

ERRATA

KLAMATH RIVER BASELINE WATER QUALITY SAMPLING – 2020 ANNUAL REPORT –

Prepared for the KHSa Water Quality Monitoring Group

Prepared by
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October 8, 2021

Errata

A review of the 2020 finalized dataset investigated a possible invalid value and several missing microcystin values. Several corrections were made to the 2020 dataset which required the following changes be made to the Klamath River Baseline Water Quality Sampling 2020 Annual Report. Tables and figures in this errata sheet replace tables and figures with the corresponding number (e.g., Errata Figure 4 replaces report Figure 4). Completely new tables and figures are given a new number that would place them in the correct location within the original report (e.g., Errata Figure 3-a would follow report Figure 3). Any changes to the text are referenced to page and paragraph and indicated in ~~strikeout~~ (old text) and underline (new text).

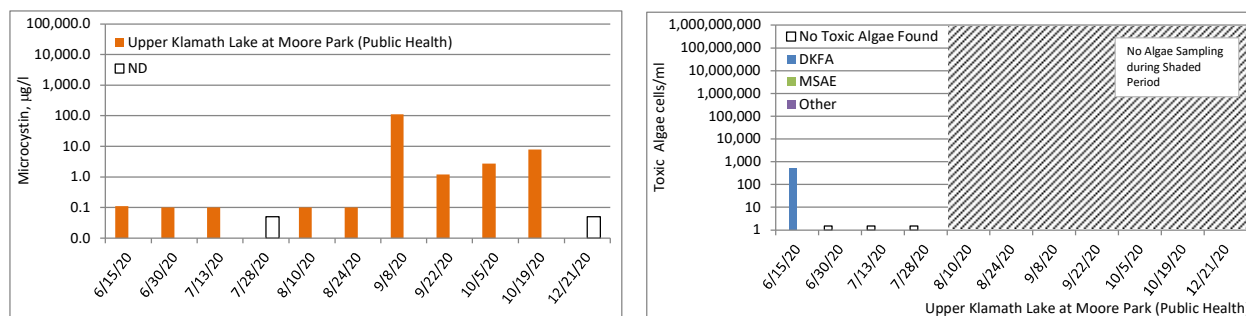
- Eight sample IDs were excluded from reporting associated with the Public Health dataset:

KR20831_Aug	Copco Reservoir at Copco Cove (Public Health)
KR20832_Aug	Iron Gate Reservoir at Camp Creek (Public Health)
KR20833_Aug	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)
KR20834_Aug	Klamath River below Iron Gate Dam (RM 189.73; Public Health)
KR20831_Sept	Copco Reservoir at Mallard Cove (Public Health)
KR20832_Sept	Copco Reservoir at Copco Cove (Public Health)
KR20833_Sept	Iron Gate Reservoir at Camp Creek (Public Health)
KR20834_Sept	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)

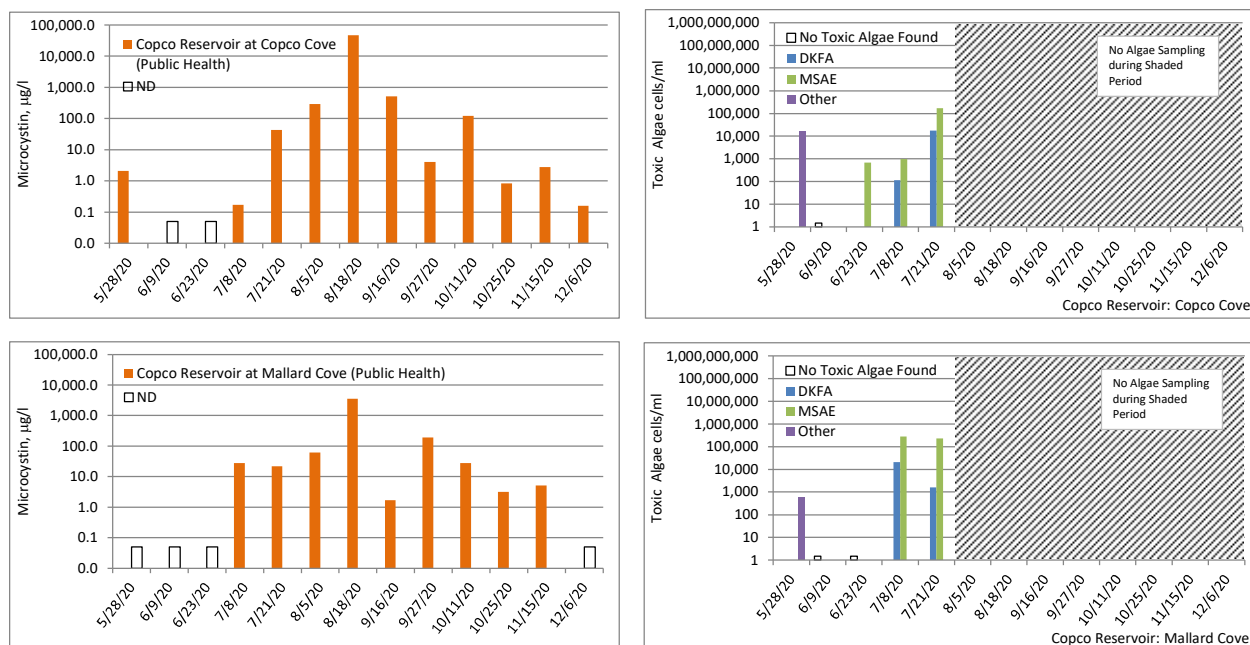
These sample IDs were used only in the collection of microcystin samples. They have been added into the Public Health dataset and all microcystin data is now included in the revised dataset. The revised public health dataset is presented below in Errata Table D-1. Cells with new or revised data are shown in yellow.

- Three other microcystin values were missing from the Public Health dataset from Upper Klamath Lake at Moore Park (Public Health) and have been added into the Public Health dataset. The revised public health dataset is presented below in Errata Table D-1. Cells with new or revised data are shown in yellow.

- The missing microcystin values were added to Figures 19, 21, 22, 23, and 28.



Errata Figure 19. Microcystin concentrations and toxic algae cell counts from 2020 public health samples collected in Upper Klamath Lake at Moore Park (Public Health) (ND indicates non-detect results).



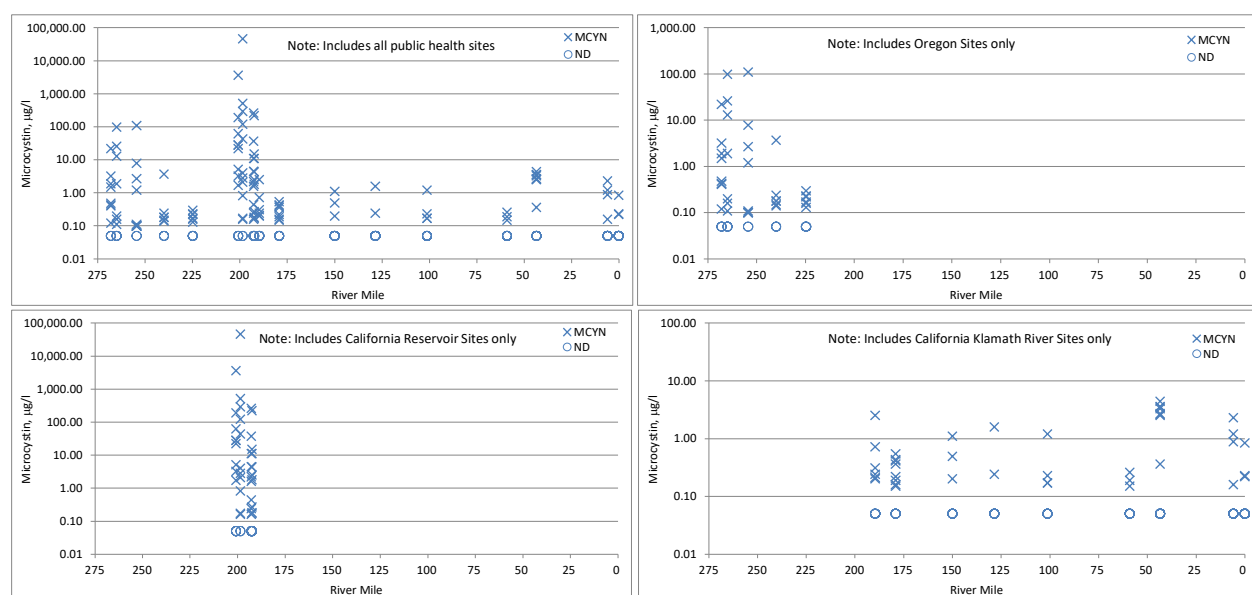
Errata Figure 21. Microcystin concentrations and toxic algae cell counts from 2020 public health samples collected in Copco Reservoir at Copco Cove (Public Health) and Mallard Cove (Public Health) (ND indicates non-detect results). The other potentially toxic cyanobacteria present at Copco Reservoir at Copco Cove (Public Health) and Copco Reservoir at Mallard Cove (Public Health) was *Planktothrix limosa*.



Errata Figure 22. Microcystin concentrations and toxic algae cell counts from 2020 public health samples collected in Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health) and Iron Gate Reservoir at Camp Creek (Public Health) (ND indicates non-detect results). The other potentially toxic cyanobacteria present at Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health) was *Gloeotrichia echinulata*. Other potentially toxic cyanobacteria present at Iron Gate Reservoir at Camp Creek (Public Health) included *Gloeotrichia echinulate* and *Planktothrix limosa*.



Errata Figure 23. Microcystin concentrations and toxic algae cell counts from 2020 public health samples collected at Klamath River below Iron Gate Dam (RM 189.73; Public Health) and Klamath River at I-5 Rest Area (RM 179.20; Public Health) (ND indicates non-detect results). The other potentially toxic cyanobacteria present at Klamath River below Iron Gate Dam (RM 189.73; Public Health) and Klamath River at I-5 Rest Area (RM 179.20; Public Health) was *Planktothrix limosa*.



Errata Figure 28. 2020 microcystin (MCYN) concentrations from public health program: at all public health sampling sites (top left), Oregon sites (top right), California reservoir sites (bottom left), and California Klamath River sites from Iron Gate Dam downstream (bottom right). ND (○) indicates non-detect results. Sites in Upper Klamath Lake and reservoirs were given approximate river miles to locate them appropriately on the graph.

4. The correct specific conductivity value reported for the sampling site “Klamath River near Klamath (RM 6.0; Baseline)” on July 8, 2020, was 154.3 mS/cm. The Appendix B 2020 KHSA baseline dataset has been revised with the correct value and is presented below in Errata Table B-1. The revised value is shown in yellow.

Errata Table B-1. 2020 Klamath River Baseline Data Summary. All Non-detect values were replaced with “<” and the RL value. Sample Types include: P- Production sample; R – Regular sample associated with QA sample set; I = Depth Integrated sample.

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Type	Water Temperature °C	pH	Specific Conductivity µS/cm	Dissolved Oxygen mg/l	Algae, Chlorophyll-a µg/l	Algae, Pheophytin µg/l	Alkalinity mg/l	Carbon, Dissolved Organic Carbon mg/l	Carbon, Particulate Carbon mg/l	Demand, Carbonaceous Biological Oxygen Demand mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate-Nitrite mg/l	Nitrogen, Particulate Nitrogen mg/l	Nitrogen, Total Kjeldahl Nitrogen mg/l	Nitrogen, Total Nitrogen mg/l	Phosphorus, Phosphate mg/l	Phosphorus, Total Phosphorus mg/l	Phosphorus, Particulate Phosphorus mg/l	Phosphorus, Particulate Inorganic Phosphorus mg/l	Turbidity NTU	Solids, Total Suspended Solids mg/l	Solids, Volatile Suspended Solids mg/l	Toxins, Microg/L
2020KHS-001	2/11/2020	11:15	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	2.80	7.78	114.5	11.70	17.20	5.67	27.60	3.43	2.78		0.43	0.35	0.41		1.81	0.01	0.08	0.05	0.01	22.10	46.0		
2020KHS-007	3/17/2020	9:45	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	5.30	7.95	112.3	10.65	26.92	7.81	45.00	3.75	3.39		0.19	0.44	0.48		1.94	<0.001	<0.003	0.03	0.01	23.35	58.7		
2020KHS-013	4/19/2020	12:00	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	12.59	7.84	108.68	8.94	16.70	11.61	36.40	4.40	5.18		0.10	0.35	0.30		1.35	<0.01	0.10	0.11	0.01	25.00	47.4		
2020KHS-019	5/17/2020	12:30	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	13.89	8.03	110.1	8.68	11.94	3.06	44.00	3.98	1.33		0.12	0.16	0.03		0.92	<0.001	0.02	0.02	0.01	11.60	5.0		
2020KHS-025	5/28/2020	9:15	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	19.20	8.14	110.3	8.60	14.79	2.26	46.00	3.98	2.72		0.08	0.00	0.36		0.68	<0.001	0.20	0.08	0.01	11.13	14.0		
2020KHS-029	6/9/2020	10:15	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	15.90	8.12	114.2	8.18	13.48	2.38	45.00	4.58	2.71		0.19	0.01	0.46		2.81	<0.001	0.34	0.01	0.01	7.26	1.5		
2020KHS-035	6/23/2020	9:30	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	21.60	9.43	114.2	10.91	150.79	0.62	50.00	4.47	8.13		0.15	0.00	1.66		4.70	<0.001	0.07	0.09	0.06	10.36	25.0		
2020KHS-040	7/7/2020	9:15	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	19.00	10.02	121.3	9.04	256.21	2.66	60.00	5.17	12.50		0.16	<0.005	2.47		3.00	<0.001	0.22	0.17	0.10	10.76	11.0		<0.15
2020KHS-046	7/21/2020	9:00	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	23.40	9.71	110.1	6.23	459.08	0.46	42.00	6.08	19.70		<0.001	<0.005	3.81		4.10	0.32	0.32	0.21	0.17	17.46	51.0		<0.15
2020KHS-051	8/4/2020	9:00	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	22.40	9.63	108.7	5.71	230.88	4.92	44.00	6.99	10.10		0.08	0.00	2.02		3.10	0.04	0.26	0.10	0.09	11.56	30.0		<0.15
2020KHS-057	8/18/2020	8:40	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	21.20	9.21	109.8	5.52	141.81	0.46	40.00	6.43	6.50		0.10	0.03	1.41		0.69	0.09	0.44	0.08	0.04	10.99	17.0		<0.15
2020KHS-062	9/2/2020	8:40	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	20.40	9.36	118.2	8.88	64.79	3.45	50.10	5.89	6.13		0.04	0.02	1.20		2.10	0.02	0.19	0.08	0.03	20.16	17.0		
2020KHS-068	9/29/2020	10:15	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	15.10	9.64	119.7	10.42	151.84	1.72	60.30	7.09	8.83		0.05	0.03	1.73		2.03	0.01	0.23	0.13	0.09	13.42	17.0		0.34
2020KHS-073	10/6/2020	9:25	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	16.50	9.40	119.1	11.21	181.49	4.64	56.80	6.11	11.50		0.07	0.02	2.43		3.27	0.02	0.18	0.14	0.05	13.35	21.0		0.57
2020KHS-079	10/20/2020	10:45	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	13.40	8.73	123.5	8.58	66.91	4.82	93.70	5.48	6.64		0.27	0.05	1.34		3.09	0.07	0.15	0.06	0.03	11.57	15.0		0.11
2020KHS-083	11/17/2020	10:20	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	4.20	7.94	126.7	10.29	20.60	9.60	56.00	4.41	3.44		0.69	0.25	0.54		1.94	<0.01	0.15	0.09	0.04	25.68	67.0		
2020KHS-089	12/8/2020	10:15	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	3.30	8.08	125.9	10.83	10.90	2.73	58.00	4.55	1.64		0.90	0.28	0.25		2.25	<0.01	0.09	0.02	0.00	13.97	12.0		
2020KHS-004	2/11/2020	9:00	KR24600	Keno Reservoir at Miller Island (RM 246.0; Baseline)	USBR	0.5	P	2.10	7.66	179.9	10.58	27.18	4.62	55.50	4.09	2.19		0.55	0.50	0.36		1.99	0.03	0.13			16.58	28.0		
2020KHS-010	3/17/2020	8:40	KR24600	Keno Reservoir at Miller Island (RM 246.0; Baseline)	USBR	0.5	P	5.30	7.82	141.8	10.30	34.37	9.61	48.80	3.92	2.54		0.30		0.39			<0.001	0.05			16.84	39.7		
2020KHS-016	4/19/2020	10:55	KR24600	Keno Reservoir at Miller Island (RM 246.0; Baseline)	USBR	0.5	P	13.39	7.74	117.78	8.76	5.44	4.08	40.60	4.02	1.16		0.13	0.40	0.03		1.12	0.03	0.08			17.20	18.3		
2020KHS-022	5/17/2020	11:40	KR24600	Keno Reservoir at Miller Island (RM 246.0; Baseline)	USBR	0.5	P	14.81	8.04	122.93	9.13	13.66	3.38	56.00	4.39	1.34		0.14	0.12	0.03		0.96	0.03	0.07			9.50	2.0		<0.15
2020KHS-032	6/9/2020	8:50	KR24600	Keno Reservoir at Miller Island (RM 246.0; Baseline)	USBR	0.5	P	16.90	8.60	125.7	9.38	43.78	3.86		4.84	2.23		0.18	0.01	0.43		0.91	0.02	0.37			6.60	4.5		3.90
2020KHS-043	7/7/2020	8:20	KR24600	Keno Reservoir at Miller Island (RM 246.0; Baseline)	USBR	0.5	P	19.80	9.30	114.3	3.07	109.32	14.89	50.00	5.46	5.44		0.51	0.01	1.17		2.51	0.06	0.23			11.89	14.5		<0.15
2020KHS-054	8/4/2020	11:00	KR24600	Keno Reservoir at Miller Island (RM 246.0; Baseline)	USBR	0.5	P	23.30	8.97	124.8	0.26	43.23	8.91	49.00	7.83	5.42		0.96	0.00	1.16		2.30	0.05	0.35			4.14	12.0		<0.15
2020KHS-065	9/2/2020	11:25	KR24600	Keno Reservoir at Miller Island (RM 246.0; Baseline)	USBR	0.5	P	21.30	9.02	130.3	3.65	36.93	4.72	54.60	6.77	2.46		0.71	0.01	0.53		2.58	0.06	0.20			6.09	6.0		

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Type	Water Temperature °C	pH	Specific Conductivity µS/cm	Dissolved Oxygen mg/l	Algae Chlorophyll a µg/l	Algae Phosphorylin µg/l	Alkalinity mg/l	Carbon, Dissolved Organic Carbon mg/l	Carbon, Particulate Carbon mg/l	Demand, Carbonaceous Biological Oxygen Demand mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate+Nitrite mg/l	Nitrogen, Particulate Nitrogen mg/l	Nitrogen, Total Kjeldahl Nitrogen mg/l	Nitrogen, Total Nitrogen mg/l	Phosphorus, Phosphate mg/l	Phosphorus, Total Phosphorus mg/l	Phosphorus, Particulate Phosphorus mg/l	Phosphorus, Particulate Inorganic Phosphorus mg/l	Turbidity NTU	Solids, Total Suspended Solids mg/l	Solids, Volatile Suspended Solids mg/l	Toxins, Microcystin µg/l
2020KHS-A-076	10/6/2020	8:25	KR24600	Keno Reservoir at Miller Island (RM 246.0; Baseline)	USBR	0.5	P	16.40	8.06	138.5	0.29	20.37	8.30	65.60	7.43	5.87		1.41	<0.01	1.24		3.16	0.11	0.27			7.54	11.5		0.22
2020KHS-A-086	11/17/2020	8:10	KR24600	Keno Reservoir at Miller Island (RM 246.0; Baseline)	USBR	0.5	P	4.00	7.81	167	8.87	22.67	10.92	71.50	4.70	2.79		0.77	0.33	0.47		2.15	0.04	0.14			21.44	34.0		
2020KHS-A-092	12/8/2020	8:30	KR24600	Keno Reservoir at Miller Island (RM 246.0; Baseline)	USBR	0.5	P	1.00	7.82	170.5	10.54	45.79	7.25	78.30	4.37	3.09		0.89	0.45	0.56		1.78	0.06	0.17	0.00	0.00	16.71	22.0		
2020KHS-A-005	2/11/2020	10:00	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	3.30	7.73	219.8	11.97	34.52	7.24	69.20	5.18	2.06		0.44	0.55	0.35		2.05	0.05	0.17	0.07	0.02	16.17	17.0		
2020KHS-A-011	3/17/2020	11:00	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	6.80	7.93	251.1	10.66	34.83	9.47	73.10	6.03	3.72		0.14		0.63			<0.001	0.09	0.06	0.03	13.98	22.7		
2020KHS-A-017	4/19/2020	10:00	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	12.38	7.71	171.47	9.77	5.66	5.26	50.70	6.21	2.24		0.11	0.40	0.03		1.83	0.04	0.17	0.05	0.01	21.60	24.8		
2020KHS-A-023	5/17/2020	10:30	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	14.21	7.82	122.83	9.35	8.46	3.61	50.00	4.48	1.50		0.14	0.15	0.03		1.03	0.04	0.11	0.04	0.01	10.60			<0.15
2020KHS-A-033	6/9/2020	11:35	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	17.50	8.35	130.9	9.18	11.42	2.05		5.55	1.44		0.40	0.01	0.27		0.83	0.11	0.48	0.03	0.02	5.30	2.5		<0.15
2020KHS-A-038	6/23/2020	8:25	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	20.20	9.11	121.2	9.09			55.00				0.15	0.00			1.60	<0.001	0.10			17.57			
2020KHS-A-044	7/7/2020	10:40	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	19.50	8.88	120.1	7.62	13.01	1.65	50.00	6.10	1.00		0.43	0.03	0.20		1.63		0.42	0.03	0.06	4.82	4.5		0.13
2020KHS-A-049	7/21/2020	10:30	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	23.00	9.18	119	6.12			46.00				0.46	0.00			2.90	0.08	0.29			10.69			
2020KHS-A-055	8/4/2020	10:10	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	22.90	8.83	126.2	6.43	113.57	30.48	51.00	8.60	6.04		1.11	0.02	1.24		3.12	0.03	0.35	0.17	0.08	4.27	14.5		<0.15
2020KHS-A-060	8/18/2020	10:10	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	21.70	8.06	134	6.99			49.70				1.20	<0.01			2.86	0.15	0.34			4.98			
2020KHS-A-066	9/2/2020	10:30	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	20.90	9.21	128.9	7.88	102.33	20.86	55.80	7.18	5.57		0.50	0.02	1.17		3.13	0.08	0.34	0.11	0.05	11.54	11.0		
2020KHS-A-071	9/29/2020	8:45	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	16.10	8.09	142.6	8.25			64.30				0.80	0.05			1.99	0.07	0.20			7.24			
2020KHS-A-077	10/6/2020	10:40	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	16.10	8.01	143.7	8.04	24.56	6.20	67.10	7.42	2.61		0.91	0.04	0.52		0.54	0.12	0.23	0.05	0.05	6.99	9.2		0.15
2020KHS-A-087	11/17/2020	9:05	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	5.00	7.77	159.3	10.86	11.24	5.64	69.70	5.10	1.28		0.80	0.36	0.20		1.86	0.03	0.09	0.09	0.01	9.57	9.0		
2020KHS-A-093	12/8/2020	9:20	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	2.8	7.83	166.9	11.73	12.16	3.79	74.3	4.87	1.67		0.77	0.452	0.263		1.872	0.055	0.109	0.02637	0.01203	15.3	14		
KR20015	3/22/2020	7:10	KR22460	Klamath River below J.C. Boyle Dam (RM 224.60; Baseline)	PacifiCorp	0.5	P	7.403	7.978	199.267	10.85	12.19	8.40	70	5.49	2.21		0.13	0.58	0.269		1.52	0.0424	0.104				19		
KR20031	4/19/2020	7:10	KR22460	Klamath River below J.C. Boyle Dam (RM 224.60; Baseline)	PacifiCorp	0.5	P	12.97	7.715	173.188	9.378	12.33	10.54	64.1	5.39	2.1		0.07	0.55	0.259		1.52	0.0545	0.115				21		
KR20047	5/17/2020	6:40	KR22460	Klamath River below J.C. Boyle Dam (RM 224.60; Baseline)	PacifiCorp	0.5	P	15.22	7.336	125.487	8.818	4.89	3.99	55.2	4.51	1.12		0.05	0.26	0.128		0.87	0.118	0.136				9		<0.15
KR20064	6/8/2020	14:05	KR22460	Klamath River below J.C. Boyle Dam (RM 224.60; Baseline)	PacifiCorp	0.5	P	16.8	7.684	128.069	8.828	6.87	4.23	57.7	4.7	0.786		0.09	0.15	<0.0789		0.71	0.138	0.198				10		<0.15
KR20082	7/7/2020	14:00	KR22460	Klamath River below J.C. Boyle Dam (RM 224.60; Baseline)	PacifiCorp	0.5	P	20.46	7.441	118.083	7.971	5.47	4.24	51.2	5.01	1.14		0.15	0.56	0.126		0.93	0.179	0.245				4		<0.15

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Type	Water Temperature °C	pH	Specific Conductivity µS/cm	Dissolved Oxygen mg/l	Algae Chlorophyll a µg/l	Algae Phosphoryl µg/l	Alkalinity mg/l	Carbon, Dissolved Organic Carbon mg/l	Carbon, Particulate Carbon mg/l	Demand, Carbonaceous Biological Oxygen Demand mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate+Nitrite mg/l	Nitrogen, Particulate Nitrogen mg/l	Nitrogen, Total Kjeldahl Nitrogen mg/l	Nitrogen, Total Nitrogen mg/l	Phosphorus, Phosphate mg/l	Phosphorus, Total Phosphorus mg/l	Phosphorus, Particulate Phosphorus mg/l	Phosphorus, Particulate Inorganic Phosphorus mg/l	Turbidity NTU	Solids, Total Suspended Solids mg/l	Solids, Volatile Suspended Solids mg/l	Toxins, Microcystin µg/l
KR20100	8/4/2020	16:00	KR22460	Klamath River below J.C. Boyle Dam (RM 224.60; Baseline)	PacifiCorp	0.5	P	24.06	6.778	137.047	7.321	14.14	10.65	55	6.81	1.48		0.33	1.02	0.246		1.82	0.163	0.322				3.3		<0.15
KR20118	9/17/2020	6:15	KR22460	Klamath River below J.C. Boyle Dam (RM 224.60; Baseline)	PacifiCorp	0.5	P	17.88	7.011	124.429	8.322	9.22	8.64	57	6.73	0.95		0.27	0.95	0.131		1.52	0.122	0.189				3.2		1.1
KR20136	10/10/2020	14:30	KR22460	Klamath River below J.C. Boyle Dam (RM 224.60; Baseline)	PacifiCorp	0.5	P	14.54	6.694	141.766	9.057	6.70	5.20	59.6	8.11	1.04		0.25	1	0.14		2.82	0.16	0.234				4		0.54
KR20153	11/14/2020	15:00	KR22460	Klamath River below J.C. Boyle Dam (RM 224.60; Baseline)	PacifiCorp	0.5	P	4.845	6.667	146.72	11.51	8.11	6.85	64.5	5.07	0.927		0.36	0.93	0.127		1.95	0.052	0.109				8		
KR20169	12/5/2020	14:55	KR22460	Klamath River below J.C. Boyle Dam (RM 224.60; Baseline)	PacifiCorp	0.5	P	2.876	6.182	160.645	12.18	9.71	5.20	71.3	4.78	1.01		0.46	0.81	0.162		1.19	0.066	0.116				7		
KR20016	3/22/2020	8:00	KR21950	Klamath River below USGS Gage (RM 219.50; Baseline)	PacifiCorp	0.5	P	8.02	8.203	160.244	11.09	6.58	5.71	66.5	1.96	0.887		0.02	0.36	0.0969		0.68	0.0433	0.067			6.58	5		
KR20032	4/19/2020	7:50	KR21950	Klamath River below USGS Gage (RM 219.50; Baseline)	PacifiCorp	0.5	P	12.55	7.814	168.511	9.594	8.58	7.56	64.2	4.41	1.32		0.04	0.51	0.2		1.25	0.0488	0.101			15.1	17		
KR20048	5/17/2020	7:40	KR21950	Klamath River below USGS Gage (RM 219.50; Baseline)	PacifiCorp	0.5	P	12.35	7.765	145.085	9.692	5.81	3.26	62.9	1.85	0.821		<0.01	0.22	<0.0789		0.62	0.084	0.101			6.33	19		<0.15
KR20065	6/8/2020	14:50	KR21950	Klamath River below USGS Gage (RM 219.50; Baseline)	PacifiCorp	0.5	P	16.58	7.998	128.202	9.076	6.05	3.35	59.2	3.86	0.808		0.04	0.16	<0.0789		0.76	0.138	0.175				7		<0.15
KR20083	7/7/2020	14:35	KR21950	Klamath River below USGS Gage (RM 219.50; Baseline)	PacifiCorp	0.5	P	19.62	7.988	124.535	8.375	5.00	3.60	51.7	4.33	1.03		0.1	0.54	0.124		1.17	0.159	0.206				5		<0.15
KR20101	8/4/2020	16:40	KR21950	Klamath River below USGS Gage (RM 219.50; Baseline)	PacifiCorp	0.5	P	22	7.495	127.83	7.48	12.21	8.39	58.5	5.51	1.3		0.22	1.04	0.22		2.39	0.141	0.254			3.37	2.5		<0.15
KR20119	9/17/2020	6:55	KR21950	Klamath River below USGS Gage (RM 219.50; Baseline)	PacifiCorp	0.5	P	12.65	8.128	136.583	9.817	3.09	3.53	67.7	2.57	0.416		0.04	0.55	<0.0789		0.55	0.078	0.096				<2		<0.15
KR20137	10/10/2020	15:10	KR21950	Klamath River below USGS Gage (RM 219.50; Baseline)	PacifiCorp	0.5	P	14.24	7.212	136.63	9.154	5.89	4.14	60.6	6.15	0.78		0.17	0.87	0.106		2.49	0.14	0.191			3.16	3		<0.15
KR20154	11/14/2020	15:35	KR21950	Klamath River below USGS Gage (RM 219.50; Baseline)	PacifiCorp	0.5	P	5.641	7.353	144.542	11.18	7.65	5.87	65	3.98	0.746		0.28	0.87	0.107		1.9	0.043	0.075				4		
KR20170	12/5/2020	15:35	KR21950	Klamath River below USGS Gage (RM 219.50; Baseline)	PacifiCorp	0.5	P	3.804	7.091	160.422	11.92	8.21	4.57	69.9	4.23	0.836		0.34	0.78	0.132		1.95	0.062	0.102			16.1	7		
KR20011	3/21/2020	16:05	KR20642	Klamath River above Shovel Creek (RM 206.42; Baseline)	PacifiCorp	0.5	P	9.126	8.674	194.091	11.63	6.08	6.08	67.5	4.28	1.06		0.03	0.54	0.116		1.12	0.0489	0.081	0.01388	<0.0063	11.3	8		
KR20027	4/18/2020	13:40	KR20642	Klamath River above Shovel Creek (RM 206.42; Baseline)	PacifiCorp	0.5	P	13.73	8.172	163.742	9.963	11.68	9.95	64.7	4.45	1.74		0.02	0.56	0.187		1.28	0.0496	0.103	0.02452	0.00753	16.8	16		
KR20043	5/16/2020	17:20	KR20642	Klamath River above Shovel Creek (RM 206.42; Baseline)	PacifiCorp	0.5	P	15.42	7.926	125.859	9.048	5.59	4.32	57.1	3.68	1.15		<0.01	0.26	0.131		0.83	0.108	0.13	0.01402	<0.0063	11.4	9		<0.15
KR20060	6/9/2020	16:45	KR20642	Klamath River above Shovel Creek (RM 206.42; Baseline)	PacifiCorp	0.5	P	18.28	8.548	122.369	9.144	6.87	4.71	58.6	3.71	1.03		0.02	0.1	<0.0789		0.71	0.112	0.163	0.01551	0.0067	6.3	7		<0.15
KR20067	6/23/2020	9:30	KR20642	Klamath River above Shovel Creek (RM 206.42; Baseline)	PacifiCorp	0.5	P	18.91	8.066	130.784	9.149							0.01	0.27			0.75	0.076	0.109						
KR20078	7/8/2020	12:50	KR20642	Klamath River above Shovel Creek (RM 206.42; Baseline)	PacifiCorp	0.5	P	17.25	8.7	131.121	9.809	5.17	4.27	58.7	2.17	0.803		0.01	0.34	<0.0789		0.75	0.103	0.127	0.00838	<0.0063	3.39	5		<0.15
KR20085	7/21/2020	15:30	KR20642	Klamath River above Shovel Creek (RM 206.42; Baseline)	PacifiCorp	0.5	P	21.71	8.329	120.079	8.469							0.03	0.59			1.35	0.13	0.21						
KR20096	8/5/2020	14:55	KR20642	Klamath River above Shovel Creek (RM 206.42; Baseline)	PacifiCorp	0.5	P	19.79	8.517	126.214	9.023	9.68	6.29	62.6	2.79	0.688		0.02	0.67	0.0988		1.11	0.114	0.144	0.01457	<0.0063	3.12	3.3		<0.15
KR20103	8/18/2020	13:25	KR20642	Klamath River above Shovel Creek (RM 206.42; Baseline)	PacifiCorp	0.5	P	20.67	8.376	128.419	8.893							0.02	1.04			1.8	0.146	0.19						
KR20114	9/16/2020	18:40	KR20642	Klamath River above Shovel Creek (RM 206.42; Baseline)	PacifiCorp	0.5	P	18.07	8.017	131.135	8.615	9.09	7.26	57.4	5.52	1.94		0.05	0.91	0.23		1.06	0.102	0.185	0.02813	0.00913	5.25	269		1.8
KR20121	9/27/2020	15:35	KR20642	Klamath River above Shovel Creek (RM 206.42; Baseline)	PacifiCorp	0.5	P	15.37	8.295	125.537	9.836							0.02	0.82			0.99	0.106	0.147						
KR20132	10/11/2020	15:10	KR20642	Klamath River above Shovel Creek (RM 206.42; Baseline)	PacifiCorp	0.5	P	13.32	8.13	135.979	10.32	5.33	3.60	63.9	3.78	0.775		0.03	0.72	0.0935		1.89	0.11	0.147	0.00978	0.01142	3.37	5		<0.15

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Type	Water Temperature °C	pH	Specific Conductivity µS/cm	Dissolved Oxygen mg/l	Algae Chlorophyll-a µg/l	Algae Phosphorus µg/l	Alkalinity mg/l	Carbon, Dissolved Organic Carbon mg/l	Carbon, Particulate Carbon mg/l	Demand, Carbonaceous Biological Oxygen Demand mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate+Nitrite mg/l	Nitrogen, Particulate Nitrogen mg/l	Nitrogen, Total Kjeldahl Nitrogen mg/l	Nitrogen, Total Nitrogen mg/l	Phosphorus, Phosphate mg/l	Phosphorus, Total Phosphorus mg/l	Phosphorus, Particulate Phosphorus mg/l	Phosphorus, Particulate Inorganic Phosphorus mg/l	Turbidity NTU	Solids, Total Suspended Solids mg/l	Solids, Volatile Suspended Solids mg/l	Toxins, Microcystin µg/l
KR20149	11/15/2020	16:35	KR20642	Klamath River above Shovel Creek (RM 206.42; Baseline)	PacifiCorp	0.5	P	7.421	7.813	139.645	11.24	6.50	6.49	65.2	2.05	0.455		0.02	0.71	<0.0789		0.91	0.055	0.069	<0.0063	<0.0063	9.64	4		
KR20165	12/6/2020	17:25	KR20642	Klamath River above Shovel Creek (RM 206.42; Baseline)	PacifiCorp	0.5	P	4.615	7.961	155.232	11.82	4.29	3.88	69.8	3.02	0.406		0.02	0.97	<0.0789		1.29	0.055	0.075	<0.0063	<0.0063	10.1	4		
KR20008	3/21/2020	13:35	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0-8	I					1.41	1.43																	
KR20007	3/21/2020	13:15	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0.5	P	9.832	7.942	233.029	9.981	0.90	0.83	80.3	4.77	0.5		0.1	0.52	<0.0789		0.85	0.0534	0.07				<2		
KR20009	3/21/2020	13:50	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	1	P	9.173	7.977	233.47	9.881	1.07	0.95	81	5.1	1.11		0.1	0.51	0.104		1.19	0.0526	0.072				<2		
KR20010	3/21/2020	14:05	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	27	P	7.531	7.818	233.367	9.09			79	5.05	0.665		0.12	0.53	<0.0789		1.19	0.0592	0.077				<2		
KR20024	4/18/2020	12:00	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0-8	I					1.21	1.01																	
KR20023	4/18/2020	11:45	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0.5	P	12.98	7.864	208.559	9.428	1.85	0.97	76.2	4.59	0.454		0.07	0.59	<0.0789		1.18	0.0595	0.085				<2		
KR20025	4/18/2020	12:25	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	13	P	11.22	7.774	210.019	9.023	1.36	1.71	75.8	4.6	0.594		0.08	0.6	<0.0789		1.24	0.0591	0.086				4		
KR20026	4/18/2020	12:10	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	22	P	8.994	7.589	232.804	7.978			83.5	4.94	0.664		0.11	0.58	<0.0789		1.16	0.062	0.094				5		
KR20040	5/16/2020	15:10	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0-8	I					2.87	1.55																	<0.15
KR20039	5/16/2020	14:10	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0.5	P	16.9	7.877	104.765	8.692	5.53	1.46	58.9	4.04	0.723		0.04	0.31	0.0838		0.81	0.105	0.113				3		<0.15
KR20041	5/16/2020	15:15	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	15	P	13.3	7.215	157.254	4.889	2.53	3.25	60.5	3.74	0.812		0.04	0.4	0.0813		0.93	0.127	0.146				7		
KR20042	5/16/2020	15:25	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	28	P	9.863	7.151	220.717	1.932			79.7	6.17	0.949		0.04	0.66	0.0986		1.21	0.098	0.124				6		
KR20057	6/9/2020	13:10	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0-8	I					10.51	1.36																	<0.15
KR20056	6/9/2020	12:50	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0.5	P	20.08	8.487	189.5	9.231	5.73	1.27	64.6	3.33	0.655		0.02	0.06	<0.0789		0.42	0.075	0.099				2		<0.15
KR20058	6/9/2020	13:30	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	6	P	17.99	7.8	156.808	6.69	12.94	2.09	64.1	3.12	0.752		0.03	0.06	<0.0789		0.39	0.065	0.108				3		
KR20059	6/9/2020	13:20	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	24	P	10.76	7.176	216.206	0.15			69.1	3.79	0.553		<0.01	0.54	<0.0789		1	0.114	0.146				6		
KR20075	7/8/2020	10:10	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0-8	I					9.45	3.08																	<0.15
KR20074	7/8/2020	9:55	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0.5	P	21.28	8.754	131.007	10.08	13.39	3.35	46.4	3.43	1.14		0.01	0.05	0.174		0.4	0.048	0.077				3		0.4
KR20076	7/8/2020	10:35	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	12	P	18.22	7.159	134.423	2.691	4.38	2.22	56.2	3.3	0.609		0.04	0.23	<0.0789		0.66	0.078	0.102				<2		
KR20077	7/8/2020	10:20	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	25	P	12.24	7.096	207.274	0			68.1	3.54	0.584		0.05	0.52	<0.0789		0.99	0.139	0.171				3		
KR20093	8/5/2020	10:55	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0-8	I					133.68	5.58																	4.3
KR20092	8/5/2020	10:40	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0.5	P	24.15	8.642	132.655	16.34	519.52	0.46	59.2	4.22	13.3		0.04	0.01	2.7		4.44	0.072	0.415				34.3		27
KR20094	8/5/2020	11:30	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	17	P	16.71	7.007	145.246	0.006	2.67	1.20	60	3.15	0.576		0.02	0.48	0.104		0.96	0.166	0.209				2.3		
KR20095	8/5/2020	11:10	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	29	P	12.59	7.134	186.671	9E-04			73.7	3.76	0.53		0.45	0.02	0.0836		0.73	0.346	0.442				6		
KR20111	9/16/2020	14:50	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0-8	I					4.28	1.00																	1.9

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Type	Water Temperature °C	pH	Specific Conductivity µS/cm	Dissolved Oxygen mg/l	Algae Chlorophyll a µg/l	Algae Phosphorylin µg/l	Alkalinity mg/l	Carbon, Dissolved Organic Carbon mg/l	Carbon, Particulate Carbon mg/l	Demand, Carbonaceous Biological Oxygen Demand mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate+Nitrite mg/l	Nitrogen, Particulate Nitrogen mg/l	Nitrogen, Total Kjeldahl Nitrogen mg/l	Nitrogen, Total Nitrogen mg/l	Phosphorus, Phosphate mg/l	Phosphorus, Total Phosphorus mg/l	Phosphorus, Particulate Phosphorus mg/l	Phosphorus, Particulate Inorganic Phosphorus mg/l	Turbidity NTU	Solids, Total Suspended Solids mg/l	Solids, Volatile Suspended Solids mg/l	Toxins, Microcystin µg/l
KR20110	9/16/2020	14:30	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0.5	P	19.92	8.317	136.606	7.461	5.89	0.73	59.9	5.08	1.25		0.1	0.53	0.202		0.93	0.134	0.176				3.1		4.2
KR20112	9/16/2020	15:10	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	20	P	16.98	7.263	146.63	2.225	5.43	2.93	60.8	4.83	0.9		0.18	0.53	0.111		0.87	0.126	0.178				5.1		
KR20113	9/16/2020	15:00	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	23	P	14.09	7.004	316.26	0.001			67.4	4.62	1.39		0.41	0.31	0.242		1.03	0.212	0.296				5.5		
KR20129	10/11/2020	11:30	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0-8	I					3.01	1.70																	0.43
KR20128	10/11/2020	11:10	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0.5	P	16.1	7.471	141.378	6.987	2.22	1.27	62	4.98	<0.1899		0.16	0.64	<0.0789		1.79	0.12	0.161				3		0.49
KR20130	10/11/2020	11:50	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	15	P	15.38	7.282	144.861	5.443	2.17	1.80	63.5	4.97	0.65		0.16	0.63	<0.0789		1.621	0.12	0.162				2		
KR20131	10/11/2020	11:40	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	28	P	14.55	6.852	176.823	0.024			62.1	5.31	0.808		0.46	0.59	0.125		2.1	0.21	0.303				6		
KR20146	11/15/2020	12:30	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0-8	I					1.15	1.02																	
KR20145	11/15/2020	12:15	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0.5	P	9.035	7.523	143.785	8.827	1.47	1.24	63.8	3.98	0.335		0.17	1.03	<0.0789		1.82	0.073	0.094				<2		
KR20147	11/15/2020	12:50	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	14	P	8.644	7.38	144.384	8.675	1.27	1.34	63.4	3.78	0.365		0.17	0.99	<0.0789		1.71	0.071					2		
KR20148	11/15/2020	12:40	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	26	P	8.174	7.318	150.989	3.367			64.1	3.97	0.474		0.17	1	<0.0789		1.76	0.063	0.085				4		
KR20162	12/6/2020	13:15	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0-8	I					1.93	1.69																	
KR20161	12/6/2020	12:50	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0.5	P	6.15	7.566	192.267	10.18	1.12	1.30	65.2	4.17	0.334		0.17	0.78	<0.0789		1.4	0.058	0.079				<2		
KR20163	12/6/2020	13:40	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	12	P	5.27	7.492	154.45	10.21	1.36	1.39	65.8	4.05	0.369		0.17	0.84	<0.0789		1.8	0.062	0.082				2		
KR20164	12/6/2020	13:25	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	26	P	4.918	7.487	157.689	10.15			67.6	4.28	0.545		0.17	0.84	0.0811		1.61	0.061	0.083				4		
KR20006	3/21/2020	12:05	KR19645	Klamath River below Copco Dam (RM 196.45; Baseline)	PacifiCorp	0.5	P	9.356	7.907	246.609	10.09	1.23	1.19	82.9	4.99	0.985		0.1	0.51	<0.0789		1.15	0.0568	0.078				4		
KR20022	4/18/2020	11:00	KR19645	Klamath River below Copco Dam (RM 196.45; Baseline)	PacifiCorp	0.5	P	11.82	7.797	190.995	9.465	1.67	1.33	76.9	5.12	0.556		0.07	0.62	<0.0789		1.25	0.0588	0.084				4		
KR20038	5/16/2020	13:20	KR19645	Klamath River below Copco Dam (RM 196.45; Baseline)	PacifiCorp	0.5	P	16.43	7.328	138.091	8.57	3.49	1.76	59.9	3.81	0.66		0.03	0.34	<0.0789		0.85	0.102	0.122				4		<0.15
KR20055	6/9/2020	11:55	KR19645	Klamath River below Copco Dam (RM 196.45; Baseline)	PacifiCorp	0.5	P	18.25	7.919	141.967	8.302	7.61	1.94	64.1	3.22	1.16		0.01	0.13	0.0946		0.44	0.085	0.12				3		<0.15
KR20073	7/8/2020	9:00	KR19645	Klamath River below Copco Dam (RM 196.45; Baseline)	PacifiCorp	0.5	P	20.3	8.145	130.468	8.27	9.41	3.52	55.2	3.43	0.933		0.02	0.14	0.118		0.37	0.065	0.093				3		<0.15
KR20091	8/5/2020	9:45	KR19645	Klamath River below Copco Dam (RM 196.45; Baseline)	PacifiCorp	0.5	P	23.88	8.869	135.682	7.6	45.30	1.10	59.8	4.05	3.12		0.05	0.08	0.659		0.86	0.058	0.133				4.3		3.3
KR20109	9/16/2020	13:20	KR19645	Klamath River below Copco Dam (RM 196.45; Baseline)	PacifiCorp	0.5	P	20.47	8.764	145.018	10.23	743.25	0.46	65.5	5.87	14.8		0.08	0.44	3		32.84	0.117	4.57				312		840
KR20127	10/11/2020	10:15	KR19645	Klamath River below Copco Dam (RM 196.45; Baseline)	PacifiCorp	0.5	P	15.37	7.577	134.183	6.957	11.19	1.81	63.7	4.92	0.961		0.18	0.68	0.155		1.9	0.14	0.192				4		2.4
KR20144	11/15/2020	11:25	KR19645	Klamath River below Copco Dam (RM 196.45; Baseline)	PacifiCorp	0.5	P	9.286	7.566	143.613	8.956	1.83	1.69	63.3	3.74	0.451		0.16	1.05	<0.0789		1.65	0.073	0.09				2		
KR20160	12/6/2020	11:55	KR19645	Klamath River below Copco Dam (RM 196.45; Baseline)	PacifiCorp	0.5	P	5.741	7.72	161.51	11.07	1.51	1.69	66.2	4.09	0.341		0.14	0.82	<0.0789		1.56	0.061	0.078				3		
KR20003	3/21/2020	9:30	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0-8	I					2.28	1.52																	
KR20002	3/21/2020	9:05	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0.5	P	8.022	7.293	202.29	10.47	2.08	1.47	84.3	4.35	0.727		0.05	0.62	0.0897		1.04	0.0439	0.07				4		

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Type	Water Temperature °C	pH	Specific Conductivity µS/cm	Dissolved Oxygen mg/l	Algae Chlorophyll a µg/l	Algae Phosphoryl µg/l	Alkalinity mg/l	Carbon, Dissolved Organic Carbon mg/l	Carbon, Particulate Carbon mg/l	Demand, Carbonaceous Biological Oxygen Demand mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate+Nitrite mg/l	Nitrogen, Particulate Nitrogen mg/l	Nitrogen, Total Kjeldahl Nitrogen mg/l	Nitrogen, Total Nitrogen mg/l	Phosphorus, Phosphate mg/l	Phosphorus, Total Phosphorus mg/l	Phosphorus, Particulate Phosphorus mg/l	Phosphorus, Particulate Inorganic Phosphorus mg/l	Turbidity NTU	Solids, Total Suspended Solids mg/l	Solids, Volatile Suspended Solids mg/l	Toxins, Microcystin µg/l
KR20004	3/21/2020	10:45	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	19	P	6.36	7.542	189.274	9.136	1.30	1.77	72.6	3.74	0.83		0.03	0.69	<0.0789		1.08	0.0463	0.071				<2		
KR20005	3/21/2020	10:15	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	41	P	5.447	7.388	177.2	2.45			69.6	3.5	0.901		0.01	0.75	0.0872		1.16	0.0464	0.074				4		
KR20019	4/18/2020	9:10	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0-8	I					3.41	1.16																	
KR20018	4/18/2020	8:40	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0.5	P	11.82	7.528	200.184	9.97	3.27	1.34	81	4.5	0.586		0.03	0.52	<0.0789		1.01	0.0431	0.068				<2		
KR20020	4/18/2020	9:45	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	19	P	7.948	7.445	213.17	8.436	0.86	1.13	83.2	3.88	0.534		0.01	0.6	<0.0789		1.17	0.0427	0.067				<2		
KR20021	4/18/2020	9:25	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	43	P	5.923	7.231	184.126	6.607			75.8	3.46	0.673		0.02	0.75	<0.0789		1.16	0.0435	0.08				<2		
KR20035	5/16/2020	10:40	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0-8	I					3.35	2.25																	<0.15
KR20034	5/16/2020	10:10	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0.5	P	17.55	7.434	152.706	8.99	4.49	1.63	60.8	3.97	0.722		<0.01	0.4	0.0863		0.89	0.07	0.083				4		<0.15
KR20036	5/16/2020	11:20	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	11	P	13.35	7.275	176.629	6.98	2.54	2.50	61.6	3.84	0.792		<0.01	0.44	0.0887		0.9	0.078	0.088				7		
KR20037	5/16/2020	10:55	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	35	P	6.363	7.114	191.25	5.794			76.9	3.79	0.559		<0.01	0.7	<0.0789		1.1	0.066	0.07				4		
KR20052	6/9/2020	8:50	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0-8	I					5.03	1.69																	<0.15
KR20051	6/9/2020	8:15	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0.5	P	20.11	8.295	149.021	9.345	4.19	1.25	63.8	3.37	0.317		0.01	0.02	<0.0789		0.35	0.06	0.066				<2		<0.15
KR20053	6/9/2020	9:20	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	9	P	17.03	7.352	144.498	6.534	7.11	2.19	63.4	3.21	0.368		0.03	0.06	<0.0789		0.51	0.06	0.081				3		
KR20054	6/9/2020	9:10	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	39	P	6.61	7.055	193.99	3.863			78.1	3.44	0.847		0.02	0.76	<0.0789		1.01	0.054	0.079				3		
KR20070	7/8/2020	6:35	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0-8	I					3.78	1.59																	<0.15
KR20069	7/8/2020	6:10	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0.5	P	23.04	8.329	148.89	8.906	10.84	4.10	58.9	3.41	1.04		0.01	<0.01	0.126		0.28	0.04	0.084				3		0.23
KR20071	7/8/2020	7:05	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	18	P	14	7.043	164.247	3.894	1.02	1.08	62.6	3.39	0.512		0.01	0.31	<0.0789		0.63	0.114	0.115				<2		
KR20072	7/8/2020	6:50	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	38	P	6.899	7.124	196.668	2.976			75.4	3.39	0.647		<0.01	0.82	<0.0789		1.06	0.065	0.084				2		
KR20088	8/5/2020	7:20	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0-8	I					7.83	0.94																	0.42
KR20087	8/5/2020	6:55	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0.5	P	25.71	9.018	159.425	9.793	20.92	1.25	60.6	3.64	1.04		0.02	0.01	0.19		0.69	0.02	0.033				2		1.7
KR20089	8/5/2020	7:55	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	18	P	15.73	6.902	152.742	2.516	0.68	0.66	59.2	2.83	0.239		0.02	0.31	<0.0789		0.67	0.119	0.145				<2		
KR20090	8/5/2020	7:40	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	39	P	7.201	6.88	199.257	0			76.7	3.22	0.363		0.02	0.75	<0.0789		1.14	0.084	0.107				2.3		
KR20106	9/16/2020	11:10	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0-8	I					18.15	0.50																	1.2
KR20105	9/16/2020	10:25	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0.5	P	19.71	8.94	137.144	7.755	30.04	1.11	61.9	4.53	2.04		0.08	0.31	0.36		0.98	0.092	0.162				5.7		2.6
KR20107	9/16/2020	11:20	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	22	P	13.7	7.059	170.969	0.004	1.26	0.95	64.4	3.11	0.499		0.11	0.35	<0.0789		0.79	0.174	0.24				3.1		
KR20108	9/16/2020	10:50	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	39	P	7.544	7.218	205.746	0.016			79.4	3.61	0.518		0.09	0.63	<0.0789		0.89	0.1	0.136				4		
KR20124	10/11/2020	8:40	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0-8	I					31.99	0.99																	0.33

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Type	Water Temperature °C	pH	Specific Conductivity µS/cm	Dissolved Oxygen mg/l	Algae Chlorophyll a µg/l	Algae Phosphorylin µg/l	Alkalinity mg/l	Carbon, Dissolved Organic Carbon mg/l	Carbon, Particulate Carbon mg/l	Demand, Carbonaceous Biological Oxygen Demand mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate+Nitrite mg/l	Nitrogen, Particulate Nitrogen mg/l	Nitrogen, Total Kjeldahl Nitrogen mg/l	Nitrogen, Total Nitrogen mg/l	Phosphorus, Phosphate mg/l	Phosphorus, Total Phosphorus mg/l	Phosphorus, Particulate Phosphorus mg/l	Phosphorus, Particulate Inorganic Phosphorus mg/l	Turbidity NTU	Solids, Total Suspended Solids mg/l	Solids, Volatile Suspended Solids mg/l	Toxins, Microcystin µg/l
KR20123	10/11/2020	7:05	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0.5	P	16.85	8.196	154.214	8.701	38.80	1.26	64.3	4.38	2.38		0.05	0.29	0.418		1.9	0.1	0.171				5		1.2
KR20125	10/11/2020	7:55	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	25	P	14.05	6.743	171.006	0.015	4.20	1.92	64.8	4.59	0.842		0.18	0.46	0.108		1.79	0.12	0.168				4		
KR20126	10/11/2020	7:40	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	40	P	7.937	6.782	207.044	0			81.5	3.57	0.453		0.18	0.54	<0.0789		1.422	0.13	0.157				3		
KR20141	11/15/2020	9:00	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0-8	I					13.48	1.52																	
KR20140	11/15/2020	8:50	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0.5	P	11.03	7.093	155.776	8.492	14.24	1.81	65.7	3.94	1.75		0.11	0.75	0.333		1.64	0.086	0.131				8		
KR20142	11/15/2020	9:35	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	13	P	10.86	7.233	147.939	7.689	9.80	1.31	65.6	3.88	1.04		0.11	0.79	0.185		1.5	0.089	0.118				3		
KR20143	11/15/2020	9:25	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	39	P	8.813	6.786	209.333	0.06			68.6	3.68	0.69		0.19	0.75	0.118		1.5	0.092	0.117				3		
KR20157	12/6/2020	9:25	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0-8	I					2.65	0.96																	
KR20156	12/6/2020	9:05	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0.5	P	7.647	6.929	152.897	8.798	2.70	1.00	63.9	4.56	0.323		0.13	0.76	<0.0789		1.22	0.075	0.092				<2		
KR20158	12/6/2020	10:15	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	15	P	7.339	7.247	148.142	8.884	1.83	1.12	67.1	3.98	0.389		0.14	0.72	<0.0789		1.44	0.071	0.088				<2		
KR20159	12/6/2020	10:10	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	42	P	6.704	7.244	149.456	9.184			65.6	4.46	0.51		0.14	0.72	<0.0789		1.46	0.068	0.09				3		
KR20001	3/21/2020	17:30	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	8.69	7.934	201.357	11.31	2.37	1.75	76.9	4.24	0.72		0.03	0.64	0.08		1.06	0.0462	0.066	0.00961	<0.0063	7.1	<2		
KR20017	4/18/2020	14:45	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	10.77	7.82	212.667	10.6	1.74	1.32	80.7	4.65	0.54		0.03	0.57	<0.0789		0.96	0.0435	0.074	0.00675	<0.0063	5.13	<2		
KR20033	5/16/2020	18:40	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	15.35	7.528	145.639	9.005	7.31	4.12	60.5	4.26	1.17		<0.01	0.42	0.168		0.98	0.067	0.092	0.0119	<0.0063	3.7	9		
KR20049	5/28/2020	14:35	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	16.96	8.081	143.684	9.907	13.99	3.83	61.3	3.14	1.26		<0.01	0.31	<0.0789		0.82	0.066	0.121	0.01382	0.00644	8.3	10		
KR20050	6/9/2020	15:05	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	17.52	8.021	143.829	9.375	5.55	2.42	63.4	3.05	0.503		0.03	0.19	<0.0789		0.56	0.07	0.096	0.00981	<0.0063	5.12	2		
KR20066	6/23/2020	11:00	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	18.31	7.758	141.444	9.246	2.69	1.31	59.8	3.08	0.301		0.02	0.21	<0.0789		0.48	0.083	0.109	0.00708	<0.0063	<2			
KR20068	7/8/2020	14:20	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	19.8	7.921	138.802	8.776	1.99	1.48	63.2	3.28	0.492		0.02	0.19	<0.0789		0.55	0.082	0.095	<0.0063	<0.0063	2.89	<2		<0.15
KR20084	7/21/2020	16:35	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	21.07	8.093	139.459	8.351	4.20	2.33	55.9	3.41	0.377		0.05	0.2	<0.0789		0.58	0.072	0.102	<0.0063	<0.0063	2.17	<2		<0.15
KR20086	8/5/2020	13:05	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	22.12	7.851	139.506	7.114	<0.68	<0.38	60.5	3.21	0.417		0.21	0.28	<0.0789		0.98	0.124	0.152	0.00656	<0.0063	1.8	<2		<0.15
KR20102	8/18/2020	14:35	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	21.77	8.273	139.006	7.77	2.78	1.56	53.8	3.47	0.372		0.14	0.4	<0.0789		0.93	0.128	0.144	0.00663	<0.0063	1.77	2		<0.15
KR20104	9/16/2020	16:40	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	18.95	8.575	141.075	8.269	9.96	1.18	62.9	4.4	0.936		0.11	0.37	0.138		1.1	0.116	0.154	0.01524	<0.0063	3.31	3.5		0.67
KR20120	9/27/2020	16:45	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	18.4	8.989	139.097	9.953	71.40	4.23	66.9	4.38	4.82		0.04	0.24	0.818		0.5	0.097	0.193	0.0594	0.03307	9.2	10		4.1
KR20122	10/11/2020	13:25	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	16.71	8.347	141.453	9.601	26.37	1.53	65.4	4.58	1.43		0.06	0.37	0.231		1.6	0.11	0.167	0.01563	0.0323	8.88	4		0.25
KR20138	10/25/2020	16:25	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	14.66	8.382	143.704	10.09	27.57	1.68	65.5	4.47	1.97		0.05	0.4	0.314		1.06	0.096	0.165	0.04187	0.01298	5.96	6		0.4
KR20139	11/15/2020	14:55	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	10.91	7.573	149.951	9.917	11.88	1.53	66.8	4.09	0.759		0.12	0.74	0.133		1.12	0.088	0.129	0.01682	0.00918	3.68	6		
KR20155	12/6/2020	15:30	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	7.634	7.486	147.915	10.88	2.01	1.01	64.9	4.43	0.26		0.13	0.78	<0.0789		1.31	0.074	0.096	<0.0063	<0.0063	3.12	<2		

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Type	Water Temperature °C	pH	Specific Conductivity µS/cm	Dissolved Oxygen mg/l	Algae Chlorophyll-a µg/l	Algae Phosphorytin µg/l	Alkalinity mg/l	Carbon, Dissolved Organic Carbon mg/l	Carbon, Particulate Carbon mg/l	Demand, Carbonaceous Biological Oxygen Demand mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate+Nitrite mg/l	Nitrogen, Particulate Nitrogen mg/l	Nitrogen, Total Kjeldahl Nitrogen mg/l	Nitrogen, Total Nitrogen mg/l	Phosphorus, Phosphate mg/l	Phosphorus, Total Phosphorus mg/l	Phosphorus, Particulate Phosphorus mg/l	Phosphorus, Particulate Inorganic Phosphorus mg/l	Turbidity NTU	Solids, Total Suspended Solids mg/l	Solids, Volatile Suspended Solids mg/l	Toxins, Microcystin µg/l
WA031820-OC	3/18/2020	9:47	KR15626	Klamath River at Walker Bridge (RM 156.26; Baseline)	Karuk	0.5	P	7.65	8.31	0.2447	11.81	1.80	3.60		3.6	0.67		0.012	0.559			1.11	0.056	0.09				6		
WA041520-OC	4/15/2020	10:02	KR15626	Klamath River at Walker Bridge (RM 156.26; Baseline)	Karuk	0.5	P	11.95	8.29	0.226	6.91	2.40	3.60		4.19	0.687		0.014	0.541			1.38	0.043	0.078			2.8	3.3		
WA050620-OC	5/6/2020	10:09	KR15626	Klamath River at Walker Bridge (RM 156.26; Baseline)	Karuk	0.5	P	14.82	8.12	0.1733	9.96	2.10	3.50	65.6	4.22	0.832		0.019	0.506			1.52	0.054	0.084				8.4		<0.15
WA061020-OC	6/10/2020	10:36	KR15626	Klamath River at Walker Bridge (RM 156.26; Baseline)	Karuk	0.5	P	19.81	8.5	0.1623	9.4	1.10	2.00		3.44	0.599		0.019	0.095			0.655	0.07	0.101				3.6		<0.15
WA070820-OC	7/8/2020	11:04	KR15626	Klamath River at Walker Bridge (RM 156.26; Baseline)	Karuk	0.5	P	21.29	8.7	0.1607	9.75	2.10	3.10		3.51	0.599		<0.01	0.036			0.513	0.079	0.113				2.2		<0.15
WA080520-OC	8/5/2020	10:45	KR15626	Klamath River at Walker Bridge (RM 156.26; Baseline)	Karuk	0.5	P	24.33	8.52	0.1564	9.11	0.70	2.20		3.68	0.539		0.022	0.306			1	0.115	0.151				2.4		<0.15
WA100720-OC	10/7/2020	10:59	KR15626	Klamath River at Walker Bridge (RM 156.26; Baseline)	Karuk	0.5	P					1.80	2.20		4.3	0.774		0.023	0.454			1.89	0.128	0.162				3		
WA111820-OC	11/18/2020	11:09	KR15626	Klamath River at Walker Bridge (RM 156.26; Baseline)	Karuk	0.5	P	10.07	8.29	0.196	10.84	4.10	2.50		3.83	0.911		0.045	0.718			1.62	0.09	0.132				3.5		
WA120920-OC	12/9/2020	11:16	KR15626	Klamath River at Walker Bridge (RM 156.26; Baseline)	Karuk	0.5	P	6.725	8.28	0.1882	12.03	2.10	2.30		3.27	0.589		0.016	0.792			1.71	0.063	0.1				2.6		
SV031820-OC	3/18/2020	8:06	KR12850	Klamath River below Seiad (RM 128.5; Baseline)	Karuk	0.5	P	7.033	8.29	0.2356	11.87	3.20	4.50		2.78	0.586		0.01	0.462	<0.0789		0.91	0.037	0.07	0.00907	<0.0063	3.4	5		
SV041520-OC	4/15/2020	8:13	KR12850	Klamath River below Seiad (RM 128.5; Baseline)	Karuk	0.5	P	11.53	8.25	0.2135	10.81	2.70	4.20		3.75	0.738		0.022	0.406	<0.0789		0.682	0.031	0.06	0.00916	<0.0063	2.4	4.8		
SV050620-OC	5/6/2020	9:10	KR12850	Klamath River below Seiad (RM 128.5; Baseline)	Karuk	0.5	P	14.7	8.14	0.1667	10.1	1.60	1.80	72.8	3.86	0.761		0.016	0.371	<0.0789		1.07	0.039	0.068	0.01261	<0.0063	4.3	7.1		<0.15
SV061020-OC	6/10/2020	8:26	KR12850	Klamath River below Seiad (RM 128.5; Baseline)	Karuk	0.5	P	18.39	8.42	0.1781	9.76	1.40	2.10		2.57	0.519		<0.01	0.057			0.582	0.049	0.072	0.00732	<0.0063	2	3.8		<0.15
SV070820-OC	7/8/2020	10:01	KR12850	Klamath River below Seiad (RM 128.5; Baseline)	Karuk	0.5	P	21.16	8.45	0.1718	9.15	0.50	1.80		3.02	0.592		<0.01	<0.01	<0.0789		0.382	0.068	0.098	0.00715	<0.0063	1.6	2.6		<0.15
SV080520-OC	8/5/2020	8:13	KR12850	Klamath River below Seiad (RM 128.5; Baseline)	Karuk	0.5	P	23.91	8.5	0.1665	9.21	4.50	5.30		3.65	0.661		0.011	0.124	0.0807		0.535	0.096	0.138	0.01128	<0.0063	0.98	4.8		<0.15
SV100720-OC	10/7/2020	9:43	KR12850	Klamath River below Seiad (RM 128.5; Baseline)	Karuk	0.5	P	15.72	8.35	0.1829	10.01	3.60	4.30		3.78	0.852		0.011	0.363	0.113		1.39	0.122	0.158	0.01629	<0.0063	2.4	6.3		<0.15
SV111820-OC	11/18/2020	10:07	KR12850	Klamath River below Seiad (RM 128.5; Baseline)	Karuk	0.5	P	10.07	8.29	0.1908	11.03	5.90	3.60		4.23	1.02		0.014	0.516	0.128		1.26	0.074	0.107	0.01284		2.1	5.8		
SV120920-OC	12/9/2020	10:15	KR12850	Klamath River below Seiad (RM 128.5; Baseline)	Karuk	0.5	P	5.963	8.3	0.1969	12.51	2.30	3.20		2.97	0.633		<0.01	0.711	<0.0789		1.69	0.055	0.093	0.00884	<0.0063	2.5	2.8		
HC031820-OC	3/18/2020	8:06	KR10130	Klamath River below Happy Camp (RM 101.3; Baseline)	Karuk	0.5	P	6.692	8.17	0.2133	11.92	3.20	3.90		2.4	0.557		0.018	0.343			0.704	0.03	0.056				5.4		
HC041520-OC	4/15/2020	8:13	KR10130	Klamath River below Happy Camp (RM 101.3; Baseline)	Karuk	0.5	P	11.77	8.09	0.1871	10.62	1.90	3.20		3.02	0.643		0.027	0.277			0.736	0.019	0.044				4.7		
HC050620-OC	5/6/2020	8:23	KR10130	Klamath River below Happy Camp (RM 101.3; Baseline)	Karuk	0.5	P	14.59	7.98	0.1597	10	1.30	2.20	73.4	3.8	0.795		0.016	0.283			0.859	0.034	0.053				5.6		<0.15
HC061020-OC	6/10/2020	8:26	KR10130	Klamath River below Happy Camp (RM 101.3; Baseline)	Karuk	0.5	P	17.66	8.22	0.1719	9.36	2.30	2.90		2.36	0.575		<0.01	0.011			0.627	0.032	0.063				2.8		<0.15
HC070820-OC	7/8/2020	8:41	KR10130	Klamath River below Happy Camp (RM 101.3; Baseline)	Karuk	0.5	P	20.4	8.12	0.1704	8.93	0.70	0.50		2.83	0.524		<0.01	<0.01			0.291	0.053	0.076				1.2		<0.15
HC080520-OC	8/5/2020	8:13	KR10130	Klamath River below Happy Camp (RM 101.3; Baseline)	Karuk	0.5	P	23.32	8.12	0.1659	8.25	2.1	3.1		3.15	0.646		0.018	<0.01			0.388	0.072	0.104				3.8		<0.15
HC100720-OC	10/7/2020	8:32	KR10130	Klamath River below Happy Camp (RM 101.3; Baseline)	Karuk	0.5	P	15.82	8.2	0.1822	9.54	4.1	4.5		3.51	0.719		0.011	0.232			1.22	0.103	0.134				4.2		<0.15
HC111820-OC	11/18/2020	9:15	KR10130	Klamath River below Happy Camp (RM 101.3; Baseline)	Karuk	0.5	P	9.946	8.12	0.1702	10.96	6.1	5.2		3.93	1.64		<0.01	0.366			0.926	0.062	0.113				9		
HC120920-OC	12/9/2020	9:14	KR10130	Klamath River below Happy Camp (RM 101.3; Baseline)	Karuk	0.5	P	5.744	8.14	0.1929	12.44	3	3.7		2.88	0.635		<0.01	0.578			1.27	0.045	0.076				2.6		

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Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Type	Water Temperature °C	pH	Specific Conductivity µS/cm	Dissolved Oxygen mg/l	Algae Chlorophyll-a µg/l	Algae Phosphorytin µg/l	Alkalinity mg/l	Carbon, Dissolved Organic Carbon mg/l	Carbon, Particulate Carbon mg/l	Demand, Carbonaceous Biological Oxygen Demand mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate+Nitrite mg/l	Nitrogen, Particulate Nitrogen mg/l	Nitrogen, Total Kjeldahl Nitrogen mg/l	Nitrogen, Total Nitrogen mg/l	Phosphorus, Phosphate mg/l	Phosphorus, Total Phosphorus mg/l	Phosphorus, Particulate Phosphorus mg/l	Phosphorus, Particulate Inorganic Phosphorus mg/l	Turbidity NTU	Solids, Total Suspended Solids mg/l	Solids, Volatile Suspended Solids mg/l	Toxins, Microcystin µg/l
TC061020-OC	6/10/2020	9:20	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	16.44	7.96	132.9	9.61	<1	<1		2.02	0.356		0.028	<0.016	<0.0789		0.133	0.011	0.03				<2	<2	<0.15
TC062420-OC	6/24/2020	9:00	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	22.28	7.95	145.4	8.35	<1	<1	<20	1.63	0.428		<0.012	<0.016	<0.0789		0.142	0.017	0.027				<2	<2	<0.15
TC070820-OC	7/8/2020	9:00	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	20.19	8.12	152.2	8.88	<1	<1		1.65	0.212		<0.012	<0.016	<0.0789		0.157	0.015	0.029				<2	<2	<0.15
TC072220-OC	7/22/2020	9:11	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	24.19	8.18	157.1	7.88	<1	<1	<20	1.88			0.027	<0.016			0.177	0.016	0.032				<2	<2	<0.15
TC080520-OC	8/5/2020	9:02	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	22.72	8.26	149.8	8.19	1	<1		1.69	0.44		<0.012	<0.016	<0.0789		0.21	0.023	0.042				<2	<2	<0.15
TC081920-OC	8/19/2020	9:00	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	23.34	8.2	156.7	7.88	1.4	1.79	<20	2.15	0.434		0.016	<0.016	<0.0789		0.24	0.036	<0.018				<2	<2	<0.15
TC090920-OC	9/9/2020	9:20	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	20.4	7.97	157	8.27	5.62	5.52		2.44	0.468		0.034	0.122	<0.0789		0.433	0.054	0.035				2	<2	<0.15
TC092320-OC	9/23/2020	9:00	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	17.86	8.27	156.8	9.28	3.36	1.77	<20	2.49	0.527		<0.012	0.072	0.0809		0.372	0.046	0.064				<2	<2	<0.15
TC100720-OC	10/7/2020	9:03	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	15.84	8.07	166.8	9.54	3.62	1.01		2.67	0.602		<0.012	0.055	0.0919		0.286	0.046	0.054				2.3	<2	<0.15
TC102120-OC	10/21/2020	9:09	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	15.59	8.4	172.8	9.6	274	165	<20	2.73	2.65		<0.012	<0.016	0.411		0.284	0.039	0.062				7.2	4.8	0.25
TC111820-OC	11/18/2020	10:35	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	10.54	7.87	96.5	10.83	6.77	6.33		3.41	1.23		0.012	0.215	0.156		0.498	0.027	0.034				9.3	2.8	
TC120920-OC	12/9/2020	10:09	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	6.494	8.08	169	10.59	2.03	2.34		2	0.34		0.012	0.273	<0.0789		0.476	0.026	0.051				<2	<2	
TG031820-OC	3/18/2020	7:06	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	8.753	7.74	159.1	10.68	2.5	1.54		1.25	0.268		<0.012	0.138	<0.0789		0.243	0.009	<0.018	0.00436	<0.0063	1.17	<2	<2	
TG050620-OC	5/6/2020	7:14	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	13.89	7.84	127.3	9.86	<1	<1		1.69	0.357		0.019	0.127	<0.0789		0.227	0.011	0.039	0.00615	<0.0063	1.58	3.2	<2	
TG051920-OC	5/19/2020	11:09	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	12.96	7.83	107.7	10.49																			<0.15
TG052020-OC	5/20/2020	6:59	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	12.8	7.68	111.7	10.1	<1	<1	<20	2.01	0.464		0.016	0.078	<0.0789		0.167	0.01	0.024	0.00751	<0.0063	4.01	5.5	<2	
TG060920-OC	6/9/2020	12:53	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	18.11	8.85	137.3	13.13																			<0.15
TG061020-OC	6/10/2020	8:30	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	15.96	7.58	138.2	8.85	<1	<1		1.54	0.234		0.012	0.022	<0.0789		0.131	<0.006	0.04	0.00395	<0.0063	0.808	<2	<2	
TG062320-OC	6/23/2020	10:21	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	21.55	6.29	147.3	10.4																			<0.15
TG062420-OC	6/24/2020	6:36	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	20.64	7.71	149.5	6.52	<1	1.01	<20	1.35	<0.1899		0.012	0.025	<0.0789		0.14	0.011	0.022	0.00522	<0.0063	0.678	<2	<2	
TG070720-OC	7/7/2020	11:04	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	20.05	8.65	152.7	11.54																			<0.15
TG070820-OC	7/8/2020	6:39	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	19.34	7.7	154.3	7.64	<1	1.51		1.33	0.223		0.012	0.025	<0.0789		0.183	0.008	0.024	0.00551	<0.0063	0.985	<2	<2	
TG072120-OC	7/21/2020	11:04	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	23	8.77	156.6	10.66																			<0.15
TG072220-OC	7/22/2020	7:14	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	22.1	7.15	180.8	6.87	1.61	1.49	<20	1.51			<0.012	0.02			0.151	0.007	<0.018			0.736	<2	<2	
TG080420-OC	8/4/2020	9:53	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	21.98	8.42	150.7	9.07																			<0.15
TG080520-OC	8/5/2020	6:44	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	21.47	7.95	151.1	7.04	<1	1.95		1.37	0.472		0.015	0.019	<0.0789		0.191	0.009	0.029	0.01011	<0.0063	0.988	2.2	<2	
TG081820-OC	8/18/2020	11:17	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	23.24	8.83	157.1	10.46																			0.8

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Type	Water Temperature °C	pH	Specific Conductivity µS/cm	Dissolved Oxygen mg/l	Algae Chlorophyll a µg/l	Algae Phosphoryl µg/l	Alkalinity mg/l	Carbon, Dissolved Organic Carbon mg/l	Carbon, Particulate Carbon mg/l	Demand, Carbonaceous Biological Oxygen Demand mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate+Nitrite mg/l	Nitrogen, Particulate Nitrogen mg/l	Nitrogen, Total Kjeldahl Nitrogen mg/l	Nitrogen, Total Nitrogen mg/l	Phosphorus, Phosphate mg/l	Phosphorus, Total Phosphorus mg/l	Phosphorus, Particulate Phosphorus mg/l	Phosphorus, Particulate Inorganic Phosphorus mg/l	Turbidity NTU	Solids, Total Suspended Solids mg/l	Solids, Volatile Suspended Solids mg/l	Toxins, Microcystin µg/l
TG081920-OC	8/19/2020	6:46	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	21.11	7.85	159.2	6.72	1.26	3.04	<20	1.79	0.396		0.015	0.02	<0.0789		0.209	0.016	0.026	0.01	<0.0063	1.12	<2	<2	
TG090820-OC	9/8/2020	9:55	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	20.93	8.65	156.4	9.98																			<0.15
TG090920-OC	9/9/2020	7:15	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	19.89	7.74	159.2	7.01	17.5	10.7		2.08	1.39		0.024	0.084	0.22		0.368	0.035	0.052	0.02251	0.015	2.22	4.1	<2	
TG092220-OC	9/22/2020	10:20	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	18.47	8.72	1520	10.52																			<0.15
TG092320-OC	9/23/2020	6:55	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	17.5	8.17	155.1	8	3.36	4.47	<20	2.08	0.868		<0.012	0.025	0.113		0.286	0.021	0.039	0.011	<0.0063	1.850	2.700	<2	
TG100620-OC	10/6/2020	12:01	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	16.69	8.75	163.3	12.62																			<0.15
TG100720-OC	10/7/2020	7:04	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	15.32	7.61	165.2	7.85	14.9	1.74		2	1.92		<0.012	0.020	0.276		0.206	0.027	0.038	0.028	0.012	4.000	5.200	4.500	
TG102020-OC	10/20/2020	9:50	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	15.78	8.37	170.2	10.48																			0.200
TG102120-OC	10/21/2020	7:19	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	15.51	7.89	172.5	7.75	113	71.8	<20	2.28	0.999		<0.012	0.025	0.152		0.238	0.026	0.035	0.018	<0.0063	3.920	2.700	<2	
TG111820-OC	11/18/2020	8:38	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	10.91	7.6	129	9.84	5.37	6.45		3.1	1.05		<0.012	0.273	0.125		0.516	0.019	0.069	0.019	0.007	5.280	8.000	2.200	
TG120920-OC	12/9/2020	8:12	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	7.934	7.68	171	10	<1	1.5		1.74	0.236		0.013	0.235	<0.0789		0.587	0.020	0.031	0.003	<0.0063	1.080	<2	<2	
LES031820-OC	3/18/2020	6:14	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	8.832	8.08	167.8	11.26	1.54	1.09		1.31	0.246		0.012	0.094	<0.0789		0.212	0.009	0.018				2.400	<2	
LES050620-OC	5/6/2020	6:36	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	14.01	7.91	120.9	9.87	<1	<1		1.64	0.269		0.016	0.105	<0.0789		0.223	0.009	0.025				2.800	<2	
LES051920-OC	5/19/2020	9:12	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	10.37	7.75																					<0.15
LES052020-OC	5/20/2020	6:16	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	12.61	7.73	109.2	10.17	<1	1.08	<20	2.08	0.426		0.012	0.093	<0.0789		0.186	0.010	0.027				5.800	<2	
LES060920-OC	6/9/2020	11:56	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	16.47	8.17	138.3	10.78																			<0.15
LES061020-OC	6/10/2020	6:23	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	16.81	7	137	9.24	<1	<1		1.63	0.298		0.018	<0.016	<0.0789		0.122	0.008	0.028			<2	<2		
LES062320-OC	6/23/2020	9:10	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	21.79	7.86	391.8	8.28																			<0.15
LES062420-OC	6/24/2020	6:02	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	21.94	7.86	475.1	7.7	<1	<1	<20	1.45	0.313		0.013	<0.016	<0.0789		0.163	0.011	0.025			<2	<2		
LES070720-OC	7/7/2020	10:15	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	19.31	7.94	1532	8.69																			<0.15
LES070820-OC	7/8/2020	6:03	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	19.52	8.07	1316	8.7	<1	1.05		2.3	0.281		<0.012	<0.016	<0.0789		0.097	0.010	0.023			<2	<2		
LES072120-OC	7/21/2020	9:02	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	22.37	8.3	960	8.24																			<0.15
LES072220-OC	7/22/2020	6:28	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	22.3	8.48	720	8.8	<1	<1	<20	1.57			<0.012	<0.016			0.143	0.009	0.022			<2	<2		
LES080420-OC	8/4/2020	11:10	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	22.19	8.03	2495	7.92																			<0.15
LES080520-OC	8/5/2020	6:05	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	15.57	8.01	41001	7.97	<1	1.27		1.39	0.37		0.014	<0.016	<0.0789		0.127	0.010	<0.018			<2	<2		
LES081820-OC	8/18/2020	10:18	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	21.63	7.96	2830	7.61																			<0.15
LES081920-OC	8/19/2020	6:16	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	21.83	8.21	1939	8.22	<1	1.75	<20	1.65	0.293		0.019	<0.016	<0.0789		0.151	0.018	0.030			<2	<2		

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Type	Water Temperature °C	pH	Specific Conductivity µS/cm	Dissolved Oxygen mg/l	Algae Chlorophyll a µg/l	Algae Phosphoryl µg/l	Alkalinity mg/l	Carbon, Dissolved Organic Carbon mg/l	Carbon, Particulate Carbon mg/l	Demand, Carbonaceous Biological Oxygen Demand mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate+Nitrite mg/l	Nitrogen, Particulate Nitrogen mg/l	Nitrogen, Total Kjeldahl Nitrogen mg/l	Nitrogen, Total Nitrogen mg/l	Phosphorus, Phosphate mg/l	Phosphorus, Total Phosphorus mg/l	Phosphorus, Particulate Phosphorus mg/l	Phosphorus, Particulate Inorganic Phosphorus mg/l	Turbidity NTU	Solids, Total Suspended Solids mg/l	Solids, Volatile Suspended Solids mg/l	Toxins, Microcystin µg/l
LES090820-OC	9/8/2020	8:58	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	10.95	8.14	1054	8.19																			<0.15
LES090920-OC	9/9/2020	6:40	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	20.27	7.97	1332	7.93	7	4.57			1.01		0.027	0.035	0.131		0.294	0.038	0.066				3.00 0	<2	
LES092220-OC	9/22/2020	9:40	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	18.4	8.19	2261	9.12																			<0.15
LES092320-OC	9/23/2020	6:15	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	17.9	8.34	3352	9.47	1.22	2.24	<20	1.63	0.331		<0.012	0.026	<0.0789		0.180	0.026	0.044				<2	<2	
LES100620-OC	10/6/2020	10:54	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	16.52	8.2	394	9.41																			0.240
LES100720-OC	10/7/2020	6:33	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	16.38	8.31	278.6	9.86	6.21	<1		2.27	1.07		<0.012	0.017	0.145		0.323	0.037	0.018				3.20 0	2.50 0	
LES102020-OC	10/20/2020	10:41	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	16.21	8.09	3179	9.47																			0.190
LES102120-OC	10/21/2020	6:34	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	15.67	8.04	2892	9.12	133	83.1	<20	1.88	1.23		<0.012	0.016	0.189		0.194	0.031	<0.018				4.60 0	2.60 0	
LES111820-OC	11/18/2020	7:37	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	11.04	7.5	326.6	9.61	3.41	4.94		3.24	1.05		0.016	0.325	0.110		0.583	0.016	0.055				8.30 0	2.00 0	
LES120920-OC	12/9/2020	7:36	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	7.99	7.89	368.1	11.72	<1	1.36		1.78	0.305		0.015	0.231	<0.0789		0.443	0.021	0.037				<2	<2	
SH031820-OC	3/18/2020	10:27	SH00000	Shasta River near mouth (Baseline)	Karuk	0.5	P	7.645	8.61	0.4751	11.99	2.7	1.4		1.68	0.453		<0.01	0.272			0.564	0.161	0.197			1.9	3.5		
SH041520-OC	4/15/2020	10:51	SH00000	Shasta River near mouth (Baseline)	Karuk	0.5	P	12.62	8.92	0.599	14.6	1.5	1.9		5.72	0.377		<0.01	0.012			0.649	0.183	0.231			0.54	0.89		
SH050620-OC	5/6/2020	10:53	SH00000	Shasta River near mouth (Baseline)	Karuk	0.5	P	15.65	8.64	0.621	11.37	1.2	0.9	287	6.16	0.433		<0.01	0.018			0.49	0.297	0.298			0.62	1		
SH061020-OC	6/10/2020	12:21	SH00000	Shasta River near mouth (Baseline)	Karuk	0.5	P	20.86	8.81	0.624	11.42	2.7	0.2		6.59	0.333		<0.01	<0.01			0.742	0.194	0.217			0.42	1.3		
SH070820-OC	7/8/2020	12:02	SH00000	Shasta River near mouth (Baseline)	Karuk	0.5	P	21.46	8.76	0.591	11	1.5	0.6		5.36	0.507		<0.01	<0.01			0.485	0.251	0.255			0.5	1.6		
SH080520-OC	8/5/2020	12:05	SH00000	Shasta River near mouth (Baseline)	Karuk	0.5	P	24.88	8.74	0.55	10.31	2	1		4.41	0.404		0.01	<0.01			0.445	0.23	0.259			0.46	1.8		
SH100720-OC	10/7/2020	12:00	SH00000	Shasta River near mouth (Baseline)	Karuk	0.5	P	13.38	8.7	0.489	10.68	1.2	1.4		2.09	0.379		<0.01	<0.01			0.454	0.169	0.177			1.4	3		
SH111820-OC	11/18/2020	12:04	SH00000	Shasta River near mouth (Baseline)	Karuk	0.5	P	9.311	8.66	0.4492	11.37	2.8	1.4		3.06	0.397		<0.01	0.188			0.615	0.187	0.199			1.1	2.3		
SH120920-OC	12/9/2020	11:57	SH00000	Shasta River near mouth (Baseline)	Karuk	0.5	P	5.956	8.66	0.4217	12.36	3.7	1.6		1.24	0.467		<0.01	0.249			0.532	0.158	0.191			0.5	2.4		
SC031820-OC	3/18/2020	9:19	SC00000	Scott River near mouth (Baseline)	Karuk	0.5	P	6.767	8.37	0.204	11.92	3.2	0.7		1.08	0.332		<0.01	0.336			0.517	0.001	0.007			0.36	1.4		
SC041520-OC	4/15/2020	9:33	SC00000	Scott River near mouth (Baseline)	Karuk	0.5	P	10.85	8.33	0.1688	10.91	2.4	1.5		1.71	0.597		<0.01	0.147			0.321	0.002	0.012			0.84	3.3		
SC050620-OC	5/6/2020	9:41	SC00000	Scott River near mouth (Baseline)	Karuk	0.5	P	12.66	8.38	0.1365	10.77	0.7	2.2	71.2	2.11	0.485		<0.01	0.117			0.393	0.002	0.015			1.3	3.4		
SC061020-OC	6/10/2020	10:05	SC00000	Scott River near mouth (Baseline)	Karuk	0.5	P	16.85	8.54	0.1829	9.87	1.6	1.5		1.46	0.532		0.012	0.118			0.504	0.004	0.012			0.51	2.4		
SC070820-OC	7/8/2020	10:35	SC00000	Scott River near mouth (Baseline)	Karuk	0.5	P	20.57	8.59	0.2153	9.51	0.9	1		1.03	0.483		<0.01	0.016			0.132	0.003	0.013			0.36	1.6		
SC080520-OC	8/5/2020	9:48	SC00000	Scott River near mouth (Baseline)	Karuk	0.5	P	23.82	8.41	0.2442	8.61	0.5	1		1.13	0.291		<0.01	0.015			0.118	0.001	0.012			0.36	0.6		
SC100720-OC	10/7/2020	10:21	SC00000	Scott River near mouth (Baseline)	Karuk	0.5	P	13.84	8.71	0.1726	11.21	0.5	0.6		0.608	0.237		0.014	<0.01			0.195	<0.001	0.008			0.31	<0.5		
SC111820-OC	11/18/2020	10:40	SC00000	Scott River near mouth (Baseline)	Karuk	0.5	P	8.584	8.33	0.1751	11.29	2.7	0.2		3.43	0.682		<0.01	0.046			0.395	<0.001	0.014			0.64	3.5		

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Type	Water Temperature °C	pH	Specific Conductivity µS/cm	Dissolved Oxygen mg/l	Algae Chlorophyll a µg/l	Algae Phosphoryl µg/l	Salinity mg/l	Carbon, Dissolved Organic Carbon mg/l	Carbon, Particulate Carbon mg/l	Demand, Carbonaceous Biological Oxygen Demand mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate+Nitrite mg/l	Nitrogen, Particulate Nitrogen mg/l	Nitrogen, Total Kjeldahl Nitrogen mg/l	Nitrogen, Total Nitrogen mg/l	Phosphorus, Phosphate mg/l	Phosphorus, Total Phosphorus mg/l	Phosphorus, Particulate Phosphorus mg/l	Phosphorus, Particulate Inorganic Phosphorus mg/l	Turbidity NTU	Solids, Total Suspended Solids mg/l	Solids, Volatile Suspended Solids mg/l	Toxins, Microcystin µg/l
SC120920-OC	12/9/2020	10:55	SC00000	Scott River near mouth (Baseline)	Karuk	0.5	P	3.584	8.38	0.2407	13.21	2.3	<0.1		0.735	0.202		<0.01	0.013			0.27	0.002	0.003			0.23	1.3		
SA031820-OC	3/18/2020	7:15	SA00000	Salmon River near mouth (Baseline)	Karuk	0.5	P	6.177	8.15	0.0945	12.28	1.1	<0.1		0.642	0.228		<0.01	0.061			0.191	<0.001	0.005			0.27	0.6		
SA041520-OC	4/15/2020	7:25	SA00000	Salmon River near mouth (Baseline)	Karuk	0.5	P	9.696	8.05	0.0756	11.46	1.6	1.2		1.61	0.552		0.013	0.088			0.177	<0.001	0.006			0.39	2.1		
SA050620-OC	5/6/2020	7:23	SA00000	Salmon River near mouth (Baseline)	Karuk	0.5	P	11.54	7.79	0.0667	11.05	4.5	1.2	33.6	2.42	0.81		<0.01	0.031			0.256	<0.001	0.013			0.55	6.6		
SA061020-OC	6/10/2020	7:33	SA00000	Salmon River near mouth (Baseline)	Karuk	0.5	P	14.66	7.88	0.0806	10.08	2.1	1.2		0.944	1.57		<0.01	<0.01			0.541	0.003	0.025			0.75	13		
SA070820-OC	7/8/2020	7:28	SA00000	Salmon River near mouth (Baseline)	Karuk	0.5	P	18.2	7.96	0.1099	9.2	1.1	<0.1		0.574	0.355		<0.01	<0.01			<0.5	<0.001	0.003			<0.1	<0.5		
SA080520-OC	8/5/2020	7:23	SA00000	Salmon River near mouth (Baseline)	Karuk	0.5	P	20.5	7.87	0.1289	8.55	0.5	0.8		0.622	0.27		<0.01	<0.01			0.068	0.002	0.007			0.17	0.8		
SA100720-OC	10/7/2020	7:40	SA00000	Salmon River near mouth (Baseline)	Karuk	0.5	P	13.73	7.94	0.1442	9.72	1.4	0.3		0.445	0.531		0.013	0.033			0.207	0.002	0.015			1.1	4.2		
SA111820-OC	11/18/2020	8:19	SA00000	Salmon River near mouth (Baseline)	Karuk	0.5	P	9.531	7.97	0.0964	11.26	3.2	0.8		3.26	1.18		<0.01	0.063			0.419	0.005	0.026			1.6	6.5		
SA120920-OC	12/9/2020	8:30	SA00000	Salmon River near mouth (Baseline)	Karuk	0.5	P	4.96	7.87	0.1193	12.71	0.5	<0.1		0.619	<0.1899		<0.01	<0.01			0.165	0.001	0.003			0.22	<0.5		
TR031820-OC	3/18/2020	10:00	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	7.854	8.09	162.9	11.98	<1	<1		0.91	<0.1899		<0.012	<0.016	<0.0789		<0.06	<0.006	<0.018			0.701	<2	<2	
TR050620-OC	5/6/2020	10:38	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	13.93	8.17	121.1	10.56	<1	<1		1.48	0.239		<0.012	<0.016	<0.0789		<0.06	<0.006	<0.018			1.260	2.800	<2	
TR052020-OC	5/20/2020	10:09	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	12.84	7.9	116.8	10.65	<1	<1	<20	1.85	0.37		<0.012	<0.016	<0.0789		0.094	<0.006	<0.018			3.160	5.400	<2	<0.15
TR061020-OC	6/10/2020	10:21	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	17.02	8.05	135.8	9.74	<1	<1		1.54	<0.1899		0.018	<0.016	<0.0789		0.074	<0.006	<0.018			0.575	<2	<2	
TR062420-OC	6/24/2020	10:12	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	22.85	8.02	139.7	8.62	<1	<1	<20	1.42	0.2		<0.012	<0.016	<0.0789		0.075	<0.006	<0.018			0.880	<2	<2	<0.15
TR070820-OC	7/8/2020	9:52	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	20.3	8.11	152.9	9.25	<1	<1		1.11	0.22		<0.012	<0.016	<0.0789		0.088	<0.006	<0.018			0.941	<2	<2	
TR072220-OC	7/22/2020	0:10	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	24.41	8.23	152.1	8.47	<1	<1	<20	1.12			<0.012	<0.016			0.069	<0.006	<0.018			0.533	<2	<2	<0.15
TR080520-OC	8/5/2020	10:09	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	22.53	8.38	141.1	8.9	<1	<1		0.974	<0.1899		<0.012	<0.016	<0.0789		0.078	<0.006	<0.018			0.356	<2	<2	
TR081920-OC	8/19/2020	9:51	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	23.01	8.24	146.6	8.52	<1	<1	<20	1.1	<0.1899		0.015	<0.016	<0.0789		0.124	<0.006	<0.018			0.612	<2	<2	<0.15
TR090920-OC	9/9/2020	10:14	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	19.63	7.98	144.6	8.83	1.33	<1		0.951	0.209		<0.012	<0.016	<0.0789		0.086	<0.006	<0.018			0.766	<2	<2	
TR092320-OC	9/23/2020	9:47	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	16.84	8.16	136.8	9.93	<1	<1	<20	1.02	0.226		<0.012	<0.016	<0.0789		0.068	<0.006	<0.018			0.867	<2	<2	<0.15
TR100720-OC	10/7/2020	9:52	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	13.91	7.99	146.3	10.32	<1	<1		1.23	<0.1899		<0.012	<0.016	<0.0789		<0.06	<0.006	<0.018			1.230	<2	<2	
TR102120-OC	10/21/2020	10:38	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	16.01	8.19	160	9.93	13.3	9	<20	0.9	<0.1899		<0.012	<0.016	<0.0789		<0.06	<0.006	<0.018			0.458	<2	<2	0.160
TR111820-OC	11/18/2020	11:28	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	10.24	7.96	97.5	11.02	1.82	1.31		1.93			<0.012	0.045			0.102	<0.006	0.024			2.640	<2	<2	
TR120920-OC	12/9/2020	10:48	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	7.486	8.06	174.1	12.37	<1	<1		0.917			0.013	<0.016			<0.06	<0.006	<0.018			0.274	<2	<2	

Errata Table D-1. 2020 Public Health Dataset. NS indicates either analysis for a sample was not conducted or a sample that was not collected. Sample IDs for Karuk and Yurok algae species data were assigned based on date and location and matched with microcystin sample IDs as no unique sample IDs were provided to the algae speciation laboratory for analysis. Microcystin test results of non-detect or values less than the reporting limit of 0.15 µg/l have been replaced with <0.15 µg/l. Algae genera names were updated to reflect the newest nomenclature of the field: *Anabaena* was renamed *Dolichospermum* and *Oscillatoria* was renamed *Planktothrix* for all species.

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Microcystin ug/l	Dolichospermum flos-aquae cells/ml	Anabaena flos-aquae cells/ml	Microcystis aeruginosa cells/ml	Dolichospermum circinalis cells/ml	Dolichospermum planctonica cells/ml	Dolichospermum sp. cells/ml	Anabaena non sp. cells/ml	Geothrix aetnula cells/ml	Lyngbya sp. cells/ml	Planktothrix limosa cells/ml	Planktothrix sp. cells/ml	Pseudodolichospermum sp. cells/ml	Dolichospermum variabilis cells/ml	Limothrix sp. cells/ml	Cyndrospermopsis sp. cells/ml	Planktolyngbya sp. cells/ml
UKEP20001	6/15/2020	10:04	UKEP	Upper Klamath Lake at Eagle Ridge County Park (Public Health)	ODEQ	0.1	0.48	4131	113266	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UKEP20202	6/30/2020	10:30	UKEP	Upper Klamath Lake at Eagle Ridge County Park (Public Health)	ODEQ	0.1	0.41	0	540815	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UKEP20203	7/13/2020	10:45	UKEP	Upper Klamath Lake at Eagle Ridge County Park (Public Health)	ODEQ	0.1	0.43	0	832032	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UKEP20204	7/28/2020	10:30	UKEP	Upper Klamath Lake at Eagle Ridge County Park (Public Health)	ODEQ	0.1	<0.15	289	45794	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UKEP20205	8/10/2020	10:37	UKEP	Upper Klamath Lake at Eagle Ridge County Park (Public Health)	ODEQ	0.1	3.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKEP20206	8/24/2020	10:18	UKEP	Upper Klamath Lake at Eagle Ridge County Park (Public Health)	ODEQ	0.1	0.12	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKEP20207	9/8/2020	10:53	UKEP	Upper Klamath Lake at Eagle Ridge County Park (Public Health)	ODEQ	0.1	1.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKEP20208	9/22/2020	10:25	UKEP	Upper Klamath Lake at Eagle Ridge County Park (Public Health)	ODEQ	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKEP20209	10/5/2020	10:35	UKEP	Upper Klamath Lake at Eagle Ridge County Park (Public Health)	ODEQ	0.1	1.9	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKEP20210	10/19/2020	11:28	UKEP	Upper Klamath Lake at Eagle Ridge County Park (Public Health)	ODEQ	0.1	22	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKEP20211	12/21/2020	10:30	UKEP	Upper Klamath Lake at Eagle Ridge County Park (Public Health)	ODEQ	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKHP20001	6/15/2020	10:26	UKHP	Upper Klamath Lake at Howard's Bay Park (Public Health)	ODEQ	0.1	0.16	0	133581	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UKHP20202	6/30/2020	10:58	UKHP	Upper Klamath Lake at Howard's Bay Park (Public Health)	ODEQ	0.1	0.2	0	233242	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UKHP20203	7/13/2020	11:12	UKHP	Upper Klamath Lake at Howard's Bay Park (Public Health)	ODEQ	0.1	0.11	0	105703	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UKHP20204	7/28/2020	10:56	UKHP	Upper Klamath Lake at Howard's Bay Park (Public Health)	ODEQ	0.1	<0.15	0	245721	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UKHP20205	8/10/2020	11:05	UKHP	Upper Klamath Lake at Howard's Bay Park (Public Health)	ODEQ	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKHP20206	8/24/2020	10:43	UKHP	Upper Klamath Lake at Howard's Bay Park (Public Health)	ODEQ	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKHP20207	9/8/2020	11:18	UKHP	Upper Klamath Lake at Howard's Bay Park (Public Health)	ODEQ	0.1	1.9	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKHP20208	9/22/2020	10:48	UKHP	Upper Klamath Lake at Howard's Bay Park (Public Health)	ODEQ	0.1	99	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKHP20209	10/5/2020	10:58	UKHP	Upper Klamath Lake at Howard's Bay Park (Public Health)	ODEQ	0.1	13	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKHP20210	10/19/2020	11:50	UKHP	Upper Klamath Lake at Howard's Bay Park (Public Health)	ODEQ	0.1	26	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKHP20211	12/21/2020	10:55	UKHP	Upper Klamath Lake at Howard's Bay Park (Public Health)	ODEQ	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKMP20001	6/15/2020	10:47	UKMP	Upper Klamath Lake at Moore Park (Public Health)	ODEQ	0.1	0.11	515	78771	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UKMP20202	6/30/2020	11:18	UKMP	Upper Klamath Lake at Moore Park (Public Health)	ODEQ	0.1	0.1	0	181709	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Microcystin ug/l	Dolichospermum flos- aquae	Aphanizomenon flos- aquae	Microcystis aeruginosa	Dolichospermum seriellalis	Dolichospermum planctonica	Dolichospermum sp.	Aphanizomenon sp.	Gloeothrix echinulata	Lyngbya sp.	Planctothrix limosa	Planctothrix sp.	Pseudodolichospermum sp.	Dolichospermum variabilis	Limnolthrix sp.	Cyandrospermopsis sp.	Planctolyngbya sp.
UKMP20203	7/13/2020	11:35	UKMP	Upper Klamath Lake at Moore Park (Public Health)	ODEQ	0.1	0.1	0	3695193	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UKMP20204	7/28/2020	11:15	UKMP	Upper Klamath Lake at Moore Park (Public Health)	ODEQ	0.1	<0.15	0	1023597	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UKMP20205	8/10/2020	11:23	UKMP	Upper Klamath Lake at Moore Park (Public Health)	ODEQ	0.1	0.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKMP20206	8/24/2020	11:00	UKMP	Upper Klamath Lake at Moore Park (Public Health)	ODEQ	0.1	0.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKMP20207	9/8/2020	11:35	UKMP	Upper Klamath Lake at Moore Park (Public Health)	ODEQ	0.1	110	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKMP20208	9/22/2020	11:05	UKMP	Upper Klamath Lake at Moore Park (Public Health)	ODEQ	0.1	1.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKMP20209	10/5/2020	11:15	UKMP	Upper Klamath Lake at Moore Park (Public Health)	ODEQ	0.1	2.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKMP20210	10/19/2020	12:10	UKMP	Upper Klamath Lake at Moore Park (Public Health)	ODEQ	0.1	7.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKMP20211	12/21/2020	11:15	UKMP	Upper Klamath Lake at Moore Park (Public Health)	ODEQ	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KEKP20202	6/30/2020	9:36	KEKP	Keno Reservoir at Keno Park (Public Health)	ODEQ	0.1	0.18	0	137471	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KEKP20203	7/13/2020	9:45	KEKP	Keno Reservoir at Keno Park (Public Health)	ODEQ	0.1	3.7	0	171874	15445	0	0	0	0	0	0	0	0	0	0	0	0	0
KEKP20204	7/28/2020	9:38	KEKP	Keno Reservoir at Keno Park (Public Health)	ODEQ	0.1	<0.15	0	198948	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KEKP20205	8/10/2020	9:42	KEKP	Keno Reservoir at Keno Park (Public Health)	ODEQ	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KEKP20206	8/24/2020	9:24	KEKP	Keno Reservoir at Keno Park (Public Health)	ODEQ	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KEKP20207	9/8/2020	9:52	KEKP	Keno Reservoir at Keno Park (Public Health)	ODEQ	0.1	0.18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KEKP20208	9/22/2020	9:34	KEKP	Keno Reservoir at Keno Park (Public Health)	ODEQ	0.1	0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KEKP20209	10/5/2020	9:38	KEKP	Keno Reservoir at Keno Park (Public Health)	ODEQ	0.1	0.14	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KEKP20210	10/19/2020	10:11	KEKP	Keno Reservoir at Keno Park (Public Health)	ODEQ	0.1	0.24	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BRTC20001	6/15/2020	9:05	BRTC	J.C. Boyle Reservoir at Topsy Campground (Public Health)	ODEQ	0.1	0.3	82	6765	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRTC20202	6/30/2020	9:12	BRTC	J.C. Boyle Reservoir at Topsy Campground (Public Health)	ODEQ	0.1	0.23	0	16363	0	0	0	0	0	0	0	743	0	0	0	0	0	0
BRTC20203	7/13/2020	9:20	BRTC	J.C. Boyle Reservoir at Topsy Campground (Public Health)	ODEQ	0.1	0.13	0	11528	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRTC20204	7/28/2020	9:15	BRTC	J.C. Boyle Reservoir at Topsy Campground (Public Health)	ODEQ	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRTC20205	8/10/2020	9:21	BRTC	J.C. Boyle Reservoir at Topsy Campground (Public Health)	ODEQ	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BRTC20206	8/24/2020	9:02	BRTC	J.C. Boyle Reservoir at Topsy Campground (Public Health)	ODEQ	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BRTC20207	9/8/2020	9:30	BRTC	J.C. Boyle Reservoir at Topsy Campground (Public Health)	ODEQ	0.1	0.17	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BRTC20208	9/22/2020	9:15	BRTC	J.C. Boyle Reservoir at Topsy Campground (Public Health)	ODEQ	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BRTC20209	10/5/2020	9:18	BRTC	J.C. Boyle Reservoir at Topsy Campground (Public Health)	ODEQ	0.1	0.16	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BRTC20210	10/19/2020	9:34	BRTC	J.C. Boyle Reservoir at Topsy Campground (Public Health)	ODEQ	0.1	0.22	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Microcystin ug/l	Dolichospermum flos- aquae	Aphanizomenon flos- aque	Microcystis aeruginosa	Dolichospermum scindalis	Dolichospermum planctonica	Dolichospermum sp.	Aphanizomenon sp.	Gloeothrix echinulata	Lyngbya sp.	Pranktithrix limosa	Pranktithrix sp.	Pseudodolichospermum sp.	Dolichospermum variabilis	Limnodithrix sp.	Cyandrospermopsis sp.	Pranktithrix sp.
BRTC20211	12/21/2020	9:26	BRTC	J.C. Boyle Reservoir at Topsy Campground (Public Health)	ODEQ	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20801	5/28/2020	13:50	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	2.1	0	0	0	0	0	0	0	0	0	17134	0	0	0	0	0	0
KR20806	6/9/2020	14:05	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20811	6/23/2020	8:40	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	<0.15	0	11581	689	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20816	7/8/2020	11:05	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	0.17	115	9341	975	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20821	7/21/2020	14:45	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	43	17443	2645867	168695	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20826	8/5/2020	12:00	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	290	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20831_Aug	8/18/2020	12:35	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	46000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20832_Sept	9/16/2020	15:00	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	510	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20837	9/27/2020	14:50	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20842	10/11/2020	12:15	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	120	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20847	10/25/2020	15:00	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	0.83	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20852	11/15/2020	13:30	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	2.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20857	12/6/2020	14:20	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	0.16	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20800	5/28/2020	15:25	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	<0.15	0	0	0	0	0	0	0	0	0	588	0	0	0	0	0	0
KR20805	6/9/2020	17:20	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20810	6/23/2020	10:05	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20815	7/8/2020	13:30	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	28	20500	56375	276238	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20820	7/21/2020	15:55	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	22	1634	107148	230075	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20825	8/5/2020	15:25	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	62	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20830	8/18/2020	13:50	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	3600	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20831_Sept	9/16/2020	19:10	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	1.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20836	9/27/2020	16:00	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	190	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20841	10/11/2020	15:40	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	28	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20846	10/25/2020	15:40	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	3.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20851	11/15/2020	17:05	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	5.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20856	12/6/2020	17:55	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20803	5/28/2020	12:45	IGIW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Microcystin ug/l	Dolichospermum flos- aquae	Aphanizomenon flos- aque	Microcystis aeruginosa	Dolichospermum scindalis	Dolichospermum planctonica	Dolichospermum sp.	Aphanizomenon sp.	Gloeothrix echinulata	Lyngbya sp.	Pranktitrix limosa	Pranktitrix sp.	Pseudodolichospermum sp.	Dolichospermum variabilis	Limnoditrix sp.	Cyandrospermopsis sp.	Pranktolyngbya sp.
KR20808	6/9/2020	10:10	IGJW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	<0.15	0	889	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20813	6/23/2020	7:50	IGJW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	<0.15	0	17	0	0	0	0	0	0	0	0	0	0	0	0	51	0
KR20818	7/8/2020	8:15	IGJW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	0.27	252	28928	379	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20823	7/21/2020	14:00	IGJW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	2.5	1148	6025	0	0	0	0	0	80130	0	0	0	0	0	0	0	0
KR20828	8/5/2020	9:00	IGJW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	4.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20833_Aug	8/18/2020	11:50	IGJW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	11	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20834_Sept	9/16/2020	13:30	IGJW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	220	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20839	9/27/2020	14:10	IGJW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	1.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20844	10/11/2020	9:35	IGJW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20849	10/25/2020	14:15	IGJW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	0.17	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20854	11/15/2020	10:45	IGJW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	0.18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20859	12/6/2020	11:10	IGJW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20802	5/28/2020	13:10	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20807	6/9/2020	11:20	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20812	6/23/2020	8:05	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	<0.15	3050	82	599	0	0	0	0	0	0	381	0	0	0	0	0	0
KR20817	7/8/2020	8:30	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	0.44	6681	93478	261	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20822	7/21/2020	14:15	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	37	0	42019	0	0	0	0	0	67423099	0	0	0	0	0	0	0	0
KR20827	8/5/2020	9:15	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	260	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20832_Aug	8/18/2020	12:05	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	11	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20833_Sept	9/16/2020	13:50	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	2.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20838	9/27/2020	14:25	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	1.6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20843	10/11/2020	9:50	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	4.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20848	10/25/2020	14:25	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	0.24	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20853	11/15/2020	11:00	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	0.16	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20858	12/6/2020	11:25	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20804	5/28/2020	14:30	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	<0.15	0	0	0	0	0	0	0	0	0	132	0	0	0	0	0	0
KR20809	6/9/2020	15:00	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20814	6/23/2020	10:50	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Microcystin ug/l	Dolichospermum flos- aquae	Aphanizomenon flos- aque	Microcystis aeruginosa	Dolichospermum serioides	Dolichospermum planctonicum	Dolichospermum sp.	Aphanizomenon sp.	Geotrichia echinulata	Lyngbya sp.	Prankctrix limosa	Prankctrix sp.	Pseudodolichospermum sp.	Dolichospermum variabilis	Limnodinium sp.	Cyandropsis sp.	Prankctrix sp.
KR20819	7/8/2020	14:15	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	<0.15	0	195	0	0	0	0	0	0	0	54	0	0	0	0	0	0
KR20824	7/21/2020	16:30	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IG072220-SG	7/22/2020	12:52	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	Karuk	0.1	NS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20829	8/5/2020	12:55	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	0.24	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20834_Aug	8/18/2020	14:30	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	0.21	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20835	9/16/2020	16:30	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	0.72	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20840	9/27/2020	16:40	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	2.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20845	10/11/2020	13:15	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	0.31	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20850	10/25/2020	16:20	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	0.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20855	11/15/2020	14:50	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20860	12/6/2020	15:15	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB061720-SG	6/17/2020	11:05	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	NS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IB070120-SG	7/1/2020	12:07	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	NS	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0	0
IB070820-SG	7/8/2020	11:49	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB072920-SG	7/29/2020	10:56	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	0.16	0	271	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IB080520-SG	8/5/2020	11:49	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB081220-SG	8/12/2020	10:48	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	0.19	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB081920-SG	8/19/2020	11:27	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB082620-SG	8/26/2020	10:53	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	0.36	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB090220-SG	9/2/2020	10:48	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	0.43	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB091620-SG	9/16/2020	10:34	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	0.41	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB092320-SG	9/23/2020	11:27	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB093020-SG	9/30/2020	10:35	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	0.22	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB100720-SG	10/7/2020	11:44	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB101420-SG	10/14/2020	11:28	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	0.54	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB102820-SG	10/28/2020	10:19	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB110420-SG	11/4/2020	10:50	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BB061720-SG	6/17/2020	10:20	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	NS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Microcystin	Dolichospermum flos-aquae	Aphanizomenon flos-aquae	Microcystis aeruginosa	Dolichospermum circinalis	Dolichospermum planctonica	Dolichospermum sp.	Aphanizomenon sp.	Gloeothrix echinulata	Lyngbya sp.	Pranktithrix limosa	Pranktithrix sp.	PseudDolichospermum sp.	Dolichospermum variabilis	Limnodithrix sp.	Cylindrocapsa sp.	Pranktilyngbya sp.
							ug/l	cells/ml	cells/ml	cells/ml	cells/ml	cells/ml	cells/ml	cells/ml	cells/ml	cells/ml	cells/ml	cells/ml	cells/ml	cells/ml	cells/ml	cells/ml	cells/ml
B8070120-SG	7/1/2020	11:20	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	NS	0	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0
B8070820-SG	7/8/2020	14:33	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
B8072920-SG	7/29/2020	10:14	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B8080520-SG	8/5/2020	10:30	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
B8081220-SG	8/12/2020	9:52	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
B8081920-SG	8/19/2020	10:17	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
B8082620-SG	8/26/2020	10:15	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
B8090220-SG	9/2/2020	9:49	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	0.49	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
B8091620-SG	9/16/2020	9:49	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
B8092320-SG	9/23/2020	10:18	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
B8093020-SG	9/30/2020	9:50	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	1.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
B8100720-SG	10/7/2020	10:45	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
B8101420-SG	10/14/2020	10:41	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	0.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
B8102820-SG	10/28/2020	9:37	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
B8110420-SG	11/4/2020	10:09	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
SV061720-SG	6/17/2020	9:44	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	NS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SV070120-SG	7/1/2020	10:46	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	NS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SV070820-SG	7/8/2020	10:01	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
SV072920-SG	7/29/2020	9:34	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	<0.15	0	0	0	0	0	0	0	0	0	52	0	0	249	0	0	
SV080520-SG	8/5/2020	9:15	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
SV081220-SG	8/12/2020	9:17	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
SV081920-SG	8/19/2020	9:14	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
SV082620-SG	8/26/2020	9:41	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
SV090220-SG	9/2/2020	9:12	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	0.24	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
SV092320-SG	9/23/2020	9:30	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
SV093020-SG	9/30/2020	9:18	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	1.6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
SV100720-SG	10/7/2020	9:43	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
SV101420-SG	10/14/2020	10:08	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Microcystin ug/l	Dolichospermum flos- aquae	Aphanizomenon flos- aquae	Microcystis aeruginosa	Dolichospermum scindalis	Dolichospermum planctonica	Dolichospermum sp.	Aphanizomenon sp.	Gloeothrix echinulata	Lyngbya sp.	Pranktithrix limosa	Pranktithrix sp.	Pseudodolichospermum sp.	Dolichospermum variabilis	Limnodithrix sp.	Cyndrospermopsis sp.	Pranktithrix sp.
SV102820-SG	10/28/2020	9:07	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SV110420-SG	11/4/2020	9:37	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HC061720-SG	6/17/2020	8:53	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	NS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HC070120-SG	7/1/2020	8:32	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	NS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HC070820-SG	7/8/2020	6:41	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HC072920-SG	7/29/2020	8:52	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	<0.15	0	55	0	0	0	0	0	0	0	0	0	0	94	0	0	0
HC080520-SG	8/5/2020	8:15	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HC081220-SG	8/12/2020	8:23	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HC081920-SG	8/19/2020	8:26	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HC082620-SG	8/26/2020	8:52	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HC090220-SG	9/2/2020	8:31	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	0.23	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HC092320-SG	9/23/2020	8:26	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HC093020-SG	9/30/2020	8:36	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	1.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HC100720-SG	10/7/2020	8:32	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HC101420-SG	10/14/2020	9:01	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	0.17	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HC102820-SG	10/28/2020	8:12	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	0.17	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HC110420-SG	11/4/2020	8:53	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR061720-SG	6/17/2020	7:54	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	NS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OR070120-SG	7/1/2020	7:34	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	NS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OR070820-SG	7/8/2020	7:03	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR072220-SG	7/22/2020	6:55	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	NS	0	0	0	0	0	0	0	0	0	0	0	0	307	0	0	0
OR072920-SG	7/29/2020	7:48	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	712	0	0	0
OR080520-SG	8/5/2020	7:00	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR081220-SG	8/12/2020	7:32	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR081920-SG	8/19/2020	7:00	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR082620-SG	8/26/2020	7:46	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR090220-SG	9/2/2020	7:34	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	0.26	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR091620-SG	9/16/2020	7:22	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Microcystin ug/l	Dolichospermum flos- aquae	Aphanizomenon flos- aque	Microcystis aeruginosa	Dolichospermum seriocalis	Dolichospermum planctonica	Dolichospermum sp.	Aphanizomenon sp.	Gloeothrix echinulata	Lyngbya sp.	Prankctrix limosa	Prankctrix sp.	Pseudodolichospermum sp.	Dolichospermum variabilis	Limnodinium sp.	Cyandrospermopsis sp.	Prankctrix lyngbya sp.
OR092320-SG	9/23/2020	7:05	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR093020-SG	9/30/2020	7:42	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR100720-SG	10/7/2020	7:13	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR101420-SG	10/14/2020	7:53	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR102820-SG	10/28/2020	7:21	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	0.19	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR110420-SG	11/4/2020	8:00	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WE061020-SG	6/10/2020	10:43	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WE062420-SG	6/24/2020	10:42	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WE070120-SG	7/1/2020	9:00	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	0.36	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WE070820-SG	7/8/2020	10:08	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	3.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WE071420-SG	7/14/2020	9:28	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WE072220-SG	7/22/2020	12:47	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	NS	0	0	0	0	0	79	0	0	0	0	0	0	3001	0	0	0
WE072820-SG	7/28/2020	12:47	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WE080520-SG	8/5/2020	10:26	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WE081120-SG	8/11/2020	10:41	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WE081920-SG	8/19/2020	10:13	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WE082620-SG	8/26/2020	10:42	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WE090920-SG	9/9/2020	10:50	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WE091620-SG	9/16/2020	9:20	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WE092320-SG	9/23/2020	10:08	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WE093020-SG	9/30/2020	10:32	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	2.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WE100720-SG	10/7/2020	10:11	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	4.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WE101320-SG	10/13/2020	11:57	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	2.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WE102120-SG	10/21/2020	11:03	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	3.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WE102720-SG	10/27/2020	9:58	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	3.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WE110320-SG	11/3/2020	11:01	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	2.6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WE111820-SG	11/18/2020	11:47	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG060920-SG	6/9/2020	12:53	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Microcystin ug/l	Dolichospermum flos- aquae	Aphanizomenon flos- aquae	Microcystis aeruginosa	Dolichospermum scindalis	Dolichospermum planctonica	Dolichospermum sp.	Aphanizomenon sp.	Gloeothrix echinulata	Lyngbya sp.	Planctothrix limosa	Planctothrix sp.	Pseudodolichospermum sp.	Dolichospermum variabilis	Limnodinium sp.	Cylindrocapsa sp.	Planctolyngbya sp.
TG062320-SG	6/23/2020	10:21	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TG063020-SG	6/30/2020	12:59	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG070720-SG	7/7/2020	11:04	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TG071520-SG	7/15/2020	9:39	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG072120-SG	7/21/2020	11:04	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	NS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TG072920-SG	7/29/2020	11:48	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG080420-SG	8/4/2020	9:57	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG081220-SG	8/12/2020	9:23	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG081820-SG	8/18/2020	11:34	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG082520-SG	8/25/2020	10:10	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG090120-SG	9/1/2020	12:49	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG090820-SG	9/8/2020	10:27	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	0.16	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG091520-SG	9/15/2020	11:00	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG092220-SG	9/22/2020	10:20	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG092920-SG	9/29/2020	12:37	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG100620-SG	10/6/2020	12:02	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	2.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG101420-SG	10/14/2020	9:56	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG102020-SG	10/20/2020	9:50	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	0.88	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG102820-SG	10/28/2020	10:47	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	1.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG110320-SG	11/3/2020	13:26	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG111720-SG	11/17/2020	10:00	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS060920-SG	6/9/2020	13:27	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SS062320-SG	6/23/2020	9:44	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SS063020-SG	6/30/2020	12:33	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS070720-SG	7/7/2020	12:00	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SS071520-SG	7/15/2020	10:17	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS072120-SG	7/21/2020	9:44	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	NS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SS072920-SG	7/29/2020	12:35	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Microcystin ug/l	Dolichospermum flos- aquae	Aphanizomenon flos- aquae	Microcystis aeruginosa	Dolichospermum serinalis	Dolichospermum planctonica	Dolichospermum sp.	Aphanizomenon sp.	Geotrichia echinulata	Lyngbya sp.	Planctothrix limosa	Planctothrix sp.	Pseudodolichospermum sp.	Dolichospermum variabilis	Limnodithrix sp.	Cylindrocapsa sp.	Planctocylindrocapsa sp.
SS080420-SG	8/4/2020	9:09	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS081220-SG	8/12/2020	9:51	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	0.22	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS081820-SG	8/18/2020	12:21	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS082520-SG	8/25/2020	9:30	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS090120-SG	9/1/2020	12:16	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS090820-SG	9/8/2020	12:15	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS091520-SG	9/15/2020	10:28	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS092220-SG	9/22/2020	11:00	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS092920-SG	9/29/2020	12:54	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS100620-SG	10/6/2020	12:40	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	0.23	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS101420-SG	10/14/2020	10:31	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS102020-SG	10/20/2020	9:07	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	0.84	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS102820-SG	10/28/2020	11:50	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS110320-SG	11/3/2020	12:58	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS111720-SG	11/17/2020	10:39	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

End of Errata

KLAMATH RIVER WATER QUALITY SAMPLING FINAL 2020 ANNUAL REPORT

Prepared for the
KHSA Water Quality Monitoring Group

Prepared by
Watercourse Engineering, Inc.
July 1, 2021



Photo: Grant Johnson



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1. Introduction

On November 13, 2008, the United States, the states of California and Oregon, and PacifiCorp executed an Agreement in Principle (AIP) describing a framework for possible removal of four of PacifiCorp's dams on the Klamath River. Interim Measure 12 of the AIP stipulated a water quality monitoring program, including on-going monitoring of cyanobacteria (blue-green algae) and associated toxins. The Klamath Hydroelectric Settlement Agreement (KHSa), signed on February 18, 2010 (subsequently amended on April 6, 2016), superseded the AIP. Interim Measure 15 (IM 15) - Water Quality Monitoring states that PacifiCorp shall fund (\$500,000 per year) long-term baseline water quality monitoring to support water quality improvement activities, dam removal studies, permitting studies, and form a long-term record to assess trends and other potential changes in the basin. This includes funding for cyanobacteria and cyanobacteria-generated toxin monitoring to protect public health. The monitoring is performed by entities agreed upon by the parties to the KHSa and in consultation with the appropriate water quality agencies. The 2020 water quality monitoring program conducted under IM 15 represents the twelfth year of water quality monitoring under the AIP and the KHSa.

The monitoring program is a cooperative effort of the KHSa Monitoring Group.¹ This group developed the KHSa IM 15 monitoring study plan, which is located on PacifiCorp's Klamath website,² as well as the Klamath Basin Monitoring Program (KBMP) website.³ Actual monitoring is completed by a sub-set of the Monitoring Group that includes the Yurok Tribe, the Karuk Tribe, PacifiCorp, the Oregon Department of Environmental Quality, and the U.S. Bureau of Reclamation (USBR). The program continues to collect data from sites along 254 miles of river and reservoirs from Link River Dam near Klamath Falls in Oregon to the Klamath River Estuary in California. Annual planning and coordination meetings include the IM 15 Monitoring Group and interested stakeholders. The IM 15 Monitoring Group ensures the intent of IM 15 is met, appropriate quality assurance protocols and standard operating procedures are in place, water quality conditions and sampling matters are tracked in a timely fashion, and the process is transparent.

This report summarizes the results from the 2020 baseline data collection, as well as the 2020 public health data collection. Four appendices accompany this report: the baseline sampling locations (Appendix A); the 2020 baseline grab sample results and field

¹ The KHSa Monitoring Group consists of representatives from the North Coast Regional Water Quality Control Board; Oregon Department of Environmental Quality; U.S. Environmental Protection Agency, Region IX; Karuk Tribe; Yurok Tribe; PacifiCorp; and U.S. Bureau of Reclamation.

² <https://www.pacificorp.com/energy/hydro/klamath-river.html>

³ <http://kbmp.net/collaboration/klamath-hydroelectric-settlement-agreement-monitoring>

measurements (Appendix B); the phytoplankton species charts and biovolume graphs (Appendix C); and the 2020 public health data (Appendix D).

2. Program Elements

The primary elements of the 2020 IM 15 monitoring program included baseline and public health monitoring carried out from February through December 2020. The baseline water quality monitoring element included water quality grab samples, physical observations associated with these grab samples, water quality probe measurements, and algae species data. The grab samples were collected for analytical determination of a suite of water quality constituents (Section 5.1). The water quality probes recorded observations at hourly or sub-hourly intervals. Parameters sampled by probes included water temperature, dissolved oxygen, specific conductivity, and pH at specific locations in the Klamath River (Table 1). The algae data in the baseline monitoring element included algae species identification and quantification from samples collected at each sampling location. The grab sample, water quality probe data, and algae species quantification are presented in this report and are available in electronic form.⁴

The public health monitoring program consisted of the collection of algae species samples at specific sites within reservoirs and river reaches and was focused on toxin-producing algae species and algal toxin sampling. These results were presented in public health memoranda produced by the sampling entities throughout the season.⁵ These memoranda were used to track phytoplankton and toxin conditions and supported management decisions to post and de-post reservoir and river reaches with public health advisory information. A summary of the 2020 public health monitoring program data is presented herein.

To provide transparency, the KBMP website provides access to reports from previous years, associated program documents, and other materials and features that are directly transferable to the IM 15 monitoring program. There are other Klamath River monitoring efforts outside of the IM 15 program that are sponsored by individual entities, including those that participate in the IM 15 program. However, only data collected under the IM 15 are included in this report.

⁴ <https://www.pacificcorp.com/energy/hydro/klamath-river.html>

⁵ PacifiCorp public health memoranda are available online at <https://www.pacificcorp.com/energy/hydro/klamath-river.html>. All memoranda (including those from the Karuk and Yurok tribes) are available online at: <http://www.kbmp.net/bga>

3. Baseline Program Water Quality Sampling

In 2020, baseline sampling was conducted at 22 sites along the Klamath River and its tributaries, from Link River Dam to the Klamath River Estuary (Figure 1), by the four sampling entities: USBR, PacifiCorp, Karuk Tribe, and Yurok Tribe. Fifteen of those sites were located on the mainstem of the Klamath River, three sites were located in the reservoirs on the Klamath River, and four sites were located on the major tributaries of the Klamath River (Shasta, Scott, Salmon, and Trinity rivers). Sampling locations, sampling frequency, and sampling entity varied across the study area (Table 1).

Discrete physical parameters (water temperature, dissolved oxygen, specific conductivity, and pH) were collected at all sites when grab samples were collected during the sampling year. Continuous physical parameter data was collected at four sites, three of which are baseline program sites and one of which is near a baseline program site. Sondes were deployed to collect continuous data on water physical parameters at the following baseline program sites: Link Dam (RM 254.44; Baseline) (maintained by USBR), Klamath River below Iron Gate Dam (RM 189.73; Baseline) (maintained by PacifiCorp), and Klamath River below Seiad (RM 128.5; Baseline) (maintained by the Karuk Tribe).

The non-baseline program location for sonde deployment was Klamath River above Keno Dam, at River Mile 234.9, which is just upstream of Klamath River below Keno Dam near a U.S. Geological Survey (USGS) gage (RM 233.4; Baseline). Two sondes, (1) surface and (2) bottom, were maintained by USGS, with USBR providing funding and oversight for its maintenance and deployment. Data from the (1) surface sonde was used herein. While data collected upstream of Keno Dam is not a proxy for water quality conditions downstream of the dam, as conditions can differ in Keno Reservoir and in the Klamath River downstream of Keno Dam, the sonde provided data to illustrate conditions at the downstream end of the reservoir prior to water being released to Klamath River.

Except for four sites, grab samples of all other baseline water quality constituents were collected monthly (Table 1). At Link Dam (RM 254.44; Baseline) and Klamath River below Iron Gate Dam (RM 189.73; Baseline) samples were collected bi-monthly from May through October and monthly for the remainder of the sampling season. At the Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline) and Klamath River above Shovel Creek (RM 206.42; Baseline) sites samples were collected bi-monthly from June through September and monthly for the remainder of the sampling season.

The following constituents were analyzed in 2020: inorganic nitrogen (total nitrogen, nitrate+nitrite, and ammonia), particulate nitrogen, particulate phosphorus, particulate inorganic phosphorus, inorganic phosphorus (total phosphorus and orthophosphate), particulate carbon, dissolved organic carbon, total suspended solids, turbidity, chlorophyll-*a*, pheophytin, and microcystin. Phytoplankton species samples were also collected. Not all parameters were analyzed for samples from every site (Table 1). Data results from the 2020 baseline grab samples are presented in Appendix B.

The baseline program has gone through several revisions throughout its implementation. In 2016, the IM 15 sampling program substantially exceeded the available budget, and therefore changes were made after 2016 to control costs. There were no changes made to the 2020 baseline sampling program compared to the 2017-2019 baseline programs.

Table 1. 2020 Baseline monitoring locations, sampling frequency, and sampling entities.

Monitoring Location		Water Temperature (°C)	Dissolved Oxygen (mg/l)	pH (log(H+))	Conductance (µ S/cm)	Total N (mg/l)	Ammonia N (mg/l)	Nitrite + Nitrate (mg/l)	Total P (mg/L)	Ortho P (mg/L)	Particulate P & Particulate Inorganic P (mg/l)	Dissolved Organic N & P (mg/l)	Particulate and Dissolved C (mg/l)	Particulate N (mg/l)	TSS (mg/l)	Alkalinity (mg/l)	Water Column chl_a, Pheo (µg/l)	Phytoplankton species	Microcystin (µg/l)	LCMS confirmation	Turbidity (NTU)	Sampling Entity
Site ID	Sampling Method:	T, P	P	P	P	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	
KR25444	Link Dam (RM 254.44; Baseline)	H	H	H	H	M/BM	M/BM	M/BM	M/BM	M/BM	M/BM	M/BM	M/BM	M/BM	M/BM	M/BM	M/BM	M/BM	M/BM		M2/BM2	USBR
KR24600	Keno Reservoir at Miller Island (RM 246.0; Baseline)	H	H	H	H	M2	M2	M2	M2	M2			M2		M2	M2	M2	M/S	M/S		M2	USBR
KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	D	D	D	D	M2/BM2	M2/BM2	M2/BM2	M2/BM2	M2/BM2	M		M	M	M	M2/BM2**	M	M/S	M/S		M2/BM2	USBR
KR22822	Klamath River above J.C. Boyle Reservoir (RM 228.22; Baseline)																					Dropped
KR22478	J.C. Boyle Reservoir (RM 224.78; Baseline)*																					Dropped
KR22460	Klamath River below J.C. Boyle Dam (RM 224.60; Baseline)	D	D	D	D	M	M	M	M	M			M		M	M	M	M/S	M/S			PacifiCorp
KR21950	Klamath River below USGS Gage (RM 219.50; Baseline)	D	D	D	D	M	M	M	M	M			M		M	M	M	M/S	M/S		M	PacifiCorp
KR20642	Klamath River above Shovel Creek (RM 206.42; Baseline)	D	D	D	D	M3/BM2	M3/BM2	M3/BM2	M3/BM2	M3/BM2	M		M	M	M	M	M	M/S	M/S		M	PacifiCorp
KR19874	Copco Reservoir (RM 198.74; Baseline) ^b	VP	VP	VP	VP	M	M	M	M	M			M		M	M	M	M/S	M/S			PacifiCorp
KR19645	Klamath River below Copco Dam (RM 196.45; Baseline)	D	D	D	D	M	M	M	M	M			M		M	M	M	M-/S	M/S			PacifiCorp
KR19019	Iron Gate Reservoir (RM 190.19; Baseline) ^c	VP	VP	VP	VP	M	M	M	M	M			M		M	M	M	M/S	M/S			PacifiCorp
KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	H	H	H	H	M2/BM	M2/BM	M2/BM	M2/BM	M2/BM	M2/BM		M2/BM	M2/BM	M2/BM	M2/BM	M2/BM	M2/BM	M2/BM	BM/S	M2/BM	PacifiCorp
KR15626	Klamath River at Walker Bridge (RM 156.26; Baseline)	D	D	D	D	M	M	M	M	M			M		M	*	M	M/S	M/S	S2		Karuk
KR12850	Klamath River below Seiad (RM 128.5; Baseline)	H	H	H	H	M	M	M	M	M	M		M	M	M	*	M	M/S	M/S		M	Karuk
KR10130	Klamath River below Happy Camp (RM 101.3; Baseline)	D	D	D	D	M	M	M	M	M			M		M	*	M	M/S	M/S			Karuk
KR05910	Klamath River at Orleans (USGS) (RM 59.1; Baseline)	H	H	H	H	M	M	M	M	M			M		M	M	M	M/S	M/S		M	Karuk
KR04350	Klamath River at Weitchpec (RM 43.5; Baseline)	H	H	H	H	M	M	M	M	M			M		M	*	M	M/S	M/S	S2		Yurok
KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	H	H	H	H	M	M	M	M	M			M		M	*	M	M/S	M/S			Yurok
KR00600	Klamath River near Klamath (RM 6.0; Baseline) ^d	H	H	H	H	M	M	M	M	M	M		M	M	M	*	M	M/S	M/S		M	Yurok
KR00050	Klamath River Estuary (RM 0.5; Baseline) ^e	HP	D	D	D	M	M	M	M	M			M		M	*	M	M/S	M/S			Yurok
SH00000	Shasta River near mouth (Baseline)	H	H	H	H	M	M	M	M	M			M		M	*	M	*			M	Karuk
SC00000	Scott River near mouth (Baseline)	H	H	H	H	M	M	M	M	M			M		M	*	M	*			M	Karuk
SA00000	Salmon River near mouth (Baseline)	H	H	H	H	M	M	M	M	M			M		M	*	M	*			M	Karuk
TR00000	Trinity River near mouth (Baseline)	H	H	H	H	M	M	M	M	M			M		M	*	M	*			M	Yurok

Notes:

^a Sampling at one depth in J.C. Boyle reservoir (0.5 m depth = surface)

^b Sampling at three depths in Copco Reservoir (0.5 m below surface, thermocline, and 0.5 m above bottom)

^c Sampling at three depths in Iron Gate Reservoir (0.5 m below surface, thermocline, and 0.5 m above bottom)

^d Continuously deployed sonde is located 2 miles upstream of this site at Klamath above Turwar (RM8.0)

^e Hourly measurements at four locations (two in lower estuary, one in mid-estuary, and one in upper estuary) at two depths (0.5 m below surface and 0.5 m above bottom)

Key:**Sampling Method**

T – Thermistor

P – Probe or data sonde

G – Grab sample

Sampling Frequency Codes

VP – vertical profile at stated sampling frequency

H – hourly measurements by sondes (in some instances sub-hourly data may be collected)

D – Discrete sample

HP - Hourly measurements in a profile

M – monthly sampling, excluding January and February

M2 – monthly sampling, excluding January

M/S – monthly sampling, seasonally from May through October

M/BM – Bi-monthly sampling May - October and monthly sampling the remainder of the year, excluding January

M2/BM – Bi-monthly sampling May - October and monthly sampling the remainder of the year, excluding January and February

M2/BM2 – Bi-monthly sampling June-September and monthly the remainder of the year, excluding January

M3/BM2– Bi-monthly sampling June-September and monthly the remainder of the year, excluding January and February

M- = Monthly Sampling with exception of December, January, and February

BM/S –Bimonthly sampling July-Oct

S2 – monthly sampling July – Oct

***** - Not sampled This parameter is covered at a M/S frequency by Tribal Water Quality Workgroup

4. Public Health Sampling

To determine the potential risks to public health resulting from exposure to cyanobacteria and the toxins they produce in the Klamath River, public health monitoring included water column and shoreline water sampling within Upper Klamath Lake, the Klamath River, and reservoirs. Several species of cyanobacteria have been documented in the Klamath River, including but not limited to *Aphanizomenon flos aquae* (AFA), *Microcystis aeruginosa* (MSAE), *Dolichospermum flos aquae* (formerly *Anabaena flos aquae*), and *Planktothrix* sp. (formerly *Oscillatoria* sp.). Since 2004, Klamath River public health sampling has documented elevated levels of toxin-producing cyanobacteria, primarily MSAE and the associated toxin microcystin. Microcystins are a class of toxic chemical that is produced by some strains of cyanobacteria, including MSAE, and are released into the water when cyanobacterial cells die, or cell membranes degrade. Microcystins at elevated levels can present risks to human health and to terrestrial and aquatic species, and result in impairments to a number of beneficial uses for the Klamath River system. Microcystin toxins can induce skin rashes, sore throat, oral blistering, nausea, gastroenteritis, fever, liver toxicity, and general tumor promotion (WHO 2003; OEHHA 2012).

There were no changes to the 2020 public health sampling program compared to the 2019 program.

Table 2. 2020 Klamath River public health monitoring locations, constituents, and sampling frequency.

Location	Site ID	River Mile	Phytoplankton Species	Microcystin	LC/MS/MS water for cyanotoxins	Sampling Entity
Upper Klamath Lake at Eagle Ridge County Park (Public Health)	UKEP	-	PPLK-1	BM7-mod	-	ODEQ
Upper Klamath Lake at Howard's Bay Park (Public Health)	UKHP	-	PPLK-1	BM7-mod	-	ODEQ
Upper Klamath Lake at Moore Park (Public Health)	UKMP	-	PPLK-1	BM7-mod	-	ODEQ
Keno Reservoir at Keno Park (Public Health)	KEKP	234.0	PPLK-1	BM7-mod	-	ODEQ
J.C. Boyle Reservoir at Topsy Campground (Public Health)	BRTC	225.0	PPLK-1	BM7-mod	-	ODEQ
Copco Reservoir at Mallard Cove (Public Health)	CRMC	200.8	PPLK-1	BM7-mod	S	PacifiCorp
Copco Reservoir at Copco Cove (Public Health)	CRCC	198.5	PPLK-1	BM7-mod	S	PacifiCorp
Iron Gate Reservoir at Camp Creek (Public Health)	IRCC	192.8	PPLK-1	BM7-mod	S	PacifiCorp
Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	IRJW	192.4	PPLK-1	BM7-mod	S	PacifiCorp
Klamath River below Iron Gate Dam (RM 189.73; Public Health)	KRBI	189.7	PPLK-1	BM7-mod	-	PacifiCorp
Klamath River at I-5 Rest Area (RM 179.20; Public Health)	KRIB	179.2	PPLK-2	BM/W	BM5	Karuk
Klamath River at Brown Bear River Access (RM 150.00; Public Health)	KRBB	150.0	PPLK-2	BM/W	-	Karuk
Klamath River below Seiad (RM 128.5; Public Health)	KRSV	128.5	PPLK-2	BM/W	-	Karuk
Klamath River below Happy Camp (RM 101.3; Public Health)	KRHC	101.3	PPLK-2	BM/W	-	Karuk
Klamath River at Orleans (USGS) (RM 59.1; Public Health)	KROR	59.1	PPLK-2	BM/W	-	Karuk
Klamath River at Weitchpec (RM 43.5; Public Health)	KRWE	43.5	PPLK-2	BM/W	-	Yurok
Klamath River near Klamath (RM 6.0; Public Health)	KRTG	6.0	PPLK-2	BM/W	-	Yurok
Klamath River at South Slough (RM 0.1; Public Health)	KRSS	0.1	PPLK-2	BM/W	-	Yurok

Key:

Frequency	# of sample events	Sampling frequency description
BM7-mod	13	1x month in May and at least 2x month June through November
BM/W	16	Timing of public health monitoring will be at the discretion of the sampling entity; however, weekly sampling usually occurs from July through September during peak algae bloom season.
BM5	10	2x month June-October
S	6	Analysis for anatoxin-a will be tied to results of anatoxin-a screening tests run on each public health sample; however, six test analysis are budgeted.
PPLK-1	5	One sample in May, two in June and two in July, all rushed for toxic species identification only.
PPLK-2	4	Two samples each in June and July, all rushed for toxic species identification only.

5. Water Sample Collection

Water samples included both water quality data collected with probes (temperature, dissolved oxygen, specific conductivity, and pH) and grab samples. Grab samples (i.e., samples analyzed for the physical and chemical constituents listed in Table 1 and Table 2) were sent to respective laboratories for analysis. For turbidity, USBR used a YSI ProDSS with an optical turbidity probe, while PacifiCorp used a HACH 2100Q Turbidimeter for measurements, rather than collecting grab samples.

5.1. Analytical Samples

Grab water samples were collected for analytical determination of:

- Nitrogen: ammonia (NH₄), nitrate+nitrite (NO₃+NO₂), total nitrogen (TN), particulate nitrogen (PN)
- Phosphorus: orthophosphate (OPO₄), total phosphorus (TP), particulate phosphorus (PP), and particulate inorganic phosphorus (PIP)
- Carbon: dissolved organic carbon (DOC) and particulate carbon (PC)
- Solids: total suspended solids (TSS)
- Alkalinity (ALKT)
- Turbidity (TURB)
- Phytoplankton (algae): chlorophyll-*a* (CHL-A) and pheophytin (PHEO)
- Microcystin (MCYN) and anatoxin-a (if warranted)
- Algae species

Eight laboratories completed the analytical work during the field season:

- Delta Laboratories (Delta) in Benicia, California⁶
 - o www.deltalabsolutions.com
- Edge Analytical Laboratories (Edge) in Wilsonville, Oregon and Burlington, Washington.
 - o <https://www.edgeanalytical.com/>
- IEH Aquatic Research (IEH) in Seattle, Washington.
 - o <http://www.iehinc.com/ieh-locations/>
- Sprague River Water Quality Laboratory (SRWQL)
 - o ben.harris@klamathtribes.com
- Chesapeake Biological Laboratories (CBL) in Solomons, Maryland
 - o <http://www.umces.edu/cbl>
- Environmental Protection Agency Region 9 (EPA) laboratory in Richmond, California
 - o <http://www.epa.gov/region9/lab/>

⁶ Delta lab was utilized as part of an in-kind contribution to the project by the North Coast Regional Water Quality Control Board beginning in March 2020. However, several serious and persistent quality assurance issues with Delta analysis were identified and could not be resolved. Beginning in late July 2020, Reclamation samples were sent to Edge for analysis and Delta was no longer used.

- GreenWater Laboratories in Palatka, Florida
 - o <http://greenwaterlab.com/>
- Aquatic Analysts in Friday Harbor, Washington
 - o www.AAalgae.com

5.2. Field Measurements

Water temperature, pH, specific conductivity, and dissolved oxygen were measured at all sampling sites. In some cases, sampling entities collected additional information (e.g., turbidity) during field visits. Field measurements were recorded at some sites using water quality probes that were maintained and calibrated by each sampling entity. In addition to the vertical profiles in reservoirs and continuous time series monitoring (Table 1), physical water quality parameters were measured when grab samples were collected. Field measurements that were collected during grab sampling are included in the field data (Appendix B) while time series monitoring data are maintained by (and available from) each sampling entity.

5.3. Quality Assurance of Samples

Baseline monitoring samples were collected under individual entity Quality Assurance Project Plans, Standard Operating Procedures, and/or Sampling Analysis Plans (Karuk 2009; PacifiCorp 2008; USBR 2009; Yurok 2008). These methods have been compared and reviewed by the KHSa Working Group to ensure consistent sampling techniques are applied (KHSa-WG 2010).

Public health samples were collected according to the Standard Operating Procedure developed by the Klamath Blue Green Algae Working Group (www.kbmp.net/collaboration/klamath-hydroelectric-settlement-agreement-monitoring). Because of the risk to public health from toxins produced by cyanobacteria, initial public health samples are analyzed under a ‘rush’ order with Aquatic Analysts in Friday Harbor, Washington. During analysis, only potentially toxic cyanobacteria are identified and enumerated.

5.4. Water Quality Analytical Methods

Delta, Edge, IEH, SRWQL, CBL, and EPA laboratories used either Standard Methods, EPA or USGS analytical methods for analysis of nutrients, dissolved and particulate carbon, alkalinity, total suspended solids, and turbidity (Table 3). Each laboratory used its own internal water quality control and assurance samples during analysis of the KHSa 2020 samples. Method detection limits (MDL) and reporting limits (RL) varied among the laboratories.⁷

⁷ Laboratories may complete internal quality assurance, update equipment, refine analyses, or complete MDL and/or RL internal testing the MDL and RL, and other activities that can result in slight changes to the MDL and/or RL values. These activities can occur at any time during the year and can occur more than once during the year.

5.5. *Algae Sample Analytical Methods*

Analysis of chlorophyll-*a* and pheophytin was performed by CBL for samples collected by USBR and PacifiCorp, by IEH for samples collected by the Karuk Tribe, and by SRWQL for samples collected by the Yurok Tribe (Table 3). Algae species analysis was performed by Aquatic Analysts for all samples. Microcystin analysis was performed using the Enzyme-Linked ImmunoSorbent Assay (ELISA) method at the EPA laboratory. Additional microcystin analysis, as well as anatoxin-a analysis was completed by the GreenWater Laboratories using liquid chromatography-tandem mass spectrometry (LCMS/MS) for selected locations and samples. GreenWater microcystin MDLs and RLs varied with each microcystin variant analysis performed and are presented in Table D-2 in Appendix D. Algae species analysis method information for Aquatic Analysts is not presented because this analysis does not include MDLs or RLs.

Table 3. 2020 Analyzing laboratory method references, method detection limits (MDLs), and method reporting limits (RLs) for water quality constituents. Units presented in milligrams per liter (mg/L) or parts per million (ppm) unless otherwise noted. All unique MDLs and RLs are shown.

Constituent Name	Constituent ID	Delta			Edge			IEH			SRWQL			CBL			EPA			GreenWater		
		Method	MDL	RL	Method	MDL	RL	Method	MDL	RL	Method	MDL	RL	Method	MDL	RL	Method	MDL	RL	Method	MDL	RL
Alkalinity	ALKT	SM 2320 B	1.7	10	SM2320 B	1.7	1.7	SM18 2320B	0.7	1	SM 2320 B	10	20	-	-	-	-	-	-	-	-	-
Ammonia	NH4	SM 4500 NH3 D	0.001	0.0082	EPA 350.1	0.0060	0.01	SM 4500-NH3 H	0.005	0.01	EPA 350.1	0.006	0.012	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon	DOC	EPA 415.3	0.1	0.2	SM5310 B	0.08	0.5	SM 5310 B v20	0.1	0.25	SM 5310 C	0.049	0.2	-	-	-	-	-	-	-	-	-
Nitrate + Nitrite ²	NO3+NO2	Calculated	0.002	0.005	SM4500-NO3 F	0.007	0.01	SM 4500-NO3 F	0.006	0.01	EPA 353.2	0.008	0.016	-	-	-	-	-	-	-	-	-
Total Nitrogen ³	TN	Calculated	0.45	0.5	Calculated	0.016	0.2	SM 4500-N C	0.024	0.05	USGS I-2650-03	0.03	0.06	-	-	-	-	-	-	-	-	-
Orthophosphate	OPO4	SM 4500 P E	0.0001	0.001	SM4500-P F	0.01	0.01	SM 4500-P F	0.001	0.001	EPA 365.1	0.003	0.006	-	-	-	-	-	-	-	-	-
Total Phosphorus	TP	SM 4500-P B	0.0005	0.0032	SM4500-P F	0.0043	0.01	SM 4500-P F	0.001	0.002	EPA 365.2	0.009	0.018	-	-	-	-	-	-	-	-	-
Total Suspended Solids	TSS	SM 2540 D	0.5	1	I-3765-85	2	2	SM 2540 D v20	0.3	0.5	EPA 160.2 & SM 2540 D	1	2	-	-	-	-	-	-	-	-	-
Turbidity	TURB	-	-	-	-	-	-	SM 2130 B	0.1	0.1	EPA 180.1	0.1	0.2	-	-	-	-	-	-	-	-	-
Chlorophyll-a ¹	CHLOR-A	-	-	-	-	-	-	SM 10200 H	0.1	0.1	EPA 445.0	0.5	1	E445.0	0.68	0.68	-	-	-	-	-	-
Pheophytin ¹	PHEO	-	-	-	-	-	-	SM 10200 H	0.1	0.1	EPA 445.0	0.5	1	E445.0	0.46	0.46	-	-	-	-	-	-
Particulate Carbon	PC	-	-	-	-	-	-	-	-	-	-	-	-	E440.0	0.0633	0.1899	-	-	-	-	-	-
Particulate Inorganic Phosphorus	PIP	-	-	-	-	-	-	-	-	-	-	-	-	E365.1	0.0021	0.0063	-	-	-	-	-	-
Particulate Phosphorus	PP	-	-	-	-	-	-	-	-	-	-	-	-	EPA 365.1, ASPILA	0.0021	0.0063	-	-	-	-	-	-
Particulate Nitrogen	PN	-	-	-	-	-	-	-	-	-	-	-	-	E440.0	0.0263	0.0789	-	-	-	-	-	-
Microcystin ^{1,4}	MCYN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ELISA	0.10	0.15	LCMS/MS	varied	varied
Anatoxin-a ¹	ANTX-A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	LCMS/MS	0.05	n/a

MDL – method detection limit RL – method reporting limit.

¹ Units for chlorophyll-a, pheophytin, microcystin, and anatoxin-a are in µg/L (or ppb).

² Delta analyzed NO2 using SM 4500 NO2- B and NO3 using EPA 300.1. NO3+NO2 was calculated as the sum of the two sample results. MDL and RL for NO3+NO2 is based on the levels for NO2, which were larger than the levels for NO3.

³ Delta and Edge analyzed samples for Total Kjeldahl Nitrogen (TKN) using EPA 351.2. TKN includes ammonia and organic nitrogen. Total Nitrogen is calculated as TN = TKN + NO3+NO2. MDL and RL for TN is based on the levels for TKN, which were larger than the levels for ammonia.

⁴ Microcystin analysis at GreenWater produces different MDLs and RLS for each type of variant of microcystin, each of which are presented in Appendix D.

6. Baseline Program Water Quality Data

Water quality samples for the 2020 IM 15 baseline water quality monitoring program were collected from February through December. Sampling crews from the various entities typically collected samples within a few days of each other. Sampling on the same day throughout the basin was infeasible because of other obligations, shipping constraints, travel considerations, and other factors. In most cases, all 22 sites (Figure 1) were sampled each month. There were periods when one or more sites were omitted, or one or more constituents were not sampled. COVID-19 restrictions caused sampling difficulties in 2020, and in September 2020, a fire prevented visits to multiple sites along the Klamath River downstream of Iron Gate Dam; therefore, several planned samples were unable to be collected. Data was reviewed by sampling entities before being compiled for presentation in this report. Compiled data from all baseline program sampling is presented in the appendices (Appendix B) and summarized below, except for time series data, which can be obtained from the individual sampling entities (Table 1). Selected results of algae species identification are presented below and in Appendix C.

6.1. Data Summary

Field measurements collected included water temperature, pH, specific conductivity, and dissolved oxygen. Chemical and biological water quality measurements include two types of algae related estimates (chlorophyll-*a* and pheophytin), alkalinity, two forms of carbon (dissolved organic and particulate), four forms of nitrogen (ammonia, nitrate+nitrite, total nitrogen, and particulate nitrogen), four forms of phosphorus (orthophosphate, total phosphorus, particulate phosphorus, and particulate inorganic phosphorus), total suspended solids, turbidity, and microcystin. Density and biovolume for algal species were also measured.

Data are summarized in this report to illustrate general spatial and temporal patterns during the 2020 sampling period. The data summary constituents presented include dissolved oxygen, dissolved organic carbon, total nitrogen, total phosphorus, and microcystin. The mainstem sites and major tributaries (Shasta, Scott, Salmon, and Trinity rivers) are presented separately.

In addition to the dataset (Appendix B), data also are summarized in three formats:

- (1) Longitudinal boxplots⁸ based on seasonal grab sample data.
- (2) Physical water quality sonde data (hourly) at specific locations
- (3) Charts and graphs representing the groups of algae and respective biovolumes at the sampling locations for March, June, September, and November.

⁸ A box-and-whisker plot is a graphical way of presenting statistical parameters including median, mean, lower and upper quartiles, and outliers. The median value is represented by a horizontal line; a box (gray) is formed by the 25th quartile and 75th quartile and represents the inter-quartile range (IQR); the whiskers extend beyond the 1.5*IQR above and below the quartiles; and points beyond the whiskers are termed outliers. Outliers are values between 1.5 to 3 times the IQR. Extreme outliers are values greater than 3 times the IQR.

The boxplots and hourly sonde data are presented in the main report; however, because of the small sample size at each site during 2020, the boxplots presented in the annual report are not statistically robust and are included for illustration purposes only. No boxplots were generated for sites with less than six points of data for a specific parameter in 2020; the captions of the boxplot figures indicate the locations that were omitted due to lack of sufficient data.

Time series data are presented for summary constituents at locations on the Klamath River for which there are USGS flow gages (Table 4). While phytoplankton data are available for the February through December period, September percent biovolume are presented for illustration at six locations (Figure 2). These locations are: (1) Link Dam (RM 254.44; Baseline), (2) Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline), (3) Copco Reservoir (RM 198.74; Baseline), (4) Klamath River below Iron Gate Dam (RM 189.73; Baseline), (5) Klamath River at Weitchpec (RM 43.5; Baseline), and (6) Klamath River Estuary (RM 0.5; Baseline). In the past, Klamath River below Seiad (RM 128.5; Baseline) and Klamath River at Orleans (USGS) (RM 59.1; Baseline) have had September algae species plots but in 2020 there were no algae species samples available in September for those two locations, as fires disrupted safe sampling conditions in that portion of the river. Due to these sampling disruptions in 2020, the months selected to present algae species data in graphical format (May, July, and October) deviated from the months used in past annual reports (March, June, September, November). Plots representing algae species for May, July and October are presented in Appendix C.

Table 4. United States Geological Survey (USGS) flow gage locations for time series data.

USGS Location Name	River Mile (RM) (<i>approximate</i>)	USGS Gage Number
Link River at Klamath Falls, OR	254	11507500
Klamath River at Keno, OR	232	11509500
Klamath River below Iron Gate Dam, CA	190	11516530
Klamath River near Seiad Valley, CA	129	11520500
Klamath River at Orleans, CA	59	11523000
Klamath River near Klamath, CA	8	11530500

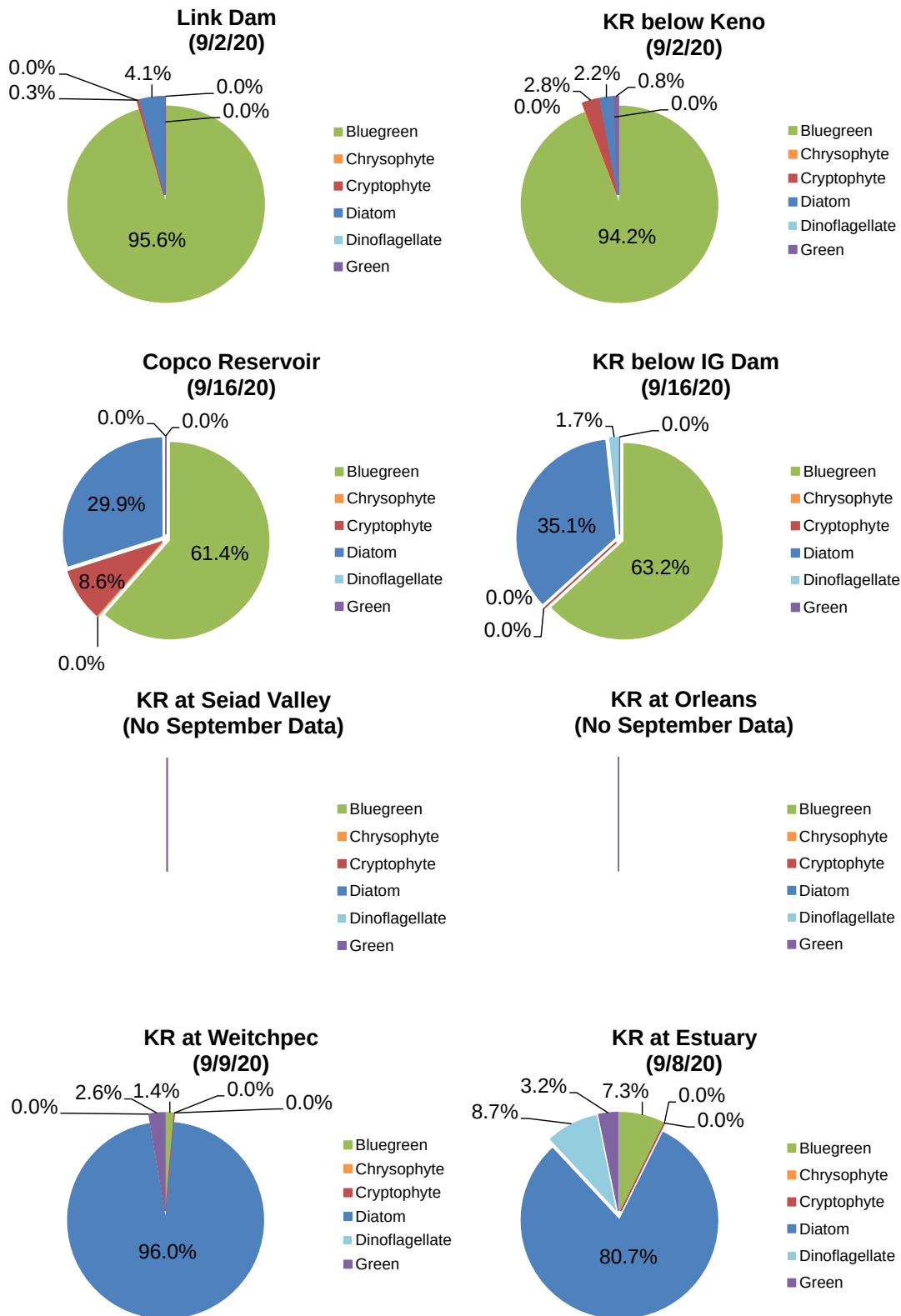


Figure 2. Phytoplankton species percent biovolume for eight locations in the Klamath River: September 2020.

6.1.1. Major Tributaries (Boxplot)

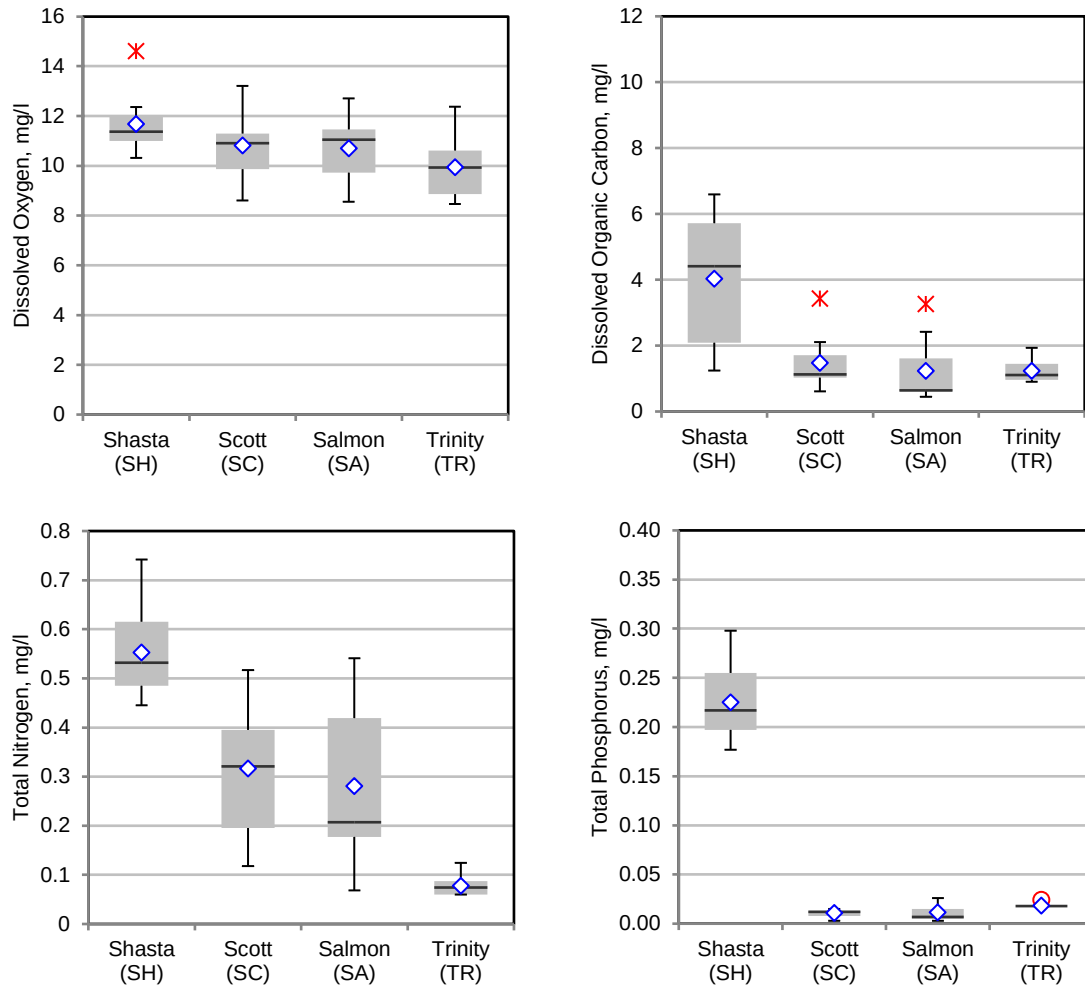


Figure 3. Baseline data for discrete dissolved oxygen, dissolved organic carbon, total nitrogen, and total phosphorus for the Shasta, Scott, Salmon, and Trinity rivers with median (—), mean (◊), outliers (*), and extreme outliers (◌) identified (February 2020 – December 2020).

6.1.2. Mainstem Klamath River (Boxplot)

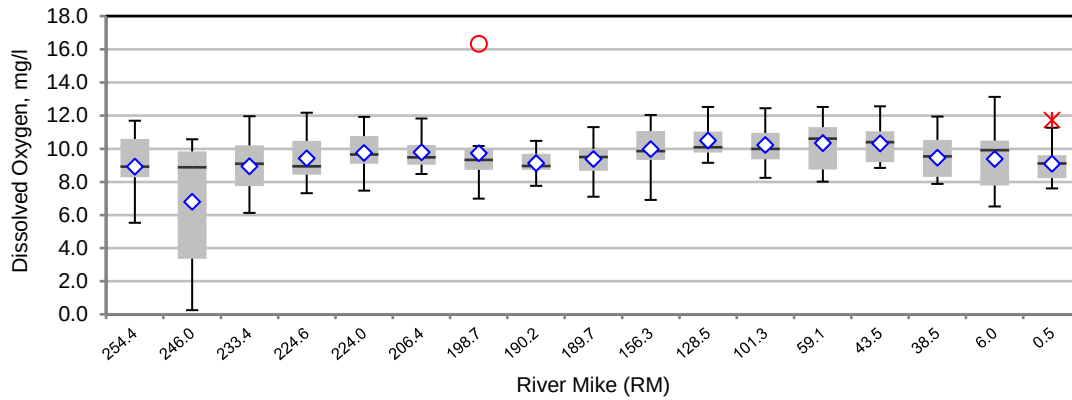


Figure 4. Discrete dissolved oxygen concentration in the Klamath River from Link River Dam to the Klamath River Estuary with median (—), mean (◊), outliers (*), and extreme outliers (○) identified (February 2020 – December 2020). Note: Includes reservoir sites at Keno Reservoir at Miller Island (RM 246.0; Baseline), Copco Reservoir (RM 198.74; Baseline), and Iron Gate Reservoir (RM 190.19; Baseline). River mile on x-axis not to scale.

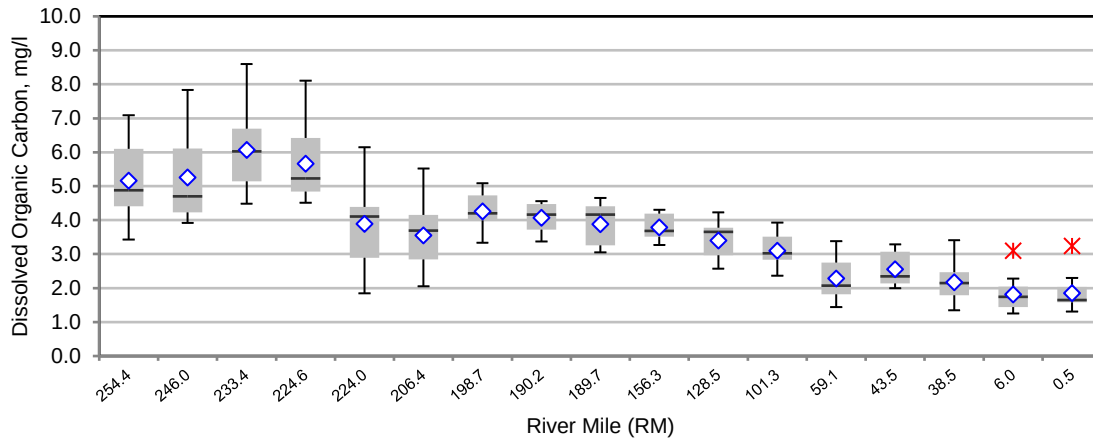


Figure 5. Dissolved organic carbon in the Klamath River from Link River Dam to the Klamath River Estuary with median (—), mean (◊), outliers (*), and extreme outliers (○) identified (February 2020 – December 2020). Note: Includes reservoir sites at Keno Reservoir at Miller Island (RM 246.0; Baseline), Copco Reservoir (RM 198.74; Baseline), and Iron Gate Reservoir (RM 190.19; Baseline). River mile on x-axis not to scale.

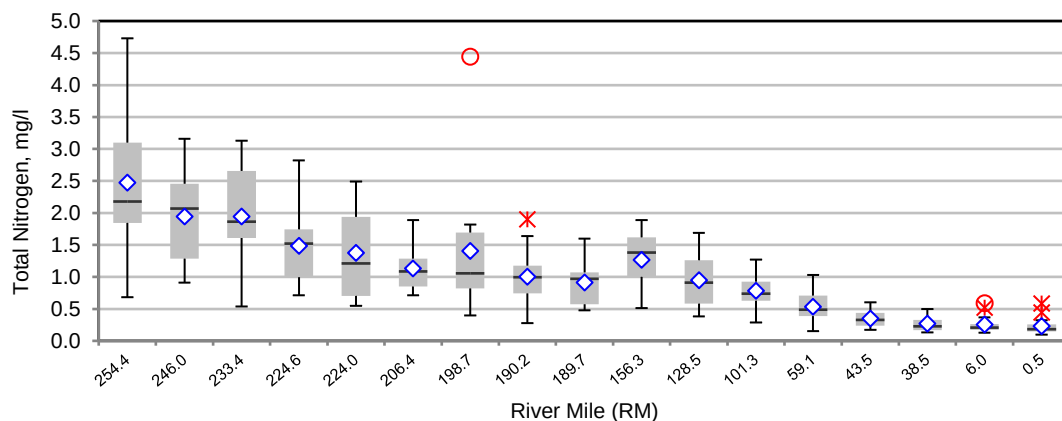


Figure 6. Total nitrogen in the Klamath River from Link River Dam to the Klamath River Estuary with median (—), mean (◊), outliers (*), and extreme outliers (◊) identified (February 2020 – December 2020). Note: Includes reservoir sites at Keno Reservoir at Miller Island (RM 246.0; Baseline), Copco Reservoir (RM 198.74; Baseline), and Iron Gate Reservoir (RM 190.19; Baseline). River mile on x-axis not to scale.

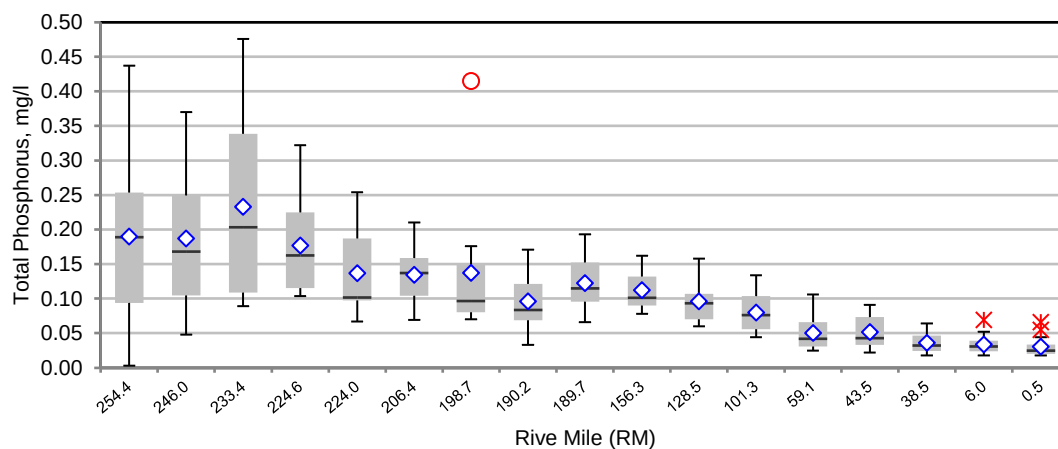


Figure 7. Total phosphorus in the Klamath River from Link River Dam to the Klamath River Estuary with median (—), mean (◊), outliers (*), and extreme outliers (◊) identified (February 2020 – December 2020). Note: Includes reservoir sites at Keno Reservoir at Miller Island (RM 246.0; Baseline), Copco Reservoir (RM 198.74; Baseline), and Iron Gate Reservoir (RM 190.19; Baseline). River mile on x-axis not to scale. Extreme outlier of 2.01 mg/l in Copco Reservoir (RM 198.74; Baseline) omitted.

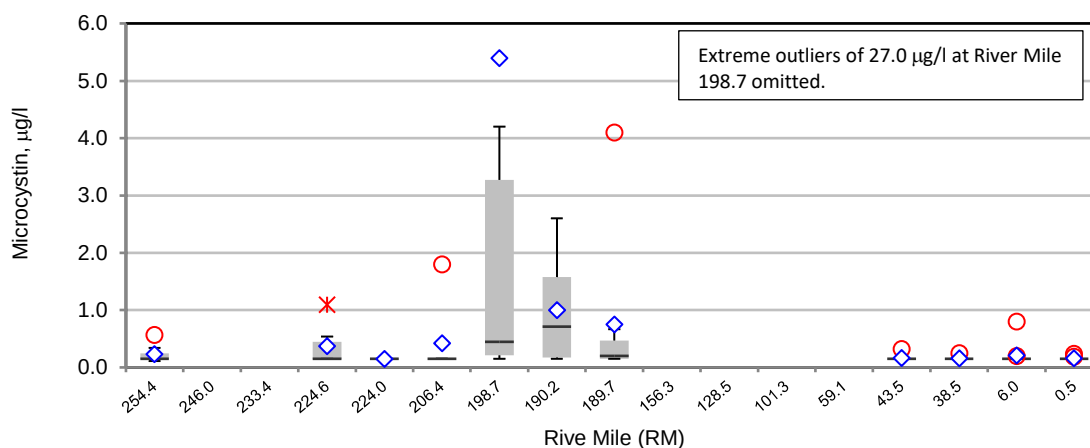


Figure 8. Microcystin in the Klamath River from Link River Dam to the Klamath River Estuary with median (–), mean (◊), outliers (*), and extreme outliers (◊) identified (February 2020 – December 2020). Note: Includes reservoir sites at Keno Reservoir at Miller Island (RM 246.0; Baseline), Copco Reservoir (RM 198.74; Baseline), and Iron Gate Reservoir (RM 190.19; Baseline). River mile on x-axis not to scale. Extreme outliers of 27.0 µg/l in Copco Reservoir (RM 198.74; Baseline) omitted. No microcystin boxplots are included for River Mile 246.00, 233.40, 156.26, 128.50, 101.30 and 59.10 because there were fewer than six microcystin data points at each of these sites.

6.1.3. Major Tributaries (Time Series)

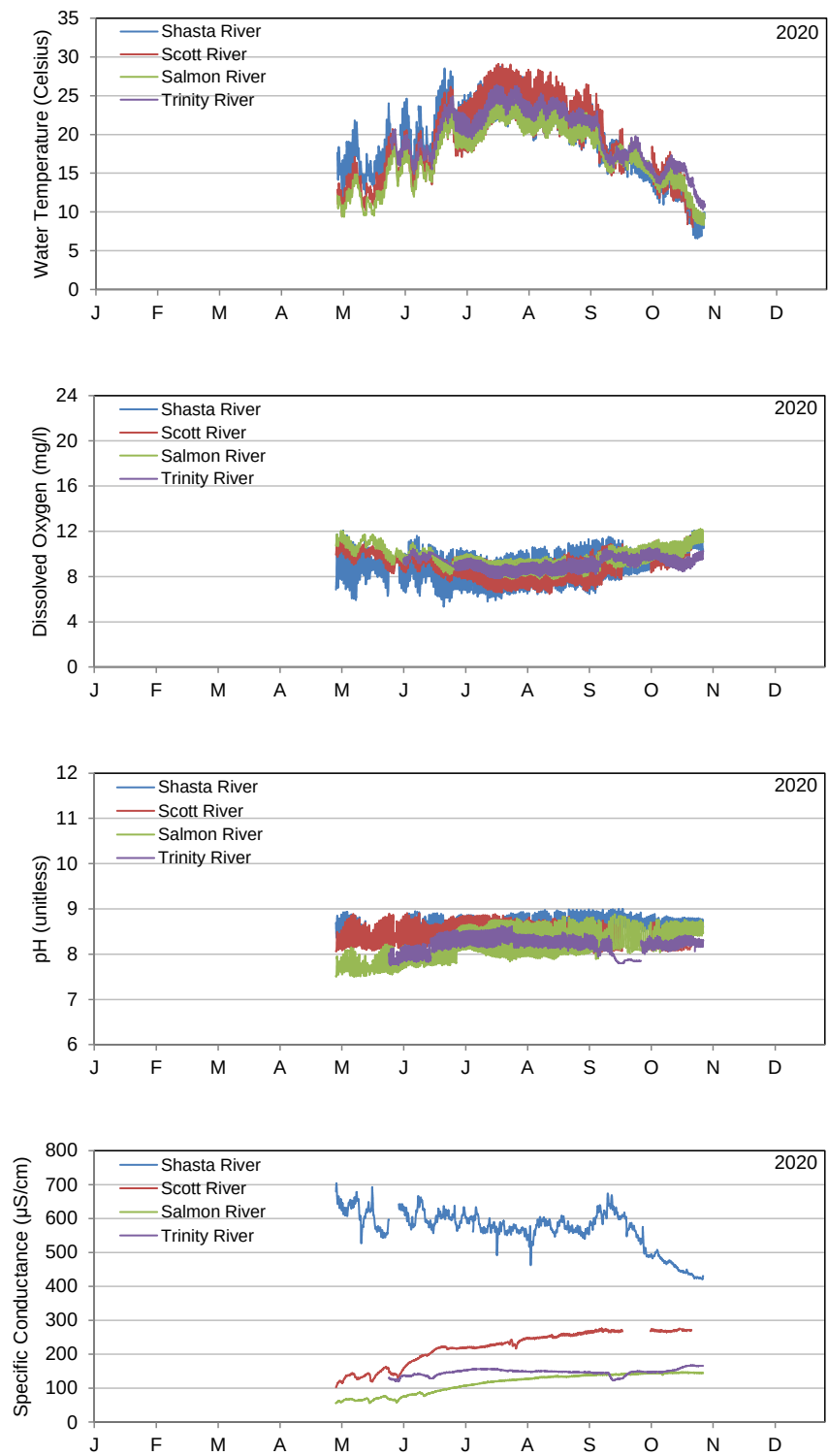


Figure 9. Continuous water temperature, dissolved oxygen, pH, and specific conductance data (2020) for the Shasta River, Scott River and Salmon River.

6.1.4. Mainstem Klamath River (Time Series)

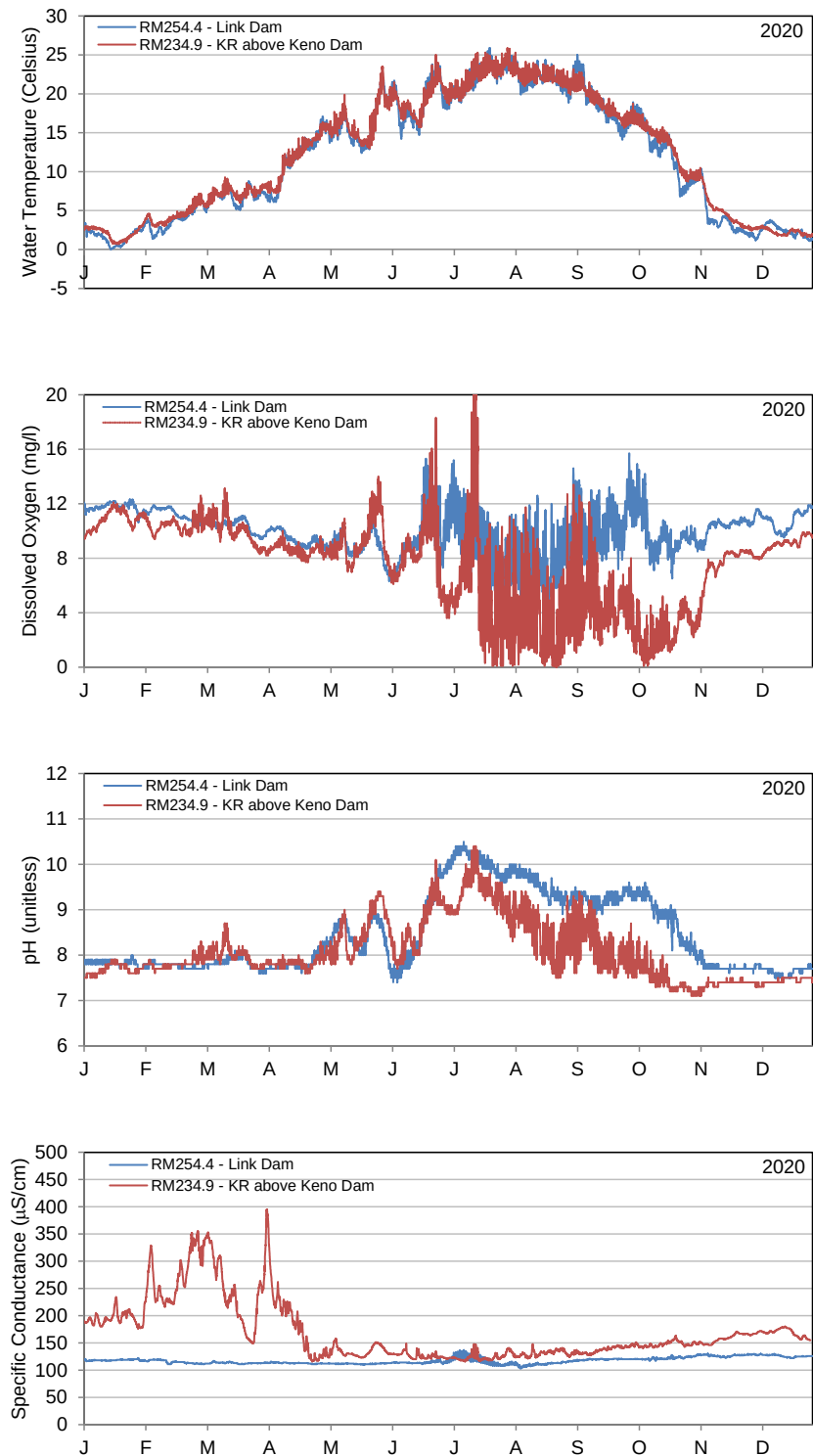


Figure 10. Continuous water temperature, dissolved oxygen, pH, and specific conductance data (2020) for the Klamath River (KR) at Link Dam (RM 254.44; Baseline) and Klamath River above Keno Dam (surface) (RM 234.9).

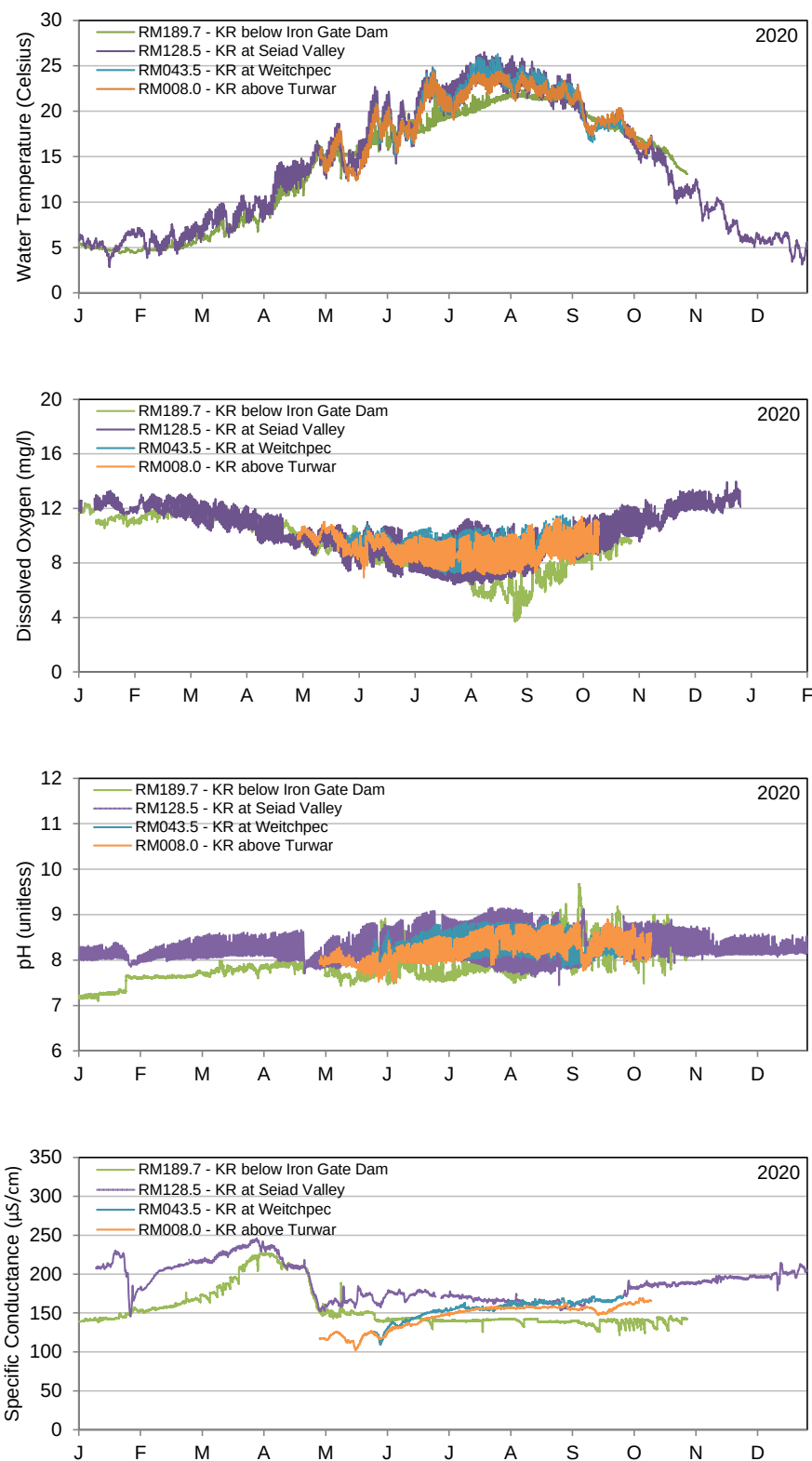


Figure 11. Continuous water temperature, dissolved oxygen, pH, and specific conductance data (2020) for the Klamath River below Iron Gate Dam (RM 189.73; Baseline), Klamath River below Seiad (RM 128.5; Baseline), and Klamath River at Weitchpec (RM 43.5; Baseline).

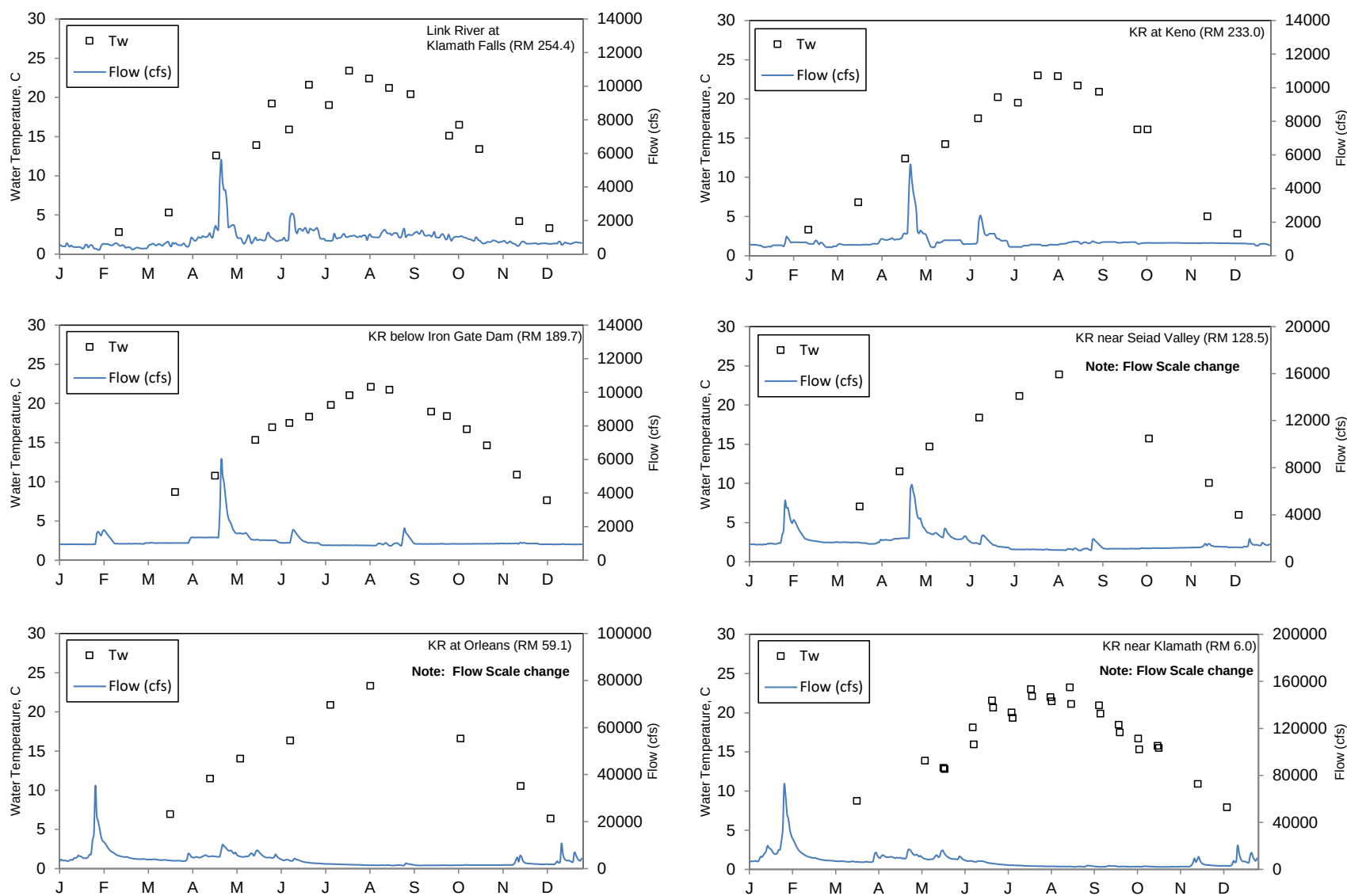


Figure 12. Discrete 2020 water temperature (T_w) measured during grab sampling and mean daily flow at USGS flow gage locations for: Link River at Klamath Falls (USGS Gage 11507500), Klamath River at Keno (USGS Gage 11509500), Klamath River below Iron Gate Dam (USGS Gage 11516530), Klamath River near Seiad Valley (USGS Gage 11520500), Klamath River at Orleans (USGS Gage 11523000), and Klamath River near Klamath (USGS Gage 11530500). Note the scale change for the secondary y-axis for Klamath River at Orleans (USGS) (RM 59.1; Baseline) and Klamath River near Klamath (RM 6.0; Baseline).

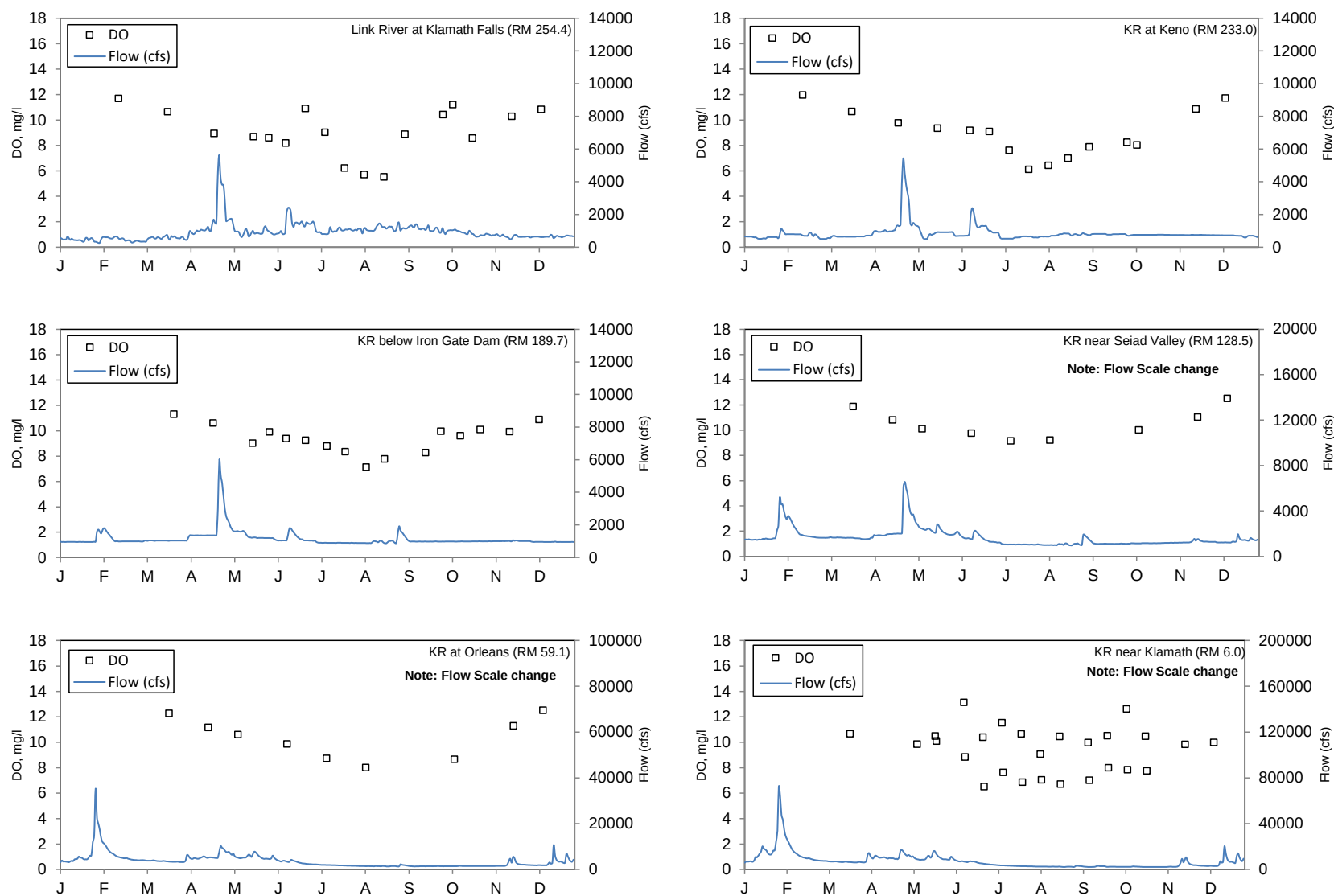


Figure 13. Discrete 2020 dissolved oxygen (DO) measured during grab sampling and mean daily flow at USGS flow gage locations for: Link River at Klamath Falls (USGS Gage 11507500), Klamath River at Keno (USGS Gage 11509500), Klamath River below Iron Gate Dam (USGS Gage 11516530), Klamath River near Seiad Valley (USGS Gage 11520500), Klamath River at Orleans (USGS Gage 11523000), and Klamath River near Klamath (USGS Gage 11530500). Note the scale change for the secondary y-axis for Klamath River at Orleans (USGS) (RM 59.1; Baseline) and Klamath River near Klamath (RM 6.0; Baseline).

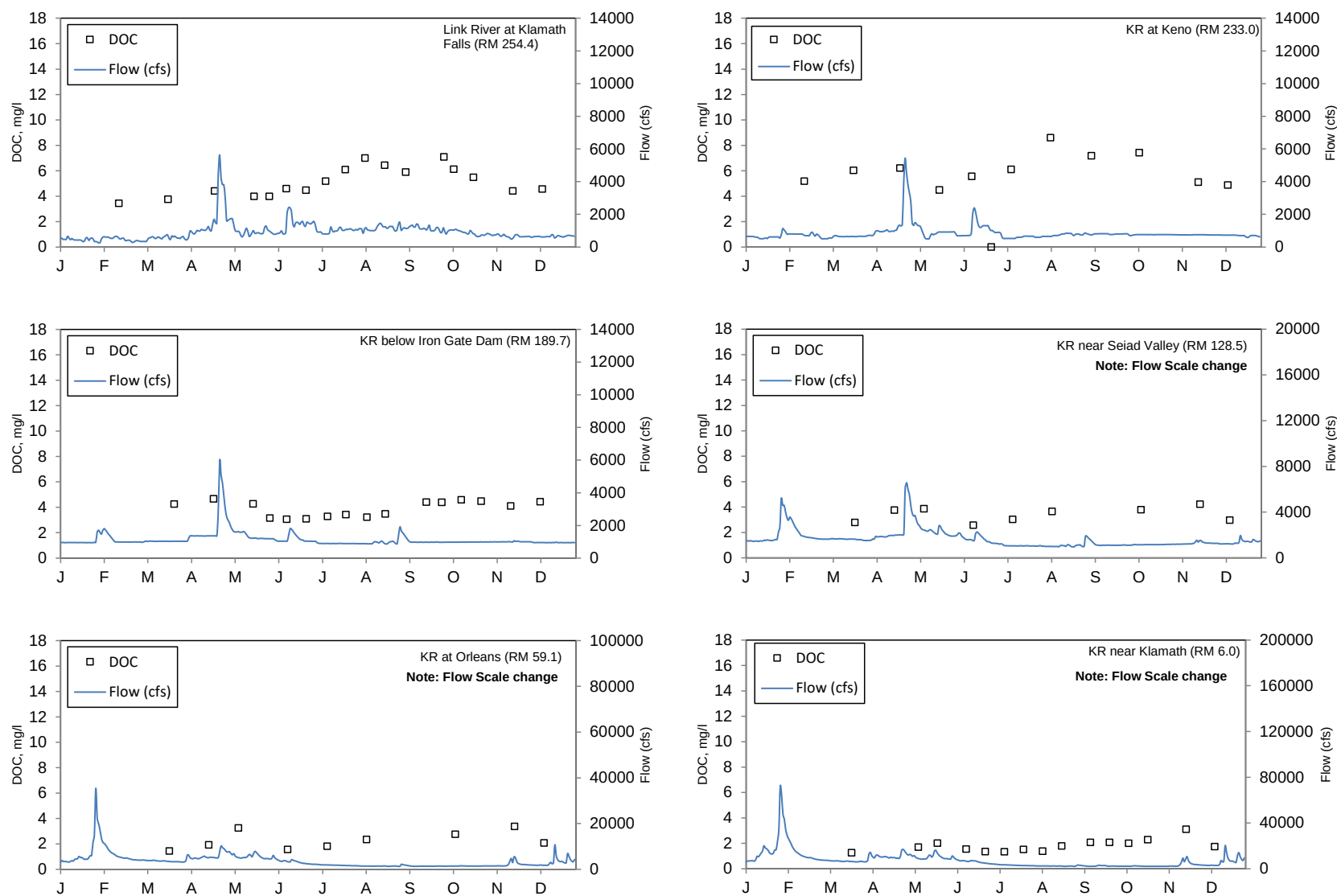


Figure 14. Discrete 2020 dissolved organic carbon (DOC) measured during grab sampling and mean daily flow at USGS flow gage locations for: Link River at Klamath Falls (USGS Gage 11507500), Klamath River at Keno (USGS Gage 11509500), Klamath River below Iron Gate Dam (USGS Gage 11516530), Klamath River near Seiad Valley (USGS Gage 11520500), Klamath River at Orleans (USGS Gage 11523000), and Klamath River near Klamath (USGS Gage 11530500). Note the scale change for the secondary y-axis for Klamath River at Orleans (USGS) (RM 59.1; Baseline) and Klamath River near Klamath (RM 6.0; Baseline).

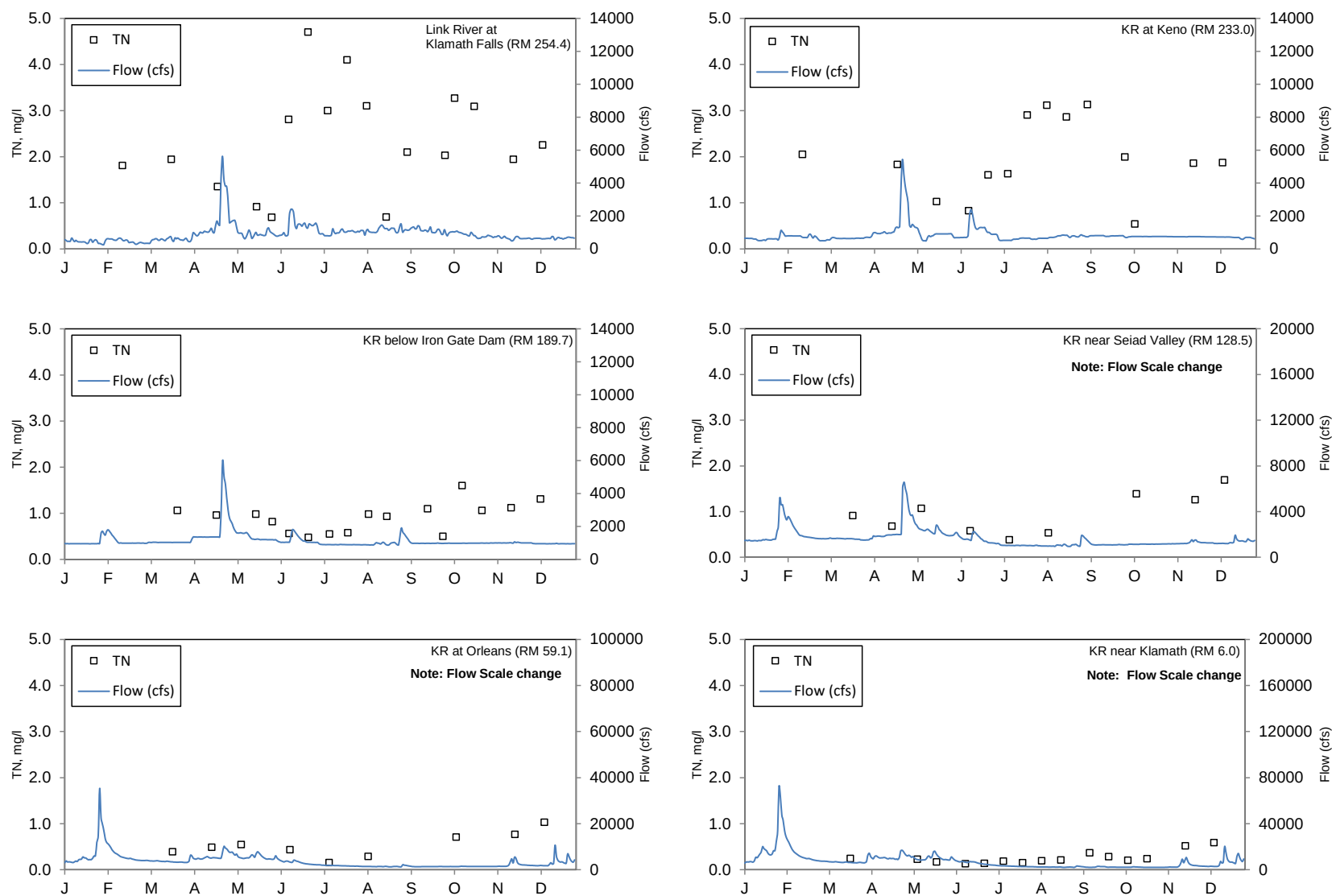


Figure 15. Discrete 2020 total nitrogen (TN) measured during grab sampling and mean daily flow at USGS flow gage locations for: Link River at Klamath Falls (USGS Gage 11507500), Klamath River at Keno (USGS Gage 11509500), Klamath River below Iron Gate Dam (USGS Gage 11516530), Klamath River near Seiad Valley (USGS Gage 11520500), Klamath River at Orleans (USGS Gage 11523000), and Klamath River near Klamath (USGS Gage 11530500). Note the scale change for the secondary y-axis for Klamath River at Orleans (USGS) (RM 59.1; Baseline) and Klamath River near Klamath (RM 6.0; Baseline).

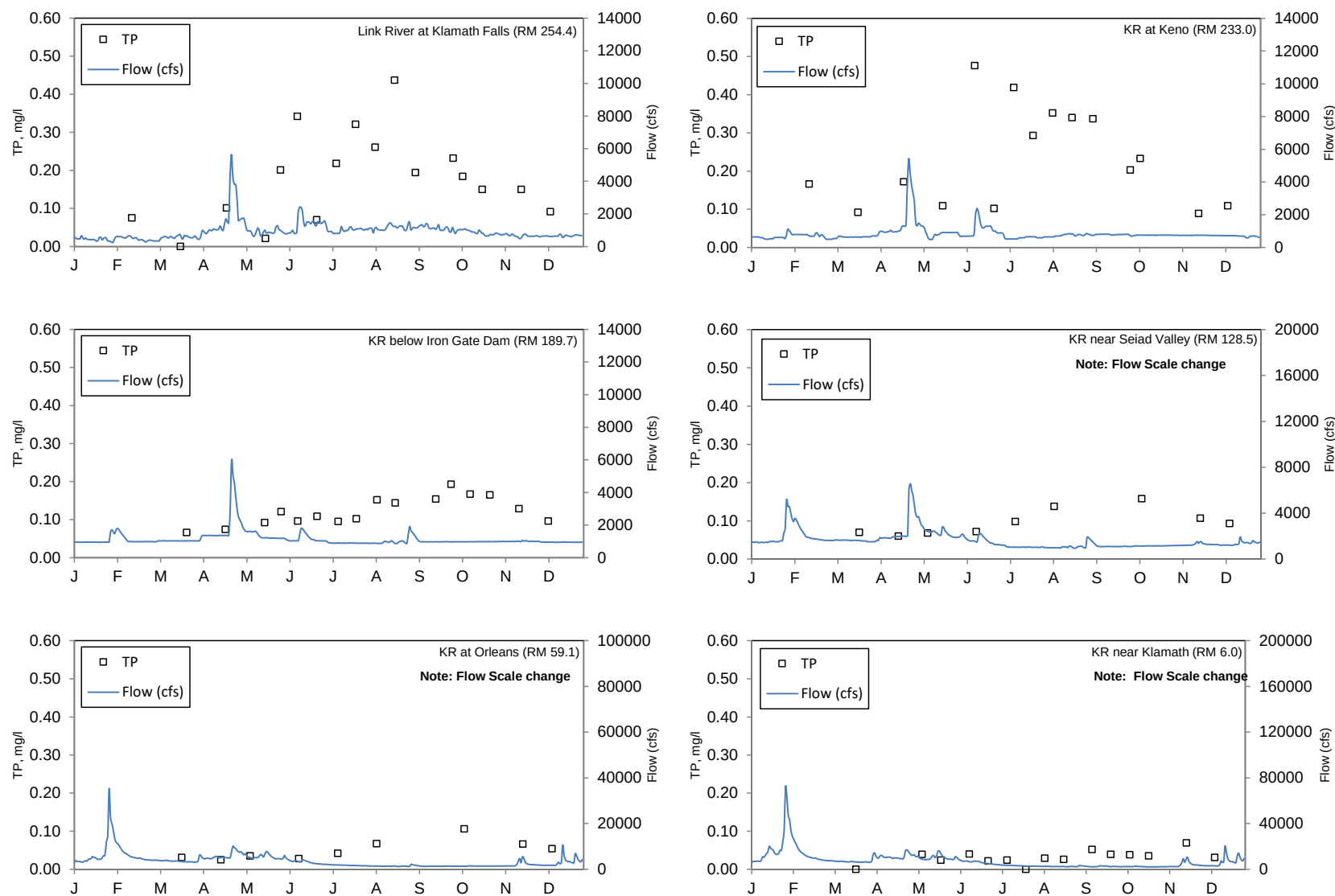


Figure 16. Discrete 2020 total phosphorus (TP) measured during grab sampling and mean daily flow at USGS flow gage locations for: Link River at Klamath Falls (USGS Gage 11507500), Klamath River at Keno (USGS Gage 11509500), Klamath River below Iron Gate Dam (USGS Gage 11516530), Klamath River near Seiad Valley (USGS Gage 11520500), Klamath River at Orleans (USGS Gage 11523000), and Klamath River near Klamath (USGS Gage 11530500). Note the scale change for the secondary y-axis for Klamath River at Orleans (USGS) (RM 59.1; Baseline) and Klamath River near Klamath (RM 6.0; Baseline).

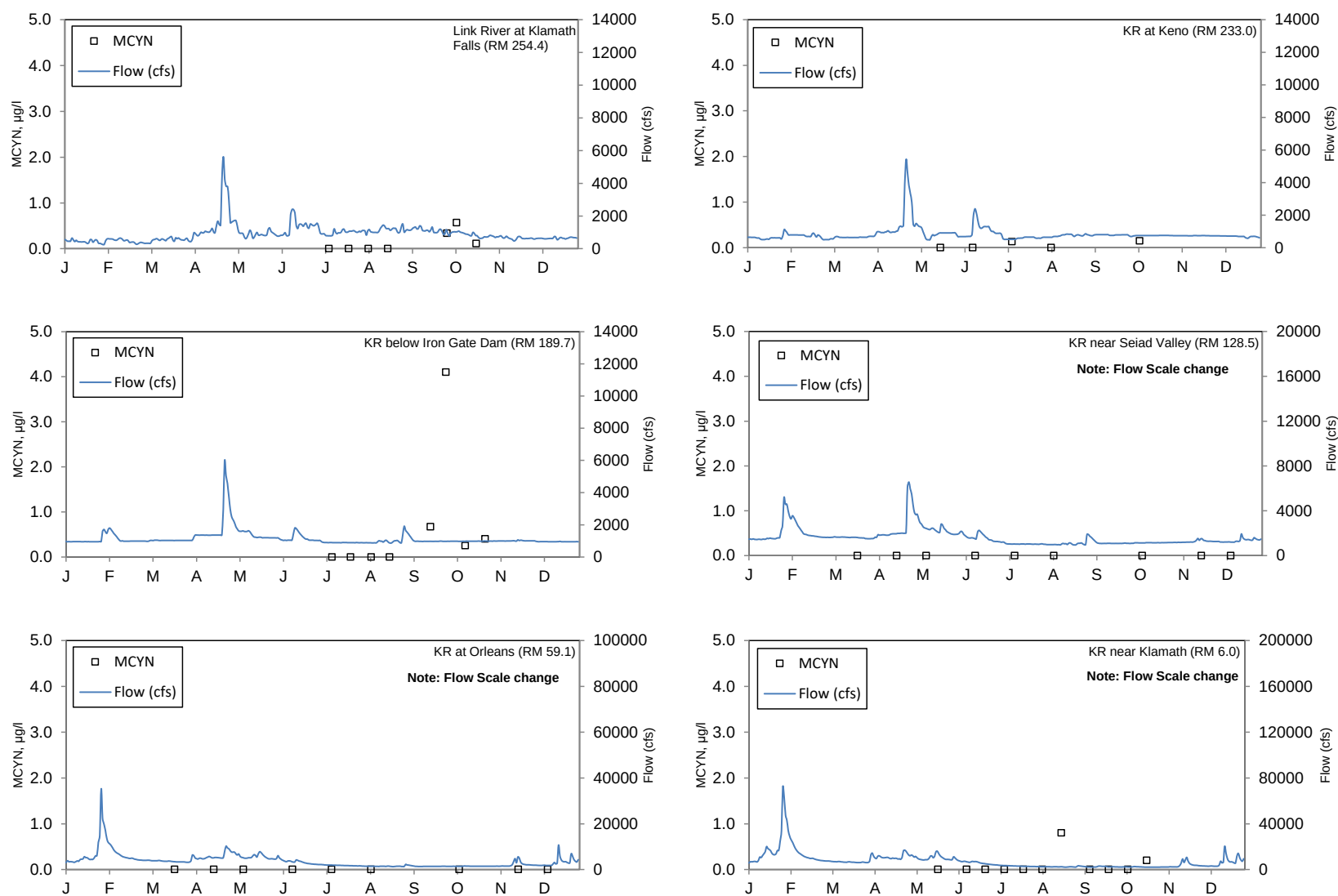


Figure 17. Discrete 2020 microcystin (MCYN) measured during grab sampling and mean daily flow at USGS flow gage locations for: Link River at Klamath Falls (USGS Gage 11507500), Klamath River at Keno (USGS Gage 11509500), Klamath River below Iron Gate Dam (USGS Gage 11516530), Klamath River near Seiad Valley (USGS Gage 11520500), Klamath River at Orleans (USGS Gage 11523000), and Klamath River near Klamath (USGS Gage 11530500). Note the scale change for the secondary y-axis for Klamath River at Orleans (USGS) (RM 59.1; Baseline) and Klamath River near Klamath (RM 6.0; Baseline). Only surface samples are presented. Non-detect values are presented as zeros.

7. Public Health Water Quality Data

Water quality samples for the 2020 IM 15 public health monitoring program were collected from May through November. Sampling crews from the various entities generally collected samples within a few days of each other. Sampling on the same day throughout the basin was infeasible because of other obligations, shipping constraints, travel considerations, and other factors. In most cases, all 18 sites were sampled each month. There were periods when one or more sites were omitted, or one or more constituents were not sampled. COVID-19 restrictions caused sampling difficulties in 2020, and in September 2020, a fire prevented visits to multiple sites along the Klamath River downstream of Iron Gate Dam; therefore, several planned samples were unable to be collected. The full public health dataset is presented in Appendix D.

7.1. Public Health Advisories

COVID-19 restrictions put in place by the EPA resulted in the EPA laboratory responsible for analyzing microcystin samples for the Public Health program being closed on April 3, 2020. Collected samples intended for the laboratory were frozen instead of being immediately shipped for analysis. The laboratory opened for analysis of new samples on July 22, 2020, and on September 25, 2020 was able to receive and analyze previously collected frozen samples. Because of the EPA laboratory closure from April through July, Public Health advisory determinations from May through July were based on toxic algae species data analyzed by Aquatic Analysts.

In 2020, the Oregon Health Authority, working under the updated 2018 Oregon guideline values (OHA 2019) issued a health advisory for Moore County Park area of Upper Klamath Lake on September 16, 2020⁹, which was lifted on September 29, 2020 when a second advisory was issued for Howard's Bay County Park. An advisory for the entire Upper Klamath Lake was issued on November 4, 2020. The advisory was lifted January 5, 2021.

Table 5. Oregon Health Authority health advisories actions in 2020.

Waterbody	Sub-area	Date	Action
Upper Klamath Lake	Moore County Park	9/16/2020	Advisory
		9/29/2020	Lifted Advisory
	Howard's Bay County Park	9/29/2020	Advisory
	Entire Lake	11/4/2020	Advisory
		1/5/2021	Lifted Advisory

⁹ Note that the dates in the posting discussion reference the date that the Oregon Health issued an advisory for a waterbody. They do not refer to the dates that water samples were actually collected.

In 2020, the North Coast Regional Water Quality Control Board (NCRWQCB), working under the updated posting guidelines defined in 2016¹⁰, issued a health advisory at the Danger level for Copco Reservoir on July 13, 2020.¹¹ The advisory level was lowered to the Caution level on November 30, 2020 and remained in place until the reservoir was de-posted on December 31, 2020. A health advisory was issued for Iron Gate Reservoir at the Danger level on July 13, 2020 and remained in place until the reservoir was de-posted on November 30, 2020. A health advisory was issued for the Klamath River upstream of Copco Reservoir on October 1, 2020 at the Caution level and remained in place until it was de-posted on December 31, 2020.

The 2020 posting of public health advisories on the Klamath River downstream of Iron Gate Dam started in July with the initial postings; the final postings were removed in December (Table 6). The Klamath River downstream of Iron Gate Dam to the I-5 Bridge was posted at the Caution level on July 24, 2020 and the advisory remained in place until this section of river was de-posted on November 30, 2020. A health advisory was issued at the Caution level on August 28, 2020 for the Klamath River between the I-5 Bridge and Orleans (including the Walker Bridge, Brown Bear Access, Seiad Valley and Happy Camp sites) and remained in place until this section of the river was de-posted on December 1, 2020.

The Klamath River between Weitchpec and the Turwar USGS gage near Klamath (Turwar), Klamath River between Turwar and the Estuary, and Klamath River between the Estuary and the mouth were posted at Yurok Level 1 on July 10, 2020.¹² On August 28, 2020, the health advisory was raised to Yurok Level 2 between Weitchpec and Turwar. For this section of the river, it was lowered to Yurok Level 1 on September 17, 2020, but on October 15, it was raised to Yurok Level 3. On October 27, it was lowered to Yurok Level 2 and remained in place until this section of the river was de-posted on December 2, 2020.

The Klamath River between Turwar and the Estuary was raised to Yurok Level 2 on October 15, 2020, lowered to Yurok Level 1 on October 27, 2020, but raised again to Yurok Level 2 on October 30, 2020, where the health advisory remained until the section of the river was de-posted on December 2, 2020. Once the Klamath River Estuary and the mouth was posted at Yurok Level 1 on July 10, 2020, it was raised to Yurok Level 2 on October 30, 2020, where the health advisory remained in place until that section of the river was de-posted on December 2, 2020.

¹⁰ <http://www.mywaterquality.ca.gov/habs/>

¹¹ Note that the dates in the posting discussion reference the date that the North Coast Regional Water Quality Control Board issued direction to post or de-post a waterbody. They do not refer to the dates that water samples were actually collected.

¹² Note that the dates in the posting discussion reference the date that the Yurok Tribe issued direction to post or de-post a waterbody. They do not refer to the dates that water samples were actually collected.

Table 6. California State Water Resources Control Board (SWRCB) and Yurok Tribe health advisory actions for the Klamath River in 2020.

Waterbody	Sub-area	Date	Posting Level/Action
Klamath River	Upstream of Copco Reservoir	10/1/2020	Caution
	Upstream of Copco Reservoir	12/31/2020	De-Posted
Copco Reservoir	-	7/13/2020	Danger
		11/30/2020	Caution
		12/31/2020	De-posted
Iron Gate Reservoir	-	7/13/2020	Danger
		11/30/2020	De-posted
Klamath River (downstream of Iron Gate Reservoir)	Iron Gate to I-5 Bridge	7/24/2020	Caution
	Iron Gate to I-5 Bridge	11/30/2020	De-Posted
	I-5 Bridge to Walker Rd Bridge	8/28/2020	Caution
	I-5 Bridge to Walker Rd Bridge	12/1/2020	De-Posted
	Walker Rd Bridge to Brown Bear	8/28/2020	Caution
	Walker Rd Bridge to Brown Bear	12/1/2020	De-Posted
	Brown Bear to below Seiad	8/28/2020	Caution
	Brown Bear to below Seiad	12/1/2020	De-Posted
	Seiad to below Happy Camp	8/28/2020	Caution
	Seiad to below Happy Camp	12/1/2020	De-Posted
	Happy Camp to Orleans	8/28/2020	Caution
	Happy Camp to Orleans	12/1/2020	De-Posted
	Orleans to Weitchpec	8/28/2020	Caution
	Orleans to Weitchpec	12/1/2020	De-Posted
	Weitchpec to Turwar	7/10/2020	Yurok Level 1
	Weitchpec to Turwar	8/28/2020	Yurok Level 2
	Weitchpec to Turwar	9/17/2020	Yurok Level 1
	Weitchpec to Turwar	10/15/2020	Yurok Level 3
	Weitchpec to Turwar	10/27/2020	Yurok Level 2
	Weitchpec to Turwar	12/2/2020	De-posted
	Near Klamath to Estuary	7/10/2020	Yurok Level 1
	Near Klamath to Estuary	10/15/2020	Yurok Level 2
	Near Klamath to Estuary	10/27/2020	Yurok Level 1
	Near Klamath to Estuary	10/30/2020	Yurok Level 2
	Near Klamath to Estuary	12/2/2020	De-posted
	Estuary to Mouth	7/10/2020	Yurok Level 1
	Estuary to Mouth	10/30/2020	Yurok Level 2
	Estuary to Mouth	12/2/2020	De-posted

7.2. Data Summary

The public health data is summarized below to illustrate general spatial and temporal patterns during the 2020 sampling period (the full public health dataset is in Appendix D). Data also are summarized in (1) bar graphs representing the microcystin

concentration for the different sampling events at a specific location, (2) bar graphs representing the toxic algae cell counts for the different sampling events at a specific location, and (3) longitudinal graphs of river mile versus corresponding lab results for microcystin.

Anatoxin-a data was collected in accordance with the public health sampling SOP for the public health monitoring program. GreenWater analyzed all anatoxin-a samples using LC/MS-MS (Table D-3). The GreenWater anatoxin-a method had an MDL of 0.05 µg/l and no anatoxin-a was detected in any of the samples collected at any location in 2020.

All microcystin data included below was collected in accordance with the public health sampling SOP for the public health monitoring program. The MDL for microcystin was 0.10 µg/l and the RL was 0.15 µg/l. There were many samples where microcystin was not detected above the MDL. To clearly indicate when a sample was collected but microcystin was not detected, all non-detect values were graphed as a clearly identified, separate series on the figures below (using a 'ND' label). If a sample was not collected at a location on a specific date, a note was added to the graph for that site.

There were also instances when an algae sample was collected, but no toxic algae were detected. In such cases, a value of zero for the toxic algae cell count indicated that a sample was collected, and no toxic algae were detected. The toxic algae cell count graphs present values for *Dolichospermum flos-aquae* (DKFA) (formerly *Anabaena flos-aquae*) and *Microcystis aeruginosa* (MSAE). Also presented on the graphs is a summation of other potentially toxic cyanobacteria, including *Dolichospermum sp.*, *Gloeotrichia echinulata*, *Planktothrix limosa* (formerly *Oscillatoria limosa*.), *Dolichospermum variabilis*, and *Cylindrospermopsis sp.*, which were present in 2020 Klamath River samples. When present, the 'Other' potentially toxic cyanobacteria are identified in the figure captions. While *Aphanizomenon flos-aquae* cell counts were reported for the public health samples, in the Klamath River system this species of cyanobacteria has not been found to produce toxins (Carmichael et al. 2000; Li et al. 2000; Pereira 2004). Therefore, *Aphanizomenon flos-aquae* values were omitted from the public health summary graphs.

Because of the higher cell counts and microcystin concentrations at the reservoir sites, the graphs for the reservoir locations have a different scale than the graphs for the river locations.

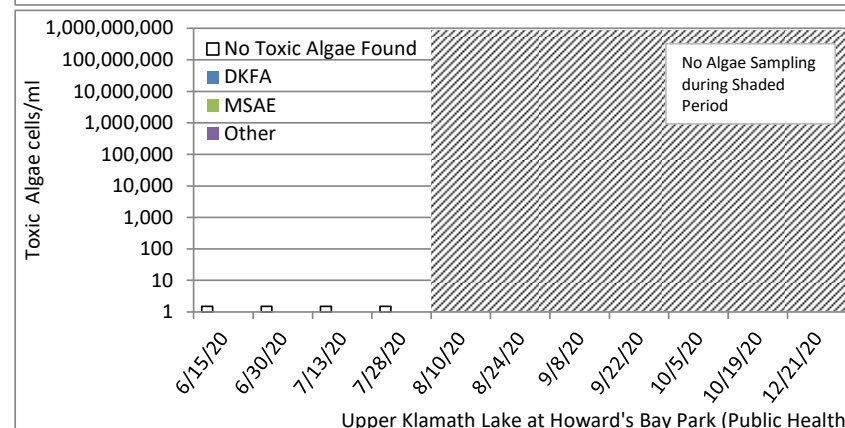
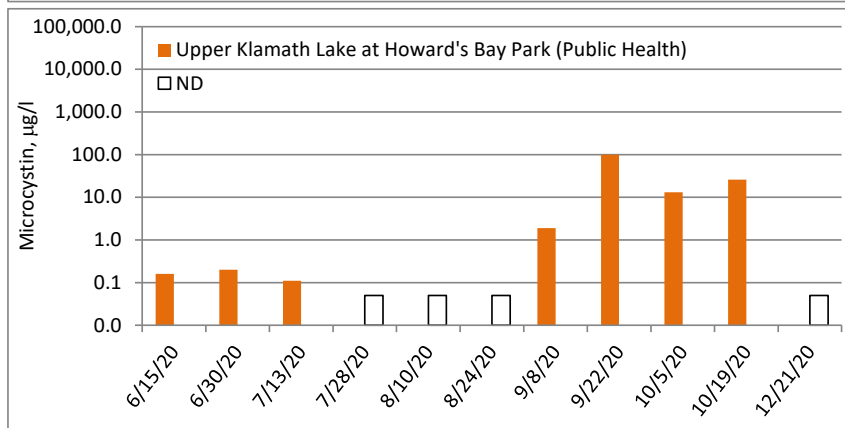
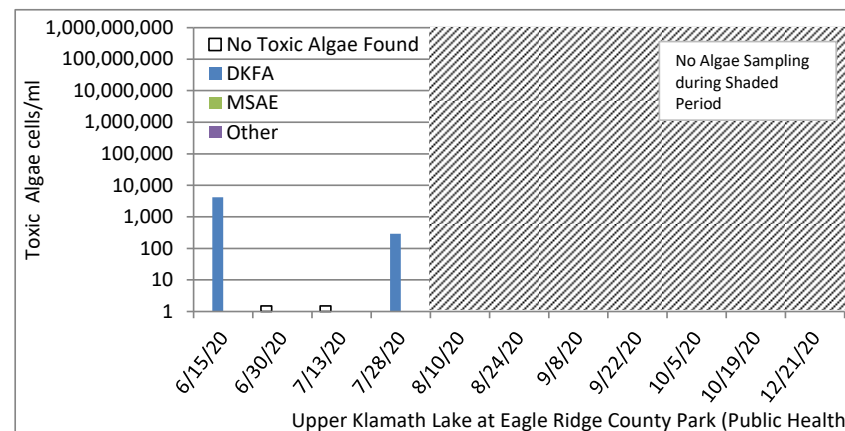
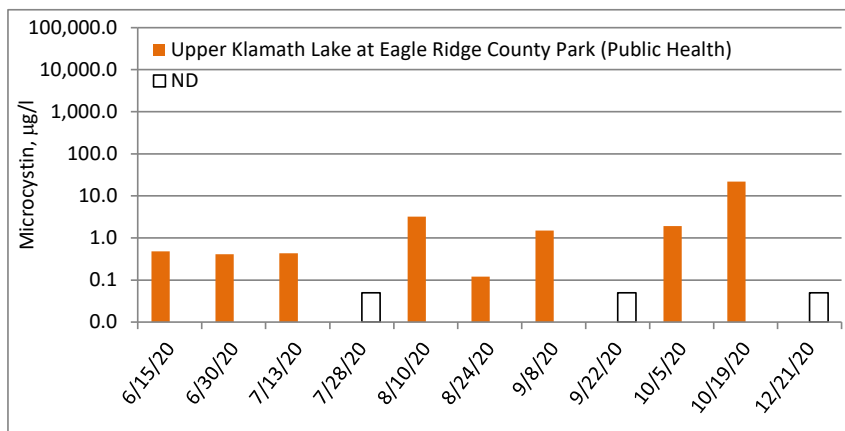


Figure 18. Microcystin concentrations and toxic algae cell counts from 2020 public health samples collected in Upper Klamath Lake at Eagle Ridge County Park (Public Health) and Upper Klamath Lake at Howard's Bay Park (Public Health) (ND indicates non-detect results).

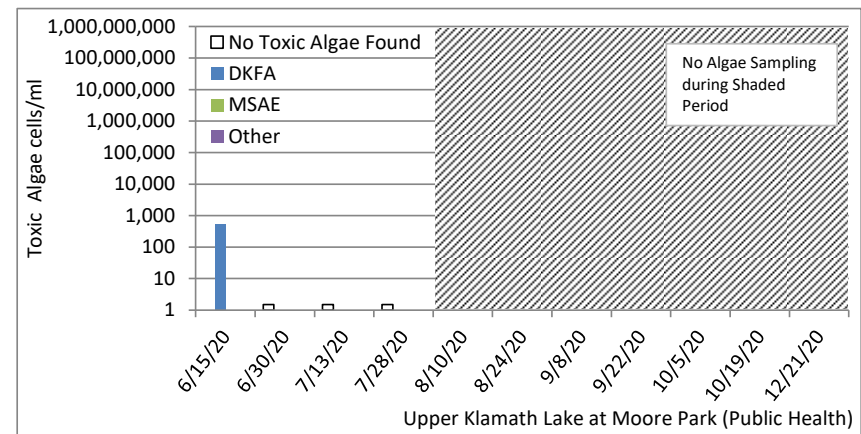
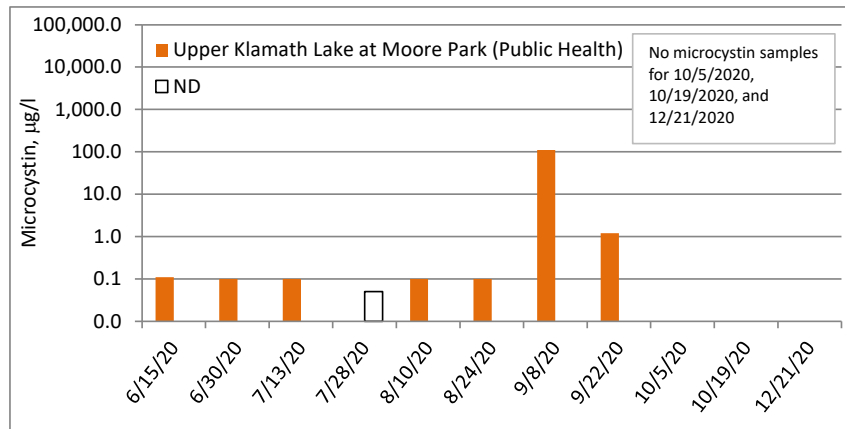


Figure 19. Microcystin concentrations and toxic algae cell counts from 2020 public health samples collected in Upper Klamath Lake at Moore Park (Public Health) (ND indicates non-detect results).

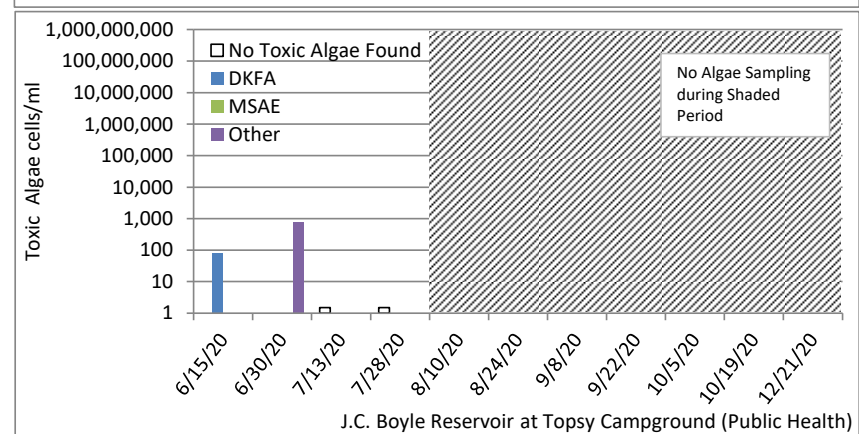
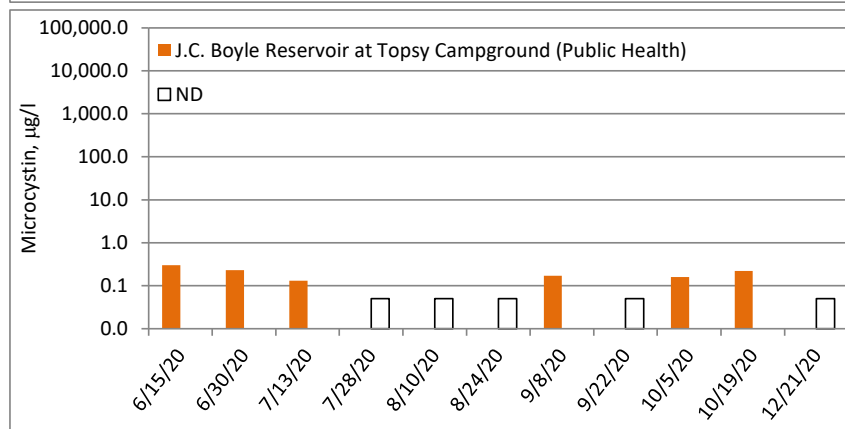
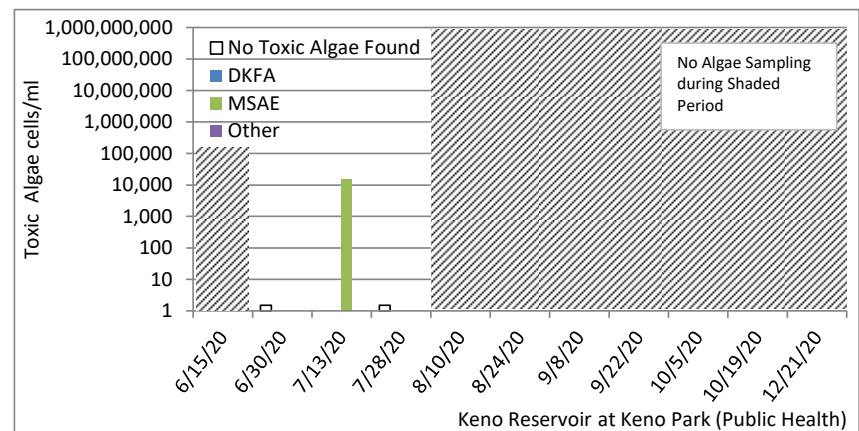
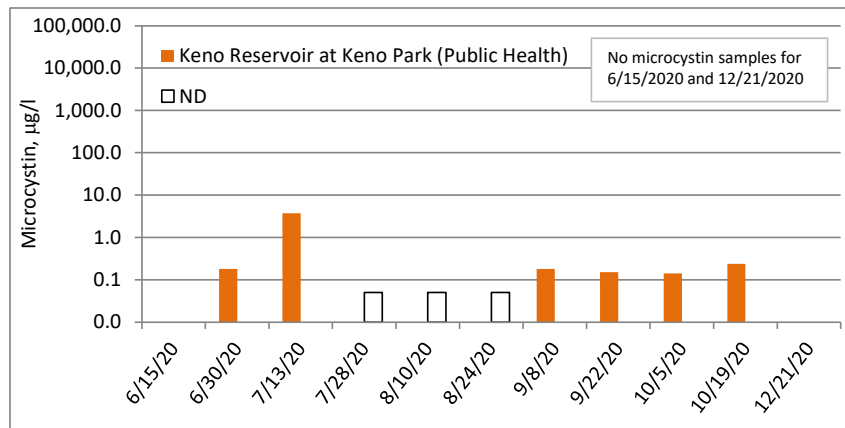


Figure 20. Microcystin concentrations and toxic algae cell counts from 2020 public health samples collected in Keno Reservoir at Keno Park (Public Health) and J.C. Boyle Reservoir at Topsy Campground (Public Health) (ND indicates non-detect results). The other potentially toxic cyanobacteria present at J.C. Boyle Reservoir at Topsy Campground (Public Health) was *Planktothrix limosa*.

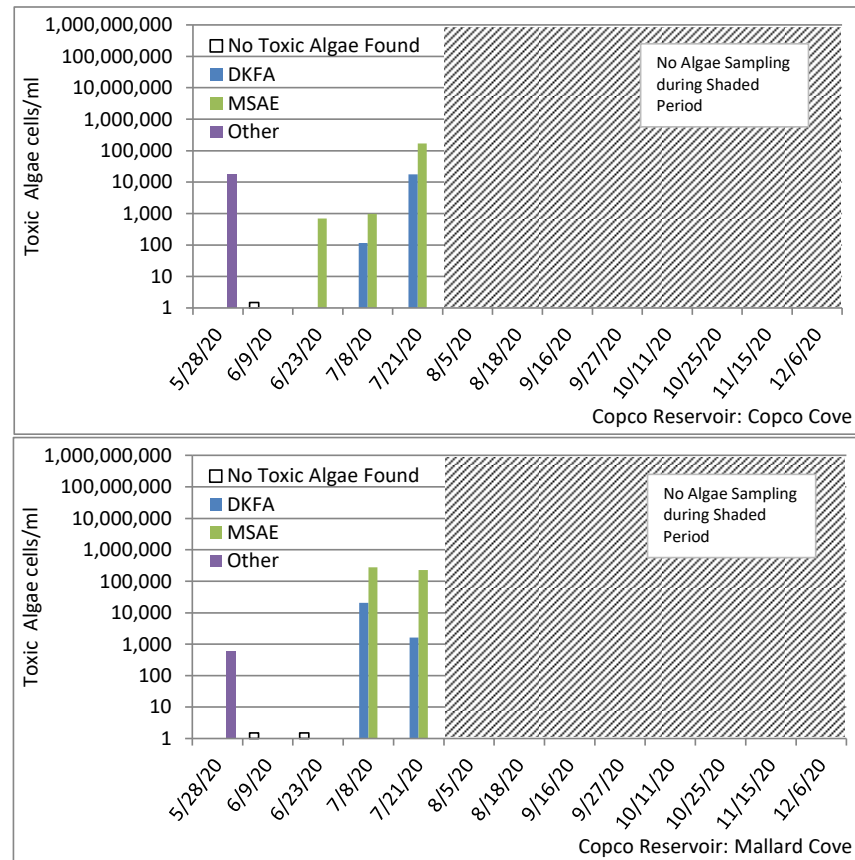
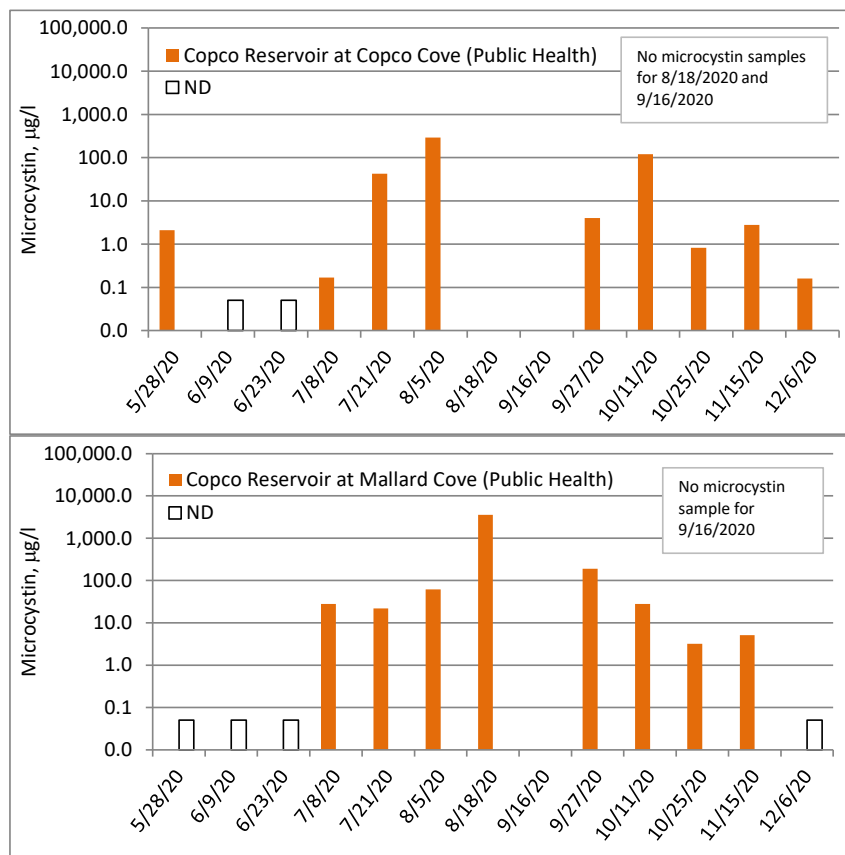


Figure 21. Microcystin concentrations and toxic algae cell counts from 2020 public health samples collected in Copco Reservoir at Copco Cove (Public Health) and Mallard Cove (Public Health) (ND indicates non-detect results). The other potentially toxic cyanobacteria present at Copco Reservoir at Copco Cove (Public Health) and Copco Reservoir at Mallard Cove (Public Health) was *Planktothrix limosa*.

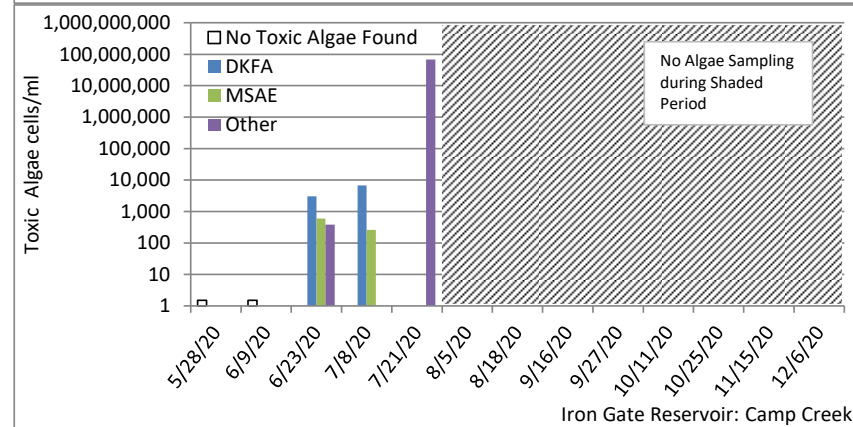
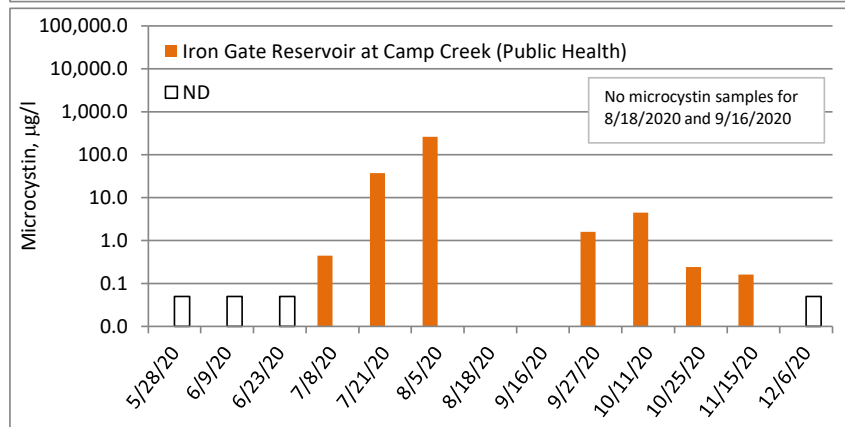
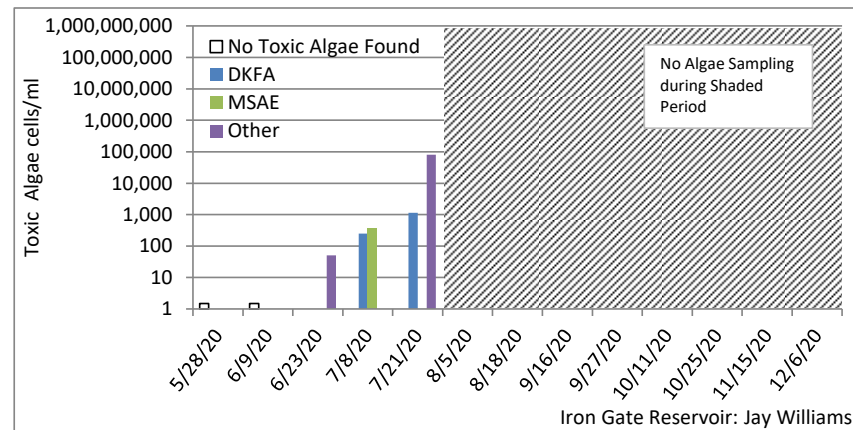
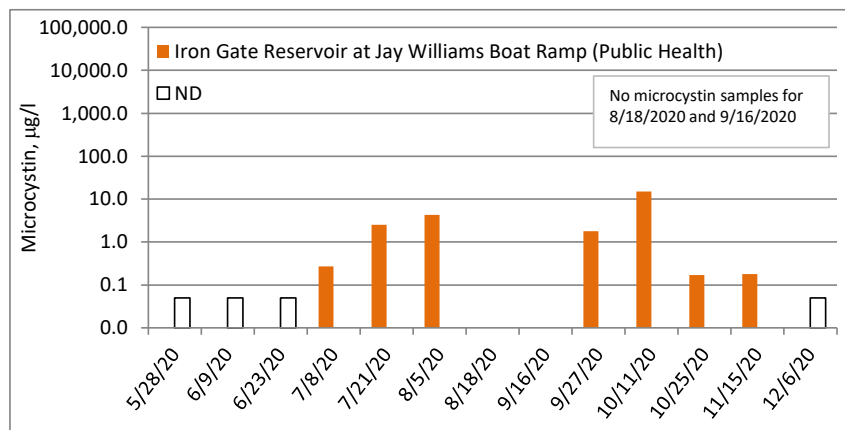


Figure 22. Microcystin concentrations and toxic algae cell counts from 2020 public health samples collected in Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health) and Iron Gate Reservoir at Camp Creek (Public Health) (ND indicates non-detect results). The other potentially toxic cyanobacteria present at Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health) was *Gloeotrichia echinulata*. Other potentially toxic cyanobacteria present at Iron Gate Reservoir at Camp Creek (Public Health) included *Gloeotrichia echinulata* and *Planktothrix limosa*.

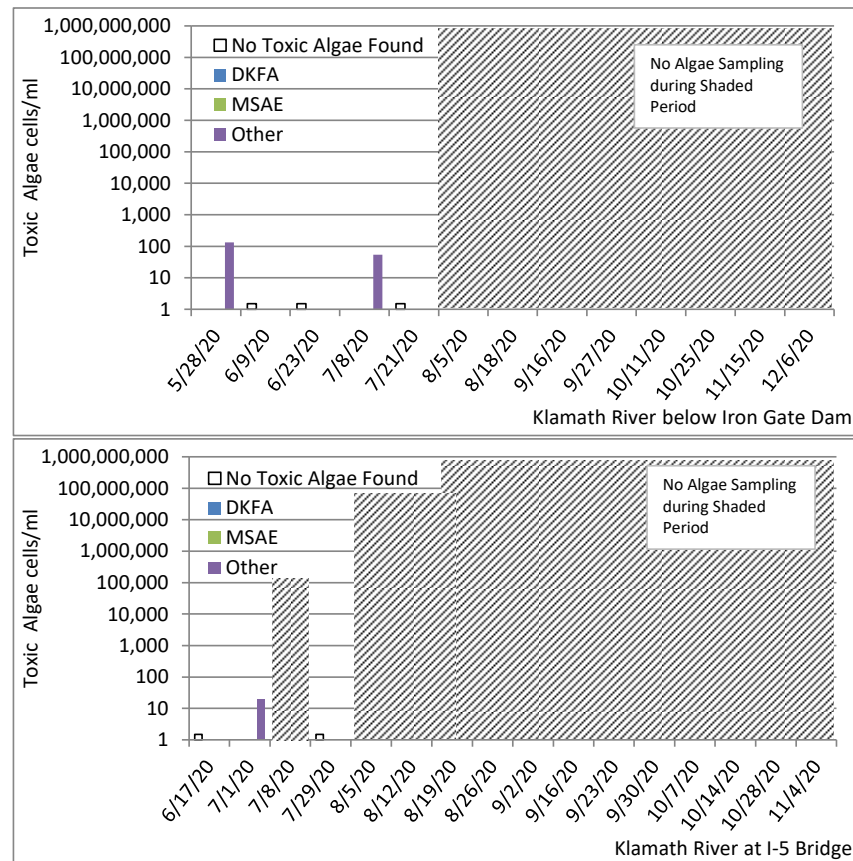
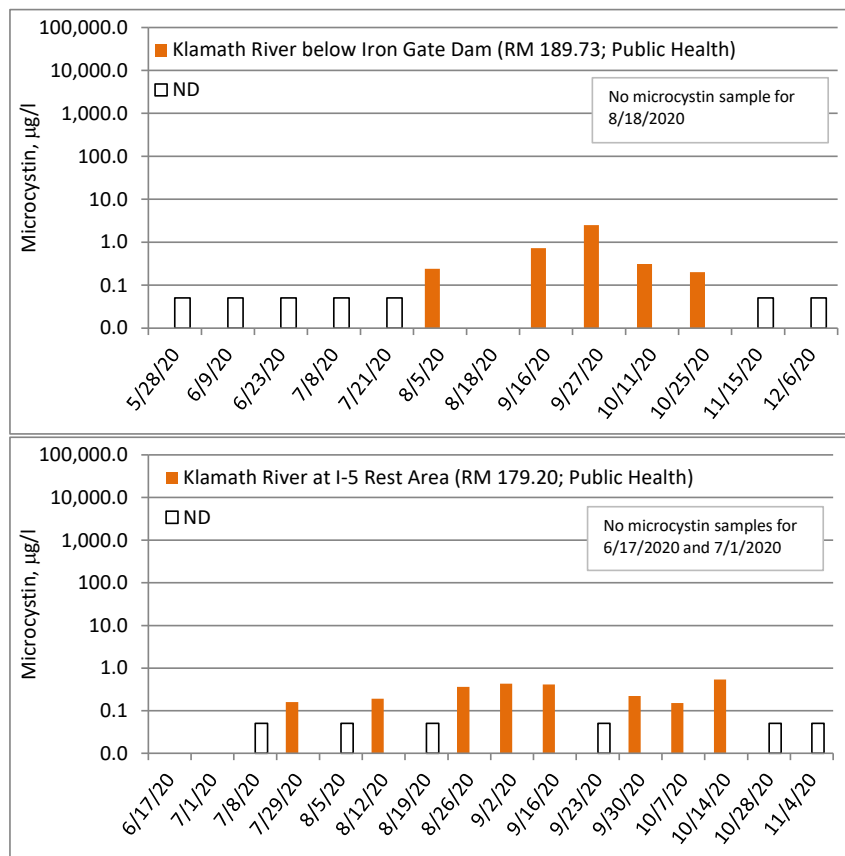


Figure 23. Microcystin concentrations and toxic algae cell counts from 2020 public health samples collected at Klamath River below Iron Gate Dam (RM 189.73; Public Health) and Klamath River at I-5 Rest Area (RM 179.20; Public Health) (ND indicates non-detect results). The other potentially toxic cyanobacteria present at Klamath River below Iron Gate Dam (RM 189.73; Public Health) and Klamath River at I-5 Rest Area (RM 179.20; Public Health) was *Planktothrix limosa*.

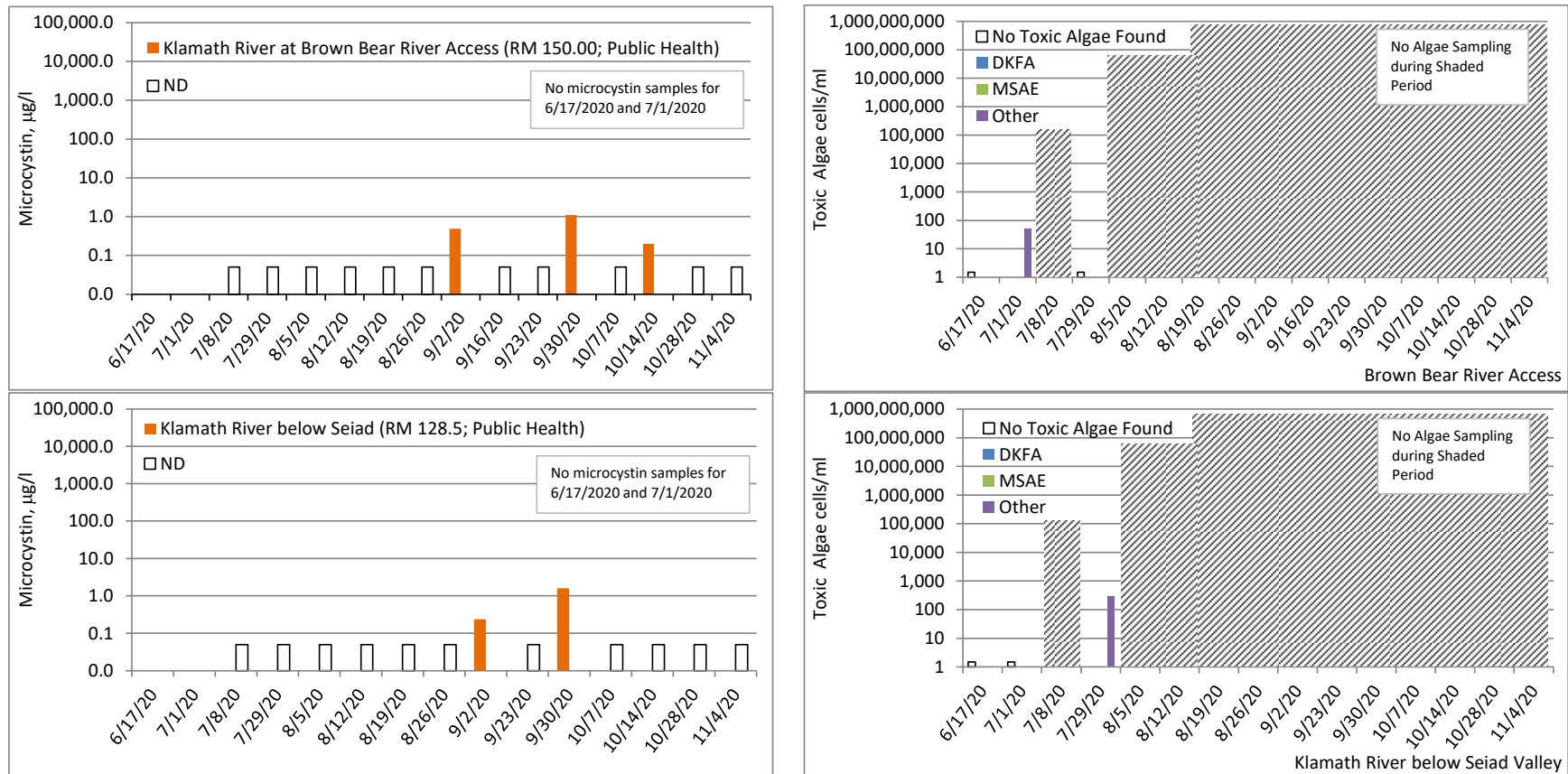


Figure 24. Microcystin concentrations and toxic algae cell counts from 2020 public health samples collected at Klamath River at Brown Bear River Access (RM 150.00; Public Health) and Klamath River below Seiad (RM 128.5; Public Health) (ND indicates non-detect results). The other potentially toxic cyanobacteria present at Klamath River at Brown Bear River Access (RM 150.00; Public Health) was *Planktothrix limosa*. Other potentially toxic cyanobacteria present at Klamath River below Seiad (RM 128.5; Public Health) included *Dolichospermum variabilis* and *Planktothrix limosa*.

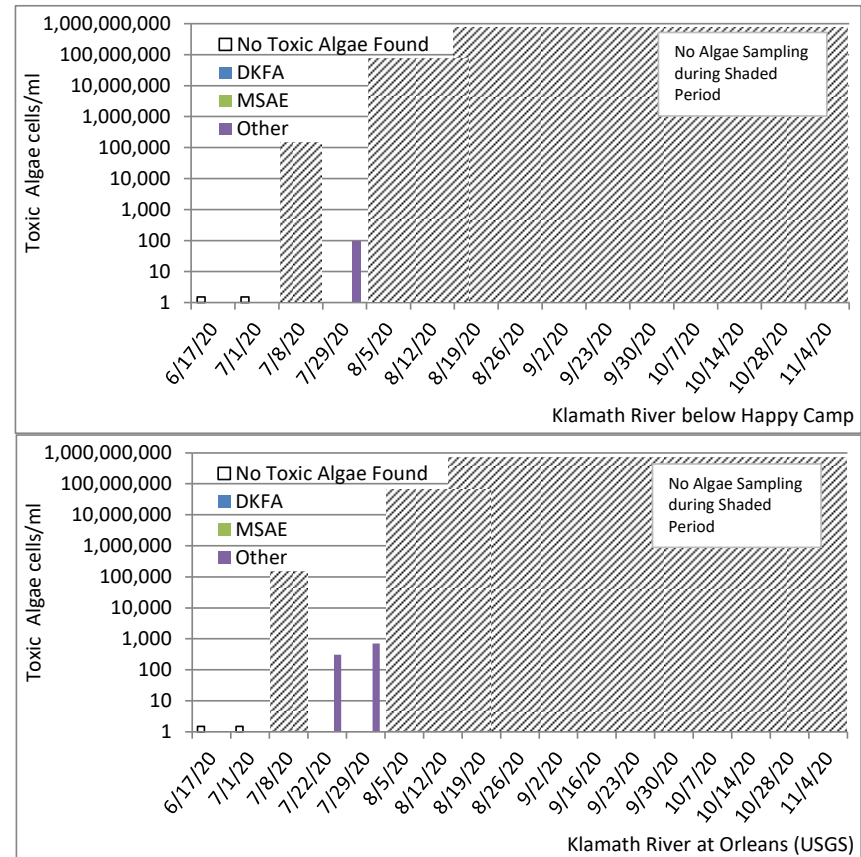
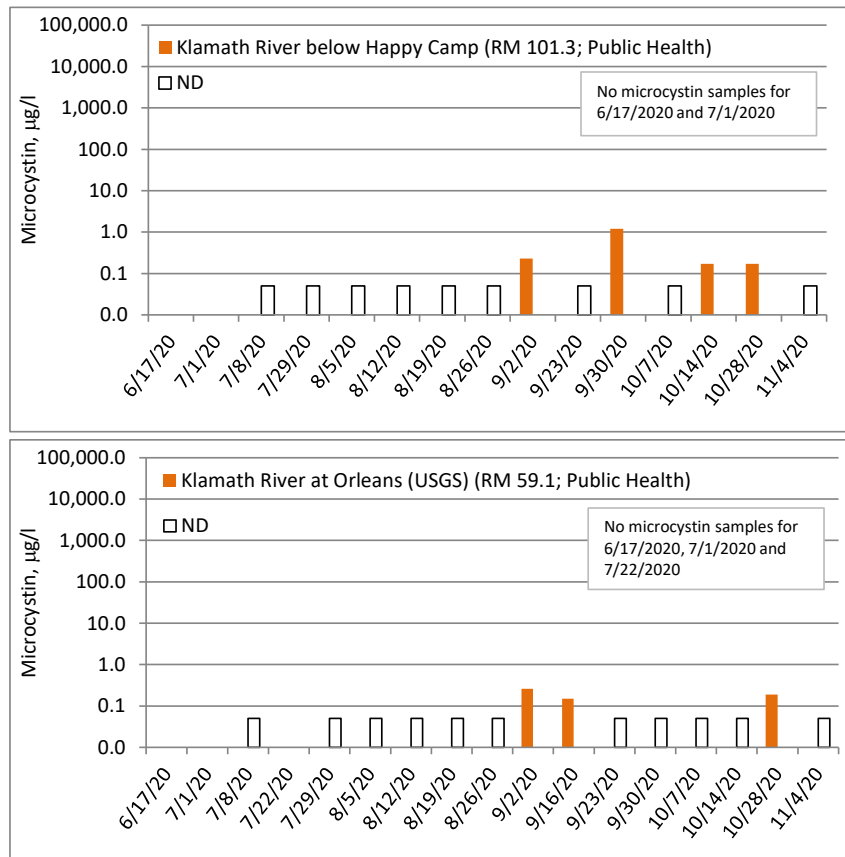


Figure 25. Microcystin concentrations and toxic algae cell counts from 2020 public health samples collected at Klamath River below Happy Camp (RM 101.3; Public Health) and Klamath River at Orleans (USGS) (RM 59.1; Public Health) (ND indicates non-detect results). The other potentially toxic cyanobacteria present at Klamath River below Happy Camp (RM 101.3; Public Health) and Klamath River at Orleans (USGS) (RM 59.1; Public Health) was *Dolichospermum variabilis*.

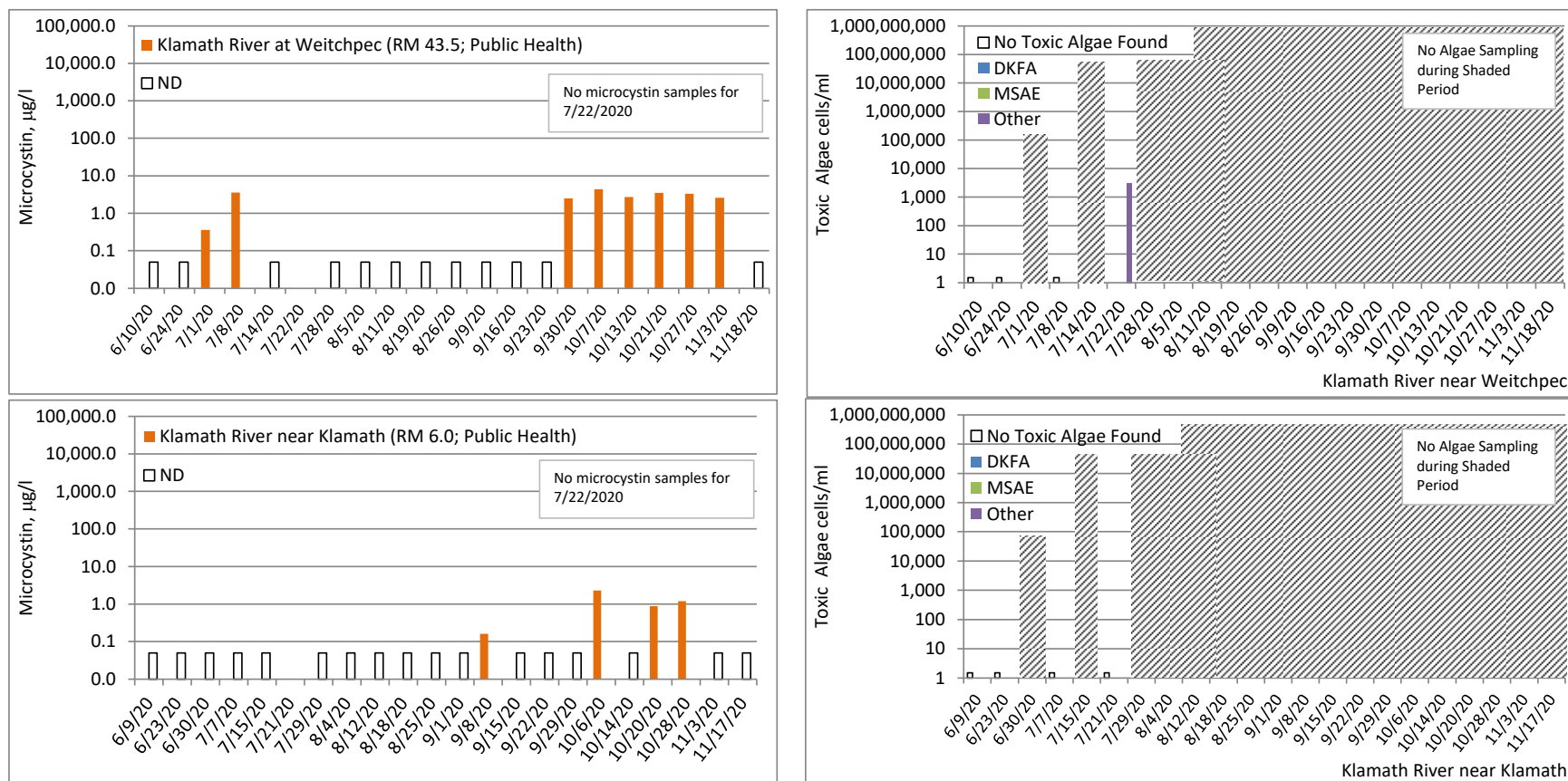


Figure 26. Microcystin concentrations and toxic algae cell counts from 2020 public health samples collected at Klamath River at Weitchpec (RM 43.5; Public Health) and Klamath River near Klamath (RM 6.0; Public Health) (ND indicates non-detect results). Other potentially toxic cyanobacteria present at Klamath River at Weitchpec (RM 43.5; Public Health) included *Dolichospermum sp.* and *Dolichospermum variabilis*.

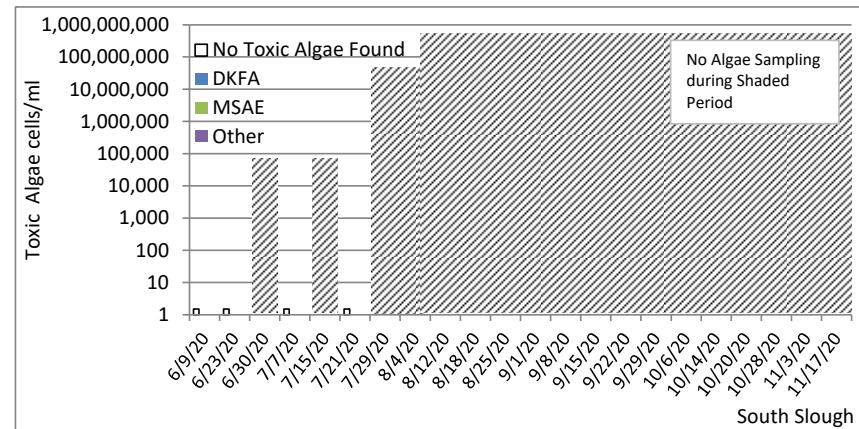
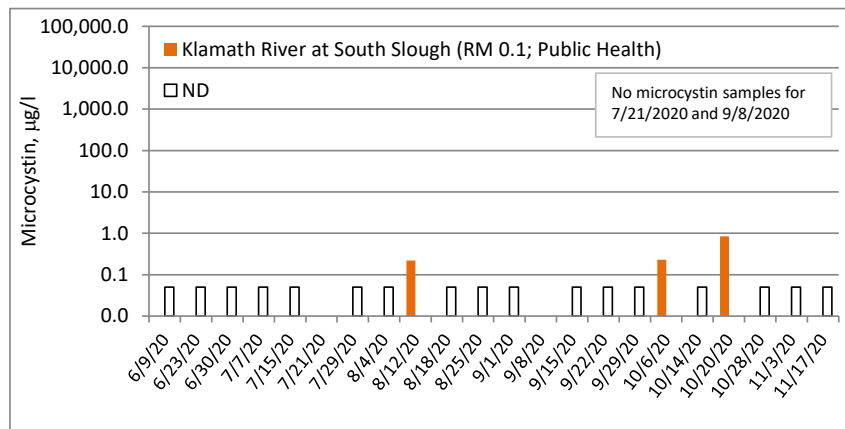


Figure 27. Microcystin concentrations and toxic algae cell counts from 2020 public health samples collected at Klamath River at South Slough (RM 0.1; Public Health) (ND indicates non-detect results).

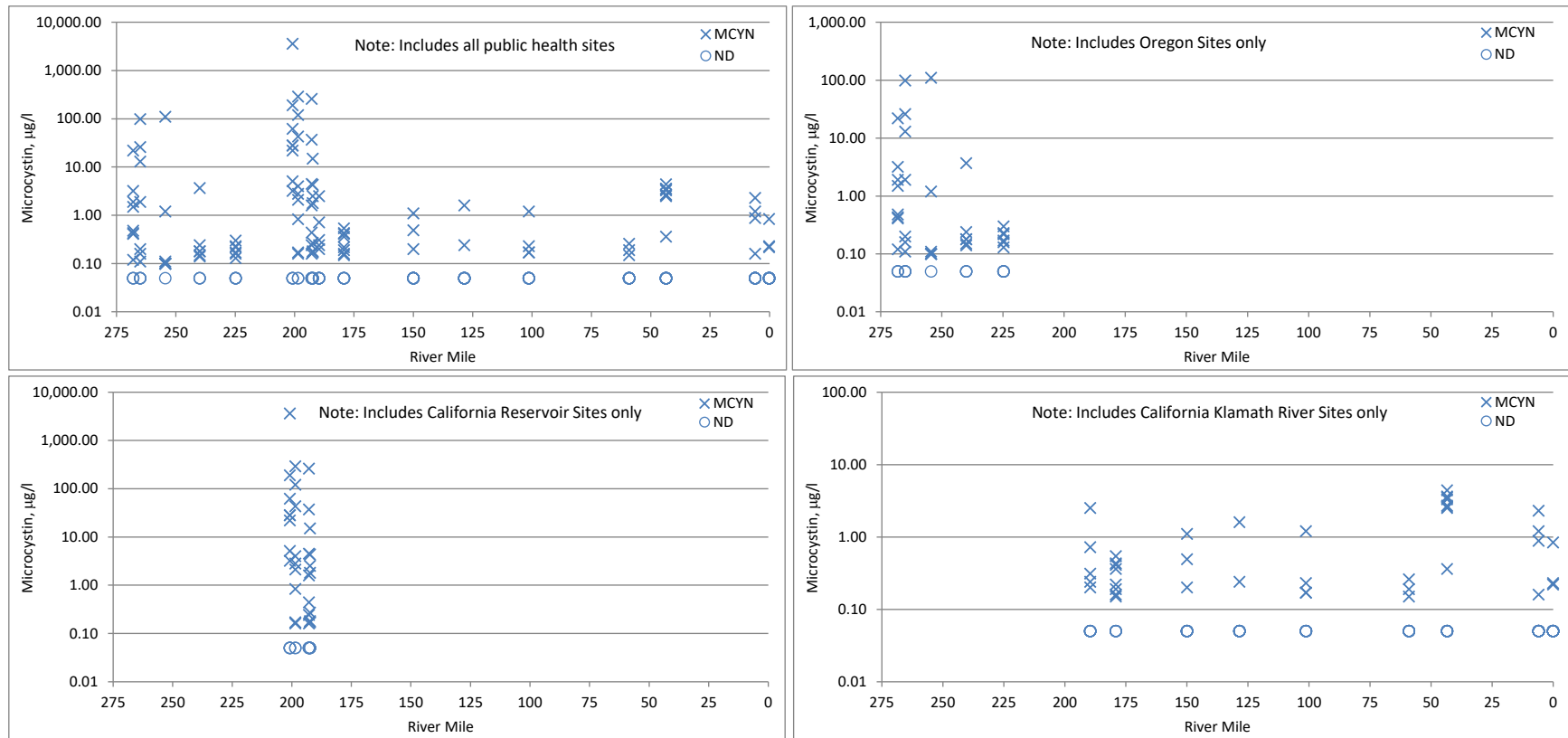


Figure 28. 2020 microcystin (MCYN) concentrations from public health program: at all public health sampling sites (top left), Oregon sites (top right), California reservoir sites (bottom left), and California Klamath River sites from Iron Gate Dam downstream (bottom right). ND (○) indicates non-detect results. Sites in Upper Klamath Lake and reservoirs were given approximate river miles to locate them appropriately on the graph.

8. Summary

The KHSa IM 15 baseline water quality sampling program and public health monitoring program are an interagency cooperative effort to characterize water quality conditions in the Klamath Basin in support of ongoing and future measures pertaining to restoration, dam removal studies, public health, and other factors. The programs were originally implemented in 2009 under the AIP and have been on-going in a consistent manner ever since. Quality assurance measures have been incorporated into the process and final data sets are available to all interested parties. This planning and monitoring effort has laid the groundwork for continued cooperation and quality data collection in the Klamath River basin.

9. References

- Carmichael, W., C. Drapeau, D. Anderson. 2000. Harvesting of *Aphanizomenon flos-aquae* (Cyanobacteria) from Klamath Lake for human dietary use. *Journal of Applied Phycology* 12: 585-595.
- Karuk Tribe (Karuk). 2009. Mid-Klamath River Nutrient, Periphyton, Phytoplankton and Algal Toxin Sampling Analysis Plan (SAP). February.
- KHSA Working Group (KHSA-WG). 2010. Klamath River Baseline Sampling Program QA Comparison. Prepared for the KHSA Water Quality Program Working Group by M. Deas, Watercourse Engineering, Inc., and K. Fetcho, Yurok Tribe Environmental Program. May 4.
- Li, R., W. Carmichael, Y. Liu, and M. Watanabe. 2000. Taxonomic re-evaluation of *Aphanizomenon flos-aquae* NH-5 based on morphology and 16S rRNA gene sequences. *Hydrobiologia* 438: 99-105.
- Office of Environmental Health Hazard Assessment (OEHHA). 2012. Toxicological Summary and Suggested Action Levels to Reduce Potential Adverse Effects of Six Cyanotoxins. Final Report-May 2012. Office of Environmental Health Hazard Assessment, California Environmental Protection Agency, Sacramento, California 95812-4010
- Oregon Health Authority (OHA). 2019. Oregon Harmful Algal Bloom Surveillance (HABS) Program – Public Health Advisory Guidelines, Harmful Algae Blooms in Freshwater Bodies. 27 pp.
https://public.health.oregon.gov/HealthyEnvironments/Recreation/HarmfulAlgaeBlossoms/Pages/resources_for_samplers.aspx
- PacifiCorp. 2008. Quality Assurance Project Plan. 2009 Baseline Water Quality Monitoring by PacifiCorp, Interim Measure 12, Part 2.
- Paulo, P., R. Li, W. Carmichael, E. Dias, and S. Franca (2004) Taxonomy and production of paralytic shellfish toxins by the freshwater cyanobacterium *Aphanizomenon gracile* LMECYA40, *European Journal of Phycology*, 39:4, 361-368, DOI: 10.1080/09670260410001714723
- State Water Resources Control Board (SWRCB). 2016. California SWRCB 2016. Draft Statewide Voluntary Guidance on CyanoHABs in Recreational Waters. Available online at:
http://www.mywaterquality.ca.gov/monitoring_council/cyanohab_network/docs/triggers.pdf

United States Bureau of Reclamation (USBR). 2009. Standard Operating Procedures for Quality Assurance. Revision 2009-05. Prepared by Environmental Monitoring Branch. May.

World Health Organization (WHO). 2003. Cyanobacterial Toxins: Microcystin-LR in Drinking Water. Background document for the development of WHO Guidelines for Drinking-Water Quality. World Health Organization. Geneva.

Yurok Tribe (Yurok). 2008. Lower Klamath River Nutrient, Periphyton, Phytoplankton and Algal Toxin Sampling Analysis Plan (SAP). June.

Appendix A. Baseline Water Quality Sampling Site Locations

Table A-1. 2020 baseline water quality sampling locations in the Klamath River mainstem and major tributaries.

Site ID	Location	Site Type	River Mile	Sampling Entity
KR25444	Link Dam (RM 254.44; Baseline)	Mainstem	254.44	USBR
KR24600	Keno Reservoir at Miller Island (RM 246.0; Baseline)	Mainstem	246.00	USBR
KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	Mainstem	233.40	USBR
KR22822	Klamath River above J.C. Boyle Reservoir (RM 228.22; Baseline)	Mainstem	228.22	PacifiCorp
KR22478	J.C. Boyle Reservoir (RM 224.78; Baseline)	Reservoir	224.78	PacifiCorp
KR22460	Klamath River below J.C. Boyle Dam (RM 224.60; Baseline)	Mainstem	224.60	PacifiCorp
KR21950	Klamath River below USGS Gage (RM 219.50; Baseline)	Mainstem	219.50	PacifiCorp
KR20642	Klamath River above Shovel Creek (RM 206.42; Baseline)	Mainstem	206.42	PacifiCorp
KR19874	Copco Reservoir (RM 198.74; Baseline) (0.5 m, thermocline, 0.5 m from bottom, and 0-8m integrated)	Reservoir	198.74	PacifiCorp
KR19645	Klamath River below Copco Dam (RM 196.45; Baseline)	Mainstem	196.45	PacifiCorp
KR19019	Iron Gate Reservoir (RM 190.19; Baseline) (0.5 m, thermocline, 0.5 m from bottom, and 0-8m integrated)	Reservoir	190.19	PacifiCorp
KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	Mainstem	189.73	PacifiCorp
KR15626	Klamath River at Walker Bridge (RM 156.26; Baseline)	Mainstem	156.26	Karuk
KR12850	Klamath River below Seiad (RM 128.5; Baseline)	Mainstem	128.50	Karuk
KR10130	Klamath River below Happy Camp (RM 101.3; Baseline)	Mainstem	101.30	Karuk
KR05910	Klamath River at Orleans (USGS) (RM 59.1; Baseline)	Mainstem	59.10	Karuk
KR04350	Klamath River at Weitchpec (RM 43.5; Baseline)	Mainstem	43.50	Yurok
KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Mainstem	38.50	Yurok
KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Mainstem	6.00	Yurok
KR00050	Klamath River Estuary (RM 0.5; Baseline)	Mainstem	0.50	Yurok
SH00000	Shasta River near mouth (Baseline)	Tributary	-	Karuk
SC00000	Scott River near mouth (Baseline)	Tributary	-	Karuk
SA00000	Salmon River near mouth (Baseline)	Tributary	-	Karuk
TR00000	Trinity River near mouth (Baseline)	Tributary	-	Yurok

Appendix B. 2020 Baseline Data Summary

This appendix presents the complete general water quality and nutrient data set for the 2020 KHSA baseline sampling (Table B-1). The four sampling entities are United States Bureau of Reclamation (USBR), PacifiCorp, the Karuk Tribe, and the Yurok Tribe. CBOD, TKN and VSS were not sampled in 2020 but columns are in the table to preserve data formatting with historic datasets. While VSS was removed from the KHSA program it was not removed from the Karuk Tribe or Yurok Tribe water quality monitoring programs and because VSS was still collected by those two entities the results are presented here.

Table B-1. 2020 Klamath River Baseline Data Summary. All Non-detect values were replaced with “<” and the RL value. Sample Types include: P- Production sample; R – Regular sample associated with QA sample set; I = Depth Integrated sample.

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Type	Water Temperature °C	pH	Specific Conductivity µS/cm	Dissolved Oxygen mg/l	Algae, Chlorophyll-a µg/l	Algae, Pheophytin µg/l	Alkalinity mg/l	Carbon, Dissolved Organic Carbon mg/l	Carbon, Particulate Carbon mg/l	Demand, Carbonaceous Biological Oxygen Demand mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate+Nitrite mg/l	Nitrogen, Particulate Nitrogen mg/l	Nitrogen, Total Kjeldahl Nitrogen mg/l	Nitrogen, Total Nitrogen mg/l	Phosphorus, Phosphate mg/l	Phosphorus, Total Phosphorus mg/l	Phosphorus, Particulate Phosphorus mg/l	Phosphorus, Particulate Inorganic Phosphorus mg/l	Turbidity NTU	Solids, Total Suspended Solids mg/l	Solids, Volatile Suspended Solids mg/l	Toxins, Microcystin µg/l
2020KHSA-001	2/11/2020	11:15	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	2.80	7.78	114.5	11.70	17.20	5.67	27.60	3.43	2.78		0.43	0.35	0.41		1.81	0.01	0.08	0.05	0.01	22.10	46.0		
2020KHSA-007	3/17/2020	9:45	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	5.30	7.95	112.3	10.65	26.92	7.81	45.00	3.75	3.39		0.19	0.44	0.48		1.94	<0.001	<0.003	0.03	0.01	23.35	58.7		
2020KHSA-013	4/19/2020	12:00	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	12.59	7.84	108.68	8.94	16.70	11.61	36.40	4.40	5.18		0.10	0.35	0.30		1.35	<0.01	0.10	0.11	0.01	25.00	47.4		
2020KHSA-019	5/17/2020	12:30	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	13.89	8.03	110.1	8.68	11.94	3.06	44.00	3.98	1.33		0.12	0.16	0.03		0.92	<0.001	0.02	0.02	0.01	11.60	5.0		
2020KHSA-025	5/28/2020	9:15	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	19.20	8.14	110.3	8.60	14.79	2.26	46.00	3.98	2.72		0.08	0.00	0.36		0.68	<0.001	0.20	0.08	0.01	11.13	14.0		
2020KHSA-029	6/9/2020	10:15	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	15.90	8.12	114.2	8.18	13.48	2.38	45.00	4.58	2.71		0.19	0.01	0.46		2.81	<0.001	0.34	0.01	0.01	7.26	1.5		
2020KHSA-035	6/23/2020	9:30	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	21.60	9.43	114.2	10.91	150.79	0.62	50.00	4.47	8.13		0.15	0.00	1.66		4.70	<0.001	0.07	0.09	0.06	10.36	25.0		
2020KHSA-040	7/7/2020	9:15	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	19.00	10.02	121.3	9.04	256.21	2.66	60.00	5.17	12.50		0.16	<0.005	2.47		3.00	<0.001	0.22	0.17	0.10	10.76	11.0		<0.15
2020KHSA-046	7/21/2020	9:00	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	23.40	9.71	110.1	6.23	459.08	0.46	42.00	6.08	19.70		<0.001	<0.005	3.81		4.10	0.32	0.32	0.21	0.17	17.46	51.0		<0.15
2020KHSA-051	8/4/2020	9:00	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	22.40	9.63	108.7	5.71	230.88	4.92	44.00	6.99	10.10		0.08	0.00	2.02		3.10	0.04	0.26	0.10	0.09	11.56	30.0		<0.15
2020KHSA-057	8/18/2020	8:40	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	21.20	9.21	109.8	5.52	141.81	0.46	40.00	6.43	6.50		0.10	0.03	1.41		0.69	0.09	0.44	0.08	0.04	10.99	17.0		<0.15
2020KHSA-062	9/2/2020	8:40	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	20.40	9.36	118.2	8.88	64.79	3.45	50.10	5.89	6.13		0.04	0.02	1.20		2.10	0.02	0.19	0.08	0.03	20.16	17.0		
2020KHSA-068	9/29/2020	10:15	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	15.10	9.64	119.7	10.42	151.84	1.72	60.30	7.09	8.83		0.05	0.03	1.73		2.03	0.01	0.23	0.13	0.09	13.42	17.0		0.34
2020KHSA-073	10/6/2020	9:25	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	16.50	9.40	119.1	11.21	181.49	4.64	56.80	6.11	11.50		0.07	0.02	2.43		3.27	0.02	0.18	0.14	0.05	13.35	21.0		0.57
2020KHSA-079	10/20/2020	10:45	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	13.40	8.73	123.5	8.58	66.91	4.82	93.70	5.48	6.64		0.27	0.05	1.34		3.09	0.07	0.15	0.06	0.03	11.57	15.0		0.11
2020KHSA-083	11/17/2020	10:20	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	4.20	7.94	126.7	10.29	20.60	9.60	56.00	4.41	3.44		0.69	0.25	0.54		1.94	<0.01	0.15	0.09	0.04	25.68	67.0		
2020KHSA-089	12/8/2020	10:15	KR25444	Link Dam (RM 254.44; Baseline)	USBR	0.5	R	3.30	8.08	125.9	10.83	10.90	2.73	58.00	4.55	1.64		0.90	0.28	0.25		2.25	<0.01	0.09	0.02	0.00	13.97	12.0		

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Type	Water Temperature °C	pH	Specific Conductivity µS/cm	Dissolved Oxygen mg/l	Algal Chlorophyll-a µg/l	Algal Pheophytin µg/l	Alkalinity mg/l	Carbon, Dissolved Organic Carbon mg/l	Carbon, Particulate Carbon mg/l	Demand, Carbonaceous Biological Oxygen Demand mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate+Nitrite mg/l	Nitrogen, Particulate Nitrogen mg/l	Nitrogen, Total Kjeldahl Nitrogen mg/l	Nitrogen, Total Nitrogen mg/l	Phosphorus, Phosphate mg/l	Phosphorus, Total Phosphorus mg/l	Phosphorus, Particulate Phosphorus mg/l	Phosphorus, Particulate Inorganic Phosphorus mg/l	Turbidity NTU	Solids, Total Suspended Solids mg/l	Solids, Volatile Suspended Solids mg/l	Toxins, Microcystin µg/l
2020KHSA-004	2/11/2020	9:00	KR24600	Keno Reservoir at Miller Island (RM 246.0; Baseline)	USBR	0.5	P	2.10	7.66	179.9	10.58	27.18	4.62	55.50	4.09	2.19		0.55	0.50	0.36		1.99	0.03	0.13			16.58	28.0		
2020KHSA-010	3/17/2020	8:40	KR24600	Keno Reservoir at Miller Island (RM 246.0; Baseline)	USBR	0.5	P	5.30	7.82	141.8	10.30	34.37	9.61	48.80	3.92	2.54		0.30		0.39			<0.001	0.05			16.84	39.7		
2020KHSA-016	4/19/2020	10:55	KR24600	Keno Reservoir at Miller Island (RM 246.0; Baseline)	USBR	0.5	P	13.39	7.74	117.78	8.76	5.44	4.08	40.60	4.02	1.16		0.13	0.40	0.03		1.12	0.03	0.08			17.20	18.3		
2020KHSA-022	5/17/2020	11:40	KR24600	Keno Reservoir at Miller Island (RM 246.0; Baseline)	USBR	0.5	P	14.81	8.04	122.93	9.13	13.66	3.38	56.00	4.39	1.34		0.14	0.12	0.03		0.96	0.03	0.07			9.50	2.0		<0.15
2020KHSA-032	6/9/2020	8:50	KR24600	Keno Reservoir at Miller Island (RM 246.0; Baseline)	USBR	0.5	P	16.90	8.60	125.7	9.38	43.78	3.86		4.84	2.23		0.18	0.01	0.43		0.91	0.02	0.37			6.60	4.5		3.90
2020KHSA-043	7/7/2020	8:20	KR24600	Keno Reservoir at Miller Island (RM 246.0; Baseline)	USBR	0.5	P	19.80	9.30	114.3	3.07	109.32	14.89	50.00	5.46	5.44		0.51	0.01	1.17		2.51	0.06	0.23			11.89	14.5		<0.15
2020KHSA-054	8/4/2020	11:00	KR24600	Keno Reservoir at Miller Island (RM 246.0; Baseline)	USBR	0.5	P	23.30	8.97	124.8	0.26	43.23	8.91	49.00	7.83	5.42		0.96	0.00	1.16		2.30	0.05	0.35			4.14	12.0		<0.15
2020KHSA-065	9/2/2020	11:25	KR24600	Keno Reservoir at Miller Island (RM 246.0; Baseline)	USBR	0.5	P	21.30	9.02	130.3	3.65	36.93	4.72	54.60	6.77	2.46		0.71	0.01	0.53		2.58	0.06	0.20			6.09	6.0		
2020KHSA-076	10/6/2020	8:25	KR24600	Keno Reservoir at Miller Island (RM 246.0; Baseline)	USBR	0.5	P	16.40	8.06	138.5	0.29	20.37	8.30	65.60	7.43	5.87		1.41	<0.01	1.24		3.16	0.11	0.27			7.54	11.5		0.22
2020KHSA-086	11/17/2020	8:10	KR24600	Keno Reservoir at Miller Island (RM 246.0; Baseline)	USBR	0.5	P	4.00	7.81	167	8.87	22.67	10.92	71.50	4.70	2.79		0.77	0.33	0.47		2.15	0.04	0.14			21.44	34.0		
2020KHSA-092	12/8/2020	8:30	KR24600	Keno Reservoir at Miller Island (RM 246.0; Baseline)	USBR	0.5	P	1.00	7.82	170.5	10.54	45.79	7.25	78.30	4.37	3.09		0.89	0.45	0.56		1.78	0.06	0.17	0.00	0.00	16.71	22.0		
2020KHSA-005	2/11/2020	10:00	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	3.30	7.73	219.8	11.97	34.52	7.24	69.20	5.18	2.06		0.44	0.55	0.35		2.05	0.05	0.17	0.07	0.02	16.17	17.0		
2020KHSA-011	3/17/2020	11:00	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	6.80	7.93	251.1	10.66	34.83	9.47	73.10	6.03	3.72		0.14		0.63			<0.001	0.09	0.06	0.03	13.98	22.7		
2020KHSA-017	4/19/2020	10:00	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	12.38	7.71	171.47	9.77	5.66	5.26	50.70	6.21	2.24		0.11	0.40	0.03		1.83	0.04	0.17	0.05	0.01	21.60	24.8		
2020KHSA-023	5/17/2020	10:30	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	14.21	7.82	122.83	9.35	8.46	3.61	50.00	4.48	1.50		0.14	0.15	0.03		1.03	0.04	0.11	0.04	0.01	10.60			<0.15
2020KHSA-033	6/9/2020	11:35	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	17.50	8.35	130.9	9.18	11.42	2.05		5.55	1.44		0.40	0.01	0.27		0.83	0.11	0.48	0.03	0.02	5.30	2.5		<0.15
2020KHSA-038	6/23/2020	8:25	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	20.20	9.11	121.2	9.09			55.00				0.15	0.00			1.60	<0.001	0.10			17.57			
2020KHSA-044	7/7/2020	10:40	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	19.50	8.88	120.1	7.62	13.01	1.65	50.00	6.10	1.00		0.43	0.03	0.20		1.63		0.42	0.03	0.06	4.82	4.5		0.13
2020KHSA-049	7/21/2020	10:30	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	23.00	9.18	119	6.12			46.00				0.46	0.00			2.90	0.08	0.29			10.69			
2020KHSA-055	8/4/2020	10:10	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	22.90	8.83	126.2	6.43	113.57	30.48	51.00	8.60	6.04		1.11	0.02	1.24		3.12	0.03	0.35	0.17	0.08	4.27	14.5		<0.15
2020KHSA-060	8/18/2020	10:10	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	21.70	8.06	134	6.99			49.70				1.20	<0.01			2.86	0.15	0.34			4.98			
2020KHSA-066	9/2/2020	10:30	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	20.90	9.21	128.9	7.88	102.33	20.86	55.80	7.18	5.57		0.50	0.02	1.17		3.13	0.08	0.34	0.11	0.05	11.54	11.0		
2020KHSA-071	9/29/2020	8:45	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	16.10	8.09	142.6	8.25			64.30				0.80	0.05			1.99	0.07	0.20			7.24			
2020KHSA-077	10/6/2020	10:40	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	16.10	8.01	143.7	8.04	24.56	6.20	67.10	7.42	2.61		0.91	0.04	0.52		0.54	0.12	0.23	0.05	0.05	6.99	9.2		0.15
2020KHSA-087	11/17/2020	9:05	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	5.00	7.77	159.3	10.86	11.24	5.64	69.70	5.10	1.28		0.80	0.36	0.20		1.86	0.03	0.09	0.09	0.01	9.57	9.0		
2020KHSA-093	12/8/2020	9:20	KR23340	Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline)	USBR	0.5	P	2.8	7.83	166.9	11.73	12.16	3.79	74.3	4.87	1.67		0.77	0.452	0.263		1.872	0.055	0.109	0.02637	0.01203	15.3	14		

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Type	Water Temperature °C	pH	Specific Conductivity µS/cm	Dissolved Oxygen mg/l	Algae, Chlorophyll-a µg/l	Algae, Phytoplankton µg/l	Alkalinity mg/l	Carbon, Dissolved Organic Carbon mg/l	Carbon, Particulate Carbon mg/l	Demand, Carbonaceous Biological Oxygen Demand mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate+Nitrite mg/l	Nitrogen, Particulate Nitrogen mg/l	Nitrogen, Total Kjeldahl Nitrogen mg/l	Nitrogen, Total Nitrogen mg/l	Phosphorus, Phosphate mg/l	Phosphorus, Total Phosphorus mg/l	Phosphorus, Particulate Phosphorus mg/l	Phosphorus, Particulate Inorganic Phosphorus mg/l	Turbidity NTU	Solids, Total Suspended Solids mg/l	Solids, Volatile Suspended Solids mg/l	Toxins, Microcystin µg/l
KR20015	3/22/2020	7:10	KR22460	Klamath River below J.C. Boyle Dam (RM 224.60; Baseline)	PacifiCorp	0.5	P	7.403	7.978	199.267	10.85	12.19	8.40	70	5.49	2.21		0.13	0.58	0.269		1.52	0.0424	0.104				19		
KR20031	4/19/2020	7:10	KR22460	Klamath River below J.C. Boyle Dam (RM 224.60; Baseline)	PacifiCorp	0.5	P	12.97	7.715	173.188	9.378	12.33	10.54	64.1	5.39	2.1		0.07	0.55	0.259		1.52	0.0545	0.115				21		
KR20047	5/17/2020	6:40	KR22460	Klamath River below J.C. Boyle Dam (RM 224.60; Baseline)	PacifiCorp	0.5	P	15.22	7.336	125.487	8.818	4.89	3.99	55.2	4.51	1.12		0.05	0.26	0.128		0.87	0.118	0.136				9		<0.15
KR20064	6/8/2020	14:05	KR22460	Klamath River below J.C. Boyle Dam (RM 224.60; Baseline)	PacifiCorp	0.5	P	16.8	7.684	128.069	8.828	6.87	4.23	57.7	4.7	0.786		0.09	0.15	<0.0789		0.71	0.138	0.198				10		<0.15
KR20082	7/7/2020	14:00	KR22460	Klamath River below J.C. Boyle Dam (RM 224.60; Baseline)	PacifiCorp	0.5	P	20.46	7.441	118.083	7.971	5.47	4.24	51.2	5.01	1.14		0.15	0.56	0.126		0.93	0.179	0.245				4		<0.15
KR20100	8/4/2020	16:00	KR22460	Klamath River below J.C. Boyle Dam (RM 224.60; Baseline)	PacifiCorp	0.5	P	24.06	6.778	137.047	7.321	14.14	10.65	55	6.81	1.48		0.33	1.02	0.246		1.82	0.163	0.322				3.3		<0.15
KR20118	9/17/2020	6:15	KR22460	Klamath River below J.C. Boyle Dam (RM 224.60; Baseline)	PacifiCorp	0.5	P	17.88	7.011	124.429	8.322	9.22	8.64	57	6.73	0.95		0.27	0.95	0.131		1.52	0.122	0.189				3.2		1.1
KR20136	10/10/2020	14:30	KR22460	Klamath River below J.C. Boyle Dam (RM 224.60; Baseline)	PacifiCorp	0.5	P	14.54	6.694	141.766	9.057	6.70	5.20	59.6	8.11	1.04		0.25	1	0.14		2.82	0.16	0.234				4		0.54
KR20153	11/14/2020	15:00	KR22460	Klamath River below J.C. Boyle Dam (RM 224.60; Baseline)	PacifiCorp	0.5	P	4.845	6.667	146.72	11.51	8.11	6.85	64.5	5.07	0.927		0.36	0.93	0.127		1.95	0.052	0.109				8		
KR20169	12/5/2020	14:55	KR22460	Klamath River below J.C. Boyle Dam (RM 224.60; Baseline)	PacifiCorp	0.5	P	2.876	6.182	160.645	12.18	9.71	5.20	71.3	4.78	1.01		0.46	0.81	0.162		1.19	0.066	0.116				7		
KR20016	3/22/2020	8:00	KR21950	Klamath River below USGS Gage (RM 219.50; Baseline)	PacifiCorp	0.5	P	8.02	8.203	160.244	11.09	6.58	5.71	66.5	1.96	0.887		0.02	0.36	0.0969		0.68	0.0433	0.067			6.58	5		
KR20032	4/19/2020	7:50	KR21950	Klamath River below USGS Gage (RM 219.50; Baseline)	PacifiCorp	0.5	P	12.55	7.814	168.511	9.594	8.58	7.56	64.2	4.41	1.32		0.04	0.51	0.2		1.25	0.0488	0.101			15.1	17		
KR20048	5/17/2020	7:40	KR21950	Klamath River below USGS Gage (RM 219.50; Baseline)	PacifiCorp	0.5	P	12.35	7.765	145.085	9.692	5.81	3.26	62.9	1.85	0.821		<0.01	0.22	<0.0789		0.62	0.084	0.101			6.33	19		<0.15
KR20065	6/8/2020	14:50	KR21950	Klamath River below USGS Gage (RM 219.50; Baseline)	PacifiCorp	0.5	P	16.58	7.998	128.202	9.076	6.05	3.35	59.2	3.86	0.808		0.04	0.16	<0.0789		0.76	0.138	0.175				7		<0.15
KR20083	7/7/2020	14:35	KR21950	Klamath River below USGS Gage (RM 219.50; Baseline)	PacifiCorp	0.5	P	19.62	7.988	124.535	8.375	5.00	3.60	51.7	4.33	1.03		0.1	0.54	0.124		1.17	0.159	0.206				5		<0.15
KR20101	8/4/2020	16:40	KR21950	Klamath River below USGS Gage (RM 219.50; Baseline)	PacifiCorp	0.5	P	22	7.495	127.83	7.48	12.21	8.39	58.5	5.51	1.3		0.22	1.04	0.22		2.39	0.141	0.254			3.37	2.5		<0.15
KR20119	9/17/2020	6:55	KR21950	Klamath River below USGS Gage (RM 219.50; Baseline)	PacifiCorp	0.5	P	12.65	8.128	136.583	9.817	3.09	3.53	67.7	2.57	0.416		0.04	0.55	<0.0789		0.55	0.078	0.096				<2		<0.15
KR20137	10/10/2020	15:10	KR21950	Klamath River below USGS Gage (RM 219.50; Baseline)	PacifiCorp	0.5	P	14.24	7.212	136.63	9.154	5.89	4.14	60.6	6.15	0.78		0.17	0.87	0.106		2.49	0.14	0.191			3.16	3		<0.15
KR20154	11/14/2020	15:35	KR21950	Klamath River below USGS Gage (RM 219.50; Baseline)	PacifiCorp	0.5	P	5.641	7.353	144.542	11.18	7.65	5.87	65	3.98	0.746		0.28	0.87	0.107		1.9	0.043	0.075				4		
KR20170	12/5/2020	15:35	KR21950	Klamath River below USGS Gage (RM 219.50; Baseline)	PacifiCorp	0.5	P	3.804	7.091	160.422	11.92	8.21	4.57	69.9	4.23	0.836		0.34	0.78	0.132		1.95	0.062	0.102			16.1	7		
KR20011	3/21/2020	16:05	KR20642	Klamath River above Shovel Creek (RM 206.42; Baseline)	PacifiCorp	0.5	P	9.126	8.674	194.091	11.63	6.08	6.08	67.5	4.28	1.06		0.03	0.54	0.116		1.12	0.0489	0.081	0.01388	<0.0063	11.3	8		
KR20027	4/18/2020	13:40	KR20642	Klamath River above Shovel Creek (RM 206.42; Baseline)	PacifiCorp	0.5	P	13.73	8.172	163.742	9.963	11.68	9.95	64.7	4.45	1.74		0.02	0.56	0.187		1.28	0.0496	0.103	0.02452	0.00753	16.8	16		
KR20043	5/16/2020	17:20	KR20642	Klamath River above Shovel Creek (RM 206.42; Baseline)	PacifiCorp	0.5	P	15.42	7.926	125.859	9.048	5.59	4.32	57.1	3.68	1.15		<0.01	0.26	0.131		0.83	0.108	0.13	0.01402	<0.0063	11.4	9		<0.15
KR20060	6/9/2020	16:45	KR20642	Klamath River above Shovel Creek (RM 206.42; Baseline)	PacifiCorp	0.5	P	18.28	8.548	122.369	9.144	6.87	4.71	58.6	3.71	1.03		0.02	0.1	<0.0789		0.71	0.112	0.163	0.01551	0.0067	6.3	7		<0.15
KR20067	6/23/2020	9:30	KR20642	Klamath River above Shovel Creek (RM 206.42; Baseline)	PacifiCorp	0.5	P	18.91	8.066	130.784	9.149							0.01	0.27			0.75	0.076	0.109						
KR20078	7/8/2020	12:50	KR20642	Klamath River above Shovel Creek (RM 206.42; Baseline)	PacifiCorp	0.5	P	17.25	8.7	131.121	9.809	5.17	4.27	58.7	2.17	0.803		0.01	0.34	<0.0789		0.75	0.103	0.127	0.00838	<0.0063	3.39	5		<0.15

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Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Type	Water Temperature °C	pH	Specific Conductivity µS/cm	Dissolved Oxygen mg/l	Algae, Chlorophyll-a µg/l	Algae, Pheophytin µg/l	Alkalinity mg/l	Carbon, Dissolved Organic Carbon mg/l	Carbon, Particulate Carbon mg/l	Demand, Carbonaceous Biological Oxygen Demand mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate+Nitrite mg/l	Nitrogen, Particulate Nitrogen mg/l	Nitrogen, Total Kjeldahl Nitrogen mg/l	Nitrogen, Total Nitrogen mg/l	Phosphorus, Phosphate mg/l	Phosphorus, Total Phosphorus mg/l	Phosphorus, Particulate Phosphorus mg/l	Phosphorus, Particulate Inorganic Phosphorus mg/l	Turbidity NTU	Solids, Total Suspended Solids mg/l	Solids, Volatile Suspended Solids mg/l	Toxins, Microcystin µg/l
KR20076	7/8/2020	10:35	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	12	P	18.22	7.159	134.423	2.691	4.38	2.22	56.2	3.3	0.609		0.04	0.23	<0.0789		0.66	0.078	0.102				<2		
KR20077	7/8/2020	10:20	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	25	P	12.24	7.096	207.274	0			68.1	3.54	0.584		0.05	0.52	<0.0789		0.99	0.139	0.171				3		
KR20093	8/5/2020	10:55	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0-8	I					133.68	5.58																	4.3
KR20092	8/5/2020	10:40	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0.5	P	24.15	8.642	132.655	16.34	519.52	0.46	59.2	4.22	13.3		0.04	0.01	2.7		4.44	0.072	0.415				34.3		27
KR20094	8/5/2020	11:30	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	17	P	16.71	7.007	145.246	0.006	2.67	1.20	60	3.15	0.576		0.02	0.48	0.104		0.96	0.166	0.209				2.3		
KR20095	8/5/2020	11:10	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	29	P	12.59	7.134	186.671	9E-04			73.7	3.76	0.53		0.45	0.02	0.0836		0.73	0.346	0.442				6		
KR20111	9/16/2020	14:50	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0-8	I					4.28	1.00																	1.9
KR20110	9/16/2020	14:30	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0.5	P	19.92	8.317	136.606	7.461	5.89	0.73	59.9	5.08	1.25		0.1	0.53	0.202		0.93	0.134	0.176				3.1		4.2
KR20112	9/16/2020	15:10	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	20	P	16.98	7.263	146.63	2.225	5.43	2.93	60.8	4.83	0.9		0.18	0.53	0.111		0.87	0.126	0.178				5.1		
KR20113	9/16/2020	15:00	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	23	P	14.09	7.004	316.26	0.001			67.4	4.62	1.39		0.41	0.31	0.242		1.03	0.212	0.296				5.5		
KR20129	10/11/2020	11:30	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0-8	I					3.01	1.70																	0.43
KR20128	10/11/2020	11:10	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0.5	P	16.1	7.471	141.378	6.987	2.22	1.27	62	4.98	<0.1899		0.16	0.64	<0.0789		1.79	0.12	0.161				3		0.49
KR20130	10/11/2020	11:50	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	15	P	15.38	7.282	144.861	5.443	2.17	1.80	63.5	4.97	0.65		0.16	0.63	<0.0789		1.621	0.12	0.162				2		
KR20131	10/11/2020	11:40	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	28	P	14.55	6.852	176.823	0.024			62.1	5.31	0.808		0.46	0.59	0.125		2.1	0.21	0.303				6		
KR20146	11/15/2020	12:30	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0-8	I					1.15	1.02																	
KR20145	11/15/2020	12:15	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0.5	P	9.035	7.523	143.785	8.827	1.47	1.24	63.8	3.98	0.335		0.17	1.03	<0.0789		1.82	0.073	0.094				<2		
KR20147	11/15/2020	12:50	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	14	P	8.644	7.38	144.384	8.675	1.27	1.34	63.4	3.78	0.365		0.17	0.99	<0.0789		1.71	0.071					2		
KR20148	11/15/2020	12:40	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	26	P	8.174	7.318	150.989	3.367			64.1	3.97	0.474		0.17	1	<0.0789		1.76	0.063	0.085				4		
KR20162	12/6/2020	13:15	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0-8	I					1.93	1.69																	
KR20161	12/6/2020	12:50	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	0.5	P	6.15	7.566	192.267	10.18	1.12	1.30	65.2	4.17	0.334		0.17	0.78	<0.0789		1.4	0.058	0.079				<2		
KR20163	12/6/2020	13:40	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	12	P	5.27	7.492	154.45	10.21	1.36	1.39	65.8	4.05	0.369		0.17	0.84	<0.0789		1.8	0.062	0.082				2		
KR20164	12/6/2020	13:25	KR19874	Copco Reservoir (RM 198.74; Baseline)	PacifiCorp	26	P	4.918	7.487	157.689	10.15			67.6	4.28	0.545		0.17	0.84	0.0811		1.61	0.061	0.083				4		
KR20006	3/21/2020	12:05	KR19645	Klamath River below Copco Dam (RM 196.45; Baseline)	PacifiCorp	0.5	P	9.356	7.907	246.609	10.09	1.23	1.19	82.9	4.99	0.985		0.1	0.51	<0.0789		1.15	0.0568	0.078				4		
KR20022	4/18/2020	11:00	KR19645	Klamath River below Copco Dam (RM 196.45; Baseline)	PacifiCorp	0.5	P	11.82	7.797	190.995	9.465	1.67	1.33	76.9	5.12	0.556		0.07	0.62	<0.0789		1.25	0.0588	0.084				4		
KR20038	5/16/2020	13:20	KR19645	Klamath River below Copco Dam (RM 196.45; Baseline)	PacifiCorp	0.5	P	16.43	7.328	138.091	8.57	3.49	1.76	59.9	3.81	0.66		0.03	0.34	<0.0789		0.85	0.102	0.122				4		<0.15
KR20055	6/9/2020	11:55	KR19645	Klamath River below Copco Dam (RM 196.45; Baseline)	PacifiCorp	0.5	P	18.25	7.919	141.967	8.302	7.61	1.94	64.1	3.22	1.16		0.01	0.13	0.0946		0.44	0.085	0.12				3		<0.15

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KR20073	7/8/2020	9:00	KR19645	Klamath River below Copco Dam (RM 196.45; Baseline)	PacifiCorp	0.5	P	20.3	8.145	130.468	8.27	9.41	3.52	55.2	3.43	0.933		0.02	0.14	0.118		0.37	0.065	0.093				3		<0.15
KR20091	8/5/2020	9:45	KR19645	Klamath River below Copco Dam (RM 196.45; Baseline)	PacifiCorp	0.5	P	23.88	8.869	135.682	7.6	45.30	1.10	59.8	4.05	3.12		0.05	0.08	0.659		0.86	0.058	0.133				4.3		3.3
KR20109	9/16/2020	13:20	KR19645	Klamath River below Copco Dam (RM 196.45; Baseline)	PacifiCorp	0.5	P	20.47	8.764	145.018	10.23	743.25	0.46	65.5	5.87	14.8		0.08	0.44	3		32.84	0.117	4.57				312		840
KR20127	10/11/2020	10:15	KR19645	Klamath River below Copco Dam (RM 196.45; Baseline)	PacifiCorp	0.5	P	15.37	7.577	134.183	6.957	11.19	1.81	63.7	4.92	0.961		0.18	0.68	0.155		1.9	0.14	0.192				4		2.4
KR20144	11/15/2020	11:25	KR19645	Klamath River below Copco Dam (RM 196.45; Baseline)	PacifiCorp	0.5	P	9.286	7.566	143.613	8.956	1.83	1.69	63.3	3.74	0.451		0.16	1.05	<0.0789		1.65	0.073	0.09				2		
KR20160	12/6/2020	11:55	KR19645	Klamath River below Copco Dam (RM 196.45; Baseline)	PacifiCorp	0.5	P	5.741	7.72	161.51	11.07	1.51	1.69	66.2	4.09	0.341		0.14	0.82	<0.0789		1.56	0.061	0.078				3		
KR20003	3/21/2020	9:30	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0-8	I					2.28	1.52																	
KR20002	3/21/2020	9:05	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0.5	P	8.022	7.293	202.29	10.47	2.08	1.47	84.3	4.35	0.727		0.05	0.62	0.0897		1.04	0.0439	0.07				4		
KR20004	3/21/2020	10:45	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	19	P	6.36	7.542	189.274	9.136	1.30	1.77	72.6	3.74	0.83		0.03	0.69	<0.0789		1.08	0.0463	0.071				<2		
KR20005	3/21/2020	10:15	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	41	P	5.447	7.388	177.2	2.45			69.6	3.5	0.901		0.01	0.75	0.0872		1.16	0.0464	0.074				4		
KR20019	4/18/2020	9:10	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0-8	I					3.41	1.16																	
KR20018	4/18/2020	8:40	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0.5	P	11.82	7.528	200.184	9.97	3.27	1.34	81	4.5	0.586		0.03	0.52	<0.0789		1.01	0.0431	0.068				<2		
KR20020	4/18/2020	9:45	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	19	P	7.948	7.445	213.17	8.436	0.86	1.13	83.2	3.88	0.534		0.01	0.6	<0.0789		1.17	0.0427	0.067				<2		
KR20021	4/18/2020	9:25	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	43	P	5.923	7.231	184.126	6.607			75.8	3.46	0.673		0.02	0.75	<0.0789		1.16	0.0435	0.08				<2		
KR20035	5/16/2020	10:40	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0-8	I					3.35	2.25																	<0.15
KR20034	5/16/2020	10:10	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0.5	P	17.55	7.434	152.706	8.99	4.49	1.63	60.8	3.97	0.722		<0.01	0.4	0.0863		0.89	0.07	0.083				4		<0.15
KR20036	5/16/2020	11:20	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	11	P	13.35	7.275	176.629	6.98	2.54	2.50	61.6	3.84	0.792		<0.01	0.44	0.0887		0.9	0.078	0.088				7		
KR20037	5/16/2020	10:55	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	35	P	6.363	7.114	191.25	5.794			76.9	3.79	0.559		<0.01	0.7	<0.0789		1.1	0.066	0.07				4		
KR20052	6/9/2020	8:50	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0-8	I					5.03	1.69																	<0.15
KR20051	6/9/2020	8:15	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0.5	P	20.11	8.295	149.021	9.345	4.19	1.25	63.8	3.37	0.317		0.01	0.02	<0.0789		0.35	0.06	0.066				<2		<0.15
KR20053	6/9/2020	9:20	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	9	P	17.03	7.352	144.498	6.534	7.11	2.19	63.4	3.21	0.368		0.03	0.06	<0.0789		0.51	0.06	0.081				3		
KR20054	6/9/2020	9:10	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	39	P	6.61	7.055	193.99	3.863			78.1	3.44	0.847		0.02	0.76	<0.0789		1.01	0.054	0.079				3		
KR20070	7/8/2020	6:35	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0-8	I					3.78	1.59																	<0.15
KR20069	7/8/2020	6:10	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0.5	P	23.04	8.329	148.89	8.906	10.84	4.10	58.9	3.41	1.04		0.01	<0.01	0.126		0.28	0.04	0.084				3		0.23
KR20071	7/8/2020	7:05	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	18	P	14	7.043	164.247	3.894	1.02	1.08	62.6	3.39	0.512		0.01	0.31	<0.0789		0.63	0.114	0.115				<2		
KR20072	7/8/2020	6:50	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	38	P	6.899	7.124	196.668	2.976			75.4	3.39	0.647		<0.01	0.82	<0.0789		1.06	0.065	0.084				2		

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Type	Water Temperature °C	pH	Specific Conductivity µS/cm	Dissolved Oxygen mg/l	Algae Chlorophyll-a µg/l	Algae Phycophytin µg/l	Alkalinity mg/l	Carbon, Dissolved Organic Carbon mg/l	Carbon, Particulate Carbon mg/l	Demand, Carbonaceous Biological Oxygen Demand mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate-Nitrite mg/l	Nitrogen, Particulate Nitrogen mg/l	Nitrogen, Total Kjeldahl Nitrogen mg/l	Nitrogen, Total Nitrogen mg/l	Phosphorus, Phosphate mg/l	Phosphorus, Total Phosphorus mg/l	Phosphorus, Particulate Phosphorus mg/l	Phosphorus, Particulate Inorganic Phosphorus mg/l	Turbidity NTU	Solids, Total Suspended Solids mg/l	Solids, Volatile Suspended Solids mg/l	Toxins, Microcystin µg/l
KR20088	8/5/2020	7:20	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0-8	I					7.83	0.94																	0.42
KR20087	8/5/2020	6:55	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0.5	P	25.71	9.018	159.425	9.793	20.92	1.25	60.6	3.64	1.04		0.02	0.01	0.19		0.69	0.02	0.033				2		1.7
KR20089	8/5/2020	7:55	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	18	P	15.73	6.902	152.742	2.516	0.68	0.66	59.2	2.83	0.239		0.02	0.31	<0.0789		0.67	0.119	0.145				<2		
KR20090	8/5/2020	7:40	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	39	P	7.201	6.88	199.257	0			76.7	3.22	0.363		0.02	0.75	<0.0789		1.14	0.084	0.107				2.3		
KR20106	9/16/2020	11:10	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0-8	I					18.15	0.50																	1.2
KR20105	9/16/2020	10:25	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0.5	P	19.71	8.94	137.144	7.755	30.04	1.11	61.9	4.53	2.04		0.08	0.31	0.36		0.98	0.092	0.162				5.7		2.6
KR20107	9/16/2020	11:20	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	22	P	13.7	7.059	170.969	0.004	1.26	0.95	64.4	3.11	0.499		0.11	0.35	<0.0789		0.79	0.174	0.24				3.1		
KR20108	9/16/2020	10:50	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	39	P	7.544	7.218	205.746	0.016			79.4	3.61	0.518		0.09	0.63	<0.0789		0.89	0.1	0.136				4		
KR20124	10/11/2020	8:40	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0-8	I					31.99	0.99																	0.33
KR20123	10/11/2020	7:05	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0.5	P	16.85	8.196	154.214	8.701	38.80	1.26	64.3	4.38	2.38		0.05	0.29	0.418		1.9	0.1	0.171				5		1.2
KR20125	10/11/2020	7:55	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	25	P	14.05	6.743	171.006	0.015	4.20	1.92	64.8	4.59	0.842		0.18	0.46	0.108		1.79	0.12	0.168				4		
KR20126	10/11/2020	7:40	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	40	P	7.937	6.782	207.044	0			81.5	3.57	0.453		0.18	0.54	<0.0789		1.422	0.13	0.157				3		
KR20141	11/15/2020	9:00	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0-8	I					13.48	1.52																	
KR20140	11/15/2020	8:50	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0.5	P	11.03	7.093	155.776	8.492	14.24	1.81	65.7	3.94	1.75		0.11	0.75	0.333		1.64	0.086	0.131				8		
KR20142	11/15/2020	9:35	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	13	P	10.86	7.233	147.939	7.689	9.80	1.31	65.6	3.88	1.04		0.11	0.79	0.185		1.5	0.089	0.118				3		
KR20143	11/15/2020	9:25	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	39	P	8.813	6.786	209.333	0.06			68.6	3.68	0.69		0.19	0.75	0.118		1.5	0.092	0.117				3		
KR20157	12/6/2020	9:25	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0-8	I					2.65	0.96																	
KR20156	12/6/2020	9:05	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	0.5	P	7.647	6.929	152.897	8.798	2.70	1.00	63.9	4.56	0.323		0.13	0.76	<0.0789		1.22	0.075	0.092				<2		
KR20158	12/6/2020	10:15	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	15	P	7.339	7.247	148.142	8.884	1.83	1.12	67.1	3.98	0.389		0.14	0.72	<0.0789		1.44	0.071	0.088				<2		
KR20159	12/6/2020	10:10	KR19019	Iron Gate Reservoir (RM 190.19; Baseline)	PacifiCorp	42	P	6.704	7.244	149.456	9.184			65.6	4.46	0.51		0.14	0.72	<0.0789		1.46	0.068	0.09				3		
KR20001	3/21/2020	17:30	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	8.69	7.934	201.357	11.31	2.37	1.75	76.9	4.24	0.72		0.03	0.64	0.08		1.06	0.0462	0.066	0.00961	<0.0063	7.1	<2		
KR20017	4/18/2020	14:45	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	10.77	7.82	212.667	10.6	1.74	1.32	80.7	4.65	0.54		0.03	0.57	<0.0789		0.96	0.0435	0.074	0.00675	<0.0063	5.13	<2		
KR20033	5/16/2020	18:40	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	15.35	7.528	145.639	9.005	7.31	4.12	60.5	4.26	1.17		<0.01	0.42	0.168		0.98	0.067	0.092	0.0119	<0.0063	3.7	9		
KR20049	5/28/2020	14:35	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	16.96	8.081	143.684	9.907	13.99	3.83	61.3	3.14	1.26		<0.01	0.31	<0.0789		0.82	0.066	0.121	0.01382	0.00644	8.3	10		
KR20050	6/9/2020	15:05	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	17.52	8.021	143.829	9.375	5.55	2.42	63.4	3.05	0.503		0.03	0.19	<0.0789		0.56	0.07	0.096	0.00981	<0.0063	5.12	2		
KR20066	6/23/2020	11:00	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	18.31	7.758	141.444	9.246	2.69	1.31	59.8	3.08	0.301		0.02	0.21	<0.0789		0.48	0.083	0.109	0.00708	<0.0063	<2			

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KR20068	7/8/2020	14:20	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	19.8	7.921	138.802	8.776	1.99	1.48	63.2	3.28	0.492		0.02	0.19	<0.0789		0.55	0.082	0.095	<0.0063	<0.0063	2.89	<2		<0.15	
KR20084	7/21/2020	16:35	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	21.07	8.093	139.459	8.351	4.20	2.33	55.9	3.41	0.377		0.05	0.2	<0.0789		0.58	0.072	0.102	<0.0063	<0.0063	2.17	<2		<0.15	
KR20086	8/5/2020	13:05	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	22.12	7.851	139.506	7.114	<0.68	<0.38	60.5	3.21	0.417		0.21	0.28	<0.0789		0.98	0.124	0.152	0.00656	<0.0063	1.8	<2		<0.15	
KR20102	8/18/2020	14:35	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	21.77	8.273	139.006	7.77	2.78	1.56	53.8	3.47	0.372		0.14	0.4	<0.0789		0.93	0.128	0.144	0.00663	<0.0063	1.77	2		<0.15	
KR20104	9/16/2020	16:40	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	18.95	8.575	141.075	8.269	9.96	1.18	62.9	4.4	0.936		0.11	0.37	0.138		1.1	0.116	0.154	0.01524	<0.0063	3.31	3.5		0.67	
KR20120	9/27/2020	16:45	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	18.4	8.989	139.097	9.953	71.40	4.23	66.9	4.38	4.82		0.04	0.24	0.818		0.5	0.097	0.193	0.0594	0.03307	9.2	10		4.1	
KR20122	10/11/2020	13:25	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	16.71	8.347	141.453	9.601	26.37	1.53	65.4	4.58	1.43		0.06	0.37	0.231		1.6	0.11	0.167	0.01563	0.0323	8.88	4		0.25	
KR20138	10/25/2020	16:25	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	14.66	8.382	143.704	10.09	27.57	1.68	65.5	4.47	1.97		0.05	0.4	0.314		1.06	0.096	0.165	0.04187	0.01298	5.96	6		0.4	
KR20139	11/15/2020	14:55	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	10.91	7.573	149.951	9.917	11.88	1.53	66.8	4.09	0.759		0.12	0.74	0.133		1.12	0.088	0.129	0.01682	0.00918	3.68	6			
KR20155	12/6/2020	15:30	KR18973	Klamath River below Iron Gate Dam (RM 189.73; Baseline)	PacifiCorp	0.5	R	7.634	7.486	147.915	10.88	2.01	1.01	64.9	4.43	0.26		0.13	0.78	<0.0789		1.31	0.074	0.096	<0.0063	<0.0063	3.12	<2			
WA031820-OC	3/18/2020	9:47	KR15626	Klamath River at Walker Bridge (RM 156.26; Baseline)	Karuk	0.5	P	7.65	8.31	0.2447	11.81	1.80	3.60		3.6	0.67		0.012	0.559			1.11	0.056	0.09				6			
WA041520-OC	4/15/2020	10:02	KR15626	Klamath River at Walker Bridge (RM 156.26; Baseline)	Karuk	0.5	P	11.95	8.29	0.226	6.91	2.40	3.60		4.19	0.687		0.014	0.541			1.38	0.043	0.078				2.8	3.3		
WA050620-OC	5/6/2020	10:09	KR15626	Klamath River at Walker Bridge (RM 156.26; Baseline)	Karuk	0.5	P	14.82	8.12	0.1733	9.96	2.10	3.50	65.6	4.22	0.832		0.019	0.506			1.52	0.054	0.084				8.4		<0.15	
WA061020-OC	6/10/2020	10:36	KR15626	Klamath River at Walker Bridge (RM 156.26; Baseline)	Karuk	0.5	P	19.81	8.5	0.1623	9.4	1.10	2.00		3.44	0.599		0.019	0.095			0.655	0.07	0.101				3.6		<0.15	
WA070820-OC	7/8/2020	11:04	KR15626	Klamath River at Walker Bridge (RM 156.26; Baseline)	Karuk	0.5	P	21.29	8.7	0.1607	9.75	2.10	3.10		3.51	0.599		<0.01	0.036			0.513	0.079	0.113				2.2		<0.15	
WA080520-OC	8/5/2020	10:45	KR15626	Klamath River at Walker Bridge (RM 156.26; Baseline)	Karuk	0.5	P	24.33	8.52	0.1564	9.11	0.70	2.20		3.68	0.539		0.022	0.306			1	0.115	0.151				2.4		<0.15	
WA100720-OC	10/7/2020	10:59	KR15626	Klamath River at Walker Bridge (RM 156.26; Baseline)	Karuk	0.5	P					1.80	2.20		4.3	0.774		0.023	0.454			1.89	0.128	0.162				3			
WA111820-OC	11/18/2020	11:09	KR15626	Klamath River at Walker Bridge (RM 156.26; Baseline)	Karuk	0.5	P	10.07	8.29	0.196	10.84	4.10	2.50		3.83	0.911		0.045	0.718			1.62	0.09	0.132				3.5			
WA120920-OC	12/9/2020	11:16	KR15626	Klamath River at Walker Bridge (RM 156.26; Baseline)	Karuk	0.5	P	6.725	8.28	0.1882	12.03	2.10	2.30		3.27	0.589		0.016	0.792			1.71	0.063	0.1				2.6			
SV031820-OC	3/18/2020	8:06	KR12850	Klamath River below Seiad (RM 128.5; Baseline)	Karuk	0.5	P	7.033	8.29	0.2356	11.87	3.20	4.50		2.78	0.586		0.01	0.462	<0.0789		0.91	0.037	0.07	0.00907	<0.0063	3.4	5			
SV041520-OC	4/15/2020	8:13	KR12850	Klamath River below Seiad (RM 128.5; Baseline)	Karuk	0.5	P	11.53	8.25	0.2135	10.81	2.70	4.20		3.75	0.738		0.022	0.406	<0.0789		0.682	0.031	0.06	0.00916	<0.0063	2.4	4.8			
SV050620-OC	5/6/2020	9:10	KR12850	Klamath River below Seiad (RM 128.5; Baseline)	Karuk	0.5	P	14.7	8.14	0.1667	10.1	1.60	1.80	72.8	3.86	0.761		0.016	0.371	<0.0789		1.07	0.039	0.068	0.01261	<0.0063	4.3	7.1		<0.15	
SV061020-OC	6/10/2020	8:26	KR12850	Klamath River below Seiad (RM 128.5; Baseline)	Karuk	0.5	P	18.39	8.42	0.1781	9.76	1.40	2.10		2.57	0.519		<0.01	0.057			0.582	0.049	0.072	0.00732	<0.0063	2	3.8		<0.15	
SV070820-OC	7/8/2020	10:01	KR12850	Klamath River below Seiad (RM 128.5; Baseline)	Karuk	0.5	P	21.16	8.45	0.1718	9.15	0.50	1.80		3.02	0.592		<0.01	<0.01	<0.0789		0.382	0.068	0.098	0.00715	<0.0063	1.6	2.6		<0.15	
SV080520-OC	8/5/2020	8:13	KR12850	Klamath River below Seiad (RM 128.5; Baseline)	Karuk	0.5	P	23.91	8.5	0.1665	9.21	4.50	5.30		3.65	0.661		0.011	0.124	0.0807		0.535	0.096	0.138	0.01128	<0.0063	0.98	4.8		<0.15	
SV100720-OC	10/7/2020	9:43	KR12850	Klamath River below Seiad (RM 128.5; Baseline)	Karuk	0.5	P	15.72	8.35	0.1829	10.01	3.60	4.30		3.78	0.852		0.011	0.363	0.113		1.39	0.122	0.158	0.01629	<0.0063	2.4	6.3		<0.15	

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Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Type	Water Temperature °C	pH	Specific Conductivity µS/cm	Dissolved Oxygen mg/l	Algal Chlorophyll-a µg/l	Algal Phycophytin µg/l	Alkalinity mg/l	Carbon, Dissolved Organic Carbon mg/l	Carbon, Particulate Carbon mg/l	Demand, Carbonaceous Biological Oxygen Demand mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate+Nitrite mg/l	Nitrogen, Particulate Nitrogen mg/l	Nitrogen, Total Kjeldahl Nitrogen mg/l	Nitrogen, Total Nitrogen mg/l	Phosphorus, Phosphate mg/l	Phosphorus, Total Phosphorus mg/l	Phosphorus, Particulate Phosphorus mg/l	Phosphorus, Particulate Inorganic Phosphorus mg/l	Turbidity NTU	Solids, Total Suspended Solids mg/l	Solids, Volatile Suspended Solids mg/l	Toxins, Microcystin µg/l
WE072220-OC	7/22/2020	10:48	KR04350	Klamath River at Weitchpec (RM 43.5; Baseline)	Yurok	0.5	P	24.1	8.3	159.1	8.98	<1	<1	<20	2.27			<0.012	<0.016			0.226	0.024	0.027				<2	<2	<0.15
WE080520-OC	8/5/2020	10:36	KR04350	Klamath River at Weitchpec (RM 43.5; Baseline)	Yurok	0.5	P	22.38	8.29	153	9.04	<1	1.12		2.16	0.393		0.021	<0.016	<0.0789		0.262	0.032	0.054				<2	<2	<0.15
WE081920-OC	8/19/2020	10:10	KR04350	Klamath River at Weitchpec (RM 43.5; Baseline)	Yurok	0.5	P	23.01	8.25	160.9	8.84	1.4	2.1	<20	2.8	0.469		0.02	<0.016	<0.0789		0.371	0.052	0.073				<2	<2	<0.15
WE090920-OC	9/9/2020	10:50	KR04350	Klamath River at Weitchpec (RM 43.5; Baseline)	Yurok	0.5	P	20.09	8.13	161	9.35	6.04	7.66		3.1	0.622		0.043	0.188	0.0843		0.604	0.077	0.091				2.7	<2	<0.15
WE092320-OC	9/23/2020	10:08	KR04350	Klamath River at Weitchpec (RM 43.5; Baseline)	Yurok	0.5	P	17.88	8.46	163.9	10.41	3.5	2.25	<20	3.07	0.597		<0.012	0.107	<0.0789		0.503	0.066	0.086				2.1	<2	<0.15
WE100720-OC	10/7/2020	10:09	KR04350	Klamath River at Weitchpec (RM 43.5; Baseline)	Yurok	0.5	P	16.09	8.41	173.6	11.17	2.71	1.92		3.07	1.34		<0.012	0.09	0.185		0.371	0.064	0.074				2.8	<2	<0.15
WE102120-OC	10/21/2020	11:08	KR04350	Klamath River at Weitchpec (RM 43.5; Baseline)	Yurok	0.5	P	15.52	8.55	176.7	11.28	292	176	<20	3.29	2.48		<0.012	<0.016	0.402		0.352	0.057	0.043				7.4	4.6	0.32
WE111820-OC	11/18/2020	11:47	KR04350	Klamath River at Weitchpec (RM 43.5; Baseline)	Yurok	0.5	P	10.55	7.89	97.6	10.95	8.03	6.98		3.18	1.82		<0.012	0.241	0.207		0.556	0.03	0.081				12.3	3.4	
WE120920-OC	12/9/2020	11:06	KR04350	Klamath River at Weitchpec (RM 43.5; Baseline)	Yurok	0.5	P	6.471	8.23	167.6	12.55	1.87	2.34		2.34	0.348		0.014	0.36	<0.0789		0.574	0.036	0.052				<2	<2	
TC031820-OC	3/18/2020	9:17	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	7.53	8.09	159.8	11.95	1.35	1.51		1.35	0.263		<0.012	0.12	<0.0789		0.23	0.016	0.02				2.3	<2	
TC050620-OC	5/6/2020	9:40	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	14.21	8.12	122.6	10.47	<1	<1		2.18	0.46		0.038	0.093	<0.0789		0.205	0.01	0.022				3.5	<2	
TC052020-OC	5/20/2020	9:21	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	12.71	7.93	110.9	10.62	<1	1.03	<20	2.24	0.744		0.014	0.045	<0.0789		0.155	0.009	<0.018				4.9	<2	<0.15
TC061020-OC	6/10/2020	9:20	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	16.44	7.96	132.9	9.61	<1	<1		2.02	0.356		0.028	<0.016	<0.0789		0.133	0.011	0.03				<2	<2	<0.15
TC062420-OC	6/24/2020	9:00	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	22.28	7.95	145.4	8.35	<1	<1	<20	1.63	0.428		<0.012	<0.016	<0.0789		0.142	0.017	0.027				<2	<2	<0.15
TC070820-OC	7/8/2020	9:00	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	20.19	8.12	152.2	8.88	<1	<1		1.65	0.212		<0.012	<0.016	<0.0789		0.157	0.015	0.029				<2	<2	<0.15
TC072220-OC	7/22/2020	9:11	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	24.19	8.18	157.1	7.88	<1	<1	<20	1.88			0.027	<0.016			0.177	0.016	0.032				<2	<2	<0.15
TC080520-OC	8/5/2020	9:02	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	22.72	8.26	149.8	8.19	1	<1		1.69	0.44		<0.012	<0.016	<0.0789		0.21	0.023	0.042				<2	<2	<0.15
TC081920-OC	8/19/2020	9:00	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	23.34	8.2	156.7	7.88	1.4	1.79	<20	2.15	0.434		0.016	<0.016	<0.0789		0.24	0.036	<0.018				<2	<2	<0.15
TC090920-OC	9/9/2020	9:20	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	20.4	7.97	157	8.27	5.62	5.52		2.44	0.468		0.034	0.122	<0.0789		0.433	0.054	0.035				2	<2	<0.15
TC092320-OC	9/23/2020	9:00	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	17.86	8.27	156.8	9.28	3.36	1.77	<20	2.49	0.527		<0.012	0.072	0.0809		0.372	0.046	0.064				<2	<2	<0.15
TC100720-OC	10/7/2020	9:03	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	15.84	8.07	166.8	9.54	3.62	1.01		2.67	0.602		<0.012	0.055	0.0919		0.286	0.046	0.054				2.3	<2	<0.15
TC102120-OC	10/21/2020	9:09	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	15.59	8.4	172.8	9.6	274	165	<20	2.73	2.65		<0.012	<0.016	0.411		0.284	0.039	0.062				7.2	4.8	0.25
TC111820-OC	11/18/2020	10:35	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	10.54	7.87	96.5	10.83	6.77	6.33		3.41	1.23		0.012	0.215	0.156		0.498	0.027	0.034				9.3	2.8	
TC120920-OC	12/9/2020	10:09	KR03850	Klamath River below Trinity River (RM 38.5; Baseline)	Yurok	0.5	P	6.494	8.08	169	10.59	2.03	2.34		2	0.34		0.012	0.273	<0.0789		0.476	0.026	0.051				<2	<2	
TG031820-OC	3/18/2020	7:06	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	8.753	7.74	159.1	10.68	2.5	1.54		1.25	0.268		<0.012	0.138	<0.0789		0.243	0.009	<0.018	0.00436	<0.0063	1.17	<2	<2	
TG050620-OC	5/6/2020	7:14	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	13.89	7.84	127.3	9.86	<1	<1		1.69	0.357		0.019	0.127	<0.0789		0.227	0.011	0.039	0.00615	<0.0063	1.58	3.2	<2	

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Type	Water Temperature °C	pH	Specific Conductivity µS/cm	Dissolved Oxygen mg/l	Algae, Chlorophyll-a µg/l	Algae, Phycophytin µg/l	Alkalinity mg/l	Carbon, Dissolved Organic Carbon mg/l	Carbon, Particulate Carbon mg/l	Demand, Carbonaceous Biological Oxygen Demand mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate+Nitrite mg/l	Nitrogen, Particulate Nitrogen mg/l	Nitrogen, Total Kjeldahl Nitrogen mg/l	Nitrogen, Total Nitrogen mg/l	Phosphorus, Phosphate mg/l	Phosphorus, Total Phosphorus mg/l	Phosphorus, Particulate Phosphorus mg/l	Phosphorus, Particulate Inorganic Phosphorus mg/l	Turbidity NTU	Solids, Total Suspended Solids mg/l	Solids, Volatile Suspended Solids mg/l	Toxins, Microcystin µg/l
TG051920-OC	5/19/2020	11:09	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	12.96	7.83	107.7	10.49																			<0.15
TG052020-OC	5/20/2020	6:59	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	12.8	7.68	111.7	10.1	<1	<1	<20	2.01	0.464		0.016	0.078	<0.0789		0.167	0.01	0.024	0.00751	<0.0063	4.01	5.5	<2	
TG060920-OC	6/9/2020	12:53	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	18.11	8.85	137.3	13.13																			<0.15
TG061020-OC	6/10/2020	8:30	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	15.96	7.58	138.2	8.85	<1	<1		1.54	0.234		0.012	0.022	<0.0789		0.131	<0.006	0.04	0.00395	<0.0063	0.808	<2	<2	
TG062320-OC	6/23/2020	10:21	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	21.55	6.29	147.3	10.4																			<0.15
TG062420-OC	6/24/2020	6:36	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	20.64	7.71	149.5	6.52	<1	1.01	<20	1.35	<0.1899		0.012	0.025	<0.0789		0.14	0.011	0.022	0.00522	<0.0063	0.678	<2	<2	
TG070720-OC	7/7/2020	11:04	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	20.05	8.65	152.7	11.54																			<0.15
TG070820-OC	7/8/2020	6:39	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	19.34	7.7	14.3	7.64	<1	1.51		1.33	0.223		0.012	0.025	<0.0789		0.183	0.008	0.024	0.00551	<0.0063	0.985	<2	<2	
TG072120-OC	7/21/2020	11:04	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	23	8.77	156.6	10.66																			<0.15
TG072220-OC	7/22/2020	7:14	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	22.1	7.15	180.8	6.87	1.61	1.49	<20	1.51			<0.012	0.02			0.151	0.007	<0.018			0.736	<2	<2	
TG080420-OC	8/4/2020	9:53	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	21.98	8.42	150.7	9.07																			<0.15
TG080520-OC	8/5/2020	6:44	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	21.47	7.95	151.1	7.04	<1	1.95		1.37	0.472		0.015	0.019	<0.0789		0.191	0.009	0.029	0.01011	<0.0063	0.988	2.2	<2	
TG081820-OC	8/18/2020	11:17	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	23.24	8.83	157.1	10.46																			0.8
TG081920-OC	8/19/2020	6:46	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	21.11	7.85	159.2	6.72	1.26	3.04	<20	1.79	0.396		0.015	0.02	<0.0789		0.209	0.016	0.026	0.01	<0.0063	1.12	<2	<2	
TG090820-OC	9/8/2020	9:55	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	20.93	8.65	156.4	9.98																			<0.15
TG090920-OC	9/9/2020	7:15	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	19.89	7.74	159.2	7.01	17.5	10.7		2.08	1.39		0.024	0.084	0.22		0.368	0.035	0.052	0.02251	0.015	2.22	4.1	<2	
TG092220-OC	9/22/2020	10:20	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	18.47	8.72	1520	10.52																			<0.15
TG092320-OC	9/23/2020	6:55	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	17.5	8.17	155.1	8	3.36	4.47	<20	2.08	0.868		<0.012	0.025	0.113		0.286	0.021	0.039	0.011	<0.0063	1.850	2.700	<2	
TG100620-OC	10/6/2020	12:01	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	16.69	8.75	163.3	12.62																			<0.15
TG100720-OC	10/7/2020	7:04	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	15.32	7.61	165.2	7.85	14.9	1.74		2	1.92		<0.012	0.020	0.276		0.206	0.027	0.038	0.028	0.012	4.000	5.200	4.500	
TG102020-OC	10/20/2020	9:50	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	15.78	8.37	170.2	10.48																			0.200
TG102120-OC	10/21/2020	7:19	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	15.51	7.89	172.5	7.75	113	71.8	<20	2.28	0.999		<0.012	0.025	0.152		0.238	0.026	0.035	0.018	<0.0063	3.920	2.700	<2	
TG111820-OC	11/18/2020	8:38	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	10.91	7.6	129	9.84	5.37	6.45		3.1	1.05		<0.012	0.273	0.125		0.516	0.019	0.069	0.019	0.007	5.280	8.000	2.200	
TG120920-OC	12/9/2020	8:12	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.5	P	7.934	7.68	171	10	<1	1.5		1.74	0.236		0.013	0.235	<0.0789		0.587	0.020	0.031	0.003	<0.0063	1.080	<2	<2	
LES031820-OC	3/18/2020	6:14	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	8.832	8.08	167.8	11.26	1.54	1.09		1.31	0.246		0.012	0.094	<0.0789		0.212	0.009	0.018				2.400	<2	
LES050620-OC	5/6/2020	6:36	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	14.01	7.91	120.9	9.87	<1	<1		1.64	0.269		0.016	0.105	<0.0789		0.223	0.009	0.025				2.800	<2	

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Type	Water Temperature °C	pH	Specific Conductivity µS/cm	Dissolved Oxygen mg/l	Algal Chlorophyll-a µg/l	Algal Pheophytin µg/l	Alkalinity mg/l	Carbon, Dissolved Organic Carbon mg/l	Carbon, Particulate Carbon mg/l	Demand, Carbonaceous Biological Oxygen Demand mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate+Nitrite mg/l	Nitrogen, Particulate Nitrogen mg/l	Nitrogen, Total Kjeldahl Nitrogen mg/l	Nitrogen, Total Nitrogen mg/l	Phosphorus, Phosphate mg/l	Phosphorus, Total Phosphorus mg/l	Phosphorus, Particulate Phosphorus mg/l	Phosphorus, Particulate Inorganic Phosphorus mg/l	Turbidity NTU	Solids, Total Suspended Solids mg/l	Solids, Volatile Suspended Solids mg/l	Toxins, Microcystin µg/l
LES051920-OC	5/19/2020	9:12	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	10.37	7.75																					<0.15
LES052020-OC	5/20/2020	6:16	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	12.61	7.73	109.2	10.17	<1	1.08	<20	2.08	0.426		0.012	0.093	<0.0789		0.186	0.010	0.027				5.800	<2	
LES060920-OC	6/9/2020	11:56	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	16.47	8.17	138.3	10.78																			<0.15
LES061020-OC	6/10/2020	6:23	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	16.81	7	137	9.24	<1	<1		1.63	0.298		0.018	<0.016	<0.0789		0.122	0.008	0.028				<2	<2	
LES062320-OC	6/23/2020	9:10	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	21.79	7.86	391.8	8.28																			<0.15
LES062420-OC	6/24/2020	6:02	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	21.94	7.86	475.1	7.7	<1	<1	<20	1.45	0.313		0.013	<0.016	<0.0789		0.163	0.011	0.025				<2	<2	
LES070720-OC	7/7/2020	10:15	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	19.31	7.94	1532	8.69																			<0.15
LES070820-OC	7/8/2020	6:03	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	19.52	8.07	1316	8.7	<1	1.05		2.3	0.281		<0.012	<0.016	<0.0789		0.097	0.010	0.023				<2	<2	
LES072120-OC	7/21/2020	9:02	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	22.37	8.3	960	8.24																			<0.15
LES072220-OC	7/22/2020	6:28	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	22.3	8.48	720	8.8	<1	<1	<20	1.57			<0.012	<0.016		0.143	0.009	0.022					<2	<2	
LES080420-OC	8/4/2020	11:10	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	22.19	8.03	2495	7.92																			<0.15
LES080520-OC	8/5/2020	6:05	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	15.57	8.01	41001	7.97	<1	1.27		1.39	0.37		0.014	<0.016	<0.0789		0.127	0.010	<0.018				<2	<2	
LES081820-OC	8/18/2020	10:18	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	21.63	7.96	2830	7.61																			<0.15
LES081920-OC	8/19/2020	6:16	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	21.83	8.21	1939	8.22	<1	1.75	<20	1.65	0.293		0.019	<0.016	<0.0789		0.151	0.018	0.030				<2	<2	
LES090820-OC	9/8/2020	8:58	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	10.95	8.14	1054	8.19																			<0.15
LES090920-OC	9/9/2020	6:40	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	20.27	7.97	1332	7.93	7	4.57			1.01		0.027	0.035	0.131		0.294	0.038	0.066				3.000	<2	
LES092220-OC	9/22/2020	9:40	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	18.4	8.19	2261	9.12																			<0.15
LES092320-OC	9/23/2020	6:15	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	17.9	8.34	3352	9.47	1.22	2.24	<20	1.63	0.331		<0.012	0.026	<0.0789		0.180	0.026	0.044				<2	<2	
LES100620-OC	10/6/2020	10:54	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	16.52	8.2	394	9.41																			0.240
LES100720-OC	10/7/2020	6:33	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	16.38	8.31	278.6	9.86	6.21	<1		2.27	1.07		<0.012	0.017	0.145		0.323	0.037	0.018				3.200	2.500	
LES102020-OC	10/20/2020	10:41	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	16.21	8.09	3179	9.47																			0.190
LES102120-OC	10/21/2020	6:34	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	15.67	8.04	2892	9.12	133	83.1	<20	1.88	1.23		<0.012	0.016	0.189		0.194	0.031	<0.018				4.600	2.600	
LES111820-OC	11/18/2020	7:37	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	11.04	7.5	326.6	9.61	3.41	4.94		3.24	1.05		0.016	0.325	0.110		0.583	0.016	0.055				8.300	2.000	
LES120920-OC	12/9/2020	7:36	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.5	P	7.99	7.89	368.1	11.72	<1	1.36		1.78	0.305		0.015	0.231	<0.0789		0.443	0.021	0.037				<2	<2	
SH031820-OC	3/18/2020	10:27	SH00000	Shasta River near mouth (Baseline)	Karuk	0.5	P	7.645	8.61	0.4751	11.99	2.7	1.4		1.68	0.453		<0.01	0.272			0.564	0.161	0.197			1.9	3.5		
SH041520-OC	4/15/2020	10:51	SH00000	Shasta River near mouth (Baseline)	Karuk	0.5	P	12.62	8.92	0.599	14.6	1.5	1.9		5.72	0.377		<0.01	0.012			0.649	0.183	0.231			0.54	0.89		

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Type	Water Temperature °C	pH	Specific Conductivity µS/cm	Dissolved Oxygen mg/l	Algae Chlorophyll-a µg/l	Algae Phytoplankton µg/l	Alkalinity mg/l	Carbon, Dissolved Organic Carbon mg/l	Carbon, Particulate Carbon mg/l	Demand, Carbonaceous Biological Oxygen Demand mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate+Nitrite mg/l	Nitrogen, Particulate Nitrogen mg/l	Nitrogen, Total Kjeldahl Nitrogen mg/l	Nitrogen, Total Nitrogen mg/l	Phosphorus, Phosphate mg/l	Phosphorus, Total Phosphorus mg/l	Phosphorus, Particulate Phosphorus mg/l	Phosphorus, Particulate Inorganic Phosphorus mg/l	Turbidity NTU	Solids, Total Suspended Solids mg/l	Solids, Volatile Suspended Solids mg/l	Toxins, Microcystin µg/l
SH050620-OC	5/6/2020	10:53	SH00000	Shasta River near mouth (Baseline)	Karuk	0.5	P	15.65	8.64	0.621	11.37	1.2	0.9	287	6.16	0.433		<0.01	0.018			0.49	0.297	0.298			0.62	1		
SH061020-OC	6/10/2020	12:21	SH00000	Shasta River near mouth (Baseline)	Karuk	0.5	P	20.86	8.81	0.624	11.42	2.7	0.2		6.59	0.333		<0.01	<0.01			0.742	0.194	0.217			0.42	1.3		
SH070820-OC	7/8/2020	12:02	SH00000	Shasta River near mouth (Baseline)	Karuk	0.5	P	21.46	8.76	0.591	11	1.5	0.6		5.36	0.507		<0.01	<0.01			0.485	0.251	0.255			0.5	1.6		
SH080520-OC	8/5/2020	12:05	SH00000	Shasta River near mouth (Baseline)	Karuk	0.5	P	24.88	8.74	0.55	10.31	2	1		4.41	0.404		0.01	<0.01			0.445	0.23	0.259			0.46	1.8		
SH100720-OC	10/7/2020	12:00	SH00000	Shasta River near mouth (Baseline)	Karuk	0.5	P	13.38	8.7	0.489	10.68	1.2	1.4		2.09	0.379		<0.01	<0.01			0.454	0.169	0.177			1.4	3		
SH111820-OC	11/18/2020	12:04	SH00000	Shasta River near mouth (Baseline)	Karuk	0.5	P	9.311	8.66	0.4492	11.37	2.8	1.4		3.06	0.397		<0.01	0.188			0.615	0.187	0.199			1.1	2.3		
SH120920-OC	12/9/2020	11:57	SH00000	Shasta River near mouth (Baseline)	Karuk	0.5	P	5.956	8.66	0.4217	12.36	3.7	1.6		1.24	0.467		<0.01	0.249			0.532	0.158	0.191			0.5	2.4		
SC031820-OC	3/18/2020	9:19	SC00000	Scott River near mouth (Baseline)	Karuk	0.5	P	6.767	8.37	0.204	11.92	3.2	0.7		1.08	0.332		<0.01	0.336			0.517	0.001	0.007			0.36	1.4		
SC041520-OC	4/15/2020	9:33	SC00000	Scott River near mouth (Baseline)	Karuk	0.5	P	10.85	8.33	0.1688	10.91	2.4	1.5		1.71	0.597		<0.01	0.147			0.321	0.002	0.012			0.84	3.3		
SC050620-OC	5/6/2020	9:41	SC00000	Scott River near mouth (Baseline)	Karuk	0.5	P	12.66	8.38	0.1365	10.77	0.7	2.2	71.2	2.11	0.485		<0.01	0.117			0.393	0.002	0.015			1.3	3.4		
SC061020-OC	6/10/2020	10:05	SC00000	Scott River near mouth (Baseline)	Karuk	0.5	P	16.85	8.54	0.1829	9.87	1.6	1.5		1.46	0.532		0.012	0.118			0.504	0.004	0.012			0.51	2.4		
SC070820-OC	7/8/2020	10:35	SC00000	Scott River near mouth (Baseline)	Karuk	0.5	P	20.57	8.59	0.2153	9.51	0.9	1		1.03	0.483		<0.01	0.016			0.132	0.003	0.013			0.36	1.6		
SC080520-OC	8/5/2020	9:48	SC00000	Scott River near mouth (Baseline)	Karuk	0.5	P	23.82	8.41	0.2442	8.61	0.5	1		1.13	0.291		<0.01	0.015			0.118	0.001	0.012			0.36	0.6		
SC100720-OC	10/7/2020	10:21	SC00000	Scott River near mouth (Baseline)	Karuk	0.5	P	13.84	8.71	0.1726	11.21	0.5	0.6		0.608	0.237		0.014	<0.01			0.195	<0.001	0.008			0.31	<0.5		
SC111820-OC	11/18/2020	10:40	SC00000	Scott River near mouth (Baseline)	Karuk	0.5	P	8.584	8.33	0.1751	11.29	2.7	0.2		3.43	0.682		<0.01	0.046			0.395	<0.001	0.014			0.64	3.5		
SC120920-OC	12/9/2020	10:55	SC00000	Scott River near mouth (Baseline)	Karuk	0.5	P	3.584	8.38	0.2407	13.21	2.3	<0.1		0.735	0.202		<0.01	0.013			0.27	0.002	0.003			0.23	1.3		
SA031820-OC	3/18/2020	7:15	SA00000	Salmon River near mouth (Baseline)	Karuk	0.5	P	6.177	8.15	0.0945	12.28	1.1	<0.1		0.642	0.228		<0.01	0.061			0.191	<0.001	0.005			0.27	0.6		
SA041520-OC	4/15/2020	7:25	SA00000	Salmon River near mouth (Baseline)	Karuk	0.5	P	9.696	8.05	0.0756	11.46	1.6	1.2		1.61	0.552		0.013	0.088			0.177	<0.001	0.006			0.39	2.1		
SA050620-OC	5/6/2020	7:23	SA00000	Salmon River near mouth (Baseline)	Karuk	0.5	P	11.54	7.79	0.0667	11.05	4.5	1.2	33.6	2.42	0.81		<0.01	0.031			0.256	<0.001	0.013			0.55	6.6		
SA061020-OC	6/10/2020	7:33	SA00000	Salmon River near mouth (Baseline)	Karuk	0.5	P	14.66	7.88	0.0806	10.08	2.1	1.2		0.944	1.57		<0.01	<0.01			0.541	0.003	0.025			0.75	13		
SA070820-OC	7/8/2020	7:28	SA00000	Salmon River near mouth (Baseline)	Karuk	0.5	P	18.2	7.96	0.1099	9.2	1.1	<0.1		0.574	0.355		<0.01	<0.01			<0.5	<0.001	0.003			<0.1	<0.5		
SA080520-OC	8/5/2020	7:23	SA00000	Salmon River near mouth (Baseline)	Karuk	0.5	P	20.5	7.87	0.1289	8.55	0.5	0.8		0.622	0.27		<0.01	<0.01			0.068	0.002	0.007			0.17	0.8		
SA100720-OC	10/7/2020	7:40	SA00000	Salmon River near mouth (Baseline)	Karuk	0.5	P	13.73	7.94	0.1442	9.72	1.4	0.3		0.445	0.531		0.013	0.033			0.207	0.002	0.015			1.1	4.2		
SA111820-OC	11/18/2020	8:19	SA00000	Salmon River near mouth (Baseline)	Karuk	0.5	P	9.531	7.97	0.0964	11.26	3.2	0.8		3.26	1.18		<0.01	0.063			0.419	0.005	0.026			1.6	6.5		
SA120920-OC	12/9/2020	8:30	SA00000	Salmon River near mouth (Baseline)	Karuk	0.5	P	4.96	7.87	0.1193	12.71	0.5	<0.1		0.619	<0.1899		<0.01	<0.01			0.165	0.001	0.003			0.22	<0.5		
TR031820-OC	3/18/2020	10:00	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	7.854	8.09	162.9	11.98	<1	<1		0.91	<0.1899		<0.012	<0.016	<0.0789		<0.06	<0.006	<0.018			0.701	<2	<2	

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Type	Water Temperature °C	pH	Specific Conductivity µS/cm	Dissolved Oxygen mg/l	Algae Chlorophyll-a µg/l	Algae Phycophytin µg/l	Alkalinity mg/l	Carbon, Dissolved Organic Carbon mg/l	Carbon, Particulate Carbon mg/l	Demand, Carbonaceous Biological Oxygen Demand mg/l	Nitrogen, Ammonia mg/l	Nitrogen, Nitrate+Nitrite mg/l	Nitrogen, Particulate Nitrogen mg/l	Nitrogen, Total Kjeldahl Nitrogen mg/l	Nitrogen, Total Nitrogen mg/l	Phosphorus, Phosphate mg/l	Phosphorus, Total Phosphorus mg/l	Phosphorus, Particulate Phosphorus mg/l	Phosphorus, Particulate Inorganic Phosphorus mg/l	Turbidity NTU	Solids, Total Suspended Solids mg/l	Solids, Volatile Suspended Solids mg/l	Toxins, Microcystin µg/l
TR050620-OC	5/6/2020	10:38	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	13.93	8.17	121.1	10.56	<1	<1		1.48	0.239		<0.012	<0.016	<0.0789		<0.06	<0.006	<0.018			1.260	2.800	<2	
TR052020-OC	5/20/2020	10:09	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	12.84	7.9	116.8	10.65	<1	<1	<20	1.85	0.37		<0.012	<0.016	<0.0789		0.094	<0.006	<0.018			3.160	5.400	<2	<0.15
TR061020-OC	6/10/2020	10:21	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	17.02	8.05	135.8	9.74	<1	<1		1.54	<0.1899		0.018	<0.016	<0.0789		0.074	<0.006	<0.018			0.575	<2	<2	
TR062420-OC	6/24/2020	10:12	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	22.85	8.02	139.7	8.62	<1	<1	<20	1.42	0.2		<0.012	<0.016	<0.0789		0.075	<0.006	<0.018			0.880	<2	<2	<0.15
TR070820-OC	7/8/2020	9:52	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	20.3	8.11	152.9	9.25	<1	<1		1.11	0.22		<0.012	<0.016	<0.0789		0.088	<0.006	<0.018			0.941	<2	<2	
TR072220-OC	7/22/2020	0:10	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	24.41	8.23	152.1	8.47	<1	<1	<20	1.12			<0.012	<0.016			0.069	<0.006	<0.018			0.533	<2	<2	<0.15
TR080520-OC	8/5/2020	10:09	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	22.53	8.38	141.1	8.9	<1	<1		0.974	<0.1899		<0.012	<0.016	<0.0789		0.078	<0.006	<0.018			0.356	<2	<2	
TR081920-OC	8/19/2020	9:51	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	23.01	8.24	146.6	8.52	<1	<1	<20	1.1	<0.1899		0.015	<0.016	<0.0789		0.124	<0.006	<0.018			0.612	<2	<2	<0.15
TR090920-OC	9/9/2020	10:14	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	19.63	7.98	144.6	8.83	1.33	<1		0.951	0.209		<0.012	<0.016	<0.0789		0.086	<0.006	<0.018			0.766	<2	<2	
TR092320-OC	9/23/2020	9:47	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	16.84	8.16	136.8	9.93	<1	<1	<20	1.02	0.226		<0.012	<0.016	<0.0789		0.068	<0.006	<0.018			0.867	<2	<2	<0.15
TR100720-OC	10/7/2020	9:52	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	13.91	7.99	146.3	10.32	<1	<1		1.23	<0.1899		<0.012	<0.016	<0.0789		<0.06	<0.006	<0.018			1.230	<2	<2	
TR102120-OC	10/21/2020	10:38	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	16.01	8.19	160	9.93	13.3	9	<20	0.9	<0.1899		<0.012	<0.016	<0.0789		<0.06	<0.006	<0.018			0.458	<2	<2	0.160
TR111820-OC	11/18/2020	11:28	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	10.24	7.96	97.5	11.02	1.82	1.31		1.93			<0.012	0.045			0.102	<0.006	0.024			2.640	<2	<2	
TR120920-OC	12/9/2020	10:48	TR00000	Trinity River near mouth (Baseline)	Yurok	0.5	P	7.486	8.06	174.1	12.37	<1	<1		0.917			0.013	<0.016			<0.06	<0.006	<0.018			0.274	<2	<2	

Appendix C. Selected Results of 2020 Baseline Phytoplankton Analysis

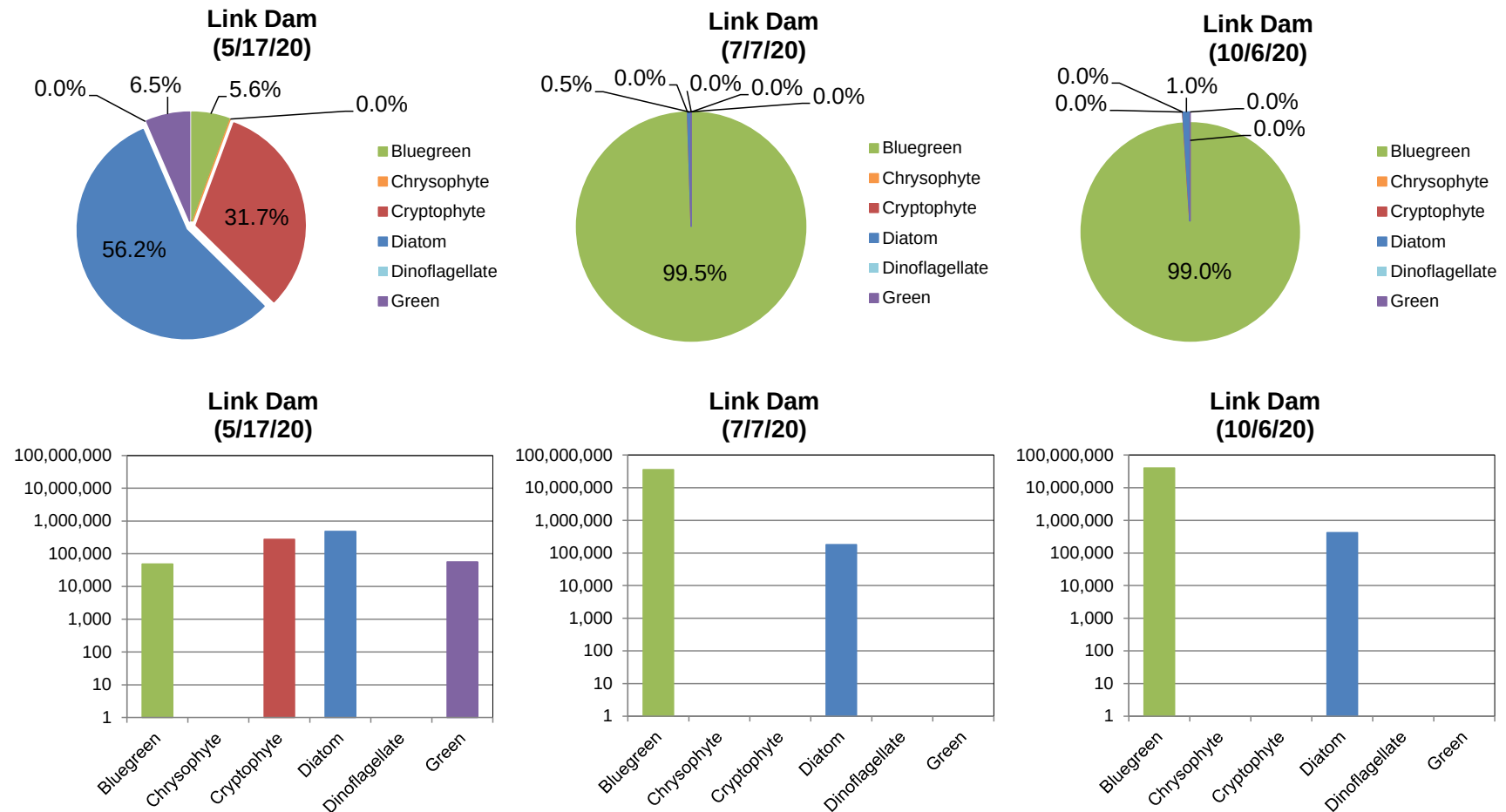


Figure C-1. Phytoplankton species percent biovolume (top) and biovolume by taxa (bottom) at Link Dam (RM 254.44; Baseline) for samples collected as part of Baseline sampling on May 17, 2020, July 7, 2020, and October 6, 2020. Note: y-axis in logarithmic scale.

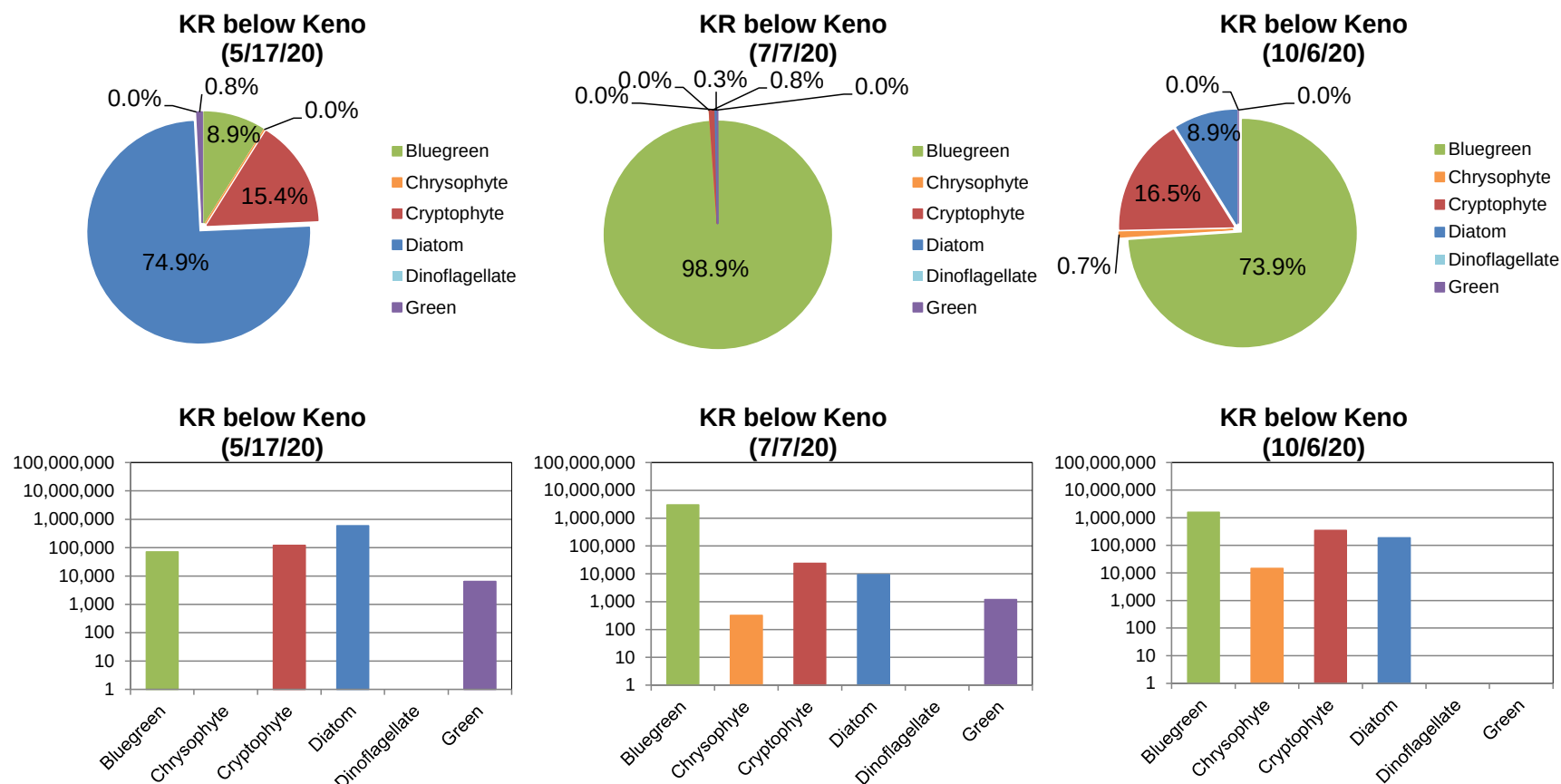
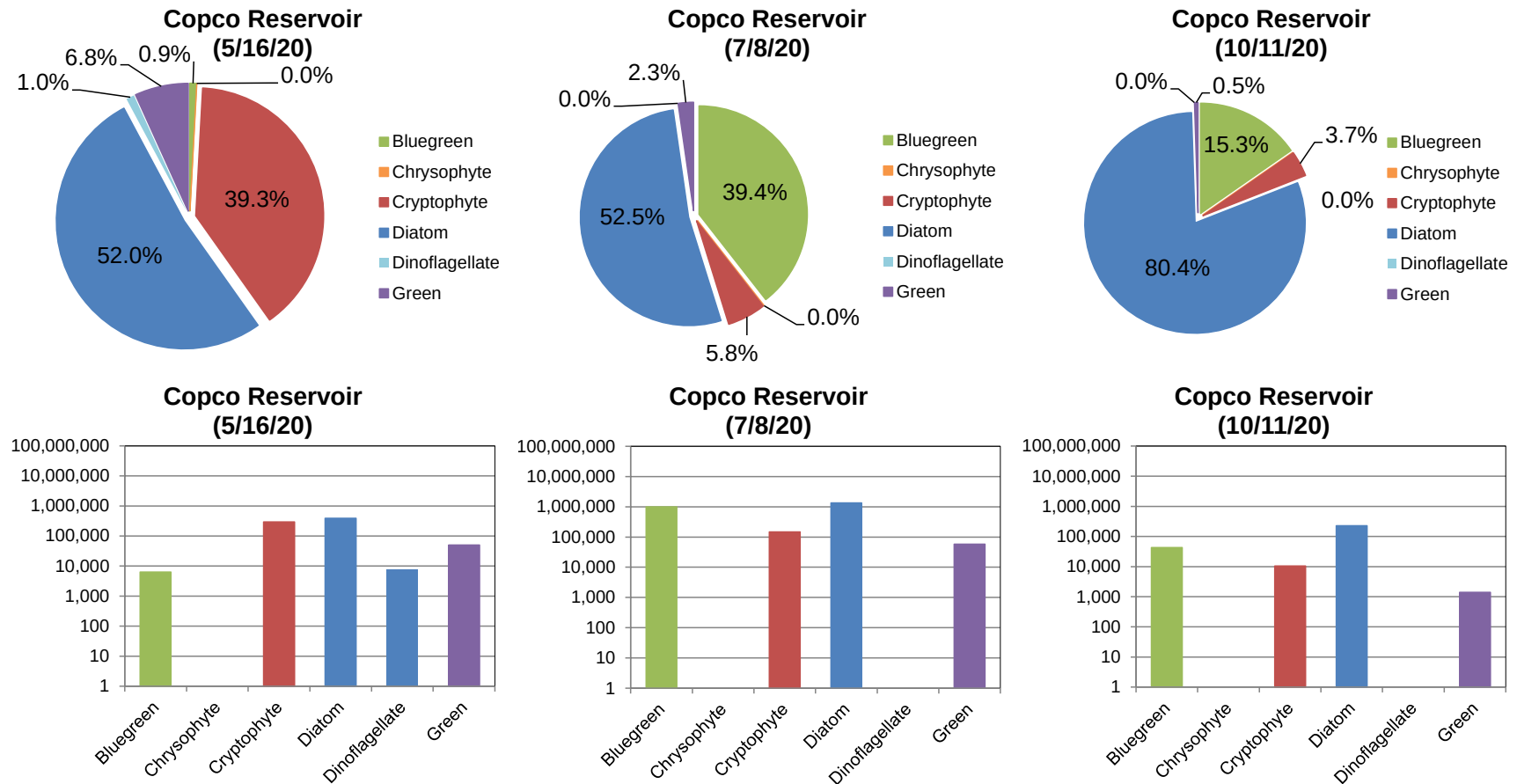


Figure C-2. Phytoplankton species percent biovolume (top) and biovolume by taxa (bottom) at Klamath River below Keno Dam near a USGS gage (RM 233.4; Baseline) for samples collected as part of Baseline sampling on May 17, 2020, July 7, 2020, and October 6, 2020. Note: y-axis in logarithmic scale.



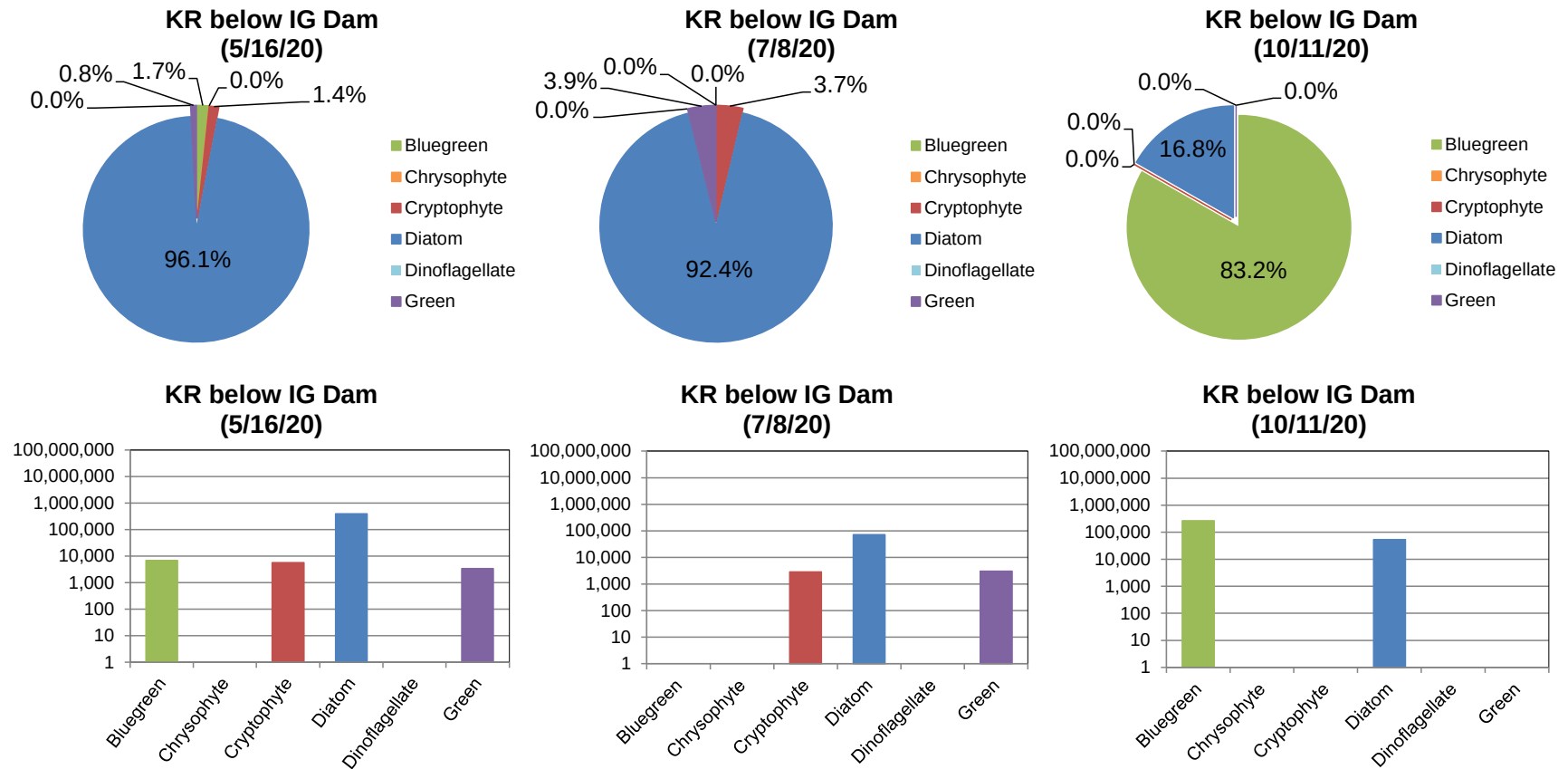


Figure C-4. Phytoplankton species percent biovolume (top) and biovolume by taxa (bottom) at Klamath River below Iron Gate Dam (RM 189.73; Baseline) for samples collected as part of Baseline sampling on May 16, 2020, July 8, 2020, and October 11, 2020. Note: y-axis in logarithmic scale.

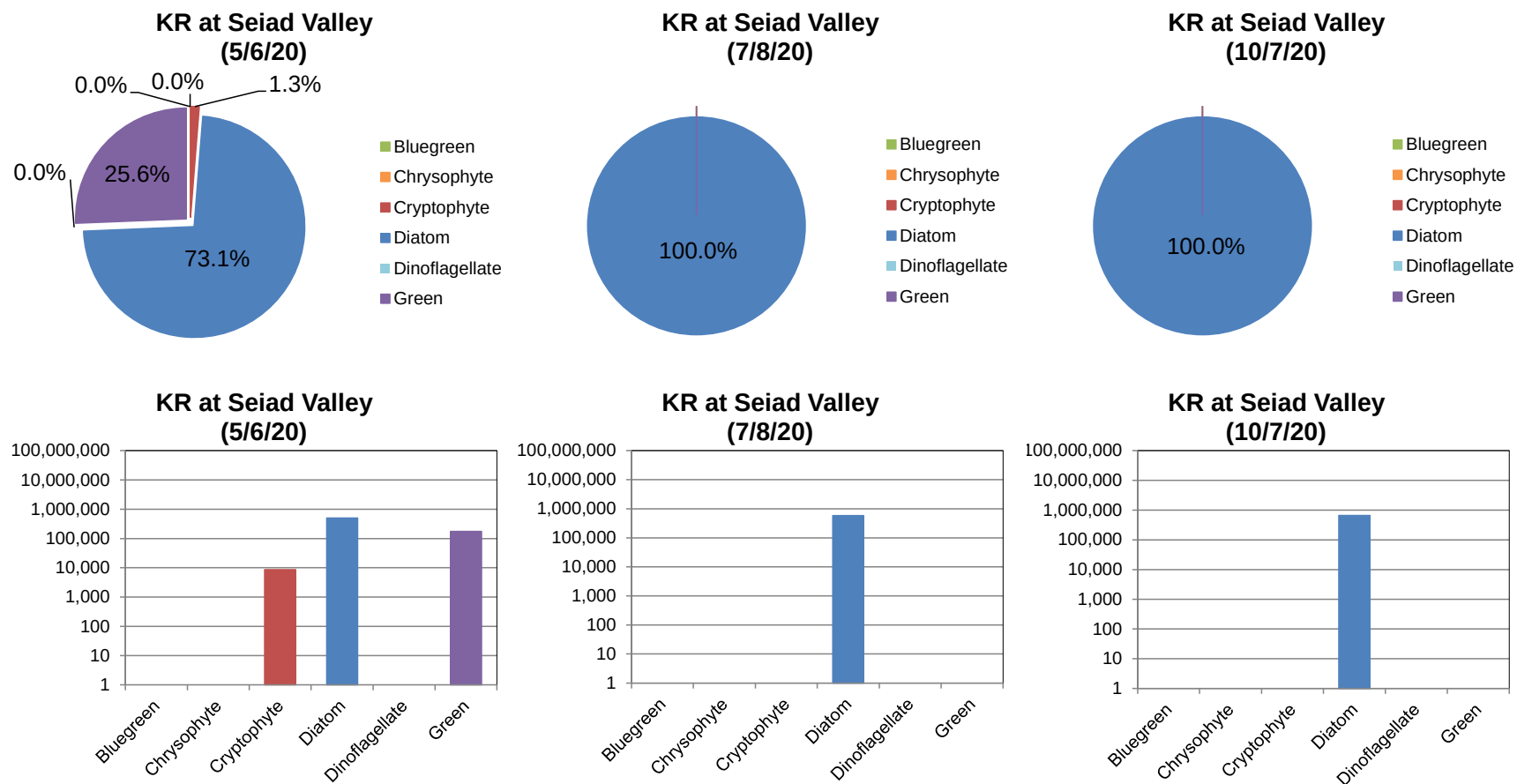


Figure C-5. Phytoplankton species percent biovolume (top) and biovolume by taxa (bottom) at Klamath River below Seiad (RM 128.5; Baseline) for samples collected as part of Baseline sampling on May 6, 2020, July 8, 2020, and October 7, 2020. Note: y-axis in logarithmic scale.

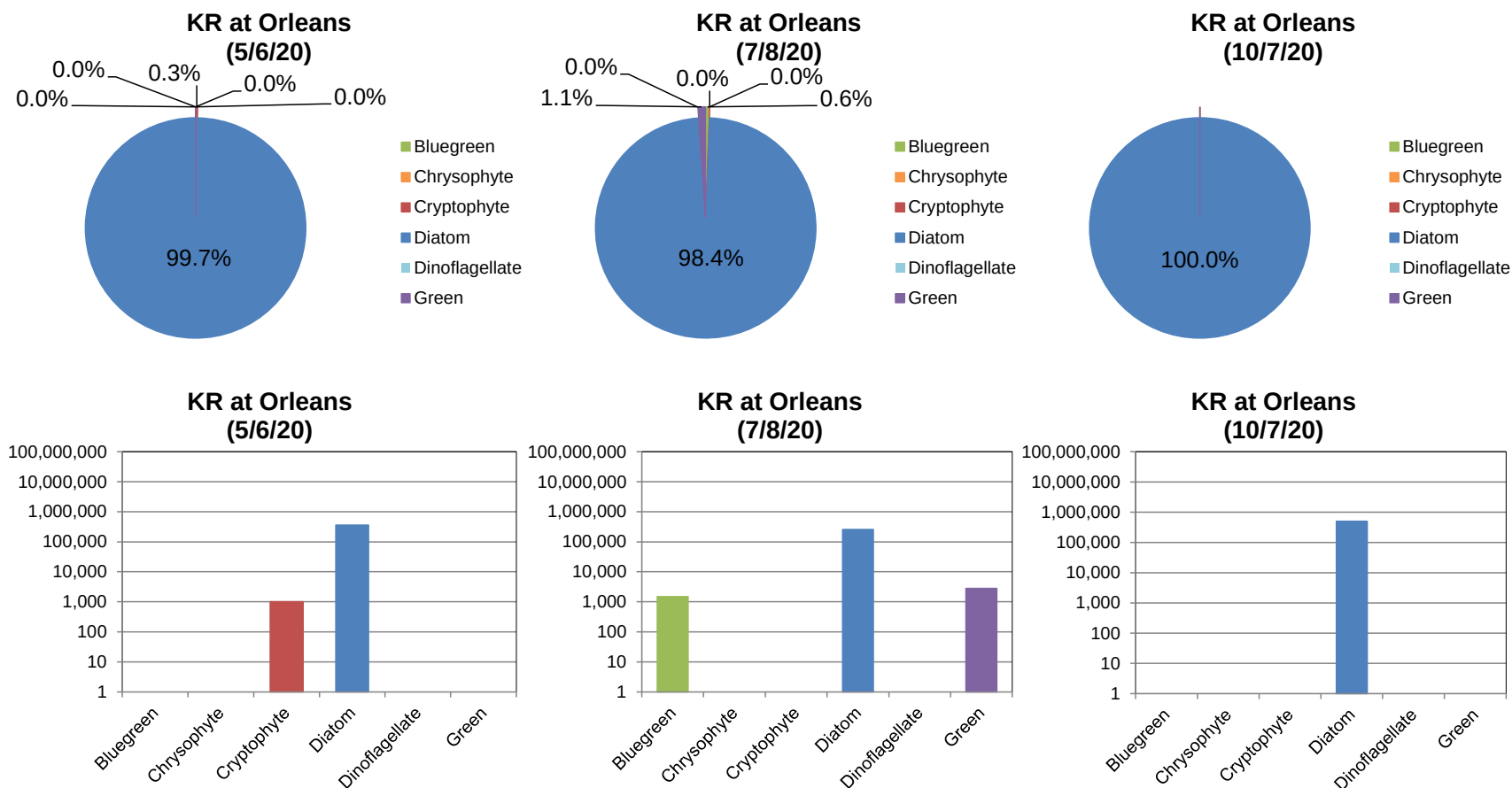


Figure C-6. Phytoplankton species percent biovolume (top) and biovolume by taxa (bottom) at Klamath River at Orleans (USGS) (RM 59.1; Baseline) for samples collected as part of Baseline sampling on May 6, 2020, July 8, 2020, and October 7, 2020. Note: y-axis in logarithmic scale.

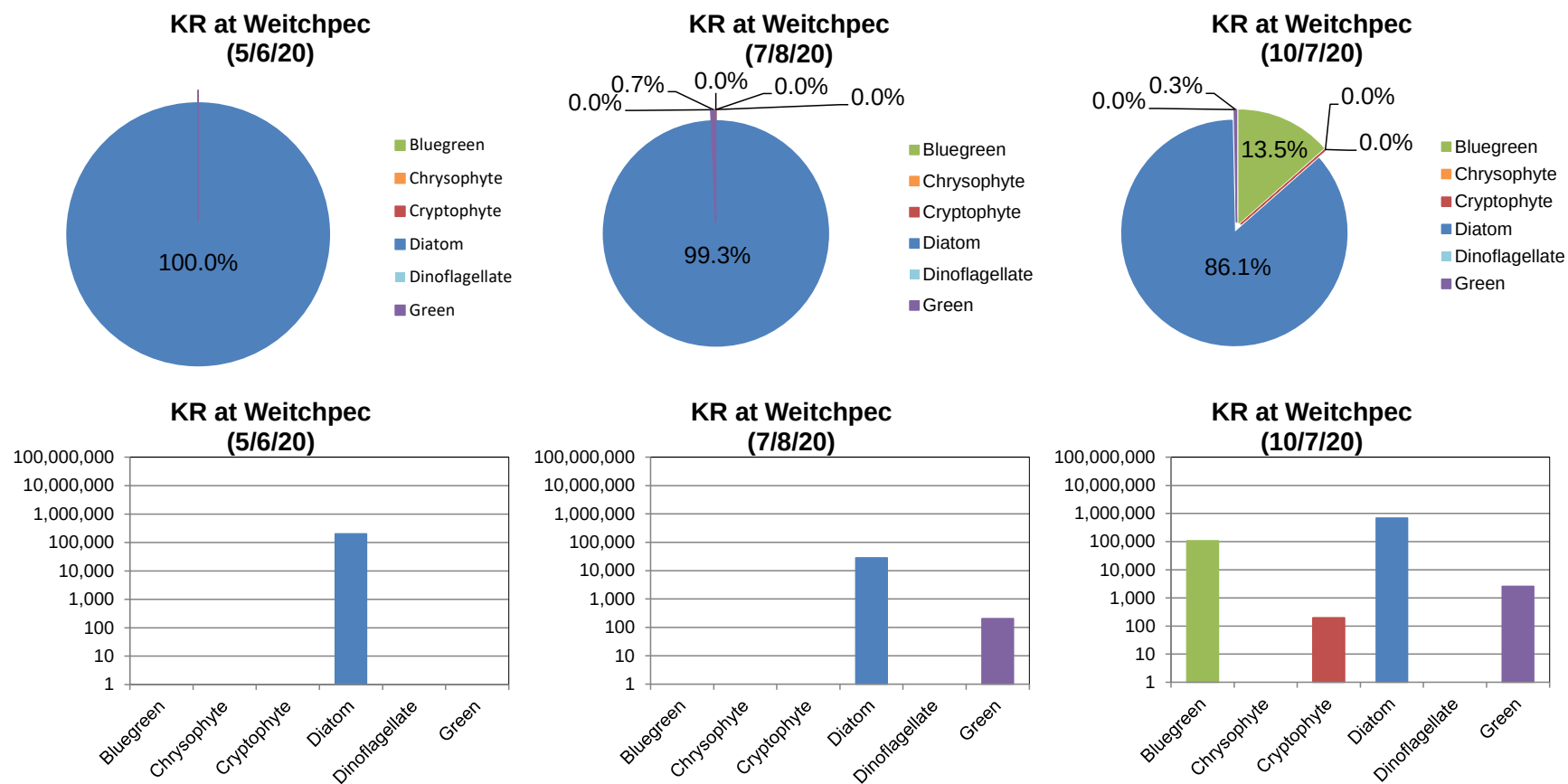


Figure C-7. Phytoplankton species percent biovolume (top) and biovolume by taxa (bottom) at Klamath River at Weitchpec (RM 43.5; Baseline) for samples collected as part of Baseline sampling on May 6, 2020, July 8, 2020, and October 7, 2020. Note: y-axis in logarithmic scale.

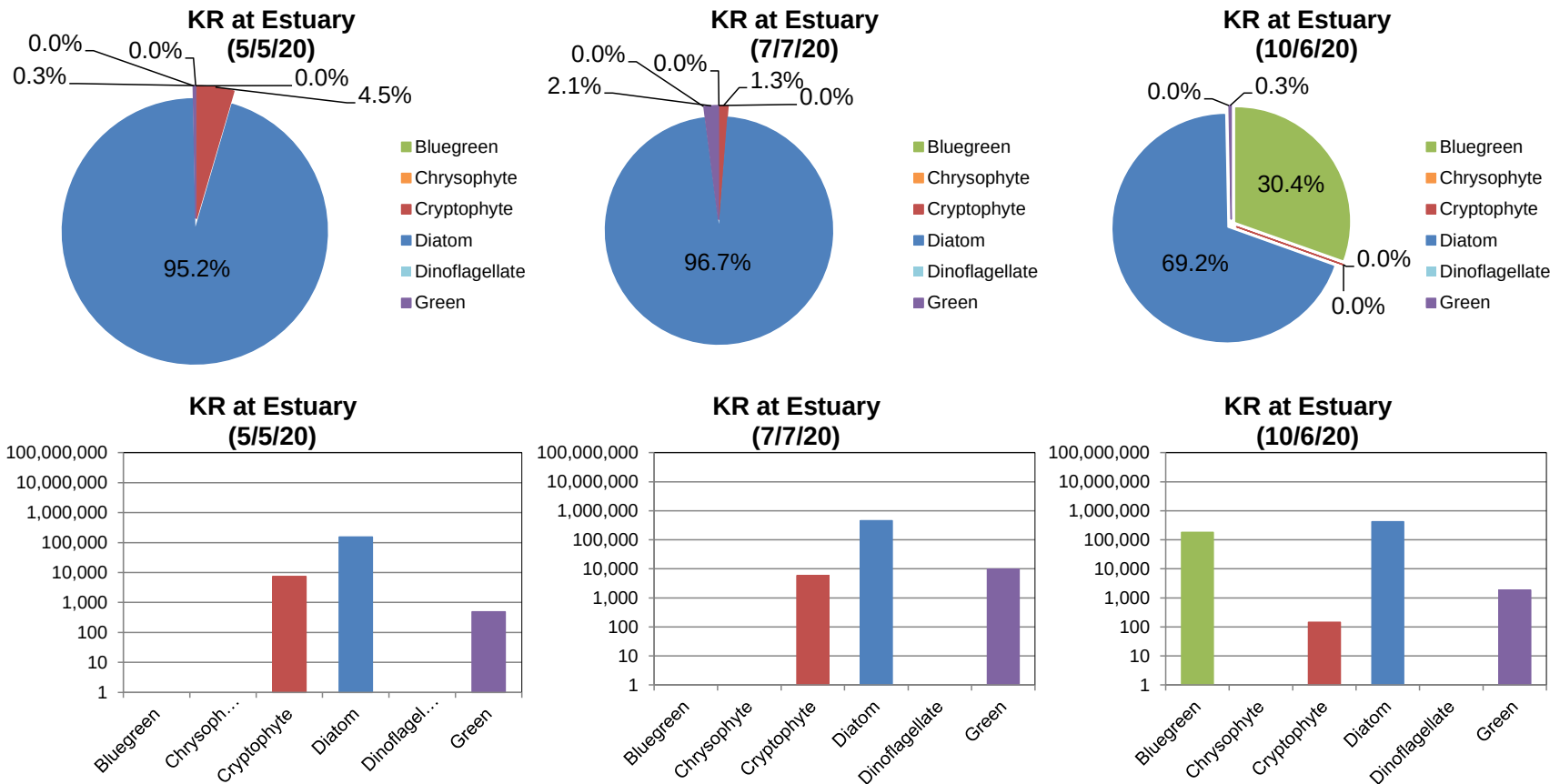


Figure C-8. Phytoplankton species percent biovolume (top) and biovolume by taxa (bottom) at Klamath River Estuary (RM 0.5; Baseline) for samples collected as part of Baseline sampling on May 5, 2020, July 7, 2020, and October 6, 2020. Note: y-axis in logarithmic scale.

Appendix D. 2020 Public Health Data

Table D-1. 2020 Public Health Dataset. NS indicates either analysis for a sample was not conducted or a sample that was not collected. Sample IDs for Karuk and Yurok algae species data were assigned based on date and location and matched with microcystin sample IDs as no unique sample IDs were provided to the algae speciation laboratory for analysis. Microcystin test results of non-detect or values less than the reporting limit of 0.15 µg/l have been replaced with <0.15 µg/l. Algae genera names were updated to reflect the newest nomenclature of the field: *Anabaena* was renamed *Dolichospermum* and *Oscillatoria* was renamed *Planktothrix* for all species.

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Microcystin ug/l	Dolichospermum flos- aque cells/ml	Aphanizomenon flos- aque cells/ml	Microcystis aeruginosa cells/ml	Dolichospermum serialis cells/ml	Dolichospermum planctonica cells/ml	Dolichospermum sp. cells/ml	Aphanizomenon sp. cells/ml	Gloeotrichia echinulata cells/ml	Lyngbya sp. cells/ml	Planktothrix limosa cells/ml	Planktothrix sp. cells/ml	Pseudodolichospermum sp. cells/ml	Dolichospermum variabilis cells/ml	Limnithrix sp. cells/ml	Cylindrospermopsis sp. cells/ml	Planktolyngbya sp. cells/ml	
UKEP20001	6/15/2020	10:04	UKEP	Upper Klamath Lake at Eagle Ridge County Park (Public Health)	ODEQ	0.1	0.48	4131	113266	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
UKEP20202	6/30/2020	10:30	UKEP	Upper Klamath Lake at Eagle Ridge County Park (Public Health)	ODEQ	0.1	0.41	0	540815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
UKEP20203	7/13/2020	10:45	UKEP	Upper Klamath Lake at Eagle Ridge County Park (Public Health)	ODEQ	0.1	0.43	0	832032	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
UKEP20204	7/28/2020	10:30	UKEP	Upper Klamath Lake at Eagle Ridge County Park (Public Health)	ODEQ	0.1	<0.15	289	45794	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
UKEP20205	8/10/2020	10:37	UKEP	Upper Klamath Lake at Eagle Ridge County Park (Public Health)	ODEQ	0.1	3.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
UKEP20206	8/24/2020	10:18	UKEP	Upper Klamath Lake at Eagle Ridge County Park (Public Health)	ODEQ	0.1	0.12	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
UKEP20207	9/8/2020	10:53	UKEP	Upper Klamath Lake at Eagle Ridge County Park (Public Health)	ODEQ	0.1	1.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
UKEP20208	9/22/2020	10:25	UKEP	Upper Klamath Lake at Eagle Ridge County Park (Public Health)	ODEQ	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
UKEP20209	10/5/2020	10:35	UKEP	Upper Klamath Lake at Eagle Ridge County Park (Public Health)	ODEQ	0.1	1.9	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
UKEP20210	10/19/2020	11:28	UKEP	Upper Klamath Lake at Eagle Ridge County Park (Public Health)	ODEQ	0.1	22	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
UKEP20211	12/21/2020	10:30	UKEP	Upper Klamath Lake at Eagle Ridge County Park (Public Health)	ODEQ	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
UKHP20001	6/15/2020	10:26	UKHP	Upper Klamath Lake at Howard's Bay Park (Public Health)	ODEQ	0.1	0.16	0	133581	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
UKHP20202	6/30/2020	10:58	UKHP	Upper Klamath Lake at Howard's Bay Park (Public Health)	ODEQ	0.1	0.2	0	233242	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
UKHP20203	7/13/2020	11:12	UKHP	Upper Klamath Lake at Howard's Bay Park (Public Health)	ODEQ	0.1	0.11	0	105703	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
UKHP20204	7/28/2020	10:56	UKHP	Upper Klamath Lake at Howard's Bay Park (Public Health)	ODEQ	0.1	<0.15	0	245721	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
UKHP20205	8/10/2020	11:05	UKHP	Upper Klamath Lake at Howard's Bay Park (Public Health)	ODEQ	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
UKHP20206	8/24/2020	10:43	UKHP	Upper Klamath Lake at Howard's Bay Park (Public Health)	ODEQ	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
UKHP20207	9/8/2020	11:18	UKHP	Upper Klamath Lake at Howard's Bay Park (Public Health)	ODEQ	0.1	1.9	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
UKHP20208	9/22/2020	10:48	UKHP	Upper Klamath Lake at Howard's Bay Park (Public Health)	ODEQ	0.1	99	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
UKHP20209	10/5/2020	10:58	UKHP	Upper Klamath Lake at Howard's Bay Park (Public Health)	ODEQ	0.1	13	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
UKHP20210	10/19/2020	11:50	UKHP	Upper Klamath Lake at Howard's Bay Park (Public Health)	ODEQ	0.1	26	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	

UKHP20211	12/21/2020	10:55	UKHP	Upper Klamath Lake at Howard's Bay Park (Public Health)	ODEQ	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKMP20001	6/15/2020	10:47	UKMP	Upper Klamath Lake at Moore Park (Public Health)	ODEQ	0.1	0.11	515	78771	0	0	0	0	0	0	0	0	0	0	0	0	0
UKMP20202	6/30/2020	11:18	UKMP	Upper Klamath Lake at Moore Park (Public Health)	ODEQ	0.1	0.1	0	181709	0	0	0	0	0	0	0	0	0	0	0	0	0
UKMP20203	7/13/2020	11:35	UKMP	Upper Klamath Lake at Moore Park (Public Health)	ODEQ	0.1	0.1	0	3695193	0	0	0	0	0	0	0	0	0	0	0	0	0
UKMP20204	7/28/2020	11:15	UKMP	Upper Klamath Lake at Moore Park (Public Health)	ODEQ	0.1	<0.15	0	1023597	0	0	0	0	0	0	0	0	0	0	0	0	0
UKMP20205	8/10/2020	11:23	UKMP	Upper Klamath Lake at Moore Park (Public Health)	ODEQ	0.1	0.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKMP20206	8/24/2020	11:00	UKMP	Upper Klamath Lake at Moore Park (Public Health)	ODEQ	0.1	0.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKMP20207	9/8/2020	11:35	UKMP	Upper Klamath Lake at Moore Park (Public Health)	ODEQ	0.1	110	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKMP20208	9/22/2020	11:05	UKMP	Upper Klamath Lake at Moore Park (Public Health)	ODEQ	0.1	1.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKMP20209	10/5/2020	11:15	UKMP	Upper Klamath Lake at Moore Park (Public Health)	ODEQ	0.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKMP20210	10/19/2020	12:10	UKMP	Upper Klamath Lake at Moore Park (Public Health)	ODEQ	0.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UKMP20211	12/21/2020	11:15	UKMP	Upper Klamath Lake at Moore Park (Public Health)	ODEQ	0.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KEKP20202	6/30/2020	9:36	KEKP	Keno Reservoir at Keno Park (Public Health)	ODEQ	0.1	0.18	0	137471	0	0	0	0	0	0	0	0	0	0	0	0	0
KEKP20203	7/13/2020	9:45	KEKP	Keno Reservoir at Keno Park (Public Health)	ODEQ	0.1	3.7	0	171874	15445	0	0	0	0	0	0	0	0	0	0	0	0
KEKP20204	7/28/2020	9:38	KEKP	Keno Reservoir at Keno Park (Public Health)	ODEQ	0.1	<0.15	0	198948	0	0	0	0	0	0	0	0	0	0	0	0	0
KEKP20205	8/10/2020	9:42	KEKP	Keno Reservoir at Keno Park (Public Health)	ODEQ	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KEKP20206	8/24/2020	9:24	KEKP	Keno Reservoir at Keno Park (Public Health)	ODEQ	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KEKP20207	9/8/2020	9:52	KEKP	Keno Reservoir at Keno Park (Public Health)	ODEQ	0.1	0.18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KEKP20208	9/22/2020	9:34	KEKP	Keno Reservoir at Keno Park (Public Health)	ODEQ	0.1	0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KEKP20209	10/5/2020	9:38	KEKP	Keno Reservoir at Keno Park (Public Health)	ODEQ	0.1	0.14	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KEKP20210	10/19/2020	10:11	KEKP	Keno Reservoir at Keno Park (Public Health)	ODEQ	0.1	0.24	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BRTC20001	6/15/2020	9:05	BRTC	J.C. Boyle Reservoir at Topsy Campground (Public Health)	ODEQ	0.1	0.3	82	6765	0	0	0	0	0	0	0	0	0	0	0	0	0
BRTC20202	6/30/2020	9:12	BRTC	J.C. Boyle Reservoir at Topsy Campground (Public Health)	ODEQ	0.1	0.23	0	16363	0	0	0	0	0	0	0	743	0	0	0	0	0
BRTC20203	7/13/2020	9:20	BRTC	J.C. Boyle Reservoir at Topsy Campground (Public Health)	ODEQ	0.1	0.13	0	11528	0	0	0	0	0	0	0	0	0	0	0	0	0
BRTC20204	7/28/2020	9:15	BRTC	J.C. Boyle Reservoir at Topsy Campground (Public Health)	ODEQ	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRTC20205	8/10/2020	9:21	BRTC	J.C. Boyle Reservoir at Topsy Campground (Public Health)	ODEQ	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BRTC20206	8/24/2020	9:02	BRTC	J.C. Boyle Reservoir at Topsy Campground (Public Health)	ODEQ	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BRTC20207	9/8/2020	9:30	BRTC	J.C. Boyle Reservoir at Topsy Campground (Public Health)	ODEQ	0.1	0.17	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BRTC20208	9/22/2020	9:15	BRTC	J.C. Boyle Reservoir at Topsy Campground (Public Health)	ODEQ	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

BRTC20209	10/5/2020	9:18	BRTC	J.C. Boyle Reservoir at Topsy Campground (Public Health)	ODEQ	0.1	0.16	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BRTC20210	10/19/2020	9:34	BRTC	J.C. Boyle Reservoir at Topsy Campground (Public Health)	ODEQ	0.1	0.22	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BRTC20211	12/21/2020	9:26	BRTC	J.C. Boyle Reservoir at Topsy Campground (Public Health)	ODEQ	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20801	5/28/2020	13:50	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	2.1	0	0	0	0	0	0	0	0	0	17134	0	0	0	0	0
KR20806	6/9/2020	14:05	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20811	6/23/2020	8:40	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	<0.15	0	11581	689	0	0	0	0	0	0	0	0	0	0	0	0
KR20816	7/8/2020	11:05	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	0.17	115	9341	975	0	0	0	0	0	0	0	0	0	0	0	0
KR20821	7/21/2020	14:45	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	43	17443	2645867	168695	0	0	0	0	0	0	0	0	0	0	0	0
KR20826	8/5/2020	12:00	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	290	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20831	8/18/2020	12:35	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20837	9/27/2020	14:50	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20842	10/11/2020	12:15	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	120	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20847	10/25/2020	15:00	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	0.83	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20852	11/15/2020	13:30	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	2.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20857	12/6/2020	14:20	CRCC	Copco Reservoir at Copco Cove (Public Health)	PacifiCorp	0.1	0.16	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20800	5/28/2020	15:25	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	<0.15	0	0	0	0	0	0	0	0	0	588	0	0	0	0	0
KR20805	6/9/2020	17:20	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20810	6/23/2020	10:05	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20815	7/8/2020	13:30	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	28	20500	56375	276238	0	0	0	0	0	0	0	0	0	0	0	0
KR20820	7/21/2020	15:55	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	22	1634	107148	230075	0	0	0	0	0	0	0	0	0	0	0	0
KR20825	8/5/2020	15:25	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	62	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20830	8/18/2020	13:50	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	3600	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20836	9/27/2020	16:00	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	190	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20841	10/11/2020	15:40	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	28	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20846	10/25/2020	15:40	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	3.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20851	11/15/2020	17:05	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	5.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20856	12/6/2020	17:55	CRMC	Copco Reservoir at Mallard Cove (Public Health)	PacifiCorp	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20803	5/28/2020	12:45	IGIW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20808	6/9/2020	10:10	IGIW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	<0.15	0	889	0	0	0	0	0	0	0	0	0	0	0	0	0

KR20813	6/23/2020	7:50	IGIW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	<0.15	0	17	0	0	0	0	0	0	0	0	0	0	0	0	51	0
KR20818	7/8/2020	8:15	IGIW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	0.27	252	28928	379	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20823	7/21/2020	14:00	IGIW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	2.5	1148	6025	0	0	0	0	0	80130	0	0	0	0	0	0	0	0
KR20828	8/5/2020	9:00	IGIW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	4.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20833	8/18/2020	11:50	IGIW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20839	9/27/2020	14:10	IGIW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	1.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20844	10/11/2020	9:35	IGIW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20849	10/25/2020	14:15	IGIW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	0.17	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20854	11/15/2020	10:45	IGIW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	0.18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20859	12/6/2020	11:10	IGIW	Iron Gate Reservoir at Jay Williams Boat Ramp (Public Health)	PacifiCorp	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20802	5/28/2020	13:10	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20807	6/9/2020	11:20	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20812	6/23/2020	8:05	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	<0.15	3050	82	599	0	0	0	0	0	0	0	381	0	0	0	0	0
KR20817	7/8/2020	8:30	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	0.44	6681	93478	261	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20822	7/21/2020	14:15	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	37	0	42019	0	0	0	0	0	67423099	0	0	0	0	0	0	0	0
KR20827	8/5/2020	9:15	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	260	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20832	8/18/2020	12:05	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20838	9/27/2020	14:25	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	1.6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20843	10/11/2020	9:50	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	4.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20848	10/25/2020	14:25	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	0.24	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20853	11/15/2020	11:00	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	0.16	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20858	12/6/2020	11:25	IGCC	Iron Gate Reservoir at Camp Creek (Public Health)	PacifiCorp	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20804	5/28/2020	14:30	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	<0.15	0	0	0	0	0	0	0	0	0	132	0	0	0	0	0	0
KR20809	6/9/2020	15:00	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20814	6/23/2020	10:50	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20819	7/8/2020	14:15	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	<0.15	0	195	0	0	0	0	0	0	0	54	0	0	0	0	0	0
KR20824	7/21/2020	16:30	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IG072220-SG	7/22/2020	12:52	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	Karuk	0.1	NS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KR20829	8/5/2020	12:55	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	0.24	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

KR20834	8/18/2020	14:30	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20835	9/16/2020	16:30	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	0.72	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20840	9/27/2020	16:40	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	2.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20845	10/11/2020	13:15	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	0.31	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20850	10/25/2020	16:20	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	0.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20855	11/15/2020	14:50	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
KR20860	12/6/2020	15:15	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	PacifiCorp	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB061720-SG	6/17/2020	11:05	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	NS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IB070120-SG	7/1/2020	12:07	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	NS	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0
IB070820-SG	7/8/2020	11:49	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB072920-SG	7/29/2020	10:56	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	0.16	0	271	0	0	0	0	0	0	0	0	0	0	0	0	0
IB080520-SG	8/5/2020	11:49	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB081220-SG	8/12/2020	10:48	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	0.19	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB081920-SG	8/19/2020	11:27	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB082620-SG	8/26/2020	10:53	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	0.36	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB090220-SG	9/2/2020	10:48	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	0.43	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB091620-SG	9/16/2020	10:34	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	0.41	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB092320-SG	9/23/2020	11:27	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB093020-SG	9/30/2020	10:35	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	0.22	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB100720-SG	10/7/2020	11:44	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB101420-SG	10/14/2020	11:28	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	0.54	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB102820-SG	10/28/2020	10:19	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IB110420-SG	11/4/2020	10:50	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BB061720-SG	6/17/2020	10:20	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	NS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BB070120-SG	7/1/2020	11:20	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	NS	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0
BB070820-SG	7/8/2020	14:33	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BB072920-SG	7/29/2020	10:14	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BB080520-SG	8/5/2020	10:30	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BB081220-SG	8/12/2020	9:52	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

B8081920-SG	8/19/2020	10:17	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
B8082620-SG	8/26/2020	10:15	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
B8090220-SG	9/2/2020	9:49	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	0.49	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
B8091620-SG	9/16/2020	9:49	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
B8092320-SG	9/23/2020	10:18	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
B8093020-SG	9/30/2020	9:50	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	1.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
B8100720-SG	10/7/2020	10:45	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
B8101420-SG	10/14/2020	10:41	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	0.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
B8102820-SG	10/28/2020	9:37	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
B8110420-SG	11/4/2020	10:09	KRBB	Klamath River at Brown Bear River Access (RM 150.00; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SV061720-SG	6/17/2020	9:44	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	NS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SV070120-SG	7/1/2020	10:46	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	NS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SV070820-SG	7/8/2020	10:01	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SV072920-SG	7/29/2020	9:34	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	52	0	0	249	0	0
SV080520-SG	8/5/2020	9:15	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SV081220-SG	8/12/2020	9:17	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SV081920-SG	8/19/2020	9:14	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SV082620-SG	8/26/2020	9:41	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SV090220-SG	9/2/2020	9:12	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	0.24	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SV092320-SG	9/23/2020	9:30	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SV093020-SG	9/30/2020	9:18	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	1.6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SV100720-SG	10/7/2020	9:43	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SV101420-SG	10/14/2020	10:08	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SV102820-SG	10/28/2020	9:07	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SV110420-SG	11/4/2020	9:37	KRSV	Klamath River below Seiad (RM 128.5; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HC061720-SG	6/17/2020	8:53	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	NS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HC070120-SG	7/1/2020	8:32	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	NS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HC070820-SG	7/8/2020	6:41	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HC072920-SG	7/29/2020	8:52	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	<0.15	0	55	0	0	0	0	0	0	0	0	0	0	94	0	0	0

HC080520-SG	8/5/2020	8:15	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HC081220-SG	8/12/2020	8:23	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HC081920-SG	8/19/2020	8:26	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HC082620-SG	8/26/2020	8:52	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HC090220-SG	9/2/2020	8:31	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	0.23	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HC092320-SG	9/23/2020	8:26	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HC093020-SG	9/30/2020	8:36	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	1.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HC100720-SG	10/7/2020	8:32	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HC101420-SG	10/14/2020	9:01	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	0.17	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HC102820-SG	10/28/2020	8:12	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	0.17	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HC110420-SG	11/4/2020	8:53	KRHC	Klamath River below Happy Camp (RM 101.3; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR061720-SG	6/17/2020	7:54	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	NS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OR070120-SG	7/1/2020	7:34	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	NS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OR070820-SG	7/8/2020	7:03	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR072220-SG	7/22/2020	6:55	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	NS	0	0	0	0	0	0	0	0	0	0	0	0	307	0	0	0
OR072920-SG	7/29/2020	7:48	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	712	0	0	0
OR080520-SG	8/5/2020	7:00	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR081220-SG	8/12/2020	7:32	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR081920-SG	8/19/2020	7:00	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR082620-SG	8/26/2020	7:46	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR090220-SG	9/2/2020	7:34	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	0.26	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR091620-SG	9/16/2020	7:22	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR092320-SG	9/23/2020	7:05	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR093020-SG	9/30/2020	7:42	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR100720-SG	10/7/2020	7:13	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR101420-SG	10/14/2020	7:53	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR102820-SG	10/28/2020	7:21	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	0.19	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OR110420-SG	11/4/2020	8:00	KROR	Klamath River at Orleans (USGS) (RM 59.1; Public Health)	Karuk	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WE061020-SG	6/10/2020	10:43	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

WE062420-SG	6/24/2020	10:42	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WE070120-SG	7/1/2020	9:00	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	0.36	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
WE070820-SG	7/8/2020	10:08	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	3.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WE071420-SG	7/14/2020	9:28	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
WE072220-SG	7/22/2020	12:47	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	NS	0	0	0	0	0	79	0	0	0	0	0	0	3001	0	0	0
WE072820-SG	7/28/2020	12:47	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
WE080520-SG	8/5/2020	10:26	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
WE081120-SG	8/11/2020	10:41	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
WE081920-SG	8/19/2020	10:13	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
WE082620-SG	8/26/2020	10:42	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
WE090920-SG	9/9/2020	10:50	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
WE091620-SG	9/16/2020	9:20	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
WE092320-SG	9/23/2020	10:08	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
WE093020-SG	9/30/2020	10:32	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	2.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
WE100720-SG	10/7/2020	10:11	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	4.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
WE101320-SG	10/13/2020	11:57	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	2.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
WE102120-SG	10/21/2020	11:03	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	3.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
WE102720-SG	10/27/2020	9:58	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	3.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
WE110320-SG	11/3/2020	11:01	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	2.6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
WE111820-SG	11/18/2020	11:47	KRWE	Klamath River at Weitchpec (RM 43.5; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
TG060920-SG	6/9/2020	12:53	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TG062320-SG	6/23/2020	10:21	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TG063020-SG	6/30/2020	12:59	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
TG070720-SG	7/7/2020	11:04	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TG071520-SG	7/15/2020	9:39	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
TG072120-SG	7/21/2020	11:04	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	NS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TG072920-SG	7/29/2020	11:48	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
TG080420-SG	8/4/2020	9:57	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
TG081220-SG	8/12/2020	9:23	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	

TG081820-SG	8/18/2020	11:34	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG082520-SG	8/25/2020	10:10	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG090120-SG	9/1/2020	12:49	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG090820-SG	9/8/2020	10:27	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	0.16	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG091520-SG	9/15/2020	11:00	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG092220-SG	9/22/2020	10:20	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG092920-SG	9/29/2020	12:37	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG100620-SG	10/6/2020	12:02	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	2.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG101420-SG	10/14/2020	9:56	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG102020-SG	10/20/2020	9:50	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	0.88	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG102820-SG	10/28/2020	10:47	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	1.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG110320-SG	11/3/2020	13:26	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TG111720-SG	11/17/2020	10:00	KRTG	Klamath River near Klamath (RM 6.0; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS060920-SG	6/9/2020	13:27	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SS062320-SG	6/23/2020	9:44	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SS063020-SG	6/30/2020	12:33	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS070720-SG	7/7/2020	12:00	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SS071520-SG	7/15/2020	10:17	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS072120-SG	7/21/2020	9:44	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	NS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SS072920-SG	7/29/2020	12:35	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS080420-SG	8/4/2020	9:09	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS081220-SG	8/12/2020	9:51	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	0.22	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS081820-SG	8/18/2020	12:21	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS082520-SG	8/25/2020	9:30	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS090120-SG	9/1/2020	12:16	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS090820-SG	9/8/2020	12:15	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS091520-SG	9/15/2020	10:28	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS092220-SG	9/22/2020	11:00	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS092920-SG	9/29/2020	12:54	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

SS100620-SG	10/6/2020	12:40	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	0.23	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS101420-SG	10/14/2020	10:31	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS102020-SG	10/20/2020	9:07	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	0.84	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS102820-SG	10/28/2020	11:50	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS110320-SG	11/3/2020	12:58	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS111720-SG	11/17/2020	10:39	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	<0.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Table D-2. Mass spectroscopy data for the 2020 samples collected by the Karuk Tribe and Yurok Tribe. Results are presented in micrograms per liter (µg/l). NA = Samples not analyzed for these constituents during 2020.

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Lab	Microcystin -RR µg/l	MC-Desmethy/ -RR µg/l	Microcystin -LR µg/l	MC-Desmethy/ -LR µg/l	Microcystin -YR µg/l	Microcystin -LA µg/l	Microcystin-LW (screening only) µg/l	Microcystin -LF µg/l	Microcystin -LY µg/l	Domoic acid µg/l	Okadaic acid µg/l	Nodularin µg/l
IG062420-OC	6/24/2020	12:31	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	Karuk	0.1	Greenwater	<0.01		<0.01		<0.03	<0.01	<0.02	<0.01	<0.01			
IG072220-OC	7/22/2020	13:50	KRBI	Klamath River below Iron Gate Dam (RM 189.73; Public Health)	Karuk	0.1	Greenwater	<0.01		<0.01		<0.03	<0.01	<0.02	<0.01	<0.01			
WE072220-SG	7/22/2020	10:38	KR04350	Klamath River at Weitchpec (RM 43.5; Baseline)	Yurok	0.1	Greenwater	<0.01		<0.02		<0.02	<0.01	<0.01	<0.005	<0.01			<0.09
TG081820-OC	8/18/2020	11:17	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.1	Greenwater	0.01		<0.02		<0.02	<0.01	<0.01	<0.005	<0.01			<0.09
TG092220-OC	9/22/2020	10:20	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.1	Greenwater	<0.01		<0.02		<0.02	<0.01	<0.01	<0.005	<0.01			<0.09
LES081820-OC	8/18/2020	10:18	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.1	Greenwater	<0.01		<0.02		<0.02	<0.01	<0.01	<0.005	<0.01			<0.09
LES092220-OC	9/22/2020	09:40	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.1	Greenwater	<0.01		<0.02		<0.02	<0.01	<0.01	<0.005	<0.01			<0.09
SS072120-SG	7/21/2020	10:44	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	Greenwater	<0.01		<0.02		<0.02	<0.01	<0.01	<0.005	<0.01			<0.09
SS080420-SG	8/4/2020	09:09	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	Greenwater	<0.01		<0.02		<0.02	<0.01	<0.01	<0.005	<0.01			<0.09
SS090820-SG	9/8/2020	12:15	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	Greenwater	<0.01		<0.02		<0.02	<0.01	<0.01	<0.005	<0.01			<0.09
SS100620-SG	10/6/2020	12:40	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	Greenwater	<0.01		<0.02		<0.02	<0.01	<0.01	<0.005	<0.01			<0.09

Table D-3. Results for anatoxin-a analysis for 2020 samples collected by the Karuk Tribe and the Yurok Tribe.

Sample ID	Date	Standard Time	Site ID	Site Name	Agency	Depth, m	Lab	Total Anatoxin-a
								µg/l
IB061020-SG	6/10/2020	13:03	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	Greenwater	<0.05
IB062420-SG	6/24/2020	12:07	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	Greenwater	<0.05
IB070820-SG	7/8/2020	12:49	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	Greenwater	<0.05
IB072220-SG	7/22/2020	13:26	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	Greenwater	<0.05
IB080520-SG	8/5/2020	12:49	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	Greenwater	<0.05
IB081920-SG	8/19/2020	12:27	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	Greenwater	<0.05
IB092320-SG	9/23/2020	12:44	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	Greenwater	<0.05
IB100720-SG	10/7/2020	12:44	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	Greenwater	<0.05
IB101420-SG	10/14/2020	12:28	KRIB	Klamath River at I-5 Rest Area (RM 179.20; Public Health)	Karuk	0.1	Greenwater	<0.05
WA070820-OC	7/8/2020	12:04	KR15626	Klamath River at Walker Bridge (RM 156.26; Baseline)	Karuk	0.1	Greenwater	<0.05
WA080520-OC	8/5/2020	11:45	KR15626	Klamath River at Walker Bridge (RM 156.26; Baseline)	Karuk	0.1	Greenwater	<0.05
WA100720-SG	10/7/2020	11:59	KR15626	Klamath River at Walker Bridge (RM 156.26; Baseline)	Karuk	0.1	Greenwater	<0.05
WE072220-SG	7/22/2020	10:38	KR04350	Klamath River at Weitchpec (RM 43.5; Baseline)	Yurok	0.1	Greenwater	<0.05
TG081820-OC	8/18/2020	11:17	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.1	Greenwater	<0.05
TG092220-OC	9/22/2020	10:20	KR00600	Klamath River near Klamath (RM 6.0; Baseline)	Yurok	0.1	Greenwater	<0.05
LES081820-OC	8/18/2020	10:18	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.1	Greenwater	<0.05
LES092220-OC	9/22/2020	9:40	KR00050	Klamath River Estuary (RM 0.5; Baseline)	Yurok	0.1	Greenwater	<0.05
SS072120-SG	7/21/2020	10:44	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	Greenwater	<0.05
SS080420-SG	8/4/2020	9:09	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	Greenwater	<0.05
SS090820-SG	9/8/2020	12:15	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	Greenwater	<0.05
SS100620-SG	10/6/2020	12:40	KRSS	Klamath River at South Slough (RM 0.1; Public Health)	Yurok	0.1	Greenwater	<0.05