO3)	mg/L	1	0	0	0	0	0	0	0	0	0
Conductivity	µS/cm	0.1	1.4	1.4	1.4	1	1.1	1.6	1.2	1	1.6
pH	pH	0.1	5.6	5.6	5.7	0	0	0	5.6	6.0	6.6
TDS (calculated)	mg/L	0.1	4.4	4	4	6	5.6	4.3	3.9	4.1	4.6
Total Suspended Solids	mg/L	1	0	0	0	0	0	0	0	0	0
Color, True	TCU	1	0	0	0	0	0	0	0	7	0
Nutrients											
Phosphorus, Total (TP)	mg/L	0.001	0.013	0.011	0.019	0	0	0	0.006	0.006	0.014
Total Kjeldahl Nitrogen	mg/L	0.01	0.09	0	0	0	0	0	0	0	0
Ammonia-N (NH3-N)	mg/L	0.001	0.026	0.006	0	0.009	0.006	0.006	0	0	0
Nitrite-N (NO2-N)	mg/L	0.001	0	0	0	0	0	0	0	0	0
Nitrate-N (NO3-N	mg/L	0.005	0	0	0	0	0	0	0	0	0
Organics											
Dissolved Organic Carbon	mg/L	0.2	0	0	0	0	0	0	0	0	0
Major Ions											
Calcium (Ca) (total)	mg/L	0.004	0	0.0558	0	0	0	0	0	0	0
Calcium (Ca) (dissolved)	mg/L	0.004	0	0	0	0	0	0	0	0	0
Chloride (Cl)	mg/L	0.3	0	0	0	0	0	0	0	0	0
Magnesium (Mg) (total)	mg/L	0.0001	0.0006	0.0033	0	0.0018	0.001	0.0041	0.0032	0.0015	0.0034
Magnesium (Mg) (dissolved)	mg/L	0.0001	0	0.0019	0	0.0018	0.001	0.004	0.0017	0	0.0025
Potassium (K) (total)	µg/L	2	0	0	0	0	0	0	0	0	0
Potassium (K) (dissolved)	µg/L	2	0	0	0	0	0	0	0	0	0
Sodium (Na) (total)	µg/L	2	0	0	0	0	0	0	0	0	0
Sodium (Na) (dissolved)	µg/L	2	0	0	0	0	0	0	0	0	0
Sulphate (SO4)	mg/L	3.00	0	0	0	0	0	0	0	0	0
Total Metals											
Aluminum (Al)	µg/L	0.5	0	0	0	0	0	0	0	0	0
Antimony (Sb)	µg/L	0.0005	0	0.0033	0	0.0034	0	0.003	0	0.0033	0
Arsenic (As)	µg/L	0.002	0	0	0	0	0	0.0193	0	0	0
Barium (Ba)	µg/L	0.004	0.0341	0.281	0	0.025	0	0.0915	0.0835	0.042	0.062
Beryllium (Be)	µg/L	0.003	0	0	0	0	0	0	0	0	0
Bismuth (Bi)	µg/L	0.001	0	0.0119	0	0	0	0	0	0	0
Boron (B)	µg/L	0.05	0.55	0	0.337	0.297	0.28	0.925	0.35	0.306	0.399
Cadmium (Cd)	µg/L	0.002	0	0	0	0	0	0	0	0	0
Chromium (Cr)	µg/L	0.03	0	0	0	0	0	0	0	0	0
Cobalt (Co)	µg/L	0.001	0	0.0062	0	0	0	0	0	0	0
Copper (Cu)	µg/L	0.05	0	0.329	0	0	0	0	0	0	0
Iron (Fe)	µg/L	2	0	0	0	0	0	0	0	0	0
Lead (Pb)	µg/L	0.001	0.0133	0.187	0.007	0	0.0478	0.0412	0.0165	0.0124	0.103
Manganese (Mn)	µg/L	0.003	0	0.0673	0	0.0338	0.0591	0.328	0.0203	0.0207	0.0483
Molybdenum (Mo)	µg/L	0.001	0	0.0678	0	0	0	0	0	0.0451	0
Trace Mercury (Hg)	ng/L	0.03	0	0	0	2	0	0	0	3.6	0
Nickel (Ni)	µg/L	0.6	0.0341	0.289	0	0	0	0	0	0.256	0.129
Selenium (Se)	µg/L	0.005	0	0	0	0	0	0	0	0	0
Silver (Ag)	µg/L	0.10	0	0.0063	0	0	0	0	0	0.0077	0
Strontium (Sr)	µg/L	0.0005	0.049	0.317	0	0.0122	0.0178	0.0656	0.0498	0.0258	0.0577
Thallium (Tl)	µg/L	0.004	0.0064	0	0.0031	0	0	0	0.0036	0	0.0047
Tin (Sn)	µg/L	0.0003	0	0	0	1.52	0.0516	0.099	0	0.335	0.502
Uranium (U)	µg/L	0.0001	0	0.0007	0	0	0	0	0	0	0
Vanadium (V)	µg/L	0.01	0	0.08	0	0	0	0	0	0	0
Zinc (Zn)	µg/L	0.01	0.273	0.414	0.424	0.396	0.372	0.308	0.31	0.326	0.388
Dissolved Metals											
Aluminum (Al)	µg/L	0.2	0	0	0	0	0	0	0	0	0
Antimony (Sb)	µg/L	0.0005	0	0.0033	0	0.0034	0	0.00297	0	0.0033	0
Arsenic (As)	µg/L	0.002	0	0	0	0	0	0.0191	0	0	0
Barium (Ba)	µg/L	0.004	0	0.0543	0	0	0	0.0906	0	0	0
Beryllium (Be)	µg/L	0.003	0	0	0	0	0	0	0	0	0
Boron (B)	µg/L	0.03	0.281	0.178	0.275	0	0.256	0.201	0.29	0.27	0.314
Cadmium (Cd)	µg/L	0.002	0	0	0	0	0	0	0	0	0
Chromium (Cr)	µg/L	0.03	0	0	0	0	0	0	0	0	0
Cobalt (Co)	µg/L	0.001	0	0	0	0	0	0	0	0	0
Copper (Cu)	µg/L	0.05	0	0	0	0	0	0	0	0	0
Iron (Fe)	µg/L	2	0	0	0	0	0	0	0	0	0
Lead (Pb)	µg/L	0.001	0	0	0.0069	0	0	0.0174	0	0	0.0075
Manganese (Mn)	µg/L	0.003	0	0	0	0	0.0323	0.325	0	0	0.0414
Molybdenum (Mo)	µg/L	0.001	0	0.0107	0	0	0	0	0	0.0056	0
Nickel (Ni)	µg/L	0.005	0	0	0	0	0	0	0	0	0
Selenium (Se)	µg/L	0.1	0	0	0	0	0	0	0	0	0
Silver (Ag)	µg/L	0.0005	0	0.0036	0	0	0.0026	0	0	0.0045	0
Strontium (Sr)	µg/L	0.004	0.0487	0.169	0	0	0	0.065	0	0	0.0296
Uranium (U)	µg/L	0.0001	0	0	0	0	0	0	0	0	0
Vanadium (V)	µg/L	0.01	0	0	0	0	0	0	0	0	0
Zinc (Zn)	µg/L	0.05	0	0	0.346	0.296	0.264	0	0	0.264	0.26
Other											
Cyanide, Total	mg/L	0.001	0	0	0	0	0	0	0	0	0
Fluoride (F)	mg/L	0.01	0	0	0	0	0	0	0	0	0

Notables are > 5 times the MRV.
Notables are highlighted in yellow if concentrations are > 10% of the corresponding field value concentrations.
There were no notables for radium-226 or Dissolved Organic Carbon blanks.

Table B2-2. Notable results for QA/QC equipment blank and field blank samples, 2006-2007

Parameter	Units	MRV	Reference Outflow Equipment Blank (Bug Lake)				Patch Lake Equipment Blank (Slim Lake)				
			23-Jun-07	21-Jul-07	20-Aug-07	9-Sep-07	22-Jul-06	15-Aug-06	8-Sep-06	24-May-07	18-Jul-07
Physical Parameters											
Alkalinity, Total (CaCO3)	mg/L	1	0	0	0	0				0	0
Conductivity	µS/cm	0.1	1.2	1	1.3	1.2	1.3	1.3	1.4	1.6	1.2
pH	pH	0.1	0	0	0	0	5.8	5.5	5.8	0	0
TDS (calculated)	mg/L	0.1	4.8	5.9	5.7	4.3	4.0	3.8	4.2	5.6	7.4
Total Suspended Solids	mg/L	1	0	0	0	0				0	0
Color, True	TCU	1	0	0	0	0				0	0
Nutrients											
Phosphorus, Total (TP)	mg/L	0.001	0	0	0	0		0.012	0.013	0	0
Total Kjeldahl Nitrogen	mg/L	0.01	0	0	0	0				0	0
Ammonia-N (NH3-N)	mg/L	0.001	0.009	0.008	0.008	0				0	0.012
Nitrite-N (NO2-N)	mg/L	0.001	0	0	0	0				0	0
Nitrate-N (NO3-N	mg/L	0.005	0	0	0	0				0	0
Organics											
Dissolved Organic Carbon	mg/L	0.2	0	0	0	0				0	0
Major Ions											
Calcium (Ca) (total)	mg/L	0.004	0	0	0	0.0333				0.0204	0.0953
Calcium (Ca) (dissolved)	mg/L	0.004	0	0	0	0.0227				0	0.0818
Chloride (Cl)	mg/L	0.3	0	0	0	0				0	0
Magnesium (Mg) (total)	mg/L	0.0001	0.0016	0	0.0006	0.0015	0.0043	0.0052	0.0033	0.0031	0.078
Magnesium (Mg) (dissolved)	mg/L	0.0001	0.0012	0	0.0006	0.0015	0.0025	0.0023	0.0020	0.0008	0.0676
Potassium (K) (total)	µg/L	2	0	0	0	0				0	27.7
Potassium (K) (dissolved)	µg/L	2	0	0	0	0				0	25
Sodium (Na) (total)	µg/L	2	0	0	0	0				0	379
Sodium (Na) (dissolved)	µg/L	2	0	0	0	0				0	375
Sulphate (SO4)	mg/L	3.00	0	0	0	0				0	0
Total Metals											
Aluminum (Al)	µg/L	0.5	0	0	0	0				0	10.9
Antimony (Sb)	µg/L	0.0005	0.0104	0	0.0038	0	0.004		0.003	0.0038	0.0038
Arsenic (As)	µg/L	0.002	0	0	0.0187	0	0.044	0.025	0.013	0	0.0181
Barium (Ba)	µg/L	0.004	0	0.0386	0.0239	0.0932	0.033	0.096	0.021	0.0246	0.0827
Beryllium (Be)	µg/L	0.003	0	0	0	0				0	0
Bismuth (Bi)	µg/L	0.001	0	0	0	0				0	0
Boron (B)	µg/L	0.05	0.292	0.776	0	0.33	0.354	0.331	0.279	0.360	0.552
Cadmium (Cd)	µg/L	0.002	0	0	0	0				0	0
Chromium (Cr)	µg/L	0.03	0	0	0	0				0	0
Cobalt (Co)	µg/L	0.001	0	0	0	0				0	0
Copper (Cu)	µg/L	0.05	0	0	0	0				0	0
Iron (Fe)	µg/L	2	0	0	0	0				0	0
Lead (Pb)	µg/L	0.001	0	0	0	0.0369	0.014	0.011	0.015	0.0306	0
Manganese (Mn)	µg/L	0.003	0.103	0	0	0.154	0.032	0.052	0.041	0.0192	0.077
Molybdenum (Mo)	µg/L	0.001	0.0646	0	0	0				0.0051	0.0346
Trace Mercury (Hg)	ng/L	0.03	0	0	0	0	3.6	1.0	0.9	0	0
Nickel (Ni)	µg/L	0.6	0	0	0	0				0	0
Selenium (Se)	µg/L	0.005	0	0.119	0	0	0.3			0	0
Silver (Ag)	µg/L	0.10	0	0	0	0				0	0
Strontium (Sr)	µg/L	0.0005	0.0488	0.0218	0.0231	0.105	0.0645	0.0877	0.0497	0.0345	0.465
Thallium (Tl)	µg/L	0.004	0	0	0	0				0	0
Tin (Sn)	µg/L	0.0003	0	0	0	0	0.31	0.44	0.28	0	2
Uranium (U)	µg/L	0.0001	0	0	0	0				0	0.0019
Vanadium (V)	µg/L	0.01	0	0	0	0				0.0676	0
Zinc (Zn)	µg/L	0.01	0.161	0.42	0.458	0.325	0.38	0.40	0.35	0.346	3.77
Dissolved Metals											
Aluminum (Al)	µg/L	0.2	0	0	0	0				0	0
Antimony (Sb)	µg/L	0.0005	0.0103	0	0.0037	0	0.004		0.003	0.00375	0.00374
Arsenic (As)	µg/L	0.002	0	0	0.0185	0	0.044	0.024	0.012	0	0.0179
Barium (Ba)	µg/L	0.004	0	0	0	0.0302				0	0.0224
Beryllium (Be)	µg/L	0.003	0	0	0	0				0	0
Boron (B)	µg/L	0.03	0.239	0.169	0	0	0.31	0.27	0.27	0.276	0
Cadmium (Cd)	µg/L	0.002	0	0	0	0				0	0
Chromium (Cr)	µg/L	0.03	0	0	0	0				0	0
Cobalt (Co)	µg/L	0.001	0	0	0	0				0	0
Copper (Cu)	µg/L	0.05	0	0	0	0				0	0
Iron (Fe)	µg/L	2	0	0	0	0				0	0
Lead (Pb)	µg/L	0.001	0	0	0	0.007	0.008		0.015	0.019	0
Manganese (Mn)	µg/L	0.003	0.102	0	0	0.152	0.017	0.027	0.041	0	0.0301
Molybdenum (Mo)	µg/L	0.001	0.014	0	0	0.0117				0	0.0335
Nickel (Ni)	µg/L	0.005	0	0	0	0				0	0
Selenium (Se)	µg/L	0.1	0	0	0	0				0	0
Silver (Ag)	µg/L	0.0005	0	0	0	0				0	0.009
Strontium (Sr)	µg/L	0.004	0.0483	0.0216	0.0229	0.102	0.026	0.025	0.050	0.0281	0.46
Uranium (U)	µg/L	0.0001	0	0	0	0				0	0
Vanadium (V)	µg/L	0.01	0	0	0	0				0	0
Zinc (Zn)	µg/L	0.05	0	0.311	0.297	0			0.25	0.271	1.85
Other											
Cyanide, Total	mg/L	0.001	0	0	0	0				0.09	0
Fluoride (F)	mg/L	0.01	0.08	0.14	0	0				0	0.13

Notables are > 5 times the MRV.
Notables are highlighted in yellow if concentrations are > 10% of the corresponding field value concentrations.
There were no notables for radium-226 or Dissolved Organic blanks.

Table B2-2. Notable results for QA/QC equipment blank and field blank samples, 2006-2007

Parameter	Units	MRV	Patch Lake Equipment Blank (Slim Lake)		Patch Outflow Field Blank (Wolf Outflow)	
			18-Aug-07	13-Sep-07	22-Jul-06	22-Jun-07
Physical Parameters						
Alkalinity, Total (CaCO3)	mg/L	1	0	0	0	0
Conductivity	µS/cm	0.1	4.2	1.7	1.1	1.4
pH	pH	0.1	0	0	5.7	0
TDS (calculated)	mg/L	0.1	7.1	4.2	3.9	5.1
Total Suspended Solids	mg/L	1	0	0	0	0
Color, True	TCU	1	0	0	0	0
Nutrients						
Phosphorus, Total (TP)	mg/L	0.001	0	0	0	0
Total Kjeldahl Nitrogen	mg/L	0.01	0	0	0	0
Ammonia-N (NH3-N)	mg/L	0.001	0.009	0.008	0	0.01
Nitrite-N (NO2-N)	mg/L	0.001	0	0	0	0
Nitrate-N (NO3-N	mg/L	0.005	0	0	0	0
Organics						
Dissolved Organic Carbon	mg/L	0.2	0	0	0	0
Major Ions						
Calcium (Ca) (total)	mg/L	0.004	0	0	0	0
Calcium (Ca) (dissolved)	mg/L	0.004	0	0	0	0
Chloride (Cl)	mg/L	0.3	0	0	0	0
Magnesium (Mg) (total)	mg/L	0.0001	0.0446	0.0055	0.0005	0.0007
Magnesium (Mg) (dissolved)	mg/L	0.0001	0.0301	0.0043	0	0
Potassium (K) (total)	µg/L	2	0	0	0	0
Potassium (K) (dissolved)	µg/L	2	0	0	0	0
Sodium (Na) (total)	µg/L	2	304	0	0	0
Sodium (Na) (dissolved)	µg/L	2	290	0	0	0
Sulphate (SO4)	mg/L	3.00	0	0	0	0
Total Metals						
Aluminum (Al)	µg/L	0.5	11.2	0	0	0
Antimony (Sb)	µg/L	0.0005	0.0044	0	0	0
Arsenic (As)	µg/L	0.002	0.0314	0	0.017	0
Barium (Ba)	µg/L	0.004	0.0809	0.0589	0	0.0591
Beryllium (Be)	µg/L	0.003	0	0	0	0
Bismuth (Bi)	µg/L	0.001	0	0	0	0.0099
Boron (B)	µg/L	0.05	0.307	0	0.45	1.05
Cadmium (Cd)	µg/L	0.002	0	0	0	0
Chromium (Cr)	µg/L	0.03	0.209	0	0	0
Cobalt (Co)	µg/L	0.001	0.0073	0	0	0
Copper (Cu)	µg/L	0.05	0	0	0	0
Iron (Fe)	µg/L	2	0	0	0	0
Lead (Pb)	µg/L	0.001	0	0.0081	0	0
Manganese (Mn)	µg/L	0.003	0.151	0	0	0
Molybdenum (Mo)	µg/L	0.001	0.0179	0.0074	0	0.0185
Trace Mercury (Hg)	ng/L	0.03	0	1.1	0	0.7
Nickel (Ni)	µg/L	0.6	0	0	0	0
Selenium (Se)	µg/L	0.005	0	0	0	0
Silver (Ag)	µg/L	0.10	0	0	0	0
Strontium (Sr)	µg/L	0.0005	0.29	0.0652	0.0092	0.016
Thallium (Tl)	µg/L	0.004	0	0	0	0
Tin (Sn)	µg/L	0.0003	0.405	0.0468	0	0
Uranium (U)	µg/L	0.0001	0.0106	0	0	0
Vanadium (V)	µg/L	0.01	0.0757	0.0655	0	0
Zinc (Zn)	µg/L	0.01	0.15	0.355	0.40	0.384
Dissolved Metals						
Aluminum (Al)	µg/L	0.2	0	0	0	0
Antimony (Sb)	µg/L	0.0005	0.0044	0	0	0
Arsenic (As)	µg/L	0.002	0	0	0.017	0
Barium (Ba)	µg/L	0.004	0	0	0	0
Beryllium (Be)	µg/L	0.003	0	0	0	0
Boron (B)	µg/L	0.03	0.282	0	0	
Cadmium (Cd)	µg/L	0.002	0	0	0	0
Chromium (Cr)	µg/L	0.03	0	0	0	0
Cobalt (Co)	µg/L	0.001	0	0	0	0
Copper (Cu)	µg/L	0.05	0	0	0	0
Iron (Fe)	µg/L	2	0	0	0	0
Lead (Pb)	µg/L	0.001	0	0.008	0	0
Manganese (Mn)	µg/L	0.003	0	0	0	0
Molybdenum (Mo)	µg/L	0.001	0	0	0	0.0074
Nickel (Ni)	µg/L	0.005	0	0	0	0
Selenium (Se)	µg/L	0.1	0	0	0	0
Silver (Ag)	µg/L	0.0005	0	0.0072	0	0
Strontium (Sr)	µg/L	0.004	0.307	0.0645	0	0
Uranium (U)	µg/L	0.0001	0	0	0	0
Vanadium (V)	µg/L	0.01	0	0.0648	0	0
Zinc (Zn)	µg/L	0.05	0	0.254	0	0
Other						
Cyanide, Total	mg/L	0.001	0	0.07	0	0.1
Fluoride (F)	mg/L	0.01	0	0	0	0.07

Notables are > 5 times the MRV.
Notables are highlighted in yellow if concentrations are > 10% of the corresponding field value concentrations.
There were no notables for radium-226 or Dissolved Organic blanks.

Table B2-3. Notable results for QA/QC field duplicate samples, 2006-2007

Parameter	Units	MRV	Stickleback Lake Duplicate (Fly Lake)								
			17-Jul-06			17-Aug-06			10-Sep-06		
			Rep 1	Rep 2	RPD	Rep 1	Rep 2	RPD	Rep 1	Rep 2	RPD
Physical Parameters											
Alkalinity, Total ($CaCO_3$)	mg/L	1	32.9	32.8	0%	33.8	33.9	0%	33.6	33.7	0%
Conductivity	µS/cm	0.1	239	239	0%	242	241	0%	252	252	0%
pH	Units	0.1	7.67	7.69	0%	7.71	7.65	1%	7.62	7.7	1%
TDS (Calculated)	mg/L	0.1	111	111	0%	117	118	1%	118	117	1%
Total Suspended Solids	mg/L	1	<1	<1	-	<1	<1	-	<1	<1	-
Color, True	TCU	1	<1	<1	-	<1	14	-	<1	<1	-
Nutrients											
Phosphorus, Total	mg/L	0.001	0.013	0.014	7%	0.03	0.028	7%	0.033	0.025	**28%**
Total Kjeldahl Nitrogen	mg/L	0.01	0.4	0.33	19%	0.4	0.39	3%	0.36	0.36	0%
Ammonia-N	mg/L	0.001	0.01	<0.03	-	0.013	0.01	**26%**	0.008	0.005	-
Nitrite-N	mg/L	0.001	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	-
Nitrate-N	mg/L	0.005	<0.005	<0.005	-	<0.005	0.005	-	0.012	<0.005	-
Organics											
Dissolved Organic Carbon	mg/L	0.2	4.2	4.4	5%	4.7	4.9	4%	4.5	4.5	0%
Dissolved Anions											
Calcium (Ca) (total)	mg/L	0.004	17.1	16.9	1%	17.6	17.6	0%	18.3	17.5	4%
Calcium (Ca) (dissolved)	mg/L	0.004	15.6	15.9	2%	16.5	16.1	2%	17	17.3	2%
Chloride (Cl)	mg/L	0.3	51.1	50.9	0%	53.1	53.7	1%	55.1	54.5	1%
Magnesium (Mg) (total)	mg/L	0.0001	6.22	6.2	0%	6.37	6.45	1%	6.66	6.22	7%
Magnesium (Mg) (dissolved)	mg/L	0.0001	5.66	5.85	3%	5.79	5.6	3%	6.14	6.16	0%
Potassium (K) (total)	mg/L	0.002	1.71	1.70	1%	1.77	1.80	2%	1.88	1.78	5%
Potassium (K) (dissolved)	mg/L	0.002	1.55	1.61	4%	1.65	1.61	2%	1.72	1.75	2%
Sodium (Na) (total)	mg/L	0.002	14.7	14.7	0%	15.5	15.1	3%	15.9	14.8	7%
Sodium (Na) (dissolved)	mg/L	0.002	13.6	14.0	3%	13.9	13.3	4%	14.7	14.8	1%
Sulphate (SO_4)	mg/L	3.00	<3	<3	-	<3	<3	-	<3	<3	-
Total Metals											
Aluminum (Al)	µg/L	0.5	7.39	4.96	**39%**	12.2	9.6	**24%**	12.1	13	7%
Antimony (Sb)	µg/L	0.0005	0.0064	0.0064	0%	0.0077	0.0082	6%	0.0074	0.0115	**43%**
Arsenic (As)	µg/L	0.002	0.377	0.37	2%	0.451	0.49	8%	0.481	0.435	10%
Barium (Ba)	µg/L	0.004	5.45	5.26	4%	5.41	5.5	2%	5.57	5.31	5%
Beryllium (Be)	µg/L	0.003	<0.003	<0.003	-	<0.003	<0.003	-	<0.003	<0.003	-
Bismuth (Bi)	µg/L	0.001	0.0019	0.0016	-	0.0039	0.0034	-	0.0022	<0.001	-
Boron (B)	µg/L	0.05	16.3	17.3	6%	18.7	18.2	3%	19.3	18.8	3%
Cadmium (Cd)	µg/L	0.002	<0.002	<0.002	-	<0.002	<0.002	-	<0.002	0.0027	-
Chromium (Cr)	µg/L	0.03	0.124	0.108	-	0.101	0.106	-	0.112	0.056	-
Cobalt (Co)	µg/L	0.001	0.0218	0.0252	14%	0.0348	0.0334	4%	0.0205	0.0195	5%
Copper (Cu)	µg/L	0.05	0.502	0.465	8%	0.885	2.02	**78%**	0.815	0.325	**86%**
Iron (Fe)	µg/L	2	53.3	51	4%	105	106	1%	31.9	28.8	10%
Lead (Pb)	µg/L	0.001	0.046	0.0488	6%	0.114	0.114	0%	0.0513	0.0379	**30%**
Manganese (Mn)	µg/L	0.003	5.97	6.46	8%	11.3	11.7	3%	4.76	4.43	7%
Molybdenum (Mo)	µg/L	0.001	0.0386	0.0354	9%	0.234	0.0549	**124%**	0.0497	0.0502	1%
Mercury (Hg)	µg/L	0.6	<0.6	<0.6	-	47	14	**108%**	7	7	0%
Nickel (Ni)	µg/L	0.005	<0.005	<0.005	-	0.199	0.059	**109%**	0.095	0.082	15%
Selenium (Se)	µg/L	0.10	0.361	0.383	-	0.571	0.538	6%	0.592	0.51	15%
Silver (Ag)	µg/L	0.0005	<0.0005	0.0009	-	0.0011	0.0018	-	0.0009	0.0006	-
Strontium (Sr)	µg/L	0.004	99.5	97	3%	102	101	1%	103	100	3%
Thallium (Tl)	µg/L	0.0003	0.0122	0.0129	6%	0.0026	0.0069	**91%**	0.0136	0.0124	9%
Tin (Sn)	µg/L	0.03	17	24.9	**38%**	3.1	6.14	**66%**	2.01	0.171	**169%**
Uranium (U)	µg/L	0.0001	0.0111	0.011	1%	0.0102	0.0103	1%	0.0099	0.0104	5%
Vanadium (V)	µg/L	0.01	0.0393	0.0448	-	0.168	0.028	-	0.0362	0.02	-
Zinc (Zn)	µg/L	0.01	2.22	0.85	**89%**	3.74	6.63	**56%**	1.54	0.782	**65%**
Dissolved Metals											
Aluminum (Al)	µg/L	0.2	0.914	1.03	-	0.449	0.501	-	0.647	0.52	-
Antimony (Sb)	µg/L	0.0005	0.0064	0.0064	0%	0.0077	0.0082	6%	0.0073	0.0111	**41%**
Arsenic (As)	µg/L	0.002	0.311	0.345	10%	0.367	0.406	10%	0.395	0.386	2%
Barium (Ba)	µg/L	0.004	4.73	4.82	2%	4.78	4.77	0%	5.12	5.07	1%
Beryllium (Be)	µg/L	0.003	<0.003	<0.003	-	<0.003	<0.003	-	<0.003	<0.003	-
Boron (B)	µg/L	0.03	14.5	15.6	7%	16.7	15.4	8%	17.1	17.3	1%
Cadmium (Cd)	µg/L	0.002	<0.002	<0.002	-	<0.002	<0.002	-	<0.002	0.0021	-
Chromium (Cr)	µg/L	0.03	0.115	0.107	-	0.0975	0.065	-	0.106	0.052	-
Cobalt (Co)	µg/L	0.001	0.0063	0.0087	**32%**	0.0151	0.012	**23%**	0.0051	0.0074	**37%**
Copper (Cu)	µg/L	0.05	0.349	0.39	11%	0.641	1.34	**71%**	0.634	0.318	**66%**
Iron (Fe)	µg/L	2	<2	<2	-	<2	<2	-	<2	<2	-
Lead (Pb)	µg/L	0.001	0.0327	0.0335	2%	0.0925	0.0912	1%	0.0391	0.0367	6%
Manganese (Mn)	µg/L	0.003	0.0982	0.101	3%	0.134	0.15	11%	0.241	0.252	4%
Molybdenum (Mo)	µg/L	0.001	0.0287	0.0346	19%	0.0481	0.0467	3%	0.0469	0.0461	2%
Nickel (Ni)	µg/L	0.005	<0.005	<0.005	-	0.026	0.048	**59%**	<0.005	0.018	-
Selenium (Se)	µg/L	0.1	0.355	0.35	-	0.408	0.264	-	0.585	0.504	15%
Silver (Ag)	µg/L	0.0005	<0.0005	<0.0005	-	0.0009	0.0009	-	<0.0005	<0.0005	-
Strontium (Sr)	µg/L	0.004	90.1	92.1	2%	94.2	92.4	2%	98.3	99.9	2%
Uranium (U)	µg/L	0.0001	0.0078	0.008	3%	0.0072	0.0068	6%	0.0057	0.0059	3%
Vanadium (V)	µg/L	0.01	0.0385	0.0445	-	<0.01	<0.01	-	0.036	0.0197	-
Zinc (Zn)	µg/L	0.05	2.14	0.735	**98%**	2.49	2.43	2%	1.52	0.781	**64%**
Other											
Cyanide, Total	mg/L	0.001	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	-
Fluoride (F)	mg/L	0.01	0.04	0.04	-	0.03	0.01	-	0.05	0.05	-

Values in bold indicate that samples and duplicates are greater than five times the MRV, and greater than 20% different. '-' indicates that samples and/or duplicates are not greater than five times the MRV.

Table B2-3. Notable results for QA/QC field duplicate samples, 2006-2007

Parameter	Units	MRV	Stickleback Lake Duplicate (Fly Lake)								
			21-Jul-07			20-Aug-07			9-Sep-07		
			Rep 1	Rep 2	RPD	Rep 1	Rep 2	RPD	Rep 1	Rep 2	RPD
Physical Parameters					-			-			-
Alkalinity, Total ($CaCO_3$)	mg/L	1	35.9	35.8	0%	34.2	34.2	0%	34.4	34.9	1%
Conductivity	µS/cm	0.1	70	70.5	1%	70.9	70.5	1%	71.2	69	3%
pH	Units	0.1	248	247	0%	246	246	0%	250	248	1%
TDS (Calculated)	mg/L	0.1	125	125	0%	122	122	0%	122	122	0%
Total Suspended Solids	mg/L	1	<1	<1	-	1	1	-	<1	<1	-
Color, True	TCU	1	5	5	-	<1	<1	-	<1	<1	-
Nutrients					-			-			-
Phosphorus, Total	mg/L	0.001	0.013	0.015	14%	0.011	0.012	9%	0.011	0.011	0%
Total Kjeldahl Nitrogen	mg/L	0.01	0.39	0.37	5%	0.37	0.38	3%	0.39	0.4	3%
Ammonia-N	mg/L	0.001	0.015	0.012	**22%**	0.01	0.012	18%	0.009	0.034	**116%**
Nitrite-N	mg/L	0.001	<0.005	<0.005	-	<0.005	<0.005	-	<0.005	<0.005	-
Nitrate-N	mg/L	0.005	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	-
Organics					-			-			-
Dissolved Organic Carbon	mg/L	0.2	4.4	4.3	2%	4.2	4.5	7%	4.7	4.6	2%
Dissolved Anions					-			-			-
Calcium (Ca) (total)	mg/L	0.004	17.4	17.5	1%	17	16.8	1%	17.2	17.6	2%
Calcium (Ca) (dissolved)	mg/L	0.004	16.4	16.9	3%	16.6	16.5	1%	16.8	16.9	1%
Chloride (Cl)	mg/L	0.3	58.4	<0.3	-	54.9	<0.3	-	56.5	<0.3	-
Magnesium (Mg) (total)	mg/L	0.0001	6.2	6.17	0%	6.62	6.48	2%	6.64	6.9	4%
Magnesium (Mg) (dissolved)	mg/L	0.0001	5.88	5.9	0%	6.42	6.24	3%	6.5	6.57	1%
Potassium (K) (total)	mg/L	0.002	1.79	1.78	1%	1.79	1.76	2%	1.88	1.94	3%
Potassium (K) (dissolved)	mg/L	0.002	1.67	1.70	2%	1.74	1.73	1%	1.83	1.84	1%
Sodium (Na) (total)	mg/L	0.002	14.9	14.7	1%	16.3	15.9	2%	16.1	16.8	4%
Sodium (Na) (dissolved)	mg/L	0.002	14.2	14.0	-	15.9	15.3	4%	16.0	16.5	3%
Sulphate (SO_4)	mg/L	3.00	<3	<3	-	<3	<3	-	<3	<3	-
Total Metals					-			-			-
Aluminum (Al)	µg/L	0.5	6.25	9.98	**46%**	10.8	10.4	4%	9.25	10.5	13%
Antimony (Sb)	µg/L	0.0005	0.005	0.0046	-	0.0058	0.0345	**142%**	0.005	0.0085	-
Arsenic (As)	µg/L	0.002	0.458	0.441	4%	0.44	0.45	2%	0.472	0.466	1%
Barium (Ba)	µg/L	0.004	6.32	6.39	1%	6.01	6.11	2%	5.71	5.88	3%
Beryllium (Be)	µg/L	0.003	<0.003	<0.003	-	<0.003	<0.003	-	<0.003	<0.003	-
Bismuth (Bi)	µg/L	0.001	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	-
Boron (B)	µg/L	0.05	18.4	18.2	1%	16.1	15.7	3%	17.9	17.4	3%
Cadmium (Cd)	µg/L	0.002	<0.002	<0.002	-	<0.002	<0.002	-	0.0026	0.0049	-
Chromium (Cr)	µg/L	0.03	0.106	0.124	16%	0.0387	0.0738	**62%**	0.15	0.177	17%
Cobalt (Co)	µg/L	0.001	0.0226	0.0327	**37%**	0.033	0.0323	2%	0.035	0.0343	2%
Copper (Cu)	µg/L	0.05	0.308	0.233	**28%**	0.317	1.03	**106%**	0.341	0.852	**86%**
Iron (Fe)	µg/L	2	65.7	99.3	**41%**	64.3	58.6	9%	49.7	40.4	**21%**
Lead (Pb)	µg/L	0.001	0.236	0.0016	-	0.0082	0.0137	-	0.0219	0.0283	-
Manganese (Mn)	µg/L	0.003	7.44	12.7	**52%**	8.75	8.52	3%	7.53	7.57	1%
Molybdenum (Mo)	µg/L	0.001	0.0106	0.0161	**41%**	0.0272	0.0252	8%	0.0341	0.0423	**21%**
Mercury (Hg)	µg/L	0.6	1.5	2.1	**33%**	<0.6	<0.6	-	0.8	<0.6	-
Nickel (Ni)	µg/L	0.005	0.057	0.0163	-	0.163	0.121	**30%**	0.134	0.017	-
Selenium (Se)	µg/L	0.10	0.591	0.674	13%	0.47	0.47	0%	0.735	0.76	3%
Silver (Ag)	µg/L	0.0005	0.001	0.001	-	0.0011	<0.0005	-	0.0016	0.0026	-
Strontium (Sr)	µg/L	0.004	98.2	99.5	1%	101	101	0%	99.9	102	2%
Thallium (Tl)	µg/L	0.0003	0.0048	0.0048	-	<0.0003	<0.0003	-	<0.0003	0.0012	-
Tin (Sn)	µg/L	0.03	1.25	0.982	**24%**	0.111	0.85	**154%**	0.107	1.16	**166%**
Uranium (U)	µg/L	0.0001	0.0082	0.0085	-	0.0086	0.0085	-	0.0101	0.0099	-
Vanadium (V)	µg/L	0.01	<0.01	0.021	-	<0.01	0.02	-	<0.01	0.058	-
Zinc (Zn)	µg/L	0.01	2.06	3.63	**55%**	2.06	1.65	**22%**	1.34	1.62	19%
Dissolved Metals					-			-			-
Aluminum (Al)	µg/L	0.2	<0.02	<0.02	-	<0.02	<0.02	-	0.208	0.63	**101%**
Antimony (Sb)	µg/L	0.0005	0.005	0.0046	-	0.0057	0.0342	-	0.0049	0.0084	-
Arsenic (As)	µg/L	0.002	0.411	0.368	11%	0.402	0.387	4%	0.412	0.406	1%
Barium (Ba)	µg/L	0.004	5.87	5.97	2%	5.68	5.65	1%	5.32	5.35	1%
Beryllium (Be)	µg/L	0.003	<0.003	<0.003	-	<0.003	<0.003	-	<0.003	<0.003	-
Boron (B)	µg/L	0.03	17	16.9	1%	15.5	14.7	5%	15.4	15.8	3%
Cadmium (Cd)	µg/L	0.002	<0.002	<0.002	-	<0.002	<0.002	-	<0.002	0.0049	-
Chromium (Cr)	µg/L	0.03	0.105	0.104	1%	0.0383	0.0567	**39%**	0.149	0.175	16%
Cobalt (Co)	µg/L	0.001	0.0088	0.0096	-	0.0097	0.0125	-	0.0134	0.0129	-
Copper (Cu)	µg/L	0.05	0.205	0.176	15%	0.314	0.775	**85%**	0.338	0.843	**86%**
Iron (Fe)	µg/L	2	3.5	3.1	12%	2.9	2	**37%**		<2	-
Lead (Pb)	µg/L	0.001	<0.001	<0.001	-	0.0035	<0.001	-	0.0054	0.0139	-
Manganese (Mn)	µg/L	0.003	0.076	0.103	**30%**	0.0943	0.0997	6%	0.312	0.293	6%
Molybdenum (Mo)	µg/L	0.001	0.0105	0.0099	-	0.0199	0.0215	-	0.0338	0.0419	**21%**
Nickel (Ni)	µg/L	0.005	0.0098	<0.005	-	0.114	0.12	5%	0.0579	0.0119	**132%**
Selenium (Se)	µg/L	0.1	0.585	0.473	**21%**	0.36	0.465	**25%**	0.578	0.53	9%
Silver (Ag)	µg/L	0.0005	0.001	0.00099	-	<0.0005	<0.0005	-	<0.0005	<0.0005	-
Strontium (Sr)	µg/L	0.004	95.5	96.2	1%	98.7	98.6	0%	99.8	102	2%
Uranium (U)	µg/L	0.0001	0.0063	0.0064	2%	0.0071	0.0069	3%	0.0072	0.008	11%
Vanadium (V)	µg/L	0.01	<0.01	0.015	-	<0.01	<0.01	-	<0.01	0.033	-
Zinc (Zn)	µg/L	0.05	1.14	2.3	**67%**	2.04	1.63	**22%**	1.33	1.6	18%
Other					-			-			-
Cyanide, Total	mg/L	0.001	<0.02	<0.001	-	<0.02	<0.001	-	<0.02	<0.001	-
Fluoride (F)	mg/L	0.01	0.37	0.38	3%	0.03	0.02	**40%**	0.04	0.04	0%

Table B2-3. Notable results for QA/QC field duplicate samples, 2006-2007

Parameter	Units	MRV	Windy Outflow Duplicate (Hope Outflow)						Pelvic Outflow Duplicate (Hope Outflow)		
			9-Sep-06			19-Jul-07			18-Aug-07		
			Rep 1	Rep 2	RPD	Rep 1	Rep 2	RPD	Rep 1	Rep 2	RPD
Physical Parameters											
Alkalinity, Total ($CaCO_3$)	mg/L	1	48	48	0%	39.2	39.7	1%	22.3	22.5	1%
Conductivity	µS/cm	0.1	437	437	0%	327	329	1%	248	251	1%
pH	Units	0.1	8.05	8.04	0%						
TDS (Calculated)	mg/L	0.1	214	211	1%	169	168	1%	126	126	0%
Total Suspended Solids	mg/L	1	<1	<1	-	<1	<1	-	8	8	0%
Color, True	TCU	1	<1	<1	-	7	7	0%	9	6	**40%**
Nutrients											
Phosphorus, Total	mg/L	0.001	0.019	0.024	**23%**	0.004	0.007	**55%**	0.045	0.041	9%
Total Kjeldahl Nitrogen	mg/L	0.01	0.11	0.11	0%	0.1	0.11	10%	0.65	0.61	6%
Ammonia-N	mg/L	0.001	0.002	0.003	-	0.009	0.008	-	0.008	0.009	-
Nitrite-N	mg/L	0.001	<0.005	<0.005	-	<0.001	<0.001	-	<0.001	<0.001	-
Nitrate-N	mg/L	0.005	<0.001	<0.001	-	<0.005	<0.005	-	<0.005	<0.005	-
Organics											
Dissolved Organic Carbon	mg/L	0.2	1.9	2	5%	<0.001	1.5	-	<0.001	5.9	-
Dissolved Anions											
Calcium (Ca) (total)	mg/L	0.004	11.5	11.8	3%	8.93	9.05	1%	4.39	4.49	2%
Calcium (Ca) (dissolved)	mg/L	0.004	11.2	11.2	0%	8.78	8.64	2%	4.25	4.32	2%
Chloride (Cl)	mg/L	0.3	95.8	94.9	1%	78.8	78.5	0%	60.5	61.2	1%
Magnesium (Mg) (total)	mg/L	0.0001	9.58	9.5	1%	6.9	7.25	5%	5.77	6.18	7%
Magnesium (Mg) (dissolved)	mg/L	0.0001	9.52	9.17	4%	6.831	6.91	1%	5.76	6.05	5%
Potassium (K) (total)	mg/L	0.002	3.89	3.94	1%	2.77	2.77	0%	2.10	2.13	1%
Potassium (K) (dissolved)	mg/L	0.002	3.83	3.79	1%	2.72	2.63	3%	1.88	1.91	2%
Sodium (Na) (total)	mg/L	0.002	55.3	54.8	1%	38.6	39.2	2%	30.6	30.8	1%
Sodium (Na) (dissolved)	mg/L	0.002	55.1	53.0	4%	38.4	37.7	2%	30.6	30.5	0%
Sulphate (SO_4)	mg/L	3.00	11	9	-	5	4	**22%**	5	5	0%
Total Metals											
Aluminum (Al)	µg/L	0.5	48.7	65.4	**29%**	34	26.8	**24%**	307	380	**21%**
Antimony (Sb)	µg/L	0.0005	0.0562	0.0557	1%	0.0412	0.0419	-	0.0176	0.017	-
Arsenic (As)	µg/L	0.002	0.65	0.722	10%	0.418	0.452	8%	0.638	0.692	8%
Barium (Ba)	µg/L	0.004	2.35	2.52	7%	2.05	1.89	8%	4.91	6.29	**25%**
Beryllium (Be)	µg/L	0.003	<0.003	<0.003	-	0.0045	<0.003	-	0.0099	0.0098	-
Bismuth (Bi)	µg/L	0.001	0.0046	0.0015	-	<0.001	0.0026	-	0.0022	0.0112	-
Boron (B)	µg/L	0.05	46.5	48	3%	37.4	40.9	9%	22.5	26.5	16%
Cadmium (Cd)	µg/L	0.002	0.0039	0.0037	-	<0.002	<0.002	-	0.0063	0.0053	-
Chromium (Cr)	µg/L	0.03	0.294	0.35	17%	0.217	0.267	**21%**	0.638	0.694	8%
Cobalt (Co)	µg/L	0.001	0.019	0.0285	**40%**	0.0267	0.0149	-	0.112	0.129	-
Copper (Cu)	µg/L	0.05	0.828	0.892	7%	0.594	0.572	4%	1.45	1.5	3%
Iron (Fe)	µg/L	2	66.5	80.7	19%	77.1	49.6	**43%**	333	421	**23%**
Lead (Pb)	µg/L	0.001	0.0452	0.0503	11%	0.0215	0.008	-	0.109	0.128	-
Manganese (Mn)	µg/L	0.003	1.45	1.63	12%	1.96	1.12	**55%**	38.4	48.2	**23%**
Molybdenum (Mo)	µg/L	0.001	0.676	0.704	4%	0.397	0.402	1%	0.187	0.207	10%
Mercury (Hg)	µg/L	0.6	<0.6	<0.6	-	<0.6	<0.6	-	<0.6	<0.6	-
Nickel (Ni)	µg/L	0.005	0.104	0.112	7%	0.083	0.082	1%	0.532	0.619	15%
Selenium (Se)	µg/L	0.10	2	2.17	8%	0.996	1.29	-	0.773	0.983	-
Silver (Ag)	µg/L	0.0005	0.0012	0.0011	-	0.02	<0.0005	-	<0.0005	<0.0005	-
Strontium (Sr)	µg/L	0.004	58.3	58.9	1%	44.9	44.9	0%	32.0	33.9	6%
Thallium (Tl)	µg/L	0.0003	0.0125	0.0116	7%	<0.0003	0.0044	-	0.0053	0.0066	**22%**
Tin (Sn)	µg/L	0.03	0.0388	0.0448	-	<0.03	<0.03	-	0.033	<0.03	-
Uranium (U)	µg/L	0.0001	0.248	0.259	4%	0.0531	0.0454	-	0.0503	0.0534	-
Vanadium (V)	µg/L	0.01	0.082	0.134	**48%**	0.049	0.0444	10%	0.505	0.676	**29%**
Zinc (Zn)	µg/L	0.01	0.797	1.35	**52%**	0.775	0.943	20%	1.44	2.05	**35%**
Dissolved Metals											
Aluminum (Al)	µg/L	0.2	5.48	5.39	2%	2.83	2.53	11%	12	12.5	4%
Antimony (Sb)	µg/L	0.0005	0.0562	0.0557	1%	0.0408	0.0415	-	0.0175	0.0168	-
Arsenic (As)	µg/L	0.002	0.58	0.657	12%	0.361	0.396	9%	0.483	0.458	5%
Barium (Ba)	µg/L	0.004	1.83	1.8	2%	1.71	1.62	5%	1.29	1.32	2%
Beryllium (Be)	µg/L	0.003	<0.003	<0.003	-	0.00442	<0.003	-	<0.003	<0.003	-
Boron (B)	µg/L	0.03	44.8	45.4	1%	36.6	37.9	3%	22.5	22.9	2%
Cadmium (Cd)	µg/L	0.002	0.0039	0.0037	-	<0.002	<0.002	-	<0.002	<0.002	-
Chromium (Cr)	µg/L	0.03	0.291	0.35	18%	0.215	0.21	2%	0.124	0.124	0%
Cobalt (Co)	µg/L	0.001	0.0026	0.0049	-	0.0061	0.0045	-	0.0017	0.002	-
Copper (Cu)	µg/L	0.05	0.788	0.762	3%	0.486	0.378	**25%**	0.937	1.06	12%
Iron (Fe)	µg/L	2	6.26	11	-	7.7	9.67	**23%**	31.4	30.9	2%
Lead (Pb)	µg/L	0.001	0.0304	0.0282	8%	<0.001	<0.001	-	0.0028	0.0034	-
Manganese (Mn)	µg/L	0.003	0.108	0.101	7%	0.104	0.0587	**56%**	<0.003	<0.003	-
Molybdenum (Mo)	µg/L	0.001	0.669	0.678	1%	0.393	0.396	1%	0.178	0.191	7%
Nickel (Ni)	µg/L	0.005	0.0639	0.058	10%	0.082	0.056	**38%**	0.12	0.123	2%
Selenium (Se)	µg/L	0.1	1.51	1.36	10%	0.822	0.903	9%	0.644	0.662	3%
Silver (Ag)	µg/L	0.0005	<0.0005	<0.0005	-	0.0198	<0.0005	-	<0.0005	<0.0005	-
Strontium (Sr)	µg/L	0.004	56.8	56.2	1%	44.5	43.9	1%	32	32.9	3%
Uranium (U)	µg/L	0.0001	0.153	0.148	3%	0.0336	0.0322	4%	0.0202	0.0208	3%
Vanadium (V)	µg/L	0.01	0.0788	0.0732	7%	<0.01	<0.01	-	0.03	0.05	**50%**
Zinc (Zn)	µg/L	0.05	0.794	0.632	**23%**	0.767	0.934	20%	1.43	1.64	14%
Other											
Cyanide, Total	mg/L	0.001	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	-
Fluoride (F)	mg/L	0.01	0.09	0.08	12%	0.18	1.65	**161%**	0.05	0.04	**22%**

Table B2-3. Notable results for QA/QC field duplicate samples, 2006-2007

Parameter	Units	MRV	Ogama Outflow Duplicate (Hope Outflow)		
			17-Sep-07		
			Rep 1	Rep 2	RPD
Physical Parameters					
Alkalinity, Total ($CaCO_3$)	mg/L	1	24.8	27.5	10%
Conductivity	µS/cm	0.1	283	285	1%
pH	Units	0.1			
TDS (Calculated)	mg/L	0.1	143	143	0%
Total Suspended Solids	mg/L	1	5	4	**22%**
Color, True	TCU	1	32	32	0%
Nutrients					
Phosphorus, Total	mg/L	0.001	0.03	0.03	0%
Total Kjeldahl Nitrogen	mg/L	0.01	0.64	0.65	2%
Ammonia-N	mg/L	0.001	0.018	0.016	-
Nitrite-N	mg/L	0.001	<0.001	<0.001	-
Nitrate-N	mg/L	0.005	<0.005	<0.005	-
Organics					
Dissolved Organic Carbon	mg/L	0.2	<0.001	8	-
Dissolved Anions					
Calcium (Ca) (total)	mg/L	0.004	7.39	7.25	2%
Calcium (Ca) (dissolved)	mg/L	0.004	7.08	7.12	1%
Chloride (Cl)	mg/L	0.3	71.6	71.1	1%
Magnesium (Mg) (total)	mg/L	0.0001	6.87	6.84	0%
Magnesium (Mg) (dissolved)	mg/L	0.0001	6.66	6.69	0%
Potassium (K) (total)	mg/L	0.002	2.36	2.33	1%
Potassium (K) (dissolved)	mg/L	0.002	2.20	2.21	0%
Sodium (Na) (total)	mg/L	0.002	33.7	33.5	1%
Sodium (Na) (dissolved)	mg/L	0.002	32.9	32.9	0%
Sulphate (SO_4)	mg/L	3.00	4	4	0%
Total Metals					
Aluminum (Al)	µg/L	0.5	198	221	11%
Antimony (Sb)	µg/L	0.0005	0.0172	0.0162	-
Arsenic (As)	µg/L	0.002	0.456	0.469	3%
Barium (Ba)	µg/L	0.004	5.39	5.63	4%
Beryllium (Be)	µg/L	0.003	<0.003	0.0077	-
Bismuth (Bi)	µg/L	0.001	0.002	0.0013	-
Boron (B)	µg/L	0.05	23	22.5	2%
Cadmium (Cd)	µg/L	0.002	0.0064	0.004	-
Chromium (Cr)	µg/L	0.03	0.43	0.44	2%
Cobalt (Co)	µg/L	0.001	0.0666	0.0766	-
Copper (Cu)	µg/L	0.05	1.68	1.67	1%
Iron (Fe)	µg/L	2	181	209	14%
Lead (Pb)	µg/L	0.001	0.119	0.0967	-
Manganese (Mn)	µg/L	0.003	12.8	15	16%
Molybdenum (Mo)	µg/L	0.001	0.323	0.229	**34%**
Mercury (Hg)	µg/L	0.6	<0.6	<0.6	-
Nickel (Ni)	µg/L	0.005	0.883	0.915	4%
Selenium (Se)	µg/L	0.10	0.661	0.673	-
Silver (Ag)	µg/L	0.0005	0.0025	0.0007	-
Strontium (Sr)	µg/L	0.004	44.6	44.4	0%
Thallium (Tl)	µg/L	0.0003	0.0031	0.0027	14%
Tin (Sn)	µg/L	0.03	<0.03	<0.03	-
Uranium (U)	µg/L	0.0001	0.0541	0.0556	-
Vanadium (V)	µg/L	0.01	0.829	0.88	6%
Zinc (Zn)	µg/L	0.01	1.07	1.01	6%
Dissolved Metals					
Aluminum (Al)	µg/L	0.2	51.2	49.4	4%
Antimony (Sb)	µg/L	0.0005	0.017	0.016	-
Arsenic (As)	µg/L	0.002	0.426	0.399	7%
Barium (Ba)	µg/L	0.004	3.04	3.08	1%
Beryllium (Be)	µg/L	0.003	<0.003	0.0058	-
Boron (B)	µg/L	0.03	21.4	21.5	0%
Cadmium (Cd)	µg/L	0.002	0.0034	0.0035	-
Chromium (Cr)	µg/L	0.03	0.29	0.26	11%
Cobalt (Co)	µg/L	0.001	0.0188	0.0187	-
Copper (Cu)	µg/L	0.05	1.5	1.37	9%
Iron (Fe)	µg/L	2	45	42.4	6%
Lead (Pb)	µg/L	0.001	0.118	0.0957	-
Manganese (Mn)	µg/L	0.003	0.796	0.558	**35%**
Molybdenum (Mo)	µg/L	0.001	0.215	0.21	2%
Nickel (Ni)	µg/L	0.005	0.6	0.609	1%
Selenium (Se)	µg/L	0.1	0.597	0.535	11%
Silver (Ag)	µg/L	0.0005	<0.0005	<0.0005	-
Strontium (Sr)	µg/L	0.004	42.8	42.4	1%
Uranium (U)	µg/L	0.0001	0.0458	0.045	2%
Vanadium (V)	µg/L	0.01	0.605	0.565	7%
Zinc (Zn)	µg/L	0.05	1.06	0.361	**98%**
Other					
Cyanide, Total	mg/L	0.001	<0.001	<0.001	-
Fluoride (F)	mg/L	0.01	0.06	0.06	0%

APPENDICES B3 AND B4

FIELD MEASUREMENTS
PHYSICAL LIMNOLOGY

Appendix B3. Dissolved oxygen, pH, water temperature, secchi depth, and water depth for all waterbodies sampled in 2006 and 2007

Waterbody	Date	Dissolved Oxygen (mg/L)	pH	Water Temperature (°C)	Secchi Depth (m)	Water Depth (m)	Notes
Boston Project Area							
Aimaokatalok River	23-Jun-06	12.2	7.2	11.6			
	17-Jul-06	9.3	6.9	14.9			
	13-Aug-06	11.2	6.6	13.2			
	10-Sep-06	11.6	7.0	10.6			
	23-Jun-07	13.0	***6.0***	0.9			
	21-Jul-07	9.7	***6.3***	20.7			
	20-Aug-07	10.9	6.5	9.9			
	9-Sep-07		***6.3***	3.5			DO probe malfunction
Aimaokatalok Inflow	23-Jun-06	12.0	7.4	10.1			
	16-Jul-06	10.0	7.2	16.9			
	13-Aug-06	10.6	7.2	15.4			
	10-Sep-06	11.0	7.1	9.8			
	23-Jun-07	10.7	***6.3***	9.0			
	20-Jul-07	9.8	6.6	19.1			
	20-Aug-07	10.9	6.5	9.7			
	10-Sep-07		***6.1***	2.1			DO probe malfunction
Aimaokatalok Lake Site 4	2-Jun-06		6.7				
	16-Jul-06	10.7	6.8	14.5	4.25		
	17-Aug-06	10.1	7.3	15.1	4.1		
	10-Sep-06	11.1	7.3	9.3	3.1		
	24-May-07	15.4	7.0	0.1		6.0	
	21-Jul-07	12.4	***6.0***	7.8	2.8	6.0	
	19-Aug-07	12.3	***6.2***	10.2	3.2	5.9	
	8-Sep-07	14.5	***6.0***	7.2	3.4	5.9	
Aimaokatalok Lake Site 6	3-Jun-06		6.9				
	16-Jul-06	10.9	6.9	11.8	3.5		
	17-Aug-06	9.8	7.3	14.2	4.6		
	10-Sep-06	11.4	7.4	7.6	3.1		
	24-May-07	15.5	7.8	0.2		27.2	
	20-Jul-07	12.8	***6.0***	9.1	2.4	28.0	
	19-Aug-07	12.0	***6.1***	10.0	2.8	25.9	
	8-Sep-07	14.7	***6.1***	7.0	3.0	30.3	
Aimaokatalok Outflow	23-Jun-06	12.9	7.1	3.7			
	16-Jul-06	11.1	6.7	13.1			
	13-Aug-06	9.7	6.5	15.1			
	10-Sep-06	11.5	6.8	8.9			
	23-Jun-07	12.4	***6.1***	3.0			
	20-Jul-07	12.6	***6.2***	7.6			
	19-Aug-07	12.0	***6.2***	10.1			
	10-Sep-07		***6.0***	6.5			DO probe malfunction
Fickle Duck Lake	18-Jul-06	10.0	7.0	13.6	1.9		
	17-Aug-06	10.7	8.0	15.0	1.75		
	10-Sep-06	11.6	7.7	10.0	1.0		
	24-May-07	6.3	6.9	0.0		1.8	
	22-Jul-07	10.5	7.3	17.5	1.2	3.0	
	20-Aug-07	10.3	6.8	9.9	1.2	2.7	
	9-Sep-07		6.6	4.6	1.8	2.7	DO probe malfunction
Fickle Duck Outflow	24-Jun-06	10.2	7.1	13.9			
	17-Jul-06	7.5	6.5	14.7			
	13-Aug-06	7.6	6.3	13.6			
	10-Sep-06	10.4	6.7	10.7			
	23-Jun-07	11.3	***6.2***	3.4			
	20-Jul-07	1.6	***6.0***	15.9			
	20-Aug-07	10.2	6.5	10.0			
	9-Sep-07		6.5	4.7			DO probe malfunction
Koignuk River	2-Jul-07	12.5	6.5	8.3			
	19-Jul-07	10.9	6.6	17.1			
	18-Aug-07	12.7	6.8	9.8			
	16-Sep-07	12.1	6.9	1.0			
Reference Lake	3-Jun-06		6.9				
	18-Jul-06	10.2	6.4	14.3	1.3		
	17-Aug-06	10.7	7.4	15.3	1.75		
	11-Sep-06	11.2	7.7	9.6	1.25		
	26-May-07	13.2	6.7	0.9		2.3	
	21-Jul-07	10.3	6.8	19.2	1.0	2.5	
	20-Aug-07	10.4	6.5	9.9	1.7	2.9	
	9-Sep-07			4.6	2.5	3.1	DO and pH probe malfunction

Appendix B3. Dissolved oxygen, pH, water temperature, secchi depth, and water depth for all waterbodies sampled in 2006 and 2007

Waterbody	Date	Dissolved Oxygen (mg/L)	pH	Water Temperature (°C)	Secchi Depth (m)	Water Depth (m)	Notes
Reference Outflow	23-Jun-06	11.6	7.5	11.3			
	18-Jul-06	11.4	6.6	13.5			
	13-Aug-06	12.9	7.8	17.4			
	10-Sep-06	11.7	7.2	11.3			
	23-Jun-07	11.9	***6.1***	4.9			
	20-Jul-07	8.8	6.7	19.5			
	20-Aug-07	9.8	6.5	9.7			
	9-Sep-07		***6.4***	4.5			DO probe malfunction
Stickleback Lake	2-Jun-06		6.7				
	17-Jul-06	10.9	7.8	15.7	2.7		
	17-Aug-06	10.4	8.2	15.7	2.4		
	10-Sep-06	11.8	8.1	9.7	2.8		
	24-May-07	0.5	7.3	0.1		2.4	
	21-Jul-07	10.0	7.4	18.4	2.6	2.6	
	20-Aug-07	10.5	6.8	9.9	2.7	2.7	
	9-Sep-07		6.5	4.6	3.0	3.0	DO probe malfunction
Stickleback Outflow	24-Jun-06	12.4	7.1	8.2			
	17-Jul-06	6.1	6.9	15.5			
	13-Aug-06	4.5	6.5	12.7			
	10-Sep-06	5.4	6.3	9.6			
	23-Jun-07	11.4	***6.0***	0.9			
	22-Jul-07	7.0	6.8	16.2			
	20-Aug-07	9.8	6.5	9.4			
	9-Sep-07	nd	6.7	4.7			DO probe malfunction
Madrid Project Area							
Glenn Lake	24-May-07	13.7	7.4	0.1		8.8	
	16-Jul-07	14.7	7.3	8.9	3.0	18.0	
	17-Aug-07	13.9	7.2	9.0	1.0	16.0	
	15-Sep-07	11.4		4.9	1.2	10.0	pH probe malfunction
Glenn Outflow	22-Jun-07	13.8	6.9	2.3			
	19-Jul-07	12.5	7.5	16.0			
	12-Aug-07		7.1	8.9			DO probe malfunction
	15-Sep-07	11.2		5.0			pH probe malfunctioning at low temps
Ogama Lake	1-Jun-06		6.5				
	21-Jul-06	10.4	7.3	18.8	1.7		
	15-Aug-06	10.6	8.3	15.6	1.4		
	8-Sep-06	11.8	8.0	8.1	1.4		
	22-May-07	6.0	7.1	0.1		7.0	
	16-Jul-07	11.5	7.0	17.8	1.3	7.0	
	16-Aug-07	12.5	7.1	9.0	0.9	7.4	
	11-Sep-07	13.6	7.1	3.6	1.0	7.7	
Ogama Outflow	19-Jun-06	11.3	6.6	3.3			
	21-Jul-06	10.5	7.7	17.8			
	12-Aug-06	10.1	7.5	16.5			
	9-Sep-06	12.9	7.5	8.7			
	22-Jun-07	11.2	6.9	2.6			
	17-Jul-07	11.5	7.3	12.2			
	12-Aug-07		6.9	16.5			DO probe malfunction
	17-Sep-07	10.4	6.8	1.4			
Patch Lake	2-Jun-06		6.8				
	22-Jul-06	10.6	7.6	16.2			
	23-Jul-06	10.2	7.0	14.7			
	8-Sep-06	11.5	8.1	7.9	4.25		
	23-May-07	12.3	7.4	0.2		13.2	
	17-Jul-07	13.1	7.1	14.3	2.2	14.0	
	15-Aug-07	11.1	7.0	9.8	1.25	13.7	
	11-Sep-07	13.1	nd	4.7	1.5	14.4	pH probe malfunction
Patch Outflow	19-Jun-06	12.6	6.6	4.6			
	22-Jul-06	9.5	7.7	19.1			
	12-Aug-06	9.5	6.8	16.2			
	9-Sep-06	10.6	7.6	9.2			
	22-Jun-07	8.7	***5.6***	4.5			
	19-Jul-07	12.7	7.5	15.2			
	12-Aug-07		6.8	9.7			DO probe malfunction
	17-Sep-07	10.5	6.9	1.4			
Pelvic Lake	1-Jun-06		6.5				
	21-Jul-06	11.2	8.6	18.6	1.0		
	16-Aug-06	10.4	8.2	14.1	1.1		
	9-Sep-06	11.8	8.2	8.6	0.75		
	23-May-07	10.8	7.7	0.2		14.3	
	16-Jul-07	12.4	6.9	16.8	1.0	14.0	
	16-Aug-07	13.0	6.7	9.5	0.8	14.7	
	13-Sep-07	12.6		4.7	1.0	15.3	pH probe malfunction
Pelvic Outflow	19-Jun-06	11.4	6.6	3.6			
	21-Jul-06	12.1	8.8	15.4			
	16-Aug-06	10.4	7.9	14.1			
	22-Jun-07	9.1	6.5	2.1			
	19-Jul-07	12.0	7.5	20.1			
	18-Aug-07	11.9	7.0	9.7			
	16-Sep-07	11.3	6.7	3.0			

Appendix B3. Dissolved oxygen, pH, water temperature, secchi depth, and water depth for all waterbodies sampled in 2006 and 2007

Waterbody	Date	Dissolved Oxygen (mg/L)	pH	Water Temperature (°C)	Secchi Depth (m)	Water Depth (m)	Notes
P.O. Lake	23-Jul-06	10.0	7.4	14.8			
	15-Aug-06	10.3	8.3	15.3	2.5		
	8-Sep-06	12.1	8.3	7.4	2.2		
	23-May-07						frozen to bottom
	17-Jul-07	11.8	7.4	16.9	2.0	3.0	
	15-Aug-07	11.4	7.0	9.6	1.0	2.6	
	11-Sep-07	13.9	7.1	3.6	1.0	3.7	
P.O. Outflow	19-Jun-06	10.4	6.6	7.6			
	24-Jul-06	10.0	7.1	15.1			
	15-Aug-06	11.0	8.2	16.6			
	9-Sep-06	12.9	7.7	9.5			
	22-Jun-07	11.7	***5.6***	3.5			
	19-Jul-07	10.5	7.3	19.7			
	12-Aug-07		7.2	9.5			DO probe malfunction
	17-Sep-07	10.5	6.8	0.7			
Windy Lake	2-Jun-06		6.7				
	24-Jul-06	11.3	6.9	11.5	4.25		
	18-Aug-06	10.6	8.2	13.0	4.0		
	9-Sep-06	10.7	8.1	11.0	6.25		
	24-May-07	14.0	7.5	0.2		17.3	
	18-Jul-07	13.8	7.3	7.3	4.9	17.0	
	20-Aug-07	10.7	***6.4***	9.4	3.0	17.6	
	15-Sep-07	11.3		5.3	3.2	17.1	pH probe malfunction
Windy Outflow	19-Jun-06	13.3	7.0	4.8			
	23-Jul-06	11.9	7.5	15.2			
	12-Aug-06	12.8	7.8	11.8			
	9-Sep-06	11.3	6.9	14.2			
	22-Jun-07	11.2	7.2	4.2			
	19-Jul-07	7.9	6.9	14.0			
	12-Aug-07		7.1	9.2			DO probe malfunction
	15-Sep-07	11.5		4.3			pH probe malfunctioning at low temps,
Wolverine Lake	1-Jun-06		6.6				
	22-Jul-06	10.4	8.1	17.2	3.7		
	12-Aug-06	9.6	7.8	15.8	1.9		
	8-Sep-06	12.1	8.3	7.7	3.0		
	23-May-07	1.9	7.3	0.1		2.3	
	17-Jul-07	12.4	7.8	17.7	2.4	2.4	
	15-Aug-07	11.0	6.8	9.6	1.5	2.6	
	11-Sep-07	13.2		3.1	3.4	3.4	pH probe malfunction
Marine							
Hope Bay	27-May-07		7.6	-1.5		15.2	DO probe malfunction
	23-Jul-07	10.9	7.8	13.3	1.5	16.0	
	17-Aug-07	15.5		8.6	1.2	9.9	pH probe malfunction
	15-Sep-07	11.5		1.9	1.2	16.0	pH probe malfunction

values in bold and italicized are outside the CWQG pH range

Appendix B4. Dissolved Oxygen and Water Temperature Profiles for the Boston and Madrid Project Water Quality Sites, 2006-2007.

BOSTON PROJECT AREA

AIMAOKATALOK LAKE (SITE 4) 13W 438988E 7508924N NAD83											
02 Jun 2006			16 Jul 2006			17 Aug 2006			10 Sep 2006		
Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)
0.5	ice	ice	0.0	10.6	15.1	0.0	10.1	15.2	0.0	11.1	9.4
1.0	ice	ice	0.5	10.8	14.8	0.5	10.1	15.1	0.5	11.2	9.3
1.5	ice	ice	1.0	10.7	14.5	1.0	10.1	15.1	1.0	11.1	9.3
2.0	12.3	1.7	1.5	10.8	14.3	1.5	10.1	15.0	1.5	11.1	9.3
2.5	12.9	1.9	2.0	10.9	14.1	2.0	10.0	14.9	2.0	11.1	9.3
3.0	12.9	2.0	2.5	11.0	13.9	2.5	10.1	14.8	2.5	11.1	9.3
3.5	12.9	2.0	3.0	11.0	13.8	3.0	10.1	14.8	3.0	11.1	9.3
4.0	12.9	2.1	3.5	10.9	13.7	3.5	10.0	14.7	3.5	11.2	9.3
4.5	12.9	2.1	4.0	11.0	13.5	4.0	10.0	14.5	4.0	11.1	9.2
5.0	12.9	2.1	4.5	11.1	13.5	4.5	10.1	14.5	4.5	11.2	9.2
5.5	12.9	2.2	5.0	11.0	13.3	5.0	10.1	14.4	5.0	11.1	9.2
6.0	13.0	2.2	5.5	11.1	13.0	5.5	10.2	14.4	5.5	11.2	9.2
6.5	13.2	2.2	6.0	10.9	12.2	6.0	10.2	14.3	6.0	11.2	9.2
7.0	13.7	2.4	6.5	10.5	10.7						

AIMAOKATALOK LAKE (SITE 4) (13W 438988E 7508924N NAD83)											
24 May 2007			21 Jul 2007			19 Aug 2007			08 Sep 2007		
Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)
0.0	15.4		0.0	12.4	7.8	0.0	12.3	10.2	0.0	14.5	7.2
0.5	16.2		1.0	12.3	7.8	0.5	11.0	10.2	0.5	14.5	7.2
1.0	16.6		2.0	12.4	7.8	1.0	11.1	10.2	1.0	14.4	7.2
1.5	17.0		3.0	12.3	7.8	1.5	12.0	10.2	1.5	14.4	7.2
2.0	16.8	1.0	4.0	12.3	7.8	2.0	12.0	10.2	2.0	14.4	7.2
2.5	16.0	1.4	5.0	12.2	7.8	2.5	12.0	10.2	2.5	14.3	7.2
3.0	15.2	1.5				3.0	12.0	10.2	3.0	14.3	7.2
3.5	14.3	1.6				3.5	12.1	10.2	3.5	14.3	7.2
4.0	13.6	1.6				4.0	12.1	10.2	4.0	14.3	7.1
4.5	13.0	1.6				4.5	12.3	10.2	4.5	14.2	7.1
5.0	12.9	1.6				5.0	11.1	10.2			
5.5	12.9	1.6									
6.0	12.7	1.8									

AIMAOKATALOK LAKE (SITE 6) 13W 440429E 7509045N NAD83											
03 Jun 2006			16 Jul 2006			17 Aug 2006			10 Sep 2006		
Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)
1.0	ice	ice	0.0	11.0	11.8	0.0	9.8	14.2	Not measured		
2.0	12.1	1.5	0.5	10.9	11.8	1.0	9.8	14.2			
3.0	12.1	1.7	1.0	10.9	11.8	2.0	9.9	14.2			
4.0	12.1	1.8	1.5	10.9	11.8	3.0	9.8	14.1			
5.0	12.2	1.8	2.0	10.9	11.8	4.0	10.0	14.1			
6.0	12.2	1.8	2.5	10.9	11.8	5.0	10.0	14.1			
7.0	12.3	1.9	3.0	10.9	11.7	6.0	10.1	14.1			
8.0	12.4	1.9	3.5	11.0	11.7	7.0	10.2	14.1			
9.0	12.5	1.9	4.0	11.0	11.6	8.0	10.3	14.1			
10.0	12.6	1.9	4.5	11.0	11.5	9.0	10.3	14.1			
11.0	12.6	1.9	5.0	11.1	11.3	10.0	10.3	14.1			
12.0	12.7	1.9	5.5	11.1	11.2	11.0	10.3	14.0			
13.0	12.2	1.9	6.0	11.0	10.7	12.0	10.3	14.0			
14.0	12.4	1.9	6.5	11.0	10.4	13.0	10.3	13.9			
15.0	12.6	2.0	7.0	11.1	10.1	14.0	10.3	13.9			
16.0	12.1	2.0	7.5	11.1	10.0	15.0	10.3	13.8			
17.0	11.8	2.0	8.0	11.2	9.9	16.0	10.3	13.8			
18.0	12.5	2.0	8.5	11.2	9.8	17.0	10.1	13.7			
19.0	12.2	2.0	9.0	11.3	9.6	18.0	10.0	13.5			
20.0	10.9	2.0	9.5	11.3	9.5	19.0	9.8	13.1			
21.0	11.0	2.0	10.0	11.4	9.5	20.0	9.7	12.5			
22.0	12.3	2.0	10.5	11.3	9.4	21.0	9.9	12.3			
23.0	12.4	2.0	11.0	11.4	9.1	22.0	9.7	11.9			
24.0	12.4	2.0	11.5	11.4	8.9	23.0	9.7	11.8			
25.0	12.4	2.0	12.0	11.5	8.8	24.0	9.6	11.7			
26.0	12.5	2.1	12.5	11.4	8.8	25.0	9.7	11.6			
27.0	12.6	2.1	13.0	11.4	8.7	26.0	9.7	11.5			
28.0	12.8	2.1	13.5	11.4	8.6	27.0	9.2	11.4			
29.0	12.9	2.1	14.0	11.5	8.6	28.0	8.4	11.3			
30.0	6.5	2.1	14.5	11.5	8.4						
			15.0	11.6	8.3						
			15.5	11.5	8.1						
			16.0	11.6	8.1						
			16.5	11.6	8.0						
			17.0	11.7	7.9						
			17.5	11.7	7.9						
			18.0	11.8	7.9						
			18.5	11.8	7.8						
			19.0	11.8	7.8						
			19.5	11.9	7.8						
			20.0	11.9	7.7						
			20.5	11.9	7.7						
			21.0	11.9	7.7						
			21.5	11.9	7.7						
			22.0	11.9	7.7						
			22.5	11.9	7.6						
			23.0	11.9	7.6						
			23.5	11.9	7.6						
			24.0	11.8	7.6						
			24.5		7.6						

AIMAOKATALOK LAKE (SITE 6) (13W 440429E 7509045N NAD83)												
24 May 2007			20 Jul 2007			19 Aug 2007			08 Sep 2007			
Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	
0.0	15.5		0.0	12.8	9.1	0.0	12.0	10.0	0.0	14.7	7.0	
0.5	15.6		1.0	12.8	9.1	1.0	12.0	10.0	1.0	14.7	7.0	
1.0	15.8		2.0	12.8	9.1	2.0	12.0	10.0	2.0	14.7	7.0	
2.0	15.8	1.0	3.0	12.7	9.0	3.0	12.0	10.0	3.0	14.7	7.0	
3.0	15.4	1.4	4.0	12.7	8.6	4.0	12.0	10.0	4.0	14.6	7.0	
4.0	13.1	1.5	5.0	12.7	8.5	5.0	12.0	10.0	5.0	14.7	7.0	
5.0	12.6	1.6	6.0	12.6	8.5	6.0	12.0	10.0	6.0	14.6	7.0	
6.0	12.4	1.6	7.0	12.6	8.2	7.0	12.0	9.9	7.0	14.6	7.0	
7.0	12.2	1.6	8.0	12.8	7.4	8.0	12.0	10.0	8.0	14.6	7.0	
8.0	12.0	1.6	9.0	12.8	7.3	9.0	12.0	9.9	9.0	14.6	7.0	
9.0	11.6	1.7	10.0	12.7	7.2	10.0	12.2	9.9	10.0	14.6	7.0	
10.0	11.3	1.7	11.0	12.6	7.1	11.0	10.9	9.9	11.0	14.6	7.0	
11.0	11.2	1.7	12.0	12.5	7.0	12.0	11.9	9.9	12.0	14.5	7.0	
12.0	10.8	1.7	13.0	12.4	7.0	13.0	11.9	9.9	13.0	14.6	7.0	
13.0	10.8	1.8	14.0	12.2	6.9	14.0	11.9	9.9	14.0	14.5	7.0	
14.0	10.5	1.9	15.0	12.2	6.2	15.0	11.9	9.9	15.0	14.6	7.0	
15.0	9.9	2.0	16.0	12.2	5.9	16.0	11.9	9.9	16.0	14.5	7.0	
16.0	9.6	2.0	17.0	12.2	5.8	17.0	11.9	9.9	17.0	14.5	7.0	
17.0	9.1	2.0	18.0	12.2	5.5	18.0	11.9	9.9	18.0	14.5	7.0	
18.0	8.5	2.1	19.0	12.2	5.5	19.0	11.9	9.9	19.0	14.5	6.9	
19.0	7.8	2.1	20.0	12.1	5.4	20.0	11.9	9.9	20.0	14.5	7.0	
20.0	7.6	2.2	21.0	12.2	5.3	21.0	11.9	9.9	21.0	14.4	7.0	
21.0	7.1	2.2	22.0	12.2	5.3	22.0	11.9	9.9	22.0	14.4	7.0	
22.0	6.7	2.2	23.0	12.2	5.3	23.0	11.9	9.9	23.0	14.4	7.0	
23.0	6.4	2.2	24.0	12.2	5.3	24.0	12.0	9.9	24.0	14.3	7.0	
24.0	6.2	2.4	25.0	12.2	5.3	25.0	12.0	9.9	25.0	14.3	7.0	
25.0	5.8	2.5	26.0	12.2	5.3				26.0	14.2	7.0	
26.0	4.4	2.7							27.0	14.0	6.9	
27.0	3.0	2.8							28.0	12.9	7.0	
27.2	1.7	2.8							29.0	12.6	7.0	

FICKLE DUCK LAKE (13W 0442654E 7502915N NAD83)												
			18 Jul 2006			17 Aug 2006			10 Sep 2006			
Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	
Frozen to Bottom			0.0	12.9	10.3	0.0	10.6	15.2	0.0	11.6	10.3	
			0.5	10.2	13.4	0.5	10.6	15.0	0.5	11.6	10.1	
			1.0	10.0	13.6	1.0	10.7	15.0	1.0	11.6	10.0	
			1.5	10.0	13.8	1.5	10.7	14.8	1.5	11.6	9.9	
			2.0	10.0	13.9	2.0	10.7	14.7	2.0	11.6	9.8	
			2.5	9.9	14.0	2.5	10.7	14.6	2.5	11.6	9.7	
			3.0	10.0	14.0	3.0	10.7	14.5	3.0	11.7	9.7	
			3.5	10.0	14.0	3.5	10.7	14.4	3.5	11.6	9.6	
			4.0		13.9	3.8		14.3				

FICKLE DUCK LAKE (13W 0442654E 7502915N NAD83)												
24 May 2007			22 Jul 2007			20 Aug 2007			09 Sep 2007			
Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	
0.0			0.0	10.5	17.5	0.0	10.3	9.9	0.0	nd	4.6	
0.5			0.5	10.4	17.5	0.5	10.2	9.9	0.5	nd	4.6	
1.0	0.2	0.2	1.0	10.4	17.5	1.0	10.2	9.9	1.0	nd	4.5	
1.5	0.0	0.4	1.5	10.3	17.5	1.5	10.2	9.9	1.5	nd	4.6	
1.8	0.0	0.9	2.0	10.0	17.5	2.0	10.3	9.9	2.0	nd	4.6	

REFERENCE LAKE (13W 437989E 7503665N NAD83)												
03 Jun 2006			18 Jul 2006			17 Aug 2006			11 Sep 2006			
Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	
0.5	ice	ice	0.0	10.3	14.2	0.0	10.7	15.4	0.0	11.1	10.0	
1.0	ice	ice	0.5	10.2	14.3	0.5	10.7	15.4	0.5	11.2	9.8	
1.5	12.3	1.6	1.0	10.2	14.3	1.0	10.7	15.3	1.0	11.2	9.6	
2.0	12.4	2.1	1.5	10.2	14.4	1.5	10.8	15.3	1.5	11.3	9.6	
2.5	12.2	2.6	2.0	10.0	14.4	2.0	10.8	15.2	2.0	11.3	9.5	
2.7	11.9	2.8	2.5	10.0	14.4	2.5	10.5	14.8	2.5	11.0	9.4	
						3.0	10.7	14.5				

REFERENCE LAKE (13W 437989E 7503665N NAD83)												
26 May 2007			21 Jul 2007			20 Aug 2007			09 Sep 2007			
Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	
0.0			0.0	10.3	19.2	0.0	10.4	9.9	0.0	nd	4.6	
0.5			0.5	10.2	19.2	0.5	10.4	9.9	0.5	nd	4.6	
1.0	13.1	0.1	1.0	10.2	19.2	1.0	10.4	9.9	1.0	nd	4.6	
1.5	9.0	0.9	1.5	10.1	19.2	1.5	10.3	9.9	1.5	nd	4.6	
2.3	5.0	0.9				2.0	10.4	9.9	2.0	nd	4.6	
						2.5	10.4	9.8	2.5	nd	4.6	

STICKLEBACK LAKE (13W 441723E 7503526N NAD83)												
02 Jun 2006			17 Jul 2006			17 Aug 2006			10 Sep 2006			
Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	
0.5	ice	ice	0.0	10.7	15.9	0.0	10.4	16.0	0.0	11.7	9.9	
1.0	ice	ice	0.5	10.9	15.8	0.5	10.5	15.8	0.5	11.7	9.8	
1.5	8.1	2.1	1.0	10.9	15.7	1.0	10.4	15.7	1.0	11.8	9.7	
2.0	6.4	3.6	1.5	11.1	15.6	1.5	10.5	15.6	1.5	11.7	9.6	
2.5	6.3	4.1	2.0	11.1	15.6	2.0	10.5	15.5	2.0	11.7	9.6	
2.8	4.7	4.4	2.5	11.2	15.5	2.5	10.6	15.5	2.5	11.7	9.5	
			2.7			2.7	10.9	15.4	3.0	11.7	9.5	
									3.5	11.5	9.5	

Appendix B4. Dissolved Oxygen and Water Temperature Profiles for the Boston and Madrid Project Water Quality Sites, 2006-2007.

STICKLEBACK LAKE (13W 441723E 7503526N NAD83)											
24 May 2007			21 Jul 2007			20 Aug 2007			09 Sep 2007		
Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)
0.0			0.0	10.0	18.4	0.0	10.5	9.9	0.0	nd	4.6
0.5			0.5	10.0	18.4	0.5	10.5	10.0	0.5	nd	4.6
1.0		0.1	1.0	10.0	18.4	1.0	10.5	10.0	1.0	nd	4.6
1.5		0.6	1.5	9.7	18.4	1.5	10.5	10.0	1.5	nd	4.6
2.0	0.5	1.7	2.0	9.8	18.4	2.0	10.6	10.0	2.0	nd	4.7
2.4	0.0	1.8				2.4	10.8	10.0			

MADRID PROJECT AREA

GLENN LAKE (13W 0430323E 7560232N NAD83)											
24 May 2007			16 Jul 2007			17-Aug--07			15 Sep 2007		
Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)
0.0			0.0	nd	nd	0.0	13.9	9.0	0.0	11.4	4.9
0.5			1.0	14.7	8.9	1.0	13.8	9.0	1.0	11.3	4.9
1.0			2.0	14.7	8.8	2.0	13.8	9.0	2.0	11.3	4.9
2.0	13.8	0.3	3.0	14.7	8.6	3.0	13.8	9.0	3.0	11.3	4.9
3.0	13.8	0.6	4.0	14.7	8.3	4.0	13.8	9.0	4.0	11.2	4.9
4.0	13.8	0.7	5.0	14.8	8.1	5.0	13.8	9.0	5.0	11.2	4.9
5.0	13.6	0.7	6.0	15.1	7.0	6.0	13.8	9.0	6.0	11.1	4.9
6.0	13.4	0.7	7.0	15.5	5.6	7.0	13.7	9.0	7.0	11.0	4.9
7.0	13.4	0.7	8.0	15.6	5.0	8.0	13.8	9.0	8.0	10.5	4.9
8.0	13.5	0.8	9.0	15.6	4.5	9.0	13.7	9.0	9.0	11.2	4.9
8.8	13.5	0.8	10.0	15.6	4.3	10.0	13.8	9.0	10.0	10.1	4.9
			11.0	15.4	4.1	11.0	13.7	9.0			
			12.0	15.7	3.3	12.0	13.8	9.0			
			13.0	15.6	3.1	13.0	13.8	9.0			
			14.0	15.5	2.9	14.0	13.8	9.0			
			15.0	15.4	3.0	15.0	13.8	9.0			
			16.0	15.4	2.9						
			17.0	15.5	2.9						

OGAMA LAKE (13W 436618E 7551843N NAD83)											
01 Jun 2006			21 Jul 2006			15 Aug 2006			08 Sep 2006		
Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)
0.5	ice	ice	0.0	10.0	19.2	0.0	10.6	15.7	0.0	11.8	8.7
1.0	ice	ice	0.5	10.3	18.9	0.5	10.6	15.7	0.5	11.9	8.4
1.5	ice	ice	1.0	10.4	18.8	1.0	10.6	15.6	1.0	11.8	8.1
2.0	12.2	1.2	1.5	10.3	18.5	1.5	10.6	15.6	1.5	12.1	7.9
2.5	11.0	1.5	2.0	10.4	18.1	2.0	10.7	15.6	2.0	11.9	7.8
3.0	9.3	1.8	2.5	10.4	17.3	2.5	10.7	15.5	2.5	12.0	7.8
3.5	9.3	2.2	3.0	10.5	16.9	3.0	10.7	15.5	3.0	11.9	7.6
4.0	8.8	2.3	3.5	10.3	16.2	3.5	10.7	15.5	3.5	12.0	7.5
4.5	7.6	2.4	4.0	10.0	15.9	4.0	10.8	15.5	4.0	12.0	7.4
5.0	6.7	2.4	4.5	9.9	15.5	4.5	10.8	15.5	4.5		
5.5	5.4	2.4	5.0	9.3	15.3	5.0	10.7	15.4	5.0		
6.0	2.5	2.3	5.5	9.1	15.0	5.5	10.7	15.2	5.5		
6.5	0.3	2.3	6.0	8.3	14.7	6.0	10.7	15.2			
7.0	0.1	2.3									
7.5	0.1	2.3									

OGAMA LAKE (13W 436618E 7551843N NAD83)											
22 May 2007			16 Jul 2007			16 Aug 2007			11 Sep 2007		
Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)
0.0			0.0	11.5	17.8	0.0	12.5	9.0	0.0	13.6	3.6
0.5			1.0	11.1	17.7	0.5	12.8	9.0	1.0	13.8	3.6
1.0			2.0	10.4	17.7	1.0	12.8	9.0	2.0	13.8	3.6
1.5			3.0	10.3	11.2	1.5	12.8	9.0	3.0	13.8	3.6
2.0	5.5	1.0	4.0	9.5	8.0	2.0	12.4	9.0	4.0	13.9	3.6
2.5	4.9	1.4	5.0	7.3	5.5	2.5	12.4	9.0	5.0	13.9	3.6
3.0	4.1	1.6	6.0	5.0	5.2	3.0	12.7	9.0	6.0	14.0	3.6
3.5	3.7	1.8	6.5	5.4	5.2	3.5	12.7	9.0	7.0	14.1	3.6
4.0	3.4	1.9				4.0	12.3	9.0			
4.5	2.6	1.9				4.5	12.6	9.0			
5.0	1.8	2.0				5.0	12.5	8.9			
5.5	1.5	2.2				5.5	12.5	8.9			
6.0	0.6	2.3				6.0	12.1	8.9			
6.5	0.2	2.5				6.5	12.3	8.8			
7.0	0.0	2.6									

Appendix B4. Dissolved Oxygen and Water Temperature Profiles for the Boston and Madrid Project Water Quality Sites, 2006-2007.

PATCH LAKE (13W 435156E 7549509N NAD83)												
02 Jun 2006			23 Jul 2006			15 Aug 2006			08 Sep 2006		
Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)
0.5			0.0	10.1	14.5	Not measured			0.0	11.4	8.0
1.0			0.5	10.3	14.6				0.5	11.6	7.9
1.5			1.0	10.2	14.7				1.0	11.5	7.9
2.0	14.5	3.7	1.5	10.2	14.7				2.0	11.5	7.9
2.5	16.0	4.7	2.0	10.2	14.9				3.0	11.4	7.8
3.0	15.1	4.7	2.5	10.1	15.0				4.0	11.5	7.8
3.5	16.3	4.8	3.0	10.0	15.1				5.0	11.4	7.7
			3.5	10.1	14.1				6.0	11.5	7.7
			4.0	10.1	15.1				7.0	11.4	7.7
Station was not the same as open water station			4.5	10.0	15.2				8.0	11.8	7.7
			5.0	10.1	15.2				9.0	11.7	7.7
			5.5	10.0	15.1				10.0	11.9	7.6
			6.0	10.2	15.1				11.0	11.8	7.6
			6.5	10.1	15.0				12.0	12.0	7.6
			7.0	10.1	15.0				13.0	11.9	7.5
			7.5	10.2	15.1				14.0	12.1	7.5
			8.0	10.1	15.2				15.0	12.0	7.4
			8.5	10.1	15.2						
			9.0	10.1	15.2						
			9.5	10.1	15.1						
			10.0	10.2	15.0						
			10.5	10.2	15.0						
			11.0	10.2	14.9						
			11.5	10.1	14.9						
			12.0	10.1	14.8						
			12.5	9.4	14.7						

PATCH LAKE (13W 435156E 7549509N NAD83)											
23 May 2007			17 Jul 2007			15 Aug 2007			11 Sep 2007		
Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)
0.0			0.0	13.1	14.3	0.0	11.1	9.8	0.0	13.1	4.7
0.5			1.0	13.1	14.3	1.0	11.1	9.8	1.0	13.1	4.7
1.0			2.0	13.0	14.3	2.0	11.1	9.8	2.0	13.1	4.7
1.5	12.2	0.4	3.0	12.5	14.2	3.0	11.0	9.8	3.0	13.1	4.7
2.0	12.2	0.6	4.0	13.3	12.0	4.0	11.0	9.8	4.0	13.1	4.6
3.0	11.9	1.9	5.0	13.7	6.7	5.0	11.0	9.8	5.0	13.1	4.7
4.0	12.0	2.1	6.0	13.0	5.2	6.0	11.0	9.8	6.0	13.1	4.6
5.0	11.6	2.1	7.0	11.9	4.2	7.0	11.0	9.8	7.0	13.2	4.6
6.0	11.3	2.1	8.0	10.9	3.7	8.0	11.0	9.8	8.0	13.2	4.6
7.0	11.1	2.1	9.0	10.3	3.7	9.0	11.0	9.8	9.0	13.2	4.6
8.0	10.8	2.1	10.0	10.4	3.7	10.0	10.9	9.8	10.0	13.2	4.6
9.0	10.4	2.2	11.0	10.3	3.6	11.0	10.8	9.8	11.0	13.2	4.6
10.0	10.1	2.3	12.0	9.4	3.6	12.0	10.3	9.8	12.0	13.2	4.6
11.0	9.7	2.4	13.0	8.0	3.8				13.0	13.2	4.5
12.0	9.3	2.5									
13.0	8.9	2.7									
13.2	7.7	2.8									

PELVIC LAKE (13W 439637E 7552552N NAD83)											
01 Jun 2006			21 Jul 2006			16 Aug 2006			09 Sep 2006		
Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)
0.5	ice	ice	0.0	11.0	19.5	0.0	10.4	13.7	0.0	11.7	8.9
1.0	ice	ice	0.5	11.0	19.2	0.5	10.4	14.0	0.5	11.8	8.8
1.5	ice	ice	1.0	11.2	18.6	1.0	10.4	14.1	1.0	11.8	8.6
2.0	12.0	1.8	1.5	10.7	16.5	1.5	10.3	14.2	1.5	11.9	8.6
2.5	10.0	1.6	2.0	11.4	16.0	2.0	10.3	14.3	2.0	11.8	8.5
3.0	9.8	1.6	2.5	11.4	15.5	2.5	10.3	14.3	2.5	11.9	8.4
3.5	9.8	1.6	3.0	11.4	15.4	3.0	10.3	14.4	3.0	11.8	8.4
4.0	9.8	1.6	3.5	11.2	15.0	3.5	10.3	14.4	3.5	11.9	8.4
4.5	9.6	1.7	4.0	10.9	14.7	4.0	10.3	14.5	4.0	11.8	8.3
5.0	9.6	1.7	4.5	11.0	14.3	4.5	10.2	14.5	4.5	11.9	8.3
5.5	9.3	1.7	5.0	10.9	14.2	5.0	10.2	14.5	5.0	11.9	8.3
6.0	9.3	1.7	5.5	10.7	13.9	5.5	10.2	14.5	5.5	11.9	8.3
6.5	9.6	1.7	6.0	10.4	13.7	6.0	10.2	14.5	6.0	11.9	8.2
7.0	9.8	1.7	6.5	10.2	13.5	6.5	10.1	14.5	6.5	12.0	8.2
7.5	10.0	1.7	7.0	9.8	13.3	7.0	9.6	14.5	7.0	12.0	8.2
8.0	9.8	1.7	7.5	9.2	13.0				7.5	12.0	8.2
8.5	10.3	1.8							8.0	11.8	8.2
9.0	10.4	1.8							8.5	10.5	8.2
9.5	10.6	1.8								10.8	8.1
10.0	9.7	1.8									
10.5	9.4	1.8									
11.0	9.3	1.8									
11.5	8.5	1.8									
12.0	7.7	1.8									
12.5	3.0	1.8									
13.0	2.0	1.8									
13.5	0.7	1.9									
14.0	0.3	1.9									
14.5	0.1	2.0									
15.0											

Appendix B4. Dissolved Oxygen and Water Temperature Profiles for the Boston and Madrid Project Water Quality Sites, 2006-2007.

PELVIC LAKE (13W 439637E 7552552N NAD83)

23 May 2007			16 Jul 2007			16 Aug 2007			13 Sep 2007		
Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)
0.0			0.0	12.4	16.8	0.0	13.0	9.5	0.0	12.6	4.7
0.5			1.0	12.2	16.7	1.0	12.7	9.5	1.0	12.6	4.7
1.0			2.0	12.0	16.6	2.0	13.0	9.5	2.0	12.5	4.7
2.0	10.7	0.9	3.0	12.3	13.5	3.0	13.0	9.5	3.0	12.5	4.7
3.0	9.8	1.5	4.0	8.1	6.4	4.0	12.8	9.5	4.0	12.5	4.7
4.0	8.4	1.7	5.0	7.8	6.0	5.0	12.8	9.5	5.0	12.5	4.7
5.0	7.1	1.7	6.0	5.9	5.0	6.0	13.0	9.4	6.0	12.4	4.7
6.0	5.8	1.7	7.0	5.8	4.9	7.0	12.8	9.4	7.0	12.4	4.7
7.0	5.0	1.7	8.0	5.5	4.8	8.0	12.8	9.4	8.0	12.3	4.7
8.0	4.3	1.8	9.0	4.6	4.4	9.0	12.7	9.4	9.0	12.3	4.7
9.0	3.5	1.8	10.0	3.9	4.1	10.0	12.7	9.4	10.0	12.2	4.7
10.0	3.3	1.9	11.0	2.3	3.7	11.0	12.8	9.4	11.0	12.2	4.7
11.0	2.6	1.9	12.0	0.0	3.5	12.0	12.7	9.4	12.0	12.1	4.7
12.0	2.1	2.1	13.0	0.0	3.2	13.0	12.5	9.4	13.0	11.9	4.7
13.0	1.3	2.2	14.0	0.0	3.1	14.0	12.3	9.3	14.0	11.7	4.7
14.0	0.7	2.5									
14.3	0.0	2.5									

PO LAKE (13W 435585E 7547768N NAD83)

			23 Jul 2006			15 Aug 2006			08 Sep 2006		
Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)
Not measured			0.0	9.8	14.3	0.0	10.3	15.3	0.0	12.1	7.8
			0.5	10.1	14.6	0.5	10.3	15.3	0.5	12.3	7.6
			1.0	10.0	14.8	1.0	10.3	15.3	1.0	12.1	7.4
			1.5	10.0	15.0	1.5	10.3	15.3	1.5	12.3	7.3
			2.0	9.9	15.1	2.0	10.3	15.2	2.0	12.3	7.2
			2.5	10.0	15.1	2.5	10.3	15.2	2.5	12.3	7.1
			3.0	10.1	15.1	3.0	10.3	15.2	3.0	12.3	7.0
			3.5	8.8	15.1	3.5	10.3	15.2	3.5	12.3	7.0
						4.0	10.4	15.2	4.0	12.3	6.9
						4.5					

PO LAKE (13W 435585E 7547768N NAD83)

23 May 2007			17 Jul 2007			15 Aug 2007			11 Sep 2007		
Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)
Not measured			0.0	11.8	16.9	0.0	11.4	9.6	0.0	13.9	3.6
			0.5	11.8	16.9	0.5	11.3	9.6	0.5	14.0	3.6
			1.0	11.8	16.8	1.0	11.3	9.6	1.0	14.1	3.5
			1.5	11.8	16.9	1.5	11.2	9.6	1.5	14.1	3.6
			2.0	11.7	16.8	2.0	11.2	9.6	2.0	14.3	3.6
			2.5	11.7	16.8	2.5	11.2	9.6	2.5	14.4	3.6
									3.0	14.6	3.6

WINDY LAKE (13W 431586 7553247N NAD83)

02 Jun 2006			24 Jul 2006			18 Aug 2006			09 Sep 2006		
Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)
0.5	ice	ice	0.0	11.2	11.5	0.0	10.6	12.7	0.0	10.9	11.4
1.0	ice	ice	0.5	11.3	11.5	0.5	10.6	13.0	1.0	11.0	10.7
1.5	ice	ice	1.0	11.3	11.5	1.0	10.6	13.0	2.0	11.1	10.6
2.0	15.4	1.2	1.5	11.3	11.5	1.5	10.5	13.1	3.0	11.0	10.4
2.5	15.5	1.5	2.0	11.3	11.5	2.0	10.5	13.1	4.0	11.1	10.3
3.0	15.5	1.6	2.5	11.3	11.5	2.5	10.4	13.2	5.0	11.1	10.3
3.5	15.5	1.7	3.0	11.3	11.5	3.0	10.4	13.2	6.0	11.2	10.2
4.0	15.5	1.7	3.5	11.3	11.5	3.5	10.4	13.2	7.0	11.2	10.1
4.5	15.5	1.7	4.0	11.3	11.5	4.0	10.4	13.3	8.0	11.3	10.0
5.0	15.5	1.8	4.5	11.3	11.5	4.5	10.4	13.3	9.0	11.3	9.9
5.5	15.5	1.8	5.0	11.3	11.5	5.0	10.5	13.3	10.0	11.4	9.9
6.0	15.6	1.8	5.5	11.3	11.5	5.5	10.5	13.3	11.0	11.4	9.8
6.5	15.6	1.8	6.0	11.3	11.5	6.0	10.5	13.3	12.0	11.5	9.8
7.0	15.7	1.8	6.5	11.4	11.5	6.5	10.5	13.3	13.0	11.5	9.7
7.5	15.7	1.8	7.0	11.4	11.5	7.0	10.5	13.3	14.0	11.7	9.7
8.0	15.7	1.8	7.5	11.5	11.5	7.5	10.5	13.3	15.0	11.7	9.7
8.5	15.8	1.8	8.0	11.5	11.5	8.0	10.6	13.3	16.0	11.9	9.7
9.0	15.8	1.8	8.5	11.5	11.5	8.5	10.5	13.3	17.0	11.9	9.6
9.5	15.9	1.9	9.0	11.6	11.4	9.0	10.6	13.3	18.0	11.6	9.6
10.0	15.9	1.9	9.5	11.6	11.3	9.5	10.6	13.2			
10.5	16.0	1.9	10.0	11.7	11.3	10.0	10.8	13.1			
11.0	16.0	1.9	10.5	11.7	11.3	10.5	10.8	12.9			
11.5	16.0	1.9	11.0	11.7	11.2	11.0	11.0	12.5			
12.0	16.1	1.9	11.5	11.7	11.2	11.5	11.2	12.1			
12.5	16.1	1.9	12.0	11.9	11.1	12.0	11.1	11.9			
13.0	16.2	1.9	12.5	11.5	10.3	12.5	11.3	11.8			
13.5	16.2	1.9	13.0	12.3	9.5	13.0	11.2	11.6			
14.0	16.2	1.9	13.5	12.1	9.4	13.5					
14.5	15.0	1.9	14.0	12.3	9.1						
15.0	15.8	2.0	14.5	12.3	9.0						
15.5	15.9	2.1	15.0	10.0	9.0						
16.0	15.6	2.1	15.5	12.4	8.8						
16.5	13.8	2.2	16.0	12.4	8.8						
17.0	13.0	2.4	16.5	12.5	8.8						
17.5	3.5	2.6	17.0	11.9	8.8						

Appendix B4. Dissolved Oxygen and Water Temperature Profiles for the Boston and Madrid Project Water Quality Sites, 2006-2007.

WINDY LAKE (13W 431586E 7553247N NAD83)											
25 May 2007			18 Jul 2007			21 Aug 2007			15 Sep 2007		
Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)
0.0			0.0	13.8	7.3	0.0	10.7	9.4	0.0	11.3	5.3
0.5			1.0	13.8	7.2	1.0	10.7	9.4	1.0	11.3	5.3
1.0			2.0	13.7	7.1	2.0	10.7	9.4	2.0	11.3	5.4
1.5			3.0	13.8	6.7	3.0	10.7	9.4	3.0	11.3	5.3
2.0	13.9	0.3	4.0	13.8	6.4	4.0	10.7	9.4	4.0	11.3	5.4
3.0	13.9	0.5	5.0	14.1	6.2	5.0	10.6	9.5	5.0	11.3	5.4
4.0	13.9	0.6	6.0	14.3	6.2	6.0	10.7	9.4	6.0	11.3	5.4
5.0	13.9	0.6	7.0	15.5	6.0	7.0	10.7	9.4	7.0	11.2	5.3
6.0	13.9	0.6	8.0	15.9	5.4	8.0	10.6	9.4	8.0	11.2	5.4
7.0	13.9	0.6	9.0	16.1	5.1	9.0	10.7	9.5	9.0	11.2	5.3
8.0	13.7	0.6	10.0	16.1	5.0	10.0	10.7	9.4	10.0	11.2	5.4
9.0	13.6	0.7	11.0	16.0	5.0	11.0	10.7	9.5	11.0	11.2	5.3
10.0	13.4	0.9	12.0	16.1	5.0	12.0	10.7	9.4	12.0	11.1	5.3
11.0	13.3	1.0	13.0	16.1	4.9	13.0	10.7	9.4	13.0	11.1	5.4
12.0	13.1	1.1	14.0	16.2	4.8	14.0	10.6	9.4	14.0	11.0	5.3
13.0	12.9	1.2	15.0	16.2	4.7	15.0	10.6	9.4	15.0	10.9	5.3
14.0	12.3	1.4	16.0	16.2	4.5	16.0	10.4	9.4	16.0	10.7	5.4
15.0	12.0	1.6	17.0	16.3	4.4	17.0	9.6	9.4	17.0	10.3	5.4
16.0	11.4	1.9									
17.0	10.3	2.2									

WOLVERINE LAKE (13W 434855E 7545873N NAD83)											
01 Jun 2006			22 Jul 2006			12 Aug 2006			09 Sep 2006		
Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)
0.5	ice	ice	0.0	10.5	17.0	0.0	9.7	15.7	0.0	12.1	8.2
1.0	ice	ice	0.5	10.4	17.1	0.5	9.7	15.7	0.5	12.0	7.9
1.5	11.3	2.2	1.0	10.4	17.2	1.0	9.6	15.8	1.0	12.1	7.7
2.0	14.4	3.5	1.5	10.4	17.3	1.5	9.6	15.8	1.5	12.2	7.5
2.5	13.6	4.0	2.0	10.4	17.3	2.0	9.6	15.9	2.0	12.1	7.4
			2.5	10.3	17.3	2.5	9.6	15.9	2.5	12.2	7.3
			3.0	10.3	17.4	3.0	9.6	15.9	3.0	12.2	7.2
			3.5	10.3	17.4	3.5	9.6	15.9		12.0	7.1
			4.0	10.4	17.3						

WOLVERINE LAKE (13W 434632E 7545592N NAD83)											
23 May 2007			17 Jul 2007			15 Aug 2007			11 Sep 2007		
Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)
0.0			0.0	12.4	17.7	0.0	11.0	9.6	0.0	13.2	3.1
0.5			0.5	12.5	17.7	0.5	11.0	9.6	0.5	13.2	3.1
1.0			1.0	12.4	17.7	1.0	11.0	9.5	1.0	13.3	3.1
1.5	1.5	0.2	1.5	12.2	17.6	1.5	10.6	9.6	1.5	13.3	3.1
2.0	1.4	0.9	2.0	11.2	17.3	2.0	6.6	9.4	2.0	13.4	3.1
									2.5	13.5	3.1
									3.0	13.4	3.4

MARINE BAYS

HOPE BAY (13W 427587E 7555296N NAD83)											
27 May 2007			23 Jul 2007			17 Aug 2007			15 Sep 2007		
Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)	Depth (m)	DO (mg/L)	Temp (°C)
			0.0	10.9	13.3	0.0	15.5	8.6	0.0	11.5	1.9
Not measured			1.0	10.9	13.3	1.0	15.3	8.4	1.0	11.9	2.0
			2.0	11.1	13.1	2.0	13.5	7.8	2.0	8.6	5.4
			3.0	10.6	11.9	3.0	13.5	7.6	3.0	8.7	5.0
			4.0	10.5	11.9	4.0	13.5	7.5	4.0	8.7	5.0
			5.0	10.4	11.8	5.0	13.5	7.3	5.0	8.7	5.0
			6.0	10.7	9.8	6.0	13.7	7.1	6.0	8.7	4.9
			6.5	10.5	11.7	7.0	13.9	6.7	7.0	8.6	4.6
			7.0	10.3	3.9	8.0	14.1	6.4	8.0	8.5	4.9
			8.0	10.0	1.3	9.0	14.4	6.0	9.0	8.4	4.5
			9.0	10.0	0.8				10.0	8.3	4.1
			10.0	9.9	0.6				11.0	8.3	2.7
			11.0	9.7	0.4				12.0	8.1	2.3
			12.0	9.7	0.2				13.0	8.1	1.7
			13.0	9.7	0.1				14.0	7.9	1.4
									15.0	7.2	1.2

APPENDIX B5

ANALYTICAL RESULTS
FOR FRESHWATER
WATER QUALITY SAMPLES

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Aimaokatalok River							
			23-Jun-06	17-Jul-06	13-Aug-06	10-Sep-06	23-Jun-07	21-Jul-07	20-Aug-07	9-Sep-07
Physical										
Alkalinity, Total ($CaCO_3$)	mg/L		6.3	7.2	9.1	9.6	7.7	8.1	9.8	8.4
Hardness, Total ($CaCO_3$)	mg/L		6.8	10.5	11.1	13.5	10.0	10.3	15.3	12.9
Conductivity	µS/cm		28.4	36.0	45.3	53.4	42.1	40.2	56.1	49.8
Field pH	units	6.5-9.0	7.2	6.9	6.6	7.0	**6.0**	**6.3**	6.5	**6.3**
TDS (Calculated)	mg/L		15.3	17.8	20.9	23.9	21.4	22.1	30.4	24.8
Total Suspended Solids	mg/L		<1	1	<1	2	5	<1	<1	<1
Color, True	TCU		13	12	11	<1	29	11	12	9
Nutrients										
Phosphorus, Total	mg/L		0.009	0.009	0.020	0.018	0.016	0.009	0.008	0.007
Total Kjeldahl Nitrogen	mg/L		0.28	0.25	0.31	0.27	0.32	0.28	0.35	0.32
Ammonia-N	mg/L	0.2-122.4	0.004	0.008	0.008	0.006	0.016	0.012	0.009	0.006
Nitrite-N	mg/L	0.06	0.001	<0.001	<0.001	<0.001	0.001	0.001	<0.005	<0.005
Nitrate-N (calculated)	mg/L	2.9	<0.005	0.011	0.007	0.014	0.010	0.021	0.005	0.010
Organics										
Carbon Part	mg/L		0.21	0.29	0.57	0.30	0.67	0.28	0.35	0.49
Dissolved Organic Carbon	mg/L		3.4	3.9	4.1	4.3	5.8	3.7	5.5	4.5
Chlorophyll a	µg/L		-	-	-	-	-	-	-	-
Major Ions										
Calcium (Total)	mg/L		1.38	1.65	2.37	2.77	1.85	1.86	3.15	2.33
Calcium (Dissolved)	mg/L		1.14	1.48	2.10	2.63	1.77	1.76	3.06	2.21
Chloride (Cl)	mg/L		3.90	5.10	6.20	7.60	-	-	-	-
Magnesium (Total)	mg/L		0.94	1.19	1.30	1.67	1.31	1.34	1.78	1.73
Magnesium (Dissolved)	mg/L		0.78	1.09	1.15	1.55	1.25	1.31	1.75	1.64
Potassium (Total)	mg/L		0.46	0.54	0.59	0.63	0.81	0.61	0.55	0.61
Potassium (Dissolved)	mg/L		0.40	0.50	0.53	0.59	0.75	0.59	0.53	0.59
Sodium (Total)	mg/L		2.08	2.77	3.14	3.90	3.04	2.87	4.14	4.03
Sodium (Dissolved)	mg/L		1.84	2.68	2.84	3.71	3.01	2.87	4.10	4.02
Sulphate (SO_4)	mg/L		3	<3	<3	<3	<3	<3	4	<3
Anions	meq/L		0.30	0.33	0.40	0.45	0.38	0.39	0.52	0.47
Cations	meq/L		0.23	0.33	0.37	0.44	0.41	0.43	0.59	0.45
Ion Balance	N/A		0.78	0.98	0.92	0.98	1.07	1.09	1.12	0.97
Total Metals										
Aluminum (Al)	µg/L	5, 100	35.7	24.9	26.1	25.1	**153**	**16.3**	35.8	**20.3**
Antimony (Sb)	µg/L		0.003	0.003	0.004	0.006	0.0035	0.0035	0.0046	0.0052
Arsenic (As)	µg/L	5	0.084	0.113	0.142	0.136	0.164	0.147	0.163	0.161
Barium (Ba)	µg/L		1.87	1.63	2.22	2.27	4.49	1.80	2.46	2.01
Beryllium (Be)	µg/L		0.006	<0.003	<0.003	<0.003	0.0031	<0.003	<0.003	<0.003
Bismuth (Bi)	µg/L		0.003	<0.001	0.002	<0.001	0.0030	0.0013	<0.001	<0.001
Boron (B)	µg/L		2.57	4.01	3.95	3.62	3.53	4.46	1.17	5.13
Cadmium (Cd)	µg/L	0.003-0.055	**0.004**	<0.002	0.002	<0.002	0.004	<0.002	0.002	<0.002
Chromium (Cr)	µg/L	1, 16	0.154	<0.03	0.170	0.111	0.4	0.2	0.2	0.3
Cobalt (Co)	µg/L		0.0298	0.0501	0.0761	0.0475	0.3580	0.0573	0.0648	0.0446
Copper (Cu)	µg/L	2-4	0.75	0.97	1.28	1.06	0.9	0.9	1.3	1.0
Iron (Fe)	µg/L	300	110	85	175	120	**375**	166	138	103
Lead (Pb)	µg/L	1-7	0.0240	0.0184	0.0407	0.0299	0.0688	0.0319	0.0320	0.0954
Manganese (Mn)	µg/L		1.62	2.89	5.08	2.68	38.70	3.35	2.90	1.99
Mercury (Hg)	ng/L	26	<0.6	<0.6	1.0	<0.6	2.3	<0.6	1.9	<0.6
Molybdenum (Mo)	µg/L	73	0.025	0.048	0.046	0.042	0.0546	0.0215	0.0191	0.0407
Nickel (Ni)	µg/L	25-150	0.263	0.297	0.328	0.306	0.620	0.308	0.482	0.352
Selenium (Se)	µg/L	1	<0.1	<0.1	0.2	0.2	0.3	0.1	<0.1	<0.1
Silver (Ag)	µg/L	0.1	0.0013	<0.0005	0.0015	0.0016	0.0035	0.0074	0.0011	<0.0005
Strontium (Sr)	µg/L		7.6	9.1	11.9	12.6	10.9	10.6	13.6	11.8
Thallium (Tl)	µg/L	0.8000	0.0041	0.0080	0.0101	0.0151	0.0055	0.0033	<0.0003	0.0004
Tin (Sn)	µg/L		<0.03	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.118
Uranium (U)	µg/L		0.0160	0.0141	0.0194	0.0294	0.0286	0.0186	0.0325	0.0236
Vanadium (V)	µg/L		0.125	0.060	0.107	0.048	0.3390	0.1140	0.1030	0.0950
Zinc (Zn)	µg/L	3, 13-198	6.55	1.88	**26.10**	1.86	2.80	0.53	1.96	1.76
Dissolved Metals										
Aluminum (Al)	µg/L		6.0	3.0	4.2	3.4	17.4	4.7	11.7	4.8
Antimony (Sb)	µg/L		0.0029	0.0024	0.0043	0.0055	0.0034	0.0035	0.0046	0.0052
Arsenic (As)	µg/L		0.071	0.113	0.127	0.127	0.136	0.146	0.163	0.159
Barium (Ba)	µg/L		1.27	1.27	1.73	1.93	2.63	1.54	2.13	1.76
Beryllium (Be)	µg/L		0.006	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Boron (B)	µg/L		2.43	3.31	3.17	3.55	3.11	2.97	1.16	2.79
Cadmium (Cd)	µg/L		<0.002	<0.002	<0.002	<0.002	0.002	<0.002	<0.002	<0.002
Chromium (Cr)	µg/L		0.15	<0.03	0.10	0.11	0.235	0.184	0.206	0.279
Cobalt (Co)	µg/L		0.0131	0.0150	0.0262	0.0176	0.0248	0.0283	0.0306	0.0241
Copper (Cu)	µg/L		0.57	0.78	0.90	0.93	0.76	0.76	1.21	1.00
Iron (Fe)	µg/L		39.7	19.0	30.2	21.1	92.0	72.2	51.5	35.4
Lead (Pb)	µg/L		0.015	0.006	0.018	0.025	0.006	<0.001	0.010	0.016
Manganese (Mn)	µg/L		0.42	0.74	0.62	0.33	3.51	0.44	0.68	0.71
Molybdenum (Mo)	µg/L		0.018	0.047	0.037	0.034	0.0276	0.0198	0.0174	0.0284
Nickel (Ni)	µg/L		0.192	0.190	0.273	0.248	0.460	0.228	0.467	0.348
Selenium (Se)	µg/L		<0.1	<0.1	0.1	0.2	0.166	0.101	<0.1	<0.1
Silver (Ag)	µg/L		<0.0005	<0.0005	<0.0005	0.0007	0.0013	<0.0005	<0.0005	<0.0005
Strontium (Sr)	µg/L		6.3	8.1	10.6	12.3	10.8	10.5	13.3	11.7
Uranium (U)	µg/L		0.0084	0.0077	0.0078	0.0125	0.0193	0.0114	0.0246	0.0152
Vanadium (V)	µg/L		0.06	<0.01	0.03	<0.01	0.090	0.069	0.052	0.078
Zinc (Zn)	µg/L		2.42	0.84	21.80	1.64	1.86	0.52	1.94	1.74
Other										
Cyanide, Total	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Fluoride (F)	mg/L		0.02	0.03	<0.01	0.03	0.12	0.03	0.01	0.03
Sulphide	mg/L		<0.001	<0.001	<0.001	-	0.001	<0.001	0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Aimaokatalok Inflow							
			23-Jun-06	16-Jul-06	13-Aug-06	10-Sep-06	23-Jun-07	20-Jul-07	20-Aug-07	10-Sep-07
Physical										
Alkalinity, Total ($CaCO_3$)	mg/L		10.1	11.5	14.1	17.0	9.3	13.4	13.4	14.3
Hardness, Total ($CaCO_3$)	mg/L		14.0	16.1	18.8	26.1	13.1	19.5	21.6	24.2
Conductivity	µS/cm		71.4	89.2	107.0	131.0	63.6	94.1	97.1	109.0
Field pH	units	6.5-9.0	7.4	7.2	7.2	7.1	-	6.6	6.5	**6.1**
TDS (Calculated)	mg/L		33.7	41.3	50.4	63.4	32.0	49.2	51.7	57.2
Total Suspended Solids	mg/L		2	4	4	4	23	3	4	3
Color, True	TCU		28	21	23	18	48	15	52	26
Nutrients										
Phosphorus, Total	mg/L		0.019	0.027	0.050	0.060	0.040	0.032	0.027	0.030
Total Kjeldahl Nitrogen	mg/L		0.40	0.50	0.58	0.71	0.48	0.54	1.34	0.74
Ammonia-N	mg/L	0.2-122.4	0.030	0.020	0.009	0.007	0.040	0.020	0.031	0.015
Nitrite-N	mg/L	0.06	0.002	0.002	0.001	<0.001	0.002	<0.005	<0.001	0.001
Nitrate-N (calculated)	mg/L	2.9	<0.005	<0.005	<0.005	<0.005	0.006	0.008	<0.001	0.005
Organics										
Carbon Part	mg/L		0.55	0.66	1.01	1.68	1.84	0.79	1.35	1.77
Dissolved Organic Carbon	mg/L		5.8	6.7	7.0	8.7	7.8	6.3	10.8	9.0
Chlorophyll a	µg/L		-	-	-	-	-	-	-	-
Major Ions										
Calcium (Total)	mg/L		2.79	3.10	3.86	5.27	2.47	3.41	3.95	3.94
Calcium (Dissolved)	mg/L		2.53	2.77	3.53	4.87	2.30	3.31	3.82	3.51
Chloride (Cl)	mg/L		13.80	17.90	22.30	26.50	-	-	-	-
Magnesium (Total)	mg/L		1.96	2.27	2.35	3.43	1.75	2.60	2.80	3.36
Magnesium (Dissolved)	mg/L		1.77	2.06	2.20	3.25	1.62	2.48	2.70	3.05
Potassium (Total)	mg/L		0.79	0.91	0.89	1.09	1.19	0.87	0.72	0.90
Potassium (Dissolved)	mg/L		0.68	0.80	0.80	0.97	0.94	0.82	0.63	0.78
Sodium (Total)	mg/L		7.08	9.04	10.80	13.90	5.67	9.25	9.44	12.30
Sodium (Dissolved)	mg/L		6.60	8.40	10.30	13.40	5.61	9.19	9.24	11.40
Sulphate (SO_4)	mg/L		<3	<3	<3	5	<3	3	5	3
Anions	meq/L		0.63	0.78	0.95	1.20	0.57	0.90	0.92	1.05
Cations	meq/L		0.58	0.71	0.86	1.08	0.61	0.89	0.95	1.04
Ion Balance	N/A		0.92	0.92	0.90	0.90	1.06	0.98	1.03	0.99
Total Metals										
Aluminum (Al)	µg/L	5, 100	**176**	**135**	72.0	**120**	**728**	87.4	**206**	**144**
Antimony (Sb)	µg/L		0.006	0.008	0.009	0.008	0.0084	0.0072	0.1230	0.0097
Arsenic (As)	µg/L	5	0.252	0.309	0.422	0.448	0.327	0.398	0.343	0.417
Barium (Ba)	µg/L		4.26	3.90	2.85	4.12	10.90	3.57	5.52	5.36
Beryllium (Be)	µg/L		0.010	0.006	<0.003	0.009	0.0289	0.0091	0.0097	0.0125
Bismuth (Bi)	µg/L		0.014	0.012	0.003	<0.001	0.0108	0.0018	<0.001	<0.001
Boron (B)	µg/L		5.54	9.66	8.33	10.40	6.01	9.17	4.87	8.00
Cadmium (Cd)	µg/L	0.003-0.055	0.006	**0.010**	0.005	0.003	**0.007**	0.004	0.004	<0.002
Chromium (Cr)	µg/L	1, 16	0.418	0.381	0.379	0.472	**1.4**	0.5	0.7	0.7
Cobalt (Co)	µg/L		0.0995	0.1340	0.1380	0.1310	0.5790	0.1710	0.1490	0.1240
Copper (Cu)	µg/L	2-4	0.89	1.29	1.31	1.38	1.2	0.9	1.6	1.4
Iron (Fe)	µg/L	300	**450**	**417**	**544**	**573**	**1020**	**521**	**393**	**329**
Lead (Pb)	µg/L	1-7	0.0896	0.0924	0.1280	0.0864	0.2630	0.0485	0.0939	0.0738
Manganese (Mn)	µg/L		7.33	14.30	16.20	14.60	63.90	17.90	11.60	10.80
Mercury (Hg)	ng/L	26	<0.6	<0.6	<0.6	21.0	2.9	<0.6	<0.6	<0.6
Molybdenum (Mo)	µg/L	73	0.077	0.122	0.146	0.126	0.1060	0.0874	0.0732	0.0878
Nickel (Ni)	µg/L	25-150	0.563	0.505	0.554	0.711	0.999	0.554	1.100	0.887
Selenium (Se)	µg/L	1	0.2	0.2	0.4	0.6	0.4	0.4	0.3	0.6
Silver (Ag)	µg/L	0.1	0.0017	0.0021	0.0021	<0.0005	0.0066	0.0010	0.0021	0.0026
Strontium (Sr)	µg/L		16.8	19.7	24.0	29.8	17.0	21.5	24.1	25.5
Thallium (Tl)	µg/L	0.8000	0.0092	0.0201	0.0116	0.0122	0.0125	0.0049	<0.0003	<0.0003
Tin (Sn)	µg/L		<0.03	0.14	0.03	0.04	<0.03	<0.03	<0.03	<0.03
Uranium (U)	µg/L		0.0296	0.0372	0.0353	0.0734	0.0646	0.0361	0.0514	0.0511
Vanadium (V)	µg/L		0.594	0.460	0.392	0.367	1.4400	0.4430	0.4850	0.4000
Zinc (Zn)	µg/L	3, 13-198	3.57	4.52	1.53	0.91	4.48	1.87	3.20	1.20
Dissolved Metals										
Aluminum (Al)	µg/L		25.3	26.7	17.5	20.9	26.9	13.9	62.5	27.3
Antimony (Sb)	µg/L		0.0058	0.0080	0.0091	0.0080	0.0084	0.0071	0.1220	0.0096
Arsenic (As)	µg/L		0.194	0.237	0.349	0.351	0.217	0.340	0.275	0.347
Barium (Ba)	µg/L		2.31	2.10	1.81	2.60	2.77	2.49	3.49	3.31
Beryllium (Be)	µg/L		<0.003	<0.003	<0.003	<0.003	<0.003	0.003	0.005	0.008
Boron (B)	µg/L		4.85	5.67	7.33	7.96	5.49	7.09	3.77	6.44
Cadmium (Cd)	µg/L		<0.002	0.010	<0.002	<0.002	0.003	<0.002	0.003	<0.002
Chromium (Cr)	µg/L		0.28	0.21	0.29	0.45	0.304	0.293	0.487	0.698
Cobalt (Co)	µg/L		0.0280	0.0333	0.0506	0.0459	0.0377	0.0495	0.0575	0.0573
Copper (Cu)	µg/L		0.74	1.00	1.05	1.31	0.84	0.76	1.46	1.36
Iron (Fe)	µg/L		195	110	190	177	193	166	159	106
Lead (Pb)	µg/L		0.035	0.039	0.088	0.046	0.018	0.008	0.028	0.033
Manganese (Mn)	µg/L		1.64	0.67	0.95	1.31	5.42	0.57	1.76	3.02
Molybdenum (Mo)	µg/L		0.077	0.112	0.130	0.115	0.0670	0.0805	0.0655	0.0601
Nickel (Ni)	µg/L		0.446	0.402	0.457	0.561	0.484	0.425	0.930	0.682
Selenium (Se)	µg/L		0.2	0.2	0.4	0.5	0.238	0.266	0.183	0.397
Silver (Ag)	µg/L		0.0007	<0.0005	<0.0005	<0.0005	0.0012	<0.0005	<0.0005	<0.0005
Strontium (Sr)	µg/L		15.3	17.1	21.6	27.5	16.1	20.9	23.0	24.0
Uranium (U)	µg/L		0.0198	0.0220	0.0208	0.0419	0.0292	0.0236	0.0421	0.0366
Vanadium (V)	µg/L		0.26	0.14	0.16	0.14	0.185	0.141	0.197	0.186
Zinc (Zn)	µg/L		1.97	2.60	1.19	0.91	1.94	1.85	2.89	1.19
Other										
Cyanide, Total	mg/L		<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Fluoride (F)	mg/L		0.03	0.06	0.02	0.04	0.10	0.04	0.02	0.03
Sulphide	mg/L		<0.001	<0.001	<0.001	0.001	0.002	0.001	0.001	0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Aimaokatalok Lake Site 4							
			2-Jun-06		16-Jul-06		17-Aug-06		10-Sep-06	
			Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom
Physical										
Alkalinity, Total ($CaCO_3$)	mg/L		9.4	10.5	8.7	8.8	9.3	9.2	9.4	9.5
Hardness, Total ($CaCO_3$)	mg/L		12.3	13.9	10.6	10.6	11.3	11.2	12.0	11.8
Conductivity	µS/cm		55.4	60.9	48.8	48.8	49.5	49.2	52.4	52.3
Field pH	units	6.5-9.0	6.7	-	6.8	-	7.3	-	7.3	-
TDS (Calculated)	mg/L		26.7	29.6	22.8	23.1	24.5	24.1	24.8	24.7
Total Suspended Solids	mg/L		<1	<1	2	<1	<1	1	1	<1
Color, True	TCU		8	8	21	18	19	19	7	8
Nutrients										
Phosphorus, Total	mg/L		0.017	0.012	0.013	0.012	0.019	0.016	0.011	0.027
Total Kjeldahl Nitrogen	mg/L		0.31	0.24	0.25	0.28	0.25	0.24	0.24	0.24
Ammonia-N	mg/L	0.2-122.4	0.009	0.013	0.009	0.008	0.008	0.007	0.007	0.008
Nitrite-N	mg/L	0.06	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Nitrate-N (calculated)	mg/L	2.9	0.026	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Organics										
Carbon Part	mg/L		0.11	0.22	0.27	0.26	0.23	0.22	0.29	0.36
Dissolved Organic Carbon	mg/L		4.2	4.5	4.2	4.1	4.3	4.1	3.9	4.1
Chlorophyll a	µg/L		-	-	-	-	-	-	8.8	-
Major Ions										
Calcium (Total)	mg/L		2.62	2.96	2.19	2.25	2.33	2.30	2.37	2.39
Calcium (Dissolved)	mg/L		2.32	2.73	1.95	2.01	1.99	2.08	2.22	2.28
Chloride (Cl)	mg/L		9.60	10.70	7.80	7.90	8.40	8.20	8.60	8.60
Magnesium (Total)	mg/L		1.58	1.86	1.40	1.41	1.34	1.30	1.54	1.53
Magnesium (Dissolved)	mg/L		1.48	1.75	1.25	1.29	1.14	1.18	1.41	1.42
Potassium (Total)	mg/L		0.71	0.82	0.68	0.69	0.72	0.72	0.74	0.75
Potassium (Dissolved)	mg/L		0.68	0.79	0.61	0.62	0.62	0.64	0.68	0.70
Sodium (Total)	mg/L		4.67	5.37	4.17	4.11	4.31	4.23	4.38	4.42
Sodium (Dissolved)	mg/L		4.43	5.22	3.85	3.89	3.84	3.88	4.21	4.25
Sulphate (SO_4)	mg/L		<3	<3	<3	<3	<3	<3	<3	<3
Anions	meq/L		0.50	0.56	0.44	0.44	0.46	0.46	0.47	0.48
Cations	meq/L		0.46	0.52	0.39	0.39	0.42	0.42	0.43	0.43
Ion Balance	N/A		0.92	0.94	0.88	0.89	0.91	0.91	0.91	0.90
Total Metals										
Aluminum (Al)	µg/L	5, 100	15.8	18.0	33.4	36.1	42.1	43.2	70.4	66.5
Antimony (Sb)	µg/L		0.007	0.006	0.007	0.005	0.007	0.005	0.009	0.009
Arsenic (As)	µg/L	5	0.145	0.155	0.134	0.121	0.148	0.130	0.180	0.150
Barium (Ba)	µg/L		1.49	1.76	1.95	2.03	1.90	1.92	2.07	2.08
Beryllium (Be)	µg/L		<0.003	<0.003	0.003	<0.003	<0.003	<0.003	0.004	<0.003
Bismuth (Bi)	µg/L		<0.001	<0.001	<0.001	0.002	0.002	0.002	<0.001	0.003
Boron (B)	µg/L		4.53	5.27	5.43	4.94	4.80	4.30	5.02	4.70
Cadmium (Cd)	µg/L	0.003-0.055	<0.002	<0.002	<0.002	<0.002	**0.006**	0.003	<0.002	<0.002
Chromium (Cr)	µg/L	1, 16	0.123	0.190	<0.030	0.247	0.213	0.215	0.182	0.169
Cobalt (Co)	µg/L		0.0134	0.0156	0.0284	0.0307	0.0335	0.0331	0.0339	0.0317
Copper (Cu)	µg/L	2-4	0.92	1.00	0.91	0.98	1.83	1.02	1.06	1.06
Iron (Fe)	µg/L	300	10.3	15.4	77.8	85.2	51.1	57.5	66.3	65.9
Lead (Pb)	µg/L	1-7	0.0089	0.0072	0.0343	0.0458	0.0613	0.0371	0.0383	0.1310
Manganese (Mn)	µg/L		2.89	4.09	6.36	6.27	5.22	5.85	6.73	6.70
Mercury (Hg)	ng/L	26			1.6	<0.6	4.8	6.8	26.0	5.6
Molybdenum (Mo)	µg/L	73	0.031	0.034	0.029	0.039	0.045	0.057	0.073	0.045
Nickel (Ni)	µg/L	25-150	0.322	0.369	0.322	0.352	0.420	0.366	0.379	4.260
Selenium (Se)	µg/L	1	0.3	0.1	0.1	0.2	0.2	0.2	0.1	0.2
Silver (Ag)	µg/L	0.1	0.0010	0.0013	<0.0005	0.0016	0.0017	0.0013	0.0011	0.0016
Strontium (Sr)	µg/L		13.2	15.2	11.6	11.9	12.3	12.3	12.7	12.5
Thallium (Tl)	µg/L	0.8000	0.0004	0.0008	0.0081	0.0133	0.0087	0.0063	0.0127	0.0108
Tin (Sn)	µg/L		7.76	4.85	12.90	3.19	3.48	0.26	2.14	1.40
Uranium (U)	µg/L		0.0177	0.0241	0.0178	0.0191	0.0198	0.0203	0.0204	0.0206
Vanadium (V)	µg/L		0.064	0.068	0.041	0.094	0.114	0.110	0.138	0.117
Zinc (Zn)	µg/L	3, 13-198	7.89	3.11	2.08	2.11	7.21	6.26	2.15	2.22
Dissolved Metals										
Aluminum (Al)	µg/L		4.0	5.0	6.1	6.4	5.7	6.0	6.7	6.7
Antimony (Sb)	µg/L		0.0066	0.0063	0.0071	0.0050	0.0070	0.0054	0.0089	0.0087
Arsenic (As)	µg/L		0.144	0.143	0.103	0.102	0.142	0.124	0.165	0.116
Barium (Ba)	µg/L		1.21	1.48	1.38	1.48	1.27	1.27	1.28	1.28
Beryllium (Be)	µg/L		<0.003	<0.003	0.003	<0.003	<0.003	<0.003	0.004	<0.003
Boron (B)	µg/L		4.08	4.65	3.84	3.61	4.15	3.99	4.64	4.23
Cadmium (Cd)	µg/L		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chromium (Cr)	µg/L		0.11	0.19	<0.03	0.17	0.19	0.17	0.17	0.15
Cobalt (Co)	µg/L		0.0105	0.0109	0.0098	0.0105	0.0102	0.0112	0.0114	0.0138
Copper (Cu)	µg/L		0.84	0.93	0.74	0.68	1.16	0.66	0.88	1.00
Iron (Fe)	µg/L		2.9	4.1	10.2	22.1	9.0	10.2	10.3	9.4
Lead (Pb)	µg/L		<0.001	<0.001	0.009	0.011	0.040	0.024	0.021	0.016
Manganese (Mn)	µg/L		0.46	0.82	0.14	0.11	0.58	0.51	0.60	0.55
Molybdenum (Mo)	µg/L		0.030	0.034	0.021	0.035	0.037	0.039	0.039	0.038
Nickel (Ni)	µg/L		0.295	0.321	0.310	0.299	0.292	0.274	0.301	0.273
Selenium (Se)	µg/L		0.2	0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1
Silver (Ag)	µg/L		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0005	<0.0005	0.0008
Strontium (Sr)	µg/L		12.5	15.1	10.2	10.5	10.5	10.7	12.1	11.8
Uranium (U)	µg/L		0.0086	0.0115	0.0119	0.0138	0.0110	0.0110	0.0099	0.0097
Vanadium (V)	µg/L		0.05	0.06	<0.01	0.06	0.01	0.04	0.04	0.04
Zinc (Zn)	µg/L		7.84	3.03	2.08	2.02	3.75	0.85	2.14	2.18
Other										
Cyanide, Total	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Fluoride (F)	mg/L		0.04	0.04	0.03	0.03	0.01	0.01	0.02	0.03
Sulphide	mg/L		<0.001	0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Aimaokatalok Lake Site 4							
			24-May-07		21-Jul-07		19-Aug-07		8-Sep-07	9-Sep-07
			Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom
Physical										
Alkalinity, Total ($CaCO_3$)	mg/L		11.6	11.0	9.6	9.6	9.4	9.4	10.0	9.8
Hardness, Total ($CaCO_3$)	mg/L		15.1	14.4	12.3	12.2	12.4	12.3	13.2	13.5
Conductivity	µS/cm		66.1	64.2	52.8	52.7	51.9	52.2	54.0	53.4
Field pH	units	6.5-9.0	7.0	-	**6.0**	**-**	**6.2**	**-**	**6.0**	-
TDS (Calculated)	mg/L		34.6	44.4	29.2	29.5	29.0	27.4	27.0	26.9
Total Suspended Solids	mg/L		<1	<1	<1	<1	<1	<1	<1	<1
Color, True	TCU		6	6	12	12	6	9	12	13
Nutrients										
Phosphorus, Total	mg/L		0.009	0.027	0.013	0.011	0.009	0.025	0.010	0.010
Total Kjeldahl Nitrogen	mg/L		0.28	1.49	0.28	0.28	0.23	0.26	0.27	0.27
Ammonia-N	mg/L	0.2-122.4	0.012	0.083	0.014	0.015	0.008	0.009	0.006	0.009
Nitrite-N	mg/L	0.06	<0.005	0.004	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005
Nitrate-N (calculated)	mg/L	2.9	0.009	0.132	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Organics										
Carbon Part	mg/L		0.15	0.17	0.30	0.32	0.25	0.29	0.43	0.38
Dissolved Organic Carbon	mg/L		4.8	4.5	4.4	4.5	3.8	3.9	4.4	4.2
Chlorophyll a	µg/L		-	-	2.2	-	1.1	-	2.3	-
Major Ions										
Calcium (Total)	mg/L		4.10	3.30	2.36	2.34	2.23	2.29	2.52	2.46
Calcium (Dissolved)	mg/L		4.01	3.09	2.23	2.20	2.21	2.21	2.39	2.34
Chloride (Cl)	mg/L			-	-	-	-	-	-	-
Magnesium (Total)	mg/L		1.95	1.69	1.47	1.50	1.52	1.56	1.70	1.64
Magnesium (Dissolved)	mg/L		1.88	1.61	1.40	1.42	1.52	1.50	1.63	1.56
Potassium (Total)	mg/L		1.14	0.91	0.67	0.69	0.68	0.70	0.77	0.75
Potassium (Dissolved)	mg/L		1.11	0.86	0.64	0.66	0.68	0.66	0.73	0.72
Sodium (Total)	mg/L		7.08	5.73	4.13	4.22	4.30	4.39	4.92	4.65
Sodium (Dissolved)	mg/L		6.90	5.48	4.00	4.05	4.26	4.32	4.87	4.60
Sulphate (SO_4)	mg/L		<3	12	3	4	4	<3	<3	<3
Anions	meq/L		0.61	0.82	0.53	0.54	0.51	0.48	0.51	0.50
Cations	meq/L		0.67	0.66	0.54	0.53	0.53	0.54	0.48	0.49
Ion Balance	N/A		1.09	0.80	1.00	0.99	1.04	1.12	0.95	0.98
Total Metals										
Aluminum (Al)	µg/L	5, 100	41.3	21.0	**31.7**	30.8	**43.7**	40.9	**42.9**	45.7
Antimony (Sb)	µg/L		0.4400	0.0918	0.0046	0.0053	0.1290	0.0695	0.0087	0.0190
Arsenic (As)	µg/L	5	0.328	0.231	0.136	0.142	0.138	0.141	0.160	0.198
Barium (Ba)	µg/L		3.08	1.86	1.83	1.80	1.89	1.89	1.92	1.95
Beryllium (Be)	µg/L		0.0036	0.0085	0.0034	0.0046	<0.003	<0.003	<0.003	<0.003
Bismuth (Bi)	µg/L		0.0030	0.0032	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Boron (B)	µg/L		7.23	5.13	4.45	4.72	1.97	2.70	4.97	4.41
Cadmium (Cd)	µg/L	0.003-0.055	**0.024**	**0.009**	<0.002	<0.002	<0.002	<0.002	<0.002	0.006
Chromium (Cr)	µg/L	1, 16	1.0	**1.2**	0.2	0.2	0.2	0.2	0.3	0.4
Cobalt (Co)	µg/L		0.0670	0.0340	0.0390	0.0388	0.0252	0.0256	0.0279	0.0320
Copper (Cu)	µg/L	2-4	**2.3**	1.3	1.1	0.9	1.0	1.1	1.0	1.4
Iron (Fe)	µg/L	300	36.0	14.7	83.4	83.4	61.2	58.4	64.4	72.8
Lead (Pb)	µg/L	1-7	0.6940	0.1690	0.0078	0.0164	0.0192	0.0163	0.0401	0.0651
Manganese (Mn)	µg/L		2.75	2.34	13.50	13.60	5.47	5.15	5.11	4.91
Mercury (Hg)	ng/L	26	2.3	<0.6	1.7	<0.6	<0.6	<0.6	<0.6	<0.6
Molybdenum (Mo)	µg/L	73	0.0745	0.0533	0.0195	0.0187	0.0131	0.0140	0.0328	0.0445
Nickel (Ni)	µg/L	25-150	0.941	0.512	0.302	0.362	0.324	0.355	0.369	0.428
Selenium (Se)	µg/L	1	0.4	0.3	0.1	0.2	<0.1	<0.1	<0.1	<0.1
Silver (Ag)	µg/L	0.1	0.0031	0.0054	0.0010	0.0010	0.0011	0.0021	0.0012	0.0007
Strontium (Sr)	µg/L		17.1	15.9	12.3	12.5	12.5	12.9	13.3	13.1
Thallium (Tl)	µg/L	0.8000	<0.0003	<0.0003	0.0033	0.0032	<0.0003	<0.0003	0.0008	0.0020
Tin (Sn)	µg/L		0.323	0.234	0.085	1.040	1.200	0.869	0.981	0.749
Uranium (U)	µg/L		0.0210	0.0215	0.0172	0.0172	0.0170	0.0179	0.0196	0.0213
Vanadium (V)	µg/L		0.1020	0.3380	0.0974	0.0970	0.0858	0.0846	0.1200	0.1380
Zinc (Zn)	µg/L	3, 13-198	16.00	16.00	2.30	3.11	2.01	1.85	2.11	2.15
Dissolved Metals										
Aluminum (Al)	µg/L		9.3	4.2	6.2	6.2	7.9	5.9	8.0	7.3
Antimony (Sb)	µg/L		0.4360	0.0909	0.0046	0.0052	0.1280	0.0688	0.0086	0.0188
Arsenic (As)	µg/L		0.238	0.139	0.130	0.121	0.132	0.135	0.146	0.186
Barium (Ba)	µg/L		2.46	1.63	1.47	1.45	1.46	1.43	1.42	1.44
Beryllium (Be)	µg/L		0.004	<0.003	0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Boron (B)	µg/L		6.49	4.59	4.01	4.10	1.90	1.79	3.92	4.17
Cadmium (Cd)	µg/L		0.021	0.006	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chromium (Cr)	µg/L		0.264	1.230	0.156	0.198	0.216	0.163	0.269	0.376
Cobalt (Co)	µg/L		0.0563	0.0245	0.0131	0.0098	0.0131	0.0096	0.0155	0.0184
Copper (Cu)	µg/L		2.19	1.17	0.52	0.57	1.00	0.96	1.02	1.39
Iron (Fe)	µg/L		12.0	2.9	18.5	19.4	17.5	12.6	14.9	18.1
Lead (Pb)	µg/L		0.607	0.075	<0.001	<0.001	0.003	0.001	0.010	0.014
Manganese (Mn)	µg/L		2.54	1.28	0.32	0.32	1.01	0.44	0.52	0.55
Molybdenum (Mo)	µg/L		0.0572	0.0506	0.0124	0.0185	0.0130	0.0100	0.0325	0.0400
Nickel (Ni)	µg/L		0.932	0.506	0.270	0.284	0.321	0.326	0.364	0.424
Selenium (Se)	µg/L		0.278	0.189	0.124	0.156	<0.1	<0.1	<0.1	<0.1
Silver (Ag)	µg/L		0.0012	0.0018	<0.0005	0.0010	0.0011	0.0021	<0.0005	0.0007
Strontium (Sr)	µg/L		16.9	15.6	12.2	12.4	12.4	12.3	13.2	13.0
Uranium (U)	µg/L		0.0166	0.0175	0.0135	0.0130	0.0131	0.0132	0.0146	0.0165
Vanadium (V)	µg/L		0.036	0.335	0.035	0.038	0.038	0.015	0.062	0.094
Zinc (Zn)	µg/L		15.80	13.20	1.57	2.11	1.99	1.83	2.09	2.13
Other										
Cyanide, Total	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
Fluoride (F)	mg/L		0.02	0.16	0.21	0.19		0.02	0.02	0.02
Sulphide	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Aimaokatalok Lake Site 6								
			3-Jun-06			16-Jul-06		17-Aug-06		10-Sep-06	
			Top	Middle	Bottom	Top	Bottom	Top	Bottom	Top	Bottom
Physical											
Alkalinity, Total ($CaCO_3$)	mg/L		10.7	10.8	13.7	8.7	9.0	9.1	9.3	9.4	9.4
Hardness, Total ($CaCO_3$)	mg/L		14.0	14.0	17.6	10.5	11.0	11.0	11.3	12.0	12.0
Conductivity	µS/cm		64.5	64.7	71.7	48.9	50.4	49.2	51.9	53.2	53.1
Field pH	units	6.5-9.0	6.9	-	-	6.9	-	7.3	-	7.4	-
TDS (Calculated)	mg/L		31.0	30.9	33.6	23.0	23.8	24.1	25.7	25.0	27.6
Total Suspended Solids	mg/L		<1	<1	2	1	<1	1	3	<1	1
Color, True	TCU		10	9	30	21	21	19	19	6	8
Nutrients											
Phosphorus, Total	mg/L		0.012	0.011	0.023	0.013	0.011	0.020	0.028	0.022	0.025
Total Kjeldahl Nitrogen	mg/L		0.36	0.25	0.37	0.28	0.25	0.23	0.29	0.22	0.24
Ammonia-N	mg/L	0.2-122.4	0.008	0.013	0.009	0.005	0.011	0.009	0.020	0.005	0.006
Nitrite-N	mg/L	0.06	<0.001	<0.001	0.002	0.001	0.001	<0.001	<0.001	<0.001	<0.001
Nitrate-N (calculated)	mg/L	2.9	0.035	0.037	0.025	<0.005	<0.005	<0.005	0.015	<0.005	<0.005
Organics											
Carbon Part	mg/L		0.19	0.17	0.36	0.19	0.23	0.26	0.42	0.34	0.29
Dissolved Organic Carbon	mg/L		5.0	4.8	6.9	4.2	4.1	4.0	4.0	3.7	4.2
Chlorophyll a	µg/L		-	-	-	-	-	-	-	4.7	-
Major Ions											
Calcium (Total)	mg/L		3.10	3.09	4.18	2.26	2.25	2.30	2.32	2.35	2.41
Calcium (Dissolved)	mg/L		2.93	2.82	3.83	1.98	2.09	2.04	2.02	2.24	2.25
Chloride (Cl)	mg/L		11.30	11.20	11.00	8.00	8.20	8.20	9.10	8.70	8.60
Magnesium (Total)	mg/L		1.98	1.97	1.96	1.44	1.41	1.30	1.31	1.48	1.53
Magnesium (Dissolved)	mg/L		1.91	1.84	1.86	1.29	1.37	1.17	1.17	1.36	1.41
Potassium (Total)	mg/L		0.93	0.89	1.06	0.69	0.69	0.72	0.74	0.70	0.74
Potassium (Dissolved)	mg/L		0.88	0.81	0.97	0.62	0.66	0.63	0.63	0.67	0.69
Sodium (Total)	mg/L		5.65	5.58	5.18	4.29	4.27	4.25	4.35	4.29	4.39
Sodium (Dissolved)	mg/L		5.58	5.26	4.93	3.99	4.25	3.88	4.02	4.29	4.20
Sulphate (SO_4)	mg/L		<3	<3	<3	<3	<3	<3	<3	<3	5
Anions	meq/L		0.58	0.58	0.63	0.44	0.46	0.46	0.49	0.48	0.53
Cations	meq/L		0.55	0.54	0.61	0.39	0.41	0.42	0.44	0.44	0.43
Ion Balance	N/A		0.95	0.94	0.97	0.88	0.89	0.91	0.91	0.92	0.82
Total Metals											
Aluminum (Al)	µg/L	5, 100	28.5	28.8	**192**	35.2	48.1	41.3	94.5	64.0	83.0
Antimony (Sb)	µg/L		0.008	0.010	0.010	0.005	0.009	0.005	0.075	0.007	0.008
Arsenic (As)	µg/L	5	0.155	0.201	0.224	0.154	0.174	0.137	0.154	0.168	0.170
Barium (Ba)	µg/L		2.18	2.09	4.81	1.97	2.19	1.83	2.83	1.92	2.16
Beryllium (Be)	µg/L		<0.003	0.005	0.017	0.005	<0.003	<0.003	0.004	<0.003	<0.003
Bismuth (Bi)	µg/L		<0.001	0.002	0.002	<0.001	0.005	0.002	0.002	0.002	<0.001
Boron (B)	µg/L		5.91	5.86	5.65	5.18	6.36	4.37	5.27	5.37	5.44
Cadmium (Cd)	µg/L	0.003-0.055	<0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	<0.002	0.005
Chromium (Cr)	µg/L	1, 16	0.225	0.226	0.411	0.085	0.159	0.190	0.271	0.234	0.176
Cobalt (Co)	µg/L		0.0387	0.0281	0.1800	0.0332	0.0412	0.0301	0.0569	0.0299	0.0349
Copper (Cu)	µg/L	2-4	1.01	1.26	1.48	0.95	1.02	0.95	1.48	0.88	0.95
Iron (Fe)	µg/L	300	42.6	34.5	274	92.5	110	52.8	118	71.6	71.5
Lead (Pb)	µg/L	1-7	0.0367	0.0368	0.1030	0.0297	0.1990	0.0331	0.0661	0.0415	0.0429
Manganese (Mn)	µg/L		8.04	6.66	31.30	6.27	8.99	5.13	12.60	6.81	7.07
Mercury (Hg)	ng/L	26				1.5	<0.6	3.4	3.4	6.7	22.0
Molybdenum (Mo)	µg/L	73	0.044	0.044	0.083	0.028	0.026	0.044	0.042	0.051	0.048
Nickel (Ni)	µg/L	25-150	0.417	0.387	0.671	0.330	0.347	0.358	0.397	0.335	0.378
Selenium (Se)	µg/L	1	<0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.3	0.1
Silver (Ag)	µg/L	0.1	0.0005	0.0017	0.0017	<0.0005	<0.0005	0.0020	0.0021	0.0006	0.0011
Strontium (Sr)	µg/L		16.6	16.4	19.5	11.7	11.8	12.2	12.6	12.0	12.5
Thallium (Tl)	µg/L	0.8000	0.0005	0.0021	0.0032	0.0103	0.0124	0.0064	0.0071	0.0147	0.0111
Tin (Sn)	µg/L		3.34	11.50	3.56	3.38	3.00	2.05	3.80	1.85	0.30
Uranium (U)	µg/L		0.0240	0.0235	0.0340	0.0190	0.0186	0.0199	0.0227	0.0209	0.0221
Vanadium (V)	µg/L		0.101	0.060	0.365	0.079	0.106	0.089	0.165	0.100	0.130
Zinc (Zn)	µg/L	3, 13-198	3.88	6.09	5.30	1.72	2.85	2.14	10.20	1.15	5.11
Dissolved Metals											
Aluminum (Al)	µg/L		7.5	6.6	17.0	6.7	7.4	5.8	7.7	6.6	7.3
Antimony (Sb)	µg/L		0.0080	0.0096	0.0097	0.0046	0.0089	0.0052	0.0746	0.0065	0.0074
Arsenic (As)	µg/L		0.138	0.158	0.180	0.139	0.171	0.121	0.114	0.148	0.135
Barium (Ba)	µg/L		1.73	1.61	2.59	1.41	1.54	1.27	1.55	1.28	1.30
Beryllium (Be)	µg/L		<0.003	<0.003	0.008	0.005	<0.003	<0.003	<0.003	<0.003	<0.003
Boron (B)	µg/L		5.46	5.68	5.03	4.20	5.05	3.80	4.31	3.47	4.18
Cadmium (Cd)	µg/L		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.004
Chromium (Cr)	µg/L		0.22	0.16	0.22	0.09	0.08	0.19	0.15	0.23	0.17
Cobalt (Co)	µg/L		0.0199	0.0107	0.0797	0.0115	0.0105	0.0118	0.0124	0.0114	0.0144
Copper (Cu)	µg/L		0.95	1.03	1.18	0.72	0.70	0.69	1.05	0.87	0.81
Iron (Fe)	µg/L		17.2	10.8	95.4	18.6	23.7	10.4	9.0	14.3	9.4
Lead (Pb)	µg/L		0.001	<0.001	0.014	0.009	0.034	0.019	0.026	0.022	0.016
Manganese (Mn)	µg/L		4.13	2.98	17.90	0.14	0.37	0.57	0.37	0.73	0.45
Molybdenum (Mo)	µg/L		0.043	0.032	0.046	0.023	0.026	0.036	0.034	0.034	0.036
Nickel (Ni)	µg/L		0.355	0.359	0.538	0.282	0.313	0.296	0.393	0.316	0.284
Selenium (Se)	µg/L		<0.1	0.1	<0.1	0.1	0.2	0.1	<0.1	0.3	0.1
Silver (Ag)	µg/L		<0.0005	0.0007	0.0007	<0.0005	<0.0005	0.0019	0.0007	<0.0005	<0.0005
Strontium (Sr)	µg/L		15.5	16.4	18.7	10.3	10.8	10.7	10.9	12.0	11.7
Uranium (U)	µg/L		0.0167	0.0136	0.0222	0.0135	0.0124	0.0117	0.0098	0.0099	0.0096
Vanadium (V)	µg/L		0.09	0.03	0.10	0.02	0.01	0.04	0.04	0.07	0.02
Zinc (Zn)	µg/L		3.84	1.95	4.35	1.41	2.66	2.07	1.22	1.06	4.90
Other											
Cyanide, Total	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Fluoride (F)	mg/L		0.03	0.03	0.03	0.03	0.03	0.03	<0.01	0.03	0.02
Sulphide	mg/L		<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Aimaokatalok Lake Site 6								
			24-May-07			20-Jul-07		19-Aug-07		8-Sep-07	
			Top	Middle	Bottom	Top	Bottom	Top	Bottom	Top	Bottom
Physical											
Alkalinity, Total ($CaCO_3$)	mg/L		10.6	12.8	11.2	9.4	9.5	9.8	9.5	10.0	9.9
Hardness, Total ($CaCO_3$)	mg/L		13.9	16.3	14.7	12.1	12.4	12.4	12.4	13.5	13.3
Conductivity	µS/cm		61.6	71.6	72.3	50.8	52.2	53.7	52.4	55.3	55.5
Field pH	units	6.5-9.0	7.8	-	-	**6.0**	**-**	**6.1**	**-**	**6.1**	-
TDS (Calculated)	mg/L		32.4	38.6	38.5	27.1	27.7	29.1	27.6	27.4	27.1
Total Suspended Solids	mg/L		<1	<1	<1	<1	<1	2	1	<1	<1
Color, True	TCU		18	13	6	14	15	9	9	13	13
Nutrients											
Phosphorus, Total	mg/L		0.007	0.006	0.014	0.011	0.015	0.012	0.010	0.012	0.011
Total Kjeldahl Nitrogen	mg/L		0.25	0.25	0.20	0.26	0.27	0.27	0.27	0.31	0.29
Ammonia-N	mg/L	0.2-122.4	0.004	0.006	0.006	0.010	0.016	0.018	0.008	0.009	0.014
Nitrite-N	mg/L	0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Nitrate-N (calculated)	mg/L	2.9	0.021	0.093	0.171	<0.001	<0.001	<0.001	<0.001	0.005	0.005
Organics											
Carbon Part	mg/L		0.18	0.15	0.20	0.29	0.24	0.35	0.30	0.37	0.67
Dissolved Organic Carbon	mg/L		3.9	4.4	3.7	4.1	4.0	3.6	3.9	4.7	4.8
Chlorophyll a	µg/L		-	-	-	1.4	-	1.2	-	2.2	-
Major Ions											
Calcium (Total)	mg/L		2.92	3.47	3.03	2.30	2.32	2.31	2.32	2.56	2.58
Calcium (Dissolved)	mg/L		2.73	3.26	2.89	2.28	2.24	2.16	2.13	2.19	2.47
Chloride (Cl)	mg/L		-	-	-	-	-	-	-	-	-
Magnesium (Total)	mg/L		1.69	2.00	1.80	1.49	1.49	1.57	1.55	1.72	1.73
Magnesium (Dissolved)	mg/L		1.61	1.93	1.73	1.49	1.44	1.46	1.45	1.48	1.65
Potassium (Total)	mg/L		0.85	1.01	0.88	0.70	0.69	0.70	0.70	0.76	0.77
Potassium (Dissolved)	mg/L		0.82	0.96	0.83	0.69	0.66	0.65	0.64	0.65	0.73
Sodium (Total)	mg/L		5.56	8.81	6.40	4.23	4.26	4.40	4.39	4.96	4.97
Sodium (Dissolved)	mg/L		5.37	8.58	6.35	4.19	4.11	4.17	4.18	4.67	4.92
Sulphate (SO_4)	mg/L		<3	<3	<3	<3	<3	3	<3	<3	<3
Anions	meq/L		0.57	0.69	0.68	0.48	0.49	0.51	0.48	0.52	0.52
Cations	meq/L		0.63	0.73	0.72	0.52	0.53	0.55	0.54	0.49	0.48
Ion Balance	N/A		1.10	1.06	1.07	1.09	1.08	1.06	1.13	0.96	0.92
Total Metals											
Aluminum (Al)	µg/L	5, 100	13.9	31.1	60.2	**36.2**	32.9	**48.1**	60.3	**59.8**	73.0
Antimony (Sb)	µg/L		0.0056	0.0085	0.0063	0.0052	0.0047	0.0044	0.0051	0.0088	0.0082
Arsenic (As)	µg/L	5	0.240	0.238	0.200	0.177	0.157	0.170	0.161	0.186	0.168
Barium (Ba)	µg/L		1.74	2.11	2.50	2.01	1.88	2.05	2.11	2.10	2.24
Beryllium (Be)	µg/L		<0.003	<0.003	<0.003	<0.003	0.0056	<0.003	0.0046	<0.003	<0.003
Bismuth (Bi)	µg/L		0.0012	0.0013	0.0013	<0.001	0.0014	<0.001	<0.001	<0.001	<0.001
Boron (B)	µg/L		5.45	7.73	6.23	5.11	4.52	3.79	2.52	5.67	7.14
Cadmium (Cd)	µg/L	0.003-0.055	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.002
Chromium (Cr)	µg/L	1, 16	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.3
Cobalt (Co)	µg/L		0.0170	0.0227	0.0269	0.0469	0.0514	0.0276	0.0354	0.0361	0.0403
Copper (Cu)	µg/L	2-4	1.0	1.1	1.0	1.0	0.7	0.9	1.2	1.0	1.1
Iron (Fe)	µg/L	300	13.7	31.4	48.3	103	105	59.4	72.7	83.0	96.3
Lead (Pb)	µg/L	1-7	0.0128	0.0509	0.0240	0.0177	0.0147	0.0185	0.0254	0.0859	0.2080
Manganese (Mn)	µg/L		2.16	4.55	11.40	12.30	18.30	5.74	6.75	5.86	6.92
Mercury (Hg)	ng/L	26	0.9	1.4	1.2	0.7	0.9	<0.6	<0.6	<0.6	<0.6
Molybdenum (Mo)	µg/L	73	0.0404	0.0420	0.0216	0.0209	0.0301	0.0132	0.0156	0.0308	0.0345
Nickel (Ni)	µg/L	25-150	0.325	0.357	0.267	0.390	0.350	0.341	0.364	0.361	0.425
Selenium (Se)	µg/L	1	0.5	0.4	0.5	0.3	0.2	0.2	0.2	<0.1	<0.1
Silver (Ag)	µg/L	0.1	0.0032	0.0034	0.0032	0.0200	0.0200	0.0081	0.0031	<0.0005	0.0025
Strontium (Sr)	µg/L		14.7	17.5	16.0	12.6	12.5	13.0	13.0	13.3	13.6
Thallium (Tl)	µg/L	0.8000	<0.0003	<0.0003	<0.0003	0.0038	0.0038	<0.0003	<0.0003	0.0004	0.0014
Tin (Sn)	µg/L		1.870	1.310	0.199	1.010	1.470	0.937	1.180	0.894	2.310
Uranium (U)	µg/L		0.0194	0.0207	0.0184	0.0189	0.0177	0.0181	0.0188	0.0226	0.0234
Vanadium (V)	µg/L		0.0523	0.0670	0.0530	0.1160	0.1010	0.0800	0.1090	0.1390	0.1870
Zinc (Zn)	µg/L	3, 13-198	2.30	2.19	5.56	1.75	2.44	0.91	1.39	1.85	3.15
Dissolved Metals											
Aluminum (Al)	µg/L		2.5	6.4	10.5	8.6	7.7	6.6	6.0	9.4	10.5
Antimony (Sb)	µg/L		0.0056	0.0084	0.0062	0.0052	0.0047	0.0044	0.0051	0.0087	0.0081
Arsenic (As)	µg/L		0.205	0.173	0.150	0.175	0.145	0.155	0.135	0.134	0.156
Barium (Ba)	µg/L		1.45	1.74	1.96	1.68	1.45	1.43	1.38	1.35	1.51
Beryllium (Be)	µg/L		<0.003	<0.003	<0.003	<0.003	0.005	<0.003	<0.003	<0.003	<0.003
Boron (B)	µg/L		5.40	6.00	5.65	5.00	4.40	2.58	1.57	3.67	4.08
Cadmium (Cd)	µg/L		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.002
Chromium (Cr)	µg/L		0.238	0.237	0.172	0.267	0.210	0.130	0.107	0.290	0.318
Cobalt (Co)	µg/L		0.0148	0.0182	0.0193	0.0132	0.0127	0.0119	0.0094	0.0193	0.0179
Copper (Cu)	µg/L		1.00	1.04	0.92	0.80	0.61	0.74	1.04	0.96	1.04
Iron (Fe)	µg/L		8.5	7.7	7.1	32.8	28.7	15.6	12.8	17.3	19.8
Lead (Pb)	µg/L		0.013	0.005	0.008	<0.001	<0.001	<0.001	0.002	0.020	0.023
Manganese (Mn)	µg/L		0.45	3.27	9.27	0.37	0.81	0.69	0.31	0.68	0.78
Molybdenum (Mo)	µg/L		0.0400	0.0408	0.0214	0.0182	0.0172	0.0131	0.0123	0.0305	0.0342
Nickel (Ni)	µg/L		0.322	0.335	0.249	0.324	0.299	0.315	0.338	0.339	0.407
Selenium (Se)	µg/L		0.318	0.375	0.319	0.280	0.190	0.205	<0.1	<0.1	<0.1
Silver (Ag)	µg/L		0.0011	0.0011	0.0016	<0.0005	0.0200	0.0021	0.0021	<0.0005	<0.0005
Strontium (Sr)	µg/L		14.6	17.3	15.8	12.5	12.0	12.2	12.1	13.2	13.5
Uranium (U)	µg/L		0.0149	0.0143	0.0124	0.0149	0.0134	0.0127	0.0124	0.0150	0.0163
Vanadium (V)	µg/L		0.049	0.041	0.027	0.049	0.059	0.016	<0.01	0.097	0.054
Zinc (Zn)	µg/L		2.28	2.17	1.06	1.41	1.34	0.90	1.38	1.83	3.12
Other											
Cyanide, Total	mg/L		<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Fluoride (F)	mg/L		0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02
Sulphide	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Aimaokatalok Outflow							
			23-Jun-06	16-Jul-06	13-Aug-06	10-Sep-06	23-Jun-07	20-Jul-07	19-Aug-07	10-Sep-07
Physical										
Alkalinity, Total ($CaCO_3$)	mg/L		9.9	8.7	8.9	9.4	10.6	9.8	9.4	10.0
Hardness, Total ($CaCO_3$)	mg/L		12.7	10.6	10.5	11.8	13.7	12.4	12.4	13.1
Conductivity	µS/cm		58.9	48.8	49.6	52.1	61.8	53.2	51.8	53.5
Field pH	units	6.5-9.0	7.1	6.7	6.5	6.8	**6.1**	**6.2**	**6.2**	**6.0**
TDS (Calculated)	mg/L		28.4	22.9	23.5	27.1	30.5	31.9	28.7	27.1
Total Suspended Solids	mg/L		1	1	<1	7	2	<1	<1	<1
Color, True	TCU		21	19	17	8	17	15	6	11
Nutrients										
Phosphorus, Total	mg/L		0.014	0.016	0.023	0.019	0.009	0.011	0.010	0.011
Total Kjeldahl Nitrogen	mg/L		0.38	0.28	0.27	0.25	0.27	0.26	0.25	0.28
Ammonia-N	mg/L	0.2-122.4	0.017	0.006	0.005	0.005	0.010	0.008	0.015	0.006
Nitrite-N	mg/L	0.06	0.001	0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
Nitrate-N (calculated)	mg/L	2.9	0.013	<0.005	<0.005	0.009	0.024	<0.001	<0.001	<0.001
Organics										
Carbon Part	mg/L		0.45	0.29	0.25	0.33	0.17	0.19	0.23	0.46
Dissolved Organic Carbon	mg/L		4.7	4.5	4.4	4.0	4.7	3.5	3.9	4.5
Chlorophyll a	µg/L		-	-	-	-	-	-	-	-
Major Ions										
Calcium (Total)	mg/L		2.70	2.18	2.27	2.45	2.88	2.40	2.30	2.40
Calcium (Dissolved)	mg/L		2.41	1.97	2.06	2.24	2.75	2.27	2.20	2.10
Chloride (Cl)	mg/L		9.80	7.80	8.10	8.40	-	-	-	-
Magnesium (Total)	mg/L		1.64	1.38	1.26	1.51	1.70	1.55	1.55	1.77
Magnesium (Dissolved)	mg/L		1.47	1.24	1.13	1.35	1.62	1.47	1.49	1.55
Potassium (Total)	mg/L		0.82	0.67	0.69	0.74	0.87	0.71	0.70	0.73
Potassium (Dissolved)	mg/L		0.73	0.62	0.63	0.67	0.84	0.68	0.66	0.65
Sodium (Total)	mg/L		4.89	4.03	4.24	4.75	5.17	4.48	4.40	5.12
Sodium (Dissolved)	mg/L		4.48	3.75	3.92	4.38	5.01	4.33	4.32	4.89
Sulphate (SO_4)	mg/L		<3	<3	<3	5	<3	6	4	<3
Anions	meq/L		0.52	0.44	0.45	0.52	0.56	0.58	0.50	0.51
Cations	meq/L		0.52	0.39	0.40	0.43	0.57	0.54	0.54	0.48
Ion Balance	N/A		1.01	0.89	0.89	0.82	1.02	0.93	1.07	0.94
Total Metals										
Aluminum (Al)	µg/L	5, 100	46.6	31.9	32.3	72.4	**27.3**	**30.5**	**42.7**	**59.8**
Antimony (Sb)	µg/L		0.006	0.004	0.006	0.005	0.0085	0.0055	0.0730	0.0043
Arsenic (As)	µg/L	5	0.145	0.158	0.160	0.163	0.165	0.141	0.140	0.182
Barium (Ba)	µg/L		2.19	1.94	1.84	2.03	1.89	1.80	2.03	2.23
Beryllium (Be)	µg/L		0.005	0.005	<0.003	0.003	<0.003	0.0035	0.0055	0.0063
Bismuth (Bi)	µg/L		0.005	0.004	0.001	<0.001	0.0035	<0.001	<0.001	<0.001
Boron (B)	µg/L		5.16	3.82	4.56	4.61	5.12	4.83	2.09	6.04
Cadmium (Cd)	µg/L	0.003-0.055	**0.008**	0.002	<0.002	<0.002	<0.002	**0.009**	0.004	0.002
Chromium (Cr)	µg/L	1, 16	0.224	0.068	0.231	0.247	0.2	0.3	0.2	0.5
Cobalt (Co)	µg/L		0.0624	0.0327	0.0300	0.0305	0.0452	0.0398	0.0273	0.0335
Copper (Cu)	µg/L	2-4	0.96	0.81	0.91	0.84	0.8	0.7	0.8	0.9
Iron (Fe)	µg/L	300	117	82.5	58.6	79.7	42.7	77.2	60.9	73.6
Lead (Pb)	µg/L	1-7	0.0333	0.0291	0.0449	0.0345	0.0105	0.0111	0.0211	0.0352
Manganese (Mn)	µg/L		18.20	6.51	5.45	7.59	11.00	14.50	5.69	5.73
Mercury (Hg)	ng/L	26	<0.6	<0.6	<0.6	14.0	0.7	<0.6	<0.6	<0.6
Molybdenum (Mo)	µg/L	73	0.047	0.029	0.041	0.053	0.0492	0.0213	0.0158	0.0022
Nickel (Ni)	µg/L	25-150	0.431	0.345	0.332	0.390	0.333	0.345	0.338	0.439
Selenium (Se)	µg/L	1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.3
Silver (Ag)	µg/L	0.1	0.0010	<0.0005	0.0009	<0.0005	0.0028	0.0010	0.0011	0.0013
Strontium (Sr)	µg/L		14.2	11.4	12.2	12.6	15.0	12.5	12.9	13.3
Thallium (Tl)	µg/L	0.8000	0.0061	0.0152	0.0097	0.0083	0.0026	0.0032	<0.0003	<0.0003
Tin (Sn)	µg/L		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Uranium (U)	µg/L		0.0205	0.0181	0.0219	0.0222	0.0211	0.0175	0.0181	0.0222
Vanadium (V)	µg/L		0.197	0.045	0.104	0.155	0.0840	0.0885	0.0847	0.1670
Zinc (Zn)	µg/L	3, 13-198	6.04	2.16	4.38	0.94	2.38	2.34	1.37	0.82
Dissolved Metals										
Aluminum (Al)	µg/L		8.6	5.8	6.4	6.5	5.6	6.4	5.2	7.8
Antimony (Sb)	µg/L		0.0056	0.0039	0.0060	0.0053	0.0084	0.0054	0.0723	0.0043
Arsenic (As)	µg/L		0.124	0.139	0.146	0.134	0.164	0.135	0.123	0.165
Barium (Ba)	µg/L		1.52	1.41	1.29	1.21	1.51	1.44	1.46	1.50
Beryllium (Be)	µg/L		<0.003	<0.003	<0.003	0.003	<0.003	0.004	<0.003	<0.003
Boron (B)	µg/L		4.69	3.23	4.05	4.08	4.56	4.34	1.79	4.05
Cadmium (Cd)	µg/L		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.002
Chromium (Cr)	µg/L		0.14	0.07	0.18	0.19	0.218	0.209	0.118	0.460
Cobalt (Co)	µg/L		0.0281	0.0101	0.0124	0.0068	0.0159	0.0128	0.0095	0.0172
Copper (Cu)	µg/L		0.71	0.71	0.72	0.75	0.78	0.65	0.72	0.88
Iron (Fe)	µg/L		35.4	20.1	9.5	5.5	10.5	18.2	11.2	19.3
Lead (Pb)	µg/L		0.013	0.020	0.045	0.016	<0.001	<0.001	0.001	0.019
Manganese (Mn)	µg/L		11.40	0.16	0.38	0.35	1.77	0.26	0.28	0.76
Molybdenum (Mo)	µg/L		0.036	0.026	0.040	0.027	0.0339	0.0140	0.0124	0.0022
Nickel (Ni)	µg/L		0.307	0.286	0.305	0.263	0.323	0.252	0.335	0.435
Selenium (Se)	µg/L		<0.1	0.1	0.1	0.2	0.223	0.116	0.102	0.264
Silver (Ag)	µg/L		<0.0005	<0.0005	<0.0005	<0.0005	0.0009	0.0010	<0.0005	0.0007
Strontium (Sr)	µg/L		12.5	10.2	10.8	11.5	14.8	12.1	12.4	13.2
Uranium (U)	µg/L		0.0141	0.0134	0.0117	0.0104	0.0159	0.0123	0.0126	0.0150
Vanadium (V)	µg/L		0.11	<0.01	0.06	0.04	0.029	0.053	<0.01	0.109
Zinc (Zn)	µg/L		2.60	1.21	2.90	0.84	0.84	1.11	1.36	0.81
Other										
Cyanide, Total	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Fluoride (F)	mg/L		0.03	0.03	<0.01	0.03	0.09	0.02		0.02
Sulphide	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Fickle Duck Lake						
			18-Jul-06	17-Aug-06	10-Sep-06	24-May-07	22-Jul-07	20-Aug-07	9-Sep-07
			Top	Top	Top	Top	Top	Top	Top
Physical									
Alkalinity, Total ($CaCO_3$)	mg/L		14.8	18.3	20.2	79.6	16.7	19.3	20.5
Hardness, Total ($CaCO_3$)	mg/L		17.8	22.6	25.5	104.0	21.1	26.5	29.0
Conductivity	µS/cm		65.4	78.9	90.3	332.0	71.8	80.9	81.9
Field pH	units	6.5-9.0	7.0	8.0	7.7	6.9	7.3	6.8	6.6
TDS (Calculated)	mg/L		32.2	40.0	45.9	221	39.2	42.6	41.6
Total Suspended Solids	mg/L		2	3	4	1	2	<1	1
Color, True	TCU		29	28	24	119	30	40	42
Nutrients									
Phosphorus, Total	mg/L		0.016	0.039	0.037	0.038	0.024	0.039	0.033
Total Kjeldahl Nitrogen	mg/L		0.38	0.66	0.64	1.28	0.47	0.58	0.52
Ammonia-N	mg/L	0.2-122.4	0.012	0.013	0.006	0.260	0.010	0.012	0.008
Nitrite-N	mg/L	0.06	<0.001	<0.001	<0.001	0.02	<0.005	<0.001	<0.005
Nitrate-N (calculated)	mg/L	2.9	<0.005	<0.005	<0.005	1.060	<0.001	<0.001	<0.001
Organics									
Carbon Part	mg/L		0.52	1.02	0.86	0.71	0.38	0.75	0.69
Dissolved Organic Carbon	mg/L		5.9	7.7	7.8	19.7	5.8	8.2	8.4
Chlorophyll a	µg/L		-	-	24.9	-	3.4	5.7	5.1
Major Ions									
Calcium (Total)	mg/L		4.83	6.07	7.00	27.90	5.41	6.91	7.38
Calcium (Dissolved)	mg/L		4.46	5.35	6.65	26.40	5.16	6.67	7.08
Chloride (Cl)	mg/L		9.70	12.50	13.20	-	-	-	-
Magnesium (Total)	mg/L		1.57	1.69	2.16	8.11	1.77	2.06	2.14
Magnesium (Dissolved)	mg/L		1.45	1.54	2.07	7.70	1.67	1.98	2.06
Potassium (Total)	mg/L		0.48	0.58	0.63	1.92	0.50	0.52	0.55
Potassium (Dissolved)	mg/L		0.42	0.49	0.55	1.81	0.45	0.45	0.52
Sodium (Total)	mg/L		4.70	5.70	6.91	23.40	5.04	5.13	5.12
Sodium (Dissolved)	mg/L		4.48	5.36	6.75	22.30	4.83	5.11	5.07
Sulphate (SO_4)	mg/L		<3	<3	5	48	4	4	3
Anions	meq/L		0.61	0.76	0.89	4.21	0.73	0.75	0.77
Cations	meq/L		0.58	0.73	0.78	3.37	0.73	0.86	0.82
Ion Balance	N/A		0.95	0.96	0.88	0.80	1.00	1.14	1.07
Total Metals									
Aluminum (Al)	µg/L	5, 100	**122**	97.9	**172**	44.1	**114**	**155**	**112**
Antimony (Sb)	µg/L		0.007	0.009	0.009	0.0408	0.0052	0.0060	0.0151
Arsenic (As)	µg/L	5	0.201	0.292	0.336	0.808	0.230	0.231	0.304
Barium (Ba)	µg/L		3.81	4.20	5.20	14.20	3.90	5.77	5.43
Beryllium (Be)	µg/L		0.007	<0.003	0.010	0.0148	0.0043	0.0114	0.0114
Bismuth (Bi)	µg/L		0.002	0.006	0.002	0.0049	0.0081	<0.001	<0.001
Boron (B)	µg/L		7.07	4.79	6.69	13.20	5.30	5.33	4.71
Cadmium (Cd)	µg/L	0.003-0.055	<0.002	0.003	<0.002	<0.002	<0.002	0.002	<0.002
Chromium (Cr)	µg/L	1, 16	0.374	0.376	0.534	**1.8**	0.4	0.3	0.6
Cobalt (Co)	µg/L		0.0414	0.0852	0.0726	0.6900	0.0641	0.0986	0.0756
Copper (Cu)	µg/L	2-4	1.23	1.51	1.54	**2.6**	1.0	1.5	**2.3**
Iron (Fe)	µg/L	300	**364**	**501**	**532**	**2810**	**357**	**317**	298
Lead (Pb)	µg/L	1-7	0.0839	0.1080	0.1320	0.1590	0.0571	0.0692	0.0908
Manganese (Mn)	µg/L		2.54	10.80	4.26	187.00	4.88	6.06	4.29
Mercury (Hg)	ng/L	26	<0.6	3.3	9.7	3.4	0.8	<0.6	<0.6
Molybdenum (Mo)	µg/L	73	0.058	0.082	0.079	0.1400	0.0451	0.0526	0.0656
Nickel (Ni)	µg/L	25-150	0.564	0.766	0.838	1.830	0.599	0.862	0.869
Selenium (Se)	µg/L	1	0.2	0.2	0.3	0.6	0.2	<0.1	0.3
Silver (Ag)	µg/L	0.1	0.0019	0.0029	0.0012	0.0067	0.0096	0.0048	0.0042
Strontium (Sr)	µg/L		22.2	28.7	30.6	118.0	24.8	27.9	28.6
Thallium (Tl)	µg/L	0.8000	0.0156	0.0107	0.0147	<0.0003	0.0057	0.0016	0.0021
Tin (Sn)	µg/L		0.43	0.21	2.02	1.230	0.267	0.081	1.040
Uranium (U)	µg/L		0.0309	0.0455	0.0478	0.0686	0.0248	0.0323	0.0358
Vanadium (V)	µg/L		0.382	0.488	0.581	0.7610	0.3600	0.3590	0.3900
Zinc (Zn)	µg/L	3, 13-198	1.83	4.55	3.06	2.83	1.05	1.46	2.59
Dissolved Metals									
Aluminum (Al)	µg/L		25.4	26.7	37.6	14.7	10.8	21.8	21.4
Antimony (Sb)	µg/L		0.0068	0.0086	0.0090	0.0404	0.0052	0.0059	0.0149
Arsenic (As)	µg/L		0.170	0.251	0.293	0.765	0.189	0.193	0.267
Barium (Ba)	µg/L		2.46	2.65	3.25	13.30	2.58	3.99	4.17
Beryllium (Be)	µg/L		<0.003	<0.003	0.006	<0.003	<0.003	0.005	0.004
Boron (B)	µg/L		4.29	4.28	5.27	12.00	3.98	4.86	3.74
Cadmium (Cd)	µg/L		0.003	0.003	<0.002	<0.002	<0.002	<0.002	<0.002
Chromium (Cr)	µg/L		0.29	0.32	0.53	1.740	0.259	0.225	0.607
Cobalt (Co)	µg/L		0.0136	0.0272	0.0263	0.5340	0.0226	0.0281	0.0382
Copper (Cu)	µg/L		1.02	1.26	1.35	2.44	0.77	1.34	2.27
Iron (Fe)	µg/L		160	222	223	2130	141	110	120
Lead (Pb)	µg/L		0.039	0.072	0.068	0.095	0.009	0.018	0.037
Manganese (Mn)	µg/L		0.39	0.76	0.93	164.00	0.31	0.40	0.69
Molybdenum (Mo)	µg/L		0.051	0.075	0.073	0.1290	0.0446	0.0521	0.0649
Nickel (Ni)	µg/L		0.437	0.552	0.595	1.790	0.490	0.752	0.860
Selenium (Se)	µg/L		0.2	0.2	0.3	0.610	0.190	<0.1	0.343
Silver (Ag)	µg/L		0.0005	0.0012	<0.0005	0.0044	0.0048	0.0033	0.0008
Strontium (Sr)	µg/L		20.4	25.7	29.2	117.0	24.4	26.9	28.3
Uranium (U)	µg/L		0.0214	0.0300	0.0299	0.0603	0.0181	0.0242	0.0275
Vanadium (V)	µg/L		0.19	0.25	0.31	0.727	0.179	0.107	0.230
Zinc (Zn)	µg/L		1.65	1.59	1.31	2.80	1.04	1.45	2.56
Other									
Cyanide, Total	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Fluoride (F)	mg/L		0.04	0.03	0.04	0.37	0.26	0.02	0.03
Sulphide	mg/L		0.001	<0.001	0.001	0.002	<0.001	0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Fickle Duck Outflow							
			24-Jun-06	17-Jul-06	13-Aug-06	10-Sep-06	23-Jun-07	20-Jul-07	20-Aug-07	9-Sep-07
Physical										
Alkalinity, Total ($CaCO_3$)	mg/L		13.5	24.3	18.8	20.7	14.4	31.6	19.0	20.4
Hardness, Total ($CaCO_3$)	mg/L		15.3	26.7	22.7	25.7	16.6	32.8	26.3	28.0
Conductivity	µS/cm		47.7	81.9	83.5	92.0	50.4	98.2	82.0	82.4
Field pH	units	6.5-9.0	7.1	6.5	**6.3**	6.7	**6.2**	**6.0**	6.5	6.5
TDS (Calculated)	mg/L		27.6	39.6	40.0	47.7	25.8	55.3	42.9	42.6
Total Suspended Solids	mg/L		2	51	10	3	2	8	2	<1
Color, True	TCU		36	40	39	21	43	44	38	41
Nutrients										
Phosphorus, Total	mg/L		0.018	0.051	0.054	0.037	0.015	0.099	0.020	0.017
Total Kjeldahl Nitrogen	mg/L		0.36	0.51	0.61	0.61	0.40	0.96	0.56	0.51
Ammonia-N	mg/L	0.2-122.4	0.044	0.038	0.014	0.010	0.013	0.097	0.015	0.014
Nitrite-N	mg/L	0.06	0.001	0.003	0.001	0.001	0.001	0.003	<0.005	0.001
Nitrate-N (calculated)	mg/L	2.9	<0.005	0.004	<0.005	<0.005	0.009	0.005	<0.001	0.007
Organics										
Carbon Part	mg/L		0.28	1.51	1.87	0.75	0.49	1.16	0.73	0.55
Dissolved Organic Carbon	mg/L		5.0	7.1	6.9	7.7	7.5	6.9	8.2	8.4
Chlorophyll a	µg/L		-	-	-	-	-	-	-	-
Major Ions										
Calcium (Total)	mg/L		4.38	7.39	6.29	7.28	4.82	8.79	6.97	7.33
Calcium (Dissolved)	mg/L		4.01	6.56	5.54	6.80	4.62	8.47	6.66	7.22
Chloride (Cl)	mg/L		5.10	8.80	12.30	13.60	-	-	-	-
Magnesium (Total)	mg/L		1.21	2.21	1.77	2.22	1.14	2.50	2.09	2.11
Magnesium (Dissolved)	mg/L		1.07	1.90	1.60	2.10	1.10	2.42	2.04	2.06
Potassium (Total)	mg/L		0.48	0.62	0.66	0.65	0.81	0.56	0.52	0.54
Potassium (Dissolved)	mg/L		0.35	0.31	0.48	0.56	0.77	0.44	0.47	0.52
Sodium (Total)	mg/L		2.77	4.72	6.19	7.32	2.48	4.68	5.38	5.08
Sodium (Dissolved)	mg/L		2.65	4.26	5.91	6.90	2.45	4.66	5.27	5.03
Sulphate (SO_4)	mg/L		6	<3	<3	6	<3	6	4	4
Anions	meq/L		0.54	0.78	0.77	0.92	0.46	1.08	0.76	0.79
Cations	meq/L		0.43	0.73	0.72	0.79	0.52	0.97	0.85	0.80
Ion Balance	N/A		0.81	0.94	0.94	0.86	1.13	0.90	1.12	1.01
Total Metals										
Aluminum (Al)	µg/L	5, 100	**275**	**666**	**407**	**158**	**80.4**	**274**	**125**	79.5
Antimony (Sb)	µg/L		0.006	0.011	0.009	0.009	0.0064	0.0108	0.0073	0.0083
Arsenic (As)	µg/L	5	0.177	0.588	0.587	0.342	0.133	0.703	0.235	0.226
Barium (Ba)	µg/L		5.20	12.10	7.81	5.10	3.63	8.77	5.37	4.99
Beryllium (Be)	µg/L		0.015	0.028	0.017	0.011	0.0039	0.0192	0.0057	0.0038
Bismuth (Bi)	µg/L		0.003	0.005	0.007	<0.001	0.0018	0.0049	<0.001	<0.001
Boron (B)	µg/L		3.44	6.95	6.14	6.37	3.38	5.01	5.39	4.61
Cadmium (Cd)	µg/L	0.003-0.055	0.005	**0.011**	0.003	0.002	<0.002	0.007	0.003	0.004
Chromium (Cr)	µg/L	1, 16	0.6	**1.2**	1.0	0.5	0.3	0.8	0.3	0.6
Cobalt (Co)	µg/L		0.1230	0.7010	0.4000	0.1340	0.1280	1.4200	0.0936	0.0847
Copper (Cu)	µg/L	2-4	1.05	1.81	1.60	1.49	1.2	1.2	1.5	1.5
Iron (Fe)	µg/L	300	**605**	**2760**	**1630**	**671**	243	**3460**	**312**	299
Lead (Pb)	µg/L	1-7	0.1140	0.4770	0.2520	0.1110	0.0253	0.1350	0.0641	0.0480
Manganese (Mn)	µg/L		4.54	43.40	24.80	6.72	7.16	139.00	5.92	4.39
Mercury (Hg)	ng/L	26	<0.6	<0.6	<0.6	**55.0**	2.4	1.4	<0.6	<0.6
Molybdenum (Mo)	µg/L	73	0.051	0.092	0.093	0.087	0.1030	0.0690	0.0613	0.0624
Nickel (Ni)	µg/L	25-150	0.693	1.610	1.270	0.816	0.645	1.450	0.869	0.866
Selenium (Se)	µg/L	1	<0.1	0.2	0.5	0.2	0.2	0.3	<0.1	0.2
Silver (Ag)	µg/L	0.1	0.0026	0.0033	0.0045	<0.0005	0.0020	0.0010	0.0068	0.0019
Strontium (Sr)	µg/L		17.1	31.8	28.4	32.5	16.0	37.3	28.5	28.5
Thallium (Tl)	µg/L	0.8000	0.0066	0.0175	0.0165	0.0139	0.0030	0.0070	0.0019	0.0011
Tin (Sn)	µg/L		<0.03	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Uranium (U)	µg/L		0.0297	0.0710	0.0554	0.0442	0.0228	0.0505	0.0319	0.0342
Vanadium (V)	µg/L		0.742	1.710	1.150	0.559	0.2180	1.1700	0.2990	0.3450
Zinc (Zn)	µg/L	3, 13-198	7.34	2.92	5.35	1.24	1.83	8.06	3.28	1.89
Dissolved Metals										
Aluminum (Al)	µg/L		22.7	35.8	26.9	27.8	16.8	24.2	19.1	20.2
Antimony (Sb)	µg/L		0.0061	0.0107	0.0093	0.0087	0.0063	0.0107	0.0072	0.0082
Arsenic (As)	µg/L		0.150	0.398	0.402	0.272	0.125	0.416	0.199	0.216
Barium (Ba)	µg/L		2.32	3.92	3.26	3.27	2.84	4.91	3.84	4.14
Beryllium (Be)	µg/L		0.004	0.004	0.006	0.006	0.004	0.005	0.006	0.004
Boron (B)	µg/L		3.13	3.77	5.79	5.12	3.08	4.67	5.20	3.86
Cadmium (Cd)	µg/L		<0.002	0.003	<0.002	<0.002	<0.002	<0.002	<0.002	0.004
Chromium (Cr)	µg/L		0.29	0.40	0.41	0.46	0.262	0.453	0.139	0.580
Cobalt (Co)	µg/L		0.0215	0.0387	0.0385	0.0247	0.0247	0.0512	0.0305	0.0461
Copper (Cu)	µg/L		0.85	1.15	1.04	1.32	1.09	0.81	1.34	1.50
Iron (Fe)	µg/L		153	1060	532	231	70.3	952	121	144
Lead (Pb)	µg/L		0.030	0.072	0.146	0.060	<0.001	0.020	0.023	0.022
Manganese (Mn)	µg/L		0.76	0.60	0.72	0.63	0.29	1.00	0.41	0.98
Molybdenum (Mo)	µg/L		0.042	0.064	0.073	0.066	0.0554	0.0339	0.0560	0.0618
Nickel (Ni)	µg/L		0.526	1.000	0.778	0.627	0.550	1.080	0.774	0.857
Selenium (Se)	µg/L		<0.1	<0.1	0.3	0.2	<0.1	0.173	<0.1	0.130
Silver (Ag)	µg/L		<0.0005	<0.0005	0.0009	<0.0005	0.0013	0.0010	0.0029	<0.0005
Strontium (Sr)	µg/L		15.0	26.4	24.5	30.0	15.0	35.9	27.2	28.2
Uranium (U)	µg/L		0.0177	0.0336	0.0285	0.0313	0.0180	0.0265	0.0252	0.0280
Vanadium (V)	µg/L		0.28	0.48	0.27	0.25	0.106	0.330	0.095	0.215
Zinc (Zn)	µg/L		4.69	2.62	1.93	1.24	1.40	3.93	2.64	1.87
Other										
Cyanide, Total	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
Fluoride (F)	mg/L		0.03	0.04	0.02	0.04	0.13	0.03	0.02	0.03
Sulphide	mg/L		0.001	0.002	<0.001	0.001	<0.001	0.002	0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Koignuk River				Reference Lake				
			2-Jul-07	19-Jul-07	18-Aug-07	16-Sep-07	3-Jun-06	18-Jul-06	17-Aug-06	11-Sep-06	26-May-07
							Bottom	Top	Top	Top	Top
Physical											
Alkalinity, Total ($CaCO_3$)	mg/L		10.4	10.8	28.3	13.2	12.5	11.8	15.0	17.2	71.0
Hardness, Total ($CaCO_3$)	mg/L		13.1	14.3	21.6	20.5	14.7	12.5	15.9	20.6	86.1
Conductivity	µS/cm		58.0	59.3	87.0	78.1	53.7	45.5	53.3	68.8	270
Field pH	units	6.5-9.0	6.5	6.6	6.8	6.9	6.9	6.4	7.4	7.7	6.7
TDS (Calculated)	mg/L		31.8	31.1	54.2	39.8	26.3	22.0	28.6	36.6	144
Total Suspended Solids	mg/L		5	1	3	5	1	3	2	2	10
Color, True	TCU		22	12	22	18	34	19	16	14	58
Nutrients											
Phosphorus, Total	mg/L		0.015	0.012	0.019	0.015	0.018	0.022	0.042	0.034	0.162
Total Kjeldahl Nitrogen	mg/L		0.30	0.25	0.40	0.31	0.38	0.42	0.49	0.44	1.49
Ammonia-N	mg/L	0.2-122.4	0.009	0.01	0.008	0.007	0.013	0.006	0.011	0.005	0.012
Nitrite-N	mg/L	0.06	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001
Nitrate-N (calculated)	mg/L	2.9	<0.005	<0.005	<0.005	<0.005	0.004	0.005	<0.005	<0.005	<0.001
Organics											
Carbon Part	mg/L		0.44	0.18	0.56	0.55	0.31	0.78	0.67	0.76	2.09
Dissolved Organic Carbon	mg/L		4.3	3.8	6.0	4.9	7.3	5.2	6.0	5.8	16.8
Chlorophyll a	µg/L		-	-	-	-	-	-	-	7.1	-
Major Ions											
Calcium (Total)	mg/L		2.92	2.77	4.45	4.16	3.86	3.24	4.16	5.41	22.20
Calcium (Dissolved)	mg/L		2.74	2.69	4.28	4.05	3.62	2.93	3.79	5.14	21.80
Chloride (Cl)	mg/L		9.00	10.50	15.50	14.10	7.40	5.10	6.30	9.10	-
Magnesium (Total)	mg/L		1.81	1.67	2.77	2.30	1.53	1.19	1.29	1.76	7.19
Magnesium (Dissolved)	mg/L		1.68	1.62	2.65	2.22	1.38	1.07	1.18	1.62	7.11
Potassium (Total)	mg/L		0.82	0.71	0.97	0.81	0.82	0.48	0.55	0.58	1.99
Potassium (Dissolved)	mg/L		0.67	0.67	0.72	0.66	0.73	0.41	0.48	0.51	1.90
Sodium (Total)	mg/L		4.70	4.76	7.28	6.49	3.81	2.93	3.63	4.83	19.60
Sodium (Dissolved)	mg/L		4.67	4.69	7.21	6.43	3.68	2.77	3.44	4.74	19.50
Sulphate (SO_4)	mg/L		6	<3	4	4	<3	<3	4	5	12
Anions	meq/L		0.58	0.56	1.09	0.74	0.50	0.42	0.56	0.70	2.71
Cations	meq/L		0.54	0.60	0.87	0.71	0.47	0.39	0.48	0.64	2.67
Ion Balance	N/A		0.92	1.07	0.80	0.95	0.94	0.92	0.87	0.92	0.98
Total Metals											
Aluminum (Al)	µg/L	5, 100	**317**	**112**	**650**	**403**	**191**	**173**	**101**	**156**	55.9
Antimony (Sb)	µg/L		0.0082	0.0055	0.0188	0.0089	0.007	0.014	0.015	0.012	0.0349
Arsenic (As)	µg/L	5	0.214	0.204	0.354	0.234	0.183	0.246	0.386	0.300	0.853
Barium (Ba)	µg/L		5.26	2.61	10.80	6.37	5.06	3.54	3.43	4.21	14.10
Beryllium (Be)	µg/L		0.0066	0.0057	0.0278	0.0055	0.009	<0.003	0.004	<0.003	0.0094
Bismuth (Bi)	µg/L		0.0018	0.0077	0.0042	0.0113	0.002	0.019	0.007	0.002	0.0026
Boron (B)	µg/L		4.99	5.11	8.07	6.49	4.57	5.89	5.20	9.57	20.70
Cadmium (Cd)	µg/L	0.003-0.055	0.003	<0.002	**0.024**	0.004	0.002	<0.002	0.004	<0.002	<0.002
Chromium (Cr)	µg/L	1, 16	0.7	0.3	1.0	0.7	0.415	0.450	0.347	0.581	**1.2**
Cobalt (Co)	µg/L		0.135	0.0672	0.207	0.174	0.1620	0.0768	0.0965	0.0816	0.4910
Copper (Cu)	µg/L	2-4	1.1	1.0	1.8	1.4	1.13	1.79	1.96	1.59	**2.5**
Iron (Fe)	µg/L	300	**313**	152	**523**	**366**	**402**	238	301	296	**1790**
Lead (Pb)	µg/L	1-7	0.11	0.04	0.30	0.17	0.1010	0.1520	0.1050	0.1130	0.0624
Manganese (Mn)	µg/L		8.7	6.8	15.1	9.2	11.00	4.89	12.00	5.73	125.00
Mercury (Hg)	ng/L	26	1.6	0.6	<0.6	<0.6		<0.6	2.8	6.0	<0.6
Molybdenum (Mo)	µg/L	73	0.0554	0.0301	0.086	0.0746	0.049	0.078	0.111	0.105	0.1160
Nickel (Ni)	µg/L	25-150	0.677	0.370	1.040	0.828	0.568	0.478	0.633	0.661	1.230
Selenium (Se)	µg/L	1	0.2	0.2	0.4	<0.1	0.1	<0.1	0.2	0.2	0.9
Silver (Ag)	µg/L	0.1	<0.0005	0.001	0.001	0.014	0.0017	0.0027	0.0031	0.0008	0.0045
Strontium (Sr)	µg/L		14.9	14.4	22.7	19.6	12.8	10.2	12.9	15.8	62.7
Thallium (Tl)	µg/L	0.8000	0.0104	0.0065	0.0067	0.0069	0.0028	0.0170	0.0110	0.0111	<0.0003
Tin (Sn)	µg/L		0.076	<0.03	0.033	<0.03	3.33	11.40	1.69	2.21	0.352
Uranium (U)	µg/L		0.034	0.025	0.056	0.043	0.0260	0.0355	0.0457	0.0444	0.0486
Vanadium (V)	µg/L		0.611	0.236	0.995	0.865	0.457	0.421	0.419	0.440	0.5410
Zinc (Zn)	µg/L	3, 13-198	3.50	2.80	3.86	1.22	8.92	6.15	3.11	1.00	2.37
Dissolved Metals											
Aluminum (Al)	µg/L		24.6	13.1	57.3	20.6	19.1	12.5	12.4	13.7	4.1
Antimony (Sb)	µg/L		0.0082	0.0054	0.0186	0.0088	0.0070	0.0129	0.0145	0.0117	0.0346
Arsenic (As)	µg/L		0.158	0.178	0.214	0.166	0.152	0.178	0.305	0.242	0.727
Barium (Ba)	µg/L		1.86	1.52	2.74	1.99	2.99	1.81	2.19	2.56	12.60
Beryllium (Be)	µg/L		<0.003	0.005	<0.003	<0.003	0.009	<0.003	<0.003	<0.003	<0.003
Boron (B)	µg/L		4.2	4.7	6.4	6.4	4.09	5.87	4.75	5.17	19.50
Cadmium (Cd)	µg/L		<0.002	<0.002	0.012	<0.002	<0.002	<0.002	0.004	<0.002	<0.002
Chromium (Cr)	µg/L		0.250	0.208	0.221	0.210	0.23	0.26	0.28	0.42	1.190
Cobalt (Co)	µg/L		0.0209	0.0203	0.0132	0.0190	0.0438	0.0207	0.0289	0.0250	0.3570
Copper (Cu)	µg/L		0.9	0.8	1.3	1.4	0.96	1.44	1.57	1.46	2.22
Iron (Fe)	µg/L		50.6	38.0	56.0	34.0	177	27.9	50.4	53.1	1030
Lead (Pb)	µg/L		0.0174	<0.001	0.0340	0.0199	0.033	0.033	0.100	0.031	0.034
Manganese (Mn)	µg/L		0.705	0.284	0.426	0.699	2.64	0.18	0.35	0.23	116.00
Molybdenum (Mo)	µg/L		0.041	0.030	0.074	0.060	0.042	0.063	0.107	0.075	0.0988
Nickel (Ni)	µg/L		0.447	0.277	0.598	0.403	0.420	0.456	0.485	0.488	1.120
Selenium (Se)	µg/L		0.2	0.2	0.4	<0.1	<0.1	<0.1	0.1	0.2	0.815
Silver (Ag)	µg/L		<0.0005	0.0010	<0.0005	0.0137	0.001	<0.0005	0.0012	<0.0005	0.0018
Strontium (Sr)	µg/L		13	14	20	19	11.6	9.5	11.4	14.2	61.0
Uranium (U)	µg/L		0.019	0.017	0.021	0.022	0.0180	0.0219	0.0252	0.0220	0.0322
Vanadium (V)	µg/L		0.10	0.09	0.10	0.18	0.19	0.10	0.14	0.14	0.452
Zinc (Zn)	µg/L		3.0	1.7	2.3	0.5	8.92	4.97	3.02	1.00	1.23
Other											
Cyanide, Total	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Fluoride (F)	mg/L		0.07	0.11	0.03	0.03	0.04	0.02	0.02	0.03	0.07
Sulphide	mg/L		<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Reference Lake			Reference Outflow					
			21-Jul-07	20-Aug-07	9-Sep-07	23-Jun-06	18-Jul-06	13-Aug-06	10-Sep-06	23-Jun-07	20-Jul-07
			Top	Top	Top						
Physical											
Alkalinity, Total ($CaCO_3$)	mg/L		12.7	14.3	15.3	10.1	12.1	12.3	17.3	11.9	13.0
Hardness, Total ($CaCO_3$)	mg/L		14.0	18.7	19.2	11.1	15.3	13.3	20.2	15.1	14.1
Conductivity	µS/cm		46.5	58.1	63.0	38.0	44.8	48.6	70.6	56.6	47.0
Field pH	units	6.5-9.0	6.8	6.5	-	7.5	6.6	7.8	7.2	**6.1**	6.7
TDS (Calculated)	mg/L		27.4	31.6	30.5	23.3	22.8	23.7	36.9	28.1	28.8
Total Suspended Solids	mg/L		4	<1	4	3	2	3	1	3	3
Color, True	TCU		23	28	28	29	19	17	14	38	22
Nutrients											
Phosphorus, Total	mg/L		0.025	0.015	0.012	0.017	0.022	0.034	0.039	0.016	0.027
Total Kjeldahl Nitrogen	mg/L		0.39	0.44	0.41	0.34	0.43	0.50	0.44	0.43	0.42
Ammonia-N	mg/L	0.2-122.4	0.012	0.012	0.008	0.021	0.009	0.016	0.007	0.027	0.014
Nitrite-N	mg/L	0.06	<0.005	0.001	<0.005	<0.001	0.001	<0.001	<0.001	0.001	<0.005
Nitrate-N (calculated)	mg/L	2.9	<0.001	-	<0.001	<0.005	<0.005	<0.005	<0.005	0.014	<0.001
Organics											
Carbon Part	mg/L		0.49	0.60	0.51	0.38	0.94	0.78	0.72	0.51	0.55
Dissolved Organic Carbon	mg/L		4.7	6.6	6.9	5.1	5.7	6.2	6.2	6.8	4.6
Chlorophyll a	µg/L		4.2	3.1	1.9	-	-	-	-	-	-
Major Ions											
Calcium (Total)	mg/L		3.41	4.83	4.72	2.95	3.51	3.58	5.27	3.86	3.50
Calcium (Dissolved)	mg/L		3.31	4.51	4.67	2.56	3.14	3.21	4.99	3.62	3.26
Chloride (Cl)	mg/L		-	-	-	4.40	5.00	5.90	8.30	-	-
Magnesium (Total)	mg/L		1.23	1.52	1.61	0.98	1.23	1.08	1.72	1.39	1.21
Magnesium (Dissolved)	mg/L		1.15	1.45	1.59	0.83	1.11	0.96	1.62	1.31	1.15
Potassium (Total)	mg/L		0.49	0.45	0.49	0.47	0.42	0.51	0.54	0.81	0.46
Potassium (Dissolved)	mg/L		0.41	0.41	0.49	0.36	0.42	0.43	0.48	0.72	0.39
Sodium (Total)	mg/L		2.98	3.75	4.24	2.52	3.38	3.47	4.96	3.94	2.99
Sodium (Dissolved)	mg/L		2.92	3.69	4.20	2.26	3.32	3.32	4.83	3.87	2.88
Sulphate (SO_4)	mg/L		4	4	<3	6	<3	<3	6	<3	5
Anions	meq/L		0.51	0.55	0.58	0.45	0.42	0.45	0.71	0.51	0.54
Cations	meq/L		0.51	0.62	0.58	0.34	0.44	0.42	0.61	0.55	0.52
Ion Balance	N/A		1.01	1.13	1.00	0.74	1.02	0.94	0.85	1.08	0.96
Total Metals											
Aluminum (Al)	µg/L	5, 100	**211**	85.2	61.9	**178**	81.8	**154**	**118**	**173**	**160**
Antimony (Sb)	µg/L		0.0081	0.0095	0.0103	0.005	0.010	0.011	0.011	0.0053	0.0073
Arsenic (As)	µg/L	5	0.252	0.226	0.217	0.162	0.234	0.349	0.276	0.207	0.323
Barium (Ba)	µg/L		4.42	3.86	3.24	3.71	2.71	3.08	3.73	4.73	4.31
Beryllium (Be)	µg/L		0.0089	0.0107	<0.003	0.006	<0.003	0.005	0.005	0.0048	0.0056
Bismuth (Bi)	µg/L		0.0023	<0.001	<0.001	0.003	0.009	0.002	<0.001	0.0017	0.0041
Boron (B)	µg/L		5.44	5.42	5.89	3.63	5.33	6.01	6.28	5.41	6.36
Cadmium (Cd)	µg/L	0.003-0.055	<0.002	0.004	0.006	0.004	0.003	0.004	<0.002	0.003	<0.002
Chromium (Cr)	µg/L	1, 16	0.5	0.1	0.3	0.428	0.347	0.458	0.358	0.5	0.4
Cobalt (Co)	µg/L		0.1170	0.0819	0.0731	0.0861	0.0907	0.1390	0.0872	0.1590	0.1180
Copper (Cu)	µg/L	2-4	1.3	**3.1**	1.5	1.14	1.44	1.66	1.41	1.0	1.1
Iron (Fe)	µg/L	300	**340**	167	154	254	**324**	**369**	271	**356**	**506**
Lead (Pb)	µg/L	1-7	0.0819	0.0430	0.0486	0.0814	0.0449	0.0954	0.0697	0.0699	0.0642
Manganese (Mn)	µg/L		8.20	4.87	4.76	3.68	7.09	10.30	6.12	11.40	10.30
Mercury (Hg)	ng/L	26	0.6	<0.6	<0.6	<0.6	1.1	<0.6	9.8	1.0	1.5
Molybdenum (Mo)	µg/L	73	0.0465	0.0520	0.0400	0.047	0.227	0.103	0.084	0.0470	0.0451
Nickel (Ni)	µg/L	25-150	0.516	0.617	0.543	0.460	0.414	0.593	0.538	0.538	0.476
Selenium (Se)	µg/L	1	0.2	<0.1	0.3	<0.1	<0.1	0.2	0.2	0.2	0.1
Silver (Ag)	µg/L	0.1	0.0010	0.0054	0.0005	0.0019	0.0024	0.0023	<0.0005	0.0028	0.0110
Strontium (Sr)	µg/L		11.3	13.4	13.3	9.1	10.6	11.1	15.0	12.5	11.1
Thallium (Tl)	µg/L	0.8000	0.0052	0.0018	0.0014	0.0055	0.0137	0.0094	0.0096	0.0047	0.0067
Tin (Sn)	µg/L		1.120	1.370	1.130	<0.03	0.10	0.03	<0.03	<0.03	<0.03
Uranium (U)	µg/L		0.0312	0.0288	0.0237	0.0264	0.0342	0.0440	0.0366	0.0266	0.0245
Vanadium (V)	µg/L		0.5310	0.1810	0.2080	0.457	0.302	0.565	0.336	0.4230	0.4330
Zinc (Zn)	µg/L	3, 13-198	3.21	2.82	2.36	2.09	1.43	13.20	0.64	1.54	10.20
Dissolved Metals											
Aluminum (Al)	µg/L		9.8	19.0	13.7	18.9	13.2	16.6	11.3	19.0	9.0
Antimony (Sb)	µg/L		0.0081	0.0094	0.0102	0.0052	0.0100	0.0109	0.0108	0.0052	0.0072
Arsenic (As)	µg/L		0.195	0.207	0.212	0.123	0.195	0.269	0.227	0.170	0.259
Barium (Ba)	µg/L		2.05	2.99	2.80	1.81	1.56	1.38	2.44	2.84	2.38
Beryllium (Be)	µg/L		0.006	0.004	<0.003	0.005	<0.003	<0.003	0.003	0.003	0.003
Boron (B)	µg/L		4.63	5.37	4.05	2.98	5.19	4.51	6.06	4.05	5.72
Cadmium (Cd)	µg/L		<0.002	<0.002	<0.002	<0.002	0.003	<0.002	<0.002	0.002	<0.002
Chromium (Cr)	µg/L		0.251	0.088	0.334	0.16	0.26	0.26	0.35	0.249	0.211
Cobalt (Co)	µg/L		0.0195	0.0266	0.0308	0.0164	0.0356	0.0379	0.0253	0.0252	0.0234
Copper (Cu)	µg/L		0.96	2.57	1.45	0.87	1.23	1.28	1.25	0.92	0.79
Iron (Fe)	µg/L		60.5	46.2	49.2	48.9	85.7	63.4	42.8	103	118
Lead (Pb)	µg/L		0.029	0.008	0.023	0.014	0.027	0.033	0.025	0.012	0.003
Manganese (Mn)	µg/L		0.21	0.30	0.51	0.35	0.64	0.46	0.22	1.66	0.31
Molybdenum (Mo)	µg/L		0.0376	0.0420	0.0396	0.039	0.221	0.097	0.069	0.0414	0.0344
Nickel (Ni)	µg/L		0.356	0.555	0.538	0.320	0.413	0.414	0.418	0.381	0.363
Selenium (Se)	µg/L		0.158	<0.1	0.172	<0.1	<0.1	0.1	0.1	0.154	0.133
Silver (Ag)	µg/L		0.0010	0.0032	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0022	0.0010
Strontium (Sr)	µg/L		10.4	12.8	13.2	7.5	9.4	9.6	14.1	11.4	10.2
Uranium (U)	µg/L		0.0183	0.0229	0.0208	0.0154	0.0229	0.0246	0.0195	0.0178	0.0152
Vanadium (V)	µg/L		0.141	0.044	0.140	0.12	0.12	0.15	0.12	0.123	0.093
Zinc (Zn)	µg/L		1.56	2.33	2.34	2.05	1.34	11.00	0.64	1.21	6.90
Other											
Cyanide, Total	mg/L		<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Fluoride (F)	mg/L		0.24	0.02	0.02	0.01	0.02	<0.01	0.03	0.10	0.33
Sulphide	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Reference Outflow		Stickleback Lake					
			20-Aug-07	9-Sep-07	2-Jun-06	17-Jul-06	17-Aug-06	10-Sep-06	24-May-07	21-Jul-07
					Bottom	Top	Top	Top	Top	Top
Physical										
Alkalinity, Total ($CaCO_3$)	mg/L		14.4	14.4	25.9	32.9	33.9	33.7	106.0	35.8
Hardness, Total ($CaCO_3$)	mg/L		17.5	18.9	42.2	66.8	71.3	69.2	202.0	70.5
Conductivity	µS/cm		57.2	61.3	167	239	241	252	643	247
Field pH	units	6.5-9.0	6.5	**6.4**	6.7	7.8	8.2	8.1	7.3	7.4
TDS (Calculated)	mg/L		29.0	31.6	80.5	111	118	117	326	125
Total Suspended Solids	mg/L		<1	2	<1	<1	<1	<1	2	<1
Color, True	TCU		31	25	8	<1	<1	<1	5	5
Nutrients										
Phosphorus, Total	mg/L		0.017	0.012	0.018	0.013	0.028	0.025	0.026	0.015
Total Kjeldahl Nitrogen	mg/L		0.47	0.40	0.36	0.40	0.39	0.36	0.77	0.37
Ammonia-N	mg/L	0.2-122.4	0.018	0.009	0.038	0.010	0.010	0.005	0.016	0.012
Nitrite-N	mg/L	0.06	<0.005	<0.005	0.001	<0.001	<0.001	<0.001	0.004	<0.005
Nitrate-N (calculated)	mg/L	2.9	<0.001	<0.001	0.007	0.005	<0.005	<0.005	0.005	<0.001
Organics										
Carbon Part	mg/L		0.57	0.47	0.31	0.17	0.22	0.30	0.91	0.22
Dissolved Organic Carbon	mg/L		7.2	6.7	4.3	4.2	4.9	4.5	10.1	4.3
Chlorophyll a	µg/L		-	-	-	-	-	4.2	-	2.0
Major Ions										
Calcium (Total)	mg/L		4.68	4.65	11.30	17.10	17.60	17.50	48.00	17.50
Calcium (Dissolved)	mg/L		4.52	4.42	10.20	15.60	16.10	17.30	47.20	16.90
Chloride (Cl)	mg/L		-	-	35.90	51.10	53.70	54.50	-	-
Magnesium (Total)	mg/L		1.49	1.72	3.89	6.22	6.45	6.22	17.20	6.17
Magnesium (Dissolved)	mg/L		1.44	1.65	3.61	5.66	5.60	6.16	16.60	5.90
Potassium (Total)	mg/L		0.43	0.48	1.25	1.71	1.80	1.78	4.78	1.78
Potassium (Dissolved)	mg/L		0.40	0.47	1.16	1.55	1.61	1.75	4.69	1.70
Sodium (Total)	mg/L		3.63	4.59	8.85	14.70	15.10	14.80	40.90	14.70
Sodium (Dissolved)	mg/L		3.58	4.54	8.29	13.60	13.30	14.80	39.50	14.00
Sulphate (SO_4)	mg/L		<3	4	<3	<3	<3	<3	<3	<3
Anions	meq/L		0.50	0.59	1.58	2.14	2.23	2.25	6.07	2.43
Cations	meq/L		0.61	0.58	1.35	1.99	2.15	2.07	6.18	2.20
Ion Balance	N/A		1.20	0.99	0.86	0.93	0.96	0.92	1.02	0.91
Total Metals										
Aluminum (Al)	µg/L	5, 100	65.7	**54.2**	6.3	7.4	9.6	13.0	14.6	10.0
Antimony (Sb)	µg/L		0.0319	0.0086	0.009	0.006	0.008	0.012	0.0112	0.0046
Arsenic (As)	µg/L	5	0.198	0.204	0.283	0.377	0.490	0.435	1.210	0.441
Barium (Ba)	µg/L		3.44	3.50	5.23	5.45	5.50	5.31	24.00	6.39
Beryllium (Be)	µg/L		0.0073	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Bismuth (Bi)	µg/L		<0.001	<0.001	0.002	0.002	0.003	<0.001	0.0022	<0.001
Boron (B)	µg/L		5.71	6.20	9.06	16.30	18.20	18.80	37.60	18.20
Cadmium (Cd)	µg/L	0.003-0.055	0.003	<0.002	<0.002	<0.002	<0.002	0.003	<0.002	<0.002
Chromium (Cr)	µg/L	1, 16	0.1	0.5	0.093	0.124	0.106	0.056	1.0	0.1
Cobalt (Co)	µg/L		0.0804	0.0682	0.0910	0.0218	0.0334	0.0195	0.7570	0.0327
Copper (Cu)	µg/L	2-4	1.6	1.6	0.44	0.50	2.02	0.33	0.5	0.2
Iron (Fe)	µg/L	300	145	140	82.7	53.3	106	28.8	**574**	99.3
Lead (Pb)	µg/L	1-7	0.0302	0.0411	0.0545	0.0460	0.1140	0.0379	0.0279	0.0016
Manganese (Mn)	µg/L		5.20	3.94	94.80	5.97	11.70	4.43	957.00	12.70
Mercury (Hg)	ng/L	26	<0.6	<0.6		<0.6	14.0	7.0	1.8	2.1
Molybdenum (Mo)	µg/L	73	0.0493	0.0239	0.024	0.039	0.055	0.050	0.0694	0.0161
Nickel (Ni)	µg/L	25-150	0.599	0.640	0.073	<0.005	0.059	0.082	<0.005	0.016
Selenium (Se)	µg/L	1	<0.1	0.1	0.4	0.4	0.5	0.5	**2.0**	0.7
Silver (Ag)	µg/L	0.1	0.0061	0.0059	0.0010	<0.0005	0.0018	0.0006	0.0027	0.0010
Strontium (Sr)	µg/L		12.9	13.8	64.0	99.5	101.0	100.0	301.0	99.5
Thallium (Tl)	µg/L	0.8000	0.0011	<0.0003	<0.0003	0.0122	0.0069	0.0124	<0.0003	0.0048
Tin (Sn)	µg/L		<0.03	<0.03	4.86	17.00	6.14	0.17	1.350	0.982
Uranium (U)	µg/L		0.0272	0.0260	0.0050	0.0111	0.0103	0.0104	0.0182	0.0085
Vanadium (V)	µg/L		0.1270	0.2440	0.012	0.039	0.028	0.020	0.1950	0.0210
Zinc (Zn)	µg/L	3, 13-198	1.37	1.85	4.75	2.22	6.63	0.78	2.01	3.63
Dissolved Metals										
Aluminum (Al)	µg/L		17.7	13.9	1.3	0.9	0.5	0.5	-	-
Antimony (Sb)	µg/L		0.0316	0.0085	0.0085	0.0064	0.0082	0.0111	0.0111	0.0046
Arsenic (As)	µg/L		0.177	0.195	0.269	0.311	0.406	0.386	0.820	0.368
Barium (Ba)	µg/L		2.71	2.95	4.54	4.73	4.77	5.07	21.80	5.97
Beryllium (Be)	µg/L		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Boron (B)	µg/L		4.17	4.19	8.78	14.50	15.40	17.30	36.10	16.90
Cadmium (Cd)	µg/L		0.003	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	<0.002
Chromium (Cr)	µg/L		0.067	0.527	0.09	0.12	0.07	0.05	0.968	0.104
Cobalt (Co)	µg/L		0.0268	0.0328	0.0349	0.0063	0.0120	0.0074	0.2090	0.0096
Copper (Cu)	µg/L		1.45	1.57	0.36	0.35	1.34	0.32	0.40	0.18
Iron (Fe)	µg/L		49.2	53.6	21.2	<2.0	<2.0	<2.0	<2.0	3.1
Lead (Pb)	µg/L		0.007	0.017	0.004	0.033	0.091	0.037	0.003	<0.001
Manganese (Mn)	µg/L		0.37	0.62	59.60	0.10	0.15	0.25	726.00	0.10
Molybdenum (Mo)	µg/L		0.0422	0.0237	0.020	0.029	0.047	0.046	0.0589	0.0099
Nickel (Ni)	µg/L		0.543	0.635	0.073	<0.005	0.048	0.018	<0.005	<0.005
Selenium (Se)	µg/L		<0.1	0.120	0.4	0.4	0.3	0.5	0.927	0.473
Silver (Ag)	µg/L		0.0042	0.0013	<0.0005	<0.0005	0.0009	<0.0005	0.0017	0.0010
Strontium (Sr)	µg/L		12.7	13.7	59.7	90.1	92.4	99.9	295.0	96.2
Uranium (U)	µg/L		0.0229	0.0211	0.0030	0.0078	0.0068	0.0059	0.0147	0.0064
Vanadium (V)	µg/L		0.048	0.198	0.01	0.04	<0.01	0.02	0.193	0.015
Zinc (Zn)	µg/L		1.36	1.83	4.72	2.14	2.43	0.78	1.99	2.30
Other										
Cyanide, Total	mg/L		<0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.002	<0.001
Fluoride (F)	mg/L		0.02	0.02	0.04	0.04	0.01	0.05	0.09	0.38
Sulphide	mg/L		<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Stickleback Lake		Stickleback Outflow					
			20-Aug-07	9-Sep-07	24-Jun-06	17-Jul-06	13-Aug-06	10-Sep-06	23-Jun-07	22-Jul-07
			Top	Top						
Physical										
Alkalinity, Total ($CaCO_3$)	mg/L		34.2	34.9	33.9	32.8	35.7	37.1	6.5	36.0
Hardness, Total ($CaCO_3$)	mg/L		70.5	69.0	67.4	69.6	72.3	75.8	9.7	71.6
Conductivity	µS/cm		246	248	238	240	251	263	41.3	251.0
Field pH	units	6.5-9.0	6.8	6.5	7.1	6.9	6.5	**6.3**	**6.0**	6.8
TDS (Calculated)	mg/L		122	122	115	112	118	125	21.8	126
Total Suspended Solids	mg/L		1	<1	<1	3	2	<1	1	1
Color, True	TCU		<1	<1	10	13	10	8	10	8
Nutrients										
Phosphorus, Total	mg/L		0.012	0.011	0.024	0.028	0.024	0.026	0.017	0.020
Total Kjeldahl Nitrogen	mg/L		0.38	0.40	0.46	0.46	0.36	0.30	0.19	0.42
Ammonia-N	mg/L	0.2-122.4	0.012	0.034	0.020	0.025	0.012	0.011	0.020	0.029
Nitrite-N	mg/L	0.06	<0.005	<0.005	<0.001	0.004	0.001	<0.001	<0.005	0.002
Nitrate-N (calculated)	mg/L	2.9	<0.001	<0.001	<0.005	0.037	0.024	0.008	0.006	0.024
Organics										
Carbon Part	mg/L		0.32	0.17	0.17	0.58	0.29	0.23	0.36	0.23
Dissolved Organic Carbon	mg/L		4.5	4.6	4.2	4.8	4.5	4.3	1.7	4.1
Chlorophyll a	µg/L		1.4	1.7	-	-	-	-	-	-
Major Ions										
Calcium (Total)	mg/L		16.80	17.60	17.60	17.10	18.00	19.10	2.35	17.60
Calcium (Dissolved)	mg/L		16.50	16.90	16.50	16.00	16.80	18.30	2.31	17.20
Chloride (Cl)	mg/L		-	-	50.40	50.60	53.30	56.20	-	-
Magnesium (Total)	mg/L		6.48	6.90	5.85	6.24	6.65	7.11	0.96	6.38
Magnesium (Dissolved)	mg/L		6.24	6.57	5.58	5.76	6.11	6.84	0.94	6.24
Potassium (Total)	mg/L		1.76	1.94	1.68	1.65	1.69	1.63	0.54	1.69
Potassium (Dissolved)	mg/L		1.73	1.84	1.61	1.51	1.59	1.58	0.53	1.64
Sodium (Total)	mg/L		15.90	16.80	13.50	14.90	15.80	16.60	2.78	15.70
Sodium (Dissolved)	mg/L		15.30	16.50	13.00	13.90	14.60	16.00	2.75	15.10
Sulphate (SO_4)	mg/L		<3	<3	5	<3	<3	4	<3	<3
Anions	meq/L		2.28	2.37	2.20	2.13	2.26	2.40	0.40	2.45
Cations	meq/L		2.25	2.11	2.01	2.04	2.14	2.21	0.39	2.23
Ion Balance	N/A		0.99	0.89	0.91	0.96	0.95	0.92	0.98	0.91
Total Metals										
Aluminum (Al)	µg/L	5, 100	10.4	10.5	6.7	**116**	20.5	**13.6**	**30.2**	22.5
Antimony (Sb)	µg/L		0.0345	0.0085	0.005	0.007	0.007	0.006	0.0036	0.0060
Arsenic (As)	µg/L	5	0.450	0.466	0.407	0.546	0.629	0.531	0.144	0.520
Barium (Ba)	µg/L		6.11	5.88	6.76	7.92	6.33	8.97	2.06	7.04
Beryllium (Be)	µg/L		<0.003	<0.003	0.005	0.005	<0.003	<0.003	<0.003	<0.003
Bismuth (Bi)	µg/L		<0.001	<0.001	<0.001	0.004	0.004	<0.001	<0.001	0.0034
Boron (B)	µg/L		15.70	17.40	14.30	16.00	20.60	17.00	3.63	17.30
Cadmium (Cd)	µg/L	0.003-0.055	<0.002	0.005	0.005	0.003	0.003	<0.002	0.003	0.009
Chromium (Cr)	µg/L	1, 16	0.1	0.2	0.153	0.190	0.180	0.086	0.1	0.1
Cobalt (Co)	µg/L		0.0323	0.0343	0.0269	0.2060	0.1420	0.5480	0.1570	0.0994
Copper (Cu)	µg/L	2-4	1.0	0.9	0.32	0.53	0.33	0.21	0.3	1.1
Iron (Fe)	µg/L	300	58.6	40.4	65.3	**602**	264	**1030**	123	159
Lead (Pb)	µg/L	1-7	0.0137	0.0283	0.0205	0.0994	0.1470	0.0414	0.0335	0.0398
Manganese (Mn)	µg/L		8.52	7.57	8.72	82.80	60.60	166.00	152.00	31.50
Mercury (Hg)	ng/L	26	<0.6	<0.6	<0.6	<0.6	<0.6	9.8	1.1	<0.6
Molybdenum (Mo)	µg/L	73	0.0252	0.0423	0.024	0.043	0.217	0.015	0.0270	0.0299
Nickel (Ni)	µg/L	25-150	0.121	0.017	0.097	0.065	0.223	0.235	0.148	0.102
Selenium (Se)	µg/L	1	0.5	0.8	0.7	0.5	0.7	1.0	0.1	0.6
Silver (Ag)	µg/L	0.1	<0.0005	0.0026	0.0007	0.0008	0.0025	<0.0005	0.0011	0.0051
Strontium (Sr)	µg/L		101.0	102.0	99.4	98.3	105.0	103.0	14.2	103.0
Thallium (Tl)	µg/L	0.8000	<0.0003	0.0012	0.0041	0.0146	0.0120	0.0083	0.0022	0.0059
Tin (Sn)	µg/L		0.850	1.160	<0.03	<0.03	0.07	0.06	<0.03	<0.03
Uranium (U)	µg/L		0.0085	0.0099	0.0063	0.0206	0.0069	0.0063	0.0091	0.0086
Vanadium (V)	µg/L		0.0200	0.0580	0.374	0.200	0.100	0.033	0.0659	0.0760
Zinc (Zn)	µg/L	3, 13-198	1.65	1.62	6.71	2.25	4.29	1.59	0.72	1.79
Dissolved Metals										
Aluminum (Al)	µg/L		-	0.6	0.4	1.0	0.9	2.6	6.7	1.1
Antimony (Sb)	µg/L		0.0342	0.0084	0.0051	0.0071	0.0074	0.0064	0.0036	0.0059
Arsenic (As)	µg/L		0.387	0.406	0.346	0.389	0.533	0.430	0.125	0.431
Barium (Ba)	µg/L		5.65	5.35	5.99	5.39	5.35	8.03	1.08	6.28
Beryllium (Be)	µg/L		<0.003	<0.003	0.004	0.004	<0.003	<0.003	<0.003	<0.003
Boron (B)	µg/L		14.70	15.80	13.10	13.80	17.60	15.90	3.24	15.90
Cadmium (Cd)	µg/L		<0.002	0.005	0.002	0.003	<0.002	<0.002	<0.002	<0.002
Chromium (Cr)	µg/L		0.057	0.175	0.08	0.04	0.16	0.09	0.148	0.091
Cobalt (Co)	µg/L		0.0125	0.0129	0.0108	0.0117	0.0184	0.0505	0.0082	0.0148
Copper (Cu)	µg/L		0.78	0.84	0.26	0.31	0.24	0.20	0.19	0.22
Iron (Fe)	µg/L		2.0	<2.0	9.3	13.3	38.1	278	17.8	22.0
Lead (Pb)	µg/L		<0.001	0.014	0.009	0.036	0.132	0.036	<0.001	<0.001
Manganese (Mn)	µg/L		0.10	0.29	2.51	0.26	2.75	74.00	1.52	0.31
Molybdenum (Mo)	µg/L		0.0215	0.0419	0.019	0.043	0.042	0.008	0.0107	0.0236
Nickel (Ni)	µg/L		0.120	0.012	0.040	<0.005	0.104	0.211	0.059	0.040
Selenium (Se)	µg/L		0.465	0.530	0.5	0.5	0.5	0.7	0.103	0.467
Silver (Ag)	µg/L		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0050
Strontium (Sr)	µg/L		98.6	102.0	92.4	91.0	98.4	96.5	14.1	99.1
Uranium (U)	µg/L		0.0069	0.0080	0.0021	0.0047	0.0031	0.0027	0.0059	0.0050
Vanadium (V)	µg/L		<0.01	0.033	0.28	<0.01	0.01	0.03	0.027	0.012
Zinc (Zn)	µg/L		1.63	1.60	4.41	1.48	1.38	1.54	0.71	1.31
Other										
Cyanide, Total	mg/L		<0.001	<0.001	<0.001	0.001	0.001	<0.001	<0.001	<0.001
Fluoride (F)	mg/L		0.02	0.04	0.04	0.04	0.03	0.05	0.08	0.38
Sulphide	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Stickleback Outflow		Glenn Lake					
			20-Aug-07	9-Sep-07	24-May-07		16-Jul-07		17-Aug-07	
					Top	Bottom	Top	Bottom	Top	Bottom
Physical										
Alkalinity, Total ($CaCO_3$)	mg/L		34.0	20.5	60.5	60.3	41.4	57.3	49.3	49.4
Hardness, Total ($CaCO_3$)	mg/L		75.2	73.5	87.7	87.0	57.1	80.8	67.9	68.9
Conductivity	µS/cm		260	247	457	455	331	464	394	394
Field pH	units	6.5-9.0	6.5	6.7	7.4	-	7.3	-	7.2	-
TDS (Calculated)	mg/L		127	114	242	244	162	234	199	198
Total Suspended Solids	mg/L		<1	<1	2	<1	2	<1	3	3
Color, True	TCU		<1	4	7	7	13	8	11	6
Nutrients										
Phosphorus, Total	mg/L		0.013	0.014	0.007	0.005	0.008	0.005	0.017	0.012
Total Kjeldahl Nitrogen	mg/L		0.39	0.36	0.25	0.23	0.23	0.23	0.21	0.20
Ammonia-N	mg/L	0.2-122.4	0.015	0.014	0.011	0.008	0.008	0.011	0.01	0.009
Nitrite-N	mg/L	0.06	<0.005	<0.005	0.001	0.002	<0.001	<0.001	<0.001	<0.001
Nitrate-N (calculated)	mg/L	2.9	<0.001	0.008	0.020	0.022	<0.005	0.010	<0.005	<0.005
Organics										
Carbon Part	mg/L		0.40	0.48	0.09	0.10	0.14	0.13	0.13	0.18
Dissolved Organic Carbon	mg/L		4.1	4.5	3.5	3.7	3.0	3.6	3.5	3.3
Chlorophyll a	µg/L		-	-	-	-	0.9	-	1.0	-
Major Ions										
Calcium (Total)	mg/L		18.30	17.10	15.40	15.60	10.10	13.90	11.90	11.70
Calcium (Dissolved)	mg/L		17.50	15.70	15.00	14.80	9.73	13.90	11.60	11.40
Chloride (Cl)	mg/L		-	-	99.60	101.00	68.00	105.00	82.90	83.30
Magnesium (Total)	mg/L		7.02	6.62	12.30	12.40	8.18	11.20	9.23	9.34
Magnesium (Dissolved)	mg/L		6.64	6.09	11.90	12.00	7.95	10.80	8.92	8.73
Potassium (Total)	mg/L		1.83	1.88	4.61	4.66	3.18	4.20	3.50	3.46
Potassium (Dissolved)	mg/L		1.72	1.72	4.46	4.42	3.01	4.10	3.30	3.25
Sodium (Total)	mg/L		17.40	16.00	58.90	59.80	37.30	52.50	39.90	38.90
Sodium (Dissolved)	mg/L		16.40	14.80	57.40	59.20	36.90	51.80	39.50	38.51
Sulphate (SO_4)	mg/L		<3	<3	12	12	7	10	12	11
Anions	meq/L		2.37	2.07	4.26	4.30	2.90	4.32	3.58	3.57
Cations	meq/L		2.37	2.18	4.58	4.60	2.97	4.14	3.60	3.60
Ion Balance	N/A		1.00	1.05	1.07	1.07	1.02	0.96	1.01	1.01
Total Metals										
Aluminum (Al)	µg/L	5, 100	26.3	13.8	54.0	54.6	**112**	**125**	**457**	**458**
Antimony (Sb)	µg/L		0.0044	0.0190	0.0517	0.0507	0.0362	0.0496	0.0433	0.0406
Arsenic (As)	µg/L	5	0.470	0.475	0.703	0.765	0.457	0.708	0.533	0.568
Barium (Ba)	µg/L		7.04	5.90	5.17	4.26	3.72	5.04	8.67	8.31
Beryllium (Be)	µg/L		<0.003	<0.003	<0.003	<0.003	0.0083	<0.003	0.0150	0.0120
Bismuth (Bi)	µg/L		<0.001	<0.001	0.0063	0.0035	0.0012	0.0034	0.0025	0.0025
Boron (B)	µg/L		19.90	16.30	52.5	53.8	32.9	49.1	37.5	36.5
Cadmium (Cd)	µg/L	0.003-0.055	<0.002	0.007	<0.002	<0.002	<0.002	0.002	0.016	0.010
Chromium (Cr)	µg/L	1, 16	<0.03	0.3	0.2	0.2	0.3	0.4	0.8	0.8
Cobalt (Co)	µg/L		0.0722	0.0670	0.0131	0.0169	0.045	0.0417	0.165	0.163
Copper (Cu)	µg/L	2-4	0.3	0.4	**3.0**	**2.9**	**2.2**	**2.8**	**3.1**	**2.8**
Iron (Fe)	µg/L	300	129	105	<2.0	3.1	85.1	71.5	**327**	**325**
Lead (Pb)	µg/L	1-7	0.0221	0.0620	0.02	0.02	0.05	0.05	0.21	0.17
Manganese (Mn)	µg/L		17.80	14.10	0.9	0.5	2.0	1.7	5.0	5.0
Mercury (Hg)	ng/L	26	<0.6	<0.6	1.1	<0.6	0.7	0.7	<0.6	<0.6
Molybdenum (Mo)	µg/L	73	0.0394	0.0405	0.86	0.863	0.575	0.783	0.666	0.647
Nickel (Ni)	µg/L	25-150	0.328	0.203	0.705	0.589	0.592	0.621	2.060	0.960
Selenium (Se)	µg/L	1	0.4	0.6	**1.7**	**2.0**	**1.1**	**1.9**	**1.1**	**1.2**
Silver (Ag)	µg/L	0.1	0.0061	<0.0005	0.003	0.002	0.002	0.001	<0.0005	<0.0005
Strontium (Sr)	µg/L		111.0	100.0	78.8	79.6	53.5	75.9	65.4	65.3
Thallium (Tl)	µg/L	0.8000	0.0031	0.0012	<0.0003	<0.0003	0.0066	0.0061	0.0068	0.0060
Tin (Sn)	µg/L		0.039	0.064	0.227	0.085	1.670	0.212	0.757	0.629
Uranium (U)	µg/L		0.0107	0.0091	0.291	0.296	0.227	0.323	0.257	0.264
Vanadium (V)	µg/L		<0.01	0.0750	0.325	0.321	0.332	0.374	1.030	1.040
Zinc (Zn)	µg/L	3, 13-198	0.70	1.62	1.86	1.06	1.53	1.63	4.85	1.62
Dissolved Metals										
Aluminum (Al)	µg/L		-	0.7	8.7	11.4	15.0	12.1	31.9	32.8
Antimony (Sb)	µg/L		0.0043	0.0190	0.0512	0.0502	0.0358	0.0491	0.0429	0.0402
Arsenic (As)	µg/L		0.397	0.410	0.571	0.667	0.375	0.613	0.398	0.418
Barium (Ba)	µg/L		6.39	5.49	4.54	3.62	2.48	3.76	3.04	3.01
Beryllium (Be)	µg/L		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.004	<0.003
Boron (B)	µg/L		18.30	14.60	49.2	50.0	31.2	46.8	36.7	36.1
Cadmium (Cd)	µg/L		<0.002	0.007	<0.002	<0.002	<0.002	0.002	0.004	<0.002
Chromium (Cr)	µg/L		<0.03	0.255	0.216	0.220	0.294	0.379	0.354	0.203
Cobalt (Co)	µg/L		0.0144	0.0219	0.0110	0.0116	0.0106	0.0045	0.0092	0.0059
Copper (Cu)	µg/L		0.25	0.39	2.7	2.8	1.9	2.4	2.3	2.2
Iron (Fe)	µg/L		10.3	13.7	<2.0	<2.0	7.1	<2.0	10.9	10.8
Lead (Pb)	µg/L		<0.001	0.021	0.0120	0.0147	0.0141	0.0128	0.0166	0.0148
Manganese (Mn)	µg/L		0.36	3.91	0.244	0.195	0.394	0.199	0.358	0.239
Molybdenum (Mo)	µg/L		0.0361	0.0401	0.845	0.835	0.544	0.775	0.664	0.641
Nickel (Ni)	µg/L		0.144	0.199	0.559	0.584	0.460	0.543	0.590	0.585
Selenium (Se)	µg/L		0.299	0.509	1.3	1.6	0.9	1.5	0.9	0.8
Silver (Ag)	µg/L		0.0044	<0.0005	0.0008	0.0014	<0.0005	<0.0005	<0.0005	<0.0005
Strontium (Sr)	µg/L		105.0	99.0	79	79	53	75	65	65
Uranium (U)	µg/L		0.0078	0.0067	0.274	0.271	0.201	0.297	0.218	0.226
Vanadium (V)	µg/L		<0.01	0.049	0.32	0.32	0.21	0.30	0.34	0.30
Zinc (Zn)	µg/L		0.70	1.60	1.8	1.1	1.5	1.6	2.9	1.6
Other										
Cyanide, Total	mg/L		<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001
Fluoride (F)	mg/L		0.03	0.04	0.09	0.09	0.10	0.12	0.07	0.07
Sulphide	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Glenn Outflow						Ogama Lake	
			15-Sep-07		22-Jun-07	19-Jul-07	12-Aug-07	15-Sep-07	1-Jun-06	
			Top	Bottom					Top	Bottom
Physical										
Alkalinity, Total ($CaCO_3$)	mg/L		49.1	49.1	40.9	40.4	49.8	49.6	28.5	56.0
Hardness, Total ($CaCO_3$)	mg/L		71.6	69.7	56.1	55.3	68.9	75.9	46.3	110.0
Conductivity	µS/cm		373	375	315	317	370	371	323	701
Field pH	units	6.5-9.0	-	-	6.9	7.5	7.1	-	6.5	-
TDS (Calculated)	mg/L		196	193	125	161	195	196	161	358
Total Suspended Solids	mg/L		4	2	1	8	9	3	3	4
Color, True	TCU		22	22	30	7	14	3	58	26
Nutrients										
Phosphorus, Total	mg/L		0.016	0.018	0.012	0.015	0.013	0.016	0.037	0.034
Total Kjeldahl Nitrogen	mg/L		0.20	0.22	0.26	0.18	0.19	0.20	0.58	0.63
Ammonia-N	mg/L	0.2-122.4	0.008	0.009	0.011	0.008	0.005	0.007	0.019	0.108
Nitrite-N	mg/L	0.06	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	0.002	0.003
Nitrate-N (calculated)	mg/L	2.9	<0.005	<0.005	0.017	<0.005	0.006	<0.005	<0.005	0.074
Organics										
Carbon Part	mg/L		0.29	0.39	0.26	0.18	0.20	0.32	0.71	0.51
Dissolved Organic Carbon	mg/L		3.7	3.6	4.5	2.8	3.3	3.0	10.2	7.3
Chlorophyll a	µg/L		0.8	-	-	-	-	-	-	-
Major Ions										
Calcium (Total)	mg/L		12.00	11.70	10.30	9.94	12.70	11.90	6.91	15.90
Calcium (Dissolved)	mg/L		11.40	11.50	10.10	9.56	12.30	11.70	6.36	12.80
Chloride (Cl)	mg/L		82.50	81.60	37.90	71.70	81.80	82.60	79.00	180.00
Magnesium (Total)	mg/L		9.35	9.86	8.30	7.59	10.30	10.10	7.09	18.00
Magnesium (Dissolved)	mg/L		8.90	9.67	8.06	7.28	10.10	9.91	5.85	15.00
Potassium (Total)	mg/L		3.83	3.73	3.19	3.07	3.92	3.79	3.21	4.63
Potassium (Dissolved)	mg/L		3.47	3.49	3.07	2.82	3.65	3.53	2.80	4.34
Sodium (Total)	mg/L		42.40	41.90	36.70	34.20	47.50	42.10	37.10	86.40
Sodium (Dissolved)	mg/L		41.40	41.48	36.20	33.86	47.50	41.68	34.80	81.30
Sulphate (SO_4)	mg/L		11	11	6	7	10	12	4	6
Anions	meq/L		3.55	3.52	2.01	2.98	3.51	3.58	2.88	6.32
Cations	meq/L		3.53	3.45	2.76	2.86	3.58	3.55	2.94	6.71
Ion Balance	N/A		1.00	0.98	1.37	0.96	1.02	0.99	1.02	1.06
Total Metals										
Aluminum (Al)	µg/L	5, 100	**650**	**593**	**195**	**611**	**570**	**694**	**495**	**120**
Antimony (Sb)	µg/L		0.0563	0.0489	0.0359	0.0325	0.0430	0.0404	0.0158	0.0332
Arsenic (As)	µg/L	5	0.542	0.517	0.583	0.563	0.598	0.553	0.742	1.400
Barium (Ba)	µg/L		11.20	10.70	5.04	9.52	10.10	11.50	10.10	9.76
Beryllium (Be)	µg/L		0.0128	0.0194	0.0075	0.0229	0.0136	0.0221	0.016	<0.003
Bismuth (Bi)	µg/L		0.0065	0.0057		0.0012	<0.001	0.0036	0.006	0.001
Boron (B)	µg/L		40.1	43.1	38.4	32.1	46.1	41.9	25.7	51.6
Cadmium (Cd)	µg/L	0.003-0.055	0.012	0.007	0.006	0.005	<0.002	0.003	<0.002	0.006
Chromium (Cr)	µg/L	1, 16	**1.1**	1.0	0.5	**1.2**	0.9	**1.2**	0.986	0.57
Cobalt (Co)	µg/L		0.232	0.206	0.0729	0.249	0.174	0.226	0.381	0.394
Copper (Cu)	µg/L	2-4	**3.8**	**3.7**	**2.6**	**2.4**	**2.9**	**4.1**	**2.20**	**2.99**
Iron (Fe)	µg/L	300	**436**	**391**	117	**550**	**357**	**457**	**728**	**823**
Lead (Pb)	µg/L	1-7	0.49	0.48	0.06	0.22	0.20	0.28	0.238	0.162
Manganese (Mn)	µg/L		7.0	6.3	3.0	8.7	5.9	7.9	58.4	261.0
Mercury (Hg)	ng/L	26	1.0	0.6	1.4	<0.6	1.5	<0.6		
Molybdenum (Mo)	µg/L	73	0.697	0.681	0.592	0.527	0.697	0.72	0.207	0.299
Nickel (Ni)	µg/L	25-150	1.110	0.995	0.721	1.010	0.988	1.110	1.590	1.150
Selenium (Se)	µg/L	1	0.8	0.9	**1.5**	**1.4**	**1.3**	0.9	**1.7**	**3.6**
Silver (Ag)	µg/L	0.1	0.009	0.007		0.020	<0.0005	0.005	0.0050	0.0023
Strontium (Sr)	µg/L		66.4	65.5	55.8	54.8	71.2	66.2	44.2	96.2
Thallium (Tl)	µg/L	0.8000	0.0123	0.0107	0.0020	0.0036	0.0010	0.0102	0.0052	0.0013
Tin (Sn)	µg/L		3.660	2.380		<0.03	0.124	0.111	3.32	5.98
Uranium (U)	µg/L		0.300	0.291	0.211	0.233	0.271	0.299	0.0703	0.0701
Vanadium (V)	µg/L		1.340	1.230	0.433	1.300	1.100	1.370	0.840	0.141
Zinc (Zn)	µg/L	3, 13-198	4.37	4.76	1.01	2.78	2.37	3.30	7.22	6.90
Dissolved Metals										
Aluminum (Al)	µg/L		72.4	70.0	30.6	35.1	32.0	69.1	114.0	12.1
Antimony (Sb)	µg/L		0.0557	0.0484	0.0356	0.0322	0.0426	0.04	0.0154	0.0326
Arsenic (As)	µg/L		0.452	0.415	0.517	0.459	0.448	0.455	0.587	1.170
Barium (Ba)	µg/L		3.80	3.67	3.13	2.54	3.43	3.69	4.75	7.38
Beryllium (Be)	µg/L		<0.003	<0.003	0.005	0.005	0.003	0.005	0.007	<0.003
Boron (B)	µg/L		36.9	38.6	37.8	31.3	43.8	40.5	23.0	48.4
Cadmium (Cd)	µg/L		<0.002	0.004	0.003	<0.002	<0.002	<0.002	<0.002	<0.002
Chromium (Cr)	µg/L		0.342	0.245	0.398	0.230	0.505	0.334	0.602	0.499
Cobalt (Co)	µg/L		0.0255	0.0211	0.0137	0.0191	0.0011	0.0233	0.0559	0.0747
Copper (Cu)	µg/L		2.7	2.7	2.3	1.7	2.3	2.5	1.95	2.63
Iron (Fe)	µg/L		35.5	30.3	14.4	27.3	8.5	29.1	320	248
Lead (Pb)	µg/L		0.0639	0.0583	0.0084	0.0211	0.0140	0.0525	0.088	0.031
Manganese (Mn)	µg/L		0.576	0.508	0.442	0.372	0.106	0.692	7.170	126.000
Molybdenum (Mo)	µg/L		0.690	0.674	0.586	0.512	0.690	0.683	0.178	0.257
Nickel (Ni)	µg/L		0.624	0.662	0.608	0.477	0.612	0.662	1.190	0.976
Selenium (Se)	µg/L		0.8	0.6	1.3	1.2	0.9	0.8	1.6	3.3
Silver (Ag)	µg/L		0.0083	0.0040	<0.0005	0.0200	<0.0005	<0.0005	0.0008	<0.0005
Strontium (Sr)	µg/L		62	63	55	51	69	64	44.2	91.5
Uranium (U)	µg/L		0.250	0.254	0.187	0.175	0.236	0.254	0.0476	0.0457
Vanadium (V)	µg/L		0.38	0.35	0.26	0.14	0.38	0.36	0.288	0.097
Zinc (Zn)	µg/L		1.7	1.2	0.8	0.7	1.3	1.9	7.19	2.44
Other										
Cyanide, Total	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Fluoride (F)	mg/L		0.07	0.07	0.13	0.18	0.07	0.08	0.06	0.09
Sulphide	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Ogama Lake							
			21-Jul-06		15-Aug-06		8-Sep-06		22-May-07	16-Jul-07
			Top	Bottom	Top	Bottom	Top	Bottom	Top	Top
Physical										
Alkalinity, Total ($CaCO_3$)	mg/L		23.2	23.5	26.1	26.0	27.7	28.3	55.7	25.5
Hardness, Total ($CaCO_3$)	mg/L		39.1	38.8	43.2	43.3	45.0	45.5	98.7	42.5
Conductivity	µS/cm		252	254	276	276	295	295	602	280
Field pH	units	6.5-9.0	7.3	-	8.3	-	8.0	-	7.1	7.0
TDS (Calculated)	mg/L		120	113	132	132	141	143	270	140
Total Suspended Solids	mg/L		3	5	4	3	4	4	1	3
Color, True	TCU		19	19	13	17	6	<1	14	18
Nutrients										
Phosphorus, Total	mg/L		0.023	0.027	0.039	0.039	0.049	0.046	0.024	0.021
Total Kjeldahl Nitrogen	mg/L		0.40	0.40	0.55	0.57	0.62	0.54	0.54	0.42
Ammonia-N	mg/L	0.2-122.4	0.009	0.009	0.006	0.006	0.006	0.005	0.009	0.008
Nitrite-N	mg/L	0.06	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Nitrate-N (calculated)	mg/L	2.9	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.042	<0.005
Organics										
Carbon Part	mg/L		0.62	0.68	1.18	1.06	1.24	1.31	0.50	0.46
Dissolved Organic Carbon	mg/L		5.3	5.6	5.3	5.3	5.3	5.6	7.6	4.8
Chlorophyll a	µg/L		-	-	-	-	6.8	-	-	3.4
Major Ions										
Calcium (Total)	mg/L		6.10	5.99	6.89	6.81	6.99	7.03	14.50	6.52
Calcium (Dissolved)	mg/L		5.57	5.26	6.43	6.34	6.69	6.68	14.00	6.45
Chloride (Cl)	mg/L		60.00	53.30	65.00	65.00	70.30	70.40	129.00	74.00
Magnesium (Total)	mg/L		6.08	6.06	7.30	7.04	6.68	6.80	15.40	6.52
Magnesium (Dissolved)	mg/L		5.56	5.27	6.81	6.68	6.39	6.33	14.90	6.37
Potassium (Total)	mg/L		2.17	2.17	2.45	2.43	2.40	2.38	4.77	2.30
Potassium (Dissolved)	mg/L		1.94	1.83	2.26	2.23	2.20	2.20	4.59	2.18
Sodium (Total)	mg/L		30.00	29.50	36.90	35.80	34.60	34.40	81.90	33.20
Sodium (Dissolved)	mg/L		27.60	26.10	35.10	34.00	33.10	32.50	78.40	31.90
Sulphate (SO_4)	mg/L		<3	<3	3	3	4	5	4	<3
Anions	meq/L		2.20	2.02	2.43	2.43	2.62	2.66	4.84	2.64
Cations	meq/L		2.13	2.12	2.34	2.35	2.46	2.46	5.08	2.36
Ion Balance	N/A		0.97	1.05	0.96	0.97	0.94	0.92	1.05	0.89
Total Metals										
Aluminum (Al)	µg/L	5, 100	**186**	**263**	**117**	**139**	**172**	**184**	63.4	**200**
Antimony (Sb)	µg/L		0.0139	0.0126	0.0146	0.0165	0.0163	0.0183	0.0297	0.0145
Arsenic (As)	µg/L	5	0.390	0.418	0.715	0.742	0.574	0.619	1.160	0.464
Barium (Ba)	µg/L		4.52	5.40	3.62	4.03	4.42	4.61	6.24	5.03
Beryllium (Be)	µg/L		0.004	<0.003	0.005	0.005	0.011	0.008	0.0069	0.0061
Bismuth (Bi)	µg/L		0.003	0.005	<0.001	<0.001	0.004	0.003	0.0029	0.0016
Boron (B)	µg/L		21.4	20.8	23.2	22.6	23.2	24.2	44.5	22.5
Cadmium (Cd)	µg/L	0.003-0.055	<0.002	<0.002	<0.002	<0.002	0.009	0.002	<0.002	<0.002
Chromium (Cr)	µg/L	1, 16	0.428	0.53	0.486	0.494	0.459	0.435	0.4	0.5
Cobalt (Co)	µg/L		0.046	0.078	0.056	0.063	0.069	0.071	0.0453	0.0897
Copper (Cu)	µg/L	2-4	1.66	1.80	1.84	2.02	1.77	1.76	**2.5**	1.4
Iron (Fe)	µg/L	300	138	242	111	134	156	165	179	**319**
Lead (Pb)	µg/L	1-7	0.104	0.132	0.163	0.168	0.121	0.103	0.04	0.09
Manganese (Mn)	µg/L		7.0	11.4	19.9	21.1	20.2	20.0	82.4	61.6
Mercury (Hg)	ng/L	26	9.8	1.9	1.3	7.2	1.2	3.1	<0.6	<0.6
Molybdenum (Mo)	µg/L	73	0.148	0.150	0.233	0.208	0.263	0.257	0.271	0.152
Nickel (Ni)	µg/L	25-150	0.549	0.650	0.637	0.640	0.643	0.661	0.829	0.818
Selenium (Se)	µg/L	1	0.6	0.6	**1.9**	**1.7**	**1.4**	**1.4**	**3.1**	0.9
Silver (Ag)	µg/L	0.1	0.0007	0.0016	<0.0005	<0.0005	0.0016	0.0015	0.008	0.002
Strontium (Sr)	µg/L		37.7	37.8	43.7	42.5	44.6	44.2	92.2	42.1
Thallium (Tl)	µg/L	0.8000	0.0252	0.0249	0.0074	0.0099	0.0147	0.0142	<0.0003	0.0069
Tin (Sn)	µg/L		22.40	5.77	2.98	18.00	1.12	1.83	0.143	1.100
Uranium (U)	µg/L		0.0522	0.0524	0.0551	0.0550	0.0577	0.0560	0.056	0.039
Vanadium (V)	µg/L		0.278	0.456	0.202	0.215	0.291	0.274	<0.01	0.307
Zinc (Zn)	µg/L	3, 13-198	1.81	2.00	3.59	1.50	3.46	3.57	1.63	2.38
Dissolved Metals										
Aluminum (Al)	µg/L		25.7	23.9	5.2	5.5	12.3	19.3	7.0	13.2
Antimony (Sb)	µg/L		0.0139	0.0125	0.0146	0.0165	0.0163	0.0183	0.0294	0.0144
Arsenic (As)	µg/L		0.369	0.346	0.579	0.569	0.468	0.457	0.984	0.377
Barium (Ba)	µg/L		2.34	2.23	2.06	2.12	2.25	2.32	5.31	2.41
Beryllium (Be)	µg/L		<0.003	<0.003	<0.003	<0.003	<0.003	0.004	<0.003	<0.003
Boron (B)	µg/L		19.1	18.5	21.9	21.3	21.3	21.7	42.8	20.3
Cadmium (Cd)	µg/L		<0.002	<0.002	<0.002	<0.002	0.009	<0.002	<0.002	<0.002
Chromium (Cr)	µg/L		0.246	0.339	0.327	0.361	0.356	0.334	0.398	0.286
Cobalt (Co)	µg/L		0.0124	0.0119	0.0119	0.0123	0.0106	0.0110	0.0159	0.0138
Copper (Cu)	µg/L		1.36	1.32	1.38	1.56	1.42	1.51	2.3	1.2
Iron (Fe)	µg/L		27.3	21.3	3.1	3.5	<2.0	4.4	17.1	72.8
Lead (Pb)	µg/L		0.045	0.042	0.131	0.131	0.121	0.043	0.0141	0.0175
Manganese (Mn)	µg/L		0.360	0.305	0.209	0.211	0.229	0.738	31.000	0.556
Molybdenum (Mo)	µg/L		0.131	0.139	0.177	0.185	0.241	0.253	0.260	0.141
Nickel (Ni)	µg/L		0.369	0.386	0.383	0.393	0.370	0.408	0.769	0.581
Selenium (Se)	µg/L		0.6	0.4	1.1	1.1	1.0	0.9	2.8	0.8
Silver (Ag)	µg/L		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Strontium (Sr)	µg/L		34.0	32.6	39.7	40.0	43.5	42.5	92	41
Uranium (U)	µg/L		0.0274	0.0267	0.0329	0.0313	0.0256	0.0296	0.039	0.026
Vanadium (V)	µg/L		0.089	0.129	0.021	0.063	0.084	0.110	<0.01	0.05
Zinc (Zn)	µg/L		1.79	1.95	3.55	0.74	3.46	2.90	1.6	1.2
Other										
Cyanide, Total	mg/L		<0.001	<0.001	0.001	0.001	0.001	<0.001	0.001	<0.001
Fluoride (F)	mg/L		0.05	0.05	0.05	0.05	0.06	0.06	0.09	0.12
Sulphide	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Ogama Lake				Ogama Outflow			
			16-Aug-07		11-Sep-07	12-Sep-07	19-Jun-06	21-Jul-06	12-Aug-06	9-Sep-06
			Top	Bottom	Top	Bottom				
Physical										
Alkalinity, Total ($CaCO_3$)	mg/L		27.7	27.2	27.7	25.8	23.4	22.9	25.3	27.5
Hardness, Total ($CaCO_3$)	mg/L		46.3	45.7	46.2	46.1	37.8	40.7	42.9	45.2
Conductivity	µS/cm		298	295	286	287	240	251	272	297
Field pH	units	6.5-9.0	7.1	-	7.1	-	6.6	7.7	7.5	7.5
TDS (Calculated)	mg/L		148	148	143	141	124	119	131	144
Total Suspended Solids	mg/L		7	7	5	5	3	3	4	3
Color, True	TCU		20	20	30	30	36	15	20	6
Nutrients										
Phosphorus, Total	mg/L		0.035	0.035	0.031	0.028	0.019	0.026	0.037	0.041
Total Kjeldahl Nitrogen	mg/L		0.59	0.58	0.63	0.61	0.38	0.40	0.56	0.53
Ammonia-N	mg/L	0.2-122.4	0.008	0.009	0.01	0.01	0.035	0.010	0.014	0.005
Nitrite-N	mg/L	0.06	<0.001	<0.001	<0.001	<0.001	0.002	0.001	<0.001	<0.001
Nitrate-N (calculated)	mg/L	2.9	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Organics										
Carbon Part	mg/L		1.17	1.23	1.53	1.56	0.44	0.71	0.95	1.26
Dissolved Organic Carbon	mg/L		6.6	7.0	7.6	7.3	6.9	5.3	5.3	5.7
Chlorophyll a	µg/L		4.7	-	5.5	-	-	-	-	-
Major Ions										
Calcium (Total)	mg/L		6.96	6.91	7.36	7.44	5.79	5.76	6.43	6.87
Calcium (Dissolved)	mg/L		6.69	6.72	6.93	7.13	5.52	5.49	6.12	6.59
Chloride (Cl)	mg/L		72.80	71.60	74.00	70.80	61.10	59.40	64.70	70.70
Magnesium (Total)	mg/L		6.95	6.66	7.56	7.69	5.23	5.90	6.70	6.82
Magnesium (Dissolved)	mg/L		6.73	6.49	7.22	7.45	5.03	5.64	6.29	6.52
Potassium (Total)	mg/L		2.30	2.27	2.40	2.42	2.11	2.13	2.30	2.37
Potassium (Dissolved)	mg/L		2.12	2.10	2.18	2.24	1.95	1.97	2.14	2.21
Sodium (Total)	mg/L		33.10	32.50	34.30	35.00	28.90	30.40	33.60	35.40
Sodium (Dissolved)	mg/L		32.77	32.40	33.20	34.10	25.90	29.60	32.50	33.70
Sulphate (SO_4)	mg/L		3	5	<3	<3	5	<3	3	7
Anions	meq/L		2.67	2.66	2.69	2.56	2.30	2.18	2.39	2.70
Cations	meq/L		2.68	2.66	2.48	2.55	2.14	2.13	2.33	2.43
Ion Balance	N/A		1.00	1.00	0.92	1.00	0.93	0.98	0.97	0.90
Total Metals										
Aluminum (Al)	µg/L	5, 100	**336**	**375**	**306**	**305**	**290**	**181**	92.2	**119**
Antimony (Sb)	µg/L		0.0160	0.0199	0.0185	0.0161	0.0126	0.0123	0.0157	0.0155
Arsenic (As)	µg/L	5	0.545	0.533	0.460	0.489	0.454	0.405	0.641	0.673
Barium (Ba)	µg/L		6.76	7.38	6.51	6.42	6.04	4.60	3.30	3.76
Beryllium (Be)	µg/L		0.0054	0.0161	0.0086	0.0132	0.012	0.006	<0.003	0.006
Bismuth (Bi)	µg/L		0.0017	0.0029	<0.001	<0.001	0.004	0.003	0.002	0.002
Boron (B)	µg/L		22.7	23.8	25.9	25.5	20.7	21.6	22.0	23.7
Cadmium (Cd)	µg/L	0.003-0.055	0.005	0.012	0.003	<0.002	<0.002	0.002	0.003	0.003
Chromium (Cr)	µg/L	1, 16	0.6	0.7	0.8	0.8	0.497	0.336	0.381	0.381
Cobalt (Co)	µg/L		0.118	0.128	0.0968	0.0947	0.105	0.054	0.064	0.061
Copper (Cu)	µg/L	2-4	1.9	**2.2**	1.8	**2.6**	1.55	1.49	1.67	1.62
Iron (Fe)	µg/L	300	282	**320**	238	246	**323**	173	127	129
Lead (Pb)	µg/L	1-7	0.12	0.18	0.15	0.13	0.102	0.093	0.136	0.069
Manganese (Mn)	µg/L		17.1	17.4	14.0	14.4	22.5	12.3	26.0	23.7
Mercury (Hg)	ng/L	26	<0.6	<0.6	<0.6	1.3	<0.6	<0.6	<0.6	1.3
Molybdenum (Mo)	µg/L	73	0.224	0.229	0.232	0.259	0.129	0.180	0.205	0.262
Nickel (Ni)	µg/L	25-150	0.937	1.060	0.942	0.927	0.907	0.599	0.601	0.589
Selenium (Se)	µg/L	1	1.0	1.0	0.9	1.0	1.0	0.7	**1.3**	**2.0**
Silver (Ag)	µg/L	0.1	<0.0005	<0.0005	0.003	0.001	0.0021	0.0010	0.0023	0.0012
Strontium (Sr)	µg/L		44.6	44.6	45.2	45.3	38.4	36.2	40.4	43.7
Thallium (Tl)	µg/L	0.8000	0.0048	0.0047	0.0026	0.0022	0.0062	0.0136	0.0067	0.0137
Tin (Sn)	µg/L		0.920	1.030	0.092	1.930	0.05	0.09	0.06	<0.03
Uranium (U)	µg/L		0.043	0.051	0.057	0.057	0.0394	0.0452	0.0512	0.0524
Vanadium (V)	µg/L		0.587	0.612	0.502	0.540	0.338	0.263	0.169	0.201
Zinc (Zn)	µg/L	3, 13-198	2.22	11.10	3.86	1.68	4.99	0.64	2.06	2.28
Dissolved Metals										
Aluminum (Al)	µg/L		36.8	42.1	48.1	49.9	52.5	30.2	6.9	11.5
Antimony (Sb)	µg/L		0.0158	0.0197	0.0183	0.0159	0.0126	0.0115	0.0157	0.0155
Arsenic (As)	µg/L		0.399	0.389	0.373	0.380	0.366	0.325	0.529	0.564
Barium (Ba)	µg/L		2.60	2.66	2.97	3.04	3.18	2.41	1.98	2.10
Beryllium (Be)	µg/L		0.005	<0.003	0.003	0.005	0.006	<0.003	<0.003	<0.003
Boron (B)	µg/L		21.1	20.2	21.4	22.3	19.5	19.2	21.8	21.9
Cadmium (Cd)	µg/L		<0.002	<0.002	<0.002	<0.002	<0.002	0.002	0.003	0.003
Chromium (Cr)	µg/L		0.313	0.215	0.520	0.620	0.337	0.218	0.300	0.372
Cobalt (Co)	µg/L		0.0076	0.0111	0.0195	0.0197	0.0294	0.0120	0.0139	0.0117
Copper (Cu)	µg/L		1.5	1.7	1.8	2.1	1.39	1.21	1.24	1.53
Iron (Fe)	µg/L		36.4	43.5	40.0	43.2	103	29.5	2.4	8.2
Lead (Pb)	µg/L		0.0143	0.0204	0.0363	0.0364	0.030	0.063	0.104	0.033
Manganese (Mn)	µg/L		0.112	0.253	0.398	0.389	8.300	0.408	0.215	0.241
Molybdenum (Mo)	µg/L		0.194	0.201	0.196	0.201	0.114	0.176	0.189	0.242
Nickel (Ni)	µg/L		0.523	0.555	0.612	0.580	0.733	0.456	0.385	0.439
Selenium (Se)	µg/L		0.7	0.8	0.6	0.8	0.9	0.6	0.7	1.0
Silver (Ag)	µg/L		<0.0005	<0.0005	<0.0005	<0.0005	0.0008	<0.0005	<0.0005	<0.0005
Strontium (Sr)	µg/L		42	43	42	43	36.7	33.9	40.1	41.8
Uranium (U)	µg/L		0.030	0.031	0.041	0.043	0.0268	0.0316	0.0294	0.0271
Vanadium (V)	µg/L		0.12	0.13	0.16	0.21	0.058	0.085	0.024	0.073
Zinc (Zn)	µg/L		1.4	8.3	0.9	0.7	3.16	0.63	1.59	1.52
Other										
Cyanide, Total	mg/L		<0.001	0.002	<0.001	<0.001	0.001	<0.001	0.001	<0.001
Fluoride (F)	mg/L		0.06	0.06	0.06	0.06	0.05	0.06	0.04	0.07
Sulphide	mg/L		<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Ogama Outflow				Patch Lake				
			22-Jun-07	17-Jul-07	12-Aug-07	17-Sep-07	2-Jun-06	23-Jul-06		15-Aug-06	16-Aug-06
							Bottom	Top	Bottom	Top	Bottom
Physical											
Alkalinity, Total ($CaCO_3$)	mg/L		27.3	25.9	27.7	27.5	49.9	34.2	34.3	35.2	35.1
Hardness, Total ($CaCO_3$)	mg/L		45.3	42.1	45.7	46.8	86.6	58.5	61.6	60.7	60.4
Conductivity	µS/cm		290	285	281	285	458	328	325	333	333
Field pH	units	6.5-9.0	6.9	7.3	6.9	6.8	6.8	7.6	-	7.0	-
TDS (Calculated)	mg/L		141	138	149	143	231	156	156	162	159
Total Suspended Solids	mg/L		3	6	5	4	<1	2	1	1	<1
Color, True	TCU		48	20	14	32	<1	<1	<1	7	<1
Nutrients											
Phosphorus, Total	mg/L		0.028	0.065	0.034	0.030	0.009	0.012	0.011	0.018	0.019
Total Kjeldahl Nitrogen	mg/L		0.51	0.66	0.57	0.65	0.26	0.24	0.26	0.31	0.21
Ammonia-N	mg/L	0.2-122.4	0.016	0.011	0.006	0.016	0.025	0.005	0.005	0.006	0.005
Nitrite-N	mg/L	0.06	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Nitrate-N (calculated)	mg/L	2.9	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Organics											
Carbon Part	mg/L		0.49	1.01	1.28	1.54	0.14	0.13	0.08	0.22	0.15
Dissolved Organic Carbon	mg/L		8.4	5.4	5.5	8.0	4.6	3.3	3.6	3.7	3.5
Chlorophyll a	µg/L		-	-	-	-	-	-	-	-	-
Major Ions											
Calcium (Total)	mg/L		7.04	6.18	7.19	7.25	16.60	10.70	10.80	11.10	11.20
Calcium (Dissolved)	mg/L		6.76	6.12	7.01	7.12	14.00	9.96	9.68	10.50	9.99
Chloride (Cl)	mg/L		70.80	68.00	73.60	71.10	109.00	75.20	74.60	77.80	76.30
Magnesium (Total)	mg/L		7.42	6.52	7.58	6.84	11.10	7.83	7.83	8.41	8.58
Magnesium (Dissolved)	mg/L		7.05	6.46	7.50	6.69	10.10	7.28	7.03	8.10	7.69
Potassium (Total)	mg/L		2.79	2.26	2.51	2.33	3.82	2.85	2.84	2.94	3.00
Potassium (Dissolved)	mg/L		2.64	2.22	2.36	2.21	3.48	2.59	2.53	2.81	2.65
Sodium (Total)	mg/L		36.00	32.90	38.40	33.50	52.10	37.30	37.00	40.60	41.40
Sodium (Dissolved)	mg/L		34.60	32.57	38.20	32.90	46.90	35.10	33.60	38.80	37.10
Sulphate (SO_4)	mg/L		<3	3	<3	4	4	<3	<3	4	3
Anions	meq/L		2.59	2.51	2.67	2.63	4.15	2.85	2.83	2.98	2.92
Cations	meq/L		2.51	2.48	2.72	2.53	4.31	2.85	2.88	2.92	2.87
Ion Balance	N/A		0.97	0.99	1.02	0.96	1.04	1.00	1.02	0.98	0.98
Total Metals											
Aluminum (Al)	µg/L	5, 100	**150**	**198**	**258**	**221**	67.7	**138**	89.7	83.2	89.2
Antimony (Sb)	µg/L		0.0157	0.0135	0.0154	0.0162	0.0342	0.0190	0.0190	0.0195	0.0194
Arsenic (As)	µg/L	5	0.583	0.543	0.540	0.469	0.743	0.410	0.421	0.597	0.670
Barium (Ba)	µg/L		4.42	5.14	6.19	5.63	5.40	4.36	3.90	3.71	3.74
Beryllium (Be)	µg/L		0.0084	0.0106	0.0042	0.0077	<0.003	0.004	<0.003	<0.003	<0.003
Bismuth (Bi)	µg/L		<0.001	0.0025	<0.001	0.0013	<0.001	0.002	0.002	<0.001	<0.001
Boron (B)	µg/L		25.5	20.1	24.5	22.5	39.2	24.9	24.4	27.1	28.3
Cadmium (Cd)	µg/L	0.003-0.055	0.006	0.003	<0.002	0.004	<0.002	<0.002	<0.002	<0.002	<0.002
Chromium (Cr)	µg/L	1, 16	0.5	0.4	0.5	0.4	0.338	0.48	0.42	0.32	0.361
Cobalt (Co)	µg/L		0.113	0.0969	0.0873	0.0766	0.028	0.047	0.032	0.030	0.033
Copper (Cu)	µg/L	2-4	1.8	1.3	1.5	1.7	**2.18**	1.24	1.47	1.41	1.51
Iron (Fe)	µg/L	300	199	**368**	235	209	56.1	108	77.8	50.5	57.0
Lead (Pb)	µg/L	1-7	0.05	0.08	0.09	0.10	0.137	0.112	0.094	0.167	0.148
Manganese (Mn)	µg/L		90.8	62.5	26.6	15.0	4.6	4.5	4.5	4.3	5.0
Mercury (Hg)	ng/L	26	2.8	<0.6	1.0	<0.6		1.1	2.5	**44**	16
Molybdenum (Mo)	µg/L	73	0.138	0.138	0.235	0.229	0.222	0.180	0.178	0.181	0.190
Nickel (Ni)	µg/L	25-150	1.180	0.802	0.850	0.915	0.526	0.322	0.286	0.514	0.364
Selenium (Se)	µg/L	1	**1.6**	**1.1**	1.0	0.7	**1.8**	0.9	0.9	**1.6**	**1.8**
Silver (Ag)	µg/L	0.1	<0.0005	0.002	<0.0005	0.001	0.0011	0.0028	0.0020	<0.0005	<0.0005
Strontium (Sr)	µg/L		45.0	39.5	47.1	44.4	106.0	69.5	70.4	71.9	72.6
Thallium (Tl)	µg/L	0.8000	0.0008	0.0066	<0.0003	0.0027	<0.0003	0.0113	0.0104	0.0072	0.0063
Tin (Sn)	µg/L		<0.03	0.061	<0.03	<0.03	13.50	13.20	5.37	2.78	21.90
Uranium (U)	µg/L		0.035	0.037	0.044	0.056	0.1030	0.0745	0.0646	0.0807	0.0834
Vanadium (V)	µg/L		0.158	0.275	0.368	0.880	0.150	0.278	0.200	0.137	0.134
Zinc (Zn)	µg/L	3, 13-198	2.90	2.58	1.73	1.01	19.10	1.67	1.65	7.82	2.19
Dissolved Metals											
Aluminum (Al)	µg/L		22.0	14.5	32.7	49.4	5.1	12.2	8.9	11.3	11.2
Antimony (Sb)	µg/L		0.0155	0.0134	0.0152	0.016	0.0334	0.0184	0.0183	0.0195	0.0194
Arsenic (As)	µg/L		0.496	0.503	0.409	0.399	0.638	0.313	0.353	0.526	0.534
Barium (Ba)	µg/L		2.40	2.31	2.70	3.08	4.03	2.71	2.56	2.69	2.59
Beryllium (Be)	µg/L		<0.003	<0.003	0.003	0.006	<0.003	<0.003	<0.003	<0.003	<0.003
Boron (B)	µg/L		24.6	19.9	23.8	21.5	35.8	22.3	21.7	26.2	25.1
Cadmium (Cd)	µg/L		<0.002	<0.002	<0.002	0.004	<0.002	<0.002	<0.002	<0.002	<0.002
Chromium (Cr)	µg/L		0.379	0.339	0.468	0.260	0.329	0.382	0.413	0.260	0.273
Cobalt (Co)	µg/L		0.0162	0.0133	0.0031	0.0187	0.0013	0.0028	0.0036	0.0063	0.0070
Copper (Cu)	µg/L		1.5	1.1	1.3	1.4	1.66	0.95	1.14	1.02	1.13
Iron (Fe)	µg/L		40.8	77.8	31.9	42.4	<2.0	<2.0	<2.0	<20	2.0
Lead (Pb)	µg/L		0.0027	0.0151	0.0498	0.0957	0.024	0.039	0.036	0.133	0.124
Manganese (Mn)	µg/L		5.130	0.669	0.064	0.558	0.382	0.248	0.209	0.206	0.204
Molybdenum (Mo)	µg/L		0.120	0.137	0.210	0.210	0.212	0.163	0.156	0.179	0.167
Nickel (Ni)	µg/L		0.825	0.541	0.498	0.609	0.367	0.194	0.204	0.267	0.252
Selenium (Se)	µg/L		1.3	1.1	0.7	0.5	1.7	0.6	0.7	1.0	1.1
Silver (Ag)	µg/L		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0005	0.0005	<0.0005	<0.0005
Strontium (Sr)	µg/L		43	38	45	42	96.1	64.5	62.7	67.5	64.9
Uranium (U)	µg/L		0.030	0.025	0.032	0.045	0.0203	0.0354	0.0163	0.0442	0.0242
Vanadium (V)	µg/L		0.02	0.03	0.15	0.57	0.029	0.113	0.098	0.021	0.041
Zinc (Zn)	µg/L		1.5	1.5	0.7	0.4	3.50	1.03	1.35	4.14	0.78
Other											
Cyanide, Total	mg/L		<0.001	<0.001	0.001	0.001	0.001	<0.001	<0.001	0.002	0.001
Fluoride (F)	mg/L		0.14	0.13	0.05	0.06	0.08	0.06	0.06	0.05	0.06
Sulphide	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Patch Lake							
			8-Sep-06		23-May-07		17-Jul-07		15-Aug-07	
			Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom
Physical										
Alkalinity, Total ($CaCO_3$)	mg/L		36.1	36.2	51.3	57.1	53.1	55.7	36.7	36.5
Hardness, Total ($CaCO_3$)	mg/L		59.1	58.1	86.2	96.9	74.3	92.7	61.4	60.7
Conductivity	µS/cm		339	341	463	514	506	531	348	356
Field pH	units	6.5-9.0	8.1	-	7.4	-	7.1	-	7.0	-
TDS (Calculated)	mg/L		160	163	239	247	247	263	172	175
Total Suspended Solids	mg/L		<1	<1	<1	<1	<1	<1	3	4
Color, True	TCU		<1	<1	<5	<5	8	8	4	<5
Nutrients										
Phosphorus, Total	mg/L		0.019	0.023	0.004	0.004	0.007	0.009	0.012	0.060
Total Kjeldahl Nitrogen	mg/L		0.22	0.18	0.28	0.28	0.29	0.28	0.21	0.24
Ammonia-N	mg/L	0.2-122.4	0.007	0.005	0.016	0.007	0.013	0.013	0.008	0.008
Nitrite-N	mg/L	0.06	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Nitrate-N (calculated)	mg/L	2.9	<0.005	<0.005	0.007	0.006	<0.005	<0.005	<0.005	<0.005
Organics										
Carbon Part	mg/L		0.09	0.08	0.13	0.07	0.16	0.14	0.20	0.18
Dissolved Organic Carbon	mg/L		3.7	3.4	4.0	4.0	4.1	4.2	3.6	3.4
Chlorophyll a	µg/L		1.0	-	-	-	0.6	-	0.7	-
Major Ions										
Calcium (Total)	mg/L		11.00	10.80	16.30	17.80	13.60	16.90	11.30	11.30
Calcium (Dissolved)	mg/L		10.60	10.60	15.50	17.30	13.50	16.60	10.90	10.90
Chloride (Cl)	mg/L		78.40	77.70	111.00	113.00	125.00	132.00	82.10	84.30
Magnesium (Total)	mg/L		7.68	7.56	11.40	13.20	9.83	12.40	8.47	8.53
Magnesium (Dissolved)	mg/L		7.35	7.49	10.80	12.60	9.73	12.30	8.32	8.24
Potassium (Total)	mg/L		2.80	2.76	3.99	4.44	3.57	4.38	3.00	3.01
Potassium (Dissolved)	mg/L		2.63	2.71	3.77	4.27	3.55	4.24	2.83	2.81
Sodium (Total)	mg/L		36.80	36.70	55.90	63.50	47.00	59.80	39.30	39.80
Sodium (Dissolved)	mg/L		35.30	36.70	52.70	61.50	46.53	58.20	39.20	39.60
Sulphate (SO_4)	mg/L		<3	5	3	5	4	<3	<3	<3
Anions	meq/L		2.98	3.03	4.24	4.42	4.66	4.88	3.09	3.15
Cations	meq/L		2.84	2.83	4.55	4.69	4.18	4.67	3.19	3.23
Ion Balance	N/A		0.95	0.93	1.07	1.06	0.90	0.96	1.03	1.03
Total Metals										
Aluminum (Al)	µg/L	5, 100	89.1	89	39.9	41.4	69.3	36.4	**306**	**351**
Antimony (Sb)	µg/L		0.0187	0.0190	0.0803	0.0251	0.0246	0.0252	0.0204	0.0207
Arsenic (As)	µg/L	5	0.509	0.653	0.721	0.760	0.576	0.623	0.520	0.535
Barium (Ba)	µg/L		3.69	3.57	4.99	4.56	4.39	4.84	6.84	7.41
Beryllium (Be)	µg/L		0.004	0.004	<0.003	<0.003	<0.003	<0.003	0.0079	0.0078
Bismuth (Bi)	µg/L		0.001	<0.001	0.0054	0.0039	0.0026	0.0034	0.0032	0.0043
Boron (B)	µg/L		29.7	28.3	37.9	40.6	29.9	37.4	27.2	26.6
Cadmium (Cd)	µg/L	0.003-0.055	<0.002	<0.002	0.012	<0.002	<0.002	<0.002	0.009	<0.002
Chromium (Cr)	µg/L	1, 16	0.271	0.293	0.5	0.4	0.3	0.3	0.6	0.7
Cobalt (Co)	µg/L		0.030	0.029	0.0367	0.0154	0.034	0.0214	0.0926	0.113
Copper (Cu)	µg/L	2-4	1.20	1.08	1.9	1.4	1.7	1.3	**2.2**	**3.8**
Iron (Fe)	µg/L	300	62.3	73.6	10.3	33.5	59.8	37.5	220	257
Lead (Pb)	µg/L	1-7	0.064	0.063	0.29	0.02	0.06	0.03	0.14	0.16
Manganese (Mn)	µg/L		3.6	4.0	2.1	7.5	11.1	16.8	6.9	8.3
Mercury (Hg)	ng/L	26	1.3	3.9	3.8	<0.6	2.9	1.4	<0.6	0.8
Molybdenum (Mo)	µg/L	73	0.208	0.202	0.233	0.186	0.155	0.17	0.196	0.163
Nickel (Ni)	µg/L	25-150	0.321	0.290	7.010	0.232	0.318	0.320	0.547	0.591
Selenium (Se)	µg/L	1	**1.3**	**1.8**	**1.9**	**2.1**	**1.4**	**1.6**	**1.2**	**1.3**
Silver (Ag)	µg/L	0.1	0.0015	0.0012	0.005	0.005	0.001	0.002	<0.0005	<0.0005
Strontium (Sr)	µg/L		71.6	70.3	101.0	114.0	85.3	108.0	74.3	74.1
Thallium (Tl)	µg/L	0.8000	0.0112	0.0124	0.0003	<0.0003	0.0047	0.0040	0.0050	0.0056
Tin (Sn)	µg/L		4.50	0.76	0.385	0.187	22.500	1.660	4.730	9.350
Uranium (U)	µg/L		0.0809	0.0759	0.066	0.061	0.056	0.056	0.060	0.057
Vanadium (V)	µg/L		0.145	0.119	0.100	0.040	0.103	0.048	0.518	0.607
Zinc (Zn)	µg/L	3, 13-198	1.60	1.00	17.80	1.26	1.60	1.67	2.84	2.20
Dissolved Metals										
Aluminum (Al)	µg/L		8.1	8.7	3.6	1.6	3.2	1.0	10.8	10.1
Antimony (Sb)	µg/L		0.0187	0.0190	0.0795	0.0248	0.0244	0.0249	0.0202	0.0205
Arsenic (As)	µg/L		0.398	0.595	0.704	0.689	0.518	0.591	0.380	0.381
Barium (Ba)	µg/L		2.57	2.60	4.32	4.09	3.66	4.18	3.09	3.06
Beryllium (Be)	µg/L		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Boron (B)	µg/L		25.1	26.9	34.2	38.6	29.6	34.1	26.5	25.3
Cadmium (Cd)	µg/L		<0.002	<0.002	0.012	<0.002	<0.002	<0.002	0.002	<0.002
Chromium (Cr)	µg/L		0.271	0.291	0.449	0.378	0.277	0.249	0.202	0.099
Cobalt (Co)	µg/L		0.0029	0.0038	0.0306	0.0041	0.0085	0.0059	<0.001	<0.001
Copper (Cu)	µg/L		0.98	0.98	1.6	1.3	1.5	1.1	1.1	2.2
Iron (Fe)	µg/L		<2.0	3.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Lead (Pb)	µg/L		0.031	0.035	0.1110	0.0033	0.0108	0.0089	0.0015	0.0018
Manganese (Mn)	µg/L		0.120	0.106	1.580	1.570	4.410	5.460	<0.003	<0.003
Molybdenum (Mo)	µg/L		0.188	0.193	0.216	0.180	0.153	0.168	0.159	0.161
Nickel (Ni)	µg/L		0.218	0.251	0.713	0.161	0.297	0.239	0.253	0.286
Selenium (Se)	µg/L		0.8	1.0	1.6	1.9	1.3	1.6	0.8	0.8
Silver (Ag)	µg/L		<0.0005	<0.0005	0.0008	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Strontium (Sr)	µg/L		67.8	68.0	98	113	84	104	70	70
Uranium (U)	µg/L		0.0366	0.0336	0.050	0.047	0.046	0.044	0.044	0.045
Vanadium (V)	µg/L		0.057	0.078	0.10	0.03	0.05	<0.01	0.05	0.06
Zinc (Zn)	µg/L		1.51	1.00	17.4	1.3	1.6	1.7	1.7	0.9
Other										
Cyanide, Total	mg/L		0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Fluoride (F)	mg/L		0.06	0.06	0.08	0.09	0.18	0.12	0.05	0.05
Sulphide	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Patch Lake		Patch Outflow					
			11-Sep-07		19-Jun-06	22-Jul-06	12-Aug-06	9-Sep-06	22-Jun-07	19-Jul-07
			Top	Bottom						
Physical										
Alkalinity, Total ($CaCO_3$)	mg/L		36.2	36.2	19.7	34.5	35.1	36.0	10.4	32.0
Hardness, Total ($CaCO_3$)	mg/L		59.5	59.3	29.4	59.7	60.2	62.0	12.1	55.1
Conductivity	µS/cm		336	337	173	333	338	345	54.9	302
Field pH	units	6.5-9.0	-	-	6.6	7.7	6.8	7.6	**5.6**	7.5
TDS (Calculated)	mg/L		166	166	87.1	158	166	167	28	153
Total Suspended Solids	mg/L		3	2	1	3	5	<1	4	<1
Color, True	TCU		7	7	8	11	12	1	95	7
Nutrients										
Phosphorus, Total	mg/L		0.008	0.009	0.007	0.012	0.026	0.018	0.048	0.007
Total Kjeldahl Nitrogen	mg/L		0.18	0.20	0.18	0.20	0.24	0.20	0.63	0.19
Ammonia-N	mg/L	0.2-122.4	0.006	0.009	0.016	0.005	0.010	0.005	0.033	0.01
Nitrite-N	mg/L	0.06	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001
Nitrate-N (calculated)	mg/L	2.9	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.008	<0.005
Organics										
Carbon Part	mg/L		0.17	0.24	0.24	0.10	0.21	0.10	1.46	0.11
Dissolved Organic Carbon	mg/L		3.1	3.5	2.7	3.1	3.8	3.7	9.6	3.1
Chlorophyll a	µg/L		0.6	-	-	-	-	-	-	-
Major Ions										
Calcium (Total)	mg/L		11.90	11.50	6.11	11.00	10.90	11.70	1.79	9.78
Calcium (Dissolved)	mg/L		11.20	11.40	5.43	9.88	10.20	10.90	1.65	9.70
Chloride (Cl)	mg/L		82.30	82.80	41.70	75.60	81.10	80.00	8.80	76.70
Magnesium (Total)	mg/L		8.39	8.15	3.95	8.51	8.16	8.66	2.10	6.92
Magnesium (Dissolved)	mg/L		7.95	8.07	3.54	7.44	7.45	8.08	1.95	6.67
Potassium (Total)	mg/L		3.02	2.91	1.67	3.01	2.97	3.01	1.74	2.51
Potassium (Dissolved)	mg/L		2.79	2.91	1.47	2.65	2.67	2.78	1.57	2.49
Sodium (Total)	mg/L		38.90	37.80	17.80	41.10	38.50	41.90	4.54	33.30
Sodium (Dissolved)	mg/L		37.30	37.42	17.60	36.50	36.20	39.90	4.45	32.10
Sulphate (SO_4)	mg/L		<3	<3	3	<3	<3	6	<3	<3
Anions	meq/L		3.09	3.10	1.64	2.87	3.03	3.09	0.50	2.93
Cations	meq/L		2.94	2.89	1.46	2.92	3.00	2.93	0.53	2.69
Ion Balance	N/A		0.95	0.93	0.89	1.02	0.99	0.95	1.05	0.92
Total Metals										
Aluminum (Al)	µg/L	5, 100	**195**	**179**	**135**	**253**	**441**	73.6	**320**	84.0
Antimony (Sb)	µg/L		0.0203	0.0169	0.0100	0.0161	0.0203	0.0183	0.0323	0.0132
Arsenic (As)	µg/L	5	0.434	0.401	0.275	0.584	0.866	0.508	0.407	0.435
Barium (Ba)	µg/L		5.48	5.17	3.21	5.35	7.75	3.38	4.88	3.51
Beryllium (Be)	µg/L		0.0088	0.0049	0.005	0.007	0.017	0.004	0.0225	0.0034
Bismuth (Bi)	µg/L		0.0015	<0.001	0.002	0.002	0.003	<0.001	<0.001	0.0038
Boron (B)	µg/L		28.3	28.5	15.5	30.8	27.8	27.7	8.25	24
Cadmium (Cd)	µg/L	0.003-0.055	0.002	0.003	<0.002	<0.002	0.004	<0.002	0.008	<0.002
Chromium (Cr)	µg/L	1, 16	0.7	0.6	0.331	0.488	0.949	0.285	0.9	0.3
Cobalt (Co)	µg/L		0.0667	0.0626	0.074	0.089	0.175	0.028	0.683	0.0439
Copper (Cu)	µg/L	2-4	1.6	1.3	0.83	1.28	1.40	1.02	**3.0**	0.7
Iron (Fe)	µg/L	300	148	124	116	207	**376**	65.9	**497**	87.1
Lead (Pb)	µg/L	1-7	0.09	0.09	0.051	0.120	0.260	0.056	0.11	0.03
Manganese (Mn)	µg/L		5.0	4.8	5.9	5.4	9.4	4.0	141.0	4.9
Mercury (Hg)	ng/L	26	<0.6	0.9	<0.6	1	<0.6	1.4	1.9	2.3
Molybdenum (Mo)	µg/L	73	0.187	0.161	0.112	0.182	0.203	0.185	0.251	0.116
Nickel (Ni)	µg/L	25-150	0.519	0.450	0.402	0.395	0.712	0.304	1.970	0.328
Selenium (Se)	µg/L	1	0.9	0.9	0.6	**1.4**	**1.5**	**1.2**	0.4	1.0
Silver (Ag)	µg/L	0.1	0.011	0.005	0.0019	0.0021	0.0031	<0.0005	0.002	0.010
Strontium (Sr)	µg/L		75.3	73.7	42.2	70.6	71.9	72.3	11.7	63.2
Thallium (Tl)	µg/L	0.8000	0.0028	0.0026	0.0055	0.0109	0.0101	0.0064	0.0022	0.0056
Tin (Sn)	µg/L		1.210	0.384	<0.03	<0.03	0.05	0.05	0.054	<0.03
Uranium (U)	µg/L		0.064	0.063	0.0471	0.0859	0.1000	0.0858	0.106	0.053
Vanadium (V)	µg/L		0.426	0.395	0.213	0.498	0.805	0.136	0.633	0.176
Zinc (Zn)	µg/L	3, 13-198	0.91	1.35	3.92	3.69	3.40	2.25	3.92	2.07
Dissolved Metals										
Aluminum (Al)	µg/L		18.4	18.5	13.9	21.4	37.5	8.7	92.5	6.4
Antimony (Sb)	µg/L		0.0201	0.0167	0.0099	0.0159	0.0203	0.0183	0.032	0.0131
Arsenic (As)	µg/L		0.363	0.391	0.233	0.417	0.562	0.389	0.380	0.358
Barium (Ba)	µg/L		3.26	3.38	1.74	2.65	3.01	2.50	1.99	2.74
Beryllium (Be)	µg/L		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.015	<0.003
Boron (B)	µg/L		25.0	26.7	14.0	27.3	26.4	26.1	8.0	22.6
Cadmium (Cd)	µg/L		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.008	<0.002
Chromium (Cr)	µg/L		0.390	0.480	0.137	0.217	0.236	0.279	0.683	0.227
Cobalt (Co)	µg/L		0.0035	0.0060	0.0125	0.0079	0.0098	<0.001	0.1680	0.0063
Copper (Cu)	µg/L		1.2	1.2	0.72	0.94	0.91	0.93	2.8	0.7
Iron (Fe)	µg/L		5.0	4.5	11.1	4.3	13.4	<2.0	212	5.3
Lead (Pb)	µg/L		0.0205	0.0210	0.006	0.040	0.121	0.033	0.0380	0.0091
Manganese (Mn)	µg/L		0.109	0.097	1.970	0.195	0.251	0.120	65.800	0.098
Molybdenum (Mo)	µg/L		0.171	0.159	0.102	0.168	0.195	0.183	0.212	0.115
Nickel (Ni)	µg/L		0.276	0.312	0.272	0.254	0.256	0.213	1.730	0.278
Selenium (Se)	µg/L		0.8	0.7	0.6	1.1	0.9	0.8	0.4	0.7
Silver (Ag)	µg/L		0.0106	0.0048	0.0009	0.0007	<0.0005	<0.0005	<0.0005	0.0099
Strontium (Sr)	µg/L		71	73	38.1	62.9	66.1	67.0	12	63
Uranium (U)	µg/L		0.052	0.054	0.0199	0.0282	0.0492	0.0397	0.088	0.043
Vanadium (V)	µg/L		0.11	0.13	0.019	0.094	0.074	0.084	0.26	0.01
Zinc (Zn)	µg/L		0.9	1.3	3.84	1.96	1.39	1.40	3.9	1.8
Other										
Cyanide, Total	mg/L		<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001
Fluoride (F)	mg/L		0.06	0.06	0.04	0.06	0.05	0.06	0.10	1.63
Sulphide	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Patch Outflow		Pelvic Lake					
			12-Aug-07	17-Sep-07	1-Jun-06		21-Jul-06		16-Aug-06	
					Top	Bottom	Top	Bottom	Top	Bottom
Physical										
Alkalinity, Total ($CaCO_3$)	mg/L		35.7	36.3	24.9	30.9	20.0	20.3	21.2	21.2
Hardness, Total ($CaCO_3$)	mg/L		59.3	64.7	43.3	51.9	32.8	32.2	34.4	34.1
Conductivity	µS/cm		311	333	285	360	232	229	239	240
Field pH	units	6.5-9.0	6.8	6.9	6.5	-	8.6	-	8.2	-
TDS (Calculated)	mg/L		163	170	144	182	110	107	123	115
Total Suspended Solids	mg/L		7	2	3	1	5	4	7	7
Color, True	TCU		19	7	22	17	19	15	7	10
Nutrients										
Phosphorus, Total	mg/L		0.012	0.006	0.041	0.038	0.045	0.034	0.058	0.060
Total Kjeldahl Nitrogen	mg/L		0.21	0.20	0.73	0.52	0.64	0.54	0.84	0.81
Ammonia-N	mg/L	0.2-122.4	0.007	0.005	0.019	0.088	0.006	0.008	0.009	0.009
Nitrite-N	mg/L	0.06	<0.001	<0.001	0.001	0.002	<0.001	<0.001	<0.001	<0.001
Nitrate-N (calculated)	mg/L	2.9	<0.005	<0.005	<0.005	0.270	<0.005	<0.005	0.009	0.009
Organics										
Carbon Part	mg/L		0.34	0.21	1.77	0.61	1.94	1.61	2.41	2.20
Dissolved Organic Carbon	mg/L		4.1	3.5	6.8	5.7	4.8	4.6	4.5	4.7
Chlorophyll a	µg/L		-	-	-	-	-	-	-	-
Major Ions										
Calcium (Total)	mg/L		11.20	12.00	5.41	6.59	4.16	4.09	4.49	4.39
Calcium (Dissolved)	mg/L		10.90	11.50	4.92	6.41	3.91	3.73	4.03	4.15
Chloride (Cl)	mg/L		78.00	82.40	69.10	87.20	55.50	53.90	59.30	57.30
Magnesium (Total)	mg/L		8.28	7.97	7.18	8.66	5.66	5.47	6.06	6.00
Magnesium (Dissolved)	mg/L		8.20	7.70	5.76	7.07	5.35	4.98	5.44	5.70
Potassium (Total)	mg/L		3.10	2.96	2.63	2.80	1.87	1.82	2.03	1.98
Potassium (Dissolved)	mg/L		2.85	2.79	2.41	2.70	1.70	1.63	1.73	1.79
Sodium (Total)	mg/L		37.70	37.10	36.90	45.00	28.30	28.50	31.00	31.30
Sodium (Dissolved)	mg/L		37.32	36.10	34.80	43.50	26.80	26.20	28.60	30.00
Sulphate (SO_4)	mg/L		<3	4	5	5	3	<3	6	3
Anions	meq/L		2.96	3.14	2.55	3.21	2.04	1.97	2.22	2.11
Cations	meq/L		2.98	3.01	2.66	3.34	1.93	1.89	2.18	2.03
Ion Balance	N/A		1.01	0.96	1.05	1.04	0.95	0.96	0.98	0.96
Total Metals										
Aluminum (Al)	µg/L	5, 100	**763**	**214**	36.2	58.2	99.4	93.7	75.9	78.8
Antimony (Sb)	µg/L		0.0233	0.0206	0.0281	0.0239	0.0156	0.0154	0.0160	0.0166
Arsenic (As)	µg/L	5	0.611	0.407	0.654	0.831	0.367	0.378	0.663	0.679
Barium (Ba)	µg/L		12.80	5.85	2.88	5.18	2.66	2.76	2.40	2.41
Beryllium (Be)	µg/L		0.0328	0.0055	<0.003	<0.003	<0.003	0.005	<0.003	0.004
Bismuth (Bi)	µg/L		<0.001	0.0026	0.003	0.002	0.005	0.004	0.005	0.007
Boron (B)	µg/L		30.4	26.5	28.8	33.8	22.2	21.4	22.2	24.0
Cadmium (Cd)	µg/L	0.003-0.055	0.003	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chromium (Cr)	µg/L	1, 16	**1.2**	0.5	0.413	0.336	0.292	0.256	0.365	0.416
Cobalt (Co)	µg/L		0.215	0.0743	0.069	0.206	0.050	0.044	0.057	0.061
Copper (Cu)	µg/L	2-4	1.6	1.1	**2.65**	1.77	1.49	**2.44**	1.64	1.83
Iron (Fe)	µg/L	300	**491**	165	48.5	**407**	91.2	104	88.1	96.6
Lead (Pb)	µg/L	1-7	0.23	0.10	0.098	0.049	0.069	0.087	0.160	0.761
Manganese (Mn)	µg/L		12.1	4.7	25.5	346.0	11.8	15.5	42.8	42.4
Mercury (Hg)	ng/L	26	<0.6	<0.6	-	-	1.8	<0.6	<0.6	6.6
Molybdenum (Mo)	µg/L	73	0.192	0.241	0.124	0.139	0.106	0.093	0.125	0.448
Nickel (Ni)	µg/L	25-150	0.956	0.437	0.691	0.352	0.387	0.309	0.419	0.990
Selenium (Se)	µg/L	1	**1.3**	0.7	**1.5**	**2.0**	0.6	0.6	**1.5**	**1.5**
Silver (Ag)	µg/L	0.1	<0.0005	0.002	0.0508	0.0038	0.0012	0.0009	<0.0005	0.0011
Strontium (Sr)	µg/L		76.7	76.9	39.1	49.5	29.7	29.3	32.3	32.0
Thallium (Tl)	µg/L	0.8000	<0.0003	0.0045	0.0007	0.0007	0.0215	0.0132	0.0116	0.0128
Tin (Sn)	µg/L		0.071	<0.03	6.59	3.43	7.32	4.97	2.16	5.62
Uranium (U)	µg/L		0.079	0.070	0.0434	0.0425	0.0442	0.0355	0.0447	0.0462
Vanadium (V)	µg/L		1.180	0.937	0.078	0.049	0.213	0.185	0.129	0.378
Zinc (Zn)	µg/L	3, 13-198	2.33	0.73	9.30	5.97	8.33	3.04	1.76	4.74
Dissolved Metals										
Aluminum (Al)	µg/L		119	19.9	8.0	4.9	9.6	8.5	3.3	3.6
Antimony (Sb)	µg/L		0.0231	0.0204	0.0272	0.0236	0.0153	0.0149	0.0160	0.0166
Arsenic (As)	µg/L		0.460	0.342	0.574	0.772	0.341	0.300	0.579	0.566
Barium (Ba)	µg/L		4.38	3.37	2.30	4.22	1.51	1.49	1.31	1.38
Beryllium (Be)	µg/L		0.005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Boron (B)	µg/L		30.1	25.2	27.1	32.3	20.7	18.7	19.9	22.6
Cadmium (Cd)	µg/L		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chromium (Cr)	µg/L		0.613	0.150	0.275	0.332	0.160	0.125	0.273	0.384
Cobalt (Co)	µg/L		0.0141	0.0069	0.0219	0.1340	0.0168	0.0110	0.0164	0.0183
Copper (Cu)	µg/L		1.2	0.9	2.10	1.77	1.21	1.81	1.22	1.43
Iron (Fe)	µg/L		65.7	<2.0	17.4	201	9.6	6.3	3.6	5.2
Lead (Pb)	µg/L		0.0318	0.0178	0.006	0.011	0.029	0.038	0.150	0.137
Manganese (Mn)	µg/L		0.329	0.137	8.970	285.000	0.221	0.195	0.264	0.252
Molybdenum (Mo)	µg/L		0.183	0.176	0.105	0.114	0.081	0.081	0.099	0.125
Nickel (Ni)	µg/L		0.521	0.289	0.277	0.285	0.081	0.055	0.094	0.166
Selenium (Se)	µg/L		0.8	0.7	1.5	2.0	0.5	0.5	0.8	0.8
Silver (Ag)	µg/L		<0.0005	0.0006	<0.0005	0.0016	<0.0005	<0.0005	<0.0005	<0.0005
Strontium (Sr)	µg/L		75	74	38.5	49.5	27.7	26.6	29.1	29.9
Uranium (U)	µg/L		0.056	0.057	0.0274	0.0241	0.0237	0.0207	0.0195	0.0229
Vanadium (V)	µg/L		0.29	0.51	0.077	0.041	0.062	0.054	0.012	<0.01
Zinc (Zn)	µg/L		1.3	0.7	6.75	5.88	1.51	2.78	1.71	4.68
Other										
Cyanide, Total	mg/L		<0.001	<0.001	0.001	0.001	<0.001	<0.001	0.001	0.001
Fluoride (F)	mg/L		0.07	0.06	0.05	0.06	0.04	0.05	0.03	0.03
Sulphide	mg/L		<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Pelvic Lake							
			9-Sep-06		23-May-07		16-Jul-07		16-Aug-07	
			Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom
Physical										
Alkalinity, Total ($CaCO_3$)	mg/L		22.1	22.1	29.1	33.7	20.0	30.3	22.3	22.5
Hardness, Total ($CaCO_3$)	mg/L		35.7	34.1	47.7	52.1	31.5	42.1	34.4	36.0
Conductivity	µS/cm		247	247	323	353	226	313	246	246
Field pH	units	6.5-9.0	8.2	-	7.7	-	6.9	-	6.7	-
TDS (Calculated)	mg/L		122	119	164	181	114	161	123	120
Total Suspended Solids	mg/L		7	7	11	5	2	9	6	6
Color, True	TCU		6	<1	10	25	8	49	8	8
Nutrients										
Phosphorus, Total	mg/L		0.062	0.059	0.062	0.042	0.027	0.128	0.042	0.044
Total Kjeldahl Nitrogen	mg/L		0.72	0.75	0.96	0.74	0.49	1.05	0.61	0.70
Ammonia-N	mg/L	0.2-122.4	0.007	0.008	0.012	0.38	0.007	0.52	0.006	0.035
Nitrite-N	mg/L	0.06	<0.001	<0.001	<0.001	0.016	<0.001	0.001	<0.001	<0.001
Nitrate-N (calculated)	mg/L	2.9	<0.005	0.010	<0.005	0.105	<0.005	0.006	<0.005	<0.005
Organics										
Carbon Part	mg/L		3.30	3.31	1.74	0.66	0.98	1.11	1.55	1.44
Dissolved Organic Carbon	mg/L		5.2	4.9	7.5	5.4	4.2	4.8	5.2	5.5
Chlorophyll a	µg/L		19.1	-	-	-	6.5	-	11.0	-
Major Ions										
Calcium (Total)	mg/L		4.51	4.42	5.94	6.27	4.02	5.45	4.41	4.47
Calcium (Dissolved)	mg/L		4.23	4.13	5.67	6.19	3.93	5.29	4.29	4.10
Chloride (Cl)	mg/L		59.10	58.60	80.70	87.00	59.30	81.40	59.70	58.80
Magnesium (Total)	mg/L		5.94	5.60	8.28	8.55	5.39	6.90	5.71	5.60
Magnesium (Dissolved)	mg/L		5.51	5.15	7.89	8.52	5.37	6.67	5.56	5.33
Potassium (Total)	mg/L		2.04	1.96	2.74	2.82	1.87	2.38	1.99	1.97
Potassium (Dissolved)	mg/L		1.82	1.73	2.56	2.76	1.74	2.28	1.83	1.75
Sodium (Total)	mg/L		30.90	29.40	44.30	45.80	27.80	35.00	28.20	27.70
Sodium (Dissolved)	mg/L		29.10	27.00	42.30	45.80	27.70	34.65	27.92	26.90
Sulphate (SO_4)	mg/L		7	5	4	4	<3	5	3	3
Anions	meq/L		2.26	2.20	2.94	3.21	2.12	3.01	2.20	2.17
Cations	meq/L		2.06	2.03	3.02	3.35	1.97	2.70	2.22	2.19
Ion Balance	N/A		0.91	0.93	1.03	1.04	0.93	0.90	1.01	1.01
Total Metals										
Aluminum (Al)	µg/L	5, 100	**103**	**133**	26.8	60.8	**186**	**111**	**201**	**178**
Antimony (Sb)	µg/L		0.0167	0.0423	0.0225	0.0202	0.0165	0.0183	0.0156	0.0191
Arsenic (As)	µg/L	5	0.742	0.681	0.802	1.300	0.529	1.190	0.534	0.536
Barium (Ba)	µg/L		2.67	3.28	2.57	9.07	4.15	5.14	4.04	4.16
Beryllium (Be)	µg/L		<0.003	0.003	<0.003	0.0033	<0.003	0.0030	0.0034	0.0035
Bismuth (Bi)	µg/L		<0.001	0.002	0.0014	0.0020	0.0023	0.0023	0.0041	0.0049
Boron (B)	µg/L		25.6	24.9	30.6	30.7	21.6	26.4	22.3	19.6
Cadmium (Cd)	µg/L	0.003-0.055	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.006
Chromium (Cr)	µg/L	1, 16	0.351	0.408	0.3	0.2	0.6	0.3	0.4	0.5
Cobalt (Co)	µg/L		0.067	0.074	0.0393	0.449	0.0806	0.331	0.0811	0.128
Copper (Cu)	µg/L	2-4	1.64	**2.27**	1.8	1.6	1.4	1.3	1.9	**3.0**
Iron (Fe)	µg/L	300	137	158	19.3	**1100**	229	**2760**	291	**429**
Lead (Pb)	µg/L	1-7	0.068	0.241	0.02	0.05	0.08	0.06	0.07	0.11
Manganese (Mn)	µg/L		26.4	26.7	10.5	1160.0	92.8	642.0	73.6	120.0
Mercury (Hg)	ng/L	26	3.6	3.2	<0.6	0.8	1.0	1.6	<0.6	2.2
Molybdenum (Mo)	µg/L	73	0.166	0.182	0.154	0.288	0.13	0.192	0.167	0.164
Nickel (Ni)	µg/L	25-150	0.456	0.502	0.436	0.213	0.485	0.385	0.496	0.526
Selenium (Se)	µg/L	1	**1.9**	**1.6**	**2.1**	**2.0**	**1.1**	**1.1**	0.8	0.6
Silver (Ag)	µg/L	0.1	0.0007	0.0014	0.002	0.003	0.002	0.001	<0.0005	<0.0005
Strontium (Sr)	µg/L		32.8	33.1	43.9	47.9	29.9	41.6	32.4	32.6
Thallium (Tl)	µg/L	0.8000	0.0144	0.0133	<0.0003	<0.0003	0.0071	0.0059	0.0056	0.0056
Tin (Sn)	µg/L		3.77	5.96	1.620	0.674	2.570	1.060	1.150	2.230
Uranium (U)	µg/L		0.0406	0.0429	0.037	0.033	0.038	0.040	0.030	0.039
Vanadium (V)	µg/L		0.139	0.156	0.056	0.116	0.208	0.346	0.288	0.476
Zinc (Zn)	µg/L	3, 13-198	1.05	2.53	2.04	0.98	2.58	3.73	0.79	3.66
Dissolved Metals										
Aluminum (Al)	µg/L		4.1	4.5	1.5	3.9	12.6	9.0	17.4	12.8
Antimony (Sb)	µg/L		0.0167	0.0423	0.0223	0.02	0.0163	0.0181	0.0154	0.0189
Arsenic (As)	µg/L		0.680	0.541	0.667	0.905	0.509	1.040	0.498	0.399
Barium (Ba)	µg/L		1.33	1.50	2.31	4.92	1.80	2.81	1.44	1.36
Beryllium (Be)	µg/L		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Boron (B)	µg/L		23.1	22.8	28.5	30.3	21.4	26.1	19.4	19.0
Cadmium (Cd)	µg/L		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chromium (Cr)	µg/L		0.347	0.264	0.332	0.244	0.228	0.306	0.164	0.169
Cobalt (Co)	µg/L		0.0124	0.0137	0.0197	0.1740	0.0116	0.1580	0.0048	0.0026
Copper (Cu)	µg/L		1.35	1.66	1.6	1.4	1.2	1.0	1.5	2.9
Iron (Fe)	µg/L		2.7	<2.0	3.1	515	41.7	1670	59.3	45.8
Lead (Pb)	µg/L		0.031	0.031	0.0048	0.0121	0.0178	0.0248	0.0054	0.0131
Manganese (Mn)	µg/L		0.127	0.141	4.340	761	11.600	423	0.595	0.227
Molybdenum (Mo)	µg/L		0.163	0.151	0.134	0.232	0.121	0.154	0.154	0.144
Nickel (Ni)	µg/L		0.097	0.073	0.064	0.140	0.177	0.200	0.123	0.142
Selenium (Se)	µg/L		0.9	0.8	1.7	1.6	1.1	1.1	0.8	0.6
Silver (Ag)	µg/L		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Strontium (Sr)	µg/L		32.3	30.4	44	47	30	41	32	31
Uranium (U)	µg/L		0.0150	0.0180	0.024	0.022	0.026	0.026	0.017	0.017
Vanadium (V)	µg/L		0.049	<0.01	0.02	0.06	<0.01	0.13	0.02	0.04
Zinc (Zn)	µg/L		1.05	1.49	2.0	1.0	2.0	2.7	0.7	1.6
Other										
Cyanide, Total	mg/L		0.001	0.001	0.002	0.001	<0.001	<0.001	<0.001	<0.001
Fluoride (F)	mg/L		0.05	0.05	0.06	0.06	0.13	0.09	0.04	0.04
Sulphide	mg/L		0.001	0.001	<0.001	0.051	<0.001	<0.001	<0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Pelvic Lake		Pelvic Outflow						
			13-Sep-07		19-Jun-06	21-Jul-06	16-Aug-06	22-Jun-07	19-Jul-07	18-Aug-07	16-Sep-07
			Top	Bottom							
Physical											
Alkalinity, Total ($CaCO_3$)	mg/L		21.8	21.7	20.7	19.9	21.4	20.3	21.0	22.5	21.7
Hardness, Total ($CaCO_3$)	mg/L		35.0	35.2	30.4	33.1	35.2	32.3	33.0	35.4	36.4
Conductivity	µS/cm		233	235	207	233	249	223	235	251	233
Field pH	units	6.5-9.0	-	-	6.6	8.8	7.9	6.5	7.5	7.0	6.7
TDS (Calculated)	mg/L		116	119	107	109	121	108	119	126	119
Total Suspended Solids	mg/L		8	7	5	7	9	3	3	8	9
Color, True	TCU		13	13	16	8	10	32	12	6	18
Nutrients											
Phosphorus, Total	mg/L		0.042	0.040	0.035	0.053	0.069	0.032	0.039	0.041	0.047
Total Kjeldahl Nitrogen	mg/L		0.67	0.68	0.60	0.71	0.88	0.53	0.52	0.61	0.75
Ammonia-N	mg/L	0.2-122.4	0.009	0.009	0.011	0.009	0.011	0.009	0.01	0.009	0.008
Nitrite-N	mg/L	0.06	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001
Nitrate-N (calculated)	mg/L	2.9	<0.005	<0.005	<0.005	<0.005	<0.005	0.033	<0.005	<0.005	<0.005
Organics											
Carbon Part	mg/L		1.99	2.45	1.31	2.22	2.11	0.70	1.20	1.61	2.76
Dissolved Organic Carbon	mg/L		6.5	5.9	5.2	4.7	4.8	6.3	3.9	5.9	5.2
Chlorophyll a	µg/L		14.4	-	-	-	-	-	-	-	-
Major Ions											
Calcium (Total)	mg/L		4.54	4.50	4.16	4.27	4.46	4.24	4.24	4.49	4.48
Calcium (Dissolved)	mg/L		4.14	4.26	3.82	3.90	4.16	4.19	4.03	4.32	4.24
Chloride (Cl)	mg/L		58.40	58.40	52.50	54.00	59.80	53.70	61.40	61.20	58.90
Magnesium (Total)	mg/L		6.44	6.45	4.81	5.75	6.02	5.53	5.46	6.18	5.62
Magnesium (Dissolved)	mg/L		5.96	6.17	4.53	5.34	5.65	5.37	5.09	6.05	5.34
Potassium (Total)	mg/L		2.10	2.09	1.84	1.95	2.02	2.05	1.93	2.13	2.05
Potassium (Dissolved)	mg/L		1.80	1.87	1.67	1.73	1.81	1.98	1.78	1.91	1.83
Sodium (Total)	mg/L		29.80	29.70	25.60	29.00	32.10	28.00	29.10	30.80	28.80
Sodium (Dissolved)	mg/L		27.80	29.00	23.50	27.20	30.20	26.90	27.60	30.49	27.60
Sulphate (SO_4)	mg/L		3	5	4	4	5		<3	5	4
Anions	meq/L		2.16	2.19	1.98	2.00	2.21	1.97	2.20	2.27	2.19
Cations	meq/L		2.00	2.07	1.85	1.93	2.10	1.94	2.06	2.25	2.08
Ion Balance	N/A		0.93	0.95	0.93	0.96	0.95	0.98	0.94	0.99	0.95
Total Metals											
Aluminum (Al)	µg/L	5, 100	**258**	**262**	**119**	**135**	**143**	80.4	**128**	**380**	**220**
Antimony (Sb)	µg/L		0.0232	0.0186	0.0138	0.0139	0.0158	0.0162	0.0119	0.0170	0.0171
Arsenic (As)	µg/L	5	0.540	0.541	0.406	0.433	0.764	0.529	0.519	0.692	0.498
Barium (Ba)	µg/L		4.70	4.65	3.45	3.23	3.16	3.68	3.33	6.29	4.48
Beryllium (Be)	µg/L		0.0066	0.0068	<0.003	<0.003	0.003	0.0050	0.0115	0.0098	0.0083
Bismuth (Bi)	µg/L		0.0134	0.0024	0.007	0.002	0.018	<0.001	<0.001	0.0112	0.0058
Boron (B)	µg/L		23.3	25.1	22.5	23.2	23.7	23.5	21.7	26.5	23.1
Cadmium (Cd)	µg/L	0.003-0.055	0.005	0.007	<0.002	0.005	<0.002	0.003	0.002	0.005	0.008
Chromium (Cr)	µg/L	1, 16	0.5	0.5	0.453	0.351	0.496	0.3	0.3	0.7	0.4
Cobalt (Co)	µg/L		0.0862	0.0797	0.082	0.064	0.091	0.131	0.0783	0.129	0.0825
Copper (Cu)	µg/L	2-4	1.8	1.4	1.55	1.43	1.58	1.5	1.2	1.5	1.4
Iron (Fe)	µg/L	300	233	230	149	134	178	176	233	**421**	218
Lead (Pb)	µg/L	1-7	0.21	0.11	0.045	0.098	0.173	0.02	0.04	0.13	0.16
Manganese (Mn)	µg/L		17.3	17.6	55.1	20.9	39.9	160.0	84.3	48.2	17.9
Mercury (Hg)	ng/L	26	<0.6	<0.6	<0.6	<0.6	<0.6	1.8	1.8	1.4	<0.6
Molybdenum (Mo)	µg/L	73	0.2	0.225	0.110	0.113	0.284	0.129	0.122	0.207	0.183
Nickel (Ni)	µg/L	25-150	0.627	0.570	0.706	0.403	0.524	0.529	0.419	0.619	0.573
Selenium (Se)	µg/L	1	0.5	0.5	0.9	0.7	**1.6**	**1.3**	**1.1**	1.0	0.5
Silver (Ag)	µg/L	0.1	0.007	0.004	0.0015	<0.0005	0.0018	<0.0005	0.010	<0.0005	0.006
Strontium (Sr)	µg/L		33.4	33.2	32.0	30.8	33.1	32.1	31.1	33.9	32.4
Thallium (Tl)	µg/L	0.8000	0.0053	0.0040	0.0064	0.0253	0.0138	0.0013	<0.0003	0.0066	0.0041
Tin (Sn)	µg/L		0.654	0.756	<0.03	0.14	0.08	<0.03	<0.03	<0.03	<0.03
Uranium (U)	µg/L		0.052	0.050	0.0339	0.0432	0.0510	0.033	0.033	0.053	0.052
Vanadium (V)	µg/L		0.371	0.348	0.190	0.287	0.303	0.106	0.221	0.676	0.803
Zinc (Zn)	µg/L	3, 13-198	1.88	0.90	4.41	0.67	2.02	0.65	1.38	2.05	1.93
Dissolved Metals											
Aluminum (Al)	µg/L		30.0	30.7	15.8	5.8	4.7	21.0	4.3	12.5	25.9
Antimony (Sb)	µg/L		0.023	0.0184	0.0134	0.0139	0.0158	0.016	0.0118	0.0168	0.0169
Arsenic (As)	µg/L		0.402	0.440	0.358	0.363	0.566	0.463	0.417	0.458	0.427
Barium (Ba)	µg/L		1.70	1.68	2.00	1.41	1.41	2.51	1.47	1.32	1.63
Beryllium (Be)	µg/L		<0.003	<0.003	<0.003	<0.003	<0.003	0.005	<0.003	<0.003	<0.003
Boron (B)	µg/L		20.4	22.0	21.7	21.4	21.6	22.4	20.1	22.9	21.0
Cadmium (Cd)	µg/L		<0.002	<0.002	<0.002	<0.002	<0.002	0.003	<0.002	<0.002	0.004
Chromium (Cr)	µg/L		0.211	0.168	0.252	0.207	0.438	0.289	0.191	0.124	0.160
Cobalt (Co)	µg/L		0.0163	0.0138	0.0219	0.0143	0.0135	0.0331	0.0153	0.0020	0.0157
Copper (Cu)	µg/L		1.5	1.2	1.35	1.14	1.22	1.4	0.9	1.1	1.1
Iron (Fe)	µg/L		29.1	28.6	21.2	4.2	5.0	58.2	11.6	30.9	23.7
Lead (Pb)	µg/L		0.0691	0.1060	0.016	0.033	0.118	<0.001	<0.001	0.0034	0.0205
Manganese (Mn)	µg/L		0.269	0.248	33.900	0.228	0.226	83.800	1.020	<0.003	0.281
Molybdenum (Mo)	µg/L		0.167	0.156	0.081	0.105	0.144	0.108	0.115	0.191	0.175
Nickel (Ni)	µg/L		0.095	0.095	0.258	0.036	0.094	0.410	0.137	0.123	0.111
Selenium (Se)	µg/L		0.3	0.4	0.9	0.5	0.8	1.1	0.7	0.7	0.4
Silver (Ag)	µg/L		0.0065	0.0027	0.0006	<0.0005	<0.0005	<0.0005	0.0100	<0.0005	0.0054
Strontium (Sr)	µg/L		30	32	30.1	27.8	30.4	32	31	33	31
Uranium (U)	µg/L		0.032	0.033	0.0208	0.0257	0.0212	0.028	0.018	0.021	0.034
Vanadium (V)	µg/L		0.05	0.02	0.018	0.094	0.079	<0.01	0.01	0.05	0.46
Zinc (Zn)	µg/L		1.9	0.5	4.37	0.67	0.61	0.6	0.8	1.6	1.2
Other											
Cyanide, Total	mg/L		<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001
Fluoride (F)	mg/L		0.05	0.05	0.05	0.05	0.04	0.11	0.16	0.04	0.05
Sulphide	mg/L		<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	P.O. Lake						P.O. Outflow		
			23-Jul-06	15-Aug-06	8-Sep-06	17-Jul-07	15-Aug-07	11-Sep-07	19-Jun-06	24-Jul-06	15-Aug-06
Physical											
Alkalinity, Total ($CaCO_3$)	mg/L		30.1	32.0	33.8	32.0	34.2	34.6	17.8	28.3	31.3
Hardness, Total ($CaCO_3$)	mg/L		51.2	55.9	56.3	51.9	57.4	55.0	24.3	50.6	54.1
Conductivity	µS/cm		306	329	350	322	356	346	159	300	328
Field pH	units	6.5-9.0	7.4	8.3	8.3	7.4	7.0	7.1	6.6	7.1	8.2
TDS (Calculated)	mg/L		147	161	168	154	177	171	84.0	144	159
Total Suspended Solids	mg/L		<1	1	<1	<1	3	4	<1	1	<1
Color, True	TCU		<1	7	<1	8	4	13	51	11	10
Nutrients											
Phosphorus, Total	mg/L		0.008	0.020	0.019	0.010	0.014	0.188	0.008	0.010	0.021
Total Kjeldahl Nitrogen	mg/L		0.19	0.35	0.20	0.27	0.21	0.27	0.46	0.26	0.25
Ammonia-N	mg/L	0.2-122.4	0.005	0.011	0.007	0.016	0.009	0.014	0.087	0.006	0.008
Nitrite-N	mg/L	0.06	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
Nitrate-N (calculated)	mg/L	2.9	0.014	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Organics											
Carbon Part	mg/L		0.17	0.12	0.12	0.20	0.19	0.34	0.27	0.08	0.18
Dissolved Organic Carbon	mg/L		3.4	3.7	3.4	3.4	3.9	4.4	8.4	4.0	4.1
Chlorophyll a	µg/L		-	-	1.3	1.2	1.3	2.5	-	-	-
Major Ions											
Calcium (Total)	mg/L		8.69	9.57	9.55	9.08	9.51	10.10	3.56	8.37	9.32
Calcium (Dissolved)	mg/L		7.78	8.82	9.03	8.57	9.48	9.87	3.40	7.01	8.73
Chloride (Cl)	mg/L		72.20	78.00	82.40	75.00	85.70	84.90	38.20	71.40	78.30
Magnesium (Total)	mg/L		7.12	8.23	7.88	7.71	8.34	8.63	3.72	7.65	8.35
Magnesium (Dissolved)	mg/L		6.45	7.67	7.58	7.21	8.32	8.57	3.62	6.26	7.83
Potassium (Total)	mg/L		2.63	2.87	2.76	2.93	3.08	3.20	1.33	2.56	2.67
Potassium (Dissolved)	mg/L		2.35	2.64	2.56	2.80	2.94	2.97	1.26	2.09	2.50
Sodium (Total)	mg/L		35.40	42.50	41.10	39.30	41.40	41.10	18.90	39.20	42.40
Sodium (Dissolved)	mg/L		32.40	39.60	40.30	37.80	40.99	40.69	17.10	32.20	40.00
Sulphate (SO_4)	mg/L		<3	4	5	<3	4	<3	7	<3	3
Anions	meq/L		2.68	2.93	3.10	2.81	3.18	3.13	1.58	2.62	2.91
Cations	meq/L		2.66	2.89	2.96	2.79	3.23	3.04	1.38	2.60	2.83
Ion Balance	N/A		0.99	0.98	0.96	0.99	1.02	0.97	0.87	0.99	0.97
Total Metals											
Aluminum (Al)	µg/L	5, 100	**106**	**115**	**176**	**121**	**369**	**527**	**192**	**115**	79.7
Antimony (Sb)	µg/L		0.0154	0.0268	0.0202	0.0133	0.0225	0.0228	0.0090	0.0142	0.0187
Arsenic (As)	µg/L	5	0.419	0.599	0.705	0.589	0.591	0.518	0.338	0.407	0.744
Barium (Ba)	µg/L		2.89	3.07	3.54	3.57	7.10	9.75	4.44	3.01	2.77
Beryllium (Be)	µg/L		<0.003	0.003	0.006	0.0055	0.0101	0.0235	0.006	0.005	<0.003
Bismuth (Bi)	µg/L		0.002	0.002	0.001	0.0011	0.0031	<0.001	0.002	0.011	<0.001
Boron (B)	µg/L		22.3	27.6	31.8	23.7	29	32.4	13.2	29.1	26.1
Cadmium (Cd)	µg/L	0.003-0.055	0.004	<0.002	0.003	<0.002	<0.002	<0.002	0.003	<0.002	0.002
Chromium (Cr)	µg/L	1, 16	0.444	0.358	0.5	0.3	0.7	1.0	0.395	0.222	0.353
Cobalt (Co)	µg/L		0.035	0.046	0.073	0.0631	0.108	0.12	0.071	0.045	0.066
Copper (Cu)	µg/L	2-4	1.10	1.36	1.09	0.8	1.4	2.0	1.95	1.03	1.31
Iron (Fe)	µg/L	300	94.2	104	176	195	285	**314**	258	168	221
Lead (Pb)	µg/L	1-7	0.082	0.183	0.106	0.07	0.13	0.21	0.095	0.068	0.162
Manganese (Mn)	µg/L		4.8	12.8	13.4	41.7	11.0	7.6	3.0	10.4	15.4
Mercury (Hg)	ng/L	26	1.2	20	15	3.4	0.8	1.8	<0.6	<0.6	<0.6
Molybdenum (Mo)	µg/L	73	0.198	0.268	0.305	0.142	0.249	0.802	0.139	0.205	0.374
Nickel (Ni)	µg/L	25-150	0.322	0.377	0.422	0.465	0.594	0.801	1.280	0.311	0.760
Selenium (Se)	µg/L	1	0.8	**1.5**	**2.2**	**1.3**	**1.3**	**1.2**	0.5	0.7	**2.0**
Silver (Ag)	µg/L	0.1	0.0023	<0.0005	0.0014	0.003	<0.0005	0.004	0.0013	0.0018	<0.0005
Strontium (Sr)	µg/L		56.7	61.9	63.1	57.4	64.1	66.3	21.9	53.2	59.8
Thallium (Tl)	µg/L	0.8000	0.0097	0.0085	0.0124	0.0059	0.0053	0.0053	0.0052	0.0141	0.0061
Tin (Sn)	µg/L		0.45	2.32	0.15	2.590	2.060	1.040	<0.03	<0.03	0.14
Uranium (U)	µg/L		0.0727	0.0843	0.0806	0.046	0.049	0.069	0.0283	0.0617	0.0779
Vanadium (V)	µg/L		0.260	0.225	0.331	0.164	0.632	0.793	0.183	0.171	0.400
Zinc (Zn)	µg/L	3, 13-198	2.30	4.29	1.35	5.89	2.28	1.41	11.30	0.90	2.74
Dissolved Metals											
Aluminum (Al)	µg/L		17.3	18.3	8.5	7.5	21.9	95.5	66.7	20.2	18.4
Antimony (Sb)	µg/L		0.0149	0.0268	0.0202	0.0132	0.0223	0.0226	0.0089	0.0136	0.0187
Arsenic (As)	µg/L		0.346	0.523	0.552	0.491	0.439	0.424	0.319	0.297	0.630
Barium (Ba)	µg/L		1.65	1.68	1.55	2.14	2.75	3.72	3.11	1.65	1.82
Beryllium (Be)	µg/L		<0.003	<0.003	<0.003	<0.003	<0.003	0.005	<0.003	<0.003	<0.003
Boron (B)	µg/L		19.5	24.9	28.2	22.0	28.6	30.4	12.9	21.7	24.3
Cadmium (Cd)	µg/L		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.002
Chromium (Cr)	µg/L		0.294	0.234	0.360	0.094	0.145	0.480	0.387	0.169	0.242
Cobalt (Co)	µg/L		0.0031	0.0088	0.0043	0.0064	<0.001	0.0247	0.0512	0.0122	0.0155
Copper (Cu)	µg/L		0.81	0.99	0.89	0.7	0.8	1.3	1.92	0.77	0.84
Iron (Fe)	µg/L		7.9	5.7	2.3	36.0	9.6	48.4	149	52.0	55.8
Lead (Pb)	µg/L		0.040	0.142	0.030	0.0143	0.0051	0.0645	0.094	0.042	0.130
Manganese (Mn)	µg/L		0.182	0.235	0.128	0.545	<0.003	0.503	2.230	0.626	0.350
Molybdenum (Mo)	µg/L		0.175	0.249	0.274	0.136	0.233	0.243	0.139	0.202	0.227
Nickel (Ni)	µg/L		0.143	0.229	0.225	0.321	0.313	0.438	1.090	0.273	0.300
Selenium (Se)	µg/L		0.7	1.2	1.0	1.2	0.8	0.9	0.5	0.6	1.2
Silver (Ag)	µg/L		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0006	0.0011	<0.0005	<0.0005
Strontium (Sr)	µg/L		50.2	56.6	59.5	55	62	63	21.0	44.1	58.0
Uranium (U)	µg/L		0.0289	0.0451	0.0405	0.037	0.032	0.048	0.0216	0.0190	0.0443
Vanadium (V)	µg/L		0.111	0.056	0.090	<0.01	0.02	0.22	0.103	0.084	<0.01
Zinc (Zn)	µg/L		0.49	0.86	1.12	4.5	1.5	0.7	11.10	0.90	0.82
Other											
Cyanide, Total	mg/L		<0.001	0.002	0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.002
Fluoride (F)	mg/L		0.05	0.05	0.06	0.15	0.05	0.06	0.06	0.05	0.05
Sulphide	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG			P.O. Outflow			Windy Lake			
			9-Sep-06	22-Jun-07	19-Jul-07	12-Aug-07	17-Sep-07	2-Jun-06		24-Jul-06	
								Top	Bottom	Top	Bottom
Physical											
Alkalinity, Total ($CaCO_3$)	mg/L		33.2	16.7	32.5	33.5	30.3	55.8	57.2	48.4	48.4
Hardness, Total ($CaCO_3$)	mg/L		57.2	23.4	53.1	56.3	52.3	76.0	77.4	69.2	67.9
Conductivity	µS/cm		349	140	321	327	312	484	503	433	434
Field pH	units	6.5-9.0	7.7	**5.6**	7.3	7.2	6.8	6.7	-	6.9	-
TDS (Calculated)	mg/L		167	66.1	164	169	156	245	250	210	210
Total Suspended Solids	mg/L		7	3	1	4	2	<1	<1	1	<1
Color, True	TCU		5	73	9	5	28	<1	<1	11	<1
Nutrients											
Phosphorus, Total	mg/L		0.028	0.029	0.010	0.014	0.012	0.006	0.011	0.008	0.007
Total Kjeldahl Nitrogen	mg/L		0.24	0.50	0.27	0.23	0.30	0.09	0.10	0.16	0.11
Ammonia-N	mg/L	0.2-122.4	0.003	0.022	0.015	0.006	0.01	0.022	0.018	0.025	0.004
Nitrite-N	mg/L	0.06	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Nitrate-N (calculated)	mg/L	2.9	<0.005	0.026	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Organics											
Carbon Part	mg/L		0.14	0.70	0.15	0.27	0.41	0.04	0.05	<0.02	0.03
Dissolved Organic Carbon	mg/L		4.1	9.5	3.3	3.1	5.8	1.9	1.9	3.6	1.4
Chlorophyll a	µg/L		-	-	-	-	-	-	-	-	-
Major Ions											
Calcium (Total)	mg/L		9.51	4.18	9.06	9.61	8.38	13.40	13.50	11.60	11.50
Calcium (Dissolved)	mg/L		9.51	3.98	8.90	9.47	8.11	12.80	12.90	10.70	10.30
Chloride (Cl)	mg/L		82.30	30.50	84.30	82.40	79.10	109.00	115.00	95.30	95.20
Magnesium (Total)	mg/L		8.61	3.77	7.18	8.29	7.18	13.00	12.60	10.60	9.80
Magnesium (Dissolved)	mg/L		8.56	3.60	6.97	8.18	6.95	12.20	11.90	9.92	8.78
Potassium (Total)	mg/L		2.66	2.39	2.81	3.10	2.71	4.42	4.44	4.02	3.88
Potassium (Dissolved)	mg/L		2.66	2.26	2.71	2.96	2.53	4.23	4.24	7.70	3.45
Sodium (Total)	mg/L		42.70	16.20	37.50	42.00	36.30	64.30	63.10	61.10	55.50
Sodium (Dissolved)	mg/L		42.70	15.80	36.10	41.58	35.50	60.90	61.10	57.50	50.00
Sulphate (SO_4)	mg/L		5	<3	<3	<3	3	10	10	6	7
Anions	meq/L		3.09	1.24	3.08	3.04	2.91	4.39	4.61	3.78	3.79
Cations	meq/L		2.92	1.17	2.83	3.10	2.73	4.47	4.37	3.86	3.83
Ion Balance	N/A		0.95	0.94	0.92	1.02	0.94	1.02	0.95	1.02	1.01
Total Metals											
Aluminum (Al)	µg/L	5, 100	**113**	**275**	**106**	**318**	**321**	5.64	9.19	62.0	61.4
Antimony (Sb)	µg/L		0.0172	0.0118	0.0129	0.0246	0.0211	0.0691	0.0693	0.0564	0.0603
Arsenic (As)	µg/L	5	0.624	0.388	0.523	0.581	0.406	0.572	0.596	0.451	0.493
Barium (Ba)	µg/L		3.09	5.58	3.40	6.67	7.28	2.35	2.40	2.39	2.61
Beryllium (Be)	µg/L		0.005	0.0123	0.0034	0.0060	0.0036	<0.003	<0.003	0.005	<0.003
Bismuth (Bi)	µg/L		0.012	<0.001	<0.001	0.0130	0.0041	0.004	0.002	0.004	0.001
Boron (B)	µg/L		25.2	15.3	24.5	27.4	25.1	56.3	53.0	57.5	46.5
Cadmium (Cd)	µg/L	0.003-0.055	0.003	0.007	<0.002	0.003	0.010	<0.002	<0.002	<0.002	<0.002
Chromium (Cr)	µg/L	1, 16	0.343	0.7	0.3	0.6	0.6	0.351	0.26	0.227	0.471
Cobalt (Co)	µg/L		0.046	0.22	0.0575	0.15	0.0957	0.004	0.005	0.023	0.023
Copper (Cu)	µg/L	2-4	0.93	1.5	0.7	0.9	1.8	0.92	0.97	1.23	0.92
Iron (Fe)	µg/L	300	177	**346**	196	**479**	251	<2.0	<2.0	44.4	52.2
Lead (Pb)	µg/L	1-7	0.071	0.09	0.04	0.19	0.32	0.036	0.004	0.075	0.067
Manganese (Mn)	µg/L		9.1	92.9	31.0	26.8	6.0	0.6	0.7	2.0	2.1
Mercury (Hg)	ng/L	26	5.2	3.9	<0.6	<0.6	<0.6			<0.6	6.7
Molybdenum (Mo)	µg/L	73	0.256	0.164	0.137	0.26	0.214	0.802	0.796	0.645	0.670
Nickel (Ni)	µg/L	25-150	0.395	1.210	0.412	0.631	1.080	0.062	0.088	0.041	0.182
Selenium (Se)	µg/L	1	**1.8**	0.8	**1.1**	**1.2**	0.7	**1.7**	**1.6**	**1.1**	**1.3**
Silver (Ag)	µg/L	0.1	0.0014	<0.0005	0.050	<0.0005	0.003	0.0012	0.0012	0.0013	0.0019
Strontium (Sr)	µg/L		60.4	25.8	57.5	62.7	53.1	69.0	69.3	57.7	58.4
Thallium (Tl)	µg/L	0.8000	0.0146	0.0016	<0.0003	0.0066	0.0043	0.0036	0.0014	0.0100	0.0085
Tin (Sn)	µg/L		0.04	<0.03	0.065	<0.03	<0.03	2.51	0.86	1.32	1.91
Uranium (U)	µg/L		0.0685	0.041	0.044	0.047	0.053	0.2400	0.2930	0.2210	0.2420
Vanadium (V)	µg/L		0.208	0.467	0.232	0.584	1.020	0.023	0.046	0.102	0.172
Zinc (Zn)	µg/L	3, 13-198	0.95	4.67	2.95	6.63	2.64	13.20	1.66	1.09	1.68
Dissolved Metals											
Aluminum (Al)	µg/L		9.4	45.8	7.1	10.4	72.2	1.2	1.1	3.4	3.0
Antimony (Sb)	µg/L		0.0172	0.0117	0.0128	0.0244	0.0209	0.0683	0.0693	0.0564	0.0603
Arsenic (As)	µg/L		0.460	0.325	0.428	0.370	0.360	0.571	0.585	0.398	0.417
Barium (Ba)	µg/L		2.11	2.40	2.24	2.63	3.63	2.19	2.20	1.69	1.76
Beryllium (Be)	µg/L		<0.003	0.008	0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Boron (B)	µg/L		25.2	14.5	22.7	26.8	24.3	52.3	51.7	53.7	39.4
Cadmium (Cd)	µg/L		0.003	0.003	<0.002	<0.002	0.004	<0.002	<0.002	0.014	0.008
Chromium (Cr)	µg/L		0.301	0.352	0.218	0.130	0.300	0.344	0.253	0.227	0.469
Cobalt (Co)	µg/L		0.0103	0.0360	0.0111	0.0033	0.0264	<0.001	0.0028	0.0028	<0.001
Copper (Cu)	µg/L		0.92	1.3	0.5	0.6	1.1	0.74	0.69	0.66	0.64
Iron (Fe)	µg/L		10.4	100	23.1	10.1	63.7	<2.0	<2.0	<2.0	<2.0
Lead (Pb)	µg/L		0.034	0.0124	<0.001	0.0069	0.0523	<0.001	<0.001	0.036	0.039
Manganese (Mn)	µg/L		0.200	10.800	0.238	0.067	1.300	0.023	0.022	0.173	0.150
Molybdenum (Mo)	µg/L		0.251	0.130	0.134	0.240	0.209	0.774	0.795	0.609	0.594
Nickel (Ni)	µg/L		0.329	0.900	0.285	0.301	0.643	0.062	0.074	0.041	<0.005
Selenium (Se)	µg/L		1.3	0.6	0.9	0.7	0.6	1.7	1.6	1.0	1.0
Silver (Ag)	µg/L		<0.0005	<0.0005	0.0500	<0.0005	<0.0005	0.0009	<0.0005	0.0006	<0.0005
Strontium (Sr)	µg/L		60.2	25	57	61	51	66.8	67.0	52.8	51.5
Uranium (U)	µg/L		0.0388	0.034	0.029	0.031	0.039	0.0409	0.0382	0.0441	0.0395
Vanadium (V)	µg/L		0.092	0.12	<0.01	0.04	0.61	0.022	0.043	0.049	0.107
Zinc (Zn)	µg/L		0.95	4.6	1.8	3.4	2.6	13.10	1.61	1.04	1.32
Other											
Cyanide, Total	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.001	<0.001	<0.001
Fluoride (F)	mg/L		0.06	0.08	0.18	0.07	0.06	0.08	0.10	0.07	0.07
Sulphide	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Windy Lake							
			18-Aug-06		9-Sep-06		24-May-07		18-Jul-07	
			Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom
Physical										
Alkalinity, Total ($CaCO_3$)	mg/L		48.7	48.7	49.3	49.0	57.9	57.8	23.2	57.5
Hardness, Total ($CaCO_3$)	mg/L		68.7	68.6	70.0	69.4	80.7	80.7	53.5	78.7
Conductivity	µS/cm		428	428	438	439	481	480	153	508
Field pH	units	6.5-9.0	8.2	-	8.1	-	7.5	-	7.3	-
TDS (Calculated)	mg/L		211	210	215	209	259	253	88.9	254
Total Suspended Solids	mg/L		1	<1	<1	<1	<1	<1	<1	<1
Color, True	TCU		<1	<1	<1	<1	<5	<5	<5	<5
Nutrients										
Phosphorus, Total	mg/L		0.015	0.018	0.019	0.022	0.004	0.003	0.005	0.004
Total Kjeldahl Nitrogen	mg/L		0.11	0.11	0.12	0.09	0.12	0.10	0.07	0.10
Ammonia-N	mg/L	0.2-122.4	0.006	0.006	0.003	0.003	0.009	0.004	0.014	0.013
Nitrite-N	mg/L	0.06	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
Nitrate-N (calculated)	mg/L	2.9	<0.005	<0.005	<0.005	<0.005	<0.005	0.015	<0.005	<0.005
Organics										
Carbon Part	mg/L		0.18	0.12	0.10	0.05	0.09	0.05	0.03	0.05
Dissolved Organic Carbon	mg/L		1.8	1.7	1.8	1.7	1.4	1.4	1.2	1.4
Chlorophyll a	µg/L		-	-	0.9	-	-	-	0.3	-
Major Ions										
Calcium (Total)	mg/L		11.70	11.70	11.70	11.80	13.90	13.60	8.72	13.70
Calcium (Dissolved)	mg/L		10.70	10.90	11.00	11.00	13.60	13.20	8.53	13.20
Chloride (Cl)	mg/L		94.80	94.90	96.10	94.50	115.00	112.00	33.10	116.00
Magnesium (Total)	mg/L		9.89	9.82	9.90	9.85	11.70	11.40	7.16	11.00
Magnesium (Dissolved)	mg/L		9.06	9.21	9.31	9.31	11.70	11.10	6.98	10.89
Potassium (Total)	mg/L		3.99	3.96	3.99	4.03	4.71	4.57	2.87	4.55
Potassium (Dissolved)	mg/L		3.62	36.70	3.72	3.72	4.59	4.41	2.81	4.43
Sodium (Total)	mg/L		55.80	55.50	56.40	56.10	67.30	65.10	40.60	61.10
Sodium (Dissolved)	mg/L		50.90	51.80	53.50	52.70	67.00	64.00	39.90	60.49
Sulphate (SO_4)	mg/L		7	6	11	8	8	8	6	8
Anions	meq/L		3.79	3.79	3.93	3.81	4.59	4.49	1.52	4.59
Cations	meq/L		3.85	3.84	3.80	3.75	4.81	4.70	1.91	4.61
Ion Balance	N/A		1.02	1.01	0.97	0.99	1.05	1.05	1.25	1.00
Total Metals										
Aluminum (Al)	µg/L	5, 100	65.2	82.4	41.8	39.1	12.9	17.2	91.1	66.7
Antimony (Sb)	µg/L		0.0640	0.0695	0.0603	0.0602	0.0682	0.0597	0.0441	0.0661
Arsenic (As)	µg/L	5	0.551	0.622	0.716	0.728	0.731	0.757	0.386	0.616
Barium (Ba)	µg/L		2.51	2.79	2.34	2.37	2.23	2.50	2.29	2.76
Beryllium (Be)	µg/L		<0.003	<0.003	<0.003	0.004	<0.003	<0.003	0.0069	0.0035
Bismuth (Bi)	µg/L		0.003	0.002	0.003	<0.001	0.0023	0.0018	<0.001	<0.001
Boron (B)	µg/L		50.1	50.2	49.6	50.9	57.1	54.3	34.9	52
Cadmium (Cd)	µg/L	0.003-0.055	0.004	0.013	<0.002	<0.002	0.004	<0.002	0.002	0.003
Chromium (Cr)	µg/L	1, 16	0.358	0.401	0.351	0.329	0.3	0.3	0.3	0.3
Cobalt (Co)	µg/L		0.035	0.035	0.013	0.013	0.0062	0.0031	0.0226	0.014
Copper (Cu)	µg/L	2-4	0.98	1.80	0.90	0.93	1.0	0.8	0.8	0.8
Iron (Fe)	µg/L	300	44.1	60.0	33.4	33.4	<2.0	<2.0	42.1	30.2
Lead (Pb)	µg/L	1-7	0.133	0.311	0.044	0.046	0.05	0.01	0.02	0.01
Manganese (Mn)	µg/L		1.8	2.4	1.6	1.7	0.7	1.2	1.7	2.0
Mercury (Hg)	ng/L	26	5	4.2	0.6	5.9	<0.6	1.4	1.7	1.9
Molybdenum (Mo)	µg/L	73	0.743	0.695	0.678	0.688	0.815	0.662	0.461	0.713
Nickel (Ni)	µg/L	25-150	0.220	0.156	0.127	0.088	0.199	0.022	0.155	0.063
Selenium (Se)	µg/L	1	**1.5**	**1.7**	**2.1**	**2.3**	**2.2**	**2.3**	0.9	**1.6**
Silver (Ag)	µg/L	0.1	0.0026	0.0021	0.0011	0.0012	0.002	0.002	0.040	<0.0005
Strontium (Sr)	µg/L		59.3	58.6	59.7	60.4	67.4	67.1	44.5	68.0
Thallium (Tl)	µg/L	0.8000	0.0020	0.0027	0.0125	0.0115	<0.0003	<0.0003	<0.0003	<0.0003
Tin (Sn)	µg/L		1.56	5.64	3.18	0.92	0.397	1.000	1.340	0.962
Uranium (U)	µg/L		0.2200	0.2260	0.2120	0.2380	0.199	0.161	0.137	0.212
Vanadium (V)	µg/L		0.209	0.160	0.076	0.098		0.028	0.238	0.145
Zinc (Zn)	µg/L	3, 13-198	8.19	8.35	0.77	1.25	2.91	1.25	3.53	1.35
Dissolved Metals										
Aluminum (Al)	µg/L		3.6	3.2	3.0	2.4	1.8	1.4	2.6	1.9
Antimony (Sb)	µg/L		0.0640	0.0695	0.0603	0.0602	0.0675	0.0591	0.0437	0.0654
Arsenic (As)	µg/L		0.431	0.507	0.620	0.578	0.693	0.633	0.354	0.536
Barium (Ba)	µg/L		1.76	1.88	1.82	1.86	2.20	2.49	1.46	2.13
Beryllium (Be)	µg/L		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Boron (B)	µg/L		45.1	46.4	45.4	46.8	56.6	52.9	32.8	51.7
Cadmium (Cd)	µg/L		<0.002	0.009	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chromium (Cr)	µg/L		0.245	0.366	0.348	0.324	0.266	0.338	0.127	0.227
Cobalt (Co)	µg/L		0.0027	0.0034	0.0010	<0.001	0.0061	0.0030	0.0033	0.0070
Copper (Cu)	µg/L		0.59	0.97	0.85	0.69	0.9	0.8	0.5	0.6
Iron (Fe)	µg/L		<2.0	<2.0	4.0	3.3	<2.0	<2.0	<2.0	<2.0
Lead (Pb)	µg/L		0.101	0.108	0.031	0.025	0.0041	0.0049	<0.001	<0.001
Manganese (Mn)	µg/L		0.134	0.136	0.090	0.087	0.215	0.225	0.046	0.126
Molybdenum (Mo)	µg/L		0.639	0.636	0.651	0.653	0.770	0.655	0.452	0.706
Nickel (Ni)	µg/L		0.020	0.048	0.081	0.070	<0.005	<0.005	0.016	0.005
Selenium (Se)	µg/L		1.3	1.3	1.4	1.5	1.9	1.8	0.8	1.3
Silver (Ag)	µg/L		<0.0005	<0.0005	<0.0005	<0.0005	0.0011	0.0016	0.0400	0.0400
Strontium (Sr)	µg/L		54.3	55.1	55.1	56.1	67	66	43	66
Uranium (U)	µg/L		0.1590	0.1260	0.1010	0.1070	0.186	0.144	0.118	0.193
Vanadium (V)	µg/L		0.025	0.049	0.076	0.066	0.08	<0.01	<0.01	<0.01
Zinc (Zn)	µg/L		1.16	2.22	0.77	1.18	2.1	1.2	1.1	0.7
Other										
Cyanide, Total	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Fluoride (F)	mg/L		0.06	0.06	0.09	0.07	0.08	0.08	0.18	0.25
Sulphide	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Windy Lake				Windy Outflow				
			20-Aug-07		15-Sep-07		19-Jun-06	23-Jul-06	12-Aug-06	16-Aug-06	9-Sep-06
			Top	Bottom	Top	Bottom					
Physical											
Alkalinity, Total ($CaCO_3$)	mg/L		49.1	49.2	49.5	49.3	52.3	48.3	47.8	21.4	48.1
Hardness, Total ($CaCO_3$)	mg/L		67.2	65.3	70.4	70.0	69.1	68.7	67.7	35.3	68.2
Conductivity	µS/cm		427	426	417	416	435	433	431	-	437
Field pH	units	6.5-9.0	**6.4**	**6.4**	-	-	7.0	7.5	7.8	-	6.9
TDS (Calculated)	mg/L		212	213	212	181	221	211	212	121	214
Total Suspended Solids	mg/L		1	<1	5	1	<1	<1	<1	10	<1
Color, True	TCU		<5	<5	<5	<5	2	<1	<1	7	<1
Nutrients											
Phosphorus, Total	mg/L		0.006	0.006	0.005	0.007	0.003	0.009	0.021	0.073	0.019
Total Kjeldahl Nitrogen	mg/L		0.11	0.12	0.08	0.09	0.12	0.14	0.14	0.97	0.11
Ammonia-N	mg/L	0.2-122.4	0.008	0.009	0.005	0.008	0.016	0.006	0.009	0.010	0.002
Nitrite-N	mg/L	0.06	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Nitrate-N (calculated)	mg/L	2.9	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.005
Organics											
Carbon Part	mg/L		0.07	0.17	0.16	0.45	0.10	0.11	0.13	2.40	0.14
Dissolved Organic Carbon	mg/L		1.6	1.6	1.2	1.9	1.8	1.8	2.0	4.7	1.9
Chlorophyll a	µg/L		1.1	-	0.8	-	-	-	-	-	-
Major Ions											
Calcium (Total)	mg/L		11.20	11.00	11.10	11.50	12.10	11.60	11.70	4.53	11.50
Calcium (Dissolved)	mg/L		10.80	10.80	11.00	10.70	11.10	10.30	10.70	4.06	11.20
Chloride (Cl)	mg/L		94.60	96.00	96.00	78.90	102.00	94.70	95.50	59.30	95.80
Magnesium (Total)	mg/L		9.82	9.69	9.35	9.62	9.68	10.60	9.76	6.18	9.58
Magnesium (Dissolved)	mg/L		9.62	9.47	9.26	9.52	8.70	9.57	9.10	5.49	9.52
Potassium (Total)	mg/L		3.72	3.69	3.83	3.95	3.93	3.97	3.92	2.11	3.89
Potassium (Dissolved)	mg/L		3.60	3.59	3.75	3.70	3.54	3.56	3.65	1.80	3.83
Sodium (Total)	mg/L		55.40	55.00	51.90	53.20	53.80	60.50	55.00	32.30	55.30
Sodium (Dissolved)	mg/L		54.60	53.90	51.60	50.80	48.40	55.40	51.40	29.20	55.10
Sulphate (SO_4)	mg/L		5	6	8	9	9	7	9	6	11
Anions	meq/L		3.76	3.82	3.87	3.40	4.12	3.79	3.85	2.22	3.90
Cations	meq/L		3.96	3.91	3.80	3.18	3.78	3.86	3.79	2.10	3.76
Ion Balance	N/A		1.05	1.02	0.98	0.94	0.92	1.02	0.99	0.95	0.96
Total Metals											
Aluminum (Al)	µg/L	5, 100	**89.7**	**93.3**	**110**	**146**	27.0	26.5	35.6	**204**	48.7
Antimony (Sb)	µg/L		0.0862	0.1010	0.0909	0.0835	0.0586	0.0540	0.0591	0.0156	0.0562
Arsenic (As)	µg/L	5	0.513	0.477	0.433	0.494	0.554	0.457	0.676	0.726	0.650
Barium (Ba)	µg/L		2.86	2.89	3.06	3.64	2.37	2.16	2.07	3.82	2.35
Beryllium (Be)	µg/L		0.0075	0.0067	<0.003	<0.003	<0.003	<0.003	<0.003	0.004	<0.003
Bismuth (Bi)	µg/L		<0.001	<0.001	0.0012	0.0018	0.010	0.002	0.002	0.004	0.005
Boron (B)	µg/L		49.6	48.7	46.8	49.1	51.3	57.6	46.8	22.9	46.5
Cadmium (Cd)	µg/L	0.003-0.055	0.010	<0.002	0.003	0.017	<0.002	0.003	0.002	0.004	0.004
Chromium (Cr)	µg/L	1, 16	0.1	0.2	0.4	0.5	0.219	0.183	0.298	0.6	0.294
Cobalt (Co)	µg/L		0.0317	0.0353	0.0354	0.0675	0.019	0.010	0.021	0.115	0.019
Copper (Cu)	µg/L	2-4	1.2	1.1	1.3	1.9	0.92	0.85	0.84	1.71	0.83
Iron (Fe)	µg/L	300	63.7	72.4	88.3	125	25.3	31.0	58.0	247	66.5
Lead (Pb)	µg/L	1-7	0.04	0.04	0.18	0.24	0.022	0.048	0.114	0.215	0.045
Manganese (Mn)	µg/L		2.9	3.1	3.6	4.3	1.6	1.3	1.4	49.2	1.5
Mercury (Hg)	ng/L	26	<0.6	<0.6	<0.6	1.0	<0.6	0.8	<0.6	<0.6	<0.6
Molybdenum (Mo)	µg/L	73	0.608	0.611	0.651	0.675	0.703	0.627	0.679	0.159	0.676
Nickel (Ni)	µg/L	25-150	0.304	0.180	0.236	0.250	0.063	0.028	0.099	0.708	0.104
Selenium (Se)	µg/L	1	**1.1**	0.9	0.9	1.0	**1.5**	**1.2**	**1.8**	**1.7**	**2.0**
Silver (Ag)	µg/L	0.1	0.006	0.009	0.002	0.003	0.0014	0.0015	0.0021	<0.0005	0.0012
Strontium (Sr)	µg/L		58.3	57.8	56.9	59.0	65.0	58.0	58.2	33.7	58.3
Thallium (Tl)	µg/L	0.8000	0.0013	0.0016	0.0040	0.0038	0.0067	0.0084	0.0050	0.0110	0.0125
Tin (Sn)	µg/L		0.554	0.899	1.660	2.560	<0.03	0.20	0.08	0.03	0.04
Uranium (U)	µg/L		0.186	0.184	0.187	0.197	0.2600	0.1870	0.2970	0.0533	0.2480
Vanadium (V)	µg/L		0.072	0.057	0.206	0.290	0.026	<0.01	0.060	0.344	0.082
Zinc (Zn)	µg/L	3, 13-198	2.99	1.14	1.42	4.22	1.62	1.27	4.11	3.43	0.80
Dissolved Metals											
Aluminum (Al)	µg/L		4.3	1.6	4.8	7.4	2.8	2.6	5.0	4.4	5.5
Antimony (Sb)	µg/L		0.0853	0.1	0.09	0.0827	0.0524	0.0533	0.0591	0.0156	0.0562
Arsenic (As)	µg/L		0.445	0.392	0.358	0.420	0.470	0.386	0.560	0.563	0.580
Barium (Ba)	µg/L		1.89	1.92	1.92	2.04	1.89	1.63	1.59	1.33	1.83
Beryllium (Be)	µg/L		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Boron (B)	µg/L		48.9	47.0	45.9	45.3	44.8	52.0	42.1	20.7	44.8
Cadmium (Cd)	µg/L		<0.002	<0.002	<0.002	0.007	<0.002	0.003	0.002	0.002	0.004
Chromium (Cr)	µg/L		0.091	<0.003	0.241	0.247	0.218	0.181	0.256	0.300	0.291
Cobalt (Co)	µg/L		<0.001	0.0013	0.0028	<0.001	0.0036	0.0020	0.0078	0.0155	0.0026
Copper (Cu)	µg/L		0.7	0.7	0.9	1.1	0.78	0.60	0.61	1.17	0.79
Iron (Fe)	µg/L		<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	4.3	4.1	6.3
Lead (Pb)	µg/L		<0.001	<0.001	0.0985	0.0301	0.005	0.030	0.107	0.149	0.030
Manganese (Mn)	µg/L		0.037	0.054	0.075	0.089	0.473	0.132	0.152	0.332	0.108
Molybdenum (Mo)	µg/L		0.602	0.611	0.644	0.643	0.663	0.583	0.642	0.115	0.669
Nickel (Ni)	µg/L		0.084	0.112	0.082	0.104	0.063	0.017	0.034	0.114	0.064
Selenium (Se)	µg/L		0.9	0.7	0.8	0.8	1.2	1.0	1.4	0.9	1.5
Silver (Ag)	µg/L		0.0029	0.0031	0.0016	<0.0005	<0.0005	0.0005	<0.0005	<0.0005	<0.0005
Strontium (Sr)	µg/L		56	56	56	55	60.3	51.2	54.0	29.4	56.8
Uranium (U)	µg/L		0.168	0.173	0.175	0.168	0.0684	0.0205	0.1880	0.0197	0.1530
Vanadium (V)	µg/L		<0.01	<0.01	0.02	<0.01	0.018	<0.01	<0.01	0.035	0.079
Zinc (Zn)	µg/L		1.4	0.8	0.7	2.2	1.57	0.54	1.64	3.16	0.79
Other											
Cyanide, Total	mg/L		0.001	<0.001	<0.001	<0.001	0.002	<0.001	0.002	0.002	<0.001
Fluoride (F)	mg/L		0.07	0.06	0.07	0.07	0.08	0.06	0.05	0.03	0.09
Sulphide	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Windy Outflow				Wolverine Lake				
			22-Jun-07	19-Jul-07	12-Aug-07	15-Sep-07	1-Jun-06	22-Jul-06		12-Aug-06	8-Sep-06
							Bottom	Top	Bottom	Top	Top
Physical											
Alkalinity, Total ($CaCO_3$)	mg/L		24.2	39.7	48.2	49.0	23.2	35.6	35.7	36.9	38.0
Hardness, Total ($CaCO_3$)	mg/L		24.9	54.4	69.4	72.8	35.8	55.4	55.9	57.1	58.1
Conductivity	µS/cm		86.0	329	389	411	215	348	348	372	375
Field pH	units	6.5-9.0	7.2	6.9	7.1	-	6.6	8.1	-	7.8	8.3
TDS (Calculated)	mg/L		43.1	168	204	214	108	166	168	181	181
Total Suspended Solids	mg/L		4	<1	<1	<1	1	2	2	<1	<1
Color, True	TCU		48	7	11	<5	31	11	11	7	1
Nutrients											
Phosphorus, Total	mg/L		0.016	0.007	0.005	0.004	0.024	0.014	0.014	0.027	0.024
Total Kjeldahl Nitrogen	mg/L		0.35	0.11	0.12	0.08	0.40	0.36	0.37	0.35	0.35
Ammonia-N	mg/L	0.2-122.4	0.02	0.008	0.003	0.007	0.025	0.007	0.007	0.007	0.006
Nitrite-N	mg/L	0.06	0.002	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001
Nitrate-N (calculated)	mg/L	2.9	0.011	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Organics											
Carbon Part	mg/L		0.77	0.08	0.10	0.50	0.59	0.35	0.32	0.25	0.52
Dissolved Organic Carbon	mg/L		5.8	1.5	2.3	1.6	7.0	4.9	4.6	4.8	4.8
Chlorophyll a	µg/L		-	-	-	-	-	-	-	-	4.5
Major Ions											
Calcium (Total)	mg/L		5.82	9.05	12.90	11.90	5.40	8.14	8.21	8.41	8.50
Calcium (Dissolved)	mg/L		5.64	8.64	12.40	11.30	4.89	7.42	7.47	7.68	7.94
Chloride (Cl)	mg/L		8.90	78.50	89.60	95.90	52.70	81.10	82.40	89.00	88.80
Magnesium (Total)	mg/L		2.71	7.25	10.30	9.53	5.47	9.24	9.47	9.34	8.95
Magnesium (Dissolved)	mg/L		2.70	6.91	10.10	9.44	4.43	8.45	8.58	8.71	8.47
Potassium (Total)	mg/L		1.28	2.77	3.59	3.86	2.04	2.40	2.43	2.42	2.24
Potassium (Dissolved)	mg/L		1.22	2.63	3.50	3.69	1.81	2.17	2.20	2.22	2.09
Sodium (Total)	mg/L		5.53	39.20	53.40	52.70	28.00	47.20	48.10	46.90	46.10
Sodium (Dissolved)	mg/L		5.48	37.70	52.80	50.60	25.20	43.50	44.20	43.90	43.60
Sulphate (SO_4)	mg/L		3	4	8	9	<3	<3	<3	4	4
Anions	meq/L		0.81	3.17	3.65	3.87	1.99	3.04	3.08	3.33	3.36
Cations	meq/L		0.83	2.97	3.75	3.90	1.94	3.03	3.06	3.20	3.19
Ion Balance	N/A		1.03	0.94	1.03	1.01	0.97	1.00	0.99	0.96	0.95
Total Metals											
Aluminum (Al)	µg/L	5, 100	62.5	26.8	32.1	27.1	41.7	25.7	52.8	63.9	59.8
Antimony (Sb)	µg/L		0.0374	0.0419	0.0571	0.0584	0.0154	0.0072	0.0084	0.0112	0.0121
Arsenic (As)	µg/L	5	0.316	0.452	0.432	0.420	0.399	0.541	0.546	0.815	0.603
Barium (Ba)	µg/L		2.97	1.89	2.41	2.20	3.98	3.52	3.71	4.32	4.14
Beryllium (Be)	µg/L		0.0058	<0.003	0.0044	<0.003	<0.003	0.005	0.003	<0.003	<0.003
Bismuth (Bi)	µg/L		<0.001	0.0026	<0.001	<0.001	0.001	0.002	0.003	0.002	0.005
Boron (B)	µg/L		16.8	40.9	50	47.8	13.6	21.8	23.2	23.0	21.9
Cadmium (Cd)	µg/L	0.003-0.055	0.008	<0.002	<0.002	<0.002	**0.016**	<0.002	<0.002	<0.002	<0.002
Chromium (Cr)	µg/L	1, 16	0.3	0.3	0.1	0.3	0.293	0.142	0.166	0.346	0.264
Cobalt (Co)	µg/L		0.604	0.0149	0.00106	0.0092	0.055	0.023	0.025	0.061	0.032
Copper (Cu)	µg/L	2-4	**2.2**	0.6	0.8	0.7	1.01	0.57	0.67	1.23	0.71
Iron (Fe)	µg/L	300	128	49.6	25.0	15.2	120	70.1	94.0	182	105
Lead (Pb)	µg/L	1-7	0.02	0.01	0.01	0.03	0.089	0.038	0.044	0.134	0.056
Manganese (Mn)	µg/L		166.0	1.1	0.6	1.0	20.8	10.6	13.9	42.1	8.3
Mercury (Hg)	ng/L	26	2.3	<0.6	<0.6	<0.6		13	7.8	9.7	3.8
Molybdenum (Mo)	µg/L	73	0.343	0.402	0.585	0.674	0.126	0.080	0.080	0.105	0.097
Nickel (Ni)	µg/L	25-150	0.783	0.082	0.103	0.087	0.458	0.221	0.220	0.371	0.323
Selenium (Se)	µg/L	1	0.5	**1.3**	1.0	0.8	0.9	**1.1**	**1.3**	**1.5**	**1.4**
Silver (Ag)	µg/L	0.1	<0.0005	<0.0005	<0.0005	0.001	<0.0005	0.0012	0.0012	0.0019	0.0010
Strontium (Sr)	µg/L		26.9	44.9	65.4	59.5	28.1	43.2	43.4	45.8	46.0
Thallium (Tl)	µg/L	0.8000	0.0040	0.0044	<0.0003	0.0020	<0.0003	0.0082	0.0085	0.0055	0.0126
Tin (Sn)	µg/L		<0.03	<0.03	<0.03	0.096	3.92	0.18	3.25	3.79	2.23
Uranium (U)	µg/L		0.132	0.045	0.138	0.225	0.0141	0.0352	0.0336	0.0424	0.0340
Vanadium (V)	µg/L		0.268	0.044	0.012	0.037	0.107	0.040	0.085	0.156	0.107
Zinc (Zn)	µg/L	3, 13-198	1.80	0.94	1.28	0.17	19.50	1.69	1.82	1.27	1.19
Dissolved Metals											
Aluminum (Al)	µg/L		16.0	2.5	2.6	3.7	3.6	4.6	4.9	4.0	3.8
Antimony (Sb)	µg/L		0.037	0.0415	0.0565	0.0578	0.0146	0.0072	0.0084	0.0112	0.0121
Arsenic (As)	µg/L		0.313	0.396	0.363	0.385	0.368	0.463	0.455	0.678	0.555
Barium (Ba)	µg/L		1.45	1.62	2.10	1.90	2.98	2.81	2.83	3.15	3.25
Beryllium (Be)	µg/L		0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Boron (B)	µg/L		16.5	37.9	46.7	44.4	11.6	20.7	21.8	21.3	19.0
Cadmium (Cd)	µg/L		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	<0.002
Chromium (Cr)	µg/L		0.261	0.210	0.134	0.263	0.287	0.136	0.158	0.234	0.261
Cobalt (Co)	µg/L		0.0218	0.0045	<0.001	<0.001	0.0095	0.0083	0.0088	0.0135	0.0084
Copper (Cu)	µg/L		2.0	0.4	0.7	0.7	0.53	0.47	0.53	0.85	0.67
Iron (Fe)	µg/L		49.3	9.7	<2.0	<2.0	27.4	5.1	6.9	6.9	<2.0
Lead (Pb)	µg/L		<0.001	<0.001	0.0113	0.0240	0.012	0.037	0.036	0.106	0.032
Manganese (Mn)	µg/L		0.796	0.059	<0.003	0.068	4.240	0.143	0.141	0.201	0.167
Molybdenum (Mo)	µg/L		0.244	0.396	0.579	0.652	0.110	0.080	0.080	0.105	0.093
Nickel (Ni)	µg/L		0.563	0.056	0.102	0.086	0.350	0.191	0.185	0.259	0.228
Selenium (Se)	µg/L		0.3	0.9	0.9	0.8	0.8	1.0	1.0	0.9	0.7
Silver (Ag)	µg/L		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Strontium (Sr)	µg/L		26	44	65	58	26.0	39.1	40.0	42.1	43.1
Uranium (U)	µg/L		0.114	0.032	0.128	0.199	0.0064	0.0101	0.0218	0.0200	0.0178
Vanadium (V)	µg/L		0.18	<0.01	<0.01	<0.01	0.105	<0.01	0.039	0.019	0.038
Zinc (Zn)	µg/L		1.8	0.9	1.3	0.2	7.84	1.35	0.85	0.89	1.19
Other											
Cyanide, Total	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	0.001
Fluoride (F)	mg/L		0.11	1.65	0.06	0.07	0.04	0.03	0.05	0.04	0.06
Sulphide	mg/L		<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

Appendix B5. Analytical results for freshwater water quality samples, 2006-2007

Parameters	Units	CWQG	Wolverine Lake			
			23-May-07	17-Jul-07	15-Aug-07	11-Sep-07
Physical						
Alkalinity, Total ($CaCO_3$)	mg/L		98.4	25.3	38.8	38.6
Hardness, Total ($CaCO_3$)	mg/L		148.0	53.2	58.5	58.4
Conductivity	µS/cm		880	340	378	364
Field pH	units	6.5-9.0	7.3	7.8	6.8	-
TDS (Calculated)	mg/L		355	158	187	185
Total Suspended Solids	mg/L		2	<1	2	<1
Color, True	TCU		10	8	4	7
Nutrients						
Phosphorus, Total	mg/L		0.048	0.011	0.017	0.011
Total Kjeldahl Nitrogen	mg/L		0.82	0.31	0.33	0.33
Ammonia-N	mg/L	0.2-122.4	0.007	0.01	0.009	0.009
Nitrite-N	mg/L	0.06	<0.001	<0.001	<0.001	<0.001
Nitrate-N (calculated)	mg/L	2.9	0.186	<0.005	<0.005	<0.005
Organics						
Carbon Part	mg/L		0.63	0.27	0.30	0.33
Dissolved Organic Carbon	mg/L		8.8	4.1	4.9	4.8
Chlorophyll a	µg/L		-	1.5	1.5	1.8
Major Ions						
Calcium (Total)	mg/L		21.00	7.67	8.44	8.62
Calcium (Dissolved)	mg/L		20.60	7.53	8.28	8.19
Chloride (Cl)	mg/L		157.00	80.00	91.00	91.10
Magnesium (Total)	mg/L		23.40	8.50	9.72	9.58
Magnesium (Dissolved)	mg/L		23.20	8.27	9.50	9.09
Potassium (Total)	mg/L		5.27	2.31	2.34	2.26
Potassium (Dissolved)	mg/L		5.09	2.20	2.27	2.14
Sodium (Total)	mg/L		115.00	42.40	48.00	47.80
Sodium (Dissolved)	mg/L		110.00	41.40	47.80	45.80
Sulphate (SO_4)	mg/L		<3	<3	<3	<3
Anions	meq/L		6.46	2.81	3.39	3.39
Cations	meq/L		6.86	2.96	3.42	3.35
Ion Balance	N/A		1.06	1.05	1.01	0.99
Total Metals						
Aluminum (Al)	µg/L	5, 100	19.6	39.2	**168**	69.1
Antimony (Sb)	µg/L		0.0232	0.0069	0.0116	0.0124
Arsenic (As)	µg/L	5	1.720	0.579	0.578	0.482
Barium (Ba)	µg/L		16.10	3.81	5.90	4.50
Beryllium (Be)	µg/L		0.0041	<0.003	0.0044	<0.003
Bismuth (Bi)	µg/L		0.0029	<0.001	0.0012	<0.001
Boron (B)	µg/L		42.1	16.7	20.5	21
Cadmium (Cd)	µg/L	0.003-0.055	0.004	<0.002	<0.002	<0.002
Chromium (Cr)	µg/L	1, 16	0.5	0.1	0.4	0.5
Cobalt (Co)	µg/L		0.201	0.0218	0.0499	0.028
Copper (Cu)	µg/L	2-4	0.6	0.5	0.5	1.3
Iron (Fe)	µg/L	300	209	62.2	154	96.2
Lead (Pb)	µg/L	1-7	0.08	0.02	0.07	0.06
Manganese (Mn)	µg/L		292.0	8.2	10.2	7.7
Mercury (Hg)	ng/L	26	1.8	12.0	0.9	0.9
Molybdenum (Mo)	µg/L	73	0.0577	0.0551	0.0757	0.0952
Nickel (Ni)	µg/L	25-150	0.663	0.236	0.369	0.416
Selenium (Se)	µg/L	1	**4.4**	**1.3**	**1.1**	1.0
Silver (Ag)	µg/L	0.1	0.006	0.002	<0.0005	0.003
Strontium (Sr)	µg/L		116.0	41.0	46.9	46.2
Thallium (Tl)	µg/L	0.8000	<0.0003	0.0044	0.0021	0.0006
Tin (Sn)	µg/L		0.623	0.437	0.233	0.716
Uranium (U)	µg/L		0.036	0.029	0.025	0.032
Vanadium (V)	µg/L		0.013	0.042	0.292	0.200
Zinc (Zn)	µg/L	3, 13-198	2.69	1.94	2.00	1.05
Dissolved Metals						
Aluminum (Al)	µg/L		0.3	4.1	30.0	6.5
Antimony (Sb)	µg/L		0.023	0.0069	0.0115	0.0123
Arsenic (As)	µg/L		1.310	0.500	0.471	0.412
Barium (Ba)	µg/L		14.80	3.21	3.95	3.56
Beryllium (Be)	µg/L		<0.003	<0.003	<0.003	<0.003
Boron (B)	µg/L		41.7	16.4	19.9	18.7
Cadmium (Cd)	µg/L		<0.002	<0.002	<0.002	<0.002
Chromium (Cr)	µg/L		0.509	0.120	0.355	0.420
Cobalt (Co)	µg/L		0.1120	0.0081	0.0060	0.0076
Copper (Cu)	µg/L		0.6	0.5	0.5	0.9
Iron (Fe)	µg/L		<2.0	8.5	6.7	8.1
Lead (Pb)	µg/L		0.0089	0.0105	0.0030	0.0498
Manganese (Mn)	µg/L		253	0.111	0.062	0.098
Molybdenum (Mo)	µg/L		0.055	0.055	0.075	0.070
Nickel (Ni)	µg/L		0.593	0.208	0.252	0.277
Selenium (Se)	µg/L		3.1	1.0	0.8	0.9
Silver (Ag)	µg/L		0.0012	<0.0005	<0.0005	0.0015
Strontium (Sr)	µg/L		112	41	46	46
Uranium (U)	µg/L		0.026	0.027	0.020	0.026
Vanadium (V)	µg/L		0.01	0.04	0.10	0.09
Zinc (Zn)	µg/L		1.9	1.9	1.4	0.5
Other						
Cyanide, Total	mg/L		0.002	<0.001	<0.001	<0.001
Fluoride (F)	mg/L		0.10	0.10	0.06	0.06
Sulphide	mg/L		0.001	<0.001	<0.001	<0.001

[a]Guidelines are explained in Appendix B1.
bold and highlighted values were above the CWQG

APPENDIX B6

ANALYTICAL RESULTS FOR MARINE WATER QUALITY SAMPLES

Appendix B6. Analytical Results for marine water quality samples, 2007

Parameter	Units	CWQG	Hope Bay							
			27-May-07		23-Jul-07		17-Aug-07		15-Sep-07	
			Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom
Physical Parameters										
Alkalinity, Total ($CaCO_3$)	mg/L		98.4	98.1	21.5	110.0	29.2	48.1	28.1	115.0
Hardness, Total ($CaCO_3$)	mg/L				607	4910	1200	4020	1120	4750
Conductivity	µS/cm		40300	40000	6070	41000	11700	32200	10300	38700
Field pH	pH	7.0-8.7	7.70	7.70	7.58	7.85	7.51	7.71	7.53	7.67
Salinity	g/L				3.3	26.6	6.8	20.5	6.1	25.7
TDS (calculated)	mg/L		28900	28900	3440	30600	6900	23300	6150	29300
Total suspended solids	mg/L		17.0	14.0	4.9	3.6	5.5	<3	4.9	7.6
Color, True	TCU		5.0	5.0	8.6	<5.0	14.3	<5.0	9.8	<5.0
Nutrients										
Phosphorus, Total	mg/L		0.028	0.032	0.012	0.032	0.018	0.025	0.014	0.031
Total Kjeldahl Nitrogen	mg/L		0.130	0.070	0.299	0.267	0.343	0.139	0.248	0.208
Ammonia-N	mg/L		0.034	0.031	0.051	<0.020	<0.20	0.025	<0.20	<0.20
Nitrite-N	mg/L		<0.005	<0.005	<0.010	<0.010	0.096	0.54	<0.010	<0.10
Nitrate-N	mg/L	16	0.03	0.03	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50
Organics										
Dissolved Organic Carbon	mg/L		1.10	1.30	3.72	1.46	4.74	1.32	5.14	1.33
Chlorophyll *a*	µg/L		-	-	0.90	-	0.51	-	0.45	-
Major Ions										
Calcium (Total)	mg/L				37.9	320	794	239	75.1	315
Calcium (Dissolved)	mg/L				40.3	315.0	76.9	238.0	74.9	315.0
Chloride (Cl)	mg/L		16700	17000	1810	15200	3760	11300	3290	14400
Magnesium (Total)	mg/L				116	1020	252	839	227	1020
Magnesium (Dissolved)	mg/L				123	1000	244	831	226	962
Potassium (Total)	mg/L				38	331	81	259	70	335
Potassium (Dissolved)	mg/L				40	328	78	258	69	321
Sodium (Total)	mg/L				946	8520	2120	6310	1880	7880
Sodium (Dissolved)	mg/L				1000	8430	2070	6340	1860	7580
Sulfate (SO_4)	mg/L		2230	2230	262	2100	499	1460	454	1940
Anions	meq/L				56.9	475	117	350	103	449
Cations	meq/L				56.7	473	116	363	105	433
Ion Balance	N/A				-0.3	-0.2	-0.5	1.7	1.0	-2.0
Total Metals										
Aluminum (Al)	µg/L				132	<100	<250	<100	<150	<100
Antimony (Sb)	µg/L				<1	<10	<5	<10	<5	<10
Arsenic (As)	µg/L	12.50	0.80	0.60	<0.20	0.78	0.38	0.80	<0.20	0.88
Barium (Ba)	µg/L				3.3	8.3	6.6	7.3	4.3	10.4
Beryllium (Be)	µg/L				<5	<50	<25	<50	<25	<50
Bismuth (Bi)	µg/L				<5	<50	<25	<50	<25	<50
Boron (B)	µg/L		3100	3000	420	3400	860	2900	790	3200
Cadmium (Cd)	µg/L	0.120	0.100	0.100	<0.020	0.033	<0.020	0.033	0.021	0.037
Chromium (Cr)	µg/L		<0.5	<0.5	<5	<50	<25	<50	<25	<50
Cobalt (Co)	µg/L		<0.100	<0.100	0.089	<0.050	0.081	<0.050	0.072	<0.050
Copper (Cu)	µg/L		2.60	0.90	1.25	0.71	1.04	2.10	1.33	0.42
Iron (Fe)	µg/L		6	8	191	16	145	23	123	13
Lead (Pb)	µg/L		<50.00	<0.100	0.568	<0.050	<0.050	<0.050	0.116	<0.050
Lithium	µg/L				<50	<500	<250	<500	<250	<500
Manganese (Mn)	µg/L		<1.00	<1.00	7.62	1.06	4.76	3.26	3.61	1.42
Mercury (Hg)	ng/L	16	<10	<10	<10	<10	<0.6	0.7	1.3	1.8
Molybdenum (Mo)	µg/L				1.0	8.7	<2.5	8.5	<2.5	8.7
Nickel (Ni)	µg/L		<0.50	0.60	0.52	0.41	0.77	0.49	0.52	0.42
Selenium (Se)	µg/L				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Silver (Ag)	µg/L		<0.1	<0.1	<0.10	<1.0	<0.50	<1.0	<0.50	<1.0
Strontium (Sr)	µg/L		5600	5600	705	5710	1480	5060	1320	5620
Thallium (Tl)	µg/L				<1	<10	<5	<10	<5	<10
Tin (Sn)	µg/L				<1	<10	<5	<10	<5	<10
Titanium	µg/L				<50	<100	<100	<100	<100	<100
Uranium (U)	µg/L				0.26	1.97	0.52	1.61	0.48	1.56
Vanadium (V)	µg/L				<10	<100	<50	<100	<50	<100
Zinc (Zn)	µg/L		<1.0	<1.0	1.2	0.6	1.0	5.0	1.4	<0.5
Dissolved Metals										
Aluminum (Al)	µg/L				<10	<100	<250	<100	<50	<100
Antimony (Sb)	µg/L				<1	<10	<5	<10	<5	<10
Arsenic (As)	µg/L				<0.20	0.85	0.35	0.60	<0.20	0.82
Barium (Ba)	µg/L				2.4	8.2	5.1	6.5	3.3	10.3
Beryllium (Be)	µg/L				<5	<50	<25	<50	<25	<50
Bismuth (Bi)	µg/L				<5	<50	<25	<50	<25	<50
Boron (B)	µg/L		3000	3100	420	3500	840	2800	830	3300
Cadmium (Cd)	µg/L				<0.020	0.030	<0.020	0.033	<0.020	0.037
Chromium (Cr)	µg/L				<50	<50	<25	<50	<25	<50
Cobalt (Co)	µg/L				<0.050	<0.050	0.107	0.068	<0.050	<0.050
Copper (Cu)	µg/L				0.797	0.456	1.440	1.360	0.853	0.442
Iron (Fe)	µg/L				<10	<10	180	27	<10	<10
Lead (Pb)	µg/L				<0.050	<0.050	0.056	<0.050	<0.050	<0.050
Lithium	µg/L				<50	<500	<250	<500	<250	<500
Manganese (Mn)	µg/L				2.66	0.73	5.18	3.32	1.71	0.53
Molybdenum (Mo)	µg/L				1.0	8.5	<2.5	5.4	<2.5	8.3
Nickel (Ni)	µg/L				0.361	0.442	0.875	0.520	0.442	0.451
Selenium (Se)	µg/L				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Silver (Ag)	µg/L				<0.10	<1.0	<0.50	<1.0	<0.50	<1.0
Strontium (Sr)	µg/L		5700	5900	716	5870	1430	4490	1330	5730
Thallium (Tl)	µg/L				<1	<10	<5	<10	<5	<10
Tin (Sn)	µg/L				<1	<10	<5	<10	<5	<10
Titanium	µg/L				<50	<100	<100	<100	<100	<100
Uranium (U)	µg/L				0.22	1.13	0.55	1.52	0.48	1.58
Vanadium (V)	µg/L				<10	<100	<50	<100	<50	<100
Zinc (Zn)	µg/L				0.62	<0.50	1.63	0.80	<0.50	<0.50
Other										
Cyanide (Total)	mg/L		<0.5	<0.5	<5.0	<5.0	0.0058	<0.0050	<0.0050	<0.0050
Fluoride	mg/L		0.84	0.85	<0.20	0.77	0.43	<2.00	<0.20	<2.00
Silicon (Total)	µg/L				390	<500	900	<500	580	<500
Silicon (Dissolved)	µg/L				<250	<500	1150	<500	<500	<500
Sulphide	mg/L		0.007	<0.005	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020

[a]Canadian Water Quality Guidelines for the Protection of Freshwater Aquatic Life (CCME 1999, 2007).

APPENDIX C

SEDIMENT CHEMISTRY

APPENDIX C1

SEDIMENT PARTICLE SIZE AND CHEMISTRY FOR FRESHWATER SAMPLES

Appendix C1. Sediment particle size and chemistry for freshwater lakes, 2007.

	CCME - SQG*		Aimaokatalok Lake						
			Gravity Core					Ekman	
	ISQG (TEL)	PEL	#1	#2	#3	#4	#5	Shallow	Deep
			22-Aug-07	22-Aug-07	22-Aug-07	22-Aug-07	22-Aug-07	22-Aug-07	22-Aug-07
TOC (g/kg)	-	-	1.1	1.1	0.87	0.78	0.75	0.42	0.82
Sand by hydrometer (%)	-	-	4	4	11	7	22	63	4
Silt by hydrometer (%)	-	-	37	43	47	40	37	29	42
Clay Content (%)	-	-	59	52	42	53	41	8	55
Texture	-	-	CLAY	SILTY CLAY	SILTY CLAY	SILTY CLAY	CLAY	SANDY LOAM	SILTY CLAY
Sieve - #10 (>2.00mm) (%)	-	-	0.5	1.4	<0.1	0.9	0.6	0.4	0.2
Sieve - #30 (>0.60mm) (%)	-	-	25	22	12	26	24	1.5	19
Sieve - #50 (>0.300 mm) (%)	-	-	20	20	21	21	20	1.3	21
(%)	-	-	15	15	19	16	16	3.7	16
Sieve - #270 (>0.053mm) (%)	-	-	20	19	22	21	21	78	28
Sieve - #400 (>0.030 mm) (%)	-	-	6.9	6.9	7.5	7.1	7.8	6.4	7.3
Sieve - Pan (%)	-	-	12	15	18	8.2	11	9	7.9
Moisture (%)	-	-	44.5	42.2	44.7	46.0	47.4	19.4	48.3
Total Metals (mg/kg)									
Total Aluminum (Al)	-	-	18100	17900	18100	20000	19200	3640	19100
Total Antimony (Sb)	-	-	0.1	<0.1	0.1	0.1	0.1	<0.1	<0.1
Total Arsenic (As)	**5.9**	**17**	2.4	4.3	3.6	3.6	3.9	0.7	3.4
Total Barium (Ba)	-	-	108	106	113	120	112	15.7	108
Total Beryllium (Be)	-	-	0.6	0.6	0.5	0.6	0.6	<0.1	0.5
Total Bismuth (Bi)	-	-	0.2	0.2	0.2	0.2	0.2	<0.1	0.2
Total Cadmium (Cd)	**0.6**	**3.5**	0.25	0.10	0.08	0.10	0.26	<0.05	0.07
Total Chromium (Cr)	**37.3**	**90**	**55**	**52**	**55**	**60**	**56**	10	**55**
Total Cobalt (Co)	-	-	12.8	14.1	15.5	14.1	12.9	2.8	11.4
Total Copper (Cu)	**35.7**	**197**	22.2	20.5	23.0	25.4	24.2	5.2	21.6
Total Iron (Fe)	-	-	22700	22500	26200	28300	26700	6360	25300
Total Lead (Pb)	**35**	**91.3**	8.1	7.7	8.4	9.0	8.5	2.2	8.4
Total Magnesium (Mg)	-	-	10700	10300	11300	12600	11100	2000	10400
Total Manganese (Mn)	-	-	346	322	373	390	413	75.5	381
Total Mercury (Hg)	**0.17**	**0.486**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Molybdenum (Mo)	-	-	1.0	1.4	1.2	1.1	0.7	0.2	0.4
Total Nickel (Ni)	-	-	29.1	27.7	31.7	33.8	31.2	5.2	29.1
Total Phosphorus (P)	-	-	620	574	616	663	819	451	796
Total Potassium (K)	-	-	4500	3980	4710	5400	4680	553	4290
Total Selenium (Se)	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Silver (Ag)	-	-	0.12	0.12	0.14	0.15	0.13	<0.05	0.10
Total Sodium (Na)	-	-	566	602	668	778	565	105	518
Total Strontium (Sr)	-	-	29.1	27.5	30.3	35.5	30.1	7.0	29.8
Total Thallium (Tl)	-	-	0.21	0.18	0.19	0.23	0.22	<0.05	0.16
Total Tin (Sn)	-	-	0.8	0.7	0.8	0.8	0.8	0.1	0.8
Total Titanium (Ti)	-	-	1050	1010	1070	1190	1090	234	1030
Total Vanadium (V)	-	-	58	54	56	63	58	11	52
Total Zinc (Zn)	**123**	**315**	105	85	81	86	94	19	96
Total Zirconium (Zr)	-	-	3.6	4.4	6.2	7.2	5.3	0.6	3.6

*Sediment Quality Guidelines for the Protection of Freshwater Aquatic Life
TEL - Threshold Effect Level
PEL - Probable Effects Level
ISQG - Interim Sediment Quality Guideline
Bold and highlighted values area above the TEL

Appendix C1. Sediment particle size and chemistry for freshwater lakes, 2007.

	CCME - SQG*		Fickle Duck Lake					
			Gravity Core					Ekman
	ISQG (TEL)	PEL	#1	#2	#3	#4	#5	Shallow
			23-Aug-07	23-Aug-07	23-Aug-07	23-Aug-07	23-Aug-07	23-Aug-07
TOC (g/kg)	-	-	3.4	2.4	3.7	4.0	3.2	3.2
Sand by hydrometer (%)	-	-	N.D.	N.D.	N.D.	6	2	<2
Silt by hydrometer (%)	-	-	N.D.	N.D.	N.D.	68	73	82
Clay Content (%)	-	-	N.D.	N.D.	N.D.	27	24	16
Texture	-	-	N.D.	N.D.	N.D.	SILT LOAM	SILT LOAM	SILT LOAM
Sieve - #10 (>2.00mm) (%)	-	-	1.5	0.6	1.4	<0.1	0.4	0.1
Sieve - #30 (>0.60mm) (%)	-	-	15	9.7	16	12	17	13
Sieve - #50 (>0.300 mm) (%)	-	-	12	10	12	13	14	13
(%)	-	-	8.7	11	9.7	11	11	11
Sieve - #270 (>0.053mm) (%)	-	-	15	23	17	21	18	16
Sieve - #400 (>0.030 mm) (%)	-	-	7	15	5.9	12	12	6.3
Sieve - Pan (%)	-	-	41	31	38	31	28	42
Moisture (%)	-	-	50.5	56.7	55.2	44.4	50.5	39.0
Total Metals (mg/kg)								
Total Aluminum (Al)	-	-	12600	16200	13900	15100	13800	13100
Total Antimony (Sb)	-	-	<0.1	0.1	0.1	0.1	0.1	<0.1
Total Arsenic (As)	**5.9**	**17**	2.5	3.7	3.0	3.9	3.7	2.2
Total Barium (Ba)	-	-	64.2	81.5	70.8	75.4	71.4	65.5
Total Beryllium (Be)	-	-	0.4	0.7	0.4	0.3	0.4	0.4
Total Bismuth (Bi)	-	-	0.1	0.2	0.1	0.2	0.2	0.1
Total Cadmium (Cd)	**0.6**	**3.5**	0.08	0.11	0.09	0.10	0.09	0.08
Total Chromium (Cr)	**37.3**	**90**	**40**	**55**	**46**	**50**	**47**	**39**
Total Cobalt (Co)	-	-	7.9	10.2	9.0	9.7	8.7	7.8
Total Copper (Cu)	**35.7**	**197**	19.2	26.9	22.1	24.7	22.8	18.8
Total Iron (Fe)	-	-	18100	22900	20500	22500	20200	18300
Total Lead (Pb)	**35**	**91.3**	6.1	8.0	6.8	7.5	6.8	5.9
Total Magnesium (Mg)	-	-	6750	9230	7860	8650	7470	7100
Total Manganese (Mn)	-	-	153	199	169	184	171	151
Total Mercury (Hg)	**0.17**	**0.486**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Molybdenum (Mo)	-	-	0.7	0.8	0.7	0.8	0.8	0.7
Total Nickel (Ni)	-	-	21.0	27.8	23.5	26.0	23.7	21.1
Total Phosphorus (P)	-	-	593	592	648	626	668	691
Total Potassium (K)	-	-	2310	3130	2470	3060	2710	2310
Total Selenium (Se)	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Silver (Ag)	-	-	0.10	0.14	0.10	0.13	0.10	0.08
Total Sodium (Na)	-	-	346	461	371	452	415	355
Total Strontium (Sr)	-	-	24.5	31.5	26.8	29.0	27.4	25.3
Total Thallium (Tl)	-	-	0.07	0.12	0.09	0.11	0.08	0.07
Total Tin (Sn)	-	-	0.5	0.7	0.6	0.6	0.6	0.5
Total Titanium (Ti)	-	-	788	1010	873	950	889	785
Total Vanadium (V)	-	-	41	55	47	51	46	40
Total Zinc (Zn)	**123**	**315**	61	77	69	74	67	65
Total Zirconium (Zr)	-	-	4.4	7.6	4.7	6.5	5.2	3.1

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Bold and highlighted values area above the TEL

Appendix C1. Sediment particle size and chemistry for freshwater lakes, 2007.

	CCME - SQG*		Reference Lake					
	ISQG (TEL)	PEL	Gravity Core					Ekman
			#1	#2	#3	#4	#5	Shallow
			23-Aug-07	23-Aug-07	23-Aug-07	23-Aug-07	23-Aug-07	23-Aug-07
TOC (g/kg)	-	-	2.1	2.6	2.6	2.3	2.6	2.5
Sand by hydrometer (%)	-	-	3	6	3	3	5	16
Silt by hydrometer (%)	-	-	76	75	72	71	70	62
Clay Content (%)	-	-	21	19	26	26	25	21
Texture	-	-	SILT LOAM	SILT LOAM	SILT LOAM	SILT LOAM	SILT LOAM	SILT LOAM
Sieve - #10 (>2.00mm) (%)	-	-	0.8	0.7	0.9	2.5	8.2	4.9
Sieve - #30 (>0.60mm) (%)	-	-	15	34	19	17	31	25
Sieve - #50 (>0.300 mm) (%)	-	-	15	17	15	13	12	14
(%)	-	-	8.9	11	9.9	9.5	7.6	8.8
Sieve - #270 (>0.053mm) (%)	-	-	12	13	13	15	10	11
Sieve - #400 (>0.030 mm) (%)	-	-	5.4	4.2	6.5	14	5.5	5.6
Sieve - Pan (%)	-	-	43	21	37	28	25	31
Moisture (%)	-	-	41.5	44.9	53.9	47.0	44.1	49.8
Total Metals (mg/kg)								
Total Aluminum (Al)	-	-	15500	16800	17000	15800	16700	17300
Total Antimony (Sb)	-	-	0.1	<0.1	0.1	<0.1	0.1	0.1
Total Arsenic (As)	**5.9**	**17**	2.6	2.1	2.3	2.1	2.2	2.9
Total Barium (Ba)	-	-	77.6	81.9	81.4	77.7	81.4	82.4
Total Beryllium (Be)	-	-	0.5	0.5	0.5	0.6	0.5	0.5
Total Bismuth (Bi)	-	-	0.2	0.2	0.2	0.2	0.2	0.2
Total Cadmium (Cd)	**0.6**	**3.5**	0.13	0.11	0.12	0.11	0.12	0.12
Total Chromium (Cr)	**37.3**	**90**	**50**	**52**	**53**	**50**	**52**	**53**
Total Cobalt (Co)	-	-	10.2	10.9	10.5	10.3	10.9	10.9
Total Copper (Cu)	**35.7**	**197**	21.2	22.9	22.5	20.9	22.9	22.6
Total Iron (Fe)	-	-	22800	23700	24600	23500	24200	24300
Total Lead (Pb)	**35**	**91.3**	7.0	7.4	7.2	7.1	7.4	7.2
Total Magnesium (Mg)	-	-	8770	9090	9050	8650	9310	9600
Total Manganese (Mn)	-	-	201	207	207	199	208	217
Total Mercury (Hg)	**0.17**	**0.486**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Molybdenum (Mo)	-	-	0.7	0.7	0.7	0.7	0.7	0.7
Total Nickel (Ni)	-	-	23.6	25.1	25.3	23.8	24.9	26.1
Total Phosphorus (P)	-	-	644	590	673	669	642	680
Total Potassium (K)	-	-	2940	3060	3150	2930	3130	3170
Total Selenium (Se)	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Silver (Ag)	-	-	0.11	0.11	0.11	0.10	0.11	0.11
Total Sodium (Na)	-	-	309	319	309	298	323	321
Total Strontium (Sr)	-	-	20.6	21.1	21.4	20.8	21.7	22.0
Total Thallium (Tl)	-	-	0.14	0.15	0.14	0.13	0.14	0.17
Total Tin (Sn)	-	-	0.6	0.6	0.7	0.6	0.7	0.7
Total Titanium (Ti)	-	-	959	984	997	972	992	1010
Total Vanadium (V)	-	-	51	53	50	51	52	53
Total Zinc (Zn)	**123**	**315**	79	82	82	77	82	84
Total Zirconium (Zr)	-	-	4.4	4.9	4.0	4.5	4.8	4.6

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Appendix C1. Sediment particle size and chemistry for freshwater lakes, 2007.

	CCME - SQG*		Stickleback Lake					
			Gravity Core					Ekman
	ISQG (TEL)	PEL	#1	#2	#3	#4	#5	Shallow
			23-Aug-07	23-Aug-07	23-Aug-07	23-Aug-07	23-Aug-07	23-Aug-07
TOC (g/kg)	-	-	9.5	9.9	10	12	9.2	11
Sand by hydrometer (%)	-	-	17	11	11	26	21	7
Silt by hydrometer (%)	-	-	83	89	89	74	79	93
Clay Content (%)	-	-	<2	<2	<2	<2	<2	<2
Texture	-	-	SILT	SILT	SILT	SILT LOAM	SILT LOAM	SILT
Sieve - #10 (>2.00mm) (%)	-	-	2.3	0.5	17	11	8.5	2.3
Sieve - #30 (>0.60mm) (%)	-	-	41	55	45	52	41	21
Sieve - #50 (>0.300 mm) (%)	-	-	18	16	12	12	16	21
(%)	-	-	12	10	8	8.2	10	18
Sieve - #270 (>0.053mm) (%)	-	-	15	12	9.8	9.1	13	21
Sieve - #400 (>0.030 mm) (%)	-	-	4.3	2.9	2.7	2.6	3.6	5.9
Sieve - Pan (%)	-	-	7.2	4.1	4.9	4.9	7.7	11
Moisture (%)	-	-	87.7	84.2	82.7	87.4	88.0	89.8
Total Metals (mg/kg)								
Total Aluminum (Al)	-	-	11900	11800	12000	11100	13000	12400
Total Antimony (Sb)	-	-	0.1	0.1	0.1	0.1	0.1	0.2
Total Arsenic (As)	**5.9**	**17**	4.9	4.6	4.2	4.5	4.6	4.6
Total Barium (Ba)	-	-	58.1	58.5	61.5	56.1	62.1	61.4
Total Beryllium (Be)	-	-	0.4	0.4	0.4	0.4	0.4	0.4
Total Bismuth (Bi)	-	-	0.1	0.1	0.1	0.1	0.1	0.1
Total Cadmium (Cd)	**0.6**	**3.5**	0.12	0.12	0.33	0.18	0.13	0.13
Total Chromium (Cr)	**37.3**	**90**	**38**	36	35	34	**38**	**38**
Total Cobalt (Co)	-	-	9.5	9.0	9.2	9.1	9.8	9.7
Total Copper (Cu)	**35.7**	**197**	**37.7**	**36.0**	34.6	**36.7**	**39.0**	**39.1**
Total Iron (Fe)	-	-	18400	18300	17300	17100	18900	19500
Total Lead (Pb)	**35**	**91.3**	5.3	5.4	5.2	5.3	5.7	5.7
Total Magnesium (Mg)	-	-	6770	6500	6530	6390	6980	7120
Total Manganese (Mn)	-	-	217	206	194	203	218	233
Total Mercury (Hg)	**0.17**	**0.486**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Molybdenum (Mo)	-	-	1.7	1.4	1.5	1.6	1.7	1.5
Total Nickel (Ni)	-	-	27.2	27.4	26.1	26.2	28.9	28.6
Total Phosphorus (P)	-	-	632	702	652	594	689	700
Total Potassium (K)	-	-	2560	2360	2580	2450	2760	2600
Total Selenium (Se)	-	-	<0.5	0.6	0.7	<0.5	<0.5	0.5
Total Silver (Ag)	-	-	0.09	0.08	0.08	0.09	0.10	0.09
Total Sodium (Na)	-	-	529	494	501	480	539	572
Total Strontium (Sr)	-	-	26.5	28.9	25.5	23.8	27.2	32.4
Total Thallium (Tl)	-	-	0.09	0.21	0.17	0.13	0.13	0.07
Total Tin (Sn)	-	-	0.5	0.4	0.4	0.5	0.5	0.5
Total Titanium (Ti)	-	-	653	589	640	605	658	605
Total Vanadium (V)	-	-	39	36	37	35	40	38
Total Zinc (Zn)	**123**	**315**	61	60	57	59	65	61
Total Zirconium (Zr)	-	-	3.4	2.6	2.7	2.8	3.1	3.4

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Bold and highlighted values area above the TEL

Appendix C1. Sediment particle size and chemistry for freshwater lakes, 2007.

	CCME - SQG*		Glenn Lake						
			Gravity Core					Ekman	
	ISQG (TEL)	PEL	#1	#2	#3	#4	#5	Shallow	Deep
			26-Aug-07	26-Aug-07	26-Aug-07	26-Aug-07	26-Aug-07	26-Aug-07	26-Aug-07
TOC (g/kg)	-	-	0.65	0.59	0.61	0.59	0.61	0.46	0.66
Sand by hydrometer (%)	-	-	10	9	10	8	<2	21	14
Silt by hydrometer (%)	-	-	25	29	26	29	39	45	26
Clay Content (%)	-	-	65	62	64	64	61	34	60
Texture	-	-	CLAY	CLAY	CLAY	CLAY	CLAY	CLAY LOAM	CLAY
Sieve - #10 (>2.00mm) (%)	-	-	4.8	6.9	0.5	1.3	0.3	0.9	0.7
Sieve - #30 (>0.60mm) (%)	-	-	28	33	25	19	17	13	24
Sieve - #50 (>0.300 mm) (%)	-	-	18	18	22	24	25	15	24
(%)	-	-	15	14	17	18	18	13	17
Sieve - #270 (>0.053mm) (%)	-	-	16	15	18	21	20	38	25
Sieve - #400 (>0.030 mm) (%)	-	-	5.5	4.7	8.1	6.3	6	9.6	3.3
Sieve - Pan (%)	-	-	12	8.1	9.4	9.7	13	10	5.5
Moisture (%)	-	-	52.3	52.0	53.5	51.9	54.2	47.2	37.9
Total Metals (mg/kg)									
Total Aluminum (Al)	-	-	31100	27800	28800	28400	26300	18300	27000
Total Antimony (Sb)	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Arsenic (As)	**5.9**	**17**	2.8	2.5	2.3	2.8	2.4	2.7	2.5
Total Barium (Ba)	-	-	165	155	158	155	142	92.7	155
Total Beryllium (Be)	-	-	0.9	0.8	0.8	0.9	0.8	0.4	0.8
Total Bismuth (Bi)	-	-	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Total Cadmium (Cd)	**0.6**	**3.5**	0.09	0.08	0.09	0.08	0.08	0.05	0.08
Total Chromium (Cr)	**37.3**	**90**	**82**	**76**	**76**	**73**	**70**	**49**	**73**
Total Cobalt (Co)	-	-	18.8	17.5	17.6	17.2	16.1	12.3	17.3
Total Copper (Cu)	**35.7**	**197**	**39.8**	**37.3**	**37.7**	**36.7**	34.6	30.0	**37.9**
Total Iron (Fe)	-	-	42800	39500	40300	38900	36000	26900	38500
Total Lead (Pb)	**35**	**91.3**	10.7	9.9	10.1	9.8	9.2	6.7	9.7
Total Magnesium (Mg)	-	-	22200	20900	21000	20800	18700	13000	19500
Total Manganese (Mn)	-	-	674	480	492	480	447	344	482
Total Mercury (Hg)	**0.17**	**0.486**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Molybdenum (Mo)	-	-	1.0	0.8	0.8	0.8	0.8	0.6	0.8
Total Nickel (Ni)	-	-	45.1	42.5	41.8	41.2	39.2	29.2	42.0
Total Phosphorus (P)	-	-	757	696	711	677	638	614	696
Total Potassium (K)	-	-	8820	8670	8250	8000	7550	5160	8050
Total Selenium (Se)	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Silver (Ag)	-	-	0.13	0.12	0.11	0.12	0.11	0.09	0.12
Total Sodium (Na)	-	-	1560	1360	1370	1340	1310	904	1320
Total Strontium (Sr)	-	-	39.8	35.7	35.7	35.1	34.1	25.1	34.7
Total Thallium (Tl)	-	-	0.31	0.30	0.32	0.31	0.29	0.18	0.32
Total Tin (Sn)	-	-	1.2	1.1	1.2	1.1	1.0	0.7	1.1
Total Titanium (Ti)	-	-	1910	1740	1740	1730	1650	1190	1700
Total Vanadium (V)	-	-	86	78	79	77	73	54	77
Total Zinc (Zn)	**123**	**315**	105	97	97	97	90	64	100
Total Zirconium (Zr)	-	-	5.3	4.7	4.5	4.5	4.3	2.6	4.3

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Appendix C1. Sediment particle size and chemistry for freshwater lakes, 2007.

	CCME - SQG*		Ogama Lake						
			Gravity Core					Ekman	
	ISQG (TEL)	PEL	#1	#2	#3	#4	#5	Shallow	Deep
			26-Aug-07	26-Aug-07	26-Aug-07	26-Aug-07	26-Aug-07	26-Aug-07	26-Aug-07
TOC (g/kg)	-	-	2.7	2.2	2.3	1.9	2.3	0.45	2.7
Sand by hydrometer (%)	-	-	17	35	10	5	20	19	12
Silt by hydrometer (%)	-	-	51	42	54	56	50	49	53
Clay Content (%)	-	-	32	22	37	40	30	32	35
Texture	-	-	SLTY CL LM	LOAM	SLTY CL LM	SLTY CL LM	CLAY LOAM	SLTY CL LM	SLTY CL LM
Sieve - #10 (>2.00mm) (%)	-	-	1.2	1.3	0.7	0.8	<0.1	9	0.7
Sieve - #30 (>0.60mm) (%)	-	-	12	16	15	14	13	26	17
Sieve - #50 (>0.300 mm) (%)	-	-	15	17	16	17	17	11	19
(%)	-	-	15	14	14	15	14	9	14
Sieve - #270 (>0.053mm) (%)	-	-	22	21	23	24	24	21	20
Sieve - #400 (>0.030 mm) (%)	-	-	9.9	10	11	11	10	6.8	8.9
Sieve - Pan (%)	-	-	24	21	20	18	21	16	21
Moisture (%)	-	-	55.9	52.8	54.5	49.6	51.1	36.7	57.1
Total Metals (mg/kg)									
Total Aluminum (Al)	-	-	19700	20000	19900	19800	20700	15100	20600
Total Antimony (Sb)	-	-	<0.1	0.1	<0.1	0.1	<0.1	<0.1	<0.1
Total Arsenic (As)	**5.9**	**17**	2.3	3.3	2.6	2.8	3.2	1.9	2.4
Total Barium (Ba)	-	-	99.6	103	101	98.5	106	72.9	98.6
Total Beryllium (Be)	-	-	0.7	0.4	0.6	0.7	0.7	0.5	0.7
Total Bismuth (Bi)	-	-	0.2	0.2	0.2	0.2	0.2	0.1	0.2
Total Cadmium (Cd)	**0.6**	**3.5**	0.07	0.08	0.08	0.08	0.08	<0.05	0.06
Total Chromium (Cr)	**37.3**	**90**	**60**	**60**	**60**	**59**	**61**	**44**	**60**
Total Cobalt (Co)	-	-	12.1	12.6	12.7	12.7	13.0	9.0	12.2
Total Copper (Cu)	**35.7**	**197**	26.8	26.4	25.4	25.1	27.0	19.5	25.6
Total Iron (Fe)	-	-	30600	34100	32300	29200	32900	20600	32400
Total Lead (Pb)	**35**	**91.3**	7.9	8.3	8.4	7.9	8.7	6.0	7.8
Total Magnesium (Mg)	-	-	12900	12600	12700	12900	13000	9940	12800
Total Manganese (Mn)	-	-	307	348	321	303	343	216	332
Total Mercury (Hg)	**0.17**	**0.486**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Molybdenum (Mo)	-	-	0.9	0.8	0.9	1.1	0.9	0.9	0.7
Total Nickel (Ni)	-	-	32.2	33.7	33.1	32.8	34.0	23.4	31.5
Total Phosphorus (P)	-	-	779	891	814	783	824	631	837
Total Potassium (K)	-	-	4850	4870	4950	4960	5280	4250	4750
Total Selenium (Se)	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Silver (Ag)	-	-	0.10	0.11	0.11	0.10	0.11	0.08	0.09
Total Sodium (Na)	-	-	808	878	972	966	852	632	799
Total Strontium (Sr)	-	-	26.2	27.0	26.9	26.1	27.8	20.1	25.8
Total Thallium (Tl)	-	-	0.19	0.37	0.24	0.19	0.22	0.12	0.19
Total Tin (Sn)	-	-	0.8	0.8	0.8	0.8	0.9	0.6	0.8
Total Titanium (Ti)	-	-	1260	1240	1230	1240	1290	968	1240
Total Vanadium (V)	-	-	63	59	60	60	62	49	63
Total Zinc (Zn)	**123**	**315**	77	78	78	76	79	52	75
Total Zirconium (Zr)	-	-	3.6	3.3	3.6	3.9	3.8	4.3	3.6

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Appendix C1. Sediment particle size and chemistry for freshwater lakes, 2007.

	CCME - SQG*		Patch Lake South					
			Gravity Core					Ekman
	ISQG (TEL)	PEL	#1 South	#2 South	#3 South	#4 South	#5 South	Deep
			20-Aug-07	20-Aug-07	20-Aug-07	20-Aug-07	20-Aug-07	20-Aug-07
TOC (g/kg)	-	-	1.6	1.6	1.5	1.6	1.6	1.7
Sand by hydrometer (%)	-	-	<2	<2	<2	<2	2	2
Silt by hydrometer (%)	-	-	58	51	55	53	55	57
Clay Content (%)	-	-	42	49	45	47	43	41
Texture	-	-	SILTY CLAY	SILTY CLAY	SILTY CLAY	SILTY CLAY	SILTY CLAY	SILTY CLAY
Sieve - #10 (>2.00mm) (%)	-	-	2.7	1.7	5.3	2.4	1.6	2.2
Sieve - #30 (>0.60mm) (%)	-	-	33	32	33	28	28	32
Sieve - #50 (>0.300 mm) (%)	-	-	17	18	16	18	18	19
(%)	-	-	13	12	12	14	14	14
Sieve - #270 (>0.053mm) (%)	-	-	15	15	15	18	16	15
Sieve - #400 (>0.030 mm) (%)	-	-	4.9	5.6	5.9	6	6	3.9
Sieve - Pan (%)	-	-	14	15	12	13	16	15
Moisture (%)	-	-	60.3	56.1	59.7	62.9	60.1	61.6
Total Metals (mg/kg)								
Total Aluminum (Al)	-	-	22800	23700	24400	24300	23600	23500
Total Antimony (Sb)	-	-	0.1	0.1	0.1	0.1	0.1	0.1
Total Arsenic (As)	**5.9**	**17**	4.6	3.8	4.4	5.0	3.8	5.6
Total Barium (Ba)	-	-	125	137	131	135	133	136
Total Beryllium (Be)	-	-	0.7	0.8	0.6	0.8	0.6	0.9
Total Bismuth (Bi)	-	-	0.2	0.2	0.2	0.2	0.2	0.2
Total Cadmium (Cd)	**0.6**	**3.5**	0.08	0.09	0.08	0.08	0.09	0.08
Total Chromium (Cr)	**37.3**	**90**	**65**	**70**	**72**	**70**	**69**	**68**
Total Cobalt (Co)	-	-	14.9	16.0	15.6	16.0	15.7	15.4
Total Copper (Cu)	**35.7**	**197**	30.9	33.8	33.9	33.4	32.9	32.6
Total Iron (Fe)	-	-	36600	39300	37700	39600	38000	42000
Total Lead (Pb)	**35**	**91.3**	9.4	10.2	9.9	10.0	9.8	9.5
Total Magnesium (Mg)	-	-	14000	14700	14700	14900	14800	15000
Total Manganese (Mn)	-	-	760	660	645	733	673	802
Total Mercury (Hg)	**0.17**	**0.486**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Molybdenum (Mo)	-	-	1.4	1.4	1.3	1.3	1.5	1.1
Total Nickel (Ni)	-	-	40.1	42.8	42.1	43.5	42.5	41.1
Total Phosphorus (P)	-	-	942	886	894	909	855	1030
Total Potassium (K)	-	-	5530	5640	5720	5770	5830	6250
Total Selenium (Se)	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Silver (Ag)	-	-	0.11	0.11	0.10	0.11	0.10	0.11
Total Sodium (Na)	-	-	1000	1050	1050	1120	1090	1050
Total Strontium (Sr)	-	-	27.3	29.4	29.3	29.9	28.4	28.4
Total Thallium (Tl)	-	-	0.22	0.25	0.22	0.32	0.28	0.26
Total Tin (Sn)	-	-	0.9	1.0	0.9	1.0	0.9	0.9
Total Titanium (Ti)	-	-	1280	1400	1390	1390	1340	1360
Total Vanadium (V)	-	-	67	70	70	71	69	70
Total Zinc (Zn)	**123**	**315**	81	87	86	86	84	87
Total Zirconium (Zr)	-	-	3.2	3.6	3.5	3.4	3.3	3.1

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Bold and highlighted values area above the TEL

Appendix C1. Sediment particle size and chemistry for freshwater lakes, 2007.

	CCME - SQG*		Patch Lake North					
			Gravity Core					Ekman
	ISQG (TEL)	PEL	#1 North	#2 North	#3 North	#4 North	#5 North	Shallow
			20-Aug-07	20-Aug-07	20-Aug-07	20-Aug-07	20-Aug-07	20-Aug-07
TOC (g/kg)	-	-	2.5	2.5	2.1	3.0	2.1	8.9
Sand by hydrometer (%)	-	-	3	30	12	7	30	21
Silt by hydrometer (%)	-	-	65	39	55	60	48	73
Clay Content (%)	-	-	32	31	34	32	22	6
Texture	-	-	SLTY CL LM	CLAY LOAM	SLTY CL LM	SLTY CL LM	LOAM	SILT LOAM
Sieve - #10 (>2.00mm) (%)	-	-	1.8	12	9.9	10	5.2	16
Sieve - #30 (>0.60mm) (%)	-	-	41	32	35	33	40	22
Sieve - #50 (>0.300 mm) (%)	-	-	19	17	16	19	17	13
(%)	-	-	12	13	12	14	12	13
Sieve - #270 (>0.053mm) (%)	-	-	12	13	13	13	12	21
Sieve - #400 (>0.030 mm) (%)	-	-	3.7	3.3	3.4	3.1	3.8	5.5
Sieve - Pan (%)	-	-	10	10	11	7.9	9.8	9.9
Moisture (%)	-	-	74.1	72.1	68.6	75.4	66.9	83.7
Total Metals (mg/kg)								
Total Aluminum (Al)	-	-	28600	26400	28100	26600	26800	19500
Total Antimony (Sb)	-	-	0.1	0.1	0.2	0.1	0.2	0.2
Total Arsenic (As)	**5.9**	**17**	3.7	3.8	4.5	4.4	5.2	3.5
Total Barium (Ba)	-	-	139	129	145	131	135	89
Total Beryllium (Be)	-	-	1.1	0.8	1.1	0.8	0.8	0.7
Total Bismuth (Bi)	-	-	0.2	0.2	0.3	0.2	0.2	0.2
Total Cadmium (Cd)	**0.6**	**3.5**	0.11	0.10	0.12	0.12	0.12	0.18
Total Chromium (Cr)	**37.3**	**90**	**79**	**75**	**82**	**74**	**78**	**64**
Total Cobalt (Co)	-	-	14.8	14.6	15.6	14.3	15.9	11.9
Total Copper (Cu)	**35.7**	**197**	**55.1**	**53.8**	**53.4**	**50.9**	**54.0**	**58.3**
Total Iron (Fe)	-	-	35000	34200	36200	34300	36200	25400
Total Lead (Pb)	**35**	**91.3**	10.3	9.8	10.7	9.9	10.0	8.2
Total Magnesium (Mg)	-	-	17300	16400	18100	15800	17400	12300
Total Manganese (Mn)	-	-	324	318	335	322	328	261
Total Mercury (Hg)	**0.17**	**0.486**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Molybdenum (Mo)	-	-	2.0	1.9	2.2	2.0	2.1	1.9
Total Nickel (Ni)	-	-	46.1	44.6	47.5	44.1	47.5	39.1
Total Phosphorus (P)	-	-	813	809	790	787	734	1170
Total Potassium (K)	-	-	7020	6660	7320	6700	6680	6110
Total Selenium (Se)	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Silver (Ag)	-	-	0.11	0.10	0.11	0.10	0.11	0.15
Total Sodium (Na)	-	-	1500	1340	1500	1430	1360	1180
Total Strontium (Sr)	-	-	33.8	32.6	35.6	32.0	35.1	31.7
Total Thallium (Tl)	-	-	0.27	0.25	0.37	0.32	0.34	0.17
Total Tin (Sn)	-	-	1.0	1.0	1.0	1.0	1.0	0.8
Total Titanium (Ti)	-	-	1550	1450	1620	1460	1550	1090
Total Vanadium (V)	-	-	79	76	82	76	80	60
Total Zinc (Zn)	**123**	**315**	98	92	96	91	96	76
Total Zirconium (Zr)	-	-	3.3	2.9	3.7	3.1	3.3	2.4

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Appendix C1. Sediment particle size and chemistry for freshwater lakes, 2007.

	CCME - SQG*		Pelvic Lake						
			Gravity Core					Ekman	
	ISQG (TEL)	PEL	#1	#2	#3	#4	#5	Shallow	Deep
			27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07
TOC (g/kg)	-	-	1.6	1.5	1.7	1.4	1.6	1.3	1.5
Sand by hydrometer (%)	-	-	3	<2	8	2	10	16	17
Silt by hydrometer (%)	-	-	51	47	45	49	46	54	41
Clay Content (%)	-	-	46	52	47	49	44	30	42
Texture	-	-	SILTY CLAY	SILTY CLAY	SILTY CLAY	SILTY CLAY	SILTY CLAY	SLTY CL LM	CLAY
Sieve - #10 (>2.00mm) (%)	-	-	4.2	1.2	<0.1	2	1	0.8	0.7
Sieve - #30 (>0.60mm) (%)	-	-	37	34	32	38	38	29	46
Sieve - #50 (>0.300 mm) (%)	-	-	17	20	19	19	18	12	17
(%)	-	-	12	14	14	13	12	10	11
Sieve - #270 (>0.053mm) (%)	-	-	13	13	14	13	13	29	11
Sieve - #400 (>0.030 mm) (%)	-	-	4	4.5	4.8	4	3.9	5.7	3.5
Sieve - Pan (%)	-	-	14	14	17	11	14	14	11
Moisture (%)	-	-	54.6	62.3	65.1	60.6	56.2	47.1	59.4
Total Metals (mg/kg)									
Total Aluminum (Al)	-	-	23000	21600	24700	21700	22600	14800	23800
Total Antimony (Sb)	-	-	0.1	0.1	0.1	<0.1	<0.1	<0.1	0.1
Total Arsenic (As)	**5.9**	**17**	3.0	3.0	3.5	2.8	3.1	1.5	3.1
Total Barium (Ba)	-	-	120	112	125	108	115	73.2	122
Total Beryllium (Be)	-	-	0.6	0.7	1.1	0.7	0.7	0.5	0.8
Total Bismuth (Bi)	-	-	0.2	0.2	0.2	0.2	0.2	0.1	0.2
Total Cadmium (Cd)	**0.6**	**3.5**	0.07	0.06	0.08	0.07	0.07	0.06	0.09
Total Chromium (Cr)	**37.3**	**90**	**64**	**62**	**68**	**59**	**64**	**41**	**68**
Total Cobalt (Co)	-	-	13.2	12.8	13.9	12.4	13.4	8.8	14.3
Total Copper (Cu)	**35.7**	**197**	31.5	30.3	33.3	29.6	30.8	20.1	33.1
Total Iron (Fe)	-	-	34100	32200	36000	31000	34400	20200	36200
Total Lead (Pb)	**35**	**91.3**	9.0	8.5	9.2	8.2	8.6	5.8	8.9
Total Magnesium (Mg)	-	-	14100	13300	14900	13300	14300	9210	14800
Total Manganese (Mn)	-	-	405	418	432	377	401	278	476
Total Mercury (Hg)	**0.17**	**0.486**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Molybdenum (Mo)	-	-	1.0	1.0	1.2	1.0	1.0	0.8	1.2
Total Nickel (Ni)	-	-	35.7	35.8	39.2	33.8	35.5	23.3	38.5
Total Phosphorus (P)	-	-	912	888	1020	853	789	662	985
Total Potassium (K)	-	-	5240	5350	5670	5170	5370	3470	5700
Total Selenium (Se)	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Silver (Ag)	-	-	0.10	0.10	0.11	0.10	0.10	0.06	0.11
Total Sodium (Na)	-	-	1040	982	1100	939	990	567	1010
Total Strontium (Sr)	-	-	26.0	25.7	27.9	23.6	25.3	18.1	27.5
Total Thallium (Tl)	-	-	0.21	0.21	0.22	0.19	0.20	0.10	0.24
Total Tin (Sn)	-	-	0.9	0.8	0.9	0.8	0.8	0.6	0.9
Total Titanium (Ti)	-	-	1290	1260	1390	1220	1310	894	1350
Total Vanadium (V)	-	-	65	64	70	61	66	43	71
Total Zinc (Zn)	**123**	**315**	84	79	85	75	80	53	85
Total Zirconium (Zr)	-	-	3.3	3.2	3.6	3.3	3.7	1.8	3.7

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Appendix C1. Sediment particle size and chemistry for freshwater lakes, 2007.

	CCME - SQG*		P.O. Lake					
			Gravity Core					Ekman
	ISQG (TEL)	PEL	#1	#2	#3	#4	#5	Shallow
			27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07
TOC (g/kg)	-	-	1.3	1.7	1.4	1.3	1.3	2.1
Sand by hydrometer (%)	-	-	5	<2	9	7	3	16
Silt by hydrometer (%)	-	-	41	37	43	43	30	39
Clay Content (%)	-	-	54	62	48	51	67	45
Texture	-	-	SILTY CLAY	CLAY	SILTY CLAY	SILTY CLAY	CLAY	CLAY
Sieve - #10 (>2.00mm) (%)	-	-	2.3	3.1	1.5	1.7	6	4.8
Sieve - #30 (>0.60mm) (%)	-	-	37	31	37	37	34	18
Sieve - #50 (>0.300 mm) (%)	-	-	19	19	18	18	17	16
(%)	-	-	14	15	13	13	13	18
Sieve - #270 (>0.053mm) (%)	-	-	13	15	14	14	14	23
Sieve - #400 (>0.030 mm) (%)	-	-	3.8	4	3.7	3.3	3.7	5.7
Sieve - Pan (%)	-	-	11	14	13	13	13	13
Moisture (%)	-	-	53.4	67.8	62.4	63.2	57.3	62.9
Total Metals (mg/kg)								
Total Aluminum (Al)	-	-	22200	24900	23700	25700	25200	21300
Total Antimony (Sb)	-	-	0.1	0.1	0.1	0.1	0.1	0.1
Total Arsenic (As)	**5.9**	**17**	3.8	4.8	4.9	4.1	4.8	**8.2**
Total Barium (Ba)	-	-	118	149	136	145	146	127
Total Beryllium (Be)	-	-	0.7	0.9	0.7	0.7	1.0	0.6
Total Bismuth (Bi)	-	-	0.2	0.3	0.2	0.2	0.2	0.2
Total Cadmium (Cd)	**0.6**	**3.5**	0.07	0.10	0.09	0.09	0.10	0.09
Total Chromium (Cr)	**37.3**	**90**	**65**	**76**	**69**	**71**	**74**	**63**
Total Cobalt (Co)	-	-	13.3	15.6	14.8	15.2	15.5	13.6
Total Copper (Cu)	**35.7**	**197**	29.3	34.8	32.5	32.6	33.4	31.1
Total Iron (Fe)	-	-	33200	39900	35700	38300	39100	41100
Total Lead (Pb)	**35**	**91.3**	8.7	10.1	9.5	9.7	10.0	8.5
Total Magnesium (Mg)	-	-	14500	16600	15900	16100	16700	14200
Total Manganese (Mn)	-	-	439	522	509	502	506	538
Total Mercury (Hg)	**0.17**	**0.486**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Molybdenum (Mo)	-	-	1.3	1.7	1.6	1.7	1.7	1.6
Total Nickel (Ni)	-	-	36.1	44.3	40.6	42.4	43.4	37.8
Total Phosphorus (P)	-	-	775	932	820	879	898	1080
Total Potassium (K)	-	-	5880	6850	6320	6460	6810	6370
Total Selenium (Se)	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Silver (Ag)	-	-	0.11	0.12	0.11	0.11	0.12	0.09
Total Sodium (Na)	-	-	929	1160	1060	1050	1100	1090
Total Strontium (Sr)	-	-	24.7	30.4	27.8	29.0	28.3	27.3
Total Thallium (Tl)	-	-	0.22	0.26	0.23	0.24	0.28	0.23
Total Tin (Sn)	-	-	0.9	1.0	0.9	1.0	1.0	0.9
Total Titanium (Ti)	-	-	1350	1500	1440	1450	1480	1270
Total Vanadium (V)	-	-	69	77	74	76	77	67
Total Zinc (Zn)	**123**	**315**	81	92	85	90	91	78
Total Zirconium (Zr)	-	-	4.6	4.9	4.8	4.8	5.2	3.5

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Appendix C1. Sediment particle size and chemistry for freshwater lakes, 2007.

	CCME - SQG*		Windy Lake						
			Gravity Core					Ekman	
	ISQG (TEL)	PEL	#1	#2	#3	#4	#5	Shallow	Deep
			25-Aug-07	25-Aug-07	25-Aug-07	25-Aug-07	25-Aug-07	23-Aug-07	25-Aug-07
TOC (g/kg)	-	-	0.84	0.82	0.89	0.73	0.97	0.67	1.0
Sand by hydrometer (%)	-	-	5	<2	<2	<2	2	22	<2
Silt by hydrometer (%)	-	-	45	47	47	47	49	59	20
Clay Content (%)	-	-	50	51	52	53	49	20	48
Texture	-	-	SILTY CLAY	SILTY CLAY	SILTY CLAY	SILTY CLAY	SILTY CLAY	SILT LOAM	SILTY CLAY
Sieve - #10 (>2.00mm) (%)	-	-	0.3	0.7	2.1	0.9	1.4	0.7	1.7
Sieve - #30 (>0.60mm) (%)	-	-	27	24	28	22	21	11	30
Sieve - #50 (>0.300 mm) (%)	-	-	21	21	20	22	22	7.8	19
(%)	-	-	15	16	15	16	16	6.4	14
Sieve - #270 (>0.053mm) (%)	-	-	17	17	16	20	19	40	19
Sieve - #400 (>0.030 mm) (%)	-	-	5.8	5.5	7.5	7.7	6.8	14	5.4
Sieve - Pan (%)	-	-	15	15	12	12	14	21	10
Moisture (%)	-	-	58.6	62.5	62.7	61.3	59.1	38.9	61.8
Total Metals (mg/kg)									
Total Aluminum (Al)	-	-	26300	26100	25700	26400	27000	10700	26100
Total Antimony (Sb)	-	-	0.2	0.2	0.2	0.2	0.2	<0.1	0.2
Total Arsenic (As)	**5.9**	**17**	4.9	5.8	4.9	5.6	5.2	2.6	**6.1**
Total Barium (Ba)	-	-	144	142	141	144	145	54.7	139
Total Beryllium (Be)	-	-	0.7	0.9	0.8	0.8	0.7	0.2	0.8
Total Bismuth (Bi)	-	-	0.3	0.3	0.3	0.3	0.3	0.1	0.3
Total Cadmium (Cd)	**0.6**	**3.5**	0.11	0.10	0.10	0.11	0.10	<0.05	0.08
Total Chromium (Cr)	**37.3**	**90**	**76**	**73**	**73**	**73**	**75**	34	**74**
Total Cobalt (Co)	-	-	16.3	15.9	15.8	15.6	15.8	7.5	15.8
Total Copper (Cu)	**35.7**	**197**	**43.7**	**41.3**	**41.5**	**40.6**	**40.7**	20.5	**42.3**
Total Iron (Fe)	-	-	38000	36100	35300	35100	36800	17400	36700
Total Lead (Pb)	**35**	**91.3**	10.8	10.6	10.6	10.6	10.7	4.9	10.7
Total Magnesium (Mg)	-	-	18000	17300	17600	17300	17500	7190	17100
Total Manganese (Mn)	-	-	475	466	472	432	453	197	452
Total Mercury (Hg)	**0.17**	**0.486**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Molybdenum (Mo)	-	-	1.1	1.5	1.4	1.4	1.5	0.7	1.4
Total Nickel (Ni)	-	-	43.4	43.8	41.5	42.7	42.3	18.6	41.4
Total Phosphorus (P)	-	-	864	771	804	774	835	557	898
Total Potassium (K)	-	-	7140	6920	6820	7020	6930	2650	6650
Total Selenium (Se)	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Silver (Ag)	-	-	0.12	0.12	0.12	0.13	0.12	0.05	0.12
Total Sodium (Na)	-	-	1320	1270	1270	1240	1270	478	1220
Total Strontium (Sr)	-	-	34.7	33.7	33.8	33.9	33.6	15.7	34.3
Total Thallium (Tl)	-	-	0.28	0.29	0.27	0.30	0.28	0.07	0.28
Total Tin (Sn)	-	-	1.0	1.0	1.1	1.1	1.0	0.4	1.0
Total Titanium (Ti)	-	-	1580	1510	1500	1520	1510	701	1480
Total Vanadium (V)	-	-	77	74	73	73	75	36	75
Total Zinc (Zn)	**123**	**315**	96	90	92	93	91	38	90
Total Zirconium (Zr)	-	-	3.6	4.0	3.5	3.8	3.6	1.6	3.3

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Appendix C1. Sediment particle size and chemistry for freshwater lakes, 2007.

	CCME - SQG*		Wolverine Lake					
			Gravity Core					Ekman
	ISQG (TEL)	PEL	#1	#2	#3	#4	#5	Shallow
			21-Aug-07	21-Aug-07	21-Aug-07	21-Aug-07	21-Aug-07	21-Aug-07
TOC (g/kg)	-	-	4.4	4.9	3.6	4.5	3.8	3.5
Sand by hydrometer (%)	-	-	2	3	<2	2	2	3
Silt by hydrometer (%)	-	-	49	59	63	62	63	64
Clay Content (%)	-	-	49	38	36	36	35	32
Texture	-	-	SILTY CLAY	SLTY CL LM	SLTY CL LM	SLTY CL LM	SLTY CL LM	SLTY CL LM
Sieve - #10 (>2.00mm) (%)	-	-	<0.1	0.1	0.3	0.4	<0.1	2.8
Sieve - #30 (>0.60mm) (%)	-	-	9.8	10	11	12	6.7	20
Sieve - #50 (>0.300 mm) (%)	-	-	15	17	18	18	15	15
(%)	-	-	16	16	16	16	16	12
Sieve - #270 (>0.053mm) (%)	-	-	24	21	21	20	23	19
Sieve - #400 (>0.030 mm) (%)	-	-	8.2	8.4	8.3	8.9	11	8
Sieve - Pan (%)	-	-	26	27	26	24	28	24
Moisture (%)	-	-	70.7	71.5	66.8	70.3	65.2	69.5
Total Metals (mg/kg)								
Total Aluminum (Al)	-	-	25700	22900	21700	21600	21900	19500
Total Antimony (Sb)	-	-	0.1	0.1	0.1	0.1	0.1	0.1
Total Arsenic (As)	**5.9**	**17**	3.5	3.2	3.1	3.1	3.2	3.5
Total Barium (Ba)	-	-	126	118	112	114	119	116
Total Beryllium (Be)	-	-	0.9	0.8	0.6	0.6	0.6	0.6
Total Bismuth (Bi)	-	-	0.2	0.2	0.2	0.2	0.2	0.2
Total Cadmium (Cd)	**0.6**	**3.5**	0.08	0.09	0.08	0.07	0.08	0.08
Total Chromium (Cr)	**37.3**	**90**	**71**	**67**	**63**	**65**	**65**	**59**
Total Cobalt (Co)	-	-	13.4	12.7	11.9	12.5	12.3	12.9
Total Copper (Cu)	**35.7**	**197**	32.6	32.1	29.1	31.3	30.7	28.0
Total Iron (Fe)	-	-	31400	29700	26900	29200	30600	35300
Total Lead (Pb)	**35**	**91.3**	9.5	9.3	8.9	8.9	9.2	9.0
Total Magnesium (Mg)	-	-	15400	14100	13400	13200	13700	11400
Total Manganese (Mn)	-	-	340	317	300	315	319	332
Total Mercury (Hg)	**0.17**	**0.486**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Molybdenum (Mo)	-	-	1.2	1.2	1.1	1.1	1.2	1.1
Total Nickel (Ni)	-	-	39.9	38.3	34.2	37.1	37.1	33.9
Total Phosphorus (P)	-	-	784	714	628	678	632	1150
Total Potassium (K)	-	-	5980	5600	4990	5250	5030	4650
Total Selenium (Se)	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Silver (Ag)	-	-	0.13	0.11	0.11	0.10	0.11	0.10
Total Sodium (Na)	-	-	1400	1410	1170	1300	1280	780
Total Strontium (Sr)	-	-	32.2	31.6	28.5	30.6	30.5	25.3
Total Thallium (Tl)	-	-	0.24	0.23	0.20	0.21	0.21	0.20
Total Tin (Sn)	-	-	1.0	0.9	0.8	0.9	0.9	0.8
Total Titanium (Ti)	-	-	1450	1360	1260	1310	1300	1190
Total Vanadium (V)	-	-	70	64	62	63	64	59
Total Zinc (Zn)	**123**	**315**	84	81	73	77	79	72
Total Zirconium (Zr)	-	-	5.1	4.7	4.6	4.5	4.8	4.3

*Sediment Quality Guidelines for the Protection of Freshwater Aquatic Life
TEL - Threshold Effect Level
PEL - Probable Effects Level
ISQG - Interim Sediment Quality Guideline
Bold and highlighted values area above the TEL

APPENDIX C2

SUMMARY STATISTICS FOR GRAVITY CORE SAMPLES

Appendix C2. Summary statistics for gravity core samples in freshwater lakes, 2007

	CCME - SQG[3]		Aimaokatalok Lake				Fickle Duck Lake				Reference Lake				Stickleback Lake			
	ISQG	PEL	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max
Physical																		
Moisture (%)			45	1.9	42.2	47.4	51.5	4.8	44.4	56.7	46.3	4.7	41.5	53.9	86	2.4	82.7	88
Organic																		
TOC (g/kg)			9.2	1.7	7.5	11	33	6	24	40	24	2	21	26	101	11	92	120
Total Metals																		
Total Aluminum (Al)			18660	907	17900	20000	14320	1374	12600	16200	16360	666	15500	17000	11960	680	11100	13000
Total Arsenic (As)	5.9	17	3.6	0.7	2.4	4.3	3.4	0.6	2.5	3.9	2.3	0.2	2.1	2.6	4.6	0.3	4.2	4.9
Total Cadmium (Cd)	0.6	3.5	0.16	0.09	0.08	0.26	0.09	0.01	0.08	0.11	0.12	0.01	0.11	0.13	0.18	0.09	0.12	0.33
Total Chromium (Cr)	37.3	90	***56***	3	***52***	***60***	***48***	6	***40***	***55***	***51***	1	***50***	***53***	36	2	34	***38***
Total Copper (Cu)	35.7	197	23.1	1.9	20.5	25.4	23.1	2.9	19.2	26.9	22.1	1	20.9	22.9	***36.8***	1.7	34.6	***39***
Total Iron (Fe)			25280	2567	22500	28300	20840	1939	18100	22900	23760	688	22800	24600	18000	768	17100	18900
Total Lead (Pb)	35	91.3	8.3	0.5	7.7	9	7	0.7	6.1	8	7.2	0.2	7	7.4	5.4	0.2	5.2	5.7
Total Mercury (Hg)	0.17	0.486	<0.05	0	<0.05	<0.05	<0.05	0	<0.05	<0.05	<0.05	0	<0.05	<0.05	<0.05	0	<0.05	<0.05
Total Selenium (Se)			<0.5	0	<0.5	<0.5	<0.5	0	<0.5	<0.5	<0.5	0	<0.5	<0.5	0.4	0.2	<0.5	0.7
Total Silver (Ag)			0.13	0.01	0.12	0.15	0.11	0.02	0.1	0.14	0.11	0.004	0.1	0.11	0.09	0.008	0.08	0.1
Total Zinc (Zn)	123	315	90	10	81	105	70	6	61	77	80	2	77	82	60	3	57	65

Appendix C2. Summary statistics for gravity core samples in freshwater lakes, 2007

Glenn Lake				Ogama Lake				Patch Lake South				Patch Lake North				Pelvic Lake			
Mean	**SD**	**Min**	**Max**	**Mean**	**SD**	**Min**	**Max**	**Mean**	**SD**	**Min**	**Max**	**Mean**	**SD**	**Min**	**Max**	**Mean**	**SD**	**Min**	**Max**
52.8	1	51.9	54.2	52.8	2.5	49.6	55.9	59.8	2.4	56.1	62.9	71.4	3.6	66.9	75.4	59.8	4.3	54.6	65.1
6.1	0.2	5.9	6.5	23	3	19	27	16	0.4	15	16	24	4	21	30	16	1	14	17
28480	1746	26300	31100	20020	396	19700	20700	23760	643	22800	24400	27300	985	26400	28600	22720	1256	21600	24700
2.6	0.2	2.3	2.8	2.8	0.4	2.3	3.3	4.3	0.5	3.8	5	4.3	0.6	3.7	5.2	3.1	0.3	2.8	3.5
0.08	0.01	0.08	0.09	0.08	0.004	0.07	0.08	0.08	0.01	0.08	0.09	0.11	0.01	0.1	0.12	0.07	0.007	0.06	0.08
75	4	***70***	***82***	***60***	0.7	***59***	***61***	***69***	3	***65***	***72***	***78***	3	***74***	***82***	***63***	3	***59***	***68***
37.2	1.9	34.6	***39.8***	26.1	0.8	25.1	27	33	1.2	30.9	33.9	***53.4***	1.6	***50.9***	***55.1***	31.1	1.4	29.6	33.3
39500	2457	36000	42800	31820	1933	29200	34100	38240	1226	36600	39600	35180	981	34200	36200	33540	1959	31000	36000
9.9	0.5	9.2	10.7	8.2	0.3	7.9	8.7	9.9	0.3	9.4	10.2	10.1	0.4	9.8	10.7	8.7	0.4	8.2	9.2
<0.05	0	<0.05	<0.05	<0.05	0	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	0	<0.05	<0.05	<0.05	0	<0.05	<0.05
<0.5	0	<0.5	<0.5	<0.5	0	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	0	<0.5	<0.5	<0.5	0	<0.5	<0.5
0.12	0.008	0.11	0.13	0.11	0.005	0.1	0.11	0.11	0.005	0.1	0.11	0.11	0.005	0	0.11	0.1	0.004	0.1	0.11
97	5	90	105	78	1	76	79	85	2	81	87	95	3	91	98	81	4	75	85

Appendix C2. Summary statistics for gravity core samples in freshwater lakes, 2007

P.O. Lake				Windy Lake				Wolverine Lake			
Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max
60.8	5.6	53.4	67.8	60.8	1.9	58.6	62.7	68.9	2.7	65.2	71.5
14	2	13	17	8.5	0.9	7.3	9.7	42	5	36	49
24340	1405	22200	25700	26300	474	25700	27000	22760	1723	21600	25700
4.5	0.5	3.8	4.9	5.3	0.4	4.9	5.8	3.2	0.2	3.1	3.5
0.09	0.01	0.07	0.1	0.1	0.01	0.1	0.11	0.08	0.01	0.07	0.09
71	4	***65***	***76***	***74***	1	***73***	***76***	***66***	3	***63***	***71***
32.5	2	29.3	34.8	***41.6***	1.3	***40.6***	***43.7***	31.2	1.4	29.1	32.6
37240	2755	33200	39900	36260	1184	35100	38000	29560	1710	26900	31400
9.6	0.6	8.7	10.1	10.7	0.1	10.6	10.8	9.2	0.3	8.9	9.5
<0.05	-	<0.05	<0.05	<0.05	0	<0.05	<0.05	<0.05	0	<0.05	<0.05
<0.5	-	<0.5	<0.5	<0.5	0	<0.5	<0.5	<0.5	0	<0.5	<0.5
0.11	0.005	0.11	0.12	0.12	0.004	0.12	0.13	0.11	0.01	0.1	0.13
88	5	81	92	92	2	90	96	79	4	73	84

APPENDIX D

PRIMARY PRODUCERS

APPENDIX D1

PHYTOPLANKTON BIOVOLUME

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Doris Lake			Little Roberts Lake		
	16-Jul-07	16-Aug-07	13-Sep-07	15-Jul-07	18-Aug-07	14-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Achnanthes minutissima				P	287	P
Achnanthes minutissima v. cryptocephala						
Amphipleura sp.						
Amphiprora alata						
Amphora sp.						167
Amphora ovalis						
Asterionalla formosa	108643	215425	7812	61582	171995	39080
Caloneis ventricosa						
Cocconeis sp.						
Cocconeis pediculus						
Cocconeis placentula						
Cyclotella sp.						
Cymatopleura solea						
Cymbella minuta		P			P	
Cymbella sp.						
Diatoma elongatum	44881	P	1128	52865	24834	P
Diploneis sp.		P				
Epithemia sp.						
Epithemia sorex			P			
Eunotia sp.				5626		
Fragilaria sp.		5688	P		P	
Fragilaria crotonensis						
Fragilaria construens						
Frustulia vulgaris						
Gomphonema sp.						
Gyrosigma sp.		P	P		P	P
Hannaea arcus						
Licmophora sp.						
Mastigloia sp.						
Melosira sp.	75037	90788	66157	41147	165915	57334
Melosira sp. large					P	P
Melosira sp. larger						
Melosira varians						
Navicula sp.		P	3729			
Navicula sp. 2	P		123			
Navicula sp. 2 larger					P	
Navicula cryptocephala						
Navicula lanceolata		P				
Nitzschia sp. 1					P	P
Nitzschia sp. 2						
Nitzschia acicularis	P					323
Nitzschia dissipata						
Nitzschia filiformis			P			
Nitzschia palea						
Nitzschia sigmoidea						P
Nitzschia tryblionella						P
Pinnularia sp.				P		P
Pinnularia maior						
Rhizosolenia longiseta	P		1004			13677
Rhopalodia sp.	P					
Rhoicosphenia curvata						
Stauroneis sp.						
Stauroneis smithii						
Stephanodiscus astraea			19794		45483	34855
Surirella sp.						
Surirella ovata						P
Synedra sp.			981			
Synedra sp. smaller	P	P			4505	4268
Synedra acus	P	45618		P	P	
Synedra ulna						
Tabellaria fenestrata						
Tabellaria flocculosa				P	P	
Unidentified diatom						
Unidentified pennate diatom			P			
Unidentified pennate diatom			P			
Unidentified centric diatom						
Unidentified centric diatom						
Unidentified centric small				7274		3358
Unidentified centric diatom (small)	84699					
Unidentified centric diatom (medium)		17532				
Total Bacillariophyta	**313260**	**375050**	**100727**	**168494**	**413018**	**153063**
Cyanomonas sp.			4787			P
Crypyochrysis commutata			1566			
Cryptomonas sp.		P	11355		17105	4053
Cryptomonas curvata		P	15086		P	26641
Cryptomonas erosa				33375	16207	
Cryptomonas ovata	26433	12161	21604	69548	36022	27471
Cryptomonas reflexa	25352	P	6330	51323	P	19743
Katablepharis ovalis	10491	P	13821	4921	5343	6371
Rhodomonas lens		12208	7896	279575	42231	28200
Rhodomonas minuta	94318	26636	2213			
Total Cryptophyta	**156595**	**51005**	**84659**	**438742**	**116908**	**112480**
Ankistrodesmus convolutus	P	P	616	145	845	457
Ankistrodesmus falcatus						

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Doris Lake			Little Roberts Lake		
	16-Jul-07	16-Aug-07	13-Sep-07	15-Jul-07	18-Aug-07	14-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Ankistrodesmus falcatus v. acicularis		P			P	
Ankistrodesmus falcatus v. spiralis	P	P	1209		P	807
Arthrodesmus incus						
Botryococcus sp.						P
Characium sp.						
Chlamydomonas sp. a			1549	1481	1303	4488
Chlamydomonas sp. b	142900	P	12879	42703	13933	4268
Closterium sp.					P	
Coelastrum microporum				P	P	
Cosmarium sp.		5932			P	P
Cosmarium tetraopthalmum						
Crucigenia fenestrata						
Crucigenia quadrata				706		P
Cylindrocystis sp.						
Dictyosphaerium ehrenbergianum			P		4321	1092
Dispora crucigenioides						
Elakatothrix gelatinosa			288		674	1576
Elakatothrix viridis						
Euastrum binale						
Euastrum elegans						
Franceia ovalis						
Gloeotila pelagica						
Kirchneriella lunaris						
Kirchneriella sp.						
Monoraphidium						
Monoraphidium sp.	8730	6470	828	4153	2563	4715
Mougeotia sp.						
Oocystis sp.					P	1239
Oocystis solitaria v. major						
Pediastrum boryanum						
Pediastrum duplex						
Pediastrum tetras		P				
Scenedesmus sp.						
Scenedesmus acuminatus						
Scenedesmus bijuga				966	4946	1251
Scenedesmus quadricauda		2534	1475		P	
Scenedesmus spinosus						
Schroederia setigera						
Sphaerocystis schroeteri	P	6993			6146	4662
Spondylosium planum			1389			
Staurastrum sp. 1		P				
Staurastrum sp. 2						
Staurastrum sp. 3						
Staurastrum hexacerum						
Staurodesmus sp.						
Tetraedron arthrodesmiforme		634	84	P	268	124
Tetraedron caudatum						
Tetraedron incus			P			
Tetraedron limneticum						
Tetraedron minimum			P			
Tetraedron muticum					P	
Tetrastrum staurogeniaeforme				P		P
Tetraedron trigonum						
Tetraedron tumidulum						
Tetrastrum elegans						
Tetrastrum muticum						
Tetrastrum staurogeniaeforme				P		P
Tetrastrum triangulare						
Trigonum tumidulum						
Unidentified quadriflagellate						P
Unidentified filament						
Unidentified filament #1						3849
Unidentified filament #2						P
Total Chlorophyta	**151631**	**22563**	**20318**	**50154**	**34999**	**28527**
Euglena sp.		P			P	P
Lepocinclis sp.				P		
Phacus sp.			P			P
Trachelomonas sp.	P	P	P		P	P
Trachelomonas hispida						
Total Euglenophyta						

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Doris Lake			Little Roberts Lake		
	16-Jul-07	16-Aug-07	13-Sep-07	15-Jul-07	18-Aug-07	14-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Bicoeca sp.						
Bitrichia longispina						
Chromulina sp.		P	5426			4887
Chrysidastrum catenatum						
Chrysochromulina parva						1396
Chrysococcus sp.		39264	21268	12085	28454	8197
Chrysoikos skujai						
Chrysosphaerella rodhei						2197
Dinobryon crenulatum						P
Dinobryon divergens					112261	15233
Dinobryon sertularia	389473	35419	3397	333608		
Dinobryon sociale	666776	10097	2984	179896	80633	162810
Dinobryon tabellariae	104919	27251	26051	27929	14267	P
Ishtmochloron trispinatum						
Kephyrion boreale				P		
Kephyrion obliquum		7294	456	1342	4232	1739
Kephyrion petasatum						
Kephyrion spirale		P			18996	
Keriopsis sp.						
Mallomonas sp.						
Ochromonas sp. a						
Ochromonas sp. b						
Ochromonas stellaris	P	44324		P	P	
Ophiocytium sp.						
Pseudokephyrion sp.					P	549
Stelexmonas dichotoma						3085
Stichogloea doederleinii						
Synura sp.	139875	58600	1951	45441	77955	13810
Unidentified statospore	226745	22562	2651	166994	11851	5998
Total Chrysophyta	**1527788**	**244810**	**63729**	**767296**	**348649**	**219900**
Ceratium hirudinella						
Glenodinium sp.	P		3314	P	1981	31724
Gymnodinium sp. a		44218		84102	P	42165
Gymnodinium sp. b						
Gymnodinium helveticum		P	P		P	
Gymnodinium uberrimum	P					
Peridinium aciculiferum				P		
Peridinium sp.	P		P		P	
Unidentified cyst				P		
Total Pyrrophyta		**44218**	**3314**	**84102**	**1981**	**73889**
Anabaena sp.			786	12098	1384	
Anabaena sp. akinete						
Anabaena circinalis						
Anabaena solitaria						
Anabaena solitaria akinete						
Aphanizomenon gracile		568748	387376	1875		323824
Aphanizomenon gracile akinete						
Aphanocapsa elachista v. planctonica						
Aphanothece clathrata		P	303	P	1224	2483
Calothrix sp.						
Chamaesiphon sp.						P
Chroococcus dispersus						
Chroococcus sp.					P	P
Gomphosphaeria aponina						
Gomphosphaeria naegelianum					P	
Lyngbya agardhii						
Lyngbya contorta		1457	P	227	3227	38582
Lyngbya limnetica			P			
Merismopedia sp.						
Merismopedia minima	P		939	28	15	644
Merismopedia punctata						
Microcystis sp.				P		
Nostoc sp.						
Oscillatoria agardhii	1691584	282904	4316743	1014489	1672945	2331315
Oscillatoria limnetica				28506	39810	47829
Oscillatoria limosa						
Pseudanabaena sp.		P			207207	4821
Unidentified akinete						
Unidentified cyanobacteria	30243	64731	120105			
Total Cyanobacteria	**1721827**	**917839**	**4826252**	**1057222**	**#N/A**	**2749497**
Total Biovolume (µm³ /mL)	**3,871,101**	**1,655,486**	**5,098,998**	**2,566,010**	**2,841,367**	**3,337,356**
Total Number of Taxa per Sample	**31**	**48**	**54**	**45**	**62**	**70**

P = taxon present

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Roberts Lake			Tail Lake		
	15-Jul-07	18-Aug-07	14-Sep-07	20-Jul-07	16-Aug-07	13-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Achnanthes minutissima			P	489	76	P
Achnanthes minutissima v. cryptocephala				P		
Amphipleura sp.						
Amphiprora alata						
Amphora sp.						
Amphora ovalis						
Asterionalla formosa	70507	111291	39054	P	P	100308
Caloneis ventricosa						
Cocconeis sp.			P		P	
Cocconeis pediculus						
Cocconeis placentula						
Cyclotella sp.						
Cymatopleura solea						
Cymbella minuta	P		P			P
Cymbella sp.		P				
Diatoma elongatum	69805	62863	13159		981	P
Diploneis sp.		P	P			P
Epithemia sp.						
Epithemia sorex						
Eunotia sp.						
Fragilaria sp.		554	P		P	
Fragilaria crotonensis						
Fragilaria construens						
Frustulia vulgaris					P	P
Gomphonema sp.						
Gyrosigma sp.					P	
Hannaea arcus		P	P		138	P
Licmophora sp.						
Mastigloia sp.						
Melosira sp.	73853	78973	56777			
Melosira sp. large						
Melosira sp. larger	123226		25564			
Melosira varians						
Navicula sp.			P	P		
Navicula sp. 2		P	P		P	
Navicula sp. 2 larger						
Navicula cryptocephala						
Navicula lanceolata						
Nitzschia sp. 1		P				P
Nitzschia sp. 2						
Nitzschia acicularis					76	
Nitzschia dissipata						
Nitzschia filiformis			P			
Nitzschia palea	P					
Nitzschia sigmoidea						
Nitzschia tryblionella						
Pinnularia sp.		P				P
Pinnularia maior						
Rhizosolenia longiseta			29257			12305
Rhopalodia sp.						
Rhoicosphenia curvata						
Stauroneis sp.						
Stauroneis smithii		P				
Stephanodiscus astraea			P			53625
Surirella sp.					P	
Surirella ovata						
Synedra sp.	4031	3837	P		1359	
Synedra sp. smaller	434	P	808	347		324
Synedra acus					P	
Synedra ulna						
Tabellaria fenestrata					P	P
Tabellaria flocculosa			12388		P	P
Unidentified diatom						
Unidentified pennate diatom				540		
Unidentified pennate diatom						
Unidentified centric diatom				14037	170811	22520
Unidentified centric diatom						
Unidentified centric small						
Unidentified centric diatom (small)	23695	20150				
Unidentified centric diatom (medium)	57619	14677	P			
Total Bacillariophyta	**423171**	**292345**	**177007**	**15414**	**173442**	**189082**
Cyanomonas sp.						
Crypyochrysis commutata						
Cryptomonas sp.		12512	3625			
Cryptomonas curvata		19455	P			
Cryptomonas erosa						
Cryptomonas ovata	89467	29278	P		P	
Cryptomonas reflexa	15531	26836	P	4083	1896	
Katablepharis ovalis	P	7165	2593	12435	445	2625
Rhodomonas lens		56639	38335			
Rhodomonas minuta	264786			40916	4455	43495
Total Cryptophyta	**369784**	**151884**	**44553**	**57434**	**6796**	**46121**
Ankistrodesmus convolutus	536	741	817			
Ankistrodesmus falcatus						

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Roberts Lake			Tail Lake		
	15-Jul-07	18-Aug-07	14-Sep-07	20-Jul-07	16-Aug-07	13-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Ankistrodesmus falcatus v. acicularis						
Ankistrodesmus falcatus v. spiralis			1796			
Arthrodesmus incus						
Botryococcus sp.		P			P	65196
Characium sp.						
Chlamydomonas sp. a	2244		2088	1640	761	966
Chlamydomonas sp. b	76414	78621	56462	P		
Closterium sp.		6842				6772
Coelastrum microporum						
Cosmarium sp.	4299	4256	P			4854
Cosmarium tetraopthalmum						
Crucigenia fenestrata						
Crucigenia quadrata					389	
Cylindrocystis sp.						
Dictyosphaerium ehrenbergianum		10628	2018		1624	2060
Dispora crucigenioides						
Elakatothrix gelatinosa		1938	766	482	980	4335
Elakatothrix viridis						
Euastrum binale						
Euastrum elegans					10006	
Franceia ovalis	1983					
Gloeotila pelagica			27260			
Kirchneriella lunaris						
Kirchneriella sp.						
Monoraphidium						
Monoraphidium sp.	2228	1893	707	244	233	P
Mougeotia sp.						
Oocystis sp.		12968	3189	436	19817	8418
Oocystis solitaria v. major						
Pediastrum boryanum						
Pediastrum duplex						
Pediastrum tetras						
Scenedesmus sp.		3035				
Scenedesmus acuminatus						
Scenedesmus bijuga	2995	2365	3245		43	
Scenedesmus quadricauda		P	P			
Scenedesmus spinosus						
Schroederia setigera					67	7464
Sphaerocystis schroeteri		2275		P	7190	3652
Spondylosium planum					718	
Staurastrum sp. 1					P	
Staurastrum sp. 2						
Staurastrum sp. 3						
Staurastrum hexacerum						
Staurodesmus sp.						
Tetraedron arthrodesmiforme		P	67		21	
Tetraedron caudatum				646		
Tetraedron incus						
Tetraedron limneticum						
Tetraedron minimum						
Tetraedron muticum						
Tetrastrum staurogeniaeforme						
Tetraedron trigonum						
Tetraedron tumidulum						
Tetrastrum elegans	P		P			
Tetrastrum muticum						
Tetrastrum staurogeniaeforme						
Tetrastrum triangulare						
Trigonum tumidulum						
Unidentified quadriflagellate						
Unidentified filament						
Unidentified filament #1		397	806		P	
Unidentified filament #2		7066			2792	
Total Chlorophyta	**90699**	**133025**	**99222**	**3448**	**44642**	**103716**
Euglena sp.		68350	P		P	
Lepocinclis sp.						
Phacus sp.						
Trachelomonas sp.			P		7999	
Trachelomonas hispida						
Total Euglenophyta		**68350**			**7999**	

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Roberts Lake			Tail Lake		
	15-Jul-07	18-Aug-07	14-Sep-07	20-Jul-07	16-Aug-07	13-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Bicoeca sp.						
Bitrichia longispina						
Chromulina sp.						
Chrysidastrum catenatum			26183			
Chrysochromulina parva	626	657	167		352	2176
Chrysococcus sp.	14246	136902	80421	6148	10230	452
Chrysoikos skujai						
Chrysosphaerella rodhei						34780
Dinobryon crenulatum						
Dinobryon divergens		149405	45644	50907	20811	11965
Dinobryon sertularia	21650		P	107070	6959	
Dinobryon sociale	184476	331075	48790	166461	16077	2788
Dinobryon tabellariae	37832	40863				
Ishtmochloron trispinatum			P	P		
Kephyrion boreale						
Kephyrion obliquum		10014	558			
Kephyrion petasatum						
Kephyrion spirale	P					
Keriopsis sp.						
Mallomonas sp.	P					
Ochromonas sp. a			2456			
Ochromonas sp. b						
Ochromonas stellaris		20206				
Ophiocytium sp.				1539	P	
Pseudokephyrion sp.						16186
Stelexmonas dichotoma		P		P		
Stichogloea doederleinii				720		P
Synura sp.	11884	88500	30335	P	1611	12629
Unidentified statospore	125479	51744	5573	23684	2468	5737
Total Chrysophyta	**396193**	**829366**	**240127**	**356527**	**58509**	**86713**
Ceratium hirudinella						
Glenodinium sp.	3517		6545	11906		3533
Gymnodinium sp. a	7212	104277	43978	23410		
Gymnodinium sp. b						
Gymnodinium helveticum			P	P	P	P
Gymnodinium uberrimum						
Peridinium aciculiferum						
Peridinium sp.		P		P	32893	
Unidentified cyst						
Total Pyrrophyta	**10729**	**104277**	**50523**	**35316**	**32893**	**3533**
Anabaena sp.		37632	3383			
Anabaena sp. akinete						
Anabaena circinalis						
Anabaena solitaria						
Anabaena solitaria akinete						
Aphanizomenon gracile			178609		3069	
Aphanizomenon gracile akinete						
Aphanocapsa elachista v. planctonica						
Aphanothece clathrata		889	7508		366	2797
Calothrix sp.						
Chamaesiphon sp.						
Chroococcus dispersus						
Chroococcus sp.						
Gomphosphaeria aponina						
Gomphosphaeria naegelianum						2483
Lyngbya agardhii						
Lyngbya contorta	546	37957	72152			
Lyngbya limnetica						
Merismopedia sp.						
Merismopedia minima	3314	164	68			
Merismopedia punctata						
Microcystis sp.						
Nostoc sp.						
Oscillatoria agardhii	142877	356416	765929		302	
Oscillatoria limnetica	11904	56274		P	370	
Oscillatoria limosa		P				
Pseudanabaena sp.			2091		269	P
Unidentified akinete	4147	19031				
Unidentified cyanobacteria						
Total Cyanobacteria	**162788**	**508363**	**1029741**		**4376**	**5280**
Total Biovolume (µm³ /mL)	**1,453,365**	**2,087,610**	**1,641,173**	**468,139**	**328,656**	**434,445**
Total Number of Taxa per Sample	**37**	**57**	**62**	**32**	**52**	**40**

P = taxon present

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Roberts Bay			Glenn Lake		
	23-Jul-07	17-Aug-07	14-Sep-07	16-Jul-07	17-Aug-07	15-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Achnanthes minutissima	60					
Achnanthes minutissima v. cryptocephala		P				
Amphipleura sp.						
Amphiprora alata					P	P
Amphora sp.			P	P		P
Amphora ovalis						
Asterionalla formosa		P	8618			
Caloneis ventricosa						
Cocconeis sp.						
Cocconeis pediculus						
Cocconeis placentula						
Cyclotella sp.						
Cymatopleura solea						
Cymbella minuta		P				
Cymbella sp.					P	
Diatoma elongatum	P	P	1154	P	P	
Diploneis sp.						
Epithemia sp.					P	
Epithemia sorex						
Eunotia sp.						P
Fragilaria sp.						
Fragilaria crotonensis						
Fragilaria construens						
Frustulia vulgaris						
Gomphonema sp.	335		P			
Gyrosigma sp.	P				P	P
Hannaea arcus						
Licmophora sp.						
Mastigloia sp.			P			
Melosira sp.	862	6868	5991	9700	P	83363
Melosira sp. large						
Melosira sp. larger			P			P
Melosira varians	P					
Navicula sp.	P				P	
Navicula sp. 2		P			P	
Navicula sp. 2 larger						
Navicula cryptocephala						
Navicula lanceolata			511			
Nitzschia sp. 1	P					
Nitzschia sp. 2						
Nitzschia acicularis		P	P			
Nitzschia dissipata						
Nitzschia filiformis	P		P			
Nitzschia palea				P		
Nitzschia sigmoidea						
Nitzschia tryblionella			P			
Pinnularia sp.						
Pinnularia maior						
Rhizosolenia longiseta						
Rhopalodia sp.						
Rhoicosphenia curvata						
Stauroneis sp.						
Stauroneis smithii						
Stephanodiscus astraea	3395	P	P	10989		29587
Surirella sp.						
Surirella ovata						
Synedra sp.			316	P	P	
Synedra sp. smaller	152	198		30	1034	308
Synedra acus			P			
Synedra ulna					P	
Tabellaria fenestrata						
Tabellaria flocculosa						
Unidentified diatom						
Unidentified pennate diatom	P		P			
Unidentified pennate diatom	P		P			
Unidentified centric diatom						
Unidentified centric diatom						
Unidentified centric small						
Unidentified centric diatom (small)		141	P	15320	92730	
Unidentified centric diatom (medium)					57761	P
Total Bacillariophyta	**4804**	**7207**	**16589**	**36039**	**151524**	**113258**
Cyanomonas sp.					P	
Crypyochrysis commutata						
Cryptomonas sp.						
Cryptomonas curvata						
Cryptomonas erosa						
Cryptomonas ovata					P	13806
Cryptomonas reflexa	1115	P	P	2763	13320	30534
Katablepharis ovalis				592		1034
Rhodomonas lens					23670	
Rhodomonas minuta	11105	3444	613	15225	50106	67937
Total Cryptophyta	**12220**	**3444**	**613**	**18580**	**87096**	**113311**
Ankistrodesmus convolutus	234	75	115	8	25	205
Ankistrodesmus falcatus						

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Roberts Bay			Glenn Lake		
	23-Jul-07	17-Aug-07	14-Sep-07	16-Jul-07	17-Aug-07	15-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Ankistrodesmus falcatus v. acicularis						
Ankistrodesmus falcatus v. spiralis		63	P			
Arthrodesmus incus						
Botryococcus sp.			12567			
Characium sp.						
Chlamydomonas sp. a				P		19774
Chlamydomonas sp. b	2341		3398		15820	1579
Closterium sp.						
Coelastrum microporum						
Cosmarium sp.	1067	1705	P		P	P
Cosmarium tetraopthalmum						
Crucigenia fenestrata						
Crucigenia quadrata						
Cylindrocystis sp.						
Dictyosphaerium ehrenbergianum						
Dispora crucigenioides						
Elakatothrix gelatinosa	P	116			882	1029
Elakatothrix viridis						
Euastrum binale						
Euastrum elegans						
Franceia ovalis	518					
Gloeotila pelagica						
Kirchneriella lunaris					704	
Kirchneriella sp.					3694	
Monoraphidium						
Monoraphidium sp.	135	168	467	326	508	743
Mougeotia sp.						
Oocystis sp.	1139					
Oocystis solitaria v. major						
Pediastrum boryanum						
Pediastrum duplex						
Pediastrum tetras						
Scenedesmus sp.						
Scenedesmus acuminatus						
Scenedesmus bijuga	278	P	152	70	1184	1514
Scenedesmus quadricauda						
Scenedesmus spinosus						
Schroederia setigera	63	55				
Sphaerocystis schroeteri					31704	1155
Spondylosium planum						
Staurastrum sp. 1						
Staurastrum sp. 2						
Staurastrum sp. 3						
Staurastrum hexacerum						
Staurodesmus sp.						
Tetraedron arthrodesmiforme	11	34		153	P	14
Tetraedron caudatum						
Tetraedron incus						
Tetraedron limneticum						
Tetraedron minimum						
Tetraedron muticum						
Tetrastrum staurogeniaeforme						
Tetraedron trigonum						
Tetraedron tumidulum						
Tetrastrum elegans			P	244		203
Tetrastrum muticum						
Tetrastrum staurogeniaeforme						
Tetrastrum triangulare						
Trigonum tumidulum						
Unidentified quadriflagellate						
Unidentified filament						
Unidentified filament #1						
Unidentified filament #2						
Total Chlorophyta	**5786**	**2216**	**16699**	**802**	**54520**	**26215**
Euglena sp.		P			2761	
Lepocinclis sp.						
Phacus sp.						
Trachelomonas sp.			P			
Trachelomonas hispida						
Total Euglenophyta					**2761**	

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Roberts Bay			Glenn Lake		
	23-Jul-07	17-Aug-07	14-Sep-07	16-Jul-07	17-Aug-07	15-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Bicoeca sp.						
Bitrichia longispina						
Chromulina sp.						3298
Chrysidastrum catenatum						
Chrysochromulina parva					166	4358
Chrysococcus sp.	876	5549	654	2475		P
Chrysoikos skujai						
Chrysosphaerella rodhei						9441
Dinobryon crenulatum						
Dinobryon divergens		2291	P			
Dinobryon sertularia	2811	878	P	15278		
Dinobryon sociale	1782	P	P	P		
Dinobryon tabellariae	5571	2318	P	7134	6033	11165
Ishtmochloron trispinatum					P	P
Kephyrion boreale				1665		
Kephyrion obliquum	659	49	242			679
Kephyrion petasatum						
Kephyrion spirale						
Keriopsis sp.						
Mallomonas sp.						
Ochromonas sp. a		P		2295		
Ochromonas sp. b						
Ochromonas stellaris						
Ophiocytium sp.						
Pseudokephyrion sp.						
Stelexmonas dichotoma						3586
Stichogloea doederleinii						
Synura sp.	5350					3562
Unidentified statospore	1531	1266	P	5649		4685
Total Chrysophyta	**18580**	**12351**	**896**	**34494**	**6199**	**40776**
Ceratium hirudinella						
Glenodinium sp.	6574	672	P		3027	1986
Gymnodinium sp. a	P	2854		2819	10702	
Gymnodinium sp. b						
Gymnodinium helveticum	9205	P		P		P
Gymnodinium uberrimum						
Peridinium aciculiferum						
Peridinium sp.	103412					
Unidentified cyst						
Total Pyrrophyta	**119192**	**3526**		**2819**	**13729**	**1986**
Anabaena sp.	P					
Anabaena sp. akinete		573	447			
Anabaena circinalis						
Anabaena solitaria						
Anabaena solitaria akinete						
Aphanizomenon gracile		524	13557		309	
Aphanizomenon gracile akinete						
Aphanocapsa elachista v. planctonica				178	222	154
Aphanothece clathrata						89
Calothrix sp.					6018	
Chamaesiphon sp.						
Chroococcus dispersus						
Chroococcus sp.						
Gomphosphaeria aponina						
Gomphosphaeria naegelianum						
Lyngbya agardhii						
Lyngbya contorta		60	2383			
Lyngbya limnetica	113					
Merismopedia sp.						
Merismopedia minima	29	66	147	118		60
Merismopedia punctata						
Microcystis sp.						
Nostoc sp.						
Oscillatoria agardhii	59391	65766	370003	9064		
Oscillatoria limnetica	661	1603	8782		85	
Oscillatoria limosa						
Pseudanabaena sp.		2014	551			
Unidentified akinete						
Unidentified cyanobacteria						
Total Cyanobacteria	**60194**	**70607**	**395871**	**9360**	**6635**	**304**
Total Biovolume (µm³ /mL)	**220,776**	**99,350**	**430,668**	**102,095**	**322,464**	**295,850**
Total Number of Taxa per Sample	**40**	**39**	**42**	**28**	**37**	**37**

P = taxon present

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Ogama Lake			Patch Lake		
	23-Jul-07	16-Aug-07	11-Sep-07	17-Jul-07	15-Aug-07	11-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Achnanthes minutissima						
Achnanthes minutissima v. cryptocephala						
Amphipleura sp.					P	
Amphiprora alata		P				
Amphora sp.	P					
Amphora ovalis			P	P	P	
Asterionalla formosa	176124	P	55318	P	P	P
Caloneis ventricosa						
Cocconeis sp.						
Cocconeis pediculus						
Cocconeis placentula						
Cyclotella sp.						
Cymatopleura solea		P	P		P	
Cymbella minuta		P		P	P	P
Cymbella sp.		P	P			
Diatoma elongatum	22018		5738		P	617
Diploneis sp.		P	P		P	
Epithemia sp.						
Epithemia sorex						
Eunotia sp.						
Fragilaria sp.			P	1801		305
Fragilaria crotonensis					P	
Fragilaria construens						
Frustulia vulgaris						
Gomphonema sp.	P					
Gyrosigma sp.		P	P		P	8536
Hannaea arcus					P	
Licmophora sp.						
Mastigloia sp.						
Melosira sp.	9945		20490		P	P
Melosira sp. large						
Melosira sp. larger						
Melosira varians						
Navicula sp.					P	P
Navicula sp. 2		P	P	P	414	
Navicula sp. 2 larger						
Navicula cryptocephala			P			
Navicula lanceolata					122	
Nitzschia sp. 1		P		41	98	
Nitzschia sp. 2	P					
Nitzschia acicularis					1304	
Nitzschia dissipata					127	123
Nitzschia filiformis						
Nitzschia palea						
Nitzschia sigmoidea					P	
Nitzschia tryblionella						
Pinnularia sp.						
Pinnularia maior						
Rhizosolenia longiseta			16251			
Rhopalodia sp.						
Rhoicosphenia curvata						
Stauroneis sp.						
Stauroneis smithii						
Stephanodiscus astraea		P	33831		P	9705
Surirella sp.		1841	P			
Surirella ovata						P
Synedra sp.	136960		3382	77	524	1243
Synedra sp. smaller		17496	1488	201	227	413
Synedra acus						764
Synedra ulna		P			P	
Tabellaria fenestrata						
Tabellaria flocculosa						P
Unidentified diatom	P					
Unidentified pennate diatom						
Unidentified pennate diatom						
Unidentified centric diatom	P		11735	P		
Unidentified centric diatom				P	394	P
Unidentified centric small						
Unidentified centric diatom (small)						
Unidentified centric diatom (medium)						
Total Bacillariophyta	**345047**	**19336**	**148235**	**2120**	**3210**	**21706**
Cyanomonas sp.						
Crypyochrysis commutata						
Cryptomonas sp.	12322			P	3818	2668
Cryptomonas curvata		P	P			P
Cryptomonas erosa		P				
Cryptomonas ovata			13891			1199
Cryptomonas reflexa	9015		15470	P	2264	1559
Katablepharis ovalis	13189	29638	5677	427	P	1980
Rhodomonas lens						
Rhodomonas minuta	27041	4640	25289	3705	17459	12252
Total Cryptophyta	**61568**	**34278**	**60328**	**4133**	**23541**	**19658**
Ankistrodesmus convolutus	539	140	890			
Ankistrodesmus falcatus						

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Ogama Lake			Patch Lake		
	23-Jul-07	16-Aug-07	11-Sep-07	17-Jul-07	15-Aug-07	11-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Ankistrodesmus falcatus v. acicularis						
Ankistrodesmus falcatus v. spiralis		P	2672		P	75
Arthrodesmus incus						
Botryococcus sp.						2676
Characium sp.						
Chlamydomonas sp. a			4111		P	259
Chlamydomonas sp. b		56817	11105			1225
Closterium sp.		P				
Coelastrum microporum						
Cosmarium sp.	4736	P		938	1364	
Cosmarium tetraopthalmum						
Crucigenia fenestrata						
Crucigenia quadrata					132	981
Cylindrocystis sp.						
Dictyosphaerium ehrenbergianum	P	16972	1068			1484
Dispora crucigenioides						
Elakatothrix gelatinosa		P	1425	484		
Elakatothrix viridis						
Euastrum binale						
Euastrum elegans						
Franceia ovalis						
Gloeotila pelagica						
Kirchneriella lunaris						
Kirchneriella sp.						
Monoraphidium	6215	P	518			
Monoraphidium sp.				485	279	787
Mougeotia sp.	103003					
Oocystis sp.	3891		8439	2100	2571	3638
Oocystis solitaria v. major						
Pediastrum boryanum						
Pediastrum duplex						
Pediastrum tetras		P	P			
Scenedesmus sp.				P		P
Scenedesmus acuminatus						
Scenedesmus bijuga				281	P	
Scenedesmus quadricauda	P	P	2769			
Scenedesmus spinosus			P			
Schroederia setigera						
Sphaerocystis schroeteri		P	P		P	7931
Spondylosium planum			15997		2321	2367
Staurastrum sp. 1	P	334500				
Staurastrum sp. 2						
Staurastrum sp. 3						
Staurastrum hexacerum						
Staurodesmus sp.						
Tetraedron arthrodesmiforme	512	484	66	524	42	192
Tetraedron caudatum	2053		1692	P		
Tetraedron incus						
Tetraedron limneticum	P					
Tetraedron minimum						
Tetraedron muticum			9557		1215	
Tetrastrum staurogeniaeforme						
Tetraedron trigonum				27		
Tetraedron tumidulum			P			
Tetrastrum elegans		P	P			P
Tetrastrum muticum		P				
Tetrastrum staurogeniaeforme						
Tetrastrum triangulare						
Trigonum tumidulum						
Unidentified quadriflagellate		P				
Unidentified filament						
Unidentified filament #1			5098		P	446
Unidentified filament #2						605
Total Chlorophyta	**120948**	**408913**	**65407**	**4838**	**7924**	**22666**
Euglena sp.	P	P			P	P
Lepocinclis sp.						
Phacus sp.						
Trachelomonas sp.			P			
Trachelomonas hispida						
Total Euglenophyta						

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Ogama Lake			Patch Lake		
	23-Jul-07	16-Aug-07	11-Sep-07	17-Jul-07	15-Aug-07	11-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Bicoeca sp.			P			
Bitrichia longispina						
Chromulina sp.		9833				607
Chrysidastrum catenatum			6984			
Chrysochromulina parva		2449				
Chrysococcus sp.	51154	90569	27476	27848	23839	13561
Chrysoikos skujai						
Chrysosphaerella rodhei						
Dinobryon crenulatum						4855
Dinobryon divergens			6646			1629
Dinobryon sertularia	52068			5768	P	2656
Dinobryon sociale	668658	23662	113447	23467	42199	114308
Dinobryon tabellariae	40339		14433	1794	16313	1762
Ishtmochloron trispinatum	P			1100		
Kephyrion boreale						
Kephyrion obliquum	1019			11594	1637	1652
Kephyrion petasatum						
Kephyrion spirale		20868	P	16779	4007	
Keriopsis sp.						
Mallomonas sp.						
Ochromonas sp. a						539
Ochromonas sp. b						
Ochromonas stellaris	P		P			
Ophiocytium sp.						
Pseudokephyrion sp.						
Stelexmonas dichotoma			3331			9800
Stichogloea doederleinii						825
Synura sp.	309722		5038	210		P
Unidentified statospore	53479		12883	14495	4651	6038
Total Chrysophyta	**1176439**	**147381**	**190239**	**103055**	**92645**	**158234**
Ceratium hirudinella						
Glenodinium sp.	23601	P	20716	6884	P	991
Gymnodinium sp. a	94542	P	22152	40785	11238	
Gymnodinium sp. b						
Gymnodinium helveticum	P	P	P	62641	37397	P
Gymnodinium uberrimum		202239	P			
Peridinium aciculiferum	P					
Peridinium sp.		P	P			
Unidentified cyst						
Total Pyrrophyta	**118143**	**202239**	**42867**	**110309**	**48635**	**991**
Anabaena sp.	P	P	34174			
Anabaena sp. akinete			3098			
Anabaena circinalis						
Anabaena solitaria						
Anabaena solitaria akinete						
Aphanizomenon gracile	229126	755383	622627		P	286
Aphanizomenon gracile akinete		21836				
Aphanocapsa elachista v. planctonica					700	P
Aphanothece clathrata		P	80	259	270	209
Calothrix sp.						
Chamaesiphon sp.						
Chroococcus dispersus					P	
Chroococcus sp.						
Gomphosphaeria aponina						
Gomphosphaeria naegelianum		P	262			
Lyngbya agardhii						
Lyngbya contorta		1029	4245			
Lyngbya limnetica						
Merismopedia sp.						
Merismopedia minima		P	49810			
Merismopedia punctata						
Microcystis sp.						
Nostoc sp.						
Oscillatoria agardhii	622867	2104754	3592639		1561	P
Oscillatoria limnetica		250358	950248		297	95
Oscillatoria limosa						
Pseudanabaena sp.		102662		P		
Unidentified akinete						
Unidentified cyanobacteria						
Total Cyanobacteria	**851993**	**3236021**	**5257184**	**259**	**2828**	**590**
Total Biovolume (µm³ /mL)	**2,674,138**	**4,048,168**	**5,764,259**	**224,715**	**178,783**	**223,844**
Total Number of Taxa per Sample	**40**	**53**	**66**	**36**	**55**	**56**

P = taxon present

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Pelvic Lake			P.O. Lake		
	16-Jul-07	16-Aug-07	13-Sep-07	17-Jul-07	15-Aug-07	11-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Achnanthes minutissima		P				126
Achnanthes minutissima v. cryptocephala						
Amphipleura sp.						
Amphiprora alata			P			
Amphora sp.			P			
Amphora ovalis						
Asterionalla formosa	P	210597	26942			P
Caloneis ventricosa						
Cocconeis sp.						
Cocconeis pediculus						
Cocconeis placentula						
Cyclotella sp.						
Cymatopleura solea						
Cymbella minuta			P			P
Cymbella sp.			P	P	P	
Diatoma elongatum	62588		7700	786		P
Diploneis sp.						
Epithemia sp.						P
Epithemia sorex			P			
Eunotia sp.						
Fragilaria sp.		P	2769			P
Fragilaria crotonensis						
Fragilaria construens		P				
Frustulia vulgaris						
Gomphonema sp.			P		544	P
Gyrosigma sp.			P			P
Hannaea arcus			P			
Licmophora sp.						
Mastigloia sp.						
Melosira sp.		52216	101128			P
Melosira sp. large						
Melosira sp. larger						
Melosira varians						
Navicula sp.		P			P	
Navicula sp. 2		P	P			P
Navicula sp. 2 larger						
Navicula cryptocephala						
Navicula lanceolata			P			
Nitzschia sp. 1		P	P		P	P
Nitzschia sp. 2						
Nitzschia acicularis					P	
Nitzschia dissipata						
Nitzschia filiformis						P
Nitzschia palea						
Nitzschia sigmoidea						
Nitzschia tryblionella			P			
Pinnularia sp.						
Pinnularia maior						
Rhizosolenia longiseta		97015	36479			
Rhopalodia sp.						
Rhoicosphenia curvata						
Stauroneis sp.			P			
Stauroneis smithii						P
Stephanodiscus astraea		57375	P			P
Surirella sp.		P	P			
Surirella ovata						
Synedra sp.		777	543			
Synedra sp. smaller	3641	3547	1120	333	396	440
Synedra acus			P			
Synedra ulna		P	117797			
Tabellaria fenestrata						
Tabellaria flocculosa						
Unidentified diatom						
Unidentified pennate diatom	P	P	P	P	P	
Unidentified pennate diatom	P	P	P	P	P	
Unidentified centric diatom						
Unidentified centric diatom						
Unidentified centric small						
Unidentified centric diatom (small)		310		1252	321	807
Unidentified centric diatom (medium)				15756	22187	
Total Bacillariophyta	**66229**	**421837**	**294478**	**18127**	**23448**	**1373**
Cyanomonas sp.						
Crypyochrysis commutata						
Cryptomonas sp.		P	4485	P	6030	11745
Cryptomonas curvata		30413	14982	P		
Cryptomonas erosa		206		6276		
Cryptomonas ovata	P	150216	34379	1896		P
Cryptomonas reflexa	8276	22139	28682	4635	2296	43485
Katablepharis ovalis	733	1276	16095	2649	7255	14817
Rhodomonas lens		5064	2293		P	
Rhodomonas minuta	43211	14004		5466	2849	184821
Total Cryptophyta	**52219**	**223319**	**100917**	**20922**	**18430**	**254867**
Ankistrodesmus convolutus					21	574
Ankistrodesmus falcatus						

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Pelvic Lake			P.O. Lake		
	16-Jul-07	16-Aug-07	13-Sep-07	17-Jul-07	15-Aug-07	11-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Ankistrodesmus falcatus v. acicularis						
Ankistrodesmus falcatus v. spiralis		P	157		P	P
Arthrodesmus incus					2248	
Botryococcus sp.						P
Characium sp.						
Chlamydomonas sp. a	1084	4130	725	569		1615
Chlamydomonas sp. b		43416	15438	2798	22863	7843
Closterium sp.						
Coelastrum microporum						
Cosmarium sp.	P			P		
Cosmarium tetraopthalmum						
Crucigenia fenestrata						
Crucigenia quadrata					P	P
Cylindrocystis sp.						
Dictyosphaerium ehrenbergianum		465	354			P
Dispora crucigenioides						
Elakatothrix gelatinosa		915	387		2094	1036
Elakatothrix viridis						
Euastrum binale						
Euastrum elegans						
Franceia ovalis						
Gloeotila pelagica						
Kirchneriella lunaris						
Kirchneriella sp.			233	17		
Monoraphidium						
Monoraphidium sp.	P	7152	8363	829	447	1161
Mougeotia sp.						
Oocystis sp.	7999	708	466		294	3802
Oocystis solitaria v. major						
Pediastrum boryanum						
Pediastrum duplex						
Pediastrum tetras		817				
Scenedesmus sp.						
Scenedesmus acuminatus						
Scenedesmus bijuga			P			
Scenedesmus quadricauda	P	P	364			
Scenedesmus spinosus						
Schroederia setigera					580	649
Sphaerocystis schroeteri		15447			P	7950
Spondylosium planum	2573	5807	1941		P	2997
Staurastrum sp. 1						
Staurastrum sp. 2						
Staurastrum sp. 3						
Staurastrum hexacerum						
Staurodesmus sp.						
Tetraedron arthrodesmiforme		116	67	71	40	112
Tetraedron caudatum						
Tetraedron incus						
Tetraedron limneticum						
Tetraedron minimum						
Tetraedron muticum		33411	3148			
Tetrastrum staurogeniaeforme						
Tetraedron trigonum						
Tetraedron tumidulum						
Tetrastrum elegans						
Tetrastrum muticum						
Tetrastrum staurogeniaeforme						
Tetrastrum triangulare						
Trigonum tumidulum						
Unidentified quadriflagellate						
Unidentified filament						
Unidentified filament #1		10909	5982			
Unidentified filament #2						
Total Chlorophyta	**11657**	**123294**	**37625**	**4284**	**28586**	**27740**
Euglena sp.	P	19612	P			
Lepocinclis sp.			2907			
Phacus sp.						
Trachelomonas sp.		P	P	P	P	26579
Trachelomonas hispida						
Total Euglenophyta		**19612**	**2907**			**26579**

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Pelvic Lake			P.O. Lake		
	16-Jul-07	16-Aug-07	13-Sep-07	17-Jul-07	15-Aug-07	11-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Bicoeca sp.						P
Bitrichia longispina						
Chromulina sp.		P	7330			3866
Chrysidastrum catenatum		6984				
Chrysochromulina parva						802
Chrysococcus sp.		62656	26453	5626	27897	31560
Chrysoikos skujai						
Chrysosphaerella rodhei						
Dinobryon crenulatum						
Dinobryon divergens			P			
Dinobryon sertularia	240697	P	3600	100804		
Dinobryon sociale	317403	79150	59197	249206		3507
Dinobryon tabellariae	18811	P	4628	5550		5286
Ishtmochloron trispinatum	P					
Kephyrion boreale						
Kephyrion obliquum		1925	637	3158	2155	4895
Kephyrion petasatum						
Kephyrion spirale						
Keriopsis sp.						
Mallomonas sp.						
Ochromonas sp. a				83881		
Ochromonas sp. b						
Ochromonas stellaris	P	38408	3159			
Ophiocytium sp.						
Pseudokephyrion sp.						
Stelexmonas dichotoma			8336			
Stichogloea doederleinii					P	P
Synura sp.	2607	67588	P			
Unidentified statospore	248229	10128	1727	20157	2616	19336
Total Chrysophyta	**827747**	**266839**	**115067**	**468382**	**32668**	**69252**
Ceratium hirudinella						
Glenodinium sp.		20349	815		4058	4086
Gymnodinium sp. a	28232		4522	8363		16571
Gymnodinium sp. b						
Gymnodinium helveticum	118170	P	94635			
Gymnodinium uberrimum		P				P
Peridinium aciculiferum	P		P	P		
Peridinium sp.		32566				
Unidentified cyst		P		P		
Total Pyrrophyta	**146402**	**52914**	**99972**	**8363**	**4058**	**20657**
Anabaena sp.		3198	2253193		1261	
Anabaena sp. akinete		1693				
Anabaena circinalis						
Anabaena solitaria						
Anabaena solitaria akinete						
Aphanizomenon gracile		638407	36702		P	135
Aphanizomenon gracile akinete						
Aphanocapsa elachista v. planctonica		128				3802
Aphanothece clathrata		P	37			P
Calothrix sp.						
Chamaesiphon sp.						
Chroococcus dispersus						
Chroococcus sp.						
Gomphosphaeria aponina						
Gomphosphaeria naegelianum			P			
Lyngbya agardhii						
Lyngbya contorta						
Lyngbya limnetica			P			
Merismopedia sp.						
Merismopedia minima	51			20		31
Merismopedia punctata						
Microcystis sp.						
Nostoc sp.						
Oscillatoria agardhii	2532726	1828898	4784126	4037		P
Oscillatoria limnetica		8496		P	447	180
Oscillatoria limosa						
Pseudanabaena sp.	P	24392		288841	P	
Unidentified akinete						
Unidentified cyanobacteria						
Total Cyanobacteria	**2532777**	**2505212**	**7074058**	**292898**	**1708**	**4147**
Total Biovolume (µm³ /mL)	**3,637,032**	**3,613,027**	**7,725,023**	**812,976**	**108,897**	**404,614**
Total Number of Taxa per Sample	**28**	**63**	**69**	**34**	**36**	**53**

P = taxon present

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Windy Lake			Wolverine Lake		
	18-Jul-07	21-Aug-07	15-Sep-07	17-Jul-07	15-Aug-07	9-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Achnanthes minutissima		P		69	81	P
Achnanthes minutissima v. cryptocephala				266		
Amphipleura sp.						
Amphiprora alata						
Amphora sp.			P			
Amphora ovalis	P			P		
Asterionalla formosa	P	P		3091	P	3241
Caloneis ventricosa						
Cocconeis sp.				P	P	
Cocconeis pediculus						
Cocconeis placentula	P					
Cyclotella sp.						
Cymatopleura solea						
Cymbella minuta		P		P		P
Cymbella sp.				P		
Diatoma elongatum	166			3252	24816	10668
Diploneis sp.	P		P			P
Epithemia sp.		P	P			
Epithemia sorex						
Eunotia sp.	834					
Fragilaria sp.			P			
Fragilaria crotonensis						
Fragilaria construens						
Frustulia vulgaris					P	
Gomphonema sp.						P
Gyrosigma sp.	P	P	P			
Hannaea arcus	P					
Licmophora sp.						
Mastigloia sp.						
Melosira sp.		P				
Melosira sp. large						
Melosira sp. larger						
Melosira varians						
Navicula sp.					P	P
Navicula sp. 2	39	P	P	P	P	P
Navicula sp. 2 larger						
Navicula cryptocephala						
Navicula lanceolata				P		
Nitzschia sp. 1	P		P		P	
Nitzschia sp. 2						
Nitzschia acicularis						P
Nitzschia dissipata						
Nitzschia filiformis						
Nitzschia palea						
Nitzschia sigmoidea			P			
Nitzschia tryblionella			P			
Pinnularia sp.			P			
Pinnularia maior						
Rhizosolenia longiseta						
Rhopalodia sp.						
Rhoicosphenia curvata	P					
Stauroneis sp.						
Stauroneis smithii						
Stephanodiscus astraea	9818	17113	21557			
Surirella sp.			345			
Surirella ovata						
Synedra sp.		80		6779	2109	3722
Synedra sp. smaller	12	139	29	352		355
Synedra acus				47204		113794
Synedra ulna						
Tabellaria fenestrata						
Tabellaria flocculosa					P	
Unidentified diatom					P	
Unidentified pennate diatom	P		30			
Unidentified pennate diatom	P					
Unidentified centric diatom						
Unidentified centric diatom						
Unidentified centric small						
Unidentified centric diatom (small)	7904	3755	6276			
Unidentified centric diatom (medium)		23716				
Total Bacillariophyta	**18774**	**44803**	**28237**	**61013**	**27007**	**131780**
Cyanomonas sp.						
Crypyochrysis commutata						
Cryptomonas sp.					9094	2918
Cryptomonas curvata					19242	
Cryptomonas erosa					P	
Cryptomonas ovata	P			10239	94011	79250
Cryptomonas reflexa				4312	P	5623
Katablepharis ovalis	3712			5632	1741	1660
Rhodomonas lens		703			13895	
Rhodomonas minuta	7076	4027	3155	11074	573	1863
Total Cryptophyta	**10788**	**4729**	**3155**	**31257**	**138556**	**91313**
Ankistrodesmus convolutus	235	1265	1776	P	P	P
Ankistrodesmus falcatus						

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Windy Lake			Wolverine Lake		
	18-Jul-07	21-Aug-07	15-Sep-07	17-Jul-07	15-Aug-07	9-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Ankistrodesmus falcatus v. acicularis				239	62949	
Ankistrodesmus falcatus v. spiralis					132	132
Arthrodesmus incus						
Botryococcus sp.						P
Characium sp.						
Chlamydomonas sp. a						
Chlamydomonas sp. b	1920			13131	41025	21006
Closterium sp.						
Coelastrum microporum						
Cosmarium sp.						
Cosmarium tetraopthalmum						
Crucigenia fenestrata						
Crucigenia quadrata						
Cylindrocystis sp.						
Dictyosphaerium ehrenbergianum						
Dispora crucigenioides						
Elakatothrix gelatinosa		784	275		274	96
Elakatothrix viridis						
Euastrum binale						
Euastrum elegans						
Franceia ovalis					1786	P
Gloeotila pelagica						
Kirchneriella lunaris						
Kirchneriella sp.		33				
Monoraphidium					1810	3465
Monoraphidium sp.	107	228	685			
Mougeotia sp.			P			
Oocystis sp.	480	507	2544	P	5680	1660
Oocystis solitaria v. major						
Pediastrum boryanum						
Pediastrum duplex						
Pediastrum tetras						
Scenedesmus sp.				P	727	
Scenedesmus acuminatus						
Scenedesmus bijuga	74			1154		
Scenedesmus quadricauda					P	
Scenedesmus spinosus						
Schroederia setigera						
Sphaerocystis schroeteri		1517			1164	1517
Spondylosium planum				P	2400	4739
Staurastrum sp. 1				P		P
Staurastrum sp. 2						
Staurastrum sp. 3						
Staurastrum hexacerum						
Staurodesmus sp.						
Tetraedron arthrodesmiforme	P	67	34	1404	796	606
Tetraedron caudatum				3211	P	
Tetraedron incus						
Tetraedron limneticum						
Tetraedron minimum		128			407	
Tetraedron muticum						
Tetrastrum staurogeniaeforme						
Tetraedron trigonum				P		
Tetraedron tumidulum						
Tetrastrum elegans				175		
Tetrastrum muticum						
Tetrastrum staurogeniaeforme						
Tetrastrum triangulare						
Trigonum tumidulum						
Unidentified quadriflagellate						
Unidentified filament			P			
Unidentified filament #1						
Unidentified filament #2						
Total Chlorophyta	**2815**	**4529**	**5314**	**19314**	**119150**	**33222**
Euglena sp.	1443	1061	P	44997	16527	P
Lepocinclis sp.						
Phacus sp.					P	
Trachelomonas sp.						
Trachelomonas hispida					19770	P
Total Euglenophyta	**1443**	**1061**		**44997**	**36297**	

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Windy Lake			Wolverine Lake		
	18-Jul-07	21-Aug-07	15-Sep-07	17-Jul-07	15-Aug-07	9-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Bicoeca sp.						
Bitrichia longispina						
Chromulina sp.			1330			
Chrysidastrum catenatum						P
Chrysochromulina parva			99			
Chrysococcus sp.	18100	2161	2028	150928	119097	24619
Chrysoikos skujai						633
Chrysosphaerella rodhei	P					105009
Dinobryon crenulatum				16113	21697	49189
Dinobryon divergens						165820
Dinobryon sertularia	P	1241		8121	21872	
Dinobryon sociale	3069	P	950	408866	P	100385
Dinobryon tabellariae	1726	8808	18928			P
Ishtmochloron trispinatum	2040	P	P			
Kephyrion boreale				14686	1824	1179
Kephyrion obliquum						
Kephyrion petasatum		P				
Kephyrion spirale	P	2951	P			868253
Keriopsis sp.						
Mallomonas sp.						
Ochromonas sp. a						
Ochromonas sp. b						
Ochromonas stellaris						
Ophiocytium sp.						
Pseudokephyrion sp.						
Stelexmonas dichotoma			24905			2064
Stichogloea doederleinii						P
Synura sp.	51687	1031		34967	76790	126447
Unidentified statospore	756	3335	972	P		3815
Total Chrysophyta	**77379**	**19528**	**49211**	**633681**	**241280**	**1447414**
Ceratium hirudinella						
Glenodinium sp.	7071	P		1498	4881	
Gymnodinium sp. a	31775	7053	5019	67789	99548	10789
Gymnodinium sp. b						
Gymnodinium helveticum	916	45182	26012	44249	96145	30602
Gymnodinium uberrimum			12025	103402	P	55339
Peridinium aciculiferum						
Peridinium sp.				291129	32218	
Unidentified cyst						
Total Pyrrophyta	**39762**	**52235**	**43056**	**508067**	**232792**	**96729**
Anabaena sp.		11218	2044	P		
Anabaena sp. akinete		11519	1111			
Anabaena circinalis						
Anabaena solitaria						
Anabaena solitaria akinete						
Aphanizomenon gracile		960				
Aphanizomenon gracile akinete						
Aphanocapsa elachista v. planctonica		180			902	24
Aphanothece clathrata			1217		2389	316
Calothrix sp.						
Chamaesiphon sp.						
Chroococcus dispersus			1740		P	
Chroococcus sp.						
Gomphosphaeria aponina						
Gomphosphaeria naegelianum						
Lyngbya agardhii				P	P	2843
Lyngbya contorta						
Lyngbya limnetica	11	9			990	79
Merismopedia sp.						
Merismopedia minima	3		3	24		
Merismopedia punctata						
Microcystis sp.	886					
Nostoc sp.						
Oscillatoria agardhii	P	P	402			
Oscillatoria limnetica	50			1634		
Oscillatoria limosa						
Pseudanabaena sp.	P				P	P
Unidentified akinete					601	
Unidentified cyanobacteria						
Total Cyanobacteria	**950**	**23886**	**6517**	**1658**	**4882**	**3261**
Total Biovolume (µm³ /mL)	**151,910**	**150,773**	**135,490**	**1,299,987**	**799,963**	**1,803,720**
Total Number of Taxa per Sample	**43**	**40**	**41**	**45**	**54**	**52**

P = taxon present

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Aimaokatalok Lake Site 4			Aimaokatalok Lake Site 6		
	21-Jul-07	19-Aug-07	8-Sep-07	22-Jul-07	19-Aug-07	8-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Achnanthes minutissima	902				1187	P
Achnanthes minutissima v. cryptocephala						
Amphipleura sp.						
Amphiprora alata						
Amphora sp.						
Amphora ovalis						
Asterionalla formosa	P	406	18493	P	P	45798
Caloneis ventricosa						
Cocconeis sp.				P		
Cocconeis pediculus						
Cocconeis placentula						
Cyclotella sp.	13008	4970	2376			1209
Cymatopleura solea						
Cymbella minuta					P	P
Cymbella sp.						
Diatoma elongatum	17781	P	P	P		P
Diploneis sp.						
Epithemia sp.	P					
Epithemia sorex						
Eunotia sp.						
Fragilaria sp.	1122					
Fragilaria crotonensis						
Fragilaria construens						
Frustulia vulgaris		P				P
Gomphonema sp.						
Gyrosigma sp.	P					
Hannaea arcus			P			
Licmophora sp.						
Mastigloia sp.						
Melosira sp.	28697	57051	7060	25744	16813	13780
Melosira sp. large	P		P			
Melosira sp. larger						P
Melosira varians					P	
Navicula sp.	P	P			P	
Navicula sp. 2						
Navicula sp. 2 larger						
Navicula cryptocephala						
Navicula lanceolata		P				
Nitzschia sp. 1	P			P		P
Nitzschia sp. 2						
Nitzschia acicularis						
Nitzschia dissipata						
Nitzschia filiformis					P	P
Nitzschia palea						
Nitzschia sigmoidea						P
Nitzschia tryblionella						
Pinnularia sp.	P	P	P			P
Pinnularia maior	P					
Rhizosolenia longiseta			P			
Rhopalodia sp.						
Rhoicosphenia curvata	P					
Stauroneis sp.						
Stauroneis smithii						
Stephanodiscus astraea	P	41137	17251			P
Surirella sp.			P			P
Surirella ovata						
Synedra sp.				P		
Synedra sp. smaller	367	1360	2350		231	
Synedra acus						1618
Synedra ulna						
Tabellaria fenestrata						P
Tabellaria flocculosa		P	P			P
Unidentified diatom	359					
Unidentified pennate diatom					P	P
Unidentified pennate diatom					P	P
Unidentified centric diatom						
Unidentified centric diatom						
Unidentified centric small						
Unidentified centric diatom (small)				23131	12872	
Unidentified centric diatom (medium)					15846	
Total Bacillariophyta	**62235**	**104925**	**47531**	**48875**	**46950**	**62406**
Cyanomonas sp.	4941					
Crypyochrysis commutata						
Cryptomonas sp.	29078		912		5578	P
Cryptomonas curvata	P	13492				
Cryptomonas erosa	14773	P	P	8726	16810	
Cryptomonas ovata	45210	P	25725	73346	19240	2348
Cryptomonas reflexa	P	4830	13455	56480	16428	7306
Katablepharis ovalis	24479	2512	1179	23371	918	757
Rhodomonas lens	57056	37710	41845		18922	71553
Rhodomonas minuta		6237		27540	30639	12485
Total Cryptophyta	**175537**	**64780**	**83116**	**189462**	**108533**	**94449**
Ankistrodesmus convolutus		330	279	310	461	167
Ankistrodesmus falcatus						

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Aimaokatalok Lake Site 4			Aimaokatalok Lake Site 6		
	21-Jul-07	19-Aug-07	8-Sep-07	22-Jul-07	19-Aug-07	8-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Ankistrodesmus falcatus v. acicularis	121					
Ankistrodesmus falcatus v. spiralis		309	238		P	328
Arthrodesmus incus			P		P	P
Botryococcus sp.		P	11379		P	22601
Characium sp.						
Chlamydomonas sp. a		373	1948		P	985
Chlamydomonas sp. b	8798	6651	7416	14068	P	6023
Closterium sp.						
Coelastrum microporum						
Cosmarium sp.	10823	P	P	P	P	P
Cosmarium tetraopthalmum						
Crucigenia fenestrata			960		P	P
Crucigenia quadrata	P	3854	2328		6638	6188
Cylindrocystis sp.						
Dictyosphaerium ehrenbergianum		548	5201			1262
Dispora crucigenioides						
Elakatothrix gelatinosa	P	1109	462		2184	234
Elakatothrix viridis		2999				
Euastrum binale						
Euastrum elegans		P				P
Franceia ovalis						
Gloeotila pelagica						
Kirchneriella lunaris						
Kirchneriella sp.	122	431	2636	P	375	684
Monoraphidium						
Monoraphidium sp.	1087	452	436	1993	849	966
Mougeotia sp.						11446
Oocystis sp.	2251	4372	21844	P	4531	11702
Oocystis solitaria v. major	5917					
Pediastrum boryanum						
Pediastrum duplex						P
Pediastrum tetras	P	376	P	P	P	P
Scenedesmus sp.						
Scenedesmus acuminatus			P			
Scenedesmus bijuga	368	721	1057	986	647	488
Scenedesmus quadricauda	145	P	P	P	P	P
Scenedesmus spinosus						
Schroederia setigera						
Sphaerocystis schroeteri		4014	1095	P	3604	30356
Spondylosium planum		1247	P		3572	P
Staurastrum sp. 1				P		P
Staurastrum sp. 2				P		P
Staurastrum sp. 3						
Staurastrum hexacerum						
Staurodesmus sp.						
Tetraedron arthrodesmiforme	P	188	84	123	129	46
Tetraedron caudatum						
Tetraedron incus						
Tetraedron limneticum						
Tetraedron minimum						
Tetraedron muticum	2510					P
Tetrastrum staurogeniaeforme						
Tetraedron trigonum						
Tetraedron tumidulum						
Tetrastrum elegans				219		
Tetrastrum muticum						
Tetrastrum staurogeniaeforme						
Tetrastrum triangulare						
Trigonum tumidulum						
Unidentified quadriflagellate						
Unidentified filament						
Unidentified filament #1						
Unidentified filament #2		5034				
Total Chlorophyta	**32143**	**33007**	**57363**	**17699**	**22989**	**93477**
Euglena sp.						
Lepocinclis sp.						
Phacus sp.						
Trachelomonas sp.						
Trachelomonas hispida						
Total Euglenophyta						

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Aimaokatalok Lake Site 4			Aimaokatalok Lake Site 6		
	21-Jul-07	19-Aug-07	8-Sep-07	22-Jul-07	19-Aug-07	8-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Bicoeca sp.						
Bitrichia longispina		P	770	404	P	346
Chromulina sp.	12537			4333		
Chrysidastrum catenatum						
Chrysochromulina parva		3961	1297	P	1943	1727
Chrysococcus sp.	29078		11859	59084	2636	31525
Chrysoikos skujai				687		
Chrysosphaerella rodhei			2063			
Dinobryon crenulatum						
Dinobryon divergens			P			
Dinobryon sertularia	269744	40345		383522	55126	5242
Dinobryon sociale	192827	51507	11521	261178	57802	20467
Dinobryon tabellariae	30111	P		30749		
Ishtmochloron trispinatum	P	P			P	
Kephyrion boreale	P		5385	6742	3247	
Kephyrion obliquum	1490			62321		
Kephyrion petasatum						
Kephyrion spirale	P					
Keriopsis sp.						
Mallomonas sp.				P		6332
Ochromonas sp. a	9278		1702	38285	3688	
Ochromonas sp. b						
Ochromonas stellaris	13309	13045		35812	6500	P
Ophiocytium sp.	P	P				1946
Pseudokephyrion sp.		1330	604	2525	P	512
Stelexmonas dichotoma	P	P	112288	7869	10638	104003
Stichogloea doederleinii	884	39100	34705	1844	7327	
Synura sp.	14896	3350	P		5678	4346
Unidentified statospore	62772	P	P	48542	15585	P
Total Chrysophyta	**636926**	**152637**	**182196**	**943898**	**170170**	**176446**
Ceratium hirudinella						
Glenodinium sp.	5379	P	6686	P		P
Gymnodinium sp. a	55119	15309	8522	17412	8386	
Gymnodinium sp. b						
Gymnodinium helveticum	P					
Gymnodinium uberrimum				P		
Peridinium aciculiferum				P		
Peridinium sp.	104245	P		P		
Unidentified cyst						
Total Pyrrophyta	**164744**	**15309**	**15208**	**17412**	**8386**	
Anabaena sp.		P	4621			1651
Anabaena sp. akinete			6931		4378	9371
Anabaena circinalis						
Anabaena solitaria						
Anabaena solitaria akinete						
Aphanizomenon gracile		P	552		P	3142
Aphanizomenon gracile akinete						
Aphanocapsa elachista v. planctonica		5774	11421	7456	2048	2154
Aphanothece clathrata	1402	7350	10821		6066	11167
Calothrix sp.						
Chamaesiphon sp.						
Chroococcus dispersus					184	
Chroococcus sp.						
Gomphosphaeria aponina						
Gomphosphaeria naegelianum		1496	4664	P	P	22577
Lyngbya agardhii	9582	P			P	P
Lyngbya contorta			P		P	P
Lyngbya limnetica	1589	2913	3258		269	70
Merismopedia sp.					4969	
Merismopedia minima		169	1271			167
Merismopedia punctata	140					
Microcystis sp.						33432
Nostoc sp.						
Oscillatoria agardhii			P			
Oscillatoria limnetica				27	24	
Oscillatoria limosa						
Pseudanabaena sp.	501					
Unidentified akinete						
Unidentified cyanobacteria						
Total Cyanobacteria	**13215**	**17703**	**43540**	**7483**	**17939**	**83731**
Total Biovolume (µm³ /mL)	**1,084,800**	**388,360**	**428,953**	**1,224,830**	**374,968**	**510,509**
Total Number of Taxa per Sample	**63**	**62**	**63**	**50**	**63**	**74**

P = taxon present

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Fickle Duck Lake			Reference Lake		
	22-Jul-07	20-Aug-07	9-Sep-07	21-Jul-07	20-Aug-07	9-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Achnanthes minutissima	P	P	610		121	226
Achnanthes minutissima v. cryptocephala						
Amphipleura sp.	P	P				
Amphiprora alata						
Amphora sp.	P					P
Amphora ovalis		P	P	P		
Asterionalla formosa	P	16687	22208	28643	P	P
Caloneis ventricosa						
Cocconeis sp.				P		
Cocconeis pediculus						
Cocconeis placentula						
Cyclotella sp.						
Cymatopleura solea						
Cymbella minuta			P	P	P	
Cymbella sp.	P	P	P			
Diatoma elongatum	P	P	10496	P	4050	P
Diploneis sp.	P	P	P	P		
Epithemia sp.						
Epithemia sorex						
Eunotia sp.				P		
Fragilaria sp.		P	P	P	P	
Fragilaria crotonensis		P		P		
Fragilaria construens						2261
Frustulia vulgaris						
Gomphonema sp.						
Gyrosigma sp.	P	P	P			
Hannaea arcus						
Licmophora sp.						
Mastigloia sp.						
Melosira sp.						
Melosira sp. large						
Melosira sp. larger						
Melosira varians						
Navicula sp.	P	P	P	P	P	P
Navicula sp. 2		P				P
Navicula sp. 2 larger						
Navicula cryptocephala						
Navicula lanceolata						
Nitzschia sp. 1		P	P	P		
Nitzschia sp. 2						
Nitzschia acicularis	P					
Nitzschia dissipata						
Nitzschia filiformis	P				P	P
Nitzschia palea						
Nitzschia sigmoidea	P		P			
Nitzschia tryblionella						
Pinnularia sp.	P	P	P	P	P	P
Pinnularia maior						
Rhizosolenia longiseta			P			7802
Rhopalodia sp.						
Rhoicosphenia curvata						
Stauroneis sp.						
Stauroneis smithii	P	P				P
Stephanodiscus astraea						
Surirella sp.						
Surirella ovata						
Synedra sp.	P	2555	31012		20940	14545
Synedra sp. smaller	4201	817	428	2757	2664	1009
Synedra acus				10046		
Synedra ulna						
Tabellaria fenestrata						
Tabellaria flocculosa	P	P	P	P	P	P
Unidentified diatom						
Unidentified pennate diatom	569			646		
Unidentified pennate diatom						
Unidentified centric diatom						
Unidentified centric diatom						
Unidentified centric small						
Unidentified centric diatom (small)						P
Unidentified centric diatom (medium)						
Total Bacillariophyta	**4770**	**20059**	**64754**	**42092**	**27775**	**25844**
Cyanomonas sp.						
Crypyochrysis commutata			11754			
Cryptomonas sp.		59951	39269		P	8726
Cryptomonas curvata					P	
Cryptomonas erosa		P		48085	43657	P
Cryptomonas ovata	18359	16515	63494	12396	39304	9244
Cryptomonas reflexa		P	16300	45516	13792	6524
Katablepharis ovalis	12915	39233	23444	8361	2885	16730
Rhodomonas lens						
Rhodomonas minuta	26806	78820	162104	23598	14472	9517
Total Cryptophyta	**58080**	**194519**	**316365**	**137957**	**114111**	**50741**
Ankistrodesmus convolutus	141	P	263	2038	156	233
Ankistrodesmus falcatus						

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Fickle Duck Lake			Reference Lake		
	22-Jul-07	20-Aug-07	9-Sep-07	21-Jul-07	20-Aug-07	9-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Ankistrodesmus falcatus v. acicularis				P	763	P
Ankistrodesmus falcatus v. spiralis		1124	896			633
Arthrodesmus incus	P	P	P			
Botryococcus sp.		P				
Characium sp.						
Chlamydomonas sp. a	1325	104058	29345		52236	6866
Chlamydomonas sp. b	34450	12077	61943	41025		70590
Closterium sp.			P			
Coelastrum microporum					P	
Cosmarium sp.				31480		P
Cosmarium tetraopthalmum						
Crucigenia fenestrata						P
Crucigenia quadrata			418	931	5990	11178
Cylindrocystis sp.						
Dictyosphaerium ehrenbergianum	1498	17539	444		3537	P
Dispora crucigenioides						
Elakatothrix gelatinosa	246	2293	3830	139	1746	599
Elakatothrix viridis						
Euastrum binale						
Euastrum elegans		P				
Franceia ovalis			P			
Gloeotila pelagica						
Kirchneriella lunaris		104	320			
Kirchneriella sp.				2124	441	
Monoraphidium						
Monoraphidium sp.	3256	3076	4945	3528	1682	1415
Mougeotia sp.			P			
Oocystis sp.	P	16233	9625	18001	9395	3990
Oocystis solitaria v. major						
Pediastrum boryanum					P	
Pediastrum duplex						
Pediastrum tetras	14057	32963	6334	3691	442	
Scenedesmus sp.		441		205	P	
Scenedesmus acuminatus				2559		
Scenedesmus bijuga	P	168	P	1539	856	P
Scenedesmus quadricauda	7491	P	P		P	P
Scenedesmus spinosus						
Schroederia setigera	3969	49782			P	
Sphaerocystis schroeteri	16868		51022			442
Spondylosium planum	19853	30516	41718		944	P
Staurastrum sp. 1		P			P	
Staurastrum sp. 2					P	
Staurastrum sp. 3						
Staurastrum hexacerum						
Staurodesmus sp.			34259			
Tetraedron arthrodesmiforme		282			P	57
Tetraedron caudatum	1778	1550		P	P	
Tetraedron incus						
Tetraedron limneticum	P			P		
Tetraedron minimum						
Tetraedron muticum	P	P	P	P		
Tetrastrum staurogeniaeforme						
Tetraedron trigonum					P	
Tetraedron tumidulum	8139	P				
Tetrastrum elegans					P	126
Tetrastrum muticum						
Tetrastrum staurogeniaeforme						
Tetrastrum triangulare				640		
Trigonum tumidulum						
Unidentified quadriflagellate						
Unidentified filament						
Unidentified filament #1		9449			1767	P
Unidentified filament #2						
Total Chlorophyta	**113072**	**281655**	**245361**	**107900**	**79956**	**96128**
Euglena sp.		89758	P	12810	P	P
Lepocinclis sp.						
Phacus sp.		P				P
Trachelomonas sp.	P	72315	9751	21908	20089	
Trachelomonas hispida						
Total Euglenophyta		**162073**	**9751**	**34718**	**20089**	

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Fickle Duck Lake			Reference Lake		
	22-Jul-07	20-Aug-07	9-Sep-07	21-Jul-07	20-Aug-07	9-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Bicoeca sp.						
Bitrichia longispina		2804				P
Chromulina sp.			7569		4380	11249
Chrysidastrum catenatum			6553			P
Chrysochromulina parva		2783	12119		5830	5710
Chrysococcus sp.	111496	112105	60890	27266	80707	30868
Chrysoikos skujai			5552			1232
Chrysosphaerella rodhei						
Dinobryon crenulatum	84069		14341		P	P
Dinobryon divergens		35445	17595			
Dinobryon sertularia	33144				19255	4266
Dinobryon sociale	210420	125693	154860	24204	45652	38846
Dinobryon tabellariae					P	30190
Ishtmochloron trispinatum				2367		
Kephyrion boreale	5458	2717	24937	11679	54732	87306
Kephyrion obliquum	1606	1760	49422		15003	4439
Kephyrion petasatum						
Kephyrion spirale	32931	3401				3061
Keriopsis sp.						
Mallomonas sp.						P
Ochromonas sp. a			24767	4779		
Ochromonas sp. b						1390
Ochromonas stellaris	P	23236		5358	P	
Ophiocytium sp.		P	3591	3930		
Pseudokephyrion sp.			3390			1533
Stelexmonas dichotoma						3240
Stichogloea doederleinii						
Synura sp.		6261	11499	2740	P	6561
Unidentified statospore	57788	386908	110324			10639
Total Chrysophyta	**536911**	**703113**	**507408**	**82322**	**225560**	**240531**
Ceratium hirudinella						
Glenodinium sp.	5877	20013	129611	36273	3976	22471
Gymnodinium sp. a	39425	241336	121878	91684	P	10860
Gymnodinium sp. b						
Gymnodinium helveticum						
Gymnodinium uberrimum	P	26212		52290	P	
Peridinium aciculiferum						
Peridinium sp.	P	27789	P		47270	P
Unidentified cyst						
Total Pyrrophyta	**45301**	**315350**	**251489**	**180247**	**51246**	**33331**
Anabaena sp.		140764			34425	P
Anabaena sp. akinete					59740	313
Anabaena circinalis				45400		
Anabaena solitaria	512328	277565	125750			
Anabaena solitaria akinete		85133	28955			
Aphanizomenon gracile		381				12164
Aphanizomenon gracile akinete						3131
Aphanocapsa elachista v. planctonica	854	800				
Aphanothece clathrata	3361	4026	1485		6476	3339
Calothrix sp.						
Chamaesiphon sp.						
Chroococcus dispersus						
Chroococcus sp.					P	
Gomphosphaeria aponina	P					
Gomphosphaeria naegelianum	6129		P	P		P
Lyngbya agardhii						
Lyngbya contorta						
Lyngbya limnetica						
Merismopedia sp.		P				
Merismopedia minima				10		
Merismopedia punctata						
Microcystis sp.						
Nostoc sp.						
Oscillatoria agardhii						P
Oscillatoria limnetica	261		P	141848	33440	
Oscillatoria limosa						
Pseudanabaena sp.	1646	273		P	1204	P
Unidentified akinete						
Unidentified cyanobacteria						
Total Cyanobacteria	**524579**	**508943**	**156190**	**187258**	**135284**	**18948**
Total Biovolume (µm³ /mL)	**1,282,714**	**2,185,712**	**1,551,319**	**772,495**	**654,023**	**465,523**
Total Number of Taxa per Sample	**59**	**74**	**68**	**55**	**64**	**71**

P = taxon present

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Stickleback Lake			Hope Bay		
	21-Jul-07	20-Aug-07	9-Sep-07	23-Jul-07	17-Aug-07	15-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Achnanthes minutissima	527	P	P	179	77	24
Achnanthes minutissima v. cryptocephala						
Amphipleura sp.						
Amphiprora alata						
Amphora sp.		P				
Amphora ovalis	P		P	P	P	
Asterionalla formosa		P	26080	P	8399	564
Caloneis ventricosa						
Cocconeis sp.						
Cocconeis pediculus	P					
Cocconeis placentula						
Cyclotella sp.						P
Cymatopleura solea						
Cymbella minuta				P	P	
Cymbella sp.		P				P
Diatoma elongatum	17397	32523	4795	7273	1748	948
Diploneis sp.						
Epithemia sp.						
Epithemia sorex						
Eunotia sp.			P	P		
Fragilaria sp.		P	P			
Fragilaria crotonensis					P	
Fragilaria construens						
Frustulia vulgaris						
Gomphonema sp.						
Gyrosigma sp.	P		P			P
Hannaea arcus						P
Licmophora sp.						970
Mastigloia sp.						
Melosira sp.						
Melosira sp. large						
Melosira sp. larger						
Melosira varians				46355	P	
Navicula sp.	P		P	P	P	
Navicula sp. 2	P		P	P	P	P
Navicula sp. 2 larger						
Navicula cryptocephala						
Navicula lanceolata						184
Nitzschia sp. 1						P
Nitzschia sp. 2		1690	P			
Nitzschia acicularis				65		
Nitzschia dissipata						
Nitzschia filiformis				P	P	122
Nitzschia palea						
Nitzschia sigmoidea						
Nitzschia tryblionella				P		
Pinnularia sp.			P	P	P	
Pinnularia maior						
Rhizosolenia longiseta			13166			
Rhopalodia sp.						
Rhoicosphenia curvata						
Stauroneis sp.						
Stauroneis smithii			P			
Stephanodiscus astraea						3411
Surirella sp.						P
Surirella ovata						
Synedra sp.	P	5762	775	97	481	289
Synedra sp. smaller	160	P		242		422
Synedra acus						766
Synedra ulna					P	P
Tabellaria fenestrata						
Tabellaria flocculosa			P	P	P	P
Unidentified diatom						
Unidentified pennate diatom					240	
Unidentified pennate diatom						
Unidentified centric diatom	1534		4406			
Unidentified centric diatom						
Unidentified centric small						
Unidentified centric diatom (small)				16095		
Unidentified centric diatom (medium)			20385	454		
Total Bacillariophyta	**19618**	**39975**	**69607**	**70762**	**10945**	**7700**
Cyanomonas sp.						
Crypyochrysis commutata			P	6747	34126	35915
Cryptomonas sp.		4944	41733	P		
Cryptomonas curvata	P	P	29809			
Cryptomonas erosa	7842		59204			
Cryptomonas ovata	14657	P	18541	P		
Cryptomonas reflexa	10335	58295	35772	633	728	
Katablepharis ovalis	9592	4960	7849			
Rhodomonas lens						
Rhodomonas minuta	49419	95558	37413	11595	1801	619
Total Cryptophyta	**91845**	**163758**	**230321**	**18975**	**36654**	**36534**
Ankistrodesmus convolutus	29	1053	1460	1155	358	
Ankistrodesmus falcatus						152

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Stickleback Lake			Hope Bay		
	21-Jul-07	20-Aug-07	9-Sep-07	23-Jul-07	17-Aug-07	15-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Ankistrodesmus falcatus v. acicularis				P		
Ankistrodesmus falcatus v. spiralis					598	106
Arthrodesmus incus					P	798
Botryococcus sp.		P				
Characium sp.						
Chlamydomonas sp. a		23261			P	360
Chlamydomonas sp. b	P		23040	1076	1240	
Closterium sp.					P	
Coelastrum microporum						
Cosmarium sp.			P	P	42321	P
Cosmarium tetraopthalmum						1331
Crucigenia fenestrata						
Crucigenia quadrata	P		2150		987	
Cylindrocystis sp.						1507
Dictyosphaerium ehrenbergianum					2407	P
Dispora crucigenioides						
Elakatothrix gelatinosa		610	175		182	
Elakatothrix viridis						
Euastrum binale					P	30
Euastrum elegans					P	
Franceia ovalis	4326					
Gloeotila pelagica						
Kirchneriella lunaris					144	205
Kirchneriella sp.		590	501			
Monoraphidium						
Monoraphidium sp.	188		P	847	513	292
Mougeotia sp.			P			
Oocystis sp.	P		21329	1474	1515	P
Oocystis solitaria v. major					P	
Pediastrum boryanum		P				P
Pediastrum duplex						
Pediastrum tetras	362		P	P	P	
Scenedesmus sp.		2535		P	P	
Scenedesmus acuminatus		P				
Scenedesmus bijuga	2637	6698	14095	206	800	63
Scenedesmus quadricauda	1042	P	P	487	P	
Scenedesmus spinosus						
Schroederia setigera						
Sphaerocystis schroeteri		16968	10856		7070	958
Spondylosium planum	464		2035		P	2399
Staurastrum sp. 1				P		
Staurastrum sp. 2						52641
Staurastrum sp. 3						P
Staurastrum hexacerum					P	
Staurodesmus sp.						
Tetraedron arthrodesmiforme	239	1468	148			
Tetraedron caudatum						
Tetraedron incus						
Tetraedron limneticum						
Tetraedron minimum				71	165	
Tetraedron muticum					228	
Tetrastrum staurogeniaeforme			P			
Tetraedron trigonum	P	P				
Tetraedron tumidulum						
Tetrastrum elegans	1405	3741	10029			
Tetrastrum muticum						
Tetrastrum staurogeniaeforme			P			
Tetrastrum triangulare		6522				
Trigonum tumidulum	1082	P				
Unidentified quadriflagellate						
Unidentified filament						
Unidentified filament #1					583	P
Unidentified filament #2					763	P
Total Chlorophyta	**11774**	**63445**	**85818**	**5317**	**59872**	**60841**
Euglena sp.						2562
Lepocinclis sp.						
Phacus sp.						
Trachelomonas sp.		P	P		P	P
Trachelomonas hispida						
Total Euglenophyta						**2562**

Appendix D1. Phytoplankton Biovolume (µm³/mL) in Samples Collected from the Boston, Doris, and Madrid Project areas, 2007

Taxon	Stickleback Lake			Hope Bay		
	21-Jul-07	20-Aug-07	9-Sep-07	23-Jul-07	17-Aug-07	15-Sep-07
	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL	µm³ /mL
Bicoeca sp.						
Bitrichia longispina						549
Chromulina sp.	3010		P	504		
Chrysidastrum catenatum	P		P			
Chrysochromulina parva		P	3135			
Chrysococcus sp.	134735		39257	16352	15929	3196
Chrysoikos skujai		499	1995			
Chrysosphaerella rodhei						
Dinobryon crenulatum	61274		30206		1079	
Dinobryon divergens			23259		1221	
Dinobryon sertularia	236943	7043	P	P		P
Dinobryon sociale	100493	31377	85512	1984	6920	4506
Dinobryon tabellariae	3182	P	P			
Ishtmochloron trispinatum						
Kephyrion boreale				2988	6911	2230
Kephyrion obliquum	6320	73801	2336	1734	1090	
Kephyrion petasatum						
Kephyrion spirale		10853	22961			2152
Keriopsis sp.					1033	
Mallomonas sp.		P	3351			
Ochromonas sp. a		60601			2148	4943
Ochromonas sp. b						
Ochromonas stellaris		10781	15094			4549
Ophiocytium sp.						
Pseudokephyrion sp.			2357			456
Stelexmonas dichotoma						3682
Stichogloea doederleinii						
Synura sp.	P		P		P	
Unidentified statospore			7406	1169	P	
Total Chrysophyta	**545957**	**194955**	**236869**	**24732**	**36331**	**26263**
Ceratium hirudinella					P	
Glenodinium sp.	6470	16484	4782	P	8940	
Gymnodinium sp. a	61306	31967	52185	P	15043	11060
Gymnodinium sp. b		9306				
Gymnodinium helveticum	P	P	P			5125
Gymnodinium uberrimum			P			
Peridinium aciculiferum						
Peridinium sp.	P	P	P	47182		6077
Unidentified cyst						
Total Pyrrophyta	**67776**	**57757**	**56967**	**47182**	**23983**	**22261**
Anabaena sp.	4616		P		P	P
Anabaena sp. akinete						
Anabaena circinalis						
Anabaena solitaria						
Anabaena solitaria akinete						
Aphanizomenon gracile					132	7
Aphanizomenon gracile akinete						
Aphanocapsa elachista v. planctonica			2471	P	392	681
Aphanothece clathrata		25961	20309		611	1189
Calothrix sp.						
Chamaesiphon sp.						
Chroococcus dispersus						
Chroococcus sp.						
Gomphosphaeria aponina						
Gomphosphaeria naegelianum	P	9357	P		P	
Lyngbya agardhii						
Lyngbya contorta						
Lyngbya limnetica					473	589
Merismopedia sp.						
Merismopedia minima	1910			1140	6	
Merismopedia punctata						
Microcystis sp.						
Nostoc sp.				3533		
Oscillatoria agardhii	P	P	P	313		
Oscillatoria limnetica	1070		77	52	99	
Oscillatoria limosa						
Pseudanabaena sp.		P	P	535	285	
Unidentified akinete						
Unidentified cyanobacteria						
Total Cyanobacteria	**7595**	**35319**	**22857**	**5574**	**1999**	**2467**
Total Biovolume (µm³ /mL)	**744,565**	**555,208**	**702,438**	**172,541**	**169,784**	**158,629**
Total Number of Taxa per Sample	**47**	**50**	**72**	**50**	**69**	**60**

P = taxon present

APPENDIX D2

PHYTOPLANKTON BIOMASS

Appendix D2. Biomass (µg/L) and Percent Composition of Major Phytoplankton Taxa Collected in the Boston, Doris, and Madrid Project areas, 2007.

Lake	Date	Bacillariophyta		Cryptophyta		Chrysophyta		Pyrrophyta		Euglenopyta		Chlorophyta		Cyanobacteria		Total Biovolume
		Mean	%	Mean	%	Mean	%	Mean	%	Mean	%	Mean	%	Mean	%	
Boston Project																
Aimaokatalok Lake Site 4	21-Jul	**62**	5.7	**176**	16.2	**637**	58.7	**165**	15.2	**0**	0.0	**32**	3.0	**13**	1.2	1,085
	19-Aug	**105**	27.0	**65**	16.7	**153**	39.3	**15**	3.9	**0**	0.0	**33**	8.5	**18**	4.6	388
	8-Sep	**48**	11.1	**83**	19.4	**182**	42.5	**15**	3.5	**0**	0.0	**57**	13.4	**44**	10.2	429
Aimaokatalok Lake Site 6	22-Jul	**49**	4.0	**189**	15.5	**944**	77.1	**17**	1.4	**0**	0.0	**18**	1.4	**7**	0.6	1,225
	19-Aug	**47**	12.5	**109**	28.9	**170**	45.4	**8**	2.2	**0**	0.0	**23**	6.1	**18**	4.8	375
	8-Sep	**62**	12.2	**94**	18.5	**176**	34.6	**0**	0.0	**0**	0.0	**93**	18.3	**84**	16.4	511
Fickle Duck Lake	22-Jul	**5**	0.4	**58**	4.5	**537**	41.9	**45**	3.5	**0**	0.0	**113**	8.8	**525**	40.9	1,283
	20-Aug	**20**	0.9	**195**	8.9	**703**	32.2	**315**	14.4	**162**	7.4	**282**	12.9	**509**	23.3	2,186
	9-Sep	**65**	4.2	**316**	20.4	**507**	32.7	**251**	16.2	**10**	0.6	**245**	15.8	**156**	10.1	1,551
Reference Lake	21-Jul	**42**	5.4	**138**	17.9	**82**	10.7	**180**	23.3	**35**	4.5	**108**	14.0	**187**	24.2	772
	20-Aug	**28**	4.2	**114**	17.4	**226**	34.5	**51**	7.8	**20**	3.1	**80**	12.2	**135**	20.7	654
	9-Sep	**26**	5.6	**51**	10.9	**241**	51.7	**33**	7.2	**0**	0.0	**96**	20.6	**19**	4.1	466
Stickleback Lake	21-Jul	**20**	2.6	**92**	12.3	**546**	73.3	**68**	9.1	**0**	0.0	**12**	1.6	**8**	1.0	745
	20-Aug	**40**	7.2	**164**	29.5	**195**	35.1	**58**	10.4	**0**	0.0	**63**	11.4	**35**	6.4	555
	9-Sep	**70**	9.9	**230**	32.8	**237**	33.7	**57**	8.1	**0**	0.0	**86**	12.2	**23**	3.3	702
Hope Bay	23-Jul	**71**	41.0	**19**	11.0	**25**	14.3	**47**	27.3	**0**	0.0	**5**	3.1	**6**	3.2	173
	17-Aug	**11**	6.4	**37**	21.6	**36**	21.4	**24**	14.1	**0**	0.0	**60**	35.3	**2**	1.2	170
	15-Sep	**8**	4.9	**37**	23.0	**26**	16.6	**22**	14.0	**3**	1.6	**61**	38.4	**2**	1.6	159
Doris North Project																
Doris Lake	16-Jul	**313**	8.1	**157**	4.0	**1528**	39.5	**0**	0.0	**0**	0.0	**152**	3.9	**1722**	44.5	3,871
	16-Aug	**375**	22.7	**51**	3.1	**245**	14.8	**44**	2.7	**0**	0.0	**23**	1.4	**918**	55.4	1,655
	13-Sep	**101**	2.0	**85**	1.7	**64**	1.2	**3**	0.1	**0**	0.0	**20**	0.4	**4826**	94.7	5,099
Little Roberts Lake	15-Jul	**168**	6.6	**439**	17.1	**767**	29.9	**84**	3.3	**0**	0.0	**50**	2.0	**1057**	41.2	2,566
	18-Aug	**413**	14.5	**117**	4.1	**349**	12.3	**2**	0.1	**0**	0.0	**35**	1.2	**1926**	67.8	2,841
	14-Sep	**153**	4.6	**112**	3.4	**220**	6.6	**74**	2.2	**0**	0.0	**29**	0.9	**2749**	82.4	3,337
Roberts Lake	15-Jul	**423**	29.1	**370**	25.4	**396**	27.3	**11**	0.7	**0**	0.0	**91**	6.2	**163**	11.2	1,453
	18-Aug	**292**	14.0	**152**	7.3	**829**	39.7	**104**	5.0	**68**	3.3	**133**	6.4	**508**	24.4	2,088
	14-Sep	**177**	10.8	**45**	2.7	**240**	14.6	**51**	3.1	**0**	0.0	**99**	6.0	**1030**	62.7	1,641
Tail Lake	20-Jul	**15**	3.3	**57**	12.3	**357**	76.2	**35**	7.5	**0**	0.0	**3**	0.7	**0**	0.0	468
	16-Aug	**173**	52.8	**7**	2.1	**59**	17.8	**33**	10.0	**8**	2.4	**45**	13.6	**4**	1.3	329
	13-Sep	**189**	43.5	**46**	10.6	**87**	20.0	**4**	0.8	**0**	0.0	**104**	23.9	**5**	1.2	434
Roberts Bay	23-Jul	**5**	2.2	**12**	5.5	**19**	8.4	**119**	54.0	**0**	0.0	**6**	2.6	**60**	27.3	221
	17-Aug	**7**	7.3	**3**	3.5	**12**	12.4	**4**	3.5	**0**	0.0	**2**	2.2	**71**	71.1	99
	14-Sep	**17**	3.9	**1**	0.1	**1**	0.2	**0**	0.0	**0**	0.0	**17**	3.9	**396**	91.9	431

Appendix D2. Biomass (µg/L) and Percent Composition of Major Phytoplankton Taxa Collected in the Boston, Doris, and Madrid Project areas, 2007.

Lake	Date	Bacillariophyta		Cryptophyta		Chrysophyta		Pyrrophyta		Euglenopyta		Chlorophyta		Cyanobacteria		Total Biovolume
		Mean	%	Mean	%	Mean	%	Mean	%	Mean	%	Mean	%	Mean	%	
Madrid Project																
Glenn Lake	16-Jul	**36**	35.3	**19**	18.2	**34**	33.8	**3**	2.8	**0**	0.0	**1**	0.8	**9**	9.2	102
	17-Aug	**152**	47.0	**87**	27.0	**6**	1.9	**14**	4.3	**3**	0.9	**55**	16.9	**7**	2.1	322
	15-Sep	**113**	38.3	**113**	38.3	**41**	13.8	**2**	0.7	**0**	0.0	**26**	8.9	**0**	0.1	296
Ogama Lake	23-Jul	**345**	12.9	**62**	2.3	**1176**	44.0	**118**	4.4	**0**	0.0	**121**	4.5	**852**	31.9	2,674
	16-Aug	**19**	0.5	**34**	0.8	**147**	3.6	**202**	5.0	**0**	0.0	**409**	10.1	**3236**	79.9	4,048
	11-Sep	**148**	2.6	**60**	1.0	**190**	3.3	**43**	0.7	**0**	0.0	**65**	1.1	**5257**	91.2	5,764
Patch Lake	17-Jul	**2**	0.9	**4**	1.8	**103**	45.9	**110**	49.1	**0**	0.0	**5**	2.2	**0**	0.1	225
	15-Aug	**3**	1.8	**24**	13.2	**93**	51.8	**49**	27.2	**0**	0.0	**8**	4.4	**3**	1.6	179
	11-Sep	**22**	9.7	**20**	8.8	**158**	70.7	**1**	0.4	**0**	0.0	**23**	10.1	**1**	0.3	224
Pelvic Lake	16-Jul	**66**	1.8	**52**	1.4	**828**	22.8	**146**	4.0	**0**	0.0	**12**	0.3	**2533**	69.6	3,637
	16-Aug	**422**	11.7	**223**	6.2	**267**	7.4	**53**	1.5	**20**	0.5	**123**	3.4	**2505**	69.3	3,613
	13-Sep	**294**	3.8	**101**	1.3	**115**	1.5	**100**	1.3	**3**	0.0	**38**	0.5	**7074**	91.6	7,725
P.O. Lake	17-Jul	**18**	2.2	**21**	2.6	**468**	57.6	**8**	1.0	**0**	0.0	**4**	0.5	**293**	36.0	813
	15-Aug	**23**	21.5	**18**	16.9	**33**	30.0	**4**	3.7	**0**	0.0	**29**	26.3	**2**	1.6	109
	11-Sep	**1**	0.3	**255**	63.0	**69**	17.1	**21**	5.1	**27**	6.6	**28**	6.9	**4**	1.0	405
Windy Lake	18-Jul	**19**	12.4	**11**	7.1	**77**	50.9	**40**	26.2	**1**	0.9	**3**	1.9	**1**	0.6	152
	21-Aug	**45**	29.7	**5**	3.1	**20**	13.0	**52**	34.6	**1**	0.7	**5**	3.0	**24**	15.8	151
	15-Sep	**28**	20.8	**3**	2.3	**49**	36.3	**43**	31.8	**0**	0.0	**5**	3.9	**7**	4.8	135
Wolverine Lake	17-Jul	**61**	4.7	**31**	2.4	**634**	48.7	**508**	39.1	**45**	3.5	**19**	1.5	**2**	0.1	1,300
	15-Aug	**27**	3.4	**139**	17.3	**241**	30.2	**233**	29.1	**36**	4.5	**119**	14.9	**5**	0.6	800
	9-Sep	**132**	7.3	**91**	5.1	**1447**	80.2	**97**	5.4	**0**	0.0	**33**	1.8	**3**	0.2	1,804

APPENDIX D3

ZOOPLANKTON BIOMASS

Appendix D3. Zooplankton Biomass (µg/m^3) in Boston and Madrid Project Area Lakes, 2007

Taxa / species	Stage	Aimaokatalok Lake Site 4			Aimaokatalok Lake Site 6			Fickle Duck Lake			Reference Lake[1]		
		21 Jul	19 Aug	8 Sep	22 Jul	19 Aug	8 Sep	22 Jul	20 Aug	9 Sep	21 Jul	20 Aug	9 Sep
		5.5 m	5.5 m	3.5 m	20 m	15 m	20 m	horizontal tow [2]			horizontal tow [2]		
Phylum Rotifera													
Asplanchna sp. *a*								13416	3372	17841	68322	4552	2162
Asplanchna sp. *b*											21267	12634	5841
Brachionus calyciflorus												7	
Conochilus hippocrepis											536		
Conochilus nataus								320	2				
Kellicottia longispina		18	103	32	4	34	24	89	123	348	1	4	7
Keratella cochlearis													
Keratella hiemalis													
Keratella quadrata											550		
Trichocera sp.												3	
Phylum Arthropoda													
Subphylum Crustacea													
Class Branchiopoda													
Order Cladocera													
Alonella sp.													
Bosmina longirostris						2558	1057	8105	15471	27863		191	285
Chydorus sphericus									33	117		34	63
Daphnia longiremis			6963	9887		8794	18990	1179	172	2931	112		
Holopedium gibberum			152831	3930		13754	12438	1297			141		
Class Maxillopoda													
Subclass Copepoda													
Calanoida													
Diaptomus tyrelli	female										24		
Epischura lacustris	adult										1924	83	
Epischura lacustris	C1-C2												
Epischura lacustris	C3-C5										252		
Limnocalanus macrurus	adult	5093	11178	17295	9927	18687	26612	4805	640				
Limnocalanus macrurus	C1-C2		231	323	165	288	89	48					
Limnocalanus macrurus	C3-C5		2557	4018	1208	553	487						
unidentified Calanoida	nauplius				47	31	8			67	14	9	26
Cyclopoida													
Cyclops bicuspidatus thomasi	adult	3792	45343	3851	109943	116938	27092	3261	1427	2058	1109	1513	783
Cyclops sp.	C1-C2	291	394		277	67	215	124	31	191	124	15	69
Cyclops sp.	C3-C5	196	189	390	761	786	810	255	61	138			11
Mesocyclops edax	adult					31426	36563						
unidentified Cyclopoida	nauplius												
Order Diptera													
Chironomidae													
unidentified Chironomidae									1		5	4	1
Class Arachnida													
unidentified Arachnida									1				
Class Ostracoda													
Order Podocopa													
Ostracod sp a (small)											91	22	
Ostracod sp b (large)								34			224	34	
TOTAL		**9391**	**219789**	**39725**	**122331**	**193917**	**124385**	**32899**	**21333**	**51554**	**94379**	**19045**	**9248**

Shaded rows indicate non planktonic (i.e., benthic) forms of aquatic invertebrates, which were excluded from the total. Biomass for these taxa was not calculated, and their values are in number of individuals per sample.

[1] 9 Sep sample was poorly preserved.

[2] Due to shallow depths (<3 m), a 50 m horizontal tow was performed instead of a vertical haul.

Appendix D3. Zooplankton Biomass (µg/m^3) in Boston and Madrid Project Area Lakes, 2007

Taxa / species	Stage	Stickleback Lake			Hope Bay			Glenn Lake			Ogama Lake		
		21 Jul	20 Aug	9 Sep	23 Jul	17 Aug	15 Sep	16 Jul	17 Aug	15 Sep	16 Jul	16 Aug	11 Sep
		horizontal tow [2]			10 m	7 m	13 m	15 m	15.5 m	9 m	4 m	5 m	5 m
Phylum Rotifera													
Asplanchna sp. *a*		23271	10500	4813									
Asplanchna sp. *b*													
Brachionus calyciflorus													
Conochilus hippocrepis		195											
Conochilus nataus									14833	628			
Kellicottia longispina			2	1	169	122	13	23	38	15	189	527	716
Keratella cochlearis		17											16
Keratella hiemalis									2				21830
Keratella quadrata													
Trichocera sp.													
Phylum Arthropoda													
Subphylum Crustacea													
Class Branchiopoda													
Order Cladocera													
Alonella sp.													
Bosmina longirostris		621	437		298	4200	633				922	24332	5434
Chydorus sphericus				17							62	3598	1141
Daphnia longiremis											151	2443	
Holopedium gibberum													
Class Maxillopoda													
Subclass Copepoda													
Calanoida													
Diaptomus tyrelli	female												
Epischura lacustris	adult	6234		578	361							19683	7678
Epischura lacustris	C1-C2	35											
Epischura lacustris	C3-C5	35											
Limnocalanus macrurus	adult					174550	3580	40837	45756	7924			
Limnocalanus macrurus	C1-C2				903	1743	82						
Limnocalanus macrurus	C3-C5				7248	12723	1298	73	33	144			
unidentified Calanoida	nauplius	24	42		249	436	28	28	35	12			21
Cyclopoida													
Cyclops bicuspidatus thomasi	adult	20670	9044	787				76			30724	49255	241040
Cyclops sp.	C1-C2	812	56	87	93							196	428
Cyclops sp.	C3-C5	461	90	95									
Mesocyclops edax	adult	1260											
unidentified Cyclopoida	nauplius												85
Order Diptera													
Chironomidae													
unidentified Chironomidae		1											
Class Arachnida													
unidentified Arachnida													
Class Ostracoda													
Order Podocopa													
Ostracod sp a (small)											2		
Ostracod sp b (large)		559	17	4									
TOTAL		**53635**	**20171**	**6378**	**9321**	**193774**	**5633**	**41038**	**60697**	**8724**	**32048**	**100033**	**278389**

Shaded rows indicate non planktonic (i.e., benthic) forms of aquatic invertebrates, which were excluded from the total. Biomass for these taxa was not calculated, and their values are in number of individuals per sample.

[1] 9 Sep sample was poorly preserved.

[2] Due to shallow depths (<3 m), a 50 m horizontal tow was performed instead of a vertical haul.

Appendix D3. Zooplankton Biomass (µg/m^3) in Boston and Madrid Project Area Lakes, 2007

Taxa / species	Stage	Patch Lake			Pelvic Lake			P.O. Lake			Windy Lake		
		17 Jul	15 Aug	11 Sep	16 Jul	16 Aug	13 Sep	17 Jul	15 Aug	11 Sep	18 Jul	21 Aug	15 Sep
		6 m	10 m	10 m	7 m	10 m	10 m	horizontal tow [2]			15 m	17 m	16.5 m
Phylum Rotifera													
Asplanchna sp. *a*													
Asplanchna sp. *b*													
Brachionus calyciflorus													
Conochilus hippocrepis													
Conochilus nataus		1451											
Kellicottia longispina		100	149	8			0	19		3	2	3	8
Keratella cochlearis					298	154	334						
Keratella hiemalis					958	580	740						
Keratella quadrata													
Trichocera sp.													
Phylum Arthropoda													
Subphylum Crustacea													
Class Branchiopoda													
Order Cladocera													
Alonella sp.													
Bosmina longirostris			2241	3685	6820	24884	3467	1232	993	492	40		
Chydorus sphericus													
Daphnia longiremis						9153	174	7652	10551	10447			
Holopedium gibberum		973	8370					2051	189				
Class Maxillopoda													
Subclass Copepoda													
Calanoida													
Diaptomus tyrelli	female							86					
Epischura lacustris	adult							2088	18054	4451			
Epischura lacustris	C1-C2												
Epischura lacustris	C3-C5								548	296			
Limnocalanus macrurus	adult	6013	11676	17944							5528	10200	10709
Limnocalanus macrurus	C1-C2										20		
Limnocalanus macrurus	C3-C5		1226										
unidentified Calanoida	nauplius	14						14	10		9		
Cyclopoida													
Cyclops bicuspidatus thomasi	adult	1137	3487	6883	10064	94444	6171	4105	6861	2740			
Cyclops sp.	C1-C2	266	1629	409	607	379	89	70					
Cyclops sp.	C3-C5	171	2451	691	1502	868	257						
Mesocyclops edax	adult												
unidentified Cyclopoida	nauplius				26								
Order Diptera													
Chironomidae													
unidentified Chironomidae													
Class Arachnida													
unidentified Arachnida													
Class Ostracoda													
Order Podocopa													
Ostracod sp a (small)													
Ostracod sp b (large)								54	113				
TOTAL		**10126**	**31229**	**29620**	**20274**	**130462**	**11232**	**17317**	**37206**	**18428**	**5599**	**10203**	**10717**

Shaded rows indicate non planktonic (i.e., benthic) forms of aquatic invertebrates, which were excluded from the total. Biomass for these taxa was not calculated, and their values are in number of individuals per sample.

[1] 9 Sep sample was poorly preserved.

[2] Due to shallow depths (<3 m), a 50 m horizontal tow was performed instead of a vertical haul.

Appendix D3. Zooplankton Biomass (µg/m^3) in Boston and Madrid Project Area Lakes, 2007

Taxa / species	Stage	Wolverine Lake		
		17 Jul	15 Aug	9 Sep
		horizontal tow [2]		
Phylum Rotifera				
Asplanchna sp. *a*		1545	5526	15498
Asplanchna sp. *b*				
Brachionus calyciflorus				28
Conochilus hippocrepis		10284	5234	2985
Conochilus nataus				
Kellicottia longispina		9	5	25
Keratella cochlearis				239
Keratella hiemalis				
Keratella quadrata				1
Trichocera sp.				94
Phylum Arthropoda				
Subphylum Crustacea				
Class Branchiopoda				
Order Cladocera				
Alonella sp.				
Bosmina longirostris		492	969	1461
Chydorus sphericus		40	114	
Daphnia longiremis				
Holopedium gibberum				
Class Maxillopoda				
Subclass Copepoda				
Calanoida				
Diaptomus tyrelli	female			
Epischura lacustris	adult			
Epischura lacustris	C1-C2			
Epischura lacustris	C3-C5			
Limnocalanus macrurus	adult			
Limnocalanus macrurus	C1-C2			
Limnocalanus macrurus	C3-C5			
unidentified Calanoida	nauplius			
Cyclopoida				
Cyclops bicuspidatus thomasi	adult	668	3505	7056
Cyclops sp.	C1-C2	387	20	273
Cyclops sp.	C3-C5			
Mesocyclops edax	adult			
unidentified Cyclopoida	nauplius		5	209
Order Diptera				
Chironomidae				
unidentified Chironomidae				
Class Arachnida				
unidentified Arachnida				
Class Ostracoda				
Order Podocopa				
Ostracod sp a (small)		717		
Ostracod sp b (large)		164		
TOTAL		**13426**	**15379**	**27870**

Shaded rows indicate non planktonic (i.e., benthic) forms of aquatic invertebrates, which were excluded from the total. Biomass for these taxa was not calculated, and their values are in number of individuals per sample.

[1] 9 Sep sample was poorly preserved.

[2] Due to shallow depths (<3 m), a 50 m horizontal tow was performed instead of a vertical haul.

APPENDIX D4

ZOOPLANKTON BIOMASS AND PERCENT COMPOSITION

Appendix D4. Biomass (µg/m^3) and Percent Composition of Major Zooplankton Taxa Collected in the Boston and Madrid Project areas, 2007.

Lake	Date	Rotifera		Cladocera		Calanoida		Cyclopoida		All Taxa
		Biomass (µg/m^3)	% composition	Biomass (µg/m^3)	% composition	Biomass (µg/m^3)	% composition	Biomass (µg/m^3)	% composition	Biomass (µg/m^3)
Aimaokatalok Lake Station 4	21-Jul-07	**18**	0.2			**5093**	54.2	**4279**	45.6	**9391**
	19-Aug-07	**103**	< 0.1	**159794**	72.7	**13966**	6.4	**45926**	20.9	**219789**
	8-Sep-07	**32**	0.1	**13817**	34.8	**21636**	54.5	**4241**	10.7	**39725**
Aimaokatalok Lake Station 6	22-Jul-07	**4**	< 0.1			**11347**	9.3	**110980**	90.7	**122331**
	19-Aug-07	**34**	< 0.1	**25106**	12.9	**19559**	10.1	**149218**	76.9	**193917**
	8-Sep-07	**24**	< 0.1	**32485**	26.1	**27195**	21.9	**64681**	52.0	**124385**
Fickle Duck Lake	22-Jul-07	**13825**	42.0	**10581**	32.2	**4853**	14.8	**3640**	11.1	**32899**
	20-Aug-07	**3496**	16.4	**15677**	73.5	**640**	3.0	**1519**	7.1	**21333**
	9-Sep-07	**18190**	35.3	**30910**	60.0	**67**	0.1	**2387**	4.6	**51554**
Reference Lake	21-Jul-07	**90677**	96.1	**253**	0.3	**2215**	2.3	**1233**	1.3	**94379**
	20-Aug-07	**17200**	90.3	**225**	1.2	**91**	0.5	**1528**	8.0	**19045**
	9-Sept-07 [1]	**8010**	86.6	**349**	3.8	**26**	0.3	**863**	9.3	**9248**
Stickleback Lake	21-Jul-07	**23483**	43.8	**621**	1.2	**6328**	11.8	**23203**	43.3	**53635**
	20-Aug-07	**10502**	52.1	**437**	2.2	**42**	0.2	**9191**	45.6	**20171**
	9-Sep-07	**4814**	75.5	**17**	0.3	**578**	9.1	**969**	15.2	**6378**
Hope Bay	23-Jul-07	**169**	1.8	**298**	3.2	**8760**	94.0	**93**	1.0	**9321**
	17-Aug-07	**122**	0.1	**4200**	2.2	**189452**	97.8			**193774**
	15-Sep-07	**13**	0.2	**633**	11.2	**4988**	88.5			**5633**
Glenn Lake	16-Jul-07	**23**	0.1			**40939**	99.8	**76**	0.2	**41038**
	17-Aug-07	**14874**	24.5			**45824**	75.5			**60697**
	15-Sep-07	**643**	7.4			**8080**	92.6			**8724**
Ogama Lake	16-Jul-07	**189**	0.6	**1136**	3.5			**30724**	95.9	**32048**
	16-Aug-07	**527**	0.5	**30373**	30.4	**19683**	19.7	**49451**	49.4	**100033**
	11-Sep-07	**22562**	8.1	**6575**	2.4	**7700**	2.8	**241552**	86.8	**278389**
Patch Lake	17-Jul-07	**1551**	15.3	**973**	9.6	**6027**	59.5	**1574**	15.5	**10126**
	15-Aug-07	**149**	0.5	**10611**	34.0	**12902**	41.3	**7566**	24.2	**31229**
	11-Sep-07	**8**	< 0.1	**3685**	12.4	**17944**	60.6	**7983**	27.0	**29620**
Pelvic Lake	16-Jul-07	**1256**	6.2	**6820**	33.6			**12198**	60.2	**20274**
	16-Aug-07	**734**	0.6	**34037**	26.1			**95691**	73.3	**130462**
	13-Sep-07	**1074**	9.6	**3641**	32.4			**6516**	58.0	**11232**
P.O. Lake	17-Jul-07	**19**	0.1	**10935**	63.1	**2188**	12.6	**4175**	24.1	**17317**
	15-Aug-07			**11733**	31.5	**18612**	50.0	**6861**	18.4	**37206**
	11-Sep-07	**3**	< 0.1	**10939**	59.4	**4747**	25.8	**2740**	14.9	**18428**
Windy Lake	18-Jul-07	**2**	< 0.1	**40**	0.7	**5557**	99.3			**5599**
	21-Aug-07	**3**	< 0.1			**10200**	100.0			**10203**
	15-Sep-07	**8**	0.1			**10709**	99.9			**10717**
Wolverine Lake	17-Jul-07	**11838**	88.2	**532**	4.0			**1056**	7.9	**13426**
	15-Aug-07	**10766**	70.0	**1083**	7.0			**3530**	23.0	**15379**
	9-Sep-07	**18871**	67.7	**1461**	5.2			**7538**	27.0	**27870**

[1]Poorly preserved sample.

APPENDIX D5

BENTHIC INVERTEBRATE BIOMASS

Appendix D5. Abundance (# organisms/m^2) for the Main Taxonomic Groups of Benthic Invertebrates in Samples Collected in the Boston and Madrid Project Areas, 2007

Taxa / Species	Stage*	Aimaokatalok Shallow					Aimaokatalok Deep					Fickle Duck Shallow				
		Replicate					Replicate					Replicate				
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
NEMATODA		133	400	756	756	2222						7244	1116	267	711	
OLIGOCHAETA				89												
Lumbriculidae		44				111										44
Naididae						111	44									
Tubificidae		667			89	667			44	133						
GASTROPODA	i/d												440	44		
Valvatidae																
Valvata sincera helicoidea														89		44
PELECYPODA																
Sphaeriidae	i/d								89							
Pisidium								178	356	356		400	2133	1022	222	667
Sphaerium		44						133	222	89	89		1440	222	133	
HYDRACHNIDA		133			44											
Aturidae								44								
Feltriidae																
Lebertiidae			44		89									44		
Oxidae																
CLADOCERA																
Chydoridae		222				333							147			
Bosminidae																
Bosmina																1182
Macrothricidae																
COPEPODA																
Calanoida						1222										
Cyclopoida					89				44			1778	44			1773
Harpacticoida												4444	293	89	222	4138
OSTRACODA		1289	444	44	400	667	89	222	1600	3378	133	8044	3960	2089	489	11231
DECAPODA																
Reptantia																
Orconectes virilis																
AMPHIPODA	i/d															
Gammarus lacustrus																
PLECOPTERA	i/d															
TRICHOPTERA	i/d															
Limnephilidae																
Ecclisomyia																
DIPTERA																
Chironomidae	pupae	89														
	i/d	89				1111										44
Tanypodinae		222			44	111	133	311			44	7378	1013	667		4671
Chironomini		711	133	89	444		178	89	44	178		3911	956	711	444	1627
Tanytarsini		1067		44	89	3156	44					25067	6542	1778	1022	31169
Orthocladiinae		444	133	133	133	267	44		44			40222	2409	1067	2222	32084
Prodiamesinae																
Monodiamesa		133				222										
Prodiamesa			133	44	133											
Diamesinae				44	44	222										
Protanypus						222										
Tipulidae																
Gonomyodes																
Grand Total		5067	1289	1244	2267	9089	533	978	2400	4133	267	96711	20302	8089	5467	85720

*all individuals are larvae unless otherwise noted

i/d = immature/damaged

Shaded rows indicate non-benthic taxa that are not included in the total (e.g., all Cladocera, Calanoida, and Cyclopoida copepods)

Appendix D5. Abundance (# organisms/m^2) for the Main Taxonomic Groups of Benthic Invertebrates in Samples Collected in the Boston and Madrid Project Areas, 2007

Taxa / Species	Stage*	Reference Shallow					Stickleback Shallow				
		Replicate					Replicate				
		1	2	3	4	5	1	2	3	4	5
NEMATODA		356	711	578	2889	1422	444	1489		924	933
OLIGOCHAETA								596		1173	
Lumbriculidae							622				178
Naididae		356					711			147	16000
Tubificidae		356		44		356	2933	89		44	2756
GASTROPODA	i/d		89								
Valvatidae											
Valvata sincera helicoidea		133	400	222	711	444	1156	400	133	622	756
PELECYPODA											
Sphaeriidae	i/d										
Pisidium		222	1289	489	933	267	2044	889	311	400	1778
Sphaerium		89	222	44	400	44			89	89	1467
HYDRACHNIDA					2889	356					
Aturidae											
Feltriidae											
Lebertiidae			44	89	133				137		
Oxidae											
CLADOCERA											
Chydoridae											
Bosminidae											
Bosmina											
Macrothricidae											
COPEPODA											
Calanoida											
Cyclopoida						356	711	298		293	
Harpacticoida			89	89		356	356	1191	1232	1907	9778
OSTRACODA		21378	7867	10044	28044	26933	25600	23524	12046	9973	54267
DECAPODA											
Reptantia											
Orconectes virilis											
AMPHIPODA	i/d							44			
Gammarus lacustrus							356	89			267
PLECOPTERA	i/d										
TRICHOPTERA	i/d										
Limnephilidae											
Ecclisomyia							89	44		44	133
DIPTERA											
Chironomidae	pupae		44								
	i/d						533		274	147	
Tanypodinae		1867	667		1511	2044		298		44	222
Chironomini		6178	1822	178	6756	4444	3200	1707	44	947	2133
Tanytarsini		2178	178		400	400	3022	298		778	6578
Orthocladiinae		4800	1956	178	4000	3867	1244	893	44	484	3556
Prodiamesinae											
Monodiamesa											
Prodiamesa											
Diamesinae											
Protanypus											
Tipulidae											
Gonomyodes											
Grand Total		37911	15378	11956	48667	40933	42311	31551	14311	17724	100800

*all individuals are larvae unless otherwise noted

i/d = immature/damaged

Shaded rows indicate non-benthic taxa that are not included in the total (e.g., all Cladocera, Calanoida, and Cyclopoida copepods)

Appendix D5. Abundance (# organisms/m^2) for the Main Taxonomic Groups of Benthic Invertebrates in Samples Collected in the Boston and Madrid Project Areas, 2007

Taxa / Species	Stage*	Glenn Shallow			Glenn Deep					Ogama Shallow			Ogama Deep		
		Replicate			Replicate					Replicate			Replicate		
		2	3	4	1	2	3	4	5	2	3	4	2	3	4
NEMATODA											44	44	44		
OLIGOCHAETA															
Lumbriculidae															
Naididae															
Tubificidae												44			44
GASTROPODA	i/d														
Valvatidae															
Valvata sincera helicoidea															
PELECYPODA															
Sphaeriidae	i/d														
Pisidium													89		
Sphaerium													44		
HYDRACHNIDA															
Aturidae															
Feltriidae															
Lebertiidae															
Oxidae										44	44	178			
CLADOCERA															
Chydoridae															
Bosminidae															
Bosmina															
Macrothricidae										44	44				
COPEPODA															
Calanoida															
Cyclopoida					44							89	178	222	
Harpacticoida															
OSTRACODA		1289	2533	2489	356	44	533	89	1422	3378	1778	2889	622	356	267
DECAPODA															
Reptantia															
Orconectes virilis															
AMPHIPODA	i/d														
Gammarus lacustrus															
PLECOPTERA	i/d														
TRICHOPTERA	i/d				44										
Limnephilidae															
Ecclisomyia															
DIPTERA															
Chironomidae	pupae										44				
	i/d				44				44					44	
Tanypodinae					133								133	933	800
Chironomini					178			44		44			978	356	622
Tanytarsini		44	44							356	311	444		222	
Orthocladiinae		44	44				133	89	89				44		
Prodiamesinae															
Monodiamesa															
Prodiamesa		133	44	89						44		44			
Diamesinae				44											
Protanypus															
Tipulidae															
Gonomyodes						44									
Grand Total		1511	2667	2622	756	89	667	222	1556	3867	2222	3644	1956	1911	1733

*all individuals are larvae unless otherwise noted
i/d = immature/damaged
Shaded rows indicate non-benthic taxa that are not included in the total (e.g., all Cladocera, Calanoida, and Cyclopoida copepods)

Appendix D5. Abundance (# organisms/m^2) for the Main Taxonomic Groups of Benthic Invertebrates in Samples Collected in the Boston and Madrid Project Areas, 2007

Taxa / Species	Stage*	Patch Shallow					Patch Deep					Pelvic Shallow				
		Replicate					Replicate					Replicate				
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
NEMATODA		5689	89	1422	4149									133		
OLIGOCHAETA		889						44								
Lumbriculidae																
Naididae						356									137	
Tubificidae		1244						89			44	296		44		356
GASTROPODA	i/d															
Valvatidae																
Valvata sincera helicoidea																
PELECYPODA																
Sphaeriidae	i/d															
Pisidium						356						44			44	44
Sphaerium													44			
HYDRACHNIDA															274	
Aturidae																
Feltriidae															137	
Lebertiidae													89			
Oxidae												296		133	684	
CLADOCERA																
Chydoridae						889									137	356
Bosminidae																
Bosmina												593				
Macrothricidae															137	
COPEPODA																
Calanoida																
Cyclopoida		73778	68267	21422	101147	50667	8111	622	267	578	5689	2075	267	178	3012	1422
Harpacticoida			711			1778										
OSTRACODA		32889	25600	9244	34624	27911	1778	889	311	489	667	16601	1333	1511	6023	4267
DECAPODA																
Reptantia																
Orconectes virilis										44				44	44	
AMPHIPODA	i/d															
Gammarus lacustrus																
PLECOPTERA	i/d															
TRICHOPTERA	i/d															
Limnephilidae																
Ecclisomyia																
DIPTERA																
Chironomidae	pupae															
	i/d			1422		356	111					889		44	274	44
Tanypodinae			1422	1244	4268	2489	444	133	311	267	44	682	44	356	681	889
Chironomini		4622	1067	622	6757	6400	333	489		89	133	3824	889	1200	2816	4089
Tanytarsini		1244	2133	2578	3319	5156	111					4447	267	533	2005	5733
Orthocladiinae		1422	2133	2578	3675	4444	111	178	44	133	44	44			181	89
Prodiamesinae																
Monodiamesa							333					44		133	89	267
Prodiamesa									44							
Diamesinae																
Protanypus																
Tipulidae																
Gonomyodes																
Grand Total		48000	33156	19111	56793	49244	3222	1822	711	1022	933	27169	2667	4133	13390	15778

*all individuals are larvae unless otherwise noted

i/d = immature/damaged

Shaded rows indicate non-benthic taxa that are not included in the total (e.g., all Cladocera, Calanoida, and Cyclopoida copepods)

Appendix D5. Abundance (# organisms/m^2) for the Main Taxonomic Groups of Benthic Invertebrates in Samples Collected in the Boston and Madrid Project Areas, 2007

Taxa / Species	Stage*	Pelvic Deep					P.O. Shallow				
		Replicate					Replicate				
		1	2	3	4	5	1	2	3	4	5
NEMATODA											44
OLIGOCHAETA									44	933	444
Lumbriculidae							89				578
Naididae									444		489
Tubificidae		178			89	89	1956	44			578
GASTROPODA	i/d										
Valvatidae											
Valvata sincera helicoidea											
PELECYPODA											
Sphaeriidae	i/d										
Pisidium							178	133	44	89	44
Sphaerium							978	1778	44	933	44
HYDRACHNIDA										44	
Aturidae											
Feltriidae											
Lebertiidae											
Oxidae											
CLADOCERA				44							
Chydoridae											
Bosminidae											
Bosmina		311			178	311					
Macrothricidae									222		
COPEPODA											
Calanoida											
Cyclopoida		6889	578	2356	2889	2889	8978	2667	2667	4489	12444
Harpacticoida											
OSTRACODA		1067		133	89	44	104444	70978	16267	73467	28089
DECAPODA											
Reptantia											
Orconectes virilis											
AMPHIPODA	i/d										
Gammarus lacustrus											
PLECOPTERA	i/d							889	222		
TRICHOPTERA	i/d										
Limnephilidae											
Ecclisomyia											
DIPTERA											
Chironomidae	pupae										
	i/d	89					2756	889			444
Tanypodinae			44				178	889			44
Chironomini		89	89	133	267	311	30311	21511	9156	23422	10756
Tanytarsini		178				133	5156	1156	667	2089	4000
Orthocladiinae							178		89	133	133
Prodiamesinae											
Monodiamesa											
Prodiamesa											
Diamesinae											
Protanypus											
Tipulidae											
Gonomyodes											
Grand Total		1600	133	267	444	578	146222	98267	26978	101111	45689

*all individuals are larvae unless otherwise noted
i/d = immature/damaged

Shaded rows indicate non-benthic taxa that are not included in the total (e.g., all Cladocera, Calanoida, and Cyclopoida copepods)

Appendix D5. Abundance (# organisms/m^2) for the Main Taxonomic Groups of Benthic Invertebrates in Samples Collected in the Boston and Madrid Project Areas, 2007

Taxa / Species	Stage*	Windy Shallow					Windy Deep			Wolverine Shallow			
		Replicate					Replicate			Replicate			
		1	2	3	4	5	2	3	4	1	2	3	4
NEMATODA			133				89		89		489	2044	89
OLIGOCHAETA											444		
Lumbriculidae										356			
Naididae						44							
Tubificidae		178								1244	222	89	89
GASTROPODA	i/d										44		
Valvatidae													
Valvata sincera helicoidea													44
PELECYPODA													
Sphaeriidae	i/d												
Pisidium										2844	2978	4000	2800
Sphaerium										1067	400	3111	933
HYDRACHNIDA											889		
Aturidae													
Feltriidae													
Lebertiidae											44		
Oxidae													
CLADOCERA													
Chydoridae						44							
Bosminidae													
Bosmina													
Macrothricidae													
COPEPODA													
Calanoida													
Cyclopoida						89				1067			
Harpacticoida													
OSTRACODA		7956	578	133	222	1867	6978	8933	6444	42400	50089	77333	40356
DECAPODA													
Reptantia													
Orconectes virilis													
AMPHIPODA	i/d												
Gammarus lacustrus													
PLECOPTERA	i/d									711			
TRICHOPTERA	i/d												
Limnephilidae													
Ecclisomyia											44	44	44
DIPTERA													
Chironomidae	pupae	44											
	i/d	133						89	44				
Tanypodinae						44	44		89	1511	44	933	400
Chironomini		44				44	44		222	978	2000	2178	356
Tanytarsini			44			44					44	44	
Orthocladiinae		178				89	44	89		89	133	1067	44
Prodiamesinae													
Monodiamesa		44	178		89	89							
Prodiamesa													
Diamesinae													
Protanypus		44											
Tipulidae													
Gonomyodes													
Grand Total		8622	933	133	311	2222	7200	9111	6889	51200	57867	90844	45156

*all individuals are larvae unless otherwise noted
i/d = immature/damaged
Shaded rows indicate non-benthic taxa that are not included in the total (e.g., all Cladocera, Calanoida, and Cyclopoida copepods)

APPENDIX D6

BENTHIC INVERTEBRATE BIOMASS AND PERCENT COMPOSITION

Appendix D6. Abundance (# organisms/m^2) and Percent Composition for the Main Taxonomic Groups of Benthic Invertebrates in Samples Collected in the Boston and Madrid Project Areas, 2007

Lake	Depth	#	Nematoda			Oligochaeta			Pelecypoda			Ostracoda			Tanypodinae		
		Reps	Mean	SE	%	Mean	SE	%	Mean	SE	%	Mean	SE	%	Mean	SE	%
Aimaokatalok Lake	Shallow	5	853	362	22.51	356	184	9.38	9	9	0.23	569	206	15.01	76	42	1.99
	Deep	5				44	24	2.67	302	120	18.18	1084	639	65.24	98	59	5.88
Fickle Duck Lake	Shallow	5	1868	1358	4.32	9	9	0.02	1248	603	2.89	5163	1973	11.93	2746	1415	6.35
Reference Lake	Shallow	5	1191	460	3.85	222	139	0.72	800	259	2.58	18853	4210	60.88	1218	386	3.93
Stickleback Lake	Shallow	5	758	252	1.83	5050	3546	12.22	1413	543	3.42	25082	7914	60.67	113	62	0.27
Glenn Lake	Shallow	3										2104	408	92.81			
	Deep	5										489	250	74.32	27	27	4.05
Ogama Lake	Shallow	3	30	15	0.91	15	15	0.46				2681	473	82.65			
	Deep	3	15	15	0.79	15	15	0.79	44	44	2.38	415	107	22.22	622	247	33.33
Patch Lake	Shallow	5	2270	1137	5.50	498	415	1.21	71	71	0.17	26054	4508	63.14	1885	715	4.57
	Deep	5				36	26	2.31				827	256	53.60	240	70	15.56
Pelvic Lake	Shallow	5	27	27	0.21	167	69	1.32	36	9	0.28	5947	2804	47.10	530	148	4.20
	Deep	5				71	33	11.76				267	201	44.12	9	9	1.47
P.O. Lake	Shallow	5	9	9	0.01	1120	411	1.34	853	347	1.02	58649	16123	70.11	222	170	0.27
Windy Lake	Shallow	5	27	27	1.09	44	34	1.82				2151	1484	88.00	9	9	0.36
	Deep	3	59	30	0.77							7452	757	96.36	44	26	0.57
Wolverine Lake	Shallow	4	656	475	1.07	611	357	1.00	4533	866	7.40	52544	8524	85.76	722	320	1.18

Lake	Depth	#	Chironomini			Tanytarsini			Orthocladiinae			Remaining Chironomidae			Remaining taxa			Total	
		Reps	Mean	SE	%	Mean	SE	%	Mean	SE	%	Mean	SE	%	Mean	SE	%	Mean	SE
Aimaokatalok Lake	Shallow	5	276	132	7.27	871	605	22.98	222	61	5.86	498	322	13.13	62	30	1.64	3791	1496
	Deep	5	98	36	5.88	9	9	0.53	18	11	1.07			0.00	9	9	0.53	1662	719
Fickle Duck Lake	Shallow	5	1530	627	3.54	13116	6272	30.32	15601	8492	36.06	9	9	0.02	1970	962	4.55	43258	19814
Reference Lake	Shallow	5	3876	1261	12.51	631	394	2.04	2960	838	9.56	9	9	0.03	1209	653	3.90	30969	7298
Stickleback Lake	Shallow	5	1606	534	3.89	2135	1231	5.16	1244	612	3.01	191	100	0.46	3747	1805	9.06	41340	15685
Glenn Lake	Shallow	3				30	15	1.31	30	15	1.31	104	30	4.58				2267	378
	Deep	5	44	34	6.76				62	27	9.46	18	11	2.70	18	11	2.70	658	258
Ogama Lake	Shallow	3	15	15	0.46	370	39	11.42				44	0	1.37	89	44	2.74	3244	515
	Deep	3	652	180	34.92	74	74	3.97	15	15	0.79	15	15	0.79				1867	68
Patch Lake	Shallow	5	3894	1298	9.44	2886	659	6.99	2850	541	6.91	356	275	0.86	498	348	1.21	41261	6733
	Deep	5	209	89	13.54	22	22	1.44	102	26	6.63	98	87	6.34	9	9	0.58	1542	460
Pelvic Lake	Shallow	5	2564	657	20.30	2597	1079	20.57	63	34	0.50	357	157	2.83	341	206	2.70	12627	4435
	Deep	5	178	47	29.41	62	39	10.29				18	18	2.94				604	260
P.O. Lake	Shallow	5	19031	3992	22.75	2613	854	3.12	107	30	0.13	818	512	0.98	231	169	0.28	83653	21315
Windy Lake	Shallow	5	18	11	0.73	18	11	0.73	53	36	2.18	124	45	5.09				2444	1587
	Deep	3	89	68	1.15				44	26	0.57	44	26	0.57				7733	695
Wolverine Lake	Shallow	4	1378	431	2.25	22	13	0.04	333	245	0.54			0.00	467	240	0.76	61267	10195

Note: 'Remaining Chironomidae' are unidentified Chironomidae, Prodiamesinae, and Diamesinae, each of which contributed <10% of total abundance. 'Remaining Taxa' are the remaining taxonomic groups, each of which contributed <10% of total individuals at a sampling depth in any lake. Due to rounding, the total numbers may not match the sums of the individual taxonomic groups. SE = standard error.

APPENDIX E

FISH POPULATIONS

APPENDIX E1

INDIVIDUAL FISH CAPTURE DATA

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
1	LKTR	35						EF	16-Jul-06	AREF-01	Aimaokatalok River				
2	LKTR	32						EF	16-Jul-06	AREF-01	Aimaokatalok River				
3	LKTR	53						EF	16-Jul-06	AREF-01	Aimaokatalok River				
4	LKTR	25						EF	16-Jul-06	AREF-01	Aimaokatalok River				
5	LKTR	26						EF	16-Jul-06	AREF-01	Aimaokatalok River				
6	LKTR	26						EF	16-Jul-06	AREF-01	Aimaokatalok River				
7	LKTR	27						EF	16-Jul-06	AREF-01	Aimaokatalok River				
8	LKTR	25						EF	16-Jul-06	AREF-01	Aimaokatalok River				
9	LKTR	26						EF	16-Jul-06	AREF-01	Aimaokatalok River				
10	NNST	38						EF	16-Jul-06	AREF-01	Aimaokatalok River				
11	NNST	42						EF	16-Jul-06	AREF-01	Aimaokatalok River				
12	NNST	64						EF	16-Jul-06	AREF-01	Aimaokatalok River				
13	NNST	49						EF	16-Jul-06	AREF-01	Aimaokatalok River				
14	NNST	51						EF	16-Jul-06	AREF-01	Aimaokatalok River				
15	NNST	36						EF	16-Jul-06	AREF-01	Aimaokatalok River				
16	NNST	31						EF	16-Jul-06	AREF-01	Aimaokatalok River				
17	NNST	44						EF	16-Jul-06	AREF-01	Aimaokatalok River				
18	NNST	41						EF	16-Jul-06	AREF-01	Aimaokatalok River				
19	NNST	46						EF	16-Jul-06	AREF-01	Aimaokatalok River				
20	NNST	36						EF	16-Jul-06	AREF-01	Aimaokatalok River				
21	NNST	32						EF	16-Jul-06	AREF-01	Aimaokatalok River				
22	NNST	38						EF	16-Jul-06	AREF-01	Aimaokatalok River				
23	NNST	36						EF	16-Jul-06	AREF-01	Aimaokatalok River				
24	NNST	40						EF	16-Jul-06	AREF-01	Aimaokatalok River				
25	NNST	45						MT	16-Jul-06	SLMT-03	Aimaokatalok Lake				
26	NNST	55						MT	16-Jul-06	SLMT-03	Aimaokatalok Lake				
27-40	LKTR							EF	16-Jul-06	SLEF-01	Aimaokatalok Lake				14 LKTR captured; Observed approx 40 YOY LKTR
41-46	NNST							EF	16-Jul-06	SLEF-01	Aimaokatalok Lake				6 NNST captured; Observed approx 100 NNST
47	LKTR	422	852	1.13				GN	16-Jul-06	SLGN-01	Aimaokatalok Lake	SC			fish died
48	LKTR	30						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
49	LKTR	85						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
50	NNST	50						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
51	NNST	45						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
52	NNST	45						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
53	NNST	44						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
54	NNST	46						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
55	NNST	45						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
56	NNST	35						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
57	NNST	38						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
58	NNST	39						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
59	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
60	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
61	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
62	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
63	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
64	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
65	NNST	42						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
66	NNST	43						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
67	NNST	50						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
68	NNST	35						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
69	NNST	35						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
70	NNST	35						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
71	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
72	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
73	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
74	NNST	50						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
75	NNST	51						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
76	NNST	45						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
77	NNST	42						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
78	NNST	42						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
79	NNST	43						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
80	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
81	NNST	42						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
82	NNST	35						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
83	NNST	35						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
84	NNST	35						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
85	NNST	35						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
86	NNST	36						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
87	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
88	NNST	41						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
89	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
90	NNST	42						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
91	NNST	43						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
92	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
93	NNST	35						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
94	NNST	35						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
95	NNST	55						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
96	NNST	50						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
97	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
98	NNST	41						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
99	NNST	42						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
100	NNST	45						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
101	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
102	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
103	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
104	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
105	NNST	45						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
106	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
107	NNST	50						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
108	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
109	NNST	35						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
110	NNST	36						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
111	NNST	35						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
112	NNST	35						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
113	NNST	36						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
114	NNST	35						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
115	NNST	50						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
116	NNST	50						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
117	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
118	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
119	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
120	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
121	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
122	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
123	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
124	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
125	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
126	NNST	45						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
127	NNST	45						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
128	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
129	NNST	45						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
130	NNST	46						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
131	NNST	45						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
132	NNST	30						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
133	NNST	30						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
134	NNST	35						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
135	NNST	35						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
136	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
137	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
138	NNST	45						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
139	NNST	40						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
140	NNST	35						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
141	NNST	35						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
142	NNST	35						FN	17-Jul-06	SLFN-01	Aimaokatalok Lake				
143	NNST	55						MT	17-Jul-06	SLMT-01	Stickleback Lake				NNST with parasites
144	NNST	50						MT	17-Jul-06	SLMT-01	Stickleback Lake				NNST with parasites
145	NNST	52						MT	17-Jul-06	SLMT-01	Stickleback Lake				NNST with parasites
146	NNST	50						MT	17-Jul-06	SLMT-02	Stickleback Lake				NNST with parasites
147	NNST	71						MT	17-Jul-06	SLMT-02	Stickleback Lake				NNST with parasites
148	NNST	48						MT	17-Jul-06	SLMT-02	Stickleback Lake				NNST with parasites
149	NNST	56						MT	17-Jul-06	SLMT-02	Stickleback Lake				NNST with parasites
150	NNST	55						MT	17-Jul-06	SLMT-02	Stickleback Lake				NNST with parasites
151	NNST	49						MT	17-Jul-06	SLMT-02	Stickleback Lake				NNST with parasites
152	NNST	50						MT	17-Jul-06	SLMT-02	Stickleback Lake				NNST with parasites

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
153	NNST	52						MT	17-Jul-06	SLMT-02	Stickleback Lake				NNST with parasites
154	NNST	49						MT	17-Jul-06	SLMT-02	Stickleback Lake				NNST with parasites
155	NNST	56						MT	17-Jul-06	SLMT-02	Stickleback Lake				NNST with parasites
156	NNST	51						MT	17-Jul-06	SLMT-02	Stickleback Lake				NNST with parasites
157	NNST	82						MT	17-Jul-06	SLMT-03	Stickleback Lake				NNST with parasites
158	NNST	51						MT	17-Jul-06	SLMT-03	Stickleback Lake				NNST with parasites
159	NNST	80						MT	17-Jul-06	SLMT-04	Stickleback Lake				NNST with parasites
160	NNST	63						MT	17-Jul-06	SLMT-04	Stickleback Lake				NNST with parasites
161	NNST	62						MT	17-Jul-06	SLMT-04	Stickleback Lake				NNST with parasites
162	NNST	46						MT	17-Jul-06	SLMT-04	Stickleback Lake				NNST with parasites
163	NNST	56						MT	17-Jul-06	SLMT-04	Stickleback Lake				NNST with parasites
164	NNST	50						MT	17-Jul-06	SLMT-04	Stickleback Lake				NNST with parasites
165	NNST	55						MT	17-Jul-06	SLMT-04	Stickleback Lake				NNST with parasites
166	NNST	66						MT	17-Jul-06	SLMT-04	Stickleback Lake				NNST with parasites
167	NNST	40						MT	17-Jul-06	SLMT-04	Stickleback Lake				NNST with parasites
168	NNST	50						MT	17-Jul-06	SLMT-04	Stickleback Lake				NNST with parasites
169	NNST	40						MT	17-Jul-06	SLMT-04	Stickleback Lake				NNST with parasites
170	NNST	41						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
171	NNST	50						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
172	NNST	55						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
173	NNST	35						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
174	NNST	52						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
175	NNST	36						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
176	NNST	49						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
177	NNST	57						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
178	NNST	35						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
179	NNST	50						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
180	NNST	42						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
181	NNST	50						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
182	NNST	46						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
183	NNST	47						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
184	NNST	53						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
185	NNST	50						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
186	NNST	40						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
187	NNST	39						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
188	NNST	52						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
189	NNST	42						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
190	NNST	47						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
191	NNST	52						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
192	NNST	42						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
193	NNST	47						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
194	SLSC	115						EF	17-Jul-06	SOEF-01	Stickleback Outflow				
195	LKTR	78						BS	18-Jul-06	FLBS-01	Fickle Duck Lake				
196	NNST	50						BS	18-Jul-06	FLBS-01	Fickle Duck Lake				
197	NNST	50						EF	18-Jul-06	FIEF-01	Fickle Duck Inflow				
198	NNST	35						EF	18-Jul-06	FIEF-01	Fickle Duck Inflow				
199	NNST	45						EF	18-Jul-06	FIEF-01	Fickle Duck Inflow				
200	NNST	45						EF	18-Jul-06	FIEF-01	Fickle Duck Inflow				
201	NNST	40						EF	18-Jul-06	FIEF-01	Fickle Duck Inflow				
202	NNST	40						EF	18-Jul-06	FIEF-01	Fickle Duck Inflow				
203	NNST	35						EF	18-Jul-06	FIEF-01	Fickle Duck Inflow				
204	NNST	35						EF	18-Jul-06	FIEF-01	Fickle Duck Inflow				
205	LKTR	490	1390	1.18			985120031599570	GN	18-Jul-06	FLGN-01	Fickle Duck Lake				
206	LKTR	555	2620	1.53			985120013632453	GN	18-Jul-06	FLGN-01	Fickle Duck Lake				
207	NNST	48						MT	18-Jul-06	FLMT-03	Fickle Duck Lake				
208	NNST	51						MT	18-Jul-06	FLMT-03	Fickle Duck Lake				
209	NNST	49						MT	18-Jul-06	FLMT-03	Fickle Duck Lake				
210	NNST	50						MT	18-Jul-06	FLMT-03	Fickle Duck Lake				
211	NNST	46						MT	18-Jul-06	FLMT-03	Fickle Duck Lake				
212	BURB	415	490	0.69				EF	18-Jul-06	FOEF-01	Fickle Duck Outflow				
213	LKTR	85	4	0.65				EF	18-Jul-06	FOEF-01	Fickle Duck Outflow				
214	NNST	35						EF	18-Jul-06	FOEF-01	Fickle Duck Outflow				
215	NNST	36						EF	18-Jul-06	FOEF-01	Fickle Duck Outflow				
216	NNST	40						EF	18-Jul-06	FOEF-01	Fickle Duck Outflow				
217	NNST	40						EF	18-Jul-06	FOEF-01	Fickle Duck Outflow				
218	NNST	50						EF	18-Jul-06	FOEF-01	Fickle Duck Outflow				
219	NNST	51						EF	18-Jul-06	FOEF-01	Fickle Duck Outflow				

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
220	NNST	45						EF	18-Jul-06	FOEF-01	Fickle Duck Outflow				
389	ARGR	69						EF	20-Jul-06	KREF-02	Koignuk River				
222	LKTR	665	2750	0.94				AN	19-Jul-06	KRAN-01	Koignuk River				At Narrows
223	LKTR	470	1510	1.45				AN	19-Jul-06	KRAN-01	Koignuk River				At Narrows
6	ARFL	139	42	1.56				EF	8-Jul-07	KNBP-02	Koignuk River		C		
225	LKTR	450	1350	1.48				AN	19-Jul-06	KRAN-01	Koignuk River				At Narrows
226	LKTR	455	1135	1.20				AN	19-Jul-06	KRAN-01	Koignuk River				At Narrows
227	LKTR	480	1380	1.25				AN	19-Jul-06	KRAN-01	Koignuk River				At Narrows
228	LKTR	480	1340	1.21				AN	19-Jul-06	KRAN-01	Koignuk River				At Narrows
229	LKTR	535	1395	0.91				AN	19-Jul-06	KRAN-01	Koignuk River				At Narrows
230	NNST	67						EF	19-Jul-06	KREF-01	Koignuk River				
231	NNST	52						EF	19-Jul-06	KREF-01	Koignuk River				
232	NNST	46						EF	19-Jul-06	KREF-01	Koignuk River				
233	NNST	39						EF	19-Jul-06	KREF-01	Koignuk River				
234	SLSC	52						EF	19-Jul-06	KREF-01	Koignuk River				
235	SLSC	57						EF	19-Jul-06	KREF-01	Koignuk River				
236	SLSC	46						EF	19-Jul-06	KREF-01	Koignuk River				
237	LKWH	480	1350	1.22				GN	19-Jul-06	KRGN-01	Koignuk River				
238	LKWH	500	1375	1.10				GN	19-Jul-06	KRGN-01	Koignuk River				
239	NNST	50						EF	19-Jul-06	RLEF-01	Reference Lake				
240	NNST	45						EF	19-Jul-06	RLEF-01	Reference Lake				
241	NNST	45						EF	19-Jul-06	RLEF-01	Reference Lake				
242	CISC	28						EF	19-Jul-06	RLEF-02	Reference Lake				Kept for ID, believed to be CISC or LKWH
243	NNST	50						EF	19-Jul-06	RLEF-02	Reference Lake				
244	NNST	45						EF	19-Jul-06	RLEF-02	Reference Lake				
245	NNST	46						EF	19-Jul-06	RLEF-02	Reference Lake				
246	NNST	30						EF	19-Jul-06	RLEF-02	Reference Lake				
247	NNST	35						EF	19-Jul-06	RLEF-02	Reference Lake				
248	NNST	35						EF	19-Jul-06	RLEF-02	Reference Lake				
249	NNST	36						EF	19-Jul-06	RLEF-02	Reference Lake				
250	LKTR	195	80	1.08				GN	19-Jul-06	RLGN-01	Reference Lake	SC			
251	NNST	50						MT	19-Jul-06	RLMT-03	Reference Lake				
252	NNST	40						MT	19-Jul-06	RLMT-03	Reference Lake				
253	CISC	85						FN	19-Jul-06	SLFN-02	Aimaokatalok Lake				where fickleduck flows into Spyder
254	CISC	75						FN	19-Jul-06	SLFN-02	Aimaokatalok Lake				where fickleduck flows into Spyder
255	NNST	40						FN	19-Jul-06	SLFN-02	Aimaokatalok Lake				where fickleduck flows into Spyder
256	NNST	39						FN	19-Jul-06	SLFN-02	Aimaokatalok Lake				where fickleduck flows into Spyder
257	NNST	40						FN	19-Jul-06	SLFN-02	Aimaokatalok Lake				where fickleduck flows into Spyder
258	NNST	40						FN	19-Jul-06	SLFN-02	Aimaokatalok Lake				where fickleduck flows into Spyder
259	NNST	39						FN	19-Jul-06	SLFN-02	Aimaokatalok Lake				where fickleduck flows into Spyder
260	NNST	40						FN	19-Jul-06	SLFN-02	Aimaokatalok Lake				where fickleduck flows into Spyder
261	NNST	50						FN	19-Jul-06	SLFN-02	Aimaokatalok Lake				where fickleduck flows into Spyder
387	ARGR	70						EF	20-Jul-06	KREF-02	Koignuk River				
263	ARGR	400						AN	20-Jul-06	KRAN-02	Koignuk River				At Narrows
388	ARGR	72						EF	20-Jul-06	KREF-02	Koignuk River				
386	ARGR	79						EF	20-Jul-06	KREF-02	Koignuk River				
266-385	LKWH	30-40						BS	20-Jul-06	KRBS-01	Koignuk River				120 LKWH captured
3	ARGR	109	13	1.00				EF	8-Jul-07	KNBP-01	Koignuk River		C		
265	ARGR	350						AN	20-Jul-06	KRAN-02	Koignuk River				At Narrows
262	ARGR	380						AN	20-Jul-06	KRAN-02	Koignuk River				At Narrows
221	ARGR	385	650	1.14				AN	19-Jul-06	KRAN-01	Koignuk River				At Narrows
390	ARGR	25						EF	20-Jul-06	KREF-02	Koignuk River				
391	ARGR	23						EF	20-Jul-06	KREF-02	Koignuk River				
392	ARGR	25						EF	20-Jul-06	KREF-02	Koignuk River				
393	ARGR	23						EF	20-Jul-06	KREF-02	Koignuk River				
394	ARGR	34						EF	20-Jul-06	KREF-02	Koignuk River				
395	ARGR	30						EF	20-Jul-06	KREF-02	Koignuk River				
396	ARGR	25						EF	20-Jul-06	KREF-02	Koignuk River				
397	BURB	83						EF	20-Jul-06	KREF-02	Koignuk River				
398	BURB	70						EF	20-Jul-06	KREF-02	Koignuk River				
399	LKTR	78						EF	20-Jul-06	KREF-02	Koignuk River				
400	NNST	60						EF	20-Jul-06	KREF-02	Koignuk River				
401	NNST	55						EF	20-Jul-06	KREF-02	Koignuk River				
402	NNST	49						EF	20-Jul-06	KREF-02	Koignuk River				
403	NNST	51						EF	20-Jul-06	KREF-02	Koignuk River				
404	NNST	35						EF	20-Jul-06	KREF-02	Koignuk River				
405	NNST	37						EF	20-Jul-06	KREF-02	Koignuk River				

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
406	NNST	38						EF	20-Jul-06	KREF-02	Koignuk River				
407	NNST	40						EF	20-Jul-06	KREF-02	Koignuk River				
408	NNST	46						EF	20-Jul-06	KREF-02	Koignuk River				
409	NNST	35						EF	20-Jul-06	KREF-02	Koignuk River				
410	LKWH	490						GN	20-Jul-06	KRGN-02	Koignuk River	SC			ageing structure taken
411	LKWH	520						GN	20-Jul-06	KRGN-02	Koignuk River	SC			ageing structure taken
412	LKWH	500						GN	20-Jul-06	KRGN-02	Koignuk River	SC			ageing structure taken
413	NNST	39						EF	23-Jul-06	WLEF-01	Wolverine Lake				
414	NNST	36						EF	23-Jul-06	WLEF-01	Wolverine Lake				
415	NNST	40						EF	23-Jul-06	WLEF-01	Wolverine Lake				
416	NNST	55						EF	23-Jul-06	WLEF-01	Wolverine Lake				
417	NNST	49						EF	23-Jul-06	WLEF-01	Wolverine Lake				
418	NNST	50						EF	23-Jul-06	WLEF-01	Wolverine Lake				
419	NNST	45						EF	23-Jul-06	WLEF-01	Wolverine Lake				
420	NNST	37						EF	23-Jul-06	WLEF-01	Wolverine Lake				
421	NNST	60						EF	23-Jul-06	WLEF-01	Wolverine Lake				
422	NNST	55						EF	23-Jul-06	WLEF-01	Wolverine Lake				
423	NNST	45						EF	23-Jul-06	WLEF-01	Wolverine Lake				
424	NNST	45						EF	23-Jul-06	WLEF-01	Wolverine Lake				
425	NNST	45						EF	23-Jul-06	WLEF-01	Wolverine Lake				
426	NNST	35						EF	23-Jul-06	WLEF-01	Wolverine Lake				
427	NNST	40						EF	23-Jul-06	WLEF-01	Wolverine Lake				
428	NNST	42						EF	23-Jul-06	WLEF-01	Wolverine Lake				
429	NNST	52						EF	23-Jul-06	WLEF-01	Wolverine Lake				
430	NNST	50						EF	23-Jul-06	WLEF-01	Wolverine Lake				
431	NNST	49						EF	23-Jul-06	WLEF-01	Wolverine Lake				
432	NNST	45						EF	23-Jul-06	WLEF-01	Wolverine Lake				
433	NNST	45						EF	23-Jul-06	WLEF-01	Wolverine Lake				
434	NNST	40						EF	23-Jul-06	WLEF-01	Wolverine Lake				
435	NNST	40						EF	23-Jul-06	WLEF-01	Wolverine Lake				
436	NNST	50						EF	23-Jul-06	WLEF-01	Wolverine Lake				
437	NNST	51						EF	23-Jul-06	WLEF-01	Wolverine Lake				
438	NNST	50						EF	23-Jul-06	WLEF-02	Wolverine Lake				
439	NNST	50						EF	23-Jul-06	WLEF-02	Wolverine Lake				
440	NNST	45						EF	23-Jul-06	WLEF-02	Wolverine Lake				
441	NNST	45						EF	23-Jul-06	WLEF-02	Wolverine Lake				
442	NNST	35						EF	23-Jul-06	WLEF-02	Wolverine Lake				
443	NNST	50						EF	23-Jul-06	WLEF-02	Wolverine Lake				
444	NNST	55						EF	23-Jul-06	WLEF-02	Wolverine Lake				
445	NNST	49						EF	23-Jul-06	WLEF-02	Wolverine Lake				
446	NNST	46						EF	23-Jul-06	WLEF-02	Wolverine Lake				
447	NNST	41						EF	23-Jul-06	WLEF-02	Wolverine Lake				
448	NNST	50						GN	23-Jul-06	WLGN-02	Wolverine Lake				
449	NNST	50						EF	24-Jul-06	WLEF-03	Wolverine Lake				
450	NNST	50						EF	24-Jul-06	WLEF-03	Wolverine Lake				
451	NNST	45						EF	24-Jul-06	WLEF-03	Wolverine Lake				
452	NNST	25						EF	24-Jul-06	WLEF-03	Wolverine Lake				
453	NNST	30						EF	24-Jul-06	WLEF-03	Wolverine Lake				
454	NNST	50						EF	24-Jul-06	WLEF-03	Wolverine Lake				
455	NNST	40						EF	24-Jul-06	WLEF-03	Wolverine Lake				
456	NNST	42						EF	24-Jul-06	WLEF-03	Wolverine Lake				
457	NNST	47						EF	24-Jul-06	WLEF-03	Wolverine Lake				
458	NNST	60						EF	24-Jul-06	WLEF-03	Wolverine Lake				
459	NNST	62						EF	24-Jul-06	WLEF-03	Wolverine Lake				
460	NNST	48						EF	24-Jul-06	WLEF-03	Wolverine Lake				
461	NNST	44						EF	24-Jul-06	WLEF-03	Wolverine Lake				
462	NNST	50						EF	24-Jul-06	WLEF-03	Wolverine Lake				
463	NNST	39						EF	24-Jul-06	WLEF-03	Wolverine Lake				
464	NNST	60						EF	24-Jul-06	WLEF-03	Wolverine Lake				
465	NNST	50						EF	24-Jul-06	WLEF-03	Wolverine Lake				
466	NNST	55						EF	24-Jul-06	WLEF-03	Wolverine Lake				
467	NNST	48						EF	24-Jul-06	WLEF-03	Wolverine Lake				
468	NNST	43						EF	24-Jul-06	WLEF-03	Wolverine Lake				
469	NNST	40						EF	24-Jul-06	WLEF-03	Wolverine Lake				
470	NNST	40						EF	24-Jul-06	WLEF-03	Wolverine Lake				
471	NNST	47						EF	24-Jul-06	WLEF-03	Wolverine Lake				
472	NNST	58						EF	24-Jul-06	WLEF-03	Wolverine Lake				

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
473	NNST	44						EF	24-Jul-06	WLEF-03	Wolverine Lake				
474	NNST	45						EF	24-Jul-06	WLEF-03	Wolverine Lake				
475	NNST	45						EF	24-Jul-06	WLEF-03	Wolverine Lake				
476	NNST	50						EF	24-Jul-06	WLEF-03	Wolverine Lake				
477	NNST	50						EF	24-Jul-06	WLEF-04	Wolverine Lake				
478	NNST	55						EF	24-Jul-06	WLEF-04	Wolverine Lake				
479	NNST	49						EF	24-Jul-06	WLEF-04	Wolverine Lake				
480	NNST	25						EF	24-Jul-06	WLEF-04	Wolverine Lake				
481	NNST	30						EF	24-Jul-06	WLEF-04	Wolverine Lake				
482	NNST	55						EF	24-Jul-06	WLEF-04	Wolverine Lake				
483	NNST	45						EF	24-Jul-06	WLEF-04	Wolverine Lake				
484	NNST	46						EF	24-Jul-06	WLEF-04	Wolverine Lake				
485	NNST	58						EF	24-Jul-06	WLEF-04	Wolverine Lake				
486	NNST	50						EF	24-Jul-06	WLEF-04	Wolverine Lake				
487	NNST	45						EF	24-Jul-06	WLEF-04	Wolverine Lake				
488	NNST	60						MT	24-Jul-06	WLMT-01	Wolverine Lake				
489	NNST	55						MT	24-Jul-06	WLMT-01	Wolverine Lake				
490	NNST	40						MT	24-Jul-06	WLMT-01	Wolverine Lake				
491	NNST	55						MT	24-Jul-06	WLMT-01	Wolverine Lake				
492	NNST	50						MT	24-Jul-06	WLMT-01	Wolverine Lake				
493	NNST	57						MT	24-Jul-06	WLMT-01	Wolverine Lake				
494	NNST	45						MT	24-Jul-06	WLMT-01	Wolverine Lake				
495	NNST	50						MT	24-Jul-06	WLMT-01	Wolverine Lake				
496	NNST	60						MT	24-Jul-06	WLMT-02	Wolverine Lake				
497	NNST	61						MT	24-Jul-06	WLMT-02	Wolverine Lake				
498	NNST	55						MT	24-Jul-06	WLMT-02	Wolverine Lake				
499	NNST	40						MT	24-Jul-06	WLMT-02	Wolverine Lake				
500	NNST	45						MT	24-Jul-06	WLMT-02	Wolverine Lake				
501	NNST	52						MT	24-Jul-06	WLMT-02	Wolverine Lake				
502	NNST	60						MT	24-Jul-06	WLMT-02	Wolverine Lake				
503	NNST	57						MT	24-Jul-06	WLMT-02	Wolverine Lake				
504	NNST	45						MT	24-Jul-06	WLMT-02	Wolverine Lake				
505	NNST	50						MT	24-Jul-06	WLMT-02	Wolverine Lake				
506	NNST	55						MT	24-Jul-06	WLMT-02	Wolverine Lake				
507	NNST	55						MT	24-Jul-06	WLMT-02	Wolverine Lake				
508	NNST	50						MT	24-Jul-06	WLMT-02	Wolverine Lake				
509	NNST	45						MT	24-Jul-06	WLMT-02	Wolverine Lake				
510	NNST	48						MT	24-Jul-06	WLMT-02	Wolverine Lake				
511	NNST	62						MT	24-Jul-06	WLMT-02	Wolverine Lake				
512	NNST	60						MT	24-Jul-06	WLMT-02	Wolverine Lake				
513	NNST	57						MT	24-Jul-06	WLMT-02	Wolverine Lake				
514	NNST	45						MT	24-Jul-06	WLMT-02	Wolverine Lake				
515	NNST	45						MT	24-Jul-06	WLMT-02	Wolverine Lake				
516	NNST	50						MT	24-Jul-06	WLMT-02	Wolverine Lake				
517	NNST	52						MT	24-Jul-06	WLMT-02	Wolverine Lake				
518	NNST	55						MT	24-Jul-06	WLMT-02	Wolverine Lake				
519	NNST	60						MT	24-Jul-06	WLMT-03	Wolverine Lake				
520	NNST	55						MT	24-Jul-06	WLMT-03	Wolverine Lake				
521	NNST	50						MT	24-Jul-06	WLMT-03	Wolverine Lake				
522	NNST	57						MT	24-Jul-06	WLMT-03	Wolverine Lake				
523	NNST	58						MT	24-Jul-06	WLMT-03	Wolverine Lake				
524	NNST	45						MT	24-Jul-06	WLMT-03	Wolverine Lake				
525	NNST	40						MT	24-Jul-06	WLMT-03	Wolverine Lake				
526	NNST	47						MT	24-Jul-06	WLMT-03	Wolverine Lake				
527	NNST	48						MT	24-Jul-06	WLMT-03	Wolverine Lake				
528	NNST	55						MT	24-Jul-06	WLMT-03	Wolverine Lake				
529	NNST	60						MT	24-Jul-06	WLMT-03	Wolverine Lake				
530	NNST	50						MT	24-Jul-06	WLMT-03	Wolverine Lake				
531	NNST	55						MT	24-Jul-06	WLMT-03	Wolverine Lake				
532	NNST	50						MT	24-Jul-06	WLMT-03	Wolverine Lake				
533	NNST	55						MT	24-Jul-06	WLMT-03	Wolverine Lake				
534	NNST	45						MT	24-Jul-06	WLMT-03	Wolverine Lake				
535	NNST	55						MT	24-Jul-06	WLMT-03	Wolverine Lake				
536	NNST	50						MT	24-Jul-06	WLMT-03	Wolverine Lake				
537	NNST	50						MT	24-Jul-06	WLMT-03	Wolverine Lake				
538	NNST	45						MT	24-Jul-06	WLMT-03	Wolverine Lake				
539	NNST	47						MT	24-Jul-06	WLMT-03	Wolverine Lake				

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
540	NNST	50						MT	24-Jul-06	WLMT-06	Wolverine Lake				
541	NNST	55						MT	24-Jul-06	WLMT-06	Wolverine Lake				
542	NNST	50						MT	24-Jul-06	WLMT-06	Wolverine Lake				
543	NNST	55						MT	24-Jul-06	WLMT-07	Wolverine Lake				
544	NNST	65						MT	24-Jul-06	WLMT-08	Wolverine Lake				
545	NNST	50						MT	24-Jul-06	WLMT-08	Wolverine Lake				
33	LKTR	505	1240	0.96			985120031569662	GN	9-Jul-07	PLGN-02	Patch Lake		C		
34	LKTR	730	3240	0.83			985120031630896	GN	10-Jul-07	PLGN-07	Patch Lake		C		
35	LKTR	744	3825	0.93			985120031631607	GN	10-Jul-07	PLGN-11	Patch Lake		C		
36	LKTR	670	3060	1.02			985120031549764	GN	10-Jul-07	PLGN-12	Patch Lake		C		
37	LKTR	528	1255	0.85			985120031622641	GN	10-Jul-07	PLGN-12	Patch Lake		C		
38	CISC	289	250	1.04				GN	10-Jul-07	PLGN-11	Patch Lake		M		Mortality (fish collected for Heidi)
39	LKTR	710	2820	0.79				GN	10-Jul-07	PLGN-11	Patch Lake		C		
40	LKTR	700	3420	1.00			985120031570667	GN	10-Jul-07	PLGN-11	Patch Lake		R	2006	Previously PIT tagged in 2006
41	CISC	270	210	1.07				GN	10-Jul-07	PLGN-11	Patch Lake		M		Mortality (fish collected for Heidi)
42	CISC	252	170	1.06				GN	10-Jul-07	PLGN-11	Patch Lake		M		Mortality (fish collected for Heidi)
43	CISC	116	13	0.83				GN	11-Jul-07	PLGN-13	Patch Lake		C		adipose clip
44	LKTR	645	2630	0.98			985120031578898	GN	11-Jul-07	PLGN-16	Patch Lake		C		
45	LKTR	555	1800	1.05			985120031580517	GN	11-Jul-07	PLGN-16	Patch Lake		C		
46	LKTR	740	4420	1.09			985120031618957	GN	11-Jul-07	PLGN-16	Patch Lake		C		
47	LKTR	685	3795	1.18			985120031562875	GN	11-Jul-07	PLGN-16	Patch Lake		C		
48	LKWH	430	1000	1.26			985120031625596	GN	11-Jul-07	PLGN-16	Patch Lake		C		
49	LKWH	380	745	1.36				GN	11-Jul-07	PLGN-16	Patch Lake		M		Mortality (fish collected for Heidi)
50	CISC	293	280	1.11				GN	11-Jul-07	PLGN-16	Patch Lake		M		Mortality (fish collected for Heidi)
51	CISC	214	115	1.17				GN	11-Jul-07	PLGN-16	Patch Lake		M		Mortality (fish collected for Heidi)
52	CISC	148	40	1.23				GN	11-Jul-07	PLGN-13	Patch Lake		M		
53	LKTR	686	3390	1.05			985120031452321	GN	11-Jul-07	PLGN-13	Patch Lake		M		Mortality (fish collected for Heidi)
54	LKTR	710	3425	0.96				GN	11-Jul-07	PLGN-13	Patch Lake		M		Mortality (fish collected for Heidi)
55	LKTR	381	485	0.88				GN	11-Jul-07	PLGN-15	Patch Lake		M		Mortality (fish collected for Heidi)
56	LKTR	375	550	1.04				GN	11-Jul-07	PLGN-15	Patch Lake		M		Mortality (fish collected for Heidi)
57	LKTR	660	2590	0.90			985120031625855	GN	11-Jul-07	PLGN-16	Patch Lake		C		
58	LKTR	663	2905	1.00			985120031604652	GN	11-Jul-07	PLGN-16	Patch Lake		C		
59	LKTR	651	2735	0.99			985120031632465	GN	11-Jul-07	PLGN-13	Patch Lake		C		
60	LKTR	730	3700	0.95			985120031586600	GN	11-Jul-07	PLGN-13	Patch Lake		C		
61	LKTR	875	6750	1.01			985120031562670	GN	11-Jul-07	PLGN-13	Patch Lake		C		
62	LKWH	350	745	1.74			985120031565709	GN	11-Jul-07	PLGN-17	Patch Lake		C		
63	LKTR	658	3365	1.18			985120031586613	GN	11-Jul-07	PLGN-17	Patch Lake		C		
64	LKTR	720	3410	0.91			985120031583006	GN	11-Jul-07	PLGN-17	Patch Lake		C		
65	LKTR	538	1780	1.14			985120031625127	GN	11-Jul-07	PLGN-17	Patch Lake		C		
66	LKWH	405	1101	1.66			985120031564212	GN	11-Jul-07	PLGN-17	Patch Lake		C		
67	LKWH	391	960	1.61			985120031564213	GN	11-Jul-07	PLGN-17	Patch Lake		C		
68	LKWH	401	1035	1.61			985120031657142	GN	11-Jul-07	PLGN-17	Patch Lake		C		
69	LKWH	345	575	1.40			985120031620753	GN	11-Jul-07	PLGN-17	Patch Lake		C		
70	LKWH	333	575	1.56			985120031581019	GN	11-Jul-07	PLGN-17	Patch Lake		C		
71	CISC	273	255	1.25				GN	11-Jul-07	PLGN-17	Patch Lake		C		Adipose fin clip
72	LKWH	292	425	1.71				GN	11-Jul-07	PLGN-17	Patch Lake		C		Adipose fin clip
73	CISC	274	260	1.26				GN	11-Jul-07	PLGN-17	Patch Lake		C		Adipose fin clip
224	LKTR	440	1295	1.52				AN	19-Jul-06	KRAN-01	Koignuk River				At Narrows
74	LKWH	332	545	1.49				GN	11-Jul-07	PLGN-17	Patch Lake		C		Adipose fin clip
75	LKWH	329	520	1.46				GN	11-Jul-07	PLGN-17	Patch Lake		C		Adipose fin clip
76	LKWH	371	710	1.39				GN	11-Jul-07	PLGN-17	Patch Lake		C		Adipose fin clip
77	LKWH	345	595	1.45				GN	11-Jul-07	PLGN-17	Patch Lake		C		Adipose fin clip
974	LKWH	346	635	1.53				GN	4-Aug-06	OLGN-01	Ogama Lake				
78	LKWH	401	980	1.52				GN	11-Jul-07	PLGN-17	Patch Lake		C		Adipose fin clip
1354	CISC	231	145	1.18				FN	6-Aug-06	OOFN-03	Ogama Outflow				
79	LKWH	341	620	1.56				GN	11-Jul-07	PLGN-17	Patch Lake		C		Adipose fin clip
80	LKWH	380	830	1.51				GN	11-Jul-07	PLGN-17	Patch Lake		C		
81	CISC	130	20	0.91				GN	11-Jul-07	PLGN-17	Patch Lake		C		
82	LKWH	310	350	1.17				GN	11-Jul-07	PLGN-13	Patch Lake		C		
83	LKTR	700	3542	1.03			985120031633582	GN	11-Jul-07	PLGN-13	Patch Lake		C		
84	LKTR	696	3870	1.15			985120031569891	GN	11-Jul-07	PLGN-16	Patch Lake		C		
601	LKTR							OBS	27-Jul-06	POBS-01	Patch Outflow		O		
85	LKTR	803	5380	1.04			985120031592199	GN	12-Jul-07	PLGN-20	Patch Lake		C		
86	LKTR						985120031520753	AN	12-Jul-07	PLAF-01	Patch Lake		C		LKWH PIT tag # 620753 in stomach of LKTR.
87	CISC	269	175	0.90				GN	12-Jul-07	PLGN-18	Patch Lake		C		
88	LKTR	825					985120031618686	GN	12-Jul-07	PLGN-18	Patch Lake		C		
89	LKTR	578	2000	1.04			985120031617041	GN	12-Jul-07	PLGN-18	Patch Lake		C		

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
90	LKTR	694	2900	0.87			985120031564074	GN	12-Jul-07	PLGN-21	Patch Lake		C		
91	LKTR	638	2620	1.01			985120031578753	GN	12-Jul-07	PLGN-21	Patch Lake		C		
92	LKTR	790	5200	1.05			985120031609695	GN	12-Jul-07	PLGN-21	Patch Lake		C		
93	LKTR	720	4700	1.26			985120031578753	GN	12-Jul-07	PLGN-21	Patch Lake		C		
94	LKTR	277	195	0.92				GN	12-Jul-07	PLGN-21	Patch Lake		M		Sacrificed for Heidi
95	LKTR	569	1740	0.94			985120031445177	GN	12-Jul-07	PLGN-18	Patch Lake		C		
96	LKTR	604	1730	0.79			985120031617450	GN	12-Jul-07	PLGN-18	Patch Lake		C		
97	LKTR	627	2630	1.07			985120031454134	GN	12-Jul-07	PLGN-20	Patch Lake		C		
98	LKTR	550	1450	0.87			985120031566658	GN	12-Jul-07	PLGN-21	Patch Lake		C		
99	LKTR	605	2490	1.12			985120031458344	GN	12-Jul-07	PLGN-21	Patch Lake		C		
1011	LKTR	283	280	1.24				FN	5-Aug-06	OLFN-02	Ogama Outflow				
100	LKTR	690	4120	1.25			985120031626313	GN	13-Jul-07	PLGN-23	Patch Lake		C		
101	LKTR	818	5520	1.01			985120031565169	GN	13-Jul-07	PLGN-23	Patch Lake		C		
102	CISC	212	70	0.73				GN	13-Jul-07	PLGN-23	Patch Lake	OT	M		
103	LKTR	637	2570	0.99			985120031578900	GN	13-Jul-07	PLGN-24	Patch Lake		C		
104	LKTR	795	6150	1.22			985120031615918	GN	13-Jul-07	PLGN-24	Patch Lake		C		
105	LKTR	309	340	1.15			985120031617733	GN	13-Jul-07	PLGN-25	Patch Lake		C		
106	LKTR	720	3265	0.87			985120031586600	GN	13-Jul-07	PLGN-22	Patch Lake		R		
107	LKWH	463	1500	1.51				GN	13-Jul-07	PLGN-22	Patch Lake		C		Adipose fin clip
108	CISC	224	100	0.89				GN	13-Jul-07	PLGN-23	Patch Lake		C		
109	CISC	201	70	0.86				GN	13-Jul-07	PLGN-23	Patch Lake		C		
110	CISC	230	120	0.99				GN	13-Jul-07	PLGN-23	Patch Lake		C		
713	LKWH	434	1365	1.67				GN	30-Jul-06	POLGN-02	P.O. Lake				
111	CISC	195	65	0.88				GN	13-Jul-07	PLGN-23	Patch Lake		C		
112	CISC	159	40	1.00				GN	13-Jul-07	PLGN-23	Patch Lake		C		
113	LKTR	423	775	1.02			985120031562349	AN	14-Jul-07	PLAF-05	Patch Lake		C		
114	LKTR	696	3995	1.18			985120031600800	GN	14-Jul-07	PLGN-26	Patch Lake		C		
115	LKTR	697	3175	0.94			985120031630427	GN	14-Jul-07	PLGN-26	Patch Lake		C		
116	LKTR	688	2995	0.92			985120031586799	GN	14-Jul-07	PLGN-29	Patch Lake		C		
117	LKWH	400	885	1.38				GN	14-Jul-07	PLGN-29	Patch Lake		M		Died in net - kept for Heidi
118	LKTR	765	4720	1.05			985120031623245	GN	14-Jul-07	PLGN-30	Patch Lake		C		
119	LKTR	599	2135	0.99			985120031578383	GN	14-Jul-07	PLGN-27	Patch Lake		C		Really tangled in net
120	LKTR	608	2630	1.17			985120031585242	GN	14-Jul-07	PLGN-29	Patch Lake		C		
121	LKTR	710	4140	1.16			985120031579900	GN	14-Jul-07	PLGN-29	Patch Lake		C		
122	LKTR	699	3950	1.16			985120031563138	GN	14-Jul-07	PLGN-27	Patch Lake		C		
123	LKTR	835	6340	1.09			985120031558587	GN	14-Jul-07	PLGN-27	Patch Lake		C		
124	LKTR	705	4240	1.21			985120031551546	GN	14-Jul-07	PLGN-26	Patch Lake		C		
125	LKTR	778	4290	0.91			985120031632713	GN	14-Jul-07	PLGN-26	Patch Lake		C		
126	LKTR	834	6850	1.18			985120031584754	GN	14-Jul-07	PLGN-26	Patch Lake		C		
127	LKTR	654	2435	0.87			985120031574982	GN	14-Jul-07	PLGN-28	Patch Lake		C		
128	LKTR	676	3235	1.05			985120031608728	GN	14-Jul-07	PLGN-28	Patch Lake		C		
129	LKTR	534	1450	0.95			985120031583455	GN	14-Jul-07	PLGN-28	Patch Lake		C		
130	LKTR	687	3510	1.08			985120031655401	GN	14-Jul-07	PLGN-28	Patch Lake		C		Dark green colouration
131	LKTR	630	2640	1.06			985120031623553	AN	14-Jul-07	PLAF-05	Patch Lake		C		
132	LKTR	701	4645	1.35			985120031618038	AN	14-Jul-07	PLAF-05	Patch Lake		C		
133	LKTR	651	2980	1.08			985120031603546	GN	14-Jul-07	PLGN-28	Patch Lake		C		
134	LKTR	730	5620	1.44			985120031603804	GN	14-Jul-07	PLGN-28	Patch Lake		C		
135	LKTR	860	5720	0.90			985120031628394	GN	14-Jul-07	PLGN-26	Patch Lake		C		
136	LKTR	790	4170	0.85			985120031656643	GN	14-Jul-07	PLGN-26	Patch Lake		C		
137	LKTR	800	5240	1.02	Green	4612	985120031568544	GN	14-Jul-07	PLGN-26	Patch Lake		R	2005	
657-707	NNST	20-25						DN	30-Jul-06	POLDN-01	P.O. Lake				51 fish captured; stranded in puddle
708	CISC	204	95	1.12				GN	30-Jul-06	POLGN-01	P.O. Lake				
709	CISC	209	80	0.88				GN	30-Jul-06	POLGN-01	P.O. Lake				
710	LKTR	596	2050	0.97			985120031625606	GN	30-Jul-06	POLGN-01	P.O. Lake				
711	LKTR	426	765	0.99			985120031626677	GN	30-Jul-06	POLGN-01	P.O. Lake				
712	LKTR	702	3000	0.87			985120031623708	GN	30-Jul-06	POLGN-01	P.O. Lake				
138	LKTR	687	3750	1.16			985120031619419	GN	14-Jul-07	PLGN-29	Patch Lake		C		
714	LKTR	494	1130	0.94			985120031542781	GN	30-Jul-06	POLGN-03	P.O. Lake				
715	LKWH	390						GN	30-Jul-06	POLGN-03	P.O. Lake				
716	LKWH	304	355	1.26				GN	30-Jul-06	POLGN-03	P.O. Lake				Mortality
717	LKWH	300	330	1.22				GN	30-Jul-06	POLGN-03	P.O. Lake				
718	LKTR	304	265	0.94				GN	30-Jul-06	POLGN-04	P.O. Lake	FR, OT			dead in net
719	LKWH	340	530	1.35				GN	30-Jul-06	POLGN-04	P.O. Lake				
720	LKWH	395	820	1.33				GN	30-Jul-06	POLGN-04	P.O. Lake				
721	LKWH	390	780	1.31				GN	30-Jul-06	POLGN-04	P.O. Lake				
722	NNST	31						BS	30-Jul-06	POLBS-01	P.O. Lake				
723	NNST	25						BS	30-Jul-06	POLBS-01	P.O. Lake				

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
724	NNST	24						BS	30-Jul-06	POLBS-01	P.O. Lake				
725	NNST	21						BS	30-Jul-06	POLBS-01	P.O. Lake				
726	NNST	33						BS	30-Jul-06	POLBS-01	P.O. Lake				
727	NNST	23						BS	30-Jul-06	POLBS-01	P.O. Lake				
728	NNST	35						BS	30-Jul-06	POOTBS-01	P.O. Outflow				
729	NNST	30						BS	30-Jul-06	POOTBS-01	P.O. Outflow				
730	NNST	75						BS	30-Jul-06	POOTBS-01	P.O. Outflow				
731	NNST	25						BS	30-Jul-06	POOTBS-01	P.O. Outflow				
732	NNST	25						BS	30-Jul-06	POOTBS-01	P.O. Outflow				
733	NNST	24						BS	30-Jul-06	POOTBS-01	P.O. Outflow				
734	LKTR	415	770	1.08				GN	31-Jul-06	POCLGN-01	P.O. Connector Lake	FR			
735	LKTR	710	2985	0.83			985120031603780	GN	31-Jul-06	POCLGN-01	P.O. Connector Lake	FR			
736	LKTR	400						GN	31-Jul-06	POCLGN-01	P.O. Connector Lake				Fish escaped as net was pulled into boat
737	LKTR	349	415	0.98				GN	31-Jul-06	POCLGN-01	P.O. Connector Lake	FR			
738	LKTR	400						GN	31-Jul-06	POCLGN-02	P.O. Connector Lake				Fish escaped as net was pulled into boat
739	LKWH	367	590	1.19				GN	31-Jul-06	POCLGN-02	P.O. Connector Lake	SC			
740	LKWH	321	465	1.41				GN	31-Jul-06	POCLGN-02	P.O. Connector Lake	SC			
741	CISC	215	90	0.91				FN	31-Jul-06	POLFN-01	P.O. Lake				
742	LKTR	630	1970	0.79			985120031586320	FN	31-Jul-06	POLFN-01	P.O. Lake	FR			ageing structure taken
743	LKTR	680	1995	0.63			985120031557326	FN	31-Jul-06	POLFN-01	P.O. Lake	FR			perished, tag recovered later,
744	LKTR	720	2150	0.58			985120031572244	FN	31-Jul-06	POLFN-01	P.O. Lake	FR			ageing structure taken
745	LKTR	690	2230	0.68			985120031581007	FN	31-Jul-06	POLFN-01	P.O. Lake	FR			ageing structure taken
746	LKTR	665	1975	0.67			985120031453157	FN	31-Jul-06	POLFN-01	P.O. Lake	FR			ageing structure taken
747	LKTR	725	2950	0.77			985120031602978	FN	31-Jul-06	POLFN-01	P.O. Lake	FR			ageing structure taken
748	LKTR	645	2970	1.11			985120031587345	FN	31-Jul-06	POLFN-01	P.O. Lake	FR			ageing structure taken
749	LKTR	470	980	0.94			985120031565483	FN	31-Jul-06	POLFN-01	P.O. Lake	FR			ageing structure taken
750	LKTR	605	2000	0.90			985120031453621	FN	31-Jul-06	POLFN-01	P.O. Lake	FR			ageing structure taken
751	NNST	41						MT	31-Jul-06	POLMT-01	P.O. Lake				
752	NNST	51						MT	31-Jul-06	POLMT-01	P.O. Lake				
753	NNST	55						MT	31-Jul-06	POLMT-01	P.O. Lake				
754	NNST	45						MT	31-Jul-06	POLMT-01	P.O. Lake				
755	NNST	59						MT	31-Jul-06	POLMT-01	P.O. Lake				
756	NNST	47						MT	31-Jul-06	POLMT-01	P.O. Lake				
757	NNST	53						MT	31-Jul-06	POLMT-02	P.O. Lake				
758	NNST	57						MT	31-Jul-06	POLMT-02	P.O. Lake				
759	NNST	50						MT	31-Jul-06	POLMT-02	P.O. Lake				
760	NNST	57						MT	31-Jul-06	POLMT-02	P.O. Lake				
761	NNST	53						MT	31-Jul-06	POLMT-02	P.O. Lake				
762	NNST	47						MT	31-Jul-06	POLMT-02	P.O. Lake				
763	NNST	55						MT	31-Jul-06	POLMT-02	P.O. Lake				
764	NNST	45						MT	31-Jul-06	POLMT-02	P.O. Lake				
765	NNST	52						MT	31-Jul-06	POLMT-02	P.O. Lake				
766	NNST	65						MT	31-Jul-06	POLMT-03	P.O. Lake				
767	NNST	65						MT	31-Jul-06	POLMT-03	P.O. Lake				
768	NNST	55						MT	31-Jul-06	POLMT-03	P.O. Lake				
769	NNST	56						MT	31-Jul-06	POLMT-03	P.O. Lake				
770	NNST	56						MT	31-Jul-06	POLMT-03	P.O. Lake				
771	NNST	45						MT	31-Jul-06	POLMT-03	P.O. Lake				
772	LKTR	426	740	0.96			98520031579436	DN	1-Aug-06	POCDN-01	P.O. Connector Lake	FR			FR taken
773	NNST	50						DN	1-Aug-06	POCDN-01	P.O. Connector Lake				Hundreds more NNST observed
774	NNST	35						DN	1-Aug-06	POCDN-01	P.O. Connector Lake				Hundreds more NNST observed
775	NNST	40						DN	1-Aug-06	POCDN-01	P.O. Connector Lake				Hundreds more NNST observed
776	NNST	50						DN	1-Aug-06	POCDN-01	P.O. Connector Lake				Hundreds more NNST observed
777	NNST	56						DN	1-Aug-06	POCDN-01	P.O. Connector Lake				Hundreds more NNST observed
778	LKWH	74						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
779	NNST	64						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
780	NNST	56						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
781	NNST	53						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
782	NNST	62						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
783	NNST	49						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
784	NNST	40						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
785	NNST	45						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
786	NNST	41						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
787	NNST	52						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
788	NNST	50						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
789	NNST	60						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
790	NNST	46						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
791	NNST	49						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
792	NNST	46						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
793	NNST	49						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
794	NNST	52						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
795	NNST	55						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
796	NNST	50						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
797	NNST	44						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
798	NNST	53						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
799	NNST	40						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
800	NNST	46						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
801	NNST	43						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
802	NNST	43						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
803	NNST	46						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
804	NNST	50						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
805	NNST	54						FN	1-Aug-06	POCLFN-01	P.O. Connector Lake				
806	NNST	50						MT	1-Aug-06	POCMT-01	P.O. Connector Lake				
807	NNST	49						MT	1-Aug-06	POCMT-01	P.O. Connector Lake				
808	NNST	57						MT	1-Aug-06	POCMT-01	P.O. Connector Lake				
809	NNST	50						MT	1-Aug-06	POCMT-01	P.O. Connector Lake				
810	NNST	48						MT	1-Aug-06	POCMT-01	P.O. Connector Lake				
811	NNST	52						MT	1-Aug-06	POCMT-01	P.O. Connector Lake				
812	NNST	70						MT	1-Aug-06	POCMT-01	P.O. Connector Lake				
813	NNST	61						MT	1-Aug-06	POCMT-01	P.O. Connector Lake				
814	NNST	55						MT	1-Aug-06	POCMT-01	P.O. Connector Lake				
815	NNST	51						MT	1-Aug-06	POCMT-01	P.O. Connector Lake				
816	NNST	60						MT	1-Aug-06	POCMT-01	P.O. Connector Lake				
817	NNST	55						MT	1-Aug-06	POCMT-01	P.O. Connector Lake				
818	NNST	54						MT	1-Aug-06	POCMT-01	P.O. Connector Lake				
819	NNST	50						MT	1-Aug-06	POCMT-01	P.O. Connector Lake				
820	NNST	48						MT	1-Aug-06	POCMT-01	P.O. Connector Lake				
821	NNST	46						MT	1-Aug-06	POCMT-01	P.O. Connector Lake				
822	NNST	50						MT	1-Aug-06	POCMT-01	P.O. Connector Lake				
823	NNST	52						MT	1-Aug-06	POCMT-01	P.O. Connector Lake				
824	NNST	49						MT	1-Aug-06	POCMT-01	P.O. Connector Lake				
825	NNST	60						MT	1-Aug-06	POCMT-01	P.O. Connector Lake				
826	NNST	45						MT	1-Aug-06	POCMT-01	P.O. Connector Lake				
827	NNST	45						MT	1-Aug-06	POCMT-01	P.O. Connector Lake				
828	NNST	50						MT	1-Aug-06	POCMT-01	P.O. Connector Lake				
829	NNST	53						MT	1-Aug-06	POCMT-02	P.O. Connector Lake				
830	NNST	52						MT	1-Aug-06	POCMT-02	P.O. Connector Lake				
831	NNST	44						MT	1-Aug-06	POCMT-02	P.O. Connector Lake				
832	NNST	62						MT	1-Aug-06	POCMT-02	P.O. Connector Lake				
833	NNST	53						MT	1-Aug-06	POCMT-02	P.O. Connector Lake				
834	NNST	45						MT	1-Aug-06	POCMT-02	P.O. Connector Lake				
835	NNST	49						MT	1-Aug-06	POCMT-02	P.O. Connector Lake				
836	NNST	57						MT	1-Aug-06	POCMT-02	P.O. Connector Lake				
837	NNST	49						MT	1-Aug-06	POCMT-02	P.O. Connector Lake				
838	NNST	50						MT	1-Aug-06	POCMT-02	P.O. Connector Lake				
839	NNST	48						MT	1-Aug-06	POCMT-02	P.O. Connector Lake				
840	NNST	61						MT	1-Aug-06	POCMT-02	P.O. Connector Lake				
841	NNST	45						MT	1-Aug-06	POCMT-02	P.O. Connector Lake				
842	NNST	51						MT	1-Aug-06	POCMT-02	P.O. Connector Lake				
843	NNST	55						MT	1-Aug-06	POCMT-02	P.O. Connector Lake				
844	NNST	47						MT	1-Aug-06	POCMT-02	P.O. Connector Lake				
845	NNST	55						MT	1-Aug-06	POCMT-02	P.O. Connector Lake				
846	NNST	48						MT	1-Aug-06	POCMT-02	P.O. Connector Lake				
847	NNST	56						MT	1-Aug-06	POCMT-02	P.O. Connector Lake				
848	NNST	55						MT	1-Aug-06	POCMT-02	P.O. Connector Lake				
849	NNST	62						MT	1-Aug-06	POCMT-02	P.O. Connector Lake				
850	NNST	52						MT	1-Aug-06	POCMT-02	P.O. Connector Lake				
851	NNST	55						MT	1-Aug-06	POCMT-02	P.O. Connector Lake				
852	NNST	50						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
853	NNST	50						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
854	NNST	60						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
855	NNST	45						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
856	NNST	52						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
857	NNST	47						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
858	NNST	56						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
859	NNST	69						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
860	NNST	46						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
861	NNST	56						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
862	NNST	55						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
863	NNST	52						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
864	NNST	46						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
865	NNST	48						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
866	NNST	55						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
867	NNST	54						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
868	NNST	53						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
869	NNST	54						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
870	NNST	56						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
871	NNST	51						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
872	NNST	53						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
873	NNST	55						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
874	NNST	60						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
875	NNST	57						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
876	NNST	50						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
877	NNST	48						MT	1-Aug-06	POCMT-03	P.O. Connector Lake				
878	LKTR	655	2360	0.84				AN	2-Aug-06	OLAN-02	Ogama Lake	FR, OT			
879	LKTR	400-500						FN	2-Aug-06	OIFN-01	Ogama Inflow				Fish not length/weighed, captured just u/s of fyke net
880	LKTR	640	2240	0.85			985120031583337	BS	2-Aug-06	POCLBS-02	P.O. Connector Lake	FR			fish caught facing towards SE inflow
881	LKTR	730	3710	0.95			985120031630216	FN	3-Aug-06	OIFN-01	Ogama Inflow	FR			Ageing structure taken, captured just u/s of fyke net
882	LKTR	497	1405	1.14			985120031601416	FN	3-Aug-06	OIFN-01	Ogama Inflow	FR			
883	LKTR	420	660	0.89			985120031571691	FN	3-Aug-06	OIFN-01	Ogama Inflow	SC, FR			
884	LKTR	554	1405	0.83			985120031601655	FN	3-Aug-06	OIFN-01	Ogama Inflow	FR			
885	LKWH	342						FN	3-Aug-06	OIFN-01	Ogama Inflow	SC			
886	NNST	53						FN	3-Aug-06	OIFN-01	Ogama Inflow				
887	NNST	50						MT	3-Aug-06	OIMT-01	Ogama Inflow				
888	NNST	45						MT	3-Aug-06	OIMT-01	Ogama Inflow				
889	NNST	45						MT	3-Aug-06	OIMT-02	Ogama Inflow				
890	NNST	56						MT	3-Aug-06	OIMT-02	Ogama Inflow				
891	NNST	65						MT	3-Aug-06	OIMT-02	Ogama Inflow				
892	NNST	65						MT	3-Aug-06	OIMT-02	Ogama Inflow				
893	NNST	70						MT	3-Aug-06	OIMT-02	Ogama Inflow				
894	NNST	56						MT	3-Aug-06	OIMT-02	Ogama Inflow				
895	NNST	58						MT	3-Aug-06	OIMT-02	Ogama Inflow				
896	NNST	50						MT	3-Aug-06	OIMT-02	Ogama Inflow				
897	NNST	62						MT	3-Aug-06	OIMT-02	Ogama Inflow				
898	NNST	42						MT	3-Aug-06	OIMT-02	Ogama Inflow				
899	NNST	53						MT	3-Aug-06	OIMT-02	Ogama Inflow				
900	NNST	48						MT	3-Aug-06	OIMT-02	Ogama Inflow				
901	NNST	48						MT	3-Aug-06	OIMT-02	Ogama Inflow				
902	NNST	56						MT	3-Aug-06	OIMT-02	Ogama Inflow				
903	NNST	56						MT	3-Aug-06	OIMT-02	Ogama Inflow				
904	NNST	64						MT	3-Aug-06	OIMT-02	Ogama Inflow				
905	NNST	53						MT	3-Aug-06	OIMT-02	Ogama Inflow				
906	NNST	61						MT	3-Aug-06	OIMT-02	Ogama Inflow				
907	NNST	50						MT	3-Aug-06	OIMT-02	Ogama Inflow				
908	NNST	49						MT	3-Aug-06	OIMT-02	Ogama Inflow				
909	NNST	44						MT	3-Aug-06	OIMT-02	Ogama Inflow				
910	NNST	48						MT	3-Aug-06	OIMT-02	Ogama Inflow				
911	NNST	55						MT	3-Aug-06	OIMT-02	Ogama Inflow				
912	NNST	40						MT	3-Aug-06	OIMT-02	Ogama Inflow				
913	NNST	56						MT	3-Aug-06	OIMT-03	Ogama Inflow				
914	NNST	59						MT	3-Aug-06	OIMT-03	Ogama Inflow				
915	NNST	64						MT	3-Aug-06	OIMT-03	Ogama Inflow				
916	NNST	53						MT	3-Aug-06	OIMT-03	Ogama Inflow				
917	NNST	53						MT	3-Aug-06	OIMT-03	Ogama Inflow				
918	NNST	47						MT	3-Aug-06	OIMT-03	Ogama Inflow				
919	NNST	54						MT	3-Aug-06	OIMT-03	Ogama Inflow				
920	NNST	57						MT	3-Aug-06	OIMT-03	Ogama Inflow				
921	NNST	68						MT	3-Aug-06	OIMT-03	Ogama Inflow				
922	NNST	62						MT	3-Aug-06	OIMT-03	Ogama Inflow				
923	LKTR	454	820	0.88				EF	4-Aug-06	OIEF-01	Ogama Inflow				
924	LKTR	610	2430	1.07				EF	4-Aug-06	OIEF-01	Ogama Inflow				

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
925	NNST	59						EF	4-Aug-06	OIEF-01	Ogama Inflow				
926	NNST	71						EF	4-Aug-06	OIEF-01	Ogama Inflow				
927	LKWH	46						EF	4-Aug-06	OLEF-01	Ogama Lake		O		observed
928	NNST	70						EF	4-Aug-06	OLEF-01	Ogama Lake				
929	LKTR	547	1380	0.84			985120031570755	FN	4-Aug-06	OIFN-01	Ogama Inflow	FR			
930	LKTR	568	2025	1.11			985120031567456	FN	4-Aug-06	OIFN-01	Ogama Inflow	FR			
931	LKTR	710	3835	1.07			985120031557326	FN	4-Aug-06	OIFN-01	Ogama Inflow	FR		2005	Floy 4520
932	LKTR	518	1320	0.95			985120031573867	FN	4-Aug-06	OIFN-01	Ogama Inflow	FR			
933	LKTR	505	1110	0.86			985120031567710	FN	4-Aug-06	OIFN-01	Ogama Inflow	FR			
934	LKTR	790	4410	0.89			985120031371559	FN	4-Aug-06	OIFN-01	Ogama Inflow	FR			
935	LKTR	650					985120031584826	FN	4-Aug-06	OIFN-01	Ogama Inflow	FR			
936	LKWH	35						FN	4-Aug-06	OIFN-01	Ogama Inflow				
937	LKWH	39						FN	4-Aug-06	OIFN-01	Ogama Inflow				
938	LKWH	50						FN	4-Aug-06	OIFN-01	Ogama Inflow				
939	LKWH	45						FN	4-Aug-06	OIFN-01	Ogama Inflow				
940	NNST	55						FN	4-Aug-06	OIFN-01	Ogama Inflow				
941	NNST	42						FN	4-Aug-06	OIFN-01	Ogama Inflow				
942	CISC	235	140	1.08				GN	4-Aug-06	OLGN-01	Ogama Lake				
943	CISC	224	120	1.07				GN	4-Aug-06	OLGN-01	Ogama Lake				
944	CISC	216	125	1.24				GN	4-Aug-06	OLGN-01	Ogama Lake				
945	CISC	226	125	1.08				GN	4-Aug-06	OLGN-01	Ogama Lake				
946	CISC	222	115	1.05				GN	4-Aug-06	OLGN-01	Ogama Lake				
947	CISC	221	125	1.16				GN	4-Aug-06	OLGN-01	Ogama Lake				
948	CISC	220	125	1.17				GN	4-Aug-06	OLGN-01	Ogama Lake				
949	CISC	255	145	0.87				GN	4-Aug-06	OLGN-01	Ogama Lake				
950	CISC	226	120	1.04				GN	4-Aug-06	OLGN-01	Ogama Lake				
951	CISC	216	120	1.19				GN	4-Aug-06	OLGN-01	Ogama Lake				
952	CISC	213	120	1.24				GN	4-Aug-06	OLGN-01	Ogama Lake				
953	CISC	212	125	1.31				GN	4-Aug-06	OLGN-01	Ogama Lake				
954	CISC	253	195	1.20				GN	4-Aug-06	OLGN-01	Ogama Lake				
955	CISC	203	95	1.14				GN	4-Aug-06	OLGN-01	Ogama Lake				
956	CISC	208	100	1.11				GN	4-Aug-06	OLGN-01	Ogama Lake				
957	CISC	222	125	1.14				GN	4-Aug-06	OLGN-01	Ogama Lake				
958	CISC	228	135	1.14				GN	4-Aug-06	OLGN-01	Ogama Lake				
959	CISC	209	100	1.10				GN	4-Aug-06	OLGN-01	Ogama Lake				
960	CISC	205	105	1.22				GN	4-Aug-06	OLGN-01	Ogama Lake				
961	CISC	216	130	1.29				GN	4-Aug-06	OLGN-01	Ogama Lake				
962	CISC	217	120	1.17				GN	4-Aug-06	OLGN-01	Ogama Lake				
963	LKTR	550	1455	0.87				GN	4-Aug-06	OLGN-01	Ogama Lake				
964	LKTR	665	3150	1.07				GN	4-Aug-06	OLGN-01	Ogama Lake				
965	LKWH	320	345	1.05				GN	4-Aug-06	OLGN-01	Ogama Lake				
966	LKWH	322	385	1.15				GN	4-Aug-06	OLGN-01	Ogama Lake				
967	LKWH	320	425	1.30				GN	4-Aug-06	OLGN-01	Ogama Lake				
968	LKWH	317	415	1.30				GN	4-Aug-06	OLGN-01	Ogama Lake				
969	LKWH	294	315	1.24				GN	4-Aug-06	OLGN-01	Ogama Lake				
970	LKWH	301	245	0.90				GN	4-Aug-06	OLGN-01	Ogama Lake				
971	LKWH	336	470	1.24				GN	4-Aug-06	OLGN-01	Ogama Lake				
972	LKWH	314	385	1.24				GN	4-Aug-06	OLGN-01	Ogama Lake				
973	LKWH	321	465	1.41				GN	4-Aug-06	OLGN-01	Ogama Lake				
139	LKTR	680	3850	1.22			985120031581473	GN	14-Jul-07	PLGN-29	Patch Lake		C		
975	CISC	235	120	0.92				GN	4-Aug-06	OLGN-02	Ogama Lake				
976	CISC	226	120	1.04				GN	4-Aug-06	OLGN-02	Ogama Lake				
977	CISC	206	105	1.20				GN	4-Aug-06	OLGN-02	Ogama Lake				
978	CISC	243	160	1.12				GN	4-Aug-06	OLGN-02	Ogama Lake				
979	NNST	55						MT	4-Aug-06	OLMT-01	Ogama Lake				
980	NNST	60						MT	4-Aug-06	OLMT-02	Ogama Lake				
1013	LKWH	292	400	1.61				FN	5-Aug-06	OLFN-02	Ogama Outflow				
1015	LKWH	306	480	1.68				FN	5-Aug-06	OLFN-02	Ogama Outflow	SC			
983	NNST	83						EF	5-Aug-06	OOEF-01	Ogama Outflow				
984	NNST	24						EF	5-Aug-06	OOEF-01	Ogama Outflow				
985	NNST	24						EF	5-Aug-06	OOEF-01	Ogama Outflow				
986	NNST	42						EF	5-Aug-06	OOEF-01	Ogama Outflow				
987	NNST	23						EF	5-Aug-06	OOEF-01	Ogama Outflow				
988	NNST	31						EF	5-Aug-06	OOEF-01	Ogama Outflow				
989	NNST	32						EF	5-Aug-06	OOEF-01	Ogama Outflow				
990	NNST	29						EF	5-Aug-06	OOEF-01	Ogama Outflow				
991	NNST	35						EF	5-Aug-06	OOEF-01	Ogama Outflow				

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
992	NNST	33						EF	5-Aug-06	OOEF-01	Ogama Outflow				
993	NNST	42						EF	5-Aug-06	OOEF-01	Ogama Outflow				
994	NNST	23						EF	5-Aug-06	OOEF-01	Ogama Outflow				
995	NNST	27						EF	5-Aug-06	OOEF-01	Ogama Outflow				
996	NNST	22						EF	5-Aug-06	OOEF-01	Ogama Outflow				
997	NNST	35						EF	5-Aug-06	OOEF-01	Ogama Outflow				
998	NNST	32						EF	5-Aug-06	OOEF-01	Ogama Outflow				
999	NNST	37						EF	5-Aug-06	OOEF-01	Ogama Outflow				
1000	NNST	22						EF	5-Aug-06	OOEF-01	Ogama Outflow				
1001	NNST	28						EF	5-Aug-06	OOEF-01	Ogama Outflow				
1002	NNST	30						EF	5-Aug-06	OOEF-01	Ogama Outflow				
1003	NNST	26						EF	5-Aug-06	OOEF-01	Ogama Outflow				
1004	NNST	35						EF	5-Aug-06	OOEF-01	Ogama Outflow				
1005	NNST	21						EF	5-Aug-06	OOEF-01	Ogama Outflow				
1006	NNST	34						EF	5-Aug-06	OOEF-01	Ogama Outflow				
1007	NNST	40						EF	5-Aug-06	OOEF-01	Ogama Outflow				
1008	NNST	33						EF	5-Aug-06	OOEF-01	Ogama Outflow				
1009	NNST	27						EF	5-Aug-06	OOEF-01	Ogama Outflow				
1355	LKTR	307	280	0.97				FN	6-Aug-06	OOFN-03	Ogama Outflow				
1012	LKWH	308	425	1.45				FN	5-Aug-06	OLFN-02	Ogama Outflow	SC			
1014	LKWH	322	500	1.50				FN	5-Aug-06	OLFN-02	Ogama Outflow				
140	LKTR	542	1745	1.10			985120031584134	GN	14-Jul-07	PLGN-27	Patch Lake		C		
982	LKTR	395	775	1.26				EF	5-Aug-06	OOEF-01	Ogama Outflow				
141	LKTR	487	1235	1.07			985120031569860	FN	15-Jul-07	PLFT-01	Patch Lake		C		Captured fish moving into Patch Lk from PO Lk
1016	NNST	53						FN	5-Aug-06	OLFN-02	Ogama Outflow				
1017	NNST	22						FN	5-Aug-06	OLFN-02	Ogama Outflow				
1018	NNST	60						FN	5-Aug-06	OLFN-02	Ogama Outflow				
1019	NNST	57						MT	5-Aug-06	OLMT-03	Ogama Lake				
1020	NNST	58						MT	5-Aug-06	OLMT-03	Ogama Lake				
1021	NNST	54						MT	5-Aug-06	OLMT-03	Ogama Lake				
1022	NNST	67						MT	5-Aug-06	OLMT-03	Ogama Lake				
1023	NNST	63						MT	5-Aug-06	OLMT-03	Ogama Lake				
1024	NNST	55						MT	5-Aug-06	OLMT-05	Ogama Lake				
1025	NNST	53						MT	5-Aug-06	OLMT-05	Ogama Lake				
1026	NNST	59						MT	5-Aug-06	OLMT-05	Ogama Lake				
1027	NNST	58						MT	5-Aug-06	OLMT-05	Ogama Lake				
1028	NNST	62						MT	5-Aug-06	OLMT-05	Ogama Lake				
1029	NNST	45						MT	5-Aug-06	OLMT-05	Ogama Lake				
1030	NNST	52						MT	5-Aug-06	OLMT-05	Ogama Lake				
1031	NNST	57						MT	5-Aug-06	OLMT-05	Ogama Lake				
1032	NNST	58						MT	5-Aug-06	OLMT-05	Ogama Lake				
1033	NNST	54						MT	5-Aug-06	OLMT-05	Ogama Lake				
1034	NNST	55						MT	5-Aug-06	OLMT-05	Ogama Lake				
1035	NNST	50						MT	5-Aug-06	OLMT-05	Ogama Lake				
1036	NNST	64						MT	5-Aug-06	OLMT-05	Ogama Lake				
1037	NNST	49						MT	5-Aug-06	OLMT-05	Ogama Lake				
1038	NNST	52						MT	5-Aug-06	OLMT-05	Ogama Lake				
1039	NNST	54						MT	5-Aug-06	OLMT-05	Ogama Lake				
1040	NNST	50						MT	5-Aug-06	OLMT-05	Ogama Lake				
1041	NNST	61						MT	5-Aug-06	OLMT-05	Ogama Lake				
1042	NNST	60						MT	5-Aug-06	OLMT-05	Ogama Lake				
1043	NNST	58						MT	5-Aug-06	OLMT-05	Ogama Lake				
1044	NNST	56						MT	5-Aug-06	OLMT-05	Ogama Lake				
1045	NNST	51						MT	5-Aug-06	OLMT-05	Ogama Lake				
1046	NNST	54						MT	5-Aug-06	OLMT-05	Ogama Lake				
1047	NNST	53						MT	5-Aug-06	OLMT-05	Ogama Lake				
1048	NNST	64						MT	5-Aug-06	OLMT-06	Ogama Lake				
1049	NNST	70						MT	5-Aug-06	OLMT-06	Ogama Lake				
1050	NNST	68						MT	5-Aug-06	OLMT-07	Ogama Lake				
1051	NNST	57						MT	5-Aug-06	OLMT-07	Ogama Lake				
1052	NNST	74						MT	5-Aug-06	OLMT-08	Ogama Lake				
1053	LKWH	46						BS	6-Aug-06	OLBS-01	Ogama Lake				
1054-1328	CISC	35-60						BS	6-Aug-06	OLBS-02	Ogama Lake				274 CISC Captured
1329-1353	LKWH	35-55						BS	6-Aug-06	OLBS-02	Ogama Lake				25 LKWH Captured
981	LKTR	403	780	1.19				EF	5-Aug-06	OOEF-01	Ogama Outflow				
1356	LKTR	441	860	1.00				FN	6-Aug-06	OOFN-03	Ogama Outflow				
1357	LKTR	485	1135	0.99				FN	6-Aug-06	OOFN-03	Ogama Outflow				

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
1010	LKTR	539	1400	0.89				FN	5-Aug-06	OLFN-02	Ogama Outflow				
1358	NNST	42						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1359	NNST	42						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1360	NNST	45						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1361	NNST	45						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1362	NNST	70						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1363	NNST	42						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1364	NNST	52						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1365	NNST	35						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1366	NNST	52						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1367	NNST	45						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1368	NNST	63						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1369	NNST	42						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1370	NNST	39						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1371	NNST	45						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1372	NNST	40						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1373	NNST	40						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1374	NNST	43						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1375	NNST	35						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1376	NNST	40						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1377	NNST	45						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1378	NNST	40						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1379	NNST	37						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1380	NNST	42						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1381	NNST	60						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1382	NNST	45						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1383	NNST	50						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1384	NNST	35						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1385	NNST	50						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1386	NNST	40						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1387	NNST	35						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1388	NNST	65						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1389	NNST	40						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1390	NNST	48						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1391	NNST	47						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1392	NNST	51						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1393	NNST	43						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1394	NNST	37						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1395	NNST	40						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1396	NNST	35						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1397	NNST	35						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1398	NNST	53						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1399	NNST	42						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1400	NNST	43						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1401	NNST	35						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1402	NNST	45						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1403	NNST	45						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1404	NNST	40						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1405	NNST	43						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1406	NNST	57						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1407	NNST	40						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1408	NNST	69						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1409	NNST	40						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1410	NNST	43						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1411	NNST	39						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1412	NNST	39						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1413	NNST	41						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1414	NNST	40						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1415	NNST	48						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1416	NNST	48						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1417	NNST	40						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1418	NNST	43						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1419	NNST	37						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1420	NNST	70						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1421	NNST	50						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1422	NNST	40						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1423	NNST	60						FN	6-Aug-06	OOFN-03	Ogama Outflow				

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
1424	NNST	35						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1425	NNST	35						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1426	NNST	60						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1427	NNST	35						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1428	NNST	55						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1429	NNST	40						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1430	NNST	52						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1431	NNST	52						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1432	NNST	40						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1433	NNST	50						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1434	NNST	40						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1435	NNST	45						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1436	NNST	40						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1437	NNST	42						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1438	NNST	68						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1439	NNST	42						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1440	NNST	45						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1441	NNST	52						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1442	NNST	44						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1443	NNST	46						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1444	NNST	44						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1445	NNST	32						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1446	NNST	45						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1447	NNST	40						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1448	NNST	39						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1449	NNST	38						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1450	NNST	32						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1451	NNST	40						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1452	NNST	61						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1453	NNST	61						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1454	NNST	42						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1455	NNST	41						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1456	NNST	52						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1457	NNST	53						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1458	NNST	57						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1459	NNST	58						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1460	NNST	36						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1461	NNST	36						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1462	NNST	40						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1463	NNST	48						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1464	NNST	35						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1465	NNST	41						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1466	NNST	39						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1467	NNST	39						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1468	NNST	40						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1469	NNST	40						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1470	NNST	46						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1471	NNST	45						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1472	NNST	65						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1473	NNST	52						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1474	NNST	33						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1475	NNST	40						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1476	NNST	41						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1477	NNST	65						FN	6-Aug-06	OOFN-03	Ogama Outflow				
1478-1537	NNST	35-70						FN	6-Aug-06	OOFN-03	Ogama Outflow				60 NNST Captured
1538	NNST	57						MT	6-Aug-06	OLMT-09	Ogama Lake				
1539	NNST	55						MT	6-Aug-06	OLMT-09	Ogama Lake				
1540	NNST	50						MT	6-Aug-06	OLMT-10	Ogama Lake				
1541	NNST	55						MT	6-Aug-06	OLMT-10	Ogama Lake				
1542	NNST	63						MT	6-Aug-06	OLMT-14	Ogama Lake				
1543	NNST	57						MT	6-Aug-06	OLMT-14	Ogama Lake				
1544	NNST	48						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1545	NNST	56						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1546	NNST	49						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1547	NNST	70						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1548	NNST	61						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1549	NNST	55						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
1550	NNST	46						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1551	NNST	56						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1552	NNST	30						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1553	NNST	49						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1554	NNST	45						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1555	NNST	37						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1556	NNST	20						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1557	NNST	51						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1558	NNST	78						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1559	NNST	52						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1560	NNST	53						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1561	NNST	57						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1562	NNST	49						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1563	NNST	68						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1564	NNST	45						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1565	NNST	52						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1566	NNST	42						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1567	NNST	54						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1568	NNST	50						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1569	NNST	57						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1570	NNST	61						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1571	NNST	53						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1572	NNST	56						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1573	NNST	51						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1574	NNST	61						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1575	NNST	59						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1576	NNST	54						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1577	NNST	59						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1578	NNST	49						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1579	NNST	38						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1580	NNST	54						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1581	NNST	53						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1582	NNST	58						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1583	NNST	55						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1584	NNST	47						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1585	NNST	56						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1586	NNST	56						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1587	NNST	49						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1588	NNST	45						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1589	NNST	35						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1590	NNST	39						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1591	NNST	28						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1592	NNST	42						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1593	NNST	39						EF	6-Aug-06	POILEF-01	P.O. Inflow Lake				
1594	CISC	50						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				Kept for samples
1595	CISC	47						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				Kept for samples
1596	CISC	45						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				Kept for samples
1597	CISC	49						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				Kept for samples
1598	CISC	53						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				Kept for samples
1599	CISC	48						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				Kept for samples
1600	CISC	38						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				Kept for samples
1601	CISC	35						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				Kept for samples
1602	CISC	45						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				Kept for samples
1603	CISC	48						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				Kept for samples
1604	CISC	49						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				Kept for samples
1605	CISC	42						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				Kept for samples
1606	NNST	50						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1607	NNST	58						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1608	NNST	43						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1609	NNST	44						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1610	NNST	46						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1611	NNST	45						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1612	NNST	45						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1613	NNST	49						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1614	NNST	49						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1615	NNST	49						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1616	NNST	45						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
1617	NNST	44						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1618	NNST	43						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1619	NNST	53						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1620	NNST	50						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1621	NNST	58						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1622	NNST	34						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1623	NNST	42						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1624	NNST	38						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1625	NNST	46						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1626	NNST	39						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1627	NNST	51						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1628	NNST	57						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1629	NNST	59						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1630	NNST	59						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1631	NNST	56						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1632	NNST	37						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1633	NNST	62						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1634	NNST	49						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1635	NNST	40						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1636	NNST	44						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1637	NNST	46						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1638	NNST	55						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1639	NNST	57						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1640	NNST	41						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1641	NNST	46						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1642	NNST	50						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1643	NNST	50						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1644	NNST	59						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1645	NNST	51						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1646	NNST	57						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1647	NNST	53						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1648	NNST	46						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1649	NNST	45						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1650	NNST	38						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1651	NNST	47						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1652	NNST	47						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1653	NNST	45						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1654	NNST	37						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1655	NNST	42						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1656	NNST	48						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1657	NNST	49						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1658	NNST	38						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1659	NNST	44						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1660	NNST	30						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1661	NNST	45						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1662	NNST	39						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1663	NNST	51						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1664	NNST	43						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1665	NNST	40						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1666	NNST	57						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1667	NNST	45						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1668	NNST	39						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1669	NNST	46						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1670	NNST	54						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1671	NNST	42						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1672	NNST	46						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1673	NNST	50						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1674	NNST	38						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1675	NNST	53						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1676	NNST	36						EF	6-Aug-06	POILEF-02	P.O. Inflow Lake				
1677	CISC	66						BS	6-Aug-06	POINLBS-01	P.O. Inflow Lake				Representative size range (~500 fish)
1678	CISC	65						BS	6-Aug-06	POINLBS-01	P.O. Inflow Lake				Representative size range (~500 fish)
1679	CISC	79						BS	6-Aug-06	POINLBS-01	P.O. Inflow Lake				Representative size range (~500 fish)
1680	CISC	69						BS	6-Aug-06	POINLBS-01	P.O. Inflow Lake				Representative size range (~500 fish)
1681	CISC	52						BS	6-Aug-06	POINLBS-01	P.O. Inflow Lake				Representative size range (~500 fish)
1682	CISC	66						BS	6-Aug-06	POINLBS-01	P.O. Inflow Lake				Representative size range (~500 fish)
1683	CISC	52						BS	6-Aug-06	POINLBS-01	P.O. Inflow Lake				Representative size range (~500 fish)

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
1684	CISC	55						BS	6-Aug-06	POINLBS-01	P.O. Inflow Lake				Representative size range (~500 fish)
1685	CISC	65						BS	6-Aug-06	POINLBS-01	P.O. Inflow Lake				Representative size range (~500 fish)
1686-1876	CISC							BS	6-Aug-06	POINLBS-01	P.O. Inflow Lake				190 CISC Captured;see photos of seine haul
1877	NNST	66						BS	6-Aug-06	POINLBS-01	P.O. Inflow Lake				Representative size range (~500 fish)
1878	NNST	45						BS	6-Aug-06	POINLBS-01	P.O. Inflow Lake				Representative size range (~500 fish)
1879	NNST	45						BS	6-Aug-06	POINLBS-01	P.O. Inflow Lake				Representative size range (~500 fish)
1880	NNST	49						BS	6-Aug-06	POINLBS-01	P.O. Inflow Lake				Representative size range (~500 fish)
1881	NNST	55						BS	6-Aug-06	POINLBS-01	P.O. Inflow Lake				Representative size range (~500 fish)
1882	NNST	50						BS	6-Aug-06	POINLBS-01	P.O. Inflow Lake				Representative size range (~500 fish)
1883	NNST	55						BS	6-Aug-06	POINLBS-01	P.O. Inflow Lake				Representative size range (~500 fish)
1884	NNST	43						BS	6-Aug-06	POINLBS-01	P.O. Inflow Lake				Representative size range (~500 fish)
1885	NNST	52						BS	6-Aug-06	POINLBS-01	P.O. Inflow Lake				Representative size range (~500 fish)
1886	NNST	47						BS	6-Aug-06	POINLBS-01	P.O. Inflow Lake				Representative size range (~500 fish)
1887-2176	NNST							BS	6-Aug-06	POINLBS-01	P.O. Inflow Lake				290 NNST Captured;see photos of seine haul
2177	NNST	50						MT	7-Aug-06	POINMT-01	P.O. Inflow Lake				
2178	NNST	50						MT	7-Aug-06	POINMT-01	P.O. Inflow Lake				
2179	NNST	45						MT	7-Aug-06	POINMT-01	P.O. Inflow Lake				
2180	NNST	49						MT	7-Aug-06	POINMT-01	P.O. Inflow Lake				
2181	NNST	50						MT	7-Aug-06	POINMT-01	P.O. Inflow Lake				
2182	NNST	48						MT	7-Aug-06	POINMT-01	P.O. Inflow Lake				
2183	NNST	45						MT	7-Aug-06	POINMT-01	P.O. Inflow Lake				
2184	NNST	61						MT	7-Aug-06	POINMT-02	P.O. Inflow Lake				
2185	NNST	57						MT	7-Aug-06	POINMT-02	P.O. Inflow Lake				
2186	NNST	55						MT	7-Aug-06	POINMT-02	P.O. Inflow Lake				
2187	NNST	45						MT	7-Aug-06	POINMT-02	P.O. Inflow Lake				
2188	NNST	49						MT	7-Aug-06	POINMT-02	P.O. Inflow Lake				
2189	NNST	50						MT	7-Aug-06	POINMT-02	P.O. Inflow Lake				
2190	NNST	49						MT	7-Aug-06	POINMT-03	P.O. Inflow Lake				
2191	NNST	56						MT	7-Aug-06	POINMT-03	P.O. Inflow Lake				
2192	NNST	55						MT	7-Aug-06	POINMT-05	P.O. Inflow Lake				
2193	NNST	50						MT	7-Aug-06	POINMT-05	P.O. Inflow Lake				
2194	NNST	45						MT	7-Aug-06	POINMT-05	P.O. Inflow Lake				
2195	NNST	40						MT	7-Aug-06	POINMT-05	P.O. Inflow Lake				
2196	NNST	45						MT	7-Aug-06	POINMT-06	P.O. Inflow Lake				
2197	NNST	45						MT	7-Aug-06	POINMT-06	P.O. Inflow Lake				
2198	NNST	47						MT	7-Aug-06	POINMT-06	P.O. Inflow Lake				
2199	NNST	55						MT	7-Aug-06	POINMT-06	P.O. Inflow Lake				
2200	NNST	50						MT	7-Aug-06	POINMT-06	P.O. Inflow Lake				
2201	NNST	52						MT	7-Aug-06	POINMT-06	P.O. Inflow Lake				
2202	NNST	60						MT	7-Aug-06	POINMT-06	P.O. Inflow Lake				
2203	NNST	55						MT	7-Aug-06	POINMT-06	P.O. Inflow Lake				
2204	NNST	47						MT	7-Aug-06	POINMT-06	P.O. Inflow Lake				
2205	NNST	42						MT	7-Aug-06	POINMT-06	P.O. Inflow Lake				
2206	NNST	50						MT	7-Aug-06	POINMT-06	P.O. Inflow Lake				
2207	NNST	49						MT	7-Aug-06	POINMT-06	P.O. Inflow Lake				
2208	NNST	56						MT	7-Aug-06	POINMT-06	P.O. Inflow Lake				
2209	NNST	50						MT	7-Aug-06	POINMT-06	P.O. Inflow Lake				
2210	NNST	50						MT	7-Aug-06	POINMT-06	P.O. Inflow Lake				
2211	NNST	45						MT	7-Aug-06	POINMT-06	P.O. Inflow Lake				
2212	NNST	46						MT	7-Aug-06	POINMT-06	P.O. Inflow Lake				
2213	NNST	50						MT	7-Aug-06	POINMT-06	P.O. Inflow Lake				
2214	NNST	49						MT	7-Aug-06	POINMT-06	P.O. Inflow Lake				
2215	LSCS	85						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2216	LSCS	70						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2217	LSCS	60						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2218	LSCS	50						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2219	LSCS	45						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2220	LSCS	49						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2221	LSCS	48						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2222	LSCS	63						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2223	LSCS	63						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2224	LSCS	65						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2225	LSCS	70						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2226	LSCS	57						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2227	LSCS	45						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2228	LSCS	49						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2229	LSCS	46						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers

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Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
2230	LSCS	51						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2231	LSCS	49						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2232	LSCS	47						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2233	LSCS	48						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2234	LSCS	47						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2235	LSCS	50						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2236	LSCS	48						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2237	LSCS	51						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2238	LSCS	52						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2239	LSCS	46						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2240	LSCS	47						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2241	LSCS	47						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2242	LSCS	45						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
2243-6316	LSCS	45-70						BS	7-Aug-06	WLBS-01	Wolverine Lake				3875 NNST 4.5 Kg of juvenille fish see photos of numbers
4115	NNST	54						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
4116	NNST	56						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
4117	NNST	60						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
4118	NNST	65						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
4119	NNST	58						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
4120	NNST	40						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
4121	NNST	36						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
4122	NNST	42						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
4123	NNST	43						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
4124	NNST	48						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
4125	NNST	40						BS	7-Aug-06	WLBS-01	Wolverine Lake				4.5 Kg of juvenille fish see photos of numbers
4126-4216	NNST	40-65						BS	7-Aug-06	WLBS-01	Wolverine Lake				91 NNST out of 4.5 Kg catured were assessed for length range
4217	NNST	45						BS	7-Aug-06	WLBS-02	Wolverine Lake				
4218	NNST	49						BS	7-Aug-06	WLBS-02	Wolverine Lake				
4219	NNST	50						BS	7-Aug-06	WLBS-02	Wolverine Lake				
4220	NNST	55						BS	7-Aug-06	WLBS-02	Wolverine Lake				
4221	NNST	45						BS	7-Aug-06	WLBS-03	Wolverine Lake				
4222	NNST	46						BS	7-Aug-06	WLBS-03	Wolverine Lake				
4223	NNST	47						BS	7-Aug-06	WLBS-03	Wolverine Lake				
4224	NNST	48						BS	7-Aug-06	WLBS-03	Wolverine Lake				
4225	NNST	50						BS	7-Aug-06	WLBS-03	Wolverine Lake				
4226	NNST	45						BS	7-Aug-06	WLBS-03	Wolverine Lake				
4227	NNST	40						BS	7-Aug-06	WLBS-04	Wolverine Lake				
4228	NNST	60						BS	7-Aug-06	WLBS-04	Wolverine Lake				
4229	NNST	55						BS	7-Aug-06	WLBS-04	Wolverine Lake				
4230	NNST	56						BS	7-Aug-06	WLBS-04	Wolverine Lake				
4231	NNST	39						BS	7-Aug-06	WLBS-04	Wolverine Lake				
4232	NNST	45						BS	7-Aug-06	WLBS-04	Wolverine Lake				
4233	NNST	50						BS	7-Aug-06	WLBS-04	Wolverine Lake				
4234	NNST	49						BS	7-Aug-06	WLBS-04	Wolverine Lake				
4235	NNST	53						BS	7-Aug-06	WLBS-04	Wolverine Lake				
4236	NNST	55						BS	7-Aug-06	WLBS-04	Wolverine Lake				
4237	NNST	50						BS	7-Aug-06	WLBS-04	Wolverine Lake				
4238	NNST	45						BS	7-Aug-06	WLBS-04	Wolverine Lake				
4239	NNST	46						BS	7-Aug-06	WLBS-04	Wolverine Lake				
4240	NNST	39						BS	7-Aug-06	WLBS-04	Wolverine Lake				
4241	NNST	40						BS	7-Aug-06	WLBS-04	Wolverine Lake				
4242	NNST	65						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4243	NNST	50						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4244	NNST	37						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4245	NNST	41						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4246	NNST	43						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4247	NNST	50						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4248	NNST	45						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4249	NNST	10						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4250	NNST	40						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4251	NNST	30						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4252	NNST	35						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4253	NNST	50						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4254	NNST	50						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4255	NNST	28						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4256	NNST	50						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4257	NNST	30						BS	7-Aug-06	WLBS-05	Wolverine Lake				

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
4258	NNST	41						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4259	NNST	48						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4260	NNST	52						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4261	NNST	25						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4262	NNST	25						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4263	NNST	35						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4264	NNST	30						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4265	NNST	39						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4266	NNST	45						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4267	NNST	50						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4268	NNST	45						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4269	NNST	35						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4270	NNST	45						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4271	NNST	35						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4272	NNST	25						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4273	NNST	25						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4274	NNST	40						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4275	NNST	40						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4276	NNST	20						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4277	NNST	50						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4278	NNST	32						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4279	LSCS	38						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4280	LSCS	42						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4281	LSCS	43						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4282	LSCS	40						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4283	LSCS	40						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4284	LSCS	36						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4285	LSCS	41						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4286	LSCS	39						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4287	LSCS	39						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4288	LSCS	40						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4289	LSCS	40						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4290	LSCS	45						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4291	LSCS	43						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4292	LSCS	39						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4293	LSCS	40						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4294	LSCS	38						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4295	LSCS	41						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4296	LSCS	40						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4297	LSCS	37						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4298	LSCS	45						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4299	LSCS	45						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4300	LSCS	45						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4301	LSCS	38						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4302	LSCS	40						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4303	LSCS	40						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4304	LSCS	37						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4305	LSCS	35						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4306	LSCS	38						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4307	LSCS	40						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4308	LSCS	39						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4309	LSCS	38						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4310	LSCS	38						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4311	LSCS	38						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4312	LSCS	40						BS	7-Aug-06	WLBS-05	Wolverine Lake				
4313	LSCS	35						BS	7-Aug-06	WLBS-05	Wolverine Lake				
6317	NNST	50						BS	7-Aug-06	WLBS-07	Wolverine Lake				
6318	NNST	49						BS	7-Aug-06	WLBS-07	Wolverine Lake				
6319	NNST	45						BS	7-Aug-06	WLBS-07	Wolverine Lake				
6320	NNST	50						BS	7-Aug-06	WLBS-07	Wolverine Lake				
6321	NNST	36						BS	7-Aug-06	WLBS-07	Wolverine Lake				
6322	LSCS	55						MT	7-Aug-06	WLMT-12	Wolverine Lake				
6323-6355	NNST	30-60						MT	7-Aug-06	WLMT-10	Wolverine Lake				33 NNST Captured
6356	LSCS	60						MT	7-Aug-06	WLMT-12	Wolverine Lake				
6357	LSCS	63						MT	7-Aug-06	WLMT-12	Wolverine Lake				
6358	NNST	50						MT	7-Aug-06	WLMT-12	Wolverine Lake				
6359	NNST	56						MT	7-Aug-06	WLMT-12	Wolverine Lake				

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
6360	NNST	40						MT	7-Aug-06	WLMT-12	Wolverine Lake				
6361	NNST	46						MT	7-Aug-06	WLMT-12	Wolverine Lake				
6362	NNST	47						MT	7-Aug-06	WLMT-12	Wolverine Lake				
6363	NNST	55						MT	7-Aug-06	WLMT-12	Wolverine Lake				
6364	NNST	57						MT	7-Aug-06	WLMT-12	Wolverine Lake				
6365	NNST	60						MT	7-Aug-06	WLMT-12	Wolverine Lake				
6366	NNST	39						MT	7-Aug-06	WLMT-12	Wolverine Lake				
264	ARGR	390						AN	20-Jul-06	KRAN-02	Koignuk River				At Narrows
2	NNST	31						EF	8-Jul-07	KNBP-01	Koignuk River		C		
1	ARGR	397	603	0.96				EF	8-Jul-07	KNBP-01	Koignuk River		C		
4	NNST	39						EF	8-Jul-07	KNBP-01	Koignuk River		C		
5	FRSC	16						DN	8-Jul-07	KNDN-01	Koignuk River		C		Dip netted in small stranded pool ~ 30 more in pool
142	LKTR	570	1775	0.96			985120031585388	FN	15-Jul-07	PLFT-01	Patch Lake		C		Captured fish moving into Patch Lk from PO Lk
7	ARFL	76	6	1.37				EF	8-Jul-07	KNBP-02	Koignuk River		C		
8	LKWH	78	4	0.84				EF	8-Jul-07	KNBP-02	Koignuk River		C		
9	ARFL	93	8	0.99				EF	8-Jul-07	KNBP-02	Koignuk River		C		
10	NNST	52	1	0.71				EF	8-Jul-07	KNBP-02	Koignuk River		C		
11	FRSC	83	5	0.87				EF	8-Jul-07	KNBP-02	Koignuk River		C		
12	NNST	44						EF	8-Jul-07	KNBP-02	Koignuk River		C		
13	NNST	43						EF	8-Jul-07	KNBP-02	Koignuk River		C		
14	ARCH	605	2538	1.15				GN	8-Jul-07	KNGN-02	Koignuk River		C		
15	ARFL							EF	8-Jul-07	KNBP-02	Koignuk River		O		
16	ARFL							EF	8-Jul-07	KNBP-02	Koignuk River		O		
17	ARFL							EF	8-Jul-07	KNBP-02	Koignuk River		O		
18	NNST							EF	8-Jul-07	KNBP-02	Koignuk River		O		
19	NNST							EF	8-Jul-07	KNBP-02	Koignuk River		O		
20	NNST							EF	8-Jul-07	KNBP-02	Koignuk River		O		
21	NNST							EF	8-Jul-07	KNBP-02	Koignuk River		O		
22	NNST							EF	8-Jul-07	KNBP-02	Koignuk River		O		
23	NNST							EF	8-Jul-07	KNBP-02	Koignuk River		O		
24	NNST							EF	8-Jul-07	KNBP-02	Koignuk River		O		
25	NNST							EF	8-Jul-07	KNBP-02	Koignuk River		O		
26	NNST							EF	8-Jul-07	KNBP-02	Koignuk River		O		
27	NNST							EF	8-Jul-07	KNBP-02	Koignuk River		O		
28	LKWH							EF	8-Jul-07	KNBP-02	Koignuk River		O		
29	LKWH							EF	8-Jul-07	KNBP-02	Koignuk River		O		
30	LKWH							EF	8-Jul-07	KNBP-02	Koignuk River		O		
31	LKWH							EF	8-Jul-07	KNBP-02	Koignuk River		O		
32	LKWH							EF	8-Jul-07	KNBP-02	Koignuk River		O		
143	LKTR	779	3035	0.64			985120031585098	FN	15-Jul-07	PLFT-01	Patch Lake		C		Captured fish moving into Patch Lk from PO Lk
144	LKTR	835	3680	0.63			985120031560189	FN	15-Jul-07	PLFT-01	Patch Lake		C		Captured fish moving into Patch Lk from PO Lk
145	LKTR	615	2150	0.92			985120031605135	FN	15-Jul-07	PLFT-01	Patch Lake		C		Captured fish moving into Patch Lk from PO Lk
146	LKTR	629	2550	1.02			985120031585878	FN	15-Jul-07	PLFT-01	Patch Lake		C		Captured fish moving into Patch Lk from PO Lk
147	LKTR	705	3330	0.95			985120031601433	FN	15-Jul-07	PLFT-01	Patch Lake		C		Captured fish moving into Patch Lk from PO Lk
148	LKTR	364	545	1.13			985120031658790	GN	15-Jul-07	PLGN-31	Patch Lake		C		
149	LKTR	522	1405	0.99			985120031655044	GN	15-Jul-07	PLGN-34	Patch Lake		C		
150	LKWH	498	1595	1.29				GN	15-Jul-07	PLGN-35	Patch Lake		C		Adipose fin clip
151	LKWH	447	1560	1.75				GN	15-Jul-07	PLGN-35	Patch Lake		C		Adipose fin clip
152	LKWH	437	1175	1.41				GN	15-Jul-07	PLGN-35	Patch Lake		C		Adipose fin clip
153	LKWH	409	825	1.21				GN	15-Jul-07	PLGN-35	Patch Lake		C		Adipose fin clip
154	LKWH	439	1095	1.29				GN	15-Jul-07	PLGN-35	Patch Lake		C		Adipose fin clip
155	LKTR	417					985120031613080	AN	15-Jul-07	PLAF-06	Patch Lake		C		
156	LKTR	656	2805	0.99			985120031625986	GN	15-Jul-07	PLGN-31	Patch Lake		C		
157	LKTR	630	2620	1.05				GN	15-Jul-07	PLGN-31	Patch Lake		M		Mortality-sample kept for Heidi
158	LKTR	795	4375	0.87			985120031657003	GN	15-Jul-07	PLGN-33	Patch Lake		C		
159	LKTR	635	2740	1.07			985120031592937	GN	15-Jul-07	PLGN-34	Patch Lake		C		
160	LKTR	705	3525	1.01			985120031626621	GN	15-Jul-07	PLGN-34	Patch Lake		C		
161	LKTR	635	3480	1.36			985120031613311	GN	15-Jul-07	PLGN-34	Patch Lake		C		
162	LKTR	760	5600	1.28			985120031624571	GN	15-Jul-07	PLGN-34	Patch Lake		C		
163	LKTR	793	5820	1.17			985120031597775	GN	15-Jul-07	PLGN-34	Patch Lake		C		
164	LKTR	635	2655	1.04			985120031564182	GN	15-Jul-07	PLGN-35	Patch Lake		C		
165	LKWH	411	1060	1.53				GN	15-Jul-07	PLGN-35	Patch Lake		C		
166	LKTR	668	2695	0.90			985120031554695	GN	15-Jul-07	PLGN-35	Patch Lake		C		Fish appeared skinny
167	LKTR	765	4001	0.89			985120031630249	GN	15-Jul-07	PLGN-35	Patch Lake		C		Fish appeared skinny
168	LKTR	865	5930	0.92			985120031565169	GN	15-Jul-07	PLGN-35	Patch Lake		R		
169	LKTR	660	3160	1.10			985120031564522	GN	15-Jul-07	PLGN-35	Patch Lake		C		
170	LKTR	655	2870	1.02			985120031587749	GN	15-Jul-07	PLGN-35	Patch Lake		C		

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
171	LKWH	393	1010	1.66				GN	15-Jul-07	PLGN-35	Patch Lake		M		Mortality-sample kept for Heidi
172	CISC	85						FN	16-Jul-07	PLFT-01	Patch Lake		C		Captured fish moving into Patch Lk from PO Lk
173	LKTR	567	1770	0.97			985120031633047	GN	16-Jul-07	PLGN-36	Patch Lake		C		
174	LKTR	800	5445	1.06			985120031592199	GN	16-Jul-07	PLGN-36	Patch Lake		R		
175	LKWH	424	890	1.17				GN	16-Jul-07	PLGN-36	Patch Lake		C		Adipose fin clip
176	LKTR	720	3825	1.02			985120031586170	GN	16-Jul-07	PLGN-36	Patch Lake		C		
177	LKTR	690	3025	0.92			985120031578749	GN	16-Jul-07	PLGN-39	Patch Lake		C		
178	LKWH	429	1165	1.48				GN	16-Jul-07	PLGN-39	Patch Lake		C		
179	LKWH	404	975	1.48				GN	16-Jul-07	PLGN-39	Patch Lake		C		
180	LKTR	645	3135	1.17			985120031581270	GN	16-Jul-07	PLGN-39	Patch Lake		C		
181	LKTR	665	2920	0.99			985120031580790	GN	16-Jul-07	PLGN-39	Patch Lake		C		
182	LKTR	715	3465	0.95			985120031628609	GN	16-Jul-07	PLGN-39	Patch Lake		M		Mortality
183	CISC	280	245	1.12				GN	16-Jul-07	PLGN-39	Patch Lake		M		Mortality
184	CISC	225	135	1.19				GN	16-Jul-07	PLGN-39	Patch Lake		M		Mortality
185	LKWH	384	810	1.43				GN	16-Jul-07	PLGN-39	Patch Lake		C		
186	LKTR	522	1245	0.88			985120031599265	GN	16-Jul-07	PLGN-40	Patch Lake		C		
187	LKTR	702	3056	0.88			985120031585842	AN	16-Jul-07	PLAF-07	Patch Lake		C		
188	LKTR	718	3785	1.02			985120031616920	AN	16-Jul-07	PLAF-07	Patch Lake		C		
189	LKTR	700	3170	0.92			985120031583952	GN	16-Jul-07	PLGN-38	Patch Lake		C		
190	LKTR	609	2550	1.13			985120031576802	GN	16-Jul-07	PLGN-38	Patch Lake		C		
191	LKTR	652	2855	1.03			985120031607811	GN	16-Jul-07	PLGN-38	Patch Lake		C		
192	LKWH	445	1240	1.41				GN	16-Jul-07	PLGN-38	Patch Lake		C		
193	CISC	276	265	1.26				GN	16-Jul-07	PLGN-38	Patch Lake		C		
194	LKTR	629	3040	1.22			985120031630523	GN	16-Jul-07	PLGN-39	Patch Lake		C		
195	LKWH	435	1165	1.42				GN	16-Jul-07	PLGN-39	Patch Lake		C		Adipose fin clip
196	LKTR	792	4750	0.96			985120031623245	GN	16-Jul-07	PLGN-39	Patch Lake		R		
197	LKTR	673	3135	1.03			985120031576331	GN	16-Jul-07	PLGN-39	Patch Lake		C		
198	LKTR	611	2260	0.99			985120031633633	GN	16-Jul-07	PLGN-39	Patch Lake		C		
199	LKTR	934	8660	1.06			985120031608372	GN	16-Jul-07	PLGN-39	Patch Lake		C		
200	LKWH	414	970	1.37				GN	16-Jul-07	PLGN-39	Patch Lake		M		Mortality
201	LKWH	428	1140	1.45				GN	16-Jul-07	PLGN-39	Patch Lake		C		Adipose fin clip
202	CISC	219	135	1.29				GN	16-Jul-07	PLGN-37	Patch Lake		C		Adipose fin clip
203	CISC	238	180	1.34				GN	16-Jul-07	PLGN-37	Patch Lake		C		Adipose fin clip
204	CISC	279	315	1.45				GN	16-Jul-07	PLGN-37	Patch Lake		M		Mortality
205	CISC	270						GN	16-Jul-07	PLGN-36	Patch Lake		M		Mortality
206	CISC	239	165	1.21				GN	16-Jul-07	PLGN-36	Patch Lake		C		
207	CISC	218						GN	16-Jul-07	PLGN-36	Patch Lake		C		Adipose fin clip
208	CISC	231	175	1.42				GN	16-Jul-07	PLGN-36	Patch Lake		M		Mortality
209	CISC	254	245	1.50				GN	16-Jul-07	PLGN-36	Patch Lake		M		Mortality
210	CISC	266	265	1.41				GN	16-Jul-07	PLGN-36	Patch Lake		M		Mortality
211	LKTR	654	3075	1.10			985120031631274	GN	16-Jul-07	PLGN-36	Patch Lake		C		
212	LKTR	524	1685	1.17			985120031563900	GN	16-Jul-07	PLGN-36	Patch Lake		C		
213	LKTR	620	2475	1.04			985120031594206	GN	16-Jul-07	PLGN-36	Patch Lake		C		
214	LKTR	434	850	1.04			985120031562349	GN	16-Jul-07	PLGN-36	Patch Lake		R		
215	LKTR	659	2670	0.93			985120031620921	GN	16-Jul-07	PLGN-36	Patch Lake		C		
216	LKTR	682	2740	0.86			985120031565361	GN	16-Jul-07	PLGN-36	Patch Lake		R		
217	CISC	276	240	1.14				GN	16-Jul-07	PLGN-36	Patch Lake		M		Mortality
218	CISC	280	265	1.21				GN	16-Jul-07	PLGN-36	Patch Lake		M		Mortality
219	CISC	242						GN	16-Jul-07	PLGN-36	Patch Lake		M		Mortality
220	CISC	178						GN	16-Jul-07	PLGN-40	Patch Lake		M		Mortality
221	LKWH	320	375	1.14				FN	17-Jul-07	PLFT-01	Patch Lake		C		Adipose fin clip
222	LKWH	321	395	1.19				FN	17-Jul-07	PLFT-01	Patch Lake		C		Adipose fin clip
223	LKWH	324	390	1.15				FN	17-Jul-07	PLFT-01	Patch Lake		C		Adipose fin clip
224	LKTR	667	2675	0.90	Orange	909	985120031566730	FN	17-Jul-07	PLFT-01	Patch Lake		R		
225	LKTR	605	1865	0.84			985120031614982	FN	17-Jul-07	PLFT-01	Patch Lake		C		
226	LKTR	568	1670	0.91			985120031633242	FN	17-Jul-07	PLFT-01	Patch Lake		C		
227	LKTR	780	4970	1.05			985120031573454	FN	17-Jul-07	PLFT-01	Patch Lake		C		
228	LKWH	341	510	1.29				FN	17-Jul-07	PLFT-01	Patch Lake		C		Adipose fin clip
229	LKWH	356	550	1.22				FN	17-Jul-07	PLFT-01	Patch Lake		C		Adipose fin clip
230	LKWH	369	660	1.31				FN	17-Jul-07	PLFT-01	Patch Lake		C		Adipose fin clip
231	LKWH	328	410	1.16				FN	17-Jul-07	PLFT-01	Patch Lake		C		Adipose fin clip
232	LKTR	710	3120	0.87			985120031575894	FN	17-Jul-07	PLFT-01	Patch Lake		C		
233	LKTR	685	2590	0.81			985120031566490	FN	17-Jul-07	PLFT-01	Patch Lake		C		
234	LKTR	675	2580	0.84			985120031633133	FN	17-Jul-07	PLFT-01	Patch Lake		C		
235	LKTR	720	3575	0.96			985120031566628	FN	17-Jul-07	PLFT-01	Patch Lake		C		
236	LKTR	725	4430	1.16			985120031620053	GN	17-Jul-07	PLGN-43	Patch Lake		C		
237	LKTR	585	2175	1.09			985120031602402	GN	17-Jul-07	PLGN-43	Patch Lake		C		

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Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
238	LKTR	879	8695	1.28			985120031623262	GN	17-Jul-07	PLGN-42	Patch Lake		C		
239	LKTR	689	3530	1.08			985120031600310	GN	17-Jul-07	PLGN-42	Patch Lake		C		
240	LKTR	425					985120031613659	GN	17-Jul-07	PLGN-42	Patch Lake		C		
241	LKTR	710	3515	0.98		140	985120031628526	GN	17-Jul-07	PLGN-42	Patch Lake		R		
242	CISC	280	260	1.18				GN	17-Jul-07	PLGN-42	Patch Lake		M		
243	CISC	269	235	1.21				GN	17-Jul-07	PLGN-42	Patch Lake		M		
244	CISC	268	245	1.27				GN	17-Jul-07	PLGN-42	Patch Lake		M		
245	LKWH	425	960	1.25				GN	17-Jul-07	PLGN-42	Patch Lake		C		Adipose fin clip
246	LKTR	703	3220	0.93			985120031579683	GN	17-Jul-07	PLGN-42	Patch Lake		C		
247	LKTR	714	3460	0.95			985120031620823	GN	17-Jul-07	PLGN-42	Patch Lake		C		
248	LKTR	675	3565	1.16			985120031627292	GN	17-Jul-07	PLGN-42	Patch Lake		C		
249	LKTR	618	2295	0.97			985120031622167	GN	17-Jul-07	PLGN-42	Patch Lake		C		
250	LKTR	672	2940	0.97			985120031577557	GN	17-Jul-07	PLGN-42	Patch Lake		C		
251	LKTR	763	4195	0.94			985120031585176	GN	17-Jul-07	PLGN-42	Patch Lake		C		
252	LKTR	835	7085	1.22			985120031629252	GN	17-Jul-07	PLGN-44	Patch Lake		C		
253	LKTR	520	1375	0.98			985120031657610	GN	17-Jul-07	PLGN-44	Patch Lake		C		
254	LKWH	435						GN	17-Jul-07	PLGN-43	Patch Lake		C		Adipose fin clip
255	LKTR	442	845	0.98			985120031585784	FN	18-Jul-07	PLFT-01	Patch Lake		C		
256	LKTR	639	2595	0.99			985120031626582	FN	18-Jul-07	PLFT-01	Patch Lake		C		
257	LKTR	391	775	1.30			985120031561267	GN	18-Jul-07	PLGN-47	Patch Lake		C		
258	LKTR	448	1280	1.42			985120031579422	GN	18-Jul-07	PLGN-47	Patch Lake		C		
259	LKWH	410	920	1.33				GN	18-Jul-07	PLGN-47	Patch Lake		M		Mortality-sample kept for Heidi
260	LKWH	420	1030	1.39				GN	18-Jul-07	PLGN-47	Patch Lake		M		Mortality-sample kept for Heidi
261	LKWH	439	1140	1.35				GN	18-Jul-07	PLGN-48	Patch Lake		C		Adipose fin clip
262	LKWH	438	1020	1.21				GN	18-Jul-07	PLGN-48	Patch Lake		C		Adipose fin clip
263	LKWH	428	1020	1.30				GN	18-Jul-07	PLGN-48	Patch Lake		C		Adipose fin clip
264	LKWH	420	1050	1.42				GN	18-Jul-07	PLGN-48	Patch Lake		C		Adipose fin clip
265	LKWH	482	1825	1.63				GN	18-Jul-07	PLGN-48	Patch Lake		M		Mortality-sample kept for Heidi
266	LKWH	411	1040	1.50				GN	18-Jul-07	PLGN-48	Patch Lake		M		Mortality
267	LKWH	382	850	1.52				GN	18-Jul-07	PLGN-48	Patch Lake		M		Mortality
268	LKWH	413	965	1.37				GN	18-Jul-07	PLGN-48	Patch Lake		M		Mortality
269	LKWH	420	1130	1.53				GN	18-Jul-07	PLGN-48	Patch Lake		M		Mortality
270	LKTR	341	420	1.06				GN	18-Jul-07	PLGN-48	Patch Lake		M		Mortality-sample kept for Heidi
271	LKTR	609	2200	0.97			985120031566434	GN	18-Jul-07	PLGN-50	Patch Lake		C		
272	LKTR	384	845	1.49			985120031626282	GN	18-Jul-07	PLGN-51	Patch Lake		C		
273	LKTR	343	440	1.09			985120031605128	GN	18-Jul-07	PLGN-51	Patch Lake		C		
274	LKTR	344	500	1.23			985120031628730	GN	18-Jul-07	PLGN-51	Patch Lake		C		
275	LKTR	539	1560	1.00			985120031567964	GN	18-Jul-07	PLGN-51	Patch Lake		C		
276	LKTR	472	1555	1.48			985120031454495	GN	18-Jul-07	PLGN-49	Patch Lake		C		
277	LKTR	675	3180	1.03			985120031445669	GN	18-Jul-07	PLGN-48	Patch Lake		C		
278	LKTR	675	3225	1.05			985120031571002	GN	18-Jul-07	PLGN-48	Patch Lake		C		
279	LKTR	428	1038	1.32			985120031597597	GN	18-Jul-07	PLGN-47	Patch Lake		C		
280	LKTR	411	900	1.30			985120031565760	GN	18-Jul-07	PLGN-47	Patch Lake		C		
281	LKTR	613	2400	1.04			985120031632679	GN	18-Jul-07	PLGN-47	Patch Lake		C		
282	LKWH	429	1060	1.34				GN	18-Jul-07	PLGN-47	Patch Lake		M		Mortality-sample kept for Heidi
283	LKTR	342	425	1.06				GN	18-Jul-07	PLGN-47	Patch Lake		M		Mortality-sample kept for Heidi
284	LKTR	677	3015	0.97			985120031606421	AN	18-Jul-07	PLAF-08	Patch Lake		C		
285	LKTR	643	2745	1.03			985120031568319	AN	18-Jul-07	PLAF-09	Patch Lake		C		
286	LKTR	640	2230	0.85			985120031607846	GN	18-Jul-07	PLGN-47	Patch Lake		C		
287	LKTR	710	3870	1.08			985120031569851	GN	18-Jul-07	PLGN-47	Patch Lake		R		
288	LKTR	665	2825	0.96				GN	18-Jul-07	PLGN-47	Patch Lake		M		Mortality-sample kept for Heidi
289	LKWH	423	860	1.14				GN	18-Jul-07	PLGN-47	Patch Lake		M		Mortality
290	LKTR	830	6320	1.11			985120031631446	GN	18-Jul-07	PLGN-48	Patch Lake		M		Mortality-sample kept for Heidi. Fish 599265 in stomach
291	LKTR	690	3520	1.07			985120031567012	GN	18-Jul-07	PLGN-48	Patch Lake		C		
292	LKTR	670	3230	1.07			985120031445669	GN	18-Jul-07	PLGN-48	Patch Lake		R		
293	LKTR	625	2450	1.00				GN	18-Jul-07	PLGN-48	Patch Lake		M		Mortality-sample kept for Heidi
294	LKTR	468	1360	1.33			985120031630383	GN	18-Jul-07	PLGN-51	Patch Lake		C		
295	LKTR	483	1375	1.22			985120031600316	GN	18-Jul-07	PLGN-51	Patch Lake		C		
296	LKTR	472	1555	1.48			985120031575844	GN	18-Jul-07	PLGN-51	Patch Lake		C		
491	LKWH	360	590	1.26				GN	12-Aug-07	PLGN-52	Patch Lake		C		
492	LKWH	383	745	1.33				GN	12-Aug-07	PLGN-52	Patch Lake		C		
493	LKWH	309	360	1.22				GN	12-Aug-07	PLGN-52	Patch Lake		C		
494	CISC	218	106	1.02				GN	12-Aug-07	PLGN-52	Patch Lake		C		
495	LKWH	406	909	1.36				GN	12-Aug-07	PLGN-52	Patch Lake		C		
496	LKWH	358	560	1.22				GN	12-Aug-07	PLGN-52	Patch Lake		C		
497	LKWH	395	855	1.39				GN	12-Aug-07	PLGN-52	Patch Lake		C		
498	LKWH	422	975	1.30				GN	12-Aug-07	PLGN-52	Patch Lake		M		

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
499	LKTR	720	3014	0.81			985120031628609	GN	12-Aug-07	PLGN-52	Patch Lake		R		
500	LKTR	750	3772	0.89			985120031457762	GN	12-Aug-07	PLGN-52	Patch Lake		C		
501	LKWH							GN	12-Aug-07	PLGN-52	Patch Lake		E		
502	LKWH							GN	12-Aug-07	PLGN-52	Patch Lake		E		
503	CISC	220	156	1.47				GN	12-Aug-07	PLGN-53	Patch Lake		C		
504	CISC	217						GN	12-Aug-07	PLGN-53	Patch Lake		C		
505	CISC	217						GN	12-Aug-07	PLGN-53	Patch Lake		C		
506	CISC	236	162	1.23				GN	12-Aug-07	PLGN-53	Patch Lake		C		
507	LKWH	288	279	1.17				GN	12-Aug-07	PLGN-53	Patch Lake		C		
508	CISC	237	130	0.98				GN	12-Aug-07	PLGN-53	Patch Lake		M		
509	CISC	219	108	1.03				GN	12-Aug-07	PLGN-53	Patch Lake		C		
510	LKWH	320	240	0.73				GN	12-Aug-07	PLGN-53	Patch Lake		C		
511	LKWH	363	543	1.14				GN	12-Aug-07	PLGN-53	Patch Lake		C		
512	CISC	229	114	0.95				GN	12-Aug-07	PLGN-53	Patch Lake		C		
513	LKWH	360	614	1.32				GN	12-Aug-07	PLGN-53	Patch Lake		C		
514	LKWH	405	911	1.37				GN	12-Aug-07	PLGN-53	Patch Lake		C		
515	CISC	305	378	1.33				GN	12-Aug-07	PLGN-53	Patch Lake		M		
516	LKTR	675	2632	0.86			985120031643066	GN	12-Aug-07	PLGN-53	Patch Lake		R		
517	LKWH							GN	12-Aug-07	PLGN-53	Patch Lake		E		
518	LKTR							GN	12-Aug-07	PLGN-53	Patch Lake		E		
519	LKTR	790	4587	0.93			985120031618957	GN	12-Aug-07	PLGN-52	Patch Lake		R		
520	LKWH	334	473	1.27				GN	12-Aug-07	PLGN-52	Patch Lake		C		
521	LKWH	353	606	1.38				GN	12-Aug-07	PLGN-52	Patch Lake		C		
522	LKWH	266	240	1.28				GN	12-Aug-07	PLGN-52	Patch Lake		C		
523	CISC	240	154	1.11				GN	12-Aug-07	PLGN-52	Patch Lake		C		
524	LKTR	700	3753	1.09			985120031457762	GN	12-Aug-07	PLGN-52	Patch Lake		R		
525	LKTR	635	2251	0.88			985120031629890	GN	12-Aug-07	PLGN-52	Patch Lake		C		
526	LKWH	287	271	1.15				GN	12-Aug-07	PLGN-52	Patch Lake		M		
527	LKTR	690	3120	0.95			985120031610496	GN	12-Aug-07	PLGN-53	Patch Lake		C		
528	CISC	249	175	1.13				GN	12-Aug-07	PLGN-53	Patch Lake		C		
529	LKWH	390	570	0.96				GN	12-Aug-07	PLGN-53	Patch Lake		C		
530	LKWH	361	661	1.41				GN	12-Aug-07	PLGN-53	Patch Lake		C		
531	LKWH	368	677	1.36				GN	12-Aug-07	PLGN-53	Patch Lake		C		
532	LKWH	420	1140	1.54				GN	12-Aug-07	PLGN-53	Patch Lake		C		
533	LKWH	387	740	1.28				GN	12-Aug-07	PLGN-53	Patch Lake		C		
534	LKWH	366	683	1.39				GN	12-Aug-07	PLGN-53	Patch Lake		C		
535	LKWH	335	512	1.36				GN	12-Aug-07	PLGN-53	Patch Lake		M		
536	CISC	267	195	1.02				GN	12-Aug-07	PLGN-53	Patch Lake		M		
537	CISC	295	251	0.98				GN	12-Aug-07	PLGN-53	Patch Lake		M		
538	CISC	272	228	1.13				GN	12-Aug-07	PLGN-53	Patch Lake		M		
539	LKWH	325	420	1.22				GN	12-Aug-07	PLGN-53	Patch Lake		C		
540	LKWH	397	857	1.37				GN	12-Aug-07	PLGN-53	Patch Lake		M		
541	LKWH	395	845	1.37				GN	12-Aug-07	PLGN-53	Patch Lake		M		
542	LKTR	570					985120031623262	GN	12-Aug-07	PLGN-52	Patch Lake		R		
543	LKWH	434	1015	1.24				GN	12-Aug-07	PLGN-52	Patch Lake		C		
544	LKWH	395	912	1.48				GN	12-Aug-07	PLGN-52	Patch Lake		C		
545	LKWH	360	671	1.44				GN	12-Aug-07	PLGN-52	Patch Lake		C		
546	LKTR	640	2800	1.07			985120031576486	EF	25-Jul-06	PLEF-01	Patch Lake	SC			had floy tag #
546	LKWH	369	774	1.54				GN	12-Aug-07	PLGN-52	Patch Lake		C		
547	NNST	50						EF	25-Jul-06	PLEF-01	Patch Lake				
547	LKWH	425	1070	1.39				GN	12-Aug-07	PLGN-52	Patch Lake		C		
548	LKTR	700	3180	0.93	Green	4520	985120031631177	GN	25-Jul-06	PLGN-01	Patch Lake	SC	R	2005	originally tagged in Doris floy tag 4520
548	LKTR	700	3523	1.03			985120031574647	GN	12-Aug-07	PLGN-52	Patch Lake		C		
549	LKTR	800	4466	0.87			985120031562754	GN	25-Jul-06	PLGN-01	Patch Lake	SC			
549	CISC	251	181	1.14				GN	12-Aug-07	PLGN-53	Patch Lake		C		
550	LKTR	677	2680	0.86			985120031578841	GN	25-Jul-06	PLGN-01	Patch Lake	SC			
550	CISC	268	186	0.97				GN	12-Aug-07	PLGN-53	Patch Lake		C		
551	LKTR	650	2455	0.89			985120031633066	GN	25-Jul-06	PLGN-01	Patch Lake	SC			
551	CISC	276	239	1.14				GN	12-Aug-07	PLGN-53	Patch Lake		C		
552	LKTR	695	2845	0.85			985120031612378	GN	25-Jul-06	PLGN-01	Patch Lake	SC			
552	CISC	255	194	1.17				GN	12-Aug-07	PLGN-53	Patch Lake		C		
553	LKTR	720	3450	0.92			985120031612895	GN	25-Jul-06	PLGN-01	Patch Lake	SC			
553	LKWH	345	564	1.37				GN	12-Aug-07	PLGN-53	Patch Lake		C		
554	LKWH	379	675	1.24				GN	25-Jul-06	PLGN-01	Patch Lake				
554	LKWH	425	1050	1.37				GN	12-Aug-07	PLGN-53	Patch Lake		C		
555	LKWH	336	477	1.26				GN	12-Aug-07	PLGN-53	Patch Lake		C		
555	LKWH	452	1185	1.28				GN	25-Jul-06	PLGN-01	Patch Lake				

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Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
556	LKWH	394	740	1.21				GN	25-Jul-06	PLGN-01	Patch Lake				
556	LKWH	358	683	1.49				GN	12-Aug-07	PLGN-53	Patch Lake		C		
557	LKWH	420	980	1.32				GN	25-Jul-06	PLGN-01	Patch Lake				
557	LKWH	411	1053	1.52				GN	12-Aug-07	PLGN-53	Patch Lake		C		
558	LKWH	355	550	1.23				GN	25-Jul-06	PLGN-01	Patch Lake				
558	LKWH	412	980	1.40				GN	12-Aug-07	PLGN-53	Patch Lake		M		
559	CISC	230	140	1.15				GN	26-Jul-06	PLGN-03	Patch Lake				
559	LKWH							GN	12-Aug-07	PLGN-53	Patch Lake		E		
560	CISC	245	180	1.22				GN	26-Jul-06	PLGN-03	Patch Lake				
560	LKWH							GN	12-Aug-07	PLGN-53	Patch Lake		E		
561	CISC	245	180	1.22				GN	26-Jul-06	PLGN-03	Patch Lake				
561	LKTR							GN	12-Aug-07	PLGN-53	Patch Lake		E		
562	CISC	260	150	0.85				GN	26-Jul-06	PLGN-03	Patch Lake				aged
562	CISC	273						GN	13-Aug-07	PLGN-54	Patch Lake		C		
563	LKTR	509	1310	0.99				GN	26-Jul-06	PLGN-03	Patch Lake				aged #114
563	CISC	272						GN	13-Aug-07	PLGN-54	Patch Lake		C		
564	LKTR	685	3180	0.99				GN	26-Jul-06	PLGN-03	Patch Lake				aged
564	LKWH	408						GN	13-Aug-07	PLGN-54	Patch Lake		M		
565	LKWH	443	980	1.13				GN	26-Jul-06	PLGN-03	Patch Lake				aged #115
565	LKWH	380						GN	13-Aug-07	PLGN-54	Patch Lake		M		
566	LKWH	312	400	1.32				GN	26-Jul-06	PLGN-03	Patch Lake				aged
566	LKTR	650					985120031603559	GN	13-Aug-07	PLGN-54	Patch Lake		C		
567	CISC	279	240	1.11				GN	26-Jul-06	PLGN-04	Patch Lake				
567	LKTR	880					985120031619152	GN	13-Aug-07	PLGN-54	Patch Lake		C		
568	CISC	258	190	1.11				GN	26-Jul-06	PLGN-04	Patch Lake				
568	LKWH	350						GN	13-Aug-07	PLGN-55	Patch Lake		C		
569	CISC	249	160	1.04				GN	26-Jul-06	PLGN-04	Patch Lake				
569	LKWH	327						GN	13-Aug-07	PLGN-55	Patch Lake		M		
570	CISC	260	220	1.25				GN	26-Jul-06	PLGN-04	Patch Lake				
570	CISC	248						GN	13-Aug-07	PLGN-55	Patch Lake		C		
571	CISC	265	229	1.23				GN	26-Jul-06	PLGN-04	Patch Lake				
571	LKTR	539					985120031568180	GN	13-Aug-07	PLGN-55	Patch Lake		C		
572	CISC	247	160	1.06				GN	26-Jul-06	PLGN-04	Patch Lake				
572	LKTR	581					985120031632690	GN	13-Aug-07	PLGN-55	Patch Lake		C		
573	CISC	277	225	1.06				GN	26-Jul-06	PLGN-04	Patch Lake				aged
297	ARCH	235	155	1.19				EF	6-Aug-07	GLBP-H1	Glenn Lake		M		Kept for Heidi
298	ARCH	241	160	1.14				EF	6-Aug-07	GLBP-H1	Glenn Lake		M		Kept for Heidi
299	CISC	245	175	1.19				GN	6-Aug-07	GLGN-H1	Glenn Lake		M		Kept for Heidi
300	CISC	218	115	1.11				GN	6-Aug-07	GLGN-H1	Glenn Lake		M		Kept for Heidi
301	CISC	225	130	1.14				GN	6-Aug-07	GLGN-H1	Glenn Lake		M		Kept for Heidi
302	CISC	213	100	1.03				GN	6-Aug-07	GLGN-H1	Glenn Lake		M		Kept for Heidi
303	CISC	250	130	0.83				GN	6-Aug-07	GLGN-H1	Glenn Lake		M		Kept for Heidi
304	CISC	249	120	0.78				GN	6-Aug-07	GLGN-H3	Glenn Lake		M		Kept for Heidi
305	LKTR	345	405	0.99				EF	6-Aug-07	GLBP-H1	Glenn Lake		M		Kept for Heidi
306	LKTR	340	415	1.06				EF	6-Aug-07	GLBP-H1	Glenn Lake		M		Kept for Heidi
307	LKTR	420	865	1.17				EF	6-Aug-07	GLBP-H1	Glenn Lake		M		Kept for Heidi
308	LKTR	208	82	0.91				EF	6-Aug-07	GLBP-H1	Glenn Lake		M		Kept for Heidi
309	LKTR	410	715	1.04				EF	6-Aug-07	GLBP-H1	Glenn Lake		M		Kept for Heidi
310	LKTR	152	36	1.03				EF	6-Aug-07	GLBP-H1	Glenn Lake		M		Kept for Heidi
311	LKTR	725	3690	0.97				GN	6-Aug-07	GLGN-H1	Glenn Lake		M		Kept for Heidi
312	LKTR	650	3190	1.16				GN	6-Aug-07	GLGN-H1	Glenn Lake		M		Kept for Heidi
313	LKTR	700	3025	0.88				GN	6-Aug-07	GLGN-H1	Glenn Lake		M		Kept for Heidi
314	LKTR	670	2865	0.95				GN	6-Aug-07	GLGN-H2	Glenn Lake		M		Kept for Heidi
315	LKTR	525	1620	1.12				GN	6-Aug-07	GLGN-H2	Glenn Lake		M		Kept for Heidi
316	LKTR	498	1080	0.87				GN	6-Aug-07	GLGN-H2	Glenn Lake		M		Kept for Heidi
317	LKTR	384	570	1.01				GN	6-Aug-07	GLGN-H2	Glenn Lake		M		Kept for Heidi
318	LKWH	449	1345	1.49				GN	6-Aug-07	GLGN-H4	Glenn Lake		M		Kept for Heidi
1179	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1180	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1181	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1182	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1183	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1184	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1185	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1186	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1187	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1188	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		

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Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
1189	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1190	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1191	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1192	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1193	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1194	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1195	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1196	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1197	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1198	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1199	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1200	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1201	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1202	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1203	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1204	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1205	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1206	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1207	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1208	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1209	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1210	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1211	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1212	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1213	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1214	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1215	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1216	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1217	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1218	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1219	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1220	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1221	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1222	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1223	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1224	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1225	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1226	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1227	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1228	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1229	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1230	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1231	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1232	LSCS							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1233	NNST							BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
490	LKTR							EF	7-Aug-07	GLBP-H3	Glenn Lake		C		
319	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
320	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
321	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
322	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
323	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
324	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
325	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
326	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
327	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
328	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
329	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
330	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
331	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
332	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
333	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
334	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
335	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
336	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
337	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
338	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
339	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
340	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
341	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
342	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
343	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
344	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
345	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
346	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
347	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
348	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
349	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
350	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
351	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
352	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
353	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
354	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
355	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
356	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
357	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
358	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
359	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
360	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
361	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
362	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
363	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
364	CISC							GN	6-Aug-07	GLGN-H2	Glenn Lake		C		
365	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
366	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
367	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
368	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
369	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
370	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
371	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
372	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
373	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
374	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
375	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
376	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
377	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
434	ARCH	193	80	1.11				EF	7-Aug-07	GLBP-H3	Glenn Lake		M		Kept for Heidi
435	LKTR	310	320	1.07				EF	7-Aug-07	GLBP-H3	Glenn Lake		M		Kept for Heidi
436	LKWH	435	1165	1.42				GN	7-Aug-07	GLGN-H6	Glenn Lake		M		Kept for Heidi
378	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
379	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
380	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
381	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
382	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
383	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
384	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
385	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
386	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
387	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
388	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
389	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
390	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
391	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
392	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
393	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
394	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
395	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
396	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
397	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
398	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
399	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
400	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
401	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
402	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
403	CISC							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
404	LKTR							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
405	LKTR							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
406	LKTR							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
407	LKTR							GN	6-Aug-07	GLGN-H3	Glenn Lake		C		
408	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
409	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
410	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
411	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
412	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
413	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
414	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
415	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
416	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
417	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
418	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
419	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
420	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
421	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
422	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
423	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
424	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
425	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
426	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
427	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
428	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
429	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
430	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
431	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
573	LKTR	652					985120031576244	GN	13-Aug-07	PLGN-55	Patch Lake		C		
574	CISC	285	230	0.99				GN	26-Jul-06	PLGN-04	Patch Lake				aged
574	CISC	183						GN	13-Aug-07	PLGN-56	Patch Lake		C		
575	CISC	257	190	1.12				GN	26-Jul-06	PLGN-04	Patch Lake				aged
575	CISC	189						GN	13-Aug-07	PLGN-56	Patch Lake		C		
576	CISC	274	230	1.12				GN	26-Jul-06	PLGN-04	Patch Lake				aged
576	CISC	208						GN	13-Aug-07	PLGN-56	Patch Lake		C		
577	CISC	263	185	1.02				GN	26-Jul-06	PLGN-04	Patch Lake				aged
577	CISC	205						GN	13-Aug-07	PLGN-56	Patch Lake		C		
578	CISC	273	190	0.93				GN	26-Jul-06	PLGN-04	Patch Lake				aged
578	CISC	197						GN	13-Aug-07	PLGN-56	Patch Lake		C		
579	CISC	290	260	1.07				GN	26-Jul-06	PLGN-04	Patch Lake				aged
579	LKWH	355						GN	13-Aug-07	PLGN-56	Patch Lake		C		
580	CISC	202	75	0.91				GN	26-Jul-06	PLGN-04	Patch Lake				aged
580	CISC	225						GN	13-Aug-07	PLGN-56	Patch Lake		C		
581	CISC	224	104	0.93				GN	26-Jul-06	PLGN-04	Patch Lake				aged
581	CISC	187						GN	13-Aug-07	PLGN-56	Patch Lake		M		
582	NNST	73						MT	26-Jul-06	PLMT-01	Patch Lake				
582	LKTR	660					985120031564522	GN	13-Aug-07	PLGN-56	Patch Lake		R		
583	LKWH	415						GN	27-Jul-06	PLGN-05	Patch Lake				
583	LKTR	690					985120031575236	GN	13-Aug-07	PLGN-56	Patch Lake		C		
584	CISC	287	250	1.06				GN	27-Jul-06	PLGN-05	Patch Lake				
584	CISC	181						GN	13-Aug-07	PLGN-56	Patch Lake		M		
585	CISC	350						GN	27-Jul-06	PLGN-05	Patch Lake				
585	LKTR	620					985120031575236	GN	13-Aug-07	PLGN-56	Patch Lake		C		
586	LKWH	390	780	1.31				GN	27-Jul-06	PLGN-05	Patch Lake				
586	CISC	198						GN	13-Aug-07	PLGN-56	Patch Lake		M		
587	LKWH	274	320	1.56				GN	27-Jul-06	PLGN-05	Patch Lake				
587	CISC	191						GN	13-Aug-07	PLGN-56	Patch Lake		M		
588	CISC	225	110	0.97				GN	27-Jul-06	PLGN-05	Patch Lake				
588	LKTR	700					985120031455598	GN	13-Aug-07	PLGN-56	Patch Lake		C		
589	CISC	200	75	0.94				GN	27-Jul-06	PLGN-05	Patch Lake				
589	CISC	191						GN	13-Aug-07	PLGN-56	Patch Lake		M		
590	CISC	220	105	0.99				GN	27-Jul-06	PLGN-05	Patch Lake				
590	CISC	219						GN	13-Aug-07	PLGN-56	Patch Lake		M		
591	CISC	218	105	1.01				GN	27-Jul-06	PLGN-05	Patch Lake				
591	LKTR	680					985120031582570	GN	13-Aug-07	PLGN-56	Patch Lake		C		
592	LKWH	387	940	1.62				GN	27-Jul-06	PLGN-05	Patch Lake				
592	CISC	215						GN	13-Aug-07	PLGN-56	Patch Lake		M		

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
593	LKWH	368	680	1.36				GN	27-Jul-06	PLGN-05	Patch Lake				
593	CISC	205						GN	13-Aug-07	PLGN-56	Patch Lake		M		
594	LKWH	356	685	1.52				GN	27-Jul-06	PLGN-05	Patch Lake				
594	CISC	247						GN	13-Aug-07	PLGN-56	Patch Lake		M		
595	LKWH	360	625	1.34				GN	27-Jul-06	PLGN-05	Patch Lake				
595	CISC	215						GN	13-Aug-07	PLGN-56	Patch Lake		M		
596	LKWH	391	755	1.26				GN	27-Jul-06	PLGN-05	Patch Lake				
596	CISC	254						GN	13-Aug-07	PLGN-54	Patch Lake		C		
597	CISC	202	90	1.09				GN	27-Jul-06	PLGN-05	Patch Lake				
597	LKWH	425						GN	13-Aug-07	PLGN-54	Patch Lake		C		
598	CISC	205	80	0.93				GN	27-Jul-06	PLGN-05	Patch Lake				
598	LKTR	740					985120031567053	GN	13-Aug-07	PLGN-54	Patch Lake		C		
599	LKWH	307	330	1.14				GN	27-Jul-06	PLGN-05	Patch Lake				
599	LKTR	750					985120031624571	GN	13-Aug-07	PLGN-54	Patch Lake		R		
600	LKTR	440						FN	27-Jul-06	PLFN-01	Patch Lake				kept fo analysis, see envelope
600	LKTR	740					985120031604788	GN	13-Aug-07	PLGN-54	Patch Lake		C		
601	LKTR	870					985120031556794	GN	13-Aug-07	PLGN-54	Patch Lake		C		
602	CISC	275	240	1.15				GN	28-Jul-06	PLGN-07	Patch Lake				mortality
602	LKTR	620					985120031633082	GN	13-Aug-07	PLGN-54	Patch Lake		C		
603	LKTR	820	5935	1.08				GN	28-Jul-06	PLGN-07	Patch Lake				Kept
603	CISC							GN	13-Aug-07	PLGN-55	Patch Lake		M		
604	LKWH	450	820	0.90				GN	28-Jul-06	PLGN-07	Patch Lake				
604	CISC							GN	13-Aug-07	PLGN-55	Patch Lake		M		
605	LKWH	313	365	1.19				GN	28-Jul-06	PLGN-07	Patch Lake				mortality
605	CISC							GN	13-Aug-07	PLGN-55	Patch Lake		M		
606	LKWH	382	805	1.44				GN	28-Jul-06	PLGN-07	Patch Lake				mortality
606	CISC							GN	13-Aug-07	PLGN-55	Patch Lake		M		
607	LKWH	319	420	1.29				GN	28-Jul-06	PLGN-07	Patch Lake				mortality
607	CISC							GN	13-Aug-07	PLGN-55	Patch Lake		M		
608	LKWH	334	475	1.27				GN	28-Jul-06	PLGN-07	Patch Lake				mortality
608	LKTR	688					985120031570230	GN	13-Aug-07	PLGN-55	Patch Lake		C		
609	LKWH	336	365	0.96				GN	28-Jul-06	PLGN-07	Patch Lake				mortality
609	LKTR	980					985120031584754	GN	13-Aug-07	PLGN-55	Patch Lake		R		
610	LKTR	785	4170	0.86				GN	28-Jul-06	PLGN-08	Patch Lake				Kept
610	LKTR	770					985120031562056	GN	13-Aug-07	PLGN-55	Patch Lake		C		
611	LKTR	740	3770	0.93				GN	28-Jul-06	PLGN-08	Patch Lake				Kept
611	LKTR	720					985120031598907	GN	13-Aug-07	PLGN-55	Patch Lake		C		
612	LKWH	420	610	0.82				GN	28-Jul-06	PLGN-08	Patch Lake				
612	LKTR	740					985120031602617	GN	13-Aug-07	PLGN-55	Patch Lake		C		
613	CISC	289	295	1.22				GN	28-Jul-06	PLGN-09	Patch Lake				
613	LKTR	645					985153000021285	GN	13-Aug-07	PLGN-55	Patch Lake		C		
614	LKTR	644	2495	0.93				GN	28-Jul-06	PLGN-09	Patch Lake				
614	LKTR	566					985153000021240	GN	13-Aug-07	PLGN-55	Patch Lake		C		
615	LKTR	675	2965	0.96				GN	28-Jul-06	PLGN-09	Patch Lake				
615	LKTR	664					985153000021277	GN	13-Aug-07	PLGN-55	Patch Lake		C		
616	LKWH	374	715	1.37				GN	28-Jul-06	PLGN-09	Patch Lake				
616	LKTR	651					985153000021249	GN	13-Aug-07	PLGN-55	Patch Lake		C		
617	LKWH	402	1015	1.56				GN	28-Jul-06	PLGN-09	Patch Lake				
617	LKTR	594					985153000021230	GN	13-Aug-07	PLGN-55	Patch Lake		C		
618	CISC	200	85	1.06				GN	28-Jul-06	PLGN-11	Patch Lake				
618	LKTR	370						GN	13-Aug-07	PLGN-55	Patch Lake		M		
619	CISC	224	135	1.20				GN	28-Jul-06	PLGN-11	Patch Lake				
619	LKTR	667	2675	0.90	Orange	909	985120031566730	GN	13-Aug-07	PLGN-56	Patch Lake		R		
620	CISC	254	140	0.85				GN	28-Jul-06	PLGN-11	Patch Lake				
620	LKTR	360						GN	13-Aug-07	PLGN-56	Patch Lake		C		
621	CISC	268	210	1.09				GN	28-Jul-06	PLGN-11	Patch Lake				
621	LKTR	720					985153000021260	GN	13-Aug-07	PLGN-56	Patch Lake		C		
622	CISC	211	100	1.06				GN	28-Jul-06	PLGN-11	Patch Lake				
622	LKTR	670					985153000021223	GN	13-Aug-07	PLGN-56	Patch Lake		C		
623	CISC	196	85	1.13				GN	28-Jul-06	PLGN-11	Patch Lake				
623	LKTR	676					985153000021284	GN	13-Aug-07	PLGN-56	Patch Lake		C		
624	CISC	211	95	1.01				GN	28-Jul-06	PLGN-11	Patch Lake				
624	LKTR	692					985120031578749	GN	13-Aug-07	PLGN-56	Patch Lake		R		recap tag read= 5820031578749
625	CISC	225	136	1.19				GN	28-Jul-06	PLGN-11	Patch Lake				
625	LKTR							GN	13-Aug-07	PLGN-56	Patch Lake		E		
626	LKTR	612	2635	1.15				GN	28-Jul-06	PLGN-11	Patch Lake				
626	LKTR							GN	13-Aug-07	PLGN-56	Patch Lake		E		

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
627	LKTR	636	2700	1.05				GN	28-Jul-06	PLGN-11	Patch Lake				
627	CISC							GN	13-Aug-07	PLGN-56	Patch Lake		M		
628	LKWH	280	240	1.09				GN	28-Jul-06	PLGN-11	Patch Lake				
628	CISC							GN	13-Aug-07	PLGN-56	Patch Lake		M		
629	LKWH	251	250	1.58				GN	28-Jul-06	PLGN-11	Patch Lake				
629	CISC							GN	13-Aug-07	PLGN-56	Patch Lake		M		
630	LKWH	286	295	1.26				GN	28-Jul-06	PLGN-11	Patch Lake				
630	CISC							GN	13-Aug-07	PLGN-56	Patch Lake		M		
631	LKWH	253	158	0.98				GN	28-Jul-06	PLGN-11	Patch Lake				
631	CISC							GN	13-Aug-07	PLGN-56	Patch Lake		M		
632	LKWH	299	335	1.25				GN	28-Jul-06	PLGN-11	Patch Lake				
632	CISC							GN	13-Aug-07	PLGN-56	Patch Lake		M		
633	LKWH	241	175	1.25				GN	28-Jul-06	PLGN-11	Patch Lake				
633	CISC							GN	13-Aug-07	PLGN-56	Patch Lake		M		
634	LKWH	356	550	1.22				GN	28-Jul-06	PLGN-11	Patch Lake				
634	CISC	180						GN	14-Aug-07	PLGN-57	Patch Lake		C		
635	LKWH	317	425	1.33				GN	28-Jul-06	PLGN-11	Patch Lake				
635	CISC	232						GN	14-Aug-07	PLGN-57	Patch Lake		C		
636	CISC	295	258	1.00				GN	28-Jul-06	PLGN-12	Patch Lake				
636	CISC	230						GN	14-Aug-07	PLGN-57	Patch Lake		C		
637	CISC	208	80	0.89				GN	28-Jul-06	PLGN-12	Patch Lake				
637	CISC	250						GN	14-Aug-07	PLGN-57	Patch Lake		C		
638	CISC	315	300	0.96				GN	28-Jul-06	PLGN-12	Patch Lake				
638	CISC	235						GN	14-Aug-07	PLGN-57	Patch Lake		C		
639	LKTR	647	2630	0.97			985120031451085	GN	28-Jul-06	PLGN-12	Patch Lake				
639	CISC	212						GN	14-Aug-07	PLGN-57	Patch Lake		C		
640	LKTR	550					985120031618244	GN	28-Jul-06	PLGN-12	Patch Lake				
640	CISC	187						GN	14-Aug-07	PLGN-57	Patch Lake		C		
641	LKTR	644	2735	1.02			985120031643066	GN	28-Jul-06	PLGN-12	Patch Lake				
641	LKTR	535					985129931569662	GN	14-Aug-07	PLGN-57	Patch Lake		R		
642	LKWH	340	470	1.20				GN	28-Jul-06	PLGN-12	Patch Lake				
642	LKTR	650					985120031629890	GN	14-Aug-07	PLGN-57	Patch Lake		R		
643	LKWH	397	780	1.25				FN	28-Jul-06	PLFN-01	Patch Lake				
643	CISC	185						GN	14-Aug-07	PLGN-57	Patch Lake		C		
644	LKWH	373	660	1.27				FN	28-Jul-06	PLFN-01	Patch Lake				
644	CISC	250						GN	14-Aug-07	PLGN-57	Patch Lake		C		
645	LKTR	291	250	1.01				FN	28-Jul-06	PLFN-01	Patch Lake				
645	CISC	193						GN	14-Aug-07	PLGN-57	Patch Lake		C		
646	LKTR	810	3605	0.68				FN	28-Jul-06	PLFN-01	Patch Lake				
646	LKWH	340						GN	14-Aug-07	PLGN-58	Patch Lake		C		
647	CISC	217	100	0.98				FN	29-Jul-06	PLFN-01	Patch Lake				caught in trap from P.O. Lake
647	LKWH	535						GN	14-Aug-07	PLGN-58	Patch Lake		C		
648	LKTR	675	2900	0.94			985120031573771	FN	29-Jul-06	PLFN-01	Patch Lake				caught in trap from P.O. Lake
648	LKWH	410						GN	14-Aug-07	PLGN-58	Patch Lake		C		
649	LKTR	590	2365	1.15			985120031590988	FN	29-Jul-06	PLFN-01	Patch Lake				caught in trap from P.O. Lake
649	CISC	290						GN	14-Aug-07	PLGN-58	Patch Lake		C		
650	LKTR	700	2785	0.81			985120031609687	FN	29-Jul-06	PLFN-01	Patch Lake				caught in trap from P.O. Lake
650	LKWH	358						GN	14-Aug-07	PLGN-58	Patch Lake		C		
651	LKTR	700	3420	1.00			985120031559909	FN	29-Jul-06	PLFN-01	Patch Lake				caught in trap from Patch Lake
651	CISC	279						GN	14-Aug-07	PLGN-58	Patch Lake		C		
652	LKTR	750	4520	1.07			985120031630474	FN	29-Jul-06	PLFN-01	Patch Lake				caught in trap from Patch Lake
652	LKWH	403						GN	14-Aug-07	PLGN-58	Patch Lake		C		
653	LKTR	695	2500	0.74			985120031608363	FN	29-Jul-06	PLFN-01	Patch Lake				caught in trap from Patch Lake
653	LKTR	595					985153000021218	GN	14-Aug-07	PLGN-58	Patch Lake		C		
654	LKTR	512	1662	1.24			985120031659013	FN	29-Jul-06	PLFN-01	Patch Lake				caught in trap from Patch Lake
654	LKTR	645					985153000021254	GN	14-Aug-07	PLGN-58	Patch Lake		C		
655	LKWH	385	730	1.28				FN	29-Jul-06	PLFN-01	Patch Lake				caught in trap from P.O. Lake
655	CISC	279						GN	14-Aug-07	PLGN-59	Patch Lake		C		
656	LKWH	359	620	1.34				FN	29-Jul-06	PLFN-01	Patch Lake				caught in trap from Patch Lake
656	CISC	220						GN	14-Aug-07	PLGN-59	Patch Lake		C		
657	LKWH	394						GN	14-Aug-07	PLGN-59	Patch Lake		C		
658	LKWH	382						GN	14-Aug-07	PLGN-59	Patch Lake		C		
659	CISC	267						GN	14-Aug-07	PLGN-59	Patch Lake		C		
660	LKTR	764					985153000021273	GN	14-Aug-07	PLGN-59	Patch Lake		C		
661	LKTR	672					985153000021281	GN	14-Aug-07	PLGN-59	Patch Lake		C		
662	LKTR	704					985153000021243	GN	14-Aug-07	PLGN-59	Patch Lake		C		
663	LKTR	740					985153000021229	GN	14-Aug-07	PLGN-59	Patch Lake		C		

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
664	LKTR	760					985153000021252	GN	14-Aug-07	PLGN-59	Patch Lake		C		
665	CISC	240						GN	14-Aug-07	PLGN-57	Patch Lake		C		
666	CISC	195						GN	14-Aug-07	PLGN-57	Patch Lake		C		
667	CISC	218						GN	14-Aug-07	PLGN-57	Patch Lake		C		
668	CISC	183						GN	14-Aug-07	PLGN-57	Patch Lake		C		
669	CISC	227						GN	14-Aug-07	PLGN-57	Patch Lake		C		
670	CISC	224						GN	14-Aug-07	PLGN-57	Patch Lake		C		
671	CISC	219						GN	14-Aug-07	PLGN-57	Patch Lake		C		
672	CISC	263						GN	14-Aug-07	PLGN-57	Patch Lake		C		
673	CISC	176						GN	14-Aug-07	PLGN-57	Patch Lake		C		
674	CISC	252						GN	14-Aug-07	PLGN-57	Patch Lake		C		
675	LKWH	452						GN	14-Aug-07	PLGN-57	Patch Lake		C		
676	LKWH	367						GN	14-Aug-07	PLGN-57	Patch Lake		C		
677	CISC	262						GN	14-Aug-07	PLGN-58	Patch Lake		C		
678	LKWH	352						GN	14-Aug-07	PLGN-58	Patch Lake		C		
679	CISC	236						GN	14-Aug-07	PLGN-58	Patch Lake		C		
680	LKWH	314						GN	14-Aug-07	PLGN-58	Patch Lake		C		
681	LKWH	284						GN	14-Aug-07	PLGN-58	Patch Lake		C		
682	LKWH	383						GN	14-Aug-07	PLGN-58	Patch Lake		C		
683	LKTR							GN	14-Aug-07	PLGN-58	Patch Lake		E		
684	LKTR	875					985153000021242	GN	14-Aug-07	PLGN-59	Patch Lake		C		
685	LKTR	799					985153000021289	GN	14-Aug-07	PLGN-59	Patch Lake		C		
686	LKTR	687					985153000021244	GN	14-Aug-07	PLGN-59	Patch Lake		C		
687	LKTR	690					985153000021216	GN	14-Aug-07	PLGN-59	Patch Lake		C		
688	CISC	242						GN	14-Aug-07	PLGN-59	Patch Lake		M		partially eaten by LKTR
689	LKWH	347						GN	14-Aug-07	PLGN-59	Patch Lake		C		
690	LKWH	368						GN	14-Aug-07	PLGN-59	Patch Lake		C		red rash around anus
691	LKWH	433						GN	14-Aug-07	PLGN-59	Patch Lake		M		
692	CISC	213						GN	14-Aug-07	PLGN-57	Patch Lake		C		
693	CISC	234						GN	14-Aug-07	PLGN-57	Patch Lake		C		
694	CISC	243						GN	14-Aug-07	PLGN-57	Patch Lake		C		
695	CISC	167						GN	14-Aug-07	PLGN-57	Patch Lake		C		
696	CISC	218						GN	14-Aug-07	PLGN-57	Patch Lake		C		
697	LKWH	484						GN	14-Aug-07	PLGN-57	Patch Lake		C		
698	CISC	178						GN	14-Aug-07	PLGN-57	Patch Lake		C		
699	CISC	235						GN	14-Aug-07	PLGN-57	Patch Lake		C		
700	CISC	178						GN	14-Aug-07	PLGN-57	Patch Lake		C		
701	CISC	198						GN	14-Aug-07	PLGN-57	Patch Lake		C		
702	LKWH	485						GN	14-Aug-07	PLGN-58	Patch Lake		C		
703	CISC	217						GN	14-Aug-07	PLGN-58	Patch Lake		C		
704	LKTR						985120031630249	GN	14-Aug-07	PLGN-59	Patch Lake		R		
705	LKTR						985120031633066	GN	14-Aug-07	PLGN-59	Patch Lake		R		
706	LKTR	604					985153000021262	GN	14-Aug-07	PLGN-59	Patch Lake		C		
707	LKTR	630					985153000021300	GN	14-Aug-07	PLGN-59	Patch Lake		C		
708	LKTR	575					985153000021236	GN	14-Aug-07	PLGN-59	Patch Lake		C		
709	LKWH	242						GN	14-Aug-07	PLGN-59	Patch Lake		M		
710	CISC	280						GN	14-Aug-07	PLGN-59	Patch Lake		C		
711	CISC	255						GN	14-Aug-07	PLGN-59	Patch Lake		M		
712	CISC	237						GN	14-Aug-07	PLGN-59	Patch Lake		M		
713	CISC	232						GN	14-Aug-07	PLGN-59	Patch Lake		M		
714	CISC	220						GN	14-Aug-07	PLGN-59	Patch Lake		M		
715	CISC	265						GN	14-Aug-07	PLGN-59	Patch Lake		M		
716	NNST	45						MT	14-Aug-07	PLMB-05	Patch Lake		C		
717	NNST	45						MT	14-Aug-07	PLMB-02	Patch Lake		C		
718	LKWH	350						GN	15-Aug-07	PLGN-60	Patch Lake		C		
719	CISC	245						GN	15-Aug-07	PLGN-60	Patch Lake		M		
720	CISC	240						GN	15-Aug-07	PLGN-60	Patch Lake		M		
721	LKTR	695					985153000021279	GN	15-Aug-07	PLGN-60	Patch Lake		C		
722	LKTR							GN	15-Aug-07	PLGN-60	Patch Lake		E		
723	LKWH							GN	15-Aug-07	PLGN-60	Patch Lake		E		
724	CISC	240						GN	15-Aug-07	PLGN-61	Patch Lake		M		
725	LKWH	279						GN	15-Aug-07	PLGN-61	Patch Lake		M		
726	LKWH	288						GN	15-Aug-07	PLGN-61	Patch Lake		C		
727	CISC	244						GN	15-Aug-07	PLGN-61	Patch Lake		C		
728	CISC	218						GN	15-Aug-07	PLGN-61	Patch Lake		C		
729	LKWH	374						GN	15-Aug-07	PLGN-61	Patch Lake		C		
730	LKWH	343						GN	15-Aug-07	PLGN-61	Patch Lake		C		

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
731	LKWH	264						GN	15-Aug-07	PLGN-61	Patch Lake		C		
732	CISC	199						GN	15-Aug-07	PLGN-61	Patch Lake		C		
733	LKTR	590					985153000021221	GN	15-Aug-07	PLGN-62	Patch Lake		C		
734	LKWH	355						GN	15-Aug-07	PLGN-62	Patch Lake		M		
735	LKWH	360						GN	15-Aug-07	PLGN-62	Patch Lake		C		
736	LKWH	442						GN	15-Aug-07	PLGN-62	Patch Lake		C		
737	CISC	175						GN	15-Aug-07	PLGN-62	Patch Lake		M		
738	CISC	188						GN	15-Aug-07	PLGN-62	Patch Lake		C		
739	CISC	191						GN	15-Aug-07	PLGN-62	Patch Lake		M		
740	CISC	202						GN	15-Aug-07	PLGN-62	Patch Lake		C		
741	CISC	188						GN	15-Aug-07	PLGN-62	Patch Lake		C		
742	LKWH	281						GN	15-Aug-07	PLGN-62	Patch Lake		C		
743	LKWH	285						GN	15-Aug-07	PLGN-62	Patch Lake		C		
744	CISC	204						GN	15-Aug-07	PLGN-62	Patch Lake		C		
745	CISC	196						GN	15-Aug-07	PLGN-62	Patch Lake		C		
746	CISC	201						GN	15-Aug-07	PLGN-62	Patch Lake		C		
747	CISC	163						GN	15-Aug-07	PLGN-62	Patch Lake		C		
748	LKWH	367						GN	17-Aug-07	PLGN-63	Patch Lake		C		
749	LKWH	365						GN	17-Aug-07	PLGN-63	Patch Lake		C		
750	CISC	257						GN	17-Aug-07	PLGN-63	Patch Lake		C		
751	CISC	235						GN	17-Aug-07	PLGN-63	Patch Lake		C		
752	CISC	231						GN	17-Aug-07	PLGN-64	Patch Lake		C		
753	CISC	369						GN	17-Aug-07	PLGN-64	Patch Lake		C		
754	LKWH	452						GN	17-Aug-07	PLGN-64	Patch Lake		C		
755	LKTR	725					985153000021226	GN	17-Aug-07	PLGN-65	Patch Lake		C		
756	LKWH	425						GN	17-Aug-07	PLGN-65	Patch Lake		C		
757	LKWH	394						GN	17-Aug-07	PLGN-65	Patch Lake		C		
758	LKWH	420						GN	17-Aug-07	PLGN-65	Patch Lake		C		
759	LKWH	392						GN	17-Aug-07	PLGN-65	Patch Lake		C		
760	LKWH	385						GN	17-Aug-07	PLGN-65	Patch Lake		C		
761	LKTR						985120031554695	GN	17-Aug-07	PLGN-66	Patch Lake		R		
762	LKTR	665					985153000021204	GN	17-Aug-07	PLGN-66	Patch Lake		C		
763	LKTR	710					985153000021294	GN	17-Aug-07	PLGN-66	Patch Lake		C		
764	LKTR	705					985153000021208	GN	17-Aug-07	PLGN-66	Patch Lake		C		
765	LKTR	540					985153000021239	GN	17-Aug-07	PLGN-66	Patch Lake		C		
766	CISC	310						GN	17-Aug-07	PLGN-66	Patch Lake		C		
767	LSCS	220						GN	17-Aug-07	PLGN-66	Patch Lake		C		
768	CISC	315						GN	17-Aug-07	PLGN-66	Patch Lake		C		
769	CISC	284						GN	17-Aug-07	PLGN-66	Patch Lake		C		
770	CISC	302						GN	17-Aug-07	PLGN-66	Patch Lake		C		
771	LKWH	355						GN	17-Aug-07	PLGN-66	Patch Lake		C		
772	LKWH	383						GN	17-Aug-07	PLGN-66	Patch Lake		C		
773	LKTR	695					985153000021267	GN	17-Aug-07	PLGN-67	Patch Lake		C		
774	LKTR	670					985153000021275	GN	17-Aug-07	PLGN-67	Patch Lake		C		
775	LKTR	685					985153000021268	GN	17-Aug-07	PLGN-67	Patch Lake		C		
776	LKTR	730					985153000021258	GN	17-Aug-07	PLGN-67	Patch Lake		C		
777	LKTR	710					985153000021234	GN	17-Aug-07	PLGN-67	Patch Lake		C		
778	LKTR	720					985153000021206	GN	17-Aug-07	PLGN-67	Patch Lake		C		
779	LKTR	695					985153000021231	GN	17-Aug-07	PLGN-67	Patch Lake		C		
780	LKWH							GN	17-Aug-07	PLGN-67	Patch Lake		M		
781	LKWH							GN	17-Aug-07	PLGN-67	Patch Lake		M		
782	CISC							GN	17-Aug-07	PLGN-67	Patch Lake		M		
783	CISC							GN	17-Aug-07	PLGN-67	Patch Lake		M		
784	CISC							GN	17-Aug-07	PLGN-67	Patch Lake		M		
785	CISC							GN	17-Aug-07	PLGN-67	Patch Lake		M		
786	CISC							GN	17-Aug-07	PLGN-67	Patch Lake		M		
787	CISC							GN	17-Aug-07	PLGN-67	Patch Lake		M		
788	CISC							GN	17-Aug-07	PLGN-67	Patch Lake		M		
789	CISC							GN	17-Aug-07	PLGN-67	Patch Lake		M		
790	CISC							GN	17-Aug-07	PLGN-67	Patch Lake		M		
791	CISC							GN	17-Aug-07	PLGN-67	Patch Lake		M		
792	LKTR						985120031616920	GN	17-Aug-07	PLGN-68	Patch Lake		R		
793	LKTR	595					985153000021272	GN	17-Aug-07	PLGN-68	Patch Lake		C		
794	LKTR	630					985153000021205	GN	17-Aug-07	PLGN-68	Patch Lake		C		
795	LKTR	645					985153000021278	GN	17-Aug-07	PLGN-68	Patch Lake		C		
796	LKWH	456						GN	17-Aug-07	PLGN-68	Patch Lake		C		
797	LKWH	370						GN	17-Aug-07	PLGN-68	Patch Lake		C		

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
798	LKWH	400						GN	17-Aug-07	PLGN-68	Patch Lake		M		
799	LKWH	452						GN	17-Aug-07	PLGN-68	Patch Lake		C		
800	LKWH	375						GN	17-Aug-07	PLGN-68	Patch Lake		M		
801	LSCS	243						GN	17-Aug-07	PLGN-68	Patch Lake		C		
802	LKWH	214						GN	17-Aug-07	PLGN-68	Patch Lake		C		
803	LSCS	229						GN	17-Aug-07	PLGN-68	Patch Lake		C		
804	CISC	284						GN	17-Aug-07	PLGN-68	Patch Lake		C		
805	LSCS	211						GN	17-Aug-07	PLGN-68	Patch Lake		C		
806	LSCS	249						GN	17-Aug-07	PLGN-68	Patch Lake		C		
807	LSCS	233						GN	17-Aug-07	PLGN-68	Patch Lake		C		
808	CISC	224						GN	17-Aug-07	PLGN-68	Patch Lake		C		
809	LSCS	251						GN	17-Aug-07	PLGN-68	Patch Lake		C		
810	LKTR	645					985153000021207	GN	17-Aug-07	PLGN-69	Patch Lake		C		
811	LKWH	438						GN	17-Aug-07	PLGN-69	Patch Lake		C		
812	LKWH	274						GN	17-Aug-07	PLGN-69	Patch Lake		C		
813	LKWH	449						GN	17-Aug-07	PLGN-69	Patch Lake		M		
814	LKWH	383						GN	17-Aug-07	PLGN-69	Patch Lake		M		
815	CISC	337						GN	17-Aug-07	PLGN-69	Patch Lake		M		
816	LKWH	504						GN	17-Aug-07	PLGN-70	Patch Lake		C		
817	LSCS	204						GN	17-Aug-07	PLGN-70	Patch Lake		C		
818	LKWH	411						GN	17-Aug-07	PLGN-71	Patch Lake		C		
819	LKWH	378						GN	17-Aug-07	PLGN-71	Patch Lake		C		
820	LKWH	432						GN	17-Aug-07	PLGN-71	Patch Lake		M		
821	LKWH	367						GN	17-Aug-07	PLGN-71	Patch Lake		C		
822	LKWH	434						GN	17-Aug-07	PLGN-71	Patch Lake		C		
823	LKWH	335						GN	17-Aug-07	PLGN-71	Patch Lake		M		
824	LKWH	394						GN	17-Aug-07	PLGN-71	Patch Lake		C		
825	LKWH	390						GN	17-Aug-07	PLGN-71	Patch Lake		C		
826	LKTR						985120031600310	GN	18-Aug-07	PLGN-72	Patch Lake		R		
827	LKTR	850					985153000021296	GN	18-Aug-07	PLGN-72	Patch Lake		C		
828	LKTR	660					985153000021269	GN	18-Aug-07	PLGN-72	Patch Lake		C		
829	LKTR	704					985153000021250	GN	18-Aug-07	PLGN-72	Patch Lake		C		
830	LKTR	721					985153000021214	GN	18-Aug-07	PLGN-72	Patch Lake		C		
831	LKTR	597					985153000021210	GN	18-Aug-07	PLGN-72	Patch Lake		C		
832	LKTR	681					985153000021298	GN	18-Aug-07	PLGN-72	Patch Lake		C		
833	LKWH	615						GN	18-Aug-07	PLGN-72	Patch Lake		C		
834	LKWH	436						GN	18-Aug-07	PLGN-72	Patch Lake		C		
835	LKWH	410						GN	18-Aug-07	PLGN-72	Patch Lake		C		
836	LKWH	400						GN	18-Aug-07	PLGN-72	Patch Lake		M		
837	LKWH	374						GN	18-Aug-07	PLGN-72	Patch Lake		M		
838	LKWH	383						GN	18-Aug-07	PLGN-72	Patch Lake		M		
839	LKWH	371						GN	18-Aug-07	PLGN-72	Patch Lake		M		
840	LKWH	446						GN	18-Aug-07	PLGN-72	Patch Lake		M		
841	LKWH	415						GN	18-Aug-07	PLGN-72	Patch Lake		M		
842	LKWH	383						GN	18-Aug-07	PLGN-72	Patch Lake		M		
843	LKTR	630					985153000021202	GN	18-Aug-07	PLGN-73	Patch Lake		C		
844	CISC	243						GN	18-Aug-07	PLGN-73	Patch Lake		C		
845	LKWH	424						GN	18-Aug-07	PLGN-73	Patch Lake		M		
846	LKTR						985120031562875	GN	18-Aug-07	PLGN-74	Patch Lake		R		
847	LKTR						985120031587749	GN	18-Aug-07	PLGN-74	Patch Lake		R		
848	LKTR	630					985153000021274	GN	18-Aug-07	PLGN-74	Patch Lake		R		
849	LKTR	610					985153000021232	GN	18-Aug-07	PLGN-74	Patch Lake		C		
850	LKTR	611						GN	18-Aug-07	PLGN-74	Patch Lake		C		
851	LSCS	205						GN	18-Aug-07	PLGN-74	Patch Lake		C		
852	LSCS	225						GN	18-Aug-07	PLGN-74	Patch Lake		C		
853	LKTR	309					985153000021282	GN	18-Aug-07	PLGN-75	Patch Lake		C		
854	LKWH	374						GN	19-Aug-07	PLGN-76	Patch Lake		C		
855	LKWH	372						GN	19-Aug-07	PLGN-76	Patch Lake		C		
856	CISC	259						GN	19-Aug-07	PLGN-76	Patch Lake		C		
857	CISC	450						GN	19-Aug-07	PLGN-76	Patch Lake		C		
858	LSCS	219						GN	19-Aug-07	PLGN-76	Patch Lake		C		
859	LKWH	395						GN	19-Aug-07	PLGN-77	Patch Lake		C		
860	LKWH	428						GN	19-Aug-07	PLGN-78	Patch Lake		C		
861	LKTR	635					985153000021255	GN	19-Aug-07	PLGN-78	Patch Lake		C		
862	LKTR	815					985153000021283	GN	19-Aug-07	PLGN-78	Patch Lake		C		
863	LKTR	734					985153000021230	GN	19-Aug-07	PLGN-78	Patch Lake		C		
864	LKWH	534						GN	19-Aug-07	PLGN-79	Patch Lake		C		

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
865	LKTR	810					985153000021257	GN	19-Aug-07	PLGN-79	Patch Lake		C		
866	LKWH	377						GN	19-Aug-07	PLGN-79	Patch Lake		C		
867	LKWH	366						GN	19-Aug-07	PLGN-79	Patch Lake		C		
868	LKWH	333						GN	19-Aug-07	PLGN-79	Patch Lake		M		
869	LKWH	355						GN	19-Aug-07	PLGN-79	Patch Lake		C		
870	CISC	289						GN	19-Aug-07	PLGN-79	Patch Lake		C		
871	CISC	239						GN	19-Aug-07	PLGN-79	Patch Lake		C		
872	CISC	275						GN	19-Aug-07	PLGN-79	Patch Lake		C		
873	CISC	254						GN	19-Aug-07	PLGN-79	Patch Lake		M		
874	LKTR	372						GN	19-Aug-07	PLGN-80	Patch Lake		C		
875	LKTR	670					985153000021261	GN	19-Aug-07	PLGN-80	Patch Lake		C		
876	LKTR	620					985153000021299	GN	19-Aug-07	PLGN-80	Patch Lake		C		
877	LKTR	528					985153000021235	GN	19-Aug-07	PLGN-80	Patch Lake		C		
878	LKTR	610					985153000021264	GN	19-Aug-07	PLGN-81	Patch Lake		C		
879	LKTR	372						GN	19-Aug-07	PLGN-81	Patch Lake		C		
880	LKWH	379						GN	19-Aug-07	PLGN-81	Patch Lake		M		
881	LKWH	354						GN	19-Aug-07	PLGN-82	Patch Lake		C		
882	LKWH	355						GN	19-Aug-07	PLGN-82	Patch Lake		C		
883	LKWH	440						GN	19-Aug-07	PLGN-82	Patch Lake		M		
884	LKTR	482					985153000021270	GN	19-Aug-07	PLGN-83	Patch Lake		C		
885	LSCS	253						GN	19-Aug-07	PLGN-83	Patch Lake		C		
886	LKTR	379						GN	22-Aug-07	GLGN-H7	Glenn Lake		M		Kept for Heidi
887	LKTR	340	360	0.92				GN	22-Aug-07	GLGN-H7	Glenn Lake		M		Kept for Heidi
888	LKTR	350	455	1.06				GN	22-Aug-07	GLGN-H7	Glenn Lake		M		Kept for Heidi
889	LKTR	295	235	0.92				GN	22-Aug-07	GLGN-H7	Glenn Lake		M		Kept for Heidi
890	LKTR	640	2690	1.03				GN	22-Aug-07	GLGN-H8	Glenn Lake		M		Kept for Heidi
891	LKTR	212	90	0.94				GN	22-Aug-07	GLGN-H8	Glenn Lake		M		Kept for Heidi
892	LKTR	155	40	1.07				GN	22-Aug-07	GLGN-H8	Glenn Lake		M		Kept for Heidi
432	CISC							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
433	LKTR							GN	6-Aug-07	GLGN-H4	Glenn Lake		C		
437	CISC							GN	7-Aug-07	GLGN-H5	Glenn Lake		C		
438	CISC							GN	7-Aug-07	GLGN-H5	Glenn Lake		C		
439	CISC							GN	7-Aug-07	GLGN-H5	Glenn Lake		C		
440	CISC							GN	7-Aug-07	GLGN-H5	Glenn Lake		C		
441	CISC							GN	7-Aug-07	GLGN-H5	Glenn Lake		C		
442	CISC							GN	7-Aug-07	GLGN-H5	Glenn Lake		C		
443	CISC							GN	7-Aug-07	GLGN-H5	Glenn Lake		C		
444	CISC							GN	7-Aug-07	GLGN-H5	Glenn Lake		C		
445	CISC							GN	7-Aug-07	GLGN-H5	Glenn Lake		C		
446	CISC							GN	7-Aug-07	GLGN-H5	Glenn Lake		C		
447	CISC							GN	7-Aug-07	GLGN-H5	Glenn Lake		C		
448	CISC							GN	7-Aug-07	GLGN-H5	Glenn Lake		C		
449	CISC							GN	7-Aug-07	GLGN-H5	Glenn Lake		C		
450	CISC							GN	7-Aug-07	GLGN-H5	Glenn Lake		C		
451	CISC							GN	7-Aug-07	GLGN-H5	Glenn Lake		C		
452	CISC							GN	7-Aug-07	GLGN-H5	Glenn Lake		C		
453	CISC							GN	7-Aug-07	GLGN-H5	Glenn Lake		C		
454	CISC							GN	7-Aug-07	GLGN-H5	Glenn Lake		C		
455	CISC							GN	7-Aug-07	GLGN-H5	Glenn Lake		C		
456	CISC							GN	7-Aug-07	GLGN-H5	Glenn Lake		C		
457	CISC							GN	7-Aug-07	GLGN-H5	Glenn Lake		C		
458	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
459	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
460	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
461	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
462	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
463	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
464	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
465	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
466	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
467	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
468	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
469	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
470	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
471	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
472	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
473	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
474	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
475	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
476	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
477	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
478	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
479	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
480	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
481	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
482	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
483	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
484	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
485	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
486	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
487	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
488	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
489	CISC							GN	7-Aug-07	GLGN-H6	Glenn Lake		C		
893	ARCH							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
894	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
895	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
896	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
897	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
953	LKTR	696	4285	1.27				GN	23-Aug-07	GLGN-H10	Glenn Lake		M		Kept for Heidi
954	LKTR	750	4753	1.13				GN	23-Aug-07	GLGN-H11	Glenn Lake		M		Kept for Heidi
955	LKTR	670						GN	23-Aug-07	GLGN-H12	Glenn Lake		M		Kept for Heidi
956	LKTR	550	1590	0.96				GN	23-Aug-07	GLGN-H12	Glenn Lake		M		Kept for Heidi
957	LKTR	680	3040	0.97				GN	23-Aug-07	GLGN-H12	Glenn Lake		M		Kept for Heidi
958	LKTR	572	2240	1.20				GN	23-Aug-07	GLGN-H12	Glenn Lake		M		Kept for Heidi
959	LKTR	455	980	1.04				GN	23-Aug-07	GLGN-H12	Glenn Lake		M		Kept for Heidi
960	LKTR	432	775	0.96				GN	23-Aug-07	GLGN-H11	Glenn Lake		M		Kept for Heidi
961	LKTR	355	430	0.96				GN	23-Aug-07	GLGN-H11	Glenn Lake		M		Kept for Heidi
962	LKTR	330	335	0.93				GN	23-Aug-07	GLGN-H11	Glenn Lake		M		Kept for Heidi
963	LKTR	261	160	0.90				GN	23-Aug-07	GLGN-H11	Glenn Lake		M		Kept for Heidi
964	LKTR	265	170	0.91				GN	23-Aug-07	GLGN-H11	Glenn Lake		M		Kept for Heidi
965	LKTR	188	55	0.83				GN	23-Aug-07	GLGN-H12	Glenn Lake		M		Kept for Heidi
898	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
899	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
900	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
901	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
902	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
903	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
904	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
905	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
906	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
907	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
908	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
909	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
910	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
911	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
912	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
913	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
914	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
915	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
916	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
917	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
918	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
919	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
920	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
921	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
922	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
923	CISC							GN	22-Aug-07	GLGN-H7	Glenn Lake		C		
924	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
925	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
926	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
927	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
928	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
929	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
930	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
931	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
932	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
933	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
934	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
935	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
936	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
937	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
938	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
939	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
940	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
941	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
942	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
943	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
944	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
945	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
946	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
947	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
948	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
949	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
950	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
951	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
952	CISC							GN	22-Aug-07	GLGN-H8	Glenn Lake		C		
966	CISC							GN	23-Aug-07	GLGN-H9	Glenn Lake		C		
967	CISC							GN	23-Aug-07	GLGN-H9	Glenn Lake		C		
968	CISC							GN	23-Aug-07	GLGN-H9	Glenn Lake		C		
969	CISC							GN	23-Aug-07	GLGN-H9	Glenn Lake		C		
970	CISC							GN	23-Aug-07	GLGN-H9	Glenn Lake		C		
971	CISC							GN	23-Aug-07	GLGN-H9	Glenn Lake		C		
972	CISC							GN	23-Aug-07	GLGN-H9	Glenn Lake		C		
973	CISC							GN	23-Aug-07	GLGN-H9	Glenn Lake		C		
974	CISC							GN	23-Aug-07	GLGN-H9	Glenn Lake		C		
975	CISC							GN	23-Aug-07	GLGN-H9	Glenn Lake		C		
976	CISC							GN	23-Aug-07	GLGN-H10	Glenn Lake		C		
977	CISC							GN	23-Aug-07	GLGN-H10	Glenn Lake		C		
978	CISC							GN	23-Aug-07	GLGN-H10	Glenn Lake		C		
979	CISC							GN	23-Aug-07	GLGN-H10	Glenn Lake		C		
980	CISC							GN	23-Aug-07	GLGN-H10	Glenn Lake		C		
981	CISC							GN	23-Aug-07	GLGN-H10	Glenn Lake		C		
982	CISC							GN	23-Aug-07	GLGN-H10	Glenn Lake		C		
983	CISC							GN	23-Aug-07	GLGN-H10	Glenn Lake		C		
984	CISC							GN	23-Aug-07	GLGN-H10	Glenn Lake		C		
985	CISC							GN	23-Aug-07	GLGN-H10	Glenn Lake		C		
986	CISC							GN	23-Aug-07	GLGN-H10	Glenn Lake		C		
987	CISC							GN	23-Aug-07	GLGN-H10	Glenn Lake		C		
988	CISC							GN	23-Aug-07	GLGN-H10	Glenn Lake		C		
989	CISC							GN	23-Aug-07	GLGN-H10	Glenn Lake		C		
990	CISC							GN	23-Aug-07	GLGN-H10	Glenn Lake		C		
991	CISC							GN	23-Aug-07	GLGN-H10	Glenn Lake		C		
992	CISC							GN	23-Aug-07	GLGN-H10	Glenn Lake		C		
993	CISC							GN	23-Aug-07	GLGN-H10	Glenn Lake		C		
994	CISC							GN	23-Aug-07	GLGN-H10	Glenn Lake		C		
995	CISC							GN	23-Aug-07	GLGN-H10	Glenn Lake		C		
996	CISC							GN	23-Aug-07	GLGN-H10	Glenn Lake		C		
997	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
998	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
999	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1000	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1001	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1002	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1003	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1004	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1005	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1006	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1007	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1008	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1009	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1010	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
1011	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1012	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1013	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1014	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1015	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1016	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1017	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1018	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1019	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1020	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1021	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1022	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1023	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1024	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1025	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1026	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1027	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1028	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1029	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1030	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1031	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1032	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1033	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1034	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1035	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1036	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1037	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1038	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1039	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1040	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1041	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1042	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1043	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1044	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1045	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1046	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1047	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1048	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1049	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1050	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1051	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1052	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1053	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1054	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1055	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1056	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1057	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1058	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1059	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1060	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1061	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1117	LKTR						985153000021257	GN	28-Aug-07	PLGN-84	Patch Lake		R		
1118	CISC	275	200	0.96				GN	28-Aug-07	PLGN-84	Patch Lake		C		
1119	LKWH	414	600	0.85				GN	28-Aug-07	PLGN-84	Patch Lake		C		
1120	LKWH	354						GN	28-Aug-07	PLGN-84	Patch Lake		C		
1121	LKWH	396	600	0.97				GN	28-Aug-07	PLGN-84	Patch Lake		C		
1122	LKWH	371	500	0.98				GN	28-Aug-07	PLGN-84	Patch Lake		C		
1123	CISC	233	100	0.79				GN	28-Aug-07	PLGN-85	Patch Lake		C		
1124	LKTR						985120031573454	GN	28-Aug-07	PLGN-87	Patch Lake		R		
1125	LKTR	516	1400	1.02			985153000021288	GN	28-Aug-07	PLGN-89	Patch Lake		C		
1126	LKTR	670	4300	1.43			985120031620053	GN	28-Aug-07	PLGN-92	Patch Lake		C		
1127	LKWH	468						GN	28-Aug-07	PLGN-92	Patch Lake		C		
1128	LKTR	375						GN	28-Aug-07	PLGN-92	Patch Lake		C		
1129	LKTR	513	1300	0.96				GN	28-Aug-07	PLGN-96	Patch Lake		C		
1130	LSCS	66						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1131	LSCS	74						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1132	LSCS	44						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
1133	LSCS	75						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1134	LSCS	43						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1135	LSCS	48						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1136	LSCS	63						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1137	LSCS	54						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1138	LSCS	61						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1139	LSCS	64						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1140	LSCS	56						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1141	LSCS	64						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1142	LSCS	65						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1143	LSCS	63						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1144	LSCS	58						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1145	LSCS	66						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1146	LSCS	62						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1147	LSCS	59						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1148	LSCS	62						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1149	LSCS	78						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1150	LSCS	64						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1151	LSCS	53						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1152	LSCS	66						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1153	NNST	26						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1154	LSCS	71						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1155	LSCS	66						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1156	LSCS	72						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1157	LSCS	61						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1158	LSCS	66						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1159	LSCS	62						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1160	LSCS	64						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1161	LSCS	66						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1162	LSCS	61						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1163	LSCS	62						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1164	LSCS	66						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1165	LSCS	65						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1166	LSCS	68						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1167	LSCS	64						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1168	LSCS	61						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1169	LSCS	63						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1170	LSCS	61						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1171	LSCS	62						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1172	LSCS	60						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1173	LSCS	75						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1174	LSCS	72						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1175	LSCS	59						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1176	LSCS	71						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1177	LSCS	67						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1178	LSCS	64						BS	31-Aug-07	WLSN-01	Wolverine Lake		C		
1062	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1063	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1064	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1065	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1066	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1067	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1068	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1069	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1070	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1071	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1072	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1073	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1074	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1075	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1076	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1077	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1078	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1079	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1080	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1081	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1082	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		

Appendix E1. Data for Individual Fish Captured in the Boston and Madrid Project area, 2006 - 2007

Sample	Species	Fork Length (mm)	Weight (g)	Condition Factor	Floy Tag Colour	Floy Tag Number	PIT Tag No.	Capture Method	Date	Site	Location	Ageing Structures	Capture Code	Tag year	Comments
1083	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1084	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1085	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1086	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1087	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1088	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1089	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1090	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1091	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1092	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1093	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1094	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1095	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1096	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1097	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1098	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1099	CISC							GN	23-Aug-07	GLGN-H11	Glenn Lake		C		
1100	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1101	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1102	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1103	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1104	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1105	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1106	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1107	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1108	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1109	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1110	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1111	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1112	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1113	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1114	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1115	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		
1116	CISC							GN	23-Aug-07	GLGN-H12	Glenn Lake		C		

CODES:

Method:

BS	Beach Seine
EF	Backpack Electrofishing
FN	Fyke Net
MT	Minnow Trap
DN	Dip Net
AN	Angling

Species:

ARCH	Arctic char	BURB	Burbot
ARFL	Arctic flounder	ARGR	Arctic Grayling
CISC	Cisco	BRWH	Broad Whitefish
FHSC	Fourhorn sculpin	SFCD	Saffron cod
LKTR	Lake trout	GRCD	Greenland Cod
LKWH	Lake whitefish	LSCS	Least Cisco
NNST	Ninespine stickleback		
SLSC	Slimy Sculpin		

Sex:

F	Female
M	Male

Capture Codes:

C = First time capture, with live release
R = re-capture, with live release.
M = Mortality
E = Escaped prior to data collection.
O = Observed (associated with sampling activities)

Condition Factor = Weight [in g] X 10^5/ (FL [in mm])^3

Tag Colour: B = Blue G = Green W = White

APPENDIX E2 TO E8

FISHING EFFORT, CAPTURE AND CPUE DATA

Appendix E2. Angling Locations, Effort, Catch and CPUE in the Madrid Area, 2007

Waterbody	Site ID	UTM (13W) NAD83		Date	Effort			Number of Fish Captured / CPUE (fish/h)			
								LKTR		Total	
		Easting	Northing		No. of rods	(h)	Total Effort (h)	n	CPUE	n	CPUE
Patch Lake	PLAF-01	435354	7548063	12-Jul-07	2	0.75	1.5	1	16.0	1	16.0
	PLAF-02	435085	7548889	12-Jul-07	2	0.50	1.0			0	0.0
	PLAF-03	435562	7549220	13-Jul-07	2	4.47	8.9			0	0.0
	PLAF-04	435486	7548787	13-Jul-07	2	0.75	1.5			0	0.0
	PLAF-05	435088	7548897	14-Jul-07	2	1.00	2.0	3	36.0	3	36.0
	PLAF-06	435088	7548897	15-Jul-07	2	1.00	2.0	1	12.0	1	12.0
	PLAF-07	434805	7549414	16-Jul-07	2	0.75	1.5	2	32.0	2	32.0
	PLAF-08	434719	7550901	18-Jul-07	2	0.75	1.5	1	16.0	1	16.0
	PLAF-09	434857	7549708	18-Jul-07	1	0.50	0.5	1	48.0	1	48.0
	Total					**10.47**	**20.4**	**9**	**10.6**	**9**	**10.6**

NOTES:

n = number of captured fish

CPUE = catch per unit effort (fish/24 h)

Appendix E3. Backpack Electrofishing Sampling Locations, Effort, Catch, and CPUE in the Boston and Madrid Project Areas, 2006 and 2007

Waterbody	Site ID	Date	Start UTM (13W) NAD 83		End UTM (13W) NAD 83		Effort		Number of Fish Captured/CPUE (fish/100s)																			
									ARCH		ARFL		ARGR		BURB		CISC		FRSC		LKTR		LKWH		SLSC		NNST		Total	
			Easting	Northing	Easting	Northing	(m)	(s)	n	CPUE	n	CPUE	n	CPUE	n	CPUE	n	CPUE	n	CPUE	n	CPUE	n	CPUE	n	CPUE	n	CPUE	n	CPUE
Aimaokatalok Lake	SLEF-01	16-Jul-06	440735	7500540			82	273													14	5.1					6	2.2	20.00	7.3
	Total							**273**													**14**	**5.1**					**6**	**2.2**	20.00	**7.3**
Reference Lake	RLEF-01	19-Jul-06	437906	7502461	437879	7502637	180	305																			3	1.0	3.00	1.0
	RLEF-02	19-Jul-06	438038	7504630	437956	7504736	130	609									1	0.2									7	1.1	8.00	1.3
	Total							**914**									**1**	**0.1**									**10**	**1.1**	11.00	**1.2**
Aimaokatalok River	AREF-01	16-Jul-06	441104	7499729	441208	7499485	264	958													9	0.9					15	1.6	24.00	2.5
	Total							**958**													**9**	**0.9**					**15**	**1.6**	24.00	**2.5**
Fickle Duck Inflow	FIEF-01	18-Jul-06	442700	7502297	442579	7501872	450	459																			8	1.7	8.00	1.7
	Total							**459**																			**8**	**1.7**	8.00	**1.7**
Fickle Duck Outflow	FOEF-01	18-Jul-06	442474	7503713	442361	7504069	374	409							1	0.2					1	0.2					7	1.7	9.00	2.2
	Total							**409**							**1**	**0.2**					**1**	**0.2**					**7**	**1.7**	9.00	**2.2**
Koignuk River	KREF-01	19-Jul-06	437359	7512181	437392	7512120	69	380																	3	0.8	4	1.1	7.00	1.8
	KREF-02	20-Jul-06	435573	7521246	435514	7521280	132	798					11	1.4	2	0.3					1	0.1					10	1.3	24.00	3.0
	KNBP-01	8-Jul-07	431517	7545695	431459	7545664	89	446					2	0.4													2	0.4	4.00	0.9
	KNBP-02	8-Jul-07	429479	7555080				392			6	1.5							1	0.3			6	1.5			13	3.3	26.00	6.6
	Total							**2016**			**6**	**0.3**	**13**	**0.6**	**2**	**0.1**			**1**	**0.0**	**1**	**0.0**	**6**	**0.3**	**3**	**0.1**	**29**	**1.4**	61.00	**3.0**
Stickleback Outflow	SOEF-01	17-Jul-06	441938	7504310	442282	7504224	479	800																	1	0.1	24	3.0	25.00	3.1
	Total							**800**																	**1**	**0.1**	**24**	**3.0**	25.00	**3.1**
Glenn Lake	GLBP-H1	6-Aug-07						311	2	0.6											6	1.9							8.00	2.6
	GLBP-H2	7-Aug-07						258																						
	GLBP-H3	7-Aug-07						150	1	0.7											2	1.3							3.00	2.0
	Total							**719**	**3**	**0.4**											**8**	**1.1**							11.00	**1.5**
Ogama Lake	OLEF-01	4-Aug-06	435646	7555102	435644	7555105	125	505															1	0.2			1	0.2	2.00	0.4
	OLEF-02	5-Aug-06	435830	7554354	435819	7554173	175	572																						
	OLEF-03	5-Aug-06	436559	7553393	436562	7553280	150	439																						
	Total							**1516**															**1**	**0.1**			**1**	**0.1**	2.00	**0.1**
Patch Lake	PLEF-01	25-Jul-06	436231	7549022			100	343													1	0.3					1	0.3	2.00	0.6
	PLEF-02	27-Jul-06	435904	7549173	436097	7549181	200	889																						
	Total							**1232**													**1**	**0.1**					**1**	**0.1**	2.00	**0.2**
P.O. Inflow Lake	POILEF-01	6-Aug-06	435677	7536218	436158	7551053	180	637																			50	7.8	50.00	7.8
	POILEF-02	6-Aug-06	436080	7550370	436014	7550377	150	479									12	2.5									71	14.8	83.00	17.3
	Total							**1116**									**12**	**1.1**									**121**	**10.8**	133.00	**11.9**
Wolverine Lake	WLEF-01	23-Jul-06	434694	7545256			100	626																			25	4.0	25.00	4.0
	WLEF-02	23-Jul-06	435041	7546124			30	90																			10	11.1	10.00	11.1
	WLEF-03	23-Jul-06	435298	7545459	435140	7545475	160	880																			28	3.2	28.00	3.2
	WLEF-04	23-Jul-06	434342	7545835	434288	7545768	110	720																			11	1.5	11.00	1.5
	Total							**2316**																			**74**	**3.2**	74.00	**3.2**
Ogama Inflow	OIEF-01	4-Aug-06	436601	7553043	436493	7551309	315	778													2	0.3					2	0.3	4.00	0.5
	Total							**778**													**2**	**0.3**					**2**	**0.3**	4.00	**0.5**
Ogama Outflow	OOEF-01	5-Aug-06	435521	7555188	435253	7555385	300	1160													2	0.2					27	2.3	29.00	2.5
	Total							**1160**													**2**	**0.2**					**27**	**2.3**	29.00	**2.5**

NOTES:
n = number of captured fish
CPUE = catch per unit effort (fish/100s)
Total CPUE = total n / total (s) *100

Appendix E4. Beach Seine Sampling Locations, Effort, and CPUE in the Boston and Madrid Project Areas, 2006 and 2007

Waterbody	Site ID.	UTM (13W) NAD83		Date	Effort (m^2)	Number of Fish Captured/CPUE (fish/100 m^2)											
		Easting	Northing			LKTR		LKWH		CISC		LSCS		NNST		Total	
						n	CPUE	n	CPUE	n	CPUE	n	CPUE	n	CPUE	n	CPUE
Fickle Duck Lake	FLBS-01	442711	7502212	18-Jul-06	180	1	0.6							1	0.6	2	1.1
	Total				**180**	**1**	**0.6**							**1**	**0.6**	**2**	**1.1**
Koignuk River	KRBS-01	437392	7512120	20-Jul-06	450			120	26.7							120	26.7
	KNSN-01	430053	7550873	8-Jul-07	350												
	KNSN-02	430077	7550902	8-Jul-07	280												
	Total				**1080**			**120**	**11.1**							**120**	**11.1**
Ogama Lake	OLBS-01	436622	7551451	6-Aug-06	630			1	0.2							1	0.2
	OLBS-02	436704	7551528	6-Aug-06	560			25	4.5	275	49.1					300	53.6
	Total				**1190**			**26**	**2.2**	**275**	**23.1**					**301**	**25.3**
P.O. Lake	POLBS-01	436677	7550148	30-Jul-06	200									6	3.0	6	3.0
	POLBS-02	436887	7548541	30-Jul-06	450												
	POLBS-03	436876	7548557	30-Jul-06	200												
	Total				**850**									**6**	**0.7**	**6**	**0.7**
P.O. Connector Lake	POCLBS-01	436723	7550215	2-Aug-06	210												
	POCLBS-02	436764	7550216	2-Aug-06	240	1	0.4									1	0.4
	Total				**450**	**1**	**0.2**									**1**	**0.2**
PO Inflow Lake	POINLBS-01	436091	7550606	6-Aug-06	80					200	250.0			300	375.0	500	625.0
	Total				**80**					**200**	**250.0**			**300**	**375.0**	**500**	**625.0**
Wolverine Lake	WLBS-01	434666	7546853	7-Aug-06	350							1900	542.9	102	29.1	2002	572.0
	WLBS-02	435030	7546104	7-Aug-06	400									4	1.0	4	1.0
	WLBS-03	435002	7546207	7-Aug-06	460									6	1.3	6	1.3
	WLBS-04	435226	7545412	7-Aug-06	210									15	7.1	15	7.1
	WLBS-05	435100	7545346	7-Aug-06	150							35	23.3	37	24.7	72	48.0
	WLBS-06	434684	7546637	7-Aug-06	160							1960	1225.0	43	26.9	2003	1251.9
	WLBS-07	434893	7546758	7-Aug-06	800									5	0.6	5	0.6
	WLSN-01	434654	7546314	31-Aug-07	1584							102	6.4	2	0.1	104	6.6
	Total				**4114**							**3997**	**97.2**	**214**	**5.2**	**4211**	**102.4**
Patch Outflow	POBS-01	436347	7548742	27-Jul-06	450												
	POBS-02	436347	7548742	27-Jul-06	90												
	POBS-03	435967	7549173	27-Jul-06	90												
	Total				**630**												
P.O. Outflow	POOTBS-01	436641	7550178	30-Jul-06	180									6	3.3	6	3.3
	Total				**180**									**6**	**3.3**	**6**	**3.3**

NOTES:

n = number of captured fish

CPUE = catch per unit effort

Total CPUE = total n / effort

Appendix E5. Location, Effort, Catch, and CPUE Data for Fyke Nets in the Boston and Madrid Project Areas, 2006 and 2007

Water-body	Site ID	UTM (13W) NAD83		Set Date	Set Time	Pull Date	Pull Time	Set Period (h)	Number of Fish Captured/CPUE (fish/24 h)									
									CISC		LKTR		LKWH		NNST		Total	
		Easting	Northing						n	CPUE	n	CPUE	n	CPUE	n	CPUE	n	CPUE
Aimaokatalok Lake	SLFN-01	441110	7499753	16-Jul-06	13:31	17-Jul-06	11:16	21.75			2	2.21			93	102.62	95	104.83
	SLFN-02	441554	7505990	18-Jul-06	18:16	19-Jul-06	18:38	24.25	2	1.98					7	6.93	9	8.91
	Total							**46**	**2**	**1.04**	**2**	**1.04**			**100**	**52.17**	**104**	**54.26**
Patch Lake	PLFN-01	436214	7548996	26-Jul-06	13:35	29-Jul-06	16:00	74.4	1	0.32	10	3.23	4	1.29			15	4.84
	PLFT-01	436229	7549020	14-Jul-07	15:22	15-Jul-07	14:00	22.6			7	7.42					7	7.42
	PLFT-01	436229	7549020	15-Jul-07	14:00	16-Jul-07	14:00	24.0	1	1.00							1	1.00
	PLFT-01	436229	7549020	16-Jul-07	14:00	17-Jul-07	15:00	25.0			8	7.68	7	6.72			15	14.40
	PLFT-01	436229	7549020	17-Jul-07	15:00	18-Jul-07	10:00	19.0			2	2.53					2	2.53
	PLFT-02	436234	7549026	13-Aug-07	8:50	14-Aug-07	9:00	24.2										
	PLFT-02	436234	7549026	14-Aug-07	9:00	15-Aug-07	10:40	25.7										
	Total							**214.9**	**2**	**0.22**	**27**	**3.02**	**11**	**1.23**			**40**	**4.47**
P.O. Lake	POLFN-01	436676	7550158	30-Jul-06	10:30	31-Jul-06	10:30	24	1	1.00	9	9.00					10	10.00
	Total							**24**	**1**	**1.00**	**9**	**9.00**					**10**	**10.00**
P.O. Connector Lake	POCLFN-01	436603	7550627	31-Jul-06	14:19	1-Aug-06	15:36	25.25					1	0.95	27	25.66	28	26.61
	Total							**25.25**					**1**	**0.95**	**27**	**25.66**	**28**	**26.61**
Ogama Inflow	OLFN-01	436477	7551422	2-Aug-06	14:00	4-Aug-06	8:30	42.5			12	6.78	5	2.82	3	1.69	20	11.29
	Total							**42.5**			**12**	**6.78**	**5**	**2.82**	**3**	**1.69**	**20**	**11.29**
Ogama Outflow	OLFN-02	435581	7555193	4-Aug-06	10:28	5-Aug-06	8:43	22.25			2	2.16	4	4.31	3	3.24	9	9.71
	OLFN-03	435581	7555193	5-Aug-06	8:43	6-Aug-06	8:40	24	1	1.00	3	3.00			180	180.00	184	184.00
	Total							**46.25**	**1**	**0.52**	**5**	**2.59**	**4**	**2.08**	**183**	**94.96**	**193**	**100.15**

NOTES:

n = number of captured fish

CPUE = catch per unit effort

Total CPUE = total n / total (h) *24

Appendix E6. Gill Net Locations, Effort, Catch, and CPUE in the Boston and Madrid Project Areas, 2006 and 2007

Water-body	Site ID	Set No.	UTM (13W) NAD83		Set Date	Set Time	Pull Date	Pull Time	Water Depth (m) min	Water Depth (m) max	Set Period (h)	Net Area (m^2)	No. Panels	Net Units[a]	Mesh Sizes (cm)	ARCH		CISC		LKTR		LKWH		LSCS		NNST		Total	
			Easting	Northing												n	CPUE	n	CPUE	n	CPUE	n	CPUE	n	CPUE	n	CPUE	n	CPUE
Aimaokatalok Lake	SLGN	1	442497	7498530	7/16/2006	16:40	7/16/2006	18:06	2.5	2.5	1.4	27.36	2	0.03	3.8, 6.4					1	30.6							1	30.6
	Total										**1.4**			**0.03**						**1**	**30.6**							**1**	**30.6**
Fickle Duck Lake	FLGN-01	1	442592	7503539	7/18/2006	10:09	7/18/2006	16:05	2.1	2.1	5.9	27.36	2	0.14	3.8, 6.4					2	14.784							2	14.784
	FLGN-02	2	442700	7502297	7/18/2006	11:00	7/18/2006	16:32	1.9	2.4	5.5	37.1	2	0.17	1.9, 2.5														
	Total										**11.5**			**0.3**						**2**	**6.5284**							**2**	**6.5284**
Reference Lake	RLGN-01	1	437911	7503912	7/19/2006	10:12	7/19/2006	12:40	3	3	2.5	27.36	2	0.06	3.8, 6.4					1	17.781							1	17.781
	RLGN-02	2	437909	7503630	7/19/2006	10:34	7/19/2006	12:54	2.7	3.1	2.3	37.1	2	0.07	1.9, 2.5														
	Total										**4.8**			**0.13**						**1**	**7.7894**							**1**	**7.7894**
Stickleback Lake	SLGN-01	1	441972	7504014	7/17/2006	12:56	7/18/2006	8:40	2.6	2.6	19.7	27.36	2	0.45	3.8, 6.4														
	SLGN-02	2	441977	7502994	7/17/2006	14:27	7/17/2006	17:30	8.6	8.6	3.0	37.1	1	0.05	2.5														
	Total										**22.8**			**0.50**														
Koignuk River	KRGN-01	1	437442	7512010	7/19/2006	16:16	7/19/2006	17:06	3.5	3.5	0.8	27.36	2	0.02	3.8, 6.4							2	105.26					2	105.26
	KRGN-02	1	437392	7512120	7/20/2006	10:17	7/20/2006	11:15	3.1	3.4	1.0	27.36	2	0.02	3.8, 6.4							3	136.12					3	136.12
	KNGN-01	1	430874	7547645	7/8/2007	11:30	7/8/2007	12:30			1.0	27.36	3	0.03															
	KNGN-02	1	429373	7554957	7/8/2007	13:45	7/8/2007	15:00			1.3	27.36	3	0.04		1	23.4											1	23.4
	Total										**4.1**			**0.12**		**1**	**8.5**					**5**	**42.4**					**6**	**50.9**
Glenn Lake	GLGN-H1	1	429925	7560756	8/6/2007	11:05	8/6/2007	12:30	5.7	16.7	1.4	27.36	3	0.05				10	206.4	3	61.9							13	268.3
	GLGN-H2	1	430108	7561346	8/6/2007	11:15	8/6/2007	12:45	3.5	12.7	1.5	27.36	3	0.05				46	896.7	4	78.0							50	974.7
	GLGN-H3	1	430340	7559241	8/6/2007	13:30	8/6/2007	15:30	3.5	4.9	2.0	27.36	3	0.07				40	584.8	4	58.5							44	643.3
	GLGN-H4	1	430343	7559549	8/6/2007	13:40	8/6/2007	15:45	2.5	3.6	2.1	27.36	3	0.07				25	350.9	1	14.0	1	14.0					27	378.9
	GLGN-H5	1			8/7/2007	13:50	8/7/2007	15:00	4.1	5.5	1.2	27.36	3	0.04				21	526.3									21	526.3
	GLGN-H6	1	434932	7548877	8/7/2007	14:06	8/7/2007	15:20	4.1	4.7	1.2	27.36	3	0.04				32	758.7			1	23.7					33	782.4
	GLGN-H7	1	430370	7559526	8/22/2007	13:00	8/22/2007	15:15			2.3	27.36	3	0.08		1	13.0	30	389.9	4	52.0							35	454.8
	GLGN-H8	1	430383	7559467	8/22/2007	13:10	8/22/2007	15:30			2.3	27.36	3	0.08				29	363.4	3	37.6							32	401.0
	GLGN-H9	1	430348	7560772	8/23/2007	9:35	8/23/2007	11:40			2.1	27.36	3	0.07				10	140.4									10	140.4
	GLGN-H10	1	430300	7558535	8/23/2007	9:45	8/23/2007	11:25			1.7	27.36	3	0.06				21	368.4	1	17.5							22	386.0
	GLGN-H11	1	430375	7559520	8/23/2007	11:50	8/23/2007	14:05			2.3	27.36	3	0.08				46	597.8	2	26.0							48	623.8
	GLGN-H11	2	430375	7559520	8/23/2007	14:20	8/23/2007	15:50			1.5	27.36	3	0.05				31	604.3	5	97.5							36	701.8
	GLGN-H12	1	434468	7550535	8/23/2007	12:00	8/23/2007	14:40			2.7	27.36	3	0.09				26	285.1	5	54.8							31	339.9
	GLGN-H12	2	434468	7550535	8/23/2007	14:30	8/23/2007	16:00			1.5	27.36	3	0.05				17	331.4	1	19.5							18	350.9
	Total										**25.7**			**0.88**		**1**	**1.1**	**384**	**437.7**	**33**	**37.6**	**2**	**2.3**					**420**	**478.8**
Ogama Lake	OLGN-01	1	436137	7554001	8/4/2006	14:43	8/4/2006	16:20	3	3	1.6	27.36	2	0.04	3.8, 6.4			21	569.72	2	54.259	10	271.3					33	895.28
	OLGN-02	2	436040	7554238	8/4/2006	14:52	8/4/2006	15:57	3.5	5	1.1	37.1	2	0.03	1.9, 2.5			4	119.43									4	119.43
	Total										**2.7**			**0.07**				**25**	**355.35**	**2**	**28.428**	**10**	**142.14**					**37**	**525.92**
Patch Lake	PLGN-01	1	434951	7548951	7/25/2006	12:34	7/25/2006	16:31	3	3	4.0	27.36	2	0.09	3.8, 6.4					6	66.622	5	55.519					11	122.14
	PLGN-02	1	435348	7549128	7/25/2006	12:52	7/25/2006	16:45	4.2	5.9	3.9	37.1	2	0.12	1.9, 2.5														
	PLGN-03	1	435728	7547971	7/26/2006	14:18	7/26/2006	16:09	2.9	4	1.9	27.36	2	0.04	3.8, 6.4			4	94.832	2	47.416	2	47.416					8	189.66
	PLGN-04	1	435984	7547424	7/26/2006	14:29	7/26/2006	15:44	4	7.7	1.2	37.1	2	0.04	1.9, 2.5			15	388.14									15	388.14
	PLGN-05	1	435909	7549046	7/27/2006	12:47	7/27/2006	15:10	2.8	2.8	2.4	27.36	2	0.05	3.8, 6.4			8	147.22			9	165.62					17	312.85
	PLGN-06	1	436093	7548989	7/27/2006	12:58	7/27/2006	15:20	2.6	2.6	2.4	37.1	2	0.07	1.9, 2.5														
	PLGN-07	1	434811	7550587	7/28/2006	9:27	7/28/2006	11:41	4.7	5.8	2.2	27.36	2	0.05	3.8, 6.4			1	19.639	1	19.639	6	117.83					8	157.11
	PLGN-08	1	434257	7551285	7/28/2006	10:14	7/28/2006	12:56	3	3	2.7	37.1	2	0.08	1.9, 2.5					2	23.959	1	11.98					3	35.939
	PLGN-09	1	434511	7550275	7/28/2006	13:15	7/28/2006	14:30	3.5	3.5	1.2	27.36	2	0.03	3.8, 6.4			1	35.088	2	70.175	2	70.175					5	175.44
	PLGN-10	1	434567	7550204	7/28/2006	13:25	7/28/2006	14:45	4	4	1.3	37.1	2	0.04	1.9, 2.5														
	PLGN-11	1	434898	7548926	7/28/2006	14:59	7/28/2006	15:50	3	3	0.8	27.36	2	0.02	3.8, 6.4			8	412.8	2	103.2	8	412.8					18	928.79
	PLGN-12	1	435020	7548802	7/28/2006	15:09	7/28/2006	15:35	3	3	0.4	37.1	2	0.01	1.9, 2.5			3	223.93	3	223.93	1	74.642					7	522.5
	PLGN-01	1	435225	7547042	7/9/2007	9:34	7/9/2007	10:30	2.4	3.0	1.9	27.36	2	0.04	3.8,5.1														
	PLGN-02	1	435374	7546579	7/9/2007	10:23	7/9/2007	12:45	2.9	3.4	3.3	27.36	2	0.08	2.5,5.1					1	13.3							1	13.3
	PLGN-03	1	435340	7547183	7/9/2007	10:43	7/9/2007	11:15	3.9	4.6	1.5	27.36	2	0.03	3.8,5.1														
	PLGN-04	1	435485	7546463	7/9/2007	11:34	7/9/2007	13:30	2.9	3.6	2.9	27.36	2	0.07	3.8,5.1														
	PLGN-05	1	435264	7547886	7/9/2007	13:18	7/9/2007	15:34	5.9	7.0	3.2	27.36	3	0.11	2.5,5.1,6.4														
	PLGN-06	1	435854	7547621	7/9/2007	14:04	7/9/2007	15:12	7.0	13.9	2.1	27.36	3	0.07	2.5,3.8,5.1														
	PLGN-07	1	435289	7547055	7/10/2007	8:58	7/10/2007	15:45	3.1	3.4	6.8	27.36	3	0.23	2.5,5.1,6.4					1	4.3							1	4.3
	PLGN-08	1	435401	7547115	7/10/2007	9:05	7/10/2007	15:49	4.1	5.6	6.7	27.36	3	0.23	2.5,3.8,5.1														
	PLGN-09	1	435414	7546616	7/10/2007	10:25	7/10/2007	12:36	2.8	3.3	2.2	27.36	3	0.07	2.5,5.1,6.4														
	PLGN-10	1	435825	7546536	7/10/2007	10:30	7/10/2007	12:28	2.6	2.8	2.0	27.36	3	0.07	2.5,5.1,6.4														
	PLGN-11	1	435379	7548039	7/10/2007	12:44	7/10/2007	15:40	4.1	5.0	2.9	27.36	3	0.10	2.5,5.1,6.4					3	29.9			3	29.9			6	59.8
	PLGN-12	1	435557	7548125	7/10/2007	12:51	7/10/2007	15:44	5.0	10.3	2.9	27.36	3	0.10	2.5,5.1,6.4					2	20.3							2	20.3
	PLGN-13	1	435352	7548137	7/11/2007	8:25	7/11/2007	15:30	2.5	4.7	7.1	27.36	3	0.24	2.5,5.1,6.4					6	24.8	1	4.1	2	8.3			9	37.2
	PLGN-14	1	435593	7548167	7/11/2007	8:30	7/11/2007	15:34	5.7	7.2	7.1	27.36	3	0.24	2.5,3.8,5.1														
	PLGN-15	1	435395	7548445	7/11/2007	8:40	7/11/2007	12:55	2.7	3.0	4.3	27.36	3	0.15	2.5,5.1,6.4					2	13.8							2	13.8
	PLGN-16	1	435421	7548784	7/11/2007	8:45	7/11/2007	15:37	4.8	5.9	6.9	27.36	3	0.23	2.5,5.1,6.4					7	29.8	2	8.5	2	8.5			11	46.8
	PLGN-17	1	435031	7548749	7/11/2007	13:06	7/11/2007	15:20	3.4	5.7	2.2	27.36	3	0.08	2.5,5.1,6.4					3	39.3	14	183.3	3	39.3			20	261.8
	PLGN-18	1	435062	7548796	7/12/2007	8:30	7/12/2007	14:30	3.4	4.4	6.0	27.36	3	0.21	2.5,5.1,6.4					4	19.5			1	4.9			5	24.4
	PLGN-19	1	435604	7548115	7/12/2007	8:38	7/12/2007	14:20	5.3	9.4	5.7	27.36	3	0.19	2.5,3.8,5.1														
	PLGN-20	1	435665	7548451	7/12/2007	8:42	7/12/2007	14:15	3.4	3.5	5.5	27.36	3	0.19	2.5,5.1,6.4					2	10.5							2	10.5
	PLGN-21	1	435379	7548796	7/12/2007	8:49	7/12/2007	14:05	4.4	5.4	5.3	27.36	3	0.18						7	38.9							7	38.9
	PLGN-22	1	435027	7548739	7/13/2007	12:45	7/13/2007	18:41	3.7	4.1	5.9	27.36	3	0.20						1	4.9	1	4.9					2	9.9
	PLGN-23	1	435383	7548798	7/13/2007	12:55	7/13/2007	18:51	3.6	5.2	5.9	27.36	3	0.20	2.5,3.8,5.1					2	9.9			6	29.6			8	39.4

Appendix E6. Gill Net Locations, Effort, Catch, and CPUE in the Boston and Madrid Project Areas, 2006 and 2007

Water-body	Site ID	Set No.	UTM (13W) NAD83		Set Date	Set Time	Pull Date	Pull Time	Water Depth (m) min	Water Depth (m) max	Set Period (h)	Net Area (m^2)	No. Panels	Net Units[a]	Mesh Sizes (cm)	ARCH		CISC		LKTR		LKWH		LSCS		NNST		Total	
			Easting	Northing												n	CPUE	n	CPUE	n	CPUE	n	CPUE	n	CPUE	n	CPUE	n	CPUE
Patch Lake	PLGN-24	1	435418	7549221	7/13/2007	13:48	7/13/2007	18:27	3.0	4.5	4.7	27.36	3	0.16	5.1,6.4,6.4					2	12.6							2	12.6
	PLGN-25	2	435516	7548794	7/13/2007	18:27	7/13/2007	19:12	4.5	4.9	0.8	27.36	3	0.03	3.8,5.1,6.4					1	39.0							1	39.0
	PLGN-26	1	434988	7548879	7/14/2007	9:13	7/14/2007	18:19	3.2	3.4	9.1	27.36	3	0.31	5.1,6.4,6.4					8	25.7							8	25.7
	PLGN-27	1	435404	7548759	7/14/2007	9:20	7/14/2007	19:00	4.4	5.5	9.7	27.36	3	0.33	3.8,5.1,6.4					4	12.1							4	12.1
	PLGN-28	1	434895	7549008	7/14/2007	10:53	7/14/2007	18:15	3.0	3.1	7.4	27.36	3	0.25	3.8,3.8,3.8					6	23.8							6	23.8
	PLGN-29	1	435421	7549204	7/14/2007	10:58	7/14/2007	18:40	3.1	5.7	7.7	27.36	3	0.26	5.1,6.4,6.4					5	19.0	1	3.8					6	22.8
	PLGN-30	1	435515	7549239	7/14/2007	11:04	7/14/2007	18:49	4.1	4.7	7.8	27.36	3	0.27	3.8,5.1,6.4					1	3.8							1	3.8
	PLGN-31	1	434932	7548877	7/15/2007	13:00	7/15/2007	17:29	2.8	2.9	4.5	27.36	3	0.15	5.1,6.4,6.4					3	19.6							3	19.6
	PLGN-32	1	434788	7548939	7/15/2007	13:07	7/15/2007	17:35	4.8	6.7	4.5	27.36	3	0.15	3.8,3.8,3.8														
	PLGN-33	1	434572	7549142	7/15/2007	13:12	7/15/2007	17:49	6.2	10.9	4.6	27.36	3	0.16	3.8,5.1,6.4					1	6.3							1	6.3
	PLGN-34	1	434839	7549350	7/15/2007	13:15	7/15/2007	18:05	6.8	9.7	4.8	27.36	3	0.17	3.8,5.1,6.4					6	36.3							6	36.3
	PLGN-35	1	435394	7549183	7/15/2007	13:30	7/15/2007	18:28	4.0	6.7	5.0	27.36	3	0.17	3.8,5.1,6.4					6	35.3	7	41.2					13	76.5
	PLGN-36	1	434951	7548845	7/16/2007	12:51	7/16/2007	18:15	3.0	3.0	5.4	27.36	3	0.18	5.1,6.4,6.4					9	48.7	1	5.4	9	48.7			19	102.9
	PLGN-37	1	434566	7549225	7/16/2007	12:58	7/16/2007	17:33	8.1	9.2	4.6	27.36	3	0.16	3.8,3.8,3.8									3	19.1			3	19.1
	PLGN-38	1	434777	7549285	7/16/2007	13:07	7/16/2007	17:30	5.8	7.8	4.4	27.36	3	0.15	5.1,6.4,6.4					3	20.0	1	6.7	1	6.7			5	33.4
	PLGN-39	1	434974	7549321	7/16/2007	13:14	7/16/2007	18:09	4.1	4.1	4.9	27.36	3	0.17	3.8,5.1,6.4					9	53.5	6	35.7	2	11.9			17	101.1
	PLGN-40	1	435242	7549397	7/16/2007	13:18	7/16/2007	18:45	3.2	4.7	5.4	27.36	3	0.19	3.8,5.1,6.4					1	5.4			1	5.4			2	10.7
	PLGN-41	1	434593	7549248	7/17/2007	12:50	7/17/2007	18:00	5.9	9.9	5.2	27.36	3	0.18	3.8,3.8,3.8														
	PLGN-42	1	434770	7549318	7/17/2007	13:05	7/17/2007	15:56	6.1	8.3	2.9	27.36	3	0.10	5.1,6.4,6.4					10	102.6	1	10.3	3	30.8			14	143.6
	PLGN-43	1	434961	7549361	7/17/2007	13:10	7/17/2007	17:54	4.2	4.3	4.7	27.36	3	0.16	3.8,5.1,6.4					2	12.4	1	6.2					3	18.5
	PLGN-44	1	435430	7548704	7/17/2007	13:18	7/17/2007	17:31	2.9	3.1	4.2	27.36	3	0.14	5.1,6.4,6.4					2	13.9							2	13.9
	PLGN-45	1	435285	7548621	7/17/2007	13:25	7/17/2007	17:29	2.8	3.0	4.1	27.36	3	0.14	3.8,5.1,6.4														
	PLGN-46	1	434720	7549059	7/17/2007	16:14	7/17/2007	18:12	6.1	7.8	2.0	27.36	3	0.07	5.1,6.4,6.4														
	PLGN-47	1	434128	7549928	7/18/2007	10:23	7/18/2007	17:01	2.9	7.1	6.6	27.36	3	0.23	5.1,6.4,6.4					9	39.7	4	17.6					13	57.3
	PLGN-48	1	434207	7550132	7/18/2007	10:29	7/18/2007	17:15	2.9	5.9	6.8	27.36	3	0.23	5.1,6.4,6.4					7	30.2	9	38.9					16	69.1
	PLGN-49	1	434395	7550411	7/18/2007	10:32	7/18/2007	17:34	3.9	4.8	7.0	27.36	3	0.24	3.8,5.1,6.4					1	4.2							1	4.2
	PLGN-50	1	434468	7550535	7/18/2007	10:36	7/18/2007	17:38	3.4	4.1	7.0	27.36	3	0.24	3.8,3.8,3.8					1	4.2							1	4.2
	PLGN-51	1	434719	7550901	7/18/2007	10:43	7/18/2007	17:45	5.4	6.2	7.0	27.36	3	0.24	3.8,5.1,6.4					7	29.1							7	29.1
	PLGN-52	1	435202	7548730	8/12/2007	9:40	8/12/2007	15:30	2.5	2.9	5.8	27.36	3	0.20	3.8,5.1,6.4			2	10.0	7	35.1	18	90.2					27	135.3
	PLGN-53	1	435058	7548693	8/12/2007	9:50	8/12/2007	16:30	3.0	4.3	6.7	27.36	3	0.23	3.8,5.1,6.4			16	70.2	4	17.5	24	105.3					44	193.0
	PLGN-54	1	434918	7548904	8/13/2007	10:15	8/13/2007	14:15			4.0	27.36	3	0.14	3.8,5.1,6.4			3	21.9	7	51.2	3	21.9					13	95.0
	PLGN-55	1	434666	7548989	8/13/2007	10:20	8/13/2007	15:15			4.9	27.36	3	0.17	3.8,5.1,6.4			6	35.7	14	83.3	2	11.9					22	130.8
	PLGN-56	1	435132	7549329	8/13/2007	10:30	8/13/2007	16:25			5.9	27.36	3	0.20	3.8,5.1,6.4			23	113.7	13	64.2	1	4.9					37	182.9
	PLGN-57	1	435293	7548246	8/14/2007	10:05	8/14/2007	16:00	4.7	5.2	5.9	27.36	3	0.20	3.8,5.1,6.4			29	143.3	2	9.9	3	14.8					34	168.0
	PLGN-58	1	435493	7548085	8/14/2007	10:10	8/14/2007	16:30	2.2	4.3	6.3	27.36	3	0.22	3.8,5.1,6.4			5	23.1	3	13.9	10	46.2					18	83.1
	PLGN-59	1	435629	7548242	8/14/2007	10:15	8/14/2007	17:00	3.7	4.4	6.8	27.36	3	0.23	3.8,5.1,6.4			10	43.3	14	60.6	6	26.0					30	130.0
	PLGN-60	1	435311	7547653	8/15/2007	9:49	15/08/2007	12:30	9.4	9.5	2.7	27.36	3	0.09	3.8,5.1,6.4			2	21.8	2	21.8	2	21.8					6	65.4
	PLGN-61	1	435390	7546733	8/15/2007	10:10	15/08/2007	13:10	5.0	5.0	3.0	27.36	3	0.10	3.8,5.1,6.4			4	39.0			5	48.7					9	87.7
	PLGN-62	1	436068	7547272	8/15/2007	10:25	15/08/2007	13:45	5.6	6.1	3.3	27.36	3	0.11	3.8,5.1,6.4			9	78.9	1	8.8	5	43.9					15	131.6
	PLGN-63	1	435263	7549961	8/17/2007	8:20	17/08/2007	9:40			1.3	27.36	3	0.05	3.8,5.1,6.4			2	43.9			2	43.9					4	87.7
	PLGN-64	1	435223	7549926	8/17/2007	8:25	17/08/2007	9:55			1.5	27.36	3	0.05	3.8,5.1,6.4			2	39.0			1	19.5					3	58.5
	PLGN-65	1	435185	7549889	8/17/2007	8:30	17/08/2007	10:30			2.0	27.36	3	0.07	3.8,5.1,6.4							1	14.6	5	73.1			6	87.7
	PLGN-66	1	434438	7549537	8/17/2007	11:10	17/08/2007	12:45			1.6	27.36	3	0.05	3.8,5.1,6.4			4	73.9	5	92.3	2	36.9	1	18.5			12	221.6
	PLGN-67	1	434498	7549584	8/17/2007	11:15	17/08/2007	13:45			2.5	27.36	3	0.09	3.8,5.1,6.4			10	117.0	7	81.9	2	23.4					19	222.2
	PLGN-68	1	434584	7549164	8/17/2007	11:30	17/08/2007	14:30			3.0	27.36	3	0.10	3.8,5.1,6.4			2	19.5	4	39.0	6	58.5	6	58.5			18	175.4
	PLGN-69	1	435111	7549542	8/17/2007	15:25	17/08/2007	16:35			1.2	27.36	3	0.04	3.8,5.1,6.4			1	25.1	1	25.1	4	100.3					6	150.4
	PLGN-70	1	435048	7549559	8/17/2007	15:30	17/08/2007	17:15			1.7	27.36	3	0.06	3.8,5.1,6.4							1	16.7	1	16.7			2	33.4
	PLGN-71	1	435051	7549495	8/17/2007	15:35	17/08/2007	17:25			1.8	27.36	3	0.06	3.8,5.1,6.4							8	127.6					8	127.6
	PLGN-72	1	435302	7548902	8/18/2007	12:20	18/08/2007	14:50			2.5	27.36	3	0.09	3.8,5.1,6.4					7	81.9	10	117.0					17	198.8
	PLGN-73	1	435273	7548731	8/18/2007	13:10	18/08/2007	15:45			2.6	27.36	3	0.09	3.8,5.1,6.4			1	11.3	1	11.3	1	11.3					3	34.0
	PLGN-74	1	435210	7548738	8/18/2007	13:15	18/08/2007	16:15			3.0	27.36	3	0.10	3.8,5.1,6.4					5	48.7			2	19.5			7	68.2
	PLGN-75	1	435144	7548545	8/18/2007	13:30	18/08/2007	16:50			3.3	27.36	3	0.11	3.8,6.4,3.8					1	8.8							1	8.8
	PLGN-76	1	435465	7549146	8/19/2007	11:15	19/08/2007	12:40			1.4	27.36	3	0.05	3.8,5.1,6.4			2	41.3			2	41.3	1	20.6			5	103.2
	PLGN-77	1	435438	7549099	8/19/2007	11:19	19/08/2007	13:00			1.7	27.36	3	0.06	3.8,6.4,3.8							1	17.4					1	17.4
	PLGN-78	1	435407	7549041	8/19/2007	11:25	8/19/2007	13:20			1.9	27.36	3	0.07	3.8,5.1,6.4					3	45.8	1	15.3					4	61.0
	PLGN-79	1	435355	7548935	8/19/2007	11:30	8/19/2007	14:10			2.7	27.36	3	0.09	3.8,5.1,6.4			4	43.9	1	11.0	5	54.8					10	109.6
	PLGN-80	1	435173	7549127	8/19/2007	14:45	8/19/2007	16:00			1.2	27.36	3	0.04	3.8,5.1,6.4					4	93.6							4	93.6
	PLGN-81	1	435681	7548892	8/19/2007	14:50	8/19/2007	16:30			1.7	27.36	3	0.06	3.8,5.1,6.4					2	35.1	1	17.5					3	52.6
	PLGN-82	1	435683	7548953	8/19/2007	14:55	8/19/2007	16:50			1.9	27.36	3	0.07	3.8,6.4,3.8							3	45.8					3	45.8
	PLGN-83	1	435690	7549014	8/19/2007	15:00	8/19/2007	17:10			2.2	27.36	3	0.07	3.8,5.1,6.4					1	13.5			1	13.5			2	27.0
	PLGN-84	1	435174	7550022	8/28/2007	9:05	8/28/2007	10:40			1.6	27.36	3	0.05	3.8,5.1,6.4			1	18.5	1	18.5	4	73.9					6	110.8
	PLGN-85	1	435033	7550223	8/28/2007	9:15	8/28/2007	11:10			1.9	27.36	3	0.07	3.8,5.1,6.4			1	15.3									1	15.3
	PLGN-86	1	434635	7550488	8/28/2007	9:25	8/28/2007	11:40			2.3	27.36	3	0.08	3.8,6.4,3.8														
	PLGN-87	1	434658	7550441	8/28/2007	9:30	8/28/2007	11:50			2.3	27.36	3	0.08	3.8,5.1,6.4					1	12.5							1	12.5
	PLGN-88	1	434422	7550384	8/28/2007	11:20	8/28/2007	12:50			1.5	27.36	3	0.05	3.8,5.1,6.4														
	PLGN-89	1	434442	7550423	8/28/2007	11:30	8/28/2007	13:00			1.5	27.36	3	0.05	3.8,5.1,6.4					1	19.5							1	19.5
	PLGN-90	1	434671	7550574	8/28/2007	11:50	8/28/2007	13:45			1.9	27.36	3	0.07	3.8,5.1,3.8														
	PLGN-91	1	434725	7550589	8/28/2007	12:00	8/28/2007	13:45			1.7	27.36	3	0.06	3.8,5.1,6.4														
	PLGN-92	1	434371	7550859	8/28/2007	13:10	8/28/2007	14:55			1.8	27.36	3	0.06	3.8,5.1,6.4					2	33.4	1	16.7					3	50.1
	PLGN-93	1	434324	7550841	8/28/2007	13:15	8/28/2007	15:00			1.7	27.36	3	0.06	3.8,5.1,6.4														
	PLGN-94	1	434422	7551213	8/28/2007	13:50	8/28/2007	15:40			1.8	27.36	3	0.06	3.8,5.1,3.8														
	PLGN-95	1	434378	7551198	8/28/2007	14:00	8/28/2007	15:45			1.7	27.36	3	0.06	3.8,5.1,6.4														
	PLGN-96	1	434176	7551257	8/28/2007	15:20	8/28/2007	16:30			1.2	27.36	3	0.04						1	25.1							1	25.1
	PLGN-97	1	434222	7551267	8/28/2007	15:30	8/28/2007	16:40			1.2	27.36	3	0.04															
	Total										**399.5**			**13.37**				**179**	**13.4**	**278**	**20.8**	**218**	**16.3**	**53**	**4.0**			**728**	**54.4**

Appendix E6. Gill Net Locations, Effort, Catch, and CPUE in the Boston and Madrid Project Areas, 2006 and 2007

Water-body	Site ID	Set No.	UTM (13W) NAD83		Set Date	Set Time	Pull Date	Pull Time	Water Depth (m) min	Water Depth (m) max	Set Period (h)	Net Area (m^2)	No. Panels	Net Units[a]	Mesh Sizes (cm)	ARCH		CISC		LKTR		LKWH		LSCS		NNST		Total	
			Easting	Northing												n	CPUE	n	CPUE	n	CPUE	n	CPUE	n	CPUE	n	CPUE	n	CPUE
P.O. Lake	POGN-01	1	436626	7548527	7/30/2006	11:56	7/30/2006	13:48	2.5	2.5	1.9	27.36	2	0.04	3.8, 6.4			2	46.992	3	70.489							5	117.48
	POGN-02	2	436458	7548421	7/30/2006	12:04	7/30/2006	13:56	1	2.6	1.9	37.1	2	0.06	1.9, 2.5							1	17.328					1	17.328
	POGN-03	3	436613	7549624	7/30/2006	14:33	7/30/2006	16:04	2.7	3.2	1.5	37.1	2	0.05	1.9, 2.5					1	21.326	3	63.979					4	85.306
	POGN-04	4	436597	7549835	7/30/2006	14:40	7/30/2006	15:39	2.8	3.7	1.0	27.36	2	0.02	3.8, 6.4					1	44.603	3	133.81					4	178.41
	Total										**6.2**			**0.17**				**2**	**11.794**	**5**	**29.484**	**7**	**41.278**					**14**	**82.556**
P.O. Connector Lake	POCLGN-01	1	436688	7550347	7/31/2006	13:45	7/31/2006	15:40	2.7	3.3	1.9	27.36	2	0.04	3.8, 6.4					4	91.533							4	91.533
	POCLGN-02	2	436711	7550451	7/31/2006	13:50	7/31/2006	15:35	3.7	3.8	1.7	37.1	2	0.05	1.9, 2.5					1	18.483	2	36.966					3	55.449
	Total										**3.7**			**0.10**						**5**	**51.123**	**2**	**20.449**					**7**	**71.572**
P.O. Inflow Lake	POILGN-01	1	435986	7550829	8/6/2006	12:40	8/6/2006	16:40	3	5	4.0	37.1	2	0.12	1.9, 2.5														
	POILGN-02	2	436045	7550746	8/6/2006	12:50	8/6/2006	16:50	4	4	4.0	27.36	2	0.09	3.8, 6.4														
	POILGN-03	1	436029	7550879	8/8/2006	8:35	8/8/2006	10:40	4.8	4.8	2.1	27.36	2	0.05	3.8, 6.4														
	POILGN-04	2	435933	7550540	8/8/2006	8:43	8/8/2006	10:54	3.7	3.7	2.2	37.1	2	0.07	1.9, 2.5														
	Total										**12.3**			**0.33**														
Wolverine Lake	WLGN-01	1	434728	7546891	7/23/2006	11:33	7/23/2006	16:35	4.6	4.6	5.0	27.36	2	0.11	3.8, 6.4														
	WLGN-02	2	434954	7545935	7/23/2006	11:50	7/23/2006	16:20	3.4	3.4	4.5	37.1	2	0.14	1.9, 2.5											1	7.1878	1	7.1878
	WLGN-03	1	434545	7546016	7/24/2006	9:12	7/24/2006	13:11	3	3	4.0	27.36	2	0.09	3.8, 6.4														
	WLGN-04	2	434689	7545772	7/24/2006	9:28	7/24/2006	13:19	3.5	4	3.8	37.1	2	0.12	1.9, 2.5														
	WLGN-05	3	435028	7545696	7/24/2006	13:29	7/24/2006	16:28	4	4	3.0	37.1	2	0.09	1.9, 2.5														
	WLGN-06	4	434669	7545566	7/24/2006	13:38	7/24/2006	16:38	2.9	2.9	3.0	27.36	2	0.07	3.8, 6.4														
	WLGN-07	1	434747	7546587	8/7/2006	13:17	8/7/2006	16:59	2.3	2.3	3.7	27.36	2	0.08	3.8, 6.4														
	WLGN-08	2	434667	7546339	8/7/2006	13:20	8/7/2006	16:52	2.6	2.6	3.5	37.1	2	0.11	1.9, 2.5														
	Total										**30.6**			**0.8**												**1**	**1.2225**	**1**	**1.2225**

NOTES:

n = number of captured fish

CPUE = fish / Net Unit[a]

[a] one net unit equals 100 m^2 of net set for the equivalent of 24 hours

Total CPUE = (total (n) / (100 m^2 * total h)) *24

Appendix E7. Location, Effort, Catch, and CPUE Data for Minnow Trap Sets in the Boston and Madrid Project Areas, 2006 and 2007

Waterbody	Site ID	UTM (13W) NAD83		Set Date	Set Time	Pull Date	Pull Time	Set Period (h)	Number of Fish Captured / CPUE (fish/24 h)					
									LSCS		NNST		Total	
		Easting	Northing						n	CPUE	n	CPUE	n	CPUE
Aimaokatalok Lake	SLMT-01	439878	7501415	16/07/2006	11:04	16/07/2006	19:03	8.0						
	SLMT-02	439885	7501445	16/07/2006	11:06	16/07/2006	19:04	8.0						
	SLMT-03	439953	7501443	16/07/2006	11:11	16/07/2006	19:00	7.8			2	6.14	2	6.14
	Total							**23.8**			**2**	**2.02**	**2**	**2.02**
Fickle Duck Lake	FLMT-01	442469	7503382	18/07/2006	9:35	18/07/2006	16:42	7.1						
	FLMT-02	442500	7503397	18/07/2006	9:35	18/07/2006	16:41	7.1						
	FLMT-03	442520	7503406	18/07/2006	9:35	18/07/2006	16:42	7.1			5	16.86	5	16.86
	Total							**21.3**			**5**	**5.62**	**5**	**5.62**
Reference Lake	RLMT-01	438117	7504098	19/07/2006	9:55	19/07/2006	13:09	3.2						
	RLMT-02	438126	7504079	19/07/2006	9:54	19/07/2006	13:10	3.3						
	RLMT-03	438128	7504064	19/07/2006	9:56	19/07/2006	13:11	3.2			2	14.77	2	14.77
	Total							**9.8**			**2**	**4.92**	**2**	**4.92**
Stickleback Lake	SLMT-01	441486	7504373	17/07/2006	12:35	17/07/2006	17:42	5.1			4	18.76	4	18.76
	SLMT-02	441509	7504364	17/07/2006	12:30	17/07/2006	17:44	5.2			10	45.86	10	45.86
	SLMT-03	441509	7504364	17/07/2006	12:32	17/07/2006	17:46	5.2			2	9.17	2	9.17
	SLMT-04	441915	7504144	17/07/2006	13:16	17/07/2006	15:44	2.5			11	107.03	11	107.03
	Total							**18.0**			**27**	**35.90**	**27**	**35.90**
Koignuk River	KRMT-01	438496	7509472	19/07/2006	14:01	19/07/2006	17:19	3.3						
	KRMT-02	438516	7509442	19/07/2006	14:03	19/07/2006	17:19	3.3						
	KRMT-03	438442	7509527	19/07/2006	14:06	19/07/2006	17:19	3.2						
	Total							**9.8**					**0**	**0.00**
Ogama Lake	OLMT-01	436560	7551446	03/08/2006	8:46	04/08/2006	13:39	28.9			1	0.83	1	0.83
	OLMT-02	436585	7551434	03/08/2006	8:47	04/08/2006	13:38	28.9			1	0.83	1	0.83
	OLMT-03	435596	7555174	04/08/2006	15:05	05/08/2006	13:29	22.4			5	5.36	5	5.36
	OLMT-04	435604	7555170	04/08/2006	15:05	05/08/2006	13:30	22.4						
	OLMT-05	435617	7555152	04/08/2006	15:06	05/08/2006	15:33	24.5			24	23.56	24	23.56
	OLMT-06	435552	7555187	04/08/2006	15:10	05/08/2006	9:27	18.3			2	2.63	2	2.63
	OLMT-07	435537	7555188	04/08/2006	15:11	05/08/2006	9:28	18.3			2	2.63	2	2.63
	OLMT-08	435512	7555179	04/08/2006	15:11	05/08/2006	9:28	18.3			1	1.31	1	1.31
	OLMT-09	435651	7555321	05/08/2006	13:51	06/08/2006	9:20	19.5			2	2.46	2	2.46
	OLMT-10	435690	7555337	05/08/2006	13:52	06/08/2006	9:21	19.5			2	2.46	2	2.46
	OLMT-11	435802	7554312	05/08/2006	14:01	06/08/2006	9:34	19.5						
	OLMT-12	435796	7554282	05/08/2006	14:02	06/08/2006	9:34	19.5						
	OLMT-13	436222	7554082	05/08/2006	14:46	06/08/2006	9:42	18.9						
	OLMT-14	436215	7554068	05/08/2006	14:47	06/08/2006	9:42	18.9			2	2.54	2	2.54
	Total							**297.8**			**42**	**3.39**	**42**	**3.39**
Patch Lake	PLMT-01	434679	7548357	25/07/2006	12:01	26/07/2006	10:06	22.1			1	1.09	1	1.09
	PLMT-02	434682	7548369	25/07/2006	12:02	26/07/2006	10:08	22.1						
	PLMT-03	434687	7548382	25/07/2006	12:04	26/07/2006	10:08	22.1						
	PLMT-04	436245	7549012	26/07/2006	10:54	27/07/2006	9:45	22.8						
	PLMT-05	436235	7549010	26/07/2006	10:55	27/07/2006	9:45	22.8						
	PLMT-06	436214	7548996	26/07/2006	10:56	27/07/2006	9:45	22.8						
	PLMT-07	435986	7549156	27/07/2006	12:34	29/07/2006	14:06	49.5						
	PLMT-08	435994	7549143	27/07/2006	13:33	29/07/2006	14:05	48.5						
	PLMT-09	436002	7549139	27/07/2006	13:32	29/07/2006	14:07	48.6						
	PLMT-01	436172	7549151	8/13/2007	9:14	14/08/2007	9:12	24.0						
	PLMT-02	436187	7549139	8/13/2007	9:16	14/08/2007	9:16	24.0			1	1.00	1	1.00
	PLMT-03	436243	7549061	8/13/2007	9:20	14/08/2007	9:18	24.0						
	PLMT-04	436255	7549001	8/13/2007	9:12	14/08/2007	9:20	24.1						
	PLMT-05	436250	7548861	8/13/2007	9:18	14/08/2007	9:16	24.0			1	1.00	1	1.00
	PLMT-06	436275	7548831	8/13/2007	9:22	14/08/2007	9:18	23.9						
	Total							**425.4**			**3**	**0.17**	**3**	**0.17**
P.O. Lake	POLMT-01	436333	7548884	30/07/2006	9:10	31/07/2006	9:15	24.1			6	5.98	6	5.98
	POLMT-02	436345	7548896	30/07/2006	9:11	31/07/2006	9:15	24.1			9	8.98	9	8.98
	POLMT-03	436341	7548899	30/07/2006	9:12	31/07/2006	9:15	24.0			6	5.99	6	5.99
	POLMT-04	436701	7550113	30/07/2006	11:10	31/07/2006	9:00	21.8						
	POLMT-05	436689	7550123	30/07/2006	11:11	31/07/2006	9:00	21.8						
	POLMT-06	436694	7550131	30/07/2006	11:12	31/07/2006	9:00	21.8						
	Total							**137.6**			**21**	**3.66**	**21**	**3.66**

Appendix E7. Location, Effort, Catch, and CPUE Data for Minnow Trap Sets in the Boston and Madrid Project Areas, 2006 and 2007

Waterbody	Site ID	UTM (13W) NAD83		Set Date	Set Time	Pull Date	Pull Time	Set Period (h)	Number of Fish Captured / CPUE (fish/24 h)					
									LSCS		NNST		Total	
		Easting	Northing						n	CPUE	n	CPUE	n	CPUE
P.O. Connector Lake	POCMT-01	436600	7550622	31/07/2006	14:20	01/08/2006	15:48	25.5			23	21.68	23	21.68
	POCMT-02	436602	7550618	31/07/2006	14:23	01/08/2006	15:48	25.4			23	21.72	23	21.72
	POCMT-03	436598	7550635	31/07/2006	14:25	01/08/2006	15:48	25.4			26	24.58	26	24.58
	POCMT-04	436742	7550219	31/07/2006	15:14	01/08/2006	15:11	24.0						
	POCMT-05	436811	7550223	31/07/2006	15:15	01/08/2006	15:10	23.9						
	POCMT-06	436793	7550219	31/07/2006	15:16	01/08/2006	15:09	23.9						
	Total							**148.0**			**72**	**11.67**	**72**	**11.67**
PO Inflow Lake	POINMT-01	436032	7551094	06/08/2006	11:56	07/08/2006	11:14	23.3			7	7.21	7	7.21
	POINMT-02	436025	7551088	06/08/2006	11:56	07/08/2006	11:16	23.3			6	6.17	6	6.17
	POINMT-03	436018	7551084	06/08/2006	11:57	07/08/2006	11:18	23.3			2	2.06	2	2.06
	POINMT-04	436080	7550344	06/08/2006	13:00	07/08/2006	11:06	22.1						
	POINMT-05	436081	7550338	06/08/2006	13:02	07/08/2006	11:06	22.1			4	4.35	4	4.35
	POINMT-06	436072	7550331	06/08/2006	13:04	07/08/2006	11:07	22.0			19	20.68	19	20.68
	Total							**136.2**			**38**	**6.70**	**38**	**6.70**
Wolverine Lake	WLMT-01	434761	7547030	23/07/2006	11:05	24/07/2006	8:34	21.5			8	8.94	8	8.94
	WLMT-02	434773	7547007	23/07/2006	11:07	24/07/2006	8:38	21.5			23	25.65	23	25.65
	WLMT-03	434774	7546964	23/07/2006	11:11	24/07/2006	8:45	21.6			21	23.37	21	23.37
	WLMT-04	434847	7545439	23/07/2006	12:23	24/07/2006	9:38	21.2						
	WLMT-05	434809	7545454	23/07/2006	12:24	24/07/2006	9:39	21.2						
	WLMT-06	434824	7545459	23/07/2006	12:26	24/07/2006	9:39	21.2			3	3.39	3	3.39
	WLMT-07	435319	7545498	24/07/2006	10:05	24/07/2006	16:16	6.2			1	3.88	1	3.88
	WLMT-08	435322	7545491	24/07/2006	10:06	24/07/2006	16:17	6.2			2	7.76	2	7.76
	WLMT-09	435296	7545461	24/07/2006	10:08	24/07/2006	16:19	6.2						
	WLMT-10	434670	7546831	07/08/2006	12:05	07/08/2006	17:07	5.0			21	100.13	21	100.13
	WLMT-11	434666	7546847	07/08/2006	12:06	07/08/2006	17:07	5.0			12	57.41	12	57.41
	WLMT-12	434689	7546872	07/08/2006	12:08	07/08/2006	17:10	5.0	3	14.30	9	42.91	12	57.22
	Total							**15.1**	**3**	**4.77**	**100**	**159.12**	**103**	**163.89**
Ogama Inflow	OIMT-01	436489	7551399	02/08/2006	14:25	04/08/2006	13:40	47.3			2	1.02	2	1.02
	OIMT-02	436476	7551450	02/08/2006	14:27	03/08/2006	8:38	18.2			24	31.68	24	31.68
	OIMT-03	436489	7551389	02/08/2006	14:28	03/08/2006	8:39	18.2			10	13.20	10	13.20
	Total							**83.6**			**36**	**10.33**	**36**	**10.33**

NOTES:

n = number of captured fish

CPUE = catch per unit effort (fish/24 h)

Appendix E8 . Number of Fish Captured with Kick Nets and Dip Nets in Boston Project Area, 2007

Waterbody	Site ID	UTM (13W) NAD27		Date	Number of Fish	
					NNST	Total
		Easting	Northing		*n*	*n*
Koignuk River	KNDIPNET-01	429479	7555080	7/8/2007	51	**51**
	KNKN-01	430098	7550872	7/8/2007		**0**

APPENDIX E9

FISH LIFE HISTORY
SUMMARY STATISTICS

Appendix E9. Length, Weight, and Condition Factor Statistics for Fish Captured, 2006 - 2007

Waterbody	Species	Fork Length (mm)					Weight (g)					Condition Factor				
		n	**Mean**	SD	Min	Max	*n*	**Mean**	SD	Min	Max	*n*	**Mean**	SD	Min	Max
Aimaokatalok Lake	Lake Trout	*3*	**179**	212	30	422	*1*	**852**	-	-	-	*1*	**1.13**	-	-	-
	Cisco	*2*	**80**	7	75	85	-	-	-	-	-	-	-	-	-	-
	Ninespine Stickleback	*102*	**41**	5	30	55	-	-	-	-	-	-	-	-	-	-
Fickle Duck Lake	Lake Trout	*3*	**374**	259	78	555	*2*	**2005**	870	1390	2620	*2*	**1.36**	0.25	1.18	1.53
	Ninespine Stickleback	*6*	**49**	2	46	51	-	-	-	-	-	-	-	-	-	-
Reference Lake	Lake Trout	*1*	**195**	-	-	-	*1*	**80**	-	-	-	*1*	**1.08**	-	-	-
	Cisco	*1*	**28**	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ninespine Stickleback	*12*	**42**	7	30	50	-	-	-	-	-	-	-	-	-	-
Stickleback Lake	Ninespine Stickleback	*27*	**55**	10	40	82	-	-	-	-	-	-	-	-	-	-
Aimaokatalok River	Lake Trout	*9*	**31**	9	25	53	-	-	-	-	-	-	-	-	-	-
	Ninespine Stickleback	*15*	**42**	8	31	64	-	-	-	-	-	-	-	-	-	-
Fickle Duck Inflow	Ninespine Stickleback	*8*	**41**	6	35	50	-	-	-	-	-	-	-	-	-	-
Fickle Duck Outflow	Lake Trout	*1*	**85**	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ninespine Stickleback	*7*	**42**	6	35	51	-	-	-	-	-	-	-	-	-	-
	Burbot	*1*	**415**	-	-	-	*1*	**490**	-	-	-	*1*	**0.69**	-	-	-
Koignuk River	Arctic Char	*1*	**605**	-	-	-	*1*	**2538**	-	-	-	*1*	**1.15**	-	-	-
	Arctic Flounder	*3*	**103**	33	76	139	3	**19**	20	6	42	3	**1.31**	0.29	0.99	1.56
	Arctic Grayling**	*6*	**384**	18	350	400	*2*	**627**	33	603	650	*2*	**1.05**	0.12	0.96	1.14
	Arctic Grayling***	*12*	**49**	29	23	109	1	**13**	-	-	-	1	**1.00**	-	-	-
	Burbot	*2*	**77**	9	70	83	-	-	-	-	-	-	-	-	-	-
	Fourhorn Sculpin	*2*	**50**	47	16	83	*1*	**5**	-	-	-	*1*	**0.87**	-	-	-
	Lake Trout**	*8*	**497**	74	440	665	*8*	**1519**	508	1135	2750	*8*	**1.25**	0.23	0.91	1.52
	Lake Trout***	*1*	**78**	-	-	-	-	-	-	-	-	-	-	-	-	-
	Lake Whitefish**	*5*	**498**	15	480	520	*2*	**1363**	18	1350	1375	*2*	**1.16**	0.08	1.10	1.22
	Lake Whitefish***	*121*	**30-40**[a]	-	30-40	78	-	-	-	-	-	-	-	-	-	-
	Ninespine Stickleback	*29*	**45**	9	31	67	-	-	-	-	-	-	-	-	-	-
	Slimy Sculpin	*3*	**52**	6	46	57	-	-	-	-	-	-	-	-	-	-
Stickleback Outflow	Slimy Sculpin	*1*	**115**	-	115	115	-	-	-	-	-	-	-	-	-	-
	Ninespine Stickleback	*24*	**46**	6	35	57	-	-	-	-	-	-	-	-	-	-
Glenn Lake	Arctic Char	*3*	**223**	26	193	241	*3*	**132**	45	80	160	*3*	**1.15**	0.04	1.11	1.19
	Cisco	*6*	**233**	17	213	250	*4*	**130**	32	100	175	*4*	**1.12**	0.07	1.03	1.19
	Lake Trout	*34*	**439**	182	152	750	*32*	**1299**	1395	36	4753	*32*	**1.01**	0.10	0.83	1.27
	Lake Whitefish	*2*	**442**	10	435	449	*2*	**1255**	127	1165	1345	*2*	**1.45**	0.05	1.41	1.49
Ogama Lake	Lake Trout	*3*	**623**	64	550	665	*3*	**2322**	848	1455	3150	*3*	**0.93**	0.12	0.84	1.07
	Lake Whitefish**	*10*	**319**	15	294	346	*10*	**409**	105	245	635	*10*	**1.24**	0.18	0.90	1.53
	Lake Whitefish***	*27*	**35-55**[a]	-	-	-	-	-	-	-	-	-	-	-	-	-
	Cisco**	*25*	**222**	14	203	255	*25*	**125**	21	95	195	*25*	**1.13**	0.01	0.87	1.31
	Cisco***	*275*	**35-60**[a]	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ninespine Stickleback	*43*	**58**	6	45	74	-	-	-	-	-	-	-	-	-	-
Patch Lake	Cisco	*195*	**238**	43	85	450	*90*	**172**	75	13	378	*90*	**1.09**	0.16	0.73	1.50
	Lake Trout	*300*	**650**	121	277	980	*203*	**3037**	1485	195	8695	*203*	**1.03**	0.14	0.74	1.49
	Lake Whitefish	*225*	**380**	56	214	615	*131*	**751**	308	158	1825	*131*	**1.34**	0.18	0.82	1.75
	Least Cisco	*12*	**229**	18	204	253	-	-	-	-	-	-	-	-	-	-
	Ninespine Stickleback	*4*	**53**	13	45	73	-	-	-	-	-	-	-	-	-	-
P.O. Lake	Lake Trout	*14*	**597**	126	304	725	*10*	**1808**	989	265	3000	*10*	**0.92**	0.10	0.77	1.11
	Lake Whitefish	*7*	**365**	51	300	434	*6*	**697**	387	330	1365	*6*	**1.36**	0.16	1.22	1.67
	Cisco	*3*	**209**	6	204	215	*3*	**88**	8	80	95	*3*	**0.97**	0.13	0.88	1.12
	Ninespine Stickleback	*27*	**47**	13	21	65	-	-	-	-	-	-	-	-	-	-
P.O. Connector Lake	Lake Trout	*7*	**477**	139	349	710	*5*	**1430**	1120	415	2985	*5*	**0.94**	0.10	0.83	1.08
	Lake Whitefish	*3*	**254**	158	74	367	*2*	**528**	88	465	590	*2*	**1.30**	0.15	1.19	1.41
	Ninespine Stickleback	*104*	**52**	6	35	70	-	-	-	-	-	-	-	-	-	-
P.O. Inflow Lake	Cisco	*21*	**53**	11	35	79	-	-	-	-	-	-	-	-	-	-
	Ninespine Stickleback	*169*	**49**	8	20	78	-	-	-	-	-	-	-	-	-	-
Wolverine Lake	Least Cisco	*114*	**54**	12	35	85	-	-	-	-	-	-	-	-	-	-
	Ninespine Stickleback	*221*	**47**	9	10	65	-	-	-	-	-	-	-	-	-	-
Ogama Inflow	Lake Trout	*14*	**581**	111	420	790	*12*	**2043**	1272	660	4410	*12*	**0.96**	0.11	0.83	1.14
	Lake Whitefish**	*1*	**342**	-	-	-	-	-	-	-	-	-	-	-	-	-
	Lake Whitefish***	*4*	**42**	7	35	50	-	-	-	-	-	-	-	-	-	-
	Ninespine Stickleback	*41*	**55**	8	40	71	-	-	-	-	-	-	-	-	-	-
Ogama Outflow	Lake Trout	*7*	**408**	92	283	539	*7*	**787**	412	280	1400	*7*	**1.08**	0.15	0.89	1.26
	Lake Whitefish	*4*	**307**	12	292	322	*4*	**451**	47	400	500	*4*	**1.56**	0.10	1.45	1.68
	Cisco	*1*	**231**	-	-	-	*1*	**145**	-	-	-	*1*	**1.18**	-	-	-
	Ninespine Stickleback	*150*	**43**	11	21	83	-	-	-	-	-	-	-	-	-	-
P.O. Lake Outflow	Ninespine Stickleback	*6*	**36**	20	24	75	-	-	-	-	-	-	-	-	-	-

** Adult fish only

*** Juvenile fish only

[a] estimated length range; fish not measured to reduce mortality due to handling

APPENDIX E10

PATCH LAKE
POPULATION ESTIMATE

Table E10.1 Summary of Model Selection Results from Program MARK for Lake Trout Captured at Patch Lake During 2007 (n = 234 Fish Captured over 18 Occasions)

Model Type	ΔAICc	AICc	Akaike Weight	Likelihood	No. of parameters	Deviance
M_t (time)*	-539.91	0	0.732	1	19	105.25
M_{th} (time & heterogeneity)	-537.89	2.02	0.267	0.364	20	105.25
M_o	-459.13	80.78	0	0	2	220.21
M_b (behaviour)	-457.21	82.71	0	0	3	220.13
M_h (heterogeneity)	-457.13	82.79	0	0	3	220.21
M_{bh} (heterogeneity & behaviour)	-453.20	86.72	0	0	5	220.13

* best model of those examined.

Table E10.2 Summary of Parameters Estimated with M_t Model in Program Mark for Lake Trout Captured During 2007 (n = 234 Fish Captured over 18 Occasions)

Parameter	Estímate	SE	95% Lower CI	95% Upper CI
1:*p*	0.0009	0.0009	0.0001	0.0063
2:*p*	0.0035	0.0018	0.0012	0.0098
3:*p*	0.0129	0.0041	0.0070	0.0240
4:*p*	0.0104	0.0035	0.0053	0.0202
5:*p*	0.0052	0.0023	0.0022	0.0124
6:*p*	0.0233	0.0062	0.0138	0.0390
7:*p*	0.0199	0.0055	0.0115	0.0340
8:*p*	0.0190	0.0053	0.0109	0.0328
9:*p*	0.0190	0.0053	0.0109	0.0328
10:*p*	0.0224	0.0060	0.0132	0.0378
11:*p*	0.0069	0.0027	0.0032	0.0150
12:*p*	0.0259	0.0067	0.0156	0.0428
13:*p*	0.0147	0.0045	0.0081	0.0265
14:*p*	0.0017	0.0013	0.0004	0.0072
15:*p*	0.0155	0.0046	0.0086	0.0278
16:*p*	0.0112	0.0037	0.0058	0.0214
17:*p*	0.0078	0.0030	0.0037	0.0163
18:*p*	0.0035	0.0018	0.0012	0.0098
N	1158.6	213.7	825.2	1680.0

Note: (*p* = Probability of Capture; *N*=Population Estimate)