

DATA APPENDIX

For the Associated Report:

Mercury Bioaccumulation and Trophic Transfer in the Cache Creek Watershed, California, in Relation to Diverse Aqueous Mercury Exposure Conditions

Darell G. Slotton ^{1,C}, Shaun M. Ayers ¹, Thomas H. Suchanek ^{2,3},
Ronald D. Weyand ¹, and Anne M. Liston ¹

¹ Dept. of Environmental Science and Policy, University of California, One Shields Avenue, Davis, CA 95616

² Dept. of Wildlife, Fish & Conservation Biology, University of California, One Shields Avenue, Davis, CA 95616

³ U.S. Fish and Wildlife Service, Div. of Environmental Contaminants, 2800 Cottage Way, Sacramento, CA 95825

^C Corresponding Author: dgslotton@ucdavis.edu

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Assessment of Ecological and Human Health Impacts of Mercury in the San Francisco Bay-Delta Watershed

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Appendix, Table 1. Invertebrate Data

Sample Date	Location	Type	Sample #	n	Length (mm)			ng/g		%	ng/g	
					Low	High	Avg-Size	THg dw	MeHg dw		THg ww	MeHg ww
24-May-00	Middle Ck.	Corydalidae	505MID-Corydalidae-052400	3			38	70	54	77%	20	15
24-May-00	Middle Ck.	Ephemereillidae	505MID-Ephemereillidae-052400	45	9	15	12	30	23	77%	8	6
24-May-00	Middle Ck.	Hydropsyche	505MID-Hydropsyche-052400	5			11		47			14
24-May-00	Middle Ck.	Naucoridae	505MID-Naucoridae-052400	9			9	75	62	83%	25	20
24-Feb-00	Cache Ck. blw Clear Lake	Baetis	510CLO-Baetis-022500	150				45	38	84%	13	11
25-Feb-00	Cache Ck. blw Clear Lake	Coenagrionidae	510CLO-Coenagrionidae-022500	6			20		59			12
25-Feb-00	Cache Ck. blw Clear Lake	Hydropsyche	510CLO-Hydropsyche-022500	250	10	15	13	100	92	92%	29	27
25-Feb-00	Cache Ck. blw Clear Lake	Hydropsyche FDUP	510CLO-Hydropsyche-022500-FDUP	150	10	15	13	80	138	173%	24	41
24-May-00	Cache Ck. blw Clear Lake	Hydropsyche	510CLO-Hydropsyche-052400	67			12	220	261	119%	65	77
24-May-00	Cache Ck. blw Clear Lake	Hydropsyche	510CLO-Hydropsyche-052400-FDUP	78			12	230	241	105%	68	71
7-Aug-00	Cache Ck. blw Clear Lake	Hydropsyche	510CLO-Hydropsyche-080700	150	9	14	12	90	86	96%	26	25
30-Nov-00	Cache Ck. blw Clear Lake	Baetis	510CLO-Baetis-113000	150			7	15	5	33%	4	1
30-Nov-00	Cache Ck. blw Clear Lake	Coenagrionidae	510CLO-Coenagrionidae-113000-2	24	20	22	21	110	77	70%	22	16
30-Nov-00	Cache Ck. blw Clear Lake	Hydropsyche	510CLO-Hydropsyche-113000	250	10	13	12	50	22	44%	15	6
30-Nov-00	Cache Ck. blw Clear Lake	Hydropsyche	510CLO-Hydropsyche-113000-FDUP	200	10	13	12	50	27	54%	15	8
11-Dec-00	Cache Ck. blw Clear Lake	Hydropsyche	510CLO-Hydropsyche-121100	80	10	13	12	50	30	60%	15	9
11-Jan-01	Cache Ck. blw Clear Lake	Hydropsyche	510CLO-Hydropsyche-011101	106	11	14	13	50	31	62%	15	9
13-Feb-01	Cache Ck. blw Clear Lake	Baetis	510CLO-Baetis-021301	130	6	8	7	20	14	70%	6	4
13-Feb-01	Cache Ck. blw Clear Lake	Hydropsyche (Lg)	510CLO-Hydropsyche-lg-021301	57	13	15	14	55	43	78%	16	13
22-Mar-01	Cache Ck. blw Clear Lake	Hydropsyche (lg)	510CLO-Hydropsyche-lg-032201	77	12	16	14		63			19
22-Mar-01	Cache Ck. blw Clear Lake	Hydropsyche (sm)	510CLO-Hydropsyche-sm-032201	92	6	9	8		46			14
3-May-01	Cache Ck. blw Clear Lake	Amphipods	510CLO-Amphipods-050301	51	5	6	6	120	103	86%	31	26
3-May-01	Cache Ck. blw Clear Lake	Coenagrionidae	510CLO-Coenagrionidae-050301-2	15	19	24	22	115	109	95%	23	22
3-May-01	Cache Ck. blw Clear Lake	Coenagrionidae	510CLO-Coenagrionidae-050301-2FDUP	15	19	24	22	125	125	100%	25	25
3-May-01	Cache Ck. blw Clear Lake	Hydropsyche	510CLO-Hydropsyche-050301	86	10	15	13	105	107	102%	31	31
7-Jun-01	Cache Ck. blw Clear Lake	Hydropsyche	510CLO-Hydropsyche-lg-060701	69	11	15	13	105	108	103%	31	32
7-Jun-01	Cache Ck. blw Clear Lake	Hydropsyche	510CLO-Hydropsyche-lg-060701FDUP	73	10	15	13	110	98	89%	32	29
7-Jun-01	Cache Ck. blw Clear Lake	Hydropsyche	510CLO-Hydropsyche-sm-060701	76	4	9	7	95	80	84%	28	24
25-Feb-00	North Fork Cache Creek	Hydropsyche	520NFC-Hydropsyche-022500	34	6	15	11	145	118	81%	43	35
25-Feb-00	North Fork Cache Creek	Perlodidae	520NFC-Perlodidae-022500	100	9	13	11	120	115	96%	36	35
25-Feb-00	North Fork Cache Creek	Pteronarcys	520NFC-Pteronarcys-022500	7	29	34	32	35	32	91%	11	10
8-May-00	North Fork Cache Creek	Baetis	520NFC-Baetis-050800	250	5	7	6	35	23	66%	10	7
8-May-00	North Fork Cache Creek	Hydropsyche	520NFC-Hydropsyche-050800	96	7	16	11	70	55	79%	21	16
8-May-00	North Fork Cache Creek	Perlodidae	520NFC-Perlodidae-050800	52	10	12		60	53	88%	18	16
8-May-00	North Fork Cache Creek	Tipulidae	520NFC-Tipulidae-050800	14			30	115	93	81%	18	15
7-Aug-00	North Fork Cache Creek	Hydropsyche	520NFC-Hydropsyche-080700	67	7	13	10	105	88	84%	31	26
7-Aug-00	North Fork Cache Creek	Pteronarcys	520NFC-Pteronarcys-080700	11	13	22	18	55	43	78%	17	13
7-Aug-00	North Fork Cache Creek	Tipulidae	520NFC-Tipulidae-080700	14	25	35	30	130	90	69%	21	14
14-Nov-00	North Fork Cache Creek	Hydropsyche	520NFC-Hydropsyche-111400	130	10	12	11	130	80	62%	38	24
14-Nov-00	North Fork Cache Creek	Tipulidae	520NFC-Tipulidae-111400	33	25	33	29	190	150	79%	30	24

Appendix, Table 1. Invertebrate Data

Sample Date	Location	Type	Sample #	n	Length (mm)			ng/g		% MeHg	ng/g	
					Low	High	Avg-Size	THg dw	MeHg dw		THg ww	MeHg ww
20-Feb-01	North Fork Cache Creek	Hydropsyche	520NFC-Hydropsyche-022001	47	9	12	11	100	68	68%	29	20
20-Feb-01	North Fork Cache Creek	Perlodidae	520NFC-Perlodidae-022001	55	9	12	11	70	66	94%	21	20
20-Feb-01	North Fork Cache Creek	Tipulidae	520NFC-Tipulidae-1-022001	22	20	35	28	185	121	65%	30	19
15-May-01	North Fork Cache Creek	Baetis	520NFC-Baetis-051501	106	5	7	6	30	24	80%	9	7
15-May-01	North Fork Cache Creek	Hydropsyche	520NFC-Hydropsyche-051501	19	7	14	11	80	58	73%	24	17
15-May-01	North Fork Cache Creek	Perlodidae	520NFC-Perlodidae-051501	66	8	12	10	55	43	78%	17	13
28-Feb-00	Harley Gulch	Coenagrionidae	530HAR-Coenagrionidae-022800	55	14	19	17	8665	2470	29%	1759	501
28-Feb-00	Harley Gulch	Corydalidae	530HAR-Corydalidae-022800	3	35	45	40	5050	1940	38%	1419	545
28-Feb-00	Harley Gulch	Hydropsyche(med)	530HAR-Hydropsyche-022800-1A	81			9	4110	1060	26%	1208	312
28-Feb-00	Harley Gulch	Naucoridae	530HAR-Naucoridae-022800	7			8		1260			416
8-May-00	Harley Gulch	Coenagrionidae (stout)	530HAR-Coenagrionidae-050800-2	28	12	15	14	5930	1460	25%	1204	296
8-May-00	Harley Gulch	Corydalidae	530HAR-Corydalidae-050800	9	21	55	38	5165	2070	40%	1451	582
8-May-00	Harley Gulch	Hydropsyche	530HAR-Hydropsyche-050800	77	7	16	12	5145	933	18%	1513	274
8-May-00	Harley Gulch	Naucoridae	530HAR-Naucoridae-050800	45			10	5735	2840	50%	1893	937
20-Feb-01	Harley Gulch	Coenagrionidae	530HAR-Coenagrionidae-022001	53	12	16	14	19090	8160	43%	3875	1656
20-Feb-01	Harley Gulch	Hydropsyche	530HAR-Hydropsyche-022001	71	9	13	11	9650	2900	30%	2837	853
20-Feb-01	Harley Gulch	HydropsycheFDUP	530HAR-Hydropsyche-022001-FDUP	59	9	12	11	9035	1810	20%	2656	532
15-May-01	Harley Gulch	Amphipods	530HAR-Amphipods-051501	71	4	6	5	9545	2560	27%	2444	655
15-May-01	Harley Gulch	Coenagrionidae	530HAR-Coenagrionidae-051501	20	14	17	16	6640	3290	50%	1348	668
15-May-01	Harley Gulch	Corydalidae	530HAR-Corydalidae-051501	4	30	37	34	6465	2580	40%	1817	725
15-May-01	Harley Gulch	Hydropsyche	530HAR-Hydropsyche-051501	43	10	13	12	5115	2750	54%	1504	809
17-May-00	Davis Creek abv DCR	Corydalidae	533DC5-Corydalidae-051700-1B(med)	3	35	40	38	3235	380	12%	909	107
17-May-00	Davis Creek abv DCR	Libellulidae	533DC5-Libellulidae-051700	3	18	23	21	3240	530	16%	875	143
17-May-00	Davis Creek abv DCR	Naucoridae	533DC5-Naucoridae-051700	14			10	585	397	68%	193	131
17-May-00	Davis Creek abv DCR	Perlidae	533DC5-Perlidae-051700	4	14	27	21	1425	319	22%	428	96
4-Aug-00	Davis Creek abv DCR	Hydropsyche	533DC5-Hydropsyche-080400	41	8	11	10	4090	769	19%	1202	226
4-Aug-00	Davis Creek abv DCR	Perlidae	533DC5-Perlidae-080400	27	9	13	11	2240	880	39%	672	264
4-Aug-00	Davis Creek abv DCR	Tipulidae	533DC5-Tipulidae-080400	11	15	25	20	2385	1350	57%	382	216
6-Nov-00	Davis Creek abv DCR	Perlidae	533DC5-Perlidae-110600	30	9	15	12	3360	1440	43%	1008	432
17-May-00	Davis Ck. Below DCR	Coenagrionidae (long grn)	535DAV-Coenagrionidae-051700-1	57			24	950	760	80%	193	154
17-May-00	Davis Ck. Below DCR	Corydalidae	535DAV-Corydalidae-051700	6	20	45	33	1240	871	70%	348	245
17-May-00	Davis Ck. Below DCR	Corydalidae	535DAV-Corydalidae-051700-FDUP	6	20	45	33	1100	823	75%	309	231
17-May-00	Davis Ck. Below DCR	Hydropsyche	535DAV-Hydropsyche-051700	4			8		990			291
17-May-00	Davis Ck. Below DCR	Naucoridae	535DAV-Naucoridae-051700	5			7	1840	737	40%	607	243
8-May-00	Upper Bear Creek	Hydropsyche	538UBC-Hydropsyche-050800	46	8	13	9	115	106	92%	34	31
8-May-00	Upper Bear Creek	Libellulidae	538UBC-Libellulidae-050800	4	17	22		115	112	97%	31	30
8-May-00	Upper Bear Creek	Naucoridae	538UBC-Naucoridae-050800	57	10	12	11	125	101	81%	41	33
8-May-00	Upper Bear Creek	Tipulidae	538UBC-Tipulidae-050800	27	20	35	30	120	111	93%	19	18

Appendix, Table 1. Invertebrate Data

Sample Date	Location	Type	Sample #	n	Length (mm)			ng/g THg dw	ng/g MeHg dw	% MeHg	ng/g THg ww	ng/g MeHg ww
					Low	High	Avg-Size					
14-Nov-00	Upper Bear Creek	Hydropsyche	538UBC-Hydropsyche-111400	103	9	12	11	225	152	68%	66	45
14-Nov-00	Upper Bear Creek	Libellulidae	538UBC-Libellulidae-111400	4	17	19	18	290	284	98%	78	77
14-Nov-00	Upper Bear Creek	Tipulidae	538UBC-Tipulidae-111400	17	30	35	33	450	258	57%	72	41
11-Dec-00	Upper Bear Creek	Hydropsyche	538UBC-Hydropsyche-121100	61	12	13	13	200	139	70%	59	41
11-Jan-01	Upper Bear Creek	Hydropsyche	538UBC-Hydropsyche-011101	58	12	15	14	185	129	70%	54	38
20-Feb-01	Upper Bear Creek	Hydropsyche (lg)	538UBC-Hydropsyche-lg-022001	45	11	13	12	175	118	67%	51	35
20-Feb-01	Upper Bear Creek	Hydropsyche (sm)	538UBC-Hydropsyche-sm-022001	81	9	9	9	155	79	51%	46	23
20-Feb-01	Upper Bear Creek	Tipulidae	538UBC-Tipulidae-1-022001	15	25	35	30	455	423	93%	73	68
3-May-01	Upper Bear Creek	Gomphidae	538UBC-Gomphidae-050301-1lg	6	27	29	28	215	209	97%	58	56
3-May-01	Upper Bear Creek	Gomphidae	538UBC-Gomphidae-050301-1sm	6	12	16	14	155	145	94%	42	39
3-May-01	Upper Bear Creek	Gomphidae	538UBC-Gomphidae-050301-2	6	19	23	21	150	160	107%	41	43
3-May-01	Upper Bear Creek	Libellulidae	538UBC-Libellulidae-050301	4	21	22	22	165	171	104%	45	46
3-May-01	Upper Bear Creek	Naucoridae	538UBC-Naucoridae-050301	46	9	11	10	130	121	93%	43	40
7-Jun-01	Upper Bear Creek	Naucoridae	538UBC-Naucoridae-060701	41	10	11	11	200	136	68%	66	45
12-Jul-01	Upper Bear Creek	Elmidae	538UBC-Elmidae-071201	12	6	7	7	235	326	139%	93	128
12-Jul-01	Upper Bear Creek	Hydropsyche	538UBC-Hydropsyche-071201	93	9	12	11	335	335	100%	98	98
12-Jul-01	Upper Bear Creek	Hydropsyche	538UBC-Hydropsyche-071201	43	9	12	11	310	275	89%	91	81
12-Jul-01	Upper Bear Creek	Naucoridae	538UBC-Naucoridae-071201	46	9	11	10	255	155	61%	84	51
12-Jul-01	Upper Bear Creek	Naucoridae	538UBC-Naucoridae-071201-FDUP	49	9	11	10	290	250	86%	96	83
12-Jul-01	Upper Bear Creek	Tipulidae	538UBC-Tipulidae-071201	9	30	35	33	435	382	88%	70	61
23-Aug-01	Upper Bear Creek	Hydropsyche	538UBC-Hydropsyche-082301	58	9	13	11	260	272	105%	76	80
23-Aug-01	Upper Bear Creek	Naucoridae	538UBC-Naucoridae-082301	58	10	11	11	225	198	88%	74	65
28-Feb-00	Sulfur Creek	Coenagrionidae	540SUL-Coenagrionidae-022800	45	18	23	21	20475	4100	20%	4156	832
28-Feb-00	Sulfur Creek	Hydropsyche	540SUL-Hydropsyche-022800	8	9	14	12		626			184
28-Feb-00	Sulfur Creek	Tipulidae(med)	540SUL-Tipulidae-022800-1A	9	24	32	28	11720	3720	32%	1875	595
8-May-00	Sulfur Creek	Coenagrionidae	540SUL-Coenagrionidae-050800-1	87	17	25	21	9790	1430	15%	1987	290
8-May-00	Sulfur Creek	Ephemerellidae	540SUL-Ephemerellidae-050800	154			9	615	119	19%	170	33
8-May-00	Sulfur Creek	Ephemerellidae	540SUL-Ephemerellidae-050800-FDUP	147			9	720	111	15%	199	31
8-May-00	Sulfur Creek	Naucoridae	540SUL-Naucoridae-050800	18			10	1260	422	33%	416	139
7-Aug-00	Sulfur Creek	Coenagrionidae	540SUL-Coenagrionidae-080700-1A(med)	75	11	14	13	10135	2230	22%	2057	453
7-Aug-00	Sulfur Creek	Coenagrionidae	540SUL-Coenagrionidae-080700-1B(lg)	12	23	25	24	6110	2510	41%	1240	510
7-Aug-00	Sulfur Creek	Stratiomys	540SUL-Stratiomys-080700	34	25	45	35	4940	829	17%	1482	249
7-Aug-00	Sulfur Creek	Stratiomys	540SUL-Stratiomys-080700-FDUP	29	25	45	35	3345	792	24%	1004	238
14-Nov-00	Sulfur Creek	Coenagrionidae	540SUL-Coenagrionidae-111400-1	70	16	20	18	19010	3700	19%	3859	751
14-Nov-00	Sulfur Creek	Coenagrionidae	540SUL-Coenagrionidae-111400-1-FDUP	63	18	20	19	19655	3880	20%	3990	788
20-Feb-01	Sulfur Creek	Coenagrionidae	540SUL-Coenagrionidae-1-022001	65	16	20	18	21005	2660	13%	4264	540
20-Feb-01	Sulfur Creek	Tipulidae	540SUL-Tipulidae-2-022001	11	20	30	25	16230	3370	21%	2597	539
15-May-01	Sulfur Creek	Coenagrionidae	540SUL-Coenagrionidae-051501-1	40	18	23	21	9355	1190	13%	1899	242
15-May-01	Sulfur Creek	Coenagrionidae	540SUL-Coenagrionidae-051501-2	9	17	18	18	3355	428	13%	681	87
15-May-01	Sulfur Creek	Naucoridae	540SUL-Naucoridae-051501	16	9	11	10	1020	309	30%	337	102

Appendix, Table 1. Invertebrate Data

Sample Date	Location	Type	Sample #	n	Length (mm)			ng/g THg dw	ng/g MeHg dw	% MeHg	ng/g THg ww	ng/g MeHg ww
					Low	High	Avg-Size					
13-Jun-01	BR1	Hydropsyche	545BR1-Hydropsyche-061301	60	7	14	11	3740	1860	50%	1100	547
13-Jun-01	BR1	Naucoridae	545BR1-Naucoridae-061301	47	9	12	11	2915	1990	68%	962	657
14-Mar-00	Mid Bear Creek	Coenagrionidae	550BRC-Coenagrionidae-031400	11	10	13	12	2335	2554	109%	474	518
14-Mar-00	Mid Bear Creek	Elmidae	550BRC-Elmidae-031400	42			6	1090	704	65%	429	277
14-Mar-00	Mid Bear Creek	Hydropsyche	550BRC-Hydropsyche-031400	50	8	14	11	1895	806	43%	557	237
9-May-00	Mid Bear Creek	Coenagrionidae	550BRC-Coenagrionidae-050900-1	61	15	25	20	830	682	82%	168	138
9-May-00	Mid Bear Creek	Elmidae	550BRC-Elmidae-050900	80			7	940	754	80%	370	297
9-May-00	Mid Bear Creek	Hydropsyche	550BRC-Hydropsyche-050900	126	9	15	12	1445	1220	84%	425	359
9-May-00	Mid Bear Creek	Libellulidae	550BRC-Libellulidae-050900-1	8	18	22	20	1130	988	87%	305	267
9-May-00	Mid Bear Creek	Libellulidae	550BRC-Libellulidae-050900-1-FDUP	16	15	25	20	1410	1130	80%	381	305
9-May-00	Mid Bear Creek	Naucoridae	550BRC-Naucoridae-050900	38			11	1410	926	66%	465	306
1-Aug-00	Mid Bear Creek	Coenagrionidae	550BRC-Coenagrionidae-080100-1	43	13	20	17	1740	1880	108%	353	382
1-Aug-00	Mid Bear Creek	Hydropsyche	550BRC-Hydropsyche-080100	76	8	13	11	2545	2270	89%	748	667
1-Aug-00	Mid Bear Creek	Libellulidae	550BRC-Libellulidae-080100-1	39	10	17	14	2185	2130	97%	590	575
1-Aug-00	Mid Bear Creek	Naucoridae	550BRC-Naucoridae-080100	39			12	2895	2830	98%	955	934
1-Aug-00	Mid Bear Creek	Naucoridae	550BRC-Naucoridae-080100-FDUP	40			12	3170	3250	103%	1046	1073
14-Nov-00	Mid Bear Creek	Elmidae	550BRC-Elmidae-111400	16			7	1170	779	67%	461	307
14-Nov-00	Mid Bear Creek	Gomphidae	550BRC-Gomphidae-111400-2	24	20	24	22	3140	2030	65%	848	548
14-Nov-00	Mid Bear Creek	Hydropsyche	550BRC-Hydropsyche-111400	88	10	13	12	2425	818	34%	713	240
14-Nov-00	Mid Bear Creek	Hydropsyche	550BRC-Hydropsyche-111400-FDUP	75	10	13	12	1970	769	39%	579	226
11-Dec-00	Mid Bear Creek	Corydalidae	550BRC-Corydalidae-121100	13	30	45	38	1225	1770	144%	344	497
11-Dec-00	Mid Bear Creek	Hydropsyche	550BRC-Hydropsyche-121100	88	10	13	12	2390	759	32%	703	223
11-Jan-01	Mid Bear Creek	Corydalidae	550BRC-Corydalidae-011101	6	32	46	39	1385	2060	149%	389	579
11-Jan-01	Mid Bear Creek	Hydropsyche	550BRC-Hydropsyche-011101	87	12	15	14	2915	899	31%	857	264
15-Feb-01	Mid Bear Creek	Corydalidae	550BRC-Corydalidae-021501	3	45	55	50	2405	3250	135%	676	913
15-Feb-01	Mid Bear Creek	Gomphidae	550BRC-Gomphidae-2-021501	13	20	27	24	1760	1830	104%	475	494
15-Feb-01	Mid Bear Creek	Hydropsyche (lg)	550BRC-Hydropsyche-lg-021501	134	11	15	13	2515	732	29%	739	215
15-Feb-01	Mid Bear Creek	Hydropsyche (sm)	550BRC-Hydropsyche-sm-021501	160	6	8	7	3945	696	18%	1160	205
22-Mar-01	Mid Bear Creek	Corydalidae	550BRC-Corydalidae-032201	3	30	40	35		1100			309
22-Mar-01	Mid Bear Creek	Hydropsyche (lg)	550BRC-Hydropsyche-lg-032201	82	12	15	14		183			54
22-Mar-01	Mid Bear Creek	Hydropsyche (sm)	550BRC-Hydropsyche-sm-032201	64	6	9	8		232			68
3-May-01	Mid-Bear Creek	Coenagrionidae	550BRC-Coenagrionidae-050301-2	12	15	20	18	1440	920	64%	292	187
3-May-01	Mid-Bear Creek	Corydalidae	550BRC-Corydalidae-050301	3	38	50	44	1800	1300	72%	506	365
3-May-01	Mid-Bear Creek	Elmidae	550BRC-Elmidae-050301	74	6	7	7	1385	1150	83%	546	453
3-May-01	Mid-Bear Creek	Ephemerellidae	550BRC-Ephemerillidae-050301	57	8	10	9	575	501	87%	159	139
3-May-01	Mid-Bear Creek	Hydropsyche	550BRC-Hydropsyche-050301-lg	77	11	15	13	1635	677	41%	481	199
3-May-01	Mid-Bear Creek	Hydropsyche	550BRC-Hydropsyche-050301-sm	49	7	9	8	1845	766	42%	542	225
3-May-01	Mid-Bear Creek	Libellulidae	550BRC-Libellulidae-050301	6	15	20	18	1145	879	77%	309	237
3-May-01	Mid-Bear Creek	Naucoridae	550BRC-Naucoridae-050301	63	10	11	11	1185	867	73%	391	286

Appendix, Table 1. Invertebrate Data

Sample Date	Location	Type	Sample #	n	Length (mm)			ng/g THg dw	ng/g MeHg dw	% MeHg	ng/g THg ww	ng/g MeHg ww
					Low	High	Avg-Size					
7-Jun-01	Mid-Bear Creek	Elmidae	550BRC-Elmidae-060701	76	6	7	7	2145	1820	85%	845	717
7-Jun-01	Mid-Bear Creek	Hydropsyche	550BRC-Hydropsyche-Ig-060701	57	9	14	12	3445	2210	64%	1013	650
7-Jun-01	Mid-Bear Creek	Hydropsyche	550BRC-Hydropsyche-sm-060701	47	5	8	7	4190	2720	65%	1232	800
7-Jun-01	Mid-Bear Creek	Naucoridae	550BRC-Naucoridae-060701	40	10	11	11	3105	2360	76%	1025	779
12-Jul-01	Mid-Bear Creek	Hydropsyche	550.1BRC-Hydropsyche-071201	22	9	12	11	2460	2010	82%	723	591
12-Jul-01	Mid-Bear Creek	Naucoridae	550.1BRC-Naucoridae-071201	23	9	11	10	3235	1070	33%	1068	353
12-Jul-01	Mid-Bear Creek	Hydropsyche	550.2BRC-Hydropsyche-071201	60	9	12	11	3410	2410	71%	1003	709
12-Jul-01	Mid-Bear Creek	Naucoridae	550.2BRC-Naucoridae-071201	30	9	11	10	3980	2070	52%	1313	683
12-Jul-01	Mid-Bear Creek	Elmidae	550BRC-Elmidae-071201	48	6	7	7	1875	1810	97%	739	713
12-Jul-01	Mid-Bear Creek	Hydropsyche	550BRC-Hydropsyche-071201	68	9	13	11	3090	2560	83%	908	753
12-Jul-01	Mid-Bear Creek	Naucoridae	550BRC-Naucoridae-071201	52	10	11	11	3345	3040	91%	1104	1003
23-Aug-01	Mid-Bear Creek	Elmidae	550BRC-Elmidae-082301	49			7	1225	1040	85%	483	410
23-Aug-01	Mid-Bear Creek	Elmidae	550BRC-Elmidae-082301-FDUP	49			7	1835	1100	60%	723	433
23-Aug-01	Mid-Bear Creek	Hydropsyche	550BRC-Hydropsyche-082301	54	9	12	11	2410	1760	73%	709	517
23-Aug-01	Mid-Bear Creek	Naucoridae	550BRC-Naucoridae-082301	56	10	11	11	3240	2800	86%	1069	924
13-Jun-01	BR3	Hydropsyche	555BR3-Hydropsyche-061301	25	7	14	11	2085	1800	86%	613	529
13-Jun-01	BR3	Naucoridae	555BR3-Naucoridae-061301	16	7	12	10	1575	1360	86%	520	449
17-Feb-00	Cache Creek @ Rumsey	Corydalidae(med)	560RUM-Corydalidae-021700-1A	9	35	47	41	135	111	82%	38	31
17-Feb-00	Cache Creek @ Rumsey	Hydropsyche(med)	560RUM-Hydropsyche-021700-1A	170	7	10	9	255	142	56%	75	42
17-Feb-00	Cache Creek @ Rumsey	Hydropsyche(Ig)	560RUM-Hydropsyche-021700-1B	133	10	15	13	190	110	58%	56	32
17-Feb-00	Cache Creek @ Rumsey	Perlodidae	560RUM-Perlodidae-021700	96	5	10	8	175	171	98%	53	51
9-May-00	Cache Creek @ Rumsey	Corydalidae	560RUM-Corydalidae-050900	6	30	80	52	155	178	115%	44	50
9-May-00	Cache Creek @ Rumsey	Corydalidae	560RUM-Corydalidae-050900-FDUP	8	35	60	48	125	111	89%	35	31
9-May-00	Cache Creek @ Rumsey	Hydropsyche	560RUM-Hydropsyche-050900	163	8	13	11	130	118	91%	38	35
9-May-00	Cache Creek @ Rumsey	Perlodidae	560RUM-Perlodidae-050900	59			9	120	122	102%	36	37
1-Aug-00	Cache Creek @ Rumsey	Corydalidae(med/Ig)	560RUM-Corydalidae-080100-1A(med/Ig)	6	38	51	45	145	137	94%	41	38
1-Aug-00	Cache Creek @ Rumsey	Corydalidae(Xlg)	560RUM-Corydalidae-080100-1B(Xlg)	6	61	72	67	150	116	77%	42	33
1-Aug-00	Cache Creek @ Rumsey	Hydropsyche	560RUM-Hydropsyche-080100	110	9	14	12	130	100	77%	38	29
1-Aug-00	Cache Creek @ Rumsey	Hydropsyche FDUP	560RUM-Hydropsyche-080100-FDUP	130	9	14	12	130	84	65%	38	25
1-Aug-00	Cache Creek @ Rumsey	Naucoridae	560RUM-Naucoridae-080100	12			9		179			59
10-Nov-00	Cache Creek @ Rumsey	Corydalidae	560RUM-Corydalidae-111000	20	35	65	50	115	96	83%	32	27
10-Nov-00	Cache Creek @ Rumsey	Corydalidae	560RUM-Corydalidae-111000-FDUP	20	35	65	50	115	92	80%	32	26
10-Nov-00	Cache Creek @ Rumsey	Hydropsyche	560RUM-Hydropsyche-111000	73			11	80	35	44%	24	10
10-Nov-00	Cache Creek @ Rumsey	Libellulidae	560RUM-Libellulidae-111000	31	11	16	14	65	54	83%	18	15
11-Dec-00	Cache Creek @ Rumsey	Corydalidae (sm/med)	560RUM-Corydalidae-121100-(sm/med)	16	25	35	30	95	70	74%	27	20
11-Dec-00	Cache Creek @ Rumsey	Corydalidae (XL)	560RUM-Corydalidae-121100-(XL)	5	55	60	58	140	119	85%	39	33
11-Dec-00	Cache Creek @ Rumsey	Hydropsyche	560RUM-Hydropsyche-121100	59	9	13	11	140	51	36%	41	15
11-Dec-00	Cache Creek @ Rumsey	Libellulidae	560RUM-Libellulidae-121100	13	16	19	18	85	81	95%	23	22
11-Jan-01	Cache Creek @ Rumsey	Hydropsyche	560RUM-Hydropsyche-011101	66	10	14	12	90	51	57%	26	15

Appendix, Table 1. Invertebrate Data

Sample Date	Location	Type	Sample #	n	Length (mm)			ng/g THg dw	ng/g MeHg dw	% MeHg	ng/g THg ww	ng/g MeHg ww
					Low	High	Avg-Size					
15-Feb-01	Cache Creek @ Rumsey	Baetis	560RUM-Baetis-021501	200	5	9	7	50	11	22%	15	3
15-Feb-01	Cache Creek @ Rumsey	Corydalidae(med/lg)	560RUM-Corydalidae-021501	9	35	50	43	110	92	84%	31	26
15-Feb-01	Cache Creek @ Rumsey	Hydropsyche	560RUM-Hydropsyche-021501	80	10	14	12	145	46	32%	43	14
15-Feb-01	Cache Creek @ Rumsey	HydropsycheFDUP	560RUM-Hydropsyche-021501-FDUP	83	10	14	12	140	44	31%	41	13
15-Feb-01	Cache Creek @ Rumsey	Libellulidae	560RUM-Libellulidae-021501	8	12	15	14	90	79	88%	24	21
22-Mar-01	Cache Creek @ Rumsey	Corydalidae	560RUM-Corydalidae-032201	7	35	50	43		89			25
22-Mar-01	Cache Creek @ Rumsey	Hydropsyche	560RUM-Hydropsyche-032201	74	9	13	11		58			17
3-May-01	Cache Creek @ Rumsey	Baetis	560RUM-Baetis-050301	109	4	6	5	55	45	82%	16	13
3-May-01	Cache Creek @ Rumsey	Corydalidae	560RUM-Corydalidae-050301	11	30	50	40	140	129	92%	39	36
3-May-01	Cache Creek @ Rumsey	Hydropsyche	560RUM-Hydropsyche-050301-lg	90	10	15	13	145	124	86%	43	36
3-May-01	Cache Creek @ Rumsey	Hydropsyche	560RUM-Hydropsyche-050301-lg FDUP	90	10	15	13	145	129	89%	43	38
3-May-01	Cache Creek @ Rumsey	Hydropsyche	560RUM-Hydropsyche-050301-sm	44	7	8	8	150	108	72%	44	32
3-May-01	Cache Creek @ Rumsey	Perlodidae	560RUM-Perlodidae-050301	65	8	13	11	140	116	83%	42	35
7-Jun-01	Cache Creek @ Rumsey	Corydalidae	560RUM-Corydalidae-060701	5	35	50	43	145	139	96%	41	39
7-Jun-01	Cache Creek @ Rumsey	Hydropsyche	560RUM-Hydropsyche-060701	50	8	14	11	150	124	83%	44	36
22-May-00	Cache Ck. Blw Hwy 505	Calopterygidae	565SOL-Calopterygidae-052200	7			30	75	68	91%	15	14
22-May-00	Cache Ck. Blw Hwy 505	Hydropsyche	565SOL-Hydropsyche-052200	91			12	150	108	72%	44	32
22-May-00	Cache Ck. Blw Hwy 505	Libellulidae	565SOL-Libellulidae-052200	17	15	22	19	90	109	121%	24	29
1-Aug-00	Cache Ck. Blw Hwy 505	Calopterygidae	565SOL-Calopterygidae-080100	8	15	22	19		169			34
1-Aug-00	Cache Ck. Blw Hwy 505	Hydropsyche	565SOL-Hydropsyche-080100	120	10	15	13	230	205	89%	68	60
1-Aug-00	Cache Ck. Blw Hwy 505	Naucoridae	565SOL-Naucoridae-080100	12			12	235	264	112%	78	87
10-Nov-00	Cache Ck. Blw Hwy 505	Calopterygidae	565SOL-Calopterygidae-111000	18	19	26	23	110	82	75%	22	17
10-Nov-00	Cache Ck. Blw Hwy 505	Hydropsyche	565SOL-Hydropsyche-111000	100	9	13	11	145	99	68%	43	29
10-Nov-00	Cache Ck. Blw Hwy 505	Hydropsyche FDUP	565SOL-Hydropsyche-111000-FDUP	103	9	13	11	150	104	69%	44	31
15-Feb-01	Cache Ck. Blw Hwy 505	Baetis	565SOL-Baetis-021501	85	5	9	7	40	17	43%	12	5
15-Feb-01	Cache Ck. Blw Hwy 505	Hydropsyche	565SOL-Hydropsyche-021501	87	11	15	13	115	60	52%	34	18
22-May-00	Cache Ck. Blw Yolo	Calopterygidae	570YSB-Calopterygidae-052200	14	24	28	26	105	78	74%	21	16
22-May-00	Cache Ck. Blw Yolo	Coenagrionidae	570YSB-Coenagrionidae-052200	5			15		235			48
22-May-00	Cache Ck. Blw Yolo	Hydropsyche	570YSB-Hydropsyche-052200	30			10	200	147	74%	59	43
1-Aug-00	Cache Ck. Blw Yolo	Calopterygidae	570YSB-Calopterygidae-080100	10	18	25	22	0	209			42
27-Nov-00	Cache Ck. Blw Yolo	Calopterygidae	570YSB-Calopterydidae-112700	20	18	27	23	75	65	87%	15	13
27-Nov-00	Cache Ck. Blw Yolo	Hydropsyche	570YSB-Hydropsyche-112700	80	9	12	11	120	76	63%	35	22
15-Feb-01	Cache Ck. above Bear Ck.	Baetis	Comp. A	150			7	60	21	35%	17	6
15-Feb-01	Cache Ck. above Bear Ck.	Baetis	Comp. B	150			7	55	32	58%	16	9
15-Feb-01	Cache Ck. above Bear Ck.	Baetis	Comp. C	150			7	55	41	75%	16	12
15-Feb-01	Cache Ck. above Bear Ck.	Corydalidae		7	32	52	42	110	93	85%	31	26
15-Feb-01	Cache Ck. below Bear Ck.	Baetis	Comp. C	100			7	110	63	57%	32	18
15-Feb-01	Cache Ck. below Bear Ck.	Corydalidae		6	35	55	45	115	132	115%	32	37
15-Feb-01	Cache Ck. below Bear Ck.	Hydropsyche		60	10	13	12	310	94	30%	91	28
15-Feb-01	Bear Ck. above Cache Ck.	Corydalidae		6	35	55	45	2190	2320	106%	615	652
15-Feb-01	Bear Ck. above Cache Ck.	Hydropsyche		100	10	14	12	850	251	30%	250	74

Appendix, Table 2. Small Fish Data

Sample Date	Location	Type	Sample #	Grams Per Ind	n	Length (mm)			µg/g THg Whole dw	µg/g MeHg Whole dw	% Solids	µg/g THg Whole ww	µg/g MeHg Whole ww	% MeHg	ng/g THg Whole ww	ng/g MeHg Whole ww
						Low	High	Avg-Size								
24-May-00	Middle Creek	California Roach	505MID-California Roach-2A-052400	2.73	8	50	67	61	0.185	0.134	24%	0.044	0.032	72%	44	32
24-May-00	Middle Creek	California Roach	505MID-California Roach-2B-052400	2.74	8	54	68	61	0.145	0.110	25%	0.036	0.027	76%	36	27
24-May-00	Middle Creek	Juv. Sac. Sucker	505MID-SSUC-1-052400	2.99	4	55	75	65	0.120	0.106	22%	0.027	0.024	88%	27	24
24-May-00	Cache Ck. blw Clear Lake	Juv. Sac. Sucker	510CLO-SSUC-2-052400	32.63	4	138	150	149	0.300	0.289	23%	0.069	0.067	96%	69	67
7-Aug-00	Cache Ck. blw Clear Lake	Juv. Sac. Sucker	510CLO-SSUC-2-080700	12.52	8	92	117	105	0.210	0.192	24%	0.049	0.045	91%	49	45
8-May-00	North Fk. Cache Ck.	California Roach	520NFC-ROCH-3-050800	4.58	2	78	78	78	0.375	0.392	24%	0.090	0.094	105%	90	94
7-Aug-00	North Fk. Cache Ck.	California Roach	520NFC-California Roach-2-080700	2.92	3	64	70	67	0.370	0.336	23%	0.084	0.077	91%	84	77
14-Nov-00	North Fk. Cache Ck.	California Roach	520NFC-California Roach-2A-111400	1.63	7	50	70	55	0.340	0.259	24%	0.082	0.062	76%	82	62
20-Feb-01	North Fk. Cache Ck.	California Roach	520NFC-ROCH-2-022001	1.37	5	46	63	53	0.325	0.413	24%	0.079	0.100	127%	79	100
15-May-01	North Fk. Cache Ck.	California Roach	520NFC-ROCH-2-051501	1.29	4	47	56	52	0.325	0.338	19%	0.061	0.064	104%	61	64
8-May-00	North Fk. Cache Ck.	Speckled Dace	520NFC-SPDA-1-050800	3.51	2	63	69	66	0.480	0.487	22%	0.107	0.108	101%	107	108
14-Nov-00	North Fk. Cache Ck.	Speckled Dace	520NFC-SPDA-1-111400	2.45	3	56	61	58	0.260	0.234	24%	0.063	0.057	90%	63	57
20-Feb-01	North Fk. Cache Ck.	Speckled Dace	520NFC-SPDA-1-022001	1.72	5	46	59	53	0.270	0.240	21%	0.056	0.050	89%	56	50
15-May-01	North Fk. Cache Ck.	Speckled Dace	520NFC-SPDA-1A-051501	2.04	12	50	64	56	0.345	0.347	23%	0.080	0.081	101%	80	81
15-May-01	North Fk. Cache Ck.	Speckled Dace	520NFC-SPDA-1B-051501	2.00	12	50	64	56	0.370	0.341	23%	0.084	0.078	92%	84	78
15-May-01	North Fk. Cache Ck.	Speckled Dace	520NFC-SPDA-1C-051501	1.95	12	50	64	56	0.355	0.328	23%	0.082	0.076	92%	82	76
15-May-01	North Fk. Cache Ck.	Speckled Dace	520NFC-SPDA-2-051501	4.72	3	70	78	75	0.590	0.612	25%	0.149	0.155	104%	149	155
25-Feb-00	North Fk. Cache Ck.	Juv. Sac. Sucker	520NFC-SSUC-1-022500	2.07	13	45	75	64	0.385	0.365	21%	0.079	0.075	95%	79	75
8-May-00	North Fk. Cache Ck.	Juv. Sac. Sucker	520NFC-SSUC-1-050800	2.84	17	48	81	65	0.255	0.258	20%	0.051	0.051	101%	51	51
7-Aug-00	North Fk. Cache Ck.	Juv. Sac. Sucker	520NFC-SSUC-1-080700	2.14	15	48	72	60	0.180	0.157	19%	0.035	0.030	87%	35	30
7-Aug-00	North Fk. Cache Ck.	Juv. Sac. Sucker	520NFC-SSUC-2-080700	14.78	3	99	123	111	0.165	0.175	25%	0.041	0.044	106%	41	44
14-Nov-00	North Fk. Cache Ck.	Juv. Sac. Sucker	520NFC-SSUC-1-111400	5.03	12	62	96	73	0.225	0.221	23%	0.051	0.050	98%	51	50
20-Feb-01	North Fk. Cache Ck.	Juv. Sac. Sucker	520NFC-SSUC-1A-022001	2.24	16	45	83	57	0.275	0.220	23%	0.063	0.050	80%	63	50
20-Feb-01	North Fk. Cache Ck.	Juv. Sac. Sucker	520NFC-SSUC-1B-022001	2.04	16	43	78	56	0.260	0.228	23%	0.059	0.052	88%	59	52
15-May-01	North Fk. Cache Ck.	Juv. Sac. Sucker	520NFC-SSUC-1-051501	3.55	10	55	92	73	0.195	0.192	20%	0.040	0.039	98%	40	39
4-Aug-00	Davis Creek abv DCR	California Roach	533DC5-ROCH-2A-080400	2.41	8	53	70	62	2.295	2.010	28%	0.637	0.558	88%	637	558
4-Aug-00	Davis Creek abv DCR	California Roach	533DC5-ROCH-2B-080400	2.35	8	53	70	62	2.675	2.010	29%	0.764	0.574	75%	764	574
10-Mar-00	Davis Creek below DCR	California Roach	535DAV-California Roach-2A-031000	1.89	7	50	64	55	1.735	1.300	20%	0.353	0.265	75%	353	265
10-Mar-00	Davis Creek below DCR	California Roach	535DAV-California Roach-2B-031000	2.03	7	51	67	56	2.165	1.590	21%	0.449	0.330	73%	449	330
17-May-00	Davis Creek below DCR	California Roach	535DAV-California Roach-2A-051700	2.44	9	51	70	60	1.545	1.680	27%	0.422	0.459	109%	422	459
17-May-00	Davis Creek below DCR	California Roach	535DAV-California Roach-2B-051700	2.40	9	53	70	61	1.420	1.470	28%	0.393	0.407	104%	393	407
17-May-00	Davis Creek below DCR	California Roach	535DAV-California Roach-2C-051700	2.51	9	53	70	61	1.525	1.160	29%	0.435	0.331	76%	435	331
4-Aug-00	Davis Creek below DCR	California Roach	535DAV-California Roach-2A-080400	2.13	6	55	64	60	1.590	1.990	28%	0.438	0.548	125%	438	548
4-Aug-00	Davis Creek below DCR	California Roach	535DAV-California Roach-2B-080400	2.13	6	56	65	60	1.940	1.770	27%	0.522	0.477	91%	522	477
6-Nov-00	Davis Creek below DCR	California Roach	535DAV-California Roach-2A-110600	1.92	8	52	65	61	1.710	1.230	24%	0.418	0.301	72%	418	301
6-Nov-00	Davis Creek below DCR	California Roach	535DAV-California Roach-2B-110600	1.92	8	53	66	61	2.065	2.190	23%	0.479	0.508	106%	479	508
6-Nov-00	Davis Creek below DCR	California Roach	535DAV-California Roach-2C-110600	2.10	8	54	67	61	1.675	1.740	25%	0.417	0.434	104%	417	434
10-May-01	Davis Creek below DCR	California Roach	535DAV-ROCH-2A-051001	2.53	10	51	71	61	1.495	0.000	25%	0.380	0.000	0%	380	
10-May-01	Davis Creek below DCR	California Roach	535DAV-ROCH-2B-051001	2.31	10	50	68	59	1.475	0.000	25%	0.370	0.000	0%	370	
10-May-01	Davis Creek below DCR	California Roach	535DAV-ROCH-2C-051001	2.52	10	50	69	60	1.640	0.000	26%	0.426	0.000	0%	426	
4-Aug-00	Davis Creek below DCR	Juv. Sac. Sucker	535DAV-SSUC-1-080400	3.30	11	50	90	68	6.025	3.540	22%	1.323	0.777	59%	1323	777
8-May-01	Davis Ck. At Cache	California Roach	536DCA-ROCH-1-050801	0.69	12	39	45	42	0.420	0.420	24%	0.099	0.099	100%	99	99
8-May-01	Davis Ck. At Cache	California Roach	536DCA-ROCH-2-050801	1.56	10	51	61	54	0.425	0.360	26%	0.109	0.093	85%	109	93
8-May-01	Davis Ck. At Cache	California Roach	536DCA-ROCH-3-050801	4.91	4	72	80	76	0.940	0.911	25%	0.235	0.228	97%	235	228

Appendix, Table 2. Small Fish Data

Sample Date	Location	Type	Sample #	Grams Per Ind	n	Length (mm)			µg/g THg Whole dw	µg/g MeHg Whole dw	% Solids	µg/g THg Whole ww	µg/g MeHg Whole ww	% MeHg	ng/g THg Whole ww	ng/g MeHg Whole ww
8-May-01	Davis Ck. At Cache	Speckled Dace	536DCA-SPDA-1A-050801	2.30	8	48	70	59	0.580	0.590	25%	0.146	0.148	102%	146	148
8-May-01	Davis Ck. At Cache	Speckled Dace	536DCA-SPDA-1B-050801	2.29	8	48	70	59	0.620	0.475	25%	0.153	0.117	77%	153	117
8-May-01	Davis Ck. At Cache	Speckled Dace	536DCA-SPDA-1C-050801	2.21	8	48	72	59	0.540	0.448	24%	0.132	0.109	83%	132	109
8-May-00	Upper Bear Creek	California Roach	538UBC-California Roach-2A-050800	2.03	10	50	68	58	0.720	0.734	21%	0.150	0.153	102%	150	153
8-May-00	Upper Bear Creek	California Roach	538UBC-California Roach-2B-050800	1.84	10	50	69	58	0.680	0.516	21%	0.140	0.106	76%	140	106
8-May-00	Upper Bear Creek	California Roach	538UBC-California Roach-2C-050800	1.94	10	50	70	58	0.670	0.678	21%	0.143	0.145	101%	143	145
14-Nov-00	Upper Bear Creek	California Roach	538UBC-California Roach-2A-111400	2.00	10	50	66	57	0.380	0.341	25%	0.094	0.085	90%	94	85
14-Nov-00	Upper Bear Creek	California Roach	538UBC-California Roach-2B-111400	2.05	10	50	65	57	0.340	0.386	26%	0.088	0.100	114%	88	100
14-Nov-00	Upper Bear Creek	California Roach	538UBC-California Roach-2C-111400	2.06	10	51	65	57	0.380	0.280	25%	0.095	0.070	74%	95	70
20-Feb-01	Upper Bear Creek	California Roach	538UBC-ROCH-1-022001	1.04	5	46	49	47	0.460	0.402	22%	0.101	0.089	87%	101	89
20-Feb-01	Upper Bear Creek	California Roach	538UBC-ROCH-2A-022001	1.87	10	51	63	57	0.380	0.505	23%	0.089	0.118	133%	89	118
20-Feb-01	Upper Bear Creek	California Roach	538UBC-ROCH-2B-022001	1.85	10	51	63	57	0.465	0.443	23%	0.109	0.104	95%	109	104
20-Feb-01	Upper Bear Creek	California Roach	538UBC-ROCH-2C-022001	1.89	10	51	63	57	0.370	0.367	24%	0.088	0.087	99%	88	87
22-Mar-01	Upper Bear Creek	California Roach	538UBC-ROCH-1-032201	0.62	12	35	43	39	0.530	0.501	20%	0.105	0.100	95%	105	100
22-Mar-01	Upper Bear Creek	California Roach	538UBC-ROCH-2A-032201	1.60	7	51	58	54	0.375	0.397	23%	0.085	0.090	106%	85	90
22-Mar-01	Upper Bear Creek	California Roach	538UBC-ROCH-2B-032201	1.47	7	51	58	54	0.475	0.459	22%	0.105	0.101	97%	105	101
22-Mar-01	Upper Bear Creek	California Roach	538UBC-ROCH-2C-032201	1.45	7	51	58	54	0.455	0.286	23%	0.105	0.066	63%	105	66
3-May-01	Upper Bear Creek	California Roach	538UBC-ROCH-1-050301	1.00	12	43	48	46	0.370	0.368	23%	0.087	0.086	99%	87	86
3-May-01	Upper Bear Creek	California Roach	538UBC-ROCH-2A-050301	2.25	12	54	68	60	0.695	0.615	22%	0.155	0.137	88%	155	137
3-May-01	Upper Bear Creek	California Roach	538UBC-ROCH-2B-050301	2.21	12	54	68	60	0.515	0.587	22%	0.115	0.131	114%	115	131
3-May-01	Upper Bear Creek	California Roach	538UBC-ROCH-2C-050301	2.40	12	54	68	60	0.565	0.609	23%	0.131	0.141	108%	131	141
3-May-01	Upper Bear Creek	California Roach	538UBC-ROCH-3-050301	6.04	5	77	86	82	0.770	0.873	25%	0.189	0.214	113%	189	214
7-Jun-01	Upper Bear Creek	California Roach	538UBC-ROCH-2A-060701	2.50	11	55	70	61	0.415	0.360	28%	0.115	0.099	87%	115	99
7-Jun-01	Upper Bear Creek	California Roach	538UBC-ROCH-2B-060701	2.54	11	55	70	61	0.520	0.577	25%	0.128	0.142	111%	128	142
7-Jun-01	Upper Bear Creek	California Roach	538UBC-ROCH-2C-060701	2.45	11	55	70	61	0.490	0.514	28%	0.137	0.143	105%	137	143
12-Jul-01	Upper Bear Creek	California Roach	538UBC-ROACH-A-071201	2.99	10	55	73	64	0.535	0.570	28%	0.149	0.159	107%	149	159
12-Jul-01	Upper Bear Creek	California Roach	538UBC-ROACH-B-071201	2.87	10	55	73	64	0.435	0.475	28%	0.121	0.132	109%	121	132
12-Jul-01	Upper Bear Creek	California Roach	538UBC-ROACH-C-071201	2.73	10	55	73	64	0.600	0.625	28%	0.167	0.174	104%	167	174
12-Jul-01	Upper Bear Creek	California Roach	538UBC-ROACH-SM-071201	1.04	7	45	50	47	0.480	0.520	22%	0.105	0.114	108%	105	114
23-Aug-01	Upper Bear Creek	California Roach	538UBC-ROACH-A-082301	1.52	10	47	60	49	0.450	0.346	24%	0.107	0.082	77%	107	82
23-Aug-01	Upper Bear Creek	California Roach	538UBC-ROACH-B-082301	1.69	10	47	60	49	0.460	0.383	23%	0.108	0.090	83%	108	90
23-Aug-01	Upper Bear Creek	California Roach	538UBC-ROACH-C-082301	1.44	10	47	60	49	0.430	0.373	23%	0.100	0.087	87%	100	87
14-Nov-00	Upper Bear Creek	Juv. Sac. Sucker	538UBC-SSUC-2-111400	18.22	9	104	130	116	0.290	0.217	25%	0.073	0.055	75%	73	55
13-Jun-01	Bear Ck. 1km Above Hwy 20	California Roach	545BR1-ROCH-2A-061301	2.18	10	53	68	59	3.410	0.000	27%	0.935	0.000	0%	935	
13-Jun-01	Bear Ck. 1km Above Hwy 20	California Roach	545BR1-ROCH-2B-061301	2.23	10	53	68	59	3.555	0.000	27%	0.958	0.000	0%	958	
13-Jun-01	Bear Ck. 1km Above Hwy 20	California Roach	545BR1-ROCH-2C-061301	2.29	10	53	68	59	3.160	0.000	27%	0.859	0.000	0%	859	
14-Mar-00	Mid Bear Creek	California Roach	550BRC-California Roach-2A--031400	1.77	10	50	67	57	4.390	2.190	19%	0.849	0.424	50%	849	424
14-Mar-00	Mid Bear Creek	California Roach	550BRC-California Roach-2B--031400	1.60	10	48	67	57	4.675	2.620	19%	0.904	0.507	56%	904	507
14-Mar-00	Mid Bear Creek	California Roach	550BRC-California Roach-2C--031400	1.54	10	50	64	56	4.270	2.040	19%	0.826	0.395	48%	826	395
9-May-00	Mid Bear Creek	California Roach	550BRC-California Roach-2A-050900	1.82	10	50	60	55	1.810	1.940	24%	0.429	0.460	107%	429	460
9-May-00	Mid Bear Creek	California Roach	550BRC-California Roach-2B-050900	1.87	10	50	62	55	1.910	0.969	22%	0.426	0.216	51%	426	216
9-May-00	Mid Bear Creek	California Roach	550BRC-California Roach-2C-050900	1.90	10	50	63	55	1.755	1.150	23%	0.412	0.270	66%	412	270
1-Aug-00	Mid Bear Creek	California Roach	550BRC-California Roach-2A-080100	2.62	8	51	70	62	3.215	2.560	27%	0.855	0.681	80%	855	681
1-Aug-00	Mid Bear Creek	California Roach	550BRC-California Roach-2B-080100	2.64	8	51	69	61	4.180	2.190	26%	1.098	0.575	52%	1098	575
1-Aug-00	Mid Bear Creek	California Roach	550BRC-California Roach-2C-080100	2.63	8	54	68	62	3.960	2.645	27%	1.057	0.706	67%	1057	706
14-Nov-00	Mid Bear Creek	California Roach	550BRC-California Roach-2A-111400	1.88	10	50	67	58	2.455	1.420	24%	0.585	0.339	58%	585	339
14-Nov-00	Mid Bear Creek	California Roach	550BRC-California Roach-2B-111400	1.82	10	50	67	58	2.295	2.040	23%	0.539	0.479	89%	539	479
14-Nov-00	Mid Bear Creek	California Roach	550BRC-California Roach-2C-111400	1.85	10	50	70	58	2.420	2.420	24%	0.571	0.571	100%	571	571

Appendix, Table 2. Small Fish Data

Sample Date	Location	Type	Sample #	Grams Per Ind	n	Length (mm)			µg/g THg Whole dw	µg/g MeHg Whole dw	% Solids	µg/g THg Whole ww	µg/g MeHg Whole ww	% MeHg	ng/g THg Whole ww	ng/g MeHg Whole ww
						Low	High	Avg-Size								
15-Feb-01	Mid Bear Creek	California Roach	550BRC-ROCH-1-021501	0.72	8	40	45	42	2.850	2.503	21%	0.591	0.519	88%	591	519
15-Feb-01	Mid Bear Creek	California Roach	550BRC-ROCH-2A-021501	1.82	8	50	65	54	2.535	2.554	22%	0.570	0.575	101%	570	575
15-Feb-01	Mid Bear Creek	California Roach	550BRC-ROCH-2B-021501	1.73	8	50	65	54	2.590	1.122	23%	0.584	0.253	43%	584	253
15-Feb-01	Mid Bear Creek	California Roach	550BRC-ROCH-2C-021501	1.71	8	50	65	54	2.675	2.565	23%	0.603	0.578	96%	603	578
22-Mar-01	Mid Bear Creek	California Roach	550BRC-ROCH-1-032201	0.74	16	37	43	41	2.085	2.130	21%	0.438	0.448	102%	438	448
22-Mar-01	Mid Bear Creek	California Roach	550BRC-ROCH-2A-032201	1.81	10	50	66	58	2.420	2.260	23%	0.555	0.518	93%	555	518
22-Mar-01	Mid Bear Creek	California Roach	550BRC-ROCH-2B-032201	1.87	10	50	66	58	2.235	2.200	23%	0.522	0.514	98%	522	514
22-Mar-01	Mid Bear Creek	California Roach	550BRC-ROCH-2C-032201	1.75	10	50	66	57	2.615	2.590	23%	0.595	0.590	99%	595	590
3-May-01	Mid Bear Creek	California Roach	550BRC-ROCH-1-050301	0.94	14	43	48	45	2.225	1.520	20%	0.438	0.299	68%	438	299
3-May-01	Mid Bear Creek	California Roach	550BRC-ROCH-2A-050301	2.22	13	53	68	59	2.465	2.240	22%	0.539	0.490	91%	539	490
3-May-01	Mid Bear Creek	California Roach	550BRC-ROCH-2B-050301	2.03	13	53	68	59	2.400	2.450	22%	0.530	0.541	102%	530	541
3-May-01	Mid Bear Creek	California Roach	550BRC-ROCH-2C-050301	2.19	13	53	68	59	2.335	2.140	23%	0.532	0.487	92%	532	487
3-May-01	Mid Bear Creek	California Roach	550BRC-ROCH-3-050301	5.28	4	74	82	79	2.785	2.600	23%	0.654	0.611	93%	654	611
7-Jun-01	Mid Bear Creek	California Roach	550BRC-ROCH-2A-060701	2.69	10	55	70	60	1.845	0.000	24%	0.446	0.000		446	
7-Jun-01	Mid Bear Creek	California Roach	550BRC-ROCH-2B-060701	2.58	10	55	70	60	2.185	0.000	25%	0.543	0.000		543	
7-Jun-01	Mid Bear Creek	California Roach	550BRC-ROCH-2C-060701	2.19	10	55	70	60	2.310	0.000	26%	0.599	0.000		599	
12-Jul-01	Mid Bear Creek	California Roach	550BRC-ROACH-A-071201	2.38	10	55	70	60	4.195	4.640	27%	1.116	1.234	111%	1116	1234
12-Jul-01	Mid Bear Creek	California Roach	550BRC-ROACH-B-071201	2.28	10	55	70	60	4.105	3.060	26%	1.067	0.796	75%	1067	796
12-Jul-01	Mid Bear Creek	California Roach	550BRC-ROACH-C-071201	2.23	10	55	70	60	3.885	2.940	27%	1.062	0.804	76%	1062	804
23-Aug-01	Mid Bear Creek	California Roach	550BRC-ROACH-A-082301	2.54	10	51	70	62	3.070	4.140	27%	0.818	1.104	135%	818	1104
23-Aug-01	Mid Bear Creek	California Roach	550BRC-ROACH-B-082301	2.57	10	51	70	62	3.255	5.310	28%	0.913	1.489	163%	913	1489
23-Aug-01	Mid Bear Creek	California Roach	550BRC-ROACH-C-082301	2.67	10	51	70	62	2.685	3.770	27%	0.713	1.001	140%	713	1001
1-Aug-00	Mid Bear Creek	Juv. Sac. Sucker	550BRC-SSUC-1-080100	6.12	8	64	95	90	3.370	3.940	20%	0.681	0.796	117%	681	796
14-Nov-00	Mid Bear Creek	Juv. Sac. Sucker	550BRC-SSUC-1-111400	8.32	11	86	99	94	1.845	1.080	24%	0.438	0.256	59%	438	256
14-Mar-00	Bear Creek at gauge	California Roach	BC @ gauge-CA Roach-2A-031400	1.76	9	50	70	59	2.785	0.000	19%	0.530	0.000	0%	530	
14-Mar-00	Bear Creek at gauge	California Roach	BC @ gauge-CA Roach-2B-031400	1.92	9	51	70	59	2.545	0.000	20%	0.500	0.000	0%	500	
17-Feb-00	Cache Creek @ Rumsey	Red Shiners	560RUM-RDSH-1-021700	0.29	12	33	39	36	0.475	0.537	22%	0.103	0.116	113%	103	116
17-Feb-00	Cache Creek @ Rumsey	Red Shiners	560RUM-RDSH-2-021700	0.65	10	41	52	46	0.435	0.423	21%	0.092	0.089	97%	92	89
9-May-00	Cache Creek @ Rumsey	Red Shiners	560RUM-RDSH-2-050900	1.14	2	50	50	50	0.295	0.294	23%	0.069	0.069	100%	69	69
10-Nov-00	Cache Creek @ Rumsey	Red Shiners	560RUM-RDSH-1-111000	0.48	3	36	40	38	0.405	0.416	23%	0.091	0.094	103%	91	94
17-Feb-00	Cache Creek @ Rumsey	Speckled Dace	560RUM-SPDA-1-021700	2.02	11	50	62	57	0.280	0.297	26%	0.072	0.077	106%	72	77
17-Feb-00	Cache Creek @ Rumsey	Speckled Dace	560RUM-SPDA-2-021700	3.99	2	72	74	73	0.565	0.580	25%	0.141	0.145	103%	141	145
9-May-00	Cache Creek @ Rumsey	Speckled Dace	560RUM-SPDA-1A-050900	1.96	10	50	65	56	0.455	0.540	24%	0.110	0.130	119%	110	130
9-May-00	Cache Creek @ Rumsey	Speckled Dace	560RUM-SPDA-1B-050900	1.96	10	50	60	55	0.475	0.501	24%	0.113	0.120	105%	113	120
1-Aug-00	Cache Creek @ Rumsey	Speckled Dace	560RUM-SPDA-1A-080100	1.14	10	40	55	48	0.235	0.243	23%	0.055	0.057	103%	55	57
1-Aug-00	Cache Creek @ Rumsey	Speckled Dace	560RUM-SPDA-1B-080100	1.23	10	40	55	48	0.240	0.200	24%	0.058	0.048	83%	58	48
1-Aug-00	Cache Creek @ Rumsey	Speckled Dace	560RUM-SPDA-1C-080100	1.16	10	40	55	48	0.240	0.251	23%	0.055	0.058	105%	55	58
10-Nov-00	Cache Creek @ Rumsey	Speckled Dace	560RUM-SPDA-1A-111000	2.42	10	54	67	59	0.230	0.126	27%	0.062	0.034	55%	62	34
10-Nov-00	Cache Creek @ Rumsey	Speckled Dace	560RUM-SPDA-1B-111000	2.60	10	54	67	59	0.225	0.167	28%	0.062	0.046	74%	62	46
10-Nov-00	Cache Creek @ Rumsey	Speckled Dace	560RUM-SPDA-1C-111000	2.47	10	54	67	59	0.275	0.148	27%	0.075	0.040	54%	75	40
10-Nov-00	Cache Creek @ Rumsey	Speckled Dace	560RUM-SPDA-2-111000	5.36	9	73	83	76	0.460	0.252	29%	0.133	0.073	55%	133	73
15-Feb-01	Cache Creek @ Rumsey	Speckled Dace	560RUM-SPDA-1A-021501	2.30	9	49	65	56	0.220	0.212	25%	0.054	0.052	96%	54	52
15-Feb-01	Cache Creek @ Rumsey	Speckled Dace	560RUM-SPDA-1B-021501	2.24	9	49	63	56	0.250	0.241	24%	0.060	0.058	96%	60	58
15-May-01	Cache Creek @ Rumsey	Speckled Dace	560RUM-SPDA-1A-051501	2.20	12	52	67	59	0.455	0.223	23%	0.103	0.050	49%	103	50
15-May-01	Cache Creek @ Rumsey	Speckled Dace	560RUM-SPDA-1B-051501	2.25	12	52	67	59	0.425	0.300	23%	0.098	0.069	71%	98	69
15-May-01	Cache Creek @ Rumsey	Speckled Dace	560RUM-SPDA-1C-051501	2.20	12	52	67	59	0.510	0.601	23%	0.118	0.139	118%	118	139

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Sample Date	Location	Type	Sample #	Grams Per Ind	n	Length (mm)			µg/g THg Whole dw	µg/g MeHg Whole dw	% Solids	µg/g THg Whole ww	µg/g MeHg Whole ww	% MeHg	ng/g THg Whole ww	ng/g MeHg Whole ww
						Low	High	Avg-Size								
17-Feb-00	Cache Creek @ Rumsey	Juv. Sac. Sucker	560RUM-SSUC-1a-021700	4.17	8	69	90	82	0.275	0.316	22%	0.060	0.068	115%	60	68
17-Feb-00	Cache Creek @ Rumsey	Juv. Sac. Sucker	560RUM-SSUC-1b-021700	3.90	8	64	91	78	0.290	0.236	22%	0.063	0.052	81%	63	52
9-May-00	Cache Creek @ Rumsey	Juv. Sac. Sucker	560RUM-SSUC-1-050900	5.32	11	70	95	84	0.255	0.145	22%	0.056	0.032	57%	56	32
1-Aug-00	Cache Creek @ Rumsey	Juv. Sac. Sucker	560RUM-SSUC-1-080100	1.83	12	48	70	59	0.205	0.126	19%	0.038	0.023	61%	38	23
1-Aug-00	Cache Creek @ Rumsey	Juv. Sac. Sucker	560RUM-SSUC-2-080100	7.85	5	85	105	92	0.215	0.236	21%	0.046	0.051	110%	46	51
10-Nov-00	Cache Creek @ Rumsey	Juv. Sac. Sucker	560RUM-SSUC-1-111000	8.43	8	87	101	96	0.205	0.155	24%	0.050	0.038	76%	50	38
15-Feb-01	Cache Creek @ Rumsey	Juv. Sac. Sucker	560RUM-SSUC-1/2-021501	9.47	3	89	108	100	0.290	0.198	22%	0.064	0.044	68%	64	44
15-May-01	Cache Creek @ Rumsey	Juv. Sac. Sucker	560RUM-SSUC-1/2-051501	9.81	3	85	118	97	0.320	0.338	22%	0.070	0.074	106%	70	74
22-May-00	Cache Ck. Blw Hwy 505	Red Shiners	565SOL-RDSH-2A-052200	0.72	9	37	50	43	0.215	0.226	28%	0.060	0.063	105%	60	63
22-May-00	Cache Ck. Blw Hwy 505	Red Shiners	565SOL-RDSH-2B-052200	0.74	9	37	50	43	0.250	0.236	28%	0.070	0.066	94%	70	66
22-May-00	Cache Ck. Blw Hwy 505	Red Shiners	565SOL-RDSH-2C-052200	0.70	9	37	50	43	0.280	0.286	29%	0.081	0.083	102%	81	83
1-Aug-00	Cache Ck. Blw Hwy 505	Red Shiners	565SOL-RDSH-2-080100	1.12	9	40	53	47	0.755	0.759	24%	0.181	0.182	101%	181	182
10-Nov-00	Cache Ck. Blw Hwy 505	Red Shiners	565SOL-RDSH-2A-111000	0.66	9	37	50	42	0.695	0.695	24%	0.164	0.164	100%	164	164
10-Nov-00	Cache Ck. Blw Hwy 505	Red Shiners	565SOL-RDSH-2B-111000	0.62	9	37	50	42	0.680	0.812	24%	0.165	0.196	119%	165	196
10-Nov-00	Cache Ck. Blw Hwy 505	Red Shiners	565SOL-RDSH-2C-111000	0.57	9	37	50	42	0.725	0.759	24%	0.170	0.178	105%	170	178
15-Feb-01	Cache Ck. Blw Hwy 505	Red Shiners	565SOL-RDSH-1-021501	0.42	13	33	39	36	0.540	0.619	21%	0.115	0.132	115%	115	132
15-Feb-01	Cache Ck. Blw Hwy 505	Red Shiners	565SOL-RDSH-2-021501	0.66	6	40	43	42	0.585	0.643	22%	0.131	0.144	110%	131	144
15-Feb-01	Cache Ck. Blw Hwy 505	Speckled Dace	565SOL-SPDA-1-021501	1.73	6	48	60	52	0.435	0.446	22%	0.097	0.100	103%	97	100
10-Nov-00	Cache Ck. Blw Hwy 505	Speckled Dace	565SOL-SPDA-1A-111000	1.36	10	45	57	50	0.475	0.431	24%	0.112	0.102	91%	112	102
10-Nov-00	Cache Ck. Blw Hwy 505	Speckled Dace	565SOL-SPDA-1B-111000	1.25	10	45	57	50	0.425	0.403	24%	0.101	0.096	95%	101	96
10-Nov-00	Cache Ck. Blw Hwy 505	Speckled Dace	565SOL-SPDA-1C-111000	1.32	10	45	57	50	0.420	0.398	25%	0.103	0.098	95%	103	98
22-May-00	Cache Ck. Blw Hwy 505	Juv. Sac. Sucker	565SOL-SSUC-1-052200	0.74	18	40	53	45	0.215	0.162	18%	0.039	0.030	75%	39	30
1-Aug-00	Cache Ck. Blw Hwy 505	Juv. Sac. Sucker	565SOL-SSUC-1A-080100	0.93	17	40	55	48	0.355	0.350	20%	0.071	0.070	99%	71	70
1-Aug-00	Cache Ck. Blw Hwy 505	Juv. Sac. Sucker	565SOL-SSUC-1B-080100	0.90	17	40	55	48	0.330	0.301	20%	0.066	0.060	91%	66	60
10-Nov-00	Cache Ck. Blw Hwy 505	Juv. Sac. Sucker	565SOL-SSUC-1-111000	5.49	8	70	95	85	0.295	0.267	25%	0.072	0.066	91%	72	66
10-Nov-00	Cache Ck. Blw Hwy 505	Juv. Sac. Sucker	565SOL-SSUC-2-111000	11.88	9	101	118	107	0.390	0.284	24%	0.094	0.069	73%	94	69
15-Feb-01	Cache Ck. Blw Hwy 505	Juv. Sac. Sucker	565SOL-SSUC-1-021501	4.66	6	60	90	76	0.250	0.215	24%	0.060	0.052	86%	60	52
15-Feb-01	Cache Ck. Blw Hwy 505	Juv. Sac. Sucker	565SOL-SSUC-2-021501	28.07	3	125	153	140	0.505	0.450	24%	0.123	0.110	89%	123	110
22-May-00	Cache Ck. Blw Yolo	Red Shiners	570YSB-RDSH-2A-052200	1.13	10	43	49	46	0.310	0.296	29%	0.090	0.086	95%	90	86
22-May-00	Cache Ck. Blw Yolo	Red Shiners	570YSB-RDSH-2B-052200	1.14	10	43	49	46	0.240	0.240	28%	0.068	0.068	100%	68	68
22-May-00	Cache Ck. Blw Yolo	Red Shiners	570YSB-RDSH-2C-052200	1.16	10	43	49	46	0.285	0.225	29%	0.084	0.066	79%	84	66
1-Aug-00	Cache Ck. Blw Yolo	Red Shiners	570YSB-RDSH-2A-080100	1.29	10	43	55	48	0.585	0.617	25%	0.147	0.155	105%	147	155
1-Aug-00	Cache Ck. Blw Yolo	Red Shiners	570YSB-RDSH-2B-080100	1.26	10	43	55	48	0.715	0.755	25%	0.177	0.187	106%	177	187
1-Aug-00	Cache Ck. Blw Yolo	Red Shiners	570YSB-RDSH-2C-080100	1.21	10	43	55	48	0.525	0.514	26%	0.138	0.135	98%	138	135
27-Nov-00	Cache Ck. Blw Yolo	Red Shiners	570YSB-RDSH-1-112700	0.40	12	35	39	37	0.440	0.419	24%	0.106	0.101	95%	106	101
27-Nov-00	Cache Ck. Blw Yolo	Red Shiners	570YSB-RDSH-2A-112700	0.82	10	41	53	44	0.515	0.570	25%	0.127	0.140	111%	127	140
27-Nov-00	Cache Ck. Blw Yolo	Red Shiners	570YSB-RDSH-2B-112700	0.70	10	41	53	44	0.600	0.694	24%	0.144	0.166	116%	144	166
27-Nov-00	Cache Ck. Blw Yolo	Red Shiners	570YSB-RDSH-2C-112700	0.72	10	41	49	43	0.450	0.483	26%	0.115	0.124	107%	115	124
22-May-00	Cache Ck. Blw Yolo	Juv. Sac. Sucker	570YSB-SSUC-1-052200	0.71	12	40	50	45	0.225	0.204	17%	0.038	0.034	91%	38	34
1-Aug-00	Cache Ck. Blw Yolo	Juv. Sac. Sucker	570YSB-SSUC-1-080100	2.86	5	57	75	67	0.330	0.308	20%	0.066	0.062	93%	66	62

Appendix, Table 3. Large Fish Data

Sample Date	Location	Type	Sample #	Whole Ind. Grams	Length (mm)			Age (years)	Sex	ng/g THg Muscle ww
					FL	SL	TL			
30-Nov-00	Cache Ck. blw Clear Lake	Sacramento Sucker	510CLO-SSUC-1-160/245TL-113000	160	222	202	245	2.5	?	90
30-Nov-00	Cache Ck. blw Clear Lake	Sacramento Sucker	510CLO-SSUC-2-228/272TL-113000	228	256	228	272	3.5	?	95
30-Nov-00	Cache Ck. blw Clear Lake	Sacramento Sucker	510CLO-SSUC-3-232/275TL-113000	232	257	224	275	3.5	M?	110
30-Nov-00	Cache Ck. blw Clear Lake	Sacramento Sucker	510CLO-SSUC-4-355/307TL-113000	355	290	255	307	3.5	M	105
30-Nov-00	Cache Ck. blw Clear Lake	Sacramento Sucker	510CLO-SSUC-5-270/302TL-113000	270	285	250	302	3.5	?	105
30-Nov-00	Cache Ck. blw Clear Lake	Sacramento Sucker	510CLO-SSUC-6-805/408TL-113000	805	386	342	408	6.5	M	190
30-Nov-00	Cache Ck. blw Clear Lake	Sacramento Sucker	510CLO-SSUC-7-1155/450TL-113000	1155	429	384	450	6.5	F	275
30-Nov-00	Cache Ck. blw Clear Lake	Sacramento Sucker	510CLO-SSUC-8-975/428TL-113000	975	404	356	428	5.5	M	360
30-Nov-00	Cache Ck. blw Clear Lake	Sacramento Sucker	510CLO-SSUC-9-1080/437TL-113000	1080	418	368	437	6.5	F	320
30-Nov-00	Cache Ck. blw Clear Lake	Sacramento Sucker	510CLO-SSUC-10-1120/436TL-113000	1120	414	363	436	7.5	F	350
30-Nov-00	Cache Ck. blw Clear Lake	Bluegill	510CLO-Bgill-1-35/123TL-113000	35	118	98	123	2.5	?	55
30-Nov-00	Cache Ck. blw Clear Lake	Bluegill	510CLO-Bgill-2-42/129TL-113000	42	120	100	129	2.5	?	60
30-Nov-00	Cache Ck. blw Clear Lake	Bluegill	510CLO-Bgill-3-90/161TL-113000	90	152	129	161	2.5	M	70
30-Nov-00	Cache Ck. blw Clear Lake	Bluegill	510CLO-Bgill-4-95/159TL-113000	95	149	127	159	4.5	M	75
30-Nov-00	Cache Ck. blw Clear Lake	Bluegill	510CLO-Bgill-5-110/164TL-113000	110	156	131	164	4.5	M	95
30-Nov-00	Cache Ck. blw Clear Lake	Bluegill	510CLO-Bgill-6-120/170TL-113000	120	158	134	170	3.5	M	95
30-Nov-00	Cache Ck. blw Clear Lake	White Catfish	510CLO-WhCAT-75/200TL-1-113000	75	187	160	200		?	100
30-Nov-00	Cache Ck. blw Clear Lake	Largemouth Bass	510CLO-LMB-1-40/143TL-113000	40	135	114	143	2.5	?	90
30-Nov-00	Cache Ck. blw Clear Lake	Largemouth Bass	510CLO-LMB-2-52/152TL-113000	52	146	125	152	2.5	?	80
30-Nov-00	Cache Ck. blw Clear Lake	Largemouth Bass	510CLO-LMB-3-70/171TL-113000	70	162	139	171	2.5	?	95
30-Nov-00	Cache Ck. blw Clear Lake	Largemouth Bass	510CLO-LMB-4-75/170TL-113000	75	163	140	170	3.5	?	90
30-Nov-00	Cache Ck. blw Clear Lake	Largemouth Bass	510CLO-LMB-5-80/176TL-113000	80	168	144	176	2.5	?	70
30-Nov-00	Cache Ck. blw Clear Lake	Largemouth Bass	510CLO-LMB-6-90/192TL-113000	90	184	157	192	3.5	?	160
30-Nov-00	Cache Ck. blw Clear Lake	Largemouth Bass	510CLO-LMB-7-145/212TL-113000	145	205	175	212	3.5	M	110
30-Nov-00	Cache Ck. blw Clear Lake	Largemouth Bass	510CLO-LMB-8-365/287TL-113000	365	272	235	287	4.5	F	140
30-Nov-00	Cache Ck. blw Clear Lake	Largemouth Bass	510CLO-LMB-9-795/343TL-113000	795	330	288	343	7.5	M	270
30-Nov-00	Cache Ck. blw Clear Lake	Largemouth Bass	510CLO-LMB-10-1120/391TL-113000	1120	375	326	391	9.5	M	295
30-Nov-00	Cache Ck. blw Clear Lake	Largemouth Bass	510CLO-LMB-11-910/368TL-113000	910	352	308	368	8.5	F	295
30-Nov-00	Cache Ck. blw Clear Lake	Largemouth Bass	510CLO-LMB-12-1215/412TL-113000	1215	400	347	412		M	450
30-Nov-00	Cache Ck. blw Clear Lake	Largemouth Bass	510CLO-LMB-13-1825/460TL-113000	1825	444	387	460		F	665
30-Nov-00	Cache Ck. blw Clear Lake	Largemouth Bass	510CLO-LMB-14-2100/472TL-113000	2100	n/a	415	472	9.5	?	625

Appendix, Table 3. Large Fish Data

Sample Date	Location	Type	Sample #	Whole Ind. Grams	Length (mm)			Age (years)	Sex	ng/g THg Muscle ww
					FL	SL	TL			
14-Nov-00	North Fork Cache Creek	Sacramento Sucker	520NFC-SSUC-1-630/385TL-111400	630	367	325	385	3.5	M	190
14-Nov-00	North Fork Cache Creek	Sacramento Sucker	520NFC-SSUC-2-635/389TL-111400	635	368	324	389	3.5	M	190
14-Nov-00	North Fork Cache Creek	Sacramento Sucker	520NFC-SSUC-3-765/438TL-111400	765	412	365	438	3.5	M	470
14-Nov-00	North Fork Cache Creek	Sacramento Sucker	520NFC-SSUC-4-1000/462TL-111400	1000	437	386	462	7.5	F	370
14-Nov-00	North Fork Cache Creek	Sacramento Sucker	520NFC-SSUC-5-215/277TL-111400	215	264	230	277	2.5	M?	120
14-Nov-00	North Fork Cache Creek	Sacramento Sucker	520NFC-SSUC-6-305/305TL-111400	305	290	252	305	3.5	M?	55
14-Nov-00	North Fork Cache Creek	Sacramento Sucker	520NFC-SSUC-7-275/309TL-111400	275	291	253	309	2.5	M?	65
14-Nov-00	North Fork Cache Creek	Sacramento Sucker	520NFC-SSUC-8-705/396TL-111400	705	376	335	396	3.5	F	305
14-Nov-00	North Fork Cache Creek	Sacramento Sucker	520NFC-SSUC-9-700/395TL-111400	700	370	330	395	3.5	M	290
14-Nov-00	North Fork Cache Creek	Sacramento Sucker	520NFC-SSUC-10-860/408TL-111400	860	385	345	408	5.5	M	345
22-Nov-00	North Fork Cache Creek	Pike Minnow	520NFC-SPM-1-72/205TL-112200	72	188	166	205	1.5	?	150
22-Nov-00	North Fork Cache Creek	Pike Minnow	520NFC-SPM-2-85/215TL-112200	85	196	173	215	2.5	?	185
22-Nov-00	North Fork Cache Creek	Pike Minnow	520NFC-SPM-3-83/225TL-112200	83	202	179	225	2.5	?	110
22-Nov-00	North Fork Cache Creek	Pike Minnow	520NFC-SPM-4-110/253TL-112200	110	232	205	253	2.5	?	250
22-Nov-00	North Fork Cache Creek	Pike Minnow	520NFC-SPM-5-95/235TL-112200	95	214	188	235	2.5	?	125
22-Nov-00	North Fork Cache Creek	Pike Minnow	520NFC-SPM-6-115/244TL-112200	115	226	200	244	2.5	?	235
22-Nov-00	North Fork Cache Creek	Pike Minnow	520NFC-SPM-7-115/259TL-112200	115	236	208	259	2.5	?	115
22-Nov-00	North Fork Cache Creek	Pike Minnow	520NFC-SPM-8-145/262TL-112200	145	240	211	262	3.5	?	260
22-Nov-00	North Fork Cache Creek	Pike Minnow	520NFC-SPM-9-140/268TL-112200	140	245	218	268	3.5	?	180
22-Nov-00	North Fork Cache Creek	Pike Minnow	520NFC-SPM-10-155/270TL-112200	155	248	220	270	3.5	?	230
22-Nov-00	North Fork Cache Creek	Smallmouth Bass	520NFC-SMB-1-430/315TL-112200	430	295	253	315	5.5	M	335
22-Nov-00	Upper Bear Creek	Sacramento Sucker	538UBC-SSUC-1-42/155TL-112200	42	144	123	155	2.5	?	270
22-Nov-00	Upper Bear Creek	Sacramento Sucker	538UBC-SSUC-2-48/163TL-112200	48	158	132	163	2.5	?	90
22-Nov-00	Upper Bear Creek	Sacramento Sucker	538UBC-SSUC-3-52/167TL-112200	52	155	134	167	2.5	?	120
22-Nov-00	Upper Bear Creek	Sacramento Sucker	538UBC-SSUC-4-65/178TL-112200	65	164	142	178	2.5	?	145
22-Nov-00	Upper Bear Creek	Sacramento Sucker	538UBC-SSUC-5-150/243TL-112200	150	226	200	243	3.5	M	305
22-Nov-00	Upper Bear Creek	Sacramento Sucker	538UBC-SSUC-6-170/249TL-112200	170	236	207	249	2.5	F	265
22-Nov-00	Upper Bear Creek	Sacramento Sucker	538UBC-SSUC-7-205/266TL-112200	205	252	220	266	2.5	M	300
22-Nov-00	Upper Bear Creek	Sacramento Sucker	538UBC-SSUC-8-185/254TL-112200	185	239	210	254	3.5	F	425
22-Nov-00	Upper Bear Creek	Sacramento Sucker	538UBC-SSUC-9-210/267TL-112200	210	252	221	267	3.5	M	340
22-Nov-00	Upper Bear Creek	Sacramento Sucker	538UBC-SSUC-10-285/302TL-112200	285	285	247	302	4.5	F	185
22-Nov-00	Upper Bear Creek	Sacramento Sucker	538UBC-SSUC-11-255/282TL-112200	255	273	239	282	3.5	F	205

Appendix, Table 3. Large Fish Data

Sample Date	Location	Type	Sample #	Whole Ind. Grams	Length (mm)			Age (years)	Sex	ng/g THg Muscle ww
					FL	SL	TL			
14-Nov-00	Upper Bear Creek	Pike Minnow	538UBC-SPM-1-95/223TL-111400	95	202	180	223	2.5	M?	490
14-Nov-00	Upper Bear Creek	Pike Minnow	538UBC-SPM-2-100/232TL-111400	100	212	188	232	2.5	M?	730
14-Nov-00	Upper Bear Creek	Pike Minnow	538UBC-SPM-3-110/236TL-111400	110	212	186	236	2.5	M?	450
14-Nov-00	Upper Bear Creek	Pike Minnow	538UBC-SPM-4-120/247TL-111400	120	225	198	247	2.5	F?	350
14-Nov-00	Upper Bear Creek	Pike Minnow	538UBC-SPM-5-150/268TL-111400	150	242	213	268	2.5	F?	785
14-Nov-00	Upper Bear Creek	Pike Minnow	538UBC-SPM-6-125/250TL-111400	125	227	200	250	1.5	F?	475
14-Nov-00	Upper Bear Creek	Pike Minnow	538UBC-SPM-7-160/261TL-111400	160	241	212	261	2.5	F?	555
14-Nov-00	Upper Bear Creek	Pike Minnow	538UBC-SPM-8-210/285TL-111400	210	263	230	285	2.5	M?	775
14-Nov-00	Upper Bear Creek	Pike Minnow	538UBC-SPM-9-230/308TL-111400	230	280	248	308	2.5	F?	1150
14-Nov-00	Upper Bear Creek	Pike Minnow	538UBC-SPM-10-220/287TL-111400	220	260	229	287	2.5	M?	770
14-Nov-00	Upper Bear Creek	Pike Minnow	538UBC-SPM-11-230/297TL-111400	230	271	240	297	2.5	M?	1035
14-Nov-00	Upper Bear Creek	Pike Minnow	538UBC-SPM-12-235/310TL-111400	235	284	250	310	3.5	M?	1045
22-Nov-00	Mid Bear Creek	Sacramento Sucker	550BRC-SSUC-1-45/163TL-112200	45	152	131	163	1.5	?	860
22-Nov-00	Mid Bear Creek	Sacramento Sucker	550BRC-SSUC-2-120/231TL-112200	120	214	185	231	2.5	?	1325
22-Nov-00	Mid Bear Creek	Sacramento Sucker	550BRC-SSUC-3-140/244TL-112200	140	228	200	244	2.5	M	1390
22-Nov-00	Mid Bear Creek	Sacramento Sucker	550BRC-SSUC-4-175/257TL-112200	175	245	214	257	2.5	F	1300
22-Nov-00	Mid Bear Creek	Sacramento Sucker	550BRC-SSUC-5-165/252TL-112200	165	237	207	252	2.5	M	1330
22-Nov-00	Mid Bear Creek	Sacramento Sucker	550BRC-SSUC-6-265/292TL-112200	265	278	242	292	2.5	M	1650
22-Nov-00	Mid Bear Creek	Pike Minnow	550BRC-SPM-1-55/202TL-112200	55	182	160	202	2.5	?	2460
22-Nov-00	Mid Bear Creek	Pike Minnow	550BRC-SPM-2-50/185TL-112200	50	168	148	185	2.5	?	1670
22-Nov-00	Mid Bear Creek	Pike Minnow	550BRC-SPM-3-65/208TL-112200	65	188	165	208	2.5	?	2470
22-Nov-00	Mid Bear Creek	Pike Minnow	550BRC-SPM-4-78/217TL-112200	78	195	174	217	1.5	?	1980
22-Nov-00	Mid Bear Creek	Pike Minnow	550BRC-SPM-5-105/243TL-112200	105	219	194	243	2.5	?	2735
22-Nov-00	Mid Bear Creek	Pike Minnow	550BRC-SPM-6-140/264TL-112200	140	239	213	264	3.5	?	2580
22-Nov-00	Mid Bear Creek	Pike Minnow	550BRC-SPM-7-105/249TL-112200	105	224	200	249	2.5	?	2790
22-Nov-00	Mid Bear Creek	Pike Minnow	550BRC-SPM-8-107/242TL-112200	107	217	191	242	1.5	?	3135
22-Nov-00	Mid Bear Creek	Pike Minnow	550BRC-SPM-9-145/272TL-112200	145	247	220	272	2.5	M?	2985
22-Nov-00	Mid Bear Creek	Pike Minnow	550BRC-SPM-10-125/245TL-112200	125	223	197	245	2.5	?	3550
22-Nov-00	Mid Bear Creek	Pike Minnow	550BRC-SPM-11-145/261TL-112200	145	234	210	261	2.5	M?	3090
22-Nov-00	Mid Bear Creek	Pike Minnow	550BRC-SPM-12-235/307TL-112200	235	280	248	307	3.5	F?	3805
22-Nov-00	Mid Bear Creek	Pike Minnow	550BRC-SPM-13-335/356TL-112200	335	329	292	356	3.5	F	4055
22-Nov-00	Mid Bear Creek	Pike Minnow	550BRC-SPM-14-345/339TL-112200	345	315	280	339	3.5	F	3480
22-Nov-00	Mid Bear Creek	Pike Minnow	550BRC-SPM-15-570/417TL-112200	570	381	342	417	5.5	F	6430
22-Nov-00	Mid Bear Creek	Green Sunfish	550BRC-GrSUN-1-55/147TL-112200	55	142	120	147	2.5	?	2190

Appendix, Table 3. Large Fish Data

Sample Date	Location	Type	Sample #	Whole Ind. Grams	Length (mm)			Age (years)	Sex	ng/g THg Muscle ww
					FL	SL	TL			
28-Nov-00	Cache Creek @ Rumsey	Sacramento Sucker	560RUM-SSUC-1-265/282TL-112800	265	264	230	282	3.5	M	215
28-Nov-00	Cache Creek @ Rumsey	Sacramento Sucker	560RUM-SSUC-2-348/317TL-112800	348	298	259	317	4.5	M	155
28-Nov-00	Cache Creek @ Rumsey	Sacramento Sucker	560RUM-SSUC-3-400/335TL-112800	400	317	278	335	4.5	M	135
28-Nov-00	Cache Creek @ Rumsey	Sacramento Sucker	560RUM-SSUC-4-380/329TL-112800	380	309	266	329	4.5	M	145
28-Nov-00	Cache Creek @ Rumsey	Sacramento Sucker	560RUM-SSUC-6-505/366TL-112801	505	345	302	366	4.5	F	400
28-Nov-00	Cache Creek @ Rumsey	Sacramento Sucker	560RUM-SSUC-5-475/350TL-112801	475	331	288	350	4.5	M	150
28-Nov-00	Cache Creek @ Rumsey	Sacramento Sucker	560RUM-SSUC-7-495/366TL-112800	495	342	300	366	4.5	F	245
28-Nov-00	Cache Creek @ Rumsey	Sacramento Sucker	560RUM-SSUC-8-510/357TL-112800	510	336	295	357	4.5	F	390
28-Nov-00	Cache Creek @ Rumsey	Sacramento Sucker	560RUM-SSUC-9-660/398TL-112800	660	375	334	398	4.5	F	270
28-Nov-00	Cache Creek @ Rumsey	Sacramento Sucker	560RUM-SSUC-10-970/458TL-112800	970	435	382	458	5.5	F	525
28-Nov-00	Cache Creek @ Rumsey	Hardhead	560RUM-HHEAD-1-235/289TL-112800	235	261	231	289	3.5	M?	410
28-Nov-00	Cache Creek @ Rumsey	Hardhead	560RUM-HHEAD-2-218/280TL-112800	218	251	225	280	3.5	F	395
28-Nov-00	Cache Creek @ Rumsey	Hardhead	560RUM-HHEAD-3-210/283TL-112800	210	258	227	283	3.5	F	275
28-Nov-00	Cache Creek @ Rumsey	Hardhead	560RUM-HHEAD-4-225/294TL-112800	225	266	237	294	2.5	F	295
28-Nov-00	Cache Creek @ Rumsey	Hardhead	560RUM-HHEAD-6-247/305TL-112800	247	279	246	305	3.5	M	395
28-Nov-00	Cache Creek @ Rumsey	Hardhead	560RUM-HHEAD-5-202/279TL-112800	202	253	221	279	3.5	M	440
1-Dec-00	Cache Creek @ Rumsey	Hardhead	560RUM-HHEAD-7-265/305TL-120100	265	278	244	305	3.5	F	365
1-Dec-00	Cache Creek @ Rumsey	Hardhead	560RUM-HHEAD-8-282/312TL-120100	282	285	254	312	4.5	M	360
1-Dec-00	Cache Creek @ Rumsey	Hardhead	560RUM-HHEAD-9-475/364TL-120100	475	325	384	364	n/a	M	705
1-Dec-00	Cache Creek @ Rumsey	White Catfish	560RUM-WCAT-1-65/187TL-120100	65	172	144	187		F	295
1-Dec-00	Cache Creek @ Rumsey	White Catfish	560RUM-WCAT-2-80/202TL-120100	80	186	162	202		M	180
8-Dec-00	Cache Creek @ Rumsey	Channel Catfish	560RUM-ChCAT-1-565/411TL-120800	565	381	347	411		M	225
1-Dec-00	Cache Creek @ Rumsey	Pike Minnow	560RUM-SPM-1-45/187TL-120100	45	166	147	187	1.5	?	180
28-Nov-00	Cache Creek @ Rumsey	Pike Minnow	560RUM-SPM-2-300/340TL-112800	300	314	276	340	2.5	M	655
28-Nov-00	Cache Creek @ Rumsey	Pike Minnow	560RUM-SPM-3-375/367TL-112800	375	336	302	367	3.5	F	450
28-Nov-00	Cache Creek @ Rumsey	Pike Minnow	560RUM-SPM-4-395/354TL-112800	395	324	290	354	4.5	F	430
28-Nov-00	Cache Creek @ Rumsey	Pike Minnow	560RUM-SPM-5-520/390TL-112800	520	355	317	390	4.5	F	740
8-Dec-00	Cache Creek @ Rumsey	Pike Minnow	560RUM-SPM-6-55/207TL-120800	55	189	165	207	2.5	?	445
8-Dec-00	Cache Creek @ Rumsey	Pike Minnow	560RUM-SPM-7-95/245TL-120800	95	220	197	245	2.5	?	290
8-Dec-00	Cache Creek @ Rumsey	Pike Minnow	560RUM-SPM-8-125/262TL-120800	125	241	211	262	2.5	?	1390
8-Dec-00	Cache Creek @ Rumsey	Pike Minnow	560RUM-SPM-9-260/312TL-120800	260	288	256	312	2.5	M?	445
8-Dec-00	Cache Creek @ Rumsey	Pike Minnow	560RUM-SPM-10-360/342TL-120800	1225	459	412	495	3.5	F	1325
8-Dec-00	Cache Creek @ Rumsey	Pike Minnow	560RUM-SPM-11-1225/495TL-120800	360	315	282	342	8.5	M	575

Appendix, Table 3. Large Fish Data

Sample Date	Location	Type	Sample #	Whole Ind. Grams	Length (mm)			Age (years)	Sex	ng/g THg Muscle ww
					FL	SL	TL			
1-Dec-00	Cache Creek @ Rumsey	Smallmouth Bass	560RUM-Smbass-1-1070/425TL-120100	1070	403	348	425	11.5	F	1515
1-Dec-00	Cache Creek @ Rumsey	Smallmouth Bass	560RUM-Smbass-2-950/400TL-120100	950	378	324	400	9.5	M	860
1-Dec-00	Cache Creek @ Rumsey	Smallmouth Bass	560RUM-Smbass-3-370/301TL-120100	370	283	240	301	6.5	M	335
1-Dec-00	Cache Creek @ Rumsey	Smallmouth Bass	560RUM-Smbass-4-98/186TL-120100	98	180	153	186	3.5	M	255
1-Dec-00	Cache Creek @ Rumsey	Smallmouth Bass	560RUM-Smbass-5-65/165TL-120100	65	158	134	165	3.5	M	220
1-Dec-00	Cache Creek @ Rumsey	Smallmouth Bass	560RUM-Smbass-6-90/96TL-120100	90	180	147	96	2.5	M	260
28-Nov-00	Cache Creek @ Rumsey	Smallmouth Bass	560RUM-Smbass-7-248/265TL-112800	248	250	212	265	3.5	F	325
8-Dec-00	Cache Creek @ Rumsey	Smallmouth Bass	560RUM-Smbass-8-50/153TL-120800	50	142	121	153	2.5	M	90
8-Dec-00	Cache Creek @ Rumsey	Smallmouth Bass	560RUM-Smbass-9-70/170TL-120800	70	158	133	170	2.5	F?	180
8-Dec-00	Cache Creek @ Rumsey	Smallmouth Bass	560RUM-Smbass-10-190/247TL-120800	190	229	200	247	3.5	F	290
8-Dec-00	Cache Creek @ Rumsey	Smallmouth Bass	560RUM-Smbass-11-225/262TL-120800	250	251	214	267	5.5	F	370
8-Dec-00	Cache Creek @ Rumsey	Smallmouth Bass	560RUM-Smbass-12-250/267TL-120800	225	239	200	262	4.5	M	340
8-Dec-00	Cache Creek @ Rumsey	Smallmouth Bass	560RUM-Smbass-13-350/295TL-120800	350	281	239	295	6.5	F	535
8-Dec-00	Cache Creek @ Rumsey	Smallmouth Bass	560RUM-Smbass-14-368/293TL-120800	368	278	235	293	6.5	F	490
8-Dec-00	Cache Creek @ Rumsey	Smallmouth Bass	560RUM-Smbass-15-345/300TL-120800	345	281	238	300	4.5	F	900
8-Dec-00	Cache Creek @ Rumsey	Smallmouth Bass	560RUM-Smbass-16-390/304TL-120100	390	292	245	304	6.5	F	465
8-Dec-00	Cache Creek @ Rumsey	Smallmouth Bass	560RUM-Smbass-17-450/323TL-120800	450	307	262	323	5.5	F	735
8-Dec-00	Cache Creek @ Rumsey	Smallmouth Bass	560RUM-Smbass-18-535/331TL-120800	535	311	267	331	6.5	F	555
8-Dec-00	Cache Creek @ Rumsey	Smallmouth Bass	560RUM-Smbass-19-570/354TL-120800	570	332	280	354	8.5	M	780
8-Dec-00	Cache Creek @ Rumsey	Smallmouth Bass	560RUM-Smbass-20-685/367TL-120100	685	344	288	367	6.5	M	720
29-Nov-00	Cache Ck. Blw Hwy 505	Sacramento Sucker	565SOL-SSUC-1-85/215TL-112900	85	202	175	215	1.5	M?	120
29-Nov-00	Cache Ck. Blw Hwy 505	Sacramento Sucker	565SOL-SSUC-2-130/222TL-112900	130	211	185	222	2.5	M	145
29-Nov-00	Cache Ck. Blw Hwy 505	Sacramento Sucker	565SOL-SSUC-3-210/271TL-112900	210	257	223	271	2.5	M	195
29-Nov-00	Cache Ck. Blw Hwy 505	Sacramento Sucker	565SOL-SSUC-4-205/273TL-112900	205	256	225	273	2.5	F	160
29-Nov-00	Cache Ck. Blw Hwy 505	Sacramento Sucker	565SOL-SSUC-5-240/282TL-112900	240	267	236	282	2.5	F	150
29-Nov-00	Cache Ck. Blw Hwy 505	Sacramento Sucker	565SOL-SSUC-6-540/359TL-112900	540	338	300	359	3.5	F	245
29-Nov-00	Cache Ck. Blw Hwy 505	Sacramento Sucker	565SOL-SSUC-7-515/362TL-112900	515	340	298	362	3.5	M	275
29-Nov-00	Cache Ck. Blw Hwy 505	Sacramento Sucker	565SOL-SSUC-8-820/399TL-112900	820	381	332	399	5.5	M	310
29-Nov-00	Cache Ck. Blw Hwy 505	Sacramento Sucker	565SOL-SSUC-9-870/421TL-112900	870	401	350	421	4.5	F	295
29-Nov-00	Cache Ck. Blw Hwy 505	Sacramento Sucker	565SOL-SSUC-10-925/430TL-112900	925	406	358	430	5.5	F	350
29-Nov-00	Cache Ck. Blw Hwy 505	Green Sunfish	565SOL-GrSUN-1-35/122TL-112900	35	119	97	122	3.5	?	270
29-Nov-00	Cache Ck. Blw Hwy 505	Green Sunfish	565SOL-GrSUN-2-40/132TL-112900	40	126	105	132	3.5	?	395
29-Nov-00	Cache Ck. Blw Hwy 505	Green Sunfish	565SOL-GrSUN-3-38/134TL-112900	38	130	108	134	3.5	?	210
29-Nov-00	Cache Ck. Blw Hwy 505	Green Sunfish	565SOL-GrSUN-4-50/141TL-112900	50	137	113	141	3.5	?	210
29-Nov-00	Cache Ck. Blw Hwy 505	Bluegill	565SOL-BGill-1-30/115TL-112900	30	109	87	115	3.5	?	350
29-Nov-00	Cache Ck. Blw Hwy 505	Channel Catfish	565SOL-ChCAT-1-380/368TL-112900	380	326	292	368		F	225

Appendix, Table 3. Large Fish Data

Sample Date	Location	Type	Sample #	Whole Ind. Grams	Length (mm)			Age (years)	Sex	ng/g THg Muscle ww
					FL	SL	TL			
29-Nov-00	Cache Ck. Blw Hwy 505	Pike Minnow	565SOL-SPM-1-75/214TL-112900	75	193	170	214	2.5	M?	300
29-Nov-00	Cache Ck. Blw Hwy 505	Pike Minnow	565SOL-SPM-2-100/240TL-112900	100	218	194	240	2.5	M?	265
29-Nov-00	Cache Ck. Blw Hwy 505	Pike Minnow	565SOL-SPM-3-88/230TL-112900	88	209	184	230	2.5	M?	405
29-Nov-00	Cache Ck. Blw Hwy 505	Pike Minnow	565SOL-SPM-4-112/246TL-112900	112	221	196	246	2.5	M?	435
29-Nov-00	Cache Ck. Blw Hwy 505	Pike Minnow	565SOL-SPM-5-125/258TL-112900	125	235	207	258	2.5	M?	335
29-Nov-00	Cache Ck. Blw Hwy 505	Pike Minnow	565SOL-SPM-6-130/252TL-112900	130	231	202	252	2.5	M?	465
29-Nov-00	Cache Ck. Blw Hwy 505	Pike Minnow	565SOL-SPM-7-145/272TL-112900	145	249	219	272	2.5	M?	1060
29-Nov-00	Cache Ck. Blw Hwy 505	Pike Minnow	565SOL-SPM-8-172/288TL-112900	172	262	232	288	3.5	M?	575
29-Nov-00	Cache Ck. Blw Hwy 505	Pike Minnow	565SOL-SPM-9-170/288TL-112900	170	264	231	288	2.5	M?	405
29-Nov-00	Cache Ck. Blw Hwy 505	Pike Minnow	565SOL-SPM-10-220/308TL-112900	220	281	252	308	3.5	M?	535
29-Nov-00	Cache Ck. Blw Hwy 505	Smallmouth Bass	565SOL-SMB-1-55/163TL-112900	55	156	129	163	2.5	M	455
29-Nov-00	Cache Ck. Blw Hwy 505	Smallmouth Bass	565SOL-SMB-2-50/158TL-112900	50	151	126	158	2.5	M?	365
29-Nov-00	Cache Ck. Blw Hwy 505	Smallmouth Bass	565SOL-SMB-3-57/171TL-112900	57	163	137	171	2.5	M?	375
29-Nov-00	Cache Ck. Blw Hwy 505	Smallmouth Bass	565SOL-SMB-4-59/169TL-112900	59	160	134	169	2.5	M?	240
29-Nov-00	Cache Ck. Blw Hwy 505	Smallmouth Bass	565SOL-SMB-5-65/176TL-112900	65	168	140	176	2.5	M?	375
29-Nov-00	Cache Ck. Blw Hwy 505	Smallmouth Bass	565SOL-SMB-6-108/204TL-112900	108	194	167	204	3.5	M?	430
29-Nov-00	Cache Ck. Blw Hwy 505	Smallmouth Bass	565SOL-SMB-7-248/273TL-112900	248	259	218	273	4.5	F	485
29-Nov-00	Cache Ck. Blw Hwy 505	Smallmouth Bass	565SOL-SMB-8-245/265TL-112900	245	251	212	265	5.5	M?	550
29-Nov-00	Cache Ck. Blw Hwy 505	Smallmouth Bass	565SOL-SMB-9-330/289TL-112900	330	271	231	289	5.5	M?	405
22-Dec-00	Cache Ck. Blw Hwy 505	Smallmouth Bass	565SOL-SMB-10-230/261TL-122200	230	246	208	261	5.5	M?	490
27-Nov-00	Cache Ck. Blw Yolo	Sacramento Sucker	570YSB-SSUC-1-245/291TL-112700	245	273	239	291	3.5	M?	185
27-Nov-00	Cache Ck. Blw Yolo	Sacramento Sucker	570YSB-SSUC-2-265/290TL-112700	265	271	234	290	2.5	M	210
27-Nov-00	Cache Ck. Blw Yolo	Sacramento Sucker	570YSB-SSUC-3-420/345TL-112700	420	329	287	345	3.5	F	500
27-Nov-00	Cache Ck. Blw Yolo	Sacramento Sucker	570YSB-SSUC-4-415/350TL-112700	415	330	287	350	3.5	M	460
6-Dec-00	Cache Ck. Blw Yolo	Sacramento Sucker	570YSB-SSUC-5-530/380TL-120600	530	357	312	380	4.5	F	535
6-Dec-00	Cache Ck. Blw Yolo	Sacramento Sucker	570YSB-SSUC-6-515/367TL-120600	515	348	302	367	3.5	F	370
6-Dec-00	Cache Ck. Blw Yolo	Smallmouth Bass	570YSB-SMB-1-155/224TL-120600	155	211	177	224	4.5	M	430
6-Dec-00	Cache Ck. Blw Yolo	Smallmouth Bass	570YSB-SMB-2-175/238TL-120600	175	227	190	238	3.5	M	350

Appendix, Table 4. Stable Isotope Data

<u>Date</u>	<u>Site</u>	<u>Sample ID</u>	<u>Type</u>	<u>15N</u>	<u>13C</u>
24-May-00	Middle Ck.	505MID-Corydalidae-052400	Corydalidae	6.94	-31.55
24-May-00	Middle Ck.	505MID-Ephemereallidae-052400	Ephemereallidae	7.09	-33.59
30-Nov-00	Cache Ck. blw Clear Lake	510CLO-Baetis-113000	Baetis	2.21	-22.32
13-Feb-01	Cache Ck. blw Clear Lake	510CLO-Baetis-021301	Baetis	3.64	-24.36
30-Nov-00	Cache Ck. blw Clear Lake	510CLO-Coenagrionidae-113000-2	Coenagrionidae	5.96	-22.81
13-Feb-01	Cache Ck. blw Clear Lake	510CLO-Coenagrionidae-2-021301	Coenagrionidae	5.42	-24.31
3-May-01	Cache Ck. blw Clear Lake	510CLO-Coenagrionidae-050301-2FDUP	Coenagrionidae	6.22	-24.32
3-May-01	Cache Ck. blw Clear Lake	510CLO-Coenagrionidae-050301-2	Coenagrionidae	6.12	-24.69
25-Feb-00	Cache Ck. blw Clear Lake	510CLO-Hydropsyche-022500-DUP	Hydropsyche FDUP	6.43	-28.29
24-May-00	Cache Ck. blw Clear Lake	510CLO-Hydropsyche-052400-FDUP	Hydropsyche	8.52	-28.87
24-May-00	Cache Ck. blw Clear Lake	510CLO-Hydropsyche-052400	Hydropsyche	8.79	-28.99
7-Aug-00	Cache Ck. blw Clear Lake	510CLO-Hydropsyche-080700	Hydropsyche	2.64	-22.15
7-Aug-00	Cache Ck. blw Clear Lake	510CLO-Hydropsyche-080700-FDUP	Hydropsyche FDUP	2.61	-22.94
30-Nov-00	Cache Ck. blw Clear Lake	510CLO-Hydropsyche-113000-FDUP	Hydropsyche	5.31	-24.70
30-Nov-00	Cache Ck. blw Clear Lake	510CLO-Hydropsyche-113000	Hydropsyche	5.36	-24.64
11-Dec-00	Cache Ck. blw Clear Lake	510CLO-Hydropsyche-121100	Hydropsyche	5.09	-23.97
11-Jan-01	Cache Ck. blw Clear Lake	510CLO-Hydropsyche-011101	Hydropsyche	5.22	-24.30
13-Feb-01	Cache Ck. blw Clear Lake	510CLO-Hydropsyche-lg-021301	Hydropsyche (Lg)	5.15	-24.78
13-Feb-01	Cache Ck. blw Clear Lake	510CLO-Hydropsyche-sm-021301	Hydropsyche (sm)	4.11	-24.09
22-Mar-01	Cache Ck. blw Clear Lake	510CLO-Hydropsyche-lg-032201	Hydropsyche (lg)	6.02	-29.86
22-Mar-01	Cache Ck. blw Clear Lake	510CLO-Hydropsyche-sm-032201	Hydropsyche (sm)	5.13	-29.16
3-May-01	Cache Ck. blw Clear Lake	510CLO-Hydropsyche-050301	Hydropsyche	8.01	-36.37
7-Jun-01	Cache Ck. blw Clear Lake	510CLO-Hydropsyche-lg-060701FDUP	Hydropsyche	8.08	-27.51
7-Jun-01	Cache Ck. blw Clear Lake	510CLO-Hydropsyche-lg-060701	Hydropsyche	7.95	-27.14
8-May-00	North Fork Cache Creek	520NFC-Baetis-050800	Baetis	5.21	-25.94
14-Nov-00	North Fork Cache Creek	520NFC-Baetis-111400	Baetis	6.31	-26.30
20-Feb-01	North Fork Cache Creek	520NFC-Baetis-022001	Baetis	6.45	-27.99
14-Nov-00	North Fork Cache Creek	520NFC-Calopterygidae-111400	Calopterygidae	6.88	-24.36
8-May-00	North Fork Cache Creek	520NFC-Hydropsyche-050800	Hydropsyche	5.40	-26.61
7-Aug-00	North Fork Cache Creek	520NFC-Hydropsyche-080700	Hydropsyche	4.20	-24.84
14-Nov-00	North Fork Cache Creek	520NFC-Hydropsyche-111400	Hydropsyche	6.36	-25.87

Appendix, Table 4. Stable Isotope Data

<u>Date</u>	<u>Site</u>	<u>Sample ID</u>	<u>Type</u>	<u>15N</u>	<u>13C</u>
20-Feb-01	North Fork Cache Creek	520NFC-Hydropsyche-022001	Hydropsyche	6.91	-27.23
25-Feb-00	North Fork Cache Creek	520NFC-Perlodidae-022500	Perlodidae	7.59	-25.61
8-May-00	North Fork Cache Creek	520NFC-Perlodidae-050800	Perlodidae	5.21	-25.81
14-Nov-00	North Fork Cache Creek	520NFC-Perlodidae-111400	Perlodidae	6.69	-24.62
20-Feb-01	North Fork Cache Creek	520NFC-Perlodidae-022001	Perlodidae	7.21	-26.32
15-May-01	North Fork Cache Creek	520NFC-Perlodidae-051501	Perlodidae	6.77	-27.08
25-Feb-00	North Fork Cache Creek	520NFC-Pteronarcys-022500	Pteronarcys	4.07	-26.81
7-Aug-00	North Fork Cache Creek	520NFC-Pteronarcys-080700	Pteronarcys	3.73	-25.29
14-Nov-00	North Fork Cache Creek	520NFC-Pteronarcys-111400	Pteronarcys	4.50	-26.65
8-May-00	North Fork Cache Creek	520NFC-Tipulidae-050800	Tipulidae	8.95	-24.50
7-Aug-00	North Fork Cache Creek	520NFC-Tipulidae-080700	Tipulidae	6.26	-24.45
20-Feb-01	North Fork Cache Creek	520NFC-Tipulidae-1-022001	Tipulidae	8.22	-25.81
28-Feb-00	Harley Gulch	530HAR-Coenagrionidae-022800	Coenagrionidae	10.43	-26.99
28-Feb-00	Harley Gulch	530HAR-Corydalidae-022800	Corydalidae	8.07	-28.60
8-May-00	Harley Gulch	530HAR-Corydalidae-050800	Corydalidae	9.75	-30.08
28-Feb-00	Harley Gulch	530HAR-Hydropsyche-022800-1A(med)	Hydropsyche(med)	9.73	-29.10
8-May-00	Harley Gulch	530HAR-Naucoridae-050800	Naucoridae	10.01	-28.19
20-Feb-01	Harley Gulch	530HAR-Coenagrionidae-022001	Coenagrionidae	14.39	-27.33
15-May-01	Harley Gulch	530HAR-Coenagrionidae-051501	Coenagrionidae	12.15	-29.68
15-May-01	Harley Gulch	530HAR-Corydalidae-051501	Corydalidae	11.92	-30.52
8-May-00	Harley Gulch	530HAR-Hydropsyche-050800	Hydropsyche	8.99	-31.70
15-May-01	Harley Gulch	530HAR-Hydropsyche-051501	Hydropsyche	12.50	-31.54
20-Feb-01	Harley Gulch	530HAR-Hydropsyche-022001-FDUP	HydropsycheFDUP	11.56	-30.49
20-Feb-01	Harley Gulch	530HAR-Perlodidae-022001	Perlodidae	9.86	-30.00
20-Feb-01	Harley Gulch	530HAR-Tipulidae-2-022001	Tipulidae	12.84	-27.30
6-Nov-00	Davis Creek abv DCR	533DC5-Coenagrionidae-110600-2	Coenagrionidae	5.57	-30.64
6-Nov-00	Davis Creek abv DCR	533DC5-Corydalidae-110600	Corydalidae	8.45	-28.62
17-May-00	Davis Creek abv DCR	533DC5-Corydalidae-051700-1B(med)	Corydalidae(med)	9.52	-32.10
4-Aug-00	Davis Creek abv DCR	533DC5-Hydropsyche-080400	Hydropsyche	3.49	-34.85
6-Nov-00	Davis Creek abv DCR	533DC5-Hydropsyche-110600	Hydropsyche	3.22	-34.23
4-Aug-00	Davis Creek abv DCR	533DC5-Perlidae-080400	Perlidae	5.22	-33.01

Appendix, Table 4. Stable Isotope Data

<u>Date</u>	<u>Site</u>	<u>Sample ID</u>	<u>Type</u>	<u>15N</u>	<u>13C</u>
6-Nov-00	Davis Creek abv DCR	533DC5-Perlidae-110600	Perlidae	4.88	-31.50
4-Aug-00	Davis Creek abv DCR	533DC5-Tipulidae-080400	Tipulidae	6.03	-33.41
17-May-00	Davis Ck. Below DCR	535DAV-Coenagrionidae-051700-1	Coenagrionidae (long grn)	3.89	-30.70
17-May-00	Davis Ck. Below DCR	535DAV-Corydalidae-051700-FDUP	Corydalidae	3.93	-31.78
17-May-00	Davis Ck. Below DCR	535DAV-Corydalidae-051700	Corydalidae	3.87	-30.91
12-Jul-01	Upper Bear Creek	537.9UBC-Hydropsyche-071201	Hydropsyche	2.55	-35.16
14-Nov-00	Upper Bear Creek	538UBC-Baetis-111400	Baetis	5.52	-41.68
20-Feb-01	Upper Bear Creek	538UBC-Baetis-022001	Baetis	6.73	-36.61
14-Nov-00	Upper Bear Creek	538UBC-Coenagrionidae-111400-2	Coenagrionidae	6.31	-35.76
3-May-01	Upper Bear Creek	538UBC-Gomphidae-050301-1lg	Gomphidae	6.97	-34.14
3-May-01	Upper Bear Creek	538UBC-Gomphidae-050301-2	Gomphidae	6.06	-35.19
14-Nov-00	Upper Bear Creek	538UBC-Hydropsyche-111400	Hydropsyche	4.91	-39.04
11-Jan-01	Upper Bear Creek	538UBC-Hydropsyche-011101	Hydropsyche	5.80	-40.43
20-Feb-01	Upper Bear Creek	538UBC-Hydropsyche-lg-022001	Hydropsyche (lg)	5.91	-38.00
20-Feb-01	Upper Bear Creek	538UBC-Hydropsyche-sm-022001	Hydropsyche (sm)	5.04	-38.38
12-Jul-01	Upper Bear Creek	538UBC-Hydropsyche-071201	Hydropsyche	3.46	-35.75
23-Aug-01	Upper Bear Creek	538UBC-Hydropsyche-082301	Hydropsyche	3.26	-33.36
8-May-00	Upper Bear Creek	538UBC-Libellulidae-050800	Libellulidae	6.77	-35.31
14-Nov-00	Upper Bear Creek	538UBC-Libellulidae-111400	Libellulidae	4.17	-38.29
3-May-01	Upper Bear Creek	538UBC-Libellulidae-050301	Libellulidae	5.72	-35.54
8-May-00	Upper Bear Creek	538UBC-Naucoridae-050800	Naucoridae	4.45	-35.33
3-May-01	Upper Bear Creek	538UBC-Naucoridae-050301	Naucoridae	4.26	-34.40
7-Jun-01	Upper Bear Creek	538UBC-Naucoridae-060701	Naucoridae	4.28	-34.50
12-Jul-01	Upper Bear Creek	538UBC-Naucoridae-071201	Naucoridae	3.43	-34.94
12-Jul-01	Upper Bear Creek	538UBC-Naucoridae-071201-FDUP	Naucoridae	4.28	-35.00
23-Aug-01	Upper Bear Creek	538UBC-Naucoridae-082301	Naucoridae	2.57	-34.96
14-Nov-00	Upper Bear Creek	538UBC-Tipulidae-111400	Tipulidae	5.93	-36.45
20-Feb-01	Upper Bear Creek	538UBC-Tipulidae-1-022001	Tipulidae	6.46	-37.29
12-Jul-01	Upper Bear Creek	538UBC-Tipulidae-071201	Tipulidae	5.59	-34.61
14-Nov-00	Sulfur Creek	540SUL-Coenagrionidae-111400-1-FDUP	Coenagrionidae	16.39	-25.80
14-Nov-00	Sulfur Creek	540SUL-Coenagrionidae-111400-1	Coenagrionidae	16.38	-25.91

Appendix, Table 4. Stable Isotope Data

<u>Date</u>	<u>Site</u>	<u>Sample ID</u>	<u>Type</u>	<u>15N</u>	<u>13C</u>
15-May-01	Sulfur Creek	540SUL-Coenagrionidae-051501-1(long,green)	Coenagrionidae	9.76	-27.67
15-May-01	Sulfur Creek	540SUL-Coenagrionidae-051501-2(stout)	Coenagrionidae	9.11	-27.64
8-May-00	Sulfur Creek	540SUL-Coenagrionidae-050800-1	Coenagrionidae (long grn)	9.59	-28.11
14-Nov-00	Sulfur Creek	540SUL-Hydropsyche-111400	Hydropsyche	4.54	-38.45
15-May-01	Sulfur Creek	540SUL-Naucoridae-051501	Naucoridae	20.40	-28.97
14-Nov-00	Sulfur Creek	540SUL-Stratiomys-111400	Stratiomys	21.59	-25.05
20-Feb-01	Sulfur Creek	540SUL-Tipulidae-2-022001	Tipulidae	15.43	-25.86
13-Jun-01	545BR1	545BR1-Hydropsyche-061301	Hydropsyche	17.44	-29.07
13-Jun-01	545BR1	545BR1-Naucoridae-061301	Naucoridae	14.10	-29.84
12-Jul-01	550.1BRC	550.1BRC-Naucoridae-071201	Naucoridae	18.66	-28.67
12-Jul-01	550.2UBC	550.2BRC-Hydropsyche-071201	Hydropsyche	18.27	-29.94
12-Jul-01	550.2UBC	550.2BRC-Naucoridae-071201	Naucoridae	19.20	-29.05
9-May-00	Mid Bear Creek blw Sulfur	550BRC-Aeshnidae-050900	Aeshnidae	18.76	-28.25
14-Nov-00	Mid Bear Creek blw Sulfur	550BRC-Calopterygidae-111400	Calopterygidae	24.37	-28.30
15-Feb-01	Mid Bear Creek blw Sulfur	550BRC-Calopterygidae-021501	Calopterygidae	24.94	-28.89
14-Mar-00	Mid Bear Creek blw Sulfur	550BRC-Coenagrionidae-031400	Coenagrionidae	20.39	-28.44
15-Feb-01	Mid Bear Creek blw Sulfur	550BRC-Coenagrionidae-1-021501	Coenagrionidae	25.71	-28.12
3-May-01	Mid Bear Creek blw Sulfur	550BRC-Coenagrionidae-050301-2	Coenagrionidae	19.56	-26.48
1-Aug-00	Mid Bear Creek blw Sulfur	550BRC-Coenagrionidae-080100-1	Coenagrionidae (long grn)	22.36	-29.18
14-Nov-00	Mid Bear Creek blw Sulfur	550BRC-Coenagrionidae-111400-1	Coenagrionidae (long grn)	23.74	-28.48
11-Dec-00	Mid Bear Creek blw Sulfur	550BRC-Corydalidae-121100	Corydalidae	24.31	-28.07
11-Jan-01	Mid Bear Creek blw Sulfur	550BRC-Corydalidae-011101	Corydalidae	23.31	-27.80
15-Feb-01	Mid Bear Creek blw Sulfur	550BRC-Corydalidae-021501	Corydalidae	22.18	-29.61
22-Mar-01	Mid Bear Creek blw Sulfur	550BRC-Corydalidae-032201	Corydalidae	21.95	-28.53
3-May-01	Mid Bear Creek blw Sulfur	550BRC-Corydalidae-050301	Corydalidae	21.24	-28.59
14-Mar-00	Mid Bear Creek blw Sulfur	550BRC-Elmidae-031400	Elmidae	11.75	-27.01
14-Nov-00	Mid Bear Creek blw Sulfur	550BRC-Elmidae-111400	Elmidae	13.92	-25.90
15-Feb-01	Mid Bear Creek blw Sulfur	550BRC-Elmidae-021501	Elmidae	12.54	-26.79
3-May-01	Mid Bear Creek blw Sulfur	550BRC-Elmidae-050301	Elmidae	12.48	-25.82
7-Jun-01	Mid Bear Creek blw Sulfur	550BRC-Elmidae-060701	Elmidae	11.76	-25.35
12-Jul-01	Mid Bear Creek blw Sulfur	550BRC-Elmidae-071201	Elmidae	11.45	-26.83

Appendix, Table 4. Stable Isotope Data

<u>Date</u>	<u>Site</u>	<u>Sample ID</u>	<u>Type</u>	<u>15N</u>	<u>13C</u>
23-Aug-01	Mid Bear Creek blw Sulfur	550BRC-Elmidae-082301	Elmidae	13.13	-26.01
23-Aug-01	Mid Bear Creek blw Sulfur	550BRC-Elmidae-082301-FDUP	Elmidae	13.13	-25.76
3-May-01	Mid Bear Creek blw Sulfur	550BRC-Ephemerellidae-050301	Ephemerellidae	16.64	-28.93
14-Mar-00	Mid Bear Creek blw Sulfur	550BRC-Hydropsyche-031400	Hydropsyche	19.83	-30.52
1-Aug-00	Mid Bear Creek blw Sulfur	550BRC-Hydropsyche-080100	Hydropsyche	19.82	-30.90
14-Nov-00	Mid Bear Creek blw Sulfur	550BRC-Hydropsyche-111400	Hydropsyche	24.39	-31.13
14-Nov-00	Mid Bear Creek blw Sulfur	550BRC-Hydropsyche-111400-FDUP	Hydropsyche	24.17	-31.00
11-Dec-00	Mid Bear Creek blw Sulfur	550BRC-Hydropsyche-121100	Hydropsyche	25.27	-30.47
11-Jan-01	Mid Bear Creek blw Sulfur	550BRC-Hydropsyche-011101	Hydropsyche	27.03	-30.53
15-Feb-01	Mid Bear Creek blw Sulfur	550BRC-Hydropsyche-lg-021501	Hydropsyche (lg)	24.63	-27.45
15-Feb-01	Mid Bear Creek blw Sulfur	550BRC-Hydropsyche-sm-021501	Hydropsyche (sm)	23.14	-29.62
22-Mar-01	Mid Bear Creek blw Sulfur	550BRC-Hydropsyche-sm-032201	Hydropsyche (sm)	17.12	-28.88
3-May-01	Mid Bear Creek blw Sulfur	550BRC-Hydropsyche-050301-lg	Hydropsyche	17.32	-27.92
7-Jun-01	Mid Bear Creek blw Sulfur	550BRC-Hydropsyche-sm-060701	Hydropsyche	15.96	-27.66
7-Jun-01	Mid Bear Creek blw Sulfur	550BRC-Hydropsyche-lg-060701	Hydropsyche	16.70	-28.07
12-Jul-01	Mid Bear Creek blw Sulfur	550BRC-Hydropsyche-071201	Hydropsyche	18.34	-30.32
23-Aug-01	Mid Bear Creek blw Sulfur	550BRC-Hydropsyche-082301	Hydropsyche	21.75	-28.61
3-May-01	Mid Bear Creek blw Sulfur	550BRC-Libellulidae-050301	Libellulidae	18.81	-28.72
9-May-00	Mid Bear Creek blw Sulfur	550BRC-Libellulidae-050900-1-FDUP	Libellulidae(grn, long legs)	16.86	-27.28
9-May-00	Mid Bear Creek blw Sulfur	550BRC-Naucoridae-050900	Naucoridae	18.55	-30.41
1-Aug-00	Mid Bear Creek blw Sulfur	550BRC-Naucoridae-080100	Naucoridae	19.82	-30.30
3-May-01	Mid Bear Creek blw Sulfur	550BRC-Naucoridae-050301	Naucoridae	19.27	-28.43
7-Jun-01	Mid Bear Creek blw Sulfur	550BRC-Naucoridae-060701	Naucoridae	19.22	-28.66
12-Jul-01	Mid Bear Creek blw Sulfur	550BRC-Naucoridae-071201	Naucoridae	18.74	-28.40
23-Aug-01	Mid Bear Creek blw Sulfur	550BRC-Naucoridae-082301	Naucoridae	20.15	-28.13
15-Feb-01	Mid Bear Creek blw Sulfur	550BRC-Perlodidae-021501	Perlodidae	16.55	-28.89
15-Feb-01	Mid Bear Creek blw Sulfur	550BRC-Simuliidae-021501	Simuliidae	20.13	-27.61
13-Jun-01	555BR3	555BR3-Hydropsyche-061301	Hydropsyche	15.54	-28.94
13-Jun-01	555BR3	555BR3-Naucoridae-061301	Naucoridae	12.92	-27.38
10-Nov-00	Cache Creek @ Rumsey	560RUM-Baetis-111000	Baetis	7.61	-25.34
15-Feb-01	Cache Creek @ Rumsey	560RUM-Baetis-021501	Baetis	11.57	-28.48

Appendix, Table 4. Stable Isotope Data

<u>Date</u>	<u>Site</u>	<u>Sample ID</u>	<u>Type</u>	<u>15N</u>	<u>13C</u>
3-May-01	Cache Creek @ Rumsey	560RUM-Baetis-050301	Baetis	7.96	-26.12
9-May-00	Cache Creek @ Rumsey	560RUM-Corydalidae-050900	Corydalidae	7.95	-23.78
10-Nov-00	Cache Creek @ Rumsey	560RUM-Corydalidae-111000	Corydalidae	6.62	-23.28
10-Nov-00	Cache Creek @ Rumsey	560RUM-Corydalidae-111000-FDUP	Corydalidae	6.29	-23.50
22-Mar-01	Cache Creek @ Rumsey	560RUM-Corydalidae-032201	Corydalidae	6.32	-22.91
3-May-01	Cache Creek @ Rumsey	560RUM-Corydalidae-050301	Corydalidae	6.95	-25.08
7-Jun-01	Cache Creek @ Rumsey	560RUM-Corydalidae-060701	Corydalidae	7.87	-25.63
11-Dec-00	Cache Creek @ Rumsey	560RUM-Corydalidae-121100-(sm/med)	Corydalidae (sm/med)	6.80	-24.14
11-Dec-00	Cache Creek @ Rumsey	560RUM-Corydalidae-121100-(XL)	Corydalidae (XL)	7.11	-23.22
17-Feb-00	Cache Creek @ Rumsey	560RUM-Corydalidae-021700-1B(lg)	Corydalidae(lg)	6.95	-23.34
17-Feb-00	Cache Creek @ Rumsey	560RUM-Corydalidae-021700-1A(med)	Corydalidae(med)	6.17	-22.34
15-Feb-01	Cache Creek @ Rumsey	560RUM-Corydalidae-021501	Corydalidae(med/lg)	6.22	-23.05
1-Aug-00	Cache Creek @ Rumsey	560RUM-Corydalidae-080100-1B(Xlg)	Corydalidae(Xlg)	7.95	-24.75
17-Feb-00	Cache Creek @ Rumsey	560RUM-Hydropsyche-021700-1B(lg)	Hydropsyche(lg)	9.05	-26.01
17-Feb-00	Cache Creek @ Rumsey	560RUM-Hydropsyche-021700-1A(med)	Hydropsyche(med)	8.72	-25.57
9-May-00	Cache Creek @ Rumsey	560RUM-Hydropsyche-050900	Hydropsyche	7.16	-26.29
1-Aug-00	Cache Creek @ Rumsey	560RUM-Hydropsyche-080100	Hydropsyche	5.73	-22.83
10-Nov-00	Cache Creek @ Rumsey	560RUM-Hydropsyche-111000	Hydropsyche	6.10	-22.38
11-Dec-00	Cache Creek @ Rumsey	560RUM-Hydropsyche-121100	Hydropsyche	7.06	-23.80
11-Jan-01	Cache Creek @ Rumsey	560RUM-Hydropsyche-011101	Hydropsyche	7.52	-24.39
15-Feb-01	Cache Creek @ Rumsey	560RUM-Hydropsyche-021501	Hydropsyche	8.43	-25.23
15-Feb-01	Cache Creek @ Rumsey	560RUM-Hydropsyche-021501-FDUP	HydropsycheFDUP	8.87	-25.19
22-Mar-01	Cache Creek @ Rumsey	560RUM-Hydropsyche-032201	Hydropsyche	9.45	-26.31
3-May-01	Cache Creek @ Rumsey	560RUM-Hydropsyche-050301-sm	Hydropsyche	7.17	-26.28
3-May-01	Cache Creek @ Rumsey	560RUM-Hydropsyche-050301-lg	Hydropsyche	7.30	-26.64
3-May-01	Cache Creek @ Rumsey	560RUM-Hydropsyche-050301-lg FDUP	Hydropsyche	7.64	-26.57
7-Jun-01	Cache Creek @ Rumsey	560RUM-Hydropsyche-060701	Hydropsyche	7.69	-26.40
10-Nov-00	Cache Creek @ Rumsey	560RUM-Libellulidae-111000	Libellulidae	5.98	-22.92
11-Dec-00	Cache Creek @ Rumsey	560RUM-Libellulidae-121100	Libellulidae	6.16	-22.33
15-Feb-01	Cache Creek @ Rumsey	560RUM-Libellulidae-021501	Libellulidae	6.47	-22.06
17-Feb-00	Cache Creek @ Rumsey	560RUM-Perlodidae-021700	Perlodidae	13.26	-26.42

Appendix, Table 4. Stable Isotope Data

<u>Date</u>	<u>Site</u>	<u>Sample ID</u>	<u>Type</u>	<u>15N</u>	<u>13C</u>
9-May-00	Cache Creek @ Rumsey	560RUM-Perlodidae-050900	Perlodidae	7.41	-25.79
3-May-01	Cache Creek @ Rumsey	560RUM-Perlodidae-050301	Perlodidae	7.40	-26.64
15-Feb-01	Cache Ck. Blw Hwy 505	565SOL-Baetis-021501	Baetis	5.48	-31.30
22-May-00	Cache Ck. Blw Hwy 505	565SOL-Calopterygidae-052200	Calopterygidae	4.97	-28.92
10-Nov-00	Cache Ck. Blw Hwy 505	565SOL-Calopterygidae-111000	Calopterygidae	6.74	-28.68
15-Feb-01	Cache Ck. Blw Hwy 505	565SOL-Calopterygidae-021501	Calopterygidae	7.02	-31.28
15-Feb-01	Cache Ck. Blw Hwy 505	565SOL-Coenagrionidae-1-021501	Coenagrionidae	7.58	-30.03
22-May-00	Cache Ck. Blw Hwy 505	565SOL-Hydropsyche-052200	Hydropsyche	5.45	-28.14
1-Aug-00	Cache Ck. Blw Hwy 505	565SOL-Hydropsyche-080100	Hydropsyche	4.54	-31.37
10-Nov-00	Cache Ck. Blw Hwy 505	565SOL-Hydropsyche-111000	Hydropsyche	5.50	-30.17
15-Feb-01	Cache Ck. Blw Hwy 505	565SOL-Hydropsyche-021501	Hydropsyche	5.58	-33.21
10-Nov-00	Cache Ck. Blw Hwy 505	565SOL-Hydropsyche-111000-FDUP	Hydropsyche FDUP	5.27	-30.51
10-Nov-00	Cache Ck. Blw Hwy 505	565SOL-Libellulidae-111000	Libellulidae	5.62	-29.72
1-Aug-00	Cache Ck. Blw Hwy 505	565SOL-Naucoridae-080100	Naucoridae	4.43	-28.10
27-Nov-00	Cache Ck. Blw Yolo	570YSB-Calopterygidae-112700	Calopterygidae	8.36	-26.45
22-May-00	Cache Ck. Blw Yolo	570YSB-Coenagrionidae-052200	Coenagrionidae	6.63	-28.71
27-Nov-00	Cache Ck. Blw Yolo	570YSB-Hydropsyche-112700	Hydropsyche	6.39	-30.17
15-Feb-01	Cache Ck. above Bear Ck.	Comp. A Baetis	Baetis	6.91	-28.71
15-Feb-01	Cache Ck. above Bear Ck.	Comp. B Baetis	Baetis	6.77	-28.68
15-Feb-01	Cache Ck. above Bear Ck.	Comp. C Baetis	Baetis	6.63	-28.73
15-Feb-01	Cache Ck. above Bear Ck.	Hydropsyche	Hydropsyche	6.00	-24.79
15-Feb-01	Cache Ck. above Bear Ck.	Corydalidae	Corydalidae	5.54	-23.16
15-Feb-01	Cache Ck. below Bear Ck.	Comp. A Baetis	Baetis	13.51	-28.26
15-Feb-01	Cache Ck. below Bear Ck.	Comp. B Baetis	Baetis	13.25	-28.74
15-Feb-01	Cache Ck. below Bear Ck.	Comp. C Baetis	Baetis	12.87	-28.76
15-Feb-01	Cache Ck. below Bear Ck.	Hydropsyche	Hydropsyche	13.16	-25.45
15-Feb-01	Cache Ck. below Bear Ck.	Corydalidae	Corydalidae	6.81	-23.26
15-Feb-01	Bear Ck. above Cache Ck.	Hydropsyche	Hydropsyche	22.64	-28.16
15-Feb-01	Bear Ck. above Cache Ck.	Corydalidae	Corydalidae	15.14	-28.20
24-May-00	Middle Ck.	505MID-California Roach-2A-052400	California Roach	10.63	-30.86
24-May-00	Middle Ck.	505MID-California Roach-2B-052400	California Roach	10.22	-31.10

Appendix, Table 4. Stable Isotope Data

<u>Date</u>	<u>Site</u>	<u>Sample ID</u>	<u>Type</u>	<u>15N</u>	<u>13C</u>
7-Aug-00	North Fork Cache Creek	520NFC-California Roach-2-080700	California Roach	8.70	-23.79
14-Nov-00	North Fork Cache Creek	520NFC-California Roach-2A-111400	California Roach	8.22	-24.90
20-Feb-01	North Fork Cache Creek	520NFC-ROCH-2-022001	California Roach	8.10	-24.92
8-May-01	North Fork Cache Creek	520NFC-ROCH-3-050801	California Roach	8.83	-25.45
15-May-01	North Fork Cache Creek	520NFC-ROCH-2-051501	California Roach	8.42	-24.67
4-Aug-00	Davis Creek abv DCR	533DC5-ROCH-2A-080400	California Roach	9.68	-31.97
4-Aug-00	Davis Creek abv DCR	533DC5-ROCH-2B-080400	California Roach	10.61	-32.97
10-Mar-00	Davis Ck. Below DCR	535DAV-California Roach-2A-031000	California Roach	6.86	-33.01
10-Mar-00	Davis Ck. Below DCR	535DAV-California Roach-2B-031000	California Roach	6.34	-32.88
17-May-00	Davis Ck. Below DCR	535DAV-California Roach-2A-051700	California Roach	6.50	-33.15
17-May-00	Davis Ck. Below DCR	535DAV-California Roach-2B-051700	California Roach	6.48	-32.82
17-May-00	Davis Ck. Below DCR	535DAV-California Roach-2C-051700	California Roach	7.14	-32.30
4-Aug-00	Davis Ck. Below DCR	535DAV-California Roach-2A-080400	California Roach	6.08	-31.69
4-Aug-00	Davis Ck. Below DCR	535DAV-California Roach-2B-080400	California Roach	6.06	-31.87
6-Nov-00	Davis Ck. Below DCR	535DAV-California Roach-2B-110600	California Roach	6.18	-30.52
6-Nov-00	Davis Ck. Below DCR	535DAV-California Roach-2C-110600	California Roach	6.39	-31.30
6-Nov-00	Davis Ck. Below DCR	535DAV-California Roach-2A-110600	California Roach	6.02	-31.16
10-May-01	Davis Ck. Below DCR	535DAV-ROCH-2A-051001	California Roach	7.19	-32.47
10-May-01	Davis Ck. Below DCR	535DAV-ROCH-2B-051001	California Roach	7.30	-32.10
10-May-01	Davis Ck. Below DCR	535DAV-ROCH-2C-051001	California Roach	7.69	-32.39
3-May-01	Davis Ck. At Cache	536DCA-ROCH-3-050301	California Roach	6.20	-28.78
8-May-01	Davis Ck. At Cache	536DCA-ROCH-1-050801	California Roach	5.71	-29.95
8-May-01	Davis Ck. At Cache	536DCA-ROCH-2-050801	California Roach	7.09	-29.86
8-May-00	Upper Bear Creek	538UBC-California Roach-2A-050800	California Roach	9.85	-34.05
8-May-00	Upper Bear Creek	538UBC-California Roach-2C-050800	California Roach	10.02	-34.02
8-May-00	Upper Bear Creek	538UBC-California Roach-2B-050800	California Roach	9.89	-34.28
14-Nov-00	Upper Bear Creek	538UBC-California Roach-2C-111400	California Roach	7.53	-38.98
20-Feb-01	Upper Bear Creek	538UBC-ROCH-1-022001	California Roach	8.45	-35.44
20-Feb-01	Upper Bear Creek	538UBC-ROCH-2C-022001	California Roach	18.43	-28.65
22-Mar-01	Upper Bear Creek	538UBC-ROCH-1-032201	California Roach	9.04	-35.47
22-Mar-01	Upper Bear Creek	538UBC-ROCH-2A-032201	California Roach	7.32	-36.11

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<u>Date</u>	<u>Site</u>	<u>Sample ID</u>	<u>Type</u>	<u>15N</u>	<u>13C</u>
22-Mar-01	Upper Bear Creek	538UBC-ROCH-2B-032201	California Roach	8.24	-35.38
22-Mar-01	Upper Bear Creek	538UBC-ROCH-2C-032201	California Roach	7.62	-36.06
3-May-01	Upper Bear Creek	538UBC-ROCH-1-050301	California Roach	9.09	-33.50
3-May-01	Upper Bear Creek	538UBC-ROCH-2A-050301	California Roach	8.95	-33.83
3-May-01	Upper Bear Creek	538UBC-ROCH-2B-050301	California Roach	9.30	-33.58
3-May-01	Upper Bear Creek	538UBC-ROCH-2C-050301	California Roach	9.50	-33.74
3-May-01	Upper Bear Creek	538UBC-ROCH-3-050301	California Roach	8.91	-33.67
7-Jun-01	Upper Bear Creek	538UBC-ROCH-2A-060701	California Roach	10.06	-34.87
7-Jun-01	Upper Bear Creek	538UBC-ROCH-2B-060701	California Roach	10.22	-34.05
7-Jun-01	Upper Bear Creek	538UBC-ROCH-2C-060701	California Roach	10.75	-34.89
14-Mar-00	Mid Bear Creek blw Sulfur	550BRC-California Roach-2B--031400	California Roach	21.08	-28.26
9-May-00	Mid Bear Creek blw Sulfur	550BRC-California Roach-2A-050900	California Roach	18.89	-29.40
9-May-00	Mid Bear Creek blw Sulfur	550BRC-California Roach-2B-050900	California Roach	18.64	-29.74
9-May-00	Mid Bear Creek blw Sulfur	550BRC-California Roach-2C-050900	California Roach	18.92	-29.25
1-Aug-00	Mid Bear Creek blw Sulfur	550BRC-California Roach-2C-080100	California Roach	21.04	-31.42
1-Aug-00	Mid Bear Creek blw Sulfur	550BRC-California Roach-2A-080100	California Roach	20.89	-32.11
1-Aug-00	Mid Bear Creek blw Sulfur	550BRC-California Roach-2B-080100	California Roach	20.94	-32.34
14-Nov-00	Mid Bear Creek blw Sulfur	550BRC-California Roach-2C-111400	California Roach	24.46	-29.29
14-Nov-00	Mid Bear Creek blw Sulfur	550BRC-California Roach-2B-111400	California Roach	23.85	-28.67
14-Nov-00	Mid Bear Creek blw Sulfur	550BRC-California Roach-2A-111400	California Roach	23.72	-30.33
15-Feb-01	Mid Bear Creek blw Sulfur	550BRC-ROCH-1-021501	California Roach	24.75	-27.60
15-Feb-01	Mid Bear Creek blw Sulfur	550BRC-ROCH-2A-021501	California Roach	23.00	-28.77
15-Feb-01	Mid Bear Creek blw Sulfur	550BRC-ROCH-2B-021501	California Roach	24.26	-28.99
15-Feb-01	Mid Bear Creek blw Sulfur	550BRC-ROCH-2C-021501	California Roach	23.80	-28.74
22-Mar-01	Mid Bear Creek blw Sulfur	550BRC-ROCH-1-032201	California Roach	22.71	-27.70
22-Mar-01	Mid Bear Creek blw Sulfur	550BRC-ROCH-2A-032201	California Roach	21.87	-28.28
22-Mar-01	Mid Bear Creek blw Sulfur	550BRC-ROCH-2B-032201	California Roach	21.62	-27.72
22-Mar-01	Mid Bear Creek blw Sulfur	550BRC-ROCH-2C-032201	California Roach	22.36	-27.84
3-May-01	Mid Bear Creek blw Sulfur	550BRC-ROCH-1-050301	California Roach	22.30	-27.27
3-May-01	Mid Bear Creek blw Sulfur	550BRC-ROCH-2A-050301	California Roach	21.78	-26.92
3-May-01	Mid Bear Creek blw Sulfur	550BRC-ROCH-2B-050301	California Roach	21.23	-26.95

Appendix, Table 4. Stable Isotope Data

<u>Date</u>	<u>Site</u>	<u>Sample ID</u>	<u>Type</u>	<u>15N</u>	<u>13C</u>
3-May-01	Mid Bear Creek blw Sulfur	550BRC-ROCH-2C-050301	California Roach	21.87	-27.17
3-May-01	Mid Bear Creek blw Sulfur	550BRC-ROCH-3-050301	California Roach	20.64	-27.73
17-Feb-00	Cache Creek @ Rumsey	560RUM-RDSH-1-021700	Red Shiners	8.88	-21.99
17-Feb-00	Cache Creek @ Rumsey	560RUM-RDSH-2-021700	Red Shiners	6.43	-31.19
9-May-00	Cache Creek @ Rumsey	560RUM-RDSH-2-050900	Red Shiners	9.27	-25.15
10-Nov-00	Cache Creek @ Rumsey	560RUM-RDSH-1-111000	Red Shiners	8.31	-20.57
22-May-00	Cache Ck. Blw Hwy 505	565SOL-RDSH-2C-052200	Red Shiners	8.14	-28.08
22-May-00	Cache Ck. Blw Hwy 505	565SOL-RDSH-2B-052200	Red Shiners	8.45	-28.47
22-May-00	Cache Ck. Blw Hwy 505	565SOL-RDSH-2A-052200	Red Shiners	7.78	-28.82
1-Aug-00	Cache Ck. Blw Hwy 505	565SOL-RDSH-2-080100	Red Shiners	7.99	-26.97
10-Nov-00	Cache Ck. Blw Hwy 505	565SOL-RDSH-2C-111000	Red Shiners	9.10	-26.49
10-Nov-00	Cache Ck. Blw Hwy 505	565SOL-RDSH-2B-111000	Red Shiners	9.14	-25.64
10-Nov-00	Cache Ck. Blw Hwy 505	565SOL-RDSH-2A-111000	Red Shiners	8.92	-26.34
15-Feb-01	Cache Ck. Blw Hwy 505	565SOL-RDSH-2-021501	Red Shiners	9.28	-27.60
15-Feb-01	Cache Ck. Blw Hwy 505	565SOL-RDSH-1-021501	Red Shiners	9.21	-28.40
22-May-00	Cache Ck. Blw Yolo	570YSB-RDSH-2C-052200	Red Shiners	9.31	-26.69
22-May-00	Cache Ck. Blw Yolo	570YSB-RDSH-2B-052200	Red Shiners	8.67	-28.80
22-May-00	Cache Ck. Blw Yolo	570YSB-RDSH-2A-052200	Red Shiners	9.07	-28.09
1-Aug-00	Cache Ck. Blw Yolo	570YSB-RDSH-2C-080100	Red Shiners	8.91	-24.81
1-Aug-00	Cache Ck. Blw Yolo	570YSB-RDSH-2B-080100	Red Shiners	8.48	-25.41
1-Aug-00	Cache Ck. Blw Yolo	570YSB-RDSH-2A-080100	Red Shiners	8.65	-25.48
27-Nov-00	Cache Ck. Blw Yolo	570YSB-RDSH-2C-112700	Red Shiners	9.90	-25.19
27-Nov-00	Cache Ck. Blw Yolo	570YSB-RDSH-2B-112700	Red Shiners	9.89	-24.75
27-Nov-00	Cache Ck. Blw Yolo	570YSB-RDSH-2A-112700	Red Shiners	10.19	-23.76
27-Nov-00	Cache Ck. Blw Yolo	570YSB-RDSH-1-112700	Red Shiners	11.32	-24.34
8-May-00	North Fork Cache Creek	520NFC-SPDA-1-050800	Speckled Dace	9.01	-24.35
14-Nov-00	North Fork Cache Creek	520NFC-SPDA-1-111400	Speckled Dace	8.02	-26.30
20-Feb-01	North Fork Cache Creek	520NFC-SPDA-1-022001	Speckled Dace	8.46	-25.26
15-May-01	North Fork Cache Creek	520NFC-SPDA-1A-051501	Speckled Dace	8.61	-25.07
15-May-01	North Fork Cache Creek	520NFC-SPDA-1B-051501	Speckled Dace	8.78	-25.33
15-May-01	North Fork Cache Creek	520NFC-SPDA-1C-051501	Speckled Dace	8.69	-25.25

Appendix, Table 4. Stable Isotope Data

<u>Date</u>	<u>Site</u>	<u>Sample ID</u>	<u>Type</u>	<u>15N</u>	<u>13C</u>
15-May-01	North Fork Cache Creek	520NFC-SPDA-2-051501	Speckled Dace	8.98	-24.95
8-May-01	Davis Ck. At Cache	536DCA-SPDA-1A-050801	Speckled Dace	6.85	-27.38
8-May-01	Davis Ck. At Cache	536DCA-SPDA-1B-050801	Speckled Dace	6.64	-28.21
8-May-01	Davis Ck. At Cache	536DCA-SPDA-1C-050801	Speckled Dace	7.20	-27.46
17-Feb-00	Cache Creek @ Rumsey	560RUM-SPDA-1-021700	Speckled Dace	9.86	-23.08
17-Feb-00	Cache Creek @ Rumsey	560RUM-SPDA-2-021700	Speckled Dace	9.94	-22.65
9-May-00	Cache Creek @ Rumsey	560RUM-SPDA-1A-050900	Speckled Dace	9.69	-24.45
9-May-00	Cache Creek @ Rumsey	560RUM-SPDA-1B-050900	Speckled Dace	9.96	-23.93
1-Aug-00	Cache Creek @ Rumsey	560RUM-SPDA-1A-080100	Speckled Dace	8.46	-22.90
1-Aug-00	Cache Creek @ Rumsey	560RUM-SPDA-1B-080100	Speckled Dace	8.89	-22.69
1-Aug-00	Cache Creek @ Rumsey	560RUM-SPDA-1C-080100	Speckled Dace	8.65	-22.85
10-Nov-00	Cache Creek @ Rumsey	560RUM-SPDA-2-111000	Speckled Dace	9.35	-23.09
10-Nov-00	Cache Creek @ Rumsey	560RUM-SPDA-1C-111000	Speckled Dace	9.22	-22.84
10-Nov-00	Cache Creek @ Rumsey	560RUM-SPDA-1B-111000	Speckled Dace	8.90	-22.64
10-Nov-00	Cache Creek @ Rumsey	560RUM-SPDA-1A-111000	Speckled Dace	9.42	-22.13
15-Feb-01	Cache Creek @ Rumsey	560RUM-SPDA-1B-021501	Speckled Dace	9.35	-23.08
15-Feb-01	Cache Creek @ Rumsey	560RUM-SPDA-1A-021501	Speckled Dace	9.51	-22.89
15-May-01	Cache Creek @ Rumsey	560RUM-SPDA-1C-051501	Speckled Dace	9.95	-23.62
15-May-01	Cache Creek @ Rumsey	560RUM-SPDA-1B-051501	Speckled Dace	10.08	-22.72
15-May-01	Cache Creek @ Rumsey	560RUM-SPDA-1A-051501	Speckled Dace	9.93	-22.54
10-Nov-00	Cache Ck. Blw Hwy 505	565SOL-SPDA-1C-111000	Speckled Dace	8.34	-28.32
10-Nov-00	Cache Ck. Blw Hwy 505	565SOL-SPDA-1B-111000	Speckled Dace	8.23	-29.16
10-Nov-00	Cache Ck. Blw Hwy 505	565SOL-SPDA-1A-111000	Speckled Dace	8.04	-29.09
15-Feb-01	Cache Ck. Blw Hwy 505	565SOL-SPDA-1-021501	Speckled Dace	8.48	-30.17
24-May-00	Middle Ck.	505MID-SSUC-1-052400	Juv. Sac. Sucker	8.62	-32.83
24-May-00	Cache Ck. blw Clear Lake	510CLO-SSUC-2-052400	Juv. Sac. Sucker	8.74	-25.63
7-Aug-00	Cache Ck. blw Clear Lake	510CLO-SSUC-2-080700	Juv. Sac. Sucker	7.24	-24.03
25-Feb-00	North Fork Cache Creek	520NFC-SSUC-1-022500	Juv. Sac. Sucker	8.85	-23.96
8-May-00	North Fork Cache Creek	520NFC-SSUC-1-050800	Juv. Sac. Sucker	8.54	-23.78
7-Aug-00	North Fork Cache Creek	520NFC-SSUC-1-080700	Juv. Sac. Sucker	7.80	-23.37
7-Aug-00	North Fork Cache Creek	520NFC-SSUC-2-080700	Juv. Sac. Sucker	7.81	-24.24

Appendix, Table 4. Stable Isotope Data

<u>Date</u>	<u>Site</u>	<u>Sample ID</u>	<u>Type</u>	<u>15N</u>	<u>13C</u>
14-Nov-00	North Fork Cache Creek	520NFC-SSUC-1-111400	Juv. Sac. Sucker	8.26	-24.51
20-Feb-01	North Fork Cache Creek	520NFC-SSUC-1A-022001	Juv. Sac. Sucker	8.25	-24.02
20-Feb-01	North Fork Cache Creek	520NFC-SSUC-1B-022001	Juv. Sac. Sucker	8.10	-24.06
15-May-01	North Fork Cache Creek	520NFC-SSUC-1-051501	Juv. Sac. Sucker	8.79	-24.88
4-Aug-00	Davis Ck. Below DCR	535DAV-SSUC-1-080400	Juv. Sac. Sucker	7.84	-31.20
14-Nov-00	Upper Bear Creek	538UBC-SSUC-2-111400	Juv. Sac. Sucker	7.21	-35.97
1-Aug-00	Mid Bear Creek blw Sulfur	550BRC-SSUC-1-080100	Juv. Sac. Sucker	20.24	-29.61
14-Nov-00	Mid Bear Creek blw Sulfur	550BRC-SSUC-1-111400	Juv. Sac. Sucker	24.34	-27.88
17-Feb-00	Cache Creek @ Rumsey	560RUM-SSUC-1b-021700	Juv. Sac. Sucker	8.02	-21.71
17-Feb-00	Cache Creek @ Rumsey	560RUM-SSUC-1a-021700	Juv. Sac. Sucker	8.68	-21.43
9-May-00	Cache Creek @ Rumsey	560RUM-SSUC-1-050900	Juv. Sac. Sucker	8.82	-23.46
1-Aug-00	Cache Creek @ Rumsey	560RUM-SSUC-2-080100	Juv. Sac. Sucker	8.13	-21.06
1-Aug-00	Cache Creek @ Rumsey	560RUM-SSUC-1-080100	Juv. Sac. Sucker	7.43	-20.66
10-Nov-00	Cache Creek @ Rumsey	560RUM-SSUC-1-111000	Juv. Sac. Sucker	8.27	-20.97
15-Feb-01	Cache Creek @ Rumsey	560RUM-SSUC-1/2-021501	Juv. Sac. Sucker	8.30	-20.42
15-May-01	Cache Creek @ Rumsey	560RUM-SSUC-1/2-051501	Juv. Sac. Sucker	9.86	-24.18
22-May-00	Cache Ck. Blw Hwy 505	565SOL-SSUC-1-052200	Juv. Sac. Sucker	6.71	-26.40
1-Aug-00	Cache Ck. Blw Hwy 505	565SOL-SSUC-1B-080100	Juv. Sac. Sucker	9.61	-27.57
1-Aug-00	Cache Ck. Blw Hwy 505	565SOL-SSUC-1A-080100	Juv. Sac. Sucker	9.19	-27.49
10-Nov-00	Cache Ck. Blw Hwy 505	565SOL-SSUC-2-111000	Juv. Sac. Sucker	8.21	-28.04
10-Nov-00	Cache Ck. Blw Hwy 505	565SOL-SSUC-1-111000	Juv. Sac. Sucker	8.34	-28.74
15-Feb-01	Cache Ck. Blw Hwy 505	565SOL-SSUC-2-021501	Juv. Sac. Sucker	8.12	-29.36
15-Feb-01	Cache Ck. Blw Hwy 505	565SOL-SSUC-1-021501	Juv. Sac. Sucker	7.96	-32.44
22-May-00	Cache Ck. Blw Yolo	570YSB-SSUC-1-052200	Juv. Sac. Sucker	7.68	-26.16
1-Aug-00	Cache Ck. Blw Yolo	570YSB-SSUC-1-080100	Juv. Sac. Sucker	8.70	-24.59
13-Nov-00	Cache Ck. blw Clear Lake	510CLO-Bgill-1-35/123TL-113000	Bluegill	8.76	-22.11
13-Nov-00	Cache Ck. blw Clear Lake	510CLO-Bgill-2-42/129TL-113000	Bluegill	8.93	-22.53
13-Nov-00	Cache Ck. blw Clear Lake	510CLO-Bgill-3-90/161TL-113000	Bluegill	9.18	-21.74
13-Nov-00	Cache Ck. blw Clear Lake	510CLO-Bgill-4-95/159TL-113000	Bluegill	8.96	-21.35
13-Nov-00	Cache Ck. blw Clear Lake	510CLO-Bgill-6-120/170TL-113000	Bluegill	9.63	-22.25
13-Nov-00	Cache Ck. blw Clear Lake	510CLO-LMB-1-40/143TL-113000	Largemouth Bass	10.02	-21.02

Appendix, Table 4. Stable Isotope Data

<u>Date</u>	<u>Site</u>	<u>Sample ID</u>	<u>Type</u>	<u>15N</u>	<u>13C</u>
13-Nov-00	Cache Ck. blw Clear Lake	510CLO-LMB-3-70/171TL-113000	Largemouth Bass	9.82	-21.19
13-Nov-00	Cache Ck. blw Clear Lake	510CLO-LMB-4-75/170TL-113000	Largemouth Bass	9.46	-20.43
13-Nov-00	Cache Ck. blw Clear Lake	510CLO-LMB-7-145/212TL-113000	Largemouth Bass	9.41	-20.72
13-Nov-00	Cache Ck. blw Clear Lake	510CLO-LMB-8-365/287TL-113000	Largemouth Bass	10.61	-22.20
13-Nov-00	Cache Ck. blw Clear Lake	510CLO-LMB-9-795/343TL-113000	Largemouth Bass	10.84	-22.19
13-Nov-00	Cache Ck. blw Clear Lake	510CLO-LMB-12-1215/412TL-113000	Largemouth Bass	11.54	-21.60
13-Nov-00	Cache Ck. blw Clear Lake	510CLO-LMB-13-1825/460TL-113000	Largemouth Bass	13.02	-22.56
30-Nov-00	Cache Ck. blw Clear Lake	510CLO-SSUC-1-160/245TL-113000	Sacramento Sucker	8.39	-21.69
30-Nov-00	Cache Ck. blw Clear Lake	510CLO-SSUC-2-228/272TL-113000	Sacramento Sucker	8.10	-22.21
30-Nov-00	Cache Ck. blw Clear Lake	510CLO-SSUC-4-355/307TL-113000	Sacramento Sucker	8.11	-21.60
30-Nov-00	Cache Ck. blw Clear Lake	510CLO-SSUC-7-1155/450TL-113000	Sacramento Sucker	8.77	-22.53
30-Nov-00	Cache Ck. blw Clear Lake	510CLO-SSUC-8-975/428TL-113000	Sacramento Sucker	9.29	-23.35
30-Nov-00	Cache Ck. blw Clear Lake	510CLO-SSUC-10-1120/436TL-113000	Sacramento Sucker	9.16	-23.42
13-Nov-00	Cache Ck. blw Clear Lake	510CLO-WhCAT-75/200TL-1-113000	White Catfish	8.32	-20.89
22-Nov-00	North Fork Cache Creek	520NFC-SPM-4-110/253TL-112200	Pike Minnow	10.29	-21.55
22-Nov-00	North Fork Cache Creek	520NFC-SPM-5-95/235TL-112200	Pike Minnow	9.66	-20.67
22-Nov-00	North Fork Cache Creek	520NFC-SPM-6-115/244TL-112200	Pike Minnow	9.93	-22.00
22-Nov-00	North Fork Cache Creek	520NFC-SPM-8-145/262TL-112200	Pike Minnow	10.26	-21.15
14-Nov-00	North Fork Cache Creek	520NFC-SSUC-1-630/385TL-111400	Sacramento Sucker	8.75	-22.73
14-Nov-00	North Fork Cache Creek	520NFC-SSUC-2-635/389TL-111400	Sacramento Sucker	8.29	-22.25
14-Nov-00	North Fork Cache Creek	520NFC-SSUC-5-215/277TL-111400	Sacramento Sucker	8.10	-22.89
14-Nov-00	North Fork Cache Creek	520NFC-SSUC-9-700/395TL-111400	Sacramento Sucker	7.92	-21.37
14-Nov-00	North Fork Cache Creek	520NFC-SSUC-10-860/408TL-111400	Sacramento Sucker	8.74	-22.33
22-Nov-00	North Fork Cache Creek	520NFC-SMB-1-430/315TL-112200	Smallmouth Bass	11.20	-20.94
22-Nov-00	Upper Bear Creek	538UBC-SSUC-3-52/167TL-112200	Sacramento Sucker	6.16	-33.22
22-Nov-00	Upper Bear Creek	538UBC-SSUC-4-65/178TL-112200	Sacramento Sucker	6.73	-34.49
22-Nov-00	Upper Bear Creek	538UBC-SSUC-5-150/243TL-112200	Sacramento Sucker	8.55	-32.88
22-Nov-00	Upper Bear Creek	538UBC-SSUC-6-170/249TL-112200	Sacramento Sucker	9.71	-32.35
22-Nov-00	Upper Bear Creek	538UBC-SSUC-11-255/282TL-112200	Sacramento Sucker	7.62	-32.11
14-Nov-00	Upper Bear Creek	538UBC-SPM-1-95/223TL-111400	Pike Minnow	11.87	-33.66
14-Nov-00	Upper Bear Creek	538UBC-SPM-5-150/268TL-111400	Pike Minnow	14.33	-31.50

Appendix, Table 4. Stable Isotope Data

<u>Date</u>	<u>Site</u>	<u>Sample ID</u>	<u>Type</u>	<u>15N</u>	<u>13C</u>
14-Nov-00	Upper Bear Creek	538UBC-SPM-7-160/261TL-111400	Pike Minnow	11.26	-33.09
14-Nov-00	Upper Bear Creek	538UBC-SPM-8-210/285TL-111400	Pike Minnow	11.77	-31.71
14-Nov-00	Upper Bear Creek	538UBC-SPM-12-235/310TL-111400	Pike Minnow	12.73	-33.12
22-Nov-00	Mid Bear Creek blw Sulfur	550BRC-SPM-1-55/202TL-112200	Pike Minnow	23.08	-25.53
22-Nov-00	Mid Bear Creek blw Sulfur	550BRC-SPM-2-50/185TL-112200	Pike Minnow	24.43	-26.07
22-Nov-00	Mid Bear Creek blw Sulfur	550BRC-SPM-6-140/264TL-112200	Pike Minnow	21.02	-25.78
22-Nov-00	Mid Bear Creek blw Sulfur	550BRC-SPM-9-145/272TL-112200	Pike Minnow	20.93	-26.17
22-Nov-00	Mid Bear Creek blw Sulfur	550BRC-SPM-11-145/261TL-112200	Pike Minnow	21.04	-25.76
22-Nov-00	Mid Bear Creek blw Sulfur	550BRC-SPM-14-345/339TL-112200	Pike Minnow	22.22	-26.42
22-Nov-00	Mid Bear Creek blw Sulfur	550BRC-SPM-15-570/417TL-112200	Pike Minnow	21.79	-25.78
22-Nov-00	Mid Bear Creek blw Sulfur	550BRC-SSUC-3-140/244TL-112200	Sacramento Sucker	22.29	-27.12
22-Nov-00	Mid Bear Creek blw Sulfur	550BRC-SSUC-4-175/257TL-112200	Sacramento Sucker	21.92	-26.02
22-Nov-00	Mid Bear Creek blw Sulfur	550BRC-SSUC-5-165/252TL-112200	Sacramento Sucker	21.93	-26.54
8-Dec-00	Cache Creek @ Rumsey	560RUM-ChCAT-1-565/411TL-120800	Channel Catfish	9.87	-22.07
28-Nov-00	Cache Creek @ Rumsey	560RUM-SPM-2-300/340TL-112800	Pike Minnow	11.85	-20.09
28-Nov-00	Cache Creek @ Rumsey	560RUM-SPM-3-375/367TL-112800	Pike Minnow	11.26	-19.62
1-Dec-00	Cache Creek @ Rumsey	560RUM-SPM-1-45/187TL-120100	Pike Minnow	10.32	-21.13
8-Dec-00	Cache Creek @ Rumsey	560RUM-SPM-6-55/207TL-120800	Pike Minnow	10.53	-19.61
8-Dec-00	Cache Creek @ Rumsey	560RUM-SPM-8-125/262TL-120800	Pike Minnow	13.73	-21.86
8-Dec-00	Cache Creek @ Rumsey	560RUM-SPM-11-1225/495TL-120800	Pike Minnow	12.21	-20.21
28-Nov-00	Cache Creek @ Rumsey	560RUM-SSUC-3-400/335TL-112800	Sacramento Sucker	9.58	-21.21
28-Nov-00	Cache Creek @ Rumsey	560RUM-SSUC-5-475/350TL-112800	Sacramento Sucker	9.19	-20.34
28-Nov-00	Cache Creek @ Rumsey	560RUM-SSUC-7-495/366TL-112800	Sacramento Sucker	9.21	-20.98
28-Nov-00	Cache Creek @ Rumsey	560RUM-SSUC-10-970/458TL-112800	Sacramento Sucker	9.96	-21.01
8-Dec-00	Cache Creek @ Rumsey	560RUM-Smbass-8-50/153TL-120800	Smallmouth Bass	10.26	-20.08
8-Dec-00	Cache Creek @ Rumsey	560RUM-Smbass-11-225/262TL-120800	Smallmouth Bass	11.41	-20.15
28-Nov-00	Cache Creek @ Rumsey	560RUM-Smbass-7-248/265TL-112800	Smallmouth Bass	10.89	-20.00
8-Dec-00	Cache Creek @ Rumsey	560RUM-Smbass-12-250/267TL-120800	Smallmouth Bass	11.23	-19.82
8-Dec-00	Cache Creek @ Rumsey	560RUM-Smbass-18-535/331TL-120800	Smallmouth Bass	11.63	-20.00
1-Dec-00	Cache Creek @ Rumsey	560RUM-Smbass-2-950/400TL-120100	Smallmouth Bass	12.24	-20.37
1-Dec-00	Cache Creek @ Rumsey	560RUM-WCAT-1-65/187TL-120100	White Catfish	9.96	-20.68

Appendix, Table 4. Stable Isotope Data

<u>Date</u>	<u>Site</u>	<u>Sample ID</u>	<u>Type</u>	<u>15N</u>	<u>13C</u>
1-Dec-00	Cache Creek @ Rumsey	560RUM-WCAT-2-80/202TL-120100	White Catfish	10.44	-21.84
29-Nov-00	Cache Ck. Blw Hwy 505	565SOL-BGill-1-30/115TL-112900	Bluegill	10.27	-27.02
29-Nov-00	Cache Ck. Blw Hwy 505	565SOL-ChCAT-1-380/368TL-112900	Channel Catfish	10.22	-22.00
29-Nov-00	Cache Ck. Blw Hwy 505	565SOL-SPM-4-112/246TL-112900	Pike Minnow	10.33	-25.75
29-Nov-00	Cache Ck. Blw Hwy 505	565SOL-SPM-5-125/258TL-112900	Pike Minnow	9.33	-25.45
29-Nov-00	Cache Ck. Blw Hwy 505	565SOL-SPM-6-130/252TL-112900	Pike Minnow	10.28	-26.16
29-Nov-00	Cache Ck. Blw Hwy 505	565SOL-SPM-7-145/272TL-112900	Pike Minnow	11.37	-22.82
29-Nov-00	Cache Ck. Blw Hwy 505	565SOL-SSUC-1-85/215TL-112900	Sacramento Sucker	8.08	-28.32
29-Nov-00	Cache Ck. Blw Hwy 505	565SOL-SSUC-3-210/271TL-112900	Sacramento Sucker	7.94	-27.33
29-Nov-00	Cache Ck. Blw Hwy 505	565SOL-SSUC-5-240/282TL-112900	Sacramento Sucker	8.36	-27.10
29-Nov-00	Cache Ck. Blw Hwy 505	565SOL-SSUC-6-540/359TL-112900	Sacramento Sucker	8.76	-26.19
29-Nov-00	Cache Ck. Blw Hwy 505	565SOL-SSUC-10-925/430TL-112900	Sacramento Sucker	10.19	-26.97
29-Nov-00	Cache Ck. Blw Hwy 505	565SOL-SMB-1-55/163TL-112900	Smallmouth Bass	10.69	-25.48
29-Nov-00	Cache Ck. Blw Hwy 505	565SOL-SMB-4-59/169TL-112900	Smallmouth Bass	9.73	-25.83
29-Nov-00	Cache Ck. Blw Hwy 505	565SOL-SMB-7-248/273TL-112900	Smallmouth Bass	10.56	-25.10
29-Nov-00	Cache Ck. Blw Hwy 505	565SOL-SMB-8-245/265TL-112900	Smallmouth Bass	11.62	-21.81
27-Nov-00	Cache Ck. Blw Yolo	570YSB-SSUC-2-265/290TL-112700	Sacramento Sucker	10.28	-23.68
27-Nov-00	Cache Ck. Blw Yolo	570YSB-SSUC-3-420/345TL-112700	Sacramento Sucker	10.34	-24.76
27-Nov-00	Cache Ck. Blw Yolo	570YSB-SSUC-4-415/350TL-112700	Sacramento Sucker	11.07	-25.11
6-Dec-00	Cache Ck. Blw Yolo	570YSB-SSUC-5-530/380TL-120600	Sacramento Sucker	10.12	-25.12
6-Dec-00	Cache Ck. Blw Yolo	570YSB-SMB-1-155/224TL-120600	Smallmouth Bass	11.10	-23.40
6-Dec-00	Cache Ck. Blw Yolo	570YSB-SMB-2-175/238TL-120600	Smallmouth Bass	11.50	-23.83

Appendix, Table 5. Water Data

UC DAVIS - CACHE CREEK CALFED

(underlined values are means of laboratory or field replicates)

(values in italics denote apparent anomalies or lab errors)

(flagged filtered MeHg that are greater than raw values to be reduced to same # as raw, for comparison to biota)

(values in bold also indicate apparent anomalies)

(strikethroughs for tss and particulates are to be removed based on tss less than one, or negative value)

Sample Description	Sample ID	Date	Date Code	Time	Temp °C	FLOW (cfs)	Stage (ft)	Flow Information Source	THg Raw ng/l	BD	THg Filt ng/l	BD	THg ppm on particles	MMHg Raw ng/l	BD	MMHg Filt ng/l	BD	MMHg ppb on particles	TSS mg/l	THg Filt. %	MMHg Filt. %
Middle Creek	505 MID	3/2/00	2000.169	940				DWR gage	8.0		2.2		0.07	0.15		0.024	BD	1.61	78.00	27.5%	15.8%
Middle Creek	505 MID	6/13/00	2000.454	1340	22.8	2.0		UCD estimate	1.3		1.2		0.07	0.05		0.238		-107.73	1.76	90.2%	491.7%
Cache Ck. blw Clear Lake	510 CLO	1/31/00	2000.085	940		3.5		UCD estimate	7.5		5.3		0.10	0.11		0.110		0.05	22.00	71.0%	99.1%
Cache Ck. blw Clear Lake	510 CLO	3/2/00	2000.169	1045		2000.0		UCD estimate	10.9		1.4		0.23	0.15		0.068		1.86	41.50	12.4%	46.7%
Cache Ck. blw Clear Lake	510 CLO	4/17/00	2000.295	1110		1000.0		UCD estimate	6.9		1.4		0.16	0.47		0.129		9.80	34.40	20.5%	27.7%
Cache Ck. blw Clear Lake	510 CLO	6/13/00	2000.454	1220	20.8	645.0		CLO Damkeeper	3.5		0.6		0.20	0.12		0.026		6.85	14.24	18.0%	21.3%
Cache Ck. blw Clear Lake	510 CLO	6/10/00	2000.609	1155	23.7	500.0		CLO Damkeeper	7.6		0.5		0.21	0.18		0.021	BD	4.84	33.36	6.3%	11.3%
Cache Ck. blw Clear Lake	510 CLO	10/11/00	2000.779	1145	16.5	250.0		CLO Damkeeper	4.4		0.2		0.26	0.03	BD	0.027	BD	0.00	15.85	5.4%	100.0%
Cache Ck. blw Clear Lake	510 CLO	11/7/00	2000.852	1000	11	5		UCD estimate	0.3		0.3		-0.01	0.02	BD	0.025	BD	-1.93	2.64	108.9%	125.5%
Cache Ck. blw Clear Lake	510CLO	12/11/00	2000.945	1100	7.0	10.0		UCD estimate	0.5		0.2		0.24	0.02	BD	0.028	BD	-6.57	0.99	49.6%	130.0%
Cache Ck. blw Clear Lake	510CLO	1/11/01	2001.030	1055	5.0	10.0		UCD estimate	7.6		1.0		0.14	0.05		0.024	BD	0.56	48.87	13.0%	46.2%
Cache Ck. blw Clear Lake	510CLO	2/13/01	2001.121	1140		7.0		UCD estimate	3.5		1.7		0.21	0.09		0.048		4.65	8.37	49.7%	55.2%
Cache Ck. blw Clear Lake	510CLO	3/22/01	2001.222	1045	13.2	7.5		UCD estimate	8.8		2.3		0.15	0.14		0.028		2.46	44.83	25.5%	20.2%
Cache Ck. blw Clear Lake	510CLO	5/3/01	2001.337	1040	15.0	10.0		UCD estimate	2.5		0.6		0.11	0.26		0.082		9.95	17.61	25.0%	31.8%
Cache Ck. blw Clear Lake	510CLO	6/7/01	2001.433	1125	21.5	150.0		CLO Damkeeper	2.5		0.5		0.13	0.13		0.045		5.97	14.98	21.3%	33.2%
North Fork Cache Creek	520 NFC	1/31/00	2000.085	1035		156.0		USGS Discharge Meas.	149.0		4.8		0.18	0.17		0.223		-0.07	801.00	3.2%	132.0%
North Fork Cache Creek	520 NFC	3/2/00	2000.169	1200				USGS Discharge Meas.	16.7		1.4		0.12	0.07		0.023	BD	0.34	130.00	8.4%	34.5%
North Fork Cache Creek	520 NFC	3/16/00	2000.208	1040				USGS Discharge Meas.	4.1		0.9		0.16	0.05		0.065		-0.71	20.27	21.2%	128.8%
North Fork Cache Creek	520 NFC	4/17/00	2000.295	1200				USGS Discharge Meas.	3.5		1.2		0.19	0.02	BD	0.022	BD	0.10	11.70	35.1%	94.8%
North Fork Cache Creek	520 NFC	6/13/00	2000.454	1450	18.5	30.0		UCD estimate	1.8		0.8		0.15	0.08		0.022	BD	8.80	6.61	45.1%	27.5%
North Fork Cache Creek	520 NFC	8/10/00	2000.609	1240	21.5	10.0		UCD estimate	2.2		1.1		0.42	0.19		0.035		58.42	2.66	48.4%	18.2%
North Fork Cache Creek	520 NFC	10/11/00	2000.779	1225	13.2	7.0		UCD estimate	2.6		0.9		0.92	0.04		0.027	BD	5.34	1.93	33.0%	72.5%
North Fork Cache Creek	520 NFC	11/7/00	2000.852	1115	11	8		UCD estimate	1.3		1.1		0.12	0.02	BD	0.037		-16.23	1.06	89.8%	186.0%
North Fork Cache Creek	520NFC	12/11/00	2000.945	1215	7.0	10.0		UCD estimate	1.8		0.6		1.32	0.03		0.028	BD	-0.80	0.88	34.6%	102.6%
North Fork Cache Creek	520NFC	1/11/01	2001.030	1205	6.0			USGS Discharge Meas.	9.5		2.1		0.24	0.06		0.039		0.80	31.04	22.1%	61.0%
North Fork Cache Creek	520NFC	2/13/01	2001.121	1340	7.0			USGS Discharge Meas.	2.6		1.6		0.25	0.05		0.050		-0.61	4.11	61.5%	105.3%
North Fork Cache Creek	520NFC	3/22/01	2001.222	1145	17.0			USGS Discharge Meas.	2.3		1.2		0.26	0.09		0.043		11.65	4.25	52.8%	46.6%
North Fork Cache Creek	520NFC	5/3/01	2001.337	1140	13.0			Indian Valley Release	5.1		0.8		0.12	0.07		0.018		1.54	35.03	15.7%	25.2%
Harley Gulch	530 HAR	1/31/00	2000.085	1105			1.27	USGS gage	831.0		71.3		16.62	0.98		0.628		7.77	45.70	8.6%	63.9%
Harley Gulch	530 HAR	2/14/00	2000.123				1.90	USGS gage	493.0		42.2		4.05	0.35		0.298		0.50	111.40	8.6%	84.2%
Harley Gulch	530 HAR	3/2/00	2000.169	1230			1.17	USGS gage	101.0		39.1		15.87	0.12		0.102		4.87	3.90	38.7%	84.3%
Harley Gulch	530 HAR	4/17/00	2000.295	1230			1.12	USGS gage	140.0		63.6		24.65	0.45		0.409		14.19	3.10	45.4%	90.3%
Harley Gulch	530 HAR	6/13/00	2000.454	1520	23.7	0.1		USGS gage	197.0		89.6		33.56	7.76		1.570		1934.38	3.20	45.5%	20.2%
Harley Gulch	530HAR	1/11/01	2001.030	1245	6.5		0.96	USGS gage	365.5		186.0		102.57	1.09		0.450		364.57	1.75	50.9%	41.4%
Harley Gulch	530HAR	2/13/01	2001.121	1410	7.5		0.99	USGS gage	168.5		92.8		55.26	0.66		0.395		195.26	1.37	55.1%	59.6%
Harley Gulch	530HAR	5/3/01	2001.337	1205	13.0			USGS gage	265.0		106.0		47.18	8.56		7.130		422.85	3.37	40.0%	83.3%
Davis Ck above DCR	533 DC5	6/13/00	2000.454	1040	18.0	0.4		UCD estimate	49.2		9.0		16.45	0.36		0.180		72.69	2.49	17.9%	49.9%
Davis Ck above DCR	533 DC5	8/10/00	2000.609	1040	15.0	1.5cfm		UCD estimate	114.0		8.3		76.07	0.24		0.171		51.08	1.39	7.2%	70.7%
Davis Ck above DCR	533 DC5	11/6/00	2000.850	1530	9	0.05		UCD estimate	52.6		7.6		22.64	0.11		0.186		-39.20	1.99	14.4%	172.2%

Appendix, Table 5. Water Data

UC DAVIS - CACHE CREEK CALFED

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(values in bold also indicate apparent anomalies)

(strikethroughs for tss and particulates are to be removed based on tss less than one, or negative value)

Sample Description	Sample ID	Date	Date Code	Time	Temp	FLOW (cfs)	Stage (ft)	Flow Information Source	THg Raw ng/l	BD	THg Filt.ng/l	BD	THg ppm on particles	MMHg Raw ng/l	BD	MMHg Filt. ng/l	BD	MMHg ppb on particles	TSS mg/l	THg Filt. %	MMHg Filt. %
Davis Creek below DCR	535 DAV	3/10/00	2000.169	1540				USGS gage	29.8		5.4		5.73	0.27		0.098		41.10	4.26	18.1%	35.9%
Davis Creek below DCR	535 DAV	6/13/00	2000.454	1010	19.0	0.1		UCD estimate	6.3		4.7		1.45	0.74		0.607		119.27	1.09	75.0%	82.4%
Davis Creek below DCR	535 DAV	11/6/00	2000.850	1400		0.03		UCD estimate	5.9		3.5			0.02		0.120		BD	59.6%	550.5%	
Upper Bear Creek	538 UBC	3/2/00	2000.169	1350				USGS Discharge Meas.	5.4		2.0		0.09	0.10		0.024		2.04	38.80	37.9%	23.3%
Upper Bear Creek	538 UBC	6/14/00	2000.454	1110	22.8	2.5		UCD estimate	0.6		1.2		-0.16	0.21		0.085		36.80	3.44	185.2%	40.3%
Upper Bear Creek	538 UBC	10/11/00	2000.779	1320	14.5	2.5		UCD estimate	0.6		0.4		0.21	0.09		0.024	BD	58.88	1.07	63.4%	27.4%
Upper Bear Creek	538 UBC	11/7/00	2000.852	1210	13	2		UCD estimate	0.8		0.7		0.32	0.05		0.051		41.60	0.25	90.4%	94.6%
Upper Bear Creek	538UBC	12/11/00	2000.945	1300	8.5	2.5		UCD estimate	0.7		0.5		0.18	0.07		0.028	BD	32.25	1.20	69.2%	42.2%
Upper Bear Creek	538UBC	1/11/01	2001.030	1320	6.0	10.0		UCD estimate	3.8		0.9		0.14	0.18		0.063		5.45	20.99	24.7%	35.4%
Upper Bear Creek	538UBC	2/13/01	2001.121	1445	8.0	4.0		UCD estimate	1.7		1.0		0.15	0.05		0.034		3.96	4.04	62.7%	68.1%
Upper Bear Creek	538UBC	3/22/01	2001.222	1245	21.6			Estimate from Bear Ck Gage	1.4		0.8		0.28	0.07		0.034		15.28	2.18	56.7%	50.7%
Upper Bear Creek	538UBC	5/3/01	2001.337	1310	18.0	3.0		UCD estimate	1.0		0.6		0.26	0.06		0.036		17.56	1.56	58.3%	56.9%
Upper Bear Creek	538UBC	6/7/01	2001.433	1345	27.0	3.5		UCD estimate	1.3		1.0		0.15	0.23		0.084		69.95	2.06	75.3%	36.8%
Upper Bear Creek	538UBC	7/12/01	2001.529	1200	24.0	3.0		UCD estimate	1.0		1.0		0.02	0.30		0.170		79.62	1.57	97.1%	57.6%
Upper Bear Creek	538UBC	8/23/01	2001.644	1130	22.0	3.0		UCD estimate	0.8		0.7		0.04	0.09		0.094		-2.84	1.41	92.4%	104.4%
Sulfur Ck	540 SUL	1/31/00	2000.085	1150			2.45	USGS gage	1560.0		399.0		23.45	2.46		0.296		43.72	49.50	25.6%	12.0%
Sulfur Ck	540 SUL	2/14/00	2000.123					USGS gage	974.0		100.0		7.62	0.48		0.453		0.24	114.70	10.3%	94.2%
Sulfur Ck	540 SUL	3/2/00	2000.169	1310			2.50	USGS gage	376.0		135.0		10.95	0.22		0.108		5.07	22.00	35.9%	49.2%
Sulfur Ck	540 SUL	4/17/00	2000.295	1300			2.26	USGS gage	430.0		99.3		23.45	0.66		0.376		20.07	14.10	23.1%	57.1%
Sulfur Ck	540 SUL	6/14/00	2000.454	1140	26.0	0.5		USGS gage	676.0		125.0		54.37	0.76		0.211		54.66	10.14	18.5%	27.5%
Sulfur Ck	540 SUL	8/10/00	2000.609	1325	27.3	2.5cfm		USGS gage	690.0		63.3		10.55	4.04		0.069		66.82	59.43	9.2%	1.7%
Sulfur Ck	540 SUL	10/11/00	2000.779	1340		0.5		USGS gage	676.0		216.0		33.02	1.57		1.020		39.48	13.93	32.0%	65.0%
Sulfur Ck	540 SUL	11/7/00	2000.852	1240	13			USGS gage	1320.0		219.0		260.28	1.30	BD	1.310	BD	-2.36	4.23	16.6%	100.8%
Sulfur Ck	540SUL	1/11/01	2001.030	1405	6.2	6.3	2.10	USGS gage	3070.0		318.0		49.61	0.92		0.089		14.98	55.47	10.4%	9.7%
Sulfur Ck	540SUL	2/13/01	2001.121	1510	8.0			USGS gage	906.0		317.0		75.61	0.41		0.130		35.30	7.79	35.0%	32.1%
Sulfur Ck	540SUL	5/3/01	2001.337	1340	22.5			USGS gage	557.0		124.0		42.96	0.15		0.805		-65.08	10.08	22.3%	540.3%
Sulfur Ck	540SUL	7/12/01	2001.529	1305	29.5			USGS gage	1180.0		163.0		11.47	18.20		1.930		183.57	88.63	13.8%	10.6%
Sulfur Ck	540SUL	8/23/01	2001.644	1230	24.3			USGS gage	1051.0		122.0		14.27	20.60		0.936		302.15	65.08	11.6%	4.5%
Bear Creek abv. Hwy 20	545BR1	8/23/01	2001.644	1300	24.0	3.0		UCD estimate	38.3		17.9		6.62	0.81		0.451		116.56	3.08	46.7%	55.7%

Appendix, Table 5. Water Data

UC DAVIS - CACHE CREEK CALFED

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(values in bold also indicate apparent anomalies)

(strikethroughs for tss and particulates are to be removed based on tss less than one, or negative value)

Sample Description	Sample ID	Date	Date Code	Time	Temp	FLOW (cfs)	Stage (ft)	Flow Information Source	THg Raw ng/l	BD	THg Filt.ng/l	BD	THg ppm on particles	MMHg Raw ng/l	BD	MMHg Filt. ng/l	BD	MMHg ppb on particles	TSS mg/l	THg Filt. %	MMHg Filt. %
Mid Bear Creek	550 BRC	1/31/00	2000.085	1230				USGS gage	125.0		33.0		1.89	0.58		0.484		1.89	48.70	26.4%	84.0%
Mid Bear Creek	550 BRC	3/2/00	2000.169	1440		230.0		USGS gage	48.4		9.1		1.69	0.26		0.136		5.45	23.30	18.9%	51.7%
Mid Bear Creek	550 BRC	4/17/00	2000.295	1335		72.0		USGS gage	72.4		23.3		5.99	0.35		0.162		23.17	8.20	32.2%	46.0%
Mid Bear Creek	550 BRC	6/14/00	2000.454	1215	25.0	3.0		USGS gage	26.5		11.3		3.45	0.17		0.127		10.00	4.40	42.6%	74.3%
Mid Bear Creek	550 BRC	8/10/00	2000.609	1350	25.5	1.0		USGS gage	17.3		8.4		2.76	0.09		0.148		290.09	3.23	48.6%	13.6%
Mid Bear Creek	550 BRC	10/11/00	2000.779	1420	13.3	3.1		USGS gage	24.6		10.5		4.59	0.13	BD	0.131	BD	0.00	3.07	42.7%	100.0%
Mid Bear Creek	550 BRC	11/7/00	2000.852	1315	11	3		UCD estimate	47.4		25.7		26.20	0.32		0.278		45.18	0.83	54.1%	88.1%
Mid Bear Creek	550BRC	12/11/00	2000.945	1350	8.0	3.5		USGS gage	46.5		24.5		29.73	0.22	BD	0.121	BD	136.49	0.74	52.7%	54.5%
Mid Bear Creek	550BRC	1/11/01	2001.030	1445	5.5	29.0	4.40	USGS gage	310.0		39.2		3.56	0.47		0.134		4.44	76.17	12.6%	28.4%
Mid Bear Creek	550BRC	2/13/01	2001.121	1535	8.0			USGS gage	144.0		64.5		3.31	0.71		0.525		7.50	23.99	44.8%	74.5%
Mid Bear Creek	550BRC	3/22/01	2001.222	1415	21.8			USGS gage	31.3		15.9		3.60	0.33		0.091		55.69	4.29	50.7%	27.6%
Mid Bear Creek	550BRC	5/3/01	2001.337	1450	17.5	3.5		UCD estimate	35.5		17.9		5.62	0.19		0.078		36.81	3.13	50.4%	40.3%
Mid Bear Creek	550BRC	6/7/01	2001.433	1500	29.0	3.5		UCD estimate	22.3		11.1		3.76	0.29		0.557		746.82	2.99	49.6%	20.0%
Mid Bear Creek	550BRC	7/12/01	2001.529	1430	27.5	2.5		UCD estimate	19.7		11.8		3.67	0.14		0.394		345.58	2.15	59.9%	34.7%
Mid Bear Creek	550BRC	8/23/01	2001.644	1400	24.9	3.5		UCD estimate	13.9		7.6		2.39	0.58		0.304		105.53	2.62	54.9%	52.3%
Bear Creek@Cache	555BR3	7/12/01	2001.529	1600	31.0	2.5		UCD estimate	18.8		3.8		7.23	0.82		0.114		340.10	2.07	20.4%	13.9%
Cache Ck at Rumsey	560 RUM	1/31/00	2000.085	1255		190.0		CDEC (DWR gage)?	273.0		10.6		0.34	0.78		0.226		0.72	775.00	3.9%	28.9%
Cache Ck at Rumsey	560 RUM	3/2/00	2000.169	1515		4121.0		CDEC (DWR gage)?	40.0		1.5		0.14	0.22		0.024	BD	0.71	277.00	3.7%	10.7%
Cache Ck at Rumsey	560 RUM	3/16/00	2000.208	1415		1525.0		CDEC/USGS Discharge Meas.	8.3		1.0		0.19	0.10		0.067		0.98	37.40	12.3%	64.6%
Cache Ck at Rumsey	560 RUM	4/17/00	2000.295	1405		1920.0		CDEC (DWR gage)?	43.3		1.6		0.23	0.41		0.038		2.06	179.00	3.7%	9.3%
Cache Ck at Rumsey	560 RUM	6/14/00	2000.454	1250	25.3	1220.0		CDEC (DWR gage)?	5.6		1.2		0.19	0.20		0.126		2.95	23.72	20.9%	64.3%
Cache Ck at Rumsey	560 RUM	8/10/00	2000.609	1430	24.0	520.0		UCD estimate	5.6		0.7		0.15	0.23		0.101		4.04	32.16	12.9%	43.7%
Cache Ck at Rumsey	560 RUM	10/11/00	2000.779	1500	15.5	340.0		CDEC (DWR gage)?	5.7		0.5		0.37	0.11		0.026	BD	6.04	14.13	8.0%	23.2%
Cache Ck at Rumsey	560 RUM	11/7/00	2000.852	1355	12	20		UCD estimate	2.4		1.7		0.42	0.05		0.025	BD	19.28	1.53	72.7%	46.2%
Cache Ck at Rumsey	560RUM	12/11/00	2000.945	1450	8.5	30.0		UCD estimate	2.3		1.5		1.34	0.04		0.039		-3.60	0.57	66.0%	105.6%
Cache Ck at Rumsey	560RUM	1/11/01	2001.030	1525	6.1			USGS Discharge Meas.	24.9		2.9		0.25	0.04		0.026	BD	0.13	87.37	11.8%	70.2%
Cache Ck at Rumsey	560RUM	2/13/01	2001.121	1600	6.0	50	UCD est	USGS Discharge Meas.(timing?)	37.5		11.5		0.50	0.28		0.120		3.12	52.49	30.7%	42.3%
Cache Ck at Rumsey	560RUM	3/22/01	2001.222	1545	20.6			USGS Discharge Meas.	5.3		2.2		0.37	0.10		0.016		10.44	8.40	41.1%	15.7%
Cache Ck at Rumsey	560RUM	5/3/01	2001.337	1545	15.0	800.0		UCD estimate/indian Valley Dis.	11.3		1.2		0.16	0.30		0.052		3.75	64.70	10.2%	17.7%
Cache Ck at Rumsey	560RUM	6/7/01	2001.433	1600	18.0	800.0		UCD estimate	5.4		0.9		0.19	0.17		0.076		3.96	23.83	15.8%	44.5%

Appendix, Table 5. Water Data

UC DAVIS - CACHE CREEK CALFED*(underlined values are means of laboratory or field replicates)**(values in italics denote apparent anomalies or lab errors)**(flagged filtered MeHg that are greater than raw values to be reduced to same # as raw, for comparison to biota)**(values in bold also indicate apparent anomalies)**(strikethroughs for tss and particulates are to be removed based on tss less than one, or negative value)*

Sample Description	Sample ID	Date	Date Code	Time	Temp	FLOW (cfs)	Stage (ft)	Flow Information Source	THg Raw ng/l	BD	THg Filt. ng/l	BD	THg ppm on particles	MMHg Raw ng/l	BD	MMHg Filt. ng/l	BD	MMHg ppb on particles	TSS mg/l	THg Filt. %	MMHg Filt. %
Cache Ck below Hwy 505	565 SOL	3/16/00	2000.208	1515		1800.0		CDEC (DWR gage)?	16.6		1.1		0.29	0.15		0.074		1.46	53.20	6.3%	48.7%
Cache Ck below Hwy 505	565 SOL	4/17/00	2000.295	1500		1500.0		UCD estimate	<u>43.4</u>		<u>1.7</u>		0.26	<u>1.08</u>		<u>0.110</u>		5.99	162.00	4.0%	10.2%
Cache Ck below Hwy 505	565 SOL	6/14/00	2000.454	1350	27.2	30.0		UCD estimate	11.2		1.6		0.74	0.27		0.084		14.08	12.98	14.5%	31.6%
Cache Ck below Hwy 505	565 SOL	8/10/00	2000.609	1530	27.0	10.0		UCD estimate	2.4		2.0		0.14	<u>0.14</u>		<u>0.821</u>		-250.53	2.71	83.6%	576.8%
Cache Ck below Hwy 505	565 SOL	10/11/00	2000.779	1600	15.7	35.0		UCD estimate	2.2		0.8		0.43	0.19		0.055		41.46	3.22	36.7%	29.0%
Cache Ck below Hwy 505	565 SOL	10/11/00	2000.779	1600	15.7	35.0		UCD estimate	2.0		0.9		0.24	0.19		0.056		30.23	4.38	46.7%	29.6%
Cache Ck below Hwy 505	565 SOL	11/7/00	2000.852	1505	15	25		UCD estimate	1.2		1.1		1.09	0.07		0.025	<i>BD</i>	426.36	0.11	89.9%	34.9%
Cache Ck below Hwy 505	565 SOL	12/11/00	2000.945	1600	14.0	35.0		UCD estimate	1.4		0.8		0.57	0.09		0.029	<i>BD</i>	53.91	1.10	54.7%	32.5%
Cache Ck below Hwy 505	565 SOL	1/11/01	2001.030	1625	9.5	68.0		UCD estimate	<u>5.2</u>		<u>1.2</u>		0.41	<u>0.09</u>		<u>0.060</u>		2.94	9.82	22.6%	67.4%
Cache Ck below Hwy 505	565 SOL	2/13/01	2001.121	925	5.0				19.9		4.4		0.14	0.23		0.088		1.26	110.98	21.9%	38.6%
Cache Ck. Blw Yolo	570 YSB	1/31/00	2000.085	1500		160.0		CDEC (DWR gage)?	5.4		2.2		0.35	0.18		0.091		9.98	9.05	40.3%	50.1%
Cache Ck. Blw Yolo	570 YSB	3/2/00	2000.169	1630		4345.0		CDEC (DWR gage)?	151.0		2.1		0.35	0.35		0.046		0.72	421.75	1.4%	13.2%
Cache Ck. Blw Yolo	570 YSB	4/17/00	2000.295	1600		700.0		CDEC (DWR gage)?	154.0		1.5		0.55	0.51		0.022	<i>BD</i>	1.77	276.00	1.0%	4.3%
Cache Ck. Blw Yolo	570 YSB	6/14/00	2000.454	1450	26.3	57.0		CDEC (DWR gage)?	<u>17.7</u>		<u>1.7</u>		0.43	<u>0.26</u>		<u>0.089</u>		4.53	36.94	9.6%	34.6%
Cache Ck. Blw Yolo	570 YSB	8/10/00	2000.609	1610	25.5	28.0		USGS gage	10.6		1.1		0.12	0.48		0.091		4.84	79.63	10.8%	19.0%
Cache Ck. Blw Yolo	570 YSB	10/11/00	2000.779	1640	16.4	75.0		USGS gage	5.5		0.9		0.19	<u>0.18</u>		0.072		4.24	25.08	15.4%	40.3%
Cache Ck. Blw Yolo	570 YSB	11/7/00	2000.852	1600	11.5	30		UCD estimate	1.8		1.3		0.38	0.09		<u>0.035</u>		41.21	1.36	71.2%	38.7%

Rumsey Gage Malfunctioning, use data with caution, may need to be corrected

Appendix, Table 6 a-d. QA Summary

Table 6a.
Laboratory QA/QC Summary for UC Davis Biotic THg Analyses Used in This Report.
(Method Detection Limit (MDL) = 0.005 µg THg/g (ppm))

	Std Curve R ²	Lab Split RPD	Field Dup. RPD	Spike Recoveries	Lab Cont. Std. Recoveries	Cont. Calib. Validation
Ideal Recovery	1.000	(0%)	(0%)	(100%)	(100%)	(100%)
Control Range (%)	≥0.975	≤25%	≤25%	75-125%	75-125%	75-125%
Tracking Method		Control Chart		Control Chart	Control Chart	Control Chart
Recoveries (%)	0.9988-0.9999	0.0%-11.5%	0.2%-60.6% <i>(higher near MDL)</i>	82%-112%	101%-117%	97%-115%
(n)	n=33	n=54	n=148	n=97	n=51	n=108
Mean Recoveries (%)	0.9994	5.5%	11.4%	96.0%	106.8%	100.7%
<u>Standard Reference Materials</u>						
		TORT-2 Lobster		DOLT-2 Dogfish	NIST 2976 Mussel	
Certified Level (ppm THg)		0.27±0.02		2.14±0.28	0.061±0.004	
Ideal Recovery		(100%)		(100%)	(100%)	
Control Range (%)		75-125%		75-125%	75-125%	
Tracking Method		Control Chart		Control Chart	Control Chart	
Control Range (ppm)		0.20-0.34		1.61-2.68	0.046-0.076	
Recoveries (%)		95%-116%		96%-105%	93%-106%	
Recoveries (ppm)		0.26-0.31		2.06-2.25	0.056-0.064	
(n)		n=64		n=44	n=14	
Mean Recoveries (%)		100.7%		100.2%	101.1%	
Mean Recoveries (ppm)		0.28		2.15	0.062	

Appendix, Table 6 a-d. QA Summary

Table 6b.
Laboratory QA/QC Summary for Battelle Biotic MeHg Analyses Used in This Report.
(Method Detection Limit (MDL) = 0.005 µg MeHg/g (ppm))

	Lab Split RPD	Field Dup. RPD	Spike Recoveries
Ideal Recovery	(0%)	(0%)	(100%)
Control Range (%)	≤25%	≤25%	75-125%
Tracking Method	Control Chart		Control Chart
Recoveries (%)	0.74%-16%	0.0%-91.7% <i>(higher near MDL)</i>	58%-202%
(n)	n=21	n=89	n=66
Mean Recoveries (%)	8.46%	19.3%	107.2%
<u>Standard Reference Materials</u>			
	DORM-2 Dogfish	DOLT-2 Dogfish	NIST 2976 Mussel
Certified Level (ppm THg)	4.47±0.32	0.693±0.053	0.0278±0.0011
Ideal Recovery	(100%)	(100%)	(100%)
Control Range (%)	75-125%	75-125%	75-125%
Tracking Method	Control Chart	Control Chart	Control Chart
Control Range (ppm)	3.35-5.59	0.520-0.866	0.0208-0.0348
Recoveries (%)	82%-109%	94.372%-124%	79%-112%
Recoveries (ppm)	3.68-4.87	0.654-0.857	0.0221-0.0311
(n)	n=23	n=17	n=5
Mean Recoveries (%)	96.2%	107.3%	96.0%
Mean Recoveries (ppm)	4.30	0.743	0.0266

Appendix, Table 6 a-d. QA Summary

Table 6c.

Laboratory QA/QC Summary for Battelle Aqueous THg Analyses Used in This Report.

(Method Detection Limit (MDL) = ~0.020 ng THg/L (pptr))

	<u>Lab Split RPD</u> (Raw Water)	<u>Lab Split RPD</u> (Filtered Water)	<u>Field Dup. RPD</u> (Raw Water)	<u>Field Dup. RPD</u> (Filtered water)
Ideal Recovery	(0%)	(0%)	(0%)	(0%)
Control Range (%)	≤ 25%	≤ 25%	≤ 25%	≤ 25%
Recoveries (%)	1-25%	1-21%	0-15%	1-58%
(n)	n=19	n=9	n=15	n=15
Mean Recoveries (%)	8.8%	7.7%	8.0%	14.7%
	<u>Method Blanks</u> ng/L	<u>Matrix Spike</u> <u>Recoveries</u>	<u>Std Ref. Material</u> <u>Recoveries</u>	
Ideal Recovery	(0.000)	(100%)	(100%)	
Control Range	≤ 0.100	75-125%	75-125%	
Recoveries	0.016 – 0.808	57-123%	92-111%	
(n)	n=64	n=58	n=31	
Mean Recoveries	0.142	102%	103%	

Appendix, Table 6 a-d. QA Summary

Table 6d.
Laboratory QA/QC Summary for Battelle Aqueous MeHg Analyses Used in This Report.
(Method Detection Limit (MDL) = ~0.020 ng MeHg/L (pptr))

	<u>Lab Split RPD</u> (Raw Water)	<u>Lab Split RPD</u> (Filtered Water)	<u>Field Dup. RPD</u> (Raw Water)	<u>Field Dup. RPD</u> (Filtered water)
Ideal Recovery	(0%)	(0%)	(0%)	(0%)
Control Range (%)	≤ 25%	≤ 25%	≤ 25%	≤ 25%
Recoveries (%)	0-80%	2-35%	0-82%	0-49%
(n)	n=24	n=10	n=15	n=15
Mean Recoveries (%)	11.4%	17.5%	24.3%	18.8%
	<u>Method Blanks</u> (ng/L)	<u>Matrix Spike</u> <u>Recoveries</u>	<u>Tap Water</u> <u>Spike Recoveries</u>	<u>Std Ref. Material</u> <u>Recoveries</u>
Ideal Recovery	(0.000)	(100%)	(100%)	(100%)
Control Range	≤ 0.100	75-125%	75-125%	75-125%
Recoveries	0.014 - 0.110	77-146%	94-117%	79-123%
(n)	n=93	n=93	n=55	n=50
Mean Recoveries	0.019	90.1%	98.9%	89.4%

Appendix, Table 7. Biota MeHg QA

Batch #	Sample Descriptions	MeHg Replicate Analysis (RPD)	MeHg Field Dup Analysis (RPD)	MeHg Matrix Spike % Recovery	MeHg Blank Analysis (ug/g)	MeHg Dolt 2 Certified Value (ug/g)	Dolt 2 CRM (ug/g)	Dolt 2 CRM % Recovery	MeHg Dorn 2 Certified Value (ug/g)	Dorn 2 CRM (ug/g)	Dorn 2 CRM % Recovery	MeHg NIST 2976 Certified Value (ug/g)	NIST 2976 CRM (ug/g)	NIST 2976 CRM % Recovery	MeHg Replicate Analysis (RPD)	MeHg Field Dup Analysis (RPD)	MeHg Matrix Spike % Recovery
Batch 1	505MID-Ephemeroidea-052400				0.0006				4.47	4.37	82%	0.0278	0.022	79%	5%	5%	77%
Batch 1	505MID-Hydropsyche-052400				0.0010				3.68	3.68	98%	0.025	0.025	90%	6%	6%	91%
Batch 1	505MID-Naucoridae-052400				0.0010				4.37	4.37	98%	0.026	0.026	95%	7%	7%	101%
Batch 1	505MID-Corydalidae-052400				0.0010				4.43	4.43	99%	0.028	0.028	102%	8%	8%	106%
Batch 1	510CLO-Baetis-022500				0.0010				4.56	4.56	102%	0.031	0.031	112%	13%	13%	108%
Batch 1	510CLO-Hydropsyche-022500		77%		0.0012										14%	14%	113%
Batch 1	510CLO-Hydropsyche-022500		91%		0.0012										17%	17%	118%
Batch 1	510CLO-Coenagrionidae-022500				0.0012										41%	41%	119%
Batch 1	510CLO-Hydropsyche-022500-FDUP		41%		0.0021										47%	47%	122%
Batch 1	510CLO-Hydropsyche-052400				0.0027												129%
Batch 1	510CLO-Hydropsyche-052400-FDUP	5%	8%		0.0032												
Batch 1	510CLO-Hydropsyche-080700				0.0035												
Batch 1	520NFC-Pteronarcys-022500				0.0035												
Batch 1	520NFC-Hydropsyche-022500				0.0042												
Batch 1	520NFC-Perlodidae-022500				0.0047												
Batch 1	520NFC-Baetis-050800																
Batch 1	520NFC-Hydropsyche-050800																
Batch 1	520NFC-Perlodidae-050800																
Batch 1	520NFC-Tipulidae-050800																
Batch 1	520NFC-Pteronarcys-080700																
Batch 1	520NFC-Hydropsyche-080700																
Batch 1	520NFC-Tipulidae-080700																
Batch 1	530HAR-Hydropsyche-022800-1A																
Batch 1	530HAR-Coenagrionidae-022800																
Batch 1	530HAR-Naucoridae-022800																
Batch 1	530HAR-Corydalidae-022800																
Batch 1	530HAR-Coenagrionidae-050800-2																
Batch 1	530HAR-Naucoridae-050800																
Batch 1	530HAR-Corydalidae-050800			101%													
Batch 1	530HAR-Corydalidae-050800			113%													
Batch 1	533DC5-Libellulidae-051700																
Batch 1	533DC5-Naucoridae-051700																
Batch 1	533DC5-Perlodidae-051700																
Batch 1	533DC5-Corydalidae-051700-1B (med)																
Batch 1	533DC5-Hydropsyche-080400																
Batch 1	533DC5-Perlodidae-080400																
Batch 1	533DC5-Tipulidae-080400																
Batch 1	535DAV-Hydropsyche-051700																
Batch 1	535DAV-Naucoridae-051700																
Batch 1	535DAV-Coenagrionidae-051700-1	16%															
Batch 1	535DAV-Corydalidae-051700																
Batch 1	535DAV-Corydalidae-051700-DUP		6%														
Batch 1	538UBC-Hydropsyche-050800																
Batch 1	538UBC-Naucoridae-050800	12%															
Batch 1	538UBC-Libellulidae-050800																
Batch 1	538UBC-Tipulidae-050800																
Batch 1	540SUL-Hydropsyche-022800																
Batch 1	540SUL-Coenagrionidae-022800																
Batch 1	540SUL-Tipulidae-022800-1A																
Batch 1	540SUL-Ephemeroidea-050800			108%													
Batch 1	540SUL-Ephemeroidea-050800			119%													
Batch 1	540SUL-Ephemeroidea-050800-DUP		7%														
Batch 1	540SUL-Coenagrionidae-050800-1																

Appendix, Table 7. Biota MeHg QA

Batch #	Sample Descriptions	MeHg Replicate Analysis (RPD)	MeHg Field Dup Analysis (RPD)	MeHg Matrix Spike % Recovery	MeHg Blank Analysis (ug/g)	MeHg Dolt 2 Certified Value (ug/g)	Dolt 2 CRM (ug/g)	Dolt 2 CRM % Recovery	MeHg Dorn 2 Certified Value (ug/g)	Dorn 2 CRM (ug/g)	Dorn 2 CRM % Recovery	MeHg NIST 2976 Certified Value (ug/g)	NIST 2976 CRM (ug/g)	NIST 2976 CRM % Recovery	MeHg Replicate Analysis (RPD)	MeHg Field Dup Analysis (RPD)	MeHg Matrix Spike % Recovery
Batch 1	540SUL-Tipulidae-050800																
Batch 1	540SUL-Naucoridae-050800																
Batch 1	540SUL-Coenagrionidae-080700-1A (med)																
Batch 1	540SUL-Coenagrionidae-080700-1B (lg)																
Batch 1	540SUL-Stratiomys-080700																
Batch 1	540SUL-Stratiomys-080700-DUP		5%														
Batch 1	550BRC-Elmidae-031400																
Batch 1	550BRC-Hydropsyche-031400																
Batch 1	550BRC-Coenagrionidae-031400																
Batch 1	550BRC-Elmidae-050900																
Batch 1	550BRC-Hydropsyche-050900																
Batch 1	550BRC-Naucoridae-050900			118%													
Batch 1	550BRC-Naucoridae-050900			106%													
Batch 1	550BRC-Coenagrionidae-050900-1																
Batch 1	550BRC-Libellulidae-050900-1																
Batch 1	550BRC-Libellulidae-050900-1-DUP		13%														
Batch 1	550BRC-Hydropsyche-080100																
Batch 1	550BRC-Naucoridae-080100																
Batch 1	550BRC-Naucoridae-080100-DUP		14%														
Batch 1	550BRC-Coenagrionidae-080100-1																
Batch 1	550BRC-Libellulidae-080100-1																
Batch 1	560RUM-Perlodidae-021700																
Batch 1	560RUM-Hydropsyche-021700-1A																
Batch 1	560RUM-Hydropsyche-021700-1B																
Batch 1	560RUM-Corydalidae-021700-1A																
Batch 1	560RUM-Perlodidae-050900																
Batch 1	560RUM-Hydropsyche-050900																
Batch 1	560RUM-Corydalidae-050900																
Batch 1	560RUM-Corydalidae-050900-DUP	12%	47%														
Batch 1	560RUM-Hydropsyche-080100																
Batch 1	560RUM-Hydropsyche-080100-DUP		17%														
Batch 1	560RUM-Corydalidae-080100-1A (lg/med)																
Batch 1	560RUM-Calopterygidae-080100-1B (lg)																
Batch 1	560RUM-Naucoridae-080100																
Batch 1	565SOL-Hydropsyche-052200																
Batch 1	565SOL-Calopterygidae-052200																
Batch 1	565SOL-Libellulidae-052200			122%													
Batch 1	565SOL-Libellulidae-052200			129%													
Batch 1	565SOL-Hydropsyche-080100	9%															
Batch 1	565SOL-Calopterygidae-080100																
Batch 1	565SOL-Naucoridae-080100																
Batch 1	570YSB-Hydropsyche-052200																
Batch 1	570YSB-Calopterygidae-052200																
Batch 1	570YSB-Coenagrionidae-052200																
Batch 1	570YSB-Calopterygidae-080100																

Appendix, Table 7. Biota MeHg QA

Batch #	Sample Descriptions	MeHg Replicate Analysis (RPD)	MeHg Field Dup Analysis (RPD)	MeHg Matrix Spike % Recovery	MeHg Blank Analysis (ug/g)	MeHg Dolt 2 Certified Value (ug/g)	Dolt 2 CRM (ug/g)	Dolt 2 CRM % Recovery	MeHg Dolt 2 Certified Value (ug/g)	Dolt 2 CRM (ug/g)	Dolt 2 CRM % Recovery	MeHg NIST 2976 Certified Value (ug/g)	NIST 2976 CRM (ug/g)	MeHg Replicate Analysis (RPD)	MeHg Field Dup Analysis (RPD)	MeHg Matrix Spike % Recovery
Batch 2	510CLO-Baetis-113000			114%	0.002	0.693	0.654	94%	4.47	3.73	83%			1%		91%
Batch 2	510CLO-Hydropsyche-113000			105%	0.002		0.674	97%		3.99	89%			6%		95%
Batch 2	510CLO-Hydropsyche-113000				0.002		0.725	105%		4.00	89%			9%		97%
Batch 2	510CLO-Hydropsyche-113000-FDUP	1%	20%		0.002		0.741	107%		4.16	93%			14%		97%
Batch 2	510CLO-Coenagrionidae-113000-2				0.002		0.766	111%		4.28	96%			15%		101%
Batch 2	520NFC-Baetis-111400				0.002					4.46	100%					105%
Batch 2	520NFC-Hydropsyche-111400				0.002											105%
Batch 2	520NFC-Perlodidae-111400				0.002											112%
Batch 2	520NFC-Calopterygidae-111400				0.002											112%
Batch 2	520NFC-Tipulidae-111400				0.002											114%
Batch 2	533DC5-Hydropsyche-110600				0.002											114%
Batch 2	533DC5-Coenagrionidae-110600-2				0.002											123%
Batch 2	533DC5-Perlodidae-110600				0.002											
Batch 2	533DC5-Corydalidae-110600				0.003											
Batch 2	538UBC-Baetis-111400				0.003											
Batch 2	538UBC-Hydropsyche-111400				0.003											
Batch 2	538UBC-Coenagrionidae-111400-2															
Batch 2	538UBC-Libellulidae-111400															
Batch 2	538UBC-Tipulidae-111400															
Batch 2	540SUL-Hydropsyche-111400															
Batch 2	540SUL-Coenagrionidae-111400-1															
Batch 2	540SUL-Coenagrionidae-111400-1-FDUP		5%													
Batch 2	540SUL-Stratiomys-111400															
Batch 2	550BRC-Elmidae-111400															
Batch 2	550BRC-Hydropsyche-111400															
Batch 2	550BRC-Hydropsyche-111400-FDUP		6%													
Batch 2	550BRC-Calopterygidae-111400															
Batch 2	550BRC-Coenagrionidae-111400-1															
Batch 2	550BRC-Gomphidae-111400															
Batch 2	560RUM-Baetis-111400															
Batch 2	560RUM-Hydropsyche-111000															
Batch 2	560RUM-Libellulidae-111000															
Batch 2	560RUM-Corydalidae-111000															
Batch 2	560RUM-Corydalidae-111000-FDUP		4%													
Batch 2	565SOL-Hydropsyche-111000															
Batch 2	565SOL-Hydropsyche-111000-FDUP		5%													
Batch 2	565SOL-Calopterygidae-111000															
Batch 2	565SOL-Libellulidae-111000															
Batch 2	570YSB-Hydropsyche-112700															
Batch 2	570YSB-Calopterygidae-112700															
Batch 2	560RUM-Hydropsyche-121100															
Batch 2	560RUM-Libellulidae-121100															
Batch 2	560RUM-Corydalidae-121100-(XL)															
Batch 2	560RUM-Corydalidae-121100-(sm/med)	15%														
Batch 2	510CLO-Hydropsyche-121100															
Batch 2	550BRC-Hydropsyche-121100															
Batch 2	550BRC-Corydalidae-121100															
Batch 2	538UBC-Hydropsyche-121100															

Appendix, Table 7. Biota MeHg QA

Batch #	Sample Descriptions	MeHg Replicate Analysis (RPD)	MeHg Field Dup Analysis (RPD)	MeHg Matrix Spike % Recovery	MeHg Blank Analysis (ug/g)	MeHg Dolt 2 Certified Value (ug/g)	Dolt 2 CRM (ug/g)	Dolt 2 CRM % Recovery	MeHg Dorn 2 Certified Value (ug/g)	Dorn 2 CRM (ug/g)	Dorn 2 CRM % Recovery	MeHg NIST 2976 Certified Value (ug/g)	NIST 2976 CRM (ug/g)	NIST 2976 CRM % Recovery	MeHg Replicate Analysis (RPD)	MeHg Field Dup Analysis (RPD)	MeHg Matrix Spike % Recovery
Batch 2	510CLO-Hydropsyche-011101																
Batch 2	510CLO-Baetis-021301																
Batch 2	510CLO-Hydropsyche-sm-021301																
Batch 2	510CLO-Hydropsyche-lg-021301																
Batch 2	510CLO-Coenagrionidae-2-021301																
Batch 2	520NFC-Baetis-022001																
Batch 2	520NFC-Hydropsyche-022001																
Batch 2	520NFC-Perlodidae-022001																
Batch 2	520NFC-Tipulidae-1-022001			112%													
Batch 2	520NFC-Tipulidae-1-022001			123%													
Batch 2	560RUM-Hydropsyche-011101																
Batch 2	560RUM-Baetis-021501																
Batch 2	560RUM-Hydropsyche-021501																
Batch 2	560RUM-Hydropsyche-021501-FDUP	4%															
Batch 2	560RUM-Libellulidae-021501																
Batch 2	560RUM-Corydalidae-021501																
Batch 2	565SOL-Baetis-021501																
Batch 2	565SOL-Hydropsyche-021501			112%													
Batch 2	565SOL-Hydropsyche-021501			114%													
Batch 2	565SOL-Calopterygidae-021501																
Batch 2	565SOL-Coenagrionidae-1-021501																
Batch 2	Comp. A Baetis		42%														
Batch 2	Comp. B Baetis		25%														
Batch 2	Comp. C Baetis		65%														
Batch 2	Hydropsyche																
Batch 2	Corydalidae																
Batch 2	Comp. A Baetis																
Batch 2	Comp. B Baetis																
Batch 2	Comp. C Baetis																
Batch 2	Hydropsyche	14%															
Batch 2	Corydalidae																
Batch 2	Hydropsyche																
Batch 2	Corydalidae																
Batch 2	530HAR-Perlodidae-022001																
Batch 2	530HAR-Hydropsyche-022001																
Batch 2	530HAR-Hydropsyche-022001-FDUP		46%														
Batch 2	530HAR-Coenagrionidae-022001																
Batch 2	530HAR-Tipulidae-2-022001																
Batch 2	538UBC-Hydropsyche-011101																
Batch 2	538UBC-Baetis-022001																
Batch 2	538UBC-Hydropsyche-sm-022001																
Batch 2	538UBC-Hydropsyche-lg-022001																
Batch 2	538UBC-Tipulidae-1-022001																
Batch 2	540SUL-Coenagrionidae-1-022001																
Batch 2	540SUL-Tipulidae-2-022001																
Batch 2	550BRC-Hydropsyche-011101																
Batch 2	550BRC-Corydalidae-011101																
Batch 2	550BRC-Simuliidae-021501																

Appendix, Table 7. Biota MeHg QA

Batch #	Sample Descriptions	MeHg Replicate Analysis (RPD)	MeHg Field Dup Analysis (RPD)	MeHg Matrix Spike % Recovery	MeHg Blank Analysis (ug/g)	MeHg Dolt 2 Certified Value (ug/g)	Dolt 2 CRM (ug/g)	Dolt 2 CRM % Recovery	MeHg Dorn 2 Certified Value (ug/g)	Dorn 2 CRM (ug/g)	Dorn 2 CRM % Recovery	MeHg NIST 2976 Certified Value (ug/g)	NIST 2976 CRM (ug/g)	NIST 2976 CRM % Recovery	MeHg Replicate Analysis (RPD)	MeHg Field Dup Analysis (RPD)	MeHg Matrix Spike % Recovery
Batch 2	550BRC-Elmidae-021501																
Batch 2	550BRC-Periodidae-021501																
Batch 2	550BRC-Hydropsyche-sm-021501																
Batch 2	550BRC-Hydropsyche-lg-021501			97%													
Batch 2	550BRC-Hydropsyche-lg-021501			97%													
Batch 2	550BRC-Calopterygidae-021501																
Batch 2	550BRC-Coenagrionidae-1-021501																
Batch 2	550BRC-Coenagrionidae-2-021501																
Batch 2	550BRC-Gomphidae-2-021501	9%															
Batch 2	550BRC-Corydalidae-021501																
Batch 2	510CLO-Hydropsyche-sm-032201																
Batch 2	510CLO-Hydropsyche-lg-032201																
Batch 2	560RUM-Hydropsyche-032201																
Batch 2	560RUM-Corydalidae-032201																
Batch 2	550BRC-Hydropsyche-sm-032201																
Batch 2	550BRC-Hydropsyche-lg-032201																
Batch 2	550BRC-Corydalidae-032201																
Batch 2	530HAR-Hydropsyche-050800																
Batch 2	505MID-California Roach-2A-052400			20%													
Batch 2	505MID-California Roach-2B-052400																
Batch 2	520NFC-California Roach-2-080700																
Batch 2	520NFC-Californiak Roach-2A-111400																
Batch 2	535DAV-California Roach-2A-031000			20%													
Batch 2	535DAV-California Roach-2B-031000			101%													
Batch 2	535DAV-California Roach-2B-031000			105%													
Batch 2	535DAV-California Roach-2C-051700																
Batch 2	535DAV-California Roach-2A-110600	6%															
Batch 2	538UBC-California Roach-2B-050800																
Batch 2	538UBC-California Roach-2C-111400																
Batch 2	550BRC-California Roach-2A-031400			7%													
Batch 2	550BRC-California Roach-2C-031400																
Batch 2	550BRC-California Roach-2B-050900			17%													
Batch 2	550BRC-California Roach-2C-050900			91%													
Batch 2	550BRC-California Roach-2C-050900			95%													
Batch 2	550BRC-California Roach-2A-080100			16%													
Batch 2	550BRC-California Roach-2B-080100																
Batch 2	550BRC-California Roach-2A-111400			36%													
Batch 2	550BRC-California Roach-2B-111400																

Appendix, Table 7. Biota MeHg QA

Batch #	Sample Descriptions	MeHg Replicate Analysis (RPD)	MeHg Field Dup Analysis (RPD)	MeHg Matrix Spike % Recovery	MeHg Blank Analysis (ug/g)	MeHg Dolt 2 Certified Value (ug/g)	Dolt 2 CRM (ug/g)	Dolt 2 CRM % Recovery	MeHg Dorn 2 Certified Value (ug/g)	Dorn 2 CRM (ug/g)	Dorn 2 CRM % Recovery	MeHg NIST 2976 Certified Value (ug/g)	NIST 2976 CRM (ug/g)	MeHg Replicate Analysis (RPD)	MeHg Field Dup Analysis (RPD)	MeHg Matrix Spike % Recovery
Batch 3	505MID-SSUC-1-052400	9%			0.0013	0.693	0.663	96%	4.47	4.01	90%			2%		58%
Batch 3	510CLO-SSUC-2-052400				0.0013		0.692	100%		4.09	91%			2%		64%
Batch 3	510CLO-SSUC-2-080700				0.0014		0.700	101%		4.12	92%			4%		75%
Batch 3	520NFC-SPDA-1-050800				0.0014		0.712	103%		4.16	93%			4%		86%
Batch 3	520NFC-SPDA-1-111400				0.0014		0.750	108%		4.26	95%			4%		88%
Batch 3	520NFC-SPDA-1-022001				0.0022		0.757	109%		4.44	99%			6%		94%
Batch 3	520NFC-SPDA-1A-051501	2%			0.0022		0.759	110%		4.49	100%			9%		94%
Batch 3	520NFC-SPDA-1B-051501	4%	102%		0.0022		0.770	111%		4.52	101%			9%		95%
Batch 3	520NFC-SPDA-1B-051501		108%		0.0024		0.790	114%		4.61	103%			10%		96%
Batch 3	520NFC-SPDA-1C-051501	6%			0.0024		0.808	117%		4.67	104%			14%		99%
Batch 3	520NFC-SPDA-2-051501				0.0024		0.817	118%		4.69	105%			14%		100%
Batch 3	520NFC-SSUC-1-022500				0.0024		0.857	124%		4.87	109%					100%
Batch 3	520NFC-SSUC-1-050800				0.0024											102%
Batch 3	520NFC-SSUC-1-080700				0.0031											102%
Batch 3	520NFC-SSUC-2-080700				0.0031											103%
Batch 3	520NFC-SSUC-1-111400				0.0031											104%
Batch 3	520NFC-SSUC-1A-022001	4%			0.0032											105%
Batch 3	520NFC-SSUC-1B-022001				0.0032											105%
Batch 3	520NFC-SSUC-1-051501				0.0032											105%
Batch 3	533DC5-ROCH-2A-080400		58%		0.0032											105%
Batch 3	533DC5-ROCH-2A-080400	0%	64%		0.0032											106%
Batch 3	533DC5-ROCH-2B-080400				0.0032											107%
Batch 3	535DAV-California Roach-2A-051700	13%			0.0032											108%
Batch 3	535DAV-California Roach-2B-051700				0.0032											108%
Batch 3	535DAV-California Roach-2A-080400	12%			0.0032											108%
Batch 3	535DAV-California Roach-2B-080400				0.0032											108%
Batch 3	535DAV-California Roach-2B-110600	23%			0.0032											108%
Batch 3	535DAV-California Roach-2C-110600				0.0032											110%
Batch 3	535DAV-ROCH-2A-051001	23%			0.0032											111%
Batch 3	535DAV-ROCH-2B-051001	12%			0.0032											111%
Batch 3	535DAV-ROCH-2C-051001	35%			0.0042											113%
Batch 3	535DAV-SSUC-1-080400		202%		0.0045											113%
Batch 3	535DAV-SSUC-1-080400		157%		0.0054											113%
Batch 3	536DCA-ROCH-1-050801				0.0054											113%
Batch 3	536DCA-ROCH-2-050801				0.0054											116%
Batch 3	536DCA-ROCH-3-050301				0.0205											116%
Batch 3	536DCA-SPDA-1A-050801	22%														117%
Batch 3	536DCA-SPDA-1B-050801	6%														118%
Batch 3	536DCA-SPDA-1C-050801	27%	111%													119%
Batch 3	536DCA-SPDA-1C-050801		123%													121%
Batch 3	538UBC-California Roach-2A-050800	8%														121%
Batch 3	538UBC-California Roach-2C-050800															123%
Batch 3	538UBC-California Roach-2A-111400	12%														157%
Batch 3	538UBC-California Roach-2B-111400															202%
Batch 3	538UBC-ROCH-1-022001															
Batch 3	538UBC-ROCH-2A-022001	13%														
Batch 3	538UBC-ROCH-2B-022001	19%														
Batch 3	538UBC-ROCH-2C-022001	32%	105%													

Appendix, Table 7. Biota MeHg QA

Batch #	Sample Descriptions	MeHg Replicate Analysis (RPD)	MeHg Field Dup Analysis (RPD)	MeHg Matrix Spike % Recovery	MeHg Blank Analysis (ug/g)	MeHg Dolt 2 Certified Value (ug/g)	Dolt 2 CRM (ug/g)	Dolt 2 CRM % Recovery	MeHg Dorn 2 Certified Value (ug/g)	Dorn 2 CRM (ug/g)	Dorn 2 CRM % Recovery	MeHg NIST 2976 Certified Value (ug/g)	NIST 2976 CRM (ug/g)	NIST 2976 CRM % Recovery	MeHg Replicate Analysis (RPD)	MeHg Field Dup Analysis (RPD)	MeHg Matrix Spike % Recovery
Batch 3	538UBC-ROCH-2C-022001			94%													
Batch 3	538UBC-ROCH-1-032201																
Batch 3	538UBC-ROCH-2A-032201		15%														
Batch 3	538UBC-ROCH-2B-032201		46%														
Batch 3	538UBC-ROCH-2C-032201		33%														
Batch 3	538UBC-ROCH-1-050301	4%															
Batch 3	538UBC-ROCH-2A-050301		5%														
Batch 3	538UBC-ROCH-2B-050301		4%														
Batch 3	538UBC-ROCH-2C-050301		1%														
Batch 3	538UBC-ROCH-3-050301			111%													
Batch 3	538UBC-ROCH-3-050301			119%													
Batch 3	538UBC-ROCH-2A-060701		46%														
Batch 3	538UBC-ROCH-2B-060701		12%														
Batch 3	538UBC-ROCH-2C-060701		35%														
Batch 3	538UBC-ROACH-A-071201		18%														
Batch 3	538UBC-ROACH-B-071201		27%														
Batch 3	538UBC-ROACH-C-071201		9%														
Batch 3	538UBC-ROACH-SM-071201																
Batch 3	538UBC-ROACH-A-082301		10%														
Batch 3	538UBC-ROACH-B-082301		3%														
Batch 3	538UBC-ROACH-C-082301		8%														
Batch 3	538UBC-SSUC-2-111400			118%													
Batch 3	538UBC-SSUC-2-111400			94%													
Batch 3	550BRC-California Roach-2B-031400																
Batch 3	550BRC-California Roach-2A-050900																
Batch 3	550BRC-California Roach-2C-080100																
Batch 3	550BRC-California Roach-2C-111400																
Batch 3	550BRC-ROCH-1-021501																
Batch 3	550BRC-ROCH-2A-021501		78%														
Batch 3	550BRC-ROCH-2B-021501		78%														
Batch 3	550BRC-ROCH-2C-021501		0%														
Batch 3	550BRC-ROCH-1-032201																
Batch 3	550BRC-ROCH-2A-032201	2%	3%														
Batch 3	550BRC-ROCH-2B-032201		16%														
Batch 3	550BRC-ROCH-2C-032201		14%														
Batch 3	550BRC-ROCH-1-050301																
Batch 3	550BRC-ROCH-2A-050301			86%													
Batch 3	550BRC-ROCH-2A-050301		9%	96%													
Batch 3	550BRC-ROCH-2B-050301		14%														
Batch 3	550BRC-ROCH-2C-050301		5%														
Batch 3	550BRC-ROCH-3-050301																
Batch 3	550BRC-ROACH-A-071201		41%														
Batch 3	550BRC-ROACH-B-071201		4%														
Batch 3	550BRC-ROACH-C-071201		45%														
Batch 3	550BRC-ROACH-A-082301																
Batch 3	550BRC-ROACH-B-082301																
Batch 3	550BRC-ROACH-C-082301																
Batch 3	550BRC-SSUC-1-080100			108%													

Appendix, Table 7. Biota MeHg QA

Batch #	Sample Descriptions	MeHg Replicate Analysis (RPD)	MeHg Field Dup Analysis (RPD)	MeHg Matrix Spike % Recovery	MeHg Blank Analysis (ug/g)	MeHg Dolt 2 Certified Value (ug/g)	Dolt 2 CRM (ug/g)	Dolt 2 CRM % Recovery	MeHg Dorn 2 Certified Value (ug/g)	Dorn 2 CRM (ug/g)	Dorn 2 CRM % Recovery	MeHg NIST 2976 Certified Value (ug/g)	NIST 2976 CRM (ug/g)	NIST 2976 CRM % Recovery	MeHg Replicate Analysis (RPD)	MeHg Field Dup Analysis (RPD)	MeHg Matrix Spike % Recovery
Batch 3	550BRC-SSUC-1-080100	6%		75%													
Batch 3	550BRC-SSUC-1-111400																
Batch 3	560RUM-RDSH-2-021700																
Batch 3	560RUM-RDSH-2-021700																
Batch 3	560RUM-RDSH-2-050900																
Batch 3	560RUM-RDSH-1-111000																
Batch 3	560RUM-SPDA-1-021700																
Batch 3	560RUM-SPDA-2-021700																
Batch 3	560RUM-SPDA-1A-050900																
Batch 3	560RUM-SPDA-1B-050900																
Batch 3	560RUM-SPDA-1B-050900			102%													
Batch 3	560RUM-SPDA-1A-080100			110%													
Batch 3	560RUM-SPDA-1B-080100																
Batch 3	560RUM-SPDA-1C-080100																
Batch 3	560RUM-SPDA-1A-111000																
Batch 3	560RUM-SPDA-1B-111000																
Batch 3	560RUM-SPDA-1C-111000																
Batch 3	560RUM-SPDA-2-111000																
Batch 3	560RUM-SPDA-1A-021501			100%													
Batch 3	560RUM-SPDA-1A-021501			105%													
Batch 3	560RUM-SPDA-1B-021501																
Batch 3	560RUM-SPDA-1A-051501		29%														
Batch 3	560RUM-SPDA-1B-051501		67%														
Batch 3	560RUM-SPDA-1C-051501		92%														
Batch 3	560RUM-SSUC-1-050900	9%															
Batch 3	560RUM-SSUC-1-080100																
Batch 3	560RUM-SSUC-1-111000																
Batch 3	560RUM-SSUC-1/2-021501																
Batch 3	560RUM-SSUC-1/2-051501																
Batch 3	560RUM-SSUC-1a-021700																
Batch 3	560RUM-SSUC-1b-021700																
Batch 3	560RUM-SSUC-2-080100																
Batch 3	560RUM-SSUC-2-080100																
Batch 3	565SOL-RDSH-2A-052200																
Batch 3	565SOL-RDSH-2B-052200		11%														
Batch 3	565SOL-RDSH-2C-052200																
Batch 3	565SOL-RDSH-2-080100																
Batch 3	565SOL-RDSH-2A-111000																
Batch 3	565SOL-RDSH-2B-111000																
Batch 3	565SOL-RDSH-2C-111000																
Batch 3	565SOL-RDSH-1-021501																
Batch 3	565SOL-RDSH-2-021501																
Batch 3	565SOL-SPDA-1A-111000																
Batch 3	565SOL-SPDA-1A-111000			95%													
Batch 3	565SOL-SPDA-1B-111000		7%	113%													
Batch 3	565SOL-SPDA-1C-111000		1%														
Batch 3	565SOL-SPDA-1-021501		8%														
Batch 3	565SOL-SSUC-1-052200	10%															

Appendix, Table 7. Biota MeHg QA

Batch #	Sample Descriptions	MeHg Replicate Analysis (RPD)	MeHg Field Dup Analysis (RPD)	MeHg Matrix Spike % Recovery	MeHg Blank Analysis (ug/g)	MeHg Dolt 2 Certified Value (ug/g)	Dolt 2 CRM (ug/g)	Dolt 2 CRM % Recovery	MeHg Dorn 2 Certified Value (ug/g)	Dorn 2 CRM (ug/g)	Dorn 2 CRM % Recovery	MeHg NIST 2976 Certified Value (ug/g)	NIST 2976 CRM (ug/g)	NIST 2976 CRM % Recovery	MeHg Replicate Analysis (RPD)	MeHg Field Dup Analysis (RPD)	MeHg Matrix Spike % Recovery
Batch 3	565SOL-SSUC-1A-080100																
Batch 3	565SOL-SSUC-1B-080100																
Batch 3	565SOL-SSUC-1-111000																
Batch 3	565SOL-SSUC-2-111000																
Batch 3	565SOL-SSUC-1-021501			99%													
Batch 3	565SOL-SSUC-1-021501			121%													
Batch 3	565SOL-SSUC-2-021501																
Batch 3	570YSB-RDSH-2A-052200																
Batch 3	570YSB-RDSH-2B-052200																
Batch 3	570YSB-RDSH-2C-052200																
Batch 3	570YSB-RDSH-2A-080100																
Batch 3	570YSB-RDSH-2B-080100																
Batch 3	570YSB-RDSH-2C-080100			113%													
Batch 3	570YSB-RDSH-2C-080100			113%													
Batch 3	570YSB-RDSH-1-112700																
Batch 3	570YSB-RDSH-2A-112700																
Batch 3	570YSB-RDSH-2B-112700																
Batch 3	570YSB-RDSH-2C-112700																
Batch 3	570YSB-SSUC-1-052200																
Batch 3	570YSB-SSUC-1-080100	2%															
Batch 3	510CLO-Amphipods-050301																
Batch 3	510CLO-Coenagrionidae-050301-2																
Batch 3	510CLO-Coenagrionidae-050301-2-FDUP		14%														
Batch 3	510CLO-Hydropsyche-050301																
Batch 3	510CLO-Hydropsyche-Ig-060701			121%													
Batch 3	510CLO-Hydropsyche-Ig-060701			108%													
Batch 3	510CLO-Hydropsyche-Ig-060701-FDUP		10%														
Batch 3	510CLO-Hydropsyche-sm-060701																
Batch 3	520NFC-Baetis-051501																
Batch 3	520NFC-Hydropsyche-051501																
Batch 3	520NFC-Perlodidae-051501																
Batch 3	530HAR-Amphipods-051501																
Batch 3	530HAR-Coenagrionidae-051501																
Batch 3	530HAR-Corydalidae-051501																
Batch 3	530HAR-Hydropsyche-051501																
Batch 3	537.9UBC-Hydropsyche-071201	4%															
Batch 3	538UBC-Elmidae-071201																
Batch 3	538UBC-Gomphidae-050301-1lg			108%													
Batch 3	538UBC-Gomphidae-050301-1lg			106%													
Batch 3	538UBC-Gomphidae-050301-1sm																
Batch 3	538UBC-Gomphidae-050301-2																
Batch 3	538UBC-Hydropsyche-071201																
Batch 3	538UBC-Hydropsyche-082301																
Batch 3	538UBC-Libellulidae-050301																
Batch 3	538UBC-Naucoridae-050301			105%													
Batch 3	538UBC-Naucoridae-050301			106%													
Batch 3	538UBC-Naucoridae-060701																
Batch 3	538UBC-Naucoridae-071201																

Appendix, Table 7. Biota MeHg QA

Batch #	Sample Descriptions	MeHg Replicate Analysis (RPD)	MeHg Field Dup Analysis (RPD)	MeHg Matrix Spike % Recovery	MeHg Blank Analysis (ug/g)	MeHg Dolt 2 Certified Value (ug/g)	Dolt 2 CRM (ug/g)	Dolt 2 CRM % Recovery	MeHg Dorn 2 Certified Value (ug/g)	Dorn 2 CRM (ug/g)	Dorn 2 CRM % Recovery	MeHg NIST 2976 Certified Value (ug/g)	NIST 2976 CRM (ug/g)	NIST 2976 CRM % Recovery	MeHg Replicate Analysis (RPD)	MeHg Field Dup Analysis (RPD)	MeHg Matrix Spike % Recovery
Batch 3	538UBC-Naucoridae-071201-FDUP		47%														
Batch 3	538UBC-Naucoridae-082301																
Batch 3	538UBC-Tipulidae-071201																
Batch 3	540SUL-Coenagrionidae-051501-1																
Batch 3	540SUL-Coenagrionidae-051501-2																
Batch 3	540SUL-Naucoridae-051501																
Batch 3	545BR1-Hydropsyche-061301																
Batch 3	545BR1-Naucoridae-061301																
Batch 3	550.1BRC-Hydropsyche-071201																
Batch 3	550.1BRC-Naucoridae-071201																
Batch 3	550.2BRC-Hydropsyche-071201																
Batch 3	550.2BRC-Naucoridae-071201																
Batch 3	550BRC-Coenagrionidae-050301-2																
Batch 3	550BRC-Corydalidae-050301																
Batch 3	550BRC-Elmidae-050301																
Batch 3	550BRC-Elmidae-060701			100%													
Batch 3	550BRC-Elmidae-060701			105%													
Batch 3	550BRC-Elmidae-071201																
Batch 3	550BRC-Elmidae-082301																
Batch 3	550BRC-Elmidae-082301-FDUP			6%													
Batch 3	550BRC-Ephemerillidae-050301																
Batch 3	550BRC-Ephemerillidae-050301			103%													
Batch 3	550BRC-Ephemerillidae-050301			104%													
Batch 3	550BRC-Hydropsyche-050301-lg																
Batch 3	550BRC-Hydropsyche-050301-sm																
Batch 3	550BRC-Hydropsyche-071201																
Batch 3	550BRC-Hydropsyche-082301																
Batch 3	550BRC-Hydropsyche-lg-060701																
Batch 3	550BRC-Hydropsyche-sm-060701																
Batch 3	550BRC-Libellulidae-050301																
Batch 3	550BRC-Naucoridae-050301																
Batch 3	550BRC-Naucoridae-060701																
Batch 3	550BRC-Naucoridae-071201																
Batch 3	550BRC-Naucoridae-082301																
Batch 3	555BR3-Hydropsyche-061301																
Batch 3	555BR3-Naucoridae-061301																
Batch 3	560RUM-Baetis-050301																
Batch 3	560RUM-Corydalidae-050301																
Batch 3	560RUM-Corydalidae-050301			107%													
Batch 3	560RUM-Corydalidae-050301			88%													
Batch 3	560RUM-Corydalidae-060701																
Batch 3	560RUM-Hydropsyche-050301-lg																
Batch 3	560RUM-Hydropsyche-050301-lg-FDUP			4%													
Batch 3	560RUM-Hydropsyche-050301-sm																
Batch 3	560RUM-Hydropsyche-060701																
Batch 3	560RUM-Perlodidae-050301																
Batch 3	520NFC-ROCH-3-050801			116%													
Batch 3	520NFC-ROCH-3-050801			113%													
Batch 3	520NFC-ROCH-2-022001																
Batch 3	520NFC-ROCH-2-051501																

Appendix, Table 8. Biota THg QA

Run #	Correlation Coefficient	Method Blanks-ug/l	Tort 2 CRM ug/g	Tort 2 CRM % Recovery	Dolt 2 CRM ug/g	Dolt 2 CRM % Recovery	NIST 2976 CRM ug/g	NIST 2976 CRM % Recovery	Dorm 2 CRM ug/g	Dorm 2 CRM % Recovery	Field Dup Sample Number	Field Dup RPD	Digestion Dup RPD	Matrix Spk Level (ug/g)	Matrix Spk % Recovery	Matrix Spk Dup RPD	Cont Calib % Recovery	LCS Level (ug/L)	LCS % Recovery	Notes	
3Cache00 3Cache00 3Cache00 3Cache00 3Cache00 3Cache00 3Cache00	0.99953	0.002	0.26 0.27	96.3% 100.0%	2.13 2.06	99.5% 96.3%	0.06 0.06	100% 100%			520NFC-Pteronarcys-022500 510CLO-Hydropsyche-022500 520NFC-Periodidae-050800	5.9% 21.8% 3.6%	3.0% 5.2%	1.92 1.85	95.6% 97.5%			2.97	103.8%		
4Cache00 4Cache00 4Cache00 4Cache00 4Cache00 4Cache00 4Cache00	0.99877	0.003	0.28 0.28	103.7% 103.7%	2.11 2.13	98.6% 99.5%	0.06 0.06	100% 100%			510CLO-Hydropsyche-052400 560RUM-Corydalidae-050900 565SOL-Libellulidae-052200	3.9% 22.1% 3.7%	0.4% 84.8%	1.96 1.79	94.6% 87.4%			3.03	108.7%	Blue samples needed reanalysis, but not enough sample left. Purple samples were reanalyzed in 5Cache.	
5Cache00 5Cache00 5Cache00 5Cache00 5Cache00 5Cache00 5Cache00	0.99932	0.021	0.28 0.28	103.7% 103.7%	2.15 2.13	100.5% 99.5%	0.06 0.06	100% 100%			540SUL-Ephemerellidae-050800 565SOL-Libellulidae-052200 550BRC-Libellulidae-050900-1	15.6% 3.5% 22.2%	7.0% 7.3%	1.72 1.89	86.3% 91.0%			2.94 1.75	107.8% 108.5%		
6Cache00 6Cache00 6Cache00 6Cache00 6Cache00 6Cache00 6Cache00	0.99925	0.011	0.29 0.28	107.4% 103.7%	2.16 2.15	100.9% 100.5%	0.06 0.06	100% 100%			535DAV-Corydalidae-051700	11.8%	0.8% 4.3%	2.00 1.96	96.0% 93.3%			2.92	104.5%		
7Cache00 7Cache00 7Cache00 7Cache00 7Cache00 7Cache00 7Cache00	0.99927	0.012 0.012	0.27 0.27	100.0% 100.0%	2.08 2.06	97.2% 96.3%	0.06 0.06	100% 100%			510CLO-Hydropsyche-080700 520NFC-Hydropsyche-080700 550BRC-Naucoridae-080100 560RUM-Hydropsyche-080100 565SOL-Hydropsyche-080100	5.6% 1.6% 0.2% 5.7% 9.0%	2.7% 1.1% 1.7%	2.00 2.94 2.00	96.6% 97.6% 95.5%			2.90 1.73	104.7% 106.0%		
8Cache00 8Cache00 8Cache00 8Cache00 8Cache00 8Cache00 8Cache00	0.99911	0.019	0.29 0.3	107.4% 111.1%	2.25 2.21	105.1% 103.3%	0.06 0.06	100% 100%			540SUL-Stratiomys-080700	38.4%	4.4% 1.8%	3.13 1.96	101.9% 102.2%			2.98	109.7%		
12Cache00 12Cache00 12Cache00 12Cache00 12Cache00 12Cache00 12Cache00	0.99913	0.006 0.001 0.004 0.006 0.003 0.005	0.26	94.8%	2.08	97.4%					510CLO-Hydropsyche-113000 560RUM-Corydalidae-111000 565SOL-Hydropsyche-111000	2.5% 0.9% 2.9%	6.6% 2.9%	0.96 1.00 0.86 0.93	89.7% 91.2% 92.1% 91.2%	1.7% 1.0%		115.1% 102.8% 104.3% 97.3% 104.6% 103.0%	3.07 1.83	103.1% 107.3%	
13Cache00 13Cache00 13Cache00 13Cache00 13Cache00 13Cache00 13Cache00	0.99926	0.000 0.002 0.002	0.30 0.30	110.3% 110.8%							540SUL-Coenagrionidae-111400-1 550BRC-Hydropsyche-111400	7.9% 10.7%	8.5%	2.86 3.13	66.2% 68.7%	3.7%		101.4% 103.3%	3.00	117.1%	This run was reanalyzed as 19Cache except for 3 samples that did not have enough to reanalyze.
14Cache00 14Cache00 14Cache00 14Cache00 14Cache00 14Cache00 14Cache00	0.99943	0.021 -0.003 0.017 -0.004 -0.005 -0.009	0.29 0.30 0.30	108.4% 109.6% 110.0%	2.17 2.14 2.15	101.2% 100.1% 100.6%							1.9% 6.7%	0.88 0.87 0.68 0.70	98.9% 100.1% 97.1% 97.4%	0.3% 1.2%		101.0% 98.7% 98.7% 96.3% 100.6% 98.8%	3.00 1.80	108.9% 108.3%	
15Cache00 15Cache00 15Cache00 15Cache00 15Cache00 15Cache00 15Cache00	0.99910	0.003 0.001 0.001 0.002 0.000 0.000	0.29 0.30 0.30	108.6% 111.4% 112.4%	2.17 2.17 2.18	101.5% 101.6% 101.7%							3.2% 3.8%	1.18 1.05 0.87 1.03	98.0% 99.2% 98.4% 100.1%	1.8% 1.2%		101.5% 102.9% 104.4% 98.8% 100.0% 99.6%	3.05 1.75	109.1% 110.2%	

Appendix, Table 8. Biota THg QA

Run #	Correlation Coefficient	Method Blanks-ug/l	Tort 2 CRM ug/g	Tort 2 CRM % Recovery	Dolt 2 CRM ug/g	Dolt 2 CRM % Recovery	NIST 2976 CRM ug/g	NIST 2976 CRM % Recovery	Dorm 2 CRM ug/g	Dorm 2 CRM % Recovery	Field Dup Sample Number	Field Dup RPD	Digestion Dup RPD	Matrix Spk Level (ug/L)	Matrix Spk % Recovery	Matrix Spk Dup RPD	Cont Calib % Recovery	LCS Level (ug/L)	LCS % Recovery	Notes
16Cache00	0.99938	0.000	0.30	112.9%	2.17	101.6%							1.6%	1.32	94.5%	0.2%	100.3%	3.05	107.6%	
16Cache00		0.012	0.31	115.7%	2.18	101.7%							7.8%	1.55	93.6%	0.9%	102.5%	1.72	108.4%	
16Cache00		0.015	0.30	111.3%	2.16	101.0%								1.67	97.7%		101.5%			
16Cache00		0.003												1.85	97.5%		100.0%			
16Cache00		0.000															100.6%			
16Cache00		-0.001															102.6%			
17Cache00	0.99934	0.003	0.28	103.9%	2.20	103.0%							4.4%	0.72	91.6%	1.0%	98.8%	2.96	106.2%	
17Cache00		-0.001	0.28	102.2%	2.25	105.0%							4.1%	0.72	94.9%	3.6%	101.4%	1.77	108.1%	
17Cache00		0.000	0.28	105.1%	2.14	100.2%								0.66	98.3%		101.6%			
17Cache00		0.001												0.69	97.3%		100.6%			
17Cache00		-0.001															99.6%			
17Cache00		-0.001															100.4%			
18Cache00	0.99990	0.001	0.28	102.2%	2.16	100.9%							1.5%	0.61	94.7%	1.0%	100.0%	3.05	105.0%	
18Cache00		0.004	0.27	101.5%	2.15	100.4%							1.8%	0.59	96.5%	1.8%	99.4%	1.72	112.0%	
18Cache00		0.003	0.27	100.7%	2.13	99.3%								0.51	97.1%		100.7%			
18Cache00		0.001												0.55	98.1%		100.4%			
18Cache00		-0.001															101.1%			
18Cache00		-0.001															101.7%			
19Cache00	0.99876	-0.002	0.29	105.9%							540SUL-Coenagrionidae-111400-1	3.3%		2.93	85.8%	4.2%	100.6%	3.02	109.2%	
19Cache00		-0.001	0.28	102.4%							550BRC-Hydropsyche-111400	20.9%		3.22	89.5%		101.9%			
19Cache00		-0.002																		
19Cache00																				
19Cache00																				
19Cache00																				
20Cache00	0.99974	-0.001	0.27	101.5%	2.09	97.7%					550BRC-California Roach-2-080100	26.1%	3.8%	1.89	89.0%	0.3%	99.5%	2.99	108.1%	
20Cache00		-0.001	0.29	105.7%	2.08	97.2%						5.5%	3.7%	1.69	93.7%	5.1%	103.5%	1.82	107.4%	
20Cache00		-0.001	0.28	104.2%	2.11	98.4%					538UBC-California Roach-2-111400	20.7%		1.89	94.8%		101.9%			
20Cache00		0.002										10.3%		1.82	95.1%		99.6%			
20Cache00		0.000										11.4%					101.5%			
20Cache00		0.000										1.1%					100.7%			
20Cache00												5.2%								
20Cache00												8.3%								
20Cache00												3.1%								
20Cache00												4.8%								
20Cache00												3.5%								
20Cache00												1.3%								
20Cache00												9.0%								
20Cache00												5.8%								
20Cache00												1.7%								
20Cache00												7.5%								
20Cache00												535DAV-California Roach-2-080400	19.6%							
20Cache00												505MID-California Roach-2-052400	24.1%							
20Cache00												535DAV-California Roach-2-110600	18.8%							
20Cache00												20.8%								
20Cache00												2.0%								
20Cache00												535DAV-California Roach-2-031000	22.1%							
20Cache00												8.2%								
20Cache00												7.0%								
20Cache00												1.3%								
21Cache00	0.99941	0.011	0.27	101.0%	2.12	98.9%					560RUM-Hydropsyche-021501	4.0%	7.4%	0.42	97.5%	0.6%	100.7%	2.91	106.7%	
21Cache00		0.005	0.27	98.3%	2.08	97.2%					Cache Ck. above Bear Ck.-Baetis	8.0%	8.1%	0.39	98.1%	0.7%	100.6%	1.82	104.8%	
21Cache00		0.006	0.28	102.6%	2.08	97.0%						3.1%		1.85	89.8%		101.1%			
21Cache00		0.004										11.1%		2.08	90.4%		98.0%			
21Cache00		0.005										59.8%					100.5%			
21Cache00		0.005										60.6%					100.0%			
22Cache00	0.99919	0.001	0.27	101.0%							Nature Preserve-Red Shiner	12.6%	5.3%	1.02	96.6%	0.7%	103.7%	2.96	104.6%	This run contains in-house research testing.
22Cache00		0.001	0.28	103.9%										0.98	97.4%		104.4%			This run also contains regular sample testing.
22Cache00		0.004	0.27	101.7%													100.6%			
22Cache00																				
22Cache00																				
22Cache00																				
23Cache00	0.99917	0.005			2.17	101.4%					530HAR-Hydropsyche-022001	4.1%	5.0%	3.33	91.5%	10.9%	99.5%	3.02	106.9%	
23Cache00		0.003			2.16	101.1%					550BRC-California Roach-2-031400	11.4%		3.92	82.0%		100.1%			
23Cache00		0.001			2.16	101.1%						3.5%					99.5%			
23Cache00												14.9%								
23Cache00																				
23Cache00																				
24Cache00	0.99935	0.013	0.28	101.9%													100.3%		108.6%	This run contains in-house research testing.
24Cache00		-0.001	0.27	100.5%													98.8%			
24Cache00		-0.003	0.27	98.8%													103.4%			
24Cache00																				
24Cache00																				
24Cache00																				

Appendix, Table 8. Biota THg QA

Run #	Correlation Coefficient	Method Blanks-ug/l	Tort 2 CRM ug/g	Tort 2 CRM % Recovery	Dolt 2 CRM ug/g	Dolt 2 CRM % Recovery	NIST 2976 CRM ug/g	NIST 2976 CRM % Recovery	Dorm 2 CRM ug/g	Dorm 2 CRM % Recovery	Field Dup Sample Number	Field Dup RPD	Digestion Dup RPD	Matrix Spk Level (ug/g)	Matrix Spk % Recovery	Matrix Spk Dup RPD	Cont Calib % Recovery	LCS Level (ug/L)	LCS % Recovery	Notes
25Cache00 25Cache00 25Cache00 25Cache00 25Cache00 25Cache00 25Cache00	0.99969	0.005 0.004																		This run contains in-house research testing.
26Cache00 26Cache00 26Cache00 26Cache00 26Cache00 26Cache00 26Cache00	0.99951	0.003 0.001	0.28 0.28	104.1% 105.4%													100.4% 99.1%		106.7%	This run contains in-house research testing.
30Cache 30Cache 30Cache 30Cache 30Cache 30Cache 30Cache	0.99922	-0.011 -0.003 -0.004 -0.003 -0.001 -0.001 -0.001			2.17 2.23 2.09	101.4% 104.3% 97.7%			4.29 4.37	92.5% 94.2%	520NFC-SSUC-1-022001 565SOL-SSUC-1-080100	4.3% 7.8%	6.0% 11.5%	1.56 1.67 1.67 1.61	102.2% 101.6% 94.5% 48.7%	0.6% 64.0%	99.7% 99.4% 98.2% 99.9% 99.5%	2.98 1.80	104.1% 106.2%	One sample needed to be reanalyzed due to poor QC.
31Cache 31Cache 31Cache 31Cache 31Cache 31Cache 31Cache 31Cache	0.99924	0.007 0.010 0.003 -0.006 -0.008 0.000	0.29 0.29 0.29	106.1% 107.0% 105.7%	2.15 2.17	100.5% 101.2%					560RUM-SPDA-1-050900 560RUM-SPDA-1-080100 560RUM-SPDA-1-111000 560RUM-SPDA-1-021501 560RUM-SPDA-1-051501 565SOL-SPDA-1-111000 520NFC-SPDA-1-051501 536DCA-SPDA-1-050801	3.7% 1.9% 0.5% 1.4% 2.4% 18.9% 16.6% 14.0% 7.0% 17.6% 10.7% 11.1% 1.5% 12.5% 6.6% 4.6% 2.0% 7.0% 11.1% 4.2%	1.4% 5.2%	1.72 1.67 1.79 1.52	100.8% 98.1% 94.5% 96.4%	2.7% 2.0%	99.3% 102.1% 99.4% 100.4% 100.0%	2.90 1.79	104.6% 106.6%	
32Cache 32Cache 32Cache 32Cache 32Cache 32Cache 32Cache	0.99968	0.000 0.003 -0.001 -0.001 -0.001 -0.002	0.28 0.29 0.29	103.6% 107.1% 107.2%	2.09	97.6%					565SOL-RDSH-2-052200 565SOL-RDSH-2-111000 570YSB-RDSH-2-052200 570YSB-RDSH-2-080100 570YSB-RDSH-2-112700	14.4% 12.2% 26.5% 2.6% 3.5% 0.9% 23.9% 15.6% 8.4% 20.4% 31.1% 10.9% 14.7% 27.9% 13.9%	6.5% 1.2% 0.0%	1.72 1.56 1.56 1.56 5.56 5.00	97.5% 98.3% 97.8% 98.7% 106.1% 133.1%	0.8% 0.9% 22.6%	98.5% 100.2% 102.1% 101.2%	2.93 1.82	102.0% 104.2%	One sample needed to be reanalyzed.
33Cache 33Cache 33Cache 33Cache 33Cache 33Cache	0.99927	0.011 0.014 0.000 0.003 0.001 -0.001	0.29 0.28 0.27	107.1% 105.1% 101.5%	2.21	103.2%					538UBC-ROCH-2-022001 538UBC-ROCH-2-032201 538UBC-ROCH-2-050301 533DC5-ROCH-2-080400 538UBC-ROCH-2-060701	19.3% 22.3% 3.0% 23.8% 4.2% 19.6% 29.3% 9.4% 20.1% 15.4% 22.6% 5.2% 17.5%	0.8% 0.4%	1.92 1.61 1.56 1.39	97.3% 97.3% 99.8% 99.4%	0.0% 0.4%	99.4% 101.9% 102.0% 101.4%	2.97 1.83	102.0% 106.7%	
34Cache 34Cache 34Cache 34Cache 34Cache 34Cache	0.99969	0.022 0.014 0.023 0.016 0.010 0.010	0.29 0.29 0.30	107.5% 107.6% 109.9%					4.58	98.6%	550BRC-ROCH-2-021501 550BRC-ROCH-2-032201 550BRC-ROCH-2-050301 550BRC-ROCH-2-060701 545BR1-ROCH-2-061301	2.5% 3.1% 7.0% 7.8% 15.5% 7.8% 2.7% 2.7% 5.4% 16.9% 5.4% 22.2% 4.2% 6.9% 2.7%	4.0% 10.1% 2.0%	5.00 5.56 5.16 4.41 5.17 5.58	105.0% 101.8% 105.5% 96.3% 123.0% 100.0%	3.2% 9.1% 20.6%	101.7% 106.1% 105.6% 101.8%	3.01 1.78	108.1% 110.9%	

Appendix, Table 8. Biota THg QA

Run #	Correlation Coefficient	Method Blanks-ug/l	Tort 2 CRM ug/g	Tort 2 CRM % Recovery	Dolt 2 CRM ug/g	Dolt 2 CRM % Recovery	NIST 2976 CRM ug/g	NIST 2976 CRM % Recovery	Dorm 2 CRM ug/g	Dorm 2 CRM % Recovery	Field Dup Sample Number	Field Dup RPD	Digestion Dup RPD	Matrix Spk Level (ug/g)	Matrix Spk % Recovery	Matrix Spk Dup RPD	Cont Calib % Recovery	LCS Level (ug/L)	LCS % Recovery	Notes
35Cache 35Cache 35Cache 35Cache 35Cache 35Cache	0.99952	-0.004 -0.001 -0.003 0.007 -0.004 -0.006	0.28	103.5%					4.21 4.08 4.08	90.7% 87.9% 88.0%			5.5% 2.3%	5.36 5.17 3.45 3.33	99.9% 99.3% 101.5% 101.5%	0.7% 0.0%	100.2% 98.6% 99.7% 99.4%	2.98 1.78	107.6% 106.3%	
36Cache 36Cache 36Cache 36Cache 36Cache 36Cache 36Cache	0.99969	-0.001 0.000 -0.007 -0.004 -0.005 -0.005	0.28 0.27	104.1% 98.8%					4.12 4.19 4.25	88.8% 90.3% 91.7%	510CLO-Coenagrionidae-050301-2 560RUM-Hydropsyche-050301-Ig 510CLO-Hydropsyche-Ig-060701	10.9% 1.5% 3.4%	4.2% 3.4%	1.52 1.79 1.79 1.72	97.7% 96.7% 96.7% 96.7%	1.0% 0.0%	100.7% 98.3% 98.0% 98.9% 100.0%	2.95 1.78	103.3% 100.7%	
37Cache 37Cache 37Cache 37Cache 37Cache 37Cache 37Cache	0.99977	-0.003 -0.004 -0.005							4.24 4.24 4.36	91.3% 91.4% 94.0%	545BR1-ROCH-2-061301 536DCA-SPDA-1-050801 550BRC-ROCH-2-060701 535DAV-ROCH-2-051001 BC @ gauge-CA Roach-2-031400 550BRC-California Roach-2-031400	10.3% 16.0% 5.8% 20.8% 11.5% 32.1% 26.5% 16.9% 43.0% 2.1% 9.8% 7.7% 2.5% 6.1% 8.5% 2.4%	1.7%	2.40 2.13	97.8% 94.1%	3.8%	98.2% 98.5% 98.0%	2.94	102.8%	This run contains in-house research testing. This run also contains regular sample testing.
38Cache 38Cache 38Cache 38Cache 38Cache 38Cache 38Cache	0.99900	0.013 0.008 0.012	0.28 0.28 0.26	103.3% 102.8% 97.9%									7.1% 4.1%	1.92 1.85 4.08 4.35	85.3% 92.0% 90.2% 109.5%	7.6% 19.4%	98.3% 100.2% 97.4%	2.94	110.9%	This run contains in-house research testing. This run also contains regular sample testing.
39Cache 39Cache 39Cache 39Cache 39Cache 39Cache 39Cache	0.99962	0.003 0.002 0.000 0.001							4.43 4.44 4.48	95.5% 95.7% 96.5%	538UBC-Naucoreidae-071201 550BRC-Elmidae-082301	13.1% 39.7%	0.3% 0.9%	3.13 3.13 1.92 1.92	112.3% 100.7% 91.1% 92.2%	10.9% 1.2%	100.4% 100.2% 99.5%	2.97 2.97	107.0% 106.1%	
40Cache 40Cache 40Cache 40Cache 40Cache 40Cache 40Cache	0.99955	0.000 -0.001 -0.001					0.06 0.06	105% 102%					3.2%	2.17 1.79	100.9% 98.0%	2.9%	100.9% 101.1%	2.97	106.9%	

Appendix, Table 9. Water QA Summary

Sample Date	Location	Type	Sample Number	raw THg Replicate Analysis (RPD)		raw THg Field Dup Analysis (RPD)		raw MeHg Replicate Analysis (RPD)		raw MeHg Field Dup Analysis (RPD)		raw THg Matrix Spike % Recovery		raw MeHg Matrix Spike % Recovery		THg Replicate Analysis (RPD)		THg Field Dup Analysis (RPD)		THg Replicate Analysis (RPD)		THg Field Dup Analysis (RPD)		THg Matrix Spike % Recovery		raw THg MeHg Matrix Spike % Recovery		(raw) THg MeHg Blank ng/L		(raw) MeHg Method Blank ng/L		(raw) THg SRM % Recovery		(raw) MeHg SRM % Recovery		(raw) THg Water Spike % Recovery		(THg) THg Method Blank ng/L		(THg) MeHg Method Blank ng/L		(THg) THg SRM % Recovery		(THg) MeHg SRM % Recovery		(THg) THg Water Spike % Recovery																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								

Appendix, Table 9. Water QA Summary

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Appendix, Table 9. Water QA Summary

Sample Date	Location	Type	Sample Number	raw THg Replicate Analysis (RPD)	raw THg Field Dup Analysis (RPD)	raw MeHg Replicate Analysis (RPD)	raw MeHg Field Dup Analysis (RPD)	raw THg Matrix Spike % Recovery	raw MeHg Matrix Spike % Recovery	THg THg Replicate Analysis (RPD)	THg THg Field Dup Analysis (RPD)	THg MeHg Replicate Analysis (RPD)	THg MeHg Field Dup Analysis (RPD)	THg MeHg Matrix Spike % Recovery	THg MeHg Matrix Spike % Recovery	(raw) THg Method Blank ng/L	(raw) MeHg Method Blank ng/L	(raw) THg SRM % Recovery	(raw) MeHg SRM % Recovery	(raw) Tap Water Spike % Recovery	(THg) THg Method Blank ng/L	(THg) MeHg Method Blank ng/L	(THg) THg SRM % Recovery	(THg) MeHg SRM % Recovery	(THg) Tap Water Spike % Recovery
7-Nov-00	Cache Ck. blw Clear Lake	FDUP	510CLO-RAW-110700					105%							0.8080	0.0201	92%	123%	97%		0.1470	0.0247	97%	115%	101%
7-Nov-00	Cache Ck. blw Clear Lake		510CLO-RAW-110700					95%							0.1530	0.0200	97%	115%	100%		0.1670	0.0246	101%	108%	105%
7-Nov-00	North Fk. Cache Ck.		520NFC-RAW-110700												0.1470	0.0200	99%	108%	101%		0.1980	0.0250	109%	102%	102%
7-Nov-00	Davis Ck. @DC5		533DC5-RAW-110700	3%											0.1470	0.0247					0.0570	0.0260			108%
7-Nov-00	Middle Ck.		535DAV-RAW-110700												0.1670	0.0246						0.0262			
7-Nov-00	Sulpher Ck.		540SUL-RAW-110700												0.1980	0.0250						0.0263			
7-Nov-00	Mid Bear Ck.		550BRC-RAW-110700												0.1380	0.0260						0.0274			
7-Nov-00	Mid Bear Ck.		550BRC-RAW-110700													0.0261					0.0268				
7-Nov-00	Cache Ck. @ Rumsey		560RUM-RAW-110700		5%	33%	72%			1%		12%			0.0263						0.0272				
7-Nov-00	Cache Ck. @ Rumsey		560RUM-RAW-110700					88%																	
7-Nov-00	Upper Bear Ck.		538UBC-RAW-110700					93%																	
7-Nov-00	Upper Bear Ck.		538UBC-RAW-110700					99%					101%												
7-Nov-00	Cache Ck. blw Hwy 505		565SOL-RAW-110700					101%																	
7-Nov-00	Cache Ck. blw Hwy 505		565SOL-RAW-110700										102%												
7-Nov-00	Cache Ck. blw Yolo		570YSB-RAW-110700																						
7-Nov-00			BDI-110700			0%					35%														
11-Dec-00	Cache Ck. blw Clear Lake	FDUP	510CLO-RAW-121100	8%									117%		0.2720	0.0221	99%	102%	100%		0.2720	0.0294	99%	104%	100%
11-Dec-00	Cache Ck. blw Clear Lake		510CLO-RAW-121100										114%		0.0968	0.0221					0.0968	0.0301			105%
11-Dec-00	North Fk. Cache Ck.		520NFC-RAW-121100												0.0961	0.0225		104%	105%		0.0961	0.0279			
11-Dec-00	North Fk. Cache Ck.		520NFC-RAW-121100													0.0294					0.0260				
11-Dec-00	Upper Bear Ck.		538UBC-RAW-121100													0.0301					0.0261				
11-Dec-00	Upper Bear Ck.		538UBC-RAW-121100													0.0279					0.0263				
11-Dec-00	Mid Bear Ck.		550BRC-RAW-121100																						
11-Dec-00	Cache Ck. @ Rumsey		560RUM-RAW-121100					88%																	
11-Dec-00	Cache Ck. @ Rumsey		560RUM-RAW-121100					93%			7%	31%													
11-Dec-00	Cache Ck. @ Rumsey		560RUM-RAW-121100		0%		82%						103%												
11-Dec-00	Cache Ck. @ Rumsey		560RUM-RAW-121100										93%												
11-Dec-00	Cache Ck. blw Hwy 505		565SOL-RAW-121100																						
11-Dec-00			BDI-121100																						
14-Aug-00			Battelle Blank Water																						
11-Jan-01	Cache Ck. blw Clear Lake	FDUP	510CLO-RAW-011101												0.3230	0.0235	97%	100%	97%		0.1460	0.0235	101%	100%	105%
11-Jan-01	Cache Ck. blw Clear Lake		510CLO-RAW-011101												0.3570	0.0244		109%	99%		0.1100	0.0244			103%
11-Jan-01	North Fk. Cache Ck.		520NFC-RAW-011101												0.2610	0.0235					0.0942	0.0235			
11-Jan-01	Harley Gulch		530HAR-RAW-011101													0.0274					0.0274				
11-Jan-01	Upper Bear Ck.		538UBC-RAW-011101													0.0268					0.0268				
11-Jan-01	Upper Bear Ck.		538UBC-RAW-011101													0.0272					0.0272				
11-Jan-01	Sulpher Ck.		540SUL-RAW-011101																						
11-Jan-01	Mid Bear Ck.		550BRC-RAW-011101																						
11-Jan-01	Cache Ck. @ Rumsey		560RUM-RAW-011101																						
11-Jan-01	Cache Ck. @ Rumsey		560RUM-RAW-011101			7%		103%					102%												
11-Jan-01	Cache Ck. blw Yolo		565SOL-RAW-011101								28%		102%												
11-Jan-01	Cache Ck. blw Yolo		565SOL-RAW-011101		2%		11%	120%		1%		23%	84%												
11-Jan-01	Cache Ck. blw Yolo		565SOL-RAW-011101					106%					112%												
11-Jan-01			BDI-011101																						
14-Aug-00			Battelle Blank Water																						
13-Feb-01	Cache Ck. blw Clear Lake	FDUP	510CLO-RAW-021301					106%							0.3020	0.0137		104%	101%		0.3020	0.0137	103%	104%	101%
13-Feb-01	Cache Ck. blw Clear Lake		510CLO-RAW-021301					104%							0.0360	0.0137					0.0360	0.0137			102%
13-Feb-01	Cache Ck. blw Clear Lake		510CLO-RAW-021301		7%	3%				7%		3%			0.3350	0.0137					0.3350	0.0137			
13-Feb-01	North Fk. Cache Ck.		520NFC-RAW-021301																						
13-Feb-01	Harley Gulch		530HAR-RAW-021301																						
13-Feb-01	Upper Bear Ck.		538UBC-RAW-021301			7%					7%														
13-Feb-01	Sulpher Ck.		540SUL-RAW-021301																						
13-Feb-01	Mid Bear Ck.		550BRC-RAW-021301																						
13-Feb-01	Cache Ck. @ Rumsey		560RUM-RAW-021301																						
13-Feb-01	Cache Ck. blw Hwy 505		565SOL-RAW-021301																						
13-Feb-01	Cache Ck. blw Hwy 505		565SOL-RAW-021301					109%					109%												
13-Feb-01			BDI-021301					93%																	

Appendix, Table 9. Water QA Summary

[illegible]

Appendix, Table 10a. 5% QA Split Data

Results of 5% BIOTA Hg QA Splits with Frontier Geosciences

(Highlighted RPDs [Relative Percent Differences] flag project laboratory data indicated to be out of compliance by the oversight laboratory)

Tissue Sample Number	Type	Biotic MeHg (Battelle vs Frontier)			Biotic THg (UC Davis vs Frontier)		
		MeHg ng/g (Frontier)	MeHg ng/g (Battelle)	% RPD Batt./Front.	THg ng/g (Frontier)	THg ng/g (UCD)	% RPD UCD/Front.
565SOL-Hydropsyche-111000	Invertebrate Comp.	116	99	-16%	131	150	14%
550BRC-Hydropsyche-121100	Invertebrate Comp.	854	759	-12%	3600	2390	-40%
538UBC-Tipulidae-1-022001	Invertebrate Comp.	411	423	3%	373	460	21%
510CLO-Hydropsyche-113000	Invertebrate Comp.	31	22	-33%	42	50	17%
530HAR-Coenagrionidae-022001	Invertebrate Comp.	9220	8160	-12%	15900	19100	18%
560RUM-Corydalidae-050301	Invertebrate Comp.	113	129	13%	132	140	6%
510CLO-Hydropsyche-050301	Invertebrate Comp.	127	107	-17%	84	110	26%
550BRC-Naucoridae-071201	Invertebrate Comp.	2860	3040	6%	3100	3350	8%
520NFC-Perlodidae-051501	Invertebrate Comp.	41	43	5%	50	50	0%
538UBC-Naucoridae-082301	Invertebrate Comp.	248	198	-23%	208	230	10%
538UBC-Tipulidae-050800	Invertebrate Comp.	121	111	-9%	118	120	2%
510CLO-Hydropsyche-022500	Invertebrate Comp.	94	92	-2%	103	100	-3%
550BRC-Hydropsyche-050900	Invertebrate Comp.	1040	1220	16%	1560	1450	-7%
560RUM-Corydalidae-050900-FDUP	Invertebrate Comp.	98	111	12%	121	125	3%
565SOL-Libellulidae-052200	Invertebrate Comp.	94	109	15%	88	90	2%
520NFC-SPDA-1A-051501	Small Fish Comp.	415	347	-18%	245	350	35%
538UBC-ROCH-2A-022001	Small Fish Comp.	515	505	-2%	366	380	4%
538UBC-Roach-A-071201	Small Fish Comp.	700	570	-20%	557	540	-3%
550BRC-ROCH-2B-021501	Small Fish Comp.	2010	1120	-57%	2210	2590	16%
550BRC-ROACH-B-071201	Small Fish Comp.	4290	3060	-33%	3460	4110	17%
560RUM-SPDA-1B-111000	Small Fish Comp.	282	167	-51%	201	230	13%
560RUM-SSUC-1A-021700	Small Fish Comp.	335	284	-16%	259	270	4%
565SOL-RDSH-2A-111000	Small Fish Comp.	896	695	-25%	598	700	16%
565SOL-SSUC-1A-080100	Small Fish Comp.	464	350	-28%	345	360	4%
570YSB-RDSH-2C-052200	Small Fish Comp.	372	225	-49%	222	280	23%
520NFC-Hydropsyche-080700-FDUP	Invertebrate Comp.				103	103	0%
505MID-AESHNIDAE-052400	Invertebrate Comp.				64	64	0%
565SOL-HYDROPSYCHE-080100-FDUP	Invertebrate Comp.				212	215	1%
560RUM-Smbass-1-1070/425TL-120100	Lg. Fish Muscle Tissue				6770	6950	3%
560RUM-Smbass-20-685/367TL-120100	Lg. Fish Muscle Tissue				3090	3300	7%
538UBC-SPM-6-125/250TL-111400	Lg. Fish Muscle Tissue				2290	2160	-6%
550BRC-SSUC-6-265/292TL-112200	Lg. Fish Muscle Tissue				7710	7890	2%
520NFC-SSUC-4-1000/462TL-111400	Lg. Fish Muscle Tissue				1490	1670	11%
510CLO-LMB-10-1120/391TL-113000	Lg. Fish Muscle Tissue				1160	1330	14%
565SOL-SMB-9-330/289TL-112900	Lg. Fish Muscle Tissue				1580	1750	10%
565SOL-SSUC-7-515/362TL-112900	Lg. Fish Muscle Tissue				1240	1320	6%
538UBC-SSUC-9-210/267TL-112200	Lg. Fish Muscle Tissue				1330	1570	17%
510CLO-SSUC-5-270/302TL-113000	Lg. Fish Muscle Tissue				463	489	5%

Mean RPD (Battelle vs Frontier): -14%
Mean absolute RPD (Battelle vs Frontier): 20%

Mean RPD (UCD vs Frontier): 7%
Mean absolute RPD (UCD vs Frontier): 10%

Appendix, Table 10b. 5% QA Split Data

METHYL:TOTAL Hg RATIOS in 5% BIOTA Hg QA Splits with Frontier Geosciences*(values in red denote chemically impossible methyl:total Hg percentages; i.e.--greater than 100%)*

		MeHg:THg Percentage (Frontier Intra-Lab Results)			MeHg:THg Percentage (Battelle MeHg, UCD THg)		
<u>Tissue</u> <u>Sample Number</u>	<u>Type</u>	<u>THg ng/g</u> <u>(Frontier)</u>	<u>MeHg ng/g</u> <u>(Frontier)</u>	<u>% MeHg</u> <u>(Frontier)</u>	<u>THg ng/g</u> <u>(UCD)</u>	<u>MeHg ng/g</u> <u>(Battelle)</u>	<u>% MeHg</u> <u>(UCD/Batt.)</u>
565SOL-Hydropsyche-111000	Invertebrate Comp.	131	116	88%	150	99	66%
550BRC-Hydropsyche-121100	Invertebrate Comp.	3600	854	24%	2390	759	32%
538UBC-Tipulidae-1-022001	Invertebrate Comp.	373	411	110%	460	423	92%
510CLO-Hydropsyche-113000	Invertebrate Comp.	42	31	73%	50	22	44%
530HAR-Coenagrionidae-022001	Invertebrate Comp.	15900	9220	58%	19100	8160	43%
560RUM-Corydalidae-050301	Invertebrate Comp.	132	113	85%	140	129	92%
510CLO-Hydropsyche-050301	Invertebrate Comp.	84	127	151%	110	107	97%
550BRC-Naucoridae-071201	Invertebrate Comp.	3100	2860	92%	3350	3040	91%
520NFC-Perlodidae-051501	Invertebrate Comp.	50	41	82%	50	43	86%
538UBC-Naucoridae-082301	Invertebrate Comp.	208	248	119%	230	198	86%
538UBC-Tipulidae-050800	Invertebrate Comp.	118	121	102%	120	111	93%
510CLO-Hydropsyche-022500	Invertebrate Comp.	103	94	91%	100	92	92%
550BRC-Hydropsyche-050900	Invertebrate Comp.	1560	1040	67%	1450	1220	84%
560RUM-Corydalidae-050900-FDUP	Invertebrate Comp.	121	98	81%	125	111	89%
565SOL-Libellulidae-052200	Invertebrate Comp.	88	94	106%	90	109	121%
520NFC-SPDA-1A-051501	Small Fish Comp.	245	415	169%	350	347	99%
538UBC-ROCH-2A-022001	Small Fish Comp.	366	515	141%	380	505	133%
538UBC-Roach-A-071201	Small Fish Comp.	557	700	126%	540	570	106%
550BRC-ROCH-2B-021501	Small Fish Comp.	2210	2010	91%	2590	1122	43%
550BRC-ROACH-B-071201	Small Fish Comp.	3460	4290	124%	4110	3060	74%
560RUM-SPDA-1B-111000	Small Fish Comp.	201	282	140%	230	167	73%
560RUM-SSUC-1A-021700	Small Fish Comp.	259	335	129%	270	284	105%
565SOL-RDSH-2A-111000	Small Fish Comp.	598	896	150%	700	695	99%
565SOL-SSUC-1A-080100	Small Fish Comp.	345	464	134%	360	350	97%
570YSB-RDSH-2C-052200	Small Fish Comp.	222	372	167%	280	225	80%

Appendix, Table 10c. 5% QA Split Data

Out of Compliance Results of 5% Biota Hg QA Splits with Oversight Laboratory

(values in red denote chemically impossible methyl:total Hg percentages; i.e.--greater than 100%)

		MeHg:THg Percentage (Battelle MeHg, UCD THg)			Battelle MeHg out of compliance	UC Davis THg out of compliance	MeHg:THg Percentage (Frontier Intra-Lab Results)		
Tissue Sample Number	Type	MeHg ng/g (Battelle)	THg ng/g (UCD)	% MeHg (UCD/Batt.)			MeHg ng/g (Frontier)	THg ng/g (Frontier)	% MeHg (Frontier)
510CLO-Hydropsyche-113000	Invertebrate Comp.	22	50	44%	√		31	42	73%
510CLO-Hydropsyche-050301	Invertebrate Comp.	107	110	97%		√	127	84	151%
520NFC-SPDA-1A-051501	Small Fish Comp.	347	350	99%		√	415	245	169%
550BRC-Hydropsyche-121100	Invertebrate Comp.	759	2390	32%		√	854	3600	24%
550BRC-ROCH-2B-021501	Small Fish Comp.	1120	2590	43%	√		2010	2210	91%
550BRC-ROACH-B-071201	Small Fish Comp.	3060	4110	74%	√		4140	3460	120%
560RUM-SPDA-1B-111000	Small Fish Comp.	167	230	73%	√		282	201	140%
565SOL-RDSH-2A-111000	Small Fish Comp.	695	700	99%	√		896	598	150%
565SOL-SSUC-1A-080100	Small Fish Comp.	350	360	97%	√		464	345	134%
570YSB-RDSH-2C-052200	Small Fish Comp.	225	280	80%	√		372	222	168%

As part of the UCD/Battelle 5% QA/QC splits, the oversight laboratory (Frontier) analyzed both MeHg and THg in a total of 25 homogeneous, finely ground, dry powdered biota samples. Analyses by the oversight lab generated methyl:total Hg ratios of over 100% in 14 of 25 cases (56%). In 11 of the 25 internal comparisons (44%), the reported methyl:total Hg ratio ranged from 119% to 169% (mean = 141%). Of the 7 Battelle MeHg samples and 3 UCD THg samples found to be out of compliance, 7 of the 10 cases corresponded to oversight lab methyl:total Hg ratios of 120-169% (mean = 147%). We conclude that incidents of apparent QA/QC problems among the project laboratories noted in the 5% QA split exercise may have been partly or largely a function of analytical difficulties within the oversight laboratory.

Appendix, Table 10d. 5% QA Split Data

Results of 5% AQUEOUS Hg QA Splits with Frontier Geosciences

Analyzing Laboratory	Sample ID	Matrix	Raw THg ng/l	Filt THg ng/l	Raw MMHg ng/l	Filt MMHg ng/l
Battelle	545UBC-RAW-030200	Water	5.38	2.04	0.103	0.024
Frontier Geosciences	545UBC-RAW-030200-FGSDUP	Water	8.99	2.06	0.060	0.039
		RPD	-50%	-1%	53%	-48%
Battelle	550SUL-RAW-030200	Water	376	135	0.218	0.108
Frontier Geosciences	550SUL-RAW-030200-FGSDUP	Water	385	148	0.117	0.134
		RPD	-2%	-9%	60%	-21%
Battelle	533DC5-RAW-061300	Water	49.7	8.95	0.371	0.180
Frontier Geosciences	533DC5-RAW-061300-FGSDUP	Water	41.0	8.17	0.367	0.223
		RPD	19%	9%	1%	-21%
Battelle	535DAV-RAW-061300	Water	6.31	4.73	0.737	0.607
Frontier Geosciences	535DAV-RAW-061300-FGSDUP	Water	6.06	4.21	0.611	0.546
		RPD	4%	12%	19%	11%
Battelle	538UBC-RAW-071201	Water	1.04	1.01	0.295	0.170
Frontier Geosciences	538UBC-RAW-071201-FGSDUP	Water	1.24	2.18	0.268	0.070
		RPD	-17%	-73%	10%	83%
Battelle	540SUL-RAW-071201	Water	1180	163	18.2	1.93
Frontier Geosciences	540SUL-RAW-071201-FGSDUP	Water	1030	79.7	17.5	0.000
		RPD	14%	69%	4%	200%
Battelle	550BRC-RAW-071201	Water	20.3	12.8	1.09	0.487
Frontier Geosciences	550BRC-RAW-071201-FGSDUP	Water	14.0	10.8	0.974	0.062
		RPD	37%	17%	11%	155%
Battelle	555BR3-RAW-071201	Water	18.8	3.84	0.818	0.114
Frontier Geosciences	555BR3-RAW-071201-FGSDUP	Water	7.57	5.66	0.130	0.000
		RPD	85%	-38%	145%	200%

Note: Site name 545UBC has been changed to 538UBC, Site name 550SUL has been changed to 540SUL

Mean RPD (Battelle vs Frontier):	11%	-2%	38%	70%
Mean <u>absolute</u> RPD (Battelle vs Frontier):	29%	29%	38%	92%

It is important to note that we used our most difficult water samples for this inter-comparison work: either highly impacted or very low mercury sites. Four of eight sets of comparisons came from Sulphur Creek or Bear Creek downstream of Sulphur Creek. Battelle Laboratories spent several months at the beginning of the project revising analytical approaches specifically for these sites, which otherwise introduced serious matrix interference effects, apparently linked to sulphur chemistry. This problem was ultimately resolved through the use of a revised analytical protocol which included a substantial dilution step. We conveyed this revised protocol to the oversight laboratory, however, poor reproduction of the Battelle results by the oversight laboratory was likely related to the oversight lab's relative lack of experience with these difficult samples.