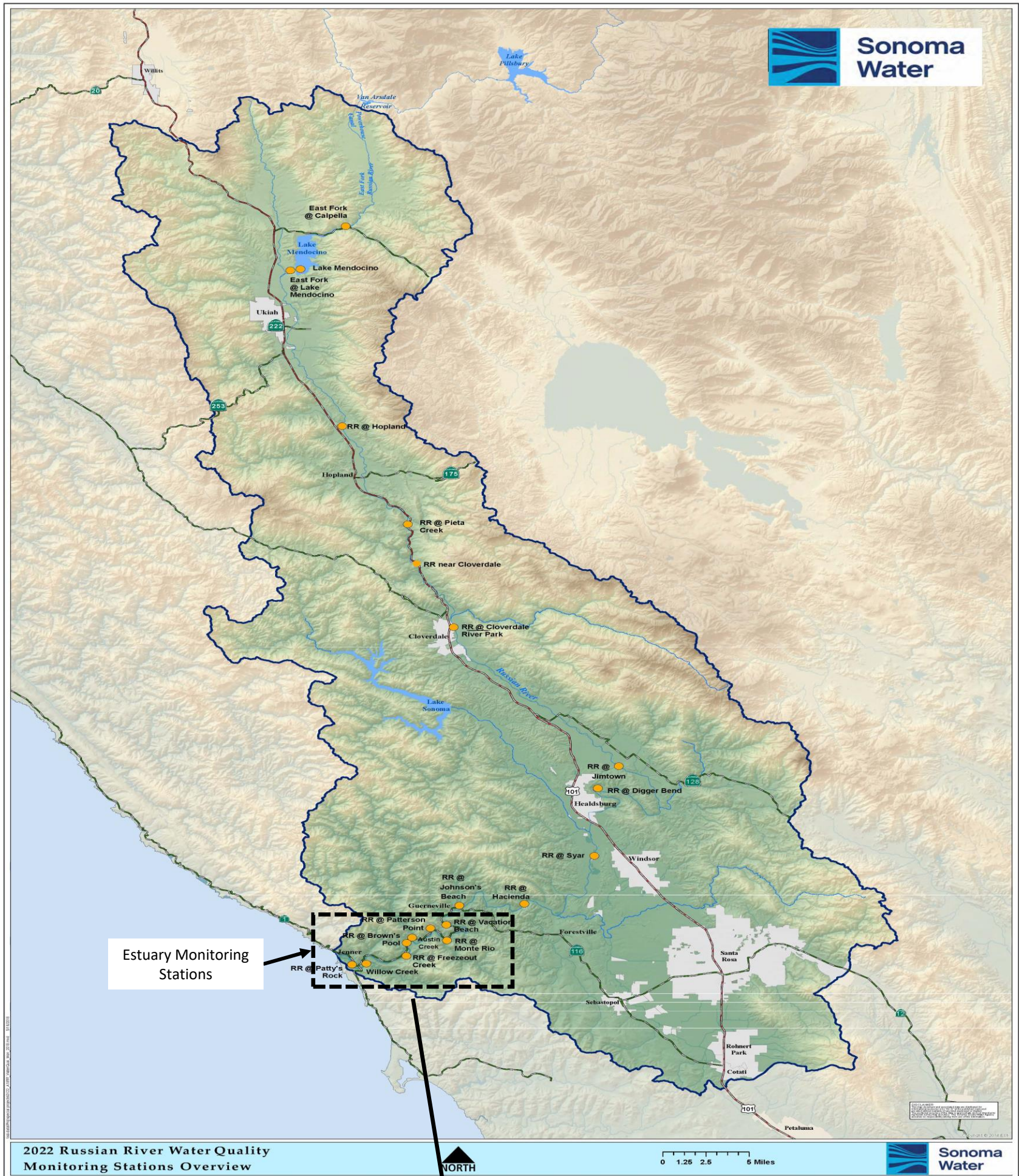


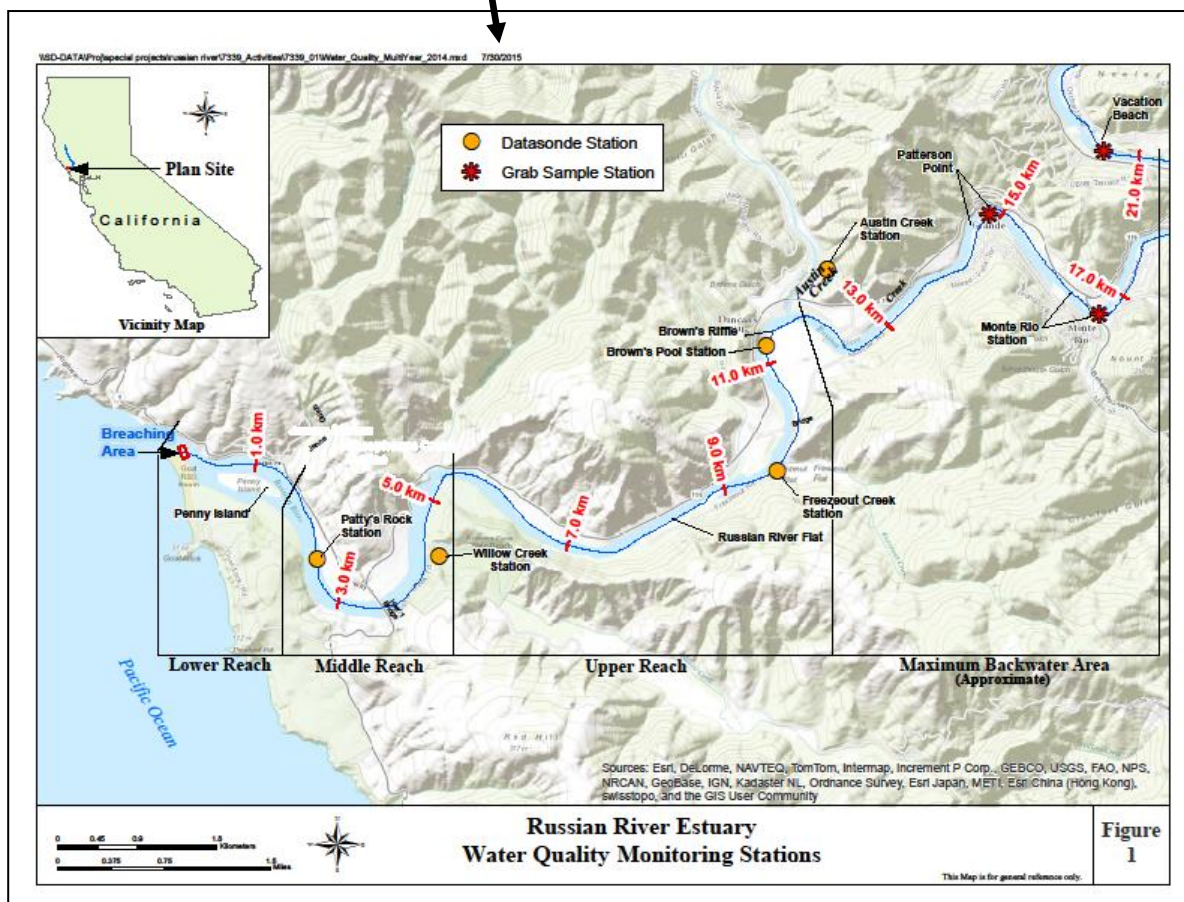


Sonoma Water

State Water Resources Control Board
Temporary Urgency Change Order (6/17/2022)
Russian River Water Quality Report
September 16, 2022 – September 22, 2022



2022 Russian River Water Quality Monitoring Stations Overview



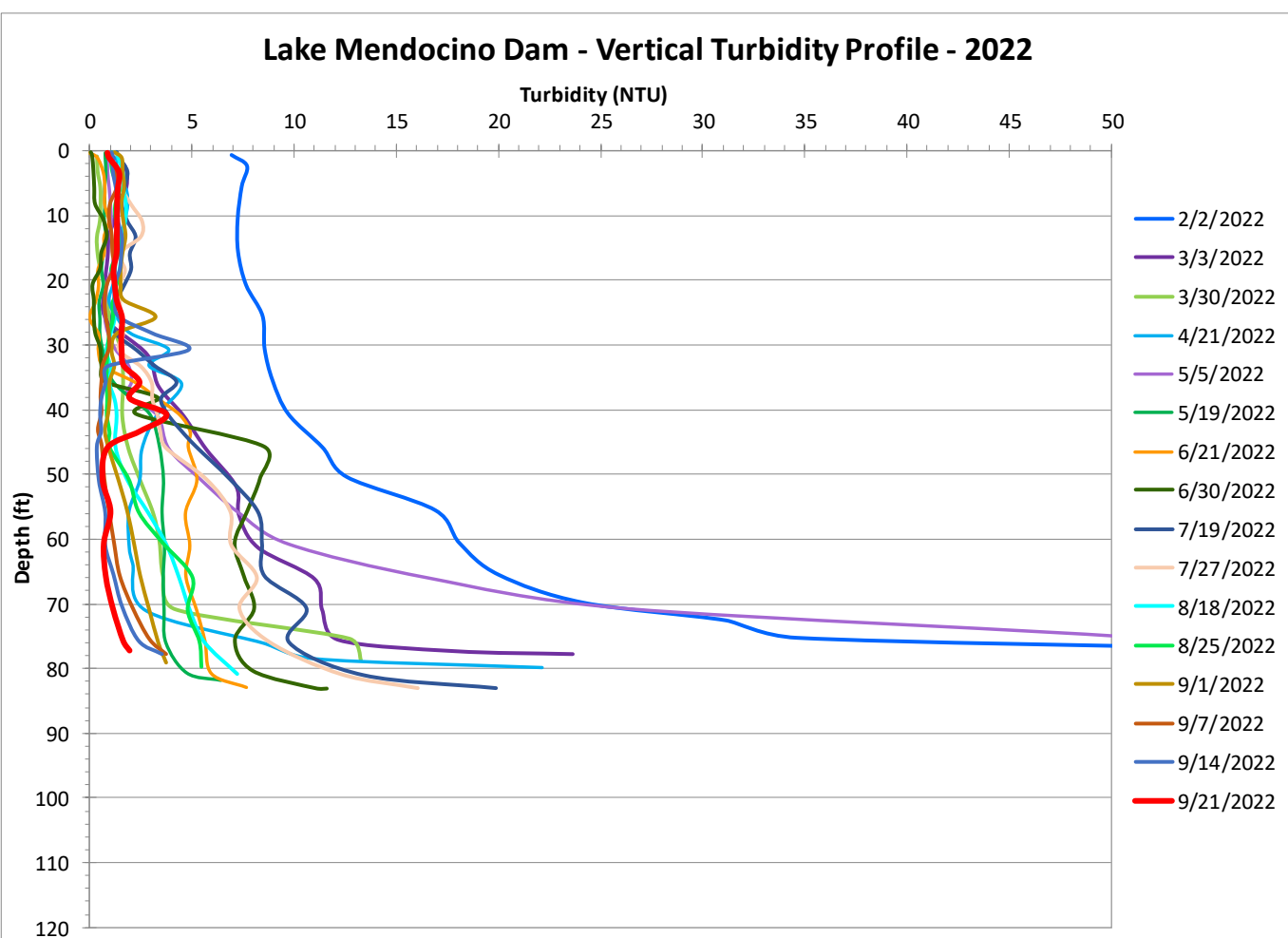
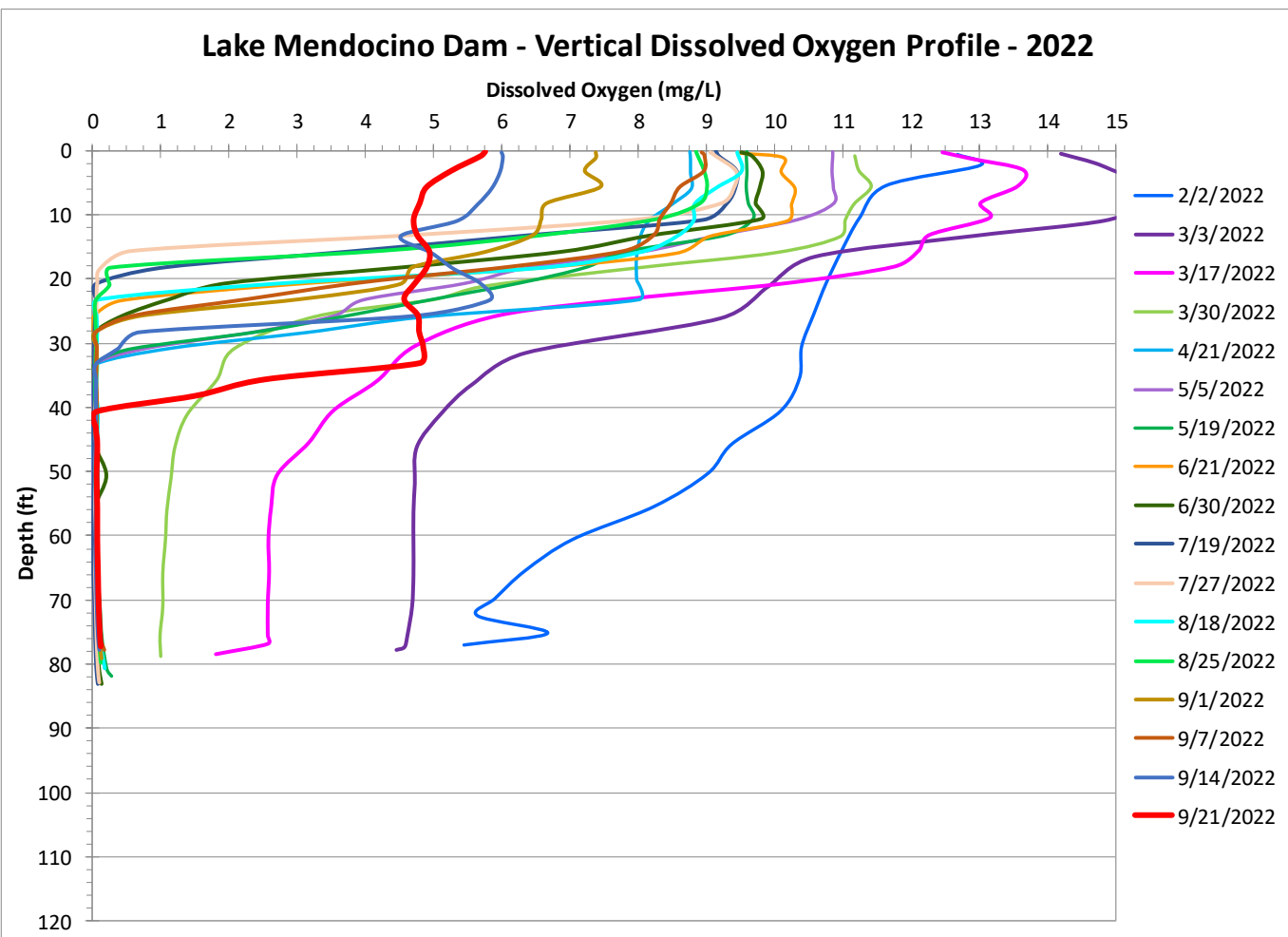
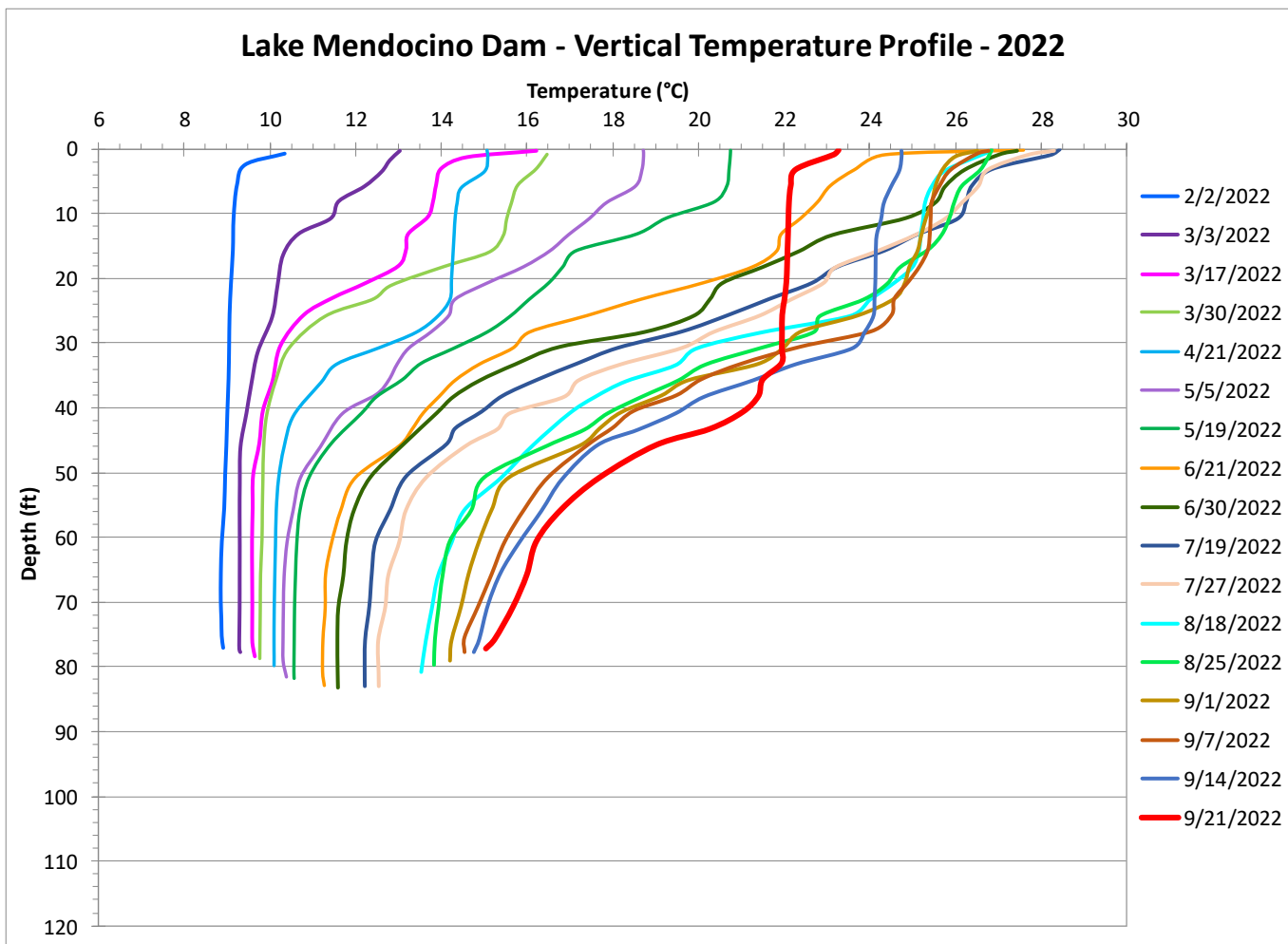
Russian River Estuary Water Quality Monitoring Stations

Figure 1

This Map is for general reference only.

Lake Mendocino Water Quality Vertical Profiles (February 2 – September 21, 2022)

Provisional Data Subject to Revision

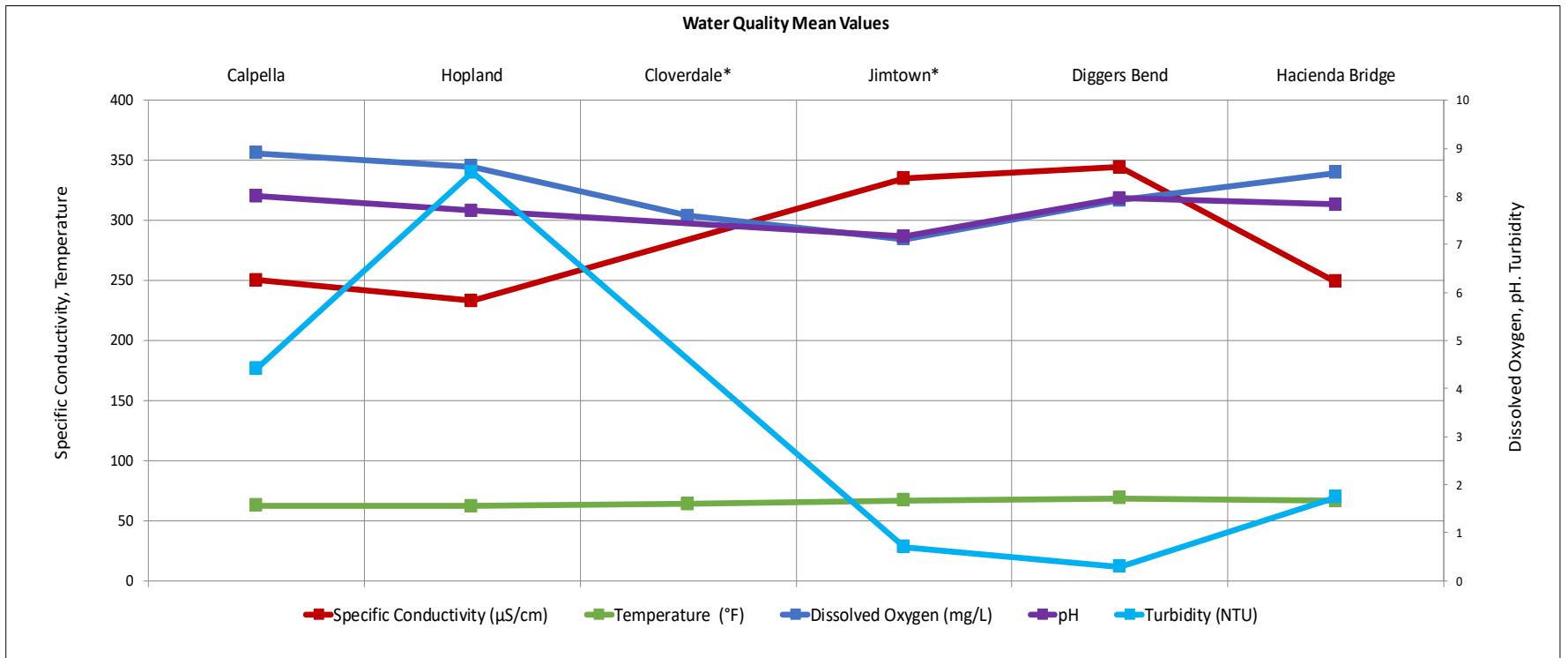


Russian River Water Quality Sondes (September 16, 2022 – September 22, 2022)

Provisional Data Subject to Revision

Parameter		Calpella	Hopland	Cloverdale*	Jimtown*	Diggers Bend	River Diversion System at Mirabel*	Hacienda Bridge	Johnsons Beach*
		USGS 11461500	USGS 11462500	USGS 11463000	USGS 11463682	USGS 11463980	SCWA	USGS 11467000	SCWA
Temperature (°F)	Min	60.6	59.5	61.0	64.6	65.7		63.9	
	Max	65.7	64.8	67.8	70.7	73.0		69.1	
	Mean	62.5	62.0	63.7	67.0	68.7		66.3	
Specific Conductivity (µS/cm)	Min	233.0	183.0		316.0	331.0		240.0	
	Max	267.0	246.0		349.0	357.0		269.0	
	Mean	250.3	233.2		334.8	344.5		249.0	
Dissolved Oxygen (mg/L)	Min	8.2	6.8	6.0	5.0	6.0		7.2	
	Max	10.3	10.9	10.8	10.9	10.7		9.6	
	Mean	8.9	8.6	7.6	7.1	7.9		8.5	
Dissolved Oxygen (% Saturation)	Min	85.1	68.2	62.0	53.7	65.5		76.2	
	Max	107.9	114.9	118.1	123.4	124.0		106.0	
	Mean	92.0	88.6	79.7	77.5	88.0		91.7	
pH	Min	7.8	7.3		7.0	7.7		7.6	
	Max	8.3	8.2		7.4	8.3		8.1	
	Mean	8.0	7.7		7.2	8.0		7.8	
Turbidity (NTU)	Min	1.3	5.4		0.2	0.1		1.1	
	Max	26.0	19.6		1.4	0.8		4.2	
	Mean	4.4	8.5		0.7	0.3		1.7	

*Station operated seasonally

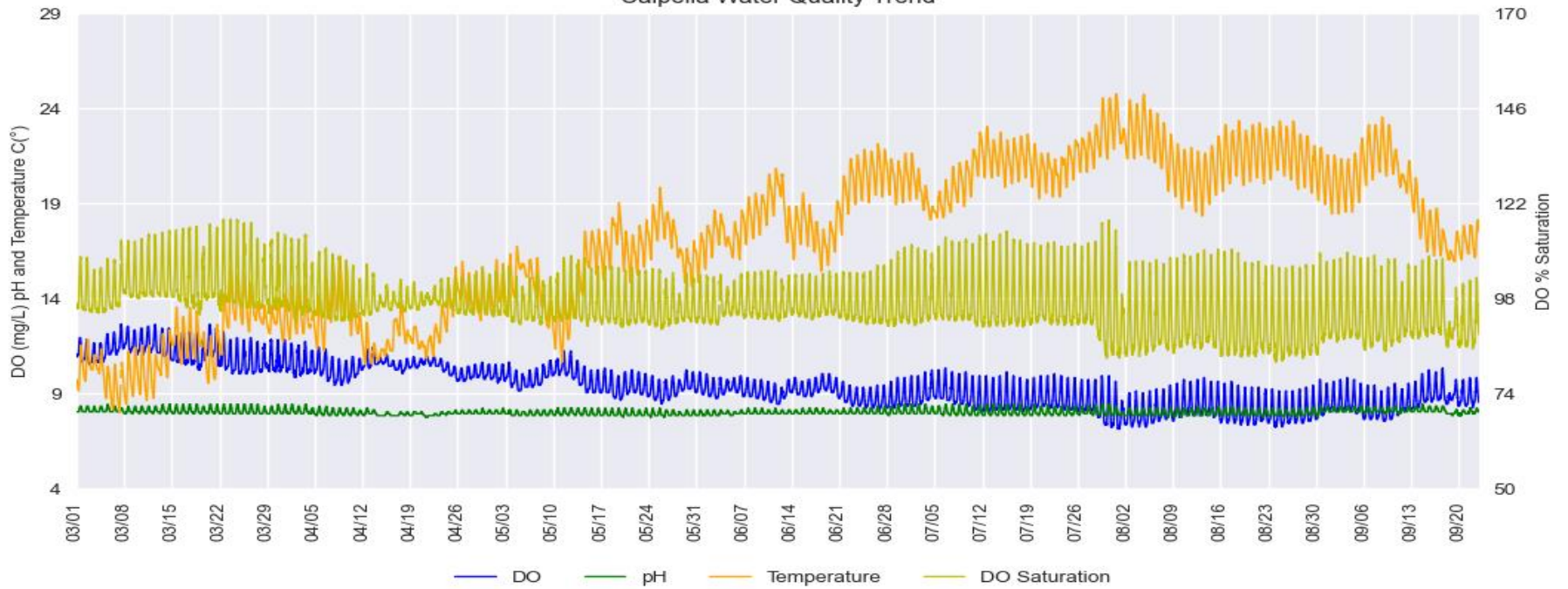


Russian River Water Quality (March 01, 2022 - September 22, 2022)

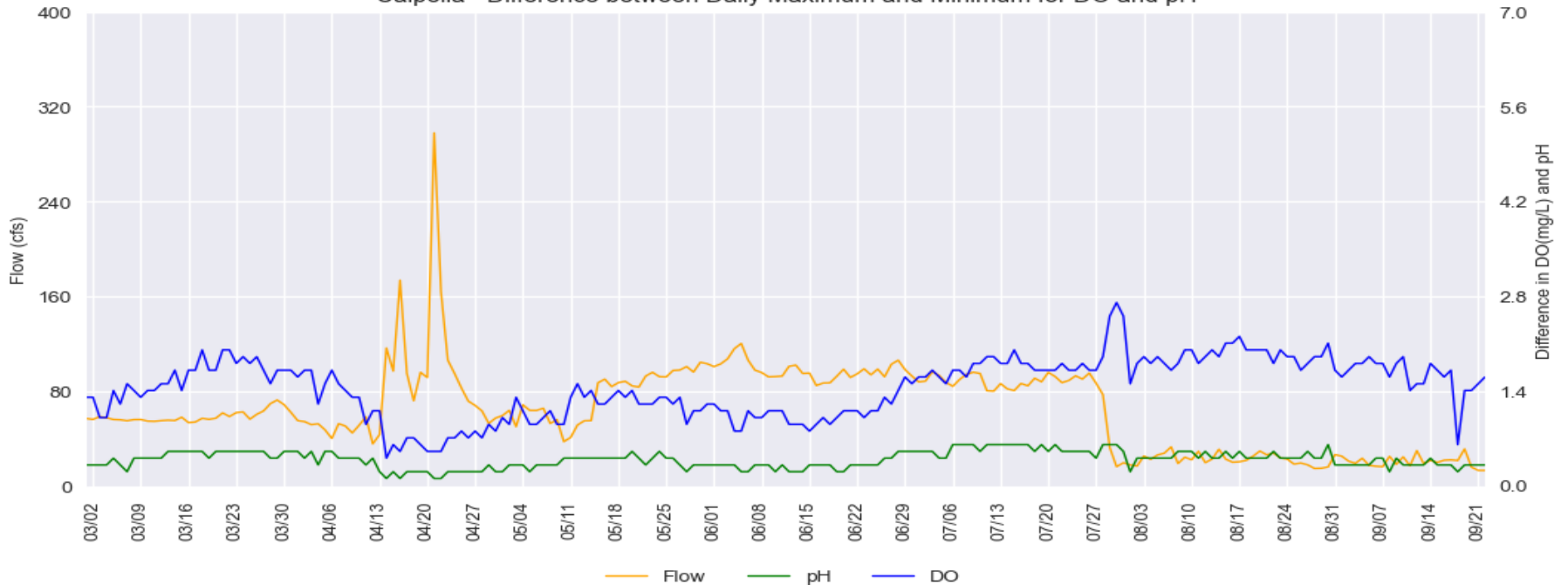
Provisional Data Subject to Revision

Calpella (East Fork Russian River)

Calpella Water Quality Trend



Calpella - Difference between Daily Maximum and Minimum for DO and pH

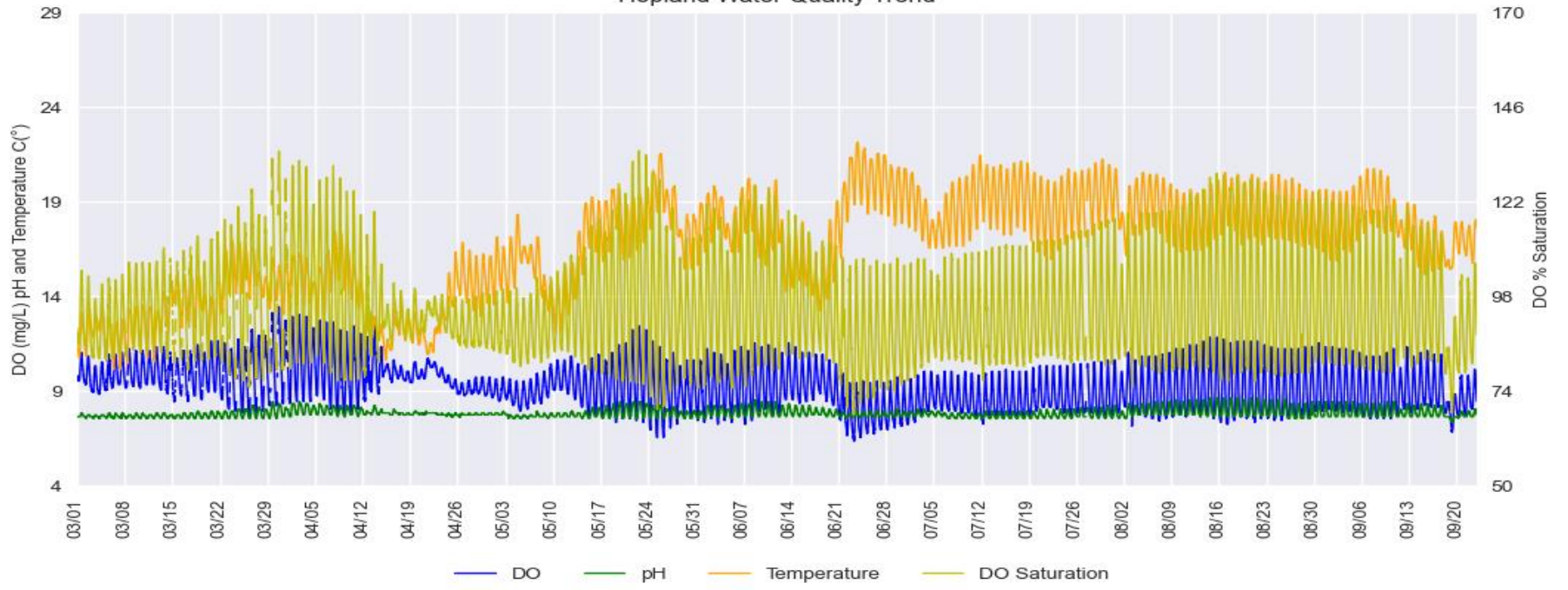


Russian River Water Quality (March 01, 2022 - September 22, 2022)

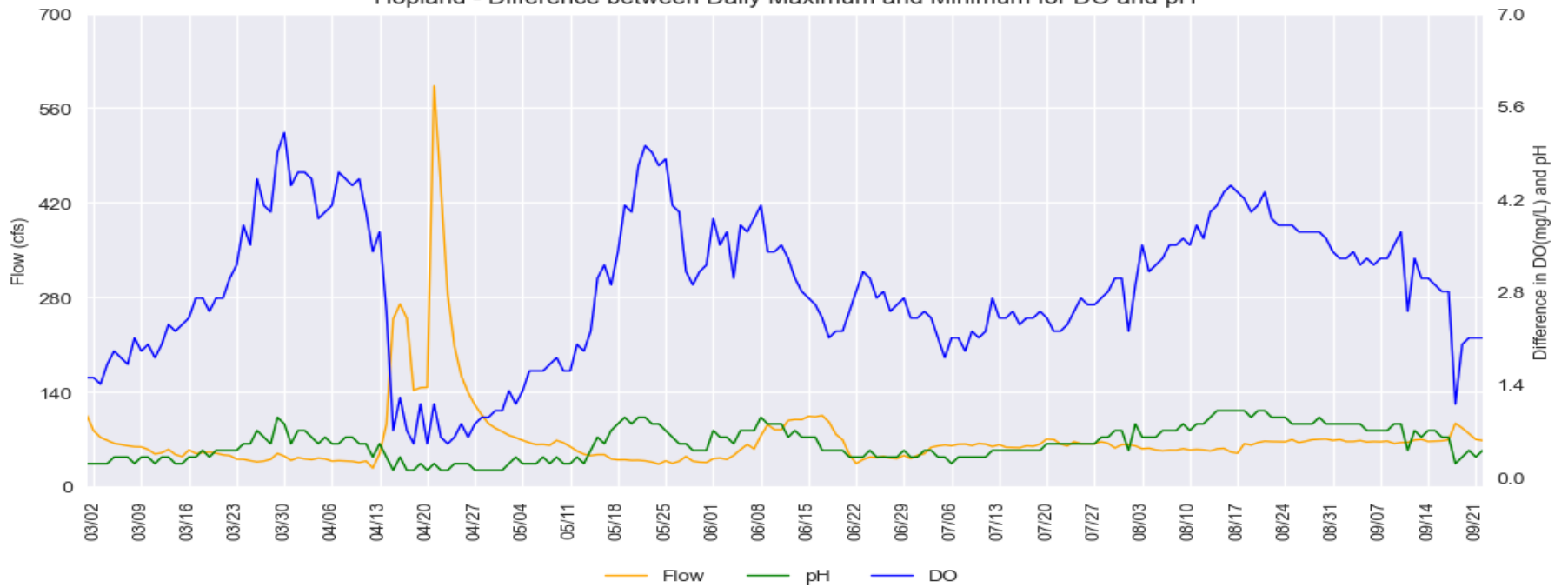
Provisional Data Subject to Revision

Hopland

Hopland Water Quality Trend

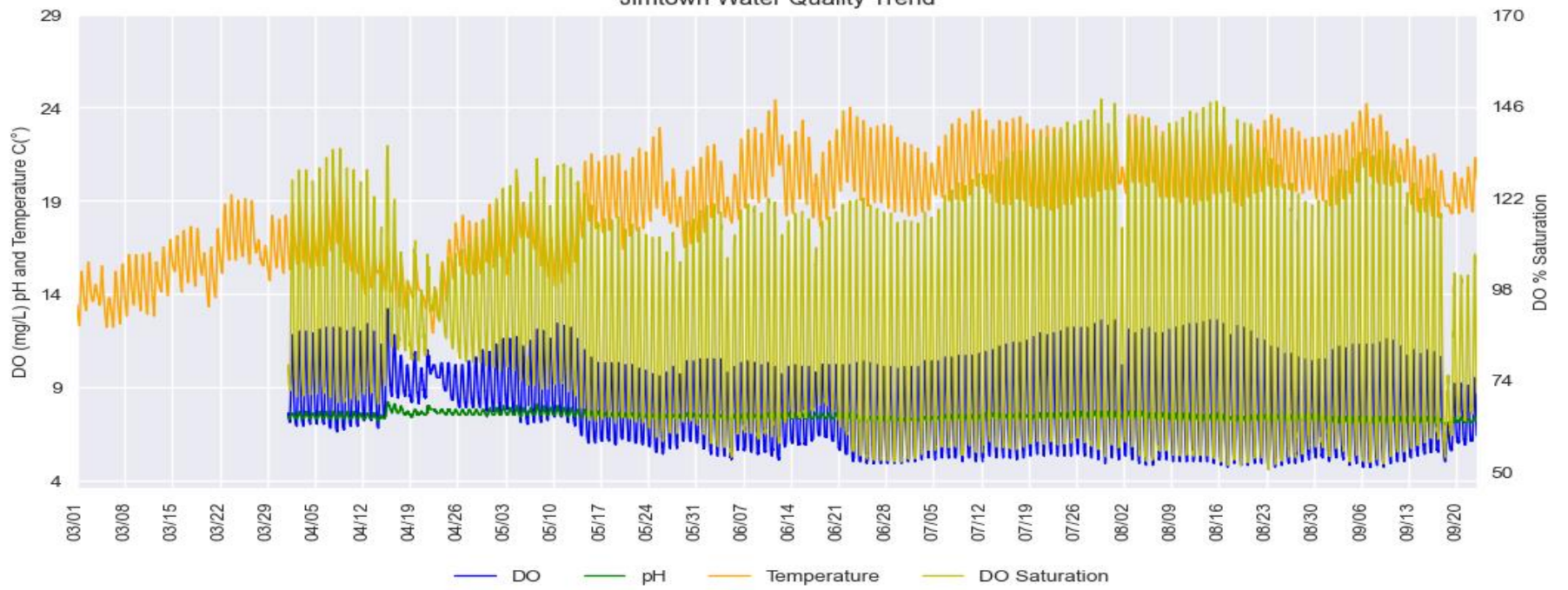


Hopland - Difference between Daily Maximum and Minimum for DO and pH

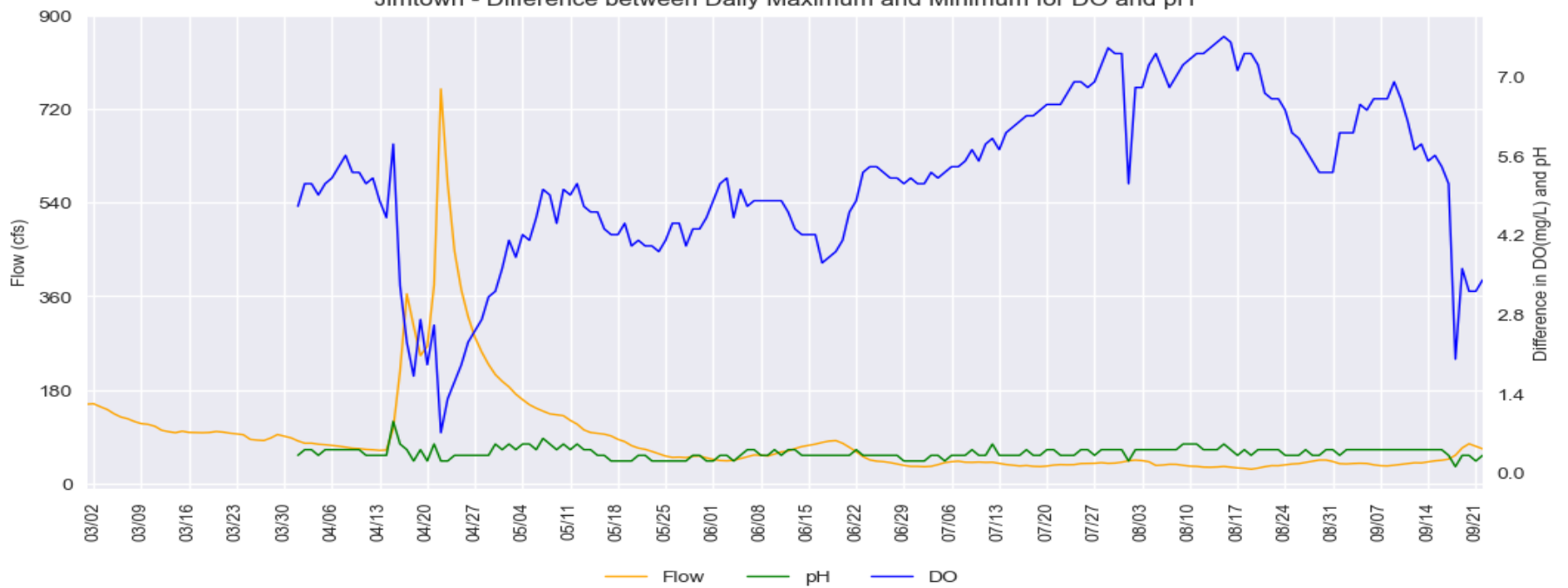


Jimtown

Jimtown Water Quality Trend



Jimtown - Difference between Daily Maximum and Minimum for DO and pH

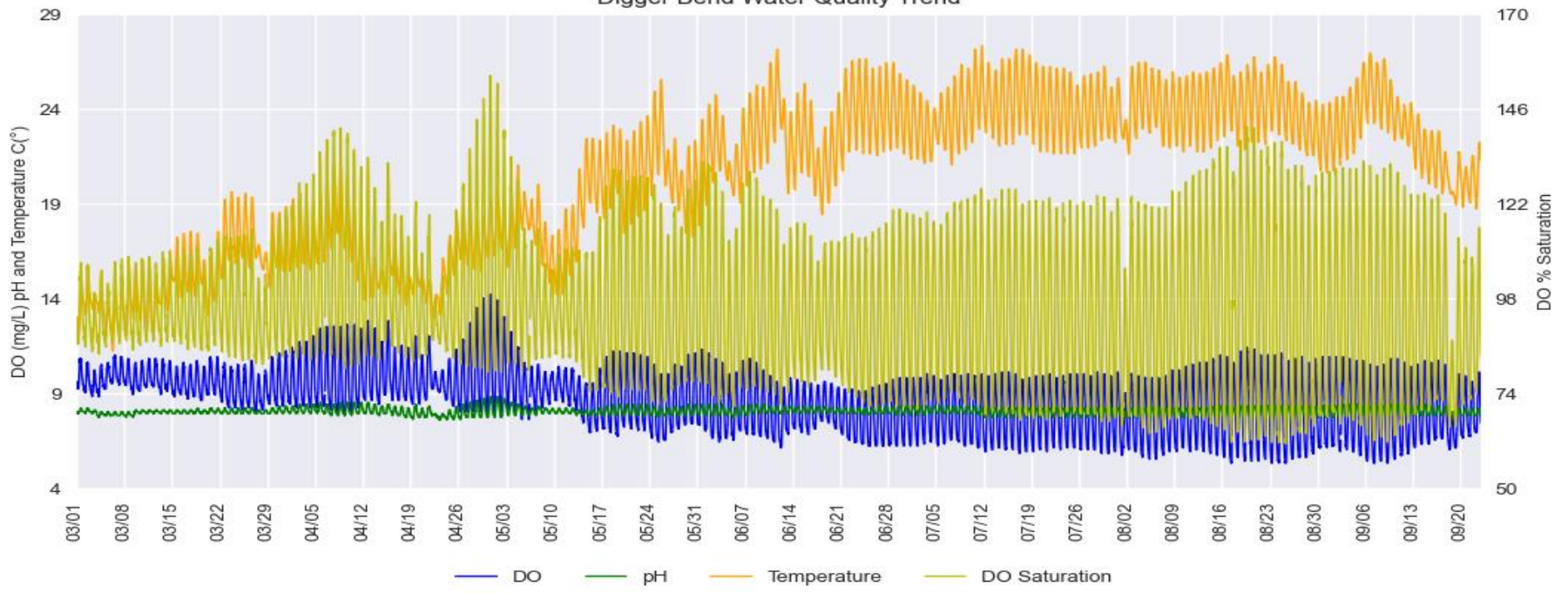


Russian River Water Quality (March 01, 2022 - September 22, 2022)

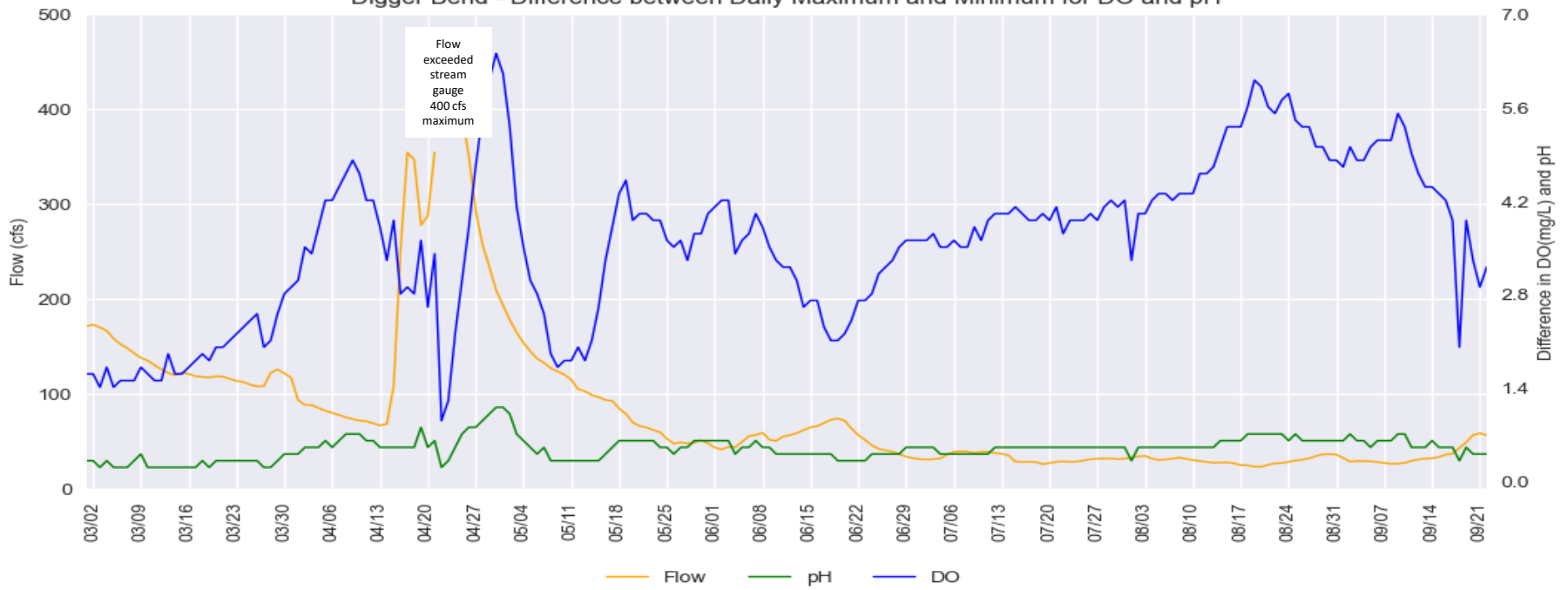
Provisional Data Subject to Revision

Digger Bend

Digger Bend Water Quality Trend

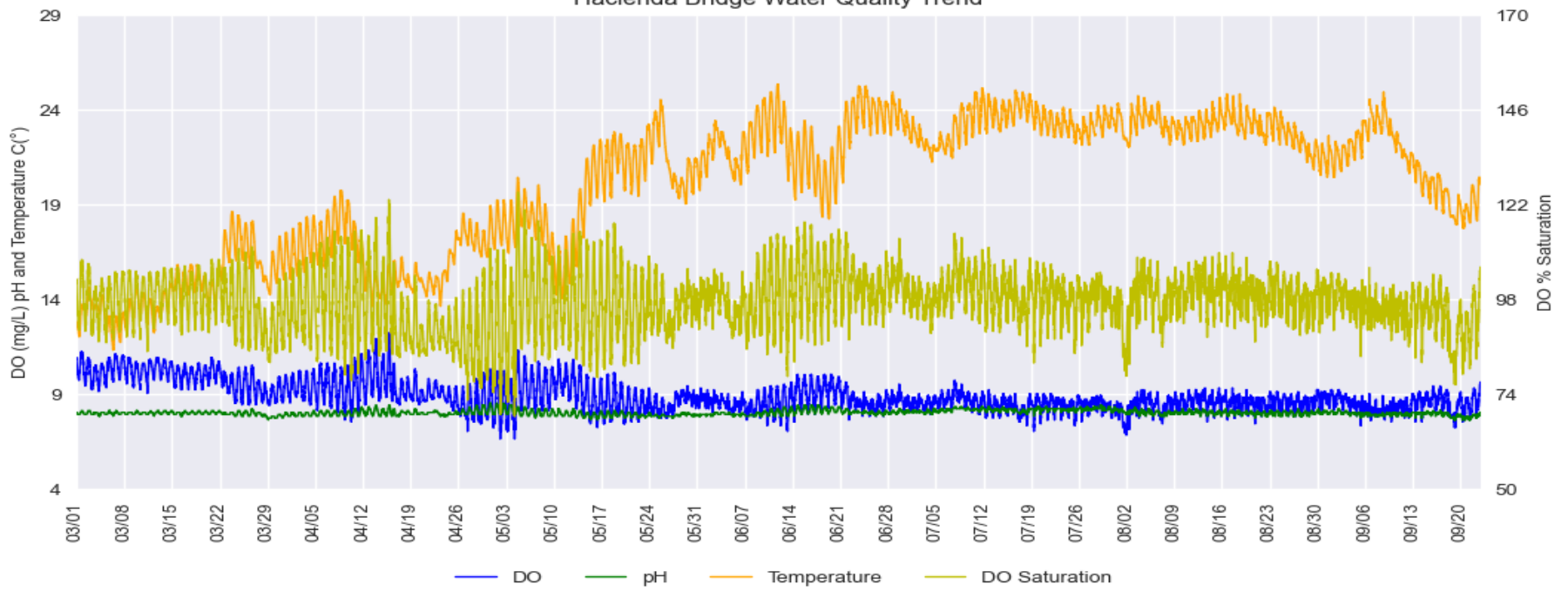


Digger Bend - Difference between Daily Maximum and Minimum for DO and pH

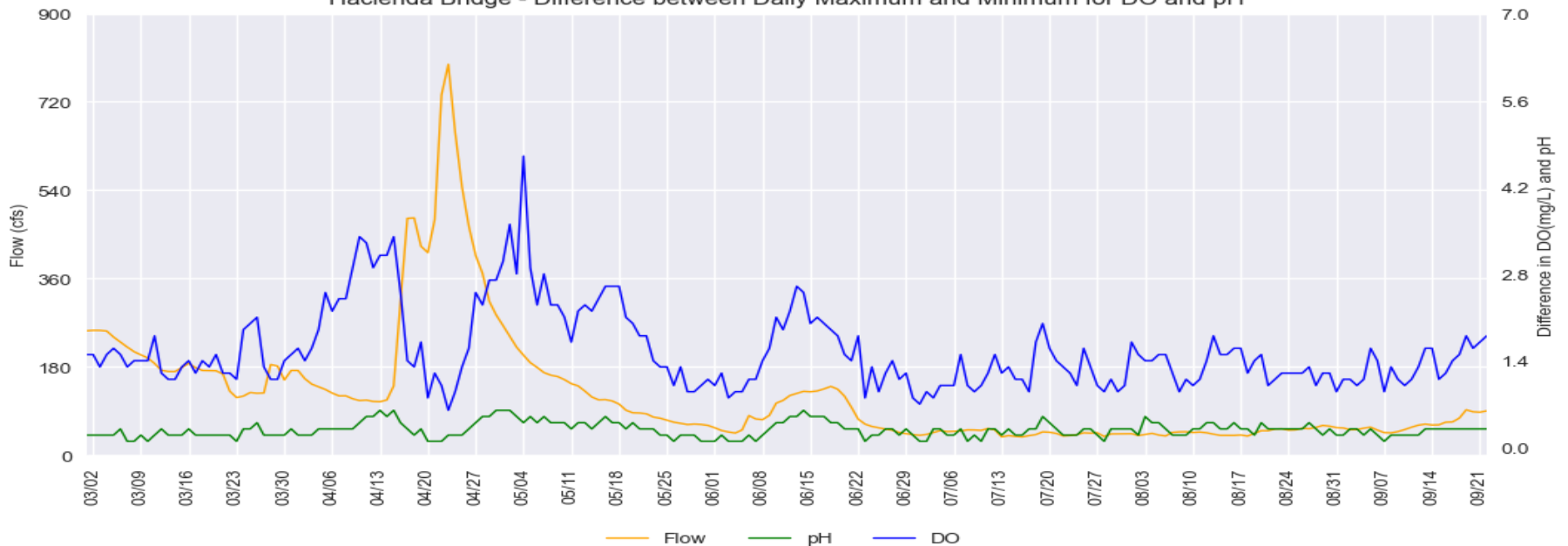


Hacienda Bridge

Hacienda Bridge Water Quality Trend



Hacienda Bridge - Difference between Daily Maximum and Minimum for DO and pH

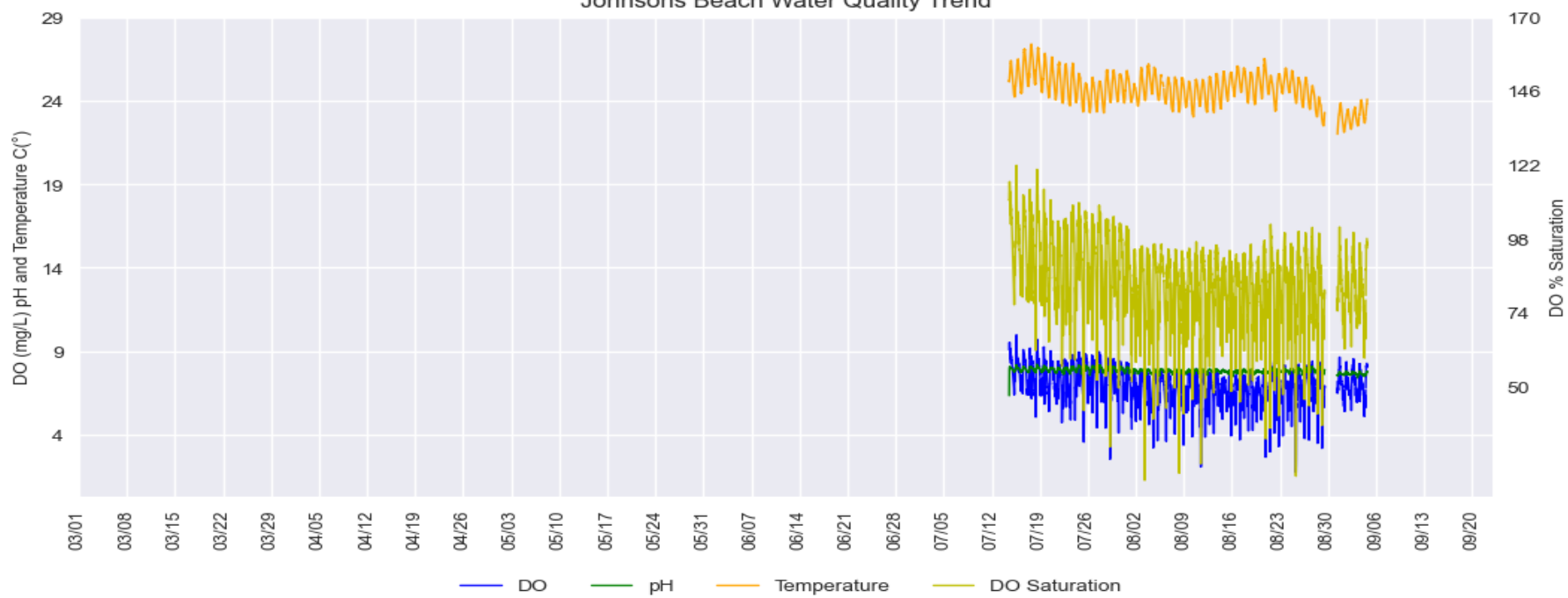


Russian River Water Quality (March 01, 2022 - September 22, 2022)

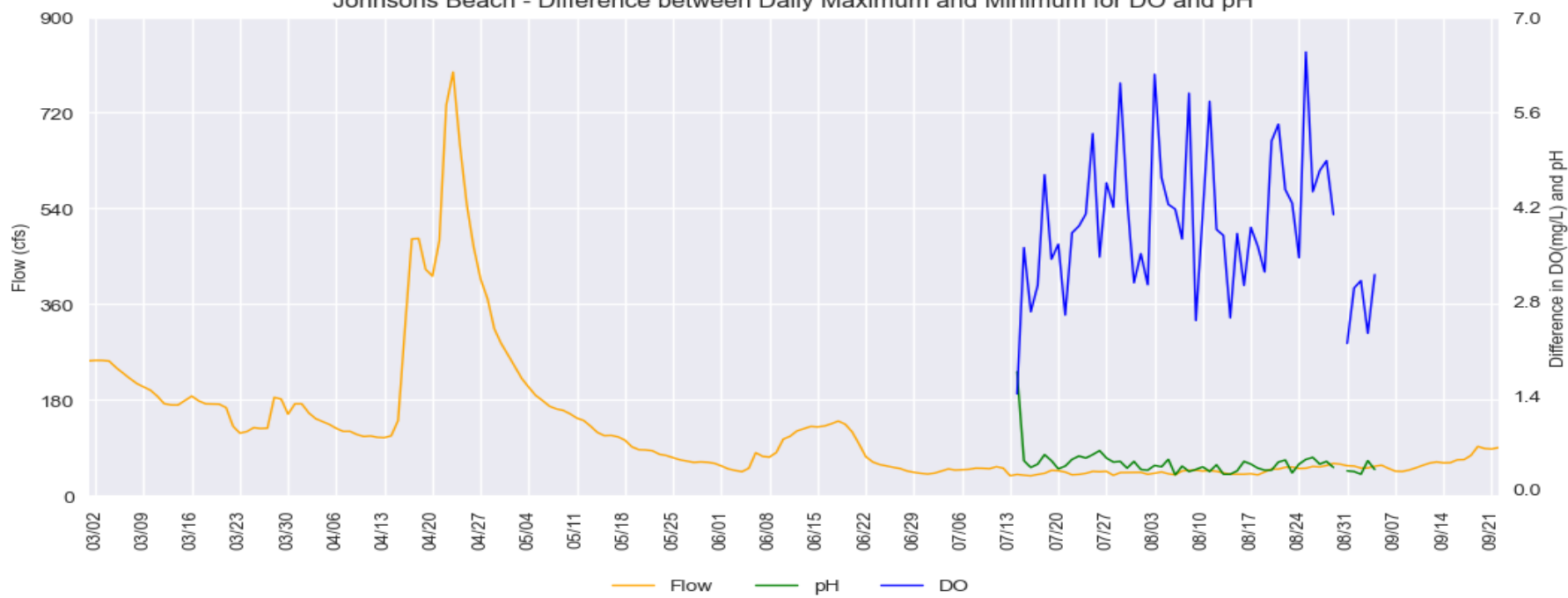
Provisional Data Subject to Revision

Johnsons Beach

Johnsons Beach Water Quality Trend

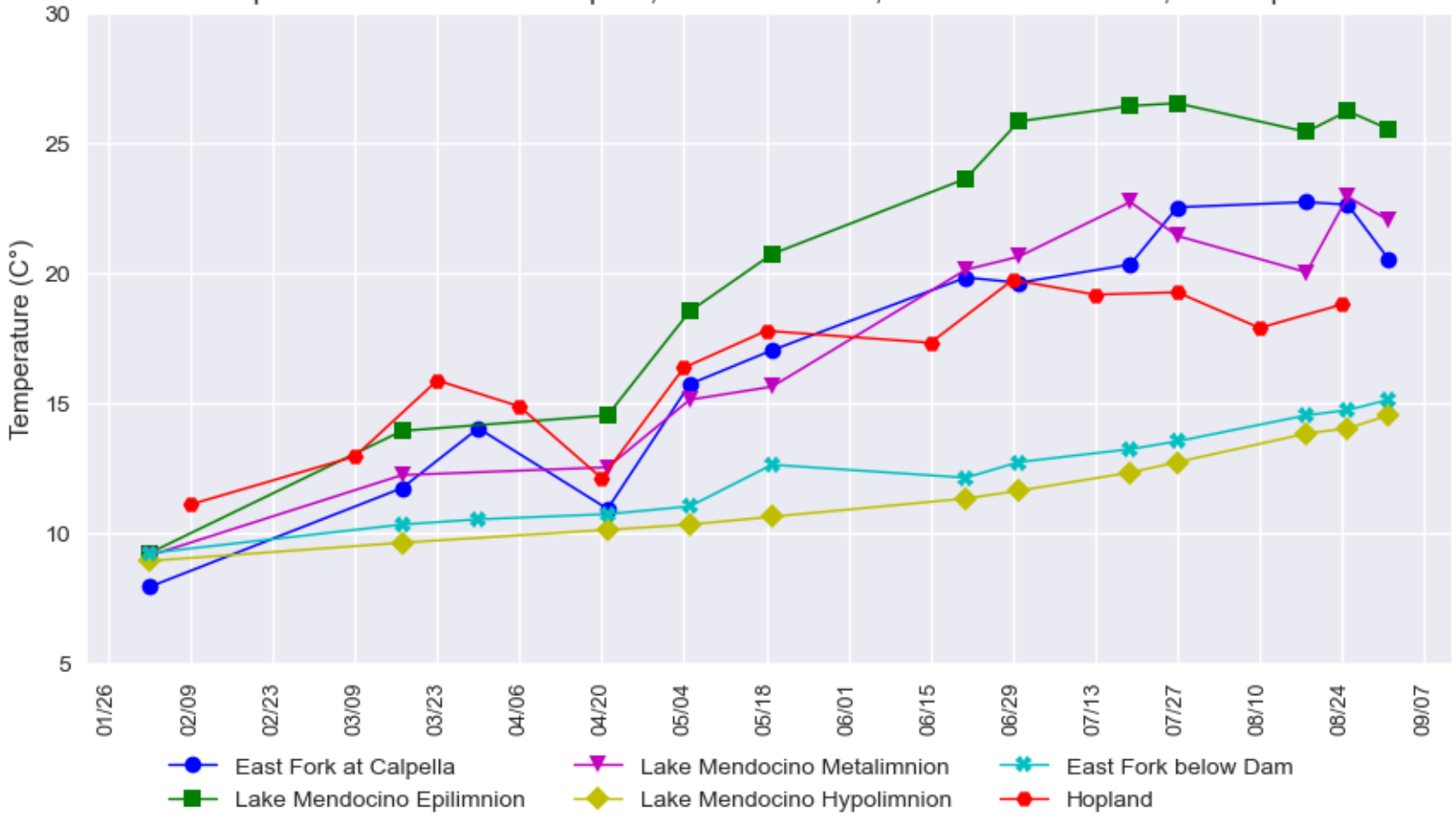


Johnsons Beach - Difference between Daily Maximum and Minimum for DO and pH

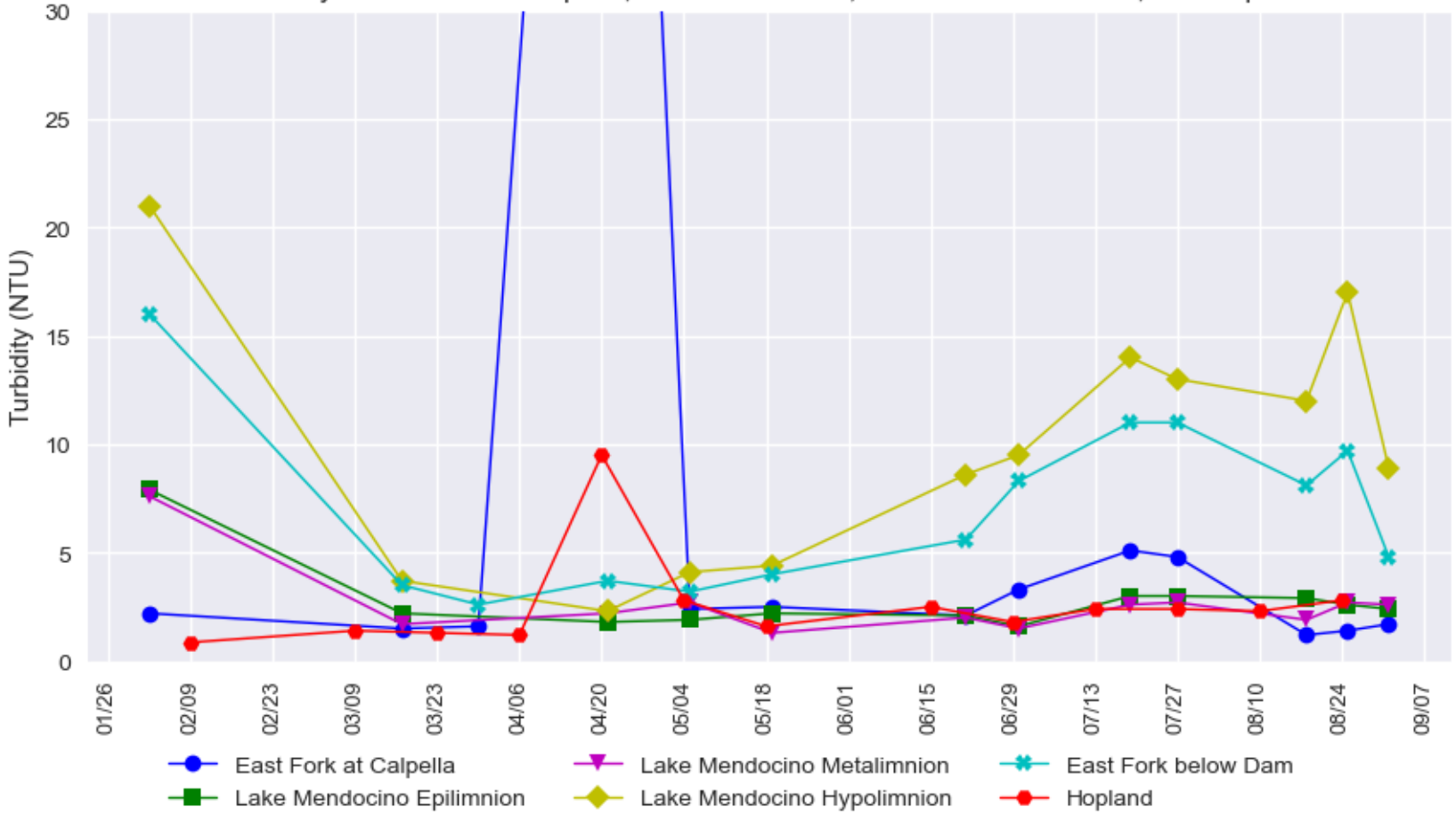


Lake Mendocino to Hopland Water Quality

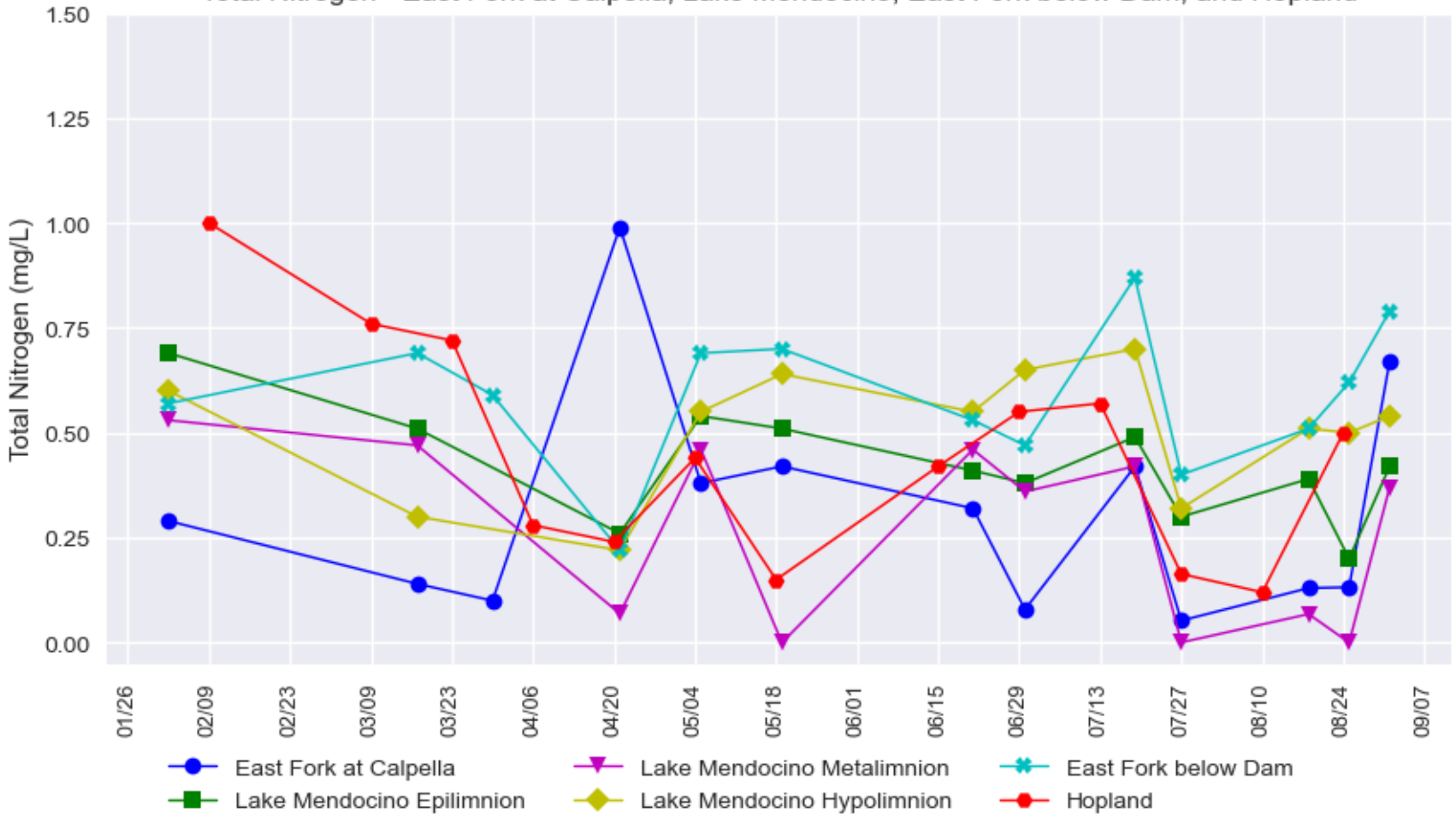
Temperature - East Fork at Calpella, Lake Mendocino, East Fork below Dam, and Hopland



Turbidity - East Fork at Calpella, Lake Mendocino, East Fork below Dam, and Hopland



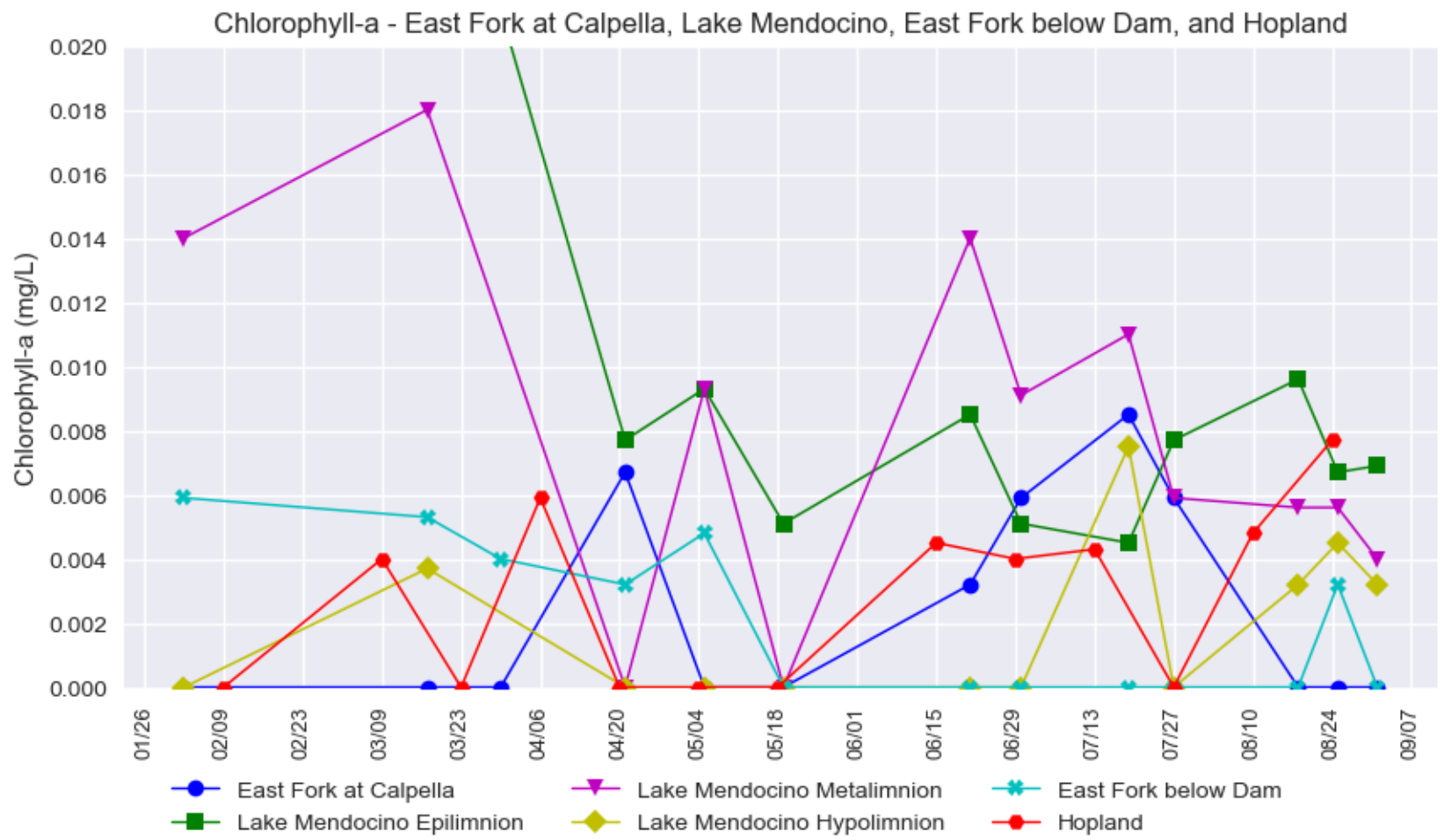
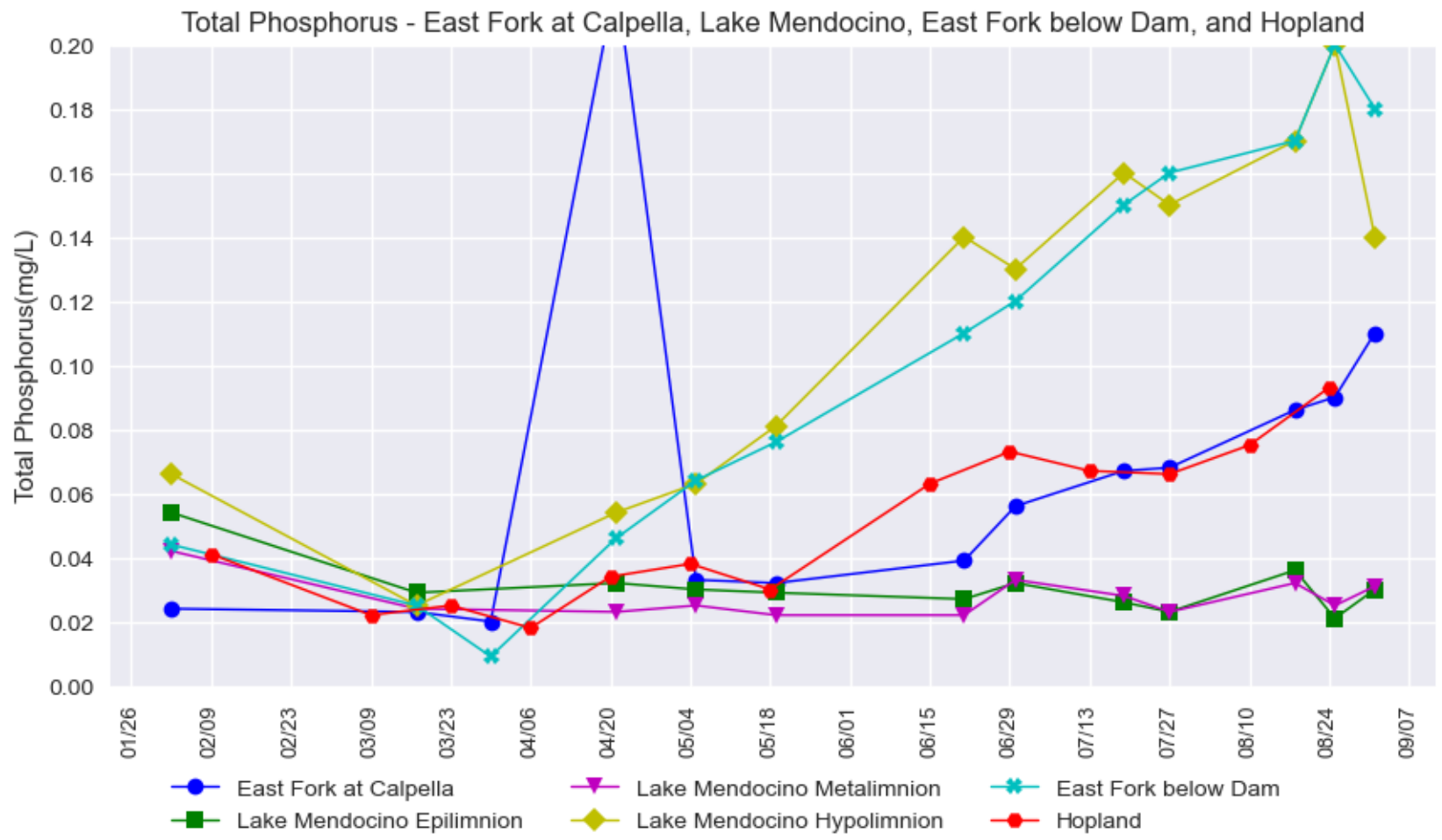
Total Nitrogen - East Fork at Calpella, Lake Mendocino, East Fork below Dam, and Hopland



*Each marker in the plot represents a grab sample. The lines are used to help visualize the data, but do not represent a continuous data measurement.

Russian River Water Quality Grab Samples February 02 - September 01, 2022

Provisional Data Subject to Revision
 Lake Mendocino to Hopland Water Quality



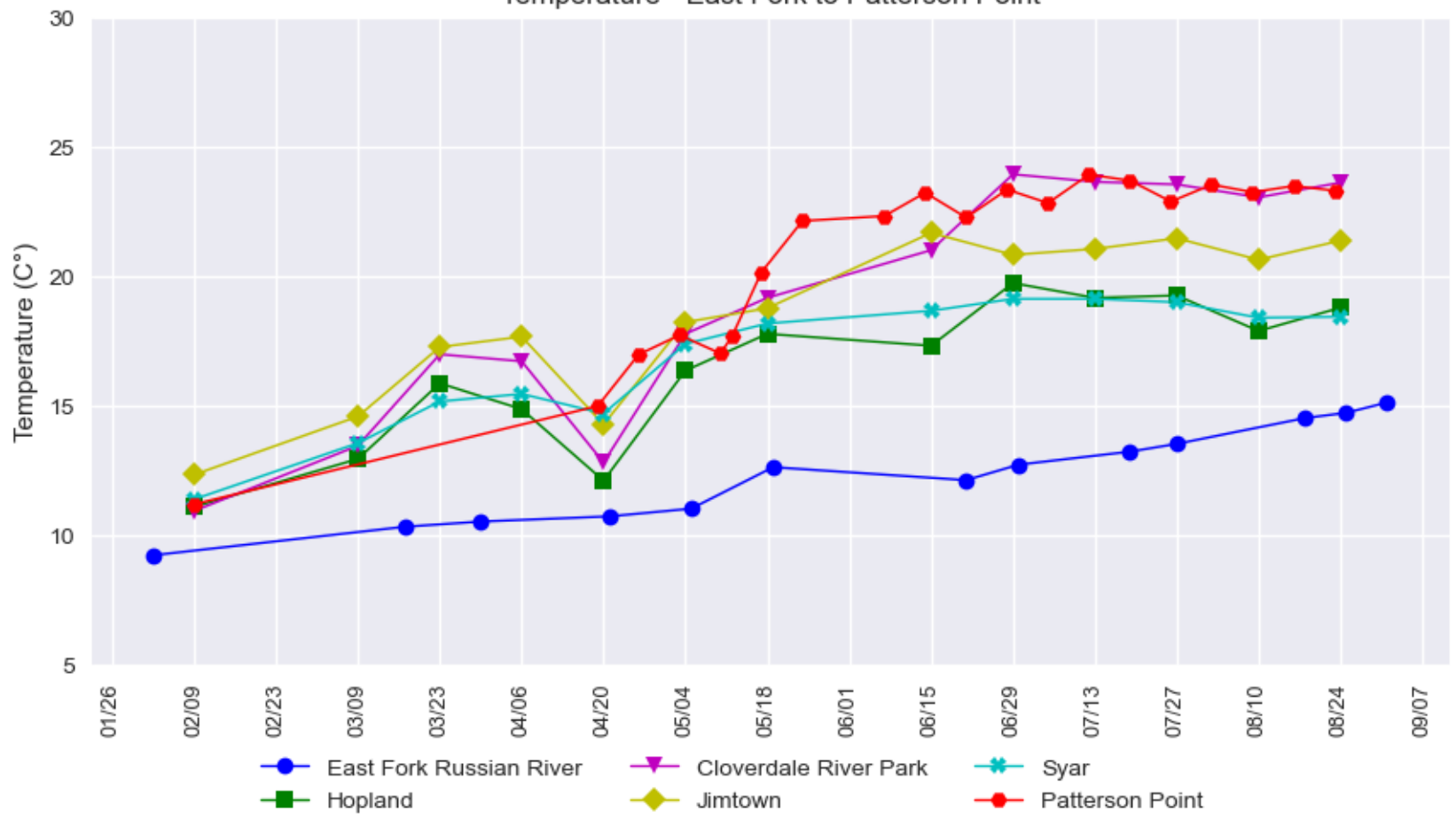
*Each marker in the plot represents a grab sample. The lines are used to help visualize the data, but do not represent a continuous data measurement.

Russian River Water Quality Grab Samples February 02 - September 01, 2022

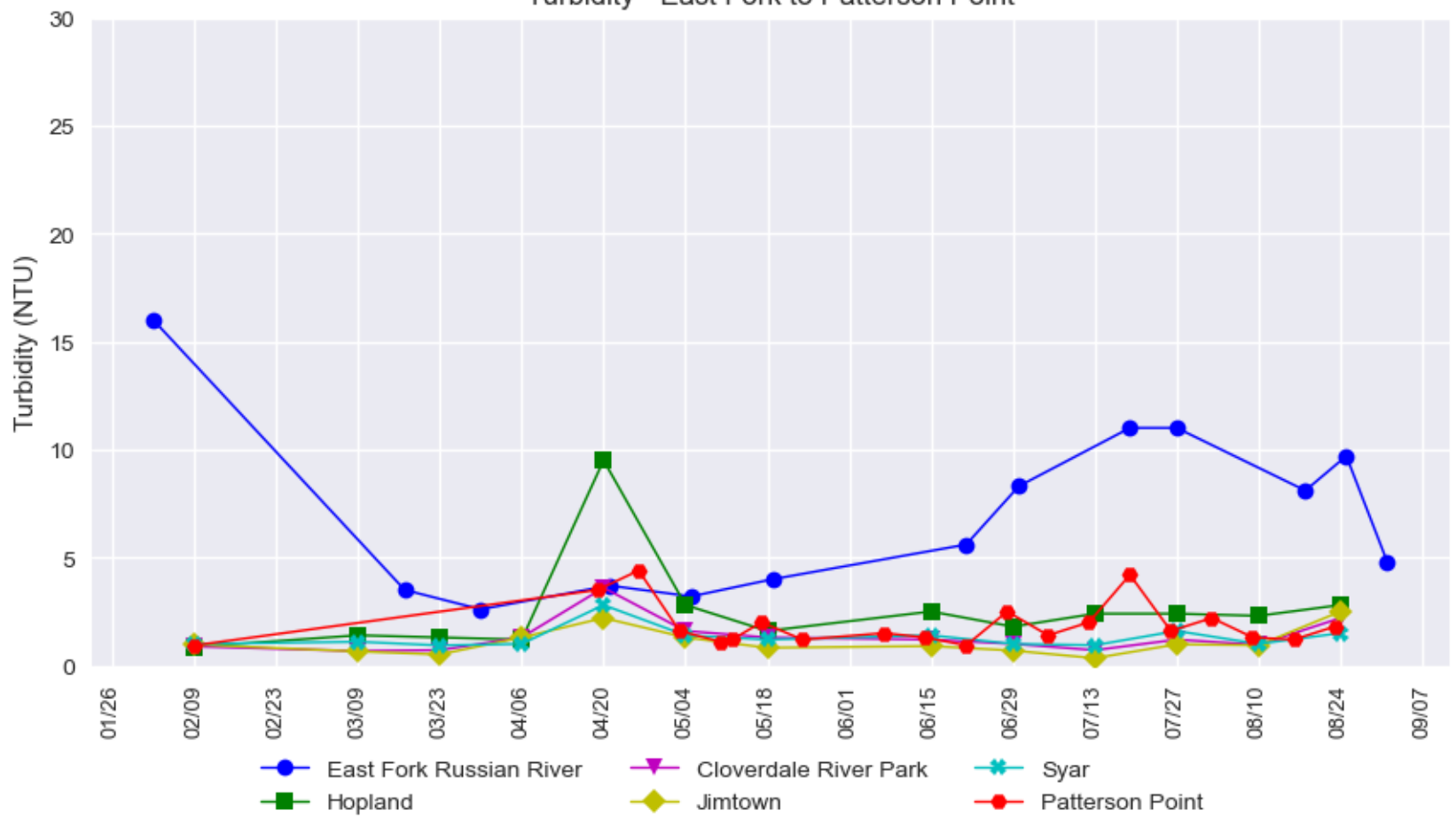
Provisional Data Subject to Revision

East Fork (below Lake Mendocino) to Patterson Point Water Quality

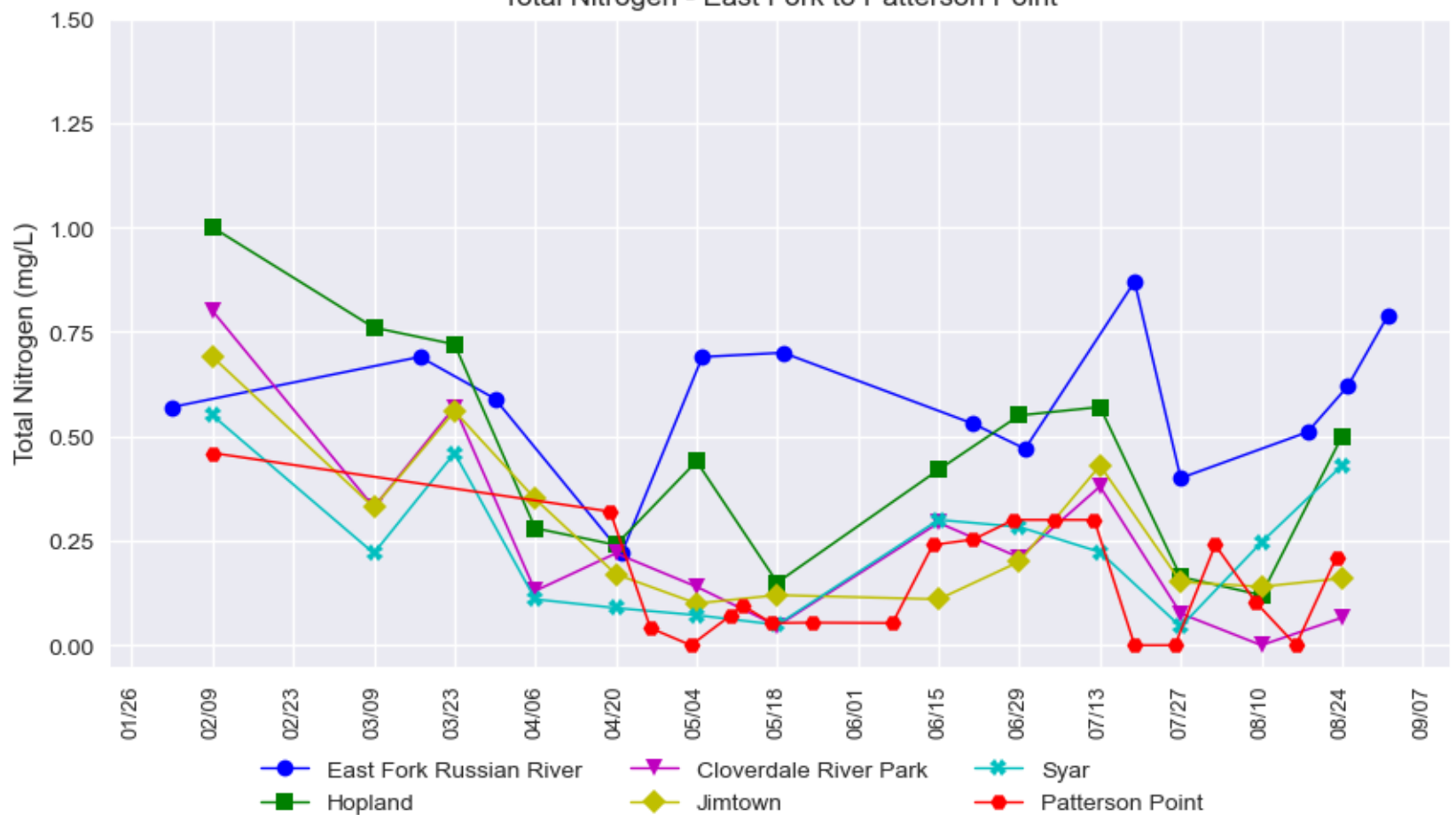
Temperature - East Fork to Patterson Point



Turbidity - East Fork to Patterson Point



Total Nitrogen - East Fork to Patterson Point



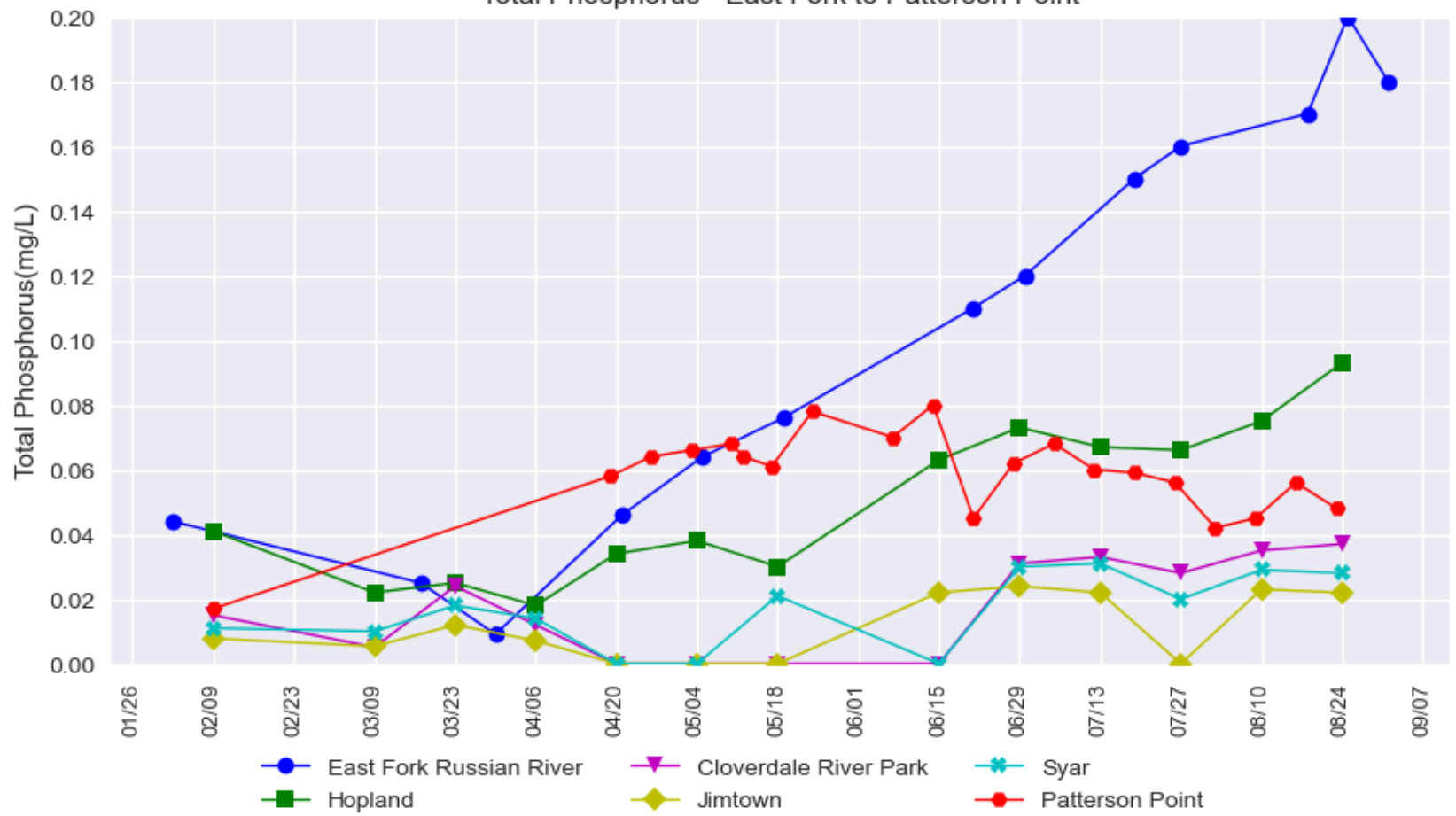
*Each marker in the plot represents a grab sample. The lines are used to help visualize the data, but do not represent a continuous data measurement.

Russian River Water Quality Grab Samples February 02 - September 01, 2022

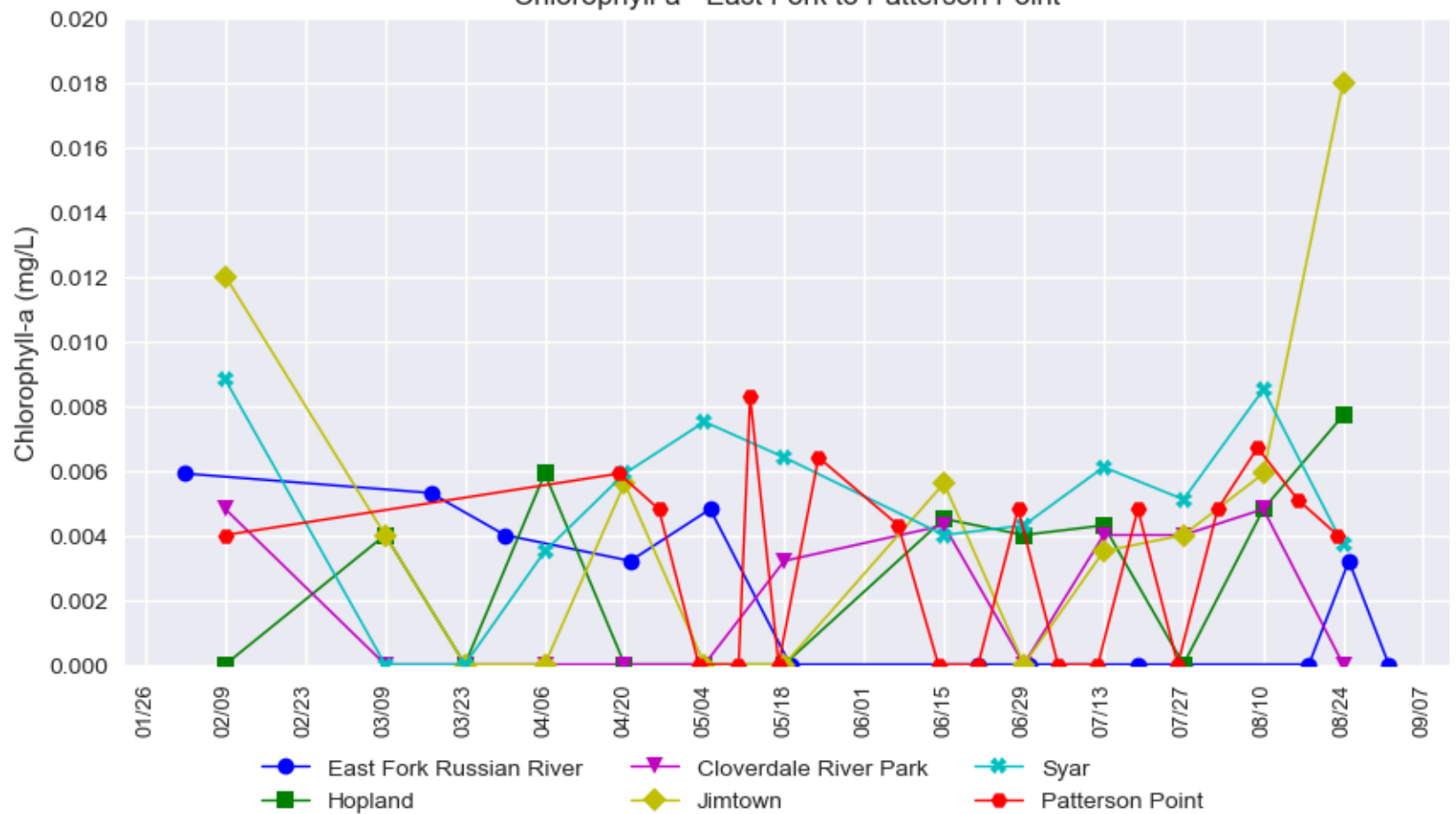
Provisional Data Subject to Revision

East Fork (below Lake Mendocino) to Syar Water Quality

Total Phosphorus - East Fork to Patterson Point



Chlorophyll-a - East Fork to Patterson Point



*Each marker in the plot represents a grab sample. The lines are used to help visualize the data, but do not represent a continuous data measurement.

**Russian River Water Quality Grab Samples (August 2 - September 20, 2022)
Provisional Data Subject to Revision**

Parameter***	CDPH Guidance*	Date	Patterson Point	Monte Rio	Vacation Beach
Total Coliforms MPN/100 mL	10,000	8/2/2022	1017**	1354**	6488**
		8/9/2022	2140**	2978**	2282**
		8/16/2022	1046.2	1046.2	1986.3
		8/23/2022	1553.1	1413.6	1986.3
		8/30/2022	1720**	1720**	1956**
		9/6/2022	2014**	2143**	3654**
		9/13/2022	1515**	12997**	3076**
		9/20/2022	3282**	1467**	2098**
E. Coli MPN/100 mL	235	8/2/2022	4.1	21.6	2
		8/9/2022	39.3	23.3	3
		8/16/2022	5.2	10.8	12.2
		8/23/2022	7.5	19.9	13.5
		8/30/2022	12.1	12.2	17.3
		9/6/2022	65.7	30.9	23.1
		9/13/2022	9.7	17.5	63.7
		9/20/2022	58.3	70.6	59.1
Enterococcus MPN/100 mL****	61	8/2/2022	2	18.5	8.4
		8/9/2022	27.5	13.2	2
		8/16/2022	5.2	10.9	31
		8/23/2022	8.6	8.4	4.1
		8/30/2022	3.1	9.7	22.1
		9/6/2022	65.1	7.5	7.5
		9/13/2022	2	7.5	15.5
		9/20/2022	151.5	21.3	25.9

*California Department of Public Health (CDPH) Guidance for Fresh Water Beaches - Single Sample Values:

Freshwater beaches include Patterson Point, Monte Rio, and Vacation Beach

Beach posting is recommended when indicator organisms exceed any of the above corresponding levels

**Sample diluted 1:10

***Method Detection Limit for all parameters = 2 MPN/100 mL or 20 MPN/100 mL if sample diluted

****We continue to collect enterococcus data, however it is not a reliable fecal indicator bacteria in freshwater environments and is not being relied upon for posting at freshwater beaches, per SoCo DHS and NCRWQCB.

Russian River Water Quality Grab Samples (July 5 - September 6, 2022)
Provisional Data Subject to Revision

Parameter		MDL*	Units	Date	Patterson Point	Monte Rio	Vacation Beach			
Temperature	-	°C	7/5/2022	22.8	23.0	23.1				
			7/12/2022	23.9	23.7	24.5				
			7/19/2022	23.7	23.9	24.4				
			7/26/2022	22.9	23.1	23.3				
			8/2/2022	23.1	23.2	23.5				
			8/9/2022	23.2	23.6	23.2				
			8/16/2022	23.5	23.6	24.0				
			8/23/2022	23.3	23.5	23.7				
			8/30/2022	22.3	22.2	22.6				
			9/6/2022	23.5	23.7	24.1				
Nutrients	Ammonia as N	0.1	mg/L	7/5/2022	ND	ND	ND			
				7/12/2022	ND	ND	0.11			
				7/19/2022	ND	ND	ND			
				7/26/2022	ND	ND	ND			
				8/2/2022	ND	ND	ND			
				8/9/2022	0.12	0.14	0.1			
				8/16/2022	ND	ND	ND			
				8/23/2022	ND	ND	ND			
				8/30/2022	ND	ND	ND			
	9/6/2022	ND	ND	ND						
	Nitrate as N	0.04	mg/L	7/5/2022	ND	ND	ND			
				7/12/2022	ND	0.063	ND			
				7/19/2022	ND	ND	ND			
				7/26/2022	ND	ND	ND			
				8/2/2022	ND	ND	ND			
				8/9/2022	ND	ND	ND			
				8/16/2022	ND	0.063	ND			
				8/23/2022	ND	ND	ND			
8/30/2022				0.065	0.063	0.063				
9/6/2022	ND	ND	ND							
Nutrients	Nitrite as N	0.05	mg/L	7/5/2022	ND	ND	ND			
				7/12/2022	ND	ND	ND			
				7/19/2022	ND	ND	ND			
				7/26/2022	ND	ND	ND			
				8/2/2022	ND	ND	ND			
				8/9/2022	ND	ND	ND			
				8/16/2022	ND	ND	ND			
				8/23/2022	ND	ND	ND			
				8/30/2022	ND	ND	ND			
				9/6/2022	ND	ND	ND			
				Total Organic Nitrogen as N	0.1	mg/L	7/5/2022	0.3	0.28	0.28
							7/12/2022	0.30	0.25	ND
	7/19/2022	ND	ND				0.47			
	7/26/2022	ND	ND				ND			
	8/2/2022	ND	ND				0.24			
	8/9/2022	ND	ND				ND			
	8/16/2022	ND	ND				ND			
	8/23/2022	0.21	ND				ND			
	8/30/2022	ND	ND				ND			
	9/6/2022	ND	ND				ND			
	Total Kjeldahl Nitrogen	0.2	mg/L				7/5/2022	0.3	0.28	0.28
							7/12/2022	0.3	0.25	ND
				7/19/2022	ND	ND	0.47			
				7/26/2022	ND	ND	ND			
				8/2/2022	ND	ND	0.24			
				8/9/2022	ND	ND	ND			
				8/16/2022	ND	ND	ND			
				8/23/2022	0.21	ND	ND			
				8/30/2022	ND	ND	ND			
				9/6/2022	ND	ND	ND			
				Total Phosphorus	0.02	mg/L	7/5/2022	0.068	0.069	0.060
							7/12/2022	0.060	0.060	0.044
	7/19/2022	0.059	0.058				0.050			
	7/26/2022	0.056	0.055				0.048			
	8/2/2022	0.056	0.052				0.042			
	8/9/2022	0.060	0.055				0.045			
8/16/2022	0.056	0.051	0.044							
8/23/2022	0.048	0.049	0.042							
8/30/2022	0.041	0.034	0.028							
9/6/2022	0.036	0.033	0.026							
Total Orthophosphate	0.03	mg/L	7/5/2022				0.14	0.13	0.11	
			7/12/2022				0.12	0.11	0.077	
			7/19/2022	0.12	0.11	0.089				
			7/26/2022	0.099	0.099	0.076				
			8/2/2022	0.11	0.098	0.078				
			8/9/2022	0.093	0.085	0.057				
			8/16/2022	0.079	0.071	0.043				
			8/23/2022	0.077	0.069	0.049				
			8/30/2022	0.071	0.059	0.042				
			9/6/2022	0.053	0.041	ND				

Russian River Water Quality Grab Samples (July 5 - September 6, 2022)
Provisional Data Subject to Revision

Parameter		MDL*	Units	Date	Patterson Point	Monte Rio	Vacation Beach
Chlorophyll	Chlorophyll A	0.003	mg/L	7/5/2022	ND	0.0043	0.0040
				7/12/2022	ND	ND	0.0040
				7/19/2022	0.0048	0.0045	ND
				7/26/2022	ND	ND	0.0043
				8/2/2022	0.0048	0.0045	0.0048
				8/9/2022	ND	ND	0.0067
				8/16/2022	0.0051	ND	0.0032
				8/23/2022	0.0040	ND	0.0040
				8/30/2022	0.0045	ND	ND
				9/6/2022	ND	ND	0.0059
Carbon	Total Organic Carbon	0.3	mg/L	7/5/2022	2.09	2.05	2.22
				7/12/2022	2.79	2.62	2.77
				7/19/2022	2.56	2.50	2.56
				7/26/2022	2.52	2.41	2.44
				8/2/2022	2.58	2.73	2.66
				8/9/2022	2.43	2.39	2.33
				8/16/2022	2.24	2.29	2.19
				8/23/2022	2.24	2.21	2.18
				8/30/2022	2.07	2.07	2.07
	9/6/2022	2.09	2.03	1.96			
	Dissolved Organic Carbon	0.2	mg/L	7/5/2022	1.70	1.75	1.72
				7/12/2022	1.99	1.92	1.98
				7/19/2022	2.24	1.98	2.07
				7/26/2022	1.99	2.03	2.01
				8/2/2022	2.11	2.25	2.06
				8/9/2022	2.02	1.96	1.97
				8/16/2022	1.91	1.87	2.04
				8/23/2022	1.90	1.88	1.86
8/30/2022				1.68	1.65	1.67	
9/6/2022	1.75	1.68	1.62				
Solids	Turbidity	0.1	NTU	7/5/2022	1.4	1.8	1.8
				7/12/2022	2.0	1.9	1.7
				7/19/2022	4.2	3.2	1.9
				7/26/2022	1.6	2.1	1.6
				8/2/2022	2.1	2.4	2.2
				8/9/2022	1.5	1.3	1.3
				8/16/2022	1.2	1.2	1.8
				8/23/2022	1.8	1.0	0.9
				8/30/2022	1.0	1.1	1.2
	9/6/2022	1.1	1.0	1.6			
	TDS	10	mg/L	7/5/2022	160	160	160
				7/12/2022	150	150	140
				7/19/2022	150	160	150
				7/26/2022	160	150	150
				8/2/2022	180	170	150
				8/9/2022	160	160	150
				8/16/2022	140	140	140
				8/23/2022	140	160	150
8/30/2022				140	130	130	
9/6/2022	150	140	140				