

Appendix 3.4-2. Lake Sediment Quality Photographs, Hope Bay Belt Project, 2010



Patch Lake, Shallow Depth, ~ 3.5 m



Reference Lake B, Mid Depth, ~ 5.5 m



Aim. Lake Station 2, Shallow Depth, ~ 3.0 m



Aim. Lake Station 5, Shallow Depth, ~ 2.5 m



Aim. Lake Station 6, Deep Depth, ~ 28 m



Aim. Lake Station 13, Shallow Depth, ~ 3.7 m



Aim. Lake Station 11, Shallow Depth, ~ 2.5 m



Aim. Lake Station 12, Shallow Depth, ~ 0.3m



Stickleback Lake, Shallow Depth, ~ 2.5 m



Trout Lake, Shallow Depth, ~ 2.5 m

Appendix 3.4-3

Lake Sediment Quality Analytical Results, Hope Bay Belt Project, 2010

Appendix 3.4-3. Lake Sediment Quality Analytical Results, Hope Bay Belt Project, 2010

Site Abbreviation:		CCME Guidelines for the Protection of Aquatic Life ^a		RDL ^d	Aim. Stn 13	Aim. Stn 13	Aim. Stn 13	Aim. Stn 6	Aim. Stn 6	Aim. Stn 6	Trout	Trout	Trout	Stickleback	Stickleback	Stickleback	Aim. Stn 11	Aim. Stn 11	Aim. Stn 11
Depth (m):	Replicate:				3.7	3.7	3.7	28	27	28.5	2.75	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Date Sampled:	ALS Sample ID:	ISQG ^b	PEL ^c		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
	Units				14-Aug-10	14-Aug-10	14-Aug-10	14-Aug-10	14-Aug-10	14-Aug-10	17-Aug-10	17-Aug-10	17-Aug-10	19-Aug-10	19-Aug-10	19-Aug-10	17-Aug-10	17-Aug-10	17-Aug-10
					L921177-1	L921177-2	L921177-3	L921177-4	L921177-5	L921177-6	L923218-1	L923218-2	L923218-3	L923218-4	L923218-5	L923218-6	L923218-7	L923218-8	L923218-9
Physical Tests																			
Moisture	%			0.10	44.2	55.4	59.3	60.9	63.0	57.9	63.5	71.5	58.8	89.3	15.5	89.0	23.0	28.4	23.5
pH	pH			0.10	5.66	6.34	6.36	6.20	6.39	6.19	6.24	6.03	6.00	6.29	6.20	6.21	6.70	6.60	6.66
Particle Size																			
% Gravel (>2mm)	%			0.10-1.0	<1.0	17.4	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
% Sand (2.0mm - 0.063mm)	%			0.10-1.0	7.2	11.3	6.7	7.4	7.7	11.3	0.83	0.79	2.12	1.20	1.33	0.56	70.4	49.6	49.4
% Silt (0.063mm - 4µm)	%			0.10-1.0	43.8	36.1	47.9	43.3	45.2	43.1	64.9	59.7	66.4	79.8	73.3	69.1	27.8	46.9	46.6
% Clay (<4µm)	%			0.10-1.0	49.1	35.3	45.4	49.3	47.1	45.6	34.3	39.5	31.5	19.0	25.4	30.4	1.86	3.48	4.02
Leachable Anions & Nutrients																			
Total Nitrogen	%			0.020	0.077	0.127	0.106	0.176	0.172	0.120	0.245	0.331	0.218	1.49	1.36	1.28	0.032	0.038	0.036
Organic / Inorganic Carbon																			
Total Organic Carbon	%			0.10	0.64	0.98	0.87	1.63	1.50	0.97	2.80	3.85	2.64	18.4	15.5	16.1	0.26	0.33	0.29
Plant Available Nutrients																			
Available Ammonium	mg/kg			0.80-2.4	2.0	15.6	3.1	8.7	7.0	5.8	10.2	7.53	9.97	32.3	33.6	17.7	1.82	1.36	0.98
Available Nitrate	mg/kg			2.0-8.6	<4.3	<4.3	<5.0	<5.0	<6.0	<6.0	<3.0	<3.0	<2.0	<3.8	<3.8	<5.0	<2.0	<2.0	<2.0
Nitrite	mg/kg			0.40-1.7	<0.86	<0.86	<1.0	<1.0	<1.2	<1.2	<0.60	<0.60	<0.40	<0.75	<0.75	<1.0	<0.40	<0.40	<0.40
Available Phosphate	mg/kg			2.0-4.0	4.1	5.1	2.5	9.4	15.4	9.5	3.5	4.3	3.8	9.7	11.7	7.4	4.0	3.9	3.4
Metals																			
Aluminum (Al)	mg/kg			50	24100	21700	21500	27500	25000	21600	13700	16700	14700	13700	15200	15200	2980	5320	5140
Antimony (Sb)	mg/kg			10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Arsenic (As)	mg/kg	5.9	17.0	0.05-0.50	7.47	13.2	7.18	3.22	3.10	4.23	2.28	2.27	2.11	5.06	4.83	4.28	1.40	3.25	1.86
Barium (Ba)	mg/kg			1.0	151	133	136	170	152	134	74.9	91.3	83.4	90.3	94.0	90.2	17.3	28.6	26.3
Beryllium (Be)	mg/kg			0.50	0.83	0.80	0.71	1.01	0.89	0.76	<0.50	0.56	<0.50	<0.50	0.56	0.58	<0.50	<0.50	<0.50
Bismuth (Bi)	mg/kg			20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Cadmium (Cd)	mg/kg	0.6	3.5	0.10	0.13	0.11	0.11	0.22	0.20	<0.10	<0.10	<0.10	<0.10	0.15	0.14	0.13	<0.10	<0.10	<0.10
Calcium (Ca)	mg/kg			50	5940	5520	5480	5550	5160	4830	5600	6140	5650	10800	11400	10400	1740	2420	2410
Chromium (Cr)	mg/kg	37.3	90.0	2.0	64.5	59.4	59.4	77.7	70.2	60.5	39.1	47.9	42.6	39.9	43.8	43.5	7.6	14.7	14.5
Cobalt (Co)	mg/kg			2.0	16.0	15.4	15.1	15.3	14.1	12.7	7.0	8.4	7.8	10.3	10.5	10.8	2.8	3.5	3.5
Copper (Cu)	mg/kg	35.7	197	1.0	25.3	23.1	21.8	25.3	23.9	20.4	16.1	20.8	18.5	46.3	47.0	49.0	2.2	4.6	4.2
Iron (Fe)	mg/kg			50	39200	39900	36000	32500	30800	32100	21100	23500	21100	24100	22900	21000	6520	13800	9680
Lead (Pb)	mg/kg	35	91.3	2.0	10.7	9.8	10.4	12.8	10.7	8.8	6.4	6.3	5.8	6.6	6.7	6.8	<2.0	2.5	2.5
Lithium (Li)	mg/kg			2.0	40.8	37.1	37.5	47.6	42.9	39.3	21.9	27.2	24.2	22.4	24.4	24.2	5.6	9.0	9.0
Magnesium (Mg)	mg/kg			50	13000	12100	12000	14900	13600	12200	6910	8420	7440	7470	7980	7930	1530	2740	2630
Manganese (Mn)	mg/kg			1.0	881	1130	1110	557	711	672	186	205	176	437	358	262	215	230	206
Mercury (Hg)	mg/kg	0.17	0.486	0.0050	0.0133	0.0237	0.0200	0.0414	0.0435	0.0249	0.0206	0.0240	0.0230	0.0434	0.0346	0.0362	<0.0050	0.0051	<0.0050
Molybdenum (Mo)	mg/kg			0.20	1.61	2.25	2.06	1.28	1.10	0.76	0.68	0.78	0.72	1.65	1.54	1.64	0.27	0.42	0.45
Nickel (Ni)	mg/kg			5.0	31.1	29.2	29.0	36.3	32.5	28.9	18.9	22.8	20.9	31.7	32.4	32.7	<5.0	6.0	5.8
Phosphorus (P)	mg/kg			50	1150	1100	927	774	781	900	762	758	762	977	919	870	426	668	550
Potassium (K)	mg/kg			200	6230	5280	5320	6440	5910	5470	2560	3180	2730	3490	3770	3580	570	1080	1030
Selenium (Se)	mg/kg			0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.59	0.60	0.64	<0.50	<0.50	<0.50
Silver (Ag)	mg/kg			0.10	0.48	0.19	0.14	0.16	0.17	0.14	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sodium (Na)	mg/kg			200	1010	840	830	890	890	820	460	520	470	1020	800	830	<200	220	200
Strontium (Sr)	mg/kg			0.50	45.2	40.0	39.0	49.6	43.7	39.5	31.4	35.8	32.1	55.1	57.5	58.3	8.69	13.2	12.9
Sulphur (S)	mg/kg			100-500	160	220	210	350	290	190	730	1020	690	3780	3170	2980	170	190	180
Thallium (Tl)	mg/kg			0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Tin (Sn)	mg/kg			5.0	<5.0	<5.0	<5.0	5.4	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Titanium (Ti)	mg/kg			1.0	1500	1340	1340	1550	1460	1350	927	1080	937	614	780	786	242	421	417
Uranium (U)	mg/kg			0.050	-	-	-	-	-	-	1.11	1.28	1.21	1.66	1.64	1.67	0.349	0.564	0.607
Vanadium (V)	mg/kg			2.0	82.0	85.1	72.6	83.7	75.9	67.1	44.6	53.6	47.3	47.4	51.7	52.1	10.1	19.2	18.4
Zinc (Zn)	mg/kg	123	315	1.0	76.3	77.0	74.9	111	101	82.6	54.1	65.6	58.3	59.4	61.5	62.4	11.3	19.8	19.0

Shaded cells indicate values that are both above analytical detection limits and exceed CCME guidelines for the protection of freshwater aquatic life.

a) Canadian sediment quality guidelines for the protection of freshwater aquatic life, Council of Ministers of the Environment, Updated 2002

b) ISQG = Interim Sediment Quality Guideline

c) PEL = Probable Effects Level

d) RDL = Realized detection limit

Appendix 3.4-3. Lake Sediment Quality Analytical Results, Hope Bay Belt Project, 2010

Site Abbreviation:		CCME Guidelines for the Protection of Aquatic Life ^a		RDL ^d	Aim. Stn 5	Aim. Stn 5	Aim. Stn 5	Ref. B Shallow	Ref. B Shallow	Ref. B Shallow	Aim. Stn 2	Aim. Stn 2	Aim. Stn 2	Aim. Stn 12	Aim. Stn 12	Aim. Stn 12	Windy Deep	Windy Deep	Windy Deep
Depth (m):	Replicate:				1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Date Sampled:	ALS Sample ID:				18-Aug-10	18-Aug-10	18-Aug-10	23-Aug-10	23-Aug-10	23-Aug-10	18-Aug-10	18-Aug-10	18-Aug-10	22-Aug-10	22-Aug-10	22-Aug-10	22-Aug-10	22-Aug-10	22-Aug-10
Units	ISQG ^b	PEL ^c	L923218-10	L923218-11	L923218-12	L926325-1	L926325-2	L926325-3	L926325-4	L926325-5	L926325-6	L926325-7	L926325-8	L926325-9	L926325-10	L926325-11	L926325-12		
Physical Tests																			
Moisture	%		0.10	33.2	29.4	26.4	87.4	88.2	88.7	47.0	62.6	32.5	34.2	51.0	20.6	65.2	66.9	71.4	
pH	pH		0.10	6.55	6.57	6.72	6.13	6.37	6.37	6.14	5.54	6.50	6.71	6.74	6.92	6.63	6.62	6.60	
Particle Size																			
% Gravel (>2mm)	%		0.10-1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.16	<0.10	0.14	<0.10	<0.10	0.50	<0.10	<0.10	<0.10	
% Sand (2.0mm - 0.063mm)	%		0.10-1.0	20.8	37.3	69.2	2.14	1.96	1.73	37.2	7.23	70.4	50.7	19.1	54.6	0.28	0.20	0.25	
% Silt (0.063mm - 4µm)	%		0.10-1.0	45.7	46.1	26.5	93.8	93.1	94.7	59.0	88.0	25.8	48.8	78.3	44.5	58.9	64.4	72.4	
% Clay (<4µm)	%		0.10-1.0	33.5	16.6	4.33	4.11	4.97	3.59	3.70	4.81	3.63	0.54	2.60	0.33	40.8	35.4	27.4	
Leachable Anions & Nutrients																			
Total Nitrogen	%		0.020	0.043	0.053	0.043	0.697	0.699	0.712	0.113	0.198	0.045	0.045	0.110	0.030	0.147	0.157	0.152	
Organic / Inorganic Carbon																			
Total Organic Carbon	%		0.10	0.32	0.45	0.34	8.43	8.46	8.54	0.91	1.61	0.28	0.29	0.91	<0.10	1.03	1.13	1.06	
Plant Available Nutrients																			
Available Ammonium	mg/kg		0.80-2.4	1.90	2.50	2.29	18.5	19.2	22.7	5.46	26.1	1.23	1.27	2.98	<0.80	5.6	6.1	6.8	
Available Nitrate	mg/kg		2.0-8.6	<2.0	<2.0	<2.0	<3.3	<3.8	<3.3	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4.3	<5.0	<5.0	
Nitrite	mg/kg		0.40-1.7	<0.40	<0.40	<0.40	<0.67	<0.75	<0.67	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.86	<1.0	<1.0	
Available Phosphate	mg/kg		2.0-4.0	5.7	4.6	4.3	17.9	16.1	17.6	4.5	3.3	3.7	<2.0	<2.0	<2.0	20.6	15.1	15.4	
Metals																			
Aluminum (Al)	mg/kg	5.9	17.0	50	15300	9260	3720	19600	19700	19700	8010	12000	4960	2820	5660	2770	30100	28800	28600
Antimony (Sb)	mg/kg			10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Arsenic (As)	mg/kg			0.05-0.50	5.85	3.31	2.22	1.68	2.12	1.72	1.57	4.47	1.83	0.558	1.58	0.615	9.95	12.9	9.10
Barium (Ba)	mg/kg			1.0	88.8	51.9	19.5	93.6	93.7	95.1	46.6	71.5	27.4	13.0	30.8	12.2	176	171	169
Beryllium (Be)	mg/kg	0.6	3.5	0.50	0.55	<0.50	<0.50	0.69	0.74	0.73	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.94	0.90	0.89
Bismuth (Bi)	mg/kg			20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Cadmium (Cd)	mg/kg			0.10	<0.10	<0.10	<0.10	0.29	0.26	0.29	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.13	0.12	0.13
Calcium (Ca)	mg/kg			50	4150	2830	1790	3960	4180	4230	2580	3570	1720	2220	2650	2140	6680	6300	6220
Chromium (Cr)	mg/kg	37.3	90.0	2.0	42.4	27.1	10.4	52.1	51.8	51.2	23.5	37.4	13.7	9.6	15.8	9.2	81.5	78.7	77.4
Cobalt (Co)	mg/kg	35.7	197	2.0	10.6	7.5	3.6	8.9	9.0	8.9	5.7	9.4	3.5	<2.0	3.8	<2.0	16.8	16.4	16.2
Copper (Cu)	mg/kg			1.0	16.6	9.5	3.4	60.1	61.3	61.8	8.7	16.7	4.9	3.3	4.6	2.0	44.7	44.0	43.0
Iron (Fe)	mg/kg			50	30500	16600	9120	24400	24200	24600	11800	19700	9830	5310	8630	5380	41600	43200	39700
Lead (Pb)	mg/kg			2.0	6.2	4.2	2.1	7.3	7.4	7.6	4.0	5.6	2.3	2.3	2.9	<2.0	11.0	10.8	11.9
Lithium (Li)	mg/kg	35	91.3	2.0	26.7	17.4	7.0	28.6	29.1	28.9	14.0	20.1	9.1	5.0	9.4	4.9	55.7	54.1	53.3
Magnesium (Mg)	mg/kg			50	8190	5420	1990	8120	8040	8050	4440	6400	2620	1480	2920	1400	19000	18200	18200
Manganese (Mn)	mg/kg			1.0	690	405	260	203	199	202	254	267	250	66.7	145	60.4	842	889	727
Mercury (Hg)	mg/kg	0.17	0.486	0.0050	0.0056	0.0074	<0.0050	0.0315	0.0279	0.0310	0.0134	0.0236	<0.0050	<0.0050	<0.0050	<0.0050	0.0223	0.0225	0.0217
Molybdenum (Mo)	mg/kg	5.0	13.5	0.20	1.49	0.81	0.39	2.64	2.91	2.43	0.53	1.98	0.39	<0.20	0.31	<0.20	1.83	2.16	1.88
Nickel (Ni)	mg/kg			5.0	20.9	13.5	<5.0	28.1	28.3	27.9	11.3	18.3	6.1	<5.0	7.3	<5.0	42.9	41.4	41.1
Phosphorus (P)	mg/kg			50	914	632	473	817	837	825	528	801	430	567	482	518	1060	1160	1000
Potassium (K)	mg/kg			200	3740	2160	720	3270	3290	3310	1770	2670	1040	480	1200	440	8240	7890	7830
Selenium (Se)	mg/kg	0.50	0.10	0.50	<0.50	<0.50	<0.50	0.54	0.51	0.53	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Silver (Ag)	mg/kg			0.10	<0.10	<0.10	<0.10	0.14	0.14	0.15	<0.10	0.42	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	0.11
Sodium (Na)	mg/kg			200	560	300	<200	470	460	470	300	430	<200	<200	230	<200	1740	1610	1640
Strontium (Sr)	mg/kg			0.50	30.4	16.8	9.42	29.9	30.7	31.0	15.8	22.5	9.94	9.12	15.2	9.23	45.9	43.3	42.6
Sulphur (S)	mg/kg	100-500	0.50	50	200	210	180	1630	1730	1620	230	600	<100	<100	170	<100	410	420	410
Thallium (Tl)	mg/kg			0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Tin (Sn)	mg/kg			5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Titanium (Ti)	mg/kg			1.0	959	575	308	667	669	674	550	787	346	289	457	306	1770	1650	1670
Uranium (U)	mg/kg	2.0	315	0.050	1.38	0.952	0.528	5.28	5.48	5.40	0.856	1.17	0.504	0.685	0.582	0.617	2.46	2.39	2.65
Vanadium (V)	mg/kg			2.0	51.5	33.8	14.6	55.0	55.3	54.8	27.5	41.4	16.8	12.6	19.5	13.9	86.6	84.1	83.1
Zinc (Zn)	mg/kg			1.0	50.7	37.0	15.3	106	110	104	36.7	56.0	19.4	9.4	21.2	9.0	88.3	85.8	85.5

Shaded cells indicate values that are both above analytical detection limits and exceed CCME guidelines for the protection of freshwater aquatic life.

a) Canadian sediment quality guidelines for the protection of freshwater aquatic life, Council of Ministers of the Environment, Updated 2002

b) ISQG = Interim Sediment Quality Guideline

c) PEL = Probable Effects Level

d) RDL = Realized detection limit

Appendix 3.4-3. Lake Sediment Quality Analytical Results, Hope Bay Belt Project, 2010

Site Abbreviation:		CCME Guidelines for the Protection of Aquatic Life ^a		RDL ^d	Windy Shallow	Windy Shallow	Windy Shallow	Wolverine Dike	Wolverine Dike	Wolverine Dike	Patch Dike	Patch Dike	Patch Dike
Depth (m):	Replicate:				3	3	3	2	2	2.5	3.5	3.5	3.5
Date Sampled:	ALS Sample ID:	ISQG ^b PEL ^c			1	2	3	1	2	3	1	2	3
Units				L926325-13	L926325-14	L926325-15	L930638-4	L930638-5	L930638-6	L930638-7	L930638-8	L930638-9	
Physical Tests													
Moisture	%			0.10	35.4	26.4	28.2	68.6	68.2	83.3	73.2	72.7	74.5
pH	pH			0.10	7.05	7.14	7.24	5.91	6.09	5.85	6.05	6.15	6.10
Particle Size													
% Gravel (>2mm)	%			0.10-1.0	2.05	<0.10	<0.10	<0.10	<0.10	<0.10	0.72	<0.10	<0.10
% Sand (2.0mm - 0.063mm)	%			0.10-1.0	77.2	73.3	74.7	1.04	1.30	1.18	5.76	4.02	8.04
% Silt (0.063mm - 4µm)	%			0.10-1.0	16.7	21.8	18.9	59.7	66.5	73.2	60.1	63.7	59.8
% Clay (<4µm)	%			0.10-1.0	4.13	4.87	6.40	39.3	32.2	25.6	33.5	32.2	32.2
Leachable Anions & Nutrients													
Total Nitrogen	%			0.020	0.032	0.041	0.037	0.391	0.407	0.726	0.269	0.355	0.303
Organic / Inorganic Carbon													
Total Organic Carbon	%			0.10	0.16	0.23	0.23	4.94	3.97	7.27	2.45	3.39	2.69
Plant Available Nutrients													
Available Ammonium	mg/kg			0.80-2.4	1.31	1.52	1.48	8.6	9.5	27.5	14.5	16.2	21.8
Available Nitrate	mg/kg			2.0-8.6	<2.0	<2.0	<2.0	<5.0	<5.5	<6.7	<8.6	<8.6	<7.5
Nitrite	mg/kg			0.40-1.7	<0.40	<0.40	<0.40	<1.0	<1.1	<1.3	<1.7	<1.7	<1.5
Available Phosphate	mg/kg			2.0-4.0	<2.0	<2.0	<2.0	<2.0	<2.0	11.7	4.0	2.4	3.1
Metals													
Aluminum (Al)	mg/kg			50	7240	7980	7930	26500	26300	21900	18900	21400	19700
Antimony (Sb)	mg/kg			10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Arsenic (As)	mg/kg	5.9	17.0	0.05-0.50	4.05	4.21	4.90	6.24	4.78	3.24	4.63	4.14	3.70
Barium (Ba)	mg/kg			1.0	29.2	34.7	35.2	145	146	132	111	120	110
Beryllium (Be)	mg/kg			0.50	<0.50	<0.50	<0.50	0.88	0.88	0.75	0.64	0.69	0.66
Bismuth (Bi)	mg/kg			20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Cadmium (Cd)	mg/kg	0.6	3.5	0.10	<0.10	<0.10	<0.10	0.12	0.11	0.10	<0.10	<0.10	<0.10
Calcium (Ca)	mg/kg			50	2340	2450	2320	6420	6070	6050	5340	5640	5750
Chromium (Cr)	mg/kg	37.3	90.0	2.0	24.0	25.4	24.0	72.5	73.4	63.6	55.5	61.3	58.0
Cobalt (Co)	mg/kg			2.0	6.1	6.4	6.2	13.7	13.2	11.5	11.3	12.2	11.5
Copper (Cu)	mg/kg	35.7	197	1.0	10.3	11.9	12.4	39.7	37.6	36.2	29.2	29.8	29.6
Iron (Fe)	mg/kg			50	15100	14800	14000	33000	32200	28700	27000	28800	27600
Lead (Pb)	mg/kg	35	91.3	2.0	3.1	3.2	3.1	10.5	10.4	9.0	8.3	8.6	8.1
Lithium (Li)	mg/kg			2.0	12.0	13.5	13.5	50.0	50.7	42.1	38.8	43.0	39.6
Magnesium (Mg)	mg/kg			50	4680	5090	5030	16000	16000	13900	12200	13200	12200
Manganese (Mn)	mg/kg			1.0	197	273	251	396	385	452	552	521	438
Mercury (Hg)	mg/kg	0.17	0.486	0.0050	<0.0050	<0.0050	<0.0050	0.0119	0.0157	0.0223	0.0167	0.0156	0.0163
Molybdenum (Mo)	mg/kg			0.20	0.60	0.63	0.68	1.86	1.58	1.54	1.19	1.14	1.11
Nickel (Ni)	mg/kg			5.0	13.1	14.4	13.9	40.1	39.9	35.5	32.4	34.2	32.8
Phosphorus (P)	mg/kg			50	442	417	374	698	696	966	859	763	843
Potassium (K)	mg/kg			200	1290	1550	1550	6790	6770	7270	6260	6370	6620
Selenium (Se)	mg/kg			0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Silver (Ag)	mg/kg			0.10	<0.10	<0.10	<0.10	0.14	0.15	0.11	0.24	0.17	0.26
Sodium (Na)	mg/kg			200	290	350	340	1370	1270	1240	960	1050	1020
Strontium (Sr)	mg/kg			0.50	11.4	12.9	12.6	39.8	37.5	36.2	31.7	34.3	34.2
Sulphur (S)	mg/kg			100-500	200	220	200	1860	1290	2080	1060	1330	1040
Thallium (Tl)	mg/kg			0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Tin (Sn)	mg/kg			5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Titanium (Ti)	mg/kg			1.0	509	556	552	1670	1660	1310	1230	1380	1310
Uranium (U)	mg/kg			0.050	1.08	0.676	0.607	2.40	2.31	2.00	1.66	1.75	1.61
Vanadium (V)	mg/kg			2.0	31.6	30.0	28.4	75.5	73.7	64.2	57.9	63.0	59.1
Zinc (Zn)	mg/kg	123	315	1.0	20.7	23.7	22.5	77.5	77.2	68.5	60.9	65.0	60.7

Shaded cells indicate values that are both above analytical detection limits and exceed CCME guidelines for the protection of freshwater aquatic life.

a) Canadian sediment quality guidelines for the protection of freshwater aquatic life, Council of Ministers of the Environment, Updated 2002

b) ISQG = Interim Sediment Quality Guideline

c) PEL = Probable Effects Level

d) RDL = Realized detection limit

Appendix 3.5-1

Stream and River Sediment Quality Analytical Results,
Hope Bay Belt Project, 2010

Appendix 3.5-1. Stream and River Sediment Quality Analytical Results, Hope Bay Belt Project, 2010

Site Abbreviation:		CCME Guidelines for the Protection of Aquatic Life ^a		RDL ^d	Koig. U/S 1	Koig. U/S 2	Koig. U/S 3	Koig. D/S 1	Koig. D/S 2	Koig. D/S 3	AWRa 1	AWRa 2	AWRa 3	AWRb 1	AWRb 2	AWRb 3	AWRc 1	AWRc 2	AWRc 3	
Replicate:	ALS Sample ID:	ISQG ^b	PEL ^c		14-Aug-10 L920950-1	14-Aug-10 L920950-2	14-Aug-10 L920950-3	14-Aug-10 L920950-4	14-Aug-10 L920950-5	14-Aug-10 L920950-6	15-Aug-10 L920950-7	15-Aug-10 L920950-8	15-Aug-10 L920950-9	15-Aug-10 L920950-10	15-Aug-10 L920950-11	15-Aug-10 L920950-12	15-Aug-10 L920950-13	15-Aug-10 L920950-14	15-Aug-10 L920950-15	
Units																				
Physical Tests																				
Moisture	%			0.10	34.8	20.8	22.4	15.5	11.3	14.1	17.6	35.9	14.6	59.7	60.2	37.8	52.1	52.6	51.4	
pH	pH			0.10	6.61	6.17	7.12	7.11	7.21	7.21	5.33	6.20	4.45	5.02	5.63	5.30	6.68	5.40	6.18	
Particle Size																				
% Gravel (>2mm)	%			0.10	0.29	0.22	0.49	2.23	29.3	3.64	<0.10	0.26	1.50	1.38	1.22	2.39	0.38	1.36	<0.10	
% Sand (2.0mm - 0.063mm)	%			0.10	39.5	42.8	35.9	97.0	65.9	92.6	69.2	53.1	77.0	16.4	17.9	63.2	64.4	44.2	55.1	
% Silt (0.063mm - 4µm)	%			0.10	44.6	47.4	39.4	<0.10	3.21	2.23	21.7	26.5	15.7	59.7	51.5	26.7	30.0	46.7	36.9	
% Clay (<4µm)	%			0.10	15.6	9.65	24.3	0.75	1.59	1.52	9.12	20.2	5.83	22.6	29.4	7.81	5.25	7.68	7.99	
Leachable Anions & Nutrients																				
Total Nitrogen	%			0.020	0.082	0.059	0.093	<0.020	<0.020	<0.020	0.067	0.159	0.041	0.417	0.497	0.200	0.200	0.380	0.244	
Organic / Inorganic Carbon																				
Total Organic Carbon	%			0.10	1.21	0.72	1.51	<0.10	0.12	0.11	1.01	2.77	0.57	6.49	6.85	2.79	3.45	6.51	3.79	
Plant Available Nutrients																				
Available Ammonium	mg/kg			0.80-12	6.23	10.7	1.35	0.92	<1.2	0.80	11.1	13.0	9.25	16.5	34.2	4.1	7.4	5.1	3.6	
Available Nitrate	mg/kg			2.0-30	<2.0	<2.0	<2.0	<2.0	<3.0	<2.0	<3.0	<3.3	<2.0	<6.0	<6.0	<5.0	<5.0	<7.5	<5.0	
Nitrite	mg/kg			0.40-6.0	<0.40	<0.40	<0.40	<0.40	<0.60	<0.40	<0.60	<0.67	<0.40	<1.2	<1.2	<1.0	<1.0	<1.5	<1.0	
Available Phosphate	mg/kg			2.0-13	5.0	3.0	4.3	<2.0	<2.0	<2.0	<2.0	2.3	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.3	
Metals																				
Aluminum (Al)	mg/kg	5.9	17.0	50	11700	8960	12500	7790	8290	7240	6260	11000	4850	19600	13900	11300	5310	7720	10300	
Antimony (Sb)	mg/kg			10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Arsenic (As)	mg/kg			0.050	4.06	4.16	5.56	3.05	4.19	2.53	1.30	2.26	2.05	2.85	3.54	2.15	0.334	1.12	1.03	
Barium (Ba)	mg/kg			1.0	66.9	47.2	67.1	14.7	19.7	17.2	26.2	58.2	18.6	94.0	77.5	54.2	22.8	38.1	45.2	
Beryllium (Be)	mg/kg			0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.65	0.52	<0.50	<0.50	<0.50	<0.50	
Bismuth (Bi)	mg/kg			20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	
Cadmium (Cd)	mg/kg	0.6	3.5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Calcium (Ca)	mg/kg			50	4280	3320	4620	1670	2260	1810	2190	3330	1910	4260	3720	2820	2470	3030	3830	
Chromium (Cr)	mg/kg			2.0	40.1	29.9	40.9	26.3	22.7	22.7	17.5	33.8	14.4	56.7	40.0	30.9	14.5	20.6	24.7	
Cobalt (Co)	mg/kg			2.0	8.6	7.1	10.4	6.9	7.3	5.9	4.2	7.3	3.5	10.4	9.0	6.2	2.2	3.6	5.0	
Copper (Cu)	mg/kg	35.7	197	1.0	26.3	15.1	25.5	8.2	10.2	11.4	5.5	11.7	3.8	16.8	13.0	9.6	5.5	7.7	8.9	
Iron (Fe)	mg/kg			50	21900	16700	22800	15200	18500	14900	15500	18800	12200	29800	29200	19100	6910	19800	14600	
Lead (Pb)	mg/kg			2.0	7.3	5.1	7.3	<2.0	3.2	2.3	3.2	5.2	2.2	7.8	6.1	5.1	2.6	3.4	5.4	
Lithium (Li)	mg/kg			2.0	21.2	16.1	23.2	11.9	13.6	11.4	11.3	19.5	8.9	32.9	24.5	19.1	12.0	11.7	18.9	
Magnesium (Mg)	mg/kg			50	8090	5920	8880	6090	6620	5710	3920	6720	3250	10700	7960	6330	2610	3420	4530	
Manganese (Mn)	mg/kg			1.0	240	216	295	201	288	193	101	177	85.5	297	413	217	106	116	187	
Mercury (Hg)	mg/kg	0.17	0.486	0.0050	0.0052	<0.0050	0.0056	<0.0050	<0.0050	<0.0050	<0.0050	0.0070	<0.0050	0.0252	0.0183	0.0217	0.0055	0.0108	0.0176	
Molybdenum (Mo)	mg/kg			0.20	0.69	0.65	1.15	0.29	0.41	0.30	0.34	0.29	0.21	0.77	0.60	0.48	<0.20	0.40	0.32	
Nickel (Ni)	mg/kg			5.0	21.3	16.8	23.6	16.9	17.5	16.0	9.3	18.4	7.7	27.4	20.3	15.8	5.9	8.9	11.5	
Phosphorus (P)	mg/kg			50	591	526	571	277	321	279	379	499	334	738	656	523	388	495	528	
Potassium (K)	mg/kg			200	2780	1920	2960	570	740	690	1150	2330	770	3280	2380	1870	670	870	1270	
Selenium (Se)	mg/kg			0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
Silver (Ag)	mg/kg			0.10	0.17	<0.10	0.13	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Sodium (Na)	mg/kg			200	760	330	1140	<200	<200	<200	<200	360	<200	580	460	360	<200	290	450	
Strontium (Sr)	mg/kg			0.50	29.8	18.7	29.9	7.22	6.89	8.57	13.2	23.2	10.4	31.6	25.8	18.9	12.5	18.5	22.6	
Sulphur (S)	mg/kg			100-500	550	350	550	230	350	160	210	340	140	760	840	380	360	580	410	
Thallium (Tl)	mg/kg			0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
Tin (Sn)	mg/kg			5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
Titanium (Ti)	mg/kg			1.0	866	651	855	322	335	445	459	699	376	1140	757	644	358	456	594	
Uranium (U)	mg/kg			0.050	1.78	1.18	1.91	0.348	0.478	0.406	0.668	1.05	0.462	1.38	1.20	1.00	0.606	0.770	0.791	
Vanadium (V)	mg/kg			2.0	48.4	33.7	48.6	25.2	32.3	26.2	21.6	36.4	18.7	54.7	41.4	35.1	12.4	24.6	22.9	
Zinc (Zn)	mg/kg	123	315	1.0	37.1	29.3	38.9	26.1	29.5	24.3	19.7	37.2	15.6	80.6	58.6	46.5	16.9	19.5	32.7	

Shaded cells indicate values that are both above analytical detection limits and exceed CCME guidelines for the protection of freshwater aquatic life.

a) Canadian sediment quality guidelines for the protection of freshwater aquatic life, Council of Ministers of the Environment, Updated 2002

b) ISQG = Interim Sediment Quality Guideline

c) PEL = Probable Effects Level

d) RDL = Realized detection limit

Appendix 3.5-1. Stream and River Sediment Quality Analytical Results, Hope Bay Belt Project, 2010

Site Abbreviation:		CCME Guidelines for the Protection of Aquatic Life ^a		RDL ^d	Aim. NE IF	Aim. NE IF	Aim. NE IF	AWRd	AWRd	AWRd	Trout OF	Trout OF	Trout OF	Stickleback OF	Stickleback OF	Stickleback OF	S6	S6	S6		
Replicate:	1				2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Date Sampled:	16-Aug-10				16-Aug-10	16-Aug-10	16-Aug-10	16-Aug-10	16-Aug-10	16-Aug-10	16-Aug-10	16-Aug-10	16-Aug-10	16-Aug-10	16-Aug-10	16-Aug-10	16-Aug-10	16-Aug-10	16-Aug-10	18-Aug-10	18-Aug-10
ALS Sample ID:	Units	ISQG ^b	PEL ^c	L921331-1	L921331-2	L921331-3	L921331-4	L921331-5	L921331-6	L921331-7	L921331-8	L921331-9	L921331-10	L921331-11	L921331-12	L923089-1	L923089-2	L923089-9			
Physical Tests																					
Moisture	%	0.10		25.4	32.8	39.7	93.3	87.8	88.4	80.6	81.1	75.2	29.8	14.7	15.4	90.4	85.7	87.8			
pH	pH	0.10		5.42	5.45	5.46	6.27	5.79	5.97	6.54	5.93	5.99	6.50	6.85	6.76	5.81	5.96	5.68			
Particle Size																					
% Gravel (>2mm)	%	0.10		<0.10	0.13	<0.10	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	5.88	3.34	-	-	<0.10			
% Sand (2.0mm - 0.063mm)	%	0.10		73.1	84.0	71.3	-	18.1	12.2	7.10	5.14	14.7	77.9	84.0	93.3	-	-	3.23			
% Silt (0.063mm - 4µm)	%	0.10		24.0	14.8	27.6	-	48.2	57.8	67.4	72.4	41.6	13.3	8.54	2.73	-	-	52.5			
% Clay (<4µm)	%	0.10		2.90	1.08	1.04	-	33.7	30.0	25.5	22.5	43.7	8.85	1.58	0.61	-	-	44.3			
Leachable Anions & Nutrients																					
Total Nitrogen	%	0.020		0.110	0.108	0.163	1.80	1.16	1.22	0.776	0.782	0.498	0.126	0.045	0.021	1.86	2.19	2.01			
Organic / Inorganic Carbon																					
Total Organic Carbon	%	0.10		1.37	1.17	2.05	27.6	17.5	19.4	12.0	11.7	8.07	1.78	0.57	0.25	31.7	35.2	33.5			
Plant Available Nutrients																					
Available Ammonium	mg/kg	0.80-12		6.8	11.7	21.0	40	28.9	18	21	20	8.9	4.2	2.87	2.9	68.1	73.4	74			
Available Nitrate	mg/kg	2.0-30		<3.3	<3.8	<5.0	<30	<20	<30	<30	<30	<20	<3.8	<2.3	<3.0	<30	<30	<20			
Nitrite	mg/kg	0.40-6.0		<0.67	<0.75	<1.0	<6.0	<4.0	<6.0	<6.0	<6.0	<4.0	<0.75	<0.46	<0.60	<6.0	<6.0	<4.0			
Available Phosphate	mg/kg	2.0-13		6.7	8.1	6.9	<10	<5.7	<11	<8.0	<13	<8.9	5.4	3.5	2.2	<8.0	<8.0	<8.0			
Metals																					
Aluminum (Al)	mg/kg	50		5850	6320	6010	5370	7120	12300	15000	17000	19100	7920	4250	3510	7610	9690	4650			
Antimony (Sb)	mg/kg	10		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10			
Arsenic (As)	mg/kg	5.9	17.0	0.050	0.857	0.730	0.786	13.4	17.8	3.88	2.60	2.65	3.25	1.34	0.817	0.594	2.43	2.33	1.32		
Barium (Ba)	mg/kg	1.0		30.7	33.2	33.7	64.3	61.8	65.3	88.1	101	112	37.4	16.2	13.8	54.1	66.7	53.7			
Beryllium (Be)	mg/kg	0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.52	0.58	0.70	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50			
Bismuth (Bi)	mg/kg	20		<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20			
Cadmium (Cd)	mg/kg	0.6	3.5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	0.10	0.14	<0.10	<0.10	<0.10	0.37	0.26	0.36			
Calcium (Ca)	mg/kg	50		2120	2210	2260	8010	5210	6710	6910	6810	7250	2850	1580	1230	5510	6840	5400			
Chromium (Cr)	mg/kg	37.3	90.0	2.0	17.2	19.7	16.6	13.0	18.1	30.6	43.1	47.6	52.4	20.0	11.5	7.4	14.2	24.2	9.0		
Cobalt (Co)	mg/kg	2.0		4.0	4.8	4.1	4.1	6.7	5.4	8.2	9.2	10.8	4.0	2.5	2.1	2.5	3.4	2.9			
Copper (Cu)	mg/kg	35.7	197	1.0	5.4	6.0	5.7	21.5	13.8	26.3	19.6	20.6	27.6	7.9	4.3	4.6	35.3	46.6	31.9		
Iron (Fe)	mg/kg	50		11400	12900	9830	131000	141000	43900	27900	29800	26700	11000	7050	6300	33700	33600	58300			
Lead (Pb)	mg/kg	35	91.3	2.0	3.7	3.1	3.3	4.4	4.3	5.0	6.3	6.6	7.6	3.2	<2.0	<2.0	5.1	4.2	2.2		
Lithium (Li)	mg/kg	2.0		10.8	11.5	10.5	4.9	10.5	18.4	21.5	25.2	29.1	13.6	9.9	8.3	3.9	8.0	<2.0			
Magnesium (Mg)	mg/kg	50		3240	3570	3030	2520	2800	4600	7390	8310	9480	4070	2930	2480	1710	3040	1130			
Manganese (Mn)	mg/kg	1.0		88.9	102	91.9	468	700	259	242	249	311	91.0	64.5	55.8	78.9	102	114			
Mercury (Hg)	mg/kg	0.17	0.486	0.0050	0.0080	0.0073	0.0080	0.0812	0.0528	0.0415	0.0376	0.0432	0.0335	0.0058	<0.0050	<0.0050	0.102	0.134	0.108		
Molybdenum (Mo)	mg/kg	0.20		0.24	0.20	0.21	3.36	2.69	1.40	1.15	0.84	1.18	0.28	<0.20	<0.20	5.12	5.84	3.38			
Nickel (Ni)	mg/kg	5.0		7.5	8.4	7.8	9.6	10.3	13.7	22.1	23.2	25.4	9.6	5.8	<5.0	13.1	16.2	12.1			
Phosphorus (P)	mg/kg	50		497	500	511	2200	1160	939	929	972	794	404	273	245	782	831	841			
Potassium (K)	mg/kg	200		990	1160	1090	1620	1480	1710	2720	3200	3770	1320	640	500	680	1060	500			
Selenium (Se)	mg/kg	0.50		<0.50	<0.50	<0.50	0.54	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.59	0.61	<0.50			
Silver (Ag)	mg/kg	0.10		<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10			
Sodium (Na)	mg/kg	200		220	210	250	500	400	500	590	640	730	290	<200	<200	230	290	<200			
Strontium (Sr)	mg/kg	0.50		12.6	12.6	13.5	40.6	29.5	36.2	42.9	43.7	48.2	19.2	9.26	6.86	31.3	39.0	31.7			
Sulphur (S)	mg/kg	100-500		510	560	590	3460	2250	2480	1740	1480	1310	300	180	150	3450	3750	3810			
Thallium (Tl)	mg/kg	0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50			
Tin (Sn)	mg/kg	5.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0			
Titanium (Ti)	mg/kg	1.0		448	478	433	146	262	468	727	831	980	508	254	207	147	195	63.0			
Uranium (U)	mg/kg	0.050														3.77	4.39	2.75			
Vanadium (V)	mg/kg	2.0		22.5	29.3	20.7	23.5	26.2	31.0	46.2	52.7	61.4	23.8	12.9	10.6	36.2	27.2	12.2			
Zinc (Zn)	mg/kg	123	315	1.0	24.9	28.3	26.9	41.2	39.8	36.2	70.9	83.1	86.0	25.6	14.4	13.4	49.6	38.0	70.0		

Shaded cells indicate values that are both above analytical detection limits and exceed CCME guidelines for the protection of freshwater aquatic life.

a) Canadian sediment quality guidelines for the protection of freshwater aquatic life, Council of Ministers of the Environment, Updated 2002

b) ISQG = Interim Sediment Quality Guideline

c) PEL = Probable Effects Level

d) RDL = Realized detection limit

Appendix 3.5-1. Stream and River Sediment Quality Analytical Results, Hope Bay Belt Project, 2010

Site Abbreviation: Replicate: Date Sampled: ALS Sample ID:	Units	CCME Guidelines for the Protection of Aquatic Life ^a			Koig. R. 1	Koig. R. 2	Koig. R. 3	Aim. R. 1	Aim. R. 2	Aim. R. 3	AWRe 1	AWRe 2	AWRe 3
		ISQG ^b	PEL ^c	RDL ^d	18-Aug-10 L923089-3	18-Aug-10 L923089-4	18-Aug-10 L923089-10	18-Aug-10 L923089-5	18-Aug-10 L923089-6	18-Aug-10 L923089-11	18-Aug-10 L923089-7	18-Aug-10 L923089-8	18-Aug-10 L923089-12
Physical Tests													
Moisture	%			0.10	65.2	18.9	37.0	30.8	41.8	33.8	51.9	69.6	84.3
pH	pH			0.10	6.44	5.90	6.28	5.31	5.11	5.24	6.48	6.51	6.66
Particle Size													
% Gravel (>2mm)	%			0.10	7.99	0.23	2.00	4.88	<0.10	0.13	<0.10	<0.10	<0.10
% Sand (2.0mm - 0.063mm)	%			0.10	51.0	81.6	71.7	75.8	77.3	63.6	62.7	52.9	43.8
% Silt (0.063mm - 4µm)	%			0.10	17.2	17.6	16.4	14.8	20.1	27.3	25.4	31.1	29.2
% Clay (<4µm)	%			0.10	23.9	0.61	9.94	4.57	2.56	8.97	11.9	16.0	27.0
Leachable Anions & Nutrients													
Total Nitrogen	%			0.020	0.901	0.074	0.279	0.165	0.204	0.210	0.313	0.346	1.19
Organic / Inorganic Carbon													
Total Organic Carbon	%			0.10	18.2	1.09	3.72	2.40	3.34	3.17	6.06	6.49	19.9
Plant Available Nutrients													
Available Ammonium	mg/kg			0.80-12	12.3	5.48	17.9	10.7	7.9	10.2	4.7	6.0	19.6
Available Nitrate	mg/kg			2.0-30	<10	<2.0	<2.0	<3.8	<3.8	<3.8	<6.0	<6.0	<20
Nitrite	mg/kg			0.40-6.0	<2.0	<0.40	<0.40	<0.75	<0.75	<0.75	<1.2	<1.2	<4.0
Available Phosphate	mg/kg			2.0-13	<4.0	<2.0	<2.0	2.2	2.3	<2.0	2.9	2.5	<4.0
Metals													
Aluminum (Al)	mg/kg			50	6930	5690	8300	7060	6490	8400	8270	9640	7670
Antimony (Sb)	mg/kg			10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Arsenic (As)	mg/kg	5.9	17.0	0.050	2.52	0.057	5.76	1.00	1.06	1.17	1.36	1.39	3.33
Barium (Ba)	mg/kg			1.0	79.4	18.7	37.4	34.9	31.7	43.1	50.5	57.2	56.9
Beryllium (Be)	mg/kg			0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Bismuth (Bi)	mg/kg			20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Cadmium (Cd)	mg/kg	0.6	3.5	0.10	0.31	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Calcium (Ca)	mg/kg			50	15100	2080	3100	2010	2020	2370	5190	5520	7490
Chromium (Cr)	mg/kg	37.3	90.0	2.0	20.7	14.8	20.6	19.5	18.3	23.2	23.8	27.7	22.7
Cobalt (Co)	mg/kg			2.0	15.4	4.0	8.1	4.0	3.6	4.8	4.1	6.3	6.7
Copper (Cu)	mg/kg	35.7	197	1.0	58.4	9.9	15.3	11.6	11.7	12.1	8.9	7.5	11.9
Iron (Fe)	mg/kg			50	51200	9960	23000	12600	10000	12800	14400	17700	36600
Lead (Pb)	mg/kg	35	91.3	2.0	5.1	<2.0	3.0	3.4	3.4	4.1	3.3	3.5	3.3
Lithium (Li)	mg/kg			2.0	8.7	10.0	13.6	11.8	11.2	13.1	14.4	17.3	11.3
Magnesium (Mg)	mg/kg			50	3790	3220	4720	3550	3380	4020	3890	4640	3740
Manganese (Mn)	mg/kg			1.0	1870	127	519	96.1	81.1	104	170	306	347
Mercury (Hg)	mg/kg	0.17	0.486	0.0050	0.0711	<0.0050	0.0123	0.0127	0.0140	0.0108	0.0246	0.0277	0.0428
Molybdenum (Mo)	mg/kg			0.20	1.16	<0.20	0.51	0.28	0.31	0.30	0.47	0.56	1.31
Nickel (Ni)	mg/kg			5.0	19.8	8.9	14.3	9.3	9.4	11.3	11.3	12.9	13.4
Phosphorus (P)	mg/kg			50	839	354	521	442	435	447	516	591	784
Potassium (K)	mg/kg			200	1120	650	1080	930	900	910	1290	1630	1290
Selenium (Se)	mg/kg			0.50	0.73	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Silver (Ag)	mg/kg			0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sodium (Na)	mg/kg			200	330	<200	210	260	220	280	390	410	400
Strontium (Sr)	mg/kg			0.50	45.5	9.09	16.5	12.7	11.3	15.3	23.9	25.9	29.2
Sulphur (S)	mg/kg			100-500	1840	230	550	330	430	400	530	600	1680
Thallium (Tl)	mg/kg			0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Tin (Sn)	mg/kg			5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Titanium (Ti)	mg/kg			1.0	314	386	478	437	389	504	449	561	275
Uranium (U)	mg/kg			0.050	2.57	0.536	1.04	0.760	0.785	0.948	0.791	0.713	0.770
Vanadium (V)	mg/kg			2.0	33.0	19.5	29.4	24.1	22.2	28.1	18.4	23.5	31.0
Zinc (Zn)	mg/kg	123	315	1.0	64.8	19.1	39.4	27.7	27.8	28.7	44.3	65.3	87.1

Shaded cells indicate values that are both above analytical detection limits and exceed CCME guidelines for the protection of freshwater aquatic life.

a) Canadian sediment quality guidelines for the protection of freshwater aquatic life, Council of Ministers of the Environment, Updated 2002

b) ISQG = Interim Sediment Quality Guideline

c) PEL = Probable Effects Level

d) RDL = Realized detection limit

Appendix 3.6-1

Phytoplankton Biomass Results, Hope Bay Belt Project,
2010

Appendix 3.6-1. Phytoplankton Biomass Results, Hope Bay Belt Project, 2010

Site ID	Replicate	Date Sampled	ALS Sample ID	Chlorophyll <i>a</i> (µg/L)	Mean	SE
Stickleback	1	19-Aug-10	L962121-13	0.579	0.976	0.200
Stickleback	2	19-Aug-10	L962121-14	1.13		
Stickleback	3	19-Aug-10	L962121-15	1.22		
Trout	1	16-Aug-10	L962121-10	0.618	0.927	0.327
Trout	2	16-Aug-10	L962121-11	1.58		
Trout	3	16-Aug-10	L962121-12	0.583		
Aim. Stn 13	1	13-Aug-10	L962121-1	0.254	0.502	0.198
Aim. Stn 13	2	13-Aug-10	L962121-2	0.357		
Aim. Stn 13	3	13-Aug-10	L962121-3	0.894		
Aim. Stn 5	1	12-Aug-10	L924968-1	1.01	0.990	0.011
Aim. Stn 5	2	12-Aug-10	L924968-2	0.990		
Aim. Stn 5	3	12-Aug-10	L924968-3	0.971		
Aim. Stn 11	1	15-Aug-10	L962121-7	0.634	0.568	0.115
Aim. Stn 11	2	15-Aug-10	L962121-8	0.344		
Aim. Stn 11	3	15-Aug-10	L962121-9	0.726		
Aim. Stn 6	1	14-Aug-10	L962121-4	0.299	0.572	0.175
Aim. Stn 6	2	14-Aug-10	L962121-5	0.52		
Aim. Stn 6	3	14-Aug-10	L962121-6	0.897		
Windy Deep	1	21-Aug-10	L924968-4	0.460	0.454	0.003
Windy Deep	2	21-Aug-10	L924968-5	0.452		
Windy Deep	3	21-Aug-10	L924968-6	0.451		

SE = standard error of the mean

Appendix 3.6-2

Phytoplankton Abundance and Taxonomic Results in
Lakes, Hope Bay Belt Project, 2010

Appendix 3.6-2. Phytoplankton Abundance and Taxonomic Results in Lakes, Hope Bay Belt Project, August 2010

Lake Date Replicate	Stickleback 19-Aug-10						Trout 16-Aug-10					
	1		2		3		1		2		3	
	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL
Cyanophyta												
<i>Anabaena flos-aquae</i>							43.3	40,605.7	57.9	58,239.5	43.8	44,066.5
<i>Anabaena planctonica</i>			3.1	4,230.1			13.8	3,024.8	25.2	55,329.4	12.5	34,388.8
<i>Anabaena</i> sp.											1.6	187.9
<i>Aphanothece</i> sp.												
<i>Aphanizomenon flos-aquae</i>												
<i>Chroococcus minimus</i>												
<i>Oscillatoria</i> sp.												
Subtotal	0.0	0.0	3.1	4,230.1	0.0	0.0	57.1	43,630.5	83.1	113,568.9	57.9	78,643.1
Chlorophyta												
<i>Ankistrodesmus falcatus</i>	3.1	77.2							2.5	126.0		
<i>Botryococcus braunii</i>												
<i>Chlamydomonas</i> sp.	6.2	2,007.9			7.0	2,272.5			7.6	2,456.6	1.6	508.9
<i>Cladophora</i> sp.												
<i>Closteriopsis longissima</i>												
<i>Closterium</i> sp.												
<i>Cosmarium</i> sp.	3.1	648.7	12.4	2,612.7							1.6	328.9
<i>Crucigenia quadrata</i>	9.3	787.7	12.4	1,057.5			2.0	334.5			1.6	133.1
<i>Crucigenia tetrapedia</i>	12.4	1,050.3	18.7	1,586.3	17.5	1,485.9			2.5	214.2		
<i>Desmidiium</i> sp.									2.5	1,763.7	1.6	2,192.4
<i>Elakatothrix gelatinosa</i>												
<i>Gloeocystis ampla</i>							2.0	1,007.5				
<i>Mougeotia</i> sp.												
<i>Oocystis lacustris</i>												
<i>Oocystis parva</i>												
<i>Oocystis pusilla</i>	3.1	333.6										
<i>Pediastrum boryanum</i>												
<i>Pediastrum duplex</i>												
<i>Pediastrum</i> sp.												
<i>Quadrigula closterioides</i>												
<i>Scenedesmus denticulatus</i>												
<i>Scenedesmus quadricauda</i>	12.4	2,409.5	9.3	2,426.1	21.0	9,135.4						
<i>Selenastrum minutum</i>	3.1	61.8										
<i>Sphaerocystis Schroeteri</i>			3.1	435.4								
<i>Spirogyra</i> sp.												
<i>Staurastrum</i> sp.							2.0	472.3				
<i>Tetraedron minimum</i>					3.5	629.3						
<i>Tetraedron regulare</i>											1.6	180.1
<i>Tetraedron</i> sp.												
<i>Ulothrix</i> sp.												
Subtotal	52.5	7,376.6	56.0	8,118.0	48.9	13,523.0	5.9	1,814.2	15.1	4,560.4	7.8	3,343.4
Chrysophyta												
<i>Chrysococcus rufescens</i>	12.4	1,050.3	28.0	2,379.4	17.5	1,485.9	2.0	167.3	10.1	856.6	1.6	133.1
<i>Cryptomonas erosa</i>	27.8	14,456.7	24.9	12,939.0	38.5	19,997.8	9.8	5,116.1	7.6	3,930.5	15.7	8,143.1
<i>Dinobryon bavaricum</i>							2.0	944.5				
<i>Dinobryon sertularia</i>	6.2	741.4	9.3	1,455.6	21.0	3,020.7	25.6	5,525.3	25.2	6,046.9	15.7	3,758.3
<i>Kephyrion littorale</i>												
<i>Kephyrion obliquum</i>												
<i>Kephyrion</i> sp.												
<i>Mallomonas</i> sp.												
<i>Rhodomonas minuta</i>	12.4	247.1	31.1	622.1	35.0	699.2	2.0	39.4	17.6	352.7		
Subtotal	58.7	16,495.5	93.3	17,396.2	111.9	25,203.6	41.3	11,792.5	60.5	11,186.8	32.9	12,034.5
Diatoms												
<i>Achnanthes clevei</i>	3.1	463.4							2.5	377.9		
<i>Achnanthes flexella</i>												
<i>Achnanthes hauckiana</i>												
<i>Achnanthes lanceolata</i>			3.1	559.9							3.1	563.8
<i>Achnanthes lewisiana</i>												
<i>Achnanthes linearis</i>			6.2	821.1	3.5	461.5	2.0	259.7			3.1	413.4
<i>Achnanthes minutissima</i>	24.7	1,235.6	9.3	466.6	21.0	1,048.8	3.9	196.8	5.0	252.0	3.1	156.6
<i>Achnanthes peragalli</i>												
<i>Amphipleura pellucida</i>	3.1	3,954.0										
<i>Amphora ovalis</i>									2.5	1,456.3		
<i>Amphora perpusilla</i>			3.1	516.3								
<i>Anomoeoneis vitrea</i>												

Appendix 3.6-2. Phytoplankton Abundance and Taxonomic Results in Lakes, Hope Bay Belt Project, August 2010

Lake Date Replicate Taxa	Stickleback 19-Aug-10						Trout 16-Aug-10					
	1		2		3		1		2		3	
	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL
Diatoms (cont'd)												
<i>Asterionella formosa</i>	61.8	23,106.0	24.9	8,758.7	42.0	13,844.7	19.7	9,090.8	12.6	6,928.8	12.5	7,441.5
<i>Caloneis</i> sp.												
<i>Caloneis ventricosa</i>												
<i>Caloneis ventricosa minuta</i>												
<i>Cocconeis disculus</i>												
<i>Cocconeis placentula</i>					7.0	3,216.4						
<i>Cyclotella comta</i>												
<i>Cyclotella meneghiniana</i>												
<i>Cyclotella ocellata</i>												
<i>Cyclotella stelligera</i>	9.3	509.7	21.8	1,197.5	7.0	384.6						
<i>Cymatopleura solea</i>												
<i>Cymbella affinis</i>												
<i>Cymbella cesatii</i>												
<i>Cymbella mexicana</i>												
<i>Cymbella microcephala</i>	3.1	163.7			3.5	185.3						
<i>Cymbella minuta</i>							15.7	5,824.4	2.5	932.2	3.1	1,158.8
<i>Cymbella naviculiformis</i>												
<i>Cymbella sinuata</i>												
<i>Cymbella</i> sp.												
<i>Diatoma tenue</i>												
<i>Diatoma tenue elongatum</i>					3.5	7,551.6					1.6	3,382.5
<i>Diatoma vulgare</i>											4.7	9,207.9
<i>Diatomella balfouriana</i>							2.0	590.3				
<i>Diploneis elliptica</i>									2.5	655.1	4.7	1,221.5
<i>Diploneis puella</i>												
<i>Epithemia sorex</i>												
<i>Epithemia turgida</i>												
<i>Eunotia elegans</i>												
<i>Eunotia pectinalis</i>											1.6	1,127.5
<i>Eunotia</i> sp.												
<i>Fragilaria construens</i>					3.5	1,566.3						
<i>Fragilaria construens venter</i>			3.1	298.6	3.5	167.8	2.0	94.5	2.5	483.8		
<i>Fragilaria crotonensis</i>												
<i>Fragilaria pinnata</i>					3.5	419.5	5.9	460.4				
<i>Fragilaria vaucheriae</i>							3.9	1,700.1	2.5	725.6	6.3	1,804.0
<i>Gomphonema acuminatum</i>	3.1	5,374.9										
<i>Gomphonema angustatum</i>			9.3	1,679.6	3.5	629.3					4.7	845.6
<i>Gomphonema clevei</i>												
<i>Gomphonema gracile</i>			6.2	1,524.1								
<i>Gomphonema</i> sp.												
<i>Gomphonema subclavatum</i>												
<i>Gomphonema tenellum</i>												
<i>Gomphonema ventricosum</i>												
<i>Gyrosigma spencerii</i>												
<i>Melosira granulata</i>												
<i>Melosira italica</i>												
<i>Navicula anglica</i>												
<i>Navicula capitata</i>												
<i>Navicula contenta biceps</i>												
<i>Navicula cryptocephala</i>			3.1	575.4	3.5	332.1					1.6	289.7
<i>Navicula cascadiensis</i>												
<i>Navicula cryptocephala veneta</i>			3.1	295.5					2.5	239.4		
<i>Navicula cryptocephala venter</i>												
<i>Navicula decussis</i>												
<i>Navicula graciloides</i>												
<i>Navicula gregaria</i>									5.0	881.8		
<i>Navicula menisculus upsaliensis</i>												
<i>Navicula minima</i>									2.5	110.9	3.1	137.8
<i>Navicula minuscula</i>												
<i>Navicula mutica</i>											1.6	86.1
<i>Navicula pseudoscutiformis</i>												
<i>Navicula pupula</i>									5.0	1,360.6		
<i>Navicula rhynchocephala</i>	3.1	911.3					3.9	1,161.0			1.6	462.0
<i>Navicula seminulum</i>									2.5	153.7		

Appendix 3.6-2. Phytoplankton Abundance and Taxonomic Results in Lakes, Hope Bay Belt Project, August 2010

Lake Date Replicate Taxa	Stickleback 19-Aug-10						Trout 16-Aug-10					
	1		2		3		1		2		3	
	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL
Diatoms (cont'd)												
<i>Navicula scutiformis</i>												
<i>Navicula</i> sp.							3.9	590.3			3.1	469.8
<i>Navicula tripunctata</i>											1.6	704.7
<i>Navicula viridula</i>												
<i>Neidium affine</i>												
<i>Nitzschia acicularis</i>	12.4	3,459.7	6.2	1,741.8	7.0	1,957.8						
<i>Nitzschia amphibia</i>											3.1	300.7
<i>Nitzschia capitellata</i>	3.1	1,112.1							2.5	907.0	1.6	413.0
<i>Nitzschia clausii</i>												
<i>Nitzschia communis</i>												
<i>Nitzschia constricta</i>												
<i>Nitzschia dissipata</i>	3.1	831.0	3.1	836.7								
<i>Nitzschia frustulum</i>	9.3	1,112.1	3.1	373.2	3.5	419.5						
<i>Nitzschia innominata</i>												
<i>Nitzschia linearis</i>												
<i>Nitzschia microcephala</i>												
<i>Nitzschia palea</i>												
<i>Nitzschia paleacea</i>					3.5	342.6						
<i>Nitzschia</i> sp.												
<i>Nitzschia tryblionella</i>												
<i>Pinnularia borealis</i>							2.0	432.9				
<i>Pinnularia</i> sp.												
<i>Stauroneis</i> sp.									2.5	1,007.8	1.6	626.4
<i>Stephanodiscus astraea minutula</i>												
<i>Stephanodiscus hantzschii</i>												
<i>Surirella ovata</i>												
<i>Surirella</i> sp.												
<i>Synedra cyclopus</i>												
<i>Synedra delicatissima</i>							7.9	5,194.8	17.6	11,640.3	9.4	6,201.3
<i>Synedra radians</i>	18.5	6,672.3	15.6	5,598.6	28.0	10,068.8	9.8	3,541.9	12.6	4,535.2	18.8	6,765.0
<i>Synedra rumpens</i>			15.6	2,177.2	10.5	1,468.4						
<i>Synedra tenera</i>							2.0	590.3				
<i>Synedra ulna</i>	12.4	24,588.8			7.0	13,914.6						
<i>Synedra</i> sp.												
<i>Tabellaria fenestrata</i>												
<i>Tabellaria flocculosa</i>							2.0	3,482.9	5.0	4,459.6	3.1	1,847.8
Subtotal	169.9	73,494.5	136.9	27,420.8	164.3	57,979.7	86.6	33,211.1	90.7	37,108.0	98.7	45,627.3
Dinoflagellata												
<i>Glenodinium</i> sp.	24.7	17,298.6	21.8	15,240.7	42.0	29,367.4	7.9	5,509.6	10.1	7,054.7	12.5	8,769.4
Subtotal	24.7	17,298.6	21.8	15,240.7	42.0	29,367.4	7.9	5,509.6	10.1	7,054.7	12.5	8,769.4
Euglenoidea												
<i>Euglena</i> sp.							2.0	1,141.3	5.0	2,922.7	1.6	908.3
<i>Trachelomonas charkowensis</i>												
<i>Trachelomonas hispida</i>					3.5	7,341.9						
<i>Trachelomonas pulchella</i>												
<i>Trachelomonas volvocina</i>					3.5	6,590.2	2.0	3,709.1				
Subtotal	0.0	0.0	0.0	0.0	7.0	13,932.1	3.9	4,850.4	5.0	2,922.7	1.6	908.3
Unidentified												
Unidentified flagellate	6.2	123.6	6.2	124.4	7.0	139.8	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	312	114,789	317	72,530	381	140,146	203	100,808	265	176,401	211	149,326

Appendix 3.6-2. Phytoplankton Abundance and Taxonomic Results in Lakes, Hope Bay Belt Project, August 2010

Lake Date Replicate	Aim. Stn 13 13-Aug-10						Aim. Stn 5 12-Aug-10					
	1		2		3		1		2		3	
	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL
Cyanophyta												
<i>Anabaena flos-aquae</i>												
<i>Anabaena planctonica</i>												
<i>Anabaena</i> sp.	2.0	1,345.1	2.4	4,906.9			2.1	1,412.0	2.1	1,396.5	2.2	3,803.1
<i>Aphanothece</i> sp.			2.4	144.3	3.7	392.2	10.4	1,090.1			2.2	134.2
<i>Aphanizomenon flos-aquae</i>			2.4	1,515.4								
<i>Chroococcus minimus</i>											2.2	2,080.5
<i>Oscillatoria</i> sp.											6.7	6,017.8
Subtotal	2.0	1,345.1	7.2	6,566.6	3.7	392.2	12.5	2,502.1	2.1	1,396.5		
Chlorophyta												
<i>Ankistrodesmus falcatus</i>			4.8	120.3	9.3	280.1	2.1	51.9				
<i>Botryococcus braunii</i>			2.4	3,463.7								
<i>Chlamydomonas</i> sp.			4.8	1,563.5			2.1	674.8				
<i>Cladophora</i> sp.												
<i>Closteriopsis longissima</i>												
<i>Closterium</i> sp.												
<i>Cosmarium</i> sp.	2.0	415.4	2.4	505.1	1.9	392.2					4.5	939.6
<i>Crucigenia quadrata</i>	5.9	504.4	2.4	204.5	9.3	1,587.4	2.1	176.5	2.1	174.6	2.2	190.2
<i>Crucigenia tetrapedia</i>			2.4	817.8	1.9	158.7	4.2	353.0				
<i>Desmidiium</i> sp.							2.1	726.7	2.1	718.8	2.2	2,349.0
<i>Elakatothrix gelatinosa</i>												
<i>Gloeocystis ampla</i>							2.1	1,063.1	2.1	1,051.5		
<i>Mougeotia</i> sp.												
<i>Oocystis lacustris</i>									2.1	82.1		
<i>Oocystis parva</i>												
<i>Oocystis pusilla</i>	9.9	1,388.6	2.4	519.6								
<i>Pediastrum boryanum</i>												
<i>Pediastrum duplex</i>												
<i>Pediastrum</i> sp.	2.0	474.7	2.4	1,154.6								
<i>Quadrigula closterioides</i>												
<i>Scenedesmus denticulatus</i>												
<i>Scenedesmus quadricauda</i>	2.0	514.3	2.4	625.4	1.9	242.8						
<i>Selenastrum minutum</i>					1.9	37.3			2.1	123.2		
<i>Sphaerocystis Schroeteri</i>	4.0	830.8			1.9	522.9						
<i>Spirogyra</i> sp.												
<i>Staurastrum</i> sp.												
<i>Tetraedron minimum</i>												
<i>Tetraedron regulare</i>												
<i>Tetraedron</i> sp.												
<i>Ulothrix</i> sp.												
Subtotal	25.7	4,128.2	26.5	8,974.3	28.0	3,221.4	14.5	3,046.1	10.3	2,150.3	8.9	3,478.7
Chrysophyta												
<i>Chrysococcus rufescens</i>					1.9	158.7	2.1	176.5	2.1	174.6	2.2	190.2
<i>Cryptomonas erosa</i>	13.8	7,200.2	28.9	15,009.3	26.1	13,595.4	14.5	7,558.2	10.3	5339.7	20.1	10,469.6
<i>Dinobryon bavaricum</i>			2.4	577.3								
<i>Dinobryon sertularia</i>			26.5	3,492.5	7.5	1,075.7	14.5	2,093.0	6.2	1,109.0	8.9	1,073.8
<i>Kephyrion littorale</i>					3.7	354.8	2.1	197.3	2.1	195.1	4.5	425.0
<i>Kephyrion obliquum</i>												
<i>Kephyrion</i> sp.			2.4	151.5	1.9	117.7			2.1	129.4		
<i>Mallomonas</i> sp.											2.2	850.1
<i>Rhodomonas minuta</i>	77.1	1,542.9	50.5	1,010.2	56.0	1,120.5	2.1	41.5	2.1	41.1	17.9	357.9
Subtotal	91.0	8,743.1	110.6	20,240.9	97.1	16,422.7	35.3	10,066.5	24.6	6,988.9	55.9	13,366.7
Diatoms												
<i>Achnanthes clevei</i>												
<i>Achnanthes flexella</i>												
<i>Achnanthes hauckiana</i>												
<i>Achnanthes lanceolata</i>					3.7	672.3						
<i>Achnanthes lewisiana</i>							2.1	259.6				
<i>Achnanthes linearis</i>	2.0	261.1	4.8	635.0	1.9	246.5	8.3	1,096.4			4.5	590.6
<i>Achnanthes minutissima</i>	2.0	98.9	2.4	120.3			4.2	207.6			4.5	223.7
<i>Achnanthes peragalli</i>							4.2	581.4				
<i>Amphipleura pellucida</i>												
<i>Amphora ovalis</i>												
<i>Amphora perpusilla</i>			2.4	399.3	1.9	310.0	2.1	344.7			2.2	371.4
<i>Anomoeoneis vitrea</i>												

Appendix 3.6-2. Phytoplankton Abundance and Taxonomic Results in Lakes, Hope Bay Belt Project, August 2010

Lake Date Replicate Taxa	Aim. Stn 13 13-Aug-10						Aim. Stn 5 12-Aug-10					
	1		2		3		1		2		3	
	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL
Diatoms (cont'd)												
<i>Asterionella formosa</i>	9.9	12,620.1	12.0	8,466.8	1.9	4,930.2	20.8	27,865.7	28.8	25,302.0	11.2	22,147.3
<i>Caloneis</i> sp.												
<i>Caloneis ventricosa</i>												
<i>Caloneis ventricosa minuta</i>												
<i>Cocconeis disculus</i>												
<i>Cocconeis placentula</i>												
<i>Cyclotella comta</i>	7.9	17,960.9	9.6	21,840.4	11.2	25,435.3	6.2	14,140.5	2.1	4,662.0	8.9	20,312.9
<i>Cyclotella meneghiniana</i>												
<i>Cyclotella ocellata</i>	11.9	1,483.6	12.0	1,503.3	7.5	933.7	8.3	1,038.2	16.4	2,053.7	13.4	1,677.8
<i>Cyclotella stelligera</i>	7.9	435.2	2.4	132.3	14.9	821.7	8.3	456.8	16.4	903.6	11.2	615.2
<i>Cymatopleura solea</i>												
<i>Cymbella affinis</i>			2.4	4,329.6								
<i>Cymbella cesatii</i>												
<i>Cymbella mexicana</i>												
<i>Cymbella microcephala</i>												
<i>Cymbella minuta</i>	4.0	1,463.8	7.2	2,669.9			8.3	3,073.1			2.2	827.7
<i>Cymbella naviculiformis</i>												
<i>Cymbella sinuata</i>												
<i>Cymbella</i> sp.												
<i>Diatoma tenue</i>												
<i>Diatoma tenue elongatum</i>							2.1	1,495.0	4.1	1,191.2		
<i>Diatoma vulgare</i>												
<i>Diatomella balfouriana</i>												
<i>Diploneis elliptica</i>			4.8	1,250.8								
<i>Diploneis puella</i>												
<i>Epithemia sorex</i>												
<i>Epithemia turgida</i>												
<i>Eunotia elegans</i>												
<i>Eunotia pectinalis</i>											2.2	1,610.7
<i>Eunotia</i> sp.												
<i>Fragilaria construens</i>												
<i>Fragilaria construens venter</i>	2.0	379.8			1.9	179.3	2.1	1,162.8			2.2	134.0
<i>Fragilaria crotonensis</i>												
<i>Fragilaria pinnata</i>											2.2	134.2
<i>Fragilaria vaucheriae</i>									6.2	1,774.4		
<i>Gomphonema acuminatum</i>												
<i>Gomphonema angustatum</i>									4.1	739.3		
<i>Gomphonema clevei</i>												
<i>Gomphonema gracile</i>												
<i>Gomphonema</i> sp.												
<i>Gomphonema subclavatum</i>												
<i>Gomphonema tenellum</i>												
<i>Gomphonema ventricosum</i>									2.1	1,745.7		
<i>Gyrosigma spencerii</i>												
<i>Melosira granulata</i>					1.9	1,027.1						
<i>Melosira italica</i>	9.9	26,086.8	19.2	39,878.5			8.3	52,420.7			13.4	25,288.2
<i>Navicula anglica</i>							2.1	747.5				
<i>Navicula capitata</i>							2.1	996.7			2.2	1,073.8
<i>Navicula contenta biceps</i>												
<i>Navicula cryptocephala</i>											4.5	827.7
<i>Navicula cascadiensis</i>											2.2	134.2
<i>Navicula cryptocephala veneta</i>												
<i>Navicula cryptocephala venter</i>												
<i>Navicula decussis</i>												
<i>Navicula graciloides</i>												
<i>Navicula gregaria</i>												
<i>Navicula menisculus upsaliensis</i>									2.1	359.4		
<i>Navicula minima</i>	2.0	87.0										
<i>Navicula minuscula</i>												
<i>Navicula mutica</i>												
<i>Navicula pseudoscutiformis</i>			2.4	420.9	1.9	326.8						
<i>Navicula pupula</i>					3.7	1,008.4						
<i>Navicula rhynchocephala</i>												
<i>Navicula seminulum</i>												

Appendix 3.6-2. Phytoplankton Abundance and Taxonomic Results in Lakes, Hope Bay Belt Project, August 2010

Lake Date Replicate Taxa	Aim. Stn 13 13-Aug-10						Aim. Stn 5 12-Aug-10					
	1		2		3		1		2		3	
	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL
Diatoms (cont'd)												
<i>Navicula scutiformis</i>					1.9	280.1	6.2	934.4	4.1	616.1	4.5	671.1
<i>Navicula tripunctata</i>									2.1	924.2		
<i>Navicula viridula</i>									8.2	2,300.2	2.2	626.4
<i>Neidium affine</i>									2.1	739.3		
<i>Nitzschia acicularis</i>	4.0	1,107.7			3.7	1,045.8						
<i>Nitzschia amphibia</i>									2.1	92.4		
<i>Nitzschia capitellata</i>	2.0	712.1	2.4	865.9	3.7	1,344.6	2.1	747.5				
<i>Nitzschia clausii</i>					1.9	84.0						
<i>Nitzschia communis</i>												
<i>Nitzschia constricta</i>			2.4	647.0							2.2	601.8
<i>Nitzschia dissipata</i>			2.4	288.6	1.9	224.1			4.1	492.9	2.2	268.5
<i>Nitzschia frustulum</i>	2.0	237.4										
<i>Nitzschia innominata</i>									2.1	205.4		
<i>Nitzschia linearis</i>							6.2	1,121.3	2.1	369.7		
<i>Nitzschia microcephala</i>												
<i>Nitzschia palea</i>												
<i>Nitzschia paleacea</i>												
<i>Nitzschia sp.</i>												
<i>Nitzschia tryblionella</i>												
<i>Pinnularia borealis</i>			2.4	962.1							2.2	894.8
<i>Pinnularia sp.</i>												
<i>Stauroneis sp.</i>					1.9	653.6			2.1	718.8	2.2	783.0
<i>Stephanodiscus astraea minutula</i>												
<i>Stephanodiscus hantzschii</i>												
<i>Surirella ovata</i>												
<i>Surirella sp.</i>												
<i>Synedra cyclosum</i>												
<i>Synedra delicatissima</i>												
<i>Synedra radians</i>	2.0	712.1			5.6	2,016.9	6.2	2,242.5	4.1	1,478.7	4.5	1,610.7
<i>Synedra rumpens</i>	2.0	276.9					8.3	1,162.8	8.2	1,150.1	8.9	1,252.8
<i>Synedra tenera</i>	4.0	1,186.8										
<i>Synedra ulna</i>												
<i>Synedra sp.</i>												
<i>Tabellaria fenestrata</i>												
<i>Tabellaria flocculosa</i>	2.0	1,167.1			1.9	1,101.8						
Subtotal	77.1	66,277.2	91.4	84,410.8	74.7	42,642.4	118.4	112,095.1	123.2	47,819.1	116.3	82,678.6
Dinoflagellata												
<i>Glenodinium sp.</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Euglenoida												
<i>Euglena sp.</i>												
<i>Trachelomonas charkowensis</i>												
<i>Trachelomonas hispida</i>												
<i>Trachelomonas pulchella</i>												
<i>Trachelomonas volvocina</i>												
Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unidentified												
Unidentified flagellate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	196	80,494	236	120,193	204	62,679	181	127,710	160	58,355	188	105,542

Appendix 3.6-2. Phytoplankton Abundance and Taxonomic Results in Lakes, Hope Bay Belt Project, August 2010

Lake Date Replicate	Aim. Stn 11 15-Aug-10						Aim. Stn 6 14-Aug-10					
	1		2		3		1		2		3	
	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL
Cyanophyta												
<i>Anabaena flos-aquae</i>			5.8	7,777.9	17.8	27,451.9						
<i>Anabaena planctonica</i>												
<i>Anabaena</i> sp.												
<i>Aphanothece</i> sp.			8.7	2,220.2			3.1	276.1	2.1	62.9	5.9	1,061.2
<i>Aphanizomenon flos-aquae</i>												
<i>Chroococcus minimus</i>	3.1	85.9							2.1	3,901.7		
<i>Oscillatoria</i> sp.												
Subtotal	3.1	85.9	14.5	9,998.0	17.8	27,451.9	3.1	276.1	4.2	3,964.6	5.9	1,061.2
Chlorophyta												
<i>Ankistrodesmus falcatus</i>	6.1	153.4	23.2	696.5	11.9	445.4	9.2	299.1	16.8	461.5	8.8	221.1
<i>Botryococcus braunii</i>												
<i>Chlamydomonas</i> sp.			2.9	943.2			6.1	1,994.2	4.2	1,363.5	5.9	2,874.0
<i>Cladophora</i> sp.												
<i>Closteriopsis longissima</i>												
<i>Closterium</i> sp.												
<i>Cosmarium</i> sp.	3.1	644.3	17.4	3,656.8			6.1	1,288.6	4.2	881.0		
<i>Crucigenia quadrata</i>	12.3	1,043.1	11.6	986.7			3.1	260.8	10.5	891.5	5.9	501.1
<i>Crucigenia tetrapedia</i>												
<i>Desmidium</i> sp.			8.7	3,047.3	3.0	2,078.3	3.1	1,073.8	6.3	2,863.3		
<i>Elakatothrix gelatinosa</i>												
<i>Gloeocystis ampla</i>	12.3	5,262.3			8.9	3,420.4						
<i>Mougeotia</i> sp.												
<i>Oocystis lacustris</i>							3.1	3,779.8				
<i>Oocystis parva</i>												
<i>Oocystis pusilla</i>	3.1	662.7	5.8	1,253.7			3.1	662.7	2.1	453.1	2.9	1,273.4
<i>Pediastrum boryanum</i>			5.8	1,160.9								
<i>Pediastrum duplex</i>			2.9	789.4	3.0	302.8						
<i>Pediastrum</i> sp.												
<i>Quadrigula closterioides</i>												
<i>Scenedesmus denticulatus</i>							3.1	552.2				
<i>Scenedesmus quadricauda</i>			5.8	943.2	5.9	1,543.9			2.1	545.4		
<i>Selenastrum minutum</i>			2.9	174.1			3.1	61.4				
<i>Sphaerocystis Schroeteri</i>			2.9	812.6			6.1	2,577.1	2.1	293.7	8.8	2,166.6
<i>Spirogyra</i> sp.												
<i>Staurastrum</i> sp.												
<i>Tetradron minimum</i>												
<i>Tetradron regulare</i>												
<i>Tetradron</i> sp.												
<i>Ulothrix</i> sp.												
Subtotal	36.8	7,765.8	90.0	14,464.5	32.7	7,790.8	46.0	12,549.8	48.2	7,753.0	32.4	7,036.2
Chrysophyta												
<i>Chrysococcus rufescens</i>					3.0	252.4						
<i>Cryptomonas erosa</i>	36.8	19,144.5	5.8	3,018.3	5.9	3,087.8	15.3	7,976.9	14.7	7,635.5	11.8	6,131.2
<i>Dinobryon bavaricum</i>			8.7	1,044.8			6.1	736.3	12.6	1,812.4	2.9	353.7
<i>Dinobryon sertularia</i>	12.3	1,472.7	2.9	348.3	23.8	3,420.4	3.1	368.2			2.9	353.7
<i>Kephyrion littorale</i>									2.1	199.3		
<i>Kephyrion obliquum</i>												
<i>Kephyrion</i> sp.			8.7	548.5								
<i>Mallomonas</i> sp.									2.1	797.1		
<i>Rhodomonas minuta</i>	24.5	490.9	60.9	1,218.9	17.8	356.3	153.4	3,068.0	102.8	2,055.7	179.8	3,596.2
Subtotal	73.6	21,108.0	87.1	6,178.8	50.5	7,116.8	177.9	12,149.4	134.3	12,500.0	197.5	10,434.9
Diatoms												
<i>Achnanthes clevei</i>			2.9	435.3								
<i>Achnanthes flexella</i>												
<i>Achnanthes hauckiana</i>					3.0	142.5						
<i>Achnanthes lanceolata</i>												
<i>Achnanthes lewisiana</i>					3.0	371.1						
<i>Achnanthes linearis</i>	9.2	1,214.9	11.6	1,532.4	17.8	2,351.5					2.9	389.1
<i>Achnanthes minutissima</i>	12.3	613.6	23.2	1,393.1	17.8	890.7					2.9	147.4
<i>Achnanthes peragalli</i>												
<i>Amphipleura pellucida</i>												
<i>Amphora ovalis</i>												
<i>Amphora perpusilla</i>					11.9	1,971.5						
<i>Anomoeoneis vitrea</i>												

Appendix 3.6-2. Phytoplankton Abundance and Taxonomic Results in Lakes, Hope Bay Belt Project, August 2010

Lake Date Replicate Taxa	Aim. Stn 11 15-Aug-10						Aim. Stn 6 14-Aug-10					
	1		2		3		1		2		3	
	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL
Diatoms (cont'd)												
<i>Asterionella formosa</i>	12.3	11,609.4	2.9	1,277.0	11.9	14,370.2	9.2	3,442.3	12.6	20,767.0	8.8	3,891.0
<i>Caloneis</i> sp.												
<i>Caloneis ventricosa</i>												
<i>Caloneis ventricosa minuta</i>												
<i>Cocconeis disculus</i>												
<i>Cocconeis placentula</i>												
<i>Cyclotella comta</i>	3.1	6,964.4	11.6	39,527.8	3.0	6,739.8	9.2	20,893.3	10.5	23,808.6	14.7	33,456.5
<i>Cyclotella meneghiniana</i>												
<i>Cyclotella ocellata</i>	15.3	1,917.5	14.5	1,813.9	3.0	371.1	3.1	383.5	4.2	524.4	5.9	736.9
<i>Cyclotella stelligera</i>	6.1	337.5	11.6	638.5	17.8	979.8			2.1	115.4	8.8	486.4
<i>Cymatopleura solea</i>												
<i>Cymbella affinis</i>												
<i>Cymbella cesatii</i>												
<i>Cymbella mexicana</i>												
<i>Cymbella microcephala</i>												
<i>Cymbella minuta</i>	6.1	2,270.3			11.9	4,394.2						
<i>Cymbella naviculiformis</i>												
<i>Cymbella sinuata</i>												
<i>Cymbella</i> sp.												
<i>Diatoma tenue</i>												
<i>Diatoma tenue elongatum</i>					5.9	8,550.9						
<i>Diatoma vulgare</i>												
<i>Diatomella balfouriana</i>												
<i>Diploneis elliptica</i>												
<i>Diploneis puella</i>												
<i>Epithemia sorex</i>												
<i>Epithemia turgida</i>												
<i>Eunotia elegans</i>									2.1	461.5		
<i>Eunotia pectinalis</i>											2.9	2,122.4
<i>Eunotia</i> sp.												
<i>Fragilaria construens</i>												
<i>Fragilaria construens venter</i>	3.1	147.3			5.9	285.0						
<i>Fragilaria crotonensis</i>												
<i>Fragilaria pinnata</i>					5.9	356.3						
<i>Fragilaria vaucheriae</i>	12.3	3,534.4			8.9	3,847.9						
<i>Gomphonema acuminatum</i>												
<i>Gomphonema angustatum</i>												
<i>Gomphonema clevei</i>												
<i>Gomphonema gracile</i>												
<i>Gomphonema</i> sp.												
<i>Gomphonema subclavatum</i>												
<i>Gomphonema tenellum</i>												
<i>Gomphonema ventricosum</i>												
<i>Gyrosigma spencerii</i>												
<i>Melosira granulata</i>			2.9	1,596.2								
<i>Melosira italica</i>	3.1	14,450.4	2.9	2,733.9	17.8	21,815.5	9.2	34,681.0			2.9	5,553.5
<i>Navicula anglica</i>												
<i>Navicula capitata</i>												
<i>Navicula contenta biceps</i>												
<i>Navicula cryptocephala</i>							3.1	567.6				
<i>Navicula cascadenis</i>												
<i>Navicula cryptocephala veneta</i>	6.1	582.9										
<i>Navicula cryptocephala venter</i>					3.0	356.0						
<i>Navicula decussis</i>												
<i>Navicula graciloides</i>												
<i>Navicula gregaria</i>												
<i>Navicula menisculus upsaliensis</i>	3.1	628.9										
<i>Navicula minima</i>	6.1	270.0					3.1	135.0				
<i>Navicula minuscula</i>												
<i>Navicula mutica</i>												
<i>Navicula pseudoscutiformis</i>	6.1	1,073.8	2.9	507.9								
<i>Navicula pupula</i>	3.1	828.4										
<i>Navicula rhynchocephala</i>												
<i>Navicula seminulum</i>												

Appendix 3.6-2. Phytoplankton Abundance and Taxonomic Results in Lakes, Hope Bay Belt Project, August 2010

Lake Date Replicate	Aim. Stn 11 15-Aug-10						Aim. Stn 6 14-Aug-10					
	1		2		3		1		2		3	
	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL
Diatoms (cont'd)												
<i>Navicula scutiformis</i>												
<i>Navicula</i> sp.	3.1	460.2			3.0	445.4						
<i>Navicula tripunctata</i>												
<i>Navicula viridula</i>												
<i>Neidium affine</i>												
<i>Nitzschia acicularis</i>					3.0	831.3			6.3	1,762.0	5.9	1,650.7
<i>Nitzschia amphibia</i>	3.1	294.5										
<i>Nitzschia capitellata</i>	3.1	1,104.5							4.2	1,510.3	2.9	1,061.2
<i>Nitzschia clausii</i>												
<i>Nitzschia communis</i>												
<i>Nitzschia constricta</i>												
<i>Nitzschia dissipata</i>	3.1	825.3			11.9	3,194.7						
<i>Nitzschia frustulum</i>			17.4	2,089.6	5.9	712.6						
<i>Nitzschia innominata</i>												
<i>Nitzschia linearis</i>												
<i>Nitzschia microcephala</i>												
<i>Nitzschia palea</i>	3.1	552.2										
<i>Nitzschia paleacea</i>	6.1	601.3										
<i>Nitzschia</i> sp.					3.0	356.3						
<i>Nitzschia tryblionella</i>												
<i>Pinnularia borealis</i>												
<i>Pinnularia</i> sp.												
<i>Stauroneis</i> sp.												
<i>Stephanodiscus astraea minutula</i>	12.3	4,295.2	2.9	1,015.8	5.9	2,078.3	6.1	2,147.6	10.5	3,670.9		
<i>Stephanodiscus hantzschii</i>			5.8	696.5			3.1	368.2				
<i>Surirella ovata</i>												
<i>Surirella</i> sp.												
<i>Synedra cyclopus</i>												
<i>Synedra delicatissima</i>												
<i>Synedra radians</i>	18.4	6,626.9			11.9	4,275.4			4.2	1,510.3	8.8	3,183.5
<i>Synedra rumpens</i>	6.1	859.0	11.6	1,625.2								
<i>Synedra tenera</i>					3.0	890.7			2.1	629.3		
<i>Synedra ulna</i>												
<i>Synedra</i> sp.												
<i>Tabellaria fenestrata</i>												
<i>Tabellaria flocculosa</i>	3.1	1,810.1			5.9	3,503.5			2.1	1,237.6		
Subtotal	168.7	63,873.3	124.8	56,882.9	201.9	84,082.3	46.0	62,618.4	60.8	55,997.4	67.8	52,678.6
Dinoflagellata												
<i>Glenodinium</i> sp.	0.0	0.0	0.0	0.0	0.0	0.0	3.1	2,147.6	4.2	2,936.7	0.0	0.0
Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	3.1	2,147.6	4.2	2,936.7	0.0	0.0
Euglenoida												
<i>Euglena</i> sp.												
<i>Trachelomonas charkowensis</i>												
<i>Trachelomonas hispida</i>												
<i>Trachelomonas pulchella</i>												
<i>Trachelomonas volvocina</i>									2.1	3,954.1		
Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	3,954.1	0.0	0.0
Unidentified												
Unidentified flagellate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	282	92,833	316	87,524	303	126,442	276	89,741	254	87,106	304	71,211

Appendix 3.6-2. Phytoplankton Abundance and Taxonomic Results in Lakes, Hope Bay Belt Project, August 2010

Lake Date Replicate	Windy Deep 21-Aug-10						Ref. B Deep 24-Aug-10					
	1		2		3		1		2		3	
	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL
Cyanophyta												
<i>Anabaena flos-aquae</i>												
<i>Anabaena planctonica</i>												
<i>Anabaena</i> sp.							1.4	978.2			1.7	410.0
<i>Aphanothece</i> sp.												
<i>Aphanizomenon flos-aquae</i>	54.3	61,601.3	42.4	53,393.6	50.8	64,055.1						
<i>Chroococcus minimus</i>												
<i>Oscillatoria</i> sp.												
Subtotal	54.3	61,601.3	42.4	53,393.6	50.8	64,055.1	1.4	978.2	0.0	0.0	1.7	410.0
Chlorophyta												
<i>Ankistrodesmus falcatus</i>			1.0	25.2	1.5	36.3	1.4	36.0	9.7	291.0	1.7	42.7
<i>Botryococcus braunii</i>												
<i>Chlamydomonas</i> sp.									1.6	525.4		
<i>Cladophora</i> sp.												
<i>Closteriopsis longissima</i>												
<i>Closterium</i> sp.												
<i>Cosmarium</i> sp.												
<i>Crucigenia quadrata</i>											1.7	145.2
<i>Crucigenia tetrapedia</i>												
<i>Desmidium</i> sp.												
<i>Elakatothrix gelatinosa</i>							2.9	483.4			6.8	287.0
<i>Gloeocystis ampla</i>												
<i>Mougeotia</i> sp.												
<i>Oocystis lacustris</i>									1.6	995.8		
<i>Oocystis parva</i>												
<i>Oocystis pusilla</i>							4.3	932.2	3.2	1,047.5	5.1	913.3
<i>Pediastrum boryanum</i>												
<i>Pediastrum duplex</i>												
<i>Pediastrum</i> sp.												
<i>Quadrigula closterioides</i>							2.9	207.2	1.6	155.2	5.1	1,599.0
<i>Scenedesmus denticulatus</i>												
<i>Scenedesmus quadricauda</i>												
<i>Selenastrum minutum</i>												
<i>Sphaerocystis Schroeteri</i>							4.3	1,661.6	3.2	2,715.7	6.8	2,391.7
<i>Spirogyra</i> sp.												
<i>Staurastrum</i> sp.												
<i>Tetradron minimum</i>												
<i>Tetradron regulare</i>												
<i>Tetradron</i> sp.												
<i>Ulothrix</i> sp.												
Subtotal	0.0	0.0	1.0	25.2	1.5	36.3	15.8	3,320.3	21.0	5,730.4	27.3	5,378.9
Chrysophyta												
<i>Chrysococcus rufescens</i>												
<i>Cryptomonas erosa</i>	1.3	656.9	1.0	524.7			15.8	8,228.8	14.5	7,565.2	12.0	6,218.3
<i>Dinobryon bavaricum</i>												
<i>Dinobryon sertularia</i>												
<i>Kephyrion littorale</i>							1.4	136.7	1.6	153.6	6.8	649.2
<i>Kephyrion obliquum</i>							2.9	417.2	1.6	234.4		
<i>Kephyrion</i> sp.							8.6	543.8	9.7	611.0	10.3	645.8
<i>Mallomonas</i> sp.												
<i>Rhodomonas minuta</i>							97.8	1,956.5	106.7	2,133.8	104.2	2,084.2
Subtotal	1.3	656.9	1.0	524.7	0.0	0.0	126.6	11,282.9	134.2	10,697.9	133.3	9,597.4
Diatoms												
<i>Achnanthes clevei</i>												
<i>Achnanthes flexella</i>												
<i>Achnanthes hauckiana</i>												
<i>Achnanthes lanceolata</i>					5.8	1,045.8						
<i>Achnanthes lewisiana</i>												
<i>Achnanthes linearis</i>	1.3	166.8							1.6	213.4		
<i>Achnanthes minutissima</i>	5.1	252.7	3.0	151.3			2.9	143.9	1.6	80.8		
<i>Achnanthes peragalli</i>												
<i>Amphipleura pellucida</i>												
<i>Amphora ovalis</i>												
<i>Amphora perpusilla</i>	11.4	1,887.4	3.0	502.5	5.8	1,157.3						
<i>Anomoeoneis vitrea</i>												

Appendix 3.6-2. Phytoplankton Abundance and Taxonomic Results in Lakes, Hope Bay Belt Project, August 2010

Lake Date Replicate Taxa	Windy Deep 21-Aug-10						Ref. B Deep 24-Aug-10					
	1		2		3		1		2		3	
	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL
Diatoms (cont'd)												
<i>Asterionella formosa</i>												
<i>Caloneis</i> sp.												
<i>Caloneis ventricosa</i>												
<i>Caloneis ventricosa minuta</i>			3.0	847.5	1.5	406.7						
<i>Cocconeis disculus</i>	2.5	189.5	3.0	227.0								
<i>Cocconeis placentula</i>	1.3	581.1										
<i>Cyclotella comta</i>	16.4	37,280.1	15.1	34,354.7	17.4	39,566.0	4.3	9,796.8				
<i>Cyclotella meneghiniana</i>												
<i>Cyclotella ocellata</i>	18.9	2,368.7	10.1	1,261.2	20.3	2,541.9	8.6	1,078.9	11.3	1,414.4	18.8	2,349.0
<i>Cyclotella stelligera</i>									4.8	266.7	6.8	375.8
<i>Cymatopleura solea</i>					1.5	23,530.4						
<i>Cymbella affinis</i>												
<i>Cymbella cesatii</i>												
<i>Cymbella mexicana</i>												
<i>Cymbella microcephala</i>												
<i>Cymbella minuta</i>									1.6	598.1	1.7	1,264.2
<i>Cymbella naviculiformis</i>												
<i>Cymbella sinuata</i>												
<i>Cymbella</i> sp.												
<i>Diatoma tenue</i>												
<i>Diatoma tenue elongatum</i>												
<i>Diatoma vulgare</i>												
<i>Diatomella balfouriana</i>												
<i>Diploneis elliptica</i>			1.0	262.3								
<i>Diploneis puella</i>												
<i>Epithemia sorex</i>												
<i>Epithemia turgida</i>												
<i>Eunotia elegans</i>					1.5	319.5						
<i>Eunotia pectinalis</i>												
<i>Eunotia</i> sp.												
<i>Fragilaria construens</i>	1.3	283.0			1.5	1,626.8						
<i>Fragilaria construens venter</i>	3.8	236.5	7.1	576.3	11.6	948.2						
<i>Fragilaria crotonensis</i>												
<i>Fragilaria pinnata</i>	1.3	151.6	2.0	121.1	4.4	339.9						
<i>Fragilaria vaucheriae</i>												
<i>Gomphonema acuminatum</i>												
<i>Gomphonema angustatum</i>			1.0	181.6	1.5	261.4						
<i>Gomphonema clevei</i>												
<i>Gomphonema gracile</i>												
<i>Gomphonema</i> sp.												
<i>Gomphonema subclavatum</i>												
<i>Gomphonema tenellum</i>												
<i>Gomphonema ventricosum</i>												
<i>Gyrosigma spencerii</i>					1.5	653.6						
<i>Melosira granulata</i>												
<i>Melosira italica</i>												
<i>Navicula anglica</i>												
<i>Navicula capitata</i>	1.3	606.4	4.0	1,937.2	5.8	2,788.8						
<i>Navicula contenta biceps</i>												
<i>Navicula cryptocephala</i>												
<i>Navicula cascadiensis</i>												
<i>Navicula cryptocephala veneta</i>	2.5	240.0	2.0	191.7	4.4	414.0						
<i>Navicula cryptocephala venter</i>												
<i>Navicula decussis</i>												
<i>Navicula graciloides</i>												
<i>Navicula gregaria</i>	1.3	221.1	2.0	353.1								
<i>Navicula menisculus upsaliensis</i>			1.0	206.8	1.5	297.8						
<i>Navicula minima</i>	1.3	55.6			1.5	63.9	2.9	126.6				
<i>Navicula minuscula</i>												
<i>Navicula mutica</i>												
<i>Navicula pseudoscutiformis</i>												
<i>Navicula pupula</i>									1.6	436.5		
<i>Navicula rhynchocephala</i>			1.0	297.6							1.7	504.0
<i>Navicula seminulum</i>												

Appendix 3.6-2. Phytoplankton Abundance and Taxonomic Results in Lakes, Hope Bay Belt Project, August 2010

Lake Date Replicate	Windy Deep 21-Aug-10						Ref. B Deep 24-Aug-10					
	1		2		3		1		2		3	
	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL
Diatoms (cont'd)												
<i>Navicula scutiformis</i>			2.0	302.7					1.6	452.6		
<i>Navicula sp.</i>												
<i>Navicula tripunctata</i>												
<i>Navicula viridula</i>	1.3	568.5										
<i>Neidium affine</i>												
<i>Nitzschia acicularis</i>												
<i>Nitzschia amphibia</i>												
<i>Nitzschia capitellata</i>												
<i>Nitzschia clausii</i>												
<i>Nitzschia communis</i>					1.5	65.4						
<i>Nitzschia constricta</i>												
<i>Nitzschia dissipata</i>					1.5	390.7						
<i>Nitzschia frustulum</i>	1.3	151.6			1.5	174.3	2.9	345.3				
<i>Nitzschia innominata</i>												
<i>Nitzschia linearis</i>												
<i>Nitzschia microcephala</i>												
<i>Nitzschia palea</i>												
<i>Nitzschia paleacea</i>	1.3	123.8									1.7	167.4
<i>Nitzschia sp.</i>					1.5	174.3						
<i>Nitzschia tryblionella</i>												
<i>Pinnularia borealis</i>												
<i>Pinnularia sp.</i>	1.3	505.3					1.4	575.4				
<i>Stauroneis sp.</i>					1.5	493.8						
<i>Stephanodiscus astraea minutula</i>												
<i>Stephanodiscus hantzschii</i>			1.0	121.1								
<i>Surirella ovata</i>					1.5	421.2						
<i>Surirella sp.</i>												
<i>Synedra cyclopus</i>												
<i>Synedra delicatissima</i>												
<i>Synedra radians</i>												
<i>Synedra rumpens</i>					2.9	406.7						
<i>Synedra tenera</i>												
<i>Synedra ulna</i>												
<i>Synedra sp.</i>												
<i>Tabellaria fenestrata</i>											1.7	1,007.9
<i>Tabellaria flocculosa</i>											32.5	5,668.3
Subtotal	74.5	45,869.6	61.5	41,895.8	98.8	78,088.5	23.0	12,066.9	24.2	3,462.5		
Dinoflagellata												
<i>Glenodinium sp.</i>	0.0	0.0	1.0	706.3	0.0	0.0	0.0	0.0	1.6	1,131.5	0.0	0.0
Subtotal	0.0	0.0	1.0	706.3	0.0	0.0	0.0	0.0	1.6	1,131.5	0.0	0.0
Euglenoida												
<i>Euglena sp.</i>												
<i>Trachelomonas charkowensis</i>												
<i>Trachelomonas hispida</i>												
<i>Trachelomonas pulchella</i>												
<i>Trachelomonas volvocina</i>												
Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unidentified												
Unidentified flagellate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	130	108,128	107	96,545	151	142,180	167	27,648	181	21,022	195	21,055

Appendix 3.6-2. Phytoplankton Abundance and Taxonomic Results in Lakes, Hope Bay Belt Project, August 2010

Lake Date Replicate	Ref. D 11-Aug-10					
	1		2		3	
	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL
Cyanophyta						
<i>Anabaena flos-aquae</i>						
<i>Anabaena planctonica</i>						
<i>Anabaena</i> sp.			2.3	687.5		
<i>Aphanothece</i> sp.						
<i>Aphanizomenon flos-aquae</i>						
<i>Chroococcus minimus</i>						
<i>Oscillatoria</i> sp.						
Subtotal	0.0	0.0	2.3	687.5	0.0	0.0
Chlorophyta						
<i>Ankistrodesmus falcatus</i>	5.2	130.5			2.7	68.6
<i>Botryococcus braunii</i>						
<i>Chlamydomonas</i> sp.	7.8	2,544.7	2.3	744.8	5.5	1,783.2
<i>Cladophora</i> sp.						
<i>Closteriopsis longissima</i>						
<i>Closterium</i> sp.						
<i>Cosmarium</i> sp.					2.7	576.1
<i>Crucigenia quadrata</i>			2.3	779.2		
<i>Crucigenia tetrapedia</i>	2.6	221.8				
<i>Desmidiium</i> sp.					2.7	6,721.1
<i>Elakatothrix gelatinosa</i>						
<i>Gloeocystis ampla</i>						
<i>Mougeotia</i> sp.						
<i>Oocystis lacustris</i>						
<i>Oocystis parva</i>						
<i>Oocystis pusilla</i>						
<i>Pediastrum boryanum</i>						
<i>Pediastrum duplex</i>						
<i>Pediastrum</i> sp.						
<i>Quadrigula closterioides</i>						
<i>Scenedesmus denticulatus</i>			2.3	412.5		
<i>Scenedesmus quadricauda</i>			2.3	595.8		
<i>Selenastrum minutum</i>						
<i>Sphaerocystis Schroeteri</i>						
<i>Spirogyra</i> sp.						
<i>Staurastrum</i> sp.						
<i>Tetradron minimum</i>						
<i>Tetradron regulare</i>						
<i>Tetradron</i> sp.						
<i>Ulothrix</i> sp.						
Subtotal	15.7	2,897.0	9.2	2,532.3	13.7	9,148.9
Chrysophyta						
<i>Chrysococcus rufescens</i>					2.7	233.2
<i>Cryptomonas erosa</i>	18.3	9,500.2	13.8	7,150.0	16.5	8,559.1
<i>Dinobryon bavaricum</i>						
<i>Dinobryon sertularia</i>	2.6	313.2				
<i>Kephyrion littorale</i>	10.4	991.8	6.9	653.1	2.7	260.6
<i>Kephyrion obliquum</i>	2.6	378.4	4.6	664.6		
<i>Kephyrion</i> sp.	7.8	493.3	2.3	144.4	8.2	518.5
<i>Mallomonas</i> sp.					2.7	1,042.5
<i>Rhodomonas minuta</i>			2.3	45.8	2.7	54.9
Subtotal	41.8	11,676.9	29.8	8,657.9	35.7	10,668.7
Diatoms						
<i>Achnanthes clevei</i>						
<i>Achnanthes flexella</i>						
<i>Achnanthes hauckiana</i>						
<i>Achnanthes lanceolata</i>						
<i>Achnanthes lewisiana</i>						
<i>Achnanthes linearis</i>	28.7	3,789.7	32.1	4,235.0	16.5	2,172.7
<i>Achnanthes minutissima</i>	57.4	2,870.9	48.1	2,406.3	41.1	2,057.5
<i>Achnanthes peragalli</i>						
<i>Amphipleura pellucida</i>						
<i>Amphora ovalis</i>						
<i>Amphora perpusilla</i>	2.6	433.3				
<i>Anomoeoneis vitrea</i>						

Appendix 3.6-2. Phytoplankton Abundance and Taxonomic Results in Lakes, Hope Bay Belt Project, August 2010

Lake Date Replicate	Ref. D 11-Aug-10					
	1		2		3	
	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL
Taxa						
Diatoms (cont'd)						
<i>Asterionella formosa</i>					2.7	603.5
<i>Caloneis</i> sp.						
<i>Caloneis ventricosa</i>						
<i>Caloneis ventricosa minuta</i>						
<i>Cocconeis disculus</i>						
<i>Cocconeis placentula</i>						
<i>Cyclotella comta</i>					2.7	6,227.3
<i>Cyclotella meneghiniana</i>						
<i>Cyclotella ocellata</i>	54.8	3,014.5	2.3	286.5		
<i>Cyclotella stelligera</i>			55.0	3,025.0	79.6	4,375.6
<i>Cymatopleura solea</i>						
<i>Cymbella affinis</i>						
<i>Cymbella cesatii</i>						
<i>Cymbella mexicana</i>						
<i>Cymbella microcephala</i>						
<i>Cymbella minuta</i>	7.8	2,897.0	4.6	1,695.8	2.7	1,015.0
<i>Cymbella naviculiformis</i>						
<i>Cymbella sinuata</i>						
<i>Cymbella</i> sp.						
<i>Diatoma tenue</i>					5.5	1,591.1
<i>Diatoma tenue elongatum</i>	2.6	1,879.2	9.2	6,600.0	5.5	3,950.4
<i>Diatoma vulgare</i>	5.2	10,231.0	2.3	4,491.7	2.7	5,376.9
<i>Diatomella balfouriana</i>						
<i>Diploneis elliptica</i>						
<i>Diploneis puella</i>						
<i>Epithemia sorex</i>						
<i>Epithemia turgida</i>						
<i>Eunotia elegans</i>						
<i>Eunotia pectinalis</i>	2.6	1,879.2				
<i>Eunotia</i> sp.						
<i>Fragilaria construens</i>	2.6	1,461.6				
<i>Fragilaria construens venter</i>	2.6	125.3	2.3	440.0		
<i>Fragilaria crotonensis</i>						
<i>Fragilaria pinnata</i>	5.2	313.2	2.3	137.5	5.5	329.2
<i>Fragilaria vaucheriae</i>	5.2	1,503.3	11.5	3,300.0	8.2	2,370.2
<i>Gomphonema acuminatum</i>						
<i>Gomphonema angustatum</i>	2.6	469.8				
<i>Gomphonema clevei</i>						
<i>Gomphonema gracile</i>						
<i>Gomphonema</i> sp.						
<i>Gomphonema subclavatum</i>						
<i>Gomphonema tenellum</i>						
<i>Gomphonema ventricosum</i>						
<i>Gyrosigma spencerii</i>						
<i>Melosira granulata</i>						
<i>Melosira italica</i>						
<i>Navicula anglica</i>						
<i>Navicula capitata</i>						
<i>Navicula contenta biceps</i>						
<i>Navicula cryptocephala</i>						
<i>Navicula cascadiensis</i>						
<i>Navicula cryptocephala veneta</i>					2.7	260.6
<i>Navicula cryptocephala venter</i>						
<i>Navicula decussis</i>						
<i>Navicula graciloides</i>						
<i>Navicula gregaria</i>						
<i>Navicula menisculus upsaliensis</i>						
<i>Navicula minima</i>						
<i>Navicula minuscula</i>						
<i>Navicula mutica</i>						
<i>Navicula pseudoscutiformis</i>			2.3	401.0		
<i>Navicula pupula</i>	2.6	704.7				
<i>Navicula rhynchocephala</i>						
<i>Navicula seminulum</i>						

Appendix 3.6-2. Phytoplankton Abundance and Taxonomic Results in Lakes, Hope Bay Belt Project, August 2010

Lake Date Replicate	Ref. D 11-Aug-10					
	1		2		3	
	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL	Abundance cells/mL	Biovolume µm³/mL
Diatoms (cont'd)						
<i>Navicula scutiformis</i>						
<i>Navicula</i> sp.					2.7	411.5
<i>Navicula tripunctata</i>						
<i>Navicula viridula</i>						
<i>Neidium affine</i>						
<i>Nitzschia acicularis</i>					2.7	768.1
<i>Nitzschia amphibia</i>						
<i>Nitzschia capitellata</i>					2.7	987.6
<i>Nitzschia clausii</i>						
<i>Nitzschia communis</i>						
<i>Nitzschia constricta</i>						
<i>Nitzschia dissipata</i>	2.6	702.1				
<i>Nitzschia frustulum</i>	5.2	626.4	2.3	275.0	2.7	329.2
<i>Nitzschia innominata</i>						
<i>Nitzschia linearis</i>						
<i>Nitzschia microcephala</i>						
<i>Nitzschia palea</i>	2.6	469.8	2.3	412.5	2.7	493.8
<i>Nitzschia paleacea</i>						
<i>Nitzschia</i> sp.					2.7	329.2
<i>Nitzschia tryblionella</i>						
<i>Pinnularia borealis</i>						
<i>Pinnularia</i> sp.					5.5	2,194.6
<i>Stauroneis</i> sp.						
<i>Stephanodiscus astraea minutula</i>						
<i>Stephanodiscus hantzschii</i>						
<i>Surirella ovata</i>						
<i>Surirella</i> sp.						
<i>Synedra cyclopus</i>						
<i>Synedra delicatissima</i>						
<i>Synedra radians</i>	7.8	2,818.8			2.7	987.6
<i>Synedra rumpens</i>	7.8	1,096.2	4.6	641.7	5.5	768.1
<i>Synedra tenera</i>						
<i>Synedra ulna</i>						
<i>Synedra</i> sp.						
<i>Tabellaria fenestrata</i>						
<i>Tabellaria flocculosa</i>	2.6	1,539.9	2.3	1,352.1		
Subtotal	211.4	38,825.7	183.3	29,700.0	205.7	37,599.8
Dinoflagellata						
<i>Glenodinium</i> sp.	5.2	3,653.9	2.3	1,604.2	2.7	1,920.3
Subtotal	5.2	3,653.9	2.3	1,604.2	2.7	1,920.3
Euglenoidea						
<i>Euglena</i> sp.						
<i>Trachelomonas charkowensis</i>						
<i>Trachelomonas hispida</i>						
<i>Trachelomonas pulchella</i>						
<i>Trachelomonas volvocina</i>						
Subtotal	0.0	0.0	0.0	0.0	0.0	0.0
Unidentified						
Unidentified flagellate	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	274	57,054	227	43,182	258	59,338

Appendix 3.7-1

Periphyton Biomass Results, Hope Bay Belt Project, 2010

Appendix 3.7-1. Periphyton Biomass Results, Hope Bay Belt Project, 2010

Site ID	Date Sampler Installed	Date Sampler Retrieved	Number of Days Immersed	Area sampled (cm ²)	ALS Sample ID	Chlorophyll <i>a</i> (µg/cm ²)	Mean	SE
Aim. NE IF	10-Aug-10	07-Sep-10	28	75	L940830-21	0.227	0.196	0.021
Aim. NE IF	10-Aug-10	07-Sep-10	28	75	L940830-20	0.207		
Aim. NE IF	10-Aug-10	07-Sep-10	28	75	L940830-22	0.156		
Aim R.	10-Aug-10	08-Sep-10	29	75	L940830-29	0.187	0.111	0.038
Aim R.	10-Aug-10	08-Sep-10	29	75	L940830-30	0.080		
Aim R.	10-Aug-10	08-Sep-10	29	75	L940830-31	0.066		
Stickleback OF	10-Aug-10	08-Sep-10	29	75	L940830-27	0.165	0.161	0.002
Stickleback OF	10-Aug-10	08-Sep-10	29	75	L940830-28	0.161		
Stickleback OF	10-Aug-10	08-Sep-10	29	75	L940830-26	0.157		
Trout OF	10-Aug-10	08-Sep-10	29	75	L940830-23	0.180	0.132	0.027
Trout OF	10-Aug-10	08-Sep-10	29	75	L940830-24	0.129		
Trout OF	10-Aug-10	08-Sep-10	29	75	L940830-25	0.086		
AWRd	10-Aug-10	07-Sep-10	28	75	L940830-18	0.048	0.041	0.005
AWRd	10-Aug-10	07-Sep-10	28	75	L940830-17	0.043		
AWRd	10-Aug-10	07-Sep-10	28	75	L940830-19	0.032		
AWRc	10-Aug-10	07-Sep-10	28	75	L940830-16	0.164	0.084	0.043
AWRc	10-Aug-10	07-Sep-10	28	75	L940830-15	0.069		
AWRc	10-Aug-10	07-Sep-10	28	75	L940830-14	0.019		
Aim. OF	10-Aug-10	08-Sep-10	29	75	L940830-34	0.731	0.440	0.155
Aim. OF	10-Aug-10	08-Sep-10	29	75	L940830-32	0.389		
Aim. OF	10-Aug-10	08-Sep-10	29	75	L940830-33	0.201		
Koig. R.	10-Aug-10	08-Sep-10	29	75	L940830-36	0.423	0.285	0.069
Koig. R.	10-Aug-10	08-Sep-10	29	75	L940830-35	0.229		
Koig. R.	10-Aug-10	08-Sep-10	29	75	L940830-37	0.203		
Koig. U/S	10-Aug-10	07-Sep-10	28	75	L940830-10	0.233	0.216	0.021
Koig. U/S	10-Aug-10	07-Sep-10	28	75	L940830-9	0.199		
Koig. D/S	10-Aug-10	07-Sep-10	28	75	L940830-13	0.015	0.010	0.002
Koig. D/S	10-Aug-10	07-Sep-10	28	75	L940830-11	0.009		
Koig. D/S	10-Aug-10	07-Sep-10	28	75	L940830-12	0.007		
AWRb	10-Aug-10	07-Sep-10	28	75	L940830-5	0.528	0.283	0.123
AWRb	10-Aug-10	07-Sep-10	28	75	L940830-3	0.183		
AWRb	10-Aug-10	07-Sep-10	28	75	L940830-4	0.137		
AWRa	10-Aug-10	07-Sep-10	28	75	L940830-2	0.212	0.197	0.021
AWRa	10-Aug-10	07-Sep-10	28	75	L940830-1	0.181		
Ref B OF	09-Aug-10	07-Sep-10	29	75	L940830-7	0.052	0.036	0.015
Ref B OF	09-Aug-10	07-Sep-10	29	75	L940830-6	0.050		
Ref B OF	09-Aug-10	07-Sep-10	29	75	L940830-8	0.006		
Ref D OF	10-Aug-10	09-Sep-10	30	75	L940830-38	0.312	0.217	0.021
Ref D OF	10-Aug-10	09-Sep-10	30	75	L940830-39	0.121		

SE = standard error of the mean

Appendix 3.7-2

Periphyton Density and Taxonomic Results, Hope Bay Belt Project, 2010

Appendix 3.7-2. Periphyton Density and Taxonomic Results, Hope Bay Belt Project, 2010

Site ID Date (Installation to Retrieval)	Aim. NE IF 10-Aug-10 to 7-Sep-10						Aim. R. 10-Aug-10 to 8-Sep-10					
	1		2		3		1		2		3	
Replicate	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)
Cyanophyta												
<i>Anabaena flos-aquae</i>	-	-	484.9	324,914.0	-	-	-	-	-	-	-	-
<i>Anabaena</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Aphanothece</i> sp.	-	-	484.9	43,645.2	-	-	1,405.0	84,299.1	152.9	45,864.4	-	-
<i>Oscillatoria</i> sp.	1,658.1	1,028,014.7	-	-	-	-	-	-	-	-	-	-
Subtotal	1,658	1,028,015	970	368,559	0	0	1,405	84,299	153	45,864	0	0
Chrysophyta												
<i>Chrysococcus rufescens</i>	1,658.1	140,937.5	1,939.8	164,881.7	-	-	-	-	-	-	-	-
<i>Kephyrion littorale</i>	-	-	-	-	-	-	-	-	152.9	14,523.7	-	-
<i>Kephyrion</i> sp.	-	-	-	-	-	-	1,405.0	88,514.0	152.9	9,631.5	-	-
Subtotal	1,658	140,938	1,940	164,882	0	0	1,405	88,514	306	24,155	0	0
Cryptophyta												
<i>Cryptomonas erosa</i>	-	-	-	-	1,708.3	888,333.3	2,810.0	1,461,183.8	152.9	79,498.3	-	-
<i>Rhodomonas minuta</i>	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	0	0	0	0	1,708	888,333	2,810	1,461,184	153	79,498	0	0
Diatoms												
<i>Achnanthes clevei</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Achnanthes flexella</i>	-	-	-	-	-	-	702.5	340,708.7	-	-	-	-
<i>Achnanthes hauckiana</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Achnanthes lanceolata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Achnanthes linearis</i>	3,316.2	437,735.3	1,454.8	192,038.7	2,562.5	338,250.0	1,405.0	185,457.9	-	-	-	-
<i>Achnanthes minutissima</i>	63,007.4	3,150,367.6	16,973.1	848,655.9	23,062.5	1,153,125.0	9,132.4	547,943.9	1,223.1	61,152.5	762.6	38,128.0
<i>Amphora ovalis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Amphora perpusilla</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Anomooneis vitrea</i>	-	-	-	-	-	-	-	-	-	-	217.9	26,144.9
<i>Asterionella formosa</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Caloneis</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Caloneis ventricosa</i>	-	-	-	-	-	-	-	-	-	-	108.9	26,689.6
<i>Caloneis ventricosa minuta</i>	-	-	-	-	-	-	702.5	393,395.6	-	-	-	-
<i>Cocconeis placentula</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella comta</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella meneghiniana</i>	-	-	-	-	854.2	649,166.7	-	-	-	-	-	-
<i>Cyclotella ocellata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella stelligera</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella affinis</i>	1,658.1	2,984,558.8	-	-	-	-	702.5	1,264,486.0	-	-	-	-
<i>Cymbella cesatii</i>	-	-	-	-	-	-	1,405.0	259,922.1	-	-	-	-
<i>Cymbella mexicana</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella microcephala</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella minuta</i>	29,845.6	11,042,867.6	7,759.1	3,157,969.9	17,937.5	6,636,875.0	1,405.0	519,844.2	917.3	339,396.6	871.5	322,454.1
<i>Cymbella naviculiformis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella sinuata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatoma tenue</i>	3,316.2	961,691.2	1,939.8	562,537.6	854.2	247,708.3	2,107.5	611,168.2	2,446.1	709,369.5	1,198.3	382,260.6
<i>Diatoma tenue elongatum</i>	-	-	-	-	-	-	2,107.5	5,614,317.8	458.6	330,223.7	435.7	470,608.7
<i>Diatoma vulgare</i>	-	-	484.9	950,494.6	-	-	-	-	-	-	-	-
<i>Diploneis puella</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Epithemia sorex</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Epithemia turgida</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotia elegans</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotia pectinalis</i>	-	-	-	-	-	-	1,405.0	1,517,383.2	152.9	110,074.6	108.9	78,434.8
<i>Eunotia</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria construens</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria construens venter</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria crotonensis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria pinnata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria vaucheriae</i>	6,632.4	2,292,141.2	1,454.8	418,993.5	-	-	4,215.0	1,456,687.9	611.5	176,119.3	435.7	188,243.5
<i>Gomphonema angustatum</i>	3,316.2	596,911.8	-	-	-	-	-	-	-	-	-	-
<i>Gomphonema clevei</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gomphonema gracile</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gomphonema</i> sp.	-	-	-	-	-	-	-	-	152.9	30,576.3	-	-
<i>Gomphonema subclavatum</i>	-	-	484.9	290,967.7	-	-	-	-	-	-	-	-
<i>Gomphonema tenellum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Melosira italica</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula capitata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula contenta biceps</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula cryptocephala</i>	1,658.1	306,746.3	484.9	89,715.1	1,708.3	316,041.7	-	-	-	-	-	-
<i>Navicula cascadenis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula cryptocephala veneta</i>	-	-	484.9	46,069.9	1,708.3	162,291.7	-	-	-	-	108.9	10,349.0
<i>Navicula decussis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula graciloides</i>	-	-	-	-	-	-	-	-	-	-	-	-

Appendix 3.7-2. Periphyton Density and Taxonomic Results, Hope Bay Belt Project, 2010

Site ID Date (Installation to Retrieval)	Aim. NE IF 10-Aug-10 to 7-Sep-10						Aim. R. 10-Aug-10 to 8-Sep-10					
	1		2		3		1		2		3	
Replicate	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)
Diatoms (cont'd)	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula gregaria</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula menisculus upsaliensis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula minima</i>	-	-	-	-	1,708.3	75,166.7	-	-	-	-	-	-
<i>Navicula minuscula</i>	-	-	-	-	854.2	38,437.5	-	-	-	-	-	-
<i>Navicula pseudoscutiformis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula pupula</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula rhynchocephala</i>	1,658.1	489,136.0	-	-	-	-	-	-	-	-	-	-
<i>Navicula</i> sp.	-	-	484.9	72,741.9	-	-	702.5	105,373.8	-	-	-	-
<i>Navicula tripunctata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula viridula</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Neidium affine</i>	-	-	-	-	-	-	-	-	-	-	108.9	934,681.2
<i>Nitzschia acicularis</i>	3,316.2	928,529.4	484.9	135,784.9	2,562.5	717,500.0	-	-	-	-	108.9	30,502.4
<i>Nitzschia amphibia</i>	-	-	-	-	-	-	-	-	-	-	108.9	10,458.0
<i>Nitzschia capitellata</i>	-	-	-	-	-	-	1,405.0	505,794.4	305.8	110,074.6	217.9	78,434.8
<i>Nitzschia clausii</i>	-	-	-	-	-	-	702.5	224,797.5	-	-	-	-
<i>Nitzschia communis</i>	-	-	-	-	-	-	702.5	31,612.1	-	-	-	-
<i>Nitzschia constricta</i>	3,316.2	2,885,073.5	-	-	-	-	1,405.0	1,629,781.9	-	-	108.9	63,183.6
<i>Nitzschia dissipata</i>	1,658.1	446,025.7	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia frustulum</i>	28,187.5	4,397,250.0	2,909.7	418,993.5	11,104.2	1,465,750.0	9,834.9	1,888,299.1	1,528.8	201,803.4	980.4	129,417.4
<i>Nitzschia innominata</i>	-	-	-	-	-	-	702.5	33,719.6	-	-	-	-
<i>Nitzschia linearis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia microcephala</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia palea</i>	-	-	-	-	854.2	153,750.0	702.5	126,448.6	-	-	108.9	19,608.7
<i>Nitzschia paleacea</i>	1,658.1	162,492.6	969.9	95,049.5	1,708.3	167,416.7	702.5	68,844.2	-	-	-	-
<i>Nitzschia</i> sp.	-	-	484.9	58,193.5	-	-	702.5	84,299.1	-	-	-	-
<i>Nitzschia tryblionella</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pinnularia</i> sp.	-	-	-	-	-	-	-	-	-	-	108.9	43,574.9
<i>Stauroneis</i> sp.	-	-	-	-	-	-	702.5	238,847.4	-	-	-	-
<i>Stephanodiscus astraea minutula</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Surirella ovata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Surirella</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra cyclosum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra radians</i>	-	-	969.9	349,161.3	-	-	7,024.9	2,528,972.0	611.5	220,149.2	435.7	156,869.6
<i>Synedra rumpens</i>	4,974.3	696,397.1	2,424.7	339,462.4	5,125.0	717,500.0	2,107.5	295,046.7	1,375.9	192,630.5	1,307.2	183,014.5
<i>Synedra tenera</i>	1,658.1	994,852.9	-	-	-	-	-	-	152.9	45,864.4	326.8	98,043.5
<i>Synedra ulna</i>	-	-	484.9	965,043.0	-	-	-	-	-	-	-	-
<i>Synedra</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tabellaria fenestrata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tabellaria flocculosa</i>	1,658.1	978,272.1	484.9	286,118.3	1,708.3	1,007,916.7	8,429.9	14,423,570.1	1,834.6	2,164,800.0	1,198.3	2,262,407.7
Subtotal	160,835	33,751,049	41,220	9,277,991	74,313	13,846,896	61,117	34,896,722	11,772	4,692,235	9,369	5,553,509
Chlorophyta												
<i>Ankistrodesmus falcatus</i>	6,632.4	165,808.8	3,394.6	84,865.6	9,395.8	234,895.8	2,107.5	52,686.9	2,599.0	64,974.6	435.7	10,893.7
<i>Chlamydomonas</i> sp.	3,316.2	1,077,757.4	969.9	315,215.1	2,562.5	832,812.5	-	-	-	-	-	-
<i>Cladophora</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Closteriopsis longissima</i>	-	-	484.9	172,640.9	-	-	-	-	-	-	-	-
<i>Closterium</i> sp.	-	-	-	-	-	-	-	-	152.9	290,474.6	-	-
<i>Cosmarium</i> sp.	1,658.1	348,198.5	-	-	-	-	2,107.5	442,570.1	917.3	192,630.5	435.7	91,507.2
<i>Desmidium</i> sp.	1,658.1	580,330.9	484.9	169,731.2	854.2	896,875.0	-	-	152.9	53,508.5	108.9	38,128.0
<i>Gloeocystis ampla</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> sp.	1,658.1	2,347,852.9	-	-	-	-	-	-	-	-	-	-
<i>Oocystis pusilla</i>	-	-	484.9	104,748.4	-	-	-	-	-	-	-	-
<i>Pediastrum duplex</i>	1,658.1	225,500.0	-	-	-	-	-	-	-	-	-	-
<i>Scenedesmus denticulatus</i>	-	-	-	-	-	-	702.5	126,448.6	-	-	217.9	39,217.4
<i>Scenedesmus quadricauda</i>	18,239.0	4,742,132.4	484.9	126,086.0	854.2	222,083.3	-	-	-	-	108.9	28,323.7
<i>Selenastrum minutum</i>	1,658.1	33,161.8	-	-	-	-	-	-	-	-	-	-
<i>Spirogyra</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Staurastrum</i> sp.	-	-	-	-	854.2	410,000.0	702.5	168,598.1	152.9	36,691.5	-	-
<i>Ulothrix</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	36,478	9,520,743	6,304	973,287	14,521	2,596,667	5,620	790,304	3,975	638,280	1,307	208,070
Euglenoidae												
<i>Trachelomonas charkowensis</i>	-	-	-	-	-	-	-	-	152.9	4,127.8	-	-
<i>Trachelomonas hispida</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Trachelomonas pulchella</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Trachelomonas volvocina</i>	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	0	0	0	0	0	0	0	0	153	4,128	0	0
Dinoflagellata												
<i>Glenodinium</i> sp.	-	-	-	-	-	-	-	-	-	-	108.9	76,256.0
Subtotal	0	0	0	0	0	0	0	0	0	0	109	76,256
TOTAL	200,629	44,440,744	50,434	10,784,719	90,542	17,331,896	72,357	37,321,023	16,511	5,484,160	10,785	5,837,836

Appendix 3.7-2. Periphyton Density and Taxonomic Results, Hope Bay Belt Project, 2010

Site ID	Stickleback OF						Trout OF					
Date (Installation to Retrieval)	10-Aug-10 to 8-Sep-10						10-Aug-10 to 8-Sep-10					
Replicate	1		2		3		1		2		3	
Taxa	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)
Cyanophyta												
<i>Anabaena flos-aquae</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Anabaena</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Aphanothece</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oscillatoria</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Chrysophyta												
<i>Chrysococcus rufescens</i>	394.2	33,509.6	359.1	30,521.5	-	-	-	-	-	-	-	-
<i>Kephyrion littorale</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Kephyrion</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	394	33,510	359	30,521	0	0	0	0	0	0	0	0
Cryptophyta												
<i>Cryptomonas erosa</i>	-	-	1,256.8	653,519.1	-	-	-	-	-	-	-	-
<i>Rhodomonas minuta</i>	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	0	0	1,257	653,519	0	0	0	0	0	0	0	0
Diatoms												
<i>Achnanthes clevei</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Achnanthes flexella</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Achnanthes hauckiana</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Achnanthes lanceolata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Achnanthes linearis</i>	1,576.9	208,153.8	-	-	1,281.3	169,125.0	18,008.7	2,377,145.8	13,009.6	1,717,269.2	35,559.6	4,693,869.2
<i>Achnanthes minutissima</i>	6,701.9	335,096.2	897.7	44,884.6	2,242.2	112,109.4	51,677.1	3,100,625.0	18,528.8	1,111,730.8	46,834.6	2,341,730.8
<i>Amphora ovalis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Amphora perpusilla</i>	788.5	130,884.6	-	-	640.6	106,343.8	1,566.0	389,927.1	-	-	-	-
<i>Anomooneis vitrea</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Asterionella formosa</i>	-	-	-	-	-	-	-	-	394.2	86,730.8	-	-
<i>Caloneis</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Caloneis ventricosa</i>	-	-	718.2	175,947.5	-	-	-	-	-	-	-	-
<i>Caloneis ventricosa minuta</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cocconeis placentula</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella comta</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella meneghiniana</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella ocellata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella stelligera</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella affinis</i>	-	-	359.1	646,337.6	-	-	-	-	-	-	-	-
<i>Cymbella cesatii</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella mexicana</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella microcephala</i>	-	-	179.5	9,515.5	-	-	-	-	-	-	-	-
<i>Cymbella minuta</i>	4,730.8	1,750,384.6	1,436.3	531,433.1	3,523.4	1,303,671.9	3,914.9	1,738,229.2	2,759.6	1,021,057.7	1,734.6	641,807.7
<i>Cymbella naviculiformis</i>	-	-	179.5	215,445.9	-	-	-	-	-	-	-	-
<i>Cymbella sinuata</i>	-	-	-	-	-	-	783.0	109,618.1	-	-	-	-
<i>Cymbella</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatoma tenue</i>	5,913.5	2,229,375.0	538.6	156,198.2	8,648.4	3,009,656.3	1,566.0	681,197.9	394.2	114,326.9	-	-
<i>Diatoma tenue elongatum</i>	-	-	538.6	387,802.5	-	-	-	-	-	-	-	-
<i>Diatoma vulgare</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diploneis puella</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Epithemia sorex</i>	788.5	898,846.2	-	-	-	-	-	-	-	-	-	-
<i>Epithemia turgida</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotia elegans</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotia pectinalis</i>	-	-	718.2	620,484.1	320.3	230,625.0	-	-	788.5	567,692.3	867.3	1,248,923.1
<i>Eunotia</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria construens</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria construens venter</i>	394.2	37,846.2	718.2	34,471.3	640.6	46,125.0	-	-	-	-	-	-
<i>Fragilaria crotonensis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria pinnata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria vaucheriae</i>	-	-	-	-	960.9	359,775.0	-	-	394.2	113,538.5	-	-
<i>Gomphonema angustatum</i>	1,576.9	283,846.2	-	-	8,007.8	2,162,109.4	4,697.9	1,099,312.5	1,576.9	425,769.2	6,938.5	1,998,276.9
<i>Gomphonema clevei</i>	-	-	-	-	640.6	57,656.3	-	-	-	-	-	-
<i>Gomphonema gracile</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gomphonema</i> sp.	-	-	179.5	35,907.6	-	-	-	-	-	-	-	-
<i>Gomphonema subclavatum</i>	-	-	-	-	1,601.6	960,937.5	783.0	939,583.3	-	-	-	-
<i>Gomphonema tenellum</i>	-	-	-	-	-	-	783.0	164,427.1	394.2	82,788.5	-	-
<i>Melosira italica</i>	394.2	371,365.4	-	-	-	-	-	-	-	-	-	-
<i>Navicula capitata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula contenta biceps</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula cryptocephala</i>	394.2	72,932.7	359.1	66,429.1	320.3	59,257.8	-	-	-	-	-	-
<i>Navicula cascadenis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula cryptocephala veneta</i>	-	-	538.6	51,168.4	-	-	-	-	-	-	-	-
<i>Navicula decussis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula graciloides</i>	-	-	179.5	78,099.1	-	-	-	-	-	-	-	-

Appendix 3.7-2. Periphyton Density and Taxonomic Results, Hope Bay Belt Project, 2010

Site ID Date (Installation to Retrieval)	Stickleback OF 10-Aug-10 to 8-Sep-10						Trout OF 10-Aug-10 to 8-Sep-10					
	1		2		3		1		2		3	
Replicate	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)
Taxa												
Diatoms (cont'd)	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula gregaria</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula menisculus upsaliensis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula minima</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula minuscula</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula pseudoscutiformis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula pupula</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula rhynchocephala</i>	-	-	179.5	52,963.8	-	-	-	-	-	-	-	-
<i>Navicula</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula tripunctata</i>	-	-	179.5	201,082.8	-	-	-	-	-	-	-	-
<i>Navicula viridula</i>	-	-	179.5	80,792.2	-	-	-	-	-	-	-	-
<i>Neidium affine</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia acicularis</i>	788.5	220,769.2	-	-	320.3	89,687.5	-	-	788.5	220,769.2	-	-
<i>Nitzschia amphibia</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia capitellata</i>	-	-	179.5	64,633.8	-	-	783.0	281,875.0	-	-	-	-
<i>Nitzschia clausii</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia communis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia constricta</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia dissipata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia frustulum</i>	3,153.8	454,153.8	718.2	86,178.3	320.3	38,437.5	1,566.0	187,916.7	788.5	94,615.4	1,734.6	312,230.8
<i>Nitzschia innominata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia linearis</i>	-	-	538.6	820,848.7	-	-	-	-	-	-	-	-
<i>Nitzschia microcephala</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia palea</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia paleacea</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia tryblionella</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pinnularia</i> sp.	394.2	157,692.3	538.6	215,445.9	640.6	512,500.0	783.0	313,194.4	-	-	-	-
<i>Stauroneis</i> sp.	394.2	134,038.5	179.5	61,043.0	-	-	-	-	-	-	-	-
<i>Stephanodiscus astraea minutula</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Surirella ovata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Surirella</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra cyclopus</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra radians</i>	-	-	179.5	64,633.8	320.3	115,312.5	-	-	-	-	-	-
<i>Synedra rumpens</i>	8,278.8	1,159,038.5	4,668.0	653,519.1	2,882.8	403,593.8	5,480.9	844,059.0	1,971.2	275,961.5	5,203.8	874,246.2
<i>Synedra tenera</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra ulna</i>	394.2	784,519.2	-	-	-	-	1,566.0	3,116,284.7	-	-	-	-
<i>Synedra</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tabellaria fenestrata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tabellaria flocculosa</i>	-	-	-	-	-	-	-	-	394.2	232,596.2	-	-
Subtotal	36,663	9,228,942	15,081	5,355,266	33,313	9,736,923	93,958	15,343,396	42,183	6,064,846	98,873	12,111,085
Chlorophyta												
<i>Ankistrodesmus falcatus</i>	394.2	9,855.8	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cladophora</i> sp.	394.2	1,340,384.6	179.5	610,429.9	-	-	-	-	-	-	-	-
<i>Closteriopsis longissima</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Closterium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cosmarium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Desmidium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gloeocystis ampla</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> sp.	-	-	179.5	190,669.6	-	-	-	-	-	-	-	-
<i>Oocystis pusilla</i>	-	-	-	-	-	-	783.0	84,562.5	-	-	-	-
<i>Pediastrum duplex</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Scenedesmus denticulatus</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Scenedesmus quadricauda</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Selenastrum minutum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Spirogyra</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Staurastrum</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ulothrix</i> sp.	-	-	-	-	-	-	-	-	-	-	867.3	138,769.2
Subtotal	788	1,350,240	359	801,100	0	0	3,132	847,974	8,279	2,572,356	6,071	1,830,019
Euglenoidae												
<i>Trachelomonas charkowensis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Trachelomonas hispida</i>	-	-	179.5	377,030.3	-	-	-	-	-	-	-	-
<i>Trachelomonas pulchella</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Trachelomonas volvocina</i>	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	0	0	180	377,030	0	0	0	0	0	0	0	0
Dinoflagellata												
<i>Glenodinium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	37,846	10,612,692	17,236	7,217,436	33,313	9,736,923	97,090	16,191,370	50,461	8,637,202	104,944	13,941,104

Appendix 3.7-2. Periphyton Density and Taxonomic Results, Hope Bay Belt Project, 2010

Site ID Date (Installation to Retrieval)	AWRd 10-Aug-10 to 7-Sep-10						AWRc 10-Aug-10 to 7-Sep-10					
	1		2		3		1		2		3	
Replicate	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)
Cyanophyta												
<i>Anabaena flos-aquae</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Anabaena</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Aphanothece</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oscillatoria</i> sp.	-	-	-	-	-	-	34.2	63,550.0	-	-	-	-
Subtotal	0	0	0	0	0	0	34	63,550	0	0	0	0
Chrysophyta												
<i>Chrysococcus rufescens</i>	-	-	146.4	12,446.4	-	-	34.2	2,904.2	425.5	36,165.1	563.8	47,918.8
<i>Kephyrion littorale</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Kephyrion</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	0	0	146	12,446	0	0	34	2,904	425	36,165	564	47,919
Cryptophyta												
<i>Cryptomonas erosa</i>	76.2	39,614.9	73.2	38,071.4	-	-	-	-	-	-	-	-
<i>Rhodomonas minuta</i>	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	76	39,615	73	38,071	0	0	0	0	0	0	0	0
Diatoms												
<i>Achnanthes clevei</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Achnanthes flexella</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Achnanthes hauckiana</i>	-	-	-	-	-	-	34.2	1,640.0	-	-	-	-
<i>Achnanthes lanceolata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Achnanthes linearis</i>	-	-	-	-	-	-	375.8	49,610.0	425.5	56,162.3	845.6	111,622.5
<i>Achnanthes minutissima</i>	-	-	-	-	-	-	615.0	30,750.0	2,340.1	117,004.7	704.7	35,234.4
<i>Amphora ovalis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Amphora perpusilla</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Anomooneis vitrea</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Asterionella formosa</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Caloneis</i> sp.	-	-	-	-	-	-	-	-	106.4	25,528.3	422.8	131,917.5
<i>Caloneis ventricosa</i>	-	-	-	-	-	-	-	-	106.4	26,060.1	-	-
<i>Caloneis ventricosa minuta</i>	-	-	-	-	80.0	22,390.1	-	-	-	-	-	-
<i>Cocconeis placentula</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella comta</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella meneghiniana</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella ocellata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella stelligera</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella affinis</i>	-	-	73.2	131,785.7	80.0	143,936.2	-	-	-	-	-	-
<i>Cymbella cesatii</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella mexicana</i>	-	-	73.2	402,678.6	-	-	-	-	106.4	585,023.6	-	-
<i>Cymbella microcephala</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella minuta</i>	-	-	219.6	81,267.9	159.9	59,173.8	-	-	850.9	314,849.1	1,268.4	563,186.3
<i>Cymbella naviculiformis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella sinuata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella</i> sp.	76.2	26,663.9	73.2	25,625.0	-	-	-	-	-	-	-	-
<i>Diatoma tenue</i>	-	-	-	-	-	-	341.7	118,900.0	106.4	30,846.7	-	-
<i>Diatoma tenue elongatum</i>	76.2	383,959.5	-	-	-	-	-	-	106.4	76,584.9	281.9	202,950.0
<i>Diatoma vulgare</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diploneis puella</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Epithemia sorex</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Epithemia turgida</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotia elegans</i>	-	-	-	-	-	-	34.2	7,516.7	425.5	93,603.8	281.9	62,012.5
<i>Eunotia pectinalis</i>	152.4	109,702.7	732.1	843,428.6	719.7	518,170.2	205.0	250,920.0	638.2	459,509.4	1,691.3	1,461,240.0
<i>Eunotia</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria construens</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria construens venter</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria crotonensis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria pinnata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria vaucheriae</i>	-	-	-	-	80.0	23,029.8	34.2	9,840.0	-	-	281.9	81,180.0
<i>Gomphonema angustatum</i>	304.7	82,277.0	146.4	52,714.3	80.0	14,393.6	307.5	55,350.0	531.8	114,877.4	563.8	121,770.0
<i>Gomphonema clevei</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gomphonema gracile</i>	-	-	-	-	-	-	-	-	-	-	281.9	69,059.4
<i>Gomphonema</i> sp.	-	-	-	-	80.0	31,985.8	-	-	-	-	-	-
<i>Gomphonema subclavatum</i>	76.2	91,418.9	73.2	43,928.6	-	-	-	-	531.8	478,655.7	281.9	169,125.0
<i>Gomphonema tenellum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Melosira italica</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula capitata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula contenta biceps</i>	-	-	-	-	-	-	34.2	2,733.3	-	-	-	-
<i>Navicula cryptocephala</i>	-	-	-	-	80.0	29,586.9	68.3	12,641.7	106.4	19,678.1	-	-
<i>Navicula cascadenis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula cryptocephala veneta</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula decussis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula graciloides</i>	-	-	-	-	-	-	68.3	29,725.0	-	-	-	-

Appendix 3.7-2. Periphyton Density and Taxonomic Results, Hope Bay Belt Project, 2010

Site ID Date (Installation to Retrieval)	AWRd 10-Aug-10 to 7-Sep-10						AWRc 10-Aug-10 to 7-Sep-10					
	1		2		3		1		2		3	
	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)
Taxa												
Diatoms (cont'd)	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula gregaria</i>	-	-	-	-	159.9	27,987.6	102.5	17,937.5	-	-	-	-
<i>Navicula menisculus upsaliensis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula minima</i>	-	-	-	-	-	-	-	-	106.4	4,680.2	-	-
<i>Navicula minuscula</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula pseudoscutiformis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula pupula</i>	-	-	-	-	-	-	-	-	-	-	140.9	38,053.1
<i>Navicula rhynchocephala</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula tripunctata</i>	-	-	-	-	-	-	34.2	38,266.7	-	-	281.9	315,700.0
<i>Navicula viridula</i>	-	-	-	-	80.0	35,984.0	-	-	-	-	-	-
<i>Neidium affine</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia acicularis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia amphibia</i>	152.4	14,627.0	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia capitellata</i>	-	-	585.7	210,857.1	479.8	172,723.4	-	-	-	-	1,127.5	405,900.0
<i>Nitzschia clausii</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia communis</i>	-	-	-	-	-	-	-	-	-	-	422.8	19,026.6
<i>Nitzschia constricta</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia dissipata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia frustulum</i>	-	-	439.3	52,714.3	159.9	19,191.5	273.3	32,800.0	531.8	76,584.9	2,677.8	321,337.5
<i>Nitzschia innominata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia linearis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia microcephala</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia palea</i>	-	-	73.2	13,178.6	80.0	80.0	-	-	-	-	-	-
<i>Nitzschia paleacea</i>	304.7	29,863.5	292.9	28,700.0	-	-	-	-	319.1	31,272.2	281.9	27,623.8
<i>Nitzschia</i> sp.	-	-	73.2	8,785.7	-	-	-	-	-	-	422.8	50,737.5
<i>Nitzschia tryblionella</i>	-	-	-	-	80.0	42,381.2	-	-	-	-	-	-
<i>Pinnularia</i> sp.	-	-	73.2	29,285.7	-	-	170.8	68,333.3	212.7	127,641.5	140.9	56,375.0
<i>Stauroneis</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Stephanodiscus astraea minutula</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Surirella ovata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Surirella</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra cyclopus</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra radians</i>	2,514.0	1,086,056.8	658.9	237,214.3	2,079.1	748,468.1	205.0	73,800.0	3,829.2	1,378,528.3	281.9	101,475.0
<i>Synedra rumpens</i>	304.7	42,662.2	-	-	-	-	170.8	23,916.7	1,063.7	148,915.1	986.6	138,118.8
<i>Synedra tenera</i>	-	-	-	-	-	-	-	-	212.7	63,820.8	140.9	42,281.3
<i>Synedra ulna</i>	76.2	151,603.0	-	-	479.8	954,776.6	34.2	67,991.7	106.4	211,672.2	281.9	560,931.3
<i>Synedra</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tabellaria fenestrata</i>	152.4	365,675.7	146.4	351,428.6	159.9	767,659.6	68.3	164,000.0	319.1	1,301,943.4	704.7	2,367,750.0
<i>Tabellaria flocculosa</i>	152.4	89,895.3	292.9	172,785.7	639.7	754,865.2	273.3	322,533.3	957.3	2,428,698.8	563.8	565,441.3
Subtotal	4,342	2,474,405	4,027	2,686,379	5,757	4,366,784	3,451	1,379,206	14,041	8,172,141	15,362	8,020,048
Chlorophyta												
<i>Ankistrodesmus falcatus</i>	-	-	-	-	-	-	-	-	-	-	140.9	3,523.4
<i>Chlamydomonas</i> sp.	-	-	-	-	-	-	-	-	-	-	140.9	45,804.7
<i>Cladophora</i> sp.	-	-	439.3	3,733,928.6	639.7	2,718,794.3	-	-	-	-	-	-
<i>Closteriopsis longissima</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Closterium</i> sp.	-	-	-	-	-	-	-	-	-	-	281.9	535,562.5
<i>Cosmarium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Desmidium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gloeocystis ampla</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> sp.	228.5	202,264.4	73.2	103,671.4	239.9	297,228.2	34.2	48,380.0	-	-	-	-
<i>Oocystis pusilla</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pediastrum duplex</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Scenedesmus denticulatus</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Scenedesmus quadricauda</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Selenastrum minutum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Spirogyra</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Staurastrum</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ulothrix</i> sp.	76.2	73135.1	-	80.0	25,588.7	-	-	-	212.7	85,094.3	-	-
Subtotal	305	275,399	513	3,837,680	26,468	3,016,023	34	48,380	213	85,094	564	584,891
Euglenoidae												
<i>Trachelomonas charkowensis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Trachelomonas hispida</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Trachelomonas pulchella</i>	-	-	-	-	-	-	34.2	68,333.3	-	-	140.9	281,875.0
<i>Trachelomonas volvocina</i>	-	-	-	-	-	-	-	-	-	-	422.8	797,001.6
Subtotal	0	0	0	0	0	0	34	68,333	0	0	564	1,078,877
Dinoflagellata												
<i>Glenodinium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	4,723	2,789,420	4,759	6,574,576	32,226	7,382,806	3,588	1,562,373	14,679	8,293,401	17,053	9,731,734

Appendix 3.7-2. Periphyton Density and Taxonomic Results, Hope Bay Belt Project, 2010

Site ID	Aim. OF		Koig. R.						Koig. U/S			
Date (Installation to Retrieval)	10-Aug-10 to 8-Sep-10		10-Aug-10 to 8-Sep-10						10-Aug-10 to 7-Sep-10			
Replicate	3		1		2		3		1		2	
Taxa	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)
Cyanophyta												
<i>Anabaena flos-aquae</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Anabaena</i> sp.	3,822.0	2,598,983.1	-	-	2,398.9	3,262,553.2	1,555.2	2,115,034.5	-	-	-	-
<i>Aphanothece</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oscillatoria</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	3,822	2,598,983	0	0	2,399	3,262,553	1,555	2,115,034	0	0	0	0
Chrysophyta												
<i>Chrysococcus rufescens</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Kephyrion littorale</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Kephyrion</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Cryptophyta												
<i>Cryptomonas erosa</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhodomonas minuta</i>	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Diatoms												
<i>Achnanthes clevei</i>	1,911.0	286,652.5	-	-	-	-	-	-	-	-	-	-
<i>Achnanthes flexella</i>	-	-	-	-	2,398.9	1,163,484.0	-	-	-	-	-	-
<i>Achnanthes hauckiana</i>	-	-	268.5	12,885.7	-	-	4,665.5	223,944.8	-	-	-	-
<i>Achnanthes lanceolata</i>	-	-	-	-	-	-	-	-	-	-	1,879.2	338,250.0
<i>Achnanthes linearis</i>	3,822.0	504,508.5	536.9	70,871.4	4,797.9	633,319.1	-	-	939.6	124,025.0	-	-
<i>Achnanthes minutissima</i>	28,665.3	1,433,262.7	13,422.6	805,357.1	59,973.4	3,598,404.3	34,213.8	1,710,689.7	85,502.1	4,702,614.6	35,704.2	1,785,208.3
<i>Amphora ovalis</i>	-	-	-	-	2,398.9	1,386,585.1	-	-	-	-	-	-
<i>Amphora perpusilla</i>	-	-	536.9	89,126.2	-	-	1,555.2	258,158.6	1,879.2	311,941.7	-	-
<i>Anomooneis vitrea</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Asterionella formosa</i>	5,733.1	2,522,542.4	-	-	-	-	3,110.3	1,026,413.8	-	-	-	-
<i>Caloneis</i> sp.	-	-	-	-	-	-	-	-	-	-	3,758.3	902,000.0
<i>Caloneis ventricosa</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Caloneis ventricosa minuta</i>	-	-	-	-	2,398.9	671,702.1	1,555.2	435,448.3	-	-	-	-
<i>Cocconeis placentula</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella comta</i>	1,911.0	4,338,008.5	-	-	-	-	-	-	-	-	1,879.2	4,265,708.3
<i>Cyclotella meneghiniana</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella ocellata</i>	1,911.0	238,877.1	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella stelligera</i>	-	-	-	-	2,398.9	131,941.5	-	-	-	-	-	-
<i>Cymbella affinis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella cesatii</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella mexicana</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella microcephala</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella minuta</i>	7,644.1	2,828,305.1	1,879.2	764,820.8	16,792.6	6,213,244.7	7,775.9	2,877,069.0	939.6	347,645.8	22,550.0	8,343,500.0
<i>Cymbella naviculiformis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella sinuata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatoma tenue</i>	13,377.1	4,267,300.8	1,342.3	700,660.7	19,191.5	5,565,531.9	9,331.0	3,247,200.0	-	-	16,912.5	4,904,625.0
<i>Diatoma tenue elongatum</i>	3,822.0	2,751,864.4	-	-	-	-	-	-	-	-	-	-
<i>Diatoma vulgare</i>	-	-	-	-	2,398.9	4,701,914.9	-	-	-	-	-	-
<i>Diploneis puella</i>	-	-	-	-	-	-	1,555.2	404,344.8	-	-	-	-
<i>Epithemia sorex</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Epithemia turgida</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotia elegans</i>	-	-	-	-	2,398.9	527,766.0	1,555.2	342,137.9	-	-	-	-
<i>Eunotia pectinalis</i>	-	-	-	-	2,398.9	1,727,234.0	3,110.3	2,239,448.3	-	-	1,879.2	1,353,000.0
<i>Eunotia</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria construens</i>	-	-	-	-	2,398.9	3,761,531.9	3,110.3	1,219,255.2	-	-	-	-
<i>Fragilaria construens venter</i>	1,911.0	366,915.3	268.5	38,657.1	-	-	-	-	-	-	-	-
<i>Fragilaria crotonensis</i>	-	-	-	-	-	-	1,555.2	2,612,689.7	-	-	-	-
<i>Fragilaria pinnata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria vaucheriae</i>	-	-	1,073.8	371,108.6	16,792.6	4,836,255.3	7,775.9	2,239,448.3	-	-	-	-
<i>Gomphonema angustatum</i>	-	-	268.5	48,321.4	-	-	1,555.2	279,931.0	3,758.3	1,150,050.0	62,012.5	11,162,250.0
<i>Gomphonema clevei</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gomphonema gracile</i>	1,911.0	468,199.2	-	-	2,398.9	587,739.4	3,110.3	762,034.5	-	-	-	-
<i>Gomphonema</i> sp.	-	-	268.5	53,690.5	-	-	-	-	-	-	1,879.2	375,833.3
<i>Gomphonema subclavatum</i>	-	-	-	-	-	-	-	-	939.6	563,750.0	3,758.3	2,255,000.0
<i>Gomphonema tenellum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Melosira italica</i>	5,733.1	10,801,067.8	268.5	252,882.1	-	-	-	-	-	-	-	-
<i>Navicula capitata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula contenta biceps</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula cryptocephala</i>	-	-	-	-	4,797.9	887,606.4	1,555.2	287,706.9	939.6	173,822.9	-	-
<i>Navicula cascadenis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula cryptocephala veneta</i>	1,911.0	181,546.6	268.5	25,503.0	2,398.9	227,898.9	1,555.2	147,741.4	2,818.8	267,781.3	5,637.5	535,562.5
<i>Navicula decussis</i>	-	-	-	-	-	-	-	-	939.6	180,400.0	-	-
<i>Navicula graciloides</i>	-	-	-	-	-	-	-	-	3,758.3	1,634,875.0	11,275.0	4,904,625.0

Appendix 3.7-2. Periphyton Density and Taxonomic Results, Hope Bay Belt Project, 2010

Site ID	Aim. OF		Koig. R.						Koig. U/S			
Date (Installation to Retrieval)	10-Aug-10 to 8-Sep-10		10-Aug-10 to 8-Sep-10						10-Aug-10 to 7-Sep-10			
Replicate	3		1		2		3		1		2	
Taxa	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)
Diatoms (cont'd)	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula gregaria</i>	1,911.0	334,428.0	-	-	-	-	-	-	-	-	3,758.3	657,708.3
<i>Navicula menisculus upsaliensis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula minima</i>	-	-	268.5	11,811.9	-	-	-	-	-	-	-	-
<i>Navicula minuscula</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula pseudoscutiformis</i>	-	-	268.5	46,979.2	-	-	-	-	-	-	1,879.2	328,854.2
<i>Navicula pupula</i>	-	-	-	-	-	-	-	-	-	-	1,879.2	507,375.0
<i>Navicula rhynchocephala</i>	-	-	-	-	-	-	-	-	-	-	1,879.2	554,354.2
<i>Navicula</i> sp.	-	-	-	-	-	-	-	-	1,879.2	422,812.5	1,879.2	281,875.0
<i>Navicula tripunctata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula viridula</i>	-	-	-	-	2,398.9	1,079,521.3	-	-	-	-	-	-
<i>Neidium affine</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia acicularis</i>	1,911.0	535,084.7	268.5	75,166.7	2,398.9	671,702.1	-	-	-	-	-	-
<i>Nitzschia amphibia</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia capitellata</i>	5,733.1	2,063,898.3	805.4	289,928.6	4,797.9	1,727,234.0	6,220.7	2,239,448.3	-	-	1,879.2	676,500.0
<i>Nitzschia clausii</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia communis</i>	-	-	-	-	-	-	-	-	939.6	42,281.3	-	-
<i>Nitzschia constricta</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia dissipata</i>	1,911.0	514,063.6	268.5	72,213.7	-	-	4,665.5	1,255,024.1	-	-	11,275.0	3,032,975.0
<i>Nitzschia frustulum</i>	1,911.0	229,322.0	2,147.6	257,714.3	16,792.6	2,015,106.4	13,996.6	1,679,586.2	2,818.8	439,725.0	9,395.8	1,127,500.0
<i>Nitzschia innominata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia linearis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia microcephala</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia palea</i>	1,911.0	343,983.1	268.5	48,321.4	-	-	-	-	939.6	169,125.0	3,758.3	676,500.0
<i>Nitzschia paleacea</i>	5,733.1	561,839.0	268.5	26,308.3	4,797.9	470,191.5	-	-	-	-	-	-
<i>Nitzschia</i> sp.	1,911.0	229,322.0	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia tryblionella</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pinnularia</i> sp.	3,822.0	1,528,813.6	-	-	-	-	-	-	939.6	375,833.3	3,758.3	1,503,333.3
<i>Stauroneis</i> sp.	-	-	-	-	2,398.9	815,638.3	-	-	-	-	-	-
<i>Stephanodiscus astraea minutula</i>	1,911.0	668,855.9	-	-	-	-	-	-	-	-	-	-
<i>Surirella ovata</i>	-	-	-	-	-	-	-	-	-	-	3,758.3	1,089,916.7
<i>Surirella</i> sp.	-	-	-	-	-	-	-	-	-	-	1,879.2	939,583.3
<i>Synedra cyclopus</i>	1,911.0	1,614,809.3	-	-	-	-	-	-	-	-	-	-
<i>Synedra radians</i>	-	-	-	-	2,398.9	863,617.0	1,555.2	559,862.1	-	-	-	-
<i>Synedra rumpens</i>	1,911.0	267,542.4	2,147.6	300,666.7	28,787.2	4,030,212.8	10,886.2	1,524,069.0	2,818.8	513,012.5	3,758.3	526,166.7
<i>Synedra tenera</i>	-	-	-	-	2,398.9	719,680.9	3,110.3	933,103.4	939.6	281,875.0	-	-
<i>Synedra ulna</i>	3,822.0	7,605,847.5	-	-	-	-	-	-	-	-	-	-
<i>Synedra</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tabellaria fenestrata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tabellaria flocculosa</i>	30,576.3	43,296,000.0	1,610.7	1,710,578.6	21,590.4	26,750,537.2	13,996.6	10,735,355.2	939.6	1,108,708.3	16,912.5	9,978,375.0
Subtotal	147,148	90,782,860	28,724	6,073,574	235,096	75,300,207	143,076	39,240,110	114,629	12,810,279	236,775	63,006,579
Chlorophyta	-	-	-	-	2,398.9	239,893.6	3,110.3	77,758.6	-	-	-	-
<i>Ankistrodesmus falcatus</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cladophora</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Closteriopsis longissima</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Closterium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cosmarium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Desmidium</i> sp.	1,911.0	668,855.9	-	-	-	-	-	-	-	-	-	-
<i>Gloeocystis ampla</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oocystis pusilla</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pediastrum duplex</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Scenedesmus denticulatus</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Scenedesmus quadricauda</i>	1,911.0	496,864.4	-	-	-	-	1,555.2	404,344.8	-	-	-	-
<i>Selenastrum minutum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Spirogyra</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Staurastrum</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ulothrix</i> sp.	3,822.0	917,288.1	-	-	7,196.8	3,051,446.8	1,555.2	746,482.8	-	-	-	-
Subtotal	7,644	2,083,008	0	0	9,596	3,291,340	6,221	1,228,586	0	0	0	0
Euglenoidae	-	-	-	-	-	-	-	-	-	-	-	-
<i>Trachelomonas charkowensis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Trachelomonas hispida</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Trachelomonas pulchella</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Trachelomonas volvocina</i>	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Dinoflagellata	-	-	-	-	-	-	-	-	-	-	-	-
<i>Glenodinium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	158,614	95,464,852	28,724	6,073,574	247,090	82,319,495	150,852	42,583,731	114,629	12,810,279	236,775	63,006,579

Appendix 3.7-2. Periphyton Density and Taxonomic Results, Hope Bay Belt Project, 2010

Site ID	Koig. D/S				AWRb						AWRa			
Date (Installation to Retrieval)	10-Aug-10 to 7-Sep-10				10-Aug-10 to 7-Sep-10						10-Aug-10 to 7-Sep-10			
Replicate	1		2		1		2		3		1		2	
Taxa	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)
Cyanophyta														
<i>Anabaena flos-aquae</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Anabaena</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Aphanothece</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oscillatoria</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chrysophyta														
<i>Chrysococcus rufescens</i>	-	-	-	-	-	-	-	-	-	-	2,285.5	194,265.2	8,752.3	743,944.1
<i>Kephyrion littorale</i>	-	-	-	-	-	-	-	-	-	-	-	-	514.8	48,909.8
<i>Kephyrion</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	0	0	0	0	0	0	0	0	0	0	2,285	194,265	9,267	792,854
Cryptophyta														
<i>Cryptomonas erosa</i>	-	-	-	-	225.0	117,025.9	-	-	-	-	-	-	-	-
<i>Rhodomonas minuta</i>	-	-	-	-	225.0	4,501.0	-	-	379.0	7,579.8	76.2	1,523.6	-	-
Subtotal	0	0	0	0	450	121,527	0	0	379	7,580	76	1,524	0	0
Diatoms														
<i>Achnanthes clevei</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Achnanthes flexella</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Achnanthes hauckiana</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Achnanthes lanceolata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Achnanthes linearis</i>	-	-	157.7	20,815.4	450.1	59,413.2	50,209.0	6,627,585.9	2,273.9	300,161.3	76.2	10,056.1	1,029.7	135,917.8
<i>Achnanthes minutissima</i>	1,261.0	63,051.0	157.7	7,884.6	2,925.6	146,282.4	26,425.8	1,321,289.1	5,684.9	312,668.1	-	-	1,544.5	77,226.0
<i>Amphora ovalis</i>	-	-	78.8	45,573.1	-	-	-	-	-	-	-	-	514.8	297,577.6
<i>Amphora perpusilla</i>	-	-	-	-	-	-	-	-	-	-	-	-	514.8	85,463.5
<i>Anomoeoneis vitrea</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Asterionella formosa</i>	-	-	78.8	17,346.2	-	-	-	-	379.0	83,378.2	-	-	-	-
<i>Caloneis</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Caloneis ventricosa</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Caloneis ventricosa minuta</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cocconeis placentula</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella comta</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella meneghiniana</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella ocellata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella stelligera</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella affinis</i>	-	-	-	-	-	-	-	-	379.0	1,364,369.7	-	-	-	-
<i>Cymbella cesatii</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella mexicana</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella microcephala</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella minuta</i>	-	-	157.7	58,346.2	2,475.5	1,099,143.7	1,761.7	651,835.9	1,516.0	560,907.6	-	-	-	-
<i>Cymbella naviculiformis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella sinuata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatoma tenue</i>	2,077.0	843,251.3	394.2	114,326.9	-	-	880.9	255,449.2	2,273.9	659,445.4	990.4	344,649.3	10,811.6	3,135,376.7
<i>Diatoma tenue elongatum</i>	-	-	78.8	113,538.5	-	-	-	-	-	-	228.5	164,554.1	2,059.4	1,482,739.7
<i>Diatoma vulgare</i>	-	-	-	-	225.0	882,195.6	-	-	-	-	-	-	1,544.5	3,027,260.3
<i>Diploneis puella</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Epithemia sorex</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Epithemia turgida</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotia elegans</i>	-	-	-	-	-	-	-	-	379.0	83,378.2	-	-	2,059.4	#####
<i>Eunotia pectinalis</i>	-	-	-	-	675.1	486,107.8	-	-	379.0	272,873.9	-	-	514.8	113,264.8
<i>Eunotia</i> sp.	-	-	-	-	-	-	-	-	758.0	341,092.4	-	-	-	-
<i>Fragilaria construens</i>	-	-	-	-	-	-	-	-	-	-	-	-	514.8	57,662.1
<i>Fragilaria construens venter</i>	-	-	-	-	-	-	-	-	-	-	-	-	1,029.7	49,424.7
<i>Fragilaria crotonensis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria pinnata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria vaucheriae</i>	-	-	78.8	22,707.7	2,250.5	648,143.7	880.9	253,687.5	3,031.9	873,196.6	-	-	-	-
<i>Gomphonema angustatum</i>	148.4	26,703.9	-	-	900.2	162,035.9	12,332.0	2,663,718.8	758.0	204,655.5	76.2	13,712.8	1,029.7	185,342.5
<i>Gomphonema clevei</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gomphonema gracile</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gomphonema</i> sp.	74.2	14,835.5	-	-	-	-	-	-	379.0	75,798.3	-	-	-	-
<i>Gomphonema subclavatum</i>	-	-	-	-	450.1	270,059.9	880.9	1,057,031.3	-	-	-	-	-	-
<i>Gomphonema tenellum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Melosira italica</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula capitata</i>	-	-	78.8	37,846.2	-	-	-	-	-	-	-	-	514.8	247,123.3
<i>Navicula contenta biceps</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula cryptocephala</i>	-	-	-	-	-	-	-	-	379.0	70,113.4	-	-	-	-
<i>Navicula cascadenis</i>	-	-	-	-	-	-	-	-	379.0	22,739.5	-	-	-	-
<i>Navicula cryptocephala veneta</i>	741.8	70,468.8	709.6	67,413.5	-	-	-	-	379.0	36,004.2	-	-	6,692.9	635,827.6
<i>Navicula decussis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula graciloides</i>	74.2	32,267.3	394.2	171,490.4	-	-	-	-	-	-	-	-	2,059.4	895,821.9

Appendix 3.7-2. Periphyton Density and Taxonomic Results, Hope Bay Belt Project, 2010

Site ID	Koig. D/S				AWRb						AWRa			
Date (Installation to Retrieval)	10-Aug-10 to 7-Sep-10				10-Aug-10 to 7-Sep-10						10-Aug-10 to 7-Sep-10			
Replicate	1		2		1		2		3		1		2	
Taxa	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)
Diatoms (cont'd)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula gregaria</i>	741.8	129,810.9	1,103.8	193,173.1	-	-	-	-	-	-	-	-	-	-
<i>Navicula menisculus upsaliensis</i>	-	-	78.8	16,163.5	-	-	-	-	-	-	-	-	-	-
<i>Navicula minima</i>	74.2	3,263.8	-	-	-	-	-	-	-	-	-	-	1,544.5	88,346.6
<i>Navicula minuscula</i>	-	-	78.8	3,548.1	-	-	-	-	-	-	-	-	-	-
<i>Navicula pseudoscutiformis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula pupula</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula rhynchocephala</i>	-	-	-	-	-	-	-	-	-	-	-	-	2,059.4	607,511.4
<i>Navicula</i> sp.	74.2	11,126.6	78.8	11,826.9	-	-	-	-	-	-	-	-	1,029.7	154,452.1
<i>Navicula tripunctata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula viridula</i>	-	-	-	-	-	-	-	-	-	-	76.2	34,282.1	1,544.5	695,034.2
<i>Neidium affine</i>	-	-	-	-	-	-	-	-	-	-	-	-	514.8	4,417,328.8
<i>Nitzschia acicularis</i>	74.2	20,769.7	-	-	-	-	-	-	-	-	76.2	21,331.1	-	-
<i>Nitzschia amphibia</i>	-	-	78.8	7,569.2	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia capitellata</i>	74.2	26,703.9	-	-	225.0	162,035.9	-	-	-	-	76.2	27,425.7	-	-
<i>Nitzschia clausii</i>	74.2	23,736.8	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia communis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia constricta</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia dissipata</i>	-	-	-	-	-	-	-	-	-	-	-	-	1,544.5	415,476.0
<i>Nitzschia frustulum</i>	593.4	71,210.5	157.7	18,923.1	1,800.4	259,257.5	880.9	105,703.1	2,273.9	272,873.9	-	-	7,207.8	864,931.5
<i>Nitzschia innominata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia linearis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia microcephala</i>	-	-	-	-	450.1	45,010.0	-	-	-	-	-	-	514.8	51,484.0
<i>Nitzschia palea</i>	222.5	21,808.2	-	-	-	-	880.9	158,554.7	1,137.0	204,655.5	-	-	1,544.5	278,013.7
<i>Nitzschia paleacea</i>	-	-	-	-	225.0	22,054.9	-	-	379.0	37,141.2	-	-	3,089.0	302,726.0
<i>Nitzschia</i> sp.	74.2	8,901.3	-	-	-	-	-	-	-	-	-	-	514.8	61,780.8
<i>Nitzschia tryblionella</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pinnularia</i> sp.	222.5	89,013.2	473.1	189,230.8	675.1	270,059.9	-	-	-	-	-	-	1,544.5	617,808.2
<i>Stauroneis</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Stephanodiscus astraea minutula</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Surirella ovata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Surirella</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra cyclopus</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra radians</i>	74.2	26,703.9	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra rumpens</i>	222.5	31,154.6	78.8	11,038.5	2,700.6	378,083.8	4,404.3	616,601.6	4,926.9	689,764.7	152.4	21,331.1	3,089.0	432,465.8
<i>Synedra tenera</i>	-	-	-	-	1,800.4	540,119.8	880.9	264,257.8	3,031.9	909,579.8	-	-	-	-
<i>Synedra ulna</i>	445.1	885,680.9	157.7	313,807.7	1,350.3	3,493,224.6	1,761.7	5,258,730.5	-	-	152.4	303,206.1	514.8	1,024,532.0
<i>Synedra</i> sp.	-	-	-	-	-	-	-	-	758.0	212,235.3	-	-	-	-
<i>Tabellaria fenestrata</i>	-	-	-	-	900.2	3,240,718.6	880.9	2,114,062.5	758.0	1,819,159.7	-	-	-	-
<i>Tabellaria flocculosa</i>	148.4	87,529.6	-	-	675.1	398,338.3	880.9	2,078,828.1	379.0	223,605.0	-	-	-	-
Subtotal	7,492	2,487,992	4,652	1,442,569	21,155	12,562,285	103,941	23,427,336	32,972	9,629,797	1,905	940,548	58,692	31,815,888
Chlorophyta														
<i>Ankistrodesmus falcatus</i>	74.2	1,854.4	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> sp.	222.5	62,309.2	-	-	-	-	-	-	379.0	123,172.3	-	-	-	-
<i>Cladophora</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Closteriopsis longissima</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Closterium</i> sp.	-	-	-	-	-	-	-	-	379.0	720,084.0	-	-	-	-
<i>Cosmarium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Desmidium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gloeocystis ampla</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> sp.	-	-	-	-	-	-	-	-	-	-	457.1	380,257.0	-	-
<i>Oocystis pusilla</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pediastrum duplex</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Scenedesmus denticulatus</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Scenedesmus quadricauda</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Selenastrum minutum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Spirogyra</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Staurastrum</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ulothrix</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	297	64,164	0	0	0	0	0	0	758	843,256	457	380,257	0	0
Euglenoidae														
<i>Trachelomonas charkowensis</i>	-	-	-	-	-	-	-	-	-	-	-	-	514.8	1,029,680.4
<i>Trachelomonas hispida</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Trachelomonas pulchella</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Trachelomonas volvocina</i>	-	-	-	-	-	-	-	-	-	-	-	-	1,029.7	1,940,947.5
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0	1,545	2,970,628
Dinoflagellata														
<i>Glenodinium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	7,789	2,552,156	4,652	1,442,569	21,605	12,683,812	103,941	23,427,336	34,109	10,480,634	4,723	1,516,594	69,503	35,579,369

Appendix 3.7-2. Periphyton Density and Taxonomic Results, Hope Bay Belt Project, 2010

Site ID	Ref. B OF						Ref. D OF			
Date (Installation to Retrieval)	9-Aug-10 to 7-Sep-10						10-Aug-10 to 9-Sep-10			
Replicate	1		2		3		1		2	
Taxa	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)
Cyanophyta										
<i>Anabaena flos-aquae</i>	-	-	-	-	-	-	-	-	-	-
<i>Anabaena</i> sp.	-	-	-	-	-	-	-	-	2,349.0	1,597,291.7
<i>Aphanothece</i> sp.	-	-	-	-	-	-	-	-	-	-
<i>Oscillatoria</i> sp.	-	-	-	-	-	-	-	-	-	-
Subtotal	0	0	0	0	0	0	0	0	2,349	1,597,292
Chrysophyta										
<i>Chrysococcus rufescens</i>	-	-	-	-	-	-	1,695.5	144,116.5	-	-
<i>Kephyrion littorale</i>	-	-	-	-	-	-	-	-	2,349.0	223,151.0
<i>Kephyrion</i> sp.	191.1	12,039.4	-	-	-	-	-	-	-	-
Subtotal	191	12,039	0	0	0	0	1,695	144,117	2,349	223,151
Cryptophyta										
<i>Cryptomonas erosa</i>	-	-	-	-	-	-	-	-	-	-
<i>Rhodomonas minuta</i>	-	-	-	-	-	-	-	-	-	-
Subtotal	0	0	0	0	0	0	0	0	0	0
Diatoms										
<i>Achnanthes clevei</i>	-	-	-	-	-	-	-	-	2,349.0	352,343.8
<i>Achnanthes flexella</i>	-	-	-	-	-	-	-	-	-	-
<i>Achnanthes hauckiana</i>	-	-	-	-	76.4	3,666.7	-	-	2,349.0	112,750.0
<i>Achnanthes lanceolata</i>	-	-	-	-	-	-	-	-	-	-
<i>Achnanthes linearis</i>	191.1	25,225.4	1,686.0	222,549.5	76.4	10,083.3	6,782.0	895,218.0	2,349.0	310,062.5
<i>Achnanthes minutissima</i>	3,822.0	229,322.0	2,950.5	147,523.4	1,222.2	61,111.1	54,255.6	2,984,060.2	56,375.0	3,100,625.0
<i>Amphora ovalis</i>	-	-	-	-	-	-	-	-	2,349.0	1,357,697.9
<i>Amphora perpusilla</i>	-	-	-	-	-	-	-	-	2,349.0	389,927.1
<i>Anomooneis vitrea</i>	-	-	-	-	-	-	-	-	-	-
<i>Asterionella formosa</i>	191.1	42,042.4	-	-	-	-	-	-	2,349.0	2,067,083.3
<i>Caloneis</i> sp.	-	-	-	-	-	-	-	-	-	-
<i>Caloneis ventricosa</i>	191.1	46,819.9	-	-	-	-	-	-	-	-
<i>Caloneis ventricosa minuta</i>	-	-	-	-	-	-	1,695.5	474,736.8	-	-
<i>Cocconeis placentula</i>	-	-	-	-	-	-	1,695.5	779,924.8	-	-
<i>Cyclotella comta</i>	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella meneghiniana</i>	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella ocellata</i>	191.1	23,887.7	-	-	76.4	9,548.6	-	-	2,349.0	293,619.8
<i>Cyclotella stelligera</i>	-	-	-	-	-	-	1,695.5	93,251.9	2,349.0	129,192.7
<i>Cymbella affinis</i>	191.1	343,983.1	421.5	1,138,037.4	76.4	137,500.0	-	-	-	-
<i>Cymbella cesatii</i>	-	-	-	-	-	-	-	-	-	-
<i>Cymbella mexicana</i>	-	-	-	-	-	-	-	-	-	-
<i>Cymbella microcephala</i>	191.1	10,128.4	210.7	11,169.6	76.4	4,048.6	1,695.5	89,860.9	4,697.9	248,989.6
<i>Cymbella minuta</i>	764.4	282,830.5	421.5	155,953.3	381.9	141,319.4	3,391.0	1,254,661.7	4,697.9	1,738,229.2
<i>Cymbella naviculiformis</i>	382.2	458,644.1	-	-	76.4	91,666.7	-	-	-	-
<i>Cymbella sinuata</i>	-	-	-	-	-	-	-	-	-	-
<i>Cymbella</i> sp.	-	-	-	-	-	-	-	-	-	-
<i>Diatoma tenue</i>	1,337.7	504,317.4	12,855.6	4,846,564.0	993.1	316,784.7	13,563.9	3,933,533.8	35,234.4	10,217,968.8
<i>Diatoma tenue elongatum</i>	191.1	137,593.2	1,053.7	758,691.6	-	-	-	-	16,442.7	11,838,750.0
<i>Diatoma vulgare</i>	191.1	374,559.3	-	-	-	-	-	-	-	-
<i>Diploneis puella</i>	-	-	-	-	-	-	-	-	-	-
<i>Epithemia sorex</i>	-	-	-	-	-	-	-	-	-	-
<i>Epithemia turgida</i>	-	-	-	-	-	-	-	-	-	-
<i>Eunotia elegans</i>	-	-	-	-	-	-	-	-	-	-
<i>Eunotia pectinalis</i>	382.2	412,779.7	-	-	-	-	1,695.5	1,220,751.9	-	-
<i>Eunotia</i> sp.	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria construens</i>	-	-	-	-	-	-	3,391.0	2,278,736.8	-	-
<i>Fragilaria construens venter</i>	191.1	9,172.9	-	-	-	-	6,782.0	1,041,708.3	-	-
<i>Fragilaria crotonensis</i>	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria pinnata</i>	191.1	11,466.1	-	-	-	-	5,086.5	610,375.9	2,349.0	140,937.5
<i>Fragilaria vaucheriae</i>	-	-	-	-	-	-	5,086.5	1,464,902.3	-	-
<i>Gomphonema angustatum</i>	-	-	210.7	37,934.6	-	-	1,695.5	305,188.0	-	-
<i>Gomphonema clevei</i>	-	-	-	-	-	-	-	-	-	-
<i>Gomphonema gracile</i>	191.1	46,819.9	-	-	-	-	-	-	-	-
<i>Gomphonema</i> sp.	-	-	-	-	-	-	-	-	-	-
<i>Gomphonema subclavatum</i>	191.1	114,661.0	-	-	-	-	-	-	-	-
<i>Gomphonema tenellum</i>	-	-	-	-	-	-	-	-	-	-
<i>Melosira italica</i>	-	-	-	-	-	-	-	-	-	-
<i>Navicula capitata</i>	-	-	-	-	-	-	-	-	-	-
<i>Navicula contenta biceps</i>	-	-	-	-	-	-	-	-	-	-
<i>Navicula cryptocephala</i>	-	-	-	-	152.8	28,263.9	1,695.5	313,665.4	-	-
<i>Navicula cascadenis</i>	-	-	-	-	-	-	-	-	-	-
<i>Navicula cryptocephala veneta</i>	191.1	18,154.7	210.7	20,021.0	76.4	7,256.9	1,695.5	161,071.4	4,697.9	446,302.1
<i>Navicula decussis</i>	-	-	-	-	-	-	1,695.5	325,533.8	-	-
<i>Navicula graciloides</i>	-	-	-	-	-	-	-	-	-	-

Appendix 3.7-2. Periphyton Density and Taxonomic Results, Hope Bay Belt Project, 2010

Site ID	Ref. B OF						Ref. D OF			
Date (Installation to Retrieval)	9-Aug-10 to 7-Sep-10						10-Aug-10 to 9-Sep-10			
Replicate	1		2		3		1		2	
Taxa	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)	Density (#/cm ²)	Biovolume (µm ³ /cm ²)
Diatoms (cont'd)	-	-	-	-	-	-	-	-	-	-
<i>Navicula gregaria</i>	-	-	-	-	-	-	-	-	-	-
<i>Navicula menisculus upsaliensis</i>	-	-	-	-	-	-	-	-	-	-
<i>Navicula minima</i>	-	-	-	-	-	-	-	-	-	-
<i>Navicula minuscula</i>	-	-	-	-	-	-	-	-	-	-
<i>Navicula pseudoscutiformis</i>	-	-	-	-	-	-	-	-	-	-
<i>Navicula pupula</i>	-	-	-	-	-	-	-	-	-	-
<i>Navicula rhynchocephala</i>	-	-	-	-	-	-	-	-	2,349.0	692,942.7
<i>Navicula</i> sp.	191.1	28,665.3	-	-	-	-	1,695.5	254,323.3	-	-
<i>Navicula tripunctata</i>	-	-	-	-	-	-	-	-	2,349.0	2,630,833.3
<i>Navicula viridula</i>	-	-	-	-	-	-	-	-	2,349.0	2,114,062.5
<i>Neidium affine</i>	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia acicularis</i>	-	-	-	-	152.8	42,777.8	3,391.0	949,473.7	2,349.0	657,708.3
<i>Nitzschia amphibia</i>	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia capitellata</i>	382.2	137,593.2	-	-	-	-	-	-	2,349.0	845,625.0
<i>Nitzschia clausii</i>	382.2	122,305.1	210.7	67,439.3	-	-	-	-	-	-
<i>Nitzschia communis</i>	191.1	8,599.6	-	-	-	-	-	-	-	-
<i>Nitzschia constricta</i>	-	-	-	-	-	-	-	-	2,349.0	2,724,791.7
<i>Nitzschia dissipata</i>	-	-	-	-	-	-	1,695.5	456,086.5	-	-
<i>Nitzschia frustulum</i>	573.3	116,954.2	632.2	98,629.9	381.9	45,833.3	10,172.9	1,220,751.9	11,744.8	1,409,375.0
<i>Nitzschia innominata</i>	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia linearis</i>	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia microcephala</i>	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia palea</i>	-	-	-	-	-	-	1,695.5	305,188.0	-	-
<i>Nitzschia paleacea</i>	-	-	210.7	20,653.3	-	-	3,391.0	332,315.8	-	-
<i>Nitzschia</i> sp.	191.1	22,932.2	-	-	-	-	-	-	-	-
<i>Nitzschia tryblionella</i>	-	-	-	-	-	-	-	-	-	-
<i>Pinnularia</i> sp.	-	-	-	-	-	-	-	-	-	-
<i>Stauroneis</i> sp.	-	-	-	-	-	-	-	-	-	-
<i>Stephanodiscus astraea minutula</i>	-	-	-	-	-	-	-	-	2,349.0	822,135.4
<i>Surirella ovata</i>	-	-	-	-	-	-	-	-	-	-
<i>Surirella</i> sp.	-	-	-	-	-	-	-	-	-	-
<i>Synedra cyclosum</i>	-	-	-	-	-	-	-	-	-	-
<i>Synedra radians</i>	-	-	421.5	151,738.3	229.2	82,500.0	-	-	2,349.0	845,625.0
<i>Synedra rumpens</i>	573.3	80,262.7	843.0	118,018.7	687.5	105,875.0	5,086.5	712,105.3	14,093.8	1,973,125.0
<i>Synedra tenera</i>	191.1	57,330.5	-	-	305.6	91,666.7	-	-	-	-
<i>Synedra ulna</i>	191.1	380,292.4	-	-	-	-	1,695.5	3,374,022.6	7,046.9	18,230,265.6
<i>Synedra</i> sp.	-	-	-	-	-	-	-	-	-	-
<i>Tabellaria fenestrata</i>	-	-	-	-	-	-	1,695.5	4,069,172.9	-	-
<i>Tabellaria flocculosa</i>	1,338	1,262,800	211	124,341	1,222	937,444	6,782.0	6,002,030.1	14,093.8	14,136,031.3
Subtotal	13,377	5,310,143	22,550	7,919,265	6,264	2,117,347	150,898	35,902,652	209,057	79,827,000
Chlorophyta										
<i>Ankistrodesmus falcatus</i>	191.1	4,777.5	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> sp.	-	-	-	-	-	-	-	-	-	-
<i>Cladophora</i> sp.	-	-	-	-	-	-	-	-	-	-
<i>Closteriopsis longissima</i>	-	-	-	-	-	-	-	-	-	-
<i>Closterium</i> sp.	-	-	-	-	152.8	290,277.8	-	-	-	-
<i>Cosmarium</i> sp.	573.3	120,394.1	-	-	152.8	32,083.3	-	-	-	-
<i>Desmidium</i> sp.	955.5	668,855.9	-	-	229.2	160,416.7	-	-	-	-
<i>Gloeocystis ampla</i>	-	-	-	-	76.4	19,555.6	-	-	-	-
<i>Mougeotia</i> sp.	382.2	202,950.0	-	-	152.8	40,562.5	-	-	-	-
<i>Oocystis pusilla</i>	-	-	-	-	-	-	-	-	-	-
<i>Pediastrum duplex</i>	-	-	-	-	-	-	-	-	-	-
<i>Scenedesmus denticulatus</i>	-	-	-	-	-	-	-	-	-	-
<i>Scenedesmus quadricauda</i>	-	-	-	-	-	-	-	-	-	-
<i>Selenastrum minutum</i>	-	-	-	-	-	-	-	-	-	-
<i>Spirogyra</i> sp.	-	-	-	-	229.2	1,604,166.7	-	-	-	-
<i>Staurastrum</i> sp.	-	-	-	-	152.8	55,000.0	-	-	-	-
<i>Ulothrix</i> sp.	382.2	152,881.4	1,053.7	640,672.9	381.9	146,666.7	1,695.5	135,639.1	7,046.9	1,691,250.0
Subtotal	2,484	1,149,859	1,054	640,673	1,528	2,348,729	1,695	135,639	7,047	1,691,250
Euglenoidae										
<i>Trachelomonas charkowensis</i>	-	-	-	-	-	-	-	-	2,349.0	4,697,916.7
<i>Trachelomonas hispida</i>	-	-	-	-	-	-	-	-	-	-
<i>Trachelomonas pulchella</i>	-	-	-	-	-	-	-	-	-	-
<i>Trachelomonas volvocina</i>	-	-	-	-	76.4	143,993.1	-	-	-	-
Subtotal	0	0	0	0	76	143,993	0	0	2,349	4,697,917
Dinoflagellata										
<i>Glenodinium</i> sp.	-	-	-	-	-	-	-	-	-	-
Subtotal	0	0	0	0	0	0	0	0	0	0
TOTAL	16,053	6,472,041	23,604	8,559,938	7,868	4,610,069	154,289	36,182,408	223,151	88,036,609

Appendix 3.8-1

Zooplankton Abundance and Taxonomic Results in Lakes,
Hope Bay Belt Project, 2010

Appendix 3.8-1. Zooplankton Abundance and Taxonomic Results in Lakes, Hope Bay Belt Project, 2010

Lake/Sample ID	Stickleback 21-Aug-10			Trout 15-Aug-10			Aim. Stn 13 13-Aug-10		
Date									
Replicate	1	2	3	1	2	3	1	2	3
Depth (m)	1	1	1	1	1	1	1	1	1
Volume sampled (m ³)	0.58476	0.59615	0.53730	0.64552	0.52781	0.54489	1.04991	1.12016	1.00055
CLADOCERA									
<i>Daphnia longiremis</i>	0	0	0	15	38	55	486	803	1,399
<i>Daphnia middendorffiana</i>	0	0	0	0	0	0	0	1	1
<i>Bosmina longirostris</i>	121	102	86	21,688	62,523	56,892	86	134	130
<i>Chydorus sphaericus</i>	2	0	0	31	76	73	0	0	0
<i>Holopedium gibberum</i>	0	0	0	8	4	7	486	2,232	1,599
Macrothricidae (benthic)	0	0	0	0	19	2	0	0	0
Subtotal Cladocerans	123	102	86	21,742	62,659	57,030	1,057	3,170	3,129
ROTIFERA									
<i>Asplanchna</i>	250	1,426	354	13,942	6,063	22,023	0	9	0
<i>Conochilus sp.</i>	21	84	37	620	758	128	0	0	0
<i>Filinia</i>	3	10	9	0	0	0	0	0	0
<i>Kellicottia longispina</i>	120	252	205	119,284	191,359	306,483	11,049	9,374	16,291
<i>Keratella cochlearis</i>	2	5	2	310	0	0	0	0	10
<i>Keratella quadrata</i>	5	2	0	0	0	0	0	0	0
<i>Plautius</i>	0	0	0	0	0	0	0	0	0
<i>Polyarthra</i>	0	34	93	0	0	0	0	0	0
<i>Testudinella</i>	0	0	0	3	4	15	0	0	0
Unidentified Rotifera*	5	0	4	0	0	0	0	0	0
Subtotal Rotifers	405	1,812	704	134,159	198,183	328,648	11,049	9,383	16,301
COPEPODS - CALANOIDA									
<i>Epischura lacustris</i>	0	0	0	9	23	53	105	87	63
<i>Epischura nevadensis</i>	0	0	0	0	0	0	0	0	0
<i>Epischura copepodites</i>	0	2	0	37	59	114	18	12	18
<i>Eurytemora canadensis</i>	0	0	0	0	0	0	0	0	0
<i>Hetercope septentrionalis copepodites</i>	0	0	0	0	0	0	0	0	0
<i>Leptodiaptomus ashlandi</i>	0	0	0	2	0	0	143	232	190
<i>Leptodiaptomus pribilofensis</i>	0	0	0	2	0	0	147	234	193
<i>Leptodiaptomus copepodites</i>	0	0	0	0	0	0	6,858	7,320	5,937
<i>Limnocalanus macrurus</i>	0	0	0	0	0	0	17	23	14
<i>Limnocalanus macrurus</i>	0	0	0	0	0	0	0	0	0
Unidentified Calanoida (nauplius)*	5	3	0	31	114	37	0	0	0
Subtotal Copepods - Calanoida	5	5	0	81	195	204	7,287	7,909	6,414
COPEPODS - CYCLOPOIDA									
<i>Cyclops bicuspidatus thomasi</i>	0	0	0	0	0	0	10	0	0
<i>Cyclops scutifer</i>	0	0	0	0	0	0	1,143	1,785	2,099
<i>Microcyclops varicans rubra</i>	0	0	0	19	13	42	0	0	0
<i>Eucyclops sp.</i> (benthic)	0	0	0	0	0	2	0	0	0
<i>Ergasilus sp.</i> (ectoparasitic)	32	39	24	62	76	128	0	0	0
Unidentified Cyclopoida (copepodite)*	17	22	7	759	1,042	1,468	7,905	7,677	8,595
Unidentified Cyclopoida (nauplius)*	113	101	149	635	398	1,652	19	446	700
Subtotal Copepods - Cyclopoida	162	161	181	1,475	1,529	3,292	9,077	9,909	11,394
TOTAL	696	2,080	970	157,457	262,567	389,174	28,470	30,371	37,238

Note: Data represent numbers of zooplankton/m³

Volume sampled is calculated based on flowmeter readings

* these taxa were excluded from the diversity analyses as they could not be accurately assigned to a genera

Appendix 3.8-1. Zooplankton Abundance and Taxonomic Results in Lakes, Hope Bay Belt Project, 2010

Lake/Sample ID	Aim. Stn 5 12-Aug-10			Aim. Stn 11 22-Aug-10			Aim. Stn 6 14-Aug-10		
Date									
Replicate	1	2	3	1	2	3	1	2	3
Depth (m)	1	1	1	1	1	1	26	26	26
Volume sampled (m ³)	1.49418	1.22269	1.19610	0.94549	0.88094	1.01574	1.76378	1.68784	1.43722
CLADOCERA									
<i>Daphnia longiremis</i>	348	900	920	116	9	59	1,417	1,066	2,018
<i>Daphnia middendorffiana</i>	0	1	1	0	1	0	2	0	0
<i>Bosmina longirostris</i>	194	180	117	137	37	69	51	53	49
<i>Chydorus sphaericus</i>	0	0	0	0	0	0	0	0	0
<i>Holopedium gibberum</i>	2,945	5,398	3,846	2,750	329	1,083	2,211	2,548	3,827
Macrothricidae (benthic)	0	0	0	0	0	0	0	0	0
Subtotal Cladocerans	3,487	6,478	4,883	3,004	377	1,211	3,681	3,667	5,893
ROTIFERA									
<i>Asplanchna</i>	0	0	0	42	6	0	6	0	14
<i>Conochilus</i> sp.	0	0	0	0	0	0	0	0	0
<i>Filinia</i>	0	0	0	0	0	0	0	0	0
<i>Kellicottia longispina</i>	5,756	12,105	6,270	11,211	12,146	11,125	5,103	8,295	12,524
<i>Keratella cochlearis</i>	67	0	84	0	11	0	0	0	0
<i>Keratella quadrata</i>	67	0	8	0	0	0	0	0	209
<i>Plautius</i>	0	0	0	0	0	10	0	0	0
<i>Polyarthra</i>	0	0	0	0	0	0	0	0	0
<i>Testudinella</i>	0	0	0	0	0	0	0	0	0
Unidentified Rotifera	0	0	0	0	0	0	0	0	0
Subtotal Rotifers	5,890	12,105	6,362	11,253	12,163	11,135	5,108	8,295	12,747
COPEPODS - CALANOIDA									
<i>Epischura lacustris</i>	54	68	39	106	44	24	47	44	97
<i>Epischura nevadensis</i>	0	0	0	0	0	0	0	0	0
<i>Epischura copepodites</i>	23	8	37	15	14	8	2	1	35
<i>Eurytemora canadensis</i>	2	0	0	0	0	0	1	0	0
<i>Hetercope septentrionalis copepodites</i>	0	0	0	0	0	0	0	0	0
<i>Leptodiaptomus ashlandi</i>	114	221	109	233	182	138	244	273	257
<i>Leptodiaptomus pribilofensis</i>	114	224	112	239	185	140	247	273	260
<i>Leptodiaptomus copepodites</i>	4,511	9,635	7,616	3,628	1,737	2,639	5,783	9,728	6,686
<i>Limnocalanus macrurus</i>	28	123	69	0	0	1	153	213	202
<i>Limnocalanus macrurus</i>	0	0	0	0	0	0	1	0	0
Unidentified Calanoida (nauplius)	20	327	167	0	1	10	0	0	0
Subtotal Copepods - Calanoida	4,866	10,605	8,150	4,220	2,162	2,959	6,477	10,533	7,537
COPEPODS - CYCLOPOIDA									
<i>Cyclops bicuspidatus thomasi</i>	7	25	17	0	0	0	11	0	0
<i>Cyclops scutifer</i>	435	548	978	338	87	405	714	824	1,099
<i>Microcyclops varicans rubra</i>	0	0	0	0	0	0	0	0	0
<i>Eucyclops</i> sp. (benthic)	0	0	0	0	0	0	0	0	0
<i>Ergasilus</i> sp. (ectoparasitic)	0	0	0	0	0	0	0	0	0
Unidentified Cyclopoida (copepodite)	2,008	5,480	4,933	148	125	108	6,237	7,702	8,349
Unidentified Cyclopoida (nauplius)	535	981	585	11	341	79	62	355	278
Subtotal Copepods - Cyclopoida	2,985	7,034	6,513	497	553	592	7,025	8,881	9,727
TOTAL	17,227	36,222	25,908	18,974	15,255	15,897	22,291	31,376	35,905

Note: Data represent numbers of zooplankton/m³

Volume sampled is calculated based on flowmeter readings

* these taxa were excluded from the diversity analyses as they could not be accurately assigned to a genera

Appendix 3.8-1. Zooplankton Abundance and Taxonomic Results in Lakes, Hope Bay Belt Project, 2010

Lake/Sample ID	Windy Deep 22-Aug-10			Ref. B Deep 25-Aug-10			Ref. D 11-Aug-10		
Date									
Replicate	1	2	3	1	2	3	1	2	3
Depth (m)	17	17	17	8.5	8.5	8.5	1	1	1
Volume sampled (m ³)	0.64552	0.73285	0.55628	0.39870	0.33035	0.33035	1.23028	1.29483	1.14294
CLADOCERA									
<i>Daphnia longiremis</i>	0	0	0	3,010	1,937	1,816	2	6	3
<i>Daphnia middendorffiana</i>	0	0	0	577	484	605	0	0	0
<i>Bosmina longirostris</i>	3	3	5	2,759	1,877	2,724	3,007	3,475	7,437
<i>Chydorus sphaericus</i>	0	0	0	0	0	0	33	23	0
<i>Holopedium gibberum</i>	0	0	0	53	242	64	0	0	0
Macrothricidae (benthic)	0	0	0	0	0	0	0	15	9
Subtotal Cladocerans	3	3	5	6,398	4,541	5,210	3,042	3,520	7,448
ROTIFERA									
<i>Asplanchna</i>	0	0	0	0	0	0	0	54	0
<i>Conochilus sp.</i>	2,324	3,002	7,370	50	0	30	0	0	0
<i>Filinia</i>	0	0	0	0	0	0	0	0	0
<i>Kellicottia longispina</i>	2,014	3,275	6,292	22,072	7,568	9,081	2,357	1,236	2,975
<i>Keratella cochlearis</i>	0	0	0	0	0	0	0	8	0
<i>Keratella quadrata</i>	0	0	0	0	0	0	0	8	44
<i>Plautius</i>	0	0	0	0	0	0	0	0	0
<i>Polyarthra</i>	0	0	0	0	0	0	0	0	0
<i>Testudinella</i>	0	0	0	0	0	0	0	0	9
Unidentified Rotifera	0	0	0	0	0	0	0	23	9
Subtotal Rotifers	4,338	6,277	13,662	22,122	7,568	9,111	2,357	1,328	3,036
COPEPODS - CALANOIDA									
<i>Epischura lacustris</i>	0	0	0	0	0	0	1	0	0
<i>Epischura nevadensis</i>	0	0	0	45	30	15	0	0	0
<i>Epischura copepodites</i>	0	0	0	0	0	0	0	0	0
<i>Eurytemora canadensis</i>	0	0	0	0	0	0	0	0	0
<i>Hetercope septentrionalis copepodites</i>	0	0	0	0	0	0	0	0	0
<i>Leptodiaptomus ashlandi</i>	0	0	0	75	30	61	0	0	0
<i>Leptodiaptomus pribilofensis</i>	0	0	0	2,709	3,300	3,330	0	0	0
<i>Leptodiaptomus copepodites</i>	0	0	0	13,293	9,111	11,806	0	0	0
<i>Limnocalanus macrurus</i>	226	162	320	0	0	0	0	0	0
<i>Limnocalanus macrurus</i>	2	1	0	0	0	0	0	0	0
Unidentified Calanoida (nauplius)	0	0	0	0	0	0	0	0	0
Subtotal Copepods - Calanoida	228	164	320	16,122	12,472	15,211	1	0	0
COPEPODS - CYCLOPOIDA									
<i>Cyclops bicuspidatus thomasi</i>	0	0	0	0	0	0	0	0	1
<i>Cyclops scutifer</i>	0	0	0	1,104	726	757	0	0	0
<i>Microcyclops varicans rubra</i>	0	0	0	0	0	0	0	0	0
<i>Eucyclops sp. (benthic)</i>	0	0	0	0	0	0	0	0	1
<i>Ergasilus sp. (ectoparasitic)</i>	0	0	0	0	0	0	0	0	0
Unidentified Cyclopoida (copepodite)	0	0	0	5,267	2,603	4,541	0	3	17
Unidentified Cyclopoida (nauplius)	0	0	0	6,020	2,179	1,816	16	23	0
Subtotal Copepods - Cyclopoida	0	0	0	12,390	5,509	7,114	16	26	19
TOTAL	4,568	6,443	13,987	57,033	30,089	36,646	5,416	4,875	10,504

Note: Data represent numbers of zooplankton/m³

Volume sampled is calculated based on flowmeter readings

* these taxa were excluded from the diversity analyses as they could not be accurately assigned to a genera

Appendix 3.9-1

Lake Benthos Density and Taxonomic Results, Hope Bay
Belt Project, 2010

Appendix 3.9-1. Lake Benthos Density and Taxonomic Results, Hope Bay Belt Project, 2010

Site					Stickleback					Trout					Aim. Stn 13					Aim. Stn 2				
Date Sampled					19-Aug-10					16/17-Aug-10					14/15-Aug-10					18-Aug-10				
Depth (m)					2.5	2.5	2.5	2.5	2.5	2.3	2.5	2.5	2.5	2.5	3.7	3.7	3.7	4	4	3	3	3	3	2.75
Major Group	Family	Subfamily	Tribe	Genus	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5
Coelenterata	Hydridae	-	-	<i>Hydra</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Coelenterata Subtotal</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Microturbellaria	Typhloplanidae	-	-	<i>Mesostoma</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Microturbellaria Subtotal</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hirudinea	Piscicolidae	-	-	<i>Piscicola punctata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Hirudinea Subtotal</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oligochaeta	-	-	-	(i/d)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Enchytraeidae	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Lumbriculitidae	-	-	-	119	178	0	119	830	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0
	Naididae	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	74
	Tubificidae	-	-	-	148	119	237	1,422	889	0	0	0	0	0	0	0	0	0	15	178	2,578	489	30	178
				<i>Oligochaeta Subtotal</i>	267	296	237	1,541	1,719	0	0	0	0	0	0	0	0	0	15	178	2,607	489	30	252
Gastropoda	Physidae	-	-	<i>Physa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Valvatidae	-	-	<i>Valvata sincera</i>	1,096	1,481	593	2,963	3,141	296	0	0	0	0	0	0	0	0	15	0	89	15	0	0
				<i>Gastropoda Subtotal</i>	1,096	1,481	593	2,963	3,141	296	0	0	0	0	0	0	0	0	15	0	89	15	0	0
Pelecypoda	Sphaeriidae	-	-	(i/d)	741	1,244	2,430	2,074	5,274	1,704	1,600	2,607	4,474	1,896	1,970	1,511	2,311	1,570	1,704	430	311	311	15	3,956
				<i>Sphaerium</i>	444	119	237	356	1,481	0	59	59	148	119	0	0	0	0	0	0	0	0	0	0
				<i>Plisidium</i>	2,222	415	1,067	2,015	2,904	593	474	267	326	237	237	59	178	74	15	74	178	193	0	44
				<i>Pelecypoda Subtotal</i>	3,407	1,778	3,733	4,444	9,659	2,296	2,133	2,933	4,948	2,252	2,207	1,570	2,489	1,644	1,719	504	489	504	15	4,000
Hydracarina	-	-	-	-	237	0	59	770	119	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0
				<i>Hydracarina Subtotal</i>	237	0	59	770	119	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0
Copepoda - Harpacticoida	-	-	-	-	119	0	0	474	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	74
				<i>Copepoda - Harpacticoida Subtotal</i>	119	0	0	474	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	74
Ostracoda	-	-	-	-	2,756	4,267	4,267	7,111	10,370	296	0	0	0	296	44	30	15	0	0	59	1,185	193	44	815
				<i>Ostracoda Subtotal</i>	2,756	4,267	4,267	7,111	10,370	296	0	0	0	296	44	30	15	0	0	59	1,185	193	44	815
Amphipoda	Epimeriidae	-	-	<i>Epimeria loricata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Gammaridae	-	-	<i>Gammarus lacustris</i>	385	178	237	1,007	296	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Amphipoda Subtotal</i>	385	178	237	1,007	296	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Malacostraca	Mysidae	-	-	<i>Mysis relicta</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	104	30	74	15	0
				<i>Malacostraca Subtotal</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	104	30	74	15	0
Isopoda	Chaetiliidae	-	-	<i>Saduria entomon</i>	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	15	0	0	44
				<i>Isopoda Subtotal</i>	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	15	0	0	44
Ephemeroptera	Ameletidae	-	-	<i>Ameletus inopinatus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Baetidae	-	-	(i/d)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Baetidae	-	-	<i>Baetis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Ephemerellidae	-	-	<i>Ephemerella</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Heptageniidae	-	-	(i/d) (Heptagenia???)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Ephemeroptera Subtotal</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plecoptera	Nemouridae	-	-	(i/d)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Nemoura</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Perlodidae	-	-	<i>Isoperla</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Skwala</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Plecoptera Subtotal</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trichoptera	Apataniidae	-	-	<i>Apatania</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Micrasema</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Brachycentridae	-	-	<i>Brachycentrus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Hydroptilidae	-	-	<i>Agraylea</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Limnephilidae	-	-	(i/d)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Grensia praeterica</i>	30	0	0	0	59	0	59	0	0	0	0	0	0	0	0	0	0	0	0	0
	Phryganeidae	-	-	(i/d)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Agrypnia</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Trichoptera Subtotal</i>	30	0	0	0	59	0	59	0	0	0	0	0	0	0	0	0	0	0	0	0
Coleoptera	Dytiscidae	-	-	<i>Agabus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Hydroporus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Oreodytes</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Halipidae	-	-	<i>Halipus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Coleoptera Subtotal</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diptera	Chironomidae	-	-	(pupa)	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0	0	0
				(i/d)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Tanypodinae	Pentaneurini		<i>Ablabesmyia</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Thienemannimyia</i> group sp.	0	0	59	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	74
		Procladiini		<i>Procladius</i>	207	474	178	237	533	489	1,896	681	622	296	385	311	1,526	341	844	74	119	770	15	207
		Diamesini		<i>Diamesa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Potthastia longimana</i> group	0	119	0	0	178	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Protanypini		<i>Protanypus</i>	0	0	0	0	0	0	296	59	119	593	0	0	0	15	0	0	15	0	0	0
	Prodiamesinae			<i>Monodiamesa</i>	0	0	0	0	0	0	0	0	0	0	15	0	0	0	15	15	89	15	0	30
	Orthoclaadiinae	-		(i/d)	0	0	0	59	0	0	0	0	0	0	0	0	0	0	0	237	74	0	59	222
		Orthoclaadiini		sp. #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Abyskomyia</i>	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	15	0	0	0	0

Data represents organisms/m²

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Appendix 3.9-1. Lake Benthos Density and Taxonomic Results, Hope Bay Belt Project, 2010

Date Sampled Depth (m) Major GroupFamilySubfamilyTribeGenus					Stickleback 19-Aug-10					Trout 16/17-Aug-10					Aim. Stn 13 14/15-Aug-10					Aim. Stn 2 18-Aug-10							
					2.5 Rep-1	2.5 Rep-2	2.5 Rep-3	2.5 Rep-4	2.5 Rep-5	2.3 Rep-1	2.5 Rep-2	2.5 Rep-3	2.5 Rep-4	2.5 Rep-5	3.7 Rep-1	3.7 Rep-2	3.7 Rep-3	4 Rep-4	4 Rep-5	3 Rep-1	3 Rep-2	3 Rep-3	3 Rep-4	2.75 Rep-5			
Diptera (continued)	Chironomidae	Orthocladiinae	Orthocladiini	<i>Bryophaenocladius</i> ?	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
				<i>Cricotopus</i> / <i>Orthocladius</i>	444	1,126	0	2,785	1,956	0	0	0	0	0	0	0	0	0	0	0	0	15	0				
				<i>Corynoneura</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
				<i>Doncricotopus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
				<i>Eukiefferiella</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
				<i>Euryhopsis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
				<i>Heterotanytarsus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
				<i>Heterotrissocladius</i>	0	0	0	0	0	0	0	0	0	0	59	89	104	44	15	978	563	696	281	222			
				<i>Heterotrissocladius</i> / <i>Hydrobaenus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
				<i>Mesocricotopus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
				<i>Paracladius</i> / <i>Doncricotopus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
				<i>Paracladius</i>	0	0	59	0	0	0	0	0	0	0	30	44	15	15	0	59	0	0	0	0			
				<i>Parakiefferiella</i>	0	0	0	0	0	0	0	0	0	0	0	15	0	0	15	59	0	0	133	0			
				<i>Parametrioctenemus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
				<i>Psectrocladius</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59	74			
				<i>Pseudosmittia</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
		<i>Rheosmittia</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
		<i>Synorthocladius</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
		<i>Tvetenia</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
		<i>Zalutschia</i>	0	0	0	0	0	17,511	38,993	25,570	21,156	26,785	0	0	0	0	0	0	0	104	0	0					
		Chironominae	Chironomini	(i/d)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
				<i>Chironomus</i>	741	59	2,963	10,015	11,793	474	237	474	1,037	2,015	30	0	0	0	0	15	222	15	0	0			
				<i>Cladopelma</i>	148	474	237	0	356	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
				<i>Cryptochironomus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
				<i>Demicryptochironomus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
				<i>Dicrotendipes</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
				<i>Parachironomus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
				<i>Paracladopelma</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	148	74	0	0			
				<i>Polypedilum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
				<i>Saetheria</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
				<i>Sergenta</i>	622	1,837	59	1,541	5,926	0	0	0	0	0	0	0	0	0	0	178	1,141	89	0	785			
				<i>Stictochironomus</i>	0	0	0	0	356	681	652	978	89	119	15	0	30	0	30	281	59	0	0	0			
	(i/d)			59	119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	148	0	15	0				
	<i>Cladotanytarsus</i>			59	356	0	0	889	296	593	622	978	1,837	0	0	0	0	15	0	0	0	0	0				
	<i>Corynocera</i>			1,067	2,904	770	0	4,089	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	<i>Micropsectra</i>			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,385	2,370	5,274	963	3,763				
	<i>Micropsectra</i> / <i>Tanytarsus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	<i>Paratanytarsus</i>	533	1,067	178	2,252	3,496	0	0	0	0	0	0	0	0	0	0	0	59	0	74	622						
	<i>Rheotanytarsus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	<i>Stempellinella</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	Empididae	-	-	<i>Tanytarsus</i>	1,037	1,778	1,067	474	1,481	622	7,348	3,467	2,400	1,837	89	0	207	59	15	637	207	430	963	459			
				(pupa)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
				<i>Chelifera</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	74	0	0			
				<i>Clinocera</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
				<i>Trichoclinocera</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
				<i>Scatophila</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
				<i>Limnophora</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
				<i>Ptiolina</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
				<i>Ormosia</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
				<i>Simulium</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
				<i>Simulium</i> - pupa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
				<i>Tipula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0			
				Diptera Subtotal				4,919	10,311	5,570	17,363	31,052	20,074	50,015	31,852	26,400	33,481	622	459	1,911	504	948	4,933	5,230	7,556	2,578	6,459
Non Macrobenthic Invertebrates*																											
Nematoda				-	-	-	-	3,881	4,859	9,185	533	9,304	593	593	1,215	622	593	89	30	59	30	30	133	311	74	1,585	237
Copepoda - Calanoida				-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Copepoda - Cyclopoida				Cyclopidae	Cyclopinae	-	<i>Acanthocyclops</i>	356	0	0	0	0	296	0	0	296	0	0	0	0	30	0	0	59	163	74	15
Cladocera	Ergasilidae	-	-	<i>Ergasilus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Bosminidae	-	-	<i>Bosmina</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Chydoridae	-	-	<i>Eurycercus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	44	0	0	0	0	74	0			
	Chydoridae	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	Daphnidae	-	-	<i>Daphnia</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	Holopedidae	-	-	<i>Holopedium gibberum</i>	0	0	0	0	0	0	0	0	0	0	0	0	59	0	0	0	0	0	0	0			
	Macrothricidae	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	Fish	Gasterosteidae	-	-	<i>Pungitius pungitius</i> (Ninespine)	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0						

Appendix 3.9-1. Lake Benthos Density and Taxonomic Results, Hope Bay Belt Project, 2010

Site					Aim. Stn 12					Aim. Stn 5					Aim. Stn 11					Aim. Stn 6				
Date Sampled					21-Aug-10					18-Aug-10					17-Aug-10					14-Aug-10				
Depth (m)					0.3	0.3	0.3	0.3	0.3	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	28	27	28.5	27.5	27.5
Major Group	Family	Subfamily	Tribe	Genus	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5
Coelenterata	Hydridae	-	-	<i>Hydra</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Coelenterata Subtotal</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Microturbellaria	Typhloplanidae	-	-	<i>Mesostoma</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Microturbellaria Subtotal</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hirudinea	Piscicolidae	-	-	<i>Piscicola punctata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Hirudinea Subtotal</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oligochaeta	-	-	-	(i/d)	0	0	0	0	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Enchytraeidae	-	-	-	0	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Lumbriculitidae	-	-	-	193	30	0	148	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Naididae	-	-	-	133	119	0	385	0	0	0	0	0	0	0	0	0	0	74	0	0	0	0	0
	Tubificidae	-	-	-	341	1,304	415	148	1,319	15	15	0	30	89	15	0	0	0	0	311	0	15	0	0
				<i>Oligochaeta Subtotal</i>	667	1,511	415	681	1,407	15	15	0	30	89	15	0	0	0	74	311	0	15	0	0
Gastropoda	Physidae	-	-	<i>Physa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Valvatidae	-	-	<i>Valvata sincera</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Gastropoda Subtotal</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pelecypoda	Sphaeriidae	-	-	(i/d)	0	0	0	0	0	59	963	3,156	1,659	1,511	2,652	2,030	1,837	1,452	2,178	548	1,007	548	1,096	756
				<i>Sphaerium</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Plisidium</i>	0	0	0	0	0	0	30	119	44	0	89	15	30	0	44	74	74	15	0	15
				<i>Pelecypoda Subtotal</i>	0	0	0	0	0	59	993	3,274	1,704	1,511	2,741	2,044	1,867	1,452	2,222	622	1,081	563	1,096	770
Hydracarina	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	15	0	0	15	0	30	0	44	15
				<i>Hydracarina Subtotal</i>	0	0	0	0	0	0	0	0	0	0	0	15	0	0	15	0	30	0	44	15
Copepoda - Harpacticoida	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Copepoda - Harpacticoida Subtotal</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ostracoda	-	-	-	-	0	119	59	59	593	44	444	311	415	237	430	59	119	30	163	15	15	30	15	15
				<i>Ostracoda Subtotal</i>	0	119	59	59	593	44	444	311	415	237	430	59	119	30	163	15	15	30	15	15
Amphipoda	Epimeriidae	-	-	<i>Epimeria loricata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0
	Gammaridae	-	-	<i>Gammarus lacustris</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Amphipoda Subtotal</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0
Malacostraca	Mysidae	-	-	<i>Mysis relicta</i>	0	0	0	0	15	0	15	15	0	0	15	15	0	0	15	0	0	0	0	0
				<i>Malacostraca Subtotal</i>	0	0	0	0	15	0	15	15	0	0	15	15	0	0	15	0	0	0	0	0
Isopoda	Chaetiliidae	-	-	<i>Saduria entomon</i>	0	0	0	0	0	0	0	15	0	15	0	0	30	15	44	0	0	0	0	0
				<i>Isopoda Subtotal</i>	0	0	0	0	0	0	0	15	0	15	0	0	30	15	44	0	0	0	0	0
Ephemeroptera	Ameletidae	-	-	<i>Ameletus inopinatus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Baetidae	-	-	(i/d)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Baetidae	-	-	<i>Baetis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Ephemerellidae	-	-	<i>Ephemerella</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Heptageniidae	-	-	(i/d) (Heptagenia???)	0	0	0	0	0	0	44	0	0	23	0	0	0	0	0	0	0	0	0	0
				<i>Ephemeroptera Subtotal</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plecoptera	Nemouridae	-	-	(i/d)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Nemoura</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Perlodidae	-	-	<i>Isoperla</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Skwala</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Plecoptera Subtotal</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trichoptera	Apataniidae	-	-	<i>Apatania</i>	0	0	0	0	0	0	0	0	0	0	0	0	30	0	15	0	0	0	0	0
				<i>Micrasema</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Brachycentridae	-	-	<i>Brachycentrus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Hydroptilidae	-	-	<i>Agraylea</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Limnephilidae	-	-	(i/d)	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0
				<i>Grensia praeterica</i>	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0
	Phryganeidae	-	-	(i/d)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Agrypnia</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Trichoptera Subtotal</i>	0	0	0	0	0	0	0	0	15	0	0	0	44	0	15	0	0	0	0	0
Coleoptera	Dytiscidae	-	-	<i>Agabus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Hydroporus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Oreodytes</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Halipidae	-	-	<i>Halipus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Coleoptera Subtotal</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diptera	Chironomidae	-	-	(pupa)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0
				(i/d)	0	0	0	0	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Ablabesmyia</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Thienemannimyia</i> group sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0
				<i>Procladius</i>	163	222	44	193	207	0	44	30	30	0	0	15	0	0	30	89	252	400	400	0
				<i>Diamesa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Potthastia longimana</i> group	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Protanypus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	430
				<i>Monodiamesa</i>	0	0	0	0	0	0	0	0	0	0	59	0	15	0	44	0	15	0	15	0
				(i/d)	0	296	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				sp. #2	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Abyskomyia</i>	0	0	0	0	0	0	0	0	0	30	0	15	59	15	15	0	0	0	0	0

Data represents organisms/m²

i/d = immature or damaged individuals

*These taxa were not included in the total density calculation or other data analysis

Appendix 3.9-1. Lake Benthos Density and Taxonomic Results, Hope Bay Belt Project, 2010

Date Sampled Depth (m) Major GroupFamilySubfamilyTribeGenus					Aim. Stn 12 21-Aug-10					Aim. Stn 5 18-Aug-10					Aim. Stn 11 17-Aug-10					Aim. Stn 6 14-Aug-10				
					0.3 Rep-1	0.3 Rep-2	0.3 Rep-3	0.3 Rep-4	0.3 Rep-5	2.5 Rep-1	2.5 Rep-2	2.5 Rep-3	2.5 Rep-4	2.5 Rep-5	2.5 Rep-1	2.5 Rep-2	2.5 Rep-3	2.5 Rep-4	2.5 Rep-5	28 Rep-1	27 Rep-2	28.5 Rep-3	27.5 Rep-4	27.5 Rep-5
Diptera (continued)	Chironomidae	Orthoclaadiinae	Orthoclaadiini	<i>Bryophaenocladius</i> ?	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
				<i>Cricotopus</i> / <i>Orthocladius</i>	119	474	0	0	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Corynoneura</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Doncricotopus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Eukiefferiella</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Euryhapsis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Heterotanytarsus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Heterotrissocladius</i>	0	59	0	0	0	963	370	311	163	326	15	15	30	15	30	0	0	0	0	0
				<i>Heterotrissocladius</i> / <i>Hydrobaenus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Mesocricotopus</i>	0	0	0	0	0	0	0	0	74	0	15	0	0	0	0	0	0	0	0	0
				<i>Paracladius</i> / <i>Doncricotopus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Paracladius</i>	0	0	0	0	0	15	15	30	15	30	59	44	30	15	30	0	0	0	0	0
				<i>Parakiefferiella</i>	593	2,430	252	119	607	163	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Parametriocnemus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Psectrocladius</i>	119	15	489	237	0	0	0	0	0	0	0	0	15	15	30	0	0	0	0	0
				<i>Pseudosmittia</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Rheosmittia</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Synorthocladius</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Tvetenia</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Zalutschia</i>	0	0	0	0	0	0	0	0	0	0	74	0	0	0	0	15	15	0	0	15
		Chironominae	Chironomini	(i/d)	0	0	0	30	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Chironomus</i>	0	30	0	15	44	0	0	0	0	0	0	0	0	0	59	0	0	15	15	
				<i>Cladopelma</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Cryptochironomus</i>	148	15	252	59	119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Demicryptochironomus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Dicrotendipes</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	
				<i>Parachironomus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Paracladopelma</i>	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	
				<i>Polypedilum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Saetheria</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Sergenta</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Stictochironomus</i>	0	0	0	0	119	15	0	0	0	0	0	0	0	0	0	89	267	119	74	148
			Tanytarsini	(i/d)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Cladotanytarsus</i>	296	2,193	178	267	726	0	15	15	0	0	0	0	0	0	0	0	0	0	0	
				<i>Corynocera</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Micropsectra</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Micropsectra</i> / <i>Tanytarsus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	
				<i>Paratanytarsus</i>	15	356	133	30	311	30	15	0	0	30	30	0	0	0	178	0	0	0	0	0
				<i>Rheotanytarsus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Stempellinella</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Tanytarsus</i>	207	1,185	252	267	1,659	4,267	2,919	4,059	2,904	3,141	948	341	622	489	607	15	0	30	44	148
	Empididae			-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				-	-	-	-	-	622	667	533	296	400	0	0	0	0	0	0	0	0	0	0	
				-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Ephydriidae	-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	Muscidae	-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	Rhagionidae	-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
		-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	Simuliidae	-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
		-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	Tipulidae	-	-	-	-	-	15	15	15	30	15	0	0	0	0	0	0	0	0	0	0			
	Diptera Subtotal					2,296	7,970	2,148	1,541	4,385	5,452	3,378	4,444	3,185	3,556	1,200	430	785	548	978	267	578	548	563
Non Macrobenthic Invertebrates*																								
Nematoda	-	-	-	-	2,074	5,763	1,319	1,333	563	326	222	89	430	148	207	44	133	148	163	0	0	15	0	0
Copepoda - Calanoida	-	-	-	-	0	0	0	0	0	0	15	0	74	0	15	0	0	0	0	0	0	15	0	
Copepoda - Cyclopoida	Cyclopidae	Cyclopinae	-	<i>Acanthocyclops</i>	0	0	0	0	0	0	0	0	0	30	0	0	15	0	207	0	0	0	0	0
Cladocera	Ergasilidae	-	-	<i>Ergasilus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Bosminidae	-	-	<i>Bosmina</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Chydoridae	-	-	<i>Eurycercus</i>	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Chydoridae	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Daphnidae	-	-	<i>Daphnia</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Holopedidae	-	-	<i>Holopedium gibberum</i>	0	0	0	0	0	0	15	15	15	0	0	0	0	15	0	0	0	0	0	0
	Macrothricidae	-	-	-	0	0	0	0	0	0	30	0	0	0	0	30	0	0	0	0	0	0	0	0
	Fish	Gasterosteidae	-	-	<i>Pungitius pungitius</i> (Ninespine)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Salmonidae	-	-	<i>Salvelinus alpinus</i> (Arctic Char)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL					2,963	9,600	2,622	2,281	6,400	5,570	4,844	8,059	5,348	5,407										

Appendix 3.9-1. Lake Benthos Density and Taxonomic Results, Hope Bay Belt Project, 2010

Site					Windy Shallow 23-Aug-10					Windy Deep 22-Aug-10					Wolverine Dike 27/29-Aug-10					Patch Dike 26-Aug-10					
Date Sampled					3	3	3	3	3	16.5	17	17.5	17	17	2	2.5	2.5	2.5	2.5	3.5	3.5	3.5	3.75	3.75	
Depth (m)					Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	
Major Group					Family	Subfamily	Tribe	Genus																	
Coelenterata					Hydridae	-	-	Hydra		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
								Coelenterata Subtotal		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Microturbellaria					Typhloplanidae	-	-	Mesostoma		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
								Microturbellaria Subtotal		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Hirudinea					Piscicolidae	-	-	Piscicola punctata		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
								Hirudinea Subtotal		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Oligochaeta					-	-	-	(i/d)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Enchytraeidae	-	-	-		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
					Lumbriculidae	-	-	-		0	0	0	0	0	0	0	119	0	119	0	0	0	0		
					Naididae	-	-	-		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
					Tubificidae	-	-	-		74	74	74	59	163	0	0	119	0	0	30	15	15	0	0	
								Oligochaeta Subtotal		74	74	74	59	163	0	0	119	119	0	30	15	15	0	0	
Gastropoda					Physidae	-	-	Physa		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Valvatidae	-	-	Valvata sincera		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
								Gastropoda Subtotal		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pelecypoda					Sphaeriidae	-	-	(i/d)		0	0	0	0	0	15	0	356	119	237	356	119	59	222	207	59
						-	-	Sphaerium		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
						-	-	Pisidium		0	0	0	0	0	0	119	356	0	119	0	59	15	74	104	0
								Pelecypoda Subtotal		0	0	0	0	15	119	711	119	356	356	178	74	296	311	59	
Hydracarina					-	-	-	-		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
								Hydracarina Subtotal		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Copepoda - Harpacticoida					-	-	-	-		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
								Copepoda - Harpacticoida Subtotal		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Ostracoda					-	-	-	-		0	15	0	30	15	15	0	0	0	0	0	341	1,007	3,215	548	252
								Ostracoda Subtotal		0	15	0	30	15	15	0	0	0	0	341	1,007	3,215	548	252	
Amphipoda					Epimeriidae	-	-	Epimeria loricata		0	0	0	0	0	0	0	0	0	0	0	0	15	15	0	0
					Gammaridae	-	-	Gammarus lacustris		0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	
								Amphipoda Subtotal		0	0	0	0	0	0	0	0	0	0	30	15	0	0		
Malacostraca					Mysidae	-	-	Mysis relicta		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
								Malacostraca Subtotal		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Isopoda					Chaetiliidae	-	-	Saduria entomon		0	15	0	0	0	0	133	133	119	0	0	0	15	0	0	
								Isopoda Subtotal		0	15	0	0	0	133	133	119	0	0	0	15	0	0		
Ephemeroptera					Ameletidae	-	-	Ameletus inopinatus		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Baetidae	-	-	(i/d)		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
					Baetidae	-	-	Baetis		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
					Ephemerellidae	-	-	Ephemerella		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
					Heptageniidae	-	-	(i/d) (Heptagenia???)		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
								Ephemeroptera Subtotal		0	0	0	0	0	0	0	0	0	0	0	0	0			
Plecoptera					Nemouridae	-	-	(i/d)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
						-	-	Nemoura		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
					Perlodidae	-	-	Isoperla		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
						-	-	Skwala		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
								Plecoptera Subtotal		0	0	0	0	0	0	0	0	0	0	0	0	0			
Trichoptera					Apataniidae	-	-	Apatania		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
						-	-	Micrasema		0	0	0	0	0	0	0	0	0	0	0	0	0			
					Brachycentridae	-	-	Brachycentrus		0	0	0	0	0	0	0	0	0	0	0	0	0			
					Hydroptilidae	-	-	Agraylea		0	0	0	0	0	0	0	0	0	0	0	0	0			
					Limnephilidae	-	-	(i/d)		0	0	0	0	0	0	0	0	0	0	0	0	0			
						-	-	Grensia praeterica		0	0	0	0	0	0	119	0	0	0	0	0	0			
					Phryganeidae	-	-	(i/d)		0	0	0	0	0	0	0	0	0	0	0	0	0			
						-	-	Agrypnia		0	0	0	0	0	0	0	0	0	0	0	0	0			
								Trichoptera Subtotal		0	0	0	0	0	0	119	0	0	0	0	0				
Coleoptera					Dytiscidae	-	-	Agabus		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
						-	-	Hydroporus		0	0	0	0	0	0	0	0	0	0	0	0	0			
						-	-	Oreodytes		0	0	0	0	0	0	0	0	0	0	0	0	0			
					Halipidae	-	-	Halipus		0	0	0	0	0	0	0	0	0	0	0	0	0			
								Coleoptera Subtotal		0	0	0	0	0	0	0	0	0	0	0	0	0			
Diptera					Chironomidae	-	-	(pupa)		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
								(i/d)		0	0	0	0	0	0	0	0	0	0	0	0	0			
								Ablabesmyia		0	0	0	0	0	0	0	0	0	0	0	0	0			
								Thienemannimyia group sp.		0	0	0	0	0	0	0	0	0	237	252	281	370	237		
								Procladius		15	0	0	0	0	74	74	0	30	74	0	0	0	0		
								Diamesia		0	0	0	0	0	0	0	0	0	0	0	0	0			
								Potthastia longimana group		0	0	0	0	0	0	0	119	0	0	0	0	0			
								Protanypus		0	0	0	0	0	0	0	0	0	0	0	0	0			
								Monodiamesa		15	89	0	44	104	0	0	0	15	0	0	0	0			
								(i/d)		0	0	0	0	0	0	0	0	0	0	0	15	0	0		
								sp. #2		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
								Abyskomyia		0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Data represents organisms/m²

i/d = immature or damaged individuals

*These taxa were not included in the total density calculation or other data analysis.

Appendix 3.9-1. Lake Benthos Density and Taxonomic Results, Hope Bay Belt Project, 2010

Date Sampled Depth (m) Major GroupFamilySubfamilyTribeGenus					Windy Shallow 23-Aug-10					Windy Deep 22-Aug-10					Wolverine Dike 27/29-Aug-10					Patch Dike 26-Aug-10				
					3 Rep-1	3 Rep-2	3 Rep-3	3 Rep-4	3 Rep-5	16.5 Rep-1	17 Rep-2	17.5 Rep-3	17 Rep-4	17 Rep-5	2 Rep-1	2.5 Rep-2	2.5 Rep-3	2.5 Rep-4	2.5 Rep-5	3.5 Rep-1	3.5 Rep-2	3.5 Rep-3	3.75 Rep-4	3.75 Rep-5
Diptera (continued)	Chironomidae	Orthoclaadiinae	Orthoclaadiini	<i>Bryophaenocladius</i> ?	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
				<i>Cricotopus</i> / <i>Orthocladus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	474	0	15	0	0	0
				<i>Corynoneura</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Doncricotopus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Eukiefferiella</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Euryhopsis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Heterotanytarsus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Heterotrissocladius</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Heterotrissocladius</i> / <i>Hydrobaenus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Mesocricotopus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Paracladius</i> / <i>Doncricotopus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Paracladius</i>	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0
				<i>Parakiefferiella</i>	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Parametriochnemus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Psectrocladius</i>	0	0	0	0	0	0	0	0	0	0	0	0	474	0	0	0	0	0	0	0
				<i>Pseudosmittia</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Rheosmittia</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Synorthocladus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Tvetenia</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				<i>Zalutschia</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Chironominae	Chironomini	(i/d)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Chironomus</i>	0	0	0	0	0	30	0	0	0	0	0	0	356	0	0	0	0	0	0	
				<i>Cladopelma</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Cryptochironomus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Demicryptochironomus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Dicrotendipes</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Parachironomus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Paracladopelma</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Polypedilum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Saetheria</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
				<i>Sergenta</i>	0	0	0	0	0	0	0	0	0	0	0	0	119	593	948	89	15	59	0	15
				<i>Stictochironomus</i>	0	0	0	0	0	15	0	0	0	0	0	0	593	0	237	0	15	0	0	15
	(i/d)	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Tanytarsini	<i>Cladotanytarsus</i>		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		<i>Corynocera</i>		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		<i>Micropsectra</i>		0	0	0	0	0	0	0	0	0	0	474	0	0	0	0	44	400	459	119	0	
		<i>Micropsectra</i> / <i>Tanytarsus</i>		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		<i>Paratanytarsus</i>		0	0	0	0	0	0	0	0	0	0	119	474	593	0	0	0	30	30	74	0	
		<i>Rheotanytarsus</i>		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		<i>Stempellinella</i>		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		<i>Tanytarsus</i>		0	15	15	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	119	0	
		(pupa)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Empididae	-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	-		-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	-		-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Ephydriidae	-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Muscidae	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Rhagionidae	-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Simuliidae	-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Tipulidae	-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Diptera Subtotal					30	104	30	44	133	133	74	0	44	74	0	593	2,015	1,304	1,659	370	726	874	681	267
Non Macrobenthic Invertebrates*																								
Nematoda	-	-	-	-	0	0	15	0	0	30	15	0	0	15	593	119	474	474	0	0	0	0	0	0
Copepoda - Calanoida	-	-	-	-	0	0	104	0	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Copepoda - Cyclopoida	Cyclopidae	Cyclopinae	-	<i>Acanthocyclops</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	148	104	326	593	89	
Cladocera	Ergasilidae	-	-	<i>Ergasilus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	59	0	
	Bosminidae	-	-	<i>Bosmina</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Chydoridae	-	-	<i>Eurycercus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Chydoridae	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Daphnidae	-	-	<i>Daphnia</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	104	0	0	0	
	Holopedidae	-	-	<i>Holopedium gibberum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Macrothricidae	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Fish	Gasterosteidae	-	-	<i>Pungitius pungitius</i> (Ninespine)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Salmonidae	-	-	<i>Salvelinus alpinus</i> (Arctic Char)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL					104	207	104	133																

Appendix 3.9-1. Lake Benthos Density and Taxonomic Results, Hope Bay Belt Project, 2010

Site					Ref. B Shallow						
Date Sampled					23-Aug-10						
Depth (m)					5.5	5.5	5.5	5.5	5.5		
Major Group	Family	Subfamily	Tribe	Genus	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5		
Coelenterata	Hydridae	-	-	Hydra	0	0	0	0	0		
				Coelenterata Subtotal	0	0	0	0	0		
Microturbellaria	Typhloplanidae	-	-	Mesostoma	0	0	0	0	0		
				Microturbellaria Subtotal	0	0	0	0	0		
Hirudinea	Piscicolidae	-	-	Piscicola punctata	0	0	0	0	0		
				Hirudinea Subtotal	0	0	0	0	0		
Oligochaeta	-	-	-	(i/d)	30	0	0	0	0		
	Enchytraeidae	-	-	-	0	0	0	0	0		
	Lumbriculidae	-	-	-	0	44	104	59	15		
	Naididae	-	-	-	0	0	0	0	0		
	Tubificidae	-	-	-	0	30	15	0	104		
	Oligochaeta Subtotal	30	74	119	59	119					
Gastropoda	Physidae	-	-	Physa	0	0	0	0	0		
	Valvatidae	-	-	Valvata sincera	0	30	0	0	0		
	Gastropoda Subtotal	0	30	0	0	0					
Pelecypoda	Sphaeriidae	-	-	(i/d)	370	519	341	119	178		
		-	-	Sphaerium	15	0	15	0	0		
		-	-	Pisidium	148	207	207	30	89		
		Pelecypoda Subtotal	533	726	563	148	267				
Hydracarina	-	-	-	0	0	30	0	15			
				Hydracarina Subtotal	0	0	30	0	15		
Copepoda - Harpacticoida					0	0	0	0	0		
Copepoda - Harpacticoida Subtotal					0	0	0	0	0		
Ostracoda	-	-	-	0	89	15	59	30			
				Ostracoda Subtotal	15	89	15	59	30		
Amphipoda	Epimeriidae	-	-	Epimeria loricata	0	0	0	0	0		
	Gammaridae	-	-	Gammarus lacustris	0	15	0	0	15		
	Amphipoda Subtotal	0	15	0	0	15					
Malacostraca	Mysidae	-	-	Mysis relicta	0	15	0	0	0		
				Malacostraca Subtotal	0	15	0	0	0		
Isopoda	Chaetiliidae	-	-	Saduria entomon	0	0	0	0	0		
				Isopoda Subtotal	0	0	0	0	0		
Ephemeroptera	Ameletidae	-	-	Ameletus inopinatus	0	0	0	0	0		
	Baetidae	-	-	(i/d)	0	0	0	0	0		
	Baetidae	-	-	Baetis	0	0	0	0	0		
	Ephemerellidae	-	-	Ephemerella	0	0	0	0	0		
	Heptageniidae	-	-	(i/d) (Heptagenia???)	0	0	0	0	0		
	Ephemeroptera Subtotal	0	0	0	0	0					
Plecoptera	Nemouridae	-	-	(i/d)	0	0	0	0	0		
				Nemoura	0	0	0	0	0		
	Perlodidae	-	-	Isoperla	0	0	0	0	0		
				Skwala	0	0	0	0	0		
				Plecoptera Subtotal	0	0	0	0	0		
Trichoptera	Apataniidae	-	-	Apatania	0	0	0	0	0		
				Micrasema	0	0	0	0	0		
	Brachycentridae	-	-	Brachycentrus	0	0	0	0	0		
	Hydroptilidae	-	-	Agraylea	0	0	0	0	0		
	Limnephilidae	-	-	(i/d)	0	0	0	0	0		
	Phryganeidae	-	-	Grensia praeterica	0	15	0	0	0		
				(i/d)	0	0	0	0	0		
				Agrypnia	0	0	0	0	0		
				Trichoptera Subtotal	0	15	0	0	0		
Coleoptera	Dytiscidae	-	-	Agabus	0	0	0	0	0		
				Hydroporus	0	0	0	0	0		
				Oreodytes	0	0	0	0	0		
	Haliplidae	-	-	Haliplus	0	0	0	0	0		
				Coleoptera Subtotal	0	0	0	0	0		
Diptera	Chironomidae	-	-	(pupa)	0	0	0	0	0		
				Tanypodinae	Pentaneurini	(i/d)	0	0	0	0	0
						Ablabesmyia	0	0	0	0	0
						Thienemannimyia group sp.	15	0	30	0	0
	Diamesinae	Procladiini	Diamesini	Procladius	237	281	415	148	119		
				Diamesa	0	0	0	0	0		
				Potthastia longimana group	0	0	0	0	0		
				Protanypus	15	0	30	0	0		
	Prodiamesinae	-	-	Monodiamesa	30	44	30	30	44		
				Orthocladiinae	-	-	(i/d)	0	0	0	0
	Orthocladiini	sp. #2	0				0	0	0	0	
					Abyskomyia	0	0	0	0	0	

Data represents organisms/m²
i/d = immature or damaged individuals
*These taxa were not included in the total density calculation or other data analysis

Appendix 3.9-1. Lake Benthos Density and Taxonomic Results, Hope Bay Belt Project, 2010

Site					Ref. B Shallow				
Date Sampled					23-Aug-10				
Depth (m)					5.5	5.5	5.5	5.5	5.5
Major Group	Family	Subfamily	Tribe	Genus	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5
Diptera (continued)	Chironomidae	Orthocladiinae	Orthocladiini	<i>Bryophaenocladius</i> ?	0	0	0	0	0
				<i>Cricotopus</i> / <i>Orthocladius</i>	0	0	0	0	0
				<i>Corynoneura</i>	0	0	0	0	0
				<i>Doncricotopus</i>	0	0	0	0	0
				<i>Eukiefferiella</i>	0	0	0	0	0
				<i>Euryhopsis</i>	0	0	0	0	0
				<i>Heterotanytarsus</i>	0	0	0	0	0
				<i>Heterotrissocladius</i>	0	0	0	0	0
				<i>Heterotrissocladius</i> / <i>Hydrobaenus</i>	0	0	0	0	0
				<i>Mesocricotopus</i>	0	0	0	0	0
				<i>Paracladius</i> / <i>Doncricotopus</i>	0	0	0	0	0
				<i>Paracladius</i>	0	0	0	0	0
				<i>Parakiefferiella</i>	0	0	0	0	0
				<i>Parametriocnemus</i>	0	0	0	0	0
				<i>Psectrocladius</i>	178	119	193	267	104
				<i>Pseudosmittia</i>	0	0	0	0	0
				<i>Rheosmittia</i>	0	0	0	0	0
				<i>Synorthocladius</i>	0	0	0	0	0
				<i>Tvetenia</i>	0	0	0	0	0
				<i>Zalutschia</i>	1,274	1,570	1,748	1,096	1,496
		Chironominae	Chironomini	(i/d)	0	0	15	0	0
				<i>Chironomus</i>	0	0	0	0	0
				<i>Cladopelma</i>	0	0	0	0	0
				<i>Cryptochironomus</i>	0	0	0	0	0
				<i>Demicryptochironomus</i>	0	0	0	0	0
				<i>Dicretendipes</i>	0	0	0	0	0
				<i>Parachironomus</i>	15	15	15	30	0
				<i>Paracladopelma</i>	0	0	0	0	0
				<i>Polypedilum</i>	0	0	0	0	0
				<i>Saetheria</i>	0	0	0	0	0
				<i>Sergenta</i>	0	0	15	0	30
				<i>Stictochironomus</i>	30	74	15	0	104
			Tanytarsini	(i/d)	0	0	0	0	0
	<i>Cladotanytarsus</i>			15	0	0	0	0	
	<i>Corynocera</i>			1,215	1,037	696	1,244	1,407	
	<i>Micropsectra</i>			0	0	0	0	0	
	<i>Micropsectra</i> / <i>Tanytarsus</i>			0	0	0	0	0	
	<i>Paratanytarsus</i>			311	1,244	622	919	489	
	<i>Rheotanytarsus</i>			0	0	0	0	0	
	<i>Stempellinella</i>			0	0	0	0	0	
	<i>Tanytarsus</i>			1,319	1,526	1,319	2,933	1,748	
	Empididae	-	-	(pupa)	0	0	0	0	0
		-	-	<i>Chelifera</i>	0	0	0	0	0
		-	-	<i>Clinocera</i>	0	0	0	0	0
		-	-	<i>Trichoclinocera</i>	0	0	0	0	0
	Ephydriidae	-	-	<i>Scatophila</i>	0	0	0	0	0
	Muscidae	-	-	<i>Limnophora</i>	0	0	0	0	0
	Rhagionidae	-	-	<i>Ptiolina</i>	0	0	0	0	0
		-	-	<i>Ormosia</i>	0	0	0	0	0
	Simuliidae	-	-	<i>Simulium</i>	0	0	0	0	0
		-	-	<i>Simulium</i> - pupa	0	0	0	0	0
	Tipulidae	-	-	<i>Tipula</i>	0	0	0	0	0
	Diptera Subtotal					4,652	5,911	5,141	6,667
Non Macrobenthic Invertebrates*									
Nematoda	-	-	-	-	119	44	237	148	148
Copepoda - Calanoida	-	-	-	-	15	15	0	0	0
Copepoda - Cyclopoida	Cyclopidae	Cyclopinae	-	<i>Acanthocyclops</i>	30	15	44	0	30
Cladocera	Ergasilidae	-	-	<i>Ergasilus</i>	0	0	0	0	0
	Bosminidae	-	-	<i>Bosmina</i>	0	0	0	0	0
	Chydoridae	-	-	<i>Eurycercus</i>	59	133	222	30	74
	Chydoridae	-	-	-	0	0	0	0	0
	Daphnidae	-	-	<i>Daphnia</i>	0	0	0	0	0
	Holopedidae	-	-	<i>Holopedium gibberum</i>	0	0	0	0	0
	Macrothricidae	-	-	-	0	0	0	0	0
	Gasterosteidae	-	-	<i>Pungitius pungitius</i> (Ninespine)	0	0	0	0	0
Fish	Salmonidae	-	-	<i>Salvelinus alpinus</i> (Arctic Char)	0	0	0	0	0
TOTAL					5,230	6,874	5,867	6,933	5,985

Data represents organisms/m²

i/d = immature or damaged individuals

*These taxa were not included in the total density calculation or other data analysis

Appendix 3.10-1

Stream and River Benthos Density and Taxonomic
Results, Hope Bay Belt Project, 2010

Appendix 3.10-1. Stream and River Benthos Density and Taxonomic Results, Hope Bay Belt Project, 2010

Date Sampled Major GroupFamilySubfamilyTribeGenus					Aim. NE IF 16-Aug-10					Aim. R. 18-Aug-10					Stickleback OF 16-Aug-10					Trout OF 16-Aug-10					AWRc 15-Aug-10					Aim. OF 16-Aug-10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
					Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
CoelenterataHydridae- -Hydra					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Appendix 3.10-1. Stream and River Benthos Density and Taxonomic Results, Hope Bay Belt Project, 2010

Date Sampled					Aim. NE IF					Aim. R.					Stickleback OF					Trout OF					AWRc					Aim. OF							
Major Group		Family	Subfamily	Tribe	Genus	16-Aug-10					18-Aug-10					16-Aug-10					16-Aug-10					15-Aug-10					16-Aug-10						
						Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5		
Diptera (continued)					Corynoneura	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Doncricotopus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Eukiefferiella	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	7	0	0	69	0	0	3	10	28	0	0	0	0	0
					Euryhopsis	0	0	0	0	0	278	90	73	104	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					Heterotanytarsus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Heterotrissocladius	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Heterotrissocladius/Hydrobaenus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	
					Mesocricotopus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Paracladius / Doncricotopus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	111	833	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					Paracladius	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Parakiefferiella	0	0	0	0	0	0	0	0	0	0	139	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	
					Parametriocnemus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	
					Psectrocladius	83	375	250	56	83	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	378	417	427	354	392	69	139	0	139	0
					Pseudosmittia	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	73	76	0	0	0	0	0	0	0	0	0	0	0	0	0
					Rheosmittia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	
					Synorthocladius	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69	215	69	111	0	0	0	0	0	0	0	0	0	0
					Tvetenia	0	0	0	0	0	0	0	0	7	118	0	0	0	0	0	0	0	0	0	76	3	7	0	0	0	0	0	0	0	0	0	0
					Zalutschia	0	0	0	0	0	0	0	0	0	0	139	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					(i/d)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Chironomus	0	0	42	0	0	0	0	0	0	3	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	
					Cladopelma	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Cryptochironomus	83	125	69	83	69	0	0	0	0	0	0	14	118	17	14	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					Demicryptochironomus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Dicrotendipes	28	375	97	153	69	0	7	3	0	3	0	0	0	0	0	0	0	3	0	0	7	0	0	0	0	0	7	3	0	0	0	0
					Parachironomus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Paracladopelma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Polypedilum	167	333	333	125	28	115	24	14	17	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0
					Saetheria	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Sergenta	0	111	222	83	97	0	7	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Stictochironomus	0	139	28	208	167	7	0	0	0	0	20	389	104	319	87	97	0	0	0	0	0	0	0	3	0	0	10	0	0	0	0	
					(i/d)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
					Cladotanytarsus	306	319	83	111	28	31	24	0	0	10	0	0	0	0	35	0	0	0	139	0	56	0	0	0	0	0	0	0	0	0	0	0
					Corynocera	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Micropsectra	222	56	0	0	28	21	10	0	3	63	0	0	0	0	0	0	0	0	0	0	0	0	3	42	0	0	14	139	0	0	0	0
					Micropsectra / Tanytarsus	0	222	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	14	0	0	0	0	0	
					Paratanytarsus	28	181	28	28	111	3	14	7	17	0	0	0	0	0	0	0	0	0	208	0	0	0	247	319	313	80	233	80	69	0	3	0
					Rheotanytarsus	0	0	0	0	0	0	10	0	21	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Stempellinella	0	278	167	0	0	7	7	0	0	0	0	0	0	167	0	417	139	0	0	0	0	0	31	69	17	14	49	0	0	0	0	
					Tanytarsus	56	1,778	278	125	28	0	0	0	0	0	0	278	83	167	31	139	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					(pupa)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	0	0	0	0	0	0	0	0	0		
					Chelifera	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
					Clinocera	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	14	0	0	0	0	0		
					Trichoclinocera	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
					Scatophila	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									

Appendix 3.10-1. Stream and River Benthos Density and Taxonomic Results, Hope Bay Belt Project, 2010

Site					Koig. R. 18-Aug-10					Koig. U/S 14-Aug-10					Koig. D/S 14-Aug-10					AWRb 15-Aug-10					AWRa 15-Aug-10							
Date Sampled	Major Group	Family	Subfamily	Tribe	Genus	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5		
Coelenterata	Hydridae	-	-	-	Hydra	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	139	0	0	0	0	0	0	0	0	0	0
					<i>Coelenterata Subtotal</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>139</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	
Hirudinea	Piscicolidae	-	-	-	Piscicola punctata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					<i>Hirudinea Subtotal</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	
Oligochaeta	-	-	-	-	(i/d)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Enchytraeidae	-	-	-	-	3	0	21	0	0	0	0	0	0	0	0	38	24	10	3	0	208	0	0	0	0	0	0	0	0	0	
	Lumbriculidae	-	-	-	-	31	10	0	14	42	21	0	3	0	0	0	0	0	3	3	104	125	49	222	167	0	0	0	0	0	0	
	Naididae	-	-	-	-	24	21	35	139	14	14	0	0	0	0	7	0	0	0	3	278	417	486	139	222	0	0	0	0	0	0	
	Tubificidae	-	-	-	-	24	188	118	52	80	28	28	0	0	90	7	0	0	0	0	28	76	28	222	639	292	24	97	174	1,958		
					<i>Oligochaeta Subtotal</i>	<i>83</i>	<i>219</i>	<i>174</i>	<i>205</i>	<i>135</i>	<i>63</i>	<i>28</i>	<i>3</i>	<i>0</i>	<i>90</i>	<i>14</i>	<i>38</i>	<i>24</i>	<i>14</i>	<i>10</i>	<i>410</i>	<i>826</i>	<i>563</i>	<i>583</i>	<i>1,028</i>	<i>292</i>	<i>24</i>	<i>97</i>	<i>174</i>	<i>1,958</i>		
Gastropoda	Physidae	-	-	-	Physa	0	0	0	0	14	7	0	0	0	0	0	0	0	0	0	28	49	83	56	69	0	0	0	0	7		
	Valvatidae	-	-	-	Valvata sincera	0	0	0	0	0	167	73	0	14	3	3	0	7	0	0	1,319	694	1,403	4,028	1,750	3	3	0	3	35		
					<i>Gastropoda Subtotal</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>14</i>	<i>174</i>	<i>73</i>	<i>0</i>	<i>14</i>	<i>3</i>	<i>3</i>	<i>0</i>	<i>7</i>	<i>0</i>	<i>0</i>	<i>1,347</i>	<i>743</i>	<i>1,486</i>	<i>4,083</i>	<i>1,819</i>	<i>3</i>	<i>3</i>	<i>0</i>	<i>3</i>	<i>42</i>		
Pelecypoda	Sphaeriidae	-	-	-	(i/d)	0	0	0	0	0	3	3	0	0	0	0	0	3	0	0	0	0	0	0	0	31	7	7	7	618		
	-	-	-	-	Sphaerium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	-	-	-	-	Pisidium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	3	3	21	181		
					<i>Pelecypoda Subtotal</i>	<i>0</i>	<i></i>																									

Data represents organisms/m²

i/d = immature or damaged individuals

*These taxa were not included in the total density calculation or other data analysis

Appendix 3.10-1. Stream and River Benthos Density and Taxonomic Results, Hope Bay Belt Project, 2010

Site Date Sampled					Koig. R. 18-Aug-10					Koig. U/S 14-Aug-10					Koig. D/S 14-Aug-10					AWRb 15-Aug-10					AWRa 15-Aug-10							
Major Group		Family	Subfamily	Tribe	Genus	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5	Rep-1	Rep-2	Rep-3	Rep-4	Rep-5		
Diptera (continued)						Corynoneura	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					Doncricotopus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	160	0	208	0	0	0	0	0	0	0	
					Eukiefferiella	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Euryhapsis	14	0	0	0	0	0	0	0	0	0	0	3	7	0	3	0	0	0	0	0	0	0	0	0	0	0	
					Heterotanytarsus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	139	0	0	0	0	0	0	0	
					Heterotrissocladius	0	0	7	0	0	3	139	14	56	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Heterotrissocladius/Hydrobaenus	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Mesocricotopus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Paracladius / Doncricotopus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Paracladius	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Parakiefferiella	0	0	0	0	0	0	375	139	28	14	83	7	0	201	0	0	0	0	0	0	0	0	0	0	0	0	
					Parametriccnemus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Psectrocladius	31	0	21	17	28	24	31	14	0	0	7	0	0	0	0	0	56	40	21	69	139	0	0	0	0	0	
					Pseudosmittia	49	28	56	3	3	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	17	0	7	14	0	
					Rheosmittia	0	0	0	0	0	0	0	14	0	0	24	69	458	0	139	0	0	0	0	0	0	0	0	0	0	0	
					Synorthocladius	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Tvetenia	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	
					Zalutschia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					(i/d)	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Chironomus	0	0	0	0	0	0	396	52	135	486	17	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Cladopelma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Cryptochironomus	3	10	14	3	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	
					Demicryptochironomus	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Dicrotendipes	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Parachironomus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Paracladopelma	0	0	0	0	0	0	0	14	0	42	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Polypedilum	0	0	0	0	3	3	139	0	3	0	17	24	66	28	42	0	0	0	0	0	0	299	3	7	184	2,361	
					Saetheria	0	0	0	0	0	0	0	0	0	0	0	42	132	56	56	0	0	0	0	0	0	0	0	0	0	0	
					Sergenta	0	56	0	0	0	17	365	3	684	201	10	0	0	0	0	69	0	0	0	0	0	396	7	14	38	2,903	
					Stictochironomus	76	292	219	66	35	0	1,681	750	1,684	597	17	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					(i/d)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Cladotanytarsus	10	236	122	21	21	0	28	28	0	0	104	354	101	10	17	0	0	0	0	0	0	0	7	0	0	0	
					Corynocera	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Micropsectra	0	0	0	0	0	0	0	0	0	0	17	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Micropsectra / Tanytarsus	0	3	0	0	0	0	0	0	0	0	7	0	0	0	0	0	278	347	764	139	444	0	0	0	0	0	
					Paratanytarsus	167	167	108	184	160	0	0	0	0	0	0	0	0	0	0	0	486	0	7	139	0	0	0	0	0	0	
					Rheotanytarsus	0	0	0	0	0	0	0	0	0	0	0	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Stempellinella	0	3	0	0	0	0	28	14	56	0	59	0	0	0	0	0	69	0	208	139	0	0	0	0	0	28	
					Tanytarsus	0	28	28	10	0	0	111	0	0	49	0	0	0	0	0	139	417	556	556	444	0	0	0	0	0	0	
					(pupa)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Chelifera	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Clinocera	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Trichoclinocera	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	
					Scatophila	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	
					Limnophora	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Ptiolina	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Ormosia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	3	0	0	0	
					Simulium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Simulium - pupa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Tipula	0	10	17	7	10	0	0	3	3	0	7	3	0	0	0	118	125	174	319	264	0	0	0	0	0	0	
					Diptera Subtotal	375	899	608	313	281	97	4,163	1,253	2,750	1,684	417	642	774	299	281	4,618	2,514	5,708	3,597	3,014	722	35	38	253	5,535		
Microturbellaria						Typhloplanidae	-	-	-	Mesostoma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Microturbellaria Subtotal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Non Macrobenthic Invertebrates*																																
					-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Copepoda - Calanoida	-	-	-	-	-	0	0	0	0	0	3	0	0	0	0	0	556	69	417	111	0	0	0	0	0	0	
					Copepoda - Cyclopoida	Cyclopidae	-	-	-	Acanthocyclops	10	111	0	0	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Ergasilidae	-	-	-	-	Ergasilus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Cladocera	Bosminidae	-	-	-	Bosmina	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Chydoridae	-	-	-	-	Eurycercus	21	14	0	0	0	35	0	0	0	0	139	701	271	653	194	0	0	0	0	0	0	
					Chydoridae	-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Daphnidae	-	-	-	-	Daphnia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Holopedidae	-	-	-	-	Holopedium gibberum	0	0	0	0	0	0</																

Data represents organisms/m²

i/d = immature or damaged individuals

*These taxa were not included in the total density calculation or other data analysis