

3/25/15 Fish Samples - Analysis Results														
#	Sample Type	Site Name	LOCATION ON LAKE	Date sampled	Date analyzed	Fish species	Fish length (cm)	Fish weight (g)	Sample #	Total Mercury Muscle tissue - Result ( $\mu\text{g}/\text{kg}$ )	mg/kg	Per Fish Sample average Hg Result (mg/kg)	TL	TMDL goals (mg/kg)
1	Fish Tissue	553	UPPER ARM	3/25/2015	4/9/2015	Black crappie	14.4	42	1	63.87	0.06	0.09	4	0.19
									2	111.46	0.11			
									3	86.12	0.09			
2	Fish Tissue	687	UPPER ARM	3/25/2015	4/9/2015	Tule perch	14.1	42	1	88.85	0.09	0.09	3	0.09
									2	88.51	0.09			
									3	97.51	0.10			
3	Fish Tissue	641	UPPER ARM	3/25/2015	4/10/2015	Tule perch	14	36	1	98.96	0.10	0.12	3	0.09
									2	130.54	0.13			
									3	122.77	0.12			
4	Fish Tissue	553	UPPER ARM	3/25/2015	4/10/2015	Black crappie	16.9	78	1	146.43	0.15	0.15	4	0.19
									2	156.55	0.16			
									3	148.95	0.15			

All samples analyzed in the lab of Big Valley EPA using the Tribe's DMA-80 Mercury Analyzer measuring total mercury in fish tissues.

highlighted results exceed the Fish Tissue Goals of the Clear Lake Mercury TMDL

**Clear Lake Mercury TMDL Fish Mercury Level Goals:**

0.09 and 0.19 mg methylmercury/kg wet weight of fish tissue (ppm) in trophic levels 3 and 4 fish, respectively.

4/20/15 Fish Samples - Analysis Results														
#	Sample Type	Site Name	LOCATION ON LAKE	Date sampled	Date analyzed	Fish species	Fish length (cm)	Fish weight (g)	Sample #	Total Mercury Muscle tissue - Result ( $\mu\text{g}/\text{kg}$ )	mg/kg	Per Fish Sample average Hg Result (mg/kg)	TL	TMDL goals (mg/kg)
1	Fish Tissue	M4	UPPER ARM	4/20/2015	5/13/2015	Carp	20.32	240.97	1	65.05	0.065	0.06	3	0.09
									2	46.23	0.046			
									3	61.14	0.061			
2	Fish Tissue	M4	UPPER ARM	4/20/2015	5/20/015	Crayfish	10.2	28	1	23.04	0.023	0.02	2	n/a
									2	22.15	0.022			
									3	22.21	0.022			
3	Fish Tissue	M4	UPPER ARM	4/20/2015	4/10/2015	Crayfish	11.4	35	1	35.34	0.035	0.03	2	n/a
									2	31.24	0.031			
									3	37.06	0.037			
4	Fish Tissue	M4	UPPER ARM	4/20/2015	5/27/2015	Carp	20	170.1	1	37.73	0.038	0.04	3	0.09
									2	43.14	0.043			
									3	30.82	0.031			
5	Fish Tissue	M4	UPPER ARM	4/20/2015	5/27/2015	Carp	17.8	85	1	47.88	0.048	0.05	3	0.09
									2	49.36	0.049			
									3	52.13	0.052			
6	Fish Tissue	M4	UPPER ARM	4/20/2015	6/3/2015	Carp	38.1	85	1	57.07	0.057	0.06	3	0.09
									2	58.68	0.059			
									3	58.40	0.058			

All samples analyzed in the lab of Big Valley EPA using the Tribe's DMA-80 Mercury Analyzer measuring total mercury in fish tissues.

highlighted results exceed the Fish Tissue Goals of the Clear Lake Mercury TMDL

**Clear Lake Mercury TMDL Fish Mercury Level Goals:**

0.09 and 0.19 mg methylmercury/kg wet weight of fish tissue (ppm) in trophic levels 3 and 4 fish, respectively.

4/21/15 Fish Samples - Analysis Results														
#	Sample Type	Site Name	LOCATION ON LAKE	Date sampled	Date analyzed	Fish species	Fish length (cm)	Fish weight (g)	Sample #	Total Mercury Muscle tissue - Result ( $\mu\text{g}/\text{kg}$ )	mg/kg	Per Fish Sample average Hg Result (mg/kg)	TL	TMDL goals (mg/kg)
1	Fish Tissue	M4	UPPER ARM	4/21/2015	6/17/2015	Crayfish	10	28.4	1	32.89	0.033	0.03	2	n/a
									2	31.23	0.031			
									3	31.16	0.031			
2	Fish Tissue	M4	UPPER ARM	4/21/2015	6/17/015	Crayfish	10	35.4	1	27.16	0.027	0.03	2	n/a
									2	28.80	0.029			
									3	27.02	0.027			

All samples analyzed in the lab of Big Valley EPA using the Tribe's DMA-80 Mercury Analyzer measuring total mercury in fish tissues.

highlighted results exceed the Fish Tissue Goals of the Clear Lake Mercury TMDL

**Clear Lake Mercury TMDL Fish Mercury Level Goals:**

0.09 and 0.19 mg methylmercury/kg wet weight of fish tissue (ppm) in trophic levels 3 and 4 fish, respectively.

4/22/15 Fish Samples - Analysis Results														
#	Sample Type	Site Name	LOCATION ON LAKE	Date sampled	Date analyzed	Fish species	Fish length (cm)	Fish weight (g)	Sample #	Total Mercury Muscle tissue - Result (µg/kg)	mg/kg	Per Fish Sample average Hg result (mg/kg)	TL	TMDL goals (mg/kg)
1	Fish Tissue	609	UPPER ARM	4/22/2015	4/23/2015	Black Crappie	18	84	1	225.29	0.23	0.24	4	0.19
									2	244.26	0.24			
									3	241.43	0.24			
2	Fish Tissue	609	UPPER ARM	4/22/2015	4/23/2015	Tule Perch	17	105	1	113.95	0.11	0.12	3	0.09
									2	124.47	0.12			
									3	132.97	0.13			
3	Fish Tissue	763	UPPER ARM	4/22/2015	4/23/2015	Tule Perch	15	55	1	67.54	0.07	0.07	3	0.09
									2	72.01	0.07			
									3	67.51	0.07			
4	Fish Tissue	609	UPPER ARM	4/22/2015	5/6/2015	Largemouth Bass	39.5	892	1	428.25	0.43	0.48	4	0.19
									2	504.49	0.50			
									3	499.67	0.50			
5	Fish Tissue	609	UPPER ARM	4/22/2015	5/6/2015	Largemouth Bass	48.6	2170	1	681.61	0.68	0.70	4	0.19
									2	679.68	0.68			
									3	725.01	0.73			
6	Fish Tissue	716	UPPER ARM	4/22/2015	5/13/2015	Largemouth Bass	47.4	1780	1	642.65	0.64	0.69	4	0.19
									2	698	0.70			
									3	733.67	0.73			
7	Fish Tissue	633	UPPER ARM	4/22/2015	5/20/2015	Largemouth Bass	45	1503	1	557.00	0.56	0.56	4	0.19
									2	618.87	0.62			
									3	507.72	0.51			
8	Fish Tissue	633	UPPER ARM	4/22/2015	5/20/2015	Largemouth Bass	58.1	3629	1	1050.19	1.05	1.04	4	0.19
									2	1072.94	1.07			
									3	983.41	0.98			
9	Fish Tissue	633	UPPER ARM	4/22/2015	5/27/2015	Largemouth Bass	42	1330	1	479.06	0.48	0.47	4	0.19
									2	489.93	0.49			
									3	435.23	0.44			
10	Fish Tissue	633	UPPER ARM	4/22/2015	6/10/2015	Largemouth Bass	47.3	1918	1	1100.69	1.10	1.11	4	0.19
									2	1142.66	1.14			
									3	1100.81	1.10			
11	Fish Tissue	762	UPPER ARM	4/22/2015	6/10/2015	Largemouth Bass	47.9	2204	1	608.12	0.61	0.60	4	0.19
									2	596.23	0.60			
									3	600.77	0.60			
12	Fish Tissue	609	UPPER ARM	4/22/2015	6/10/2015	Hitch	23	121	1	188.41	0.19	0.18	3	0.09
									2	175.96	0.18			
									3	167.66	0.17			

All samples analyzed in the lab of Big Valley EPA using the Tribe's DMA-80 Mercury Analyzer measuring total mercury in fish tissues.

highlighted results exceed the Fish Tissue Goals of the Clear Lake Mercury TMDL

**Clear Lake Mercury TMDL Fish Mercury Level Goals:**

0.09 and 0.19 mg methylmercury/kg wet weight of fish tissue (ppm) in trophic levels 3 and 4 fish, respectively.

4/23/15 Fish Samples - Analysis Results														
#	Sample Type	Site Name	LOCATION ON LAKE	Date sampled	Date analyzed	Fish species	Fish length (cm)	Fish weight (g)	Sample #	Total Mercury Muscle tissue - Result ( $\mu\text{g}/\text{kg}$ )	mg/kg	Per Fish Sample average Hg result (mg/kg)	TL	TMDL goals (mg/kg)
1	Fish Tissue	778	UPPER ARM	4/23/2015	5/20/2015	Black Crappie	31.5	481	1	544.95	0.54	0.55	4	0.19
2									563.89	0.56				
3									540.99	0.54				

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highlighted results exceed the Fish Tissue Goals of the Clear Lake Mercury TMDL

**Clear Lake Mercury TMDL Fish Mercury Level Goals:**

0.09 and 0.19 mg methylmercury/kg wet weight of fish tissue (ppm) in trophic levels 3 and 4 fish, respectively.

4/29/15 Fish Samples - Analysis Results														
#	Sample Type	Site Name	LOCATION ON LAKE	Date sampled	Date analyzed	Fish species	Fish length (cm)	Fish weight (g)	Sample #	Total Mercury Muscle tissue - Result (µg/kg)	mg/kg	Per Fish Sample average Hg result (mg/kg)	TL	TMDL goals (mg/kg)
1	Fish Tissue	CLV7	UPPER ARM	4/29/2015	5/6/2015	Sacramento Blackfish	23	402	1	77.43	0.08	0.08	3	0.09
									2	82.33	0.08			
									3	80.33	0.08			
2	Fish Tissue	CLV7	UPPER ARM	4/29/2015	5/6/2015	Hitch	21	302	1	173.82	0.17	0.18	3	0.09
									2	162.04	0.16			
									3	195.09	0.20			
3	Fish Tissue	CLV7	UPPER ARM	4/29/2015	5/6/2015	Largemouth Bass	25	170	1	266.87	0.27	0.32	4	0.19
									2	362.79	0.36			
									3	337.97	0.34			
4	Fish Tissue	CLV7	UPPER ARM	4/29/2015	5/27/2015	Hitch	18	56.7	1	169.04	0.17	0.18	3	0.09
									2	177.10	0.18			
									3	182.41	0.18			

All samples analyzed in the lab of Big Valley EPA using the Tribe's DMA-80 Mercury Analyzer measuring total mercury in fish tissues.

highlighted results exceed the Fish Tissue Goals of the Clear Lake Mercury TMDL

**Clear Lake Mercury TMDL Fish Mercury Level Goals:**

0.09 and 0.19 mg methylmercury/kg wet weight of fish tissue (ppm) in trophic levels 3 and 4 fish, respectively.

5/26/15 Fish Samples - Analysis Results														
#	Sample Type	Site Name	LOCATION ON LAKE	Date sampled	Date analyzed	Fish species	Fish length (cm)	Fish weight (g)	Sample #	Total Mercury Muscle tissue - Result ( $\mu\text{g}/\text{kg}$ )	mg/kg	Sample average Hg result (mg/kg)	TL	TMDL goals (mg/kg)
1	Fish Tissue	215	OAKS ARM	5/26/2015	6/3/2015	Hitch	18.3	60	1	74.96	0.07496	0.080257	3	0.09
									2	85.73	0.08573			
									3	80.08	0.08008			
2	Fish Tissue	250	LOWER ARM	5/26/2015	6/3/2015	Tule Perch	16.2	70	1	68.80	0.0688	0.067387	3	0.09
									2	66.48	0.06648			
									3	66.88	0.06688			
3	Fish Tissue	215	OAKS ARM	5/26/2015	6/10/2015	Largemouth Bass	38	857	1	668.56	0.66856	0.651613	4	0.19
									2	662.77	0.66277			
									3	623.51	0.62351			
4	Fish Tissue	322	LOWER ARM	5/26/2015	6/17/2015	White Catfish	38.5	1093	1	81.71	0.08171	0.083327	4	0.19
									2	83.89	0.08389			
									3	84.38	0.08438			

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Highlighted results exceed the Fish Tissue Goals of the Clear Lake Mercury TMDL

Clear Lake Mercury TMDL Fish Mercury Level Goals:

0.09 and 0.19 mg methylmercury/kg wet weight of fish tissue (ppm) in trophic levels 3 and 4 fish, respectively.

## Fish Sampling Sites

### Fish sampling sites

Location	GPS latitude	GPS longitude
2	39.1206706	-122.8610119
8	39.1219476	-122.8510978
105	39.0364297	-122.7650121
122	39.0338276	-122.7441327
150	39.0205092	-122.7068392
194	39.0113311	-122.6685481
215	38.9988773	-122.6853238
231	39.0037664	-122.7062024
237	39.0062675	-122.7153018
250	39.0056911	-122.7293566
311	38.9752161	-122.6776338
322	38.9707577	-122.6657265
361	38.9424313	-122.6346823
387	38.9503034	-122.6529762
412	38.9480228	-122.6872981
419	38.9485387	-122.6910203
546	39.0170263	-122.7595663
553	39.0080000	-122.7593000
609	39.0189838	-122.8070739
633	39.0240000	-122.8289000
641	39.0229600	-122.8343900
656	39.0280162	-122.8498268
687	39.0289000	-122.8699000
716	39.0252000	-122.9003000
762	39.0560000	-122.9132000
778	39.0745700	-122.9112518
CLV	39.0027950	-122.7977480
M4	39.0218800	-122.8889000

TROPHIC LEVELS CLEAR LAKE FISH

Fish	Trophic Level	Abbreviation
Mississippi Silverside ( <i>Menidia audens</i> )	3.2	MS
Threadfin Shad ( <i>Dorosoma petenense</i> )	2.8	TS
Asian clam ( <i>Corbicula fluminea</i> )	2	AC
Winged floater mussel ( <i>Anodonta nuttalliana</i> )	2	WFM
Crayfish ( <i>Procambarus clarkii</i> )	2, 3	CF
Sacramento Blackfish ( <i>Orthodon microlepidotus</i> )	3	SB
Bluegill/Sunfish ( <i>Lepomis macrochirus</i> )	3.2	SF
Brown Bullhead ( <i>Ameiurus nebulosus</i> )	3.7	BB
Carp ( <i>Cyprinus carpio</i> )	3.1	CP
Channel Catfish ( <i>Ictalurus punctatus</i> )	4	CC
White Catfish ( <i>Ameiurus catus</i> )	3.2	WC
Black Crappie ( <i>Pomoxis nigromaculatus</i> )	4	BC
White Crappie ( <i>Pomoxis annularis</i> )	4	WCR
Hitch ( <i>Lavinia exilicauda chi</i> )	3	CLH
Mosquitofish ( <i>Gambusia affinis</i> )	3.1	MF
Prickly Sculpin ( <i>Cottus asper</i> )	3.2	PS
Sacramento Sucker ( <i>Catostomus occidentalis</i> )	2.8	SS
Tule Perch ( <i>Hysterothorax traski</i> )	3.3	TP
Largemouth Bass ( <i>Micropterus salmoides</i> )	4	LB

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