

TABLE 6. WATER QUALITY ANALYSES FOR BIG BEAR LAKE - JUNE 2001

9/16/05

Parameter Analyzed (a)	Date Collected	Report Limit	Units	Photic Dam (TMDL #1)	Bottom Dam (TMDL #1)	Photic Gilner Point (TMDL #2)	Bottom Gilner Point (TMDL #2)	Photic Mid Lake Middle (TMDL #6)	Bottom Mid Lake Middle (TMDL #6)	Photic Stanfield Middle (TMDL #9)	Bottom Stanfield Middle (TMDL #9)
<u>Metals, Total</u>											
Arsenic	6/11/2001	1.0	µg/L	1.0	2.0	1.0	1.0	2.0	2.0	2.0	2.0
Cadmium	6/11/2001	0.3	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Hexavalent Chromium	6/11/2001	10.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Total Chromium	6/11/2001	0.5	µg/L	ND	ND	ND	ND	ND	0.5	ND	ND
Copper	6/11/2001	0.5	µg/L	1.4	1.8	2.7	1.8	1.5	2.9	3.6	2.5
Lead	6/11/2001	0.5	µg/L	ND	0.7	ND	ND	ND	0.9	1.3	0.8
Mercury	6/11/2001	0.2	µg/L	0.2	ND	ND	ND	ND	ND	0.3	ND
Selenium	6/11/2001	1.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Silver	6/11/2001	0.3	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	6/11/2001	1.0	µg/L	3.0	7.0	4.0	2.0	3.0	5.0	14.0	5.0
<u>Metals, Dissolved</u>											
Arsenic	6/11/2001	1.0	µg/L	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Cadmium	6/11/2001	0.3	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Total Chromium	6/11/2001	0.5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Copper	6/11/2001	0.5	µg/L	1.1	0.9	1.6	0.9	1.0	1.0	1.9	1.5
Lead	6/11/2001	0.5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Mercury	6/11/2001	0.2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Selenium	6/11/2001	1.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Silver	6/11/2001	0.3	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	6/11/2001	1.0	µg/L	2.0	2.0	2.0	2.0	1.0	ND	2.0	1.0

Notes:

ND = Metal is non-detectable.

(a) - Samples analyzed by E.S. Babcock Laboratories.

TABLE 6. WATER QUALITY ANALYSES FOR BIG BEAR LAKE - JUNE 2001

Parameter Analyzed (a)	Date Collected	Report Limit	Units	Photic Grout Bay (TMDL #3)	Bottom Grout Bay (TMDL #3)	Photic Metcalf Bay (TMDL #4)	Bottom Metcalf Bay (TMDL #4)	Photic Mid Lake North (TMDL #5)	Bottom Mid Lake North (TMDL #5)	Photic Mid Lake South (TMDL #7)	Bottom Mid Lake South (TMDL #7)
<u>Metals, Total</u>											
Arsenic	6/11/2001	1.0	µg/L	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0
Cadmium	6/11/2001	0.3	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Hexavalent Chromium	6/11/2001	10.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Total Chromium	6/11/2001	0.5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Copper	6/11/2001	0.5	µg/L	1.8	2.3	2.5	2.5	1.9	2.8	2.0	2.6
Lead	6/11/2001	0.5	µg/L	0.6	0.9	0.6	1.0	0.6	0.8	ND	ND
Mercury	6/11/2001	0.2	µg/L	ND	0.2	ND	ND	ND	ND	ND	ND
Selenium	6/11/2001	1.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Silver	6/11/2001	0.3	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	6/11/2001	1.0	µg/L	5.0	6.0	5.0	6.0	3.0	5.0	2.0	4.0
<u>Metals, Dissolved</u>											
Arsenic	6/11/2001	1.0	µg/L	ND	ND	1.0	1.0	1.0	1.0	1.0	1.0
Cadmium	6/11/2001	0.3	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Total Chromium	6/11/2001	0.5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Copper	6/11/2001	0.5	µg/L	0.8	0.8	1.2	0.8	1.1	1.1	1.3	1.5
Lead	6/11/2001	0.5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Mercury	6/11/2001	0.2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Selenium	6/11/2001	1.0	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Silver	6/11/2001	0.3	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	6/11/2001	1.0	µg/L	1.0	4.0	ND	1.0	1.0	2.0	ND	1.0

Notes:

ND = Metal is non-detectable.

(a) - Samples analyzed by F.S. Bahcock Laboratories.

TABLE 6. WATER QUALITY ANALYSES FOR BIG BEAR LAKE - JUNE 2001

Parameter Analyzed (a)	Date Collected	Report Limit	Units	Photic Stanfield North (TMDL #8)	Bottom Stanfield North (TMDL #8)	Photic Stanfield South (TMDL #10)	Bottom Stanfield South (TMDL #10)	LAKE-WIDE MAXIMUM VALUE
<u>Metals, Total</u>								
Arsenic	6/11/2001	1.0	µg/L	1.0	2.0	2.0	2.0	2.0
Cadmium	6/11/2001	0.3	µg/L	ND	ND	ND	ND	ND
Hexavalent Chromium	6/11/2001	10.0	µg/L	ND	ND	ND	ND	ND
Total Chromium	6/11/2001	0.5	µg/L	ND	1.0	ND	ND	1.0
Copper	6/11/2001	0.5	µg/L	4.3	4.3	3.2	4.6	4.6
Lead	6/11/2001	0.5	µg/L	1.0	1.5	1.8	1.9	1.9
Mercury	6/11/2001	0.2	µg/L	0.4	0.4	0.3	0.5	0.5
Selenium	6/11/2001	1.0	µg/L	ND	ND	ND	ND	ND
Silver	6/11/2001	0.3	µg/L	ND	ND	ND	ND	ND
Zinc	6/11/2001	1.0	µg/L	9.0	12.0	8.0	15.0	15.0
<u>Metals, Dissolved</u>								
Arsenic	6/11/2001	1.0	µg/L	1.0	1.0	1.0	1.0	1.0
Cadmium	6/11/2001	0.3	µg/L	ND	ND	ND	ND	ND
Total Chromium	6/11/2001	0.5	µg/L	ND	ND	ND	ND	ND
Copper	6/11/2001	0.5	µg/L	2.0	2.1	2.2	4.1	4.1
Lead	6/11/2001	0.5	µg/L	ND	ND	ND	0.5	0.5
Mercury	6/11/2001	0.2	µg/L	ND	ND	ND	ND	ND
Selenium	6/11/2001	1.0	µg/L	ND	ND	ND	ND	ND
Silver	6/11/2001	0.3	µg/L	ND	ND	ND	ND	ND
Zinc	6/11/2001	1.0	µg/L	3.0	3.0	3.0	10.0	10.0

Notes:

ND = Metal is non-detectable.

(a) - Samples analyzed by E. S. Babcock Laboratories.

TABLE 1. TRACE METAL ANALYSES OF RAINBOW TROUT TISSUES FROM BIG BEAR LAKE - NOVEMBER 8-10, 2000 (a)

Sample Designation (b)	Fish Length (mm)	Ag ppm	As ppm	Cd ppm	Cr ppm	Cu ppm	Mn ppm	Ni ppm	Pb ppm	Se ppm	Zn ppm	Hg ppm
<u>Values in wet weight ($\mu\text{g/g}$)</u>												
RBT#1-Muscle	388	0.3	0.5	<0.1	<0.5	<0.5	-	-	<2.0	0.3	-	<0.04
RBT#2-Muscle	308	<0.2	<0.2	0.2	<0.5	<0.5	-	-	<2.0	<0.3	-	<0.04
RBT#3-Muscle	410	<0.2	<0.2	<0.1	<0.5	<0.5	-	-	<2.0	<0.3	-	0.040
RBT#4-Muscle	332	<0.2	<0.2	<0.1	<0.5	<0.5	-	-	<2.0	<0.3	-	<0.04
Geometric Mean - Muscle	357.1	0.22	0.25	0.12	0.5	0.5			2.00	0.30		0.04
RBT#1-Liver	388	<0.2	<0.2	<0.1	<0.5	34.7	-	-	<2.0	2.10	-	0.04
RBT#2-Liver	308	<0.2	<0.2	<0.1	<0.5	35.2	-	-	<2.0	1.20	-	<0.04
RBT#3-Liver	410	<0.2	<0.2	<0.1	<0.5	97.8	-	-	<2.0	4.100	-	0.050
RBT#4-Liver	332	<0.2	<0.2	<0.1	<0.5	12.4	-	-	<2.0	0.40	-	<0.04
Geometric Mean - Liver	357.1	0.20	0.20	0.10	0.5	34.89			2.00	1.43		0.04

Notes:

(a) - Fish tissues were collected by Chadwick Ecological Consultants and Jim Weber of BBMWD.

Fish were dissected in the field and analyzed by ACZ Laboratories, Inc., Steamboat Springs, CO.

(b) - Legend and originally reported sample identification given below; Results are of individual specimens.

RBT#1 = Stanfield Cutoff (SC-RBT-11-08-01)

RBT#2 = Metcalf Bay (MB-RBT-11-08-01)

RBT#3 = Dam (DAM-RBT-11-09-01)

RBT#4 = Dam (DAM-RBT-11-10-01)

TABLE 2. TRACE METAL ANALYSES OF RAINBOW TROUT TISSUES FROM BIG BEAR LAKE - JUNE 2001 (a)

9/16/05

Sample Designation (b)	% moist	Ag ppm	As ppm	Cd ppm	Cr ppm	Cu ppm	Mn ppm	Ni ppm	Pb ppm	Se ppm	Zn ppm	Hg ppm
Values in dry weight (µg/g)												
RBT#1-Muscle	72.7	0.011	0.12	<0.02	<2.0	<2.0	-	-	0.14	0.40	16.0	0.13
RBT#2-Muscle	78.0	0.590	0.70	<0.02	<2.0	<2.0	-	-	0.06	1.10	19.0	<0.08
RBT#3-Muscle	76.5	<0.009	1.70	<0.02	<2.0	<2.0	-	-	0.03	1.00	14.0	<0.08
RBT#4-Muscle	76.2	<0.009	0.90	<0.02	<2.0	<2.0	-	-	<0.02	1.20	14.0	<0.08
RBT#5-Muscle	74.7	<0.009	0.90	<0.02	<2.0	2.0	-	-	0.04	0.90	16.0	0.08
RBT#6-Muscle	75.3	<0.009	0.58	<0.02	<2.0	<2.0	-	-	0.02	0.90	16.0	0.11
RBT#7-Muscle	75.9	<0.009	0.35	<0.02	<2.0	<2.0	-	-	<0.02	0.80	18.0	0.08
RBT#8-Muscle	76.4	<0.009	0.40	<0.02	<2.0	2.0	-	-	0.05	0.70	25.0	0.09
Geometric Mean - Muscle	75.6	0.02	0.56	0.02	2.0	2.0			0.04	0.84	16.97	0.09
RBT#1-Liver	-	0.021	0.08	<0.005	<0.5	0.50	-	-	0.02	0.35	16.0	<0.05
RBT#2-Liver	-	<0.002	<0.02	<0.005	<0.5	<0.50	-	-	0.02	<0.05	24.0	<0.05
RBT#3-Liver	-	<0.002	0.91	<0.005	<0.5	<0.50	-	-	<0.005	0.80	22.0	<0.05
RBT#4-Liver	-	<0.002	0.20	<0.005	<0.5	<0.50	-	-	<0.005	0.90	34.0	<0.05
RBT#5-Liver	-	<0.002	0.10	<0.005	<0.5	<0.50	-	-	<0.005	0.70	21.0	<0.05
RBT#6-Liver	-	0.029	0.14	<0.005	<0.5	<0.50	-	-	0.16	0.70	31.0	<0.05
RBT#7-Liver	-	0.919	0.05	<0.005	<0.5	<0.50	-	-	<0.005	0.54	15.8	nd
RBT#8-Liver	-	<0.002	0.40	<0.005	<0.5	<0.50	-	-	0.23	<0.05	27.0	<0.05
Geometric Mean - Liver		0.01	0.13	0.005	0.5	0.5			0.018	0.34	23.05	0.05

Sample Designation	% moist	Ag ppm	As ppm	Cd ppm	Cr ppm	Cu ppm	Mn ppm	Ni ppm	Pb ppm	Se ppm	Zn ppm	Hg ppm
Values in wet weight (µg/g)												
RBT#1-Muscle	72.7	0.003	0.03	<0.005	<0.55	<0.55	-	-	0.038	0.11	4.37	0.035
RBT#2-Muscle	78.0	0.130	0.15	<0.004	<0.44	<0.44	-	-	0.013	0.24	4.18	<0.018
RBT#3-Muscle	76.5	<0.002	0.40	<0.005	<0.47	<0.47	-	-	0.007	0.24	3.29	<0.019
RBT#4-Muscle	76.2	<0.002	0.21	<0.005	<0.48	<0.48	-	-	<0.005	0.29	3.33	<0.019
RBT#5-Muscle	74.7	<0.002	0.23	<0.005	<0.51	0.51	-	-	0.010	0.23	4.05	0.020
RBT#6-Muscle	75.3	<0.002	0.14	<0.005	<0.49	<0.49	-	-	0.005	0.22	3.95	0.027
RBT#7-Muscle	75.9	<0.002	0.08	<0.005	<0.48	<0.48	-	-	<0.005	0.19	4.34	0.019
RBT#8-Muscle	76.4	<0.002	0.09	<0.005	<0.47	0.47	-	-	0.012	0.17	5.90	0.021
Geometric Mean - Muscle	75.6	0.004	0.14	0.005	0.5	0.5			0.04	0.28	4.11	0.02

Notes.

- (a) - Fish tissues were collected by Chadwick Ecological Consultants and Jim Weber of BBMWD
 Fish were dissected in the field and analyzed by AGZ Laboratories, Inc., Steamboat Springs, CO.

TABLE 3. TRACE METAL ANALYSES OF RAINBOW TROUT TISSUES FROM BIG BEAR LAKE - OCTOBER 15, 2002 (a) 9/16/05

Sample Designation (b)	Ag ppm	As ppm	Cd ppm	Cr ppm	Cu ppm	Mn ppm	Ni ppm	Pb ppm	Se ppm	Zn ppm	Hg ppm
<u>Values in wet weight (µg/g)</u>											
RBT#1-Muscle	0.03	<0.1	<0.03	0.15	0.80	-	-	0.03	<0.05	8.4	<0.05
RBT#2-Muscle	<0.01	0.4	<0.03	0.22	0.50	-	-	0.02	<0.05	9.4	<0.05
RBT#3-Muscle	<0.01	<0.1	<0.03	0.21	0.60	-	-	<0.03	0.13	8.0	<0.05
RBT#4-Muscle	<0.01	0.4	<0.03	0.26	0.40	-	-	<0.03	<0.05	13.5	<0.05
RBT#5-Muscle	<0.01	0.4	<0.03	0.24	0.40	-	-	<0.03	<0.05	5.8	<0.05
RBT#6-Muscle	<0.01	0.1	<0.03	0.66	0.40	-	-	<0.03	0.05	20.0	<0.05
RBT#7-Muscle	<0.01	0.2	<0.03	0.17	0.40	-	-	<0.03	<0.05	10.3	<0.05
RBT#8-Muscle	<0.01	<0.1	<0.03	0.44	0.50	-	-	<0.03	0.11	9.2	<0.05
Geometric Mean - Muscle	0.01	0.18	<0.03	0.26	0.49			0.03	0.06	9.92	<0.05
RBT#1-Liver	0.12	<0.3	<0.03	30.40	54.2	-	-	0.10	0.83	30.0	-
RBT#2-Liver	0.13	0.3	<0.03	0.14	80.5	-	-	0.06	0.89	28.0	-
RBT#3-Liver	0.03	<0.3	<0.03	0.13	5.7	-	-	<0.05	0.30	46.0	-
RBT#4-Liver	0.20	<0.3	<0.03	0.15	122	-	-	0.60	1.16	35.0	-
RBT#5-Liver	0.20	<0.3	<0.03	37.50	93.0	-	-	<0.05	1.56	26.0	-
RBT#6-Liver	0.17	<0.3	0.02	0.16	77.0	-	-	<0.05	1.62	34.0	-
RBT#7-Liver	0.23	0.10	0.03	0.23	88.4	-	-	<0.05	1.62	28.0	-
RBT#8-Liver	0.10	<0.3	<0.03	0.14	11.5	-	-	<0.05	0.40	24.0	-
Geometric Mean - Liver	0.13	0.26	0.03	0.60	46.6			0.08	0.90	30.77	

Notes

(a) - Fish tissues of eight individual rainbow trout were collected by the California Department of Fish & Game, Moss Landing, CA.

Fish were analyzed by ACZ Laboratories, Inc.

(b) - Results are for individual specimens that were collected by an electrofishing boat near the mouth of Summit Creek (MWDC5 Summit Creek).