Appendix 5.1.2.6A
Fish and Aquatic Resources 2011 - 2012 Baseline Report (Part 2 of 2)

Annex 5.2-2
Lower Trophic Stream Site Photographs, 2011-2012



Photo 1: Upstream View of Primary and Secondary Producers Sampling Site BI-10, Lower Davidson Creek at the Mouth, September 10, 2012



Photo 2: Substrate of Primary and Secondary Producers Sampling Site BI-10, Lower Davidson Creek at the Mouth, September 10, 2012



Photo 3: Upstream View of Primary and Secondary Producers Sampling Site BI-01, Lower Davidson Creek, August 31, 2011



Photo 4: Across Stream View of Primary and Secondary Producers Sampling Site BI-01, Lower Davidson Creek, August 31, 2011



Photo 5: Upstream View of Primary and Secondary Producers Sampling Site BI-01, Lower Davidson Creek, September 5, 2012



Photo 6: Substrate of Primary and Secondary Producers Sampling Site BI-01, Lower Davidson Creek, September 5, 2012



Photo 7: Upstream View of Primary and Secondary Producers Sampling Site BI-11, Middle Davidson Creek, September 14, 2012



Photo 8: Downstream View of Primary and Secondary Producers Sampling Site BI-11, Middle Davidson Creek, September 14, 2012



Photo 9: Downstream View of Primary and Secondary Producers Sampling Site BI-02, Upper Davidson Creek, August 31, 2011



Photo 10: Across Stream View of Primary and Secondary Producers Sampling Site BI-02, Upper Davidson Creek, August 31, 2011



Photo 11: Upstream View of Primary and Secondary Producers Sampling Site BI-02, Upper Davidson Creek, September 13, 2012



Photo 12: Substrate of Primary and Secondary Producers Sampling Site BI-02, Upper Davidson Creek, September 13, 2012



Photo 13: Upstream View of Primary and Secondary Producers Sampling Site BI-03 Site 1, Creek 704454, September 4, 2011



Photo 14: Downstream View of Primary and Secondary Producers Sampling Site BI-03 Site 2, Creek 704454, September 4, 2011



Photo 15: Upstream View of Primary and Secondary Producers Sampling Site BI-03 Site 2, Creek 704454, September 4, 2011



Photo 16: Substrate of Primary and Secondary Producers Sampling Site BI-03 Site 2, Creek 704454, September 4, 2011



Photo 17: Across Stream View of Primary and Secondary Producers Sampling Site BI-03 Site 1, Creek 704454, September 7, 2012



Photo 18: Downstream View of Primary and Secondary Producers Sampling Site BI-03 Site 1, Creek 704454, September 7, 2012



Photo 19: Downstream View of Primary and Secondary Producers Sampling Site BI-03 Site 2, Creek 704454, September 7, 2012



Photo 20: Upstream View of Primary and Secondary Producers Sampling Site BI-03 Site 2, Creek 704454, September 7, 2012



Photo 21: Downstream View of Primary and Secondary Producers Sampling Site BI-04, Site 1, Lower Creek 661, September 2, 2011



Photo 22: Across Stream View of Primary and Secondary Producers Sampling Site BI-04, Site 1, Lower Creek 661, September 2, 2011



Photo 23: Upstream View of Primary and Secondary Producers Sampling Site BI-04, Site 2, Lower Creek 661, September 2, 2011



Photo 24: Downstream View of Primary and Secondary Producers Sampling Site BI-04 Site 2, Lower Creek 661, September 2, 2011



Photo 25: Upstream View of Primary and Secondary Producers Sampling Site BI-04, Site 1, Lower Creek 661, September 9, 2012



Photo 26: Substrate of Primary and Secondary Producers Sampling Site BI-04, Site 1, Lower Creek 661, September 9, 2012



Photo 27: Downstream View of Primary and Secondary Producers Sampling Site BI-04, Site 2, Lower Creek 661, September 9, 2012



Photo 28: Upstream View of Primary and Secondary Producers Sampling Site BI-04 Site 2, Lower Creek 661, September 9, 2012



Photo 29: Aerial View of Primary and Secondary Producers Sampling Site BI-05, Upper Creek 661, September 3, 2011



Photo 30: Across Stream View of Primary and Secondary Producers Sampling Site BI-05, Upper Creek 661, September 3, 2011



Photo 31: Upstream View of Primary and Secondary Producers Sampling Site BI-05, Upper Creek 661, September 11, 2012



Photo 32: Downstream View of Primary and Secondary Producers Sampling Site BI-05, Upper Creek 661, September 11, 2012



Photo 33: Upstream View of Primary and Secondary Producers Sampling Site BI-07, Turtle Creek, September 1, 2011



Photo 34: Substrate of Primary and Secondary Producers Sampling Site BI-07, Turtle Creek, September 1, 2011



Photo 35: Across Stream View of Primary and Secondary Producers Sampling Site BI-08, Creek 700, August 30, 2011



Photo 36: Downstream View of Primary and Secondary Producers Sampling Site BI-08, Creek 700, August 30, 2011



Photo 37: Aerial View of Primary and Secondary Producers Sampling Site BI-05, Upper Creek 661, September 3, 2011



Photo 38: Across Stream View of Primary and Secondary Producers Sampling Site BI-05, Upper Creek 661, September 3, 2011



Photo 39: Upstream View of Primary and Secondary Producers Sampling Site BI-09, Creek 705, August 29, 2011



Photo 40: Across Stream View of Primary and Secondary Producers Sampling Site BI-09, Creek 705, August 29, 2011



Photo 41: Downstream View of Primary and Secondary Producers Sampling Site BI-06, Chedakuz Creek, September 21, 2011



Photo 42: Across Stream View of Primary and Secondary Producers Sampling Site BI-06, Chedakuz Creek, September 21, 2011

Appendix 5.2-3
Stream Periphyton Biomass (Chlorophyll *a* Concentrations), 2011-2012

Table 5.2-3A: Stream Periphyton Biomass (Chlorophyll a Concentrations), 2011 - 2012

Stream Name	Baseline Map and Site ID	Year	Sample	Chlorophyll *a* (µg)	Total Sampled Area (cm^2)	Chlorophyll *a* ($\mu g/cm^2$)
Davidson Creek at the mouth	BI-10	2012	1	2.80	19.635	0.14
			2	2.93	19.635	0.15
			3	3.53	19.635	0.18
			4	0.957	19.635	0.05
			5	5.00	19.635	0.25
Lower Davidson Creek	BI-01	2011	LDC-1	14.8	19.635	0.75
			LDC-2	1.34	19.635	0.07
			LDC-3	4.13	19.635	0.21
			LDC-4	2.70	19.635	0.14
			LDC-5	7.02	19.635	0.36
		2012	LDC-1	3.57	19.635	0.18
			LDC-2	3.59	19.635	0.18
			LDC-3	5.54	19.635	0.28
			LDC-4	2.47	19.635	0.13
			LDC-5	1.99	19.635	0.10
Middle Davidson Creek	BI-11	2012	1	2.62	19.635	0.13
			2	2.28	19.635	0.12
			3	11.1	19.635	0.57
			4	3.06	19.635	0.16
			5	0.199	19.635	0.01
Upper Davidson Creek	BI-02	2011	UDC-1	1.58	19.635	0.08
			UDC-2	2.08	19.635	0.11
			UDC-3	0.647	19.635	0.03
			UDC-4	2.97	19.635	0.15
			UDC-5	2.30	19.635	0.12
Creek 704454	BI-03	2011	KM15-1	23.0	19.635	1.17
			KM15-2	4.16	19.635	0.21
			KM15-3	1.41	19.635	0.07
			KM15-4	1.40	19.635	0.07
			KM15-5	7.64	19.635	0.39
Turtle Creek	BI-07	2011	TC-1	3.39	19.635	0.17
			TC-2	22.3	19.635	1.14
			TC-3	16.7	19.635	0.85
			TC-4	20.5	19.635	1.04
			TC-5	22.6	19.635	1.15
Creek 700	BI-08	2011	700-1	12.5	19.635	0.64
			700-2	2.12	19.635	0.11
			700-3	16.3	19.635	0.83
			700-4	3.43	19.635	0.17
			700-5	4.04	19.635	0.21

Stream Name	Baseline Map and Site ID	Year	Sample	Chlorophyll *a* (µg)	Total Sampled Area (cm^2)	Chlorophyll *a* ($\mu g/cm^2$)
Lower Creek 661	BI-04	2011	L661-1	6.15	19.635	0.31
			L661-2	3.82	19.635	0.19
			L661-3	12.6	19.635	0.64
			L661-4	6.31	19.635	0.32
			L661-5	5.79	19.635	0.29
Upper Creek 661	BI-05	2011	U661-1	8.81	19.635	0.45
			U661-2	2.09	19.635	0.11
			U661-3	44.2	19.635	2.25
			U661-4	4.28	19.635	0.22
			U661-5	47.8	19.635	2.43
Creek 705	BI-09	2011	705-1	8.93	19.635	0.45
			705-2	32.8	19.635	1.67
			705-3	5.78	19.635	0.29
			705-4	11.1	19.635	0.57
			705-5	14.4	19.635	0.73
		2012	705-1	6.45	19.635	0.33
			705-2	6.85	19.635	0.35
			705-3	18.3	19.635	0.93
			705-4	5.27	19.635	0.27
			705-5	4.69	19.635	0.24
Upper Creek 705	BI-12	2012	1	2.96	19.635	0.15
			2	2.94	19.635	0.15
			3	12.0	19.635	0.61
			4	4.95	19.635	0.25
			5	35.2	19.635	1.79
Chedakuz Creek	BI-06	2011	CH-1	55.7	19.635	2.84
			CH-2	92.9	19.635	4.73
			CH-3	116	19.635	5.91
			CH-4	139	19.635	7.08
			CH-5	203	19.635	10.34
Tributary to Fawnie Creek	BI-13	2012	1	6.05	19.635	0.31
			2	5.23	19.635	0.27
			3	21.0	19.635	1.07
			4	27.1	19.635	1.38
			5	0.555	19.635	0.03
Tributary to Blackwater River	BI-14	2012	1	1.88	19.635	0.10
			2	1.08	19.635	0.06
			3	2.59	19.635	0.13
			4	0.908	19.635	0.05
			5	0.610	19.635	0.03

Note: µg - microgram; cm² - centimetres squared; µg/cm² - micrograms per centimetres squared

Appendix 5.2-4
Periphyton Taxonomic Composition and Density in Streams, 2011-2012

Table 5.2-4A: Periphyton Taxonomic Composition and Density in streams, 2011

Units: Number of cells/cm²		Stream Name	Upper Davidson Creek					Lower Davidson Creek				
		Sample	UDC-1	UDC-2	UDC-3	UDC-4	UDC-5	LDC-1	LDC-2	LDC-3	LDC-4	LDC-5
		Date	08-31-2011	08-31-2011	08-31-2011	09-01-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)	75	75	120	120	80	190	115	115	100	60
		Percent Counted	0.20455	0.09298	0.16271	0.08875	0.10983	0.07182	0.28014	0.13622	0.46860	0.36609
Taxonomy												
Phylum	Order	Genera or Species										
Chlorophyta	Chaetophorales	Stigeoclonium helveticum	0	0	0	0	0	0	0	0	0	0
	Chaetophorales	Stigeoclonium sp.	0	0	0	0	0	0	0	0	0	0
	Chrysocapsales	Microspora sp.	0	0	0	0	0	0	0	112	0	0
	Chrysocapsales	Mougeotia sp.	0	0	0	0	0	0	0	0	0	0
	Chrysocapsales	Oedogonium sp.	0	110	0	0	0	0	109	112	0	97
	Cladophorales	Cladophora sp.	274	0	344	0	0	2766	0	3908	120	0
	Coleochaetales	Coleochaete orbicularis	0	0	0	0	0	0	0	0	619	0
	Oedogoniales	Bulbochaete sp.	0	0	0	0	0	0	0	0	0	59168
	Trentepohliales	Trentepohlia sp.	0	0	0	0	0	0	0	0	0	0
	Volvocales	Volvox tertius	0	0	0	0	0	0	0	0	0	0
	Zygnematales	Closterium sp.	0	0	0	0	0	0	0	0	0	0
Cryptista	Cryptomonadales	Cryptomonas sp.	0	0	0	0	0	0	0	0	0	0
Cyanobacteria	Chamaesiphonales	Chamaesiphon fuscus	0	0	0	0	371	0	0	0	272	0
	Chamaesiphonales	Chamaesiphon minutus	0	0	0	0	0	0	0	0	0	0
	Chroococcales	Chamaesiphon confervicolus	0	0	0	0	0	0	0	0	0	0
	Chroococcales	Chamaesiphon sp.	1220	383	595	689	0	0	0	0	0	0
	Chroococcales	Chroococcus limneticus	0	0	0	0	0	0	0	0	22	0
	Chroococcales	Gomphosphaeria sp.	0	0	0	0	0	0	0	0	0	0
	Chrysocapsales	Leptolyngbya sp.	274	164	1315	3615	742	284	436	598	174	0
	Chrysocapsales	Leptolyngbya subtilissima	0	0	0	0	0	0	0	0	0	0
	Chrysocapsales	Nostoc commune	2091	551822	63467	16710	188330	0	33607	0	0	0

Units: Number of cells/cm²		Stream Name	Upper Davidson Creek					Lower Davidson Creek				
		Sample	UDC-1	UDC-2	UDC-3	UDC-4	UDC-5	LDC-1	LDC-2	LDC-3	LDC-4	LDC-5
		Date	08-31-2011	08-31-2011	08-31-2011	09-01-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)	75	75	120	120	80	190	115	115	100	60
		Percent Counted	0.20455	0.09298	0.16271	0.08875	0.10983	0.07182	0.28014	0.13622	0.46860	0.36609
Cyanobacteria (con't)	Chrysocapsales	Oscillatoria sp.	0	0	0	0	0	0	0	0	0	0
	Euglenales	Trachelomonas sp.	25	0	0	57	0	213	0	0	0	0
	Nostocales	Anabaena sp.	0	0	0	0	0	0	0	1383	647	0
	Nostocales	Calothrix parietina	0	0	0	0	0	0	0	0	0	0
	Nostocales	Calothrix sp.	0	0	637	0	0	0	1218	486	0	0
	Nostocales	Phormidium retzii	0	0	0	0	29955	0	4399	38470	0	0
	Oscillatoriales	Homoeothrix varians	0	0	0	0	0	0	0	0	0	0
	Oscillatoriales	Oscillatoria tenuis	0	0	0	0	0	0	0	0	0	0
	Oscillatoriales	Phormidium aerugineo-caeruleum	0	0	0	0	0	0	0	0	0	0
	Oscillatoriales	Phormidium sp.	0	5039	595	14461	0	10212	0	0	0	0
	Oscillatoriales	Phormidium uncinatum	1469	0	0	0	0	0	0	80179	0	0
	Oscillatoriales	Pseudanabaena sp.	1328	0	0	0	0	0	0	1720	0	0
	Pseudanabaenales	Pseudanabaena minima	0	0	0	0	0	0	0	0	500	1002
Ochrophyta	Centrales	Aulacoseira sp.	0	0	0	0	0	213	73	0	43	0
	Centrales	Cyclotella sp.	0	0	0	0	0	142	0	75	0	0
	Centrales	Melosira sp.	25	0	188	0	0	1560	291	598	43	0
	Chrysocapsales	Hydrurus foetidus	0	0	0	0	0	0	0	0	0	0
	Fragilariales	Staurosira sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Achnanthes sp.	124	110	125	344	0	2482	236	37	0	42
	Pennales	Amphora sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Caloneis sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Cocconeis sp.	498	219	31	574	185	496	218	187	43	0
	Pennales	Cymbella sp.	0	110	188	172	0	284	36	0	98	28
	Pennales	Diatoma sp.	25	0	0	57	0	71	0	150	33	0
	Pennales	Diploneis sp.	0	0	0	0	0	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Upper Davidson Creek					Lower Davidson Creek				
		Sample	UDC-1	UDC-2	UDC-3	UDC-4	UDC-5	LDC-1	LDC-2	LDC-3	LDC-4	LDC-5
		Date	08-31-2011	08-31-2011	08-31-2011	09-01-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)	75	75	120	120	80	190	115	115	100	60
		Percent Counted	0.20455	0.09298	0.16271	0.08875	0.10983	0.07182	0.28014	0.13622	0.46860	0.36609
Ochrophyta (con't)	Pennales	Epithemia sp.	0	0	0	0	0	355	0	0	0	0
	Pennales	Eunotia sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Fragilaria sp.	324	493	156	0	0	638	218	299	87	28
	Pennales	Gomphoneis sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Gomphonema sp.	3286	438	2629	3902	1298	3617	454	1159	293	181
	Pennales	Gyrosigma sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Hannaea arcus	25	0	250	459	139	567	73	37	33	0
	Pennales	Meridion sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Navicula sp.	448	55	0	1205	232	6453	836	523	609	0
	Pennales	Nitzschia sp.	921	438	657	3500	881	3333	854	2953	772	236
	Pennales	Pinnularia sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Rhoicosphenia sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Rhopalodia sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Surirella sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Synedra sp.	50	0	0	57	0	142	55	336	120	181
	Pennales	Tabellaria flocculosa	50	0	219	803	0	0	0	0	543	0
Rhodophyta	Acrochaetiales	Audouinella hermannii	0	0	0	0	0	0	636	0	0	0
	Batrachospermales	Batrachospermum gelatinosum	0	0	0	0	0	0	0	0	0	0
	Batrachospermales	Batrachospermum sp.	0	0	0	0	0	0	0	0	0	0

Note: cm² - centimetres squared; mL - millilitre

Table 5.2-4A: Periphyton Taxonomic Composition and Density in streams, 2011 (continued)

Units: Number of cells /cm²		Stream Name	Creek 704454					Upper Creek 661				
		Sample	KM15-1	KM15-2	KM15-3	KM15-4	KM15-5	U661-1	U661-2	U661-3	U661-4	U661-5
		Date	09-04-2011	09-04-2011	09-04-2011	09-04-2011	09-04-2011	09-03-2011	09-03-2011	09-03-2011	09-03-2011	09-03-2011
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)	200	220	120	80	110	130	125	175	90	125
		Percent Counted	0.05857	0.15831	0.37275	1.14979	0.06508	0.02055	0.04260	0.01593	0.65083	0.02603
Taxonomy												
Phylum	Order	Genera or Species										
Chlorophyta	Chaetophorales	Stigeoclonium helveticum	25192	0	15906	701	204231	0	0	0	0	0
	Chaetophorales	Stigeoclonium sp.	0	8203	0	0	0	9292	2869	15189	520	3130
	Chrysocapsales	Microspora sp.	782	0	0	0	0	0	0	0	0	0
	Chrysocapsales	Mougeotia sp.	0	0	0	0	0	0	0	0	0	0
	Chrysocapsales	Oedogonium sp.	6738	0	519	177	5634	3221	1435	0	0	2347
	Cladophorales	Cladophora sp.	0	0	0	0	0	0	0	0	0	0
	Coleochaetales	Coleochaete orbicularis	0	0	0	0	0	0	0	0	0	0
	Oedogoniales	Bulbochaete sp.	0	0	0	0	0	0	0	0	0	0
	Trentepohliales	Trentepohlia sp.	0	0	0	0	0	0	0	0	0	0
	Volvocales	Volvox tertius	0	0	0	0	0	0	0	0	0	0
	Zygnematales	Closterium sp.	0	32	41	4	0	0	0	0	0	0
Cryptista	Cryptomonadales	Cryptomonas sp.	0	0	0	0	0	0	0	0	0	0
Cyanobacteria	Chamaesiphonales	Chamaesiphon fuscus	0	0	0	0	0	0	0	0	0	0
	Chamaesiphonales	Chamaesiphon minutus	0	0	0	0	0	0	0	0	0	0
	Chroococcales	Chamaesiphon confervicolus	0	0	0	0	0	0	0	0	0	0
	Chroococcales	Chamaesiphon sp.	0	0	0	0	0	0	0	0	0	0
	Chroococcales	Chroococcus limneticus	0	0	0	0	0	0	0	0	0	0
	Chroococcales	Gomphosphaeria sp.	0	0	0	0	0	0	0	0	0	0
	Chrysocapsales	Leptolyngbya sp.	0	0	0	0	0	1735	0	1279	55	0
	Chrysocapsales	Leptolyngbya subtilissima	0	0	0	0	0	0	0	0	0	0
	Chrysocapsales	Nostoc commune	3012161	18401	26195	461	629254	1304489	34191	5887677	5164	666882
	Chrysocapsales	Oscillatoria sp.	0	0	0	0	1487	0	0	0	0	0

Units: Number of cells /cm²		Stream Name	Creek 704454					Upper Creek 661				
		Sample	KM15-1	KM15-2	KM15-3	KM15-4	KM15-5	U661-1	U661-2	U661-3	U661-4	U661-5
		Date	09-04-2011	09-04-2011	09-04-2011	09-04-2011	09-04-2011	09-03-2011	09-03-2011	09-03-2011	09-03-2011	09-03-2011
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)	200	220	120	80	110	130	125	175	90	125
		Percent Counted	0.05857	0.15831	0.37275	1.14979	0.06508	0.02055	0.04260	0.01593	0.65083	0.02603
Cyanobacteria (con't)	Euglenales	Trachelomonas sp.	0	0	0	0	0	0	0	0	0	0
	Nostocales	Anabaena sp.	2608	0	0	0	0	0	0	0	0	0
	Nostocales	Calothrix parietina	184147	11742	0	0	0	0	0	0	0	0
	Nostocales	Calothrix sp.	13262	1973	0	0	0	0	0	0	0	19954
	Nostocales	Phormidium retzii	0	0	0	0	0	0	0	0	0	0
	Oscillatoriales	Homoeothrix varians	1130	0	0	0	0	14616	877179	52762	3005	394182
	Oscillatoriales	Oscillatoria tenuis	0	0	0	0	0	0	0	0	0	0
	Oscillatoriales	Phormidium aerugineo-caeruleum	0	0	0	0	0	0	0	0	0	0
	Oscillatoriales	Phormidium sp.	11593	0	451	0	0	1982	0	94012	219	353297
	Oscillatoriales	Phormidium uncinatum	0	0	0	0	0	0	0	0	1268	458934
	Oscillatoriales	Pseudanabaena sp.	0	0	0	0	0	0	0	0	0	0
	Pseudanabaenales	Pseudanabaena minima	0	9243	0	0	0	0	0	7355	0	0
Ochrophyta	Centrales	Aulacoseira sp.	348	2670	150	18	156	0	0	0	0	0
	Centrales	Cyclotella sp.	87	0	68	106	0	0	0	0	16	0
	Centrales	Melosira sp.	0	0	164	22	0	0	0	0	78	0
	Chrysocapsales	Hydrurus foetidus	0	5855	0	0	0	0	0	23023	317	16237
	Fragilariales	Staurosira sp.	0	0	0	0	0	0	0	0	0	1761
	Pennales	Achnanthes sp.	0	0	0	0	0	0	0	320	149	0
	Pennales	Amphora sp.	0	0	0	0	0	0	0	0	8	0
	Pennales	Caloneis sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Cocconeis sp.	0	161	0	35	0	248	239	1599	313	0
	Pennales	Cymbella sp.	174	257	0	31	0	0	120	2238	78	0
	Pennales	Diatoma sp.	0	129	0	0	0	248	0	1919	78	0
	Pennales	Diploneis sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Epithemia sp.	0	1544	0	4	0	0	0	4797	0	0

Units: Number of cells /cm²		Stream Name	Creek 704454					Upper Creek 661				
		Sample	KM15-1	KM15-2	KM15-3	KM15-4	KM15-5	U661-1	U661-2	U661-3	U661-4	U661-5
		Date	09-04-2011	09-04-2011	09-04-2011	09-04-2011	09-04-2011	09-03-2011	09-03-2011	09-03-2011	09-03-2011	09-03-2011
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)	200	220	120	80	110	130	125	175	90	125
		Percent Counted	0.05857	0.15831	0.37275	1.14979	0.06508	0.02055	0.04260	0.01593	0.65083	0.02603
Ochrophyta (con't)	Pennales	Eunotia sp.	0	97	41	0	0	0	0	0	23	0
	Pennales	Fragilaria sp.	261	257	260	151	156	0	0	0	0	0
	Pennales	Gomphoneis sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Gomphonema sp.	0	386	191	177	313	3717	717	2558	501	0
	Pennales	Gyrosigma sp.	0	0	14	0	0	0	0	0	0	0
	Pennales	Hannaea arcus	0	0	0	0	0	0	0	0	0	0
	Pennales	Meridion sp.	1478	322	232	137	0	0	0	0	0	0
	Pennales	Navicula sp.	261	547	137	71	0	0	717	4477	344	978
	Pennales	Nitzschia sp.	1391	643	68	190	156	0	956	4797	219	587
	Pennales	Pinnularia sp.	0	0	0	0	0	0	359	0	0	0
	Pennales	Rhoicosphenia sp.	0	0	0	18	0	0	0	0	102	0
	Pennales	Rhopalodia sp.	0	0	0	22	0	0	0	0	0	0
	Pennales	Surirella sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Synedra sp.	0	0	0	146	78	496	0	0	70	0
	Pennales	Tabellaria flocculosa	87	386	123	4	156	0	120	320	0	0
Rhodophyta	Acrochaetiales	Audouinella hermannii	0	0	0	0	0	0	0	0	0	0
	Batrachospermales	Batrachospermum gelatinosum	0	0	0	514	6808	0	0	0	0	0
	Batrachospermales	Batrachospermum sp.	0	0	0	0	0	0	0	0	0	0

Note: cm² - centimetres squared; mL - millilitre

Table 5.2-4A: Periphyton Taxonomic Composition and Density in streams, 2011 (continued)

Units: Number of cells/cm²		Stream Name	Lower Creek 661					Turtle Creek				
		Sample	L661-1	L661-2	L661-3	L661-4	L661-5	TC-1	TC-2	TC-3	TC-4	TC-5
		Date	09-02-2011	09-02-2011	09-02-2011	09-02-2011	09-02-2011	09-01-2011	09-01-2011	09-01-2011	09-01-2011	09-01-2011
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)	85	60	85	100	100	40	75	100	60	100
		Percent Counted	0.96932	0.61983	0.15786	0.23430	0.10413	0.01795	0.00685	0.00744	0.01111	0.00268
Taxonomy												
Phylum	Order	Genera or Species										
Chlorophyta	Chaetophorales	Stigeoclonium helveticum	0	0	0	0	0	0	0	0	0	0
	Chaetophorales	Stigeoclonium sp.	3527	444	769	1630	1585	0	0	0	0	0
	Chrysocapsales	Microspora sp.	0	0	0	0	0	0	0	0	0	0
	Chrysocapsales	Mougeotia sp.	0	0	0	0	0	0	0	0	0	0
	Chrysocapsales	Oedogonium sp.	0	0	0	0	0	0	0	1369	17874	0
	Cladophorales	Cladophora sp.	0	0	0	0	0	0	0	0	0	0
	Coleochaetales	Coleochaete orbicularis	0	0	0	0	0	0	0	0	0	0
	Oedogoniales	Bulbochaete sp.	0	0	0	0	0	0	0	0	0	166280
	Trentepohliales	Trentepohlia sp.	0	0	0	0	0	13332	0	0	0	0
	Volvocales	Volvox tertius	0	0	0	0	0	0	0	0	0	0
	Zygnematales	Closterium sp.	0	0	0	0	0	0	1487	0	12833	39907
Cryptista	Cryptomonadales	Cryptomonas sp.	0	0	0	0	0	0	0	0	0	0
Cyanobacteria	Chamaesiphonales	Chamaesiphon fuscus	0	0	0	0	0	0	0	0	0	0
	Chamaesiphonales	Chamaesiphon minutus	0	0	0	0	0	0	0	0	0	0
	Chroococcales	Chamaesiphon confervicolus	0	0	0	0	0	0	0	0	0	0
	Chroococcales	Chamaesiphon sp.	0	0	0	0	0	0	0	0	0	0
	Chroococcales	Chroococcus limneticus	0	0	0	0	0	0	0	0	0	0
	Chroococcales	Gomphosphaeria sp.	74	58	0	0	0	0	0	0	0	0
	Chrysocapsales	Leptolyngbya sp.	3	0	0	0	0	79991	179152	154054	73331	330660
	Chrysocapsales	Leptolyngbya subtilissima	0	0	0	0	0	0	0	0	0	0
	Chrysocapsales	Nostoc commune	0	0	0	0	0	0	0	0	0	0
	Chrysocapsales	Oscillatoria sp.	0	0	0	0	0	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Lower Creek 661					Turtle Creek				
		Sample	L661-1	L661-2	L661-3	L661-4	L661-5	TC-1	TC-2	TC-3	TC-4	TC-5
		Date	09-02-2011	09-02-2011	09-02-2011	09-02-2011	09-02-2011	09-01-2011	09-01-2011	09-01-2011	09-01-2011	09-01-2011
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)	85	60	85	100	100	40	75	100	60	100
		Percent Counted	0.96932	0.61983	0.15786	0.23430	0.10413	0.01795	0.00685	0.00744	0.01111	0.00268
Cyanobacteria (con't)	Euglenales	Trachelomonas sp.	0	0	0	0	0	0	0	0	0	0
	Nostocales	Anabaena sp.	0	0	0	0	0	0	125877	10681	37124	0
	Nostocales	Calothrix parietina	0	0	0	0	0	0	0	0	0	0
	Nostocales	Calothrix sp.	0	0	0	0	0	0	106302	0	15583	98818
	Nostocales	Phormidium retzii	0	0	0	0	0	0	0	0	0	0
	Oscillatoriales	Homoeothrix varians	14259	14640	25409	54324	56120	0	0	0	0	0
	Oscillatoriales	Oscillatoria tenuis	0	0	0	0	0	0	0	0	0	0
	Oscillatoriales	Phormidium aerugineo-caeruleum	0	0	0	0	0	0	0	0	0	0
	Oscillatoriales	Phormidium sp.	0	0	0	2261	1695	0	0	0	0	0
	Oscillatoriales	Phormidium uncinatum	0	0	0	0	0	0	0	0	0	0
	Oscillatoriales	Pseudanabaena sp.	0	0	0	0	0	0	0	0	0	0
	Pseudanabaenales	Pseudanabaena minima	299	0	0	0	0	0	0	101333	0	0
Ochrophyta	Centrales	Aulacoseira sp.	0	0	323	0	0	0	3717	0	0	0
	Centrales	Cyclotella sp.	0	0	1032	87	0	567	0	0	0	0
	Centrales	Melosira sp.	0	0	0	0	0	0	0	0	0	0
	Chrysocapsales	Hydrurus foetidus	0	0	0	0	0	0	0	0	0	0
	Fragilariales	Staurosira sp.	0	0	0	522	0	0	0	7532	0	0
	Pennales	Achnanthes sp.	5	33	65	0	0	284	0	2054	0	0
	Pennales	Amphora sp.	0	8	0	0	0	0	0	0	0	0
	Pennales	Caloneis sp.	0	0	0	0	0	0	0	36973	0	0
	Pennales	Cocconeis sp.	79	353	968	826	782	851	8920	8901	3667	15203
	Pennales	Cymbella sp.	0	0	0	0	0	0	0	0	0	3801
	Pennales	Diatoma sp.	0	0	32	0	49	0	0	0	0	0
	Pennales	Diploneis sp.	0	0	0	0	0	284	0	0	0	0
	Pennales	Epithemia sp.	0	0	0	0	0	0	0	0	0	1900

Units: Number of cells/cm²		Stream Name	Lower Creek 661					Turtle Creek				
		Sample	L661-1	L661-2	L661-3	L661-4	L661-5	TC-1	TC-2	TC-3	TC-4	TC-5
		Date	09-02-2011	09-02-2011	09-02-2011	09-02-2011	09-02-2011	09-01-2011	09-01-2011	09-01-2011	09-01-2011	09-01-2011
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)	85	60	85	100	100	40	75	100	60	100
		Percent Counted	0.96932	0.61983	0.15786	0.23430	0.10413	0.01795	0.00685	0.00744	0.01111	0.00268
Ochrophyta (con't)	Pennales	Eunotia sp.	0	16	0	0	0	0	0	0	0	0
	Pennales	Fragilaria sp.	26	0	0	0	0	0	0	0	0	0
	Pennales	Gomphoneis sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Gomphonema sp.	11	1085	5162	1195	8461	1418	17098	5477	0	3801
	Pennales	Gyrosigma sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Hannaea arcus	0	0	0	0	0	0	0	0	0	0
	Pennales	Meridion sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Navicula sp.	26	25	355	109	0	1135	2230	13694	19249	68412
	Pennales	Nitzschia sp.	126	90	0	0	342	1418	2230	2739	6416	32306
	Pennales	Pinnularia sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Rhoicosphenia sp.	0	123	452	87	685	284	0	0	1833	3801
	Pennales	Rhopalodia sp.	0	0	0	0	0	0	5204	8901	3208	0
	Pennales	Surirella sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Synedra sp.	5	0	0	0	49	1986	2230	7532	16958	85516
	Pennales	Tabellaria flocculosa	0	0	0	0	0	0	0	0	0	0
Rhodophyta	Acrochaetiales	Audouinella hermannii	0	0	0	0	0	0	0	0	0	0
	Batrachospermales	Batrachospermum gelatinosum	2086	0	0	0	0	69117	2434539	247269	1574325	5396944
	Batrachospermales	Batrachospermum sp.	0	0	0	0	0	0	0	0	0	0

Note: cm² - centimetres squared; mL - millilitre

Table 5.2-4A: Periphyton Taxonomic Composition and Density in streams, 2011 (continued)

Units: Number of cells/cm²		Stream Name	Creek 700					Creek 705				
		Sample	700-1	700-2	700-3	700-4	700-5	705-1	705-2	705-3	705-4	705-5
		Date	08-30-2011	08-30-2011	08-30-2011	08-30-2011	08-30-2011	08-29-2011	08-29-2011	08-29-2011	08-29-2011	08-29-2011
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)	125	100	125	50	100	120	120	115	190	190
		Percent Counted	0.23430	0.11157	0.07955	0.34168	0.17898	0.08678	0.03166	0.04903	0.16640	0.05917
Taxonomy												
Phylum	Order	Genera or Species										
Chlorophyta	Chaetophorales	Stigeoclonium helveticum	0	0	0	0	0	0	0	0	0	0
	Chaetophorales	Stigeoclonium sp.	0	0	0	0	0	0	0	0	0	0
	Chrysocapsales	Microspora sp.	0	0	0	0	0	0	0	0	0	0
	Chrysocapsales	Mougeotia sp.	0	0	0	0	0	0	0	0	0	0
	Chrysocapsales	Oedogonium sp.	0	0	0	0	0	0	0	0	0	0
	Cladophorales	Cladophora sp.	0	0	0	0	57	0	0	0	0	0
	Coleochaetales	Coleochaete orbicularis	0	0	0	0	0	0	0	0	0	0
	Oedogoniales	Bulbochaete sp.	0	0	0	0	0	0	0	0	0	0
	Trentepohliales	Trentepohlia sp.	0	0	0	0	0	0	0	0	0	0
	Volvocales	Volvox tertius	0	0	0	0	0	0	0	0	0	0
	Zygnematales	Closterium sp.	0	0	0	0	0	0	0	0	0	0
Cryptista	Cryptomonadales	Cryptomonas sp.	0	0	0	0	0	0	0	0	0	0
Cyanobacteria	Chamaesiphonales	Chamaesiphon fuscus	0	1141	2241	1818	0	0	0	0	0	0
	Chamaesiphonales	Chamaesiphon minutus	0	0	0	0	0	0	0	0	0	10
	Chroococcales	Chamaesiphon confervicolus	0	0	0	0	0	0	3056	0	0	0
	Chroococcales	Chamaesiphon sp.	0	0	0	0	0	0	0	0	0	0
	Chroococcales	Chroococcus limneticus	0	0	0	0	0	0	0	0	0	0
	Chroococcales	Gomphosphaeria sp.	0	0	0	0	0	0	0	0	0	0
	Chrysocapsales	Leptolyngbya sp.	109	0	1985	179	171	1350	13029	0	306	516
	Chrysocapsales	Leptolyngbya subtilissima	0	548	0	0	0	0	0	25030	1806	2754
	Chrysocapsales	Nostoc commune	0	255178	73274	0	0	0	0	0	0	0
	Chrysocapsales	Oscillatoria sp.	0	0	0	0	0	0	0	0	0	8213

Units: Number of cells/cm²		Stream Name	Creek 700					Creek 705				
		Sample	700-1	700-2	700-3	700-4	700-5	705-1	705-2	705-3	705-4	705-5
		Date	08-30-2011	08-30-2011	08-30-2011	08-30-2011	08-30-2011	08-29-2011	08-29-2011	08-29-2011	08-29-2011	08-29-2011
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)	125	100	125	50	100	120	120	115	190	190
		Percent Counted	0.23430	0.11157	0.07955	0.34168	0.17898	0.08678	0.03166	0.04903	0.16640	0.05917
Cyanobacteria (con't)	Euglenales	Trachelomonas sp.	0	0	0	0	0	0	0	0	0	0
	Nostocales	Anabaena sp.	0	0	0	0	0	0	0	0	0	0
	Nostocales	Calothrix parietina	0	0	0	0	0	1467	315259	0	0	0
	Nostocales	Calothrix sp.	0	10811	22024	547	52693	0	0	0	0	0
	Nostocales	Phormidium retzii	0	411	0	0	0	121130	292177	0	39928	4725
	Oscillatoriales	Homoeothrix varians	0	15976	0	0	0	0	0	0	0	0
	Oscillatoriales	Oscillatoria tenuis	0	0	0	0	30901	31046	26781	0	0	0
	Oscillatoriales	Phormidium aerugineo-caeruleum	81377	0	0	0	0	0	0	0	0	0
	Oscillatoriales	Phormidium sp.	0	0	0	999	0	0	0	0	6508	8213
	Oscillatoriales	Phormidium uncinatum	0	0	0	0	0	313950	15602	0	0	14374
	Oscillatoriales	Pseudanabaena sp.	0	0	6886	0	0	0	0	0	0	0
	Pseudanabaenales	Pseudanabaena minima	0	0	0	0	0	17459	103156	0	0	0
Phylum	**Order**	**Genera or Species**										
Ochrophyta	Centrales	Aulacoseira sp.	0	0	0	0	0	0	0	0	0	0
	Centrales	Cyclotella sp.	0	0	0	0	0	0	0	0	0	0
	Centrales	Melosira sp.	0	46	0	0	0	0	0	0	0	0
	Chrysocapsales	Hydrurus foetidus	1174	0	0	0	0	0	0	0	2502	0
	Fragilariales	Staurosira sp.	0	0	0	0	0	0	0	0	0	1721
	Pennales	Achnanthes sp.	609	0	0	0	114	59	0	0	337	172
	Pennales	Amphora sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Caloneis sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Cocconeis sp.	196	274	64	45	85	0	0	623	92	344
	Pennales	Cymbella sp.	174	0	192	15	0	0	0	0	153	0
	Pennales	Diatoma sp.	152	46	0	0	0	0	0	0	0	516
	Pennales	Diploneis sp.	0	0	0	0	0	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Creek 700					Creek 705				
		Sample	700-1	700-2	700-3	700-4	700-5	705-1	705-2	705-3	705-4	705-5
		Date	08-30-2011	08-30-2011	08-30-2011	08-30-2011	08-30-2011	08-29-2011	08-29-2011	08-29-2011	08-29-2011	08-29-2011
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)	125	100	125	50	100	120	120	115	190	190
		Percent Counted	0.23430	0.11157	0.07955	0.34168	0.17898	0.08678	0.03166	0.04903	0.16640	0.05917
	Pennales	Epithemia sp.	0	0	0	0	0	0	0	0	0	0
Ochrophyta (con't)	Pennales	Eunotia sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Fragilaria sp.	1739	46	1408	402	1423	646	5308	1766	1163	1721
	Pennales	Gomphoneis sp.	0	0	320	0	0	0	0	0	0	0
	Pennales	Gomphonema sp.	152	730	4610	1669	3301	763	4825	3635	918	4390
	Pennales	Gyrosigma sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Hannaea arcus	0	0	0	0	0	0	0	0	61	430
	Pennales	Meridion sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Navicula sp.	674	274	1280	75	598	59	1126	0	122	1377
	Pennales	Nitzschia sp.	261	1232	1344	224	854	1878	2734	623	1897	3013
	Pennales	Pinnularia sp.	217	0	0	0	0	0	0	0	0	0
	Pennales	Rhoicosphenia sp.	261	46	0	15	0	235	322	0	0	0
	Pennales	Rhopalodia sp.	0	0	0	0	0	0	0	0	0	0
	Pennales	Surirella sp.	0	0	0	0	28	0	0	0	0	0
	Pennales	Synedra sp.	0	0	0	0	0	176	0	0	31	0
	Pennales	Tabellaria flocculosa	0	0	0	0	0	0	0	0	428	172
Rhodophyta	Acrochaetiales	Audouinella hermannii	0	0	0	0	0	0	0	0	0	0
	Batrachospermales	Batrachospermum gelatinosum	0	0	0	0	0	0	0	0	0	0
	Batrachospermales	Batrachospermum sp.	0	0	0	0	0	0	0	0	0	0

Note: cm² - centimetres squared; mL - millilitre

Table 5.2-4A: Periphyton Taxonomic Composition and Density in streams, 2011 (completed)

Units: Number of cells/cm²		Stream Name	Chedakuz Creek				
		Sample	CH-1	CH-2	CH-3	CH-4	CH-5
		Date	09-21-2011	09-21-2011	09-21-2011	09-21-2011	09-21-2011
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)	200	175	225	200	200
		Percent Counted	0.00514	0.00739	0.00501	0.00692	0.00617
Taxonomy							
Phylum	Order	Genera or Species					
Chlorophyta	Chaetophorales	Stigeoclonium helveticum	0	0	0	0	0
	Chaetophorales	Stigeoclonium sp.	0	0	126816	118462	350871
	Chrysocapsales	Microspora sp.	0	0	0	0	0
	Chrysocapsales	Mougeotia sp.	0	0	0	0	3304
	Chrysocapsales	Oedogonium sp.	0	0	0	0	0
	Cladophorales	Cladophora sp.	0	0	0	0	0
	Coleochaetales	Coleochaete orbicularis	0	0	0	0	0
	Oedogoniales	Bulbochaete sp.	0	0	0	0	0
	Trentepohliales	Trentepohlia sp.	0	0	0	0	0
	Volvocales	Volvox tertius	0	0	0	0	0
	Zygnematales	Closterium sp.	0	0	0	0	0
Cryptista	Cryptomonadales	Cryptomonas sp.	0	0	0	0	0
Cyanobacteria	Chamaesiphonales	Chamaesiphon fuscus	0	0	0	0	0
	Chamaesiphonales	Chamaesiphon minutus	0	0	0	0	0
	Chroococcales	Chamaesiphon confervicolus	0	0	0	0	0
	Chroococcales	Chamaesiphon sp.	0	0	0	0	0
	Chroococcales	Chroococcus limneticus	0	0	0	0	0
	Chroococcales	Gomphosphaeria sp.	0	0	0	0	0
	Chrysocapsales	Leptolyngbya sp.	0	0	0	0	0
	Chrysocapsales	Leptolyngbya subtilissima	0	0	0	0	0
	Chrysocapsales	Nostoc commune	661104	24816	43402	23228	14867
	Chrysocapsales	Oscillatoria sp.	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Chedakuz Creek				
		Sample	CH-1	CH-2	CH-3	CH-4	CH-5
		Date	09-21-2011	09-21-2011	09-21-2011	09-21-2011	09-21-2011
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)	200	175	225	200	200
		Percent Counted	0.00514	0.00739	0.00501	0.00692	0.00617
Cyanobacteria (con't)	Euglenales	Trachelomonas sp.	0	0	0	0	0
	Nostocales	Anabaena sp.	0	0	0	0	0
	Nostocales	Calothrix parietina	0	0	0	0	0
	Nostocales	Calothrix sp.	0	0	0	0	0
	Nostocales	Phormidium retzii	0	0	0	0	0
	Oscillatoriales	Homoeothrix varians	0	0	0	0	0
	Oscillatoriales	Oscillatoria tenuis	0	0	0	0	0
	Oscillatoriales	Phormidium aerugineo-caeruleum	0	0	0	0	0
	Oscillatoriales	Phormidium sp.	0	0	0	0	0
	Oscillatoriales	Phormidium uncinatum	0	0	0	0	0
	Oscillatoriales	Pseudanabaena sp.	0	0	0	0	0
	Pseudanabaenales	Pseudanabaena minima	0	0	0	0	0
Ochrophyta	Centrales	Aulacoseira sp.	0	0	0	0	0
	Centrales	Cyclotella sp.	80284	53769	29500	21679	14041
	Centrales	Melosira sp.	9912	6893	0	0	0
	Chrysocapsales	Hydrurus foetidus	0	0	0	0	0
	Fragilariales	Staurosira sp.	0	0	0	0	0
	Pennales	Achnanthes sp.	0	0	0	0	0
	Pennales	Amphora sp.	0	0	0	0	0
	Pennales	Caloneis sp.	0	0	0	0	0
	Pennales	Cocconeis sp.	0	689	2034	0	826
	Pennales	Cymbella sp.	8920	10340	13224	10065	4130
	Pennales	Diatoma sp.	7929	0	3052	0	0
	Pennales	Diploneis sp.	0	0	0	0	0
	Pennales	Epithemia sp.	35682	47565	56966	68909	42124
	Pennales	Eunotia sp.	4956	0	6103	0	3304

Units: Number of cells/cm²		Stream Name	Chedakuz Creek				
		Sample	CH-1	CH-2	CH-3	CH-4	CH-5
		Date	09-21-2011	09-21-2011	09-21-2011	09-21-2011	09-21-2011
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)	200	175	225	200	200
		Percent Counted	0.00514	0.00739	0.00501	0.00692	0.00617
Ochrophyta (con't)	Pennales	Fragilaria sp.	12885	10340	54931	3871	7434
	Pennales	Gomphoneis sp.	0	0	0	0	0
	Pennales	Gomphonema sp.	35682	24816	24414	44907	22301
	Pennales	Gyrosigma sp.	0	0	0	0	0
	Pennales	Hannaea arcus	0	0	0	0	0
	Pennales	Meridion sp.	0	0	0	0	0
	Pennales	Navicula sp.	30726	23438	79345	53424	45428
	Pennales	Nitzschia sp.	9912	8961	6103	12388	27257
	Pennales	Pinnularia sp.	0	0	0	0	0
	Pennales	Rhoicosphenia sp.	0	0	0	0	0
	Pennales	Rhopalodia sp.	6938	0	1017	2323	9912
	Pennales	Surirella sp.	0	0	0	0	826
	Pennales	Synedra sp.	32708	30331	18310	33293	54514
	Pennales	Tabellaria flocculosa	0	0	0	0	0
Rhodophyta	Acrochaetiales	Audouinella hermannii	0	0	0	0	0
	Batrachospermales	Batrachospermum gelatinosum	0	0	25940	0	10738
	Batrachospermales	Batrachospermum sp.	0	0	0	0	0

Note: cm² - centimetres squared; mL - millilitre

Table 5.2-4B: Periphyton Taxonomic Composition and Density in Streams, 2012

Units: Number of cells/cm²		Stream Name	Davidson Creek at the Mouth				
		Sample	BI-10-01	BI-10-02	BI-10-03	BI-10-04	BI-10-05
		Date	09-10-2012	09-10-2012	09-10-2012	09-10-2012	09-10-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Achnanthes bioretii*	*Psammothidium bioretii*	0	0	0	0	0
Diatoms	*Achnanthes clevei*	*Karayevia clevei*	0	0	0	0	0
Diatoms	*Achnanthes conspicua*	*Achnanthes conspicua*	0	0	0	0	0
Diatoms	*Achnanthes detha*	Planothidium subatomoides	0	0	0	1041	0
Diatoms	*Achnanthes exigua*	Achnanthidium exiguum	0	0	0	0	0
Diatoms	*Achanthes kriegeri*	*Achanthes kriegeri*	0	520	0	0	0
Diatoms	*Achnanthes lanceolata*	Planothidium lanceolatum	7032	0	3906	2083	0
Diatoms	*Achnanthes levanderi*	*Psammothidium levanderi*	0	0	0	0	0
Diatoms	*Achnanthes minutissima*	*Achnanthidium minutissimum*	5469	2083	3125	9376	1302
Diatoms	*Achnanthes pusillum*	*Psammothidium pusillum*	781	0	781	3125	0
Diatoms	*Achnanthes suchlandtii*	*Achnanthes suchlandtii*	0	0	0	0	0
Diatoms	*Amphora ovalis*	*Amphora ovalis*	0	0	1562	0	0
Diatoms	*Amphora pediculus*	*Amphora pediculus*	0	0	0	0	0
Diatoms	*Amphipleura pellucida*	*Amphipleura pellucida*	0	0	0	3125	0
Diatoms	*Anomoeoneis vitrea*	*Brachysira vitrea*	0	0	0	0	0
Diatoms	*Anomoeoneis zellensis*	*Brachysira zellensis*	0	0	0	0	0
Diatoms	*Asterionella formosa*	*Asterionella formosa*	0	0	0	0	0
Diatoms	*Aulacoseira ambigua*	*Aulacoseira ambigua*	781	1041	0	0	0
Diatoms	*Aluacoseira crenulata*	*Aluacoseira crenulata*	0	0	0	0	0
Diatoms	*Aulacoseira distans*	*Aulacoseira distans*	781	0	781	0	0
Diatoms	*Caloneis bacillum*	*Caloneis bacillum*	0	0	781	0	0

Units: Number of cells/cm²		Stream Name	Davidson Creek at the Mouth				
		Sample	BI-10-01	BI-10-02	BI-10-03	BI-10-04	BI-10-05
		Date	09-10-2012	09-10-2012	09-10-2012	09-10-2012	09-10-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Diatoms	*Caloneis silicula*	*Caloneis ventricosa*	0	0	0	0	0
Diatoms	*Cocconeis neodiminuta*	*Cocconeis diminuta*	0	0	0	0	0
Diatoms	*Cocconeis placentula* var *lineata*	*Cocconeis placentula* var *lineata*	36725	8855	30474	7292	1736
Diatoms	*Cyclotella bodanica*	*Cyclotella bodanica*	0	0	0	0	0
Diatoms	*Cyclotella ocellata*	*Cyclotella ocellata*	781	0	0	0	0
Diatoms	*Cymbella affinis*	*Cymbella affinis*	0	0	0	0	0
Diatoms	*Cymbella caespitosa*	*Encyonema caespitosum*	0	0	0	0	0
Diatoms	*Cymbella cymbiformis*	*Cymbella cymbiformis*	781	0	0	0	0
Diatoms	*Cymbella gracilis*	*Encyonema gracilis*	0	0	0	0	0
Diatoms	*Cymbella microcephala*	*Cymbella microcephala*	0	0	0	0	0
Diatoms	*Cymbella naviculiformis*	*Cymbopleura naviculiformis*	781	0	0	0	0
Diatoms	*Cymbella minuta var. silesiaca*	*Encyonema silesiacum*	781	0	0	3125	0
Diatoms	*Cymbella sinuata*	*Reimeria sinuata*	8595	1041	14846	2083	0
Diatoms	*Cymbella* sp	*Cymbella* sp	0	0	0	0	0
Diatoms	*Diatoma anceps*	*Meridion anceps*	0	0	0	0	0
Diatoms	*Diatoma tenuis* var *elongatum Lyngb.*	*Diatoma tenuis* var *elongatum Lyngb.*	0	0	0	0	0
Diatoms	*Diatoma mesodon*	*Diatoma mesodon*	1562	0	0	0	0
Diatoms	*Didymosphaeria germinata*	*Didymosphaeria germinata*	0	0	0	0	0
Diatoms	*Diploneis elliptica*	*Diploneis elliptica*	0	0	0	0	0
Diatoms	*Diploneis minuta*	*Diploneis minuta*	0	0	0	0	0
Diatoms	*Diploneis modica*	*Diploneis modica*	781	0	0	0	0
Diatoms	*Diploneis parma*	*Diploneis parma*	0	0	0	0	0
Diatoms	*Diploneis puella*	*Diploneis puella*	0	0	0	0	0
Diatoms	*Epithemia adnata*	*Epithemia adnata*	23441	5730	17971	82306	434

Units: Number of cells/cm²		Stream Name	Davidson Creek at the Mouth				
		Sample	BI-10-01	BI-10-02	BI-10-03	BI-10-04	BI-10-05
		Date	09-10-2012	09-10-2012	09-10-2012	09-10-2012	09-10-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Diatoms	*Eunotia arcus*	*Eunotia arcus*	0	0	0	0	0
Diatoms	*Eunotia incisa*	*Eunotia incisa*	0	0	0	0	0
Diatoms	*Eunotia naegelii*	*Eunotia naegeli*	1562	0	0	1041	0
Diatoms	*Eunotia paludosa var trincaria*	*Eunotia paludosa var trincaria*	0	0	0	0	0
Diatoms	*Eunotia pectinalis*	*Eunotia pectinalis*	0	0	0	0	0
Diatoms	*Eunotia praerupta*	*Eunotia praerupta*	0	0	0	0	0
Diatoms	*Eunotia* spp	*Eunotia* spp	0	0	0	2083	0
Diatoms	*Fragilaria brevistriata*	*Pseudostaurosira brevistriata*	4688	520	0	1041	0
Diatoms	*Fragilaria capucina*	*Fragilaria capucina*	0	0	0	0	0
Diatoms	*Fragilaria construens*	*Staurosira construens*	0	0	0	0	0
Diatoms	*Fragilaria construens* var. *venter*	*Staurosira construens* var. *venter*	0	0	0	0	0
Diatoms	*Fragilaria lepostauron*	*Staurosirella lepostauron*	0	0	0	0	0
Diatoms	*Fragilaria pinnata*	Staurosirella pinnata	781	0	781	1041	0
Diatoms	*Fragilaria vaucheriae*	*Fragilaria vaucheriae*	3125	0	3906	0	434
Diatoms	*Fragilaria virescens* var. *exigua*	*Fragilariforma virescens* var exigua	0	0	0	0	0
Diatoms	*Fragilaria virescens*	*Fragilariforma virescens*	0	0	0	0	0
Diatoms	*Frustulia rhomboides*	*Frustulia rhomboides*	781	0	1562	1041	0
Diatoms	*Frustulia rhomboides var. amphipleuroides*	*Frustulia rhomboides var. amphipleuroides*	0	0	0	0	0
Diatoms	*Frustulia rhomboides var. Saxonica*	*Frustulia rhomboides var. saxonica*	0	0	0	0	0
Diatoms	*Gomphonema acuminatum*	*Gomphonema acuminatum*	0	0	1562	0	0
Diatoms	*Gomphonema angustatum*	*Gomphonema angustatum*	0	0	0	0	0
Diatoms	*Gomphonema clavatum*	*Gomphonema clavatum*	10158	3125	781	0	0
Diatoms	*Gomphonema entolejum*	*Gomphonema entolejum*	23441	2083	3906	19795	0
Diatoms	*Gomphonema gracile*	*Gomphonema gracile*	0	520	0	0	0

Units: Number of cells/cm²		Stream Name	Davidson Creek at the Mouth				
		Sample	BI-10-01	BI-10-02	BI-10-03	BI-10-04	BI-10-05
		Date	09-10-2012	09-10-2012	09-10-2012	09-10-2012	09-10-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Diatoms	*Gomphonema minutum*	*Gomphonema minutum*	23441	29692	28130	26046	868
Diatoms	*Gomphonema olivaceum*	Gomphoneis olivacea	0	0	0	0	0
Diatoms	*Gomphonema parvulum*	*Gomphonema parvulum*	107831	145859	176594	201077	12154
Diatoms	*Gomphonema pumilum*	*Gomphonema pumilum*	46883	31255	39850	37506	3472
Diatoms	*Gomphonema* sp.	*Gomphonema* sp.	2343	3646	0	0	0
Diatoms	*Gomphonema truncatum*	*Gomphonema truncatum*	0	0	0	1041	0
Diatoms	*Gomphonema ventricosum*	*Gomphonema ventricosum*	1562	0	0	15627	0
Diatoms	*Gyrosigma acuminatum*	*Gyrosigma acuminatum*	0	0	0	0	0
Diatoms	*Hannaea arcus*	*Hannaea arcus*	0	0	0	0	0
Diatoms	*Hantzschia amphioxys*	*Hantzschia amphioxys*	0	0	0	0	0
Diatoms	*Meridion circulare*	*Meridion circulare*	12502	10418	21097	16669	0
Diatoms	*Meridion circulare* var. *constrictum*	*Meridion circulare* var. *constrictum*	0	0	0	0	0
Diatoms	*Navicula amphibola*	*Navicula amphibola*	0	0	0	0	0
Diatoms	*Navicula canalis*	*Navicula canalis*	0	0	0	0	0
Diatoms	*Navicula capitatoradiata*	*Navicula capitatoradiata*	781	0	0	0	0
Diatoms	*Navicula cari*	*Navicula cari*	0	0	0	0	0
Diatoms	*Navicula cryptocephala*	*Navicula cryptocephala*	0	0	0	0	0
Diatoms	*Navicula cryptotenella*	*Navicula cryptotenella*	17190	2604	13283	1041	434
Diatoms	*Navicula capitata*	Hippodonta capiata	0	0	0	0	0
Diatoms	*Navicula decussis*	*Geissleria decussis*	0	0	0	0	0
Diatoms	*Navicula detenta Hustedt*	*Navicula detenta*	0	0	0	0	0
Diatoms	*Navicula gregaria*	*Navicula gregaria*	6251	2083	4688	3125	434
Diatoms	*Navicula jaernefeltii Hustedt*	*Cavincula jaernefeltiii*	0	0	0	0	0
Diatoms	*Navicvula lenzii*	*Navicvula lenzii*	0	0	0	0	0
Diatoms	*Navicula lepostriata*	*Navicula lepostriata*	0	0	2344	0	0

Units: Number of cells/cm²		Stream Name	Davidson Creek at the Mouth				
		Sample	BI-10-01	BI-10-02	BI-10-03	BI-10-04	BI-10-05
		Date	09-10-2012	09-10-2012	09-10-2012	09-10-2012	09-10-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Diatoms	*Navicula mediocris*	*Navicula mediocris*	0	0	0	0	0
Diatoms	*Navicula menisculus*	*Navicula menisculus*	1562	0	0	0	0
Diatoms	*Navicula minima*	*Eolimna minima*	781	0	0	0	0
Diatoms	*Navicula mutica*	*Luticola mutica*	0	0	0	0	0
Diatoms	*Navicula pseudoscutiformis*	Cavincula pseudoscutiformis	0	0	0	0	0
Diatoms	*Navicula pupula*	Sellaphora mutata	1562	0	781	0	0
Diatoms	*Navicula radiosa*	*Navicula radiosa*	0	0	0	0	0
Diatoms	*Navicula rhynchocephala*	*Navicula rhynchocephala*	0	0	0	0	0
Diatoms	*Navicula saprophila*	*Navicula saprophila*	0	0	0	0	0
Diatoms	*Navicula schroeterii*	*Navicula schroeterii*	0	0	0	0	0
Diatoms	*Navicula slevicensis*	*Navicula slevicensis*	0	0	0	0	0
Diatoms	*Navicula subtilissima*	*Kobayasia subtilissima*	0	0	0	0	0
Diatoms	*Navicula tenelloides*	*Navicula tenelloides*	781	0	0	2083	0
Diatoms	*Navicula tripunctata*	*Navicula tripunctata*	0	0	0	0	0
Diatoms	*Navicula trivialis*	*Navicula trivialis*	0	0	0	0	0
Diatoms	*Navicula veneta Kuetzing*	*Navicula veneta*	2344	520	781	1041	0
Diatoms	*Navicula* sp	*Navicula* sp	1562	0	0	0	0
Diatoms	*Neidium affine*	*Neidium affine*	0	0	0	0	0
Diatoms	*Neidium bindeformis*	*Neidium bindeformis*	0	0	0	1041	0
Diatoms	*Neidium dubium*	*Neidium dubium*	0	0	0	0	0
Diatoms	*Nitzschia acicularis*	*Nitzschia acicularis*	0	0	781	2083	0
Diatoms	*Nitzschia angustatula*	*Nitzschia angustatula*	0	0	0	0	0
Diatoms	*Nitzschia brevissima*	*Nitzschia brevissima*	0	0	0	0	0
Diatoms	*Nitzschia dissipata*	*Nitzschia dissipata*	27348	4688	14065	21878	434
Diatoms	*Nitzschia fonticola*	*Nitzschia fonticola*	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Davidson Creek at the Mouth				
		Sample	BI-10-01	BI-10-02	BI-10-03	BI-10-04	BI-10-05
		Date	09-10-2012	09-10-2012	09-10-2012	09-10-2012	09-10-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Diatoms	*Nitzschia frustulum*	*Nitzschia frustulum*	0	0	0	0	0
Diatoms	*Nitzschia gracilis*	*Nitzschia gracilis*	4688	1041	0	10418	0
Diatoms	*Nitzschia heufleriana*	*Nitzschia heufleriana*	0	0	0	0	0
Diatoms	*Nitzschia linearis*	*Nitzschia linearis*	0	0	0	0	0
Diatoms	*Nitzschia palea*	*Nitzschia palea*	3125	0	0	0	0
Diatoms	*Nitzschia perminuta*	*Nitzschia perminuta*	5469	0	5469	7292	2170
Diatoms	*Nitzschia paleacae*	*Nitzschia paleacae*	5469	3125	4688	23962	0
Diatoms	*Pinnularia biceps var. pusilla*	*Pinnularia biceps var. pusilla*	0	0	0	0	0
Diatoms	*Pinnularia divergentissima*	*Pinnularia divergentissima*	0	0	0	0	0
Diatoms	*Pinnularia microstauron* var. *adirondackensis*	*Pinnularia microstauron* var. *Adirondackensis*	0	0	0	0	0
Diatoms	*Pinnularia microstauron*	*Pinnularia microstauron*	3125	0	0	0	0
Diatoms	*Pinnularia nodosa*	*Pinnularia nodosa*	781	0	0	0	0
Diatoms	*Pinnularia viridis*	*Pinnularia viridis*	1562	0	0	0	0
Diatoms	*Pinnularia* sp.	*Pinnularia* sp.	0	0	0	2083	0
Diatoms	*Rhoicosphenia abbreviata*	*Rhoicosphenia abbreviata*	10939	1041	781	2083	0
Diatoms	*Rhopalodia gibba*	*Rhopalodia gibba*	0	0	0	3125	0
Diatoms	*Stauroneis anceps*	*Stauroneis anceps*	0	0	0	0	0
Diatoms	*Stephanodiscus niagarae*	*Stephanodiscus niagarae*	0	0	0	0	0
Diatoms	*Surirella amphioxys*	*Surirella biseriata var. bifrons fo. amphioxys*	0	0	0	0	0
Diatoms	*Surirella angusta*	*Surirella angusta*	0	0	0	1041	0
Diatoms	*Surirella biseriata*	*Surirella biseriata*	0	0	0	0	0
Diatoms	*Surirella patella*	*Surirella patella*	0	0	0	0	0
Diatoms	*Synedra filiformis*	*Synedra filiformis*	0	0	0	0	0
Diatoms	*Synedra rumpens*	*Synedra rumpens*	14846	4688	4688	16669	868

Units: Number of cells/cm²		Stream Name	Davidson Creek at the Mouth				
		Sample	BI-10-01	BI-10-02	BI-10-03	BI-10-04	BI-10-05
		Date	09-10-2012	09-10-2012	09-10-2012	09-10-2012	09-10-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Diatoms	*Synedra ulna*	*Synedra ulna*	39850	16148	32037	15627	434
Diatoms	*Tabellaria flocculosa*	*Tabellaria flocculosa*	0	0	0	0	0
Diatoms	*Tetracyclus glans*	*Tetracyclus glans*	0	0	0	0	0
Chlorophyceae	*Chlamydomonas* sp	*Chlamydomonas* sp	10939	0	0	0	0
Chlorophyceae	*Cladophora* sp	*Cladophora* sp	0	0	3125	0	0
Chlorophyceae	*Mougeotia* sp	*Mougeotia* sp	0	0	0	0	0
Chlorophyceae	*Oocystis solitaria*	*Oocystis solitaria*	0	0	0	0	0
Chlorophyceae	*Schizothrix* sp	*Schizothrix* sp	0	0	0	0	0
Chlorophyceae	*Stigeoclonium* sp	*Stigeoclonium* sp	7032	0	0	75013	0
Chlorophyceae	*Ulothrix* sp	*Ulothrix* sp	0	0	0	0	0
Chrysophyceae	*Chromulina* sp.	*Chromulina* sp.	0	0	0	0	0
Chrysophyceae	*Dinobryon bavaricum*	*Dinobryon bavaricum*	0	0	0	0	0
Chrysophyceae	*Dinobryon* sp	*Dinobryon* sp (loose monad)	0	0	0	0	0
Chrysophyceae	*Ochromonas* sp	*Ochromonas* sp	0	0	0	0	0
Chrysophyceae	Unidentified naked Chrysophyte sp	Unidentified naked Chrysophyte sp (*Ochromonas*/*Chromulina*)	0	0	0	0	0
Cryptophyceae	*Katablepharis ovalis*	*Katablepharis ovalis*	0	0	0	0	0
Cryptophyceae	*Rhodomonas minuta*	*Rhodomonas minuta*	0	0	0	0	0
Cyanobacteria	*Anabaena circinalis*	*Anabaena circinalis*	0	0	0	0	0
Cyanobacteria	*Anabaena inaequalis*	*Anabaena inaequalis*	0	0	0	13544	0
Cyanobacteria	*Anabaena* sp.	*Anabaena* sp.	0	0	0	0	0
Cyanobacteria	*Aphanocapsa delicatissima*	*Aphanocapsa delicatissima*	0	0	0	0	0
Cyanobacteria	*Leibleinia* sp	*Leibleinia* sp	74232	40111	41413	17711	2170
Cyanobacteria	*Limnothrix* sp	*Limnothrix* sp	3906	0	0	67720	0
Cyanobacteria	*Lyngbya* sp	*Lyngbya* sp	0	0	0	37506	0

Units: Number of cells/cm²		Stream Name	Davidson Creek at the Mouth				
		Sample	BI-10-01	BI-10-02	BI-10-03	BI-10-04	BI-10-05
		Date	09-10-2012	09-10-2012	09-10-2012	09-10-2012	09-10-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Cyanobacteria	*Phormidium formosum*	*Phormidium formosum*	0	3125	0	0	0
Cyanobacteria	*Phormidium* sp	*Phormidium* sp	0	0	0	0	0
TOTAL			**574314.635**	**325581.635**	**481339.635**	**763669.635**	**27363.635**

Note: cm² - centimetres squared; mL - millilitre

Table 5.2-4B: Periphyton Taxonomic Composition and Density in Streams, 2012 (continued)

Units: Number of cells/cm²		Stream Name	Lower Davidson Creek				
		Sample	BI-01-01	BI-01-02	BI-01-03	BI-01-04	BI-01-05
		Date	09-05-2012	09-05-2012	09-05-2012	09-05-2012	09-05-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Achnanthes bioretii*	*Psammothidium bioretii*	0	0	0	0	0
Diatoms	*Achnanthes clevei*	*Karayevia clevei*	0	0	0	0	0
Diatoms	*Achnanthes conspicua*	*Achnanthes conspicua*	0	0	0	0	0
Diatoms	*Achnanthes detha*	Planothidium subatomoides	0	0	0	0	0
Diatoms	*Achnanthes exigua*	Achnanthidium exiguum	0	0	0	0	0
Diatoms	*Achanthes kriegeri*	*Achanthes kriegeri*	0	0	0	0	0
Diatoms	*Achnanthes lanceolata*	Planothidium lanceolatum	0	2344	11720	3906	2232
Diatoms	*Achnanthes levanderi*	*Psammothidium levanderi*	0	0	0	0	0
Diatoms	*Achnanthes minutissima*	*Achnanthidium minutissimum*	0	0	50790	5209	1488
Diatoms	*Achnanthes pusillum*	*Psammothidium pusillum*	0	0	0	0	0
Diatoms	*Achnanthes suchlandtii*	*Achnanthes suchlandtii*	0	0	0	0	0
Diatoms	*Amphora ovalis*	*Amphora ovalis*	0	0	3906	0	0
Diatoms	*Amphora pediculus*	*Amphora pediculus*	0	2344	0	0	0
Diatoms	*Amphipleura pellucida*	*Amphipleura pellucida*	0	1172	0	0	1488
Diatoms	*Anomoeoneis vitrea*	*Brachysira vitrea*	0	1172	0	0	0
Diatoms	*Anomoeoneis zellensis*	*Brachysira zellensis*	0	0	0	0	0
Diatoms	*Asterionella formosa*	*Asterionella formosa*	0	0	0	0	0
Diatoms	*Aulacoseira ambigua*	*Aulacoseira ambigua*	0	0	3906	0	0
Diatoms	*Aluacoseira crenulata*	*Aluacoseira crenulata*	0	0	0	0	0
Diatoms	*Aulacoseira distans*	*Aulacoseira distans*	0	0	0	0	0
Diatoms	*Caloneis bacillum*	*Caloneis bacillum*	0	0	0	2604	0

Units: Number of cells/cm²		Stream Name	Lower Davidson Creek				
		Sample	BI-01-01	BI-01-02	BI-01-03	BI-01-04	BI-01-05
		Date	09-05-2012	09-05-2012	09-05-2012	09-05-2012	09-05-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Caloneis silicula*	*Caloneis ventricosa*	0	0	0	0	1488
Diatoms	*Cocconeis neodiminuta*	*Cocconeis diminuta*	0	0	0	0	0
Diatoms	*Cocconeis placentula* var *lineata*	*Cocconeis placentula* var *lineata*	58604	218008	158231	303440	40930
Diatoms	*Cyclotella bodanica*	*Cyclotella bodanica*	0	3516	1953	0	0
Diatoms	*Cyclotella ocellata*	*Cyclotella ocellata*	0	0	0	0	0
Diatoms	*Cymbella affinis*	*Cymbella affinis*	0	0	0	0	0
Diatoms	*Cymbella caespitosa*	*Encyonema caespitosum*	0	2344	0	0	0
Diatoms	*Cymbella cymbiformis*	*Cymbella cymbiformis*	0	0	0	0	0
Diatoms	*Cymbella gracilis*	*Encyonema gracilis*	0	0	0	0	0
Diatoms	*Cymbella microcephala*	*Cymbella microcephala*	0	0	0	0	0
Diatoms	*Cymbella naviculiformis*	*Cymbopleura naviculiformis*	0	0	0	0	0
Diatoms	*Cymbella minuta var. silesiaca*	*Encyonema silesiacum*	0	1172	0	0	0
Diatoms	*Cymbella sinuata*	*Reimeria sinuata*	0	7032	0	0	0
Diatoms	*Cymbella* sp	*Cymbella* sp	0	0	0	0	0
Diatoms	*Diatoma anceps*	*Meridion anceps*	0	0	0	0	0
Diatoms	*Diatoma tenuis* var *elongatum Lyngb.*	*Diatoma tenuis* var *elongatum Lyngb.*	0	0	0	0	0
Diatoms	*Diatoma mesodon*	*Diatoma mesodon*	0	0	7813	0	0
Diatoms	*Didymosphaeria germinata*	*Didymosphaeria germinata*	0	0	0	0	0
Diatoms	*Diploneis elliptica*	*Diploneis elliptica*	0	0	0	0	0
Diatoms	*Diploneis minuta*	*Diploneis minuta*	0	0	0	0	0
Diatoms	*Diploneis modica*	*Diploneis modica*	0	0	0	0	0
Diatoms	*Diploneis parma*	*Diploneis parma*	0	0	1953	0	0
Diatoms	*Diploneis puella*	*Diploneis puella*	0	0	0	1302	0

Units: Number of cells/cm²		Stream Name	Lower Davidson Creek				
		Sample	BI-01-01	BI-01-02	BI-01-03	BI-01-04	BI-01-05
		Date	09-05-2012	09-05-2012	09-05-2012	09-05-2012	09-05-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Epithemia adnata*	*Epithemia adnata*	0	4688	15627	1302	0
Diatoms	*Eunotia arcus*	*Eunotia arcus*	0	0	0	0	0
Diatoms	*Eunotia incisa*	*Eunotia incisa*	0	0	0	0	0
Diatoms	*Eunotia naegelii*	*Eunotia naegeli*	0	0	0	0	0
Diatoms	*Eunotia paludosa var trincaria*	*Eunotia paludosa var trincaria*	0	0	0	0	0
Diatoms	*Eunotia pectinalis*	*Eunotia pectinalis*	0	0	1953	0	744
Diatoms	*Eunotia praerupta*	*Eunotia praerupta*	0	0	0	0	0
Diatoms	*Eunotia* spp	*Eunotia* spp	0	0	0	0	0
Diatoms	*Fragilaria brevistriata*	*Pseudostaurosira brevistriata*	0	0	0	0	0
Diatoms	*Fragilaria capucina*	*Fragilaria capucina*	0	0	0	0	0
Diatoms	*Fragilaria construens*	*Staurosira construens*	0	11720	0	0	0
Diatoms	*Fragilaria construens* var. *venter*	*Staurosira construens* var. *venter*	0	0	0	0	0
Diatoms	*Fragilaria lepostauron*	*Staurosirella lepostauron*	0	0	0	0	0
Diatoms	*Fragilaria pinnata*	Staurosirella pinnata	0	2344	1953	0	0
Diatoms	*Fragilaria vaucheriae*	*Fragilaria vaucheriae*	27348	4688	31255	13023	3720
Diatoms	*Fragilaria virescens* var. *exigua*	*Fragilariforma virescens* var exigua	0	0	3906	0	0
Diatoms	*Fragilaria virescens*	*Fragilariforma virescens*	0	0	0	0	0
Diatoms	*Frustulia rhomboides*	*Frustulia rhomboides*	0	0	3906	1302	0
Diatoms	*Frustulia rhomboides var. amphipleuroides*	*Frustulia rhomboides var. amphipleuroides*	0	0	0	0	0
Diatoms	*Frustulia rhomboides var. Saxonica*	*Frustulia rhomboides var. saxonica*	0	1172	0	0	0
Diatoms	*Gomphonema acuminatum*	*Gomphonema acuminatum*	0	0	5680	0	0
Diatoms	*Gomphonema angustatum*	*Gomphonema angustatum*	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Lower Davidson Creek				
		Sample	BI-01-01	BI-01-02	BI-01-03	BI-01-04	BI-01-05
		Date	09-05-2012	09-05-2012	09-05-2012	09-05-2012	09-05-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Gomphonema clavatum*	*Gomphonema clavatum*	0	0	0	0	0
Diatoms	*Gomphonema entolejum*	*Gomphonema entolejum*	0	0	3906	0	1488
Diatoms	*Gomphonema gracile*	*Gomphonema gracile*	0	0	0	0	0
Diatoms	*Gomphonema minutum*	*Gomphonema minutum*	0	0	0	0	0
Diatoms	*Gomphonema olivaceum*	Gomphoneis olivacea	0	2344	0	0	0
Diatoms	*Gomphonema parvulum*	*Gomphonema parvulum*	0	14065	0	10418	5209
Diatoms	*Gomphonema pumilum*	*Gomphonema pumilum*	0	0	0	2604	0
Diatoms	*Gomphonema* sp.	*Gomphonema* sp.	0	10548	0	2604	4464
Diatoms	*Gomphonema truncatum*	*Gomphonema truncatum*	0	0	0	0	0
Diatoms	*Gomphonema ventricosum*	*Gomphonema ventricosum*	0	0	0	0	0
Diatoms	*Gyrosigma acuminatum*	*Gyrosigma acuminatum*	0	0	0	0	0
Diatoms	*Hannaea arcus*	*Hannaea arcus*	0	0	0	0	0
Diatoms	*Hantzschia amphioxys*	*Hantzschia amphioxys*	0	0	0	0	0
Diatoms	*Meridion circulare*	*Meridion circulare*	0	0	15627	0	0
Diatoms	*Meridion circulare* var. *constrictum*	*Meridion circulare* var. *constrictum*	0	0	0	0	0
Diatoms	*Navicula amphibola*	*Navicula amphibola*	0	0	0	0	0
Diatoms	*Navicula canalis*	*Navicula canalis*	0	0	0	0	0
Diatoms	*Navicula capitatoradiata*	*Navicula capitatoradiata*	0	0	1953	1302	0
Diatoms	*Navicula cari*	*Navicula cari*	0	0	0	0	0
Diatoms	*Navicula cryptocephala*	*Navicula cryptocephala*	0	0	0	0	0
Diatoms	*Navicula cryptotenella*	*Navicula cryptotenella*	0	1172	13674	2604	744
Diatoms	*Navicula capitata*	Hippodonta capiata	0	0	0	0	0
Diatoms	*Navicula decussis*	*Geissleria decussis*	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Lower Davidson Creek				
		Sample	BI-01-01	BI-01-02	BI-01-03	BI-01-04	BI-01-05
		Date	09-05-2012	09-05-2012	09-05-2012	09-05-2012	09-05-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Navicula detenta Hustedt*	*Navicula detenta*	0	0	0	0	0
Diatoms	*Navicula gregaria*	*Navicula gregaria*	0	0	0	0	744
Diatoms	*Navicula jaernefeltii Hustedt*	*Cavincula jaernefeltiii*	0	0	0	0	0
Diatoms	*Navicvula lenzii*	*Navicvula lenzii*	0	0	0	0	0
Diatoms	*Navicula lepostriata*	*Navicula lepostriata*	0	0	1953	0	0
Diatoms	*Navicula mediocris*	*Navicula mediocris*	0	0	0	0	0
Diatoms	*Navicula menisculus*	*Navicula menisculus*	0	0	0	0	0
Diatoms	*Navicula minima*	*Eolimna minima*	0	0	0	0	0
Diatoms	*Navicula mutica*	*Luticola mutica*	0	0	0	0	0
Diatoms	*Navicula pseudoscutiformis*	Cavincula pseudoscutiformis	0	1172	1953	0	0
Diatoms	*Navicula pupula*	Sellaphora mutata	0	0	0	0	0
Diatoms	*Navicula radiosa*	*Navicula radiosa*	0	0	0	0	0
Diatoms	*Navicula rhynchocephala*	*Navicula rhynchocephala*	0	0	0	0	0
Diatoms	*Navicula saprophila*	*Navicula saprophila*	0	0	0	0	0
Diatoms	*Navicula schroeterii*	*Navicula schroeterii*	0	0	0	0	0
Diatoms	*Navicula slevicensis*	*Navicula slevicensis*	0	0	0	0	0
Diatoms	*Navicula subtilissima*	*Kobayasia subtilissima*	0	0	0	0	0
Diatoms	*Navicula tenelloides*	*Navicula tenelloides*	0	0	0	0	0
Diatoms	*Navicula tripunctata*	*Navicula tripunctata*	0	0	1953	0	0
Diatoms	*Navicula trivialis*	*Navicula trivialis*	0	0	0	0	0
Diatoms	*Navicula veneta Kuetzing*	*Navicula veneta*	0	0	0	0	0
Diatoms	*Navicula* sp	*Navicula* sp	0	0	0	0	0
Diatoms	*Neidium affine*	*Neidium affine*	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Lower Davidson Creek				
		Sample	BI-01-01	BI-01-02	BI-01-03	BI-01-04	BI-01-05
		Date	09-05-2012	09-05-2012	09-05-2012	09-05-2012	09-05-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Neidium bindeformis*	*Neidium bindeformis*	0	0	0	0	0
Diatoms	*Neidium dubium*	*Neidium dubium*	0	0	0	0	0
Diatoms	*Nitzschia acicularis*	*Nitzschia acicularis*	0	0	0	0	0
Diatoms	*Nitzschia angustatula*	*Nitzschia angustatula*	7813	0	0	0	0
Diatoms	*Nitzschia brevissima*	*Nitzschia brevissima*	0	0	0	0	0
Diatoms	*Nitzschia dissipata*	*Nitzschia dissipata*	0	5860	27348	13023	2232
Diatoms	*Nitzschia fonticola*	*Nitzschia fonticola*	0	0	0	0	0
Diatoms	*Nitzschia frustulum*	*Nitzschia frustulum*	0	0	0	0	0
Diatoms	*Nitzschia gracilis*	*Nitzschia gracilis*	0	0	1953	1302	0
Diatoms	*Nitzschia heufleriana*	*Nitzschia heufleriana*	0	0	0	0	0
Diatoms	*Nitzschia linearis*	*Nitzschia linearis*	0	2344	0	0	0
Diatoms	*Nitzschia palea*	*Nitzschia palea*	0	0	0	0	0
Diatoms	*Nitzschia perminuta*	*Nitzschia perminuta*	0	1172	3906	0	0
Diatoms	*Nitzschia paleacae*	*Nitzschia paleacae*	0	0	0	0	1488
Diatoms	*Pinnularia biceps var. pusilla*	*Pinnularia biceps var. pusilla*	0	0	0	0	0
Diatoms	*Pinnularia divergentissima*	*Pinnularia divergentissima*	0	0	0	0	0
Diatoms	*Pinnularia microstauron* var. *adirondackensis*	*Pinnularia microstauron* var. *Adirondackensis*	0	0	0	0	0
Diatoms	*Pinnularia microstauron*	*Pinnularia microstauron*	0	0	0	0	0
Diatoms	*Pinnularia nodosa*	*Pinnularia nodosa*	0	0	0	0	0
Diatoms	*Pinnularia viridis*	*Pinnularia viridis*	0	0	0	0	0
Diatoms	*Pinnularia* sp.	*Pinnularia* sp.	0	1172	0	0	0
Diatoms	*Rhoicosphenia abbreviata*	*Rhoicosphenia abbreviata*	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Lower Davidson Creek				
		Sample	BI-01-01	BI-01-02	BI-01-03	BI-01-04	BI-01-05
		Date	09-05-2012	09-05-2012	09-05-2012	09-05-2012	09-05-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Rhopalodia gibba*	*Rhopalodia gibba*	0	3516	0	0	0
Diatoms	*Stauroneis anceps*	*Stauroneis anceps*	0	0	0	0	0
Diatoms	*Stephanodiscus niagarae*	*Stephanodiscus niagarae*	0	0	0	0	0
Diatoms	*Surirella amphioxys*	*Surirella biseriata var. bifrons fo. amphioxys*	0	0	0	0	0
Diatoms	*Surirella angusta*	*Surirella angusta*	0	0	0	0	0
Diatoms	*Surirella biseriata*	*Surirella biseriata*	0	0	0	0	0
Diatoms	*Surirella patella*	*Surirella patella*	0	0	0	0	0
Diatoms	*Synedra filiformis*	*Synedra filiformis*	0	0	0	0	0
Diatoms	*Synedra rumpens*	*Synedra rumpens*	0	0	58603	16930	2976
Diatoms	*Synedra ulna*	*Synedra ulna*	7813	16409	68371	26046	17860
Diatoms	*Tabellaria flocculosa*	*Tabellaria flocculosa*	0	2344	0	0	0
Diatoms	*Tetracyclus glans*	*Tetracyclus glans*	0	0	0	0	0
Chlorophyceae	*Chlamydomonas* sp	*Chlamydomonas* sp	0	0	0	0	0
Chlorophyceae	*Cladophora* sp	*Cladophora* sp	0	0	0	0	0
Chlorophyceae	*Mougeotia* sp	*Mougeotia* sp	0	0	0	0	0
Chlorophyceae	*Oocystis solitaria*	*Oocystis solitaria*	0	0	0	0	0
Chlorophyceae	*Schizothrix* sp	*Schizothrix* sp	0	0	0	0	0
Chlorophyceae	*Stigeoclonium* sp	*Stigeoclonium* sp	0	0	0	0	0
Chlorophyceae	*Ulothrix* sp	*Ulothrix* sp	0	0	0	0	0
Chrysophyceae	*Chromulina* sp.	*Chromulina* sp.	0	0	0	0	0
Chrysophyceae	*Dinobryon bavaricum*	*Dinobryon bavaricum*	0	0	0	0	0
Chrysophyceae	*Dinobryon* sp	*Dinobryon* sp (loose monad)	0	0	0	0	0
Chrysophyceae	*Ochromonas* sp	*Ochromonas* sp	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Lower Davidson Creek				
		Sample	BI-01-01	BI-01-02	BI-01-03	BI-01-04	BI-01-05
		Date	09-05-2012	09-05-2012	09-05-2012	09-05-2012	09-05-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	**Old Name Genera or Species**	**New Name Genera or Species**					
Chrysophyceae	Unidentified naked Chrysophyte sp	Unidentified naked Chrysophyte sp (*Ochromonas*/*Chromulina*)	0	0	0	0	0
Cryptophyceae	*Katablepharis ovalis*	*Katablepharis ovalis*	0	0	0	0	0
Cryptophyceae	*Rhodomonas minuta*	*Rhodomonas minuta*	0	0	0	0	0
Cyanobacteria	*Anabaena circinalis*	*Anabaena circinalis*	0	0	0	0	0
Cyanobacteria	*Anabaena inaequalis*	*Anabaena inaequalis*	0	0	0	0	0
Cyanobacteria	*Anabaena* sp.	*Anabaena* sp.	0	0	0	0	0
Cyanobacteria	*Aphanocapsa delicatissima*	*Aphanocapsa delicatissima*	0	0	0	0	0
Cyanobacteria	*Leibleinia* sp	*Leibleinia* sp	0	0	0	0	0
Cyanobacteria	*Limnothrix* sp	*Limnothrix* sp	0	0	0	5209	0
Cyanobacteria	*Lyngbya* sp	*Lyngbya* sp	0	0	19534	0	0
Cyanobacteria	*Phormidium formosum*	*Phormidium formosum*	0	0	19534	13023	0
Cyanobacteria	*Phormidium* sp	*Phormidium* sp	0	0	0	0	0
TOTAL			**101578**	**325834**	**544820**	**427153**	**89295**

Note: cm² - centimetres squared; mL - millilitre

Table 5.2-4B: Periphyton Taxonomic Composition and Density in Streams, 2012 (continued)

Units: Number of cells/cm²		Stream Name	Mid Davidson Creek				
		Sample	BI-11-01	BI-11-02	BI-11-03	BI-11-04	BI-11-05
		Date	09-16-2012	09-16-2012	09-16-2012	09-16-2012	09-16-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Achnanthes bioretii*	*Psammothidium bioretii*	0	0	0	0	0
Diatoms	*Achnanthes clevei*	*Karayevia clevei*	0	0	0	0	0
Diatoms	*Achnanthes conspicua*	*Achnanthes conspicua*	0	0	0	0	0
Diatoms	*Achnanthes detha*	Planothidium subatomoides	0	0	0	0	7813
Diatoms	*Achnanthes exigua*	Achnanthidium exiguum	0	0	0	0	0
Diatoms	*Achanthes kriegeri*	*Achanthes kriegeri*	0	0	0	0	0
Diatoms	*Achnanthes lanceolata*	Planothidium lanceolatum	390	0	162	5834	117208
Diatoms	*Achnanthes levanderi*	*Psammothidium levanderi*	0	0	0	0	0
Diatoms	*Achnanthes minutissima*	*Achnanthidium minutissimum*	390	0	2116	2917	130231
Diatoms	*Achnanthes pusillum*	*Psammothidium pusillum*	0	0	325	364	0
Diatoms	*Achnanthes suchlandtii*	*Achnanthes suchlandtii*	0	0	0	0	0
Diatoms	*Amphora ovalis*	*Amphora ovalis*	0	0	0	0	0
Diatoms	*Amphora pediculus*	*Amphora pediculus*	0	0	0	0	0
Diatoms	*Amphipleura pellucida*	*Amphipleura pellucida*	0	0	0	0	0
Diatoms	*Anomoeoneis vitrea*	*Brachysira vitrea*	0	0	0	0	0
Diatoms	*Anomoeoneis zellensis*	*Brachysira zellensis*	0	0	0	0	2604
Diatoms	*Asterionella formosa*	*Asterionella formosa*	0	0	0	0	0
Diatoms	*Aulacoseira ambigua*	*Aulacoseira ambigua*	390	0	0	0	0
Diatoms	*Aluacoseira crenulata*	*Aluacoseira crenulata*	0	0	0	729	10418
Diatoms	*Aulacoseira distans*	*Aulacoseira distans*	1172	1367	325	8751	98975
Diatoms	*Caloneis bacillum*	*Caloneis bacillum*	0	0	651	0	10418
Diatoms	*Caloneis silicula*	*Caloneis ventricosa*	0	227	0	729	0

Units: Number of cells/cm²		Stream Name	Mid Davidson Creek				
		Sample	BI-11-01	BI-11-02	BI-11-03	BI-11-04	BI-11-05
		Date	09-16-2012	09-16-2012	09-16-2012	09-16-2012	09-16-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Cocconeis neodiminuta*	*Cocconeis diminuta*	0	0	0	0	0
Diatoms	*Cocconeis placentula* var *lineata*	*Cocconeis placentula* var *lineata*	49618	72246	29464	65272	41674
Diatoms	*Cyclotella bodanica*	*Cyclotella bodanica*	1172	0	0	0	0
Diatoms	*Cyclotella ocellata*	*Cyclotella ocellata*	0	0	0	0	0
Diatoms	*Cymbella affinis*	*Cymbella affinis*	0	0	0	0	0
Diatoms	*Cymbella caespitosa*	*Encyonema caespitosum*	0	0	0	0	0
Diatoms	*Cymbella cymbiformis*	*Cymbella cymbiformis*	0	0	0	0	0
Diatoms	*Cymbella gracilis*	*Encyonema gracilis*	0	0	0	0	5209
Diatoms	*Cymbella microcephala*	*Cymbella microcephala*	0	0	0	0	0
Diatoms	*Cymbella naviculiformis*	*Cymbopleura naviculiformis*	0	0	0	0	0
Diatoms	*Cymbella minuta var. silesiaca*	*Encyonema silesiacum*	0	0	0	364	10418
Diatoms	*Cymbella sinuata*	*Reimeria sinuata*	390	455	0	0	7813
Diatoms	*Cymbella* sp	*Cymbella* sp	0	0	0	0	0
Diatoms	*Diatoma anceps*	*Meridion anceps*	0	0	0	0	5209
Diatoms	*Diatoma tenuis* var *elongatum Lyngb.*	*Diatoma tenuis* var *elongatum Lyngb.*	0	0	0	0	10418
Diatoms	*Diatoma mesodon*	*Diatoma mesodon*	1562	455	0	0	15627
Diatoms	*Didymosphaeria germinata*	*Didymosphaeria germinata*	0	0	0	0	0
Diatoms	*Diploneis elliptica*	*Diploneis elliptica*	0	0	0	364	0
Diatoms	*Diploneis minuta*	*Diploneis minuta*	0	0	0	364	0
Diatoms	*Diploneis modica*	*Diploneis modica*	0	0	0	0	0
Diatoms	*Diploneis parma*	*Diploneis parma*	0	0	0	0	0
Diatoms	*Diploneis puella*	*Diploneis puella*	0	0	0	0	0
Diatoms	*Epithemia adnata*	*Epithemia adnata*	1562	0	4395	0	15627

Units: Number of cells/cm²		Stream Name	Mid Davidson Creek				
		Sample	BI-11-01	BI-11-02	BI-11-03	BI-11-04	BI-11-05
		Date	09-16-2012	09-16-2012	09-16-2012	09-16-2012	09-16-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Eunotia arcus*	*Eunotia arcus*	0	0	0	0	0
Diatoms	*Eunotia incisa*	*Eunotia incisa*	0	911	488	1093	2604
Diatoms	*Eunotia naegelii*	*Eunotia naegeli*	0	227	162	729	2604
Diatoms	*Eunotia paludosa var trincaria*	*Eunotia paludosa var trincaria*	0	0	0	364	0
Diatoms	*Eunotia pectinalis*	*Eunotia pectinalis*	390	455	325	0	10418
Diatoms	*Eunotia praerupta*	*Eunotia praerupta*	0	0	0	0	2604
Diatoms	*Eunotia* spp	*Eunotia* spp	1562	0	0	0	5209
Diatoms	*Fragilaria brevistriata*	*Pseudostaurosira brevistriata*	0	1367	0	8751	75534
Diatoms	*Fragilaria capucina*	*Fragilaria capucina*	0	0	0	0	0
Diatoms	*Fragilaria construens*	*Staurosira construens*	1562	0	0	0	0
Diatoms	*Fragilaria construens* var. *venter*	*Staurosira construens* var. *venter*	0	0	0	0	0
Diatoms	*Fragilaria lepostauron*	*Staurosirella lepostauron*	0	0	0	0	2604
Diatoms	*Fragilaria pinnata*	Staurosirella pinnata	0	1367	0	729	106790
Diatoms	*Fragilaria vaucheriae*	*Fragilaria vaucheriae*	1562	3418	976	4375	52092
Diatoms	*Fragilaria virescens* var. *exigua*	*Fragilariforma virescens* var exigua	0	0	0	0	0
Diatoms	*Fragilaria virescens*	*Fragilariforma virescens*	0	0	0	0	0
Diatoms	*Frustulia rhomboides*	*Frustulia rhomboides*	3516	1595	976	1458	15627
Diatoms	*Frustulia rhomboides var. amphipleuroides*	*Frustulia rhomboides var. amphipleuroides*	0	0	0	0	0
Diatoms	*Frustulia rhomboides var. Saxonica*	*Frustulia rhomboides var. saxonica*	0	0	0	0	0
Diatoms	*Gomphonema acuminatum*	*Gomphonema acuminatum*	0	0	0	0	0
Diatoms	*Gomphonema angustatum*	*Gomphonema angustatum*	0	0	0	0	0
Diatoms	*Gomphonema clavatum*	*Gomphonema clavatum*	0	0	162	364	2604
Diatoms	*Gomphonema entolejum*	*Gomphonema entolejum*	0	455	0	364	0

Units: Number of cells/cm²		Stream Name	Mid Davidson Creek				
		Sample	BI-11-01	BI-11-02	BI-11-03	BI-11-04	BI-11-05
		Date	09-16-2012	09-16-2012	09-16-2012	09-16-2012	09-16-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Gomphonema gracile*	*Gomphonema gracile*	0	0	0	364	0
Diatoms	*Gomphonema minutum*	*Gomphonema minutum*	0	683	0	364	0
Diatoms	*Gomphonema olivaceum*	Gomphoneis olivacea	0	0	0	0	0
Diatoms	*Gomphonema parvulum*	*Gomphonema parvulum*	0	1139	1139	6563	44278
Diatoms	*Gomphonema pumilum*	*Gomphonema pumilum*	1562	227	0	729	2604
Diatoms	*Gomphonema* sp.	*Gomphonema* sp.	0	455	0	0	0
Diatoms	*Gomphonema truncatum*	*Gomphonema truncatum*	0	0	0	0	0
Diatoms	*Gomphonema ventricosum*	*Gomphonema ventricosum*	0	0	651	0	0
Diatoms	*Gyrosigma acuminatum*	*Gyrosigma acuminatum*	0	0	0	0	0
Diatoms	*Hannaea arcus*	*Hannaea arcus*	781	0	0	0	0
Diatoms	*Hantzschia amphioxys*	*Hantzschia amphioxys*	0	0	0	0	5209
Diatoms	*Meridion circulare*	*Meridion circulare*	1172	0	162	3281	57302
Diatoms	*Meridion circulare* var. *constrictum*	*Meridion circulare* var. *constrictum*	0	0	0	0	7813
Diatoms	*Navicula amphibola*	*Navicula amphibola*	0	227	0	0	0
Diatoms	*Navicula canalis*	*Navicula canalis*	0	455	0	0	0
Diatoms	*Navicula capitatoradiata*	*Navicula capitatoradiata*	390	0	0	0	0
Diatoms	*Navicula cari*	*Navicula cari*	0	0	0	0	0
Diatoms	*Navicula cryptocephala*	*Navicula cryptocephala*	0	0	0	0	0
Diatoms	*Navicula cryptotenella*	*Navicula cryptotenella*	781	1823	976	2187	10418
Diatoms	*Navicula capitata*	Hippodonta capiata	0	0	0	0	0
Diatoms	*Navicula decussis*	*Geissleria decussis*	0	0	0	0	2604
Diatoms	*Navicula detenta Hustedt*	*Navicula detenta*	0	0	0	0	0
Diatoms	*Navicula gregaria*	*Navicula gregaria*	390	1139	488	8022	247440

Units: Number of cells/cm²		Stream Name	Mid Davidson Creek				
		Sample	BI-11-01	BI-11-02	BI-11-03	BI-11-04	BI-11-05
		Date	09-16-2012	09-16-2012	09-16-2012	09-16-2012	09-16-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Navicula jaernefeltii Hustedt*	*Cavincula jaernefeltiii*	0	0	0	0	0
Diatoms	*Navicvula lenzii*	*Navicvula lenzii*	0	0	0	0	0
Diatoms	*Navicula lepostriata*	*Navicula lepostriata*	0	0	0	0	0
Diatoms	*Navicula mediocris*	*Navicula mediocris*	0	0	0	0	10418
Diatoms	*Navicula menisculus*	*Navicula menisculus*	0	0	325	0	0
Diatoms	*Navicula minima*	*Eolimna minima*	0	0	0	364	0
Diatoms	*Navicula mutica*	*Luticola mutica*	0	0	0	0	2604
Diatoms	*Navicula pseudoscutiformis*	Cavincula pseudoscutiformis	0	0	0	0	0
Diatoms	*Navicula pupula*	Sellaphora mutata	0	0	162	0	7813
Diatoms	*Navicula radiosa*	*Navicula radiosa*	0	0	0	0	0
Diatoms	*Navicula rhynchocephala*	*Navicula rhynchocephala*	0	0	0	0	0
Diatoms	*Navicula saprophila*	*Navicula saprophila*	0	0	0	0	0
Diatoms	*Navicula schroeterii*	*Navicula schroeterii*	0	0	0	0	0
Diatoms	*Navicula slevicensis*	*Navicula slevicensis*	0	0	0	1823	0
Diatoms	*Navicula subtilissima*	*Kobayasia subtilissima*	390	0	0	0	0
Diatoms	*Navicula tenelloides*	*Navicula tenelloides*	0	227	0	0	0
Diatoms	*Navicula tripunctata*	*Navicula tripunctata*	0	0	0	0	0
Diatoms	*Navicula trivialis*	*Navicula trivialis*	0	0	0	0	2604
Diatoms	*Navicula veneta Kuetzing*	*Navicula veneta*	0	0	0	364	0
Diatoms	*Navicula* sp	*Navicula* sp	0	455	0	0	0
Diatoms	*Neidium affine*	*Neidium affine*	0	0	0	0	0
Diatoms	*Neidium bindeformis*	*Neidium bindeformis*	0	0	0	0	0
Diatoms	*Neidium dubium*	*Neidium dubium*	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Mid Davidson Creek				
		Sample	BI-11-01	BI-11-02	BI-11-03	BI-11-04	BI-11-05
		Date	09-16-2012	09-16-2012	09-16-2012	09-16-2012	09-16-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Nitzschia acicularis*	*Nitzschia acicularis*	0	911	0	0	0
Diatoms	*Nitzschia angustatula*	*Nitzschia angustatula*	0	0	0	0	0
Diatoms	*Nitzschia brevissima*	*Nitzschia brevissima*	0	0	0	0	2604
Diatoms	*Nitzschia dissipata*	*Nitzschia dissipata*	2344	4786	1302	10574	130231
Diatoms	*Nitzschia fonticola*	*Nitzschia fonticola*	0	0	0	729	0
Diatoms	*Nitzschia frustulum*	*Nitzschia frustulum*	0	0	0	0	0
Diatoms	*Nitzschia gracilis*	*Nitzschia gracilis*	0	0	0	364	10418
Diatoms	*Nitzschia heufleriana*	*Nitzschia heufleriana*	0	0	0	0	5209
Diatoms	*Nitzschia linearis*	*Nitzschia linearis*	0	0	0	0	5209
Diatoms	*Nitzschia palea*	*Nitzschia palea*	0	227	0	729	10418
Diatoms	*Nitzschia perminuta*	*Nitzschia perminuta*	0	0	325	1093	26046
Diatoms	*Nitzschia paleacae*	*Nitzschia paleacae*	0	0	0	0	5209
Diatoms	*Pinnularia biceps var. pusilla*	*Pinnularia biceps var. pusilla*	0	0	0	0	7813
Diatoms	*Pinnularia divergentissima*	*Pinnularia divergentissima*	0	0	0	0	0
Diatoms	*Pinnularia microstauron* var. *adirondackensis*	*Pinnularia microstauron* var. *Adirondackensis*	0	0	0	0	0
Diatoms	*Pinnularia microstauron*	*Pinnularia microstauron*	0	0	0	0	0
Diatoms	*Pinnularia nodosa*	*Pinnularia nodosa*	0	0	0	0	0
Diatoms	*Pinnularia viridis*	*Pinnularia viridis*	0	0	0	0	0
Diatoms	*Pinnularia* sp.	*Pinnularia* sp.	0	0	0	0	0
Diatoms	*Rhoicosphenia abbreviata*	*Rhoicosphenia abbreviata*	0	0	0	0	0
Diatoms	*Rhopalodia gibba*	*Rhopalodia gibba*	2734	0	0	0	2604
Diatoms	*Stauroneis anceps*	*Stauroneis anceps*	0	227	0	0	0
Diatoms	*Stephanodiscus niagarae*	*Stephanodiscus niagarae*	781	0	0	0	0

Units: Number of cells/cm²		Stream Name	Mid Davidson Creek				
		Sample	BI-11-01	BI-11-02	BI-11-03	BI-11-04	BI-11-05
		Date	09-16-2012	09-16-2012	09-16-2012	09-16-2012	09-16-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Surirella amphioxys*	*Surirella biseriata var. bifrons fo. amphioxys*	0	0	0	0	0
Diatoms	*Surirella angusta*	*Surirella angusta*	0	0	0	0	5209
Diatoms	*Surirella biseriata*	*Surirella biseriata*	0	0	162	0	2604
Diatoms	*Surirella patella*	*Surirella patella*	390	0	0	0	0
Diatoms	*Synedra filiformis*	*Synedra filiformis*	0	0	0	0	0
Diatoms	*Synedra rumpens*	*Synedra rumpens*	5860	3418	3418	13127	72929
Diatoms	*Synedra ulna*	*Synedra ulna*	19144	20283	15139	23702	59906
Diatoms	*Tabellaria flocculosa*	*Tabellaria flocculosa*	0	0	0	364	0
Diatoms	*Tetracyclus glans*	*Tetracyclus glans*	0	0	162	0	0
Chlorophyceae	*Chlamydomonas* sp	*Chlamydomonas* sp	0	0	0	0	0
Chlorophyceae	*Cladophora* sp	*Cladophora* sp	0	0	0	0	0
Chlorophyceae	*Mougeotia* sp	*Mougeotia* sp	0	0	0	0	0
Chlorophyceae	*Oocystis solitaria*	*Oocystis solitaria*	0	0	0	0	0
Chlorophyceae	*Schizothrix* sp	*Schizothrix* sp	0	0	0	0	0
Chlorophyceae	*Stigeoclonium* sp	*Stigeoclonium* sp	0	0	1302	1458	0
Chlorophyceae	*Ulothrix* sp	*Ulothrix* sp	0	0	0	0	0
Chrysophyceae	*Chromulina* sp.	*Chromulina* sp.	0	0	0	0	0
Chrysophyceae	*Dinobryon bavaricum*	*Dinobryon bavaricum*	0	0	0	0	0
Chrysophyceae	*Dinobryon* sp	*Dinobryon* sp (loose monad)	0	0	0	0	0
Chrysophyceae	*Ochromonas* sp	*Ochromonas* sp	0	0	0	0	0
Chrysophyceae	Unidentified naked Chrysophyte sp	Unidentified naked Chrysophyte sp (*Ochromonas*/*Chromulina*)	0	0	0	0	0
Cryptophyceae	*Katablepharis ovalis*	*Katablepharis ovalis*	0	0	0	0	0
Cryptophyceae	*Rhodomonas minuta*	*Rhodomonas minuta*	390	0	0	0	0

Units: Number of cells/cm²		Stream Name	Mid Davidson Creek				
		Sample	BI-11-01	BI-11-02	BI-11-03	BI-11-04	BI-11-05
		Date	09-16-2012	09-16-2012	09-16-2012	09-16-2012	09-16-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Cyanobacteria	*Anabaena circinalis*	*Anabaena circinalis*	0	0	0	0	0
Cyanobacteria	*Anabaena inaequalis*	*Anabaena inaequalis*	0	0	0	0	0
Cyanobacteria	*Anabaena* sp.	*Anabaena* sp.	0	0	0	0	0
Cyanobacteria	*Aphanocapsa delicatissima*	*Aphanocapsa delicatissima*	0	0	0	0	0
Cyanobacteria	*Leibleinia* sp	*Leibleinia* sp	1953	1139	0	0	0
Cyanobacteria	*Limnothrix* sp	*Limnothrix* sp	0	0	0	2187	0
Cyanobacteria	*Lyngbya* sp	*Lyngbya* sp	0	0	0	0	0
Cyanobacteria	*Phormidium formosum*	*Phormidium formosum*	0	0	0	0	0
Cyanobacteria	*Phormidium* sp	*Phormidium* sp	0	0	0	0	0
TOTAL			**104319.635**	**122385.635**	**66259.635**	**182322.635**	**1515887.63**

Note: cm² - centimetres squared; mL - millilitre

Table 5.2-4B: Periphyton Taxonomic Composition and Density in Streams, 2012 (continued)

Units: Number of cells/cm²		Stream Name	Lower Creek 705				
		Sample	BI-09-01	BI-09-02	BI-09-03	BI-09-04	BI-09-05
		Date	09-07-2012	09-07-2012	09-07-2012	09-07-2012	09-07-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (ml)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Achnanthes bioretii*	*Psammothidium bioretii*	0	0	1250	0	781
Diatoms	*Achnanthes clevei*	*Karayevia clevei*	0	0	0	0	0
Diatoms	*Achnanthes conspicua*	*Achnanthes conspicua*	0	2604	1250	0	0
Diatoms	*Achnanthes detha*	Planothidium subatomoides	0	520	0	0	0
Diatoms	*Achnanthes exigua*	Achnanthidium exiguum	0	0	0	0	0
Diatoms	*Achanthes kriegeri*	*Achanthes kriegeri*	0	1562	3750	0	781
Diatoms	*Achnanthes lanceolata*	Planothidium lanceolatum	0	1041	1250	372	520
Diatoms	*Achnanthes levanderi*	*Psammothidium levanderi*	0	0	0	0	781
Diatoms	*Achnanthes minutissima*	*Achnanthidium minutissimum*	28911	115124	68762	22511	4688
Diatoms	*Achnanthes pusillum*	*Psammothidium pusillum*	781	520	7501	2604	0
Diatoms	*Achnanthes suchlandtii*	*Achnanthes suchlandtii*	0	520	0	0	260
Diatoms	*Amphora ovalis*	*Amphora ovalis*	0	0	0	0	0
Diatoms	*Amphora pediculus*	*Amphora pediculus*	781	0	0	0	0
Diatoms	*Amphipleura pellucida*	*Amphipleura pellucida*	0	0	10001	372	3386
Diatoms	*Anomoeoneis vitrea*	*Brachysira vitrea*	0	0	0	0	0
Diatoms	*Anomoeoneis zellensis*	*Brachysira zellensis*	0	0	0	0	0
Diatoms	*Asterionella formosa*	*Asterionella formosa*	0	0	0	0	0
Diatoms	*Aulacoseira ambigua*	*Aulacoseira ambigua*	0	0	0	0	0
Diatoms	*Aluacoseira crenulata*	*Aluacoseira crenulata*	0	0	0	0	0
Diatoms	*Aulacoseira distans*	*Aulacoseira distans*	1562	0	0	0	520
Diatoms	*Caloneis bacillum*	*Caloneis bacillum*	0	0	0	0	0
Diatoms	*Caloneis silicula*	*Caloneis ventricosa*	0	0	1250	0	0

Units: Number of cells/cm²		Stream Name	Lower Creek 705				
		Sample	BI-09-01	BI-09-02	BI-09-03	BI-09-04	BI-09-05
		Date	09-07-2012	09-07-2012	09-07-2012	09-07-2012	09-07-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (ml)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Cocconeis neodiminuta*	*Cocconeis diminuta*	0	0	0	0	0
Diatoms	*Cocconeis placentula* var *lineata*	*Cocconeis placentula* var *lineata*	68762	13023	100018	3720	9376
Diatoms	*Cyclotella bodanica*	*Cyclotella bodanica*	0	0	0	0	0
Diatoms	*Cyclotella ocellata*	*Cyclotella ocellata*	0	0	0	0	0
Diatoms	*Cymbella affinis*	*Cymbella affinis*	0	0	0	0	0
Diatoms	*Cymbella caespitosa*	*Encyonema caespitosum*	0	0	0	0	0
Diatoms	*Cymbella cymbiformis*	*Cymbella cymbiformis*	0	0	1250	0	0
Diatoms	*Cymbella gracilis*	*Encyonema gracilis*	0	0	1250	0	260
Diatoms	*Cymbella microcephala*	*Cymbella microcephala*	0	0	0	0	0
Diatoms	*Cymbella naviculiformis*	*Cymbopleura naviculiformis*	0	0	0	0	0
Diatoms	*Cymbella minuta var. silesiaca*	*Encyonema silesiacum*	1562	520	21253	0	520
Diatoms	*Cymbella sinuata*	*Reimeria sinuata*	28130	9897	37506	8930	2604
Diatoms	*Cymbella* sp	*Cymbella* sp	0	0	0	0	260
Diatoms	*Diatoma anceps*	*Meridion anceps*	0	0	0	0	0
Diatoms	*Diatoma tenuis* var *elongatum Lyngb.*	*Diatoma tenuis* var *elongatum Lyngb.*	0	0	0	0	0
Diatoms	*Diatoma mesodon*	*Diatoma mesodon*	0	0	0	0	781
Diatoms	*Didymosphaeria germinata*	*Didymosphaeria germinata*	0	0	3750	0	260
Diatoms	*Diploneis elliptica*	*Diploneis elliptica*	0	0	0	0	0
Diatoms	*Diploneis minuta*	*Diploneis minuta*	0	0	0	0	0
Diatoms	*Diploneis modica*	*Diploneis modica*	0	0	0	0	0
Diatoms	*Diploneis parma*	*Diploneis parma*	0	0	0	0	260
Diatoms	*Diploneis puella*	*Diploneis puella*	0	0	0	0	0
Diatoms	*Epithemia adnata*	*Epithemia adnata*	0	0	0	0	1041

Units: Number of cells/cm²		Stream Name	Lower Creek 705				
		Sample	BI-09-01	BI-09-02	BI-09-03	BI-09-04	BI-09-05
		Date	09-07-2012	09-07-2012	09-07-2012	09-07-2012	09-07-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (ml)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Eunotia arcus*	*Eunotia arcus*	0	0	0	0	0
Diatoms	*Eunotia incisa*	*Eunotia incisa*	0	0	0	0	260
Diatoms	*Eunotia naegelii*	*Eunotia naegeli*	0	0	0	0	0
Diatoms	*Eunotia paludosa var trincaria*	*Eunotia paludosa var trincaria*	0	0	2500	0	0
Diatoms	*Eunotia pectinalis*	*Eunotia pectinalis*	0	0	0	372	1041
Diatoms	*Eunotia praerupta*	*Eunotia praerupta*	0	0	0	0	0
Diatoms	*Eunotia* spp	*Eunotia* spp	0	0	0	0	0
Diatoms	*Fragilaria brevistriata*	*Pseudostaurosira brevistriata*	0	0	20003	558	11720
Diatoms	*Fragilaria capucina*	*Fragilaria capucina*	0	0	0	0	0
Diatoms	*Fragilaria construens*	*Staurosira construens*	0	0	0	0	0
Diatoms	*Fragilaria construens* var. *venter*	*Staurosira construens* var. *venter*	0	1041	0	0	2083
Diatoms	*Fragilaria lepostauron*	*Staurosirella lepostauron*	0	0	0	0	0
Diatoms	*Fragilaria pinnata*	Staurosirella pinnata	1562	520	5000	0	1562
Diatoms	*Fragilaria vaucheriae*	*Fragilaria vaucheriae*	23441	18232	28755	4093	8074
Diatoms	*Fragilaria virescens* var. *exigua*	*Fragilariforma virescens* var exigua	0	0	0	0	0
Diatoms	*Fragilaria virescens*	*Fragilariforma virescens*	0	0	0	0	0
Diatoms	*Frustulia rhomboides*	*Frustulia rhomboides*	781	1041	1250	0	781
Diatoms	*Frustulia rhomboides var. amphipleuroides*	*Frustulia rhomboides var. amphipleuroides*	0	0	0	0	0
Diatoms	*Frustulia rhomboides var. Saxonica*	*Frustulia rhomboides var. saxonica*	0	0	0	0	260
Diatoms	*Gomphonema acuminatum*	*Gomphonema acuminatum*	781	0	1250	0	260
Diatoms	*Gomphonema angustatum*	*Gomphonema angustatum*	2344	0	0	0	0
Diatoms	*Gomphonema clavatum*	*Gomphonema clavatum*	0	5209	3750	3348	4948
Diatoms	*Gomphonema entolejum*	*Gomphonema entolejum*	0	0	0	372	0

Units: Number of cells/cm²		Stream Name	Lower Creek 705				
		Sample	BI-09-01	BI-09-02	BI-09-03	BI-09-04	BI-09-05
		Date	09-07-2012	09-07-2012	09-07-2012	09-07-2012	09-07-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (ml)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Gomphonema gracile*	*Gomphonema gracile*	0	0	0	0	0
Diatoms	*Gomphonema minutum*	*Gomphonema minutum*	7032	3646	2500	930	0
Diatoms	*Gomphonema olivaceum*	Gomphoneis olivacea	0	0	0	0	0
Diatoms	*Gomphonema parvulum*	*Gomphonema parvulum*	28911	11981	28755	14697	3906
Diatoms	*Gomphonema pumilum*	*Gomphonema pumilum*	10158	22399	25004	7441	7553
Diatoms	*Gomphonema* sp.	*Gomphonema* sp.	4688	4166	12501	1116	0
Diatoms	*Gomphonema truncatum*	*Gomphonema truncatum*	1562	0	0	0	0
Diatoms	*Gomphonema ventricosum*	*Gomphonema ventricosum*	0	0	0	0	0
Diatoms	*Gyrosigma acuminatum*	*Gyrosigma acuminatum*	0	0	0	0	0
Diatoms	*Hannaea arcus*	*Hannaea arcus*	7032	0	1250	186	1562
Diatoms	*Hantzschia amphioxys*	*Hantzschia amphioxys*	0	0	0	0	260
Diatoms	*Meridion circulare*	*Meridion circulare*	4688	0	13752	744	3646
Diatoms	*Meridion circulare* var. *constrictum*	*Meridion circulare* var. *constrictum*	0	0	0	0	0
Diatoms	*Navicula amphibola*	*Navicula amphibola*	0	0	0	0	0
Diatoms	*Navicula canalis*	*Navicula canalis*	1562	0	0	372	260
Diatoms	*Navicula capitatoradiata*	*Navicula capitatoradiata*	0	0	0	0	0
Diatoms	*Navicula cari*	*Navicula cari*	0	0	0	0	0
Diatoms	*Navicula cryptocephala*	*Navicula cryptocephala*	0	0	0	0	0
Diatoms	*Navicula cryptotenella*	*Navicula cryptotenella*	2344	1041	5000	930	1302
Diatoms	*Navicula capitata*	Hippodonta capiata	0	0	0	0	0
Diatoms	*Navicula decussis*	*Geissleria decussis*	0	520	0	0	0
Diatoms	*Navicula detenta Hustedt*	*Navicula detenta*	0	0	0	0	0
Diatoms	*Navicula gregaria*	*Navicula gregaria*	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Lower Creek 705				
		Sample	BI-09-01	BI-09-02	BI-09-03	BI-09-04	BI-09-05
		Date	09-07-2012	09-07-2012	09-07-2012	09-07-2012	09-07-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (ml)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Navicula jaernefeltii Hustedt*	*Cavincula jaernefeltiii*	0	0	0	0	0
Diatoms	*Navicvula lenzii*	*Navicvula lenzii*	0	0	0	0	0
Diatoms	*Navicula lepostriata*	*Navicula lepostriata*	0	0	0	0	0
Diatoms	*Navicula mediocris*	*Navicula mediocris*	0	0	0	0	0
Diatoms	*Navicula menisculus*	*Navicula menisculus*	0	0	0	0	0
Diatoms	*Navicula minima*	*Eolimna minima*	0	0	0	0	0
Diatoms	*Navicula mutica*	*Luticola mutica*	0	0	0	0	0
Diatoms	*Navicula pseudoscutiformis*	Cavincula pseudoscutiformis	0	0	0	0	0
Diatoms	*Navicula pupula*	Sellaphora mutata	0	0	0	0	0
Diatoms	*Navicula radiosa*	*Navicula radiosa*	0	0	1250	0	0
Diatoms	*Navicula rhynchocephala*	*Navicula rhynchocephala*	0	0	0	0	0
Diatoms	*Navicula saprophila*	*Navicula saprophila*	0	0	0	0	0
Diatoms	*Navicula schroeterii*	*Navicula schroeterii*	0	0	0	0	0
Diatoms	*Navicula slevicensis*	*Navicula slevicensis*	0	0	0	0	0
Diatoms	*Navicula subtilissima*	*Kobayasia subtilissima*	0	0	0	0	0
Diatoms	*Navicula tenelloides*	*Navicula tenelloides*	0	0	0	0	0
Diatoms	*Navicula tripunctata*	*Navicula tripunctata*	0	0	0	0	0
Diatoms	*Navicula trivialis*	*Navicula trivialis*	0	0	0	0	0
Diatoms	*Navicula veneta Kuetzing*	*Navicula veneta*	781	0	2500	186	260
Diatoms	*Navicula* sp	*Navicula* sp	0	0	0	0	0
Diatoms	*Neidium affine*	*Neidium affine*	0	0	0	0	0
Diatoms	*Neidium bindeformis*	*Neidium bindeformis*	0	0	0	0	0
Diatoms	*Neidium dubium*	*Neidium dubium*	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Lower Creek 705				
		Sample	BI-09-01	BI-09-02	BI-09-03	BI-09-04	BI-09-05
		Date	09-07-2012	09-07-2012	09-07-2012	09-07-2012	09-07-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (ml)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Nitzschia acicularis*	*Nitzschia acicularis*	0	1041	0	0	0
Diatoms	*Nitzschia angustatula*	*Nitzschia angustatula*	0	0	0	0	0
Diatoms	*Nitzschia brevissima*	*Nitzschia brevissima*	0	0	0	0	0
Diatoms	*Nitzschia dissipata*	*Nitzschia dissipata*	5469	1041	15002	186	1562
Diatoms	*Nitzschia fonticola*	*Nitzschia fonticola*	0	0	0	0	0
Diatoms	*Nitzschia frustulum*	*Nitzschia frustulum*	0	0	0	0	0
Diatoms	*Nitzschia gracilis*	*Nitzschia gracilis*	3125	4688	2500	0	1562
Diatoms	*Nitzschia heufleriana*	*Nitzschia heufleriana*	0	0	0	0	0
Diatoms	*Nitzschia linearis*	*Nitzschia linearis*	0	0	0	0	0
Diatoms	*Nitzschia palea*	*Nitzschia palea*	0	0	2500	0	0
Diatoms	*Nitzschia perminuta*	*Nitzschia perminuta*	3125	0	5000	0	0
Diatoms	*Nitzschia paleacae*	*Nitzschia paleacae*	0	8334	7501	558	1562
Diatoms	*Pinnularia biceps var. pusilla*	*Pinnularia biceps var. pusilla*	0	0	0	0	0
Diatoms	*Pinnularia divergentissima*	*Pinnularia divergentissima*	0	0	0	0	0
Diatoms	*Pinnularia microstauron* var. *adirondackensis*	*Pinnularia microstauron* var. *Adirondackensis*	0	0	0	0	0
Diatoms	*Pinnularia microstauron*	*Pinnularia microstauron*	0	0	0	0	0
Diatoms	*Pinnularia nodosa*	*Pinnularia nodosa*	0	0	0	0	0
Diatoms	*Pinnularia viridis*	*Pinnularia viridis*	0	0	0	0	0
Diatoms	*Pinnularia* sp.	*Pinnularia* sp.	0	0	0	0	520
Diatoms	*Rhoicosphenia abbreviata*	*Rhoicosphenia abbreviata*	0	0	0	0	0
Diatoms	*Rhopalodia gibba*	*Rhopalodia gibba*	0	0	0	0	0
Diatoms	*Stauroneis anceps*	*Stauroneis anceps*	0	0	0	0	260
Diatoms	*Stephanodiscus niagarae*	*Stephanodiscus niagarae*	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Lower Creek 705				
		Sample	BI-09-01	BI-09-02	BI-09-03	BI-09-04	BI-09-05
		Date	09-07-2012	09-07-2012	09-07-2012	09-07-2012	09-07-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (ml)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Surirella amphioxys*	*Surirella biseriata var. bifrons fo. amphioxys*	0	0	0	0	0
Diatoms	*Surirella angusta*	*Surirella angusta*	0	0	0	0	0
Diatoms	*Surirella biseriata*	*Surirella biseriata*	0	0	0	0	0
Diatoms	*Surirella patella*	*Surirella patella*	0	0	0	0	0
Diatoms	*Synedra filiformis*	*Synedra filiformis*	0	0	0	372	0
Diatoms	*Synedra rumpens*	*Synedra rumpens*	120334	41674	192534	19162	34120
Diatoms	*Synedra ulna*	*Synedra ulna*	55478	21878	95017	7999	44539
Diatoms	*Tabellaria flocculosa*	*Tabellaria flocculosa*	1562	0	6251	744	2603
Diatoms	*Tetracyclus glans*	*Tetracyclus glans*	0	0	0	0	0
Chlorophyceae	*Chlamydomonas* sp	*Chlamydomonas* sp	0	0	0	0	0
Chlorophyceae	*Cladophora* sp	*Cladophora* sp	0	0	0	744	0
Chlorophyceae	*Mougeotia* sp	*Mougeotia* sp	0	520	0	0	0
Chlorophyceae	*Oocystis solitaria*	*Oocystis solitaria*	0	0	0	0	0
Chlorophyceae	*Schizothrix* sp	*Schizothrix* sp	0	0	0	0	0
Chlorophyceae	*Stigeoclonium* sp	*Stigeoclonium* sp	4688	10418	0	1860	520
Chlorophyceae	*Ulothrix* sp	*Ulothrix* sp	0	0	0	0	0
Chrysophyceae	*Chromulina* sp.	*Chromulina* sp.	0	0	0	0	0
Chrysophyceae	*Dinobryon bavaricum*	*Dinobryon bavaricum*	0	0	0	0	0
Chrysophyceae	*Dinobryon* sp	*Dinobryon* sp (loose monad)	0	0	0	0	0
Chrysophyceae	*Ochromonas* sp	*Ochromonas* sp	0	0	0	0	0
Chrysophyceae	Unidentified naked Chrysophyte sp	Unidentified naked Chrysophyte sp (*Ochromonas*/*Chromulina*)	0	0	0	0	0
Cryptophyceae	*Katablepharis ovalis*	*Katablepharis ovalis*	0	0	0	0	0
Cryptophyceae	*Rhodomonas minuta*	*Rhodomonas minuta*	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Lower Creek 705				
		Sample	BI-09-01	BI-09-02	BI-09-03	BI-09-04	BI-09-05
		Date	09-07-2012	09-07-2012	09-07-2012	09-07-2012	09-07-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (ml)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Cyanobacteria	*Anabaena circinalis*	*Anabaena circinalis*	0	0	0	0	0
Cyanobacteria	*Anabaena inaequalis*	*Anabaena inaequalis*	0	0	0	0	0
Cyanobacteria	*Anabaena* sp.	*Anabaena* sp.	0	0	0	0	0
Cyanobacteria	*Aphanocapsa delicatissima*	*Aphanocapsa delicatissima*	0	0	0	0	0
Cyanobacteria	*Leibleinia* sp	*Leibleinia* sp	0	0	12502	3720	1302
Cyanobacteria	*Limnothrix* sp	*Limnothrix* sp	0	43757	12502	5767	4167
Cyanobacteria	*Lyngbya* sp	*Lyngbya* sp	0	0	0	0	0
Cyanobacteria	*Phormidium formosum*	*Phormidium formosum*	0	0	0	0	0
Cyanobacteria	*Phormidium* sp	*Phormidium* sp	0	0	0	1860	0
TOTAL			**421956.635**	**348497.635**	**766389.635**	**116845.635**	**169553.635**

Note: cm² - centimetres squared; mL - millilitre

Table 5.2-4B: Periphyton Taxonomic Composition and Density in Streams, 2012 (continued)

Units: Number of cells/cm²		Stream Name	Upper Creek 705				
		Sample	BI-12-01	BI-12-02	BI-12-03	BI-12-04	BI-12-05
		Date	09-12-2012	09-12-2012	09-12-2012	09-12-2012	09-12-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Achnanthes bioretii*	*Psammothidium bioretii*	0	0	0	0	0
Diatoms	*Achnanthes clevei*	*Karayevia clevei*	0	0	0	0	0
Diatoms	*Achnanthes conspicua*	*Achnanthes conspicua*	0	0	0	0	0
Diatoms	*Achnanthes detha*	Planothidium subatomoides	0	0	0	0	937
Diatoms	*Achnanthes exigua*	Achnanthidium exiguum	0	0	0	223	0
Diatoms	*Achanthes kriegeri*	*Achanthes kriegeri*	0	586	4688	0	937
Diatoms	*Achnanthes lanceolata*	Planothidium lanceolatum	976	1758	669	0	0
Diatoms	*Achnanthes levanderi*	*Psammothidium levanderi*	0	0	0	0	0
Diatoms	*Achnanthes minutissima*	*Achnanthidium minutissimum*	74232	8790	20762	1339	35631
Diatoms	*Achnanthes pusillum*	*Psammothidium pusillum*	17581	2344	26120	223	15940
Diatoms	*Achnanthes suchlandtii*	*Achnanthes suchlandtii*	0	0	2679	0	0
Diatoms	*Amphora ovalis*	*Amphora ovalis*	976	0	0	0	0
Diatoms	*Amphora pediculus*	*Amphora pediculus*	0	0	0	0	0
Diatoms	*Amphipleura pellucida*	*Amphipleura pellucida*	7813	586	2679	223	0
Diatoms	*Anomoeoneis vitrea*	*Brachysira vitrea*	0	0	669	0	0
Diatoms	*Anomoeoneis zellensis*	*Brachysira zellensis*	0	0	0	0	0
Diatoms	*Asterionella formosa*	*Asterionella formosa*	0	0	0	0	937
Diatoms	*Aulacoseira ambigua*	*Aulacoseira ambigua*	0	0	0	0	0
Diatoms	*Aluacoseira crenulata*	*Aluacoseira crenulata*	0	0	0	0	0
Diatoms	*Aulacoseira distans*	*Aulacoseira distans*	16603	0	0	0	0
Diatoms	*Caloneis bacillum*	*Caloneis bacillum*	2930	0	0	0	0
Diatoms	*Caloneis silicula*	*Caloneis ventricosa*	5860	5860	9376	0	0

Units: Number of cells/cm²		Stream Name	Upper Creek 705				
		Sample	BI-12-01	BI-12-02	BI-12-03	BI-12-04	BI-12-05
		Date	09-12-2012	09-12-2012	09-12-2012	09-12-2012	09-12-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Cocconeis neodiminuta*	*Cocconeis diminuta*	0	0	0	0	0
Diatoms	*Cocconeis placentula* var *lineata*	*Cocconeis placentula* var *lineata*	21488	89078	13395	46883	107831
Diatoms	*Cyclotella bodanica*	*Cyclotella bodanica*	0	586	0	0	0
Diatoms	*Cyclotella ocellata*	*Cyclotella ocellata*	0	0	0	0	0
Diatoms	*Cymbella affinis*	*Cymbella affinis*	1953	0	0	0	0
Diatoms	*Cymbella caespitosa*	*Encyonema caespitosum*	976	0	0	0	0
Diatoms	*Cymbella cymbiformis*	*Cymbella cymbiformis*	0	0	669	0	0
Diatoms	*Cymbella gracilis*	*Encyonema gracilis*	9767	0	0	0	0
Diatoms	*Cymbella microcephala*	*Cymbella microcephala*	0	0	0	0	0
Diatoms	*Cymbella naviculiformis*	*Cymbopleura naviculiformis*	0	0	0	0	0
Diatoms	*Cymbella minuta var. silesiaca*	*Encyonema silesiacum*	28325	3516	2679	223	0
Diatoms	*Cymbella sinuata*	*Reimeria sinuata*	10744	586	4688	669	0
Diatoms	*Cymbella* sp	*Cymbella* sp	0	0	0	0	0
Diatoms	*Diatoma anceps*	*Meridion anceps*	0	0	0	0	0
Diatoms	*Diatoma tenuis* var *elongatum Lyngb.*	*Diatoma tenuis* var *elongatum Lyngb.*	0	0	0	0	0
Diatoms	*Diatoma mesodon*	*Diatoma mesodon*	0	0	0	0	0
Diatoms	*Didymosphaeria germinata*	*Didymosphaeria germinata*	0	0	0	0	0
Diatoms	*Diploneis elliptica*	*Diploneis elliptica*	0	0	0	0	0
Diatoms	*Diploneis minuta*	*Diploneis minuta*	0	0	0	0	0
Diatoms	*Diploneis modica*	*Diploneis modica*	0	0	0	0	0
Diatoms	*Diploneis parma*	*Diploneis parma*	0	0	0	0	0
Diatoms	*Diploneis puella*	*Diploneis puella*	0	0	0	0	0
Diatoms	*Epithemia adnata*	*Epithemia adnata*	34185	8204	59608	9376	5626

Units: Number of cells/cm²		Stream Name	Upper Creek 705				
		Sample	BI-12-01	BI-12-02	BI-12-03	BI-12-04	BI-12-05
		Date	09-12-2012	09-12-2012	09-12-2012	09-12-2012	09-12-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Eunotia arcus*	*Eunotia arcus*	0	586	0	0	0
Diatoms	*Eunotia incisa*	*Eunotia incisa*	1953	19339	14065	4465	2813
Diatoms	*Eunotia naegelii*	*Eunotia naegeli*	0	6446	2679	669	1875
Diatoms	*Eunotia paludosa var trincaria*	*Eunotia paludosa var trincaria*	19534	0	0	0	937
Diatoms	*Eunotia pectinalis*	*Eunotia pectinalis*	0	4102	1339	446	0
Diatoms	*Eunotia praerupta*	*Eunotia praerupta*	0	0	0	0	0
Diatoms	*Eunotia* spp	*Eunotia* spp	2930	0	0	0	0
Diatoms	*Fragilaria brevistriata*	*Pseudostaurosira brevistriata*	18558	1172	5358	223	0
Diatoms	*Fragilaria capucina*	*Fragilaria capucina*	0	0	2009	0	0
Diatoms	*Fragilaria construens*	*Staurosira construens*	0	0	0	0	0
Diatoms	*Fragilaria construens* var. *venter*	*Staurosira construens* var. *venter*	0	0	0	0	0
Diatoms	*Fragilaria lepostauron*	*Staurosirella lepostauron*	0	0	0	0	0
Diatoms	*Fragilaria pinnata*	Staurosirella pinnata	8790	4688	669	0	3750
Diatoms	*Fragilaria vaucheriae*	*Fragilaria vaucheriae*	37116	8204	18083	893	13127
Diatoms	*Fragilaria virescens* var. *exigua*	*Fragilariforma virescens* var exigua	0	0	0	0	0
Diatoms	*Fragilaria virescens*	*Fragilariforma virescens*	0	0	0	0	0
Diatoms	*Frustulia rhomboides*	*Frustulia rhomboides*	976	0	8036	0	0
Diatoms	*Frustulia rhomboides var. amphipleuroides*	*Frustulia rhomboides var. amphipleuroides*	0	0	0	0	937
Diatoms	*Frustulia rhomboides var. Saxonica*	*Frustulia rhomboides var. saxonica*	0	0	1339	0	0
Diatoms	*Gomphonema acuminatum*	*Gomphonema acuminatum*	0	0	0	0	0
Diatoms	*Gomphonema angustatum*	*Gomphonema angustatum*	0	0	0	0	0
Diatoms	*Gomphonema clavatum*	*Gomphonema clavatum*	4883	5860	1339	0	3750
Diatoms	*Gomphonema entolejum*	*Gomphonema entolejum*	0	2344	2679	446	0

Units: Number of cells/cm²		Stream Name	Upper Creek 705				
		Sample	BI-12-01	BI-12-02	BI-12-03	BI-12-04	BI-12-05
		Date	09-12-2012	09-12-2012	09-12-2012	09-12-2012	09-12-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Gomphonema gracile*	*Gomphonema gracile*	0	0	0	0	0
Diatoms	*Gomphonema minutum*	*Gomphonema minutum*	0	0	0	0	937
Diatoms	*Gomphonema olivaceum*	Gomphoneis olivacea	0	0	0	0	0
Diatoms	*Gomphonema parvulum*	*Gomphonema parvulum*	20511	63292	12725	6920	36569
Diatoms	*Gomphonema pumilum*	*Gomphonema pumilum*	1953	1172	0	1116	0
Diatoms	*Gomphonema* sp.	*Gomphonema* sp.	0	0	0	0	0
Diatoms	*Gomphonema truncatum*	*Gomphonema truncatum*	1953	0	669	223	0
Diatoms	*Gomphonema ventricosum*	*Gomphonema ventricosum*	0	0	0	0	0
Diatoms	*Gyrosigma acuminatum*	*Gyrosigma acuminatum*	0	0	0	0	0
Diatoms	*Hannaea arcus*	*Hannaea arcus*	0	0	0	0	0
Diatoms	*Hantzschia amphioxys*	*Hantzschia amphioxys*	0	0	0	0	0
Diatoms	*Meridion circulare*	*Meridion circulare*	8790	2930	2009	893	0
Diatoms	*Meridion circulare* var. *constrictum*	*Meridion circulare* var. *constrictum*	0	0	1339	0	0
Diatoms	*Navicula amphibola*	*Navicula amphibola*	0	0	0	223	937
Diatoms	*Navicula canalis*	*Navicula canalis*	33209	1758	4688	223	937
Diatoms	*Navicula capitatoradiata*	*Navicula capitatoradiata*	0	0	0	0	0
Diatoms	*Navicula cari*	*Navicula cari*	0	0	669	0	0
Diatoms	*Navicula cryptocephala*	*Navicula cryptocephala*	0	0	0	0	0
Diatoms	*Navicula cryptotenella*	*Navicula cryptotenella*	75208	0	14734	223	3750
Diatoms	*Navicula capitata*	Hippodonta capiata	0	0	0	0	0
Diatoms	*Navicula decussis*	*Geissleria decussis*	976	0	0	0	0
Diatoms	*Navicula detenta Hustedt*	*Navicula detenta*	0	586	0	0	0
Diatoms	*Navicula gregaria*	*Navicula gregaria*	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Upper Creek 705				
		Sample	BI-12-01	BI-12-02	BI-12-03	BI-12-04	BI-12-05
		Date	09-12-2012	09-12-2012	09-12-2012	09-12-2012	09-12-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Navicula jaernefeltii Hustedt*	*Cavincula jaernefeltiii*	0	0	0	0	0
Diatoms	*Navicvula lenzii*	*Navicvula lenzii*	0	0	0	223	0
Diatoms	*Navicula lepostriata*	*Navicula lepostriata*	0	0	0	0	0
Diatoms	*Navicula mediocris*	*Navicula mediocris*	0	0	0	0	0
Diatoms	*Navicula menisculus*	*Navicula menisculus*	0	0	669	0	0
Diatoms	*Navicula minima*	*Eolimna minima*	976	0	0	0	0
Diatoms	*Navicula mutica*	*Luticola mutica*	0	0	0	0	0
Diatoms	*Navicula pseudoscutiformis*	Cavincula pseudoscutiformis	0	0	0	0	0
Diatoms	*Navicula pupula*	Sellaphora mutata	976	0	0	0	0
Diatoms	*Navicula radiosa*	*Navicula radiosa*	0	586	669	0	0
Diatoms	*Navicula rhynchocephala*	*Navicula rhynchocephala*	0	0	0	0	0
Diatoms	*Navicula saprophila*	*Navicula saprophila*	0	0	0	0	0
Diatoms	*Navicula schroeterii*	*Navicula schroeterii*	0	0	0	0	0
Diatoms	*Navicula slevicensis*	*Navicula slevicensis*	0	0	0	0	0
Diatoms	*Navicula subtilissima*	*Kobayasia subtilissima*	0	0	0	0	0
Diatoms	*Navicula tenelloides*	*Navicula tenelloides*	0	0	0	0	0
Diatoms	*Navicula tripunctata*	*Navicula tripunctata*	0	0	0	0	0
Diatoms	*Navicula trivialis*	*Navicula trivialis*	0	0	0	0	0
Diatoms	*Navicula veneta Kuetzing*	*Navicula veneta*	1953	1172	0	0	0
Diatoms	*Navicula* sp	*Navicula* sp	0	0	0	0	937
Diatoms	*Neidium affine*	*Neidium affine*	0	0	0	0	0
Diatoms	*Neidium bindeformis*	*Neidium bindeformis*	0	0	0	0	0
Diatoms	*Neidium dubium*	*Neidium dubium*	0	586	0	0	0

Units: Number of cells/cm²		Stream Name	Upper Creek 705				
		Sample	BI-12-01	BI-12-02	BI-12-03	BI-12-04	BI-12-05
		Date	09-12-2012	09-12-2012	09-12-2012	09-12-2012	09-12-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Nitzschia acicularis*	*Nitzschia acicularis*	1953	1172	0	0	0
Diatoms	*Nitzschia angustatula*	*Nitzschia angustatula*	0	0	0	0	0
Diatoms	*Nitzschia brevissima*	*Nitzschia brevissima*	0	0	0	0	0
Diatoms	*Nitzschia dissipata*	*Nitzschia dissipata*	10744	586	6027	1339	3750
Diatoms	*Nitzschia fonticola*	*Nitzschia fonticola*	0	0	1339	0	937
Diatoms	*Nitzschia frustulum*	*Nitzschia frustulum*	0	0	0	0	0
Diatoms	*Nitzschia gracilis*	*Nitzschia gracilis*	0	4688	669	0	937
Diatoms	*Nitzschia heufleriana*	*Nitzschia heufleriana*	0	0	0	0	0
Diatoms	*Nitzschia linearis*	*Nitzschia linearis*	0	0	0	0	0
Diatoms	*Nitzschia palea*	*Nitzschia palea*	1953	0	0	0	0
Diatoms	*Nitzschia perminuta*	*Nitzschia perminuta*	6837	586	9376	223	0
Diatoms	*Nitzschia paleacae*	*Nitzschia paleacae*	0	0	1339	0	0
Diatoms	*Pinnularia biceps var. pusilla*	*Pinnularia biceps var. pusilla*	0	0	0	0	0
Diatoms	*Pinnularia divergentissima*	*Pinnularia divergentissima*	0	0	0	0	0
Diatoms	*Pinnularia microstauron* var. *adirondackensis*	*Pinnularia microstauron* var. *Adirondackensis*	0	0	0	669	0
Diatoms	*Pinnularia microstauron*	*Pinnularia microstauron*	0	0	0	0	0
Diatoms	*Pinnularia nodosa*	*Pinnularia nodosa*	0	0	0	0	0
Diatoms	*Pinnularia viridis*	*Pinnularia viridis*	0	0	0	0	0
Diatoms	*Pinnularia* sp.	*Pinnularia* sp.	0	0	0	0	0
Diatoms	*Rhoicosphenia abbreviata*	*Rhoicosphenia abbreviata*	0	0	0	0	0
Diatoms	*Rhopalodia gibba*	*Rhopalodia gibba*	0	586	0	0	0
Diatoms	*Stauroneis anceps*	*Stauroneis anceps*	0	0	0	0	0
Diatoms	*Stephanodiscus niagarae*	*Stephanodiscus niagarae*	0	586	0	0	0

Units: Number of cells/cm²		Stream Name	Upper Creek 705				
		Sample	BI-12-01	BI-12-02	BI-12-03	BI-12-04	BI-12-05
		Date	09-12-2012	09-12-2012	09-12-2012	09-12-2012	09-12-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Surirella amphioxys*	*Surirella biseriata var. bifrons fo. amphioxys*	0	0	0	223	0
Diatoms	*Surirella angusta*	*Surirella angusta*	0	0	0	0	0
Diatoms	*Surirella biseriata*	*Surirella biseriata*	0	0	0	0	0
Diatoms	*Surirella patella*	*Surirella patella*	0	0	0	0	0
Diatoms	*Synedra filiformis*	*Synedra filiformis*	0	0	0	0	0
Diatoms	*Synedra rumpens*	*Synedra rumpens*	72278	9962	12055	4241	139712
Diatoms	*Synedra ulna*	*Synedra ulna*	37116	9962	4688	3348	22504
Diatoms	*Tabellaria flocculosa*	*Tabellaria flocculosa*	1953	4688	2679	223	937
Diatoms	*Tetracyclus glans*	*Tetracyclus glans*	0	0	0	0	0
Chlorophyceae	*Chlamydomonas* sp	*Chlamydomonas* sp	0	0	0	0	0
Chlorophyceae	*Cladophora* sp	*Cladophora* sp	0	0	0	0	0
Chlorophyceae	*Mougeotia* sp	*Mougeotia* sp	0	0	0	0	0
Chlorophyceae	*Oocystis solitaria*	*Oocystis solitaria*	0	0	0	223	0
Chlorophyceae	*Schizothrix* sp	*Schizothrix* sp	0	0	0	0	56260
Chlorophyceae	*Stigeoclonium* sp	*Stigeoclonium* sp	1953	0	2679	0	0
Chlorophyceae	*Ulothrix* sp	*Ulothrix* sp	0	0	0	0	0
Chrysophyceae	*Chromulina* sp.	*Chromulina* sp.	0	0	669	669	0
Chrysophyceae	*Dinobryon bavaricum*	*Dinobryon bavaricum*	0	0	669	0	0
Chrysophyceae	*Dinobryon* sp	*Dinobryon* sp (loose monad)	0	0	0	0	0
Chrysophyceae	*Ochromonas* sp	*Ochromonas* sp	0	0	0	0	0
Chrysophyceae	Unidentified naked Chrysophyte sp	Unidentified naked Chrysophyte sp (*Ochromonas*/*Chromulina*)	0	0	0	0	3750
Cryptophyceae	*Katablepharis ovalis*	*Katablepharis ovalis*	0	0	0	223	937
Cryptophyceae	*Rhodomonas minuta*	*Rhodomonas minuta*	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Upper Creek 705				
		Sample	BI-12-01	BI-12-02	BI-12-03	BI-12-04	BI-12-05
		Date	09-12-2012	09-12-2012	09-12-2012	09-12-2012	09-12-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Cyanobacteria	*Anabaena circinalis*	*Anabaena circinalis*	0	0	0	0	0
Cyanobacteria	*Anabaena inaequalis*	*Anabaena inaequalis*	0	0	0	0	0
Cyanobacteria	*Anabaena* sp.	*Anabaena* sp.	0	0	0	0	0
Cyanobacteria	*Aphanocapsa delicatissima*	*Aphanocapsa delicatissima*	0	0	0	0	18753
Cyanobacteria	*Leibleinia* sp	*Leibleinia* sp	0	0	0	0	0
Cyanobacteria	*Limnothrix* sp	*Limnothrix* sp	0	0	16744	0	0
Cyanobacteria	*Lyngbya* sp	*Lyngbya* sp	0	0	0	0	0
Cyanobacteria	*Phormidium formosum*	*Phormidium formosum*	3906	0	0	0	0
Cyanobacteria	*Phormidium* sp	*Phormidium* sp	0	0	0	0	3750
TOTAL			**614366.635**	**279552.635**	**303399.635**	**87745.635**	**491341.635**

Note: cm² - centimetres squared; mL - millilitre

Table 5.2-4B: Periphyton Taxonomic Composition and Density in Streams, 2012 (continued)

Units: Number of cells/cm²		Stream Name	Trib to Fawnie Creek				
		Sample	BI-13-01	BI-13-02	BI-13-03	BI-13-04	BI-13-05
		Date	09-21-2012	09-21-2013	09-21-2014	09-21-2015	09-21-2016
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (ml)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Achnanthes bioretii*	*Psammothidium bioretii*	0	0	0	0	0
Diatoms	*Achnanthes clevei*	*Karayevia clevei*	558	0	0	0	0
Diatoms	*Achnanthes conspicua*	*Achnanthes conspicua*	0	0	0	0	0
Diatoms	*Achnanthes detha*	Planothidium subatomoides	0	0	0	0	0
Diatoms	*Achnanthes exigua*	Achnanthidium exiguum	558	0	0	0	0
Diatoms	*Achanthes kriegeri*	*Achanthes kriegeri*	1116	2604	325	0	0
Diatoms	*Achnanthes lanceolata*	Planothidium lanceolatum	9488	10418	5209	7292	4775
Diatoms	*Achnanthes levanderi*	*Psammothidium levanderi*	0	0	325	0	0
Diatoms	*Achnanthes minutissima*	*Achnanthidium minutissimum*	8372	523531	46557	116079	84042
Diatoms	*Achnanthes pusillum*	*Psammothidium pusillum*	5581	10418	1627	2430	2865
Diatoms	*Achnanthes suchlandtii*	*Achnanthes suchlandtii*	0	0	325	0	0
Diatoms	*Amphora ovalis*	*Amphora ovalis*	0	0	0	0	0
Diatoms	*Amphora pediculus*	*Amphora pediculus*	0	0	0	0	0
Diatoms	*Amphipleura pellucida*	*Amphipleura pellucida*	0	0	0	0	0
Diatoms	*Anomoeoneis vitrea*	*Brachysira vitrea*	0	0	0	0	0
Diatoms	*Anomoeoneis zellensis*	*Brachysira zellensis*	0	0	0	0	0
Diatoms	*Asterionella formosa*	*Asterionella formosa*	558	0	0	0	0
Diatoms	*Aulacoseira ambigua*	*Aulacoseira ambigua*	0	0	0	0	0
Diatoms	*Aluacoseira crenulata*	*Aluacoseira crenulata*	0	0	0	0	0
Diatoms	*Aulacoseira distans*	*Aulacoseira distans*	4465	0	0	0	1910
Diatoms	*Caloneis bacillum*	*Caloneis bacillum*	1674	0	0	0	0
Diatoms	*Caloneis silicula*	*Caloneis ventricosa*	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Trib to Fawnie Creek				
		Sample	BI-13-01	BI-13-02	BI-13-03	BI-13-04	BI-13-05
		Date	09-21-2012	09-21-2013	09-21-2014	09-21-2015	09-21-2016
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (ml)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Cocconeis neodiminuta*	*Cocconeis diminuta*	0	0	0	0	0
Diatoms	*Cocconeis placentula* var *lineata*	*Cocconeis placentula* var *lineata*	47999	380276	33209	53481	130839
Diatoms	*Cyclotella bodanica*	*Cyclotella bodanica*	558	2604	651	0	1910
Diatoms	*Cyclotella ocellata*	*Cyclotella ocellata*	0	0	0	0	0
Diatoms	*Cymbella affinis*	*Cymbella affinis*	0	0	0	0	0
Diatoms	*Cymbella caespitosa*	*Encyonema caespitosum*	0	0	0	0	0
Diatoms	*Cymbella cymbiformis*	*Cymbella cymbiformis*	0	0	0	0	0
Diatoms	*Cymbella gracilis*	*Encyonema gracilis*	0	0	0	0	955
Diatoms	*Cymbella microcephala*	*Cymbella microcephala*	0	0	325	0	955
Diatoms	*Cymbella naviculiformis*	*Cymbopleura naviculiformis*	0	0	0	0	0
Diatoms	*Cymbella minuta var. silesiaca*	*Encyonema silesiacum*	3348	0	1627	607	1910
Diatoms	*Cymbella sinuata*	*Reimeria sinuata*	2232	49488	976	1215	2865
Diatoms	*Cymbella* sp	*Cymbella* sp	0	0	0	0	0
Diatoms	*Diatoma anceps*	*Meridion anceps*	0	0	0	0	0
Diatoms	*Diatoma tenuis* var *elongatum Lyngb.*	*Diatoma tenuis* var *elongatum Lyngb.*	0	0	0	0	0
Diatoms	*Diatoma mesodon*	*Diatoma mesodon*	29023	52092	14976	30387	42976
Diatoms	*Didymosphaeria germinata*	*Didymosphaeria germinata*	0	2604	0	0	0
Diatoms	*Diploneis elliptica*	*Diploneis elliptica*	0	0	0	0	0
Diatoms	*Diploneis minuta*	*Diploneis minuta*	0	0	0	0	0
Diatoms	*Diploneis modica*	*Diploneis modica*	0	0	0	0	0
Diatoms	*Diploneis parma*	*Diploneis parma*	0	0	0	0	0
Diatoms	*Diploneis puella*	*Diploneis puella*	0	0	0	0	0
Diatoms	*Epithemia adnata*	*Epithemia adnata*	11162	2604	651	1823	1910

Units: Number of cells/cm²		Stream Name	Trib to Fawnie Creek				
		Sample	BI-13-01	BI-13-02	BI-13-03	BI-13-04	BI-13-05
		Date	09-21-2012	09-21-2013	09-21-2014	09-21-2015	09-21-2016
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (ml)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Eunotia arcus*	*Eunotia arcus*	0	0	0	0	0
Diatoms	*Eunotia incisa*	*Eunotia incisa*	558	0	651	0	0
Diatoms	*Eunotia naegelii*	*Eunotia naegeli*	0	0	0	0	0
Diatoms	*Eunotia paludosa var trincaria*	*Eunotia paludosa var trincaria*	0	0	0	607	0
Diatoms	*Eunotia pectinalis*	*Eunotia pectinalis*	1116	5209	976	1215	1910
Diatoms	*Eunotia praerupta*	*Eunotia praerupta*	0	0	0	0	0
Diatoms	*Eunotia* spp	*Eunotia* spp	0	0	0	0	1910
Diatoms	*Fragilaria brevistriata*	*Pseudostaurosira brevistriata*	1116	0	325	0	0
Diatoms	*Fragilaria capucina*	*Fragilaria capucina*	2232	10418	0	0	0
Diatoms	*Fragilaria construens*	*Staurosira construens*	0	0	0	0	0
Diatoms	*Fragilaria construens* var. *venter*	*Staurosira construens* var. *venter*	0	0	0	0	0
Diatoms	*Fragilaria lepostauron*	*Staurosirella lepostauron*	0	0	0	0	0
Diatoms	*Fragilaria pinnata*	Staurosirella pinnata	0	0	0	0	0
Diatoms	*Fragilaria vaucheriae*	*Fragilaria vaucheriae*	558	0	0	0	0
Diatoms	*Fragilaria virescens* var. *exigua*	*Fragilariforma virescens* var exigua	0	0	0	0	0
Diatoms	*Fragilaria virescens*	*Fragilariforma virescens*	5581	0	651	0	0
Diatoms	*Frustulia rhomboides*	*Frustulia rhomboides*	0	0	325	0	0
Diatoms	*Frustulia rhomboides var. amphipleuroides*	*Frustulia rhomboides var. amphipleuroides*	0	0	0	0	0
Diatoms	*Frustulia rhomboides var. Saxonica*	*Frustulia rhomboides var. saxonica*	0	0	0	0	0
Diatoms	*Gomphonema acuminatum*	*Gomphonema acuminatum*	0	0	651	0	0
Diatoms	*Gomphonema angustatum*	*Gomphonema angustatum*	0	0	0	0	0
Diatoms	*Gomphonema clavatum*	*Gomphonema clavatum*	0	31255	0	5469	3820
Diatoms	*Gomphonema entolejum*	*Gomphonema entolejum*	2232	5209	1302	0	0

Units: Number of cells/cm²		Stream Name	Trib to Fawnie Creek				
		Sample	BI-13-01	BI-13-02	BI-13-03	BI-13-04	BI-13-05
		Date	09-21-2012	09-21-2013	09-21-2014	09-21-2015	09-21-2016
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (ml)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Gomphonema gracile*	*Gomphonema gracile*	0	0	0	0	0
Diatoms	*Gomphonema minutum*	*Gomphonema minutum*	0	0	651	0	0
Diatoms	*Gomphonema olivaceum*	Gomphoneis olivacea	0	0	0	0	0
Diatoms	*Gomphonema parvulum*	*Gomphonema parvulum*	0	0	2930	1215	2865
Diatoms	*Gomphonema pumilum*	*Gomphonema pumilum*	558	5209	0	0	1910
Diatoms	*Gomphonema* sp.	*Gomphonema* sp.	0	0	0	0	0
Diatoms	*Gomphonema truncatum*	*Gomphonema truncatum*	0	0	0	0	0
Diatoms	*Gomphonema ventricosum*	*Gomphonema ventricosum*	0	0	0	0	0
Diatoms	*Gyrosigma acuminatum*	*Gyrosigma acuminatum*	0	0	0	0	0
Diatoms	*Hannaea arcus*	*Hannaea arcus*	14511	70325	8790	29171	47751
Diatoms	*Hantzschia amphioxys*	*Hantzschia amphioxys*	0	0	0	0	0
Diatoms	*Meridion circulare*	*Meridion circulare*	558	0	1302	0	1910
Diatoms	*Meridion circulare* var. *constrictum*	*Meridion circulare* var. *constrictum*	0	0	0	0	0
Diatoms	*Navicula amphibola*	*Navicula amphibola*	0	0	0	0	0
Diatoms	*Navicula canalis*	*Navicula canalis*	0	5209	651	0	3820
Diatoms	*Navicula capitatoradiata*	*Navicula capitatoradiata*	0	0	0	0	0
Diatoms	*Navicula cari*	*Navicula cari*	0	0	0	0	0
Diatoms	*Navicula cryptocephala*	*Navicula cryptocephala*	0	0	0	0	0
Diatoms	*Navicula cryptotenella*	*Navicula cryptotenella*	1116	28651	7813	6685	25785
Diatoms	*Navicula capitata*	Hippodonta capiata	0	0	0	0	0
Diatoms	*Navicula decussis*	*Geissleria decussis*	0	0	0	0	0
Diatoms	*Navicula detenta Hustedt*	*Navicula detenta*	0	0	0	0	0
Diatoms	*Navicula gregaria*	*Navicula gregaria*	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Trib to Fawnie Creek				
		Sample	BI-13-01	BI-13-02	BI-13-03	BI-13-04	BI-13-05
		Date	09-21-2012	09-21-2013	09-21-2014	09-21-2015	09-21-2016
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (ml)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Navicula jaernefeltii Hustedt*	*Cavincula jaernefeltiii*	0	0	0	0	0
Diatoms	*Navicvula lenzii*	*Navicvula lenzii*	0	0	0	0	0
Diatoms	*Navicula lepostriata*	*Navicula lepostriata*	0	0	0	0	0
Diatoms	*Navicula mediocris*	*Navicula mediocris*	0	0	0	0	0
Diatoms	*Navicula menisculus*	*Navicula menisculus*	0	5209	0	0	0
Diatoms	*Navicula minima*	*Eolimna minima*	1116	5209	0	0	1910
Diatoms	*Navicula mutica*	*Luticola mutica*	0	0	0	0	0
Diatoms	*Navicula pseudoscutiformis*	Cavincula pseudoscutiformis	0	0	0	0	0
Diatoms	*Navicula pupula*	Sellaphora mutata	0	0	0	0	0
Diatoms	*Navicula radiosa*	*Navicula radiosa*	0	0	0	0	0
Diatoms	*Navicula rhynchocephala*	*Navicula rhynchocephala*	0	0	0	0	0
Diatoms	*Navicula saprophila*	*Navicula saprophila*	0	0	0	0	0
Diatoms	*Navicula schroeterii*	*Navicula schroeterii*	1116	0	0	0	0
Diatoms	*Navicula slevicensis*	*Navicula slevicensis*	0	0	0	0	0
Diatoms	*Navicula subtilissima*	*Kobayasia subtilissima*	0	0	0	0	0
Diatoms	*Navicula tenelloides*	*Navicula tenelloides*	558	0	325	0	0
Diatoms	*Navicula tripunctata*	*Navicula tripunctata*	0	0	0	0	0
Diatoms	*Navicula trivialis*	*Navicula trivialis*	0	0	0	0	0
Diatoms	*Navicula veneta Kuetzing*	*Navicula veneta*	558	0	0	0	0
Diatoms	*Navicula* sp	*Navicula* sp	0	0	0	0	0
Diatoms	*Neidium affine*	*Neidium affine*	558	0	0	0	0
Diatoms	*Neidium bindeformis*	*Neidium bindeformis*	0	0	0	0	0
Diatoms	*Neidium dubium*	*Neidium dubium*	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Trib to Fawnie Creek				
		Sample	BI-13-01	BI-13-02	BI-13-03	BI-13-04	BI-13-05
		Date	09-21-2012	09-21-2013	09-21-2014	09-21-2015	09-21-2016
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (ml)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Nitzschia acicularis*	*Nitzschia acicularis*	0	0	0	0	0
Diatoms	*Nitzschia angustatula*	*Nitzschia angustatula*	0	0	0	0	0
Diatoms	*Nitzschia brevissima*	*Nitzschia brevissima*	0	0	0	0	0
Diatoms	*Nitzschia dissipata*	*Nitzschia dissipata*	0	18232	651	2430	2865
Diatoms	*Nitzschia fonticola*	*Nitzschia fonticola*	0	0	0	0	0
Diatoms	*Nitzschia frustulum*	*Nitzschia frustulum*	1116	0	0	0	0
Diatoms	*Nitzschia gracilis*	*Nitzschia gracilis*	1116	15627	6186	10331	46796
Diatoms	*Nitzschia heufleriana*	*Nitzschia heufleriana*	0	0	0	0	0
Diatoms	*Nitzschia linearis*	*Nitzschia linearis*	0	0	0	0	0
Diatoms	*Nitzschia palea*	*Nitzschia palea*	0	5209	0	0	0
Diatoms	*Nitzschia perminuta*	*Nitzschia perminuta*	1116	7813	1302	0	4775
Diatoms	*Nitzschia paleacae*	*Nitzschia paleacae*	0	0	976	0	0
Diatoms	*Pinnularia biceps var. pusilla*	*Pinnularia biceps var. pusilla*	0	0	0	0	0
Diatoms	*Pinnularia divergentissima*	*Pinnularia divergentissima*	0	0	0	0	0
Diatoms	*Pinnularia microstauron* var. *adirondackensis*	*Pinnularia microstauron* var. *Adirondackensis*	0	0	0	0	0
Diatoms	*Pinnularia microstauron*	*Pinnularia microstauron*	0	0	0	0	0
Diatoms	*Pinnularia nodosa*	*Pinnularia nodosa*	0	0	0	0	0
Diatoms	*Pinnularia viridis*	*Pinnularia viridis*	0	0	0	0	0
Diatoms	*Pinnularia* sp.	*Pinnularia* sp.	0	0	0	0	0
Diatoms	*Rhoicosphenia abbreviata*	*Rhoicosphenia abbreviata*	0	0	0	0	0
Diatoms	*Rhopalodia gibba*	*Rhopalodia gibba*	558	0	0	0	0
Diatoms	*Stauroneis anceps*	*Stauroneis anceps*	0	0	0	0	0
Diatoms	*Stephanodiscus niagarae*	*Stephanodiscus niagarae*	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Trib to Fawnie Creek				
		Sample	BI-13-01	BI-13-02	BI-13-03	BI-13-04	BI-13-05
		Date	09-21-2012	09-21-2013	09-21-2014	09-21-2015	09-21-2016
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (ml)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Surirella amphioxys*	*Surirella biseriata var. bifrons fo. amphioxys*	0	0	0	0	0
Diatoms	*Surirella angusta*	*Surirella angusta*	0	0	0	0	0
Diatoms	*Surirella biseriata*	*Surirella biseriata*	0	0	0	0	0
Diatoms	*Surirella patella*	*Surirella patella*	0	0	0	0	0
Diatoms	*Synedra filiformis*	*Synedra filiformis*	0	0	0	0	0
Diatoms	*Synedra rumpens*	*Synedra rumpens*	7255	39069	7813	11547	25785
Diatoms	*Synedra ulna*	*Synedra ulna*	92092	98976	27999	27348	69717
Diatoms	*Tabellaria flocculosa*	*Tabellaria flocculosa*	0	0	0	0	0
Diatoms	*Tetracyclus glans*	*Tetracyclus glans*	0	0	0	0	0
Chlorophyceae	*Chlamydomonas* sp	*Chlamydomonas* sp	0	0	0	0	0
Chlorophyceae	*Cladophora* sp	*Cladophora* sp	0	0	0	0	0
Chlorophyceae	*Mougeotia* sp	*Mougeotia* sp	0	0	0	0	0
Chlorophyceae	*Oocystis solitaria*	*Oocystis solitaria*	0	0	0	0	0
Chlorophyceae	*Schizothrix* sp	*Schizothrix* sp	0	0	0	0	0
Chlorophyceae	*Stigeoclonium* sp	*Stigeoclonium* sp	0	0	0	0	0
Chlorophyceae	*Ulothrix* sp	*Ulothrix* sp	1116	0	0	0	0
Chrysophyceae	*Chromulina* sp.	*Chromulina* sp.	0	0	0	607	0
Chrysophyceae	*Dinobryon bavaricum*	*Dinobryon bavaricum*	0	0	0	0	0
Chrysophyceae	*Dinobryon* sp	*Dinobryon* sp (loose monad)	0	0	0	0	0
Chrysophyceae	*Ochromonas* sp	*Ochromonas* sp	0	0	0	0	0
Chrysophyceae	Unidentified naked Chrysophyte sp	Unidentified naked Chrysophyte sp (*Ochromonas*/*Chromulina*)	0	0	0	0	0
Cryptophyceae	*Katablepharis ovalis*	*Katablepharis ovalis*	0	0	0	0	0
Cryptophyceae	*Rhodomonas minuta*	*Rhodomonas minuta*	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Trib to Fawnie Creek				
		Sample	BI-13-01	BI-13-02	BI-13-03	BI-13-04	BI-13-05
		Date	09-21-2012	09-21-2013	09-21-2014	09-21-2015	09-21-2016
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (ml)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Cyanobacteria	*Anabaena circinalis*	*Anabaena circinalis*	0	0	0	6077	0
Cyanobacteria	*Anabaena inaequalis*	*Anabaena inaequalis*	0	0	0	0	0
Cyanobacteria	*Anabaena* sp.	*Anabaena* sp.	0	0	1953	0	0
Cyanobacteria	*Aphanocapsa delicatissima*	*Aphanocapsa delicatissima*	0	0	0	0	0
Cyanobacteria	*Leibleinia* sp	*Leibleinia* sp	0	0	3906	6077	9550
Cyanobacteria	*Limnothrix* sp	*Limnothrix* sp	0	13023	0	0	0
Cyanobacteria	*Lyngbya* sp	*Lyngbya* sp	0	0	0	0	0
Cyanobacteria	*Phormidium formosum*	*Phormidium formosum*	0	0	0	6077	4775
Cyanobacteria	*Phormidium* sp	*Phormidium* sp	0	0	3255	0	0
TOTAL			**265122.63**	**1406510.6**	**188186.63**	**328189.63**	**535785.63**

Note: cm² - centimetres squared; mL - millilitre

Table 5.2-4B: Periphyton Taxonomic Composition and Density in Streams, 2012 (continued)

Units: Number of cells/cm²		Stream Name	Trib to Blackwater River				
		Sample	BI-14-01	BI-14-02	BI-14-03	BI-14-04	BI-14-05
		Date	09-15-2012	09-15-2012	09-15-2012	09-15-2012	09-15-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Achnanthes bioretii*	*Psammothidium bioretii*	0	0	0	0	0
Diatoms	*Achnanthes clevei*	*Karayevia clevei*	0	0	0	0	0
Diatoms	*Achnanthes conspicua*	*Achnanthes conspicua*	0	0	0	0	0
Diatoms	*Achnanthes detha*	Planothidium subatomoides	0	0	0	0	0
Diatoms	*Achnanthes exigua*	Achnanthidium exiguum	0	0	0	0	0
Diatoms	*Achanthes kriegeri*	*Achanthes kriegeri*	0	781	0	0	0
Diatoms	*Achnanthes lanceolata*	Planothidium lanceolatum	2083	0	0	0	0
Diatoms	*Achnanthes levanderi*	*Psammothidium levanderi*	0	0	0	0	0
Diatoms	*Achnanthes minutissima*	*Achnanthidium minutissimum*	0	0	0	382	0
Diatoms	*Achnanthes pusillum*	*Psammothidium pusillum*	0	0	0	0	0
Diatoms	*Achnanthes suchlandtii*	*Achnanthes suchlandtii*	0	0	0	0	0
Diatoms	*Amphora ovalis*	*Amphora ovalis*	0	0	0	0	0
Diatoms	*Amphora pediculus*	*Amphora pediculus*	0	0	0	0	0
Diatoms	*Amphipleura pellucida*	*Amphipleura pellucida*	0	0	0	0	0
Diatoms	*Anomoeoneis vitrea*	*Brachysira vitrea*	0	0	0	0	0
Diatoms	*Anomoeoneis zellensis*	*Brachysira zellensis*	0	0	0	0	0
Diatoms	*Asterionella formosa*	*Asterionella formosa*	0	0	0	0	0
Diatoms	*Aulacoseira ambigua*	*Aulacoseira ambigua*	0	0	0	0	0
Diatoms	*Aluacoseira crenulata*	*Aluacoseira crenulata*	0	0	0	0	0
Diatoms	*Aulacoseira distans*	*Aulacoseira distans*	0	0	0	382	0
Diatoms	*Caloneis bacillum*	*Caloneis bacillum*	0	0	0	0	0
Diatoms	*Caloneis silicula*	*Caloneis ventricosa*	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Trib to Blackwater River				
		Sample	BI-14-01	BI-14-02	BI-14-03	BI-14-04	BI-14-05
		Date	09-15-2012	09-15-2012	09-15-2012	09-15-2012	09-15-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Cocconeis neodiminuta*	*Cocconeis diminuta*	0	0	0	0	0
Diatoms	*Cocconeis placentula* var *lineata*	*Cocconeis placentula* var *lineata*	58343	28911	1302	9168	24309
Diatoms	*Cyclotella bodanica*	*Cyclotella bodanica*	0	0	0	0	0
Diatoms	*Cyclotella ocellata*	*Cyclotella ocellata*	0	0	0	0	0
Diatoms	*Cymbella affinis*	*Cymbella affinis*	0	0	0	0	0
Diatoms	*Cymbella caespitosa*	*Encyonema caespitosum*	0	0	0	0	0
Diatoms	*Cymbella cymbiformis*	*Cymbella cymbiformis*	0	0	0	0	0
Diatoms	*Cymbella gracilis*	*Encyonema gracilis*	0	0	0	0	0
Diatoms	*Cymbella microcephala*	*Cymbella microcephala*	0	0	0	0	0
Diatoms	*Cymbella naviculiformis*	*Cymbopleura naviculiformis*	0	0	0	0	0
Diatoms	*Cymbella minuta var. silesiaca*	*Encyonema silesiacum*	0	0	0	382	0
Diatoms	*Cymbella sinuata*	*Reimeria sinuata*	2083	0	0	764	0
Diatoms	*Cymbella* sp	*Cymbella* sp	0	0	0	0	0
Diatoms	*Diatoma anceps*	*Meridion anceps*	0	0	0	0	0
Diatoms	*Diatoma tenuis* var *elongatum Lyngb.*	*Diatoma tenuis* var *elongatum Lyngb.*	0	0	0	0	0
Diatoms	*Diatoma mesodon*	*Diatoma mesodon*	0	0	0	382	0
Diatoms	*Didymosphaeria germinata*	*Didymosphaeria germinata*	0	0	0	0	0
Diatoms	*Diploneis elliptica*	*Diploneis elliptica*	0	0	0	0	0
Diatoms	*Diploneis minuta*	*Diploneis minuta*	0	0	0	0	0
Diatoms	*Diploneis modica*	*Diploneis modica*	0	0	0	0	0
Diatoms	*Diploneis parma*	*Diploneis parma*	0	0	0	0	0
Diatoms	*Diploneis puella*	*Diploneis puella*	0	0	0	0	0
Diatoms	*Epithemia adnata*	*Epithemia adnata*	0	0	2604	0	0

Units: Number of cells/cm²		Stream Name	Trib to Blackwater River				
		Sample	BI-14-01	BI-14-02	BI-14-03	BI-14-04	BI-14-05
		Date	09-15-2012	09-15-2012	09-15-2012	09-15-2012	09-15-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Eunotia arcus*	*Eunotia arcus*	0	0	0	0	0
Diatoms	*Eunotia incisa*	*Eunotia incisa*	0	0	0	0	0
Diatoms	*Eunotia naegelii*	*Eunotia naegeli*	0	0	0	0	0
Diatoms	*Eunotia paludosa var trincaria*	*Eunotia paludosa var trincaria*	0	0	0	0	0
Diatoms	*Eunotia pectinalis*	*Eunotia pectinalis*	0	4688	0	764	1215
Diatoms	*Eunotia praerupta*	*Eunotia praerupta*	0	0	0	0	0
Diatoms	*Eunotia* spp	*Eunotia* spp	0	0	0	0	0
Diatoms	*Fragilaria brevistriata*	*Pseudostaurosira brevistriata*	0	781	0	0	0
Diatoms	*Fragilaria capucina*	*Fragilaria capucina*	0	0	0	0	0
Diatoms	*Fragilaria construens*	*Staurosira construens*	0	0	0	0	0
Diatoms	*Fragilaria construens* var. *venter*	*Staurosira construens* var. *venter*	0	0	0	0	0
Diatoms	*Fragilaria lepostauron*	*Staurosirella lepostauron*	0	0	0	0	0
Diatoms	*Fragilaria pinnata*	Staurosirella pinnata	0	0	0	0	0
Diatoms	*Fragilaria vaucheriae*	*Fragilaria vaucheriae*	2083	0	0	1146	0
Diatoms	*Fragilaria virescens* var. *exigua*	*Fragilariforma virescens* var exigua	0	0	0	0	0
Diatoms	*Fragilaria virescens*	*Fragilariforma virescens*	0	0	0	0	0
Diatoms	*Frustulia rhomboides*	*Frustulia rhomboides*	6251	0	0	764	0
Diatoms	*Frustulia rhomboides var. amphipleuroides*	*Frustulia rhomboides var. amphipleuroides*	0	0	0	0	0
Diatoms	*Frustulia rhomboides var. Saxonica*	*Frustulia rhomboides var. saxonica*	0	0	0	0	0
Diatoms	*Gomphonema acuminatum*	*Gomphonema acuminatum*	0	0	0	0	0
Diatoms	*Gomphonema angustatum*	*Gomphonema angustatum*	0	0	0	0	0
Diatoms	*Gomphonema clavatum*	*Gomphonema clavatum*	0	1562	0	0	0
Diatoms	*Gomphonema entolejum*	*Gomphonema entolejum*	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Trib to Blackwater River				
		Sample	BI-14-01	BI-14-02	BI-14-03	BI-14-04	BI-14-05
		Date	09-15-2012	09-15-2012	09-15-2012	09-15-2012	09-15-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Gomphonema gracile*	*Gomphonema gracile*	0	0	0	0	0
Diatoms	*Gomphonema minutum*	*Gomphonema minutum*	0	0	0	0	0
Diatoms	*Gomphonema olivaceum*	Gomphoneis olivacea	0	0	0	0	0
Diatoms	*Gomphonema parvulum*	*Gomphonema parvulum*	0	0	0	0	0
Diatoms	*Gomphonema pumilum*	*Gomphonema pumilum*	0	1562	0	0	0
Diatoms	*Gomphonema* sp.	*Gomphonema* sp.	0	0	0	0	0
Diatoms	*Gomphonema truncatum*	*Gomphonema truncatum*	0	0	0	0	0
Diatoms	*Gomphonema ventricosum*	*Gomphonema ventricosum*	0	0	0	0	0
Diatoms	*Gyrosigma acuminatum*	*Gyrosigma acuminatum*	0	0	0	0	0
Diatoms	*Hannaea arcus*	*Hannaea arcus*	0	0	0	764	0
Diatoms	*Hantzschia amphioxys*	*Hantzschia amphioxys*	0	0	0	0	0
Diatoms	*Meridion circulare*	*Meridion circulare*	0	0	0	0	0
Diatoms	*Meridion circulare* var. *constrictum*	*Meridion circulare* var. *constrictum*	4167	0	0	0	0
Diatoms	*Navicula amphibola*	*Navicula amphibola*	0	0	0	0	0
Diatoms	*Navicula canalis*	*Navicula canalis*	0	0	0	0	0
Diatoms	*Navicula capitatoradiata*	*Navicula capitatoradiata*	0	0	0	0	0
Diatoms	*Navicula cari*	*Navicula cari*	0	0	0	0	0
Diatoms	*Navicula cryptocephala*	*Navicula cryptocephala*	0	0	0	382	0
Diatoms	*Navicula cryptotenella*	*Navicula cryptotenella*	2083	781	0	0	0
Diatoms	*Navicula capitata*	Hippodonta capiata	0	0	0	0	0
Diatoms	*Navicula decussis*	*Geissleria decussis*	0	0	0	0	0
Diatoms	*Navicula detenta Hustedt*	*Navicula detenta*	0	0	0	0	0
Diatoms	*Navicula gregaria*	*Navicula gregaria*	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Trib to Blackwater River				
		Sample	BI-14-01	BI-14-02	BI-14-03	BI-14-04	BI-14-05
		Date	09-15-2012	09-15-2012	09-15-2012	09-15-2012	09-15-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Navicula jaernefeltii Hustedt*	*Cavincula jaernefeltiii*	0	0	0	0	0
Diatoms	*Navicvula lenzii*	*Navicvula lenzii*	0	0	0	0	0
Diatoms	*Navicula lepostriata*	*Navicula lepostriata*	0	0	0	0	0
Diatoms	*Navicula mediocris*	*Navicula mediocris*	0	0	0	0	0
Diatoms	*Navicula menisculus*	*Navicula menisculus*	0	0	0	0	0
Diatoms	*Navicula minima*	*Eolimna minima*	0	0	0	0	0
Diatoms	*Navicula mutica*	*Luticola mutica*	0	0	0	0	0
Diatoms	*Navicula pseudoscutiformis*	Cavincula pseudoscutiformis	0	0	0	0	0
Diatoms	*Navicula pupula*	Sellaphora mutata	0	0	0	382	0
Diatoms	*Navicula radiosa*	*Navicula radiosa*	0	0	0	0	0
Diatoms	*Navicula rhynchocephala*	*Navicula rhynchocephala*	0	0	0	382	0
Diatoms	*Navicula saprophila*	*Navicula saprophila*	0	0	0	0	0
Diatoms	*Navicula schroeterii*	*Navicula schroeterii*	0	0	0	0	0
Diatoms	*Navicula slevicensis*	*Navicula slevicensis*	0	0	0	0	0
Diatoms	*Navicula subtilissima*	*Kobayasia subtilissima*	0	0	0	0	0
Diatoms	*Navicula tenelloides*	*Navicula tenelloides*	0	0	0	0	0
Diatoms	*Navicula tripunctata*	*Navicula tripunctata*	0	0	0	0	0
Diatoms	*Navicula trivialis*	*Navicula trivialis*	0	0	0	0	0
Diatoms	*Navicula veneta Kuetzing*	*Navicula veneta*	0	0	0	0	0
Diatoms	*Navicula* sp	*Navicula* sp	0	0	0	0	0
Diatoms	*Neidium affine*	*Neidium affine*	0	0	0	0	0
Diatoms	*Neidium bindeformis*	*Neidium bindeformis*	0	0	0	0	0
Diatoms	*Neidium dubium*	*Neidium dubium*	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Trib to Blackwater River				
		Sample	BI-14-01	BI-14-02	BI-14-03	BI-14-04	BI-14-05
		Date	09-15-2012	09-15-2012	09-15-2012	09-15-2012	09-15-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Nitzschia acicularis*	*Nitzschia acicularis*	0	0	0	0	0
Diatoms	*Nitzschia angustatula*	*Nitzschia angustatula*	0	0	0	0	0
Diatoms	*Nitzschia brevissima*	*Nitzschia brevissima*	0	0	0	0	0
Diatoms	*Nitzschia dissipata*	*Nitzschia dissipata*	0	0	0	0	0
Diatoms	*Nitzschia fonticola*	*Nitzschia fonticola*	0	0	0	0	0
Diatoms	*Nitzschia frustulum*	*Nitzschia frustulum*	0	0	0	0	0
Diatoms	*Nitzschia gracilis*	*Nitzschia gracilis*	2083	0	0	382	0
Diatoms	*Nitzschia heufleriana*	*Nitzschia heufleriana*	0	0	0	0	0
Diatoms	*Nitzschia linearis*	*Nitzschia linearis*	0	0	0	0	0
Diatoms	*Nitzschia palea*	*Nitzschia palea*	0	0	0	0	0
Diatoms	*Nitzschia perminuta*	*Nitzschia perminuta*	0	781	0	0	0
Diatoms	*Nitzschia paleacae*	*Nitzschia paleacae*	0	0	0	0	0
Diatoms	*Pinnularia biceps var. pusilla*	*Pinnularia biceps var. pusilla*	0	0	0	0	0
Diatoms	*Pinnularia divergentissima*	*Pinnularia divergentissima*	0	0	0	0	0
Diatoms	*Pinnularia microstauron* var. *adirondackensis*	*Pinnularia microstauron* var. *Adirondackensis*	0	0	0	0	0
Diatoms	*Pinnularia microstauron*	*Pinnularia microstauron*	0	0	0	0	0
Diatoms	*Pinnularia nodosa*	*Pinnularia nodosa*	0	0	0	0	0
Diatoms	*Pinnularia viridis*	*Pinnularia viridis*	0	781	0	0	0
Diatoms	*Pinnularia* sp.	*Pinnularia* sp.	0	0	0	0	0
Diatoms	*Rhoicosphenia abbreviata*	*Rhoicosphenia abbreviata*	0	0	0	0	0
Diatoms	*Rhopalodia gibba*	*Rhopalodia gibba*	0	0	0	0	0
Diatoms	*Stauroneis anceps*	*Stauroneis anceps*	0	0	0	0	0
Diatoms	*Stephanodiscus niagarae*	*Stephanodiscus niagarae*	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Trib to Blackwater River				
		Sample	BI-14-01	BI-14-02	BI-14-03	BI-14-04	BI-14-05
		Date	09-15-2012	09-15-2012	09-15-2012	09-15-2012	09-15-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Diatoms	*Surirella amphioxys*	*Surirella biseriata var. bifrons fo. amphioxys*	0	0	0	0	0
Diatoms	*Surirella angusta*	*Surirella angusta*	0	0	0	0	0
Diatoms	*Surirella biseriata*	*Surirella biseriata*	0	0	0	0	0
Diatoms	*Surirella patella*	*Surirella patella*	0	0	0	0	0
Diatoms	*Synedra filiformis*	*Synedra filiformis*	0	0	0	0	0
Diatoms	*Synedra rumpens*	*Synedra rumpens*	2083	781	0	2292	0
Diatoms	*Synedra ulna*	*Synedra ulna*	2083	10158	0	4584	3646
Diatoms	*Tabellaria flocculosa*	*Tabellaria flocculosa*	0	0	0	0	0
Diatoms	*Tetracyclus glans*	*Tetracyclus glans*	0	0	0	0	0
Chlorophyceae	*Chlamydomonas* sp	*Chlamydomonas* sp	0	0	0	0	0
Chlorophyceae	*Cladophora* sp	*Cladophora* sp	0	0	0	0	0
Chlorophyceae	*Mougeotia* sp	*Mougeotia* sp	0	0	0	0	0
Chlorophyceae	*Oocystis solitaria*	*Oocystis solitaria*	0	781	0	0	0
Chlorophyceae	*Schizothrix* sp	*Schizothrix* sp	0	0	0	0	0
Chlorophyceae	*Stigeoclonium* sp	*Stigeoclonium* sp	0	781	0	0	0
Chlorophyceae	*Ulothrix* sp	*Ulothrix* sp	0	0	0	0	0
Chrysophyceae	*Chromulina* sp.	*Chromulina* sp.	8334	0	0	1146	0
Chrysophyceae	*Dinobryon bavaricum*	*Dinobryon bavaricum*	0	0	0	0	0
Chrysophyceae	*Dinobryon* sp	*Dinobryon* sp (loose monad)	2083	0	0	0	0
Chrysophyceae	*Ochromonas* sp	*Ochromonas* sp	0	0	0	382	0
Chrysophyceae	Unidentified naked Chrysophyte sp	Unidentified naked Chrysophyte sp (*Ochromonas*/*Chromulina*)	0	0	0	0	0
Cryptophyceae	*Katablepharis ovalis*	*Katablepharis ovalis*	0	0	0	0	0
Cryptophyceae	*Rhodomonas minuta*	*Rhodomonas minuta*	0	0	0	0	0

Units: Number of cells/cm²		Stream Name	Trib to Blackwater River				
		Sample	BI-14-01	BI-14-02	BI-14-03	BI-14-04	BI-14-05
		Date	09-15-2012	09-15-2012	09-15-2012	09-15-2012	09-15-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)					
		Percent Counted					
Taxonomy							
Classification	Old Name Genera or Species	New Name Genera or Species					
Cyanobacteria	*Anabaena circinalis*	*Anabaena circinalis*	0	0	0	0	0
Cyanobacteria	*Anabaena inaequalis*	*Anabaena inaequalis*	0	0	0	0	0
Cyanobacteria	*Anabaena* sp.	*Anabaena* sp.	0	0	0	0	0
Cyanobacteria	*Aphanocapsa delicatissima*	*Aphanocapsa delicatissima*	0	0	0	0	0
Cyanobacteria	*Leibleinia* sp	*Leibleinia* sp	0	0	0	0	0
Cyanobacteria	*Limnothrix* sp	*Limnothrix* sp	0	0	0	0	0
Cyanobacteria	*Lyngbya* sp	*Lyngbya* sp	0	0	0	3820	0
Cyanobacteria	*Phormidium formosum*	*Phormidium formosum*	0	0	0	0	0
Cyanobacteria	*Phormidium* sp	*Phormidium* sp	0	0	0	0	0
TOTAL			**93778.635**	**53148.635**	**3925.635**	**28669.635**	**29189.635**

Note: cm² - centimetres squared; mL - millilitre

Table 5.2-4B: Periphyton Taxonomic Composition and Density in Streams, 2012 (completed)

Units: Number of cells/cm²		Stream Name	Lower Davidson River	Davidson Ck at Mouth	Upper Ck 705	Fawnie Ck. Trib
		Sample	BI-01-04 QAQC	BI-10-03 QAQC	BI-12--03 QAQC	BI-14-03 QAQC
		Date	09-05-2012	09-10-2012	09-12-2012	09-21-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)				
		Percent Counted				
Taxonomy						
Classification	**Old Name Genera or Species**	**New Name Genera or Species**				
Diatoms	*Achnanthes bioretii* Germain	*Psammothidium bioretii* (Germain) Bukht. & Round	0	0	1172	0
Diatoms	*Achnanthes clevei* Grunow	*Karayevia clevei* (Grunow in Cleve & Grunow) Round & Bukht.	0	0	0	0
Diatoms	*Achnanthes conspicua* Mayer	*Achnanthes conspicua* Mayer	0	0	0	0
Diatoms	*Achnanthes detha* Hohn & Hellerman	Planothidium subatomoides (Hustedt) Round & Bukht.	0	0	4688	0
Diatoms	*Achnanthes exigua* Grunow	Achnanthidium exiguum (Grunow) Czarn.	0	0	0	0
Diatoms	*Achanthes kriegeri* Krasske	*Achanthes kriegeri* Krasske	651	0	9376	0
Diatoms	*Achnanthes lanceolata* (Brebisson) Grunow	Planothidium lanceolatum (Breb.) Round & Bukht.	3906	11720	0	3255
Diatoms	*Achnanthes levanderi* Hustedt	*Psammothidium levanderi* (Hust.) Bukht. & Round	0	1562	0	0
Diatoms	*Achnanthes minutissima* Kuetzing	*Achnanthidium minutissimum* (Kuetzing) Czarn.	3255	14065	32818	44604
Diatoms	*Achnanthes pusillum (Grunow) De Toni*	*Psammothidium pusillum (Grunow) De Toni*	0	0	31646	325
Diatoms	*Achnanthes suchlandtii* Hustedt	*Achnanthes suchlandtii* Hustedt	0	0	7032	0
Diatoms	*Amphora ovalis* (Kuetzing) Kuetzing	*Amphora ovalis* (Kuetzing) Kuetzing	0	0	0	0
Diatoms	*Amphora pediculus* (Kuetzing) Grunow	*Amphora pediculus* (Kuetzing) Grunow	0	0	0	0
Diatoms	*Amphipleura pellucida* Kuetzing	*Amphipleura pellucida* Kuetzing	0	0	0	0
Diatoms	*Anomoeoneis vitrea* (Grunow) Ross	*Brachysira vitrea* (Grunow) R. Ross in B.Hartley	0	0	0	0
Diatoms	*Anomoeoneis zellensis* (Grunow) Cleve	*Brachysira zellensis (Grunow) Round & D.G. Mann*	0	0	0	0
Diatoms	*Asterionella formosa* Hansall	*Asterionella formosa* Hansall	0	0	0	0
Diatoms	*Aulacoseira ambigua* (Grunow) Simonsen	*Aulacoseira ambigua* (Grunow) Simonsen	0	0	0	0
Diatoms	*Aluacoseira crenulata (Ehrenberg) Thwaites*	*Aluacoseira crenulata (Ehrenberg) Thwaites*	0	0	0	0
Diatoms	*Aulacoseira distans* (Ehrenberg) Simonsen	*Aulacoseira distans* (Ehrenberg) Simonsen	0	0	0	0
Diatoms	*Caloneis bacillum* (Grunow) Cleve	*Caloneis bacillum* (Grunow) Cleve	0	0	0	0
Diatoms	*Caloneis silicula* (Ehrenberg) Cleve	*Caloneis ventricosa* (Ehren.) F.Meister	0	0	3516	0

Units: Number of cells/cm²	Stream Name	Lower Davidson River	Davidson Ck at Mouth	Upper Ck 705	Fawnie Ck. Trib
	Sample	BI-01-04 QAQC	BI-10-03 QAQC	BI-12--03 QAQC	BI-14-03 QAQC
	Date	09-05-2012	09-10-2012	09-12-2012	09-21-2012
	Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495
	Volume Received (mL)				
	Percent Counted				
Taxonomy					
Classification	**Old Name Genera or Species**	**New Name Genera or Species**			
Diatoms	*Cocconeis neodiminuta* Krammer *in* Krammer & Lange-Bert.	*Cocconeis diminuta* Pantocsek	0	0	0	325
Diatoms	*Cocconeis placentula* var *lineata* (Ehrenberg) Van Heurck	*Cocconeis placentula* var *lineata* (Ehrenberg) Van Heurck	183626	35162	24613	36139
Diatoms	*Cyclotella bodanica* Grunow	*Cyclotella bodanica* Grunow	0	0	0	651
Diatoms	*Cyclotella ocellata* Pantocsek	*Cyclotella ocellata* Pantocsek	0	0	0	0
Diatoms	*Cymbella affinis* Kuetzing	*Cymbella affinis* Kuetzing	0	0	0	0
Diatoms	*Cymbella caespitosa (Kuetzing) Brun*	*Encyonema caespitosum* Kuetzing	0	0	0	0
Diatoms	*Cymbella cymbiformis Agardh*	*Cymbella cymbiformis Agardh*	0	0	0	0
Diatoms	*Cymbella gracilis* (Ehrenberg) Kuetzing	*Encyonema gracilis* Rabenh.	0	1562	0	0
Diatoms	*Cymbella microcephala* Grunow	*Cymbella microcephala* Grunow	0	0	0	0
Diatoms	*Cymbella naviculiformis* Auersw *ex* Heib.	*Cymbopleura naviculiformis (Auerswald) Krammer*	0	0	0	0
Diatoms	*Cymbella minuta var. silesiaca (*Bleisch ex. Rabenhorst) C.W. Reimer	*Encyonema silesiacum* (Bleisch *ex.* Rabenh.) D.G. Mann in Round, Crawford & Mann	0	0	0	1627
Diatoms	*Cymbella sinuata* W. Greg.	*Reimeria sinuata* (W.Greg) Kociolek & Stoermer	0	17971	3516	976
Diatoms	*Cymbella* sp	*Cymbella* sp Agardh	0	0	0	0
Diatoms	*Diatoma anceps* (Ehrenberg) Grunow	*Meridion anceps* (Ehrenberg) D.M.Williams	0	0	0	0
Diatoms	*Diatoma tenuis* var *elongatum Lyngb.*	*Diatoma tenuis* var *elongatum Lyngb.*	0	0	0	0
Diatoms	*Diatoma mesodon (Ehrenberg) Kuetzing*	*Diatoma mesodon (Ehrenberg) Kuetzing*	0	0	0	9116
Diatoms	*Didymosphaeria germinata* (Lyngyb.) M. Schmidt	*Didymosphaeria germinata* (Lyngyb.) M. Schmidt	0	0	0	0
Diatoms	*Diploneis elliptica* (Kuetzing) Cleve	*Diploneis elliptica* (Kuetzing) Cleve	0	0	0	0
Diatoms	*Diploneis minuta* Petersen	*Diploneis minuta* Petersen	0	0	0	0
Diatoms	*Diploneis modica* Hustedt	*Diploneis modica* Hustedt	0	0	0	0
Diatoms	*Diploneis parma* Cleve	*Diploneis parma* Cleve	0	781	1172	0
Diatoms	*Diploneis puella* (Schumann) Cleve	*Diploneis puella* (Schumann) Cleve	0	0	0	0

Units: Number of cells/cm²		Stream Name	Lower Davidson River	Davidson Ck at Mouth	Upper Ck 705	Fawnie Ck. Trib
		Sample	BI-01-04 QAQC	BI-10-03 QAQC	BI-12--03 QAQC	BI-14-03 QAQC
		Date	09-05-2012	09-10-2012	09-12-2012	09-21-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)				
		Percent Counted				
Taxonomy						
Classification	**Old Name Genera or Species**	**New Name Genera or Species**				
Diatoms	*Epithemia adnata* (Kuetzing) Brebisson	*Epithemia adnata* (Kuetzing) Brebisson	13283	781	94939	1302
Diatoms	*Eunotia arcus* Ehrenberg	*Eunotia arcus* Ehrenberg	0	0	0	0
Diatoms	*Eunotia incisa* W. Smith	*Eunotia incisa* W. Smith	0	0	23441	0
Diatoms	*Eunotia naegelii* Migula	*Eunotia naegeli* Migula	0	0	2344	0
Diatoms	*Eunotia paludosa var trincaria* (Krasske) Norpel	*Eunotia paludosa var trincaria* (Krasske) Norpel	0	0	2344	0
Diatoms	*Eunotia pectinalis* (O. Mull.) Rabenhorst	*Eunotia pectinalis* (O. Mull.) Rabenhorst	1302	781	2344	651
Diatoms	*Eunotia praerupta* Ehrenberg	*Eunotia praerupta* Ehrenberg	0	0	0	0
Diatoms	*Eunotia* spp	*Eunotia* spp	0	0	0	0
Diatoms	*Fragilaria brevistriata* Grunow	*Pseudostaurosira brevistriata* (Grunow in VanHeurck) D.M. Williams & Round	2604	781	0	0
Diatoms	*Fragilaria capucina* Desmazieres	*Fragilaria capucina* Desmazieres	0	0	0	0
Diatoms	*Fragilaria construens* (Ehrenberg) Grunow	*Staurosira construens* Ehrenberg	0	0	0	0
Diatoms	*Fragilaria construens* var. *venter (*Ehrenberg) Grunow	*Staurosira construens* var. *venter* (Ehrenb.) P.B.Ham. In Hamilton, Poulin, Charles & Angell	0	3125	0	651
Diatoms	*Fragilaria lepostauron* (Ehrenberg) Hustedt	*Staurosirella lepostauron* (Ehreb.) D.M. Williams & Round	0	781	0	0
Diatoms	*Fragilaria pinnata* (Ehrenberg)	Staurosirella pinnata (Ehreb.) D.M. Williams & Round	0	0	1172	1627
Diatoms	*Fragilaria vaucheriae* (Kuetzing) J.B.Petersen	*Fragilaria vaucheriae* (Kuetzing) J.B.Petersen	5860	3125	11720	325
Diatoms	*Fragilaria virescens* var. *exigua*	*Fragilariforma virescens* var exigua (Ralfs) D.M. Williams & Round	0	0	0	0
Diatoms	*Fragilaria virescens* Ralfs	*Fragilariforma virescens* (Ralfs) D.M. Williams & Round	0	0	0	0
Diatoms	*Frustulia rhomboides* (Ehrenberg) de Toni	*Frustulia rhomboides* (Ehrenberg) de Toni	651	781	12892	0
Diatoms	*Frustulia rhomboides var. amphipleuroides* (Grunow) De Toni	*Frustulia rhomboides var. amphipleuroides* (Grunow) De Toni	0	0	0	0
Diatoms	*Frustulia rhomboides var. saxonica* (Ehrenberg) de Toni	*Frustulia rhomboides var. saxonica* (Ehrenberg) de Toni	0	0	0	0
Diatoms	*Gomphonema acuminatum* Ehrenberg	*Gomphonema acuminatum* Ehrenberg	0	2344	0	651
Diatoms	*Gomphonema angustatum* (Kuetzing) Rabenhorst	*Gomphonema angustatum* (Kuetzing) Rabenhorst	0	0	0	0

Units: Number of cells/cm²		Stream Name	Lower Davidson River	Davidson Ck at Mouth	Upper Ck 705	Fawnie Ck. Trib
		Sample	BI-01-04 QAQC	BI-10-03 QAQC	BI-12--03 QAQC	BI-14-03 QAQC
		Date	09-05-2012	09-10-2012	09-12-2012	09-21-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)				
		Percent Counted				
Taxonomy						
Classification	**Old Name Genera or Species**	**New Name Genera or Species**				
Diatoms	*Gomphonema clavatum* Ehrenberg	*Gomphonema clavatum* Ehrenberg	0	14065	4688	1953
Diatoms	*Gomphonema entolejum* Oestrup	*Gomphonema entolejum* Oestrup	0	11720	0	651
Diatoms	*Gomphonema gracile* Ehrenberg	*Gomphonema gracile* Ehrenberg	0	0	0	0
Diatoms	*Gomphonema minutum* (Agardh) Agardh	*Gomphonema minutum* (Agardh) Agardh	651	0	0	0
Diatoms	*Gomphonema olivaceum* (Lyngb.) Kuetzing	Gomphoneis olivacea (Horenemann) P.A.Dawson	0	0	0	0
Diatoms	*Gomphonema parvulum* (Kuetzing) Kuetzing	*Gomphonema parvulum* (Kuetzing) Kuetzing	6511	165654	21097	0
Diatoms	*Gomphonema pumilum* (Grunow) Reichardt & Lange-Bertalot	*Gomphonema pumilum* (Grunow) Reichardt & Lange-Bertalot	651	9376	17581	0
Diatoms	*Gomphonema* sp.	*Gomphonema* sp.	0	0	0	0
Diatoms	*Gomphonema truncatum Ehrenberg*	*Gomphonema truncatum Ehrenberg*	0	0	0	0
Diatoms	*Gomphonema ventricosum* Gregory	*Gomphonema ventricosum* Gregory	0	0	0	0
Diatoms	*Gyrosigma acuminatum* (Kuetzing) Rabenhorst	*Gyrosigma acuminatum* (Kuetzing) Rabenhorst	0	0	0	0
Diatoms	*Hannaea arcus* (Ehrenberg) R.M.Patrick	*Hannaea arcus* (Ehrenberg) R.M.Patrick	0	0	0	7813
Diatoms	*Hantzschia amphioxys* (Ehrenberg) Grunow	*Hantzschia amphioxys* (Ehrenberg) Grunow	0	0	0	0
Diatoms	*Meridion circulare* (Greville) C. Agardh	*Meridion circulare* (Greville) C. Agardh	4558	24223	2344	325
Diatoms	*Meridion circulare* var. *constrictum (Ralfs) Van Heurck*	*Meridion circulare* var. *constrictum (Ralfs) Van Heurck*	0	0	0	0
Diatoms	*Navicula amphibola* Cleve	*Navicula amphibola* Cleve	0	0	0	0
Diatoms	*Navicula canalis* R.M. Patrick	*Navicula canalis* R.M. Patrick	0	1562	4688	325
Diatoms	*Navicula capitatoradiata* Germain	*Navicula capitatoradiata* Germain	0	0	0	0
Diatoms	*Navicula cari* Ehrenberg	*Navicula cari* Ehrenberg	0	0	0	0
Diatoms	*Navicula cryptocephala* Kuetzing	*Navicula cryptocephala* Lange-Bert.	0	0	2344	0
Diatoms	*Navicula cryptotenella* Lange-Bertalot	*Navicula cryptotenella* Lange-Bertalot	651	7032	28130	325
Diatoms	*Navicula capitata* Ehrenberg	Hippodonta capiata (Ehreb.) Lange-Bert., Metzeeltin & Witkowski	0	781	0	0
Diatoms	*Navicula decussis* Oestrup	*Geissleria decussis* (Oestrup) Lange-Bert. & Metzeltin in Lange-Bert.	0	0	0	0

Units: Number of cells/cm²		Stream Name	Lower Davidson River	Davidson Ck at Mouth	Upper Ck 705	Fawnie Ck. Trib
		Sample	BI-01-04 QAQC	BI-10-03 QAQC	BI-12--03 QAQC	BI-14-03 QAQC
		Date	09-05-2012	09-10-2012	09-12-2012	09-21-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)				
		Percent Counted				
Taxonomy						
Classification	**Old Name Genera or Species**	**New Name Genera or Species**				
Diatoms	*Navicula detenta Hustedt*	*Navicula detenta Hustedt*	0	0	0	0
Diatoms	*Navicula gregaria* Donkin	*Navicula gregaria* Donkin	1302	2344	0	0
Diatoms	*Navicula jaernefeltii Hustedt*	*Cavincula jaernefeltiii (Hustedt) D.G.Mann & Stickle in Round, Crawford & Mann*	0	0	1172	0
Diatoms	*Navicvula lenzii* Hustedt	*Navicvula lenzii* Hustedt	0	0	0	0
Diatoms	*Navicula lepostriata* Jorgensen	*Navicula lepostriata* Jorgensen	0	0	0	0
Diatoms	*Navicula mediocris* Krasske	*Navicula mediocris* Krasske	0	0	1172	0
Diatoms	*Navicula menisculus* Schumann	*Navicula menisculus* Schumann	651	781	0	0
Diatoms	*Navicula minima* Grunow	*Eolimna minima (Grunow)* Lange-Bertalot	0	0	0	0
Diatoms	*Navicula mutica* Kuetzing	*Luticola mutica* (Kuetzing) D.G.Mann *in* Round, Crawford & Mann	0	0	0	0
Diatoms	*Navicula pseudoscutiformis* Hustedt	Cavincula pseudoscutiformis (Hustedt) D.G. Mann & Stickle in Round, Crawford & Mann	0	0	0	0
Diatoms	*Navicula pupula* Kuetzing	Sellaphora mutata (Kuetz.) Mereschk	0	0	0	0
Diatoms	*Navicula radiosa* Kuetzing	*Navicula radiosa* Kuetzing	0	0	1172	0
Diatoms	*Navicula rhynchocephala* Kuetzing	*Navicula rhynchocephala* Kuetzing	0	0	0	0
Diatoms	*Navicula saprophila* Lange-Bertalot	*Navicula saprophila* Lange-Bertalot	0	781	0	0
Diatoms	*Navicula schroeterii* Meister	*Navicula schroeterii* Meister	0	0	0	0
Diatoms	*Navicula slevicensis* Grunow in Van Heurck	*Navicula slevicensis* Grunow in Van Heurck	0	0	0	0
Diatoms	*Navicula subtilissima* Cleve	*Kobayasia subtilissima* (Cleve) Lange-Bert.	0	0	0	0
Diatoms	*Navicula tenelloides* Hustedt	*Navicula tenelloides* Hustedt	0	1562	0	325
Diatoms	*Navicula tripunctata* (O.F. Mueller) Bory	*Navicula tripunctata* (O.F. Mueller) Bory	0	0	0	0
Diatoms	*Navicula trivialis* Lange-Bartalot	*Navicula trivialis* Lange-Bartalot	0	0	0	0
Diatoms	*Navicula veneta Kuetzing*	*Navicula veneta Kuetzing*	0	0	0	0
Diatoms	*Navicula* sp	*Navicula* sp	0	0	0	0
Diatoms	*Neidium affine* (Ehrenberg) Pfitzer	*Neidium affine* (Ehrenberg) Pfitzer	0	0	0	0

Units: Number of cells/cm²		Stream Name	Lower Davidson River	Davidson Ck at Mouth	Upper Ck 705	Fawnie Ck. Trib
		Sample	BI-01-04 QAQC	BI-10-03 QAQC	BI-12--03 QAQC	BI-14-03 QAQC
		Date	09-05-2012	09-10-2012	09-12-2012	09-21-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)				
		Percent Counted				
Taxonomy						
Classification	**Old Name Genera or Species**	**New Name Genera or Species**				
Diatoms	*Neidium bindeformis* (Ehrenberg) Hustedt	*Neidium bindeformis* (Ehrenberg) Hustedt	0	0	0	0
Diatoms	*Neidium dubium* (Ehrenberg) Cleve	*Neidium dubium* (Ehrenberg) Cleve	0	0	0	0
Diatoms	*Nitzschia acicularis* (Kuetzing) W. Smith	*Nitzschia acicularis* (Kuetzing) W. Smith	0	0	0	0
Diatoms	*Nitzschia angustatula* Lange-Bertalot	*Nitzschia angustatula* Lange-Bertalot	0	0	0	0
Diatoms	*Nitzschia brevissima* Grunow	*Nitzschia brevissima* Grunow	0	0	0	0
Diatoms	*Nitzschia dissipata* (Kuetzing) Grunow	*Nitzschia dissipata* (Kuetzing) Grunow	5209	21097	1172	0
Diatoms	*Nitzschia fonticola* Grunow	*Nitzschia fonticola* Grunow	0	0	0	0
Diatoms	*Nitzschia frustulum* (Kuetzing) Grunow	*Nitzschia frustulum* (Kuetzing) Grunow	0	0	0	0
Diatoms	*Nitzschia gracilis* Hantzsch	*Nitzschia gracilis* Hantzsch	2604	1562	0	13999
Diatoms	*Nitzschia heufleriana* Grunow	*Nitzschia heufleriana* Grunow	0	0	0	0
Diatoms	*Nitzschia linearis* (Agardh) W. Smith	*Nitzschia linearis* (Agardh) W. Smith	0	0	0	0
Diatoms	*Nitzschia palea* (Kuetzing) W. Smith	*Nitzschia palea* (Kuetzing) W. Smith	0	0	4688	651
Diatoms	*Nitzschia perminuta* (Grunow) M.Perag.	*Nitzschia perminuta* (Grunow) M.Perag.	0	1562	3516	2279
Diatoms	*Nitzschia paleacae* Grunow	*Nitzschia paleacae* Grunow	1302	7032	0	651
Diatoms	*Pinnularia biceps var. pusilla* Camburn & Charles	*Pinnularia biceps var. pusilla* Camburn & Charles	0	0	0	0
Diatoms	*Pinnularia divergentissima* (Grunow) Cleve	*Pinnularia divergentissima* (Grunow) Cleve	0	0	1172	0
Diatoms	*Pinnularia microstauron* var. *adirondackensis* Camburn & Charles	*Pinnularia microstauron* var. *adirondackensis* Camburn & Charles	0	0	0	0
Diatoms	*Pinnularia microstauron* (Ehrenberg) Cleve	*Pinnularia microstauron* (Ehrenberg) Cleve	0	0	0	0
Diatoms	*Pinnularia nodosa (*Ehrenberg) W. Smith	*Pinnularia nodosa (*Ehrenberg) W. Smith	0	0	0	0
Diatoms	*Pinnularia viridis* (Nitzsch) Ehrenberg	*Pinnularia viridis* (Nitzsch) Ehrenberg	0	0	0	0
Diatoms	*Pinnularia* sp.	*Pinnularia* sp.	0	0	0	0
Diatoms	*Rhoicosphenia abbreviata* (Agardh) Lange-Bertalot	*Rhoicosphenia abbreviata* (Agardh) Lange-Bertalot	0	2344	0	0
Diatoms	*Rhopalodia gibba* (Ehrenberg) O. Muller	*Rhopalodia gibba* (Ehrenberg) O. Muller	0	0	0	0

Units: Number of cells/cm²		Stream Name	Lower Davidson River	Davidson Ck at Mouth	Upper Ck 705	Fawnie Ck. Trib
		Sample	BI-01-04 QAQC	BI-10-03 QAQC	BI-12--03 QAQC	BI-14-03 QAQC
		Date	09-05-2012	09-10-2012	09-12-2012	09-21-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)				
		Percent Counted				
Taxonomy						
Classification	**Old Name Genera or Species**	**New Name Genera or Species**				
Diatoms	*Stauroneis anceps* Ehrenberg	*Stauroneis anceps* Ehrenberg	0	0	0	0
Diatoms	*Stephanodiscus niagarae* Ehrenberg	*Stephanodiscus niagarae* Ehrenberg	0	0	0	0
Diatoms	*Surirella amphioxys* W. Smith	*Surirella biseriata var. bifrons fo. amphioxys (W. Smith) Hustedt*	651	0	0	0
Diatoms	*Surirella angusta* Kuetzing	*Surirella angusta* Kuetzing	0	0	0	0
Diatoms	*Surirella biseriata* Breb. & Godey	*Surirella biseriata* Breb. & Godey	0	0	0	0
Diatoms	*Surirella patella* Kuetzing	*Surirella patella* Kuetzing	0	0	0	0
Diatoms	*Synedra filiformis* Grunow	*Synedra filiformis* Grunow	0	0	0	0
Diatoms	*Synedra rumpens* Kuetzing	*Synedra rumpens* Kuetzing	12372	15627	21097	9767
Diatoms	*Synedra ulna* (Nitzsch) Ehr.	*Synedra ulna* (Nitzsch) Ehr.	16930	23441	12892	26371
Diatoms	*Tabellaria flocculosa* (Roth) Kuetzing	*Tabellaria flocculosa* (Roth) Kuetzing	0	0	3516	0
Diatoms	*Tetracyclus glans* (Ehrenberg) Mills	*Tetracyclus glans* (Ehrenberg) Mills	0	0	0	0
Chlorophyceae	*Chlamydomonas* sp	*Chlamydomonas* sp	0	0	0	0
Chlorophyceae	*Cladophora* sp	*Cladophora* sp	0	0	0	0
Chlorophyceae	*Mougeotia* sp	*Mougeotia* sp	0	0	0	0
Chlorophyceae	*Oocystis solitaria* Wittrock	*Oocystis solitaria* Wittrock	0	0	0	0
Chlorophyceae	*Schizothrix* sp	*Schizothrix* sp	0	0	0	0
Chlorophyceae	*Stigeoclonium* sp	*Stigeoclonium* sp	0	0	0	0
Chlorophyceae	*Ulothrix* sp	*Ulothrix* sp	0	0	0	0
Chrysophyceae	*Chromulina* sp.	*Chromulina* sp.	0	0	0	0
Chrysophyceae	*Dinobryon bavaricum* Imhof	*Dinobryon bavaricum* Imhof	0	0	0	0
Chrysophyceae	*Dinobryon* sp (loose monad)	*Dinobryon* sp (loose monad)	0	0	0	0
Chrysophyceae	*Ochromonas* sp	*Ochromonas* sp	0	0	0	0
Chrysophyceae	Unidentified naked Chrysophyte sp (*Ochromonas*/*Chromulina*)	Unidentified naked Chrysophyte sp (*Ochromonas*/*Chromulina*)	0	0	0	0

Units: Number of cells/cm²		Stream Name	Lower Davidson River	Davidson Ck at Mouth	Upper Ck 705	Fawnie Ck. Trib
		Sample	BI-01-04 QAQC	BI-10-03 QAQC	BI-12--03 QAQC	BI-14-03 QAQC
		Date	09-05-2012	09-10-2012	09-12-2012	09-21-2012
		Area Sampled (cm^2)	19.63495	19.63495	19.63495	19.63495
		Volume Received (mL)				
		Percent Counted				
Taxonomy						
Classification	**Old Name Genera or Species**	**New Name Genera or Species**				
Cryptophyceae	*Katablepharis ovalis Skuja*	*Katablepharis ovalis Skuja*	0	0	0	0
Cryptophyceae	*Rhodomonas minuta* Skuja	*Rhodomonas minuta* Skuja	0	0	0	0
Cyanobacteria	*Anabaena circinalis* Rabenhorst	*Anabaena circinalis* Rabenhorst	0	0	0	0
Cyanobacteria	*Anabaena inaequalis* (Kuetzing) Bornet & Flahault	*Anabaena inaequalis* (Kuetzing) Bornet & Flahault	0	0	0	0
Cyanobacteria	*Anabaena* sp.	*Anabaena* sp.	0	0	0	0
Cyanobacteria	*Aphanocapsa delicatissima* West & West	*Aphanocapsa delicatissima* West & West	0	0	0	0
Cyanobacteria	*Leibleinia* sp	*Leibleinia* sp	0	0	0	0
Cyanobacteria	*Limnothrix* sp	*Limnothrix* sp	0	0	0	0
Cyanobacteria	*Lyngbya* sp	*Lyngbya* sp	0	0	0	0
Cyanobacteria	*Phormidium formosum* (Bory ex Gomont) Anagnostidis et Komarek	*Phormidium formosum* (Bory ex Gomont) Anagnostidis et Komarek	0	0	0	0
Cyanobacteria	*Phormidium* sp	*Phormidium* sp	0	0	0	0
TOTAL	**TOTAL**		**269181**	**407868**	**403186**	**167660**

Note: cm² - centimetres squared; mL - millilitre

Appendix 5.3-1
Benthic Macroinvertebrate Taxonomic Composition and Density in Streams, 2011-2012

Table 5.3-1A: Stream Benthic Macroinvetebrate Taxonomic Composition and Density in Streams, 2011

Stream Name	Upper Davidson Creek					Lower Davidson Creek				
Site	UDC-1	UDC-2	UDC-3	UDC-4	UDC-5	LDC-1	LDC-2	LDC-3	LDC-4	LDC-5
Date	08-31-2011	08-31-2011	08-31-2011	09-01-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011
Percent Sampled (%)	14	13	12	9	10	7	9	10	12	12
TAXONOMY										
Phylum: Arthropoda										
Subphylum: Hexapoda										
| Class: Insecta										
| Order: Ephemeroptera										
| Family: Ameletidae										
Ameletus sp.	3	1			1		1			
| Family: Baetidae										
Baetis bicaudatus	2	3				4	3	2	4	1
Baetis sp.	3			1	1	6	3	4	5	4
Baetis tricaudatus	6	7	4	4	3	10	11	15	13	14
| Family: Ephemerellidae	6	3		3	2	16	6	18	21	13
Caudatella sp.			1			19	16	15	19	27
Drunella coloradensis	1	1	3	3	6	4	4	4	2	3
Drunella doddsi	47	39	44	38	37	25	24	32	6	25
Drunella grandis		1								
Drunella spinifera										
Ephemerella sp.							1			
Serratella sp.	1	1	1					4	1	
| Family: Heptageniidae	6	6	8	7	6	11	12	5	10	19
Cinygmula sp.	18	8	9	7	9	8	5	7	9	3
Epeorus sp.	61	52	83	88	74	56	63	67	60	50
Ironodes sp.										
Rhithrogena sp.	28	38	21	27	24	6	10	7	4	6
| Family: Leptophlebiidae										
Paraleptophlebia sp.	5	6	1	2	9	1	2	2	1	1
| Order: Plecoptera			1		1	1			1	2
| Family: Capniidae	11	4	2	9	6	3	1		3	
| Family: Chloroperlidae					1					
Alloperla fraterna	3	4	3	2		2		1		
Kathroperla sp.										
Paraperla sp.	1	1			2	3				1

Stream Name	Upper Davidson Creek					Lower Davidson Creek				
Site	UDC-1	UDC-2	UDC-3	UDC-4	UDC-5	LDC-1	LDC-2	LDC-3	LDC-4	LDC-5
Date	08-31-2011	08-31-2011	08-31-2011	09-01-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011
Percent Sampled (%)	14	13	12	9	10	7	9	10	12	12
Suwallia sp.	2	1	3	2	5	1		1	3	
Sweltsa sp.	11	7	11	8	7	9	9	13	7	16
| Family: Leuctridae	2	6	11	6	2	6	2	2	3	3
| Family: Nemouridae										
Visoka cataractae	5	1	1		6	1		1	3	2
Zapada cinctipes										
Zapada oregonensis group										
Zapada sp.	16	31	38	43	43	15	14	19	16	16
| Family: Perlidae										
Hesperoperla sp.										
| Family: Perlodidae	7	5	4	2	1	11	4	11	13	6
Diura sp.										
Isoperla sp.										
Megarcys sp.	1	1		1	5			1		
Skwala sp.									1	1
| Family: Pteronarcyidae							1		1	2
Pteronarcys sp.	1		1	1		2	4	7	8	3
| Family: Taeniopterygidae	17	8	12	11	9	2	2			
Taenionema sp.										
| Order: Trichoptera						1				
| Family: Brachycentridae	1									
Micrasema sp.	1	3			2	5	3	1	9	3
| Family: Glossosomatidae										
Glossosoma sp.	2		4	3	2	1	2	2	1	2
| Family: Hydropsychidae			1	1		6	5	14	9	3
Hydropsyche sp.										
Parapsyche sp.		1	2	2	4					1
| Family: Hydroptilidae										
Hydroptila sp.										
| Family: Lepidostomatidae										
Lepidostoma sp.										
| Family: Limnephilidae										
Cryptochia sp.										
Dicosmoecus sp.										

Stream Name	Upper Davidson Creek					Lower Davidson Creek				
Site	UDC-1	UDC-2	UDC-3	UDC-4	UDC-5	LDC-1	LDC-2	LDC-3	LDC-4	LDC-5
Date	08-31-2011	08-31-2011	08-31-2011	09-01-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011
Percent Sampled (%)	14	13	12	9	10	7	9	10	12	12
Ecclisocosmoecus scylla										
| Family: Philopotamidae										
Dolophilodes sp.										
| Family: Rhyacophilidae										
Rhyacophila sp.	31	32	28	28	29	23	21	24	14	22
| Family: Uenoidae										
Neothremma sp.		1								
| Order: Coleoptera									1	
| Family: Dytiscidae					1					
Oreodytes sp.										
| Subfamily: Hydroporinae										
| Family: Elmidae	2					10	4	3	2	5
Heterlimnius sp.		4		2		4	2	3	2	1
Optioservus sp.										
| Family: Hydraenidae										
Hydraena sp. (Adult)										
| Family: Hydrophilidae										
| Family: Staphylinidae										
| Order: Diptera					2					
| Family: Ceratopogonidae										
Bezzia/ Palpomyia										
Mallochohelea										2
Probezzia sp.	2		1	1	2					1
Sphaeromias sp.										
| Family: Chironomidae										
| Subfamily: Chironominae										
| Tribe: Chironomini										
Polypedilum sp.										
Zavrelia sp.	3							4	4	4
| Tribe: Tanytarsini										
Micropsectra sp.	5	5		5	7	4	12			1
Paratanytarsus sp.										
Stempellina sp.										
| Subfamily: Diamesinae										

Stream Name	Upper Davidson Creek					Lower Davidson Creek				
Site	UDC-1	UDC-2	UDC-3	UDC-4	UDC-5	LDC-1	LDC-2	LDC-3	LDC-4	LDC-5
Date	08-31-2011	08-31-2011	08-31-2011	09-01-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011
Percent Sampled (%)	14	13	12	9	10	7	9	10	12	12
| Tribe: Diamesini										
Diamesa sp.										
Pagastia sp.		1	2	5					1	
Potthastia longimana group										
| Subfamily: Orthocladiinae										
Brillia sp.	3	3		4		5	7			
Cardiocladius sp.						3				
Cricotopus sp.										
Eukiefferiella sp.					3	3	6	12	17	7
Heterotrissocladius sp.						1				
Orthocladius complex		3	4	3	5	9	5	4	3	4
Parametriocnemus sp.										
Rheocricotopus sp.	6	7	4	6	4		6			2
Synorthocladius sp.	2	1	2	3	4	2		2	3	5
Thienemanniella										
Tvetenia sp.						6	5			6
| Tribe: Corynoneurini										
Corynoneura sp.										
| Subfamily: Tanypodinae										
| Tribe: Pentaneurini										
Thienemannimyia group										
Zavrelimyia sp.										
| Family: Empididae										
Chelifera/ Metachela	1			1		4	9	8	5	3
Clinocera sp.										
Hemerodromia sp.			1							
Oreogeton sp.	1		1	1		2	2	5	2	
| Family: Psychodidae										
Pericoma sp.										
| Family: Simuliidae		1			2			1		
Prosimulium sp.	1	1	4	3	8	10	26	19	15	9
Simulium sp.				1						
| Family: Tipulidae	2									
Dicranota sp.		1	1		1	1				1

Stream Name	Upper Davidson Creek					Lower Davidson Creek				
Site	UDC-1	UDC-2	UDC-3	UDC-4	UDC-5	LDC-1	LDC-2	LDC-3	LDC-4	LDC-5
Date	08-31-2011	08-31-2011	08-31-2011	09-01-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011
Percent Sampled (%)	14	13	12	9	10	7	9	10	12	12
Hexatoma sp.										
Limnophila sp.										
Rhabdomastix sp.									1	
Tipula sp.										
| Order: Lepidoptera	1									1
| Class: Entognatha										
| Order: Collembola										
Subphylum: Crustacea										
| Class: Ostracoda	2				2				1	
| Class: Copepoda										
| Class: Malacostraca										
| Order: Amphipoda										
| Family: Gammaridae										
Gammarus sp.										
Subphylum: Chelicerata										
| Class: Arachnida										
| Order: Trombidiformes	1	1			1			1	2	
| Family: Aturidae										
Aturus sp.										1
| Family: Hydryphantidae										
Protzia sp.				2	1					
Wandesia sp.			1							
| Family: Hygrobatidae										
Hygrobates sp.					1					
| Family: Lebertiidae										
Lebertia sp.			1				1	4	4	3
| Family: Mideopsidae										
Mideopsis sp.										
| Family: Oxidae										
Oxus sp.										
| Family: Sperchontidae										
Sperchon sp.	1	1	1	1	1	2	2	2	2	2
Sperchonopsis sp.										
| Family: Torrenticolidae										

Stream Name	Upper Davidson Creek					Lower Davidson Creek				
Site	UDC-1	UDC-2	UDC-3	UDC-4	UDC-5	LDC-1	LDC-2	LDC-3	LDC-4	LDC-5
Date	08-31-2011	08-31-2011	08-31-2011	09-01-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011
Percent Sampled (%)	14	13	12	9	10	7	9	10	12	12
Torrenticola sp.	3	1		2	1	4	5	4	2	2
Suborder: Prostigmata										
| Order: Sarcoptiformes										
| Family: Hydrozetidae					2					1
Phylum: Mollusca										
| Class: Bivalvia										
| Order: Veneroida										
| Family: Sphaeriidae										
Pisidium sp.										
| Class: Gastropoda										
| Order: Basommatophora										
| Family: Lymnaeidae										
Lymnaea sp.										
| Order: Heterostropha										
| Family: Valvatidae										
| Order: Hypsogastropoda										
| Family: Hydrobiidae										
Phylum: Annelida										
Subphylum: Clitellata										
| Class: Oligochaeta										
| Order: Lumbriculida										
| Family: Lumbriculidae						1	1			2
Rhynchelmis sp.										
| Order: Tubificida										
| Family: Naididae	1									
| Family: Tubificidae										
Phylum: Nemata		1	1	1						
Phylum: Platyhelminthes										
| Class: Turbellaria					1					
| Order: Tricladida										
| Family: Planariidae										
Polycelis coronata										
Phylum: Cnidaria										
| Class: Hydrozoa										

Stream Name	Upper Davidson Creek					Lower Davidson Creek				
Site	UDC-1	UDC-2	UDC-3	UDC-4	UDC-5	LDC-1	LDC-2	LDC-3	LDC-4	LDC-5
Date	08-31-2011	08-31-2011	08-31-2011	09-01-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011	08-31-2011
Percent Sampled (%)	14	13	12	9	10	7	9	10	12	12
| Order: Anthoathecatae										
| Family: Hydridae										
Hydra sp.										
Totals:	336	303	321	340	346	329	322	351	314	312

Table 5.3-1A: Stream Benthic Macroinvetebrate Taxonomic Composition and Density in Streams, 2011 (continued)

Stream Name	Creek 704454					Upper Creek 661				
Site	KM15-1	KM15-2	KM15-3	KM15-4	KM15-5	U661-1	U661-2	U661-3	U661-4	U661-5
Date	09-04-2011	09-04-2011	09-04-2011	09-04-2011	09-04-2011	09-03-2011	09-03-2011	09-03-2011	09-03-2011	09-03-2011
Percent Sampled (%)	26	29	40	25	36	13	25	16	16	11
TAXONOMY										
Phylum: Arthropoda										
Subphylum: Hexapoda										
| Class: Insecta										
| Order: Ephemeroptera										
| Family: Ameletidae										
Ameletus sp.	1		1	1	2	2	3	3	4	
| Family: Baetidae										
Baetis bicaudatus	4					3	6	5		
Baetis sp.										
Baetis tricaudatus						11	9	8		16
| Family: Ephemerellidae			3		2	6	11	5	16	8
Caudatella sp.										
Drunella coloradensis										
Drunella doddsi						19	14	38	32	13
Drunella grandis		5	3	2	5	1	3	5	6	2
Drunella spinifera										
Ephemerella sp.									10	7
Serratella sp.									3	
| Family: Heptageniidae									11	
Cinygmula sp.	10	5	7	8	17	52	30	34	20	49
Epeorus sp.	17	19	15	10	14	31	26	27	17	31
Ironodes sp.										
Rhithrogena sp.	5	14	11	12	17					
| Family: Leptophlebiidae										
Paraleptophlebia sp.	4	7	7	7		14	13	12	14	16
| Order: Plecoptera										
| Family: Capniidae		9	5		4	5	4	7	12	11
| Family: Chloroperlidae			7				13	13		6
Alloperla fraterna										
Kathroperla sp.		2				2	3	3	2	
Paraperla sp.										
Suwallia sp.										

Stream Name	Creek 704454					Upper Creek 661				
Site	KM15-1	KM15-2	KM15-3	KM15-4	KM15-5	U661-1	U661-2	U661-3	U661-4	U661-5
Date	09-04-2011	09-04-2011	09-04-2011	09-04-2011	09-04-2011	09-03-2011	09-03-2011	09-03-2011	09-03-2011	09-03-2011
Percent Sampled (%)	26	29	40	25	36	13	25	16	16	11
TAXONOMY										
Sweltsa sp.	10	13	16	50	14	17	15	10	10	11
| Family: Leuctridae	1	6	2	7	9		5	2		9
| Family: Nemouridae										
Visoka cataractae	6	14	11	18	20					
Zapada cinctipes	55	67	67	41	44					
Zapada oregonensis group	15	16	22	19	18	29	24	23	7	9
Zapada sp.	8									
| Family: Perlidae										
Hesperoperla sp.										
| Family: Perlodidae	9		5	5		8	17	14	26	16
Diura sp.										
Isoperla sp.										
Megarcys sp.			2		6	1	1			
Skwala sp.										3
| Family: Pteronarcyidae										
Pteronarcys sp.						3	3	13		1
| Family: Taeniopterygidae										
Taenionema sp.						7	6	13		
| Order: Trichoptera										
| Family: Brachycentridae										
Micrasema sp.	17	11	10	21	12	4	3	5	22	4
| Family: Glossosomatidae										
Glossosoma sp.		2					3	3	11	
| Family: Hydropsychidae										
Hydropsyche sp.										
Parapsyche sp.	2	2	3			1	1	2		
| Family: Hydroptilidae										
Hydroptila sp.										
| Family: Lepidostomatidae										
Lepidostoma sp.										
| Family: Limnephilidae										
Cryptochia sp.										
Dicosmoecus sp.										

Stream Name	Creek 704454					Upper Creek 661				
Site	KM15-1	KM15-2	KM15-3	KM15-4	KM15-5	U661-1	U661-2	U661-3	U661-4	U661-5
Date	09-04-2011	09-04-2011	09-04-2011	09-04-2011	09-04-2011	09-03-2011	09-03-2011	09-03-2011	09-03-2011	09-03-2011
Percent Sampled (%)	26	29	40	25	36	13	25	16	16	11
TAXONOMY										
Ecclisocosmoecus scylla	1			1						
| Family: Philopotamidae										
Dolophilodes sp.										
| Family: Rhyacophilidae										
Rhyacophila sp.	59	42	27	34	46	29	42	46	15	35
| Family: Uenoidae										
Neothremma sp.	12	9	26	38	29					
| Order: Coleoptera					1					
| Family: Dytiscidae										
Oreodytes sp.										
| Subfamily: Hydroporinae										1
| Family: Elmidae										
Heterlimnius sp.			2			10	9	3	15	10
Optioservus sp.										
| Family: Hydraenidae										
Hydraena sp. (Adult)										
| Family: Hydrophilidae		1								
| Family: Staphylinidae				1						
| Order: Diptera					2	1	1			
| Family: Ceratopogonidae										
Bezzia/ Palpomyia							1	1		
Mallochohelea										
Probezzia sp.										
Sphaeromias sp.										
| Family: Chironomidae										
| Subfamily: Chironominae										
| Tribe: Chironomini										
Polypedilum sp.										
Zavrelia sp.	6			1		15	6	4	3	5
| Tribe: Tanytarsini										
Micropsectra sp.	1	2				2	3		4	
Paratanytarsus sp.										
Stempellina sp.										

Stream Name	Creek 704454					Upper Creek 661				
Site	KM15-1	KM15-2	KM15-3	KM15-4	KM15-5	U661-1	U661-2	U661-3	U661-4	U661-5
Date	09-04-2011	09-04-2011	09-04-2011	09-04-2011	09-04-2011	09-03-2011	09-03-2011	09-03-2011	09-03-2011	09-03-2011
Percent Sampled (%)	26	29	40	25	36	13	25	16	16	11
TAXONOMY										
| Subfamily: Diamesinae										
| Tribe: Diamesini										
Diamesa sp.										
Pagastia sp.	8	5	7	14	16			1		4
Potthastia longimana group										
| Subfamily: Orthocladiinae										
Brillia sp.		2								
Cardiocladius sp.										
Cricotopus sp.				2	18					
Eukiefferiella sp.		6	1	4				4		2
Heterotrissocladius sp.	1		1	1		2	28	6	3	3
Orthocladius complex		6	6	4						
Parametriocnemus sp.										
Rheocricotopus sp.										
Synorthocladius sp.	1								1	
Thienemanniella							1			
Tvetenia sp.		9	9			4			7	
| Tribe: Corynoneurini										
Corynoneura sp.					1	1				1
| Subfamily: Tanypodinae									1	
| Tribe: Pentaneurini										
Thienemannimyia group						2				
Zavrelimyia sp.	1		1							1
| Family: Empididae										
Chelifera/ Metachela						3		1		1
Clinocera sp.										
Hemerodromia sp.										
Oreogeton sp.	8	6	12	4			8	2	2	
| Family: Psychodidae										
Pericoma sp.										
| Family: Simuliidae										3
Prosimulium sp.	9	4	5	6		2		7	3	1
Simulium sp.										

Stream Name	Creek 704454					Upper Creek 661				
Site	KM15-1	KM15-2	KM15-3	KM15-4	KM15-5	U661-1	U661-2	U661-3	U661-4	U661-5
Date	09-04-2011	09-04-2011	09-04-2011	09-04-2011	09-04-2011	09-03-2011	09-03-2011	09-03-2011	09-03-2011	09-03-2011
Percent Sampled (%)	26	29	40	25	36	13	25	16	16	11
TAXONOMY										
| Family: Tipulidae										
Dicranota sp.	1					4	2	3	2	4
Hexatoma sp.										
Limnophila sp.										
Rhabdomastix sp.										
Tipula sp.	1									
| Order: Lepidoptera			1							
| Class: Entognatha										
| Order: Collembola										
Subphylum: Crustacea										
| Class: Ostracoda	1	1		1	1	1	1	1	1	1
| Class: Copepoda										
| Class: Malacostraca										
| Order: Amphipoda										
| Family: Gammaridae										
Gammarus sp.										
Subphylum: Chelicerata										
| Class: Arachnida										
| Order: Trombidiformes						2	5			
| Family: Aturidae										
Aturus sp.										
| Family: Hydryphantidae										
Protzia sp.										
Wandesia sp.							1			
| Family: Hygrobatidae										
Hygrobates sp.										
| Family: Lebertiidae										
Lebertia sp.	13	5	7	6	4			9	12	5
| Family: Mideopsidae										
Mideopsis sp.										
| Family: Oxidae										
Oxus sp.										
| Family: Sperchontidae										

Stream Name	Creek 704454					Upper Creek 661				
Site	KM15-1	KM15-2	KM15-3	KM15-4	KM15-5	U661-1	U661-2	U661-3	U661-4	U661-5
Date	09-04-2011	09-04-2011	09-04-2011	09-04-2011	09-04-2011	09-03-2011	09-03-2011	09-03-2011	09-03-2011	09-03-2011
Percent Sampled (%)	26	29	40	25	36	13	25	16	16	11
TAXONOMY										
Sperchon sp.	8	8	5	3	8	10	9	8	16	11
Sperchonopsis sp.										
| Family: Torrenticolidae										
Torrenticola sp.		7	4	3	3	5	8	7	12	4
Suborder: Prostigmata										
| Order: Sarcoptiformes										
| Family: Hydrozetidae						3				
Phylum: Mollusca										
| Class: Bivalvia										
| Order: Veneroida										
| Family: Sphaeriidae										
Pisidium sp.							3			2
| Class: Gastropoda							1			
| Order: Basommatophora										
| Family: Lymnaeidae										
Lymnaea sp.										
| Order: Heterostropha										
| Family: Valvatidae										
| Order: Hypsogastropoda										
| Family: Hydrobiidae										
Phylum: Annelida										
Subphylum: Clitellata										
| Class: Oligochaeta					1					
| Order: Lumbriculida										
| Family: Lumbriculidae	2	2		6						
Rhynchelmis sp.										
| Order: Tubificida										
| Family: Naididae										
| Family: Tubificidae				4						
Phylum: Nemata		1				1				1
Phylum: Platyhelminthes										
| Class: Turbellaria						1	1		1	
| Order: Tricladida										

Stream Name	Creek 704454					Upper Creek 661				
Site	KM15-1	KM15-2	KM15-3	KM15-4	KM15-5	U661-1	U661-2	U661-3	U661-4	U661-5
Date	09-04-2011	09-04-2011	09-04-2011	09-04-2011	09-04-2011	09-03-2011	09-03-2011	09-03-2011	09-03-2011	09-03-2011
Percent Sampled (%)	26	29	40	25	36	13	25	16	16	11
TAXONOMY										
| Family: Planariidae										
Polycelis coronata	1	1	1	1	1					
Phylum: Cnidaria										
| Class: Hydrozoa										
| Order: Anthoathecatae										
| Family: Hydridae										
Hydra sp.										
Totals:	298	309	312	335	315	314	343	348	321	307

Table 5.3-1A: Stream Benthic Macroinvetebrate Taxonomic Composition and Density in Streams, 2011 (continued)

Stream Name	Lower Creek 661					Turtle Creek				
Site	L661-1	L661-2	L661-3	L661-4	L661-5	TC-1	TC-2	TC-3	TC-4	TC-5
Date	09-02-2011	09-02-2011	09-02-2011	09-02-2011	09-02-2011	09-01-2011	09-01-2011	09-01-2011	09-01-2011	09-01-2011
Percent Sampled (%)	13	12	15	7	6	5	8	5	6	5
TAXONOMY										
Phylum: Arthropoda										
Subphylum: Hexapoda										
| Class: Insecta										
| Order: Ephemeroptera										
| Family: Ameletidae										
Ameletus sp.	6	6	9	5	1	3	3	2	1	2
| Family: Baetidae										1
Baetis bicaudatus		5	18	13	6	2	3	3	3	5
Baetis sp.	19					31	49	72	53	74
Baetis tricaudatus	1	3	11	15	15	15	24	17	22	9
| Family: Ephemerellidae	32	15	39	32	26	5	8	5	9	5
Caudatella sp.	1									
Drunella coloradensis										
Drunella doddsi	16	6	13	15	19		1			1
Drunella grandis		2	2	2	2			2	1	4
Drunella spinifera										
Ephemerella sp.	1		7	14	12	1		5	3	
Serratella sp.						2	2	2	2	
| Family: Heptageniidae		37				15	6	7	8	18
Cinygmula sp.	31	34	35	35	16					
Epeorus sp.	23	20	19	12	9	1				1
Ironodes sp.									1	
Rhithrogena sp.	7									
| Family: Leptophlebiidae										
Paraleptophlebia sp.	17	9	10		13	3	3			1
| Order: Plecoptera	1					1		1	2	1
| Family: Capniidae	8	10		10		14	12	6	12	29
| Family: Chloroperlidae										
Alloperla fraterna										
Kathroperla sp.		1								
Paraperla sp.				1						
Suwallia sp.										

Stream Name	Lower Creek 661					Turtle Creek				
Site	L661-1	L661-2	L661-3	L661-4	L661-5	TC-1	TC-2	TC-3	TC-4	TC-5
Date	09-02-2011	09-02-2011	09-02-2011	09-02-2011	09-02-2011	09-01-2011	09-01-2011	09-01-2011	09-01-2011	09-01-2011
Percent Sampled (%)	13	12	15	7	6	5	8	5	6	5
TAXONOMY										
Sweltsa sp.	8	15	14	6	8		1	1	1	
| Family: Leuctridae	2									
| Family: Nemouridae										
Visoka cataractae										
Zapada cinctipes										
Zapada oregonensis group		11	11	14	14					
Zapada sp.	28				18	54	58	70	54	77
| Family: Perlidae										
Hesperoperla sp.								1		
| Family: Perlodidae	8			5	10	3	8	3		7
Diura sp.			2	1						
Isoperla sp.	3				2					
Megarcys sp.										
Skwala sp.		4				1	3		1	
| Family: Pteronarcyidae										
Pteronarcys sp.		1	3	5	2					
| Family: Taeniopterygidae							2			5
Taenionema sp.	13	28	18	21	15					
| Order: Trichoptera	1									2
| Family: Brachycentridae	1									
Micrasema sp.			4	6	6	1	1	8	2	3
| Family: Glossosomatidae						1				
Glossosoma sp.	5			7	4					
| Family: Hydropsychidae										
Hydropsyche sp.							1	1	1	1
Parapsyche sp.										
| Family: Hydroptilidae										
Hydroptila sp.										
| Family: Lepidostomatidae										
Lepidostoma sp.										
| Family: Limnephilidae									1	
Cryptochia sp.										
Dicosmoecus sp.				2	2		1			

Stream Name	Lower Creek 661					Turtle Creek				
Site	L661-1	L661-2	L661-3	L661-4	L661-5	TC-1	TC-2	TC-3	TC-4	TC-5
Date	09-02-2011	09-02-2011	09-02-2011	09-02-2011	09-02-2011	09-01-2011	09-01-2011	09-01-2011	09-01-2011	09-01-2011
Percent Sampled (%)	13	12	15	7	6	5	8	5	6	5
TAXONOMY										
Ecclisocosmoecus scylla										
| Family: Philopotamidae										
Dolophilodes sp.								1		
| Family: Rhyacophilidae										
Rhyacophila sp.	18	21	27	33	40	11	14	5	7	12
| Family: Uenoidae										
Neothremma sp.										
| Order: Coleoptera										
| Family: Dytiscidae										
Oreodytes sp.									1	
| Subfamily: Hydroporinae										
| Family: Elmidae						23	40	22	31	31
Heterlimnius sp.	26	18	29	18	33	21	19	21	20	8
Optioservus sp.						1	7	1	2	2
| Family: Hydraenidae										
Hydraena sp. (Adult)										
| Family: Hydrophilidae										
| Family: Staphylinidae										
| Order: Diptera						1				
| Family: Ceratopogonidae										
Bezzia/ Palpomyia			1		1					
Mallochohelea	1									
Probezzia sp.						2				
Sphaeromias sp.						1				
| Family: Chironomidae										
| Subfamily: Chironominae										
| Tribe: Chironomini										
Polypedilum sp.						12				
Zavrelia sp.	1	14	8	4	4					
| Tribe: Tanytarsini										
Micropsectra sp.	1	3				34	8			6
Paratanytarsus sp.										
Stempellina sp.	2	35				8	5			

Stream Name	Lower Creek 661					Turtle Creek				
Site	L661-1	L661-2	L661-3	L661-4	L661-5	TC-1	TC-2	TC-3	TC-4	TC-5
Date	09-02-2011	09-02-2011	09-02-2011	09-02-2011	09-02-2011	09-01-2011	09-01-2011	09-01-2011	09-01-2011	09-01-2011
Percent Sampled (%)	13	12	15	7	6	5	8	5	6	5
TAXONOMY										
| Subfamily: Diamesinae										
| Tribe: Diamesini										
Diamesa sp.	1									
Pagastia sp.			5			5				
Potthastia longimana group										
| Subfamily: Orthocladiinae										
Brillia sp.			3							
Cardiocladius sp.							7			
Cricotopus sp.										
Eukiefferiella sp.		8	2	5	5			1	4	
Heterotrissocladius sp.										
Orthocladius complex	4			13	9	7	5	6	5	8
Parametriocnemus sp.										
Rheocricotopus sp.						5				
Synorthocladius sp.										
Thienemanniella										4
Tvetenia sp.	5		3		5		8	6	5	4
| Tribe: Corynoneurini										
Corynoneura sp.	2	2				3			2	
| Subfamily: Tanypodinae										
| Tribe: Pentaneurini										
Thienemannimyia group						6	2	1	2	2
Zavrelimyia sp.							1			2
| Family: Empididae										
Chelifera/ Metachela			1		2	2	2	1	2	3
Clinocera sp.									1	
Hemerodromia sp.										
Oreogeton sp.		1	3	1	2					
| Family: Psychodidae										
Pericoma sp.										
| Family: Simuliidae	1									
Prosimulium sp.	4	4	3	1						
Simulium sp.	2					1	8	3	1	2

Stream Name	Lower Creek 661					Turtle Creek				
Site	L661-1	L661-2	L661-3	L661-4	L661-5	TC-1	TC-2	TC-3	TC-4	TC-5
Date	09-02-2011	09-02-2011	09-02-2011	09-02-2011	09-02-2011	09-01-2011	09-01-2011	09-01-2011	09-01-2011	09-01-2011
Percent Sampled (%)	13	12	15	7	6	5	8	5	6	5
TAXONOMY										
| Family: Tipulidae										
Dicranota sp.	4	1	1	1	2	1	1			2
Hexatoma sp.										
Limnophila sp.								1		
Rhabdomastix sp.										
Tipula sp.		1								
| Order: Lepidoptera									1	
| Class: Entognatha										
| Order: Collembola										
Subphylum: Crustacea										
| Class: Ostracoda	1	1	1	1	1	1	2	1	1	1
| Class: Copepoda						1				
| Class: Malacostraca										
| Order: Amphipoda										
| Family: Gammaridae										
Gammarus sp.						2			1	2
Subphylum: Chelicerata										
| Class: Arachnida										
| Order: Trombidiformes	1					3				
| Family: Aturidae										
Aturus sp.						2				
| Family: Hydryphantidae										
Protzia sp.										
Wandesia sp.										
| Family: Hygrobatidae										
Hygrobates sp.	3			1		1	1	1		1
| Family: Lebertiidae										
Lebertia sp.				2		5	3	9	5	6
| Family: Mideopsidae										
Mideopsis sp.										
| Family: Oxidae										
Oxus sp.										
| Family: Sperchontidae										

Stream Name	Lower Creek 661					Turtle Creek				
Site	L661-1	L661-2	L661-3	L661-4	L661-5	TC-1	TC-2	TC-3	TC-4	TC-5
Date	09-02-2011	09-02-2011	09-02-2011	09-02-2011	09-02-2011	09-01-2011	09-01-2011	09-01-2011	09-01-2011	09-01-2011
Percent Sampled (%)	13	12	15	7	6	5	8	5	6	5
TAXONOMY										
Sperchon sp.	2	4	2		2		2	1		
Sperchonopsis sp.										
| Family: Torrenticolidae										
Torrenticola sp.			2				1	1	2	
Suborder: Prostigmata		4								
| Order: Sarcoptiformes										
| Family: Hydrozetidae	1		4							
Phylum: Mollusca										
| Class: Bivalvia										
| Order: Veneroida										
| Family: Sphaeriidae						10	36	33	35	50
Pisidium sp.	1	4	1		1	1				
| Class: Gastropoda										
| Order: Basommatophora										
| Family: Lymnaeidae										
Lymnaea sp.										
| Order: Heterostropha										
| Family: Valvatidae	1									
| Order: Hypsogastropoda										
| Family: Hydrobiidae										
Phylum: Annelida										
Subphylum: Clitellata										
| Class: Oligochaeta										
| Order: Lumbriculida										
| Family: Lumbriculidae			1							
Rhynchelmis sp.										
| Order: Tubificida										
| Family: Naididae						4	1			
| Family: Tubificidae				2						
Phylum: Nemata		1	1			1	4	1	1	
Phylum: Platyhelminthes										
| Class: Turbellaria						1	24	1	1	1
| Order: Tricladida										

Stream Name	Lower Creek 661					Turtle Creek				
Site	L661-1	L661-2	L661-3	L661-4	L661-5	TC-1	TC-2	TC-3	TC-4	TC-5
Date	09-02-2011	09-02-2011	09-02-2011	09-02-2011	09-02-2011	09-01-2011	09-01-2011	09-01-2011	09-01-2011	09-01-2011
Percent Sampled (%)	13	12	15	7	6	5	8	5	6	5
TAXONOMY										
| Family: Planariidae										
Polycelis coronata		1								
Phylum: Cnidaria										
| Class: Hydrozoa										
| Order: Anthoathecatae										
| Family: Hydridae										
Hydra sp.				1						
Totals:	314	330	313	304	307	329	387	323	307	393

Table 5.3-1A: Stream Benthic Macroinvetebrate Taxonomic Composition and Density in Streams, 2011 (continued)

Stream Name	Creek 705					Creek 700				
Site	705-1	705-2	705-3	705-4	705-5	700-1	700-2	700-3	700-4	700-5
Date	08-29-2011	08-29-2011	08-29-2011	08-29-2011	08-29-2011	08-30-2011	08-30-2011	08-30-2011	08-30-2011	08-30-2011
Percent Sampled (%)	9	13	13	22	14	18	33	19	25	15
TAXONOMY										
Phylum: Arthropoda										
Subphylum: Hexapoda										
| Class: Insecta										
| Order: Ephemeroptera										
| Family: Ameletidae										
Ameletus sp.	2		1		1	9	20	8	4	7
| Family: Baetidae										
Baetis bicaudatus	1	2	1	2	3	5	3	4	2	2
Baetis sp.	5	3	5	6	4	7	6	9	11	10
Baetis tricaudatus	6	11	6	5	5	6	4	5	8	4
| Family: Ephemerellidae	1					3		1	4	5
Caudatella sp.				3						
Drunella coloradensis		1	3	2	1					
Drunella doddsi	44	53	60	80	50	9	16	17	20	14
Drunella grandis	1			1	1					
Drunella spinifera										
Ephemerella sp.								2		
Serratella sp.		1								
| Family: Heptageniidae	22	16	16	11	19	14	12	8	12	21
Cinygmula sp.	13	10	13	10	19	4	13	4	12	9
Epeorus sp.	47	81	52	47	71	24	23	6	16	8
Ironodes sp.										
Rhithrogena sp.	5	11	12	13	16	4	4	5	6	10
| Family: Leptophlebiidae										
Paraleptophlebia sp.	17	18	17	6	19	51	66	35	43	75
| Order: Plecoptera	3	3		1		1			2	
| Family: Capniidae	9	8	4	5	4	7	4	2		3
| Family: Chloroperlidae										
Alloperla fraterna		4	3	1						
Kathroperla sp.										
Paraperla sp.										

Stream Name	Creek 705					Creek 700				
Site	705-1	705-2	705-3	705-4	705-5	700-1	700-2	700-3	700-4	700-5
Date	08-29-2011	08-29-2011	08-29-2011	08-29-2011	08-29-2011	08-30-2011	08-30-2011	08-30-2011	08-30-2011	08-30-2011
Percent Sampled (%)	9	13	13	22	14	18	33	19	25	15
TAXONOMY										
Suwallia sp.				5	4			1	3	1
Sweltsa sp.	9	14	17	13	13	6	21	12	8	10
| Family: Leuctridae	4	1	4	2	4	4	17	9	9	14
| Family: Nemouridae										
Visoka cataractae	1	2	1	2	1	15	6	7	10	6
Zapada cinctipes										
Zapada oregonensis group										
Zapada sp.	18	39	13	29	15	53	36	31	39	49
| Family: Perlidae										
Hesperoperla sp.										
| Family: Perlodidae	19	10	8	9	11	4	3	4	2	1
Diura sp.										
Isoperla sp.										
Megarcys sp.								2	1	1
Skwala sp.										
| Family: Pteronarcyidae	1	2	1	1						
Pteronarcys sp.		1	2	1						
| Family: Taeniopterygidae						2			1	
Taenionema sp.										
| Order: Trichoptera	1			3		1	1		1	
| Family: Brachycentridae										
Micrasema sp.				1	1	1		5	2	2
| Family: Glossosomatidae										
Glossosoma sp.		1	3		1					
| Family: Hydropsychidae	1		2	2	1					
Hydropsyche sp.										
Parapsyche sp.						1	5	2	2	5
| Family: Hydroptilidae										
Hydroptila sp.										
| Family: Lepidostomatidae										
Lepidostoma sp.						3		3	3	
| Family: Limnephilidae										
Cryptochia sp.	1						1			

Stream Name	Creek 705					Creek 700				
Site	705-1	705-2	705-3	705-4	705-5	700-1	700-2	700-3	700-4	700-5
Date	08-29-2011	08-29-2011	08-29-2011	08-29-2011	08-29-2011	08-30-2011	08-30-2011	08-30-2011	08-30-2011	08-30-2011
Percent Sampled (%)	9	13	13	22	14	18	33	19	25	15
TAXONOMY										
Dicosmoecus sp.						1				
Ecclisocosmoecus scylla							1		1	
| Family: Philopotamidae										
Dolophilodes sp.										
| Family: Rhyacophilidae										
Rhyacophila sp.	30	35	29	29	24	18	39	43	36	36
| Family: Uenoidae										
Neothremma sp.						8	5	8	6	4
| Order: Coleoptera	1				1			3		
| Family: Dytiscidae								2		
Oreodytes sp.										
| Subfamily: Hydroporinae										
| Family: Elmidae	6	3	5	3	3					
Heterlimnius sp.	8	6	2	6	7					
Optioservus sp.						1				
| Family: Hydraenidae										
Hydraena sp. (Adult)						1				
| Family: Hydrophilidae										
| Family: Staphylinidae										
| Order: Diptera									1	
| Family: Ceratopogonidae										
Bezzia/ Palpomyia										
Mallochohelea				1						
Probezzia sp.					1					
Sphaeromias sp.										
| Family: Chironomidae										
| Subfamily: Chironominae										
| Tribe: Chironomini										
Polypedilum sp.										
Zavrelia sp.	3	1	1		3	2	2	1	3	4
| Tribe: Tanytarsini										
Micropsectra sp.					1					
Paratanytarsus sp.										

Stream Name	Creek 705					Creek 700				
Site	705-1	705-2	705-3	705-4	705-5	700-1	700-2	700-3	700-4	700-5
Date	08-29-2011	08-29-2011	08-29-2011	08-29-2011	08-29-2011	08-30-2011	08-30-2011	08-30-2011	08-30-2011	08-30-2011
Percent Sampled (%)	9	13	13	22	14	18	33	19	25	15
TAXONOMY										
Stempellina sp.										
| Subfamily: Diamesinae										
| Tribe: Diamesini										
Diamesa sp.										
Pagastia sp.										
Potthastia longimana group										
| Subfamily: Orthocladiinae										
Brillia sp.	2	6	6		4	42	19	17	6	16
Cardiocladius sp.										
Cricotopus sp.						2		4	6	8
Eukiefferiella sp.						3	4			6
Heterotrissocladius sp.	2				1	1	1	5	5	9
Orthocladius complex		1	4	2	7					
Parametriocnemus sp.	2									
Rheocricotopus sp.	2	6								
Synorthocladius sp.	3		2	3	4					
Thienemanniella										
Tvetenia sp.	2		2			8				
| Tribe: Corynoneurini										
Corynoneura sp.										
| Subfamily: Tanypodinae										
| Tribe: Pentaneurini										
Thienemannimyia group			1					1		
Zavrelimyia sp.										
| Family: Empididae										
Chelifera/ Metachela		1	1	1		7	6	13	2	5
Clinocera sp.										
Hemerodromia sp.										
Oreogeton sp.	7	2	1	6	2	2	4	12	15	4
| Family: Psychodidae										
Pericoma sp.										
| Family: Simuliidae										
Prosimulium sp.			2							

Stream Name	Creek 705					Creek 700				
Site	705-1	705-2	705-3	705-4	705-5	700-1	700-2	700-3	700-4	700-5
Date	08-29-2011	08-29-2011	08-29-2011	08-29-2011	08-29-2011	08-30-2011	08-30-2011	08-30-2011	08-30-2011	08-30-2011
Percent Sampled (%)	9	13	13	22	14	18	33	19	25	15
TAXONOMY										
Simulium sp.		1		2						
| Family: Tipulidae								1		
Dicranota sp.		1	3	2		3	7	3	1	4
Hexatoma sp.										
Limnophila sp.										
Rhabdomastix sp.										
Tipula sp.	1									
| Order: Lepidoptera										
| Class: Entognatha										
| Order: Collembola						1		1	1	1
Subphylum: Crustacea										
| Class: Ostracoda						6	1	1	1	1
| Class: Copepoda										
| Class: Malacostraca										
| Order: Amphipoda										
| Family: Gammaridae										
Gammarus sp.										
Subphylum: Chelicerata										
| Class: Arachnida										
| Order: Trombidiformes						1				
| Family: Aturidae										
Aturus sp.										
| Family: Hydryphantidae										
Protzia sp.								1		1
Wandesia sp.										
| Family: Hygrobatidae										
Hygrobates sp.	1	1		1	1		1	1		
| Family: Lebertiidae										
Lebertia sp.				1	4	2	1	1		
| Family: Mideopsidae										
Mideopsis sp.			1							1
| Family: Oxidae										
Oxus sp.								1		

Stream Name	Creek 705					Creek 700				
Site	705-1	705-2	705-3	705-4	705-5	700-1	700-2	700-3	700-4	700-5
Date	08-29-2011	08-29-2011	08-29-2011	08-29-2011	08-29-2011	08-30-2011	08-30-2011	08-30-2011	08-30-2011	08-30-2011
Percent Sampled (%)	9	13	13	22	14	18	33	19	25	15
TAXONOMY										
| Family: Sperchontidae										
Sperchon sp.	1			1		1	6	5	2	3
Sperchonopsis sp.										
| Family: Torrenticolidae										
Torrenticola sp.	8	3	6	2	3	3		1		
Suborder: Prostigmata										
| Order: Sarcoptiformes										
| Family: Hydrozetidae	1			1		3	7		2	
Phylum: Mollusca										
| Class: Bivalvia										
| Order: Veneroida										
| Family: Sphaeriidae										
Pisidium sp.										
| Class: Gastropoda										
| Order: Basommatophora										
| Family: Lymnaeidae										
Lymnaea sp.										
| Order: Heterostropha										
| Family: Valvatidae										1
| Order: Hypsogastropoda										
| Family: Hydrobiidae						1				
Phylum: Annelida										
Subphylum: Clitellata										
| Class: Oligochaeta										
| Order: Lumbriculida										
| Family: Lumbriculidae						2	1		4	
Rhynchelmis sp.									1	
| Order: Tubificida										
| Family: Naididae								1		
| Family: Tubificidae										
Phylum: Nemata	1		1			1	1	1		
Phylum: Platyhelminthes										
| Class: Turbellaria										

Stream Name	Creek 705					Creek 700				
Site	705-1	705-2	705-3	705-4	705-5	700-1	700-2	700-3	700-4	700-5
Date	08-29-2011	08-29-2011	08-29-2011	08-29-2011	08-29-2011	08-30-2011	08-30-2011	08-30-2011	08-30-2011	08-30-2011
Percent Sampled (%)	9	13	13	22	14	18	33	19	25	15
TAXONOMY										
| Order: Tricladida										
| Family: Planariidae										
Polycelis coronata										
Phylum: Cnidaria										
| Class: Hydrozoa										
| Order: Anthoathecatae										
| Family: Hydridae										
Hydra sp.										
Totals:	312	359	311	322	330	354	367	309	314	361

Table 5.3-1A: Stream Benthic Macroinvetebrate Taxonomic Composition and Density in Streams, 2011 (completed)

Stream Name	Chedakuz Creek				
Site	CH-1	CH-2	CH-3	CH-4	CH-5
Date	09-21-2011	09-21-2011	09-21-2011	09-21-2011	09-21-2011
Percent Sampled (%)	2	2	2	2	2
TAXONOMY					
Phylum: Arthropoda					
Subphylum: Hexapoda					
| Class: Insecta					
| Order: Ephemeroptera					
| Family: Ameletidae					
Ameletus sp.					
| Family: Baetidae					
Baetis bicaudatus	35	18	9	14	11
Baetis sp.					
Baetis tricaudatus					
| Family: Ephemerellidae					
Caudatella sp.					
Drunella coloradensis					
Drunella doddsi					
Drunella grandis					
Drunella spinifera	2				1
Ephemerella sp.	570	565	590	502	470
Serratella sp.					
| Family: Heptageniidae	5				
Cinygmula sp.					
Epeorus sp.					
Ironodes sp.					
Rhithrogena sp.					
| Family: Leptophlebiidae					
Paraleptophlebia sp.	30	12	17	8	9
| Order: Plecoptera					
| Family: Capniidae					
| Family: Chloroperlidae					
Alloperla fraterna					
Kathroperla sp.					
Paraperla sp.					
Suwallia sp.					
Sweltsa sp.	1		5		
| Family: Leuctridae					
| Family: Nemouridae					
Visoka cataractae					
Zapada cinctipes	26	24	22	19	34
Zapada oregonensis group					
Zapada sp.					
| Family: Perlidae					
Hesperoperla sp.			1	2	
| Family: Perlodidae	41	42	17	23	12
Diura sp.					
Isoperla sp.		9			
Megarcys sp.					
Skwala sp.	3	10	3		
| Family: Pteronarcyidae					
Pteronarcys sp.				1	
| Family: Taeniopterygidae					

Stream Name	Chedakuz Creek				
Site	CH-1	CH-2	CH-3	CH-4	CH-5
Date	09-21-2011	09-21-2011	09-21-2011	09-21-2011	09-21-2011
Percent Sampled (%)	2	2	2	2	2
TAXONOMY					
Taenionema sp.					
| Order: Trichoptera					
| Family: Brachycentridae					
Micrasema sp.	15	18	19	34	13
| Family: Glossosomatidae					
Glossosoma sp.				1	
| Family: Hydropsychidae					
Hydropsyche sp.					
Parapsyche sp.					
| Family: Hydroptilidae					
Hydroptila sp.	19	13	11	7	5
| Family: Lepidostomatidae					
Lepidostoma sp.	2	3			
| Family: Limnephilidae	2				
Cryptochia sp.					
Dicosmoecus sp.				1	
Ecclisocosmoecus scylla					
| Family: Philopotamidae					
Dolophilodes sp.					
| Family: Rhyacophilidae					
Rhyacophila sp.	1	1		5	4
| Family: Uenoidae					
Neothremma sp.					
| Order: Coleoptera					
| Family: Dytiscidae					
Oreodytes sp.					
| Subfamily: Hydroporinae					
| Family: Elmidae					
Heterlimnius sp.	55	34	28	39	18
Optioservus sp.					
| Family: Hydraenidae					
Hydraena sp. (Adult)					
| Family: Hydrophilidae					
| Family: Staphylinidae					
| Order: Diptera					
| Family: Ceratopogonidae					
Bezzia/ Palpomyia					
Mallochohelea					
Probezzia sp.					
Sphaeromias sp.					
| Family: Chironomidae					
| Subfamily: Chironominae					
| Tribe: Chironomini					
Polypedilum sp.	3				
Zavrelia sp.			7	7	3
| Tribe: Tanytarsini					
Micropsectra sp.	29	4	2		
Paratanytarsus sp.	5	39	4	4	7
Stempellina sp.					
| Subfamily: Diamesinae					
| Tribe: Diamesini					
Diamesa sp.					

Stream Name	Chedakuz Creek				
Site	CH-1	CH-2	CH-3	CH-4	CH-5
Date	09-21-2011	09-21-2011	09-21-2011	09-21-2011	09-21-2011
Percent Sampled (%)	2	2	2	2	2
TAXONOMY					
Pagastia sp.				3	2
Potthastia longimana group				1	
| Subfamily: Orthocladiinae					
Brillia sp.					
Cardiocladius sp.					
Cricotopus sp.	23	13	7	34	9
Eukiefferiella sp.		5		5	
Heterotrissocladius sp.	1				
Orthocladius complex	17	10	26	14	13
Parametriocnemus sp.					
Rheocricotopus sp.					
Synorthocladius sp.					
Thienemanniella					
Tvetenia sp.					
| Tribe: Corynoneurini					
Corynoneura sp.					
| Subfamily: Tanypodinae					
| Tribe: Pentaneurini					
Thienemannimyia group		6	4		6
Zavrelimyia sp.					
| Family: Empididae					
Chelifera/ Metachela	1				1
Clinocera sp.					
Hemerodromia sp.					
Oreogeton sp.					
| Family: Psychodidae					
Pericoma sp.	36	18	15	21	4
| Family: Simuliidae					
Prosimulium sp.					
Simulium sp.			1		
| Family: Tipulidae					
Dicranota sp.					
Hexatoma sp.					1
Limnophila sp.					
Rhabdomastix sp.					
Tipula sp.					
| Order: Lepidoptera					
| Class: Entognatha					
| Order: Collembola					
Subphylum: Crustacea					
| Class: Ostracoda	1			1	
| Class: Copepoda					
| Class: Malacostraca					
| Order: Amphipoda					
| Family: Gammaridae					
Gammarus sp.					
Subphylum: Chelicerata					
| Class: Arachnida					
| Order: Trombidiformes					
| Family: Aturidae					
Aturus sp.					
| Family: Hydryphantidae					

Stream Name	Chedakuz Creek				
Site	CH-1	CH-2	CH-3	CH-4	CH-5
Date	09-21-2011	09-21-2011	09-21-2011	09-21-2011	09-21-2011
Percent Sampled (%)	2	2	2	2	2
TAXONOMY					
Protzia sp.					
Wandesia sp.					
| Family: Hygrobatidae					
Hygrobates sp.					
| Family: Lebertiidae					
Lebertia sp.	2	4			3
| Family: Mideopsidae					
Mideopsis sp.					
| Family: Oxidae					
Oxus sp.					
| Family: Sperchontidae					
Sperchon sp.	8	2			4
Sperchonopsis sp.			2	2	3
| Family: Torrenticolidae					
Torrenticola sp.	14	4	6	8	7
Suborder: Prostigmata					
| Order: Sarcoptiformes					
| Family: Hydrozetidae			3		
Phylum: Mollusca					
| Class: Bivalvia					
| Order: Veneroida					
| Family: Sphaeriidae					
Pisidium sp.	70	50	42	61	35
| Class: Gastropoda					
| Order: Basommatophora					
| Family: Lymnaeidae					
Lymnaea sp.		1			
| Order: Heterostropha					
| Family: Valvatidae					
| Order: Hypsogastropoda					
| Family: Hydrobiidae					
Phylum: Annelida					
Subphylum: Clitellata					
| Class: Oligochaeta					
| Order: Lumbriculida					
| Family: Lumbriculidae	1	4			3
Rhynchelmis sp.					
| Order: Tubificida					
| Family: Naididae					
| Family: Tubificidae					
Phylum: Nemata	1				
Phylum: Platyhelminthes					
| Class: Turbellaria					
| Order: Tricladida					
| Family: Planariidae					
Polycelis coronata	1				
Phylum: Cnidaria					
| Class: Hydrozoa					
| Order: Anthoathecatae					
| Family: Hydridae					
Hydra sp.	1	2			
Totals:	1021	911	841	817	678

Table 5.3-1B: Stream Benthic Macroinvetebrate Taxonomic Composition and Density in Streams, 2012

Stream Name	Davidson near the Mouth					Lower Davidson				
Site	BI-10 Rep 01	BI-10 Rep 02	BI-10 Rep 03	BI-10 Rep 04	BI-10 Rep 05	BI-01 Rep 1	BI-01 Rep 2	BI-01 Rep 3	BI-01 Rep 4	BI-01 Rep 5
Date	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/05/2012	09/05/2012	09/05/2012	09/05/2012	09/05/2012
Percent Sampled (%)	16%	22%	41%	27%	45%	22%	29%	20%	34%	21%
TAXONOMY										
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Subphylum: Hexapoda	0	0	0	0	0	0	0	0	0	0
| Class: Insecta	0	0	0	0	0	0	0	0	0	0
| Order: Ephemeroptera	6	0	0	0	0	0	0	0	0	0
| Family: Ameletidae	0	0	0	0	0	0	0	0	0	0
Ameletus sp.	581	332	120	278	131	18	17	15	12	24
| Family: Baetidae	0	0	0	0	0	0	0	0	0	0
Acentrella sp.	0	0	0	0	0	0	0	0	0	0
Baetis bicaudatus	0	0	0	15	2	9	7	10	3	0
Baetis sp.	131	91	51	63	31	141	124	135	82	143
Baetis tricaudatus	6	5	2	11	4	45	31	60	9	57
Callibaetis sp.	0	0	0	0	0	0	0	0	0	0
Diphetor hageni	0	0	0	0	0	0	0	0	0	0
| Family: Caenidae	0	0	0	0	0	0	0	0	0	0
Caenis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Ephemerellidae	81	82	0	0	16	77	100	175	65	124
Caudatella sp.	0	0	0	0	0	5	14	15	18	10
Drunella coloradensis	6	9	7	4	0	5	10	25	3	0
Drunella doddsii	25	5	5	33	4	18	17	25	26	14
Drunella grandis	0	0	0	0	0	0	0	0	0	0
Drunella sp.	0	0	0	0	0	0	0	0	0	0
Drunella spinifera	0	0	0	0	0	0	0	0	0	0
Ephemerella sp.	13	5	73	52	87	0	3	0	0	5
Serratella sp.	0	0	2	0	0	5	0	0	0	0
| Family: Heptageniidae	231	209	100	141	131	105	128	95	91	105
Cinygmula sp.	44	45	12	11	11	18	3	5	12	5
Epeorus sp.	19	32	10	26	7	59	93	125	109	133

Stream Name	Davidson near the Mouth					Lower Davidson				
Site	BI-10 Rep 01	BI-10 Rep 02	BI-10 Rep 03	BI-10 Rep 04	BI-10 Rep 05	BI-01 Rep 1	BI-01 Rep 2	BI-01 Rep 3	BI-01 Rep 4	BI-01 Rep 5
Date	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/05/2012	09/05/2012	09/05/2012	09/05/2012	09/05/2012
Percent Sampled (%)	16%	22%	41%	27%	45%	22%	29%	20%	34%	21%
TAXONOMY										
Heptagenia sp.	0	0	0	0	0	0	0	0	0	0
Rhithrogena sp.	119	68	54	44	22	32	10	20	35	52
| Family: Leptophlebiidae	0	0	0	0	0	0	0	10	3	5
Leptophlebia sp.	0	0	0	0	0	0	0	0	0	0
Paraleptophlebia sp.	0	0	0	0	0	0	0	0	0	0
| Order: Plecoptera	0	0	0	0	0	0	0	0	0	0
| Family: Capniidae	50	91	27	59	16	14	14	20	3	10
| Family: Chloroperlidae	0	0	0	0	0	0	0	0	0	0
Alloperla fraterna	6	0	0	0	2	0	0	0	0	0
Paraperla sp.	0	0	0	0	0	0	7	0	0	0
Suwallia sp.	31	0	17	7	16	5	3	0	0	5
Sweltsa sp.	125	55	27	48	27	36	3	30	15	29
| Family: Leuctridae	13	5	0	0	0	5	7	5	9	5
| Family: Nemouridae	0	0	0	0	0	0	0	0	0	0
Visoka cataractae	0	0	0	0	0	9	0	0	0	0
Zapada cinctipes	0	0	0	0	0	9	3	0	0	10
Zapada columbiana	0	0	0	4	0	14	10	0	0	0
Zapada oregonensis group	0	0	0	4	2	5	7	0	0	5
Zapada sp.	38	18	5	26	13	23	17	25	18	38
| Family: Perlidae	0	0	0	0	0	0	0	0	0	0
Hesperoperla sp.	0	0	0	0	0	0	0	0	0	0
| Family: Perlodidae	81	59	61	26	40	45	17	35	18	19
Cultus sp.	0	0	0	0	0	0	0	0	0	0
Isoperla sp.	25	14	5	11	16	0	0	0	0	0
Megarcys sp.	0	0	0	0	4	0	0	0	0	0
Skwala sp.	0	0	0	0	0	0	0	0	0	0
| Family: Pteronarcyidae	0	0	0	0	0	5	0	0	0	0
Pteronarcella sp.	0	0	0	0	0	0	0	0	0	0
Pteronarcys sp.	0	0	0	0	0	5	3	0	12	0

Stream Name	Davidson near the Mouth					Lower Davidson				
Site	BI-10 Rep 01	BI-10 Rep 02	BI-10 Rep 03	BI-10 Rep 04	BI-10 Rep 05	BI-01 Rep 1	BI-01 Rep 2	BI-01 Rep 3	BI-01 Rep 4	BI-01 Rep 5
Date	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/05/2012	09/05/2012	09/05/2012	09/05/2012	09/05/2012
Percent Sampled (%)	16%	22%	41%	27%	45%	22%	29%	20%	34%	21%
TAXONOMY										
| Family: Taeniopterygidae	0	0	0	0	0	0	0	0	0	0
Taenionema sp.	400	145	168	181	87	323	145	205	124	310
| Order: Trichoptera	0	0	0	0	0	0	0	0	0	0
| Family: Apataniidae	0	0	0	0	0	0	0	0	0	0
Apatania sp.	0	0	0	0	0	0	0	0	0	0
| Family: Brachycentridae	0	0	0	0	0	0	3	0	0	0
Micrasema sp.	0	0	0	0	0	9	3	15	6	19
| Family: Glossosomatidae	0	0	0	0	0	0	0	0	0	0
Glossosoma sp.	0	0	5	0	2	27	0	15	15	19
| Family: Hydropsychidae	0	5	0	0	0	9	3	0	6	10
Hydropsyche sp.	0	0	0	0	0	0	0	0	0	0
Parapsyche sp.	0	0	0	0	0	5	0	5	0	0
| Family: Hydroptilidae	0	0	0	0	0	0	0	0	0	0
Agraylea sp.	0	0	0	0	0	0	0	0	0	0
Hydroptila sp.	0	0	0	0	0	0	0	0	0	0
Oxyethira sp.	0	0	0	0	0	0	0	0	0	0
| Family: Lepidostomatidae	0	0	0	0	0	0	0	0	0	0
Lepidostoma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Leptoceridae	0	0	0	0	0	0	0	0	0	0
Ceraclea sp.	0	0	0	0	0	0	0	0	0	0
Mystacides sp.	0	0	0	0	0	0	0	0	0	0
Oecetis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Limnephilidae	0	0	0	4	0	5	0	0	0	0
Cryptochia sp.	0	0	0	0	0	0	0	0	0	0
Dicosmoecus sp.	0	0	0	0	0	0	0	0	0	0
Ecclisocosmoecus scylla	0	0	0	0	0	0	0	0	0	0
Limnephilus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Philopotamidae	0	0	0	0	0	0	0	0	0	0

Stream Name	Davidson near the Mouth					Lower Davidson				
Site	BI-10 Rep 01	BI-10 Rep 02	BI-10 Rep 03	BI-10 Rep 04	BI-10 Rep 05	BI-01 Rep 1	BI-01 Rep 2	BI-01 Rep 3	BI-01 Rep 4	BI-01 Rep 5
Date	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/05/2012	09/05/2012	09/05/2012	09/05/2012	09/05/2012
Percent Sampled (%)	16%	22%	41%	27%	45%	22%	29%	20%	34%	21%
TAXONOMY										
Dolophilodes sp.	0	0	0	0	0	0	0	0	0	0
| Family: Phryganeidae	0	0	0	0	0	0	0	0	0	0
Agrypnia sp.	0	0	0	0	0	0	0	0	0	0
| Family: Polycentropodidae	0	0	0	0	0	0	0	0	0	0
Polycentropus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Rhyacophilidae	0	0	0	0	0	0	0	0	3	0
Rhyacophila angelita group	13	5	2	4	0	14	0	10	0	29
Rhyacophila arnaudi	0	0	0	0	0	0	0	0	0	0
Rhyacophila betteni group	6	0	0	0	0	0	0	0	0	0
Rhyacophila brunnea group	6	0	0	0	2	14	3	25	9	5
Rhyacophila narvae	6	0	2	0	0	18	10	20	9	10
Rhyacophila nevadensis group	0	0	0	0	0	0	0	0	0	0
Rhyacophila sp.	0	0	0	7	0	14	28	30	21	24
Rhyacophila vofixa group	0	0	0	0	0	0	0	0	0	0
| Family: Uenoidae	0	0	0	0	0	0	0	0	0	0
Neothremma sp.	0	0	0	0	0	0	0	0	0	0
Oligophlebodes sp.	0	0	0	0	0	0	0	0	0	0
| Order: Coleoptera	0	0	0	0	0	0	0	0	0	0
| Family: Dytiscidae	0	0	0	0	0	0	0	0	0	0
Neoporus sp.	0	0	0	0	0	0	0	0	0	0
Oreodytes sp.	0	0	0	0	0	0	0	0	0	0
| Family: Elmidae	13	0	2	4	2	32	0	5	18	0
Cleptelmis addenda	0	0	0	0	0	0	0	0	0	0
Heterlimnius sp.	57	14	7	19	13	32	24	45	15	34
Optioservus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydrophilidae	0	0	0	0	0	0	0	0	0	0
Hydrobius sp.	0	0	0	0	0	0	0	0	0	0
| Family: Staphylinidae	0	0	0	0	0	0	0	0	0	0

Stream Name	Davidson near the Mouth					Lower Davidson				
Site	BI-10 Rep 01	BI-10 Rep 02	BI-10 Rep 03	BI-10 Rep 04	BI-10 Rep 05	BI-01 Rep 1	BI-01 Rep 2	BI-01 Rep 3	BI-01 Rep 4	BI-01 Rep 5
Date	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/05/2012	09/05/2012	09/05/2012	09/05/2012	09/05/2012
Percent Sampled (%)	16%	22%	41%	27%	45%	22%	29%	20%	34%	21%
TAXONOMY										
| Order: Diptera	6	0	0	0	0	0	0	0	0	0
| Family: Ceratopogonidae	0	0	0	0	0	0	0	0	0	0
Culicoides sp.	0	0	0	0	0	0	0	0	0	0
Mallochohelea	19	0	0	0	0	0	0	0	0	5
Probezzia sp.	0	0	2	0	0	5	3	5	3	0
Sphaeromias sp.	0	0	0	0	0	0	0	0	0	0
| Family: Chaoboridae	0	0	0	0	0	0	0	0	0	0
Chaoborus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Chironomidae	0	0	0	0	4	0	0	0	0	0
| Subfamily: Chironominae	0	0	0	0	0	0	0	0	0	0
| Tribe: Chironomini	0	0	0	0	0	0	0	0	0	0
Chironomus sp.	0	0	0	0	0	0	0	0	0	0
Dicrotendipes sp.	0	0	0	0	0	0	0	0	0	0
Glyptotendipes sp.	0	0	0	0	0	0	0	0	0	0
Microtendipes sp.	0	5	0	0	0	0	0	0	0	0
Pagastiella sp.	0	0	0	0	0	0	0	0	0	0
Polypedilum sp.	13	0	0	0	0	0	0	0	0	0
Zavrelia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Tanytarsini	0	0	0	0	0	0	0	0	0	0
Cladotanytarsus sp.	0	0	0	0	0	0	0	0	0	0
Corynocera sp.	0	0	0	0	0	0	0	0	0	0
Micropsectra sp.	0	0	0	0	0	14	31	0	3	5
Paratanytarsus sp.	0	0	0	0	0	0	0	0	0	0
Rheotanytarsus sp.	0	0	0	0	0	0	0	0	0	0
Stempellina sp.	0	5	0	0	0	0	0	0	0	0
Tanytarsus sp.	0	0	0	0	0	0	0	0	0	0
| Subfamily: Diamesinae	0	0	0	0	0	0	0	0	0	0
| Tribe: Diamesini	0	0	0	0	0	0	0	0	0	0

Stream Name	Davidson near the Mouth					Lower Davidson				
Site	BI-10 Rep 01	BI-10 Rep 02	BI-10 Rep 03	BI-10 Rep 04	BI-10 Rep 05	BI-01 Rep 1	BI-01 Rep 2	BI-01 Rep 3	BI-01 Rep 4	BI-01 Rep 5
Date	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/05/2012	09/05/2012	09/05/2012	09/05/2012	09/05/2012
Percent Sampled (%)	16%	22%	41%	27%	45%	22%	29%	20%	34%	21%
TAXONOMY										
Diamesa sp.	0	0	0	0	0	0	0	0	0	0
Pagastia sp.	0	5	0	0	0	0	3	0	3	0
Potthastia longimana group	0	0	0	0	0	0	0	0	0	0
Pseudodiamesa sp.	0	0	0	0	0	0	0	0	0	0
| Subfamily: Orthocladiinae	0	0	0	4	0	0	0	0	0	0
Brillia sp.	0	0	0	0	4	5	14	20	6	10
Cardiocladius sp.	0	0	0	0	0	41	0	10	12	14
Cricotopus bicinctus group	0	0	0	0	0	0	0	0	0	0
Cricotopus nostocicola	0	0	0	0	0	0	0	0	0	0
Cricotopus sp.	0	0	0	0	0	0	0	0	0	0
Diplocladius cultriger	0	0	0	0	0	0	0	0	0	0
Doithrix sp.	0	0	0	0	0	0	0	0	0	0
Eukiefferiella sp.	0	0	0	0	0	50	21	20	12	24
Heterotrissocladius sp.	0	0	0	0	0	5	0	0	0	0
Hydrobaenus sp.	0	0	0	0	0	0	0	0	0	0
Limnophyes sp.	0	0	0	0	0	0	3	0	0	0
Orthocladius lignicola	0	9	0	0	0	0	0	0	0	0
Orthocladius sp.	0	0	0	0	0	36	0	5	0	0
Parachaetocladius sp.	0	0	0	0	0	0	0	0	0	0
Parakiefferiella sp.	0	0	0	0	0	0	0	0	0	0
Parametriocnemus sp.	0	0	0	0	0	0	0	5	0	0
Parorthocladius sp.	0	0	0	0	0	0	0	0	0	0
Psectrocladius sp.	0	0	0	0	0	0	0	0	0	0
Rheocricotopus sp.	13	0	5	0	0	0	0	0	0	0
Synorthocladius sp.	0	0	0	0	0	0	0	0	0	0
Thienemanniella	0	0	0	0	0	0	0	0	0	0
Tvetenia sp.	0	0	0	7	4	14	14	0	0	14
Zalutschia sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Davidson near the Mouth					Lower Davidson				
Site	BI-10 Rep 01	BI-10 Rep 02	BI-10 Rep 03	BI-10 Rep 04	BI-10 Rep 05	BI-01 Rep 1	BI-01 Rep 2	BI-01 Rep 3	BI-01 Rep 4	BI-01 Rep 5
Date	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/05/2012	09/05/2012	09/05/2012	09/05/2012	09/05/2012
Percent Sampled (%)	16%	22%	41%	27%	45%	22%	29%	20%	34%	21%
TAXONOMY										
| Tribe: Corynoneurini	0	0	0	0	0	0	0	0	0	0
Corynoneura sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Orthocladiini	0	0	0	0	0	0	0	0	0	0
Chaetocladius sp.	0	0	0	0	0	9	0	0	0	0
| Subfamily: Tanypodinae	0	0	0	4	0	0	3	0	0	0
| Tribe: Pentaneurini	0	0	0	0	0	0	0	0	0	0
Zavrelimyia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Procladiini	0	0	0	0	0	0	0	0	0	0
Procladius sp.	0	0	0	0	0	0	0	0	0	0
| Family: Empididae	0	0	0	0	0	0	0	0	0	0
Chelifera/ Metachela	0	0	0	0	0	14	3	10	0	5
Clinocera sp.	0	0	0	0	0	0	0	0	0	0
Oreogeton sp.	0	0	2	4	0	0	7	5	0	5
| Family: Muscidae	0	0	0	0	0	0	0	0	0	0
Limnophora sp.	0	0	0	0	0	0	0	0	0	0
| Family: Psychodidae	0	0	0	0	0	0	0	0	0	0
Pericoma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Simuliidae	0	5	2	0	4	23	24	45	38	33
Prosimulium sp.	0	0	2	0	2	23	55	155	56	71
Simulium sp.	44	18	2	11	4	14	0	0	0	0
| Family: Tabanidae	0	0	0	0	0	0	0	0	0	0
Tabanus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Tipulidae	0	0	0	0	0	0	0	0	0	0
Antocha sp.	0	0	0	0	0	0	0	0	0	0
Dicranota sp.	69	23	5	11	4	0	0	0	0	0
Hexatoma sp.	0	0	0	0	0	0	0	0	0	0
Limnophila sp.	0	5	0	0	0	0	0	0	0	0
Pedicia sp.	0	0	0	0	0	0	0	0	0	0
Rhabdomastix sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Davidson near the Mouth					Lower Davidson				
Site	BI-10 Rep 01	BI-10 Rep 02	BI-10 Rep 03	BI-10 Rep 04	BI-10 Rep 05	BI-01 Rep 1	BI-01 Rep 2	BI-01 Rep 3	BI-01 Rep 4	BI-01 Rep 5
Date	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/05/2012	09/05/2012	09/05/2012	09/05/2012	09/05/2012
Percent Sampled (%)	16%	22%	41%	27%	45%	22%	29%	20%	34%	21%
TAXONOMY										
Tipula sp.	6	5	0	4	2	0	0	0	0	0
| Order: Hemiptera	0	0	0	0	0	0	0	0	0	0
| Family: Corixidae	0	0	0	0	0	0	0	0	0	0
Palmacorixa sp.	0	0	0	0	0	0	0	0	0	0
Sigara sp.	0	0	0	0	0	0	0	0	0	0
Trichocorixa sp.	0	0	0	0	0	0	0	0	0	0
| Order: Lepidoptera	0	0	0	0	0	0	0	0	0	0
| Family: Noctuidae	0	0	0	0	0	0	0	0	0	0
| Order: Megaloptera	0	0	0	0	0	0	0	0	0	0
| Family: Sialidae	0	0	0	0	0	0	0	0	0	0
Sialis sp.	0	0	0	0	0	0	0	0	0	0
| Order: Odonata	0	0	0	0	0	0	0	0	0	0
| Family: Aeshnidae	0	0	0	0	0	0	0	0	0	0
Aeshna sp.	0	0	0	0	0	0	0	0	0	0
| Family: Corduliidae	0	0	0	0	0	0	0	0	0	0
Somatochlora sp.	0	0	0	0	0	0	0	0	0	0
| Class: Entognatha	0	0	0	0	0	0	0	0	0	0
| Order: Collembola	0	0	0	0	0	0	0	0	0	0
Subphylum: Crustacea	0	0	0	0	0	0	0	0	0	0
| Class: Ostracoda	6	0	0	4	0	5	0	0	0	0
| Class: Branchiopoda	0	0	0	0	0	0	0	0	0	0
| Order: Cladocera	0	0	0	0	0	0	0	0	0	0
| Family: Daphniidae	0	0	0	0	0	0	0	0	0	0
Daphnia sp.	0	0	0	0	0	0	0	0	0	0
| Class: Copepoda	0	0	0	0	0	0	0	0	0	33
| Class: Malacostraca	0	0	0	0	0	0	0	0	0	0
| Order: Amphipoda	0	0	0	0	0	0	0	0	0	0
| Family: Gammaridae	0	0	0	0	0	0	0	0	0	0
Gammarus sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Davidson near the Mouth					Lower Davidson				
Site	BI-10 Rep 01	BI-10 Rep 02	BI-10 Rep 03	BI-10 Rep 04	BI-10 Rep 05	BI-01 Rep 1	BI-01 Rep 2	BI-01 Rep 3	BI-01 Rep 4	BI-01 Rep 5
Date	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/05/2012	09/05/2012	09/05/2012	09/05/2012	09/05/2012
Percent Sampled (%)	16%	22%	41%	27%	45%	22%	29%	20%	34%	21%
TAXONOMY										
| Family: Hyalellidae	0	0	0	0	0	0	0	0	0	0
Hyalella sp.	0	0	0	0	0	0	0	0	0	0
Subphylum: Chelicerata	0	0	0	0	0	0	0	0	0	0
| Class: Arachnida	0	0	0	0	0	0	0	0	0	0
| Order: Trombidiformes	0	0	0	0	0	0	0	5	0	0
| Family: Arrenuridae	0	0	0	0	0	0	0	0	0	0
Arrenurus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Aturidae	0	0	0	0	0	0	0	0	0	0
Aturus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydrodromidae	0	0	0	0	0	0	0	0	0	0
Hydrodroma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydryphantidae	0	0	0	0	2	0	0	0	0	0
Protzia sp.	19	5	12	0	2	0	0	0	0	0
| Family: Hygrobatidae	0	0	0	0	0	0	0	0	0	0
Hygrobates sp.	25	45	2	19	9	9	3	0	0	5
| Family: Lebertiidae	0	0	0	0	0	0	0	0	0	0
Lebertia sp.	6	5	5	4	2	5	7	5	6	10
| Family: Limnesiidae	0	0	0	0	0	0	0	0	0	0
Limnesia sp.	0	0	0	0	0	0	0	0	0	0
| Family: Mideopsidae	0	0	0	0	0	0	0	0	0	0
Mideopsis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Oxidae	0	0	0	0	0	0	0	0	0	0
Oxus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Pionidae	0	0	0	0	0	0	0	0	0	0
Piona sp.	0	0	0	0	0	0	0	0	0	0
| Family: Sperchontidae	0	0	0	0	0	0	0	0	0	0
Sperchon sp.	25	0	2	11	4	0	7	0	0	0
Sperchonopsis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Torrenticolidae	0	0	0	0	0	0	0	0	0	0

Stream Name	Davidson near the Mouth					Lower Davidson				
Site	BI-10 Rep 01	BI-10 Rep 02	BI-10 Rep 03	BI-10 Rep 04	BI-10 Rep 05	BI-01 Rep 1	BI-01 Rep 2	BI-01 Rep 3	BI-01 Rep 4	BI-01 Rep 5
Date	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/05/2012	09/05/2012	09/05/2012	09/05/2012	09/05/2012
Percent Sampled (%)	16%	22%	41%	27%	45%	22%	29%	20%	34%	21%
TAXONOMY										
Testudacarus sp.	0	0	2	0	0	0	7	45	12	19
Torrenticola sp.	0	0	0	0	0	14	0	0	0	0
| Family: Unionicolidae	0	0	0	0	0	0	0	0	0	0
Unionicola sp.	0	0	0	0	0	0	0	0	0	0
| Order: Sarcoptiformes	0	0	0	0	0	0	0	0	0	0
| Family: Hydrozetidae	0	0	0	0	2	0	0	0	0	0
Phylum: Mollusca	0	0	0	0	0	0	0	0	0	0
| Class: Bivalvia	0	0	0	0	0	0	0	0	0	0
| Order: Veneroida	0	0	0	0	0	0	0	0	0	0
| Family: Sphaeriidae	6	0	0	0	0	0	0	0	0	0
| Family: Unionoida	0	0	0	0	0	0	0	0	0	0
| Family: Margaritiferidae	0	0	0	0	0	0	0	0	0	0
Margaritifera falcata	0	0	0	0	0	0	0	0	0	0
Pisidium sp.	0	5	2	0	0	0	0	0	0	0
Sphaerium sp.	0	0	0	4	0	0	0	0	0	0
| Class: Gastropoda	0	0	0	0	0	0	0	0	0	0
| Order: Basommatophora	0	0	0	0	0	0	0	0	0	0
Acroloxus coloradensis	0	0	0	0	0	0	0	0	0	0
| Family: Physidae	0	0	0	0	0	0	0	0	0	0
Physa sp.	0	0	0	0	0	0	0	0	0	0
| Family: Planorbidae	0	0	0	0	0	0	0	0	0	0
Gyraulus sp.	0	0	0	0	0	0	0	0	0	0
Menetus opercularis	0	0	0	0	0	0	0	0	0	0
Menetus sp.	0	0	0	0	0	0	0	0	0	0
Promenetus umbilicatellus	0	0	0	0	0	0	0	0	0	0
| Order: Heterostropha	0	0	0	0	0	0	0	0	0	0
| Family: Valvatidae	0	0	0	0	0	0	0	0	0	0
Valvata sincera	0	0	0	0	0	0	0	0	0	0
| Order: Hypsogastropoda	0	0	0	0	0	0	0	0	0	0

Stream Name	Davidson near the Mouth					Lower Davidson				
Site	BI-10 Rep 01	BI-10 Rep 02	BI-10 Rep 03	BI-10 Rep 04	BI-10 Rep 05	BI-01 Rep 1	BI-01 Rep 2	BI-01 Rep 3	BI-01 Rep 4	BI-01 Rep 5
Date	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/05/2012	09/05/2012	09/05/2012	09/05/2012	09/05/2012
Percent Sampled (%)	16%	22%	41%	27%	45%	22%	29%	20%	34%	21%
TAXONOMY										
| Family: Hydrobiidae	0	0	0	0	0	0	0	0	0	0
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
| Class: Hirudinea	0	0	0	0	0	0	0	0	0	0
| Order: Arhynchobdellida	0	0	0	0	0	0	0	0	0	0
| Family: Erpobdellidae	0	0	0	0	0	0	0	0	0	0
Erpobdella sp.	0	0	0	0	0	0	0	0	0	0
| Order: Rhynchobdellida	0	0	0	0	0	0	0	0	0	0
| Family: Glossiphoniidae	0	0	0	0	0	0	0	0	0	0
| Class: Oligochaeta	0	0	0	0	0	0	0	0	0	0
| Order: Lumbriculida	0	0	0	0	0	0	0	0	0	0
| Family: Lumbriculidae	0	0	0	0	0	0	21	0	0	0
| Order: Tubificida	0	0	0	0	0	0	0	0	0	0
| Family: Enchytraeidae	0	0	0	0	0	0	0	0	0	0
Enchytraeus	0	0	0	0	0	0	0	0	0	0
| Family: Lumbricidae	0	0	0	0	0	0	0	0	0	0
| Family: Naididae	0	5	0	0	0	0	0	10	9	5
Chaetogaster sp.	0	0	0	0	0	0	0	0	0	0
Stylaria sp.	0	0	0	0	0	0	0	0	0	0
Vejdovskyella intermedia	0	0	0	0	0	0	0	0	0	0
Phylum: Nemata	6	0	0	4	0	5	0	0	0	0
Phylum: Platyhelminthes	0	0	0	0	0	0	0	0	0	0
| Class: Turbellaria	0	0	0	0	0	0	0	0	0	0
Phylum: Cnidaria	0	0	0	0	0	0	0	0	0	0
| Class: Hydrozoa	0	0	0	0	0	0	0	0	0	0
| Order: Anthoathecatae	0	0	0	0	0	0	0	0	0	0
| Family: Hydridae	0	0	0	0	0	0	0	0	0	0
Hydra sp.	0	0	0	0	0	0	0	0	0	0
Totals:	2395	1439	809	1173	737	1505	1093	1550	929	1516

Table 5.3-1B: Stream Benthic Macroinvetebrate Taxonomic Composition and Density in Streams, 2012 (continued)

Stream Name	Mid Davidson Creek					Upper Davidson Creek				
Site	BI-11 Rep 1	BI-11 Rep 2	BI-11 Rep 3	BI-11 Rep 4	BI-11 Rep 5	BI-02 Rep 01	BI-02 Rep 02	BI-02 Rep 03	BI-02 Rep 04	BI-02 Rep 05
Date	09/14/2012	09/14/2012	09/14/2012	09/14/2012	09/14/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012
Percent Sampled (%)	12%	10%	12%	17%	11%	5%	10%	10%	9%	5%
TAXONOMY										
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Subphylum: Hexapoda	0	0	0	0	0	0	0	0	0	0
| Class: Insecta	0	0	0	0	0	0	0	0	0	0
| Order: Ephemeroptera	0	0	0	0	0	0	0	0	0	0
| Family: Ameletidae	0	0	0	0	0	0	0	0	0	0
Ameletus sp.	0	20	0	12	18	20	0	0	22	0
| Family: Baetidae	0	0	0	0	0	0	0	0	0	0
Acentrella sp.	0	0	0	0	0	0	0	0	0	0
Baetis bicaudatus	8	0	8	24	0	0	0	10	11	20
Baetis sp.	1008	710	950	588	764	2060	860	970	889	1940
Baetis tricaudatus	17	50	8	12	27	0	20	0	11	60
Callibaetis sp.	0	0	0	0	0	0	0	0	0	0
Diphetor hageni	0	0	0	0	0	0	0	0	0	0
| Family: Caenidae	0	0	0	0	0	0	0	0	0	0
Caenis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Ephemerellidae	33	0	0	0	9	60	70	40	78	40
Caudatella sp.	25	20	42	12	18	20	20	30	33	60
Drunella coloradensis	0	0	0	0	0	0	0	0	11	0
Drunella doddsii	42	50	33	24	0	40	0	10	0	40
Drunella grandis	0	0	0	0	0	0	0	0	0	0
Drunella sp.	0	0	0	0	0	0	0	0	0	0
Drunella spinifera	0	0	0	0	0	0	0	10	0	0
Ephemerella sp.	125	290	217	129	318	0	0	0	0	0
Serratella sp.	0	0	0	0	0	0	0	0	0	0
| Family: Heptageniidae	92	110	92	47	64	740	330	180	167	680
Cinygmula sp.	8	0	8	12	18	0	0	0	33	0
Epeorus sp.	133	140	175	124	164	380	130	90	133	240

Stream Name	Mid Davidson Creek					Upper Davidson Creek				
Site	BI-11 Rep 1	BI-11 Rep 2	BI-11 Rep 3	BI-11 Rep 4	BI-11 Rep 5	BI-02 Rep 01	BI-02 Rep 02	BI-02 Rep 03	BI-02 Rep 04	BI-02 Rep 05
Date	09/14/2012	09/14/2012	09/14/2012	09/14/2012	09/14/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012
Percent Sampled (%)	12%	10%	12%	17%	11%	5%	10%	10%	9%	5%
TAXONOMY										
Heptagenia sp.	0	0	0	0	0	0	0	0	0	0
Rhithrogena sp.	50	20	50	12	64	140	20	70	0	120
| Family: Leptophlebiidae	8	0	0	0	0	60	20	20	22	20
Leptophlebia sp.	0	0	0	0	0	0	0	0	0	0
Paraleptophlebia sp.	8	50	25	0	18	0	0	0	0	40
| Order: Plecoptera	0	0	0	6	0	0	0	20	0	0
| Family: Capniidae	75	100	67	47	82	360	150	190	322	260
| Family: Chloroperlidae	0	0	0	0	0	0	0	0	0	0
Alloperla fraterna	8	10	0	0	9	0	0	10	0	20
Paraperla sp.	0	0	0	0	0	0	0	0	0	0
Suwallia sp.	17	30	8	18	36	60	0	0	11	40
Sweltsa sp.	8	10	17	18	0	40	30	40	22	0
| Family: Leuctridae	33	20	8	47	18	20	10	20	0	40
| Family: Nemouridae	0	0	0	0	0	0	0	0	0	0
Visoka cataractae	8	0	0	0	0	0	0	10	0	40
Zapada cinctipes	0	10	8	12	9	0	0	10	11	0
Zapada columbiana	0	10	8	18	9	280	100	160	100	160
Zapada oregonensis group	0	20	0	24	36	100	0	70	56	40
Zapada sp.	67	80	50	18	82	120	100	40	33	100
| Family: Perlidae	0	0	0	0	0	0	0	0	0	0
Hesperoperla sp.	0	0	0	0	0	0	0	0	0	0
| Family: Perlodidae	8	50	58	18	64	0	10	20	44	100
Cultus sp.	0	0	0	0	0	0	0	0	0	0
Isoperla sp.	0	0	0	0	0	0	0	0	0	0
Megarcys sp.	0	10	0	0	0	0	0	0	0	20
Skwala sp.	0	0	0	0	0	20	10	0	0	0
| Family: Pteronarcyidae	0	0	0	0	0	0	0	0	0	0
Pteronarcella sp.	0	0	0	0	0	0	0	0	0	0
Pteronarcys sp.	25	10	17	12	18	0	0	0	0	20

Stream Name	Mid Davidson Creek					Upper Davidson Creek				
Site	BI-11 Rep 1	BI-11 Rep 2	BI-11 Rep 3	BI-11 Rep 4	BI-11 Rep 5	BI-02 Rep 01	BI-02 Rep 02	BI-02 Rep 03	BI-02 Rep 04	BI-02 Rep 05
Date	09/14/2012	09/14/2012	09/14/2012	09/14/2012	09/14/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012
Percent Sampled (%)	12%	10%	12%	17%	11%	5%	10%	10%	9%	5%
TAXONOMY										
| Family: Taeniopterygidae	8	0	0	0	0	0	0	0	0	0
Taenionema sp.	633	700	475	406	645	1180	590	710	778	1140
| Order: Trichoptera	8	0	0	0	9	0	0	0	0	0
| Family: Apataniidae	0	0	0	0	0	0	0	0	0	0
Apatania sp.	0	0	0	0	0	0	0	0	11	0
| Family: Brachycentridae	8	0	0	6	0	0	0	0	0	0
Micrasema sp.	17	80	83	29	100	20	10	80	33	60
| Family: Glossosomatidae	0	0	0	0	0	0	0	0	0	0
Glossosoma sp.	33	10	25	29	55	120	100	20	144	60
| Family: Hydropsychidae	8	10	25	6	0	80	30	50	22	180
Hydropsyche sp.	0	0	0	0	0	0	0	0	0	0
Parapsyche sp.	0	0	0	0	0	0	0	10	22	0
| Family: Hydroptilidae	0	0	0	0	0	0	0	0	0	0
Agraylea sp.	0	0	0	0	0	0	0	0	0	0
Hydroptila sp.	0	0	0	0	0	0	0	0	0	0
Oxyethira sp.	0	0	0	0	0	0	0	0	0	0
| Family: Lepidostomatidae	0	0	0	0	0	0	0	0	0	0
Lepidostoma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Leptoceridae	0	0	0	0	0	0	0	0	0	0
Ceraclea sp.	0	0	0	0	0	0	0	0	0	0
Mystacides sp.	0	0	0	0	0	0	0	0	0	0
Oecetis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Limnephilidae	17	10	0	0	0	0	0	0	11	0
Cryptochia sp.	0	0	0	0	0	0	0	0	0	0
Dicosmoecus sp.	0	0	0	0	0	0	0	0	0	0
Ecclisocosmoecus scylla	0	0	0	0	0	0	0	0	0	0
Limnephilus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Philopotamidae	0	0	0	0	0	0	0	0	0	0

Stream Name	Mid Davidson Creek					Upper Davidson Creek				
Site	BI-11 Rep 1	BI-11 Rep 2	BI-11 Rep 3	BI-11 Rep 4	BI-11 Rep 5	BI-02 Rep 01	BI-02 Rep 02	BI-02 Rep 03	BI-02 Rep 04	BI-02 Rep 05
Date	09/14/2012	09/14/2012	09/14/2012	09/14/2012	09/14/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012
Percent Sampled (%)	12%	10%	12%	17%	11%	5%	10%	10%	9%	5%
TAXONOMY										
Dolophilodes sp.	0	0	0	0	0	0	0	0	0	0
| Family: Phryganeidae	0	0	0	0	0	0	0	0	0	0
Agrypnia sp.	0	0	0	0	0	0	0	0	0	0
| Family: Polycentropodidae	0	0	0	0	0	0	0	0	0	0
Polycentropus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Rhyacophilidae	0	0	0	0	0	0	0	0	0	0
Rhyacophila angelita group	8	10	0	0	9	0	0	20	0	0
Rhyacophila arnaudi	0	0	0	0	0	0	0	0	0	0
Rhyacophila betteni group	0	0	17	29	9	20	0	20	22	0
Rhyacophila brunnea group	8	10	8	12	0	20	20	10	11	0
Rhyacophila narvae	8	0	25	0	0	40	30	10	0	20
Rhyacophila nevadensis group	0	0	0	0	0	0	0	0	0	0
Rhyacophila sp.	33	10	8	0	9	40	0	30	0	0
Rhyacophila vofixa group	0	10	0	0	9	0	0	0	0	0
| Family: Uenoidae	0	0	0	0	0	0	0	0	0	0
Neothremma sp.	0	0	0	0	0	0	0	0	0	0
Oligophlebodes sp.	0	0	0	0	0	0	0	0	0	0
| Order: Coleoptera	0	0	33	0	0	0	0	0	0	0
| Family: Dytiscidae	0	0	0	0	0	0	0	0	0	0
Neoporus sp.	0	0	0	0	0	0	0	0	0	0
Oreodytes sp.	0	0	0	0	0	0	0	0	0	0
| Family: Elmidae	17	20	0	12	9	0	0	0	0	0
Cleptelmis addenda	0	0	0	0	0	0	0	0	0	0
Heterlimnius sp.	42	30	34	24	54	20	10	0	11	0
Optioservus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydrophilidae	0	0	0	0	0	0	0	0	0	0
Hydrobius sp.	0	0	0	0	0	0	0	0	0	0
| Family: Staphylinidae	0	0	0	0	0	0	0	0	11	0

Stream Name	Mid Davidson Creek					Upper Davidson Creek				
Site	BI-11 Rep 1	BI-11 Rep 2	BI-11 Rep 3	BI-11 Rep 4	BI-11 Rep 5	BI-02 Rep 01	BI-02 Rep 02	BI-02 Rep 03	BI-02 Rep 04	BI-02 Rep 05
Date	09/14/2012	09/14/2012	09/14/2012	09/14/2012	09/14/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012
Percent Sampled (%)	12%	10%	12%	17%	11%	5%	10%	10%	9%	5%
TAXONOMY										
| Order: Diptera	0	0	0	0	0	0	10	0	0	0
| Family: Ceratopogonidae	0	0	0	0	0	0	0	0	0	0
Culicoides sp.	0	0	0	0	0	0	0	0	0	0
Mallochohelea	0	10	0	0	9	0	0	0	0	0
Probezzia sp.	17	0	0	0	18	0	20	10	0	0
Sphaeromias sp.	0	0	0	0	0	0	0	0	0	0
| Family: Chaoboridae	0	0	0	0	0	0	0	0	0	0
Chaoborus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Chironomidae	0	0	0	0	0	0	0	0	0	0
| Subfamily: Chironominae	0	0	0	0	0	0	0	0	0	0
| Tribe: Chironomini	0	0	0	0	0	0	0	0	0	0
Chironomus sp.	0	0	0	0	0	0	0	0	0	0
Dicrotendipes sp.	0	0	0	0	0	0	0	0	0	0
Glyptotendipes sp.	0	0	0	0	0	0	0	0	0	0
Microtendipes sp.	0	0	0	0	0	0	0	0	0	0
Pagastiella sp.	0	0	0	0	0	0	0	0	0	0
Polypedilum sp.	0	0	0	0	0	0	0	0	0	0
Zavrelia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Tanytarsini	0	0	0	0	0	0	0	0	0	0
Cladotanytarsus sp.	0	0	0	0	0	0	0	0	0	0
Corynocera sp.	0	0	0	0	0	0	0	0	0	0
Micropsectra sp.	17	80	33	18	55	80	210	60	89	180
Paratanytarsus sp.	0	0	0	0	0	0	0	0	0	0
Rheotanytarsus sp.	0	0	0	0	0	0	0	0	0	0
Stempellina sp.	0	0	0	0	0	0	0	0	0	0
Tanytarsus sp.	0	0	0	0	0	0	0	0	0	0
| Subfamily: Diamesinae	0	0	0	0	0	0	0	0	0	0
| Tribe: Diamesini	0	0	0	0	0	0	0	0	0	0

Stream Name	Mid Davidson Creek					Upper Davidson Creek				
Site	BI-11 Rep 1	BI-11 Rep 2	BI-11 Rep 3	BI-11 Rep 4	BI-11 Rep 5	BI-02 Rep 01	BI-02 Rep 02	BI-02 Rep 03	BI-02 Rep 04	BI-02 Rep 05
Date	09/14/2012	09/14/2012	09/14/2012	09/14/2012	09/14/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012
Percent Sampled (%)	12%	10%	12%	17%	11%	5%	10%	10%	9%	5%
TAXONOMY										
Diamesa sp.	0	0	0	0	9	0	0	0	0	0
Pagastia sp.	8	10	0	0	0	40	10	10	44	0
Potthastia longimana group	0	0	0	0	0	0	0	0	0	0
Pseudodiamesa sp.	0	0	0	0	0	0	0	0	0	0
| Subfamily: Orthocladiinae	0	0	0	0	0	0	0	0	0	0
Brillia sp.	25	20	0	6	0	60	70	50	0	180
Cardiocladius sp.	0	0	0	0	0	0	0	0	0	20
Cricotopus bicinctus group	0	0	0	0	0	0	0	0	0	0
Cricotopus nostocicola	0	10	0	0	0	0	0	0	0	0
Cricotopus sp.	0	0	0	0	0	0	0	0	0	0
Diplocladius cultriger	0	0	0	0	0	0	0	0	0	0
Doithrix sp.	0	0	0	0	0	0	0	0	0	0
Eukiefferiella sp.	33	20	25	6	36	20	30	0	144	180
Heterotrissocladius sp.	8	0	17	6	9	0	0	0	0	0
Hydrobaenus sp.	0	0	0	0	0	0	0	0	0	0
Limnophyes sp.	0	0	0	0	0	0	0	0	0	0
Orthocladius lignicola	0	0	0	0	0	0	30	0	0	0
Orthocladius sp.	0	0	0	0	18	0	0	60	0	0
Parachaetocladius sp.	0	0	0	0	0	0	0	0	0	0
Parakiefferiella sp.	0	0	0	0	0	0	0	0	0	0
Parametriocnemus sp.	0	0	0	0	0	0	0	0	0	0
Parorthocladius sp.	0	0	17	0	0	0	0	0	11	20
Psectrocladius sp.	0	0	0	0	0	0	0	0	0	0
Rheocricotopus sp.	0	0	0	0	0	60	0	0	0	0
Synorthocladius sp.	0	0	0	0	0	0	0	10	0	0
Thienemanniella	0	0	0	0	0	0	10	0	0	0
Tvetenia sp.	0	0	0	0	0	40	0	0	100	0
Zalutschia sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Mid Davidson Creek					Upper Davidson Creek				
Site	BI-11 Rep 1	BI-11 Rep 2	BI-11 Rep 3	BI-11 Rep 4	BI-11 Rep 5	BI-02 Rep 01	BI-02 Rep 02	BI-02 Rep 03	BI-02 Rep 04	BI-02 Rep 05
Date	09/14/2012	09/14/2012	09/14/2012	09/14/2012	09/14/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012
Percent Sampled (%)	12%	10%	12%	17%	11%	5%	10%	10%	9%	5%
TAXONOMY										
| Tribe: Corynoneurini	0	0	0	0	0	0	0	0	0	0
Corynoneura sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Orthocladiini	0	0	0	0	0	0	0	0	0	0
Chaetocladius sp.	0	0	0	0	0	0	0	0	0	0
| Subfamily: Tanypodinae	0	0	0	0	0	0	0	0	0	0
| Tribe: Pentaneurini	0	0	0	0	0	0	0	0	0	0
Zavrelimyia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Procladiini	0	0	0	0	0	0	0	0	0	0
Procladius sp.	0	0	0	0	0	0	50	0	0	0
| Family: Empididae	0	0	0	0	0	0	0	0	0	0
Chelifera/ Metachela	8	20	17	0	0	0	10	0	0	0
Clinocera sp.	0	0	0	0	0	0	0	0	0	0
Oreogeton sp.	8	20	0	18	9	20	10	0	0	0
| Family: Muscidae	0	0	0	0	0	0	0	0	0	0
Limnophora sp.	0	0	0	0	0	0	0	0	0	0
| Family: Psychodidae	0	0	0	0	0	0	0	0	0	0
Pericoma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Simuliidae	8	0	17	0	0	0	0	10	11	0
Prosimulium sp.	0	0	17	0	9	20	40	20	11	0
Simulium sp.	17	20	25	6	0	20	20	30	56	20
| Family: Tabanidae	0	0	0	0	0	0	0	0	0	0
Tabanus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Tipulidae	0	0	0	0	0	0	0	0	0	0
Antocha sp.	0	0	0	0	0	0	0	0	0	0
Dicranota sp.	17	20	0	0	0	0	0	0	0	0
Hexatoma sp.	0	0	0	0	0	0	0	0	0	0
Limnophila sp.	0	0	0	0	0	0	0	0	0	0
Pedicia sp.	0	0	0	0	0	0	0	0	0	0
Rhabdomastix sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Mid Davidson Creek					Upper Davidson Creek				
Site	BI-11 Rep 1	BI-11 Rep 2	BI-11 Rep 3	BI-11 Rep 4	BI-11 Rep 5	BI-02 Rep 01	BI-02 Rep 02	BI-02 Rep 03	BI-02 Rep 04	BI-02 Rep 05
Date	09/14/2012	09/14/2012	09/14/2012	09/14/2012	09/14/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012
Percent Sampled (%)	12%	10%	12%	17%	11%	5%	10%	10%	9%	5%
TAXONOMY										
Tipula sp.	0	0	0	0	0	0	10	0	0	0
| Order: Hemiptera	0	0	0	0	0	0	0	0	0	0
| Family: Corixidae	0	0	0	0	0	0	0	0	0	0
Palmacorixa sp.	0	0	0	0	0	0	0	0	0	0
Sigara sp.	0	0	0	0	0	0	0	0	0	0
Trichocorixa sp.	0	0	0	0	0	0	0	0	0	0
| Order: Lepidoptera	0	0	0	0	0	0	0	0	11	0
| Family: Noctuidae	0	0	0	0	0	0	0	0	0	0
| Order: Megaloptera	0	0	0	0	0	0	0	0	0	0
| Family: Sialidae	0	0	0	0	0	0	0	0	0	0
Sialis sp.	0	0	0	0	0	0	0	0	0	0
| Order: Odonata	0	0	0	0	0	0	0	0	0	0
| Family: Aeshnidae	0	0	0	0	0	0	0	0	0	0
Aeshna sp.	0	0	0	0	0	0	0	0	0	0
| Family: Corduliidae	0	0	0	0	0	0	0	0	0	0
Somatochlora sp.	0	0	0	0	0	0	0	0	0	0
| Class: Entognatha	0	0	0	0	0	0	0	0	0	0
| Order: Collembola	0	0	0	0	0	0	0	0	0	0
Subphylum: Crustacea	0	0	0	0	0	0	0	0	0	0
| Class: Ostracoda	8	0	0	0	0	0	0	0	11	20
| Class: Branchiopoda	0	0	0	0	0	0	0	0	0	0
| Order: Cladocera	0	0	0	0	0	0	0	0	0	0
| Family: Daphniidae	0	0	0	0	0	0	0	0	0	0
Daphnia sp.	0	0	0	0	0	0	0	0	0	0
| Class: Copepoda	0	0	0	0	0	0	0	0	0	0
| Class: Malacostraca	0	0	0	0	0	0	0	0	0	0
| Order: Amphipoda	0	0	0	0	0	0	0	0	0	0
| Family: Gammaridae	0	0	0	0	0	0	0	0	0	0
Gammarus sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Mid Davidson Creek					Upper Davidson Creek				
Site	BI-11 Rep 1	BI-11 Rep 2	BI-11 Rep 3	BI-11 Rep 4	BI-11 Rep 5	BI-02 Rep 01	BI-02 Rep 02	BI-02 Rep 03	BI-02 Rep 04	BI-02 Rep 05
Date	09/14/2012	09/14/2012	09/14/2012	09/14/2012	09/14/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012
Percent Sampled (%)	12%	10%	12%	17%	11%	5%	10%	10%	9%	5%
TAXONOMY										
| Family: Hyalellidae	0	0	0	0	0	0	0	0	0	0
Hyalella sp.	0	0	0	0	0	0	0	0	0	0
Subphylum: Chelicerata	0	0	0	0	0	0	0	0	0	0
| Class: Arachnida	0	0	0	0	0	0	0	0	0	0
| Order: Trombidiformes	0	0	0	6	9	0	0	0	11	0
| Family: Arrenuridae	0	0	0	0	0	0	0	0	0	0
Arrenurus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Aturidae	0	0	0	0	0	0	0	0	0	0
Aturus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydrodromidae	0	0	0	0	0	0	0	0	0	0
Hydrodroma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydryphantidae	0	0	0	0	0	0	0	0	0	0
Protzia sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hygrobatidae	0	0	0	0	0	0	0	0	0	0
Hygrobates sp.	0	0	0	0	0	0	0	0	0	20
| Family: Lebertiidae	0	0	0	0	0	0	0	0	0	0
Lebertia sp.	17	20	8	18	9	20	0	0	11	0
| Family: Limnesiidae	0	0	0	0	0	0	0	0	0	0
Limnesia sp.	0	0	0	0	0	0	0	0	0	0
| Family: Mideopsidae	0	0	0	0	0	0	0	0	0	0
Mideopsis sp.	0	10	0	0	9	0	0	0	0	0
| Family: Oxidae	0	0	0	0	0	0	0	0	0	0
Oxus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Pionidae	0	0	0	0	0	0	0	0	0	0
Piona sp.	0	0	0	0	0	0	0	0	0	0
| Family: Sperchontidae	0	0	0	0	0	0	0	0	0	0
Sperchon sp.	25	40	0	6	82	0	0	20	0	0
Sperchonopsis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Torrenticolidae	0	0	0	0	0	0	0	0	0	0

Stream Name	Mid Davidson Creek					Upper Davidson Creek				
Site	BI-11 Rep 1	BI-11 Rep 2	BI-11 Rep 3	BI-11 Rep 4	BI-11 Rep 5	BI-02 Rep 01	BI-02 Rep 02	BI-02 Rep 03	BI-02 Rep 04	BI-02 Rep 05
Date	09/14/2012	09/14/2012	09/14/2012	09/14/2012	09/14/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012
Percent Sampled (%)	12%	10%	12%	17%	11%	5%	10%	10%	9%	5%
TAXONOMY										
Testudacarus sp.	17	50	33	6	55	0	10	10	33	0
Torrenticola sp.	0	0	0	0	0	0	0	10	0	0
| Family: Unionicolidae	0	0	0	0	0	0	0	0	0	0
Unionicola sp.	0	0	0	0	0	0	0	0	0	0
| Order: Sarcoptiformes	0	0	0	0	0	0	0	0	0	0
| Family: Hydrozetidae	0	0	17	0	0	0	0	0	0	0
Phylum: Mollusca	0	0	0	0	0	0	0	0	0	0
| Class: Bivalvia	0	0	0	0	0	0	0	0	0	0
| Order: Veneroida	0	0	0	0	0	0	0	0	0	0
| Family: Sphaeriidae	0	0	0	0	0	0	0	0	0	0
| Family: Unionoida	0	0	0	0	0	0	0	0	0	0
| Family: Margaritiferidae	0	0	0	0	0	0	0	0	0	0
Margaritifera falcata	0	0	0	0	0	0	0	0	0	0
Pisidium sp.	0	0	0	0	0	0	0	0	0	0
Sphaerium sp.	0	0	0	0	0	0	0	0	0	0
| Class: Gastropoda	0	0	0	0	0	0	0	0	0	0
| Order: Basommatophora	0	0	0	0	0	0	0	0	0	0
Acroloxus coloradensis	0	0	0	0	0	0	0	0	0	0
| Family: Physidae	0	0	0	0	0	0	0	0	0	0
Physa sp.	0	0	0	0	0	0	0	0	0	0
| Family: Planorbidae	0	0	0	0	0	0	0	0	0	0
Gyraulus sp.	0	0	0	0	0	0	0	0	0	0
Menetus opercularis	0	0	0	0	0	0	0	0	0	0
Menetus sp.	0	0	0	0	0	0	0	0	0	0
Promenetus umbilicatellus	0	0	0	0	0	0	0	0	0	0
| Order: Heterostropha	0	0	0	0	0	0	0	0	0	0
| Family: Valvatidae	0	0	0	0	0	0	0	0	0	0
Valvata sincera	0	0	0	0	0	0	0	0	0	0
| Order: Hypsogastropoda	0	0	0	0	0	0	0	0	0	0

Stream Name	Mid Davidson Creek					Upper Davidson Creek				
Site	BI-11 Rep 1	BI-11 Rep 2	BI-11 Rep 3	BI-11 Rep 4	BI-11 Rep 5	BI-02 Rep 01	BI-02 Rep 02	BI-02 Rep 03	BI-02 Rep 04	BI-02 Rep 05
Date	09/14/2012	09/14/2012	09/14/2012	09/14/2012	09/14/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012
Percent Sampled (%)	12%	10%	12%	17%	11%	5%	10%	10%	9%	5%
TAXONOMY										
| Family: Hydrobiidae	0	0	0	0	0	0	0	0	0	0
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
| Class: Hirudinea	0	0	0	0	0	0	0	0	0	0
| Order: Arhynchobdellida	0	0	0	0	0	0	0	0	0	0
| Family: Erpobdellidae	0	0	0	0	0	0	0	0	0	0
Erpobdella sp.	0	0	0	0	0	0	0	0	0	0
| Order: Rhynchobdellida	0	0	0	0	0	0	0	0	0	0
| Family: Glossiphoniidae	0	0	0	0	0	0	0	0	0	0
| Class: Oligochaeta	0	0	0	0	0	0	0	0	0	0
| Order: Lumbriculida	0	0	0	0	0	0	0	0	0	0
| Family: Lumbriculidae	0	0	0	0	9	0	0	0	0	0
| Order: Tubificida	0	0	0	0	0	0	0	0	0	0
| Family: Enchytraeidae	0	0	0	0	0	0	0	0	0	0
Enchytraeus	0	0	0	0	0	0	0	0	0	0
| Family: Lumbricidae	0	0	0	0	0	0	0	0	0	0
| Family: Naididae	8	0	0	0	0	0	10	0	11	0
Chaetogaster sp.	0	0	0	0	0	0	0	0	0	0
Stylaria sp.	0	0	0	0	0	0	0	0	0	0
Vejdovskyella intermedia	0	0	0	0	0	0	0	0	0	0
Phylum: Nemata	0	0	0	0	0	0	0	0	11	0
Phylum: Platyhelminthes	0	0	0	0	0	0	0	0	0	0
| Class: Turbellaria	0	0	0	0	0	20	0	0	0	0
Phylum: Cnidaria	0	0	0	0	0	0	0	0	0	0
| Class: Hydrozoa	0	0	0	0	0	0	0	0	0	0
| Order: Anthoathecatae	0	0	0	0	0	0	0	0	0	0
| Family: Hydridae	0	0	0	0	0	0	0	0	0	0
Hydra sp.	0	0	0	0	0	0	0	0	0	0
Totals:	2895	3070	2808	1883	3098	6460	3220	3280	3650	6200

Table 5.3-1B: Stream Benthic Macroinvetebrate Taxonomic Composition and Density in Streams, 2012 (continued)

Stream Name	Creek 704454					Lower Creek 661				
Site	BI-03 Rep 01	BI-03 Rep 02	BI-03 Rep 03	BI-03 Rep 04	BI-03 Rep 05	BI-04 Rep 01	BI-04 Rep 02	BI-04 Rep 03	BI-04 Rep 04	BI-04 Rep 05
Date	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012
Percent Sampled (%)	35%	31%	100%	44%	41%	11%	100%	7%	6%	6%
TAXONOMY										
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Subphylum: Hexapoda	0	0	0	0	0	0	0	0	0	0
| Class: Insecta	0	0	0	0	0	0	0	0	0	0
| Order: Ephemeroptera	0	0	0	0	0	0	0	0	0	0
| Family: Ameletidae	0	0	0	0	0	0	0	0	0	0
Ameletus sp.	9	0	3	2	7	9	0	0	0	0
| Family: Baetidae	0	0	0	0	0	0	0	0	0	0
Acentrella sp.	0	0	0	0	0	0	0	0	0	0
Baetis bicaudatus	0	0	0	0	0	0	0	0	0	0
Baetis sp.	6	10	0	0	0	855	2	1486	1633	1300
Baetis tricaudatus	0	0	0	0	0	73	0	100	117	83
Callibaetis sp.	0	0	0	0	0	0	0	0	0	0
Diphetor hageni	0	0	0	0	0	0	0	0	0	0
| Family: Caenidae	0	0	0	0	0	0	0	0	0	0
Caenis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Ephemerellidae	0	0	0	0	0	127	2	471	1050	683
Caudatella sp.	0	0	0	0	0	0	0	0	0	0
Drunella coloradensis	0	3	0	0	0	0	0	14	0	0
Drunella doddsii	3	0	0	0	0	64	2	386	117	217
Drunella grandis	0	0	0	0	0	0	0	0	0	0
Drunella sp.	0	0	0	0	0	0	0	0	0	0
Drunella spinifera	0	0	0	0	0	0	0	0	50	0
Ephemerella sp.	0	0	0	0	0	18	0	0	17	150
Serratella sp.	0	0	0	0	0	0	0	0	0	0
| Family: Heptageniidae	9	6	0	0	7	382	1	614	400	317
Cinygmula sp.	0	0	0	0	0	0	0	14	50	67
Epeorus sp.	9	6	0	0	0	27	1	86	67	50

Stream Name	Creek 704454					Lower Creek 661				
Site	BI-03 Rep 01	BI-03 Rep 02	BI-03 Rep 03	BI-03 Rep 04	BI-03 Rep 05	BI-04 Rep 01	BI-04 Rep 02	BI-04 Rep 03	BI-04 Rep 04	BI-04 Rep 05
Date	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012
Percent Sampled (%)	35%	31%	100%	44%	41%	11%	100%	7%	6%	6%
TAXONOMY										
Heptagenia sp.	0	0	0	0	0	0	0	0	0	0
Rhithrogena sp.	0	0	0	0	0	127	0	257	283	383
| Family: Leptophlebiidae	14	13	4	0	17	0	0	14	0	0
Leptophlebia sp.	0	0	0	0	0	0	0	0	0	0
Paraleptophlebia sp.	9	0	4	14	5	0	0	0	33	33
| Order: Plecoptera	0	13	0	0	2	0	1	0	0	0
| Family: Capniidae	0	0	2	2	0	118	2	71	67	50
| Family: Chloroperlidae	0	0	0	0	0	0	3	14	0	17
Alloperla fraterna	3	3	0	2	0	0	0	0	0	0
Paraperla sp.	0	0	0	0	0	0	0	0	0	0
Suwallia sp.	3	0	2	0	0	0	6	0	0	17
Sweltsa sp.	66	65	39	50	41	164	21	171	50	133
| Family: Leuctridae	20	6	8	0	2	9	1	14	33	17
| Family: Nemouridae	0	0	0	0	0	0	0	0	0	0
Visoka cataractae	114	103	29	32	61	0	0	0	0	0
Zapada cinctipes	20	26	13	14	2	18	0	0	0	0
Zapada columbiana	211	194	74	198	139	0	0	0	0	0
Zapada oregonensis group	31	6	8	9	24	9	0	0	0	0
Zapada sp.	17	52	18	30	12	0	3	71	217	333
| Family: Perlidae	0	0	0	0	0	0	0	0	0	0
Hesperoperla sp.	0	0	0	0	0	0	0	0	0	0
| Family: Perlodidae	3	10	2	7	5	9	5	71	133	233
Cultus sp.	0	0	0	0	0	0	0	0	0	0
Isoperla sp.	0	0	0	0	0	0	0	14	0	0
Megarcys sp.	0	0	0	0	0	0	0	14	0	33
Skwala sp.	0	0	0	0	0	0	0	0	0	0
| Family: Pteronarcyidae	0	0	0	0	0	9	0	0	17	0
Pteronarcella sp.	0	0	0	0	0	0	0	0	0	0
Pteronarcys sp.	0	0	0	0	0	9	5	0	133	100

Stream Name	Creek 704454					Lower Creek 661				
Site	BI-03 Rep 01	BI-03 Rep 02	BI-03 Rep 03	BI-03 Rep 04	BI-03 Rep 05	BI-04 Rep 01	BI-04 Rep 02	BI-04 Rep 03	BI-04 Rep 04	BI-04 Rep 05
Date	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012
Percent Sampled (%)	35%	31%	100%	44%	41%	11%	100%	7%	6%	6%
TAXONOMY										
| Family: Taeniopterygidae	0	0	0	0	0	0	1	0	17	0
Taenionema sp.	0	3	0	0	0	73	1	86	100	67
| Order: Trichoptera	0	0	0	0	0	0	1	0	0	0
| Family: Apataniidae	0	0	0	0	0	0	0	0	0	0
Apatania sp.	0	0	0	0	0	0	0	0	0	0
| Family: Brachycentridae	0	0	0	0	0	9	0	0	17	0
Micrasema sp.	66	52	21	50	41	0	0	0	0	17
| Family: Glossosomatidae	0	0	0	0	0	0	0	0	0	0
Glossosoma sp.	0	0	0	0	0	100	2	157	67	50
| Family: Hydropsychidae	3	16	1	0	0	0	0	14	0	0
Hydropsyche sp.	0	0	0	0	0	0	0	0	0	0
Parapsyche sp.	0	0	3	5	2	9	0	0	0	0
| Family: Hydroptilidae	0	0	0	0	0	0	0	0	0	0
Agraylea sp.	0	0	0	0	0	0	0	0	0	0
Hydroptila sp.	0	0	0	0	0	0	0	0	0	0
Oxyethira sp.	0	0	0	0	0	0	0	0	0	0
| Family: Lepidostomatidae	0	0	0	0	0	0	0	0	0	0
Lepidostoma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Leptoceridae	0	0	0	0	0	0	0	0	0	0
Ceraclea sp.	0	0	0	0	0	0	0	0	0	0
Mystacides sp.	0	0	0	0	0	0	0	0	0	0
Oecetis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Limnephilidae	11	19	4	9	20	0	0	0	0	0
Cryptochia sp.	0	3	1	0	5	0	0	0	0	0
Dicosmoecus sp.	0	0	0	0	0	0	0	0	0	0
Ecclisocosmoecus scylla	6	3	1	0	0	0	0	0	0	0
Limnephilus sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Creek 704454					Lower Creek 661				
Site	BI-03 Rep 01	BI-03 Rep 02	BI-03 Rep 03	BI-03 Rep 04	BI-03 Rep 05	BI-04 Rep 01	BI-04 Rep 02	BI-04 Rep 03	BI-04 Rep 04	BI-04 Rep 05
Date	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012
Percent Sampled (%)	35%	31%	100%	44%	41%	11%	100%	7%	6%	6%
TAXONOMY										
| Family: Philopotamidae	0	0	0	0	0	0	0	0	0	0
Dolophilodes sp.	0	0	0	0	0	0	0	0	0	0
| Family: Phryganeidae	0	0	0	0	0	0	0	0	0	0
Agrypnia sp.	0	0	0	0	0	0	0	0	0	0
| Family: Polycentropodidae	0	0	0	0	0	0	0	0	0	0
Polycentropus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Rhyacophilidae	0	0	0	0	0	0	0	0	0	0
Rhyacophila angelita group	3	0	1	5	5	9	0	0	0	0
Rhyacophila arnaudi	0	0	0	0	0	0	0	0	0	0
Rhyacophila betteni group	0	0	0	5	2	64	2	29	67	50
Rhyacophila brunnea group	0	0	1	0	0	0	0	29	50	100
Rhyacophila narvae	3	3	1	2	0	82	1	71	83	133
Rhyacophila nevadensis group	0	3	1	5	5	9	0	0	0	0
Rhyacophila sp.	40	48	13	30	49	55	26	14	50	17
Rhyacophila vofixa group	17	26	7	23	17	0	0	0	0	0
| Family: Uenoidae	0	0	0	0	0	0	0	0	0	0
Neothremma sp.	31	32	21	55	20	0	0	0	0	0
Oligophlebodes sp.	0	0	0	0	0	0	0	0	0	0
| Order: Coleoptera	0	0	0	0	0	0	0	0	0	0
| Family: Dytiscidae	0	0	0	0	0	0	0	0	0	0
Neoporus sp.	0	0	0	0	0	0	0	0	0	0
Oreodytes sp.	0	0	0	0	0	0	0	0	0	0
| Family: Elmidae	0	0	0	0	0	109	33	114	183	133
Cleptelmis addenda	0	0	0	0	0	0	0	0	0	0
Heterlimnius sp.	0	0	0	0	0	109	48	114	166	167
Optioservus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydrophilidae	0	0	0	0	0	0	0	0	0	0
Hydrobius sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Creek 704454					Lower Creek 661				
Site	BI-03 Rep 01	BI-03 Rep 02	BI-03 Rep 03	BI-03 Rep 04	BI-03 Rep 05	BI-04 Rep 01	BI-04 Rep 02	BI-04 Rep 03	BI-04 Rep 04	BI-04 Rep 05
Date	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012
Percent Sampled (%)	35%	31%	100%	44%	41%	11%	100%	7%	6%	6%
TAXONOMY										
| Family: Staphylinidae	0	0	0	0	0	0	1	0	0	0
| Order: Diptera	0	0	1	0	2	0	0	0	0	0
| Family: Ceratopogonidae	0	0	0	0	0	0	0	43	0	0
Culicoides sp.	0	0	0	0	0	0	0	0	0	0
Mallochohelea	0	0	0	0	0	0	0	0	0	0
Probezzia sp.	0	0	0	0	0	9	10	43	17	0
Sphaeromias sp.	0	0	0	0	0	0	0	0	0	0
| Family: Chaoboridae	0	0	0	0	0	0	0	0	0	0
Chaoborus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Chironomidae	0	0	0	0	0	0	0	0	0	0
| Subfamily: Chironominae	0	0	0	0	0	0	0	0	0	0
| Tribe: Chironomini	0	0	0	0	0	0	0	0	0	0
Chironomus sp.	0	0	0	0	0	0	0	0	0	0
Dicrotendipes sp.	0	0	0	0	0	0	0	0	0	0
Glyptotendipes sp.	0	0	0	0	0	0	0	0	0	0
Microtendipes sp.	0	0	0	0	0	0	0	0	0	0
Pagastiella sp.	0	0	0	0	0	0	0	0	0	0
Polypedilum sp.	0	0	0	0	0	0	0	29	0	0
Zavrelia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Tanytarsini	0	0	0	0	0	0	0	0	0	0
Cladotanytarsus sp.	0	0	0	0	0	0	0	0	0	0
Corynocera sp.	0	0	0	0	0	0	0	0	0	0
Micropsectra sp.	0	0	0	0	0	0	0	29	0	0
Paratanytarsus sp.	0	0	0	0	0	0	0	0	0	0
Rheotanytarsus sp.	0	0	0	0	0	0	0	0	0	0
Stempellina sp.	0	0	0	0	0	0	1	0	0	17
Tanytarsus sp.	0	0	0	0	0	0	0	0	0	0
| Subfamily: Diamesinae	0	0	0	0	0	0	0	0	0	0

Stream Name	Creek 704454					Lower Creek 661				
Site	BI-03 Rep 01	BI-03 Rep 02	BI-03 Rep 03	BI-03 Rep 04	BI-03 Rep 05	BI-04 Rep 01	BI-04 Rep 02	BI-04 Rep 03	BI-04 Rep 04	BI-04 Rep 05
Date	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012
Percent Sampled (%)	35%	31%	100%	44%	41%	11%	100%	7%	6%	6%
TAXONOMY										
| Tribe: Diamesini	0	0	0	0	0	0	0	0	0	0
Diamesa sp.	0	0	0	0	0	0	0	0	0	0
Pagastia sp.	26	10	12	16	39	0	1	0	0	0
Potthastia longimana group	0	0	0	0	0	0	0	0	0	0
Pseudodiamesa sp.	3	0	0	0	0	0	0	0	0	0
| Subfamily: Orthocladiinae	0	0	0	0	0	0	0	0	0	0
Brillia sp.	0	0	0	0	0	0	0	0	0	0
Cardiocladius sp.	11	16	0	0	0	0	0	0	0	0
Cricotopus bicinctus group	0	0	0	0	0	0	0	0	0	0
Cricotopus nostocicola	0	0	0	0	0	0	0	0	0	0
Cricotopus sp.	0	0	6	5	7	0	0	0	0	0
Diplocladius cultriger	11	29	0	0	0	0	0	0	0	0
Doithrix sp.	0	0	0	0	0	0	0	0	0	0
Eukiefferiella sp.	0	13	0	0	10	0	0	0	0	0
Heterotrissocladius sp.	0	0	0	0	0	9	2	0	0	0
Hydrobaenus sp.	0	3	0	0	0	0	0	0	0	0
Limnophyes sp.	0	0	0	0	0	0	0	0	0	0
Orthocladius lignicola	0	0	0	0	0	0	0	14	17	0
Orthocladius sp.	29	52	37	48	115	0	0	0	33	17
Parachaetocladius sp.	0	0	0	0	0	0	0	0	0	0
Parakiefferiella sp.	0	0	0	0	0	0	0	0	0	0
Parametriocnemus sp.	3	0	0	0	0	0	0	0	0	0
Parorthocladius sp.	31	26	11	20	20	0	0	0	0	0
Psectrocladius sp.	0	0	0	0	0	0	0	0	0	0
Rheocricotopus sp.	0	0	0	0	0	0	0	0	17	0
Synorthocladius sp.	0	0	0	0	0	0	0	0	0	0
Thienemanniella	0	3	0	0	0	0	0	0	0	0
Tvetenia sp.	0	0	0	0	0	0	0	0	0	17

Stream Name	Creek 704454					Lower Creek 661				
Site	BI-03 Rep 01	BI-03 Rep 02	BI-03 Rep 03	BI-03 Rep 04	BI-03 Rep 05	BI-04 Rep 01	BI-04 Rep 02	BI-04 Rep 03	BI-04 Rep 04	BI-04 Rep 05
Date	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012
Percent Sampled (%)	35%	31%	100%	44%	41%	11%	100%	7%	6%	6%
TAXONOMY										
Zalutschia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Corynoneurini	0	0	0	0	0	0	0	0	0	0
Corynoneura sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Orthocladiini	0	0	0	0	0	0	0	0	0	0
Chaetocladius sp.	0	0	0	0	0	0	0	0	0	0
| Subfamily: Tanypodinae	0	0	0	0	0	0	0	14	0	0
| Tribe: Pentaneurini	0	0	0	0	0	0	0	0	0	0
Zavrelimyia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Procladiini	0	0	0	0	0	0	0	0	0	0
Procladius sp.	0	0	0	0	0	18	0	29	0	0
| Family: Empididae	0	0	0	0	0	0	0	0	0	0
Chelifera/ Metachela	0	0	0	0	0	0	3	14	0	0
Clinocera sp.	3	0	2	0	5	0	0	0	0	0
Oreogeton sp.	6	35	11	32	37	0	5	0	0	0
| Family: Muscidae	0	0	0	0	0	0	0	0	0	0
Limnophora sp.	0	0	0	0	0	0	0	0	0	0
| Family: Psychodidae	0	0	0	0	0	0	0	0	0	0
Pericoma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Simuliidae	0	0	0	0	0	9	1	0	0	0
Prosimulium sp.	0	0	0	0	0	0	0	29	0	0
Simulium sp.	0	0	0	0	0	0	0	14	17	0
| Family: Tabanidae	0	0	0	0	0	0	0	0	0	0
Tabanus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Tipulidae	0	0	0	0	0	0	0	0	0	0
Antocha sp.	0	0	0	0	0	0	0	0	0	0
Dicranota sp.	3	3	1	0	0	18	1	0	50	33
Hexatoma sp.	0	0	0	0	0	0	0	0	0	0
Limnophila sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Creek 704454					Lower Creek 661				
Site	BI-03 Rep 01	BI-03 Rep 02	BI-03 Rep 03	BI-03 Rep 04	BI-03 Rep 05	BI-04 Rep 01	BI-04 Rep 02	BI-04 Rep 03	BI-04 Rep 04	BI-04 Rep 05
Date	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012
Percent Sampled (%)	35%	31%	100%	44%	41%	11%	100%	7%	6%	6%
TAXONOMY										
Pedicia sp.	0	0	0	0	0	0	0	0	0	0
Rhabdomastix sp.	0	0	0	0	0	0	1	0	0	17
Tipula sp.	0	0	0	0	0	0	0	0	50	0
| Order: Hemiptera	0	0	0	0	0	0	0	0	0	0
| Family: Corixidae	0	0	0	0	0	0	0	0	0	0
Palmacorixa sp.	0	0	0	0	0	0	0	0	0	0
Sigara sp.	0	0	0	0	0	0	0	0	0	0
Trichocorixa sp.	0	0	0	0	0	0	0	0	0	0
| Order: Lepidoptera	0	0	0	0	0	0	0	0	17	0
| Family: Noctuidae	0	0	0	0	0	0	0	0	0	0
| Order: Megaloptera	0	0	0	0	0	0	0	0	0	0
| Family: Sialidae	0	0	0	0	0	0	0	0	0	0
Sialis sp.	0	0	0	0	0	0	0	0	0	0
| Order: Odonata	0	0	0	0	0	0	0	0	0	0
| Family: Aeshnidae	0	0	0	0	0	0	0	0	0	0
Aeshna sp.	0	0	0	0	0	0	0	0	0	0
| Family: Corduliidae	0	0	0	0	0	0	0	0	0	0
Somatochlora sp.	0	0	0	0	0	0	0	0	0	0
| Class: Entognatha	0	0	0	0	0	0	0	0	0	0
| Order: Collembola	0	0	0	0	0	0	0	0	0	0
Subphylum: Crustacea	0	0	0	0	0	0	0	0	0	0
| Class: Ostracoda	3	3	1	2	2	9	1	14	17	17
| Class: Branchiopoda	0	0	0	0	0	0	0	0	0	0
| Order: Cladocera	0	0	0	0	0	0	0	0	0	0
| Family: Daphniidae	0	0	0	0	0	0	0	0	0	0
Daphnia sp.	0	0	0	0	0	0	0	0	0	0
| Class: Copepoda	0	0	0	0	0	0	0	0	0	0
| Class: Malacostraca	0	0	0	0	0	0	0	0	0	0
| Order: Amphipoda	0	0	0	0	0	0	0	0	0	0

Stream Name	Creek 704454					Lower Creek 661				
Site	BI-03 Rep 01	BI-03 Rep 02	BI-03 Rep 03	BI-03 Rep 04	BI-03 Rep 05	BI-04 Rep 01	BI-04 Rep 02	BI-04 Rep 03	BI-04 Rep 04	BI-04 Rep 05
Date	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012
Percent Sampled (%)	35%	31%	100%	44%	41%	11%	100%	7%	6%	6%
TAXONOMY										
| Family: Gammaridae	0	0	0	0	0	0	0	0	0	0
Gammarus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hyalellidae	0	0	0	0	0	0	0	0	0	0
Hyalella sp.	0	0	0	0	0	0	0	0	0	0
Subphylum: Chelicerata	0	0	0	0	0	0	0	0	0	0
| Class: Arachnida	0	0	0	0	0	0	0	0	0	0
| Order: Trombidiformes	3	3	0	0	0	9	1	0	0	0
| Family: Arrenuridae	0	0	0	0	0	0	0	0	0	0
Arrenurus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Aturidae	0	0	0	0	0	0	0	0	0	0
Aturus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydrodromidae	0	0	0	0	0	0	0	0	0	0
Hydrodroma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydryphantidae	0	0	0	0	0	0	0	0	0	0
Protzia sp.	0	0	1	0	0	0	0	0	0	0
| Family: Hygrobatidae	0	0	0	0	0	0	0	0	0	0
Hygrobates sp.	11	3	9	5	10	0	2	0	17	0
| Family: Lebertiidae	0	0	0	0	0	0	0	0	0	0
Lebertia sp.	23	29	7	9	17	0	1	0	0	17
| Family: Limnesiidae	0	0	0	0	0	0	0	0	0	0
Limnesia sp.	0	0	0	0	0	0	0	0	0	0
| Family: Mideopsidae	0	0	0	0	0	0	0	0	0	0
Mideopsis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Oxidae	0	0	0	0	0	0	0	0	0	0
Oxus sp.	0	3	0	0	0	0	0	0	0	0
| Family: Pionidae	0	0	0	0	0	0	0	0	0	0
Piona sp.	0	0	0	0	0	0	0	0	0	0
| Family: Sperchontidae	0	0	0	0	0	0	0	0	0	0
Sperchon sp.	31	32	8	25	22	18	3	0	0	0

Stream Name	Creek 704454					Lower Creek 661				
Site	BI-03 Rep 01	BI-03 Rep 02	BI-03 Rep 03	BI-03 Rep 04	BI-03 Rep 05	BI-04 Rep 01	BI-04 Rep 02	BI-04 Rep 03	BI-04 Rep 04	BI-04 Rep 05
Date	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012
Percent Sampled (%)	35%	31%	100%	44%	41%	11%	100%	7%	6%	6%
TAXONOMY										
Sperchonopsis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Torrenticolidae	0	0	0	0	0	0	0	0	0	0
Testudacarus sp.	11	3	2	5	12	0	0	0	0	0
Torrenticola sp.	0	0	0	0	0	0	1	0	0	0
| Family: Unionicolidae	0	0	0	0	0	0	0	0	0	0
Unionicola sp.	0	0	0	0	0	0	0	0	0	0
| Order: Sarcoptiformes	0	0	0	0	0	0	0	0	0	0
| Family: Hydrozetidae	9	6	2	0	0	0	0	0	0	0
Phylum: Mollusca	0	0	0	0	0	0	0	0	0	0
| Class: Bivalvia	0	0	0	0	0	0	0	0	0	0
| Order: Veneroida	0	0	0	0	0	0	0	0	0	0
| Family: Sphaeriidae	0	0	0	0	0	9	0	0	17	0
| Family: Unionoida	0	0	0	0	0	0	0	0	0	0
| Family: Margaritiferidae	0	0	0	0	0	0	0	0	0	0
Margaritifera falcata	0	0	0	0	0	0	0	0	0	0
Pisidium sp.	0	0	0	0	0	0	0	0	0	0
Sphaerium sp.	0	0	0	0	0	0	0	0	0	0
| Class: Gastropoda	0	0	0	0	0	0	0	0	0	0
| Order: Basommatophora	0	0	0	0	0	0	0	0	0	0
Acroloxus coloradensis	0	0	0	0	0	0	0	0	0	0
| Family: Physidae	0	0	0	0	0	0	0	0	0	0
Physa sp.	0	0	0	0	0	0	0	0	0	0
| Family: Planorbidae	0	0	0	0	0	0	0	0	0	0
Gyraulus sp.	0	0	0	0	0	0	0	0	0	0
Menetus opercularis	0	0	0	0	0	0	0	0	0	0
Menetus sp.	0	0	0	0	0	0	0	0	0	0
Promenetus umbilicatellus	0	0	0	0	0	0	0	0	0	0
| Order: Heterostropha	0	0	0	0	0	0	0	0	0	0
| Family: Valvatidae	0	0	0	0	0	0	0	0	0	0

Stream Name	Creek 704454					Lower Creek 661				
Site	BI-03 Rep 01	BI-03 Rep 02	BI-03 Rep 03	BI-03 Rep 04	BI-03 Rep 05	BI-04 Rep 01	BI-04 Rep 02	BI-04 Rep 03	BI-04 Rep 04	BI-04 Rep 05
Date	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012
Percent Sampled (%)	35%	31%	100%	44%	41%	11%	100%	7%	6%	6%
TAXONOMY										
Valvata sincera	0	0	0	0	0	0	0	0	0	0
| Order: Hypsogastropoda	0	0	0	0	0	0	0	0	0	0
| Family: Hydrobiidae	0	0	0	0	0	0	1	0	0	0
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
| Class: Hirudinea	0	0	0	0	0	0	0	0	0	0
| Order: Arhynchobdellida	0	0	0	0	0	0	0	0	0	0
| Family: Erpobdellidae	0	0	0	0	0	0	0	0	0	0
Erpobdella sp.	0	0	0	0	0	0	0	0	0	0
| Order: Rhynchobdellida	0	0	0	0	0	0	0	0	0	0
| Family: Glossiphoniidae	0	0	0	0	0	0	0	0	0	0
| Class: Oligochaeta	0	0	0	0	0	0	0	0	0	0
| Order: Lumbriculida	0	0	0	0	0	0	0	0	0	0
| Family: Lumbriculidae	0	0	0	0	0	0	0	0	0	0
| Order: Tubificida	0	0	0	0	0	0	0	0	0	0
| Family: Enchytraeidae	0	0	0	0	0	0	0	0	0	0
Enchytraeus	3	0	0	0	2	0	0	0	0	0
| Family: Lumbricidae	0	0	0	0	0	0	0	0	0	0
| Family: Naididae	0	10	0	0	0	0	0	0	0	0
Chaetogaster sp.	0	0	0	0	0	0	0	0	0	0
Stylaria sp.	0	0	0	0	0	0	0	0	0	0
Vejdovskyella intermedia	0	0	0	0	0	0	0	0	0	0
Phylum: Nemata	0	0	0	0	0	9	1	0	17	17
Phylum: Platyhelminthes	0	0	0	0	0	0	0	0	0	0
| Class: Turbellaria	3	3	1	2	2	0	0	0	0	0
Phylum: Cnidaria	0	0	0	0	0	0	0	0	0	0
| Class: Hydrozoa	0	0	0	0	0	0	0	0	0	0
| Order: Anthoathecatae	0	0	0	0	0	0	0	0	0	0
| Family: Hydridae	0	0	0	0	0	0	0	0	0	0

Stream Name	Creek 704454					Lower Creek 661				
Site	BI-03 Rep 01	BI-03 Rep 02	BI-03 Rep 03	BI-03 Rep 04	BI-03 Rep 05	BI-04 Rep 01	BI-04 Rep 02	BI-04 Rep 03	BI-04 Rep 04	BI-04 Rep 05
Date	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012
Percent Sampled (%)	35%	31%	100%	44%	41%	11%	100%	7%	6%	6%
TAXONOMY										
Hydra sp.	0	0	0	0	0	0	0	0	0	0
Totals:	950	1009	394	718	792	2772	207	4782	5553	5102

Table 5.3-1B: Stream Benthic Macroinvetebrate Taxonomic Composition and Density in Streams, 2012 (continued)

Stream Name	Upper Creek 661					Turtle Creek				
Site	BI-05 Rep 01	BI-05 Rep 02	BI-05 Rep 03	BI-05 Rep 04	BI-05 Rep 05	BI-07 Rep 01	BI-07 Rep 02	BI-07 Rep 03	BI-07 Rep 04	BI-07 Rep 05
Date	09/11/2012	09/11/2012	09/11/2012	09/11/2012	09/11/2012	09/06/2012	09/06/2012	09/06/2012	09/06/2012	09/06/2012
Percent Sampled (%)	8%	10%	11%	10%	15%	6%	7%	7%	11%	5%
TAXONOMY										
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Subphylum: Hexapoda	0	0	0	0	0	0	0	0	0	0
| Class: Insecta	0	0	0	0	0	0	0	0	0	0
| Order: Ephemeroptera	0	0	0	0	0	0	0	0	0	0
| Family: Ameletidae	0	0	0	0	0	0	0	0	0	0
Ameletus sp.	88	110	45	60	60	67	29	14	100	60
| Family: Baetidae	13	0	0	0	0	0	0	0	0	0
Acentrella sp.	0	0	0	0	0	0	0	0	0	0
Baetis bicaudatus	0	0	0	10	7	0	0	0	0	0
Baetis sp.	1138	930	636	1050	540	100	43	14	36	20
Baetis tricaudatus	13	10	36	10	13	33	29	29	0	0
Callibaetis sp.	0	0	0	0	0	0	0	0	0	0
Diphetor hageni	0	20	0	10	7	150	129	157	82	200
| Family: Caenidae	0	0	0	0	0	0	0	0	0	0
Caenis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Ephemerellidae	163	80	91	70	20	67	0	86	18	40
Caudatella sp.	0	0	0	0	0	0	0	0	0	0
Drunella coloradensis	0	0	0	0	0	0	0	0	0	0
Drunella doddsii	13	40	9	0	20	0	0	0	0	0
Drunella grandis	0	0	0	0	0	0	0	0	0	0
Drunella sp.	0	0	0	0	0	0	0	0	0	0
Drunella spinifera	0	0	0	0	0	67	57	29	9	80
Ephemerella sp.	13	30	45	70	33	100	157	43	91	180
Serratella sp.	0	0	0	0	0	0	0	0	0	0
| Family: Heptageniidae	188	80	91	200	193	467	586	643	227	520
Cinygmula sp.	13	20	9	30	27	0	0	0	0	0
Epeorus sp.	25	20	36	70	27	0	0	0	0	0
Heptagenia sp.	0	0	0	0	27	0	0	0	0	0

Stream Name	Upper Creek 661					Turtle Creek				
Site	BI-05 Rep 01	BI-05 Rep 02	BI-05 Rep 03	BI-05 Rep 04	BI-05 Rep 05	BI-07 Rep 01	BI-07 Rep 02	BI-07 Rep 03	BI-07 Rep 04	BI-07 Rep 05
Date	09/11/2012	09/11/2012	09/11/2012	09/11/2012	09/11/2012	09/06/2012	09/06/2012	09/06/2012	09/06/2012	09/06/2012
Percent Sampled (%)	8%	10%	11%	10%	15%	6%	7%	7%	11%	5%
TAXONOMY										
Rhithrogena sp.	0	30	18	10	7	0	0	14	0	0
| Family: Leptophlebiidae	50	10	36	30	0	150	14	0	27	60
Leptophlebia sp.	0	0	0	0	0	0	0	0	0	0
Paraleptophlebia sp.	0	90	36	80	7	117	14	86	36	40
| Order: Plecoptera	38	0	0	30	0	0	0	0	0	0
| Family: Capniidae	788	430	536	320	253	183	357	171	82	320
| Family: Chloroperlidae	13	10	0	0	13	0	0	0	0	0
Alloperla fraterna	0	0	0	0	0	0	0	0	0	0
Paraperla sp.	0	0	0	0	7	0	0	0	0	0
Suwallia sp.	13	0	27	0	7	0	0	0	0	0
Sweltsa sp.	188	160	155	170	107	0	0	0	0	0
| Family: Leuctridae	25	10	18	0	27	0	0	0	0	0
| Family: Nemouridae	0	0	0	0	0	0	0	0	0	0
Visoka cataractae	25	10	9	40	7	0	0	0	0	0
Zapada cinctipes	0	0	0	10	7	217	129	214	182	320
Zapada columbiana	0	0	9	10	13	0	0	0	0	0
Zapada oregonensis group	25	10	0	10	13	0	0	29	9	40
Zapada sp.	100	40	9	30	7	233	286	129	73	120
| Family: Perlidae	0	0	0	0	0	0	0	0	0	0
Hesperoperla sp.	0	0	0	0	0	17	0	0	0	0
| Family: Perlodidae	50	60	18	20	27	183	86	100	45	120
Cultus sp.	0	0	0	0	0	0	0	0	0	0
Isoperla sp.	13	10	0	10	13	0	14	0	9	0
Megarcys sp.	13	0	9	0	0	0	0	0	0	0
Skwala sp.	0	0	0	0	0	33	0	14	9	20
| Family: Pteronarcyidae	0	0	0	0	0	0	0	0	0	0
Pteronarcella sp.	0	0	0	0	0	0	0	0	0	0
Pteronarcys sp.	50	10	55	50	20	0	0	0	0	0
| Family:	0	0	0	0	0	0	0	0	0	0

Stream Name	Upper Creek 661					Turtle Creek				
Site	BI-05 Rep 01	BI-05 Rep 02	BI-05 Rep 03	BI-05 Rep 04	BI-05 Rep 05	BI-07 Rep 01	BI-07 Rep 02	BI-07 Rep 03	BI-07 Rep 04	BI-07 Rep 05
Date	09/11/2012	09/11/2012	09/11/2012	09/11/2012	09/11/2012	09/06/2012	09/06/2012	09/06/2012	09/06/2012	09/06/2012
Percent Sampled (%)	8%	10%	11%	10%	15%	6%	7%	7%	11%	5%
TAXONOMY										
Taeniopterygidae										
Taenionema sp.	413	380	255	230	87	0	0	0	0	0
| Order: Trichoptera	0	0	0	0	0	33	14	0	0	20
| Family: Apataniidae	0	0	0	0	0	0	0	0	0	0
Apatania sp.	0	0	0	0	0	0	0	0	0	0
| Family: Brachycentridae	0	0	9	0	0	0	0	0	0	20
Micrasema sp.	13	20	0	20	40	200	100	57	91	120
| Family: Glossosomatidae	0	0	0	0	0	0	0	0	0	0
Glossosoma sp.	13	20	18	30	27	0	0	0	0	0
| Family: Hydropsychidae	38	10	0	20	0	0	0	0	9	0
Hydropsyche sp.	0	0	0	0	0	0	14	0	0	0
Parapsyche sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydroptilidae	0	0	0	0	0	0	0	0	0	0
Agraylea sp.	0	0	0	0	0	0	29	0	27	20
Hydroptila sp.	0	0	0	0	0	0	0	0	0	0
Oxyethira sp.	0	0	0	0	0	0	0	14	9	20
| Family: Lepidostomatidae	0	0	0	0	0	0	0	0	0	0
Lepidostoma sp.	0	0	0	10	0	0	0	43	18	0
| Family: Leptoceridae	0	0	0	0	0	0	0	0	0	0
Ceraclea sp.	0	0	0	0	0	0	0	0	0	0
Mystacides sp.	0	0	0	0	0	0	0	0	0	0
Oecetis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Limnephilidae	25	70	27	40	47	17	14	0	0	0
Cryptochia sp.	0	0	0	0	7	0	0	0	0	0
Dicosmoecus sp.	0	0	0	0	0	0	0	0	0	20
Ecclisocosmoecus scylla	0	0	0	10	0	0	0	0	0	0
Limnephilus sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Upper Creek 661					Turtle Creek				
Site	BI-05 Rep 01	BI-05 Rep 02	BI-05 Rep 03	BI-05 Rep 04	BI-05 Rep 05	BI-07 Rep 01	BI-07 Rep 02	BI-07 Rep 03	BI-07 Rep 04	BI-07 Rep 05
Date	09/11/2012	09/11/2012	09/11/2012	09/11/2012	09/11/2012	09/06/2012	09/06/2012	09/06/2012	09/06/2012	09/06/2012
Percent Sampled (%)	8%	10%	11%	10%	15%	6%	7%	7%	11%	5%
TAXONOMY										
| Family: Philopotamidae	0	0	0	0	0	0	0	0	0	0
Dolophilodes sp.	0	0	0	0	0	0	0	0	0	0
| Family: Phryganeidae	0	0	0	0	0	0	0	0	0	0
Agrypnia sp.	0	0	0	0	0	0	0	0	0	0
| Family: Polycentropodidae	0	0	0	0	0	0	0	0	0	0
Polycentropus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Rhyacophilidae	0	0	0	0	0	0	0	0	0	0
Rhyacophila angelita group	13	0	0	20	0	0	14	0	0	0
Rhyacophila arnaudi	0	0	0	0	0	0	0	0	0	0
Rhyacophila betteni group	13	30	9	10	27	0	0	0	0	0
Rhyacophila brunnea group	0	10	18	10	7	0	29	14	0	20
Rhyacophila narvae	75	10	18	40	0	0	0	0	0	0
Rhyacophila nevadensis group	0	0	0	0	0	0	0	0	0	0
Rhyacophila sp.	63	20	27	40	40	50	14	43	9	80
Rhyacophila vofixa group	25	0	0	0	33	17	14	0	0	20
| Family: Uenoidae	0	0	0	0	0	0	0	0	0	0
Neothremma sp.	0	0	0	0	0	0	0	0	0	0
Oligophlebodes sp.	0	0	0	0	0	0	0	0	0	0
| Order: Coleoptera	0	0	0	10	0	0	0	0	0	0
| Family: Dytiscidae	0	0	0	0	0	0	0	0	0	0
Neoporus sp.	0	0	0	0	0	0	0	0	9	0
Oreodytes sp.	0	0	0	0	0	0	0	29	0	0
| Family: Elmidae	0	20	18	10	7	600	429	557	164	720
Cleptelmis addenda	0	0	0	0	0	0	0	0	0	0
Heterlimnius sp.	63	30	27	20	7	266	343	358	236	680
Optioservus sp.	0	0	0	0	0	17	43	71	9	100
| Family: Hydrophilidae	0	0	0	0	0	0	0	0	0	0
Hydrobius sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Upper Creek 661					Turtle Creek				
Site	BI-05 Rep 01	BI-05 Rep 02	BI-05 Rep 03	BI-05 Rep 04	BI-05 Rep 05	BI-07 Rep 01	BI-07 Rep 02	BI-07 Rep 03	BI-07 Rep 04	BI-07 Rep 05
Date	09/11/2012	09/11/2012	09/11/2012	09/11/2012	09/11/2012	09/06/2012	09/06/2012	09/06/2012	09/06/2012	09/06/2012
Percent Sampled (%)	8%	10%	11%	10%	15%	6%	7%	7%	11%	5%
TAXONOMY										
| Family: Staphylinidae	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
| Order: Diptera	0	0	0	0	0	0	29	0	9	0
| Family: Ceratopogonidae	0	0	0	0	0	0	0	0	0	0
Culicoides sp.	0	0	0	0	0	0	0	0	0	0
Mallochohelea	0	0	0	0	0	0	0	0	0	0
Probezzia sp.	0	0	0	0	7	0	14	14	18	40
Sphaeromias sp.	0	0	0	0	0	0	0	0	0	0
| Family: Chaoboridae	0	0	0	0	0	0	0	0	0	0
Chaoborus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Chironomidae	0	0	0	0	0	0	0	0	0	0
| Subfamily: Chironominae	0	0	0	0	0	0	0	0	0	0
| Tribe: Chironomini	0	0	0	0	0	0	0	0	0	0
Chironomus sp.	0	0	0	0	0	0	0	0	0	0
Dicrotendipes sp.	0	0	0	0	0	0	0	0	0	0
Glyptotendipes sp.	0	0	0	0	0	0	0	0	0	0
Microtendipes sp.	0	0	0	0	0	0	0	0	0	0
Pagastiella sp.	0	0	0	0	0	0	0	0	0	0
Polypedilum sp.	0	10	0	0	13	0	0	57	0	60
Zavrelia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Tanytarsini	0	0	0	0	0	0	0	0	0	0
Cladotanytarsus sp.	0	0	0	0	0	0	0	0	0	0
Corynocera sp.	0	0	0	0	0	0	0	0	0	0
Micropsectra sp.	25	20	45	60	73	0	0	0	18	0
Paratanytarsus sp.	0	0	0	0	0	0	0	0	0	0
Rheotanytarsus sp.	0	0	0	0	0	867	1000	214	464	1540
Stempellina sp.	13	0	0	0	53	233	357	257	100	0
Tanytarsus sp.	0	0	0	0	0	17	0	0	18	0

Stream Name	Upper Creek 661					Turtle Creek				
Site	BI-05 Rep 01	BI-05 Rep 02	BI-05 Rep 03	BI-05 Rep 04	BI-05 Rep 05	BI-07 Rep 01	BI-07 Rep 02	BI-07 Rep 03	BI-07 Rep 04	BI-07 Rep 05
Date	09/11/2012	09/11/2012	09/11/2012	09/11/2012	09/11/2012	09/06/2012	09/06/2012	09/06/2012	09/06/2012	09/06/2012
Percent Sampled (%)	8%	10%	11%	10%	15%	6%	7%	7%	11%	5%
TAXONOMY										
| Subfamily: Diamesinae	0	0	0	0	0	0	0	0	0	0
| Tribe: Diamesini	0	0	0	0	0	0	0	0	0	0
Diamesa sp.	0	0	0	0	0	0	0	0	0	0
Pagastia sp.	0	20	27	0	0	33	43	43	0	0
Potthastia longimana group	0	0	0	0	0	0	0	0	0	0
Pseudodiamesa sp.	0	0	0	0	0	0	0	0	0	0
| Subfamily: Orthocladiinae	0	0	0	0	0	0	0	0	0	0
Brillia sp.	0	0	0	40	7	0	0	0	0	0
Cardiocladius sp.	0	0	0	0	0	0	0	0	0	0
Cricotopus bicinctus group	0	0	0	0	0	0	0	0	0	0
Cricotopus nostocicola	0	0	0	0	0	117	100	86	64	80
Cricotopus sp.	0	0	0	0	0	0	0	0	0	0
Diplocladius cultriger	0	0	0	0	0	0	0	0	0	0
Doithrix sp.	0	0	0	0	0	0	0	0	9	0
Eukiefferiella sp.	13	0	0	0	0	50	114	0	0	240
Heterotrissocladius sp.	0	0	0	10	0	0	0	0	0	0
Hydrobaenus sp.	0	0	0	0	0	0	0	0	0	0
Limnophyes sp.	0	0	0	10	0	0	0	0	0	0
Orthocladius lignicola	75	10	0	30	20	0	0	0	0	0
Orthocladius sp.	13	20	36	0	0	50	71	57	0	100
Parachaetocladius sp.	0	0	0	0	0	0	0	0	0	0
Parakiefferiella sp.	0	0	0	0	0	0	0	0	0	0
Parametriocnemus sp.	0	0	0	0	7	0	0	0	0	0
Parorthocladius sp.	63	40	64	40	27	0	0	0	0	0
Psectrocladius sp.	0	0	0	0	0	0	0	0	0	0
Rheocricotopus sp.	0	0	27	0	0	0	0	0	0	0
Synorthocladius sp.	0	0	0	0	0	0	0	0	0	0
Thienemanniella	0	0	0	0	0	0	0	0	0	40

Stream Name	Upper Creek 661					Turtle Creek				
Site	BI-05 Rep 01	BI-05 Rep 02	BI-05 Rep 03	BI-05 Rep 04	BI-05 Rep 05	BI-07 Rep 01	BI-07 Rep 02	BI-07 Rep 03	BI-07 Rep 04	BI-07 Rep 05
Date	09/11/2012	09/11/2012	09/11/2012	09/11/2012	09/11/2012	09/06/2012	09/06/2012	09/06/2012	09/06/2012	09/06/2012
Percent Sampled (%)	8%	10%	11%	10%	15%	6%	7%	7%	11%	5%
TAXONOMY										
Tvetenia sp.	0	0	18	0	0	0	0	71	100	160
Zalutschia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Corynoneurini	0	0	0	0	0	0	0	0	0	0
Corynoneura sp.	0	0	0	0	0	0	0	29	0	0
| Tribe: Orthocladiini	0	0	0	0	0	0	0	0	0	0
Chaetocladius sp.	0	0	0	0	7	0	0	0	0	0
| Subfamily: Tanypodinae	0	0	18	0	0	67	100	86	82	200
| Tribe: Pentaneurini	0	0	0	0	0	0	0	0	0	0
Zavrelimyia sp.	0	0	0	0	0	17	0	0	0	0
| Tribe: Procladiini	0	0	0	0	0	0	0	0	0	0
Procladius sp.	13	20	18	0	0	0	0	0	0	0
| Family: Empididae	0	0	0	0	0	0	0	14	9	0
Chelifera/ Metachela	0	40	0	10	7	17	0	43	0	0
Clinocera sp.	0	0	0	0	0	33	29	0	9	20
Oreogeton sp.	0	0	18	0	7	0	0	0	0	0
| Family: Muscidae	0	0	0	0	0	0	0	0	0	0
Limnophora sp.	0	0	0	0	0	0	0	0	9	0
| Family: Psychodidae	0	0	0	0	0	0	0	0	0	0
Pericoma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Simuliidae	13	0	9	0	7	0	0	0	0	0
Prosimulium sp.	0	10	9	0	0	0	0	0	0	0
Simulium sp.	50	40	45	30	13	0	0	0	0	0
| Family: Tabanidae	0	0	0	0	0	0	0	0	0	0
Tabanus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Tipulidae	0	0	0	0	0	0	0	0	0	0
Antocha sp.	0	0	0	0	0	0	0	0	0	0
Dicranota sp.	38	40	18	20	13	50	100	57	0	80
Hexatoma sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Upper Creek 661					Turtle Creek				
Site	BI-05 Rep 01	BI-05 Rep 02	BI-05 Rep 03	BI-05 Rep 04	BI-05 Rep 05	BI-07 Rep 01	BI-07 Rep 02	BI-07 Rep 03	BI-07 Rep 04	BI-07 Rep 05
Date	09/11/2012	09/11/2012	09/11/2012	09/11/2012	09/11/2012	09/06/2012	09/06/2012	09/06/2012	09/06/2012	09/06/2012
Percent Sampled (%)	8%	10%	11%	10%	15%	6%	7%	7%	11%	5%
TAXONOMY										
Limnophila sp.	13	10	0	0	0	0	0	14	0	20
Pedicia sp.	0	0	0	0	0	0	0	0	0	0
Rhabdomastix sp.	0	0	0	0	0	0	0	0	0	0
Tipula sp.	50	20	18	10	0	0	0	0	0	0
| Order: Hemiptera	0	0	0	0	0	0	0	0	0	0
| Family: Corixidae	0	0	0	0	0	0	0	0	0	0
Palmacorixa sp.	0	0	0	0	0	0	0	0	0	0
Sigara sp.	0	0	0	0	0	0	14	0	0	0
Trichocorixa sp.	0	0	0	0	0	0	0	0	0	0
| Order: Lepidoptera	0	0	0	0	0	0	0	0	0	0
| Family: Noctuidae	0	0	0	0	0	0	0	0	0	0
| Order: Megaloptera	0	0	0	0	0	0	0	0	0	0
| Family: Sialidae	0	0	0	0	0	0	0	0	0	0
Sialis sp.	0	0	0	0	0	0	0	0	36	0
| Order: Odonata	0	0	0	0	0	0	0	0	0	0
| Family: Aeshnidae	0	0	0	0	0	0	0	0	0	0
Aeshna sp.	0	0	0	0	0	0	0	0	0	0
| Family: Corduliidae	0	0	0	0	0	0	0	0	0	0
Somatochlora sp.	0	0	0	0	0	0	0	0	0	0
| Class: Entognatha	0	0	0	0	0	0	0	0	0	0
| Order: Collembola	0	0	0	0	0	0	0	0	0	0
Subphylum: Crustacea	0	0	0	0	0	0	0	0	0	0
| Class: Ostracoda	13	10	9	10	7	17	14	14	9	20
| Class: Branchiopoda	0	0	0	0	0	0	0	0	0	0
| Order: Cladocera	0	0	0	0	0	0	0	0	0	0
| Family: Daphniidae	0	0	0	0	0	0	0	0	0	0
Daphnia sp.	0	0	0	0	0	0	14	0	0	0
| Class: Copepoda	0	0	0	0	0	0	14	0	0	20
| Class: Malacostraca	0	0	0	0	0	0	0	0	0	0

Stream Name	Upper Creek 661					Turtle Creek				
Site	BI-05 Rep 01	BI-05 Rep 02	BI-05 Rep 03	BI-05 Rep 04	BI-05 Rep 05	BI-07 Rep 01	BI-07 Rep 02	BI-07 Rep 03	BI-07 Rep 04	BI-07 Rep 05
Date	09/11/2012	09/11/2012	09/11/2012	09/11/2012	09/11/2012	09/06/2012	09/06/2012	09/06/2012	09/06/2012	09/06/2012
Percent Sampled (%)	8%	10%	11%	10%	15%	6%	7%	7%	11%	5%
TAXONOMY										
| Order: Amphipoda	0	0	0	0	0	0	0	14	0	20
| Family: Gammaridae	0	0	0	0	0	0	0	0	0	0
Gammarus sp.	0	0	0	0	0	33	14	29	27	60
| Family: Hyalellidae	0	0	0	0	0	0	0	0	0	0
Hyalella sp.	0	0	0	0	0	0	0	0	0	0
Subphylum: Chelicerata	0	0	0	0	0	0	0	0	0	0
| Class: Arachnida	0	0	0	0	0	0	0	0	0	0
| Order: Trombidiformes	0	0	0	0	0	0	0	0	0	0
| Family: Arrenuridae	0	0	0	0	0	0	0	0	0	0
Arrenurus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Aturidae	0	0	0	0	0	0	0	0	0	0
Aturus sp.	0	0	9	0	0	0	14	0	0	0
| Family: Hydrodromidae	0	0	0	0	0	0	0	0	0	0
Hydrodroma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydryphantidae	0	0	0	0	0	0	0	0	0	0
Protzia sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hygrobatidae	0	0	0	0	0	0	0	0	0	0
Hygrobates sp.	113	0	27	60	13	33	14	43	45	60
| Family: Lebertiidae	0	0	0	0	0	0	0	0	0	0
Lebertia sp.	0	10	18	20	13	100	14	43	27	80
| Family: Limnesiidae	0	0	0	0	0	0	0	0	0	0
Limnesia sp.	0	0	0	0	0	0	0	0	0	0
| Family: Mideopsidae	0	0	0	0	0	0	0	0	0	0
Mideopsis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Oxidae	0	0	0	0	0	0	0	0	0	0
Oxus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Pionidae	0	0	0	0	0	0	0	0	0	0
Piona sp.	0	0	0	0	0	0	0	0	0	0
| Family: Sperchontidae	0	0	0	0	0	0	0	0	0	0

Stream Name	Upper Creek 661					Turtle Creek				
Site	BI-05 Rep 01	BI-05 Rep 02	BI-05 Rep 03	BI-05 Rep 04	BI-05 Rep 05	BI-07 Rep 01	BI-07 Rep 02	BI-07 Rep 03	BI-07 Rep 04	BI-07 Rep 05
Date	09/11/2012	09/11/2012	09/11/2012	09/11/2012	09/11/2012	09/06/2012	09/06/2012	09/06/2012	09/06/2012	09/06/2012
Percent Sampled (%)	8%	10%	11%	10%	15%	6%	7%	7%	11%	5%
TAXONOMY										
Sperchon sp.	13	30	0	40	0	0	0	0	0	0
Sperchonopsis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Torrenticolidae	0	0	0	0	0	0	0	0	0	0
Testudacarus sp.	13	0	0	0	0	0	0	0	0	0
Torrenticola sp.	0	0	0	0	0	17	0	0	18	20
| Family: Unionicolidae	0	0	0	0	0	0	0	0	0	0
Unionicola sp.	0	0	0	0	0	0	0	0	0	0
| Order: Sarcoptiformes	0	0	0	0	0	0	0	0	0	0
| Family: Hydrozetidae	13	20	18	0	0	0	0	14	0	0
Phylum: Mollusca	0	0	0	0	0	0	0	0	0	0
| Class: Bivalvia	0	0	0	0	0	0	0	0	0	0
| Order: Veneroida	0	0	0	0	0	0	0	0	0	0
| Family: Sphaeriidae	0	10	0	0	7	400	86	400	327	520
| Family: Unionoida	0	0	0	0	0	0	0	0	0	0
| Family: Margaritiferidae	0	0	0	0	0	0	0	0	0	0
Margaritifera falcata	0	0	0	0	0	0	0	0	0	0
Pisidium sp.	0	0	9	0	0	117	14	86	18	100
Sphaerium sp.	0	0	0	0	0	0	0	0	27	0
| Class: Gastropoda	0	0	0	0	0	0	0	0	0	0
| Order: Basommatophora	0	0	0	0	0	0	0	0	0	0
Acroloxus coloradensis	0	0	0	0	0	0	0	0	0	0
| Family: Physidae	0	0	0	0	0	0	0	0	0	0
Physa sp.	0	0	0	0	0	0	0	0	0	0
| Family: Planorbidae	0	0	0	0	0	0	0	0	0	0
Gyraulus sp.	0	0	0	0	0	0	0	0	0	0
Menetus opercularis	0	0	0	0	0	0	0	0	0	0
Menetus sp.	0	0	0	0	0	0	0	0	0	0
Promenetus umbilicatellus	0	0	0	0	0	0	0	0	0	0
| Order: Heterostropha	0	0	0	0	0	0	0	0	0	0

Stream Name	Upper Creek 661					Turtle Creek				
Site	BI-05 Rep 01	BI-05 Rep 02	BI-05 Rep 03	BI-05 Rep 04	BI-05 Rep 05	BI-07 Rep 01	BI-07 Rep 02	BI-07 Rep 03	BI-07 Rep 04	BI-07 Rep 05
Date	09/11/2012	09/11/2012	09/11/2012	09/11/2012	09/11/2012	09/06/2012	09/06/2012	09/06/2012	09/06/2012	09/06/2012
Percent Sampled (%)	8%	10%	11%	10%	15%	6%	7%	7%	11%	5%
TAXONOMY										
| Family: Valvatidae	0	0	0	0	0	0	0	0	0	0
Valvata sincera	0	0	0	0	0	0	0	0	0	0
| Order: Hypsogastropoda	0	0	0	0	0	0	0	0	0	0
| Family: Hydrobiidae	0	0	0	0	0	0	0	0	0	0
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
| Class: Hirudinea	0	0	0	0	0	0	0	0	0	0
| Order: Arhynchobdellida	0	0	0	0	0	0	0	0	0	0
| Family: Erpobdellidae	0	0	0	0	0	0	0	0	0	0
Erpobdella sp.	0	0	0	0	0	0	0	0	0	0
| Order: Rhynchobdellida	0	0	0	0	0	0	0	0	0	0
| Family: Glossiphoniidae	0	0	0	0	0	0	0	0	0	0
| Class: Oligochaeta	0	0	0	0	0	0	0	0	0	0
| Order: Lumbriculida	0	0	0	0	0	0	0	0	0	0
| Family: Lumbriculidae	0	0	0	0	0	0	29	0	9	0
| Order: Tubificida	0	0	0	0	0	0	0	0	0	0
| Family: Enchytraeidae	0	0	0	0	0	0	0	0	0	0
Enchytraeus	0	0	0	0	0	0	0	0	0	0
| Family: Lumbricidae	0	0	0	0	0	17	0	0	0	0
| Family: Naididae	13	0	9	0	7	17	43	14	0	120
Chaetogaster sp.	0	0	0	0	0	0	0	0	0	0
Stylaria sp.	0	0	0	0	0	0	0	0	0	0
Vejdovskyella intermedia	0	0	0	0	0	0	0	0	0	0
Phylum: Nemata	0	0	9	10	7	17	14	0	9	20
Phylum: Platyhelminthes	0	0	0	0	0	0	0	0	0	0
| Class: Turbellaria	0	0	0	10	0	17	14	14	9	20
Phylum: Cnidaria	0	0	0	0	0	0	0	0	0	0
| Class: Hydrozoa	0	0	0	0	0	0	0	0	0	0
| Order: Anthoathecatae	0	0	0	0	0	0	0	0	0	0

Stream Name	Upper Creek 661					Turtle Creek				
Site	BI-05 Rep 01	BI-05 Rep 02	BI-05 Rep 03	BI-05 Rep 04	BI-05 Rep 05	BI-07 Rep 01	BI-07 Rep 02	BI-07 Rep 03	BI-07 Rep 04	BI-07 Rep 05
Date	09/11/2012	09/11/2012	09/11/2012	09/11/2012	09/11/2012	09/06/2012	09/06/2012	09/06/2012	09/06/2012	09/06/2012
Percent Sampled (%)	8%	10%	11%	10%	15%	6%	7%	7%	11%	5%
TAXONOMY										
| Family: Hydridae	0	0	0	0	0	0	0	0	0	0
Hydra sp.	0	0	0	0	0	0	0	0	0	0
Totals:	4369	3220	2837	3330	2153	5720	5256	4671	3086	7620

Table 5.3-1B: Stream Benthic Macroinvetebrate Taxonomic Composition and Density in Streams, 2012 (continued)

Stream Name	Creek 700					Chedakuz Creek				
Site	BI-08 Rep 01	BI-08 Rep 02	BI-08 Rep 03	BI-08 Rep 04	BI-08 Rep 05	BI-06 Rep 01	BI-06 Rep 02	BI-06 Rep 03	BI-06 Rep 04	BI-06 Rep 05
Date	09/08/2012	09/08/2012	09/08/2012	09/08/2012	09/08/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012
Percent Sampled (%)	8%	10%	11%	10%	15%	5%	4%	4%	4%	4%
TAXONOMY										
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Subphylum: Hexapoda	0	0	0	0	0	0	0	0	0	0
| Class: Insecta	0	0	0	0	0	0	0	0	0	0
| Order: Ephemeroptera	0	0	0	0	0	0	0	0	0	0
| Family: Ameletidae	0	0	0	0	0	0	0	0	0	0
Ameletus sp.	215	82	44	14	30	0	0	0	0	0
| Family: Baetidae	0	0	0	0	0	0	0	0	0	0
Acentrella sp.	0	0	0	0	0	0	0	0	0	0
Baetis bicaudatus	8	0	3	3	5	0	0	0	0	0
Baetis sp.	931	318	372	369	840	0	494	94	259	156
Baetis tricaudatus	8	3	0	0	20	0	47	0	47	22
Callibaetis sp.	0	0	0	0	0	0	0	0	0	0
Diphetor hageni	0	0	0	0	0	0	24	0	0	0
| Family: Caenidae	0	0	0	0	0	0	0	0	0	0
Caenis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Ephemerellidae	0	0	3	3	20	1420	4235	0	0	0
Caudatella sp.	0	0	0	0	0	0	0	0	0	0
Drunella coloradensis	0	0	0	0	5	0	0	0	0	0
Drunella doddsii	8	0	3	3	5	0	0	0	0	0
Drunella grandis	0	0	0	0	0	0	0	0	0	0
Drunella sp.	8	0	0	0	0	0	0	0	0	0
Drunella spinifera	0	0	0	0	10	300	235	188	71	67
Ephemerella sp.	0	0	0	0	0	340	3529	8847	6306	6378
Serratella sp.	0	0	0	0	0	0	0	0	0	0
| Family: Heptageniidae	115	45	15	9	30	400	918	212	588	600
Cinygmula sp.	23	12	3	0	5	0	0	0	0	0
Epeorus sp.	0	9	18	3	15	0	0	0	0	0
Heptagenia sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Creek 700					Chedakuz Creek				
Site	BI-08 Rep 01	BI-08 Rep 02	BI-08 Rep 03	BI-08 Rep 04	BI-08 Rep 05	BI-06 Rep 01	BI-06 Rep 02	BI-06 Rep 03	BI-06 Rep 04	BI-06 Rep 05
Date	09/08/2012	09/08/2012	09/08/2012	09/08/2012	09/08/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012
Percent Sampled (%)	8%	10%	11%	10%	15%	5%	4%	4%	4%	4%
TAXONOMY										
Rhithrogena sp.	8	15	15	14	15	0	0	0	0	0
| Family: Leptophlebiidae	23	9	3	3	0	20	306	0	0	578
Leptophlebia sp.	0	0	0	0	0	0	0	0	0	0
Paraleptophlebia sp.	23	0	5	0	20	0	235	918	729	0
	0	0	0	0	0	0	0	0	0	0
| Order: Plecoptera	0	0	3	0	0	0	0	0	0	0
| Family: Capniidae	154	73	23	26	45	80	94	0	0	0
| Family: Chloroperlidae	0	0	0	0	0	0	0	0	0	0
Alloperla fraterna	0	0	0	0	0	0	0	0	0	0
Paraperla sp.	0	0	0	0	0	0	0	0	0	0
Suwallia sp.	8	0	0	0	0	360	235	165	188	133
Sweltsa sp.	8	18	5	6	5	640	635	471	329	422
| Family: Leuctridae	0	0	0	0	0	0	0	0	0	0
| Family: Nemouridae	0	0	0	0	0	0	0	0	0	0
Visoka cataractae	0	0	0	0	0	0	0	0	0	0
Zapada cinctipes	0	0	0	0	0	0	0	0	0	44
Zapada columbiana	154	64	110	66	150	0	0	0	0	0
Zapada oregonensis group	0	0	0	0	5	0	0	0	0	0
Zapada sp.	223	61	41	57	115	40	871	1153	894	756
| Family: Perlidae	0	0	0	0	0	0	0	0	0	0
Hesperoperla sp.	0	0	0	0	0	0	118	24	47	0
| Family: Perlodidae	0	3	0	0	10	80	1012	471	376	400
Cultus sp.	0	0	0	0	0	0	0	47	0	0
Isoperla sp.	0	0	0	0	0	20	0	0	0	0
Megarcys sp.	0	0	0	11	0	0	0	0	0	0
Skwala sp.	0	3	0	0	0	60	165	141	24	89
| Family: Pteronarcyidae	0	0	0	0	0	0	0	0	0	0
Pteronarcella sp.	0	0	0	0	0	100	118	118	71	133
Pteronarcys sp.	0	0	0	0	0	0	0	0	24	0

Stream Name	Creek 700					Chedakuz Creek				
Site	BI-08 Rep 01	BI-08 Rep 02	BI-08 Rep 03	BI-08 Rep 04	BI-08 Rep 05	BI-06 Rep 01	BI-06 Rep 02	BI-06 Rep 03	BI-06 Rep 04	BI-06 Rep 05
Date	09/08/2012	09/08/2012	09/08/2012	09/08/2012	09/08/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012
Percent Sampled (%)	8%	10%	11%	10%	15%	5%	4%	4%	4%	4%
TAXONOMY										
| Family: Taeniopterygidae	0	3	0	0	0	0	0	0	0	0
Taenionema sp.	0	0	18	9	25	0	0	0	0	0
| Order: Trichoptera	0	0	0	0	0	0	141	24	118	22
| Family: Apataniidae	0	0	0	0	0	0	0	0	0	0
Apatania sp.	0	0	0	0	0	0	0	0	0	0
| Family: Brachycentridae	0	0	0	3	5	60	494	447	424	622
Micrasema sp.	8	0	0	0	10	0	235	47	165	44
| Family: Glossosomatidae	0	0	0	0	0	0	0	0	0	0
Glossosoma sp.	0	0	0	0	0	280	235	71	71	89
| Family: Hydropsychidae	0	3	13	6	10	40	94	94	165	89
Hydropsyche sp.	0	0	0	0	0	0	141	0	24	0
Parapsyche sp.	0	0	0	3	0	0	0	0	0	0
| Family: Hydroptilidae	0	0	0	0	0	0	0	0	0	0
Agraylea sp.	0	0	0	0	0	0	0	0	0	0
Hydroptila sp.	0	0	0	0	0	1260	729	1741	1035	533
Oxyethira sp.	0	0	0	0	0	80	0	0	24	22
| Family: Lepidostomatidae	0	0	0	0	0	0	0	0	0	0
Lepidostoma sp.	15	0	0	0	0	140	141	235	47	89
| Family: Leptoceridae	0	0	0	0	0	0	0	0	0	0
Ceraclea sp.	0	0	0	0	0	0	0	0	0	0
Mystacides sp.	0	0	0	0	0	0	0	0	0	0
Oecetis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Limnephilidae	0	0	3	11	5	20	0	71	0	0
Cryptochia sp.	0	0	0	0	0	0	0	0	0	0
Dicosmoecus sp.	0	0	0	0	0	0	47	24	0	0
Ecclisocosmoecus scylla	0	0	0	0	0	0	0	0	0	0
Limnephilus sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Creek 700					Chedakuz Creek				
Site	BI-08 Rep 01	BI-08 Rep 02	BI-08 Rep 03	BI-08 Rep 04	BI-08 Rep 05	BI-06 Rep 01	BI-06 Rep 02	BI-06 Rep 03	BI-06 Rep 04	BI-06 Rep 05
Date	09/08/2012	09/08/2012	09/08/2012	09/08/2012	09/08/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012
Percent Sampled (%)	8%	10%	11%	10%	15%	5%	4%	4%	4%	4%
TAXONOMY										
| Family: Philopotamidae	0	0	0	0	0	0	0	0	0	0
Dolophilodes sp.	0	0	0	0	0	0	0	0	0	0
| Family: Phryganeidae	0	0	0	0	0	0	0	0	0	0
Agrypnia sp.	0	0	0	0	0	0	0	0	0	0
| Family: Polycentropodidae	0	0	0	0	0	0	0	0	0	0
Polycentropus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Rhyacophilidae	0	0	0	0	0	0	0	0	0	0
Rhyacophila angelita group	0	0	0	0	0	0	0	0	0	22
Rhyacophila arnaudi	0	0	0	0	0	20	0	0	0	0
Rhyacophila betteni group	15	3	0	3	0	0	0	0	0	0
Rhyacophila brunnea group	0	0	0	0	0	0	118	47	71	0
Rhyacophila narvae	0	0	0	0	0	0	0	0	0	0
Rhyacophila nevadensis group	0	0	0	0	0	0	0	0	0	0
Rhyacophila sp.	0	3	5	9	25	0	165	71	24	44
Rhyacophila vofixa group	8	0	0	3	0	0	0	0	0	44
| Family: Uenoidae	0	0	0	0	0	0	0	0	0	0
Neothremma sp.	8	0	0	0	5	0	0	0	0	0
Oligophlebodes sp.	0	0	0	0	0	0	0	0	0	0
| Order: Coleoptera	0	0	0	0	0	0	0	0	0	0
| Family: Dytiscidae	0	0	0	0	0	0	0	0	0	0
Neoporus sp.	0	0	0	0	0	0	0	0	0	0
Oreodytes sp.	0	0	0	0	0	0	0	0	0	0
| Family: Elmidae	0	0	0	0	0	300	1388	565	1129	511
Cleptelmis addenda	0	0	0	0	0	0	71	0	0	67
Heterlimnius sp.	0	0	0	0	0	0	0	0	0	0
Optioservus sp.	0	0	0	0	0	720	2211	1741	965	800
| Family: Hydrophilidae	0	0	0	0	0	0	0	0	0	0
Hydrobius sp.	0	0	0	0	5	0	0	0	0	0

Stream Name	Creek 700					Chedakuz Creek				
Site	BI-08 Rep 01	BI-08 Rep 02	BI-08 Rep 03	BI-08 Rep 04	BI-08 Rep 05	BI-06 Rep 01	BI-06 Rep 02	BI-06 Rep 03	BI-06 Rep 04	BI-06 Rep 05
Date	09/08/2012	09/08/2012	09/08/2012	09/08/2012	09/08/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012
Percent Sampled (%)	8%	10%	11%	10%	15%	5%	4%	4%	4%	4%
TAXONOMY										
| Family: Staphylinidae	0	0	0	0	0	0	0	0	0	0
| Order: Diptera	0	0	0	0	0	0	0	0	0	0
| Family: Ceratopogonidae	0	0	0	0	0	0	0	0	0	0
Culicoides sp.	0	0	0	0	0	0	0	0	0	0
Mallochohelea	0	0	0	0	0	20	24	0	0	0
Probezzia sp.	0	0	0	0	0	0	0	0	0	22
Sphaeromias sp.	0	0	0	0	0	0	0	0	0	0
| Family: Chaoboridae	0	0	0	0	0	0	0	0	0	0
Chaoborus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Chironomidae	0	0	0	0	0	0	0	0	0	0
| Subfamily: Chironominae	0	0	0	0	0	0	0	0	0	0
| Tribe: Chironomini	0	0	0	0	0	0	0	0	0	0
Chironomus sp.	0	0	0	0	0	0	0	0	0	0
Dicrotendipes sp.	0	0	0	0	0	0	0	0	0	0
Glyptotendipes sp.	0	0	0	0	0	0	0	0	0	0
Microtendipes sp.	0	0	0	0	0	120	0	118	24	111
Pagastiella sp.	0	0	0	0	0	0	0	0	0	0
Polypedilum sp.	0	0	0	0	0	60	165	235	0	0
Zavrelia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Tanytarsini	0	0	0	0	0	0	0	0	0	0
Cladotanytarsus sp.	0	0	0	0	0	0	1012	188	1341	333
Corynocera sp.	0	0	0	0	0	0	0	0	0	0
Micropsectra sp.	177	30	13	49	20	80	0	71	0	0
Paratanytarsus sp.	0	0	0	0	0	0	0	0	0	0
Rheotanytarsus sp.	0	0	0	0	0	20	0	0	0	0
Stempellina sp.	0	0	0	0	0	0	0	0	0	0
Tanytarsus sp.	0	0	0	0	0	0	0	0	0	0
| Subfamily: Diamesinae	0	0	0	0	0	0	0	0	0	0

Stream Name	Creek 700					Chedakuz Creek				
Site	BI-08 Rep 01	BI-08 Rep 02	BI-08 Rep 03	BI-08 Rep 04	BI-08 Rep 05	BI-06 Rep 01	BI-06 Rep 02	BI-06 Rep 03	BI-06 Rep 04	BI-06 Rep 05
Date	09/08/2012	09/08/2012	09/08/2012	09/08/2012	09/08/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012
Percent Sampled (%)	8%	10%	11%	10%	15%	5%	4%	4%	4%	4%
TAXONOMY										
| Tribe: Diamesini	0	0	0	0	0	0	0	0	0	0
Diamesa sp.	0	0	0	0	0	0	0	0	0	0
Pagastia sp.	8	0	5	0	0	0	118	0	71	0
Potthastia longimana group	0	0	0	0	0	0	141	0	0	0
Pseudodiamesa sp.	0	0	0	0	0	0	0	0	0	0
| Subfamily: Orthocladiinae	0	0	0	0	0	0	0	0	0	0
Brillia sp.	0	0	0	14	20	0	0	0	0	0
Cardiocladius sp.	0	0	0	0	0	0	0	0	0	0
Cricotopus bicinctus group	0	0	0	0	0	0	0	0	0	0
Cricotopus nostocicola	0	0	0	0	0	0	259	235	306	178
Cricotopus sp.	0	0	0	0	0	0	0	0	0	0
Diplocladius cultriger	0	0	0	0	0	0	0	0	0	0
Doithrix sp.	0	0	0	0	0	0	0	0	0	0
Eukiefferiella sp.	46	18	15	14	20	0	0	0	0	0
Heterotrissocladius sp.	0	0	0	0	0	0	0	0	0	0
Hydrobaenus sp.	15	0	0	0	0	0	0	0	0	0
Limnophyes sp.	0	0	0	0	0	0	0	0	0	0
Orthocladius lignicola	0	0	0	0	0	40	0	0	0	0
Orthocladius sp.	38	12	28	20	50	100	282	188	165	156
Parachaetocladius sp.	0	0	0	0	0	0	94	0	0	0
Parakiefferiella sp.	0	9	0	0	0	0	0	0	0	0
Parametriocnemus sp.	0	0	0	0	0	0	0	0	0	0
Parorthocladius sp.	85	39	18	20	45	0	0	0	0	0
Psectrocladius sp.	0	0	0	0	0	0	0	0	0	0
Rheocricotopus sp.	0	0	0	0	0	0	0	0	0	0
Synorthocladius sp.	0	0	0	0	0	40	94	47	0	0
Thienemanniella	0	0	0	0	0	0	0	0	0	0
Tvetenia sp.	62	21	10	0	25	0	141	0	71	133

Stream Name	Creek 700					Chedakuz Creek				
Site	BI-08 Rep 01	BI-08 Rep 02	BI-08 Rep 03	BI-08 Rep 04	BI-08 Rep 05	BI-06 Rep 01	BI-06 Rep 02	BI-06 Rep 03	BI-06 Rep 04	BI-06 Rep 05
Date	09/08/2012	09/08/2012	09/08/2012	09/08/2012	09/08/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012
Percent Sampled (%)	8%	10%	11%	10%	15%	5%	4%	4%	4%	4%
TAXONOMY										
Zalutschia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Corynoneurini	0	0	0	0	0	0	0	0	0	0
Corynoneura sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Orthocladiini	0	0	0	0	0	0	0	0	0	0
Chaetocladius sp.	0	0	0	0	0	0	0	0	0	0
| Subfamily: Tanypodinae	38	0	0	6	20	20	0	329	118	133
| Tribe: Pentaneurini	0	0	0	0	0	0	0	0	0	0
Zavrelimyia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Procladiini	0	0	0	0	0	0	0	0	0	0
Procladius sp.	0	0	0	0	0	40	0	71	0	0
| Family: Empididae	0	0	0	0	0	0	0	0	0	0
Chelifera/ Metachela	15	6	5	9	0	160	212	235	71	111
Clinocera sp.	0	0	0	0	0	0	0	0	0	0
Oreogeton sp.	0	0	0	9	0	20	71	0	0	0
| Family: Muscidae	0	0	0	0	0	0	0	0	0	0
Limnophora sp.	0	0	0	0	0	0	0	0	0	0
| Family: Psychodidae	0	0	0	0	0	0	0	0	0	0
Pericoma sp.	0	0	0	0	0	1040	2400	2000	965	1467
| Family: Simuliidae	0	0	0	0	0	0	0	0	0	0
Prosimulium sp.	0	0	0	0	0	0	0	0	0	0
Simulium sp.	8	0	5	17	35	0	24	0	0	22
| Family: Tabanidae	0	0	0	0	0	0	0	0	0	0
Tabanus sp.	0	0	0	0	0	20	0	0	0	0
| Family: Tipulidae	0	0	0	0	0	0	0	0	0	0
Antocha sp.	0	0	0	0	0	20	24	24	24	22
Dicranota sp.	15	12	0	9	10	80	118	0	0	89
Hexatoma sp.	0	0	0	0	0	80	0	47	0	0
Limnophila sp.	0	0	0	0	0	20	0	0	0	0

Stream Name	Creek 700					Chedakuz Creek				
Site	BI-08 Rep 01	BI-08 Rep 02	BI-08 Rep 03	BI-08 Rep 04	BI-08 Rep 05	BI-06 Rep 01	BI-06 Rep 02	BI-06 Rep 03	BI-06 Rep 04	BI-06 Rep 05
Date	09/08/2012	09/08/2012	09/08/2012	09/08/2012	09/08/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012
Percent Sampled (%)	8%	10%	11%	10%	15%	5%	4%	4%	4%	4%
TAXONOMY										
Pedicia sp.	0	0	0	3	0	0	0	0	0	0
Rhabdomastix sp.	0	0	0	0	0	0	0	0	0	0
Tipula sp.	0	0	0	0	0	0	0	0	0	0
| Order: Hemiptera	0	0	0	0	0	0	0	0	0	0
| Family: Corixidae	0	0	0	0	0	0	0	0	0	0
Palmacorixa sp.	0	0	0	0	0	0	0	0	0	0
Sigara sp.	0	0	0	0	0	0	0	0	0	0
Trichocorixa sp.	0	0	0	0	0	0	0	0	0	0
| Order: Lepidoptera	0	0	0	0	0	0	0	0	0	0
| Family: Noctuidae	0	0	0	0	0	0	0	0	0	0
| Order: Megaloptera	0	0	0	0	0	0	0	0	0	0
| Family: Sialidae	0	0	0	0	0	0	0	0	0	0
Sialis sp.	0	0	0	0	0	0	0	0	0	0
| Order: Odonata	0	0	0	0	0	0	0	0	0	0
| Family: Aeshnidae	0	0	0	0	0	0	0	0	0	0
Aeshna sp.	0	0	0	0	0	0	0	0	0	0
| Family: Corduliidae	0	0	0	0	0	0	0	0	0	0
Somatochlora sp.	0	0	0	0	0	0	0	0	0	0
| Class: Entognatha	0	0	0	0	0	0	0	0	0	0
| Order: Collembola	0	0	0	0	0	0	0	0	24	0
Subphylum: Crustacea	0	0	0	0	0	0	0	0	0	0
| Class: Ostracoda	0	3	3	3	5	0	24	0	0	0
| Class: Branchiopoda	0	0	0	0	0	0	0	0	0	0
| Order: Cladocera	0	0	0	0	0	0	0	0	0	0
| Family: Daphniidae	0	0	0	0	0	0	0	0	0	0
Daphnia sp.	0	0	0	0	0	0	0	0	24	0
| Class: Copepoda	0	0	0	0	0	0	0	0	24	0
| Class: Malacostraca	0	0	0	0	0	0	0	0	0	0
| Order: Amphipoda	0	0	0	0	0	0	0	0	0	0

Stream Name	Creek 700					Chedakuz Creek				
Site	BI-08 Rep 01	BI-08 Rep 02	BI-08 Rep 03	BI-08 Rep 04	BI-08 Rep 05	BI-06 Rep 01	BI-06 Rep 02	BI-06 Rep 03	BI-06 Rep 04	BI-06 Rep 05
Date	09/08/2012	09/08/2012	09/08/2012	09/08/2012	09/08/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012
Percent Sampled (%)	8%	10%	11%	10%	15%	5%	4%	4%	4%	4%
TAXONOMY										
| Family: Gammaridae	0	0	0	0	0	0	0	0	0	0
Gammarus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hyalellidae	0	0	0	0	0	0	0	0	0	0
Hyalella sp.	0	0	0	0	0	0	0	0	0	0
Subphylum: Chelicerata	0	0	0	0	0	0	0	0	0	0
| Class: Arachnida	0	0	0	0	0	0	0	0	0	0
| Order: Trombidiformes	0	0	0	0	5	20	0	0	0	22
| Family: Arrenuridae	0	0	0	0	0	0	0	0	0	0
Arrenurus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Aturidae	0	0	0	0	0	0	0	0	0	0
Aturus sp.	0	0	0	0	0	0	24	0	0	0
| Family: Hydrodromidae	0	0	0	0	0	0	0	0	0	0
Hydrodroma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydryphantidae	0	0	0	0	0	0	0	0	0	0
Protzia sp.	0	0	0	0	0	20	24	47	24	0
| Family: Hygrobatidae	0	0	0	0	0	0	0	0	0	0
Hygrobates sp.	0	0	0	0	0	20	71	47	141	22
| Family: Lebertiidae	0	0	0	0	0	0	0	0	0	0
Lebertia sp.	0	3	0	0	0	200	188	141	71	0
| Family: Limnesiidae	0	0	0	0	0	0	0	0	0	0
Limnesia sp.	0	0	0	0	0	0	0	0	0	0
| Family: Mideopsidae	0	0	0	0	0	0	0	0	0	0
Mideopsis sp.	0	0	0	0	0	20	24	0	24	0
| Family: Oxidae	0	0	0	0	0	0	0	0	0	0
Oxus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Pionidae	0	0	0	0	0	0	0	0	0	0
Piona sp.	0	0	0	0	0	0	0	0	0	0
| Family: Sperchontidae	0	0	0	0	0	0	0	0	0	0
Sperchon sp.	8	3	0	6	0	20	94	24	24	67

Stream Name	Creek 700					Chedakuz Creek				
Site	BI-08 Rep 01	BI-08 Rep 02	BI-08 Rep 03	BI-08 Rep 04	BI-08 Rep 05	BI-06 Rep 01	BI-06 Rep 02	BI-06 Rep 03	BI-06 Rep 04	BI-06 Rep 05
Date	09/08/2012	09/08/2012	09/08/2012	09/08/2012	09/08/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012
Percent Sampled (%)	8%	10%	11%	10%	15%	5%	4%	4%	4%	4%
TAXONOMY										
Sperchonopsis sp.	0	0	0	0	0	0	24	0	24	0
| Family: Torrenticolidae	0	0	0	0	0	0	0	0	0	0
Testudacarus sp.	0	0	0	0	0	0	94	118	47	67
Torrenticola sp.	0	0	0	0	0	140	424	471	353	133
| Family: Unionicolidae	0	0	0	0	0	0	0	0	0	0
Unionicola sp.	0	0	0	0	0	0	0	0	0	0
| Order: Sarcoptiformes	0	0	0	0	0	0	0	0	0	0
| Family: Hydrozetidae	0	6	3	0	0	0	0	0	0	0
Phylum: Mollusca	0	0	0	0	0	0	0	0	0	0
| Class: Bivalvia	0	0	0	0	0	0	0	0	0	0
| Order: Veneroida	0	0	0	0	0	0	0	0	0	0
| Family: Sphaeriidae	0	3	0	0	0	920	988	3388	353	778
| Family: Unionoida	0	0	0	0	0	0	0	0	0	0
| Family: Margaritiferidae	0	0	0	0	0	0	0	0	0	0
Margaritifera falcata	0	0	0	0	0	0	0	0	24	0
Pisidium sp.	0	0	0	0	0	80	47	353	141	244
Sphaerium sp.	0	0	0	0	0	80	47	24	47	0
| Class: Gastropoda	0	0	0	0	0	0	0	0	0	0
| Order: Basommatophora	0	0	0	0	0	0	0	0	0	0
Acroloxus coloradensis	0	0	0	0	0	0	0	0	0	0
| Family: Physidae	0	0	0	0	0	0	0	0	0	0
Physa sp.	0	0	0	0	0	0	0	0	0	0
| Family: Planorbidae	0	0	0	0	0	0	0	0	0	0
Gyraulus sp.	0	0	0	0	0	20	0	0	0	0
Menetus opercularis	0	0	0	0	0	0	0	0	0	0
Menetus sp.	0	0	0	0	0	0	0	0	0	0
Promenetus umbilicatellus	0	0	0	0	0	0	0	0	0	0
| Order: Heterostropha	0	0	0	0	0	0	0	0	0	0
| Family: Valvatidae	0	0	0	0	0	0	0	0	0	0

Stream Name	Creek 700					Chedakuz Creek				
Site	BI-08 Rep 01	BI-08 Rep 02	BI-08 Rep 03	BI-08 Rep 04	BI-08 Rep 05	BI-06 Rep 01	BI-06 Rep 02	BI-06 Rep 03	BI-06 Rep 04	BI-06 Rep 05
Date	09/08/2012	09/08/2012	09/08/2012	09/08/2012	09/08/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012
Percent Sampled (%)	8%	10%	11%	10%	15%	5%	4%	4%	4%	4%
TAXONOMY										
Valvata sincera	0	0	0	0	0	0	0	0	0	0
| Order: Hypsogastropoda	0	0	0	0	0	0	0	0	0	0
| Family: Hydrobiidae	0	0	0	0	0	0	0	0	0	0
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
| Class: Hirudinea	0	0	0	0	0	0	0	0	0	0
| Order: Arhynchobdellida	0	0	0	0	0	0	0	0	0	0
| Family: Erpobdellidae	0	0	0	0	0	0	0	0	0	0
Erpobdella sp.	0	0	0	0	0	0	0	0	0	0
| Order: Rhynchobdellida	0	0	0	0	0	0	0	0	0	0
| Family: Glossiphoniidae	0	0	0	0	0	0	0	0	0	0
| Class: Oligochaeta	0	0	0	0	0	0	0	0	0	0
| Order: Lumbriculida	0	0	0	0	0	0	0	0	0	0
| Family: Lumbriculidae	54	24	18	49	50	0	0	0	0	0
| Order: Tubificida	0	0	0	0	0	0	0	0	0	0
| Family: Enchytraeidae	0	0	0	0	0	0	0	0	0	0
Enchytraeus	0	0	0	0	0	20	47	24	24	67
| Family: Lumbricidae	0	0	0	0	0	0	0	0	0	0
| Family: Naididae	0	0	0	0	0	140	1294	894	1859	311
Chaetogaster sp.	0	0	0	0	0	0	0	0	0	0
Stylaria sp.	0	0	0	0	0	0	0	0	0	0
Vejdovskyella intermedia	0	0	0	0	0	0	0	0	0	0
Phylum: Nemata	0	3	0	0	0	0	24	24	24	0
Phylum: Platyhelminthes	0	0	0	0	0	0	0	0	0	0
| Class: Turbellaria	0	0	0	0	0	0	24	0	24	22
Phylum: Cnidaria	0	0	0	0	0	0	0	0	0	0
| Class: Hydrozoa	0	0	0	0	0	0	0	0	0	0
| Order: Anthoathecatae	0	0	0	0	0	0	0	0	0	0
| Family: Hydridae	0	0	0	0	0	0	0	0	0	0

Stream Name	Creek 700					Chedakuz Creek				
Site	BI-08 Rep 01	BI-08 Rep 02	BI-08 Rep 03	BI-08 Rep 04	BI-08 Rep 05	BI-06 Rep 01	BI-06 Rep 02	BI-06 Rep 03	BI-06 Rep 04	BI-06 Rep 05
Date	09/08/2012	09/08/2012	09/08/2012	09/08/2012	09/08/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012	09/10/2012
Percent Sampled (%)	8%	10%	11%	10%	15%	5%	4%	4%	4%	4%
TAXONOMY										
Hydra sp.	0	0	0	0	0	0	0	0	24	0
Totals:	2540	919	828	862	1745	10460	28122	27370	20671	17286

Table 5.3-1B: Stream Benthic Macroinvetebrate Taxonomic Composition and Density in Streams, 2012 (continued)

Stream Name	Lower Creek 705					Upper Creek 705				
Site	BI-09 Rep 01	BI-09 Rep 02	BI-09 Rep 03	BI-09 Rep 04	BI-09 Rep 05	BI-12 Rep 01	BI-06 Rep 02	BI-06 Rep 03	BI-06 Rep 04	BI-06 Rep 05
Date	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/12/2012	09/12/2012	09/12/2012	09/12/2012	09/12/2012
Percent Sampled (%)	10%	11%	16%	12%	11%	21%	47%	40%	11%	16%
TAXONOMY										
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Subphylum: Hexapoda	0	0	0	0	0	0	0	0	0	0
| Class: Insecta	0	0	0	0	0	0	0	0	0	0
| Order: Ephemeroptera	0	0	0	0	0	0	0	0	0	0
| Family: Ameletidae	0	0	0	0	0	0	0	0	0	0
Ameletus sp.	30	36	6	33	9	0	4	3	0	19
| Family: Baetidae	0	0	0	0	0	0	0	0	0	0
Acentrella sp.	0	0	0	0	0	0	0	0	9	0
Baetis bicaudatus	0	0	19	0	9	0	0	0	9	0
Baetis sp.	960	700	544	992	1064	229	104	118	509	250
Baetis tricaudatus	30	18	6	25	18	5	2	0	0	0
Callibaetis sp.	0	0	0	0	0	0	0	0	0	0
Diphetor hageni	0	0	0	0	0	5	2	0	0	0
| Family: Caenidae	0	0	0	0	0	0	0	0	0	0
Caenis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Ephemerellidae	140	91	63	75	0	38	17	10	55	25
Caudatella sp.	0	0	0	0	0	0	2	3	0	0
Drunella coloradensis	0	0	0	0	0	0	0	0	0	0
Drunella doddsii	70	109	13	33	82	10	6	15	0	31
Drunella grandis	0	0	0	0	0	0	2	0	0	0
Drunella sp.	0	0	0	0	0	0	0	0	0	0
Drunella spinifera	0	0	0	0	0	10	2	3	0	6
Ephemerella sp.	0	0	0	0	18	76	30	30	36	38
Serratella sp.	0	0	0	0	0	0	0	0	0	0
| Family: Heptageniidae	120	209	150	108	155	129	81	48	109	175
Cinygmula sp.	0	18	25	17	18	0	2	0	0	0
Epeorus sp.	30	55	19	33	36	14	11	5	18	19
Heptagenia sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Lower Creek 705					Upper Creek 705				
Site	BI-09 Rep 01	BI-09 Rep 02	BI-09 Rep 03	BI-09 Rep 04	BI-09 Rep 05	BI-12 Rep 01	BI-06 Rep 02	BI-06 Rep 03	BI-06 Rep 04	BI-06 Rep 05
Date	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/12/2012	09/12/2012	09/12/2012	09/12/2012	09/12/2012
Percent Sampled (%)	10%	11%	16%	12%	11%	21%	47%	40%	11%	16%
TAXONOMY										
Rhithrogena sp.	120	91	75	42	109	19	15	15	9	81
| Family: Leptophlebiidae	0	9	0	0	0	0	11	0	0	0
Leptophlebia sp.	0	0	0	0	0	0	0	0	0	0
Paraleptophlebia sp.	130	218	181	92	145	124	17	25	118	113
| Order: Plecoptera	0	0	0	0	0	0	6	3	0	6
| Family: Capniidae	320	291	231	308	218	110	34	43	91	38
| Family: Chloroperlidae	0	0	0	0	0	0	0	0	0	0
Alloperla fraterna	0	18	6	0	0	0	0	0	0	0
Paraperla sp.	0	0	0	0	0	0	0	0	0	0
Suwallia sp.	50	36	19	8	0	0	0	0	0	13
Sweltsa sp.	120	73	94	33	64	19	4	10	27	6
| Family: Leuctridae	50	64	38	0	0	10	2	3	36	13
| Family: Nemouridae	20	0	0	0	0	0	0	0	0	0
Visoka cataractae	0	9	0	0	9	0	6	0	0	0
Zapada cinctipes	10	0	0	8	9	43	13	8	209	119
Zapada columbiana	80	9	69	92	82	5	9	23	55	13
Zapada oregonensis group	20	0	6	0	9	10	4	10	45	25
Zapada sp.	80	55	69	83	82	119	66	95	391	344
| Family: Perlidae	0	0	0	0	0	14	13	10	55	44
Hesperoperla sp.	0	0	0	0	9	0	0	0	0	0
| Family: Perlodidae	40	36	38	42	36	43	6	3	36	19
Cultus sp.	0	0	0	0	0	0	0	0	0	0
Isoperla sp.	0	0	0	0	0	5	0	0	0	0
Megarcys sp.	10	9	13	25	9	0	2	0	0	0
Skwala sp.	30	45	0	0	0	0	0	0	0	6
| Family: Pteronarcyidae	0	0	0	0	0	0	0	0	0	0
Pteronarcella sp.	0	0	0	0	0	0	0	0	0	0
Pteronarcys sp.	20	9	0	8	27	0	0	0	0	0
| Family:	0	0	0	0	0	0	0	0	0	0

Stream Name	Lower Creek 705					Upper Creek 705				
Site	BI-09 Rep 01	BI-09 Rep 02	BI-09 Rep 03	BI-09 Rep 04	BI-09 Rep 05	BI-12 Rep 01	BI-06 Rep 02	BI-06 Rep 03	BI-06 Rep 04	BI-06 Rep 05
Date	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/12/2012	09/12/2012	09/12/2012	09/12/2012	09/12/2012
Percent Sampled (%)	10%	11%	16%	12%	11%	21%	47%	40%	11%	16%
TAXONOMY										
Taeniopterygidae										
Taenionema sp.	170	109	106	283	218	162	83	135	600	313
| Order: Trichoptera	0	0	0	0	0	0	0	0	0	0
| Family: Apataniidae	0	0	0	0	0	0	0	0	0	0
Apatania sp.	0	0	0	0	0	0	0	0	0	0
| Family: Brachycentridae	0	0	0	0	0	0	4	5	36	0
Micrasema sp.	0	0	0	0	9	48	32	23	82	50
| Family: Glossosomatidae	0	0	0	0	0	0	0	0	0	0
Glossosoma sp.	10	0	19	17	0	19	2	3	9	6
| Family: Hydropsychidae	10	0	0	0	0	0	0	3	0	13
Hydropsyche sp.	0	0	0	0	0	0	0	0	0	0
Parapsyche sp.	0	0	6	8	0	0	0	0	0	0
| Family: Hydroptilidae	0	0	0	0	0	0	0	0	0	0
Agraylea sp.	0	0	0	0	0	0	0	0	0	0
Hydroptila sp.	0	0	0	0	0	0	0	0	0	0
Oxyethira sp.	0	0	0	0	0	0	0	0	0	0
| Family: Lepidostomatidae	0	0	0	0	0	0	0	0	0	0
Lepidostoma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Leptoceridae	0	0	0	0	0	0	0	0	0	0
Ceraclea sp.	0	0	0	0	0	0	0	0	0	0
Mystacides sp.	0	0	0	0	0	0	0	0	0	0
Oecetis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Limnephilidae	0	18	0	8	9	0	0	0	0	6
Cryptochia sp.	0	0	0	0	0	0	0	0	0	0
Dicosmoecus sp.	0	9	0	0	0	0	0	0	0	0
Ecclisocosmoecus scylla	0	0	0	0	0	0	0	0	0	0
Limnephilus sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Lower Creek 705					Upper Creek 705				
Site	BI-09 Rep 01	BI-09 Rep 02	BI-09 Rep 03	BI-09 Rep 04	BI-09 Rep 05	BI-12 Rep 01	BI-06 Rep 02	BI-06 Rep 03	BI-06 Rep 04	BI-06 Rep 05
Date	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/12/2012	09/12/2012	09/12/2012	09/12/2012	09/12/2012
Percent Sampled (%)	10%	11%	16%	12%	11%	21%	47%	40%	11%	16%
TAXONOMY										
| Family: Philopotamidae	0	0	0	0	0	0	0	0	0	0
Dolophilodes sp.	0	0	0	0	0	0	0	0	9	0
| Family: Phryganeidae	0	0	0	0	0	0	0	0	0	0
Agrypnia sp.	0	0	0	0	0	0	0	0	0	0
| Family: Polycentropodidae	0	0	0	0	0	0	0	0	0	0
Polycentropus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Rhyacophilidae	0	0	0	0	0	0	0	0	0	0
Rhyacophila angelita group	10	18	6	8	9	5	0	0	0	0
Rhyacophila arnaudi	0	0	0	0	0	0	0	0	0	0
Rhyacophila betteni group	140	109	50	50	64	5	15	18	36	0
Rhyacophila brunnea group	10	18	6	8	55	0	4	0	0	0
Rhyacophila narvae	0	0	25	0	0	0	4	0	9	13
Rhyacophila nevadensis group	0	0	0	0	0	0	0	0	0	0
Rhyacophila sp.	30	36	69	67	36	5	17	13	45	56
Rhyacophila vofixa group	0	9	6	0	0	0	0	3	0	13
| Family: Uenoidae	0	0	0	0	0	0	0	0	0	0
Neothremma sp.	0	0	0	0	0	0	0	0	0	0
Oligophlebodes sp.	0	0	0	0	0	0	0	0	0	0
| Order: Coleoptera	0	0	0	0	0	0	0	0	0	0
| Family: Dytiscidae	0	0	0	0	0	0	0	0	0	0
Neoporus sp.	0	0	0	0	0	0	0	0	0	0
Oreodytes sp.	0	0	0	0	0	0	0	0	0	0
| Family: Elmidae	0	9	0	0	9	0	0	0	9	0
Cleptelmis addenda	0	0	0	0	0	0	0	0	0	0
Heterlimnius sp.	90	18	13	17	9	24	6	3	0	6
Optioservus sp.	0	0	0	0	0	5	0	0	0	0
| Family: Hydrophilidae	0	0	0	0	0	0	0	0	0	0
Hydrobius sp.	0	0	0	0	0	0	0	3	0	0

Stream Name	Lower Creek 705					Upper Creek 705				
Site	BI-09 Rep 01	BI-09 Rep 02	BI-09 Rep 03	BI-09 Rep 04	BI-09 Rep 05	BI-12 Rep 01	BI-06 Rep 02	BI-06 Rep 03	BI-06 Rep 04	BI-06 Rep 05
Date	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/12/2012	09/12/2012	09/12/2012	09/12/2012	09/12/2012
Percent Sampled (%)	10%	11%	16%	12%	11%	21%	47%	40%	11%	16%
TAXONOMY										
| Family: Staphylinidae	0	0	0	0	0	0	0	0	0	0
| Order: Diptera	0	0	0	0	0	0	0	0	0	0
| Family: Ceratopogonidae	0	0	0	0	0	0	2	0	0	6
Culicoides sp.	0	0	0	0	0	0	0	0	0	0
Mallochohelea	10	0	0	0	0	0	0	0	0	0
Probezzia sp.	0	18	6	8	0	0	6	5	18	6
Sphaeromias sp.	0	0	0	0	0	0	0	0	0	0
| Family: Chaoboridae	0	0	0	0	0	0	0	0	0	0
Chaoborus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Chironomidae	0	0	0	0	0	0	0	0	0	0
| Subfamily: Chironominae	0	0	0	0	0	0	0	0	0	0
| Tribe: Chironomini	0	0	0	0	0	0	0	0	0	0
Chironomus sp.	0	0	0	0	0	0	0	0	0	0
Dicrotendipes sp.	0	0	0	0	0	0	0	0	0	0
Glyptotendipes sp.	0	0	0	0	0	0	0	0	0	0
Microtendipes sp.	0	0	0	0	0	0	0	0	0	0
Pagastiella sp.	0	0	0	0	0	0	0	0	0	0
Polypedilum sp.	0	0	0	0	0	5	0	0	0	0
Zavrelia sp.	0	0	0	0	0	0	4	0	27	19
| Tribe: Tanytarsini	0	0	0	0	0	0	0	0	0	0
Cladotanytarsus sp.	0	0	0	0	0	0	0	0	0	0
Corynocera sp.	0	0	0	0	0	0	0	0	0	0
Micropsectra sp.	20	36	94	75	36	10	4	5	0	19
Paratanytarsus sp.	0	0	0	0	0	0	0	0	0	0
Rheotanytarsus sp.	0	0	0	0	0	5	9	0	9	13
Stempellina sp.	0	0	0	0	0	0	0	0	0	0
Tanytarsus sp.	0	0	0	0	0	0	0	0	0	0
| Subfamily: Diamesinae	0	0	0	0	0	0	0	0	0	0

Stream Name	Lower Creek 705					Upper Creek 705				
Site	BI-09 Rep 01	BI-09 Rep 02	BI-09 Rep 03	BI-09 Rep 04	BI-09 Rep 05	BI-12 Rep 01	BI-06 Rep 02	BI-06 Rep 03	BI-06 Rep 04	BI-06 Rep 05
Date	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/12/2012	09/12/2012	09/12/2012	09/12/2012	09/12/2012
Percent Sampled (%)	10%	11%	16%	12%	11%	21%	47%	40%	11%	16%
TAXONOMY										
| Tribe: Diamesini	0	0	0	0	0	0	0	0	0	0
Diamesa sp.	0	0	0	0	0	5	0	0	0	0
Pagastia sp.	10	0	0	0	18	0	0	0	0	0
Potthastia longimana group	0	0	0	0	0	0	0	0	0	0
Pseudodiamesa sp.	0	0	0	0	0	0	0	0	0	0
| Subfamily: Orthocladiinae	0	0	0	0	0	0	2	0	9	0
Brillia sp.	10	18	25	25	27	0	0	0	9	6
Cardiocladius sp.	0	0	0	0	0	0	2	0	9	0
Cricotopus bicinctus group	0	0	0	0	0	0	0	0	0	0
Cricotopus nostocicola	0	0	0	0	0	0	0	0	0	0
Cricotopus sp.	0	0	0	0	0	0	0	0	0	0
Diplocladius cultriger	0	0	0	0	0	0	0	0	0	0
Doithrix sp.	0	0	0	0	0	0	0	0	0	0
Eukiefferiella sp.	0	0	0	0	0	10	0	5	0	6
Heterotrissocladius sp.	10	27	0	0	0	0	0	3	0	0
Hydrobaenus sp.	0	0	0	0	0	0	0	0	0	0
Limnophyes sp.	0	0	0	0	0	0	0	0	0	0
Orthocladius lignicola	0	0	0	0	0	0	0	0	0	0
Orthocladius sp.	0	36	13	33	45	0	2	3	0	0
Parachaetocladius sp.	0	0	0	0	0	0	0	0	0	0
Parakiefferiella sp.	0	0	0	0	0	0	0	0	0	0
Parametriocnemus sp.	0	0	0	0	0	0	0	0	0	0
Parorthocladius sp.	20	55	6	0	27	0	2	0	0	6
Psectrocladius sp.	0	0	0	0	0	0	0	0	0	0
Rheocricotopus sp.	0	0	0	0	0	0	0	0	0	13
Synorthocladius sp.	0	0	0	0	0	0	0	0	0	0
Thienemanniella	0	0	0	0	0	0	0	0	0	0
Tvetenia sp.	0	0	0	17	27	0	0	0	0	0

Stream Name	Lower Creek 705					Upper Creek 705				
Site	BI-09 Rep 01	BI-09 Rep 02	BI-09 Rep 03	BI-09 Rep 04	BI-09 Rep 05	BI-12 Rep 01	BI-06 Rep 02	BI-06 Rep 03	BI-06 Rep 04	BI-06 Rep 05
Date	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/12/2012	09/12/2012	09/12/2012	09/12/2012	09/12/2012
Percent Sampled (%)	10%	11%	16%	12%	11%	21%	47%	40%	11%	16%
TAXONOMY										
Zalutschia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Corynoneurini	0	0	0	0	0	0	0	0	0	0
Corynoneura sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Orthocladiini	0	0	0	0	0	0	0	0	0	0
Chaetocladius sp.	0	0	0	0	0	0	2	0	0	0
| Subfamily: Tanypodinae	0	0	0	0	0	0	0	0	18	13
| Tribe: Pentaneurini	0	0	0	0	0	0	0	0	0	0
Zavrelimyia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Procladiini	0	0	0	0	0	0	0	0	0	0
Procladius sp.	0	0	0	0	0	0	0	0	0	0
| Family: Empididae	0	0	0	0	0	0	0	0	0	0
Chelifera/ Metachela	0	0	6	0	0	0	17	5	9	0
Clinocera sp.	0	0	0	0	0	0	0	0	0	0
Oreogeton sp.	0	0	13	0	0	0	0	8	27	6
| Family: Muscidae	0	0	0	0	0	0	0	0	0	0
Limnophora sp.	0	0	0	0	0	0	0	0	0	0
| Family: Psychodidae	0	0	0	0	0	0	0	0	0	0
Pericoma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Simuliidae	0	9	0	0	9	0	0	0	0	6
Prosimulium sp.	0	0	0	0	0	5	0	0	0	0
Simulium sp.	80	18	13	42	27	0	2	8	18	75
| Family: Tabanidae	0	0	0	0	0	0	0	0	0	0
Tabanus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Tipulidae	0	0	0	0	0	0	0	0	0	0
Antocha sp.	0	0	0	0	0	0	0	0	0	0
Dicranota sp.	20	0	0	0	0	10	0	0	0	6
Hexatoma sp.	0	0	0	0	0	0	0	0	0	0
Limnophila sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Lower Creek 705					Upper Creek 705				
Site	BI-09 Rep 01	BI-09 Rep 02	BI-09 Rep 03	BI-09 Rep 04	BI-09 Rep 05	BI-12 Rep 01	BI-06 Rep 02	BI-06 Rep 03	BI-06 Rep 04	BI-06 Rep 05
Date	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/12/2012	09/12/2012	09/12/2012	09/12/2012	09/12/2012
Percent Sampled (%)	10%	11%	16%	12%	11%	21%	47%	40%	11%	16%
TAXONOMY										
Pedicia sp.	0	0	0	0	0	0	0	0	0	0
Rhabdomastix sp.	0	0	0	0	0	0	0	0	0	0
Tipula sp.	0	0	0	0	0	0	0	0	0	0
| Order: Hemiptera	0	0	0	0	0	0	0	0	0	0
| Family: Corixidae	0	0	0	0	0	0	0	0	0	0
Palmacorixa sp.	0	0	0	0	0	0	0	0	0	0
Sigara sp.	0	0	0	0	0	0	0	0	0	0
Trichocorixa sp.	0	0	0	0	0	0	0	0	0	0
| Order: Lepidoptera	0	0	0	0	0	0	0	0	0	0
| Family: Noctuidae	0	0	0	0	0	0	0	0	0	0
| Order: Megaloptera	0	0	0	0	0	0	0	0	0	0
| Family: Sialidae	0	0	0	0	0	0	0	0	0	0
Sialis sp.	0	0	0	0	0	0	0	0	0	0
| Order: Odonata	0	0	0	0	0	0	0	0	0	0
| Family: Aeshnidae	0	0	0	0	0	0	0	0	0	0
Aeshna sp.	0	0	0	0	0	0	0	0	0	0
| Family: Corduliidae	0	0	0	0	0	0	0	0	0	0
Somatochlora sp.	0	0	0	0	0	0	0	0	0	0
| Class: Entognatha	0	0	0	0	0	0	0	0	0	0
| Order: Collembola	0	0	0	0	0	0	0	0	0	0
Subphylum: Crustacea	0	0	0	0	0	0	0	0	0	0
| Class: Ostracoda	10	0	0	0	0	0	2	0	0	6
| Class: Branchiopoda	0	0	0	0	0	0	0	0	0	0
| Order: Cladocera	0	0	0	0	0	0	0	0	0	0
| Family: Daphniidae	0	0	0	0	0	0	0	0	0	0
Daphnia sp.	0	0	0	0	0	0	0	0	9	6
| Class: Copepoda	0	0	0	0	0	0	0	0	0	0
| Class: Malacostraca	0	0	0	0	0	0	0	0	0	0
| Order: Amphipoda	0	0	0	0	0	0	0	0	0	0

Stream Name	Lower Creek 705					Upper Creek 705				
Site	BI-09 Rep 01	BI-09 Rep 02	BI-09 Rep 03	BI-09 Rep 04	BI-09 Rep 05	BI-12 Rep 01	BI-06 Rep 02	BI-06 Rep 03	BI-06 Rep 04	BI-06 Rep 05
Date	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/12/2012	09/12/2012	09/12/2012	09/12/2012	09/12/2012
Percent Sampled (%)	10%	11%	16%	12%	11%	21%	47%	40%	11%	16%
TAXONOMY										
| Family: Gammaridae	0	0	0	0	0	0	0	0	0	0
Gammarus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hyalellidae	0	0	0	0	0	0	0	0	0	0
Hyalella sp.	0	0	0	0	0	0	0	0	0	0
Subphylum: Chelicerata	0	0	0	0	0	0	0	0	0	0
| Class: Arachnida	0	0	0	0	0	0	0	0	0	0
| Order: Trombidiformes	0	0	6	8	0	0	2	0	0	6
| Family: Arrenuridae	0	0	0	0	0	0	0	0	0	0
Arrenurus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Aturidae	0	0	0	0	0	0	0	0	0	0
Aturus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydrodromidae	0	0	0	0	0	0	0	0	0	0
Hydrodroma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydryphantidae	0	0	0	0	0	0	0	0	0	0
Protzia sp.	10	9	6	0	0	0	0	3	9	0
| Family: Hygrobatidae	0	0	0	0	0	0	0	0	0	0
Hygrobates sp.	0	9	13	8	9	10	4	8	0	0
| Family: Lebertiidae	0	0	0	0	0	0	0	0	0	0
Lebertia sp.	0	0	0	8	0	24	17	20	55	38
| Family: Limnesiidae	0	0	0	0	0	0	0	0	0	0
Limnesia sp.	0	0	0	0	0	0	0	0	0	0
| Family: Mideopsidae	0	0	0	0	0	0	0	0	0	0
Mideopsis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Oxidae	0	0	0	0	0	0	0	0	0	0
Oxus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Pionidae	0	0	0	0	0	0	0	0	0	0
Piona sp.	0	0	0	0	0	0	0	0	0	0
| Family: Sperchontidae	0	0	0	0	0	0	0	0	0	0
Sperchon sp.	0	0	0	0	0	5	2	5	0	6

Stream Name	Lower Creek 705					Upper Creek 705				
Site	BI-09 Rep 01	BI-09 Rep 02	BI-09 Rep 03	BI-09 Rep 04	BI-09 Rep 05	BI-12 Rep 01	BI-06 Rep 02	BI-06 Rep 03	BI-06 Rep 04	BI-06 Rep 05
Date	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/12/2012	09/12/2012	09/12/2012	09/12/2012	09/12/2012
Percent Sampled (%)	10%	11%	16%	12%	11%	21%	47%	40%	11%	16%
TAXONOMY										
Sperchonopsis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Torrenticolidae	0	0	0	0	0	0	0	0	0	0
Testudacarus sp.	0	27	19	100	91	24	9	13	27	13
Torrenticola sp.	0	0	0	0	0	5	0	0	9	0
| Family: Unionicolidae	0	0	0	0	0	0	0	0	0	0
Unionicola sp.	0	0	0	0	0	0	0	0	0	0
| Order: Sarcoptiformes	0	0	0	0	0	0	0	0	0	0
| Family: Hydrozetidae	0	0	0	0	0	0	4	0	0	0
Phylum: Mollusca	0	0	0	0	0	0	0	0	0	0
| Class: Bivalvia	0	0	0	0	0	0	0	0	0	0
| Order: Veneroida	0	0	0	0	0	0	0	0	0	0
| Family: Sphaeriidae	0	0	0	0	0	0	0	0	0	6
| Family: Unionoida	0	0	0	0	0	0	0	0	0	0
| Family: Margaritiferidae	0	0	0	0	0	0	0	0	0	0
Margaritifera falcata	0	0	0	0	0	0	0	0	0	0
Pisidium sp.	0	0	0	0	0	0	0	0	0	0
Sphaerium sp.	0	0	0	0	0	0	0	0	0	0
| Class: Gastropoda	0	0	0	0	0	0	0	0	0	0
| Order: Basommatophora	0	0	0	0	0	0	0	0	0	0
Acroloxus coloradensis	0	0	0	0	0	0	0	0	0	0
| Family: Physidae	0	0	0	0	0	0	0	0	0	0
Physa sp.	0	0	0	0	0	0	0	0	0	0
| Family: Planorbidae	0	0	0	0	0	0	0	0	0	0
Gyraulus sp.	0	0	0	0	0	0	0	0	0	0
Menetus opercularis	0	0	0	0	0	0	0	0	0	0
Menetus sp.	0	0	0	0	0	0	0	0	0	0
Promenetus umbilicatellus	0	0	0	0	0	0	0	0	0	0
| Order: Heterostropha	0	0	0	0	0	0	0	0	0	0
| Family: Valvatidae	0	0	0	0	0	0	0	0	0	0

Stream Name	Lower Creek 705					Upper Creek 705				
Site	BI-09 Rep 01	BI-09 Rep 02	BI-09 Rep 03	BI-09 Rep 04	BI-09 Rep 05	BI-12 Rep 01	BI-06 Rep 02	BI-06 Rep 03	BI-06 Rep 04	BI-06 Rep 05
Date	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/12/2012	09/12/2012	09/12/2012	09/12/2012	09/12/2012
Percent Sampled (%)	10%	11%	16%	12%	11%	21%	47%	40%	11%	16%
TAXONOMY										
Valvata sincera	0	0	0	0	0	0	0	0	0	0
| Order: Hypsogastropoda	0	0	0	0	0	0	0	0	0	0
| Family: Hydrobiidae	0	0	0	0	0	0	0	0	0	0
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
| Class: Hirudinea	0	0	0	0	0	0	0	0	0	0
| Order: Arhynchobdellida	0	0	0	0	0	0	0	0	0	0
| Family: Erpobdellidae	0	0	0	0	0	0	0	0	0	0
Erpobdella sp.	0	0	0	0	0	0	0	0	0	0
| Order: Rhynchobdellida	0	0	0	0	0	0	0	0	0	0
| Family: Glossiphoniidae	0	0	0	0	0	0	0	0	0	0
| Class: Oligochaeta	0	0	0	0	0	0	0	0	0	0
| Order: Lumbriculida	0	0	0	0	0	0	0	0	0	0
| Family: Lumbriculidae	0	0	0	0	9	5	4	3	36	0
| Order: Tubificida	0	0	0	0	0	0	0	0	0	0
| Family: Enchytraeidae	0	0	0	0	0	0	0	0	0	0
Enchytraeus	0	0	0	0	0	5	0	0	0	0
| Family: Lumbricidae	0	0	0	0	0	0	0	0	0	0
| Family: Naididae	0	0	0	0	0	0	0	0	0	0
Chaetogaster sp.	0	0	0	0	0	0	0	0	0	0
Stylaria sp.	0	0	0	0	0	0	0	0	0	0
Vejdovskyella intermedia	0	0	0	0	0	0	0	0	0	0
Phylum: Nemata	10	0	0	0	0	0	0	0	9	0
Phylum: Platyhelminthes	0	0	0	0	0	0	0	0	0	0
| Class: Turbellaria	0	0	0	0	0	5	2	0	0	0
Phylum: Cnidaria	0	0	0	0	0	0	0	0	0	0
| Class: Hydrozoa	0	0	0	0	0	0	0	0	0	0
| Order: Anthoathecatae	0	0	0	0	0	0	0	0	0	0
| Family: Hydridae	0	0	0	0	0	0	0	0	0	0

Stream Name	Lower Creek 705					Upper Creek 705				
Site	BI-09 Rep 01	BI-09 Rep 02	BI-09 Rep 03	BI-09 Rep 04	BI-09 Rep 05	BI-12 Rep 01	BI-06 Rep 02	BI-06 Rep 03	BI-06 Rep 04	BI-06 Rep 05
Date	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/07/2012	09/12/2012	09/12/2012	09/12/2012	09/12/2012	09/12/2012
Percent Sampled (%)	10%	11%	16%	12%	11%	21%	47%	40%	11%	16%
TAXONOMY										
Hydra sp.	0	0	0	0	0	0	0	0	0	0
Totals:	3160	2823	2210	2847	2960	1443	740	786	2959	2160

Table 5.3-1B: Stream Benthic Macroinvetebrate Taxonomic Composition and Density in Streams, 2012 (completed)

Stream Name	Tributary to Fawnie Creek					Tributary to the Blackwater River				
Site	BI-13 Rep 01	BI-13 Rep 02	BI-13 Rep 03	BI-13 Rep 04	BI-13 Rep 05	BI-14 Rep 01	BI-14 Rep 02	BI-14 Rep 03	BI-14 Rep 04	BI-14 Rep 05
Date	09/21/2012	09/21/2012	09/21/2012	09/21/2012	09/21/2012	09/15/2012	09/15/2012	09/15/2012	09/15/2012	09/15/2012
Percent Sampled (%)	7%	9%	11%	6%	6%	9%	6%	7%	6%	6%
TAXONOMY										
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Subphylum: Hexapoda	0	0	0	0	0	0	0	0	0	0
| Class: Insecta	0	0	0	0	0	0	0	0	0	0
| Order: Ephemeroptera	0	0	0	0	0	0	0	0	0	0
| Family: Ameletidae	0	0	0	0	0	0	0	0	0	0
Ameletus sp.	67	50	29	17	17	29	0	0	0	17
| Family: Baetidae	0	0	0	0	0	0	0	0	0	0
Acentrella sp.	0	0	0	0	0	0	0	0	0	0
Baetis bicaudatus	0	17	0	0	0	14	0	18	50	0
Baetis sp.	1133	1550	1714	1600	1633	1214	922	964	1767	1700
Baetis tricaudatus	22	17	0	17	0	29	22	9	67	67
Callibaetis sp.	0	0	0	0	0	0	0	0	0	0
Diphetor hageni	0	0	0	0	0	0	0	0	0	0
| Family: Caenidae	0	0	0	0	0	0	0	0	0	0
Caenis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Ephemerellidae	44	67	0	33	33	14	0	55	0	33
Caudatella sp.	0	0	0	0	0	0	0	0	0	0
Drunella coloradensis	0	0	0	0	0	0	0	0	0	0
Drunella doddsii	78	83	43	83	50	71	0	64	83	50
Drunella grandis	0	0	0	0	0	0	0	0	0	0
Drunella sp.	0	0	0	0	0	0	0	0	0	0
Drunella spinifera	0	0	0	0	0	0	0	0	0	0
Ephemerella sp.	0	0	0	17	0	14	0	0	0	0
Serratella sp.	0	0	0	0	0	0	0	0	0	0
| Family: Heptageniidae	167	267	200	100	100	643	344	336	550	550
Cinygmula sp.	0	0	0	0	0	0	0	9	0	0
Epeorus sp.	322	217	57	233	133	257	311	182	367	383
Heptagenia sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Tributary to Fawnie Creek					Tributary to the Blackwater River				
Site	BI-13 Rep 01	BI-13 Rep 02	BI-13 Rep 03	BI-13 Rep 04	BI-13 Rep 05	BI-14 Rep 01	BI-14 Rep 02	BI-14 Rep 03	BI-14 Rep 04	BI-14 Rep 05
Date	09/21/2012	09/21/2012	09/21/2012	09/21/2012	09/21/2012	09/15/2012	09/15/2012	09/15/2012	09/15/2012	09/15/2012
Percent Sampled (%)	7%	9%	11%	6%	6%	9%	6%	7%	6%	6%
TAXONOMY										
Rhithrogena sp.	189	167	86	217	83	529	256	227	300	567
| Family: Leptophlebiidae	0	0	0	0	0	0	0	0	0	0
Leptophlebia sp.	0	0	0	0	0	0	0	0	0	0
Paraleptophlebia sp.	22	17	14	17	0	29	11	18	83	0
| Order: Plecoptera	11	0	14	17	50	0	0	0	0	0
| Family: Capniidae	122	183	157	167	250	243	100	91	117	100
| Family: Chloroperlidae	0	0	0	0	0	0	11	0	0	17
Alloperla fraterna	0	0	0	0	0	14	11	9	50	17
Paraperla sp.	0	0	0	0	0	0	0	0	0	33
Suwallia sp.	56	33	0	67	67	71	78	18	100	117
Sweltsa sp.	0	50	29	33	33	200	133	109	100	67
| Family: Leuctridae	67	17	0	33	33	29	33	27	33	17
| Family: Nemouridae	0	0	0	0	0	0	0	0	0	0
Visoka cataractae	22	17	29	17	17	0	33	9	0	0
Zapada cinctipes	0	0	0	0	0	0	0	0	17	0
Zapada columbiana	156	250	143	233	317	129	78	109	150	150
Zapada oregonensis group	0	0	0	0	33	14	33	27	150	0
Zapada sp.	67	267	357	200	167	200	133	36	150	67
| Family: Perlidae	0	0	14	0	0	0	0	0	0	0
Hesperoperla sp.	0	0	0	0	0	0	0	0	0	0
| Family: Perlodidae	0	0	0	0	0	14	11	27	0	0
Cultus sp.	0	0	0	0	0	0	0	0	0	0
Isoperla sp.	0	0	0	0	0	0	0	0	0	0
Megarcys sp.	11	0	0	0	33	29	0	18	17	0
Skwala sp.	0	0	0	0	0	0	0	0	0	0
| Family: Pteronarcyidae	0	0	0	0	0	0	0	0	0	0
Pteronarcella sp.	0	0	0	0	0	0	0	0	0	0
Pteronarcys sp.	0	0	0	0	0	86	33	18	50	0
| Family:	0	0	0	0	0	0	0	0	0	0

Stream Name	Tributary to Fawnie Creek					Tributary to the Blackwater River				
Site	BI-13 Rep 01	BI-13 Rep 02	BI-13 Rep 03	BI-13 Rep 04	BI-13 Rep 05	BI-14 Rep 01	BI-14 Rep 02	BI-14 Rep 03	BI-14 Rep 04	BI-14 Rep 05
Date	09/21/2012	09/21/2012	09/21/2012	09/21/2012	09/21/2012	09/15/2012	09/15/2012	09/15/2012	09/15/2012	09/15/2012
Percent Sampled (%)	7%	9%	11%	6%	6%	9%	6%	7%	6%	6%
TAXONOMY										
Taeniopterygidae										
Taenionema sp.	189	417	71	300	317	514	422	364	850	700
| Order: Trichoptera	0	0	0	0	0	0	0	0	0	0
| Family: Apataniidae	0	0	0	0	0	0	0	0	0	0
Apatania sp.	0	0	0	0	0	0	0	0	0	0
| Family: Brachycentridae	0	0	0	0	0	0	0	0	0	0
Micrasema sp.	11	0	43	0	17	14	0	0	0	0
| Family: Glossosomatidae	0	0	0	0	0	0	0	0	0	0
Glossosoma sp.	56	100	57	67	50	29	11	27	50	50
| Family: Hydropsychidae	133	150	57	200	183	43	56	73	83	117
Hydropsyche sp.	0	0	0	0	0	0	0	0	0	0
Parapsyche sp.	0	0	0	17	0	0	0	0	17	0
| Family: Hydroptilidae	0	0	0	0	0	0	0	0	0	0
Agraylea sp.	0	0	0	0	0	0	0	0	0	0
Hydroptila sp.	0	0	0	0	0	0	0	9	0	0
Oxyethira sp.	0	0	0	0	0	0	0	0	0	0
| Family: Lepidostomatidae	0	0	0	0	0	0	0	0	0	0
Lepidostoma sp.	11	0	0	0	0	0	0	0	0	0
| Family: Leptoceridae	0	0	0	0	0	0	0	0	0	0
Ceraclea sp.	0	0	0	0	0	0	0	0	0	0
Mystacides sp.	0	0	0	0	0	0	0	0	0	0
Oecetis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Limnephilidae	0	0	0	0	0	0	0	0	0	0
Cryptochia sp.	0	0	0	0	0	0	0	0	0	0
Dicosmoecus sp.	0	0	0	0	0	0	0	0	0	0
Ecclisocosmoecus scylla	0	0	0	0	0	0	0	0	0	0
Limnephilus sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Tributary to Fawnie Creek					Tributary to the Blackwater River				
Site	BI-13 Rep 01	BI-13 Rep 02	BI-13 Rep 03	BI-13 Rep 04	BI-13 Rep 05	BI-14 Rep 01	BI-14 Rep 02	BI-14 Rep 03	BI-14 Rep 04	BI-14 Rep 05
Date	09/21/2012	09/21/2012	09/21/2012	09/21/2012	09/21/2012	09/15/2012	09/15/2012	09/15/2012	09/15/2012	09/15/2012
Percent Sampled (%)	7%	9%	11%	6%	6%	9%	6%	7%	6%	6%
TAXONOMY										
| Family: Philopotamidae	0	0	0	0	0	0	0	0	0	0
Dolophilodes sp.	0	0	0	0	0	0	0	0	0	0
| Family: Phryganeidae	0	0	0	0	0	0	0	0	0	0
Agrypnia sp.	0	0	0	0	0	0	0	0	0	0
| Family: Polycentropodidae	0	0	0	0	0	0	0	0	0	0
Polycentropus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Rhyacophilidae	0	0	0	0	0	0	0	0	0	0
Rhyacophila angelita group	33	17	14	17	17	0	0	0	0	0
Rhyacophila arnaudi	0	0	0	0	0	0	0	0	0	0
Rhyacophila betteni group	56	50	43	83	100	0	0	0	50	17
Rhyacophila brunnea group	11	0	0	33	17	0	22	18	17	17
Rhyacophila narvae	44	67	71	117	33	29	11	0	0	0
Rhyacophila nevadensis group	0	0	0	0	0	0	0	0	0	0
Rhyacophila sp.	22	50	57	83	17	43	22	36	150	33
Rhyacophila vofixa group	0	0	0	0	0	0	0	9	0	0
| Family: Uenoidae	0	0	0	0	0	0	0	0	0	0
Neothremma sp.	0	0	14	0	33	0	0	0	0	0
Oligophlebodes sp.	0	17	0	0	0	0	0	0	0	0
| Order: Coleoptera	0	17	0	0	0	0	0	0	0	0
| Family: Dytiscidae	0	0	0	0	0	0	0	0	0	0
Neoporus sp.	0	0	0	0	0	0	0	0	0	0
Oreodytes sp.	0	0	0	0	0	0	0	0	0	0
| Family: Elmidae	0	0	0	0	0	0	11	0	0	0
Cleptelmis addenda	0	0	0	0	0	0	0	0	0	0
Heterlimnius sp.	0	0	0	0	0	0	0	9	0	0
Optioservus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydrophilidae	0	0	0	0	0	0	0	0	0	0
Hydrobius sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Tributary to Fawnie Creek					Tributary to the Blackwater River				
Site	BI-13 Rep 01	BI-13 Rep 02	BI-13 Rep 03	BI-13 Rep 04	BI-13 Rep 05	BI-14 Rep 01	BI-14 Rep 02	BI-14 Rep 03	BI-14 Rep 04	BI-14 Rep 05
Date	09/21/2012	09/21/2012	09/21/2012	09/21/2012	09/21/2012	09/15/2012	09/15/2012	09/15/2012	09/15/2012	09/15/2012
Percent Sampled (%)	7%	9%	11%	6%	6%	9%	6%	7%	6%	6%
TAXONOMY										
| Family: Staphylinidae	0	0	0	0	0	0	0	0	0	0
| Order: Diptera	0	0	0	0	0	0	0	0	0	0
| Family: Ceratopogonidae	0	0	0	0	0	0	0	0	0	0
Culicoides sp.	0	0	0	0	0	0	0	0	0	0
Mallochohelea	0	0	0	0	0	29	0	0	17	0
Probezzia sp.	0	0	0	0	0	0	0	9	0	33
Sphaeromias sp.	0	0	0	0	0	0	0	0	0	0
| Family: Chaoboridae	0	0	0	0	0	0	0	0	0	0
Chaoborus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Chironomidae	0	0	0	0	0	0	0	0	0	0
| Subfamily: Chironominae	0	0	0	0	0	0	0	0	0	0
| Tribe: Chironomini	0	0	0	0	0	0	0	0	0	0
Chironomus sp.	0	0	0	0	0	0	0	0	0	0
Dicrotendipes sp.	0	0	0	0	0	0	0	0	0	0
Glyptotendipes sp.	0	0	0	0	0	0	0	0	0	0
Microtendipes sp.	0	0	0	0	0	0	0	0	0	0
Pagastiella sp.	0	0	0	0	0	0	0	0	0	0
Polypedilum sp.	0	0	0	0	0	0	0	0	0	0
Zavrelia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Tanytarsini	0	0	0	0	0	0	0	0	0	0
Cladotanytarsus sp.	0	0	0	0	0	0	0	0	0	0
Corynocera sp.	0	0	0	0	0	0	0	0	0	0
Micropsectra sp.	11	50	443	50	100	100	56	36	83	150
Paratanytarsus sp.	0	0	0	0	0	0	0	0	0	0
Rheotanytarsus sp.	0	0	0	0	0	0	0	0	0	0
Stempellina sp.	0	0	0	0	0	0	22	0	0	0
Tanytarsus sp.	0	0	0	0	0	0	0	0	0	0
| Subfamily: Diamesinae	0	0	0	0	0	0	0	0	0	0

Stream Name	Tributary to Fawnie Creek					Tributary to the Blackwater River				
Site	BI-13 Rep 01	BI-13 Rep 02	BI-13 Rep 03	BI-13 Rep 04	BI-13 Rep 05	BI-14 Rep 01	BI-14 Rep 02	BI-14 Rep 03	BI-14 Rep 04	BI-14 Rep 05
Date	09/21/2012	09/21/2012	09/21/2012	09/21/2012	09/21/2012	09/15/2012	09/15/2012	09/15/2012	09/15/2012	09/15/2012
Percent Sampled (%)	7%	9%	11%	6%	6%	9%	6%	7%	6%	6%
TAXONOMY										
| Tribe: Diamesini	0	0	0	0	0	0	0	0	0	0
Diamesa sp.	0	0	0	0	0	0	0	0	0	0
Pagastia sp.	0	33	57	0	33	0	0	0	0	0
Potthastia longimana group	0	0	0	0	0	0	0	0	0	0
Pseudodiamesa sp.	0	0	0	0	0	0	0	0	0	0
| Subfamily: Orthocladiinae	44	0	0	0	0	43	0	0	0	0
Brillia sp.	22	67	43	83	100	14	33	0	0	0
Cardiocladius sp.	0	0	0	0	0	0	0	0	0	0
Cricotopus bicinctus group	0	0	0	0	0	0	0	0	0	0
Cricotopus nostocicola	222	567	400	383	500	0	0	0	0	0
Cricotopus sp.	0	0	0	0	0	0	0	0	0	0
Diplocladius cultriger	0	0	0	0	0	0	0	0	0	0
Doithrix sp.	0	0	0	0	0	0	0	0	0	0
Eukiefferiella sp.	56	100	100	450	400	0	22	0	17	17
Heterotrissocladius sp.	0	0	0	0	0	0	56	45	33	17
Hydrobaenus sp.	0	0	0	0	0	0	0	0	0	0
Limnophyes sp.	0	0	0	0	0	0	0	0	0	0
Orthocladius lignicola	0	83	0	0	0	0	0	36	67	67
Orthocladius sp.	44	100	86	100	267	0	0	27	0	50
Parachaetocladius sp.	0	0	0	0	0	0	0	0	0	0
Parakiefferiella sp.	0	0	0	0	0	0	0	0	0	0
Parametriocnemus sp.	0	0	0	0	0	0	0	0	0	0
Parorthocladius sp.	0	0	43	0	0	0	0	0	0	0
Psectrocladius sp.	0	0	0	0	0	0	0	0	0	0
Rheocricotopus sp.	0	0	0	17	0	0	0	9	0	0
Synorthocladius sp.	0	0	0	0	0	0	0	0	0	0
Thienemanniella	0	0	0	0	0	0	0	0	0	0
Tvetenia sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Tributary to Fawnie Creek					Tributary to the Blackwater River				
Site	BI-13 Rep 01	BI-13 Rep 02	BI-13 Rep 03	BI-13 Rep 04	BI-13 Rep 05	BI-14 Rep 01	BI-14 Rep 02	BI-14 Rep 03	BI-14 Rep 04	BI-14 Rep 05
Date	09/21/2012	09/21/2012	09/21/2012	09/21/2012	09/21/2012	09/15/2012	09/15/2012	09/15/2012	09/15/2012	09/15/2012
Percent Sampled (%)	7%	9%	11%	6%	6%	9%	6%	7%	6%	6%
TAXONOMY										
Zalutschia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Corynoneurini	0	0	0	0	0	0	0	0	0	0
Corynoneura sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Orthocladiini	0	0	0	0	0	0	0	0	0	0
Chaetocladius sp.	0	0	0	0	0	0	0	0	0	0
| Subfamily: Tanypodinae	0	0	0	0	0	0	0	0	17	0
| Tribe: Pentaneurini	0	0	0	0	0	0	0	0	0	0
Zavrelimyia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Procladiini	0	0	0	0	0	0	0	0	0	0
Procladius sp.	0	0	0	0	0	0	0	0	0	0
| Family: Empididae	0	0	0	0	0	0	0	0	0	0
Chelifera/ Metachela	0	0	0	17	0	14	0	0	0	0
Clinocera sp.	0	0	0	0	0	0	0	0	0	0
Oreogeton sp.	11	0	0	50	17	14	33	0	0	0
| Family: Muscidae	0	0	0	0	0	0	0	0	0	0
Limnophora sp.	0	0	0	0	0	0	0	0	0	0
| Family: Psychodidae	0	0	0	0	0	0	0	0	0	0
Pericoma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Simuliidae	0	0	0	0	0	0	0	0	33	17
Prosimulium sp.	0	0	0	17	0	0	0	0	17	0
Simulium sp.	0	0	0	0	0	71	22	27	167	50
| Family: Tabanidae	0	0	0	0	0	0	0	0	0	0
Tabanus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Tipulidae	0	0	0	0	0	0	0	0	0	0
Antocha sp.	0	0	0	0	0	0	0	0	0	0
Dicranota sp.	0	33	14	33	0	29	56	9	33	17
Hexatoma sp.	0	0	0	0	0	0	11	9	0	0
Limnophila sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Tributary to Fawnie Creek					Tributary to the Blackwater River				
Site	BI-13 Rep 01	BI-13 Rep 02	BI-13 Rep 03	BI-13 Rep 04	BI-13 Rep 05	BI-14 Rep 01	BI-14 Rep 02	BI-14 Rep 03	BI-14 Rep 04	BI-14 Rep 05
Date	09/21/2012	09/21/2012	09/21/2012	09/21/2012	09/21/2012	09/15/2012	09/15/2012	09/15/2012	09/15/2012	09/15/2012
Percent Sampled (%)	7%	9%	11%	6%	6%	9%	6%	7%	6%	6%
TAXONOMY										
Pedicia sp.	0	0	0	0	0	0	0	0	0	0
Rhabdomastix sp.	0	0	0	0	0	0	0	0	0	0
Tipula sp.	0	0	0	0	0	0	0	0	0	0
| Order: Hemiptera	0	0	0	0	0	0	0	0	0	0
| Family: Corixidae	0	0	0	0	0	0	0	0	0	0
Palmacorixa sp.	0	0	0	0	0	0	0	0	0	0
Sigara sp.	0	0	0	0	0	0	0	0	0	0
Trichocorixa sp.	0	0	0	0	0	0	0	0	0	0
| Order: Lepidoptera	0	0	0	0	0	0	0	0	0	0
| Family: Noctuidae	0	0	0	0	0	0	0	0	0	0
| Order: Megaloptera	0	0	0	0	0	0	0	0	0	0
| Family: Sialidae	0	0	0	0	0	0	0	0	0	0
Sialis sp.	0	0	0	0	0	0	0	0	0	0
| Order: Odonata	0	0	0	0	0	0	0	0	0	0
| Family: Aeshnidae	0	0	0	0	0	0	0	0	0	0
Aeshna sp.	0	0	0	0	0	0	0	0	0	0
| Family: Corduliidae	0	0	0	0	0	0	0	0	0	0
Somatochlora sp.	0	0	0	0	0	0	0	0	0	0
| Class: Entognatha	0	0	0	0	0	0	0	0	0	0
| Order: Collembola	11	0	0	0	0	0	0	0	17	0
Subphylum: Crustacea	0	0	0	0	0	0	0	0	0	0
| Class: Ostracoda	0	0	0	0	0	14	0	0	17	0
| Class: Branchiopoda	0	0	0	0	0	0	0	0	0	0
| Order: Cladocera	0	0	0	0	0	0	0	0	0	0
| Family: Daphniidae	0	0	0	0	0	0	0	0	0	0
Daphnia sp.	0	0	0	0	0	0	0	0	0	0
| Class: Copepoda	0	0	0	0	0	0	0	0	0	0
| Class: Malacostraca	0	0	0	0	0	0	0	0	0	0
| Order: Amphipoda	0	0	0	0	0	0	0	0	0	0

Stream Name	Tributary to Fawnie Creek					Tributary to the Blackwater River				
Site	BI-13 Rep 01	BI-13 Rep 02	BI-13 Rep 03	BI-13 Rep 04	BI-13 Rep 05	BI-14 Rep 01	BI-14 Rep 02	BI-14 Rep 03	BI-14 Rep 04	BI-14 Rep 05
Date	09/21/2012	09/21/2012	09/21/2012	09/21/2012	09/21/2012	09/15/2012	09/15/2012	09/15/2012	09/15/2012	09/15/2012
Percent Sampled (%)	7%	9%	11%	6%	6%	9%	6%	7%	6%	6%
TAXONOMY										
| Family: Gammaridae	0	0	0	0	0	0	0	0	0	0
Gammarus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hyalellidae	0	0	0	0	0	0	0	0	0	0
Hyalella sp.	0	0	0	0	0	0	0	0	0	0
Subphylum: Chelicerata	0	0	0	0	0	0	0	0	0	0
| Class: Arachnida	0	0	0	0	0	0	0	0	0	0
| Order: Trombidiformes	11	33	0	0	0	14	22	27	0	17
| Family: Arrenuridae	0	0	0	0	0	0	0	0	0	0
Arrenurus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Aturidae	0	0	0	0	0	0	0	0	0	0
Aturus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydrodromidae	0	0	0	0	0	0	0	0	0	0
Hydrodroma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydryphantidae	0	0	0	0	0	0	0	0	0	0
Protzia sp.	0	17	14	17	0	0	0	0	0	0
| Family: Hygrobatidae	0	0	0	0	0	0	0	0	0	0
Hygrobates sp.	0	0	14	0	17	0	0	0	0	0
| Family: Lebertiidae	0	0	0	0	0	0	0	0	0	0
Lebertia sp.	0	17	0	0	0	0	0	9	0	0
| Family: Limnesiidae	0	0	0	0	0	0	0	0	0	0
Limnesia sp.	0	0	0	0	0	0	0	0	0	0
| Family: Mideopsidae	0	0	0	0	0	0	0	0	0	0
Mideopsis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Oxidae	0	0	0	0	0	0	0	0	0	0
Oxus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Pionidae	0	0	0	0	0	0	0	0	0	0
Piona sp.	0	0	0	0	0	0	0	0	0	0
| Family: Sperchontidae	0	0	0	0	0	0	0	0	0	0
Sperchon sp.	0	33	43	17	33	0	0	9	33	33

Stream Name	Tributary to Fawnie Creek					Tributary to the Blackwater River				
Site	BI-13 Rep 01	BI-13 Rep 02	BI-13 Rep 03	BI-13 Rep 04	BI-13 Rep 05	BI-14 Rep 01	BI-14 Rep 02	BI-14 Rep 03	BI-14 Rep 04	BI-14 Rep 05
Date	09/21/2012	09/21/2012	09/21/2012	09/21/2012	09/21/2012	09/15/2012	09/15/2012	09/15/2012	09/15/2012	09/15/2012
Percent Sampled (%)	7%	9%	11%	6%	6%	9%	6%	7%	6%	6%
TAXONOMY										
Sperchonopsis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Torrenticolidae	0	0	0	0	0	0	0	0	0	0
Testudacarus sp.	0	50	14	0	33	0	11	9	17	17
Torrenticola sp.	0	0	0	0	0	0	0	0	0	0
| Family: Unionicolidae	0	0	0	0	0	0	0	0	0	0
Unionicola sp.	0	0	0	0	0	0	0	0	0	0
| Order: Sarcoptiformes	0	0	0	0	0	0	0	0	0	0
| Family: Hydrozetidae	11	0	0	0	0	0	0	0	0	17
Phylum: Mollusca	0	0	0	0	0	0	0	0	0	0
| Class: Bivalvia	0	0	0	0	0	0	0	0	0	0
| Order: Veneroida	0	0	0	0	0	0	0	0	0	0
| Family: Sphaeriidae	0	0	0	0	0	0	0	0	0	17
| Family: Unionoida	0	0	0	0	0	0	0	0	0	0
| Family: Margaritiferidae	0	0	0	0	0	0	0	0	0	0
Margaritifera falcata	0	0	0	0	0	0	0	0	0	0
Pisidium sp.	0	0	0	0	0	0	0	0	0	0
Sphaerium sp.	0	0	0	0	0	0	0	0	0	0
| Class: Gastropoda	0	0	0	0	0	0	0	0	0	0
| Order: Basommatophora	0	0	0	0	0	0	0	0	0	0
Acroloxus coloradensis	0	0	0	0	0	0	0	0	0	0
| Family: Physidae	0	0	0	0	0	0	0	0	0	0
Physa sp.	0	0	0	0	0	0	0	0	0	0
| Family: Planorbidae	0	0	0	0	0	0	0	0	0	0
Gyraulus sp.	0	0	0	0	0	0	0	0	0	0
Menetus opercularis	0	0	0	17	0	0	0	0	0	0
Menetus sp.	0	0	0	0	0	0	0	0	0	0
Promenetus umbilicatellus	0	0	0	0	0	0	0	0	0	0
| Order: Heterostropha	0	0	0	0	0	0	0	0	0	0
| Family: Valvatidae	0	0	0	0	0	0	0	0	0	0

Stream Name	Tributary to Fawnie Creek					Tributary to the Blackwater River				
Site	BI-13 Rep 01	BI-13 Rep 02	BI-13 Rep 03	BI-13 Rep 04	BI-13 Rep 05	BI-14 Rep 01	BI-14 Rep 02	BI-14 Rep 03	BI-14 Rep 04	BI-14 Rep 05
Date	09/21/2012	09/21/2012	09/21/2012	09/21/2012	09/21/2012	09/15/2012	09/15/2012	09/15/2012	09/15/2012	09/15/2012
Percent Sampled (%)	7%	9%	11%	6%	6%	9%	6%	7%	6%	6%
TAXONOMY										
Valvata sincera	0	0	0	0	0	0	0	0	0	0
| Order: Hypsogastropoda	0	0	0	0	0	0	0	0	0	0
| Family: Hydrobiidae	0	0	0	0	0	0	0	0	0	0
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
| Class: Hirudinea	0	0	0	0	0	0	0	0	0	0
| Order: Arhynchobdellida	0	0	0	0	0	0	0	0	0	0
| Family: Erpobdellidae	0	0	0	0	0	0	0	0	0	0
Erpobdella sp.	0	0	0	0	0	0	0	0	0	0
| Order: Rhynchobdellida	0	0	0	0	0	0	0	0	0	0
| Family: Glossiphoniidae	0	0	0	0	0	0	0	0	0	0
| Class: Oligochaeta	0	0	0	0	0	0	0	0	0	0
| Order: Lumbriculida	0	0	0	0	0	0	0	0	0	0
| Family: Lumbriculidae	0	0	14	0	0	0	0	9	0	0
| Order: Tubificida	0	0	0	0	0	0	0	0	0	0
| Family: Enchytraeidae	0	0	0	0	0	0	0	0	0	0
Enchytraeus	0	0	0	0	0	0	0	0	0	0
| Family: Lumbricidae	0	0	0	0	0	0	0	0	0	0
| Family: Naididae	0	0	0	0	0	0	0	0	0	0
Chaetogaster sp.	0	0	0	0	0	0	0	0	0	0
Stylaria sp.	0	0	0	0	0	0	0	0	0	0
Vejdovskyella intermedia	0	0	0	0	0	0	0	0	0	0
Phylum: Nemata	11	0	0	0	0	0	0	0	0	0
Phylum: Platyhelminthes	0	0	0	0	0	0	0	0	0	0
| Class: Turbellaria	0	0	0	0	0	0	0	0	0	0
Phylum: Cnidaria	0	0	0	0	0	0	0	0	0	0
| Class: Hydrozoa	0	0	0	0	0	0	0	0	0	0
| Order: Anthoathecatae	0	0	0	0	0	0	0	0	0	0
| Family: Hydridae	0	0	0	0	0	0	0	0	0	0

Stream Name	Tributary to Fawnie Creek					Tributary to the Blackwater River				
Site	BI-13 Rep 01	BI-13 Rep 02	BI-13 Rep 03	BI-13 Rep 04	BI-13 Rep 05	BI-14 Rep 01	BI-14 Rep 02	BI-14 Rep 03	BI-14 Rep 04	BI-14 Rep 05
Date	09/21/2012	09/21/2012	09/21/2012	09/21/2012	09/21/2012	09/15/2012	09/15/2012	09/15/2012	09/15/2012	09/15/2012
Percent Sampled (%)	7%	9%	11%	6%	6%	9%	6%	7%	6%	6%
TAXONOMY										
Hydra sp.	0	0	0	0	0	0	0	0	0	0
Totals:	3576	5337	4598	5269	5333	4886	3452	3195	5986	5405

Appendix 5.3-2
Mean Abundance of BMI Taxa among Blackwater BMI Groups (SIMPER Analysis)

Table 5.3-2: Mean abundance of BMI taxa among Blackwater BMI groups (SIMPER analysis)

Comparison Groups	Average dissimilarity	Species	Average Abundance		Contribution (%)	Cumulative (%)
			Group A	Comparison Group		
A & B	56.16	Baetidae	787.31	193.88	21.92	21.92
		Heptageniidae	601.98	117.8	18.11	40.02
		Taeniopterygidae	297.87	88.59	9.72	49.75
		Ephemerellidae	278.84	48.76	9.64	59.38
		Chironomidae	273.76	111.73	6.01	65.39
		Nemouridae	215.24	280.54	5.18	70.58
		Capniidae	128.96	36.32	3.91	74.49
		Rhyacophilidae	159.00	81.25	3.35	77.85
		Chloroperlidae	111.68	38.37	2.83	80.68
		Elmidae	60.56	3.87	2.38	83.06
		Leptophlebiidae	48.64	80.13	2.28	85.34
		Perlodidae	54.18	15.69	1.71	87.05
		Simuliidae	45.84	12.58	1.49	88.54
		Hydropsychidae	43.31	6.3	1.29	89.82
		Glossosomatidae	35.89	2.83	1.2	91.02
A & C	87.62	Ephemerellidae	278.84	16918.50	53.32	53.32
		Pisidiidae	2.24	2085.50	6.68	60
		Chironomidae	273.76	2291.00	6.48	66.48
		Elmidae	60.56	1984.50	6.16	72.64
		Psychodidae	0.00	1309.00	4.2	76.84
		Perlodidae	54.18	1108.50	3.38	80.22
		Hydroptilidae	0.23	846.50	2.71	82.93
		Nemouridae	215.24	1029.00	2.62	85.55
		Brachycentridae	24.76	768.50	2.38	87.93
		Leptophlebiidae	48.64	679.50	2.02	89.95
		Naididae	1.21	479.00	1.53	91.45
A & D	51.3	Elmidae	60.56	890.08	18.31	18.31
		Chironomidae	273.76	1001.70	16.46	34.77
		Nemouridae	215.24	762.44	12.33	47.1
		Pisidiidae	2.24	500.84	11.03	58.13
		Baetidae	787.31	785.15	7.44	65.57
		Taeniopterygidae	297.87	12.50	6.13	71.7
		Heptageniidae	601.98	352.18	5.72	77.42
		Ephemerellidae	278.84	205.04	2.89	80.31
		Capniidae	128.96	244.37	2.68	82.99

		Chloroperlidae	111.68	4.92	2.32	85.31
		Lebertiidae	8.77	78.53	1.53	86.84
		Rhyacophilidae	159.00	117.60	1.42	88.26
		Brachycentridae	24.76	87.39	1.37	89.63
		Perlodidae	54.18	106.87	1.13	90.76
A & E	59.35	Baetidae	787.31	82.65	23.85	23.85
		Heptageniidae	601.98	267.20	11.47	35.32
		Ameletidae	19.57	288.29	10.06	45.39
		Chironomidae	273.76	13.59	8.65	54.04
		Ephemerellidae	278.84	101.67	7.22	61.26
		Nemouridae	215.24	21.89	6.52	67.78
		Taeniopterygidae	297.87	196.38	6.32	74.09
		Rhyacophilidae	159.00	10.80	5.47	79.56
		Capniidae	128.96	48.51	3.31	82.88
		Leptophlebiidae	48.64	0.00	1.91	84.79
		Elmidae	60.56	25.98	1.85	86.64
		Chloroperlidae	111.68	72.19	1.72	88.36
		Hydropsychidae	43.31	0.91	1.36	89.73
		Simuliidae	45.84	19.20	1.19	90.92

Notes: BMI taxa contributions to Bray-Curtis dissimilarity are also provided (highest dissimilarity contributions indicate taxa that best discriminate BMI groups). Only ranked taxa that represent the top 90% (cumulative) of dissimilarity in abundance are included. All comparisons made to Group A.

Annex 5.3-3
Stream BMI Community Metrics 2011-2012

Table 5.3-3: Stream BMI community metrics, 2011-2012

Metrics		Total Abundance		No. of EPT Individuals		No. of Taxa		No. of EPT Taxa		Shannon-Weiner Index (*H'*)	
Skeena Ref Mean (SD)		2737 (2437)		2155 (2077)		18 (3)		12 (2)		1.90 (0.35)	
Fraser Ref mean (SD)		16017 (8308)		8681 (6160)		16 (4)		10 (3)		1.78 (0.38)	
Site	**Stream**	**2011**	**2012**	**2011**	**2012**	**2011**	**2012**	**2011**	**2012**	**2011**	**2012**
BI-01	Lower Davidson Creek	3380	1306	2620	1020	23	24	14.2	15	2.43	2.46
		(2575-4671)	(924-1545)	(2050-3657)	(732-1219)	(20-25)	(23-24)	(13-16)	(14-16)	(2.39-2.48)	(2.41-2.51)
BI-02	Lower Davidson Creek	2900	4534	2595	4057	23	20	14.6	15	2.19	2.15
		(2315-3767)	(3180-6440)	(2092-3322)	(2660-6040)	(21-25)	(18-23)	(14-15)	(14-16)	(2.1-2.28)	(2.04-2.29)
BI-03	Creek 15.1	1035	763	837	551	20	21	12.2	13	2.34	2.16
		(778-1336)	(391-990)	(625-1096)	(282-726)	(16-22)	(17-24)	(11-13)	(11-14)	(2.22-2.43)	(2.05-2.23)
BI-04	Lower Creek 661	3312	3648	2604	3275	22	21	13	14	2.50	2.12
		(2060-5100)	(202-5483)	(1600-4000)	(87-4917)	(20-24)	(18-24)	(11-14)	(12-15)	(2.35-2.62)	(2.03-2.16)
BI-05	Lower Creek 666	2125	3115	1691	2696	22	26	13.8	17	2.63	2.50
		(1336-2764)	(2113-4225)	(1020-2245)	(1820-3700)	(19-25)	(25-27)	(11-16)	(16-17)	(2.55-2.73)	(2.47-2.53)
BI-06	Chedacuz Creek	42650	21901	33370	12927	19	31	10	15	1.51	2.50
		(33900-50950)	(10380-29650)	(27950-37600)	(5760-16675)	(17-23)	(27-34)	(8-12)	(14-17)	(1.32-1.77)	(2.38-2.61)
BI-07	Turtle Creek	6004	5080	3623	2045	23	24	12.4	12	2.26	2.39
		(4463-7760)	(2964-7300)	(2500-5100)	(1200-2467)	(21-25)	(22-26)	(11-14)	(12-13)	(2.17-2.35)	(2.26-2.51)
BI-08	Creek 700	1646	1360	1323	1093	24	19	15.2	13	2.55	1.92
		(1103-2393)	(821-2500)	(924-1980)	(631-1969)	(21-28)	(17-20)	(14-17)	(11-15)	(2.41-2.72)	(1.81-2.05)
BI-09	Creek 705	2464	2795	2161	2500	21	21	13.4	15	2.26	2.37
		(1445-3400)	(2200-3140)	(1300-2855)	(1975-2860)	(19-24)	(21-22)	(12-14)	(14-15)	(2.17-2.41)	(2.25-2.47)
BI-10	Davidson Creek at the mouth	-	1302	-	1164	-	21	-	11	-	2.30
		-	(742-2369)	-	(673-2056)	-	(20-23)	-	(11-12)	-	(2.27-2.36)
BI-11	Mid-Davidson Creek	-	2735	-	2440	-	24	-	16	-	2.27
		-	(1865-3082)	-	(1741-2682)	-	(22-27)	-	(15-17)	-	(2.17-2.41)
BI-12	Upper Creek 705	-	1595	-	1418	-	26	-	15	-	2.54
		-	(732-2927)	-	(630-2645)	-	(24-28)	-	(14-17)	-	(2.38-2.64)
BI-14	Blackwater River Trib	-	4522	-	4172	-	21	-	14	-	2.10
		-	(3136-5867)	-	(2918-5417)	-	(19-24)	-	(12-16)	-	(1.95-2.17)
BI-13	Fawnie Creek Trib	-	4770	-	3666	-	20	-	15	-	2.11
		-	(3533-5250)	-	(3111-4133)	-	(19-22)	-	(13-16)	-	(1.92-2.19)

Note: SD – standard deviation, EPT – ephemeroptera, plecoptera, trichoptera insect orders

Annex 5.3-4
Stream Canadian Aquatic Biomonitoring Network (CABIN) Output, 2011 and 2012

Table 5.3-4A: BEAST Results for Blackwater BMI Communities, 2011 and 2012

Site	Replicate	2011				2012			
		Predicted Group	Probability	Stress	Overall*	Predicted Group	Probability	Stress	Overall*
BI-01	1	2	0.87	0.19	U	2	0.78	0.19	U
	2	2	0.87	0.19	U	2	0.78	0.19	U
	3	2	0.87	0.19	U	2	0.78	0.19	U
	4	2	0.87	0.19	U	2	0.78	0.19	U
	5	2	0.87	0.19	U	2	0.78	0.19	U
BI-02	1	2	0.87	0.20	U	2	0.78	0.20	U
	2	2	0.87	0.19	U	2	0.78	0.19	U
	3	2	0.87	0.19	U	2	0.78	0.19	U
	4	2	0.87	0.19	U	2	0.78	0.19	U
	5	2	0.87	0.19	U	2	0.78	0.19	U
BI-03	1	2	0.87	0.19	U	2	0.78	0.19	PS
	2	2	0.87	0.19	U	2	0.78	0.20	PS
	3	2	0.87	0.19	U	2	0.78	0.19	PS
	4	2	0.87	0.19	U	2	0.78	0.19	PS
	5	2	0.87	0.19	U	2	0.78	0.20	PS
BI-04	1	2	0.84	0.19	U	2	0.74	0.19	U
	2	2	0.84	0.19	U	2	0.74	0.18	SS
	3	2	0.84	0.19	U	2	0.74	0.20	U
	4	2	0.84	0.19	U	2	0.74	0.19	U
	5	2	0.84	0.19	U	2	0.74	0.19	U
BI-05	1	2	0.84	0.19	U	2	0.74	0.19	U
	2	2	0.84	0.20	U	2	0.74	0.19	U
	3	2	0.84	0.19	U	2	0.74	0.19	U
	4	2	0.84	0.20	U	2	0.74	0.19	U
	5	2	0.84	0.19	U	2	0.74	0.20	U
BI-06	1	2	0.80	0.19	SS	2	0.70	0.19	PS
	2	2	0.80	0.18	SS	2	0.70	0.19	S
	3	2	0.80	0.19	SS	2	0.70	0.19	SS
	4	2	0.80	0.18	SS	2	0.70	0.19	PS
	5	2	0.80	0.19	SS	2	0.70	0.19	PS
BI-07	1	2	0.58	0.19	U	4	0.55	0.17	U
	2	2	0.58	0.19	PS	4	0.55	0.17	U
	3	2	0.58	0.19	PS	4	0.55	0.17	U
	4	2	0.58	0.19	PS	4	0.55	0.18	U
	5	2	0.58	0.19	PS	4	0.55	0.17	U
BI-08	1	2	0.58	0.19	U	4	0.55	0.18	U
	2	2	0.58	0.19	U	4	0.55	0.17	PS
	3	2	0.58	0.20	U	4	0.55	0.18	PS
	4	2	0.58	0.19	U	4	0.55	0.18	PS
	5	2	0.58	0.20	U	4	0.55	0.18	U
BI-09	1	2	0.74	0.19	U	2	0.65	0.20	U
	2	2	0.74	0.20	U	2	0.65	0.20	U
	3	2	0.74	0.19	U	2	0.65	0.19	U
	4	2	0.74	0.20	U	2	0.65	0.19	U
	5	2	0.74	0.19	U	2	0.65	0.19	U
BI-10	1	-	-	-	-	4	0.50	0.17	PS
	2	-	-	-	-	4	0.50	0.17	PS
	3	-	-	-	-	4	0.50	0.16	PS
	4	-	-	-	-	4	0.50	0.17	PS
	5	-	-	-	-	4	0.50	0.17	PS
BI-11	1	-	-	-	-	2	0.86	0.19	U
	2	-	-	-	-	2	0.86	0.19	U
	3	-	-	-	-	2	0.86	0.19	U
	4	-	-	-	-	2	0.86	0.19	U
	5	-	-	-	-	2	0.86	0.19	U

Site	Replicate	2011				2012			
		Predicted Group	Probability	Stress	Overall*	Predicted Group	Probability	Stress	Overall*
BI-12	1	-	-	-	-	4	0.72	0.17	PS
	2	-	-	-	-	4	0.72	0.17	PS
	3	-	-	-	-	4	0.72	0.17	PS
	4	-	-	-	-	4	0.72	0.18	U
	5	-	-	-	-	4	0.72	0.18	U
BI-13	1	-	-	-	-	2	0.51	0.20	U
	2	-	-	-	-	2	0.51	0.19	U
	3	-	-	-	-	2	0.51	0.19	U
	4	-	-	-	-	2	0.51	0.19	U
	5	-	-	-	-	2	0.51	0.19	U
BI-14	1	-	-	-	-	2	0.83	0.19	U
	2	-	-	-	-	2	0.83	0.19	U
	3	-	-	-	-	2	0.83	0.19	U
	4	-	-	-	-	2	0.83	0.19	U
	5	-	-	-	-	2	0.83	0.19	U

Note: *Overall assessment: Similar to Reference (U), Mildly Divergent (PS), Divergent (S), Highly Divergent (SS).

Table 5.3-4B: River Invertebrate Prediction and Classification System (RIVPACS) Assessments for Blackwater BMI Communities, 2011 and 2012

Site	Replicate	2011			2012		
		Expected Taxa (P>0.50)	Observed Taxa (P>0.50)	O:E (P>0.5)	Expected Taxa (P>0.50)	Observed Taxa (P>0.50)	O:E (P>0.5)
BI-01	1	13	15	1.13	13	15	1.14
	2	13	15	1.13	13	15	1.14
	3	13	12	0.91	13	15	1.14
	4	13	14	1.06	13	14	1.06
	5	13	13	0.98	13	15	1.14
BI-02	1	13	15	1.13	13	15	1.14
	2	13	15	1.13	13	15	1.14
	3	13	15	1.13	13	13	0.98
	4	13	14	1.06	13	13	0.98
	5	13	15	1.13	13	13	0.98
BI-03	1	13	13	0.98	13	13	0.98
	2	13	11	0.83	13	13	0.98
	3	13	13	0.98	13	11	0.83
	4	13	11	0.83	13	9	0.68
	5	13	10	0.75	13	10	0.76
BI-04	1	13	14	1.06	14	15	1.09
	2	13	14	1.06	14	14	1.02
	3	13	13	0.98	14	15	1.09
	4	13	14	1.06	14	14	1.02
	5	13	12	0.91	14	13	0.95
BI-05	1	13	15	1.13	14	16	1.17
	2	13	15	1.13	14	17	1.24
	3	13	16	1.21	14	16	1.17
	4	13	12	0.91	14	16	1.17
	5	13	13	0.98	14	16	1.17
BI-06	1	13	9	0.68	14	12	0.87
	2	13	6	0.45	14	14	1.02
	3	13	7	0.53	14	12	0.87
	4	13	6	0.45	14	12	0.87
	5	13	8	0.60	14	13	0.95
BI-07	1	14	13	0.94	14	12	0.83
	2	14	16	1.15	14	14	0.97
	3	14	14	1.01	14	13	0.90
	4	14	13	0.94	14	13	0.90
	5	14	15	1.08	14	13	0.90
BI-08	1	14	16	1.15	14	13	0.90
	2	14	15	1.08	14	14	0.97
	3	14	15	1.08	14	14	0.97
	4	14	15	1.08	14	16	1.11
	5	14	15	1.08	14	15	1.04
BI-09	1	14	15	1.09	14	16	1.16
	2	14	14	1.02	14	14	1.02
	3	14	16	1.16	14	16	1.16
	4	14	15	1.09	14	14	1.02
	5	14	14	1.02	14	13	0.94
BI-10	1	-	-	-	14	14	1.01
	2	-	-	-	14	15	1.08
	3	-	-	-	14	14	1.01
	4	-	-	-	14	14	1.01
	5	-	-	-	14	13	0.94
BI-11	1	-	-	-	13	15	1.14
	2	-	-	-	13	16	1.21
	3	-	-	-	13	14	1.06
	4	-	-	-	13	15	1.14
	5	-	-	-	13	14	1.06
BI-12	1	-	-	-	15	15	1.02

Site	Replicate	2011			2012		
		Expected Taxa (P>0.50)	Observed Taxa (P>0.50)	O:E (P>0.5)	Expected Taxa (P>0.50)	Observed Taxa (P>0.50)	O:E (P>0.5)
	2	-	-	-	15	16	1.09
	3	-	-	-	15	17	1.16
	4	-	-	-	15	16	1.09
	5	-	-	-	15	18	1.23
BI-13	1	-	-	-	13	14	1.06
	2	-	-	-	13	13	0.98
	3	-	-	-	13	12	0.91
	4	-	-	-	13	15	1.14
	5	-	-	-	13	14	1.06
BI-14	1	-	-	-	14	17	1.23
	2	-	-	-	14	15	1.08
	3	-	-	-	14	15	1.08
	4	-	-	-	14	15	1.08
	5	-	-	-	14	14	1.01

Notes: O – Observed, E – Expected, dash indicates no data

Annex 5.4-1
Lake Lower Trophic Site Photographs, 2012

Littoral BMI - Lake 01682LNRS



Photo 1: View of shoreline at littoral BMI site 16-6, Lake 01682LNRS, September 20, 2012



Photo 2: Underwater view of substrate at site 16-6, Lake 01682LNRS, September 20, 2012



Photo 3: View of shoreline vegetation along site 16-7, Lake 01682LNRS, September 20, 2012



Photo 4: Underwater view of substrate at site 16-7, Lake 01682LNRS, September 20, 2012



Photo 5: Collecting littoral BMI sample during 10 minute kick at site 16-8, Lake 01682LNRS, September 20, 2012



Photo 6: View of shoreline vegetation along the bank at site 16-8, Lake 01682LNRS, September 20, 2012



Photo 7: Underwater view of substrate at site 16-8, Lake 01682LNRS, September 20, 2012



Photo 8: Vegetation along the bank at site 16-9, Lake 01682LNRS, September 20, 2012



Photo 9: Underwater view of substrate at site 16-9, Lake 01682LNRS, September 20, 2012



Photo10: Shoreline Vegetation along the bank at site 16-10, Lake 01682LNRS, September 20, 2012.



Photo 11: Underwater view of substrate at site 16-10, Lake 01682LNRS, September 20, 2012

Littoral BMI - Lake 01538UEUT



Photo 12: Getting ready to start 10 minute sample kick along littoral area at site 15-6, Lake 01538UEUT, September 11, 2012



Photo 13: View of shoreline vegetation along site 15-6, Lake 01538UEUT, September 12, 2012



Photo 14: Underwater view of substrate at site 15-6, Lake 01538UEUT, September 12, 2012



Photo 15: Areal view of substrate at littoral BMI site 15-7, Lake 01538UEUT, September 12, 2012



Photo 16: Underwater view of substrate at littoral BMI site 15-7, Lake 01538UEUT, September 12, 2012



Photo 17: Conducting the 10 minute kick while sampling for littoral BMI at site 15-7, Lake 01538UEUT, September 12, 2012



Photo 18: Inspecting the kick net after collecting littoral BMI sample at site 15-7, Lake 01538UEUT, September 12, 2012



Photo 19: View of shoreline vegetation and substrate along site 15-7, Lake 01538UEUT, September 12, 2012



Photo 20: Conducting 10 minute kick for littoral BMI sample at site 15-8, Lake 01538UEUT, September 12, 2012



Photo 21: Areal view of substrate at site 15-8, Lake 01538UEUT, September 12, 2012



Photo 22: Vegetation along the bank at site 15-8, Lake 01538UEUT, September 12, 2012



Photo 23: Vegetation along the shoreline at site 15-9, Lake 01538UEUT, September 12, 2012



Photo 24: Underwater view of substrate at site 15-9, Lake 01538UEUT, September 12, 2012



Photo 25: Sampling the BMI within the littoral area at site 15-9, Lake 01538UEUT, September 18, 2012



Photo 26: Vegetation along the shoreline at site 15-10, Lake 01538UEUT, September 18, 2012



Photo 27: Underwater view of substrates at site 15-10, Lake 01538UEUT, September 12, 2012

Littoral BMI - Lake 01428UEUT



Photo 28: Collecting BMI samples, Lake 01428UEUT, September 9, 2012



Photo 29: Preserving BMI samples, Lake 01428UEUT, September 9, 2012



Photo 30: Collecting the littoral area BMI sample 14-6, Lake 01428UEUT, September 9, 2012



Photo 31: Substrate and littoral vegetation at sample location 14-6, Lake 01428UEUT, September 9, 2012



Photo 32: Underwater view of substrate at site 14-6, Lake 01428UEUT, September 13, 2012



Photo 33: Littoral habitat along bank at site 14-6, Lake 01428UEUT, September 13, 2012



Photo 34: Underwater view of substrate at site 14-7, Lake 01428UEUT, September 13, 2012



Photo 35: View of littoral habitat along bank at site 14-7, Lake 01428UEUT, September 13, 2012



Photo 36: Underwater view of substrates at site 14-8, Lake 01428UEUT, September 13, 2012



Photo 37: View of shoreline vegetation along site 14-8, Lake 01428UEUT, September 13, 2013



Photo 38: Checking the kick net for any BMI after completing a 10 minute kick sample for site 14-9, Lake 01428UEUT, September 13, 2012

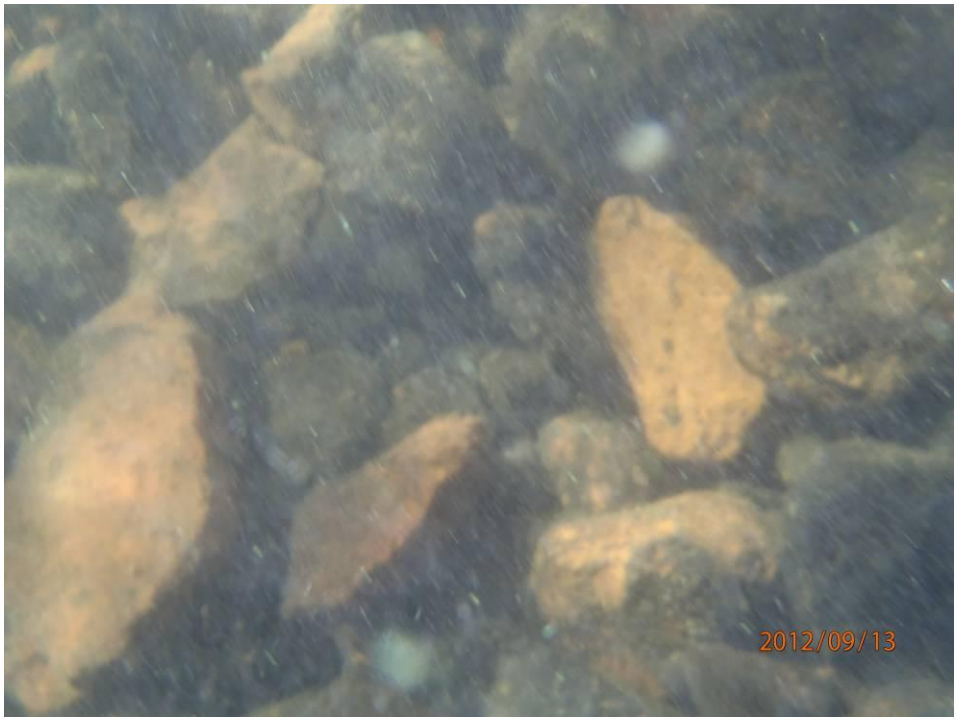


Photo 39: Underwater view of substrate at site 14-9, Lake 01428UEUT, September 13, 2012



Photo 40: Littoral vegetation and substrate at site 14-9, Lake 01428UEUT, September 13, 2013



Photo 41: View of substrate at site 14-10, Lake 01428UEUT, September 13, 2012



Photo 42: View of littoral vegetation along bank at site 14-10, Lake 01428UEUT, September 13, 2012

Profundal BMI - Lake 01682LNRS

Profundal BMI – LAKE 01682LNRS – no photos taken

Profundal BMI - Lake 01538UEUT



Photo 43: Retrieving the Ekman grab sampler with profundal sediment sample, Lake 01538UEUT, September 11, 2012



Photo 44: Bulk bentic sediment sampled with Ekman grab sampler for profundal BMI sample, Lake 01538UEUT, September 11, 2012

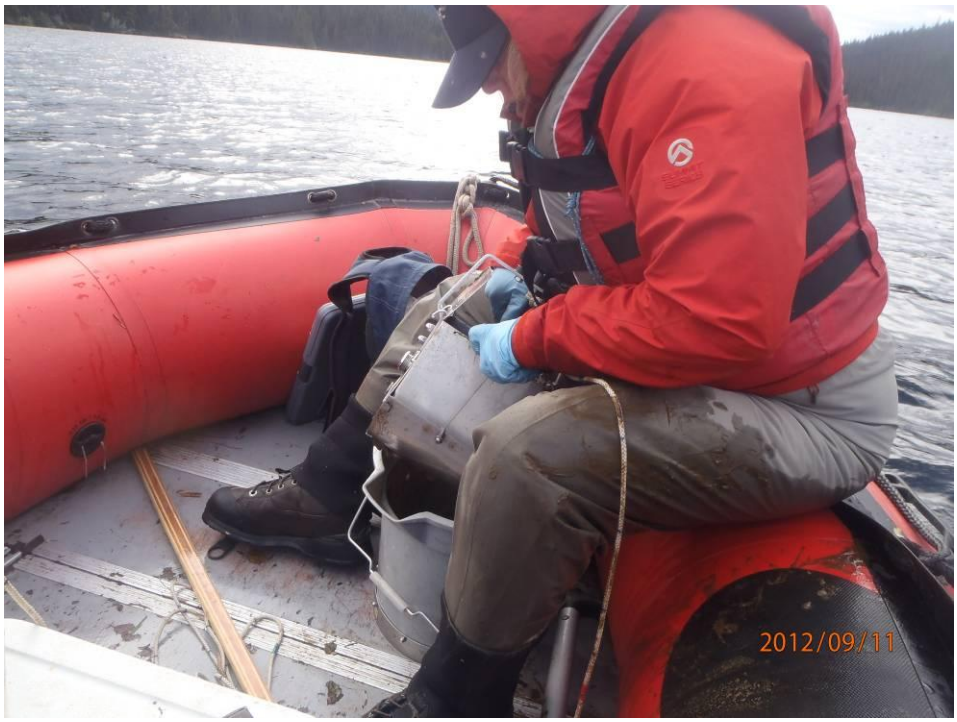


Photo 45: Transfer of the sediment sample into the sieve bucket during profundal BMI sampling, Lake 01538UEUT, September 11, 2012

Profundal BMI - Lake 01428UEUT

LAKE 01428UEUT – no photos taken

Annex 5.4-2
Lake Phytoplankton Biomass (Chlorophyll *a* Concentration), 2012

Table 5.4-2: Lake Phytoplankton Biomass (Chlorophyll a Concentration), 2012

Lake	Depth	Sample	Chlorophyll *a* (µg)	Total Sampled Volume (L)	Chlorophyll *a* (µg/L)
Lake 01428UEUT	Surface	14-1	1.57	1	1.57
		14-2	2.11	1	2.11
		14-3	1.66	1	1.66
		14-4	1.07	1	1.07
		14-5	1.22	1	1.22
	Bottom	14-6	2.18	1	2.18
		14-7	3.05	1	3.05
		14-8	2.73	1	2.73
		14-9	2.74	1	2.74
		14-10	3.41	1	3.41
Lake 01538UEUT	Surface	15-01	0.821	1	0.821
		15-02	0.602	1	0.602
		15-03	0.293	1	0.293
		15-04	0.324	1	0.324
		15-05	0.290	1	0.29
	Bottom	15-06	0.952	1	0.952
		15-07	0.453	1	0.453
		15-08	0.512	1	0.512
		15-09	0.821	1	0.821
		15-10	0.350	1	0.35
Lake 01682LNRS	Surface	16-01	0.344	1	0.344
		16-02	0.321	1	0.321
		16-03	0.473	1	0.473
		16-04	0.557	1	0.557
		16-05	0.671	1	0.671
	Mid	16-06	2.45	1	2.45
		16-07	2.18	1	2.18
		16-08	3.94	1	3.94
		16-09	2.36	1	2.36
		16-10	3.49	1	3.49
	Bottom	16-11	0.784	1	0.784
		16-12	1.28	1	1.28
		16-13	0.536	1	0.536
		16-14	0.424	1	0.424
		16-15	0.415	1	0.415

Note: µg - microgram; L - litre; µg/L - micrograms per litre

Appendix 5.4-3
Lake Phytoplankton Taxonomic Composition and Density, 2012

Table 5.4-3A: Lake Phytoplankton Taxonomic Composition and Density, 2012

Units: Number of units/L	Lake Name	1428UEUT									
	Depth	Surface					Bottom				
	Sample	014-1	014-2	014-3	014-4	014-5	014-6	014-7	014-8	014-9	014-10
	Date	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12
	Volume Sampled (L)	1	1	1	1	1	1	1	1	1	1
Taxonomy											
DIATOMS											
Achnanthes minutissima Kuetzing		0	0	0	0	0	0	0	0	0	0
Asterionella formosa Hansall		9723	0	4861	0	0	9723	0	0	19447	0
Aulacoseira sp		0	0	0	9723	9723	29171	9723	14585	4861	0
Caloneis sp		0	0	0	0	0	0	0	0	4861	0
Centric Diatom 4-10 um (Cyclotella/Stephanodiscus sp)		19446	14584	9723	58342	4861	53480	19446	14584	14584	29170
Centric Diatom 15-2 um *(Cyclotella bodanica* Grunow)		0	0	0	0	0	4861	0	14585	0	0
Centric Diatom 22-35 um *(Cyclotella bodanica* Grunow)		14585	19447	0	4861	4861	14585	0	0	14585	0
Centric Diatom 55-74 um *(Stephanodiscus niagarae* Ehrenberg)		4861	0	0	0	0	9722	14585	4861	9723	4861
Cyclotella ocellata Pantocsek		0	0	0	0	0	0	0	0	0	0
Epithemia sorex Kuetzing		0	0	0	0	0	0	0	0	0	0
Eunotia sp		0	0	0	0	0	0	0	0	0	0
Fragilaria capucina Desmazieres		19447	0	0	0	0	0	0	0	0	0
Fragilaria construens (Ehrenberg) Grunow		4861	0	0	0	0	0	0	0	0	0
Fragilaria crotonensis Kitton		0	0	0	0	0	9723	4861	0	4861	4861
Gomphonema sp.		0	0	0	0	0	0	0	0	0	0
Navicula sp		0	0	0	0	0	0	4861	0	4861	0
Nitzschia acicularis (Kuetzing) W. Smith		0	0	0	0	0	0	0	0	0	0
Nitzschia sp		0	0	0	4861	0	0	4861	0	0	0
Pinnularia sp.		0	0	0	0	0	0	0	0	0	0
Rhizosolenia longiseta Ehrenberg		0	0	0	0	0	0	0	0	0	0
Synedra sp		0	0	0	0	0	0	0	0	0	0
Tabellaria flocculosa (Roth) Kuetzing		0	0	0	4861	4861	0	14585	0	4861	0

Units: Number of units/L	Lake Name	1428UEUT									
	Depth	Surface					Bottom				
	Sample	014-1	014-2	014-3	014-4	014-5	014-6	014-7	014-8	014-9	014-10
	Date	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12
	Volume Sampled (L)	1	1	1	1	1	1	1	1	1	1
Taxonomy											
CHLOROPHYCEAE											
Ankyra judayi (G.M. Smith) Fott		0	0	0	0	0	0	0	0	0	0
Ankyra lanceolata (Kors) Fott		0	4861	0	0	0	4861	0	4861	4861	4861
Botryococcus sp		0	0	0	0	0	0	14585	0	0	0
Chamydomonas frigida Skuja		0	0	0	0	0	0	0	0	0	0
Chlamydomonas sp		0	4861	0	0	0	0	0	0	0	0
Chlorella sp		0	0	0	0	0	4861	0	0	4861	9723
Coelastrum microporum Naegeli		4861	0	0	0	0	0	0	0	0	0
Cosmaruim bioculatum Brebisson		0	0	0	0	4861	0	0	0	0	0
Cosmarium sp		0	0	0	0	0	0	0	0	0	0
Crucigenia quadrata Morren		14585	0	9723	4861	0	9723	0	4861	4861	0
Crucigenia rectangularis (A. Braun) Gay		0	0	0	0	0	0	0	0	0	0
Dictyosphaerium ehrenbergianum Naegeli		0	0	0	0	0	0	0	0	0	0
Elakatothrix gelatinosa Wille		0	0	0	0	0	0	4861	9723	0	0
Elakatothrix genevensis (Reverdin) Hindak		19447	14585	4861	0	4861	4861	9723	4861	9723	0
Eutetramorus sp		0	0	0	0	0	0	0	0	0	0
Gloeocystis planctonica (W. & G.S. West) Lemmermann		0	0	0	9723	0	0	0	0	0	0
Gloeocystis sp		9723	9723	9723	0	0	9723	4861	34033	4861	0
Korshikoviella sp		0	9723	4861	14585	9723	14585	4861	14585	19447	0
Monoraphidium braunii Naegeli		14585	4861	0	0	0	0	0	0	4861	9723
Monoraphidium dybowskii (Wolosz) Hindak et. Kom.-Legn.		4861	4861	0	0	0	0	0	0	0	0
Monoraphidium griffithii (Berkeley) Komarkova-Legenerova		9723	0	0	0	0	0	0	0	4861	0
Monoraphidium minutum (Nag.) Komarkova-Legenerova		0	0	0	0	0	0	0	0	19447	0
Monoraphidium setiforme Komarkova-Legenerova		0	0	0	0	0	0	0	0	0	0
Monoraphidium spp		0	0	0	0	0	0	0	0	0	0
Nephrocytium limneticum (G.M. Smith) G.M. Smith		0	0	0	0	0	0	0	4861	4861	0

Units: Number of units/L	Lake Name	1428UEUT									
	Depth	Surface					Bottom				
	Sample	014-1	014-2	014-3	014-4	014-5	014-6	014-7	014-8	014-9	014-10
	Date	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12
	Volume Sampled (L)	1	1	1	1	1	1	1	1	1	1
Taxonomy											
Nephrocytium lunatum W. West		0	0	0	0	0	0	0	0	0	0
Oocystis borgei Snow		0	0	0	0	0	4861	4861	0	19447	4861
Oocystis Eremosphaeria G.M. Smith		0	0	0	0	0	0	0	0	0	0
Oocystis gigas Archer		4861	0	0	0	0	0	0	0	0	0
Oocystis lacustris Chodat		0	0	0	0	0	0	0	0	0	0
Oocystis parva W. & G.S. West		4861	4861	4861	19447	24309	4861	0	9723	9723	9723
Oocystis pusilla Hansgirg		4861	0	0	0	0	0	0	9723	0	0
Oocystis solitaria Wittrock		4861	24309	9723	0	24309	34033	4861	29171	24309	9723
Quadrigula closteriodes (Bohlin) Printz		0	0	4861	0	0	0	4861	0	0	0
Scenedesmus arcuatus var. platydisca G. M. Smith		4861	0	4861	0	0	0	0	0	0	0
Scenedesmus obliquus (Turpin) Kuetzing		0	4861	0	0	0	0	0	0	0	0
Scenedesmus quadricauda (Turpin) Brebisson		0	0	0	0	0	0	0	0	0	0
Schroderia setigera (Schroed.) Lemmermann		0	0	0	0	0	0	0	0	0	0
Sphaerocystis schroeteri Chodat		0	0	0	0	0	0	0	0	0	0
Staurastrum luetkemuelleri Donat		0	0	0	0	0	0	0	0	0	0
Staurastrum paradoxum Meyen		0	0	0	0	0	0	0	0	0	0
Staurastrum pingue Teiling		0	0	0	14585	0	4861	0	4861	0	0
Staurastrum sp		0	0	0	0	0	0	0	0	0	0
Tatraedron caudatum (Corda) Hansgirg		0	0	0	0	0	0	0	0	0	0
Tetraedron mimimum var. tetralobulatum Reins		9723	4861	0	0	0	4861	4861	0	9723	4861
Ulothrix sp		0	0	0	0	0	0	0	0	0	0
CHRYSOPHYCEAE											
Bitrichia chodatii (Reverdin) Chodat		0	0	4861	0	9723	9723	0	0	4861	0
Chromulina sp.		0	0	0	0	0	4861	0	0	0	0
Dicronema cf. vlklanum Prauser		0	0	0	4861	0	0	0	0	0	4861
Dinobryon acuminatum Ruttner		0	0	0	0	9723	14585	14585	9723	9723	0

Units: Number of units/L	Lake Name	1428UEUT									
	Depth	Surface					Bottom				
	Sample	014-1	014-2	014-3	014-4	014-5	014-6	014-7	014-8	014-9	014-10
	Date	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12
	Volume Sampled (L)	1	1	1	1	1	1	1	1	1	1
Taxonomy											
Dinobryon bavaricum Imhof		0	0	0	0	0	0	4861	9723	0	0
Dinobryon borgei Lemmermann		14585	0	0	4861	4861	0	0	0	0	0
Dinobryon divergens Imhof		19447	0	4861	9723	19447	4861	14585	34033	4861	4861
Dinobryon sp (loose monad)		48619	38895	24309	19447	34033	19447	0	14585	38895	29171
Dinobryon sertularia var. protruberans (Lemmermann) Krieger		9723	4861	0	0	0	0	0	0	14585	0
Dinobryon sociale Ehrenberg		0	0	0	4861	0	0	0	4861	0	4861
Dinobryon sociale var. stipitatum (Stein) Lemmermann		0	0	0	0	0	0	0	0	0	4861
Epipyxis sp		0	0	0	4861	4861	9723	14585	0	53481	0
Unidentified naked Chrysophyte sp (Ochromonas/Chromulina)-large		48619	53481	19447	68067	29171	77791	77791	160445	92377	150721
Unidentified naked Chrysophyte sp (Ochromonas/Chromulina)-small		38895	24309	24309	43757	48619	87515	53481	34033	121549	38895
Haptophyte (Erkenia/Chrysochromulina)		4861	0	4861	19447	0	0	0	0	0	0
Mallomonas sp		9723	0	0	0	0	0	4861	4861	9723	4861
Ochromonas sp		0	0	0	0	0	4861	0	0	0	0
Pedinella sp		0	0	4861	0	4861	0	0	0	0	0
Pseudokephyrion alaskanum Hilliard		0	0	0	0	0	0	0	4861	0	0
Pseudokephyrion ellipsoideum (Pascher) Schmid		4861	14585	9723	43757	4861	9723	0	0	0	0
Stichogloea doederleinii (Schmidle) Wille		0	0	0	0	0	0	0	0	0	0
Stichogloea globosa Starmach		14585	4861	0	0	9723	9723	9723	4861	19447	0
Synura sp		0	0	0	0	0	0	0	0	9723	0
Uroglena sp		0	0	0	0	0	0	0	0	0	0
CRYPTOPHYCEAE											
Cryptomonas erosa Ehrenberg		0	0	0	0	0	0	0	4861	0	4861
Cryptomonas marssonii Skuja		0	4861	0	0	0	0	0	4861	4861	14585
Cyrptomonas phaseolus Skuja		0	0	0	0	0	4861	0	0	4861	0
Cryptomonas pyrenoidifera Geitler		0	0	0	0	0	0	0	0	0	0

Units: Number of units/L	Lake Name	1428UEUT									
	Depth	Surface					Bottom				
	Sample	014-1	014-2	014-3	014-4	014-5	014-6	014-7	014-8	014-9	014-10
	Date	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12
	Volume Sampled (L)	1	1	1	1	1	1	1	1	1	1
Taxonomy											
Cryptomonas reflexa Skuja		0	0	0	0	0	0	0	4861	0	0
Cryptomonas rostratiformis Skuja		0	0	0	0	0	0	0	4861	0	0
Katablepharis ovalis Skuja		0	0	0	4861	0	0	0	4861	4861	0
Rhodomonas lens Pascher & Ruttner		0	0	0	0	0	0	4861	0	0	0
Rhodomonas minuta Skuja		136135	131273	58343	77791	126411	179893	68067	106963	213927	111825
CYANOBACTERIA											
Anabaena flos-aquae Brebisson		0	0	0	0	0	0	0	0	0	0
Anabaena inaequalis (Kuetzing) Bornet & Flahault		0	0	0	0	0	0	0	0	0	0
Anabaena solitaria f. planctonica (Brunnthaler) Komarek		9723	0	4861	0	0	4861	0	0	0	4861
Anabaena spiroides Klebahn		0	0	0	0	0	0	0	0	0	0
Anabaena sp.		0	0	0	0	0	0	0	0	0	0
Aphanocapsa delicatissima West & West		58343	38895	24309	14585	24309	9723	29171	4861	77791	116687
Aphanocapsa elachista W. & G.S. West		43757	24309	9723	14585	19447	19447	48619	14585	38895	4861
Aphanizomenon flos-aquae f. gracile (Lemmermann)		0	0	0	4861	0	116687	0	38895	4861	9723
Aphanocapsa sp		0	4861	0	0	0	0	0	0	0	0
Aphanothece clathrata W & G.S. West		4861	0	0	0	0	0	9723	0	0	0
Aphanothece sp		0	0	0	0	0	4861	0	0	0	0
Chroococcus dispersus (Keissler) Lemmermann		0	0	0	0	0	0	0	0	4861	0
Chroococcus limneticus Lemmermann		9723	0	0	4861	0	4861	0	0	4861	0
Synechocystis sp		0	0	0	0	0	0	0	0	0	4861
Limnothrix sp		0	0	4861	0	4861	0	0	0	4861	9723
Phormidium sp		0	0	0	4861	0	0	0	0	0	0
Planktothrix agardhii Gomont		0	0	0	0	0	0	0	0	0	0
Pseudanabaena limnetica Komarek		0	0	0	0	0	0	0	0	0	0
Snowella arachnoidea Komarek et Hindak		0	0	0	0	0	0	0	0	0	0
Snowella lacustris (Chodat) Komarek et Hindak		48619	24309	29171	14585	19447	34032	9723	19447	48619	14585

Units: Number of units/L	Lake Name	1428UEUT									
	Depth	Surface					Bottom				
	Sample	014-1	014-2	014-3	014-4	014-5	014-6	014-7	014-8	014-9	014-10
	Date	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12	08-Sep-12
	Volume Sampled (L)	1	1	1	1	1	1	1	1	1	1
Taxonomy											
EUGLENOPHYCEAE											
Euglena acus Ehrenberg		0	0	0	0	0	0	0	0	0	0
Lepocinclis sp		4861	0	0	0	0	0	0	0	0	0
Trachemolomas volvocina Ehrenberg		9723	0	0	0	0	4861	0	0	4861	0
DINOPHYCEAE											
Gymnodinium helveticum Pen.		0	0	0	0	0	0	0	0	0	0
Gymnodinium ordinatum Skuja		0	0	9723	9723	9723	0	4861	0	0	0
Gymnodinium sp		4861	0	0	0	0	0	0	0	0	0
Totals		729260	495898	306281	520204	476450	870256	500754	670920	1025835	632031

Note: L - litre

Table 5.4-3A: Lake Phytoplankton Taxonomic Composition and Density, 2012 (continued)

Units: Number of units/L	Lake Name	01538UEUT									
	Depth	Surface					Bottom				
	Sample	015-1	015-2	015-3	015-4	015-5	015-6	015-7	015-8	015-9	015-10
	Date	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12
	Volume Sampled (L)	1	1	1	1	1	1	1	1	1	1
Taxonomy											
DIATOMS											
Achnanthes minutissima Kuetzing		0	0	0	0	0	0	0	2917	2917	0
Asterionella formosa Hansall		2917	0	0	5834	0	0	0	2917	0	5834
Aulacoseira sp		2917	0	0	0	2430	2917	0	2917	0	0
Caloneis sp		0	0	0	0	0	0	0	0	0	0
Centric Diatom 4-10 um (Cyclotella/Stephanodiscus sp)		8751	8751	2041	8751	2430	0	5834	0	0	2917
Centric Diatom 15-2 um *(Cyclotella bodanica* Grunow)		2917	2917	2042	8751	0	17503	0	5834	5834	2917
Centric Diatom 22-35 um *(Cyclotella bodanica* Grunow)		11668	23337	0	11668	4860	8751	32088	5834	2917	8751
Centric Diatom 55-74 um *(Stephanodiscus niagarae* Ehrenberg)		2917	14585	816	20420	4861	11668	14585	17503	17503	14585
Cyclotella ocellata Pantocsek		0	0	0	0	0	0	0	0	0	0
Epithemia sorex Kuetzing		0	0	0	0	0	0	2917	0	2917	0
Eunotia sp		0	0	0	0	0	0	0	0	0	0
Fragilaria capucina Desmazieres		0	0	0	0	0	0	0	2917	0	0
Fragilaria construens (Ehrenberg) Grunow		17503	0	0	0	2430	0	0	0	0	2917
Fragilaria crotonensis Kitton		0	2917	0	0	0	0	2917	0	0	2917
Gomphonema sp.		0	0	0	0	0	0	5834	0	0	0
Navicula sp		0	2917	0	0	0	2917	0	2917	2917	2917
Nitzschia acicularis (Kuetzing) W. Smith		0	0	0	0	0	0	2917	0	0	0
Nitzschia sp		2917	0	0	0	0	0	5834	5834	2917	0
Pinnularia sp.		0	0	0	0	2430	0	0	0	0	0
Rhizosolenia longiseta Ehrenberg		0	0	0	0	0	0	0	0	0	0
Synedra sp		0	0	0	0	0	0	2917	0	0	0
Tabellaria flocculosa (Roth) Kuetzing		2917	0	0	0	2430	0	2917	0	0	0
CHLOROPHYCEAE											
Ankyra judayi (G.M. Smith) Fott		0	0	0	0	0	0	2917	0	0	0

Units: Number of units/L	Lake Name	01538UEUT									
	Depth	Surface					Bottom				
	Sample	015-1	015-2	015-3	015-4	015-5	015-6	015-7	015-8	015-9	015-10
	Date	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12
	Volume Sampled (L)	1	1	1	1	1	1	1	1	1	1
Taxonomy											
Ankyra lanceolata (Kors) Fott		2917	0	816	2917	2430	8751	0	0	0	0
Botryococcus sp		5834	8751	0	2917	2430	2917	5834	5834	11668	8751
Chamydomonas frigida Skuja		0	0	0	0	0	0	0	0	0	0
Chlamydomonas sp		0	0	0	0	0	0	0	0	0	0
Chlorella sp		0	0	0	0	0	0	0	0	0	0
Coelastrum microporum Naegeli		0	0	0	0	0	0	0	0	0	0
Cosmaruim bioculatum Brebisson		0	0	0	0	0	0	0	0	0	0
Cosmarium sp		0	0	0	0	0	0	0	0	0	0
Crucigenia quadrata Morren		2917	0	0	0	0	2917	5834	0	0	0
Crucigenia rectangularis (A. Braun) Gay		2917	0	0	0	0	0	0	2917	0	0
Dictyosphaerium ehrenbergianum Naegeli		0	2917	0	0	0	0	0	0	0	0
Elakatothrix gelatinosa Wille		0	0	0	0	0	0	0	0	0	0
Elakatothrix genevensis (Reverdin) Hindak		0	0	0	5834	0	2917	8751	2917	2917	2917
Eutetramorus sp		0	0	0	0	0	0	5834	0	0	0
Gloeocystis planctonica (W. & G.S. West) Lemmermann		0	2917	0	2917	0	0	0	2917	2917	0
Gloeocystis sp		5834	2917	2042	0	4861	2917	5834	2917	2917	0
Korshikoviella sp		14585	0	408	2917	2430	11668	2917	14585	2917	2917
Monoraphidium braunii Naegeli		0	0	0	0	0	0	2917	0	0	0
Monoraphidium dybowskii (Wolosz) Hindak et. Kom.-Legn.		17503	14585	1633	14585	7292	14585	8751	17503	8751	8751
Monoraphidium griffithii (Berkeley) Komarkova-Legenerova		0	0	0	0	0	0	0	0	0	0
Monoraphidium minutum (Nag.) Komarkova-Legenerova		0	0	0	0	0	0	0	0	0	0
Monoraphidium setiforme Komarkova-Legenerova		2917	2917	0	0	9723	8751	5834	11668	2917	5834
Monoraphidium spp		0	0	0	0	0	0	0	0	0	0
Nephrocytium limneticum (G.M. Smith) G.M. Smith		0	0	0	0	0	0	0	0	0	0
Nephrocytium lunatum W. West		0	0	0	0	0	0	0	0	0	0
Oocystis borgei Snow		8751	11668	408	2917	2430	11668	2917	8751	0	5834

Units: Number of units/L	Lake Name	01538UEUT									
	Depth	Surface					Bottom				
	Sample	015-1	015-2	015-3	015-4	015-5	015-6	015-7	015-8	015-9	015-10
	Date	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12
	Volume Sampled (L)	1	1	1	1	1	1	1	1	1	1
Taxonomy											
Oocystis Eremosphaeria G.M. Smith		0	5834	0	0	0	0	0	0	0	0
Oocystis gigas Archer		0	0	0	0	0	0	0	0	0	0
Oocystis lacustris Chodat		0	0	0	0	0	2917	0	0	0	0
Oocystis parva W. & G.S. West		5834	5834	1633	0	0	0	11668	11668	0	0
Oocystis pusilla Hansgirg		2917	0	0	2917	2430	0	0	0	5834	0
Oocystis solitaria Wittrock		0	5834	0	2917	4861	2917	0	2917	0	2917
Quadrigula closteriodes (Bohlin) Printz		0	0	408	0	0	0	0	0	0	0
Scenedesmus arcuatus var. *platydisca* G. M. Smith		0	0	0	0	0	0	0	0	0	0
Scenedesmus obliquus (Turpin) Kuetzing		0	0	0	0	0	0	0	0	0	0
Scenedesmus quadricauda (Turpin) Brebisson		0	0	0	0	0	2917	0	0	0	0
Schroderia setigera (Schroed.) Lemmermann		0	0	0	0	0	0	0	0	0	0
Sphaerocystis schroeteri Chodat		0	0	0	2917	2430	0	0	0	0	0
Staurastrum luetkemuelleri Donat		0	0	0	0	0	2917	0	0	0	0
Staurastrum paradoxum Meyen		0	0	0	2917	0	0	0	0	0	0
Staurastrum pingue Teiling		0	0	0	0	0	0	2917	2917	0	0
Staurastrum sp		0	0	0	0	0	0	0	0	0	0
Tatraedron caudatum (Corda) Hansgirg		0	0	0	0	0	0	0	0	0	2917
Tetraedron mimimum var. *tetralobulatum* Reins		2917	2917	0	0	2430	0	0	5834	0	0
Ulothrix sp		0	2917	0	0	0	0	0	0	0	0
CHRYSOPHYCEAE											
Bitrichia chodatii (Reverdin) Chodat		0	0	0	0	0	0	0	0	0	0
Chromulina sp.		0	0	0	0	0	0	0	0	0	0
Dicronema cf. *vlklanum* Prauser		0	0	0	0	0	0	0	0	0	0
Dinobryon acuminatum Ruttner		0	0	0	0	0	0	0	0	0	2917
Dinobryon bavaricum Imhof		0	0	0	0	0	0	0	0	0	0
Dinobryon borgei Lemmermann		0	0	0	0	0	0	0	0	0	0

Units: Number of units/L	Lake Name	01538UEUT									
	Depth	Surface					Bottom				
	Sample	015-1	015-2	015-3	015-4	015-5	015-6	015-7	015-8	015-9	015-10
	Date	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12
	Volume Sampled (L)	1	1	1	1	1	1	1	1	1	1
Taxonomy											
Dinobryon divergens Imhof		0	5834	816	2917	2430	0	2917	2917	2917	0
Dinobryon sp (loose monad)		0	0	0	0	0	0	0	0	0	0
Dinobryon sertularia var. *protruberans* (Lemmermann) Krieger		0	0	0	0	0	0	0	0	0	0
Dinobryon sociale Ehrenberg		0	0	0	0	0	0	0	0	0	0
Dinobryon sociale var. *stipitatum* (Stein) Lemmermann		0	0	0	0	0	0	0	0	0	0
Epipyxis sp		0	0	0	0	0	0	0	0	0	0
Unidentified naked Chrysophyte sp (*Ochromonas*/*Chromulina*)-large		32089	23337	4492	35006	34033	20420	2917	35006	20420	23337
Unidentified naked Chrysophyte sp (*Ochromonas*/*Chromulina*)-small		2917	5834	816	2917	4861	17503	11668	17503	5834	29171
Haptophyte *(Erkenia/Chrysochromulina)*		0	0	0	0	0	0	0	0	0	0
Mallomonas sp		2917	2917	0	0	2430	0	0	0	0	0
Ochromonas sp		0	0	0	0	0	0	0	0	0	0
Pedinella sp		0	0	0	0	0	0	0	0	0	0
Pseudokephyrion alaskanum Hilliard		0	0	0	0	0	0	0	0	0	0
Pseudokephyrion ellipsoideum (Pascher) Schmid		8751	5834	0	17503	7292	14585	8751	5834	8751	2917
Stichogloea doederleinii (Schmidle) Wille		0	0	0	0	0	11668	0	0	0	0
Stichogloea globosa Starmach		8751	5834	0	0	14585	0	2917	0	5834	2917
Synura sp		0	0	0	0	0	0	0	0	0	0
Uroglena sp		0	0	0	0	2430	0	0	0	0	0
CRYPTOPHYCEAE											
Cryptomonas erosa Ehrenberg		0	0	0	0	0	0	0	0	0	0
Cryptomonas marssonii Skuja		0	0	0	0	0	0	0	0	0	0
Cyrptomonas phaseolus Skuja		0	0	0	0	0	0	0	0	0	0
Cryptomonas pyrenoidifera Geitler		0	0	0	0	2430	0	0	0	0	0
Cryptomonas reflexa Skuja		0	0	0	0	0	0	0	0	0	0
Cryptomonas rostratiformis Skuja		0	0	0	0	0	0	0	0	0	0

Units: Number of units/L	Lake Name	01538UEUT									
	Depth	Surface					Bottom				
	Sample	015-1	015-2	015-3	015-4	015-5	015-6	015-7	015-8	015-9	015-10
	Date	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12
	Volume Sampled (L)	1	1	1	1	1	1	1	1	1	1
Taxonomy											
Katablepharis ovalis Skuja		0	0	0	0	0	0	0	0	0	0
Rhodomonas lens Pascher & Ruttner		0	2917	0	0	0	0	0	2917	0	0
Rhodomonas minuta Skuja		40840	32089	4900	43757	36464	64178	32089	55426	23337	14585
CYANOBACTERIA											
Anabaena flos-aquae Brebisson		0	5834	816	0	2430	0	2917	0	0	0
Anabaena inaequalis (Kuetzing) Bornet & Flahault		0	0	0	0	0	0	0	0	0	0
Anabaena solitaria f. planctonica (Brunnthaler) Komarek		0	0	0	0	0	0	0	0	0	0
Anabaena spiroides Klebahn		0	0	0	0	0	0	2917	0	0	0
Anabaena sp.		0	5834	0	0	0	0	2917	0	0	0
Aphanocapsa delicatissima West & West		11668	0	0	2917	9723	0	8751	2917	0	8751
Aphanocapsa elachista W. & G.S. West		0	0	0	0	0	0	0	0	0	0
Aphanizomenon flos-aquae f. *gracile* (Lemmermann)		0	0	408	0	0	0	0	0	11668	2917
Aphanocapsa sp		0	0	0	0	0	0	2917	0	0	0
Aphanothece clathrata W & G.S. West		0	0	0	0	0	0	0	0	0	0
Aphanothece sp		0	0	0	0	0	0	0	0	0	0
Chroococcus dispersus (Keissler) Lemmermann		0	0	0	0	0	0	0	0	0	0
Chroococcus limneticus Lemmermann		2917	0	0	0	0	0	0	0	0	0
Synechocystis sp		0	0	0	0	0	0	0	0	0	0
Limnothrix sp		5834	0	0	0	0	2917	8751	0	0	2917
Phormidium sp		0	0	0	0	0	0	0	0	0	0
Planktothrix agardhii Gomont		0	0	0	0	0	0	0	0	2917	0
Pseudanabaena limnetica Komarek		0	0	0	0	0	0	0	0	0	0
Snowella arachnoidea Komarek et Hindak		0	2917	0	0	0	2917	0	0	0	0
Snowella lacustris (Chodat) Komarek et Hindak		0	0	0	0	0	0	0	2917	2917	2917
EUGLENOPHYCEAE											
Euglena acus Ehrenberg		0	0	0	0	0	0	0	0	0	0

Units: Number of units/L	Lake Name	01538UEUT									
	Depth	Surface					Bottom				
	Sample	015-1	015-2	015-3	015-4	015-5	015-6	015-7	015-8	015-9	015-10
	Date	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12	11-Sep-12
	Volume Sampled (L)	1	1	1	1	1	1	1	1	1	1
Taxonomy											
Lepocinclis sp		0	0	0	0	0	0	0	0	0	0
Trachemolomas volvocina Ehrenberg		0	0	0	0	0	0	2917	0	0	0
Gymnodinium helveticum Pen.		0	0	0	0	2430	0	0	0	0	0
Gymnodinium ordinatum Skuja		0	0	0	2917	0	0	0	2917	0	0
Gymnodinium sp		0	0	0	0	0	0	0	0	0	0
Totals		247951	224613	24495	210030	187156	256703	245031	271289	163355	177939

Note: L - litre

Table 5.4-3A: Lake Phytoplankton Taxonomic Composition and Density, 2012 (continued)

Units: Number of units/L	Lake Name	01682LNRS									
	Depth	Surface					Middle				
	Sample	016-1	016-2	016-3	016-4	016-5	016-6	016-7	016-8	016-9	016-10
	Date	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12
	Volume Sampled (L)	1	1	1	1	1	1	1	1	1	1
Taxonomy											
DIATOMS											
Achnanthes minutissima Kuetzing		0	0	0	0	0	0	0	0	0	0
Asterionella formosa Hansall		0	0	0	0	4861	0	0	0	0	0
Aulacoseira sp		0	0	0	0	0	4861	0	0	0	0
Caloneis sp		0	0	0	0	0	0	0	0	0	0
Centric Diatom 4-10 um (Cyclotella/Stephanodiscus sp)		0	14585	25524	7292	19446	14585	4861	19447	36464	51049
Centric Diatom 15-2 um *(Cyclotella bodanica* Grunow)		14585	14585	10939	3646	14585	4861	4861	4861	7292	7292
Centric Diatom 22-35 um *(Cyclotella bodanica* Grunow)		116687	121549	83869	32818	136135	48619	43757	29171	21878	29171
Centric Diatom 55-74 um *(Stephanodiscus niagarae* Ehrenberg)		0	0	0	0	0	0	0	0	0	0
Cyclotella ocellata Pantocsek		0	0	0	3646	0	0	0	0	0	0
Epithemia sorex Kuetzing		0	0	0	0	0	0	0	0	0	0
Eunotia sp		0	0	0	0	0	4861	0	0	0	0
Fragilaria capucina Desmazieres		0	0	0	0	0	0	0	0	0	0
Fragilaria construens (Ehrenberg) Grunow		0	0	0	0	0	0	0	0	0	0
Fragilaria crotonensis Kitton		0	0	0	0	0	0	0	0	0	0
Gomphonema sp.		0	0	0	0	0	0	0	0	0	0
Navicula sp		0	0	0	0	0	0	0	0	0	0
Nitzschia acicularis (Kuetzing) W. Smith		0	0	0	0	0	0	0	0	0	0
Nitzschia sp		0	0	0	0	0	0	4861	0	0	0
Pinnularia sp.		0	0	0	0	0	0	0	0	0	0
Rhizosolenia longiseta Ehrenberg		0	0	0	0	0	0	0	0	0	7292
Synedra sp		0	0	0	0	0	0	0	0	0	0
Tabellaria flocculosa (Roth) Kuetzing		0	0	0	0	0	0	0	0	0	0
CHLOROPHYCEAE											
Ankyra judayi (G.M. Smith) Fott		0	0	7292	3646	9723	0	0	4861	0	0

Units: Number of units/L	Lake Name	01682LNRS									
	Depth	Surface					Middle				
	Sample	016-1	016-2	016-3	016-4	016-5	016-6	016-7	016-8	016-9	016-10
	Date	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12
	Volume Sampled (L)	1	1	1	1	1	1	1	1	1	1
Taxonomy											
Ankyra lanceolata (Kors) Fott		0	9723	0	0	0	0	0	0	7292	0
Botryococcus sp		0	0	14585	7292	9723	0	0	0	0	0
Chamydomonas frigida Skuja		0	0	3646	0	0	0	0	0	0	0
Chlamydomonas sp		0	0	0	0	0	0	0	0	0	0
Chlorella sp		0	0	0	0	14585	34033	4861	4861	0	0
Coelastrum microporum Naegeli		0	0	0	0	0	0	0	0	0	0
Cosmaruim bioculatum Brebisson		0	0	0	0	0	0	0	0	0	0
Cosmarium sp		0	4861	0	0	0	0	0	0	0	0
Crucigenia quadrata Morren		0	0	0	0	4861	0	0	24309	0	7292
Crucigenia rectangularis (A. Braun) Gay		4861	4861	0	0	9723	0	0	0	0	0
Dictyosphaerium ehrenbergianum Naegeli		0	0	0	0	0	0	0	0	0	0
Elakatothrix gelatinosa Wille		0	0	0	0	0	0	0	0	0	0
Elakatothrix genevensis (Reverdin) Hindak		0	4861	7292	3646	9723	0	0	0	7292	0
Eutetramorus sp		0	0	0	0	9723	0	0	0	0	0
Gloeocystis planctonica (W. & G.S. West) Lemmermann		0	0	0	0	4861	0	0	0	0	0
Gloeocystis sp		9723	14585	3646	7292	4861	0	0	0	29171	0
Korshikoviella sp		9723	14585	21878	14585	48619	0	4861	0	0	0
Monoraphidium braunii Naegeli		0	0	0	0	0	0	0	0	0	0
Monoraphidium dybowskii (Wolosz) Hindak et. Kom.-Legn.		4861	0	0	7292	0	0	0	0	0	0
Monoraphidium griffithii (Berkeley) Komarkova-Legenerova		0	0	0	0	0	0	0	0	0	0
Monoraphidium minutum (Nag.) Komarkova-Legenerova		0	0	0	0	0	0	0	0	0	0
Monoraphidium setiforme Komarkova-Legenerova		58343	68067	72929	72929	48619	0	4861	0	0	0
Monoraphidium spp		0	0	0	0	4861	0	0	0	0	0
Nephrocytium limneticum (G.M. Smith) G.M. Smith		0	0	0	3646	0	0	0	0	0	0
Nephrocytium lunatum W. West		0	0	0	0	14585	0	0	0	0	0
Oocystis borgei Snow		9723	0	7292	3646	14585	4861	0	0	14585	14585

Units: Number of units/L	Lake Name	01682LNRS									
	Depth	Surface					Middle				
	Sample	016-1	016-2	016-3	016-4	016-5	016-6	016-7	016-8	016-9	016-10
	Date	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12
	Volume Sampled (L)	1	1	1	1	1	1	1	1	1	1
Taxonomy											
Oocystis Eremosphaeria G.M. Smith		0	0	0	0	0	0	0	0	0	0
Oocystis gigas Archer		0	0	0	0	0	0	0	0	0	0
Oocystis lacustris Chodat		0	0	0	0	0	0	0	0	0	0
Oocystis parva W. & G.S. West		9723	0	14585	10939	29171	0	0	0	0	0
Oocystis pusilla Hansgirg		0	0	0	0	0	0	4861	0	0	0
Oocystis solitaria Wittrock		48619	72929	40111	18232	82653	24309	43757	4861	14585	14585
Quadrigula closteriodes (Bohlin) Printz		0	0	0	0	0	0	0	0	0	0
Scenedesmus arcuatus var. *platydisca* G. M. Smith		0	0	0	0	0	0	0	4861	0	0
Scenedesmus obliquus (Turpin) Kuetzing		0	0	0	3646	0	0	0	0	0	0
Scenedesmus quadricauda (Turpin) Brebisson		0	0	0	0	0	0	0	0	0	0
Schroderia setigera (Schroed.) Lemmermann		4861	0	0	0	0	0	0	0	0	0
Sphaerocystis schroeteri Chodat		4861	14585	10939	3646	4861	0	4861	0	0	0
Staurastrum luetkemuelleri Donat		0	0	0	3646	0	0	0	0	0	0
Staurastrum paradoxum Meyen		0	0	0	3646	4861	0	0	0	0	0
Staurastrum pingue Teiling		0	0	0	0	0	0	0	0	0	0
Staurastrum sp		0	0	3646	0	0	0	0	0	0	0
Tatraedron caudatum (Corda) Hansgirg		0	0	0	0	0	0	0	0	0	0
Tetraedron mimimum var. *tetralobulatum* Reins		0	0	0	0	0	0	0	0	0	0
Ulothrix sp		0	0	0	0	0	0	0	0	0	0
CHRYSOPHYCEAE											
Bitrichia chodatii (Reverdin) Chodat		0	0	3646	0	0	0	0	0	0	0
Chromulina sp.		0	0	0	3646	0	0	0	0	7292	0
Dicronema cf. *vlklanum* Prauser		0	0	0	0	4861	0	0	4861	21878	7292
Dinobryon acuminatum Ruttner		0	0	0	0	0	0	0	0	0	0
Dinobryon bavaricum Imhof		0	0	0	0	0	0	0	0	0	0
Dinobryon borgei Lemmermann		4861	0	0	0	0	0	0	0	0	0

Units: Number of units/L	Lake Name	01682LNRS									
	Depth	Surface					Middle				
	Sample	016-1	016-2	016-3	016-4	016-5	016-6	016-7	016-8	016-9	016-10
	Date	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12
	Volume Sampled (L)	1	1	1	1	1	1	1	1	1	1
Taxonomy											
Dinobryon divergens Imhof		0	0	0	0	0	0	0	0	0	0
Dinobryon sp (loose monad)		0	0	0	0	0	0	0	0	0	0
Dinobryon sertularia var. *protruberans* (Lemmermann) Krieger		0	0	0	0	0	0	0	0	0	0
Dinobryon sociale Ehrenberg		0	0	0	0	0	0	0	0	0	0
Dinobryon sociale var. *stipitatum* (Stein) Lemmermann		0	0	0	0	0	0	0	0	0	0
Epipyxis sp		0	0	0	0	0	0	0	0	0	0
Unidentified naked Chrysophyte sp (*Ochromonas*/*Chromulina*)-large		29171	24309	21878	10939	14585	14585	19447	92377	145859	138566
Unidentified naked Chrysophyte sp (*Ochromonas*/*Chromulina*)-small		63205	43757	54697	69283	102101	140997	68067	72929	65636	94808
Haptophyte *(Erkenia/Chrysochromulina)*		9723	9723	7292	29171	14585	9723	4861	4861	0	0
Mallomonas sp		0	0	3646	0	0	0	9723	0	7292	87515
Ochromonas sp		0	0	0	0	0	0	0	0	0	0
Pedinella sp		0	4861	0	0	0	0	0	0	0	0
Pseudokephyrion alaskanum Hilliard		0	0	0	0	0	0	0	0	0	0
Pseudokephyrion ellipsoideum (Pascher) Schmid		34033	29171	32818	25525	34033	0	0	0	0	0
Stichogloea doederleinii (Schmidle) Wille		9723	0	0	0	0	0	0	0	0	0
Stichogloea globosa Starmach		4861	4861	0	3646	9723	0	0	0	0	0
Synura sp		0	0	0	0	0	4861	0	0	0	0
Uroglena sp		0	0	0	0	0	0	0	0	0	0
CRYPTOPHYCEAE											
Cryptomonas erosa Ehrenberg		0	0	0	3646	0	29171	48619	29171	80222	80222
Cryptomonas marssonii Skuja		0	0	0	0	0	136135	82653	447302	182324	131273
Cyrptomonas phaseolus Skuja		0	0	0	0	0	72929	179893	286857	335477	364649
Cryptomonas pyrenoidifera Geitler		0	0	0	0	0	4861	4861	9723	0	0
Cryptomonas reflexa Skuja		0	0	0	0	0	0	72929	131273	102101	87515
Cryptomonas rostratiformis Skuja		0	0	0	0	0	0	0	0	0	7292

Units: Number of units/L	Lake Name	01682LNRS									
	Depth	Surface					Middle				
	Sample	016-1	016-2	016-3	016-4	016-5	016-6	016-7	016-8	016-9	016-10
	Date	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12
	Volume Sampled (L)	1	1	1	1	1	1	1	1	1	1
Taxonomy											
Katablepharis ovalis Skuja		0	4861	7292	14585	0	9723	4861	14585	7292	7292
Rhodomonas lens Pascher & Ruttner		0	0	0	0	0	0	0	0	0	0
Rhodomonas minuta Skuja		223651	155583	123980	109394	184755	53481	24309	29171	36464	80222
CYANOBACTERIA											
Anabaena flos-aquae Brebisson		0	0	7292	0	9723	0	0	0	0	0
Anabaena inaequalis (Kuetzing) Bornet & Flahault		0	0	0	0	0	9723	0	0	0	0
Anabaena solitaria f. planctonica (Brunnthaler) Komarek		0	4861	0	36464	24309	4861	0	0	0	0
Anabaena spiroides Klebahn		0	4861	0	10939	0	0	0	0	0	0
Anabaena sp.		0	0	0	0	0	0	0	0	0	0
Aphanocapsa delicatissima West & West		87515	204203	116687	82653	218789	43757	14585	9723	43757	14585
Aphanocapsa elachista W. & G.S. West		0	0	0	0	0	0	0	0	0	7292
Aphanizomenon flos-aquae f. *gracile* (Lemmermann)		0	0	0	0	0	0	0	0	0	0
Aphanocapsa sp		0	0	0	0	0	0	4861	0	0	0
Aphanothece clathrata W & G.S. West		0	0	0	0	0	0	0	0	0	0
Aphanothece sp		0	0	0	0	0	0	0	0	0	0
*Chroococcus dispersus (*Keissler) Lemmermann		0	4861	0	3646	0	0	0	0	0	0
Chroococcus limneticus Lemmermann		4861	0	0	0	9723	4861	0	0	0	7292
Synechocystis sp		0	0	0	0	0	0	0	0	0	0
Limnothrix sp		0	0	0	0	0	14585	4861	0	0	0
Phormidium sp		0	0	0	0	0	0	0	0	0	0
Planktothrix agardhii Gomont		0	0	0	0	0	0	0	0	0	0
Pseudanabaena limnetica Komarek		0	0	0	0	0	4861	14585	29171	14585	0
Snowella arachnoidea Komarek et Hindak		0	0	0	0	0	0	0	0	0	0
Snowella lacustris (Chodat) Komarek et Hindak		0	0	0	0	0	0	0	0	0	0
EUGLENOPHYCEAE											
Euglena acus Ehrenberg		0	0	0	0	0	4861	0	0	0	0

Units: Number of units/L	Lake Name	01682LNRS									
	Depth	Surface					Middle				
	Sample	016-1	016-2	016-3	016-4	016-5	016-6	016-7	016-8	016-9	016-10
	Date	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12
	Volume Sampled (L)	1	1	1	1	1	1	1	1	1	1
Taxonomy											
Lepocinclis sp		0	0	0	0	0	0	0	0	0	0
Trachemolomas volvocina Ehrenberg		0	0	0	0	0	38895	111825	126411	291719	269840
Gymnodinium helveticum Pen.		0	0	0	0	0	0	0	0	0	0
Gymnodinium ordinatum Skuja		0	0	0	0	0	0	0	0	0	0
Gymnodinium sp		9723	0	0	0	0	0	0	0	0	0
Totals		**777897**	**855688**	**707401**	**618668**	**1132812**	**743860**	**797342**	**1385647**	**1480457**	**1516921**

Note: L - litre

Table 5.4-3A: Lake Phytoplankton Taxonomic Composition and Density, 2012 (continued)

Units: Number of units/L	Lake Name	01682LNRS				
	Depth	Bottom				
	Sample	016-11	016-12	016-13	016-14	016-15
	Date	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12
	Volume Sampled (L)	1	1	1	1	1
Taxonomy						
DIATOMS						
Achnanthes minutissima Kuetzing		0	0	0	0	0
Asterionella formosa Hansall		7292	0	0	0	0
Aulacoseira sp		0	0	0	0	0
Caloneis sp		0	0	0	0	0
Centric Diatom 4-10 um (Cyclotella/Stephanodiscus sp)		196909	102100	196909	109394	269840
Centric Diatom 15-2 um *(Cyclotella bodanica* Grunow)		14585	7292	0	7292	7292
Centric Diatom 22-35 um *(Cyclotella bodanica* Grunow)		7292	0	14585	0	7292
Centric Diatom 55-74 um *(Stephanodiscus niagarae* Ehrenberg)		0	0	0	0	0
Cyclotella ocellata Pantocsek		0	0	0	0	0
Epithemia sorex Kuetzing		0	0	0	0	0
Eunotia sp		0	0	0	0	0
Fragilaria capucina Desmazieres		0	0	0	0	0
Fragilaria construens (Ehrenberg) Grunow		0	0	0	0	0
Fragilaria crotonensis Kitton		0	0	0	0	0
Gomphonema sp.		0	0	0	0	0
Navicula sp		0	0	7292	0	0
Nitzschia acicularis (Kuetzing) W. Smith		0	0	0	0	0
Nitzschia sp		0	0	0	0	0
Pinnularia sp.		0	0	0	0	0
Rhizosolenia longiseta Ehrenberg		0	0	0	0	0
Synedra sp		0	0	0	0	0
Tabellaria flocculosa (Roth) Kuetzing		0	0	0	0	0
CHLOROPHYCEAE						
Ankyra judayi (G.M. Smith) Fott		0	0	0	0	0
Ankyra lanceolata (Kors) Fott		0	0	0	0	0
Botryococcus sp		0	0	0	0	0
Chamydomonas frigida Skuja		0	0	0	0	0
Chlamydomonas sp		0	0	0	0	0
Chlorella sp		0	0	94808	153152	299012
Coelastrum microporum Naegeli		0	0	0	0	0
Cosmaruim bioculatum Brebisson		0	0	0	0	0
Cosmarium sp		0	0	0	0	0
Crucigenia quadrata Morren		7292	7292	36464	7292	43757
Crucigenia rectangularis (A. Braun) Gay		0	0	0	0	0
Dictyosphaerium ehrenbergianum Naegeli		0	0	0	0	0
Elakatothrix gelatinosa Wille		0	0	0	0	0
Elakatothrix genevensis (Reverdin) Hindak		0	0	0	0	0

Units: Number of units/L	Lake Name	01682LNRS				
	Depth	Bottom				
	Sample	016-11	016-12	016-13	016-14	016-15
	Date	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12
	Volume Sampled (L)	1	1	1	1	1
Taxonomy						
Eutetramorus sp		0	0	0	0	0
Gloeocystis planctonica (W. & G.S. West) Lemmermann		0	0	0	0	0
Gloeocystis sp		0	0	0	14585	0
Korshikoviella sp		0	0	0	0	14585
Monoraphidium braunii Naegeli		0	0	0	0	0
Monoraphidium dybowskii (Wolosz) Hindak et. Kom.-Legn.		0	0	0	0	0
Monoraphidium griffithii (Berkeley) Komarkova-Legenerova		0	0	0	0	0
Monoraphidium minutum (Nag.) Komarkova-Legenerova		7292	0	0	0	7292
Monoraphidium setiforme Komarkova-Legenerova		0	0	0	0	0
Monoraphidium spp		0	0	0	0	0
Nephrocytium limneticum (G.M. Smith) G.M. Smith		0	0	0	0	0
Nephrocytium lunatum W. West		0	0	0	0	0
Oocystis borgei Snow		0	0	7292	0	7292
Oocystis Eremosphaeria G.M. Smith		0	0	0	0	0
Oocystis gigas Archer		0	0	0	0	0
Oocystis lacustris Chodat		0	0	0	0	0
Oocystis parva W. & G.S. West		0	0	0	0	0
Oocystis pusilla Hansgirg		0	0	7292	7292	0
Oocystis solitaria Wittrock		14585	0	0	0	7292
Quadrigula closteriodes (Bohlin) Printz		0	0	0	0	0
Scenedesmus arcuatus var. *platydisca* G. M. Smith		7292	0	0	0	0
Scenedesmus obliquus (Turpin) Kuetzing		0	0	0	0	0
Scenedesmus quadricauda (Turpin) Brebisson		0	0	0	0	0
Schroderia setigera (Schroed.) Lemmermann		0	0	0	0	0
Sphaerocystis schroeteri Chodat		0	0	0	0	0
Staurastrum luetkemuelleri Donat		0	0	0	0	0
Staurastrum paradoxum Meyen		0	0	0	0	0
Staurastrum pingue Teiling		0	0	0	0	0
Staurastrum sp		0	0	0	0	0
Tatraedron caudatum (Corda) Hansgirg		0	0	0	0	0
Tetraedron mimimum var. *tetralobulatum* Reins		0	0	0	0	0
Ulothrix sp		0	0	0	0	0
CHRYSOPHYCEAE						
Bitrichia chodatii (Reverdin) Chodat		0	0	0	0	0
Chromulina sp.		0	0	0	7292	0
Dicronema cf. *vlklanum* Prauser		0	0	0	0	0
Dinobryon acuminatum Ruttner		0	0	0	0	0
Dinobryon bavaricum Imhof		0	0	0	0	0
Dinobryon borgei Lemmermann		0	0	0	0	0

Units: Number of units/L	Lake Name	01682LNRS				
	Depth	Bottom				
	Sample	016-11	016-12	016-13	016-14	016-15
	Date	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12
	Volume Sampled (L)	1	1	1	1	1
Taxonomy						
Dinobryon divergens Imhof		0	0	0	0	0
Dinobryon sp (loose monad)		0	0	0	0	0
Dinobryon sertularia var. *protruberans* (Lemmermann) Krieger		0	0	0	0	0
Dinobryon sociale Ehrenberg		0	0	0	0	0
Dinobryon sociale var. *stipitatum* (Stein) Lemmermann		0	0	0	0	0
Epipyxis sp		0	0	0	0	0
Unidentified naked Chrysophyte sp (*Ochromonas*/*Chromulina*)-large		43757	21878	7292	21878	51050
Unidentified naked Chrysophyte sp (*Ochromonas*/*Chromulina*)-small		21878	51050	153152	80222	102101
Haptophyte *(Erkenia/Chrysochromulina)*		14585	0	0	0	0
Mallomonas sp		7292	0	0	0	7292
Ochromonas sp		0	0	0	0	0
Pedinella sp		0	0	0	0	0
Pseudokephyrion alaskanum Hilliard		0	0	0	0	0
Pseudokephyrion ellipsoideum (Pascher) Schmid		0	0	0	0	0
Stichogloea doederleinii (Schmidle) Wille		0	0	0	0	0
Stichogloea globosa Starmach		7292	0	0	0	0
Synura sp		0	0	0	0	0
Uroglena sp		0	0	0	0	0
CRYPTOPHYCEAE						
Cryptomonas erosa Ehrenberg		0	0	0	0	0
Cryptomonas marssonii Skuja		7292	0	0	7292	0
Cyrptomonas phaseolus Skuja		0	0	7292	0	80222
Cryptomonas pyrenoidifera Geitler		0	0	0	0	0
Cryptomonas reflexa Skuja		0	0	0	0	0
Cryptomonas rostratiformis Skuja		0	0	0	0	0
Katablepharis ovalis Skuja		0	0	7292	29171	14585
Rhodomonas lens Pascher & Ruttner		0	0	0	0	0
Rhodomonas minuta Skuja		7292	0	0	0	36464
CYANOBACTERIA						
Anabaena flos-aquae Brebisson		0	0	0	0	0
Anabaena inaequalis (Kuetzing) Bornet & Flahault		0	0	0	0	0
Anabaena solitaria f. planctonica (Brunnthaler) Komarek		0	0	0	0	0
Anabaena spiroides Klebahn		0	0	0	0	0
Anabaena sp.		0	0	0	0	0
Aphanocapsa delicatissima West & West		102101	0	21878	7292	7292
Aphanocapsa elachista W. & G.S. West		0	0	0	0	0
Aphanizomenon flos-aquae f. *gracile* (Lemmermann)		0	0	0	0	0
Aphanocapsa sp		0	65636	72929	29171	94808

Units: Number of units/L	Lake Name	01682LNRS				
	Depth	Bottom				
	Sample	016-11	016-12	016-13	016-14	016-15
	Date	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12	19-Sep-12
	Volume Sampled (L)	1	1	1	1	1
Taxonomy						
Aphanothece clathrata W & G.S. West		0	0	0	0	0
Aphanothece sp		0	0	0	0	0
Chroococcus dispersus (Keissler) Lemmermann		0	0	0	0	0
Chroococcus limneticus Lemmermann		0	0	0	0	0
Synechocystis sp		277132	80221	175030	160444	72928
Limnothrix sp		0	0	7292	0	0
Phormidium sp		0	0	0	0	0
Planktothrix agardhii Gomont		0	0	0	0	0
Pseudanabaena limnetica Komarek		21878	14585	0	14585	36464
Snowella arachnoidea Komarek et Hindak		0	0	0	0	0
Snowella lacustris (Chodat) Komarek et Hindak		0	0	0	0	0
EUGLENOPHYCEAE						
Euglena acus Ehrenberg		0	0	0	7292	0
Lepocinclis sp		0	0	0	0	0
Trachemolomas volvocina Ehrenberg		7292	7292	0	0	43757
Gymnodinium helveticum Pen.		0	0	0	0	0
Gymnodinium ordinatum Skuja		0	0	0	0	0
Gymnodinium sp		0	0	0	0	0
Totals		**780330**	**357346**	**816799**	**663646**	**1210617**

Note: L - litre

Table 5.4-3A: Lake Phytoplankton Taxonomic Composition and Density, 2012 (continued)

Units: Number of units/L	Lake Name	01428 UEUT	01538 UEUT	01682 LNRS	01682 LNRS
	Depth	Surface	Bottom	Surface	Bottom
	Sample	14-3 QAQC	15-6 QAQC	16-5 QAQC	16-12 QAQC
	Date	08-Sep-12	11-Sep-12	19-Sep-12	19-Sep-12
	Volume Sampled (L)	1	1	1	1
Taxonomy					
DIATOMS					
Amphora sp Ehrenberg		0	2917	0	0
Asterionella formosa Hansall		0	11668	5105	0
Cocconeis sp		0	0	10210	0
Centric Diatom 4-10 um (Cyclotella/Stephanodiscus sp)		19446	5834	25525	29171
Centric Diatom 15-20 um *(Cyclotella bodanica* Grunow)		9723	52509	148047	19447
Centric Diatom 22-35 um *(Cyclotella bodanica* Grunow)		4861	29171	137837	4861
Centric Diatom 55-74 um *(Stephanodiscus niagarae* Ehrenberg)		14585	8751	0	0
Fragilaria construens (Ehrenberg) Grunow		4861	0	0	0
Fragilaria crotonensis Kitton		4861	5834	0	0
Fragilaria sp		0	2917	0	0
Navicula sp		0	2917	0	0
Synedra sp		4861	0	0	0
Tabellaria flocculosa (Roth) Kuetzing		4861	0	0	0
CHLOROPHYCEAE					
Ankyra judayi (G.M. Smith) Fott		0	2917	0	0
Ankyra lanceolata (Kors) Fott		0	2917	5105	0
Botryococcus sp		0	11668	10210	0
Crucigenia quadrata Morren		0	0	10210	14585
Crucigenia rectangularis (A. Braun) Gay		0	0	5105	0
Elakatothrix genevensis (Reverdin) Hindak		19447	2917	15315	0
Gloeocystis sp		0	2917	15315	0
Korshikoviella sp		9723	5834	40840	0
Monoraphidium braunii Naegeli		4861	0	5105	0
Monoraphidium dybowskii (Wolosz) Hindak et. Kom.-Legn.		0	2917	0	0
Monoraphidium setiforme Komarkova-Legenerova		0	0	56155	0
Nephrocytium lunatum W. West		0	0	5105	0
Oocystis borgei Snow		4861	11668	20420	0
Oocystis elliptica W. West		4861	0	0	0
Oocystis parva W. & G.S. West		9723	8751	25525	4861
Oocystis solitaria Wittrock		0	0	51050	4861
Quadrigula lacustris (Chodat) G.M. Smith		0	0	5105	0
Scenedesmus arcuatus var. *platydisca* G. M. Smith		9723	0	0	0
Sphaerocystis Schroeteri Chodat		0	2917	20420	0
Tetraedron minimum (A. Braun) Hansgirg		0	5834	0	0
CHRYSOPHYCEAE					

Units: Number of units/L	Lake Name	01428 UEUT	01538 UEUT	01682 LNRS	01682 LNRS
	Depth	Surface	Bottom	Surface	Bottom
	Sample	14-3 QAQC	15-6 QAQC	16-5 QAQC	16-12 QAQC
	Date	08-Sep-12	11-Sep-12	19-Sep-12	19-Sep-12
	Volume Sampled (L)	1	1	1	1
Taxonomy					
Bitrichia chodatii (Reverdin) Chodat		9723	0	0	0
Dinobryon crenulatum W. et. G.S. West		0	0	5105	0
Dinobryon divergens Imhof		9723	8751	5105	0
Dinobryon sp (loose monad)		38895	2917	0	0
Dinobryon sertularia var. *protruberans* (Lemmermann) Krieger		9723	0	0	0
Epipyxis sp		19447	0	0	0
Mallomonas sp		9723	0	0	0
Pedinella sp		4861	0	0	0
Pseudokephyrion ellipsoideum (Pascher) Schmid		29171	11668	25525	0
Stichogloea doederleinii (Schmidle) Wille		4861	5834	0	0
Stichogloea globosa Starmach		4861	0	10210	0
Uroglena sp		0	0	5105	0
Unidentified naked Chrysophyte sp (*Ochromonas*/*Chromulina*)-large		58343	20420	66366	9723
Unidentified naked Chrysophyte sp (*Ochromonas*/*Chromulina*)-small		38895	8751	61261	24309
Haptophyte *(Erkenia/Chrysochromulina)*		9723	0	0	0
CRYPTOPHYCEAE					
Cryptomonas erosa Ehrenberg		0	0	0	9723
Cryptomonas marssonii Skuja		4861	2917	0	4861
Katablepharis ovalis Skuja		24309	0	5105	0
Rhodomonas minuta Skuja		165307	67095	280779	0
Anabaena flos-aquae Brebisson		0	2917	5105	4861
Anabaena solitaria f. planctonica (Brunnthaler) Komarek		4861	0	40840	4861
Anabaena sp.		4861	0	0	0
Aphanocapsa delicatissima West & West		87515	8751	148047	14585
Aphanocapsa elachista W. & G.S. West		4861	0	5105	0
Aphanocapsa sp		0	0	0	4861
Chroococcus limneticus Lemmermann		0	0	10210	0
Limnothrix sp		4861	2917	0	0
Pseudanabaena limnetica Komarek		0	0	0	4861
Snowella arachnoidea Komarek et Hindak		0	2917	0	0
Snowella lacustris (Chodat) Komarek et Hindak		14585	2917	0	0
Synechocystis sp		0	0	0	72928
EUGLENOPHYCEAE					
Phacus acuminatus Stokes		0	0	5105	0
Trachemolomas volvocina Ehrenberg		0	0	5105	0
DINOPHYCEAE					
Gymnodinium helveticum Pen.		0	2917	0	0

Units: Number of units/L	Lake Name	01428 UEUT	01538 UEUT	01682 LNRS	01682 LNRS
	Depth	Surface	Bottom	Surface	Bottom
	Sample	14-3 QAQC	15-6 QAQC	16-5 QAQC	16-12 QAQC
	Date	08-Sep-12	11-Sep-12	19-Sep-12	19-Sep-12
	Volume Sampled (L)	1	1	1	1
Taxonomy					
Gymnodinium ordinatum Skuja		9723	0	5105	0
TOTAL		**704951**	**335464**	**1306892**	**233359**

Note: L – litre, QAQC are split samples

Annex 5.4-4
Lake Phytoplankton Community Metrics, 2012

Table 5.4-4A: Lake Phytoplankton Community Metrics, 2012

Lake	Lake 01428									
Depth	Surface					Bottom				
Sample	014-1	014-2	014-3	014-4	014-5	014-6	014-7	014-8	014-9	014-10
Metric										
Taxa_S	39	25	25	29	26	39	31	35	46	28
Shannon_H'	3.146	2.674	2.874	2.903	2.736	2.922	2.948	2.87	3.052	2.499
Evenness_e^H/S	0.5957	0.5797	0.7082	0.6287	0.5932	0.4764	0.6152	0.5039	0.4598	0.4347

Lake	Lake 01538									
Depth	Surface					Bottom				
Sample	015-1	015-2	015-3	015-4	015-5	015-6	015-7	015-8	015-9	015-10
Metric										
Taxa_S	30	29	16	23	30	25	36	31	24	26
Shannon_H'	2.999	3.04	2.455	2.641	2.877	2.758	3.247	2.933	2.878	2.913
Evenness_e^H/S	0.669	0.7212	0.7277	0.6099	0.592	0.6308	0.7141	0.6059	0.741	0.7078

Lake	Lake 01682														
Depth	Surface					Mid					Bottom				
Sample	016-1	016-2	016-3	016-4	016-5	016-6	016-7	016-8	016-9	016-10	016-11	016-12	016-13	016-14	016-15
Metric															
Taxa_S	23	24	25	32	33	26	26	22	22	22	19	9	15	16	20
Shannon_H'	2.4	2.422	2.635	2.798	2.748	2.652	2.566	2.181	2.405	2.423	2.003	1.822	2.055	2.136	2.344
Evenness_e^H/S	0.4794	0.4695	0.5579	0.513	0.473	0.5456	0.5004	0.4023	0.5037	0.5127	0.3901	0.6874	0.5205	0.5292	0.5209

Annex 5.5-1
Lake Zooplankton Taxonomic Composition and Density, 2012

Table 5.5-1A: Lake Zooplankton Taxonomic Composition and Density, 2012

Lake Name	1428UEUT				
Sample	**014-1**	**014-2**	**014-3**	**014-4**	**014-5**
Date	**09-Sep-12**	**09-Sep-12**	**09-Sep-12**	**09-Sep-12**	**09-Sep-12**
Volume Sampled (m^3)	**0.884**	**0.884**	**0.884**	**0.884**	**0.884**
Units: Number of cells/m^3					
Taxonomy					
Rotifera					
Brachionus angularis Gosse		938.754	563.371		
Collotheca mutabilis Harring	1633.970	469.377		1117.564	
Conochilus unicornis Rousselet					
Filinia terminalis Plate		469.377			
Gastropus stylifer Imhof		6571.275	7887.195		
Kellicotia longispina Kellicott		15020.057		7264.164	7375.921
Keratella cochlearis Gosse	10130.616			12851.983	19669.122
Keratella hiemalis Carlin					
Keratella quadrata Muller (long spine)				558.782	
Polyathra dolicoptera Idelson		27693.229	25351.700		
Synchaeta sp	19607.643			88846.317	27045.042
Ciliophora					
Vorticella sp	3267.941	7040.652		8940.510	
Opercularia sp	1633.970				6392.465
Calanoida					
Diaptomus nudus Marsh	190.137	316.895	248.235	196.928	235.879
Calanoid copepodid		9.054			
Cyclopoida					
Cyclops bicuspidatus thomasi S. A. Forbes	95.069	108.650	62.059	71.113	85.071
Macrocyclops albidus Jurine	5.942	9.054	17.731		
Cyclopoid (nauplii)	653.588		281.686	1117.564	3442.096
Cyclopoid copepodid		9.054			11.601
Cladocera					
Daphnia pulex Leydig	17.825	9.054			
Daphnia geleatea (and rosea) Sars	695.189	651.899	585.124	382.915	514.294
Daphnia longiremis Sars					
Holopedium gibberum Zaddach	5.942	9.054			3.867
Bosmina longirostris O.F. Muller	11.884	54.325	26.597	10.940	7.734
Cladocera immature					27.068

Note: m^3 - metres cubed

Table 5.5-1A: Lake Zooplankton Taxonomic Composition and Density, 2012 (continued)

Lake Name	1538UEUT				
Sample	015-1	015-2	015-3	015-4	015-5
Date	10-Sep-12	10-Sep-12	10-Sep-12	10-Sep-12	10-Sep-12
Volume Sampled (m^3)	1.67	1.67	1.67	1.67	1.67
Units: Number of cells/m^3					
Taxonomy					
Rotifera					
Brachionus angularis Gosse			97.485		
Collotheca mutabilis Harring	336.766	271.662		203.832	
Conochilus unicornis Rousselet	23910.419	10866.467	3314.491	3770.898	5503.473
Filinia terminalis Plate					
Gastropus stylifer Imhof	2020.599	2444.955	194.970	203.832	509.581
Kellicotia longispina Kellicott	1347.066	1358.308	292.455		305.749
Keratella cochlearis Gosse	1010.299	814.985	97.485		
Keratella hiemalis Carlin					
Keratella quadrata Muller (long spine)					
Polyathra dolicoptera Idelson					
Synchaeta sp		814.985			101.916
Ciliophora					
Vorticella sp	2357.365				101.916
Opercularia sp		1629.970			
Calanoida					
Diaptomus nudus Marsh	1250.671	863.606	1105.172	822.762	1511.760
Calanoid copepodid		22.968	23.767	26.713	
Cyclopoida					
Cyclops bicuspidatus thomasi S. A. Forbes	307.625	395.054	386.216	416.724	451.476
Macrocyclops albidus Jurine					
Cyclopoid (nauplii)	673.533	2444.955	292.455	305.749	407.665
Cyclopoid copepodid			5.942		
Cladocera					
Daphnia pulex Leydig					
Daphnia geleatea (and rosea) Sars	660.637	904.949	730.839	828.105	684.054
Daphnia longiremis Sars					
Holopedium gibberum Zaddach					
Bosmina longirostris O.F. Muller	156.334	133.216	166.370	154.936	205.216
Cladocera immature	10.086	4.594	29.709	5.343	

Note: m^3 - metres cubed

Table 5.5-1A: Lake Zooplankton Taxonomic Composition and Density, 2012 (continued)

Lake Name	01682LNRS				
Sample	016-1	016-2	016-3	016-4	016-5
Date	20-Sep-12	20-Sep-12	20-Sep-12	20-Sep-12	20-Sep-12
Volume Sampled (m^3)	2.55	2.55	2.55	2.55	2.55
Units: Number of cells/m^3					
Taxonomy					
Rotifera					
Brachionus angularis Gosse					
Collotheca mutabilis Harring					
Conochilus unicornis Rousselet		150.713	100.433	75.356	75.356
Filinia terminalis Plate		150.713	200.866	75.356	
Gastropus stylifer Imhof					
Kellicotia longispina Kellicott	1790.468	4069.246	3012.984	2185.336	1054.990
Keratella cochlearis Gosse	162.770	75.356	200.866		527.495
Keratella hiemalis Carlin		75.356			150.713
Keratella quadrata Muller (long spine)	81.385			150.713	75.356
Polyathra dolicoptera Idelson	81.385			150.713	
Synchaeta sp		75.356		75.356	226.069
Ciliophora					
Vorticella sp		75.356	200.866	150.713	
Opercularia sp					
Calanoida					
Diaptomus nudus Marsh	247.891	405.196	505.765	392.158	317.461
Calanoid copepodid					
Cyclopoida					
Cyclops bicuspidatus thomasi S. A. Forbes	844.854	1090.912	1501.812	1105.172	1518.041
Macrocyclops albidus Jurine					
Cyclopoid (nauplii)	651.079	1733.198	1004.328	602.851	301.426
Cyclopoid copepodid	202.360	306.494	252.882	154.486	190.477
Cladocera					
Daphnia pulex Leydig					
Daphnia geleatea (and rosea) Sars	247.891	436.365	397.387	332.740	323.233
Daphnia longiremis Sars	45.531	62.338	113.539	71.301	69.264
Holopedium gibberum Zaddach					
Bosmina longirostris O.F. Muller	121.416	150.650	165.148	118.836	155.845
Cladocera immature			5.161	5.942	5.772

Note: m^3 - metres cubed

Table 5.5-1A: Lake Zooplankton Taxonomic Composition and Density, 2012 (continued)

Lake Name	1428UEUT	1538UEUT	01682LNRS
Sample	014-3 QAQC	015-4 QAQC	016-5 QAQC
Date	09-Sep-12	10-Sep-12	20-Sep-12
Volume Sampled (m³)	0.884	1.67	2.55
Units: Number of cells/m³			
Taxonomy			
Rotifera			
Brachionus angularis Gosse			
Collotheca mutabilis Harring		101.030	
Conochilus unicornis Rousselet		2323.689	74.754
Filinia terminalis Plate			
Gastropus stylifer Imhof	174.414	606.180	
Kellicotia longispina Kellicott	2441.790	404.120	2691.128
Keratella cochlearis Gosse	4185.926		224.261
Keratella hiemalis Carlin			
Keratella quadrata Muller (long spine)			74.7535642
Polyathra dolicoptera Idelson			
Synchaeta sp	16918.119		
Ciliophora			
Vorticella sp	1046.482	404.120	74.754
Opercularia sp	2790.618		
Calanoida			
Diaptomus nudus Marsh	230.504	822.762	323.233
Calanoid copepodid		37.398	
Cyclopoida			
Cyclops bicuspidatus thomasi S. A. Forbes	70.924	406.039	1489.181
Macrocyclops albidus Jurine			
Macrocyclops albidus	8.866		184.705
Cyclopoid nauplii	174.414	202.060	299.014
Cladocera			
Daphnia pulex Leydig			
Daphnia geleatea (and rosea) Sars	549.662	774.679	323.233
Daphnia longiremis Sars			69.264
Holopedium gibberum Zaddach			
Bosmina longirostris O.F. Muller	35.462	144.251	132.756
Cladocera immature	17.731		

Note: m³ - metres cubed

Annex 5.5-2
Lake Zooplankton Community Metrics, 2012

Table 5.5-2A: Lake Zooplankton Community Metrics, 2012

Lake	01682LNRS					01538UEUT					01428UEUT				
Sample	**016-1**	**016-2**	**016-3**	**016-4**	**016-5**	**015-1**	**015-2**	**015-3**	**015-4**	**015-5**	**014-1**	**014-2**	**014-3**	**014-4**	**014-5**
Metric															
Taxa_S	11	14	13	15	14	12	14	13	10	10	13	16	9	11	12
Shannon_H'	1.833	1.745	1.891	1.983	2.122	1.224	1.834	1.689	1.478	1.511	1.369	1.444	0.799	0.972	1.432
Evenness_e^H/S	0.5683	0.4091	0.5099	0.4841	0.5966	0.2833	0.4473	0.4166	0.4383	0.4531	0.3025	0.2649	0.2470	0.2402	0.3490

Annex 5.6-1
Lake Benthic Macroinvertebrate Taxonomic Composition, 2012

Table 5.6-1A: Lake Benthic Macroinvertebrate Taxonomic Composition, 2012

Stream Name	Lake 01682LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	6%	6%	5%	5%	5%
TAXONOMY										
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Subphylum: Hexapoda	0	0	0	0	0	0	0	0	0	0
| Class: Insecta	0	0	0	0	0	0	0	0	0	0
| Order: Ephemeroptera	0	0	0	0	0	17	0	0	0	0
| Family: Ameletidae	0	0	0	0	0	0	0	0	0	0
Ameletus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Baetidae	0	0	0	0	0	0	0	0	0	0
Acentrella sp.	0	0	0	0	0	0	0	0	0	0
Baetis bicaudatus	0	0	0	0	0	0	0	0	0	0
Baetis sp.	0	0	0	0	0	0	0	0	0	0
Baetis tricaudatus	0	0	0	0	0	0	0	0	0	0
Callibaetis sp.	0	0	0	0	0	233	17	0	80	100
Diphetor hageni	0	0	0	0	0	0	0	0	0	0
| Family: Caenidae	0	0	0	0	0	0	0	0	0	0
Caenis sp.	0	0	0	0	0	50	0	0	0	20
| Family: Ephemerellidae	0	0	0	0	0	0	0	0	0	0
Caudatella sp.	0	0	0	0	0	0	0	0	0	0
Drunella coloradensis	0	0	0	0	0	0	0	0	0	0
Drunella doddsii	0	0	0	0	0	0	0	0	0	0
Drunella grandis	0	0	0	0	0	0	0	0	0	0
Drunella sp.	0	0	0	0	0	0	0	0	0	0
Drunella spinifera	0	0	0	0	0	0	0	0	0	0
Ephemerella sp.	0	0	0	0	0	0	0	0	0	0
Serratella sp.	0	0	0	0	0	0	0	0	0	0
| Family: Heptageniidae	0	0	0	0	0	0	0	0	0	0
Cinygmula sp.	0	0	0	0	0	0	0	0	0	0
Epeorus sp.	0	0	0	0	0	0	0	0	0	0
Heptagenia sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Lake 01682LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	6%	6%	5%	5%	5%
TAXONOMY										
Rhithrogena sp.	0	0	0	0	0	0	0	0	0	0
| Family: Leptophlebiidae	0	0	0	0	0	0	0	0	0	0
Leptophlebia sp.	0	0	0	0	0	0	0	0	60	0
Paraleptophlebia sp.	0	0	0	0	0	433	250	460	340	440
| Order: Plecoptera	0	0	0	0	0	0	0	0	20	0
| Family: Capniidae	0	0	0	0	0	0	83	580	0	40
| Family: Chloroperlidae	0	0	0	0	0	0	0	0	0	0
Alloperla fraterna	0	0	0	0	0	0	0	0	0	0
Paraperla sp.	0	0	0	0	0	0	0	0	0	0
Suwallia sp.	0	0	0	0	0	0	0	0	0	0
Sweltsa sp.	0	0	0	0	0	0	0	0	0	0
| Family: Leuctridae	0	0	0	0	0	0	0	0	0	0
| Family: Nemouridae	0	0	0	0	0	0	0	0	0	0
Visoka cataractae	0	0	0	0	0	0	0	0	0	0
Zapada cinctipes	0	0	0	0	0	0	0	0	0	0
Zapada columbiana	0	0	0	0	0	0	0	0	0	0
Zapada oregonensis group	0	0	0	0	0	0	0	0	0	0
Zapada sp.	0	0	0	0	0	0	0	0	0	0
| Family: Perlidae	0	0	0	0	0	0	0	0	0	0
Hesperoperla sp.	0	0	0	0	0	0	0	0	0	0
| Family: Perlodidae	0	0	0	0	0	0	0	0	0	0
Cultus sp.	0	0	0	0	0	0	0	0	0	0
Isoperla sp.	0	0	0	0	0	0	0	0	0	0
Megarcys sp.	0	0	0	0	0	0	0	0	0	0
Skwala sp.	0	0	0	0	0	0	0	0	0	0
| Family: Pteronarcyidae	0	0	0	0	0	0	0	0	0	0
Pteronarcella sp.	0	0	0	0	0	0	0	0	0	0
Pteronarcys sp.	0	0	0	0	0	0	0	0	0	0
| Family: Taeniopterygidae	0	0	0	0	0	0	0	0	0	0
Taenionema sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Lake 01682LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	6%	6%	5%	5%	5%
TAXONOMY										
| Order: Trichoptera	0	0	0	0	0	0	0	40	0	0
| Family: Apataniidae	0	0	0	0	0	0	0	0	0	0
Apatania sp.	0	0	0	0	0	0	0	0	0	0
| Family: Brachycentridae	0	0	0	0	0	0	0	0	0	0
Micrasema sp.	0	0	0	0	0	0	0	0	0	0
| Family: Glossosomatidae	0	0	0	0	0	0	0	0	0	0
Glossosoma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydropsychidae	0	0	0	0	0	0	0	0	0	0
Hydropsyche sp.	0	0	0	0	0	0	0	0	0	0
Parapsyche sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydroptilidae	0	0	0	0	0	0	0	0	0	0
Agraylea sp.	0	0	0	0	0	0	0	0	0	0
Hydroptila sp.	0	0	0	0	0	0	0	0	0	0
Oxyethira sp.	0	0	0	0	0	0	0	0	0	0
| Family: Lepidostomatidae	0	0	0	0	0	0	0	0	0	0
Lepidostoma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Leptoceridae	0	0	0	0	0	0	0	0	0	0
Ceraclea sp.	0	0	0	0	0	0	0	0	0	0
Mystacides sp.	0	0	0	0	0	33	33	40	0	0
Oecetis sp.	0	0	0	0	0	0	0	20	0	0
| Family: Limnephilidae	0	0	0	0	0	0	0	0	20	0
Cryptochia sp.	0	0	0	0	0	0	0	0	0	0
Dicosmoecus sp.	0	0	0	0	0	0	0	0	0	0
Ecclisocosmoecus scylla	0	0	0	0	0	0	0	0	0	0
Limnephilus sp.	0	0	0	0	0	17	33	20	40	0
| Family: Philopotamidae	0	0	0	0	0	0	0	0	0	0
Dolophilodes sp.	0	0	0	0	0	0	0	0	0	0
| Family: Phryganeidae	0	0	0	0	0	0	0	0	0	0
Agrypnia sp.	0	0	0	0	0	17	0	40	20	0
| Family: Polycentropodidae	0	0	0	0	0	0	0	0	0	0

Stream Name	Lake 01682LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	6%	6%	5%	5%	5%
TAXONOMY										
Polycentropus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Rhyacophilidae	0	0	0	0	0	0	0	0	0	0
Rhyacophila angelita group	0	0	0	0	0	0	0	0	0	0
Rhyacophila arnaudi	0	0	0	0	0	0	0	0	0	0
Rhyacophila betteni group	0	0	0	0	0	0	0	0	0	0
Rhyacophila brunnea group	0	0	0	0	0	0	0	0	0	0
Rhyacophila narvae	0	0	0	0	0	0	0	0	0	0
Rhyacophila nevadensis group	0	0	0	0	0	0	0	0	0	0
Rhyacophila sp.	0	0	0	0	0	0	0	0	0	0
Rhyacophila vofixa group	0	0	0	0	0	0	0	0	0	0
| Family: Uenoidae	0	0	0	0	0	0	0	0	0	0
Neothremma sp.	0	0	0	0	0	0	0	0	0	0
Oligophlebodes sp.	0	0	0	0	0	0	0	0	0	0
| Order: Coleoptera	0	0	0	0	0	0	0	0	0	0
| Family: Dytiscidae	0	0	0	0	0	0	0	0	0	0
Neoporus sp.	0	0	0	0	0	0	0	0	0	0
Oreodytes sp.	0	0	0	0	0	0	17	20	20	20
| Family: Elmidae	0	0	0	0	0	0	0	0	0	0
Cleptelmis addenda	0	0	0	0	0	0	0	0	0	0
Heterlimnius sp.	0	0	0	0	0	0	0	0	0	0
Optioservus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydrophilidae	0	0	0	0	0	0	0	0	0	0
Hydrobius sp.	0	0	0	0	0	0	0	0	0	0
| Family: Staphylinidae	0	0	0	0	0	0	0	0	0	0
| Order: Diptera	0	0	0	0	0	0	0	0	0	0
| Family: Ceratopogonidae	0	0	0	0	0	0	0	0	0	0
Culicoides sp.	0	0	0	0	0	0	0	0	0	20
Mallochohelea	0	0	0	0	0	0	0	0	0	0
Probezzia sp.	0	0	0	0	0	0	17	0	0	120
Sphaeromias sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Lake 01682LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	6%	6%	5%	5%	5%
TAXONOMY										
| Family: Chaoboridae	0	0	0	0	0	0	0	0	0	0
Chaoborus sp.	0	2	1	3	4	0	0	0	0	0
| Family: Chironomidae	0	0	0	0	0	0	0	0	0	0
| Subfamily: Chironominae	0	0	0	0	0	0	0	0	0	0
| Tribe: Chironomini	0	0	0	0	0	0	0	0	0	0
Chironomus sp.	0	0	0	0	0	0	0	0	0	0
Dicrotendipes sp.	0	0	0	0	0	83	117	0	160	260
Glyptotendipes sp.	0	0	0	0	0	0	0	40	20	0
Microtendipes sp.	0	0	0	0	0	183	0	0	0	120
Pagastiella sp.	0	0	0	0	0	0	0	0	0	0
Polypedilum sp.	0	0	0	0	0	0	0	0	0	0
Zavrelia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Tanytarsini	0	0	0	0	0	0	0	0	0	0
Cladotanytarsus sp.	0	0	0	0	0	0	0	0	0	0
Corynocera sp.	0	0	0	0	0	0	0	0	0	0
Micropsectra sp.	1	0	0	0	0	67	0	0	0	0
Paratanytarsus sp.	0	0	0	0	0	600	283	440	160	460
Rheotanytarsus sp.	0	0	0	0	0	0	0	0	0	0
Stempellina sp.	0	0	0	0	0	0	0	0	0	0
Tanytarsus sp.	0	0	0	0	0	0	67	80	60	140
| Subfamily: Diamesinae	0	0	0	0	0	0	0	0	0	0
| Tribe: Diamesini	0	0	0	0	0	0	0	0	0	0
Diamesa sp.	0	0	0	0	0	0	0	0	0	0
Pagastia sp.	0	0	0	0	0	0	0	0	0	0
Potthastia longimana group	0	0	0	0	0	0	0	0	0	0
Pseudodiamesa sp.	0	0	0	0	0	0	0	0	0	0
| Subfamily: Orthocladiinae	0	0	0	0	0	0	0	0	0	0
Brillia sp.	0	0	0	0	0	0	0	0	0	0
Cardiocladius sp.	0	0	0	0	0	0	0	0	0	0
Cricotopus bicinctus group	0	0	0	0	0	0	150	140	120	120

Stream Name	Lake 01682LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	6%	6%	5%	5%	5%
TAXONOMY										
Cricotopus nostocicola	0	0	0	0	0	0	0	0	0	0
Cricotopus sp.	0	0	0	0	0	0	0	0	0	0
Diplocladius cultriger	0	0	0	0	0	0	0	0	0	0
Doithrix sp.	0	0	0	0	0	0	0	0	0	0
Eukiefferiella sp.	1	0	0	0	0	0	0	0	0	0
Heterotrissocladius sp.	0	0	0	0	0	0	0	0	0	0
Hydrobaenus sp.	0	0	0	0	0	0	0	0	0	0
Limnophyes sp.	0	0	0	0	0	0	0	0	0	0
Orthocladius lignicola	0	0	0	0	0	0	0	0	0	0
Orthocladius sp.	0	0	0	0	0	0	0	0	0	0
Parachaetocladius sp.	0	0	0	0	0	0	0	0	0	0
Parakiefferiella sp.	0	0	0	0	0	0	0	0	0	0
Parametriocnemus sp.	0	0	0	0	0	0	0	0	0	0
Parorthocladius sp.	0	0	0	0	0	0	0	0	0	0
Psectrocladius sp.	0	0	0	0	0	133	0	0	0	0
Rheocricotopus sp.	0	0	0	0	1	0	0	0	0	0
Synorthocladius sp.	0	0	0	0	0	0	0	0	0	0
Thienemanniella	0	0	0	0	0	0	0	0	0	0
Tvetenia sp.	0	0	0	0	0	0	0	0	0	0
Zalutschia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Corynoneurini	0	0	0	0	0	0	0	0	0	0
Corynoneura sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Orthocladiini	0	0	0	0	0	0	0	0	0	0
Chaetocladius sp.	0	0	0	0	0	0	0	0	0	0
| Subfamily: Tanypodinae	0	0	0	0	0	233	83	160	160	0
| Tribe: Pentaneurini	0	0	0	0	0	0	0	0	0	0
Zavrelimyia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Procladiini	0	0	0	0	0	0	0	0	0	0
Procladius sp.	0	0	0	0	0	100	0	120	140	140
| Family: Empididae	0	0	0	0	0	0	0	0	0	0

Stream Name	Lake 01682LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	6%	6%	5%	5%	5%
TAXONOMY										
Chelifera/ Metachela	0	0	0	0	0	0	0	0	0	0
Clinocera sp.	0	0	0	0	0	0	0	0	0	0
Oreogeton sp.	0	0	0	0	0	0	0	0	0	0
| Family: Muscidae	0	0	0	0	0	0	0	0	0	0
Limnophora sp.	0	0	0	0	0	0	0	0	0	0
| Family: Psychodidae	0	0	0	0	0	0	0	0	0	0
Pericoma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Simuliidae	0	0	0	0	0	0	0	0	0	0
Prosimulium sp.	0	0	0	0	0	0	0	0	0	0
Simulium sp.	0	0	0	0	0	0	0	0	0	0
| Family: Tabanidae	0	0	0	0	0	0	0	0	0	0
Tabanus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Tipulidae	0	0	0	0	0	0	0	0	0	0
Antocha sp.	0	0	0	0	0	0	0	0	0	0
Dicranota sp.	0	0	0	0	0	0	0	0	0	0
Hexatoma sp.	0	0	0	0	0	0	0	0	0	0
Limnophila sp.	0	0	0	0	0	0	0	0	0	0
Pedicia sp.	0	0	0	0	0	0	0	0	0	0
Rhabdomastix sp.	0	0	0	0	0	0	0	0	0	0
Tipula sp.	0	0	0	0	0	0	0	0	0	0
| Order: Hemiptera	0	0	0	0	0	0	0	0	0	0
| Family: Corixidae	0	0	0	0	0	0	0	0	0	0
Palmacorixa sp.	0	0	0	0	0	0	0	0	0	0
Sigara sp.	0	0	0	0	0	17	17	20	20	0
Trichocorixa sp.	0	0	0	0	0	0	0	0	0	0
| Order: Lepidoptera	0	0	0	0	0	0	0	0	0	0
| Family: Noctuidae	0	0	0	0	0	0	0	0	0	0
| Order: Megaloptera	0	0	0	0	0	0	0	0	0	0
| Family: Sialidae	0	0	0	0	0	0	0	0	0	0
Sialis sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Lake 01682LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	6%	6%	5%	5%	5%
TAXONOMY										
| Order: Odonata	0	0	0	0	0	0	0	0	0	0
| Family: Aeshnidae	0	0	0	0	0	33	0	0	20	0
Aeshna sp.	0	0	0	0	0	33	0	0	40	0
| Family: Corduliidae	0	0	0	0	0	17	0	0	0	0
Somatochlora sp.	0	0	0	0	0	0	0	0	0	0
| Class: Entognatha	0	0	0	0	0	0	0	0	0	0
| Order: Collembola	0	0	0	0	0	0	0	0	0	0
Subphylum: Crustacea	0	0	0	0	0	0	0	0	0	0
| Class: Ostracoda	0	0	0	0	0	17	17	20	20	20
| Class: Branchiopoda	0	0	0	0	0	0	0	0	0	0
| Order: Cladocera	0	0	0	0	0	0	0	0	0	0
| Family: Daphniidae	0	0	0	0	0	0	0	0	0	0
Daphnia sp.	0	0	0	0	1	0	17	20	0	20
| Class: Copepoda	0	0	0	0	0	17	17	20	20	20
| Class: Malacostraca	0	0	0	0	0	0	0	0	0	0
| Order: Amphipoda	0	0	0	0	0	0	0	0	0	0
| Family: Gammaridae	0	0	0	0	0	0	0	0	0	0
Gammarus sp.	0	0	0	0	0	383	383	520	1180	1420
| Family: Hyalellidae	0	0	0	0	0	0	0	0	0	0
Hyalella sp.	0	0	0	0	1	2683	2117	1660	3100	3820
Subphylum: Chelicerata	0	0	0	0	0	0	0	0	0	0
| Class: Arachnida	0	0	0	0	0	0	0	0	0	0
| Order: Trombidiformes	0	0	0	1	0	0	0	20	20	0
| Family: Arrenuridae	0	0	0	0	0	0	0	0	0	0
Arrenurus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Aturidae	0	0	0	0	0	0	0	0	0	0
Aturus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydrodromidae	0	0	0	0	0	0	0	0	0	0
Hydrodroma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydryphantidae	0	0	0	0	0	17	0	0	20	60

Stream Name	Lake 01682LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	6%	6%	5%	5%	5%
TAXONOMY										
Protzia sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hygrobatidae	0	0	0	0	0	0	0	0	0	0
Hygrobates sp.	0	0	0	0	0	0	0	0	20	0
| Family: Lebertiidae	0	0	0	0	0	0	0	0	0	0
Lebertia sp.	0	0	0	0	0	0	50	0	0	0
| Family: Limnesiidae	0	0	0	0	0	0	0	0	0	0
Limnesia sp.	0	0	0	0	0	0	0	0	20	0
| Family: Mideopsidae	0	0	0	0	0	0	0	0	0	0
Mideopsis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Oxidae	0	0	0	0	0	0	0	0	0	0
Oxus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Pionidae	0	0	0	0	0	0	0	0	0	0
Piona sp.	0	0	0	0	0	0	0	0	0	0
| Family: Sperchontidae	0	0	0	0	0	0	0	0	0	0
Sperchon sp.	0	0	0	0	0	0	0	0	0	0
Sperchonopsis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Torrenticolidae	0	0	0	0	0	0	0	0	0	0
Testudacarus sp.	0	0	0	0	0	0	0	0	0	0
Torrenticola sp.	0	0	0	0	0	0	0	0	0	0
| Family: Unionicolidae	0	0	0	0	0	0	0	0	0	0
Unionicola sp.	0	0	0	0	0	0	0	0	0	0
| Order: Sarcoptiformes	0	0	0	0	0	0	0	0	0	0
| Family: Hydrozetidae	0	0	0	0	0	0	0	0	0	0
Phylum: Mollusca	0	0	0	0	0	0	0	0	0	0
| Class: Bivalvia	0	0	0	0	0	0	0	0	0	0
| Order: Veneroida	0	0	0	0	0	0	0	0	0	0
| Family: Sphaeriidae	0	0	0	0	0	167	1150	1720	660	800
| Family: Unionoida	0	0	0	0	0	0	0	0	0	0
| Family: Margaritiferidae	0	0	0	0	0	0	0	0	0	0
Margaritifera falcata	0	0	0	0	0	0	0	0	0	0

Stream Name	Lake 01682LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	6%	6%	5%	5%	5%
TAXONOMY										
Pisidium sp.	0	0	0	0	0	0	33	200	0	0
Sphaerium sp.	0	0	0	0	0	0	0	0	0	0
| Class: Gastropoda	0	0	0	0	0	17	50	0	0	0
| Order: Basommatophora	0	0	0	0	0	0	0	0	0	0
Acroloxus coloradensis	0	0	0	0	0	0	17	0	0	0
| Family: Physidae	0	0	0	0	0	0	0	0	0	0
Physa sp.	0	0	0	0	0	17	0	0	0	0
| Family: Planorbidae	0	0	0	0	0	0	33	100	20	0
Gyraulus sp.	0	0	0	0	0	0	0	0	0	0
Menetus opercularis	0	0	0	0	0	17	0	0	80	0
Menetus sp.	0	0	0	0	0	0	17	140	0	0
Promenetus umbilicatellus	0	0	0	0	0	0	0	0	0	0
| Order: Heterostropha	0	0	0	0	0	0	0	0	0	0
| Family: Valvatidae	0	0	0	0	0	0	0	0	0	0
Valvata sincera	0	0	0	0	0	0	0	0	0	0
| Order: Hypsogastropoda	0	0	0	0	0	0	0	0	0	0
| Family: Hydrobiidae	0	0	0	0	0	0	0	0	0	0
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
| Class: Hirudinea	0	0	0	0	0	0	0	0	0	0
| Order: Arhynchobdellida	0	0	0	0	0	0	0	0	0	0
| Family: Erpobdellidae	0	0	0	0	0	17	0	40	40	80
Erpobdella sp.	0	0	0	0	0	0	0	0	20	0
| Order: Rhynchobdellida	0	0	0	0	0	0	0	0	0	0
| Family: Glossiphoniidae	0	0	1	0	0	17	17	120	40	20
| Class: Oligochaeta	0	0	0	0	0	0	0	0	0	0
| Order: Lumbriculida	0	0	0	0	0	0	0	0	0	0
| Family: Lumbriculidae	0	0	0	0	0	17	33	40	40	100
| Order: Tubificida	0	0	0	0	0	0	0	0	0	0
| Family: Enchytraeidae	0	0	0	0	0	0	0	0	0	0

Stream Name	Lake 01682LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012	09/20/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	6%	6%	5%	5%	5%
TAXONOMY										
Enchytraeus	0	0	0	0	0	17	100	60	80	100
| Family: Lumbricidae	0	0	0	0	0	0	0	0	0	0
| Family: Naididae	0	0	0	0	0	33	33	0	0	60
Chaetogaster sp.	0	0	0	0	0	0	0	0	0	0
Stylaria sp.	0	0	0	0	0	0	0	0	0	0
Vejdovskyella intermedia	0	0	0	0	0	0	0	0	0	0
Phylum: Nemata	0	0	0	0	0	17	17	20	20	20
Phylum: Platyhelminthes	0	0	0	0	0	0	0	0	0	0
| Class: Turbellaria	0	0	0	0	0	0	0	0	0	0
Phylum: Cnidaria	0	0	0	0	0	0	0	0	0	0
| Class: Hydrozoa	0	0	0	0	0	0	0	0	0	0
| Order: Anthoathecatae	0	0	0	0	0	0	0	0	0	0
| Family: Hydridae	0	0	0	0	0	0	0	0	0	0
Hydra sp.	0	0	0	0	0	0	33	0	0	0
Totals:	2	2	2	4	7	5752	5301	6920	6900	8540

Table 5.6-1A: Lake Benthic Macroinvertebrate Taxonomic Composition, 2012 (continued)

Stream Name	Lake 01538LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	11/09/2012	11/09/2012	11/09/2012	11/09/2012	11/09/2012	09/18/2012	09/18/2012	09/18/2012	09/18/2012	09/18/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	8%	7%	11%	13%	9%
TAXONOMY										
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Subphylum: Hexapoda	0	0	0	0	0	0	0	0	0	0
| Class: Insecta	0	0	0	0	0	0	0	0	0	0
| Order: Ephemeroptera	0	0	0	0	0	0	0	0	0	0
| Family: Ameletidae	0	0	0	0	0	0	0	0	0	0
Ameletus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Baetidae	0	0	0	0	0	0	0	0	0	0
Acentrella sp.	0	0	0	0	0	0	0	0	0	0
Baetis bicaudatus	0	0	0	0	0	0	0	0	0	0
Baetis sp.	0	0	0	0	0	0	0	0	0	0
Baetis tricaudatus	0	0	0	0	0	0	0	0	0	0
Callibaetis sp.	0	0	0	0	0	150	43	0	0	11
Diphetor hageni	0	0	0	0	0	0	0	0	0	0
| Family: Caenidae	0	0	0	0	0	0	0	0	0	0
Caenis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Ephemerellidae	0	0	0	0	0	0	0	0	0	0
Caudatella sp.	0	0	0	0	0	0	0	0	0	0
Drunella coloradensis	0	0	0	0	0	0	0	0	0	0
Drunella doddsii	0	0	0	0	0	0	0	0	0	0
Drunella grandis	0	0	0	0	0	0	0	0	0	0
Drunella sp.	0	0	0	0	0	0	0	0	0	0
Drunella spinifera	0	0	0	0	0	0	0	0	0	0
Ephemerella sp.	0	0	0	0	0	0	0	0	0	0
Serratella sp.	0	0	0	0	0	0	0	0	0	0
| Family: Heptageniidae	0	0	0	0	0	0	0	0	0	0
Cinygmula sp.	0	0	0	0	0	0	0	0	0	0
Epeorus sp.	0	0	0	0	0	0	0	0	0	0
Heptagenia sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Lake 01538LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	11/09/2012	11/09/2012	11/09/2012	11/09/2012	11/09/2012	09/18/2012	09/18/2012	09/18/2012	09/18/2012	09/18/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	8%	7%	11%	13%	9%
TAXONOMY										
Rhithrogena sp.	0	0	0	0	0	0	0	0	0	0
| Family: Leptophlebiidae	0	0	0	0	0	0	0	0	0	0
Leptophlebia sp.	2	0	0	0	0	88	86	0	54	100
Paraleptophlebia sp.	0	0	0	0	0	888	686	318	331	333
| Order: Plecoptera	0	0	0	0	0	0	0	0	0	0
| Family: Capniidae	0	0	0	0	0	75	0	73	208	44
| Family: Chloroperlidae	0	0	0	0	0	0	0	0	0	0
Alloperla fraterna	0	0	0	0	0	0	0	0	0	0
Paraperla sp.	0	0	0	0	0	0	0	0	0	0
Suwallia sp.	0	0	0	0	0	0	0	0	0	0
Sweltsa sp.	0	0	0	0	0	0	0	0	0	0
| Family: Leuctridae	0	0	0	0	0	0	0	0	0	0
| Family: Nemouridae	0	0	0	0	0	13	0	0	0	0
Visoka cataractae	0	0	0	0	0	0	0	0	0	0
Zapada cinctipes	0	0	0	0	0	0	0	0	0	0
Zapada columbiana	0	0	0	0	0	0	0	0	0	0
Zapada oregonensis group	0	0	0	0	0	0	0	0	0	0
Zapada sp.	0	0	0	0	0	0	0	0	0	0
| Family: Perlidae	0	0	0	0	0	0	0	0	0	0
Hesperoperla sp.	0	0	0	0	0	0	0	0	0	0
| Family: Perlodidae	0	0	0	0	0	0	0	0	0	0
Cultus sp.	0	0	0	0	0	0	0	0	0	0
Isoperla sp.	0	0	0	0	0	0	0	0	0	0
Megarcys sp.	0	0	0	0	0	0	0	0	0	0
Skwala sp.	0	0	0	0	0	0	0	0	0	0
| Family: Pteronarcyidae	0	0	0	0	0	0	0	0	0	0
Pteronarcella sp.	0	0	0	0	0	0	0	0	0	0
Pteronarcys sp.	0	0	0	0	0	0	0	0	0	0
| Family: Taeniopterygidae	0	0	0	0	0	0	0	0	0	0
Taenionema sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Lake 01538LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	11/09/2012	11/09/2012	11/09/2012	11/09/2012	11/09/2012	09/18/2012	09/18/2012	09/18/2012	09/18/2012	09/18/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	8%	7%	11%	13%	9%
TAXONOMY										
| Order: Trichoptera	0	0	0	0	0	0	0	0	0	0
| Family: Apataniidae	0	0	0	0	0	0	0	0	0	0
Apatania sp.	0	0	0	0	0	0	0	0	0	0
| Family: Brachycentridae	0	0	0	0	0	0	0	0	0	0
Micrasema sp.	0	0	0	0	0	0	0	0	0	0
| Family: Glossosomatidae	0	0	0	0	0	0	0	0	0	0
Glossosoma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydropsychidae	1	0	0	0	0	0	0	0	0	0
Hydropsyche sp.	0	0	0	0	0	0	0	0	0	0
Parapsyche sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydroptilidae	0	0	0	0	0	0	0	0	0	0
Agraylea sp.	0	0	0	0	0	0	0	0	0	0
Hydroptila sp.	0	0	0	0	0	0	0	0	0	0
Oxyethira sp.	0	0	0	0	0	0	0	0	0	0
| Family: Lepidostomatidae	0	0	0	0	0	0	0	0	0	0
Lepidostoma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Leptoceridae	0	0	0	0	0	0	0	0	0	0
Ceraclea sp.	0	0	0	0	0	38	0	0	0	0
Mystacides sp.	0	0	0	0	0	13	0	55	15	56
Oecetis sp.	0	0	0	0	0	13	0	0	0	0
| Family: Limnephilidae	0	0	0	0	0	0	0	0	0	0
Cryptochia sp.	0	0	0	0	0	0	0	0	0	0
Dicosmoecus sp.	0	0	0	0	0	0	0	0	0	0
Ecclisocosmoecus scylla	0	0	0	0	0	0	0	0	0	0
Limnephilus sp.	0	0	0	0	0	13	29	55	23	0
| Family: Philopotamidae	0	0	0	0	0	0	0	0	0	0
Dolophilodes sp.	0	0	0	0	0	0	0	0	0	0
| Family: Phryganeidae	0	0	0	0	0	0	0	0	0	0
Agrypnia sp.	0	0	0	0	0	0	0	0	0	0
| Family: Polycentropodidae	0	0	0	0	0	0	0	0	0	11

Stream Name	Lake 01538LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	11/09/2012	11/09/2012	11/09/2012	11/09/2012	11/09/2012	09/18/2012	09/18/2012	09/18/2012	09/18/2012	09/18/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	8%	7%	11%	13%	9%
TAXONOMY										
Polycentropus sp.	0	0	0	0	0	38	71	45	0	78
| Family: Rhyacophilidae	0	0	0	0	0	0	0	0	0	0
Rhyacophila angelita group	0	0	0	0	0	0	0	0	0	0
Rhyacophila arnaudi	0	0	0	0	0	0	0	0	0	0
Rhyacophila betteni group	0	0	0	0	0	0	0	0	0	0
Rhyacophila brunnea group	0	0	0	0	0	0	0	0	0	0
Rhyacophila narvae	0	0	0	0	0	0	0	0	0	0
Rhyacophila nevadensis group	0	0	0	0	0	0	0	0	0	0
Rhyacophila sp.	0	0	0	0	0	0	0	0	0	0
Rhyacophila vofixa group	0	0	0	0	0	0	0	0	0	0
| Family: Uenoidae	0	0	0	0	0	0	0	0	0	0
Neothremma sp.	0	0	0	0	0	0	0	0	0	0
Oligophlebodes sp.	0	0	0	0	0	0	0	0	0	0
| Order: Coleoptera	0	0	0	0	0	0	0	0	0	0
| Family: Dytiscidae	0	0	0	0	0	0	0	0	0	0
Neoporus sp.	0	0	0	0	0	0	0	0	0	0
Oreodytes sp.	0	0	0	0	0	0	0	0	0	0
| Family: Elmidae	0	0	0	0	0	0	0	0	0	0
Cleptelmis addenda	0	0	0	0	0	0	0	0	0	0
Heterlimnius sp.	0	0	0	0	0	0	0	0	0	0
Optioservus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydrophilidae	0	0	0	0	0	0	0	0	0	0
Hydrobius sp.	0	0	0	0	0	0	0	0	0	0
| Family: Staphylinidae	0	0	0	0	0	0	0	0	0	0
| Order: Diptera	0	0	0	0	0	0	0	0	0	0
| Family: Ceratopogonidae	0	0	0	0	0	0	0	0	0	0
Culicoides sp.	0	0	0	0	0	0	0	0	0	0
Mallochohelea	0	0	0	0	0	0	0	0	0	0
Probezzia sp.	0	0	0	0	0	13	0	9	0	11
Sphaeromias sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Lake 01538LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	11/09/2012	11/09/2012	11/09/2012	11/09/2012	11/09/2012	09/18/2012	09/18/2012	09/18/2012	09/18/2012	09/18/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	8%	7%	11%	13%	9%
TAXONOMY										
| Family: Chaoboridae	0	0	0	0	0	0	0	0	0	0
Chaoborus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Chironomidae	0	0	0	0	0	0	0	0	0	0
| Subfamily: Chironominae	0	0	0	0	0	0	0	0	0	0
| Tribe: Chironomini	0	0	0	0	0	0	0	0	0	0
Chironomus sp.	3	3	1	2	1	0	0	0	0	0
Dicrotendipes sp.	0	0	0	0	0	0	0	0	0	0
Glyptotendipes sp.	0	0	0	0	0	100	86	0	0	0
Microtendipes sp.	0	0	0	0	0	50	71	18	15	33
Pagastiella sp.	0	0	0	0	0	0	0	0	0	0
Polypedilum sp.	0	0	0	0	0	0	0	0	0	0
Zavrelia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Tanytarsini	0	0	0	0	0	0	0	0	0	0
Cladotanytarsus sp.	0	0	0	0	0	0	0	0	0	0
Corynocera sp.	0	0	0	0	0	0	14	0	0	0
Micropsectra sp.	0	0	0	0	0	0	0	0	0	0
Paratanytarsus sp.	0	0	0	0	0	225	257	264	46	322
Rheotanytarsus sp.	0	0	0	0	0	0	0	0	0	0
Stempellina sp.	0	0	0	0	0	0	0	0	0	0
Tanytarsus sp.	0	0	1	0	2	175	243	73	15	67
| Subfamily: Diamesinae	0	0	0	0	0	0	0	0	0	0
| Tribe: Diamesini	0	0	0	0	0	0	0	0	0	0
Diamesa sp.	0	0	0	0	0	0	0	0	0	0
Pagastia sp.	0	1	0	0	0	0	0	0	0	0
Potthastia longimana group	0	0	0	0	0	0	0	0	0	0
Pseudodiamesa sp.	0	0	0	0	0	0	0	0	0	0
| Subfamily: Orthocladiinae	0	0	0	0	0	0	0	0	0	0
Brillia sp.	0	0	0	0	0	0	0	0	0	0
Cardiocladius sp.	0	0	0	0	0	0	0	0	0	0
Cricotopus bicinctus group	0	0	0	0	0	0	43	27	0	0

Stream Name	Lake 01538LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	11/09/2012	11/09/2012	11/09/2012	11/09/2012	11/09/2012	09/18/2012	09/18/2012	09/18/2012	09/18/2012	09/18/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	8%	7%	11%	13%	9%
TAXONOMY										
Cricotopus nostocicola	0	0	0	0	0	0	0	0	0	0
Cricotopus sp.	0	0	0	0	0	0	0	0	0	0
Diplocladius cultriger	0	0	0	0	0	0	0	0	0	0
Doithrix sp.	0	0	0	0	0	0	0	0	0	0
Eukiefferiella sp.	0	0	0	0	0	0	0	0	0	0
Heterotrissocladius sp.	0	0	0	0	0	0	14	0	0	0
Hydrobaenus sp.	0	0	0	0	0	0	0	0	0	0
Limnophyes sp.	0	0	0	0	0	0	0	0	0	0
Orthocladius lignicola	0	0	0	0	0	0	0	0	0	0
Orthocladius sp.	0	0	0	0	0	0	0	0	0	0
Parachaetocladius sp.	0	0	0	0	0	0	0	0	0	0
Parakiefferiella sp.	0	0	0	0	0	0	0	0	0	0
Parametriocnemus sp.	0	0	0	0	0	0	0	0	0	0
Parorthocladius sp.	0	0	0	0	0	0	0	0	0	0
Psectrocladius sp.	0	0	0	0	0	63	0	18	0	56
Rheocricotopus sp.	0	0	0	0	0	0	0	0	0	0
Synorthocladius sp.	0	0	0	0	0	0	0	0	0	0
Thienemanniella	0	0	0	0	0	0	0	0	0	0
Tvetenia sp.	0	0	0	0	0	0	0	0	0	0
Zalutschia sp.	0	0	0	0	0	0	0	18	0	0
| Tribe: Corynoneurini	0	0	0	0	0	0	0	0	0	0
Corynoneura sp.	0	1	0	0	0	0	14	0	0	22
| Tribe: Orthocladiini	0	0	0	0	0	0	0	0	0	0
Chaetocladius sp.	0	0	0	0	0	0	0	0	0	0
| Subfamily: Tanypodinae	0	0	0	0	0	63	14	100	0	44
| Tribe: Pentaneurini	0	0	0	0	0	0	0	0	0	0
Zavrelimyia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Procladiini	0	0	0	0	0	0	0	0	0	0
Procladius sp.	15	8	16	26	0	50	0	18	38	56
| Family: Empididae	0	0	0	0	0	0	0	0	0	0

Stream Name	Lake 01538LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	11/09/2012	11/09/2012	11/09/2012	11/09/2012	11/09/2012	09/18/2012	09/18/2012	09/18/2012	09/18/2012	09/18/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	8%	7%	11%	13%	9%
TAXONOMY										
Chelifera/ Metachela	0	0	0	0	0	13	0	0	0	0
Clinocera sp.	0	0	0	0	0	0	0	0	0	0
Oreogeton sp.	0	0	0	0	0	0	0	0	0	0
| Family: Muscidae	0	0	0	0	0	0	0	0	0	0
Limnophora sp.	0	0	0	0	0	0	0	0	0	0
| Family: Psychodidae	0	0	0	0	0	0	0	0	0	0
Pericoma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Simuliidae	0	0	0	0	0	0	0	0	0	0
Prosimulium sp.	0	0	0	0	0	0	0	0	0	0
Simulium sp.	0	0	0	0	0	0	0	0	0	0
| Family: Tabanidae	0	0	0	0	0	0	0	0	0	0
Tabanus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Tipulidae	0	0	0	0	0	0	0	0	0	0
Antocha sp.	0	0	0	0	0	0	0	0	0	0
Dicranota sp.	0	0	0	0	0	0	0	0	0	0
Hexatoma sp.	0	0	0	0	0	0	0	0	0	0
Limnophila sp.	0	0	0	0	0	0	0	0	0	0
Pedicia sp.	0	0	0	0	0	0	0	0	0	0
Rhabdomastix sp.	0	0	0	0	0	0	0	0	0	0
Tipula sp.	0	0	0	0	0	0	0	0	0	0
| Order: Hemiptera	0	0	0	0	0	0	0	0	0	0
| Family: Corixidae	0	0	0	0	0	13	14	0	0	0
Palmacorixa sp.	0	0	0	0	0	0	14	0	0	0
Sigara sp.	0	0	0	0	0	0	0	127	0	0
Trichocorixa sp.	0	0	0	0	0	0	14	0	0	0
| Order: Lepidoptera	0	0	0	0	0	0	0	0	0	0
| Family: Noctuidae	0	0	0	0	0	0	0	0	0	0
| Order: Megaloptera	0	0	0	0	0	0	0	0	0	0
| Family: Sialidae	0	0	0	0	0	0	0	0	0	0
Sialis sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Lake 01538LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	11/09/2012	11/09/2012	11/09/2012	11/09/2012	11/09/2012	09/18/2012	09/18/2012	09/18/2012	09/18/2012	09/18/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	8%	7%	11%	13%	9%
TAXONOMY										
| Order: Odonata	0	0	0	0	0	0	0	0	0	0
| Family: Aeshnidae	0	0	0	0	0	0	0	0	0	0
Aeshna sp.	0	0	0	0	0	0	29	0	0	22
| Family: Corduliidae	0	0	0	0	0	0	0	0	0	0
Somatochlora sp.	0	0	0	0	0	0	0	0	0	0
| Class: Entognatha	0	0	0	0	0	0	0	0	0	0
| Order: Collembola	0	0	0	0	0	0	0	0	0	0
Subphylum: Crustacea	0	0	0	0	0	0	0	0	0	0
| Class: Ostracoda	0	0	0	0	0	13	14	9	8	11
| Class: Branchiopoda	0	0	0	0	0	0	0	0	0	0
| Order: Cladocera	0	0	0	0	0	0	0	0	0	0
| Family: Daphniidae	0	0	0	0	0	0	0	0	0	0
Daphnia sp.	0	0	0	0	0	13	0	9	8	11
| Class: Copepoda	0	0	0	0	0	13	14	0	8	11
| Class: Malacostraca	0	0	0	0	0	0	0	0	0	0
| Order: Amphipoda	1	0	0	0	0	0	0	0	0	0
| Family: Gammaridae	0	0	0	0	0	0	0	0	0	0
Gammarus sp.	2	1	0	0	0	475	643	300	438	311
| Family: Hyalellidae	0	0	0	0	0	0	0	0	0	0
Hyalella sp.	0	0	0	0	0	1225	1143	573	415	1333
Subphylum: Chelicerata	0	0	0	0	0	0	0	0	0	0
| Class: Arachnida	0	0	0	0	0	0	0	0	0	0
| Order: Trombidiformes	0	0	0	0	0	0	0	0	0	0
| Family: Arrenuridae	0	0	0	0	0	0	0	0	0	0
Arrenurus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Aturidae	0	0	0	0	0	0	0	0	0	0
Aturus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydrodromidae	0	0	0	0	0	0	0	0	0	0
Hydrodroma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydryphantidae	0	0	0	0	0	13	0	0	0	0

Stream Name	Lake 01538LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	11/09/2012	11/09/2012	11/09/2012	11/09/2012	11/09/2012	09/18/2012	09/18/2012	09/18/2012	09/18/2012	09/18/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	8%	7%	11%	13%	9%
TAXONOMY										
Protzia sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hygrobatidae	0	0	0	0	0	0	0	0	0	0
Hygrobates sp.	0	0	0	0	0	0	0	0	8	0
| Family: Lebertiidae	0	0	0	0	0	0	0	0	0	0
Lebertia sp.	0	0	0	0	0	13	71	0	23	11
| Family: Limnesiidae	0	0	0	0	0	0	0	0	0	0
Limnesia sp.	0	0	0	0	0	0	0	0	0	0
| Family: Mideopsidae	0	0	0	0	0	0	0	0	0	0
Mideopsis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Oxidae	0	0	0	0	0	0	0	0	0	0
Oxus sp.	0	0	0	0	0	0	0	9	0	0
| Family: Pionidae	0	0	0	0	0	0	0	0	0	0
Piona sp.	0	0	1	0	5	0	0	0	0	0
| Family: Sperchontidae	0	0	0	0	0	0	0	0	0	0
Sperchon sp.	0	0	0	0	0	0	0	0	0	0
Sperchonopsis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Torrenticolidae	0	0	0	0	0	0	0	0	0	0
Testudacarus sp.	0	0	0	0	0	13	0	0	0	0
Torrenticola sp.	0	0	0	0	0	25	0	0	0	0
| Family: Unionicolidae	0	0	0	0	0	0	0	0	0	0
Unionicola sp.	0	0	0	0	0	0	0	0	0	0
| Order: Sarcoptiformes	0	0	0	0	0	0	0	0	0	0
| Family: Hydrozetidae	0	0	0	0	0	0	0	0	0	11
Phylum: Mollusca	0	0	0	0	0	0	0	0	0	0
| Class: Bivalvia	0	0	0	0	0	0	0	0	0	0
| Order: Veneroida	0	0	0	0	0	0	0	0	0	0
| Family: Sphaeriidae	0	0	1	1	0	250	743	545	631	622
| Family: Unionoida	0	0	0	0	0	0	0	0	0	0
| Family: Margaritiferidae	0	0	0	0	0	0	0	0	0	0
Margaritifera falcata	0	0	0	0	0	0	0	0	0	0

Stream Name	Lake 01538LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	11/09/2012	11/09/2012	11/09/2012	11/09/2012	11/09/2012	09/18/2012	09/18/2012	09/18/2012	09/18/2012	09/18/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	8%	7%	11%	13%	9%
TAXONOMY										
Pisidium sp.	1	0	2	5	5	0	71	109	54	0
Sphaerium sp.	0	0	0	0	0	0	0	0	0	0
| Class: Gastropoda	0	0	0	0	0	0	29	36	23	33
| Order: Basommatophora	0	0	0	0	0	0	0	0	0	0
Acroloxus coloradensis	0	0	0	0	0	0	0	0	0	0
| Family: Physidae	0	0	0	0	0	0	0	0	0	0
Physa sp.	0	0	0	0	0	0	0	0	0	0
| Family: Planorbidae	1	0	0	0	0	0	86	45	23	144
Gyraulus sp.	0	0	0	0	0	0	0	0	0	0
Menetus opercularis	0	0	0	0	0	100	43	64	69	33
Menetus sp.	0	0	0	0	0	0	0	0	0	0
Promenetus umbilicatellus	0	0	0	0	0	0	14	0	0	44
| Order: Heterostropha	0	0	0	0	0	0	0	0	0	0
| Family: Valvatidae	0	0	0	0	0	0	0	0	0	0
Valvata sincera	0	0	0	0	0	0	0	0	0	0
| Order: Hypsogastropoda	0	0	0	0	0	0	0	0	0	0
| Family: Hydrobiidae	0	0	0	0	0	0	0	0	0	0
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
| Class: Hirudinea	0	0	0	0	0	0	0	0	0	0
| Order: Arhynchobdellida	0	0	0	0	0	0	0	0	0	0
| Family: Erpobdellidae	0	0	0	0	0	0	0	0	0	0
Erpobdella sp.	0	0	0	0	0	0	0	0	0	0
| Order: Rhynchobdellida	0	0	0	0	0	0	0	0	0	0
| Family: Glossiphoniidae	0	0	0	0	0	0	0	0	0	0
| Class: Oligochaeta	0	0	0	0	0	0	0	0	0	0
| Order: Lumbriculida	0	0	0	0	0	0	0	0	0	0
| Family: Lumbriculidae	0	0	0	0	0	13	71	18	23	67
| Order: Tubificida	0	0	0	0	0	0	0	0	0	0
| Family: Enchytraeidae	0	0	0	0	0	0	0	0	0	0

Stream Name	Lake 01538LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	11/09/2012	11/09/2012	11/09/2012	11/09/2012	11/09/2012	09/18/2012	09/18/2012	09/18/2012	09/18/2012	09/18/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	8%	7%	11%	13%	9%
TAXONOMY										
Enchytraeus	0	0	0	0	0	88	100	9	0	0
| Family: Lumbricidae	0	0	0	0	0	0	0	0	0	0
| Family: Naididae	1	0	0	0	0	0	43	55	0	67
Chaetogaster sp.	0	0	0	0	0	0	0	0	8	0
Stylaria sp.	0	0	0	0	0	0	14	9	0	11
Vejdovskyella intermedia	0	0	0	0	0	0	0	27	0	0
Phylum: Nemata	0	0	0	0	0	0	14	9	8	11
Phylum: Platyhelminthes	0	0	0	0	0	0	0	0	0	0
| Class: Turbellaria	0	0	0	0	0	0	0	9	8	0
Phylum: Cnidaria	0	0	0	0	0	0	0	0	0	0
| Class: Hydrozoa	0	0	0	0	0	0	0	0	0	0
| Order: Anthoathecatae	0	0	0	0	0	0	0	0	0	0
| Family: Hydridae	0	0	0	0	0	0	0	0	0	0
Hydra sp.	0	0	0	0	0	0	14	0	0	0
Totals:	27	14	22	34	13	4348	4869	3053	2500	3997

Table 5.6-1A: Lake Benthic Macroinvertebrate Taxonomic Composition, 2012 (continued)

Stream Name	Lake 01428LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	5%	14%	6%	7%	100%
TAXONOMY										
Phylum: Arthropoda	0	0	0	0	0	0	0	0	0	0
Subphylum: Hexapoda	0	0	0	0	0	0	0	0	0	0
| Class: Insecta	0	0	0	0	0	0	0	0	0	0
| Order: Ephemeroptera	0	0	0	0	0	0	0	0	0	0
| Family: Ameletidae	0	0	0	0	0	0	0	0	0	0
Ameletus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Baetidae	0	0	0	0	0	0	0	0	0	0
Acentrella sp.	0	0	0	0	0	0	0	0	0	0
Baetis bicaudatus	0	0	0	0	0	0	0	0	0	0
Baetis sp.	4	0	0	0	0	0	0	0	0	0
Baetis tricaudatus	0	0	0	0	0	0	0	0	0	0
Callibaetis sp.	0	0	0	0	0	20	36	83	0	2
Diphetor hageni	0	0	0	0	0	0	0	0	0	0
| Family: Caenidae	0	0	0	0	0	0	0	0	0	0
Caenis sp.	0	0	0	0	0	0	0	0	0	1
| Family: Ephemerellidae	0	0	0	0	0	0	0	0	0	0
Caudatella sp.	0	0	0	0	0	0	0	0	0	0
Drunella coloradensis	0	0	0	0	0	0	0	0	0	0
Drunella doddsii	0	0	0	0	0	0	0	0	0	0
Drunella grandis	0	0	0	0	0	0	0	0	0	0
Drunella sp.	0	0	0	0	0	0	0	0	0	0
Drunella spinifera	0	0	0	0	0	0	0	0	0	0
Ephemerella sp.	0	0	0	0	0	0	0	0	0	0
Serratella sp.	0	0	0	0	0	0	0	0	0	0
| Family: Heptageniidae	0	0	0	0	0	0	0	0	0	0
Cinygmula sp.	0	0	0	0	0	0	0	0	0	0
Epeorus sp.	0	0	0	0	0	0	7	0	0	0
Heptagenia sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Lake 01428LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	5%	14%	6%	7%	100%
TAXONOMY										
Rhithrogena sp.	1	0	0	0	0	0	0	0	0	0
| Family: Leptophlebiidae	0	0	0	0	0	0	0	17	0	0
Leptophlebia sp.	0	0	0	0	0	440	93	133	100	10
Paraleptophlebia sp.	0	0	0	0	0	2620	743	800	1271	68
| Order: Plecoptera	0	0	0	0	0	0	0	0	0	0
| Family: Capniidae	0	0	0	0	0	500	150	133	529	9
| Family: Chloroperlidae	0	0	0	0	0	0	0	0	0	0
Alloperla fraterna	0	0	0	0	0	0	0	0	0	0
Paraperla sp.	0	0	0	0	0	0	0	0	0	0
Suwallia sp.	0	0	0	0	0	0	0	0	0	0
Sweltsa sp.	0	0	0	0	0	0	0	0	0	0
| Family: Leuctridae	0	0	0	0	0	0	0	0	0	0
| Family: Nemouridae	0	0	0	0	0	0	0	0	0	0
Visoka cataractae	0	0	0	0	0	0	0	0	0	0
Zapada cinctipes	0	0	0	0	0	0	0	0	0	0
Zapada columbiana	0	0	0	0	0	0	0	0	0	0
Zapada oregonensis group	0	0	0	0	0	0	0	0	0	0
Zapada sp.	0	0	0	0	0	0	0	0	43	0
| Family: Perlidae	0	0	0	0	0	0	0	0	0	0
Hesperoperla sp.	0	0	0	0	0	0	0	0	0	0
| Family: Perlodidae	0	0	0	0	0	0	0	0	0	0
Cultus sp.	0	0	0	0	0	0	0	0	0	0
Isoperla sp.	0	0	0	0	0	0	0	0	0	0
Megarcys sp.	0	0	0	0	0	0	0	0	0	0
Skwala sp.	0	0	0	0	0	0	0	0	0	0
| Family: Pteronarcyidae	0	0	0	0	0	0	0	0	0	0
Pteronarcella sp.	0	0	0	0	0	0	0	0	0	0
Pteronarcys sp.	0	0	0	0	0	0	0	0	0	0
| Family: Taeniopterygidae	0	0	0	0	0	0	0	0	0	0
Taenionema sp.	0	0	0	0	0	80	0	0	0	0

Stream Name	Lake 01428LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	5%	14%	6%	7%	100%
TAXONOMY										
	0	0	0	0	0	0	0	0	0	0
| Order: Trichoptera	0	0	0	0	0	0	0	0	0	0
| Family: Apataniidae	0	0	0	0	0	0	0	0	0	0
Apatania sp.	0	0	0	0	0	0	0	0	0	0
| Family: Brachycentridae	0	0	0	0	0	0	0	0	0	0
Micrasema sp.	0	0	0	0	0	0	0	0	0	0
| Family: Glossosomatidae	0	0	0	0	0	0	0	0	0	0
Glossosoma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydropsychidae	0	0	0	0	0	0	0	0	0	0
Hydropsyche sp.	0	0	0	0	0	0	0	0	0	0
Parapsyche sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydroptilidae	0	0	0	0	0	0	0	0	0	0
Agraylea sp.	0	0	0	0	0	0	0	0	0	0
Hydroptila sp.	0	0	0	0	0	0	0	0	0	0
Oxyethira sp.	0	0	0	0	0	0	0	0	0	0
| Family: Lepidostomatidae	0	0	0	0	0	0	0	0	0	0
Lepidostoma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Leptoceridae	0	0	0	0	0	40	0	0	0	0
Ceraclea sp.	0	0	0	0	0	0	0	0	0	0
Mystacides sp.	0	0	0	0	0	260	0	17	29	1
Oecetis sp.	0	0	0	0	0	0	7	0	0	2
| Family: Limnephilidae	0	0	0	0	0	0	7	0	0	0
Cryptochia sp.	0	0	0	0	0	0	0	0	0	0
Dicosmoecus sp.	0	0	0	0	0	0	0	0	0	0
Ecclisocosmoecus scylla	0	0	0	0	0	0	0	0	0	0
Limnephilus sp.	0	0	0	0	0	60	43	33	29	0
| Family: Philopotamidae	0	0	0	0	0	0	0	0	0	0
Dolophilodes sp.	0	0	0	0	0	0	0	0	0	0
| Family: Phryganeidae	0	0	0	0	0	0	0	0	0	0
Agrypnia sp.	0	0	0	0	0	0	0	33	0	0

Stream Name	Lake 01428LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	5%	14%	6%	7%	100%
TAXONOMY										
| Family: Polycentropodidae	0	0	0	0	0	0	0	0	0	0
Polycentropus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Rhyacophilidae	0	0	0	0	0	0	0	0	0	0
Rhyacophila angelita group	0	0	0	0	0	0	0	0	0	0
Rhyacophila arnaudi	0	0	0	0	0	0	0	0	0	0
Rhyacophila betteni group	0	0	0	0	0	0	0	0	0	0
Rhyacophila brunnea group	0	0	0	0	0	0	0	0	0	0
Rhyacophila narvae	0	0	0	0	0	0	0	0	0	0
Rhyacophila nevadensis group	0	0	0	0	0	0	0	0	0	0
Rhyacophila sp.	0	0	0	0	0	0	0	0	0	0
Rhyacophila vofixa group	0	0	0	0	0	0	0	0	0	0
| Family: Uenoidae	0	0	0	0	0	0	0	0	0	0
Neothremma sp.	0	0	0	0	0	0	0	0	0	0
Oligophlebodes sp.	0	0	0	0	0	0	0	0	0	0
| Order: Coleoptera	0	0	0	0	0	0	0	0	0	0
| Family: Dytiscidae	0	0	0	0	0	0	0	0	0	0
Neoporus sp.	0	0	0	0	0	0	0	0	0	0
Oreodytes sp.	0	0	0	0	0	0	0	0	0	0
| Family: Elmidae	0	0	0	0	0	0	0	0	0	0
Cleptelmis addenda	0	0	0	0	0	0	0	0	0	0
Heterlimnius sp.	0	0	0	0	0	0	0	0	0	0
Optioservus sp.	0	0	0	0	0	0	0	0	0	1
| Family: Hydrophilidae	0	0	0	0	0	0	0	0	0	0
Hydrobius sp.	0	0	0	0	0	0	0	0	0	0
| Family: Staphylinidae	0	0	0	0	0	0	0	0	0	0
| Order: Diptera	0	0	0	0	0	0	0	0	0	0
| Family: Ceratopogonidae	0	0	0	0	0	0	0	0	0	0
Culicoides sp.	0	0	0	0	0	0	0	0	0	0
Mallochohelea	0	0	0	0	0	0	0	0	0	2
Probezzia sp.	0	0	0	0	0	40	7	83	14	2

Stream Name	Lake 01428LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	5%	14%	6%	7%	100%
TAXONOMY										
Sphaeromias sp.	1	0	0	0	0	0	0	0	0	1
| Family: Chaoboridae	0	0	0	0	0	0	0	0	0	0
Chaoborus sp.	4	2	4	3	6	0	0	0	0	0
| Family: Chironomidae	0	0	0	0	0	0	0	0	0	3
| Subfamily: Chironominae	0	0	0	0	0	0	0	0	0	0
| Tribe: Chironomini	0	0	0	0	0	0	0	0	0	0
Chironomus sp.	0	0	3	0	2	0	0	0	0	0
Dicrotendipes sp.	0	0	0	0	0	0	0	0	14	1
Glyptotendipes sp.	0	0	0	0	0	0	36	83	43	0
Microtendipes sp.	0	0	0	0	0	40	0	0	0	0
Pagastiella sp.	0	0	0	0	0	0	0	0	0	2
Polypedilum sp.	0	0	0	0	0	0	36	0	0	0
Zavrelia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Tanytarsini	0	0	0	0	0	0	0	0	0	0
Cladotanytarsus sp.	0	0	0	0	0	0	0	0	0	0
Corynocera sp.	0	0	0	0	0	0	0	0	0	0
Micropsectra sp.	0	0	0	0	0	340	86	100	14	0
Paratanytarsus sp.	0	0	0	0	0	100	29	100	0	0
Rheotanytarsus sp.	0	0	0	0	0	0	0	0	0	0
Stempellina sp.	0	0	0	0	0	0	0	0	0	0
Tanytarsus sp.	0	0	0	0	0	0	0	0	0	2
| Subfamily: Diamesinae	0	0	0	0	0	0	0	0	0	0
| Tribe: Diamesini	0	0	0	0	0	0	0	0	0	0
Diamesa sp.	0	0	0	0	0	0	0	0	0	0
Pagastia sp.	0	0	0	0	0	0	0	0	0	0
Potthastia longimana group	0	0	0	0	0	0	0	0	0	0
Pseudodiamesa sp.	0	0	0	0	0	0	0	0	0	0
| Subfamily: Orthocladiinae	0	0	0	0	0	0	79	50	0	0
Brillia sp.	0	0	0	0	0	0	0	0	0	0
Cardiocladius sp.	0	0	0	0	0	0	0	0	0	0

Stream Name	Lake 01428LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	5%	14%	6%	7%	100%
TAXONOMY										
Cricotopus bicinctus group	0	0	0	0	0	0	21	67	57	0
Cricotopus nostocicola	0	0	0	0	0	0	0	0	0	0
Cricotopus sp.	0	0	0	0	0	0	0	0	0	0
Diplocladius cultriger	0	0	0	0	0	0	0	0	0	0
Doithrix sp.	0	0	0	0	0	0	0	0	0	0
Eukiefferiella sp.	0	0	0	0	0	0	0	0	0	0
Heterotrissocladius sp.	0	0	0	0	0	0	0	0	14	0
Hydrobaenus sp.	0	0	0	0	0	0	0	0	0	0
Limnophyes sp.	0	0	0	0	0	0	0	0	0	0
Orthocladius lignicola	0	0	0	0	0	0	0	0	0	0
Orthocladius sp.	0	0	0	0	0	0	0	0	0	0
Parachaetocladius sp.	0	0	0	0	0	0	0	0	0	0
Parakiefferiella sp.	0	0	0	0	0	320	0	0	0	0
Parametriocnemus sp.	0	0	0	0	0	0	0	0	0	0
Parorthocladius sp.	0	0	0	0	0	0	0	0	0	0
Psectrocladius sp.	0	0	0	0	0	0	0	0	0	1
Rheocricotopus sp.	0	0	0	0	0	0	0	0	0	0
Synorthocladius sp.	0	0	0	0	0	0	0	0	14	0
Thienemanniella	0	0	0	0	0	0	0	0	0	0
Tvetenia sp.	0	0	0	0	0	0	0	0	0	0
Zalutschia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Corynoneurini	0	0	0	0	0	0	0	0	0	0
Corynoneura sp.	0	0	0	0	0	160	36	0	0	1
| Tribe: Orthocladiini	0	0	0	0	0	0	0	0	0	0
Chaetocladius sp.	0	0	0	0	0	0	0	0	0	0
| Subfamily: Tanypodinae	0	0	0	0	0	20	21	17	0	1
| Tribe: Pentaneurini	0	0	0	0	0	0	0	0	0	0
Zavrelimyia sp.	0	0	0	0	0	0	0	0	0	0
| Tribe: Procladiini	0	0	0	0	0	0	0	0	0	0
Procladius sp.	8	7	14	12	7	100	0	117	29	5

Stream Name	Lake 01428LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	5%	14%	6%	7%	100%
TAXONOMY										
| Family: Empididae	0	0	0	0	0	0	0	0	0	0
Chelifera/ Metachela	0	0	0	0	0	0	0	0	0	0
Clinocera sp.	0	0	0	0	0	0	0	0	0	0
Oreogeton sp.	0	0	0	0	0	0	0	0	0	0
| Family: Muscidae	0	0	0	0	0	0	0	0	0	0
Limnophora sp.	0	0	0	0	0	0	0	0	0	0
| Family: Psychodidae	0	0	0	0	0	0	0	0	0	0
Pericoma sp.	0	0	0	0	0	0	0	0	0	0
| Family: Simuliidae	0	0	0	0	0	0	0	0	0	0
Prosimulium sp.	0	0	0	0	0	0	0	0	0	0
Simulium sp.	0	0	0	0	0	0	0	0	0	0
| Family: Tabanidae	0	0	0	0	0	0	0	0	0	0
Tabanus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Tipulidae	0	0	0	0	0	0	0	0	0	0
Antocha sp.	0	0	0	0	0	0	0	0	0	0
Dicranota sp.	0	0	0	0	0	0	0	0	0	0
Hexatoma sp.	0	0	0	0	0	0	0	0	0	0
Limnophila sp.	0	0	0	0	0	0	0	0	0	0
Pedicia sp.	0	0	0	0	0	0	0	0	0	0
Rhabdomastix sp.	0	0	0	0	0	0	0	0	0	0
Tipula sp.	0	0	0	0	0	0	0	0	0	0
| Order: Hemiptera	0	0	0	0	0	0	0	0	0	0
| Family: Corixidae	0	0	0	0	0	0	0	50	0	1
Palmacorixa sp.	0	0	0	0	0	0	0	0	0	0
Sigara sp.	0	0	0	0	0	0	7	0	0	1
Trichocorixa sp.	0	0	0	0	0	0	0	0	0	0
| Order: Lepidoptera	0	0	0	0	0	0	0	0	0	0
| Family: Noctuidae	0	0	0	0	0	20	0	0	0	0
| Order: Megaloptera	0	0	0	0	0	0	0	0	0	0
| Family: Sialidae	0	0	0	0	0	0	0	0	0	0

Stream Name	Lake 01428LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	5%	14%	6%	7%	100%
TAXONOMY										
Sialis sp.	0	0	0	0	0	0	0	0	0	0
| Order: Odonata	0	0	0	0	0	0	0	0	0	0
| Family: Aeshnidae	0	0	0	0	0	0	0	0	0	0
Aeshna sp.	0	0	0	0	0	0	0	0	0	0
| Family: Corduliidae	0	0	0	0	0	0	0	0	0	0
Somatochlora sp.	0	0	0	0	0	40	0	0	0	0
| Class: Entognatha	0	0	0	0	0	0	0	0	0	0
| Order: Collembola	0	0	0	0	0	0	0	0	0	0
Subphylum: Crustacea	0	0	0	0	0	0	0	0	0	0
| Class: Ostracoda	0	0	0	0	0	20	7	17	14	1
| Class: Branchiopoda	0	0	0	0	0	0	0	0	0	0
| Order: Cladocera	0	0	0	0	0	0	0	0	0	0
| Family: Daphniidae	0	0	0	0	0	0	0	0	0	0
Daphnia sp.	0	0	0	0	0	20	7	17	14	1
| Class: Copepoda	0	0	0	0	0	20	7	17	14	1
| Class: Malacostraca	0	0	0	0	0	0	0	0	0	0
| Order: Amphipoda	0	0	0	0	0	0	0	0	0	0
| Family: Gammaridae	0	0	0	0	0	0	0	0	0	0
Gammarus sp.	0	0	0	0	0	440	86	167	143	20
| Family: Hyalellidae	0	0	0	0	0	0	0	0	0	0
Hyalella sp.	0	0	0	0	0	2520	350	933	914	67
Subphylum: Chelicerata	0	0	0	0	0	0	0	0	0	0
| Class: Arachnida	0	0	0	0	0	0	0	0	0	0
| Order: Trombidiformes	0	0	0	0	0	40	0	17	14	1
| Family: Arrenuridae	0	0	0	0	0	0	0	0	0	0
Arrenurus sp.	0	0	0	0	0	20	29	0	43	10
| Family: Aturidae	0	0	0	0	0	0	0	0	0	0
Aturus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hydrodromidae	0	0	0	0	0	0	0	0	0	0
Hydrodroma sp.	0	0	0	0	0	0	0	0	0	2

Stream Name	Lake 01428LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	5%	14%	6%	7%	100%
TAXONOMY										
| Family: Hydryphantidae	0	0	0	0	0	80	36	17	71	3
Protzia sp.	0	0	0	0	0	0	0	0	0	0
| Family: Hygrobatidae	0	0	0	0	0	0	0	0	0	0
Hygrobates sp.	0	0	0	0	0	0	29	0	29	1
| Family: Lebertiidae	0	0	0	0	0	0	0	0	0	0
Lebertia sp.	0	0	0	0	0	0	0	0	0	0
| Family: Limnesiidae	0	0	0	0	0	0	0	0	0	0
Limnesia sp.	0	0	0	0	0	0	0	0	0	0
| Family: Mideopsidae	0	0	0	0	0	0	0	0	0	0
Mideopsis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Oxidae	0	0	0	0	0	0	0	0	0	0
Oxus sp.	0	0	0	0	0	0	0	0	0	0
| Family: Pionidae	0	0	0	0	0	0	0	0	0	0
Piona sp.	1	0	0	0	4	20	7	0	0	0
| Family: Sperchontidae	0	0	0	0	0	0	0	0	0	0
Sperchon sp.	0	0	0	0	0	0	0	0	0	0
Sperchonopsis sp.	0	0	0	0	0	0	0	0	0	0
| Family: Torrenticolidae	0	0	0	0	0	0	0	0	0	0
Testudacarus sp.	0	0	0	0	0	0	0	0	0	0
Torrenticola sp.	0	0	0	0	0	0	0	0	0	0
| Family: Unionicolidae	0	0	0	0	0	0	0	0	0	0
Unionicola sp.	0	0	0	0	0	0	0	0	14	1
| Order: Sarcoptiformes	0	0	0	0	0	0	0	0	0	0
| Family: Hydrozetidae	0	0	0	0	0	0	0	0	0	0
Phylum: Mollusca	0	0	0	0	0	0	0	0	0	0
| Class: Bivalvia	0	0	0	0	0	0	0	0	0	0
| Order: Veneroida	0	0	0	0	0	0	0	0	0	0
| Family: Sphaeriidae	5	4	5	4	2	2560	207	1283	586	53
| Family: Unionoida	0	0	0	0	0	0	0	0	0	0
| Family: Margaritiferidae	0	0	0	0	0	0	0	0	0	0

Stream Name	Lake 01428LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	5%	14%	6%	7%	100%
TAXONOMY										
Margaritifera falcata	0	0	0	0	0	0	0	0	0	0
Pisidium sp.	15	15	57	30	21	0	0	200	57	6
Sphaerium sp.	0	0	0	0	1	0	0	0	0	0
| Class: Gastropoda	0	0	0	0	0	120	21	17	186	5
| Order: Basommatophora	0	0	0	0	0	0	0	0	0	0
Acroloxus coloradensis	0	0	0	0	0	0	0	0	0	0
| Family: Physidae	0	0	0	0	0	0	0	0	0	0
Physa sp.	0	0	0	0	0	0	14	17	29	2
| Family: Planorbidae	0	0	0	0	0	240	7	517	371	8
Gyraulus sp.	0	0	0	0	0	0	0	0	0	0
Menetus opercularis	0	0	0	0	0	200	29	200	200	18
Menetus sp.	0	0	0	0	0	0	0	0	0	0
Promenetus umbilicatellus	0	0	0	0	0	0	0	0	0	0
| Order: Heterostropha	0	0	0	0	0	0	0	0	0	0
| Family: Valvatidae	0	0	0	0	0	0	0	0	0	0
Valvata sincera	1	2	5	0	0	0	0	0	0	0
| Order: Hypsogastropoda	0	0	0	0	0	0	0	0	0	0
| Family: Hydrobiidae	0	0	0	0	0	0	0	0	0	0
Phylum: Annelida	0	0	0	0	0	0	0	0	0	0
Subphylum: Clitellata	0	0	0	0	0	0	0	0	0	0
| Class: Hirudinea	0	0	0	0	0	0	0	0	0	0
| Order: Arhynchobdellida	0	0	0	0	0	0	0	0	0	0
| Family: Erpobdellidae	0	0	0	0	0	0	0	0	0	1
Erpobdella sp.	0	0	0	0	0	20	0	17	14	0
| Order: Rhynchobdellida	0	0	0	0	0	0	0	0	0	0
| Family: Glossiphoniidae	0	0	0	0	0	0	0	33	14	0
| Class: Oligochaeta	0	0	0	0	0	0	0	0	0	0
| Order: Lumbriculida	0	0	0	0	0	0	0	0	0	0
| Family: Lumbriculidae	0	0	0	0	0	20	0	17	0	2
| Order: Tubificida	0	0	0	0	0	0	0	0	0	0

Stream Name	Lake 01428LNRS									
	Profundal					Littoral				
Site	Rep 01	Rep 02	Rep 03	Rep 04	Rep 05	Rep 06	Rep 07	Rep 08	Rep 09	Rep 10
Date	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/09/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012	09/13/2012
Percent Sampled (%)	100%	100%	100%	100%	100%	5%	14%	6%	7%	100%
TAXONOMY										
| Family: Enchytraeidae	0	0	0	0	0	0	0	0	0	0
Enchytraeus	0	0	0	0	0	300	7	50	57	5
| Family: Lumbricidae	0	0	0	0	0	0	0	0	0	0
| Family: Naididae	1	0	0	0	0	400	7	33	57	2
Chaetogaster sp.	0	0	0	0	0	0	0	0	0	0
Stylaria sp.	0	0	0	0	0	0	7	0	0	2
Vejdovskyella intermedia	0	0	0	0	0	40	7	0	0	0
Phylum: Nemata	0	0	0	0	0	20	7	17	14	1
Phylum: Platyhelminthes	0	0	0	0	0	0	0	0	0	0
| Class: Turbellaria	0	0	0	0	0	0	0	0	0	0
Phylum: Cnidaria	0	0	0	0	0	0	0	0	0	0
| Class: Hydrozoa	0	0	0	0	0	0	0	0	0	0
| Order: Anthoathecatae	0	0	0	0	0	0	0	0	0	0
| Family: Hydridae	0	0	0	0	0	0	0	0	0	0
Hydra sp.	0	0	0	0	0	80	7	0	0	0
Totals:	41	30	88	49	43	12380	2322	5502	5055	330

Annex 5.6-2
Lake Benthic Macroinvertebrate Community Metrics, 2012

Table 5.6-2A: SIMPER Comparison of Groups 14 and 15 in the Littoral Zone

Taxa	Av.Abund		Contrib%	Cum.%
	Group 14	Group 15		
Paraleptophlebia sp.	1100.4	511.2	5.76	5.76
Sphaeriidae	937.8	558.2	5.76	11.52
Paratanytarsus sp.	45.8	222.8	4.54	16.07
Tanytarsus sp.	0.4	114.6	4.00	20.07
Planorbidae	228.6	59.6	3.83	23.90
Capniidae	264.2	80.0	3.74	27.64
Micropsectra sp.	108.0	0.0	3.01	30.64
Polycentropus sp.	0.0	46.4	2.52	33.17
Pisidium sp.	52.6	46.8	2.41	35.57
Enchytraeus sp.	83.8	39.4	2.39	37.96
Naididae	99.8	33.0	2.36	40.32
Leptophlebia sp.	155.2	65.6	2.32	42.64
Microtendipes sp.	8.0	37.4	2.28	44.91
Hydryphantidae	41.4	2.6	2.09	47.01
Menetus opercularis	129.4	61.8	2.06	49.06
Glyptotendipes sp.	32.4	37.2	2.01	51.08
Mystacides sp.	61.4	27.8	2.00	53.08
Callibaetis sp.	28.2	40.8	1.96	55.04
Procladius sp.	50.2	32.4	1.86	56.90
Tanypodinae	11.8	44.2	1.85	58.76
Lumbriculidae	7.8	38.4	1.82	60.58
Gastropoda	69.8	24.2	1.81	62.39
Lebertia sp.	0.0	23.6	1.75	64.14
Arrenurus sp.	20.4	0.0	1.71	65.85
Psectrocladius sp.	0.2	27.4	1.66	67.51
Cricotopus bicinctus group	29.0	14.0	1.60	69.11
Corynoneura sp.	39.4	7.2	1.56	70.67
Orthocladiinae	25.8	0.0	1.36	72.03
Limnephilus sp.	33.0	24.0	1.34	73.37
Probezzia sp.	29.2	6.6	1.30	74.67
Physa sp.	12.4	0.0	1.27	75.95
Sigara sp.	1.6	25.4	1.22	77.16
Trombidiformes	14.4	0.0	1.11	78.28
Hygrobates sp.	11.8	1.6	1.06	79.34
Parakiefferiella sp.	64.0	0.0	1.06	80.40
Corixidae	10.2	5.4	0.96	81.36
Hydra sp.	17.4	2.8	0.90	82.26
Erpobdella sp.	10.2	0.0	0.87	83.13
Promenetus umbilicatellus	0.0	11.6	0.86	83.99
Vejdovskyella intermedia	9.4	5.4	0.86	84.85
Aeshna sp.	0.0	10.2	0.83	85.68

Taxa	Av.Abund		Contrib%	Cum.%
	Group 14	Group 15		
Stylaria sp.	1.8	6.8	0.78	86.46
Glossiphoniidae	9.4	0.0	0.73	87.18
Phylum: Nemata	11.8	8.4	0.67	87.85
Oecetis sp.	1.8	2.6	0.57	88.43
Polypedilum sp.	7.2	0.0	0.56	88.99
Taenionema sp.	16.0	0.0	0.53	89.52
Zapada sp.	8.6	0.0	0.52	90.04

Note: Average abundance of BMI taxa collected from littoral habitats in sampled lakes (SIMPER analysis). BMI taxa contributions to Bray-Curtis dissimilarity are also provided (highest dissimilarity contributions indicate taxa that best discriminate BMI groups). Only ranked taxa that represent the top 90% (cumulative) of dissimilarity in abundance are included.

Table 5.6-2B: SIMPER Comparison of Groups 14 and 16 in the Littoral Zone

Taxa	Av.Abund		Contrib%	Cum.%
	Group 14	Group 16		
Sphaeriidae	937.8	899.4	5.85	5.85
Paratanytarsus sp.	45.8	388.6	5.64	11.49
Paraleptophlebia sp.	1100.4	384.6	5.20	16.69
Capniidae	264.2	140.6	3.92	20.60
Planorbidae	228.6	30.6	3.52	24.13
Dicrotendipes sp.	3.0	124.0	3.50	27.63
Leptophlebia sp.	155.2	12.0	3.28	30.90
Tanypodinae	11.8	127.2	3.12	34.02
Menetus opercularis	129.4	19.4	2.86	36.89
Tanytarsus sp.	0.4	69.4	2.66	39.55
Cricotopus bicinctus group	29.0	106.0	2.60	42.15
Micropsectra sp.	108.0	13.4	2.48	44.63
Procladius sp.	50.2	100.0	2.26	46.89
Callibaetis sp.	28.2	86.0	2.22	49.11
Pisidium sp.	52.6	46.6	2.07	51.18
Gastropoda	69.8	13.4	1.99	53.17
Microtendipes sp.	8.0	60.6	1.94	55.11
Naididae	99.8	25.2	1.93	57.04
Enchytraeus sp.	83.8	71.4	1.87	58.91
Erpobdellidae	0.2	35.4	1.85	60.75
Lumbriculidae	7.8	46.0	1.80	62.55
Glossiphoniidae	9.4	42.8	1.70	64.25
Mystacides sp.	61.4	21.2	1.66	65.91
Probezzia sp.	29.2	27.4	1.62	67.53
Arrenurus sp.	20.4	0.0	1.46	68.99
Glyptotendipes sp.	32.4	12.0	1.42	70.41
Hydryphantidae	41.4	19.4	1.40	71.82
Oreodytes sp.	0.0	15.4	1.31	73.13
Corynoneura sp.	39.4	0.0	1.25	74.38
Orthocladiinae	25.8	0.0	1.17	75.55
Menetus sp.	0.0	31.4	1.15	76.70
Agrypnia sp.	6.6	15.4	1.09	77.79
Sigara sp.	1.6	14.8	1.09	78.89
Limnephilus sp.	33.0	22.0	1.08	79.97
Physa sp.	12.4	3.4	1.00	80.96
Psectrocladius sp.	0.2	26.6	0.95	81.91
Trombidiformes	14.4	8.0	0.94	82.85
Parakiefferiella sp.	64.0	0.0	0.94	83.79
Hygrobates sp.	11.8	4.0	0.94	84.72
Hydra sp.	17.4	6.6	0.92	85.64
Aeshna sp.	0.0	14.6	0.91	86.55

Taxa	Av.Abund		Contrib%	Cum.%
	Group 14	Group 16		
Caenis sp.	0.2	14.0	0.90	87.46
Erpobdella sp.	10.2	4.0	0.79	88.25
Aeshnidae	0.0	10.6	0.77	89.02
Corixidae	10.2	0.0	0.57	89.59
Phylum: Nemata	11.8	18.8	0.56	90.15

Note: Average abundance of BMI taxa collected from littoral habitats in sampled lakes (SIMPER analysis). BMI taxa contributions to Bray-Curtis dissimilarity are also provided (highest dissimilarity contributions indicate taxa that best discriminate BMI groups). Only ranked taxa that represent the top 90% (cumulative) of dissimilarity in abundance are included.

Table 5.6-2C: SIMPER Comparison of Lakes 15 and 16 Littoral BMI Communities

Taxa	Av.Abund		Contrib%	Cum.%
	Group 15	Group 16		
Dicrotendipes sp.	0.0	124.0	4.67	4.67
Sphaeriidae	558.2	899.4	4.37	9.04
Cricotopus bicinctus group	14.0	106.0	3.70	12.74
Capniidae	80.0	140.6	3.65	16.39
Tanypodinae	44.2	127.2	3.15	19.53
Callibaetis sp.	40.8	86.0	3.02	22.55
Paratanytarsus sp.	222.8	388.6	3.00	25.56
Leptophlebia sp.	65.6	12.0	2.95	28.50
Microtendipes sp.	37.4	60.6	2.85	31.35
Glossiphoniidae	0.0	42.8	2.77	34.13
Procladius sp.	32.4	100.0	2.76	36.88
Polycentropus sp.	46.4	0.0	2.71	39.60
Menetus opercularis	61.8	19.4	2.68	42.28
Pisidium sp.	46.8	46.6	2.68	44.96
Enchytraeus sp.	39.4	71.4	2.45	47.41
Erpobdellidae	0.0	35.4	2.39	49.80
Planorbidae	59.6	30.6	2.30	52.10
Tanytarsus sp.	114.6	69.4	2.28	54.38
Paraleptophlebia sp.	511.2	384.6	2.19	56.57
Psectrocladius sp.	27.4	26.6	2.17	58.74
Sigara sp.	25.4	14.8	2.02	60.77
Glyptotendipes sp.	37.2	12.0	1.93	62.70
Lebertia sp.	23.6	10.0	1.83	64.53
Naididae	33.0	25.2	1.78	66.32
Gastropoda	24.2	13.4	1.66	67.98
Oreodytes sp.	0.0	15.4	1.64	69.62
Probezzia sp.	6.6	27.4	1.62	71.24
Mystacides sp.	27.8	21.2	1.59	72.83
Hydryphantidae	2.6	19.4	1.49	74.32
Menetus sp.	0.0	31.4	1.44	75.75
Agrypnia sp.	0.0	15.4	1.36	77.11
Aeshna sp.	10.2	14.6	1.31	78.43
Limnephilus sp.	24.0	22.0	1.20	79.63
Lumbriculidae	38.4	46.0	1.14	80.77
Caenis sp.	0.0	14.0	1.11	81.87
Aeshnidae	0.0	10.6	0.97	82.84
Promenetus umbilicatellus	11.6	0.0	0.93	83.77
Stylaria sp.	6.8	0.0	0.90	84.68
Phylum: Nemata	8.4	18.8	0.82	85.50
Trombidiformes	0.0	8.0	0.80	86.30
Micropsectra sp.	0.0	13.4	0.78	87.08

Taxa	Av.Abund		Contrib%	Cum.%
	Group 15	Group 16		
Hydra sp.	2.8	6.6	0.75	87.84
Corynoneura sp.	7.2	0.0	0.75	88.59
Corixidae	5.4	0.0	0.64	89.23
Hygrobates sp.	1.6	4.0	0.60	89.84
Oecetis sp.	2.6	4.0	0.59	90.43

Note: Average abundance of BMI taxa collected from littoral habitats in sampled lakes (SIMPER analysis). BMI taxa contributions to Bray-Curtis dissimilarity are also provided (highest dissimilarity contributions indicate taxa that best discriminate BMI groups). Only ranked taxa that represent the top 90% (cumulative) of dissimilarity in abundance are included.

Table 5.6-2D: BMI metrics (abundance, taxa richness, Shannon-Weiner Index (loge), Hilsenhoff Biotic Index, % chironomids and % EPT taxa) for littoral and profundal zones of Lakes 14, 15 and 16.

Lake	Sample	Abundance	Taxa Richness	Shannon-Weiner Index	HBI	Chironomids (%)	EPT taxa (%)
				Profundal			
14	**mean**	**50.2**	**6.4**	**1.37**	**7.28**	**22%**	**2%**
	1	41	10	1.85	6.56	20%	12%
	2	30	5	1.32	7.10	23%	0%
	3	88	6	1.16	7.73	19%	0%
	4	49	4	1.02	7.53	24%	0%
	5	43	7	1.51	7.47	21%	0%
15	**mean**	**21.2**	**5**	**1.06**	**7.90**	**72%**	**3%**
	1	24	7	1.29	7.64	75%	13%
	2	13	4	1.03	8.31	100%	0%
	3	22	6	1.01	8.23	82%	0%
	4	34	4	0.76	8.65	82%	0%
	5	13	4	1.22	6.69	23%	0%
16	**mean**	**3**	**1.8**	**0.49**	**6.26**	**24%**	**0%**
	1	2	2	0.69	7.50	100%	0%
	2	2	1	0.00	7.00	0%	0%
	3	2	2	0.69	3.50	0%	0%
	4	4	2	0.56	6.50	0%	0%
	5	5	2	0.50	6.80	20%	0%
				Littoral			
14	**mean**	**3954.4**	**33.2**	**2.46**	**3.24**	**11%**	**44%**
	6	9360	33	2.39	3.22	12%	43%
	7	1865	33	2.43	3.65	18%	58%
	8	4351	31	2.50	3.00	12%	29%
	9	3956	30	2.37	2.75	5%	51%
	10	240	39	2.61	3.56	7%	39%
15	**mean**	**2350.4**	**26.4**	**2.46**	**3.48**	**22%**	**35%**
	6	2609	28	2.52	4.61	28%	51%
	7	3055	31	2.58	3.78	25%	30%
	8	2153	27	2.62	3.79	25%	25%
	9	1615	19	2.02	1.79	7%	39%
	10	2320	27	2.58	3.41	26%	27%
16	**mean**	**3180.4**	**26.4**	**2.51**	**3.59**	**34%**	**22%**
	6	2652	29	2.64	5.39	53%	30%
	7	2750	26	2.30	2.87	25%	15%
	8	4680	25	2.32	2.33	21%	26%
	9	2580	31	2.78	3.47	32%	22%
	10	3240	21	2.51	3.88	38%	19%

Table 2.6-2E: SIMPER Comparison of Lakes 14 and 15 Profundal BMI communities

Taxa	Av.Abund		Contrib%	Cum.%
	Group 14	Group 15		
Pisidium sp.	27.6	2.6	25.78	25.78
Chaoborus sp.	3.8	0.0	13.45	39.23
Sphaeriidae	4.0	0.4	11.27	50.50
Procladius sp.	9.6	13.0	10.42	60.92
Chironomus sp.	1.0	2.0	7.06	67.98
Valvata sincera	1.6	0.0	6.32	74.30
Piona sp.	1.0	1.2	6.09	80.39
Tanytarsus sp.	0.0	0.6	3.55	83.94
Baetis sp.	0.8	0.0	2.53	86.47
Naididae	0.2	0.2	2.09	88.56
Leptophlebia sp.	0.0	0.4	1.82	90.38

Note: Average abundance of BMI taxa collected from profundal habitats in sampled lakes (SIMPER analysis). BMI taxa contributions to Bray-Curtis dissimilarity are also provided (highest dissimilarity contributions indicate taxa that best discriminate BMI groups). Only ranked taxa that represent the top 90% (cumulative) of dissimilarity in abundance are included. All comparisons made to Group A.

Table 2.6-2F:SIMPER Comparison of Lakes 14 and 16 Profundal BMI communities

Taxa	Av.Abund		Contrib%	Cum.%
	Group 14	Group 16		
Pisidium sp.	27.6	0.0	33.63	33.63
Procladius sp.	9.6	0.0	20.61	54.24
Sphaeriidae	4.0	0.0	13.33	67.57
Valvata sincera	1.6	0.0	5.95	73.52
Chaoborus sp.	3.8	2.0	5.23	78.75
Piona sp.	1.0	0.0	3.76	82.52
Chironomus sp.	1.0	0.0	3.70	86.21
Baetis sp.	0.8	0.0	2.30	88.51
Micropsectra sp.	0.0	0.2	1.37	89.88
Eukiefferiella sp.	0.0	0.2	1.37	91.26

Note: Average abundance of BMI taxa collected from profundal habitats in sampled lakes (SIMPER analysis). BMI taxa contributions to Bray-Curtis dissimilarity are also provided (highest dissimilarity contributions indicate taxa that best discriminate BMI groups). Only ranked taxa that represent the top 90% (cumulative) of dissimilarity in abundance are included. All comparisons made to Group A.

Table 2.6-2G:SIMPER Comparison of Lakes 15 and 16 Profundal BMI communities

Taxa	Av.Abund		Contrib%	Cum.%
	Group 15	Group 16		
Procladius sp.	13.0	0.0	27.74	27.74
Chironomus sp.	2.0	0.0	12.87	40.61
Pisidium sp.	2.6	0.0	12.61	53.22
Chaoborus sp.	0.0	2.0	11.37	64.60
Piona sp.	1.2	0.0	6.65	71.24
Tanytarsus sp.	0.6	0.0	4.84	76.08
Sphaeriidae	0.4	0.0	3.40	79.48
Pagastia sp.	0.2	0.0	2.28	81.76
Corynoneura sp.	0.2	0.0	2.28	84.05
Leptophlebia sp.	0.4	0.0	2.14	86.19
Micropsectra sp.	0.0	0.2	1.92	88.10
Eukiefferiella sp.	0.0	0.2	1.92	90.02

Note: Average abundance of BMI taxa collected from profundal habitats in sampled lakes (SIMPER analysis). BMI taxa contributions to Bray-Curtis dissimilarity are also provided (highest dissimilarity contributions indicate taxa that best discriminate BMI groups). Only ranked taxa that represent the top 90% (cumulative) of dissimilarity in abundance are included. All comparisons made to Group A.

Annex 5.7-1
Stream Benthic Macroinvertebrate Tissue Metal Concentrations, 2012

Table 5.7-1A: Stream Benthic Macroinvertebrate Tissue Metal Concentrations, 2012

Stream		Lower Davidson Creek	Upper Davidson Creek	Creek 704454	Lower Creek 661	Lower Creek 661	Lower Creek 661	Lower Creek 661	Lower Creek 661
Baseline Map Site ID		**BI-01**	**BI-02**	**BI-03**	**BI-04-1**	**BI-04-2**	**BI-04-3**	**BI-04-4**	**BI-04-5**
Lab Sample ID		**L1217247-1**	**L1217247-2**	**L1217247-3**	**L1217247-4**	**L1217247-5**	**L1217247-6**	**L1217247-7**	**L1217247-8**
Date Sampled		**05-SEP-12**	**13-SEP-12**	**08-SEP-12**	**09-SEP-12**	**09-SEP-12**	**09-SEP-12**	**09-SEP-12**	**09-SEP-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**								
Moisture	%	81.9	90.2	88.6	85.8	81.5	81.9	82.9	81.6
Metals (Total)									
Aluminum (Al)	mg/kg (wwt)	118	88.8	372	166	232	170	104	289
Antimony (Sb)	mg/kg (wwt)	0.0057	0.0034	0.0072	0.0186	0.0098	0.0083	0.0069	0.0079
Arsenic (As)	mg/kg (wwt)	0.190	0.144	0.726	0.329	0.555	0.308	0.228	0.389
Barium (Ba)	mg/kg (wwt)	2.43	1.71	7.02	2.95	3.39	3.82	2.39	4.66
Beryllium (Be)	mg/kg (wwt)	0.0108	0.0065	0.0483	0.0093	0.0127	0.0100	0.0064	0.0152
Bismuth (Bi)	mg/kg (wwt)	<0.0020	<0.0020	0.0032	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)	mg/kg (wwt)	0.58	0.20	0.23	0.32	0.86	0.59	0.50	0.51
Cadmium (Cd)	mg/kg (wwt)	0.107	0.0960	0.171	0.0717	0.0720	0.0977	0.0507	0.0348
Calcium (Ca)	mg/kg (wwt)	413	252	343	429	770	663	568	1220
Cesium (Cs)	mg/kg (wwt)	0.0203	0.0237	0.0551	0.0130	0.0143	0.0152	0.0089	0.0154
Chromium (Cr)	mg/kg (wwt)	0.251	0.164	0.327	0.354	0.437	0.345	0.329	0.629
Cobalt (Co)	mg/kg (wwt)	0.138	0.0623	0.208	0.285	0.324	0.227	0.193	0.246
Copper (Cu)	mg/kg (wwt)	4.47	2.76	9.27	2.80	7.37	4.82	4.06	4.30
Gallium (Ga)	mg/kg (wwt)	0.0324	0.0198	0.0952	0.0500	0.0712	0.0463	0.0260	0.0764
Iron (Fe)	mg/kg (wwt)	226	139	700	427	553	334	220	492
Lead (Pb)	mg/kg (wwt)	0.0719	0.0881	0.916	0.0975	0.0877	0.0707	0.0743	0.105
Lithium (Li)	mg/kg (wwt)	0.046	0.042	0.165	0.110	0.092	0.070	0.038	0.093
Magnesium (Mg)	mg/kg (wwt)	240	149	201	220	378	328	219	350
Manganese (Mn)	mg/kg (wwt)	60.9	18.9	172	82.6	160	107	79.6	159
Mercury (Hg)	mg/kg (wwt)	0.0176	0.0061	0.0124	0.0031	0.0159	0.0131	0.0111	0.0094
Molybdenum (Mo)	mg/kg (wwt)	0.160	0.138	0.161	0.122	0.129	0.140	0.136	0.126
Nickel (Ni)	mg/kg (wwt)	0.248	0.099	0.256	0.215	0.385	0.296	0.220	0.332
Phosphorus (P)	mg/kg (wwt)	1230	970	985	990	1270	1320	1120	1390
Potassium (K)	mg/kg (wwt)	1330	590	690	810	1220	1430	1420	1280
Rhenium (Re)	mg/kg (wwt)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020

Stream		Lower Davidson Creek	Upper Davidson Creek	Creek 704454	Lower Creek 661	Lower Creek 661	Lower Creek 661	Lower Creek 661	Lower Creek 661
Baseline Map Site ID		**BI-01**	**BI-02**	**BI-03**	**BI-04-1**	**BI-04-2**	**BI-04-3**	**BI-04-4**	**BI-04-5**
Lab Sample ID		**L1217247-1**	**L1217247-2**	**L1217247-3**	**L1217247-4**	**L1217247-5**	**L1217247-6**	**L1217247-7**	**L1217247-8**
Date Sampled		**05-SEP-12**	**13-SEP-12**	**08-SEP-12**	**09-SEP-12**	**09-SEP-12**	**09-SEP-12**	**09-SEP-12**	**09-SEP-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Rubidium (Rb)	mg/kg (wwt)	0.450	0.449	0.853	0.392	0.433	0.397	0.299	0.415
Selenium (Se)	mg/kg (wwt)	0.390	0.271	0.053	0.292	0.338	0.240	0.217	0.208
Silver (Ag)	mg/kg (wwt)	0.0399	0.0247	0.0518	0.0283	0.0406	0.0418	0.0408	0.0417
Sodium (Na)	mg/kg (wwt)	690	<400	230	<400	670	790	820	690
Strontium (Sr)	mg/kg (wwt)	3.41	1.32	3.51	2.57	4.04	3.89	3.13	5.84
Tellurium (Te)	mg/kg (wwt)	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)	mg/kg (wwt)	0.00326	0.00181	0.00900	0.00237	0.00479	0.00283	0.00205	0.00320
Thorium (Th)	mg/kg (wwt)	0.0410	0.0101	0.0651	0.0273	0.0289	0.0487	0.0223	0.0617
Tin (Sn)	mg/kg (wwt)	0.031	0.039	0.115	0.033	0.035	0.030	0.021	0.025
Titanium (Ti)	mg/kg (wwt)	40.0	35.0	109	69.0	54.7	68.9	47.5	51.3
Uranium (U)	mg/kg (wwt)	0.412	0.521	0.618	0.684	0.651	0.476	0.482	0.592
Vanadium (V)	mg/kg (wwt)	2.70	2.12	6.92	6.63	5.06	4.32	2.71	5.61
Yttrium (Y)	mg/kg (wwt)	1.11	1.39	3.03	1.58	1.30	1.07	0.841	1.29
Zinc (Zn)	mg/kg (wwt)	247	275	593	226	246	277	233	335
Zirconium (Zr)	mg/kg (wwt)	0.82	0.58	2.37	1.41	1.19	1.12	1.19	1.11
Speciated Metals									
Methyl Mercury	mg/kg (wwt)	0.0100	-	-	0.0099	-	-	-	-
Aggregate Organics									
Lipid Content	% wwt	2.3	-	1.4	1.2	2.1	2.5	1.9	3.3

Note: mg/kg (wwt) – milligrams per kilogram wet weight, QAQC samples are split samples; "<" indicates concentration is below laboratory detection limit for the element

Table 5.7-1A: Stream Benthic Macroinvertebrate Tissue Metal Concentrations, 2012 (continued)

Stream		Upper Creek 661	Chedakuz Creek	Turtle Creek	Creek 700	Lower Creek 705	Davidson Creek near the Mouth	Mid Davidson Creek	Upper Creek 705
Baseline Map Site ID		**BI-05**	**BI-06**	**BI-07**	**BI-08**	**BI-09**	**BI-10**	**BI-11**	**BI-12**
Lab Sample ID		**L1217247-9**	**L1217247-10**	**L1217247-11**	**L1217247-12**	**L1217247-13**	**L1217247-14**	**L1217247-15**	**L1217247-16**
Date Sampled		**11-SEP-12**	**11-SEP-12**	**06-SEP-12**	**08-SEP-12**	**08-SEP-12**	**10-SEP-12**	**14-SEP-12**	**12-SEP-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**								
Moisture	%	85.9	81.8	86.1	87.3	82.1	83.0	86.1	89.7
Metals (Total)									
Aluminum (Al)	mg/kg (wwt)	78.7	186	480	287	89.0	89.5	99.0	120
Antimony (Sb)	mg/kg (wwt)	0.0059	0.0052	0.0061	0.0032	0.0026	0.0064	0.0047	0.0044
Arsenic (As)	mg/kg (wwt)	0.165	0.312	0.794	0.0541	0.0761	0.216	0.139	0.146
Barium (Ba)	mg/kg (wwt)	1.18	8.88	10.6	4.65	1.57	3.60	3.09	4.64
Beryllium (Be)	mg/kg (wwt)	0.0048	0.0092	0.0320	0.0174	0.0056	0.0071	0.0083	0.0127
Bismuth (Bi)	mg/kg (wwt)	<0.0020	<0.0020	0.0037	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)	mg/kg (wwt)	0.52	0.28	0.30	0.32	0.59	0.75	0.37	<0.20
Cadmium (Cd)	mg/kg (wwt)	0.0848	0.0484	0.107	0.0672	0.0405	0.0533	0.0821	0.0720
Calcium (Ca)	mg/kg (wwt)	372	19000	7100	331	543	875	564	294
Cesium (Cs)	mg/kg (wwt)	0.0084	0.0161	0.0455	0.0251	0.0192	0.0111	0.0186	0.0339
Chromium (Cr)	mg/kg (wwt)	0.152	0.467	0.892	0.185	0.105	0.210	0.201	0.178
Cobalt (Co)	mg/kg (wwt)	0.0695	0.193	0.281	0.0644	0.0541	0.250	0.0948	0.129
Copper (Cu)	mg/kg (wwt)	3.24	2.83	3.06	3.07	4.65	4.89	4.79	2.56
Gallium (Ga)	mg/kg (wwt)	0.0175	0.0560	0.117	0.0572	0.0225	0.0243	0.0240	0.0278
Iron (Fe)	mg/kg (wwt)	134	433	840	184	105	232	145	238
Lead (Pb)	mg/kg (wwt)	0.0566	0.0922	0.133	0.0662	0.0855	0.0379	0.0839	0.0517
Lithium (Li)	mg/kg (wwt)	0.023	0.094	0.349	0.099	0.041	0.037	0.042	0.051
Magnesium (Mg)	mg/kg (wwt)	155	278	297	152	175	506	345	143
Manganese (Mn)	mg/kg (wwt)	21.0	231	175	18.4	14.2	90.8	42.3	89.3
Mercury (Hg)	mg/kg (wwt)	0.0101	0.0098	0.0222	0.0115	0.0066	0.0117	0.0083	0.0088
Molybdenum (Mo)	mg/kg (wwt)	0.104	0.175	0.168	0.0741	0.105	0.135	0.209	0.169
Nickel (Ni)	mg/kg (wwt)	0.102	0.255	0.477	0.153	0.132	0.435	0.157	0.099
Phosphorus (P)	mg/kg (wwt)	987	1180	1130	1020	1020	1620	1280	980
Potassium (K)	mg/kg (wwt)	1080	950	870	1010	960	1090	940	860

Stream		Upper Creek 661	Chedakuz Creek	Turtle Creek	Creek 700	Lower Creek 705	Davidson Creek near the Mouth	Mid Davidson Creek	Upper Creek 705
Baseline Map Site ID		**BI-05**	**BI-06**	**BI-07**	**BI-08**	**BI-09**	**BI-10**	**BI-11**	**BI-12**
Lab Sample ID		**L1217247-9**	**L1217247-10**	**L1217247-11**	**L1217247-12**	**L1217247-13**	**L1217247-14**	**L1217247-15**	**L1217247-16**
Date Sampled		**11-SEP-12**	**11-SEP-12**	**06-SEP-12**	**08-SEP-12**	**08-SEP-12**	**10-SEP-12**	**14-SEP-12**	**12-SEP-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Rhenium (Re)	mg/kg (wwt)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Rubidium (Rb)	mg/kg (wwt)	0.459	0.410	0.585	0.365	0.443	0.389	0.324	0.779
Selenium (Se)	mg/kg (wwt)	0.119	0.091	0.308	0.062	0.078	0.163	0.359	0.058
Silver (Ag)	mg/kg (wwt)	0.0381	0.0189	0.0286	0.0194	0.0291	0.0254	0.0285	0.0337
Sodium (Na)	mg/kg (wwt)	570	420	410	350	540	600	560	330
Strontium (Sr)	mg/kg (wwt)	2.76	19.1	21.2	1.94	3.28	5.76	3.02	1.85
Tellurium (Te)	mg/kg (wwt)	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)	mg/kg (wwt)	0.00187	0.00219	0.00606	0.00196	0.00147	0.00201	0.00210	0.00315
Thorium (Th)	mg/kg (wwt)	0.0127	0.0308	0.106	0.0280	0.0179	0.0140	0.0156	0.0202
Tin (Sn)	mg/kg (wwt)	0.022	0.029	0.045	0.036	0.024	0.913	1.87	2.66
Titanium (Ti)	mg/kg (wwt)	24.1	76.0	136	55.8	20.4	32.0	36.6	57.2
Uranium (U)	mg/kg (wwt)	0.344	0.243	0.934	0.441	0.270	0.280	0.579	0.930
Vanadium (V)	mg/kg (wwt)	1.72	4.16	10.8	2.85	1.05	2.42	2.08	3.23
Yttrium (Y)	mg/kg (wwt)	0.641	1.17	5.73	2.25	0.463	0.935	1.11	1.84
Zinc (Zn)	mg/kg (wwt)	320	121	109	269	225	234	311	294
Zirconium (Zr)	mg/kg (wwt)	0.51	1.20	4.34	1.21	0.53	0.70	0.64	1.28
Speciated Metals									
Methyl Mercury	mg/kg (wwt)	-	0.0068	0.0172	-	0.0035	-	-	-
Aggregate Organics									
Lipid Content	% wwt	1.9	1.7	1.7	2.1	3.2	2.3	1.3	1.1

Note: mg/kg (wwt) – milligrams per kilogram wet weight, QAQC samples are split samples; "<" indicates concentration is below laboratory detection limit for the element

Table 5.7-1A: Stream Benthic Macroinvertebrate Tissue Metal Concentrations, 2012 (continued)

Stream		Tributary to Fawnie Creek	Tributary to Blackwater River	Upper Davidson Creek	Lower Creek 661	Chedakuz Creek	Davidson Creek near the Mouth	Mid Davidson Creek
Baseline Map Site ID		**BI-13**	**BI-14**	**BI-02 QAQC**	**BI-04-2 QAQC**	**BI-06 QAQC**	**BI-10 QAQC**	**BI-11 QAQC**
Lab Sample ID		**L1217247-17**	**L1217247-18**	**L1217247-19**	**L1217247-20**	**L1217247-21**	**L1217247-22**	**L1217247-23**
Date Sampled		**15-SEP-12**	**21-SEP-12**					
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**							
Moisture	%	83.7	89.2	92.1	83.5	85.2	83.2	86.2
Metals (Total)								
Aluminum (Al)	mg/kg (wwt)	55.1	67.2	70.8	303	84.5	99.3	87.4
Antimony (Sb)	mg/kg (wwt)	0.0039	0.0024	<0.0020	0.0106	0.0031	0.0060	0.0040
Arsenic (As)	mg/kg (wwt)	0.324	0.145	0.134	0.445	0.221	0.179	0.110
Barium (Ba)	mg/kg (wwt)	2.30	4.37	1.27	5.36	4.32	3.05	3.20
Beryllium (Be)	mg/kg (wwt)	0.0044	0.0021	0.0048	0.0204	0.0040	0.0074	0.0072
Bismuth (Bi)	mg/kg (wwt)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)	mg/kg (wwt)	0.58	0.96	0.38	0.62	0.20	0.92	0.37
Cadmium (Cd)	mg/kg (wwt)	0.0352	0.239	0.0777	0.0681	0.0327	0.0563	0.0568
Calcium (Ca)	mg/kg (wwt)	443	221	193	804	8820	837	449
Cesium (Cs)	mg/kg (wwt)	0.0053	0.0116	0.0263	0.0262	0.0082	0.0123	0.0176
Chromium (Cr)	mg/kg (wwt)	0.065	0.146	0.162	0.519	0.179	0.213	0.135
Cobalt (Co)	mg/kg (wwt)	0.138	0.0438	0.0631	0.341	0.117	0.266	0.0708
Copper (Cu)	mg/kg (wwt)	4.36	2.08	1.96	3.82	2.16	4.61	2.74
Gallium (Ga)	mg/kg (wwt)	0.0108	0.0176	0.0205	0.0783	0.0253	0.0265	0.0234
Iron (Fe)	mg/kg (wwt)	485	99.1	132	606	237	257	119
Lead (Pb)	mg/kg (wwt)	0.0210	0.107	0.0573	0.111	0.0466	0.0392	0.0443
Lithium (Li)	mg/kg (wwt)	<0.020	0.031	0.032	0.143	0.043	0.039	0.044
Magnesium (Mg)	mg/kg (wwt)	203	172	126	509	184	416	305
Manganese (Mn)	mg/kg (wwt)	33.6	11.2	16.5	163	112	95.9	37.9
Mercury (Hg)	mg/kg (wwt)	0.0081	0.0032	0.0034	0.0108	0.0043	0.0097	0.0167
Molybdenum (Mo)	mg/kg (wwt)	0.188	0.0944	0.0883	0.126	0.111	0.150	0.151
Nickel (Ni)	mg/kg (wwt)	0.129	0.088	0.095	0.409	0.166	0.464	0.123
Phosphorus (P)	mg/kg (wwt)	1080	983	940	1360	1030	1440	1170
Potassium (K)	mg/kg (wwt)	1070	890	580	1150	1010	1260	970

Stream		Tributary to Fawnie Creek	Tributary to Blackwater River	Upper Davidson Creek	Lower Creek 661	Chedakuz Creek	Davidson Creek near the Mouth	Mid Davidson Creek
Baseline Map Site ID		**BI-13**	**BI-14**	**BI-02 QAQC**	**BI-04-2 QAQC**	**BI-06 QAQC**	**BI-10 QAQC**	**BI-11 QAQC**
Lab Sample ID		**L1217247-17**	**L1217247-18**	**L1217247-19**	**L1217247-20**	**L1217247-21**	**L1217247-22**	**L1217247-23**
Date Sampled		**15-SEP-12**	**21-SEP-12**					
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Rhenium (Re)	mg/kg (wwt)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Rubidium (Rb)	mg/kg (wwt)	0.612	0.573	0.437	0.536	0.283	0.364	0.267
Selenium (Se)	mg/kg (wwt)	0.067	0.292	0.277	0.222	0.073	0.170	0.227
Silver (Ag)	mg/kg (wwt)	0.0255	0.0152	0.0217	0.0330	0.0182	0.0290	0.0199
Sodium (Na)	mg/kg (wwt)	610	340	<400	610	390	700	560
Strontium (Sr)	mg/kg (wwt)	3.00	0.755	0.984	5.35	6.72	4.80	1.89
Tellurium (Te)	mg/kg (wwt)	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)	mg/kg (wwt)	0.00199	0.00174	0.00169	0.00432	0.00124	0.00187	0.00196
Thorium (Th)	mg/kg (wwt)	0.0079	0.0060	0.0101	0.0744	0.0147	0.0154	0.0256
Tin (Sn)	mg/kg (wwt)	0.213	0.468	0.073	0.042	0.024	1.25	2.61
Titanium (Ti)	mg/kg (wwt)	19.2	52.3	37.5	72.3	55.9	37.5	24.9
Uranium (U)	mg/kg (wwt)	0.215	0.140	0.520	0.985	0.170	0.318	0.381
Vanadium (V)	mg/kg (wwt)	2.29	2.45	2.16	6.47	2.66	2.88	1.36
Yttrium (Y)	mg/kg (wwt)	0.524	0.456	1.37	2.71	0.718	0.947	0.812
Zinc (Zn)	mg/kg (wwt)	201	341	238	239	106	224	230
Zirconium (Zr)	mg/kg (wwt)	0.53	0.38	0.87	2.00	0.82	0.72	0.62
Speciated Metals								
Methyl Mercury	mg/kg (wwt)	0.0061	0.0021	-	-	0.0064	-	-
Aggregate Organics								
Lipid Content	% wwt	11.9	1.1	-	2.1	1.4	2.1	-

Note: mg/kg (wwt) – milligrams per kilogram wet weight, QAQC samples are split samples; "<" indicates concentration is below laboratory detection limit for the element

Annex 5.7-2
Lake Benthic Macroinvertebrate Tissue Metal Concentrations, 2012

Table 5.7-2A: Lake Benthic Macroinvertebrate Tissue Metal Concentrations, 2012

Lake		Lake 01428UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01682LNRS	Lake 01682LNRS
Sample ID		**1428**	**1538-1**	**1538-2**	**1538-3**	**1538-4**	**1538-5**	**1682**	**1682 QAQC**
Date Sampled		**09-SEP-12**	**10-SEP-12**	**10-SEP-12**	**10-SEP-12**	**10-SEP-12**	**10-SEP-12**	**20-SEP-12**	
ALS Sample ID		**L1217258-1**	**L1217258-2**	**L1217258-3**	**L1217258-4**	**L1217258-5**	**L1217258-6**	**L1217258-7**	**L1217258-8**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**								
Moisture	%	86.3	84.3	83.4	83.7	84.3	82.8	89.1	88.4
Metals (Total)									
Aluminum (Al)	mg/kg wwt	9.94	2.87	10.5	3.66	10.4	14.4	4.58	14.3
Antimony (Sb)	mg/kg wwt	0.0025	<0.0020	0.0116	0.0020	0.0039	0.0131	0.0034	0.0070
Arsenic (As)	mg/kg wwt	0.215	0.170	1.05	0.253	0.371	1.22	0.161	0.328
Barium (Ba)	mg/kg wwt	31.2	6.14	10.5	7.48	6.56	11.4	4.95	12.8
Beryllium (Be)	mg/kg wwt	<0.0020	<0.0020	0.0119	<0.0020	0.0039	0.0120	<0.0020	0.0026
Bismuth (Bi)	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)	mg/kg wwt	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)	mg/kg wwt	0.0189	0.0322	0.0275	0.0379	0.0308	0.0517	0.0110	0.0182
Calcium (Ca)	mg/kg wwt	25100	21600	23500	21100	20900	22400	13200	15900
Cesium (Cs)	mg/kg wwt	0.0207	0.0599	0.0557	0.0665	0.0560	0.0985	0.0494	0.114
Chromium (Cr)	mg/kg wwt	0.431	0.107	0.137	0.138	0.104	0.192	0.109	0.454
Cobalt (Co)	mg/kg wwt	0.0147	0.0050	0.0266	0.0072	0.0201	0.0305	0.0056	0.0104
Copper (Cu)	mg/kg wwt	6.45	3.90	3.36	4.58	4.11	5.30	4.69	8.47
Gallium (Ga)	mg/kg wwt	<0.020	<0.020	<0.020	<0.020	0.021	<0.020	<0.020	0.026
Iron (Fe)	mg/kg wwt	251	73.4	2240	191	1160	3710	133	252
Lead (Pb)	mg/kg wwt	0.320	0.391	0.227	0.476	0.377	0.542	0.207	0.505
Lithium (Li)	mg/kg wwt	0.13	<0.10	0.10	<0.10	0.13	0.11	<0.10	0.19
Magnesium (Mg)	mg/kg wwt	2360	2420	2120	2100	2150	2090	2140	2440
Manganese (Mn)	mg/kg wwt	100	27.5	571	54.4	162	288	31.4	71.1
Mercury (Hg)	mg/kg wwt	<0.10	<0.10	<0.25	<0.075	<0.075	<0.13	<0.050	<0.55
Molybdenum (Mo)	mg/kg wwt	1.15	0.487	1.82	0.616	0.640	1.47	0.418	0.830
Nickel (Ni)	mg/kg wwt	1.73	0.096	0.165	0.152	0.161	0.307	0.329	0.339
Phosphorus	mg/kg wwt	15800	12700	12000	11400	12500	11600	12800	14600

Lake		Lake 01428UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01682LNRS	Lake 01682LNRS
Sample ID		**1428**	**1538-1**	**1538-2**	**1538-3**	**1538-4**	**1538-5**	**1682**	**1682 QAQC**
Date Sampled		**09-SEP-12**	**10-SEP-12**	**10-SEP-12**	**10-SEP-12**	**10-SEP-12**	**10-SEP-12**	**20-SEP-12**	
ALS Sample ID		**L1217258-1**	**L1217258-2**	**L1217258-3**	**L1217258-4**	**L1217258-5**	**L1217258-6**	**L1217258-7**	**L1217258-8**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
(P)									
Potassium (K)	mg/kg wwt	7000	8200	<10000	7900	7700	7300	5200	6000
Rhenium (Re)	mg/kg wwt	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Selenium (Se)	mg/kg wwt	0.59	0.28	0.28	0.32	0.24	0.39	0.50	0.77
Silver (Ag)	mg/kg wwt	1.14	0.293	0.274	0.305	0.256	0.390	0.688	-
Sodium (Na)	mg/kg wwt	5700	6900	<10000	6400	6500	6100	4100	4700
Strontium (Sr)	mg/kg wwt	1000	274	326	301	270	415	307	756
Tellurium (Te)	mg/kg wwt	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Thallium (Tl)	mg/kg wwt	0.0480	0.0128	0.0238	0.0158	0.0140	0.0315	0.0260	0.0598
Thorium (Th)	mg/kg wwt	0.014	<0.010	<0.010	<0.010	0.091	0.010	0.012	0.024
Tin (Sn)	mg/kg wwt	15.6	0.842	0.856	2.25	1.95	3.59	6.66	0.027
Titanium (Ti)	mg/kg wwt	2.40	0.463	0.797	0.756	5.02	1.20	1.32	3.89
Uranium (U)	mg/kg wwt	0.212	0.165	0.595	0.200	0.335	0.860	0.169	0.401
Vanadium (V)	mg/kg wwt	0.249	0.083	0.487	0.126	0.441	0.695	0.161	0.379
Yttrium (Y)	mg/kg wwt	0.219	0.071	0.645	0.119	0.318	0.783	0.161	0.552
Zinc (Zn)	mg/kg wwt	63.1	30.4	34.6	32.6	33.9	46.5	38.5	58.5
Zirconium (Zr)	mg/kg wwt	0.26	<0.20	<0.20	<0.20	0.32	<0.20	<0.20	<0.20
Speciated Metals									
Methyl Mercury	mg/kg wwt	0.0036	-	-	-	-	0.0024	0.0052	0.0057
Aggregate Organics									
Lipid Content	% wwt	1.0	0.8	1.0	1.0	1.2	1.0	1.0	0.6

Note: mg/kg wwt – milligrams per kilogram wet weight, QAQC sample is a split sample; "<" indicates concentration is below laboratory detection limit for the element

Annex 5.8-1
Stream Habitat Site Photographs, 2011 - 2012



Photo 1: Glide habitat with gravel silt substrate in Reach 1 of Davidson Creek, August 4, 2012



Photo 2: Large woody debris in pool habitat and silt gravel substrate in Reach 1 of Davidson Creek, August 4, 2012



Photo 3: Glide habitat with cobble gravel substrate in Reach 2 of Davidson Creek, August 4, 2012



Photo 4: Riffle habitat with large woody and cobble substrate in Reach 2 of Davidson Creek, August 4, 2012



Photo 5: Glide habitat with small woody debris and gravel substrate in Reach 3 of Davidson Creek, August 6, 2012



Photo 6: Riffle habitat with spawning gravels in Reach 3 of Davidson Creek, August 6, 2012



Photo 7: Logjam in Reach 4 of Davidson Creek, August 8, 2011



Photo 8: Riffle/glide habitat with cobble substrate in Reach 4 of Davidson Creek, August 8, 2011



Photo 9: Pool habitat with cobble/fine substrates and overhanging vegetation in Reach 4 of Davidson Creek, August 8, 2011



Photo 10: Large pool section with overhanging vegetation and spawning gravels in Reach 5 of Davidson Creek, August 7, 2011



Photo 11: Glide/pool habitat with overhanging vegetation, large woody debris, and cobble/gravel/fine substrates in Reach 5 of Davidson Creek, August 7, 2011



Photo 12: Close-up of gravel substrates in Reach 5 of Davidson Creek, August 7, 2011



Photo 13: Riffle habitat with cobble substrates in Reach 6 of Davidson Creek, August 17, 2011



Photo 14: Close-up of cobble/boulder substrate in Reach 6 of Davidson Creek, August 17, 2011



Photo 15: Riffle habitat with cobble substrates and overhanging vegetation in Reach 7 of Davidson Creek, August 17, 2011



Photo 16: Plunge pool habitat with bedrock and large woody debris in Reach 7 of Davidson Creek, August 17, 2011



Photo 17: Glide habitat with cobble substrates and overhanging vegetation in Reach 7 of Davidson Creek, August 17, 2011



Photo 18: Riffle habitat with boulder/cobble substrates in Reach 7.1 of Davidson Creek, August 19, 2011



Photo 19: Logjam in glide habitat with cobble substrates in Reach 8 of Davidson Creek, August 7, 2011



Photo 20: Riffle habitat with cobble substrates and overhanging vegetation in Reach 8 of Davidson Creek, August 7, 2011



Photo 21: Winter pool habitat in Reach 8 of Davidson Creek, March 8, 2012



Photo 22: Pool habitat in Reach 9 of Davidson Creek, August 7, 2011



Photo 23: Glide habitat with large woody debris in Reach 9 of Davidson Creek, August 7, 2011



Photo 24: Glide/pool habitat with undercut banks in Reach 10 of Davidson Creek, August 7, 2011



Photo 25: Cobble/boulder substrate and large woody debris in Reach 10 of Davidson Creek, August 7, 2011

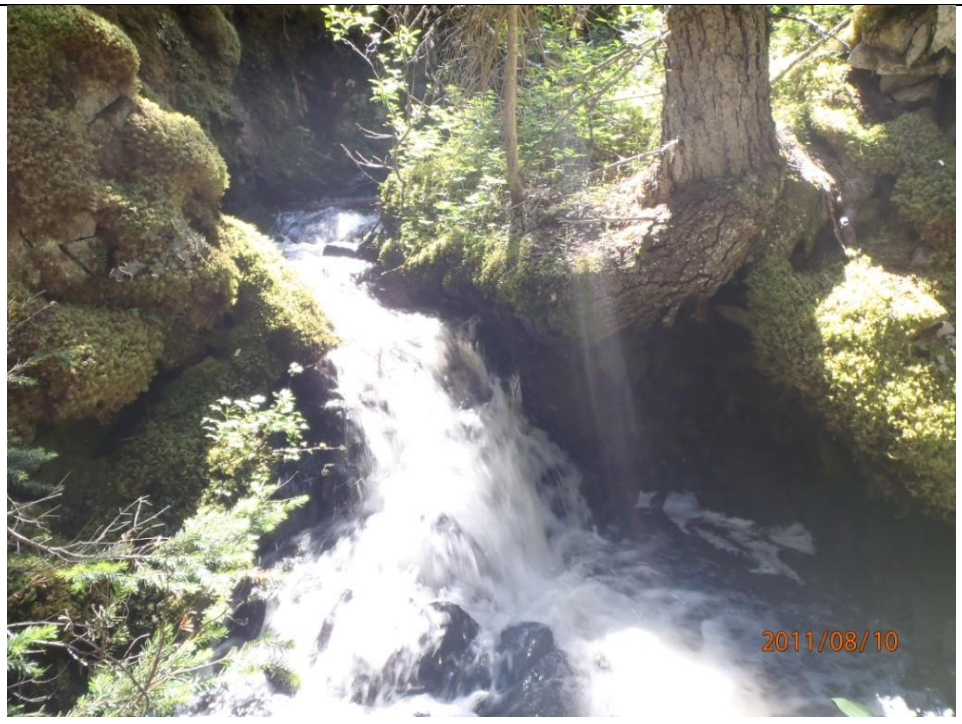


Photo 26: Bedrock cascade section in Reach 11 of Davidson Creek, August 10, 2011



Photo 27: Heavily vegetated glide habitat in Reach 11 of Davidson Creek, August 10, 2011



Photo 28: Pool/glide habitat with undercut banks and overhanging vegetation in Reach 12 of Davidson Creek, August 10, 2011



Photo 29: Pond/wetland habitat in Reach 12 of Davidson Creek, August 10, 2011



Photo 30: Cobble/boulder substrate at Lake 01682LNRS outflow into Reach 12 of Davidson Creek, August 10,2011



Photo 31: Riffle habitat with gravel/cobble substrate in Reach 1 of Creek 688328, August 7, 2012



Photo 32: Glide habitat with gravel/cobble substrate in Reach 2 of Creek 688328, August 8, 2012



Photo 33: Riffle habitat with cobble/gravel substrate in Reach 3 of Creek 688328, August 8, 2012



Photo 34: Riffle habitat with cobble/gravel substrate in Reach 1 of Creek 704454, August 9, 2012



Photo 35: Glide habitat with cobble/gravel substrate and large woody debris in Reach 2 of Creek 704454, August 7, 2012



Photo 36: Riffle habitat with cobble/gravel substrate and large woody debris in Reach 3 of Creek 704454, August 9, 2012



Photo 37: Cascade-riffle habitat with overhanging vegetation and boulder/cobble substrate in Reach 4 of Creek 70445, August 5, 2012



Photo 38: Riffle habitat with overhanging vegetation, large woody debris, and mixed substrates in Reach 5 of Creek 704454, August 20, 2011



Photo 39: Riffle habitat with overhanging vegetation and gravel/cobble substrate in Reach 6 of Creek 704454, August 6, 2012



Photo 40: Riffle habitat with overhanging vegetation and gravel/cobble substrate in Reach 1 of Creek 661, August 3, 2012



Photo 41: Pool habitat with cobble/gravel substrate in Reach 1 of Creek 661, August 3, 2012



Photo 42: Riffle habitat with gravel/cobble substrate in Reach 2 of Creek 661, August 2, 2012



Photo 43: Glide habitat with gravel substrate in Reach 2 of Creek 661, August 2, 2012



Photo 44: Pool habitat with large woody debris and overhanging vegetation in Reach 3 of Creek 661, August 11, 2011



Photo 45: Glide habitat with cobble/gravel substrate in Reach 3 of Creek 661, August 11, 2011



Photo 46: Mid-channel gravel bar in riffle habitat in Reach 4 of Creek 661, August 12, 2011



Photo 47: Undercut banks, large woody debris, overhanging vegetation, and cobble/fine substrates in Reach 4 of Creek 661, August 12, 2011



Photo 48: Pool habitat with cobble/fine substrates and undercut banks in Reach 5 of Creek 661, August 12, 2011



Photo 49: Narrow riffle habitat with undercut banks and overhanging vegetation in Reach 5 of Creek 661, August 12, 2011



Photo 50: Heavily vegetated glide habitat in with fine substrates in Reach 1 of Turtle Creek, August 16, 2011



Photo 51: Section of Turtle Creek Reach 1 inundated by beaver activity, August 16, 2011



Photo 52: Large woody debris providing cover in glide habitat in Reach 2 of Turtle Creek, August 9, 2011



Photo 53: Riffle habitat with cobble substrates in Reach 2 of Turtle Creek, August 9, 2011



Photo 54: Bank erosion in coupled section through riffle habitat in Reach 2 of Turtle Creek, August 9, 2011



Photo 55: Glide habitat with fine substrates and minimal gravels/cobbles in Reach 3 of Turtle Creek, August 16, 2011



Photo 56: Glide/pool habitat with overhanging vegetation and undercut banks in Reach 1 of Turtle Creek, August 16, 2011



Photo 57: Pool/glide habitat in with fine/gravel substrate and functional large woody debris in Reach 4 of Turtle Creek, August 15, 2011



Photo 58: Glide habitat with gravel/fine substrate in Reach 4 of Turtle Creek, August 15, 2011



Photo 59: Glide habitat in Reach 5 of Turtle Creek, August 9, 2011



Photo 60: Beaver activity in pool habitat in Reach 5 of Turtle Creek, August 9, 2011



Photo 61: Plunge pool in Reach 3 of Creek 700, August 10, 2011



Photo 62: Cascade-pool habitat with large woody debris in Reach 3 of Creek 700, August 10, 2011



Photo 63: Glide habitat with gravel/cobble substrate and algae in Chedakuz Creek, September 18, 2012



Photo 64: Riffle habitat with gravel/fines substrate in Chedakuz Creek, September 18, 2012



Photo 65: Channelized section of Reach 3 of a tributary to Creek 505659 with large woody debris and overhanging vegetation, August 20, 2011

Annex 5.8-2
Fish Habitat Assessment Procedures (FHAP) Data, 2011 and 2012

Table 5.8-2A: Fisheries Habitat Assessment Procedures (FHAP) Data for Chedakuz Creek, 2012

Level 1 Fish Habitat Survey Data Form

Stream Name: Chedakuz Creek
Freshwater Atlas Code: 100-567134-610692
Reach: 14

Subsampling Fractions: - 2/2 2/2 -
R P G C

Flow Stage: Low

Survey Dates: September 18, 2012
Weather: Clear
Field Crew: BM, IM

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
1	14	0+000	P	1	22	0	1.3	0.87	11.3	11.2	1.26	0.23	1.03	S	G	C	R	H	0	0	0	0	DP	70	IV	40				EB	G/SH	SHR SHR	0	N
2	14	0+022	G	1	57	0	0.91	0.63	13.5	13.5					G	C	R	H	2	2	0	0	IV	70	OV	5	SC	G	15		SH	SHR	1	N
3	14	0+079	P	1	22	0	1.21	0.85	12.9	11.4	1.28	0.23	1.05	S	G	C	R	H	6	4	2	0	DP	75	IV	20					SH	SHR	1	N
4	14	0+101	G	1	206	0	0.85	0.48	13.6	12.4					G	F	R	H	7	7	0	0	IV	80	OV	15					SH	SHR	0	N
Habitat Unit Total			P	1	44														6														
Habitat Unit Total			G	1	263														9														
Habitat Unit Mean			P	1	22	0	1.3	0.9	12.1	11.3	1.3	0.2	1.0	S	G	C	R	H	3	2	1	0	DP	73	IV	30				EB	SH,G	SHR	0,1	N
Habitat Unit Mean			G	1	132	0	0.9	0.6	13.6	13.0					G	C,F	R	H	5	5	0	0	IV	75	OV	10	SC	G	15		SH	SHR	0,1	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2B: Fisheries Habitat Assessment Procedures (FHAP) Data for Chedakuz Creek, 2012

Level 1 Fish Habitat Survey Data Form

Stream Name: Chedakuz Creek
Freshwater Atlas Code: 100-567134-610692
Reach: 15

Subsampling Fractions: 3/3 R, 1/1 P, 3/4 G, - C
Flow Stage: Low

Survey Dates: September 18, 2012
Weather: Clear
Field Crew: BM, IM

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
1	15	0+307	R	1	17	0.5	0.77	0.19	17.6	17.9					G	F	R	H	1	0	1	0	IV	40	OV	5					SH	SHR	0	N
2	15	0+324	G	1	60	0	1.12	0.57	14.8	13.6					G	C	R	H	4	3	1	0	IV	60	OV	5					SH	SHR	1	N
3	15	0+384	G	1	87	0																									SH/G	SHR/INIT	0	N
4	15	0+471	R	1	79	0.5	0.43	0.16	16.9	16.7					G	F	R	H	1	1	0	0	IV	50	OV	10				MB, EB	C/SH	MF/SHR	0	N
5	15	0+550	G	1	26	0	0.85	0.56	9.6	9.9					C	G	R	H	2	2	0	0	IV	55	OV	5	WL	G			C/SH	MF/SHR	1	N
6	15	0+576	P	1	12	0	1.44	0.98	21	16.5	1.12	0.16	0.96	S	G	C	R	H	0	0	0	0	DP	65	IV	55					C/SH	MF/SHR	1	N
7	15	0+588	G	1	51	0	1.03	0.65	9.2	8.1					C	G	R	H	3	2	0	0	IV	55	OV	5					SH	SHR	0	N
8	15	0+606	R	1	18	0.5	0.51	0.23	13.6	13.8					G	F	R	H	0	0	0	0	IV	35	OV	5					SH	SHR	0	N
		Habitat Unit Total	R	1	114														2															
		Habitat Unit Total	P	1	12														0															
		Habitat Unit Total	G	1	224														9															
		Habitat Unit Total	R	1	38	0.5	0.6	0.2	16.0	16.1					G	F	R	H	1	0	0	0	IV	42	OV	7				MB,EB	SH,C	SHR,MF	0	N
		Habitat Unit Mean	P	1	12	0	1.4	1.0	21.0	16.5	1.1	0.2	1.0	S	G	C	R	H	0	0	0	0	DP	65	IV	55					C,SH	MF,SHR	1	N
		Habitat Unit Mean	G	1	56	0	1.0	0.6	11.2	10.5					C,G	G,C	R	H	3	2	0	0	IV	57	OV	5	WL	G			SH,G,C	INIT,SHR,MF	0,1	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2C: Fisheries Habitat Assessment Procedures (FHAP) Data for Davidson Creek, Reach 1, 2012

Level 1 Fish Habitat Survey Data Form

Stream Name: Davidson Creek
Freshwater Atlas Code: 100-567134-610692-522527
Reach: 1

Subsampling Fractions: 3/8 R | 4/9 P | 4/8 G | - C
Flow Stage: Low

Survey Dates: August 4, 2012
Weather: Clear
Field Crew: BM, IM

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
							Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
			Type	Category													Type	Amount															
1	1	0+000	R	1	7	0.5	0.66	0.32	5.96	5.65					G	S	R	H	3	0	1	0	OV	20	C	10					SH	SHR	1	N
2	1	0+007	G	1	6	0.5	0.48	0.29	5.45	4.63					G	S	R	H	2	1	0	0	OV	10	SWD	10					SH	SHR MF	1	N
3	1	0+013	P	1	12	0	1.45	0.73	9.85	4.6	0.83	0.28	0.55	S	G	S	R	H	7	1	3	0	SWD	20	OV	10					SH	SHR	1	N
4	1	0+025	G	1	3																													
5	1	0+028	P	1	7																													
6	1	0+035	G	1	6																													
7	1	0+038	P	3	1x3	0					0.46	0.24	0.22	S	S	G	R	L	2	0	0	0	C	50	OV	15					G		0	N
8	1	0+041	P	1	4																													
9	1	0+045	R	1	11																													
10	1	0+056	P	1	11	0	1.15	0.64	9.2	7.85	0.95	0.28	0.67	S	S	G	R	L	8	2	3	0	DP	65	LWD	20				JM	SH	SHR	0	N
11	1	0+067	G	1	7	0.5	0.41	0.22	5.95	5.35					G	S	R	H					C	10	OV	5					SH/C	SHR MF	1	N
12	1	0+074	P	1	6																													
13	1	0+080	R	1	13																													
14	1	0+093	G	1	5																													
15	1	0+098	P	1	14																													
16	1	0+112	R	1	5																													
17	1	0+117	P	1	21	0	1.05	0.72	6.05	6.35	0.82	0.37	0.45	S	S	G	R	L	9	2	4	0	DP	40	LWD	10					M/SH	MF/SHR	1	N
18	1	0+138	R	1	17	2	0.48	0.34	7.1	5.85					G	S	R	H	4	1	1	0	LWD	10	C	5					M	MF	2	N
19	1	0+155	G	1	9	0.5	0.52	0.3	4.72	4.85					G	S	R	H	6	1	2	0	C	5	LWD	5					M	MF	2	N
20	1	0+164	P	1	10																													
21	1	0+174	G	1	5																													
22	1	0+179	P	1	4																													
23	1	0+183	R	1	8																													
24	1	0+191	G	1	37	0.5	0.45	0.26	4.75	5.05					G	S	R	H	10	3	3	0	C	5	OV	2					M	MF	1	N
25	1	0+228	R	1	14																													
26	1	0+242	P	1	7	0	0.93	0.65	6.85	4.65	0.82	0.25	0.57	S	S	G	R	L	9	1	3	0	DP	45	LWD	40				JM	D/SH	MF/SHR	1	N
27	1	0+249	R	1	16	0.5	0.39	0.25	4.65	4.75					G	S	R	L	10	2	1	0	LWD	50	C	10					M	MF	1	N
Habitat Unit Total			R	1	91														17															
Habitat Unit Total			P	1	96														33															
Habitat Unit Total			G	1	78														18															
Habitat Unit Mean			R	1	11	1.0	0.5	0.3	5.9	5.4					G	S	R	H,L	6	1	1		LWD, OV		C						M,SH	MF,SHR	1,2	
Habitat Unit Mean			P	1	10	0.0	1.1	0.7	8.0	5.9	0.9	0.3	0.6	S	G,S	S,G	R	L,H	8	2	3		DP,SWD		LWD, OV					JM	SH,M, D	SHR,MF	0,1	
Habitat Unit Mean			G	1	10	0.5	0.5	0.3	5.2	5.0					G	S	R	H	6	2	2		C,OV		OV,LWD,SWD						SH,M, C	MF,SHR	1,2	

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2D: Fisheries Habitat Assessment Procedures (FHAP) Data for Davidson Creek, Reach 2, 2012

Level 1 Fish Habitat Survey Data Form

Stream Name: Davidson Creek
Freshwater Atlas Code: 100-567134-610692-522527
Reach: 2

Subsampling Fractions: 3/5 R; 5/10 P; 5/9 G; - C
Flow Stage: Moderate

Survey Dates: August 4, 2012
Weather: Sunny, clear
Field Crew: BM, IM

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
							Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
			Type	Category													Type	Amount																
1	2	0+000	R	1	16	0.5	0.42	0.25	5.9	5.22					G	C	R	H	4	1	3	0	LWD	15	OV	10					C	MF	3	N
2	2	0+016	G	1	5	0.5	0.53	0.33	5.62	4.46					G	F	R	H	2	0	2	0	LWD	5	OV	2					C	MF	3	N
3	2	0+021	P	1	7	0	0.65	0.45	7.45	5.9	0.55	0.21	0.34	S	F	C		N	3	1	2	0	DP	50	LWD	30					C	MF	3	N
4	2	0+028	G	1	6																													
5	2	0+034	P	1	8																													
6	2	0+042	R	1	10																													
7	2	0+052	G	1	11																													
8	2	0+063	P	1	6	0	0.94	0.7	5.05	4.26	1.05	0.28	0.77	S	F	C		N	6	2	4	0	DP	60	LWD	25	SC	G	18	JM	C	MF	3	X
9	2	0+069	P	1	12	0	0.78	0.65	8.56	3.56	0.81	0.2	0.61	D	G	F	R	H	5	1	4	0	DP	50	C	10	SC	G	18	JM	C	MF	3	X
10	2	0+081	G	1	4	0.5	0.42	0.3	5.45	5.45					G	F	R	H	2	1	1	0	LWD	10	SWD	10					C	MF	3	N
11	2	0+085	P	1	8																													
12	2	0+093	R	1	42	1.5	0.42	0.21	6.28	5.75					G	C	R	H	12	2	10	0	LWD	10	OV	10					C	MF	3	N
13	2	0+135	G	1	8																													
14	2	0+143	P	1	6																													
15	2	0+149	G	1	3																													
16	2	0+152	P	1	8	0	0.78	0.6	6.53	6.44	0.82	0.25	0.57	D	C	F		N	10	4	6	0	DP	40	LWD	20	SC	G	15	JM	C	MF	3	X
17	2	0+160	G	1	25	1	0.56	0.41	5.8	3.75					C	G	R	L	6	2	4	0	C	10	LWD	10					C	MF	3	N
18	2	0+185	P	1	6																													
19	2	0+191	R	1	5																													
20	2	0+196	P	1	6																													
21	2	0+202	R	1	23	2	0.47	0.25	7.45	5.25					C	G	R	L	16	5	10	1	LWD	25	SWD	10	SC	G	20	JM	C	MF	3	X
22	2	0+225	G	1	10	0	0.58	0.4	6.45	5.92					F	G	R	L	8	1	6	1	OV	30	LWD	20				JM	C	MF	3	N
23	2	0+235	P	1	12	0	0.84	0.64	6.76	6.15	0.85	0.26	0.59	D	F	G	R	L	6	1	5	0	DP	50	LWD	20				JM	C	MF	3	X
24	2	0+247	G	1	25	1																												
Habitat Unit Total			R	1	96														32															
Habitat Unit Total			P	1	79														30															
Habitat Unit Total			G	1	97														18															
Habitat Unit Mean			R	1	19	1.3	0.4	0.2	6.5	5.4					G,C	C,G	R	L,H	11	3	8	0	LWD		OV,SWD		SC	G		JM	C	MF	3	X
Habitat Unit Mean			P	1	8	0.0	0.8	0.6	6.9	5.3	0.8	0.2	0.6	D,S	F,G,C	C,F,G	R	N,L,H	6	2	4		DP		LWD, C		SC	G		JM	C	MF	3	X
Habitat Unit Mean			G	1	11	0.6	0.5	0.4	5.8	4.9					G,C,F	F,G	R	L,H	5	1	3	0	LWD, C,OV		LWD, SWD, OV					JM	C	MF	3	

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2E: Fisheries Habitat Assessment Procedures (FHAP) Data for Davidson Creek, Reach 3, 2012

Level 1 Fish Habitat Survey Data Form

Stream Name: Davidson Creek
Freshwater Atlas Code: 100-567134-610692-522527
Reach: 3

Subsampling Fractions: 2/4 R | 4/12 P | 4/10 G | - C

Flow Stage: Moderate

Survey Dates: August 6, 2012
Weather: Sunny, clear
Field Crew: BM, IM

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
							Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
			Type	Category													Type	Amount																
1	3	0+000	G	1	9	0.5	0.96	0.21	4.08	3.95					G	C	R	L	0	0	0	0	OV	15	C	2	WL	P	250		SH	SHR	1	N
2	3	0+009	P	1	13	0	1.02	0.42	3.74	3.85	1.06	0.24	0.82	S	F	G	R	L	3	1	2	0	DP	60	OV	25	WL	P	250		SH	SHR	1	N
3	3	0+022	G	1	5																													
4	3	0+027	P	1	10																													
5	3	0+037	G	1	5																													
6	3	0+042	P	1	6																													
7	3	0+048	G	1	12	0.5	1.22	0.31	7.85	4.48					G	F	R	H	1	1	0	0	SWD	10			WL	P	250		SH	SHR	1	N
8	3	0+060	P	1	7	0	1.53	0.62	6.77	4.62	0.72	0.2	0.52	S	F	G	-	N	0	0	0	0	DP	50	SWD	5	WL	P	250		SH	SHR	1	N
9	3	0+067	G	1	4																													
10	3	0+071	P	1	7																													
11	3	0+078	G	1	16																													
12	3	0+094	P	1	8																													
13	3	0+102	R	1	22	0.5	0.85	0.17	6.88	5.73					G	F	R	H	0	0	0	0	OV	5	SWD	2	WL	P	250		SH	SHR	1	N
14	3	0+124	P	1	14	0	1.26	0.71	5.36	4.62	0.81	0.23	0.58	S	F	G	R	H	2	0	1	0	DP	55	SWD	15	WL	P	250		SH	SHR	1	N
15	3	0+138	R	1	12																													
16	3	0+150	P	1	8																													
17	3	0+158	G	1	4	0.5	0.74	0.19	7.75	6.72					G	C	R	H	0	0	0	0	SWD	2	OV	2	WL	P	250		SH	SHR	1	N
18	3	0+162	P	1	7																													
19	3	0+169	G	1	7																													
20	3	0+176	P	1	9	0	1.16	0.75	5.79	3.9	1.05	0.21	0.84	S	G	F	R	H	1	0	1	0	DP	50	C	20	WL	P	250		SH	SHR	1	N
21	3	0+185	G	1	5																													
22	3	0+190	P	1	7																													
23	3	0+197	R	1	4	1	0.55	0.14	5.18	4.55					C	G	R	L	0	0	0	0	SWD	5	OV	2	WL	P	250		SH	SHR	1	N
24	3	0+201	G	1	6	0	0.69	0.34	6.89	4.76					G	C	R	H	0	0	0	0	OV	5			WL	P	250		SH	SHR	1	N
25	3	0+207	P	1	14																													
26	3	0+221	R	1	50																													
Habitat Unit Total			R	1	88																													
Habitat Unit Total			P	1	110																													
Habitat Unit Total			G	1	73																													
Habitat Unit Mean			R	1	22	0.8	0.7	0.2	6.0	5.1					G,C	F,G	R	L,H	0				OV,SWD		SWD, OV		WL	P			SH	SHR	1	
Habitat Unit Mean			P	1	9	0.0	1.2	0.6	5.4	4.2	0.9	0.2	0.7	S	F,G	G,F	R	H,N,L	2	0	1		DP		SWD, OV,C		WL	P			SH	SHR	1	
Habitat Unit Mean			G	1	7	0.375	0.9	0.3	6.6	5.0					G	C,F	R	H,L	0	0			SWD, OV		OV,C		WL	P			SH	SHR	1	

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2F: Fisheries Habitat Assessment Procedures (FHAP) Data for Davidson Creek, Reach 4, 2011

Level 1 Fish Habitat Survey Data Form

Stream Name: Davidson Creek
Freshwater Atlas Code: 100-567134-610692-522527
Reach: 4

Subsampling Fractions: 5/9 R; 10/11 P; 1/2 G; - C
Flow Stage: Moderate

Survey Dates: August 8, 2011
Weather: Sunny
Field Crew: PvD, IM

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
							Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
			Type	Category													Type	Amount																
1	4	0+003	R	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	4	0+010	G	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	4	0+018	P	1	8	0	0.85	0.6	6	4.2	0.8	0.3	0.5	S	S	C	R	L	6	3	1	0	DP	40	C	40	PD	P	4	-	C	MF	1	N
4	4	0+033	G	1	15	2	0.58	0.5	4.8	3.5	-	-	-	-	C	G	R	L	6	3	0	0	C	20	SWD	10	-	-	-	-	C	MF	1	N
5	4	0+040	P	1	7	0	1.1	0.9	5.6	5.8	1	0.3	0.7	S	S	C	-	N	5	0	2	0	C	5	LWD	5	-	-	-	-	C	MF	1	N
6	4	0+046	R	1	6	2	0.32	0.15	6	6	-	-	-	-	C	G	R	H	0	0	0	0	C	5	OV	5	-	-	-	-	C	MF	1	N
7	4	0+067	G	1	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	4	0+080	R	1	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	4	0+092	G	1	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	4	0+096	P	1	4	0	0.75	0.55	4.8	3	0.6	0.25	0.35	S	C	G	-	N	0	0	0	0	C	10	SWD	30	-	-	-	-	C	MF	1	N
11	4	0+106	R	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	4	0+114	P	1	8	0	0.75	0.45	4.5	2.2	0.8	0.2	0.6	S	C	G	-	N	0	0	0	0	C	20	OV	60	-	-	-	-	C	MF	1	N
13	4	0+124	G	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	4	0+138	R	1	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	4	0+144	P	1	6	0	0.85	0.6	8.3	7.5	0.8	0.2	0.6	S	G	C	-	N	7	0	2	0	LWD	80	DP	80	-	-	-	JM	C	MF	1	N
16	4	0+149	R	1	5	3	0.6	0.2	8.5	8.5	-	-	-	-	G	C	R	L	12	5	4	0	LWD	40	C	5	-	-	-	JM	C	MF	1	N
17	4	0+158	P	1	9	0	1.2	0.5	4.2	3	0.9	0.3	0.6	S	C	G	-	N	-	-	-	-	LWD	100	-	-	-	-	-	-	C	MF	1	N
18	4	0+166	R	1	8	3	0.4	0.25	6.5	6.5	-	-	-	-	C	G	R	H	4	0	2	0	LWD	5	-	-	-	-	-	-	C	MF	1	N
19	4	0+179	G	1	13	2	0.4	0.3	6.9	6.5	-	-	-	-	C	G	R	H	12	3	6	0	LWD	5	-	-	-	-	-	-	C	MF	1	N
20	4	0+184	P	1	5	0	0.8	0.6	6.3	4.5	0.8	0.15	0.65	S	C	G	R	L	10	6	4	0	DP	40	LWD	30	-	-	-	-	C	MF	1	N
21	4	0+189	R	1	5	3	0.5	0.25	6.5	3	-	-	-	-	C	G	-	N	6	1	3	0	LWD	20	-	-	-	-	-	DW	C	MF	1	N
22	4	0+202	P	1	13	0	0.8	0.6	9	4.5	0.7	0.3	0.4	D	C	G	-	N	30	15	5	0	DP	50	LWD	40	-	-	-	-	C	MF	1	N
23	4	0+210	G	1	8	1	0.6	0.3	9.2	4.5	-	-	-	-	C	G	R	L	1	1	0	0	C	5	SWD	5	-	-	-	-	C	MF	2	N
24	4	0+220	P	1	10	0	1	0.7	12	4	1.05	0.2	0.85	S	C	G	-	N	6	2	0	0	C	15	LWD	15	-	-	-	-	C	MF	2	N
25	4	0+232	R	1	12	2	0.45	0.25	7.2	7	-	-	-	-	C	G	-	N	2	0	0	0	C	10	-	-	-	-	-	-	C	MF	2	N
26	4	0+241	G	1	9	1	0.6	0.3	7.1	5.5	-	-	-	-	C	G	-	N	5	0	1	0	C	20	SWD	10	-	-	-	-	C	MF	2	N
27	4	0+245	P	1	4	0	0.85	0.4	8	5	0.6	0.2	0.4	D	C	S	-	N	6	2	1	0	C	40	DP	40	-	-	-	-	C	MF	2	N
28	4	0+251	P	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			R	1	76	-	-	-	-	-	-	-	-	-	-	-	-	-	24	6	9	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			P	1	80	-	-	-	-	-	-	-	-	-	-	-	-	-	70	28	15	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			G	1	95	-	-	-	-	-	-	-	-	-	-	-	-	-	52	25	10	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Mean			R	1	76	2.8	0.5	0.2	6.9	6.2					C	G	R	L,H	5	1	2	0	LWD, C	-	OV	-	-	-	-	JM,DW	C	MF	1,2	N
Habitat Unit Mean			P	1	80	0.0	0.9	0.6	6.9	4.4	0.8	0.2	0.6	S,D	C	G	R	L	8	3	2	0	C,DP	-	LWD		PD	P	4	JM	C	MF	1,2	N
Habitat Unit Mean			G	1	95	1.5	0.5	0.4	7.0	5.0	-	-	-	-	C	G	R	L,H	6	2	2	0	C	-	SWD	-	-	-	-	-	C	MF	1,2	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2G: Fisheries Habitat Assessment Procedures (FHAP) Data for Davidson Creek, Reach 5, 2011

Level 1 Fish Habitat Survey Data Form

Stream Name: Davidson Creek
Freshwater Atlas Code: 100-567134-610692-522527
Reach: 5

Subsampling Fractions: 5/11 R; 14/39 P; 1/2 G; - C

Flow Stage: Moderate

Survey Dates: August 7, 2011
Weather: Sunny
Field Crew: IM, KM

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
							Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
			Type	Category													Type	Amount																
1	5	0+013	G	1	13	0.5	0.6	0.4	4.6	4.3	-	-	-	-	C	G	R	L	6	2	1	0	OV	10	LWD	3	-	-	-	-	C	MF	1	X
2	5	0+135	R	1	122	1	0.5	0.25	4.6	4.6	-	-	-	-	C	G	R	L	50	12	13	0	LWD	10	OV	10	-	-	-	JM	C	MF	1	X
3	5	0+137	P	3	2	0	-	-	-	-	0.8	0.3	0.5	S	C	G	-	N	1	0	0	0					-	-	-	-	C	MF	1	N
4	5	0+141	P	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	5	0+144	P	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	5	0+150	P	3	6	0	-	-	-	-	0.7	0.2	0.5	D	C	G	R	L	5	0	0	0	-	-	-	-	-	-	-	-	C	MF	1	X
7	5	0+153	P	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	5	0+168	G	1	15	1	0.5	0.35	4.7	5.2	-	-	-	-	C	G	R	L	4	0	0	0	LWD	5	C	5	-	-	-	JM	C	MF	1	N
9	5	0+283	R	1	115	0.5	0.45	0.25	5	4.8	-	-	-	-	C	G	R	H	42	2	10	0	OV	20	LWD	10	-	-	-	-	C	MF	1	N
10	5	0+286	P	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	5	0+290	P	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	5	0+293	P	3	3	0	-	-	-	-	0.7	0.3	0.4	S	C	G	R	L	-	-	-	-	-	-	-	-	-	-	-	-	C	MF	1	N
13	5	0+296	P	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	5	0+312	G	1	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	5	0+636	R	1	324	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	SC	G	10	-	-	-	-	-
16	5	0+639	P	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	5	0+641	P	3	2	0	-	-	-	-	0.65	0.1	0.55	S	G	C	R	L	3	0	0	0	-	-	-	-	-	-	-	-	C	MF	1	N
18	5	0+651	P	3	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	5	0+653	P	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	5	0+655	P	3	2	0	-	-	-	-	0.8	0.2	0.6	S	C	G	R	L	1	0	1	0								JM	C	MF	1	N
21	5	0+662	P	3	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	5	0+665	P	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	5	0+680	G	1	15	1	0.45	0.3	4.5	4.6	-	-	-	-	C	G	R	L	11	0	3	0	LWD	20	OV	5	-	-	-	-	M	MF	1	X
24	5	0+682	P	3	2	0	-	-	-	-	0.75	0.25	0.5	S	C	G	R	L	-	-	-	-	LWD	20	OV	5	-	-	-	-	C	MF	1	X
25	5	0+702	R	1	20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	5	0+712	P	1	10	0	0.8	0.65	8.5	8	0.9	0.3	0.6	S	S	C	R	L	7	2	2	0	DP	50	LWD	10	-	-	-	-	C	MF	1	N
27	5	0+792	R	1	80	1.5	0.45	0.35	6.7	6	-	-	-	-	C	G	R	L	47	5	12	0	LWD	25	C	2	-	-	-	-	C	MF	1	X
28	5	0+795	P	3	3	0	-	-	-	-	0.8	0.2	0.6	S	S	C	R	L	10	2	3	0	LWD	60	C	20	-	-	-	-	C	MF	1	N
29	5	0+797	P	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	5	0+802	P	1	5	0	0.75	0.65	7.5	7	0.9	0.15	0.75	S	C	G	R	H	1	0	0	0	DP	50	LWD	10	-	-	-	-	C	MF	1	N
31	5	0+806	P	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	5	0+823	R	1	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	5	0+838	G	1	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	5	0+863	R	1	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	5	0+866	P	3	3	0	-	-	-	-	0.75	0.25	0.5	S	C	G	-	-	1	0	1	0	LWD	20	DP	20	-	-	-	-	C	MF	1	N
36	5	0+882	G	1	16	1.5	0.5	0.35	4.5	4.8	-	-	-	-	G	C	R	H	8	2	0	0	C	10	LWD	10	-	-	-	-	C	MF	1	N
37	5	0+884	P	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	5	0+934	R	1	50	0.5	0.5	0.25	4.8	4.8	-	-	-	-	G	C	R	L	33	3	6	0	LWD	10	C	5	-	-	-	JM	C	MF	1	X
39	5	0+936	P	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	5	0+940	P	3	4	0	-	-	-	-	0.7	0.15	0.55	S	G	C	-	N	1	0	0	0	DP	80	C	20	-	-	-	-	C	MF	1	N
41	5	0+942	P	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
42	5	0+947	G	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	5	0+951	P	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	5	0+953	P	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	5	1+079	R	1	126	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	5	1+081	P	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	5	1+083	P	3	2	0	-	-	-	-	0.8	0.3	0.5	S	C	G	-	N	-	-	-	-	C	10	SWD	5	-	-	-	-	C	MF	1	N
48	5	1+085	P	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	5	1+087	P	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	5	1+090	P	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	5	1+097	G	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	5	1+228	R	1	131	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53	5	1+231	P	3	3	0	-	-	-	-	0.7	0.15	0.55	S	C	G	R	L	6	0	1	0	LWD	50	DP	50	-	-	-	-	C	MF	1	N
54	5	1+233	P	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	5	1+240	G	1	7	1.5	0.45	0.35	5	6	-	-	-	-	G	C	R	H	5	0	1	0	LWD	15	OV	10	-	-	-	-	C	MF	1	N
56	5	1+253	R	1	53	0.5	0.45	0.25	7.5	6.5	-	-	-	-	C	G	R	L	27	1	6	0	LWD	10	OV	5	-	-	-	-	C	MF	1	N
57	5	1+255	P	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
58	5	1+256	P	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
59	5	1+269	G	1	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	5	1+270	P	3	1	0	-	-	-	-	0.8	0.25	0.55	S	G	C	R	H	-	-	-	-	DP	80	C	20	-	-	-	-	C	MF	1	N
Habitat Unit Total			R	1	1063	-	-	-	-	-	-	-	-	-	-	-	-	-	199	23	47	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			P	1,3	125	-	-	-	-	-	-	-	-	-	-	-	-	-	36	4	8	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			G	1	122	-	-	-	-	-	-	-	-	-	-	-	-	-	34	4	5	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Mean			R	1	97	0.8	0.5	0.3	5.7	5.3	-	-	-	-	C	G	R	L,H	40	5	9	0	LWD	-	C,OV	-	SC	G	10	JM	C	MF	1	N,X
Habitat Unit Mean			P	1,3	3	0.0	0.8	0.7	8.0	7.5	0.8	0.2	0.5	S,D	C	G	R	L,H	4	0	1	0	LWD, DP	-	C	-	-	-	-	JM	C	MF	1	N,X
Habitat Unit Mean			G	1	12	1.1	0.5	0.4	4.7	5.0	-	-	-	-	C	G	R	L,H	7	1	1	0	LWD	-	OV	-	-	-	-	-	C,M	MF	1	N,X

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2H: Fisheries Habitat Assessment Procedures (FHAP) Data for Davidson Creek, Reach 6, 2011

Level 1 Fish Habitat Survey Data Form

Stream Name: Davidson Creek
Freshwater Atlas Code: 100-567134-610692-522527
Reach: 6

Subsampling Fractions: 2/7 R, 1 P, 2/7 G, - C
Flow Stage: Moderate

Survey Dates: August 17, 2011
Weather: Over Cast, Light Rain
Field Crew: IM, KM

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
1	6	0+017	R	1	17	1	0.3	0.15	6.4	6.25	-	-	-	-	C	G	-	H	2	2	0	0	OV	5	OV	-	-	-	-	-	C	MF	1	N
2	6	0+045	G	1	28	0.5	0.4	0.3	5	4.75	-	-	-	-	C	G	-	H	5	2	1	0	OV	10	C	-	-	-	-	-	C	MF	1	N
3	6	0+052	R	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	6	0+069	G	1	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	6	0+091	R	1	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	6	0+092	P	3	1	0	-	-	-	-	0.45	0.2	0.25	S	C	B	-	N	0	0	0	0	B	15	-	S	-	-	-	-	S	SHR	1	N
7	6	0+102	G	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	6	0+114	R	1	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	6	0+125	G	1	11	1	0.55	0.3	4.9	4.7	-	-	-	-	C	B	-	L	2	0	1	0	OV	30	C	-	-	-	-	-	S,C	SHR,MF	1	N
10	6	0+131	P	1	6	0	0.75	0.5	5.25	4.9	0.8	0.2	0.6	S	C	G	-	L	6	1	1	0	DP	65	OV	S	-	-	-	-	S,C	SHR,MF	1	N
11	6	0+154	R	1	12	1.5	0.5	0.25	4.4	2.6	-	-	-	-	C	G	-	L	4	3	1	0	C	15	LWD	-	-	-	-	-	C	MF	1	N
12	6	0+184	G	1	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	6	0+244	R	1	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	6	0+246	P	3	2	0	-	-	-	-	0.7	0.2	0.5	S	S	C	-	N	0	0	0	0	DP	60	B	S	-	-	-	-	C	MF	1	N
15	6	0+256	G	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	6	0+261	R	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	6	0+264	G	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			R	1	135	-	-	-	-	-	-	-	-	-	-	-	-	-	6	5	1	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			P	1,3	9	-	-	-	-	-	-	-	-	-	-	-	-	-	6	1	1	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			G	1	109	-	-	-	-	-	-	-	-	-	-	-	-	-	7	2	2	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Mean			R	1	19	1.3	0.4	0.2	5.4	4.4	-	-	-	-	C	G	R	L,H	3	3	1	0	C,OV		LWD	-	-	-	-	-	C	MF	1	N
Habitat Unit Mean			P	1,3	3	0.0	0.8	0.5	5.3	4.9	0.7	0.2	0.5	S	C,S	G,B	R	L	2	0	0	0	DP		OV,B	S	-	-	-	-	C,S	SHR,MF	1	N
Habitat Unit Mean			G	1	16	0.8	0.5	0.3	5.0	4.7	-	-	-	-	C	G,B	R	L,H	4	1	1	0	OV		C	-	-	-	-	-	C,S	MF,SHR	1	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2l: Fisheries Habitat Assessment Procedures (FHAP) Data for Davidson Creek, Reach 7, 2011

Level 1 Fish Habitat Survey Data Form

Stream Name: Davidson Creek
Freshwater Atlas Code: 100-567134-610692-522527
Reach: 7

Subsampling Fractions: 2/7 R, 1 P, 2/7 G, - C

Flow Stage: Moderate

Survey Dates: August 17, 2011
Weather: Over Cast, Light Rain
Field Crew: IM, KM

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
1	7	0+003	R	1	3	1	0.4	0.25	5.85	5.1	-	-	-	-	B	C	-	N	1	0	1	0	OV	15	LWD	5	-	-	-	-	S	SHR	1	N
2	7	0+008	G	1	5	1	0.5	0.3	4.45	4	-	-	-	-	C	B	-	N	3	1	0	0	OV	20	LWD	5	-	-	-	-	S	SHR	1	N
3	7	0+028	R	1	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	7	0+029	P	3	1	0	-	-	-	-	0.4	0.2	0.2	S	C	G	R	L	2	0	1	0	OV	50	C	20	-	-	-	-	C,S	MF,SHR	2	N
5	7	0+043	G	1	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	7	0+064	R	1	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	7	0+065	P	3	1	-	-	-	-	-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	7	0+084	G	1	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	7	0+115	R	1	31	1	0.45	0.25	4.85	4.05	-	-	-	-	C	B	-	N	6	2	2	0	OV	45	LWD	5	-	-	-	-	S	SHR	2	N
10	7	0+128	G	1	13	0.5	0.45	0.25	5.4	4.4	-	-	-	-	C	B	-	N	3	1	0	0	OV	50	C	2	-	-	-	-	S,C	SHR,MF	-	N
11	7	0+129	P	3	1	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	7	0+162	R	1	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	7	0+165	P	1	3	0	0.6	0.4	6.1	5.5	0.6	0.2	0.4	S	S	C	R	L	25	3	5	0	LWD	50	DP	65	-	-	-	-	C	MF	1	N
14	7	0+170	G	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	7	0+181	R	1	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	7	0+190	G	1	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	7	0+202	R	1	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	7	0+215	G	1	13	1	0.4	0.2	4.4	4.4	-	-	-	-	C	B	-	N	4	2	0	0	OV	30	LWD	5	-	-	-	-	C	MF	2	N
19	7	0+219	R	1	4	1	0.35	0.2	4.5	3.6	-	-	-	-	C	B	R	L	3	1	0	0	LWD	10	B	2	-	-	-	-	C	MF	1	N
20	7	0+227	G	1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	7	0+230	P	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	7	0+243	R	1	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	7	0+253	G	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			R	1	135	-	-	-	-	-	-	-	-	-	-	-	-	-	6	5	1	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			P	1,3	9	-	-	-	-	-	-	-	-	-	-	-	-	-	6	1	1	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			G	1	109	-	-	-	-	-	-	-	-	-	-	-	-	-	7	2	2	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Mean			R	1	19	1.3	0.4	0.2	5.4	4.4	-	-	-	-	C	G	R	L,H	3	3	1	0	C,OV		LWD	-	-	-	-	-	C	MF	1	N
Habitat Unit Mean			P	1,3	3	0.0	0.8	0.5	5.3	4.9	0.7	0.2	0.5	S	C,S	G,B	R	L	2	0	0	0	DP		OV,B	S	-	-	-	-	C,S	SHR,MF	1	N
Habitat Unit Mean			G	1	11	0.8	0.5	0.3	4.8	4.3	-	-	-	-	C	B		N	3	1	0	0	OV	-	LWD	-	-	-	-	-	S,C	SHR, MF	1,2	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2J: Fisheries Habitat Assessment Procedures (FHAP) Data for Davidson Creek, Reach 7.1, 2011

Level 1 Fish Habitat Survey Data Form

Stream Name: Davidson Creek
Freshwater Atlas Code: 100-567134-610692-522527
Reach: 7.1

Subsampling Fractions: 1/2 R, 1 P, 1/3 G, 4/5 C

Flow Stage: Moderate

Survey Dates: August 19, 2011
Weather: Over Cast, Light Rain
Field Crew: PvD, GC

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
							Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
			Type	Category													Type	Amount															
1	7.1	0+004	G	1	4	1	0.35	0.2	5.45	5.85	-	-	-	-	G	G	R	L	0	0	0	0	C	2	B	2	-	-	-	-	S	SHR	1	N
2	7.1	0+005	P	3	1	0	-	-	-	-	0.5	0.2	0.3	S	B	G	R	L	0	0	0	0	OV	50	B	20	-	-	-	-	S	SHR	1	N
3	7.1	0+014	C	1	9	5	0.6	0.4	4.8	4.9	-	-	-	-	B	C	-	N	0	0	0	0	C	10	B	50	-	-	-	-	S	SHR	1	N
4	7.1	0+026	G	1	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	7.1	0+056	C	1	30	4	0.45	0.25	4.35	3.9	-	-	-	-	B	C	-	N	0	0	2	0	B	30	C	5	-	-	-	-	S	SHR	1	N
6	7.1	0+068	G	1	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	7.1	0+086	C	1	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	7.1	0+096	G	1	10	3	0.65	0.45	10.7	3.8	-	-	-	-	B	C	R	L	0	0	0	0	B	50	OV	15	SC	P	15	-	M	MF	1	N
9	7.1	0+109	R	1	13	3.5	0.5	0.3	4.8	3.2	-	-	-	-	B	C	R	L	0	0	0	0	B	45	-	-	-	-	-	-	M	MF	1	N
10	7.1	0+117	G	1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	7.1	0+163	R	1	46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	7.1	0+164	P	3	1	0	0.65	0.45	-	-	0.45	0.25	0.2	S	B	C	R	L	0	0	0	0	B	20	-	-	-	-	-	-	M	MF	1	N
13	7.1	0+166	G	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	7.1	0+174	C	1	8	4.5	0.6	0.32	5.8	4.2	-	-	-	-	B	C	-	N	0	0	0	0	B	35	DP	20	-	-	-	-	M	MF	1	N
15	7.1	0+183	P	1	9	0	0.9	0.7	8.9	6.8	0.75	0.2	0.55	S	C	B	R	L	0	0	0	0	B	15	DP	80	-	-	-	-	M	MF	1	N
16	7.1	0+196	G	1	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	7.1	0+209	R	1	13	3	0.35	0.25	6.3	5.1	-	-	-	-	B	C	-	N	0	0	2	0	B	25	C	10	-	-	-	-	M	SHR,MF	1	N
18	7.1	0+216	G	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	7.1	0+217	P	3	1	0	0.35	0.25	-	-	0.35	0.25	0.1	S	B	C	-	N	0	0	0	0	B	20	-	-	-	-	-	-	M	SHR,MF	1	N
20	7.1	0+222	R	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	7.1	0+237	C	1	17	4	0.55	0.35	6.3	5.7	-	-	-	-	B	C	-	N	0	0	0	0	B	50	C	10	-	-	-	-	M	MF	1	N
22	7.1	0+247	G	1	10	2	0.35	0.2	6.2	4.6	-	-	-	-	G	C	R	L	2	1	0	0	C	20	OV	25	-	-	-	DW	M	MF	1	N
23	7.1	0+250	P	3	3	0	-	-	7	6.2	0.65	0.3	0.35	-	G	C	R	H	0	0	0	0	DP	80	C	10	-	-	-	MB	M	MF	1	N
Habitat Unit Total			R	1	77	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	2	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			P	1,3	15	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			G	1	78	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	0	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			C	1	82	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	2	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Mean			R	1	19	3.3	0.4	0.3	5.6	4.2	-	-	-	-	B	C	R	L	0	0	1	0	B	-	C	-	-	-	-	-	M	MF,SHR	1	N
Habitat Unit Mean			P	1,3	3	0.0	0.6	0.5	8.0	6.5	0.5	0.2	0.3	S	B	C	R	L,H	0	0	0	0	B	-	DP,C	-	-	-	-	-	MB	M,S	MF, SHR	1	N
Habitat Unit Mean			G	1	9	2.0	0.5	0.3	7.5	4.8	-	-	-	-	G	C	R	L	1	0	0	0	C,B	-	OV	-	SC	P	15	DW	M,S	MF,SHR	1	N
Habitat Unit Mean			C	1	16	4.4	0.6	0.3	5.3	4.7	-	-	-	-	B	C	-	N	0	0	0.5	0	B	-	C	-	-	-	-	-	M,S	MF,SHR	1	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2K: Fisheries Habitat Assessment Procedures (FHAP) Data for Davidson Creek, Reach 8, 2011

Level 1 Fish Habitat Survey Data Form

Stream Name: Davidson Creek
Freshwater Atlas Code: 100-567134-610692-522527
Reach: 8

Subsampling Fractions: 8/31 R, 10/21 P, 7/22 G, C
Flow Stage: Moderate

Survey Dates: August 7, 2011
Weather: -
Field Crew: PvD, KW

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
							Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
			Type	Category													Type	Amount																
1	8	0+003	R	1	3	3	0.35	0.15	14	8	-	-	-	-	C	G	-	N	5	1	2	0	LWD	15	-	-	-	-	-	-	C	MF	1	N
2	8	0+022	G	1	19	2	0.6	0.3	5.1	5.1	-	-	-	-	C	G	R	L	0	0	0	0	-	-	-	-	-	-	-	-	C	MF	1	N
3	8	0+025	P	3	3	0	0.8	0.6	-	-	0.6	0.3	0.3	S	C	G	-	N	0	0	0	0	C	20	DP	60	-	-	-	-	C	MF	1	N
4	8	0+042	R	1	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	8	0+050	P	1	8	0	1.4	1.1	8.5	5.5	1.1	0.3	0.8	S	G	S	-	N	10	0	0	0	DP	100	OV	1	-	-	-	-	C	MF	1	N
6	8	0+066	R	1	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	8	0+070	P	1	4	0	0.6	0.4	3	2	0.4	0.2	0.2	S	G	C	-	N	0	0	0	0	C	10	DP	40	-	-	-	-	C	MF	1	N
8	8	0+083	R	1	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	8	0+085	P	3	2	0	0.7	0.5			0.5	0.1	0.4	S	G	S	-	N	0	0	0	0	C	10	DP	80	-	-	-	-	C	MF	1	N
10	8	0+088	P	1	3	0	0.8	0.6	12	6	0.9	0.2	0.5	S	G	C	-	N	10	3	3	0	LWD	40	DP	80	-	-	-	JM	C	MF	1	N
11	8	0+099	R	1	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	8	0+112	P	1	13	0	0.9	0.7	7.5	7	0.7	0.2	0.5	S	G	C	-	N	6	1	3	0	LWD	10	DP	80	-	-	-	-	C	MF	1	N
13	8	0+118	R	1	6	3	0.7	0.4	5	4	-	-	-	-	G	C	R	L	7	2	5	0	C	10	-	-	-	-	-	-	C	MF	1	N
14	8	0+124	P	1	6	0	0.8	0.6	6	4.5	0.7	0.2	0.5	S	C	G		N	6	2	3	0	DP	40	LWD	10	-	-	-	-	C	MF	1	N
15	8	0+130	R	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	8	0+142	G	1	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	8	0+168	R	1	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	8	0+175	G	1	7	3	0.5	0.3	5.9	5.2	-	-	-	-	C	G	R	L	8	0	8	0	LWD	10	-	-	-	-	-	-	C	MF	1	N
19	8	0+180	P	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	8	0+190	G	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	8	0+194	P	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	8	0+203	R	1	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	8	0+206	P	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	8	0+219	R	1	13	3	0.4	0.2	5.5	5	-	-	-	-	C	G	R	L	0	0	0	0	C	10	DP	2	-	-	-	-	C	MF	1	N
25	8	0+237	G	1	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	8	0+250	R	1	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	8	0+258	G	1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	8	0+267	R	1	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	8	0+281	G	1	14	3	0.55	0.35	6.5	6	-	-	-	-	C	G	-	N	0	0	0	0	OV	30	C	10	-	-	-	-	C	MF	1	N
30	8	0+290	R	1	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	8	0+302	P	1	12	0	1	0.85	7	5	0.85	0.2	0.65	S	G	C	-	N	0	0	0	0	LWD	30	DP	60	-	-	-	-	C	MF	1	N
32	8	0+314	R	1	12	3	0.55	0.35	6.1	5.6	-	-	-	-	C	G	-	N	0	0	0	0	OV	15	LWD	5	-	-	-	-	C	MF	1	N
33	8	0+329	G	1	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	8	0+334	R	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	8	0+337	P	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	8	0+341	R	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	8	0+361	G	1	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	8	0+379	R	1	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	8	0+392	G	1	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	8	0+408	P	1	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	8	0+426	R	1	18	2.8	0.35	0.25	7.5	6.5	-	-	-	-	C	G	R	L	0	0	0	0	OV	5	LWD	5	-	-	-	-	C	MF	1	N

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
							Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
			Type	Category													Type	Amount																
42	8	0+430	G	1	4	3	0.6	0.4	8	5.5	-	-	-	-	C	G	R	L	0	0	0	0	C	15	OV	5	-	-	-	-	C	MF	1	N
43	8	0+448	R	1	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	8	0+458	G	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	8	0+464	P	1	6	0	0.95	0.8	6	4	0.95	0.2	0.75	S	G	C	-	N	0	0	0	0	C	15	DP	85	-	-	-	-	C	MF	1	N
46	8	0+475	R	1	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	8	0+486	G	1	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	8	0+509	R	1	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	8	0+526	G	1	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	8	0+533	R	1	7	5	0.55	0.25	8.5	7	-	-	-	-	C	G	-	N	0	0	0	0	OV	2	-	-	-	-	-	-	C	MF	1	N
51	8	0+539	P	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	8	0+556	R	1	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53	8	0+561	P	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54	8	0+571	G	1	10	3	0.65	0.4	7	5.4	-	-	-	-	C	G	R	L	0	0	0	0	OV	5	C	15	-	-	-	-	C	MF	1	N
55	8	0+578	R	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56	8	0+585	G	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57	8	0+618	R	1	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
58	8	0+628	G	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
59	8	0+632	P	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	8	0+645	R	1	13	4	0.35	0.2	7	6.3	-	-	-	-	G	C	R	L	0	0	0	0	C	5	OV	5	-	-	-	-	C	MF	1	N
61	8	0+657	G	1	12	3	0.55	0.4	6.2	6	-	-	-	-	C	G	R	L	0	0	0	0	C	10	OV	2	-	-	-	-	M	MF	1	N
62	8	0+663	P	1	6	0	0.65	0.5	4	4	0.7	0.4	0.3	D	C	G	-	N	0	0	0	0	DP	90	C	20	-	-	-	-	M	MF	1	N
63	8	0+677	R	1	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
64	8	0+710	G	1	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65	8	0+720	P	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
66	8	0+723	R	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
67	8	0+738	G	1	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
68	8	0+743	R	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
69	8	0+752	G	1	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70	8	0+757	P	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
71	8	0+781	G	1	24	3	0.5	0.3	5.8	3.4	-	-	-	-	G	C	R	H	15	5	0	0	OV	20	C	10	-	-	-	-	C	MF	2	N
72	8	0+796	R	1	15	3	0.35	0.25	6.8	6.4	-	-	-	-	C	G	R	L	5	2	0	0	OV	5	SWD	10	-	-	-	-	C	MF	2	N
73	8	0+806	P	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
74	8	0+836	R	1	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			R	1	394	-	-	-	-	-	-	-	-	-	-	-	-	-	17	5	7	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			P	1,3	134	-	-	-	-	-	-	-	-	-	-	-	-	-	32	6	9	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			G	1	298	-	-	-	-	-	-	-	-	-	-	-	-	-	23	5	8	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Mean			R	1	13	3.4	0.5	0.3	7.6	6.1	-	-	-	-	C	G	R	L	2	1	1	0	OV,C	-	LWD	-	-	-	-	-	C	MF	1,2	N
Habitat Unit Mean			P	1,3	6	0.0	0.9	0.7	6.8	4.8	0.7	0.2	0.5	S,D	G	C	R	N	3	1	1	0	LWD, DP	-	OV	-	-	-	-	JM	C,M	MF	1	N
Habitat Unit Mean			G	1	14	2.9	0.6	0.4	6.4	5.2	-	-	-	-	C	G	R	L,H	3	1	1	0	OV	-	C	-	-	-	-	-	C,M	MF	1,2	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2L: Fisheries Habitat Assessment Procedures (FHAP) Data for Davidson Creek, Reach 9, 2011

Level 1 Fish Habitat Survey Data Form

Stream Name: Davidson Creek
Freshwater Atlas Code: 100-567134-610692-522527
Reach: 9

Subsampling Fractions: 7/32 R; 20/23 P; 9/31 G; 1/2 C

Flow Stage: Moderate

Survey Dates: August 7 and 9, 2011
Weather: Sunny
Field Crew: PvD, KW, GC

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
							Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
			Type	Category													Type	Amount																
1	9	0+012	G	1	12	3.5	0.6	0.4	4.3	4.2	-	-	-	-	C	G	-	N	5	3	0	0	OV	5	C	15	-	-	-	-	C	MF	3	N
2	9	0+022	R	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9	0+031	G	1	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9	0+059	R	1	28	3.5	0.45	0.2	5	4.5	-	-	-	-	C	G	-	N	11	7	0	0	LWD	5	OV	5	-	-	-	-	C	MF	3	N
5	9	0+097	G	2	38	3.5	0.5	0.3	4	3.2	-	-	-	-	G	S	R	L	25	5	0	0	C	20	OV	20	SC	G	22	-	C	MF	3	N
6	9	0+106	R	1	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	9	0+109	P	1	3	3	0.5	0.4	9	7	0.5	0.1	0.4	D	G	S	-	N	11	4	0	0	DP	30	C	10	-	-	-	-	C	MF	3	N
8	9	0+125	R	1	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9	0+129	P	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9	0+134	R	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9	0+158	G	1	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9	0+171	R	1	13	3	0.4	0.2	9.3	6.4	-	-	-	-	C	G	R	L	10	1	0	0	LWD	10	C	5	-	-	-	-	C	MF	3	N
13	9	0+197	G	1	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9	0+209	R	1	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9	0+214	G	1	5	2.5	0.5	0.3	5	4.5	-	-	-	-	C	G	R	L	25	3	0	0	C	40	OV	15	-	-	-	-	C	MF	3	N
16	9	0+217	R	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9	0+253	G	1	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	9	0+264	R	1	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9	0+274	G	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9	0+281	P	1	7	0	0.85	0.5	7.2	7	0.6	0.25	0.35	D	G	S	R	L	8	5	0	0	C	10	DP	20	-	-	-	-	C	MF	3	N
21	9	0+289	R	1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9	0+303	P	1	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9	0+332	G	1	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9	0+348	G	1	16	3	0.41	0.21	4.3	4.3	-	-	-	-	C	G	R	L	9	2	5	0	LWD	15	C	5	-	-	-	-	C	MF	3	N
25	9	0+368	R	1	20	3	0.35	0.2	5.5	5.9	-	-	-	-	C	G	R	L	15	2	10	0	LWD	20	C	2	-	-	-	-	C	MF	3	N
26	9	0+376	P	1	8	0	-	-	-	-	0.5	0.2	0.3	S	-	-	-	N	10	2	4	0	LWD	20	DP	80	-	-	-	-	C	MF	3	N
27	9	0+396	G	1	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	9	0+429	R	1	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9	0+437	P	1	8	0	-	-	-	-	0.83	0.2	0.63	S	-	-	-	N	12	2	6	0	LWD	5	DP	95	-	-	-	-	C	MF	3	N
30	9	0+455	G	1	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	9	0+458	R	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9	0+462	P	1	4	0	-	-	-	-	1	0.15	0.85	S	-	-	-	N	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9	0+479	G	1	17	4	0.4	0.25	4.7	4.7	-	-	-	-	C	G	R	L	6	1	4	0	LWD	2	OV	5	-	-	-	-	-	-	-	-
34	9	0+482	P	3	3	0	-	-	-	-	0.63	0.3	0.33	S	-	-	-	N	1	0	1	0	LWD	10	DP	90	-	-	-	-	C	MF	3	N
35	9	0+536	R	1	54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9	0+539	P	3	3	0	-	-	-	-	0.41	0.2	0.21	S	-	-	-	N	3	0	1	0	C	10	DP	90	-	-	-	-	C	MF	3	N
37	9	0+546	P	1	7	0	-	-	-	-	0.6	0.15	0.45	S	-	-	-	N	4	0	2	0	C	10	DP	90	-	-	-	-	C	MF	3	N
38	9	0+588	R	1	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9	0+596	G	1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
40	9	0+603	P	1	7	0	-	-	-	-	0.8	0.2	0.6	S	-	-	-	N	20	2	5	0	LWD	5	DP	95	-	-	-	-	C	MF	3	N
41	9	0+668	R	1	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	9	0+681	G	1	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9	0+686	R	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9	0+693	G	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9	0+699	P	1	6	0	-	-	-	-	0.6	0.15	0.45	S	-	-	-	N	7	1	3	0	LWD	20	DP	80	-	-	-	-	C	MF	3	N
46	9	0+713	G	1	14	3	0.55	0.35	3.2	2.2	-	-	-	-	C	G	R	L	9	3	4	0	LWD	5	DP	40	-	-	-	-	C	MF	3	N
47	9	0+720	R	1	7	3	0.38	0.25	4.7	4.2	-	-	-	-	C	B	-	N	0	0	0	0	C	10			-	-	-	-	C	MF	3	N
48	9	0+729	G	1	9	-	-	-	-	-	0.7	0.2	0.5	-	-	-	-	N	10	2	6	0	DP	90	LWD	10	-	-	-	-	C	MF	3	N
49	9	0+739	P	1	10	0	-	-	-	-	0.6	0.2	0.4	S	-	-	-	N	0	0	0	0	DP	80	C	20	-	-	-	-	C	MF	3	N
50	9	0+780	R	1	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	9	0+793	G	1	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	9	0+817	R	1	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53	9	0+823	P	1	6	0	-	-	-	-	0.42	0.2	0.22	S	-	-	-	N	0	0	0	0	C	10	DP	90	-	-	-	-	C	MF	3	N
54	9	0+853	R	1	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	9	0+858	P	1	5	0	-	-	-	-	0.45	0.15	0.3	S	-	-	-	N	4	3	1	0	LWD	5	DP	95	-	-	-	-	C	MF	3	N
56	9	0+872	R	1	14	4	0.35	0.25	4.2	4.4	-	-	-	-	C	G	-	N	20	4	10	0	LWD	80	C	20	-	-	-	-	C	MF	3	N
57	9	0+880	G	1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
58	9	0+885	P	1	5	0	-	-	-	-	0.6	0.2	0.4	S	C	G	-	N	2	0	2	0	LWD	10	DP	90	-	-	-	-	C	MF	3	N
59	9	0+890	G	1	5	6	0.4	0.2	4.1	3.5	-	-	-	-	C	G	R	L	6	1	3	0	LWD	40	C	30	-	-	-	-	C	MF	3	N
60	9	0+893	P	1	3	0	-	-	-	-	0.65	0.2	0.45	S	C	G	R	L	3	0	3	0	LWD	5	DP	95	-	-	-	-	C	MF	3	N
61	9	0+896	G	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
62	9	0+901	P	1	5	0	-	-	-	-	0.8	0.4	0.4	S	C	G	R	L	6	1	1	0	C	5	DP	95	-	-	-	-	C	MF	3	N
63	9	0+907	G	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
64	9	0+916	R	1	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65	9	0+921	G	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
66	9	0+939	R	1	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
67	9	0+944	P	1	5	0	-	-	-	-	0.7	0.22	0.48	S	C	G	R	L	7	0	0	0	DP	100	-	-	-	-	-	-	C	MF	3	N
68	9	0+950	R	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
69	9	0+956	G	1	6	4	0.3	0.15	3.6	3.8	-	-	-	-	C	G	R	L	0	0	0	0	-	-	-	-	-	-	-	-	C	MF	3	N
70	9	0+968	R	1	12	6.5	0.4	0.2	5.2	5.5	-	-	-	-	C	G	R	L	8	1	5	0	LWD	10	C	10	-	-	-	-	C	MF	3	N
71	9	0+979	G	1	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
72	9	0+982	P	1	3	0	-	-	-	-	0.6	0.25	0.35	S	C	G	R	L	2	0	2	0	LWD	5	DP	95	-	-	-	-	C	MF	3	N
73	9	0+985	C	1	3	6	0.18	0.05	4.2	3.2	-	-	-	-	B	C	R	L	0	0	0	0	NONE	-	-	-	-	-	-	-	C	MF	3	N
74	9	0+996	G	1	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
75	9	1+003	R	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
76	9	1+006	P	1	3	0	-	-	-	-	0.65	0.15	0.5	S	C	S	R	L	3	0	3	0	LWD	10	DP	90	-	-	-	-	C	MF	3	N
77	9	1+034	G	1	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
78	9	1+058	R	1	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
79	9	1+063	G	1	5	2	0.3	0.15	3.6	3.6	-	-	-	-	C	G	R	L	1	0	1	0	OV	10	C	90	-	-	-	-	C	MF	3	N
80	9	1+071	P	1	8	0	-	-	-	-	0.85	0.15	0.7	S	C	G	R	L	2	0	2	0	LWD	5	DP	95	-	-	-	-	C	MF	3	N
81	9	1+079	R	1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
82	9	1+090	G	1	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
83	9	1+111	R	1	21	4	0.25	0.15	7.6	7.5	-	-	-	-	C	G	R	L	3	0	1	0	C	5	C	95	SC	G	10	-	C	MF	3	N
84	9	1+133	G	1	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
85	9	1+138	R	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
86	9	1+140	P	1	2	-	-	0.5	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
87	9	1+143	C	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
88	9	1+174	R	1	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			R	1	594	-	-	-	-	-	-	-	-	-	-	-	-	-	67	15	26	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			P	1,3	129	-	-	-	-	-	-	-	-	-	-	-	-	-	105	20	36	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			G	1,2	445	-	-	-	-	-	-	-	-	-	-	-	-	-	96	20	23	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			C	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Mean			R	1	19	3.9	0.4	0.2	5.9	5.5	-	-	-	-	C	G	R	L	10	2	4	0	LWD	-	C		SC	G	10	-	C	MF	3	N
Habitat Unit Mean			P	1,3	6	0.2	0.7	0.5	8.1	7.0	0.6	0.2	0.4	S,D	C	G	R	L	5	1	2	0	LWD, C	-	DP	-	-	-	-	-	C	MF	3	N
Habitat Unit Mean			G	1,2	14	3.5	0.4	0.3	4.1	3.8	-	-	-	-	C	G	R	L	10	2	2	0	LWD	-	C,OV	-	SC	G	22	-	C	MF	3	N
Habitat Unit Mean			C	1	3	6.0	0.2	0.1	4.2	3.2	-	-	-	-	B	C	R	L	0	0	0	0	-	-	-	-	-	-	-	-	C	MF	3	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2M: Fisheries Habitat Assessment Procedures (FHAP) Data for Davidson Creek, Reach 10, 2011

Level 1 Fish Habitat Survey Data Form

Stream Name: Davidson Creek
Freshwater Atlas Code: 100-567134-610692-522527
Reach: 10

Subsampling Fractions: 3/7 R, 7/19 P, 1/3 G, 1/2 C

Flow Stage: Moderate

Survey Dates: August 8 and 9, 2011
Weather: Sunny
Field Crew: KW, GC, DS, KM

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
							Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
			Type	Category													Type	Amount																
1	10	0+005	P	1	5	0	-	-	-	-	0.55	0.2	0.35	S	C	G	R	L	3	0	2	0	C	10	DP	90	-	-	-	-	C	MF	3	N
2	10	0+012	G	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	10	0+017	P	1	5	0	-	-	-	-	0.6	0.3	0.3	S	G	S	R	H	1	0	1	0	DP	90	LWD	10	-	-	-	-	C	MF	1	N
4	10	0+066	G	1	49	2	0.45	0.2	3.7	3.9	-	-	-	-	G	S	R	H	0	0	0	0	C	50	DP	90	-	-	-	-	S	SHR	1	N
5	10	0+071	P	3	5	0	-	-	-	-	0.65	0.2	0.45	S	G	S	R	H	0	0	0	0	DP	80	C	20	-	-	-	-	S	SHR	1	N
6	10	0+078	P	1	7	-	-	0.8	-	4	-	-	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	10	0+138	G	1	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	10	0+146	P	1	8	0	-	-	-	-	1	0.2	0.8	S	G	S	R	L	1	0	0	0	DP	100			-	-	-	-	C	MF	1	N
9	10	0+157	G	1	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	10	0+165	P	1	8	-	-	0.8	-	4	-	-	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	10	0+171	G	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	10	0+176	P	1	5	0	-	-	-	-	0.9	0.2	0.7	S	G	S	R	L	0	0	0	0	DP	90	C	10	-	-	-	-	C	MF	1	N
13	10	0+182	G	1	6	1.5	0.43	0.28	4.5	4.5	-	-	-	-	G	S	R	H	0	0	0	0	OV	10			-	-	-	-	C	MF	1	N
14	10	0+188	P	1	6	-	-	0.7	-	5	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	10	0+193	G	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	10	0+202	P	1	9	0	-	-	-	-	0.7	0.25	0.45	S	G	S	R	L	0	0	0	0	DP	80	OV	10	-	-	-	-	C	MF	1	N
17	10	0+211	G	1	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	10	0+217	P	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	10	0+258	G	3	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	10	0+274	P	1	16	0	-	-	-	-	1.5	0.25	1.25	S	G	S	R	L	2	0	2	0	DP	95	C	5	-	-	-	-	C	MF	2	N
21	10	0+299	R	1	25	4	-	0.25	3.3	3.5	-	-	-	-	C	B	R	L	4	1	3	0	B	50	LWD	10	-	-	-	-	C	MF	3	N
22	10	0+309	G	1	10	1	0.5	0.3	4	4.8	-	-	-	-	G	S	R	L	6	1	5	0	LWD	10	IV	10	-	-	-	-	C	MF	3	N
23	10	0+316	P	1	7	0	-	-	-	-	0.65	0.2	0.45	S	G	S	R	L	10	2	6	0	LWD	30	DP	70	-	-	-	-	C	MF	2	N
24	10	0+364	G	1	48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	10	0+368	P	1	4	-	-	0.68	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	10	0+388	G	1	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	10	0+396	P	1	8	0	-	-	-	-	0.9	0.2	0.7	S	G	S	R	H	5	1	3	0	LWD	10	DP	90	-	-	-	-	C	MF	1	N
28	10	0+403	G	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	10	0+418	P	1	15	-	-	0.6	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	10	0+439	G	1	21	2	0.5	0.25	3.9	3.8	-	-	-	-	G	S	R	H	8	1	4	0	LWD	5	IV	50	-	-	-	-	C	MF	2	N
31	10	0+441	P	3	2	0	-	-	-	-	0.5	0.2	0.3	S	G	S	R	L	3	1	2	0	LWD	5	DP	70	-	-	-	-	C	MF	2	N
32	10	0+446	P	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	10	0+450	G	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	10	0+456	P	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	10	0+482	G	1	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	10	0+488	R	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	10	0+493	G	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	10	0+497	R	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	10	0+510	G	1	13	2	0.55	0.4	3.8	4.1	-	-	-	-	C	B	R	L	6	0	3	0	C	10	B	10	-	-	-	-	C	MF	3	N
40	10	0+522	R	1	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	10	0+591	G	1	69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
42	10	0+604	G	1	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	10	0+616	P	1	12	0	-	-	-	-	1.1	0.4	0.7	S	G	C	R	H	0	0	0	0	DP	80	C	20	-	-	-	-	S	SHR	1	N
44	10	0+690	G	1	74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	10	0+697	P	1	7	-	-	0.8	-	5	-	-	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	10	0+708	G	1	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	10	0+714	R	1	6	1.5	0.22	0.1	2.9	3	-	-	-	-	C	G	R	L	0	0	0	0	C	10	-		-	-	-	-	C	MF	1	N
48	10	0+723	P	1	9	0	-	-	-	-	0.7	0.1	0.6	S	C	G	R	L	0	0	0	0	DP	80	C	10	-	-	-	-	C	MF	1	N
49	10	0+738	G	1	15	2	0.6	0.3	2.6	2.6	-	-	-	-	C	G	R	L	0	0	0	0	C	10	-		-	-	-	-	C	MF	1	N
50	10	0+743	R	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	10	0+773	G	1	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	10	0+781	P	1	8	-	-	0.6	-	3	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53	10	0+793	G	1	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54	10	0+798	R	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	10	0+837	G	1	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56	10	0+840	P	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57	10	0+852	R	1	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
58	10	0+857	P	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
59	10	0+860	P	1	3	0	-	-	-	-	0.6	0.25	0.35	S	C	G	R	L	3	1	1	0	DP	90	LWD	5	-	-	-	-	C	MF	2	N
60	10	0+867	G	1	7	2	0.4	0.2	3	3.1	-	-	-	-	C	G	R	L	3	1	2	0	LWD	5	OV	10	-	-	-	-	C	MF	3	N
61	10	0+874	P	1	7	0	-	-	-	-	0.7	0.2	0.5	S	C	G	R	L	5	1	2	0	LWD	10	DP	90	-	-	-	-	C	MF	3	N
62	10	0+939	G	1	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
63	10	0+947	C	1	8	4	0.4	0.25	1.8	2.2	-	-	-	-	C	G	R	L	0	0	0	0	B	50	-	-	-	-	-	-	C	MF	3	N
64	10	0+952	P	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65	10	0+995	G	1	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
66	10	1+003	P	1	8	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
67	10	1+020	G	1	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
68	10	1+025	P	1	5	0	-	-	-	-	0.68	0.2	0.48	S	C	G	R	L	6	1	4	0	LWD	5	DP	50	-	-	-	-	C	MF	3	N
69	10	1+053	G	1	28	2	0.4	0.2	2.5	2.9	-	-	-	-	C	G	R	L	4	0	3	0	C	10	-	-	-	-	-	-	C	MF	3	N
70	10	1+073	R	1	20	2	0.25	0.15	2.4	2.8	-	-	-	-	C	G	R	L	0	0	0	0	C	5	-	-	-	-	-	-	C	MF	3	N
71	10	1+103	G	1	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
72	10	1+116	R	1	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
73	10	1+188	R	1	72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
74	10	1+195	P	1	7	0	-	-	-	-	0.45	0.25	0.2	S	B	C	-	N	2	1	1	0	DP	90	C	10	-	-	-	-	C	MF	3	N
75	10	1+205	C	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
76	10	1+258	G	1	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
77	10	1+263	P	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
78	10	1+335	G	1	72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
79	10	1+341	P	1	6	0	-	-	-	-	0.7	0.25	0.45	S	G	S	R	L	0	0	0	0	DP	80	C	10	-	-	-	-	C	MF	1	N
80	10	1+343	P	1	3	0	1	0.55	2.8	2.7	0.7	0.25	0.55	S	G	S	R	H	0	0	0	0	DP	50	OV	15	-	-	-	SC	C	MF	1	N
81	10	1+396	G	1	53	0	0.55	0.4	1.6	1.5	-	-	-	-	G	S	R	H	0	0	0	0	DP	45	C	2	-	-	-	SC	C	MF	1	N
82	10	1+399	P	1	3	0	-	-	3.6	3.6	0.7	0.1	0.6	S	G	S	R	H	0	0	0	0	DP	40	C	5	-	-	-	-	S	SHR	1	N
83	10	1+445	R	1	46	1	0.45	0.2	1.9	1.6	-	-	-	-	G	S	R	H	0	0	0	0	DP	30	C	5	-	-	-	-	S	SHR	2	N
84	10	1+448	P	1	3	0	-	-	2.1	2	0.8	0.1	0.7	S	G	S	R	H	0	0	0	0	DP	70	OV	50	-	-	-	SC	S	SHR	2	N
85	10	1+464	G	1	16	1	0.6	0.5	1.8	1.7	-	-	-	-	G	S	R	H	0	0	0	0	DP	35	OV	10	SC	G	17	-	S	SHR	2	N
86	10	1+558	R	1	94	1	0.55	0.3	1.8	1.75	-	-	-	-	G	S	R	H	2	2	0	0	OV	20	IV	10	SC	G	14	-	S	SHR	2	N
87	10	1+609	G	1	51	1	0.7	0.35	2.6	2.6	-	-	-	-	F	G	R	H	4	1	3	0	DP	20	IV	5	SC	G	8	-	S	SHR	1	N
88	10	1+614	P	1	5	0	-	-	4.5	4.6	0.7	0.15	0.55	S	G	S	R	H	0	0	0	0	DP	30	C	2	SC	G	8	-	S	SHR	2	N
89	10	1+691	R	1	77	1	0.6	0.55	1.85	1.6	-	-	-	-	G	S	R	H	0	0	0	0	DP	30	OV	5	SC	P	15	-	S	SHR	2	N

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
90	10	1+694	P	1	3	0	-	-	2.3	2.4	0.6	0.1	0.5	S	G	S	R	H	0	2	0	0	DP	25	LWD	2	-	-	-	SC	C	MF	1	N
91	10	2+275	G	1	581	1	0.6	0.45	1.55	1.45	-	-	-	-	G	S	R	H	0	3	0	0	DP	35	OV	5	SC	P	35	-	C	MF	1	N
92	10	2+347	P	1	72	2	0.45	0.2	1.85	1.7	-	-	-	-	C	B	R	L	2	2	1	0	IV	20	B	2	-	-	-	-	C	MF	2	N
93	10	2+374	G	1	27	1	0.25	0.6	1.8	1.8	-	-	-	-	B	S	R	L	2	1	2	1	DP	50	OV	3	-	-	-	-	C	MF	3	N
Habitat Unit Total			R	1	397	-	-	-	-	-	-	-	-	-	-	-	-	-	6	3	3	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			P	1,3	306	-	-	-	-	-	-	-	-	-	-	-	-	-	43	12	25	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			G	1,3	1654	-	-	-	-	-	-	-	-	-	-	-	-	-	33	8	22	1	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			C	1	18	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Mean			R	1	28	1.8	0.4	0.3	2.4	2.4	-	-	-	-	C,G	S	R	L,H	1	1	1	0	DP,C	-	LWD, IV	-	SC	G,P	15	-	C,S	MF,SHR	1,2,3	N
Habitat Unit Mean			P	1,3	8	0.1	0.7	0.6	2.9	3.7	0.7	0.2	0.5	S	G	S	R	L,H	2	1	1	0	DP,LWD	-	C,OV	-	SC	G	8	SC	C,S	MF,SHR	1,2,3	N
Habitat Unit Mean			G	1,3	42	1.4	0.5	0.3	2.9	3.0	-	-	-	-	G,C	S	R	L,H	3	1	2	0	LWD, C	-	IV	-	SC	G,P	20	SC	C,S	MF,SHR	1,2,3	N
Habitat Unit Mean			C	1	9	4.0	0.4	0.3	1.8	2.2	-	-	-	-	C	G	R	L	0	0	0	0	B	-	-	-	-	-	-	-	C	MF	3	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2N: Fisheries Habitat Assessment Procedures (FHAP) Data for Davidson Creek, Reach 11, 2011

Level 1 Fish Habitat Survey Data Form

Stream Name: Davidson Creek
Freshwater Atlas Code: 100-567134-610692-522527
Reach: 11

Subsampling Fractions: 2/9 R | 1/4 P | 1/4 G | 1 C

Flow Stage: Moderate

Survey Dates: August 8 and10, 2011
Weather: Sunny
Field Crew: DS, KM, IM, JF

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
1	11	0+025	C	1	25	5	0.35	0.2	1.6	1.6	-	-	-	-	B	C	-	N	1	1	4	0	B	20	OV	10	-	-	-	-	C	MF	1	N
2	11	0+076	C	1	51	0.5	0.6	0.45	1.85	1.7	-	-	-	-	B	C	R	L	0	1	8	1	IV	35	LWD	20	-	-	-	-	C	MF	1	N
3	11	0+106	R	1	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	11	0+118	G	1	12	0.5	0.35	0.2	1.9	2.1	-	-	-	-	C	S	-	N	11	3	5	0	LWD	40	OV	15	-	-	-	-	C	MF	1	N
5	11	0+157	R	1	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	11	0+181	C	1	24	6	0.3	0.15	1.75	1.5	-	-	-	-	B	R	-	N	12	0	0	0	LWD	5	C	5	-	-	-	-	C	MF	1	C
7	11	0+237	R	1	56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	11	0+243	G	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	11	0+255	P	1	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	11	0+276	G	1	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	11	0+285	R	1	9	2.5	0.25	0.15	2.1	2.2	-	-	-	-	G	C	-	N	0	0	0	0	IV	40	B	5	-	-	-	-	C	MF	1	N
12	11	0+314	G	1	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	11	0+316	P	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	11	0+346	R	1	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	11	0+355	G	1	9	1	0.45	0.35	2.7	2.5	-	-	-	-	B	C	-	N	2	0	0	0	IV	30	B	5	-	-	-	-	C	MF	1	N
16	11	0+358	P	1	3	0	0.75	0.65	2.7	2.7	0.85	0.35	0.5	S	B	C	-	N	1	1	0	0	DP	70	IV	25	-	-	-	-	C	MF	1	N
17	11	0+377	G	1	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	11	0+380	R	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	11	0+390	G	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	11	0+440	R	1	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	11	0+445	G	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	11	0+447	P	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	11	0+449	P	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	11	0+480	G	1	31	1	0.35	0.25	1.75	1.6	-	-	-	-	S	-	-	-	4	1	1	0	IV	80	OV	10	-	-	-	-	C	MF	1	N
25	11	0+506	R	1	26	1.5	0.25	0.15	2	1.8	-	-	-	-	C	G	-	N	4	0	1	0	IV	95	OV	10	-	-	-	-	C	MF	1	N
26	11	0+507	P	3	1	0	-	-	-	-	0.5	0.2	0.3	S	G	S	-	N	2	2	0	0	DP	40	IV	25	-	-	-	-	C	MF	1	N
27	11	0+540	G	1	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	11	0+632	R	1	92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	11	0+382	G	1	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	11	0+385	P	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	11	0+687	P	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	11	0+709	G	1	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			R	1	335	-	-	-	-	-	-	-	-	-	-	-	-	-	4	0	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			P	1,3	27	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			G	1	247	-	-	-	-	-	-	-	-	-	-	-	-	-	17	4	6	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			C	1	100	-	-	-	-	-	-	-	-	-	-	-	-	-	13	2	12	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Mean			R	1	37	2.0	0.3	0.2	2.1	2.0	-	-	-	-	G	C	-	N	2	0	1	0	IV	-	B,OV	-	-	-	-	-	C	MF	1	N
Habitat Unit Mean			P	1,3	3	0.0	0.8	0.7	2.7	2.7	0.7	0.3	0.4	S	B,G	C,S	-	N	2	2	0	0	DP	-	IV	-	-	-	-	-	C	MF	1	N
Habitat Unit Mean			G	1	21	0.8	0.4	0.3	2.1	2.1	-	-	-	-	B	C,S	-	N	6	1	2	0	IV	-	OV	-	-	-	-	-	C	MF	1	N
Habitat Unit Mean			C	1	33	3.8	0.4	0.3	1.7	1.6	-	-	-	-	B	C,R	R	L	4	1	4	0	IV	-	LWD	-	-	-	-	-	C	MF	1	N,C

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2O: Fisheries Habitat Assessment Procedures (FHAP) Data for Davidson Creek, Reach 12, 2011

Level 1 Fish Habitat Survey Data Form

Stream Name: Davidson Creek
Freshwater Atlas Code: 100-567134-610692-522527
Reach: 12

Subsampling Fractions: 4/11 R, 3/5 P, 3/14 G, C

Flow Stage: Moderate

Survey Dates: August 10, 2011
Weather: Sunny
Field Crew: IM, JF

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
							Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
			Type	Category													Type	Amount															
1	12	0+018	R	1	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	12	0+143	G	1	125	1	0.5	0.4	1.8	1.3	-	-	-	-	C	S	-	N	0	0	0	0	IV	80	OV	10	WL	P	24	MC	C	MF	1	N
3	12	0+145	P	1	2	0	0.6	0.5	1.9	1.9	0.6	0.4	0.2	S	S		-	N	1	0	0	0	DP	60	IV	40	-	-	-	-	C	MF	1	N
4	12	0+184	G	1	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	12	0+200	R	1	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	12	0+222	P	1	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	12	0+234	P	3	12	0	-	-	-	-	0.7	0.4	0.3	S	S	-	-	N	0	0	0	0	DP	50	IV	5	-	-	-	-	C	MF	1	N
8	12	0+250	G	1	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	12	0+255	P	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	12	0+280	G	1	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	12	0+288	P	1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	12	0+362	G	1	74	0.5	0.55	0.35	0.85	1	-	-	-	-	S	-	-	N	0	0	0	0	OV	40	C	20	-	-	-	-	C	MF	1	N
13	12	0+368	P	1	6	0	0.8	0.5	1.8	1.6	0.6	0.2	0.4	S	S	B	-	N	1	0	0	0	DP	40	IV	60	-	-	-	-	C	MF	1	N
14	12	0+400	R	1	32	2	0.4	0.3	0.75	0.55	-	-	-	-	B	C	-	N	4	0	1	0	IV	50	OV	10	-	-	-	-	C	MF	1	N
15	12	0+423	G	1	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	12	0+455	R	1	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	12	0+482	P	1	27	0	0.5	0.3	20	12	0.5	0.25	0.25	D	S	C	-	N	5	0	0	0	IV	5	LWD	2	-	-	-	-	C	MF	1	N
18	12	0+506	G	1	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	12	0+544	R	1	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	12	0+551	G	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	12	0+568	R	1	17	0.5	0.4	0.25	1.2	1.2	-	-	-	-	B	S	-	N	2	1	0	0	OV	25	LWD	2	-	-	-	-	C	MF	1	N
22	12	0+572	G	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	12	0+613	R	1	41	0.5	0.4	0.2	2	1.7	-	-	-	-	C	S	-	N	2	0	0	0	IV	80	OV	20	-	-	-	-	C	MF	1	N
24	12	0+631	G	1	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	12	0+641	R	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	12	0+796	P	1	155	0	0.9	0.5	25	20	-	-	-	-	S	-	-	N	8	-	0	0	IV	15	B	5	-	-	-	-	C	MF	1	N
27	12	0+812	P	1	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	12	0+814	G	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	12	0+843	R	1	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	12	0+896	G	1	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	12	0+929	G	1	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	12	0+931	R	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
33	12	1+033	G	1	102	1	0.4	0.25	3.7	4	-	-	-	-	B	S	-	N	12	2	4	0	IV	20	B	5	-	-	-	-	C	MF	1	N
34	12	1+103	R	1	70	0.5	0.35	0.15	1.4	1	-	-	-	-	B	C	-	N	10	5	2	1	IV	50	B	20	-	-	-	-	C	MF	1	N
35	12	1+113	P	1	10	0	0.4	0.3	2.3	2.7	0.35	0.05	0.3	S	B	C	-	N	1	0	0	0	IV	70	C	30	-	-	-	-	C	MF	1	N
Habitat Unit Total			R	1	305	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			P	1,3	263	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			G	1	545	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Mean			R	1	28	0.9	0.4	0.2	1.3	1.1	-	-	-	-	B	C,S	-	N	5	2	1	0	IV	-	OV	-	-	-	-	-	C	MF	1	N
Habitat Unit Mean			P	1,3	26	0.0	0.6	0.4	10.2	7.6	0.6	0.3	0.3	S,D	S	C	-	N	3	0	0	0	DP	-	IV	-	-	-	-	-	C	MF	1	N
Habitat Unit Mean			G	1	39	0.8	0.5	0.3	2.1	2.1	-	-	-	-	C	S	-	N	4	1	1	0	IV	-	C	-	WL	P	24	MC	C	MF	1	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2P: Fisheries Habitat Assessment Procedures (FHAP) Data for Creek 688328, Reach 1, 2012

Level 1 Fish Habitat Survey Data Form

Stream Name: Creek 688328
Freshwater Atlas Code: 100-567134-610692-522527-688328
Reach: 1

Subsampling Fractions: 4/10 R, 4/13 P, 4/10 G, - C

Flow Stage: Moderate

Survey Dates: August 7, 2012
Weather: Partly cloudy
Field Crew: BM, IM

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
1	1	0+000	P	1	7	0	0.5	0.29	2.25	2.73	0.41	0.22	0.19	D	G	C	R	L	3	0	1	1	DP	40	LWD	15					C	MF	3	N
2	1	0+007	G	1	6	0.5	0.43	0.23	2.4	2.61					G	C	R	H	2	0	2	0	SWD	15	C	5					C	MF	3	N
3	1	0+009	P	1	2																													
4	1	0+011	G	1	8																													
5	1	0+019	P	1	2																													
6	1	0+021	G	1	7																													
7	1	0+028	R	1	14	0.5	0.39	0.18	2.05	2.22					C	B		N	2	1	1	0	B	15	LWD	5					C	MF	3	N
8	1	0+042	P	1	2	0	0.46	0.31	3.15	3.7	0.51	0.12	0.39	S	C	G		N	1	0	1	0	DP	60	C	5					C	MF	3	N
9	1	0+044	G	1	8	0.5	0.5	0.28	2.81	3.02					C	G	R	L	2	0	2	0	OV	45	SWD	15					C	MF	5	N
10	1	0+052	R	1	7																													
11	1	0+059	G	1	2																													
12	1	0+061	P	1	3																													
13	1	0+064	R	1	19																													
14	1	0+083	G	1	7																													
15	1	0+090	R	1	7	7	0.25	0.12	2.15	2.59					C	B		N	0	0	0	0	OV	30	B	10					C	MF	2	N
16	1	0+097	P	1	3																													
17	1	0+100	G	1	11	0.5	0.36	0.26	1.96	2.15					C	G	R	L	3	0	3	0	OV	35	LWD	10					C	MF	2	N
18	1	0+111	R	1	24																													
19	1	0+135	G	1	4																													
20	1	0+139	P	1	2	0	0.43	0.25	2.06	2.35	0.3	0.11	0.19	S	C	G		N	5	1	3	0	LWD	20	DP	15					C	MF	3	N
21	1	0+141	G	1	9																													
22	1	0+150	P	1	7																													
23	1	0+157	R	1	21																													
24	1	0+178	P	1	2																													
25	1	0+180	R	1	17	3	0.28	0.11	2.41	2.65					G	C	R	H	9	1	4	0	LWD	15	OV	5					C	MF	3	N
26	1	0+197	P	1	2	0	0.65	0.51	2.36	2.81	0.62	0.1	0.52	S	C	G		N	4	1	2	0	DP	65	LWD	10					C	MF	3	N
27	1	0+199	G	1	10	0.5	0.39	0.24	2.35	2.61					C	G	R	L	2	0	2	0	C	10	LWD	10					C	MF	3	N
28	1	0+209	P	1	3																													
29	1	0+212	R	1	19																													
30	1	0+231	P	1	3																													

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
31	1	0+234	R	1	3																												
32	1	0+237	P	1	3																												
33	1	0+240	R	1	25	4	0.32	0.16	2.51	2.75					C	G	R	L	3	0	2	0	LWD	5	C	2					C	MF	3	N
Habitat Unit Total			R	1	156																												
Habitat Unit Total			P	1,3	41																												
Habitat Unit Total			G	1	72																												
Habitat Unit Mean			R	1	16	3.6	0.3	0.1	2.3	2.6					C,G	B,C, G	R	N,L,H	4	1	2		LWD, B,OV		LWD,B, OV,C						C	MF	3,2	
Habitat Unit Mean			P	1,3	3	0.0	0.5	0.3	2.5	2.9	0.5	0.1	0.3	S,D	C,G	G,C	R	N,L	3	1	2	0	DP,L WD		LWD,C ,DP						C	MF	3	
Habitat Unit Mean			G	1	7	0.5	0.4	0.3	2.4	2.6					C,G	G,C	R	L,H	2		2		OV,S WD,C		LWD,C ,SWD						C	MF	5,3,2	

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2Q: Fisheries Habitat Assessment Procedures (FHAP) Data for Creek 688328, Reach 2, 2012

Level 1 Fish Habitat Survey Data Form

Stream Name: Creek 688328
Freshwater Atlas Code: 100-567134-610692-522527-688328
Reach: 2

Subsampling Fractions: 5/13 R; 3/7 P; 4/11 G; C
Flow Stage: Low

Survey Dates: August 8, 2012
Weather: Sunny, cloudy periods
Field Crew: BM, IM

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
1	2	0+000	P	1	3	0	0.52	0.31	2.21	1.65	0.35	0.11	0.24	S	C	G		N	1	0	1	0	DP	30	LWD	25					SH	SHR	1	N
2	2	0+003	G	1	5	0.5	0.21	0.1	2.3	2.05					G	C	R	L	0	0	0	0	OV	25	C	1					SH	SHR	1	N
3	2	0+008	P	1	7									S																				
4	2	0+015	R	1	7	3	0.15	0.08	1.65	1.62					G	C	R	L	1	0	0	0	OV	30	LWD	5					SH	SHR	1	N
5	2	0+022	P	1	6																													
6	2	0+028	R	1	14																													
7	2	0+042	G	1	5																													
8	2	0+047	P	1	4	0	0.52	0.34	2.05	2.16	0.42	0.16	0.26	S	C	G		N	0	0	0	0	DP	40	C	10					SH/C	SHR/MF	1	N
9	2	0+051	R	1	6																													
10	2	0+057	P	1	5																													
11	2	0+062	R	1	6	4.5	0.28	0.14	2.14	2.1					C	G		N	0	0	0	0	OV	25	C	2					C	MF	1	N
12	2	0+070	G	1	8																													
13	2	0+078	R	1	2																													
14	2	0+080	G	1	6	1.5	0.48	0.32	2.36	2.1					C	G		N	0	0	0	0	OV	60	C	7					C/SH	MF/SHR	1	N
15	2	0+086	R	1	8																													
16	2	0+094	G	1	12																													
17	2	0+106	R	1	7	3	0.38	0.11	1.85	1.62					C	G	R	L	0	0	0	0	OV	80	C	3					C	MF	3	N
18	2	0+113	G	1	4																													
19	2	0+117	R	1	8																													
20	2	0+125	P	1	4																													
21	2	0+129	G	1	23	3	0.35	0.22	1.37	1.72					C	G		N	2	0	0	0	C	10	OV	55					SH	SHR	1	N
22	2	0+152	R	1	8																													
23	2	0+160	G	1	11																													
24	2	0+171	R	1	3	3	0.33	0.18	1.24	0.95					C	G	R	L	0	0	0	0	OV	35	C	5					SH	SHR	1	N
25	2	0+174	G	1	21																													
26	2	0+195	R	1	18																													
27	2	0+213	P	1	4	0	0.42	0.21	1.45	1.95	0.31	0.11	0.2	S	C	G		N	0	0	0	0	OV	20	C	10					SH/C	SHR/MF	3	N
28	2	0+217	R	1	17																													
29	2	0+234	G	1	4	1	0.41	0.19	1.05	1.85					C	G	R	L	0	0	0	0	C	15	OV	5					C	MF	4	N
30	2	0+238	R	1	3	2	0.24	0.09	1.65	1.89					C	G		N	0	0	0	0	C	10	OV	3					SH/C	SHR/MF	3	N
31	2	0+241	G	1	12																													
Habitat Unit Total			R	1	107																													
Habitat Unit Total			P	1,3	33																													
Habitat Unit Total			G	1	111																													
Habitat Unit Mean			R	1	8	3.1	0.3	0.1	1.7	1.6					C,G	G,C	R	L,N	0				OV,C		C,LWD ,OV						SH,C	SHR,MF		
Habitat Unit Mean			P	1,3	5	0.0	0.5	0.3	1.9	1.9	0.4	0.1	0.2	S	C	G		N	0		0		DP,O V		LWD,C						SH,C	SHR,MF		
Habitat Unit Mean			G	1	10	1.5	0.4	0.2	1.8	1.9					C,G	G,C	R	N,L	1				OV,C		C,OV						SH,C	SHR,MF		

Note: Habitat Type: G - glide; P - pool; R - riffle; Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2R: Fisheries Habitat Assessment Procedures (FHAP) Data for Creek 688328, Reach 3, 2012

Level 1 Fish Habitat Survey Data Form

Stream Name: Creek 688328
Freshwater Atlas Code: 100-567134-610692-522527-688328
Reach: 3

Subsampling Fractions: 4/11 R; 2/5 P; 4/10 G; - C
Flow Stage: Moderate

Survey Dates: August 8, 2012
Weather: Sunny, partly cloudy
Field Crew: BM, IM

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
1	3	0+000	R	1	25	2	0.28	0.16	1.14	1.26					C	G		N	1	0	0	0	OV	75	C	5					C	MF	3	N
2	3	0+025	G	1	9	1	0.36	0.22	1.34	1.22					C	S		N	1	0	1	0	OV	60	C	5					C	MF	3	N
3	3	0+034	R	1	4																												
4	3	0+038	G	1	9																												
5	3	0+047	R	1	11																												
6	3	0+058	G	1	4																												
7	3	0+062	R	1	12	0.5	0.24	0.16	1.12	1.32					C	B		N	1	1	0	0	OV	50	C	10					C	MF	3	N
8	3	0+074	P	1	7	0	0.53	0.39	0.76	2.06	0.46	0.22	0.24	S	C	S		N	0	0	0	0	DP	60	OV	20					C	MF	2	N
9	3	0+081	R	1	6																												
10	3	0+087	P	1	5																												
11	3	0+092	G	1	8	1	0.37	0.22	1.05	1.18					C	S		N	3	1	2	0	OV	50	LWD	5					SH	SHR	1	N
12	3	0+100	R	1	4																												
13	3	0+104	P	1	20																												
14	3	0+124	R	1	5																												
15	3	0+129	P	1	11	0	0.41	0.31	1.32	1.87	0.46	0.19	0.27	D	B	G	R	L	3	2	0	0	OV	15	LWD	5					C	MF	1	N
16	3	0+140	G	1	6																												
17	3	0+146	R	1	8	2	0.32	0.18	0.87	1.27					C	B		N	3	1	0	0	OV	40	LWD	7					C	MF	1	N
18	3	0+154	G	1	4																												
19	3	0+158	P	1	6																												
20	3	0+162	G	1	10	1	0.35	0.2	0.66	1.01					G	C	R	L	1	0	0	0	OV	65	C	5					C	MF	1	N
21	3	0+172	R	1	12																												
22	3	0+184	G	1	3																												
23	3	0+187	R	1	16																												
24	3	0+203	G	1	5																												
25	3	0+208	R	1	32	5	0.32	0.12	0.98	1.28					C	B	R	L	5	1	2	0	OV	40	C	5					C	MF	2	N
26	3	0+240	G	1	15	1	0.38	0.22	0.95	1.22					C	S		N	3	1	2	0	OV	45	LWD	10					C	MF	2	N
Habitat Unit Total			R	1	135																												
Habitat Unit Total			P	1,3	49																												
Habitat Unit Total			G	1	73																												
Habitat Unit Mean			R	1	12	2.4	0.3	0.2	1.0	1.3					C	B,G	R	N,L	3	1	1		OV		C,LWD						C	MF	3,1,2	N
Habitat Unit Mean			P	1,3	10	0.0	0.5	0.4	1.0	2.0	0.5	0.2	0.3	S,D	C,B	S,G	R	N,L	2	1			OV,DP		LWD,OV						C	MF	2,1	N
Habitat Unit Mean			G	1	7	1.0	0.4	0.2	1.0	1.2					C,G	S,C	R	N,L	2	1	1		OV		LWD,C						C,SH	MF,SHR	1,3,2	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2S: Fisheries Habitat Assessment Procedures (FHAP) Data for Creek 704454, Reach 1, 2012

Level 1 Fish Habitat Survey Data Form

Stream Name: Creek 704454
Freshwater Atlas Code: 100-567134-610692-522527-704454
Reach: 1

Subsampling Fractions: 3/9 R | 3/7 P | 4/4 G | 1/1 C
Flow Stage: Low

Survey Dates: August 9, 2012
Weather: 50% overcast
Field Crew: DS, RP

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
1	1	0+000	C	1	8	8	0.56	0.15	3.7	3					C	G		N	3	1	1	0	C	25	OV	15					C	MF	1	N
2	1	0+008	R	1	10	5	0.32	0.16	4.4	4.6					C	G	R	L	6	4	2	0	B	11	C	8					C	MF	1	N
3	1	0+018	P	1	3	0	0.6	0.25	2	2.5	0.34	0.1	0.24	S	G	C		N	4	1	3	0	DP	27	LWD	12					C	MF	1	N
4	1	0+021	R	1	15	4.5																												
5	1	0+036	G	1	7	1	0.34	0.22	2.5	2.6					C	G	R	L	1				OV	7	B	3					C	MF	1	N
6	1	0+043	R	1	12	3.5																												
7	1	0+055	P	1	3	0																												
8	1	0+058	R	1	16	5	0.38	0.12	3.4	3.4					C	G		N	7	4	3	0	OV	15	C	7					C	MF	1	N
9	1	0+074	P	1	5	0																												
10	1	0+079	R	1	3	4.5																												
11	1	0+082	P	1	2	0	0.73	0.28	4.4	2	0.42	0.07	0.35	S	C	G		N	1	0	0	1	C	30	LWD	5					C	MF	1	N
12	1	0+084	R	1	63	3.5																												
13	1	0+147	G	1	4	1	0.48	0.12	5.6	4.4					C	G	R	L	15	7	3	1	LWD	17	C	8					C	MF	2	N
14	1	0+151	P	1	3	0																												
15	1	0+154	R	1	7	4	0.35	0.08	3	4.1					C	G		N	12	6	5	0	LWD	20	C	5					C	MF	1	N
16	1	0+161	G	1	3	1	0.46	0.12	3.3	2.9					C	G		N	4	4	0	0	B	7	LWD	3					C	MF	1	N
17	1	0+164	P	1	3	0																												
18	1	0+167	R	1	32	4																												
19	1	0+199	G	1	2	1	0.58	0.16	3.7	3.1					C	G	R	L	1	1	0	0	B	7	C	3					C	MF	1	N
20	1	0+201	P	1	2	0	0.62	0.22	3.8	3.8	0.36	0.09	0.25	S	C	G	R	L	1	1	0	0	DP	15	LWD	4					C	MF	1	N
21	1	0+203	R	1	50	4																												
Habitat Unit Total			R	1	208																													
Habitat Unit Total			P	1,3	21																													
Habitat Unit Total			G	1	16																													
Habitat Unit Total			C		8																													
Habitat Unit Mean			R	1	23	4.2	0.4	0.1	3.6	4.0					C	G	R	N,L	8	5	3	0	B,OV, LWD		C						C	MF	1	N
Habitat Unit Mean			P	1,3	3	0.0	0.7	0.3	3.4	2.8	0.4	0.1	0.3	S	C,G	G,C	R	N,L	2	1	1	0	DP,C		LWD						C	MF	1	N
Habitat Unit Mean			G	1	4	1.0	0.5	0.2	3.8	3.3					C	G	R	L,N	5	4	1	0	B,OV, LWD		C,B,LWD						C	MF	1,2	N
Habitat Unit Total			C		8	8.0	0.6	0.2	3.7	3.0					C	G		N	3	1	1	0	C		OV						C	MF	1	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2T: Fisheries Habitat Assessment Procedures (FHAP) Data for Creek 704454, Reach 2, 2012

Level 1 Fish Habitat Survey Data Form

Stream Name: Creek 704454
Freshwater Atlas Code: 100-567134-610692-522527-704454
Reach: 2

Subsampling Fractions: 4/11 R | 3/9 P | 2/5 G | 2/5 C
Flow Stage: Low

Survey Dates: August 7, 2012
Weather: 50% cloud
Field Crew: DS, RP

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
1	2	0+000	R	1	7	3	0.32	0.06	3.3	3					C	B		N	2	0	2	0	C	10	B	6					C	MF	2	N
2	2	0+007	G	1	2	1	0.54	0.18	2.2	2.7					C	G	R	L	3	1	2	0	C	20	LWD	5					C	MF	1	N
3	2	0+009	R	1	4	5																												
4	2	0+013	P	1	4	0	0.8	0.45	3.1	3.6	0.58	0.11	0.47	S	C	B	R	L	2	0	2	0	DP	30	C	10					C	MF	3	N
5	2	0+017	R	1	8	5																												
6	2	0+025	P	1	3	0																												
7	2	0+028	C	1	17	8	0.7	0.08	3.9	4.2					C	B		N	12	6	4	0	B	15	LWD	5					C	MF	1	N
8	2	0+045	P	1	5	0																												
9	2	0+050	R	1	12	4	0.45	0.14	2.7	2.9					C	B	R	L	17	8	5	0	C	15	LWD	7					C	MF	1	N
10	2	0+062	C	1	30	9.5																												
11	2	0+092	P	1	3	0	0.56	0.28	2.9	3	0.42	0.15	0.27	D	C	B	R	L	0	0	0	0	DP	20	B	6					C	MF	1	N
12	2	0+095	R	1	15	5																												
13	2	0+110	C	1	13	7																												
14	2	0+123	P	1	5	0																												
15	2	0+128	R	1	17	4																												
16	2	0+145	G	1	5	1																												
17	2	0+150	R	1	10	4	0.64	0.16	2.4	2.5					C	B		N	3	1	2	0	B	7	C	3					C	MF	3	N
18	2	0+160	G	1	3	1																												
19	2	0+163	C	1	12	7	0.62	0.08	3.3	3.55					C	B	R	L	11	6	2	0	C	8	DP	4					C	MF	2	N
20	2	0+175	P	1	2	0																												
21	2	0+177	R	1	24	3.5																												
22	2	0+201	P	1	2	0	0.76	0.32	2.8	3.1	0.46	0.17	0.29	S	C	B		N	4	3	0	1	DP	25	LWD	10					C	MF	1	N
23	2	0+203	C	1	8	7																												
24	2	0+211	P	1	2	0																												
25	2	0+213	R	1	5	4																												
26	2	0+219	G	1	6	1	0.44	0.22	2.8	2.5					C	G	R	L	3	1	2	0	LWD	15	C	10					C	MF	3	N
27	2	0+225	R	1	7	4.5	0.4	0.06	3.8	3.3					C	G	R	L	8	1	3	3	LWD	6	C	3					C	MF	1	N
28	2	0+232	G	1	6	1																												
29	2	0+238	P	1	3	0																												
30	2	0+241	R	1	15	4																												
Habitat Unit Total			R	1	124																													
Habitat Unit Total			P	1,3	29																													
Habitat Unit Total			G	1	22																													
Habitat Unit Total			C	1	80																													
Habitat Unit Mean			R	1	11	4.2	0.5	0.1	3.1	2.9					C	B,G	R	N,L	8	3	3	1	C,B,LWD		C,B,LWD						C	MF	1,2,3	N
Habitat Unit Mean			P	1,3	3	0.0	0.7	0.4	2.9	3.2	0.5	0.1	0.3	S,D	C	B	R	L,N	2	1	1	0	DP		C,B,LWD						C	MF	1,3	N
Habitat Unit Mean			G	1	4	1.0	0.5	0.2	2.5	2.6					C	G	R	L	3	1	2	0	C,LWD		LWD,C						C	MF	1,3	N
Habitat Unit Total			C	1	16	7.7	0.7	0.1	3.6	3.9					C	B	R	N,L	12	6	3	0	B,C		LWD,DP						C	MF	1,2	N

Note: Habitat Type: G - glide; P - pool; R - riffle; Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines; Spawning Gravels: H - high quality; L - low quality; N - none; Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland; Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2U: Fisheries Habitat Assessment Procedures (FHAP) Data for Creek 704454, Reach 3, 2012

Level 1 Fish Habitat Survey Data Form

Stream Name: Creek 704454
Freshwater Atlas Code: 100-567134-610692-522527-704454
Reach: 3

Subsampling Fractions: 5/13 R, 6/12 P, 5/9 G, 1/3 C

Flow Stage: Low

Survey Dates: August 9, 2012
Weather: 60% overcast
Field Crew: DS, RP

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
							Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
			Type	Category													Type	Amount															
1	3	0+000	R	1	19	4.5	0.26	0.08	3.1	3.1					C	G	R	L	4	0	2	0	C	5	B	2					C	MF	3	N
2	3	0+019	G	1	2	1	0.54	0.16	2.7	2.8					C	G	R	L	0	0	0	0	C	10	B	1					C	MF	3	N
3	3	0+021	R	1	16	3.5																												
4	3	0+037	G	1	2	1																												
5	3	0+039	R	1	14	5																												
6	3	0+053	G	1	3	1	0.6	0.14	2.8	2.1					C	B	R	L	4	4	0	0	DP	7	LWD	3					C	MF	2	N
7	3	0+056	P	1	2	0	0.84	0.35	3.3	3.8	0.52	0.1	0.42	D	C	G		N	10	7	2	0	DP	30	LWD	5					C	MF	4	N
8	3	0+058	G	1	11	1																												
9	3	0+069	P	1	1	0																												
10	3	0+074	C	1	5	9	0.5	0.1	4.4	3.7					C	B		N	2	0	1	0	LWD	5	B	2					C	MF	1	N
11	3	0+079	P	1	3	0	0.7	0.36	3.8	3.3	0.52	0.05	0.52	D	C	B	R	L	5	0	3	2	DP	40	LWD	10					C	MF	1	N
12	3	0+082	R	1	3	4	0.42	0.08	3.6	3.6					C	B		N	2	1	1	0	B	5	C	2					C	MF	1	N
13	3	0+085	G	1	5	1.5	0.42	0.14	2.9	3.5					C	G	R	H	0	0	0	0	C	5	DP	2					C	MF	3	N
14	3	0+090	P	1	3	0																												
15	3	0+093	C	1	6	7.5																												
16	3	0+099	P	1	3	0	0.72	0.36	2.7	2.6	0.48	0.07	0.41	S	C	G	R	L	7	3	2	2	DP	7	LWD	3					C	MF	1	N
17	3	0+102	R	1	6	4																												
18	3	0+108	P	1	2	0																												
19	3	0+110	C	1	7	11																												
20	3	0+117	P	1	2	0	0.6	0.24	3.6	1.6	0.44	0.1	0.34	S	C	B		N	1	1	0	0	DP	5	C	2					C	MF	3	N
21	3	0+119	R	1	7	3.5																												
22	3	0+126	P	1	1	0																												
23	3	0+127	R	1	13	4	0.34	0.06	4.3	3.6					G	C	R	L	1	1	0	0	OV	3	LWD	2					C	MF	3	N
24	3	0+130	G	1	3	2																												
25	3	0+133	R	1	28	4																												
26	3	0+161	G	1	3	1	0.64	0.15	4.4	2.9					C	G			0	0	0	0	DP	10	C	3					C	MF	1	N
27	3	0+164	P	1	2	0	0.62	0.3	4.1	3.4	0.52	0.12	0.4	S	C	G	R	L	2	1	1	0	DP	25	LWD	7					C	MF	1	N
28	3	0+166	R	1	4	5																												
29	3	0+170	P	1	3	0																												
30	3	0+173	R	1	11	5	0.56	0.08	3.1	3.3					C	G	R	L	9	3	2	0	C	7	LWD	3					C	MF	1	N
31	3	0+184	G	1	5	1																												
32	3	0+189	P	1	2	0	0.7	0.35	3.6	3.7	0.48	0.1	0.38	S	C	G	R	L	12	8	2	0	DP	27	LWD	18					C	MF	3	N
33	3	0+191	R	1	14	4																												
34	3	0+205	P	1	4	0																												
35	3	0+209	R	1	36	4																												
36	3	0+245	G	1	2	2	0.44	0.14	3.3	2.3					C	B	R	L	3	1	0	0	B	5	LWD	3					C	MF	1	N
37	3	0+247	R	1	10	5	0+38	0+10	2.7	2.6					C	G			6	2	2	0	B	5	LWD	2					C	MF	1	N
Habitat Unit Total			R	1	181																													
Habitat Unit Total			P	1,3	28																													
Habitat Unit Total			G	1	36																													
Habitat Unit Total			C	1	18																													

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover		Cover		Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
Habitat Unit Mean			R	1	14	4.3	0.4	0.1	3.4	3.2					C,G	G,B,C	R	L,N	4	1	1	0	C,B,OV		LWD,B,C						C	MF	1,3	N
Habitat Unit Mean			P	1,3	2	0.0	0.7	0.3	3.5	3.1	0.5	0.1	0.4	S,D	C	G,B	R	L,N	6	3	2	1	DP		LWD,C						C	MF	1,3,4	N
Habitat Unit Mean			G	1	4	1.3	0.5	0.1	3.2	2.7					C	G,B	R	L,H	1	1	0	0	C,DP,B		LWD,B,DP,C						C	MF	3,2,1	N
Habitat Unit Total			C	1	6	9.2	0.5	0.1	4.4	3.7					C	B		N	2	0	1	0	LWD		B						C	MF	1	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2V: Fisheries Habitat Assessment Procedures (FHAP) Data for Creek 704454, Reach 4, 2012

Level 1 Fish Habitat Survey Data Form

Stream Name: Creek 704454
Freshwater Atlas Code: 100-567134-610692-522527-704454
Reach: 4

Subsampling Fractions: 4/12 R | 4/11 P | 3/8 G | 1/2 C
Flow Stage: Low

Survey Dates: August 5, 2012
Weather: Clear
Field Crew: DS, RP

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
1	4	0+000	R	1	25	3.5	0.36	0.16	2.5	2.3					C	B		N	2	0	0	0	OV	15	B	10					C	MF	5	N
2	4	0+025	G	1	2	1	0.35	0.35	2.1	2.3					B	C		N	0	0	0	0	OV	10	B	5					C	MF	0	N
3	4	0+027	P	1	3	0	0.45	0.4	2.9	3	0.35	0.15	0.2	S	C	B		N	0	0	0	0	OV	5	B	3					C	MF	0	N
4	4	0+030	C	1	12	7	0.15	0.35	2.3	1.4					B	C	R	L	1	1	0	0	B	10	OV	7					C	MF	5	N
5	4	0+042	G	1	4	1																												
6	4	0+046	R	1	7	5																												
7	4	0+053	P	1	4	0																												
8	4	0+057	R	1	16	4																												
9	4	0+073	G	1	6	1																												
10	4	0+079	P	1	4	0																												
11	4	0+083	R	1	21	2	0.4	0.15	2.9	2.9					C	B		N	1	1	0	0	B	10	OV	5					C	MF	1	N
12	4	0+104	P	1	4	0	0.5	0.25	1.9	2	0.42	0.1	0.32	D	C	B		N	2	1	1	0	DP	35	LWD	5					C	MF	3	N
13	4	0+108	R	1	14	4.5																												
14	4	0+122	P	1	3	0																												
15	4	0+125	C	1	5	15																												
16	4	0+130	R	1	4	3																												
17	4	0+134	G	1	4	1	0.48	0.12	2.8	2.75					C	B		N	1	1	0	0	OV	30	B	15					C	MF	1	N
18	4	0+138	P	1	3	0																												
19	4	0+141	R	1	21	5	0.32	0.14	2.7	1.9					B	C		N	2	1	1	0	OV	55	B	30					C	MF	1	N
20	4	0+162	P	1	4	0	0.54	0.35	2.8	3.1	0.48	0.1	0.38	D	C	B		N	0	0	0	0	DP	40	OV	12					C	MF	1	N
21	4	0+166	R	1	3	5																												
22	4	0+169	G	1	2	1																												
23	4	0+171	P	1	5	0																												
24	4	0+176	R	1	5	4																												
25	4	0+181	G	1	5	3																												
26	4	0+186	R	1	17	5.5	0.43	0.18	3.1	3					B	C		N	3	0	2	1	OV	45	B	15					C	MF	1	N
27	4	0+203	P	1	2	0																												
28	4	0+205	R	1	13	5																												
29	4	0+218	G	1	6	2	0.34	0.2	2.6	2.1					C	G	R	L	0	0	0	0	C	25	OV	10					C	MF	3	N
30	4	0+224	R	1	13	4																												
31	4	0+237	G	1	1	1																												
32	4	0+238	P	1	3	0	0.85	0.4	2.7	3.1	0.66	0.15	0.51	S	C	B		N	1	0	0	1	DP	40	OV	5					C	MF	0	N
33	4	0+241	P	1	16	0																												
Habitat Unit Total			R	1	159																													
Habitat Unit Total			P	1,3	51																													
Habitat Unit Total			G	1	30																													
Habitat Unit Total			C	1	17																													

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
Habitat Unit Mean			R	1	13	4.2	0.4	0.2	2.8	2.5					C,B	B,C		N	2	1	1	0	OV,B		B,OV						C	MF	1,5	N
Habitat Unit Mean			P	1,3	5	0.0	0.6	0.4	2.6	2.8	0.5	0.1	0.4	S,D	C	B		N	1	0	0	0	DP,OV		OV,B,LWD						C	MF	0,1,3	N
Habitat Unit Mean			G	1	4	1.4	0.4	0.2	2.5	2.4					C,B	B,G,C	R	N,L	0	0	0	0	OV,C		B,OV						C	MF	0,1,3	N
Habitat Unit Total			C	1	9	11.0	0.2	0.4	2.3	1.4					B	C	R	L	1	1	0	0	B		OV						C	MF	5	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2W: Fisheries Habitat Assessment Procedures (FHAP) Data for Creek 704454, Reach 5, 2012

Level 1 Fish Habitat Survey Data Form

Stream Name: Creek 704454
Freshwater Atlas Code: 100-567134-610692-522527-704454
Reach: 5

Subsampling Fractions: 4/11 R; 3/9 P; 4/10 G; - C

Flow Stage: Moderate

Survey Dates: August 5, 2012
Weather: Clear
Field Crew: DS, RP

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels Type	Spawning Gravels Amount		10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
1	5	0+000	R	1	7	7.5	0.33	0.16	2.37	2.42					C	B		N	0	0	0	0	OV	60	B	20					C	MF	1	N
2	5	0+007	G	1	2	0	0.32	0.21	2.25	2.8					G	C	R	L	0	0	0	0	C	10	OV	5					C	MF	1	N
3	5	0+010	P	1	3	0	0.45	0.3	1.65	2.3	0.4	0.16	0.24	S	C	G		N	0	0	0	0	DP	50	B	10					C	MF	1	N
4	5	0+014	P	1	4																													
5	5	0+027	R	1	13																													
6	5	0+031	G	1	4																													
7	5	0+062	R	1	31																													
8	5	0+065	G	1	3																													
9	5	0+071	P	1	6																													
10	5	0+075	G	1	4	1	0.4	0.26	2.1	2.2					C	G		N	0	0	0	0	OV	70	C	5					C	MF	1	N
11	5	0+080	P	1	5	0	0.5	0.28	4.3	3.3	0.45	0.28	0.17	S	G	C	R	L	0	0	0	0	DP	35	OV	5					C	MF	1	N
12	5	0+085	R	1	6	4	0.4	0.14	2.1	2.3					G	C	R	L	0	0	0	0	OV	25	C	5					C	MF	1	N
13	5	0+091	G	1	7	1																												
14	5	0+098	P	1	4	0																												
15	5	0+102	R	1	6	3																												
16	5	0+109	G	1	8	1.5																												
17	5	0+117	R	1	12	3																												
18	5	0+129	P	1	3	0																												
19	5	0+132	R	1	20	5	0.48	0.2	3.5	2.5					C	G	R	L	9	8	0	0	OV	35	C	15					C	MF	2	N
20	5	0+152	G	1	4	1	0.4	0.18	2.1	3.3					C	G		N	0	0	0	0	OV	10	C	5					C	MF	2	N
21	5	0+156	R	1	14	2																												
22	5	0+170	P	1	4	0	0.7	0.35	2	2.4	0.5	0.15	0.35	S	C	G		N	2	1	1	0	DP	35	OV	15					C	MF	2	N
23	5	0+174	R	1	20	3																												
24	5	0+194	G	1	8	1																												
25	5	0+202	R	1	4	2.5	0.35	0.18	1.5	2.1					C				0	0	0	0	OV	15	B	5					C	MF	1	N
26	5	0+206	G	1	7	1.5																												
27	5	0+213	P	1	5	0																												
28	5	0+218	R	1	23	3.5																												
29	5	0+241	P	1	3	0																												
30	5	0+244	G	1	6	1	0.34	0.18	1.9	2.3					G	C	R	L	0	0	0	0	OV	30	C	5					C	MF	4	N
Habitat Unit Total			R	1	156																													
Habitat Unit Total			P	1,3	37																													
Habitat Unit Total			G	1	53																													
Habitat Unit Mean			R	1	14	3.7	0.4	0.2	2.4	2.3					C,G	B,C,G	R	L,N	2	2	0	0	OV		B,C						C	MF	1,2	N
Habitat Unit Mean			P	1,3	4	0.0	0.6	0.3	2.7	2.7	0.5	0.2	0.3	S	C,G	G,C	R	N,L	1	0	0	0	DP		OV,B						C	MF	1,2	N
Habitat Unit Mean			G	1	5	1.0	0.4	0.2	2.1	2.7					C,G	G,C	R	L,N	0	0	0	0	OV,C		C,OV						C	MF	1,2,4	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2X: Fisheries Habitat Assessment Procedures (FHAP) Data for Creek 704454, Reach 6, 2012

Level 1 Fish Habitat Survey Data Form

Stream Name: Creek 704454
Freshwater Atlas Code: 100-567134-610692-522527-704454
Reach: 6

Subsampling Fractions: 5/13 R, 5/13 P, 3/9 G, 1/1 C
Flow Stage: Low

Survey Dates: August 6, 2012
Weather: Clear, sunny
Field Crew: DS, RP

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
1	6	0+000	P	1	3	0	0.42	0.2	1.7	2.9	0.32	0.05	0.27	D	C	G			1	1	0	0	DP	40	C	30					C	MF	1	N
2	6	0+003	C	1	8	9	0.22	0.12	2.1	2.3					C	G	R	L	4	3	0	0	C	20	LWD	7					C	MF	2	N
3	6	0+011	G	1	4	4	0.54	0.18	1.7	1.7					C	G			3	3	0	0	C	25	LWD	3					C	MF	1	N
4	6	0+015	R	1	12	3	0.18	0.07	1.8	1.6					C	G			4	4	0	0	C	15	OV	7					C	MF	2	N
5	6	0+027	P	1	3	0																												
6	6	0+030	R	1	10	4.5																												
7	6	0+040	P	1	4	0																												
8	6	0+044	G	1	1	1																												
9	6	0+045	R	1	9	1.5																												
10	6	0+054	P	1	3	0	0.48	0.22	2	1.3	0.38	0.05	0.33	D	C	G			1	0	0	0	DP	50	C	15					C	MF	1	N
11	6	0+057	R	1	3	4	0.2	0.08	3.4	2.9					C	G			4	3	0	0	LWD	7	OV	4					C	MF	0	N
12	6	0+060	P	1	4	0																												
13	6	0+064	R	1	16	2.5																												
14	6	0+080	G	1	5	3																												
15	6	0+085	R	1	15	5																												
16	6	0+100	P	1	6	0																												
17	6	0+106	P	1	5	0	0.6	0.3	1.6	1.9	0.48	0.05	0.43	D	C	G	R	L	0	0	0	0	C	30	OV	25					C	MF	2	N
18	6	0+111	G	1	2	1	0.2	0.1	1.8	3					G	C	R	L	0	0	0	0	C	30	OV	2					C	MF	2	N
19	6	0+113	R	1	18	2.5	0.28	0.6	2.1	2.9					G	C			2	2	0	0	C	15	B	2					C	MF	2	N
20	6	0+131	G	1	5	1.5																												
21	6	0+136	P	1	4	0																												
22	6	0+140	G	1	7	1																												
23	6	0+147	R	1	13	4																												
24	6	0+160	P	1	3	0																												
25	6	0+163	G	1	3	1	0.34	0.14	1.5	2					C	G	R	H	1	0	0	0	C	15	LWD	5					C	MF	1	N
26	6	0+166	R	1	10	5																												
27	6	0+176	P	1	4	0	0.65	0.35	2.1	2.5	0.47	0.1	0.37	D	C	G	R	L	4	3	0	0	DP	40	C	20					C	MF	3	N
28	6	0+180	R	1	34	5	0.27	0.06	2	1.7					C	G	R	L	19	9	4	0	LWD	20	C	10					C	MF	3	N
29	6	0+214	P	1	6	0																												
30	6	0+220	R	1	6	4																												
31	6	0+226	G	1	4	1																												
32	6	0+230	R	1	8	4																												
33	6	0+234	P	1	4	0																												
34	6	0+238	R	1	3	5	0.27	0.05	2.6	1.7					C	G			0	0	0	0	OV	20	C	5					C	MF	3	N
35	6	0+241	G	1	3	1																												
36	6	0+244	P	1	4	0	0.54	0.3	2.1	1.9	0.48	0.1	0.38	D	C	G	R	L	5	1	2	0	DP	35	OV	15					C	MF	0	N
Habitat Unit Total			R	1	157																												
Habitat Unit Total			P	1,3	53																												
Habitat Unit Total			G	1	34																												
Habitat Unit Mean			C	1	8																												
Habitat Unit Mean			R	1	12	3.8	0.2	0.2	2.4	2.2					C,G	G,C	R	L	6	4	1	0	C,LWD,OV		OV,C,B						C	MF	2.3.0	N

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
Habitat Unit Mean			P	1,3	4	0.0	0.5	0.3	1.9	2.1	0.4	0.1	0.4	D	C	G	R	L	2	1	0	0	DP,C		C,OV						C	MF	1,2,3,0	N
Habitat Unit Mean			G	1	4	1.6	0.4	0.1	1.7	2.2					C,G	G,C	R	L,H	1	1	0	0	C		LWD,OV						C	MF	1,2	N
Habitat Unit Mean			C	1	8	9.0	0.2	0.1	2.1	2.3					C	G	R	L	4	3	0	0	C		LWD						C	MF	2	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2Y: Fisheries Habitat Assessment Procedures (FHAP) Data for Turtle Creek, Reach 1, 2011

Level 1 Fish Habitat Survey Data Form

Stream Name: Turtle Creek
Freshwater Atlas Code: 100-567134-610692-4801511
Reach: 1

Subsampling Fractions: R 1/2 P 1/2 G C
Flow Stage: Moderate

Survey Dates: August 16, 2011
Weather: Overcast
Field Crew: IM, KM

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
							Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
			Type	Category													Type	Amount																
1	1	0+000	G	1	85	0.5	0.3	0.2	1.7	1.5	-	-	-	-	S	-	-	N	4	0	0	0	OV	40	IV	60	-	-	-	MC	S	SHR	2	N
2	1	0+085	P	1	2	0	0.45	0.3	1.7	1.5	0.45	0.2	0.25	S	S	-	-	N	0	0	0	0	OV	50	SWD	20	-	-	-	MC	S	SHR	1	N
3	1	0+087	G	1	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	1	0+100	P	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Habitat Unit Total			P	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			G	1	98	-	-	-	-	-	-	-	-	-	-	-	-	-	4	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Mean			P	1	4	0.0	0.5	0.3	1.7	1.5	0.5	0.2	0.3	S	S	-	-	N	0	0	0	0	OV	-	SWD	-	-	-	-	MC	S	SHR	1	N
Habitat Unit Mean			G	1	49	0.5	0.3	0.2	1.7	1.5	-	-	-	-	S	-	-	N	4	0	0	0	OV	-	IV	-	-	-	-	MC	S	SHR	2	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2Z: Fisheries Habitat Assessment Procedures (FHAP) Data for Turtle Creek, Reach 2, 2011

Level 1 Fish Habitat Survey Data Form

Stream Name: Turtle Creek
Freshwater Atlas Code: 100-567134-610692-4801511
Reach: 2

Subsampling Fractions: 3/11 R; 3/7 P; 3/10 G; C

Flow Stage: Moderate

Survey Dates: August 09, 2011
Weather: Sunny
Field Crew: IM, MB

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
1	2	0+005	G	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	2	0+031	R	1	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	2	0+034	G	1	3	2	0.5	0.35	3.3	2.3	-	-	-	-	C	G	-	N	0	0	0	0	C	5	OV	15	-	-	-	-	C	MF	1	N
4	2	0+036	P	3	2	0	-	-	-	-	0.3	0.1	0.2	S	G	S	R	L	3	0	0	0	LWD	50	C	5	-	-	-	JM	C	MF	1	N
5	2	0+040	R	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	2	0+044	G	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	2	0+048	P	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	2	0+052	R	1	4	0.5	0.65	0.3	3.5	3.3	-	-	-	-	C	G	-	N	3	0	1	0	OV	10	LWD	5	SC	P	10	-	C	MF	1	N
9	2	0+058	G	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	2	0+087	R	1	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	2	0+099	G	1	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	2	0+118	R	1	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	2	0+130	G	1	12	1	0.65	0.35	1.6	2	-	-	-	-	C	S	-	N	4	0	0	0	OV	10	IV	15	-	-	-	-	C	MF	1	N
14	2	0+141	R	1	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	2	0+153	G	1	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	2	0+166	R	1	13	1	0.5	0.25	2.7	2	-	-	-	-	C	-	-	N	12	1	2	0	OV	10	LWD	10	-	-	-	-	C	MF	1	N
17	2	0+169	P	1	3	0	0.5	0.35	3	2.8	0.4	0.4	0.3	S	C	-	-	N	4	0	1	0	DP	20	LWD	10	-	-	-	-	C	MF	1	N
18	2	0+175	R	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	2	0+177	P	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	2	0+185	R	1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	2	0+187	G	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	2	0+198	P	1	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	2	0+207	R	1	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	2	0+210	G	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	2	0+238	R	1	28	1	0.45	0.25	5	4.2	-	-	-	-	B	C	-	N	25	2	5	0	LWD	50	C	5	-	-	-	JM	C	MF	1	N
26	2	0+245	G	1	7	0	0.7	0.5	3	3	-	-	-	-	C	S	-	N	4	1	0	0	C	15	OV	5	-	-	-	-	C	MF	1	N
27	2	0+249	P	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	2	0+252	P	1	3	0	0.8	0.6	2.8	3.2	0.8	0.2	0.6	D	S	C	-	N	1	0	1	0	DP	60	OV	15	-	-	-	-	C	MF	1	N
Habitat Unit Total			R	1	157	-	-	-	-	-	-	-	-	-	-	-	-	-	40	3	8	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			P	1,3	29	-	-	-	-	-	-	-	-	-	-	-	-	-	8	0	2	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			G	1	66	-	-	-	-	-	-	-	-	-	-	-	-	-	8	1	0	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Mean			R	1	14	0.8	0.5	0.3	3.7	3.2	-	-	-	-	C	G	-	N	13	1	3	0	OV	-	LWD	-	SC	P	10	JM	C	MF	1	N
Habitat Unit Mean			P	1,3	4	0.0	0.7	0.5	2.9	3.0	0.5	0.2	0.4	S,D	G,C	S	R	L	3	0	1	0	DP	-	LWD,OV	-	-	-	-	JM	C	MF	1	N
Habitat Unit Mean			G	1	7	1.0	0.6	0.4	2.6	2.4	-	-	-	-	C	S	-	N	3	0	0	0	C	-	OV	-	-	-	-	-	C	MF	1	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2AA: Fisheries Habitat Assessment Procedures (FHAP) Data for Turtle Creek, Reach 3, 2011

Level 1 Fish Habitat Survey Data Form

Stream Name: Turtle Creek
Freshwater Atlas Code: 100-567134-610692-4801511
Reach: 3

Subsampling Fractions: R 3/7 P 3/7 G C
Flow Stage: Moderate

Survey Dates: August 16, 2011
Weather: Overcast
Field Crew: IM, KM

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
1	3	0+022	G	1	22	0.5	0.65	0.35	4.2	4.4	-	-	-	-	S	-	-	N	0	0	0	0	IV	75	C	10	-	-	-	EB	S	SHR	1	N
2	3	0+025	P	1	3	0	1	0.75	4.05	3.75	1.1	0.35	0.75	S	S	-	-	N	0	0	0	0	DP	90	OV	15	-	-	-	-	S	SHR	1	N
3	3	0+047	G	1	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	3	0+054	P	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	3	0+058	G	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	3	0+061	P	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	3	0+072	G	1	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	3	0+078	P	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	3	0+122	G	1	44	1	0.55	0.3	4.75	5.15	-	-	-	-	S	-	-	N	0	0	0	0	IV	20	C	10	-	-	-	-	S	SHR	1	N
10	3	0+128	P	3	6	0	-	-	-	-	0.8	0.5	0.3	S	S	G	-	N	1	0	0	0	OV	10	DP	40	-	-	-	-	S	SHR	1	N
11	3	0+134	P	1	6	0	0.9	0.7	5.2	5.5	1.3	0.45	0.85	S	S		-	N	0	0	0	0	OV	50	DP	80	-	-	-	-	S	SHR	2	N
12	3	0+227	G	1	93	0.5	0.5	0.25	5	4.9					S	G	-	N	0	0	0	0	IV	35	OV	5	-	-	-	-	S	SHR	1	N
13	3	0+233	P	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	3	0+256	G	1	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			P	1,3	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			G	1	219	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Mean			P	1,3	5	0.0	1.0	0.7	4.6	4.6	1.1	0.4	0.6	S	S	G	-	N	0	0	0	0	DP	-	OV	-	-	-	-	-	S	SHR	1,2	N
Habitat Unit Mean			G	1	31	0.7	0.6	0.3	4.7	4.8	-	-	-	-	S	G	-	N	0	0	0	0	IV	-	C	-	-	-	-	EB	S	SHR	1	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2AB: Fisheries Habitat Assessment Procedures (FHAP) Data for Turtle Creek, Reach 4, 2011

Level 1 Fish Habitat Survey Data Form

Stream Name: Turtle Creek
Freshwater Atlas Code: 100-567134-610692-4801511
Reach: 4

Subsampling Fractions: 1 1/3 3/13
R P G C
Flow Stage: Moderate

Survey Dates: August 15, 2011
Weather: Overcast, Light Rain
Field Crew: IM, KM

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
1	4	0+003	P	1	3	0	0.5	0.3	5.5	5.3	0.5	0.15	0.35	S	S	-	-	N	0	0	0	0	OV	95	SWD	20	-	-	-	-	S	SHR	3	N
2	4	0+005	G	1	2	0.5	0.55	0.3	5.5	5.3	-	-	-	-	S	G	-	N	3	1	0	0	SWD	45	C	10	-	-	-	-	S	SHR	2	N
3	4	0+013	P	1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	4	0+019	G	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	4	0+020	P	3	1	0	-	-	-	-	0.5	0.2	0.3	S	S	-	-	N	2	1	0	0	DP	40	LWD	30	-	-	-	-	C	MF	2	N
6	4	0+032	G	1	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	4	0+033	P	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	4	0+050	G	1	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	4	0+051	P	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	4	0+052	P	3	1	0	-	-	-	-	0.45	0.3	0.15	S	S	G	-	N	4	1	1	0	LWD	50	OV	50	-	-	-	-	S	SHR	2	N
11	4	0+054	P	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	4	0+072	G	1	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	4	0+074	P	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	4	0+075	P	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	4	0+083	P	1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	4	0+087	G	1	4	2	0.5	0.4	4.6	5	-	-	-	-	S	G	-	N	15	3	2	0	LWD	75	OV	75	-	-	-	-	S	SHR	3	N
17	4	0+090	R	1	3	1	0.55	0.3	5	4.7	-	-	-	-	S	G	-	N	8	3	2	0	SWD	40	OV	25	-	-	-	-	C	SHR,MF	2	N
18	4	0+105	G	1	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	4	0+106	P	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	4	0+111	P	1	5	0	0.65	0.45	3.1	3.8	0.6	0.2	0.4	S	S	G	-	N	4	1	1	0	DP	60	OV	35	-	-	-	-	S	SHR	2	N
21	4	0+142	G	1	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	4	0+146	P	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	4	0+149	P	3	1	0	-	-	-	-	0.5	0.2	0.3	S	S	G	-	N	5	2	1	0	LWD	40	OV	25	-	-	-	-	S	SHR	2	N
24	4	0+151	P	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	4	0+160	G	1	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	4	0+166	P	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	4	0+170	P	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	4	0+188	G	1	18	1	0.45	0.3	3	2.9	-	-	-	-	S	G	-	N	14	2	2	0	LWD	50	OV	25	-	-	-	-	C	MF	1	N
29	4	0+190	P	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	4	0+198	P	1	8	0	0.7	0.55	3	3.2	0.6	0.25	0.35	S	S	G	R	L	2	2	0	0	DP	75	OV	15	-	-	-	-	C,S	MF,SHR	1	N
31	4	0+216	G	1	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	4	0+218	P	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	4	0+223	R	1	5	0.5	0.35	0.25	2.9	3	-	-	-	-	C	G	-	N	4	0	0	0	OV	20	SWD	10	-	-	-	-	C,S	MF,SHR	2	N
34	4	0+251	G	1	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	4	0+263	P	1	12	0	0.65	0.55	4.7	4.5	0.7	0.2	0.5	S	S	G	-	N	6	0	4	0	LWD	50	OV	70	-	-	-	-	C,S	MF,SHR	2	N
36	4	0+269	G	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			R	1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	12	3	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			P	1,2,3	75	-	-	-	-	-	-	-	-	-	-	-	-	-	23	7	7	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			G	1	184	-	-	-	-	-	-	-	-	-	-	-	-	-	32	6	4	0	-	-	-	-	-	-	-	-	-	-	-	-	-

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
Habitat Unit Mean			R	1	4	0.8	0.5	0.3	4.0	3.9	-	-	-	-	S,C	G	-	N	6	2	1	0	SWD	-	OV	-	-	-	-	-	C,S	SHR,MF	2	N
Habitat Unit Mean			P	1,2,3	4	0.0	0.6	0.5	4.1	4.2	0.6	0.2	0.3	S	S	G	R	L	3	1	1	0	LWD, DP	-	OV	-	-	-	-	-	S,C	SHR,MF	1,2,3	N
Habitat Unit Mean			G	1	14	1.2	0.5	0.3	4.4	4.4	-	-	-	-	S	G	-	N	11	2	1	0	LWD	-	OV	-	-	-	-	-	S,C	SHR,MF	1,2,3	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2AC: Fisheries Habitat Assessment Procedures (FHAP) Data for Turtle Creek, Reach 5, 2011

Level 1 Fish Habitat Survey Data Form

Stream Name: Turtle Creek
Freshwater Atlas Code: 100-567134-610692-4801511
Reach: 5

Subsampling Fractions: 1 1/3 3/13
R P G C
Flow Stage: Moderate

Survey Dates: August 9, 2011
Weather: Sunny
Field Crew: PvD, GL

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
1	5	0+008	P	1	8	0	1.2	1	4.2	4.2	1.2	0.2	1	D				N	0	0	0	0	C	15	DP	70	SL	G	200 m2		S	SHR	1	N
2	5	0+069	P	1	61	0	1.3	1	5.2	5	1.3	0.3	1	D	S			N	15	0	0	0	C	10	DP	70	SL	G	100		S	SHR	1	N
3	5	0+084	P	1	15	0	1.3	1.1	4	4.3	1.2	0.2	1	D	S			N	3	0	0	0	C	10	OV	5	SC	G	70		S	SHR	1	N
5	5	0+158	P	1	39	0	0.8	0.6	5.8	5.5	1.5	0.5	1	S	S	S		N	20	0	0	0	C	5	DP	70					M	SHR,MF	1	N
7	5	0+168	P	1	8	0	0.8	0.5	5.8	5.2	0.5	0.3	0.2	S	S	G		N	0	0	0	0	OV	5	Cover	5					M	SHR,MF	1	N
4	5	0+119	G	1	35	0	1.4	1	3.8	3.8					S	G		N	4	1	0	0	C	10							S	SHR	1	N
6	5	0+160	G	1	2	1	0.7	0.3	5	5.2					S	G		N	3	3	0	0	C	5	OV	2					M	SHR,MF	1	N
8	5	0+180	G	1	12	1	0.7	0.35	4.9	3.7					G	S	R	H	3	1	0	0	C	30	OV	5					M	MF	1	N
Habitat Unit Total			P	1	131														38	0	0	0											
Habitat Unit Total			G	1	49														10	5	0	0											
Habitat Unit Mean			P	1	26	0.0	1.1	0.8	5.0	4.8	1.1	0.3	0.8	D	S	G		N	8	0	0	0	OV		DP					MC	S	SHR	1	N
Habitat Unit Mean			G	1	16	0.7	0.9	0.6	4.6	4.2					S	G		N	3	2	0	0	OV		IV					MC	S	SHR	2	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2AD: Fisheries Habitat Assessment Procedures (FHAP) Data for Creek 661, Reach 1, 2012

Level 1 Fish Habitat Survey Data Form

Stream Name: Creek 661
Freshwater Atlas Code: 100-567134-610692-671007
Reach: 1

Subsampling Fractions: 3/8 R, 4/9 P, 4/10 G, - C

Flow Stage: Moderate

Survey Dates: August 3, 2012
Weather: Sunny, clear
Field Crew: BM, IM

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
1	1	0+000	R	1	10	2.5	0.37	0.22	4.14	2.45					G	C	R	H	3	1	1	0	OV	10	C	2					C	MF	2	N
2	1	0+010	G	1	4	0.5	0.36	0.26	5.85	3.58					G	F	R	H	0	0	0	0	C	10	SWD	2					C	MF	2	N
3	1	0+014	P	1	6	0	0.66	0.55	3.75	2.85	0.6	0.19	0.41	S	G	F	R	H	3	0	3	0	DP	50	C	5					C	MF	3	N
4	1	0+020	G	1	4																													
5	1	0+024	P	1	14																													
6	1	0+038	R	1	5																													
7	1	0+043	G	1	18																													
8	1		P	3	6x1	0	0.64	0.5			0.61	0.2	0.41	S	C	G		N	2	0	2	0	DP	80	LWD	10	PD	N	15		C	MF	3	N
9	1	0+061	P	1	6	0	0.52	0.42	7.36	4.15	0.55	0.22	0.23	S	C	G	R	L	1	1	0	0	DP	50	SWD	15					C	MF	3	N
10	1	0+067	G	1	4	1	0.41	0.25	5.64	3.12					G	F	R	H	0	0	0	0									C	MF	3	N
11	1	0+071	P	1	8																													
12	1	0+079	R	1	4																													
13	1	0+083	G	1	18																													
14	1	0+101	P	1	9	0	0.65	0.55	6.41	6.55	0.74	0.35	0.39	S	C	G		N	0	0	0	0	DP	80	OV	5					C	MF	3	N
15	1	0+110	R	1	18	2	0.27	0.12	3.95	3.8					C	G		N	0	0	0	0	OV	5	C	2					C	MF	3	N
16	1	0+128	G	1	5																													
17	1	0+138	P	1	13																													
18	1	0+146	R	1	19																													
19	1	0+164	P	1	7																													
20	1	0+171	G	1	5	0.5	0.38	0.29	4.26	3.73					C	G	R	L	1	0	1	0	C	5	OV	2				MB	C	MF	3	N
21	1	0+176	P	1	4	0	0.61	0.4	2.85	2.25	0.5	0.21	0.29	S	C	G		N	0	0	0	0	DP	40	C	30				MB	C	MF	3	N
22	1	0+180	R	1	4																													
23	1	0+184	G	1	21																													
24	1	0+205	R	1	3	2	0.34	0.15	4.23	4.35					G	C		N	0	0	0	0	SWD	10	C	5					C	MF	3	N
25	1	0+208	P	1	4																													
26	1	0+212	G	1	12	1	0.43	0.25	4.45	3.73					C	G	R	L	4	2	2	0	LWD	25	OV	10					C	MF	3	N
27	1	0+224	R	1	14																													
28	1	0+238	G	1	13																													
Habitat Unit Total			R	1	77																													
Habitat Unit Total			P	1,3	71																													
Habitat Unit Total			G	1	104																													
Habitat Unit Mean			R	1	10	2.2	0.3	0.2	4.1	3.5					G,C	C,G	R	N,H	1	0	0	0	OV,SWD		C						C	MF	3,2	N
Habitat Unit Mean			P	1,3	8	0.0	0.6	0.5	5.1	4.0	0.6	0.2	0.3	S	C,G	G,F	R	N,L,H	1	0	1	0	DP		C,SWD,OV,LWD		PD			MB	C	MF	3	N
Habitat Unit Mean			G	1	10	0.8	0.4	0.3	5.1	3.5					G,C	F,G	R	H,L	1	1	1	0	C,LWD		OV,SWD					MB	C	MF	3,2	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2AE: Fisheries Habitat Assessment Procedures (FHAP) Data for Creek 661, Reach 2, 2012

Level 1 Fish Habitat Survey Data Form

Stream Name: Creek 661
Freshwater Atlas Code: 100-567134-610692-671007
Reach: 2

Subsampling Fractions: 4/9 R; 4/7 P; 4/6 G; - C

Flow Stage: Moderate

Survey Dates: August 2, 2012
Weather: Sunny, clear
Field Crew: BM, IM

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
1	2	0+000	R	1	15	2	0.41	0.2	5.22	3.55					G	C	R	L	0	0	0	0	C	5	OV	5	SC	G	30		C	MF	3	N
2	2	0+015	G	1	7	1.5	0.45	0.25	4.41	4.58					G	F	R	H	2	1	1	0	OV	25	LWD	10					C	MF	3	N
3	2	0+022	P	1	6	0	0.49	0.35	5.35	3.2	0.52	0.2	0.32	S	G	C	R	L	1	1	0	0	DP	30	C	20					C	MF	3	N
4	2	0+028	R	1	31	1.5	0.38	0.25	4.3	3.81					C	G	R	L	0	0	0	0	C	5	OV	2					C	MF	3	N
5	2	0+059	G	1	8	0.5																												
6	2	0+067	P	1	7	0																												
7	2	0+074	R	1	14	2																												
8	2	0+088	G	1	4	1																												
9	2	0+092	P	1	3	0	0.46	0.3	4.79	4.79	0.55	0.2	0.35	S	C	G	R	L	1	0	1	0	DP	60	C	10					C	MF	2	N
10	2	0+095	R	1	4	1																												
11	2	0+099	P	1	10	0	0.64	0.45	3.95	3.8	0.72	0.21	0.51	S	F	F	R	L	0	0	0	0	DP	80	C	15					C	MF	2	N
12	2	0+109	G	1	12	1	0.45	0.27	4.09	3.05					G	G	R	L	0	0	0	0	C	15	OV	10					C	MF	2	N
13	2	0+121	R	1	7	1.5																												
14	2	0+128	P	1	3	0																												
15	2	0+131	R	1	16	2	0.42	0.2	4.83	3.89					C	G	R	L	0	0	0	0	C	10	OV	10					C	MF	3	N
16	2	0+147	G	1	22	1.5	0.48	0.33	3.82	4.35					G	C	R	H	1	0	1	0	C	5	OV	2					C	MF	4	N
17	2	0+169	R	1	8																													
18	2	0+178	P	1	4	0	0.68	0.45	5.52	4.1	0.61	0.31	0.3	S	C	G		N	4	1	1	0	DP	60	C	10	SC	G	20		C	MF	3	N
19	2	0+182	R	1	18																													
20	2	0+200	P	1	19																													
21	2	0+219	R	1	10	2	0.28	0.1	3.95	4.05					G	C	R	H	0	0	0	0	C	2	OV	2					C	MF	3	N
22	2	0+229	G	1	23	3	0.48	0.25	3.25	3.3					G	C	R	H	2	1	0	0	LWD	15	OV	10	SC	G	20		C	MF	2	N
Habitat Unit Total			R	1	123																													
Habitat Unit Total			P	1,3	52																													
Habitat Unit Total			G	1	76																													
Habitat Unit Mean			R	1	14	1.7	0.4	0.2	4.6	3.8					G,C	C,G	R	L,H	0	0	0	0	C		OV		SC	G			C	MF	3	N
Habitat Unit Mean			P	1,3	7	0.0	0.6	0.4	4.9	4.0	0.6	0.2	0.4	S	C,G,F	G,C,F	R	L,N	2	1	1	0	DP		C		SC	G			C	MF	2,3	N
Habitat Unit Mean			G	1	13	1.4	0.5	0.3	3.9	3.8					G	C,F,G	R	H,L	1	1	1	0	C,DP,LWD		OV,LWD		SC	G			C	MF	2,3,4	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2AF: Fisheries Habitat Assessment Procedures (FHAP) Data for Creek 661, Reach 3, 2011

Level 1 Fish Habitat Survey Data Form

Stream Name: Creek 661
Freshwater Atlas Code: 100-567134-610692-671007
Reach: 3

Subsampling Fractions: 1/2 2/7 3/13
R P G C

Flow Stage: Moderate

Survey Dates: August 11, 2011
Weather: Sunny
Field Crew: IM, MB

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
1	3	0+006	P	1	6	0	0.7	0.5	5	5.5	0.75	0.1	0.65	S	C	G	R	L	0	0	0	0	DP	60	OV	30	-	-	-	-	C	MF	2	N
2	3	0+008	G	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	3	0+010	P	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	3	0+035	G	1	25	2	0.65	0.5	3.6	3.2	-	-	-	-	G	S	R	L	10	2	3	0	SWD	20	C	5	-	-	-	-	C	MF	1	N
5	3	0+038	P	3	3	0	-	-	-	-	0.4	0.15	0.25	S	G	S	R	L	0	0	0	0	OV	90	SWD	20	-	-	-	-	C	MF	1	N
6	3	0+040	P	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	3	0+042	P	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	3	0+045	G	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	3	0+049	P	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	3	0+054	P	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	3	0+079	G	1	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	3	0+081	P	1	2	0		0.5	4.5	4	0.65	0.15	0.5	S	S	G	R	L	1	0	0	0	DP	50	LWD	30	-	-	-	-	C	MF	1	N
13	3	0+135	G	1	54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	3	0+136	P	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	3	0+139	P	3	3	0	-	-	-	-	0.7	0.15	0.55	S	G	S	-	N	0	0	0	0	DP	50	IV	50	-	-	-	-	C	MF	1	N
16	3	0+142	P	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	3	0+159	G	1	17	2	0.5	0.25	3.9	3.3	-	-	-	-	G	S	R	H	10	1	3	0	LWD	40	OV	30	-	-	-	MC	C	MF	1	N
18	3	0+160	P	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	3	0+162	P	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	3	0+168	G	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	3	0+170	P	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	3	0+172	P	1	2	0	0.6	0.45	4	4.2	0.6	0.15	0.45	D	S	G	-	N	2	1	1	0	DP	60	IV	20	-	-	-	-	C	MF	1	N
23	3	0+174	G	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	3	0+178	P	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	3	0+191	G	1	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	3	0+194	P	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	3	0+212	G	1	18	1	0.25	0.15	4.4	4.8	-	-	-	-	G	S	R	H	3	0	1	0	OV	30	IV	5	-	-	-	-	C	MF	1	N
28	3	0+215	P	1	3	0	0.75	0.6	4.3	4.2	0.7	0.2	0.5	S	S	G	-	N	2	0	2	0	DP	80	LWD	10	-	-	-	-	C	MF	1	N
29	3	0+233	G	1	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	3	0+240	P	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	3	0+242	R	1	2	3	0.25	0.15	2.8	1.95	-	-	-	-	G	C	-	N	0	0	0	0	OV	15	IV	10	-	-	-	-	C	MF	1	N
32	3	0+250	G	1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	3	0+251	P	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	3	0+255	P	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	3	0+260	R	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	3	0+265	G	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			R	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			P	1,3	60	-	-	-	-	-	-	-	-	-	-	-	-	-	5	1	3	0	-	-	-	-	-	-	-	-	-	-	-	-

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
			Type	Category			Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
																	Type	Amount															
Habitat Unit Total			G	1	196	-	-	-	-	-	-	-	-	-	-	-	-	-	23	3	7	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Mean			R	1	4	3.0	0.3	0.2	2.8	2.0	-	-	-	-	G	C	-	N	0	0	0	0	OV	-	IV	-	-	-	-	-	C	MF	1	N
Habitat Unit Mean			P	1,3	3	0.0	0.7	0.5	4.5	4.5	0.6	0.2	0.5	S,D	S	G	R	L	1	0	1	0	DP	-	IV,LWD	-	-	-	-	-	C	MF	1,2	N
Habitat Unit Mean			G	1	15	1.7	0.5	0.3	4.0	3.8	-	-	-	-	G	S	R	L,H	8	1	2	0	LWD	-	OV	-	-	-	-	JM,MC	C	MF	1	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2AG: Fisheries Habitat Assessment Procedures (FHAP) Data for Creek 661, Reach 4 2011

Level 1 Fish Habitat Survey Data Form

Stream Name: Creek 661
Freshwater Atlas Code: 100-567134-610692-671007
Reach: 4

Subsampling Fractions: 1/4 4/13 2/7
R P G C

Flow Stage: Moderate

Survey Dates: August 12, 2011
Weather: Sunny
Field Crew: IM, MB

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
							Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
			Type	Category													Type	Amount															
1	4	0+007	G	1	7	2	0.4	0.15	3.8	2.9	-	-	-	-	C	G	R	L	6	1	1	0	LWD	15	C	5	-	-	-	-	C	MF	1	N
2	4	0+009	P	3	2	0	-	-	-	-	0.35	0.2	0.15	S	C	G	-	-	2	0	0	0	LWD	50	C	5	-	-	-	-	C	MF	1	N
3	4	0+015	R	1	6	1	0.25	0.1	2.8	3	-	-	-	-	G	C	R	H	3	0	1	0	LWD	25	C	5	-	-	-	-	S	SHR	1	N
4	4	0+017	P	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	4	0+020	R	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	4	0+021	P	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	4	0+022	P	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	4	0+024	P	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	4	0+036	G	1	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	4	0+038	P	1	2	0	0.45	0.3	2.9	2.2	0.4	0.15	0.25	D	C	S	-	N	1	0	1	0	C	45	OV	5	-	-	-	-	S	SHR	1	N
11	4	0+043	R	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	4	0+052	G	1	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	4	0+054	P	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	4	0+055	P	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	4	0+057	G	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	4	0+061	P	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	4	0+073	G	1	12	0.5	0.35	0.2	3.1	3.6	-	-	-	-	G	C	R	L	10	2	3	0	LWD	40	C	10	-	-	-	JM	C	MF	1	N
18	4	0+074	P	3	1	0	-	-	-	-	0.4	0.2	0.2	S	G	S	R	L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	4	0+092	R	1	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	4	0+095	G	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	4	0+097	P	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	4	0+102	P	1	5	0	0.5	0.35	2.5	2.9	0.5	0.2	0.3	S	C	G	R	L	3	0	1	0	OV	45	DP	40	-	-	-	-	S	SHR	2	N
23	4	0+107	G	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	4	0+108	P	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			R	1	34	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0	1	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			P	1,3	26	-	-	-	-	-	-	-	-	-	-	-	-	-	6	0	2	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			G	1,2	50	-	-	-	-	-	-	-	-	-	-	-	-	-	16	3	4	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Mean			R	1	9	1.0	0.3	0.1	2.8	3.0	-	-	-	-	G	C	R	H	3	0	1	0	LWD	-	C	-	-	-	-	-	S	SHR	1	N
Habitat Unit Mean			P	1,3	2	0.0	0.5	0.3	2.7	2.6	0.4	0.2	0.2	S,D	C	G,S	R	L	2	0	1	0	LWD, OV	-	DP	-	-	-	-	-	S,C	SHR,MF	1,2	N
Habitat Unit Mean			G	1,2	7	1.3	0.4	0.2	3.5	3.3	-	-	-	-	C	G	R	L	8	2	2	0	LWD	-	OV	-	-	-	-	-	C	MF	1	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

Table 5.8-2AH: Fisheries Habitat Assessment Procedures (FHAP) Data for Creek 661, Reach 5 2011

Level 1 Fish Habitat Survey Data Form

Stream Name: Creek 661
Freshwater Atlas Code: 100-567134-610692-671007
Reach: 5

Subsampling Fractions: 1/3 R, 1/3 P, 1/3 G, C
Flow Stage: Moderate

Survey Dates: August 12, 2011
Weather: Overcast
Field Crew: IM, MB

No.	Reach Number	Distance (m)	Habitat Unit		Length (m)	Gradient (%)	Mean Depth		Mean Width		Pools Only				Bed Material Type				Total LWD Tally	Functional LWD Tally			Cover				Off-Channel Habitat			Disturbance Indicators	Riparian Vegetation			Barriers
							Bankfull (m)	Water (m)	Bankfull (m)	Wetted (m)	Max Depth (m)	Crest (m)	Residual (m)	Pool Type	Dom.	Sub-Dom.	Spawning Gravels			10-20 cm	20-50 cm	>50 cm	Cover Type	%	Cover Type	%	Type	Access	Length (m)		Type	Structure	Canopy Closure (%)	
			Type	Category													Type	Amount															
1	5	0+004	R	1	4	3	0.25	0.1	1.7	1.65	-	-	-	-	C	S	-	N	6	1	1	0	LWD	30	OV	20	-	-	-	-	C	MF	1	N
2	5	0+006	G	1	2	1	0.3	0.2	1.15	1.5	-	-	-	-	C	B	-	N	7	2	2	0	LWD	40	C	15	-	-	-	JM	S,C	SHR	1	N
3	5	0+008	P	1	2	0	0.4	0.35	1.8	1.9	0.45	0.05	0.4	D	S	G	R	L	1	0	1	0	OV	20	LWD	15	-	-	-	-	C	MF	1	N
4	5	0+011	G	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	5	0+014	P	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	5	0+028	C	1	14	4	0.2	0.1	1.85	2	-	-	-	-	B	G	-	N	3	0	1	0	LWD	25	C	10	-	-	-	-	C	MF	1	N
7	5	0+035	R	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	5	0+039	G	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	5	0+042	R	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	5	0+046	G	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	5	0+051	P	1	5	0	0.6	0.5	2.4	3.1	0.65	0.1	0.55	S	C	S	-	N	3	2	0	0	DP	80	C	20	-	-	-	-	C	MF	1	N
12	5	0+055	R	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	5	0+061	P	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	5	0+063	R	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	5	0+064	P	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	5	0+066	G	1	2	1	0.4	0.2	2.2	2.4	-	-	-	-	C	S	-	N	3	0	1	0	C	25	IV	10	-	-	-	-	C	MF	2	N
17	5	0+068	P	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	5	0+071	G	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	5	0+074	P	1	3	0	0.5	0.35	1.3	1.3	0.45	0.1	0.35	D	S	C	-	N	3	0	1	1	C	25	LWD	5	-	-	-	-	C	MF	3	N
20	5	0+084	G	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	5	0+091	P	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	5	0+097	G	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	5	0+100	P	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	5	0+101	R	1	1	0.5	0.25	0.1	1.35	1.2	-	-	-	-	C	B	-	N	1	0	1	0	OV	30	SWD	10	-	-	-	-	C	MF	2	N
Habitat Unit Total			R	1	21	-	-	-	-	-	-	-	-	-	-	-	-	-	7	1	2	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			P	1	32	-	-	-	-	-	-	-	-	-	-	-	-	-	7	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Total			G	1	48	-	-	-	-	-	-	-	-	-	-	-	-	-	13	2	4	0	-	-	-	-	-	-	-	-	-	-	-	-
Habitat Unit Mean			R	1	4	1.8	0.3	0.1	1.5	1.4	-	-	-	-	C	S,B	-	N	4	1	1	0	LWD, OV	-	SWD	-	-	-	-	-	C	MF	1,2	N
Habitat Unit Mean			P	1	4	0.0	0.5	0.4	1.8	2.1	0.5	0.1	0.4	D,S	S	C,G	R	L	2	1	1	0	DP	-	LWD	-	-	-	-	-	C	MF	1,3	N
Habitat Unit Mean			G	1	5	2.0	0.3	0.2	1.7	2.0	-	-	-	-	C	G,S	-	N	4	1	1	0	LWD	-	C	-	-	-	-	-	C,S	MF,SHR	1,2	N

Note: Habitat Type: G - glide; P - pool; R - riffle;
Substrate: B - boulder; C - cobble; G - gravel; R - bedrock; S - fines
Spawning Gravels: H - high quality; L - low quality; N - none
Cover Type: B - boulders; C - cobbles; DP - deep pools; IV - instream vegetation; LWD - large woody debris; OV - overhanging vegetation; Off-Channel Habitat: SC - side channel; WL - wetland
Riparian Vegetation: C - conifer; M - mixed; MF - mature forest; S - shrub; SHR - shrubs

newgold

Annex 5.8-3
Overwintering Habitat and Lake Winter Dissolved Oxygen Data, 2012

Table 5.8-3A: Winter Dissolved Oxygen Observations in Streams, March 2012

Watershed	Stream/Lake Name	Reach	Site Number	Date Sampled	Air Temp (°C)	Habitat Type	Sample Number	Snowpack (m)	Ice Depth (m)	Water Depth (m)	Dissolved Oxygen (mg/L)	Water Temp (°C)	Conductivity (µS/cm)	Turbidity (NTU)	pH	Secchi Depth (m)	Photo Numbers/Direction	General Comments
Davidson Creek	Davidson Creek	1	DO-09	05-Mar-12	-5	Pool/Glide	1	0.24	0.5	0.55	10.85	0	95.7	0	7.11	-	188 US, 189 DS	Sites were hard to tell if slow glide or pool. Suspect ice depth at tailout is slowing water - ie. run with very slow water. Appears to be connected to lake.
							2	0.22	0.45	0.5	11.07	0	113	0.5	6.69	-		
							3	0.24	0.5	0.72	11.03	0	89.1	0	6.31	-		
Davidson Creek	Davidson Creek	8	DO-08	08-Mar-12	-1	Pool	1	0	0.07	0.55	10.2	0.3	113	0	7.29	-	231 - river left looking towards river right, 232 - river left looking towards stream/pool	Only two pools found - shallow water. Requires control to develop pool at this level.
							2	0	0	0.65	10.66	0.3	108	0.5	7.31	-		
Davidson Creek	Davidson Creek	10	DO-06	09-Mar-12	2	Pool	1	0	0.06	0.44	8.57	0.2	87	0	6.05	-	258 US - #1, 261 US - #2, 262 US - #3, 265 US - #4	Sample #4 is a very slow run with same likeness to pool.
							2	0	0.06	0.7	9.13	0	59	0	6.52	-		
							3	0	0.06	0.68	9.45	0	59	0	6.67	-		
							4	0	0.04	0.21	9.27	0	59	0	6.74	-		
							5	0.17	0.05	0.24	9.75	0	59	0	6.77	-		
Davidson Creek	Davidson Creek	-	DO-10	08-Mar-12	-1	Other	1	0.29	0.6	-	-	-	-	-	-	-	233 - #1, 234 - #2, 235 - #3, 236 - #4, 237 - #5, 238, 239	Shallow lake, approximately 0 - 15cm of water/muck below ice. No indication of suitable habitat.
							2	0.3	0.5	0.15	4.43	0.1	144	300	7	-		
							3	0.31	0.64	-	-	-	-	-	-	-		
							4	0.28	0.61	-	-	-	-	-	-	-		
							5	0.3	0.65	-	-	-	-	-	-	-		
Davidson Creek	Creek 688328	2	DO-04	08-Mar-12	4	Pool	1	0	0.05	0.15	9.8	0.2	55	0	7.9	-	242 US, 243 DS, 244, 245 US, 246 DS, 247 US	Much of stream channel is buried under 1.4-1.7 m of snow. Very difficult to identify pools. Likely hydraulically connected to stream mainstem.
							2	0	0.04	0.38	9.3	0.2	70	0	7.54	-		
							3	0	0.05	0.3	10.5	0	77	1	7.45	-		
Turtle Creek	Turtle Creek	1	DO-01	08-Mar-12	3	Other	1	0.27	1.2	0.18	10.1	0	200	1.2	7.3	0.1	240-N, 241-SE	One of two things is happening: 1) Flow in Turtle Creek fans out in beaver ponds and is not hydraulically connected D/S, or 2) Channel exists below ice to the south of sample sites that is hydraulically connected U/S and D/S
							2	0.25	1.15	0.05	10.1	0	176	1	7.4	0.1		
							3	0.28	1.3	-	-	-	-	-	-	-		
							4	0.25	1.2	0.1	10	0	181	7	7.5	0.15		
							5	0.24	1.1	0.1	10.3	0	171	3	7.6	0.2		
Turtle Creek	Turtle Creek	3	DO-02	07-Mar-12	1	Pool/Glide	1	0.3	0.75	0.04	-	-	-	-	-	-	228, 229, 230 - auger holes, frozen to bed	All still water appears to be frozen to bed. Suspect no pool habitat available due to deep ice - riffles with water observed.
							2	0.25	0.85	0.02	-	-	-	-	-	-		
							3	0.28	0.8	0.04	-	-	-	-	-	-		
Creek 661	Creek 661	4	DO-14	07-Mar-12	-1	Other	1	0.45	0.85	0.15	10.6	0.1	197		5.2	0.3	210 - W, looking towards DO-15, 211 - E looking towards site 4 (DO-14), 212-216 - photos of holes, sites, etc., 217 - E, site 4 looking DS, 218 - SW, site 4 looking US	Ponds may not be connected to stream as ice is very thick and very little water under ice. Suspect no hydraulic connectivity between ponds and tributary to Creek 661. Tributary must be on south side of wetland/ponds. Possible groundwater seeps observed 1 km downstream.
							2	0.45	0.85	-	-	-	-	-	-	-		
							3	0.45	0.85	-	-	-	-	-	-	-		
							4	0.5	1.1	0.1	9.7	0	88	1	7.5	0.2		
							5	0.45	0.95	0.05	9.5	0	90	400	6.2	0.05		
							6	0.3	0.5	0.05	9.9	0	163	27	7.2	0.2		
							7	0.4	0.5	0.05	9.8	0	170	28	7.15	0.2		

Watershed	Stream/Lake Name	Reach	Site Number	Date Sampled	Air Temp (°C)	Habitat Type	Sample Number	Snowpack (m)	Ice Depth (m)	Water Depth (m)	Dissolved Oxygen (mg/L)	Water Temp (°C)	Conductivity (µS/cm)	Turbidity (NTU)	pH	Secchi Depth (m)	Photo Numbers/Direction	General Comments
Creek 661	Creek 505659	2	DO-13	06-Mar-12	-10	Pool	1	0.35	0.09	0.9	10.26	0	94	1.5	6.87	-	190, 191, 192, 193, 194, 195 - US, 196 - US, 197 - DS	Lots of water under thin ice. Must be connected to Creek 661. Not enough ice to restrict connectivitly.
							2	0.54	0.04	1.2	10.41	0	100.2	1	5.9	-		
							3	0	0.02	0.58	10.69	0	94.2	0.5	7.21	-		
							4	0.7	0.1	0.7	11.7	0	94	0.9	7.34	-		
Creek 661	Creek 146920	5	DO-07	07-Mar-12	1	Glide	1	0.43	0.05	-	-	-	-	-	-	-	226 US, 227 Macro	Stream frozen to bed. Suspect 5 cm of water when it froze - 5 cm ice now. No hydraulic connectivity with Davidson Creek.
Creek 705	Creek 705	2	DO-16	08-Mar-12	7	Pool	1	0.16	0.04	0.28	10.7	0	55	1	7.06	-	256 - @ #1 looking US, 257 - @ #1 looking DS	Only two pools found. Likely hydraulically connected to stream mainstem.
							2	0.2	0.85	-	-	-	-	-	-	-		
Tatelkuz Lake Tributaries	Creek 571602	1	DO-12	07-Mar-12	-1	Other	1	0.15	0.95	0.85	0.34	0.4	258	6	6.8	0.5	220 - NE, 221 - NW, 222 - SW, 223 - SE	Very little water ice, suspect it is deeper in centre of lake.
							2	0.12	0.9	0.9	3	0.8	155	4	7	0.3		
							3	0.12	0.87	0.9	0.9	0.3	78	7	6.9	0.3		
							4	0.15	0.9	0.9	1.5	0	210	4	6.9	0.2		
							5	0.12	0.94	0.92	1	1	163	4	6.87	0.2		
Tatelkuz Lake Tributaries	Snake Lake	7	DO-11	07-Mar-12	-1	Other	1	0.17	0.95	1.5	5.3	1.4	87	0	7.37	0.2	224 - N, 225 - S	Auger broke at this site.
							2	0.15	0.95	1.6	3.5	3.3	105	0	7.1	0.2		
							3.00	0.15	0.93	1.40	3.14	3.30	103.00	0.50	7.00	0.15		

Note: DS - downstream; m - metres; mg/L - milligrams per litre; NTU - nephelometric turbidity units; Temp - temperature; US - upstream; UTM - Universal Transverse Mercator; °C - degrees Celsius; µS/cm - microsiemens per centimetre

Table 5.8-3B: Winter Dissolved Oxygen Observations in Lakes and Ponds, March 2012

Watershed	Lake Name	Reach	Site Number	Date Sampled	Air Temp (°C)	Habitat Type	Sample Number	Field UTM	Snowpack (m)	Ice Depth (m)	Water Depth (m)	Depth (m)	Dissolved Oxygen (mg/L)	Water Temp (°C)	Conductivity (µS/cm)	pH	Turbidity (NTU)	Secchi Depth (m)	Photo Documentation	General Comments
Davidson Creek	Lake 01682LNRS	13	DO-05	08-Mar-12	2	Lake	1	10U 371262 5894150	0.36	1.15	1.55	-	6.9	1.2	55	7.43	0	0.25	250 N, 251 E, 252 S, 253 W	Lake deep with thick ice cover. Unable to tell if outlet was frozen or flowing.
							2	10U 371270 5894133	0.35	1.2	4.6	1	7.71	1.8	56	7	0	0.15		
												2	6.14	2	56	7	0	-		
												3	5.72	2.1	56	7.04	0	-		
												4	5.72	2.2	56	7.09	0	-		
												5	5.4	2.2	56	7.16	0	-		
							3	10U 371279 5894113	0.35	1.2	8.8	1	7.22	1.8	57	6.89	0	0.24		
												2	6.74	2	57	6.83	0	-		
												3	6.1	2.1	57	6.82	0	-		
												4	5.56	2.2	57	6.83	0	-		
												5	5.36	2.2	57	6.84	0	-		
												6	4.77	2.3	57	6.84	0	-		
												7	4.33	2.3	57	6.85	0	-		
												8	4.16	2.3	57	6.92	0	-		
							4	10U 371279 5894071	0.32	1.2	15	1	8.83	0.9	58	6.87	0	0.22		
												2	6.89	2	56	6.81	0	-		
												3	6.38	2.1	56	6.78	0	-		
												4	6.06	2.2	56	6.77	0	-		
												5	5.57	2.2	56	6.76	0	-		
												6	5	2.2	56	6.76	0	-		
												7	4.75	2.3	57	6.76	0	-		
												8	4.66	2.3	57	6.75	0	-		
												9	3.91	2.3	57	6.84	0	-		
							5	10U 371289 5894041	0.3	1.22	14.5	1	8.92	1.1	59	6.85	0	-		
												2	6.89	2	56	6.8	0	-		
												3	6.43	2.1	56	6.79	0	-		
												4	5.84	2.2	56	6.77	0	-		
												5	5.48	2.2	56	6.75	0	-		
												6	4.96	2.2	57	6.76	0	-		
												7	4.64	2.2	57	6.75	0	-		
												8	4.01	2.3	57	6.77	0	-		
												9	3.96	2.3	57	6.81	0	-		
Creek 705	Lake 01538UEUT	6	DO-17	08-Mar-12	2	Lake	1	10U 369323 5893752	0.42	1	1.8	-	9.77	0	43	7.11	0	0.1	254 - E, 255 - W	Flowing water at lake outlet. Suspect lake is deeper than results indicate in other parts of lake.
							2	10U 369343 5893744	0.4	1.1	1.7	1	8.87	0.8	23	7.18	0	0.1		
												2	7.34	1.6	22	7.19	0	-		
							3	10U 369366 5893756	0.41	1.15	2.25	1	9.34	0.8	27	7.15	0	0.1		
												2	7.88	2	27	7.18	0	-		
							4	10U 369395 5893751	0.4	1.1	3.5	1	9.2	1.1	46	7.11	0	0.1		
												2	8.48	2	45	7.13	0	-		
												3	7.76	2.3	45	7.16	0	-		
							5	10U 369423 5893749	0.42	1.1	3.8	1	7.44	0.7	46	7.08	0	0.1		

Watershed	Lake Name	Reach	Site Number	Date Sampled	Air Temp (°C)	Habitat Type	Sample Number	Field UTM	Snowpack (m)	Ice Depth (m)	Water Depth (m)	Depth (m)	Dissolved Oxygen (mg/L)	Water Temp (°C)	Conductivity (µS/cm)	pH	Turbidity (NTU)	Secchi Depth (m)	Photo Documentation	General Comments
												2	8.53	1.9	46	7.07	0	-		
												3	7.58	2.4	45	7.11	0	-		
Tatelkuz Lake Tributaries	Snake Lake	7	DO-11	07-Mar-12	-1	Other	1	0.17	0.95	1.5	5.3	1.4	87	0	7.37	0.2			224 - N, 225 - S	Auger broke at this site.
							2	0.15	0.95	1.6	3.5	3.3	105	0	7.1	0.2				
							3	0.15	0.93	1.4	3.14	3.3	103	0.5	7	0.15				

Note: DS - downstream; E - east; m - metres; mg/L - milligrams per litre; N - north; NE - northeast; NW - northwest; NTU - nephelometric turbidity units; S - south; SE - southeast; SW - southwest; Temp - temperature; US - upstream; UTM - Universal Transverse Mercator; W - west; °C - degrees Celsius; µS/cm - microsiemens per centimetre

Annex 5.9-1
Lake Habitat Data, 2012

Table 5.9-1A: Winter Dissolved Oxygen Observations in Lakes, 2012

Site ID	Length (m)	Width (m)	Area (m^2)	Time (min)	Max Depth (m)	UTM		Substrate		Organic Matter-Areal Coverage		Riparian Vegetation			Macrophytes				Algae			
						Northing	Easting	Dominant	Sub-dominant	Woody Debris	Detritus	1.5-10 m	10-30 m	30-100 m	Emergent	Rooted Floating	Submergent	Free Floating	Floating algae	Filament	Attached Algae	Crusts
16-06	14.9	7.6	113.2	10	0.75	5894170	371239	cobble	gravel	absent	absent	F, C	F, C	F, C	present	absent	present	absent	absent	absent	present	absent
16-07	30.4	5.8	176.3	10	0.75	5894165	371391	cobble	gravel boulder	present	absent	F, C	F, C	F, C	present	absent	present	absent	absent	absent	present	absent
16-08	39.3	3.3	129.7	10	0.75	5894099	371389	cobble	gravel sand	present	absent	F, C	F, C	F, C	present	absent	absent	absent	absent	absent	present	absent
16-09	45	4	180	10	0.50	5893889	371220	cobble	gravel sand	present	absent	F, C	F, C	F, C	present	absent	absent	absent	absent	absent	present	absent
16-10	17.2	7.8	133.3	10	0.75	5894119	371143	cobble	gravel	present	absent	F, C	F, C	F, C	present	absent	absent	absent	absent	absent	present	absent
15-06	17	21	357	10	0.75	5893723	369321	cobble	gravel	present	absent	S	F, C	F, C	present	absent	absent	absent	absent	absent	present	absent
15-07	14.5	14.5	210.3	10	0.75	5893575	369766	cobble	gravel	absent	absent	F, C	F, C	F, C	present	absent	present	absent	absent	absent	present	absent
15-08	2.5	46	115	10	0.75	5893561	370167	large gravel	cobble	present	present	F, C	F, C	F, C	present	absent	present	absent	absent	absent	present	absent
15-09	13	41	533	10	0.75	5893737	370475	cobble	large gravel	present	absent	F, C	F, C	F, C	absent	absent	absent	absent	absent	absent	absent	absent
15-10	20.5	10	105.5	10	0.75	5893855	369796	large cobble	gravel	present	absent	F, C	F, C	F, C	present	absent	present	absent	absent	absent	present	absent
14-06	41	15	615	10	0.75	5895791	369660	cobble	gravel	present	absent	F, MC	F, MC	F, MC	absent	absent	absent	absent	absent	absent	absent	present
14-07	38	7.5	285	10	0.75	5895702	369610	cobble	gravel	present	absent	F, MC	F, MC	F, MC	present	absent	absent	absent	absent	absent	absent	present
14-08	33.5	5	167.5	10	0.75	5895614	369559	cobble	gravel	present	absent	F, MC	F, MC	F, MC	present	absent	absent	absent	absent	absent	absent	present
14-09	27	8	216	10	0.75	5895835	369590	cobble	gravel	present	absent	F, MC	F, MC	F, MC	absent	absent	absent	absent	absent	absent	absent	present
14-10	35.5	10.5	372.8	10	0.75	5895845	369558	cobble	gravel	present	absent	F, MC	F, MC	F, MC	present	absent	absent	absent	absent	absent	absent	present

Notes: m = meter; min = minute; UTM = Universal Transverse Mercator; all UTM coordinates are from Zone 10U; C = coniferous; F = forests; MC = mainly coniferous; S = scrubland

Substrate notes:

Lake 01682LNRS - site 6 and 7 embedded and very compact; site 8 had smaller substrate size and not compact, more sandy; site 9 was a substrate band ~4 m wide and more sandy dominant than other sites

Lake 01538UEUT - no notes

Lake 01428UEUT - site 7 and 10 substrate seemed embedded and hard to turn over while scuffing with boots

Table 5.9-1B: Littoral Surface Water Quality Data, 2012

Site ID	Water temperature (°C)	Conductivity (µS/cm)	DO (mg/L)	DO (%)	Specific conductance (µS/cm)
16-6	13.1	38	9.29	87.9	49
16-7	12.1	37.2	9.27	85.6	49.1
16-8	12.2	37	8.85	84.3	49
16-9	13.8	38.5	8.84	86.4	49.1
16-10	14.1	38.1	9.17	88.1	49
15-6	12.2	32.4	8.88	82.4	44
15-7	12.6	33.6	8.01	79.8	44.1
15-8	13	33.8	8.3	79.9	43.9
15-9	13.7	34.8	8.58	80	44
15-10	12.7	33.7	8.3	80.8	44
14-6	12.7	36.3	9	-	-
14-7	no data taken				
14-8	no data taken				
14-9	no data taken				
14-10	no data taken				

Note: ID - identification, ºC - degrees Celsius, µS/cm - microsiemens per centimetre, DO – dissolved oxygen, mg/L - milligrams per litre, % - percent

Annex 5.9-2
FDIS Lake Site Cards, 2011

FDIS Lake Card

Reach # ILP Map # ILP #

Watershed Code: 180-609800-48100-00000-0000-0000-000-000-000-000-000-000 99.0

WATERBODY

Project Code: 180-609800-00000-00000-0000-0000-000-000-000-000-000-000

Waterbody Type: Primary Sample Type: Primary Fish Form: ☐

Lake Names Gazetted Name: Local Name:

Watershed Code: 180-609800-48100-00000-0000-0000-000-000-000-000-000-000

Reach #: 99.0 Air Photo: ORTHO ORTHO Comment:

Waterbody ID: 01682LNRS ILP Map #: ILP #: Project ID: 21496 Magnitude: 1

NID Map #: NID #:

Surface Area: 9.2 Source: AP Mthd: BT

UTM(Zone/East/North/Method) Elevation: 1345 Source: TRIM Mthd: MAP

10 | 371295 | 5894099 | GP2

Biogeoclimatic Zone: ESSF

Incomplete: ☐ Ref:

TERRAIN CHARACTERISTICS

Setting: VF Aspect: NW

Hillslope Coupling: PC Basin Genesis: GL

Land Use:	NO	AG	FB	FR	MI	PR	UD	OT
Percentage:	100							

SHORELINE CHARACTERISTICS

Shoreline Type:	i	ii	iii	iv	v
Percentage:	25	75			

Cover MOD

Rec. Features: Resorts: 0 Camps: 0 Boatlaunch: 0

INLETS / OUTLETS

Inlets (Perm.): 0 Inlets (Other): 0 Outlets: 1 Spawning hab. present?: ☐

I/O	Watershed Code	ILP Map #	ILP #	Comments
O	180-609800-48100-00000-0000-0000-000-000-000-000-000-0			

SURVEY INFORMATION

Date: 2011/08/14 to 2011/08/15 Agency: C860 Crew: KW/GL

AQUATIC FLORA

EMERGENT VEG.: Sparse: ☐ OR 40 % SUBMERGENT VEG.: Sparse ☐ OR 10 % Floating Algae?: ☑ Voucher Specimen: 3

Type	Dom. Species
SUBMERGENT	LAKE VEG TYPE III
EMERGENT	LAKE VEG TYPE I AND II

ACCESS

Air: FW ☐ H ☑ Road: V2 ☐ V4 ☐ Auto within:

Off Road: FT ☐ ATV ☐ V4 ☐ BT ☐ HO ☐ Distance:

Trail?: ☐ Distance:

Closest Community: Vanderhoof, BC

Comments:

helicopter

LAKE BATHYMETRY

Type of Survey: FL Littoral Area: 62 % Method: BT

Max. Depth: 16.3 Benchmark Height: 1.7 High Water Mark: 0.5

Benchmark Type/Location: blazed tree with pin @ dbh, flagged and spray painted (10. 371415.5894098)

Surface Area(ha): Volume(cu m):

Mean Depth(m): Perimeter (m):

Shoal Area(ha): Perimeter of Islands(m):

Comments:

AQUATIC WILDLIFE OBSERVATIONS

Group	Observations
BIR	Common Loon

LIMNOLOGICAL STATION WATER QUALITY

Station No.: 2 Date: 2011/08/14 Time: 08:15 UTM (Zone/East/North/Mtd): 10.371289.5894010 - GP2 EMS #: E999

Secchi Depth: 5.5 Water Color: GR pH (surf/bottom/cmt): 7.7 - 6.8 - YSI Ice Depth: 0

WATER SAMPLE

DISSOLVED OXYGEN, TEMPERATURE PROFILE AND CONDUCTIVITY

Depth	DO (d)	T(C)	DO (a)	T (C)	Cond.
.1	8.9	14.0	8.9	14.6	41.5

FDIS Lake Card

Reach #	ILP Map #	ILP #
99.0		

Watershed Code: 180-609800-48100-00000-0000-0000-000-000-000-000-000-000

LIMNOLOGICAL STATION
WATER QUALITY

1.0	8.9	14.5	8.8	14.6	43.1
2.0	8	14.5	9.6	14.4	43.1
3.0	9.5	14.2	8.7	14.0	43.2
4.0	9.3	12.5	9.1	11.1	49
5.0	8.2	10.3	8.4	8.1	59.1
6.0	5.6	6.7	5.6	6.2	60.9
7.0	3.9	5.5	3.0	5.8	62.4
8.0	1.1	5.0	1.8	5.1	64.3
9.0	0.6	4.7	.5	4.4	65.3
10.0	0.3	4.5	.1	4.5	66.3
11.0	0.1	4.5	.1	4.5	66.6
12.0	0.1	4.5	.1	4.5	66.4
MEAN	4.96	8.88	4.98	8.60	56.25

EQUIPMENT USED

pH: P1 Water Temp: T3
Conductivity: S3 Dis. Oxygen: D2

H2S:

C O M M E N T S

Section	Comments
WEATHER	overcast scattered sun. 10'C, light rain in afternoon.

FDIS Lake Card

Reach # ILP Map # ILP #

Watershed Code: 180-637900-56400-70500-7270-0000-000-000-000-000-000-000 99.0

WATERBODY

Project Code: 180-637900-00000-00000-0000-0000-000-000-000-000-000-000

Waterbody Type: Primary Sample Type: Primary Fish Form: ☐

Lake Names Gazetted Name: Local Name:

Watershed Code: 180-637900-56400-70500-7270-0000-000-000-000-000-000-000

Reach #: 99.0 Air Photo: ORTHO ORTHO Comment:

Waterbody ID: 01538UEUT ILP Map #: ILP #: Project ID: 21496 Magnitude: 2

NID Map #: NID #:

Surface Area: 35.8 Source: AP Mthd: BT

UTM(Zone/East/North/Method) Elevation: 1354 Source: TRIM Mthd: MAP

10 | 369857 | 5893713 | GP2

Biogeoclimatic Zone: ESSF

Incomplete: ☐ Ref:

TERRAIN CHARACTERISTICS

Setting: VF Aspect: NW

Hillslope Coupling: PC Basin Genesis: GL

Land Use:	NO	AG	FB	FR	MI	PR	UD	OT
Percentage:	100							

SHORELINE CHARACTERISTICS

Shoreline Type:	i	ii	iii	iv	v
Percentage:	20	80			

Cover MOD

Rec. Features: Resorts: 0 Camps: 0 Boatlaunch: 0

INLETS / OUTLETS

Inlets (Perm.): 1 Inlets (Other): 0 Outlets: 1 Spawning hab. present?: ☐

I/O	Watershed Code	ILP Map #	ILP #	Comments
I	180-637900-56400-70500-7270-0000-000-000-000-000-000-0			
O	180-637900-56400-70500-7270-0000-000-000-000-000-000-0			

SURVEY INFORMATION

Date: 2011/08/12 to 2011/08/13 Agency: C072 Crew: KW/GC

AQUATIC FLORA

EMERGENT VEG.: Sparse: ☐ OR 40 % SUBMERGENT VEG.: Sparse ☐ OR 20 % Floating Algae?: ☐ Voucher Specimen: 4

Type	Dom. Species
SUBMERGENT	LAKE VEG TYPE III AND IV
EMERGENT	LAKE VEG TYPE I AND TYPE II

ACCESS

Air: FW☐ H☑ Road: V2☐ V4☐ Auto within:

Off Road: FT☐ ATV☐ V4☐ BT☐ HO☐ Distance:

Trail?: ☐ Distance:

Closest Community: Vanderhoof

Comments:

Heli

LAKE BATHYMETRY

Type of Survey: FL Littoral Area: 97.6 % Method: BT

Max. Depth: 11.2 Benchmark Height: 1.9 High Water Mark: 0.7

Benchmark Type/Location: blazed, flagged and painted, pin at base and dbh. 10 .369637.5895845

Surface Area(ha): Volume(cu m):

Mean Depth(m): Perimeter (m):

Shoal Area(ha): Perimeter of Islands(m):

Comments:

AQUATIC WILDLIFE OBSERVATIONS

Group	Observations
BIR	Common Loon
BIR	Osprey

LIMNOLOGICAL STATION WATER QUALITY

FDIS Lake Card

Reach # ILP Map # ILP #

Watershed Code: 180-637900-56400-70500-7270-0000-000-000-000-000-000-000 99.0

LIMNOLOGICAL STATION WATER QUALITY

Station No.: 7 Date: 2011/08/12 Time: 16:31 UTM (Zone/East/North/Mtd): 10.369339.5893606 - GP2 EMS #: E99999

Secchi Depth: 4 Water Color: GR pH (surf/bottom/cmt): 8 - 7.1 - YSI Ice Depth: 0

WATER SAMPLE

DISSOLVED OXYGEN, TEMPERATURE PROFILE AND CONDUCTIVITY

Depth	DO (d)	T(C)	DO (a)	T (C)	Cond.
.1	9.2	15.8	9.2	15.8	43.1
1.0	8.7	15.8	8.2	15.8	43
2.0	8.7	15.8	8.3	15.8	44
3.0	7.8	15.8	8.2	15.8	43
4.0	7.7	15.7	8.9	15.5	41.9
5.0	8.9	13.9	8.6	13.6	43.6
6.0	8.3	13.2	8.8	12.8	42.4
7.0	8	12.4	8.6	12.6	42.5
8.0	8	12.0	8.7	12.3	42.5
9.0	6.1	11.5	7.3	11.9	42.7
10.0	3.8	10.8	6.1	11.2	43.3
11.0	3.6	10.7			43
MEAN	7.40	13.62	8.26	13.92	42.92

EQUIPMENT USED

pH: P1 Water Temp: T3

Conductivity: S3 Dis. Oxygen: D2

H2S:

COMMENTS

Section	Comments
WEATHER	overcast 08/12, no precip, spotty sun.

FDIS Lake Card

Reach # ILP Map # ILP #

Watershed Code: 180-637900-56400-70500-7270-0000-000-000-000-000-000-000 99.0

WATERBODY

Project Code: 180-637900-00000-00000-0000-0000-000-000-000-000-000-000

Waterbody Type: Primary Sample Type: Primary Fish Form: ☐

Lake Names Gazetted Name: Local Name:

Watershed Code: 180-637900-56400-70500-7270-0000-000-000-000-000-000-000

Reach #: 99.0 Air Photo: ORTHO ORTHO Comment:

Waterbody ID: 01428UEUT ILP Map #: ILP #: Project ID: 21496 Magnitude: 2

NID Map #: NID #: Surface Area: 35.8 Source: AP Mthd: BT

UTM(Zone/East/North/Method) Elevation: 1346 Source: TRIM Mthd: MAP

10 | 369471 | 5895676 | GP2 Biogeoclimatic Zone: ESSF

Incomplete: ☐ Ref:

TERRAIN CHARACTERISTICS

Setting: VF Aspect: NW

Hillslope Coupling: PC Basin Genesis: GL

Land Use:	NO	AG	FB	FR	MI	PR	UD	OT
Percentage:	100							

SHORELINE CHARACTERISTICS

Shoreline Type:	i	ii	iii	iv	v
Percentage:	25	75			

Cover MOD

Rec. Features: Resorts: 0 Camps: 0 Boatlaunch: 0

INLETS / OUTLETS

Inlets (Perm.): 1 Inlets (Other): 0 Outlets: 1 Spawning hab. present?: ☐

SURVEY INFORMATION

Date: 2011/08/16 to 2011/08/17 Agency: C072 Crew: KW/GL

AQUATIC FLORA

EMERGENT VEG.: Sparse: ☐ OR 70 % SUBMERGENT VEG.: Sparse ☐ OR 10 % Floating Algae?: ☐ Voucher Specimen:

Type	Dom. Species
SUBMERGENT	LAKE VEG TYPE IV
EMERGENT	LAKE VEG TYPE I, II, III

ACCESS

Air: FW☐ H☑ Road: V2☐ V4☐ Auto within:

Off Road: FT☐ ATV☐ V4☐ BT☐ HO☐ Distance:

Trail?: ☐ Distance:

Closest Community: Vanderhoof

Comments:

heli

LAKE BATHYMETRY

Type of Survey: FL Littoral Area: 52.6 % Method: BT

Max. Depth: 11.2 Benchmark Height: 1.8 High Water Mark: 0.5

Benchmark Type/Location: painted, flagged and pinned spruce tree. Pin at base and at dbh. 10.369778.5893850

Surface Area(ha): Volume(cu m):

Mean Depth(m): Perimeter (m):

Shoal Area(ha): Perimeter of Islands(m):

Comments:

AQUATIC WILDLIFE OBSERVATIONS

Group	Observations
BIR	Common Loon

LIMNOLOGICAL STATION WATER QUALITY

Station No.: 3 Date: 2011/08/16 Time: 14:25 UTM (Zone/East/North/Mtd): 10.370180.5893720 - GP2 EMS #: E9999

Secchi Depth: 4 Water Color: GR pH (surf/bottom/cmt): 8 - 7.2 - YSI Ice Depth: 0

WATER SAMPLE

DISSOLVED OXYGEN, TEMPERATURE PROFILE AND CONDUCTIVITY

Depth	DO (d)	T(C)	DO (a)	T (C)	Cond.
.1	9	12.5	7.4	12.5	32
1.0	8.9	12.6	8.9	12.5	44

FDIS Lake Card

Reach #	ILP Map #	ILP #
99.0		

Watershed Code: 180-637900-56400-70500-7270-0000-000-000-000-000-000-000

LIMNOLOGICAL STATION
WATER QUALITY

2.0	8.8	12.6	9.1	12.5	44
3.0	9.2	12.6	9.3	12.5	43.9
4.0	9	12.5	8.9	12.5	44
5.0	9.1	12.6	9.2	12.5	43.9
6.0	9.2	12.5	9.2	12.5	43.9
7.0	0	12.0	.0	12.5	41.4
MEAN	7.90	12.49	7.75	12.50	42.14

EQUIPMENT USED

pH: P1 Water Temp: T3
Conductivity: S3 Dis. Oxygen: D2

H2S:

C O M M E N T S

Section	Comments
WEATHER	08/16- 5deg, overcast, cold windy, scattered rain. 08/17- overcast, 5 degs, rain with scattered dry periods, no wind.

Annex 5.9-3
Lake Habitat Site Photographs, 2011 and 2012



Photo 1: Sinking gillnet set, Lake 01682LNRS, August 14, 2011



Photo 2: Floating gillnet set, Lake 01682LNRS, August 14, 2011



Photo 3. Rainbow trout caught in gillnet in Lake 01682LNRS, September 19, 2012



Photo 4: Boulder/cobble substrate in Lake 01682LNRS, August 14, 2011



Photo 5: Boulder/cobble shoreline with emergent vegetation in Lake 01682LNRS, August 14, 2011



Photo 6: Aquatic vegetation; *Potamogeton spp. and Equisetum spp.,* Lake 01682LNRS, August 14, 2011



Photo 7: Benchmark station on Lake 01682LNRS, August 14, 2011



Photo 8: 360 degree panoramic view of Lake 01682LNRS shoreline from limnology station



Photo 9: 360 degree panoramic view of Lake 01682LNRS shoreline from limnology station



Photo 10: 360 degree panoramic view of Lake 01682LNRS shoreline from limnology station



Photo 11: 360 degree panoramic view of Lake 01682LNRS shoreline from limnology station



Photo 12: 360 degree panoramic view of Lake 01682LNRS shoreline from limnology station



Photo 13: 360 degree panoramic view of Lake 01682LNRS shoreline from limnology station



Photo 14: 360 panoramic view of Lake 01682LNRS shoreline from limnology station



Photo 15: 360 panoramic view of Lake 01682LNRS shoreline from limnology station



Photo 16: 360 panoramic view of Lake 01682LNRS shoreline from limnology station



Photo 17: 360 panoramic view of Lake 01682LNRS shoreline from limnology station



Photo 18: 360 degree panoramic view of Lake 01682LNRS shoreline from limnology station



Photo 19: 360 degree panoramic view of Lake 01682LNRS shoreline from limnology station



Photo 20: 360 degree panoramic view of Lake 01682LNRS shoreline from limnology station



Photo 21: 360 degree panoramic view of Lake 01682LNRS shoreline from limnology station



Photo 22: Sediment grab sample from bottom of Lake 01682LNRS at limnology station, August 14, 2011



Photo 23: S4 stream channel at the outflow end of Lake 01682LNRS, August 14, 2011



Photo 24: S4 stream channel at the outflow end of Lake 01682LNRS, August 14, 2011



Photo 25: Shoreline of bay at northwest end of Lake 01682LNRS, August 14, 2011



Photo 26: Shoreline of bay at northwest end of Lake 01682LNRS, August 14, 2011



Photo 27: Submergent vegetation and small woody debris in bay at northwest end of Lake 01682LNRS, August 14, 2011



Photo 28: Shoreline of bay at northwest end of Lake 01682LNRS with emergent vegetation and mature coniferous forest, August 14, 2011



Photo 29: Emergent and submergent vegetation in bay at northeast end of Lane 01682LNRS, August 14, 2011



Photo 30: Common Loon on Lake 01682LNRS, August 14, 2011



Photo 31: Cobble substrate with emergent vegetation in Lake 01682LNRS, August 14, 2011



Photo 32: Shoreline of Lake 01682LNRS with boulder/cobble substrate and overhanging vegetation, August 14, 2011



Photo 33: Minnow trap site in Lake 01682LNRS, September 19, 2012



Photo 34: Shoreline of Lake 01538UEUT with undercut banks and overhanging vegetation, August 12, 2011



Photo 35: Cobble/gravel substrate in Lake 01538UEUT, August 12, 2011



Photo 36: Shoreline riparian vegetation on Lake 01538UEUT, August 12, 2011



Photo 37: Benchmark station on Lake 01538UEUT, August 12, 2011



Photo 38: Sediment grab at limnology station on Lake 01538UEUT, August 12, 2011



Photo 39: Floating gillnet set on Lake 01538UEUT, August 12, 2011



Photo 40: Sinking gillnet set on Lake 01538UEUT, August 12, 2011



Photo 41: Shoreline of Lake 01538UEUT with overhanging vegetation, undercut banks and large woody debris, August 12, 2011



Photo 42: Rainbow trout captured by gillnet in Lake 01538UEUT, August 12, 2011



Photo 43: Longnose sucker captured in gillnet set in Lake 01538UEUT, August 12, 2011



Photo 44: S4 stream at Lake 01538UEUT inlet, August 12, 2011



Photo 45: S4 stream at Lake 01538UEUT inlet, August 12, 2011



Photo 46: S4 stream at Lake 01538UEUT inlet, August 12, 2011



Photo 47: 360 degree panoramic view of Lake 01538UEUT from centre of lake, August 12, 2011



Photo 48: 360 degree panoramic view of Lake 01538UEUT from centre of lake, August 12, 2011



Photo 49: 360 degree panoramic view of Lake 01538UEUT from centre of lake, August 12, 2011



Photo 50: 360 degree panoramic view of Lake 01538UEUT from centre of lake, August 12, 2011



Photo 51: 360 degree panoramic view of Lake 01538UEUT from centre of lake, August 12, 2011



Photo 52: 360 degree panoramic view of Lake 01538UEUT from centre of lake, August 12, 2011



Photo 53: 360 degree panoramic view of Lake 01538UEUT from centre of lake, August 12, 2011



Photo 54: S4 stream at Lake 01538UEUT outlet, August 12, 2011



Photo 55: S4 stream at Lake 01538UEUT outlet, August 12, 2011



Photo 56: S4 stream at Lake 01538UEUT outlet, August 12, 2011



Photo 57: S4 stream at Lake 01538UEUT outlet, August 12, 2011



Photo 58: Lake 01538UEUT outlet bay, August 12, 2011



Photo 59: Lake 01538UEUT outlet bay, facing downstream, August 12, 2011



Photo 60: Juvenile rainbow trout captured by minnow trapping in Lake 01538UEUT, August 13, 2011



Photo 61: Lake 01538UEUT shoreline with emergent vegetation, overhanging vegetation, large woody debris, and cobble/gravel substrate, August 12, 2011



Photo 62: Gravel substrate in Lake 01538UEUT, August 12, 2011



Photo 63: Emergent vegetation, undercut shoreline, and gravel/fine substrate in Lake 01538UEUT, August 12, 2011



Photo 64: Lake 01538UEUT shoreline with emergent vegetation, large woody debris, and undercut banks, August 12, 2011



Photo 65: Lake 01538UEUT shoreline with overhanging vegetation and large woody debris

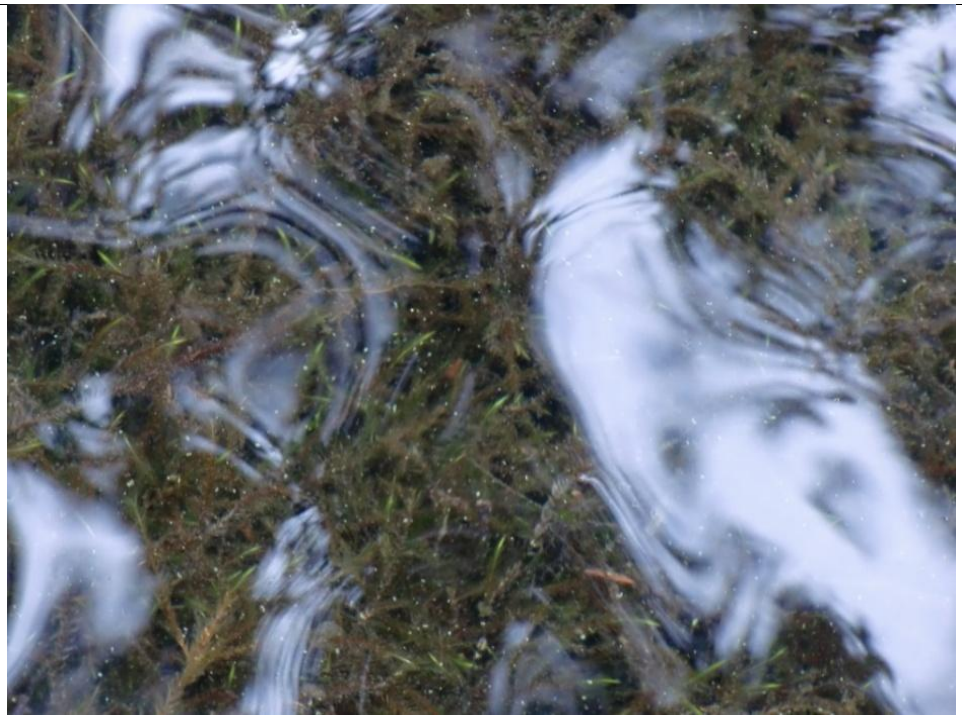


Photo 66: *Potamogeton spp.* in Lake 01538UEUT, August 12, 2011



Photo 67: Submergent vegetation (*Potamogeton spp.*), large woody debris, and undercut banks on Lake 01538UEUT shoreline, August 12, 2011



Photo 68: Lake 01538UEUT shoreline with overhanging vegetation, August 12, 2011



Photo 69: Lake 01538UEUT shoreline with overhanging vegetation, August 12, 2011



Photo 70: Lake 01538UEUT shoreline with overhanging vegetation and large woody debris, August 12, 2011



Photo 71: Cobble/gravel substrate in Lake 01538UEUT, August 12, 2011



Photo 72: Grassy Lake 01538UEUT shoreline with mature coniferous trees, August 12, 2011



Photo 73: Lake 01538UEUT shoreline boulder/cobble substrate and large woody debris, August 12, 2011



Photo 74: Lake 01538UEUT shoreline with emergent vegetation, August 12, 2011



Photo 75: Lake 01538UEUT shoreline with mature coniferous forest, August 12, 2011



Photo 76: Deployment of a Van Dorme water sampler in Lake 01538UEUT, September 11, 2012



Photo 77: Common Loon on Lake 01428UEUT, August 16, 2011



Photo 78: Lake 01428UEUT shoreline with emergent vegetation, August 16, 2011



Photo 79: Lake 01428UEUT shoreline with emergent and overhanging vegetation, August 16, 2011



Photo 80: Minnow trap set in emergent vegetation in Lake 01428UEUT, August 16, 2011



Photo 81: Large cobble/boulder substrate with emergent vegetation in Lake 01428UEUT, August 16, 2011



Photo 82: Lake 01428UEUT shoreline with grasses and mature coniferous trees, August 16, 2011



Photo 83: Looking northeast on Lake 01428UEUT, August 16, 2011



Photo 84: Lake 01428UEUT shoreline with large woody debris and undercut banks, August 16, 2011



Photo 85: Lake 01428UEUT shoreline with boulders, emergent and overhanging vegetation, August 16, 2011



Photo 86: Minnow trap set in aquatic vegetation on Lake 01428UEUT shoreline, August 16, 2011



Photo 87: Rocky, undercut shoreline on Lake 01428UEUT, August 16, 2011



Photo 88: Lake 01428UEUT shoreline with boulders and grasses, August 16, 2011



Photo 89: Lake 01428UEUT shoreline with emergent aquatic vegetation and undercut banks, August 16, 2011



Photo 90: Lake 01428UEUT shoreline with large woody debris, overhanging vegetation and boulders, August 16, 2011



Photo 91: Minnow trap set in aquatic vegetation on Lake 01428UEUT shoreline, August 16, 2011



Photo 92: Facing southwest towards Lake 01428UEUT outlet, August 16, 2011



Photo 93: Large beds of aquatic vegetation around Lake 01428UEUT shoreline, August 16, 2011



Photo 94: Grassy, undercut shoreline on Lake 01438UEUT, August 16, 2011



Photo 95: Deer at outflow end of Lake 01428UEUT, August 16, 2011



Photo 96: Sinking gillnet set in Lake 01428UEUT, August 16, 2011



Photo 97: Floating gillnet set on Lake 01428UEUT, August 16, 2011



Photo 98: Grassy area at inflow end of Lake 01428UEUT, August 16, 2011



Photo 99: Rainbow trout captured in gillnet in Lake 01428UEUT, August 16, 2011

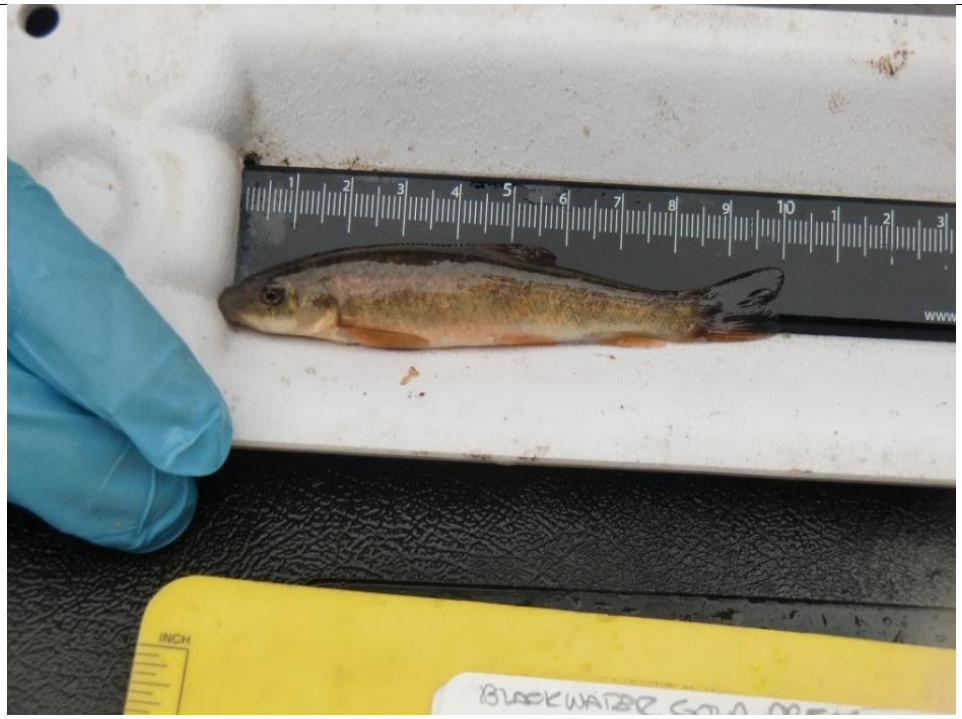


Photo 100: Longnose sucker captured by minnow trapping in Lake 01428UEUT, August 16, 2011



Photo 101: Rainbow trout captured by minnow trapping in Lake 01428UEUT, August 16, 2011



Photo 102: Stream channel at Lake 01428UEUT outflow, August 16, 2011



Photo 103: Stream channel at Lake 01428UEUT outflow, August 16, 2011



Photo 104: Small pond at Lake 01428UEUT outflow, August 16, 2011



Photo 105: Lake 01428UEUT outlet, August 16, 2011

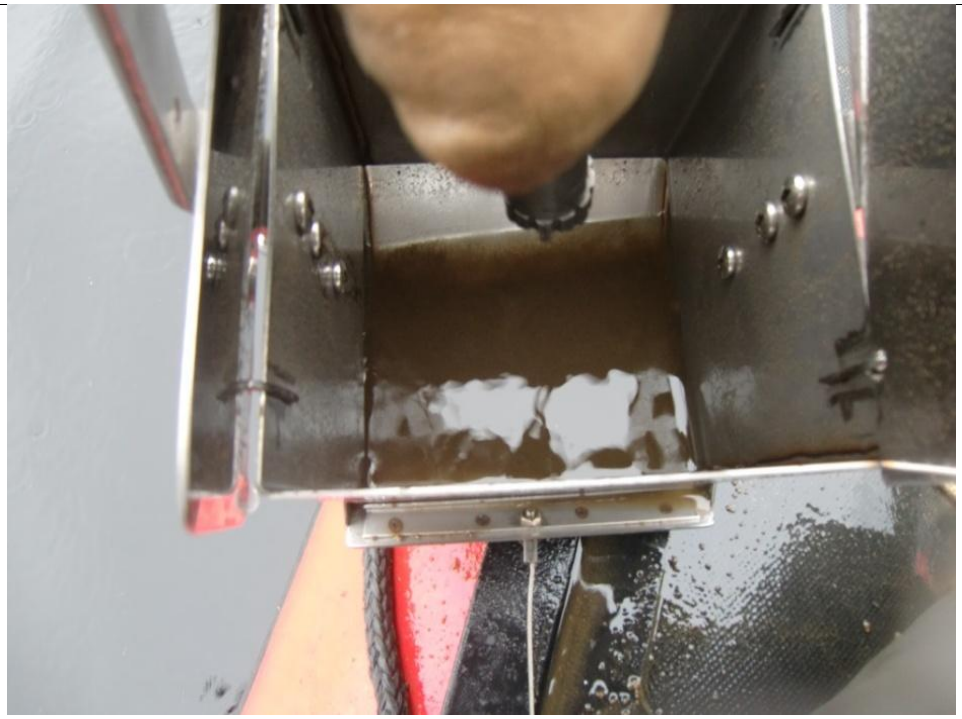


Photo 106: Sediment grab from Lake 01428UEUT limnology station, August 16, 2011



Photo 107: 360 degree panoramic view of Lake 01428UEUT shoreline taken from limnology station, August 16, 2011



Photo 108: 360 degree panoramic view of Lake 01428UEUT shoreline taken from limnology station, August 16, 2011



Photo 109: 360 degree panoramic view of Lake 01428UEUT shoreline taken from limnology station, August 16, 2011



Photo 110: 360 degree panoramic view of Lake 01428UEUT shoreline taken from limnology station, August 16, 2011



Photo 111: 360 degree panoramic view of Lake 01428UEUT shoreline taken from limnology station, August 16, 2011



Photo 112: 360 degree panoramic view of Lake 01428UEUT shoreline taken from limnology station, August 16, 2011



Photo 113: 360 degree panoramic view of Lake 01428UEUT shoreline taken from limnology station, August 16, 2011



Photo 114: 360 degree panoramic view of Lake 01428UEUT shoreline taken from limnology station, August 16, 2011



Photo 115: 360 degree panoramic view of Lake 01428UEUT shoreline taken from limnology station, August 16, 2011



Photo 116: 360 degree panoramic view of Lake 01428UEUT shoreline taken from limnology station, August 16, 2011



Photo 117: 360 degree panoramic view of Lake 01428UEUT shoreline taken from limnology station, August 16, 2011



Photo 118: 360 degree panoramic view of Lake 01428UEUT shoreline taken from limnology station, August 16, 2011



Photo 119: Local boat launch site on Lake 01428UEUT, August 16, 2011



Photo 120: Minnow trap set in Snake Lake, October 10, 2012



Photo 121: Preparing to electrofish the littoral zone of Snake Lake, October 16, 2012



Photo 122: Lake chub caught by minnow trap in Snake Lake, October 17, 2012



Photo 123: Amphipods in minnow trap at Snake Lake, October 17, 2012

Annex 5.9-4
Limnology Data, 2011 and 2012

Table 5.9-4A: Lake 01682LNRS Limnology Profile Data, 2011 - 2012

Date	Depth (m)	Temp (°C)	O2 (%)	DO (mg/L)	Specific Conductivity (µS/cm)	Conductivity (µS/cm)
14-Aug-2011 Descent	0.0	14.0	–	8.93	–	–
	1.0	14.5	–	8.93	–	–
	2.0	14.5	–	8.04	–	–
	3.0	14.2	–	9.48	–	–
	4.0	12.5	–	9.25	–	–
	5.0	10.3	–	8.20	–	–
	6.0	6.7	–	5.60	–	–
	7.0	5.5	–	3.90	–	–
	8.0	5.0	–	1.10	–	–
	9.0	4.7	–	0.58	–	–
	10.0	4.5	–	0.25	–	–
	11.0	4.5	–	0.10	–	–
	12.0	4.5	–	0.08	–	–
14-Aug-2011 Ascent	0.00	14.60	–	8.86	–	–
	1.00	14.60	–	8.79	–	–
	2.00	14.40	–	9.56	–	–
	3.00	14.00	–	8.67	–	–
	4.00	11.10	–	9.10	–	–
	5.00	8.10	–	8.40	–	–
	6.00	6.20	–	5.57	–	–
	7.00	5.80	–	3.04	–	–
	8.00	5.10	–	1.88	–	–
	9.00	4.70	–	0.45	–	–
	10.00	4.50	–	0.08	–	–
	11.00	4.50	–	0.07	–	–
26-Jun-12	0.0	13.2	86.1	9.03	–	–
	1.0	13.2	86.0	9.02	–	–
	2.0	13.2	85.8	9.00	–	–
	3.0	12.8	85.4	9.14	–	–
	4.0	10.5	87.5	9.73	–	–
	5.0	8.6	85.4	10.06	–	–
	6.0	6.4	77.2	9.50	–	–
	7.0	5.8	64.7	8.12	–	–
	8.0	5.2	53.2	6.76	–	–

Date	Depth (m)	Temp (°C)	O2 (%)	DO (mg/L)	Specific Conductivity (µS/cm)	Conductivity (µS/cm)
	9.0	4.9	33.0	4.23	–	–
	10.0	4.6	24.3	3.14	–	–
	11.0	4.4	18.7	2.15	–	–
	12.0	4.3	7.1	0.91	–	–
	13.0	4.3	1.5	0.20	–	–
	13.5	–	–	–	–	–
11-Sep-12	0.0	12.1	87.8	9.44	–	–
	1.0	12.2	87.6	9.40	–	–
	2.0	12.2	87.4	9.58	–	–
	3.0	12.2	87.3	9.36	–	–
	4.0	12.2	87.1	9.35	–	–
	5.0	12.1	86.5	9.32	–	–
	6.0	10.0	90.0	10.20	–	–
	7.0	7.6	58.1	6.95	–	–
	8.0	6.8	36.3	4.43	–	–
	9.0	6.1	19.2	2.30	–	–
	10.0	5.6	7.0	0.87	–	–
	11.0	5.2	2.3	0.29	–	–
	12.0	5.1	1.4	0.18	–	–
	12.7	5.0	0.7	0.09	–	–
19-Sep-12	surface	12.1	79.4	8.51	49.1	37.0
	0.5	11.9	80.0	8.18	48.4	36.3
	1.0	11.8	86.3	9.31	49.1	36.7
	1.5	11.6	85.3	9.19	49.1	36.7
	2.0	11.3	84.7	9.24	49.1	36.2
	2.5	11.3	83.7	9.13	49.2	36.3
	3.0	11.1	82.5	9.08	49.1	36.1
	3.5	11.0	82.7	9.04	49.1	36.0
	4.0	10.9	82.2	9.12	49.2	36.0
	4.5	10.8	81.3	9.25	49.1	35.7
	5.0	10.6	80.5	8.65	49.2	35.7
	5.5	10.5	79.2	8.50	49.2	35.6
	6.0	10.3	74.9	8.40	49.3	35.5
	6.5	9.9	74.1	8.26	50	35.6
	7.0	9.2	65.9	7.63	52.5	36.7

Date	Depth (m)	Temp (°C)	O2 (%)	DO (mg/L)	Specific Conductivity (µS/cm)	Conductivity (µS/cm)
	7.5	8.2	46.8	5.36	57.8	39.2
	8.0	7.1	35.1	4.28	59.1	38.8
	8.5	6.6	25.4	3.14	59.6	38.6
	9.0	6.3	19.9	2.40	60	38.5
	9.5	5.9	8.8	1.10	60.5	38.4
	10.0	5.6	2.6	0.33	60.8	38.3
	10.5	5.3	0.7	0.08	61.3	38.2
	11.0	5.2	0.0	0.00	61.9	38.4
	11.5	5.1	0.0	0.00	62.9	38.9
	12.0	5.0	0.0	0.00	64.5	39.7
	12.5	4.9	0.0	0.00	66.8	41.2
	13.0	4.8	0.0	0.00	68.8	42.2
	13.5	–	–	–	–	–

Note: m - metres; temp - temperature; ºC - degrees Celsius; O2 - oxygen; DO - dissolved oxygen; mg/L - milligrams per litre; dash - no data available

Source: 2011 data from Ecofor Consultants Limited, 2012 data excluding Sept 19, 2012 data from Avison Management Services Limited

Table 5.9-4B: Lake 01538UEUT Limnology Profile Data, 2011 - 2012

Date	Depth (m)	Temp (°C)	O2%	DO (mg/L)	Specific Conductivity (µS/cm)	Conductivity (µS/cm)
12-Aug-11	0.0	15.8	–	9.23	–	–
Descent	1.0	15.8	–	8.66	–	–
	2.0	15.3	–	8.66	–	–
	3.0	15.8	–	7.80	–	–
	4.0	15.7	–	7.74	–	–
	5.0	13.9	–	8.86	–	–
	6.0	13.2	–	8.25	–	–
	7.0	12.4	–	7.90	–	–
	8.0	12.0	–	8.02	–	–
	9.0	11.5	–	6.07	–	–
	10.0	10.8	–	3.80	–	–
12-Aug-11	0.00	15.80	–	9.02	–	–
Ascent	1.00	15.80	–	8.23	–	–
	2.00	15.80	–	8.34	–	–
	3.00	15.80	–	8.21	–	–
	4.00	15.50	–	8.90	–	–
	5.00	13.60	–	8.58	–	–
	6.00	12.80	–	8.80	–	–
	7.00	12.60	–	8.62	–	–
	8.00	12.30	–	8.66	–	–
	9.00	11.90	–	7.34	–	–
	10.00	11.20	–	6.12	–	–
	11.00	10.70	–	3.64	–	–
26-Jun-12	0.0	12.4	87.0	9.29	–	–
	1.0	12.4	86.8	9.27	–	–
	2.0	12.4	86.7	9.26	–	–
	3.0	12.4	86.6	9.24	–	–
	4.0	12.3	86.3	9.23	–	–
	5.0	11.8	84.9	9.24	–	–
	6.0	10.8	83.2	9.25	–	–
	7.0	9.7	72.0	8.07	–	–
	7.1	–	–	–	–	–
10-Sep-12	surface	13.5	81.3	8.48	44.0	34.4
	0.5	13.6	81.1	8.44	44.0	34.4

Date	Depth (m)	Temp (°C)	O2%	DO (mg/L)	Specific Conductivity (µS/cm)	Conductivity (µS/cm)
	1.0	13.6	81.3	8.27	44.1	34.4
	1.5	13.6	80.0	8.27	44.0	34.4
	2.0	13.6	81.5	8.21	44.1	34.4
	2.5	13.6	77.7	8.15	44.0	34.4
	3.0	13.6	81.4	8.52	44.1	34.4
	3.5	13.6	82.5	8.59	44.0	34.4
	4.0	13.6	80.0	8.39	44.1	34.4
	4.5	13.6	82.2	8.56	44.1	34.4
	5.0	13.6	81.4	8.40	44.1	34.5
	5.5	13.6	82.3	8.56	44.0	34.4
	6.0	13.6	81.4	8.45	44.0	34.4
	6.5	13.6	81	8.35	44.0	34.4
	7.0	13.6	81.2	8.54	44.0	34.4
	7.5	13.6	82.2	8.53	42.9	34.0
	8.0	13.6	78.5	8.43	44.1	34.4
	8.5	13.6	81.6	8.43	41.1	34.4
	9.0	13.6	82	8.55	44.0	34.4
	9.5	13.6	81.6	8.49	44.0	34.4
	10.0	–	–	–	–	–
11-Sep-12	0.0	12.0	84.7	9.10	–	–
	1.0	12.1	84.6	9.09	–	–
	2.0	12.1	84.4	9.08	–	–
	3.0	12.1	84.2	9.05	–	–
	4.0	12.1	84.0	9.03	–	–
	5.0	12.1	83.7	9.00	–	–
	6.0	12.1	83.4	8.97	–	–
	7.0	11.9	63.4	6.86	–	–

Note: m - metres; temp - temperature; ºC - degrees Celsius; O2 - oxygen; DO - dissolved oxygen; mg/L - milligrams per litre; dash - no data available

Source: 2011 data from Ecofor Consultants Limited, 2012 data excluding Sept 10, 2012 data from Avison Management Services Limited

Table 5.9-4C: Lake 01428UEUT Limnology Profile Data, 2011 - 2012

Date	Depth (m)	Temp (°C)	O2%	DO (mg/L)	Specific Conductivity (µS/cm)	Conductivity (µS/cm)
16-Aug-11	0.0	12.5	–	8.99	–	–
Descent	1.0	12.6	–	8.68	–	–
	2.0	12.6	–	8.82	–	–
	3.0	12.6	–	9.20	–	–
	4.0	12.5	–	9.01	–	–
	5.0	12.6	–	9.13	–	–
	6.0	12.5	–	9.17	–	–
	7.0	12.0	–	0.03	–	–
16-Aug-11	0.00	12.50	–	9.40	–	–
Ascent	1.00	12.50	–	8.90	–	–
	2.00	12.50	–	9.12	–	–
	3.00	12.50	–	9.25	–	–
	4.00	12.50	–	8.90	–	–
	5.00	12.50	–	9.24	–	–
	6.00	12.50	–	9.19	–	–
	7.00	12.50	–	0.02	–	–
08-Sep-12	surface	14.0	80.0	8.48	48.2	38.0
	0.5	13.9	83.3	8.56	48.1	37.9
	1.0	13.8	80.3	8.30	48.4	37.9
	1.5	13.8	75.2	7.73	48	37.8
	2.0	13.8	79.4	8.20	48.1	37.8
	2.5	13.9	80.0	8.33	48.1	37.9
	3.0	14.0	81.4	8.35	48.1	38.0
	3.5	13.6	74.2	7.56	48.1	37.8
	4.0	12.7	70.3	7.50	47.9	36.7
	4.5	12.6	73.1	7.60	47.9	36.5
	5.0	12.4	71.4	7.64	48.1	36.4
	5.5	–	–	bottom	–	–
11-Sep-12	0.0	10.3	85.2	9.49	–	–
	1.0	10.7	83.7	9.3	–	–
	2.0	10.7	83.5	9.27	–	–

Date	Depth (m)	Temp (°C)	O2%	DO (mg/L)	Specific Conductivity (µS/cm)	Conductivity (µS/cm)
	3.0	10.8	83.4	9.27	–	–
	4.0	10.8	83.2	9.21	–	–
	5.0	10.8	33.8	3.24	–	–

Note: m - metres; temp - temperature; ºC - degrees Celsius; O2 - oxygen; DO - dissolved oxygen; mg/L - milligrams per litre; dash - no data available

Source: 2011 data from Ecofor Consultants Limited, 2012 data excluding Sept 8, 2012 data from Avison Management Services Limited

Table 5.9-4D: Snake Lake Limnology Profile Data, 2012

Date	Depth (m)	Temp. C	O2 %	O2 mg/L
26-Jun-12	0.0	14.9	81.6	8.25
	1.0	15.0	82.1	8.26
	2.0	15.1	82.1	8.26
	3.0	15.0	81.6	8.23
	4.0	11.6	28.0	2.98
	5.0	8.9	2.0	0.22
	5.2	bottom	–	–
11-Sep-12	0.0	11.8	71.5	7.67
	1.0	12.1	69.6	7.46
	2.0	12.3	68.4	7.30
	3.0	12.4	6.8	7.22
	4.0	12.5	67.4	7.17
	5.0	12.5	66.4	6.92
	6.0	11.9	3.9	0.42
	–	bottom	–	–

Note: m - metres; temp - temperature; ºC - degrees Celsius; O2 - oxygen; DO - dissolved oxygen; mg/L - milligrams per litre; dash - no data available

Source: 2012 data from Avison Management Services Limited

Table 5.9-4E: Kuyakuz Lake Limnology Profile Data, 2012

Date	Depth (m)	Temp. C	O2 %	O2 mg/L
25-Jun-12	0.0	14.1	92.9	9.53
	1.0	14.0	92.0	9.50
	2.0	13.8	91.7	9.49
	3.0	13.8	91.2	9.44
	4.0	13.5	88.1	9.20
	5.0	13.3	87.0	9.10
	6.0	13.3	86.1	9.00
	7.0	13.2	85.7	8.99
	8.0	13.2	85.6	8.98
	9.0	13.2	85.1	8.93
	10.0	13.1	84.7	8.90
	11.0	13.1	84.4	8.87
	11.4	12.7	84.2	8.87
	11.5	Bottom	–	–
11-Sep-12	0.0	11.8	71.5	7.67
	1.0	12.1	69.6	7.46
	2.0	12.3	68.4	7.30
	3.0	12.4	6.8	7.22
	4.0	12.5	67.4	7.17
	5.0	12.5	66.4	6.92
	6.0	11.9	3.9	0.42
	–	Bottom	–	–

Note: m - metres; temp - temperature; ºC - degrees Celsius; O2 - oxygen; DO - dissolved oxygen; mg/L - milligrams per litre; dash - no data available

Source: 2012 data from Avison Management Services Limited

Table 5.9-4F: Tatelkuz Lake Limnology Profile Data, 2012

Date	Depth (m)	Temp. C	O2 %	O2 mg/L
25-Jun-12	0.0	14.2	101.5	10.42
	1.0	14.2	101.5	10.42
	2.0	14.1	101.3	10.41
	3.0	14.0	101.0	10.41
	4.0	13.8	99.5	10.29
	5.0	13.0	96.3	10.17
	6.0	12.0	93.1	10.05
	7.0	11.4	90.7	9.90
	8.0	11.1	88.6	9.76
	9.0	10.5	86.5	9.65
	10.0	9.2	79.9	9.21
	11.0	8.6	78.6	9.18
	12.0	7.4	75.6	9.09
	13.0	7.0	72.7	8.83
	13.2	bottom	–	–
10-Sep-12	0.0	14.3	91.5	9.22
	1.0	14.8	90.4	9.15
	2.0	14.8	90.1	9.13
	3.0	14.8	89.9	9.10
	4.0	14.8	89.6	9.07
	5.0	14.8	89.2	9.04
	6.0	14.8	88.6	8.96
	7.0	14.6	85.7	8.75
	8.0	14.1	81.6	8.38
	9.0	13.3	72.2	7.44
	10.0	11.6	57.6	6.24
	11.0	9.6	53.2	6.04
	12.0	8.1	50.9	6.06
	13.0	6.9	48.9	5.96
	14.0	6.5	48.0	5.91
	15.0	6.2	45.4	5.63
	16.0	6.0	44.9	5.57
	17.0	5.8	12.3	1.19
	–	bottom	–	–

Note: m - metres; temp - temperature; ºC - degrees Celsius; O2 - oxygen; DO - dissolved oxygen; mg/L - miligrams per litre; dash - no data available

Source: 2012 data from Avison Management Services Limited

Annex 5.10-1
Permits for Fish Sampling, 2011 and 2012

Ministry of Forests, Lands and Natural Resource Operations

FISH COLLECTION PERMIT
Environmental Impact Assessment

Permit No.: WL11-73429

Permit Holder: Ecofor Consulting Ltd. – Kevin Wilson
#1B – 681 Ongman Road, Prince George BC V2K 4L1

Client No.: 19989

Authorized Persons: Kevin Wilson, Gerry Leering, Mike Bayes, Mark Pokorski, Dave Stanley, Stephanie Christiansen, Gabe Cabral, Ian Machett, Brad Horne, Kara Przeczek, Michaela Burke, Kevin Mernickle, Nigel Fisher, Karen Truman and Pier van Dishoek.

Pursuant to section 19 of the *Wildlife Act*, RSBC 1996, Chap. 488, and section 18 of the Angling and Scientific Regulations, BC Reg. 125/90, the above named persons are hereby authorized to collect fish for scientific purposes from non-tidal waters subject to the conditions set forth in this Permit:

Permitted Sampling Period: August 26, 2011 to October 31, 2011
Permitted Waterbodies: Cariboo Region – Chedakuz Creek (180-609800)
Permitted Sampling Techniques: MT, AG, SN, DC, TN, DN, EF, GN (subject to permit terms and conditions)
Target Species: RB and CCG (subject to permit terms and conditions)
Permitted Lethal Sampling: Up to 10 of each DV and CCG all from Chedakuz Creek (180-609800) (subject to permit terms and conditions)

Provincial Conditions: (Permit holders must be aware of all terms and conditions):
See Appendix A.
Region Specific Conditions:
See Appendix A. ***Exceed daily quota; use of bait permitted**

Authorized by:
Mike Ramsay, Fish and Wildlife Section Head
A person authorized by the Regional Manager
Recreational Fisheries & Wildlife Programs
Cariboo Region

Date: August 26, 2011 Permit Fee $25

Any contravention or failure to comply with the terms and conditions of this permit is an offense under the *Wildlife Act*, RSBC 1996, Chap. 488 and B.C. Reg. 125/90.

Appendix A: Fish Collection Permit Conditions

Any Variation of the following terms and conditions will require explicit authorization by the appropriate regional Fish & Wildlife Section Head.

Provincial Conditions

1. This collecting permit is not valid
   - in national parks,
   - in provincial parks unless a Park Use Permit is also obtained,
   - in tidal waters,
   - for eulachon or for salmon* other than kokanee, or
   - for collecting fish by angling unless the permit holder and crew members possess a valid angling licence.

   This collecting permit is **only** valid for species listed as threatened, endangered or extirpated under the Species at Risk Act (SARA) **in conjunction with a permit issued under Section 73 of SARA from Fisheries and Oceans Canada.**

   *Contact the Department of Fisheries and Oceans for fish collecting permits for salmon, eulachon or SARA listed species (see Appendix B).

2. The permit holder (or the project supervisor) named on the application for a scientific collection permit will carry a copy of this permit while engaged in fish collecting and produce it upon request of a conservation officer, fisheries officer or constable.

3. Any specimens surplus to scientific requirements and any species not authorized for collection in this permit shall be immediately and carefully released at the point of capture.

4. Fish collected under authority of this permit shall not be used for food or any purpose other than the objectives set out in the approved application for a scientific collection permit. The permit holder shall not sell, barter, trade, or give away, or offer to sell, barter, trade or give away fish collected under authority of this permit. Dead fish shall be disposed of in a manner that will not constitute a health hazard, nuisance or a threat to wildlife.

5. No fish collected under authority of this permit shall be
   - transported alive unless authorized by this permit, or
   - transplanted unless separately authorized by the Federal/Provincial Fish Transplant Committee.

6. The permit holder shall, within 90 days of the expiry of this permit, submit a report of fish collection activities. Interim reports may also be required and shall be submitted as required by the permit issuer. All submissions must be filed electronically to: http://www.env.gov.bc.ca/fish_data_sub/index.html

   Reporting specifications, information and templates are available from this website and outline the mandatory information requirements. Prior notification of submission or questions regarding data report standards can be made to: fishdatasub@gov.bc.ca

7. This collecting permit is subject to cancellation at any time and shall be surrendered to a conservation officer on demand or to the issuer upon written notice of its cancellation.

8. This permit is valid only for the activities approved on the application form and in accordance with any restrictions set out therein.

9. This permit is valid only for trained, qualified staff named in the Application. The permit holder will comply with all Worker's Compensation Board requirements and other regulatory requirements. Permit holders are responsible for ensuring staff members listed on the permit are properly certified for specific sampling methods or activities (e.g. electroshocking).

10. Any workers not listed on the permit must be supervised by the permit holder or one of the additional persons as named on the permit.

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Appendix A: Fish Collection Permit Conditions Continued

11. All sampling equipment that has been previously used outside of B.C. must be cleaned of mud and dirt and disinfected with 100mg/L chlorine bleach before using in any water course to prevent the spread of fish pathogens (e.g. Whirling disease) and / or invasive plant species. Any washed off dirt or mud must be disposed of in a manner such that it cannot enter a watercourse untreated.

12. No electrofishing is to take place in waters below five degrees C.

13. Electrofishing may not be conducted in the vicinity of spawning gravel, redds, or spawning fish, or around gravels which are capable of supporting eggs or developing embryos of any species of salmonid at a time of year when such eggs or embryos may be present.

14. Angling must only occur in accordance with the regulations specified in the current BC Freshwater Fishing Regulations Synopsis.

Region Specific Conditions

Cariboo Region

- Cariboo Region requires seven days (7) written notice, complete with waterbody and watershed codes for the proposed areas prior to sampling in the Cariboo Region. Please submit written email notice to: Mike.Ramsay@gov.bc.ca or fax to 250 398 4214.
- Until such time as the holder of this permit has discussed specific activities with the Regional Manager and obtains written permission, fish collection, fish sampling or fish salvage may not be undertaken within the boundaries of Management Units 5-04 or 5-05.

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Appendix B: Table 1 - Species at Risk

The following are species at risk that have been listed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as either endangered, threatened or a species of special concern. Species also listed under the Species at Risk Act (SARA) are identified with an asterisk, and are subject to additional permitting requirements through the Federal Department of Fisheries and Oceans (DFO).

Common Name	Scientific Name
Benthic Paxton Lake Stickleback	**Gasterosteus sp.*
Benthic Vananda Creek Stickleback	**Gasterosteus sp.*
Limnetic Paxton Lake Stickleback	**Gasterosteus sp.*
Limnetic Vananda Creek Stickleback	**Gasterosteus sp.*
Nooksack Dace	**Rhinichthys sp.*
Morrison Creek Lamprey	**Lampetra richardsoni*
Vancouver Lamprey (Cowichan Lake Lamprey)	**Lampetra macrostoma*
Cultus Pygmy Sculpin	**Cottus sp.*
Shorthead Sculpin	**Cottus confusus*
Hotwater Physa	**Physella wrighti*
Limnetic Enos Lake Stickleback	*Gasterosteus sp.*
Benthic Enos Lake Stickleback	*Gasterosteus sp.*
Salish Sucker	*Catostomus sp.*
Speckled Dace	*Rhinichthys osculus*
Charlotte Unarmoured Stickleback	*Gasterosteus aculeatus*
Columbia Mottled Sculpin	*Cottus bairdi hubbsi*
Giant Stickleback	*Gasterosteus sp.*
Green Sturgeon	*Acipenser medirostris*
Umatilla Dace	*Rhinichthys umatilla*
White Sturgeon	*Acipenser transmontanus*

Applications for permits to specifically collect and retain listed species must be reviewed by the appropriate Recovery Team, who will screen permits to ensure that any impacts on listed species are acceptable. For white sturgeon the contact is Steve McAdam (steve.mcadam@gov.bc.ca). For listed non-game freshwater fish the contact is Jordan Rosenfeld (jordan.rosenfeld@gov.bc.ca), co-chair of the Non-Game Freshwater Fish Recovery Team.

BRITISH COLUMBIA
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Ministry of Forests, Lands and Natural Resource Operations

FISH COLLECTION PERMIT
Environmental Impact Assessment

File: 34770-20

Permit No.: PG11-70841

Permit Holder: Ecofor – Kevin Wilson
#1B-681 Ongman Rd, Prince George BC V2K 4L1
Client No.: 19989

Authorized Persons: Kevin Wilson, Gerry Leering, Mike Bayes, Mark Pokorski, Gabe Cabral, Kevin Mernickle, Theo Knevel, Stephanie Christiansen, Kara Przeczek, Max Price, Brad Horne, Nigel Fisher, Karen Truman, Pier van Dischoek, Michaela Burke and Ian Matchett

Pursuant to section 19 of the *Wildlife Act*, RSBC 1996, Chap. 488, and section 18 of the Angling and Scientific Regulations, BC Reg. 125/90, the above named persons are hereby authorized to collect fish for scientific purposes from non-tidal waters subject to the conditions set forth in this Permit:

Permitted Sampling Period: May 31, 2011 to October 31, 2011
Permitted Waterbodies: Omineca Region – See Appendix C
Permitted Sampling Techniques: MT, AG, SN, DC, TN, DN, EF and GN (subject to permit terms and conditions)
Targeted Species: RB and CCG (subject to permit terms and conditions)
Permitted Lethal Sampling: 10-RB and 10-CCG from each of the four sites (Davidson Creek, Creek 661, Creek 700, and Creek 705) for a total maximum of 40-RB and 40-CCG from the four sampling sites (subject to permit terms and conditions)

Provincial Conditions: (Permit holders must be aware of all terms and conditions):
See Appendix A.
Region Specific Conditions:
See Appendix A. ***Variance - Angling with the use of bait in contravention to Freshwater Fishing Regulations.**

Authorized by:
Susanne Williamson, Fisheries Information Specialist
A person authorized by the Regional Manager
Recreational Fisheries & Wildlife Programs
Omineca Region

Date: May 31, 2011 Permit Fee $25

Any contravention or failure to comply with the terms and conditions of this permit is an offense under the *Wildlife Act*, RSBC 1996, Chap. 488 and B.C. Reg. 125/90.

Appendix A: Fish Collection Permit Conditions

Any Variation of the following terms and conditions will require explicit authorization by the appropriate regional Fish & Wildlife Section Head.

Provincial Conditions

1. This collecting permit is not valid
   - in national parks,
   - in provincial parks unless a Park Use Permit is also obtained,
   - in tidal waters,
   - for eulachon or for salmon* other than kokanee, or
   - for collecting fish by angling unless the permit holder and crew members possess a valid angling licence.

   This collecting permit is **only** valid for species listed as threatened, endangered or extirpated under the Species at Risk Act (SARA) **in conjunction with a permit issued under Section 73 of SARA from Fisheries and Oceans Canada.**

   *Contact the Department of Fisheries and Oceans for fish collecting permits for salmon, eulachon or SARA listed species (see Appendix B).

2. The permit holder (or the project supervisor) named on the application for a scientific collection permit will carry a copy of this permit while engaged in fish collecting and produce it upon request of a conservation officer, fisheries officer or constable.

3. Any specimens surplus to scientific requirements and any species not authorized for collection in this permit shall be immediately and carefully released at the point of capture.

4. Fish collected under authority of this permit shall not be used for food or any purpose other than the objectives set out in the approved application for a scientific collection permit. The permit holder shall not sell, barter, trade, or give away, or offer to sell, barter, trade or give away fish collected under authority of this permit. Dead fish shall be disposed of in a manner that will not constitute a health hazard, nuisance or a threat to wildlife.

5. No fish collected under authority of this permit shall be
   - transported alive unless authorized by this permit, or
   - transplanted unless separately authorized by the Federal/Provincial Fish Transplant Committee.

6. The permit holder shall, within 90 days of the expiry of this permit, submit a report of fish collection activities. Interim reports may also be required and shall be submitted as required by the permit issuer. All submissions must be filed electronically to: http://www.env.gov.bc.ca/fish_data_sub/index.html

   Reporting specifications, information and templates are available from this website and outline the mandatory information requirements. Prior notification of submission or questions regarding data report standards can be made to: fishdatasub@gov.bc.ca

7. This collecting permit is subject to cancellation at any time and shall be surrendered to a conservation officer on demand or to the issuer upon written notice of its cancellation.

8. This permit is valid only for the activities approved on the application form and in accordance with any restrictions set out therein.

9. This permit is valid only for trained, qualified staff named in the Application. The permit holder will comply with all Worker's Compensation Board requirements and other regulatory requirements. Permit holders are responsible for ensuring staff members listed on the permit are properly certified for specific sampling methods or activities (e.g. electroshocking).

10. Any workers not listed on the permit must be supervised by the permit holder or one of the additional persons as named on the permit.

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Appendix A: Fish Collection Permit Conditions Continued

11. All sampling equipment that has been previously used outside of B.C. must be cleaned of mud and dirt and disinfected with 100mg/L chlorine bleach before using in any water course to prevent the spread of fish pathogens (e.g. Whirling disease) and / or invasive plant species. Any washed off dirt or mud must be disposed of in a manner such that it cannot enter a watercourse untreated.

12. No electrofishing is to take place in waters below five degrees C.

13. Electrofishing may not be conducted in the vicinity of spawning gravel, redds, or spawning fish, or around gravels which are capable of supporting eggs or developing embryos of any species of salmonid at a time of year when such eggs or embryos may be present.

14. Angling must only occur in accordance with the regulations specified in the current BC Freshwater Fishing Regulations Synopsis.

Region Specific Conditions

Omineca Region

- No electrofishing will be permitted between September 15 and June 15 in streams containing bull trout.
- Voucher specimens for all regionally significant red and blue-listed species (3 per species), with exception to SARA-listed white sturgeon (*Acipenser transmontanus*), must be submitted to the Regional Fish Information Specialist as per RISC standards.
- All sampling gear follow Association of Professional Biologist's advisory practice bulletin #5. Practice Advisory Didymo, see: http://www.apbbc.bc.ca/files/Didymo.pdf.

Appendix B: Table 1 - Species at Risk

The following are species at risk that have been listed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as either endangered, threatened or a species of special concern. Species also listed under the Species at Risk Act (SARA) are identified with an asterisk, and are subject to additional permitting requirements through the Federal Department of Fisheries and Oceans (DFO).

Common Name	Scientific Name
Benthic Paxton Lake Stickleback	**Gasterosteus sp.*
Benthic Vananda Creek Stickleback	**Gasterosteus sp.*
Limnetic Paxton Lake Stickleback	**Gasterosteus sp.*
Limnetic Vananda Creek Stickleback	**Gasterosteus sp.*
Nooksack Dace	**Rhinichthys sp.*
Morrison Creek Lamprey	**Lampetra richardsoni*
Vancouver Lamprey (Cowichan Lake Lamprey)	**Lampetra macrostoma*
Cultus Pygmy Sculpin	**Cottus sp.*
Shorthead Sculpin	**Cottus confusus*
Hotwater Physa	**Physella wrighti*
Limnetic Enos Lake Stickleback	*Gasterosteus sp.*
Benthic Enos Lake Stickleback	*Gasterosteus sp.*
Salish Sucker	*Catostomus sp.*
Speckled Dace	*Rhinichthys osculus*
Charlotte Unarmoured Stickleback	*Gasterosteus aculeatus*
Columbia Mottled Sculpin	*Cottus bairdi hubbsi*
Giant Stickleback	*Gasterosteus sp.*
Green Sturgeon	*Acipenser medirostris*
Umatilla Dace	*Rhinichthys umatilla*
White Sturgeon	*Acipenser transmontanus*

Applications for permits to specifically collect and retain listed species must be reviewed by the appropriate Recovery Team, who will screen permits to ensure that any impacts on listed species are acceptable. For white sturgeon the contact is Steve McAdam (steve.mcadam@gov.bc.ca). For listed non-game freshwater fish the contact is Jordan Rosenfeld (jordan.rosenfeld@gov.bc.ca), co-chair of the Non-Game Freshwater Fish Recovery Team.

APPENDIX C: Permitted Waterbodies

Creek 661	180-609800-66100
Turtle Creek	180-609800-39700
Creek 700	180-609800-39700-70000
Creek 705	180-637900-56400-70500
Goldie Creek	180-271000-17100
Tachick Creek	180-271000-29700
Greer Creek	180-481700
Taiuk Creek	170-246000-80000
Stony Creek	180-271000
Cabin Creek	180-069000-98200-20500
Davidson Creek	180-609800-48100
Big Bend Creek	180-579900
Sinkut River	180-225800
Finger Creek	180-069000-98200
Chedakuz Creek	180-609800
Euchiniko River	170-246000
North Stony Creek	180-271000-67300
Main streams – all crossing including smaller tributaries	

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Ministry of Forests, Lands and Natural Resource Operations

FISH COLLECTION PERMIT
Environmental Impact Assessment

File: 34770-20

Amended (October 16, 2012) Permit No.: WL-SM12-79720

Permit Holder: AMEC Environmental & Infrastructure – Ian D. Matchett
600 – 4445 Lougheed Highway, Burnaby BC V5C 0E4

Client No.: 21541

Authorized Persons: Ian D. Matchett, Pier Van Dishoeck, Stephanie Lyons, Mike Bayes, Brett McLeod, Kevin Wilson, Rosalyn Smedley, Mark Pokorski, Dave Stanley, Stephanie Christensen, Robert Prince, Lindsay Jennings

Pursuant to section 19 of the *Wildlife Act*, RSBC 1996, Chap. 488, and section 18 of the Angling and Scientific Regulations, BC Reg. 125/90, the above named persons are hereby authorized to collect fish for scientific purposes from non-tidal waters subject to the conditions set forth in this Permit:

Permitted Sampling Period: October 16, 2012 to March 31, 2013
Permitted Waterbodies: Cariboo Region and Skeena Region – See Appendix C
Permitted Sampling Techniques: MT, AG, SN, DC, TN, DN, EF, GN (subject to permit terms and conditions)
Potential Species: RB, MW, LSU, CSU, NSC, BB, KO, CCG (subject to permit terms and conditions)
Permitted Lethal Sampling: See Appendix D (subject to permit terms and conditions)

Provincial Conditions: (Permit holders must be aware of all terms and conditions):
See Appendix A.
Region Specific Conditions:
See Appendix A.

Authorized by:
Lee Williston, Senior Fisheries Biologist
A person authorized by the Regional Manager
Recreational Fisheries & Wildlife Programs
Cariboo Region

Date: October 16, 2012

Permit Fee $25
This permit supersedes permit WL-SM12-79720 issued on August 29, 2012

Authorized by:
Dana Atagi
Regional Manager
Recreational Fisheries & Wildlife Programs
Skeena Region



_____

Date: October 16, 2012

Any contravention or failure to comply with the terms and conditions of this permit is an offense under the *Wildlife Act*, RSBC 1996, Chap. 488 and B.C. Reg. 125/90.

BRITISH COLUMBIA

Appendix A: Fish Collection Permit Conditions

Any Variation of the following terms and conditions will require explicit authorization by the appropriate regional Fish & Wildlife Section Head.

Provincial Conditions

1. This collecting permit is not valid
   - in national parks,
   - in provincial parks unless a Park Use Permit is also obtained,
   - in tidal waters,
   - for eulachon or for salmon* other than kokanee, or
   - for collecting fish by angling unless the permit holder and crew members possess a valid angling licence.

   This collecting permit is **only** valid for species listed as threatened, endangered or extirpated under the Species at Risk Act (SARA) **in conjunction with a permit issued under Section 73 of SARA from Fisheries and Oceans Canada.**

   *Contact the Department of Fisheries and Oceans for fish collecting permits for salmon, eulachon or SARA listed species (see Appendix B).

2. The permit holder (or the project supervisor) named on the application for a scientific collection permit will carry a copy of this permit while engaged in fish collecting and produce it upon request of a conservation officer, fisheries officer or constable.

3. Any specimens surplus to scientific requirements and any species not authorized for collection in this permit shall be immediately and carefully released at the point of capture.

4. Fish collected under authority of this permit shall not be used for food or any purpose other than the objectives set out in the approved application for a scientific collection permit. The permit holder shall not sell, barter, trade, or give away, or offer to sell, barter, trade or give away fish collected under authority of this permit. Dead fish shall be disposed of in a manner that will not constitute a health hazard, nuisance or a threat to wildlife.

5. No fish collected under authority of this permit shall be
   - transported alive unless authorized by this permit, or
   - transplanted unless separately authorized by the Federal/Provincial Fish Transplant Committee.

6. The permit holder shall, within 90 days of the expiry of this permit, submit a report of fish collection activities. Interim reports may also be required and shall be submitted as required by the permit issuer. All submissions must be filed electronically to: http://www.env.gov.bc.ca/fish_data_sub/index.html

   Reporting specifications, information and templates are available from this website and outline the mandatory information requirements. Prior notification of submission or questions regarding data report standards can be made to: fishdatasub@gov.bc.ca

7. This collecting permit is subject to cancellation at any time and shall be surrendered to a conservation officer on demand or to the issuer upon written notice of its cancellation.

8. This permit is valid only for the activities approved on the application form and in accordance with any restrictions set out therein.

9. This permit is valid only for trained, qualified staff named in the Application. The permit holder will comply with all Worker's Compensation Board requirements and other regulatory requirements. Permit holders are responsible for ensuring staff members listed on the permit are properly certified for specific sampling methods or activities (e.g. electroshocking).

10. Any workers not listed on the permit must be supervised by the permit holder or one of the additional persons as named on the permit.

Appendix A: Fish Collection Permit Conditions Continued

11. All sampling equipment that has been previously used outside of B.C. must be cleaned of mud and dirt and disinfected with 100mg/L chlorine bleach before using in any water course to prevent the spread of fish pathogens (e.g. Whirling disease) and / or invasive plant species. Any washed off dirt or mud must be disposed of in a manner such that it cannot enter a watercourse untreated.

12. No electrofishing is to take place in waters below five degrees C.

13. Electrofishing may not be conducted in the vicinity of spawning gravel, redds, or spawning fish, or around gravels which are capable of supporting eggs or developing embryos of any species of salmonid at a time of year when such eggs or embryos may be present.

14. Angling must only occur in accordance with the regulations specified in the current BC Freshwater Fishing Regulations Synopsis.

Region Specific Conditions

Cariboo Region

- Cariboo Region requires seven days (7) written notice, complete with waterbody and watershed codes for the proposed areas prior to sampling in the Cariboo Region. Please submit written email notice to: Mike.Ramsay@gov.bc.ca or fax to 250 398 4214.
- Until such time as the holder of this permit has discussed specific activities with the Regional Manager and obtains written permission, fish collection, fish sampling or fish salvage may not be undertaken within the boundaries of Management Units 5-04 or 5-05.

Skeena Region

- For information related to Fish Collection Permit Activities in the Skeena Region, please contact Dean Peard at 250-847-7286 or Dean.Peard@gov.bc.ca.

Appendix B: Table 1 - Species at Risk

The following are species at risk that have been listed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as either endangered, threatened or a species of special concern. Species also listed under the Species at Risk Act (SARA) are identified with an asterisk, and are subject to additional permitting requirements through the Federal Department of Fisheries and Oceans (DFO).

Common Name	Scientific Name
Benthic Paxton Lake Stickleback	**Gasterosteus sp.*
Benthic Vananda Creek Stickleback	**Gasterosteus sp.*
Limnetic Paxton Lake Stickleback	**Gasterosteus sp.*
Limnetic Vananda Creek Stickleback	**Gasterosteus sp.*
Nooksack Dace	**Rhinichthys sp.*
Morrison Creek Lamprey	**Lampetra richardsoni*
Vancouver Lamprey (Cowichan Lake Lamprey)	**Lampetra macrostoma*
Cultus Pygmy Sculpin	**Cottus sp.*
Shorthead Sculpin	**Cottus confusus*
Hotwater Physa	**Physella wrighti*
Limnetic Enos Lake Stickleback	*Gasterosteus sp.*
Benthic Enos Lake Stickleback	*Gasterosteus sp.*
Salish Sucker	*Catostomus sp.*
Speckled Dace	*Rhinichthys osculus*
Charlotte Unarmoured Stickleback	*Gasterosteus aculeatus*
Columbia Mottled Sculpin	*Cottus bairdi hubbsi*

Giant Stickleback	*Gasterosteus sp.*
Green Sturgeon	*Acipenser medirostris*
Umatilla Dace	*Rhinichthys umatilla*
White Sturgeon	*Acipenser transmontanus*

Applications for permits to specifically collect and retain listed species must be reviewed by the appropriate Recovery Team, who will screen permits to ensure that any impacts on listed species are acceptable. For white sturgeon the contact is Steve McAdam (steve.mcadam@gov.bc.ca). For listed non-game freshwater fish the contact is Jordan Rosenfeld (jordan.rosenfeld@gov.bc.ca), co-chair of the Non-Game Freshwater Fish Recovery Team.

Appendix C: Permitted Waterbodies

Region	Waterbody	Watershed Code
5	Chedakuz Creek	180-609800
6	Creek 661	180-609800-66100
6	Turtle Creek	180-609800-39700
6	Creek 700	180-609800-39700-70000
6	Creek 705	180-637900-56400-70500
6	Davidson Creek	180-609800-48100
6	Tatelkuz Lake	180-609800
6	Unnamed Lake	180-637900-56400-70500
6	Unnamed Lake	180-637900-56400-70500-7270
6	Unnamed Lake	180-609800-48100
6	Snake Lake	180-609800-55500
Smaller tributaries to streams noted above will potential be sampled as well.		

Appendix D: Permitted Lethal Sampling

Species	# of Fish	Waterbody	Watershed Code
RB	8	Davidson Creek	180-609800-48100
RB	8	Turtle Creek/Creek 700	180-609800-39700
RB	8	Creek 661	180-609800-66100
RB	8	Creek 705	180-637900-56400-70500
RB	8	Unnamed Lake (01538UEUT)	180-637900-56400-70500
RB	8	Unnamed Lake (01428UEUT)	180-637900-56400-70500-7270
RB	8	Unnamed Lake (01682LNRS)	180-609800-48100
RB	8	Snake Lake (01553LNRS)	180-609800-55500
RB	8	Chedakuz Creek	180-609800
CCG	8	Davidson Creek	180-609800-48100
CCG	8	Turtle Creek/Creek 700	180-609800-39700-70000
CCG	8	Creek 661	180-609800-66100
CCG	8	Creek 705	180-637900-56400-70500
CCG	8	Chedakuz Creek	180-609800
CCG	8	Snake Lake (01553LNRS)	180-609800-55500
KO	8	Davidson Creek	180-609800-48100
KO	8	Creek 661	180-609800-66100
KO	16	Chedakuz	180-609800

Fisheries and Oceans Canada | Pêches et Océans Canada

Licence Number: XHAB 74 2011

Valid From: 06-Jun-2011
Expiry Date: 30-Oct-2011

This licence and/or permit is issued under the authority of HABITAT ASSESSMENT, and SECTION 52 OF THE FISHERY (GENERAL) REGULATIONS.

This licence and/or permit authorizes the person(s) listed below, subject to the following terms and conditions, to collect the species and quantity of fish identified below for: Scientific purposes. Non-compliance with any condition of this licence and/or permit may result in the cancellation of this licence and/or permit.

Licence/Permit Activity Description:
Fish habitat and populations will be assessed for streams within the Richfield Venture Property. At stream crossings within the powerline right-of-way from Vanderhoof to the project site fish habitat and fish presence/absence will be assessed upstream and downs tram of the crossing sites.

Licence Holder:
FIN: 114322
Ecofor Consulting Ltd
Po Box 1270, 822 Stuart Drive West
Fort St James BC V0J 1P0
Contact Number: 250-996-2151
Fax Number: 250-996-2186

Contact Party:

FIN: 124263	Mark Pokorski	Contact Number: 250-996-2151 Fax Number: 250-996-2186

Inividuals or groups assisting with the authorized activity:

FIN: 126600	Gerry Leering	Contact Number: 250-996-2151
FIN: 124468	Kevin Wilson	Contact Number: 250-996-2151
FIN: 124469	Dave Stanley	Contact Number: 250-996-2151
FIN: 124263	Mark Pokorski	Contact Number: 250-996-2151
FIN: 124470	Mike Bayes	Contact Number: 250-996-2151
FIN: 124471	Tom Prince	Contact Number: 250-996-2151
FIN: 124472	John Sam	Contact Number: 250-996-2151
FIN: 125601	Kevin Mernickle	Contact Number: 867 821-3509
FIN: 126601	Gabe Cabral	Contact Number: 250-996-2151
FIN: 126602	Stephanie Christiansen	Contact Number: 250-996-2151

Species, Quantity of Fish, Area(s) and Gear:

Species:	All Anadromous Salmon Species
Licence Area:	Goldie Creek - WSC: 180-271000-17100 Unnamed Tributary of Fawnie Creek - WSC: 180-637900-56400-70500 Taiuk Creek - WSC: 170-246000-80000 Stony Creek - WSC: 180-271000 Cabin Creek - WSC: 180-069000-98200-20500 North Stony Creek - WSC: 180-271000-67300 Big Bend Creek - WSC: 180-579900 Sinkut River - WSC: 180-225800 Finger Creek - WSC: 180-069000-98200 Chedakuz Creek - WSC: 180-609800

	Euchiniko River - WSC: 170-246000 Davidson Creek - WSC: 180-609800-48100 Tachick Creek - WSC: 180-27100-29700 Unnamed Tributary of Chedakuz Creek - WSC: 180-609800-66100 Unnamed Tributary of Chedakuz Creek - WSC: 180-690800-39700 Unnamed Tributary of Unnamed Tributary to Chedakuz Creek - WSC: 180-609800-39700-70000 Greer Creek - WSC: 180-481700
Gear:	Electroshocker Net, Dip Net, Trap Rod And Reel Seine, Pole Trap, Gee/Minnow
Units:	Individuals (live)

Reporting Requirements:

Final Report **Due Date** 12-Dec-11

Terms and Conditions:

The DFO Office responsible for the area in which fishing takes place shall be notified on each occasion prior to the collection of samples. Notification shall occur by telephone during normal business hours. If you are unable to notify the local office on evenings or weekends, advise the DFO Radio Room at 1-800-465-4336 prior to sampling.

Copies of this licence must accompany the collecting personnel, be on board any collecting vessel and be carried with the transport vehicle at all times during collection and transport of samples. The licence must be produced upon the request of a Fishery Officer or Guardian.

This licence authorizes collections to be made by the licensee and employees, volunteers and students of the licensee provided that all persons, other than minors who are engaged in activities under the authority of this licence, are carrying suitable photo identification to be produced upon request of a Fishery Officer or Guardian.

All gear left unattended must be clearly labelled with the Licence Number and must not interfere with the public right of navigation.

The permittee shall, within 90 days of the expiry of this permit, submit a report of fish collection activities. Interim reports may also be required and shall be submitted as required by the permit issuer. All submissions must be filed electronically to: http://www.env.gov.bc.ca/fish_data_sub/. PDF Reports, PDF Maps and sampling data submitted in the Field Data Information System (FDIS for short) are not mandatory but are encouraged when available. Prior notification of submission, or questions regarding data report standards can be made to: fishdatasub@gov.bc.ca.

No sampling of non-anadromous fish species and steelhead is to be undertaken unless prior approval has been provided by the BC Ministry of Environment.

This licence may be revoked or amended by the Department prior to the expiry date as may be considered necessary by the Department.

Electrofishing is only permitted after extensive use of other gear during sampling activity indicates no presence of juvenile salmonids. Use of electrofishing gear is only permitted in waters upstream of barriers to salmon migration.

Licence Holder - Print Name	Signature	Date
		June 06/2011

Issued by: Steven Ratko, A/Resource Manager
Fisheries and Oceans Canada

Date

Licence Printed: 02 June 2011

Licence Number: XHAB 132 2012 - Amendment 1

Valid From: 31-Jul-2012
Expiry Date: 01-Dec-2012

This licence and/or permit is issued under the authority of SECTION 52 OF THE FISHERY (GENERAL) REGULATIONS.

This licence and/or permit authorizes the person(s) listed below, subject to the following terms and conditions, to collect the species and quantity of fish identified below for: Scientific purposes. Non-compliance with any condition of this licence and/or permit may result in the cancellation of this licence and/or permit.

Licence/Permit Activity Description:
Fish sampling to investigate the potential impacts of a proposed goldmine near Vanderhoof on fish and fish habitat.

Licence Holder:

FIN: 128030	Amec Environmental & Infrastructure	Contact Number: 604-294-3811 Fax Number: 604-294-4664

Suite 600, 4445 Lougheed Hwy
Burnaby BC V5C 0E4

Contact Party:

FIN: 129077	Matchett, Ian	Contact Number: 604-295-6134

Individuals or groups assisting with the authorized activity:

FIN: 124733	Pier Van Dishoeck	Contact Number: 604-295-8038
FIN: 129080	Rosalyn Smedley	Contact Number: 604-295-8629
FIN: 129079	Mia Edbrooke	Contact Number: 604-295-6146
FIN: 129717	Brett Mcleod	Contact Number: 403-387-1860
FIN: 129075	Stephanie Lyons	Contact Number: 604-295-8360

Species, Quantity of Fish, Area(s) and Gear:

Species:	All Anadromous Salmon Species
Gear:	Electroshocker Gill Net Net, Dip Net, Trap Rod And Reel Seine, Beach Trap, Gee/Minnow
Licence Area:	Unnamed Creek - WSC: 180-637900-56400-70500 Unnamed Creek - WSC: 180-609800-48100 Snake Lake - WSC: 180-609800-55500 Unnamed Creek - WSC: 180-609800-66100 Unnamed Lake - WSC: 180-637900-56400-70500 Turtle Creek - WSC: 1800-609800-39700 Unnamed Creek - WSC: 180-609800-39700-70000 Davidson Creek - WSC: 180-609800-48100 Unnamed Lake - WSC: 180-637900-56400-70500-7270 Tatelkuz Lake - WSC: 180-609800 Chedakuz Creek - WSC: 180-609800
Units:	Individuals (live)

Additional Descriptions: Smaller tributaries to the streams and lakes noted can be sampled as well.

Gill net approved for Unnamed lakes and Snake lake only.

Reporting Requirements:

Final Report **Due Date** 14-Jan-13

Terms and Conditions:

Definitions

"DFO" means the Department of Fisheries and Oceans.
"electofishing" means using an electric current to attract and temporarily immobilize a fish to allow capture.
"fish" means chinook salmon (*Oncorhynchus tshawytscha*), sockeye salmon (*Oncorhynchus nerka*), coho salmon (*Oncorhynchus kisutch*) and pink salmon (*Oncorhynchus gorbuscha*).

Prior to the commencement of fishing

Prior to conducting any work, Phil Taylor, C&P Field Supervisor, Prince George office (250-561-5530) is to be contacted.

Licence to be carried

Copies of this licence must accompany the collecting personnel, be on board any collecting vessel and be carried with the transport vehicle at all times during collection and transport of samples. The licence must be produced upon the request of a fishery officer or fishery guardian.

This licence authorizes collections to be made by the licensee and employees, volunteers and students of the licensee provided that all persons, other than minors who are engaged in activities under the authority of this licence, are carrying suitable photo identification to be produced upon request of any fishery officer or fishery guardian.

Use of Electofishing Devices:

Electrofishing is only permitted after extensive use of other gear during sampling activity indicates no presence of juvenile salmonids.

A trained and certified electrofisher operator must be a part of the electrofishing crew.

Electrofishing is not permitted in the vicinity of spawning salmon or redds. Electrofishing can be severly damaging to eggs and alevins and must be avoided where eggs and alevins may be present.

Electrofishing is not permitted in water with a temperature below 5 degrees Celsius.

Release of Fish

All fish must be released into the water body or course from which they originated, and as near as possible to the location from which they were sampled.

Fish must be released in a manner that causes the least possible harm.

Reports:

A report will be required by DFO at the end of the project. The report must contain at minimum:

(a) sampling date, time, crew, stream name, watershed name;
(b) GPS position of site (s);
(c) number of captured aquatic organisms by species; and
(d) if conducted, bio-sampling data (lengths, weights).

No sampling of non-anadromous species

No sampling of non-anadromous fish species and steelhead is to be undertaken unless prior approval has been provided by the BC Ministry of Environment.

Revocation of licence

This licence may be revoked or amended by the Department prior to the expiry date as may be considered necessary by the Department.

Replaced due to Area Changed

Licence Issued: 23 July 2012

Licence Printed: 23 July 2012
Licence Issued By: TERRI YOUNG

Annex 5.10-2
Stream and Lake Fish Sampling Effort and Capture Data, 2011 and 2012

Table 5.10-2A: Stream and Lake Fish Sampling Effort and Capture Data, 2011 and 2012

Gazetted / Local Name	Date	Reach	Site	Method	# of Traps / Rods	Direction	Time In	Date Out	Time Out	Total Effort[1]	Species	Total Fish	CPUE[2]	EF settings	Voltage	Water temp	Cond	pH	Comment
Turtle Creek	07-Jun-11	1	HN-05	HN	2	US, DS		28-Jun-11		502	RB	584	27.8						
Creek 661	08-Jun-11	1	HN-03	HN	2	US, DS		27-Jun-11		453	RB	324	17.1						
Creek 661	08-Jun-11	4	HN-04	HN	2	US, DS		27-Jun-11		449	RB	57	3.0						
Creek 700	08-Jun-11	1	HN-07	HN	2	US, DS		27-Jun-11		452	RB	52	2.7						
Turtle Creek	09-Jun-11	5	HN-06	HN	2	US, DS		27-Jun-11		427	RB	122	6.8						
Davidson Creek	10-Jun-11	1	HN-01	HN	2	US, DS		28-Jun-11		430	RB	106	5.7						
Davidson Creek	10-Jun-11	1	HN-01	HN	2	US, DS		28-Jun-11		430	MW	3	0.2						
Creek 705	11-Jun-11	2	HN-08	HN	2	US, DS		28-Jun-11		408	RB	524	30.4						
Creek 705	11-Jun-11	2	HN-08	HN	2	US, DS		28-Jun-11		408	MW	4	0.2						
Creek 705	11-Jun-11	2	HN-08	HN	2	US, DS		28-Jun-11		408	BB	3	0.2						
Creek 705	11-Jun-11	2	HN-08	HN	2	US, DS		28-Jun-11		408	LSU	1	0.1						
Davidson Creek	13-Jun-11	8	HN-02	HN	2	US, DS		27-Jun-11		334	RB	74	5.3						
Davidson Creek	06-Aug-11	5	FS-02	EF						1527	RB	20	0.01	I5/J6	300	9.3	60	8.5	
Davidson Creek	06-Aug-11	5	FS-02	MT	5		16:30	07-Aug-11	9:15	83.75	RB	3	0.04						
Turtle Creek	09-Aug-11	2	FS-18	EF						453	RB	5	0.01	J6	200	12		8.3	3 pass
Creek 700	09-Aug-11	1	FS-22	EF						835	NFC	0	0.00	I5	400				
Turtle Creek	10-Aug-11	5	FS-21	EF						419	RB	1	0.00	I5	100/200				
Creek 700	10-Aug-11	2	FS-23	EF						1203	RB	2	0.00	I5/J6	200				
Creek 700	10-Aug-11	2	FS-23	MT	5		17:00	15-Aug-11	10:05	565	RB	9	0.02						
Davidson Creek	11-Aug-11	8	FS-06	EF						1746	RB	19	0.01	I5	400	8			
Creek 661	11-Aug-11	3	FS-12	EF						1403	RB	2	0.00	J6	300	13.4	74.6	7.94	
Creek 661	11-Aug-11	3	FS-12	MT	6		17:45	12-Aug-11	14:25	124	RB	1	0.01			13.4	74.6	7.94	
Creek 661	12-Aug-11	4	FS-13	EF						1525	RB	4	0.00	J6	400	7.4	64.4	8.3	
Creek 661	12-Aug-11	5	FS-14	MT	6		17:15	13-Aug-11	10:30	103.5	RB	4	0.04			8.5	42	7.79	
Lake 01538UEUT	12-Aug-11		-	MT	10		10:00	13-Aug-11	14:30	265	LSU	92	0.35						
Lake 01538UEUT	12-Aug-11		-	MT	10		10:00	13-Aug-11	14:30	265	RB	2	0.01						
Davidson Creek	13-Aug-11	12	FS-10	EF						1264	RB	19	0.02	J5	300	11.1	46	7.9	
Davidson Creek	13-Aug-11	11	FS-09	EF						3924	RB	55	0.01	J5	300/400	9.6	42	7.92	3 pass

Gazetted / Local Name	Date	Reach	Site	Method	# of Traps / Rods	Direction	Time In	Date Out	Time Out	Total Effort[1]	Species	Total Fish	CPUE[2]	EF settings	Voltage	Water temp	Cond	pH	Comment
Creek 661	13-Aug-11	5	FS-12	EF						785	RB	6	0.01			8.5	42	7.79	
Lake 01538UEUT	13-Aug-11		-	GN			9:30	13-Aug-11	12:00	2.5	RB	13	1.25						sinking set (100m)
Lake 01538UEUT	13-Aug-11		-	GN			10:00	13-Aug-11	11:30	1.5	RB	4	0.64						floating set (100m)
Lake 01682LNRS	14-Aug-11		-	GN			11:22	14-Aug-11	13:10	1.80	RB	0	0.00						sinking set (100m)
Lake 01682LNRS	14-Aug-11		-	GN			12:01	14-Aug-11	14:00	1.98	RB	0	0.00						floating set (100m)
Lake 01682LNRS	14-Aug-11		-	MT	8			15-Aug-11		192	RB	0	0.00						
Creek 661	15-Aug-11	6	FS-15	EF						1012	RB	20	0.02	J6	600	6.7	27.8	7.67	
Creek 661	15-Aug-11	7	FS-16	EF						1202	RB	10	0.008	J6	600	7.3	26.4	7.9	
Turtle Creek	15-Aug-11	4	FS-20	EF						1010	RB	2	0.002	I5	200	10.9		8.16	
Lake 01682LNRS	15-Aug-11		-	GN			9:35	15-Aug-11	13:35	4	RB	0	0.00						floating set (100m)
Lake 01682LNRS	15-Aug-11		-	GN			10:00	15-Aug-11	13:45	3.75	RB	0	0.00						sinking set (100m)
Turtle Creek	16-Aug-11	3	FS-19	EF						1256	RB	4	0.003	I5	200	9.7	53.7	8.3	
Turtle Creek	16-Aug-11	1	FS-17	EF						1093	RB	3	0.003	I5	200	10.6		7.97	
Lake 01428UEUT	16-Aug-11		-	GN			12:30	16-Aug-11	15:00	2.5	RB	43	2.06						sinking set (100m) - larger fish than floating set and 3 size classes captured
Lake 01428UEUT	16-Aug-11		-	GN			12:50	16-Aug-11	15:20	2.5	RB								floating set (100m)
Lake 01428UEUT	16-Aug-11		-	MT	16		10:30	17-Aug-11	10:30	384	RB	1	0.003						
Lake 01428UEUT	16-Aug-11		-	MT	16		10:30	17-Aug-11	10:30	384	LSU	3	0.008						

Gazetted / Local Name	Date	Reach	Site	Method	# of Traps / Rods	Direction	Time In	Date Out	Time Out	Total Effort[1]	Species	Total Fish	CPUE[2]	EF settings	Voltage	Water temp	Cond	pH	Comment
Davidson Creek	17-Aug-11	6	FS-03	EF						1637	RB	27	0.016	I5	400	7	59.4	8.4	
Davidson Creek	17-Aug-11	7	FS-04	EF						2007	RB	23	0.011	I5	400	8.3	58.2	8.32	
Davidson Creek	18-Aug-11	9	FS-07	EF						1617	RB	3	0.002	J6	300	8	57.4	8.2	
Davidson Creek	19-Aug-11	7.1	FS-05	EF						1888	RB	41	0.02	J6	300	7.5	60.3	8.14	2 pass (sufficient depletion on 2nd pass)
Davidson Creek	20-Aug-11	10	FS-08	EF						1875	RB	33	0.02	J6	400	9	30	8	
Creek 704454	20-Aug-11	1	FS-27	MT	6		12:20	21-Aug-11	15:40	164	RB	0	0.00						
Creek 704454	20-Aug-11	1	FS-27	EF						1060	RB	0	0.00	J6	500				
Creek 146920	20-Aug-11		FS-38	MT	5		15:30	21-Aug-11	16:15	309	RB	0	0.00			8.7	31.8	7.85	
Creek 146920	20-Aug-11	1	FS-38	EF						566	RB	0	0.00	J6	400	8.7	31.8	7.85	
Creek 704454	21-Aug-11	1	FS-27	EF						888	RB	2	0.002	J6	600	8.4		7.83	
Creek 700	05-Sep-11	4	FS-25	EF						1193	NFC	0	0.000	M3	500	7	42		
Creek 636713	01-Aug-12	3	FS-72	EF						845	NFC	0	0.00	I5	300	12.2	21	8	
Creek 636713	01-Aug-12	3	FS-72	MT	3		16:36	02-Aug-12	13:20	62	NFC	0	0.00			12.2	21	8	
Creek 636713	01-Aug-12	4	FS-73	EF						523	NFC	0	0.00	J6	400	11.1	29	7.6	
Creek 636713	01-Aug-12	4	FS-73	MT	3		14:35	02-Aug-12	12:56	67	NFC	0	0.00			11.1	29	7.6	
Creek 688328	01-Aug-12	1	FS-94	EF						669	RB	3	0.45	I5	400	9.5	42	7.9	
Creek 688328	01-Aug-12	1	FS-94	MT	3		17:15	07-Aug-12	10:30	52	NFC	0	0.00			9.5	42	7.9	
Creek 776798	01-Aug-12	1	FS-81	EF						642	NFC	0	0.00	J6	500	8.5	25	7.6	
Creek 776798	01-Aug-12	1	FS-81	MT	3		18:17	02-Aug-12	13:56	58	NFC	0	0.00			8.5	25	7.6	
Unnamed Creek	02-Aug-12	1	FS-95	EF						336	NFC	0	0.00	J6	500	8.3	24	8.1	
Unnamed Creek	02-Aug-12	1	FS-95	MT	3		11:40	04-Aug-12	14:58	82	NFC	0	0.00			8.3	24	8.1	
Creek 661	02-Aug-12	1	FS-82	EF						854	RB	45	5.27	I5	300	11.6	98	7.9	
Creek 661	02-Aug-12	1	FS-82	EF						854	KO	4	0.47	I5	300	11.6	98	7.9	
Creek 661	02-Aug-12	1	FS-82	MT	5		18:05	03-Aug-12	16:55	114	RB	5	4.38			11.6	98	7.9	
Creek 661	02-Aug-12	2	FS-83	EF						917	RB	61	6.65	I5	300	11.9	93	8	
Creek 661	02-Aug-12	2	FS-83	EF						917	KO	1	0.11	I5	300	11.9	93	8	
Creek 661	02-Aug-12	2	FS-83	MT	5		14:58	03-Aug-12	16:05	116	RB	8	6.88			11.9	93	8	

Gazetted / Local Name	Date	Reach	Site	Method	# of Traps / Rods	Direction	Time In	Date Out	Time Out	Total Effort[1]	Species	Total Fish	CPUE[2]	EF settings	Voltage	Water temp	Cond	pH	Comment
Creek 505659	02-Aug-12	7	FS-90	EF						464	NFC	0	0.00	J6	500	10.3	43	8.6	
Creek 505659	02-Aug-12	7	FS-90	MT	3		18:11	04-Aug-12	15:58	65	NFC	0	0.00			10.3	43	8.6	
Creek 505659	03-Aug-12	1	FS-86	EF						1243	RB	6	0.48	I5	500	11.3	61	7.8	
Creek 505659	03-Aug-12	1	FS-86	MT	3		17:40	04-Aug-12	11:21	52	RB	2	3.84			11.3	61	7.8	
Creek 505659	03-Aug-12	2	FS-87	EF						755	RB	2	0.26	I5	500	12.5	62	7.6	
Creek 505659	03-Aug-12	2	FS-87	MT	3		16:48	04-Aug-12	10:08	52	RB	3	5.74			12.5	62	7.6	
Creek 505659	03-Aug-12	3	FS-88	EF						672	RB	4	0.60	I5	400	12.5	64	7.9	
Creek 505659	03-Aug-12	3	FS-88	MT	3		14:30	04-Aug-12	9:36	57	RB	2	3.51			12.5	64	7.9	
Creek 505659	03-Aug-12	4	FS-89	EF						1104	NFC	0	0.00	I6	500	16.2	73	7.2	
Creek 505659	03-Aug-12	4	FS-89	MT	3		12:27	04-Aug-12	9:25	63	NFC	0	0.00			16.2	73	7.2	
Creek 543585	03-Aug-12	1	FS-92	EF						547	NFC	0	0.00	I5	500	8.4	66	8.2	
Creek 543585	03-Aug-12	1	FS-92	MT	3		10:33	04-Aug-12	8:53	67	NFC	0	0.00			8.4	66	8.2	
Davidson Creek	04-Aug-12	1	FS-66	MT	10		16:30	07-Aug-12	8:30	229	RB	8	3.49			14.5	76	8	
Davidson Creek	04-Aug-12	2	FS-67	EF						236	RB	1	0.42	I5	400	11.4	77	8	
Davidson Creek	04-Aug-12	2	FS-67	EF						236	KO	17	7.20	I5	400	11.4	77	8	
Davidson Creek	04-Aug-12	2	FS-67	MT	5		14:30	05-Aug-12	11:00	65	RB	3	4.65			11.4	77	8	
Creek 076095	04-Aug-12	1	FS-63	EF						350	NFC	0	0.00	J5	400	9.4	17	8	
Creek 076095	04-Aug-12	1	FS-63	MT	3		17:34	06-Aug-12	16:35	141	NFC	0	0.00			9.4	17	8	
Davidson Creek	05-Aug-12	4	FS-01	EF						928	RB	22	2.37	I5	300	14.9	82		
Davidson Creek	05-Aug-12	4	FS-01	EF						928	KO	1	0.11	I5	300	14.9	82		
Creek 428073	05-Aug-12	1	FS-70	EF						309	RB	8	2.59	I5	200	18.7	127	7.8	
Creek 704454	05-Aug-12	4	FS-77	EF						852	RB	1	0.12	I5	500	12.9	26	8.1	
Creek 704454	05-Aug-12	4	FS-77	MT	3		15:49	06-Aug-12	15:35	71	NFC	0	0.00			12.9	26	8.1	
Creek 704454	05-Aug-12	5	FS-78	EF						956	RB	1	0.10	I5	500	9.5	28	8.8	
Creek 704454	05-Aug-12	5	FS-78	MT	3		11:57	06-Aug-12	15:59	60	NFC	0	0.00			9.5	28	8.8	
Creek 704454	05-Aug-12	6	FS-62	EF						1000	RB	1	0.10	I5	500	9.8	20	8.5	
Creek 704454	05-Aug-12	6	FS-62	MT	3		18:36	06-Aug-12	17:04	68	NFC	0	0.00			9.8	20	8.5	
Creek 661	06-Aug-12	11	FS-84	EF						440	NFC	0	0.00	I5	500	11.3	27	7.5	
Creek 146920	06-Aug-12	2	FS-91	EF						877	RB	1	0.11	I5	500	10.8	55	8.1	

Gazetted / Local Name	Date	Reach	Site	Method	# of Traps / Rods	Direction	Time In	Date Out	Time Out	Total Effort[1]	Species	Total Fish	CPUE[2]	EF settings	Voltage	Water temp	Cond	pH	Comment
Creek 688328	07-Aug-12	2	FS-49	EF						624	RB	3	0.48	I5	400	11.1	39	7.9	
Creek 688328	07-Aug-12	2	FS-49	MT	3		16:48	07-Aug-12	13:49	63	NFC	0	0.00			11.1	39	7.9	
Creek 634527	07-Aug-12	1	FS-46	EF						391	NFC	0	0.00	I5	500	10	55	8	
Creek 634527	07-Aug-12	1	FS-46	MT	3		17:15	08-Aug-12	9:59	50	NFC	0	0.00			10	55	8	
Creek 704454	07-Aug-12	2	FS-75	EF						929	NFC	0	0.00	I5	500	9.8	33	8.3	
Creek 704454	07-Aug-12	2	FS-75	MT	3		9:52	10-Aug-12	8:12	211	RB	2	0.95			9.8	33	8.3	
Creek 704454	07-Aug-12	3	FS-76	EF						1014	NFC	0	0.00	I5	500	9.6	31	7.6	
Creek 704454	07-Aug-12	3	FS-76	MT	3		8:05	10-Aug-12	9:39	221	NFC	0	0.00			9.6	31	7.6	
Unnamed Creek	07-Aug-12	1	FS-98	EF						971	NFC	0	0.00	I5	500	9.3	16	8.4	
Chedakuz Creek	07-Aug-12	15	FS-97	EF						876	RB	4	0.46	I5	400				
Chedakuz Creek	07-Aug-12	15	FS-97	EF						876	MW	1	0.11	I5	400				
Chedakuz Creek	07-Aug-12	15	FS-97	EF						876	LNC	1	0.11	I5	400				
Chedakuz Creek	07-Aug-12	15	FS-97	MT	5		9:30	09-Aug-12	15:30	150	RB	1	0.67						
Davidson Creek	08-Aug-12	11	FS-09	EF						1378	RB	10	0.73	I5	300	12.7	45	8.1	
Davidson Creek	08-Aug-12	12	FS-10	EF						1107	RB	19	1.72	I5	500	16.8	50	7.9	
Creek 688328	08-Aug-12	3	FS-48	EF						785	NFC	0	0.00	I5	400	7.8	51	8.1	
Creek 688328	08-Aug-12	4	FS-50	EF						486	NFC	0	0.00	I5	500	8.6	75	8.4	
Creek 667871	08-Aug-12	1	FS-47	EF						335	NFC	0	0.00	I5	600	10.2	33	7.8	
Creek 853864	08-Aug-12	1	FS-99	EF						649	NFC	0	0.00	I5	500	9.7	16	8.3	
Turtle Creek	08-Aug-12	5	FS-21	EF						564	RB	2	0.35	I5	300	14.3	192		
Turtle Creek	08-Aug-12	5	FS-21	MT	5		18:35	09-Aug-12	9:20	74	RB	5	6.78			14.3	192		
Davidson Creek	09-Aug-12	9	FS-07	EF						2142	RB	8	0.37	I5	400	10.7	63		
Creek 704454	09-Aug-12	1	FS-74	EF						1370	RB	4	0.29	I5	400	8.6	39	8.2	
Creek 704454	09-Aug-12	1	FS-74	MT	3		9:55	10-Aug-12	7:49	66	NFC	0	0.00			8.6	39	8.2	
Turtle Creek	09-Aug-12	2	FS-17	EF						757	RB	9	1.19	I5	300	14	180		
Davidson Creek	10-Aug-12	5	FS-02	EF						767	RB	19	2.48	I5	300	9.2	85		
Davidson Creek	10-Aug-12	6	FS-03	EF						1853	RB	24	1.30	I5	300	11	67		
Chedakuz Creek	05-Sep-12	14	FS-113	AG						3	RB	8	2.46						

Gazetted / Local Name	Date	Reach	Site	Method	# of Traps / Rods	Direction	Time In	Date Out	Time Out	Total Effort[1]	Species	Total Fish	CPUE[2]	EF settings	Voltage	Water temp	Cond	pH	Comment
Lake 01428UEUT	08-Sep-12			GN			13:57	08-Sep-12	17:19	3.5	RB	34	104.50			14	38		sinking set (100m)
Lake 01428UEUT	08-Sep-12			GN			13:57	08-Sep-12	17:19	3.5	LSU	3	9.20			14	38		
Lake 01538UEUT	10-Sep-12			GN			12:12	10-Sep-12	13:12	1	RB	3	32.00			13.5	34.4		sinking set (100m)
Lake 01538UEUT	10-Sep-12			GN			13:28	10-Sep-12	15:20	1.9	NFC	0	0.00			13.5	34.4		sinking set (100m)
Lake 01538UEUT	10-Sep-12			GN			9:25	10-Sep-12	12:15	2.8	RB	8	30.20			13.5	34.4		sinking set (100m)
Lake 01538UEUT	10-Sep-12			GN			9:53	10-Sep-12	12:45	2.9	RB	1	3.70			13.5	34.4		sinking set (100m)
Creek 688328	15-Sep-12	2	FS-49	EF						401	NFC	0	0.00	I5	300	6.2	56		
Creek 700	15-Sep-12	3	FS-24	EF						338	NFC	0	0.00	I5	400	5.2	106.9		
Creek 700	15-Sep-12	4	FS-25	EF						359	NFC	0	0.00	I5	400	5.5	68		
Creek 700	15-Sep-12	5	FS-101	EF						388	NFC	0	0.00	I5	400	5.3	51	8.12	
Creek 700	15-Sep-12	5	FS-101	MT	3		11:15	16-Sep-12	11:50	80	NFC	0	0.00			5.3	51	8.12	
Creek 705	15-Sep-12	4	FS-103	EF						662	RB	23	3.47	I5	400	7.13	51.8	8.21	
Creek 705	15-Sep-12	4	FS-103	MT	3		15:12	16-Sep-12	13:13	66	RB	1	1.52			7.13	51.8	8.21	
Creek 705	15-Sep-12	4	FS-103	MT	3		15:12	16-Sep-12	13:13	66	LSU	1	1.52			7.13	51.8	8.21	
Creek 606013	15-Sep-12	1	FS-102	EF						471	RB	34	7.22	I5	400	7.8	50.2	8.15	
Creek 606013	15-Sep-12	1	FS-102	MT	3		14:50	16-Sep-12	12:37	82	RB	6	7.33			7.8	50.2	8.15	
Creek 549629	17-Sep-12	1	FS-51	EF						370	NFC	0	0.00	I5	400	7.7	154.8	7.63	
Creek 579340	17-Sep-12	5	FS-52	EF						248	NFC	0	0.00	I5	400	7.6	107.3	7.12	
Creek 579340	17-Sep-12	8	FS-107	EF						519	NFC	0	0.00	I5	400	9.6	58.4	6.95	
Creek 579340	17-Sep-12	8	FS-107	MT	3		17:10	18-Sep-12	12:35	52	NFC	0	0.00			9.6	58.4	6.95	
Creek 737376	17-Sep-12	1	FS-108	EF						446	NFC	0	0.00	I5	400	8.2	171.2	7.67	
Chedakuz Creek	18-Sep-12	15	FS-112	MT	6		11:59	20-Sep-12	13:15	263	RB	2	0.76			11.1	134.5	8.09	
Creek 579340	18-Sep-12	9	FS-59	EF						333	NFC	0	0.00	I5	400	7.6	88.6	7.58	
Creek 705	19-Sep-12	10	FS-45	EF						391	NFC	0	0.00	I5	400	5.5	78.6	8.11	

Gazetted / Local Name	Date	Reach	Site	Method	# of Traps / Rods	Direction	Time In	Date Out	Time Out	Total Effort[1]	Species	Total Fish	CPUE[2]	EF settings	Voltage	Water temp	Cond	pH	Comment
Creek 606013	19-Sep-12	4	FS-61	EF						509	RB	15	2.95	I5	500	7.3	66.7	7.26	
Lake 01682LNRS	19-Sep-12			GN			10:30	19-Sep-12	12:38	2.1	RB	11	55.10			12.1	37		sinking set (100m)
Lake 01682LNRS	19-Sep-12			GN			11:05	19-Sep-12	13:10	2.1	NFC	0	0.00			12.1	37		floating set (100m)
Lake 01682LNRS	19-Sep-12			GN			13:13	19-Sep-12	17:15	4	RB	6	15.90			12.1	37		floating set (100m)
Lake 01682LNRS	19-Sep-12			MT	7		11:35	19-Sep-12	17:36	42	NFC	0	0.00			12.1	37		
Lake 01682LNRS	20-Sep-12			MT	7		9:04	20-Sep-12	17:38	60	NFC	0	0.00			12.1	37		
Davidson Creek	10-Oct-12	1	HN-01	HN		US		15-Oct-12		117.5	NFC	0	0.00			3.6	128	7.9	
Turtle Creek	10-Oct-12	1	HN-05	HN		US		15-Oct-12		117.8	RB	66	13.45			3	207	8.4	
Creek 661	10-Oct-12	1	HN-03	HN		US		15-Oct-12		116.3	RB	5	1.03			4.2	164	8.5	
Turtle Creek	11-Oct-12	1	HN-05	EF						851	RB	10	1.18	G6	300	2.3	209	8.7	
Creek 705	11-Oct-12	1	HN-08	HN		US		15-Oct-12		94.7	RB	1	0.25			1.7	104	8.5	
Turtle Creek	12-Oct-12	1	HN-05	EF						191	NFC	0	0.00	G6	300	3.1	207	8.4	
Turtle Creek	12-Oct-12	1	HN-05	EF						629	RB	13	2.07	G6	300	3.1	207	8.4	
Creek 705	12-Oct-12	1	HN-08	EF						734	RB	48	6.54	H6	500	3.2	102	9.2	
Davidson Creek	13-Oct-12	1	HN-01	BS						60	NFC	0	0.00			4.2	128	8	
Davidson Creek	13-Oct-12	1	HN-01	BS						80	RB	15	18.75			4.2	128	8	
Davidson Creek	13-Oct-12	1	HN-01	BS						80	MW	4	5.00			4.2	128	8	
Davidson Creek	13-Oct-12	1	HN-01	BS						40	RB	7	17.50			4.4	127	7.4	
Davidson Creek	13-Oct-12	1	HN-01	BS						40	MW	4	10.00			4.4	127	7.4	
Turtle Creek	13-Oct-12	1	HN-05	EF						1086	RB	34	3.13	G6	500	3.1	206	8.7	
Turtle Creek	13-Oct-12	1	HN-05	BS						75	RB	3	4.00			4.7	203	8.5	
Creek 661	13-Oct-12	1	HN-03	BS						12	RB	1	8.33			4.4	161	9	
Creek 661	13-Oct-12	1	HN-03	BS						60	RB	2	3.33			4.4	161	9	
Creek 705	13-Oct-12	1	HN-08	EF						489	RB	11	2.25	H6	500	2.7	105	9.4	
Davidson Creek	14-Oct-12	1	HN-01	BS						30	RB	2	6.67			4.4	127	7.4	

Gazetted / Local Name	Date	Reach	Site	Method	# of Traps / Rods	Direction	Time In	Date Out	Time Out	Total Effort[1]	Species	Total Fish	CPUE[2]	EF settings	Voltage	Water temp	Cond	pH	Comment
Davidson Creek	14-Oct-12	1	HN-01	BS						80	RB	7	8.75			4.4	127	7.4	
Creek 661	14-Oct-12	1	HN-03	BS						30	NFC	0	0.00			5.1	159	8.8	
Creek 661	14-Oct-12	1	HN-03	BS						20	RB	3	15.00			5.1	159	8.8	
Creek 705	14-Oct-12	1	HN-08	EF						976	RB	50	5.12	J6	400	4.2	102	8.8	
Snake Lake	16-Oct-12			AG	2		15:45	16-Oct-12	16:30	1.5	NFC	0	0.00			6.4	98	8.5	
Snake Lake	16-Oct-12			EF						352	NFC	0	0.00	H4/H5	500/400	6.4	98	8.5	
Snake Lake	16-Oct-12			EF						487	NFC	0	0.00	H5/J6	500/300	6.4	98	8.5	
Snake Lake	16-Oct-12			MT	6		12:10	17-Oct-12	14:30	157.8	LKC	2	1.30			6.4	98	8.5	
Snake Lake	16-Oct-12			MT	6		13:25	17-Oct-12	15:00	153.6	NFC	0	0.00			6.4	98	8.5	
Snake Lake	16-Oct-12			MT	7		14:30	17-Oct-12	14:45	163.8	LKC	1	0.60			6.4	98	8.5	
Snake Lake	17-Oct-12			GN			13:30	17-Oct-12	15:45	2.3	NFC	0	0.00						floating set (100m)
Snake Lake	17-Oct-12			GN			12:00	17-Oct-12	15:30	3.5	NFC	0	0.00						sinking set (100m)
Snake Lake	17-Oct-12			GN			13:15	17-Oct-12	16:00	2.8	NFC	0	0.00						floating set (100m)
Snake Lake	17-Oct-12			GN			15:45	18-Oct-12	9:30	15.8	LKC	3	2.00						floating set (100m)
Snake Lake	17-Oct-12			GN			15:30	18-Oct-12	9:00	15.5	LKC	57	39.20						sinking set (100m)
Snake Lake	17-Oct-12			GN			16:00	18-Oct-12	10:00	18	LKC	26	15.40						floating set (100m)
Davidson Creek	26-Oct-12	1	HN-01	HN		US		01-Nov-12		144.4	NFC	0	0.00			0	135	8.6	
Turtle Creek	26-Oct-12	1	HN-05	HN		US		01-Nov-12		145.3	RB	62	10.24			0.2	230	8.3	
Creek 661	26-Oct-12	1	HN-03	HN		US		31-Oct-12		121	NFC	0	0.00			0	164	8.9	
Creek 705	26-Oct-12	1	HN-08	HN		US		01-Nov-12		136.4	MW	14	2.46			0.1	106	8.2	
Creek 705	26-Oct-12	1	HN-08	HN		US		01-Nov-12		136.4	RB	1	0.18			0.1	106	8.2	
Davidson Creek	14-Nov-12	1	HN-01	HN		US		20-Nov-12		142.8	NFC	0	0.00			0	127	8.6	
Turtle Creek	14-Nov-12	1	HN-05	HN		US		20-Nov-12		142.3	RB	25	4.22			0	216	7.9	

Gazetted / Local Name	Date	Reach	Site	Method	# of Traps / Rods	Direction	Time In	Date Out	Time Out	Total Effort[1]	Species	Total Fish	CPUE[2]	EF settings	Voltage	Water temp	Cond	pH	Comment
Creek 661	15-Nov-12	1	HN-03	HN		US		20-Nov-12		118.8	NFC	0	0.00			0.1	151	8.8	
Creek 705	15-Nov-12	1	HN-08	HN		US		20-Nov-12		118.8	NFC	0	0.00			0	90	8.5	

Note: AG - angling; BS - beach seine; GN - gill netting; HN - hoop netting; EF - electrofishing; MT - minnow trapping; US - upstream; DS - downstream; LSU - longnose sucker; F - female; BB - burbot; MW - mountain whitefish; RB - rainbow trout; SC - scales; OT - otolith

[1] AG effort is in rod hours; BS effort is in m^2; EF effort is in seconds; GN effort is in hours; HN effort is in hours; MT effort is in trap-hours

[2] AG CPUE is in # fish/rod hour; BS CPUE is in # fish/m^2; EF CPUE is in # fish/100 seconds; GN effort is in # fish/100m^2/day; HN CPUE is in # fish/day; MT CPUE is in # fish/100 trap hours

Annex 5.10-3
Kokanee Spawning Survey Data, 2012

Table 5.10-3A: Davidson Creek Kokanee Spawning Survey Data, 2012

Stream:	Davidson Creek	**Date:**	22-Aug-12	**End UTM:**	10U 382748 5905201
Reach:	1-4	**Start UTM:**	10U 390345 5903174	**End Time:**	14:25
Survey Crew:	DS/RP	**Start Time:**	12:18		
Stream Temp (ºC):	12	**Weather:**	Sunny, 20% cloud		

Reach	Station	# KO	KO Behaviour	# Redds	Area of Spawning Gravel		Redd			
					Length (m)	Width (m)	Habitat	Dominant Substrate	Subdominant Substrate	Depth (m)
1	0+147	8	S	3	1.5	0.5	G	G	F	0.2
1	0+214	1	M	0	–	–	G	G	F	0.7
1	0+230	5	S	3	3	1	R	G	F	0.3
1	0+263	2	M	0	–	–	R	F	G	1
1	0+289	1	S	1	0.5	0.5	R	F	G	0.3
1	0+303	7	S	1	2	1	G	G	F	0.5
1	0+335	2	S	2	1.5	0.75	R	G	F	0.2
1	0+342	2	S	1	1	0.5	G	F	G	0.25
1	0+391	3	S	1	0.5	0.5	G	G	F	0.3
1	0+406	2	S	1	0.5	0.5	R	G	F	0.35
1	0+418	6	S	2	1.5	0.5	R	G	F	0.2
1	0+470	3	H	1	0.5	0.5	R	F	G	0.2
1	0+545	1	M	0	–	–	G	F	G	0.25
1	0+554	2	S	1	1.5	1	R	G	F	0.3
1	0+578	2	H	0	–	–	R	F	G	0.4
1	0+587	6	S	2	1.25	0.5	R	G	F	0.25
1	0+612	3	S	1	0.5	0.5	G	G	F	0.4
1	0+635	20	S	1	4	2	R	G	F	0.3
1	0+652	4	S	1	1	0.5	G	G	F	0.3
1	0+663	2	S	1	1.25	0.7	R	G	F	0.2
1	0+695	4	H	0	–	–	R	F	G	0.15
1	0+725	4	S	1	1	1	R	G	F	0.2
1	0+727	2	S	1	1.5	0.5	R	G	F	0.2
1	0+734	20	S	2	2	0.75	G	G	F	0.3

Reach	Station	# KO	KO Behaviour	# Redds	Area of Spawning Gravel		Redd			
					Length (m)	Width (m)	Habitat	Dominant Substrate	Subdominant Substrate	Depth (m)
1	0+745	14	S	1	3	1	R	G	F	0.2
1	0+748	4	S	2	2 x 0.5	2 x 0.5	R	G	F	0.2
1	0+762	2	S	1	0.5	0.5	R	G	F	0.25
1	0+770	6	S	2	2	0.4	R	G	F	0.25
1	0+788	2	S	1	0.5	0.5	G	G	F	0.3
1	0+810	4	S	1	1 x 2	0.7	G	F	G	0.3
1	0+825	10	S	1	2	0.7	G	G	F	0.25
1	0+854	6	S	2	1	0.3	G	F	G	0.35
1	0+870	3	M	2	1	0.3	R	F	G	0.15
1	0+875	6	S	1	3	1	R	G	F	0.2
1	0+895	10	S	1	1	1	P	F	G	0.5
1	0+915	3	H	0	–	–	P	F	G	0.45
1	0+925	16	S	2	–	–	R	G	F	0.2
1	0+940	2	S	1	1.5	0.6	R	G	F	0.25
1	0+954	6	S	1	1.5	1	G	G	F	0.25
1	0+963	6	S	1	0.5	0.5	G	G	F	0.25
1	0+970	4	S	1	1.5	0.7	G	G	F	0.25
1	1+024	3	S	1	0.5	0.5	G	F	G	0.6
1	1+081	9	S	2	2 x 1.5	2 x 0.5	R	G	F	0.25
1	1+095	26	S	2	2.5	2	G	G	F	0.25
1	1+138	10	S	1	2	0.75	R	G	F	0.2
1	1+178	2	S	1	0.5	0.5	G	F	G	0.3
1	1+190	2	S	1	0.7	0.3	G	G	F	0.25
1	1+198	12	S	3	3 x 1	3 x 1	G	G	F	0.25
1	1+214	6	S	1	1.5	0.8	G	G	F	0.3
1	1+263	12	S	1	2	1.5	R	G	F	0.2
1	1+274	8	S	1	2	1	G	G	F	0.3
1	1+295	10	S	4	1	0.5	R	B	F	0.2
1	1+315	20	S	6	6 x 0.5	0.5	G	G	F	0.3
1	1+350	10	S	1	1.5	0.5	G	F	G	0.4
1	1+375	12	S	2	2 x 1	5 x 0.5	R	G	F	0.25
2	1+420	15	S	3	3 x 1.5	0.7	G	G	F	0.25

Reach	Station	# KO	KO Behaviour	# Redds	Area of Spawning Gravel		Redd			
					Length (m)	Width (m)	Habitat	Dominant Substrate	Subdominant Substrate	Depth (m)
2	1+440	25	S	1	5	3	R	G	F	0.2
2	1+460	20	S	2	2 x 3	2 x 1	G	G	F	0.3
2	1+468	6	S	1	0.5	0.5	C	F	G	0.4
2	1+495	7	S	2	2	1	R	G	F	0.2
2	1+522	6	S	1	1.2	0.4	G	G	F	0.3
2	1+560	6	S	2	6	15	R	G	C	0.2
2	1+566	12	S	3	3 x 0.5	0.5	R	G	F	0.3
2	1+610	30	S	6	1	2	R	G	F	0.25
2	1+634	6	H	0	–	–	G	F	G	0.5
2	1+645	30	S	1	6	1.5	G	F	G	0.35
2	1+671	6	S	1	2	1	G	G	C	0.3
2	1+681	20	S/H	2	1.5	0.7	G	F	G	0.4
2	1+704	17	S	3	2	1.5	R	G	F	0.25
2	1+715	35	S	1	5	1.5	R	G	F	0.2
2	1+725	40	S	0	8	2	R	G	F	0.2
2	1+752	6	M	0	–	–	R	F	G	0.3
2	1+815	6	S	1	1	0.7	G	G	F	0.35
2	1+825	12	S	2	2	2	R	G	F	0.25
2	1+849	25	S	5	4	3	G	G	F	0.3
2	1+864	12	S	2	1.5	0.7	R	G	F	0.3
2	1+884	4	S	1	1.5	0.3	R	G	F	0.25
3	1+915	15	S	2	2	1	R	G	C	0.2
3	1+965	15	S	1	1.7	0.6	R	G	F	0.35
3	1+990	8	S	2	3	1.5	G	G	F	0.3
3	1+997	6	H	0	–	–	P	G	F	0.45
3	2+015	5	S	1	1	0.7	R	G	C	0.2
3	2+032	6	S	2	1	0.5	R	G	F	0.2
3	2+047	60	S	0	8	2	R	G	C	0.25
3	2+098	3	S	1	1	0.5	R	G	F	0.35
3	2+122	10	S	1	1.5	1	R	G	F	0.25
3	2+135	4	S	1	1	0.6	R	G	F	0.3
3	2+148	5	S	1	1.5	0.7	R	G	C	0.2

Reach	Station	# KO	KO Behaviour	# Redds	Area of Spawning Gravel		Redd			
					Length (m)	Width (m)	Habitat	Dominant Substrate	Subdominant Substrate	Depth (m)
3	2+155	4	S	1	1.2	0.6	R	C	G	0.15
3	2+186	15	S	2	3.5	0.2	G	G	F	0.25
3	2+200	4	S	2	2	0.7	G	F	G	0.4
3	2+273	20	S	2	2	0.8	R	F	G	0.25
3	2+299	6	S	1	1.3	0.5	R	G	F	0.25
3	2+337	6	S	1	0.8	0.5	R	F	G	0.25
3	2+352	2	S	1	0.5	0.5	R	G	F	0.25
3	2+380	8	S	2	1.5	1	G	F	G	0.15
3	2+415	6	H	0	1	1	P	F	C	0.6
3	2+445	12	S	1	3	1.5	G	F	G	0.25
3	2+457	4	S	1	0.7	0.5	R	F	G	0.3
3	2+476	12	S	1	2	1.5	R	G	F	0.2
3	2+497	2	S	1	0.5	1.5	G	G	F	0.2
3	2+513	9	S	2	1.5	1	G	F	G	0.25
3	2+527	12	S	3	3	1	G	G	F	0.25
3	2+545	4	S	1	0.7	0.5	R	G	F	0.2
3	2+555	10	S	2	0.5	0.3	G	F	G	0.25
3	2+589	4	S	1	0.7	0.3	R	G	F	0.3
3	2+608	6	S	2	1	1	G	F	G	0.3
3	2+620	20	S	3	2	1.5	G	G	F	0.25
3	2+668	12	S	1	4	1.5	R	G	F	0.2
3	2+704	6	H	0	–	–	R	G	F	0.4
3	2+712	6	S	1	1	0.7	R	G	F	0.3
3	2+770	6	S	2	1.2	0.7	R	G	F	0.2
3	2+791	25	S	3	3	2	G	G	C	0.3
3	2+834	6	S	2	1	1	G	G	C	0.2
3	2+919	4	S	1	1.3	0.4	G	G	F	0.3
3	3+012	4	S	1	0.8	0.3	G	G	F	0.3
3	3+036	8	S	1	0.5	0.5	G	G	F	0.3
3	3+045	1	H	0	–	–	P	G	C	0.25
4	3+065	9	S	3	2	1.5	G	G	F	0.25
4	3+308	2	M	0	–	–	R	C	G	0.3

Reach	Station	# KO	KO Behaviour	# Redds	Area of Spawning Gravel		Redd			
					Length (m)	Width (m)	Habitat	Dominant Substrate	Subdominant Substrate	Depth (m)
4	3+380	7	S	1	0.6	0.3	R	G	C	0.75
4	3+415	4	S	1	0.5	0.4	G	G	F	0.3
4	3+429	3	S	1	1	0.6	G	G	F	0.3
4	3+460	10	S	3	3	1.5	R	G	F	0.25
4	3+575	2	S	1	0.5	0.3	R	G	F	0.25
4	3+645	2	M	0	–	–	R	C	G	0.2
4	3+825	12	S	4	1 X 1	0.5 x 0.5	R	G	F	0.25
4	3+888	4	S	1	0.5	0.5	R	G	F	0.25
4	3+898	2	S	1	1.5	0.3	R	G	C	0.3
4	3+916	6	S	2	0.7 X 0.9	0.4 x 1	G	G	F	0.3
4	4+132	3	S	1	1	0.6	R	G	C	0.25
4	4+209	1	H	0	–	–	R	G	C	0.2
4	4+233	2	M	0	–	–	P	G	C	4
4	6+590	–	–	–	–	–	–	–	–	–

Note: ºC - degrees Celsius, UTM – Universal Transverse Mercator, KO - kokanee salmon, m - metres, # - number, dash indicates no data,
KO behaviour: H - holding, M - Migrating, S- Spawning,
Habitat types: G - glide, R - riffle, P - pool,
Substrate types: C - cobble, F - fines, G- gravel

Table 5.10-3B: Creek 661 Kokanee Spawning Survey Data, 2012

Stream:	Creek 661	**Date:**	24-Aug-12	**End UTM:**	10U 387395 5899116
Reach:	1	**Start UTM:**	10U 388716 5899419	**End Time:**	17:32
Survey Crew:	DS/RP	**Start Time:**	9:14		
Stream Temp (ºC):	9	**Weather:**	100% overcast, intermittent shower		

Reach	Station	# KO	KO Behaviour	# Redds	Area of Spawning Gravel		Redd			
					Length (m)	Width (m)	Habitat	Dominant Substrate	Subdominant Substrate	Depth (m)
1	0+043	2	S	1	0.5	0.3	R	C	G	0.25
1	0+051	4	S	2	0.3 x 0.3	0.3 x 0.3	R	C	G	0.2
1	0+058	3	S	1	0.2	0.3	R	G	C	0.2
1	0+065	4	H	0			P	G	C	0.45
1	0+079	40	S	10	12	3	G/R	G	C	0.2
1	0+090	25	S	6	3	2	G/R	G	C	0.25
1	0+100	20	S	4	3.5	0.6	G/R	G	F	0.2
1	0+109	15	S	2	3	1.5	R	G	F	0.2
1	0+122	10	S	4	0.25	0.25	R	C	G	0.2
1	0+130	20	S	10	4	1.5	G/R	G	C	0.18
1	0+140	6	S	3	0.2 x 0.2	0.2 x 0.2	G/R	G	C	0.2
1	0+152	3	S	1	0.3	0.2	G/R	G	C	0.25
1	0+165	14	S	3	0.3 x 0.3	0.2 x 0.2	R	G	C	0.25
1	0+180	30	S	6	0.25	0.25	G/R	G	C	0.25
1	0+184	15	S	6	3	1	G/R	G	F	0.2
1	0+193	4	S	1	8	0.2	R	C	G	0.25
1	0+204	30	S	5	4.5	2	R	G	F	0.15
1	0+215	50	S	8	3.5	2	R	G	C	0.2
1	0+243	40	S	10	5	1.5	R	G	C	0.2
1	0+254	10	S	4	0.2	0.2	R/G	C	G	0.25
1	0+272	112	S	3	0.2	0.2	R	C	G	0.2
1	0+279	2	S	1	0.15	0.15	R	C	G	0.2
1	0+305	8	S	3	0.15	0.15	R	C	G	0.2

Reach	Station	# KO	KO Behaviour	# Redds	Area of Spawning Gravel		Redd			
					Length (m)	Width (m)	Habitat	Dominant Substrate	Subdominant Substrate	Depth (m)
1	0+312	6	S	2	0.2	0.2	R	B	C	0.25
1	0+330	12	S	3	1.5	0.5	G/R	G	C	0.25
1	0+343	10	S	3	0.2	0.2	R	B	C	0.2
1	0+359	14	S	3	0.2	0.2	R	C	B	0.2
1	0+363	15	S	4	1.5	1	R	G	C	0.3
1	0+375	150	H				P	C	B	0.5
1	0+380	20	M				P	B	C	0.35
1	0+394	250	S/M	3	2	2	G/R/P	G	C	0.2
1	0+407	150	S/H	24	6.5	1.5	G	G	F	0.4
1	0+417	30	S	5	4	2	R	G	C	
1	0+435	30	H				R	C	B	0.5
1	0+445	20	H				R	C	B	0.4
1	0+454	20	S	4	0.3	0.2	G	G	C	0.25
1	0+472	8	S	4	0.2	0.2	R	G	C	0.15
1	0+485	16	S	4	3	1	G	G	C	0.25
1	0+489	40	S	10	0.15	0.2	R	C	G	0.2
1	0+510	12	H				P	B	C	0.4
1	0+519	20	H/S	3	0.15	0.15	R	B	C	0.3
1	0+527	8	S	3	0.15	0.15	R	B	C	0.2
1	0+535	50	H				R	B	C	0.25
1	0+541	25	S	3	4	0.8	G	G	F	0.4
1	0+565	3	S	1	0.2	0.2	R	C	G	0.25
1	0+572	8	S	3	0.2	0.2	R	B	C	0.3
1	0+590	4	S	2	0.3	0.3	R	G	C	0.2
1	0+595	6	S		0.3	0.3	R	C	G	0.25
1	0+608	5	S	2	0.3	0.25	G	C	G	0.2
1	0+624	4	S	2	0.3	0.2	G	C	G	0.25
1	0+640	2	S	1	0.2	0.2	R	B	C	0.2
1	0+656	5	S	1	0.3	0.2	G	B	G	0.25
1	0+672	8	S	2	1.5	0.6	G	G	C	0.2
1	0+685	10	S	4	0.3	0.3	R	G	C	0.2
1	0+690	14	S	5	0.5	1.6	R	G	C	0.2

Reach	Station	# KO	KO Behaviour	# Redds	Area of Spawning Gravel		Redd			
					Length (m)	Width (m)	Habitat	Dominant Substrate	Subdominant Substrate	Depth (m)
1	0+703	25	S	4	0.5	0.5	R	F	G	0.3
1	0+740	12	H				P	B	C	1
1	0+745	2	S	1	0.3	0.3	R	B	C	0.25
1	0+752	16	S	4	4 @ 0.3	0.3	R	B	G	0.2
1	0+783	3	M				R	B	F	0.35
1	0+802	13	S	4	0.3	0.2 each	R	B	F	0.25
1	0+818	6	S	3	0.2	0.2	R	B	F	0.35
1	0+820	30	H				R	B	F	0.3
1	0+825	30	S	5	5	1.5	G	F	G	0.3
1	0+832	12	S	4	0.4	0.25	R	C	G	0.25
1	0+856	2	S	1	0.2	0.2	R	B	C	0.35
1	0+871	14	S	1	2.5	1	G	G	B	0.2
1	0+888	2	H				R	B	F	0.3
1	0+901	6	S	1	0.3	0.2	G	B	F	0.4
1	0+904	2	S	1	2	0.2	R	B	G	0.3
1	0+940	50	S	7	12	25	R	G	F	0.2
1	0+996	20	S	5	0.3	0.2	G/R	C	G	0.2
1	1+011	14	S	6	0.3	0.2	R	G	C	0.25
1	1+033	4	S	2	0.2	0.2	R	B	C	0.25
1	1+054	6	S	2	0.2	0.2	R	G	C	0.25
1	1+072	2	S	1	0.2	0.2	R	F	B	0.25
1	1+087	5	S	2	0.3	0.2 each	R	B	F	0.3
1	1+100	4	S	2	0.2	0.2	R	B	F	0.35
1	1+120	12	S	3	0.3	0.3	R	G	C	0.25
1	1+128	2	S	1	0.2	0.2	R	C	G	0.2
1	1+150	35	S	9	5	3	G	G	F	0.2
1	1+164	6	S	2	0.5	0.2	R	G	C	0.25
1	1+174	12	S	4	0.25	0.25	R	G	B	0.2
1	1+188	30	S	7	8	2.5	R	G	F	0.2
1	1+195	20	S	5	0.3	0.3 each	G	G	F	0.25
1	1+208	25	S	6	2 4m^2 patches		G	G	F	0.35

Reach	Station	# KO	KO Behaviour	# Redds	Area of Spawning Gravel		Redd			
					Length (m)	Width (m)	Habitat	Dominant Substrate	Subdominant Substrate	Depth (m)
1	1+230	20	S	5	5	1.5	R	G	F	0.25
1	1+248	50	S	9	4	2.5	G	G	F	0.3
1	1+267	10	S	3	1	0.5	G	G	F	0.35
1	1+281	16	S	4	0.5	0.5	G	G	F	0.3
1	1+300	14	S	4	3.5	1.5	G	G	F	0.25
1	1+308	12	S	4	3	1.5	R	G	F	0.2
1	1+330	40	S	6	10	2.5	G	G	F	0.3
1	1+340	20	S	3	3.5	1.5	G	G	F	0.25
1	1+349	12	S	3	2.5	1.5	G	G	F	0.3
1	1+358	16	S	4	0.4	0.5	P	F	G	0.4
1	1+390	25	S	6	5	1.5	R	G	F	0.25
1	1+407	40	S	9	8	1.5	R	G	F	0.25
1	1+425	55	S	10	10	2	R	G	F	0.2
1	1+441	30	S	5	0.4	0.3 each	G	G	C	0.3
1	1+450	10	S	2	0.3	0.3	R	G	F	0.25
1	1+470	35	S	4	3	1.5	G	G	F	0.3
1	1+485	15	S	5	0.3	0.2 each	G	G	C	0.2
1	1+500	12	M				R	G	C	0.3
1	1+505	6	S	2	0.2	0.2	R	G	C	0.2
1	1+545	20	S	8	0.2	0.2 each	G	G	F	0.2
1	1+554	6	H				G	G	F	0.3
1	1+570	8	S	1	0.6	0.3	R	G	F	0.2
1	1+579	30	S	8	8	1	G	G	C	0.25
1	1+595	14	S	4	0.2	0.2	R	G	F	0.2
1	1+616	20	S	8	0.3	0.2	R	G	F	0.15
1	1+638	4	S	1	1	0.6	G	C	G	0.25
1	1+649	20	S	6	0.3	0.2	R	G	C	0.25
1	1+664	10	S	3	0.3	0.3	R	G	F	0.2
1	1+670	14	M	6			R	G	F	0.15
1	1+690	30	S	6	5	1.5	R	G	C	0.15
1	1+702	8	S	3	3	1	G	G	B	0.25
1	1+715	6	S	3	0.2	0.3	R	G	C	1.2

Reach	Station	# KO	KO Behaviour	# Redds	Area of Spawning Gravel		Redd			
					Length (m)	Width (m)	Habitat	Dominant Substrate	Subdominant Substrate	Depth (m)
1	1+723	16	S	5	0.3	0.2	G	C	G	0.2
1	1+733	16	S	5	0.3	.3 each	G	C	G	0.3
1	1+757	20	S	4	4	1	R	G	C	0.3
1	1+770	30	S	5	2	1.5	G/R	G	C	0.2
1	1+789	16	S	3	2.5	1.5	R	G	F	0.15
1	1+818	12	S	3	0.3	0.3	G	G	C	0.25
1	1+829	35	S	5	4.5	1.5	G	G	C	0.25
1	1+854	30	S	9	15	1 - 1.5	G	G	C	0.3
1	1+872	8	S	3	0.3	0.2	R	C	G	0.3
1	1+882	20	S	5	0.3	0.3	G	C	G	0.2
1	1+915	4	S	2	0.3 x 0.2	x 2	R	C	G	0.2
1	1+927	10	S	1	0.6	0.3	G	G	F	0.35
1	1+968	12	S	2	0.3	0.2	G	G	C	0.25
1	1+974	4	S	1	0.2	0.25	R	C	G	0.25
1	1+993	6	S	2	0.2	0.2	R	C	G	0.2
1	2+012	10	S	1	0.6	0.3	G	C	G	0.3
1	2+053	25	S	5	4.5	1	G	G	C	0.35
1	2+058	16	S	4	0.3	0.3 each	R	G	C	0.2
1	2+078	10	S	3	0.3	0.3 each	R	G	C	0.25
1	2+103	10	S	2	1.5	1	R	C	G	0.2
1	2+115	18	S	4	0.4	0.4 each	G	C	G	0.25
1	2+142	40	S	6	0.3 x 0.2	x 4	R	G	C	0.25
1	2+159	18	S	4	0.3	0.3 each	R	G	C	0.25

Note: ºC - degrees Celsius, UTM – Universal Transverse Mercator, KO - kokanee salmon, m - metres, # - number, dash indicates no data,
KO behaviour: H - holding, M - migrating, S- spawning,
Habitat types: G - glide, R - riffle, P - pool,
Substrate types: C - cobble, F - fines, G- gravel

Table 5.10-3C: Lower Chedakuz Creek Kokanee Spawning Survey Data, 2012

Stream:	Chedakuz Creek	**Date:**	16-Sep-12	**End UTM:**	10U 384502 5909238
Reach:	-	**Start UTM:**	10U 383750 5909461	**End Time:**	10:00
Survey Crew:	BM/IM	**Start Time:**	8:30		
Stream Temp (ºC):	10	**Weather:**	Sunny, clear		

Reach	Station	# KO	KO Behaviour	# Redds	Area of Spawning Gravel		Redd			
					Length (m)	Width (m)	Habitat	Dominant Substrate	Subdominant Substrate	Depth (m)
-	0+016	0	-	0	-	-	R	C	G	0.35
-	0+057	0	-	0	6	1	G	C	G	0.55
-	0+068	2	-	2	5	2	R	C	G	0.36
-	0+215	437	-	68	12	5	G	G	C	0.35
-	0+275	8	-	0	-	-	R	C	G	0.45
-	0+335	55	-	16	40	5	G	C	G	0.38
-	0+368	56	-	6	25	5	R	G	C	0.42
-	0+504	483	-	0	136	6	G	G	C	0.55
-	0+532	150	-	2	10	1	P	G	C	1.4
-	0+549	310	-	0	2	2	G	C	G	0.9
-	0+555	65	-	0	0	0	P	G	C	1.4
-	0+566	32	-	2	6	3	G	G	C	0.8
-	0+581	6	-	3	4	1	R	G	C	0.2
-	0+603	85	-	0	0	0	P	C	G	1.5
-	0+660	5	-	0	8	1	G	G	C	1
-	0+682	250	-	0	8	1	P	G	C	1.6
-	0+888	207	-	24	206	2	G	G	F	0.9
-	0+905	0	-	3	17	2	R	G	F	0.3
-	0+965	24	-	6	15	4	G	G	F	0.65
-	1+052	115	-	38	87	8	G	G	F	0.7
-	1+131	135	-	32	79	4	R	G	C	0.2
-	1+157	18	-	4	12	4	G	G	C	0.51

Reach	Station	# KO	KO Behaviour	# Redds	Area of Spawning Gravel		Redd			
					Length (m)	Width (m)	Habitat	Dominant Substrate	Subdominant Substrate	Depth (m)
-	1+169	0	-	0	12	8	P	G	C	0.98
-	1+220	7	-	4	28	2	G	C	G	0.65
-	1+238	14	-	8	9	6	R	G	F	0.23

Note: ºC - degrees Celsius, UTM – Universal Transverse Mercator, KO - kokanee salmon, m - metres, # - number, dash indicates no data,
KO behaviour: H - holding, M - migrating, S - spawning,
Habitat types: G - glide, R - riffle, P - pool,
Substrate types: C - cobble, F - fines, G- gravel

Table 5.10-3D: Creek 522107 Kokanee Spawning Survey Data, 2012

Stream:	Creek 522107	**Date:**	11-Sep-12	**End UTM:**	10U 385186 5908271
Reach:	1	**Start UTM:**	10U 385054 5908270	**End Time:**	13:55
Survey Crew:	BM/IM	**Start Time:**	13:00		
Stream Temp (ºC):	9.5	**Weather:**	Partial overcast		

Reach	Station	# KO	KO Behaviour	# Redds	Area of Spawning Gravel		Redd			
					Length (m)	Width (m)	Habitat	Dominant Substrate	Subdominant Substrate	Depth (m)
1	0+017	0	–	0	2	10	G	G	F	0.3
1	0+021	0	–	0	4	4	R	G	F	0.05
1	0+033	22	–	0	1	3	P	F	G	1.1
1	0+040	6	–	3	7	4	G	G	F	0.18
1	0+051	45	–	0	-	-	P	F	G	1.2
1	0+065	65	–	0	1	8	G	G	F	0.22
1	0+074	4	–	0	3	8	R	G	F	0.1
1	0+078	12	–	4	4	5	G	G	F	0.28
1	0+083	300	H	0	-	-	P	F	G	1
1	0+092	5	–	4	9	6	G	G	F	0.32
1	0+113	35	–	0	10	3	P	G	F	1.3
1	0+125	23	–	4	10	1	G	G	F	0.26
1	0+141	28	–	0	2	2	P	F	G	1.2
1	0+173	12	–	2	10	1	G	F	G	0.55
1	0+181	5	–	0	4	1	P	F	G	1.1
1	0+188	1	–	0	7	1	R	G	F	0.11

Note: ºC - degrees Celsius, UTM – Universal Transverse Mercator, KO - kokanee salmon, m - metres, # - number, dash indicates no data,
KO behaviour: H - holding, M - migrating, S - spawning,
Habitat types: G - glide, R - riffle, P - pool,
Substrate types: C - cobble, F - fines, G- gravel

Table 5.10-3E: Creek 601947 Kokanee Spawning Survey Data, 2012

Stream:	Creek 601947	**Date:**	27-Aug-12	**End UTM:**	10U 391531 5903962
Reach:	1	**Start UTM:**	10U 390345 5903174	**End Time:**	14:25
Survey Crew:	DS/RP	**Start Time:**	12:18		
Stream Temp (ºC):	11	**Weather:**	Sunny, 20% cloud		

Reach	Station	# KO	KO Behaviour	# Redds	Area of Spawning Gravel		Redd			
					Length (m)	Width (m)	Habitat	Dominant Substrate	Subdominant Substrate	Depth (m)
1	127	3	S	1	0.6	0.3	R	G	C	0.3
1	134	4	S	2	2.5	0.4	G	G	C	0.25
1	152	3	S	2	0.4	0.2	R	C	G	0.2
1	207	2	S	1	0.35	0.3	R	C	G	0.2
1	219	2	S	2	0.3	0.2	G	C	G	0.25
1	288	1	M	0	-	-	R	C	G	0.2
1	352	1	M	0	-	-	R	C	B	0.25
1	378	6	S	2	0.5	0.5 x 2	G	C	G	0.3
1	417	4	S	2	0.3 x 2	0.4 x 2	R	C	G	0.2
1	445	2	M	0	-	-	R	C	B	0.25
1	502	2	S	1	0.2	0.25	R	C	G	0.25
1	549	2	S	1	0.2	0.25	R	C	G	0.25
1	613	2	M	0	-	-	R	C	G	0.25
1	696	2	S	1	0.7	0.4	G	C	G	0.25
1	720	1	M	0	-	-	R	C	B	0.25
1	803	2	M	0	-	-	R	C	G	0.25
1	825	2	M	0	-	-	R	B	C	0.7
1	859	2	S	1	0.3	0.2	R	B	C	0.3
1	1002	2	S	1	1	0.6	G	C	B	0.2
1	1066	1	M	0	-	-	R	C	B	0.3
1	1104	3	S	1	1	0.6	G	C	G	0.25
1	1170	2	S	1	0.3	0.2	R	C	B	0.2
1	1196	4	S	2	0.5	0.5	R	C	B	0.25
1	1207	2	S	1	0.3	0.3	R	C	B	0.25
1	1241	1	M	0	-	-	R	C	B	0.3

Reach	Station	# KO	KO Behaviour	# Redds	Area of Spawning Gravel		Redd			
					Length (m)	Width (m)	Habitat	Dominant Substrate	Subdominant Substrate	Depth (m)
1	1262	2	S	1	0.4	0.3	R	C	B	0.3
1	1287	2	S	1	1.2	0.7	G	C	G	0.25
1	1304	4	S	2	0.6	0.3 x 2	R	B	G	0.2
1	1340	2	S	1	1	0.5	G	B	G	0.2
1	1507	2	S	1	1.2	0.8	R	B	G	0.25
1	1611	2	S	1	0.6	0.3	R	C	B	0.25
1	1626	4	S	2	1	0.8 x 2	G	G	C	0.25
1	1642	3	M	0	–	–	P	C	G	1
1	2001	–	–	–	–	–	–	–	–	–

Note: ºC - degrees Celsius, UTM – Universal Transverse Mercator, KO - kokanee salmon, m - metres, # - number, dash indicates no data,
KO behaviour: H - holding, M - migrating, S- spawning,
Habitat types: G - glide, R - riffle, P - pool,
Substrate types: C - cobble, F - fines, G- gravel

Table 5.10-3F: Middle Chedakuz Creek Kokanee Spawning Survey Data, 2012

Stream:	Chedakuz Creek	**Date:**	28-Aug-12	**End UTM:**	10U 389719 5900563
Reach:	-	**Start UTM:**	10U 390665 5901151	**End Time:**	14:25
Survey Crew:	DS/RP	**Start Time:**	8:00		
Stream Temp (ºC):	11	**Weather:**	20% overcast		

Reach	Station	# KO	KO Behaviour	# Redds	Area of Spawning Gravel		Redd			
					Length (m)	Width (m)	Habitat	Dominant Substrate	Subdominant Substrate	Depth (m)
–	0+052	1	M	0			G	G	F	1
–	0+113	15	S/M	3	2	2	G	G	F	0.3
–	0+146	40	S/M	5	3	3	G	G	F	0.2
–	0+200	30	S/M	6	4	3	R	G	F	0.2
–	0+227	20	S/M	8	5	3	G	F	G	0.25
–	0+257	60	S/M	13	9	3	G	F	G	0.25
–	0+280	60	S/M	9	6	1	G	C	G	0.35
–	0+302	12	S/M	4	3	1	G	G	F	0.2
–	0+318	12	S/M	2	1.5	0.2	R	G	C	0.15
–	0+338	35	S/M	9	4	2.5	G	G	F	0.15
–	0+353	80	S/M	9	5	1.5	R/G	F	G	0.45
–	0+356	40	S/M	8	10	0.75	G	G	G	0.45
–	0+386	90	S/M	13	6	3	G	G	G	0.2
–	0+440	30	S/M	6	6	4	G	F	G	0.3
–	0+530	40	S/M	5	5	2	G	F	G	0.5
–	0+542	30	S/M	10	10	0.2	G	F	G	0.4
–	0+576	50	S/M	9	4	3	G	G	C	0.35
–	0+607	12	M	0	–	–	R	C	F	0.3
–	0+615	20	S/M	6	4	1.5	R	G	C	0.2
–	0+659	16	S/M	4	0.5	2	G	C	G	0.2
–	0+676	40	S/M	11	4.5	1.5	G	G	G	0.2
–	0+703	30	S/M	7	7	1	G	C	G	0.2
–	0+716	20	S/M	9	2.5	1	G	G	C	0.2
–	0+750	70	S/M	13	6	2.5	G	G	G	0.4

Reach	Station	# KO	KO Behaviour	# Redds	Area of Spawning Gravel		Redd			
					Length (m)	Width (m)	Habitat	Dominant Substrate	Subdominant Substrate	Depth (m)
–	0+775	12	S/M	5	2	2	G	G	G	0.15
–	0+819	14	H	0	–	–	G	G	C	1
–	0+854	12	S/M	4	2	0.3	C	C	G	0.2
–	0+870	40	S/M	10	3.5	0.3	G	C	G	0.25
–	0+891	20	S/M	8	0.3	0.3 each	R	C	G	0.3
–	0+905	30	S/M	10	6	1.5	R	F	G	0.2
–	0+922	40	S/M	9	9	1.5	G/R	C	G	0.3
–	0+935	50	S/M	8	8	0.7	G	G	F	0.45
–	0+966	80	S/M	15	15	2	R	G	C	0.2
–	0+980	20	S/M	6	3.5	1	R	F	G	0.2
–	1+039	60	S/M	18	0.4	0.4 each	G	F	G	0.4
–	1+072	80	S/M	20	8	2	G	G	F	0.25
–	1+110	50	S/M	13	5	3	G	G	F	0.25
–	1+128	30	S/M	8	5	1	R	F	G	0.3
–	1+135	30	S/M	12	8	2	R	F	G	0.2
–	1+146	18	S/M	8	5	1	R/G	F	G	0.25
–	1+167	40	S/M	12	7	1.5	G	F	G	0.2
–	1+199	50	S/M	10	10	2	R	G	F	0.15
–	1+231	70	S/M	15	0.8	2.5	G	G	F	0.3
–	1+244	100	S/M	20	10	3	G	G	F	0.28
–	1+267	60	S/M	20	15	4	R	G	F	0.2
–	1+284	30	S/M	9	4	1.5	G	G	F	0.25
–	1+297	40	S/H	8	3.5	1.5	G	F	G	0.3
–	1+308	85	S	15	10	1.5	G	G	F	0.3
–	1+370	60	S	12	4	3	G	G	F	0.2
–	1+414	20	S	6	3	2	R	G	C	0.3
–	1+461	45	S	10	5.5	1.5	G	G	C	0.25
–	1+484	40	S	11	4.5	1	G	G	F	0.35
–	1+499	200	S	0	20	3	R	G	C	0.2
–	1+529	80	S	25	1.5	8	G	F	G	0.35
–	1+560	60	S/M	13	10	1.5	G	C	F	0.4
–	1+600	30	S/M	4	3	1	R/G	C	G	0.25

Reach	Station	# KO	KO Behaviour	# Redds	Area of Spawning Gravel		Redd			
					Length (m)	Width (m)	Habitat	Dominant Substrate	Subdominant Substrate	Depth (m)
–	1+617	35	S/M	5	2.5	1	R	C	G	0.25
–	1+651	30	S	6	3	2.5	G	C	G	0.2
–	1+690	80	S	20	18	2.5	R/G	G	F	0.25
–	1+727	60	S	20	9	3	G	G	F	0.25
–	1+756	40	S	12	5	1.5	G	F	C	0.4
–	1+770	40	S	9	5	1	R	C	G	0.25
–	1+803	60	S/M	18	2.5	1	R	C	F	0.25
–	1+826	20	S	4	3	1.75	G	C	G	0.2
–	1+849	70	S	20	5	4	G	G	F	0.2
–	1+887	20	S	8	6	1	G	C	G	0.2
–	1+916	30	M	0	0	0	R	C	F	0.4
–	1+926	20	S	7	4	1	G	G	C	0.2
–	1+947	20	M	0	0	0	R	C	G	0.25
–	1+970	150	S	3	8	2	G	C	G	0.3
–	2+025	30	S	8	4	1.5	G	F	G	0.3
–	2+050	35	M/S	5	4	1.5	C	C	G	0.2
–	2+085	20	S	4	2	1.5	G/P	C	G	0.4
–	2+110	80	S	8	2	0.2	G	G	C	0.28
–	2+155	40	S/M	10	6	1	R	C	G	0.2
–	2+180	40	S	10	6	1	G	C	G	0.3
–	2+270	50	S/M	8	4	2	R	C	G	0.2
–	2+305	–	–	–	–	–	–	–	–	–

Note: ºC - degrees Celsius, KO - kokanee salmon, m - metres, # - number, dash indicates no data,
KO behaviour: H - holding, M - migrating, S- spawning,
Habitat types: G - glide, R - riffle, P - pool,
Substrate types: C - cobble, F - fines, G- gravel

Table 5.10-3G: Upper Chedakuz Creek Kokanee Spawning Survey Data, 2012

Stream:	Polygon 17 Stream 2	**Date:**	10-Sep-12	**End UTM:**	10U 398163 5889918
Reach:	1	**Start UTM:**	10U 398132 5889857	**End Time:**	11:15
Survey Crew:	BM/IM	**Start Time:**	10:30		
Stream Temp (ºC):	7.4	**Weather:**	Overcast, windy		

					Area of Spawning Gravel		Redd			
Reach	**Station**	**# KO**	**KO Behaviour**	**# Redds**	**Length (m)**	**Width (m)**	**Habitat**	**Dominant Substrate**	**Subdominant Substrate**	**Depth (m)**
1	0+035	54	–	3	15	3	G	G	F	0.22
1	0+040	0	–	3	3	2	R	G	C	0.11
1	0+068	150	–	14	1	28	G	G	C	0.11
1	0+080	6	–	2	2	1	R	G	C	0.14
1	0+095	55	–	6	1	15	G	G	C	0.15
1	0+124	12	–	5	1	29	R	G	C	0.16
1	0+138	75	H	1	0.5	7	P	G	C	0.36
1	0+232	163	S/H	20	1	94	R	G	C	0.16
1	0+238	37	S/H	2	1	6	G	G	C	0.18
1	0+250	16	–	1	0.5	16	R	G	C	0.14
1	0+264	48	–	4	2	14	G	G	C	0.12
1	0+302	37	–	6	0.8	38	R	G	C	0.14

Note: ºC - degrees Celsius, KO - kokanee salmon, m - metres, # - number, dash indicates no data,
KO behaviour: H - holding, M - migrating, S - spawning,
Habitat types: G - glide, R - riffle, P - pool,
Substrate types: C - cobble, F - fines, G - gravel

Annex 5.10-4
Fish Community Photographs, 2011 and 2012



Photo 1: Downstream facing hoopnet set in Lower Davidson Creek (HN-01), June 23, 2011



Photo 2: Upstream facing hoopnet set in Lower Davidson Creek (HN-01), June 23, 2011



Photo 3: Mature rainbow trout captured by hoopnetting in Lower Davidson Creek (HN-01), June 18, 2011



Photo 4: Downstream facing hoopnet set in Upper Davidson Creek (HN-02), June 25, 2011



Photo 5: Upstream facing hoopnet set in Upper Davidson Creek (HN-02), June 25, 2011



Photo 6: Downstream facing hoopnet set in Lower Creek 661 (HN-03), June 21, 2011



Photo 7: Upstream facing hoopnet set in Lower Creek 661 (HN-03), June 21, 2011



Photo 8: Downstream facing hoopnet set in Upper Creek 661 (HN-04), June 24, 2011



Photo 9: Upstream facing hoopnet set in Upper Creek 661 (HN-04), June 24, 2011



Photo 10: Downstream facing hoopnet set in Lower Turtle Creek (HN-05), June 8, 2011



Photo 11: Upstream facing hoopnet set in Lower Turtle Creek (HN-05), June 8, 2011



Photo 12: Downstream facing hoopnet set in Upper Turtle Creek (HN-06), June 14, 2011



Photo 13: Upstream facing hoopnet set in Upper Turtle Creek (HN-06), June 14, 2011



Photo 14: Downstream facing hoopnet set in Creek 700 (HN-07), June 14, 2011



Photo 15: Upstream facing hoopnet set in Creek 700 (HN-07), June 14, 2011



Photo 16: Downstream and upstream facing hoopnet sets in Creek 705 (HN-08), June 19, 2011



Photo 17: Longnose sucker captured in Creek 705 (HN-08) on June 26, 2011 (Note incorrect year on time stamp)



Photo 18: Burbot captured in Creek 705 (HN-08) on June 24, 2011



Photo 19: Kokanee spawning activity in Reach 1 of Davidson Creek, August 8, 2011



Photo 20: Kokanee spawning activity in Reach 2 of Davidson Creek, August 11, 2011



Photo 21: Rainbow trout fry captured in Reach 3 of Creek 661, August 11, 2011



Photo 22: Juvenile rainbow trout captured in Reach 4 of Creek 661



Photo 23: Upstream facing hoopnet in Lower Davidson Creek (HN-01), October 10, 2012



Photo 24: Rainbow trout caught in HN-01, October 13, 2012



Photo 25: Upstream facing hoopnet in Lower Davidson Creek (HN-01), October 26, 2012



Photo 26: Upstream facing hoopnet in Lower Creek 661 (HN-03), October 10, 2012



Photo 27: Upstream facing hoopnet in Lower Creek 661 (HN-03), October 26, 2012



Photo 28: Upstream facing hoopnet in Lower Turtle Creek (HN-05), October 10, 2012



Photo 29: Mature rainbow trout caught in hoopent HN-05, October 11, 2012



Photo 30: Upstream facing hoopnet in Lower Turtle Creek (HN-05), October 26, 2012



Photo 31: Mature rainbow trout caught in HN-05, October 28, 2012

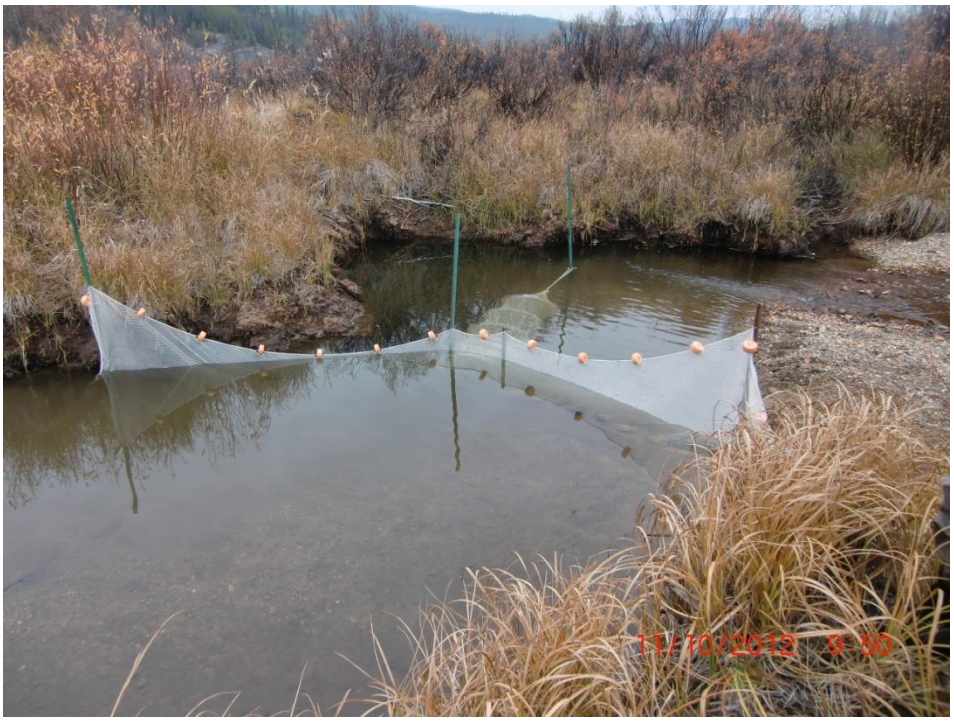


Photo 32: Upstream facing hoopnet in Creek 705 (HN-08) October 11, 2012



Photo 33: Rainbow trout fry captured in HN-08, October 12, 2012



Photo 34: Upstream facing hoopnet installed in Creek 705 (HN-08), October 26, 2012



Photo 35: Mountain whitefish caught in HN-08, October 30, 2012



Photo 36: Mature kokanee caught in

Annex 5.10-5
Survey of Transmission Line and Access Road Stream Crossings, 2012

AVISON MANAGEMENT SERVICES LTD.

FISH AND FISH HABITAT INVENTORY
NEW GOLD BLACKWATER PROJECT



February 2013

EXECUTIVE SUMMARY

An enhanced fish and fish habitat inventory was conducted at 247 drainages in the Mt Davidson/Nechako plateau region, south of Vanderhoof, B.C. The drainages represented sites identified to be potential stream crossing locations for new or upgraded infrastructure associated with the Blackwater project owned by New Gold. The inventory began with a desktop review that included collecting previous classification data and information on historical fish presence at regional and local scales. This was followed by a field program which consisted of stream classification, fish sampling, riparian vegetation assessment, measurement of navigable waters criteria, and culvert assessments where applicable. The office review included the evaluation of 14 sites as non-classified drainages (NCDs), based on previous classification data and GIS information. An additional 140 NCDs were classed during the field surveys. There were 9 streams that were assessed as non-fish bearing based on existing sampling information and the presence of downstream barriers or reach gradients of >20%. The remaining classifications were known or defaulted fish streams with mainly good overall fish habitat, with the exception of 10 reaches that rated poorly in all four habitat categories. The most common species observed or captured during sampling was rainbow trout. There were no anadromous fish captured, but there are existing records of salmon in the Nechako and Stellako Rivers, as well as the lower reaches of Greer and Swanson Creeks. The nearest species at risk is the white sturgeon located in the middle reaches of the Nechako River, approximately 4.5km from the nearest crossing location.

Riparian vegetation was variable and largely dependent on soil moisture and surrounding forest activity. Wetlands and recently burned or harvested areas were dominated by shrubs while mature forests contained mainly tree cover. Riparian tree species that were common to most of the sites included hybrid spruce, lodgepole pine, and balsam, while common shrubs included black twinberry, willow and alder. Nearly all mature pine was dead as a result of the mountain pine beetle infestation. This dead timber contributed to notable blowdown across stream channels, causing an impediment to potential navigation.

There were twelve existing road crossings with closed-bottom culverts that were determined to be a barrier to fish passage during all or part of the year. Most of them were undersized and unembedded, and should be replaced with a structure appropriate for the gradient and habitat quality if the road is upgraded in the future.

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1 INTRODUCTION

This report summarizes an enhanced Fish and Fish Habitat Inventory (FAFHI) conducted in the fall of 2012 for the Blackwater Project owned by New Gold. The inventory consisted of a desktop review and a field sampling program at stream sites located south of Vanderhoof in the Mt Davidson/Nechako Plateau area. Objectives of the FAFHI included collecting stream channel, fish, and riparian vegetation information to: 1) support baseline descriptions of the fish and fish habitat that may be impacted or improved by the project, and 2) outline stream characteristics that have historically been used for Navigable Waters reporting.

All results from the field sampling phase, as well as 2002-2006 classifications, were entered into a comprehensive MS Access database that included several component-specific information tables (ie. stream classification, fish sampling, riparian vegetation, culvert assessment, navigable waters data) that can be linked and queried by site ID. Summaries of this information are in the Appendices of this document. Field sheets for each site were scanned as a group, labeled and saved electronically. Photo files were labeled by their corresponding roll and picture number on each field sheet and were referenced in the database. All information was saved to DVD and included with this report submission to AMEC.

2 SITE SELECTION AND SAMPLE DESIGN

The sites selected for the desktop review and field sampling program represented locations where mapped drainages were crossed by the proposed transmission line and proposed or existing roads that may be constructed or upgraded as the Blackwater Project proceeds. These geo-referenced crossing locations were provided by AMEC with associated 1:20 000 and 1:50 000 watershed codes (WSC) and gazetted names where this information existed. The original list of sites was revised 4 times over the course of the program because of changes in infrastructure alignment; the locations described here represent crossings outlined in Version 5. A series of maps detailing the site information for the crossing locations can be found in Appendix A and a table with coordinates and watershed codes for each site is in Appendix B.

The sub-basins associated with the crossings are located within the Cheslatta, Chilako, Euchinko, Francois/Fraser, Knewstubb (Neckako Reservoir), and Nechako (middle and upper) watersheds (Fig. 1). Access routes to most of the sites are firstly via the Kluskus Forest Service Road from Vanderhoof, then by utilizing secondary roads including the Kluskus-500 and Davidson-1000 Forest Service Roads. The northernmost transmission line sites are reached via Highway 16 west from Vanderhoof to the community of Fraser Lake, then south on Francois Lake Road and various secondary roads. Access to a number of the transmission line sites involves hiking several kilometers from the nearest road.

The identified reaches were cross-referenced with historical fish observation records obtained online and stream classification data from 2002-2006. The stream classification information was provided by AMEC for the area immediately surrounding the original road and transmission line alignment. Subsequent versions of the alignments were implemented in areas where this background data was not provided but that is not to say the stream reaches had not been previously classified, only that the information was not available. This data was combined with geographic information to determine the sample size for the field phase of the program.

First-order streams with a short reach upstream of the crossing that had been previously classified as NVC (no visible channel) or NCD and had no obvious lentic point of origin such as a lake or wetland were not included in the field sampling design and the last known assessment was deemed acceptable for reporting.

The final number of crossings projected for the field sample design included 137 sites associated with the proposed transmission line, 98 sites associated with existing roads, and 10 sites associated with proposed roads. There was often more than one site located within the same reach (ie. one road and one transmission line site), and in those cases, just one field survey was planned but both crossings are included in the results database for ease of reference.

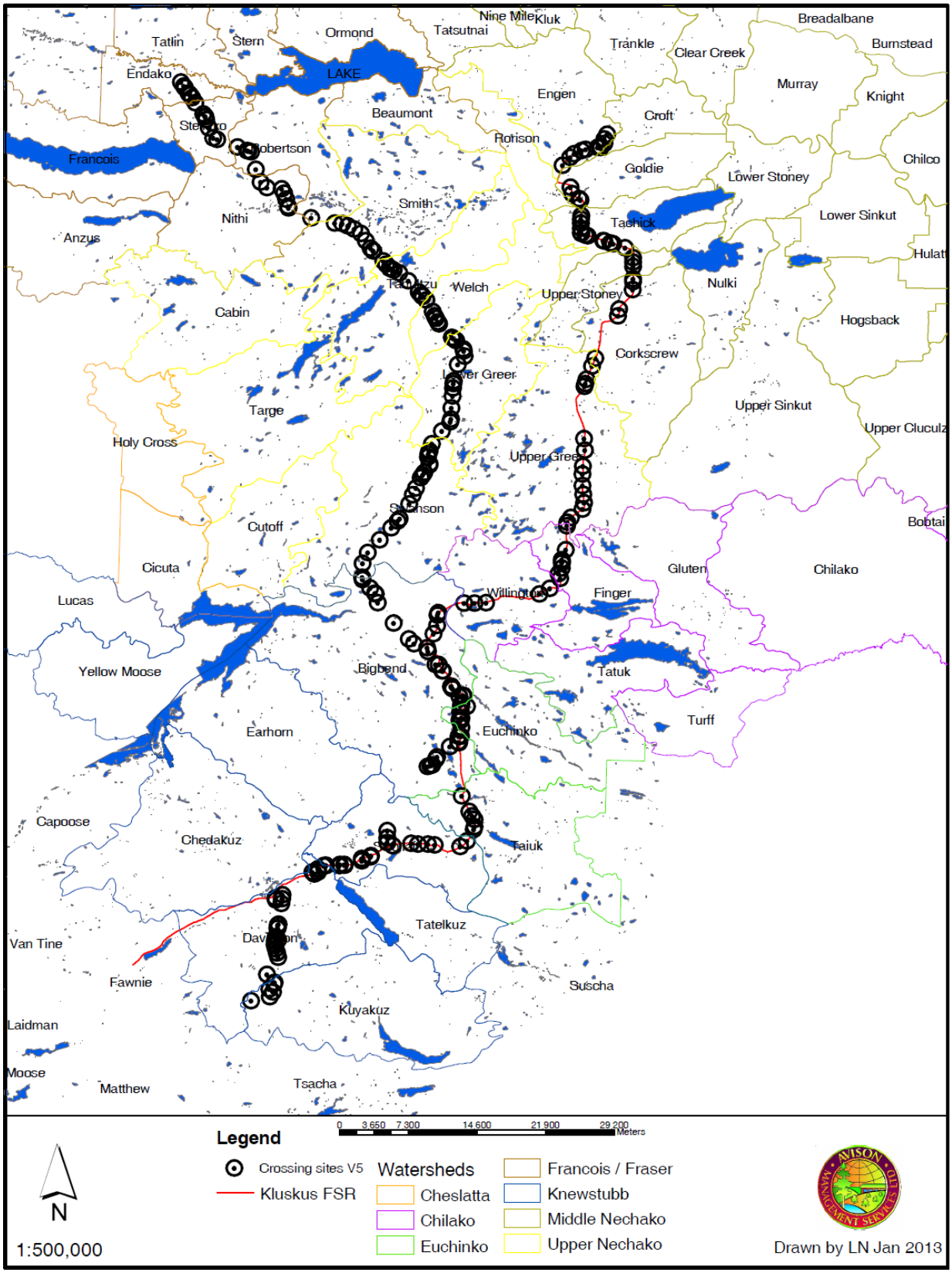


Figure 1. Potential crossing sites (version 5) and associated sub-basins by watershed.

3 METHODS

A document package including site background information, methodology and data forms was created for field crews prior to sampling. All sites were identified by their crossing ID number, watershed codes, and GIS derived UTM coordinates.

3.1 STREAM CLASSIFICATION AND FISH SAMPLING

Methodology described in *Reconnaissance (1:20,000) Fish and Fish Habitat Inventory* (RISC 2001) was the standard protocol for general site descriptions and stream classifications at all crossing locations included in the field sampling design. A reach description was completed in accordance with the provincial site card requirements with the exception of survey length at sites that were also planned for navigable waters data collection. At those selected sites, the survey length was 200m rather than 100m to facilitate additional data collection requirements. Information on the FAFHI field cards included the following information where applicable to support the evaluation of fish habitat quality and determine classification:

- Stream Name;
- Reach Number;
- Site Number, UTM and Length;
- Access;
- Date, Time, Agency and Crew;
- Channel Measurements: Width and Wetted Width;
- Gradient;
- Bankfull Width and Stage;
- Stream Cover (Overhanging vegetation, LWD, SWD, Boulders, Undercut Banks, and Instream Vegetation);
- Crown Closure;
- Bank Characteristics (Left Bank and Right Bank Shape, Texture, Riparian Vegetation Stage);
- Flood Signs;
- Channel Morphology;
- Bed Material;
- Disturbance Indicators;
- Channel Pattern;
- Islands and Bars;
- Coupling and Confinement;
- Site Features.

The comment section included the following information where applicable:

- Type and condition of existing crossing structure;
- Fish Observations;
- Obvious evidence of habitation by fish (eg. redds);

- All major features (i.e. fish passage barriers, beaver dams, clay slides, and any other features affecting fish values);
- Any obvious fish habitat limitations;
- Preliminary identification of obvious Fisheries Sensitive Zones as per the procedures outlined in the *Forest Practices Code of British Columbia Fish-Stream Identification Guidebook*;
- The assessed stream classification at the time of the field survey.

Fish habitat was assessed for spawning (salmonid), rearing, overwintering, and migration potential at all streams that were known or assumed to be fish-bearing. Attributes that were considered during the assessment included: water flow and depth; the presence of deep pools and proximity to lentic overwintering areas; connectivity to other fish bearing waters; substrate size, composition and embeddedness; and the diversity and abundance of cover types.

All field data was recorded on the applicable field forms (Resources Inventory Committee 2001) and the site was identified with a ribbon labeled "Blackwater FAFHI-[site number]2012".

The objective of fish sampling in the context of this project was to characterize fish communities at all road crossings and to determine fish-bearing status at streams that may be impacted by the proposed transmission line. The sampling effort is described as follows:

- Road crossings: One hundred lineal meters of electrofishing was conducted (50m upstream of crossing and 50m downstream) and two minnow traps were set overnight at all sites that were field confirmed to: 1) have met the requirements for a stream as per the Forest Practices Code *Fish Stream Identification Guidebook* or, 2) contain open water of sufficient volume to support fish and were connected to fish bearing waters. This strategy was implemented to describe fish presence at the crossing site, regardless of whether or not the drainage met the requirements for a stream. Sites that were not included in this sample plan were located at Davidson Creek, Chedakuz River and Turtle Creek which had been sampled for fish in 2011.

- Transmission line crossings: Presence/absence fish sampling at transmission line sites was conducted primarily using the electrofisher to aid in the assessment of the fish-bearing status of the stream. Using this methodology, sampling ceased after the first fish was captured.

Fish sampling methodology generally followed protocols as outlined in the "Fish Sampling Procedures" in the FPC *Fish Stream Identification Guidebook*. Electrofishing field crews used a Smith-Root Model 12-B backpack electrofisher; all personnel involved in electrofishing activities were certified.

All fish specimens captured were tallied on provincial individual fish data cards. Care was taken to ensure that all captured fish were kept alive until the end of sampling, identified and measured (fork-length) quickly, and released back into the waters from which they were captured. Photos were taken of each species captured at each site.

3.2 RIPARIAN VEGETATION

Information pertaining to riparian vegetation was collected at every site that was classified as a fish stream. Canopy closure over each reach was assessed first in totality, then approximated with the assumption that it was cut back to 3m in height (2m for primarily coniferous riparian). Both values were recorded to provide an estimate on the quantity that may lost owing to future clearing activities, with the difference between the two specific to the construction of the transmission line. Dominant, sub-dominant, and present tree species within 15 m of the streambank were recorded and the same categories were used for woody shrubs. The height and diameter of a dominant tree were also measured.

Methodology followed procedures described in the *Timber Pricing Branch Cruising Manual* (Province of BC 2012). Canopy closure was estimated using visual observation and the BC Silviculture Survey crown closure reference card (Province of BC 2011).

3.3 NAVIGABLE WATERS

The following measurements and observations pertaining to Navigable Waters criteria were recorded.

- average stream channel bankfull width and depth
- evidence of past use
- sinuosity
- obstacles
- estimations of flow levels and distances over which these are maintained
- impediments to navigation

Methodology followed procedures described in the *Minor Waters User Guide* (Transport Canada 2010). Measurement of all of the above information was planned for proposed and existing road crossings located at streams measuring >3m in width, and a predetermined selection of streams measuring 1.2-3m in width. However, after the first half of sample sites were completed, it was apparent that sinuosity could not be measured effectively because of the large amount of blowdown common to the region's beetle-killed forests and values were not close to the threshold for failure. In the interest of time and with the knowledge that the blowdown was more of a navigational issue than sinuosity, this measurement was dropped for the remainder of the sites. Streams less than 1.2m, the remaining streams measuring 1.2-3m wide, and all transmission line sites less than 15m wide and were >1000m from a recreational lake were not included in this data collection.

3.4 FISH PASSAGE

If the field crews suspected that an existing closed-bottom crossing structure was an impediment to fish passage at a site classified as a fish stream, an assessment was completed as per *Field Assessment for Determining Fish Passage Status of Closed Bottom Structures* (BC Ministry of Environment 2011). Criteria

that were measured for this assessment include culvert embeddedness, outlet drop, stream width ratio, culvert slope, and length. A final ranking of “barrier”, “potential barrier” or “passable” was given after the evaluation of the scoring matrix for each site.

4 RESULTS – DESKTOP REVIEW

4.1 EXISTING FISH DATA BY DRAINAGE SYSTEM

Historical fish distributions and potential obstructions were considered during the desktop review of existing information. Twenty of the proposed transmission line crossings are located in the Cheslatta watershed, with all of the associated drainages connected to the Swanson Creek system, a 28 km long, 4th order stream. Swanson Creek supports a variety of species including rainbow trout, mountain whitefish and numerous coarse or non-game fish. Chinook and sockeye salmon have been observed in the lower reaches and although there are also known obstacles to migration, there have been observations of chinook upstream of the potential barriers.

There are 13 existing road crossings associated with the project identified in the Chilako watershed and all of the drainages are a part of the Finger Creek system, a 17 km long, 4th order stream. Observed fish species in Finger Creek include rainbow trout, kokanee, prickly sculpin, and redside shiner. There are documented obstacles upstream of Finger Lake including beaver dams and waterfalls that may limit fish passage.

There were 16 crossings associated with the transmission line and existing roads in the Euchinko watershed. All associated drainages flow into an unnamed system that eventually empties into Taiuk Creek. This 4th order, unnamed stream is 17 km in length and fish that have been observed throughout including rainbow trout, lake chub, and several unidentified species. There are no obstacles to passage identified on this stream or in upstream tributaries.

The Francois/Fraser watershed includes 27 proposed transmission line crossings. The crossed drainages empty into the Robertson Creek and Stellako River systems. Both of these eventually empty into Fraser Lake. Robertson Creek is an 11km long, 4th order drainage with reported observations of lake chub, rainbow trout, longnose sucker, and redside shiner. There are no identified obstacles along Robertson Creek or in its upper tributaries. The Stellako River connects Francois Lake to Fraser Lake and supports Dolly Varden, kokanee, mountain whitefish, rainbow trout, and a variety of non-game fish. The Stellako contains important spawning reaches for chinook and sockeye salmon, and both species are observed throughout the river every year. Known obstacles to fish passage that may impede upstream migrations include a 1.5 m waterfall and numerous beaver dams.

There are 90 potential crossings identified in the Lower Nechako Reservoir watershed also known as the Knewstubb Lake basin. The crossings represent a mix of proposed and existing roads and proposed transmission line sites. The identified drainages are part of the Chedakuz Creek or Big Bend Creek systems. Chedakuz Creek is a 53 km long 5th order stream that flows north-west from Tatelkuz Lake to the Nechako Reservoir. There is not a lot of documented fish information for Chedakuz, but it is locally known to support rainbow trout and provide spawning habitat for kokanee. Additional fish observations in Tatelkuz Lake include mountain whitefish and several non-game species. Big Bend Creek is a 37 km, 4th order stream that flows from the Brewster lakes to the Nechako Reservoir. Documented species distributions are also scarce for Big Bend Creek, but include rainbow trout and prickly sculpin. Several sucker species are also known to be present in the Brewster lakes.

The remaining 94 drainages are associated both with existing road or proposed transmission line crossings. The crossed drainages are part of the Stoney Creek, Engen Creek, Tahultzu Creek, Greer Creek, and 3 unnamed systems which eventually empty into the Nechako River, or they represent smaller tributaries that empty directly into the Nechako. The most common salmonid identified in these drainages is rainbow trout, especially in the upper reaches and tributaries. Except for the Nechako River, the only records of anadromous fish observations include coho, chinook, and sockeye salmon in the lower reaches of Greer Creek.

The nearest and only species at risk identified in all of the drainages above is the red-listed Nechako white sturgeon, which is concentrated in the middle reaches of the Nechako River, about 4.5 km from the nearest proposed crossing.

4.2 FISH DATA AND PREVIOUS CLASSIFICATIONS BY REACH

Locational data for general fish observations were obtained as a non-thematic GIS shapefile from the Fisheries Information Summary System (FISS). Observations were widespread across the specified watersheds, with many fish observations above possible obstacles to upstream passage. The potential for fish presence was assessed at each crossing location based upon records of observation: 1) in the same reach as the proposed crossing; 2) in any reach or tributary upstream of the proposed crossing; or 3) in the next downstream reach of the proposed crossing, or, if it was Reach 1, in the next ordered stream and there was no known barrier to migration. Using these criteria to assess the potential for fish presence at the crossing locations without considering other site-specific information, 206 sites were identified as possible fish-bearing streams.

The same sites were cross referenced with data from stream classifications conducted in 2002-2006 and in a few cases, there was an observation of fish upstream of a reach that had been identified as a "non-classified drainage" (NCD) or when "no visible channel" (NVC) was present and it became apparent that there may have been hydrological changes between the time of the observation and the classification. Tables summarizing historical fish data and previous stream reach classifications can be found in Appendix C.

4.3 2012 OFFICE CLASSIFICATIONS

There were 14 identified crossing sites not included in the field sampling phase of the inventory. These were omitted from the sample design after a review of previous classifications and existing fish data suggested the drainages at these sites were not streams and did not contain fish habitat. Most had been previously classified as NCD or NVC and were characterized by short 1st order upstream reaches. The previous assessments were accepted as standing classifications for 2012 (Table 1).

Table 1. Previous classifications accepted without field sampling.

Site ID	Prev. class†	Prev. class yr	Comments
AE-004	NCD	2002	Crossed previously for access to monitoring site and no stream was observed. Assume prev. classification.
AE-008	NCD	2002	Short, first order drainage. Assume previous classification.
AE-009	S6	2003	Vertical barrier 58m d/s of road and sections >20% slope. Previous sampling caught no fish. Assume prior S6 classification.
AE-050	NVC	2006	Short, first order drainage. No visible channel found previously.
AE-051	NVC	2006	Short, first order drainage. No visible channel found previously.
AE-054	NCD	2006	Headwater of previously classed NCD reach.
AE-066	NVC	2002	Gradient barrier d/s and no perennial habitat u/s using GIS. No visible channel found previously.
AE-067	NCD	2002	Short, first order reach. Assume previous classification.
TL-008	NCD	2004	Short, first order reach. Assume previous classification.
TL-034	NCD	2002	Short, first order reach. Assume previous classification.
TL-096	NPC		Isolated 20k mapped line segment in small vegetated wetland.
TL-918	NCD	2002	Short, first order drainage. Assume previous classification.
TL-932	NPC		Isolated 20k mapped line segment in small vegetated wetland.
TL-945	NCD	2002	Same reach as AE004. Assume prev. classification.

†NCD= Non-classified drainage; NVC= Non-visible channel; NPC= No previous classification data; S6= Non-fish bearing stream <3m wide.

5 RESULTS - FIELD SURVEYS

5.1 STREAM CLASSIFICATIONS AND FISH HABITAT

There were 5 transmission line crossings visited that were found to be in wetland complexes and mid-sized lakes where a channel could not be measured for stream classification. These sites were given an appropriate lake or wetland class and all are known to be fish bearing.

There were a total of 140 NCDs classified at drainages associated with all crossing types (Table 2). Many of these were mapped waterlines that appeared to flow into fish-bearing streams and were identified as having the potential for fish presence (Section 4.2), but upon field inspection were nothing more than depressions or seams with a wetter soil type (Fig. 2). Non-classified drainages such as this are common in the region owing to a relatively flat landscape and poor soil drainage. There is no fish habitat and often very little open water observed in these drainages with the exception of spring meltwater. Aspen, alder and willow species are common to these sites. Details on all NCD reaches can be found in Appendix D.

Table 2. 2012 Stream classifications.

	Crossing Type			
Classification	**Existing Road**	**Proposed Road**	**Transmission Line**	**Grand Total**
NCD	58	6	76	140
S1			2	2
S2	4	1	5	10
S3	11	2	25	38
S4	15	1	13	29
S6	4		5	9
W5			2	2
L3			3	3
Grand Total	92	10	131	233

[1]**Fish streams are classified S1–S4. Class S1 streams are > 20 m wide; S2 streams are > 5 - 20 m wide; S3 streams are 1.5 - 5 m wide; and S4 streams are < 1.5 m wide. Streams without fish are classified S5 or S6. Class S5 streams are > 3 m wide, and S6 streams are < 3 m wide. NCD = non-classified drainage. L1= Lake 1-5 5 ha in size, W5 = Wetland complex.**

The 9 sites classified as non-fish bearing streams (S6) were assessed with consideration to previous sampling information, the absence of upstream overwintering habitat, and the presence of an identified downstream barrier or reach gradient of >20%. In most of these cases, the channel was dry at the time of survey and/or previously classed as non-fish bearing.



Figure 2. Poorly drained NCDs typical of the region. TL-020(left); TL- 922 (right).

Both of the S1s that were classed represent different sites within the same reach of the Stellako River. The Nechako River is also an S1 that will be potentially crossed by a transmission line, but was not visited in 2012 because of access limitations.

The remaining fish-bearing classifications (S2-S4) were spread among the road and transmission line crossings. It was too late in the season to sample for fish at many of the sites associated with Version 5 of the transmission line. However, the objective for these sites was to confirm fish presence/absence only and in the absence of a multi-seasonal, comprehensive sampling inventory, all reaches less than 20% gradient without an identified barrier between the specified reach and known fish-bearing water bodies must be defaulted to fish-bearing, regardless of the capture success of a single-event sample (BC Ministry of Forests 1998). Therefore, with consideration to the above criteria, all transmission line sites were given defaulted fish-bearing classifications with the exception five of the S6 sites described previously. Details on all classified stream reaches can be found in Appendix E.

Fish habitat was generally assessed as good at all S2 streams, most of the S3 streams, and more than half of the S4 streams. There were nine S4 streams and one S3 that did not receive a rating of “good” for any of the four habitat categories (Table 3). These drainages contained little or no spawning gravels and an abundance of fine sediment that is a result of the glacial-fluvial and glacial-lacustrine deposition typical for the region. A few were downstream of an NCD reach. Flows were shallow or intermittent and drainage hydrology may have been impacted by upstream or adjacent forest harvesting and/or cattle grazing. Sampling was attempted at several of the sites, but the only fish captured were at AE-14.

Table 3. Streams found to contain poor overall fish habitat. S= Spawning; R= Rearing; O= Overwintering; M= Migration. Habitat ratings are N= None; P= Poor; F= Fair; G= Good.

Site ID	Class	S	R	O	M	Comments
AE-013	S4	F	F	P	P	Downstream of crossing, channel has been degraded from harvesting. U/s is better, but hanging culvert restricts passage.
AE-014	S4	P	F	F	P	Dewatered in some sections. Close to pond.
AE-020	S4	P	F	P	P	Upstream of crossing is NCD reach. Downstream drains into small lake.
AE-035/ TL039	S4	F	F	P	P	Dry channel at this time.
AE-072	S4	N	P	N	N	Shallow, muddy watercourse dry at time of survey. Cutblock altered hydrology. NCD reach upstream of crossing.
AE-074	S4	N	F	P	P	Shallow, muddy channel nearly dry at time of survey. Poor overall habitat, but no apparent barriers to fish-bearing waters d/s.
TL-070	S4	N	F	P	P	Nearly dry at time of survey. Channel is occasionally sub-surface. Direct tributary to Greer Crk.
TL-071	S4	P	F	P	P	Nearly dry, weakly defined stream with poor habitat. NCD reach upstream at UTM 10U 397743 5960636.
TL-091	S4	N	F	F	P	Small channel in wet area with lake nearby. Shallow flow and minimal scouring.
TL-106	S3	P	F	P	P	Fair to poor fish habitat overall. Low water levels with mainly standing water at this time.

There were 13 sites that were scheduled for the field phase of the program but did not get visited (Table 4) because of either access limitations or their addition to a revised alignment too late in the season. These sites are tentatively scheduled for spring, 2013.

Table 4. Sites recommended for field sampling in 2013.

Site ID	Crossing type	2013 Sample
AE-901	Existing Road	Yes, added to later version of alignment
AE-902	Existing Road	Yes, added to later version of alignment
AE-903	Existing Road	Yes, added to later version of alignment
AE-904	Existing Road	Yes, added to later version of alignment
AE-905	Existing Road	Yes, added to later version of alignment
AE-906	Existing Road	Yes, added to later version of alignment
TL-082	Transmission Line	Yes, no access to private property in 2012
TL-083	Transmission Line	Yes, no access to private property in 2012
TL-084	Transmission Line	Yes, no access to private property in 2012
TL-085	Transmission Line	Yes, no access to private property in 2012
TL-086	Transmission Line	Yes, no access to private property in 2012
TL-116	Transmission Line	Yes, no access to private property in 2012
TL-117	Transmission Line	Yes, no access to private property in 2012

Classifications, habitat ratings, and associated reach information for all sites were entered into a MS Access database. If a stream had not been assigned a 50k watershed code, it was given an Interim Locational Point (ILP) number that represented the last 5 digits of the 20k WSC to facilitate reporting to the permitting agencies. If there was no existing 20k watershed code, an arbitrary ILP was assigned. Reach numbers were given to each crossing location by counting upstream starting from the stream mouth, with the use of contour and water layers to support reach break locations.

5.2 FISH SAMPLING

Fish were observed or captured at 35 of the sites in 2012. Rainbow trout were the most common species captured (Fig. 3) and were found in all habitat types. Brassy minnow and lake chub were captured in slow moving stream sections close to ponds. There was one dead sockeye salmon observed at a Stellako River site (TL-119). If fish were observed during the stream classification survey at a proposed transmission line crossing, the observation was recorded and sampling was not conducted because the objective was simply to confirm fish presence at these sites. Likewise, once a fish was captured during sampling at a reach that was planned only for a transmission line crossing, capture efforts ceased.

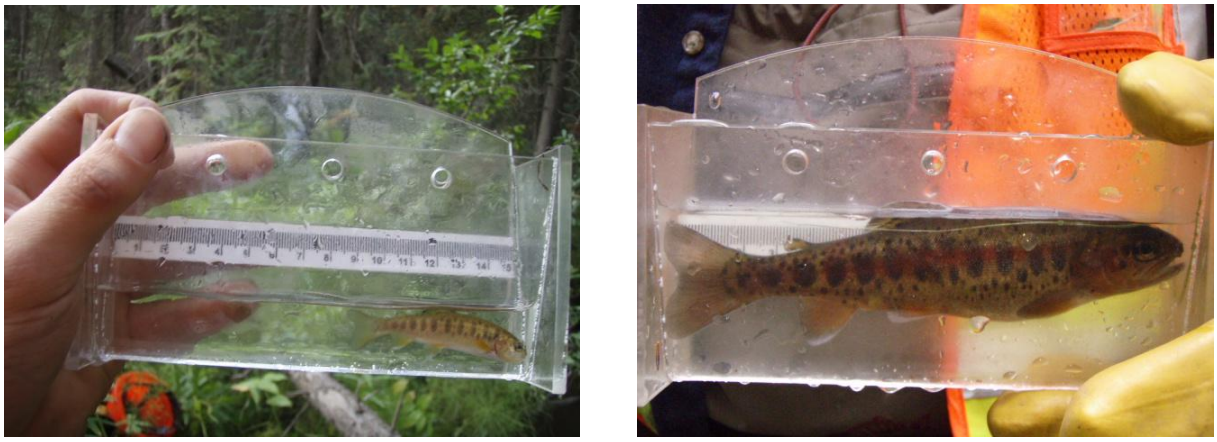


Figure 3. Rainbow trout captured at SE-059 (left) and AE-055 (right).

Total numbers of fish captured at road sites were understandably higher than transmission line crossing sites because the sampling effort was more intensive and consisted of electofishing for 100m and an overnight set of 2 minnow traps. There were 590 fish that were positively identified as rainbow trout at streams associated with road crossings which translated to 87.5% of the total fish captured. The remaining fish were brassy minnow (4.5%), lake chub (1.6%), white sucker (0.2%), and species that could not be positively identified (6.2%) usually because they escaped during electrofishing. Sampling was

attempted but unsuccessful at 14 sites. The average fork-length of rainbow trout was 69mm among all sites; the largest fish were captured halfway through the sampling program at AE-055 (average 139mm).

A summary table of the fish species caught for each site can be found in Appendix F. Individual fish data is included in the digital database submission.

5.3 RIPARIAN VEGETATION

Riparian vegetation was assessed at all fish-bearing reaches. While species were similar among sites, abundance and distribution was varied and dependent on habitat and forest activity. Predictably, wetlands and recently burned sites exhibited the most woody shrub cover while trees were dominant in live mature forests (Fig. 4). Canopy cover ranged from 0-60% among sites and the difference in canopy between total estimated and that which was approximated at a specified cut height ranged from 0 to 30% with an average loss of 5.8%. Dominant tree species were mainly spruce and pine with occasional balsam. Aspen and black cottonwood were the dominant trees at wetter sites. The most commonly observed shrub species included alder, willow, and black twinberry. A table summarizing riparian vegetation data for each site can be found in Appendix G.



Figure 4. Differences in riparian vegetation between burned block (left; AE-57) and mature forest (right; AP-002).

5.4 NAVIGABLE WATERS

There were 85 sites where preliminary information was recorded as it related to Navigable Waters reporting prior to the 2012 amendment of the Act. Of these, 30 streams measured a channel width of less than 1.2m or depth less than 0.3m, meaning they met the initial criteria for minor waters (Transport Canada 2010a, b). There are other factors that may downgrade streams from navigable to minor waters for streams that have a channel width between 1.2 - 3m. These include:

- A channel gradient >4%.

- A depth <0.6m.

- A sinuosity ratio > 2. Sinuosity is measured as stream channel length / valley length .

- 3 or more obstacles counted in 200m.

There were 13 additional sites that were downgraded based on one or more of the above criteria. Sinuosity was never close to the threshold for failure, which is not surprising considering that the typical stream pattern in the region is irregular-wandering rather than sinuous (local knowledge). The most common issue regarding navigability was excessive blowdown in and across the stream channels (Fig. 5), which is likely owing to the large quantities of beetle-killed pine in the area.



Figure 5. Windblown timber across channels at AE-007 (left) and TL-004 (right).

There were 9 streams at proposed or existing road sites that did not qualify as minor waters, but in every case, navigability was assessed to be poor because of shallow flows and obstacles in the channel such as boulders, vegetation, and large woody debris (Table 5). Additional measurements were taken at these sites to describe minimum and average depths, minimum widths, and the lengths over which these were observed within the 200m survey (Appendix H).

Most of the streams located at the proposed transmission line crossings qualified for a “Minor Works” designation because channel widths were less than 15m in width and the location of the crossing was more than 1000m from a lake. Exceptions include TL-025 (Big Bend Creek) which is less than 1000m from Brewster Lake, as well as TL-119 and TL-937 (Stellako River) and TL-082 (Nechako River). There was extensive beaver damming noted at TL025, limiting any navigation.

Table 5. Stream channels not classified as minor works or minor waters. B_fW= Bankfull width; B_fD = Bankfull depth.

Site ID	B_fW (m)	B_fD (m)	Gradient (%)	Sinuosity	Blockages	Navigability
AE-001	3.9	0.77	1.5	1.09	4	Thick growth of willow in channel.
AE-002	3.3	0.37	1	1.14	4	Grass and sedge in channel would make navigation difficult
AE-003	12.1	0.93	3	1.10	0	Frequent mid channel bars and low water levels.
AE-030	7.5	0.67	2.5	1.65	14	Heavily beaver dammed.
AE-037	6.6	1.07	1	2.00	6	Many shallow sections. Couldn't paddle canoe through.
AE-045	4.2	0.92	2	1.02	5	Boulders and abundant woody debris would make navigation difficult.
AE-057	2.0	1.10	3	ns	2	Boulders and low flow limit navigation.
AE-068	5.8	0.75	4	1.33	4	Frequent fallen logs fallen across channel. Shallow flows at time of survey.
AP-004	6.5	0.46	1.5	1.27	3	Abundant blowdown across banks, navigation would be extremely limited.

5.5 FISH PASSAGE AND CLOSED-BOTTOM STRUCTURES

Twelve culverts were found to be a potential barrier to fish passage at existing road crossings (Table 6). Fish passage is scored for closed-bottom structures using different criteria which are then added together and compared with threshold values. Overall scores greater than 20 indicate the culvert is likely a barrier to fish passage for part or all of the year. Most of the culverts that received a failing score did so because they were not embedded and were undersized, which may create velocity barriers and limit upstream passage, especially in spring during freshet. If road upgrading is planned, the culverts should be replaced with a drainage structure appropriate for the habitat and gradient as per the *Fish Stream Crossing Guidebook* (MFLNRO 2012).

Table 6. Characteristics of culverts determined to be barriers to fish passage. SWR= stream:channel width ratio.

Site ID	Embed-ded	Outlet Drop (cm)	Culvert Slope (%)	SWR	Overall Score	Comments
AE-001	N	0	2	4.2	21	Culvert may be undersized for discharge - also center of culvert seems compressed.
AE-007	N	0	5	1.6	26	Potential velocity barrier in spring.
AE-013	N	90	2	2.1	31	Small hanging culvert is definite barrier to migration.
AE-014	N	12	3	1.2	21	Potential velocity barrier in spring.
AE-021	N	23	1	2.2	29	2 culverts, both slightly caved in and undersized.
AE-030	N	0	1	4.2	24	3 culverts should be replaced by an arch.
AE-055	N	10	2	3.0	24	Upstream backwatering with shift to wetland type.
AE-059	N	36	2	2.1	34	Culvert likely limits upstream migration and should be replaced.
AE-068	N	0	3	2.3	24	Culvert undersized and not embedded. Likely restricts upstream migration during wetter seasons.
AE-071	N	0	1	1.3	21	May restrict passage during freshet.
AE-075	N	0	2	1.2	24	May restrict passage during freshet.
AE-076	N	0	1	1.7	24	No outlet drop, but potential barrier in spring b/c of size and lack of embeddedness.

6 SUMMARY

The majority of the 2012 field-verified stream classifications reflected the 2002-2006 classifications where these existed, but there were some differences. This can be explained in part by the increase in harvest activity in the area over the last 10 years, which has likely led to altered hydrology and changes in stream discharge rates. Additionally, the rapid regeneration of streamside deciduous trees in logged areas often leads to increased beaver activity which can also alter stream flows and channel morphology. Most of the drainages that were classified as streams in 2012 were known or defaulted to fish bearing status and were observed to contain good overall habitat. The majority of the fish species captured or observed in these streams were rainbow trout. Other species identified during sampling included brassy minnow, lake chub, and white sucker. There were no anadromous fish captured. One spawned sockeye salmon was observed at a Stellako River site. The streams with historical observations of anadromous fish include the Stellako and Nechako Rivers and the lower reaches of Swanson and Greer Creeks. The nearest species at risk is the white sturgeon, which has historically been observed in the middle reaches of the Nechako River.

Riparian vegetation was variable among sites and dependent on soil moisture and surrounding forest activity. Wetlands and recently burned or harvested areas were dominated by shrub riparian vegetation while mature forests contained the most standing timber. The average amount of canopy that would be lost to transmission-line related clearing activities (as estimated to a specified cut height) is 5.8%.

In addition to the Stellako and Nechako Rivers, there were 10 sites that did not qualify as minor waters/minor works as they are defined in the Navigable Waters Protection Act (2010). Although these 10 sites did not meet the standard requirements for minor waters/works, navigation would be limited because of the large volume of windblown timber across and inside the channels, which may be attributed in part to the abundance of mountain-pine beetle killed timber in the region.

Twelve existing crossings contained closed-bottom culverts that were determined to impede fish passage during all or part of the year. The most common characteristics that supported these determinations included undersized culverts and lack of embeddedness, inferring that upstream passage would be limited because of velocity barriers, especially during freshet or after storm events. If road upgrading is considered, it is recommended that these culverts be replaced with an appropriate structure where upstream fish habitat exists.

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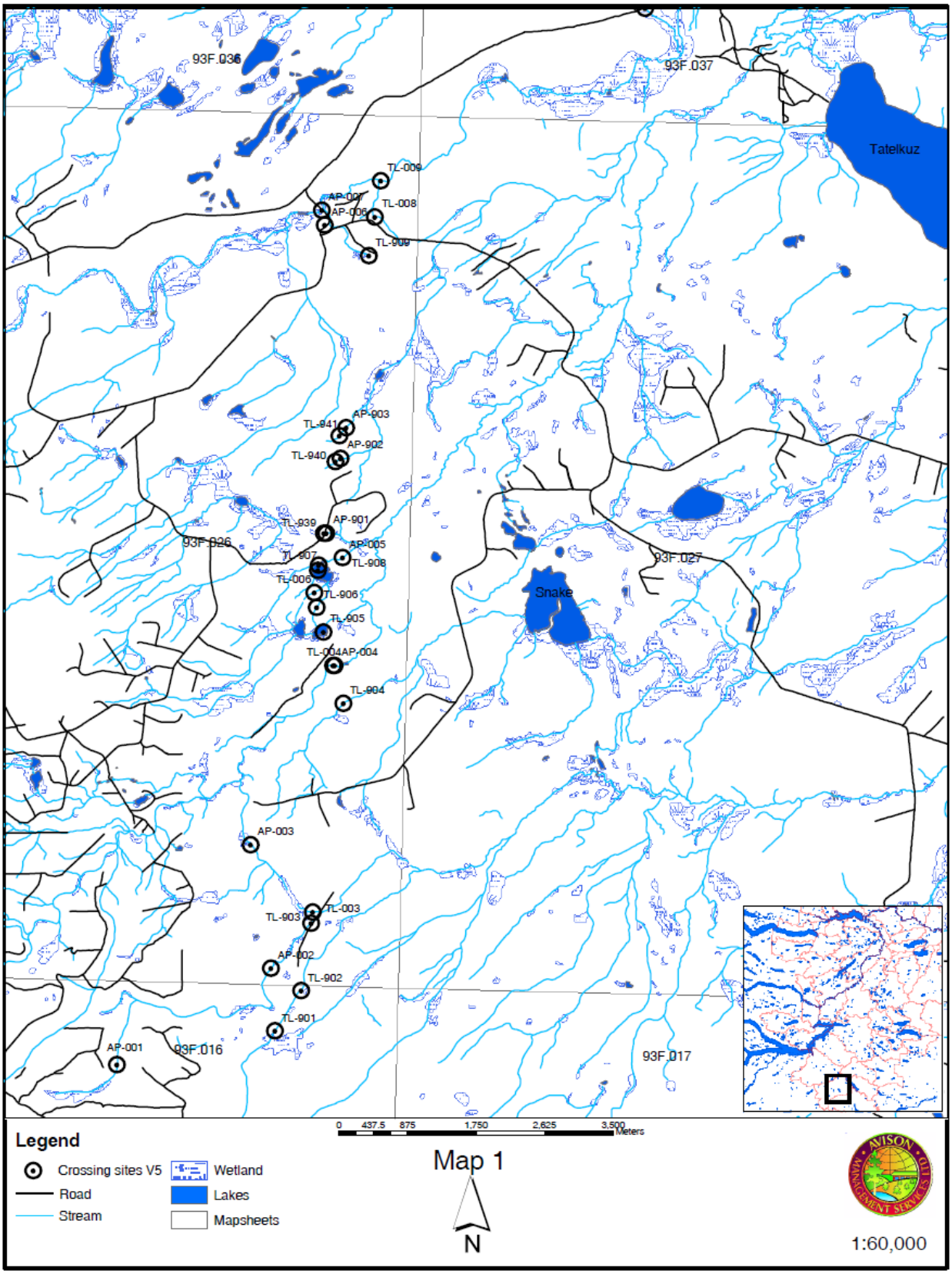
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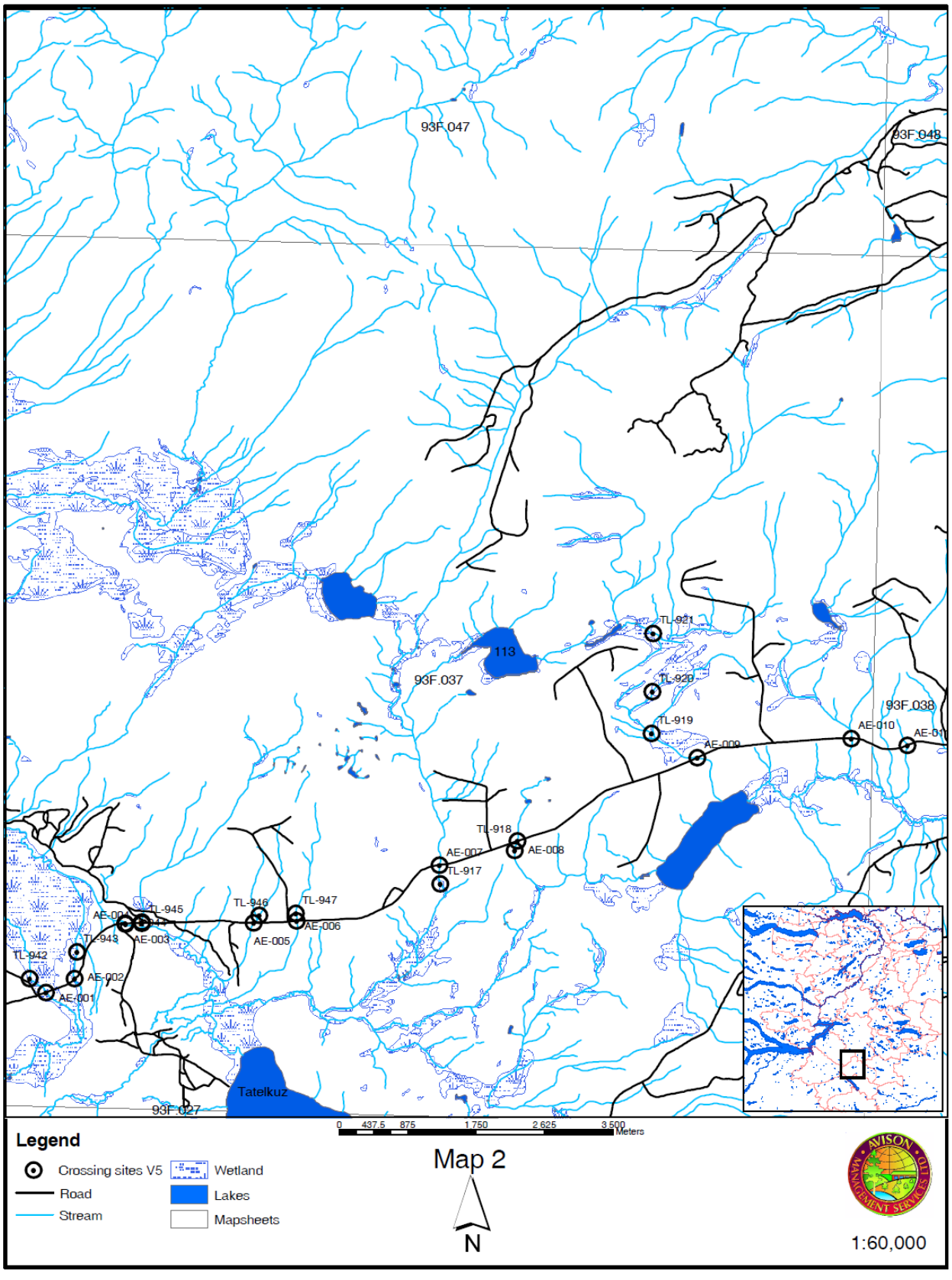
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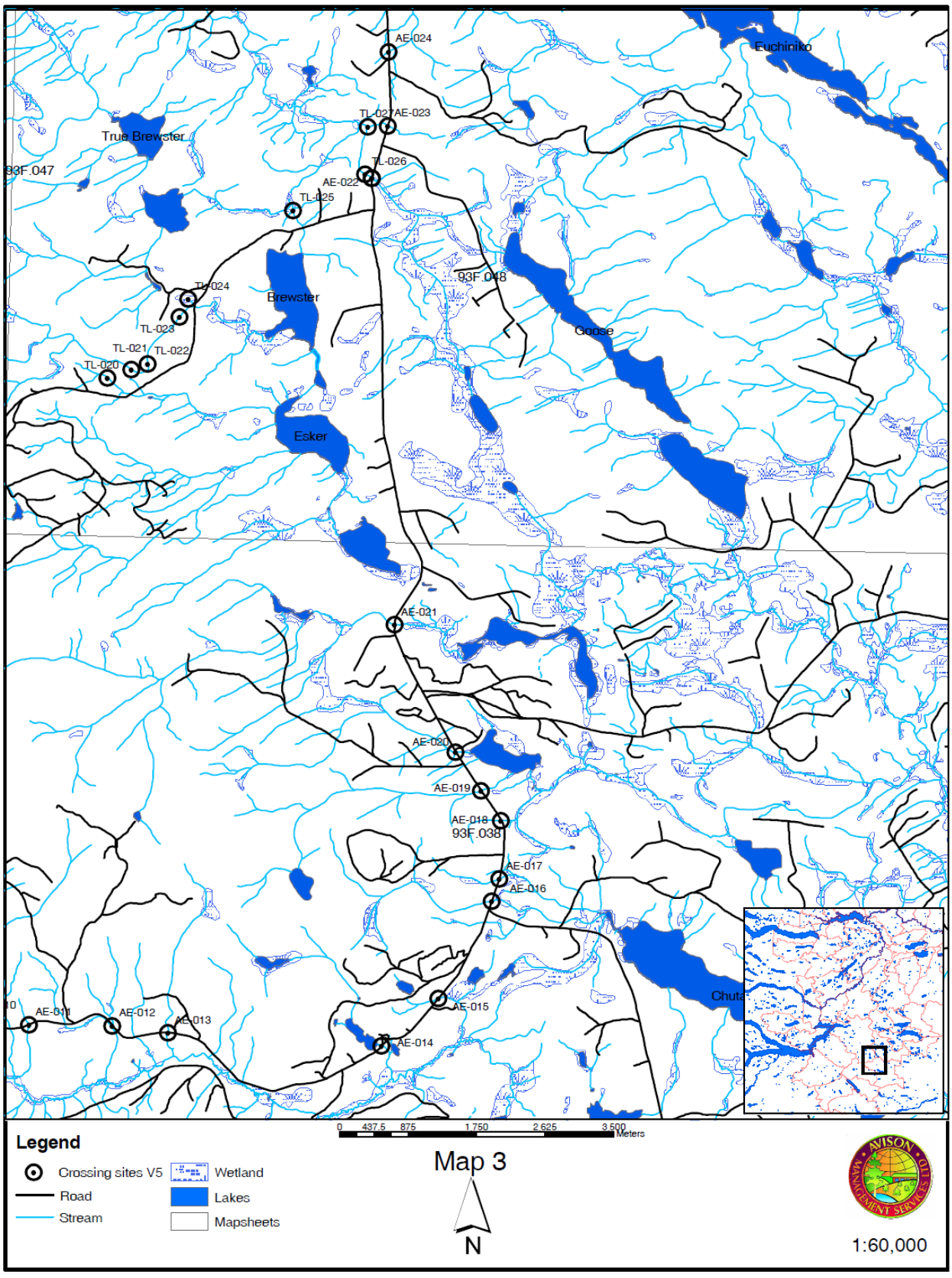
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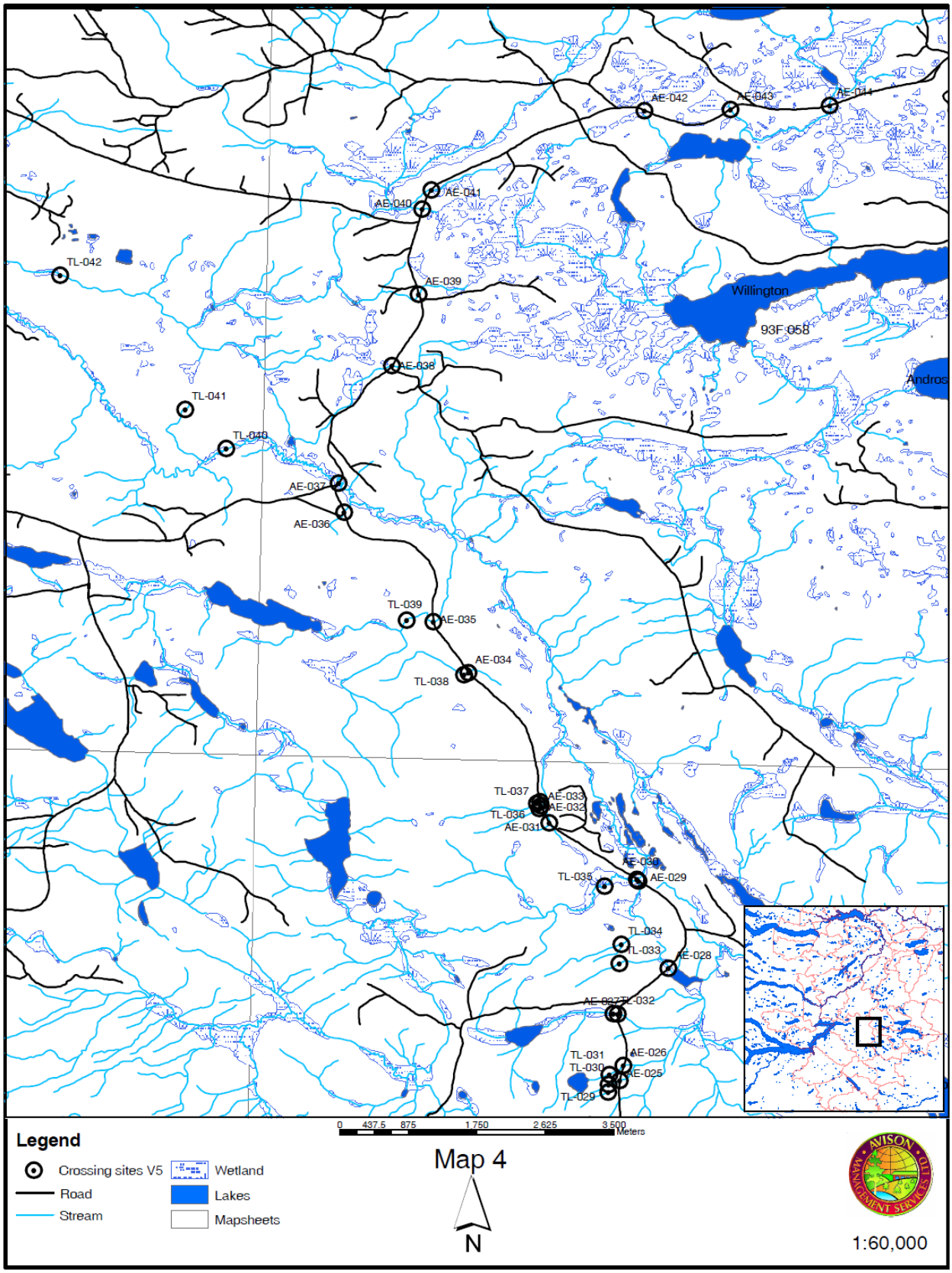
APPENDICES

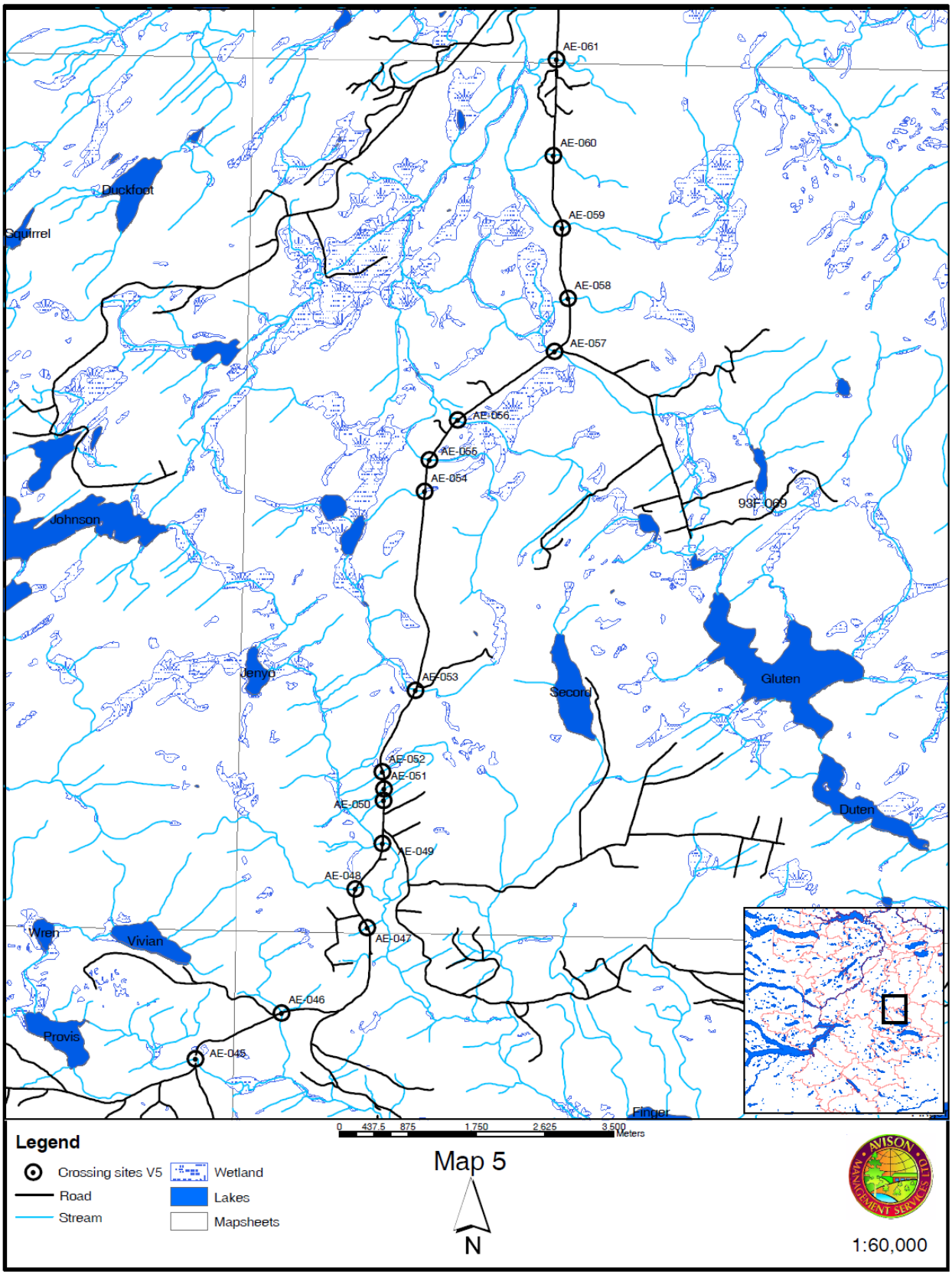
A. CROSSING LOCATION MAPS – Geographic coordinates for each site can be found in the following table.

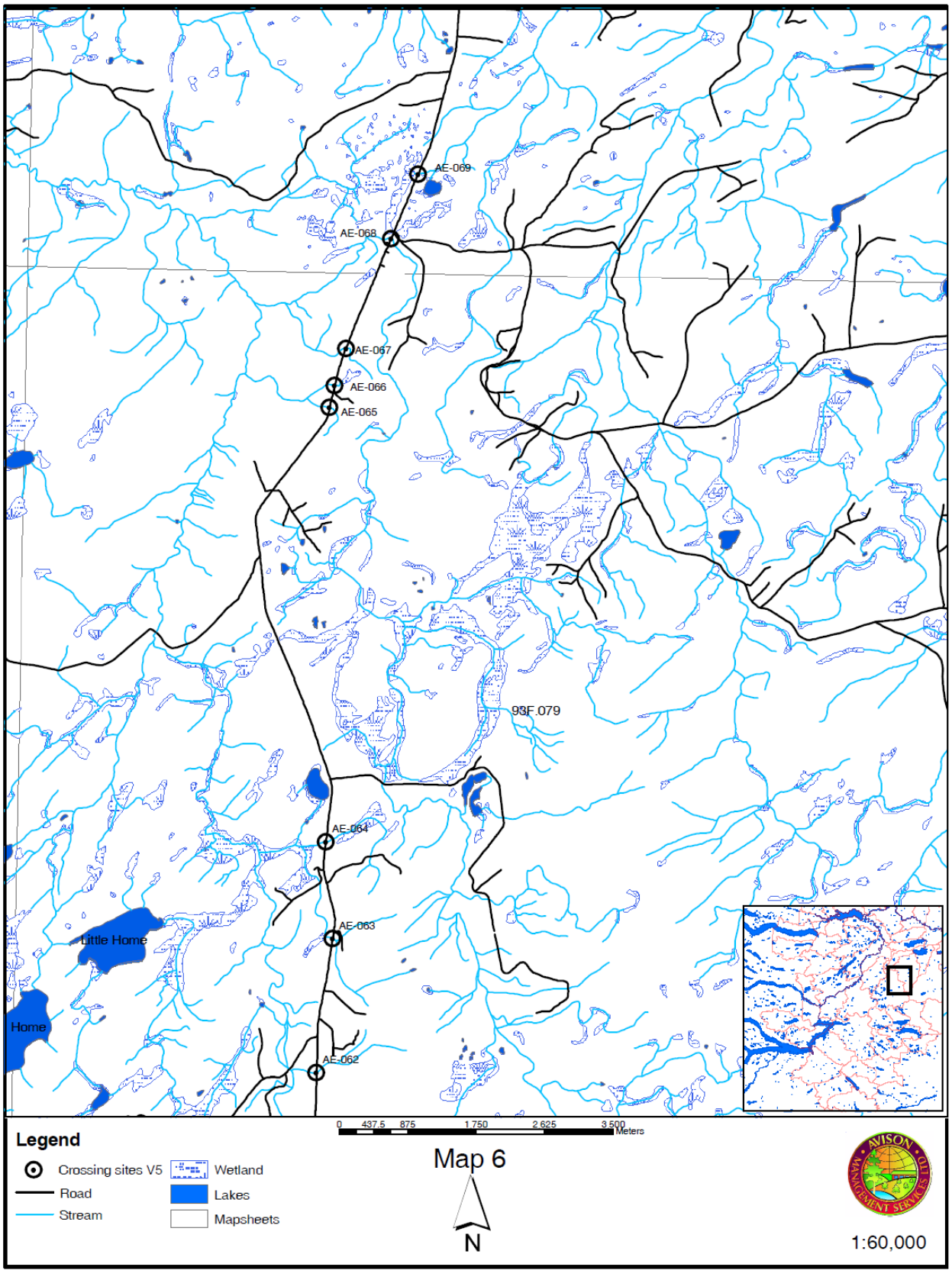


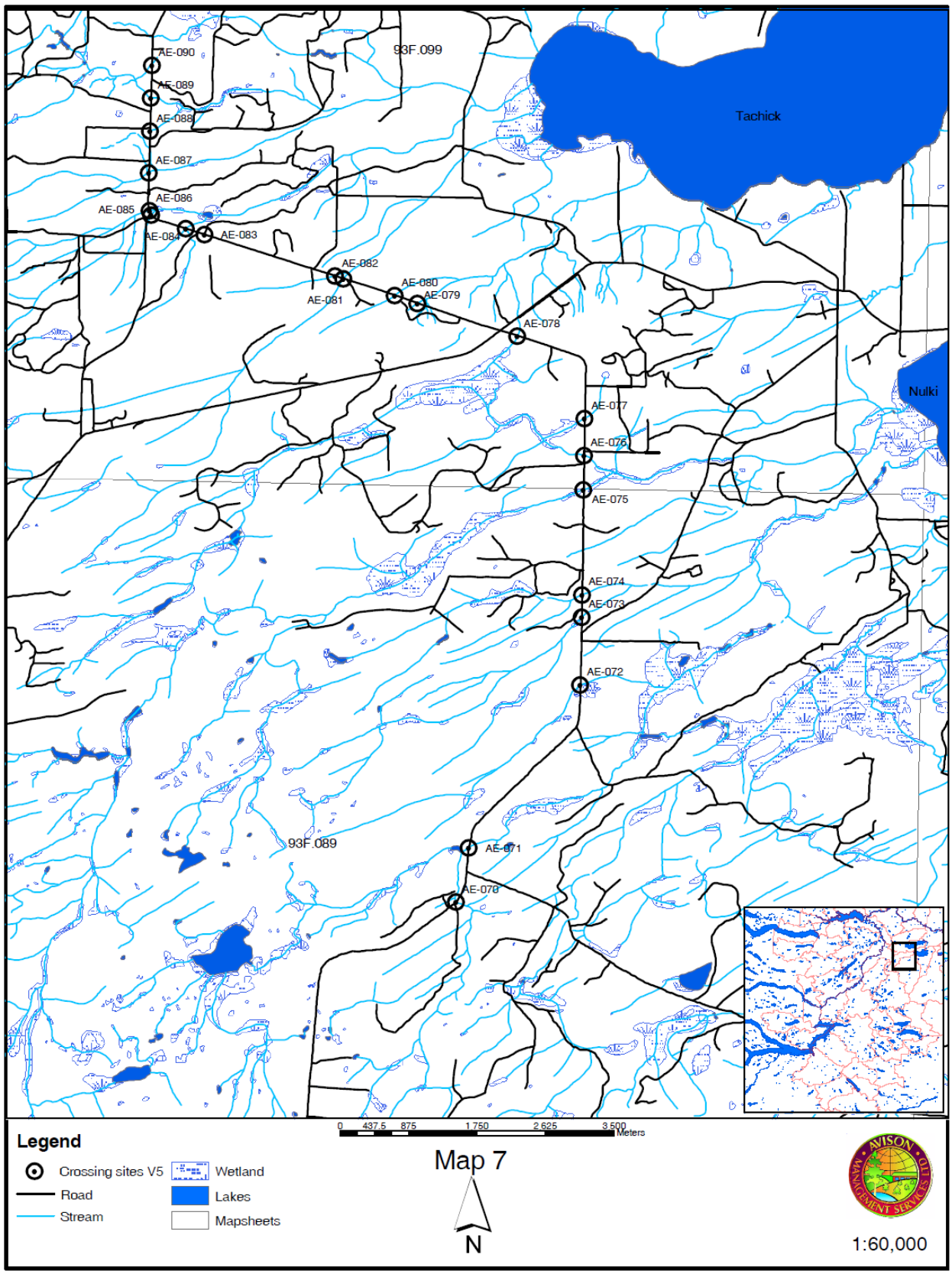

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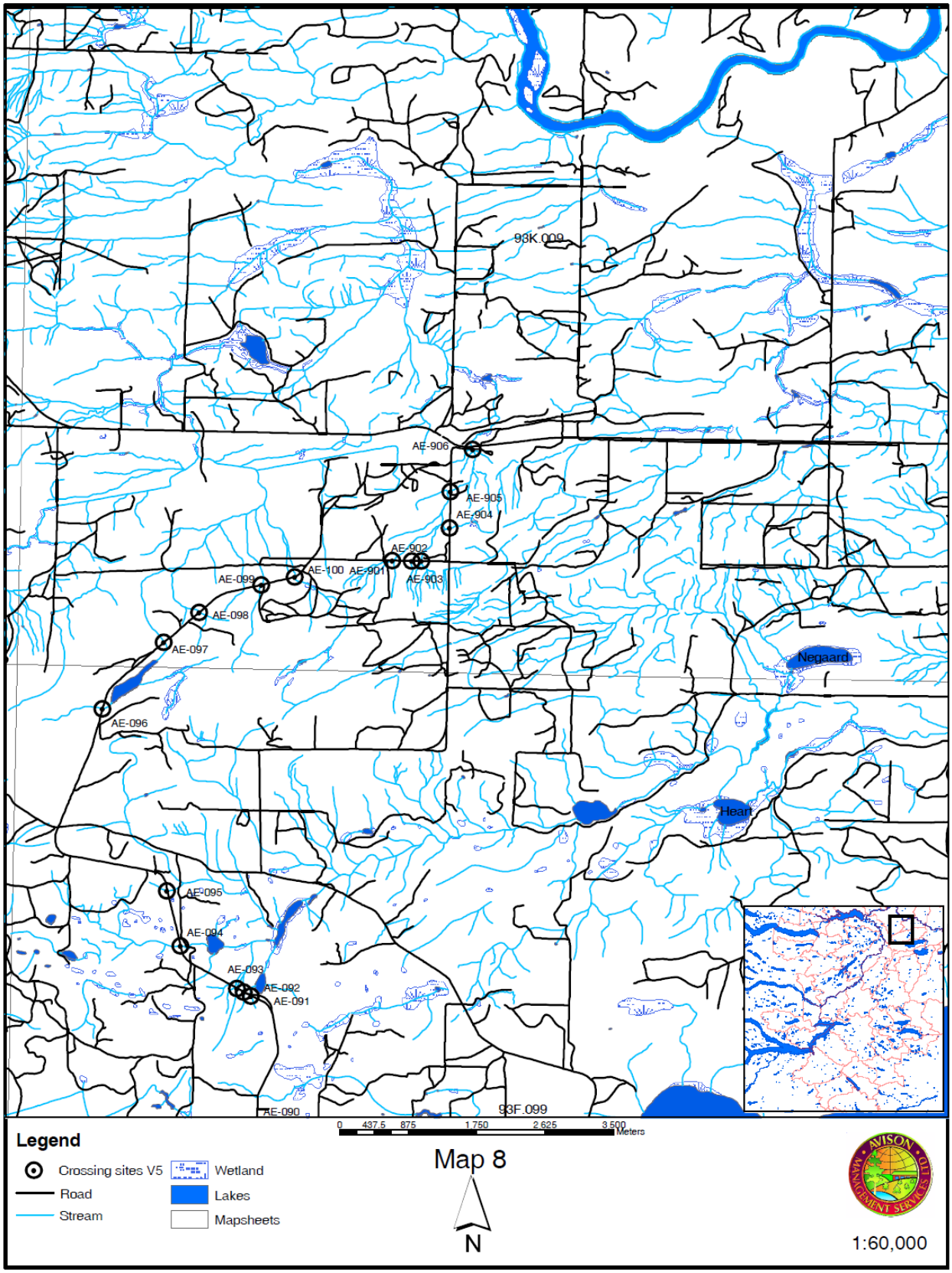

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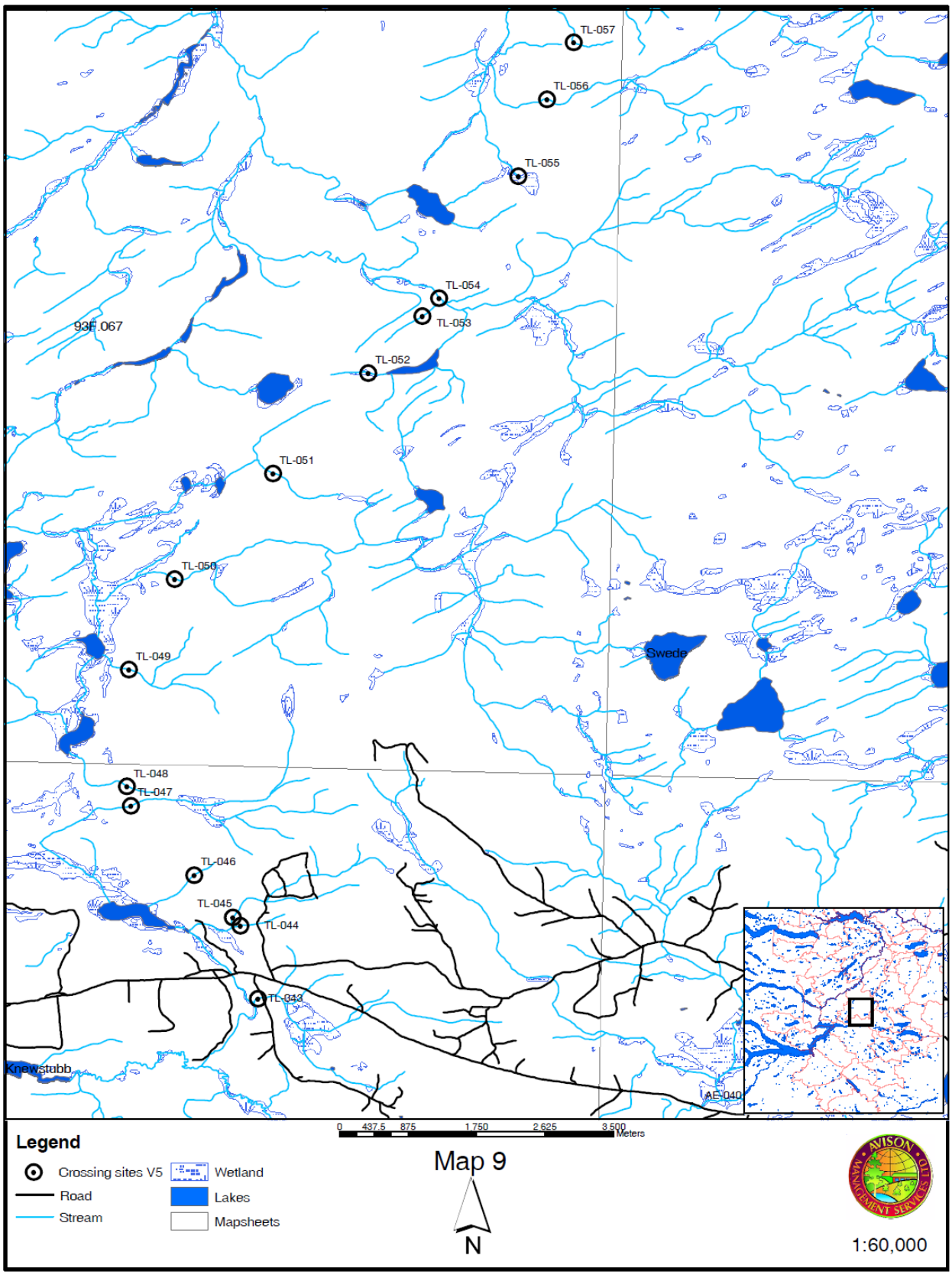

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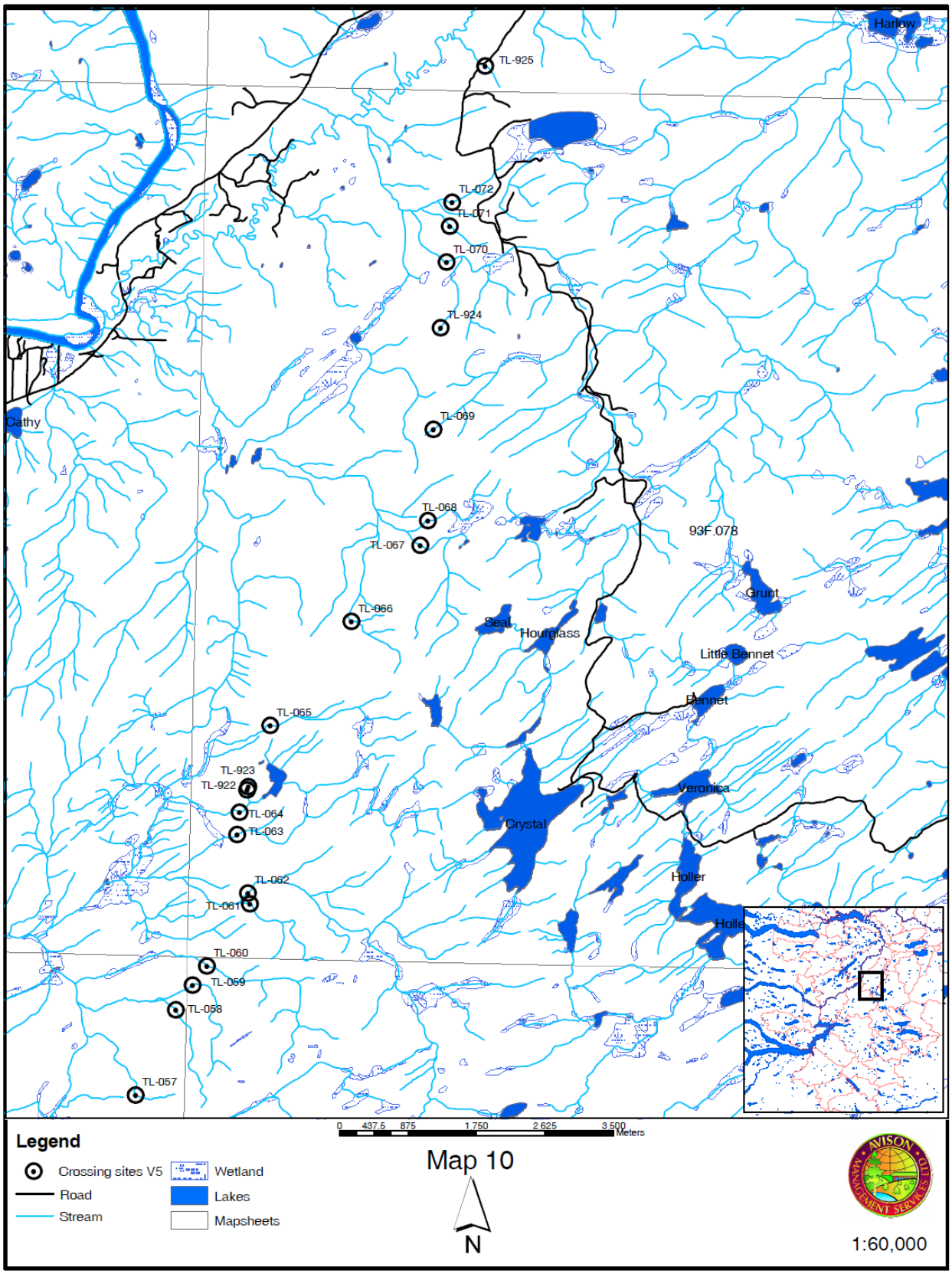

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AE-052
AE-051
AE-050
AE-049
AE-048
AE-047
AE-046
AE-045
Duckfoot
Squirrel
Johnson
Jenyo
Secord
Gluten
Duten
93F-069
Wren
Vivian
Provis
Finger
0 437.5 875 1 750 2 625 3 500
Meters
Legend
Crossing sites V5
Road
Stream
Wetland
Lakes
Mapsheets
Map 5
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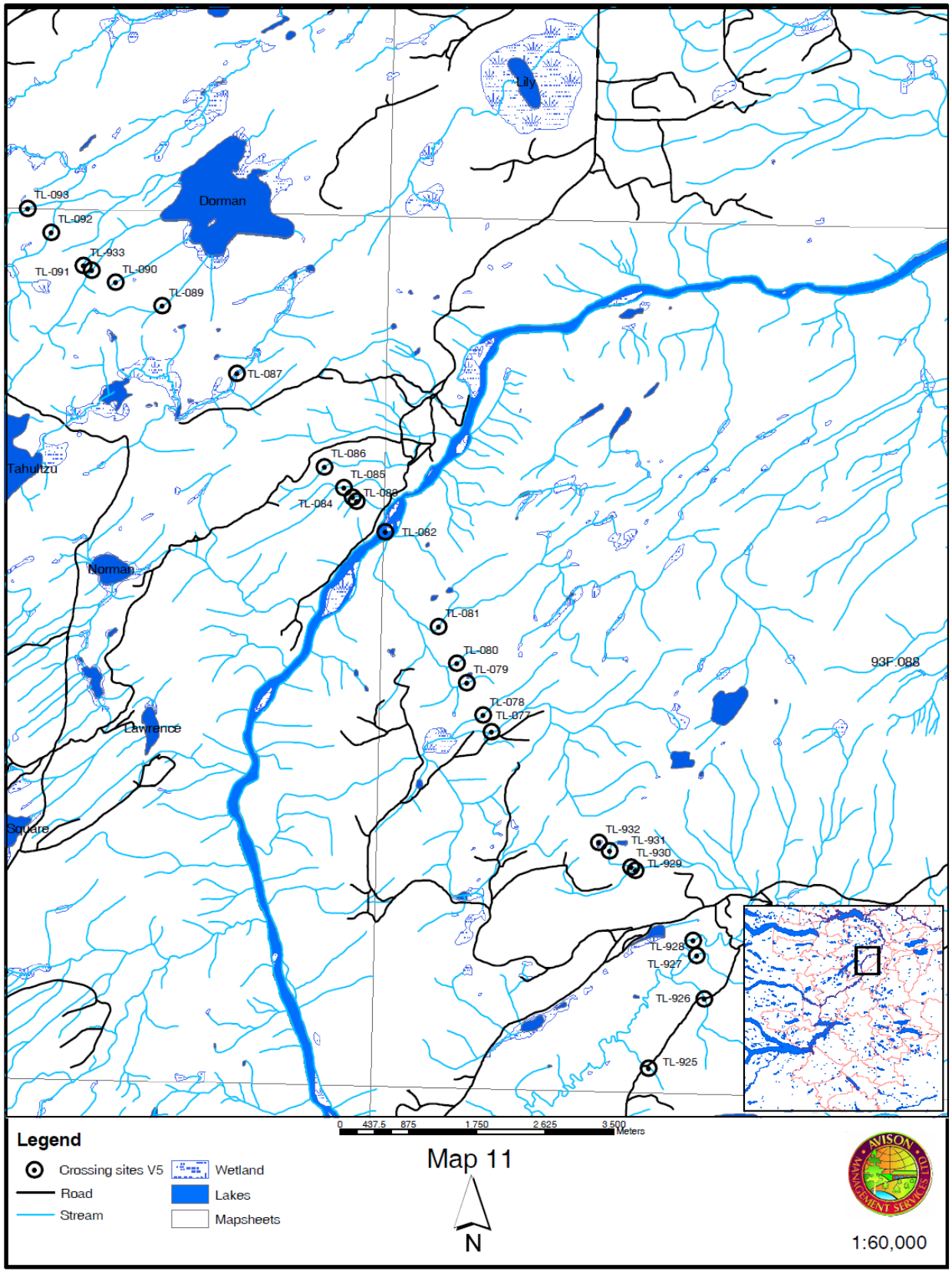

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AE-068
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AE-066
AE-065
93F.079
AE-064
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AE-062
Little Home
Home
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Meters
Legend
Crossing sites V5
Road
Stream
Wetland
Lakes
Mapsheets
Map 6
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1:60,000

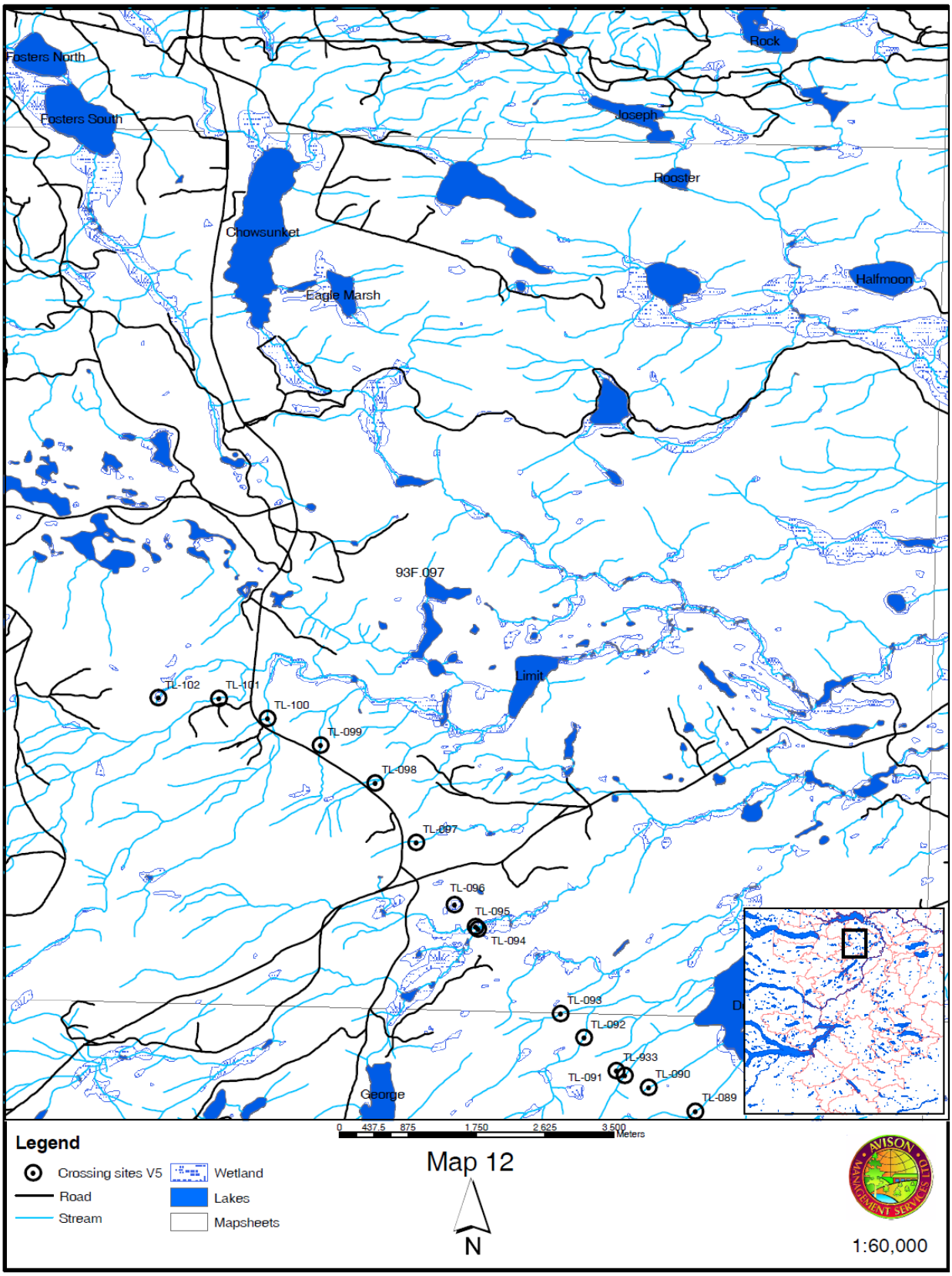

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AE-071
AE-070
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0 437.5 875 1,750 2,625 3,500
Meters
Legend
Crossing sites V5
Road
Stream
Wetland
Lakes
Mapsheets
Map 7
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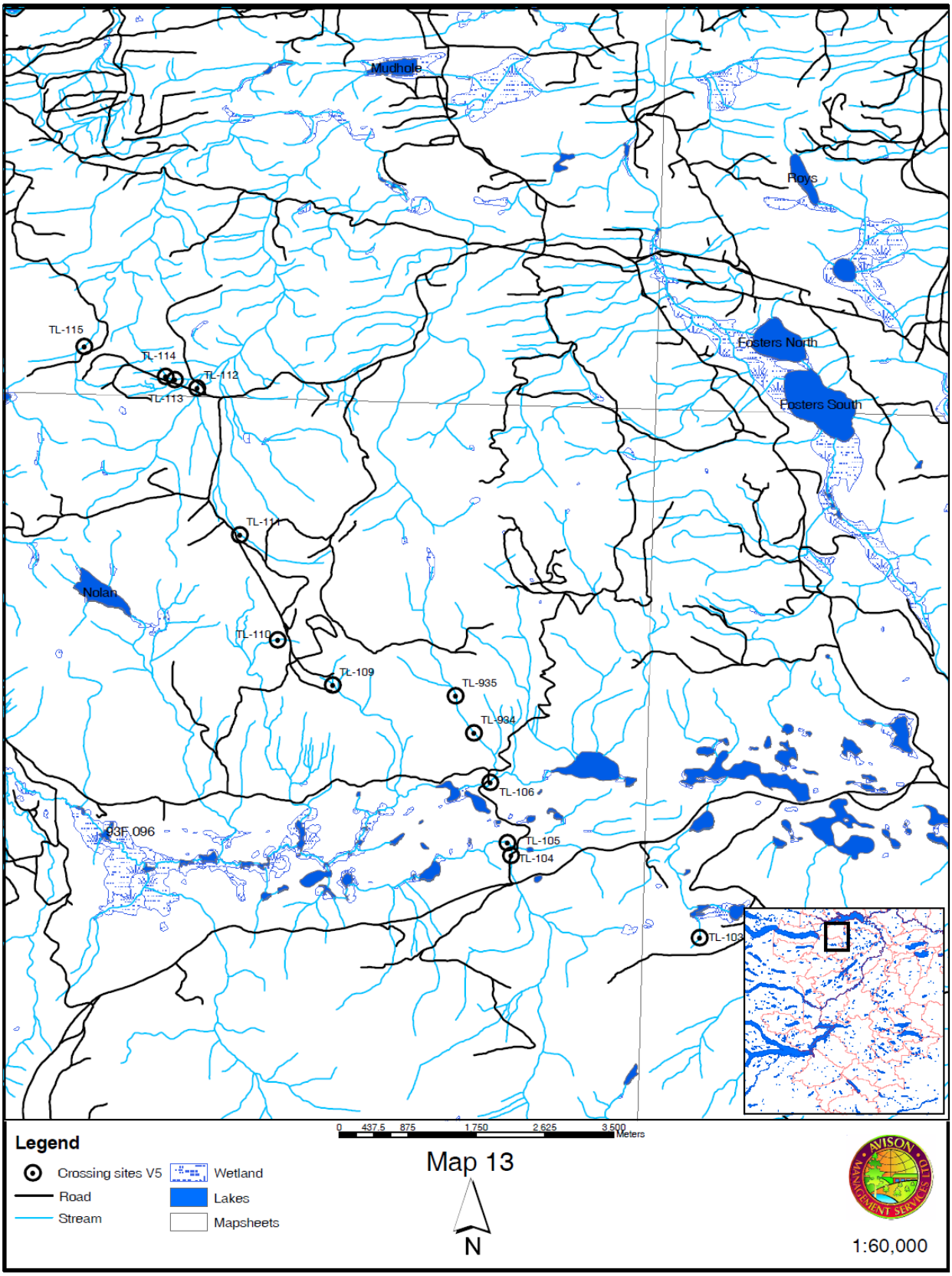

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AE-904
AE-902
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AE-903
AE-100
AE-099
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Negaard
Heart
AE-095
AE-094
AE-093
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AE-090
93F.099
0 437.5 875 1,750 2,625 3,500
Meters
Legend
Crossing sites V5
Road
Stream
Wetland
Lakes
Mapsheets
Map 8
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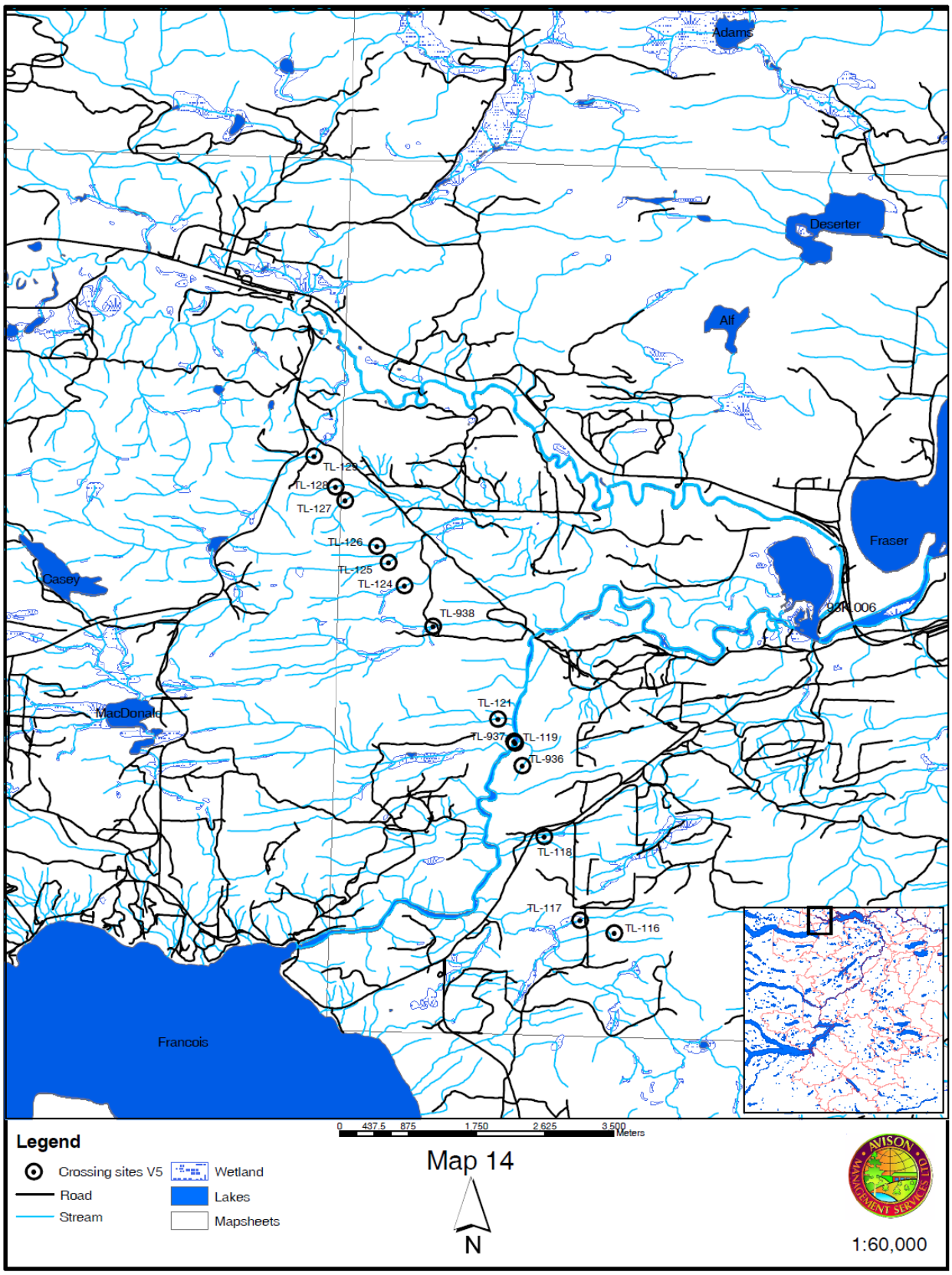

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Swede
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TL-046
TL-045
TL-044
TL-043
Knewstubb
AE-040
0 437.5 875 1,750 2,625 3,500
Meters
Legend
Crossing sites V5
Road
Stream
Wetland
Lakes
Mapsheets
Map 9
N
1:60,000


Harlow
TL-925
TL-072
TL-071
TL-070
TL-924
Cathy
TL-069
TL-068
TL-067
93F.078
Grunt
TL-066
Seal
Hourglass
Little Bennet
Bennet
TL-065
TL-923
TL-922
Veronica
TL-064
TL-063
Crystal
TL-062
Holler
TL-061
Holle
TL-060
TL-059
TL-058
TL-057
0 437.5 875 1,750 2,625 3,500
Meters
Legend
Crossing sites V5
Road
Stream
Wetland
Lakes
Mapsheets
Map 10
N
1:60,000


Lily
Dorman
TL-093
TL-092
TL-933
TL-091
TL-090
TL-089
TL-087
Tahultzu
TL-086
TL-085
TL-084
TL-083
TL-082
Norman
TL-081
TL-080
TL-079
TL-078
TL-077
93F.088
Lawrence
Square
TL-932
TL-931
TL-930
TL-929
TL-928
TL-927
TL-926
TL-925
0 437.5 875 1 750 2 625 3 500 Meters
Legend
Crossing sites V5
Road
Stream
Wetland
Lakes
Mapsheets
Map 11
N
1:60,000


Fosters North
Fosters South
Rock
Joseph
Rooster
Chowsunket
Eagle Marsh
Halfmoon
93F.097
Limit
TL-102
TL-101
TL-100
TL-099
TL-098
TL-097
TL-096
TL-095
TL-094
TL-093
TL-092
TL-933
TL-091
TL-090
TL-089
George
0 437.5 875 1,750 2,625 3,500
Meters
Legend
Crossing sites V5
Road
Stream
Wetland
Lakes
Mapsheets
Map 12
N
1:60,000


Mudhole
Floys
Fosters North
Fosters South
TL-115
TL-114
TL-113
TL-112
TL-111
Nolan
TL-110
TL-109
TL-935
TL-934
TL-106
93F 096
TL-105
TL-104
TL-103
0 437.5 875 1,750 2,625 3,500
Meters
Legend
Crossing sites V5
Road
Stream
Wetland
Lakes
Mapsheets
Map 13
N
1:60,000


Adams
Deserter
Alf
Fraser
Casey
MacDonald
Francois
TL-129
TL-128
TL-127
TL-126
TL-125
TL-124
TL-938
TL-121
TL-937
TL-119
TL-936
TL-118
TL-117
TL-116
93K.006
0 437.5 875 1,750 2,625 3,500
Meters
Legend
Crossing sites V5
Road
Stream
Wetland
Lakes
Mapsheets
Map 14
N
1:60,000

B. SITE INFORMATION FOR ALL IDENTIFIED CROSSINGS.

WSC= Watershed Code. Non-essential zeros on the following end of the watershed codes have been omitted.

Site ID	UTM Easting	UTM Northing	20kWSC	50k WSC	ILP	Name	Reach num	2012 Sample design?	Date visited	Crew	Survey length
AE-001	382926	5908533	100-567134-610692-480511	180-609800-39700		Unnamed	1	Yes	15-Aug-12	BP/CR	200
AE-002	383295	5908709	100-567134-610692-480511		80511	Turtle Creek	1	Yes	10-Aug-12	BP/BP	200
AE-003	383943	5909410	100-567134-610692	180-609800		Chedakuz Creek	1	Yes	15-Aug-12	BP/CR	200
AE-004	384153	5909419	100-567134-610692-494661	180-609800-45100		Unnamed	1	No			
AE-005	385581	5909422	100-567134-610692-513545	180-609800-47584		Unnamed	1	Yes	09-Aug-12	BP/CR	100
AE-006	386131	5909447	100-567134-610692-520894		20894	Unnamed	1	Yes	09-Aug-12	LN/BP	140
AE-007	387959	5910160	100-567134-610692-522107-063231	180-609800-48200-06400		Unnamed	1	Yes	10-Aug-12	CR/LN	200
AE-008	388957	5910470	100-567134-610692-522107-202099	180-609800-48200-21431		Unnamed	1	No			
AE-009	391255	5911533	100-567134-610692-522107-293732		93732	Unnamed	2	No			
AE-010	393225	5911777	100-567134-610692-522107-363302	180-609800-48200-39800		Unnamed	2	Yes	10-Aug-12	BP/BP	100
AE-011	393939	5911692	100-567134-610692-522107-389013		89013	Unnamed	1	Yes	10-Aug-12	BP/BP	100
AE-012	395003	5911678	100-567134-610692-522107-445492		45492	Unnamed	1	Yes	15-Aug-12	LN/BP	100
AE-013	395715	5911590	100-567134-610692-522107-482792	180-609800-48200-52989		Unnamed	1	Yes	15-Aug-12	LN/BP	100
AE-014	398443	5911423	100-567134-610692-522107-614160	180-609800-48200-66500		Unnamed	1	Yes	16-Aug-12	BP/CR	100
AE-015	399166	5912025	100-567134-610692-522107-662145	180-609800-48200-70700		Unnamed	1	Yes	18-Aug-12	CR/BP	100

AE-016	399850	5913268	100-500560-248839-739271-895222	170-246000-80000-99700		Unnamed	1	Yes	17-Aug-12	CR/BP	100
AE-017	399948	5913553	100-500560-248839-739271-895222-022094	170-246000-80000-99700		Unnamed	1	Yes	17-Aug-12	CR/BP	100
AE-018	399969	5914296	100-500560-248839-739271-422284-152342-566137-353520		53520	Unnamed	1	yes	17-Aug-12	CR/BP	100
AE-019	399713	5914676	100-500560-248839-739271-422284-152342	170-246000-80000-48300-1570		Unnamed	5	Yes	17-Aug-12	CR/BP	100
AE-020	399388	5915170	100-500560-248839-739271-422284-152342-626462	170-246000-80000-48300-1570-5955		Unnamed	1	Yes	20-Sep-12	KR/BP	100
AE-021	398607	5916799	100-500560-248839-739271-422284	170-246000-80000-48300		Unnamed	5	Yes	25-Sep-12	KR/BP	200
AE-022	398318	5922495	100-567134-581072-796569	180-579900-81800		Unnamed	3	Yes	04-Oct-12	KR/BP	100
AE-023	398521	5923162	100-567134-581072-796569-024088		24088	Unnamed	1	Yes	13-Sep-12	KR/BP	100
AE-024	398534	5924109	100-500560-248839-952068-064975-725103		25103	Unnamed	1	Yes	07-Sep-12	CM/KR	100
AE-025	398516	5924918	100-500560-248839-952068-064975-202289-304738		04738	Unnamed	1	Yes	07-Sep-12	CM/KR	100
AE-026	398566	5925107	100-500560-248839-952068-064975-202289	180-579900-47200-76200		Unnamed	1	Yes	07-Sep-12	CM/KR	100
AE-027	398493	5925766	100-500560-248839-952068	180-579900-47200		Unnamed	1	Yes	07-Sep-12	CM/KR	100
AE-028	399141	5926350	100-500560-248839-945420		45420	Unnamed	1	Yes	07-Sep-12	CM/KR	100
AE-029	398755	5927466	100-567134-581072-604068		04068	Unnamed	1	Yes	05-Sep-12	KR/BP	100
AE-030	398735	5927483	100-567134-581072	180-579900		Big Bend Creek	1	Yes	05-Sep-12	KR/BP	200
AE-031	397620	5928205	100-567134-581072-558749-382606	180-579900-49900		Unnamed	2	Yes	05-Sep-12	KR/BP	100
AE-032	397510	5928425	100-567134-581072-558749-382606-020991		20991	Unnamed	1	Yes	05-Sep-12	KR/BP	100

AE-033	397500	5928478	100-567134-581072-558749		58749	Unnamed	1	Yes	05-Sep-12	KR/BP	100
AE-034	396586	5930125	100-567134-581072-548781		48781	Unnamed	2	Yes	05-Sep-12	KR/BP	100
AE-035	396138	5930775	100-567134-581072-492383	180-579900-409000		Unnamed	1	Yes	05-Sep-12	KR/BP	100
AE-036	395000	5932174	100-567134-581072-457721		57721	Unnamed	1	Yes	30-Aug-12	BP/KR	100
AE-037	394928	5932548	100-567134-581072	180-579900		Big Bend Creek	4	Yes	30-Aug-12	CM/BP/KR	200
AE-038	395609	5934044	100-567134-581072-430500	180-579900-14300-23200		Unnamed	2	Yes	30-Aug-12	CM/BP/KR	100
AE-039	395950	5934959	100-567134-581072-295086-387727		87727	Unnamed	1	Yes	30-Aug-12	CM/BP/KR	100
AE-040	395994	5936044	100-567134-581072-295086-499654-138603		38603	Unnamed	2	Yes	30-Aug-12	CM/BP/KR	100
AE-041	396111	5936291	100-567134-581072-295086-499654		99654	Unnamed	1	Yes	30-Aug-12	CM/BP/KR	100
AE-042	398836	5937303	100-567134-069486-983379-824188-625326		25326	Unnamed	1	Yes	30-Aug-12	CM/BP/KR	100
AE-043	399931	5937318	100-567134-069486-983379-852626		52626	Unnamed	1	Yes	30-Aug-12	CM/BP/KR	100
AE-044	401200	5937370	100-567134-069486-983379	180-069000-98200		Finger Creek	10	Yes	30-Aug-12	CM/BP/KR	200
AE-045	406843	5938277	100-567134-069486-983379-338511	180-069000-98200-31000		Roy Creek	2	Yes	28-Aug-12	CM/BP/KR	200
AE-046	407942	5938860	100-567134-069486-983379-338511-133482		33482	Unnamed	2	Yes	28-Aug-12	CM/BP/KR	100
AE-047	409037	5939951	100-567134-069486-983379-238456-464522		64522	Unnamed	1	Yes	28-Aug-12	CM/BP/KR	100
AE-048	408884	5940443	100-567134-069486-983379-238456-489341		89341	Unnamed	1	Yes	30-Aug-12	CM/BP/KR	100
AE-049	409226	5941021	100-567134-069486-983379-238456	180-069000-98200-20500		Cabin Creek	2	Yes	27-Aug-12	CM/BP/KR	100
AE-050	409244	5941575	100-567134-069486-983379-238456-592177		92177	Unnamed	1	No			
AE-051	409250	5941718	100-567134-069486-983379-238456-607996		07996	Unnamed	1	No			

AE-052	409226	5941937	100-567134-069486-983379-238456-626232		26232	Unnamed	1	Yes	28-Aug-12	CM/BP/KR	100
AE-053	409648	5942978	100-567134-069486-983379-238456-720549-229209		29209	Unnamed	2	Yes	28-Aug-12	CM/BP/KR	100
AE-054	409767	5945517	100-567134-069486-983379-238456-720549-630462		30462	Unnamed	1	No			
AE-055	409828	5945915	100-567134-483452-693735-476207-081537		81537	Unnamed	2	Yes	27-Aug-12	CM/BP/KR	200
AE-056	410190	5946427	100-567134-483452-693735-476207-081537-326085		26085	Unnamed	1	Yes	27-Aug-12	CM/BP/KR	100
AE-057	411427	5947301	100-567134-483452-693735-476207	180-481700-67800-49600		Unnamed	3	Yes	23-Aug-12	CM/BP/KR	200
AE-058	411598	5947974	100-567134-483452-693735-476207-298703		98703	Unnamed	2	Yes	27-Aug-12	CM/BP/KR	100
AE-059	411520	5948874	100-567134-483452-693735-383595	180-481700-67800-39600		Unnamed	2	Yes	27-Aug-12	CM/BP/KR	100
AE-060	411412	5949798	100-567134-483452-693735-383595-196153		96153	Unnamed	1	Yes	27-Aug-12	CM/BP/KR	100
AE-061	411449	5951023	100-567134-483452-693735-370833		70833	Unnamed	1	Yes	27-Aug-12	CM/BP/KR	100
AE-062	411475	5951866	100-567134-483452-693735-324533		24533	Unnamed	2	Yes	07-Aug-12	CR/LN	100
AE-063	411682	5953576	100-567134-483452-693735-181095	180-481700-67800-18200		Unnamed	2	Yes	22-Aug-12	CM/BP/KR	100
AE-064	411597	5954813	100-567134-483452-693735-181095-182409	180-481700-67800-18200-1390-0980		Unnamed	1	Yes	22-Aug-12	CM/BP/KR	100
AE-065	411643	5960366	100-567134-483452-630755-562355		62355	Unnamed	2	Yes	22-Aug-12	CM/BP/KR	100
AE-066	411710	5960649	100-567134-483452-630755		30755	Unnamed	2	No			
AE-067	411854	5961123	100-567134-483452-614607-017175		17175	Unnamed	1	No			
AE-068	412429	5962525	100-567134-483452-614607	180-481700-58800		Unnamed	3	Yes	23-Aug-12	CM/BP/KR	200
AE-069	412778	5963348	100-567134-269222-562302-	180-271000-		Unnamed	4	Yes	22-Aug-12	CM/BP/	100

			669670-631038	57300						KR	
AE-070	415179	5967852	100-567134-269222-562302	180-271000-57300		Unnamed	1	Yes	22-Aug-12	CM/BP/KR	100
AE-071	415339	5968546	100-567134-269222-562302	180-271000-57300		Unnamed	1	Yes	16-Aug-12	LN/BP	50
AE-072	416768	5970625	100-567134-269222-562302-308076	180-271000-57300-38100		Unnamed	1	Yes	17-Aug-12	LN/BP	100
AE-073	416787	5971489	100-567134-269222-562302-169262	180-271000-57300-18800-2780		Unnamed	2	Yes	17-Aug-12	LN/BP	100
AE-074	416790	5971776	100-567134-269222-562302-169262-236709	180-271000-57300-18800		Unnamed	2	Yes	17-Aug-12	LN/BP	100
AE-075	416805	5973117	100-567134-269222	180-271000		Stony Creek	20	Yes	15-Aug-12	LN/BP	145
AE-076	416816	5973555	100-567134-269222-672757	180-271000-67300		North Stony Creek	1	Yes	07-Aug-12	BP,BP,CR,LN	185
AE-077	416824	5974029	100-567134-269222-672757-125735		25735	Unnamed	1	Yes	16-Sep-12	LN/BP	50
AE-078	415960	5975079	100-567134-269222-288930		88930	Unnamed	1	Yes	16-Sep-12	LN/BP	50
AE-079	414683	5975496	100-567134-269222-288930-556932-251731		51731	Unnamed	1	Yes	16-Sep-12	LN/BP	50
AE-080	414397	5975597	100-567134-269222-288930-556932	180-271000-30100		Unnamed	3	Yes	16-Sep-12	LN/BP	50
AE-081	413738	5975813	100-567134-269222-288522		88522	Unnamed	2	Yes	16-Sep-12	LN/BP	50
AE-082	413634	5975847	100-567134-269222-288522-346226		46226	Unnamed	1	Yes	16-Sep-12	LN/BP	50
AE-083	411962	5976376	100-567134-269222-288477-131554-522552	180-271000-29700-10700-54600		Unnamed	1	Yes	16-Sep-12	LN/BP	50
AE-084	411724	5976452	100-567134-269222-288477-131554-526972	180-271000-29700-10700-54600		Unnamed	1	Yes	16-Sep-12	LN/BP	50
AE-085	411284	5976625	100-567134-269222-288477-131554-612428		12428	Unnamed	1	Yes	16-Sep-12	LN/BP	50
AE-086	411261	5976680	100-567134-269222-288477-131554	180-271000-29700-1070		Unnamed	2	Yes	16-Sep-12	LN/BP	50

AE-087	411253	5977166	100-567134-269222-288477-309940		09940	Unnamed	1	Yes	16-Sep-12	LN/BP	50
AE-088	411267	5977697	100-567134-269222-288477-509812		09812	Unnamed	1	Yes	16-Sep-12	LN/BP	50
AE-089	411279	5978121	100-567134-269222-288477	180-271000-29700		Tachick Creek	2	Yes	16-Sep-12	LN/BP	50
AE-090	411290	5978540	100-567134-269222-288477-579865		79865	Unnamed	1	Yes	16-Sep-12	LN/BP	50
AE-091	411216	5980191	100-567134-269222-164824-819166-584924	180-271000-17100-81200-0250		Unnamed	1	Yes	16-Sep-12	LN/BP	50
AE-092	411125	5980239	100-567134-269222-164824-820757-134845-301013		01013	Unnamed	1	Yes	16-Sep-12	LN/BP	50
AE-093	411038	5980286	100-567134-269222-164824-820757-134845		34845	Unnamed	1	Yes	16-Sep-12	LN/BP	50
AE-094	410314	5980829	100-567134-269222-164824-820757	180-271000-17100-81200		Unnamed	1	Yes	16-Sep-12	LN/BP	100
AE-095	410146	5981532	100-567134-269222-164824-882208		82208	Unnamed	1	Yes	16-Sep-12	LN/BP	50
AE-096	409318	5983859	100-567134-321619-591319-301392-213098		13098	Unnamed	1	Yes	16-Sep-12	LN/BP	50
AE-097	410105	5984706	100-567134-321619-591319-301392-213098		13098	Unnamed	3	Yes	16-Sep-12	LN/BP	50
AE-098	410558	5985088	100-567134-321619-591319-301392-213098-437113		37113	Unnamed	1	Yes	16-Sep-12	LN/BP	50
AE-099	411348	5985439	100-567134-321619-591319-301392-213098-249376		49376	Unnamed	1	Yes	16-Sep-12	LN/BP	100
AE-100	411775	5985542	100-567134-321619-591319-301392-213098-205713		05713	Unnamed	1	Yes	16-Sep-12	LN/BP	50
AE-901	413021	5985748	100-567134-321619		21619	Unnamed		Yes			
AE-902	413272	5985744	100-567134-321619-902285		02285	Unnamed		Yes			
AE-903	413394	5985741	100-567134-321619-902285-464650		64650	Unnamed		Yes			
AE-904	413757	5986165	100-567134-321619-897217		97217	Unnamed		Yes			
AE-905	413767	5986630	100-567134-321619	180-321200-		Engen		Yes			

				37200		Creek					
AE-906	414052	5987166	100-567134-321619	180-321200-37200		Engen Creek		Yes			
AP-001	376179	5895044	100-567134-610692-671007-505659	180-609800-66100-55900-3270		Unnamed	5	Yes	08-Aug-12	LN/CR/BP/BP	100
AP-002	378148	5896271	100-567134-610692-671007-505659	180-609800-66100-55900-3270		Unnamed	3	Yes	08-Aug-12	LN/CR/BP/BP	200
AP-003	377888	5897849	100-567134-610692-522527-616152		16152	Unnamed	1	Yes	08-Aug-12	LN/CR/BP/BP	100
AP-004	378962	5900138	100-567134-610692-522527	180-609800-48100		Davidson Creek	2	Yes	09-Aug-12	LN/BP	200
AP-005	379062	5901517	100-567134-610692-522527-428073	180-609800-48100-36100		Unnamed	1	Yes	09-Aug-12	LN/BP	200
AP-006	378832	5905763	100-567134-610692-480511-367135		67135	Unnamed	1	Yes	09-Aug-12	CR/BP	100
AP-007	378796	5905952	100-567134-610692-480511	180-609800-39700		Turtle Creek	3	Yes	09-Aug-12	CR/BP	200
AP-901	378853	5901829	ILP 164		164	Unnamed	1	Yes	03-Oct-12	KR/BP	100
AP-902	379035	5902785	ILP 166		166	Unnamed	1	Yes	03-Oct-12	KR/BP	100
AP-903	379109	5903177	ILP 167		167	Unnamed	1	Yes	03-Oct-12	KR/BP	100
TL-003	378678	5896989	100-567134-610692-671007-505659-348488		48488	Unnamed	1	Yes	08-Aug-12	LN/CR/BP/BP	100
TL-004	378937	5900138	100-567134-610692-522527	180-609800-48100		Davidson Creek	2	Yes	09-Aug-12	LN/BP	200
TL-006	378698	5901070	100-567134-610692-522527-428073	180-609800-48100-36100		Unnamed	2	Yes	09-Aug-12	LN/BP	100
TL-008	379475	5905868	100-567134-610692-480511-320606		20606	Unnamed	1	No			
TL-009	379550	5906329	100-567134-610692-480511	180-609800-39700		Turtle Creek	3	Yes	09-Aug-12	CR/BP	100
TL-020	394943	5919947	100-567134-581072-878917-580649		80649	Unnamed	1	Yes	02-Oct-12	KR/BP	100

TL-021	395245	5920052	100-567134-581072-851257	180-579900-88100		Esker Creek	1	Yes	02-Oct-12	KR/BP	100
TL-022	395454	5920126	100-567134-581072-851257	180-579900-88100		Esker Creek	1	Yes	02-Oct-12	KR/BP	100
TL-023	395861	5920724	100-567134-581072-851257	180-579900-88100		Esker Creek	1	Yes	02-Oct-12	KR/BP	100
TL-024	395974	5920952	100-567134-581072-851257-223363		23363	Unnamed	1	Yes	02-Oct-12	KR/BP	100
TL-025	397313	5922083	100-567134-581072	180-579900		Big Bend Creek	8	Yes	02-Oct-12	KR/BP	200
TL-026	398231	5922544	100-567134-581072-796569	180-579900-818000		Unnamed	3	Yes	04-Oct-12	KR/BP	10(
TL-027	398270	5923153	100-567134-581072-796569-024088		96569	Unnamed	1	Yes	13-Sep-12	KR/BP	100
TL-029	398372	5924767	100-500560-248839-952068-064975-202289-304738		04738	Unnamed	1	Yes	07-Sep-12	CM/KR	100
TL-030	398378	5924863	100-500560-248839-952068-064975-202289-304738-348773		48773	Unnamed	1	Yes	07-Sep-12	CM/KR	100
TL-031	398387	5924995	100-500560-248839-952068-064975-202289	180-579900-47200-76200		Unnamed	1	Yes	07-Sep-12	CM/KR	100
TL-032	398437	5925770	100-500560-248839-952068	180-579900-47200		Unnamed	1	Yes	07-Sep-12	CM/KR	100
TL-033	398511	5926412	100-500560-248839-945420		45420	Unnamed	1	Yes	07-Sep-12	CM/KR	100
TL-034	398539	5926656	100-567134-581072-604068		04068	Unnamed	1	No			
TL-035	398324	5927399	100-567134-581072	180-579900		Big Bend Creek	5	Yes	05-Sep-12	KR/BP	200
TL-036	397492	5928388	100-567134-581072-558749-382606-020991		20991	Unnamed	1	Yes	05-Sep-12	KR/BP	100
TL-037	397462	5928456	100-567134-581072-558749		58749	Unnamed	1	Yes	05-Sep-12	KR/BP	100
TL-038	396527	5930101	100-567134-581072-548781		48781	Unnamed	2	Yes	05-Sep-12	KR/BP	100
TL-039	395799	5930794	100-567134-581072-492383	180-579900-40900		Unnamed	1	Yes	05-Sep-12	KR/BP	100
TL-040	393494	5932990	100-567134-581072	180-579900		Big Bend Creek	5	Yes	26-Sep-12	KR	200

TL-041	392971	5933488	100-567134-581072-396970		96970	Unnamed	1	Yes	26-Sep-12	KR	100
TL-042	391371	5935203	100-567134-581072-295086	180-579900-14300		Unnamed	1	Yes	26-Sep-12	KR	200
TL-043	389679	5937343	100-567134-581072-246180-131694	180-579900-07800-38200		Unnamed	1	Yes	04-Oct-12	KR/BP	100
TL-044	389457	5938275	100-567134-581072-246180-266430-225232		25232	Unnamed	1	Yes	04-Sep-12	CM/BP	100
TL-045	389360	5938381	100-567134-581072-246180-266430		66430	Unnamed	2	Yes	04-Sep-12	CM/BP	100
TL-046	388866	5938922	100-567134-581072-246180-334534		34534	Unnamed	1	Yes	04-Sep-12	CM/BP	100
TL-047	388056	5939808	100-567134-581072-246180		46180	Unnamed	3	Yes	04-Sep-12	CM/BP	100
TL-048	388007	5940053	100-567134-509773-339107-437144		37144	Unnamed	5	Yes	04-Sep-12	CM/BP	100
TL-049	388035	5941544	100-567134-509773-339107-437144-187893		87893	Unnamed	2	Yes	04-Sep-12	CM/BP	100
TL-050	388619	5942697	100-567134-509773-339107	180-507600-34800		Unnamed	2	Yes	04-Sep-12	CM/BP	100
TL-051	389873	5944049	100-567134-509773-339107-396465		96465	Unnamed	3	Yes	04-Sep-12	CM/BP	100
TL-052	391092	5945331	100-567134-509773-569914	180-507600-60000		Unnamed	3	Yes	04-Sep-12	CM/BP	100
TL-053	391782	5946057	100-567134-509773-561080		61080	Unnamed	1	Yes	04-Sep-12	CM/BP	100
TL-054	391997	5946283	100-567134-509773	180-507600		Swanson Creek	3	Yes	04-Sep-12	CM/BP	100
TL-055	393008	5947843	100-567134-509773-253156-253259-320954	180-507600-26200-24400-4870		Unnamed	13	Yes	10-Sep-12	CM/BP	100
TL-056	393372	5948825	100-567134-509773-253156-253259	180-507600-26200-24400		Unnamed	1	Yes	10-Sep-12	CM/BP	100
TL-057	393715	5949550	100-567134-509773-253156-253259-178981		78981	Unnamed	1	Yes	10-Sep-12	CM/BP	100
TL-058	394228	5950637	100-567134-509773-253156-253259-133188-290089		90089	Unnamed	1	Yes	10-Sep-12	CM/BP	100
TL-059	394442	5950954	100-567134-509773-253156-		33188	Unnamed	2	Yes	10-Sep-12	CM/BP	100

			253259-133188								
TL-060	394624	5951200	100-567134-509773-253156-253259-095526		95526	Unnamed	3	Yes	10-Sep-12	CM/BP	100
TL-061	395173	5951993	100-567134-509773-253156-491243	180-507600-26200-4720		Unnamed	1	Yes	10-Sep-12	CM/BP	100
TL-062	395148	5952129	100-567134-509773-253156	180-507600-26200		Unnamed	3	Yes	10-Sep-12	CM/BP	100
TL-063	395009	5952875	100-567134-509773-253156-403239		03239	Unnamed	1	Yes	10-Sep-12	CM/BP	100
TL-064	395039	5953164	100-567134-509773-253156-365872-219236	180-507600-26200-37900		Unnamed	2	Yes	10-Sep-12	CM/BP	100
TL-065	395431	5954270	100-567134-509773-253156-365872		65872	Unnamed	3	Yes	13-Sep-12	KR/BP	100
TL-066	396471	5955598	100-567134-483452-005364-346411-246527-435740		05364	Unnamed	1	Yes	13-Sep-12	KR/BP	100
TL-067	397350	5956570	100-567134-483452-005364-346411-246527	180-481700-00300-40600		Unnamed	4	Yes	13-Sep-12	KR/BP	100
TL-068	397446	5956883	100-567134-483452-005364-346411-246527-525824		25824	Unnamed	1	Yes	13-Sep-12	KR/BP	100
TL-069	397516	5958047	100-567134-483452-389738-371962		71962	Unnamed	3	Yes	10-Sep-12	CM/BP	100
TL-070	397685	5960186	100-567134-483452-137086-245492	180-481700-11700-23500		Unnamed	1	Yes	23-Oct-12	KR/BP	100
TL-077	396169	5966986	100-567134-470458	180-468600		Unnamed	3	Yes	10-Jan-12	KR/BP	100
TL-071	397727	5960643	100-567134-483452-137086-245492-033396-0940260		94026	Unnamed	1	Yes	23-Oct-12	KR/BP	100
TL-072	397755	5960950	100-567134-483452-137086-245492-033396		33396	Unnamed	3	Yes	23-Oct-12	KR/BP	100
TL-078	396060	5967201	100-567134-470458-453698		53698	Unnamed	1	Yes	01-Oct-12	KR/BP	100
TL-079	395853	5967611	100-567134-461012-218384	180-459300-28700		Unnamed	1	Yes	01-Oct-12	KR/BP	100
TL-080	395727	5967861	100-567134-461012-218384-464433		64433	Unnamed	1	Yes	01-Oct-12	KR/BP	100
TL-081	395490	5968330	100-567134-461012	180-459300		Unnamed	2	Yes	01-Oct-12	KR/BP	100

TL-082	394811	5969541	100-567134		180	Nechako River		Yes			
TL-083	394442	5969934	100-567134-460365-487109		87109			Yes			
TL-084	394395	5969984	100-567134-460365		60365			Yes			
TL-085	394280	5970107	100-567134-460097		60097			Yes			
TL-086	394032	5970371	100-567134-457897		57897			Yes			
TL-087	392913	5971564	100-567134-433409	180-431600		Tahultzu Creek	17	Yes	16-Oct-12	CM/KR	100
TL-089	391957	5972428	100-567134-433409-462023-272390		72390	Unnamed	1	Yes	16-Oct-12	CM/KR	100
TL-090	391362	5972729	100-567134-433409-462023-297592		97592	Unnamed	1	Yes	16-Oct-12	CM/KR	100
TL-091	391055	5972884	100-567134-433409-462023-346377	180-431600-45800-33000		Unnamed	1	Yes	16-Oct-12	CM/KR	100
TL-092	390537	5973365	100-567134-433409-462023	180-431600-45800		Unnamed	1	Yes	16-Oct-12	CM/KR	100
TL-093	390238	5973672	100-567134-433409-462023-675778	180-431600-45800-66000		Unnamed	2	Yes	16-Oct-12	CM/KR	100
TL-094	389185	5974750	100-567134-408281-229646	180-406900-25000		Fifteen Creek	1	Yes	05-Oct-12	BP/KR	100
TL-095	389156	5974780	100-567134-408281-229646-553111	180-406900-25000-55300		Unnamed	3	Yes	22-Oct-12	BP/KR	100
TL-096	388884	5975058	999-999999-999999		99999	Unnamed	1	No			
TL-097	388395	5975856	100-567134-408281-229646-433381		33381	Unnamed	8	Yes	05-Oct-12	KR/BP	100
TL-098	387872	5976614	100-567134-408281-586290		86290	Unnamed	2	Yes	05-Oct-12	KR/BP	100
TL-099	387174	5977096	100-567134-408281-621858		21858	Unnamed	1	Yes	05-Oct-12	KR/BP	100
TL-100	386498	5977434	100-567134-408281	180-406900		Smith Creek	11	Yes	05-Oct-12	BP/KR	200
TL-101	385876	5977692	100-567134-408281-655084	180-406900-70300		Unnamed	2	Yes	09-Oct-12	CM/BP	100
TL-102	385103	5977699	100-567134-408281-655084-074394		74394	Unnamed	1	Yes	09-Oct-12	CM/BP	100
TL-103	382579	5978280	100-567134-374775-709017-097750-893496-904860		04860	Unnamed	1	Yes	09-Oct-12	CM/BP	100

TL-104	380176	5979328	100-567134-374775-948201-138053-203477-401462	180-374000-95200-12500-1560-3230		Unnamed	8	Yes	09-Oct-12	CM/BP	100
TL-105	380129	5979494	100-567134-374775-948201-138053-203477-401462	180-374000-95200-12500-1560-3230		Unnamed	8	Yes	09-Oct-12	CM/BP	100
TL-106	379910	5980259	100-567134-374775-948201-138053-203477	180-374000-95200-12500-1560		Unnamed	24	Yes	09-Oct-12	CM/BP	100
TL-109	377903	5981502	100-567134-374775-948201-138053-203477-507715		07715	Unnamed	1	Yes	10-Oct-12	CM/BP	100
TL-110	377201	5982078	100-567134-374775-948201-138053-203477-365475-729526		29526	Unnamed	1	Yes	10-Oct-12	CM/BP	100
TL-111	376716	5983412	100-567134-374775-709017		09017	Unnamed	1	Yes	10-Oct-12	CM/BP	100
TL-112	376172	5985287	100-567134-374775-709017	180-374000-71300-03070		Unnamed	5	Yes	10-Oct-12	CM/BP	100
TL-113	375887	5985392	100-567134-374775-709017-772324		72324	Unnamed	1	Yes	10-Oct-12	CM/BP	100
TL-114	375770	5985435	100-567134-374775-709017-772324		72324	Unnamed	2	Yes	10-Oct-12	CM/BP	100
TL-115	374734	5985816	100-567134-374775-709017-341978	180-374000-71300		Unnamed	3	Yes	11-Oct-12	CM/BP	100
TL-116	372591	5986603	100-567134-374775-948201-102919-234422		34422			Yes			
TL-117	372152	5986764	100-567134-374775-948201-102919-206654		06654			Yes			
TL-118	371695	5987835	100-567134-374775-948201-095055		95055	Unnamed	1	Yes	11-Oct-12	CM/BP	100
TL-119	371306	5989049	100-567134-374775-948201	180-374000-95200		Stellako River	3	Yes	11-Oct-12	CM/BP	100
TL-121	371105	5989335	100-567134-374775-948201-077318		77318	Unnamed	1	Yes	25-Oct-12	KR/BP	100
TL-124	369910	5991038	100-567134-374775-948201-023010-036907-483445	180-374000-95200-01900-0370-7340		Unnamed	1	Yes	25-Oct-12	KR/BP	100

TL-125	369705	5991332	100-567134-374775-948201-023010-036907	180-374000-95200-01900-0370		Unnamed	2	Yes	25-Oct-12	KR/BP	100
TL-126	369559	5991539	100-567134-374775-948201-023010-036907-554634	180-374000-95200-01900-0370-7250		Unnamed	1	Yes	25-Oct-12	KR/BP	100
TL-127	369148	5992126	100-567134-374775-948201-023010-036907-351538	180-374000-95200-01900-0370-5260		Unnamed	5	Yes	25-Oct-12	KR/BP	100
TL-128	369027	5992299	100-567134-374775-948201-023010-036907-351538-682690		82690	Unnamed	1	Yes	25-Oct-12	KR/BP	100
TL-129	368753	5992690	100-567134-374775-948201-023010-073769	180-374000-95200-01900-0750		Unnamed	1	Yes	19-Oct-12	KR/BP	100
TL-901	378195	5895475	100-567134-610692-671007-505659-146920	180-609800-66100-55900		Unnamed	11	Yes	24-Sep-12	CM/BP	100
TL-902	378530	5895989	100-567134-610692-671007-505659-146920	180-609800-66100-55900		Unnamed	11	Yes	24-Sep-12	CM/BP	100
TL-903	378657	5896849	100-567134-610692-671007-505659	180-609800-66100-55900-3270		Unnamed	3	Yes	08-Aug-12	CR/BP/BP/LN	200
TL-904	379070	5899656	100-567134-610692-579340-841297		41297	Unnamed	2	Yes	24-Sep-12	CM/BP	100
TL-905	378818	5900568	100-567134-610692-522527-428073-240670	180-609800-48100-36100-3340		Unnamed	1	Yes	25-Sep-12	KR/BP	100
TL-906	378731	5900880	100-567134-610692-522527-428073-240670	180-609800-48100-36100-3340		Unnamed	1	Yes	25-Sep-12	KR/BP	100
TL-907	378744	5901357	100-567134-610692-522527-428073	180-609800-48100-36100		Unnamed	6	Yes	09-Aug-12	LN/BP	100
TL-908	378755	5901421	100-567134-610692-522527-428073	180-609800-48100-36100		Unnamed	6	Yes	09-Aug-12	LN/BP	100
TL-909	379395	5905371	100-567134-610692-480511-367135		67135	Unnamed	1	Yes	09-Aug-12	CR/BP	100

TL-917	387970	5909923	100-567134-610692-522107-063231	180-609800-48200-06400		Unnamed	1	Yes	10-Aug-12	CR/LN	200
TL-918	388919	5910348	100-567134-610692-522107-202099	180-609800-48200-21431		Unnamed	1	No			
TL-919	390670	5911843	100-567134-610692-522107-293732		93732	Unnamed	2	Yes	21-Sep-12	KR/BP	100
TL-920	390678	5912378	100-567134-610692-522107-293732		93732	Unnamed	1	Yes	21-Sep-12	KR/BP	100
TL-921	390689	5913123	100-567134-610692-522107-063231	180-609800-48200-06400-3440		Unnamed	3	Yes	21-Sep-12	KR/BP	100
TL-922	395137	5953444	100-567134-509773-253156-365872-219236-346720		46720	Unnamed	1	Yes	25-Sep-12	BP/KR	100
TL-923	395151	5953486	100-567134-509773-253156-365872-219236-346720		46720	Unnamed	1	Yes	25-Sep-12	BP/KR	100
TL-924	397608	5959344	100-567134-483452-137086-245492-347825		47825	Unnamed	1	Yes	23-Sep-12	KR/BP	100
TL-925	398177	5962691	100-567134-483452-187388		87388	Unnamed	1	Yes	23-Sep-12	KR/BP	100
TL-926	398891	5963572	100-567134-483452-213652		13652	Unnamed	1	Yes	23-Sep-12	KR/BP	100
TL-927	398793	5964129	100-567134-483452-214341		14341	Unnamed	1	Yes	23-Sep-12	KR/BP	100
TL-928	398749	5964323	100-567134-483452	180-481700		Greer Creek	6	Yes	23-Sep-12	KR/BP	100
TL-929	398008	5965217	100-567134-483452-240382		40382	Unnamed	1	Yes	01-Oct-12	KR/BP	100
TL-930	397953	5965259	100-567134-483452-240382-601013		01013	Unnamed	1	Yes	01-Oct-12	KR/BP	100
TL-931	397680	5965468	100-567134-483452-240382-601013		01013	Unnamed	1	Yes	01-Oct-12	KR/BP	100
TL-932	397541	5965574	999-999999-999999-999999-999999		99999	Unnamed	0	No			
TL-933	390950	5972943	100-567134-433409-462023-346377-400063		00063	Unnamed	1	Yes	16-Oct-12	KR/BP	100
TL-934	379704	5980890	100-567134-374775-948201-138053-203477-610013		10013	Unnamed	2	Yes	10-Oct-12	CM/BP	100
TL-935	379468	5981364	100-567134-374775-948201-138053-203477-610013		10013	Unnamed	2	Yes	10-Oct-12	CM/BP	100

TL-936	371416	5988737	100-567134-374775-948201-079597		79597	Unnamed	1	Yes	11-Oct-12	CM/BP	100
TL-937	371321	5989026	100-567134-374775-948201	180-374000-95200	48201	Stellako River	3	Yes	11-Oct-12	CM/BP	100
TL-938	370276	5990517	100-567134-374775-948201-067903	180-374000-95200-06500		Unnamed	1	Yes	25-Oct-12	KR/BP	100
TL-939	378821	5901829	ILP 164		164	Unnamed	1	Yes	03-Oct-12	KR/BP	100
TL-940	378969	5902741	ILP 166		166	Unnamed	1	Yes	03-Oct-12	KR/BP	100
TL-941	379022	5903073	ILP 167		167	Unnamed	1	Yes	03-Oct-12	KR/BP	100
TL-942	382721	5908714	100-567134-610692-480511	180-609800-39700		Unnamed	1	Yes	15-Aug-12	BP/CR	200
TL-943	383323	5909054	100-567134-610692-480511		80511	Turtle Creek	1	Yes	10-Aug-12	BP/BP	200
TL-944	383938	5909420	100-567134-610692	180-609800		Chedakuz Creek	1	Yes	15-Aug-12	BP/CR	200
TL-945	384153	5909432	100-567134-610692-494661	180-609800-45100		Unnamed	1	No			
TL-946	385652	5909519	100-567134-610692-513545	180-609800-47584		Unnamed	1	Yes	09-Aug-12	CR/BP	100
TL-947	386120	5909546	100-567134-610692-520894		20894	Unnamed	1	Yes	09-Aug-12	LN/BP	140

C. Historical Fish Information and Prior Classifications By Crossing

Potential for fish-bearing status of the mapped drainages at locations crossed by project infrastructure and classifications from 2002-2006. Where no fish information is given, no observations were recorded in any reach upstream of the site, in the next downstream reach, or if reach 1, in the next ordered stream.

Site ID	Map interpreted potential for fish-bearing status of crossed drainages	Previous Classification†	Year Prev. Classed
AE-001	tributary to fish-bearing Chedakuz Creek	NVC	2006
AE-002	tributary to fish-bearing Chedakuz Creek	S3	2006
AE-003	Chedakuz Creek. Known fish bearing	S2	2006
AE-004	tributary to fish-bearing Chedakuz Creek	NCD	2002
AE-005	tributary to fish-bearing Chedakuz Creek	NCD	2002
AE-006	tributary to fish-bearing Chedakuz Creek	NVC	2002
AE-007	unidentified fish observed in upstream reaches	S3	2002
AE-008	unidentified fish obs in small lake upstream	NCD	2002
AE-009	tributary to fish-bearing Mills lake	S6	2003
AE-010	unidentified spp obs in same reach	S6	2003
AE-011	tributary to fish-bearing stream	NVC	2002
AE-012	tributary to fish-bearing stream	NCD	2003
AE-013	unidentified spp observed in same reach	S4	2003
AE-014	rainbow trout obs in same reach	S4	2003
AE-015	unidentified fish observed in small lake upstream	NCD	2003
AE-016	tributary to Chutani Lake	NCD	2002
AE-017	unidentified fish obs in same reach	NVC	2002
AE-018	unidentified fish obs in next ordered stream	NVC	2002
AE-019	unidentified fish obs in same reach	S4	2002
AE-020	unidentified fish obs in same reach	S4	2002
AE-021	rainbow trout obs in same reach	S3	2003
AE-022	unidentified fish obs in next ordered stream	NCD	2002
AE-023	unidentified fish obs in next ordered stream	NCD	2002
AE-024	unidentified fish obs in next ordered stream	NPC	2002
AE-025	unidentified fish obs in next ordered stream	NCD	2002
AE-026	unidentified spp obs upstream near small lake	NCD	2002
AE-027	fish obs in u/s reaches	NCD	2002
AE-028	tributary to fish bearing lake	NCD	2002
AE-029	unidentified spp obs in next ordered stream	NCD	2002
AE-030	unidentified spp in downstream reach	S3	2002
AE-031	unidentified spp obs d/s near confluence	S3	2002
AE-032	tributary to fish bearing stream	NVC	2002
AE-033	tributary to fish bearing stream	NVC	2002
AE-034	tributary to fish bearing stream	NVC	2002
AE-035	fish bearing, rainbow trout identified upstream	S4	2002

AE-036	tributary to fish bearing reach	NPC	
AE-037	unidentified spp obs in same reach	NPC	
AE-038	tributary to small fish bearing lake	NPC	
AE-039	unidentified spp obs in next ordered stream	NCD	2002
AE-040	No fish obs.	S6	2002
AE-041	No fish obs.	NCD	2002
AE-042	tributary to small fish bearing lake	NPC	
AE-043	tributary to small fish bearing lake	NPC	
AE-044	unidentified spp obs in same reach	S3	2002
AE-045	sucker and spp obs in next ordered stream	S3	2002
AE-046	tributary to fish bearing stream	NVC	2002
AE-047	tributary to fish bearing stream	NVC	2002
AE-048	unidentified spp obs in upstream reach	S4	2005
AE-049	rainbow trout obs in same reach	S3	2006
AE-050	tributary to fish bearing stream	NVC	2006
AE-051	tributary to fish bearing stream	NVC	2006
AE-052	tributary to fish bearing stream	NCD	2002
AE-053	tributary to small fish bearing lake	S6	2006
AE-054	tributary to small fish bearing lake	NCD	2006
AE-055	unidentified spp observed in same reach	S4	2006
AE-056	unidentified spp obs in lower reach	S4	2002
AE-057	unidentified spp obs in upstream reaches	S3	2002
AE-058	tributary to fish bearing stream	S6	2005
AE-059	tributary to fish bearing stream	S3	2002
AE-060	No fish obs.	NVC	2002
AE-061	tributary to fish bearing stream	S4	2002
AE-062	unidentified fish obs in same reach	NVC	2002
AE-063	tributary to fish bearing stream	S4	2002
AE-064	tributary to fish bearing stream	S4	2002
AE-065	No fish obs.	S4	2002
AE-066	No fish obs.	NVC	2002
AE-067	tributary to fish bearing stream	NCD	2002
AE-068	many observations including rainbow trout.	S2	2002
AE-069	unidentified spp obs in smal lake in next tributary	S4	2002
AE-070	rainbow trout obs in small lake downstream	S4	2002
AE-071	rainbow trout obs in same reach	S3	2004
AE-072	unidentified spp in next ordered stream	S4	2004
AE-073	unidentified spp in next ordered stream	S4	2004
AE-074	unidentified spp obs in upstream reaches	S4	2004
AE-075	rainow trout observed upstream	NPC	
AE-076	unidentified spp obs in same reach	S4	2004
AE-077	tributary to fish bearing stream	NCD	2004

AE-078	No fish obs.	NPC	
AE-079	No fish obs.	NPC	
AE-080	No fish obs.	NPC	
AE-081	No fish obs.	NPC	
AE-082	No fish obs.	NPC	
AE-083	tributary to fish bearing stream	NPC	
AE-084	tributary to fish bearing stream	NPC	
AE-085	tributary to fish bearing stream	NPC	
AE-086	unidentified spp obs in same reach	NPC	
AE-087	No fish obs.	NPC	
AE-088	tributary to fish bearing stream	NPC	
AE-089	unidentified spp obs in upstream and downstream reaches	NPC	
AE-090	tributary to fish bearing stream	NPC	
AE-091	tributary to small fish bearing lake	NPC	
AE-092	No fish obs.	NPC	
AE-093	tributary to fish bearing stream	NPC	
AE-094	unidentified spp obs in downstream reach	NPC	
AE-095	No fish obs.	NPC	
AE-096	No fish obs.	NPC	
AE-097	No fish obs.	NPC	
AE-098	No fish obs.	NPC	
AE-099	No fish obs.	NPC	
AE-100	No fish obs.	NPC	
AE-901	unidentified spp obs in next ordered stream	NPC	
AE-902	unidentified spp obs in next ordered stream	NPC	
AE-903	unidentified spp obs in next ordered stream	NPC	
AE-904	unidentified spp obs in next ordered stream	NPC	
AE-905	unidentified spp obs in small lake downstream	NPC	
AE-906	unidentified spp obs in small lake downstream	NPC	
AP-001	unidentified spp obs downstream near confluence	NCD	2006
AP-002	unidentified spp obs downstream near confluence	S3	2006
AP-003	tributary to fish bearing stream	NCD	2006
AP-004	unidentified spp obs in downstream reach	S3	2006
AP-005	unidentified fish obs near small lake pstream	S4	2004
AP-006	tributary to fish-bearing stream	NPC	
AP-007	Turtle Creek. Known fish bearing	S3	2006
AP-901	No fish obs.	NCD	2004
AP-902	No fish obs.	NCD	2004
AP-903	No fish obs.	NCD	2004
TL-003	No fish obs.	NCD	2006
TL-004	unidentified spp obs in upstream reaches	S3	2002

TL-006	tributary to fish bearing lake	NCD	2004
TL-008	tributary to fish bearing creek	NCD	2004
TL-009	Turtle Creek. Known fish bearing	S3	2006
TL-020	tributary to fish bearing stream	NCD	2003
TL-021	unidentified spp obs in upstream reaches	S3	2003
TL-022	unidentified spp obs in upstream reaches	S3	2003
TL-023	unidentified spp obs in upstream reaches	S3	2003
TL-024	tributary to fish bearing stream	NVC	2003
TL-025	prickly sculpin and rainbow trout obs u/s	S3	2003
TL-026	tributary to fish bearing stream	NCD	2002
TL-027	No fish obs.	NCD	2002
TL-029	No fish obs.	NCD	2002
TL-030	No fish obs.	NCD	2002
TL-031	fish obs u/s near lake outlet	NCD	2002
TL-032	fish obs in u/s reaches	NCD	2002
TL-033	tributary to fish-bearing stream	NCD	2002
TL-034	tributary to fish-bearing stream	NCD	2002
TL-035	fish obs in u/s reaches	S3	2002
TL-036	No fish obs.	NVC	2002
TL-037	No fish obs.	NVC	2002
TL-038	tributary to fish-bearing stream	NVC	2002
TL-039	fish obs in u/s reaches	S4	2002
TL-040	unidentified fish obs in same reach	NPC	
TL-041	tributary to fish bearing stream	NCD	2002
TL-042	fish observed in u/s tributaries	NPC	
TL-043	tributary to fish bearing stream	NCD	2003
TL-044	No fish obs.	NCD	2002
TL-045	No fish obs.	NCD	2002
TL-046	tributary to fish bearing stream	NVC	2002
TL-047	No fish obs.	NPC	
TL-048	No fish obs.	NPC	
TL-049	tributary to fish bearing stream (rainbow trout obs)	NPC	
TL-050	tributary to fish bearing stream (rainbow trout obs)	NPC	
TL-051	none	NPC	
TL-052	none	NPC	
TL-053	tributary to fish bearing stream	NPC	
TL-054	rainbow trout obs in same reach	NPC	
TL-055	unidentified spp obs in next ordered stream	NPC	
TL-056	unidentified spp obs d/s at confluence	NPC	
TL-057	tributary to fish bearing stream	NPC	
TL-058	No fish obs.	NPC	
TL-059	No fish obs.	NPC	

TL-060	tributary to fish bearing stream	NPC
TL-061	unidentified spp obs d/s at confluence	NPC
TL-062	unidentified spp obs d/s at confluence	NPC
TL-063	unidentified spp obs in next ordered stream	NPC
TL-064	unidentified spp obs upstream	NPC
TL-065	No fish obs.	NPC
TL-066	unidentified spp obs d/s in next ordered stream	NPC
TL-067	unidentified spp obs d/s in next ordered stream	NPC
TL-068	unidentified spp obs d/s in next ordered stream	NPC
TL-069	unidentified spp obs d/s in next ordered stream	NPC
TL-070	unidentified spp obs d/s in next ordered stream	NPC
TL-071	unidentified spp obs d/s in next ordered stream	NPC
TL-072	unidentified spp obs d/s in next ordered stream	NPC
TL-077	unidenfied spp obs in same reach	NPC
TL-078	unidentified spp obs d/s in next ordered stream	NPC
TL-079	unidentified spp obs d/s in next ordered stream	NPC
TL-080	unidentified spp obs d/s in next ordered stream	NPC
TL-081	unidentified spp obs d/s in next ordered stream	NPC
TL-082	Many observations- Nechako River	NPC
TL-083	No fish obs.	NPC
TL-084	direct tributary to fish-bearing Nechako River	NPC
TL-085	direct tributary to fish-bearing Nechako River	NPC
TL-086	No fish obs.	NPC
TL-087	fish obseved d/s near confluence	NPC
TL-089	direct tributary to fish-bearing Dorman Lake	NPC
TL-090	direct tributary to fish-bearing Dorman Lake	NPC
TL-091	direct tributary to fish-bearing Dorman Lake	NPC
TL-092	unidentified spp obs in next ordered stream	NPC
TL-093	unidentified spp obs in downstream reach	NPC
TL-094	Fifteen Creek – many fish observations	NPC
TL-095	direct tributary to Fifteen Creek	NPC
TL-096	No fish obs.	NPC
TL-097	unidentified spp obs in next ordered stream	NPC
TL-098	unidentified spp obs in next ordered stream	NPC
TL-099	No fish obs.	NPC
TL-100	unidentified spp obs in downstream reach	NPC
TL-101	unidentified spp obs in downstream reach	NPC
TL-102	unidentified spp obs in next ordered stream	NPC
TL-103	direct trib to small fish-bearing lake	NPC
TL-104	unidentified spp obs in upstream reach	NPC
TL-105	No fish obs.	NPC

TL-106	many unidentified spp obs in this reach, rainbow trout identified in next ordered stream	NPC	
TL-109	No fish obs.	NPC	
TL-110	No fish obs.	NPC	
TL-111	unidentified spp obs in next ordered stream	NPC	
TL-112	unidentified spp obs upstream	NPC	
TL-113	unidentified spp obs in next ordered stream	NPC	
TL-114	unidentified spp obs in next ordered stream	NPC	
TL-115	unidentified spp obs in same reach	NPC	
TL-116	tributary to fish bearing stream	NPC	
TL-117	tributary to fish bearing stream	NPC	
TL-118	direct tributary to Stellako River	NPC	
TL-119	Stellako River. Known fish bearing incl salmon.	NPC	
TL-121	direct tributary to Stellako River	NPC	
TL-124	tributuary to fish-bearing stream	NPC	
TL-125	fish obseved d/s near confluence	NPC	
TL-126	tributuary to fish-bearing stream	NPC	
TL-127	No fish obs.	NPC	
TL-128	No fish obs.	NPC	
TL-129	unidentified spp obs upstream	NPC	
TL-901	unidentified spp obs in downstream reach	S3	2006
TL-902	unidentified spp obs in downstream reach	S3	2006
TL-903	unidentified spp obs downstream near confluence	S3	2006
TL-904	tributary to Snake Lake	NVC	2006
TL-905	unidentified spp obs in small lake	FSZ	2004
TL-906	tributary to fish bearing lake	NCD	2004
TL-907	unidentified spp obs in small lake	NPC	
TL-908	unidentified spp obs in same reach	NPC	
TL-909	tributary to fish bearing stream	NPC	
TL-917	unidentified fish obs in upstream reaches	S3	2002
TL-918	unidentified fish obs upstream near small lake	NCD	2002
TL-919	No fish obs.	NCD	2002
TL-920	No fish obs.	NCD	2002
TL-921	unidentified spp obs in upstream reaches	S3	2002
TL-922	tributary to fish stream	NPC	
TL-923	tributary to fish stream	NPC	
TL-924	unidentified spp obs d/s in next ordered stream	NPC	
TL-925	direct tributary to fish-bearing Greer Creek	NPC	
TL-926	direct tributary to fish-bearing Greer Creek	NPC	
TL-927	direct tributary to fish-bearing Greer Creek	NPC	
TL-928	many observations- Greer Creek	NPC	
TL-929	No fish obs.	NPC	

TL-930	No fish obs.	NPC	
TL-931	No fish obs.	NPC	
TL-932	No fish obs.	NPC	
TL-933	unidentified spp obs d/s in next ordered stream	NPC	
TL-934	unidentified spp obs in next ordered stream	NPC	
TL-935	unidentified spp obs in next ordered stream	NPC	
TL-936	tributary to Stellako River	NPC	
TL-937	Stellako River. Known fish bearing incl salmon.	NPC	
TL-938	direct tributary to Stellako River	NPC	
TL-939	No fish obs.	NCD	2004
TL-940	No fish obs.	NCD	2004
TL-941	No fish obs.	NCD	2004
TL-942	tributary to fish-bearing Chedakuz Creek	NVC	2006
TL-943	tributary to fish-bearing Chedakuz Creek	S3	2006
TL-944	fish bearing. Chedakuz Creek.	S2	2006
TL-945	tributary to fish bearing stream	NCD	2002
TL-946	tributary to fish bearing stream	NCD	2002
TL-947	tributary to fish bearing stream	NVC	2002

†Fish streams are classified S1–S4. Class S1 streams are > 20 m wide; S2 streams are > 5 - 20 m wide; S3 streams are 1.5 - 5 m wide; and S4 streams are < 1.5 m wide. Streams without fish are classified S5 or S6. Class S5 streams are > 3 m wide, and S6 streams are < 3 m wide. NCD = non-classified drainage, NVC = no visible channel, NPC = no previous classification information was available.

D. Field Observations for All Non-Classified Drainages

Site ID	Comments	2013 Re-Sample
AE-004	Not visited. Assume prev. classification.	No
AE-005	Some ponded water at culvert, but no scoured channel.	No
AE-008	Not visited. Assume prev. classification.	No
AE-011	Waterline is in dry pine flat. No stream found.	No
AE-012	No culvert at crossing. No drainage found to cross within 100m of site. Weak channel 10m to the south running parallel to road.	No
AE-015	Pooled water in depressed area. No channel or sign of flow.	No
AE-016	Moist depression. No channel, water, or alluvial deposits.	No
AE-017	Ponded water with no connectivity between pools. No channel.	No
AE-018	Some muddy pockets in alder stand. No channel, water, or deposition.	No
AE-023	No channel or any indicator of seasonal drainage. Some mature aspen indicating moist soil.	No
AE-024	Mossy coniferous area along plantation. No scoured channel.	No
AE-025	Some scouring, but none over 10m. Mostly saturated soil with moss and horsetail.	No
AE-026	No water or channel.	No
AE-027	Pooled water with no continuous channel.	No
AE-028	Some channeling and pools of water but not continuous.	No
AE-029	Willow swale. No culvert at crossing.	No
AE-031	Dry and vegetated drainage with no sign of recent flow. No continuous channel. Gulley upstream.	Yes. Prev. classed as fish-bearing S3.
AE-032	Moisture loving plants, but no open water, channel, or culvert at crossing.	No
AE-033	A few aspen, but otherwise no evidence of a waterway. No culvert at crossing.	No
AE-034	Some evidence of flow upstream of road, but no scoured channel or culvert at crossing.	No
AE-036	Dry and vegetated. Gulley upstream of road, but no scoured channel.	No
AE-038	No scouring, no water water, no alluvial deposits.	No
AE-039	No scouring, no water, no alluvial deposits.	No
AE-040	Evidence of past ponding, but no channel.	No
AE-041	No scouring, water, no alluvial deposits.	No
AE-042	No scouring, water, no alluvial deposits.	No
AE-043	70m of scoured channel in this reach. Flows out of wetland and dissipates.	No
AE-047	No scouring, water, no alluvial deposits.	No
AE-052	Some scouring downstream of culvert, likely due to cutblock run-off. Not enough to be a stream.	No
AE-054	Not visited. Headwater or previously classed NCD reach.	No

AE-060	No channel, but pooled water 4-8m wide. Red colouration and algae present. Fish-bearing waters d/s - sampled to determine FSZ. NFC.	No
AE-061	No channel or alluvial deposits. Silt over leaf litter to indicate past runoff.	Yes, prev. classed as S4 with fish obs.
AE-062	Small, dry pockets in low lying areas. No connectivity to fish-bearing waters.	No
AE-063	80m of poorly scoured channel. Stagnant water. No flow or definite scouring. No alluvial deposits.	No
AE-064	Scoured sections, but none over 10m in lenth. Some pooling, but no continuous channel or alluvial deposits.	No
AE-065	No scoured channel or alluvial deposits. Evidence of snowmelt runoff at culvert.	No
AE-067	Not visited. Assume previous classification.	No
AE-069	Ponded water in wetland type with limited to no connectivity between pools.	No
AE-077	Private property u/s and d/s but obvious NCD from rd. Hayfields on both sides-no drainage structure at crossing.	No
AE-078	Hayfields. No drainage structure at crossing. No indication of water except for a few aspen.	No
AE-079	Some dry pockets near culvert, but no scoured channel or alluvial deposits.	No
AE-080	Small drainage through moist soil type and farmers field. No evidence of a channel. Dry and vegetated at time of survey.	No
AE-081	No sign of a channel or recent flow. Some moisture loving spp indicate wetter soil type. No drainage structure at crossing.	No
AE-082	No drainage structure at crossing. No sign of water, scouring, or alluvial deposits.	No
AE-083	Willow and aspen to indicate moist ground, but no channel, scour or alluvial deposits observed.	No
AE-084	Weak channel u/s but discontinuous and no connectivity to culvert at crossing. No definite channel d/s, only occasional dry pockets. Private property (fields) both sides of crossing.	No
AE-085	u/s is farmer's field w/lagoon. d/s some Aspen, but no sign of water or channel. No drainage structure at crossing.	No
AE-086	Large watering hole u/s, dry and vegetated d/s. Private property both sides. No sign of water or a channel.	No
AE-087	Private property both sides of crossing. Cattle grazing. Ponded water upstream that appears to have come from ditchline. Drainage dissipates d/s of culvert. No channel on either side.	No
AE-088	A dry and vegetated depression along slight hillslope. No sign of a channel or recent flow.	No
AE-089	Lower reaches of Tachick are fish bearing; historical beaver issues along stream. This reach impacted by cattle grazing and no channel is evident. No water beyond small pool at culvert inlet. Some rocky substrate, but likely from road crossing.	No

AE-090	Rancher's fields on both sides of crossing. No sign of a channel, alluvial deposits, or flow. Dry and vegetated.	No
AE-091	Dry draw from rancher's property. Culvert at crossing appears to drain ditchline. No channel and culvert is infilled with sediment.	No
AE-092	Dry and vegetated aspen swale. No sign of scour or water. Old cutblock u/s, now used for grazing.	No
AE-093	Dry draw with aspen but no sign of water or a channel. Rancher's property u/s.	No
AE-094	Dry and vegetated gulley. Some dry pockets, but no scoured channel. Willow swale d/s, but no open water.	No
AE-095	No channel upstream; culvert drains ditchline. D/s is strip of aspen, but drainage stops after 20m and no sign of flow beyond. Evidence of cattle/wildlife watering.	No
AE-096	No drainage structure at crossing. No sign of a watercourse. Culvert 30m from UTM drains ditchline. Cutblock upstream.	No
AE-097	Standing water near both ends of culvert. No sign of flow or channel. Water dissipates in cutblock d/s.	No
AE-098	Water at culvert, but no scoured channel. No flow or continuation of watercourse past the treeline.	No
AE-099	Definite channel for 50m u/s of crossing and 5m d/s on hillslope, but discontinuous afterward. Dry at this time. Likely carries snowmelt from upslope cutblock.	No
AE-100	Moist alder swale. No scouring or open water u/s. Some puddling d/s but no flow or channel.	No
AP-001	Dry and vegetated draw down hillside. No sign of water or scoured channel.	No
AP-003	90m weak channel that dissipates in wetland. Frequent sub-surface and flow over vegetation.	No
AP-006	No channel, scouring, water, or alluvial deposits.	No
AP-901	Depressed area at edge of cutblock. No scoured channel.	No
AP-902	Slight depression in mature forest with mossy bed. No scoured channel.	No
AP-903	Dry and mossy drainage entering cutblock. No sign of scour or recent flow.	No
TL-003	Nothing at UTM to indicate a drainage. Suspect water drains out wetland above to the north.	No
TL-006	Low lying depression 20m north of UTM with pockets of standing water. Otherwise dry and vegetated.	No
TL-008	Not visited. Assume previous classification.	No
TL-020	Pooling water with some flow over vegetation, but no scoured channel or alluvial deposits. Mossy willow swale.	No
TL-024	Black spruce wetland. No channel or connectivity to Esker Creek.	No
TL-027	No channel or any indicator of seasonal drainage. Some mature aspen indicating moist soil. Same reach as AE-023.	No

TL-029	Checked d/s at AE-025. Some scouring, but none over 10m. Mostly saturated soil with moss and horsetail.	No
TL-030	Checked d/s at AE-025. Some scouring, but none over 10m. Mostly saturated soil with moss and horsetail.	No
TL-031	No water or channel. Classed d/s at AE-026 (same reach).	No
TL-032	Pooled water with no continuous channel. Classed d/s at AE-027(same reach).	No
TL-033	Some channeling and pools of water but not continuous. Classed d/s at AE-028 (same reach).	No
TL-034	Not visited. Assume previous classification.	No
TL-036	Moisture loving plants, but no open water, channel, or culvert at crossing. Assessed d/s at AE-032 (same reach).	No
TL-037	A few aspen, but otherwise no evidence of a waterway. No culvert at crossing. Assessed d/s at AE-033 (same reach).	No
TL-038	Some evidence of flow upstream of road, but no scoured channel or culvert at crossing. Assessed d/s at AE-034 (same reach).	No
TL-041	Wet depression with steep bank on right side. No channel or alluvial deposits.	No
TL-043	No channel observed here, but 350m u/s there is a small, dry channel that likely drains a small lake during wetter seasons. (10U 389831 5937368).	No
TL-044	Some scouring and deposits, but no sections greater than 10m. No water and limited connectivity between scoured sections. Not a stream.	No
TL-045	No scouring, deposits, or water.	No
TL-046	Only indicator of moisture is a few aspen. No drainage at this site.	No
TL-047	No sign of a watercourse.	No
TL-049	No scoured channel. Drainage runs through plantation. Willow throughout.	No
TL-051	No alluvial deposits, some scoured channel, but dry and vegetated throughout.	No
TL-052	Vegetated wet area; no channel or alluvial deposits.	No
TL-053	Vegetated wet area; no channel or alluvial deposits.	No
TL-055	Very saturated ground with sub-surface flow. Some channelization near road, but disappears near the site. Wetland type.	No
TL-057	Only moisture loving species to indicate wetter soil type. No channel or sign of open water.	No
TL-058	No channeling or alluvial deposits. Some standing pools of water.	No
TL-059	No soucred channel, deposits, or sign of water.	No
TL-060	No soucred channel, deposits, or sign of water.	No
TL-063	Some pools of standing water but limited connectivity and no definite scoured channel or alluvial deposits.	No

TL-065	Deep vegetated gulley with steep banks and some scouring, but no continuous channel. As gradient flattens, scouring disappears.	No
TL-066	Mossy alder swale with conifers present. No scoured channel or sign of water.	No
TL-068	Dewatered old drainage alongside of cutblock. No scoured channel or deposits.	No
TL-069	Saturated soil with small pockets of water, but no scoured channel or alluvial deposits.	No
TL-078	Aspen/alder swale in slight depression where runoff drains. No channel.	No
TL-079	Slight depression in topography with some evidence of runoff, but no channel or alluvial deposits.	No
TL-080	Mossy wet area. No channel or sign of flow.	No
TL-089	Some pools of standing water, but indefinite channel. Not enough scouring to be a stream. No alluvial deposits.	No
TL-090	Dry and vegetated gulley with moisture loving species present. No channel.	No
TL-093	No scoured channel, alluvial deposits, or sign of water. Only indicator of drainage is moisture loving plants.	No
TL-097	Site located in old plantation. Some evidence of drainage, but no channel. No culvert at crossing	No
TL-098	Old alder swale. Some pooling at rd crossing, but no channel.	No
TL-099	Alder swale through plantation. Some scouring, but infrequent.	No
TL-102	No scoured channel or alluvial deposits. Some stagnant water with limited connectivity.	No
TL-103	No evidence of water except for the presence of willow and alder.	No
TL-109	Band of alder. No evidence of a drainage.	No
TL-110	Isolated pockets of moist soil in alder and willow strip. No channel.	No
TL-111	15m of alluvial deposits in spruce/aspen type, but no continuous scoured channel or other evidence of a stream.	No
TL-113	Only indicator of moisture is alder and twinberry. No evidence of drainage.	No
TL-114	Only indicator of moisture is alder and twinberry. No evidence of drainage.	No
TL-115	Evidence of snowmelt runoff, but no continuous channel or alluvial deposits.	No
TL-118	A few patches of willow is only indicator of moisture at this site.	No
TL-124	Scattered scouring, but no continuous channel. Site is at end of mature alder swale.	No
TL-125	50m scoured channel and evidence of spring run off. May be because of 5% gradient. Not enough to be a stram.	No
TL-126	Slight depression with some evidence of meltwater runoff, but no scoured channel or alluvial deposits.	No
TL-127	Shallow gully at bottom of hillsope. Dry and vegetated with no channel.	No

TL-128	Dry and vegetated drainage in strip of aspen. No scouring or deposits.	No
TL-904	Standing water in wetland type in cutblock. Likely sink for runoff. No channel found.	No
TL-906	Grassy depression with pooled water, but no sign of flow such as scouring or deposits.	No
TL-909	No channel, scouring, water, or alluvial deposits. Assessed d/s at AP-006 (same reach).	No
TL-918	Not visited. Assume prev. classification.	No
TL-919	No channel through black spruce and scrub birch wetland.	No
TL-920	Open wetland with no measurable channel. 5-10 cm of water coverage over entire area.	No
TL-922	Wet pockets in strip of alder. Some open water, but no flow or scoured channel.	No
TL-923	Wet pockets in strip of alder. Some open water, but no flow or scoured channel.	No
TL-924	Slight vegetated depression exiting wetland. No scouring. Little evidence of runoff.	No
TL-925	Dry, vegetated gully with some evidence of seasonal runoff. No scoured channel.	No
TL-926	40m of scoured channel at rd x-ing. Otherwise channel is undefined and intermittent with some frozen sections. Assessed with 5cm of snow cover.	No
TL-927	Dry, vegetated gully. No scoured channel.	No
TL-929	Sloping drainage in sites series 10 with no continuous scouring or alluvial deposits.	No
TL-930	Isolated 10m scoured section with alluvial deposits, but otherwise undefined drainage. TL930 and TL931 are same reach.	No
TL-931	Isolated 10m scoured section with alluvial deposits, but otherwise undefined drainage. TL930 and TL931 are same reach.	No
TL-933	Isolated pockets of moist soil in strip of moisture loving plant species.	No
TL-936	Dry pockets within willow and alder growth. No scouring or deposits.	No
TL-939	Depression on edge of cutblock. No scouring or other sign of flow.	No
TL-940	Slight depression in mature forest with mossy bed. No scouring or other sign of flow.	No
TL-941	Drainage entering cutblock - dry and mossy with no sign of recent flow. No scoured channel.	No
TL-945	Same reach as AE004. Not visited. Assume prev. classification.	No
TL-946	Classed d/s at AE005 (same reach). Some ponded water at culvert, but no scoured channel.	No

E. Data for All Classified Streams

Habitat Quality: S=Spawning; R=Rearing; O=Overwintering; M=Migration. Values: N=None; P=Poor; F=Fair; G=Good.
Species: NFC= No Fish Caught; SPP= Unidentified Species; NS= Not Sampled; RB= Rainbow trout; LKC =Lake Chub; BMC Brassy minnow; WSU: White sucker
B_fW= Bankfull width; B_fd= Bankfull depth; ResPool=Residual Pool.

								Habitat Quality				
Site ID	**Class†**	**Gradient**	**Morphology**	**B_fW**	**B_fD**	**ResPool**	**Species**	**S**	**R**	**O**	**M**	**Comments**
AE-001	S3	1.5	Large Channel	3.9	0.77	0	NFC	P	G	G	G	Channel in wetland type; overgrown with willows
AE-002	S3	1	Large Channel	3.3	0.37	0	NS	P	G	G	G	Beaver dams have created ponding
AE-003	S2	3	Riffle-Pool	12.1	0.93	0.59	NS	G	G	G	G	Excellent overall habitat
AE-006	S6	4.5	Riffle-Pool	0.6	0.2	0.08	NS	N	N	N	N	Mainly dry channel. 140m d/s of road, channel dissipates into small vegetated wetland. No possible fish passage, no perennnial habitat upstream.
AE-007	S3	2.5	Riffle-Pool	2.6	0.55	0.12	RB,SPP	G	G	G	G	Excellent overall habitat
AE-009	S6	4	Riffle-Pool	0.8	0.25	0.59	NFC	N	N	N	N	Not visited. This data from 2002/03 classification. Vertical barrier 58m d/s of road and sections >20% slope
AE-010	S6	22	Cascade-pool	0.8	0.7	0.1	NFC	N	N	N	N	This data from 2002/03 classification. Only confirmation of gradient barrier in 2012.
AE-013	S4	9.3	Riffle-Pool	0.8	0.4	0.19	NFC	F	F	P	P	Downstream of crossing, channel has been degraded from harvesting. U/s is better, but hanging culvert restricts fish passage.
AE-014	S4	7.5	Riffle-Pool	0.8	0.36	0.1	RB, BMC	P	F	F	P	Dewatered in some sections
AE-019	S4	2.5	Riffle-Pool	0.9	0.26	0.09	RB	G	G	P	P	Small, shallow stream but good spawning habitat. Gradient barrier noted in 2002 survey, but fish obs during survey in 2012.
AE-020	S4	1.5	Large Channel	0.5	0.76	0	NFC	P	F	P	P	Upstream of crossing is NCD. D/s reach drains into small lake.

AE-021	S3	3.4	Riffle-Pool	2	0.45	0.16	LKC, WSU, RB, SPP	F	G	F	F	Gravel patches, but a lot of fines-limiting spawning habitat.
AE-022	S4	2.5	Riffle-Pool	1.1	0.56	0.27	NS	P	G	F	P	Upstream of road crossing is NCD in wetland. Downstream is S4.
AE-030	S2	2.5	Riffle-pool	7.5	0.67	0.57	RB	P	G	G	F	Heavily dammed, creating sediment build up and deep pools.
AE-035	S4	2	Riffle-pool	1.1	0.45	0	NS	F	F	P	P	Dry channel at this time.
AE-037	S2	1	Riffle-pool	6.6	1.07	0.61	RB	F	G	G	G	Numerous beaver dams upstream of crossing.
AE-044	S4	1	Riffle-pool	1	0.52	0.02	NFC	P	G	P	F	Runs through sedge wetland.
AE-045	S3	2	Riffle-pool	4.2	0.92	0.12	RB	G	G	P	G	Good overall habitat.
AE-046	S4	3	Riffle-pool	1	0.27	0.09	NS	P	G	P	P	Mossy bottom with low flow. Too shallow to sample for fish. Surveyed at 10U 407944 5938577
AE-048	S4	2	Riffle-pool	1.1	0.69	0.03	RB	G	G	P	P	Gravel patches for spawning.
AE-049	S3	1	Riffle-pool	2.5	1.13	0.15	RB	F	G	F	F	Fish bearing S3 with sediment build up and pooling.
AE-053	S6	2.5	Riffle-pool	0.8	0.58	0.14	NS	N	N	N	N	Classed/sampled previously as non-fish bearing. This survey to confirm downstream barrier.
AE-055	S4	2.5	Riffle-pool	1.3	0.46	0.26	RB	P	G	F	F	Wetland type upstream of culvert ~30m
AE-056	S4	1.5	Large Channel	1.1	0.61	0	NFC	P	G	P	P	Heavy silt cover in places. Poor habitat value. Sections of dewatering.
AE-057	S3	3	Riffle-pool	2	1.1	0.14	RB	F	G	F	F	Downstream is a burned block. Channel and veg different.
AE-058	S6	3	Riffle-pool	0.5	ns	0.02	NFC	N	N	N	N	This data from 2005 classification. Only confirmation of channel and barrier in 2012.
AE-059	S3	4	Riffle-pool	1.9	0.62	0.51	RB	G	G	F	P	Nearly a cascade pool morphology, but more riffle. Lots of cover in this stream.
AE-068	S2	4	Cascade-pool	5.8	0.75	0.26	RB	G	F	F	G	Nice stream but not a lot of rearing habitat - tribs are likely used for rearing .
AE-070	S4	2.5	Riffle-pool	1.2	0.42	0.16	RB	P	G	F	F	Very high flow in channel through burned area.
AE-071	S3	1.5	Riffle-pool	2.7	0.47	0.23	RB	G	G	F	F	Logged upstream of road, but stream is productive throughout reach.

AE-072	S4	2	Large-channel	1.2	0.22	0	NS	N	P	N	N	Shallow, muddy watercourse dry at time of survey. Cutblock altered hydrology. NCD upstream of crossing. Channel d/s at 10U 416771 5970527.
AE-073	S4	1	Large-channel	1	0.2	0	RB	N	G	P	P	Drainage is intermittently scoured and runs through WL upstream. More NCD than a stream, but fish were obs in res.pools.
AE-074	S4	5.5	Large-channel	0.9	0.33	0.03	NFC	N	F	P	P	Shallow, muddy channel nearly dry at time of survey. Poor overall habitat, but no apparent barriers to fish-bearing waters d/s.
AE-075	S3	3.5	Riffle-pool	1.9	0.5	0.19	RB, SPP	P	G	F	G	Survey conducted d/s of crossing - private property upstream.
AE-076	S3	2.5	Riffle-pool	1.5	0.68	0.02	RB, SPP	F	G	P	P	Borderline S3/S4, additional channel measurements taken. Av. W= 1.52m. Almost entirely dewatered at time of survey.
AP-002	S3	3.8	Riffle-pool	1.6	0.45	0.18	SPP	P	G	G	F	Stream is known to run year round. Surveyed closer to TL903 (same reach)- UTM 378602 5896790
AP-004	S2	1.5	Riffle-pool	6.5	0.46	0.35	NS	G	G	G	G	Excellent habitat. Use historical data for fish distributions
AP-005	S4	6.3	Riffle-pool	1.2	0.37	0.15	RB, SPP	F	G	F	G	Sandy substrate u/s of crossing may be due to adjacent cutblock. Gravel/cobble d/s.
AP-007	S3	1.5	Riffle-pool	3.2	.76	0.35	NS	F	G	G	G	Unidentified fish obs. during survey. See 2011 Ecofor for full fish data.
TL-004	S2	1.5	Riffle-pool	6.5	0.46	0.35	NS	G	G	G	G	Excellent habitat. Use historical data for fish distributions. Same reach as AP-004.
TL-009	S3	1.5	Riffle-pool	3.2	.76	0.35	NS	F	G	G	G	Unidentified fish obs. during survey. See 2011 Ecofor for full fish data. Measured at AP007, but checked here.
TL-021	S3	3	Riffle-pool	2.3	0.5	0.3	NS	G	G	G	G	Known fish presence. Measurements taken near TL-023 - same reach.
TL-022	S3	3	Riffle-pool	2.3	0.5	0.3	NS	G	G	G	G	Known fish presence. Measurements taken near TL-023 - same reach.
TL-023	S3	3	Riffle-pool	2.3	0.5	0.3	NS	G	G	G	G	Known fish presence.

TL-025	S3	2	Riffle-Pool	4.2	0.46	0.32	SPP	G	G	G	G	Unidentified fish observed during survey.
TL-026	S4	2.5	Riffle-Pool	1.1	0.56	0.27	NS	P	G	F	P	Moderate overall habitat. No fish observed. Same reach as AE22.
TL-035	S2	2.5	Riffle-pool	7.5	0.67	0.57	RB	P	G	G	G	Point is in large wetland with extensive beaver damming, survey taken d/s at road (AE-30).
TL-039	S4	2	Riffle-pool	1.1	0.45	0	NS	F	F	P	P	Dry channel at this time. See AE-035 (same reach).
TL-040	S2	1.5	Riffle-pool	5.7	0.78	0.95	RB	F	G	G	G	Numerous beaver dams. Fish observed throughout survey.
TL-042	S3	3	Riffle-pool	3.9	0.33	0.28	RB	G	G	P	P	Fish obs. Stream runs through a series of wetlands, some erosion noticed.
TL-048	S4	3	Riffle-pool	1.23	0.70	0.05	NFC	G	G	P	P	Low water levels at this time, but otherwise good habitat.
TL-050	S3	2.5	Riffle-pool	2.3	0.64	0.14	RB	F	G	G	F	Fish observed througout survey
TL-054	S3	4	Riffle-pool	3.4	0.57	0.18	RB	G	G	F	F	Very good fish habitat.
TL-056	S4	3.3	Riffle-pool	1.5	0.54	0.11	NFC	G	G	G	P	Very good fish habitat. NFC, but no apparent barriers.
TL-061	S4	1	Riffle-pool	0.9	0.48	0.08	NFC	P	G	P	P	Abundant blowdown with large undercuts. No barriers between this site and fish-bearing stream (TL-062).
TL-062	S3	2.5	Riffle-pool	1.8	0.57	0.12	RB	G	G	F	G	Excessive blowdown b/c of cutblocks on either side.
TL-064	S4	1.5	Riffle-pool	1.2	0.37	0.11	SPP	G	G	P	F	Good spawning and rearing potential; fish observed at crossing.
TL-067	S4	2.5	Riffle-pool	0.9	0.43	0.06	NS	P	G	P	P	Very little water at this time. Stream turns NCD upstream at UTM 10U 397332 5956569
TL-070	S4	6.5	Riffle-pool	0.9	0.53	0.05	NS	N	F	P	P	Nearly dry at time of survey. Channel is occasionally sub-surface. Direct tributary to Greer Crk.
TL-077	S4	23	Cascade-pool	1.2	0.75	0.09	NS	P	G	F	P	This reach is fairly steep, but overwintering habitat exists u/s and thus fish could be present. Surveyed at 10U 396141 5966972.
TL-071	S4	7	Riffle-pool	0.9	0.38	0.03	NS	P	F	P	P	Nearly dry, weakly defined stream with poor habitat. NCD reach upstream at UTM 10U 397743 5960636.

TL-072	S4	8.5	Riffle-pool	0.8	0.46	0.08	NS	P	G	P	F	Small stream with fair habitat and occasional sub-surface flow.
TL-081	S3	4.5	Riffle-pool	1.8	0.90	0.14	NS	P	G	P	P	Low water levels at this time. Very silty bed and banks and abundant blowdown. Poor habitat but direct trib to Nechako.
TL-087	S3	1.5	Large channel	2.8	0.40	0.45	NS	P	P	F	G	Some pools, but very low flow at this time. Generally poor habitat in this reach because of beaver damming.
TL-091	S4	3.5	Riffle-pool	0.73	.23	0.08	NS	N	F	F	P	Small channel in wet area with lake nearby. Shallow flow and minimal scouring.
TL-092	S6	3	Riffle-pool	1	.33	0.18	NS	N	N	N	N	Nearly dry weakly scoured channel for 100m, but turns into impassible NCD downstream. u/s consists of NCD reaches with no overwintering habitat.
TL-100	S3	4.5	Riffle-pool	3.4	0.6	0.2	RB	G	G	F	F	Channel in gulley with notable overhanging vegetation. Visual observations of 10+ RB in resting pools during survey.
TL-101	S3	7	Riffle-pool	2.4	0.57	0.12	NS	G	G	P	P	Channel in small gulley with abundant woody debris. Nearly dry at time of survey.
TL-104	S3	3.5	Riffle-pool	1.6	0.33	0	NS	G	G	N	P	Dry at time of survey.
TL-105	S3	3.5	Riffle-pool	1.6	0.33	0	NS	G	G	N	P	Small S3 at TL 104-consider TL105 as same reach. Dry at time of survey.
TL-106	S3	6.5	Riffle-pool	1.6	0.85	0.2	NS	P	F	P	P	Fair to poor fish habitat overall. Low water levels with mainly standing water at this time.
TL-112	S3	5	Cascade-pool	1.7	0.53	0.1	NS	G	G	P	P	Very low water levels at this time, likely freezes over in winter.
TL-119	S1		Riffle-pool	35								Too large to measure. GIS estimated 35m width. Known fish bearing.
TL-121	S6	26	Cascade-pool	1	1.0	0.02	NS	N	N	N	N	Steep reach in large gulley down to Nechako. Nearly dry at time of survey. No upstream OW habitat.
TL-129	S3	3	Riffle-pool	1.8	0.72	0.1	NS	F	G	P	F	Drainage runs through gulley with some steeper sections.
TL-901	S3	1	Riffle-pool	1.7	0.62	0.22	SPP	G	G	G		Same reach as TL-902. Surveyed at point between the two sites UTM 10U 378331 5895679. Unidentified fish obs during survey.

TL-902	S3	1	Riffle-pool	1.7	0.62	0.22	SPP	G	G	G		Same reach as TL-901. Surveyed at point between the two sites UTM 10U 378331 5895679. Unidentified fish obs during survey.
TL-903	S3	3.8	Riffle-pool	1.6	0.45	0.18	SPP	P	G	G	F	Stream is known to run year round.
TL-917	S3	2.5	Riffle-Pool	2.6	0.55	0.12	RB,SPP	G	G	G	G	Excellent overall habitat. Surveyed at AE-007 location (same reach).
TL-921	S3	1	Large-channel		0.95	0	NFC	P	G	G	P	Entire reach heavily modified by beaver. No primary channel. Multiple ponds and flooded areas. Use prior classification data.
TL-928	S2	2	Riffle-pool		2		NS	G	G	G	G	Frozen over at time of survey. Could not be accurately measured but obvious S2.
TL-934	S6	25	Cascade-pool	1.8	0.5	0.1	NS	G	G	P	P	Same reach as TL-935. Section with 35% gradient. GIS gradient estimated at 28% over entire reach.
TL-935	S6	25	Cascade-pool	1.8	0.5	0.1	NS	G	G	P	P	Same reach as TL-934. Section with 35% gradient. GIS gradient estimated at 28% over entire reach.
TL-937	S1		Riffle-pool									Too large to measure. GIS estimated 35m width. Known fish bearing.
TL-938	S4	4	Riffle-pool	1.1	.5	0.15	NS	P	G	P	P	Stream 90% frozen at time of assessment. 1" of ice cover.
TL-942	S3	1.5	Large Channel	3.9	0.77	0	NFC	P	G	G	G	Channel in wetland type; overgrown with willows. Same reach as AE001.
TL-943	S3	1	Large Channel	3.3	0.37	0	NS	P	G	G	G	Beaver dams have created ponding. Same reach as AE002.
TL-944	S2	3	Riffle-Pool	12.1	0.93	0.59	NS	G	G	G	G	Excellent overall habitat. Same reach as AE003.
TL-947	S6	4.5	Riffle-Pool	0.6	0.2	0.08	NS	N	N	N	N	Classed d/s at AE006 (same reach). Mainly dry channel. 140m d/s of road, channel dissipates into small vegetated wetland. No possible fish passage, no perennnial habitat upstream.

†Fish streams are classified S1–S4. Class S1 streams are > 20 m wide; S2 streams are > 5 - 20 m wide; S3 streams are 1.5 - 5 m wide; and S4 streams are < 1.5 m wide. Streams without fish are classified S5 or S6. Class S5 streams are > 3 m wide, and S6 streams are < 3 m wide. NCD = non-classified drainage, NVC = no visible channel, NPC = no previous classification information was available.

F. SUMMARY OF FISH SAMPLING EFFORTS

Species: NFC= No fish caught; RB= Rainbow trout; BMC= Brassy minnow; LKC= Lake chub; WSU= White sucker; SPP= Unidentified species

Site ID	Sp1	Sp1 stage	Sp1 count	Sp1 minL	Sp1 maxL	Sp2	Sp2 stage	Sp2 count	Sp2 minL	Sp2 maxL	Other Spp	Comments
AE-001	NFC											Possibility of escapees because of dense vegetation in channel.
AE-007	RB	J	40	25	130	SPP	J	10	30	65		SPP are escapees and their sizes are estimates
AE-013	NFC											EF and trapped in shallow pools upstream and downstream of culvert.
AE-014	BMC	A	30	35	78	RB	J	8	25	57		BMC caught u/s and d/s of culvert; RB caught only d/s. Slow channel with nearby pond.
AE-019	RB	J	2	ns	ns							Observation of fish during survey. Further sampling may be req. for this crossing to desc fish community.
AE-020	NFC											Fished 100m d/s of crossing close to small lake.
AE-021	LKC	J	11	21	94	RB	J	2	74	74	WSU, SPP	All caught in traps. Other spp include one white sucker and one unidentifed escapee.
AE-030	RB	J	25	44	ns							Difficult to fish beaver ponds - 24 fish were escapees during EF.
AE-037	RB	A, J	40	37	220							Most fish found d/s of beaver dams.
AE-043	NFC											70m of scoured channel flowing from shallow wetland. Stream dissipates d/s. Sampled for possible resident pop'n. NFC
AE-044	NFC											Dark water, may have been escapees.
AE-045	RB	J, A	144	35	118							49 Escapees noted in the count.
AE-048	RB	J	5	41	81							High density of overhanging veg may have affected sampling success.
AE-049	RB	J,A	113	27	136							A lot of overhanging veg and LWD, may have facilitated escapees
AE-055	RB	A	7	98	185							All adult fish. Caught EF only. No fish in traps.
AE-056	NFC											Dense overhanging veg-increased risk of

											escapees.
AE-057	RB	J	26	32	100	SPP		16			One in MT, the remainder caught EF. Count includes 16 unidentified escapees.
AE-059	RB	J	30	29	73						Most caught with EF.
AE-060	NFC										NCD with 4-8m pooled of water. Next ordered stream is fish-bearing, but 600m away. No evidence of fish presence here.NFC
AE-068	RB	J,A	18	100	160						Adults caught with EF, but juveniles escaped.
AE-070	RB	J	9	40	100						Excessive blowdown may have facilitated escapees.
AE-071	RB	J	55	25	130						Fish captured both upstream and downstream of culvert. Only 50m sampled.
AE-073	RB	J	4	35	100						1 fish caught EF short channel u/s of culvert (25m). Remaining in residual pools in NCD-like section u/s.
AE-074	NFC										Too shallow for minnow traps. Nothing caught with EF. Entire sample taken d/s of crossing - WL upstream.
AE-075	RB	J	2	34	140	SPP	J	7	30	55	7 escapees could not be positively identified. Lengths are estimated. NFC in minnow traps.
AE-076	RB	J	53	28	55	SPP	J	2	ns	ns	All fish stranded in residual pools. Many more present than recorded, but only subsample was captured for representative ID/ measurement.
AP-002	SPP	A	1	150	150						1 Escapee. Measurement is estimated.
AP-005	RB	J	7	48	125	SPP	J	5			5 Escapees could not be positively identified
TL-025	SPP										Unidentified fish observed during survey
TL-035	RB	J	25	44	ns						Also AE-30. Difficult to fish beaver ponds - 24 fish were escapees.
TL-040	RB	A, J	40	37	220						Most fish found d/s of beaver dams. Sampled at AE 37- no barriers between.
TL-042	RB	J	10	40	80						Not sampled, but many RB obs during survey. Sizes are estimated.
TL-048	NFC										Shallow water at this time.
TL-050	RB	J	1	47	47						TL site only. EF only to confirm fish presence and identify spp.

TL-054	RB	J	1	75	75						TL site only. EF only to confirm fish presence and identify spp.
TL-056	NFC										Escapees may have been facilitated by large amount of LWD in channel.
TL-061	NFC										Abundant blowdown and subsurface flows may have facilitated escapees.
TL-062	RB	J	2	80	85						TL site only. EF only to confirm fish presence and identify spp.
TL-064	RB	A									Fish observed in stream during survey.
TL-100	RB	J	10								Fish observed in resting pools throughout survey.
TL-901	SPP										Unidentified fish observed during survey.
TL-902	SPP										Unidentified fish observed during survey.
TL-903	SPP	A	1	150	150						1 Escapee. Measurement is estimated.
TL-905	NFC										Minnow traps set in small lake. No fish caught. Consider fish-bearing b/c of connectivity to adjacent fish-bearing lake.
TL-907	RB	J	7	48	125	SPP	J	5			Small pond. Fish observed surfacing. These fish captured in outflow reach.
TL-908	RB	J	7	48	125	SPP	J	5			Small pond. Fish observed surfacing. These fish captured in outflow reach.
TL-917	RB	J	40	25	130	SPP	J	10	30	65	SPP are escapees and their sizes are estimates
TL-921	NFC										High potential for escapees in deep beaver ponds and multiple channels. RB captured previously (FISS).
TL-942	NFC										Possibility of escapees because of dense vegetation in channel.

G. Riparian Vegetation at Fish-Bearing Streams

Tree species codes as per: http://www.env.gov.bc.ca/wld/documents/wrp/wrt6/codes.html. Shrub abbreviations are first four letter genus and three letter species names. np= none present.

Site ID	Dom. trees	Sub-dom trees	Dom. Shrubs	Sub-dom Shrubs	Canopy All (%)	Canopy Cut (%)	Comments
AE-001	np	np	Sali spp.		40	35	Vegetation is wetland type with primarily shrubs and sedge. Some aspen at edges of wetland
AE-002	Pl	Sx, Bl	Sali spp.	Alnu ten., Loni inv.	30	16	Trees on edge of riparian
AE-003	Sx	Pl	Sali spp.	Loni inv., Betu glan., Rosa aci.	2	1	Willows on banks with increasing conifer spp further away.
AE-007	Sx	Pl	Sali spp.	Rosa aci., Loni inv.	10	2	Mainly spruce riparian; all mature pine is dead
AE-013	Pl	At	Alnu cri.	Sali spp., Loni inv., Rubu par.	15	3	Mature conifers u/s of crossing; shrubs d/s where harvested.
AE-014	Dr	Pl	Sali spp.	Rubu ida., Loni inv., Shep can.	40	34	Plantation close to some sections of stream.
AE-019	Sx, Bl		Sali spp., Alnu cri.	Rosa aci., Ribe lac.	30	20	More willow coverage u/s of crossing and even distribution of conifers compared to d/s.
AE-020	Sx	Pl	Sali spp.	Alnu ten., Betu gla	25	20	Canopy cover is combination of MF and plantation
AE-021	Pl	Sx	Alnu cri.	Loni inv.	12	9	
AE-022	Pl, Sx		Sali spp.	Alnu ten., Loni inv.	28	23	
AE-030	Pl	Sx	Sali spp.		45	40	
AE-035	Pl	At, Sx	Sali spp.	Loni inv.	12	12	
AE-037	Pl	Sx	Sali spp.		6	6	Wide, mature willows along bank - conifers at edge of riparian.
AE-044	Sx		Sali app.	Loni inv.	50	45	Canopy opens up once channel enters wetland.
AE-045	Pl	Sx	Alnu cri.	Sali spp.	25	20	Willow is dense around stream, transitioning to alder moving away from bank
AE-046	Sx	Pl	Alnu cri.	Loni inv.	56	50	Spruce dominates in deep gulley, with pine on upper slope
AE-048	Pl	Sx	Alnu cri.	Sali spp.	18	16	Spruce dominates u/s of crossing, pine is more dominant d/s.
AE-049	Pl	Sx	Loni inv.	Alnu ten.	22	16	Spruce is dominant closer to the stream; willows most dense near road crossing.
AE-055	Sx, Pl	Bl	Alnu cri.	Loni inv., Betu gla., Sali spp.	25	20	Spruce and alder along stream bank, pine is further away.
AE-056	Pl	Sx	Sali spp.	Betu gla	35	35	

AE-057	Pl	Sx	Sali spp.	Loni inv., Betu gla.	55	50	Canopy downstream is just 5%.
AE-059	Pl, Sx	mature Salix	Loni inv.	Alnu ten.	25	15	Sx dominates LB, Pine on RB. Shrubs are localized on streambank.
AE-068	Sx	Pl	Alnu ten.	Sali spp.	35	27	Mainly shrubs on bank, Sx is denser further back.
AE-070	Pl	Sx	Alnu ten.	Loni inv.	55	45	Most trees burned. Majority of cover is from Alder.
AE-071	Pl, Sx		Alnu ten., Sali spp.		2	2	Most trees are burned. Cover is sparse and consists mainly of shrubs.
AE-072	Bl, At		Alnu ten., Sali spp.	Loni inv.	25	4	Mainly mature alder and willow with some cottonwood and aspen.
AE-073	Act		Sali spp.	Alnu ten.	60	30	Tree measured was one of the few cottonwoods in willow dom riparian.
AE-074	At		Alnu ten., Loni inv.	Sali spp.	25	5	Mainly mature willow near road. U/s is wetland, d/s canopy is tall aspen.
AE-075	Sx	Bl	Alnu ten., Sali spp.	Vibu edu.	18	15	Mainly shrub cover from banks, conifers further back.
AE-076	Sx	At	Sali spp., Alnu cri.	Loni inv., rosa aci., rubu ida.	10	2	Mixed mature forest in riparian with spruce dominating.
AP-002	Sx, Bl		Alnu ten., Sali spp.	Ribe lac.	10	3	
AP-004	Sx	Pl	Alnu ten.	Loni inv.	7	2	Mainly conifers. Assessed at 2m.
AP-005	Sx	Pl	Alnu ten.	Loni inv.	8	5	Band of alder along stream. Trees are primarily conifers, but pine is dead.
AP-007	Sx	Pl	Sali spp.		7	5	
TL-004	Sx	Pl	Alnu ten.	Loni inv.	7	2	Mainly conifers. Assessed at 2m.
TL-009	Sx	Pl	Alnu spp.	Loni inv., Ribe lac.	25	20	More riparian canopy here than at Site AP007.
TL-021	Sx, Pl	Bl	Alnu cri.	Loni inv.	30	20	Measurements taken near TL-023 - same reach.
TL-022	Sx, Pl	Bl	Alnu cri.	Loni inv.	30	20	Measurements taken near TL-023 - same reach.
TL-023	Sx, Pl	Bl	Alnu cri.	Loni inv.	30	20	Left bank is old plantation, right bank is mature forest.
TL-025	Sx, Bl	Pl	Alnu cri.	Loni inv., Sali spp.	12	8	Half of reach is in a WL with no cover, the other is in 25% MF/alder cover.
TL-026	Pl, Sx		Sali spp.	Alnu ten., Loni inv.	28	23	
TL-035	Pl	Sx	Sali spp.		45	40	Point in lg wetland. Surveyed d/s at road.
TL-039	Pl	At, Sx	Sali spp.	Loni inv.	12	12	
TL-040	Sx	Pl	Sali spp.	Loni inv.	8	3	
TL-042	Sx	Pl	Sali spp.	Loni inv.	12	5	
TL-048	Sx	Pl	Alnu cri.	Loni inv.	26	25	Spruce dominated on banks, Pine is further back.

TL-050	Sx	Pl	Loni inv.	Alnu cri.	21	20	Spruce dominated on banks, Pine is further back.
TL-054	Pl	Sx	Sali spp.	Alnu cri.	35	35	Pine starts ~10 from bank. Nearly no trees on streambanks-mainly willow with some alder.
TL-056	Sx	Pl	Alnu cri.	Loni inv.	30	24	Spruce and shrubs on bank, pine is further back in riparian.
TL-061	Pl	Sx	Alnu cri.	Loni inv.	45	42	MF next to bank with plantation further back. May have contributed to excessive blowdown in channel.
TL-062	Pl	Sx	Alnu cri.	Loni inv.	40	34	Excessive blowdown caused by cutblocks adjacent to riparian on both sides.
TL-064	Sx	Pl	Alnu cri.	Loni inv.	21	16	Mainly spruce with pine at margins. Occasional aspen.
TL-067	Sx	Pl, Bl	Alnu cri.	Loni inv.	45	30	
TL-070	Sx	Bl, Pl	Alnu cri.	Loni inv., Oplo hor.	18	15	
TL-077	Sx	Pl	Loni inv.		25	20	
TL-071	Sx	Bl, Pl	Alnu cri.	Loni inv.	18	15	
TL-072	Sx	Pl, Bl	Alnu cri.	Loni inv.	12	8	
TL-081	Sx	Pl, At	Loni inv.	Alnu cri.	15	13	
TL-087	Sx	Pl	Sali spp.	Alnu cri.	8	5	Sporadic stunted spruce in wetland, but most trees are ~30m back.
TL-091	Sx	Pl	Alnu cri.	Loni inv.	25	21	
TL-100	Sx	Pl	Alnu cri.	Samb rac., Loni inv.	18	15	
TL-101	Sx	Pl	Alnu cri.	Sali spp., Ribe lac.	18	16	
TL-104	Sx, Act		Sali spp.		17	13	
TL-105	Sx, Act		Sali spp.		17	13	
TL-106	Sx	Pl	Sali spp.	Rosa aci.	21	16	
TL-112	Sx		Sali spp.	Rosa aci., alnu cri.	15	12	Mainly spruce with some balsam and pine present.
TL-119	Pl	Sx	Alnu cri.	Sali spp.,	9	3	
TL-129	Sx	Act, At	Loni inv., Rubu par.	Sali spp.	12	10	
TL-901	Sx	Pl	Sali spp.		16	4	
TL-902	Sx	Pl	Sali spp.		16	4	
TL-903	Sx, Bl		Alnu ten., Sali spp.	Ribe lac.	10	3	
TL-917	Sx	Pl	Sali spp.	Rosa aci., Loni inv.	10	2	Mainly spruce riparian; all mature pine is dead
TL-921	Sb		Sali spp., Betu gla.		8	8	Mainly sedge and black spruce with some woody shrubs.
TL-928	Sx	At, Pl	Sali spp.	Alnu cri.	4	3	

TL-937	Pl	Sx	Alnu cri.	Sali spp.,	9	3	Same reach as TL119.
TL-938	Sx	Bl, At	Alnu cri.	Loni inv.	12	9	
TL-942	np	np	Sali spp.		40	35	Vegetation is wetland type with shrubs and sedge. Some aspen at edges of wetland
TL-943	Pl	Sx, Bl	Sali spp.	Alnu ten., Loni inv.	30	16	Trees on edge of riparian
TL-944	Sx	Pl	Sali spp.	Loni inv., Betu glan., Rosa aci.	2	1	

H. Additional Information on Streams not Designated as Minor Waters or Minor Works (Transport Canada 2010b).

Av B_fW= Average bankfull width; Av B_fd= Average bankfull depth; Min width/depth dist. = The distance the minimum with/depth was observed over 200m.

Site ID	Av B_fW (m)	Av B_fD (m)	Av Gradient (%)	Sinuosity	Blockages	Min Width (m)	Min width dist.(m)	Min depth (m)	Min depth dist.(m)	Mod Level (m)	High Level (m)	Substrate	Navigability
AE-001	3.9	0.77	1.5	1.09	4	1	10	0.32	10	0.44	0.5	Organic	Thick growth of willow in channel.
AE-002	3.3	0.37	1	1.14	4	2.5	20	0.25	40	0.35	0.5	Organic	Grass and sedge in channel would make navigation difficult.
AE-003	12.1	0.93	3	1.1	0	10	10	0.3	60	0.6	1.2	gravels and cobbles	Frequent mid channel bars and low water levels.
AE-030	7.5	0.67	2.5	1.65	14	4.7	10	0.1	20	0.6	1	Fines, many deposition bars.	Heavily beaver dammed.
AE-037	6.6	1.07	1	2	6	5.4	40	0.15	60	0.7	1.5	Gravel and cobble, many bars	Many shallow sections, couldn't paddle canoe through.
AE-045	4.2	0.92	2	1.02	5	2.5	5	0.03	2	0.15	0.33	Boulders and gravels. Many mid-channel bars.	Boulders and abundant woody debris would make navigation difficult.
AE-057	2	1.1	3	ns	2	ns	ns	ns	ns	ns	ns	ns	Boulders and low flow limit navigation.
AE-068	5.8	0.75	4	1.33	4	4.3	30	0.2	50	0.35	0.8	Cobbles and boulders. Low flowing areas.	Frequent fallen logs fallen over channel. Shallow flows at time of survey.
AP-004	6.5	0.46	1.5	1.27	3	4.3	10	0.22	40	0.33	0.46	Gravels. No influence on nav.	Abundant blowdown across banks, navigation would be extremely limited.
TL-025	4.2	0.46	2	1.05	5	2	20	0.1	75	0.3	0.5	Gravels, fines, occasional cobble.	Beaver activity will limit navigation.

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Annex 5.10-6
Biological Characteristics of Fish, 2011 and 2012

Table 5.10-6A: Individual Fish Biological Characteristics for all Fish Caught in the Blackwater Study Area, 2011-2012

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Davidson Creek	15-Jun-11	1	HN-01	HN	HN1-001	RB	405	692	1.04	U	M										Released
Davidson Creek	15-Jun-11	1	HN-01	HN	HN1-002	RB	122	17	0.94	M	R										Released
Davidson Creek	15-Jun-11	1	HN-01	HN	HN1-003	RB	145	30	0.98	M	R										Released
Davidson Creek	15-Jun-11	1	HN-01	HN	HN1-004	RB	153	23	0.64	M	R										Released
Davidson Creek	15-Jun-11	1	HN-01	HN	HN1-005	RB	159	44	1.09	M	R										Released
Davidson Creek	15-Jun-11	1	HN-01	HN	HN1-006	RB	168	46	0.97	M	R										Released
Davidson Creek	16-Jun-11	1	HN-01	HN	HN1-007	RB	365	436	0.90	U	U										Released
Davidson Creek	16-Jun-11	1	HN-01	HN	HN1-008	RB	275	195	0.94	M	R										Released
Davidson Creek	16-Jun-11	1	HN-01	HN	HN1-009	RB	330	322	0.90	M	R										Released
Davidson Creek	17-Jun-11	1	HN-01	HN	HN1-010	RB	398	626	0.99	F	S			SC		6	6				Released
Davidson Creek	17-Jun-11	1	HN-01	HN	HN1-011	RB	146	30	0.96	M	R										Released
Davidson Creek	17-Jun-11	1	HN-01	HN	HN1-012	RB	194	68	0.93	M	R										Released
Davidson Creek	17-Jun-11	1	HN-01	HN	HN1-013	RB	132	21	0.91	M	R										Released
Davidson Creek	17-Jun-11	1	HN-01	HN	HN1-014	RB	110	12	0.90	M	R										Released
Davidson Creek	17-Jun-11	1	HN-01	HN	HN1-015	RB	124	18	0.94	M	R										Released
Davidson Creek	17-Jun-11	1	HN-01	HN	HN1-016	RB	130	20	0.91	M	R										Released
Davidson Creek	18-Jun-11	1	HN-01	HN	HN1-017	MW	222	49	0.45	U	U			SC							Released
Davidson Creek	18-Jun-11	1	HN-01	HN	HN1-018	RB	315	275	0.88	F	S										Released
Davidson Creek	18-Jun-11	1	HN-01	HN	HN1-019	RB	112	17	1.21	M	R										Released
Davidson Creek	18-Jun-11	1	HN-01	HN	HN1-020	RB	113	11	0.76	M	R										Released
Davidson Creek	18-Jun-11	1	HN-01	HN	HN1-021	RB	118	14	0.85	M	R										Released
Davidson Creek	18-Jun-11	1	HN-01	HN	HN1-022	RB	182	61	1.01	M	R										Released
Davidson Creek	18-Jun-11	1	HN-01	HN	HN1-023	RB	355	467	1.04	F	S										Released
Davidson Creek	18-Jun-11	1	HN-01	HN	HN1-024	RB	135	26	1.06	U	U										Released
Davidson Creek	18-Jun-11	1	HN-01	HN	HN1-025	RB	294	213	0.84	F	S										Released
Davidson Creek	18-Jun-11	1	HN-01	HN	HN1-026	RB	292	196	0.79	F	S										Released
Davidson Creek	18-Jun-11	1	HN-01	HN	HN1-027	RB	289	209	0.87	F	S										Released
Davidson Creek	19-Jun-11	1	HN-01	HN	HN1-028	RB	275	198	0.95	F	S										Released
Davidson Creek	20-Jun-11	1	HN-01	HN	HN1-029	RB	374	548	1.05	F	R			SC		4	4				Released
Davidson Creek	20-Jun-11	1	HN-01	HN	HN1-030	RB	346	392	0.95	M	S			SC		4	4				Released
Davidson Creek	20-Jun-11	1	HN-01	HN	HN1-031	RB	304	217	0.77	F	S										Released
Davidson Creek	20-Jun-11	1	HN-01	HN	HN1-032	RB	298	235	0.89	F	S			SC		3	3				Released
Davidson Creek	20-Jun-11	1	HN-01	HN	HN1-033	RB	141	32	1.14	M	R										Released
Davidson Creek	20-Jun-11	1	HN-01	HN	HN1-034	RB	320	297	0.91	F	S			SC		4	4				Released
Davidson Creek	20-Jun-11	1	HN-01	HN	HN1-035	RB	400	553	0.86	F	S			SC		5	5				Released
Davidson Creek	21-Jun-11	1	HN-01	HN	HN1-036	RB	410	674	0.98	M	S			SC		4	4				Released
Davidson Creek	21-Jun-11	1	HN-01	HN	HN1-037	RB	319	265	0.82	F	S			SC		4	4				Released
Davidson Creek	21-Jun-11	1	HN-01	HN	HN1-038	RB	411	604	0.87	M	S			SC		5	5				Released
Davidson Creek	21-Jun-11	1	HN-01	HN	HN1-039	RB	360	408	0.87	F	S										Released
Davidson Creek	21-Jun-11	1	HN-01	HN	HN1-040	RB	340	386	0.98	F	S										Released
Davidson Creek	21-Jun-11	1	HN-01	HN	HN1-041	RB	305	330	1.16	M	S										Released
Davidson Creek	21-Jun-11	1	HN-01	HN	HN1-042	RB	350	420	0.98	F	S										Released
Davidson Creek	21-Jun-11	1	HN-01	HN	HN1-043	RB	300	240	0.89	F	S										Released
Davidson Creek	21-Jun-11	1	HN-01	HN	HN1-044	RB	305	268	0.94	F	S										Released
Davidson Creek	21-Jun-11	1	HN-01	HN	HN1-045	RB	180	52	0.89	U	I										Released
Davidson Creek	21-Jun-11	1	HN-01	HN	HN1-046	RB	111	14	1.02	U	I										Released
Davidson Creek	21-Jun-11	1	HN-01	HN	HN1-047	RB	122	17	0.94	U	I										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Davidson Creek	21-Jun-11	1	HN-01	HN	HN1-048	RB	140	26	0.95	U	I										Released
Davidson Creek	21-Jun-11	1	HN-01	HN	HN1-049	RB	132	21	0.91	U	I										Released
Davidson Creek	21-Jun-11	1	HN-01	HN	HN1-050	RB	117	14	0.87	M	R										Released
Davidson Creek	21-Jun-11	1	HN-01	HN	HN1-051	RB	252	141	0.88	F	S										Released
Davidson Creek	21-Jun-11	1	HN-01	HN	HN1-052	RB	305	220	0.78	F	S										Released
Davidson Creek	21-Jun-11	1	HN-01	HN	HN1-053	RB	268	177	0.92	F	S										Released
Davidson Creek	21-Jun-11	1	HN-01	HN	HN1-054	RB	315	290	0.93	M	S			SC		5	5				Released
Davidson Creek	21-Jun-11	1	HN-01	HN	HN1-055	RB	155	39	1.05	M	R										Released
Davidson Creek	21-Jun-11	1	HN-01	HN	HN1-056	RB	129	18	0.84	U	I										Released
Davidson Creek	21-Jun-11	1	HN-01	HN	HN1-057	RB	126	18	0.90	M	R										Released
Davidson Creek	21-Jun-11	1	HN-01	HN	HN1-058	RB	136	23	0.91	U	I										Released
Davidson Creek	21-Jun-11	1	HN-01	HN	HN1-059	RB	124	17	0.89	U	I										Released
Davidson Creek	22-Jun-11	1	HN-01	HN	HN1-060	RB	385	686	1.20	M	S										Released
Davidson Creek	22-Jun-11	1	HN-01	HN	HN1-061	RB	395	707	1.15	M	S										Released
Davidson Creek	22-Jun-11	1	HN-01	HN	HN1-062	RB	310	269	0.90	U	M										Released
Davidson Creek	22-Jun-11	1	HN-01	HN	HN1-063	RB	295	244	0.95	U	M										Released
Davidson Creek	22-Jun-11	1	HN-01	HN	HN1-064	RB	310	249	0.84	M	S										Released
Davidson Creek	22-Jun-11	1	HN-01	HN	HN1-065	RB	127	25	1.22	U	I										Released
Davidson Creek	22-Jun-11	1	HN-01	HN	HN1-066	RB	131	22	0.98	M	R										Released
Davidson Creek	22-Jun-11	1	HN-01	HN	HN1-067	RB	415	744	1.04	M	S										Mortality
Davidson Creek	22-Jun-11	1	HN-01	HN	HN1-068	MW	206	92	1.05	U	U										Released
Davidson Creek	22-Jun-11	1	HN-01	HN	HN1-069	RB	360	409	0.88	U	M										Released
Davidson Creek	22-Jun-11	1	HN-01	HN	HN1-070	RB	232	131	1.05	U	M										Released
Davidson Creek	22-Jun-11	1	HN-01	HN	HN1-071	RB	124	19	1.00	M	R										Released
Davidson Creek	22-Jun-11	1	HN-01	HN	HN1-072	RB	130	24	1.09	M	R										Released
Davidson Creek	23-Jun-11	1	HN-01	HN	HN1-073	RB	295	252	0.98	F	S			SC		3	3		Y		Released
Davidson Creek	23-Jun-11	1	HN-01	HN	HN1-074	RB	121	16	0.90	M	R								Y		Released
Davidson Creek	23-Jun-11	1	HN-01	HN	HN1-075	RB	120	16	0.93	M	R			SC							Released
Davidson Creek	23-Jun-11	1	HN-01	HN	HN1-076	RB	118	14	0.85	M	R								Y		Released
Davidson Creek	24-Jun-11	1	HN-01	HN	HN1-077	RB	370	445	0.88	M	S										Released
Davidson Creek	24-Jun-11	1	HN-01	HN	HN1-078	RB	260	196	1.12	U	M			SC		5	5		Y		Released
Davidson Creek	24-Jun-11	1	HN-01	HN	HN1-079	RB	275	190	0.91	M	S			SC							Released
Davidson Creek	24-Jun-11	1	HN-01	HN	HN1-080	RB	285	207	0.89	M	S			SC		3	3				Released
Davidson Creek	24-Jun-11	1	HN-01	HN	HN1-081	RB	400	606	0.95	M	S										Released
Davidson Creek	24-Jun-11	1	HN-01	HN	HN1-082	RB	137	25	0.97	U	I								Y		Released
Davidson Creek	24-Jun-11	1	HN-01	HN	HN1-083	RB	128	19	0.91	U	I								Y		Released
Davidson Creek	24-Jun-11	1	HN-01	HN	HN1-084	RB	117	16	1.00	U	I								Y		Released
Davidson Creek	24-Jun-11	1	HN-01	HN	HN1-085	RB	375	484	0.92	M	S								Y		Released
Davidson Creek	24-Jun-11	1	HN-01	HN	HN1-086	RB	125	16	0.82	M	R								Y		Released
Davidson Creek	27-Jun-11	1	HN-01	HN	HN1-087	RB	275	194	0.93	F	S			SC		3	3		Y		Released
Davidson Creek	27-Jun-11	1	HN-01	HN	HN1-088	RB	370	586	1.16	F	R								Y		Released
Davidson Creek	27-Jun-11	1	HN-01	HN	HN1-089	RB	295	213	0.83	F	S			SC		3	3				Released
Davidson Creek	27-Jun-11	1	HN-01	HN	HN1-090	RB	305	275	0.97	M	S			SC		5	5		Y		Released
Davidson Creek	27-Jun-11	1	HN-01	HN	HN1-091	RB	275	223	1.07	U	M			SC		3	3		Y		Released
Davidson Creek	27-Jun-11	1	HN-01	HN	HN1-092	RB	235	125	0.96	M	S										Released
Davidson Creek	28-Jun-11	1	HN-01	HN	HN1-093	RB	129	20	0.93	M	R										Released
Davidson Creek	28-Jun-11	1	HN-01	HN	HN1-094	RB	160	38	0.93	U	I										Released
Davidson Creek	28-Jun-11	1	HN-01	HN	HN1-095	MW	205	94	1.09	U	U										Released
Davidson Creek	28-Jun-11	1	HN-01	HN	HN1-096	RB	131	26	1.16	M	R										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Davidson Creek	28-Jun-11	1	HN-01	HN	HN1-097	RB	133	27	1.15	U	I										Released
Davidson Creek	28-Jun-11	1	HN-01	HN	HN1-098	RB	120	22	1.27	U	I										Released
Davidson Creek	28-Jun-11	1	HN-01	HN	HN1-099	RB	133	28	1.19	M	R										Released
Davidson Creek	28-Jun-11	1	HN-01	HN	HN1-100	RB	117	21	1.31	M	R										Released
Davidson Creek	28-Jun-11	1	HN-01	HN	HN1-101	RB	370	507	1.00	M	S										Released
Davidson Creek	28-Jun-11	1	HN-01	HN	HN1-102	RB	300	259	0.96	F	S										Released
Davidson Creek	28-Jun-11	1	HN-01	HN	HN1-103	RB	280	244	1.11	U	M										Released
Davidson Creek	28-Jun-11	1	HN-01	HN	HN1-104	RB	270	163	0.83	M	S										Released
Davidson Creek	28-Jun-11	1	HN-01	HN	HN1-105	RB	220	112	1.05	U	M										Released
Davidson Creek	28-Jun-11	1	HN-01	HN	HN1-106	RB	121	16	0.90	U	I										Released
Davidson Creek	16-Jun-11	8	HN-02	HN	HN2-001	RB	100	11	1.10	U	M			OT	2		2				Incidental mortality
Davidson Creek	19-Jun-11	8	HN-02	HN	HN2-002	RB	165	39	0.87	M	R			SC		2	2				Released
Davidson Creek	19-Jun-11	8	HN-02	HN	HN2-003	RB	128	21	1.00	M	R										Released
Davidson Creek	19-Jun-11	8	HN-02	HN	HN2-004	RB	131	23	1.02	U	U										Released
Davidson Creek	19-Jun-11	8	HN-02	HN	HN2-005	RB	151	35	1.02	U	U										Released
Davidson Creek	19-Jun-11	8	HN-02	HN	HN2-006	RB	88	8	1.17	U	I										Released
Davidson Creek	19-Jun-11	8	HN-02	HN	HN2-007	RB	162	37	0.87	U	U			SC							Released
Davidson Creek	19-Jun-11	8	HN-02	HN	HN2-008	RB	140	27	0.98	U	U					1	1				Released
Davidson Creek	19-Jun-11	8	HN-02	HN	HN2-009	RB	111	14	1.02	M	R										Released
Davidson Creek	19-Jun-11	8	HN-02	HN	HN2-010	RB	152	34	0.97	M	R										Released
Davidson Creek	19-Jun-11	8	HN-02	HN	HN2-011	RB	103	14	1.28	U	U										Released
Davidson Creek	20-Jun-11	8	HN-02	HN	HN2-012	RB	116	15	0.96	U	I										Incidental mortality
Davidson Creek	20-Jun-11	8	HN-02	HN	HN2-013	RB	106	11	0.92	U	I										Incidental mortality
Davidson Creek	20-Jun-11	8	HN-02	HN	HN2-014	RB	293	271	1.08	F	S			SC		5	5				Released
Davidson Creek	20-Jun-11	8	HN-02	HN	HN2-015	RB	290	238	0.98	M	R			SC		4	4				Released
Davidson Creek	20-Jun-11	8	HN-02	HN	HN2-016	RB	395	628	1.02	F	S			SC		ua					Released
Davidson Creek	20-Jun-11	8	HN-02	HN	HN2-017	RB	309	285	0.97	F	S			SC		4	4				Released
Davidson Creek	20-Jun-11	8	HN-02	HN	HN2-018	RB	134	21	0.87	M	R										Released
Davidson Creek	20-Jun-11	8	HN-02	HN	HN2-019	RB	254	166	1.01	F	R			SC, OT	8	ua	8				Incidental mortality
Davidson Creek	20-Jun-11	8	HN-02	HN	HN2-020	RB	105	11	0.95	U	I										Incidental mortality
Davidson Creek	21-Jun-11	8	HN-02	HN	HN2-021	RB	136	26	1.03	U	I										Released
Davidson Creek	21-Jun-11	8	HN-02	HN	HN2-022	RB	191	74	1.06	M	R										Released
Davidson Creek	21-Jun-11	8	HN-02	HN	HN2-023	RB	156	37	0.97	M	R										Released
Davidson Creek	21-Jun-11	8	HN-02	HN	HN2-024	RB	141	26	0.93	M	R										Released
Davidson Creek	21-Jun-11	8	HN-02	HN	HN2-025	RB	315	281	0.90	F	S										Released
Davidson Creek	21-Jun-11	8	HN-02	HN	HN2-026	RB	335	344	0.92	F	S										Released
Davidson Creek	21-Jun-11	8	HN-02	HN	HN2-027	RB	294	247	0.97	F	S										Released
Davidson Creek	21-Jun-11	8	HN-02	HN	HN2-028	RB	142	28	0.98	U	U			OT	4		4				Incidental mortality
Davidson Creek	21-Jun-11	8	HN-02	HN	HN2-029	RB	105	12	1.04	M	I										Incidental mortality
Davidson Creek	21-Jun-11	8	HN-02	HN	HN2-030	RB	99	11	1.13	U	I										Incidental mortality
Davidson Creek	21-Jun-11	8	HN-02	HN	HN2-031	RB	110	16	1.20	M	M										Incidental mortality
Davidson Creek	21-Jun-11	8	HN-02	HN	HN2-032	RB	124	20	1.05	U	I										Incidental mortality
Davidson Creek	22-Jun-11	8	HN-02	HN	HN2-033	RB	280	188	0.86	U	S										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Davidson Creek	22-Jun-11	8	HN-02	HN	HN2-034	RB	101	13	1.26	U	M										Released
Davidson Creek	22-Jun-11	8	HN-02	HN	HN2-035	RB	122	18	0.99	U	M										Released
Davidson Creek	22-Jun-11	8	HN-02	HN	HN2-036	RB	120	20	1.16	U	M										Released
Davidson Creek	22-Jun-11	8	HN-02	HN	HN2-037	RB	103	14	1.28	U	M										Released
Davidson Creek	22-Jun-11	8	HN-02	HN	HN2-038	RB	98	9	0.96	U	M										Released
Davidson Creek	22-Jun-11	8	HN-02	HN	HN2-039	RB	109	15	1.16	U	M										Released
Davidson Creek	22-Jun-11	8	HN-02	HN	HN2-040	RB	129	22	1.02	U	M										Released
Davidson Creek	22-Jun-11	8	HN-02	HN	HN2-041	RB	104	11	0.98	U	M										Released
Davidson Creek	22-Jun-11	8	HN-02	HN	HN2-042	RB	102	11	1.04	U	M										Released
Davidson Creek	22-Jun-11	8	HN-02	HN	HN2-043	RB	111	11	0.80	U	M										Released
Davidson Creek	22-Jun-11	8	HN-02	HN	HN2-044	RB	122	17	0.94	U	M										Released
Davidson Creek	22-Jun-11	8	HN-02	HN	HN2-045	RB	127	18	0.88	M	R										Released
Davidson Creek	22-Jun-11	8	HN-02	HN	HN2-046	RB	112	13	0.93	U	M										Released
Davidson Creek	22-Jun-11	8	HN-02	HN	HN2-047	RB	85	6	0.98	U	M										Incidental mortality
Davidson Creek	23-Jun-11	8	HN-02	HN	HN2-048	RB	340	428	1.09	F	S										Released
Davidson Creek	23-Jun-11	8	HN-02	HN	HN2-049	RB	380	514	0.94	M	S								Y		Released
Davidson Creek	23-Jun-11	8	HN-02	HN	HN2-050	RB	116	19	1.22	U	I								Y		Released
Davidson Creek	23-Jun-11	8	HN-02	HN	HN2-051	RB	113	19	1.32	U	I								Y		Released
Davidson Creek	23-Jun-11	8	HN-02	HN	HN2-052	RB	114	20	1.35	U	I								Y		Released
Davidson Creek	23-Jun-11	8	HN-02	HN	HN2-053	RB	101	16	1.55	U	I								Y		Released
Davidson Creek	23-Jun-11	8	HN-02	HN	HN2-054	RB	114	14	0.94	U	I								Y		Incidental mortality
Davidson Creek	23-Jun-11	8	HN-02	HN	HN2-055	RB	94	11	1.32	M	I			SC		0	0				Incidental mortality
Davidson Creek	23-Jun-11	8	HN-02	HN	HN2-056	RB	86	8	1.26	U	I			SC, OT	2	0	2		Y		Incidental mortality
Davidson Creek	23-Jun-11	8	HN-02	HN	HN2-057	RB	99	10	1.03	U	I			SC, OT	3	0	3				Incidental mortality
Davidson Creek	23-Jun-11	8	HN-02	HN	HN2-058	RB	125	20	1.02	F	I								Y		Incidental mortality
Davidson Creek	23-Jun-11	8	HN-02	HN	HN2-059	RB	355	435	0.97	F	S										Incidental mortality
Davidson Creek	24-Jun-11	8	HN-02	HN	HN2-060	RB	390	559	0.94	F	S								Y		Released
Davidson Creek	24-Jun-11	8	HN-02	HN	HN2-061	RB	405	664	1.00	M	S										Released
Davidson Creek	24-Jun-11	8	HN-02	HN	HN2-062	RB	390	571	0.96	M	S								Y		Released
Davidson Creek	24-Jun-11	8	HN-02	HN	HN2-063	RB	117	16	1.00	M	R								Y		Released
Davidson Creek	24-Jun-11	8	HN-02	HN	HN2-064	RB	104	12	1.07	M	R										Released
Davidson Creek	24-Jun-11	8	HN-02	HN	HN2-065	RB	102	10	0.94	M	R								Y		Released
Davidson Creek	24-Jun-11	8	HN-02	HN	HN2-066	RB	133	22	0.94	U	I								Y		Released
Davidson Creek	24-Jun-11	8	HN-02	HN	HN2-067	RB	120	16	0.93	U	I										Released
Davidson Creek	24-Jun-11	8	HN-02	HN	HN2-068	RB	148	32	0.99	U	R										Incidental mortality
Davidson Creek	24-Jun-11	8	HN-02	HN	HN2-069	RB	114	14	0.94	U	I								Y		Incidental mortality
Davidson Creek	24-Jun-11	8	HN-02	HN	HN2-070	RB	110	13	0.98	U	I										Incidental mortality
Davidson Creek	25-Jun-11	8	HN-02	HN	HN2-071	RB	106	13	1.09	U	I								Y		Released
Davidson Creek	25-Jun-11	8	HN-02	HN	HN2-072	RB	108	12	0.95	U	I								Y		Released
Davidson Creek	25-Jun-11	8	HN-02	HN	HN2-073	RB	119	16	0.95	U	I										Incidental mortality
Davidson Creek	26-Jun-11	8	HN-02	HN	HN2-074	RB	375	566	1.07	M	S								Y		Released
Creek 661	09-Jun-11	1	HN-03	HN	HN3-001	RB	238	139	1.03	U	I			SC		2	2				Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 661	11-Jun-11	1	HN-03	HN	HN3-002	RB	115	19	1.25	U	I			SC		1	1				Released
Creek 661	12-Jun-11	1	HN-03	HN	HN3-003	RB	425	824	1.07	M	R			SC		1	1		Y		Released
Creek 661	12-Jun-11	1	HN-03	HN	HN3-004	RB	128	19	0.91	U	I			SC		ua					Released
Creek 661	14-Jun-11	1	HN-03	HN	HN3-005	RB	142	21	0.73	U	U										Released
Creek 661	15-Jun-11	1	HN-03	HN	HN3-006	RB	156	41	1.08	U	M										Released
Creek 661	16-Jun-11	1	HN-03	HN	HN3-007	RB	122	16	0.88	U	U										Released
Creek 661	16-Jun-11	1	HN-03	HN	HN3-008	RB	126	19	0.95	U	U										Released
Creek 661	16-Jun-11	1	HN-03	HN	HN3-009	RB	144	35	1.17	U	U										Released
Creek 661	17-Jun-11	1	HN-03	HN	HN3-010	RB	422	347	0.46	F	S			SC		ua					Released
Creek 661	18-Jun-11	1	HN-03	HN	HN3-011	RB	139	22	0.82	U	I										Released
Creek 661	18-Jun-11	1	HN-03	HN	HN3-012	RB	139	26	0.97	U	I										Released
Creek 661	18-Jun-11	1	HN-03	HN	HN3-013	RB	141	26	0.93	U	I										Released
Creek 661	18-Jun-11	1	HN-03	HN	HN3-014	RB	138	24	0.91	U	I										Released
Creek 661	18-Jun-11	1	HN-03	HN	HN3-015	RB	125	21	1.08	U	I										Released
Creek 661	18-Jun-11	1	HN-03	HN	HN3-016	RB	133	24	1.02	U	I										Released
Creek 661	18-Jun-11	1	HN-03	HN	HN3-017	RB	122	18	0.99	U	I										Released
Creek 661	18-Jun-11	1	HN-03	HN	HN3-018	RB	132	23	1.00	U	I										Released
Creek 661	18-Jun-11	1	HN-03	HN	HN3-019	RB	134	23	0.96	U	I										Released
Creek 661	18-Jun-11	1	HN-03	HN	HN3-020	RB	120	18	1.04	U	I										Released
Creek 661	18-Jun-11	1	HN-03	HN	HN3-021	RB	131	21	0.93	U	I										Released
Creek 661	18-Jun-11	1	HN-03	HN	HN3-022	RB	118	20	1.22	U	I										Released
Creek 661	18-Jun-11	1	HN-03	HN	HN3-023	RB	115	14	0.92	U	I										Released
Creek 661	18-Jun-11	1	HN-03	HN	HN3-024	RB	131	25	1.11	U	I										Released
Creek 661	18-Jun-11	1	HN-03	HN	HN3-025	RB	150	31	0.92	U	I										Released
Creek 661	18-Jun-11	1	HN-03	HN	HN3-026	RB	137	23	0.89	U	I										Released
Creek 661	18-Jun-11	1	HN-03	HN	HN3-027	RB	385	486	0.85	M	S										Released
Creek 661	18-Jun-11	1	HN-03	HN	HN3-028	RB	425	750	0.98	M	S										Released
Creek 661	19-Jun-11	1	HN-03	HN	HN3-029	RB	124	17	0.89	U	U										Released
Creek 661	19-Jun-11	1	HN-03	HN	HN3-030	RB	126	18	0.90	U	U										Released
Creek 661	19-Jun-11	1	HN-03	HN	HN3-031	RB	136	22	0.87	U	U										Released
Creek 661	19-Jun-11	1	HN-03	HN	HN3-032	RB	126	19	0.95	U	U										Released
Creek 661	19-Jun-11	1	HN-03	HN	HN3-033	RB	121	18	1.02	U	U										Released
Creek 661	19-Jun-11	1	HN-03	HN	HN3-034	RB	119	16	0.95	U	U										Released
Creek 661	19-Jun-11	1	HN-03	HN	HN3-035	RB	154	38	1.04	U	U										Released
Creek 661	19-Jun-11	1	HN-03	HN	HN3-036	RB	117	17	1.06	U	I										Released
Creek 661	19-Jun-11	1	HN-03	HN	HN3-037	RB	139	31	1.15	U	U										Released
Creek 661	19-Jun-11	1	HN-03	HN	HN3-038	RB	121	16	0.90	U	U										Released
Creek 661	19-Jun-11	1	HN-03	HN	HN3-039	RB	120	14	0.81	U	U										Released
Creek 661	19-Jun-11	1	HN-03	HN	HN3-040	RB	121	10	0.56	M	R										Released
Creek 661	19-Jun-11	1	HN-03	HN	HN3-041	RB	124	14	0.73	U	U										Released
Creek 661	19-Jun-11	1	HN-03	HN	HN3-042	RB	130	19	0.86	U	U										Released
Creek 661	19-Jun-11	1	HN-03	HN	HN3-043	RB	130	18	0.82	U	U										Released
Creek 661	19-Jun-11	1	HN-03	HN	HN3-044	RB	120	12	0.69	U	U										Released
Creek 661	19-Jun-11	1	HN-03	HN	HN3-045	RB	125	18	0.92	U	U										Released
Creek 661	19-Jun-11	1	HN-03	HN	HN3-046	RB	126	20	1.00	U	U										Released
Creek 661	19-Jun-11	1	HN-03	HN	HN3-047	RB	121	16	0.90	U	U										Released
Creek 661	19-Jun-11	1	HN-03	HN	HN3-048	RB	141	27	0.96	U	U										Released
Creek 661	19-Jun-11	1	HN-03	HN	HN3-049	RB	118	15	0.91	U	U										Released
Creek 661	19-Jun-11	1	HN-03	HN	HN3-050	RB	122	19	1.05	M	R										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 661	19-Jun-11	1	HN-03	HN	HN3-051	RB	127	21	1.03	U	U										Released
Creek 661	19-Jun-11	1	HN-03	HN	HN3-052	RB	107	10	0.82	U	U										Incidental mortality
Creek 661	19-Jun-11	1	HN-03	HN	HN3-053	RB	107	13	1.06	U	I										Incidental mortality
Creek 661	19-Jun-11	1	HN-03	HN	HN3-054	RB	109	19	1.47	U	I										Incidental mortality
Creek 661	19-Jun-11	1	HN-03	HN	HN3-055	RB	108	13	1.03	U	I										Incidental mortality
Creek 661	19-Jun-11	1	HN-03	HN	HN3-056	RB	105	14	1.21	U	I										Incidental mortality
Creek 661	19-Jun-11	1	HN-03	HN	HN3-057	RB	98	10	1.06	U	I										Incidental mortality
Creek 661	19-Jun-11	1	HN-03	HN	HN3-058	RB	99	11	1.13	U	I										Incidental mortality
Creek 661	19-Jun-11	1	HN-03	HN	HN3-059	RB	100	10	1.00	U	I										Incidental mortality
Creek 661	19-Jun-11	1	HN-03	HN	HN3-060	RB	114	18	1.21	U	I										Incidental mortality
Creek 661	19-Jun-11	1	HN-03	HN	HN3-061	RB	104	17	1.51	U	I										Incidental mortality
Creek 661	19-Jun-11	1	HN-03	HN	HN3-062	RB	109	17	1.31	U	I										Incidental mortality
Creek 661	19-Jun-11	1	HN-03	HN	HN3-063	RB	102	14	1.32	U	I										Incidental mortality
Creek 661	19-Jun-11	1	HN-03	HN	HN3-064	RB	93	6	0.75	U	I										Incidental mortality
Creek 661	19-Jun-11	1	HN-03	HN	HN3-065	RB	120	24	1.39	U	I										Incidental mortality
Creek 661	19-Jun-11	1	HN-03	HN	HN3-066	RB	115	18	1.18	U	I										Incidental mortality
Creek 661	19-Jun-11	1	HN-03	HN	HN3-067	RB	109	17	1.31	U	I										Incidental mortality
Creek 661	19-Jun-11	1	HN-03	HN	HN3-068	RB	110	18	1.35	U	I										Incidental mortality
Creek 661	19-Jun-11	1	HN-03	HN	HN3-069	RB	107	17	1.39	U	I										Incidental mortality
Creek 661	19-Jun-11	1	HN-03	HN	HN3-070	RB	123	18	0.97	M	R										Released
Creek 661	19-Jun-11	1	HN-03	HN	HN3-071	RB	120	17	0.98	U	U										Released
Creek 661	20-Jun-11	1	HN-03	HN	HN3-072	RB	144	30	1.00	M	R										Released
Creek 661	20-Jun-11	1	HN-03	HN	HN3-073	RB	135	24	0.98	U	I										Released
Creek 661	20-Jun-11	1	HN-03	HN	HN3-074	RB	112	16	1.14	U	I										Released
Creek 661	20-Jun-11	1	HN-03	HN	HN3-075	RB	121	14	0.79	U	I										Released
Creek 661	20-Jun-11	1	HN-03	HN	HN3-076	RB	130	26	1.18	U	I										Released
Creek 661	20-Jun-11	1	HN-03	HN	HN3-077	RB	115	19	1.25	U	I										Released
Creek 661	20-Jun-11	1	HN-03	HN	HN3-078	RB	114	16	1.08	U	I										Released
Creek 661	20-Jun-11	1	HN-03	HN	HN3-079	RB	99	14	1.44	U	I										Released
Creek 661	20-Jun-11	1	HN-03	HN	HN3-080	RB	123	19	1.02	U	I										Released
Creek 661	20-Jun-11	1	HN-03	HN	HN3-081	RB	130	19	0.86	U	I										Released
Creek 661	20-Jun-11	1	HN-03	HN	HN3-082	RB	126	19	0.95	U	I										Released
Creek 661	20-Jun-11	1	HN-03	HN	HN3-083	RB	119	19	1.13	U	I										Released
Creek 661	20-Jun-11	1	HN-03	HN	HN3-084	RB	121	17	0.96	U	I										Released
Creek 661	20-Jun-11	1	HN-03	HN	HN3-085	RB	145	30	0.98	U	I										Released
Creek 661	20-Jun-11	1	HN-03	HN	HN3-086	RB	160	38	0.93	U	I										Released
Creek 661	20-Jun-11	1	HN-03	HN	HN3-087	RB	152	32	0.91	M	R										Released
Creek 661	20-Jun-11	1	HN-03	HN	HN3-088	RB	136	27	1.07	U	I										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 661	20-Jun-11	1	HN-03	HN	HN3-089	RB	145	29	0.95	U	I										Released
Creek 661	20-Jun-11	1	HN-03	HN	HN3-090	RB	117	18	1.12	U	I										Released
Creek 661	20-Jun-11	1	HN-03	HN	HN3-091	RB	125	21	1.08	U	I										Released
Creek 661	20-Jun-11	1	HN-03	HN	HN3-092	RB	116	15	0.96	U	I										Incidental mortality
Creek 661	20-Jun-11	1	HN-03	HN	HN3-093	RB	131	25	1.11	M	M										Incidental mortality
Creek 661	20-Jun-11	1	HN-03	HN	HN3-094	RB	97	11	1.21	U	I										Incidental mortality
Creek 661	20-Jun-11	1	HN-03	HN	HN3-095	RB	123	21	1.13	U	I										Incidental mortality
Creek 661	20-Jun-11	1	HN-03	HN	HN3-096	RB	118	20	1.22	U	I										Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-097	RB	425	678	0.88	M	S										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-098	RB	355	423	0.95	F	S										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-099	RB	395	536	0.87	M	R										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-100	RB	400	579	0.90	F	S										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-101	RB	388	535	0.92	M	R										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-102	RB	368	494	0.99	M	S										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-103	RB	302	242	0.88	F	S										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-104	RB	398	555	0.88	F	R										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-105	RB	139	26	0.97	U	I										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-106	RB	119	16	0.95	U	I										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-107	RB	118	17	1.03	U	I										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-108	RB	116	17	1.09	U	I										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-109	RB	125	21	1.08	U	I										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-110	RB	120	16	0.93	U	I										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-111	RB	385	582	1.02	F	S										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-112	RB	315	236	0.76	F	S										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-113	RB	126	23	1.15	U	I										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-114	RB	117	18	1.12	U	I										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-115	RB	130	20	0.91	U	I										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-116	RB	127	20	0.98	U	I										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-117	RB	121	17	0.96	U	I										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-118	RB	116	15	0.96	U	I										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-119	RB	124	17	0.89	U	I										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-120	RB	138	24	0.91	U	I										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-121	RB	126	19	0.95	U	I										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-122	RB	125	19	0.97	U	I										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-123	RB	130	25	1.14	U	I										Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-124	RB	123	20	1.07	U	I										Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-125	RB	97	10	1.10	U	I										Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-126	RB	116	18	1.15	U	I										Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-127	RB	102	12	1.13	M	I										Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-128	RB	131	25	1.11	M	I										Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-129	RB	117	18	1.12	M	I										Incidental mortality

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 661	21-Jun-11	1	HN-03	HN	HN3-130	RB	127	25	1.22	M	M										Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-131	RB	100	16	1.60	M	M										Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-132	RB	121	21	1.19	U	I										Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-133	RB	111	18	1.32	U	I										Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-134	RB	107	14	1.14	M	M										Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-135	RB	121	19	1.07	U	I										Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-136	RB	104	13	1.16	U	I										Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-137	RB	104	16	1.42	U	I										Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-138	RB	106	15	1.26	M	M										Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-139	RB	104	12	1.07	U	I										Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-140	RB	90	13	1.78	U	I										Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-141	RB	92	12	1.54	U	I										Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-142	RB	100	13	1.30	U	I										Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-143	RB	85	9	1.47	U	I										Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-144	RB	95	11	1.28	U	I										Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-145	RB	106	14	1.18	U	I										Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-146	RB	102	17	1.60	U	I										Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-147	RB	140	27	0.98	M	I			OT	4		4				Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-148	RB	126	24	1.20	U	I			OT	3		3				Incidental mortality
Creek 661	21-Jun-11	1	HN-03	HN	HN3-149	RB	365	494	1.02	U	S										Released
Creek 661	21-Jun-11	1	HN-03	HN	HN3-150	RB	420	693	0.94	F	S										Released
Creek 661	22-Jun-11	1	HN-03	HN	HN3-151	RB	120	18	1.04	U	I										Incidental mortality
Creek 661	22-Jun-11	1	HN-03	HN	HN3-152	RB	435	840	1.02	M	S										Released
Creek 661	22-Jun-11	1	HN-03	HN	HN3-153	RB	400	579	0.90	F	S										Released
Creek 661	22-Jun-11	1	HN-03	HN	HN3-154	RB	410	686	1.00	M	S										Released
Creek 661	22-Jun-11	1	HN-03	HN	HN3-155	RB	440	765	0.90	F	S										Released
Creek 661	22-Jun-11	1	HN-03	HN	HN3-156	RB	390	589	0.99	F	S										Released
Creek 661	22-Jun-11	1	HN-03	HN	HN3-157	RB	385	458	0.80	F	S										Released
Creek 661	22-Jun-11	1	HN-03	HN	HN3-158	RB	151	33	0.96	U	I										Released
Creek 661	22-Jun-11	1	HN-03	HN	HN3-159	RB	130	20	0.91	U	I										Released
Creek 661	22-Jun-11	1	HN-03	HN	HN3-160	RB	119	15	0.89	U	I										Released
Creek 661	22-Jun-11	1	HN-03	HN	HN3-161	RB	123	20	1.07	F	I										Incidental mortality
Creek 661	22-Jun-11	1	HN-03	HN	HN3-162	RB	123	18	0.97	M	I										Released
Creek 661	22-Jun-11	1	HN-03	HN	HN3-163	RB	144	34	1.14	M	I										Incidental mortality
Creek 661	22-Jun-11	1	HN-03	HN	HN3-164	RB	415	632	0.88	M	S										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 661	22-Jun-11	1	HN-03	HN	HN3-165	RB	415	699	0.98	M	S										Released
Creek 661	22-Jun-11	1	HN-03	HN	HN3-166	RB	375	456	0.86	F	S										Released
Creek 661	22-Jun-11	1	HN-03	HN	HN3-167	RB	400	574	0.90	F	S										Released
Creek 661	22-Jun-11	1	HN-03	HN	HN3-168	RB	118	16	0.97	M	I										Incidental mortality
Creek 661	22-Jun-11	1	HN-03	HN	HN3-169	RB	113	15	1.04	M	I										Incidental mortality
Creek 661	22-Jun-11	1	HN-03	HN	HN3-170	RB	120	18	1.04	U	I										Incidental mortality
Creek 661	22-Jun-11	1	HN-03	HN	HN3-171	RB	108	14	1.11	F	I										Incidental mortality
Creek 661	22-Jun-11	1	HN-03	HN	HN3-172	RB	115	15	0.99	U	I										Released
Creek 661	22-Jun-11	1	HN-03	HN	HN3-173	RB	135	23	0.93	U	I										Released
Creek 661	22-Jun-11	1	HN-03	HN	HN3-174	RB	119	18	1.07	U	I										Released
Creek 661	22-Jun-11	1	HN-03	HN	HN3-175	RB	162	39	0.92	M	I										Incidental mortality
Creek 661	22-Jun-11	1	HN-03	HN	HN3-176	RB	130	21	0.96	M	I										Incidental mortality
Creek 661	22-Jun-11	1	HN-03	HN	HN3-177	RB	107	14	1.14	F	I										Incidental mortality
Creek 661	22-Jun-11	1	HN-03	HN	HN3-178	RB	113	16	1.11	U	I										Incidental mortality
Creek 661	22-Jun-11	1	HN-03	HN	HN3-179	RB	435	730	0.89	M	S										Released
Creek 661	22-Jun-11	1	HN-03	HN	HN3-180	RB	113	15	1.04	U	I										Released
Creek 661	23-Jun-11	1	HN-03	HN	HN3-181	RB	360	625	1.34	F	R										Released
Creek 661	23-Jun-11	1	HN-03	HN	HN3-182	RB	395	555	0.90	F	S										Released
Creek 661	23-Jun-11	1	HN-03	HN	HN3-183	RB	385	553	0.97	F	S										Released
Creek 661	23-Jun-11	1	HN-03	HN	HN3-184	RB	380	585	1.07	F	S										Released
Creek 661	23-Jun-11	1	HN-03	HN	HN3-185	RB	380	574	1.05	F	S										Released
Creek 661	23-Jun-11	1	HN-03	HN	HN3-186	RB	405	638	0.96	F	S										Released
Creek 661	23-Jun-11	1	HN-03	HN	HN3-187	RB	138	26	0.99	U	I										Released
Creek 661	23-Jun-11	1	HN-03	HN	HN3-188	RB	140	27	0.98	U	I										Released
Creek 661	23-Jun-11	1	HN-03	HN	HN3-189	RB	130	21	0.96	U	I								Y		Released
Creek 661	23-Jun-11	1	HN-03	HN	HN3-190	RB	134	26	1.08	M	R								Y		Released
Creek 661	23-Jun-11	1	HN-03	HN	HN3-191	RB	129	26	1.21	U	I								Y		Released
Creek 661	23-Jun-11	1	HN-03	HN	HN3-192	RB	125	23	1.18	U	I								Y		Released
Creek 661	23-Jun-11	1	HN-03	HN	HN3-193	RB	125	23	1.18	U	I										Released
Creek 661	23-Jun-11	1	HN-03	HN	HN3-194	RB	122	22	1.21	M	R										Released
Creek 661	23-Jun-11	1	HN-03	HN	HN3-195	RB	144	34	1.14	U	I										Released
Creek 661	23-Jun-11	1	HN-03	HN	HN3-196	RB	119	17	1.01	U	I										Released
Creek 661	23-Jun-11	1	HN-03	HN	HN3-197	RB	126	22	1.10	U	I										Released
Creek 661	23-Jun-11	1	HN-03	HN	HN3-198	RB	115	18	1.18	M	I										Incidental mortality
Creek 661	23-Jun-11	1	HN-03	HN	HN3-199	RB	121	20	1.13	U	I										Incidental mortality
Creek 661	23-Jun-11	1	HN-03	HN	HN3-200	RB	105	13	1.12	M	I										Incidental mortality
Creek 661	23-Jun-11	1	HN-03	HN	HN3-201	RB	380	593	1.08	M	S			OT	7		7				Incidental mortality
Creek 661	23-Jun-11	1	HN-03	HN	HN3-202	RB	375	619	1.17	M	S										Incidental mortality
Creek 661	23-Jun-11	1	HN-03	HN	HN3-203	RB	97	11	1.21	M	I			SC, OT	2	1	2		Y		Incidental mortality
Creek 661	24-Jun-11	1	HN-03	HN	HN3-204	RB	375	575	1.09	M	S										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 661	24-Jun-11	1	HN-03	HN	HN3-205	RB	350	365	0.85	F	S										Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-206	RB	435	721	0.88	M	S										Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-207	RB	120	18	1.04	U	I										Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-208	RB	132	22	0.96	U	I								Y		Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-209	RB	151	33	0.96	U	I										Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-210	RB	135	23	0.93	U	I										Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-211	RB	122	17	0.94	U	I										Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-212	RB	128	20	0.95	U	I										Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-213	RB	151	29	0.84	U	I										Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-214	RB	122	18	0.99	U	I										Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-215	RB	120	19	1.10	U	I								Y		Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-216	RB	127	18	0.88	U	I								Y		Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-217	RB	142	24	0.84	U	I								Y		Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-218	RB	160	35	0.85	U	I										Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-219	RB	121	17	0.96	U	I								Y		Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-220	RB	97	10	1.10	U	I										Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-221	RB	113	14	0.97	U	I								Y		Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-222	RB	125	18	0.92	U	I								Y		Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-223	RB	152	37	1.05	U	I										Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-224	RB	141	24	0.86	U	I										Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-225	RB	125	17	0.87	U	I										Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-226	RB	125	19	0.97	U	I										Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-227	RB	113	14	0.97	U	I										Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-228	RB	135	21	0.85	U	I										Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-229	RB	113	14	0.97	U	I										Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-230	RB	123	16	0.86	U	I										Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-231	RB	110	12	0.90	U	I										Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-232	RB	142	25	0.87	U	I										Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-233	RB	148	30	0.93	U	I										Released
Creek 661	24-Jun-11	1	HN-03	HN	HN3-234	RB	112	14	1.00	U	I										Incidental mortality
Creek 661	24-Jun-11	1	HN-03	HN	HN3-235	RB	135	28	1.14	U	I										Incidental mortality
Creek 661	24-Jun-11	1	HN-03	HN	HN3-236	RB	126	22	1.10	U	I										Incidental mortality
Creek 661	24-Jun-11	1	HN-03	HN	HN3-237	RB	123	20	1.07	U	I										Incidental mortality
Creek 661	24-Jun-11	1	HN-03	HN	HN3-238	RB	105	13	1.12	U	I										Incidental mortality
Creek 661	24-Jun-11	1	HN-03	HN	HN3-239	RB	104			U	I										Incidental mortality
Creek 661	25-Jun-11	1	HN-03	HN	HN3-240	RB	405	692	1.04	F	S										Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-241	RB	410	622	0.90	F	S										Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-242	RB	425	676	0.88	M	S										Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-243	RB	120	18	1.04	U	I										Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-244	RB	109	14	1.08	U	I										Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-245	RB	118	16	0.97	U	I										Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-246	RB	118	18	1.10	U	I										Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-247	RB	115	15	0.99	U	I								Y		Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-248	RB	120	17	0.98	U	I										Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-249	RB	146	30	0.96	U	I										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 661	25-Jun-11	1	HN-03	HN	HN3-250	RB	131	22	0.98	U	I										Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-251	RB	135	25	1.02	M	R										Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-252	RB	123	18	0.97	U	I										Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-253	RB	120	18	1.04	M	R										Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-254	RB	115	15	0.99	U	I										Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-255	RB	113	15	1.04	U	I								Y		Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-256	RB	133	21	0.89	U	I										Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-257	RB	110	13	0.98	U	I										Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-258	RB	119	16	0.95	U	I								Y		Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-259	RB	133	23	0.98	U	I										Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-260	RB	130	21	0.96	U	I										Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-261	RB	146	27	0.87	U	I								Y		Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-262	RB	134	22	0.91	M	R										Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-263	RB	128	21	1.00	U	I										Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-264	RB	123	20	1.07	M	R										Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-265	RB	109	14	1.08	U	I										Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-266	RB	102	10	0.94	U	I										Released
Creek 661	25-Jun-11	1	HN-03	HN	HN3-267	RB	119	16	0.95	U	I										Incidental mortality
Creek 661	25-Jun-11	1	HN-03	HN	HN3-268	RB	390	590	0.99	F	S										Incidental mortality
Creek 661	25-Jun-11	1	HN-03	HN	HN3-269	RB	132	24	1.04	F	I			SC	2	1	2				Incidental mortality
Creek 661	25-Jun-11	1	HN-03	HN	HN3-270	RB	132	23	1.00	M	I			SC	3	1	3				Incidental mortality
Creek 661	25-Jun-11	1	HN-03	HN	HN3-271	RB	109	14	1.08	M	I			SC	2	1	2				Incidental mortality
Creek 661	25-Jun-11	1	HN-03	HN	HN3-272	RB	114	17	1.15	M	I			SC	2	1	2				Incidental mortality
Creek 661	25-Jun-11	1	HN-03	HN	HN3-273	RB	118	16	0.97	U	I										Incidental mortality
Creek 661	25-Jun-11	1	HN-03	HN	HN3-274	RB	110	15	1.13	U	I										Incidental mortality
Creek 661	25-Jun-11	1	HN-03	HN	HN3-275	RB	106	14	1.18	U	I										Incidental mortality
Creek 661	25-Jun-11	1	HN-03	HN	HN3-276	RB	122	18	0.99	M	I										Incidental mortality
Creek 661	25-Jun-11	1	HN-03	HN	HN3-277	RB	109	14	1.08	U	I										Incidental mortality
Creek 661	26-Jun-11	1	HN-03	HN	HN3-278	RB	400	603	0.94	F	S										Released
Creek 661	26-Jun-11	1	HN-03	HN	HN3-279	RB	380	526	0.96	F	S										Released
Creek 661	26-Jun-11	1	HN-03	HN	HN3-280	RB	213	88	0.91	F	S								Y		Released
Creek 661	26-Jun-11	1	HN-03	HN	HN3-281	RB	122	18	0.99	U	I								Y		Released
Creek 661	26-Jun-11	1	HN-03	HN	HN3-282	RB	136	25	0.99	U	I										Released
Creek 661	26-Jun-11	1	HN-03	HN	HN3-283	RB	123	15	0.81	U	I										Released
Creek 661	26-Jun-11	1	HN-03	HN	HN3-284	RB	140	25	0.91	U	I								Y		Released
Creek 661	26-Jun-11	1	HN-03	HN	HN3-285	RB	129	21	0.98	U	I										Released
Creek 661	26-Jun-11	1	HN-03	HN	HN3-286	RB	115	14	0.92	U	I										Released
Creek 661	26-Jun-11	1	HN-03	HN	HN3-287	RB	123	19	1.02	U	I										Released
Creek 661	26-Jun-11	1	HN-03	HN	HN3-288	RB	125	21	1.08	U	I										Released
Creek 661	26-Jun-11	1	HN-03	HN	HN3-289	RB	118	15	0.91	U	I										Released
Creek 661	26-Jun-11	1	HN-03	HN	HN3-290	RB	121	16	0.90	U	I										Released
Creek 661	26-Jun-11	1	HN-03	HN	HN3-291	RB	128	23	1.10	U	I								Y		Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 661	26-Jun-11	1	HN-03	HN	HN3-292	RB	128	20	0.95	U	I								Y		Released
Creek 661	26-Jun-11	1	HN-03	HN	HN3-293	RB	137	24	0.93	U	I										Released
Creek 661	26-Jun-11	1	HN-03	HN	HN3-294	RB	125	17	0.87	M	M										Released
Creek 661	26-Jun-11	1	HN-03	HN	HN3-295	RB	120	17	0.98	M	R										Released
Creek 661	26-Jun-11	1	HN-03	HN	HN3-296	RB	107	14	1.14	U	I										Released
Creek 661	26-Jun-11	1	HN-03	HN	HN3-297	RB	114	17	1.15	U	I										Incidental mortality
Creek 661	26-Jun-11	1	HN-03	HN	HN3-298	RB	135	26	1.06	U	I										Incidental mortality
Creek 661	26-Jun-11	1	HN-03	HN	HN3-299	RB	129	23	1.07	U	I										Incidental mortality
Creek 661	26-Jun-11	1	HN-03	HN	HN3-300	RB	120	16	0.93	U	I										Incidental mortality
Creek 661	26-Jun-11	1	HN-03	HN	HN3-301	RB	120	19	1.10	F	I			SC, OT	2	1	2				Incidental mortality
Creek 661	26-Jun-11	1	HN-03	HN	HN3-302	RB	115	16	1.05	M	I			SC, OT	2	1	2				Incidental mortality
Creek 661	26-Jun-11	1	HN-03	HN	HN3-303	RB	105	13	1.12	F	I			SC, OT	2	1	2				Incidental mortality
Creek 661	26-Jun-11	1	HN-03	HN	HN3-304	RB	85	7	1.14	M	I			SC, OT	2	1	2				Incidental mortality
Creek 661	26-Jun-11	1	HN-03	HN	HN3-305	RB	80	6	1.17	U	I			SC, OT	2	1	2				Incidental mortality
Creek 661	26-Jun-11	1	HN-03	HN	HN3-306	RB	111	16	1.17	U	I										Incidental mortality
Creek 661	26-Jun-11	1	HN-03	HN	HN3-307	RB	115	16	1.05	U	I										Incidental mortality
Creek 661	27-Jun-11	1	HN-03	HN	HN3-308	RB	350	410	0.96	F	S										Released
Creek 661	27-Jun-11	1	HN-03	HN	HN3-309	RB	370	453	0.89	M	S										Released
Creek 661	27-Jun-11	1	HN-03	HN	HN3-310	RB	380	489	0.89	F	S										Released
Creek 661	27-Jun-11	1	HN-03	HN	HN3-311	RB	240	122	0.88	U	M										Released
Creek 661	27-Jun-11	1	HN-03	HN	HN3-312	RB	143	27	0.92	U	I										Released
Creek 661	27-Jun-11	1	HN-03	HN	HN3-313	RB	153	31	0.87	U	I										Released
Creek 661	27-Jun-11	1	HN-03	HN	HN3-314	RB	130	23	1.05	U	I										Released
Creek 661	27-Jun-11	1	HN-03	HN	HN3-315	RB	129	18	0.84	U	I										Released
Creek 661	27-Jun-11	1	HN-03	HN	HN3-316	RB	136	22	0.87	U	I										Released
Creek 661	27-Jun-11	1	HN-03	HN	HN3-317	RB	150	30	0.89	U	I										Released
Creek 661	27-Jun-11	1	HN-03	HN	HN3-318	RB	126	18	0.90	U	I										Released
Creek 661	27-Jun-11	1	HN-03	HN	HN3-319	RB	125	17	0.87	U	I										Released
Creek 661	27-Jun-11	1	HN-03	HN	HN3-320	RB	128	20	0.95	U	I										Released
Creek 661	27-Jun-11	1	HN-03	HN	HN3-321	RB	132	22	0.96	U	I										Released
Creek 661	27-Jun-11	1	HN-03	HN	HN3-322	RB	135	24	0.98	U	I			OT	5		5				Released
Creek 661	27-Jun-11	1	HN-03	HN	HN3-323	RB	143	27	0.92	U	I										Released
Creek 661	27-Jun-11	1	HN-03	HN	HN3-324	RB	430	803	1.01	M	S										Incidental mortality
Creek 661	09-Jun-11	4	HN-04	HN	HN4-001	RB	162	41	0.96	M	R			SC		1	1				Released
Creek 661	09-Jun-11	4	HN-04	HN	HN4-002	RB	400	735	1.15	F	R			SC		4	4				Released
Creek 661	09-Jun-11	4	HN-04	HN	HN4-003	RB	380	580	1.06	F	R			SC		5	5				Released
Creek 661	09-Jun-11	4	HN-04	HN	HN4-004	RB	435	820	1.00	F	R			SC		5	5				Released
Creek 661	10-Jun-11	4	HN-04	HN	HN4-005	RB	405	745	1.12	M	R			SC		ua					Released
Creek 661	10-Jun-11	4	HN-04	HN	HN4-006	RB	430	825	1.04	M	R			SC		ua					Released
Creek 661	10-Jun-11	4	HN-04	HN	HN4-007	RB	415	768	1.07	F	M			SC		5	5		Y		Released
Creek 661	10-Jun-11	4	HN-04	HN	HN4-008	RB	385	665	1.17	F	R			SC							Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 661	10-Jun-11	4	HN-04	HN	HN4-009	RB	380	581	1.06	M	R			SC		ua					Released
Creek 661	10-Jun-11	4	HN-04	HN	HN4-010	RB	395	720	1.17	F	R			SC		5	5				Released
Creek 661	10-Jun-11	4	HN-04	HN	HN4-011	RB	385	690	1.21	F	R			SC					Y		Released
Creek 661	10-Jun-11	4	HN-04	HN	HN4-012	RB	395	755	1.23	F	R			SC					Y		Released
Creek 661	10-Jun-11	4	HN-04	HN	HN4-013	RB	405	798	1.20	F	M			SC		7	7		Y		Released
Creek 661	10-Jun-11	4	HN-04	HN	HN4-014	RB	375	735	1.39	F	R			SC		4	4				Released
Creek 661	11-Jun-11	4	HN-04	HN	HN4-015	RB	395	780	1.27	F	R			SC		4	4				Released
Creek 661	11-Jun-11	4	HN-04	HN	HN4-016	RB	380	655	1.19	F	M			SC		4	4				Released
Creek 661	11-Jun-11	4	HN-04	HN	HN4-017	RB	375	580	1.10	F	R			SC							Released
Creek 661	11-Jun-11	4	HN-04	HN	HN4-018	RB	380	615	1.12	F	R			SC		4	4				Released
Creek 661	11-Jun-11	4	HN-04	HN	HN4-019	RB	380	520	0.95	M	R			SC							Released
Creek 661	11-Jun-11	4	HN-04	HN	HN4-020	RB	365	595	1.22	F	R			SC		4	4				Released
Creek 661	11-Jun-11	4	HN-04	HN	HN4-021	RB	195	72	0.97	M	R			SC		2	2				Released
Creek 661	11-Jun-11	4	HN-04	HN	HN4-022	RB	140	30	1.09	M	R										Released
Creek 661	11-Jun-11	4	HN-04	HN	HN4-023	RB	400	780	1.22	M	R			SC		ua					Released
Creek 661	12-Jun-11	4	HN-04	HN	HN4-024	RB	405	770	1.16	F	M			SC		5	5				Released
Creek 661	12-Jun-11	4	HN-04	HN	HN4-025	RB	410	695	1.01	F	R			SC							Released
Creek 661	12-Jun-11	4	HN-04	HN	HN4-026	RB	400	720	1.13	M	R			SC							Released
Creek 661	12-Jun-11	4	HN-04	HN	HN4-027	RB	340	440	1.12	M	R			SC		ua			Y		Released
Creek 661	12-Jun-11	4	HN-04	HN	HN4-028	RB	133	23	0.98	M	R			SC		1	1				Released
Creek 661	13-Jun-11	4	HN-04	HN	HN4-029	RB	400			M	R										Released
Creek 661	13-Jun-11	4	HN-04	HN	HN4-030	RB	385			F	R										Released
Creek 661	13-Jun-11	4	HN-04	HN	HN4-031	RB	450			M	R										Released
Creek 661	13-Jun-11	4	HN-04	HN	HN4-032	RB	115			U	U			SC		0	0				Released
Creek 661	14-Jun-11	4	HN-04	HN	HN4-033	RB	142	17	0.59	F	R			SC		2	2				Released
Creek 661	15-Jun-11	4	HN-04	HN	HN4-034	RB	395	628	1.02	F	S										Released
Creek 661	16-Jun-11	4	HN-04	HN	HN4-035	RB	162	37	0.87	M	R										Released
Creek 661	16-Jun-11	4	HN-04	HN	HN4-036	RB	205	76	0.88	U	U										Released
Creek 661	16-Jun-11	4	HN-04	HN	HN4-037	RB	115	16	1.05	U	U										Released
Creek 661	16-Jun-11	4	HN-04	HN	HN4-038	RB	435	782	0.95	M	R										Released
Creek 661	18-Jun-11	4	HN-04	HN	HN4-039	RB	400	590	0.92	M	R										Released
Creek 661	18-Jun-11	4	HN-04	HN	HN4-040	RB	418	482	0.66	M	R										Released
Creek 661	18-Jun-11	4	HN-04	HN	HN4-041	RB	155	37	0.99	M	R										Released
Creek 661	18-Jun-11	4	HN-04	HN	HN4-042	RB	129	22	1.02	M	R										Released
Creek 661	18-Jun-11	4	HN-04	HN	HN4-043	RB	134	30	1.25	M	R										Released
Creek 661	18-Jun-11	4	HN-04	HN	HN4-044	RB	460	815	0.84	M	S										Released
Creek 661	18-Jun-11	4	HN-04	HN	HN4-045	RB	448	778	0.87	M	S										Released
Creek 661	20-Jun-11	4	HN-04	HN	HN4-046	RB	152	37	1.05	M	R										Released
Creek 661	21-Jun-11	4	HN-04	HN	HN4-047	RB	390	671	1.13	M	R			SC, OT	7	6	7				Incidental mortality
Creek 661	25-Jun-11	4	HN-04	HN	HN4-048	RB	116	16	1.03	U	I										Released
Creek 661	25-Jun-11	4	HN-04	HN	HN4-049	RB	128	24	1.14	U	I								Y		Released
Creek 661	25-Jun-11	4	HN-04	HN	HN4-050	RB	122	18	0.99	U	I										Released
Creek 661	25-Jun-11	4	HN-04	HN	HN4-051	RB	138	24	0.91	M	R										Released
Creek 661	25-Jun-11	4	HN-04	HN	HN4-052	RB	141	26	0.93	M	R								Y		Released
Creek 661	25-Jun-11	4	HN-04	HN	HN4-053	RB	385	556	0.97	M	R								Y		Released
Creek 661	26-Jun-11	4	HN-04	HN	HN4-054	RB	123	20	1.07	U	I										Released
Creek 661	26-Jun-11	4	HN-04	HN	HN4-055	RB	134	22	0.91	U	I										Released
Creek 661	26-Jun-11	4	HN-04	HN	HN4-056	RB	129	19	0.89	U	I										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 661	27-Jun-11	4	HN-04	HN	HN4-057	RB	128	20	0.95	U	I										Released
Turtle Creek	07-Jun-11	1	HN-05	HN	HN5-001	RB	125	20	1.02	U	U										Released
Turtle Creek	07-Jun-11	1	HN-05	HN	HN5-002	RB	218	98	0.95	U	U										Released
Turtle Creek	07-Jun-11	1	HN-05	HN	HN5-003	RB	135	26	1.06	U	U										Released
Turtle Creek	07-Jun-11	1	HN-05	HN	HN5-004	RB	188	68	1.02	M	R										Released
Turtle Creek	07-Jun-11	1	HN-05	HN	HN5-005	RB	125	21	1.08	U	I										Released
Turtle Creek	07-Jun-11	1	HN-05	HN	HN5-006	RB	124	19	1.00	U	U										Released
Turtle Creek	07-Jun-11	1	HN-05	HN	HN5-007	RB	206	96	1.10	U	U										Released
Turtle Creek	07-Jun-11	1	HN-05	HN	HN5-008	RB	123	19	1.02	M	R										Released
Turtle Creek	07-Jun-11	1	HN-05	HN	HN5-009	RB	126	21	1.05	M	R										Released
Turtle Creek	07-Jun-11	1	HN-05	HN	HN5-010	RB	126	21	1.05	M	R										Released
Turtle Creek	07-Jun-11	1	HN-05	HN	HN5-011	RB	118	16	0.97	M	R										Released
Turtle Creek	07-Jun-11	1	HN-05	HN	HN5-012	RB	124	22	1.15	M	R										Released
Turtle Creek	07-Jun-11	1	HN-05	HN	HN5-013	RB	124	24	1.26	M	R										Released
Turtle Creek	07-Jun-11	1	HN-05	HN	HN5-014	RB	149	34	1.03	U	U										Released
Turtle Creek	07-Jun-11	1	HN-05	HN	HN5-015	RB	125	19	0.97	U	U										Released
Turtle Creek	07-Jun-11	1	HN-05	HN	HN5-016	RB	122	19	1.05	M	R										Released
Turtle Creek	07-Jun-11	1	HN-05	HN	HN5-017	RB	131	23	1.02	M	R										Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-018	RB	370	463	0.91	M	R			SC		6	6		Y		Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-019	RB	259	148	0.85	M	S			SC		4	4				Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-020	RB	189	71	1.05	M	R			SC							Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-021	RB	146	31	1.00	M	R			SC		1	1				Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-022	RB	134	25	1.04	U	U								Y		Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-023	RB	130	22	1.00	M	R								Y		Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-024	RB	137	25	0.97	U	U										Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-025	RB	125	20	1.02	M	R										Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-026	RB	113	16	1.11	U	U										Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-027	RB	134	27	1.12	U	U										Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-028	RB	129	21	0.98	U	U										Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-029	RB	119	19	1.13	U	U										Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-030	RB	180	55	0.94	M	R			SC							Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-031	RB	124	19	1.00	M	S										Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-032	RB	118	16	0.97	M	R										Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-033	RB	135	25	1.02	M	R										Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-034	RB	129	23	1.07	U	U										Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-035	RB	123	22	1.18	M	R										Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-036	RB	118	16	0.97	M	R										Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-037	RB	119	17	1.01	U	U										Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-038	RB	124	23	1.21	M	R										Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-039	RB	145	31	1.02	U	I										Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-040	RB	121	16	0.90	U	I										Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-041	RB	135	24	0.98	U	I										Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-042	RB	125	18	0.92	M	R										Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-043	RB	265	182	0.98	F	R			SC		5	5				Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-044	RB	190	74	1.08	F	R			SC		2	2				Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-045	RB	190	59	0.86	M	S			SC							Released
Turtle Creek	08-Jun-11	1	HN-05	HN	HN5-046	RB	164	45	1.02	M	R										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-048	RB	300	275	1.02	F	S										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-049	RB	235	125	0.96	F	R										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-050	RB	145	30	0.98	U	U										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-051	RB	133	24	1.02	U	U										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-052	RB	119	19	1.13	U	U										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-053	RB	182	60	1.00	F	S										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-054	RB	290	202	0.83	M	S										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-055	RB	165	41	0.91	U	U										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-056	RB	121	19	1.07	U	U										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-057	RB	165	44	0.98	U	U										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-058	RB	115	16	1.05	U	I										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-059	RB	110	13	0.98	U	I										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-060	RB	148	32	0.99	M	R										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-061	RB	131	21	0.93	U	I										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-062	RB	129	20	0.93	U	I										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-063	RB	125	19	0.97	U	I										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-064	RB	270	188	0.96	F	R										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-065	RB	115	15	0.99	U	I										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-066	RB	129	19	0.89	U	I										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-067	RB	125	19	0.97	U	I										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-068	RB	128	21	1.00	U	I										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-069	RB	119	17	1.01	U	I										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-070	RB	130	22	1.00	M	R										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-071	RB	350	450	1.05	M	S										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-072	RB	330	366	1.02	M	S										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-073	RB	380	535	0.97	F	S										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-074	RB	280	197	0.90	M	S										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-075	RB	265	156	0.84	M	S										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-076	RB	340	336	0.85	F	R										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-077	RB	146	32	1.03	M	R										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-078	RB	165	49	1.09	M	R										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-079	RB	149	33	1.00	U	U										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-080	RB	137	24	0.93	U	I										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-081	RB	119	17	1.01	U	I										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-082	RB	175	51	0.95	U	U										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-083	RB	135	19	0.77	U	I										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-084	RB	129	19	0.89	M	R										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-085	RB	150	30	0.89	M	R										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-086	RB	115	16	1.05	M	R										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-087	RB	117	15	0.94	M	R										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-088	RB	126	20	1.00	M	R										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-089	RB	141	26	0.93	U	U										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-090	RB	138	18	0.68	M	R										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-091	RB	155	36	0.97	M	R			OT	3		3				Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-092	RB	126	18	0.90	U	I										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-093	RB	127	19	0.93	U	I										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-094	RB	198	77	0.99	F	S										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-095	RB	166	46	1.01	U	U										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-096	RB	218	96	0.93	F	S										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-097	RB	136	26	1.03	U	U										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-098	RB	227	119	1.02	U	U										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-099	RB	174	52	0.99	M	S										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-100	RB	191	68	0.98	M	R										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-101	RB	161	37	0.89	F	R										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-102	RB	205	87	1.01	F	R										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-103	RB	130	21	0.96	F	R										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-104	RB	124	19	1.00	M	R										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-105	RB	132	23	1.00	M	R										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-106	RB	122	18	0.99	U	I										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-107	RB	130	20	0.91	M	R										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-108	RB	380	524	0.95	F	R			SC							Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-109	RB	350	456	1.06	F	R										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-110	RB	335	380	1.01	F	R										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-111	RB	370	445	0.88	F	R										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-112	RB	248	159	1.04	M	R										Released
Turtle Creek	09-Jun-11	1	HN-05	HN	HN5-113	RB	280	225	1.02	M	R										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-114	RB	360	493	1.06	F	R										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-115	RB	140	31	1.13	U	U										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-116	RB	131	18	0.80	U	U			OT	2		2				Incidental mortality
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-117	RB	115	17	1.12	U	U										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-118	RB	118	15	0.91	U	U										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-119	RB	230	122	1.00	F	R										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-120	RB	120	17	0.98	U	U										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-121	RB	139	26	0.97	F	S										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-122	RB	135	26	1.06	U	U										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-123	RB	126	16	0.80	U	U										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-124	RB	122	17	0.94	U	U										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-125	RB	185	71	1.12	M	S										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-126	RB	123	18	0.97	U	U										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-127	RB	135	22	0.89	F	R										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-128	RB	265	146	0.78	M	S										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-129	RB	246	138	0.93	M	S										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-130	RB	372	480	0.93	F	R										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-131	RB	305	239	0.84	M	R										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-132	RB	390	561	0.95	F	S										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-133	RB	300	265	0.98	F	S										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-134	RB	290	187	0.77	F	S										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-135	RB	270	174	0.88	F	S										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-136	RB	121	19	1.07	U	U										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-137	RB	120	17	0.98	M	R										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-138	RB	126	19	0.95	U	U										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-139	RB	121	19	1.07	U	U										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-140	RB	118	15	0.91	M	R										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-141	RB	130	22	1.00	U	U										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-142	RB	131	24	1.07	U	U										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-143	RB	136	23	0.91	U	U										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-144	RB	120	19	1.10	U	U										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-145	RB	120	20	1.16	U	U			OT	2		2				Incidental mortality

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-146	RB	212	99	1.04	F	S										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-147	RB	195	77	1.04	M	S										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-148	RB	140	25	0.91	U	U										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-149	RB	149	37	1.12	M	S										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-150	RB	258	139	0.81	M	S										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-151	RB	161	44	1.05	M	R										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-152	RB	115	18	1.18	U	U										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-153	RB	126	20	1.00	U	U										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-154	RB	148	30	0.93	U	U										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-155	RB	126	20	1.00	U	U										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-156	RB	151	33	0.96	M	R										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-157	RB	136	22	0.87	M	R										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-158	RB	122	19	1.05	M	R										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-159	RB	119	16	0.95	U	U										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-160	RB	165	47	1.05	M	R										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-161	RB	241	134	0.96	F	R										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-162	RB	176	60	1.10	M	R										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-163	RB	165	48	1.07	M	S										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-164	RB	128	21	1.00	U	U										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-165	RB	146	33	1.06	F	S										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-166	RB	129	21	0.98	U	U										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-167	RB	149	31	0.94	M	S										Released
Turtle Creek	10-Jun-11	1	HN-05	HN	HN5-168	RB	129	24	1.12	U	U										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-169	RB	340	358	0.91	F	S										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-170	RB	290	202	0.83	M	S										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-171	RB	240	129	0.93	M	S										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-172	RB	300	230	0.85	F	S										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-173	RB	285	207	0.89	M	S										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-174	RB	262	175	0.97	M	S										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-175	RB	271	179	0.90	F	R										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-176	RB	272	173	0.86	M	S										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-177	RB	291	218	0.88	F	S										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-178	RB	176	67	1.23	F	R										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-179	RB	145	33	1.08	M	R										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-180	RB	176	56	1.03	U	U										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-181	RB	121	17	0.96	U	U										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-182	RB	138	24	0.91	U	U										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-183	RB	118	17	1.03	U	U										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-184	RB	166	38	0.83	F	S										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-185	RB	129	20	0.93	U	U										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-186	RB	126	19	0.95	U	U										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-187	RB	117	16	1.00	U	U										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-188	RB	124	21	1.10	U	U										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-189	RB	185	62	0.98	F	R										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-190	RB	120	19	1.10	U	U										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-191	RB	276	203	0.97	F	R										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-192	RB	132	21	0.91	U	U										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-193	RB	118	17	1.03	U	U										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-194	RB	178	52	0.92	F	R										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-195	RB	126	19	0.95	M	R										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-196	RB	116	15	0.96	U	U										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-197	RB	126	23	1.15	U	U										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-198	RB	119	16	0.95	U	U										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-199	RB	125	19	0.97	U	U										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-200	RB	136	24	0.95	M	R										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-201	RB	126	18	0.90	U	U										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-202	RB	126	19	0.95	M	R										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-203	RB	116	14	0.90	U	U										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-204	RB	137	29	1.13	M	R										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-205	RB	123	23	1.24	M	R										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-206	RB	124	19	1.00	M	R										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-207	RB	254	153	0.93	M	S										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-208	RB	125	20	1.02	M	S										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-209	RB	265	184	0.99	M	S										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-210	RB	310	311	1.04	F	R										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-211	RB	330	360	1.00	M	S										Released
Turtle Creek	11-Jun-11	1	HN-05	HN	HN5-212	RB	390	660	1.11	M	R										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-213	RB	115	17	1.12	U	I										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-214	RB	110	15	1.13	U	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-215	RB	132	24	1.04	U	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-216	RB	134	25	1.04	U	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-217	RB	124	18	0.94	U	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-218	RB	111	15	1.10	U	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-219	RB	127	22	1.07	U	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-220	RB	320	332	1.01	M	S										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-221	RB	122	18	0.99	M	S										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-222	RB	192	78	1.10	U	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-223	RB	121	17	0.96	U	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-224	RB	122	19	1.05	U	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-225	RB	125	20	1.02	M	R										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-226	RB	123	18	0.97	U	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-227	RB	261	233	1.31	U	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-228	RB	325	347	1.01	U	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-229	RB	250	162	1.04	U	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-230	RB	275	191	0.92	U	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-231	RB	257	161	0.95	M	S										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-232	RB	122	17	0.94	U	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-234	RB	134	22	0.91	U	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-235	RB	124	22	1.15	U	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-236	RB	116	17	1.09	U	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-237	RB	119	22	1.31	F	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-238	RB	166	45	0.98	U	R										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-239	RB	110	19	1.43	U	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-240	RB	124	21	1.10	U	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-241	RB	123	17	0.91	U	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-242	RB	125	21	1.08	U	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-243	RB	126	18	0.90	U	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-244	RB	112	15	1.07	U	I										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-245	RB	122	19	1.05	U	U										Incidental mortality
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-246	RB	158	65	1.65	F	R										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-247	RB	240	135	0.98	U	U										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-248	RB	115	17	1.12	M	S										Released
Turtle Creek	12-Jun-11	1	HN-05	HN	HN5-249	RB	185	74	1.17	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-250	RB	144	33	1.11	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-250a	RB	169	64	1.33	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-251	RB	210	84	0.91	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-251a	RB	142	31	1.08	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-252	RB	200	80	1.00	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-252a	RB	161	44	1.05	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-253	RB	126	19	0.95	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-253a	RB	174	54	1.03	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-254	RB	137	27	1.05	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-254a	RB	200	34	0.43	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-255	RB	122	34	1.87	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-255a	RB	258	159	0.93	F	S										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-256	RB	130	21	0.96	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-256a	RB	334	420	1.13	F	M										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-257	RB	154	47	1.29	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-258	RB	128	23	1.10	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-259	RB	125	19	0.97	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-260	RB	238	134	0.99	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-261	RB	240	145	1.05	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-262	RB	124	19	1.00	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-263	RB	131	25	1.11	M	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-264	RB	370	440	0.87	M	R										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-265	RB	119	18	1.07	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-266	RB	121	20	1.13	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-267	RB	130	22	1.00	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-268	RB	192	62	0.88	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-269	RB	116	18	1.15	M	R										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-270	RB	116	16	1.03	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-271	RB	119	18	1.07	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-272	RB	124	19	1.00	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-273	RB	180	52	0.89	U	U										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-274	RB	375	518	0.98	F	S										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-275	RB	360	452	0.97	F	S										Released
Turtle Creek	13-Jun-11	1	HN-05	HN	HN5-276	RB	330	346	0.96	U	U										Released
Turtle Creek	14-Jun-11	1	HN-05	HN	HN5-277	RB	330	326	0.91	U	M										Released
Turtle Creek	14-Jun-11	1	HN-05	HN	HN5-278	RB	118	18	1.10	U	I										Released
Turtle Creek	14-Jun-11	1	HN-05	HN	HN5-279	RB	207	89	1.00	F	S										Released
Turtle Creek	14-Jun-11	1	HN-05	HN	HN5-280	RB	109	15	1.16	U	I										Released
Turtle Creek	14-Jun-11	1	HN-05	HN	HN5-281	RB	123	18	0.97	U	M										Incidental mortality
Turtle Creek	14-Jun-11	1	HN-05	HN	HN5-282	RB	326	408	1.18	F	M										Released
Turtle Creek	14-Jun-11	1	HN-05	HN	HN5-283	RB	335	355	0.94	M	S										Released
Turtle Creek	14-Jun-11	1	HN-05	HN	HN5-284	RB	322	326	0.98	F	S										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Turtle Creek	14-Jun-11	1	HN-05	HN	HN5-285	RB	116	16	1.03	U	I										Released
Turtle Creek	14-Jun-11	1	HN-05	HN	HN5-286	RB	112	15	1.07	U	I										Released
Turtle Creek	14-Jun-11	1	HN-05	HN	HN5-287	RB	131	22	0.98	U	M										Released
Turtle Creek	14-Jun-11	1	HN-05	HN	HN5-288	RB	298	246	0.93	F	S										Released
Turtle Creek	14-Jun-11	1	HN-05	HN	HN5-289	RB	197	85	1.11	F	S										Released
Turtle Creek	14-Jun-11	1	HN-05	HN	HN5-290	RB	219	103	0.98	F	S										Released
Turtle Creek	14-Jun-11	1	HN-05	HN	HN5-291	RB	176	53	0.97	U	M										Released
Turtle Creek	14-Jun-11	1	HN-05	HN	HN5-292	RB	159	38	0.95	M	S										Released
Turtle Creek	14-Jun-11	1	HN-05	HN	HN5-293	RB	120	19	1.10	M	R										Released
Turtle Creek	14-Jun-11	1	HN-05	HN	HN5-294	RB	115	17	1.12	F	S										Released
Turtle Creek	14-Jun-11	1	HN-05	HN	HN5-295	RB	199	76	0.96	U	M										Released
Turtle Creek	14-Jun-11	1	HN-05	HN	HN5-296	RB	229	121	1.01	U	M										Released
Turtle Creek	14-Jun-11	1	HN-05	HN	HN5-297	RB	126	19	0.95	M	M										Released
Turtle Creek	14-Jun-11	1	HN-05	HN	HN5-298	RB	187	62	0.95	U	M										Released
Turtle Creek	14-Jun-11	1	HN-05	HN	HN5-299	RB	177	49	0.88	U	R										Released
Turtle Creek	15-Jun-11	1	HN-05	HN	HN5-300	RB	240	135	0.98	U	M										Released
Turtle Creek	15-Jun-11	1	HN-05	HN	HN5-301	RB	339	414	1.06	U	S										Released
Turtle Creek	15-Jun-11	1	HN-05	HN	HN5-302	RB	265	171	0.92	U	M										Released
Turtle Creek	15-Jun-11	1	HN-05	HN	HN5-303	RB	164	41	0.93	U	M										Released
Turtle Creek	15-Jun-11	1	HN-05	HN	HN5-304	RB	124	21	1.10	M	R										Released
Turtle Creek	15-Jun-11	1	HN-05	HN	HN5-305	RB	195	77	1.04	U	M										Released
Turtle Creek	15-Jun-11	1	HN-05	HN	HN5-306	RB	124	22	1.15	U	M										Released
Turtle Creek	15-Jun-11	1	HN-05	HN	HN5-307	RB	149	31	0.94	M	R										Released
Turtle Creek	15-Jun-11	1	HN-05	HN	HN5-308	RB	130	24	1.09	U	M										Released
Turtle Creek	15-Jun-11	1	HN-05	HN	HN5-309	RB	147	32	1.01	U	M										Released
Turtle Creek	15-Jun-11	1	HN-05	HN	HN5-310	RB	129	25	1.16	U	M										Released
Turtle Creek	15-Jun-11	1	HN-05	HN	HN5-311	RB	116	16	1.03	U	I										Released
Turtle Creek	15-Jun-11	1	HN-05	HN	HN5-312	RB	117	21	1.31	M	R										Released
Turtle Creek	15-Jun-11	1	HN-05	HN	HN5-313	RB	118	18	1.10	U	I										Released
Turtle Creek	15-Jun-11	1	HN-05	HN	HN5-314	RB	120	18	1.04	M	R										Released
Turtle Creek	15-Jun-11	1	HN-05	HN	HN5-315	RB	124	22	1.15	U	I										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-316	RB	330	329	0.92	M	S										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-317	RB	325	313	0.91	M	S										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-318	RB	195	71	0.96	M	U										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-319	RB	165	41	0.91	F	S										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-320	RB	120	17	0.98	U	I										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-321	RB	190	58	0.85	U	I										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-322	RB	140	26	0.95	U	I										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-323	RB	135	25	1.02	U	I										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-324	RB	120	16	0.93	U	I										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-325	RB	115	17	1.12	U	I										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-326	RB	130	24	1.09	U	I										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-327	RB	115	18	1.18	U	I										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-328	RB	230	123	1.01	U	I										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-329	RB	130	23	1.05	U	I										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-330	RB	120	18	1.04	U	I										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-331	RB	120	18	1.04	U	I										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-332	RB	129	28	1.30	U	I										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-333	RB	140	30	1.09	U	I										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-334	RB	120	17	0.98	U	I										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-335	RB	120	20	1.16	U	I										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-336	RB	135	24	0.98	U	I										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-337	RB	120	19	1.10	U	I										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-338	RB	226	115	1.00	U	M										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-339	RB	222	103	0.94	U	M										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-340	RB	116	17	1.09	U	I										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-341	RB	119	18	1.07	M	R										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-342	RB	149	36	1.09	F	M										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-343	RB	223	111	1.00	U	M										Released
Turtle Creek	16-Jun-11	1	HN-05	HN	HN5-344	RB	179	56	0.98	U	M										Released
Turtle Creek	17-Jun-11	1	HN-05	HN	HN5-345	RB	305	226	0.80	M	R										Released
Turtle Creek	17-Jun-11	1	HN-05	HN	HN5-346	RB	340	403	1.03	F	S										Released
Turtle Creek	17-Jun-11	1	HN-05	HN	HN5-347	RB	310	228	0.77	U	U										Released
Turtle Creek	17-Jun-11	1	HN-05	HN	HN5-348	RB	280	182	0.83	U	U										Released
Turtle Creek	17-Jun-11	1	HN-05	HN	HN5-349	RB	230	113	0.93	U	U										Released
Turtle Creek	17-Jun-11	1	HN-05	HN	HN5-350	RB	260	146	0.83	U	U										Released
Turtle Creek	17-Jun-11	1	HN-05	HN	HN5-351	RB	170	47	0.96	U	U										Released
Turtle Creek	17-Jun-11	1	HN-05	HN	HN5-352	RB	211	96	1.02	U	U										Released
Turtle Creek	17-Jun-11	1	HN-05	HN	HN5-353	RB	270	151	0.77	F	S										Released
Turtle Creek	17-Jun-11	1	HN-05	HN	HN5-354	RB	122	20	1.10	U	U										Released
Turtle Creek	17-Jun-11	1	HN-05	HN	HN5-355	RB	119	17	1.01	U	U										Released
Turtle Creek	17-Jun-11	1	HN-05	HN	HN5-356	RB	172	49	0.96	F	S										Released
Turtle Creek	17-Jun-11	1	HN-05	HN	HN5-357	RB	131	19	0.85	M	R										Released
Turtle Creek	17-Jun-11	1	HN-05	HN	HN5-358	RB	115	15	0.99	U	U										Released
Turtle Creek	17-Jun-11	1	HN-05	HN	HN5-359	RB	114	14	0.94	M	R										Released
Turtle Creek	17-Jun-11	1	HN-05	HN	HN5-360	RB	133	23	0.98	U	U										Released
Turtle Creek	17-Jun-11	1	HN-05	HN	HN5-361	RB	180	55	0.94	U	U										Released
Turtle Creek	17-Jun-11	1	HN-05	HN	HN5-362	RB	113	16	1.11	U	U										Incidental mortality
Turtle Creek	17-Jun-11	1	HN-05	HN	HN5-363	RB	133	20	0.85	U	U										Released
Turtle Creek	17-Jun-11	1	HN-05	HN	HN5-364	RB	124	18	0.94	M	R										Released
Turtle Creek	17-Jun-11	1	HN-05	HN	HN5-365	RB	124	17	0.89	M	R										Released
Turtle Creek	18-Jun-11	1	HN-05	HN	HN5-366	RB	221	102	0.94	U	M										Released
Turtle Creek	18-Jun-11	1	HN-05	HN	HN5-367	RB	136	26	1.03	U	M										Released
Turtle Creek	18-Jun-11	1	HN-05	HN	HN5-368	RB	110	15	1.13	U	M										Released
Turtle Creek	18-Jun-11	1	HN-05	HN	HN5-369	RB	122	18	0.99	U	M										Released
Turtle Creek	18-Jun-11	1	HN-05	HN	HN5-370	RB	305	202	0.71	U	S										Released
Turtle Creek	18-Jun-11	1	HN-05	HN	HN5-371	RB	109	14	1.08	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-372	RB	310	254	0.85	M	S										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-373	RB	122	19	1.05	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-374	RB	121	20	1.13	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-375	RB	136	24	0.95	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-376	RB	150	34	1.01	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-377	RB	125	20	1.02	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-378	RB	128	18	0.86	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-379	RB	125	18	0.92	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-380	RB	119	19	1.13	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-381	RB	119	16	0.95	U	M										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-382	RB	146	32	1.03	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-383	RB	130	27	1.23	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-384	RB	129	19	0.89	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-385	RB	126	20	1.00	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-386	RB	126	19	0.95	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-387	RB	128	19	0.91	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-388	RB	116	20	1.28	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-389	RB	132	24	1.04	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-390	RB	173	53	1.02	U	S										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-391	RB	128	20	0.95	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-392	RB	132	26	1.13	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-393	RB	132	22	0.96	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-394	RB	118	17	1.03	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-395	RB	128	21	1.00	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-396	RB	276	192	0.91	M	R										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-397	RB	114	17	1.15	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-398	RB	121	20	1.13	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-399	RB	123	18	0.97	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-400	RB	131	23	1.02	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-401	RB	282	179	0.80	U	S										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-402	RB	242	117	0.83	M	S										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-403	RB	248	119	0.78	F	S										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-404	RB	192	63	0.89	U	M										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-405	RB	217	90	0.88	U	S										Released
Turtle Creek	19-Jun-11	1	HN-05	HN	HN5-406	RB	228	97	0.82	F	S										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-407	RB	112	14	1.00	U	M										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-408	RB	128	19	0.91	U	M										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-409	RB	117	13	0.81	U	M										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-410	RB	123	19	1.02	U	M										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-411	RB	118	17	1.03	U	M										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-412	RB	119	17	1.01	U	M										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-413	RB	123	21	1.13	U	M										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-414	RB	119	19	1.13	U	M										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-415	RB	132	24	1.04	M	R										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-416	RB	123	18	0.97	M	R										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-417	RB	179	57	0.99	U	S										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-418	RB	125	18	0.92	U	M										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-419	RB	118	17	1.03	M	R										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-420	RB	138	25	0.95	U	S										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-421	RB	129	19	0.89	U	M										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-422	RB	124	14	0.73	U	M										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-423	RB	150	32	0.95	U	M										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-424	RB	330	321	0.89	M	S										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-425	RB	120	16	0.93	U	M										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-426	RB	138	24	0.91	U	M										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-427	RB	151	31	0.90	U	M										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-428	RB	114	15	1.01	U	M										Incidental mortality
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-429	RB	114	15	1.01	M	M										Incidental

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
																					mortality
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-430	RB	199	76	0.96	U	M										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-431	RB	340	372	0.95	M	S										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-432	RB	179	52	0.91	U	M										Released
Turtle Creek	20-Jun-11	1	HN-05	HN	HN5-433	RB	179	52	0.91	F	R										Released
Turtle Creek	21-Jun-11	1	HN-05	HN	HN5-434	RB	114	16	1.08	U	M										Released
Turtle Creek	21-Jun-11	1	HN-05	HN	HN5-435	RB	134	25	1.04	U	M										Released
Turtle Creek	21-Jun-11	1	HN-05	HN	HN5-436	RB	119	18	1.07	U	M										Released
Turtle Creek	21-Jun-11	1	HN-05	HN	HN5-437	RB	123	19	1.02	U	M										Released
Turtle Creek	21-Jun-11	1	HN-05	HN	HN5-438	RB	120	17	0.98	U	M										Released
Turtle Creek	21-Jun-11	1	HN-05	HN	HN5-439	RB	129	23	1.07	U	M										Released
Turtle Creek	21-Jun-11	1	HN-05	HN	HN5-440	RB	127	20	0.98	U	M										Released
Turtle Creek	21-Jun-11	1	HN-05	HN	HN5-441	RB	118	20	1.22	U	M										Released
Turtle Creek	21-Jun-11	1	HN-05	HN	HN5-442	RB	120	19	1.10	U	M										Released
Turtle Creek	21-Jun-11	1	HN-05	HN	HN5-443	RB	123	20	1.07	M	R										Released
Turtle Creek	21-Jun-11	1	HN-05	HN	HN5-444	RB	124	20	1.05	U	M										Released
Turtle Creek	21-Jun-11	1	HN-05	HN	HN5-445	RB	127	21	1.03	U	M										Released
Turtle Creek	21-Jun-11	1	HN-05	HN	HN5-446	RB	145	31	1.02	U	M										Released
Turtle Creek	21-Jun-11	1	HN-05	HN	HN5-447	RB	198	76	0.98	U	S										Released
Turtle Creek	21-Jun-11	1	HN-05	HN	HN5-448	RB	192	66	0.93	U	M										Released
Turtle Creek	21-Jun-11	1	HN-05	HN	HN5-449	RB	198	71	0.91	U	S										Released
Turtle Creek	21-Jun-11	1	HN-05	HN	HN5-450	RB	231	102	0.83	U	S										Released
Turtle Creek	21-Jun-11	1	HN-05	HN	HN5-451	RB	140	27	0.98	U	S										Released
Turtle Creek	21-Jun-11	1	HN-05	HN	HN5-452	RB	118	18	1.10	U	M										Released
Turtle Creek	21-Jun-11	1	HN-05	HN	HN5-453	RB	268	158	0.82	U	S										Released
Turtle Creek	21-Jun-11	1	HN-05	HN	HN5-454	RB	224	117	1.04	U	M										Released
Turtle Creek	21-Jun-11	1	HN-05	HN	HN5-455	RB	213	95	0.98	F	S										Released
Turtle Creek	21-Jun-11	1	HN-05	HN	HN5-456	RB	305	227	0.80	U	S										Released
Turtle Creek	21-Jun-11	1	HN-05	HN	HN5-457	RB	230	127	1.04	U	M										Released
Turtle Creek	22-Jun-11	1	HN-05	HN	HN5-458	RB	120	20	1.16	U	I										Released
Turtle Creek	22-Jun-11	1	HN-05	HN	HN5-459	RB	120	19	1.10	U	I										Released
Turtle Creek	22-Jun-11	1	HN-05	HN	HN5-460	RB	125	23	1.18	U	I										Released
Turtle Creek	22-Jun-11	1	HN-05	HN	HN5-461	RB	118	19	1.16	U	I										Released
Turtle Creek	22-Jun-11	1	HN-05	HN	HN5-462	RB	168	50	1.05	U	I										Released
Turtle Creek	22-Jun-11	1	HN-05	HN	HN5-463	RB	154	45	1.23	U	I										Released
Turtle Creek	22-Jun-11	1	HN-05	HN	HN5-464	RB	153	40	1.12	M	S										Released
Turtle Creek	22-Jun-11	1	HN-05	HN	HN5-465	RB	126	19	0.95	M	R										Released
Turtle Creek	22-Jun-11	1	HN-05	HN	HN5-466	RB	285	203	0.88	U	M										Released
Turtle Creek	22-Jun-11	1	HN-05	HN	HN5-467	RB	164	40	0.91	U	I										Released
Turtle Creek	22-Jun-11	1	HN-05	HN	HN5-468	RB	305	226	0.80	M	S										Released
Turtle Creek	22-Jun-11	1	HN-05	HN	HN5-469	RB	213	89	0.92	U	M										Released
Turtle Creek	22-Jun-11	1	HN-05	HN	HN5-470	RB	135	25	1.02	U	I										Released
Turtle Creek	22-Jun-11	1	HN-05	HN	HN5-471	RB	125	19	0.97	U	I										Released
Turtle Creek	22-Jun-11	1	HN-05	HN	HN5-472	RB	120	18	1.04	U	I										Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-479	RB	110	17	1.28	U	U										Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-480	RB	126	20	1.00	U	U										Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-481	RB	117	17	1.06	U	U										Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-482	RB	118	17	1.03	U	U										Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-483	RB	131	26	1.16	U	U										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-484	RB	119	20	1.19	U	U										Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-485	RB	127	22	1.07	U	U										Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-486	RB	111	14	1.02	U	U										Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-487	RB	134	25	1.04	U	U										Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-488	RB	109	16	1.24	U	U								Y		Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-489	RB	143	28	0.96	U	U								Y		Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-490	RB	170	45	0.92	I	S										Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-491	RB	370	576	1.14	F	S										Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-492	RB	365	520	1.07	M	S										Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-493	RB	330	258	0.72	F	S										Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-494	RB	129	25	1.16	U	U										Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-495	RB	119	18	1.07	U	U										Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-496	RB	127	20	0.98	U	U										Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-497	RB	122	17	0.94	U	U										Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-498	RB	121	17	0.96	U	U								Y		Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-499	RB	130	21	0.96	U	U								Y		Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-500	RB	118	17	1.03	U	U										Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-501	RB	185	55	0.87	U	U										Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-502	RB	219	96	0.91	U	U								Y		Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-503	RB	205	74	0.86	U	U										Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-504	RB	282	194	0.87	U	U			SC							Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-505	RB	340	400	1.02	F	R										Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-506	RB	280	185	0.84	U	S										Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-507	RB	325	283	0.82	M	S			SC		4	4		Y		Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-508	RB	212	84	0.88	U	S										Released
Turtle Creek	23-Jun-11	1	HN-05	HN	HN5-509	RB	172	42	0.83	U	U										Released
Turtle Creek	24-Jun-11	1	HN-05	HN	HN5-510	RB	215	102	1.03	U	U										Released
Turtle Creek	24-Jun-11	1	HN-05	HN	HN5-511	RB	125	22	1.13	U	U										Released
Turtle Creek	24-Jun-11	1	HN-05	HN	HN5-512	RB	126	17	0.85	U	U										Released
Turtle Creek	24-Jun-11	1	HN-05	HN	HN5-513	RB	120	17	0.98	U	U										Released
Turtle Creek	24-Jun-11	1	HN-05	HN	HN5-514	RB	135	26	1.06	U	U										Released
Turtle Creek	24-Jun-11	1	HN-05	HN	HN5-515	RB	121	17	0.96	U	U										Released
Turtle Creek	24-Jun-11	1	HN-05	HN	HN5-516	RB	113	14	0.97	U	U										Released
Turtle Creek	24-Jun-11	1	HN-05	HN	HN5-517	RB	112	14	1.00	U	U								Y		Released
Turtle Creek	24-Jun-11	1	HN-05	HN	HN5-518	RB	326	342	0.99	F	S										Released
Turtle Creek	24-Jun-11	1	HN-05	HN	HN5-519	RB	295	326	1.27	U	S			SC					Y		Incidental mortality
Turtle Creek	24-Jun-11	1	HN-05	HN	HN5-520	RB	116	17	1.09	U	U										Released
Turtle Creek	25-Jun-11	1	HN-05	HN	HN5-521	RB	245	175	1.19	U	M										Released
Turtle Creek	25-Jun-11	1	HN-05	HN	HN5-522	RB	130	22	1.00	U	I										Released
Turtle Creek	25-Jun-11	1	HN-05	HN	HN5-523	RB	123	19	1.02	U	I										Released
Turtle Creek	25-Jun-11	1	HN-05	HN	HN5-524	RB	117	18	1.12	U	I										Released
Turtle Creek	25-Jun-11	1	HN-05	HN	HN5-525	RB	120	18	1.04	U	I										Released
Turtle Creek	25-Jun-11	1	HN-05	HN	HN5-526	RB	145	32	1.05	U	I										Released
Turtle Creek	25-Jun-11	1	HN-05	HN	HN5-527	RB	118	17	1.03	U	I										Released
Turtle Creek	25-Jun-11	1	HN-05	HN	HN5-528	RB	115	17	1.12	U	I										Released
Turtle Creek	25-Jun-11	1	HN-05	HN	HN5-529	RB	138	28	1.07	U	I										Released
Turtle Creek	25-Jun-11	1	HN-05	HN	HN5-530	RB	124	19	1.00	U	I								Y		Released
Turtle Creek	25-Jun-11	1	HN-05	HN	HN5-531	RB	128	21	1.00	U	I								Y		Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Turtle Creek	25-Jun-11	1	HN-05	HN	HN5-532	RB	128	20	0.95	U	I								Y		Released
Turtle Creek	25-Jun-11	1	HN-05	HN	HN5-533	RB	116	19	1.22	U	I										Released
Turtle Creek	25-Jun-11	1	HN-05	HN	HN5-534	RB	145	34	1.12	U	I										Released
Turtle Creek	25-Jun-11	1	HN-05	HN	HN5-535	RB	210	82	0.89	U	I								Y		Released
Turtle Creek	25-Jun-11	1	HN-05	HN	HN5-536	RB	367	434	0.88	F	S										Released
Turtle Creek	25-Jun-11	1	HN-05	HN	HN5-537	RB	242	135	0.95	U	M										Released
Turtle Creek	25-Jun-11	1	HN-05	HN	HN5-538	RB	117	18	1.12	U	I										Released
Turtle Creek	26-Jun-11	1	HN-05	HN	HN5-538	RB	117	18	1.12	U	U			OT	2		2				Incidental mortality
Turtle Creek	26-Jun-11	1	HN-05	HN	HN5-539	RB	277	172	0.81	U	M			SC		ua					Released
Turtle Creek	26-Jun-11	1	HN-05	HN	HN5-540	RB	187	65	0.99	U	M										Released
Turtle Creek	26-Jun-11	1	HN-05	HN	HN5-541	RB	174	52	0.99	M	R										Released
Turtle Creek	26-Jun-11	1	HN-05	HN	HN5-542	RB	160	39	0.95	U	U								Y		Released
Turtle Creek	26-Jun-11	1	HN-05	HN	HN5-543	RB	123	22	1.18	U	U										Released
Turtle Creek	26-Jun-11	1	HN-05	HN	HN5-544	RB	133	21	0.89	U	U								Y		Released
Turtle Creek	26-Jun-11	1	HN-05	HN	HN5-545	RB	130	24	1.09	U	U										Released
Turtle Creek	26-Jun-11	1	HN-05	HN	HN5-546	RB	133	22	0.94	M	R										Released
Turtle Creek	26-Jun-11	1	HN-05	HN	HN5-547	RB	109	16	1.24	U	U										Released
Turtle Creek	26-Jun-11	1	HN-05	HN	HN5-548	RB	113	15	1.04	U	U										Released
Turtle Creek	26-Jun-11	1	HN-05	HN	HN5-549	RB	128	19	0.91	U	U										Released
Turtle Creek	26-Jun-11	1	HN-05	HN	HN5-550	RB	118	17	1.03	U	U										Released
Turtle Creek	26-Jun-11	1	HN-05	HN	HN5-551	RB	144	33	1.11	U	U										Released
Turtle Creek	26-Jun-11	1	HN-05	HN	HN5-552	RB	124	19	1.00	U	U										Released
Turtle Creek	26-Jun-11	1	HN-05	HN	HN5-553	RB	138	26	0.99	U	U										Released
Turtle Creek	26-Jun-11	1	HN-05	HN	HN5-554	RB	240	129	0.93	U	U										Released
Turtle Creek	26-Jun-11	1	HN-05	HN	HN5-555	RB	134	22	0.91	U	U										Released
Turtle Creek	27-Jun-11	1	HN-05	HN	HN5-556	RB	120	18	1.04	U	U										Released
Turtle Creek	27-Jun-11	1	HN-05	HN	HN5-557	RB	118	17	1.03	U	U										Released
Turtle Creek	27-Jun-11	1	HN-05	HN	HN5-558	RB	130	23	1.05	U	U										Released
Turtle Creek	27-Jun-11	1	HN-05	HN	HN5-559	RB	114	17	1.15	U	U								Y		Released
Turtle Creek	27-Jun-11	1	HN-05	HN	HN5-560	RB	265	166	0.89	U	M			SC		5	5				Released
Turtle Creek	27-Jun-11	1	HN-05	HN	HN5-561	RB	128	22	1.05	U	U										Released
Turtle Creek	27-Jun-11	1	HN-05	HN	HN5-562	RB	117	17	1.06	U	U								Y		Released
Turtle Creek	27-Jun-11	1	HN-05	HN	HN5-563	RB	115	16	1.05	U	U										Released
Turtle Creek	28-Jun-11	1	HN-05	HN	HN5-564	RB	268			U	M										Released
Turtle Creek	28-Jun-11	1	HN-05	HN	HN5-565	RB	155			U	I										Released
Turtle Creek	28-Jun-11	1	HN-05	HN	HN5-566	RB	141			U	I										Released
Turtle Creek	28-Jun-11	1	HN-05	HN	HN5-567	RB	122			U	I										Released
Turtle Creek	28-Jun-11	1	HN-05	HN	HN5-568	RB	124			U	I										Released
Turtle Creek	28-Jun-11	1	HN-05	HN	HN5-569	RB	245			U	M										Released
Turtle Creek	28-Jun-11	1	HN-05	HN	HN5-570	RB	230			U	M										Released
Turtle Creek	28-Jun-11	1	HN-05	HN	HN5-571	RB	183			U	I										Released
Turtle Creek	28-Jun-11	1	HN-05	HN	HN5-572	RB	150			U	I										Released
Turtle Creek	28-Jun-11	1	HN-05	HN	HN5-573	RB	129			U	I										Released
Turtle Creek	28-Jun-11	1	HN-05	HN	HN5-574	RB	119			U	I										Released
Turtle Creek	28-Jun-11	1	HN-05	HN	HN5-575	RB	122			U	I										Released
Turtle Creek	28-Jun-11	1	HN-05	HN	HN5-576	RB	118			U	I										Released
Turtle Creek	28-Jun-11	1	HN-05	HN	HN5-577	RB	120			U	I										Released
Turtle Creek	28-Jun-11	1	HN-05	HN	HN5-578	RB	140			U	I										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Turtle Creek	28-Jun-11	1	HN-05	HN	HN5-579	RB	115			U	I										Released
Turtle Creek	28-Jun-11	1	HN-05	HN	HN5-580	RB	120			U	I										Released
Turtle Creek	28-Jun-11	1	HN-05	HN	HN5-581	RB	108			U	I										Released
Turtle Creek	28-Jun-11	1	HN-05	HN	HN5-582	RB	124			U	I										Released
Turtle Creek	28-Jun-11	1	HN-05	HN	HN5-583	RB	147			U	I										Released
Turtle Creek	28-Jun-11	1	HN-05	HN	HN5-584	RB	117			U	I										Incidental mortality
Turtle Creek	10-Jun-11	5	HN-06	HN	HN6-001	RB	209	96	1.05	U	U			SC							Released
Turtle Creek	10-Jun-11	5	HN-06	HN	HN6-002	RB	181	69	1.16	M	R			SC		2	2		Y		Released
Turtle Creek	11-Jun-11	5	HN-06	HN	HN6-003	RB	110	15	1.13	U	U			SC		0	0		Y		Released
Turtle Creek	11-Jun-11	5	HN-06	HN	HN6-004	RB	135	25	1.02	U	I			SC		1	1				Released
Turtle Creek	11-Jun-11	5	HN-06	HN	HN6-005	RB	111	14	1.02	U	I			SC		1	1				Released
Turtle Creek	11-Jun-11	5	HN-06	HN	HN6-006	RB	114	14	0.94	U	I			SC		1	1				Released
Turtle Creek	11-Jun-11	5	HN-06	HN	HN6-007	RB	119	17	1.01	U	I			SC		1	1				Released
Turtle Creek	12-Jun-11	5	HN-06	HN	HN6-008	RB	175	51	0.95	U	U			SC		8	8				Released, removed from biological characteristics analysis (outlier)
Turtle Creek	12-Jun-11	5	HN-06	HN	HN6-009	RB	195	89	1.20	F	R			SC		2	2				Released
Turtle Creek	12-Jun-11	5	HN-06	HN	HN6-010	RB	135	34	1.38	U	U			SC		2	2		Y		Released
Turtle Creek	12-Jun-11	5	HN-06	HN	HN6-011	RB	120	19	1.10	U	U			SC		1	1				Released
Turtle Creek	12-Jun-11	5	HN-06	HN	HN6-012	RB	210	84	0.91	U	U			SC		3	3				Released
Turtle Creek	12-Jun-11	5	HN-06	HN	HN6-013	RB	220	105	0.99	U	U			SC		3	3				Released
Turtle Creek	12-Jun-11	5	HN-06	HN	HN6-014	RB	180	62	1.06	U	U			SC					Y		Released
Turtle Creek	12-Jun-11	5	HN-06	HN	HN6-015	RB	182	63	1.05	F	R			SC		2	2				Released
Turtle Creek	13-Jun-11	5	HN-06	HN	HN6-016	RB	129			M	R										Released
Turtle Creek	13-Jun-11	5	HN-06	HN	HN6-017	RB	129			M	R										Released
Turtle Creek	13-Jun-11	5	HN-06	HN	HN6-018	RB	138			U	U										Released
Turtle Creek	14-Jun-11	5	HN-06	HN	HN6-019	RB	187	58	0.89	U	M										Released
Turtle Creek	14-Jun-11	5	HN-06	HN	HN6-020	RB	167	47	1.01	U	M										Released
Turtle Creek	14-Jun-11	5	HN-06	HN	HN6-021	RB	175	58	1.08	U	M										Released
Turtle Creek	14-Jun-11	5	HN-06	HN	HN6-022	RB	159	39	0.97	F	S										Released
Turtle Creek	14-Jun-11	5	HN-06	HN	HN6-023	RB	147	36	1.13	U	M										Released
Turtle Creek	14-Jun-11	5	HN-06	HN	HN6-024	RB	116	18	1.15	M	R										Released
Turtle Creek	14-Jun-11	5	HN-06	HN	HN6-025	RB	127	21	1.03	U	I										Released
Turtle Creek	14-Jun-11	5	HN-06	HN	HN6-026	RB	137	28	1.09	M	S										Released
Turtle Creek	14-Jun-11	5	HN-06	HN	HN6-027	RB	140	32	1.17	U	M										Released
Turtle Creek	14-Jun-11	5	HN-06	HN	HN6-028	RB	113	18	1.25	M	R										Released
Turtle Creek	14-Jun-11	5	HN-06	HN	HN6-029	RB	112	17	1.21	M	R										Released
Turtle Creek	14-Jun-11	5	HN-06	HN	HN6-030	RB	111	16	1.17	M	R										Released
Turtle Creek	14-Jun-11	5	HN-06	HN	HN6-031	RB	117	17	1.06	M	R										Released
Turtle Creek	15-Jun-11	5	HN-06	HN	HN6-032	RB	159	34	0.85	U	M										Released
Turtle Creek	15-Jun-11	5	HN-06	HN	HN6-033	RB	158	43	1.09	F	R										Released
Turtle Creek	15-Jun-11	5	HN-06	HN	HN6-034	RB	189	53	0.79	U	M										Released
Turtle Creek	15-Jun-11	5	HN-06	HN	HN6-035	RB	142	27	0.94	U	M										Released
Turtle Creek	15-Jun-11	5	HN-06	HN	HN6-036	RB	156	34	0.90	F	S										Released
Turtle Creek	16-Jun-11	5	HN-06	HN	HN6-037	RB	151	37	1.07	U	M										Released
Turtle Creek	16-Jun-11	5	HN-06	HN	HN6-038	RB	148	41	1.26	U	M										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Turtle Creek	16-Jun-11	5	HN-06	HN	HN6-039	RB	174	57	1.08	U	M										Released
Turtle Creek	16-Jun-11	5	HN-06	HN	HN6-040	RB	139	26	0.97	U	M										Released
Turtle Creek	16-Jun-11	5	HN-06	HN	HN6-041	RB	130	24	1.09	M	R										Released
Turtle Creek	16-Jun-11	5	HN-06	HN	HN6-042	RB	128	19	0.91	U	M										Released
Turtle Creek	16-Jun-11	5	HN-06	HN	HN6-043	RB	121	17	0.96	U	U										Released
Turtle Creek	17-Jun-11	5	HN-06	HN	HN6-044	RB	205	100	1.16	F	M										Released
Turtle Creek	17-Jun-11	5	HN-06	HN	HN6-045	RB	166	39	0.85	M	R			SC		1	1				Released
Turtle Creek	17-Jun-11	5	HN-06	HN	HN6-046	RB	121	20	1.13	M	R			SC		1	1				Released
Turtle Creek	17-Jun-11	5	HN-06	HN	HN6-047	RB	121	17	0.96	M	R										Released
Turtle Creek	17-Jun-11	5	HN-06	HN	HN6-048	RB	175	49	0.91	U	M			SC		1	1				Released
Turtle Creek	17-Jun-11	5	HN-06	HN	HN6-049	RB	215	88	0.89	U	M			SC		2	2				Released
Turtle Creek	17-Jun-11	5	HN-06	HN	HN6-050	RB	194	69	0.95	M	S			SC		2	2				Released
Turtle Creek	17-Jun-11	5	HN-06	HN	HN6-051	RB	111	14	1.02	U	I			SC		1	1				Released
Turtle Creek	17-Jun-11	5	HN-06	HN	HN6-052	RB	183	60	0.98	U	M			SC		2	2				Released
Turtle Creek	17-Jun-11	5	HN-06	HN	HN6-053	RB	145	32	1.05	U	M			SC		2	2				Released
Turtle Creek	18-Jun-11	5	HN-06	HN	HN6-054	RB	175	58	1.08	M	R										Released
Turtle Creek	18-Jun-11	5	HN-06	HN	HN6-055	RB	169	44	0.91	F	S										Released
Turtle Creek	18-Jun-11	5	HN-06	HN	HN6-056	RB	222	85	0.78	U	S										Released
Turtle Creek	18-Jun-11	5	HN-06	HN	HN6-057	RB	118	15	0.91	M	R										Released
Turtle Creek	18-Jun-11	5	HN-06	HN	HN6-058	RB	179	51	0.89	M	M										Released
Turtle Creek	18-Jun-11	5	HN-06	HN	HN6-059	RB	116	16	1.03	M	R										Released
Turtle Creek	18-Jun-11	5	HN-06	HN	HN6-060	RB	128	22	1.05	U	M										Released
Turtle Creek	18-Jun-11	5	HN-06	HN	HN6-061	RB	116	15	0.96	U	M										Released
Turtle Creek	19-Jun-11	5	HN-06	HN	HN6-062	RB	158	34	0.86	U	M										Released
Turtle Creek	19-Jun-11	5	HN-06	HN	HN6-063	RB	138	29	1.10	U	M										Released
Turtle Creek	19-Jun-11	5	HN-06	HN	HN6-064	RB	119	16	0.95	M	R										Released
Turtle Creek	19-Jun-11	5	HN-06	HN	HN6-065	RB	126	20	1.00	U	M										Released
Turtle Creek	19-Jun-11	5	HN-06	HN	HN6-066	RB	129	21	0.98	M	R										Released
Turtle Creek	19-Jun-11	5	HN-06	HN	HN6-067	RB	131	22	0.98	M	R										Released
Turtle Creek	19-Jun-11	5	HN-06	HN	HN6-068	RB	176	50	0.92	U	M										Released
Turtle Creek	19-Jun-11	5	HN-06	HN	HN6-069	RB	145	25	0.82	M	R										Released
Turtle Creek	19-Jun-11	5	HN-06	HN	HN6-070	RB	148	35	1.08	U	M										Released
Turtle Creek	19-Jun-11	5	HN-06	HN	HN6-071	RB	190	54	0.79	U	S										Released
Turtle Creek	19-Jun-11	5	HN-06	HN	HN6-072	RB	158	36	0.91	U	M										Released
Turtle Creek	19-Jun-11	5	HN-06	HN	HN6-073	RB	128	20	0.95	U	M										Released
Turtle Creek	19-Jun-11	5	HN-06	HN	HN6-074	RB	138	24	0.91	U	M										Released
Turtle Creek	19-Jun-11	5	HN-06	HN	HN6-075	RB	113	15	1.04	M	R										Released
Turtle Creek	20-Jun-11	5	HN-06	HN	HN6-076	RB	143	28	0.96	U	M										Released
Turtle Creek	20-Jun-11	5	HN-06	HN	HN6-077	RB	168	39	0.82	F	S										Released
Turtle Creek	20-Jun-11	5	HN-06	HN	HN6-078	RB	145	34	1.12	U	M										Released
Turtle Creek	20-Jun-11	5	HN-06	HN	HN6-079	RB	137	22	0.86	U	M										Released
Turtle Creek	20-Jun-11	5	HN-06	HN	HN6-080	RB	137	24	0.93	U	M										Released
Turtle Creek	20-Jun-11	5	HN-06	HN	HN6-081	RB	128	20	0.95	M	R										Released
Turtle Creek	20-Jun-11	5	HN-06	HN	HN6-082	RB	114	16	1.08	M	R										Released
Turtle Creek	20-Jun-11	5	HN-06	HN	HN6-083	RB	112	15	1.07	M	R										Released
Turtle Creek	21-Jun-11	5	HN-06	HN	HN6-084	RB	113	17	1.18	U	M										Released
Turtle Creek	21-Jun-11	5	HN-06	HN	HN6-085	RB	143	34	1.16	U	M										Released
Turtle Creek	21-Jun-11	5	HN-06	HN	HN6-086	RB	163	48	1.11	U	M										Released
Turtle Creek	21-Jun-11	5	HN-06	HN	HN6-087	RB	113	17	1.18	U	M										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Turtle Creek	21-Jun-11	5	HN-06	HN	HN6-088	RB	111	15	1.10	U	M										Released
Turtle Creek	22-Jun-11	5	HN-06	HN	HN6-089	RB	129	18	0.84	M	M										Released
Turtle Creek	22-Jun-11	5	HN-06	HN	HN6-090	RB	134	21	0.87	M	R										Released
Turtle Creek	22-Jun-11	5	HN-06	HN	HN6-091	RB	108	14	1.11	M	R										Released
Turtle Creek	23-Jun-11	5	HN-06	HN	HN6-092	RB	156	42	1.11	M	R										Released
Turtle Creek	23-Jun-11	5	HN-06	HN	HN6-093	RB	153	31	0.87	U	U										Released
Turtle Creek	23-Jun-11	5	HN-06	HN	HN6-094	RB	125	21	1.08	U	U								Y		Released
Turtle Creek	23-Jun-11	5	HN-06	HN	HN6-095	RB	201	76	0.94	U	S										Released
Turtle Creek	23-Jun-11	5	HN-06	HN	HN6-096	RB	175	45	0.84	U	U										Released
Turtle Creek	23-Jun-11	5	HN-06	HN	HN6-097	RB	194	64	0.88	U	S										Released
Turtle Creek	24-Jun-11	5	HN-06	HN	HN6-098	RB	195	62	0.84	M	S										Released
Turtle Creek	24-Jun-11	5	HN-06	HN	HN6-099	RB	174	49	0.93	F	S										Released
Turtle Creek	24-Jun-11	5	HN-06	HN	HN6-100	RB	203	76	0.91	F	S										Released
Turtle Creek	24-Jun-11	5	HN-06	HN	HN6-101	RB	126	20	1.00	U	U										Released
Turtle Creek	24-Jun-11	5	HN-06	HN	HN6-102	RB	114	12	0.81	U	U										Released
Turtle Creek	24-Jun-11	5	HN-06	HN	HN6-103	RB	123	18	0.97	U	U										Released
Turtle Creek	24-Jun-11	5	HN-06	HN	HN6-104	RB	118	17	1.03	U	U										Released
Turtle Creek	24-Jun-11	5	HN-06	HN	HN6-105	RB	113	18	1.25	U	U										Released
Turtle Creek	25-Jun-11	5	HN-06	HN	HN6-106	RB	125	20	1.02	U	I										Released
Turtle Creek	25-Jun-11	5	HN-06	HN	HN6-107	RB	153	37	1.03	U	I										Released
Turtle Creek	25-Jun-11	5	HN-06	HN	HN6-108	RB	178	53	0.94	U	I								Y		Released
Turtle Creek	25-Jun-11	5	HN-06	HN	HN6-109	RB	116	17	1.09	M	R										Released
Turtle Creek	25-Jun-11	5	HN-06	HN	HN6-110	RB	177	60	1.08	U	I										Released
Turtle Creek	25-Jun-11	5	HN-06	HN	HN6-111	RB	102	13	1.23	M	R								Y		Released
Turtle Creek	26-Jun-11	5	HN-06	HN	HN6-112	RB	118	18	1.10	M	R										Released
Turtle Creek	26-Jun-11	5	HN-06	HN	HN6-113	RB	177	56	1.01	M	R										Released
Turtle Creek	27-Jun-11	5	HN-06	HN	HN6-114	RB	158	43	1.09	M	R										Released
Turtle Creek	27-Jun-11	5	HN-06	HN	HN6-115	RB	117	16	1.00	M	R										Released
Turtle Creek	27-Jun-11	5	HN-06	HN	HN6-116	RB	179	52	0.91	U	U										Released
Turtle Creek	27-Jun-11	5	HN-06	HN	HN6-117	RB	127	21	1.03	M	R										Released
Turtle Creek	27-Jun-11	5	HN-06	HN	HN6-118	RB	130	22	1.00	M	R										Released
Turtle Creek	27-Jun-11	5	HN-06	HN	HN6-119	RB	144	35	1.17	U	U										Released
Turtle Creek	27-Jun-11	5	HN-06	HN	HN6-120	RB	128	22	1.05	M	R										Released
Turtle Creek	27-Jun-11	5	HN-06	HN	HN6-121	RB	145	27	0.89	U	U										Released
Turtle Creek	27-Jun-11	5	HN-06	HN	HN6-122	RB	130	23	1.05	M	R										Released
Creek 700	09-Jun-11	1	HN-07	HN	HN7-001	RB	125	20	1.02	M	R										Released
Creek 700	12-Jun-11	1	HN-07	HN	HN7-002	RB	167	42	0.90	U	U			SC		2	2				Released
Creek 700	12-Jun-11	1	HN-07	HN	HN7-003	RB	197	80	1.05	F	R			SC		2	2				Released
Creek 700	12-Jun-11	1	HN-07	HN	HN7-004	RB	113	19	1.32	U	U			SC		1	1				Released
Creek 700	14-Jun-11	1	HN-07	HN	HN7-005	RB	81	8	1.51	U	I										Released
Creek 700	14-Jun-11	1	HN-07	HN	HN7-006	RB	220	132	1.24	U	M										Released
Creek 700	15-Jun-11	1	HN-07	HN	HN7-007	RB	159	43	1.07	U	M										Released
Creek 700	17-Jun-11	1	HN-07	HN	HN7-008	RB	158	49	1.24	U	M			SC		2	2				Released
Creek 700	18-Jun-11	1	HN-07	HN	HN7-009	RB	194	68	0.93	U	M										Released
Creek 700	18-Jun-11	1	HN-07	HN	HN7-010	RB	113	15	1.04	M	R										Released
Creek 700	19-Jun-11	1	HN-07	HN	HN7-011	RB	126	24	1.20	U	M										Released
Creek 700	19-Jun-11	1	HN-07	HN	HN7-012	RB	129	22	1.02	M	R										Released
Creek 700	19-Jun-11	1	HN-07	HN	HN7-013	RB	150	34	1.01	F	M										Released
Creek 700	20-Jun-11	1	HN-07	HN	HN7-014	RB	123	16	0.86	M	R										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 700	20-Jun-11	1	HN-07	HN	HN7-015	RB	96	7	0.79	U	M										Released
Creek 700	20-Jun-11	1	HN-07	HN	HN7-016	RB	136	24	0.95	U	M										Released
Creek 700	20-Jun-11	1	HN-07	HN	HN7-017	RB	120	16	0.93	U	M										Released
Creek 700	21-Jun-11	1	HN-07	HN	HN7-018	RB	194	73	1.00	F	R										Released
Creek 700	21-Jun-11	1	HN-07	HN	HN7-019	RB	187	57	0.87	F	S										Released
Creek 700	21-Jun-11	1	HN-07	HN	HN7-020	RB	159	36	0.90	M	R										Released
Creek 700	21-Jun-11	1	HN-07	HN	HN7-021	RB	145	29	0.95	U	M										Released
Creek 700	21-Jun-11	1	HN-07	HN	HN7-022	RB	141	26	0.93	M	R										Released
Creek 700	22-Jun-11	1	HN-07	HN	HN7-023	RB	143	27	0.92	U	M										Released
Creek 700	22-Jun-11	1	HN-07	HN	HN7-024	RB	174	45	0.85	M	R										Released
Creek 700	22-Jun-11	1	HN-07	HN	HN7-025	RB	136	25	0.99	M	R										Released
Creek 700	22-Jun-11	1	HN-07	HN	HN7-026	RB	163	47	1.09	U	M										Released
Creek 700	22-Jun-11	1	HN-07	HN	HN7-027	RB	149	31	0.94	M	R										Released
Creek 700	23-Jun-11	1	HN-07	HN	HN7-028	RB	109	13	1.00	U	U										Released
Creek 700	23-Jun-11	1	HN-07	HN	HN7-029	RB	146	47	1.51	M	R										Released
Creek 700	23-Jun-11	1	HN-07	HN	HN7-030	RB	181	53	0.89	F	S										Released
Creek 700	23-Jun-11	1	HN-07	HN	HN7-031	RB	137	24	0.93	U	U										Released
Creek 700	23-Jun-11	1	HN-07	HN	HN7-032	RB	121	17	0.96	U	U								Y		Released
Creek 700	23-Jun-11	1	HN-07	HN	HN7-033	RB	124	18	0.94	U	U								Y		Released
Creek 700	23-Jun-11	1	HN-07	HN	HN7-034	RB	174	52	0.99	U	U										Released
Creek 700	23-Jun-11	1	HN-07	HN	HN7-035	RB	154	38	1.04	U	U										Released
Creek 700	24-Jun-11	1	HN-07	HN	HN7-036	RB	120	18	1.04	U	U										Released
Creek 700	24-Jun-11	1	HN-07	HN	HN7-037	RB	152	37	1.05	U	U										Released
Creek 700	24-Jun-11	1	HN-07	HN	HN7-038	RB	201	81	1.00	U	S										Released
Creek 700	24-Jun-11	1	HN-07	HN	HN7-039	RB	105	11	0.95	M	R								Y		Released
Creek 700	24-Jun-11	1	HN-07	HN	HN7-040	RB	178	47	0.83	U	S										Released
Creek 700	25-Jun-11	1	HN-07	HN	HN7-041	RB	117	18	1.12	M	R										Released
Creek 700	25-Jun-11	1	HN-07	HN	HN7-042	RB	140	30	1.09	M	R										Released
Creek 700	25-Jun-11	1	HN-07	HN	HN7-043	RB	168	42	0.89	U	U										Released
Creek 700	26-Jun-11	1	HN-07	HN	HN7-044	RB	164	43	0.97	U	U										Released
Creek 700	26-Jun-11	1	HN-07	HN	HN7-045	RB	110	16	1.20	M	R										Released
Creek 700	26-Jun-11	1	HN-07	HN	HN7-046	RB	145	32	1.05	U	U										Released
Creek 700	26-Jun-11	1	HN-07	HN	HN7-047	RB	159	44	1.09	M	R								Y		Released
Creek 700	27-Jun-11	1	HN-07	HN	HN7-048	RB	173	50	0.97	U	U										Released
Creek 700	27-Jun-11	1	HN-07	HN	HN7-049	RB	133	17	0.72	M	R										Released
Creek 700	27-Jun-11	1	HN-07	HN	HN7-050	RB	134	18	0.75	M	R										Released
Creek 700	27-Jun-11	1	HN-07	HN	HN7-051	RB	161	51	1.22	M	R										Released
Creek 700	27-Jun-11	1	HN-07	HN	HN7-052	RB	108	15	1.19	M	R										Released
Creek 705	11-Jun-11	2	HN-08	HN	HN8-001	RB	88	7	1.03	U	I										Released
Creek 705	11-Jun-11	2	HN-08	HN	HN8-002	RB	335	418	1.11	F	R										Released
Creek 705	12-Jun-11	2	HN-08	HN	HN8-003	RB	411	695	1.00	M	R			SC		6	6				Released
Creek 705	12-Jun-11	2	HN-08	HN	HN8-004	RB	400	642	1.00	F	R			SC		6	6				Released
Creek 705	12-Jun-11	2	HN-08	HN	HN8-005	RB	365	499	1.03	U	M			SC		5	5				Released
Creek 705	12-Jun-11	2	HN-08	HN	HN8-006	RB	360	544	1.17	F	R			SC		6	6				Released
Creek 705	12-Jun-11	2	HN-08	HN	HN8-007	RB	280	238	1.08	F	R			SC		5	5				Released
Creek 705	12-Jun-11	2	HN-08	HN	HN8-008	RB	370	520	1.03	F	R			SC		6	6				Released
Creek 705	12-Jun-11	2	HN-08	HN	HN8-009	RB	362	530	1.12	F	R			SC		ua					Released
Creek 705	12-Jun-11	2	HN-08	HN	HN8-010	RB	365	460	0.95	F	R			SC		6	6				Released
Creek 705	12-Jun-11	2	HN-08	HN	HN8-011	RB	380	534	0.97	F	M			SC		6	6		Y		Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 705	12-Jun-11	2	HN-08	HN	HN8-012	RB	385	587	1.03	M	R			SC							Released
Creek 705	12-Jun-11	2	HN-08	HN	HN8-013	RB	360	527	1.13	F	R			SC		6	6				Released
Creek 705	12-Jun-11	2	HN-08	HN	HN8-014	RB	385	633	1.11	U	M			SC		6	6				Released
Creek 705	12-Jun-11	2	HN-08	HN	HN8-015	RB	375	592	1.12	F	M			SC							Released
Creek 705	12-Jun-11	2	HN-08	HN	HN8-016	RB	375	556	1.05	M	R			SC		5	5				Released
Creek 705	12-Jun-11	2	HN-08	HN	HN8-017	RB	375	556	1.05	F	R			SC							Released
Creek 705	12-Jun-11	2	HN-08	HN	HN8-018	RB	385	540	0.95	F	R			SC		6	6				Released
Creek 705	12-Jun-11	2	HN-08	HN	HN8-019	RB	380	572	1.04	M	R			SC		5	5		Y		Released
Creek 705	12-Jun-11	2	HN-08	HN	HN8-020	RB	370	525	1.04	F	R			SC		5	5				Released
Creek 705	12-Jun-11	2	HN-08	HN	HN8-021	RB	375	586	1.11	F	R			SC		ua					Released
Creek 705	12-Jun-11	2	HN-08	HN	HN8-022	MW	248	152	1.00	U	U			SC							Released
Creek 705	13-Jun-11	2	HN-08	HN	HN8-023	RB	385	707	1.24	F	M										Released
Creek 705	13-Jun-11	2	HN-08	HN	HN8-024	RB	350	494	1.15	F	R			SC		5	5		Y		Released
Creek 705	13-Jun-11	2	HN-08	HN	HN8-025	RB	355	542	1.21	U	U										Released
Creek 705	13-Jun-11	2	HN-08	HN	HN8-026	RB	355	505	1.13	M	R										Released
Creek 705	13-Jun-11	2	HN-08	HN	HN8-027	RB	340	467	1.19	F	M										Released
Creek 705	13-Jun-11	2	HN-08	HN	HN8-028	RB	335	444	1.18	F	M								Y		Released
Creek 705	13-Jun-11	2	HN-08	HN	HN8-029	RB	315	355	1.14	F	R			SC					Y		Released
Creek 705	14-Jun-11	2	HN-08	HN	HN8-030	RB	330	333	0.93	F	S			SC		4	4				Released
Creek 705	14-Jun-11	2	HN-08	HN	HN8-031	RB	400	555	0.87	U	M			SC		5	5				Released
Creek 705	14-Jun-11	2	HN-08	HN	HN8-032	RB	415	647	0.91	U	M			SC		6	6				Released
Creek 705	14-Jun-11	2	HN-08	HN	HN8-033	RB	375	513	0.97	U	S			SC		5	5				Released
Creek 705	14-Jun-11	2	HN-08	HN	HN8-034	RB	123	18	0.97	U	I			SC		1	1				Released
Creek 705	14-Jun-11	2	HN-08	HN	HN8-035	RB	255	177	1.07	F	R			SC		4	4				Released
Creek 705	14-Jun-11	2	HN-08	HN	HN8-036	RB	355	369	0.82	F	S			SC		ua					Released
Creek 705	14-Jun-11	2	HN-08	HN	HN8-037	RB	375	539	1.02	M	R										Released
Creek 705	14-Jun-11	2	HN-08	HN	HN8-038	RB	370	549	1.08	F	R			SC		4	4				Released
Creek 705	14-Jun-11	2	HN-08	HN	HN8-039	RB	390	548	0.92	F	R			SC		5	5				Released
Creek 705	14-Jun-11	2	HN-08	HN	HN8-040	RB	285	230	0.99	M	R			SC		4	4				Released
Creek 705	14-Jun-11	2	HN-08	HN	HN8-041	RB	392	625	1.04	M	R			SC							Released
Creek 705	14-Jun-11	2	HN-08	HN	HN8-042	RB	323	386	1.15	F	R			SC		4	4				Released
Creek 705	14-Jun-11	2	HN-08	HN	HN8-043	RB	297	274	1.05	M	R			SC							Released
Creek 705	14-Jun-11	2	HN-08	HN	HN8-044	RB	146	28	0.90	M	R			SC		1	1				Released
Creek 705	14-Jun-11	2	HN-08	HN	HN8-045	RB	143	26	0.89	M	R			SC		1	1				Released
Creek 705	14-Jun-11	2	HN-08	HN	HN8-046	RB	300	267	0.99	M	R			SC		5	5				Released
Creek 705	14-Jun-11	2	HN-08	HN	HN8-047	RB	267	188	0.99	M	R			SC		3	3				Released
Creek 705	14-Jun-11	2	HN-08	HN	HN8-048	RB	265	192	1.03	F	M			SC		3	3				Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-049	RB	350	399	0.93	U	S										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-050	RB	343	382	0.95	U	S										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-051	RB	350	512	1.19	F	R										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-052	RB	320	349	1.07	F	M										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-053	RB	375	436	0.83	U	S										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-054	RB	380	440	0.80	F	R										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-055	RB	370	459	0.91	U	M										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-056	RB	353	480	1.09	F	R										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-057	RB	400	485	0.76	U	S										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-058	RB	370	502	0.99	U	S										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-059	RB	390	572	0.96	U	S										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-060	RB	401	563	0.87	F	S										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 705	15-Jun-11	2	HN-08	HN	HN8-061	RB	358	514	1.12	F	R										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-062	RB	250	145	0.93	M	R										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-063	RB	349	419	0.99	U	S										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-064	RB	374	524	1.00	U	S										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-065	RB	280	210	0.96	M	R										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-066	RB	387	445	0.77	U	S										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-067	RB	380	470	0.86	U	M										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-068	RB	350	412	0.96	F	M										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-069	RB	393	560	0.92	U	S										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-070	RB	380	512	0.93	U	S										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-071	RB	295	285	1.11	U	M										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-072	RB	323	317	0.94	U	M										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-073	RB	266	201	1.07	U	I										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-074	RB	325	410	1.19	F	R										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-075	MW	221	112	1.04	U	M										Incidental mortality
Creek 705	15-Jun-11	2	HN-08	HN	HN8-076	RB	357	463	1.02	M	S										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-077	RB	358	495	1.08	F	M										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-078	RB	405	709	1.07	M	R										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-079	RB	250	104	0.67	U	M										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-080	RB	125	21	1.08	U	I										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-081	RB	278	215	1.00	M	R										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-082	RB	193	70	0.97	U	M										Released
Creek 705	15-Jun-11	2	HN-08	HN	HN8-083	RB	125	18	0.92	U	I										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-084	RB	360	503	1.08	F	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-085	RB	275	325	1.56	F	R										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-086	RB	390	650	1.10	F	R										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-087	RB	290	265	1.09	F	R										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-088	RB	255	169	1.02	F	R										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-089	RB	280	215	0.98	M	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-090	RB	180	60	1.03	M	U										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-091	RB	170	33	0.67	M	U										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-092	RB	380	550	1.00	F	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-093	RB	350	410	0.96	F	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-094	RB	410	700	1.02	F	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-095	RB	395	540	0.88	F	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-096	RB	360	320	0.69	F	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-097	RB	390	600	1.01	F	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-098	RB	360	470	1.01	M	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-099	RB	365	519	1.07	F	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-100	RB	355	495	1.11	U	R										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-101	RB	390	502	0.85	F	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-102	RB	410	650	0.94	F	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-103	RB	390	554	0.93	F	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-104	RB	400	620	0.97	M	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-105	RB	350	415	0.97	F	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-106	RB	375	489	0.93	F	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-107	RB	360	400	0.86	F	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-108	RB	360	380	0.81	F	S										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 705	16-Jun-11	2	HN-08	HN	HN8-109	RB	380	509	0.93	F	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-110	RB	365	382	0.79	F	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-111	RB	410	550	0.80	M	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-112	RB	385	480	0.84	F	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-113	RB	350	385	0.90	F	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-114	RB	350	333	0.78	F	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-115	RB	370	444	0.88	F	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-116	RB	265	170	0.91	M	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-117	RB	137	18	0.70	M	S										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-118	RB	115	22	1.45	U	U										Released
Creek 705	16-Jun-11	2	HN-08	HN	HN8-119	RB	195	74	1.00	U	U			OT	3		3				Incidental mortality
Creek 705	17-Jun-11	2	HN-08	HN	HN8-120	RB	405	518	0.78	U	S			SC		ua					Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-121	RB	377	453	0.85	U	S			SC		ua					Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-122	RB	391	512	0.86	U	S			SC							Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-123	RB	390	512	0.86	U	S			SC		ua					Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-124	RB	363	415	0.87	U	S			SC		ua					Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-125	RB	360	470	1.01	U	M			SC		3	3				Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-126	RB	265	287	1.54	F	R										Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-127	RB	345	360	0.88	F	S			SC		ua					Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-128	RB	380	524	0.95	M	S			SC							Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-129	RB	376	554	1.04	M	S			SC		ua					Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-130	RB	375	500	0.95	U	S			SC		4	4				Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-131	RB	289	223	0.92	U	M			SC		4	4				Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-132	RB	183	58	0.95	M	R										Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-133	RB	118	16	0.97	U	I			SC		1	1				Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-134	RB	364	450	0.93	F	S			SC		4	4				Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-135	RB	380	484	0.88	U	S			SC							Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-136	RB	320	291	0.89	U	M										Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-137	RB	364	418	0.87	U	S										Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-138	RB	359	523	1.13	F	R										Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-139	RB	406	684	1.02	M	R			SC		5	5				Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-140	RB	359	467	1.01	M	S										Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-141	RB	265	188	1.01	F	R			SC		4	4				Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-142	RB	267	187	0.98	U	M			SC		3	3				Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-143	RB	324	339	1.00	F	M										Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-144	RB	243	131	0.91	U	M			SC		ua					Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-145	RB	128	18	0.86	U	I			SC		1	1				Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-146	RB	158	37	0.94	M	R			SC		1	1				Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-147	RB	119	17	1.01	U	I			SC		1	1				Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-148	RB	131	24	1.07	M	R			SC		1	1				Released
Creek 705	17-Jun-11	2	HN-08	HN	HN8-149	RB	119	20	1.19	U	I			SC, OT	2	1	2				Incidental mortality
Creek 705	18-Jun-11	2	HN-08	HN	HN8-150	RB	385	434	0.76	U	S										Released
Creek 705	18-Jun-11	2	HN-08	HN	HN8-151	RB	365	415	0.85	U	S										Released
Creek 705	18-Jun-11	2	HN-08	HN	HN8-152	RB	380	349	0.64	F	S										Released
Creek 705	18-Jun-11	2	HN-08	HN	HN8-153	RB	402	495	0.76	F	S										Released
Creek 705	18-Jun-11	2	HN-08	HN	HN8-154	RB	360	401	0.86	F	S										Released
Creek 705	18-Jun-11	2	HN-08	HN	HN8-155	RB	371	406	0.80	F	S										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 705	18-Jun-11	2	HN-08	HN	HN8-156	RB	420	564	0.76	U	S										Released
Creek 705	18-Jun-11	2	HN-08	HN	HN8-157	RB	372	471	0.91	U	S										Released
Creek 705	18-Jun-11	2	HN-08	HN	HN8-158	RB	365	428	0.88	U	S										Released
Creek 705	18-Jun-11	2	HN-08	HN	HN8-159	RB	268	171	0.89	U	S										Released
Creek 705	18-Jun-11	2	HN-08	HN	HN8-160	RB	374	448	0.86	U	S										Released
Creek 705	18-Jun-11	2	HN-08	HN	HN8-161	RB	364	415	0.86	U	S										Released
Creek 705	18-Jun-11	2	HN-08	HN	HN8-162	RB	365	415	0.85	U	S										Released
Creek 705	18-Jun-11	2	HN-08	HN	HN8-163	RB	380	490	0.89	F	S										Released
Creek 705	18-Jun-11	2	HN-08	HN	HN8-164	RB	360	390	0.84	F	S										Released
Creek 705	18-Jun-11	2	HN-08	HN	HN8-165	RB	379	445	0.82	U	S										Released
Creek 705	18-Jun-11	2	HN-08	HN	HN8-166	RB	131	24	1.07	M	R										Released
Creek 705	18-Jun-11	2	HN-08	HN	HN8-167	RB	380	432	0.79	U	S										Released
Creek 705	18-Jun-11	2	HN-08	HN	HN8-168	RB	370	421	0.83	U	S										Released
Creek 705	18-Jun-11	2	HN-08	HN	HN8-169	RB	349	364	0.86	F	S										Released
Creek 705	18-Jun-11	2	HN-08	HN	HN8-170	RB	125	26	1.33	U	M										Released
Creek 705	18-Jun-11	2	HN-08	HN	HN8-171	RB	400	571	0.89	U	S										Released
Creek 705	18-Jun-11	2	HN-08	HN	HN8-172	RB	380	488	0.89	U	S										Released
Creek 705	18-Jun-11	2	HN-08	HN	HN8-173	RB	380	526	0.96	U	S										Released
Creek 705	18-Jun-11	2	HN-08	HN	HN8-174	RB	117	17	1.06	U	M										Released
Creek 705	18-Jun-11	2	HN-08	HN	HN8-175	BB	176	21	0.39	U	I										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-176	RB	375	492	0.93	F	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-177	RB	365	387	0.80	F	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-178	RB	345	368	0.90	F	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-179	RB	375	430	0.82	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-180	RB	352	414	0.95	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-181	RB	394	476	0.78	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-182	RB	351	435	1.01	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-183	RB	411	692	1.00	M	R										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-184	RB	361	440	0.94	F	R										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-185	RB	418	561	0.77	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-186	RB	355	393	0.88	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-187	RB	376	448	0.84	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-188	RB	404	528	0.80	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-189	RB	368	420	0.84	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-190	RB	384	431	0.76	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-191	RB	344	390	0.96	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-192	RB	358	433	0.94	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-193	RB	358	368	0.80	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-194	RB	390	495	0.83	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-195	RB	363	411	0.86	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-196	RB	361	425	0.90	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-197	RB	368	448	0.90	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-198	RB	365	418	0.86	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-199	RB	338	346	0.90	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-200	RB	368	468	0.94	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-201	RB	277	226	1.06	F	R										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-202	RB	400	517	0.81	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-203	RB	372	423	0.82	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-204	RB	378	398	0.74	F	S										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 705	19-Jun-11	2	HN-08	HN	HN8-205	RB	348	374	0.89	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-206	RB	354	423	0.95	F	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-207	RB	364	461	0.96	M	R										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-208	RB	358	449	0.98	F	R										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-209	RB	370	470	0.93	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-210	RB	118	21	1.28	U	M										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-211	RB	130	23	1.05	U	M										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-212	RB	330	353	0.98	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-213	RB	340	329	0.84	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-214	RB	378	480	0.89	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-215	RB	360	393	0.84	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-216	RB	390	500	0.84	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-217	RB	355	478	1.07	F	R										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-218	RB	377	501	0.94	M	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-219	RB	382	471	0.84	M	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-220	RB	157	37	0.96	U	M										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-221	RB	142	35	1.22	U	M										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-222	RB	146	31	1.00	U	S										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-223	RB	238	133	0.99	U	M										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-224	RB	158	38	0.96	U	M										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-225	RB	131	24	1.07	M	R										Released
Creek 705	19-Jun-11	2	HN-08	HN	HN8-226	RB	409	779	1.14	M	S			OT	6		6				Incidental mortality
Creek 705	20-Jun-11	2	HN-08	HN	HN8-227	RB	357	447	0.98	F	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-228	RB	328	317	0.90	F	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-229	RB	325	316	0.92	U	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-230	RB	388	501	0.86	U	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-231	RB	373	474	0.91	U	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-232	RB	390	551	0.93	M	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-233	RB	348	351	0.83	F	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-234	RB	358	392	0.85	U	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-235	RB	180	54	0.93	U	M										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-236	RB	375	445	0.84	F	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-237	RB	330	331	0.92	M	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-238	RB	324	301	0.88	F	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-239	RB	280	193	0.88	U	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-240	RB	158	38	0.96	U	M			OT	2		2				Incidental mortality
Creek 705	20-Jun-11	2	HN-08	HN	HN8-241	RB	372	441	0.86	U	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-242	RB	356	410	0.91	F	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-243	RB	390	502	0.85	M	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-244	RB	355	390	0.87	U	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-245	RB	365	439	0.90	U	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-246	RB	358	457	1.00	F	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-247	RB	138	28	1.07	U	M										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-248	RB	392	506	0.84	U	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-249	RB	353	407	0.93	F	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-250	RB	363	442	0.92	U	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-251	RB	121	17	0.96	U	R										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 705	20-Jun-11	2	HN-08	HN	HN8-252	RB	390	557	0.94	U	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-253	RB	356	399	0.88	U	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-254	RB	344	336	0.83	F	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-255	RB	361	427	0.91	U	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-256	RB	360	386	0.83	U	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-257	RB	125	17	0.87	U	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-258	RB	294	265	1.04	M	R										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-259	RB	415	523	0.73	F	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-260	RB	363	391	0.82	U	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-261	RB	402	602	0.93	U	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-262	RB	345	345	0.84	F	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-263	RB	121	19	1.07	U	M										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-264	RB	368	459	0.92	F	R										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-265	RB	392	480	0.80	U	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-266	RB	368	465	0.93	U	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-267	RB	360	391	0.84	U	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-268	RB	109	16	1.24	U	M			SC, OT	6	4	6				Incidental mortality
Creek 705	20-Jun-11	2	HN-08	HN	HN8-269	RB	120	17	0.98	U	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-270	RB	126	21	1.05	U	M										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-271	RB	140	27	0.98	U	M										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-272	RB	128	18	0.86	U	M										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-273	RB	366	443	0.90	M	S										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-274	RB	390	590	0.99	M	R										Released
Creek 705	20-Jun-11	2	HN-08	HN	HN8-275	RB	258	162	0.94	U	M										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-276	RB	398	505	0.80	F	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-277	RB	334	318	0.85	U	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-278	RB	402	604	0.93	U	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-279	RB	366	448	0.91	U	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-280	RB	121	18	1.02	U	M										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-281	RB	363	421	0.88	U	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-282	RB	373	481	0.93	U	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-283	RB	376	468	0.88	U	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-284	RB	143	29	0.99	U	M										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-285	RB	354	424	0.96	U	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-286	RB	325	290	0.84	U	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-287	RB	363	404	0.84	U	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-288	RB	365	441	0.91	U	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-289	RB	338	342	0.89	U	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-290	RB	377	450	0.84	U	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-291	RB	354	396	0.89	U	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-292	RB	398	621	0.99	U	R										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-293	RB	129	21	0.98	U	M										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-294	RB	128	24	1.14	U	R										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-295	RB	124	19	1.00	U	M										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-296	RB	351	396	0.92	F	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-297	RB	395	716	1.16	F	R			OT	6		6				Incidental mortality
Creek 705	21-Jun-11	2	HN-08	HN	HN8-298	RB	385	494	0.87	U	S										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 705	21-Jun-11	2	HN-08	HN	HN8-299	RB	332	320	0.87	F	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-300	RB	394	613	1.00	M	R										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-301	RB	366	430	0.88	U	M										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-302	RB	385	465	0.81	U	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-303	RB	236	129	0.98	U	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-304	RB	385	445	0.78	M	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-305	RB	346	353	0.85	F	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-306	RB	360	421	0.90	U	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-307	RB	364	411	0.85	U	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-308	RB	266	161	0.86	U	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-309	RB	135	26	1.06	U	M										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-310	RB	117	17	1.06	U	M										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-311	RB	117	14	0.87	U	M										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-312	RB	143	32	1.09	M	R										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-313	RB	119	20	1.19	U	M										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-314	RB	117	18	1.12	U	M										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-315	RB	114	17	1.15	U	M										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-316	RB	123	21	1.13	U	M										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-317	RB	122	18	0.99	U	M										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-318	RB	143	35	1.20	M	R										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-319	RB	117	15	0.94	M	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-320	RB	137	28	1.09	U	M										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-321	RB	122	18	0.99	F	M			OT	4		4				Incidental mortality
Creek 705	21-Jun-11	2	HN-08	HN	HN8-322	RB	294	212	0.83	M	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-323	RB	279	199	0.92	M	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-324	RB	257	173	1.02	M	R										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-325	RB	390	546	0.92	M	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-326	RB	391	687	1.15	M	S										Released
Creek 705	21-Jun-11	2	HN-08	HN	HN8-327	RB	124	18	0.94	U	M										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-328	RB	355	367	0.82	F	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-329	RB	338	317	0.82	F	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-330	RB	389	527	0.90	U	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-331	RB	386	463	0.81	U	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-332	RB	379	522	0.96	U	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-333	RB	331	311	0.86	U	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-334	RB	352	392	0.90	U	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-335	RB	365	425	0.87	U	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-336	RB	410	599	0.87	U	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-337	RB	221	111	1.03	U	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-338	RB	251	148	0.94	U	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-339	RB	330	335	0.93	U	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-340	RB	317	304	0.95	U	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-341	RB	293	253	1.01	M	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-342	RB	252	144	0.90	U	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-343	RB	360	416	0.89	U	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-344	RB	359	423	0.91	U	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-345	RB	370	451	0.89	U	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-346	RB	372	419	0.81	U	S										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 705	22-Jun-11	2	HN-08	HN	HN8-347	RB	410	664	0.96	M	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-348	RB	366	404	0.82	F	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-349	RB	355	402	0.90	U	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-350	RB	237	123	0.92	M	R										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-351	RB	332	316	0.86	F	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-352	RB	388	478	0.82	U	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-353	RB	390	515	0.87	F	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-354	RB	361	417	0.89	U	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-355	RB	291	205	0.83	U	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-356	RB	374	419	0.80	U	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-357	RB	344	344	0.85	U	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-358	RB	329	281	0.79	F	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-359	RB	128	21	1.00	U	M										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-360	RB	171	42	0.84	U	M										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-361	RB	146	28	0.90	U	M										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-362	RB	117	17	1.06	U	M										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-363	RB	370	472	0.93	F	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-364	RB	372	462	0.90	U	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-365	RB	358	453	0.99	U	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-366	RB	245	134	0.91	M	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-367	RB	404	541	0.82	U	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-368	RB	386	520	0.90	M	S										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-369	RB	154	36	0.99	U	M										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-370	RB	144	27	0.90	U	M										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-371	RB	130	20	0.91	U	M										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-372	RB	132	21	0.91	U	M										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-373	RB	124	18	0.94	U	M										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-374	RB	115	15	0.99	U	M										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-375	RB	115	12	0.79	U	M										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-376	RB	129	21	0.98	U	M										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-377	RB	124	16	0.84	U	M										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-378	RB	121	17	0.96	U	M										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-379	RB	140	24	0.87	M	R										Released
Creek 705	22-Jun-11	2	HN-08	HN	HN8-380	RB	310	283	0.95	M	R										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-381	RB	409	621	0.91	U	S										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-382	RB	343	245	0.61	F	S										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-383	RB	385	447	0.78	U	S										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-384	RB	396	556	0.90	M	R										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-385	RB	390	575	0.97	M	S										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-386	RB	431	686	0.86	M	S										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-387	RB	375	521	0.99	M	S										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-388	RB	372	475	0.92	U	S										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-389	RB	394	540	0.88	M	S								Y		Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-390	RB	263	155	0.85	U	S			SC		ua					Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-391	RB	255	150	0.90	F	S			SC		3	3				Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-392	RB	286	148	0.63	F	S			SC		2	2		Y		Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-393	RB	340	377	0.96	F	S										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-394	RB	365	416	0.86	U	S										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-395	RB	346	340	0.82	F	S										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 705	23-Jun-11	2	HN-08	HN	HN8-396	RB	103	15	1.37	U	U										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-397	RB	115	15	0.99	U	U										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-398	RB	110	12	0.90	U	U										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-399	RB	126	17	0.85	U	U								Y		Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-400	RB	260	148	0.84	U	S			SC		3	3				Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-401	RB	359	402	0.87	U	S										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-402	RB	380	472	0.86	M	S										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-403	RB	369	448	0.89	F	S										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-404	RB	119	14	0.83	U	U										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-405	RB	129	18	0.84	U	U								Y		Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-406	RB	156	29	0.76	U	U								Y		Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-407	RB	151	27	0.78	M	R										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-408	RB	124	19	1.00	U	U										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-409	RB	124	16	0.84	U	U										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-410	RB	134	24	1.00	U	U										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-411	RB	131	19	0.85	U	U										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-412	RB	116	15	0.96	U	U										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-413	RB	124	16	0.84	U	U								Y		Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-414	RB	121	15	0.85	U	U										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-415	RB	129	19	0.89	U	U								Y		Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-416	RB	102	16	1.51	U	U										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-417	RB	365	435	0.89	M	S										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-418	RB	379	441	0.81	F	S										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-419	RB	355	406	0.91	F	S										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-420	RB	142	25	0.87	U	U										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-421	RB	158	34	0.86	U	U										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-422	RB	280	195	0.89	M	S										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-423	RB	415	662	0.93	M	R										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-424	RB	355	426	0.95	M	R										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-425	RB	109	15	1.16	M	U										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-426	RB	145	30	0.98	U	U										Released
Creek 705	23-Jun-11	2	HN-08	HN	HN8-427	RB	365	412	0.85	M	S										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-428	RB	112	18	1.28	U	U										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-429	RB	101	15	1.46	U	U										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-430	RB	126	18	0.90	U	U										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-431	RB	104	11	0.98	U	U								Y		Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-432	RB	139	24	0.89	M	S										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-433	RB	134	25	1.04	M	U										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-434	RB	126	21	1.05	U	U										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-435	RB	132	21	0.91	U	U								Y		Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-436	RB	149	31	0.94	U	U								Y		Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-437	RB	115	13	0.85	U	U										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-438	RB	131	21	0.93	M	R										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-439	RB	133	20	0.85	U	U										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-440	RB	138	23	0.88	U	U										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-441	RB	282	198	0.88	U	U			SC		4	4				Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-442	RB	285	207	0.89	U	R			SC		ua					Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-443	RB	280	173	0.79	U	S			SC		4	4				Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-444	RB	210	82	0.89	M	R								Y		Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 705	24-Jun-11	2	HN-08	HN	HN8-445	RB	279	198	0.91	M	S			SC		4	4				Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-446	RB	290	245	1.00	U	S			SC		3	3				Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-447	RB	351	376	0.87	U	S										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-448	RB	370	435	0.86	U	S										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-449	RB	410	611	0.89	M	S										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-450	RB	392	571	0.95	M	S								Y		Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-451	RB	284	204	0.89	U	S			SC		4	4				Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-452	RB	123	16	0.86	U	U										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-453	RB	265	160	0.86	U	S										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-454	RB	255	143	0.86	F	S										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-455	RB	124	18	0.94	U	U										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-456	RB	367	416	0.84	M	S										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-457	RB	354	415	0.94	U	S										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-458	RB	105	13	1.12	U	U								Y		Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-459	RB	123	19	1.02	U	U								Y		Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-460	RB	121	17	0.96	U	U								Y		Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-461	RB	113	15	1.04	U	U										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-462	RB	126	18	0.90	U	U										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-463	RB	121	17	0.96	U	U										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-464	RB	134	23	0.96	U	U										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-465	RB	149	32	0.97	M	S										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-466	RB	129	20	0.93	U	U										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-467	RB	121	18	1.02	U	S										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-468	RB	386	553	0.96	M	U										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-469	BB	156	31	0.82	U	I										Released
Creek 705	24-Jun-11	2	HN-08	HN	HN8-470	RB	121	15	0.85	U	U			SC, OT	3	1	3				Incidental mortality
Creek 705	24-Jun-11	2	HN-08	HN	HN8-471	RB	181	32	0.54	U	U			SC, OT	3	1	3				Incidental mortality
Creek 705	25-Jun-11	2	HN-08	HN	HN8-472	RB	305	286	1.01	M	R			SC, OT		1	1				Incidental mortality
Creek 705	25-Jun-11	2	HN-08	HN	HN8-473	RB	370	446	0.88	F	S										Released
Creek 705	25-Jun-11	2	HN-08	HN	HN8-474	RB	380	498	0.91	M	S								Y		Released
Creek 705	25-Jun-11	2	HN-08	HN	HN8-475	RB	142	26	0.91	U	I										Released
Creek 705	25-Jun-11	2	HN-08	HN	HN8-476	RB	115	17	1.12	U	I										Released
Creek 705	25-Jun-11	2	HN-08	HN	HN8-477	RB	120	18	1.04	U	I								Y		Released
Creek 705	25-Jun-11	2	HN-08	HN	HN8-478	RB	157	28	0.72	U	U										Released
Creek 705	25-Jun-11	2	HN-08	HN	HN8-479	RB	135	23	0.93	U	I										Released
Creek 705	25-Jun-11	2	HN-08	HN	HN8-480	RB	120	21	1.22	U	I										Released
Creek 705	25-Jun-11	2	HN-08	HN	HN8-481	RB	110	15	1.13	U	I										Released
Creek 705	25-Jun-11	2	HN-08	HN	HN8-482	RB	156	255	6.72	F	S										Released, removed from biological characteristics analysis (outlier)
Creek 705	25-Jun-11	2	HN-08	HN	HN8-483	RB	360	419	0.90	M	R								Y		Released
Creek 705	25-Jun-11	2	HN-08	HN	HN8-484	RB	420	836	1.13	M	R										Released
Creek 705	25-Jun-11	2	HN-08	HN	HN8-485	RB	135	24	0.98	U	I								Y		Released
Creek 705	25-Jun-11	2	HN-08	HN	HN8-486	RB	125	23	1.18	U	I										Released
Creek 705	25-Jun-11	2	HN-08	HN	HN8-487	RB	120	17	0.98	M	R										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 705	25-Jun-11	2	HN-08	HN	HN8-488	BB	180	38	0.65	U	I										Released
Creek 705	25-Jun-11	2	HN-08	HN	HN8-489	RB	140	29	1.06	M	R										Released
Creek 705	26-Jun-11	2	HN-08	HN	HN8-490	RB	368	406	0.81	F	S										Released
Creek 705	26-Jun-11	2	HN-08	HN	HN8-491	RB	198	66	0.85	U	M										Released
Creek 705	26-Jun-11	2	HN-08	HN	HN8-492	RB	290	209	0.86	F	S			SC		3	3				Released
Creek 705	26-Jun-11	2	HN-08	HN	HN8-493	RB	115	16	1.05	U	I										Released
Creek 705	26-Jun-11	2	HN-08	HN	HN8-494	RB	125	19	0.97	U	I										Released
Creek 705	26-Jun-11	2	HN-08	HN	HN8-495	RB	118	16	0.97	U	I										Released
Creek 705	26-Jun-11	2	HN-08	HN	HN8-496	RB	129	19	0.89	U	I										Released
Creek 705	26-Jun-11	2	HN-08	HN	HN8-497	RB	128	20	0.95	U	I										Released
Creek 705	26-Jun-11	2	HN-08	HN	HN8-498	RB	136	26	1.03	U	I										Released
Creek 705	26-Jun-11	2	HN-08	HN	HN8-499	RB	267	171	0.90	F	I										Released
Creek 705	26-Jun-11	2	HN-08	HN	HN8-500	RB	385	558	0.98	F	S										Released
Creek 705	26-Jun-11	2	HN-08	HN	HN8-501	RB	400	662	1.03	U	U										Released
Creek 705	26-Jun-11	2	HN-08	HN	HN8-502	LSU	244	158	1.09	U	U			SC							Released
Creek 705	27-Jun-11	2	HN-08	HN	HN8-504	RB	109	14	1.08	U	U										Released
Creek 705	27-Jun-11	2	HN-08	HN	HN8-505	RB	347	388	0.93	F	S								Y		Released
Creek 705	27-Jun-11	2	HN-08	HN	HN8-506	RB	270	157	0.80	F	S								Y		Released
Creek 705	27-Jun-11	2	HN-08	HN	HN8-507	RB	258	156	0.91	M	R			SC							Released
Creek 705	27-Jun-11	2	HN-08	HN	HN8-508	RB	125	19	0.97	U	U								Y		Released
Creek 705	27-Jun-11	2	HN-08	HN	HN8-509	RB	127	19	0.93	U	U										Released
Creek 705	27-Jun-11	2	HN-08	HN	HN8-510	RB	162	40	0.94	U	U										Released
Creek 705	27-Jun-11	2	HN-08	HN	HN8-511	RB	175	48	0.90	M	R										Released
Creek 705	27-Jun-11	2	HN-08	HN	HN8-512	RB	120	15	0.87	U	U								Y		Released
Creek 705	27-Jun-11	2	HN-08	HN	HN8-513	RB	124	18	0.94	U	U										Released
Creek 705	27-Jun-11	2	HN-08	HN	HN8-514	RB	120	18	1.04	M	R										Released
Creek 705	27-Jun-11	2	HN-08	HN	HN8-515	RB	140	28	1.02	M	R										Released
Creek 705	27-Jun-11	2	HN-08	HN	HN8-516	RB	244	148	1.02	U	U										Released
Creek 705	27-Jun-11	2	HN-08	HN	HN8-517	MW	196	67	0.89	U	U										Released
Creek 705	27-Jun-11	2	HN-08	HN	HN8-518	RB	365	485	1.00	M	U										Released
Creek 705	27-Jun-11	2	HN-08	HN	HN8-519	RB	326	314	0.91	M	U										Released
Creek 705	28-Jun-11	2	HN-08	HN	HN8-520	RB	290	218	0.89	F	S			SC					Y		Released
Creek 705	28-Jun-11	2	HN-08	HN	HN8-521	RB	375	484	0.92	M	R										Released
Creek 705	28-Jun-11	2	HN-08	HN	HN8-522	RB	326	315	0.91	M	R										Released
Creek 705	28-Jun-11	2	HN-08	HN	HN8-523	RB	368	481	0.97	U	M										Released
Creek 705	28-Jun-11	2	HN-08	HN	HN8-524	RB	216	93	0.92	M	R								Y		Released
Creek 705	28-Jun-11	2	HN-08	HN	HN8-525	BB	225	58	0.51	U	U										Released
Davidson Creek	06-Aug-11	5	FS-02	EF	1-001	RB	66	6	2.09	U	U										Released
Davidson Creek	06-Aug-11	5	FS-02	EF	1-002	RB	59	2	0.97	U	U										Released
Davidson Creek	06-Aug-11	5	FS-02	EF	1-003	RB	67	4	1.33	U	U										Released
Davidson Creek	06-Aug-11	5	FS-02	EF	1-004	RB	53	3	2.02	U	U										Released
Davidson Creek	06-Aug-11	5	FS-02	EF	1-005	RB	48	3	2.71	U	U										Released
Davidson Creek	06-Aug-11	5	FS-02	EF	1-006	RB	54			U	U										Released
Davidson Creek	06-Aug-11	5	FS-02	EF	1-007	RB	64			U	U										Released
Davidson Creek	06-Aug-11	5	FS-02	EF	1-008	RB	91			U	U										Released
Davidson Creek	06-Aug-11	5	FS-02	EF	1-009	RB	65			U	U										Released
Davidson Creek	06-Aug-11	5	FS-02	EF	1-010	RB	64			U	U										Released
Davidson Creek	06-Aug-11	5	FS-02	EF	1-011	RB	62			U	U										Released
Davidson Creek	06-Aug-11	5	FS-02	EF	1-012	RB	61			U	U										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Davidson Creek	06-Aug-11	5	FS-02	EF	1-013	RB	66			U	U										Released
Davidson Creek	06-Aug-11	5	FS-02	EF	1-014	RB	50			U	U										Released
Davidson Creek	06-Aug-11	5	FS-02	EF	1-015	RB	87			U	U										Released
Davidson Creek	06-Aug-11	5	FS-02	EF	1-016	RB	49			U	U										Released
Davidson Creek	06-Aug-11	5	FS-02	EF	1-017	RB	62			U	U										Released
Davidson Creek	06-Aug-11	5	FS-02	EF	1-018	RB	56			U	U										Released
Davidson Creek	06-Aug-11	5	FS-02	EF	1-019	RB	58			U	U										Released
Davidson Creek	06-Aug-11	5	FS-02	EF	1-020	RB	129			U	U										Released
Turtle Creek	10-Aug-11	5	FS-21	EF	1-021	RB	124	29	1.52	U	U										Released
Creek 700	10-Aug-11	2	FS-23	EF	1-022	RB	114	23	1.55	U	U			SC, OT	2	1	2		Y		Sacrificed for metals analysis
Creek 700	10-Aug-11	2	FS-23	EF	1-023	RB	68	3	0.95	U	U			SC		0	0		Y		Sacrificed for metals analysis
Davidson Creek	11-Aug-11	8	FS-06	EF	1-024	RB	109	17	1.31	U	U										Released
Davidson Creek	11-Aug-11	8	FS-06	EF	1-025	RB	158	48.1	1.22	U	U			SC		1	1		Y	Y	Sacrificed for metals analysis
Davidson Creek	11-Aug-11	8	FS-06	EF	1-026	RB	150	42	1.24	U	U			OT	4		4		Y	Y	Sacrificed for metals analysis
Davidson Creek	11-Aug-11	8	FS-06	EF	1-027	RB	111	20	1.46	U	U										Released
Davidson Creek	11-Aug-11	8	FS-06	EF	1-028	RB	131	25	1.11	U	U										Released
Davidson Creek	11-Aug-11	8	FS-06	EF	1-029	RB	136	30	1.19	U	U										Released
Davidson Creek	11-Aug-11	8	FS-06	EF	1-030	RB	91	10	1.33	U	U										Released
Davidson Creek	11-Aug-11	8	FS-06	EF	1-031	RB	107	15	1.22	U	U										Released
Davidson Creek	11-Aug-11	8	FS-06	EF	1-032	RB	113	16	1.11	U	U										Released
Davidson Creek	11-Aug-11	8	FS-06	EF	1-033	RB	90	10	1.37	U	U										Released
Davidson Creek	11-Aug-11	8	FS-06	EF	1-034	RB	149	37	1.12	U	U										Released
Davidson Creek	11-Aug-11	8	FS-06	EF	1-035	RB	105	14	1.21	U	U										Released
Davidson Creek	11-Aug-11	8	FS-06	EF	1-036	RB	119	18	1.07	U	U										Released
Davidson Creek	11-Aug-11	8	FS-06	EF	1-037	RB	112	19	1.35	U	U										Released
Davidson Creek	11-Aug-11	8	FS-06	EF	1-038	RB	117	20	1.25	U	U										Released
Davidson Creek	11-Aug-11	8	FS-06	EF	1-039	RB	96	11	1.24	U	U										Released
Davidson Creek	11-Aug-11	8	FS-06	EF	1-040	RB	134	27	1.12	U	U										Released
Davidson Creek	11-Aug-11	8	FS-06	EF	1-041	RB	95	10	1.17	U	U										Released
Davidson Creek	11-Aug-11	8	FS-06	EF	1-042	RB	58	2	1.03	U	U										Released
Davidson Creek	13-Aug-11	12	FS-10	EF	1-043	RB	130	28	1.27	U	U										Released
Davidson Creek	13-Aug-11	12	FS-10	EF	1-044	RB	68	4	1.27	U	U										Released
Davidson Creek	13-Aug-11	12	FS-10	EF	1-045	RB	132	28	1.22	U	U										Released
Davidson Creek	13-Aug-11	12	FS-10	EF	1-046	RB	115	21	1.38	U	U										Released
Davidson Creek	13-Aug-11	12	FS-10	EF	1-047	RB	119	19	1.13	U	U										Released
Davidson Creek	13-Aug-11	12	FS-10	EF	1-048	RB	106	13	1.09	U	U										Released
Davidson Creek	13-Aug-11	12	FS-10	EF	1-049	RB	117	20	1.25	U	U										Released
Davidson Creek	13-Aug-11	12	FS-10	EF	1-050	RB	111	17	1.24	U	U										Released
Davidson Creek	13-Aug-11	12	FS-10	EF	1-051	RB	114	17	1.15	U	U										Released
Davidson Creek	13-Aug-11	12	FS-10	EF	1-052	RB	122	25	1.38	U	U										Released
Davidson Creek	13-Aug-11	12	FS-10	EF	1-053	RB	109	15	1.16	U	U										Released
Davidson Creek	13-Aug-11	12	FS-10	EF	1-054	RB	109	18	1.39	U	U										Released
Davidson Creek	13-Aug-11	12	FS-10	EF	1-055	RB	72	5	1.34	U	U										Released
Davidson Creek	13-Aug-11	12	FS-10	EF	1-056	RB	66	4	1.39	U	U										Released
Davidson Creek	13-Aug-11	12	FS-10	EF	1-057	RB	78	6	1.26	U	U										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Davidson Creek	13-Aug-11	12	FS-10	EF	1-058	RB	118	22	1.34	U	U										Released
Davidson Creek	13-Aug-11	12	FS-10	EF	1-059	RB	115	23	1.51	U	U										Released
Davidson Creek	13-Aug-11	12	FS-10	EF	1-060	RB	64	3	1.14	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-062	RB	84	7	1.18	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-063	RB	305	208	0.73	U	U			SC		3	3				Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-064	RB	131	28	1.25	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-065	RB	85	8	1.30	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-066	RB	123	21	1.13	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-067	RB	115	16	1.05	U	U			SC		1	1				Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-068	RB	104	13	1.16	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-069	RB	100	10	1.00	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-070	RB	81	6	1.13	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-071	RB	104	14	1.24	U	U			SC		1	1				Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-072	RB	254	123	0.75	U	U			SC		3	3				Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-073	RB	238	110	0.82	U	U			SC		2	2				Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-074	RB	86	8	1.26	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-075	RB	95	9	1.05	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-076	RB	134	26	1.08	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-077	RB	98	11	1.17	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-078	RB	96	12	1.36	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-079	RB	57	3	1.62	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-090	RB	102	13	1.23	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-091	RB	73	2	0.51	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-092	RB	68	4	1.27	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-093	RB	75	5	1.19	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-094	RB	79	6	1.22	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-095	RB	78	5	1.05	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-096	RB	80	6	1.17	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-097	RB	47	2	1.93	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-098	RB	51	1	0.75	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-099	RB	71	4	1.12	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-100	RB	72	4	1.07	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-101	RB	54	2	1.27	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-102	RB	54	2	1.27	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-103	RB	57	2	1.08	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-104	RB	95	10	1.17	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-105	RB	81	6	1.13	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-106	RB	55	2	1.20	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-107	RB	57	2	1.08	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-108	RB	82	8	1.45	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-109	RB	69	4	1.22	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-110	RB	97	12	1.31	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-111	RB	78	5	1.05	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-112	RB	79	6	1.22	U	U			SC		0	0				Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-113	RB	74	4	0.99	U	U			SC		0	0				Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-114	RB	116	20	1.28	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-115	RB	72	5	1.34	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-116	RB	99	10	1.03	U	U			SC		1	1				Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-117	RB	85	6	0.98	U	U			SC							Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Davidson Creek	13-Aug-11	11	FS-09	EF	1-118	RB	80	6	1.17	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-119	RB	128	25	1.19	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-120	RB	115	21	1.38	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-121	RB	122	21	1.16	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-122	RB	91	8	1.06	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-123	RB	85	9	1.47	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-124	RB	67	4	1.33	U	U										Released
Davidson Creek	13-Aug-11	11	FS-09	EF	1-125	RB	46	2	2.05	U	U										Released
Creek 661	15-Aug-11	6	FS-15	EF	1-126	RB	104	12	1.07	U	U										Released
Creek 661	15-Aug-11	6	FS-15	EF	1-127	RB	104	15	1.33	U	U										Released
Creek 661	15-Aug-11	6	FS-15	EF	1-128	RB	111	18	1.32	U	U										Released
Creek 661	15-Aug-11	6	FS-15	EF	1-129	RB	98	12	1.27	U	U										Sacrificed for metals analysis
Creek 661	15-Aug-11	6	FS-15	EF	1-130	RB	27	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Creek 661	15-Aug-11	6	FS-15	EF	1-131	RB	30	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Creek 661	15-Aug-11	6	FS-15	EF	1-132	RB	31	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Creek 661	15-Aug-11	6	FS-15	EF	1-133	RB	30	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Creek 661	15-Aug-11	6	FS-15	EF	1-134	RB	27	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Creek 661	15-Aug-11	6	FS-15	EF	1-135	RB	27	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Creek 661	15-Aug-11	6	FS-15	EF	1-136	RB	26	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 661	15-Aug-11	6	FS-15	EF	1-137	RB	30	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Creek 661	15-Aug-11	6	FS-15	EF	1-138	RB	30	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Creek 661	15-Aug-11	6	FS-15	EF	1-139	RB	27	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Creek 661	15-Aug-11	6	FS-15	EF	1-140	RB	26	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Creek 661	15-Aug-11	6	FS-15	EF	1-141	RB	27	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Creek 661	15-Aug-11	6	FS-15	EF	1-142	RB	26	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Creek 661	15-Aug-11	6	FS-15	EF	1-143	RB	29	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Creek 661	15-Aug-11	6	FS-15	EF	1-144	RB	28	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Creek 661	15-Aug-11	6	FS-15	EF	1-145	RB	27	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Creek 661	15-Aug-11	7	FS-16	EF	1-146	RB	30	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 661	15-Aug-11	7	FS-16	EF	1-147	RB	30	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Creek 661	15-Aug-11	7	FS-16	EF	1-148	RB	30	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Creek 661	15-Aug-11	7	FS-16	EF	1-149	RB	29	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Creek 661	15-Aug-11	7	FS-16	EF	1-150	RB	32	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Creek 661	15-Aug-11	7	FS-16	EF	1-151	RB	139	31	1.15	U	U			SC		2	2				Released
Creek 661	15-Aug-11	7	FS-16	EF	1-152	RB	135	29	1.18	U	U			SC		2	2				Released
Creek 661	15-Aug-11	7	FS-16	EF	1-153	RB	202	67	0.81	U	U			SC		2	2				Released
Creek 661	15-Aug-11	7	FS-16	EF	1-154	RB	30	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Creek 661	15-Aug-11	7	FS-16	EF	1-155	RB	29	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-156	RB	93	10.9	1.36	U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-157	RB	70	4.8	1.40	U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-158	RB	111	15.7	1.15	U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-159	RB	125	23.8	1.22	U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-160	RB	60	2	0.93	U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-161	RB	127	27.5	1.34	U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-162	RB	149	38.7	1.17	M	U	1.6	0.6	SC, OT	3	1	3		Y	Y	Sacrificed for metals analysis
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-163	RB	118	22.3	1.36	U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-164	RB	149	44.9	1.36	M	U	1.4	0.6	SC, OT	4	1	4		Y		Sacrificed for metals analysis
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-165	RB	130	27.1	1.23	U	U			SC, OT	3	1	3		Y	Y	Sacrificed for metals analysis
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-166	RB	65			U	U			SC		0	0				Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-167	RB	56			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-168	RB	64			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-169	RB	85			U	U										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-170	RB	67			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-171	RB	59			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-172	RB	67			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-173	RB	62			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-174	RB	78			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-175	RB	93			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-176	RB	99			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-177	RB	59			U	U			SC		0	0				Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-178	RB	65			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-179	RB	58			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-180	RB	59			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-181	RB	65			U	U			SC		0	0				Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-182	RB	59			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-183	RB	122			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-184	RB	97			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-185	RB	94			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-186	RB	95			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-187	RB	56			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-188	RB	67			U	U			SC		0	0				Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-189	RB	65			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-190	RB	90			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-191	RB	103			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-192	RB	56			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-193	RB	63			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-194	RB	84			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-195	RB	65			U	U										Released
Davidson Creek	19-Aug-11	7.1	FS-05	EF	1-196	RB	55			U	U			SC		0	0				Released
Creek 704454	21-Aug-11	4	FS-27	EF	1-197	RB	182	70.7	1.17	U	U			SC							Released
Creek 704454	21-Aug-11	4	FS-27	EF	1-198	RB	197	88.3	1.15	U	U			SC							Released
Lake 01428UEUT	16-Aug-11	3		GN	2-001	RB	182	77	1.28	U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-002	RB	255	180	1.09	U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-003	RB	210	93	1.00	U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-004	RB	255	184	1.11	U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-005	RB	230	119	0.98	U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-006	RB	161	45	1.08	U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-007	RB	239	124	0.91	U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-008	RB	205	95	1.10	U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-009	RB	228	109	0.92	U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-010	RB	286	232	0.99	U	U								Y		Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-011	RB	300	320	1.19	M	U		3.8	SC, OT	6	3	6		Y	Y	Sacrificed for metals analysis
Lake 01428UEUT	16-Aug-11	3		GN	2-012	RB	380	764	1.39	M	M	24	5.8	SC, OT	6	5	6		Y		Sacrificed for metals analysis

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Lake 01428UEUT	16-Aug-11	3		GN	2-013	RB	310	340	1.14	M	M	12.95	3.65	SC, OT	5	5	5		Y	Y	Sacrificed for metals analysis
Lake 01428UEUT	16-Aug-11	3		GN	2-014	RB	350	490	1.14	U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-015	RB	330	450	1.25	U	U								Y		Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-016	RB	320	340	1.04	U	U								Y		Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-017	RB	280	290	1.32	M	M	7.9	2.8	SC, OT	6	4	6		Y	Y	Sacrificed for metals analysis
Lake 01428UEUT	16-Aug-11	3		GN	2-018	RB	310	334	1.12	M	U	6.55	4.95	SC, OT	6	4	6		Y	Y	Sacrificed for metals analysis
Lake 01428UEUT	16-Aug-11	3		GN	2-019	RB	250	280	1.79	U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-020	RB	305	295	1.04	U	U								Y		Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-021	RB	305	285	1.00	U	U								Y		Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-022	RB	310	290	0.97	U	U								Y		Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-023	RB	295	250	0.97	U	U								Y		Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-024	RB	280	239	1.09	F	I	2.1	1.45	SC, OT	6	4	6		Y	Y	Sacrificed for metals analysis
Lake 01428UEUT	16-Aug-11	3		GN	2-025	RB	275	240	1.15	U	U								Y		Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-026	RB	303	321	1.15	U	U								Y		Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-027	RB	205	83	0.96	U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-028	RB	270	202	1.03	U	U								Y		Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-029	RB	250	173	1.11	U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-030	RB				U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-031	RB				U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-032	RB				U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-033	RB				U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-034	RB				U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-035	RB				U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-036	RB				U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-037	RB				U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-038	RB				U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-039	RB				U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-040	RB				U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-041	RB				U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-042	RB				U	U										Incidental

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
																					Mortality
Lake 01428UEUT	16-Aug-11	3		GN	2-043	RB				U	U										Incidental Mortality
Lake 01428UEUT	16-Aug-11	3		MT	2-044	LSU	133	24	1.02	U	U										Released
Lake 01428UEUT	16-Aug-11	3		MT	2-045	LSU	93	10	1.24	U	U										Released
Lake 01428UEUT	16-Aug-11	3		MT	2-046	LSU	81	5	0.94	U	U										Released
Turtle Creek	09-Aug-11	2	FS-18	EF	3-001	RB	124	22	1.15	U	U										Released
Turtle Creek	09-Aug-11	2	FS-18	EF	3-002	RB	94	8	0.96	U	U										Released
Turtle Creek	09-Aug-11	2	FS-18	EF	3-003	RB	86	8	1.26	U	U										Released
Turtle Creek	09-Aug-11	2	FS-18	EF	3-004	RB	81	5	0.94	U	U										Released
Turtle Creek	09-Aug-11	2	FS-18	EF	3-005	RB	120	18	1.04	U	U										Released
Creek 661	11-Aug-11	3	FS-12	EF	3-006	RB	89	7.9	1.12	U	U			SC, OT	1	1	1				Sacrificed for metals analysis
Creek 661	11-Aug-11	3	FS-12	EF	3-007	RB	82	6.3	1.14	U	U			OT	4		4		Y		Sacrificed for metals analysis
Creek 661	12-Aug-11	4	FS-13	EF	3-008	RB	98	7.8	0.83	U	U										Released
Creek 661	12-Aug-11	4	FS-13	EF	3-009	RB	85	8.1	1.32	U	U			SC, OT	2	0	2			Y	Sacrificed for metals analysis
Creek 661	12-Aug-11	4	FS-13	EF	3-010	RB	78	6.4	1.35	U	U			SC, OT	2	0	2			Y	Sacrificed for metals analysis
Creek 661	12-Aug-11	4	FS-13	EF	3-011	RB	86	7.8	1.23	U	U			SC, OT	2	0	2				Sacrificed for metals analysis
Creek 661	12-Aug-11	3	FS-12	MT	3-012	RB	87	6.6	1.00	U	U			SC, OT	1	0	1			Y	Sacrificed for metals analysis
Creek 661	13-Aug-11	5	FS-14	MT	3-013	RB	111	15.3	1.12	U	U	1	0.3	SC, OT	2	0	2		Y		Sacrificed for metals analysis
Creek 661	13-Aug-11	5	FS-14	MT	3-014	RB	75	5.6	1.33	U	U										Released
Creek 661	13-Aug-11	5	FS-14	MT	3-015	RB	73	7.1	1.83	U	U										Released
Creek 661	13-Aug-11	5	FS-14	MT	3-016	RB	88	5.6	0.82	U	U										Released
Creek 661	13-Aug-11	5	FS-14	EF	3-017	RB	92	9.5	1.22	U	U			SC. OT	2	1	2		Y	Y	Sacrificed for metals analysis
Creek 661	13-Aug-11	5	FS-14	EF	3-018	RB	81	6.5	1.22	U	U										Released
Creek 661	13-Aug-11	5	FS-14	EF	3-019	RB	72	5	1.34	U	U										Released
Creek 661	13-Aug-11	5	FS-14	EF	3-020	RB	73	4.6	1.18	U	U										Released
Creek 661	13-Aug-11	5	FS-14	EF	3-021	RB	70	4.3	1.25	U	U										Released
Creek 661	13-Aug-11	5	FS-14	EF	3-022	RB	65	2.7	0.98	U	U										Released
Creek 700	15-Aug-11	2	FS-23	MT	3-019	RB	122	18.7	1.03	M	U	1.55	0.25	SC, OT	2	1	2		Y		Sacrificed for metals analysis
Creek 700	15-Aug-11	2	FS-23	MT	3-020	RB	97	8.5	0.93	U	U			SC		1	1		Y		Sacrificed for metals analysis
Creek 700	15-Aug-11	2	FS-23	MT	3-021	RB	92	7.4	0.95	U	U			SC		1	1		Y		Sacrificed for metals analysis
Creek 700	15-Aug-11	2	FS-23	MT	3-022	RB	76	4	0.91	U	U			SC		1	1		Y		Sacrificed for metals analysis
Creek 700	15-Aug-11	2	FS-23	MT	3-023	RB	77	4.5	0.99	U	U			SC		1	1		Y		Sacrificed for metals analysis
Creek 700	15-Aug-11	2	FS-23	MT	3-024	RB	77	4.8	1.05	U	U			SC		1	1		Y		Sacrificed for metals analysis
Creek 700	15-Aug-11	2	FS-23	MT	3-025	RB	76	4.4	1.00	U	U										Released
Creek 700	15-Aug-11	2	FS-23	MT	3-026	RB	74	5.7	1.41	U	U										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 700	15-Aug-11	2	FS-23	MT	3-027	RB	70	4.6	1.34	U	U										Released
Turtle Creek	15-Aug-11	4	FS-20	EF	3-028	RB	76	5.2	1.18	U	U			SC					Y		Sacrificed for metals analysis
Turtle Creek	15-Aug-11	4	FS-20	EF	3-029	RB	67	2.9	0.96	U	U			SC		0	0		Y		Sacrificed for metals analysis
Turtle Creek	16-Aug-11	3	FS-19	EF	3-035	RB	148	40.8	1.26	U	U			SC		3	3				Released
Turtle Creek	16-Aug-11	3	FS-19	EF	3-036	RB	106	14.1	1.18	U	U			SC		1	1				Released
Turtle Creek	16-Aug-11	3	FS-19	EF	3-037	RB	81	6.1	1.15	U	U			SC		1	1				Released
Turtle Creek	16-Aug-11	3	FS-19	EF	3-038	RB	75	5.2	1.23	U	U			SC		1	1				Released
Turtle Creek	16-Aug-11	1	FS-17	EF	3-039	RB	127	28.8	1.41	U	U			SC		1	1				Released
Turtle Creek	16-Aug-11	1	FS-17	EF	3-040	RB	107	14	1.14	U	U			SC		1	1				Released
Turtle Creek	16-Aug-11	1	FS-17	EF	3-041	RB	120	20.8	1.20	U	U			SC		1	1				Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-042	RB	130	32.7	1.49	U	U			SC		2	2				Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-043	RB	97	11.2	1.23	U	U			SC		2	2				Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-044	RB	109	13.1	1.01	U	U			SC		1	1				Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-045	RB	94	8.6	1.04	U	U			SC		1	1				Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-046	RB	83	7	1.22	U	U			SC		0	0				Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-047	RB	92	9.9	1.27	U	U			SC							Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-048	RB	110	15.9	1.19	U	U			SC		1	1				Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-049	RB	116	17.8	1.14	U	U			SC							Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-050	RB	87	8.5	1.29	U	U			SC		1	1				Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-051	RB	96	10.1	1.14	U	U			SC		1	1				Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-052	RB	97	9.8	1.07	U	U										Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-053	RB	96	9.1	1.03	U	U										Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-054	RB	96	9.4	1.06	U	U										Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-055	RB	83	6.6	1.15	U	U										Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-056	RB	93	8.9	1.11	U	U										Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-057	RB	93	7.8	0.97	U	U										Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-058	RB	92	8.6	1.10	U	U										Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-059	RB	83	7	1.22	U	U										Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-060	RB	64	3.3	1.26	U	U										Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-061	RB	89	8.2	1.16	U	U										Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-062	RB	71	5	1.40	U	U										Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-063	RB	59	3.9	1.90	U	U										Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-064	RB	63	2.9	1.16	U	U										Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-065	RB	61	2.2	0.97	U	U										Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-066	RB	54	2.1	1.33	U	U										Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-067	RB	62	4	1.68	U	U										Released
Davidson Creek	17-Aug-11	6	FS-03	EF	3-068	RB	60	2.7	1.25	U	U										Released
Davidson Creek	17-Aug-11	7	FS-04	EF	3-069	RB	140			U	U			SC		1	1				Released
Davidson Creek	17-Aug-11	7	FS-04	EF	3-070	RB	143			U	U			SC		1	1				Released
Davidson Creek	17-Aug-11	7	FS-04	EF	3-071	RB	122			U	U			SC							Released
Davidson Creek	17-Aug-11	7	FS-04	EF	3-072	RB	110			U	U			SC		1	1				Released
Davidson Creek	17-Aug-11	7	FS-04	EF	3-073	RB	105			U	U			SC		1	1				Released
Davidson Creek	17-Aug-11	7	FS-04	EF	3-074	RB	101			U	U			SC		1	1				Released
Davidson Creek	17-Aug-11	7	FS-04	EF	3-075	RB	101			U	U			SC		1	1				Released
Davidson Creek	17-Aug-11	7	FS-04	EF	3-076	RB	105			U	U			SC		1	1				Released
Davidson Creek	17-Aug-11	7	FS-04	EF	3-077	RB	94			U	U			SC		0	0				Released
Davidson Creek	17-Aug-11	7	FS-04	EF	3-078	RB	94			U	U			SC		1	1				Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Davidson Creek	17-Aug-11	7	FS-04	EF	3-079	RB	96			U	U										Released
Davidson Creek	17-Aug-11	7	FS-04	EF	3-080	RB	60			U	U										Released
Davidson Creek	17-Aug-11	7	FS-04	EF	3-081	RB	58			U	U										Released
Davidson Creek	17-Aug-11	7	FS-04	EF	3-082	RB	81			U	U										Released
Davidson Creek	17-Aug-11	7	FS-04	EF	3-083	RB	58			U	U										Released
Davidson Creek	17-Aug-11	7	FS-04	EF	3-084	RB	62			U	U										Released
Davidson Creek	17-Aug-11	7	FS-04	EF	3-085	RB	57			U	U										Released
Davidson Creek	17-Aug-11	7	FS-04	EF	3-086	RB	65			U	U										Released
Davidson Creek	17-Aug-11	7	FS-04	EF	3-087	RB	61			U	U										Released
Davidson Creek	17-Aug-11	7	FS-04	EF	3-088	RB	85			U	U										Released
Davidson Creek	17-Aug-11	7	FS-04	EF	3-089	RB	66			U	U										Released
Davidson Creek	17-Aug-11	7	FS-04	EF	3-090	RB	65			U	U										Released
Davidson Creek	17-Aug-11	7	FS-04	EF	3-091	RB	96			U	U								Y		Released
Davidson Creek	18-Aug-11	9	FS-07	EF	3-092	RB	132	24.1	1.05	F	U			SC, OT	3	1	3		Y	Y	Released
Davidson Creek	18-Aug-11	9	FS-07	EF	3-093	RB	121	22.45	1.27	M	U		0.5	SC, OT	3	1	3		Y	Y	Released
Davidson Creek	18-Aug-11	9	FS-07	EF	3-094	RB	116	19.35	1.24	F	U			SC					Y	Y	Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-095	RB	145	35.25	1.16	U	U										Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-096	RB	125	23.05	1.18	U	U										Sacrificed for metals analysis
Davidson Creek	20-Aug-11	10	FS-08	EF	3-097	RB	138	32.05	1.22	U	U										Sacrificed for metals analysis
Davidson Creek	20-Aug-11	10	FS-08	EF	3-098	RB	107	17	1.39	U	U										Sacrificed for metals analysis
Davidson Creek	20-Aug-11	10	FS-08	EF	3-099	RB	84	7.55	1.27	U	U										Sacrificed for metals analysis
Davidson Creek	20-Aug-11	10	FS-08	EF	3-100	RB	109	17.55	1.36	U	U										Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-101	RB	99	11.95	1.23	U	U										Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-102	RB	95	11.1	1.29	U	U										Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-103	RB	96	11.2	1.27	U	U										Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-104	RB	94	10.2	1.23	U	U										Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-105	RB	85	8.25	1.34	U	U										Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-106	RB	96	9.3	1.05	U	U										Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-107	RB	101	13.55	1.32	U	U										Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-108	RB	89	8.8	1.25	U	U										Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-109	RB	85	7.9	1.29	U	U										Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-110	RB	89	8.9	1.26	U	U										Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-111	RB	99	12.9	1.33	U	U										Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-112	RB	92	10.85	1.39	U	U										Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-113	RB	92	9.15	1.18	U	U										Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-114	RB	85	8.45	1.38	U	U										Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-115	RB	86	7.7	1.21	U	U										Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-116	RB	84	7.75	1.31	U	U										Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-117	RB	85	7.55	1.23	U	U										Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-118	RB	92	7.65	0.98	U	U			SC, OT					Y		Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-119	RB	77	5.15	1.13	U	U			SC		1	1				Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-120	RB	58	1.9	0.97	U	U			SC		0	0				Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-121	RB	49	1.45	1.23	U	U			SC		0	0				Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-122	RB	55	1.85	1.11	U	U			SC		0	0				Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-123	RB	53	2.25	1.51	U	U			SC		0	0				Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Davidson Creek	20-Aug-11	10	FS-08	EF	3-124	RB	54	2.05	1.30	U	U			SC							Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-125	RB	56	2.8	1.59	U	U			SC		0	0				Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-126	RB	49	1.7	1.44	U	U			SC		0	0				Released
Davidson Creek	20-Aug-11	10	FS-08	EF	3-127	RB	49	1.45	1.23	U	U			SC		0	0				Released
Lake 01538UEUT	13-Aug-11	7		GN	V705LK-001	RB	276	220.2	1.05	F	U	1.7	2.3	SC, OT	7	4	7		Y		Sacrificed for metals analysis
Lake 01538UEUT	13-Aug-11	7		GN	V705LK-002	RB	267	192.2	1.01	M	U	2.4	2.7	SC, OT	5	3	5		Y	Y	Sacrificed for metals analysis
Lake 01538UEUT	13-Aug-11	7		GN	V705LK-003	RB	250	165.8	1.06	F	U	1.2	1.8	SC, OT	4	4	4		Y	Y	Sacrificed for metals analysis
Lake 01538UEUT	13-Aug-11	7		GN	V705LK-004	RB	272	209	1.04	F	U	2.2	1.1	SC, OT	6	4	6		Y		Sacrificed for metals analysis
Lake 01538UEUT	13-Aug-11	7		GN	V705LK-006a	RB	250	154.8	0.99	F	R	2.1	1.5	SC, OT	5	4	5		Y	Y	Sacrificed for metals analysis
Lake 01538UEUT	13-Aug-11	7		GN	V705LK-006b	RB	270	222.3	1.13	F	U	2.4	3.1	SC, OT	6	4	6		Y		Sacrificed for metals analysis
Lake 01538UEUT	13-Aug-11	7		GN	V705LK-007	RB	224	116.5	1.04	U	I		0.4	SC, OT	4	2	4		Y		Sacrificed for metals analysis
Lake 01538UEUT	13-Aug-11	7		GN	V705LK-008	RB	225	117.5	1.03	F	U	1.2	0.9	SC, OT	4	3	4		Y		Sacrificed for metals analysis
Lake 01538UEUT	13-Aug-11	7		GN	V705LK-009	RB	221	117.1	1.08	M	U	0.4	1.2	SC, OT	6	3	6		Y		Sacrificed for metals analysis
Lake 01538UEUT	13-Aug-11	7		GN	V705LK-010	RB	262	204.3	1.14	M	U	8.5	0.3	SC, OT	6	3	6		Y	Y	Sacrificed for metals analysis
Lake 01538UEUT	13-Aug-11	7		GN	V705LK-011	RB	292	273.1	1.10	F	U	3.3	3.4	SC, OT	7	3	7		Y		Sacrificed for metals analysis
Lake 01538UEUT	13-Aug-11	7		GN	V705LK-012	RB	245	159	1.08	F	U	0.9	1.1	SC, OT	5	4	5			Y	Sacrificed for metals analysis
Lake 01538UEUT	13-Aug-11	7		GN	V705LK-013	RB	242	147.2	1.04	M	U	3.4	1.4	SC, OT	9	3	9			Y	Sacrificed for metals analysis
Lake 01538UEUT	13-Aug-11	7		GN	V705LK-014	RB	235	141.4	1.09	M	U	3	1.5	SC, OT	7	2	7				Sacrificed for metals analysis
Lake 01538UEUT	13-Aug-11	7		GN	V705LK-015	RB	255	168.1	1.01	M	U	2.7	0.8	SC, OT	5	4	5		Y	Y	Sacrificed for metals analysis
Lake 01538UEUT	13-Aug-11	7		GN	V705LK-016	RB	265	197.5	1.06	F	U	3	2.1	SC, OT	6	4	6		Y	Y	Sacrificed for metals analysis
Lake 01538UEUT	13-Aug-11	7		GN	V705LK-017	RB	186	71.7	1.11	U	I		0.3	SC, OT	4	2	4		Y		Sacrificed for metals analysis
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-018	LSU	119	18.1	1.07	U	I		>1	SC, FR							Released, 0.5 g liver weight used for biological characteristics analysis
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-019	LSU	102	11	1.04	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-020	LSU	86	7	1.10	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-021	LSU	104	16	1.42	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-022	LSU	55	2	1.20	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-023	LSU	94	8	0.96	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-024	LSU	90	7	0.96	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-025	LSU	65	3	1.09	U	U										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-026	LSU	85	8	1.30	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-027	LSU	63	3	1.20	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-028	LSU	80	6	1.17	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-029	LSU	84	7	1.18	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-030	LSU	78	3	0.63	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-031	LSU	65	3	1.09	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-032	LSU	60	3	1.39	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-033	LSU	65	3	1.09	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-034	LSU	64	3	1.14	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-035	LSU	63	3	1.20	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-036	LSU	64	4	1.53	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-037	LSU	52	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-038	LSU	51	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-039	LSU	107	12	0.98	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-040	LSU	102	10	0.94	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-041	LSU	101	11	1.07	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-042	LSU	64	3	1.14	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-043	LSU	65	4	1.46	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-044	LSU	64	3	1.14	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-045	LSU	63	3	1.20	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-046	LSU	51	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-047	LSU	52	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-048	LSU	106	12	1.01	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-049	LSU	96	8	0.90	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-050	LSU	100	11	1.10	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-051	LSU	72	3	0.80	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-052	LSU	65	3	1.09	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-053	LSU	50	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-054	LSU	70	4	1.17	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-055	LSU	71	4	1.12	U	U										Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-056	LSU	51	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-057	LSU	102	10	0.94	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-058	LSU	50	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-059	LSU	96	8	0.90	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-060	LSU	60	3	1.39	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-061	LSU	61	3	1.32	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-062	LSU	52	<1		U	U										Released, 0.5 g weight used for biological characteristics analysis
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-063	LSU	94	8	0.96	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-064	LSU	61	5	2.20	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-065	RB	143	24	0.82	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-066	LSU	74	5	1.23	U	U										Released
Lake 01538UEUT	13-Aug-11	7		MT	V705LK-067	RB	137	24	0.93	U	U										Released
Creek 505659	03-Aug-12	3	FS-88	EF	5-001	RB	58	2.5	1.28					SC		0	0				Released
Creek 505659	03-Aug-12	3	FS-88	EF	5-002	RB	59	2.8	1.36					SC		0	0				Released
Creek 505659	03-Aug-12	3	FS-88	EF	5-003	RB	78	6.3	1.33					SC		0	0				Released
Creek 505659	03-Aug-12	3	FS-88	EF	5-004	RB	74	5	1.23					SC		0	0				Released
Creek 505659	03-Aug-12	2	FS-87	EF	5-005	RB	64	3.7	1.41					SC		0	0				Released
Creek 505659	03-Aug-12	2	FS-87	EF	5-006	RB	65	2.8	1.02					SC		0	0				Released
Creek 505659	04-Aug-12	3	FS-88	MT	5-007	RB	85	6.6	1.07					SC		0	0				Released
Creek 505659	04-Aug-12	3	FS-88	MT	5-008	RB	65	2.6	0.95					SC		0	0				Released
Creek 505659	04-Aug-12	2	FS-87	MT	5-009	RB	72	3.9	1.04					SC		0	0				Released
Creek 505659	04-Aug-12	2	FS-87	MT	5-010	RB	70	3.9	1.14					SC		0	0				Released
Creek 505659	04-Aug-12	2	FS-87	MT	5-011	RB	73	3.8	0.98					SC		0	0				Released
Creek 505659	04-Aug-12	2	FS-86	MT	5-012	RB	67	3.1	1.03					SC		0	0				Released
Creek 505659	04-Aug-12	2	FS-86	MT	5-013	RB	115	16.7	1.10					SC		1	1				Released
Creek 505659	04-Aug-12	2	FS-86	EF	5-014	RB	58	2.4	1.23					SC		0	0				Released
Creek 505659	04-Aug-12	2	FS-86	EF	5-015	RB	76	5	1.14					SC		0	0				Released
Creek 505659	04-Aug-12	2	FS-86	EF	5-016	RB	65	2.8	1.02					SC		0	0				Released
Creek 505659	04-Aug-12	2	FS-86	EF	5-017	RB	65	3.4	1.24					SC		0	0				Released
Creek 505659	04-Aug-12	2	FS-86	EF	5-018	RB	67	3.5	1.16					SC		0	0				Released
Creek 505659	04-Aug-12	2	FS-86	EF	5-019	RB	114	16.4	1.11					SC		1	1				Released
Creek 704454	05-Aug-12	5	FS-76	EF	5-020	RB	193	84	1.17					SC		2	2				Released
Creek 704454	05-Aug-12	4	FS-77	EF	5-021	RB	217	106	1.04					SC		3	3				Released
Creek 704454	05-Aug-12	6	FS-62	EF	5-022	RB	130	30	1.37					SC		2	2				Released
Davidson Creek	08-Aug-12	12	FS-10	EF	5-023	RB	70	4.2	1.22					SC		0	0				Released
Davidson Creek	08-Aug-12	12	FS-10	EF	5-024	RB	83	7.4	1.29					SC		0	0				Released
Davidson Creek	08-Aug-12	12	FS-10	EF	5-025	RB	80	5.8	1.13					SC		0	0				Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Davidson Creek	08-Aug-12	12	FS-10	EF	5-026	RB	73	5	1.29					SC		0	0				Released
Davidson Creek	08-Aug-12	12	FS-10	EF	5-027	RB	113	4.5	0.31					SC		1	1				Released, removed from biological characteristics analysis (outlier)
Davidson Creek	08-Aug-12	12	FS-10	EF	5-028	RB	74	4.5	1.11					SC		0	0				Released
Davidson Creek	08-Aug-12	12	FS-10	EF	5-029	RB	67	3.9	1.30					SC		0	0				Released
Davidson Creek	08-Aug-12	12	FS-10	EF	5-030	RB	77	5	1.10					SC		0	0				Released
Davidson Creek	08-Aug-12	12	FS-10	EF	5-031	RB	75	4.5	1.07					SC		0	0				Released
Davidson Creek	08-Aug-12	12	FS-10	EF	5-032	RB	72	4.3	1.15					SC		0	0				Released
Davidson Creek	08-Aug-12	12	FS-10	EF	5-033	RB	83	6.4	1.12					SC		0	0				Released
Davidson Creek	08-Aug-12	12	FS-10	EF	5-034	RB	73	4.4	1.13					SC		0	0				Released
Davidson Creek	08-Aug-12	12	FS-10	EF	5-035	RB	72	4.3	1.15	U	I			SC		0	0				Released
Davidson Creek	08-Aug-12	12	FS-10	EF	5-036	RB	68	3.7	1.18	U	I			SC		0	0				Released
Davidson Creek	08-Aug-12	12	FS-10	EF	5-037	RB	74	4.6	1.14	U	I			SC		0	0				Released
Davidson Creek	08-Aug-12	12	FS-10	EF	5-038	RB	84	7.1	1.20	U	I			SC		0	0				Released
Davidson Creek	08-Aug-12	12	FS-10	EF	5-039	RB	139	29.2	1.09	U	U			SC		1	1				Released
Davidson Creek	08-Aug-12	12	FS-10	EF	5-040	RB	133	25.4	1.08	U	U			SC		1	1				Released
Davidson Creek	08-Aug-12	12	FS-10	EF	5-041	RB	151	37.1	1.08	U	U			SC							Released
Davidson Creek	08-Aug-12	11	FS-09	EF	5-042	RB	76	4.6	1.05					SC		0	0				Incidental mortality
Davidson Creek	08-Aug-12	11	FS-09	EF	5-043	RB	84	7.5	1.27					SC		1	1				Released
Davidson Creek	08-Aug-12	11	FS-09	EF	5-044	RB	61	2.3	1.01					SC		0	0				Released
Davidson Creek	08-Aug-12	11	FS-09	EF	5-045	RB	86	7.9	1.24					SC		1	1				Released
Davidson Creek	08-Aug-12	11	FS-09	EF	5-046	RB	91	8	1.06					SC		1	1				Released
Davidson Creek	08-Aug-12	11	FS-09	EF	5-047	RB	108	13.4	1.06					SC		1	1				Released
Davidson Creek	08-Aug-12	11	FS-09	EF	5-048	RB	77	5.1	1.12					SC		0	0				Released
Davidson Creek	08-Aug-12	11	FS-09	EF	5-049	RB	79	5.8	1.18					SC		0	0				Released
Davidson Creek	08-Aug-12	11	FS-09	EF	5-050	RB	59	2.3	1.12							1	1				Released
Davidson Creek	08-Aug-12	11	FS-09	EF	5-051	RB	48	1.1	0.99												Released
Davidson Creek	09-Aug-12	9	FS-07	EF	5-052	RB	49	1.7	1.44												Released
Davidson Creek	09-Aug-12	9	FS-07	EF	5-053	RB	58	2.4	1.23												Released
Davidson Creek	09-Aug-12	9	FS-07	EF	5-054	RB	94	10.4	1.25					SC		1	1				Released
Creek 704454	09-Aug-12	1	FS-74	EF	5-051	RB	88	7.7	1.13					SC		1	1				Released
Creek 704454	09-Aug-12	1	FS-74	EF	5-052	RB	93	8.8	1.09					SC		0	0				Released, removed from biological characteristics analysis (outlier)
Creek 704454	09-Aug-12	1	FS-74	EF	5-053	RB	34	7.3	18.57					SC		1	1				Released, removed from biological characteristics analysis (outlier)
Creek 704454	09-Aug-12	1	FS-74	EF	5-054	RB	147	38.7	1.22					SC		1	1				Released
Davidson Creek	09-Aug-12	9	FS-07	EF	5-055	RB	113	17.1	1.19					SC		1	1				Released
Davidson Creek	09-Aug-12	9	FS-07	EF	5-056	RB	98	13.7	1.46					SC		1	1				Released
Davidson Creek	09-Aug-12	9	FS-07	EF	5-057	RB	123	22.7	1.22					SC		2	2				Released
Davidson Creek	09-Aug-12	9	FS-07	EF	5-058	RB	139	36	1.34					SC		2	2				Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Davidson Creek	09-Aug-12	9	FS-07	EF	5-059	RB	154	43	1.18					SC		2	2				Released
Davidson Creek	08-Aug-12	2	FS-75	MT	5-060	RB	88	6.8	1.00					SC		1	1				Released
Davidson Creek	08-Aug-12	2	FS-75	MT	5-061	RB	102	10.2	0.96					SC		1	1				Released
Creek 661	02-Aug-12	2	FS-83	EF	6-001	KO	246	178	1.20												Released
Creek 661	02-Aug-12	2	FS-83	EF	6-002	RB	109	14	1.08				0.2	SC, OT	3	1	3	Y			Sacrificed for metals analysis
Creek 661	02-Aug-12	2	FS-83	EF	6-003	RB	80	5.3	1.04				<0.1	SC, OT	2	0	2	Y			Sacrificed for metals analysis, 0.05 g liver weight used for biological characteristics analysis
Creek 661	02-Aug-12	2	FS-83	EF	6-004	RB	86	7	1.10				<0.1	SC, OT	2	1	2	Y			Sacrificed for metals analysis, 0.05 g liver weight used for biological characteristics analysis
Creek 661	02-Aug-12	2	FS-83	EF	6-005	RB	80	5.2	1.02				<0.1	SC, OT	1	0	1	Y			Sacrificed for metals analysis, 0.05 g liver weight used for biological characteristics analysis
Creek 661	02-Aug-12	2	FS-83	EF	6-006	RB	69	3.55	1.08												Released
Creek 661	02-Aug-12	2	FS-83	EF	6-007	RB	77	4.55	1.00					SC		0	0				Released
Creek 661	02-Aug-12	2	FS-83	EF	6-008	RB	64	2.95	1.13					SC		0	0				Released
Creek 661	02-Aug-12	2	FS-83	EF	6-009	RB	46	0.95	0.98					SC		0	0				Released
Creek 661	02-Aug-12	2	FS-83	EF	6-010	RB	76	5.3	1.21					SC		0	0				Released
Creek 661	02-Aug-12	2	FS-83	EF	6-011	RB	44	0.95	1.12												Released
Creek 661	02-Aug-12	2	FS-83	EF	6-012	RB	66	5.85	2.03					SC		0	0				Released
Creek 661	02-Aug-12	2	FS-83	EF	6-013	RB	69	4.2	1.28					SC		0	0				Released
Creek 661	02-Aug-12	2	FS-83	EF	6-014	RB	58	2.3	1.18												Released
Creek 661	02-Aug-12	2	FS-83	EF	6-015	RB	63	3.55	1.42												Released
Creek 661	02-Aug-12	2	FS-83	EF	6-016	RB	64	3.95	1.51												Released
Creek 661	02-Aug-12	2	FS-83	EF	6-017	RB	65	3.25	1.18												Released
Creek 661	02-Aug-12	2	FS-83	EF	6-018	RB	74	4	0.99												Released
Creek 661	02-Aug-12	2	FS-83	EF	6-019	RB	69	3.7	1.13												Released
Creek 661	02-Aug-12	2	FS-83	EF	6-020	RB	65	1.55	0.56												Released
Creek 661	02-Aug-12	2	FS-83	EF	6-021	RB	62	3.05	1.28												Released
Creek 661	02-Aug-12	2	FS-83	EF	6-022	RB	74	4.75	1.17												Released
Creek 661	02-Aug-12	2	FS-83	EF	6-023	RB	69	3	0.91												Released
Creek 661	02-Aug-12	2	FS-83	EF	6-024	RB	22	0.2	1.88												Released
Creek 661	02-Aug-12	2	FS-83	EF	6-025	RB	23	0.2	1.64												Released
Creek 661	02-Aug-12	2	FS-83	EF	6-026	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-027	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-028	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-029	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-030	RB															Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 661	02-Aug-12	2	FS-83	EF	6-031	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-032	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-033	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-034	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-035	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-036	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-037	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-038	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-039	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-040	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-041	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-042	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-043	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-044	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-045	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-046	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-047	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-048	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-049	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-050	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-051	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-052	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-053	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-052	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-053	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-054	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-055	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-056	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-057	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-058	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-059	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-060	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-061	RB															Released
Creek 661	02-Aug-12	2	FS-83	EF	6-062	RB															Released
Creek 661	03-Aug-12	1	FS-82	EF	6-063	KO	232	136	1.09												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-064	KO	227	121	1.03												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-065	KO	224	97	0.86												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-066	KO	206	114	1.30												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-067	RB	102	12.2	1.15				0.15	SC, OT	2	1	2	Y			Sacrificed for metals analysis
Creek 661	03-Aug-12	1	FS-82	EF	6-068	RB	98	12.85	1.37				0.2	SC, OT	2	1	2	Y			Sacrificed for metals analysis
Creek 661	03-Aug-12	1	FS-82	EF	6-069	RB	89	9.1	1.29				0.15	SC, OT	2	1	2	Y			Sacrificed for metals analysis
Creek 661	03-Aug-12	1	FS-82	EF	6-070	RB	77	4.65	1.02				0.1	SC, OT	2	1	2	Y			Sacrificed for metals analysis
Creek 661	03-Aug-12	1	FS-82	EF	6-071	RB	70	4.25	1.24					SC		0	0				Released
Creek 661	03-Aug-12	1	FS-82	EF	6-072	RB	71	5.4	1.51					SC		0	0				Released
Creek 661	03-Aug-12	1	FS-82	EF	6-073	RB	68	4.05	1.29					SC		0	0				Released
Creek 661	03-Aug-12	1	FS-82	EF	6-074	RB	78	5.95	1.25					SC		0	0				Released
Creek 661	03-Aug-12	1	FS-82	EF	6-075	RB	79	6.4	1.30					SC		0	0				Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 661	03-Aug-12	1	FS-82	EF	6-076	RB	60	2.15	1.00												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-077	RB	76	5.85	1.33												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-078	RB	69	3.95	1.20												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-079	RB	62	3.25	1.36												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-080	RB	75	5.55	1.32												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-081	RB	55	1.85	1.11												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-082	RB	67	4.15	1.38												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-083	RB	70	5.2	1.52												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-084	RB	63	3.2	1.28												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-085	RB	57	2.35	1.27												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-086	RB	54	2.15	1.37												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-087	RB	59	2.9	1.41												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-088	RB	60	3.1	1.44												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-089	RB	62	2.7	1.13												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-090	RB	57	2.15	1.16												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-091	RB	58	2.65	1.36												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-092	RB	60	3.7	1.71												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-093	RB	64	3.7	1.41												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-094	RB	68	4	1.27												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-095	RB	27	0.15	0.76												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-096	RB	28	0.15	0.68												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-097	RB	29	0.15	0.62												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-098	RB	26	0.15	0.85												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-099	RB	23	0.15	1.23												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-100	RB	27	0.15	0.76												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-101	RB	28	0.15	0.68												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-102	RB	27	0.15	0.76												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-103	RB	28	0.15	0.68												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-104	RB	29	0.2	0.82												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-105	RB	26	0.15	0.85												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-106	RB	25	0.15	0.96												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-107	RB	27	0.15	0.76												Released
Creek 661	03-Aug-12	1	FS-82	EF	6-108	RB															Released
Creek 661	03-Aug-12	1	FS-82	EF	6-109	RB															Released
Creek 661	03-Aug-12	1	FS-82	EF	6-110	RB															Released
Creek 661	03-Aug-12	1	FS-82	EF	6-111	RB															Released
Creek 661	03-Aug-12	2	FS-83	MT	6-112	RB								SC		1	1				Released
Creek 661	03-Aug-12	2	FS-83	MT	6-113	RB	96	8.95	1.01					SC		1	1				Released
Creek 661	03-Aug-12	2	FS-83	MT	6-114	RB	102	10.8	1.02					SC		1	1				Released
Creek 661	03-Aug-12	2	FS-83	MT	6-115	RB	64	3.75	1.43												Released
Creek 661	03-Aug-12	2	FS-83	MT	6-116	RB	53	2.25	1.51												Released
Creek 661	03-Aug-12	2	FS-83	MT	6-117	RB	69	3.9	1.19												Released
Creek 661	03-Aug-12	2	FS-83	MT	6-118	RB	86	6.55	1.03												Released
Creek 661	03-Aug-12	2	FS-83	MT	6-119	RB	74	4.55	1.12												Released
Creek 661	03-Aug-12	2	FS-83	MT	6-120	RB	77	4.45	0.97												Released
Creek 661	03-Aug-12	1	FS-82	MT	6-121	RB	112	12.85	0.91					SC		1	1				Released
Creek 661	03-Aug-12	1	FS-82	MT	6-122	RB	78	5.3	1.12												Released
Creek 661	03-Aug-12	1	FS-82	MT	6-123	RB	77	4.8	1.05												Released
Creek 661	03-Aug-12	1	FS-82	MT	6-124	RB	61	2.35	1.04												Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 661	03-Aug-12	1	FS-82	MT	6-125	RB															Released
Davidson Creek	04-Aug-12	2	FS-67	EF	6-126	KO	229	>250													Released
Davidson Creek	04-Aug-12	2	FS-67	EF	6-127	KO	228	>250													Released
Davidson Creek	04-Aug-12	2	FS-67	EF	6-128	KO	186	>250													Released
Davidson Creek	04-Aug-12	2	FS-67	EF	6-129	KO	239	>250													Released
Davidson Creek	04-Aug-12	2	FS-67	EF	6-130	KO	221	>250													Released
Davidson Creek	04-Aug-12	2	FS-67	EF	6-131	KO	202														Released
Davidson Creek	04-Aug-12	2	FS-67	EF	6-132	KO	198														Released
Davidson Creek	04-Aug-12	2	FS-67	EF	6-133	KO	196														Released
Davidson Creek	04-Aug-12	2	FS-67	EF	6-134	KO	208														Released
Davidson Creek	04-Aug-12	2	FS-67	EF	6-135	RB	98	12.5	1.33												Released
Davidson Creek	04-Aug-12	2	FS-67	EF	6-136	KO	185														Released
Davidson Creek	04-Aug-12	2	FS-67	EF	6-137	KO	161														Released
Davidson Creek	04-Aug-12	2	FS-67	EF	6-138	KO	186														Released
Davidson Creek	04-Aug-12	2	FS-67	EF	6-139	KO	226														Released
Davidson Creek	04-Aug-12	2	FS-67	EF	6-140	KO	189														Released
Davidson Creek	04-Aug-12	2	FS-67	EF	6-141	KO	195														Released
Davidson Creek	04-Aug-12	2	FS-67	EF	6-142	KO	221														Released
Davidson Creek	04-Aug-12	2	FS-67	EF	6-143	KO	209														Released
Davidson Creek	05-Aug-12	2	FS-67	MT	6-144	RB	88	6.3	0.92				0.11	SC, OT	2	1	2	Y			Sacrificed for metals analysis
Davidson Creek	05-Aug-12	2	FS-67	MT	6-145	RB	66	2.65	0.92												Released
Davidson Creek	05-Aug-12	2	FS-67	MT	6-146	RB	58	1.95	1.00												Released
Davidson Creek	05-Aug-12	1	FS-66	MT	6-147	RB	129	22.45	1.05				0.26	SC, OT	3	1	3	Y			Sacrificed for metals analysis
Davidson Creek	05-Aug-12	1	FS-66	MT	6-148	RB	95	9	1.05				0.13	SC, OT	2	1	2	Y			Sacrificed for metals analysis
Davidson Creek	05-Aug-12	1	FS-66	MT	6-149	RB	98	10.15	1.08				0.11	SC, OT	2	1	2	Y			Sacrificed for metals analysis
Davidson Creek	05-Aug-12	1	FS-66	MT	6-150	RB	85	6.35	1.03				0.08	SC, OT	2	1	2	Y			Sacrificed for metals analysis
Creek 428073	05-Aug-12	1	FS-70	EF	6-151	RB	94	7.3	0.88												Released
Creek 428073	05-Aug-12	1	FS-70	EF	6-152	RB	76	5.15	1.17												Released
Creek 428073	05-Aug-12	1	FS-70	EF	6-153	RB	113	16.25	1.13												Released
Creek 428073	05-Aug-12	1	FS-70	EF	6-154	RB	83	6.7	1.17												Released
Creek 428073	05-Aug-12	1	FS-70	EF	6-155	RB	41	0.85	1.23												Released
Creek 428073	05-Aug-12	1	FS-70	EF	6-156	RB	48	1.2	1.09												Released
Creek 428073	05-Aug-12	1	FS-70	EF	6-157	RB	36	0.3	0.64												Released
Creek 428073	05-Aug-12	1	FS-70	EF	6-158	RB	42	0.75	1.01												Released
Creek 688328	05-Aug-12	1	FS-94	EF	6-159	RB	172	56.85	1.12					SC		3	3				Released
Creek 688328	05-Aug-12	1	FS-94	EF	6-160	RB	127	22.85	1.12					SC		2	2				Released
Creek 688328	05-Aug-12	1	FS-94	EF	6-161	RB	171	58.35	1.17					SC		3	3				Released
Davidson Creek	05-Aug-12	4	FS-01	EF	6-162	KO	232	101	0.81												Released
Davidson Creek	05-Aug-12	4	FS-01	EF	6-163	RB	96	8.45	0.96				0.17	SC, OT	2	1	2	Y			Sacrificed for metals analysis
Davidson Creek	05-Aug-12	4	FS-01	EF	6-164	RB	85	7.55	1.23				0.16	SC, OT	2	1	2	Y			Sacrificed for metals analysis
Davidson Creek	05-Aug-12	4	FS-01	EF	6-165	RB	119	19	1.13	U	I	1.05	0.22	SC		1	1	Y			Sacrificed for metals analysis

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Davidson Creek	05-Aug-12	4	FS-01	EF	6-166	RB	102	13.8	1.30				0.18	SC, OT	2	1	2	Y			Sacrificed for metals analysis
Davidson Creek	05-Aug-12	4	FS-01	EF	6-167	RB	120	18.6	1.08				0.22	SC, OT	3	1	3	Y			Sacrificed for metals analysis
Davidson Creek	05-Aug-12	4	FS-01	EF	6-168	RB	97	14.25	1.56					SC		1	1				Released
Davidson Creek	05-Aug-12	4	FS-01	EF	6-169	RB	101	13.15	1.28					SC		1	1				Released
Davidson Creek	05-Aug-12	4	FS-01	EF	6-170	RB	96	10.8	1.22					SC		1	1				Released
Davidson Creek	05-Aug-12	4	FS-01	EF	6-171	RB	86	8.1	1.27					SC		1	1				Released
Davidson Creek	05-Aug-12	4	FS-01	EF	6-172	RB	87	7.6	1.15					SC		1	1				Released
Davidson Creek	05-Aug-12	4	FS-01	EF	6-173	RB	87	7.65	1.16												Released
Davidson Creek	05-Aug-12	4	FS-01	EF	6-174	RB	73	5.85	1.50												Released
Davidson Creek	05-Aug-12	4	FS-01	EF	6-175	RB	92	8.7	1.12												Released
Davidson Creek	05-Aug-12	4	FS-01	EF	6-176	RB	57	2.5	1.35												Released
Davidson Creek	05-Aug-12	4	FS-01	EF	6-177	RB	71	4.05	1.13												Released
Davidson Creek	05-Aug-12	4	FS-01	EF	6-178	RB	58	3.3	1.69												Released
Davidson Creek	05-Aug-12	4	FS-01	EF	6-179	RB	66	4.05	1.41												Released
Davidson Creek	05-Aug-12	4	FS-01	EF	6-180	RB	66	4.8	1.67												Released
Davidson Creek	05-Aug-12	4	FS-01	EF	6-181	RB	59	3.15	1.53												Released
Davidson Creek	05-Aug-12	4	FS-01	EF	6-182	RB	57	2.4	1.30												Released
Davidson Creek	05-Aug-12	4	FS-01	EF	6-183	RB	55	2.7	1.62												Released
Davidson Creek	05-Aug-12	4	FS-01	EF	6-184	RB	58	2.65	1.36												Released
Davidson Creek	07-Aug-12	1	FS-66	MT	6-185	RB	90	10.75	1.47					SC		1	1				Released
Davidson Creek	07-Aug-12	1	FS-66	MT	6-186	RB	127	19.65	0.96					SC		1	1				Released
Davidson Creek	07-Aug-12	1	FS-66	MT	6-187	RB	131	21.8	0.97					SC		1	1				Released
Davidson Creek	07-Aug-12	1	FS-66	MT	6-188	RB	84	6.5	1.10					SC		0	0				Released
Creek 688328	08-Aug-12	2	FS-49	EF	6-189	RB	185	81.1	1.28					SC		2	2				Released
Creek 688328	08-Aug-12	2	FS-49	EF	6-190	RB	180	69.35	1.19					SC		1	1				Released
Creek 688328	08-Aug-12	2	FS-49	EF	6-191	RB	168	65.95	1.39					SC		2	2				Released
Turtle Creek	09-Aug-12	5	FS-21	MT	6-192	RB	139	28.95	1.08	M	I	1.97	0.36	SC, OT	3	1	3	Y			Sacrificed for metals analysis
Turtle Creek	09-Aug-12	5	FS-21	MT	6-193	RB	123	16.6	0.89				0.13	SC, OT	2	1	2	Y			Sacrificed for metals analysis
Turtle Creek	09-Aug-12	5	FS-21	MT	6-194	RB	85	5.8	0.94				0.07	SC, OT	1	0	1	Y			Sacrificed for metals analysis
Turtle Creek	09-Aug-12	5	FS-21	MT	6-195	RB	93	7.2	0.90				0.09	SC		0	0	Y			Sacrificed for metals analysis
Turtle Creek	09-Aug-12	5	FS-21	MT	6-196	RB	75	3.95	0.94				0.04	SC, OT	1	0	1	Y			Sacrificed for metals analysis
Turtle Creek	09-Aug-12	2	FS-18	EF	6-197	RB	136	29.65	1.18	M	I	0.76	0.5	SC, OT	3	1	3	Y			Sacrificed for metals analysis
Turtle Creek	09-Aug-12	2	FS-18	EF	6-198	RB	90	7.9	1.08				0.12	SC, OT	1	1	1	Y			Sacrificed for metals analysis
Turtle Creek	09-Aug-12	2	FS-18	EF	6-199	RB	94	8.55	1.03				0.11	SC		0	0	Y			Sacrificed for metals analysis
Turtle Creek	09-Aug-12	2	FS-18	EF	6-200	RB	85	6.9	1.12					SC		0	0				Released
Turtle Creek	09-Aug-12	2	FS-18	EF	6-201	RB	84	7.1	1.20					SC		0	0				Released
Turtle Creek	09-Aug-12	2	FS-18	EF	6-202	RB	88	7.85	1.15					SC		1	1				Released
Turtle Creek	09-Aug-12	2	FS-18	EF	6-203	RB	77	5.45	1.19					SC		0	0				Released
Turtle Creek	09-Aug-12	2	FS-18	EF	6-204	RB	86	6.3	0.99					SC		0	0				Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Turtle Creek	09-Aug-12	2	FS-18	EF	6-205	RB	85	7.5	1.22					SC		1	1				Released
Chedakuz Creek	10-Aug-12	15	FS-97	MT	6-206	RB	130	21.6	0.98												Released
Chedakuz Creek	10-Aug-12	15	FS-97	EF	6-207	RB	131	26.05	1.16												Released
Chedakuz Creek	10-Aug-12	15	FS-97	EF	6-208	RB	104	11.5	1.02												Released
Chedakuz Creek	10-Aug-12	15	FS-97	EF	6-209	RB	89	7.3	1.04												Released
Chedakuz Creek	10-Aug-12	15	FS-97	EF	6-210	RB	78	5.85	1.23												Released
Chedakuz Creek	10-Aug-12	15	FS-97	EF	6-211	MW	67	2.7	0.90												Released
Chedakuz Creek	10-Aug-12	15	FS-97	EF	6-212	LNC	68	3.7	1.18												Released
Davidson Creek	10-Aug-12	5	FS-02	EF	6-206	RB	124	16.45	0.86												Released
Davidson Creek	10-Aug-12	5	FS-02	EF	6-207	RB	91	8.75	1.16												Released
Davidson Creek	10-Aug-12	5	FS-02	EF	6-208	RB	99	10.6	1.09												Released
Davidson Creek	10-Aug-12	5	FS-02	EF	6-209	RB	90	9.55	1.31												Released
Davidson Creek	10-Aug-12	5	FS-02	EF	6-210	RB	71	4.9	1.37												Released
Davidson Creek	10-Aug-12	5	FS-02	EF	6-211	RB	89	9	1.28												Released
Davidson Creek	10-Aug-12	5	FS-02	EF	6-212	RB	92	10.5	1.35												Released
Davidson Creek	10-Aug-12	5	FS-02	EF	6-213	RB	104	12.95	1.15												Released
Davidson Creek	10-Aug-12	5	FS-02	EF	6-214	RB	116	18.5	1.19												Released
Davidson Creek	10-Aug-12	5	FS-02	EF	6-215	RB	64	2.9	1.11												Released
Davidson Creek	10-Aug-12	5	FS-02	EF	6-216	RB	86	8.3	1.30												Released
Davidson Creek	10-Aug-12	5	FS-02	EF	6-217	RB	88	8.4	1.23												Released
Davidson Creek	10-Aug-12	5	FS-02	EF	6-218	RB	78	7.1	1.50												Released
Davidson Creek	10-Aug-12	5	FS-02	EF	6-219	RB	58	3.35	1.72												Released
Davidson Creek	10-Aug-12	5	FS-02	EF	6-220	RB	26	0.15	0.85												Released
Davidson Creek	10-Aug-12	5	FS-02	EF	6-221	RB	27	0.15	0.76												Released
Davidson Creek	10-Aug-12	6	FS-03	EF	6-222	RB	84	6.3	1.06					SC							Released
Davidson Creek	10-Aug-12	6	FS-03	EF	6-223	RB	91	9.85	1.31					SC							Released
Davidson Creek	10-Aug-12	6	FS-03	EF	6-224	RB	104	13.2	1.17					SC							Released
Davidson Creek	10-Aug-12	6	FS-03	EF	6-225	RB	138	27.85	1.06					SC							Released
Davidson Creek	10-Aug-12	6	FS-03	EF	6-226	RB	130	25.5	1.16					SC							Released
Davidson Creek	10-Aug-12	6	FS-03	EF	6-227	RB	76	5	1.14					SC							Released
Davidson Creek	10-Aug-12	6	FS-03	EF	6-228	RB	93	10.7	1.33					SC							Released
Davidson Creek	10-Aug-12	6	FS-03	EF	6-229	RB	62	2.85	1.20					SC							Released
Davidson Creek	10-Aug-12	6	FS-03	EF	6-230	RB	88	9	1.32					SC							Released
Davidson Creek	10-Aug-12	6	FS-03	EF	6-231	RB	75	5.35	1.27					SC							Released
Davidson Creek	10-Aug-12	6	FS-03	EF	6-232	RB	79	6.55	1.33												Released
Davidson Creek	10-Aug-12	6	FS-03	EF	6-233	RB	87	7.5	1.14												Released
Davidson Creek	10-Aug-12	6	FS-03	EF	6-234	RB	123	21.25	1.14												Released
Davidson Creek	10-Aug-12	6	FS-03	EF	6-235	RB	113	19.65	1.36												Released
Davidson Creek	10-Aug-12	6	FS-03	EF	6-236	RB	56	3.3	1.88												Released
Davidson Creek	10-Aug-12	6	FS-03	EF	6-237	RB	106	13.9	1.17												Released
Davidson Creek	10-Aug-12	6	FS-03	EF	6-238	RB	119	20.85	1.24												Released
Davidson Creek	10-Aug-12	6	FS-03	EF	6-239	RB	93	9.9	1.23												Released
Davidson Creek	10-Aug-12	6	FS-03	EF	6-240	RB	102	10.9	1.03												Released
Davidson Creek	10-Aug-12	6	FS-03	EF	6-241	RB	92	9.2	1.18												Released
Davidson Creek	10-Aug-12	6	FS-03	EF	6-242	RB	100	12.2	1.22												Released
Davidson Creek	10-Aug-12	6	FS-03	EF	6-243	RB	63	3.45	1.38												Released
Davidson Creek	10-Aug-12	6	FS-03	EF	6-244	RB	59	2	0.97												Released
Davidson Creek	10-Aug-12	6	FS-03	EF	6-245	RB	55	3	1.80												Released
Chedakuz Creek	05-Sep-12	14	FS-113	AG	7-001	RB	204	78.46	0.92	M	M	4.8	0.84	SC, OT	2	3	2	Y	Y	Y	Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Chedakuz Creek	05-Sep-12	14	FS-113	AG	7-002	RB	180	58.3	1.00	F	I		0.63	SC, OT	2	3	2	Y	Y	Y	Released
Chedakuz Creek	05-Sep-12	14	FS-113	AG	7-003	RB	190	70.61	1.03	M	I		0.73	SC, OT	2	3	2	Y	Y	Y	Released
Chedakuz Creek	05-Sep-12	14	FS-113	AG	7-004	RB	228	125.55	1.06	F	M	0.97	1.16	SC, OT	4	4	4	Y	Y	Y	Released
Chedakuz Creek	05-Sep-12	14	FS-113	AG	7-005	RB	262	181.05	1.01	U	I		1.9	SC, OT	3	5	3	Y	Y	Y	Released
Chedakuz Creek	05-Sep-12	14	FS-113	AG	7-006	RB	298	211	0.80	M	M	2.88	2.67	SC, OT	3		3	Y	Y	Y	Released
Chedakuz Creek	05-Sep-12	14	FS-113	AG	7-007	RB	328	307	0.87	U	I		4.57	SC, OT	5	4	5	Y	Y		Released
Chedakuz Creek	05-Sep-12	14	FS-113	AG	7-008	RB	308	273	0.93	M	M	5.44	2.11	SC, OT	3	5	3	Y	Y	Y	Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-009	KO	222	99	0.90										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-010	KO	244	143	0.98										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-011	KO	204	93	1.10										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-012	KO	223	130	1.17										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-013	KO	181	56	0.94										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-014	KO	184	56	0.90										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-015	KO	208	80	0.89										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-016	KO	195	70	0.94										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-017	KO	201	78	0.96										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-018	KO	190	75	1.09										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-019	KO	263	197	1.08										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-020	KO	233	148	1.17										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-021	KO	232	120	0.96										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-022	KO	246	152	1.02										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-023	KO	236	130	0.99										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-024	KO	214	92	0.94										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-025	KO	208	76	0.84										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-026	KO	200	82	1.03										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-027	KO	194	76	1.04										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-028	KO	192	70	0.99										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-029	KO	225	105	0.92										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-030	KO	214	87	0.89										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-031	KO	188	67	1.01										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-032	KO	186	50	0.78										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-033	KO	194	68	0.93										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-034	KO	182	62	1.03										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-035	KO	189	70	1.04										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-036	KO	197	75	0.98										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-037	KO	188	73	1.10										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-038	KO	199	69	0.88										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-039	RB	181	62	1.05												Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-040	KO	197	74	0.97										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-041	KO	193	78	1.08										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-042	KO	202	81	0.98										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-043	KO	185	61	0.96										Y		Released
Chedakuz Creek	09-Sep-12	14	FS-113	GN	7-044	KO	194	68	0.93										Y		Released
Lake 01428UEUT	08-Sep-12	3		GN	9-001	LSU	301	-						SC		7	7				Released
Lake 01428UEUT	08-Sep-12	3		GN	9-002	LSU	327	-													Released
Lake 01428UEUT	08-Sep-12	3		GN	9-003	LSU	330	-													Released
Lake 01428UEUT	08-Sep-12	3		GN	9-004	RB	128	-													Released
Lake 01428UEUT	08-Sep-12	3		GN	9-005	RB	134	-													Released
Lake 01428UEUT	08-Sep-12	3		GN	9-006	RB	130	-													Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Lake 01428UEUT	08-Sep-12	3		GN	9-007	RB	139	-													Released
Lake 01428UEUT	08-Sep-12	3		GN	9-008	RB	147	-													Released
Lake 01428UEUT	08-Sep-12	3		GN	9-009	RB	128	-													Released
Lake 01428UEUT	08-Sep-12	3		GN	9-010	RB	121	-													Released
Lake 01428UEUT	08-Sep-12	3		GN	9-011	RB	152	-													Released
Lake 01428UEUT	08-Sep-12	3		GN	9-012	RB	114	-													Released
Lake 01428UEUT	08-Sep-12	3		GN	9-013	RB	133	-													Released
Lake 01428UEUT	08-Sep-12	3		GN	9-014	RB	124	-													Released
Lake 01428UEUT	08-Sep-12	3		GN	9-015	RB	123	-													Released
Lake 01428UEUT	08-Sep-12	3		GN	9-016	RB	114	-													Released
Lake 01428UEUT	08-Sep-12	3		GN	9-017	RB	290	251	1.03	F	M	3.93	2.5	SC, OT	4	4	4	Y	Y	Y	Incidental mortality
Lake 01428UEUT	08-Sep-12	3		GN	9-018	RB	256	172.92	1.03	U	I		1.67	SC, OT	4	4	4	Y	Y	Y	Incidental mortality
Lake 01428UEUT	08-Sep-12	3		GN	9-019	RB	268	186.63	0.97	M	M		1.78	SC, OT	3	3	3	Y	Y	Y	Incidental mortality
Lake 01428UEUT	08-Sep-12	3		GN	9-020	RB	274	212	1.03	M	M		1.8	SC, OT	3	3	3	Y	Y	Y	Incidental mortality
Lake 01428UEUT	08-Sep-12	3		GN	9-021	RB	271	207	1.04	M	M	6.65	1.64	SC, OT	3	4	3	Y	Y	Y	Incidental mortality
Lake 01428UEUT	08-Sep-12	3		GN	9-022	RB	222	117.64	1.08	M	M		0.57	SC, OT	3	3	3	Y	Y	Y	Incidental mortality
Lake 01428UEUT	08-Sep-12	3		GN	9-023	RB	296	255	0.98	M	M	1.09	3.28	SC, OT	4	4	4	Y	Y	Y	Incidental mortality
Lake 01428UEUT	08-Sep-12	3		GN	9-024	RB	300	266	0.99	U	U		2.31	SC, OT	4	5	4	Y	Y	Y	Incidental mortality
Lake 01428UEUT	08-Sep-12	3		GN	9-025	RB	160	46.05	1.12					SC, OT	2	2	2	Y	Y		Incidental mortality
Lake 01428UEUT	08-Sep-12	3		GN	9-026	RB	255	167.58	1.01					SC, OT	3	3	3	Y	Y		Incidental mortality
Lake 01428UEUT	08-Sep-12	3		GN	9-027	RB	251	166.79	1.05					SC, OT		3	3	Y	Y		Incidental mortality
Lake 01428UEUT	08-Sep-12	3		GN	9-028	RB	261	171.55	0.96					SC, OT	3	5	3	Y	Y		Incidental mortality
Lake 01428UEUT	08-Sep-12	3		GN	9-029	RB	214	104.19	1.06					SC, OT	3	4	3	Y	Y		Incidental mortality
Lake 01428UEUT	08-Sep-12	3		GN	9-030	RB	225	121.7	1.07					SC, OT	4	4	4	Y	Y		Incidental mortality
Lake 01428UEUT	08-Sep-12	3		GN	9-031	RB	328	295	0.84					SC, OT	7	4	7	Y	Y		Incidental mortality
Lake 01428UEUT	08-Sep-12	3		GN	9-032	RB	281	206	0.93					SC, OT	5	5	5	Y	Y		Incidental mortality
Lake 01428UEUT	08-Sep-12	3		GN	9-033	RB	223	112.75	1.02					SC, OT	3	3	3	Y	Y		Incidental mortality
Lake 01428UEUT	08-Sep-12	3		GN	9-034	RB	122	17.97	0.99					SC, OT	3	1	3	Y	Y		Incidental mortality
Lake 01428UEUT	08-Sep-12	3		GN	9-035	RB	182	62.14	1.03					SC, OT	4	2	4	Y	Y		Incidental mortality
Lake 01428UEUT	08-Sep-12	3		GN	9-036	RB	105	13.46	1.16					SC		1	1	Y	Y		Incidental mortality
Lake 01428UEUT	08-Sep-12	3		GN	9-037	RB	120	18.78	1.09					SC, OT	2	1	2	Y	Y		Incidental mortality
Lake 01538UEUT	10-Sep-12	3		GN	9-038	RB	255	140	0.84	M	M		1.16	SC, OT	5	4	5	Y	Y	Y	Incidental mortality
Lake 01538UEUT	10-Sep-12	3		GN	9-039	RB	189	78	1.16	M	M		0.64	SC, OT	3	2	3	Y	Y	Y	Incidental mortality
Lake 01538UEUT	10-Sep-12	3		GN	9-040	RB	141	35	1.25	U	I		0.24	SC, OT	4	1	4	Y	Y	Y	Incidental mortality

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Lake 01538UEUT	10-Sep-12	3		GN	9-041	RB	190	85	1.24	U	I		0.82	SC, OT	3	2	3	Y	Y	Y	Incidental mortality
Lake 01538UEUT	10-Sep-12	3		GN	9-042	RB	230	127	1.04	U	I		1.1	SC, OT	5	3	5	Y	Y	Y	Incidental mortality
Lake 01538UEUT	10-Sep-12	3		GN	9-043	RB	249	155	1.00	U	I		1.17	SC, OT	5	4	5	Y	Y	Y	Incidental mortality
Lake 01538UEUT	10-Sep-12	3		GN	9-044	RB	233	137	1.08	F	M		1.51	SC, OT	6	3	6	Y	Y	Y	Incidental mortality
Lake 01538UEUT	10-Sep-12	3		GN	9-045	RB	260	184	1.05	F	M		1.7	SC, OT	4	4	4	Y	Y	Y	Incidental mortality
Lake 01538UEUT	10-Sep-12	3		GN	9-046	RB	281	234	1.05	M	I		1.62	SC, OT	4	4	4	Y	Y	Y	Incidental mortality
Lake 01538UEUT	10-Sep-12	3		GN	9-047	RB	254	179	1.09	M	M		2.06	SC, OT	3	4	3	Y	Y	Y	Incidental mortality
Lake 01538UEUT	10-Sep-12	3		GN	9-048	RB	298	275	1.04	M	M		2.77	SC, OT	4	6	4	Y	Y	Y	Incidental mortality
Lake 01538UEUT	10-Sep-12	3		GN	9-049	RB	176	68	1.25					SC, OT	3	2	3	Y	Y		Incidental mortality
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-001	KO	280	214	0.97	F	S								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-002	KO	297	322	1.23	M	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-003	KO	290	298	1.22	M	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-004	KO	273	251	1.23	F	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-005	KO	284	278	1.21	F	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-006	KO	236	157	1.19	F	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-007	KO	259	177	1.02	F	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-008	KO	257	228	1.34	F	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-009	KO	255	210	1.27	F	S								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-010	KO	275	253	1.22	F	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-011	KO	253	192	1.19	F	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-012	KO	296	324	1.25	F	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-013	KO	281	245	1.10	F	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-014	KO	288	263	1.10	F	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-015	KO	284	295	1.29	F	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-016	KO	280	318	1.45	F	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-017	KO	279	272	1.25	F	S								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-018	KO	288	280	1.17	F	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-019	KO	332	442	1.21	M	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-020	KO	289	312	1.29	M	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-021	KO	298	318	1.20	M	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-022	KO	294	295	1.16	F	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-023	KO	286	313	1.34	F	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-024	KO	305	380	1.34	M	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-025	KO	294	300	1.18	F	S								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-026	KO	303	374	1.34	M	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-027	KO	287	280	1.18	M	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-028	KO	279	295	1.36	M	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-029	KO	284	261	1.14	F	R								Y		Released
P17 Stream 2	10-Sep-12	1	KO-30	DN	10-030	KO	279	264	1.22	F	R								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-031	KO	205	72	0.84	U	S								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-032	KO	204	79	0.93	F	S								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-033	KO	225	109	0.96	M	R								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-034	KO	239	122	0.89	F	R								Y		Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
P8 Stream	11-Sep-12	1	KO-12	DN	10-035	KO	210	101	1.09	M	R								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-036	KO	214	114	1.16	M	R								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-037	KO	206	82	0.94	M	R								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-038	KO	192	73	1.03	M	R								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-039	KO	209	97	1.06	M	R								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-040	KO	210	87	0.94	F	S								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-041	KO	198	68	0.88	F	S								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-042	KO	178	65	1.15	F	S								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-043	KO	207	89	1.00	M	R								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-044	KO	198	77	0.99	F	R								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-045	KO	202	77	0.93	U	S								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-046	KO	210	94	1.02	U	S								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-047	KO	204	84	0.99	M	R								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-048	KO	199	83	1.05	M	S								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-049	KO	209	86	0.94	M	R								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-050	KO	214	112	1.14	F	R								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-051	KO	204	92	1.08	M	R								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-052	KO	196	79	1.05	F	R								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-053	KO	193	85	1.18	M	R								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-054	KO	194	83	1.14	M	R								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-055	KO	187	67	1.02	F	R								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-056	KO	194	80	1.10	F	S								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-057	KO	189	69	1.02	M	R								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-058	KO	194	70	0.96	M	R								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-059	KO	200	85	1.06	F	S								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-060	KO	217	95	0.93	F	S								Y		Released
P8 Stream	11-Sep-12	1	KO-12	DN	10-061	KO	237	131	0.98	F	R								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-062	KO	181	59	0.99	M	R								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-063	KO	168	45	0.95	F	R								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-064	KO	208	80	0.89	M	R								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-065	KO	191	72	1.03	M	R								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-066	KO	185	71	1.12	M	R								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-067	KO	179	63	1.10	M	R								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-068	KO	200	80	1.00	M	R								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-069	KO	171	43	0.86	F	S								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-070	KO	194	73	1.00	F	R								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-071	KO	191	81	1.16	M	R								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-072	KO	196	78	1.04	M	R								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-073	KO	197	73	0.95	M	R								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-074	KO	208	95	1.06	M	R								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-075	KO	192	72	1.02	M	R								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-076	KO	185	59	0.93	F	S								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-077	KO	180	66	1.13	F	R								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-078	KO	224	118	1.05	M	R								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-079	KO	181	68	1.15	M	R								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-080	KO	188	56	0.84	F	S								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-081	KO	212	93	0.98	F	S								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-082	KO	174	61	1.16	M	R								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-083	KO	212	100	1.05	M	R								Y		Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Fawnie Creek	13-Sep-12		KO-33	GN	10-084	KO	187	64	0.98	F	S								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-085	KO	174	61	1.16	M	R								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-086	KO	194	59	0.81	F	S								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-087	KO	185	70	1.11	M	R								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-088	KO	185	69	1.09	M	R								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-089	KO	185	61	0.96	F	R								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-090	KO	188	74	1.11	M	R								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-091	KO	169	47	0.97	M	S								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-092	KO	217	109	1.07	M	S								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-093	KO	191	65	0.93	M	R								Y		Released
Fawnie Creek	13-Sep-12		KO-33	GN	10-094	KO	212	106	1.11	M	R								Y		Released
Creek 606013	16-Sep-12	1	FS-102	MT	10-095	RB	48	0.5	0.45												Released
Creek 606013	16-Sep-12	1	FS-102	MT	10-096	RB	54	1.1	0.70												Released
Creek 606013	16-Sep-12	1	FS-102	MT	10-097	RB	94	7	0.84												Released
Creek 606013	16-Sep-12	1	FS-102	MT	10-098	RB	74	3.9	0.96												Released
Creek 606013	16-Sep-12	1	FS-102	MT	10-099	RB	56	1.5	0.85												Released
Creek 606013	16-Sep-12	1	FS-102	MT	10-100	RB	51	1.6	1.21												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-101	RB	44	1.3	1.53												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-102	RB	39	0.7	1.18												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-103	RB	43	1.5	1.89												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-104	RB	38	0.65	1.18												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-105	RB	46	1.85	1.90												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-106	RB	48	2.15	1.94												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-107	RB	53	1.5	1.01												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-108	RB	39	0.85	1.43												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-109	RB	39	0.95	1.60												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-110	RB	52	1.45	1.03												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-111	RB	71	4.5	1.26												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-112	RB	40	0.5	0.78												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-112	RB	32	0.45	1.37												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-113	RB	39	0.5	0.84												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-113	RB	42	0.5	0.67												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-114	RB	44	0.75	0.88												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-114	RB	38	0.6	1.09												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-115	RB	32	0.45	1.37												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-115	RB	28	0.3	1.37												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-116	RB	44	1.35	1.58												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-116	RB	61	2.2	0.97												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-117	RB	38	0.5	0.91												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-117	RB	53	1	0.67												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-118	RB	31	0.45	1.51												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-118	RB	56	2.2	1.25												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-119	RB	31	0.3	1.01												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-119	RB	56	2.35	1.34												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-120	RB	38	0.85	1.55												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-121	RB	68	3.65	1.16												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-122	RB	45	0.8	0.88												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-123	RB	49	1	0.85												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-124	RB	42	0.8	1.08												Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 606013	16-Sep-12	1	FS-102	EF	10-125	RB	49	1.25	1.06												Released
Creek 606013	16-Sep-12	1	FS-102	EF	10-126	RB	49	1.15	0.98												Released
Creek 705	16-Sep-12	4	FS-103	MT	10-127	RB	60	2.45	1.13												Released
Creek 705	16-Sep-12	4	FS-103	MT	10-128	LSU	72	4.2	1.13												Released
Creek 705	16-Sep-12	4	FS-103	EF	10-129	RB	44	0.75	0.88												Released
Creek 705	16-Sep-12	4	FS-103	EF	10-130	RB	68	2.5	0.80												Released
Creek 705	16-Sep-12	4	FS-103	EF	10-131	RB	61	2.5	1.10												Released
Creek 705	16-Sep-12	4	FS-103	EF	10-132	RB	47	0.9	0.87												Released
Creek 705	16-Sep-12	4	FS-103	EF	10-133	RB	32	0.55	1.68												Released
Creek 705	16-Sep-12	4	FS-103	EF	10-134	RB	39		0.00												Released
Creek 705	16-Sep-12	4	FS-103	EF	10-135	RB	76	3.55	0.81												Released
Creek 705	16-Sep-12	4	FS-103	EF	10-136	RB	44	0.75	0.88												Released
Creek 705	16-Sep-12	4	FS-103	EF	10-137	RB	45	1.3	1.43												Released
Creek 705	16-Sep-12	4	FS-103	EF	10-138	RB	51	1.45	1.09												Released
Creek 705	16-Sep-12	4	FS-103	EF	10-139	RB	73	3.7	0.95												Released
Creek 705	16-Sep-12	4	FS-103	EF	10-140	RB	47	0.95	0.92												Released
Creek 705	16-Sep-12	4	FS-103	EF	10-141	RB	39	0.85	1.43												Released
Creek 705	16-Sep-12	4	FS-103	EF	10-142	RB	45	0.95	1.04												Released
Creek 705	16-Sep-12	4	FS-103	EF	10-143	RB	43	0.9	1.13												Released
Creek 705	16-Sep-12	4	FS-103	EF	10-144	RB	46	1.15	1.18												Released
Creek 705	16-Sep-12	4	FS-103	EF	10-145	RB	47	1	0.96												Released
Creek 705	16-Sep-12	4	FS-103	EF	10-146	RB	44	1	1.17												Released
Creek 705	16-Sep-12	4	FS-103	EF	10-147	RB	40	0.55	0.86												Released
Creek 705	16-Sep-12	4	FS-103	EF	10-148	RB	40	0.8	1.25												Released
Creek 705	16-Sep-12	4	FS-103	EF	10-149	RB	42	0.7	0.94												Released
Creek 705	16-Sep-12	4	FS-103	EF	10-150	RB	33	0.6	1.67												Released
Creek 705	16-Sep-12	4	FS-103	EF	10-151	RB	34	0.45	1.14												Released
Creek 606013	19-Sep-12	4	FS-61	EF	10-152	RB	161	45.65	1.09												Released
Creek 606013	19-Sep-12	4	FS-61	EF	10-153	RB	148	34	1.05												Released
Creek 606013	19-Sep-12	4	FS-61	EF	10-154	RB	117	16.85	1.05												Released
Creek 606013	19-Sep-12	4	FS-61	EF	10-155	RB	77	5.05	1.11												Released
Creek 606013	19-Sep-12	4	FS-61	EF	10-156	RB	67	3.55	1.18												Released
Creek 606013	19-Sep-12	4	FS-61	EF	10-157	RB	61	3.3	1.45												Released
Creek 606013	19-Sep-12	4	FS-61	EF	10-158	RB	107	13.6	1.11												Released
Creek 606013	19-Sep-12	4	FS-61	EF	10-159	RB	104	11.35	1.01												Released
Creek 606013	19-Sep-12	4	FS-61	EF	10-160	RB	73	4.45	1.14												Released
Creek 606013	19-Sep-12	4	FS-61	EF	10-161	RB	112	13.65	0.97												Released
Creek 606013	19-Sep-12	4	FS-61	EF	10-162	RB	96	9.5	1.07												Released
Creek 606013	19-Sep-12	4	FS-61	EF	10-163	RB	116	12.3	0.79												Released
Creek 606013	19-Sep-12	4	FS-61	EF	10-164	RB															Released
Creek 606013	19-Sep-12	4	FS-61	EF	10-165	RB															Released
Creek 606013	19-Sep-12	4	FS-61	EF	10-166	RB															Released
Chedakuz Creek	20-Sep-12	14	FS-113	MT	10-167	RB	54														Released
Chedakuz Creek	20-Sep-12	14	FS-113	MT	10-168	RB	60														Released
Lake 01682LNRS	19-Sep-12	13		GN	16-001	RB	136	231	9.18					SC		4	4				Released
Lake 01682LNRS	19-Sep-12	13		GN	16-002	RB	352	463	1.06					SC		8	8				Released
Lake 01682LNRS	19-Sep-12	13		GN	16-003	RB	351	427	0.99					SC		6	6				Released
Lake 01682LNRS	19-Sep-12	13		GN	16-004	RB	344	440	1.08					SC		8	8				Released
Lake 01682LNRS	19-Sep-12	13		GN	16-005	RB	135	26	1.06					SC		2	2				Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Lake 01682LNRS	19-Sep-12	13		GN	16-006	RB	380	587	1.07	F	M			SC, OT	4	6	4	Y	Y		Incidental mortality
Lake 01682LNRS	19-Sep-12	13		GN	16-007	RB	311	355	1.18					SC, OT	5	5	5	Y	Y		Incidental mortality
Lake 01682LNRS	19-Sep-12	13		GN	16-008	RB	280	259	1.18					SC, OT	3	5	3	Y	Y		Incidental mortality
Lake 01682LNRS	19-Sep-12	13		GN	16-009	RB	350	473	1.10	M	M			SC, OT	4	7	4	Y	Y		Incidental mortality
Lake 01682LNRS	19-Sep-12	13		GN	16-010	RB	344	463	1.14	F	M			SC, OT	5	7	5	Y	Y		Incidental mortality
Lake 01682LNRS	19-Sep-12	13		GN	16-011	RB	305	355	1.25	F	M			SC, OT	4	6	4	Y	Y		Incidental mortality
Lake 01682LNRS	19-Sep-12	13		GN	16-012	RB	316	381	1.21					SC		6	6				Released
Lake 01682LNRS	19-Sep-12	13		GN	16-013	RB	290	273	1.12					SC		5	5				Released
Lake 01682LNRS	19-Sep-12	13		GN	16-014	RB	351	499	1.15					SC		6	6				Released
Lake 01682LNRS	19-Sep-12	13		GN	16-015	RB	285	246	1.06	F	M			SC, OT	3	5	3	Y	Y		Incidental mortality
Lake 01682LNRS	19-Sep-12	13		GN	16-016	RB	266	216	1.15					SC, OT	3	5	3	Y	Y		Incidental mortality
Lake 01682LNRS	19-Sep-12	13		GN	16-017	RB	343	451	1.12	F	M			SC, OT	3	6	3	Y	Y		Incidental mortality
Turtle Creek	11-Oct-12	1	HN-05	HN	17-001	RB	148	36	1.11												Released
Turtle Creek	11-Oct-12	1	HN-05	EF	17-002	RB	169	55	1.14												Released
Turtle Creek	11-Oct-12	1	HN-05	EF	17-003	RB	138	26	0.99												Released
Turtle Creek	11-Oct-12	1	HN-05	EF	17-004	RB	95	10	1.17												Released
Turtle Creek	11-Oct-12	1	HN-05	EF	17-005	RB	130	25	1.14												Released
Turtle Creek	11-Oct-12	1	HN-05	EF	17-006	RB	56	n/a													Released
Turtle Creek	11-Oct-12	1	HN-05	EF	17-007	RB	92	7	0.90												Released
Turtle Creek	11-Oct-12	1	HN-05	EF	17-008	RB	64	n/a													Released
Turtle Creek	11-Oct-12	1	HN-05	EF	17-009	RB	85	6	0.98												Released
Turtle Creek	11-Oct-12	1	HN-05	EF	17-010	RB	56	n/a													Released
Turtle Creek	11-Oct-12	1	HN-05	EF	17-011	RB	55	n/a													Released
Creek 705	12-Oct-12	1	HN-08	EF	17-012	RB	104	11	0.98												Released
Creek 705	12-Oct-12	1	HN-08	EF	17-013	RB	70	4	1.17												Released
Creek 705	12-Oct-12	1	HN-08	EF	17-014	RB	68	4	1.27												Released
Creek 705	12-Oct-12	1	HN-08	EF	17-015	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-016	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-017	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-018	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-019	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-020	RB	40-60														Released, 50 mm length used in analysis

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 705	12-Oct-12	1	HN-08	EF	17-021	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-022	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-023	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-024	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-025	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-026	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-027	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-028	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-029	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-030	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-031	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-032	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-033	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-034	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-035	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-036	RB	40-60														Released, 50 mm length used in analysis

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 705	12-Oct-12	1	HN-08	EF	17-037	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-038	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-039	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-040	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-041	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-042	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-043	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-044	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-045	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-046	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-047	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-048	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-049	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-050	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-051	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-052	RB	40-60														Released, 50 mm length used in analysis

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 705	12-Oct-12	1	HN-08	EF	17-053	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-054	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-055	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-056	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-057	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-058	RB	40-60														Released, 50 mm length used in analysis
Creek 705	12-Oct-12	1	HN-08	EF	17-059	RB	40-60														Released, 50 mm length used in analysis
Turtle Creek	12-Oct-12	1	HN-05	HN	17-061	RB	154	41	1.12												Released
Turtle Creek	12-Oct-12	1	HN-05	HN	17-062	RB	165	58	1.29												Released
Turtle Creek	12-Oct-12	1	HN-05	HN	17-063	RB	150	41	1.21												Released
Turtle Creek	12-Oct-12	1	HN-05	HN	17-064	RB	100	11	1.10												Released
Turtle Creek	12-Oct-12	1	HN-05	HN	17-065	RB	195	80	1.08												Released
Turtle Creek	12-Oct-12	1	HN-05	HN	17-066	RB	150	33	0.98												Released
Turtle Creek	12-Oct-12	1	HN-05	HN	17-067	RB	175	62	1.16												Released
Turtle Creek	12-Oct-12	1	HN-05	HN	17-068	RB	109	13	1.00												Released
Turtle Creek	12-Oct-12	1	HN-05	HN	17-069	RB	135	24	0.98												Released
Turtle Creek	12-Oct-12	1	HN-05	HN	17-070	RB	128	21	1.00												Released
Turtle Creek	12-Oct-12	1	HN-05	HN	17-071	RB	180	58	0.99												Released
Turtle Creek	12-Oct-12	1	HN-05	HN	17-072	RB	133	28	1.19												Released
Turtle Creek	12-Oct-12	1	HN-05	HN	17-073	RB	155	34	0.91												Released
Turtle Creek	12-Oct-12	1	HN-05	HN	17-074	RB	96	10	1.13												Released
Turtle Creek	12-Oct-12	1	HN-05	HN	17-075	RB	130	24	1.09												Released
Turtle Creek	12-Oct-12	1	HN-05	HN	17-076	RB	135	26	1.06												Released
Turtle Creek	12-Oct-12	1	HN-05	HN	17-077	RB	137	28	1.09												Released
Turtle Creek	12-Oct-12	1	HN-05	HN	17-078	RB	98	10	1.06												Released
Turtle Creek	12-Oct-12	1	HN-05	HN	17-079	RB	96	11	1.24												Released
Turtle Creek	12-Oct-12	1	HN-05	HN	17-080	RB	104	14	1.24												Released
Turtle Creek	12-Oct-12	1	HN-05	HN	17-081	RB	110	18	1.35												Released
Turtle Creek	12-Oct-12	1	HN-05	HN	17-082	RB	95	8	0.93												Released
Turtle Creek	12-Oct-12	1	HN-05	HN	17-083	RB	95	6	0.70												Released
Turtle Creek	12-Oct-12	1	HN-05	EF	17-084	RB	232	146	1.17												Released
Turtle Creek	12-Oct-12	1	HN-05	EF	17-085	RB	183	63	1.03												Released
Turtle Creek	12-Oct-12	1	HN-05	EF	17-086	RB	144	31	1.04												Released
Turtle Creek	12-Oct-12	1	HN-05	EF	17-087	RB	173	61	1.18												Released
Turtle Creek	12-Oct-12	1	HN-05	EF	17-088	RB	106	11	0.92												Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Turtle Creek	12-Oct-12	1	HN-05	EF	17-089	RB	140	32	1.17												Released
Turtle Creek	12-Oct-12	1	HN-05	EF	17-090	RB	118	18	1.10												Released
Turtle Creek	12-Oct-12	1	HN-05	EF	17-091	RB	68	4	1.27												Released
Turtle Creek	12-Oct-12	1	HN-05	EF	17-092	RB	52	n/a													Released
Turtle Creek	12-Oct-12	1	HN-05	EF	17-093	RB	60	n/a													Released
Turtle Creek	12-Oct-12	1	HN-05	EF	17-094	RB	71	7	1.96												Released
Turtle Creek	12-Oct-12	1	HN-05	EF	17-095	RB	78	6	1.26												Released
Turtle Creek	12-Oct-12	1	HN-05	EF	17-096	RB	115	16	1.05												Released
Creek 661	12-Oct-12	1	HN-03	HN	17-097	RB	87	8	1.21												Released
Creek 661	12-Oct-12	1	HN-03	HN	17-098	RB	92	8	1.03												Released
Creek 661	12-Oct-12	1	HN-03	HN	17-099	RB	98	9	0.96												Released
Creek 705	13-Oct-12	1	HN-08	EF	17-100	RB	66	4	1.39												Released
Creek 705	13-Oct-12	1	HN-08	EF	17-101	RB	42	n/a													Released
Creek 705	13-Oct-12	1	HN-08	EF	17-102	RB	38	n/a													Released
Creek 705	13-Oct-12	1	HN-08	EF	17-103	RB	34	n/a													Released
Creek 705	13-Oct-12	1	HN-08	EF	17-104	RB	42	n/a													Released
Creek 705	13-Oct-12	1	HN-08	EF	17-105	RB	47	n/a													Released
Creek 705	13-Oct-12	1	HN-08	EF	17-106	RB	39	n/a													Released
Creek 705	13-Oct-12	1	HN-08	EF	17-107	RB	36	n/a													Released
Creek 705	13-Oct-12	1	HN-08	EF	17-108	RB	33	n/a													Released
Creek 705	13-Oct-12	1	HN-08	EF	17-109	RB	41	n/a													Released
Creek 705	13-Oct-12	1	HN-08	EF	17-110	RB	45	n/a													Released
Turtle Creek	13-Oct-12	1	HN-05	HN	17-111	RB	232	131	1.05												Released
Turtle Creek	13-Oct-12	1	HN-05	HN	17-112	RB	152	44	1.25												Released
Turtle Creek	13-Oct-12	1	HN-05	HN	17-113	RB	190	72	1.05												Released
Turtle Creek	13-Oct-12	1	HN-05	HN	17-114	RB	175	62	1.16												Released
Turtle Creek	13-Oct-12	1	HN-05	HN	17-115	RB	185	68	1.07												Released
Turtle Creek	13-Oct-12	1	HN-05	HN	17-116	RB	97	11	1.21												Released
Turtle Creek	13-Oct-12	1	HN-05	HN	17-117	RB	102	9	0.85												Released
Turtle Creek	13-Oct-12	1	HN-05	HN	17-118	RB	158	35	0.89												Released
Turtle Creek	13-Oct-12	1	HN-05	HN	17-119	RB	100	8	0.80												Released
Turtle Creek	13-Oct-12	1	HN-05	HN	17-120	RB	92	7	0.90												Released
Turtle Creek	13-Oct-12	1	HN-05	HN	17-121	RB	96	8	0.90												Released
Turtle Creek	13-Oct-12	1	HN-05	HN	17-122	RB	145	30	0.98												Released
Turtle Creek	13-Oct-12	1	HN-05	HN	17-123	RB	101	9	0.87												Released
Turtle Creek	13-Oct-12	1	HN-05	HN	17-124	RB	136	25	0.99												Released
Turtle Creek	13-Oct-12	1	HN-05	HN	17-125	RB	100	9	0.90												Released
Turtle Creek	13-Oct-12	1	HN-05	HN	17-126	RB	102	9	0.85												Released
Turtle Creek	13-Oct-12	1	HN-05	HN	17-127	RB	94	9	1.08												Released
Turtle Creek	13-Oct-12	1	HN-05	HN	17-128	RB	104	10	0.89												Released
Turtle Creek	13-Oct-12	1	HN-05	HN	17-129	RB	108	13	1.03												Released
Turtle Creek	13-Oct-12	1	HN-05	HN	17-130	RB	114	15	1.01												Released
Turtle Creek	13-Oct-12	1	HN-05	HN	17-131	RB	105	11	0.95												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-132	RB	228	142	1.20												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-133	RB	177	n/a													Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-134	RB	101	11	1.07												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-135	RB	107	19	1.55												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-136	RB	86	8	1.26												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-137	RB	58	2	1.03												Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Turtle Creek	13-Oct-12	1	HN-05	EF	17-138	RB	56	2	1.14												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-139	RB	47	2	1.93												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-140	RB	54	4	2.54												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-141	RB	46	2	2.05												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-142	RB	55	2	1.20												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-143	RB	56	2	1.14												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-144	RB	46	2	2.05												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-145	RB	56	2	1.14												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-146	RB	54	2	1.27												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-147	RB	46	3	3.08												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-148	RB	43	1	1.26												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-149	RB	41	n/a													Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-150	RB	57	2	1.08												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-151	RB	58	2	1.03												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-152	RB	54	2	1.27												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-153	RB	51	2	1.51												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-154	RB	53	2	1.34												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-155	RB	53	2	1.34												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-156	RB	52	2	1.42												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-157	RB	54	2	1.27												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-158	RB	49	2	1.70												Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-159	RB	46	n/a													Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-160	RB	34	n/a													Released
Turtle Creek	13-Oct-12	1	HN-05	EF	17-161	RB	41	n/a													Released
Turtle Creek	13-Oct-12	1	HN-05	BS	17-162	RB	92	7	0.90												Released
Turtle Creek	13-Oct-12	1	HN-05	BS	17-163	RB	49	2	1.70												Released
Turtle Creek	13-Oct-12	1	HN-05	BS	17-164	RB	56	2	1.14												Released
Davidson Creek	13-Oct-12	1	HN-01	BS	17-165	MW	93	7	0.87					SC							Voucher taken for identification
Davidson Creek	13-Oct-12	1	HN-01	BS	17-166	MW	87	6	0.91					SC							Released
Davidson Creek	13-Oct-12	1	HN-01	BS	17-167	MW	84	6	1.01					SC							Released
Davidson Creek	13-Oct-12	1	HN-01	BS	17-168	RB	67	3	1.00												Voucher taken for identification
Davidson Creek	13-Oct-12	1	HN-01	BS	17-169	MW	76	4	0.91					SC							Released
Davidson Creek	13-Oct-12	1	HN-01	BS	17-170	RB	116	14	0.90												Released
Davidson Creek	13-Oct-12	1	HN-01	BS	17-171	RB	56	n/a													Released
Davidson Creek	13-Oct-12	1	HN-01	BS	17-172	RB	44	n/a													Released
Davidson Creek	13-Oct-12	1	HN-01	BS	17-173	RB	40	n/a													Released
Davidson Creek	13-Oct-12	1	HN-01	BS	17-174	RB	28	n/a													Released
Davidson Creek	13-Oct-12	1	HN-01	BS	17-175	RB	58	2	1.03												Released
Davidson Creek	13-Oct-12	1	HN-01	BS	17-176	RB	37	n/a													Released
Davidson Creek	13-Oct-12	1	HN-01	BS	17-177	RB	58	5	2.56												Released
Davidson Creek	13-Oct-12	1	HN-01	BS	17-178	RB	61	2	0.88												Released
Davidson Creek	13-Oct-12	1	HN-01	BS	17-179	RB	48	3	2.71												Released
Davidson Creek	13-Oct-12	1	HN-01	BS	17-180	RB	64	2	0.76												Released
Davidson Creek	13-Oct-12	1	HN-01	BS	17-181	RB	38	n/a													Released
Davidson Creek	13-Oct-12	1	HN-01	BS	17-182	RB	36	n/a													Released
Davidson Creek	13-Oct-12	1	HN-01	BS	17-183	RB	54	n/a													Released
Davidson Creek	13-Oct-12	1	HN-01	BS	17-184	RB	37	n/a													Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 661	13-Oct-12	1	HN-03	BS	17-185	RB	42	n/a													Released
Creek 661	13-Oct-12	1	HN-03	BS	17-186	RB	28	n/a													Released
Creek 661	13-Oct-12	1	HN-03	BS	17-187	RB	53	n/a													Released
Creek 705	14-Oct-12	1	HN-08	HN	17-188	RB	98	11	1.17												Released
Creek 705	14-Oct-12	1	HN-08	EF	17-189	RB	68	4	1.27												Released
Creek 705	14-Oct-12	1	HN-08	EF	17-190	RB	117	17	1.06												Released
Creek 705	14-Oct-12	1	HN-08	EF	17-191	RB	104	11	0.98												Released
Creek 705	14-Oct-12	1	HN-08	EF	17-192	RB	92	8	1.03												Released
Creek 705	14-Oct-12	1	HN-08	EF	17-193	RB	94	10	1.20												Released
Creek 705	14-Oct-12	1	HN-08	EF	17-194	RB	68	5	1.59												Released
Creek 705	14-Oct-12	1	HN-08	EF	17-195	RB	30-40	n/a													Released, 35 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-196	RB	30-40	n/a													Released, 35 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-197	RB	30-40	n/a													Released, 35 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-198	RB	30-40	n/a													Released, 35 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-199	RB	30-40	n/a													Released, 35 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-200	RB	30-40	n/a													Released, 35 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-201	RB	30-40	n/a													Released, 35 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-202	RB	30-40	n/a													Released, 35 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-203	RB	30-40	n/a													Released, 35 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-204	RB	30-40	n/a													Released, 35 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-205	RB	30-40	n/a													Released, 35 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-206	RB	30-40	n/a													Released, 35 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-207	RB	30-40	n/a													Released, 35 mm length used in analysis

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 705	14-Oct-12	1	HN-08	EF	17-208	RB	30-40	n/a													Released, 35 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-209	RB	30-40	n/a													Released, 35 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-210	RB	30-40	n/a													Released, 35 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-211	RB	30-40	n/a													Released, 35 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-212	RB	30-40	n/a													Released, 35 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-213	RB	40-50	n/a													Released, 45 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-214	RB	40-50	n/a													Released, 45 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-215	RB	40-50	n/a													Released, 45 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-216	RB	40-50	n/a													Released, 45 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-217	RB	40-50	n/a													Released, 45 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-218	RB	40-50	n/a													Released, 45 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-219	RB	40-50	n/a													Released, 45 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-220	RB	40-50	n/a													Released, 45 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-221	RB	40-50	n/a													Released, 45 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-222	RB	40-50	n/a													Released, 45 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-223	RB	40-50	n/a													Released, 45 mm length used in analysis

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 705	14-Oct-12	1	HN-08	EF	17-224	RB	40-50	n/a													Released, 45 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-225	RB	40-50	n/a													Released, 45 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-226	RB	40-50	n/a													Released, 45 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-227	RB	40-50	n/a													Released, 45 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-228	RB	40-50	n/a													Released, 45 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-229	RB	40-50	n/a													Released, 45 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-230	RB	40-50	n/a													Released, 45 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-231	RB	50-60	n/a													Released, 55 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-232	RB	50-60	n/a													Released, 55 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-233	RB	50-60	n/a													Released, 55 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-234	RB	50-60	n/a													Released, 55 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-235	RB	50-60	n/a													Released, 55 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-236	RB	50-60	n/a													Released, 55 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-237	RB	50-60	n/a													Released, 55 mm length used in analysis
Creek 705	14-Oct-12	1	HN-08	EF	17-238	RB	60-70	n/a													Released, 65 mm length used in analysis
Turtle Creek	14-Oct-12	1	HN-05	HN	17-239	RB	230	124	1.02												Released
Turtle Creek	14-Oct-12	1	HN-05	HN	17-240	RB	207	86	0.97												Released
Turtle Creek	14-Oct-12	1	HN-05	HN	17-241	RB	184	80	1.28												Released
Turtle Creek	14-Oct-12	1	HN-05	HN	17-242	RB	176	61	1.12												Released
Turtle Creek	14-Oct-12	1	HN-05	HN	17-243	RB	176	60	1.10												Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Turtle Creek	14-Oct-12	1	HN-05	HN	17-244	RB	180	66	1.13												Released
Turtle Creek	14-Oct-12	1	HN-05	HN	17-245	RB	148	42	1.30												Released
Turtle Creek	14-Oct-12	1	HN-05	HN	17-246	RB	102	11	1.04												Released
Davidson Creek	14-Oct-12	1	HN-01	BS	17-247	MW	79	4	0.81												Released
Davidson Creek	14-Oct-12	1	HN-01	BS	17-248	MW	90	7	0.96					SC							Released
Davidson Creek	14-Oct-12	1	HN-01	BS	17-249	MW	80	5	0.98					SC							Released
Davidson Creek	14-Oct-12	1	HN-01	BS	17-250	RB	116	16	1.03												Released
Davidson Creek	14-Oct-12	1	HN-01	BS	17-251	MW	82	5	0.91					SC							Released
Davidson Creek	14-Oct-12	1	HN-01	BS	17-252	RB	58	2	1.03												Released
Davidson Creek	14-Oct-12	1	HN-01	BS	17-253	RB	43	n/a													Released
Davidson Creek	14-Oct-12	1	HN-01	BS	17-254	RB	26	n/a													Released
Davidson Creek	14-Oct-12	1	HN-01	BS	17-255	RB	38	n/a													Released
Davidson Creek	14-Oct-12	1	HN-01	BS	17-256	RB	30	n/a													Released
Davidson Creek	14-Oct-12	1	HN-01	BS	17-257	RB	20	n/a													Released
Davidson Creek	14-Oct-12	1	HN-01	BS	17-258	RB	124	16	0.84												Released
Davidson Creek	14-Oct-12	1	HN-01	BS	17-259	RB	15	n/a													Released
Davidson Creek	14-Oct-12	1	HN-01	BS	17-260	RB	53	2	1.34												Released
Davidson Creek	14-Oct-12	1	HN-01	BS	17-261	RB	43	n/a													Released
Davidson Creek	14-Oct-12	1	HN-01	BS	17-262	RB	37	n/a													Released
Davidson Creek	14-Oct-12	1	HN-01	BS	17-263	RB	35	n/a													Released
Davidson Creek	14-Oct-12	1	HN-01	BS	17-264	RB	38	n/a													Released
Davidson Creek	14-Oct-12	1	HN-01	BS	17-265	RB	48	2	1.81												Released
Davidson Creek	14-Oct-12	1	HN-01	BS	17-266	RB	41	n/a													Released
Creek 661	14-Oct-12	1	HN-03	HN	17-267	RB	153	48	1.34												Released
Creek 661	14-Oct-12	1	HN-03	HN	17-268	RB	100	10	1.00												Released
Creek 661	14-Oct-12	1	HN-03	BS	17-269	RB	34	n/a													Released
Creek 661	14-Oct-12	1	HN-03	BS	17-270	RB	34	n/a													Released
Creek 661	14-Oct-12	1	HN-03	BS	17-271	RB	42	n/a													Released
Turtle Creek	15-Oct-12	1	HN-05	HN	17-272	RB	93	7	0.87												Released
Turtle Creek	15-Oct-12	1	HN-05	HN	17-273	RB	174	64	1.21												Released
Turtle Creek	15-Oct-12	1	HN-05	HN	17-274	RB	96	10	1.13												Released
Turtle Creek	15-Oct-12	1	HN-05	HN	17-275	RB	152	38	1.08												Released
Turtle Creek	15-Oct-12	1	HN-05	HN	17-276	RB	126	19	0.95												Released
Turtle Creek	15-Oct-12	1	HN-05	HN	17-277	RB	97	10	1.10												Released
Turtle Creek	15-Oct-12	1	HN-05	HN	17-278	RB	150	35	1.04												Released
Turtle Creek	15-Oct-12	1	HN-05	HN	17-279	RB	110	13	0.98												Released
Turtle Creek	15-Oct-12	1	HN-05	HN	17-280	RB	98	10	1.06												Released
Turtle Creek	15-Oct-12	1	HN-05	HN	17-281	RB	192	74	1.05												Released
Turtle Creek	15-Oct-12	1	HN-05	HN	17-282	RB	172	54	1.06												Released
Turtle Creek	15-Oct-12	1	HN-05	HN	17-283	RB	143	29	0.99												Released
Turtle Creek	15-Oct-12	1	HN-05	HN	17-284	RB	86	6	0.94												Released
Snake Lake	17-Oct-12	7		MT	17-285	LKC	102	12	1.13												Released
Snake Lake	17-Oct-12	7		MT	17-286	LKC	73	4	1.03												Released
Snake Lake	17-Oct-12	7		MT	17-287	LKC	85	7	1.14												Released
Snake Lake	17-Oct-12	7		MT	17-288	LKC	117	14	0.87												Released
Snake Lake	17-Oct-12	7		MT	17-289	LKC	48	1	0.90												Released
Snake Lake	18-Oct-12	7		GN	17-290	LKC	95	12	1.40												Released
Snake Lake	18-Oct-12	7		GN	17-291	LKC	104	19	1.69												Released
Snake Lake	18-Oct-12	7		GN	17-292	LKC	115	21	1.38												Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Snake Lake	18-Oct-12	7		GN	17-293	LKC	118	18	1.10												Released
Snake Lake	18-Oct-12	7		GN	17-294	LKC	100	16	1.60												Released
Snake Lake	18-Oct-12	7		GN	17-295	LKC	102	15	1.41												Released
Snake Lake	18-Oct-12	7		GN	17-296	LKC	98	20	2.12												Released
Snake Lake	18-Oct-12	7		GN	17-297	LKC	114	25	1.69												Released
Snake Lake	18-Oct-12	7		GN	17-298	LKC	112	20	1.42												Released
Snake Lake	18-Oct-12	7		GN	17-299	LKC	112	21	1.49												Released
Snake Lake	18-Oct-12	7		GN	17-300	LKC	98	16	1.70												Released
Snake Lake	18-Oct-12	7		GN	17-301	LKC	106	18	1.51												Released
Snake Lake	18-Oct-12	7		GN	17-302	LKC	110	22	1.65												Released
Snake Lake	18-Oct-12	7		GN	17-303	LKC	113	20	1.39												Released
Snake Lake	18-Oct-12	7		GN	17-304	LKC	100	13	1.30												Released
Snake Lake	18-Oct-12	7		GN	17-305	LKC	116	22	1.41												Released
Snake Lake	18-Oct-12	7		GN	17-306	LKC	98	17	1.81												Released
Snake Lake	18-Oct-12	7		GN	17-307	LKC	96	14	1.58												Released
Snake Lake	18-Oct-12	7		GN	17-308	LKC	100	15	1.50												Released
Snake Lake	18-Oct-12	7		GN	17-309	LKC	97	16	1.75												Released
Snake Lake	18-Oct-12	7		GN	17-310	LKC	104	14	1.24												Released
Snake Lake	18-Oct-12	7		GN	17-311	LKC	102	15	1.41												Released
Snake Lake	18-Oct-12	7		GN	17-312	LKC	111	19	1.39												Released
Snake Lake	18-Oct-12	7		GN	17-313	LKC	96	13	1.47												Released
Snake Lake	18-Oct-12	7		GN	17-314	LKC	108	16	1.27												Released
Snake Lake	18-Oct-12	7		GN	17-315	LKC	105	18	1.55												Released
Snake Lake	18-Oct-12	7		GN	17-316	LKC	104	15	1.33												Released
Snake Lake	18-Oct-12	7		GN	17-317	LKC	105	16	1.38												Released
Snake Lake	18-Oct-12	7		GN	17-318	LKC	102	18	1.70												Released
Snake Lake	18-Oct-12	7		GN	17-319	LKC	108	18	1.43												Released
Snake Lake	18-Oct-12	7		GN	17-320	LKC	95	15	1.75												Released
Snake Lake	18-Oct-12	7		GN	17-321	LKC	98	16	1.70												Released
Snake Lake	18-Oct-12	7		GN	17-322	LKC	96	15	1.70												Released
Snake Lake	18-Oct-12	7		GN	17-323	LKC	94	13	1.57												Released
Snake Lake	18-Oct-12	7		GN	17-324	LKC	95	16	1.87												Released
Snake Lake	18-Oct-12	7		GN	17-325	LKC	109	17	1.31												Released
Snake Lake	18-Oct-12	7		GN	17-326	LKC	100	15	1.50												Released
Snake Lake	18-Oct-12	7		GN	17-327	LKC	105	15	1.30												Released
Snake Lake	18-Oct-12	7		GN	17-328	LKC	107	17	1.39												Released
Snake Lake	18-Oct-12	7		GN	17-329	LKC	108	17	1.35												Released
Snake Lake	18-Oct-12	7		GN	17-330	LKC	104	17	1.51												Released
Snake Lake	18-Oct-12	7		GN	17-331	LKC	102	15	1.41												Released
Snake Lake	18-Oct-12	7		GN	17-332	LKC	110	22	1.65												Released
Snake Lake	18-Oct-12	7		GN	17-333	LKC	112	18	1.28												Released
Snake Lake	18-Oct-12	7		GN	17-334	LKC	100	14	1.40												Incidental mortality
Snake Lake	18-Oct-12	7		GN	17-335	LKC	112	16	1.14												Incidental mortality
Snake Lake	18-Oct-12	7		GN	17-336	LKC	97	14	1.53												Incidental mortality
Snake Lake	18-Oct-12	7		GN	17-337	LKC	100	13	1.30												Incidental mortality
Snake Lake	18-Oct-12	7		GN	17-338	LKC	104	16	1.42												Incidental mortality

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Snake Lake	18-Oct-12	7		GN	17-339	LKC	100	15	1.50												Incidental mortality
Snake Lake	18-Oct-12	7		GN	17-340	LKC	104	16	1.42												Incidental mortality
Snake Lake	18-Oct-12	7		GN	17-341	LKC	105	18	1.55												Incidental mortality
Snake Lake	18-Oct-12	7		GN	17-342	LKC	112	19	1.35												Incidental mortality
Snake Lake	18-Oct-12	7		GN	17-343	LKC	118	19	1.16												Incidental mortality
Snake Lake	18-Oct-12	7		GN	17-344	LKC	95														Incidental mortality
Snake Lake	18-Oct-12	7		GN	17-345	LKC	107	16	1.31												Incidental mortality
Snake Lake	18-Oct-12	7		GN	17-346	LKC	110	19	1.43												Incidental mortality
Snake Lake	18-Oct-12	7		GN	17-347	LKC	98														Released
Snake Lake	18-Oct-12	7		GN	17-348	LKC	100														Released
Snake Lake	18-Oct-12	7		GN	17-349	LKC	106														Released
Snake Lake	18-Oct-12	7		GN	17-350	LKC	94														Released
Snake Lake	18-Oct-12	7		GN	17-351	LKC	104														Released
Snake Lake	18-Oct-12	7		GN	17-352	LKC	100														Released
Snake Lake	18-Oct-12	7		GN	17-353	LKC	102														Released
Snake Lake	18-Oct-12	7		GN	17-354	LKC	97														Released
Snake Lake	18-Oct-12	7		GN	17-355	LKC	110														Released
Snake Lake	18-Oct-12	7		GN	17-356	LKC	96														Released
Snake Lake	18-Oct-12	7		GN	17-357	LKC	98														Released
Snake Lake	18-Oct-12	7		GN	17-358	LKC	110														Released
Snake Lake	18-Oct-12	7		GN	17-359	LKC	100														Released
Snake Lake	18-Oct-12	7		GN	17-360	LKC	103														Released
Snake Lake	18-Oct-12	7		GN	17-361	LKC	110														Released
Snake Lake	18-Oct-12	7		GN	17-362	LKC	98														Released
Snake Lake	18-Oct-12	7		GN	17-363	LKC	102														Released
Snake Lake	18-Oct-12	7		GN	17-364	LKC	99														Released
Snake Lake	18-Oct-12	7		GN	17-365	LKC	100														Released
Snake Lake	18-Oct-12	7		GN	17-366	LKC	97														Released
Snake Lake	18-Oct-12	7		GN	17-367	LKC	104														Released
Snake Lake	18-Oct-12	7		GN	17-368	LKC	98														Released
Snake Lake	18-Oct-12	7		GN	17-369	LKC	108														Released
Snake Lake	18-Oct-12	7		GN	17-370	LKC	93														Released
Snake Lake	18-Oct-12	7		GN	17-371	LKC	96														Released
Snake Lake	18-Oct-12	7		GN	17-372	LKC	95														Released
Snake Lake	18-Oct-12	7		GN	17-373	LKC	100														Incidental mortality
Snake Lake	18-Oct-12	7		GN	17-374	LKC	108														Incidental mortality
Snake Lake	18-Oct-12	7		GN	17-375	LKC	108														Incidental mortality
Turtle Creek	27-Oct-12	1	HN-05	HN	17-376	RB	140	33	1.20												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-377	RB	110	13	0.98												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-378	RB	94	9	1.08												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-379	RB	90	7	0.96												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-380	RB	179	62	1.08												Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Turtle Creek	27-Oct-12	1	HN-05	HN	17-381	RB	114	15	1.01												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-382	RB	90	6	0.82												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-383	RB	135	26	1.06												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-384	RB	125	21	1.08												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-385	RB	103	10	0.92												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-386	RB	105	11	0.95												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-387	RB	88	7	1.03												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-388	RB	107	12	0.98												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-389	RB	117	15	0.94												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-390	RB	104	10	0.89												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-391	RB	94														Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-392	RB	92	7	0.90												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-393	RB	93	7	0.87												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-394	RB	133	23	0.98												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-395	RB	96	8	0.90												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-396	RB	85	6	0.98												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-397	RB	99	10	1.03												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-398	RB	121	17	0.96												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-399	RB	98	9	0.96												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-400	RB	92	8	1.03												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-401	RB	98	8	0.85												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-402	RB	109	14	1.08												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-403	RB	140	29	1.06												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-404	RB	110	12	0.90												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-405	RB	87	7	1.06												Released
Turtle Creek	27-Oct-12	1	HN-05	HN	17-406	RB	107	10	0.82												Released
Turtle Creek	28-Oct-12	1	HN-05	HN	17-407	RB	139	29	1.08												Released
Turtle Creek	28-Oct-12	1	HN-05	HN	17-408	RB	136	25	0.99												Released
Turtle Creek	28-Oct-12	1	HN-05	HN	17-409	RB	113	14	0.97												Released
Turtle Creek	28-Oct-12	1	HN-05	HN	17-410	RB	145	36	1.18												Released
Turtle Creek	28-Oct-12	1	HN-05	HN	17-411	RB	186	70	1.09												Released
Turtle Creek	28-Oct-12	1	HN-05	HN	17-412	RB	146	32	1.03												Released
Turtle Creek	28-Oct-12	1	HN-05	HN	17-413	RB	119	17	1.01												Released
Turtle Creek	28-Oct-12	1	HN-05	HN	17-414	RB	147	33	1.04												Released
Turtle Creek	28-Oct-12	1	HN-05	HN	17-415	RB	98	9	0.96												Released
Turtle Creek	29-Oct-12	1	HN-05	HN	17-416	RB	187	72	1.10												Released
Turtle Creek	29-Oct-12	1	HN-05	HN	17-417	RB	134	27	1.12												Released
Turtle Creek	29-Oct-12	1	HN-05	HN	17-418	RB	112	13	0.93												Released
Turtle Creek	29-Oct-12	1	HN-05	HN	17-419	RB	106	11	0.92												Released
Turtle Creek	29-Oct-12	1	HN-05	HN	17-420	RB	119	15	0.89												Released
Turtle Creek	29-Oct-12	1	HN-05	HN	17-421	RB	91	9	1.19												Released
Turtle Creek	29-Oct-12	1	HN-05	HN	17-422	RB	162	43	1.01												Released
Creek 705	30-Oct-12	1	HN-08	HN	17-423	MW	145	n/a						SC							Released
Creek 705	30-Oct-12	1	HN-08	HN	17-424	MW	152	n/a						SC							Released
Creek 705	30-Oct-12	1	HN-08	HN	17-425	MW	147	n/a						SC							Released
Creek 705	30-Oct-12	1	HN-08	HN	17-426	MW	160	n/a						SC							Released
Creek 705	30-Oct-12	1	HN-08	HN	17-427	MW	155	n/a						SC							Released
Creek 705	30-Oct-12	1	HN-08	HN	17-428	MW	153	n/a						SC							Released
Creek 705	30-Oct-12	1	HN-08	HN	17-429	MW	146	n/a						SC							Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 705	30-Oct-12	1	HN-08	HN	17-430	MW	151	n/a						SC							Released
Creek 705	30-Oct-12	1	HN-08	HN	17-431	MW	165	n/a						SC							Released
Creek 705	30-Oct-12	1	HN-08	HN	17-432	MW	145	n/a						SC							Released
Creek 705	30-Oct-12	1	HN-08	HN	17-433	MW	144	n/a						SC							Released
Creek 705	30-Oct-12	1	HN-08	HN	17-434	MW	136	n/a						SC							Released
Creek 705	30-Oct-12	1	HN-08	HN	17-435	MW	145	n/a						SC							Released
Creek 705	30-Oct-12	1	HN-08	HN	17-436	RB	114	n/a													Released
Turtle Creek	30-Oct-12	1	HN-05	HN	17-437	RB	161	n/a													Released
Turtle Creek	30-Oct-12	1	HN-05	HN	17-438	RB	177	n/a													Released
Turtle Creek	30-Oct-12	1	HN-05	HN	17-439	RB	91	n/a													Released
Turtle Creek	30-Oct-12	1	HN-05	HN	17-440	RB	95	n/a													Released
Turtle Creek	30-Oct-12	1	HN-05	HN	17-441	RB	138	n/a													Released
Turtle Creek	30-Oct-12	1	HN-05	HN	17-442	RB	116	n/a													Released
Creek 705	31-Oct-12	1	HN-08	HN	17-443	MW	158	37	0.94					SC							Released
Creek 705	31-Oct-12	1	HN-08	HN	17-444	MW	142	27	0.94					SC							Released
Turtle Creek	31-Oct-12	1	HN-05	HN	17-445	RB	113	13	0.90												Released
Turtle Creek	31-Oct-12	1	HN-05	HN	17-446	RB	108	13	1.03												Released
Turtle Creek	31-Oct-12	1	HN-05	HN	17-447	RB	111	13	0.95												Released
Turtle Creek	31-Oct-12	1	HN-05	HN	17-448	RB	114	13	0.88												Released
Turtle Creek	31-Oct-12	1	HN-05	HN	17-449	RB	92	7	0.90												Released
Turtle Creek	31-Oct-12	1	HN-05	HN	17-450	RB	120	17	0.98												Released
Turtle Creek	01-Nov-12	1	HN-05	HN	17-451	RB	91	8	1.06												Released
Turtle Creek	01-Nov-12	1	HN-05	HN	17-452	RB	114	13	0.88												Released
Turtle Creek	01-Nov-12	1	HN-05	HN	17-453	RB	92	7	0.90												Released
Turtle Creek	15-Nov-12	1	HN-05	HN	17-454	RB	157	39	1.01												Released
Turtle Creek	15-Nov-12	1	HN-05	HN	17-455	RB	104	10	0.89												Released
Turtle Creek	15-Nov-12	1	HN-05	HN	17-456	RB	103	10	0.92												Released
Turtle Creek	15-Nov-12	1	HN-05	HN	17-457	RB	107	12	0.98												Released
Turtle Creek	15-Nov-12	1	HN-05	HN	17-458	RB	99	10	1.03												Released
Turtle Creek	15-Nov-12	1	HN-05	HN	17-459	RB	146	33	1.06												Released
Turtle Creek	15-Nov-12	1	HN-05	HN	17-460	RB	101	11	1.07												Released
Turtle Creek	15-Nov-12	1	HN-05	HN	17-461	RB	108	11	0.87												Released
Turtle Creek	15-Nov-12	1	HN-05	HN	17-462	RB	117	15	0.94												Released
Turtle Creek	15-Nov-12	1	HN-05	HN	17-463	RB	103	10	0.92												Released
Turtle Creek	16-Nov-12	1	HN-05	HN	17-464	RB	98	8	0.85												Released
Turtle Creek	16-Nov-12	1	HN-05	HN	17-465	RB	94	8	0.96												Released
Turtle Creek	16-Nov-12	1	HN-05	HN	17-466	RB	90	7	0.96												Released
Turtle Creek	16-Nov-12	1	HN-05	HN	17-467	RB	142	31	1.08												Released
Turtle Creek	17-Nov-12	1	HN-05	HN	17-468	RB	95	8	0.93												Released
Turtle Creek	17-Nov-12	1	HN-05	HN	17-469	RB	102	12	1.13												Released
Turtle Creek	17-Nov-12	1	HN-05	HN	17-470	RB	95	9	1.05												Released
Turtle Creek	17-Nov-12	1	HN-05	HN	17-471	RB	160	42	1.03												Released
Turtle Creek	18-Nov-12	1	HN-05	HN	17-472	RB	102	9	0.85												Released
Turtle Creek	18-Nov-12	1	HN-05	HN	17-473	RB	91	8	1.06												Released
Turtle Creek	18-Nov-12	1	HN-05	HN	17-474	RB	103	10	0.92												Released
Turtle Creek	19-Nov-12	1	HN-05	HN	17-475	RB	102	10	0.94												Released
Turtle Creek	20-Nov-12	1	HN-05	HN	17-476	RB	158	44	1.12												Released
Turtle Creek	20-Nov-12	1	HN-05	HN	17-477	RB	137	27	1.05												Released
Turtle Creek	20-Nov-12	1	HN-05	HN	17-478	RB	109	12	0.93												Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Davidson Creek	22-Aug-12	1		DN	DV-1	KO	222	104	0.95	F	S								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-2	KO	223	105	0.95	F	S								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-3	KO	197	75	0.98	M	S								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-4	KO	198	88	1.13	F	S								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-5	KO	208	96	1.07	M	R								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-6	KO	203	82	0.98	F	S								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-7	KO	207	105	1.18	M	R								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-8	KO	232	128	1.03	M	S								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-9	KO	227	93	0.80	F	S								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-10	KO	200	67	0.84	F	S								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-11	KO	210	88	0.95	F	S								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-12	KO	215	97	0.98	M	R								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-13	KO	198	84	1.08	F	S								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-14	KO	227	115	0.98	M	R								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-15	KO	183	60	0.98	F	S								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-16	KO	227	101	0.86	F	S								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-17	KO	226	97	0.84	F	S								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-18	KO	236	115	0.87	F	S								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-19	KO	219	120	1.14	M	S								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-20	KO	208	81	0.90	F	S								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-21	KO	208	103	1.14	M	R								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-22	KO	173	55	1.06	M	R								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-23	KO	219	79	0.75	F	S								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-24	KO	217	96	0.94	F	S								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-25	KO	225	137	1.20	F	S								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-26	KO	216	85	0.84	F	S								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-27	KO	221	111	1.03	F	S								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-28	KO	240	138	1.00	M	S								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-29	KO	186	73	1.13	F	S								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-30	KO	206	76	0.87	F	S								Y		Released
Davidson Creek	22-Aug-12	1		DN	DV-31	KO	229	116	0.97	M	S								Y		Released
Creek 661	24-Aug-12	1		DN	661-1	KO	112	108	7.69	F	R								Y		Released, removed from biological characteristics analysis (outlier)
Creek 661	24-Aug-12	1		DN	661-2	KO	219	119	1.13	F	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-3	KO	221	115	1.07	F	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-4	KO	214	116	1.18	F	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-5	KO	202	100	1.21	F	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-6	KO	228	125	1.05	F	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-7	KO	211	104	1.11	F	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-8	KO	210	102	1.10	F	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-9	KO	203	101	1.21	F	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-10	KO	225	129	1.13	F	S								Y		Released
Creek 661	24-Aug-12	1		DN	661-11	KO	194	86	1.18	F	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-12	KO	188	73	1.10	F	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-13	KO	219	111	1.06	F	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-14	KO	190	88	1.28	M	R								Y		Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Creek 661	24-Aug-12	1		DN	661-15	KO	200	89	1.11	F	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-16	KO	203	96	1.15	M	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-17	KO	217	113	1.11	F	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-18	KO	239	135	0.99	F	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-19	KO	219	128	1.22	M	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-20	KO	229	121	1.01	M	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-21	KO	232	133	1.07	F	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-22	KO	186	77	1.20	F	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-23	KO	214	114	1.16	M	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-24	KO	215	117	1.18	F	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-25	KO	193	85	1.18	M	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-26	KO	220	119	1.12	F	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-27	KO	237	145	1.09	F	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-28	KO	242	139	0.98	F	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-29	KO	232	135	1.08	F	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-30	KO	198	94	1.21	M	R								Y		Released
Creek 661	24-Aug-12	1		DN	661-31	KO	218	117	1.13	F	R								Y		Released
P12 Stream	22-Aug-12	1	KO-19	DN	P12-1	KO	205	123	1.43	F	S								Y		Released
P12 Stream	22-Aug-12	1	KO-19	DN	P12-2	KO	207	92	1.04	F	R								Y		Released
P12 Stream	22-Aug-12	1	KO-19	DN	P12-3	KO	209	114	1.25	M	R								Y		Released
P12 Stream	22-Aug-12	1	KO-19	DN	P12-4	KO	215	116	1.17	M	R								Y		Released
P12 Stream	22-Aug-12	1	KO-19	DN	P12-5	KO	204	95	1.12	F	S								Y		Released
P12 Stream	22-Aug-12	1	KO-19	DN	P12-6	KO	219	118	1.12	F	S								Y		Released
P12 Stream	22-Aug-12	1	KO-19	DN	P12-7	KO	218	136	1.31	M	R								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-1	KO	204	107	1.26	M	R								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-2	KO	205	97	1.13	M	R								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-3	KO	202	104	1.26	M	R								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-4	KO	202	95	1.15	F	R								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-5	KO	229	143	1.19	F	R								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-6	KO	190	81	1.18	F	R								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-7	KO	189	64	0.95	F	R								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-8	KO	206	73	0.84	F	S								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-9	KO	225	108	0.95	F	S								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-10	KO	224	138	1.23	M	R								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-11	KO	213	120	1.24	M	R								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-12	KO	223	121	1.09	F	R								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-13	KO	127	132	6.44	M	R								Y		Released, removed from biological characteristics analysis (outlier)
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-14	KO	223	123	1.11	F	R								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-15	KO	211	112	1.19	M	R								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-16	KO	214	113	1.15	F	R								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-17	KO	202	81	0.98	M	S								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-18	KO	189	68	1.01	M	S								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-19	KO	195	92	1.24	F	R								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-20	KO	195	73	0.98	F	S								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-21	KO	218	119	1.15	F	R								Y		Released

Stream	Date	Reach	Baseline Map Site ID	Method[1]	Fish ID	Species[2]	Length (mm)	Weight (g)	Condition	Sex[3]	Maturity[4]	Gonad Weight (g)	Liver Weight (g)	Age Structure	Scale Age	Otolith Age	Adjusted Scale Age	Tissue Metals	DNA Sample	Stomach Contents	Comments
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-22	KO	216	96	0.95	F	S								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-23	KO	208	90	1.00	F	R								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-24	KO	224	118	1.05	F	S								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-25	KO	212	124	1.30	M	S								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-26	KO	230	116	0.95	F	R								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-27	KO	174	56	1.06	M	R								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-28	KO	228	156	1.32	M	R								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-29	KO	203	102	1.22	F	R								Y		Released
Chedakuz Creek	28-Aug-12	1	KO-23	DN	CH-30	KO	201	83	1.02	F	S								Y		Released
Meadow Creek	20-Sep-12			DN	K-001	KO	190	54.7	0.80										Y		Released
Meadow Creek	20-Sep-12			DN	K-002	KO	198	87.3	1.12										Y		Released
Meadow Creek	20-Sep-12			DN	K-003	KO	213	86	0.89										Y		Released
Meadow Creek	20-Sep-12			DN	K-004	KO	196	69.6	0.92										Y		Released
Meadow Creek	20-Sep-12			DN	K-005	KO	194	58.8	0.81										Y		Released
Meadow Creek	20-Sep-12			DN	K-006	KO	189	57.1	0.85										Y		Released
Meadow Creek	20-Sep-12			DN	K-007	KO	192	58.4	0.83										Y		Released
Meadow Creek	20-Sep-12			DN	K-008	KO	195	51.8	0.70										Y		Released
Meadow Creek	20-Sep-12			DN	K-009	KO	213	86.4	0.89										Y		Released
Meadow Creek	20-Sep-12			DN	K-010	KO	205	78	0.91										Y		Released
Meadow Creek	20-Sep-12			DN	K-011	KO	199	62.2	0.79										Y		Released
Meadow Creek	20-Sep-12			DN	K-012	KO	199	87.7	1.11										Y		Released
Meadow Creek	20-Sep-12			DN	K-013	KO	209	65.8	0.72										Y		Released
Meadow Creek	20-Sep-12			DN	K-014	KO	183	57.9	0.94										Y		Released
Meadow Creek	20-Sep-12			DN	K-015	KO	199	60	0.76										Y		Released
Meadow Creek	20-Sep-12			DN	K-016	KO	191	52.2	0.75										Y		Released
Meadow Creek	20-Sep-12			DN	K-017	KO	184	50.9	0.82										Y		Released
Meadow Creek	20-Sep-12			DN	K-018	KO	200	72.7	0.91										Y		Released
Meadow Creek	20-Sep-12			DN	K-019	KO	201	63.3	0.78										Y		Released
Meadow Creek	20-Sep-12			DN	K-020	KO	198	66.7	0.86										Y		Released
Meadow Creek	20-Sep-12			DN	K-021	KO	192	48.3	0.68										Y		Released
Meadow Creek	20-Sep-12			DN	K-022	KO	200	73.2	0.92										Y		Released
Meadow Creek	20-Sep-12			DN	K-023	KO	194	52.8	0.72										Y		Released
Meadow Creek	20-Sep-12			DN	K-024	KO	191	60	0.86										Y		Released
Meadow Creek	20-Sep-12			DN	K-025	KO	193	54.7	0.76										Y		Released
Meadow Creek	20-Sep-12			DN	K-026	KO	228	98.6	0.83										Y		Released
Meadow Creek	20-Sep-12			DN	K-027	KO	197	67.4	0.88										Y		Released
Meadow Creek	20-Sep-12			DN	K-028	KO	185	49.5	0.78										Y		Released
Meadow Creek	20-Sep-12			DN	K-029	KO	200	53.4	0.67										Y		Released
Meadow Creek	20-Sep-12			DN	K-030	KO	242	145	1.02										Y		Released

Note: g - grams; mm - millimetre; OT - otolith; SC - scales; Y - yes

[1] AG - angling; BS - beach seine; DN - dip net; EF - electrofishing; GN - gill-netting; HN - hoop netting; MT - minnow trapping

[2] BB - burbot; KO - kokanee; LKC - lake chub; LNC - longnose dace; LSU - longnose sucker; MW - mountain whitefish; RB - rainbow trout

[3] F - female; M - male; U - unknown

[4] I - immature; M - mature; R - ripe; S - spent

Annex 5.10-7
Fish Stomach Contents Data, 2011 and 2012

Table 5.10-7A: Fish Stomach Contents from Streams and Lakes, 2011 and 2012

	Water Body	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Creek 661	Creek 661	Creek 661	Creek 661
	Baseline Map Site ID											
	Fish ID	1-025	1-026	1-162	1-165	3-092	3-093	3-094	3-009	3-010	3-012	3-017
	Date	08-11-2011	08-11-2011	08-19-2011	08-19-2011	08-18-2011	08-18-2011	08-18-2011	08-12-2011	08-12-2011	08-12-2011	08-13-2011
	Gear	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher
	Habitat	Stream	Stream	Stream	Stream	Stream	Stream	Stream	Stream	Stream	Stream	Stream
	% Subsampled	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
TAXONOMY												
LOW LEVEL	HIGH LEVEL											
Ephemeroptera	Baetidae	0	1	0	0	0	1	0	0	0	0	0
	Ephemerellidae	5	0	1	0	0	1	0	0	0	0	0
	Ephemeroptera	0	4	0	0	0	2	2	0	3	0	0
	Heptageniidae	11	1	0	0	0	0	3	0	0	0	0
	Leptophlebiidae	0	0	0	0	0	0	2	0	0	0	0
Plecoptera	Chloroperlidae	3	4	0	0	0	0	0	0	0	0	0
	Suwallia sp.	0	0	0	0	0	0	0	0	0	0	0
	Leuctridae	0	2	0	0	0	0	0	0	0	0	0
	Nemouridae	1	0	0	0	1	1	0	0	0	0	0
	Perlodidae	0	1	0	1	0	3	0	1	0	0	0
	Plecoptera	1	1	0	0	1	2	0	0	1	0	0
Hemiptera	Auchenorrhyncha	0	1	0	0	0	0	1	0	0	0	0
	Hemiptera	0	1	0	0	0	0	0	0	0	0	0
	Psyllidae	0	0	0	0	0	0	1	0	0	0	0
Coleoptera	Carabidae	0	0	0	0	1	0	0	0	0	0	0
	Coleoptera	2	3	0	0	0	0	0	0	0	0	0
	Dytiscidae	0	0	0	0	0	1	0	0	0	0	0
	Oreodytes sp.	0	0	0	0	0	0	0	0	0	0	0
	Hydrophilidae	0	2	0	0	0	0	0	0	0	0	1
	Staphylinidae	0	3	0	0	0	0	1	0	0	0	0

	Water Body	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Creek 661	Creek 661	Creek 661	Creek 661
	Baseline Map Site ID											
	Fish ID	1-025	1-026	1-162	1-165	3-092	3-093	3-094	3-009	3-010	3-012	3-017
	Date	08-11-2011	08-11-2011	08-19-2011	08-19-2011	08-18-2011	08-18-2011	08-18-2011	08-12-2011	08-12-2011	08-12-2011	08-13-2011
	Gear	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher
	Habitat	Stream	Stream	Stream	Stream	Stream	Stream	Stream	Stream	Stream	Stream	Stream
	% Subsampled	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
TAXONOMY												
LOW LEVEL	HIGH LEVEL											
Diptera-Chironomidae	Chironomidae	0	3	0	0	0	0	2	6	2	0	0
	Procladius sp.	0	0	0	0	0	0	0	0	0	0	0
	Pseudochironomus sp.	0	0	0	0	0	0	0	0	0	0	0
Diptera	Chaoboridae	0	0	0	0	0	0	0	0	0	0	0
	Chaoborus sp.	0	0	0	0	0	0	0	0	0	0	0
	Culicidae	0	0	0	0	0	0	0	0	1	0	0
	Diptera	1	7	0	0	0	0	15	1	5	0	0
	Empididae	1	1	0	0	0	0	1	0	2	0	1
	Muscidae	0	1	0	0	0	0	0	0	2	0	0
	Muscomorpha	0	0	0	0	0	0	1	0	0	0	0
	Mycetophilidae	1	22	0	0	0	0	2	0	5	0	0
	Phoridae	0	0	0	0	0	0	1	0	1	0	0
	Psychodidae	0	1	0	0	0	0	0	0	0	0	0
	Simuliidae	0	1	0	0	0	0	2	0	0	0	6
	Corixidae	0	0	0	0	0	0	0	0	0	0	0
	Cenocorixa sp.	0	0	0	0	0	0	0	0	0	0	0
Trichoptera	Hydropsychidae	3	0	0	0	3	1	1	0	0	0	0
	Arctopsyche sp.	0	0	0	0	0	0	0	0	0	0	0
	Limnephilidae	0	0	0	0	0	0	0	0	0	0	0
	Lepidostomatidae	0	0	0	0	0	1	0	0	0	0	0
	Philopotamidae	1	0	0	0	0	0	0	0	0	0	0

	Water Body	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Creek 661	Creek 661	Creek 661	Creek 661
	Baseline Map Site ID											
	Fish ID	1-025	1-026	1-162	1-165	3-092	3-093	3-094	3-009	3-010	3-012	3-017
	Date	08-11-2011	08-11-2011	08-19-2011	08-19-2011	08-18-2011	08-18-2011	08-18-2011	08-12-2011	08-12-2011	08-12-2011	08-13-2011
	Gear	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher
	Habitat	Stream	Stream	Stream	Stream	Stream	Stream	Stream	Stream	Stream	Stream	Stream
	% Subsampled	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
TAXONOMY												
LOW LEVEL	HIGH LEVEL											
	Rhyacophilidae	0	0	1	0	1	4	0	0	0	0	0
	Trichoptera	0	4	1	0	0	0	5	2	0	0	0
Lepidoptera	Lepidoptera	0	0	1	0	1	0	0	0	1	0	0
Other Insecta	Apocrita	1	1	0	0	0	0	2	0	0	0	0
	Apoidea	1	2	0	0	0	0	0	0	0	0	0
	Braconidae	0	3	0	0	0	0	0	0	0	0	0
	Chalcidoidea	0	1	0	0	0	0	3	0	0	0	0
	Chrysopidae	0	1	0	0	0	0	0	0	0	0	0
	Formicidae	0	0	0	0	0	0	0	0	0	0	2
	Homoptera	0	2	0	0	0	0	0	0	0	0	0
	Ichneumonidae	0	0	0	1	0	1	0	0	1	0	0
	Insecta	0	0	0	0	0	0	0	0	0	1	0
	Neuroptera	0	0	0	0	0	0	0	0	0	0	0
	Proctotrupoidea	0	4	0	0	0	0	2	0	0	0	0
	Psocoptera	0	1	0	0	0	0	1	0	0	0	0
	Sminthuridae	0	5	0	0	0	0	3	0	0	0	2
	Symphyta	1	2	0	0	0	1	0	0	0	0	1
	Thysanoptera	0	1	0	0	0	0	0	0	0	0	0
Gastropoda	Valvatidae	0	0	0	0	0	0	0	0	0	0	0
	Valvata sincera	0	0	0	0	0	0	0	0	0	0	0
	Physa sp.	0	0	0	0	0	0	0	0	0	0	0
	Gastropoda	0	0	0	0	0	0	0	0	0	0	0

	Water Body	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Creek 661	Creek 661	Creek 661	Creek 661
	Baseline Map Site ID											
	Fish ID	1-025	1-026	1-162	1-165	3-092	3-093	3-094	3-009	3-010	3-012	3-017
	Date	08-11-2011	08-11-2011	08-19-2011	08-19-2011	08-18-2011	08-18-2011	08-18-2011	08-12-2011	08-12-2011	08-12-2011	08-13-2011
	Gear	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher	Electro-fisher
	Habitat	Stream	Stream	Stream	Stream	Stream	Stream	Stream	Stream	Stream	Stream	Stream
	% Subsampled	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
TAXONOMY												
LOW LEVEL	HIGH LEVEL											
Bivalvia	Sphaeriidae	0	0	0	0	0	0	0	0	0	0	0
	Pisidium sp.	0	0	0	0	0	0	0	0	0	0	0
	Sphaerium sp.	0	0	0	0	0	0	0	0	0	0	0
Acari	Acari	0	0	0	0	0	0	2	0	0	0	0
Crustacea	Amphipoda	1	0	0	0	0	0	0	0	0	0	0
	Daphniidae	0	0	0	0	0	0	0	0	0	0	0
	Daphnia sp.	0	0	0	0	0	0	0	0	0	0	0
	Gammaridae	0	0	0	0	0	0	0	0	0	0	0
	Gammarus sp.	0	0	0	0	0	0	0	0	0	0	0
	Ostracoda	0	0	0	0	0	0	0	0	0	0	0
	Hyalella sp.	0	0	0	0	0	0	0	0	0	0	0
Other Organisms	Araneae	0	3	1	0	0	1	1	0	0	0	0
	Nematoda	0	8	7	0	0	0	0	1	0	0	0
	Tetragnathidae	1	0	0	0	0	0	0	0	0	0	0
	Terrestrial	0	0	0	0	0	0	0	0	0	0	0

Table 5.10-7A: Fish Stomach Contents from Streams and Lakes, 2011 and 2012 (continued)

	Water Body	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT
	Baseline Map Site ID											
	Fish ID	7-001	7-002	7-003	7-004	7-005	7-006	7-008	V705LK-002	V705LK-003	V705LK-006a	V705LK-010
	Date	09-05-2012	09-05-2012	09-05-2012	09-05-2012	09-05-2012	09-05-2012	09-05-2012	08-13-2011	08-13-2011	08-13-2011	08-13-2011
	Gear	Angling	Angling	Angling	Angling	Angling	Angling	Angling	Gillnet	Gillnet	Gillnet	Gillnet
	Habitat	Stream	Stream	Stream	Stream	Stream	Stream	Stream	Lake	Lake	Lake	Lake
	% Subsampled	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
TAXONOMY												
LOW LEVEL	**HIGH LEVEL**											
Ephemeroptera	Baetidae	0	0	0	0	0	0	0	0	0	0	0
	Ephemerellidae	0	0	0	0	0	0	0	0	0	0	0
	Ephemeroptera	0	0	1	0	0	0	0	0	0	0	0
	Heptageniidae	0	0	0	0	0	0	0	0	0	0	0
	Leptophlebiidae	0	0	0	0	0	0	0	0	0	0	0
Plecoptera	Chloroperlidae	0	0	0	0	0	0	0	0	0	0	0
	Suwallia sp.	0	1	0	0	0	0	0	0	0	0	0
	Leuctridae	0	0	0	0	0	0	0	0	0	0	0
	Nemouridae	0	0	0	0	0	0	0	0	0	0	0
	Perlodidae	0	0	0	0	0	0	1	0	0	0	0
	Plecoptera	0	0	0	0	0	0	0	0	0	0	0
Hemiptera	Auchenorrhyncha	0	0	0	0	0	0	0	0	0	0	0
	Hemiptera	0	0	0	0	0	0	0	0	0	0	0
	Psyllidae	0	0	0	0	0	0	0	0	0	0	0
Coleoptera	Carabidae	0	0	0	0	0	0	0	0	0	0	0
	Coleoptera	0	0	0	1	0	0	0	0	0	0	0
	Dytiscidae	0	0	0	0	0	0	0	0	0	0	0
	Oreodytes sp.	0	0	0	0	0	0	0	0	0	0	0
	Hydrophilidae	0	0	0	0	0	0	0	0	0	0	0
	Staphylinidae	0	0	0	1	0	0	0	0	0	0	0

	Water Body	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT
	Baseline Map Site ID											
	Fish ID	**7-001**	**7-002**	**7-003**	**7-004**	**7-005**	**7-006**	**7-008**	**V705LK-002**	**V705LK-003**	**V705LK-006a**	**V705LK-010**
	Date	**09-05-2012**	**09-05-2012**	**09-05-2012**	**09-05-2012**	**09-05-2012**	**09-05-2012**	**09-05-2012**	**08-13-2011**	**08-13-2011**	**08-13-2011**	**08-13-2011**
	Gear	**Angling**	**Angling**	**Angling**	**Angling**	**Angling**	**Angling**	**Angling**	**Gillnet**	**Gillnet**	**Gillnet**	**Gillnet**
	Habitat	**Stream**	**Stream**	**Stream**	**Stream**	**Stream**	**Stream**	**Stream**	**Lake**	**Lake**	**Lake**	**Lake**
	% Subsampled	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**
TAXONOMY												
LOW LEVEL	**HIGH LEVEL**											
Diptera-Chironomidae	Chironomidae	0	0	1	0	0	0	0	0	0	0	0
	Procladius sp.	0	0	0	0	0	0	0	0	0	0	0
	Pseudochironomus sp.	0	0	0	0	0	0	0	0	0	0	0
Diptera	Chaoboridae	0	0	0	0	0	0	0	0	0	0	0
	Chaoborus sp.	0	0	0	0	0	0	0	0	0	0	0
	Culicidae	0	0	0	0	0	0	0	0	0	0	0
	Diptera	0	0	0	0	0	0	0	0	0	0	0
	Empididae	0	0	0	0	0	0	0	0	0	0	0
	Muscidae	0	0	0	0	0	0	0	0	0	0	0
	Muscomorpha	0	0	0	0	0	0	0	0	0	0	0
	Mycetophilidae	0	0	0	0	0	0	0	0	0	0	0
	Phoridae	0	0	0	0	0	0	0	0	0	0	0
	Psychodidae	0	0	0	0	0	0	0	0	0	0	0
	Simuliidae	0	0	0	0	0	0	0	0	0	0	0
	Corixidae	0	0	0	0	0	0	0	0	0	0	0
	Cenocorixa sp.	0	0	0	0	0	0	0	0	0	0	0
Trichoptera	Hydropsychidae	0	0	0	0	0	0	0	0	0	0	0
	Arctopsyche sp.	0	1	0	1	0	0	0	0	0	0	0
	Limnephilidae	0	0	0	0	0	0	0	0	0	0	0
	Lepidostomatidae	0	0	0	0	0	0	0	0	0	0	0
	Philopotamidae	0	0	0	0	0	0	0	0	0	0	0

	Water Body	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT
	Baseline Map Site ID											
	Fish ID	7-001	7-002	7-003	7-004	7-005	7-006	7-008	V705LK-002	V705LK-003	V705LK-006a	V705LK-010
	Date	09-05-2012	09-05-2012	09-05-2012	09-05-2012	09-05-2012	09-05-2012	09-05-2012	08-13-2011	08-13-2011	08-13-2011	08-13-2011
	Gear	Angling	Angling	Angling	Angling	Angling	Angling	Angling	Gillnet	Gillnet	Gillnet	Gillnet
	Habitat	Stream	Stream	Stream	Stream	Stream	Stream	Stream	Lake	Lake	Lake	Lake
	% Subsampled	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
TAXONOMY												
LOW LEVEL	HIGH LEVEL											
	Rhyacophilidae	0	0	0	0	0	0	0	0	0	0	0
	Trichoptera	0	0	0	0	2	0	0	0	0	0	0
Lepidoptera	Lepidoptera	0	0	0	0	0	0	0	0	0	0	0
Other Insecta	Apocrita	0	0	0	0	0	0	0	0	0	0	0
	Apoidea	0	0	0	0	0	0	0	0	0	0	0
	Braconidae	0	0	0	0	0	0	0	0	0	0	0
	Chalcidoidea	0	0	0	0	0	0	0	0	0	0	0
	Chrysopidae	0	0	0	0	0	0	0	0	0	0	0
	Formicidae	0	0	0	0	0	0	0	0	0	0	0
	Homoptera	0	0	0	0	0	0	0	0	0	0	0
	Ichneumonidae	0	0	0	0	0	0	0	0	0	0	0
	Insecta	0	0	0	0	0	0	0	0	0	0	0
	Neuroptera	0	0	0	0	0	0	0	0	0	0	0
	Proctotrupoidea	0	0	0	0	0	0	0	0	0	0	0
	Psocoptera	0	0	0	0	0	0	0	0	0	0	0
	Sminthuridae	0	0	0	0	0	0	0	0	0	0	0
	Symphyta	0	0	0	0	0	0	0	0	0	0	0
	Thysanoptera	0	0	0	0	0	0	0	0	0	0	0
Gastropoda	Valvatidae	0	0	0	0	0	0	0	0	0	0	0
	Valvata sincera	0	0	0	0	0	0	0	0	0	0	0
	Physa sp.	0	0	1	0	0	0	0	0	0	0	0

	Water Body	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT
	Baseline Map Site ID											
	Fish ID	**7-001**	**7-002**	**7-003**	**7-004**	**7-005**	**7-006**	**7-008**	**V705LK-002**	**V705LK-003**	**V705LK-006a**	**V705LK-010**
	Date	**09-05-2012**	**09-05-2012**	**09-05-2012**	**09-05-2012**	**09-05-2012**	**09-05-2012**	**09-05-2012**	**08-13-2011**	**08-13-2011**	**08-13-2011**	**08-13-2011**
	Gear	**Angling**	**Angling**	**Angling**	**Angling**	**Angling**	**Angling**	**Angling**	**Gillnet**	**Gillnet**	**Gillnet**	**Gillnet**
	Habitat	**Stream**	**Stream**	**Stream**	**Stream**	**Stream**	**Stream**	**Stream**	**Lake**	**Lake**	**Lake**	**Lake**
	% Subsampled	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**
TAXONOMY												
LOW LEVEL	**HIGH LEVEL**											
	Gastropoda	0	0	0	0	0	0	0	0	0	0	0
Bivalvia	Sphaeriidae	0	0	0	0	0	0	0	0	0	0	0
	Pisidium sp.	0	0	0	0	0	0	0	0	0	0	0
	Sphaerium sp.	0	0	0	0	0	0	0	0	0	0	0
Acari	Acari	0	0	0	0	0	0	0	0	0	0	0
Crustacea	Amphipoda	0	0	0	0	0	0	0	0	0	0	0
	Daphniidae	0	0	0	0	0	0	0	281	85	0	48
	Daphnia sp.	0	0	0	0	0	0	0	0	0	0	0
	Gammaridae	0	0	0	0	0	0	0	0	0	0	0
	Gammarus sp.	0	0	0	0	0	0	0	0	0	0	0
	Ostracoda	0	0	0	0	0	0	0	1	0	0	0
	Hyalella sp.	0	0	0	0	0	0	0	0	0	0	0
	Cyclopoida	0	0	0	0	0	0	0	0	0	0	0
Other Organisms	Araneae	0	0	0	0	0	0	0	0	0	0	0
	Nematoda	0	0	0	2	0	0	0	0	0	0	0
	Tetragnathidae	0	0	0	0	0	0	0	0	0	0	0
	Terrestrial	0	0	1	5	0	0	0	0	0	0	0

Table 5.10-7A: Fish Stomach Contents from Streams and Lakes, 2011 and 2012 (continued)

	Water Body	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT
	Baseline Map ID											
	Fish ID	V705LK-012	V705LK-013	V705LK-015	V705LK-016	9-038	9-039	9-040	9-041	9-042	9-043	9-044
	Date	08-13-2011	08-13-2011	08-13-2011	08-13-2011	09-10-2012	09-10-2012	09-10-2012	09-10-2012	09-10-2012	09-10-2012	09-10-2012
	Gear	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet
	Habitat	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake
	% Subsampled	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
TAXONOMY												
LOW LEVEL	HIGH LEVEL											
Ephemeroptera	Baetidae	0	0	0	0	0	0	0	0	0	0	0
	Ephemerellidae	0	0	0	0	0	0	0	0	0	0	0
	Ephemeroptera	0	0	0	0	0	0	0	0	0	0	0
	Heptageniidae	0	0	0	0	0	0	0	0	0	0	0
	Leptophlebiidae	0	0	0	0	0	0	0	0	0	0	0
Plecoptera	Chloroperlidae	0	0	0	0	0	0	0	0	0	0	0
	Suwallia sp.	0	0	0	0	0	0	0	0	0	0	0
	Leuctridae	0	0	0	0	0	0	0	0	0	0	0
	Nemouridae	0	0	0	0	0	0	0	0	0	0	0
	Perlodidae	0	0	0	0	0	0	0	0	0	0	0
	Plecoptera	0	0	0	0	0	0	0	0	0	0	0
Hemiptera	Auchenorrhyncha	0	0	0	0	0	0	0	0	0	0	0
	Hemiptera	0	0	0	0	0	0	0	0	0	0	0
	Psyllidae	0	0	0	0	0	0	0	0	0	0	0
Coleoptera	Carabidae	0	0	0	0	0	0	0	0	0	0	0
	Coleoptera	0	0	0	0	0	0	0	0	0	0	0
	Dytiscidae	0	0	0	0	0	0	0	0	0	0	0
	Oreodytes sp.	0	0	0	0	0	0	0	0	0	0	0
	Hydrophilidae	0	0	0	0	0	0	0	0	0	0	0
	Staphylinidae	0	0	0	0	0	0	0	0	0	0	0

	Water Body	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT
	Baseline Map ID											
	Fish ID	V705LK-012	V705LK-013	V705LK-015	V705LK-016	9-038	9-039	9-040	9-041	9-042	9-043	9-044
	Date	08-13-2011	08-13-2011	08-13-2011	08-13-2011	09-10-2012	09-10-2012	09-10-2012	09-10-2012	09-10-2012	09-10-2012	09-10-2012
	Gear	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet
	Habitat	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake
	% Subsampled	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
TAXONOMY												
LOW LEVEL	HIGH LEVEL											
Diptera-Chironomidae	Chironomidae	3	2	15	5	0	0	0	0	0	0	0
	Procladius sp.	0	0	0	0	0	0	0	0	0	0	0
	Pseudochironomus sp.	0	0	0	0	0	0	1	1	0	0	2
Diptera	Chaoboridae	0	0	0	0	0	0	0	0	0	0	0
	Chaoborus sp.	0	0	0	0	1	0	0	16	0	5	116
	Culicidae	0	0	0	0	0	0	0	0	0	0	0
	Diptera	1	0	0	0	0	0	0	0	0	0	0
	Empididae	0	0	0	0	0	0	0	0	0	0	0
	Muscidae	0	0	0	0	0	0	0	0	0	0	0
	Muscomorpha	0	0	0	0	0	0	0	0	0	0	0
	Mycetophilidae	0	0	1	0	0	0	0	0	0	0	0
	Phoridae	0	0	0	0	0	0	0	0	0	0	0
	Psychodidae	0	0	0	0	0	0	0	0	0	0	0
	Simuliidae	0	0	0	0	0	0	0	0	0	0	0
	Corixidae	0	0	0	0	0	0	0	0	0	0	0
	Cenocorixa sp.	0	0	0	0	0	0	0	0	0	0	0
Trichoptera	Hydropsychidae	0	0	0	0	0	0	0	0	0	0	0
	Arctopsyche sp.	0	0	0	0	0	0	0	0	0	0	0
	Limnephilidae	0	0	0	0	0	0	0	0	0	0	0
	Lepidostomatidae	0	0	0	0	0	0	0	0	0	0	0
	Philopotamidae	0	0	0	0	0	0	0	0	0	0	0

	Water Body	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT
	Baseline Map ID											
	Fish ID	V705LK-012	V705LK-013	V705LK-015	V705LK-016	9-038	9-039	9-040	9-041	9-042	9-043	9-044
	Date	08-13-2011	08-13-2011	08-13-2011	08-13-2011	09-10-2012	09-10-2012	09-10-2012	09-10-2012	09-10-2012	09-10-2012	09-10-2012
	Gear	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet
	Habitat	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake
	% Subsampled	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
TAXONOMY												
LOW LEVEL	HIGH LEVEL											
	Rhyacophilidae	0	0	0	0	0	0	0	0	0	0	0
	Trichoptera	0	0	0	2	0	0	0	0	0	0	0
Lepidoptera	Lepidoptera	0	0	0	0	0	0	0	0	0	0	0
Other Insecta	Apocrita	0	0	0	0	0	0	0	0	0	0	0
	Apoidea	0	0	0	0	0	0	0	0	0	0	0
	Braconidae	0	0	0	0	0	0	0	0	0	0	0
	Chalcidoidea	0	0	0	0	0	0	0	0	0	0	0
	Chrysopidae	0	0	0	0	0	0	0	0	0	0	0
	Formicidae	0	0	0	0	0	0	0	0	0	0	0
	Homoptera	0	0	0	0	0	0	0	0	0	0	0
	Ichneumonidae	0	0	0	0	0	0	0	0	0	0	0
	Insecta	1	0	0	0	0	0	0	0	0	0	0
	Neuroptera	0	0	1	1	0	0	0	0	0	0	0
	Proctotrupoidea	0	0	0	0	0	0	0	0	0	0	0
	Psocoptera	0	0	0	0	0	0	0	0	0	0	0
	Sminthuridae	0	0	0	0	0	0	0	0	0	0	0
	Symphyta	0	0	0	0	0	0	0	0	0	0	0
	Thysanoptera	0	0	0	0	0	0	0	0	0	0	0
Gastropoda	Valvatidae	0	0	0	0	0	0	0	0	0	0	0
	Valvata sincera	0	0	0	0	0	0	0	0	0	0	0
	Physa sp.	0	0	0	0	0	0	0	0	0	0	0

	Water Body	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT
	Baseline Map ID											
	Fish ID	V705LK-012	V705LK-013	V705LK-015	V705LK-016	9-038	9-039	9-040	9-041	9-042	9-043	9-044
	Date	08-13-2011	08-13-2011	08-13-2011	08-13-2011	09-10-2012	09-10-2012	09-10-2012	09-10-2012	09-10-2012	09-10-2012	09-10-2012
	Gear	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet
	Habitat	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake
	% Subsampled	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
TAXONOMY												
LOW LEVEL	HIGH LEVEL											
	Gastropoda	0	0	0	0	0	0	0	0	0	0	0
Bivalvia	Sphaeriidae	0	0	0	0	0	0	0	0	0	0	0
	Pisidium sp.	0	0	0	0	0	0	0	0	0	0	0
	Sphaerium sp.	0	0	0	0	0	0	0	0	0	0	0
Acari	Acari	0	0	0	0	0	0	0	0	0	0	0
Crustacea	Amphipoda	0	0	0	0	0	0	3	0	0	0	0
	Daphniidae	197	45	0	38	0	0	0	0	0	0	0
	Daphnia sp.	0	0	0	0	20	0	0	0	0	20	0
	Gammaridae	0	0	0	0	0	0	0	0	0	0	0
	Gammarus sp.	0	0	0	0	0	0	1	0	0	0	0
	Ostracoda	0	0	0	0	0	0	0	0	0	0	0
	Hyalella sp.	0	0	0	0	0	0	2	0	0	0	0
	Cyclopoida	0	0	0	0	0	0	0	0	0	1	0
Other Organisms	Araneae	0	0	2	0	0	0	0	0	0	0	0
	Nematoda	0	0	0	0	0	0	0	0	0	0	0
	Tetragnathidae	0	0	0	0	0	0	0	0	0	0	0
	Terrestrial	0	0	0	0	0	0	0	0	0	0	0

Table 5.10-7A: Fish Stomach Contents from Streams and Lakes, 2011 and 2012 (continued)

	Water Body	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT
	Baseline Map ID											
	Fish ID	9-045	9-046	9-047	9-048	2-011	2-013	2-017	2-018	2-024	9-017	9-018
	Date	09-10-2012	09-10-2012	09-10-2012	09-10-2012	08-16-2011	08-16-2011	08-16-2011	08-16-2011	08-16-2011	09-08-2012	09-08-2012
	Gear	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet
	Habitat	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake
	% Subsampled	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
TAXONOMY												
LOW LEVEL	**HIGH LEVEL**											
Ephemeroptera	Baetidae	0	0	0	0	0	0	0	0	0	0	0
	Ephemerellidae	0	0	0	0	0	0	0	0	0	0	0
	Ephemeroptera	0	0	0	0	0	0	0	0	0	0	0
	Heptageniidae	0	0	0	0	0	0	0	0	0	0	0
	Leptophlebiidae	0	0	0	0	0	0	0	0	0	0	0
Plecoptera	Chloroperlidae	0	0	0	0	0	0	0	0	0	0	0
	Suwallia sp.	0	0	0	0	0	0	0	0	0	0	0
	Leuctridae	0	0	0	0	0	0	0	0	0	0	0
	Nemouridae	0	0	0	0	0	0	0	0	0	0	0
	Perlodidae	0	0	0	0	0	0	0	0	0	0	0
	Plecoptera	0	0	0	0	0	0	0	0	0	0	0
Hemiptera	Auchenorrhyncha	0	0	0	0	0	0	0	0	0	0	0
	Hemiptera	0	0	0	0	0	0	0	0	0	0	0
	Psyllidae	0	0	0	0	0	0	0	0	0	0	0
Coleoptera	Carabidae	0	0	0	0	0	0	0	0	0	0	0
	Coleoptera	0	0	0	0	0	0	0	0	0	0	0
	Dytiscidae	0	0	0	0	0	0	0	0	0	0	0
	Oreodytes sp.	0	0	0	0	0	0	0	0	0	0	0
	Hydrophilidae	0	0	0	0	0	0	0	0	0	0	0
	Staphylinidae	0	0	0	0	0	0	0	0	0	0	0

	Water Body	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT
	Baseline Map ID											
	Fish ID	9-045	9-046	9-047	9-048	2-011	2-013	2-017	2-018	2-024	9-017	9-018
	Date	09-10-2012	09-10-2012	09-10-2012	09-10-2012	08-16-2011	08-16-2011	08-16-2011	08-16-2011	08-16-2011	09-08-2012	09-08-2012
	Gear	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet
	Habitat	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake
	% Subsampled	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
TAXONOMY												
LOW LEVEL	HIGH LEVEL											
Diptera-Chironomidae	Chironomidae	0	0	0	0	3	0	3	1	0	0	0
	Procladius sp.	0	0	0	0	0	0	0	0	0	1	0
	Pseudochironomus sp.	0	1	0	0	0	0	0	0	0	0	0
Diptera	Chaoboridae	0	0	0	0	2	2	44	0	7	0	0
	Chaoborus sp.	0	18	0	15	0	0	0	0	0	0	0
	Culicidae	0	0	0	0	0	0	0	0	0	0	0
	Diptera	0	0	0	0	1	0	0	0	1	0	0
	Empididae	0	0	0	0	0	0	0	0	0	0	0
	Muscidae	0	0	0	0	0	0	0	0	0	0	0
	Muscomorpha	0	0	0	0	0	0	0	0	0	0	0
	Mycetophilidae	0	0	0	0	0	0	0	0	0	0	0
	Phoridae	0	0	0	0	0	0	0	0	0	0	0
	Psychodidae	0	0	0	0	0	0	0	0	0	0	0
	Simuliidae	0	0	0	0	0	0	0	0	0	0	0
	Corixidae	0	0	0	0	0	0	0	0	0	0	0
	Cenocorixa sp.	0	0	0	0	0	0	0	0	0	0	0
Trichoptera	Hydropsychidae	0	0	0	0	0	0	0	0	0	0	0
	Arctopsyche sp.	0	0	0	0	0	0	0	0	0	0	0
	Limnephilidae	1	0	0	0	0	0	0	0	0	0	0
	Lepidostomatidae	0	0	0	0	0	0	0	0	0	0	0
	Philopotamidae	0	0	0	0	0	0	0	0	0	0	0

	Water Body	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT
	Baseline Map ID											
	Fish ID	9-045	9-046	9-047	9-048	2-011	2-013	2-017	2-018	2-024	9-017	9-018
	Date	09-10-2012	09-10-2012	09-10-2012	09-10-2012	08-16-2011	08-16-2011	08-16-2011	08-16-2011	08-16-2011	09-08-2012	09-08-2012
	Gear	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet
	Habitat	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake
	% Subsampled	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
TAXONOMY												
LOW LEVEL	HIGH LEVEL											
	Rhyacophilidae	0	0	0	0	0	0	0	0	0	0	0
	Trichoptera	0	0	0	0	0	0	0	0	0	0	0
Lepidoptera	Lepidoptera	0	0	0	0	0	0	0	0	0	0	0
Other Insecta	Apocrita	0	0	0	0	0	0	0	0	0	0	0
	Apoidea	0	0	0	0	0	0	0	0	0	0	0
	Braconidae	0	0	0	0	0	0	0	0	0	0	0
	Chalcidoidea	0	0	0	0	0	0	0	0	0	0	0
	Chrysopidae	0	0	0	0	0	0	0	0	0	0	0
	Formicidae	0	0	0	0	0	0	0	0	0	0	0
	Homoptera	0	0	0	0	0	0	0	0	0	0	0
	Ichneumonidae	0	0	0	0	0	0	0	0	0	0	0
	Insecta	0	0	0	0	0	0	0	0	0	0	0
	Neuroptera	0	0	0	0	0	0	0	0	0	0	0
	Proctotrupoidea	0	0	0	0	0	0	0	0	0	0	0
	Psocoptera	0	0	0	0	0	0	0	0	0	0	0
	Sminthuridae	0	0	0	0	0	0	0	0	0	0	0
	Symphyta	0	0	0	0	0	0	0	0	0	0	0
	Thysanoptera	0	0	0	0	0	0	0	0	0	0	0
Gastropoda	Valvatidae	0	0	0	0	0	0	0	1	0	0	0
	Valvata sincera	3	0	0	0	0	0	0	0	0	0	0
	Physa sp.	0	0	0	0	0	0	0	0	0	0	0

	Water Body	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT
	Baseline Map ID											
	Fish ID	**9-045**	**9-046**	**9-047**	**9-048**	**2-011**	**2-013**	**2-017**	**2-018**	**2-024**	**9-017**	**9-018**
	Date	**09-10-2012**	**09-10-2012**	**09-10-2012**	**09-10-2012**	**08-16-2011**	**08-16-2011**	**08-16-2011**	**08-16-2011**	**08-16-2011**	**09-08-2012**	**09-08-2012**
	Gear	**Gillnet**	**Gillnet**	**Gillnet**	**Gillnet**	**Gillnet**	**Gillnet**	**Gillnet**	**Gillnet**	**Gillnet**	**Gillnet**	**Gillnet**
	Habitat	**Lake**	**Lake**	**Lake**	**Lake**	**Lake**	**Lake**	**Lake**	**Lake**	**Lake**	**Lake**	**Lake**
	% Subsampled	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**
TAXONOMY												
LOW LEVEL	**HIGH LEVEL**											
	Gastropoda	0	0	0	0	0	0	0	0	0	0	0
Bivalvia	Sphaeriidae	0	0	0	0	7	9	0	4	0	0	0
	Pisidium sp.	0	0	0	0	0	0	0	0	0	1	0
	Sphaerium sp.	0	0	0	0	0	0	0	0	0	1	0
Acari	Acari	0	0	0	0	0	0	0	0	0	0	0
Crustacea	Amphipoda	1	0	1	0	0	0	0	0	0	16	0
	Daphniidae	0	0	0	0	0	0	0	0	0	0	0
	Daphnia sp.	0	0	0	0	0	0	0	0	0	0	0
	Gammaridae	0	0	0	0	50	219	7	59	0	6	0
	Gammarus sp.	0	0	0	0	0	0	0	0	0	0	0
	Ostracoda	0	0	0	0	0	0	0	0	0	0	0
	Hyalella sp.	0	0	0	0	0	0	0	0	0	5	0
	Cyclopoida	0	0	0	0	0	0	0	0	0	0	0
Other Organisms	Araneae	0	0	0	0	0	0	0	0	0	0	0
	Nematoda	0	0	0	0	0	0	0	0	0	0	0
	Tetragnathidae	0	0	0	0	0	0	0	0	0	0	0
	Terrestrial	0	0	0	0	0	0	0	0	0	0	0

Table 5.10-7A: Fish Stomach Contents from Streams and Lakes, 2011 and 2012 (completed)

	Water Body	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT
	Baseline Map ID								
	Fish ID	9-017	9-018	9-019	9-020	9-021	9-022	9-023	9-024
	Date	09-08-2012	09-08-2012	09-08-2012	09-08-2012	09-08-2012	09-08-2012	09-08-2012	09-08-2012
	Gear	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet
	Habitat	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake
	% Subsampled	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
TAXONOMY									
LOW LEVEL	HIGH LEVEL								
Ephemeroptera	Baetidae	0	0	0	0	0	0	0	0
	Ephemerellidae	0	0	0	0	0	0	0	0
	Ephemeroptera	0	0	0	0	0	0	0	0
	Heptageniidae	0	0	0	0	0	0	0	0
	Leptophlebiidae	0	0	0	0	0	0	0	0
Plecoptera	Chloroperlidae	0	0	0	0	0	0	0	0
	Suwallia sp.	0	0	0	0	0	0	0	0
	Leuctridae	0	0	0	0	0	0	0	0
	Nemouridae	0	0	0	0	0	0	0	0
	Perlodidae	0	0	0	0	0	0	0	0
	Plecoptera	0	0	0	0	0	0	0	0
Hemiptera	Auchenorrhyncha	0	0	0	0	0	0	0	0
	Hemiptera	0	0	0	0	0	0	0	0
	Psyllidae	0	0	0	0	0	0	0	0
Coleoptera	Carabidae	0	0	0	0	0	0	0	0
	Coleoptera	0	0	0	0	0	0	0	0
	Dytiscidae	0	0	0	0	0	0	0	0
	Oreodytes sp.	0	0	0	0	1	0	0	0
	Hydrophilidae	0	0	0	0	0	0	0	0
	Staphylinidae	0	0	0	0	0	0	0	0
Diptera-Chironomidae	Chironomidae	0	0	0	0	0	0	0	0

	Water Body	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT
	Baseline Map ID								
	Fish ID	9-017	9-018	9-019	9-020	9-021	9-022	9-023	9-024
	Date	09-08-2012	09-08-2012	09-08-2012	09-08-2012	09-08-2012	09-08-2012	09-08-2012	09-08-2012
	Gear	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet
	Habitat	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake
	% Subsampled	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
TAXONOMY									
LOW LEVEL	HIGH LEVEL								
	Procladius sp.	1	0	0	0	0	0	0	0
	Pseudochironomus sp.	0	0	0	0	0	0	0	0
Diptera	Chaoboridae	0	0	0	0	0	0	0	0
	Chaoborus sp.	0	0	0	100	0	0	0	0
	Culicidae	0	0	0	0	0	0	0	0
	Diptera	0	0	0	0	0	0	0	0
	Empididae	0	0	0	0	0	0	0	0
	Muscidae	0	0	0	0	0	0	0	0
	Muscomorpha	0	0	0	0	0	0	0	0
	Mycetophilidae	0	0	0	0	0	0	0	0
	Phoridae	0	0	0	0	0	0	0	0
	Psychodidae	0	0	0	0	0	0	0	0
	Simuliidae	0	0	0	0	0	0	0	0
	Corixidae	0	0	2	1	0	1	0	0
	Cenocorixa sp.	0	0	0	1	0	0	0	0
Trichoptera	Hydropsychidae	0	0	0	0	0	0	0	0
	Arctopsyche sp.	0	0	0	0	0	0	0	0
	Limnephilidae	0	0	0	0	0	0	0	1
	Lepidostomatidae	0	0	0	0	0	0	0	0
	Philopotamidae	0	0	0	0	0	0	0	0
	Rhyacophilidae	0	0	0	0	0	0	0	0
	Trichoptera	0	0	0	0	0	0	0	0

	Water Body	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT
	Baseline Map ID								
	Fish ID	9-017	9-018	9-019	9-020	9-021	9-022	9-023	9-024
	Date	09-08-2012	09-08-2012	09-08-2012	09-08-2012	09-08-2012	09-08-2012	09-08-2012	09-08-2012
	Gear	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet
	Habitat	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake
	% Subsampled	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
TAXONOMY									
LOW LEVEL	HIGH LEVEL								
Lepidoptera	Lepidoptera	0	0	0	0	0	0	0	0
Other Insecta	Apocrita	0	0	0	0	0	0	0	0
	Apoidea	0	0	0	0	0	0	0	0
	Braconidae	0	0	0	0	0	0	0	0
	Chalcidoidea	0	0	0	0	0	0	0	0
	Chrysopidae	0	0	0	0	0	0	0	0
	Formicidae	0	0	0	0	0	0	0	0
	Homoptera	0	0	0	0	0	0	0	0
	Ichneumonidae	0	0	0	0	0	0	0	0
	Insecta	0	0	0	0	0	0	0	0
	Neuroptera	0	0	0	0	0	0	0	0
	Proctotrupoidea	0	0	0	0	0	0	0	0
	Psocoptera	0	0	0	0	0	0	0	0
	Sminthuridae	0	0	0	0	0	0	0	0
	Symphyta	0	0	0	0	0	0	0	0
	Thysanoptera	0	0	0	0	0	0	0	0
Gastropoda	Valvatidae	0	0	0	0	0	0	0	0
	Valvata sincera	0	0	0	0	0	0	1	0
	Physa sp.	0	0	0	0	0	0	0	0
	Gastropoda	0	0	0	0	2	0	0	0
Bivalvia	Sphaeriidae	0	0	0	0	0	0	0	0
	Pisidium sp.	1	0	0	0	0	0	3	0

	Water Body	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT
	Baseline Map ID								
	Fish ID	9-017	9-018	9-019	9-020	9-021	9-022	9-023	9-024
	Date	09-08-2012	09-08-2012	09-08-2012	09-08-2012	09-08-2012	09-08-2012	09-08-2012	09-08-2012
	Gear	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet	Gillnet
	Habitat	Lake	Lake	Lake	Lake	Lake	Lake	Lake	Lake
	% Subsampled	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
TAXONOMY									
LOW LEVEL	**HIGH LEVEL**								
	Sphaerium sp.	1	0	0	0	0	0	0	0
Acari	Acari	0	0	0	0	0	0	0	0
Crustacea	Amphipoda	16	0	0	0	0	0	0	0
	Daphniidae	0	0	0	0	0	0	0	0
	Daphnia sp.	0	0	0	0	0	0	0	0
	Gammaridae	6	0	0	0	0	0	0	0
	Gammarus sp.	0	0	0	0	0	0	0	0
	Ostracoda	0	0	0	0	0	0	0	0
	Hyalella sp.	5	0	0	0	0	0	0	0
	Cyclopoida	0	0	0	0	0	0	0	0
Other Organisms	Araneae	0	0	0	0	0	0	0	0
	Nematoda	0	0	0	0	0	0	0	0
	Tetragnathidae	0	0	0	0	0	0	0	0
	Terrestrial	0	0	0	0	10	7	1	1

Annex 5.10-8
Fish Tissue Metal Concentrations, 2011 and 2012

Table 5.10-8A: Metal Concentrations in Rainbow Trout - Whole Fish, 2011 - 2012

Water Body		Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Turtle Creek	Turtle Creek
Fish Sample ID		**3-091**	**6-144**	**6-147**	**6-148**	**6-149**	**6-163**	**6-165**	**6-166**	**6-167**	**3-028**	**3-029**
Date Sampled		**17-AUG-11**	**05-AUG-12**	**05-AUG-12**	**05-AUG-12**	**05-AUG-12**	**05-AUG-12**	**05-AUG-12**	**05-AUG-12**	**05-AUG-12**	**15-AUG-11**	**15-AUG-11**
Matrix		**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**
Physical Tests	**Unit**											
% Moisture	**%**	74.4	75.3	73.8	68.7	78.6	72.3	73.6	68.0	76.0	73.1	74.7
Metals												
Aluminum (Al)-Total	mg/kg wwt	10.8	1.43	37.4	20.1	15.9	17.0	4.80	5.02	14.7	30.6	35.3
Antimony (Sb)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total	mg/kg wwt	0.0593	0.247	0.0305	0.0294	0.0319	0.0932	0.0230	0.0385	0.0405	0.0559	0.0422
Barium (Ba)-Total	mg/kg wwt	0.719	0.390	0.759	0.340	0.772	0.736	0.319	0.695	0.638	0.589	0.724
Beryllium (Be)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total	mg/kg wwt	<0.20	<0.20	<0.20	<0.20	<0.20	0.28	<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)-Total	mg/kg wwt	0.0427	0.0187	0.0270	0.0089	0.0132	0.0940	0.0143	0.0164	0.0271	0.0179	0.0176
Calcium (Ca)-Total	mg/kg wwt	9180	6320	6030	5830	8950	8250	8860	15800	8320	5040	7870
Cesium (Cs)-Total	mg/kg wwt	0.0446	0.0086	0.0288	0.0082	0.0067	0.0150	0.0116	0.0126	0.0158	0.0103	0.0074
Chromium (Cr)-Total	mg/kg wwt	0.137	0.027	0.087	0.056	0.042	0.058	0.029	0.032	0.049	0.140	0.101
Cobalt (Co)-Total	mg/kg wwt	0.0446	0.0252	0.0294	0.0267	0.0217	0.0793	0.0166	0.0164	0.0292	0.0424	0.0542
Copper (Cu)-Total	mg/kg wwt	2.02	0.843	0.984	0.625	0.862	1.40	0.653	0.833	0.856	1.22	1.15
Gallium (Ga)-Total	mg/kg wwt	<0.0040	<0.0040	0.0113	0.0060	0.0055	0.0047	<0.0040	<0.0040	0.0044	0.0075	0.0064
Iron (Fe)-Total	mg/kg wwt	33.1	11.7	49.8	26.8	24.1	34.7	15.3	15.6	30.3	40.2	44.3
Lead (Pb)-Total	mg/kg wwt	0.0064	0.0050	0.0101	0.0074	0.0107	0.0093	0.0055	<0.0040	0.0066	0.0067	0.0082
Lithium (Li)-Total	mg/kg wwt	<0.02	<0.02	0.022	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.020	<0.020
Magnesium (Mg)-Total	mg/kg wwt	413	352	303	294	400	404	428	573	415	351	404
Manganese (Mn)-Total	mg/kg wwt	4.71	1.65	6.55	2.49	8.38	5.33	1.92	5.18	3.25	7.50	8.68
Mercury (Hg)-Total	mg/kg wwt	0.0887	0.0862	0.0713	0.0486	0.0451	0.0642	0.0675	0.0492	0.0557	0.0457	0.0469
Methyl Mercury	mg/kg wwt		0.056	-	-	-	-	-	-	-		
Molybdenum (Mo)-Total	mg/kg wwt	0.0333	0.0087	0.0146	0.0264	0.0137	0.0313	0.0142	0.0136	0.0372	0.0227	0.0186
Nickel (Ni)-Total	mg/kg wwt	<0.030	0.032	0.083	0.029	0.023	0.098	0.042	0.036	0.025	0.059	<0.060
Phosphorus (P)-Total	mg/kg wwt	7240	5210	4770	4650	6460	6660	7150	10400	6510	5020	6460
Potassium (K)-Total	mg/kg wwt	4110	3660	3330	2970	3550	3970	5370	3950	4970	4510	4250

Water Body		Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Turtle Creek	Turtle Creek
Fish Sample ID		**3-091**	**6-144**	**6-147**	**6-148**	**6-149**	**6-163**	**6-165**	**6-166**	**6-167**	**3-028**	**3-029**
Date Sampled		**17-AUG-11**	**05-AUG-12**	**05-AUG-12**	**05-AUG-12**	**05-AUG-12**	**05-AUG-12**	**05-AUG-12**	**05-AUG-12**	**05-AUG-12**	**15-AUG-11**	**15-AUG-11**
Matrix		**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**
Physical Tests	**Unit**											
% Moisture	**%**	74.4	75.3	73.8	68.7	78.6	72.3	73.6	68.0	76.0	73.1	74.7
Metals												
Rhenium (Re)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Rubidium (Rb)-Total	mg/kg wwt	4.85	2.05	2.86	1.69	1.60	3.02	1.94	2.15	2.67	2.74	2.45
Selenium (Se)-Total	mg/kg wwt	1.21	0.575	0.782	0.397	0.347	0.835	0.798	0.706	0.927	1.15	0.961
Silver (Ag)-Total	mg/kg wwt	0.0261	0.0037	0.0044	0.0026	0.0024	0.0058	0.0032	0.0118	0.0057	0.0059	0.0050
Sodium (Na)-Total	mg/kg wwt	1040	750	580	650	500	1000	1440	1230	1170	1070	1040
Strontium (Sr)-Total	mg/kg wwt	10.3	5.73	7.43	4.66	6.64	6.44	4.38	10.2	6.86	4.17	6.13
Tellurium (Te)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)-Total	mg/kg wwt	0.00860	0.00419	0.00504	0.00292	0.00312	0.00688	0.00317	0.00466	0.00566	0.00519	0.00522
Thorium (Th)-Total	mg/kg wwt	<0.002	<0.002	0.0060	0.0021	<0.002	0.0031	<0.002	<0.002	<0.002	0.0028	0.0028
Tin (Sn)-Total	mg/kg wwt	<0.004	0.0289	0.0192	0.0283	0.0272	0.0414	0.0113	0.0145	0.0232	<0.0040	0.0096
Titanium (Ti)-Total	mg/kg wwt	0.462	0.073	2.63	1.91	1.10	1.88	0.463	0.357	1.58	1.27	1.54
Uranium (U)-Total	mg/kg wwt	0.00809	0.00255	0.00539	0.00335	0.00535	0.00845	0.00243	0.00338	0.00739	0.00470	0.00582
Vanadium (V)-Total	mg/kg wwt	0.0444	0.0337	0.121	0.0857	0.132	0.0935	0.0256	0.0319	0.0759	0.0843	0.0948
Yttrium (Y)-Total	mg/kg wwt	0.0140	<0.002	0.0161	0.0105	0.0112	0.0211	0.0047	0.0040	0.0182	0.0215	0.0267
Zinc (Zn)-Total	mg/kg wwt	29.1	25.3	31.4	22.4	31.0	31.0	27.5	35.4	31.9	28.9	32.5
Zirconium (Zr)-Total	mg/kg wwt	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040

Note: ID - identification, mg/kg wwt - milligrams per kilogram wet weight, % - percent

Table 5.10-8A: Metal Concentrations in Rainbow Trout - Whole Fish, 2011 - 2012 (continued)

Water Body		Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek/ Creek 700	Turtle Creek/ Creek 700	Turtle Creek/ Creek 700
Fish Sample ID		**6-192**	**6-193**	**6-194**	**6-195**	**6-196**	**6-197**	**6-198**	**6-199**	**1-023**	**3-020**	**3-021**
Date Sampled		**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**10-AUG-11**	**15-AUG-11**	**15-AUG-11**
Matrix		**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**
Physical Tests	**Unit**											
% Moisture	**%**	65.5	71.2	71.8	72.8	70.1	74.4	73.8	74.1	72.4	72.9	72.2
Metals												
Aluminum (Al)-Total	mg/kg wwt	2.45	1.34	14.0	0.41	19.3	3.54	6.86	3.92	19.7	2.18	3.11
Antimony (Sb)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total	mg/kg wwt	0.0286	0.0237	0.0508	0.0228	0.0385	0.0400	0.0678	0.0616	0.0815	0.0157	0.0258
Barium (Ba)-Total	mg/kg wwt	0.227	0.615	0.434	0.270	0.641	0.865	0.346	0.568	0.464	0.244	0.275
Beryllium (Be)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total	mg/kg wwt	<0.20	<0.20	0.26	0.93	0.41	<0.20	<0.20	<0.20	0.65	<0.20	<0.20
Cadmium (Cd)-Total	mg/kg wwt	0.0051	0.0086	0.0122	0.0040	0.0145	0.0123	0.0115	0.0185	0.0397	0.0082	0.0105
Calcium (Ca)-Total	mg/kg wwt	8290	8630	8200	9020	12700	10700	4750	7520	8090	6750	7950
Cesium (Cs)-Total	mg/kg wwt	0.0067	0.0079	0.0051	0.0041	0.0089	0.0078	0.0060	0.0049	0.0084	0.0232	0.0098
Chromium (Cr)-Total	mg/kg wwt	<0.010	0.035	0.023	<0.010	0.035	0.029	0.021	0.014	0.364	0.167	0.097
Cobalt (Co)-Total	mg/kg wwt	0.0072	0.0175	0.0379	0.0130	0.0304	0.0125	0.0196	0.0250	0.0294	0.0131	0.0223
Copper (Cu)-Total	mg/kg wwt	0.546	0.693	1.04	0.488	0.976	0.775	0.807	0.690	1.60	1.10	1.32
Gallium (Ga)-Total	mg/kg wwt	<0.0040	<0.0040	0.0043	<0.0040	0.0058	<0.0040	<0.0040	<0.0040	0.0047	<0.0040	<0.0040
Iron (Fe)-Total	mg/kg wwt	12.8	16.3	22.5	6.88	36.0	19.5	24.4	13.8	35.7	15.7	17.8
Lead (Pb)-Total	mg/kg wwt	<0.0040	<0.0040	0.0080	<0.0040	0.0520	<0.0040	<0.0040	<0.0040	0.0067	0.0059	0.0084
Lithium (Li)-Total	mg/kg wwt	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Magnesium (Mg)-Total	mg/kg wwt	316	369	400	407	487	385	345	375	416	371	394
Manganese (Mn)-Total	mg/kg wwt	2.07	5.11	3.58	2.55	6.26	4.63	12.0	9.30	6.06	1.81	2.53
Mercury (Hg)-Total	mg/kg wwt	0.0993	0.0379	0.0553	0.0461	0.0512	0.0696	0.0763	0.0666	0.0225	0.0499	0.0434
Methyl Mercury	mg/kg wwt	-	-	-	-	-	-	-	-			
Molybdenum (Mo)-Total	mg/kg wwt	0.0073	0.0164	0.0159	0.0094	0.0193	0.0164	0.0165	0.0153	0.0323	0.0158	0.0144

Water Body		Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek/ Creek 700	Turtle Creek/ Creek 700	Turtle Creek/ Creek 700
Fish Sample ID		**6-192**	**6-193**	**6-194**	**6-195**	**6-196**	**6-197**	**6-198**	**6-199**	**1-023**	**3-020**	**3-021**
Date Sampled		**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**10-AUG-11**	**15-AUG-11**	**15-AUG-11**
Matrix		**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**
Physical Tests	**Unit**											
% Moisture	**%**	65.5	71.2	71.8	72.8	70.1	74.4	73.8	74.1	72.4	72.9	72.2
Metals												
Nickel (Ni)-Total	mg/kg wwt	0.015	0.058	0.058	0.030	0.038	0.069	0.040	0.189	0.222	0.077	<0.040
Phosphorus (P)-Total	mg/kg wwt	6270	6910	6350	6700	8750	8220	4550	5940	6430	5860	6580
Potassium (K)-Total	mg/kg wwt	3450	3150	3590	3490	3400	3290	4170	3630	4270	4460	4470
Rhenium (Re)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Rubidium (Rb)-Total	mg/kg wwt	1.27	3.08	2.01	1.82	2.75	1.98	1.65	1.78	1.80	3.42	2.97
Selenium (Se)-Total	mg/kg wwt	0.544	1.10	0.773	0.454	0.675	0.767	0.879	0.765	1.09	0.827	1.53
Silver (Ag)-Total	mg/kg wwt	0.0056	0.0015	0.0018	<0.0010	0.0021	0.0022	0.0042	0.0033	0.0103	0.0066	0.0084
Sodium (Na)-Total	mg/kg wwt	910	834	860	840	910	1000	990	890	1100	980	1080
Strontium (Sr)-Total	mg/kg wwt	3.87	6.36	5.51	4.61	9.07	9.80	2.98	5.64	5.95	4.85	5.68
Tellurium (Te)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)-Total	mg/kg wwt	0.00195	0.00436	0.00482	0.00414	0.00650	0.00285	0.00286	0.00329	0.00402	0.00395	0.00553
Thorium (Th)-Total	mg/kg wwt	<0.0020	<0.0020	0.0024	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0024	<0.0020	<0.0020
Tin (Sn)-Total	mg/kg wwt	0.0080	0.0096	0.0323	0.0535	0.0298	0.0153	0.0440	0.0380	0.0095	0.0077	0.0047
Titanium (Ti)-Total	mg/kg wwt	0.121	0.066	1.62	0.016	0.953	0.234	0.293	0.242	0.995	0.108	0.101
Uranium (U)-Total	mg/kg wwt	0.00115	0.00446	0.00402	0.00151	0.00659	0.00180	0.00177	0.00121	0.00723	0.00112	0.00142
Vanadium (V)-Total	mg/kg wwt	0.0192	0.0257	0.0599	0.0263	0.0769	0.0316	0.0397	0.0367	0.0780	0.0186	0.0310
Yttrium (Y)-Total	mg/kg wwt	<0.0020	<0.0020	0.0125	<0.0020	0.0154	0.0032	0.0065	0.0026	0.0204	<0.0020	0.0027
Zinc (Zn)-Total	mg/kg wwt	21.6	47.5	31.1	28.8	53.1	52.0	29.1	30.0	45.0	28.9	31.7
Zirconium (Zr)-Total	mg/kg wwt	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040

Note: ID - identification, mg/kg wwt - milligrams per kilogram wet weight, % - percent

Table 5.10-8A: Metal Concentrations in Rainbow Trout - Whole Fish, 2011 - 2012 (continued)

Water Body		Turtle Creek/ Creek 700	Turtle Creek/ Creek 700	Turtle Creek/ Creek 700	Creek 661	Creek 661	Creek 661	Creek 661	Creek 661	Creek 661	Creek 661	Creek 661
Fish Sample ID		**3-022**	**3-023**	**3-024**	**3-007**	**6-002**	**6-003**	**6-004**	**6-005**	**6-067**	**6-068**	**6-069**
Date Sampled		**15-AUG-11**	**15-AUG-11**	**15-AUG-11**	**11-AUG-11**	**02-AUG-12**	**02-AUG-12**	**02-AUG-12**	**02-AUG-12**	**03-AUG-12**	**03-AUG-12**	**03-AUG-12**
Matrix		**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**
Physical Tests	**Unit**											
% Moisture	**%**	73.9	73.2	71.1	71.3	70.2	72.4	74.2	72.8	72.3	73.3	77.7
Metals												
Aluminum (Al)-Total	mg/kg wwt	2.67	0.90	4.12	11.2	9.15	4.66	3.00	33.0	9.31	7.66	9.56
Antimony (Sb)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total	mg/kg wwt	0.0224	0.0197	0.0254	0.0755	0.0629	0.0709	0.0401	0.111	0.0417	0.0451	0.0492
Barium (Ba)-Total	mg/kg wwt	0.317	0.281	0.468	0.353	0.543	0.410	0.300	0.508	0.590	0.391	0.247
Beryllium (Be)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total	mg/kg wwt	<0.20	<0.20	<0.20	<0.20	<0.20	0.25	<0.20	1.43	<0.20	<0.20	<0.20
Cadmium (Cd)-Total	mg/kg wwt	0.0071	0.0070	0.0123	0.0338	0.0206	0.0175	0.0169	0.0256	0.0279	0.0217	0.0130
Calcium (Ca)-Total	mg/kg wwt	7750	7460	8020	5820	10500	9690	8940	8660	13200	7060	3900
Cesium (Cs)-Total	mg/kg wwt	0.0070	0.0155	0.0111	0.0168	0.0105	0.0057	0.0053	0.0114	0.0128	0.0073	0.0038
Chromium (Cr)-Total	mg/kg wwt	0.376	0.147	0.051	0.173	0.039	0.026	0.019	0.108	0.039	0.032	0.035
Cobalt (Co)-Total	mg/kg wwt	0.0191	0.0118	0.0129	0.0419	0.0466	0.0449	0.0212	0.0580	0.0262	0.0231	0.0188
Copper (Cu)-Total	mg/kg wwt	0.937	0.979	1.11	1.31	0.959	0.868	0.521	0.916	1.05	0.914	0.784
Gallium (Ga)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	0.0044	<0.0040	<0.0040	<0.0040	0.0140	<0.0040	<0.0040	<0.0040
Iron (Fe)-Total	mg/kg wwt	14.6	12.6	17.2	39.9	29.9	19.6	13.8	44.2	26.8	21.3	45.2
Lead (Pb)-Total	mg/kg wwt	0.0048	<0.0040	0.0094	0.0067	0.0098	0.0111	0.0046	0.0283	0.0090	0.0045	0.0052
Lithium (Li)-Total	mg/kg wwt	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Magnesium (Mg)-Total	mg/kg wwt	402	399	409	373	442	429	429	418	492	357	300
Manganese (Mn)-Total	mg/kg wwt	2.45	2.29	2.77	6.29	6.98	6.45	4.68	6.86	8.01	2.83	2.35
Mercury (Hg)-Total	mg/kg wwt	0.0341	0.0407	0.0388	0.0697	0.0810	0.0689	0.0988	0.0860	0.0557	0.0761	0.0592
Methyl Mercury	mg/kg wwt					-	-	-	-	-	-	0.051
Molybdenum (Mo)-Total	mg/kg wwt	0.0150	0.0156	0.0136	0.0324	0.0287	0.0192	0.0126	0.0251	0.0371	0.0260	0.0292

Water Body		Turtle Creek/ Creek 700	Turtle Creek/ Creek 700	Turtle Creek/ Creek 700	Creek 661	Creek 661	Creek 661	Creek 661	Creek 661	Creek 661	Creek 661	Creek 661
Fish Sample ID		**3-022**	**3-023**	**3-024**	**3-007**	**6-002**	**6-003**	**6-004**	**6-005**	**6-067**	**6-068**	**6-069**
Date Sampled		**15-AUG-11**	**15-AUG-11**	**15-AUG-11**	**11-AUG-11**	**02-AUG-12**	**02-AUG-12**	**02-AUG-12**	**02-AUG-12**	**03-AUG-12**	**03-AUG-12**	**03-AUG-12**
Matrix		**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**
Physical Tests	**Unit**											
% Moisture	**%**	73.9	73.2	71.1	71.3	70.2	72.4	74.2	72.8	72.3	73.3	77.7
Metals												
Nickel (Ni)-Total	mg/kg wwt	0.200	0.070	<0.030	<0.10	0.035	0.051	0.028	0.039	0.028	0.017	0.025
Phosphorus (P)-Total	mg/kg wwt	6330	6340	6550	5420	7640	7310	6850	6740	8930	5740	4180
Potassium (K)-Total	mg/kg wwt	4270	4400	4200	4630	4160	3820	4330	3840	3490	3820	4240
Rhenium (Re)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Rubidium (Rb)-Total	mg/kg wwt	2.43	3.38	2.91	5.43	3.61	2.63	2.11	3.43	2.55	2.84	1.47
Selenium (Se)-Total	mg/kg wwt	1.26	1.02	0.830	0.649	1.25	0.841	0.670	0.894	0.806	0.830	0.648
Silver (Ag)-Total	mg/kg wwt	0.0068	0.0057	0.0076	0.0272	0.0073	0.0049	0.0072	0.0046	0.0065	0.0065	0.0025
Sodium (Na)-Total	mg/kg wwt	1040	1010	910	1030	1040	970	1160	970	990	890	1100
Strontium (Sr)-Total	mg/kg wwt	5.86	5.68	6.59	5.92	8.56	7.61	4.61	6.15	9.93	5.30	2.01
Tellurium (Te)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)-Total	mg/kg wwt	0.00504	0.00483	0.00519	0.00633	0.00559	0.00445	0.00350	0.00556	0.00378	0.00396	0.00243
Thorium (Th)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0096	<0.0020	<0.0020	<0.0020
Tin (Sn)-Total	mg/kg wwt	0.0222	0.0055	<0.0040	0.0083	0.0472	0.0402	0.0126	0.0213	0.0218	0.0224	0.0220
Titanium (Ti)-Total	mg/kg wwt	0.098	0.034	0.215	0.609	0.645	0.341	0.243	1.65	0.689	0.706	1.08
Uranium (U)-Total	mg/kg wwt	0.00167	0.00163	0.00266	0.00597	0.00631	0.00363	0.00509	0.00795	0.00713	0.00445	0.00320
Vanadium (V)-Total	mg/kg wwt	0.0342	0.0231	0.0258	0.0629	0.0862	0.0565	0.0365	0.0939	0.0533	0.0471	0.0508
Yttrium (Y)-Total	mg/kg wwt	<0.0020	<0.0020	0.0060	0.0121	0.0108	0.0041	0.0028	0.0173	0.0110	0.0057	0.0073
Zinc (Zn)-Total	mg/kg wwt	36.3	36.8	34.0	31.8	42.2	35.9	21.3	31.0	39.9	28.4	20.9
Zirconium (Zr)-Total	mg/kg wwt	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040

Note: ID - identification, mg/kg wwt - milligrams per kilogram wet weight, % - percent

Table 5.10-8A: Metal Concentrations in Rainbow Trout - Whole Fish, 2011 - 2012 (continued)

Water Body		Creek 661	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Lake 01682LNRS	Lake 01682LNRS
Fish Sample ID		**6-070**	**7-001**	**7-002**	**7-003**	**7-004**	**7-005**	**7-006**	**7-007**	**7-008**	**16-006**	**16-007**
Date Sampled		**03-AUG-12**	**05-SEP-12**	**05-SEP-12**	**05-SEP-12**	**05-SEP-12**	**05-SEP-12**	**05-SEP-12**	**05-SEP-12**	**05-SEP-12**	**19-SEP-12**	**19-SEP-12**
Matrix		**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**
Physical Tests	**Unit**											
% Moisture	**%**	74.4	70.3	73.6	75.0	72.5	76.0	80.6	77.7	80.5	67.0	70.8
Metals												
Aluminum (Al)-Total	mg/kg wwt	1.72	1.44	3.53	1.29	8.61	4.54	6.82	2.11	21.0	1.13	2.32
Antimony (Sb)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total	mg/kg wwt	0.0372	0.0576	0.0639	0.0547	0.0696	0.0695	0.0974	0.0317	0.141	0.0492	0.0790
Barium (Ba)-Total	mg/kg wwt	0.349	0.888	0.470	0.326	0.434	0.911	0.856	0.427	0.870	0.318	0.536
Beryllium (Be)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total	mg/kg wwt	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.66	<0.20	<0.20	<0.20
Cadmium (Cd)-Total	mg/kg wwt	0.0107	0.0038	0.0045	0.0023	0.0034	0.0065	0.0069	0.0048	0.0100	<0.0020	0.0049
Calcium (Ca)-Total	mg/kg wwt	9230	12400	11500	8110	8940	13700	12300	4200	13700	2830	5520
Cesium (Cs)-Total	mg/kg wwt	0.0064	0.0057	0.0036	0.0034	0.0040	0.0033	0.0030	0.0020	0.0043	0.790	0.513
Chromium (Cr)-Total	mg/kg wwt	0.039	0.025	0.119	0.074	0.040	0.014	0.062	0.062	0.093	0.014	0.019
Cobalt (Co)-Total	mg/kg wwt	0.0136	0.0154	0.0244	0.0175	0.0244	0.0286	0.0190	0.0188	0.0306	0.0172	0.0174
Copper (Cu)-Total	mg/kg wwt	0.569	0.645	0.597	0.503	0.625	0.508	0.656	0.689	0.618	0.510	1.35
Gallium (Ga)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0074	<0.0040	<0.0040
Iron (Fe)-Total	mg/kg wwt	9.38	10.5	17.5	12.6	23.7	18.2	20.3	20.4	38.2	14.1	21.3
Lead (Pb)-Total	mg/kg wwt	<0.0040	0.0127	0.0043	0.0045	0.0050	<0.0040	0.0197	0.0213	0.0055	0.0326	0.0245
Lithium (Li)-Total	mg/kg wwt	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Magnesium (Mg)-Total	mg/kg wwt	388	426	438	364	385	448	393	277	428	194	258
Manganese (Mn)-Total	mg/kg wwt	2.36	11.2	6.19	4.55	4.92	6.78	4.01	2.34	4.32	0.584	1.49
Mercury (Hg)-Total	mg/kg wwt	0.0942	0.0379	0.0425	0.0521	0.0475	0.0359	0.0482	0.0669	0.0475	0.117	0.136
Methyl Mercury	mg/kg wwt	-	-	-	0.0161	-	-	-	-	-	-	-
Molybdenum (Mo)-Total	mg/kg wwt	0.0150	0.0090	0.0096	0.0098	0.0097	0.0086	0.0096	0.0089	0.0104	0.0083	0.0194

Water Body		Creek 661	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Lake 01682LNRS	Lake 01682LNRS
Fish Sample ID		**6-070**	**7-001**	**7-002**	**7-003**	**7-004**	**7-005**	**7-006**	**7-007**	**7-008**	**16-006**	**16-007**
Date Sampled		**03-AUG-12**	**05-SEP-12**	**05-SEP-12**	**05-SEP-12**	**05-SEP-12**	**05-SEP-12**	**05-SEP-12**	**05-SEP-12**	**05-SEP-12**	**19-SEP-12**	**19-SEP-12**
Matrix		**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**
Physical Tests	**Unit**											
% Moisture	**%**	74.4	70.3	73.6	75.0	72.5	76.0	80.6	77.7	80.5	67.0	70.8
Metals												
Nickel (Ni)-Total	mg/kg wwt	0.016	0.032	0.070	0.055	0.032	0.076	0.030	0.062	0.028	0.011	0.016
Phosphorus (P)-Total	mg/kg wwt	6710	8210	7950	6580	6250	8360	7540	3880	7990	2630	4330
Potassium (K)-Total	mg/kg wwt	3550	3540	3720	3310	3500	3390	3370	3250	3310	2480	2820
Rhenium (Re)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Rubidium (Rb)-Total	mg/kg wwt	2.08	2.61	2.41	2.27	2.35	1.49	1.76	1.23	1.56	5.94	4.71
Selenium (Se)-Total	mg/kg wwt	0.606	0.280	0.289	0.320	0.330	0.385	0.405	0.396	0.341	0.146	0.249
Silver (Ag)-Total	mg/kg wwt	0.0044	0.0020	0.0034	0.0016	0.0015	0.0033	0.0040	0.0037	0.0018	0.0042	0.0159
Sodium (Na)-Total	mg/kg wwt	1060	847	936	1020	873	1100	1430	1290	1550	874	853
Strontium (Sr)-Total	mg/kg wwt	5.56	10.5	9.37	6.78	7.74	11.7	11.2	3.74	13.3	6.47	11.2
Tellurium (Te)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)-Total	mg/kg wwt	0.00347	0.00261	0.00410	0.00204	0.00272	0.00261	0.00322	0.00094	0.00360	0.00471	0.00655
Thorium (Th)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0023	<0.0020	<0.0020
Tin (Sn)-Total	mg/kg wwt	0.0235	0.116	0.075	0.0244	0.031	0.056	0.032	0.033	0.026	0.042	0.023
Titanium (Ti)-Total	mg/kg wwt	0.101	-	-	0.086	-	-	-	-	-	-	-
Uranium (U)-Total	mg/kg wwt	0.00407	0.00278	0.00275	0.00064	0.00166	0.00482	0.00381	0.00379	0.00610	0.00312	0.00834
Vanadium (V)-Total	mg/kg wwt	0.0425	0.090	0.039	0.0112	0.088	0.051	0.152	0.078	0.249	<0.016	<0.016
Yttrium (Y)-Total	mg/kg wwt	<0.0020	<0.0020	0.0025	0.0021	0.0058	0.0028	0.0031	<0.0020	0.0112	<0.0020	0.0060
Zinc (Zn)-Total	mg/kg wwt	29.6	59.1	46.5	41.0	60.2	59.1	54.8	70.1	75.2	22.1	50.5
Zirconium (Zr)-Total	mg/kg wwt	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040

Note: ID - identification, mg/kg wwt - milligrams per kilogram wet weight, % - percent

Table 5.10-8A: Metal Concentrations in Rainbow Trout - Whole Fish, 2011 - 2012 (continued)

Water Body		Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT
Fish Sample ID		**16-008**	**16-009**	**16-010**	**16-011**	**16-015**	**16-017**	**9-038**	**9-042**	**9-043**	**9-044**	**9-045**
Date Sampled		**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**10-SEP-12**	**10-SEP-12**	**10-SEP-12**	**10-SEP-12**	**10-SEP-12**
Matrix		**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**
Physical Tests	**Unit**											
% Moisture	**%**	69.5	71.1	70.2	69.1	69.8	70.7	71.7	70.2	74.1	68.4	68.6
Metals												
Aluminum (Al)-Total	mg/kg wwt	8.44	3.02	1.89	1.26	8.15	22.1	0.73	0.92	0.95	0.92	5.31
Antimony (Sb)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	0.0022	0.0039	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total	mg/kg wwt	0.116	0.0861	0.0765	0.0716	0.129	0.179	0.0425	0.0520	0.0418	0.0316	0.0781
Barium (Ba)-Total	mg/kg wwt	0.589	0.803	0.498	0.322	0.841	1.17	0.354	0.569	0.206	0.294	0.681
Beryllium (Be)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0023	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total	mg/kg wwt	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)-Total	mg/kg wwt	0.0055	0.0049	0.0035	0.0047	0.0083	0.0061	0.0095	0.0062	0.0099	0.0061	0.0069
Calcium (Ca)-Total	mg/kg wwt	5890	3810	3280	3120	5970	3840	7530	10600	4270	6680	12100
Cesium (Cs)-Total	mg/kg wwt	0.229	0.605	0.921	0.456	0.402	0.591	0.0850	0.116	0.123	0.0712	0.0825
Chromium (Cr)-Total	mg/kg wwt	0.029	0.036	0.036	0.021	0.036	0.054	0.105	0.038	0.060	0.074	0.043
Cobalt (Co)-Total	mg/kg wwt	0.0263	0.0286	0.0246	0.0264	0.0260	0.0346	0.0195	0.0144	0.0147	0.0127	0.0128
Copper (Cu)-Total	mg/kg wwt	0.904	1.93	1.29	1.66	1.99	2.75	0.499	0.495	0.591	0.935	0.608
Gallium (Ga)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0050	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Iron (Fe)-Total	mg/kg wwt	36.0	29.9	21.0	21.7	27.0	58.9	15.3	12.9	16.3	13.8	26.5
Lead (Pb)-Total	mg/kg wwt	0.0488	0.0245	0.0170	0.0354	0.0272	0.0506	0.0779	0.0526	0.220	0.0868	0.0190
Lithium (Li)-Total	mg/kg wwt	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Magnesium (Mg)-Total	mg/kg wwt	279	228	232	254	292	290	310	420	263	302	424
Manganese (Mn)-Total	mg/kg wwt	4.76	2.19	1.25	1.42	2.83	9.43	2.04	2.10	1.08	1.05	5.10
Mercury (Hg)-Total	mg/kg wwt	0.0882	0.116	0.155	0.110	0.0785	0.0789	0.0616	0.0629	0.0781	0.0772	0.0614
Methyl Mercury	mg/kg wwt	-	-	-	0.0527	-	-	-	-	-	-	-
Molybdenum (Mo)-Total	mg/kg wwt	0.0214	0.0191	0.0152	0.0164	0.0300	0.0381	0.0091	0.0105	0.0111	0.0104	0.0165
Nickel (Ni)-Total	mg/kg wwt	0.015	0.023	0.021	0.014	<0.010	0.192	0.109	0.038	0.036	0.036	0.030

Water Body		Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT
Fish Sample ID		**16-008**	**16-009**	**16-010**	**16-011**	**16-015**	**16-017**	**9-038**	**9-042**	**9-043**	**9-044**	**9-045**
Date Sampled		**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**10-SEP-12**	**10-SEP-12**	**10-SEP-12**	**10-SEP-12**	**10-SEP-12**
Matrix		**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**
Physical Tests	**Unit**											
% Moisture	**%**	69.5	71.1	70.2	69.1	69.8	70.7	71.7	70.2	74.1	68.4	68.6
Metals												
Phosphorus (P)-Total	mg/kg wwt	4890	3690	3170	3340	4230	3370	5980	7130	3980	5500	7750
Potassium (K)-Total	mg/kg wwt	2610	2690	2800	2790	2750	2790	2940	4010	2980	2940	3720
Rhenium (Re)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Rubidium (Rb)-Total	mg/kg wwt	3.65	6.19	7.18	4.67	4.39	4.65	2.58	2.76	2.90	2.40	2.67
Selenium (Se)-Total	mg/kg wwt	0.251	0.249	0.260	0.323	0.281	0.274	0.267	0.231	0.258	0.248	0.228
Silver (Ag)-Total	mg/kg wwt	0.0115	0.0266	0.0147	0.0174	0.0136	0.0273	0.0047	0.0054	0.0021	0.0087	0.0046
Sodium (Na)-Total	mg/kg wwt	812	935	955	834	890	851	760	936	829	879	984
Strontium (Sr)-Total	mg/kg wwt	10.2	10.4	8.50	6.43	11.6	10.3	10.9	15.1	6.89	8.25	15.5
Tellurium (Te)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)-Total	mg/kg wwt	0.00645	0.00946	0.00908	0.00691	0.00759	0.00899	0.00579	0.00566	0.00435	0.00461	0.00597
Thorium (Th)-Total	mg/kg wwt	0.0023	<0.0020	<0.0020	<0.0020	<0.0020	0.0045	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tin (Sn)-Total	mg/kg wwt	<0.020	0.023	<0.020	<0.020	0.038	0.026	0.036	0.027	0.033	0.023	0.026
Titanium (Ti)-Total	mg/kg wwt	-	-	-	-	-	-	-	-	-	-	-
Uranium (U)-Total	mg/kg wwt	0.0103	0.0155	0.00553	0.00366	0.0135	0.0191	0.00942	0.0112	0.00339	0.00301	0.0327
Vanadium (V)-Total	mg/kg wwt	0.022	<0.016	<0.016	<0.016	0.019	0.052	0.020	0.045	<0.016	0.022	0.020
Yttrium (Y)-Total	mg/kg wwt	0.0095	0.0072	0.0027	<0.0020	0.0198	0.0381	<0.0020	<0.0020	<0.0020	<0.0020	0.0107
Zinc (Zn)-Total	mg/kg wwt	44.4	47.2	44.2	62.4	49.1	47.8	53.8	68.1	60.6	67.7	58.4
Zirconium (Zr)-Total	mg/kg wwt	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040

Note: ID - identification, mg/kg wwt - milligrams per kilogram wet weight, % - percent

Table 5.10-8A: Metal Concentrations in Rainbow Trout - Whole Fish, 2011 - 2012 (continued)

Water Body		Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT
Fish Sample ID		**9-046**	**9-047**	**9-048**	**2-010**	**2-015**	**2-016**	**2-020**	**2-021**	**2-022**	**2-023**	**2-025**
Date Sampled		**10-SEP-12**	**10-SEP-12**	**10-SEP-12**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**
Matrix		**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**
Physical Tests	**Unit**											
% Moisture	**%**	72.6	67.6	73.6	72.2	70.2	70.0	68.8	71.6	72.6	72.2	71.0
Metals												
Aluminum (Al)-Total	mg/kg wwt	0.74	2.52	1.57	0.59	8.36	2.83	11.6	0.56	1.35	1.85	8.10
Antimony (Sb)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total	mg/kg wwt	0.0238	0.0709	0.0299	0.0174	0.0532	0.0504	0.0438	0.0320	0.0369	0.0326	0.0682
Barium (Ba)-Total	mg/kg wwt	0.220	0.965	0.559	0.505	1.72	1.22	2.50	0.236	0.697	0.662	1.92
Beryllium (Be)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total	mg/kg wwt	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)-Total	mg/kg wwt	0.0048	0.0038	0.0050	<0.0020	<0.0020	<0.0020	0.0033	<0.0020	<0.0020	<0.0020	0.0023
Calcium (Ca)-Total	mg/kg wwt	4540	5540	5170	5050	6910	3190	4170	2510	3970	2340	3630
Cesium (Cs)-Total	mg/kg wwt	0.0667	0.674	0.0911	0.0404	0.147	0.139	0.151	0.0677	0.113	0.134	0.138
Chromium (Cr)-Total	mg/kg wwt	0.055	0.058	0.048	0.020	0.041	0.028	0.030	0.086	0.023	0.035	0.033
Cobalt (Co)-Total	mg/kg wwt	0.0048	0.0076	0.0043	0.0080	0.0141	0.0128	0.0148	0.0117	0.0129	0.0133	0.0132
Copper (Cu)-Total	mg/kg wwt	0.592	1.00	0.438	1.06	2.01	1.45	2.30	1.06	1.36	1.46	2.18
Gallium (Ga)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Iron (Fe)-Total	mg/kg wwt	13.4	16.7	13.4	15.8	28.7	17.3	37.5	14.9	15.4	18.5	31.6
Lead (Pb)-Total	mg/kg wwt	0.0368	0.0312	0.0257	0.0139	0.0342	0.0143	0.0283	0.0049	0.0060	0.0054	0.0241
Lithium (Li)-Total	mg/kg wwt	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Magnesium (Mg)-Total	mg/kg wwt	283	277	283	321	324	299	294	283	296	264	284
Manganese (Mn)-Total	mg/kg wwt	1.87	2.41	4.03	1.73	4.65	1.79	7.83	0.823	1.15	1.93	5.56
Mercury (Hg)-Total	mg/kg wwt	0.0381	0.0509	0.0282	0.0460	0.0566	0.0621	0.0447	0.0603	0.0566	0.0649	0.0544
Methyl Mercury	mg/kg wwt	-	-	0.0174								
Molybdenum (Mo)-Total	mg/kg wwt	0.0082	0.0206	0.0116	0.0103	0.0206	0.0110	0.0240	0.0104	0.0117	0.0154	0.0266
Nickel (Ni)-Total	mg/kg wwt	0.032	0.031	0.025	<0.020	<0.020	<0.020	0.028	0.036	<0.020	0.083	0.062

Water Body		Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT
Fish Sample ID		**9-046**	**9-047**	**9-048**	**2-010**	**2-015**	**2-016**	**2-020**	**2-021**	**2-022**	**2-023**	**2-025**
Date Sampled		**10-SEP-12**	**10-SEP-12**	**10-SEP-12**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**
Matrix		**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**
Physical Tests	**Unit**											
% Moisture	**%**	72.6	67.6	73.6	72.2	70.2	70.0	68.8	71.6	72.6	72.2	71.0
Metals												
Phosphorus (P)-Total	mg/kg wwt	4150	5250	5180	4640	5050	3540	3690	3260	3910	3010	3490
Potassium (K)-Total	mg/kg wwt	3010	2910	2890	3870	3420	3680	3460	3600	3830	3640	3590
Rhenium (Re)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Rubidium (Rb)-Total	mg/kg wwt	2.04	8.79	2.15	2.32	6.62	6.27	6.43	4.10	5.50	5.78	6.33
Selenium (Se)-Total	mg/kg wwt	0.143	0.198	0.168	0.122	0.159	0.148	0.118	0.104	0.144	0.127	0.156
Silver (Ag)-Total	mg/kg wwt	0.0094	0.0088	0.0017	0.0228	0.0267	0.0190	0.0256	0.0302	0.0161	0.0195	0.0426
Sodium (Na)-Total	mg/kg wwt	761	859	887	649	738	707	705	692	702	673	658
Strontium (Sr)-Total	mg/kg wwt	5.27	14.6	6.57	11.0	20.0	12.8	17.6	4.94	12.4	9.01	13.1
Tellurium (Te)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)-Total	mg/kg wwt	0.00578	0.0101	0.00688	0.00687	0.0119	0.0101	0.0122	0.00578	0.00840	0.00886	0.0119
Thorium (Th)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tin (Sn)-Total	mg/kg wwt	0.047	0.027	<0.020	0.0127	<0.0040	0.0137	0.0077	0.0060	<0.0040	<0.0040	0.0059
Titanium (Ti)-Total	mg/kg wwt	-	-	-	0.013	0.187	0.072	0.283	0.014	0.025	0.042	0.193
Uranium (U)-Total	mg/kg wwt	0.00625	0.00834	0.0184	0.00097	0.00437	0.00138	0.00521	0.00073	0.00113	0.00141	0.00436
Vanadium (V)-Total	mg/kg wwt	0.028	<0.016	0.019	<0.0040	0.0177	0.0058	0.0206	<0.0040	0.0048	0.0051	0.0156
Yttrium (Y)-Total	mg/kg wwt	<0.0020	0.0051	0.0023	<0.0020	0.0098	0.0035	0.0126	<0.0020	<0.0020	0.0032	0.0087
Zinc (Zn)-Total	mg/kg wwt	40.4	47.7	34.9	29.0	23.0	24.5	30.5	23.8	20.0	27.9	23.4
Zirconium (Zr)-Total	mg/kg wwt	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040

Note: ID - identification, mg/kg wwt - milligrams per kilogram wet weight, % - percent

Table 5.10-8A: Metal Concentrations in Rainbow Trout - Whole Fish, 2011 - 2012 (continued)

Water Body		Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT
Fish Sample ID		**2-026**	**2-028**	**9-017**	**9-018**	**9-019**	**9-020**	**9-021**	**9-022**	**9-023**	**9-024**
Date Sampled		**16-AUG-11**	**16-AUG-11**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**
Matrix		**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**
Physical Tests	**Unit**										
% Moisture	**%**	69.6	72.7	75.5	72.9	69.6	76.7	75.7	74.0	72.4	70.5
Metals											
Aluminum (Al)-Total	mg/kg wwt	4.85	9.28	8.26	0.55	1.58	0.69	2.86	0.85	8.03	0.54
Antimony (Sb)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total	mg/kg wwt	0.0644	0.0610	0.0804	0.0338	0.0609	0.0251	0.0449	0.0235	0.0731	0.0508
Barium (Ba)-Total	mg/kg wwt	1.14	2.16	1.74	0.825	1.55	0.501	3.02	0.265	2.56	0.769
Beryllium (Be)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total	mg/kg wwt	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)-Total	mg/kg wwt	<0.0020	0.0025	0.0028	<0.0020	<0.0020	<0.0020	<0.0020	0.0032	0.0021	0.0024
Calcium (Ca)-Total	mg/kg wwt	2930	3590	5550	13000	8650	3880	7890	4390	6350	4840
Cesium (Cs)-Total	mg/kg wwt	0.152	0.159	0.102	0.0560	0.106	0.0370	0.0636	0.0181	0.0808	0.0836
Chromium (Cr)-Total	mg/kg wwt	0.036	0.043	0.027	0.102	0.050	0.026	0.021	0.040	0.044	0.080
Cobalt (Co)-Total	mg/kg wwt	0.0120	0.0149	0.0183	0.0161	0.0155	0.0062	0.0118	0.0129	0.0181	0.0113
Copper (Cu)-Total	mg/kg wwt	1.74	2.85	1.28	0.347	0.534	0.490	0.606	0.858	1.16	0.636
Gallium (Ga)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Iron (Fe)-Total	mg/kg wwt	21.4	31.8	34.0	10.8	14.7	12.7	21.9	18.1	34.8	12.2
Lead (Pb)-Total	mg/kg wwt	0.0076	0.0231	0.175	0.0799	0.0407	0.0847	0.0744	0.115	0.0301	0.0794
Lithium (Li)-Total	mg/kg wwt	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Magnesium (Mg)-Total	mg/kg wwt	277	282	298	427	347	271	313	275	298	247
Manganese (Mn)-Total	mg/kg wwt	3.11	5.46	5.09	1.57	1.72	1.25	3.97	1.23	5.49	1.12
Mercury (Hg)-Total	mg/kg wwt	0.0703	0.0473	0.0771	0.0656	0.0531	0.0510	0.0801	0.120	0.0832	0.0361
Methyl Mercury	mg/kg wwt			-	-	-	0.0511	-	-	-	-
Molybdenum (Mo)-Total	mg/kg wwt	0.0184	0.0220	0.0216	0.0090	0.0114	0.0078	0.0102	0.0151	0.0189	0.0108
Nickel (Ni)-Total	mg/kg wwt	<0.020	0.023	0.015	0.042	0.029	<0.010	0.018	<0.010	0.021	0.049

Water Body		Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT
Fish Sample ID		**2-026**	**2-028**	**9-017**	**9-018**	**9-019**	**9-020**	**9-021**	**9-022**	**9-023**	**9-024**
Date Sampled		**16-AUG-11**	**16-AUG-11**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**
Matrix		**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**	**Whole Fish**
Physical Tests	**Unit**										
% Moisture	**%**	69.6	72.7	75.5	72.9	69.6	76.7	75.7	74.0	72.4	70.5
Metals											
Phosphorus (P)-Total	mg/kg wwt	3200	3400	4190	7910	6330	3620	6010	3880	4570	3970
Potassium (K)-Total	mg/kg wwt	3450	3530	3040	3660	3000	3170	3030	2980	2890	2460
Rhenium (Re)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Rubidium (Rb)-Total	mg/kg wwt	6.87	6.65	3.66	2.41	4.37	1.98	2.67	1.59	3.39	3.43
Selenium (Se)-Total	mg/kg wwt	0.133	0.130	0.182	0.142	0.132	0.131	0.166	0.226	0.184	0.121
Silver (Ag)-Total	mg/kg wwt	0.0257	0.0308	0.0112	<0.0010	0.0018	0.0024	0.0036	0.0129	0.0099	0.0033
Sodium (Na)-Total	mg/kg wwt	698	685	948	1060	904	798	940	851	905	680
Strontium (Sr)-Total	mg/kg wwt	10.7	15.8	17.6	18.2	27.6	7.78	24.9	6.77	23.4	13.5
Tellurium (Te)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)-Total	mg/kg wwt	0.0107	0.00981	0.00790	0.00731	0.0102	0.00868	0.00992	0.00499	0.0104	0.00580
Thorium (Th)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tin (Sn)-Total	mg/kg wwt	<0.0040	0.0085	0.027	<0.020	0.029	0.038	0.028	0.029	0.027	0.029
Titanium (Ti)-Total	mg/kg wwt	0.106	0.231	-	-	-	-	-	-	-	-
Uranium (U)-Total	mg/kg wwt	0.00279	0.00471	0.00630	0.00132	0.00211	0.00134	0.00334	0.00070	0.00628	0.00152
Vanadium (V)-Total	mg/kg wwt	0.0089	0.0184	0.022	<0.016	0.019	0.017	0.032	0.060	0.042	0.018
Yttrium (Y)-Total	mg/kg wwt	0.0057	0.0110	0.0119	<0.0020	0.0021	<0.0020	0.0031	<0.0020	0.0106	<0.0020
Zinc (Zn)-Total	mg/kg wwt	12.8	26.9	42.6	38.4	62.6	44.1	50.4	52.3	46.1	34.5
Zirconium (Zr)-Total	mg/kg wwt	<0.040	<0.040	<0.040	<0.040	0.074	<0.040	<0.040	<0.040	<0.040	<0.040

Note: ID - identification, mg/kg wwt - milligrams per kilogram wet weight, % - percent

Table 5.10-8A: Metal Concentrations in Rainbow Trout - Whole Fish, 2011 - 2012 (continued)

Water Body		QA/QC	QA/QC	QA/QC	QA/QC	QA/QC	QA/QC	QA/QC	QA/QC	QA/QC
Fish Sample ID		SPLIT 1 6-068 WHOLE FISH	SPLIT 2 16-007 WHOLE FISH	SPLIT 3 9-024 WHOLE FISH	SPLIT 4 9-046 WHOLE FISH	SPLIT 5 6-147 WHOLE FISH	SPLIT 6 6-192 WHOLE FISH	SPLIT 7 7-007 WHOLE FISH	2-016 SPLIT	3-021 SPLIT
Date Sampled									15-AUG-11	15-AUG-11
Matrix		Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue
Physical Tests	Unit									
% Moisture	%	72.7	71.6	66.0	71.0	75.3	69.9	78.7	71.1	72.2
Metals										
Aluminum (Al)-Total	mg/kg wwt	7.18	3.33	0.71	0.66	28.0	7.01	1.86	2.31	3.11
Antimony (Sb)-Total	mg/kg wwt	0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total	mg/kg wwt	0.0505	0.0669	0.0595	0.0249	0.0678	0.0373	0.0366	0.0513	0.0292
Barium (Ba)-Total	mg/kg wwt	0.450	0.539	0.795	0.240	0.575	0.710	0.411	0.767	0.244
Beryllium (Be)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total	mg/kg wwt	<0.20	<0.20	<0.20	<0.20	<0.20	0.39	0.66	<0.20	<0.20
Cadmium (Cd)-Total	mg/kg wwt	0.0242	0.0056	0.0032	0.0041	0.0271	0.0204	0.0061	<0.0020	0.0116
Calcium (Ca)-Total	mg/kg wwt	9600	4150	3830	4810	3420	10400	3500	2180	6750
Cesium (Cs)-Total	mg/kg wwt	0.0074	0.494	0.105	0.0664	0.0245	0.0167	0.0021	0.134	0.0097
Chromium (Cr)-Total	mg/kg wwt	0.039	0.040	0.111	0.035	0.053	0.016	0.079	0.021	0.145
Cobalt (Co)-Total	mg/kg wwt	0.0215	0.0184	0.0150	0.0045	0.0286	0.0153	0.0180	0.0126	0.0221
Copper (Cu)-Total	mg/kg wwt	0.913	1.43	0.854	0.593	0.897	1.51	0.703	1.69	1.28
Gallium (Ga)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	0.0093	<0.0040	<0.0040	<0.0040	<0.0040
Iron (Fe)-Total	mg/kg wwt	22.2	24.6	16.2	12.6	58.6	26.3	20.7	17.0	18.9
Lead (Pb)-Total	mg/kg wwt	0.0046	0.0388	0.111	0.0348	0.0111	<0.0040	0.0256	0.0095	0.0112
Lithium (Li)-Total	mg/kg wwt	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Magnesium (Mg)-Total	mg/kg wwt	404	247	264	282	295	391	251	259	352
Manganese (Mn)-Total	mg/kg wwt	3.59	1.45	1.43	1.97	4.52	6.06	2.10	1.31	2.38
Mercury (Hg)-Total	mg/kg wwt	0.0652	0.136	0.0391	0.0314	0.0597	0.0813	0.0641	0.0560	0.0384
Methyl Mercury	mg/kg wwt									
Molybdenum (Mo)-Total	mg/kg wwt	0.0288	0.0238	0.0127	0.0072	0.0196	0.0207	0.0210	0.0112	0.0151
Nickel (Ni)-Total	mg/kg wwt	0.020	0.023	0.095	0.020	0.040	0.067	0.045	<0.020	<0.050
Phosphorus (P)-Total	mg/kg wwt	7140	3600	3700	4260	3770	7560	3450	2960	5820
Potassium (K)-Total	mg/kg wwt	3850	2810	2900	2820	4020	3780	3170	3820	3970
Rhenium (Re)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Rubidium (Rb)-Total	mg/kg wwt	2.83	4.49	4.16	1.99	2.69	2.93	1.26	5.99	2.94
Selenium (Se)-Total	mg/kg wwt	0.778	0.263	0.154	0.144	0.688	1.07	0.346	0.147	1.49

Water Body		QA/QC	QA/QC	QA/QC	QA/QC	QA/QC	QA/QC	QA/QC	QA/QC	QA/QC
Fish Sample ID		SPLIT 1 6-068 WHOLE FISH	SPLIT 2 16-007 WHOLE FISH	SPLIT 3 9-024 WHOLE FISH	SPLIT 4 9-046 WHOLE FISH	SPLIT 5 6-147 WHOLE FISH	SPLIT 6 6-192 WHOLE FISH	SPLIT 7 7-007 WHOLE FISH	2-016 SPLIT	3-021 SPLIT
Date Sampled									15-AUG-11	15-AUG-11
Matrix		Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue
Physical Tests	Unit									
% Moisture	%	72.7	71.6	66.0	71.0	75.3	69.9	78.7	71.1	72.2
Metals										
Silver (Ag)-Total	mg/kg wwt	0.0061	0.0169	0.0040	0.0090	0.0040	0.0062	0.0033	0.0228	0.0084
Sodium (Na)-Total	mg/kg wwt	920	829	798	786	690	1000	1310	716	960
Strontium (Sr)-Total	mg/kg wwt	7.15	8.92	11.1	5.55	3.13	10.7	3.21	8.58	4.80
Tellurium (Te)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)-Total	mg/kg wwt	0.00402	0.00621	0.00632	0.00538	0.00379	0.00421	0.00102	0.00933	0.00540
Thorium (Th)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	0.0175	<0.0020	<0.0020	<0.0020	<0.0020
Tin (Sn)-Total	mg/kg wwt	0.0245	<0.020	0.029	0.037	0.0220	0.0328	0.031	0.0109	0.0067
Titanium (Ti)-Total	mg/kg wwt	0.756	-	-	-	2.13	0.382	-	0.059	0.167
Uranium (U)-Total	mg/kg wwt	0.00501	0.00911	0.00165	0.00686	0.00574	0.00349	0.00351	0.00123	0.00150
Vanadium (V)-Total	mg/kg wwt	0.0586	<0.016	0.021	0.024	0.164	0.0551	0.080	0.0048	0.0310
Yttrium (Y)-Total	mg/kg wwt	0.0062	0.0070	<0.0020	<0.0020	0.0256	0.0058	<0.0020	0.0031	0.0027
Zinc (Zn)-Total	mg/kg wwt	32.3	57.3	41.4	41.5	28.2	48.2	68.5	29.7	29.6
Zirconium (Zr)-Total	mg/kg wwt	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040

Note: ID - identification, mg/kg wwt - milligrams per kilogram wet weight, % - percent

Table 5.10-8B: Metal Concentrations in Rainbow Trout - Muscle Tissue, 2011 - 2012

Water Body		Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek
Sample ID		**1-025**	**1-026**	**1-162**	**1-164**	**1-165**	**3-092**	**3-093**	**3-094**	**6-144**	**6-147**	**6-148**
Date Sampled		**11-AUG-11**	**11-AUG-11**	**19-AUG-11**	**19-AUG-11**	**19-AUG-11**	**18-AUG-11**	**18-AUG-11**	**18-AUG-11**	**05-AUG-12**	**05-AUG-12**	**05-AUG-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	77.3	77.5	77.9	77.1	76.2	76.8	76.4	76.2	77.7	76.4	77.0
Metals												
Aluminum (Al)-Total	mg/kg wwt	<0.80	<1.2	<0.40	<0.40	0.51	3.62	<0.40	<0.40	<0.40	<0.40	<0.40
Antimony (Sb)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total	mg/kg wwt	0.0219	0.0179	0.0180	0.0134	0.0195	0.0402	0.0222	0.0224	0.269	0.0136	0.0189
Barium (Ba)-Total	mg/kg wwt	0.023	0.034	0.012	0.020	0.025	0.039	0.028	0.019	0.016	0.014	<0.010
Beryllium (Be)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	0.0022	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total	mg/kg wwt	0.78	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)-Total	mg/kg wwt	0.0043	0.0045	<0.0020	<0.0020	<0.0020	0.0027	0.0025	0.0039	0.0034	<0.0020	<0.0020
Calcium (Ca)-Total	mg/kg wwt	228	260	230	198	291	210	388	299	291	227	280
Cesium (Cs)-Total	mg/kg wwt	0.0915	0.0684	0.0598	0.0536	0.0534	0.206	0.0762	0.210	0.0077	0.0190	0.0057
Chromium (Cr)-Total	mg/kg wwt	0.022	0.042	<0.010	0.011	<0.010	0.015	<0.010	0.017	0.029	<0.010	<0.010
Cobalt (Co)-Total	mg/kg wwt	<0.0040	0.0045	0.0049	<0.0040	0.0048	0.0083	0.0068	<0.0040	0.0153	0.0053	0.0152
Copper (Cu)-Total	mg/kg wwt	0.494	0.769	0.546	0.516	0.345	0.566	0.521	0.475	0.374	0.325	0.381
Gallium (Ga)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Iron (Fe)-Total	mg/kg wwt	5.11	6.44	3.06	4.65	3.21	7.82	3.81	3.46	4.03	2.25	3.04
Lead (Pb)-Total	mg/kg wwt	<0.0040	0.0046	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Lithium (Li)-Total	mg/kg wwt	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Magnesium (Mg)-Total	mg/kg wwt	291	290	296	314	287	264	296	255	249	279	211
Manganese (Mn)-Total	mg/kg wwt	0.129	0.135	0.0886	0.185	0.172	0.271	0.147	0.126	0.0926	0.141	0.0980

Water Body		Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek
Sample ID		**1-025**	**1-026**	**1-162**	**1-164**	**1-165**	**3-092**	**3-093**	**3-094**	**6-144**	**6-147**	**6-148**
Date Sampled		**11-AUG-11**	**11-AUG-11**	**19-AUG-11**	**19-AUG-11**	**19-AUG-11**	**18-AUG-11**	**18-AUG-11**	**18-AUG-11**	**05-AUG-12**	**05-AUG-12**	**05-AUG-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	77.3	77.5	77.9	77.1	76.2	76.8	76.4	76.2	77.7	76.4	77.0
Metals												
Mercury (Hg)-Total	mg/kg wwt	0.116	0.109	0.0774	0.0858	0.0664	0.0690	0.0805	0.0849	0.0847	0.0695	0.0785
Methyl Mercury	mg/kg wwt									-	-	-
Molybdenum (Mo)-Total	mg/kg wwt	<0.0040	0.0045	0.0053	<0.0040	<0.0040	0.0046	0.0041	0.0040	<0.0040	<0.0040	<0.0040
Nickel (Ni)-Total	mg/kg wwt	<0.030	<0.020	<0.030	<0.010	<0.020	<0.030	<0.010	<0.020	0.018	0.065	0.012
Phosphorus (P)-Total	mg/kg wwt	2670	2710	2690	2800	2720	2590	2810	2600	2340	2540	2200
Potassium (K)-Total	mg/kg wwt	5510	5320	5230	5590	5570	5110	5300	4770	4500	4710	4040
Rhenium (Re)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Rubidium (Rb)-Total	mg/kg wwt	5.25	4.15	5.87	4.84	5.60	4.68	5.40	4.55	1.83	2.21	1.78
Selenium (Se)-Total	mg/kg wwt	0.458	0.481	0.441	0.357	0.440	0.377	0.531	0.469	0.452	0.543	0.385
Silver (Ag)-Total	mg/kg wwt	0.0015	0.0019	<0.0010	0.0035	<0.0010	<0.0010	<0.0010	<0.0010	0.0017	0.0011	<0.0010
Sodium (Na)-Total	mg/kg wwt	740	730	540	580	670	620	660	740	660	540	730
Strontium (Sr)-Total	mg/kg wwt	0.220	0.282	0.231	0.204	0.334	0.249	0.563	0.339	0.210	0.152	0.184
Tellurium (Te)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)-Total	mg/kg wwt	0.00676	0.00761	0.00507	0.00565	0.00435	0.00546	0.00566	0.00532	0.00224	0.00263	0.00182
Thorium (Th)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0051	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tin (Sn)-Total	mg/kg wwt	0.0120	0.0160	0.0074	<0.0040	0.0121	<0.0040	<0.0040	0.0087	0.0185	0.0124	0.0099
Titanium (Ti)-Total	mg/kg wwt	0.018	0.034	<0.010	<0.010	0.018	0.245	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium (U)-Total	mg/kg wwt	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	0.00080	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Vanadium (V)-Total	mg/kg wwt	<0.0040	<0.0040	0.0047	<0.0040	<0.0040	0.0049	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Yttrium (Y)-Total	mg/kg wwt	<0.0020	0.0021	<0.0020	<0.0020	<0.0020	0.0033	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Zinc (Zn)-Total	mg/kg wwt	8.86	8.47	5.75	6.50	5.57	6.31	6.30	8.42	6.75	5.07	7.88

Water Body		Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek
Sample ID		**1-025**	**1-026**	**1-162**	**1-164**	**1-165**	**3-092**	**3-093**	**3-094**	**6-144**	**6-147**	**6-148**
Date Sampled		**11-AUG-11**	**11-AUG-11**	**19-AUG-11**	**19-AUG-11**	**19-AUG-11**	**18-AUG-11**	**18-AUG-11**	**18-AUG-11**	**05-AUG-12**	**05-AUG-12**	**05-AUG-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	77.3	77.5	77.9	77.1	76.2	76.8	76.4	76.2	77.7	76.4	77.0
Metals												
Zirconium (Zr)-Total	mg/kg wwt	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040

Note: ID - identification, mg/kg wwt - milligrams per kilogram wet weight, % - percent

Table 5.10-8B: Metal Concentrations in Rainbow Trout - Muscle Tissue, 2011 - 2012 (continued)

Water Body		Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek
Sample ID		**6-149**	**6-163**	**6-165**	**6-166**	**6-167**	**3-006**	**3-009**	**3-010**	**3-011**	**3-012**	**3-017**
Date Sampled		**05-AUG-12**	**05-AUG-12**	**05-AUG-12**	**05-AUG-12**	**05-AUG-12**	**11-AUG-11**	**12-AUG-11**	**12-AUG-11**	**12-AUG-11**	**12-AUG-11**	**13-AUG-11**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	80.0	75.2	76.0	76.5	76.5	77.0	74.4	73.8	75.9	73.4	76.9
Metals												
Aluminum (Al)-Total	mg/kg wwt	0.85	<0.40	0.41	<0.40	<0.40	<0.40	0.85	0.72	0.79	1.44	0.77
Antimony (Sb)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total	mg/kg wwt	0.0229	0.0453	0.0116	0.0280	0.0153	0.0267	0.0229	0.0181	0.0302	0.0205	0.0196
Barium (Ba)-Total	mg/kg wwt	0.042	0.015	0.014	0.014	0.013	0.046	0.120	0.256	0.052	0.110	0.043
Beryllium (Be)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0023	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total	mg/kg wwt	<0.20	<0.20	0.57	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)-Total	mg/kg wwt	0.0034	0.0085	<0.0020	0.0038	<0.0020	0.0076	0.0192	0.0137	0.0153	0.0089	0.0167
Calcium (Ca)-Total	mg/kg wwt	227	319	328	219	357	352	1620	2680	576	2440	514
Cesium (Cs)-Total	mg/kg wwt	0.0065	0.0135	0.0121	0.0251	0.0076	0.0197	0.0318	0.0384	0.0265	0.0210	0.0400
Chromium (Cr)-Total	mg/kg wwt	<0.010	<0.010	<0.010	0.011	<0.010	0.019	0.038	0.053	0.030	0.047	0.032
Cobalt (Co)-Total	mg/kg wwt	0.0124	0.0354	0.0079	0.0134	0.0065	0.0137	0.0095	0.0066	0.0139	0.0082	0.0108
Copper (Cu)-Total	mg/kg wwt	0.470	0.623	0.470	0.694	0.251	0.590	0.579	0.642	0.583	0.599	0.541
Gallium (Ga)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Iron (Fe)-Total	mg/kg wwt	3.83	2.71	3.38	4.84	2.80	3.92	6.38	3.65	4.46	7.28	4.03

Water Body		Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek
Sample ID		**6-149**	**6-163**	**6-165**	**6-166**	**6-167**	**3-006**	**3-009**	**3-010**	**3-011**	**3-012**	**3-017**
Date Sampled		**05-AUG-12**	**05-AUG-12**	**05-AUG-12**	**05-AUG-12**	**05-AUG-12**	**11-AUG-11**	**12-AUG-11**	**12-AUG-11**	**12-AUG-11**	**12-AUG-11**	**13-AUG-11**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	80.0	75.2	76.0	76.5	76.5	77.0	74.4	73.8	75.9	73.4	76.9
Metals												
Lead (Pb)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0051	<0.0040	<0.0040	0.0062	<0.0040
Lithium (Li)-Total	mg/kg wwt	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Magnesium (Mg)-Total	mg/kg wwt	193	260	298	244	314	260	289	301	251	295	262
Manganese (Mn)-Total	mg/kg wwt	0.555	0.141	0.110	0.120	0.0992	0.168	0.514	0.810	0.275	0.995	0.171
Mercury (Hg)-Total	mg/kg wwt	0.0528	0.0782	0.0948	0.0837	0.107	0.0872	0.0471	0.115	0.0507	0.0741	0.0535
Methyl Mercury	mg/kg wwt	-	-	-	-	-						
Molybdenum (Mo)-Total	mg/kg wwt	<0.0040	0.0055	0.0041	0.0053	<0.0040	0.0060	0.0085	0.0076	0.0055	0.0088	0.0050
Nickel (Ni)-Total	mg/kg wwt	<0.010	0.011	0.014	<0.010	<0.010	0.018	0.025	0.033	0.026	0.028	0.032
Phosphorus (P)-Total	mg/kg wwt	1830	2510	2890	2360	2980	2450	3190	3770	2430	3560	2570
Potassium (K)-Total	mg/kg wwt	3630	4470	5300	4510	6040	4350	4120	3850	4150	3930	4350
Rhenium (Re)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Rubidium (Rb)-Total	mg/kg wwt	2.15	3.25	2.00	4.22	1.58	5.02	5.28	5.30	5.34	4.26	7.97
Selenium (Se)-Total	mg/kg wwt	0.365	0.682	0.575	0.910	0.388	0.428	0.385	0.336	0.359	0.400	0.151
Silver (Ag)-Total	mg/kg wwt	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0069	0.0034	0.0035	0.0025	0.0044	0.0033
Sodium (Na)-Total	mg/kg wwt	320	730	970	770	990	660	860	870	890	780	790

Water Body		Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek
Sample ID		**6-149**	**6-163**	**6-165**	**6-166**	**6-167**	**3-006**	**3-009**	**3-010**	**3-011**	**3-012**	**3-017**
Date Sampled		**05-AUG-12**	**05-AUG-12**	**05-AUG-12**	**05-AUG-12**	**05-AUG-12**	**11-AUG-11**	**12-AUG-11**	**12-AUG-11**	**12-AUG-11**	**12-AUG-11**	**13-AUG-11**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	80.0	75.2	76.0	76.5	76.5	77.0	74.4	73.8	75.9	73.4	76.9
Metals												
Strontium (Sr)-Total	mg/kg wwt	0.244	0.255	0.179	0.221	0.143	0.326	1.87	3.32	0.557	2.32	0.611
Tellurium (Te)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)-Total	mg/kg wwt	0.00199	0.00488	0.00270	0.00466	0.00185	0.00375	0.00450	0.00552	0.00514	0.00352	0.00468
Thorium (Th)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tin (Sn)-Total	mg/kg wwt	0.0175	0.0124	0.0081	0.0098	0.0108	<0.016	<0.0040	<0.016	<0.012	<0.0080	<0.0080
Titanium (Ti)-Total	mg/kg wwt	0.072	<0.010	0.026	<0.010	<0.010	0.015	0.044	0.053	0.033	0.082	0.027
Uranium (U)-Total	mg/kg wwt	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	0.00142	0.00177	0.00067	0.00082	<0.00040
Vanadium (V)-Total	mg/kg wwt	0.0055	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0072	0.0133	0.0070	0.0088	<0.0040
Yttrium (Y)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Zinc (Zn)-Total	mg/kg wwt	10.4	6.83	5.72	11.0	4.29	9.95	12.7	13.4	8.56	14.2	9.65
Zirconium (Zr)-Total	mg/kg wwt	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040

Note: ID - identification, mg/kg wwt - milligrams per kilogram wet weight, % - percent

Table 5.10-8B: Metal Concentrations in Rainbow Trout - Muscle Tissue, 2011 - 2012 (continued)

Water Body		Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Creek 661	Creek 661	Creek 661
Sample ID		**6-192**	**6-193**	**6-194**	**6-195**	**6-196**	**6-197**	**6-198**	**6-199**	**6-002**	**6-003**	**6-004**
Date Sampled		**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**02-AUG-12**	**02-AUG-12**	**02-AUG-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	74.3	75.4	74.5	76.5	74.9	75.5	74.3	74.6	75.7	72.1	76.4
Metals												
Aluminum (Al)-Total	mg/kg wwt	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	3.83	<0.40
Antimony (Sb)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total	mg/kg wwt	0.0071	0.0186	0.0233	0.0225	0.0157	0.0402	0.0284	0.0406	0.0295	0.0463	0.0302
Barium (Ba)-Total	mg/kg wwt	<0.010	0.019	0.018	0.010	0.016	0.018	0.011	0.031	<0.010	0.035	0.011
Beryllium (Be)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0022	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total	mg/kg wwt	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.31
Cadmium (Cd)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0031	<0.0020	0.0029	<0.0020	<0.0020	0.0047
Calcium (Ca)-Total	mg/kg wwt	380	283	408	352	410	269	348	438	294	428	281
Cesium (Cs)-Total	mg/kg wwt	0.0058	0.0086	0.0036	0.0056	0.0059	0.0080	0.0038	0.0052	0.0089	0.0050	0.0061
Chromium (Cr)-Total	mg/kg wwt	<0.010	<0.010	<0.010	<0.010	0.069	0.032	<0.010	<0.010	<0.010	<0.010	0.015
Cobalt (Co)-Total	mg/kg wwt	<0.0040	0.0097	0.0131	0.0125	0.0114	0.0066	0.0083	0.0140	0.0169	0.0246	0.0146
Copper (Cu)-Total	mg/kg wwt	0.405	0.398	0.346	0.426	0.645	0.658	0.321	0.404	0.632	0.668	0.491
Gallium (Ga)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Iron (Fe)-Total	mg/kg wwt	2.66	2.69	1.65	2.67	4.38	4.21	1.69	2.89	3.55	6.36	3.85
Lead (Pb)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0057	<0.0040
Lithium (Li)-Total	mg/kg wwt	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Magnesium (Mg)-Total	mg/kg wwt	338	265	257	277	242	252	249	318	231	223	247
Manganese (Mn)-Total	mg/kg wwt	0.100	0.139	0.143	0.0942	0.122	0.114	0.282	0.932	0.156	0.296	0.127

Water Body		Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Creek 661	Creek 661	Creek 661
Sample ID		**6-192**	**6-193**	**6-194**	**6-195**	**6-196**	**6-197**	**6-198**	**6-199**	**6-002**	**6-003**	**6-004**
Date Sampled		**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**02-AUG-12**	**02-AUG-12**	**02-AUG-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	74.3	75.4	74.5	76.5	74.9	75.5	74.3	74.6	75.7	72.1	76.4
Metals												
Mercury (Hg)-Total	mg/kg wwt	0.210	0.0942	0.0734	0.0927	0.0928	0.125	0.113	0.103	0.122	0.119	0.123
Methyl Mercury	mg/kg wwt	-	-	-	-	-	-	-	-	-	-	-
Molybdenum (Mo)-Total	mg/kg wwt	<0.0040	0.0052	<0.0040	0.0045	0.0045	0.0055	<0.0040	0.0057	0.0043	0.0055	0.0050
Nickel (Ni)-Total	mg/kg wwt	<0.010	0.021	0.020	<0.010	0.013	0.031	<0.010	<0.010	0.030	0.014	<0.010
Phosphorus (P)-Total	mg/kg wwt	3030	2430	2420	2520	2420	2280	2190	2900	2380	2420	2440
Potassium (K)-Total	mg/kg wwt	5380	4480	4470	4590	4480	3720	3930	5240	4350	3840	4950
Rhenium (Re)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Rubidium (Rb)-Total	mg/kg wwt	1.21	3.17	1.94	2.56	2.45	2.03	1.25	2.10	3.23	2.38	2.74
Selenium (Se)-Total	mg/kg wwt	0.329	0.748	0.461	0.522	0.465	0.604	0.679	0.746	0.769	0.528	0.668
Silver (Ag)-Total	mg/kg wwt	<0.0010	<0.0010	<0.0010	<0.0030	<0.0020	<0.0010	<0.0010	<0.0010	0.0020	<0.0010	0.0030
Sodium (Na)-Total	mg/kg wwt	680	660	750	800	740	712	850	900	780	880	1010
Strontium (Sr)-Total	mg/kg wwt	0.103	0.158	0.227	0.229	0.221	0.201	0.162	0.278	0.177	0.287	0.160
Tellurium (Te)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)-Total	mg/kg wwt	0.00112	0.00284	0.00251	0.00287	0.00235	0.00218	0.00154	0.00233	0.00297	0.00237	0.00250
Thorium (Th)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0060	<0.0020
Tin (Sn)-Total	mg/kg wwt	0.0073	0.0344	0.0089	0.0201	0.0246	0.0102	0.0088	0.0149	0.0130	0.0136	0.0068
Titanium (Ti)-Total	mg/kg wwt	<0.010	<0.010	0.028	<0.010	<0.010	0.010	<0.010	<0.010	<0.010	0.121	<0.010
Uranium (U)-Total	mg/kg wwt	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	0.00190	<0.00040
Vanadium (V)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0088	<0.0040
Yttrium (Y)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0034	<0.0020
Zinc (Zn)-Total	mg/kg wwt	3.52	9.81	7.37	8.68	8.98	7.33	6.27	9.68	8.82	8.43	7.44

Water Body		Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Turtle Creek	Creek 661	Creek 661	Creek 661
Sample ID		**6-192**	**6-193**	**6-194**	**6-195**	**6-196**	**6-197**	**6-198**	**6-199**	**6-002**	**6-003**	**6-004**
Date Sampled		**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**09-AUG-12**	**02-AUG-12**	**02-AUG-12**	**02-AUG-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	74.3	75.4	74.5	76.5	74.9	75.5	74.3	74.6	75.7	72.1	76.4
Metals												
Zirconium (Zr)-Total	mg/kg wwt	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040

Note: ID - identification, mg/kg wwt - milligrams per kilogram wet weight, % - percent

Table 5.10-8B: Metal Concentrations in Rainbow Trout - Muscle Tissue, 2011 - 2012 (continued)

Water Body		Creek 661	Creek 661	Creek 661	Creek 661	Creek 661	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek
Sample ID		**6-005**	**6-067**	**6-068**	**6-069**	**6-070**	**7-001**	**7-002**	**7-003**	**7-004**	**7-005**	**7-006**
Date Sampled		**02-AUG-12**	**03-AUG-12**	**03-AUG-12**	**03-AUG-12**	**03-AUG-12**	**05-SEP-12**	**05-SEP-12**	**05-SEP-12**	**05-SEP-12**	**05-SEP-12**	**05-SEP-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	75.4	76.6	73.2	75.1	77.3	78.5	77.7	78.2	76.9	77.4	80.7
Metals												
Aluminum (Al)-Total	mg/kg wwt	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Antimony (Sb)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total	mg/kg wwt	0.0600	0.0290	0.0223	0.0416	0.0341	0.0650	0.0779	0.0161	0.0062	0.0596	0.112
Barium (Ba)-Total	mg/kg wwt	0.017	0.015	0.021	0.021	0.032	0.014	0.017	0.017	<0.010	<0.010	0.011
Beryllium (Be)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total	mg/kg wwt	<0.20	<0.20	0.25	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)-Total	mg/kg wwt	0.0036	<0.0020	0.0022	<0.0020	0.0065	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Calcium (Ca)-Total	mg/kg wwt	517	354	384	535	574	162	396	306	56.5	131	107
Cesium (Cs)-Total	mg/kg wwt	0.0066	0.0083	0.0055	0.0047	0.0096	0.0057	0.0039	0.0039	<0.0010	0.0029	0.0033
Chromium (Cr)-Total	mg/kg wwt	<0.010	0.011	<0.010	0.017	0.032	0.012	0.017	0.011	<0.010	0.022	<0.010
Cobalt (Co)-Total	mg/kg wwt	0.0326	0.0121	0.0102	0.0107	0.0129	0.0059	0.0082	0.0062	<0.0040	0.0064	<0.0040
Copper (Cu)-Total	mg/kg wwt	0.581	0.519	0.480	0.465	0.457	0.337	0.275	0.220	0.053	0.332	0.205
Gallium (Ga)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Iron (Fe)-Total	mg/kg wwt	2.30	3.62	2.53	3.25	4.64	3.11	3.25	2.10	0.74	3.65	2.90
Lead (Pb)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Lithium (Li)-Total	mg/kg wwt	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Magnesium (Mg)-Total	mg/kg wwt	232	241	233	335	271	311	294	273	67.2	246	237
Manganese (Mn)-Total	mg/kg wwt	0.526	0.130	0.269	0.210	0.198	0.160	0.288	0.180	0.0367	0.0824	0.0993

Water Body		Creek 661	Creek 661	Creek 661	Creek 661	Creek 661	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek
Sample ID		**6-005**	**6-067**	**6-068**	**6-069**	**6-070**	**7-001**	**7-002**	**7-003**	**7-004**	**7-005**	**7-006**
Date Sampled		**02-AUG-12**	**03-AUG-12**	**03-AUG-12**	**03-AUG-12**	**03-AUG-12**	**05-SEP-12**	**05-SEP-12**	**05-SEP-12**	**05-SEP-12**	**05-SEP-12**	**05-SEP-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	75.4	76.6	73.2	75.1	77.3	78.5	77.7	78.2	76.9	77.4	80.7
Metals												
Mercury (Hg)-Total	mg/kg wwt	0.0898	0.0773	0.0962	0.0741	0.115	0.0719	0.0526	0.0739	0.0122	0.0551	0.0763
Methyl Mercury	mg/kg wwt	-	-	-	0.031	-	-	-	0.0140	-	-	-
Molybdenum (Mo)-Total	mg/kg wwt	0.0056	0.0050	0.0072	0.0066	0.0090	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Nickel (Ni)-Total	mg/kg wwt	0.014	0.018	0.020	<0.030	<0.040	0.014	0.020	<0.010	<0.010	0.023	0.011
Phosphorus (P)-Total	mg/kg wwt	2430	2280	2190	3260	2660	2320	2390	2460	528	2230	2230
Potassium (K)-Total	mg/kg wwt	3970	4260	3830	5660	4850	4790	4780	3650	1120	4350	3640
Rhenium (Re)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Rubidium (Rb)-Total	mg/kg wwt	3.42	2.81	2.50	2.38	3.02	2.77	2.53	2.74	0.579	1.62	2.05
Selenium (Se)-Total	mg/kg wwt	0.601	0.727	0.640	0.860	0.856	0.221	0.212	0.224	0.043	0.277	0.270
Silver (Ag)-Total	mg/kg wwt	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0013	<0.0010
Sodium (Na)-Total	mg/kg wwt	860	810	740	920	1140	531	512	576	116	590	656
Strontium (Sr)-Total	mg/kg wwt	0.339	0.266	0.276	0.321	0.403	0.108	0.279	0.211	0.037	0.085	0.081
Tellurium (Te)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)-Total	mg/kg wwt	0.00280	0.00216	0.00227	0.00201	0.00277	0.00131	0.00202	0.00139	0.00042	0.00137	0.00214
Thorium (Th)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tin (Sn)-Total	mg/kg wwt	0.0136	0.0286	0.0115	0.0217	0.0128	0.0170	0.0193	0.0048	0.0048	0.0046	<0.0040
Titanium (Ti)-Total	mg/kg wwt	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.043	<0.010	0.026	<0.010	<0.010
Uranium (U)-Total	mg/kg wwt	<0.00040	<0.00040	<0.00040	<0.00040	0.00048	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Vanadium (V)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	0.0042	0.0054	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Yttrium (Y)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020

Water Body		Creek 661	Creek 661	Creek 661	Creek 661	Creek 661	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek
Sample ID		**6-005**	**6-067**	**6-068**	**6-069**	**6-070**	**7-001**	**7-002**	**7-003**	**7-004**	**7-005**	**7-006**
Date Sampled		**02-AUG-12**	**03-AUG-12**	**03-AUG-12**	**03-AUG-12**	**03-AUG-12**	**05-SEP-12**	**05-SEP-12**	**05-SEP-12**	**05-SEP-12**	**05-SEP-12**	**05-SEP-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	75.4	76.6	73.2	75.1	77.3	78.5	77.7	78.2	76.9	77.4	80.7
Metals												
Zinc (Zn)-Total	mg/kg wwt	9.03	6.89	7.40	8.84	14.2	5.53	5.78	5.32	0.92	4.57	4.48
Zirconium (Zr)-Total	mg/kg wwt	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040

Note: ID - identification, mg/kg wwt - milligrams per kilogram wet weight, % - percent

Table 5.10-8B: Metal Concentrations in Rainbow Trout - Muscle Tissue, 2011 - 2012 (continued)

Water Body		Chedakuz Creek	Chedakuz Creek	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01538UEUT
Sample ID		**7-007**	**7-008**	**16-006**	**16-007**	**16-008**	**16-009**	**16-010**	**16-011**	**16-015**	**16-017**	**V705LK-002**
Date Sampled		**05-SEP-12**	**05-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**13-AUG-11**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	78.8	82.3	74.6	74.9	73.9	76.3	74.7	75.5	76.3	74.9	76.9
Metals												
Aluminum (Al)-Total	mg/kg wwt	<0.40	3.67	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Antimony (Sb)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total	mg/kg wwt	0.0170	0.190	0.0272	0.0207	0.0266	0.0385	0.0462	0.0360	0.0465	0.0788	0.0182
Barium (Ba)-Total	mg/kg wwt	0.013	0.066	<0.010	<0.010	<0.010	<0.010	<0.010	0.011	<0.010	<0.010	0.022
Beryllium (Be)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total	mg/kg wwt	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)-Total	mg/kg wwt	<0.0020	0.0025	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Calcium (Ca)-Total	mg/kg wwt	171	229	86.1	111	127	105	96.5	111	88.1	125	246
Cesium (Cs)-Total	mg/kg wwt	0.0022	0.0041	1.40	0.620	0.299	0.817	1.24	0.653	0.476	0.697	0.175
Chromium (Cr)-Total	mg/kg wwt	<0.010	0.019	<0.010	0.010	0.025	<0.010	<0.010	<0.010	<0.010	0.017	0.026
Cobalt (Co)-Total	mg/kg wwt	<0.0040	0.0063	<0.0040	<0.0040	0.0056	<0.0040	<0.0040	<0.0040	<0.0040	0.0047	<0.0040
Copper (Cu)-Total	mg/kg wwt	0.273	0.328	0.356	0.550	0.414	0.554	0.553	0.477	0.329	0.544	0.283
Gallium (Ga)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Iron (Fe)-Total	mg/kg wwt	4.02	7.94	2.38	2.38	3.62	4.96	3.44	3.58	3.17	4.56	4.12
Lead (Pb)-Total	mg/kg wwt	<0.0040	0.0144	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0092
Lithium (Li)-Total	mg/kg wwt	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Magnesium (Mg)-Total	mg/kg wwt	262	216	303	284	287	272	281	301	301	292	274
Manganese (Mn)-Total	mg/kg wwt	0.0978	0.292	0.0741	0.0736	0.0826	0.0868	0.0693	0.0834	0.0803	0.120	0.106

Water Body		Chedakuz Creek	Chedakuz Creek	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01538UEUT
Sample ID		**7-007**	**7-008**	**16-006**	**16-007**	**16-008**	**16-009**	**16-010**	**16-011**	**16-015**	**16-017**	**V705LK-002**
Date Sampled		**05-SEP-12**	**05-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**13-AUG-11**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	78.8	82.3	74.6	74.9	73.9	76.3	74.7	75.5	76.3	74.9	76.9
Metals												
Mercury (Hg)-Total	mg/kg wwt	0.0767	0.0772	0.259	0.254	0.148	0.231	0.294	0.246	0.118	0.115	0.0867
Methyl Mercury	mg/kg wwt	-	-	-	-	-	-	-	0.136	-	-	
Molybdenum (Mo)-Total	mg/kg wwt	<0.0040	0.0041	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0040
Nickel (Ni)-Total	mg/kg wwt	<0.010	0.047	0.013	0.031	0.024	0.024	0.014	0.021	0.012	0.018	<0.010
Phosphorus (P)-Total	mg/kg wwt	2380	2100	2370	2300	2330	2230	2220	2390	2480	2350	2370
Potassium (K)-Total	mg/kg wwt	4520	4280	4580	3470	4200	4030	4000	4200	4550	4510	4560
Rhenium (Re)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Rubidium (Rb)-Total	mg/kg wwt	1.50	2.06	10.7	5.55	4.48	7.60	9.16	6.06	5.90	5.61	4.72
Selenium (Se)-Total	mg/kg wwt	0.288	0.207	0.150	0.132	0.169	0.143	0.150	0.149	0.165	0.150	0.134
Silver (Ag)-Total	mg/kg wwt	0.0015	0.0025	0.0012	<0.0010	0.0011	<0.0010	<0.0010	0.0018	<0.0010	0.0011	0.0012
Sodium (Na)-Total	mg/kg wwt	616	718	384	443	440	507	413	387	367	430	409
Strontium (Sr)-Total	mg/kg wwt	0.117	0.228	0.143	0.175	0.161	0.173	0.146	0.143	0.132	0.214	0.350
Tellurium (Te)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)-Total	mg/kg wwt	0.00062	0.00245	0.00852	0.00515	0.00515	0.00559	0.00849	0.00745	0.00668	0.00678	0.00479
Thorium (Th)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tin (Sn)-Total	mg/kg wwt	<0.0040	0.0081	<0.0040	0.0105	<0.0040	0.0065	0.0074	0.0068	0.0084	0.0064	<0.0040
Titanium (Ti)-Total	mg/kg wwt	0.041	0.164	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium (U)-Total	mg/kg wwt	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Vanadium (V)-Total	mg/kg wwt	<0.0040	0.0087	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Yttrium (Y)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020

Water Body		Chedakuz Creek	Chedakuz Creek	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01538UEUT
Sample ID		**7-007**	**7-008**	**16-006**	**16-007**	**16-008**	**16-009**	**16-010**	**16-011**	**16-015**	**16-017**	**V705LK-002**
Date Sampled		**05-SEP-12**	**05-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**13-AUG-11**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	78.8	82.3	74.6	74.9	73.9	76.3	74.7	75.5	76.3	74.9	76.9
Metals												
Zinc (Zn)-Total	mg/kg wwt	4.83	8.19	3.85	5.04	5.46	4.39	4.52	5.10	4.85	4.64	4.74
Zirconium (Zr)-Total	mg/kg wwt	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040

Note: ID - identification, mg/kg wwt - milligrams per kilogram wet weight, % - percent

Table 5.10-8B: Metal Concentrations in Rainbow Trout - Muscle Tissue, 2011 - 2012 (continued)

Water Body		Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT
Sample ID		**V705LK-006A**	**V705LK-010**	**V705LK-012**	**V705LK-013**	**V705LK-015**	**V705LK-016**	**9-038**	**9-042**	**9-043**	**9-044**	**9-045**
Date Sampled		**13-AUG-11**	**13-AUG-11**	**13-AUG-11**	**13-AUG-11**	**13-AUG-11**	**13-AUG-11**	**10-SEP-12**	**10-SEP-12**	**10-SEP-12**	**10-SEP-12**	**10-SEP-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	79.6	76.7	76.6	77.3	77.4	76.0	75.0	76.2	75.7	75.5	75.3
Metals												
Aluminum (Al)-Total	mg/kg wwt	<0.40	<0.40	<0.40	<0.40	0.41	0.63	<0.40	<0.40	<0.40	<0.40	<0.40
Antimony (Sb)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total	mg/kg wwt	0.0199	0.0194	0.0154	0.0090	0.0080	0.0156	0.0205	0.0219	0.0190	0.0145	0.0179
Barium (Ba)-Total	mg/kg wwt	0.022	0.036	0.016	0.029	0.036	0.027	0.042	0.018	<0.010	0.019	0.041
Beryllium (Be)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total	mg/kg wwt	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Calcium (Ca)-Total	mg/kg wwt	242	421	196	405	423	425	212	270	204	379	356
Cesium (Cs)-Total	mg/kg wwt	0.253	0.289	0.138	0.0884	0.111	0.254	0.100	0.140	0.143	0.0925	0.112
Chromium (Cr)-Total	mg/kg wwt	0.013	0.023	0.010	0.013	0.011	0.015	0.027	0.015	0.016	0.036	0.028
Cobalt (Co)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0073	0.0055	0.0051	0.0043	<0.0040
Copper (Cu)-Total	mg/kg wwt	0.256	0.315	0.241	0.275	0.270	0.305	0.293	0.195	0.212	0.360	0.257
Gallium (Ga)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Iron (Fe)-Total	mg/kg wwt	2.95	3.24	2.74	2.76	2.88	3.88	4.11	3.36	2.97	3.94	4.04
Lead (Pb)-Total	mg/kg wwt	0.0104	0.0076	0.0042	0.0046	0.0106	0.0108	0.0058	0.0055	0.0105	0.0109	<0.0040
Lithium (Li)-Total	mg/kg wwt	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020

Water Body		Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT
Sample ID		V705LK-006A	V705LK-010	V705LK-012	V705LK-013	V705LK-015	V705LK-016	9-038	9-042	9-043	9-044	9-045
Date Sampled		13-AUG-11	13-AUG-11	13-AUG-11	13-AUG-11	13-AUG-11	13-AUG-11	10-SEP-12	10-SEP-12	10-SEP-12	10-SEP-12	10-SEP-12
Matrix		Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue
Physical Tests	**Unit**											
% Moisture	%	79.6	76.7	76.6	77.3	77.4	76.0	75.0	76.2	75.7	75.5	75.3
Metals												
Magnesium (Mg)-Total	mg/kg wwt	264	286	277	271	277	289	261	264	276	262	271
Manganese (Mn)-Total	mg/kg wwt	0.115	0.139	0.115	0.246	0.300	0.139	0.162	0.108	0.0927	0.114	0.700
Mercury (Hg)-Total	mg/kg wwt	0.102	0.0943	0.0619	0.0620	0.0494	0.0686	0.0933	0.101	0.0971	0.108	0.106
Methyl Mercury	mg/kg wwt							-	-	-	-	-
Molybdenum (Mo)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0040	0.0043
Nickel (Ni)-Total	mg/kg wwt	<0.010	0.014	<0.010	<0.010	<0.010	0.014	0.024	0.025	0.024	0.030	0.032
Phosphorus (P)-Total	mg/kg wwt	2390	2480	2360	2400	2410	2470	2390	2380	2450	2450	2420
Potassium (K)-Total	mg/kg wwt	4480	4330	4510	4450	4360	4390	3770	3820	4390	4260	3590
Rhenium (Re)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Rubidium (Rb)-Total	mg/kg wwt	4.65	5.66	3.83	3.63	4.14	4.77	2.99	3.28	3.33	2.86	3.38
Selenium (Se)-Total	mg/kg wwt	0.087	0.118	0.087	0.114	0.092	0.094	0.177	0.154	0.141	0.153	0.118
Silver (Ag)-Total	mg/kg wwt	0.0015	0.0026	0.0015	0.0014	0.0011	0.0016	<0.0010	<0.0010	<0.0010	0.0031	<0.0010
Sodium (Na)-Total	mg/kg wwt	497	412	386	377	344	383	491	418	464	555	514
Strontium (Sr)-Total	mg/kg wwt	0.348	0.588	0.251	0.521	0.481	0.525	0.335	0.311	0.268	0.381	0.429
Tellurium (Te)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)-Total	mg/kg wwt	0.00532	0.00550	0.00358	0.00353	0.00445	0.00516	0.00449	0.00361	0.00373	0.00388	0.00433
Thorium (Th)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tin (Sn)-Total	mg/kg	0.0044	0.0154	0.0061	<0.0040	0.0122	<0.0040	<0.0040	0.0133	0.0208	0.0081	0.0135

Water Body		Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT
Sample ID		**V705LK-006A**	**V705LK-010**	**V705LK-012**	**V705LK-013**	**V705LK-015**	**V705LK-016**	**9-038**	**9-042**	**9-043**	**9-044**	**9-045**
Date Sampled		**13-AUG-11**	**13-AUG-11**	**13-AUG-11**	**13-AUG-11**	**13-AUG-11**	**13-AUG-11**	**10-SEP-12**	**10-SEP-12**	**10-SEP-12**	**10-SEP-12**	**10-SEP-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	79.6	76.7	76.6	77.3	77.4	76.0	75.0	76.2	75.7	75.5	75.3
Metals												
	wwt											
Titanium (Ti)-Total	mg/kg wwt	<0.010	<0.010	<0.010	<0.010	0.017	0.028	0.016	0.011	<0.010	0.015	0.011
Uranium (U)-Total	mg/kg wwt	<0.00040	<0.00040	<0.00040	<0.00040	0.00063	<0.00040	0.00042	<0.00040	<0.00040	<0.00040	0.00203
Vanadium (V)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Yttrium (Y)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Zinc (Zn)-Total	mg/kg wwt	4.55	5.10	4.19	4.75	4.88	4.39	6.84	6.71	6.32	7.87	7.67
Zirconium (Zr)-Total	mg/kg wwt	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040

Note: ID - identification, mg/kg wwt - milligrams per kilogram wet weight, % - percent

Table 5.10-8B: Metal Concentrations in Rainbow Trout - Muscle Tissue, 2011 - 2012 (continued)

Water Body		Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 0148UEUT	Lake 0148UEUT	Lake 0148UEUT
Sample ID		**9-046**	**9-047**	**9-048**	**2-011**	**2-013**	**2-017**	**2-018**	**2-024**	**9-017**	**9-018**	**9-019**
Date Sampled		**10-SEP-12**	**10-SEP-12**	**10-SEP-12**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	77.0	75.6	77.1	74.6	74.0	76.0	73.7	75.7	78.0	95.7	75.8
Metals												
Aluminum (Al)-Total	mg/kg wwt	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Antimony (Sb)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total	mg/kg wwt	0.0080	0.0486	0.0114	0.0390	0.0258	0.0210	0.0288	0.0158	0.0677	0.0359	0.0707
Barium (Ba)-Total	mg/kg wwt	<0.010	0.031	0.045	0.089	0.046	0.034	0.047	0.038	0.030	0.058	0.113
Beryllium (Be)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total	mg/kg wwt	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Calcium (Ca)-Total	mg/kg wwt	131	331	332	679	230	271	397	467	152	364	618
Cesium (Cs)-Total	mg/kg wwt	0.0850	0.795	0.116	0.152	0.150	0.0756	0.178	0.0430	0.117	0.0990	0.138
Chromium (Cr)-Total	mg/kg wwt	0.013	0.022	0.013	<0.010	0.014	<0.010	<0.010	0.014	<0.010	0.029	0.047
Cobalt (Co)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0040	<0.0040	<0.0040	<0.0040	0.0053
Copper (Cu)-Total	mg/kg wwt	0.170	0.378	0.302	0.239	0.293	0.293	0.358	0.257	0.377	0.172	0.194
Gallium (Ga)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Iron (Fe)-Total	mg/kg wwt	2.11	3.14	3.62	3.15	4.25	2.60	2.84	2.99	4.10	2.44	3.54
Lead (Pb)-Total	mg/kg wwt	<0.0040	0.0061	0.0058	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0049	0.0113	0.0088
Lithium (Li)-Total	mg/kg wwt	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020

Water Body		Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 0148UEUT	Lake 0148UEUT	Lake 0148UEUT
Sample ID		**9-046**	**9-047**	**9-048**	**2-011**	**2-013**	**2-017**	**2-018**	**2-024**	**9-017**	**9-018**	**9-019**
Date Sampled		**10-SEP-12**	**10-SEP-12**	**10-SEP-12**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	77.0	75.6	77.1	74.6	74.0	76.0	73.7	75.7	78.0	95.7	75.8
Metals												
Magnesium (Mg)-Total	mg/kg wwt	283	285	290	291	292	291	291	290	261	293	321
Manganese (Mn)-Total	mg/kg wwt	0.0787	0.119	0.238	0.171	0.110	0.142	0.131	0.168	0.102	0.142	0.167
Mercury (Hg)-Total	mg/kg wwt	0.0490	0.0884	0.0473	0.0951	0.0829	0.0663	0.0772	0.0598	0.119	0.0983	0.0718
Methyl Mercury	mg/kg wwt	-	-	0.0239						-	-	-
Molybdenum (Mo)-Total	mg/kg wwt	<0.0040	0.0049	<0.0040	<0.0040	<0.0040	<0.0040	0.0047	<0.0040	<0.0040	<0.0040	<0.0040
Nickel (Ni)-Total	mg/kg wwt	0.025	0.029	0.015	0.011	0.017	0.035	<0.010	<0.010	0.020	0.017	0.048
Phosphorus (P)-Total	mg/kg wwt	2410	2530	2420	2570	2460	2420	2490	2490	2280	2540	2630
Potassium (K)-Total	mg/kg wwt	3740	3760	4400	4340	4420	4410	4440	4330	4520	4640	5010
Rhenium (Re)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Rubidium (Rb)-Total	mg/kg wwt	2.43	10.2	2.45	7.39	6.79	4.23	7.93	2.49	4.46	3.61	5.67
Selenium (Se)-Total	mg/kg wwt	0.133	0.127	0.120	0.078	0.086	0.056	0.066	0.075	0.087	0.101	0.103
Silver (Ag)-Total	mg/kg wwt	<0.0010	<0.0010	<0.0010	<0.0010	0.0013	<0.0010	<0.0010	0.0034	0.0012	<0.0010	<0.0010
Sodium (Na)-Total	mg/kg wwt	438	585	433	378	409	414	413	398	527	480	527
Strontium (Sr)-Total	mg/kg wwt	0.107	0.643	0.337	1.88	0.647	0.559	1.11	0.973	0.418	0.894	1.59
Tellurium (Te)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)-Total	mg/kg wwt	0.00510	0.00780	0.00633	0.0106	0.00733	0.00662	0.00858	0.00613	0.00660	0.00733	0.00882
Thorium (Th)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tin (Sn)-Total	mg/kg wwt	<0.0040	0.0103	0.0055	<0.0040	0.0116	0.0050	<0.0040	<0.0040	<0.0040	0.0043	<0.0040
Titanium (Ti)-	mg/kg wwt	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.047

Water Body		Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 0148UEUT	Lake 0148UEUT	Lake 0148UEUT
Sample ID		**9-046**	**9-047**	**9-048**	**2-011**	**2-013**	**2-017**	**2-018**	**2-024**	**9-017**	**9-018**	**9-019**
Date Sampled		**10-SEP-12**	**10-SEP-12**	**10-SEP-12**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	77.0	75.6	77.1	74.6	74.0	76.0	73.7	75.7	78.0	95.7	75.8
Metals												
Total												
Uranium (U)-Total	mg/kg wwt	<0.00040	<0.00040	0.00093	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Vanadium (V)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Yttrium (Y)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Zinc (Zn)-Total	mg/kg wwt	3.24	6.89	4.21	4.12	3.71	3.91	4.36	3.80	5.77	4.36	5.41
Zirconium (Zr)-Total	mg/kg wwt	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040

Note: ID - identification, mg/kg wwt - milligrams per kilogram wet weight, % - percent

Table 5.10-8B: Metal Concentrations in Rainbow Trout - Muscle Tissue, 2011 - 2012 (continued)

Water Body		Lake 0148UEUT	Lake 0148UEUT	Lake 0148UEUT	Lake 0148UEUT	Lake 0148UEUT	QA/QC	QA/QC	QA/QC	QA/QC	QA/QC	QA/QC
Sample ID		9-020	9-021	9-022	9-023	9-024	1-164 SPLIT	3-017 SPLIT	V705LK-003 SPLIT	2-024 SPLIT	SPLIT 1 7-004 MUSCLE	SPLIT 2 9-024 MUSCLE
Date Sampled		08-SEP-12	08-SEP-12	08-SEP-12	08-SEP-12	08-SEP-12	16-AUG-11	16-AUG-11	16-AUG-11	16-AUG-11		
Matrix		Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue
Physical Tests	Unit											
% Moisture	%	78.9	77.4	77.0	76.2	74.6	77.6	77.0	77.5	75.0	76.0	74.8
Metals												
Aluminum (Al)-Total	mg/kg wwt	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	0.58	<0.40	<0.40	0.67	<0.40
Antimony (Sb)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total	mg/kg wwt	0.0232	0.0243	0.0132	0.0397	0.0495	0.0142	0.0169	0.0137	0.0151	0.0243	0.0493
Barium (Ba)-Total	mg/kg wwt	0.043	0.037	<0.010	0.112	0.069	0.011	0.048	0.026	0.030	0.018	0.149
Beryllium (Be)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total	mg/kg wwt	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0231	<0.0020	<0.0020	<0.0020	<0.0020
Calcium (Ca)-Total	mg/kg wwt	81.7	121	110	348	287	136	524	209	350	341	881
Cesium (Cs)-Total	mg/kg wwt	0.0476	0.0834	0.0217	0.102	0.134	0.0546	0.0324	0.236	0.0431	0.0048	0.126
Chromium (Cr)-Total	mg/kg wwt	<0.010	0.012	0.010	0.022	0.047	<0.010	0.024	0.024	0.015	0.017	0.021
Cobalt (Co)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	0.0055	<0.0040	0.0107	<0.0040	<0.0040	0.0063	0.0059
Copper (Cu)-Total	mg/kg wwt	0.203	0.207	0.153	0.347	0.43	0.379	0.369	0.216	0.248	0.212	0.349
Gallium (Ga)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Iron (Fe)-Total	mg/kg wwt	2.22	2.64	2.43	3.64	4.67	4.07	3.94	2.39	2.86	2.99	4.64
Lead (Pb)-Total	mg/kg wwt	0.0066	<0.0040	<0.0040	0.0091	0.0534	<0.0040	0.0059	0.0075	<0.0040	<0.0040	0.0112
Lithium (Li)-Total	mg/kg wwt	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Magnesium (Mg)-Total	mg/kg wwt	309	274	297	278	294	302	226	283	294	291	323

Water Body		Lake 0148UEUT	Lake 0148UEUT	Lake 0148UEUT	Lake 0148UEUT	Lake 0148UEUT	QA/QC	QA/QC	QA/QC	QA/QC	QA/QC	QA/QC
Sample ID		**9-020**	**9-021**	**9-022**	**9-023**	**9-024**	**1-164 SPLIT**	**3-017 SPLIT**	**V705LK-003 SPLIT**	**2-024 SPLIT**	**SPLIT 1 7-004 MUSCLE**	**SPLIT 2 9-024 MUSCLE**
Date Sampled		**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**		
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	78.9	77.4	77.0	76.2	74.6	77.6	77.0	77.5	75.0	76.0	74.8
Metals												
Manganese (Mn)-Total	mg/kg wwt	0.0795	0.0990	0.0780	0.190	0.136	0.154	0.146	0.119	0.130	0.227	0.229
Mercury (Hg)-Total	mg/kg wwt	0.0654	0.116	0.128	0.127	0.0577	0.0813	0.0517	0.0579	0.0635	0.0684	0.0553
Methyl Mercury	mg/kg wwt	0.0112	-	-	-	-						
Molybdenum (Mo)-Total	mg/kg wwt	0.0077	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0044	<0.0040	<0.0040	<0.0040	<0.0040
Nickel (Ni)-Total	mg/kg wwt	0.021	0.011	0.010	0.018	0.036	<0.010	0.020	0.015	<0.010	0.024	0.026
Phosphorus (P)-Total	mg/kg wwt	2390	2330	2490	2440	2550	2670	2190	2390	2480	2510	2710
Potassium (K)-Total	mg/kg wwt	4950	4270	4520	4640	4640	5320	3580	4580	4470	4320	4830
Rhenium (Re)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Rubidium (Rb)-Total	mg/kg wwt	2.31	2.90	1.88	4.02	5.12	4.98	6.76	4.90	2.61	2.76	4.83
Selenium (Se)-Total	mg/kg wwt	0.073	0.115	0.104	0.109	0.099	0.393	0.126	0.095	0.069	0.196	0.089
Silver (Ag)-Total	mg/kg wwt	<0.0010	<0.0010	<0.0010	0.0048	0.0019	<0.0010	0.0018	0.0014	0.0025	<0.0010	0.0013
Sodium (Na)-Total	mg/kg wwt	430	471	468	436	503	510	750	373	408	467	524
Strontium (Sr)-Total	mg/kg wwt	0.100	0.214	0.103	1.03	0.676	0.124	0.613	0.336	0.665	0.265	2.03
Tellurium (Te)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)-Total	mg/kg wwt	0.00800	0.00714	0.00397	0.00888	0.00698	0.00463	0.00371	0.00350	0.00661	0.00215	0.00708
Thorium (Th)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tin (Sn)-Total	mg/kg wwt	0.0161	0.0062	0.0092	0.0156	0.0091	<0.0040	<0.0080	0.0064	0.0042	0.0162	0.0059
Titanium (Ti)-Total	mg/kg wwt	0.012	<0.010	<0.010	0.013	<0.010	<0.010	0.082	<0.010	<0.010	0.017	<0.010
Uranium (U)-	mg/kg wwt	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040

Water Body		Lake 0148UEUT	Lake 0148UEUT	Lake 0148UEUT	Lake 0148UEUT	Lake 0148UEUT	QA/QC	QA/QC	QA/QC	QA/QC	QA/QC	QA/QC
Sample ID		**9-020**	**9-021**	**9-022**	**9-023**	**9-024**	**1-164 SPLIT**	**3-017 SPLIT**	**V705LK-003 SPLIT**	**2-024 SPLIT**	**SPLIT 1 7-004 MUSCLE**	**SPLIT 2 9-024 MUSCLE**
Date Sampled		**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**		
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	78.9	77.4	77.0	76.2	74.6	77.6	77.0	77.5	75.0	76.0	74.8
Metals												
Total												
Vanadium (V)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Yttrium (Y)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Zinc (Zn)-Total	mg/kg wwt	3.46	3.30	3.92	4.97	6.53	6.41	8.17	4.03	3.78	4.89	5.55
Zirconium (Zr)-Total	mg/kg wwt	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040

Note: ID - identification, mg/kg wwt - milligrams per kilogram wet weight, % - percent

Table 5.10-8B: Metal Concentrations in Rainbow Trout - Muscle Tissue, 2011 - 2012 (continued)

Water Body		QA/QC	QA/QC	QA/QC	QA/QC	QA/QC
Sample ID		SPLIT 3 9-046 MUSCLE	SPLIT 4 6-068 MUSCLE	SPLIT 5 6-193 MUSCLE	SPLIT 6 6-165 MUSCLE	SPLIT 7 16-009 MUSCLE
Date Sampled						
Matrix		Tissue	Tissue	Tissue	Tissue	Tissue
Physical Tests	Unit					
% Moisture	%	78.4	75.2	74.5	76.3	75.9
Metals						
Aluminum (Al)-Total	mg/kg wwt	<0.40	<0.40	<0.40	<0.40	<0.40
Antimony (Sb)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total	mg/kg wwt	0.0082	0.0248	0.0138	0.0145	0.0508
Barium (Ba)-Total	mg/kg wwt	<0.010	0.013	0.016	<0.010	<0.010
Beryllium (Be)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total	mg/kg wwt	<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)-Total	mg/kg wwt	<0.0020	0.0025	<0.0020	<0.0020	<0.0020
Calcium (Ca)-Total	mg/kg wwt	121	301	276	292	116
Cesium (Cs)-Total	mg/kg wwt	0.0820	0.0062	0.0065	0.0132	0.760
Chromium (Cr)-Total	mg/kg wwt	0.014	<0.010	0.012	<0.010	<0.010
Cobalt (Co)-Total	mg/kg wwt	<0.0040	0.0106	0.0064	0.0087	0.0042
Copper (Cu)-Total	mg/kg wwt	0.175	0.432	0.369	0.466	0.453
Gallium (Ga)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Iron (Fe)-Total	mg/kg wwt	2.29	2.59	3.37	2.80	4.07
Lead (Pb)-Total	mg/kg wwt	0.0046	<0.0040	<0.0040	<0.0040	<0.0040
Lithium (Li)-Total	mg/kg wwt	<0.020	<0.020	<0.020	<0.020	<0.020
Magnesium (Mg)-Total	mg/kg wwt	306	246	262	303	278
Manganese (Mn)-Total	mg/kg wwt	0.0717	0.160	0.0894	0.146	0.0970
Mercury (Hg)-Total	mg/kg wwt	0.0497	0.113	0.0961	0.120	0.199
Methyl Mercury	mg/kg wwt					
Molybdenum (Mo)-Total	mg/kg wwt	<0.0040	0.0068	0.0046	<0.0040	<0.0040
Nickel (Ni)-Total	mg/kg wwt	0.024	<0.010	0.024	0.017	0.013
Phosphorus (P)-Total	mg/kg wwt	2360	2320	2470	2790	2260
Potassium (K)-Total	mg/kg wwt	4800	4020	4430	5470	3650
Rhenium (Re)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Rubidium (Rb)-Total	mg/kg wwt	2.37	2.58	2.48	2.42	7.39

Water Body		QA/QC	QA/QC	QA/QC	QA/QC	QA/QC
Sample ID		**SPLIT 3 9-046 MUSCLE**	**SPLIT 4 6-068 MUSCLE**	**SPLIT 5 6-193 MUSCLE**	**SPLIT 6 6-165 MUSCLE**	**SPLIT 7 16-009 MUSCLE**
Date Sampled						
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**					
% Moisture	**%**	78.4	75.2	74.5	76.3	75.9
Metals						
Selenium (Se)-Total	mg/kg wwt	0.119	0.691	0.617	0.712	0.165
Silver (Ag)-Total	mg/kg wwt	<0.0010	<0.0010	<0.0010	0.0011	<0.0010
Sodium (Na)-Total	mg/kg wwt	492	780	650	980	505
Strontium (Sr)-Total	mg/kg wwt	0.092	0.212	0.106	0.206	0.187
Tellurium (Te)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)-Total	mg/kg wwt	0.00496	0.00236	0.00217	0.00269	0.00533
Thorium (Th)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tin (Sn)-Total	mg/kg wwt	<0.0040	0.0111	0.0362	0.0104	0.0081
Titanium (Ti)-Total	mg/kg wwt	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium (U)-Total	mg/kg wwt	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Vanadium (V)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Yttrium (Y)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Zinc (Zn)-Total	mg/kg wwt	3.88	7.30	7.49	6.90	4.18
Zirconium (Zr)-Total	mg/kg wwt	<0.040	<0.040	<0.040	<0.040	<0.040

Note: ID - identification, mg/kg wwt - milligrams per kilogram wet weight, % - percent

Table 5.10-8C: Metal Concentrations in Rainbow Trout - Liver Tissue, 2011 - 2012

Water body		Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Turtle Creek	Turtle Creek
Sample ID		**1-025**	**1-026**	**1-162**	**1-164**	**1-165+3-093+3-094**	**3-092**	**6-144+6-147+6-148**	**6-149+6-163+6-165**	**6-166+6-167**	**6-192+6-193+6-194**	**6-195+6-196+6-198+6-199**
Date Sampled		**11-AUG-11**	**11-AUG-11**	**19-AUG-11**	**19-AUG-11**	**18-AUG-11**	**18-AUG-11**	**05-AUG-12**	**05-AUG-12**	**05-AUG-12**	**09-AUG-12**	**09-AUG-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	69.7	73.0	69.3	71.4	70.9	70.2	60.2	65.3	66.1	64.7	51.7
Metals												
Aluminum (Al)-Total	mg/kg wwt	4.24	2.67	0.89	2.63	1.42	0.58	4.00	2.44	1.84	5.44	2.16
Antimony (Sb)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0024	<0.002	<0.004	0.0022	<0.004
Arsenic (As)-Total	mg/kg wwt	0.0374	0.0314	0.0460	0.0405	0.0355	0.0320	0.0992	0.0716	0.0353	0.0485	0.1010
Barium (Ba)-Total	mg/kg wwt	0.050	0.021	<0.010	0.015	0.031	0.020	0.136	0.085	0.027	0.073	0.038
Beryllium (Be)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.004	<0.002	<0.004
Bismuth (Bi)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.004	<0.002	<0.004
Boron (B)-Total	mg/kg wwt	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.2	0.21	<0.4	<0.2	<0.4
Cadmium (Cd)-Total	mg/kg wwt	0.153	0.173	0.133	0.162	0.121	0.216	0.2070	0.1680	0.1490	0.0544	0.0762
Calcium (Ca)-Total	mg/kg wwt	87	71	41.9	42.0	87.7	42	97	82	80	59	107
Cesium (Cs)-Total	mg/kg wwt	0.0578	0.0432	0.0395	0.0505	0.0594	0.0736	0.0204	0.0174	0.0176	0.0133	0.0077
Chromium (Cr)-Total	mg/kg wwt	0.121	0.176	0.064	0.082	0.081	0.032	<0.56	<0.07	<0.09	<0.08	<0.06
Cobalt (Co)-Total	mg/kg wwt	0.0170	0.0174	0.0208	0.0186	0.0273	0.0251	0.0682	0.0751	0.0424	0.0368	0.0523
Copper (Cu)-Total	mg/kg wwt	16.2	13.6	42.6	29.3	23.5	31.2	86.600	65.500	62.100	73.700	46.500
Gallium (Ga)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.004	<0.004	<0.008	<0.004	<0.008
Iron (Fe)-Total	mg/kg wwt	114	144	125	199	87.6	72.5	217.00	148.00	127.00	164.00	114.00
Lead (Pb)-Total	mg/kg wwt	0.0067	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0308	0.0050	<0.008	0.0133	0.1130
Lithium (Li)-Total	mg/kg wwt	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.029	0.028	<0.04	<0.02	<0.04
Magnesium (Mg)-Total	mg/kg wwt	181	189	205	203	215	209	302	255	246	233	378
Manganese (Mn)-Total	mg/kg wwt	1.29	1.10	1.03	1.41	1.38	1.43	2.4700	2.1500	1.8100	1.6300	3.2100
Mercury (Hg)-Total	mg/kg wwt	0.136	0.0864	0.137	0.134	0.0978	0.0918	0.1230	0.1050	0.0231	0.0507	0.0153
Methyl Mercury	mg/kg wwt										-	-
Molybdenum	mg/kg wwt	0.198	0.157	0.236	0.308	0.216	0.224	0.3050	0.2750	0.2180	0.2340	0.3300

Water body		Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Davidson Creek	Turtle Creek	Turtle Creek
Sample ID		**1-025**	**1-026**	**1-162**	**1-164**	**1-165+3-093+3-094**	**3-092**	**6-144+6-147+6-148**	**6-149+6-163+6-165**	**6-166+6-167**	**6-192+6-193+6-194**	**6-195+6-196+6-198+6-199**
Date Sampled		**11-AUG-11**	**11-AUG-11**	**19-AUG-11**	**19-AUG-11**	**18-AUG-11**	**18-AUG-11**	**05-AUG-12**	**05-AUG-12**	**05-AUG-12**	**09-AUG-12**	**09-AUG-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	69.7	73.0	69.3	71.4	70.9	70.2	60.2	65.3	66.1	64.7	51.7
Metals												
(Mo)-Total												
Nickel (Ni)-Total	mg/kg wwt	0.057	0.091	<0.020	<0.040	<0.030	<0.050	0.334	<0.06	0.219	<0.06	<0.06
Phosphorus (P)-Total	mg/kg wwt	3170	3720	3990	4010	3860	4090	5110	4920	4890	4840	7320
Potassium (K)-Total	mg/kg wwt	2640	2770	3590	3450	2970	2860	4190	3510	3500	3630	4800
Rhenium (Re)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.002	<0.002	<0.004	<0.002	<0.004
Rubidium (Rb)-Total	mg/kg wwt	3.38	2.66	4.39	3.62	3.55	3.21	3.500	3.740	3.200	2.610	3.130
Selenium (Se)-Total	mg/kg wwt	3.42	3.42	4.06	3.58	2.92	2.89	5.950	6.240	5.870	6.690	7.490
Silver (Ag)-Total	mg/kg wwt	1.05	1.31	1.65	1.63	1.15	1.23	2.4300	1.9400	2.1500	0.9350	0.8610
Sodium (Na)-Total	mg/kg wwt	1080	1140	1180	1240	1220	900	1160	1230	1400	1170	1800
Strontium (Sr)-Total	mg/kg wwt	0.138	0.091	0.063	0.072	0.217	0.080	0.139	0.120	0.108	0.072	0.108
Tellurium (Te)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.004	<0.004	<0.008	<0.004	<0.008
Thallium (Tl)-Total	mg/kg wwt	0.0284	0.0321	0.0388	0.0379	0.0374	0.0435	0.03240	0.03620	0.02620	0.02390	0.04060
Thorium (Th)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.002	<0.002	<0.004	<0.002	<0.004
Tin (Sn)-Total	mg/kg wwt	<0.016	<0.024	0.0068	0.0052	0.0714	<0.0040	0.1040	0.1530	0.0471	0.1000	0.0708
Titanium (Ti)-Total	mg/kg wwt	0.208	0.115	0.016	0.014	0.018	0.014	0.121	0.070	0.081	0.312	0.078
Uranium (U)-Total	mg/kg wwt	0.00187	0.00110	0.00070	0.00118	0.00093	0.00107	0.00125	0.00087	0.00087	0.00101	<0.0008
Vanadium (V)-Total	mg/kg wwt	0.0297	0.0250	0.0145	0.0395	0.0115	0.0074	0.0397	0.0346	0.0263	0.0403	0.0198
Yttrium (Y)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0038	0.0036	<0.004	0.0056	<0.004
Zinc (Zn)-Total	mg/kg wwt	30.5	26.8	28.0	31.2	27.5	28.1	41.40	35.70	29.40	31.90	44.10
Zirconium (Zr)-Total	mg/kg wwt	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.04	0.086	<0.08	<0.04	<0.08

Note: ID - identification, mg/kg wwt - milligrams per kilogram wet weight, % - percent

Table 5.10-8C: Metal Concentrations in Rainbow Trout - Liver Tissue, 2011 - 2012 (continued)

Water body		Turtle Creek	Creek 661	Creek 661	Creek 661	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek
Sample ID		6-197	3-006+3-009+3-011+3-012+3-017	6-002+6-003+6-004+6-005+6-070 LIVER	6-067+6-068+6-069	7-001	7-002	7-003	7-004	7-005	7-006	7-007
Date Sampled		09-AUG-12	11-AUG-11	03-AUG-12	03-AUG-12	05-SEP-12	05-SEP-12	05-SEP-12	05-SEP-12	05-SEP-12	05-SEP-12	05-SEP-12
Matrix		Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue
Physical Tests	**Unit**											
% Moisture	**%**	64.6	65.9	51.1	63.9	68.3	62.5	57.2	65.1	73.8	73.4	78.3
Metals												
Aluminum (Al)-Total	mg/kg wwt	1.63	1.89	5.93	2.69	1.14	3.13	0.84	1.07	2.01	2.36	3.81
Antimony (Sb)-Total	mg/kg wwt	0.0022	<0.0020	0.0028	<0.004	<0.0020	<0.0020	0.0063	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total	mg/kg wwt	0.0502	0.0446	0.1420	0.0521	0.0472	0.0756	0.0624	0.0514	0.0463	0.0583	0.0260
Barium (Ba)-Total	mg/kg wwt	0.043	0.104	0.087	0.090	0.051	0.037	0.032	0.034	0.045	0.037	0.029
Beryllium (Be)-Total	mg/kg wwt	<0.002	<0.0020	<0.0020	<0.004	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total	mg/kg wwt	<0.002	<0.0020	<0.0020	<0.004	<0.0020	0.0021	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total	mg/kg wwt	<0.2	<0.20	<0.20	<0.4	<0.20	2.77	<0.20	<0.20	2.27	0.23	0.40
Cadmium (Cd)-Total	mg/kg wwt	0.1750	0.167	0.1890	0.1040	0.0964	0.0915	0.0481	0.0748	0.0790	0.154	0.0988
Calcium (Ca)-Total	mg/kg wwt	117	73.5	131	119	479	104	114	75.9	79	64.9	61.2
Cesium (Cs)-Total	mg/kg wwt	0.0091	0.0293	0.0119	0.0083	0.0038	0.0028	0.0035	0.0024	0.0039	0.0019	<0.0010
Chromium (Cr)-Total	mg/kg wwt	<0.03	0.090	<0.11	<0.080	<0.020	<0.13	<0.020	<0.10	<0.020	0.267	0.087
Cobalt (Co)-Total	mg/kg wwt	0.0267	0.0354	0.0983	0.0540	0.0302	0.0673	0.0529	0.0354	0.0546	0.0294	0.0188
Copper (Cu)-Total	mg/kg wwt	54.600	24.5	81.000	53.600	122	114	142	105	135	182	98.9
Gallium (Ga)-Total	mg/kg wwt	<0.004	<0.0040	<0.0040	<0.0080	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Iron (Fe)-Total	mg/kg wwt	175.00	102	192.00	173.00	317	344	250	263	438	243	371
Lead (Pb)-Total	mg/kg wwt	<0.004	0.0100	0.0079	0.0142	<0.0040	0.0059	0.0099	<0.0040	<0.0040	<0.0040	0.0062
Lithium (Li)-Total	mg/kg wwt	<0.02	<0.020	<0.020	<0.04	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Magnesium (Mg)-Total	mg/kg wwt	237	224	321	277	235	243	294	268	185	200	158
Manganese (Mn)-	mg/kg wwt	1.6000	1.75	3.5600	2.1800	2.16	2.40	2.81	1.97	2.08	1.48	1.01

Water body		Turtle Creek	Creek 661	Creek 661	Creek 661	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek
Sample ID		6-197	3-006+3-009+3-011+3-012+3-017	6-002+6-003+6-004+6-005+6-070 LIVER	6-067+6-068+6-069	7-001	7-002	7-003	7-004	7-005	7-006	7-007
Date Sampled		09-AUG-12	11-AUG-11	03-AUG-12	03-AUG-12	05-SEP-12	05-SEP-12	05-SEP-12	05-SEP-12	05-SEP-12	05-SEP-12	05-SEP-12
Matrix		Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue
Physical Tests	Unit											
% Moisture	%	64.6	65.9	51.1	63.9	68.3	62.5	57.2	65.1	73.8	73.4	78.3
Metals												
Total												
Mercury (Hg)-Total	mg/kg wwt	0.2060	0.0966	0.2580	0.0271	0.109	0.0988	0.192	0.159	0.0981	0.106	0.0785
Methyl Mercury	mg/kg wwt	-										
Molybdenum (Mo)-Total	mg/kg wwt	0.2770	0.196	0.3190	0.2330	0.239	0.267	0.312	0.328	0.256	0.371	0.216
Nickel (Ni)-Total	mg/kg wwt	<0.04	0.050	<0.1	<0.09	<0.030	0.174	<0.050	<0.070	<0.030	0.115	0.047
Phosphorus (P)-Total	mg/kg wwt	4380	4230	6020	5240	4710	4840	5720	5340	3680	3810	2780
Potassium (K)-Total	mg/kg wwt	3980	3260	4530	3600	4380	3570	5000	5150	3210	3280	2500
Rhenium (Re)-Total	mg/kg wwt	<0.002	<0.0020	<0.0020	<0.004	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Rubidium (Rb)-Total	mg/kg wwt	2.490	5.31	4.070	2.760	3.09	2.83	3.15	3.34	1.80	1.97	1.11
Selenium (Se)-Total	mg/kg wwt	7.930	2.25	9.030	6.520	3.93	7.13	5.97	6.50	15.5	17.1	9.03
Silver (Ag)-Total	mg/kg wwt	1.6200	1.26	2.3600	1.4800	1.72	2.31	2.14	2.65	0.999	1.05	3.61
Sodium (Na)-Total	mg/kg wwt	1850	1200	1840	1700	1130	1250	2000	1450	1440	1560	1150
Strontium (Sr)-Total	mg/kg wwt	0.147	0.141	0.205	0.126	0.376	0.124	0.128	0.063	0.112	0.101	0.076
Tellurium (Te)-Total	mg/kg wwt	<0.004	<0.0040	<0.0040	<0.008	<0.0040	<0.0040	<0.0040	<0.0040	0.0086	0.0103	<0.0040
Thallium (Tl)-Total	mg/kg wwt	0.01800	0.0311	0.03630	0.02440	0.0103	0.0175	0.0184	0.00912	0.00809	0.0212	0.00417
Thorium (Th)-Total	mg/kg wwt	<0.002	<0.0020	<0.0020	<0.004	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tin (Sn)-Total	mg/kg wwt	0.0313	<0.020	0.0504	0.1260	0.0741	0.144	0.0300	0.0925	0.125	0.0573	0.0410
Titanium (Ti)-Total	mg/kg wwt	0.069	0.122	0.521	0.199	<0.010	0.113	0.026	0.033	0.015	0.025	0.085
Uranium (U)-Total	mg/kg wwt	0.00057	0.00107	0.00267	0.00095	0.00110	0.00233	<0.00040	0.00070	0.00248	0.00388	0.00574

Water body		Turtle Creek	Creek 661	Creek 661	Creek 661	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek	Chedakuz Creek
Sample ID		6-197	3-006+3-009+3-011+3-012+3-017	6-002+6-003+6-004+6-005+6-070 LIVER	6-067+6-068+6-069	7-001	7-002	7-003	7-004	7-005	7-006	7-007
Date Sampled		09-AUG-12	11-AUG-11	03-AUG-12	03-AUG-12	05-SEP-12	05-SEP-12	05-SEP-12	05-SEP-12	05-SEP-12	05-SEP-12	05-SEP-12
Matrix		Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue
Physical Tests	Unit											
% Moisture	%	64.6	65.9	51.1	63.9	68.3	62.5	57.2	65.1	73.8	73.4	78.3
Metals												
Vanadium (V)-Total	mg/kg wwt	0.0243	0.0145	0.0559	0.0305	0.0607	0.0563	0.0153	0.0317	0.0843	0.220	0.298
Yttrium (Y)-Total	mg/kg wwt	<0.002	<0.0020	0.0042	<0.004	0.0024	0.0036	<0.0020	0.0021	0.0022	0.0023	0.0035
Zinc (Zn)-Total	mg/kg wwt	30.70	32.8	76.50	33.30	46.0	51.3	54.6	38.1	30.5	39.2	123
Zirconium (Zr)-Total	mg/kg wwt	<0.04	<0.040	<0.040	<0.08	<0.040	0.044	<0.040	<0.040	<0.040	<0.040	<0.040

Note: ID - identification, mg/kg wwt - milligrams per kilogram wet weight, % - percent

Table 5.10-8C: Metal Concentrations in Rainbow Trout - Liver Tissue, 2011 - 2012 (continued)

Water body		Chedakuz Creek	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01538UEUT	Lake 01538UEUT
Sample ID		**7-008**	**16-006**	**16-007**	**16-008**	**16-009**	**16-010**	**16-011**	**16-015**	**16-017**	**9-038**	**9-042**
Date Sampled		**05-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**10-SEP-12**	**10-SEP-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	72.8	78.3	75.1	74.3	76.5	77.8	76.4	77.4	75.3	61.3	63.1
Metals												
Aluminum (Al)-Total	mg/kg wwt	9.74	0.54	0.78	<0.40	0.60	<0.40	<0.40	<0.40	0.57	1.24	1.18
Antimony (Sb)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total	mg/kg wwt	0.0838	0.0627	0.0638	0.0716	0.0406	0.0342	0.0347	0.0794	0.0995	0.0371	0.0380
Barium (Ba)-Total	mg/kg wwt	0.069	<0.010	0.043	0.031	0.035	0.013	0.015	0.024	0.033	0.020	0.023
Beryllium (Be)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total	mg/kg wwt	<0.20	<0.20	0.27	<0.20	0.36	0.72	<0.20	1.17	<0.20	<0.20	<0.20
Cadmium (Cd)-Total	mg/kg wwt	0.414	0.0089	0.0165	0.0172	0.0113	0.0073	0.0078	0.0129	0.0145	0.150	0.0785
Calcium (Ca)-Total	mg/kg wwt	89.4	97.6	248	176	211	96.3	104	216	206	88.4	105
Cesium (Cs)-Total	mg/kg wwt	0.0026	1.07	0.537	0.263	0.516	0.893	0.516	0.369	0.598	0.0771	0.111
Chromium (Cr)-Total	mg/kg wwt	<0.090	0.019	1.52	<0.020	0.013	0.042	0.015	0.011	<0.010	<0.070	0.296
Cobalt (Co)-Total	mg/kg wwt	0.0433	0.0159	0.0281	0.0388	0.0186	0.0200	0.0171	0.0192	0.0263	0.0284	0.0231
Copper (Cu)-Total	mg/kg wwt	420	82.4	88.1	69.8	129	58.8	42.8	45.5	43.6	118	62.5
Gallium (Ga)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Iron (Fe)-Total	mg/kg wwt	370	57.6	157	220	187	169	143	190	231	473	505
Lead (Pb)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0080	0.0134
Lithium (Li)-Total	mg/kg wwt	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020

Water body		Chedakuz Creek	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01538UEUT	Lake 01538UEUT
Sample ID		**7-008**	**16-006**	**16-007**	**16-008**	**16-009**	**16-010**	**16-011**	**16-015**	**16-017**	**9-038**	**9-042**
Date Sampled		**05-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**10-SEP-12**	**10-SEP-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	72.8	78.3	75.1	74.3	76.5	77.8	76.4	77.4	75.3	61.3	63.1
Metals												
Magnesium (Mg)-Total	mg/kg wwt	183	189	217	218	200	236	213	166	236	269	260
Manganese (Mn)-Total	mg/kg wwt	1.76	0.899	1.15	0.894	0.733	1.26	1.75	0.645	2.31	1.73	1.78
Mercury (Hg)-Total	mg/kg wwt	0.116	0.325	0.473	0.220	0.399	0.518	0.249	0.172	0.149	0.194	0.204
Methyl Mercury	mg/kg wwt		-	-	-	-	-	0.133	-	-	-	-
Molybdenum (Mo)-Total	mg/kg wwt	0.556	0.211	0.271	0.200	0.192	0.196	0.202	0.143	0.198	0.481	0.414
Nickel (Ni)-Total	mg/kg wwt	<0.060	<0.010	0.044	<0.020	0.017	0.026	0.013	<0.010	<0.010	<0.050	0.132
Phosphorus (P)-Total	mg/kg wwt	3550	3230	3400	3660	3280	3620	3630	2780	3500	5500	5010
Potassium (K)-Total	mg/kg wwt	3150	3510	3280	3670	2960	3580	3490	3090	3370	4540	4310
Rhenium (Re)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Rubidium (Rb)-Total	mg/kg wwt	1.90	9.61	5.35	4.23	5.41	7.97	6.06	4.05	6.23	3.85	3.83
Selenium (Se)-Total	mg/kg wwt	41.4	2.94	5.24	6.65	4.38	1.40	2.22	4.94	2.41	11.7	11.1
Silver (Ag)-Total	mg/kg wwt	1.58	1.88	1.02	0.851	0.707	0.632	0.344	0.307	0.113	2.27	1.32
Sodium (Na)-Total	mg/kg wwt	1490	1540	1270	1450	1230	1200	1110	1450	1140	1510	1230
Strontium (Sr)-Total	mg/kg wwt	0.166	0.381	0.950	0.561	0.654	0.218	0.283	0.722	0.842	0.179	0.188
Tellurium (Te)-Total	mg/kg wwt	0.0202	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)-Total	mg/kg wwt	0.0311	0.0721	0.0418	0.0612	0.0490	0.0468	0.0390	0.0535	0.0430	0.0583	0.0573
Thorium (Th)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tin (Sn)-Total	mg/kg wwt	0.0367	0.0252	0.0508	0.0589	0.0314	0.0416	0.0416	0.0413	0.0297	0.0255	0.0780

Water body		Chedakuz Creek	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01682LNRS	Lake 01538UEUT	Lake 01538UEUT
Sample ID		**7-008**	**16-006**	**16-007**	**16-008**	**16-009**	**16-010**	**16-011**	**16-015**	**16-017**	**9-038**	**9-042**
Date Sampled		**05-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**19-SEP-12**	**10-SEP-12**	**10-SEP-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	72.8	78.3	75.1	74.3	76.5	77.8	76.4	77.4	75.3	61.3	63.1
Metals												
Titanium (Ti)-Total	mg/kg wwt	0.349	<0.010	0.015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.014	0.030
Uranium (U)-Total	mg/kg wwt	0.0139	0.00332	0.00309	0.00296	0.00231	0.00411	0.00123	0.00296	0.00418	0.00959	0.00855
Vanadium (V)-Total	mg/kg wwt	0.948	0.0144	0.0135	0.0082	0.0089	0.0083	0.0040	0.0054	0.0179	0.0262	0.0263
Yttrium (Y)-Total	mg/kg wwt	0.0070	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0051	<0.0020
Zinc (Zn)-Total	mg/kg wwt	43.2	24.6	58.6	62.1	37.0	27.3	35.5	28.4	37.2	44.7	36.3
Zirconium (Zr)-Total	mg/kg wwt	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040

Note: ID - identification, mg/kg wwt - milligrams per kilogram wet weight, % - percent

Table 5.10-8C: Metal Concentrations in Rainbow Trout - Liver Tissue, 2011 - 2012 (continued)

Water body		Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT
Sample ID		9-043	9-044	9-045	9-046	9-047	9-048	V705LK-002	V705LK-003	V705LK-006A	V705LK-012
Date Sampled		10-SEP-12	10-SEP-12	10-SEP-12	10-SEP-12	10-SEP-12	10-SEP-12	13-AUG-11	13-AUG-11	13-AUG-11	13-AUG-11
Matrix		Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue
Physical Tests	**Unit**										
% Moisture	**%**	68.3	68.7	68.1	67.5	70.1	73.1	70.8	76.1	76.0	72.6
Metals											
Aluminum (Al)-Total	mg/kg wwt	1.11	0.58	1.47	2.32	2.20	3.14	1.95	1.54	1.10	2.61
Antimony (Sb)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total	mg/kg wwt	0.0295	0.0194	0.0342	0.0191	0.0630	0.0223	0.0474	0.0328	0.0302	0.0302
Barium (Ba)-Total	mg/kg wwt	0.011	0.044	0.020	0.035	0.026	0.072	0.032	0.039	0.024	0.036
Beryllium (Be)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total	mg/kg wwt	<0.20	<0.20	2.52	0.25	0.26	<0.20	<0.20	<0.40	<0.60	<0.20
Cadmium (Cd)-Total	mg/kg wwt	0.0733	0.0490	0.0805	0.104	0.0343	0.116	0.0485	0.0617	0.0412	0.0558
Calcium (Ca)-Total	mg/kg wwt	117	126	200	121	101	562	107	98.0	505	119
Cesium (Cs)-Total	mg/kg wwt	0.0918	0.0717	0.0878	0.0506	0.662	0.0622	0.148	0.101	0.187	0.0661
Chromium (Cr)-Total	mg/kg wwt	<0.14	0.026	0.034	0.065	<0.060	<0.23	0.249	0.281	0.073	0.141
Cobalt (Co)-Total	mg/kg wwt	0.0208	0.0147	0.0191	0.0129	0.0153	0.0110	0.0162	0.0168	0.0122	0.0137
Copper (Cu)-Total	mg/kg wwt	123	19.9	72.5	121	89.6	88.2	103	30.4	9.38	55.5
Gallium (Ga)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Iron (Fe)-Total	mg/kg wwt	298	138	220	266	37.5	103	398	117	80.1	255
Lead (Pb)-Total	mg/kg wwt	0.0269	0.0198	0.0096	0.0213	0.0258	0.0092	0.0107	0.0352	0.0126	0.0137
Lithium (Li)-Total	mg/kg wwt	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020

Water body		Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT
Sample ID		9-043	9-044	9-045	9-046	9-047	9-048	V705LK-002	V705LK-003	V705LK-006A	V705LK-012
Date Sampled		10-SEP-12	10-SEP-12	10-SEP-12	10-SEP-12	10-SEP-12	10-SEP-12	13-AUG-11	13-AUG-11	13-AUG-11	13-AUG-11
Matrix		Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue
Physical Tests	**Unit**										
% Moisture	**%**	68.3	68.7	68.1	67.5	70.1	73.1	70.8	76.1	76.0	72.6
Metals											
Magnesium (Mg)-Total	mg/kg wwt	224	267	255	225	233	203	207	198	781	209
Manganese (Mn)-Total	mg/kg wwt	1.25	1.96	2.35	1.30	1.26	1.37	1.29	1.43	1.79	1.27
Mercury (Hg)-Total	mg/kg wwt	0.142	0.244	0.254	0.123	0.207	0.0848	0.171	0.0877	0.137	0.104
Methyl Mercury	mg/kg wwt	-	-	-	-	-	0.029				
Molybdenum (Mo)-Total	mg/kg wwt	0.333	0.296	0.415	0.355	0.374	0.273	0.310	0.256	0.205	0.272
Nickel (Ni)-Total	mg/kg wwt	<0.070	0.104	0.021	0.029	<0.030	0.099	0.123	0.145	0.087	0.054
Phosphorus (P)-Total	mg/kg wwt	4340	4690	4880	4470	4280	4110	3730	3610	3560	3920
Potassium (K)-Total	mg/kg wwt	4240	4770	4160	4570	4290	3490	3220	3140	3070	3090
Rhenium (Re)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Rubidium (Rb)-Total	mg/kg wwt	4.00	3.98	3.69	2.84	11.1	2.21	3.89	3.77	4.15	2.67
Selenium (Se)-Total	mg/kg wwt	9.63	2.78	6.22	2.40	2.01	1.60	5.12	2.68	1.53	2.95
Silver (Ag)-Total	mg/kg wwt	1.91	3.20	1.99	1.45	2.48	2.21	4.78	2.14	2.17	4.00
Sodium (Na)-Total	mg/kg wwt	1240	1100	1460	1370	1210	1480	1100	970	1140	1020
Strontium (Sr)-Total	mg/kg wwt	0.240	0.240	0.264	0.142	0.327	0.594	0.278	0.176	0.390	0.213
Tellurium (Te)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)-Total	mg/kg wwt	0.0322	0.0284	0.0375	0.0295	0.125	0.0511	0.0372	0.0178	0.0233	0.0235
Thorium (Th)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tin (Sn)-Total	mg/kg wwt	0.205	0.132	0.174	0.0279	0.0617	0.0795	<0.0040	<0.0040	<0.012	<0.0080

Water body		Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT
Sample ID		**9-043**	**9-044**	**9-045**	**9-046**	**9-047**	**9-048**	**V705LK-002**	**V705LK-003**	**V705LK-006A**	**V705LK-012**
Date Sampled		**10-SEP-12**	**10-SEP-12**	**10-SEP-12**	**10-SEP-12**	**10-SEP-12**	**10-SEP-12**	**13-AUG-11**	**13-AUG-11**	**13-AUG-11**	**13-AUG-11**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**										
% Moisture	**%**	68.3	68.7	68.1	67.5	70.1	73.1	70.8	76.1	76.0	72.6
Metals											
Titanium (Ti)-Total	mg/kg wwt	0.010	0.012	0.055	0.015	0.013	0.010	0.152	0.043	0.024	0.072
Uranium (U)-Total	mg/kg wwt	0.00326	0.00263	0.0114	0.0117	0.00696	0.0263	0.00311	0.00384	0.00516	0.00533
Vanadium (V)-Total	mg/kg wwt	0.0140	0.0103	0.0217	0.0260	0.0227	0.0325	0.0210	0.0099	0.0211	0.0151
Yttrium (Y)-Total	mg/kg wwt	<0.0020	0.0024	0.0033	0.0023	<0.0020	0.0031	<0.0020	<0.0020	0.0023	<0.0020
Zinc (Zn)-Total	mg/kg wwt	46.7	40.4	44.9	39.7	36.6	32.2	54.5	34.7	30.2	33.6
Zirconium (Zr)-Total	mg/kg wwt	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040

Note: ID - identification, mg/kg wwt - milligrams per kilogram wet weight, % - percent

Table 5.10-8C: Metal Concentrations in Rainbow Trout - Liver Tissue, 2011 - 2012 (continued)

Water body		Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT
Sample ID		V705LK-013	V705LK-015	V705LK-016	9-017	9-018	9-019	9-020	9-021	9-022	9-023	9-024
Date Sampled		13-AUG-11	13-AUG-11	13-AUG-11	08-SEP-12	08-SEP-12	08-SEP-12	08-SEP-12	08-SEP-12	08-SEP-12	08-SEP-12	08-SEP-12
Matrix		Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue
Physical Tests	**Unit**											
% Moisture	%	73.8	72.0	70.1	72.2	66.3	67.1	66.8	68.0	61.7	71.0	72.9
Metals												
Aluminum (Al)-Total	mg/kg wwt	1.73	3.60	1.70	4.39	2.26	2.41	2.25	2.95	0.92	1.97	1.59
Antimony (Sb)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total	mg/kg wwt	0.0309	0.0162	0.0328	0.0479	0.0325	0.0356	0.0246	0.0314	0.0154	0.0495	0.0322
Barium (Ba)-Total	mg/kg wwt	0.043	0.034	0.018	0.033	0.405	0.071	0.055	0.046	0.050	0.052	0.067
Beryllium (Be)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total	mg/kg wwt	<0.40	<0.80	<0.20	<0.20	<0.20	<0.20	2.22	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)-Total	mg/kg wwt	0.0585	0.0930	0.0340	0.0302	0.0398	0.0356	0.0302	0.0317	0.0208	0.0174	0.0212
Calcium (Ca)-Total	mg/kg wwt	138	111	96.8	72.1	102	207	99.9	108	96	81.8	106
Cesium (Cs)-Total	mg/kg wwt	0.0512	0.0609	0.0849	0.0702	0.0557	0.0619	0.0261	0.0329	0.0133	0.0775	0.0654
Chromium (Cr)-Total	mg/kg wwt	0.085	0.130	0.062	<0.030	0.028	0.078	<0.040	0.336	<0.050	0.030	<0.070
Cobalt (Co)-Total	mg/kg wwt	0.0111	0.0138	0.0125	0.0323	0.0223	0.0241	0.0147	0.0229	0.0153	0.0202	0.0231
Copper (Cu)-Total	mg/kg wwt	21.5	55.4	15.7	72.0	253	202	96.1	235	67.2	179	218
Gallium (Ga)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Iron (Fe)-Total	mg/kg wwt	106	78.7	126	136	318	186	308	503	359	135	255
Lead (Pb)-Total	mg/kg wwt	0.0190	0.0163	<0.0040	0.0173	0.0188	0.0236	0.0264	0.0161	0.0480	0.0122	0.0510
Lithium (Li)-Total	mg/kg wwt	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020

Water body		Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT
Sample ID		**V705LK-013**	**V705LK-015**	**V705LK-016**	**9-017**	**9-018**	**9-019**	**9-020**	**9-021**	**9-022**	**9-023**	**9-024**
Date Sampled		**13-AUG-11**	**13-AUG-11**	**13-AUG-11**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	73.8	72.0	70.1	72.2	66.3	67.1	66.8	68.0	61.7	71.0	72.9
Metals												
Magnesium (Mg)-Total	mg/kg wwt	201	192	215	206	261	236	257	221	262	219	220
Manganese (Mn)-Total	mg/kg wwt	1.69	1.11	1.42	1.67	1.46	1.21	1.59	1.58	1.29	1.46	1.21
Mercury (Hg)-Total	mg/kg wwt	0.115	0.103	0.150	0.180	0.161	0.177	0.133	0.189	0.300	0.179	0.0951
Methyl Mercury	mg/kg wwt											
Molybdenum (Mo)-Total	mg/kg wwt	0.289	0.233	0.223	0.311	0.461	0.344	0.389	0.378	0.287	0.367	0.296
Nickel (Ni)-Total	mg/kg wwt	0.052	0.068	0.049	<0.020	0.181	0.055	<0.030	0.182	<0.060	0.019	<0.050
Phosphorus (P)-Total	mg/kg wwt	3650	3440	3850	3990	5220	4920	5170	4520	4990	4290	4080
Potassium (K)-Total	mg/kg wwt	2780	3160	3050	3220	4370	4000	4180	3780	4170	3120	3580
Rhenium (Re)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Rubidium (Rb)-Total	mg/kg wwt	2.68	3.20	3.25	4.04	4.02	4.95	2.57	3.05	2.07	3.65	4.31
Selenium (Se)-Total	mg/kg wwt	1.59	1.42	1.80	1.42	7.41	4.03	3.18	10.6	8.84	3.96	4.51
Silver (Ag)-Total	mg/kg wwt	2.40	2.66	3.30	1.00	2.74	2.50	3.51	1.23	2.22	1.79	1.45
Sodium (Na)-Total	mg/kg wwt	1040	1030	950	1250	1480	1770	1630	1240	1610	1420	1730
Strontium (Sr)-Total	mg/kg wwt	0.347	0.169	0.150	0.357	0.420	0.602	0.273	0.365	0.204	0.416	0.363
Tellurium (Te)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)-Total	mg/kg wwt	0.0253	0.0268	0.0354	0.0474	0.0685	0.0544	0.0593	0.0893	0.0403	0.0864	0.0706
Thorium (Th)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tin (Sn)-Total	mg/kg wwt	<0.0040	<0.0080	<0.0040	0.251	0.0753	0.0483	0.0831	0.0454	0.103	0.0766	0.159

Water body		Lake 01538UEUT	Lake 01538UEUT	Lake 01538UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT
Sample ID		**V705LK-013**	**V705LK-015**	**V705LK-016**	**9-017**	**9-018**	**9-019**	**9-020**	**9-021**	**9-022**	**9-023**	**9-024**
Date Sampled		**13-AUG-11**	**13-AUG-11**	**13-AUG-11**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**	**08-SEP-12**
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	73.8	72.0	70.1	72.2	66.3	67.1	66.8	68.0	61.7	71.0	72.9
Metals												
Titanium (Ti)-Total	mg/kg wwt	0.060	0.389	0.031	0.021	0.017	0.015	0.016	0.012	0.016	0.019	0.021
Uranium (U)-Total	mg/kg wwt	0.00618	0.00755	0.00364	0.0110	0.00249	0.00317	0.00350	0.00369	0.00081	0.00330	0.00208
Vanadium (V)-Total	mg/kg wwt	0.0136	0.0225	0.0115	0.0750	0.0220	0.0372	0.0226	0.0361	0.0068	0.0288	0.0244
Yttrium (Y)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	0.0060	<0.0020	0.0023	<0.0020	0.0021	<0.0020	<0.0020	0.0023
Zinc (Zn)-Total	mg/kg wwt	31.5	38.9	33.3	37.4	40.6	43.9	46.3	43.0	42.8	39.7	33.0
Zirconium (Zr)-Total	mg/kg wwt	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040

Note: ID - identification, mg/kg wwt - milligrams per kilogram wet weight, % - percent

Table 5.10-8C: Metal Concentrations in Rainbow Trout - Liver Tissue, 2011 - 2012 (continued)

Water body		Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	QA/QC	QA/QC	QA/QC	QA/QC	QA/QC	QA/QC
Sample ID		**2-011**	**2-013**	**2-017**	**2-018**	**2-024**	**1-025 SPLIT**	**V705LK-016 SPLIT**	**2-018 SPLIT**	**SPLIT 1 16-010**	**SPLIT 2 6-067+6-068+6-069**	**SPLIT 3 6-166+6-167**
Date Sampled		**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**			
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	68.8	75.4	75.7	76.1	72.5	**70.3**	**70.1**	**75.4**	76.9	62.2	63.9
Metals												
Aluminum (Al)-Total	mg/kg wwt	1.35	2.52	2.86	0.92	2.20	5.20	1.34	0.96	<0.40	3.92	2.21
Antimony (Sb)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0040	<0.0040
Arsenic (As)-Total	mg/kg wwt	0.0649	0.0278	0.0183	0.0600	0.0203	0.0416	0.0339	0.0611	0.0431	0.0537	0.0367
Barium (Ba)-Total	mg/kg wwt	0.033	0.027	0.029	0.032	0.023	0.056	0.018	0.041	0.014	0.371	0.031
Beryllium (Be)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0040	<0.0040
Bismuth (Bi)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0040	<0.0040
Boron (B)-Total	mg/kg wwt	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.38	3.30	<0.40
Cadmium (Cd)-Total	mg/kg wwt	0.0105	0.0070	0.0265	0.0050	0.0151	0.184	0.0355	0.0054	0.0089	0.114	0.169
Calcium (Ca)-Total	mg/kg wwt	81.7	82.8	90.9	105	75.9	107	89.5	106	90.7	118	98
Cesium (Cs)-Total	mg/kg wwt	0.148	0.0785	0.0352	0.167	0.0291	0.0684	0.101	0.164	1.01	0.0092	0.0185
Chromium (Cr)-Total	mg/kg wwt	0.044	0.061	0.076	0.106	0.042	0.145	0.073	0.091	0.049	<0.090	<0.090
Cobalt (Co)-Total	mg/kg wwt	0.0186	0.0343	0.0178	0.0252	0.0204	0.0203	0.0159	0.0232	0.0229	0.0533	0.0488
Copper (Cu)-Total	mg/kg wwt	121	87.0	84.0	82.4	73.4	33.3	26.9	88.5	70.2	64.4	74.1
Gallium (Ga)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0080	<0.0080
Iron (Fe)-Total	mg/kg wwt	110	190	61.5	123	270	123	163	116	205	188	150
Lead (Pb)-Total	mg/kg wwt	0.0068	<0.0040	<0.0040	0.0056	0.0065	0.0081	0.0044	0.0046	<0.0040	0.0213	0.0093
Lithium (Li)-Total	mg/kg wwt	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.040	<0.040

Water body		Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	QA/QC	QA/QC	QA/QC	QA/QC	QA/QC	QA/QC
Sample ID		**2-011**	**2-013**	**2-017**	**2-018**	**2-024**	**1-025 SPLIT**	**V705LK-016 SPLIT**	**2-018 SPLIT**	**SPLIT 1 16-010**	**SPLIT 2 6-067+6-068+6-069**	**SPLIT 3 6-166+6-167**
Date Sampled		**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**			
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	68.8	75.4	75.7	76.1	72.5	**70.3**	**70.1**	**75.4**	76.9	62.2	63.9
Metals												
Magnesium (Mg)-Total	mg/kg wwt	215	176	180	176	198	219	215	180	239	258	256
Manganese (Mn)-Total	mg/kg wwt	1.75	1.45	1.10	1.54	1.29	1.59	1.65	1.61	1.48	2.23	2.09
Mercury (Hg)-Total	mg/kg wwt	0.221	0.129	0.107	0.138	0.118	0.107	0.143	0.147	0.543	0.0280	0.0169
Methyl Mercury	mg/kg wwt											
Molybdenum (Mo)-Total	mg/kg wwt	0.388	0.291	0.298	0.290	0.315	0.244	0.283	0.297	0.222	0.255	0.241
Nickel (Ni)-Total	mg/kg wwt	<0.030	<0.030	<0.030	<0.040	<0.030	0.087	0.072	<0.060	0.027	<0.11	<0.060
Phosphorus (P)-Total	mg/kg wwt	4250	3330	3480	3350	3950	4050	4170	3500	3800	5450	5030
Potassium (K)-Total	mg/kg wwt	3790	3420	3240	3520	3710	3260	3220	3360	3570	3800	3500
Rhenium (Re)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0040	<0.0040
Rubidium (Rb)-Total	mg/kg wwt	8.29	6.00	3.19	7.45	2.35	4.08	3.77	7.19	8.85	2.99	3.22
Selenium (Se)-Total	mg/kg wwt	2.91	1.91	1.63	2.02	2.15	5.38	2.07	2.19	1.74	7.54	6.44
Silver (Ag)-Total	mg/kg wwt	3.63	1.57	3.48	0.920	4.18	2.25	2.84	1.10	0.548	1.70	2.36
Sodium (Na)-Total	mg/kg wwt	1160	1280	1430	1820	1360	1320	1010	1750	1200	1800	<1400
Strontium (Sr)-Total	mg/kg wwt	0.328	0.272	0.269	0.419	0.213	0.179	0.166	0.429	0.252	0.165	0.137
Tellurium (Te)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0080	<0.0080
Thallium (Tl)-Total	mg/kg wwt	0.186	0.0737	0.0444	0.128	0.0849	0.0314	0.0490	0.127	0.0533	0.0257	0.0292
Thorium (Th)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0040	<0.0040

Water body		Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	Lake 01428UEUT	QA/QC	QA/QC	QA/QC	QA/QC	QA/QC	QA/QC
Sample ID		**2-011**	**2-013**	**2-017**	**2-018**	**2-024**	**1-025 SPLIT**	**V705LK-016 SPLIT**	**2-018 SPLIT**	**SPLIT 1 16-010**	**SPLIT 2 6-067+6-068+6-069**	**SPLIT 3 6-166+6-167**
Date Sampled		**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**	**16-AUG-11**			
Matrix		**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**	**Tissue**
Physical Tests	**Unit**											
% Moisture	**%**	68.8	75.4	75.7	76.1	72.5	**70.3**	**70.1**	**75.4**	76.9	62.2	63.9
Metals												
Tin (Sn)-Total	mg/kg wwt	0.0107	0.0112	0.0164	0.0124	0.0142	<0.012	<0.0040	0.0203	0.0426	0.173	0.101
Titanium (Ti)-Total	mg/kg wwt	0.066	0.102	0.176	0.025	0.129	0.275	0.069	0.016	<0.010	0.181	0.048
Uranium (U)-Total	mg/kg wwt	0.00146	0.00119	0.00292	0.00065	0.00077	0.00261	0.00424	0.00072	0.00482	0.00117	0.00100
Vanadium (V)-Total	mg/kg wwt	0.0135	0.0148	0.0215	0.0117	0.0110	0.0364	0.0157	0.0105	0.0102	0.0339	0.0309
Yttrium (Y)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0025	<0.0020	<0.0020	<0.0020	<0.0040	<0.0040
Zinc (Zn)-Total	mg/kg wwt	33.7	31.9	29.8	28.6	30.8	37.0	38.0	29.5	30.5	36.4	35.5
Zirconium (Zr)-Total	mg/kg wwt	<0.040	<0.040	<0.040	<0.040	0.048	<0.040	<0.040	<0.040	<0.040	<0.080	<0.080

Note: ID - identification, mg/kg wwt - milligrams per kilogram wet weight, % - percent

Table 5.10-8C: Metal Concentrations in Rainbow Trout - Liver Tissue, 2011 - 2012 (continued)

Water body		QA/QC	QA/QC	QA/QC	QA/QC
Sample ID		SPLIT 4 6-192+6-193+6-194	SPLIT 5 7-005	SPLIT 6 9-017	SPLIT 7 9-047
Date Sampled					
Matrix		Tissue	Tissue	Tissue	Tissue
Physical Tests	Unit				
% Moisture	%	63.9	73.1	72.5	70.3
Metals					
Aluminum (Al)-Total	mg/kg wwt	2.78	1.71	3.74	2.10
Antimony (Sb)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total	mg/kg wwt	0.0361	0.0518	0.0417	0.0631
Barium (Ba)-Total	mg/kg wwt	0.038	0.025	0.044	0.023
Beryllium (Be)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total	mg/kg wwt	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)-Total	mg/kg wwt	0.0474	0.0877	0.0271	0.0333
Calcium (Ca)-Total	mg/kg wwt	62	84.3	82.8	106
Cesium (Cs)-Total	mg/kg wwt	0.0133	0.0038	0.0671	0.677
Chromium (Cr)-Total	mg/kg wwt	<0.050	<0.020	<0.030	<0.060
Cobalt (Co)-Total	mg/kg wwt	0.0255	0.0568	0.0293	0.0145
Copper (Cu)-Total	mg/kg wwt	97.3	138	54.9	98.3
Gallium (Ga)-Total	mg/kg wwt	<0.0040	<0.0040	<0.0040	<0.0040
Iron (Fe)-Total	mg/kg wwt	183	445	131	36.8
Lead (Pb)-Total	mg/kg wwt	0.0067	<0.0040	0.0318	0.0147
Lithium (Li)-Total	mg/kg wwt	<0.020	<0.020	<0.020	<0.020
Magnesium (Mg)-Total	mg/kg wwt	244	186	214	230
Manganese (Mn)-Total	mg/kg wwt	1.62	2.05	1.60	1.22
Mercury (Hg)-Total	mg/kg wwt	0.0359	0.102	0.182	0.193
Methyl Mercury	mg/kg wwt				
Molybdenum (Mo)-Total	mg/kg wwt	0.230	0.253	0.281	0.365
Nickel (Ni)-Total	mg/kg wwt	<0.040	<0.020	<0.020	<0.030
Phosphorus (P)-Total	mg/kg wwt	4950	3590	4180	4150
Potassium (K)-Total	mg/kg wwt	3460	3250	3420	4160
Rhenium (Re)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020
Rubidium (Rb)-Total	mg/kg wwt	2.67	1.83	3.90	11.6

Water body		QA/QC	QA/QC	QA/QC	QA/QC
Sample ID		SPLIT 4 6-192+6-193+6-194	SPLIT 5 7-005	SPLIT 6 9-017	SPLIT 7 9-047
Date Sampled					
Matrix		Tissue	Tissue	Tissue	Tissue
Physical Tests	Unit				
% Moisture	%	63.9	73.1	72.5	70.3
Metals					
Selenium (Se)-Total	mg/kg wwt	7.82	16.9	1.14	2.01
Silver (Ag)-Total	mg/kg wwt	1.18	1.33	1.55	1.98
Sodium (Na)-Total	mg/kg wwt	1100	1430	1300	1140
Strontium (Sr)-Total	mg/kg wwt	0.063	0.103	0.367	0.312
Tellurium (Te)-Total	mg/kg wwt	<0.0040	0.0086	<0.0040	<0.0040
Thallium (Tl)-Total	mg/kg wwt	0.0214	0.00872	0.0461	0.118
Thorium (Th)-Total	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020
Tin (Sn)-Total	mg/kg wwt	0.0428	0.0712	0.0136	0.0574
Titanium (Ti)-Total	mg/kg wwt	0.120	0.025	0.015	<0.010
Uranium (U)-Total	mg/kg wwt	0.00072	0.00255	0.00979	0.00731
Vanadium (V)-Total	mg/kg wwt	0.0270	0.0867	0.0697	0.0235
Yttrium (Y)-Total	mg/kg wwt	0.0035	0.0021	0.0060	<0.0020
Zinc (Zn)-Total	mg/kg wwt	30.0	33.3	36.3	36.6
Zirconium (Zr)-Total	mg/kg wwt	<0.040	<0.040	<0.040	<0.040

Note: ID - identification, mg/kg wwt - milligrams per kilogram wet weight, % - percent

Annex 5.10-9
Statistical Analyses of Fish Tissue Metal Concentrations

Table 5.10-9A: Statistical Analysis of Fish Tissue Metal Concentrations in Rainbow Trout, Whole-Body Samples, 2011 - 2012

Watershed	Davidson Creek					Turtle Creek				
Tissue Type	Whole Body					Whole Body				
Analyte (mg/kg wwt)	FoD	Mean	SE	Minimum	Maximum	FoD	Mean	SE	Minimum	Maximum
Aluminum	9/9	14.1	3.6	1.4	37.4	16/16	9.4	2.8	0.4	35.3
Antimony	0/9	<0.002	ND	ND	ND	0/16	<0.002	ND	ND	ND
Arsenic	9/9	0.066	0.024	0.023	0.247	16/16	0.039	0.005	0.016	0.082
Barium	9/9	0.60	0.06	0.32	0.77	16/16	0.46	0.05	0.23	0.87
Beryllium	0/9	<0.002	ND	ND	ND	0/16	<0.002	ND	ND	ND
Bismuth	0/9	<0.002	ND	ND	ND	0/16	<0.002	ND	ND	ND
Boron	1/9	0.28	NC	0.28	0.28	4/16	0.56	0.15	0.26	0.93
Cadmium	9/9	0.0291	0.0088	0.0089	0.0940	16/16	0.0129	0.0021	0.0040	0.0397
Calcium	9/9	8616	1000	5830	15800	16/16	8046	467	4750	12700
Cesium	9/9	0.017	0.004	0.007	0.045	16/16	0.009	0.001	0.004	0.023
Chromium	9/9	0.057	0.012	0.027	0.137	14/16	0.114	0.032	0.014	0.376
Cobalt	9/9	0.0321	0.0065	0.0164	0.0793	16/16	0.0230	0.0032	0.0072	0.0542
Copper	9/9	1.008	0.147	0.625	2.020	16/16	0.964	0.073	0.488	1.600
Gallium	5/9	0.006	0.001	0.004	0.011	5/16	0.006	0.001	0.004	0.008
Iron	9/9	26.82	3.97	11.70	49.80	16/16	21.893	2.784	6.880	44.300
Lead	9/9	0.0076	0.0008	0.0050	0.0107	9/16	0.0122	0.0050	0.0048	0.0520
Lithium	1/9	0.022	NC	0.022	0.022	0/16	<0.002	ND	ND	ND
Magnesium	9/9	398.0	27.4	294.0	573.0	16/16	389.4	9.4	316.0	487.0
Manganese	9/9	4.384	0.752	1.650	8.380	16/16	4.974	0.769	1.810	12.000
Mercury, Total	9/9	0.064	0.005	0.045	0.089	16/16	0.052	0.005	0.023	0.099
Methyl-Mercury	1/1	0.056	ND	0.056	0.056	0/0	n/a	n/a	n/a	n/a
Molybdenum	9/9	0.021	0.004	0.009	0.037	16/16	0.017	0.001	0.007	0.032
Nickel	9/9	0.0460	0.0100	0.0230	0.0980	13/16	0.0865	0.0192	0.0150	0.2220
Phosphorus	9/9	6561	580	4650	10400	16/16	6454	250	4550	8750
Potassium	9/9	3987	254	2970	5370	16/16	3938	121	3150	4510
Rhenium	0/9	<0.002	ND	ND	ND	0/16	<0.002	ND	ND	ND
Rubidium	9/9	2.54	0.33	1.60	4.85	16/16	2.40	0.17	1.27	3.42
Selenium	9/9	0.731	0.089	0.347	1.210	16/16	0.914	0.068	0.454	1.530
Silver	9/9	0.0073	0.0025	0.0024	0.0261	15/16	0.0051	0.0007	0.0015	0.0103
Sodium	9/9	929	108	500	1440	16/16	967	22	834	1100
Strontium	9/9	6.960	0.704	4.380	10.300	16/16	5.797	0.431	2.980	9.800
Tellurium	0/9	<0.004	ND	ND	ND	0/16	<0.004	ND	ND	ND
Thallium	9/9	0.0049	0.0006	0.0029	0.0086	16/16	0.0044	0.0003	0.0020	0.0065
Thorium	3/9	0.004	0.001	0.002	0.006	4/16	0.003	0.000	0.002	0.003
Tin	8/9	0.024	0.003	0.011	0.041	14/16	0.021	0.004	0.005	0.054
Titanium	9/9	1.1617	0.2939	0.0730	2.6300	16/16	0.4941	0.1429	0.0160	1.6200
Uranium	9/9	0.00515	0.00079	0.00243	0.00845	16/16	0.00305	0.00053	0.00112	0.00723

Watershed	Davidson Creek					Turtle Creek				
Tissue Type	Whole Body					Whole Body				
Analyte (mg/kg wwt)	FoD	Mean	SE	Minimum	Maximum	FoD	Mean	SE	Minimum	Maximum
Vanadium	9/9	0.0715	0.0133	0.0256	0.1320	16/16	0.0441	0.0064	0.0186	0.0948
Yttrium	8/9	0.012	0.002	0.004	0.021	10/16	0.012	0.003	0.003	0.027
Zinc	9/9	29.44	1.30	22.40	35.40	16/16	35.46	2.29	21.60	53.10
Zirconium	0/9	<0.04	ND	ND	ND	0/16	<0.04	ND	ND	ND

Note: Mean concentration is calculated using 1/2 the sample detection limit for non-detects

mg/kg wwt – milligrams per kilogram wet weight, FoD- frequency of detection; n/a not available; NC - not calculated; ND - not detected; SE - standard error

Table 5.10-9A: Statistical Analysis of Fish Tissue Metal Concentrations in Rainbow Trout, Whole-Body Samples, 2011 - 2012 (continued)

Watershed	Creek 661					Chedakuz Creek				
Tissue Type	Whole Body					Whole Body				
Analyte (mg/kg wwt)	FoD	Mean	SE	Minimum	Maximum	FoD	Mean	SE	Minimum	Maximum
Aluminum	9/9	9.9	3.1	1.7	33.0	8/8	6.2	2.3	1.3	21.0
Antimony	0/9	<0.002	ND	ND	ND	0/8	<0.002	ND	ND	ND
Arsenic	9/9	0.059	0.008	0.037	0.111	8/8	0.073	0.012	0.032	0.141
Barium	9/9	0.41	0.04	0.25	0.59	8/8	0.65	0.09	0.33	0.91
Beryllium	0/9	<0.002	ND	ND	ND	0/8	<0.002	ND	ND	ND
Bismuth	0/9	<0.002	ND	ND	ND	0/8	<0.002	ND	ND	ND
Boron	2/9	0.84	0.59	0.25	1.43	1/8	0.66	NC	0.66	0.66
Cadmium	9/9	0.0209	0.0025	0.0107	0.0338	8/8	0.0053	0.0009	0.0023	0.0100
Calcium	9/9	8556	903	3900	13200	8/8	10606	1166	4200	13700
Cesium	9/9	0.009	0.001	0.004	0.017	8/8	0.004	0.000	0.002	0.006
Chromium	9/9	0.057	0.017	0.019	0.173	8/8	0.061	0.012	0.014	0.119
Cobalt	9/9	0.0327	0.0051	0.0136	0.0580	8/8	0.0223	0.0019	0.0154	0.0306
Copper	9/9	0.877	0.080	0.521	1.310	8/8	0.605	0.024	0.503	0.689
Gallium	2/9	0.009	0.005	0.004	0.014	1/8	0.007	NC	0.007	0.007
Iron	9/9	27.79	4.36	9.38	45.20	8/8	20.175	2.986	10.500	38.200
Lead	8/9	0.0099	0.0028	0.0045	0.0283	7/8	0.0104	0.0028	0.0043	0.0213
Lithium	0/9	<0.02	ND	ND	ND	0/8	<0.02	ND	ND	ND
Magnesium	9/9	403.1	18.6	300.0	492.0	8/8	394.9	19.7	277.0	448.0
Manganese	9/9	5.201	0.733	2.350	8.010	8/8	5.539	0.940	2.340	11.200
Mercury, Total	9/9	0.077	0.005	0.056	0.099	8/8	0.047	0.003	0.036	0.067
Methyl-Mercury	1/1	0.051	NC	0.051	0.051	1/1	0.016	NC	0.016	0.016
Molybdenum	9/9	0.025	0.003	0.013	0.037	8/8	0.009	0.000	0.009	0.010
Nickel	8/9	0.0299	0.0041	0.0160	0.0510	8/8	0.0481	0.0070	0.0280	0.0760
Phosphorus	9/9	6613	458	4180	8930	8/8	7095	533	3880	8360
Potassium	9/9	3987	126	3490	4630	8/8	3424	55	3250	3720
Rhenium	0/9	<0.002	ND	ND	ND	0/8	<0.002	ND	ND	ND
Rubidium	9/9	2.91	0.39	1.47	5.43	8/8	1.96	0.18	1.23	2.61
Selenium	9/9	0.799	0.066	0.606	1.250	8/8	0.343	0.017	0.280	0.405
Silver	9/9	0.0079	0.0025	0.0025	0.0272	8/8	0.0027	0.0004	0.0015	0.0040
Sodium	9/9	1023	27	890	1160	8/8	1131	93	847	1550
Strontium	9/9	6.183	0.771	2.010	9.930	8/8	9.291	1.090	3.740	13.300
Tellurium	0/9	<0.004	ND	ND	ND	0/8	<0.004	ND	ND	ND
Thallium	9/9	0.0043	0.0004	0.0024	0.0063	8/8	0.0027	0.0003	0.0009	0.0041
Thorium	1/9	0.010	NC	0.010	0.010	1/8	0.002	NC	0.002	0.002
Tin	9/9	0.024	0.004	0.008	0.047	8/8	0.049	0.011	0.024	0.116
Titanium	9/9	0.6738	0.1558	0.1010	1.6500	1/1	n/a	n/a	n/a	n/a
Uranium	9/9	0.00531	0.00054	0.00320	0.00795	8/8	0.00329	0.00061	0.00064	0.00610

Watershed	Creek 661					Chedakuz Creek				
Tissue Type	Whole Body					Whole Body				
Analyte (mg/kg wwt)	FoD	Mean	SE	Minimum	Maximum	FoD	Mean	SE	Minimum	Maximum
Vanadium	9/9	0.0589	0.0065	0.0365	0.0939	8/8	0.0948	0.0265	0.0112	0.2490
Yttrium	8/9	0.009	0.002	0.003	0.017	6/8	0.005	0.001	0.002	0.011
Zinc	9/9	31.22	2.45	20.90	42.20	8/8	58.25	3.97	41.00	75.20
Zirconium	0/9	<0.04	ND	ND	ND	0/8	<0.04	ND	ND	ND

Note: Mean concentration is calculated using 1/2 the sample detection limit for non-detects

mg/kg wwt – milligrams per kilogram wet weight, FoD- frequency of detection; n/a not available; NC - not calculated; ND - not detected; SE - standard error

Table 5.10-9A: Statistical Analysis of Fish Tissue Metal Concentrations in Rainbow Trout, Whole-Body Samples, 2011 - 2012 (continued)

Watershed	Lake 01682LNRS					Lake 01538UEUT				
Tissue Type	Whole Body					Whole Body				
Analyte (mg/kg wwt)	FoD	Mean	SE	Minimum	Maximum	FoD	Mean	SE	Minimum	Maximum
Aluminum	8/8	6.0	2.5	1.1	22.1	8/8	1.7	0.6	0.7	5.3
Antimony	2/8	0.003	0.001	0.002	0.004	0/8	<0.002	ND	ND	ND
Arsenic	8/8	0.098	0.015	0.049	0.179	8/8	0.046	0.007	0.024	0.078
Barium	8/8	0.63	0.10	0.32	1.17	8/8	0.48	0.09	0.21	0.97
Beryllium	1/8	0.002	NC	0.002	0.002	0/8	<0.002	ND	ND	ND
Bismuth	0/8	<0.002	ND	ND	ND	0/8	<0.002	ND	ND	ND
Boron	0/8	<0.2	ND	ND	ND	0/8	<0.2	ND	ND	ND
Cadmium	7/8	0.0054	0.0006	0.0035	0.0083	8/8	0.0065	0.0008	0.0038	0.0099
Calcium	8/8	4283	460	2830	5970	8/8	7054	1020	4270	12100
Cesium	8/8	0.563	0.077	0.229	0.921	8/8	0.164	0.073	0.067	0.674
Chromium	8/8	0.031	0.005	0.014	0.054	8/8	0.060	0.008	0.038	0.105
Cobalt	8/8	0.0251	0.0020	0.0172	0.0346	8/8	0.0114	0.0019	0.0043	0.0195
Copper	8/8	1.548	0.246	0.510	2.750	8/8	0.645	0.074	0.438	1.000
Gallium	1/8	0.005	NC	0.005	0.005	0/8	<0.004	ND	ND	ND
Iron	8/8	28.74	4.90	14.10	58.90	8/8	16.038	1.577	12.900	26.500
Lead	8/8	0.0326	0.0042	0.0170	0.0506	8/8	0.0688	0.0233	0.0190	0.2200
Lithium	0/8	<0.02	ND	ND	ND	0/8	<0.02	ND	ND	ND
Magnesium	8/8	253.4	12.1	194.0	292.0	8/8	320.3	22.8	263.0	424.0
Manganese	8/8	2.994	1.025	0.584	9.430	8/8	2.460	0.500	1.050	5.100
Mercury, Total	8/8	0.110	0.010	0.079	0.155	8/8	0.057	0.006	0.028	0.078
Methyl-Mercury	1/1	0.053	NC	0.053	0.053	1/1	0.017	NC	0.017	0.017
Molybdenum	8/8	0.021	0.003	0.008	0.038	8/8	0.012	0.001	0.008	0.021
Nickel	7/8	0.0417	0.0251	0.0110	0.1920	8/8	0.0421	0.0097	0.0250	0.1090
Phosphorus	8/8	3706	259	2630	4890	8/8	5615	466	3980	7750
Potassium	8/8	2716	42	2480	2820	8/8	3175	154	2890	4010
Rhenium	0/8	<0.002	ND	ND	ND	0/8	<0.002	ND	ND	ND
Rubidium	8/8	5.17	0.41	3.65	7.18	8/8	3.29	0.79	2.04	8.79
Selenium	8/8	0.254	0.018	0.146	0.323	8/8	0.218	0.016	0.143	0.267
Silver	8/8	0.0164	0.0027	0.0042	0.0273	8/8	0.0057	0.0011	0.0017	0.0094
Sodium	8/8	876	17	812	955	8/8	862	28	760	984
Strontium	8/8	9.388	0.716	6.430	11.600	8/8	10.385	1.488	5.270	15.500
Tellurium	0/8	<0.004	ND	ND	ND	0/8	<0.004	ND	ND	ND
Thallium	8/8	0.0075	0.0006	0.0047	0.0095	8/8	0.0061	0.0006	0.0044	0.0101
Thorium	2/8	0.003	0.001	0.002	0.005	0/8	<0.002	ND	ND	ND
Tin	5/8	0.030	0.004	0.023	0.042	7/8	0.031	0.003	0.023	0.047
Titanium	0/0	n/a	n/a	n/a	n/a	0/0	n/a	n/a	n/a	n/a
Uranium	8/8	0.00988	0.00205	0.00312	0.01910	8/8	0.01159	0.00348	0.00301	0.03270

Watershed	Lake 01682LNRS					Lake 01538UEUT				
Tissue Type	Whole Body					Whole Body				
Analyte (mg/kg wwt)	FoD	Mean	SE	Minimum	Maximum	FoD	Mean	SE	Minimum	Maximum
Vanadium	3/8	0.0310	0.0105	0.0190	0.0520	6/8	0.0257	0.0041	0.0190	0.0450
Yttrium	6/8	0.014	0.005	0.003	0.038	3/8	0.006	0.002	0.002	0.011
Zinc	8/8	45.96	3.97	22.10	62.40	8/8	53.95	4.31	34.90	68.10
Zirconium	0/8	<0.04	ND	ND	ND	0/8	<0.04	ND	ND	ND

Note: Mean concentration is calculated using 1/2 the sample detection limit for non-detects

mg/kg wwt – milligrams per kilogram wet weight, FoD- frequency of detection; n/a not available; NC - not calculated; ND - not detected; SE - standard error

Table 5.10-9A: Statistical Analysis of Fish Tissue Metal Concentrations in Rainbow Trout, Whole-Body Samples, 2011 - 2012 (continued)

Watershed	Lake 01428UEUT				
Tissue Type	**Whole Body**				
Analyte (mg/kg wwt)	**FoD**	**Mean**	**SE**	**Minimum**	**Maximum**
Aluminum	18/18	4.0	0.9	0.5	11.6
Antimony	0/18	<0.002	ND	ND	ND
Arsenic	18/18	0.047	0.004	0.017	0.080
Barium	18/18	1.33	0.20	0.24	3.02
Beryllium	0/18	<0.002	ND	ND	ND
Bismuth	0/18	<0.002	ND	ND	ND
Boron	0/18	<0.2	ND	ND	ND
Cadmium	7/18	0.0027	0.0002	0.0021	0.0033
Calcium	18/18	5158	624	2340	13000
Cesium	18/18	0.099	0.011	0.018	0.159
Chromium	18/18	0.043	0.006	0.020	0.102
Cobalt	18/18	0.0132	0.0007	0.0062	0.0183
Copper	18/18	1.299	0.165	0.347	2.850
Gallium	0/18	<0.004	ND	ND	ND
Iron	18/18	21.78	2.08	10.80	37.50
Lead	18/18	0.0467	0.0109	0.0049	0.1750
Lithium	0/18	<0.02	ND	ND	ND
Magnesium	18/18	300.0	9.3	247.0	427.0
Manganese	18/18	3.082	0.498	0.823	7.830
Mercury, Total	18/18	0.063	0.005	0.036	0.120
Methyl-Mercury	1/1	0.051	NC	0.051	0.051
Molybdenum	18/18	0.015	0.001	0.008	0.027
Nickel	11/18	0.0369	0.0063	0.0150	0.0830
Phosphorus	18/18	4315	303	3010	7910
Potassium	18/18	3350	90	2460	3870
Rhenium	0/18	<0.002	ND	ND	ND
Rubidium	18/18	4.47	0.44	1.59	6.87
Selenium	18/18	0.146	0.007	0.104	0.226
Silver	17/18	0.0179	0.0028	0.0018	0.0426
Sodium	18/18	777	29	649	1060
Strontium	18/18	14.839	1.496	4.940	27.600
Tellurium	0/18	<0.004	ND	ND	ND
Thallium	18/18	0.0090	0.0005	0.0050	0.0122
Thorium	0/18	<0.002	ND	ND	ND
Tin	13/18	0.020	0.003	0.006	0.038
Titanium	10/18	0.1166	0.0314	0.0130	0.2830

Watershed	Lake 01428UEUT				
Tissue Type	**Whole Body**				
Analyte (mg/kg wwt)	**FoD**	**Mean**	**SE**	**Minimum**	**Maximum**
Uranium	18/18	0.00278	0.00046	0.00070	0.00630
Vanadium	15/18	0.0205	0.0038	0.0048	0.0600
Yttrium	11/18	0.007	0.001	0.002	0.013
Zinc	18/18	34.04	3.11	12.80	62.60
Zirconium	1/18	0.07	NC	0.07	0.07

Note: Mean concentration is calculated using 1/2 the sample detection limit for non-detects

mg/kg wwt – milligrams per kilogram wet weight, FoD- frequency of detection; n/a not available; NC - not calculated; ND - not detected; SE - standard error

Table 5.10-9B: Statistical Analysis of Fish Tissue Metal Concentrations in Rainbow Trout, Muscle Tissue Samples 2011 - 2012

Watershed	Davidson Creek					Turtle Creek				
Tissue Type	Muscle Tissue					Muscle Tissue				
Analyte (mg/kg wwt)	FoD	Mean	SE	Minimum	Maximum	FoD	Mean	SE	Minimum	Maximum
Aluminum	4/16	1.3	0.8	0.4	3.6	5/14	0.9	0.1	0.7	1.4
Antimony	0/16	<0.002	ND	ND	ND	0/14	<0.002	ND	ND	ND
Arsenic	16/16	0.038	0.016	0.012	0.269	14/14	0.024	0.002	0.007	0.041
Barium	15/16	0.02	0.00	0.01	0.04	13/14	0.06	0.02	0.01	0.26
Beryllium	0/16	<0.002	ND	ND	ND	0/14	<0.002	ND	ND	ND
Bismuth	1/16	0.002	NC	0.002	0.002	2/14	0.002	0.000	0.002	0.002
Boron	2/16	0.68	0.11	0.57	0.78	0/14	<0.2	ND	ND	ND
Cadmium	9/16	0.0041	0.0006	0.0025	0.0085	8/14	0.0109	0.0022	0.0029	0.0192
Calcium	16/16	272	14	198	388	14/14	791	220	269	2680
Cesium	16/16	0.057	0.016	0.006	0.210	14/14	0.016	0.004	0.004	0.040
Chromium	7/16	0.021	0.004	0.011	0.042	8/14	0.040	0.006	0.019	0.069
Cobalt	13/16	0.0108	0.0023	0.0045	0.0354	13/14	0.0106	0.0007	0.0066	0.0140
Copper	16/16	0.489	0.034	0.251	0.769	14/14	0.510	0.032	0.321	0.658
Gallium	0/16	<0.004	ND	ND	ND	0/14	<0.004	ND	ND	ND
Iron	16/16	4.03	0.37	2.25	7.82	14/14	3.754	0.429	1.650	7.280
Lead	1/16	0.0046	NC	0.0046	0.0046	2/14	0.0057	0.0006	0.0051	0.0062
Lithium	0/16	<0.02	ND	ND	ND	0/14	<0.02	ND	ND	ND
Magnesium	16/16	271.3	8.7	193.0	314.0	14/14	275.4	7.7	242.0	338.0
Manganese	16/16	0.163	0.028	0.089	0.555	14/14	0.347	0.087	0.094	0.995
Mercury, Total	16/16	0.084	0.004	0.053	0.116	14/14	0.095	0.011	0.047	0.210
Methyl-Mercury	0/0	n/a	n/a	0.000	n/a	0/14	n/a	n/a	n/a	n/a
Molybdenum	8/16	0.005	0.000	0.004	0.006	11/14	0.006	0.000	0.005	0.009
Nickel	5/16	0.0240	0.0103	0.0110	0.0650	10/14	0.0247	0.0021	0.0130	0.0330
Phosphorus	16/16	2578	72	1830	2980	14/14	2726	131	2190	3770
Potassium	16/16	4975	159	3630	6040	14/14	4360	129	3720	5380
Rhenium	0/16	<0.002	ND	ND	ND	0/14	<0.002	ND	ND	ND
Rubidium	16/16	3.71	0.39	1.58	5.87	14/14	3.56	0.53	1.21	7.97
Selenium	16/16	0.491	0.035	0.357	0.910	14/14	0.472	0.046	0.151	0.748
Silver	5/16	0.0019	0.0004	0.0011	0.0035	6/14	0.0040	0.0006	0.0025	0.0069
Sodium	16/16	687	40	320	990	14/14	782	23	660	900
Strontium	16/16	0.251	0.025	0.143	0.563	14/14	0.756	0.268	0.103	3.320
Tellurium	0/16	<0.004	ND	ND	ND	0/14	<0.004	ND	ND	ND
Thallium	16/16	0.0043	0.0005	0.0018	0.0076	14/14	0.0032	0.0004	0.0011	0.0055
Thorium	1/16	0.005	NC	0.005	0.005	0/14	<0.002	ND	ND	ND
Tin	13/16	0.012	0.001	0.007	0.019	8/14	0.016	0.003	0.007	0.034
Titanium	6/16	0.0688	0.0362	0.0180	0.2450	8/14	0.0365	0.0082	0.0100	0.0820
Uranium	1/16	0.00080	NC	0.00080	0.00080	4/14	0.00117	0.00026	0.00067	0.00177

Watershed	Davidson Creek					Turtle Creek				
Tissue Type	Muscle Tissue					Muscle Tissue				
Analyte (mg/kg wwt)	FoD	Mean	SE	Minimum	Maximum	FoD	Mean	SE	Minimum	Maximum
Vanadium	3/16	0.0050	0.0002	0.0047	0.0055	4/14	0.0091	0.0015	0.0070	0.0133
Yttrium	2/16	0.003	0.001	0.002	0.003	0/14	<0.002	ND	ND	ND
Zinc	16/16	7.13	0.47	4.29	11.00	14/14	9.29	0.76	3.52	14.20
Zirconium	0/16	<0.04	ND	ND	ND	0/14	<0.04	ND	ND	ND

Note: Mean concentration is calculated using 1/2 the sample detection limit for non-detects

mg/kg wwt – milligrams per kilogram wet weight, FoD- frequency of detection; n/a not available; NC - not calculated; ND - not detected; SE - standard error

Table 5.10-9B: Statistical Analysis of Fish Tissue Metal Concentrations in Rainbow Trout, Muscle Tissue Samples 2011 - 2012 (continued)

Watershed	Creek 661					Chedakuz Creek				
Tissue Type	Muscle					Muscle				
Analyte (mg/kg wwt)	FoD	Mean	SE	Minimum	Maximum	FoD	Mean	SE	Minimum	Maximum
Aluminum	1/8	3.8	NC	3.8	3.8	1/8	3.67	NC	3.67	3.67
Antimony	0/8	<0.002	ND	ND	ND	0/8	<0.002	ND	ND	ND
Arsenic	8/8	0.037	0.004	0.022	0.060	8/8	0.07	0.02	0.01	0.19
Barium	7/8	0.02	0.00	0.01	0.04	6/8	0.02	0.01	0.01	0.07
Beryllium	0/8	<0.002	ND	ND	ND	0/8	<0.002	ND	ND	ND
Bismuth	0/8	<0.002	ND	ND	ND	0/8	<0.002	ND	ND	ND
Boron	2/8	0.28	0.03	0.25	0.31	0/8	<0.2	ND	ND	ND
Cadmium	4/8	0.0043	0.0009	0.0022	0.0065	1/8	0.00	NC	0.00	0.00
Calcium	8/8	421	39	281	574	8/8	194.81	39.32	56.50	396.00
Cesium	8/8	0.007	0.001	0.005	0.010	7/8	0.00	0.00	0.00	0.01
Chromium	4/8	0.019	0.005	0.011	0.032	5/8	0.02	0.00	0.01	0.02
Cobalt	8/8	0.0168	0.0028	0.0102	0.0326	5/8	0.01	0.00	0.01	0.01
Copper	8/8	0.537	0.028	0.457	0.668	8/8	0.25	0.03	0.05	0.34
Gallium	0/8	<0.004	ND	ND	ND	0/8	<0.004	ND	ND	ND
Iron	8/8	3.76	0.45	2.30	6.36	8/8	3.46	0.73	0.74	7.94
Lead	1/8	0.0057	NC	0.0057	0.0057	1/8	0.01	NC	0.01	0.01
Lithium	0/8	<0.02	ND	ND	ND	0/8	<0.02	ND	ND	ND
Magnesium	8/8	251.6	13.0	223.0	335.0	8/8	238.28	26.72	67.20	311.00
Manganese	8/8	0.239	0.046	0.127	0.526	8/8	0.15	0.03	0.04	0.29
Mercury, Total	8/8	0.102	0.007	0.074	0.123	8/8	0.06	0.01	0.01	0.08
Methyl-Mercury	1/1	0.031	NC	0.031	0.031	1/1	0.01	NC	0.01	0.01
Molybdenum	8/8	0.006	0.001	0.004	0.009	1/8	0.00	NC	0.00	0.00
Nickel	5/8	0.0192	0.0029	0.0140	0.0300	5/8	0.02	0.01	0.01	0.05
Phosphorus	8/8	2508	118	2190	3260	8/8	2079.75	225.29	528.00	2460.00
Potassium	8/8	4464	228	3830	5660	8/8	3891.25	425.85	1120.00	4790.00
Rhenium	0/8	<0.002	ND	ND	ND	0/8	<0.002	ND	ND	ND
Rubidium	8/8	2.81	0.14	2.38	3.42	8/8	1.98	0.26	0.58	2.77
Selenium	8/8	0.706	0.042	0.528	0.860	8/8	0.22	0.03	0.04	0.29
Silver	2/8	0.0025	0.0005	0.0020	0.0030	3/8	0.00	0.00	0.00	0.00
Sodium	8/8	893	46	740	1140	8/8	539.38	64.83	116.00	718.00
Strontium	8/8	0.279	0.029	0.160	0.403	8/8	0.14	0.03	0.04	0.28
Tellurium	0/8	<0.004	ND	ND	ND	0/8	<0.004	ND	ND	ND
Thallium	8/8	0.0025	0.0001	0.0020	0.0030	8/8	0.00	0.00	0.00	0.00
Thorium	1/8	0.006	NC	0.006	0.006	0/8	<0.002	ND	ND	ND
Tin	8/8	0.015	0.002	0.007	0.029	6/8	0.01	0.00	0.00	0.02
Titanium	1/8	0.1210	NC	0.1210	0.1210	4/8	0.07	0.03	0.03	0.16

Watershed	Creek 661					Chedakuz Creek				
Tissue Type	Muscle					Muscle				
Analyte (mg/kg wwt)	FoD	Mean	SE	Minimum	Maximum	FoD	Mean	SE	Minimum	Maximum
Uranium	2/8	0.00119	0.00071	0.00048	0.00190	0/8	<0.0004	ND	ND	ND
Vanadium	3/8	0.0061	0.0014	0.0042	0.0088	1/8	0.01	NC	0.01	0.01
Yttrium	1/8	0.003	NC	0.003	0.003	0/8	<0.002	ND	ND	ND
Zinc	8/8	8.88	0.81	6.89	14.20	8/8	4.95	0.71	0.92	8.19
Zirconium	0/8	<0.04	ND	ND	ND	0/8	<0.04	ND	ND	ND

Note: Mean concentration is calculated using 1/2 the sample detection limit for non-detects

mg/kg wwt – milligrams per kilogram wet weight, FoD- frequency of detection; n/a not available; NC - not calculated; ND - not detected; SE - standard error

Table 5.10-9B: Statistical Analysis of Fish Tissue Metal Concentrations in Rainbow Trout, Muscle Tissue Samples 2011 - 2012 (continued)

Watershed	Lake 01682LNRS					Lake 01538UEUT				
Tissue Type	Muscle					Muscle				
Analyte (mg/kg wwt)	FoD	Mean	SE	Minimum	Maximum	FoD	Mean	SE	Minimum	Maximum
Aluminum	0/8	<0.04	ND	ND	ND	2/16	0.5	0.1	0.4	0.6
Antimony	0/8	<0.002	ND	ND	ND	0/16	<0.002	ND	ND	ND
Arsenic	8/8	0.040	0.006	0.021	0.079	16/16	0.018	0.002	0.008	0.049
Barium	1/8	0.01	NC	0.01	0.01	14/16	0.03	0.00	0.02	0.05
Beryllium	0/8	<0.002	ND	ND	ND	0/16	<0.002	ND	ND	ND
Bismuth	0/8	<0.002	ND	ND	ND	0/16	<0.002	ND	ND	ND
Boron	0/8	<0.2	ND	ND	ND	0/16	<0.2	ND	ND	ND
Cadmium	0/8	<0.002	ND	ND	ND	0/16	<0.002	ND	ND	ND
Calcium	8/8	106	5	86	127	16/16	300	24	131	425
Cesium	8/8	0.775	0.132	0.299	1.400	16/16	0.195	0.043	0.085	0.795
Chromium	3/8	0.017	0.004	0.010	0.025	16/16	0.018	0.002	0.010	0.036
Cobalt	2/8	0.0052	0.0005	0.0047	0.0056	4/16	0.0056	0.0006	0.0043	0.0073
Copper	8/8	0.472	0.033	0.329	0.554	16/16	0.272	0.014	0.170	0.378
Gallium	0/8	<0.004	ND	ND	ND	0/16	<0.004	ND	ND	ND
Iron	8/8	3.51	0.32	2.38	4.96	16/16	3.263	0.159	2.110	4.120
Lead	0/8	<0.004	ND	ND	ND	14/16	0.0077	0.0007	0.0042	0.0109
Lithium	0/8	<0.02	ND	ND	ND	0/16	<0.02	ND	ND	ND
Magnesium	8/8	290.1	3.9	272.0	303.0	16/16	275.8	2.4	261.0	290.0
Manganese	8/8	0.084	0.006	0.069	0.120	16/16	0.181	0.038	0.079	0.700
Mercury, Total	8/8	0.208	0.025	0.115	0.294	16/16	0.080	0.006	0.047	0.108
Methyl-Mercury	1/1	0.136	NC	0.136	0.136	1/16	0.024	NC	0.024	0.024
Molybdenum	0/8	<0.004	ND	ND	ND	4/16	0.004	0.000	0.004	0.005
Nickel	8/8	0.0196	0.0023	0.0120	0.0310	10/16	0.0232	0.0021	0.0140	0.0320
Phosphorus	8/8	2334	30	2220	2480	16/16	2420	11	2360	2530
Potassium	8/8	4193	131	3470	4580	16/16	4208	85	3590	4560
Rhenium	0/8	<0.002	ND	ND	ND	0/16	<0.002	ND	ND	ND
Rubidium	8/8	6.88	0.75	4.48	10.70	16/16	4.19	0.46	2.43	10.20
Selenium	8/8	0.151	0.004	0.132	0.169	16/16	0.123	0.006	0.087	0.177
Silver	4/8	0.0013	0.0002	0.0011	0.0018	9/16	0.0017	0.0002	0.0011	0.0031
Sodium	8/8	421	16	367	507	16/16	444	17	344	585
Strontium	8/8	0.161	0.009	0.132	0.214	16/16	0.388	0.034	0.107	0.643
Tellurium	0/8	<0.004	ND	ND	ND	0/16	<0.004	ND	ND	ND
Thallium	8/8	0.0067	0.0005	0.0052	0.0085	16/16	0.0047	0.0003	0.0034	0.0078
Thorium	0/8	<0.002	ND	ND	ND	0/16	<0.002	ND	ND	ND
Tin	6/8	0.008	0.001	0.006	0.011	10/16	0.011	0.002	0.004	0.021
Titanium	0/8	<0.01	ND	ND	ND	6/16	0.0163	0.0026	0.0110	0.0280

Watershed	Lake 01682LNRS					Lake 01538UEUT				
Tissue Type	Muscle					Muscle				
Analyte (mg/kg wwt)	FoD	Mean	SE	Minimum	Maximum	FoD	Mean	SE	Minimum	Maximum
Uranium	0/8	<0.0004	ND	ND	ND	4/16	0.00100	0.00036	0.00042	0.00203
Vanadium	0/8	<0.004	ND	ND	ND	0/16	<0.004	ND	ND	ND
Yttrium	0/8	<0.002	ND	ND	ND	0/16	<0.002	ND	ND	ND
Zinc	8/8	4.73	0.18	3.85	5.46	16/16	5.41	0.35	3.24	7.87
Zirconium	0/8	<0.04	ND	ND	ND	0/16	<0.04	ND	ND	ND

Note: Mean concentration is calculated using 1/2 the sample detection limit for non-detects

mg/kg wwt – milligrams per kilogram wet weight, FoD- frequency of detection; n/a not available; NC - not calculated; ND - not detected; SE - standard error

Table 5.10-9B: Statistical Analysis of Fish Tissue Metal Concentrations in Rainbow Trout, Muscle Tissue Samples 2011 - 2012 (continued)

Watershed	Lake 01428UEUT				
Tissue Type	**Muscle**				
Analyte (mg/kg wwt)	**FoD**	**Mean**	**SE**	**Minimum**	**Maximum**
Aluminum	0/13	<0.04	ND	ND	ND
Antimony	0/13	<0.002	ND	ND	ND
Arsenic	13/13	0.035	0.005	0.013	0.071
Barium	12/13	0.06	0.01	0.03	0.11
Beryllium	0/13	<0.002	ND	ND	ND
Bismuth	0/13	<0.002	ND	ND	ND
Boron	0/13	<0.2	ND	ND	ND
Cadmium	0/13	<0.002	ND	ND	ND
Calcium	13/13	317	52	82	679
Cesium	13/13	0.103	0.013	0.022	0.178
Chromium	8/13	0.024	0.005	0.010	0.047
Cobalt	3/13	0.0049	0.0005	0.0040	0.0055
Copper	13/13	0.271	0.024	0.153	0.430
Gallium	0/13	<0.004	ND	ND	ND
Iron	13/13	3.19	0.22	2.22	4.67
Lead	6/13	0.0157	0.0076	0.0049	0.0534
Lithium	0/13	<0.02	ND	ND	ND
Magnesium	13/13	290.9	4.1	261.0	321.0
Manganese	13/13	0.132	0.010	0.078	0.190
Mercury, Total	13/13	0.090	0.007	0.058	0.128
Methyl-Mercury	1/1	0.011	NC	0.011	0.011
Molybdenum	2/13	0.006	0.002	0.005	0.008
Nickel	11/13	0.0222	0.0037	0.0100	0.0480
Phosphorus	13/13	2468	27	2280	2630
Potassium	13/13	4548	63	4270	5010
Rhenium	0/13	<0.002	ND	ND	ND
Rubidium	13/13	4.52	0.55	1.88	7.93
Selenium	13/13	0.089	0.005	0.056	0.115
Silver	5/13	0.0025	0.0007	0.0012	0.0048
Sodium	13/13	450	14	378	527
Strontium	13/13	0.784	0.151	0.100	1.880
Tellurium	0/13	<0.004	ND	ND	ND
Thallium	13/13	0.0075	0.0004	0.0040	0.0106
Thorium	0/13	<0.002	ND	ND	ND
Tin	8/13	0.010	0.002	0.004	0.016
Titanium	3/13	0.0240	0.0115	0.0120	0.0470

Watershed	Lake 01428UEUT				
Tissue Type	Muscle				
Analyte (mg/kg wwt)	FoD	Mean	SE	Minimum	Maximum
Uranium	0/13	<0.0004	ND	ND	ND
Vanadium	0/13	<0.004	ND	ND	ND
Yttrium	0/13	<0.002	ND	ND	ND
Zinc	13/13	4.43	0.27	3.30	6.53
Zirconium	0/13	<0.04	ND	ND	ND

Note: Mean concentration is calculated using 1/2 the sample detection limit for non-detects

mg/kg wwt – milligrams per kilogram wet weight, FoD- frequency of detection; n/a not available; NC - not calculated; ND - not detected; SE - standard error

Table 5.10-9C: Statistical Analysis of Fish Tissue Metal Concentrations in Rainbow Trout, Liver Tissue Samples, 2011 - 2012

Watershed	Davidson Creek					Turtle Creek				
Tissue Type	Liver					Liver				
Analyte (mg/kg wwt)	FoD	Mean	SE	Minimum	Maximum	FoD	Mean	SE	Minimum	Maximum
Aluminum	9/9	2.3	0.4	0.6	4.2	3/3	3.1	1.2	1.6	5.4
Antimony	1/9	0.002	NC	0.002	0.002	2/3	0.002	0.000	0.002	0.002
Arsenic	9/9	0.048	0.008	0.031	0.099	3/3	0.067	0.017	0.049	0.101
Barium	8/9	0.05	0.01	0.02	0.14	3/3	0.05	0.01	0.04	0.07
Beryllium	0/9	<0.003	ND	<0.002	<0.004	0/3	<0.003	ND	<0.002	<0.004
Bismuth	0/9	<0.003	ND	<0.002	<0.004	0/3	<0.003	ND	<0.002	<0.004
Boron	1/9	0.21	NC	0.21	0.21	0/3	<0.4	ND	ND	ND
Cadmium	9/9	0.1647	0.0104	0.1210	0.2160	3/3	0.1019	0.0371	0.0544	0.1750
Calcium	9/9	70	7	42	97	3/3	94	18	59	117
Cesium	9/9	0.042	0.007	0.017	0.074	3/3	0.010	0.002	0.008	0.013
Chromium	6/9	0.093	0.020	0.032	0.176	0/3	<0.03	ND	ND	ND
Cobalt	9/9	0.0347	0.0075	0.0170	0.0751	3/3	0.0386	0.0074	0.0267	0.0523
Copper	9/9	41.178	8.360	13.600	86.600	3/3	58.267	8.063	46.500	73.700
Gallium	0/9	<0.006	ND	<0.004	<0.008	0/3	<0.006	ND	<0.004	<0.008
Iron	9/9	137.12	15.72	72.50	217.00	3/3	151.000	18.771	114.000	175.000
Lead	3/9	0.0142	0.0083	0.0050	0.0308	2/3	0.0632	0.0499	0.0133	0.1130
Lithium	2/9	0.029	0.001	0.028	0.029	0/3	<0.04	ND	ND	ND
Magnesium	9/9	222.8	12.7	181.0	302.0	3/3	282.7	47.7	233.0	378.0
Manganese	9/9	1.563	0.161	1.030	2.470	3/3	2.147	0.532	1.600	3.210
Mercury, Total	9/9	0.104	0.012	0.023	0.137	3/3	0.091	0.059	0.015	0.206
Methyl-Mercury	0/0	n/a	n/a	n/a	n/a	0/0	n/a	n/a	n/a	n/a
Molybdenum	9/9	0.237	0.017	0.157	0.308	3/3	0.280	0.028	0.234	0.330
Nickel	4/9	0.1753	0.0634	0.0570	0.3340	0/3	<0.06	ND	ND	ND
Phosphorus	9/9	4196	215	3170	5110	3/3	5513	913	4380	7320
Potassium	9/9	3276	167	2640	4190	3/3	4137	347	3630	4800
Rhenium	0/9	<0.003	ND	<0.002	<0.004	0/3	<0.003	ND	<0.002	<0.004
Rubidium	9/9	3.47	0.16	2.66	4.39	3/3	2.74	0.20	2.49	3.13
Selenium	9/9	4.261	0.456	2.890	6.240	3/3	7.370	0.363	6.690	7.930
Silver	9/9	1.6156	0.1596	1.0500	2.4300	3/3	1.1387	0.2416	0.8610	1.6200
Sodium	9/9	1172	45	900	1400	3/3	1607	219	1170	1850
Strontium	9/9	0.114	0.016	0.063	0.217	3/3	0.109	0.022	0.072	0.147
Tellurium	0/9	<0.006	ND	<0.004	<0.008	0/3	<0.006	ND	<0.004	<0.008
Thallium	9/9	0.0348	0.0018	0.0262	0.0435	3/3	0.0275	0.0068	0.0180	0.0406
Thorium	0/9	<0.003	ND	<0.002	<0.004	0/3	<0.003	ND	<0.002	<0.004
Tin	6/9	0.065	0.024	0.005	0.153	3/3	0.067	0.020	0.031	0.100
Titanium	9/9	0.0730	0.0222	0.0140	0.2080	3/3	0.1530	0.0795	0.0690	0.3120

Watershed	Davidson Creek					Turtle Creek				
Tissue Type	Liver					Liver				
Analyte (mg/kg wwt)	FoD	Mean	SE	Minimum	Maximum	FoD	Mean	SE	Minimum	Maximum
Uranium	9/9	0.00109	0.00011	0.00070	0.00187	2/3	0.00079	0.00022	0.00057	0.00101
Vanadium	9/9	0.0254	0.0040	0.0074	0.0397	3/3	0.0281	0.0062	0.0198	0.0403
Yttrium	2/9	0.004	0.000	0.004	0.004	1/3	0.006	NC	0.006	0.006
Zinc	9/9	30.96	1.58	26.80	41.40	3/3	35.57	4.28	30.70	44.10
Zirconium	1/9	0.09	ND	0.09	0.09	0/3	<0.08	ND	ND	ND

Note: Mean concentration is calculated using 1/2 the sample detection limit for non-detects

mg/kg wwt – milligrams per kilogram wet weight, FoD- frequency of detection; n/a not available; NC - not calculated; ND - not detected; SE - standard error

Table 5.10-9C: Statistical Analysis of Fish Tissue Metal Concentrations in Rainbow Trout, Liver Tissue Samples, 2011 - 2012 (continued)

Watershed	Creek 661					Chedakuz Creek				
Tissue Type	Liver					Liver				
Analyte (mg/kg wwt)	FoD	Mean	SE	Minimum	Maximum	FoD	Mean	SE	Minimum	Maximum
Aluminum	3/3	3.5	1.2	1.9	5.9	8/8	3.01	1.03	0.84	9.74
Antimony	1/3	0.003	NC	0.003	0.003	1/8	0.01	NC	0.01	0.01
Arsenic	3/3	0.080	0.031	0.045	0.142	8/8	0.06	0.01	0.03	0.08
Barium	3/3	0.09	0.01	0.09	0.10	8/8	0.04	0.00	0.03	0.07
Beryllium	0/3	<0.003	ND	<0.002	<0.004	0/8	<0.002	ND	ND	ND
Bismuth	0/3	<0.003	ND	<0.002	<0.004	1/8	0.00	NC	0.00	0.00
Boron	0/3	<0.4	ND	ND	ND	4/8	1.42	0.65	0.23	2.77
Cadmium	3/3	0.1533	0.0255	0.1040	0.1890	8/8	0.13	0.04	0.05	0.41
Calcium	3/3	108	18	74	131	8/8	133.43	49.78	61.20	479.00
Cesium	3/3	0.017	0.006	0.008	0.029	7/8	0.00	0.00	0.00	0.00
Chromium	1/3	0.090	NC	0.090	0.090	2/8	0.18	0.09	0.09	0.27
Cobalt	3/3	0.0626	0.0187	0.0354	0.0983	8/8	0.04	0.01	0.02	0.07
Copper	3/3	53.033	16.313	24.500	81.000	8/8	164.86	37.60	98.90	420.00
Gallium	0/3	<0.006	ND	<0.004	<0.008	0/8	<0.004	ND	ND	ND
Iron	3/3	155.67	27.39	102.00	192.00	8/8	324.50	24.47	243.00	438.00
Lead	3/3	0.0107	0.0019	0.0079	0.0142	3/8	0.01	0.00	0.01	0.01
Lithium	0/3	<0.04	ND	ND	ND	0/8	<0.02	ND	ND	ND
Magnesium	3/3	274.0	28.0	224.0	321.0	8/8	220.75	16.57	158.00	294.00
Manganese	3/3	2.497	0.546	1.750	3.560	8/8	1.96	0.20	1.01	2.81
Mercury, Total	3/3	0.127	0.068	0.027	0.258	8/8	0.12	0.01	0.08	0.19
Methyl-Mercury	0/0	n/a	n/a	n/a	n/a	0/0	n/a	n/a	n/a	n/a
Molybdenum	3/3	0.249	0.036	0.196	0.319	8/8	0.32	0.04	0.22	0.56
Nickel	1/3	0.0500	NC	0.0500	0.0500	3/8	0.11	0.04	0.05	0.17
Phosphorus	3/3	5163	518	4230	6020	8/8	4303.75	354.94	2780.00	5720.00
Potassium	3/3	3797	380	3260	4530	8/8	3780.00	337.52	2500.00	5150.00
Rhenium	0/3	<0.003	ND	<0.002	<0.004	0/8	<0.002	ND	ND	ND
Rubidium	3/3	4.05	0.74	2.76	5.31	8/8	2.40	0.29	1.11	3.34
Selenium	3/3	5.933	1.979	2.250	9.030	8/8	13.32	4.34	3.93	41.40
Silver	3/3	1.7000	0.3361	1.2600	2.3600	8/8	2.01	0.31	1.00	3.61
Sodium	3/3	1580	194	1200	1840	8/8	1433.75	98.80	1130.00	2000.00
Strontium	3/3	0.157	0.024	0.126	0.205	8/8	0.14	0.04	0.06	0.38
Tellurium	0/3	<0.006	ND	<0.004	<0.008	3/8	0.01	0.00	0.01	0.02
Thallium	3/3	0.0306	0.0034	0.0244	0.0363	8/8	0.01	0.00	0.00	0.03
Thorium	0/3	<0.003	ND	<0.002	<0.004	0/8	<0.002	ND	ND	ND
Tin	2/3	0.088	0.038	0.050	0.126	8/8	0.08	0.01	0.03	0.14
Titanium	3/3	0.2807	0.1222	0.1220	0.5210	7/8	0.09	0.04	0.02	0.35

Watershed	Creek 661					Chedakuz Creek				
Tissue Type	Liver					Liver				
Analyte (mg/kg wwt)	FoD	Mean	SE	Minimum	Maximum	FoD	Mean	SE	Minimum	Maximum
Uranium	3/3	0.00156	0.00055	0.00095	0.00267	7/8	0.00	0.00	0.00	0.01
Vanadium	3/3	0.0336	0.0121	0.0145	0.0559	8/8	0.21	0.11	0.02	0.95
Yttrium	1/3	0.004	NC	0.004	0.004	7/8	0.00	0.00	0.00	0.01
Zinc	3/3	47.53	14.48	32.80	76.50	8/8	53.24	10.32	30.50	123.00
Zirconium	0/3	<0.08	ND	ND	ND	1/8	0.04	NC	0.04	0.04

Note: Mean concentration is calculated using 1/2 the sample detection limit for non-detects

mg/kg wwt – milligrams per kilogram wet weight, FoD- frequency of detection; n/a not available; NC - not calculated; ND - not detected; SE - standard error

Table 5.10-9C: Statistical Analysis of Fish Tissue Metal Concentrations in Rainbow Trout, Liver Tissue Samples, 2011 - 2012 (continued)

Watershed	Lake 01682LNRS					Lake 01538UEUT				
Tissue Type	Liver					Liver				
Analyte (mg/kg wwt)	FoD	Mean	SE	Minimum	Maximum	FoD	Mean	SE	Minimum	Maximum
Aluminum	4/8	0.6	0.1	0.5	0.8	15/15	1.8	0.2	0.6	3.6
Antimony	0/8	<0.002	ND	ND	ND	0/15	<0.002	ND	ND	ND
Arsenic	8/8	0.061	0.008	0.034	0.100	15/15	0.032	0.003	0.016	0.063
Barium	7/8	0.03	0.00	0.01	0.04	15/15	0.03	0.00	0.01	0.07
Beryllium	0/8	<0.002	ND	ND	ND	0/15	<0.002	ND	ND	ND
Bismuth	0/8	<0.002	ND	ND	ND	0/15	<0.002	ND	ND	ND
Boron	4/8	0.63	0.20	0.27	1.17	3/15	1.01	0.76	0.25	2.52
Cadmium	8/8	0.0121	0.0014	0.0073	0.0172	15/15	0.0719	0.0085	0.0340	0.1500
Calcium	8/8	169	22	96	248	15/15	173	38	88	562
Cesium	8/8	0.595	0.094	0.263	1.070	15/15	0.128	0.039	0.051	0.662
Chromium	6/8	0.270	0.250	0.011	1.520	11/15	0.131	0.030	0.026	0.296
Cobalt	8/8	0.0230	0.0027	0.0159	0.0388	15/15	0.0161	0.0013	0.0110	0.0284
Copper	8/8	70.000	10.458	42.800	129.000	15/15	65.705	10.415	9.380	123.000
Gallium	0/8	<0.004	ND	ND	ND	0/15	<0.004	ND	ND	ND
Iron	8/8	169.33	19.10	57.60	231.00	15/15	213.420	38.507	37.500	505.000
Lead	0/8	<0.004	ND	ND	ND	14/15	0.0173	0.0021	0.0080	0.0352
Lithium	0/8	<0.02	ND	ND	ND	0/15	<0.02	ND	ND	ND
Magnesium	8/8	209.4	8.4	166.0	236.0	15/15	262.6	37.6	192.0	781.0
Manganese	8/8	1.205	0.200	0.645	2.310	15/15	1.533	0.087	1.110	2.350
Mercury, Total	8/8	0.313	0.049	0.149	0.518	15/15	0.155	0.014	0.085	0.254
Methyl-Mercury	1/1	0.133	NC	0.133	0.133	1/1	0.029	NC	0.029	0.029
Molybdenum	8/8	0.202	0.012	0.143	0.271	15/15	0.315	0.020	0.205	0.481
Nickel	4/8	0.0250	0.0069	0.0130	0.0440	12/15	0.0803	0.0118	0.0210	0.1450
Phosphorus	8/8	3388	104	2780	3660	15/15	4203	158	3440	5500
Potassium	8/8	3369	87	2960	3670	15/15	3725	179	2780	4770
Rhenium	0/8	<0.002	ND	ND	ND	0/15	<0.002	ND	ND	ND
Rubidium	8/8	6.11	0.66	4.05	9.61	15/15	3.94	0.53	2.21	11.10
Selenium	8/8	3.773	0.637	1.400	6.650	15/15	4.302	0.942	1.420	11.700
Silver	8/8	0.7318	0.1955	0.1130	1.8800	15/15	2.5520	0.2396	1.3200	4.7800
Sodium	8/8	1299	57	1110	1540	15/15	1190	49	950	1510
Strontium	8/8	0.576	0.094	0.218	0.950	15/15	0.260	0.031	0.142	0.594
Tellurium	0/8	<0.004	ND	ND	ND	0/15	<0.004	ND	ND	ND
Thallium	8/8	0.0508	0.0039	0.0390	0.0721	15/15	0.0406	0.0068	0.0178	0.1250
Thorium	0/8	<0.002	ND	ND	ND	0/15	<0.002	ND	ND	ND
Tin	8/8	0.040	0.004	0.025	0.059	8/15	0.098	0.023	0.026	0.205
Titanium	1/8	0.0150	NC	0.0150	0.0150	15/15	0.0620	0.0252	0.0100	0.3890

Watershed	Lake 01682LNRS					Lake 01538UEUT				
Tissue Type	Liver					Liver				
Analyte (mg/kg wwt)	FoD	Mean	SE	Minimum	Maximum	FoD	Mean	SE	Minimum	Maximum
Uranium	8/8	0.00302	0.00034	0.00123	0.00418	15/15	0.00768	0.00153	0.00263	0.02630
Vanadium	8/8	0.0101	0.0017	0.0040	0.0179	15/15	0.0196	0.0018	0.0099	0.0325
Yttrium	0/8	<0.002	ND	ND	ND	6/15	0.003	0.000	0.002	0.005
Zinc	8/8	38.84	4.99	24.60	62.10	15/15	38.55	1.74	30.20	54.50
Zirconium	0/8	<0.04	ND	ND	ND	0/15	<0.04	ND	ND	ND

Note: Mean concentration is calculated using 1/2 the sample detection limit for non-detects

mg/kg wwt – milligrams per kilogram wet weight, FoD- frequency of detection; n/a not available; NC - not calculated; ND - not detected; SE - standard error

Table 5.10-9C: Statistical Analysis of Fish Tissue Metal Concentrations in Rainbow Trout, Liver Tissue Samples, 2011 - 2012 (completed)

Watershed	Lake 01428UEUT				
Tissue Type	**Liver**				
Analyte (mg/kg wwt)	**FoD**	**Mean**	**SE**	**Minimum**	**Maximum**
Aluminum	13/13	2.2	0.3	0.9	4.4
Antimony	0/13	<0.002	ND	ND	ND
Arsenic	13/13	0.035	0.004	0.015	0.065
Barium	13/13	0.07	0.03	0.02	0.41
Beryllium	0/13	<0.002	ND	ND	ND
Bismuth	0/13	<0.002	ND	ND	ND
Boron	1/13	2.22	NC	2.22	2.22
Cadmium	13/13	0.0224	0.0031	0.0050	0.0398
Calcium	13/13	101	9	72	207
Cesium	13/13	0.066	0.013	0.013	0.167
Chromium	9/13	0.089	0.032	0.028	0.336
Cobalt	13/13	0.0224	0.0016	0.0147	0.0343
Copper	13/13	136.162	19.441	67.200	253.000
Gallium	0/13	<0.004	ND	ND	ND
Iron	13/13	227.27	34.23	61.50	503.00
Lead	11/13	0.0211	0.0047	0.0056	0.0510
Lithium	0/13	<0.02	ND	ND	ND
Magnesium	13/13	217.5	8.5	176.0	262.0
Manganese	13/13	1.431	0.055	1.100	1.750
Mercury, Total	13/13	0.164	0.015	0.095	0.300
Methyl-Mercury	0/0	n/a	n/a	n/a	n/a
Molybdenum	13/13	0.340	0.015	0.287	0.461
Nickel	4/13	0.1093	0.0424	0.0190	0.1820
Phosphorus	13/13	4272	184	3330	5220
Potassium	13/13	3700	111	3120	4370
Rhenium	0/13	<0.002	ND	ND	ND
Rubidium	13/13	4.30	0.53	2.07	8.29
Selenium	13/13	4.198	0.817	1.420	10.600
Silver	13/13	2.3246	0.3064	0.9200	4.1800
Sodium	13/13	1475	61	1160	1820
Strontium	13/13	0.346	0.030	0.204	0.602
Tellurium	0/13	<0.004	ND	ND	ND
Thallium	13/13	0.0795	0.0110	0.0403	0.1860
Thorium	0/13	<0.002	ND	ND	ND
Tin	13/13	0.070	0.020	0.011	0.251
Titanium	13/13	0.0488	0.0148	0.0120	0.1760

Watershed	Lake 01428UEUT				
Tissue Type	Liver				
Analyte (mg/kg wwt)	FoD	Mean	SE	Minimum	Maximum
Uranium	13/13	0.00285	0.00075	0.00065	0.01100
Vanadium	13/13	0.0250	0.0049	0.0068	0.0750
Yttrium	4/13	0.003	0.001	0.002	0.006
Zinc	13/13	37.04	1.68	28.60	46.30
Zirconium	1/13	0.05	NC	0.05	0.05

Note: Mean concentration is calculated using 1/2 the sample detection limit for non-detects

mg/kg wwt – milligrams per kilogram wet weight, FoD- frequency of detection; n/a not available; NC - not calculated; ND - not detected; SE - standard error

Annex 5.10-10
Microsatellite DNA Analysis for Rainbow Trout Populations, 2011

Microsatellite DNA Analysis of Populations of Rainbow Trout (*Oncorhynchus mykiss*) in the Tatelkuz Lake Watershed, Interior British Columbia

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SUMMARY

One hundred and seventy samples of rainbow trout (*Oncorhynchus mykiss*) obtained from seven localities in central interior of British Columbia (BC), four from the within the Tatelkuz Lake drainage and three from the adjacent Entiako Lake system, were assayed at ten microsatellite DNA loci. The numbers of alleles and heterozygosity observed in these (2.5 to 4.5 and 0.33 - 0.50) were typical of *O. mykiss* sampled from other areas of the British Columbia interior and over a similar geographic scale. A measure of genetic divergence among samples, $F_{ST,}$ was estimated as 0.10 and most pairwise comparisons among the samples were statistically significant. The samples clustered into four broad groupings: (i) lakes 1428, 1538 and Creek 705, (ii) Turtle Creek and Creek 700, (iii) Davidson Creek, and (iv) Creek 661. Approximately 7% of the total variation in allele frequencies was attributable to differences between the two drainages, 5% to localities within drainages and 88% to variation within localities. Most of the samples were demonstrably genetically distinct from one another and are probably largely demographically independent from one another although some movement likely does occur occasionally between localities that are currently interconnected.

INTRODUCTION

Methods for detecting molecular genetic differentiation are an important set of tools that can be used to understand the level of connectivity among salmonid populations (e.g, Allendort and Luikart 2007; Schwartz et al. 2007; Tamkee et al. 2010). Because demographic isolation (e.g., fish spawning in different streams) promotes genetic differentiation (Allendorf and Luikart 2007), variation in molecular genetic traits can be used to infer demographic independence. In addition, current methods of genetic differentiation are so powerful that it is possible to identify individuals sampled in one habitat that are unlikely (in a strict statistical sense) to have originated from the spawning population within that habitat (i.e., they are likely migrants from another system, Hansen et al. 2001).

The objectives of this study were to use microsatellite DNA analysis to: (i) characterize samples of rainbow trout (*Oncorhynchus mykiss*) obtained from seven localities near the Entiako and Tatelkuz lake watersheds, central interior of British Columbia (BC), and (ii) determine the extent of genetic differentiation between watersheds and also within watersheds to infer levels of interconnectedness amongst localities. Microsatellite DNA is a class of highly variable, biparentally-inherited genetic marker that can be assayed from tissue samples that do not require lethal sampling and have proven effective in many conservation-based studies of salmonid fishes (e.g., Hansen et al. 2001; Selcoe and Toonen 2006; Taylor et al. 2007).

MATERIALS AND METHODS

Rainbow trout tissue samples consisted of fin clips stored in 95% ethanol and were collected in the summer/autumn of 2011 from seven localities in two adjacent drainages within the Nechako River system upstream of the Kenny Dam (Figure 1): the Tatelkuz Lake drainage, central interior of British Columbia (BC, 53° 16’ 42” N; 124° 40’ 39”W) and the adjacent headwaters of the Entiako Lake system (approximately 53 ^{o} 11’ 07’’ N, 124 ^{o} 57’ 16” W). Three samples came from two lakes (Lake

1428, N = 17; Lake 1538, N = 15) and an interconnecting stream (Creek 705, N = 34) in the Entiako Lake watershed and these systems originate near the headwaters of Davidson Creek of the Tatelkuz Lake watershed. Other samples came from Turtle Creek (N = 29), Davidson Creek (N = 40), Creek 700 (N = 8) and Creek 661 (N = 29) within the Tatelkuz Lake drainage.

Microsatellite analysis

Ten microsatellite loci were chosen for inclusion based on clarity of resolution and degree of polymorphism: *Ots*3, 100, and 103, *Ssa*85, 197, and 456, *Omy*77, *Oki*3a, *One*8 *and* 14, which have been derived from *Oncorhynchus tshawytscha (Ots), Salmo salar (Ssa), O. mykiss (Om), O. kisutch (Oki), and O. nerka (One)* genomic libraries, respectively (see Tamkee et al. 2010). Polymerase chain reactions (PCR) were carried out with fluorescent dye-labelled primers in 10µl volumes of 10mM Tris-HCl (pH 8.3), 1.5mM $MgCl_2$, 0.8mM dNTP's, and 0.1 units of *Taq* polymerase (*One*8) or by using the Qiagen PCR Multiplex Kit (all other loci) in 20 µl volumes in MJ PTC 100 and 200 thermocyclers following Taylor et al. (2007). The PCR products were visualized using a Beckman-Coulter CEQ 8000 automated genotyper.

Genetic data analysis

The following tests were performed using GENEPOP ver. 3.3 (Raymond and Rousset 2001). Tests for deviations from Hardy-Weinberg equilibrium were performed for each locus-population combination using an exact test in which probability (P) values were estimated using a Markov chain method. Tests for genotypic linkage disequilibrium for all combinations of locus pairs within a population were also made using a Markov chain method with GENEPOP default values. Tests for population differentiation between all pairs of populations were performed using F_{ST} estimated as θ (Weir and Cockerham 1984) as implemented in GENETIX (Belkhir et al. 2004). Significance levels were determined correcting for multiple simultaneous tests following Narum (2006). Basic descriptive statistics of sample size (N), number of alleles (N_A), observed (H_O) and expected (H_E)

were compiled using FSTAT ver 2.9 (Goudet 2001). A factorial correspondence analysis (FCA) was used to depict genetic similarity amongst all individuals in genetic space as inferred from variation in allele frequencies using GENETIX. A hierarchical partitioning of allele frequency variation to that between drainages, among localities within drainages, and within localities was conducted using the avalysis of molecular variance approach as implemented in ARLEQUIN (Excoffier et al. 2006).

The model-based Bayesian clustering analysis within STRUCTURE (Pritchard et al. 2000) was used to assess population structure employing the admixture model with correlated allele frequencies and a burnin of 50,000 iterations followed by an additional 100,000 iterations, replicated three times. The simulations were run with hypothesized numbers of populations (K) ranging from $K = 1$ to $K =$ s+2 were s = the number of localities sampled (i.e., a total of $K = 9$). STRUCTURE HARVESTER was used to process the results from multiple runs of STRUCTURE (Earl 2011). Given the relatively small spatial scale of the study (and an expected low level of genetic differentiation) and that fish were sampled largely within what are likely to be spawning tributaries, the STRUCTURE analysis also used the locality prior option which employs prior knowledge of where each sample was collected to assist in clustering. The LOCPRIOR model works on the principle that individuals from the same sampling location often come from the same genetic population. Therefore, the LOCPRIOR operate to assume that the the sampling locations can be informative about ancestry (Hubisz et al. 2009).

RESULTS

Microsatellite polymorphism within populations

Across the 10 loci, the number of alleles ranged from 1 (*Ssa*456 and *One*14) to 16 (*Oki3a*, Appendix). Averaged across localities, expected heterozygosity ranged from 0.0 (*One*14 and *Ssa*456) to 0.750 (*Oki*3a). Across the seven localities, mean (across loci) allele number was fairly consistent and ranged from a low of 2.4 - 2.6 in the two lake samples to 4.6 in the Davidson Creek sample (Appendix). The total number of alleles observed was highest in the Davidson Creek sample (46), the

fewest in the two lake samples (26 and 24). Similarly, mean (across loci) expected heterozygosity ranged from a low of 0.377 - 0.388 in the two lake samples to 0.478 in the Davidson Creek sample. There were no indications of inbreeding in any samples (only those with N > 15 were tested); F_{IS} values ranged from -0.041 (Creek 661) to 0.104 (Turtle Creek), but none were significantly different from zero.

Microsatellite divergence among populations

Genetic differentiation amongst the seven population samples was expressed as F_{st} (θ) or the proportion of the total variation in microsatellite allele frequencies that is attributable to differences among populations. After 5,000 permutations of the allele frequency matrix, θ was estimated at 0.102 which was significantly greater than 0 ($P < 0.001$, 95% CI = 0.069 - 0.138). All pairwise comparsions were significant except for those between Creek 700 and Turtle Creek and between Creek 705 and Lake 1538 and between lakes 1428 and 1538 (Table 1). These relationships were apparent in the FCA (Figure 2) as there were three general groups of samples: lakes 1428, 1538 and Creek 705; Davidson Creek and Creek 661; and Turtle Creek and Creek 700. There was some overlap between localities in the FCA; in particular several fish sampled within Lake 1428 and Creek 705 fell within the group composed largely of fish from Turtle Creek and Creek 700 (Figure 2).

The analysis of molecular variance indicated that 7.2% of the variation in allele frequencies was attributable to differences between the Entiako and Tatelkuz lakes' drainages (V_{bd}), 5.7% to differences among localities within these drainages (V_{wd}), and 87.1% to variation within localities (V_{wl}, all $P < 0.001$). When the samples were arranged into Entiako Lake, Davidson Creek/Creek 661, and Turtle Creek/Creek 700 groups, V_{bd} was 8.3%, V_{bd} was 3.2%, and V_{bd} was 88.5% (all $P < 0.001$).

The STRUCTURE analysis returned $K = 4$ as the most likely population structure amongst the seven samples whether the locality prior option was invoked or not (ln likelihood = -2562.4 to -2552.3 versus ln likelihood = -2575.2 to -2570.7, respectively for $K = 3$ as the next most likely, Figure 3). While there were some individuals that consisted of an admixture of the four different

genetic populations, all samples tended to fall into four populations groups: (i) lakes 1428, 1538, and Creek 705 (dominated by the "green" genetic group in Figure 4), (ii) Creek 661 (dominated by the "red" and "yellow" genetic groups), (iii) Davidson Creek (dominated also by the red and yellow groups, but with the yellow component greater than in Creek 661), and (iv) Turtle Creek and Creek 700 (dominated by the "blue" genetic group). Again, some fish sampled from different watersheds were genetically similar to each other (e.g., fish from Lake 1428, Creek 705, Turtle Creek and Creek 700, Figure 4).

INTERPRETIVE COMMENTS

Variation within samples

Levels of genetic variation (number of alleles, expected heterozygosity) in *O. mykiss* from the Tatelkuz and Entiako lakes drainages were typical of those documented in a comprehensive study of *O. mykiss* from across BC. Tamkee et al. (2010) surveyed 69 localities from across BC including many headwater stream and lake populations of rainbow trout and several populations of steelhead trout. In the 42 genetic populations defined, the number of alleles ranged from a low of 2 (*Ssa*197) to 38 (*Oki*3a) with an average of 17.1 alleles observed within each sample across the same ten loci surveyed. Taylor (2012) reported an average of 23.3 alleles across the same ten loci surveyed in three populations of steelhead/rainbow trout from the Franklin River system, Alberni Inlet, BC. Across BC, expected heterozygosity ranged from a low of 0.05 (in a headwater stream population) up to 0.62 to 0.68 in several populations including anadromous steelhead trout. The values observed for the Entiako and Tatelkuz lakes drainages are certainly consistent with levels of variation observed in interior populations of rainbow trout, especially given the small geographic range of the current study. For instance, chains of interconnected lakes in the BC interior had average and total allele numbers (2 – 4, ~20 - 40) numbers and expected heterozygosities (0.15 – 0.55) that were broadly similar to those documented at the same loci in the current study (Tamkee et al. 2010).

Variation among samples

Levels of genetic differentiation as expressed by F_{ST}, and estimated by θ, can also be difficult to compare across studies when the loci used and scale of geography sampled differ. For instance, as genetic variation within samples increases, typically measures of differentiation such as F_{ST} decline so the use of loci with different levels of variability can influence comparisons of F_{ST}. Importantly, the current studt used the same loci as Taylor et al. (2007) and Tamkee et al. (2010). Across the current study area, the extent of microsatellite allele frequency variation that was due to differentiation among populations (θ) was 0.102 in *O. mykiss* which means that about 10.2% of the total variation assayed can be attributed to differences among the three sample localities, with the majority found within localities and individuals. Across the 42 BC populations studied by Tamkee et al. (2010), θ averaged 0.39, but these samples encompassed the entire range within BC and included several above-barrier headwater populations (Figure 4). Such migration barriers are often associated with heightened genetic differentiation between fish sampled above and below waterfalls (Costello et al. 2003; Taylor et al. 2003). Taylor et al. (2007) reported an overall θ of 0.30 across 49 populations of rainbow trout sampled from the Athabasca River, Alberta, watershed. Across smaller geographical scales and greater connectivity, θ ranged from 0.01 to 0.05 among lakes in the North Thompson River system and between 0.02 and 0.09 among localities in the lower Columbia River in the vicinity of Castlegar, BC (Tamkee et al. 2010) and 0.062 among three localities within the Franklin River drainage, Alberni Inlet, BC (Taylor 2012, Figure 4). In summary, the level of differentiation between localities observed in the current study is consistent with previous results once differences in the geographic scale of coverage and physical connectivity are accounted for.

The level of variation between drainages consitituted about 7.5% of the total variation in allele frequencies and was significant after accounting for variation within drainages and within localities. This compares to levels of variation amongst drainages in the BC interior (e.g., amongst drainages within the upper Fraser, upper Thompson, and Columbia rivers) of between 4% (Columbia river tributaries

Castlegar-Nelson area) to 26-50% (upper Fraser and upper Thompson rivers)(Tamklee et al. 2010). Tamkee et al. (2010) reported V_{bd} variation to be about 18% of the total variation when comparing amongst major watersheds in BC, i.e., the Columbia upper Fraser, upper Thompson, Skeena, and Stikine rivers and rivers from the Queen Cahrlotte Islands and Vancouver Island. Between watershed differentiation accounted for about 30% of the total variation in microsatellite allele frequencies within the Athabasca River drainage (Taylor et al. 2007). Consequently, the levels of between drainage differentiation reported in the current study are in line with these previous results for interior BC rainbow trout and would be expected to be somewhat lower than for comparsions across other interior drainages that encompassed much larger areas some of which are separated by migration barriers (Taylor 2007; Tamkee et al. 2010).

The results of the current study suggest that most samples of *O. mykiss* in the Entiako and Tatelkuz lakes drainages represent genetically distinct assemblages. Most localities within drainages were also genetically distinct from one another which suggests that they are, to a large extent, demographically independent from one another despite their physical interconnectedness (Lowe and Allendorf 2010). Populations that show a high level of genetic distinctiveness may not interact demographically in terms of interlocality dispersal and may the potential for genetic or demographic rescue between populations is likely low (e.g, see Bohonak 1999; Lowe and Allendorf 2010). Genetic methods to infer connectivity, levels of movement of individuals between localities or the common use of habitats by individuals from different populations, and demographic independence of populations are, however, need to interpreted with some caution. Detailed ecological study of how individuals actually perform in non-natal habitats (i.e., in terms of survival or reproductive success) is required to more completely understand demographic connectivity between localities (Lowe and Allendorf 2010). It is also beneficial in studies of population structure to account for interannual variation within localities by sampling across at least two years. Typically, however, interannual variation is quite small relative to sptial variation in salmonid fishes (e.g., Beacham et al. 2004; Taylor and Yau 2011).

While the samples examined from the Entiako and Tatelkuz drainages represent genetically distinct populations, the analysis also showed that there are some individual fish from different localities that are genetically similar to one another. For example, the two lakes from the Entiako Lake watershed, and Creek 705 and Lake 1538, were not distinct from one another. Similarly, Turtle Creek and Creek 700 (a tributary of upper Turtle Creek) were also not demonstrably distinct from one another. Such similarity might be expected given the close connection between these localities, although the comparisons between Turtle Creek and Creek 700 and between Lake 1538 and Creek 705 are compromised by the low sample sizes from Creek 700 (8) and Lake 1538 (13). Also, some fish from Turtle Creek and Creek 700 were quite similar to fish from lakes 1438, 1538 and Creek 705. Given that Davidson/Turtle/Creek 700 and lakes 1428, 1538, and Creek 705 flow in opposite directions (east and west, respectively) across a minor drainage divide, these observations of inter-watershed similarity between some fish suggest that these two watersheds have in the past, or perhaps currently during exceptionally high water years, been connected such that fish may move between them. Certainly, such watershed exchanges have been suggested to occur within the postglacial history Pacific coast fishes including rainbow trout (e.g., Parkinson 1984; Currens et al. 1990; Baxter et al. 1997; Taylor and Costello 2006).

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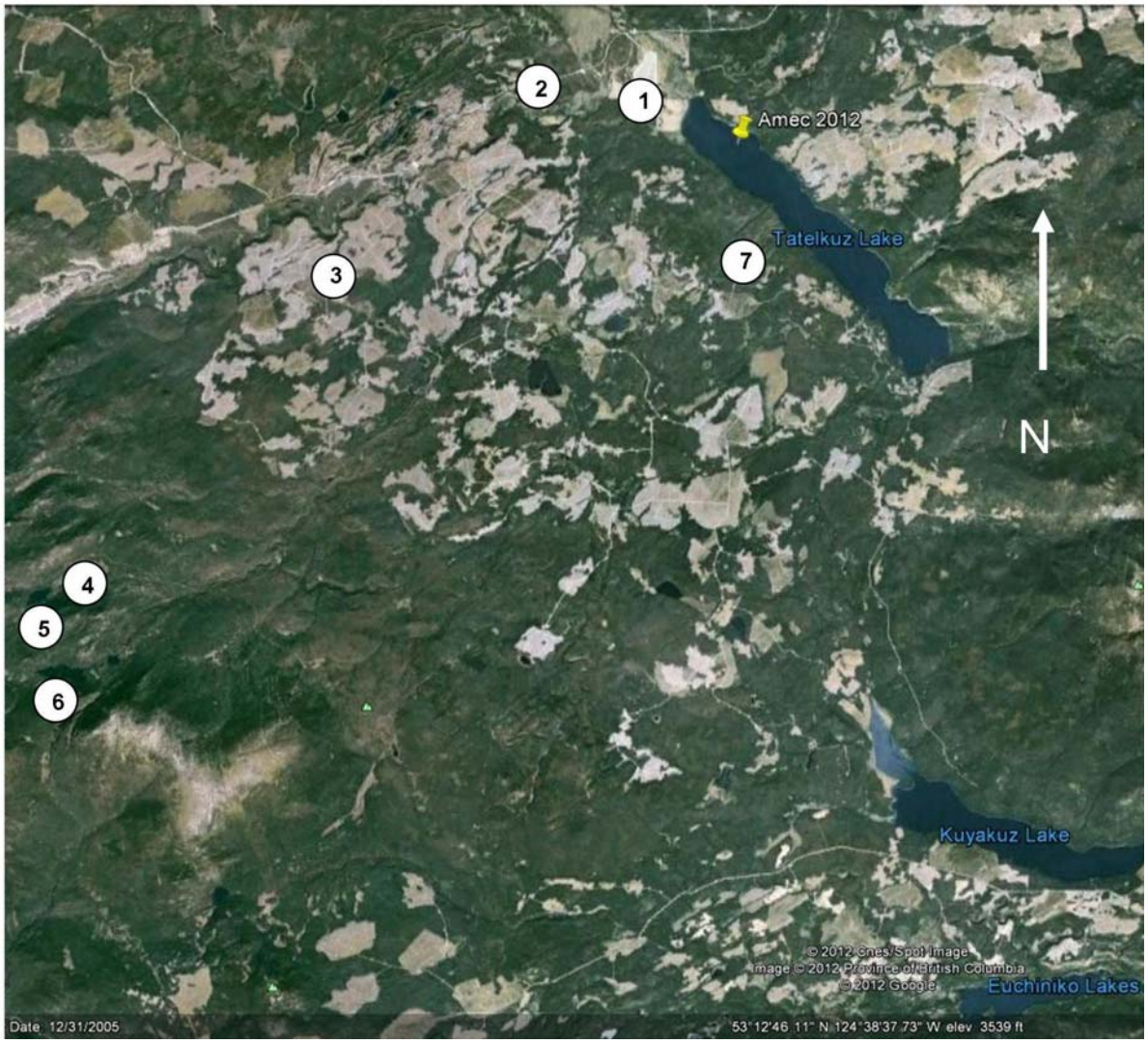
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Table 1. Pairwise F_{ST} (θ, Weir and Cockerham 1968) between samples of rainbow trout (*Oncorhynchus mykiss*) from the Entiako Lake (italicized font) and the Tatelkuz Lake (normal font) drainages based on variation across ten microsatellite DNA loci. Significance levels determined from 5,000 permutations in GENETIX (Belkhir et al. 2004). All comparisons, except those that are underlined, are significant (i.e., $P \leq 0.01372$ adjusting for multiple comparisons). L1428 = Lake 1428, DC = Davidson Creek, TC = Turtle Creek, L1538 = Lake 1538, C700 = Creek 700, C661 = Creek 661, C705 = Creek 705.

	DC	**TC**	***L1538****	**C700***	**C661**	***C705***
L1428	**0.10671**	**0.16732**	**<u>0.04503</u>**	**0.15823**	**0.16466**	**0.07719**
DC		**0.06458**	**0.12630**	**0.04553**	**0.01998**	**0.07864**
TC			**0.22062**	**<u>-0.00392</u>**	**0.09411**	**0.13854**
L1538*				**0.19034**	**0.17105**	**<u>0.02901</u>**
C700*					**0.05420**	**0.11111**
C661						**0.11751**

***Sample sizes of < 15**

Figure 1. Location of samples of rainbow trout (*Oncorhynchus mykiss*) obtained from the Tatelkuz and Entiako (italicized font) lakes drainages, southwest of Vanderhoof, BC. 1 = Davidson Creek, 2 = Turtle Creek, 3 = Creek 700, 4 = *Lake 1428*, 5 = *Creek 705*, 6 = *Lake 1538*, 7 = Creek 661.



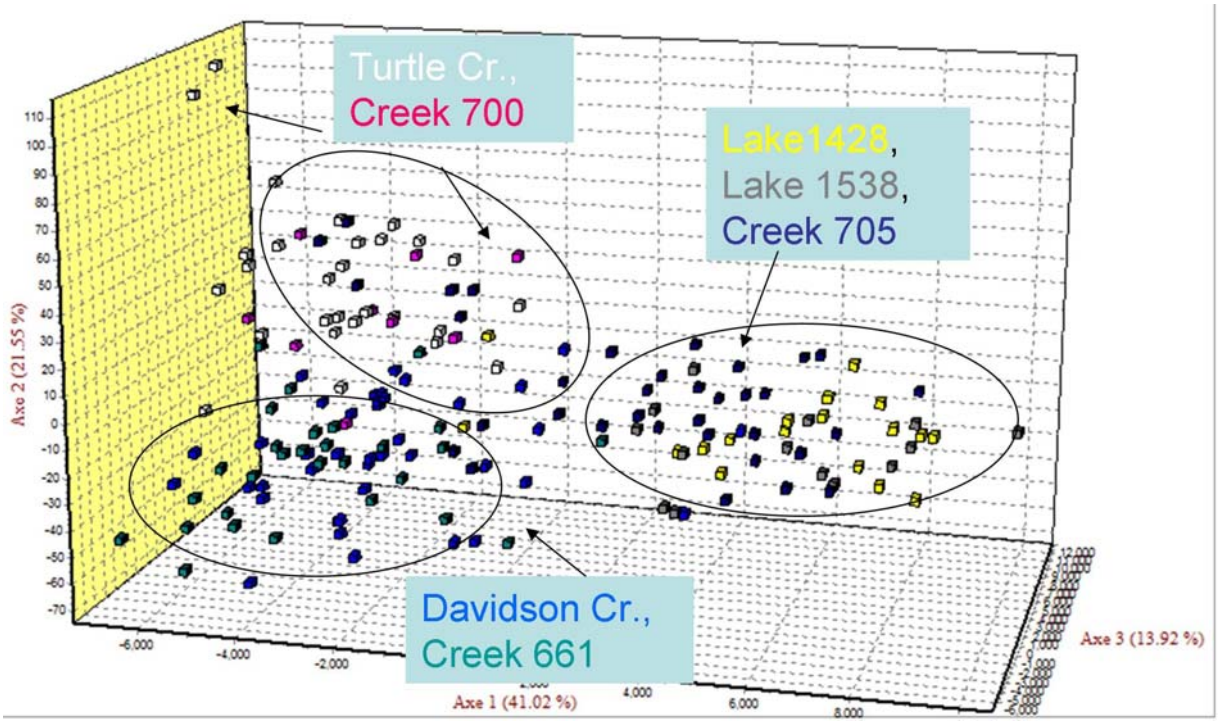


Figure 2. Factorial correspondence analysis depicting relative similarity among samples of rainbow trout (*Oncorhynchus mykiss*) sampled from Tatelkuz and Entiako lakes drainages and assayed at ten microsatellite DNA loci. The analysis depicts similarity as summarized across the first three axes of genetic differentiation which together accounted for 76% of the variation in allele frequencies. Colour of locality name reflect symbol colours.

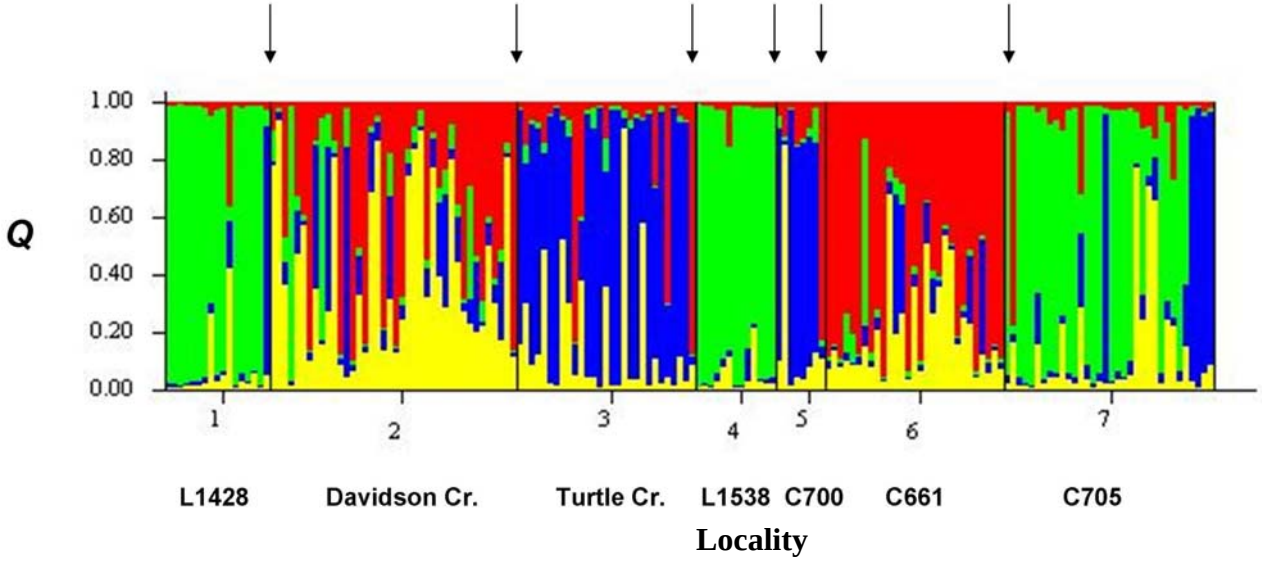


Figure 3. Results of STRUCTURE analysis (Pritchard et al. 2000) for rainbow trout (*Oncorhynchus mykiss*) sampled from seven localities in the Tatelkuz and Entiako lakes drainages and assayed at ten microsatellite DNA loci. Each fish is represented by a thin vertical line in which the height of each coloured portion indicates the proportional genetic contribution (*Q*) from each of the four genetic groups ("red", "bue" "yellow" and "green"). Doward arrowheads lines separate fish from each locality. Note the "blue" individuals shared between samples from Lake 1428, Creek 705, Turtle Creek, and Creek 700.

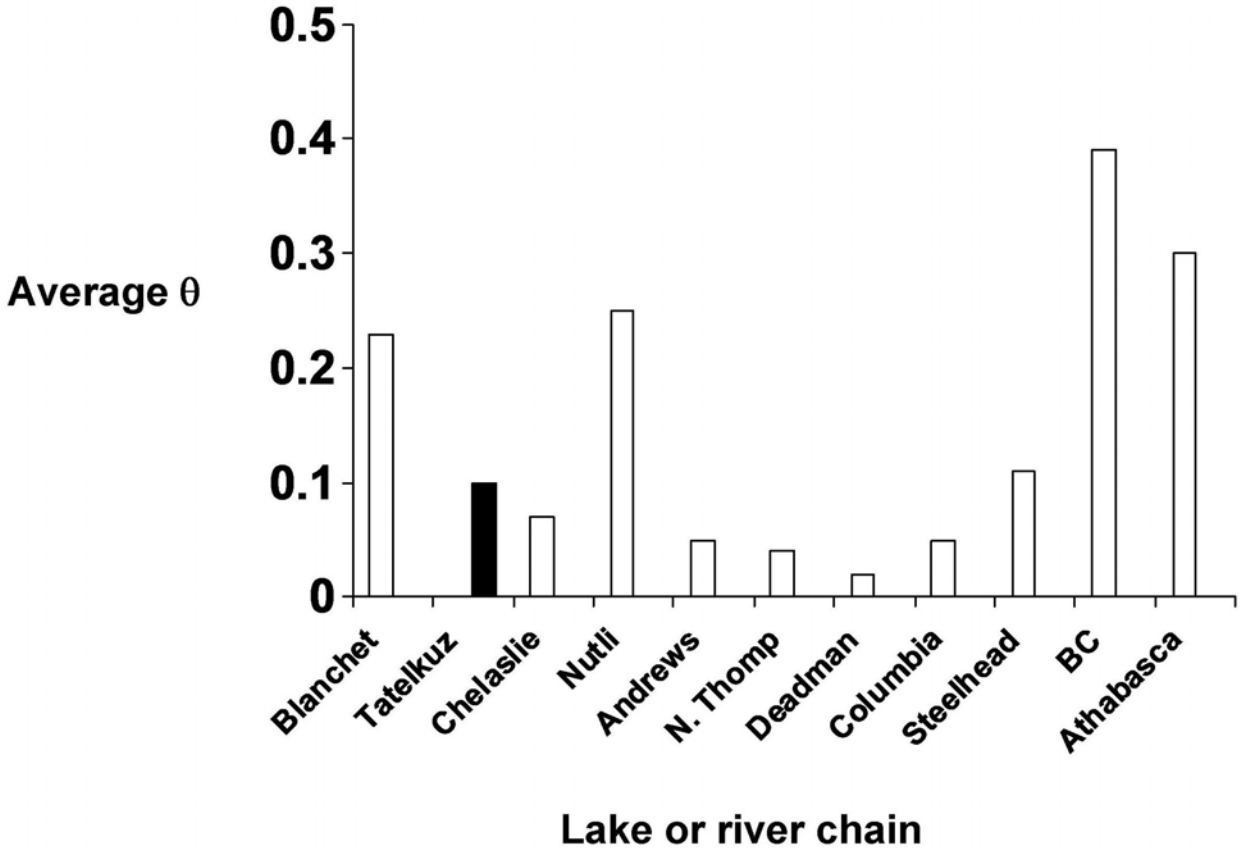


Figure 5. Comparative values of F_{ST} (θ) among several population assemblages of *Oncorhynchus mykiss* sampled from British Columbia and Alberta assayed at ten microsatellite DNA loci. Blanchet, Chelaslie, Nuti, Andrews, and Tatelkuz lake/river chains are from the upper Fraser River, N. Thomp and Deadman are from the North Thompson River, Columbia is from the Columbua River near Castlegar, BC, Steelhead are seven steelhead trout populations from the Fraser River, Vancouver, and the Queen Charlotte Islands, and BC represents the average of 42 samples from across BC while the Athabasca value represents the average across 49 samples fromn the Athabasca River in Alberta (see Taylor et al. 2007 and Tamkee et al. 2010).

Appendix. Localities, sample sizes, number of alleles, heterozygosity, and allele frequencies across ten microsatellite DNA loci assayed in rainbow trout (*Oncorhynchus mykiss*) from the Entiako and Tatelkuz lakes drainages.

http://www.zoology.ubc.ca/~etaylor/nfrg/dataarchive/TatelkuzLake/TatlekuzLakediversity.htm

id: nfrg
pw: pisces

Annex 5.10-11
Microsatellite DNA Data for Rainbow Trout Populations, 2011

Appendix [1]									
Locus		**Lake 1428**	**Davidson Creek**	**Turtle Creek**	**Lake 1538**	**Creek 700**	**Creek 661**	**Creek 705**	**Means**
Ots100									
Sample size		17	40	29	13	8	29	24	
Number of alleles		2	8	2	3	3	5	5	4
	Alleles								
Frequencies	168	0	0.2	0.172	0	0.125	0.276	0.015	0.113
Frequencies	172	0.676	0.613	0.828	0.654	0.75	0.483	0.662	0.666
Frequencies	174	0	0.013	0	0	0	0.034	0	0.007
Frequencies	180	0	0.013	0	0	0	0.017	0.029	0.008
Frequencies	185	0	0	0	0.038	0	0	0	0.005
Frequencies	186	0.324	0.113	0	0.308	0.125	0.19	0.191	0.179
Frequencies	194	0	0.025	0	0	0	0	0	0.004
Frequencies	208	0	0	0	0	0	0	0.103	0.015
Frequencies	212	0	0.013	0	0	0	0	0	0.002
Frequencies	214	0	0.013	0	0	0	0	0	0.002
Observed heterozygosity		0.529	0.575	0.345	0.385	0.5	0.655	0.559	0.507
Expected heterozygosity		0.451	0.578	0.29	0.495	0.433	0.665	0.522	0.491
Ots103									Means
Number of alleles		2	4	3	2	3	3	3	2.857
Frequencies	70	0	0.013	0	0	0	0	0	0.002
Frequencies	72	0	0.113	0.431	0	0.625	0.19	0.162	0.217
Frequencies	76	0.559	0.338	0.259	0.5	0.188	0.414	0.426	0.383
Frequencies	80	0.441	0.538	0.31	0.5	0.188	0.397	0.412	0.398
Observed heterozygosity		0.294	0.625	0.724	0.231	0.75	0.621	0.559	0.543
Expected heterozygosity		0.508	0.592	0.662	0.52	0.575	0.647	0.632	0.591
Ssa85									Means
Number of alleles		3	4	4	3	4	4	4	3.714
Frequencies	99	0	0.15	0.121	0	0.063	0.052	0.044	0.061
Frequencies	103	0.059	0.175	0.052	0.115	0.063	0.103	0.029	0.085
Frequencies	107	0.618	0.55	0.759	0.5	0.688	0.724	0.515	0.622
Frequencies	121	0.324	0.125	0.069	0.385	0.188	0.121	0.412	0.232
Observed heterozygosity		0.529	0.575	0.276	0.462	0.5	0.483	0.706	0.504
Expected heterozygosity		0.526	0.637	0.41	0.612	0.517	0.456	0.571	0.533
Ots3									Means
Number of alleles		3	4	6	3	4	4	3	3.857
Frequencies	78	0.059	0.365	0.12	0	0.357	0.381	0	0.183
Frequencies	80	0	0	0.04	0	0	0	0	0.006
Frequencies	82	0	0.058	0.32	0.042	0.286	0.024	0.1	0.118
Frequencies	84	0.382	0.404	0.16	0.917	0.214	0.476	0.833	0.484
Frequencies	86	0.559	0.173	0.34	0.042	0.143	0.119	0	0.196
Frequencies	96	0	0	0.02	0	0	0	0.067	0.012
Observed heterozygosity		0.118	0.846	0.68	0.083	1	0.571	0.2	0.5
Expected heterozygosity		0.554	0.683	0.755	0.163	0.78	0.628	0.301	0.552
Oki3a									Means
Number of alleles		6	9	7	4	6	8	8	6.857
Frequencies	126	0	0	0.017	0	0	0.052	0	0.01
Frequencies	130	0.029	0.325	0.069	0	0.063	0.397	0.118	0.143
Frequencies	134	0	0	0.017	0	0	0.017	0	0.005
Frequencies	138	0	0.113	0	0	0	0.086	0	0.028
Frequencies	142	0	0	0	0	0.063	0	0	0.009
Frequencies	146	0	0	0	0	0	0	0.015	0.002
Frequencies	148	0	0.013	0	0	0	0	0	0.002
Frequencies	150	0	0.025	0	0	0	0	0	0.004
Frequencies	154	0.088	0.025	0	0.115	0	0.017	0.044	0.041
Frequencies	158	0.441	0.188	0.172	0.346	0.125	0.034	0.147	0.208
Frequencies	162	0.176	0.225	0.431	0.192	0.5	0.379	0.353	0.322
Frequencies	166	0	0	0	0	0	0	0.118	0.017
Frequencies	180	0	0	0	0	0	0.017	0	0.002
Frequencies	186	0.029	0	0	0	0	0	0	0.004

Frequencies	194	0.235	0.038	0.034	0.346	0.125	0	0.118	0.128
Frequencies	198	0	0.05	0.259	0	0.125	0	0.088	0.075
Observed heterozygosity		0.882	0.725	0.586	0.538	0.75	0.621	0.912	0.716
Expected heterozygosity		0.731	0.801	0.724	0.738	0.742	0.699	0.814	0.75
Ssa197									Means
Number of alleles		1	2	2	1	2	1	2	1.571
Frequencies	110	1	0.913	0.966	1	0.875	1	0.985	0.963
Frequencies	114	0	0.088	0.034	0	0.125	0	0.015	0.037
Observed heterozygosity		0	0.175	0.069	0	0	0	0.029	0.039
Expected heterozygosity		0	0.162	0.068	0	0.233	0	0.029	0.07
One14									Means
Number of alleles		1	1	1	1	1	1	1	1
Frequencies	149	1	1	1	1	1	1	1	1
Observed heterozygosity		0	0	0	0	0	0	0	0
Expected heterozygosity		0	0	0	0	0	0	0	0
Ssa456									Means
Number of alleles		1	1	1	1	1	1	1	1
Frequencies	153	1	1	1	1	1	1	1	1
Observed heterozygosity		0	0	0	0	0	0	0	0
Expected heterozygosity		0	0	0	0	0	0	0	0
Omy77									Means
Number of alleles		3	7	5	3	3	5	4	4.286
Frequencies	16	0	0	0.017	0	0	0	0	0.002
Frequencies	122	0	0.013	0	0	0	0.034	0	0.007
Frequencies	124	0.647	0.25	0.172	0.5	0.313	0.172	0.529	0.369
Frequencies	126	0.118	0.088	0.19	0.308	0.125	0.19	0.044	0.152
Frequencies	128	0.235	0.6	0.603	0.192	0.563	0.552	0.412	0.451
Frequencies	130	0	0.013	0.017	0	0	0	0	0.004
Frequencies	132	0	0.025	0	0	0	0.052	0.015	0.013
Frequencies	158	0	0.013	0	0	0	0	0	0.002
Observed heterozygosity		0.588	0.55	0.552	0.615	0.75	0.621	0.529	0.601
Expected heterozygosity		0.528	0.576	0.58	0.643	0.608	0.637	0.556	0.59
One8									Means
Number of alleles		4	6	4	3	4	4	6	4.429
Frequencies	148	0.088	0.263	0.448	0	0.25	0.069	0.25	0.195
Frequencies	154	0.441	0.1	0	0.423	0	0	0.265	0.176
Frequencies	162	0	0.013	0	0	0	0	0.015	0.004
Frequencies	164	0.088	0.35	0.224	0.077	0.313	0.569	0.103	0.246
Frequencies	166	0.382	0.163	0.086	0.5	0.125	0.103	0.353	0.245
Frequencies	168	0	0.113	0.241	0	0.313	0.259	0.015	0.134
Observed heterozygosity		0.529	0.825	0.483	0.231	0.875	0.552	0.706	0.6
Expected heterozygosity		0.663	0.769	0.695	0.588	0.775	0.604	0.743	0.691
ALL LOCI									Means
Mean alleles number		2.6	4.6	3.5	2.4	3.1	3.6	3.7	3.357
Standard deviation		1.578	2.836	2.068	1.075	1.524	2.221	2.214	
Observed heterozygosity		0.347	0.49	0.371	0.254	0.513	0.412	0.42	0.401
Standard deviation		0.309	0.318	0.276	0.235	0.384	0.288	0.335	
Expected heterozygosity		0.396	0.48	0.418	0.376	0.466	0.434	0.417	0.427
Standard deviation		0.285	0.307	0.309	0.3	0.297	0.306	0.312	

Annex 5.10-12
Microsatellite DNA Analysis for Kokanee Populations, 2012

Microsatellite DNA Analysis of Populations of Kokanee (*Oncorhynchus nerka*) in the Tatelkuz Lake/Chedakuz Creek Watershed, Interior British Columbia

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SUMMARY

Two hundred and sixty two samples of kokanee (*Oncorhynchus nerka*) obtained from nine localities in the central interior of British Columbia (BC), eight from the within the Tatelkuz Lake/Chedakuz Creek drainage (Fraser River system) and one from the Kootenay Lake (Columbia River system) were assayed at six microsatellite DNA loci. The numbers of alleles and heterozygosity observed (5 to 22 and 0.41 - 0.94) were typical of kokanee sampled from other areas of the British Columbia interior and over a similar geographic scale. A measure of genetic divergence among all samples, $F_{ST,}$ was estimated as 0.086 (95% CI: 0.043 – 0.132) and most pairwise comparisons among the samples were statistically significant. When only the Tatelkuz/Chedakuz samples were compared, F_{ST}, was 0.068 (0.031 – 0.104), and 0.042 (0.022 – 0.064) when the upper Chedakuz Creek sample was removed. The upper Chedakuz Creek (mean F_{ST} = 0.148) and the Kootenay Lake (mean F_{ST} = 0.138) consistently showed the greatest divergence from all other samples. The samples clustered into four broad groupings: (1) lower Chedakuz Creek, Creek 522107, and Fawnie Creek; (2) upper Chedakuz Creek; (3) Davidson Creek, Creek 661, and middle Chedakuz Creek; and (4) Meadow Creek (Kootenay Lake). Creek 601947 appeared somewhat intermediate to groups (1) and (3), but sample sizes were low for this locality. Fourteen (6.3% of 220) of all the Tatelkuz/Chedakuz drainage samples could be rejected ($p < 0.01$) as members of the same genetic population as fish with which they were sampled and, therefore, were inferred to be immigrants to the sample locality. Most of the samples were demonstrably genetically distinct from one another, particularly upper Chedakuz Creek, and are probably largely demographically independent from one another although some movement likely does occur occasionally between localities that are currently interconnected.

INTRODUCTION

Methods for detecting molecular genetic differentiation are an important set of tools that can be used to understand the level of connectivity among salmonid populations (e.g, Allendort and Luikart 2007; Schwartz et al. 2007; Tamkee et al. 2010). Because demographic isolation (e.g., fish spawning in different streams) promotes genetic differentiation (Allendorf and Luikart 2007), variation in molecular genetic traits can be used to infer demographic independence. In addition, current methods of genetic differentiation are so powerful that it is possible to identify individuals sampled in one habitat that are unlikely (in a strict statistical sense) to have originated from the spawning population within that habitat (i.e., they are likely migrants from another system, Hansen et al. 2001).

Microsatellite DNA is a class of highly variable, biparentally-inherited genetic marker that can be assayed from tissue samples that do not require lethal sampling and have proven effective in many conservation-based studies of salmonid fishes to examine levels of genetic differentiation within and between populations (e.g., Hansen et al. 2001; Selcoe and Toonen 2006; Taylor et al. 2007). Taylor (2012) used microsatellite DNA analysis to characterize samples of rainbow trout (*Oncorhynchus mykiss*) obtained from seven localities near the Entiako and Tatelkuz lake watersheds, central interior of British Columbia (BC), and reported that about 10% of the total variation was attruibutable to differences among populations which was highly statistically significant. In this report, levels of differentiation among populations of kokanee, the freshwater-resident form of *Oncorhynchus nerka*, located in the Tatelkuz Lake/Chedalkuz Creek system are investigated and compared to a sample from a distant watershed, Meadow Creek in the Kootenay Lake (Columbia River system).

MATERIALS AND METHODS

Kokanee tissue samples consisted of fin clips stored in 95% ethanol and were collected in the summer/autumn of 2012 from nine localities in two lake systems (Figure 1): the Tatelkuz Lake drainage, central interior of British Columbia (BC, 53° 16' 42" N; 124° 40' 39"W) and Meadow Creek (approximately 50° 12' 13'' N, 116° 57' 57" W, N = 30) at the north end of Kootenay Lake (Columbia River system). The samples in the Tatelkuz system came from lower, middle, and upper Chedakuz creeks (N = 35, 30, and 30, respectively), Davidson Creek (N = 31), Creek 661 (N = 31), Creek 522107 (N = 31), Fawnie Creek (N = 33) and Creek 601947 (N = 7).

Microsatellite analysis

Extraction of DNA used Qiagen Spin Columns and samples were stored at -20°C until analysis. Six microsatellite loci were chosen for inclusion based on clarity of resolution and degree of polymorphism: *Ots*100, 103, and 108, *Omy*77, *Oki*10, and 29, which have been derived from *Oncorhynchus tshawytscha (Ots), O. mykiss (Om), and O. kisutch (Oki)* genomic libraries, respectively (see Taylor and Gow 2007; Tamkee et al. 2010). Polymerase chain reactions (PCR) were carried out with fluorescent dye-labelled primers in 20µl volumes using the Qiagen PCR Multiplex Kit in MJ PTC 100 thermocyclers following Taylor et al. (2007). The PCR products were visualized using a Beckman-Coulter CEQ 8000 automated genotyper.

Genetic data analysis

The following tests were performed using GENEPOP ver. 3.3 (Raymond and Rousset 2001). Tests for deviations from Hardy-Weinberg equilibrium were performed for each locus-population combination using an exact test in which probability (*p*) values were estimated using a Markov chain method. Tests for genotypic linkage disequilibrium for all combinations of locus pairs within a

population were also made using a Markov chain method with GENEPOP default values. Tests for population differentiation between all pairs of populations were performed using F_{ST} estimated as θ (Weir and Cockerham 1984) as implemented in GENETIX (Belkhir et al. 2004). Significance levels were determined correcting for multiple simultaneous tests following Narum (2006). Basic descriptive statistics of sample size (N), number of alleles (N_A), observed (H_O) and expected (H_E) were compiled using FSTAT ver 2.9 (Goudet 2001). A factorial correspondence analysis (FCA) was used to depict genetic similarity amongst all individuals in genetic space as inferred from variation in allele frequencies using GENETIX.

The model-based Bayesian clustering analysis within STRUCTURE (Pritchard et al. 2000) was used to assess population structure employing the admixture model with correlated allele frequencies and a burnin of 50,000 iterations followed by an additional 200,000 iterations, replicated five times. The simulations were run with hypothesized numbers of populations (K) ranging from K = 1 to K = s+2 were s = the number of localities sampled (i.e., a total of K = 11). Given the relatively small spatial scale of the study (and an expected low level of genetic differentiation) and that fish were sampled largely within what are likely to be spawning tributaries, the STRUCTURE analysis also used the locality prior option which employs prior knowledge of where each sample was collected to assist in clustering (Hubisz et al. 2009). The LOCPRIOR model works on the principle that individuals from the same sampling location often come from the same genetic population. Therefore, the LOCPRIOR option assumes that the the sampling locations can be informative about ancestry (Hubisz et al. 2009). The STRUCTURE analyses were also run with and without the Kootenay Lake sample to allow for more sensitive assessment of population structure within the Tatelkuz/Chedakuz system. STRUCTURE HARVESTER was used to process the results from multiple runs of STRUCTURE (Earl 2011).

We used the program GENECLASS (Piry *et al*., 2004) to use the multilocus genotypes to test for migration between populations by calculating the likelihoods of individuals being first-generation migrants in a modification of the basic assignment test procedure (see Hansen *et al.*, 2001). Using variation across loci, the likelihood score was calculated as L_h/L_{max}, where L_h is the likelihood of drawing a particular individual's genotype from the population residing in the locality from which it was sampled given the observed set of allele frequencies, and L_{max} is the maxium likelihood of membership across all potential sources (Paetkau *et al*., 2004). We chose to calculate L_h/L_{max} because the samples probably included all potential source populations for all species (Paetkau *et al*. 2004). To test the null hypothesis that each individual was actually born in the population from which it was sampled, we used the genotype resampling procedure recommended by Paetkau *et al*. (2004). An individual fish was rejected as a member of the population from which it was sampled if the observed likelihood of population membership was represented by 1% or fewer of those generated from simulating genotypes of 10,000 fish generated randomly from allele frequencies found in the sample population.

RESULTS

Microsatellite polymorphism within populations

Across the six loci, the average number of alleles ranged from 5.6 (*Ots*100) to 20.4 (*Oki*10, Appendix). Averaged across localities, expected heterozygosity ranged from 0.417 (*Ots*100) to 0.940 (*Oki*10). Across the eight localities with comparable sample sizes (i.e., not including Creek 601947), mean (across loci) allele number ranged from a low of 6.5 in upper Chedakuz Creek to 13.2 and 15.7 in lower Chedakuz Creek and Kootenay Lake samples, respectively (Appendix). Similarly, mean (across loci) expected heterozygosity ranged from a low of 0.584 in upper Chedakuz Creek to 0.806 and 0.841 in the Creek 522107 and Kootenay Lake samples, respectively. There were a few instances of potential inbreeding within populations particularly at *Ots*108 where seven of nine samples had

positive F_{IS} and consistently lower than expected heterozygosity (Appendix). These deficiencies of heterozygotes at *Ots*108 were likely due to the presence of one or more null (non-amplifying) alleles as suggested by Micro-checker analysis (van Oosterhout et al. 2004). Deletion of this locus or adjustment for null allele frequencies made no material difference to the analyses so *Ots*108 was retained.

Microsatellite divergence among populations

Genetic differentiation amongst the nine population samples was expressed as F_{st} (θ) or the proportion of the total variation in microsatellite allele frequencies that is attributable to differences among populations. After 5,000 permutations of the allele frequency matrix, θ was estimated as 0.086 (95% CI: 0.043 – 0.132) and most pairwise comparisons among the samples were statistically significant (Table 1). When only the Tatelkuz/Chedakuz samples were compared, F_{ST} was 0.068 (0.031 – 0.104), and 0.042 (0.022 – 0.064) when the upper Chedakuz Creek sample was removed. The upper Chedakuz Creek (mean F_{ST} = 0.148) and the Kootenay Lake (mean F_{ST} = 0.138) consistently showed the greatest divergence from all other samples.

These differences were illustrated in the FCA ordination which showed the relatively tight clustering of the Tatelkuz/Chedakuz samples relative to fish from Kootenay Lake (Figure 2), but also the high distinctivenesss of the upper Chedakuz Creek sample overall (Figure 3).

The STRUCTURE analysis returned $K = 4$ as the most likely number of genetic clusters amongst the nine samples (i.e., including the Kootenay Lake sample). While there were some individuals that consisted of an admixture of the four different genetic groups, all samples tended to fall into four populations groups: (1) lower Chedakuz Creek, Creek 522107 and Fawnie Creek; (2) upper Chedakuz Creek; (3) middle Chedakuz Creek, Davidson Creek, and Creek 661 ; and (4) Kootenay Lake. When only the samples within the Tatelkuz/Chedakuz system were examined, $K = 3$

was the most likely number and genetic groups and these comprised population assemblages 1-3 listed above (e.g., Figure 4). In both analyses, Creek 601947 tended to be intermediate betweem group 1 and 3, but sample sizes were very low in this creek (N = 7).

A total of 14 fish (6.4% of 220 Tatlekuz/Chedakuz kokanee) could be rejected ($p < 0.01$) as being from the same genetic population as those with which they were sampled and were inferred to be immigrants ("strays") to the sample area (Figure 5). Interestingly, most of the inferred movements amongst localities occurred among the lower Chedakuz, 522107, 601947, and Fawnie Creek areas, and also amongst the middle/upper Chedakuz creeks, Davidson and 661 creeks samples, but not between these two areas (Figure 5).

INTERPRETIVE COMMENTS

Variation within samples

Levels of genetic variation (number of alleles, expected heterozygosity) in *O. nerka* from the Tatelkuz Lake and Chedakuz Creek drainage were similar to those found in the few other studies of kokanee. Young et al. (2004) surveyed 11 samples of kokanee form the Lake Samammish/Washington system of western Washington State and reported allele numbers of 6 - 47 and expected heterozygosities of 0.74 – 0.96. Anders et al. (2007) studied 14 populations from the Kootenay Lake/River system in BC and Idaho and found that mean allele number ranged from 15.3 – 19.9 and expected heterozygosity 0.89 – 0.93. Finally, Taylor and Gow (2007) reported average allele number and expected heterozuygostity of 9.8 and 0.77, respectively, amongst 10 localities in the Arrow Lakes (seven localities), Kinbasket Reservoir (one locality) and Kootenay Lake (two localities). Interestingly, in this study and those of Anders et al. (2007) and Taylor and Gow (2007), the Kootenay Lake (Meadow Creek) samples were amongst the most variable which probably stems from its generally large population size (from an annual low of

200,000 to a high of 4.1 million spawning fish (Anders et al. 2007). Across all surveys, the generally and modestly lower genetic variation found in this study and that of Taylor and Gow (2007) likely stems from the use of loci cloned from species other than *O. nerka.* Currently, the samples from the Tatelkuz/Chedakuz drainage are being assayed at two *O. nerka* specific loci although no material change in the results is anticipated.

Variation among samples

Levels of genetic differentiation as expressed by F_{ST}, and estimated by θ, can also be difficult to compare across studies when the loci used and scale of geography sampled differ. For instance, as genetic variation within samples increases, typically measures of differentiation such as F_{ST} decline so the use of loci with different levels of variability can influence comparisons of F_{ST}. That being said, Anders et al. (2007) reported F_{ST} levels that ranged from 0.0 to 0.046 (average of 0.019), comparable to, but slightly lower than, the current analysis. Further, Taylor and Gow (2007) using six of the same loci used in the current study, reported F_{ST} values that ranged from 0.0 to 0.14 with consistently higher values between the Arrow and Kootenay lakes' samples (0.06 to 0.11) than within the Arrow lakes (0.0 to 0.03). One sample from Kinbasket Reservoir (Canoe Creek, separated from the Arrow Lakes fish by Mica Dam) was consistently the most divergent (F_{ST} ranged from 0.04 to 0.14). Consequently, the levels of between drainage differentiation reported in the current study are consistent with those reported for other studies of kokanee and some are quite notable given the relatively small spatial scale of the current analysis.

For instance, the upper Chedakuz Creek (UCC) sample was clearly the most distinctive within the Tatelkuz/Chedakuz system; F_{ST} between UCC and all others from the Tatlekuz/Chedakuz system averaged 0.138, almost 3.5 times higher than the average F_{ST} amongst all other samples within the Tatlekuz/Cheadkuz system and slightly higher than the average F_{ST} of Tatelkuz/Chedakuz kokanee

and fish from Kootenay Lake (0.125). Interestingly, the UCC kokanee were much larger in both length and weight than fish collected from the other localities (Figure 6). The considerably greater distinctiveness of the UCC kokanee may stem from there generally distant location relative to most of the other samples within the watershed, the fact that they are associated with a different, but interconnected, lake system (Kuyakuz Lake), and their larger size which could contribute to assortative mating (e.g., Foote and Larkin 1988). It may be beneficial to assess the temporal stability of the distinctiveness of the UCC kokanee by sampling across multiple years, although interannual variation is typically quite small (i.e., accounting for typically < 5% of the total variation) relative to spatial variation in salmonid fishes (e.g., Beacham et al. 2004; Taylor and Yau 2012).

Altogether, 18 of 28 possible pairwise comparuisons within the Tatelkuz/Chedakuz system were statistically significant. Five of the 10 that were not significant involved Creek 601947 which probably resulted from a lack of statistical power associated with a low sample size for Creek 601947 (N = 7). Most of the other non-significant comparisons (and the resulting grouping of localities into genetic clusters) involved samples that were geographically relatively proximate to one another (see also Taylor and Gow 2007). For example, it is not surprising that samples from lower Chedakuz Creek, Fawnie Creek, and Creek 522107 clustered together, or that Creek 661 and Middle Chedakuz Creek were relatively similar to one another. Perhaps more surprising is that Davidson Creek tended to cluster with localities further southeast in the system (middle Chedakuz Creek, Creek 661).

In summary, kokanee from the Tatelkuz/Chedakuz drainage are clearly not genetically (nor phenotypically) homogenous, but can be clustered into three major genetic groupings. At least one of these groups (UCC) differs from all others to a degree comparable to differences observed between kokanee form distinct watersheds (e.g., Tatlekuz/Chedakuz vs Kootenay Lake). The genetic distinctions amongst kokanee populations in the Tatlekuz/Chedakuz system imply some level of demographic independence amongst at least some of the localities and this is supported by very few migration events

that were inferred to occur between localities and by the striking differences in body size in spawning adult kokanee in UCC.

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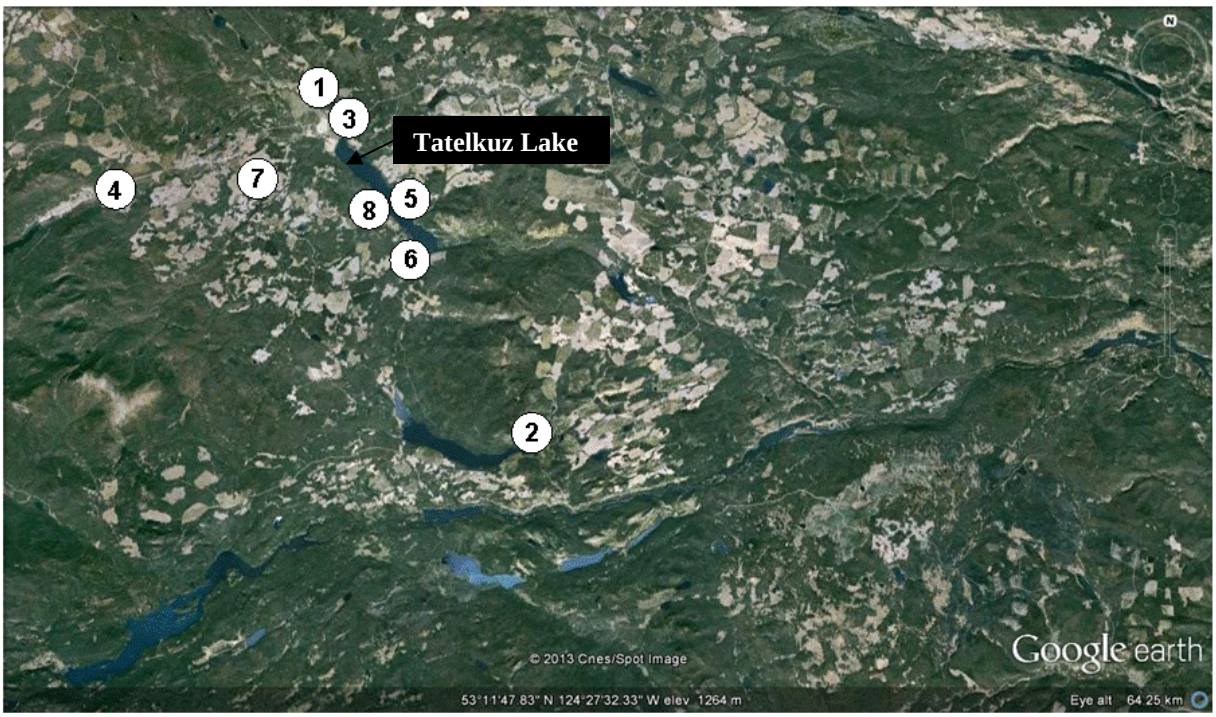
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Table 1. Pairwise F_{ST} (θ, Weir and Cockerham 1968) between samples of kokanee (*Oncorhynchus nerka*) from the Tatelkuz Lake/Chedakuz Creek drainage (Fraser River system) and Kootenay Lake (Columbia River system) based on variation across ten microsatellite DNA loci. Significance levels determined from 5,000 permutations in GENETIX (Belkhir et al. 2004). All comparisons, except those that are underlined, are significant (i.e., $P \leq 0.01198$ adjusting for multiple comparisons). LCC = lower Chedakuz Creek, UCC = upper Chedakuz Creek, C522107 = Creek 522107, FC = Fawnie Creek, C601947 = Creek 601947, MCC = middle Chedakuz Creek, DC = Davidson Creek, C661 = Creek 661, KL = Kootenay Lake.

	UCC	C522107	FC	C601947*	MCC	DC	C661	KL
LCC	**0.12796**	**0.00927**	**0.00912**	**0.00743**	**0.05172**	**0.05546**	**0.06046**	**0.09902**
UCC		**0.13601**	**0.15542**	**0.12122**	**0.13972**	**0.13438**	**0.14963**	**0.22664**
C522107			**0.03116**	**0.03160**	**0.06489**	**0.06987**	**0.07797**	**0.09745**
FC				**0.01134**	**0.05827**	**0.06343**	**0.06276**	**0.13618**
C601947*					**0.01454**	**0.03543**	**0.04686**	**0.14529**
MCC						**0.01396**	**0.00712**	**0.13810**
DC							**0.00519**	**0.13382**
C661								**0.13796**

***Sample sizes of = 7**

Figure 1. Location of samples of kokanee (*Oncorhynchus nerka*) obtained from the Tatelkuz Lake/Chedakuz Creek drainage, southwest of Vanderhoof, BC. 1 = lower Chedakuz Creek, 2 = upper Chedakuz Creek, 3 = Creek 522017, 4 = Fawnie Creek, 5 = Creek 601947, 6 = middle Chedakuz Creek, 7 = Davidson Creek, 8 = Creek 661.



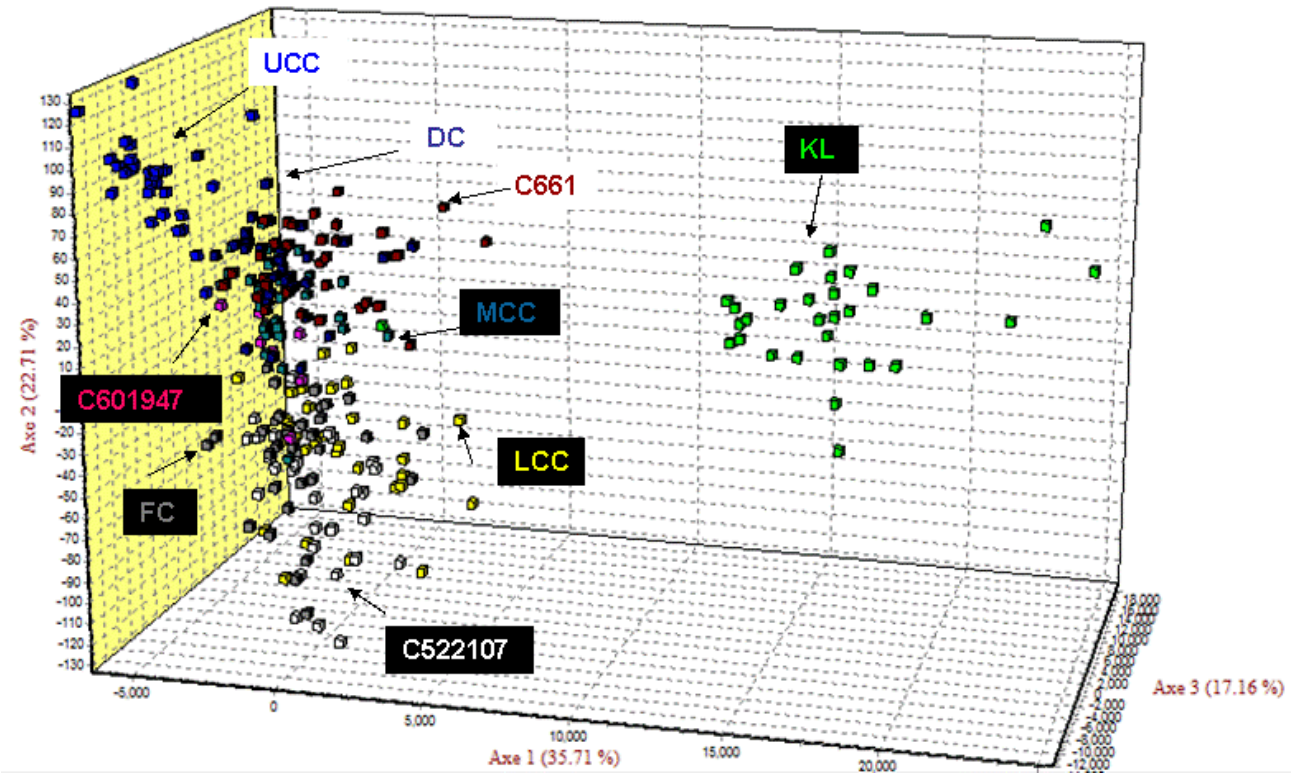


Figure 2. Factorial correspondence analysis depicting relative similarity among samples of kokanee (*Oncorhynchus nerka*) sampled from Tatelkuz Lake/Chedakuz Creek (Fraser River system) and Kootenay Lake (Columbia River) drainages and assayed at six microsatellite DNA loci. The analysis depicts similarity as summarized across the first three axes of genetic differentiation which together accounted for 76% of the variation in allele frequencies. The colour of each locality name reflects the symbol colours. LCC = Lower Chedakuz Creek, UCC = Upper Chedakuz Creek, C522107 = Creek 522107, FC = Fawnie Creek, C601947 = Creek 601947, MCC = Middle Chedakuz Creek, DC = Davidson Creek, C661 = Creek 661, KL = Kootenay Lake.

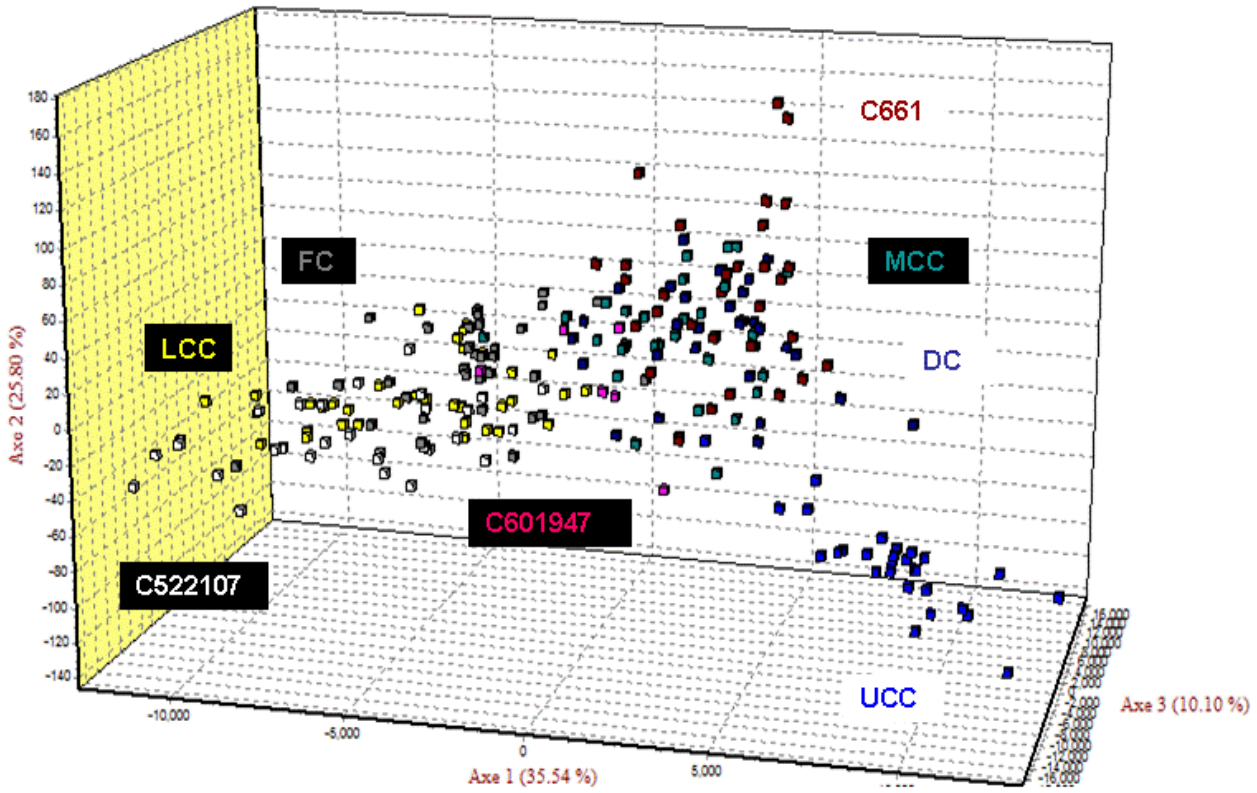


Figure 3. Factorial correspondence analysis depicting relative similarity among samples of kokanee (*Oncorhynchus nerka*) sampled from the Tatelkuz Lake/Chedakuz Creek system and assayed at six microsatellite DNA loci. The analysis depicts similarity as summarized across the first three axes of genetic differentiation which together accounted for 76% of the variation in allele frequencies. The colour of each locality name reflects the symbol colours. LCC = Lower Chedakuz Creek, UCC = Upper Chedakuz Creek, C522107 = Creek 522107, FC = Fawnie Creek, C601947 = Creek 601947, MCC = Middle Chedakuz Creek, DC = Davidson Creek, C661 = Creek 661.

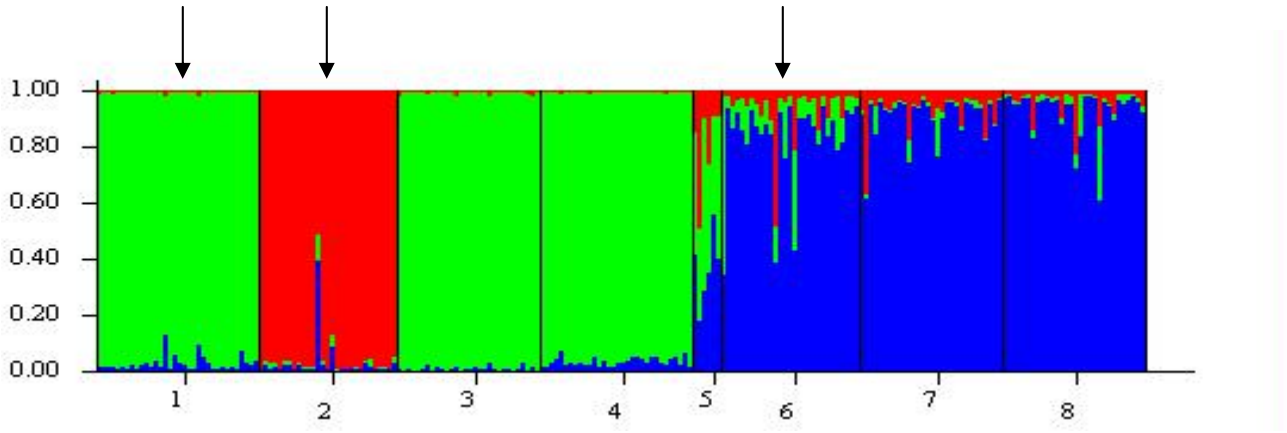


Figure 4. Results of STRUCTURE analysis (Pritchard et al. 2000) for kokanee (*Oncorhynchus nerka*) sampled from eight localities in the Tatelkuz Lake/Chedakuz Creek system and assayed at six microsatellite DNA loci. Each fish is represented by a thin vertical line in which the height of each coloured portion indicates the proportional genetic contribution (*Q*) from each of the three genetic groups ("red", "bue" and "green"). 1 = Lower Chedakuz Creek, 2 = Upper Chedakuz Creek, 3 = Creek 522107, 4 = Fawnie Creek, 5 = Creek 601947, 6 = Middle Chedakuz Creek, 7 = Davidson Creek, 8 = Creek 661. The arrowheads denote the three samples from Lower, Upper, and Middle Chedakuz creeks, respectively.

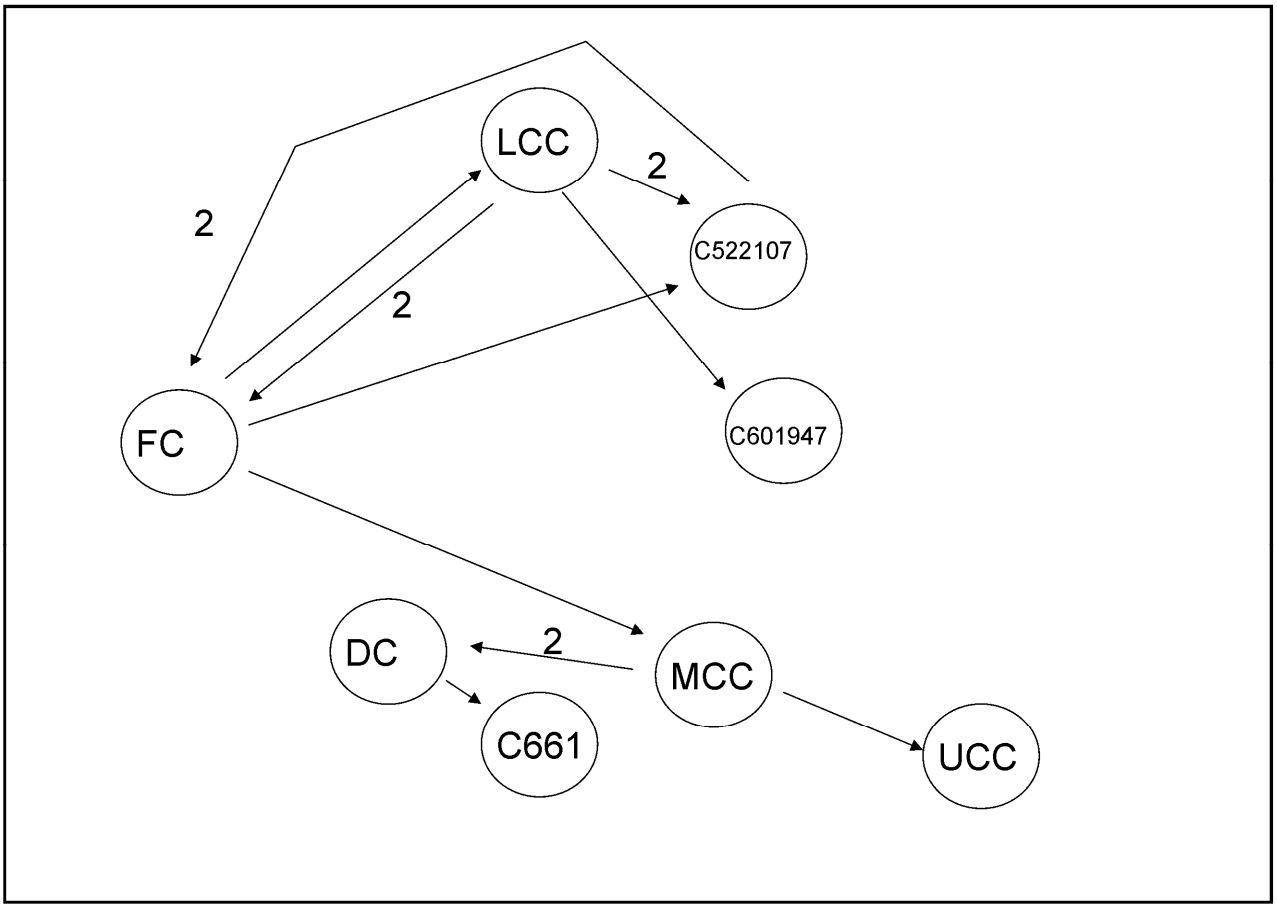


Figure 5. Summary of movements between localities inferred from microsatellite DNA variation in kokanee from the Tatelekuz/Chedakuz system. Arrowheads indicate inferred direction of movement and numbers associated with each arrowhead indicate the number of fish involved (no accompanying number means one fish moved). LCC = lower Chedakuz Creek, MCC = middle Chedakuz Creek, UCC = upper Chedakuz Creek, C522107 = Creek 522107, C601947 = Creek 601947, C661 = Creek 661, FC = Fawnie Creek, DC = Davidson Creek.

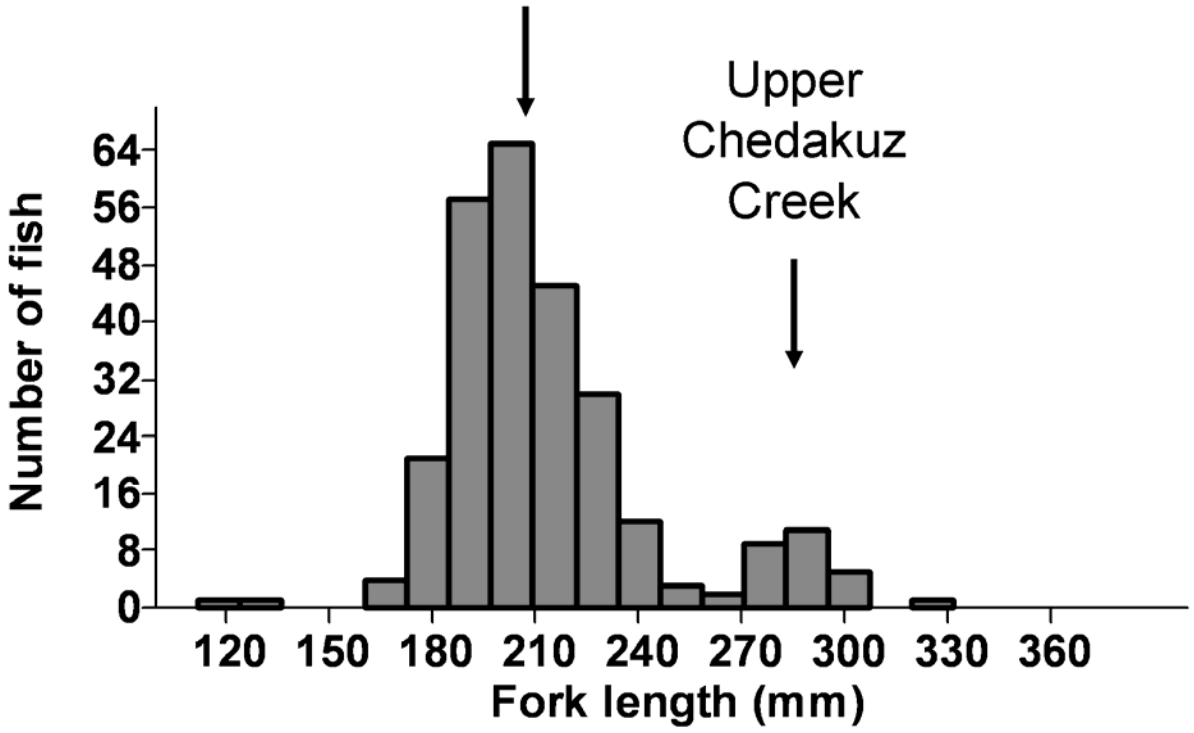


Figure 6. Frequency histogram of fork lengths of kokanee (*Oncorhyncus nerka*) analyzed for variation across six microsatellite NA loci. Arrowheads represent the means for all samples: (i) except those from upper Chedakuz Creek (left arrow), and (ii) only those fish from upper Chedakuz Creek (right arrow).

Appendix. Localities, sample sizes, number of alleles, heterozygosity, and allele frequencies across six microsatellite DNA loci assayed in kokanee (*Oncorhynchus nerka*) from the Tatelkuz Lake/Chedakuz Creek drainage and the Kootenay Lake system (Meadow Creek).

http://www.zoology.ubc.ca/~etaylor/nfrg/dataarchive/Chedakuz/Chedakuz.htm

id: nfrg
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Annex 5.10-13
Microsatellite DNA Data for Kokanee Populations, 2012

Appendix: Allele fre													
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in kokanee													
LOCI					**Populatio**								
Omy77		**LCC**	**UCC**	**C522107**	**FC**	**C601947**	**MCC**	**DC**	**C661**	**KL (MC)**	**Mean**		LCC=lower Chedakuz
N (Sample size)		34	29	30	32	7	29	30	30	29			UCC=upper Chedakuz
Na (Number of	Allele size in base pairs	7	5	8	8	6	7	5	9	10	7.222		C522107=Creek 5221
Frequencies	92	0	0	0	0.016	0	0	0	0	0	0.002		FC= Fawnie Cr
Frequencies	96	0.191	0.259	0.25	0.188	0.333	0.345	0.133	0.167	0.052	0.213		C601947= Creek 6019
Frequencies	100	0.088	0	0.033	0.031	0.083	0.259	0.333	0.35	0.121	0.144		MCC=middle Chedaku
Frequencies	102	0.118	0.017	0.283	0.109	0	0.052	0	0.083	0.034	0.077		DC=Davidson Cr
Frequencies	106	0.294	0.017	0.183	0.125	0.083	0.034	0.1	0.033	0.586	0.162		C661=Creek 661
Frequencies	108	0	0	0.033	0.016	0	0	0	0	0	0.005		KL(MC)= Kootenay La
Frequencies	110	0.015	0	0.033	0.016	0.083	0.017	0	0	0.086	0.028		
Frequencies	112	0.279	0.017	0.167	0.5	0.333	0.138	0.217	0.183	0.034	0.208		
Frequencies	114	0	0	0	0	0	0	0	0	0.034	0.004		
Frequencies	116	0	0	0	0	0	0	0	0.017	0.017	0.004		
Frequencies	118	0.015	0.69	0.017	0	0.083	0.155	0.217	0.133	0.017	0.147		
Frequencies	120	0	0	0	0	0	0	0	0.017	0	0.002		
Frequencies	122	0	0	0	0	0	0	0	0	0.017	0.002		
Frequencies	138	0	0	0	0	0	0	0	0.017	0	0.002		
Ho (Observed		0.765	0.448	0.8	0.688	0.667	0.828	0.767	0.867	0.621	0.717		
He (Expected		0.788	0.465	0.806	0.696	0.818	0.78	0.78	0.803	0.638	0.731		
Ots103													
Na		15	9	13	14	7	10	14	14	18	12.667		
Frequencies	142	0	0	0	0	0	0	0	0.067	0	0.007		
Frequencies	146	0	0	0.033	0.031	0	0	0.017	0	0	0.009		
Frequencies	150	0.015	0	0.033	0.016	0	0	0	0	0	0.007		
Frequencies	152	0	0	0.017	0.016	0	0	0	0	0	0.004		
Frequencies	154	0.015	0.034	0.05	0.047	0	0.086	0	0.05	0.103	0.043		
Frequencies	156	0.015	0	0	0	0.083	0	0	0	0	0.011		
Frequencies	158	0.044	0.19	0.067	0.078	0.167	0.017	0.133	0.067	0.069	0.092		
Frequencies	162	0	0	0	0	0	0	0	0	0.052	0.006		
Frequencies	166	0	0	0	0	0	0	0.033	0	0.034	0.008		
Frequencies	168	0	0	0	0	0	0	0	0	0.017	0.002		
Frequencies	170	0.015	0	0	0	0	0	0	0	0.069	0.009		
Frequencies	172	0	0	0	0	0	0	0	0	0.034	0.004		
Frequencies	174	0.132	0	0.15	0.156	0.167	0.034	0.033	0.067	0.052	0.088		
Frequencies	178	0.015	0	0.033	0.078	0.083	0	0.033	0.017	0.052	0.035		
Frequencies	182	0.044	0.138	0.1	0.047	0	0.069	0.133	0.067	0.069	0.074		
Frequencies	184	0	0.017	0	0	0	0	0	0	0	0.002		
Frequencies	186	0.176	0.241	0.083	0.172	0.333	0.362	0.133	0.167	0.121	0.199		
Frequencies	190	0.088	0.259	0.033	0.141	0	0.172	0.167	0.167	0.069	0.122		
Frequencies	194	0.191	0.069	0.05	0.094	0	0.069	0.05	0.067	0.086	0.075		
Frequencies	198	0.074	0.034	0.217	0.047	0.083	0.034	0.067	0.067	0.052	0.075		
Frequencies	202	0.103	0	0.133	0.031	0.083	0.052	0.033	0	0.052	0.054		
Frequencies	206	0.059	0.017	0	0.047	0	0.103	0.133	0.117	0.017	0.055		
Frequencies	210	0	0	0	0	0	0	0.017	0.017	0	0.004		
Frequencies	212	0	0	0	0	0	0	0	0.033	0	0.004		
Frequencies	214	0.015	0	0	0	0	0	0.017	0.033	0	0.007		
Frequencies	218	0	0	0	0	0	0	0	0	0.017	0.002		
Frequencies	222	0	0	0	0	0	0	0	0	0.034	0.004		
Ho		0.794	0.655	0.933	0.875	1	0.724	0.7	0.733	0.759	0.797		
He		0.896	0.826	0.897	0.908	0.879	0.82	0.904	0.914	0.947	0.888		
Oki29													
Na		12	5	12	14	5	9	10	9	11	9.667		
Frequencies	198	0	0	0.017	0	0	0	0	0	0	0.002		
Frequencies	206	0.088	0	0.017	0.016	0	0	0	0	0	0.013		
Frequencies	208	0	0	0	0.031	0	0	0	0	0	0.003		
Frequencies	210	0.5	0.517	0.4	0.656	0.417	0.328	0.3	0.367	0.5	0.443		
Frequencies	212	0	0	0	0.016	0	0	0	0	0	0.002		
Frequencies	214	0.044	0	0.067	0.031	0	0	0.117	0.033	0.017	0.034		
Frequencies	218	0.029	0	0.017	0.031	0	0.017	0	0	0	0.011		
Frequencies	222	0.074	0	0.1	0.016	0	0	0	0	0	0.021		
Frequencies	240	0.029	0.086	0.033	0.016	0	0.017	0.017	0	0.017	0.024		
Frequencies	242	0.015	0.052	0	0.031	0	0	0	0	0	0.011		
Frequencies	244	0.015	0	0	0	0	0	0	0	0.017	0.004		
Frequencies	248	0	0	0.033	0	0	0	0	0	0	0.004		
Frequencies	252	0.015	0.276	0	0.016	0.25	0.069	0.117	0.117	0.103	0.107		
Frequencies	254	0	0	0	0	0	0.017	0.017	0	0	0.004		
Frequencies	256	0.044	0.069	0.033	0.047	0.083	0.259	0.1	0.183	0.103	0.102		
Frequencies	258	0	0	0	0	0	0.017	0.017	0	0	0.004		
Frequencies	260	0.118	0	0.183	0.063	0.083	0.069	0.133	0.017	0.138	0.089		
Frequencies	262	0	0	0	0	0	0	0	0.017	0	0.002		
Frequencies	264	0	0	0.067	0.016	0.167	0.207	0.167	0.183	0.017	0.091		
Frequencies	268	0.029	0	0.033	0.016	0	0	0.017	0.067	0.052	0.024		
Frequencies	272	0	0	0	0	0	0	0	0.017	0.017	0.004		
Frequencies	280	0	0	0	0	0	0	0	0	0.017	0.002		
Ho		0.706	0.759	0.733	0.563	0.833	0.724	0.833	0.933	0.793	0.764		
He		0.727	0.653	0.795	0.566	0.788	0.786	0.84	0.792	0.717	0.74		
Ots108													
Na		14	5	11	9	4	6	5	4	14	8		
Frequencies	116	0	0	0.143	0.078	0.083	0.138	0.033	0	0.042	0.057		

Frequencies	118	0.032	0	0	0	0	0	0	0	0	0.004
Frequencies	120	0	0	0	0	0	0	0	0	0.063	0.007
Frequencies	124	0.065	0.052	0.018	0.203	0.083	0.397	0.433	0.58	0.021	0.206
Frequencies	128	0	0	0	0	0	0	0	0.06	0.063	0.014
Frequencies	132	0	0	0	0	0	0	0	0	0.063	0.007
Frequencies	136	0	0.121	0.054	0.016	0	0.034	0.283	0	0	0.056
Frequencies	140	0.194	0.034	0.125	0.25	0.5	0.276	0.15	0.2	0.021	0.194
Frequencies	144	0.323	0.776	0.339	0.219	0.333	0.121	0.1	0.16	0	0.263
Frequencies	148	0.081	0.017	0.143	0.172	0	0.034	0	0	0	0.05
Frequencies	150	0.016	0	0	0.016	0	0	0	0	0	0.004
Frequencies	152	0.048	0	0.018	0	0	0	0	0	0	0.007
Frequencies	154	0.048	0	0.036	0	0	0	0	0	0.042	0.014
Frequencies	158	0	0	0	0	0	0	0	0	0.021	0.002
Frequencies	166	0.032	0	0	0	0	0	0	0	0.083	0.013
Frequencies	170	0.016	0	0.036	0.031	0	0	0	0	0.167	0.028
Frequencies	174	0.016	0	0	0	0	0	0	0	0.271	0.032
Frequencies	178	0.065	0	0.054	0.016	0	0	0	0	0.083	0.024
Frequencies	182	0.032	0	0.036	0	0	0	0	0	0	0.008
Frequencies	186	0.032	0	0	0	0	0	0	0	0.021	0.006
Frequencies	190	0	0	0	0	0	0	0	0	0.042	0.005
Ho		0.387	0.276	0.429	0.281	0.333	0.172	0.167	0.24	0.458	0.305
He		0.848	0.386	0.833	0.824	0.682	0.743	0.71	0.607	0.885	0.724
Ots100											
Na		7	4	6	3	1	5	3	6	16	5.667
Frequencies	154	0	0	0.033	0	0	0	0	0	0	0.004
Frequencies	156	0	0.103	0	0	0	0	0	0	0	0.011
Frequencies	158	0	0	0	0	0	0	0	0	0.034	0.004
Frequencies	164	0.765	0.81	0.617	0.813	1	0.741	0.783	0.717	0.034	0.698
Frequencies	166	0.015	0	0.017	0	0	0.017	0	0	0.017	0.007
Frequencies	168	0	0	0	0	0	0	0	0	0.172	0.019
Frequencies	170	0	0	0	0.016	0	0	0	0	0.052	0.007
Frequencies	172	0.132	0	0.25	0.172	0	0	0	0	0	0.062
Frequencies	174	0	0	0	0	0	0	0	0.017	0.034	0.006
Frequencies	176	0.015	0.069	0.033	0	0	0.034	0.033	0.033	0	0.024
Frequencies	182	0	0	0	0	0	0	0	0	0.017	0.002
Frequencies	184	0.044	0	0.05	0	0	0.19	0.183	0.2	0	0.074
Frequencies	186	0	0	0	0	0	0	0	0	0.052	0.006
Frequencies	188	0	0	0	0	0	0	0	0	0.017	0.002
Frequencies	192	0	0	0	0	0	0	0	0	0.034	0.004
Frequencies	194	0.015	0	0	0	0	0	0	0.017	0	0.003
Frequencies	196	0	0.017	0	0	0	0.017	0	0	0.172	0.023
Frequencies	200	0.015	0	0	0	0	0	0	0.017	0.103	0.015
Frequencies	202	0	0	0	0	0	0	0	0	0.069	0.008
Frequencies	204	0	0	0	0	0	0	0	0	0.034	0.004
Frequencies	206	0	0	0	0	0	0	0	0	0.103	0.011
Frequencies	210	0	0	0	0	0	0	0	0	0.052	0.006
Ho		0.382	0.345	0.467	0.281	0	0.345	0.233	0.533	0.793	0.376
He		0.401	0.333	0.562	0.315	0	0.42	0.358	0.452	0.915	0.417
Oki10											
Na		24	11	26	25	10	22	21	20	25	20.444
Frequencies	176	0.015	0	0.017	0	0	0	0	0	0	0.003
Frequencies	204	0	0	0	0.063	0	0	0	0	0	0.007
Frequencies	208	0.044	0	0	0.047	0	0.034	0	0	0	0.014
Frequencies	212	0	0	0.017	0.047	0	0.034	0	0	0	0.011
Frequencies	216	0.029	0	0.017	0.047	0	0	0.017	0.05	0	0.018
Frequencies	218	0	0	0	0.047	0	0	0	0	0.017	0.007
Frequencies	220	0.044	0.069	0.05	0.031	0.167	0.121	0.1	0.017	0.052	0.072
Frequencies	222	0.015	0	0.017	0.031	0	0.017	0.033	0.033	0.017	0.018
Frequencies	224	0.088	0.017	0.017	0.016	0	0.052	0.05	0.033	0	0.03
Frequencies	226	0.015	0	0.067	0.047	0.083	0	0	0.033	0.017	0.029
Frequencies	228	0.015	0.086	0.017	0	0.083	0.069	0.067	0.067	0.034	0.049
Frequencies	230	0.029	0	0	0.031	0	0.052	0.05	0.017	0.017	0.022
Frequencies	232	0	0.31	0	0	0	0.052	0.067	0.1	0.017	0.061
Frequencies	234	0.029	0	0	0	0.083	0.052	0.05	0.067	0.017	0.033
Frequencies	236	0	0.103	0	0	0	0	0	0	0.017	0.013
Frequencies	238	0	0	0	0	0	0.034	0.033	0.033	0.017	0.013
Frequencies	240	0	0.069	0.017	0.016	0.083	0.017	0	0.017	0.017	0.026
Frequencies	242	0.015	0	0	0.016	0	0	0.017	0	0.017	0.007
Frequencies	244	0.029	0	0	0	0	0	0.017	0	0.017	0.007
Frequencies	248	0	0	0.033	0	0	0	0	0	0.017	0.006
Frequencies	250	0	0	0	0	0	0	0	0	0.017	0.002
Frequencies	252	0	0.207	0.017	0.016	0.083	0.017	0.05	0.017	0.034	0.049
Frequencies	254	0	0	0	0.016	0	0.017	0.033	0	0.172	0.027
Frequencies	256	0.015	0.052	0.017	0	0	0.034	0.017	0	0	0.015
Frequencies	258	0	0	0	0	0	0	0	0.05	0.103	0.017
Frequencies	260	0.059	0	0.017	0.031	0.083	0.034	0.017	0	0	0.027
Frequencies	262	0	0	0.017	0.016	0	0.017	0.1	0.133	0.086	0.041
Frequencies	264	0.015	0	0	0	0	0	0	0	0	0.002
Frequencies	266	0.029	0	0.017	0.016	0	0.017	0	0	0.052	0.015
Frequencies	268	0	0	0.017	0	0	0	0	0	0	0.002
Frequencies	270	0.074	0	0.15	0.109	0	0.017	0	0	0.086	0.048
Frequencies	274	0.118	0	0.083	0.063	0.167	0	0.033	0.033	0.069	0.063
Frequencies	278	0.044	0.034	0.067	0.031	0	0.034	0	0	0.052	0.029
Frequencies	282	0.074	0.017	0.117	0.078	0.083	0.138	0.1	0.067	0.017	0.077
Frequencies	284	0	0	0.017	0	0	0	0	0	0	0.002
Frequencies	286	0.044	0	0.017	0.031	0	0.069	0.067	0.1	0.017	0.038
Frequencies	290	0.074	0.034	0.067	0.078	0.083	0.069	0.067	0.05	0	0.058

Frequencies	292	0	0	0	0	0	0	0	0.05	0	0.006		
Frequencies	294	0.074	0	0.067	0.063	0	0	0.017	0.033	0	0.028		
Frequencies	298	0	0	0.033	0	0	0	0	0	0	0.004		
Frequencies	306	0.015	0	0.017	0.016	0	0	0	0	0	0.005		
Ho		0.971	0.862	0.933	0.969	1	0.966	0.933	0.933	0.897	0.94		
He		0.953	0.842	0.946	0.96	0.97	0.949	0.952	0.947	0.941	0.94		
ALL LOCI													
Mean Na		13.167	6.5	12.667	12.167	5.5	9.833	9.667	10.333	15.667			
SD Mean Na		6.306	2.811	7.033	7.521	3.017	6.242	6.861	5.82	5.465			
Mean Ho		0.667	0.557	0.716	0.609	0.639	0.626	0.606	0.707	0.72			
SD Mean Ho		0.236	0.236	0.222	0.291	0.4	0.303	0.324	0.275	0.156			
Mean He		0.769	0.584	0.806	0.712	0.689	0.75	0.757	0.752	0.841			
SD Mean He		0.197	0.222	0.133	0.242	0.351	0.176	0.214	0.19	0.13			