

Attachment F2
Summary Statistics by Region

Table F2-1
Summary Statistics by Region

Region	Analyte	Unit	No. of Samples	Detection Rate	Mean	Std Dev	Min	Median	Max	CV	Min Detected	Max Detected	Criteria (1)	Basis for Criteria (1)	No. of Samples Exceed Criteria (1)	% of Samples Exceed Criteria (1)	Criteria (2)	Basis for Criteria (2)	No. of Samples Exceed Criteria (2)	% of Samples Exceed Criteria (2)
All	Ammonia	mg/L as N	142	80%	0.206	0.117	0.025	0.2	0.5	57	0.044	0.5	0.179	EPA Aquatic Life Criteria	85	60%	-	-	-	-
Lower Mainstem	Ammonia	mg/L as N	24	96%	0.235	0.076	0.05	0.2	0.4	32	0.1	0.4	0.179	EPA Aquatic Life Criteria	22	92%	-	-	-	-
Stanislaus River	Ammonia	mg/L as N	2	0%	-	-	-	-	-	-	-	-	0.179	EPA Aquatic Life Criteria	0	0%	-	-	-	-
Upper Mainstem	Ammonia	mg/L as N	65	72%	0.209	0.136	0.1	0.11	0.5	65	0.1	0.5	0.179	EPA Aquatic Life Criteria	29	45%	-	-	-	-
Vernalis	Ammonia	mg/L as N	36	97%	0.190	0.065	0.025	0.2	0.4	34	0.1	0.4	0.179	EPA Aquatic Life Criteria	29	81%	-	-	-	-
Wasteways	Ammonia	mg/L as N	15	60%	0.140	0.120	0.044	0.055	0.36	86	0.044	0.36	0.179	EPA Aquatic Life Criteria	5	33%	-	-	-	-
All	Ammonia, dissolved	mg/L as N	268	84%	0.0454	0.0512	0.005	0.03	0.45	113	0.01	0.45	0.179	EPA Aquatic Life Criteria	4	1%	-	-	-	-
South Delta	Ammonia, dissolved	mg/L as N	180	97%	0.0518	0.0495	0.005	0.04	0.45	95	0.01	0.45	0.179	EPA Aquatic Life Criteria	2	1%	-	-	-	-
Vernalis	Ammonia, dissolved	mg/L as N	87	56%	0.0289	0.0425	0.005	0.01	0.32	147	0.01	0.32	0.179	EPA Aquatic Life Criteria	1	1%	-	-	-	-
Wasteways	Ammonia, dissolved	mg/L as N	1	100%	0.320	-	0.32	0.32	0.32	-	0.32	0.32	0.179	EPA Aquatic Life Criteria	1	100%	-	-	-	-
All	Arsenic	µg/L	127	38%	2.82	1.45	1	2	9.9	51	1.6	9.9	10	Basin Plan WQO	0	0%	0.14	EPA AWQC for Human Health	48	38%
Lower Mainstem	Arsenic	µg/L	21	29%	2.45	0.84	2	2	4.8	34	2.9	4.8	10	Basin Plan WQO	0	0%	0.14	EPA AWQC for Human Health	6	29%
Stanislaus River	Arsenic	µg/L	23	0%	-	-	-	-	-	-	-	-	10	Basin Plan WQO	0	0%	0.14	EPA AWQC for Human Health	0	0%
Upper Mainstem	Arsenic	µg/L	46	48%	3.08	1.35	2	2	7	44	2.9	7	10	Basin Plan WQO	0	0%	0.14	EPA AWQC for Human Health	22	48%
Vernalis	Arsenic	µg/L	22	23%	2.18	0.72	1	2	4.9	33	2.1	4.9	10	Basin Plan WQO	0	0%	0.14	EPA AWQC for Human Health	5	23%
Wasteways	Arsenic	µg/L	15	100%	4.82	2.14	1.6	4.7	9.9	44	1.6	9.9	10	Basin Plan WQO	0	0%	0.14	EPA AWQC for Human Health	15	100%
All	Arsenic, dissolved	µg/L	187	65%	2.09	0.59	0.5	2	5.4	28	1	5.4	10	Basin Plan WQO	0	0%	0.14	EPA AWQC for Human Health	121	65%
Lower Mainstem	Arsenic, dissolved	µg/L	17	24%	2.15	0.35	2	2	3.3	16	2.2	3.3	10	Basin Plan WQO	0	0%	0.14	EPA AWQC for Human Health	4	24%
South Delta	Arsenic, dissolved	µg g/L	103	99%	2.00	0.47	0.5	2	3	23	1	3	10	Basin Plan WQO	0	0%	0.14	EPA AWQC for Human Health	102	99%
Stanislaus River	Arsenic, dissolved	µg/L	13	0%	-	-	-	-	-	-	-	-	10	Basin Plan WQO	0	0%	0.14	EPA AWQC for Human Health	0	0%
Upper Mainstem	Arsenic, dissolved	µg/L	36	36%	2.47	0.91	1	2	5.4	37	2.2	5.4	10	Basin Plan WQO	0	0%	0.14	EPA AWQC for Human Health	13	36%
Vernalis	Arsenic, dissolved	µg/L	18	11%	1.89	0.47	1	2	3	25	2.1	3	10	Basin Plan WQO	0	0%	0.14	EPA AWQC for Human Health	2	11%
All	Boron (3/15 - 9/15)	mg/L	858	95%	0.538	0.356	0.025	0.5	1.7	66	0.05	1.7	0.8	Basin Plan WQO	192	22%	-	-	-	-
Lower Mainstem	Boron (3/15 - 9/15)	mg/L	203	98%	0.413	0.195	0.025	0.4	1.1	47	0.07	1.1	0.8	Basin Plan WQO	4	2%	-	-	-	-
Stanislaus River	Boron (3/15 - 9/15)	mg/L	32	0%	-	-	-	-	-	-	-	-	0.8	Basin Plan WQO	0	0%	-	-	-	-
Upper Mainstem	Boron (3/15 - 9/15)	mg/L	411	99%	0.763	0.353	0.025	0.8	1.7	46	0.05	1.7	0.8	Basin Plan WQO	186	45%	-	-	-	-
Vernalis	Boron (3/15 - 9/15)	mg/L	205	98%	0.292	0.146	0.025	0.3	0.9	50	0.05	0.9	0.8	Basin Plan WQO	1	0.5%	-	-	-	-
Wasteways	Boron (3/15 - 9/15)	mg/L	7	100%	0.534	0.266	0.17	0.6	0.87	50	0.17	0.87	0.8	Basin Plan WQO	1	14%	-	-	-	-
All	Boron (9/16 - 3/14)	mg/L	826	97%	0.564	0.276	0.025	0.5	1.5	49	0.08	1.5	1	Basin Plan WQO	43	5%	-	-	-	-
Lower Mainstem	Boron (9/16 - 3/14)	mg/L	198	100%	0.489	0.199	0.1	0.5	1.1	41	0.1	1.1	1	Basin Plan WQO	2	1%	-	-	-	-
Stanislaus River	Boron (9/16 - 3/14)	mg/L	24	0%	-	-	-	-	-	-	-	-	1	Basin Plan WQO	0	0%	-	-	-	-

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Summary Statistics by Region

Region	Analyte	Unit	No. of Samples	Detection Rate	Mean	Std Dev	Min	Median	Max	CV	Min Detected	Max Detected	Criteria (1)	Basis for Criteria (1)	No. of Samples Exceed Criteria (1)	% of Samples Exceed Criteria (1)	Criteria (2)	Basis for Criteria (2)	No. of Samples Exceed Criteria (2)	% of Samples Exceed Criteria (2)
Upper Mainstem	Boron (9/16 - 3/14)	mg/L	397	100%	0.718	0.255	0.2	0.7	1.5	35	0.2	1.5	1	Basin Plan WQO	39	10%	-	-	-	-
Vernalis	Boron (9/16 - 3/14)	mg/L	199	100%	0.390	0.156	0.08	0.4	0.9	40	0.08	0.9	1	Basin Plan WQO	0	0%	-	-	-	-
Wasteways	Boron (9/16 - 3/14)	mg/L	8	100%	0.670	0.375	0.12	0.69	1.1	56	0.12	1.1	1	Basin Plan WQO	2	25%	-	-	-	-
All	Boron, dissolved (3/15 - 9/15)	mg/L	243	63%	0.175	0.142	0.05	0.1	0.8	81	0.1	0.8	0.8	Basin Plan WQO	0	0%	-	-	-	-
South Delta	Boron, dissolved (3/15 - 9/15)	mg/L	142	44%	0.107	0.093	0.05	0.05	0.6	87	0.1	0.6	0.8	Basin Plan WQO	0	0%	-	-	-	-
Vernalis	Boron, dissolved (3/15 - 9/15)	mg/L	101	90%	0.271	0.143	0.05	0.3	0.8	53	0.1	0.8	0.8	Basin Plan WQO	0	0%	-	-	-	-
All	Boron, dissolved (9/16 - 3/14)	mg/L	254	78%	0.212	0.161	0.05	0.2	0.8	76	0.1	0.8	1	Basin Plan WQO	0	0%	-	-	-	-
South Delta	Boron, dissolved (9/16 - 3/14)	mg/L	150	63%	0.120	0.097	0.05	0.1	0.5	81	0.1	0.5	1	Basin Plan WQO	0	0%	-	-	-	-
Vernalis	Boron, dissolved (9/16 - 3/14)	mg/L	104	98%	0.344	0.142	0.05	0.3	0.8	41	0.1	0.8	1	Basin Plan WQO	0	0%	-	-	-	-
All	Bromide	mg/L	59	88%	0.397	0.203	0.032	0.42	0.88	51	0.032	0.88	0.05	CALFED WQP ROD goal	50	85%	-	-	-	-
Wasteways	Bromide	mg/L	59	88%	0.397	0.203	0.032	0.42	0.88	51	0.032	0.88	0.05	CALFED WQP ROD goal	50	85%	-	-	-	-
All	Bromide, dissolved	mg/L	666	100%	0.223	0.142	0.01	0.205	0.86	64	0.01	0.86	0.05	CALFED WQP ROD goal	600	90%	-	-	-	-
South Delta	Bromide, dissolved	mg/L	336	100%	0.193	0.160	0.01	0.13	0.86	83	0.01	0.86	0.05	CALFED WQP ROD goal	281	84%	-	-	-	-
Vernalis	Bromide, dissolved	mg/L	330	100%	0.254	0.115	0.02	0.26	0.62	45	0.02	0.62	0.05	CALFED WQP ROD goal	319	97%	-	-	-	-
All	Cadmium	µg/L	123	11%	0.140	0.179	0.02	0.05	0.5	128	0.02	0.2	0.097	EPA AWQC for Aquatic Life (25 mg/L hardness)	5	4%	0.27	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Lower Mainstem	Cadmium	µg/L	20	0%	-	-	-	-	-	-	-	-	0.097	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	0.27	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Stanislaus River	Cadmium	µg/L	23	0%	-	-	-	-	-	-	-	-	0.097	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	0.27	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Upper Mainstem	Cadmium	µg/L	44	0%	-	-	-	-	-	-	-	-	0.097	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	0.27	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Vernalis	Cadmium	µg/L	21	0%	-	-	-	-	-	-	-	-	0.097	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	0.27	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Wasteways	Cadmium	µg/L	15	93%	0.0673	0.0467	0.02	0.05	0.2	69	0.02	0.2	0.097	EPA AWQC for Aquatic Life (25 mg/L hardness)	5	33%	0.27	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
All	Cadmium, dissolved	µg/L	182	0%	-	-	-	-	-	-	-	-	0.094	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	0.25	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Lower Mainstem	Cadmium, dissolved	µg/L	17	0%	-	-	-	-	-	-	-	-	0.094	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	0.25	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
South Delta	Cadmium, dissolved	µg/L	98	0%	-	-	-	-	-	-	-	-	0.094	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	0.25	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Stanislaus River	Cadmium, dissolved	µg/L	13	0%	-	-	-	-	-	-	-	-	0.094	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	0.25	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Upper Mainstem	Cadmium, dissolved	µg/L	36	0%	-	-	-	-	-	-	-	-	0.094	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	0.25	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Vernalis	Cadmium, dissolved	µg/L	18	0%	-	-	-	-	-	-	-	-	0.094	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	0.25	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
All	Chromium	µg/L	205	71%	2.06	3.10	0.5	1.8	43	151	1	43	28	EPA AWQC for Aquatic Life (25 mg/L hardness)	1	0.5%	86	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Lower Mainstem	Chromium	µg/L	31	81%	2.21	1.20	0.5	2.1	4.8	54	1	4.8	28	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	86	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
South Delta	Chromium	µg/L	1	0%	-	-	-	-	-	-	-	-	28	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	86	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Stanislaus River	Chromium	µg/L	39	0%	-	-	-	-	-	-	-	-	28	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	86	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Upper Mainstem	Chromium	µg/L	84	92%	2.97	4.56	0.5	2.6	43	153	1.1	43	28	EPA AWQC for Aquatic Life (25 mg/L hardness)	1	1%	86	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Vernalis	Chromium	µg/L	50	86%	1.68	0.70	0.5	1.7	3.2	42	1	3.2	28	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	86	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
All	Chromium, dissolved	µg/L	228	37%	1.48	1.71	0.5	0.5	8	116	1	8	24	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	74	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%

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Lower Mainstem	Chromium, dissolved	µg/L	25	8%	0.580	0.300	0.5	0.5	1.9	52	1.1	1.9	24	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	74	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
South Delta	Chromium, dissolved	µg/L	103	81%	2.65	1.99	0.5	2	8	75	1	8	24	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	74	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Stanislaus River	Chromium, dissolved	µg/L	20	0%	-	-	-	-	-	-	-	-	24	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	74	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Upper Mainstem	Chromium, dissolved	µg/L	52	0%	-	-	-	-	-	-	-	-	24	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	74	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Vernalis	Chromium, dissolved	µg/L	28	0%	-	-	-	-	-	-	-	-	24	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	74	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
All	Copper	µg/L	209	92%	3.49	3.52	0.5	2.9	28	101	1.1	28	2.9	EPA AWQC for Aquatic Life (25 mg/L hardness)	104	50%	9.3	EPA AWQC for Aquatic Life (100 mg/L hardness)	10	5%
Lower Mainstem	Copper	µg/L	29	97%	3.00	1.06	0.5	3.3	4.6	35	1.4	4.6	2.9	EPA AWQC for Aquatic Life (25 mg/L hardness)	16	55%	9.3	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Stanislaus River	Copper	µg/L	37	68%	1.34	0.72	0.5	1.4	3	54	1.1	3	2.9	EPA AWQC for Aquatic Life (25 mg/L hardness)	1	3%	9.3	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Upper Mainstem	Copper	µg/L	80	98%	3.25	1.09	0.5	3.2	6.4	34	1.1	6.4	2.9	EPA AWQC for Aquatic Life (25 mg/L hardness)	49	61%	9.3	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Vernalis	Copper	µg/L	48	98%	2.98	1.25	0.5	2.9	9.4	42	1.3	9.4	2.9	EPA AWQC for Aquatic Life (25 mg/L hardness)	23	48%	9.3	EPA AWQC for Aquatic Life (100 mg/L hardness)	1	2%
Wasteways	Copper	µg/L	15	100%	12.7	7.9	3	12	28	62	3	28	2.9	EPA AWQC for Aquatic Life (25 mg/L hardness)	15	100%	9.3	EPA AWQC for Aquatic Life (100 mg/L hardness)	9	60%
All	Copper, dissolved	µg/L	224	72%	1.56	1.02	0.5	1.6	9	65	1	9	2.7	EPA AWQC for Aquatic Life (25 mg/L hardness)	23	10%	9	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Lower Mainstem	Copper, dissolved	µg/L	24	50%	0.983	0.648	0.5	0.75	3.2	66	1	3.2	2.7	EPA AWQC for Aquatic Life (25 mg/L hardness)	1	4%	9	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
South Delta	Copper, dissolved	u µg g/L	103	99%	2.18	0.95	0.5	2	9	44	1	9	2.7	EPA AWQC for Aquatic Life (25 mg/L hardness)	19	18%	9	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Stanislaus River	Copper, dissolved	µg/L	20	25%	0.745	0.465	0.5	0.5	2.1	62	1.2	2.1	2.7	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	9	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Upper Mainstem	Copper, dissolved	µg/L	50	58%	1.18	0.84	0.5	1.1	4.6	71	1	4.6	2.7	EPA AWQC for Aquatic Life (25 mg/L hardness)	2	4%	9	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Vernalis	Copper, dissolved	µg/L	27	48%	1.04	0.73	0.5	0.5	3.4	70	1	3.4	2.7	EPA AWQC for Aquatic Life (25 mg/L hardness)	1	4%	9	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
All	Dissolved Organic Carbon	mg/L	803	100%	3.64	2.22	1.8	3.2	51	61	1.8	51	3	CALFED WQP ROD goal	454	57%	-	-	-	-
South Delta	Dissolved Organic Carbon	mg/L	414	100%	3.42	1.22	1.8	3.1	8.4	36	1.8	8.4	3	CALFED WQP ROD goal	212	51%	-	-	-	-
Vernalis	Dissolved Organic Carbon	mg/L	331	100%	3.56	1.29	1.8	3.15	10.5	36	1.8	10.5	3	CALFED WQP ROD goal	191	58%	-	-	-	-
Wasteways	Dissolved Organic Carbon	mg/L	58	100%	5.69	6.65	1.8	4.45	51	117	1.8	51	3	CALFED WQP ROD goal	51	88%	-	-	-	-
All	Dissolved Oxygen	mg/L	2092	100%	9.90	2.03	1.3	9.615	25.7	21	1.3	25.7	5	Basin Plan WQO for WARM	16	1%	7	Basin Plan WQO for COLD	67	3%
Lower Mainstem	Dissolved Oxygen	mg/L	317	100%	10.8	2.2	4.1	10.4	25.7	20	4.1	25.7	5	Basin Plan WQO for WARM	1	0.3%	7	Basin Plan WQO for COLD	3	1%
South Delta	Dissolved Oxygen	mg/L	332	100%	8.68	1.28	2	8.7	12.52	15	2	12.52	5	Basin Plan WQO for WARM	3	1%	7	Basin Plan WQO for COLD	21	6%
Stanislaus River	Dissolved Oxygen	mg/L	92	100%	10.5	1.6	7.6	10.4	15.1	15	7.6	15.1	5	Basin Plan WQO for WARM	0	0%	7	Basin Plan WQO for COLD	0	0%
Upper Mainstem	Dissolved Oxygen	mg/L	640	100%	10.2	2.0	5.1	9.9	18.6	19	5.1	18.6	5	Basin Plan WQO for WARM	0	0%	7	Basin Plan WQO for COLD	9	1%
Vernalis	Dissolved Oxygen	mg/L	637	100%	9.94	1.88	1.3	9.7	19.3	19	1.3	19.3	5	Basin Plan WQO for WARM	3	0.5%	7	Basin Plan WQO for COLD	8	1%
Wasteways	Dissolved Oxygen	mg/L	74	100%	8.15	2.78	1.57	8.255	16.93	34	1.57	16.93	5	Basin Plan WQO for WARM	9	12%	7	Basin Plan WQO for COLD	26	35%
All	Electrical Conductivity (EC) (4/1 - 8/31)	µmhos/cm	1056	100%	678	429	58	633.25	1900	63	58	1900	700	Basin Plan WQO	444	42%	-	-	-	-
Lower Mainstem	Electrical Conductivity (EC) (4/1 - 8/31)	µmhos/cm	173	100%	693	302	100	770	1280	44	100	1280	700	Basin Plan WQO	96	55%	-	-	-	-
South Delta	Electrical Conductivity (EC) (4/1 - 8/31)	µmhos/cm	139	100%	306	135	112.45	275.5	881	44	112.45	881	700	Basin Plan WQO	2	1%	-	-	-	-
Stanislaus	Electrical Conductivity (EC)	µmhos/cm	53	100%	80.1	17.5	58	79	128	22	58	128	700	Basin Plan WQO	0	0%	-	-	-	-

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Region	Analyte	Unit	No. of Samples	Detection Rate	Mean	Std Dev	Min	Median	Max	CV	Min Detected	Max Detected	Criteria (1)	Basis for Criteria (1)	No. of Samples Exceed Criteria (1)	% of Samples Exceed Criteria (1)	Criteria (2)	Basis for Criteria (2)	No. of Samples Exceed Criteria (2)	% of Samples Exceed Criteria (2)
River	(4/1 - 8/31)																			
Upper Mainstem	Electrical Conductivity (EC) (4/1 - 8/31)	µmhos/cm	351	100%	1045	434	100	1165	1900	42	100	1900	700	Basin Plan WQO	266	76%	-	-	-	-
Vernalis	Electrical Conductivity (EC) (4/1 - 8/31)	µmhos/cm	311	100%	523	203	97	521	990.5	39	97	990.5	700	Basin Plan WQO	65	21%	-	-	-	-
Wasteways	Electrical Conductivity (EC) (4/1 - 8/31)	µmhos/cm	29	100%	700	366	122	706	1449	52	122	1449	700	Basin Plan WQO	15	52%	-	-	-	-
All	Electrical Conductivity (EC) (9/1 - 3/31)	µmhos/cm	1532	100%	801	394	51	777.5	1860	49	51	1860	1000	Basin Plan WQO	469	31%	-	-	-	-
Lower Mainstem	Electrical Conductivity (EC) (9/1 - 3/31)	µmhos/cm	243	100%	837	288	199	900	1410	34	199	1410	1000	Basin Plan WQO	67	28%	-	-	-	-
South Delta	Electrical Conductivity (EC) (9/1 - 3/31)	µmhos/cm	248	100%	463	189	184	429.5	989	41	184	989	1000	Basin Plan WQO	0	0%	-	-	-	-
Stanislaus River	Electrical Conductivity (EC) (9/1 - 3/31)	µmhos/cm	63	100%	109	33	51	111	183	30	51	183	1000	Basin Plan WQO	0	0%	-	-	-	-
Upper Mainstem	Electrical Conductivity (EC) (9/1 - 3/31)	µmhos/cm	485	100%	1119	354	319	1150	1860	32	319	1860	1000	Basin Plan WQO	332	68%	-	-	-	-
Vernalis	Electrical Conductivity (EC) (9/1 - 3/31)	µmhos/cm	440	100%	704	233	178.3	730.5	1200	33	178.3	1200	1000	Basin Plan WQO	46	10%	-	-	-	-
Wasteways	Electrical Conductivity (EC) (9/1 - 3/31)	µmhos/cm	53	100%	920	467	184	975	1852	51	184	1852	1000	Basin Plan WQO	24	45%	-	-	-	-
All	Hardness	mg/L as CaCO ₃	413	100%	150	82	23	137	540	55	23	540	-	-	-	-	-	-	-	-
Lower Mainstem	Hardness	mg/L as CaCO ₃	27	100%	185	50	95	190	280	27	95	280	-	-	-	-	-	-	-	-
South Delta	Hardness	mg/L as CaCO ₃	121	100%	101	29	55	98	193	28	55	193	-	-	-	-	-	-	-	-
Stanislaus River	Hardness	mg/L as CaCO ₃	30	100%	36.2	9.9	23	35.5	55	27	23	55	-	-	-	-	-	-	-	-
Upper Mainstem	Hardness	mg/L as CaCO ₃	63	100%	252	66	91	260	380	26	91	380	-	-	-	-	-	-	-	-
Vernalis	Hardness	mg/L as CaCO ₃	157	100%	146	44	55	150	250	30	55	250	-	-	-	-	-	-	-	-
Wasteways	Hardness	mg/L as CaCO ₃	15	100%	316	132	94	300	540	42	94	540	-	-	-	-	-	-	-	-
All	Hardness, dissolved	mg/L as CaCO ₃	254	100%	92.8	37.8	32	85	231	41	32	231	-	-	-	-	-	-	-	-
South Delta	Hardness, dissolved	mg/L as CaCO ₃	171	100%	80.4	21.7	35	81	154	27	35	154	-	-	-	-	-	-	-	-
Vernalis	Hardness, dissolved	mg/L as CaCO ₃	83	100%	118	50	32	132	231	42	32	231	-	-	-	-	-	-	-	-
All	Lead	µg/L	220	7%	2.65	1.18	0.49	2.5	13	45	0.49	13	0.54	EPA AWQC for Aquatic Life (25 mg/L hardness)	14	6%	3.2	EPA AWQC for Aquatic Life (100 mg/L hardness)	8	4%
Lower Mainstem	Lead	µg/L	31	0%	-	-	-	-	-	-	-	-	0.54	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	3.2	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Stanislaus River	Lead	µg/L	40	0%	-	-	-	-	-	-	-	-	0.54	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	3.2	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Upper Mainstem	Lead	µg/L	84	0%	-	-	-	-	-	-	-	-	0.54	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	3.2	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Vernalis	Lead	µg/L	50	0%	-	-	-	-	-	-	-	-	0.54	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	3.2	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Wasteways	Lead	µg/L	15	100%	4.74	4.11	0.49	3.6	13	87	0.49	13	0.54	EPA AWQC for Aquatic Life (25 mg/L hardness)	14	93%	3.2	EPA AWQC for Aquatic Life (100 mg/L hardness)	8	53%
All	Lead, dissolved	µg/L	229	0.44%	1.63	1.06	0.5	2.5	7	65	7	7	0.54	EPA AWQC for Aquatic Life (25 mg/L hardness)	1	0.4%	2.5	EPA AWQC for Aquatic Life (100 mg/L hardness)	1	0.4%
Lower Mainstem	Lead, dissolved	µg/L	25	0%	-	-	-	-	-	-	-	-	0.54	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	2.5	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
South Delta	Lead, dissolved	µg/L	103	1%	0.563	0.640	0.5	0.5	7	114	7	7	0.54	EPA AWQC for Aquatic Life (25 mg/L	1	1%	2.5	EPA AWQC for Aquatic Life (100	1	1%

Table F2-1
Summary Statistics by Region

Region	Analyte	Unit	No. of Samples	Detection Rate	Mean	Std Dev	Min	Median	Max	CV	Min Detected	Max Detected	Criteria (1)	Basis for Criteria (1)	No. of Samples Exceed Criteria (1)	% of Samples Exceed Criteria (1)	Criteria (2)	Basis for Criteria (2)	No. of Samples Exceed Criteria (2)	% of Samples Exceed Criteria (2)
														hardness)				mg/L hardness)		
Stanislaus River	Lead, dissolved	µg/L	21	0%	-	-	-	-	-	-	-	-	0.54	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	2.5	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Upper Mainstem	Lead, dissolved	µg/L	52	0%	-	-	-	-	-	-	-	-	0.54	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	2.5	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Vernalis	Lead, dissolved	µg/L	28	0%	-	-	-	-	-	-	-	-	0.54	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	2.5	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
All	Mercury	µg/L	107	0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lower Mainstem	Mercury	µg/L	20	0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stanislaus River	Mercury	µg/L	22	0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Upper Mainstem	Mercury	µg/L	44	0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vernalis	Mercury	µg/L	21	0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All	Mercury, dissolved	µg/L	180	0%	-	-	-	-	-	-	-	-	0.05	CTR Human Health Criteria	0	0%	-	-	-	-
Lower Mainstem	Mercury, dissolved	µg/L	16	0%	-	-	-	-	-	-	-	-	0.05	CTR Human Health Criteria	0	0%	-	-	-	-
South Delta	Mercury, dissolved	µg/L	101	0%	-	-	-	-	-	-	-	-	0.05	CTR Human Health Criteria	0	0%	-	-	-	-
Stanislaus River	Mercury, dissolved	µg/L	12	0%	-	-	-	-	-	-	-	-	0.05	CTR Human Health Criteria	0	0%	-	-	-	-
Upper Mainstem	Mercury, dissolved	µg/L	34	0%	-	-	-	-	-	-	-	-	0.05	CTR Human Health Criteria	0	0%	-	-	-	-
Vernalis	Mercury, dissolved	µg/L	17	0%	-	-	-	-	-	-	-	-	0.05	CTR Human Health Criteria	0	0%	-	-	-	-
All	Nickel	µg/L	218	20%	4.18	5.72	1	2.5	46	137	1	46	16	EPA AWQC for Aquatic Life (25 mg/L hardness)	8	4%	52	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Lower Mainstem	Nickel	µg/L	31	26%	3.52	1.85	2.5	2.5	8.8	53	5.1	8.8	16	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	52	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
South Delta	Nickel	µg/L	1	100%	1.00	-	1	1	1	-	1	1	16	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	52	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Stanislaus River	Nickel	µg/L	39	0%	-	-	-	-	-	-	-	-	16	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	52	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Upper Mainstem	Nickel	µg/L	84	20%	3.18	1.41	2.5	2.5	7.5	44	4.2	7.5	16	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	52	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Vernalis	Nickel	µg/L	50	10%	2.92	1.54	2.5	2.5	12	53	5.1	12	16	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	52	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Wasteways	Nickel	µg/L	13	100%	22.4	13.3	3.2	24	46	60	3.2	46	16	EPA AWQC for Aquatic Life (25 mg/L hardness)	8	62%	52	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
All	Nickel, dissolved	µg/L	226	43%	2.00	1.06	0.5	2.5	12	53	1	12	16	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	52	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Lower Mainstem	Nickel, dissolved	µg/L	25	0%	-	-	-	-	-	-	-	-	16	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	52	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
South Delta	Nickel, dissolved	µg/L	100	95%	1.22	0.46	0.5	1	2	38	1	2	16	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	52	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Stanislaus River	Nickel, dissolved	µg/L	21	0%	-	-	-	-	-	-	-	-	16	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	52	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Upper Mainstem	Nickel, dissolved	µg/L	52	4%	2.61	0.79	2.5	2.5	8.2	30	2.7	8.2	16	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	52	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Vernalis	Nickel, dissolved	µg/L	28	4%	2.84	1.80	2.5	2.5	12	63	12	12	16	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	52	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
All	Nitrate	mg/L as N	212	81%	1.95	1.10	0.1	1.83	6.4	56	0.1	6.4	10	CALFED WQP ROD goal	0	0%	-	-	-	-
Lower Mainstem	Nitrate	mg/L as N	23	54%	1.71	0.35	1.15	1.74	2.71	21	1.15	2.71	10	CALFED WQP ROD goal	0	0%	-	-	-	-
Stanislaus River	Nitrate	mg/L as N	16	56%	0.478	0.251	0.226	0.474	0.835	53	0.429	0.835	10	CALFED WQP ROD goal	0	0%	-	-	-	-

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Summary Statistics by Region

Region	Analyte	Unit	No. of Samples	Detection Rate	Mean	Std Dev	Min	Median	Max	CV	Min Detected	Max Detected	Criteria (1)	Basis for Criteria (1)	No. of Samples Exceed Criteria (1)	% of Samples Exceed Criteria (1)	Criteria (2)	Basis for Criteria (2)	No. of Samples Exceed Criteria (2)	% of Samples Exceed Criteria (2)
Upper Mainstem	Nitrate	mg/L as N	125	91%	2.25	1.05	0.1	2.19	5.19	47	0.1	5.19	10	CALFED WQP ROD goal	0	0%	-	-	-	-
Vernalis	Nitrate	mg/L as N	35	64%	1.30	0.44	0.2	1.39	2.30	33	0.2	2.30	10	CALFED WQP ROD goal	0	0%	-	-	-	-
Wasteways	Nitrate	mg/L as N	13	100%	3.14	1.52	0.54	3.1	6.4	48	0.54	6.4	10	CALFED WQP ROD goal	0	0%	-	-	-	-
All	Nitrate, dissolved	mg/L as N	497	100%	0.970	0.712	0.0226	0.7677	6.3226	73	0.0226	6.3226	10	CALFED WQP ROD goal	0	0%	-	-	-	-
South Delta	Nitrate, dissolved	mg/L as N	292	100%	0.579	0.440	0.0226	0.4742	2.4839	76	0.0226	2.4839	10	CALFED WQP ROD goal	0	0%	-	-	-	-
Vernalis	Nitrate, dissolved	mg/L as N	205	100%	1.53	0.65	0.0677	1.6032	6.3226	43	0.0677	6.3226	10	CALFED WQP ROD goal	0	0%	-	-	-	-
All	Ortho-phosphate	mg/L as P	324	81%	1.76	2.61	0.012	0.2	11	148	0.012	11	0.05	EPA WQ Criteria	245	76%	-	-	-	-
Lower Mainstem	Ortho-phosphate	mg/L as P	26	100%	5.33	1.38	2.5	5.9	7.2	26	2.5	7.2	0.05	EPA WQ Criteria	26	100%	-	-	-	-
South Delta	Ortho-phosphate	mg/L as P	67	100%	0.0682	0.0211	0.03	0.06	0.15	31	0.03	0.15	0.05	EPA WQ Criteria	54	81%	-	-	-	-
Stanislaus River	Ortho-phosphate	mg/L as P	18	0%	-	-	-	-	-	-	-	-	0.05	EPA WQ Criteria	0	0%	-	-	-	-
Upper Mainstem	Ortho-phosphate	mg/L as P	144	69%	1.61	2.84	0.015	0.3	11	176	0.06	11	0.05	EPA WQ Criteria	99	69%	-	-	-	-
Vernalis	Ortho-phosphate	mg/L as P	55	100%	3.38	2.22	0.08	4	8.1	66	0.08	8.1	0.05	EPA WQ Criteria	55	100%	-	-	-	-
Wasteways	Ortho-phosphate	mg/L as P	14	100%	0.101	0.064	0.012	0.1	0.22	63	0.012	0.22	0.05	EPA WQ Criteria	11	79%	-	-	-	-
All	Ortho-phosphate, dissolved	mg/L as P	188	100%	0.0724	0.0368	0.02	0.06	0.23	51	0.02	0.23	0.05	EPA WQ Criteria	113	60%	-	-	-	-
South Delta	Ortho-phosphate, dissolved	mg/L as P	113	100%	0.0583	0.0222	0.02	0.05	0.18	38	0.02	0.18	0.05	EPA WQ Criteria	53	47%	-	-	-	-
Vernalis	Ortho-phosphate, dissolved	mg/L as P	73	100%	0.0927	0.0436	0.03	0.09	0.23	47	0.03	0.23	0.05	EPA WQ Criteria	58	79%	-	-	-	-
Wasteways	Ortho-phosphate, dissolved	mg/L as P	2	100%	0.1300	0.0424	0.1	0.13	0.16	33	0.1	0.16	0.05	EPA WQ Criteria	2	100%	-	-	-	-
All	pH	Std. Unit	2559	100%	7.75	0.41	3.8	7.8	9.5	5	3.8	9.5	6.5 - 8.5	Basin Plan WQO	102	4%	-	-	-	-
Lower Mainstem	pH	Std. Unit	412	100%	7.89	0.38	6.7	7.8	9	5	6.7	9	6.5 - 8.5	Basin Plan WQO	29	7%	-	-	-	-
South Delta	pH	Std. Unit	385	100%	7.46	0.39	3.8	7.5	8.75	5	3.8	8.75	6.5 - 8.5	Basin Plan WQO	5	1%	-	-	-	-
Stanislaus River	pH	Std. Unit	115	100%	7.80	0.39	6.5	7.9	9	5	6.5	9	6.5 - 8.5	Basin Plan WQO	3	3%	-	-	-	-
Upper Mainstem	pH	Std. Unit	826	100%	7.80	0.30	5.8	7.8	9.5	4	5.8	9.5	6.5 - 8.5	Basin Plan WQO	4	0.5%	-	-	-	-
Vernalis	pH	Std. Unit	747	100%	7.75	0.47	6.1	7.78	9.1	6	6.1	9.1	6.5 - 8.5	Basin Plan WQO	56	7%	-	-	-	-
Wasteways	pH	Std. Unit	74	100%	7.71	0.52	5.56	7.7325	9.33	7	5.56	9.33	6.5 - 8.5	Basin Plan WQO	5	7%	-	-	-	-
All	Selenium	µg/L	1722	92%	1.59	1.11	0.2	1.3	6	70	0.4	6	5	Basin Plan WQO	13	1%	-	-	-	-
Lower Mainstem	Selenium	µg/L	411	95%	1.23	0.65	0.2	1.1	3.6	53	0.4	3.6	5	Basin Plan WQO	0	0%	-	-	-	-
South Delta	Selenium	µg/L	1	0%	-	-	-	-	-	-	-	-	5	Basin Plan WQO	0	0%	-	-	-	-
Stanislaus River	Selenium	µg/L	56	2%	0.205	0.040	0.2	0.2	0.5	20	0.5	0.5	5	Basin Plan WQO	0	0%	-	-	-	-
Upper Mainstem	Selenium	µg/L	826	97%	2.20	1.19	0.2	1.9	6	54	0.4	6	5	Basin Plan WQO	13	2%	-	-	-	-
Vernalis	Selenium	µg/L	413	91%	0.926	0.499	0.2	0.8	2.8	54	0.4	2.8	5	Basin Plan WQO	0	0%	-	-	-	-
Wasteways	Selenium	µg/L	15	80%	1.79	1.36	0.5	1	5	76	0.9	5	5	Basin Plan WQO	0	0%	-	-	-	-
All	Selenium, dissolved	µg/L	103	49%	0.850	0.464	0.5	0.5	2	55	1	2	5	Basin Plan WQO	0	0%	-	-	-	-
South Delta	Selenium, dissolved	µg/L	103	49%	0.850	0.464	0.5	0.5	2	55	1	2	5	Basin Plan WQO	0	0%	-	-	-	-
All	Temperature	°C	2547	100%	17.4	5.4	1.6	17.26	29	31	1.6	29	-	-	-	-	-	-	-	-
Lower Mainstem	Temperature	°C	416	100%	17.7	5.5	7	17.3	28.7	31	7	28.7	-	-	-	-	-	-	-	-
South Delta	Temperature	°C	369	100%	17.2	5.3	5.8	17	28.8	31	5.8	28.8	-	-	-	-	-	-	-	-
Stanislaus River	Temperature	°C	116	100%	15.3	4.1	7.3	14.15	25.3	27	7.3	25.3	-	-	-	-	-	-	-	-

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Upper Mainstem	Temperature	°C	834	100%	17.8	5.6	5.9	18	28.5	32	5.9	28.5	-	-	-	-	-	-	-	-
Vernalis	Temperature	°C	738	100%	17.6	5.3	1.6	17.65	29	30	1.6	29	-	-	-	-	-	-	-	-
Wasteways	Temperature	°C	74	100%	15.7	5.0	4.8	15.725	25.93	32	4.8	25.93	-	-	-	-	-	-	-	-
All	Total Dissolved Solids	mg/L	657	100%	343	209	42	303.5	1300	61	42	1300	500	Basin Plan MOA	115	18%	440	CALFED WQP ROD goal	151	23%
Lower Mainstem	Total Dissolved Solids	mg/L	15	100%	489	126	220	540	690	26	220	690	500	Basin Plan MOA	10	67%	440	CALFED WQP ROD goal	11	73%
South Delta	Total Dissolved Solids	mg/L	292	100%	234	102	74	207	551	44	74	551	500	Basin Plan MOA	4	1%	440	CALFED WQP ROD goal	12	4%
Stanislaus River	Total Dissolved Solids	mg/L	10	100%	70.7	25.6	42	67	120	36	42	120	500	Basin Plan MOA	0	0%	440	CALFED WQP ROD goal	0	0%
Upper Mainstem	Total Dissolved Solids	mg/L	45	100%	693	207	220	710	1100	30	220	1100	500	Basin Plan MOA	38	84%	440	CALFED WQP ROD goal	38	84%
Vernalis	Total Dissolved Solids	mg/L	235	100%	351	134	64	370	654	38	64	654	500	Basin Plan MOA	28	12%	440	CALFED WQP ROD goal	54	23%
Wasteways	Total Dissolved Solids	mg/L	60	100%	589	310	140	605	1300	53	140	1300	500	Basin Plan MOA	35	58%	440	CALFED WQP ROD goal	36	60%
All	Total Organic Carbon	mg/L	1762	99%	4.76	2.75	0.05	4.1	56	58	1.2	56	3	CALFED WQP ROD goal	1376	78%	-	-	-	-
Lower Mainstem	Total Organic Carbon	mg/L	226	99%	4.62	2.46	0.5	3.7	16	53	1.2	16	3	CALFED WQP ROD goal	174	77%	-	-	-	-
South Delta	Total Organic Carbon	mg/L	409	99.5%	3.86	1.62	0.05	3.45	13.35	42	1.9	13.35	3	CALFED WQP ROD goal	269	66%	-	-	-	-
Stanislaus River	Total Organic Carbon	mg/L	41	93%	2.27	1.38	0.5	1.9	7	61	1.2	7	3	CALFED WQP ROD goal	7	17%	-	-	-	-
Upper Mainstem	Total Organic Carbon	mg/L	463	99.6%	5.90	2.92	0.5	5	22	50	1.5	22	3	CALFED WQP ROD goal	428	92%	-	-	-	-
Vernalis	Total Organic Carbon	mg/L	564	99%	4.49	2.01	0.5	4.05	18	45	1.5	18	3	CALFED WQP ROD goal	443	79%	-	-	-	-
Wasteways	Total Organic Carbon	mg/L	59	100%	6.76	7.31	1.5	5.2	56	108	1.5	56	3	CALFED WQP ROD goal	55	93%	-	-	-	-
All	Total Suspended Solids	mg/L	1190	99%	43.0	58.6	0.5	37	1400	136	2	1400	-	-	-	-	-	-	-	-
Lower Mainstem	Total Suspended Solids	mg/L	232	100%	43.0	21.7	8	39.5	160	51	8	160	-	-	-	-	-	-	-	-
South Delta	Total Suspended Solids	mg/L	156	97%	12.4	11.9	0.5	9	100	96	2	100	-	-	-	-	-	-	-	-
Stanislaus River	Total Suspended Solids	mg/L	27	59%	6.84	5.25	2	6	22	77	4	22	-	-	-	-	-	-	-	-
Upper Mainstem	Total Suspended Solids	mg/L	474	100%	44.1	17.7	5	42	170	40	5	170	-	-	-	-	-	-	-	-
Vernalis	Total Suspended Solids	mg/L	241	100%	39.5	21.1	7	37	160	54	7	160	-	-	-	-	-	-	-	-
Wasteways	Total Suspended Solids	mg/L	60	100%	144	222	6	74.5	1400	154	6	1400	-	-	-	-	-	-	-	-
All	Turbidity	NTU	1052	99.95%	26.8	41.0	0.3	19.28333	830	153	0.3	830	150	Basin Plan WQO	10	1%	50	CALFED WQP ROD goal	106	10%
Lower Mainstem	Turbidity	NTU	54	100%	39.9	15.4	12.4	36.6	82	39	12.4	82	150	Basin Plan WQO	0	0%	50	CALFED WQP ROD goal	10	19%
South Delta	Turbidity	NTU	388	99.9%	12.5	10.0	2.065	10	102	80	2.065	102	150	Basin Plan WQO	0	0%	50	CALFED WQP ROD goal	3	1%
Stanislaus River	Turbidity	NTU	53	100%	5.86	9.13	0.3	4	52.3	156	0.3	52.3	150	Basin Plan WQO	0	0%	50	CALFED WQP ROD goal	1	2%
Upper Mainstem	Turbidity	NTU	112	100%	49.1	30.5	0.8	43.05	273	62	0.8	273	150	Basin Plan WQO	2	2%	50	CALFED WQP ROD goal	44	39%
Vernalis	Turbidity	NTU	385	100%	25.9	15.6	6.166667	22.96667	148.5	60	6.166667	148.5	150	Basin Plan WQO	0	0%	50	CALFED WQP ROD goal	19	5%
Wasteways	Turbidity	NTU	60	100%	90.2	136.6	4	50	830	151	4	830	150	Basin Plan WQO	8	13%	50	CALFED WQP ROD goal	29	48%
All	Zinc	µg/L	213	81%	6.01	9.09	1	4.4	80	151	2	80	37	EPA AWQC for Aquatic Life (25 mg/L hardness)	5	2%	120	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Lower Mainstem	Zinc	µg/L	30	87%	4.64	2.22	1	4.9	10	48	2.1	10	37	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	120	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Stanislaus River	Zinc	µg/L	38	42%	2.10	1.69	1	1	7.7	81	2	7.7	37	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	120	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%

Table F2-1
Summary Statistics by Region

Region	Analyte	Unit	No. of Samples	Detection Rate	Mean	Std Dev	Min	Median	Max	CV	Min Detected	Max Detected	Criteria (1)	Basis for Criteria (1)	No. of Samples Exceed Criteria (1)	% of Samples Exceed Criteria (1)	Criteria (2)	Basis for Criteria (2)	No. of Samples Exceed Criteria (2)	% of Samples Exceed Criteria (2)
Upper Mainstem	Zinc	µg/L	82	89%	4.95	2.49	1	4.75	14	50	2.1	14	37	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	120	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Vernalis	Zinc	µg/L	48	90%	4.53	3.14	1	4.2	22	69	2.1	22	37	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	120	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Wasteways	Zinc	µg/L	15	100%	29.2	23.1	3.5	23	80	79	3.5	80	37	EPA AWQC for Aquatic Life (25 mg/L hardness)	5	33%	120	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
All	Zinc, dissolved	µg/L	224	15%	2.17	1.85	1	2.5	21	85	2	21	36	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	120	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Lower Mainstem	Zinc, dissolved	µg/L	24	17%	1.39	1.17	1	1	6.5	84	2.1	6.5	36	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	120	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
South Delta	Zinc, dissolved	µg/L	103	3%	2.68	1.30	2.5	2.5	15	48	5	15	36	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	120	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Stanislaus River	Zinc, dissolved	µg/L	20	35%	1.96	1.65	1	1	6.1	84	2	6.1	36	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	120	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Upper Mainstem	Zinc, dissolved	µg/L	50	28%	1.55	0.96	1	1	4.8	62	2.4	4.8	36	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	120	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
Vernalis	Zinc, dissolved	µg/L	27	22%	2.23	3.91	1	1	21	175	2.8	21	36	EPA AWQC for Aquatic Life (25 mg/L hardness)	0	0%	120	EPA AWQC for Aquatic Life (100 mg/L hardness)	0	0%
All	4,4'-DDE	µg/L	224	4%	0.00254	0.00495	0.00125	0.0015	0.06	195	0.0027	0.06	0.00059	CTR Human Health Criteria	9	4%	0.001	EPA AWQC for Aquatic Life	9	4%
Lower Mainstem	4,4'-DDE	µg/L	20	0%	-	-	-	-	-	-	-	-	0.00059	CTR Human Health Criteria	0	0%	0.001	EPA AWQC for Aquatic Life	0	0%
South Delta	4,4'-DDE	µg/L	22	0%	-	-	-	-	-	-	-	-	0.00059	CTR Human Health Criteria	0	0%	0.001	EPA AWQC for Aquatic Life	0	0%
Stanislaus River	4,4'-DDE	µg/L	47	0%	-	-	-	-	-	-	-	-	0.00059	CTR Human Health Criteria	0	0%	0.001	EPA AWQC for Aquatic Life	0	0%
Upper Mainstem	4,4'-DDE	µg/L	32	0%	-	-	-	-	-	-	-	-	0.00059	CTR Human Health Criteria	0	0%	0.001	EPA AWQC for Aquatic Life	0	0%
Vernalis	4,4'-DDE	µg/L	94	1%	0.00166	0.00077	0.00125	0.00125	0.0055	46	0.0055	0.0055	0.00059	CTR Human Health Criteria	1	1%	0.001	EPA AWQC for Aquatic Life	1	1%
Wasteways	4,4'-DDE	µg/L	9	89%	0.0155	0.0212	0.0027	0.0057	0.06	136	0.0027	0.06	0.00059	CTR Human Health Criteria	8	89%	0.001	EPA AWQC for Aquatic Life	8	89%
All	4,4'-DDE, Dissolved	µg/L	232	6%	0.00176	0.00061	0.00075	0.0015	0.005	34	0.001	0.005	0.00059	CTR Human Health Criteria	16	7%	0.001	EPA AWQC for Aquatic Life	11	5%
Lower Mainstem	4,4'-DDE, Dissolved	µg/L	20	5%	0.00148	0.00011	0.001	0.0015	0.0015	8	0.001	0.001	0.00059	CTR Human Health Criteria	1	5%	0.001	EPA AWQC for Aquatic Life	0	0%
Stanislaus River	4,4'-DDE, Dissolved	µg/L	47	0%	-	-	-	-	-	-	-	-	0.00059	CTR Human Health Criteria	0	0%	0.001	EPA AWQC for Aquatic Life	0	0%
Upper Mainstem	4,4'-DDE, Dissolved	µg/L	35	11%	0.00157	0.00039	0.001	0.0015	0.003	25	0.001	0.003	0.00059	CTR Human Health Criteria	4	11%	0.001	EPA AWQC for Aquatic Life	2	6%
Vernalis	4,4'-DDE, Dissolved	µg/L	130	7%	0.00180	0.00065	0.00075	0.0015	0.005	36	0.001	0.005	0.00059	CTR Human Health Criteria	11	8%	0.001	EPA AWQC for Aquatic Life	9	7%
All	Atrazine	µg/L	260	18%	0.0109	0.0093	0.0005	0.006	0.025	85	0.00265	0.0161	1	CDPH Primary MCL	0	0%	1	EPA AWQC for Aquatic Life	0	0%
Lower Mainstem	Atrazine	µg/L	20	30%	0.00535	0.00324	0.0035	0.0035	0.015	60	0.007	0.015	1	CDPH Primary MCL	0	0%	1	EPA AWQC for Aquatic Life	0	0%
South Delta	Atrazine	µg/L	22	0%	-	-	-	-	-	-	-	-	1	CDPH Primary MCL	0	0%	1	EPA AWQC for Aquatic Life	0	0%
Stanislaus River	Atrazine	µg/L	36	18%	0.00339	0.00104	0.0005	0.0035	0.0056	31	0.00265	0.0056	1	CDPH Primary MCL	0	0%	1	EPA AWQC for Aquatic Life	0	0%
Upper Mainstem	Atrazine	µg/L	28	29%	0.00545	0.00326	0.0035	0.0035	0.015	60	0.00575	0.015	1	CDPH Primary MCL	0	0%	1	EPA AWQC for Aquatic Life	0	0%
Vernalis	Atrazine	µg/L	147	14%	0.0148	0.0104	0.0005	0.0161	0.025	70	0.003667	0.0161	1	CDPH Primary MCL	0	0%	1	EPA AWQC for Aquatic Life	0	0%
Wasteways	Atrazine	µg/L	7	71%	0.00669	0.00509	0.0005	0.0065	0.0145	76	0.0043	0.0145	1	CDPH Primary MCL	0	0%	1	EPA AWQC for Aquatic Life	0	0%
All	Atrazine, Dissolved	µg/L	237	68%	0.00431	0.00238	0.0005	0.0035	0.015	55	0.001	0.015	1	CDPH Primary MCL	0	0%	1	EPA AWQC for Aquatic Life	0	0%
Lower Mainstem	Atrazine, Dissolved	µg/L	20	85%	0.00518	0.00353	0.001	0.004	0.015	68	0.001	0.015	1	CDPH Primary MCL	0	0%	1	EPA AWQC for Aquatic Life	0	0%
Stanislaus River	Atrazine, Dissolved	µg/L	47	55%	0.00316	0.00125	0.0005	0.0035	0.006	40	0.001	0.006	1	CDPH Primary MCL	0	0%	1	EPA AWQC for Aquatic Life	0	0%
Upper Mainstem	Atrazine, Dissolved	µg/L	35	70%	0.00438	0.00253	0.001	0.0035	0.011	58	0.001	0.011	1	CDPH Primary MCL	0	0%	1	EPA AWQC for Aquatic Life	0	0%

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Region	Analyte	Unit	No. of Samples	Detection Rate	Mean	Std Dev	Min	Median	Max	CV	Min Detected	Max Detected	Criteria (1)	Basis for Criteria (1)	No. of Samples Exceed Criteria (1)	% of Samples Exceed Criteria (1)	Criteria (2)	Basis for Criteria (2)	No. of Samples Exceed Criteria (2)	% of Samples Exceed Criteria (2)
Vernalis	Atrazine, Dissolved	µg/L	135	69%	0.00456	0.00233	0.0005	0.004	0.012	51	0.001	0.012	1	CDPH Primary MCL	0	0%	1	EPA AWQC for Aquatic Life	0	0%
All	Azinphos Methyl (Guthion)	µg/L	626	1%	0.0216	0.0079	0.0005	0.025	0.0335	36	0.005	0.0335	0.01	EPA AWQC for Aquatic Life	5	1%	-	-	-	-
Lower Mainstem	Azinphos Methyl (Guthion)	µg/L	20	3%	0.0254	0.0019	0.025	0.025	0.0335	7	0.0335	0.0335	0.01	EPA AWQC for Aquatic Life	1	5%	-	-	-	-
South Delta	Azinphos Methyl (Guthion)	µg/L	54	0%	-	-	-	-	-	-	-	-	0.01	EPA AWQC for Aquatic Life	0	0%	-	-	-	-
Stanislaus River	Azinphos Methyl (Guthion)	µg/L	189	0%	-	-	-	-	-	-	-	-	0.01	EPA AWQC for Aquatic Life	0	0%	-	-	-	-
Upper Mainstem	Azinphos Methyl (Guthion)	µg/L	116	3%	0.0227	0.0062	0.0005	0.025	0.025	27	0.005	0.016	0.01	EPA AWQC for Aquatic Life	1	1%	-	-	-	-
Vernalis	Azinphos Methyl (Guthion)	µg/L	241	1%	0.0205	0.0089	0.0005	0.025	0.025	43	0.017	0.021	0.01	EPA AWQC for Aquatic Life	3	1%	-	-	-	-
Wasteways	Azinphos Methyl (Guthion)	µg/L	6	0%	-	-	-	-	-	-	-	-	0.01	EPA AWQC for Aquatic Life	0	0%	-	-	-	-
All	Bifenthrin	µg/L	262	1%	0.0252	0.0040	0.008	0.025	0.0875	16	0.008	0.0875	110	EPA IRIS	0	0%	0.02	ECOTOX LOEL for Invertebrates	2	1%
South Delta	Bifenthrin	µg/L	36	0%	-	-	-	-	-	-	-	-	110	EPA IRIS	0	0%	0.02	ECOTOX LOEL for Invertebrates	0	0%
Stanislaus River	Bifenthrin	µg/L	115	1%	0.0249	0.0016	0.008	0.025	0.025	6	0.008	0.008	110	EPA IRIS	0	0%	0.02	ECOTOX LOEL for Invertebrates	0	0%
Upper Mainstem	Bifenthrin	µg/L	46	1%	0.0264	0.0092	0.025	0.025	0.0875	35	0.0875	0.0875	110	EPA IRIS	0	0%	0.02	ECOTOX LOEL for Invertebrates	1	2%
Vernalis	Bifenthrin	µg/L	65	1%	0.0250	0.0003	0.025	0.025	0.0275	1	0.0275	0.0275	110	EPA IRIS	0	0%	0.02	ECOTOX LOEL for Invertebrates	1	2%
All	Bifenthrin, Dissolved	µg/L	22	0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vernalis	Bifenthrin, Dissolved	µg/L	22	0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All	Carbaryl	µg/L	638	21%	0.0543	0.2023	0.0015	0.01	2.5	373	0.002	0.447	70	EPA Drinking Water Health Advisory	0	0%	0.02	EPA AWQC for Aquatic Life	54	8%
Lower Mainstem	Carbaryl	µg/L	20	33%	0.0220	0.0194	0.01125	0.0205	0.10275	88	0.01125	0.10275	70	EPA Drinking Water Health Advisory	0	0%	0.02	EPA AWQC for Aquatic Life	4	20%
South Delta	Carbaryl	µg/L	64	6%	0.374	0.539	0.008	0.01	2.5	144	0.008	0.035	70	EPA Drinking Water Health Advisory	0	0%	0.02	EPA AWQC for Aquatic Life	2	3%
Stanislaus River	Carbaryl	µg/L	180	33%	0.0219	0.0391	0.0015	0.01	0.3084	179	0.003	0.276	70	EPA Drinking Water Health Advisory	0	0%	0.02	EPA AWQC for Aquatic Life	27	15%
Upper Mainstem	Carbaryl	µg/L	111	24%	0.0137	0.0075	0.002	0.01	0.049	55	0.002	0.049	70	EPA Drinking Water Health Advisory	0	0%	0.02	EPA AWQC for Aquatic Life	6	5%
Vernalis	Carbaryl	µg/L	259	16%	0.0184	0.0288	0.0015	0.019125	0.447	156	0.003333	0.447	70	EPA Drinking Water Health Advisory	0	0%	0.02	EPA AWQC for Aquatic Life	15	6%
Wasteways	Carbaryl	µg/L	4	0%	-	-	-	-	-	-	-	-	70	EPA Drinking Water Health Advisory	0	0%	0.02	EPA AWQC for Aquatic Life	0	0%
All	Chlorpyrifos	µg/L	631	38%	0.00889	0.00895	0.0015	0.005	0.0998	101	0.003	0.0998	0.015	Basin Plan WQO	44	7%	-	-	-	-
Lower Mainstem	Chlorpyrifos	µg/L	20	45%	0.00533	0.00372	0.0025	0.0025	0.015	70	0.006	0.015	0.015	Basin Plan WQO	0	0%	-	-	-	-
South Delta	Chlorpyrifos	µg/L	64	28%	0.00707	0.00577	0.0043	0.005	0.037	82	0.0043	0.037	0.015	Basin Plan WQO	4	6%	-	-	-	-
Stanislaus River	Chlorpyrifos	µg/L	186	36%	0.00766	0.01052	0.0015	0.005	0.0998	137	0.004	0.0998	0.015	Basin Plan WQO	14	8%	-	-	-	-
Upper Mainstem	Chlorpyrifos	µg/L	92	47%	0.00734	0.00652	0.0015	0.005	0.032	89	0.003	0.032	0.015	Basin Plan WQO	9	10%	-	-	-	-
Vernalis	Chlorpyrifos	µg/L	254	34%	0.0104	0.0082	0.0015	0.006175	0.062	79	0.003	0.062	0.015	Basin Plan WQO	8	3%	-	-	-	-
Wasteways	Chlorpyrifos	µg/L	15	87%	0.0203	0.0152	0.002	0.017	0.056	75	0.0052	0.056	0.015	Basin Plan WQO	9	60%	-	-	-	-
All	Chlorpyrifos, Dissolved	µg/L	237	64%	0.00580	0.00825	0.002	0.004	0.1	142	0.002	0.1	0.015	Basin Plan WQO	8	3%	-	-	-	-
Lower Mainstem	Chlorpyrifos, Dissolved	µg/L	20	70%	0.00580	0.00343	0.0025	0.005	0.015	59	0.004	0.015	0.015	Basin Plan WQO	0	0%	-	-	-	-
Stanislaus River	Chlorpyrifos, Dissolved	µg/L	47	65%	0.00724	0.01496	0.002	0.003	0.1	207	0.002	0.1	0.015	Basin Plan WQO	2	4%	-	-	-	-
Upper Mainstem	Chlorpyrifos, Dissolved	µg/L	35	61%	0.00421	0.00238	0.002	0.003	0.011	57	0.002	0.011	0.015	Basin Plan WQO	0	0%	-	-	-	-
Vernalis	Chlorpyrifos, Dissolved	µg/L	135	63%	0.00570	0.00620	0.002	0.004	0.055	109	0.002	0.055	0.015	Basin Plan WQO	6	4%	-	-	-	-
All	Cyanazine	µg/L	580	7%	0.0274	0.0309	0.002	0.025	0.35	113	0.007	0.35	1	EPA Drinking Water Health Advisory	0	0%	-	-	-	-

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Lower Mainstem	Cyanazine	µg/L	20	30%	0.0159	0.0116	0.009	0.009	0.044	73	0.021	0.044	1	EPA Drinking Water Health Advisory	0	0%	-	-	-	-
South Delta	Cyanazine	µg/L	64	0%	-	-	-	-	-	-	-	-	1	EPA Drinking Water Health Advisory	0	0%	-	-	-	-
Stanislaus River	Cyanazine	µg/L	180	0%	-	-	-	-	-	-	-	-	1	EPA Drinking Water Health Advisory	0	0%	-	-	-	-
Upper Mainstem	Cyanazine	µg/L	87	11%	0.0235	0.0164	0.0035	0.025	0.0906	70	0.02	0.0906	1	EPA Drinking Water Health Advisory	0	0%	-	-	-	-
Vernalis	Cyanazine	µg/L	219	10%	0.0324	0.0406	0.002	0.025	0.35	125	0.007	0.35	1	EPA Drinking Water Health Advisory	0	0%	-	-	-	-
Wasteways	Cyanazine	µg/L	10	30%	0.00555	0.00375	0.002	0.0054	0.0097	68	0.0088	0.0097	1	EPA Drinking Water Health Advisory	0	0%	-	-	-	-
All	Cyanazine, Dissolved	µg/L	234	30%	0.0186	0.0332	0.002	0.009	0.3145	178	0.004	0.3145	1	EPA Drinking Water Health Advisory	0	0%	-	-	-	-
Lower Mainstem	Cyanazine, Dissolved	µg/L	20	50%	0.0153	0.0121	0.004	0.009	0.044	79	0.004	0.044	1	EPA Drinking Water Health Advisory	0	0%	-	-	-	-
Stanislaus River	Cyanazine, Dissolved	µg/L	47	1%	0.00717	0.00304	0.002	0.009	0.009	42	-	-	1	EPA Drinking Water Health Advisory	0	0%	-	-	-	-
Upper Mainstem	Cyanazine, Dissolved	µg/L	35	43%	0.0242	0.0314	0.006	0.009	0.136	130	0.006	0.136	1	EPA Drinking Water Health Advisory	0	0%	-	-	-	-
Vernalis	Cyanazine, Dissolved	µg/L	132	34%	0.0218	0.0401	0.002	0.009	0.3145	184	0.004	0.3145	1	EPA Drinking Water Health Advisory	0	0%	-	-	-	-
All	Dacthal (DCPA)	µg/L	581	11%	0.0141	0.0118	0.001	0.025	0.05995	84	0.001	0.05995	70	EPA Drinking Water Health Advisory	0	0%	14300	EPA AWQC for Aquatic Life	0	0%
Lower Mainstem	Dacthal (DCPA)	µg/L	20	5%	0.00153	0.00011	0.0015	0.0015	0.002	7	0.002	0.002	70	EPA Drinking Water Health Advisory	0	0%	14300	EPA AWQC for Aquatic Life	0	0%
South Delta	Dacthal (DCPA)	µg/L	64	2%	0.0260	0.0021	0.02	0.025	0.035	8	0.026	0.035	70	EPA Drinking Water Health Advisory	0	0%	14300	EPA AWQC for Aquatic Life	0	0%
Stanislaus River	Dacthal (DCPA)	µg/L	180	9%	0.0173	0.0108	0.001	0.025	0.025	62	0.001	0.021	70	EPA Drinking Water Health Advisory	0	0%	14300	EPA AWQC for Aquatic Life	0	0%
Upper Mainstem	Dacthal (DCPA)	µg/L	91	10%	0.0153	0.0124	0.001	0.025	0.05995	81	0.001	0.05995	70	EPA Drinking Water Health Advisory	0	0%	14300	EPA AWQC for Aquatic Life	0	0%
Vernalis	Dacthal (DCPA)	µg/L	218	17%	0.00915	0.01079	0.001	0.001813	0.025	118	0.001	0.016	70	EPA Drinking Water Health Advisory	0	0%	14300	EPA AWQC for Aquatic Life	0	0%
Wasteways	Dacthal (DCPA)	µg/L	8	0%	-	-	-	-	-	-	-	-	70	EPA Drinking Water Health Advisory	0	0%	14300	EPA AWQC for Aquatic Life	0	0%
All	Diazinon	µg/L	639	33%	0.0154	0.0226	0.001	0.01	0.218333	147	0.00375	0.218333	0.1	Basin Plan WQO	11	2%	-	-	-	-
Lower Mainstem	Diazinon	µg/L	20	80%	0.00955	0.00716	0.0025	0.008	0.029	75	0.006	0.029	0.1	Basin Plan WQO	0	0%	-	-	-	-
South Delta	Diazinon	µg/L	64	19%	0.00989	0.00393	0.005	0.01	0.028	40	0.008	0.028	0.1	Basin Plan WQO	0	0%	-	-	-	-
Stanislaus River	Diazinon	µg/L	188	25%	0.0160	0.0282	0.001	0.01	0.215	176	0.0051	0.215	0.1	Basin Plan WQO	5	3%	-	-	-	-
Upper Mainstem	Diazinon	µg/L	96	35%	0.0111	0.0106	0.0015	0.01	0.0573	95	0.00375	0.0573	0.1	Basin Plan WQO	0	0%	-	-	-	-
Vernalis	Diazinon	µg/L	263	36%	0.0173	0.0230	0.001	0.01	0.218333	133	0.005	0.218333	0.1	Basin Plan WQO	5	2%	-	-	-	-
Wasteways	Diazinon	µg/L	8	88%	0.0460	0.0436	0.001	0.03265	0.133	95	0.0105	0.133	0.1	Basin Plan WQO	1	13%	-	-	-	-
All	Diazinon, Dissolved	µg/L	237	85%	0.0163	0.0273	0.001	0.008	0.218333	168	0.001	0.218333	0.1	Basin Plan WQO	5	2%	-	-	-	-
Lower Mainstem	Diazinon, Dissolved	µg/L	20	100%	0.00980	0.00693	0.002	0.008	0.029	71	0.002	0.029	0.1	Basin Plan WQO	0	0%	-	-	-	-
Stanislaus River	Diazinon, Dissolved	µg/L	47	74%	0.0128	0.0161	0.001	0.004	0.0694	126	0.001	0.0694	0.1	Basin Plan WQO	0	0%	-	-	-	-
Upper Mainstem	Diazinon, Dissolved	µg/L	35	100%	0.0191	0.0174	0.001	0.012	0.067	91	0.001	0.067	0.1	Basin Plan WQO	0	0%	-	-	-	-
Vernalis	Diazinon, Dissolved	µg/L	135	83%	0.0177	0.0335	0.001	0.008	0.218333	190	0.002	0.218333	0.1	Basin Plan WQO	5	4%	-	-	-	-
All	Diuron	µg/L	125	82%	0.851	1.467	0.02	0.46	13	172	0.02	13	14	EPA IRIS	0	0%	5	ECOTOX LOEL for Plants	2	2%
South Delta	Diuron	µg/L	22	32%	0.296	0.292	0.125	0.125	1.1	99	0.3	1.1	14	EPA IRIS	0	0%	5	ECOTOX LOEL for Plants	0	0%
Upper Mainstem	Diuron	µg/L	2	100%	0.458	0.342	0.216	0.458	0.7	75	0.216	0.7	14	EPA IRIS	0	0%	5	ECOTOX LOEL for Plants	0	0%

Table F2-1
Summary Statistics by Region

Region	Analyte	Unit	No. of Samples	Detection Rate	Mean	Std Dev	Min	Median	Max	CV	Min Detected	Max Detected	Criteria (1)	Basis for Criteria (1)	No. of Samples Exceed Criteria (1)	% of Samples Exceed Criteria (1)	Criteria (2)	Basis for Criteria (2)	No. of Samples Exceed Criteria (2)	% of Samples Exceed Criteria (2)
Vernalis	Diuron	µg/L	96	92%	0.832	1.027	0.02	0.4985	5.16	123	0.02	5.16	14	EPA IRIS	0	0%	5	ECOTOX LOEL for Plants	1	1%
Wasteways	Diuron	µg/L	5	100%	3.81	5.34	0.54	0.96	13	140	0.54	13	14	EPA IRIS	0	0%	5	ECOTOX LOEL for Plants	1	20%
All	EPTC (Eptam)	µg/L	524	38%	0.0304	0.1294	0.001	0.0205	2.4	426	0.001	2.4	180	EPA IRIS	0	0%	-	-	-	-
Lower Mainstem	EPTC (Eptam)	µg/L	20	100%	0.0152	0.0138	0.004	0.0115	0.057	91	0.004	0.057	180	EPA IRIS	0	0%	-	-	-	-
South Delta	EPTC (Eptam)	µg/L	42	21%	0.125	0.380	0.025	0.025	2.4	304	0.03	2.4	180	EPA IRIS	0	0%	-	-	-	-
Stanislaus River	EPTC (Eptam)	µg/L	152	2%	0.0168	0.0114	0.001	0.025	0.051	68	0.003	0.051	180	EPA IRIS	0	0%	-	-	-	-
Upper Mainstem	EPTC (Eptam)	µg/L	100	63%	0.0408	0.1410	0.001	0.025	1.4	345	0.003	1.4	180	EPA IRIS	0	0%	-	-	-	-
Vernalis	EPTC (Eptam)	µg/L	202	50%	0.0167	0.0392	0.001	0.009425	0.5	235	0.001	0.5	180	EPA IRIS	0	0%	-	-	-	-
Wasteways	EPTC (Eptam)	µg/L	8	38%	0.0437	0.0907	0.001	0.00175	0.26	208	0.0114	0.26	180	EPA IRIS	0	0%	-	-	-	-
All	Malathion	µg/L	311	3%	0.0182	0.0642	0.0025	0.0135	1.14	353	0.00435	1.14	100	EPA Drinking Water Health Advisory	0	0%	0.1	EPA AWQC for Aquatic Life	1	0.3%
Lower Mainstem	Malathion	µg/L	20	0%	-	-	-	-	-	-	-	-	100	EPA Drinking Water Health Advisory	0	0%	0.1	EPA AWQC for Aquatic Life	0	0%
South Delta	Malathion	µg/L	22	0%	-	-	-	-	-	-	-	-	100	EPA Drinking Water Health Advisory	0	0%	0.1	EPA AWQC for Aquatic Life	0	0%
Stanislaus River	Malathion	µg/L	54	2%	0.0115	0.0049	0.0025	0.0135	0.02175	43	0.012	0.012	100	EPA Drinking Water Health Advisory	0	0%	0.1	EPA AWQC for Aquatic Life	0	0%
Upper Mainstem	Malathion	µg/L	38	0%	-	-	-	-	-	-	-	-	100	EPA Drinking Water Health Advisory	0	0%	0.1	EPA AWQC for Aquatic Life	0	0%
Vernalis	Malathion	µg/L	168	1%	0.0174	0.0070	0.0025	0.015	0.025	40	0.00435	0.0174	100	EPA Drinking Water Health Advisory	0	0%	0.1	EPA AWQC for Aquatic Life	0	0%
Wasteways	Malathion	µg/L	9	56%	0.134	0.377	0.0025	0.0089	1.14	281	0.0059	1.14	100	EPA Drinking Water Health Advisory	0	0%	0.1	EPA AWQC for Aquatic Life	1	11%
All	Malathion, Dissolved	µg/L	237	20%	0.0110	0.0069	0.002	0.0135	0.088	63	0.002	0.088	100	EPA Drinking Water Health Advisory	0	0%	0.1	EPA AWQC for Aquatic Life	0	0%
Lower Mainstem	Malathion, Dissolved	µg/L	20	30%	0.0115	0.0039	0.002	0.0135	0.014	34	0.002	0.014	100	EPA Drinking Water Health Advisory	0	0%	0.1	EPA AWQC for Aquatic Life	0	0%
Stanislaus River	Malathion, Dissolved	µg/L	47	18%	0.00995	0.00493	0.0025	0.0135	0.016	50	0.004	0.016	100	EPA Drinking Water Health Advisory	0	0%	0.1	EPA AWQC for Aquatic Life	0	0%
Upper Mainstem	Malathion, Dissolved	µg/L	35	21%	0.0145	0.0136	0.0025	0.0135	0.088	94	0.003	0.088	100	EPA Drinking Water Health Advisory	0	0%	0.1	EPA AWQC for Aquatic Life	0	0%
Vernalis	Malathion, Dissolved	µg/L	135	20%	0.0104	0.0049	0.0025	0.0135	0.026	47	0.003	0.026	100	EPA Drinking Water Health Advisory	0	0%	0.1	EPA AWQC for Aquatic Life	0	0%
All	Metolachlor	µg/L	516	49%	0.0376	0.0635	0.001	0.01	0.65	169	0.0043	0.65	70	EPA Drinking Water Health Advisory	0	0%	100	EPA AWQC for Aquatic Life	0	0%
Lower Mainstem	Metolachlor	µg/L	20	95%	0.0839	0.0999	0.0065	0.062	0.481	119	0.015	0.481	70	EPA Drinking Water Health Advisory	0	0%	100	EPA AWQC for Aquatic Life	0	0%
South Delta	Metolachlor	µg/L	64	42%	0.0489	0.0914	0.007	0.0165	0.65	187	0.007	0.65	70	EPA Drinking Water Health Advisory	0	0%	100	EPA AWQC for Aquatic Life	0	0%
Stanislaus River	Metolachlor	µg/L	175	7%	0.00898	0.00440	0.001	0.01	0.058	49	0.0043	0.058	70	EPA Drinking Water Health Advisory	0	0%	100	EPA AWQC for Aquatic Life	0	0%
Upper Mainstem	Metolachlor	µg/L	85	88%	0.0794	0.0855	0.0035	0.035	0.44	108	0.007	0.44	70	EPA Drinking Water Health Advisory	0	0%	100	EPA AWQC for Aquatic Life	0	0%
Vernalis	Metolachlor	µg/L	162	68%	0.0361	0.0478	0.001	0.02135	0.44	132	0.00575	0.44	70	EPA Drinking Water Health Advisory	0	0%	100	EPA AWQC for Aquatic Life	0	0%
Wasteways	Metolachlor	µg/L	10	100%	0.0420	0.0583	0.011	0.0158	0.198	139	0.011	0.198	70	EPA Drinking Water Health Advisory	0	0%	100	EPA AWQC for Aquatic Life	0	0%
All	Metolachlor, Dissolved	µg/L	237	87%	0.0347	0.0560	0.001	0.011	0.481	161	0.001	0.481	70	EPA Drinking Water Health Advisory	0	0%	100	EPA AWQC for Aquatic Life	0	0%
Lower Mainstem	Metolachlor, Dissolved	µg/L	20	100%	0.0842	0.0997	0.012	0.062	0.481	118	0.012	0.481	70	EPA Drinking Water Health Advisory	0	0%	100	EPA AWQC for Aquatic Life	0	0%
Stanislaus River	Metolachlor, Dissolved	µg/L	47	56%	0.00539	0.00263	0.001	0.0065	0.015	49	0.001	0.015	70	EPA Drinking Water Health Advisory	0	0%	100	EPA AWQC for Aquatic Life	0	0%
Upper Mainstem	Metolachlor, Dissolved	µg/L	35	98%	0.0698	0.0631	0.003	0.038	0.236	90	0.003	0.236	70	EPA Drinking Water Health Advisory	0	0%	100	EPA AWQC for Aquatic Life	0	0%
Vernalis	Metolachlor, Dissolved	µg/L	135	93%	0.0284	0.0455	0.001	0.012	0.44	160	0.001	0.44	70	EPA Drinking Water Health Advisory	0	0%	100	EPA AWQC for Aquatic Life	0	0%
All	Parathion, Methyl	µg/L	368	1%	0.00751	0.00892	0.003	0.003	0.085	119	0.003	0.059	1	EPA Drinking Water Health Advisory	0	0%	0.08	CDFG Interim Criteria	0	0%
Lower	Parathion, Methyl	µg/L	20	5%	0.00325	0.00112	0.003	0.003	0.008	34	0.008	0.008	1	EPA Drinking Water Health Advisory	0	0%	0.08	CDFG Interim Criteria	0	0%

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Summary Statistics by Region

Region	Analyte	Unit	No. of Samples	Detection Rate	Mean	Std Dev	Min	Median	Max	CV	Min Detected	Max Detected	Criteria (1)	Basis for Criteria (1)	No. of Samples Exceed Criteria (1)	% of Samples Exceed Criteria (1)	Criteria (2)	Basis for Criteria (2)	No. of Samples Exceed Criteria (2)	% of Samples Exceed Criteria (2)
Mainstem																				
South Delta	Parathion, Methyl	µg/L	22	0%	-	-	-	-	-	-	-	-	1	EPA Drinking Water Health Advisory	0	0%	0.08	CDFG Interim Criteria	0	0%
Stanislaus River	Parathion, Methyl	µg/L	56	1%	0.00335	0.00074	0.003	0.003	0.005	22	0.004	0.004	1	EPA Drinking Water Health Advisory	0	0%	0.08	CDFG Interim Criteria	0	0%
Upper Mainstem	Parathion, Methyl	µg/L	60	2%	0.00411	0.00723	0.003	0.003	0.059	176	0.059	0.059	1	EPA Drinking Water Health Advisory	0	0%	0.08	CDFG Interim Criteria	0	0%
Vernalis	Parathion, Methyl	µg/L	200	2%	0.0106	0.0105	0.003	0.005	0.085	98	0.003	0.022	1	EPA Drinking Water Health Advisory	0	0%	0.08	CDFG Interim Criteria	0	0%
Wasteways	Parathion, Methyl	µg/L	10	0%	-	-	-	-	-	-	-	-	1	EPA Drinking Water Health Advisory	0	0%	0.08	CDFG Interim Criteria	0	0%
All	Simazine	µg/L	616	64%	0.111	0.427	0.00245	0.03715	8.425	385	0.005	8.425	4	CDPH Primary MCL	2	0.3%	10	EPA AWQC for Aquatic Life	0	0%
Lower Mainstem	Simazine	µg/L	20	60%	0.0149	0.0131	0.0055	0.013	0.062	88	0.012	0.062	4	CDPH Primary MCL	0	0%	10	EPA AWQC for Aquatic Life	0	0%
South Delta	Simazine	µg/L	64	72%	0.0484	0.0631	0.008	0.029	0.46	131	0.008	0.46	4	CDPH Primary MCL	0	0%	10	EPA AWQC for Aquatic Life	0	0%
Stanislaus River	Simazine	µg/L	178	45%	0.105	0.140	0.0055	0.1	1.3145	134	0.006	1.3145	4	CDPH Primary MCL	0	0%	10	EPA AWQC for Aquatic Life	0	0%
Upper Mainstem	Simazine	µg/L	90	74%	0.0560	0.0696	0.005	0.023	0.368	124	0.005	0.368	4	CDPH Primary MCL	0	0%	10	EPA AWQC for Aquatic Life	0	0%
Vernalis	Simazine	µg/L	249	71%	0.0762	0.1135	0.00245	0.025	0.7675	149	0.006	0.7675	4	CDPH Primary MCL	0	0%	10	EPA AWQC for Aquatic Life	0	0%
Wasteways	Simazine	µg/L	15	100%	1.49	2.32	0.0198	0.295	8.425	156	0.0198	8.425	4	CDPH Primary MCL	2	13%	10	EPA AWQC for Aquatic Life	0	0%
All	Simazine, Dissolved	µg/L	237	94%	0.0686	0.1172	0.002	0.017	0.7675	171	0.002	0.7675	4	CDPH Primary MCL	0	0%	10	EPA AWQC for Aquatic Life	0	0%
Lower Mainstem	Simazine, Dissolved	µg/L	20	100%	0.0159	0.0124	0.005	0.013	0.062	78	0.005	0.062	4	CDPH Primary MCL	0	0%	10	EPA AWQC for Aquatic Life	0	0%
Stanislaus River	Simazine, Dissolved	µg/L	47	81%	0.0581	0.0984	0.002	0.009	0.4645	169	0.002	0.4645	4	CDPH Primary MCL	0	0%	10	EPA AWQC for Aquatic Life	0	0%
Upper Mainstem	Simazine, Dissolved	µg/L	35	100%	0.0625	0.0879	0.005	0.017	0.368	141	0.005	0.368	4	CDPH Primary MCL	0	0%	10	EPA AWQC for Aquatic Life	0	0%
Vernalis	Simazine, Dissolved	µg/L	135	96%	0.0815	0.1351	0.002	0.021	0.7675	166	0.002	0.7675	4	CDPH Primary MCL	0	0%	10	EPA AWQC for Aquatic Life	0	0%
All	Trifluralin	µg/L	293	59%	0.0115	0.0538	0.001	0.005	0.895	467	0.001	0.895	5.3	EPA IRIS	0	0%	-	-	-	-
Lower Mainstem	Trifluralin	µg/L	20	75%	0.00873	0.00352	0.00525	0.007875	0.017	40	0.00525	0.017	5.3	EPA IRIS	0	0%	-	-	-	-
South Delta	Trifluralin	µg/L	22	5%	0.00523	0.00107	0.005	0.005	0.01	20	0.01	0.01	5.3	EPA IRIS	0	0%	-	-	-	-
Stanislaus River	Trifluralin	µg/L	47	23%	0.00365	0.00142	0.001	0.0045	0.00525	39	0.001	0.00525	5.3	EPA IRIS	0	0%	-	-	-	-
Upper Mainstem	Trifluralin	µg/L	57	80%	0.0143	0.0117	0.003	0.013	0.064	81	0.003	0.064	5.3	EPA IRIS	0	0%	-	-	-	-
Vernalis	Trifluralin	µg/L	137	68%	0.00631	0.01209	0.001	0.0045	0.143	191	0.001	0.143	5.3	EPA IRIS	0	0%	-	-	-	-
Wasteways	Trifluralin	µg/L	10	80%	0.123	0.276	0.001	0.012425	0.895	224	0.006	0.895	5.3	EPA IRIS	0	0%	-	-	-	-

Key:

µg/L = micrograms per liter
AWQC = ambient water quality criteria
CALFED = California-Federal Bay Delta Program
CDFG = California Department of Fish and Game
CDPH = California Department of Public Health
CTR = California Toxics Rule
CV = Coefficient of Variation

Ecotox = EPA guideline (threshold)
EPA = U.S. Environmental Protection Agency
EPTC = Ethyl Dipropylthiocarbamate
IRIS = Integrated Risk Information System
MCL = maximum contaminant level
mg/L = milligrams per liter
N = nitrogen

P = phosphorus
ROD = record of decision
WQ = water quality
WQO = water quality objective
WQP ROD = Water Quality Program Record of Decision