



State Water Resources Control Board
 Temporary Urgency Change Orders (6/6/2024)
 Russian River Hydrologic & Water Quality Report
 October 11, 2024 - October 17, 2024

Prepared as a requirement of the Orders approving Sonoma Water's Petition for Temporary Urgency Change in Permits 12947A, 12949, 12950, and 16596 (Applications 12919A, 15736, 15737, and 19351).

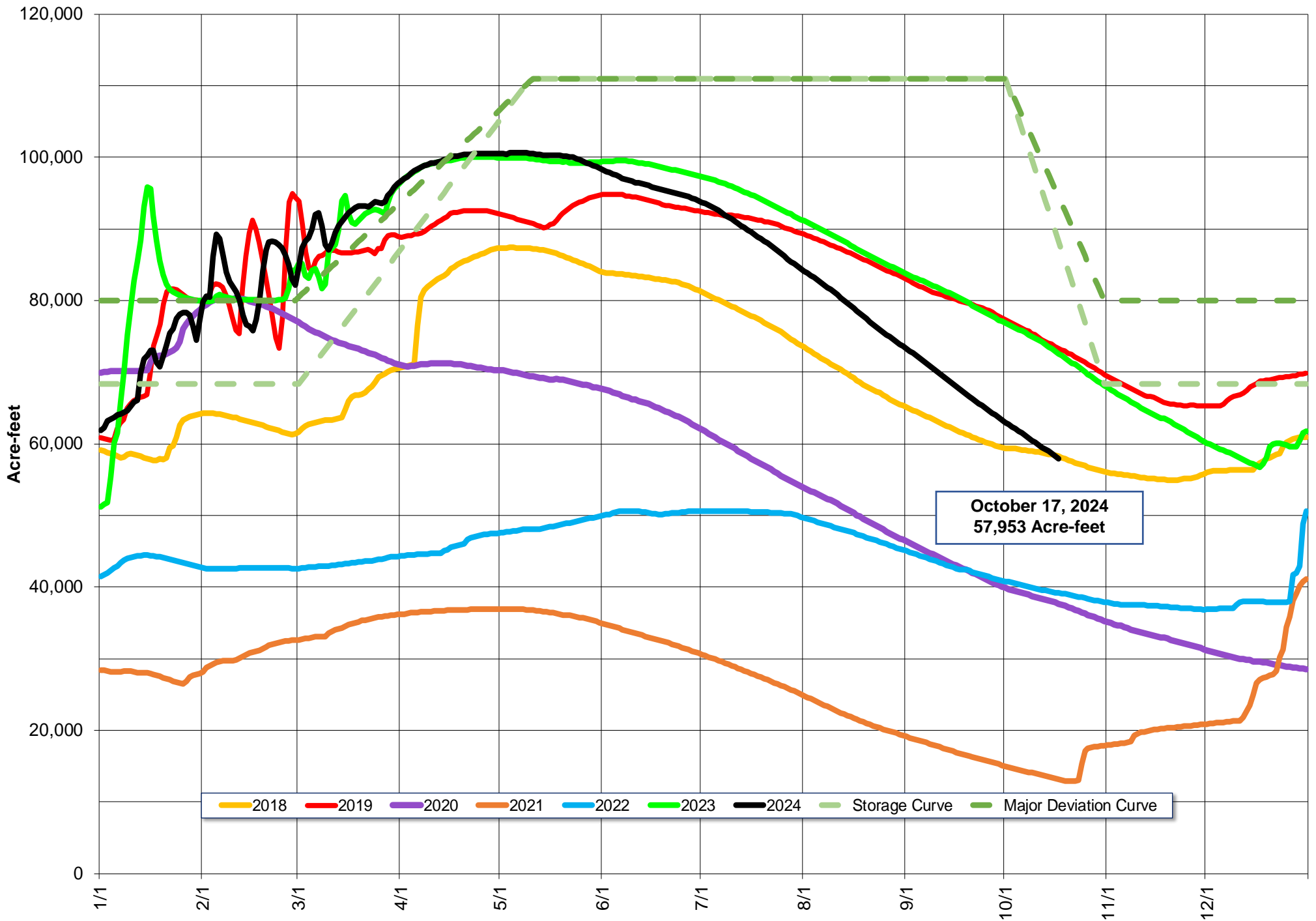
Instream Flow Requirements as of October 17, 2024

Basis	Reach	Instantaneous (cfs)	5-day Average (cfs)
Modified Per Order: Normal Condition	Upper Russian River	150	-
D-1610: Normal Condition	Dry Creek	80	-
Modified Per Order: Normal Condition	Lower Russian River	125	-

Upper and Lower Russian River are based on criteria as established in the Order issued 6/6/2024.

Lake Mendocino

Lake Mendocino Storage 2018 - 2024 and Storage Curve



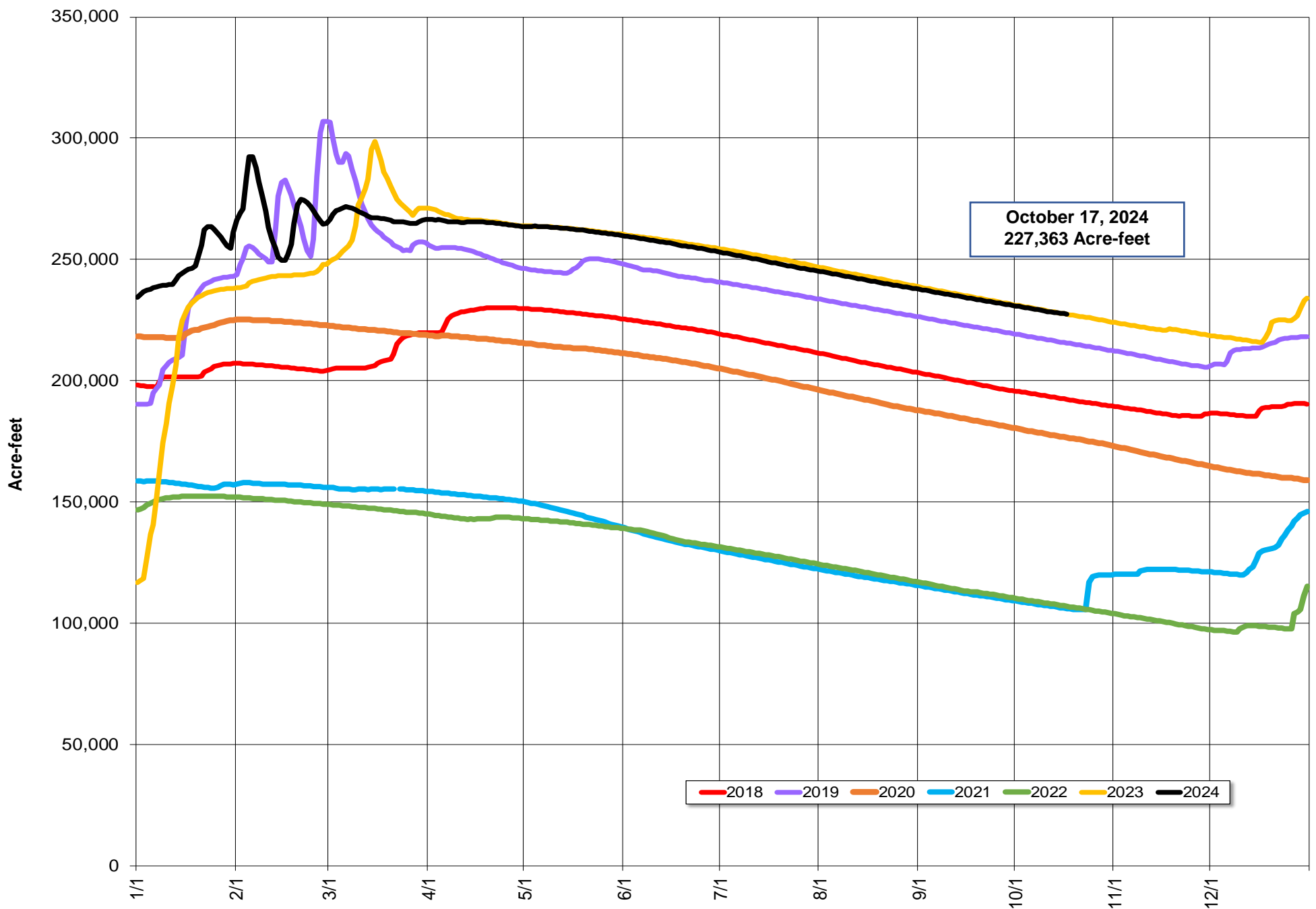
Storage (acre-feet)	October 17, 2024	57,953	
Change in Storage (acre-feet)	Last 30 days	-9,657	-322
	Last 7 days	-1,873	-268
Daily Inflow (cfs)	Last 7 days	Min	37
		Max	63
		Mean	47
Release (cfs)	Last 7 days	Min	189
		Max	199
		Mean	192

Lake Sonoma



Todd Schram, February 10, 2024

Lake Sonoma Storage 2018-2024



Storage (acre-feet)	October 17, 2024	227,363	
		Total	Average Daily Rate
Change in Storage (acre-feet)	Last 30 days	-6,586	-220
	Last 7 days	-1,458	-208
Daily Inflow (cfs)	Last 7 days	Min	0
		Max	38
		Mean	7
Release (cfs)	Last 7 days	Min	96
		Max	97
		Mean	97

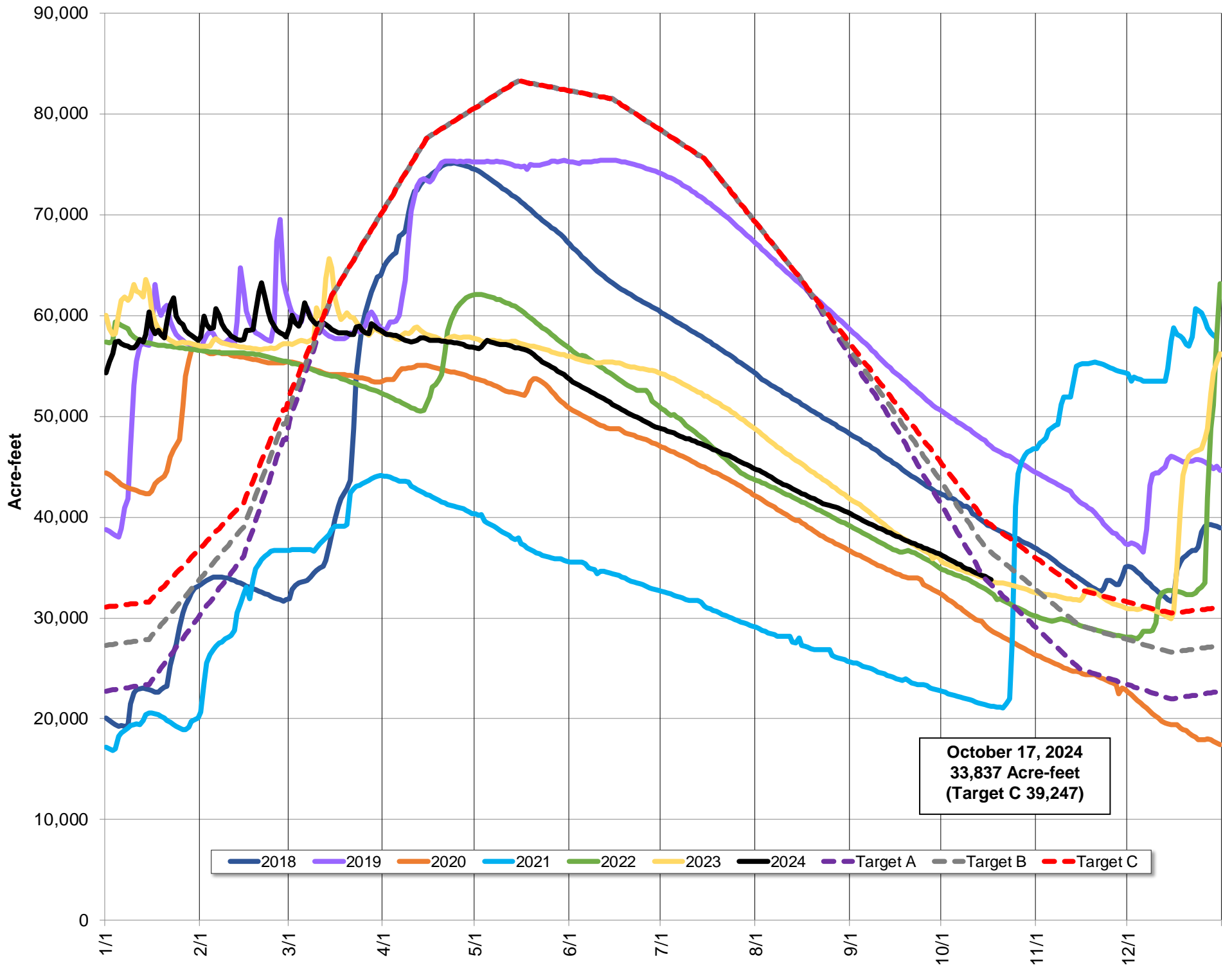
Potter Valley Project

PVP Diversion (cfs)	October 17, 2024	45
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Parameter	Date Range	Cumulative	Daily Average
Inflow* (acre-feet)	October 1, 2023 - October 17, 2024	580	34
	Last 7 days	243	35

*Inflow calculation based on criteria established in D1610

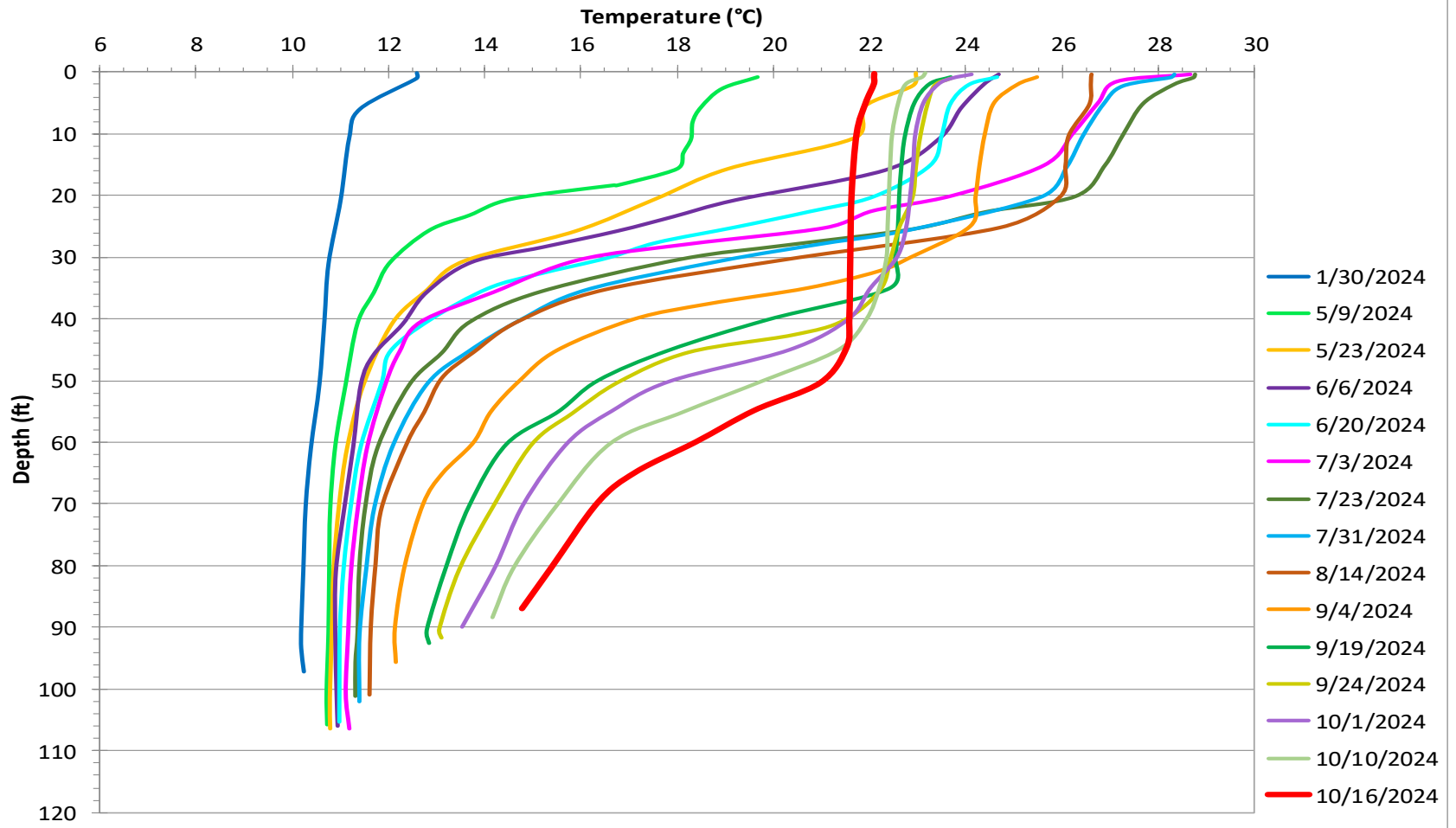
Lake Pillsbury Storage 2018 - 2024 and Target Storage Scenarios



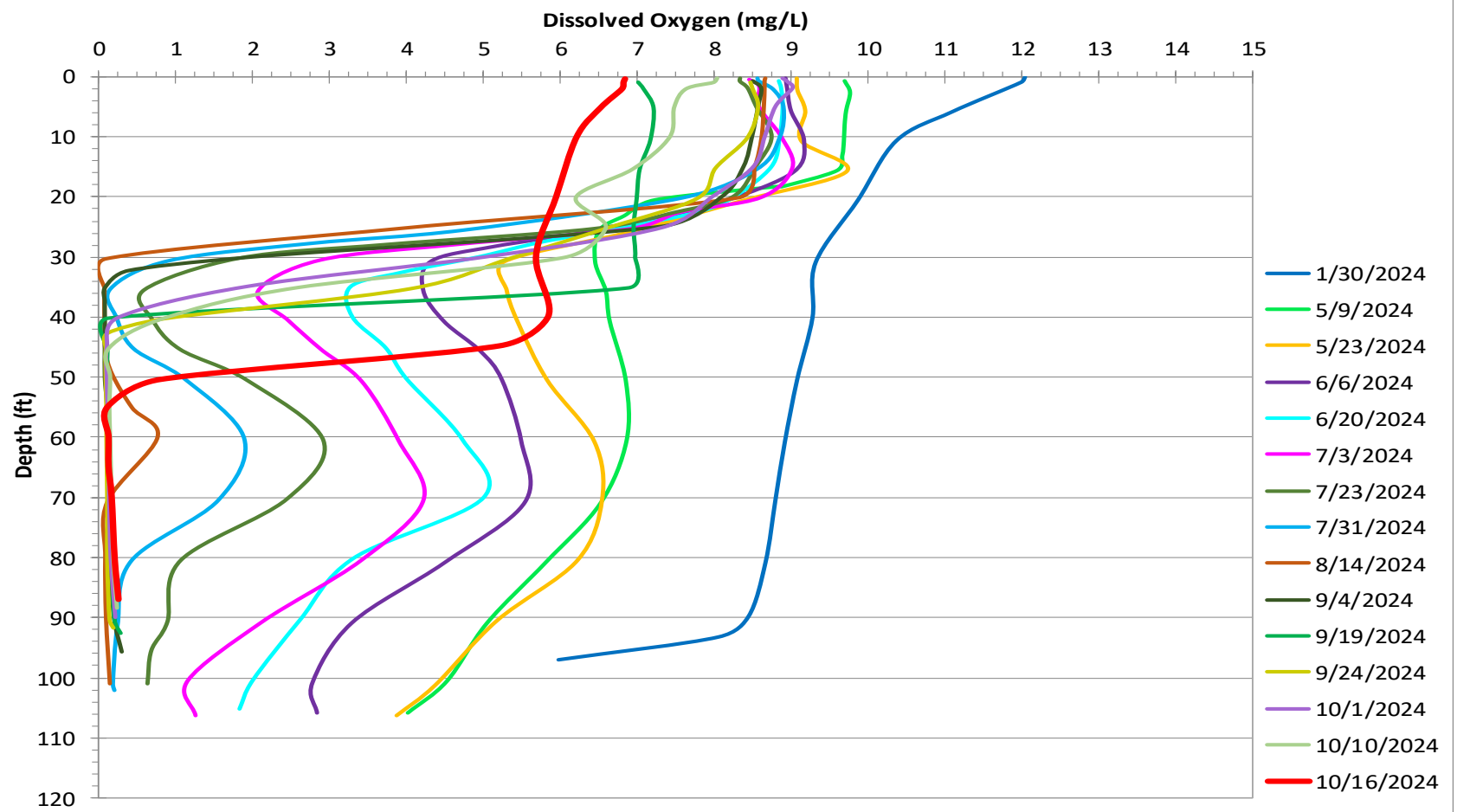
Lake Mendocino Water Quality Vertical Profiles (January 30 – October 16, 2024)

Provisional Data Subject to Revision

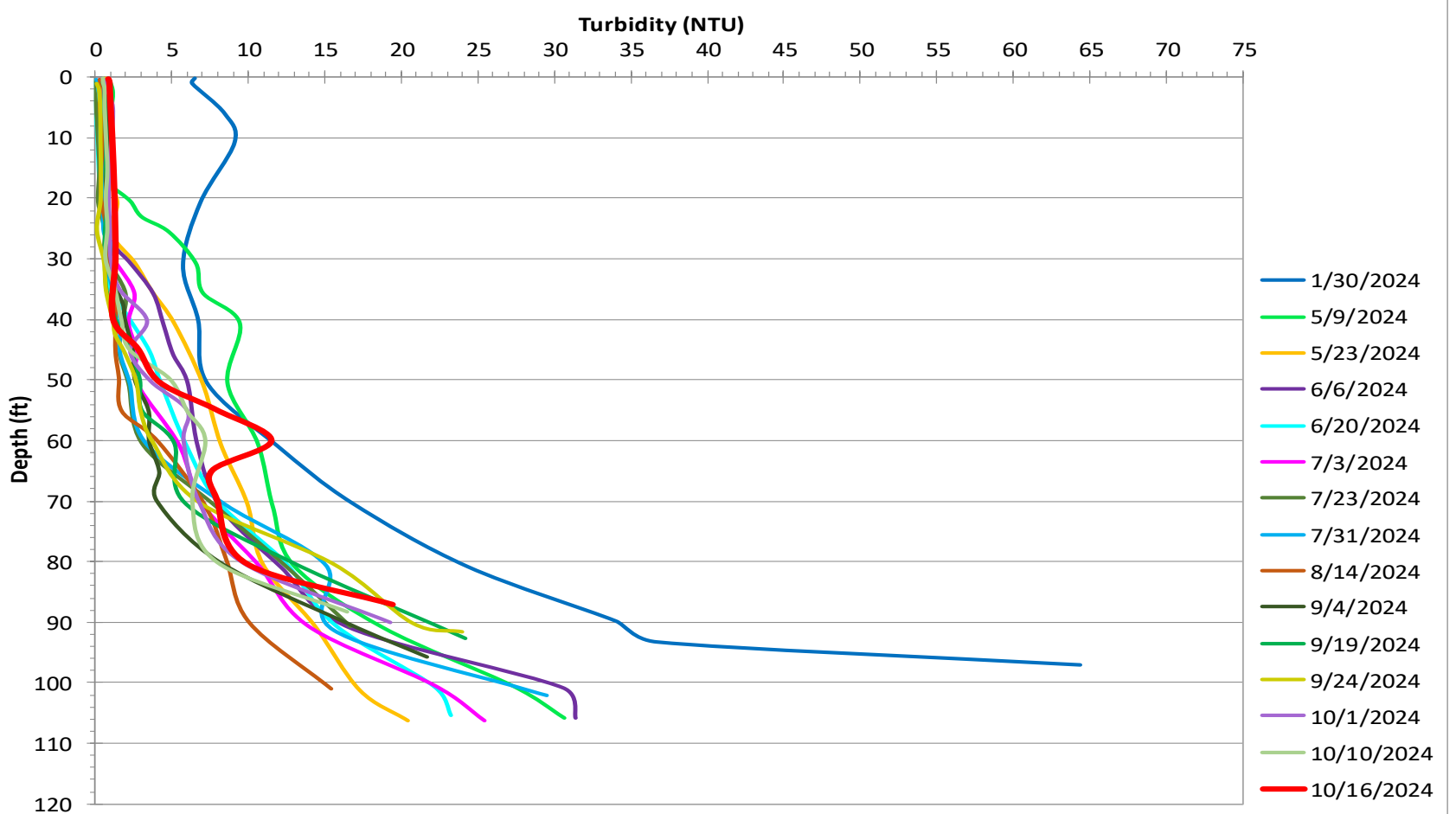
Lake Mendocino Dam - Vertical Temperature Profile - 2024



Lake Mendocino Dam - Vertical Dissolved Oxygen Profile - 2024



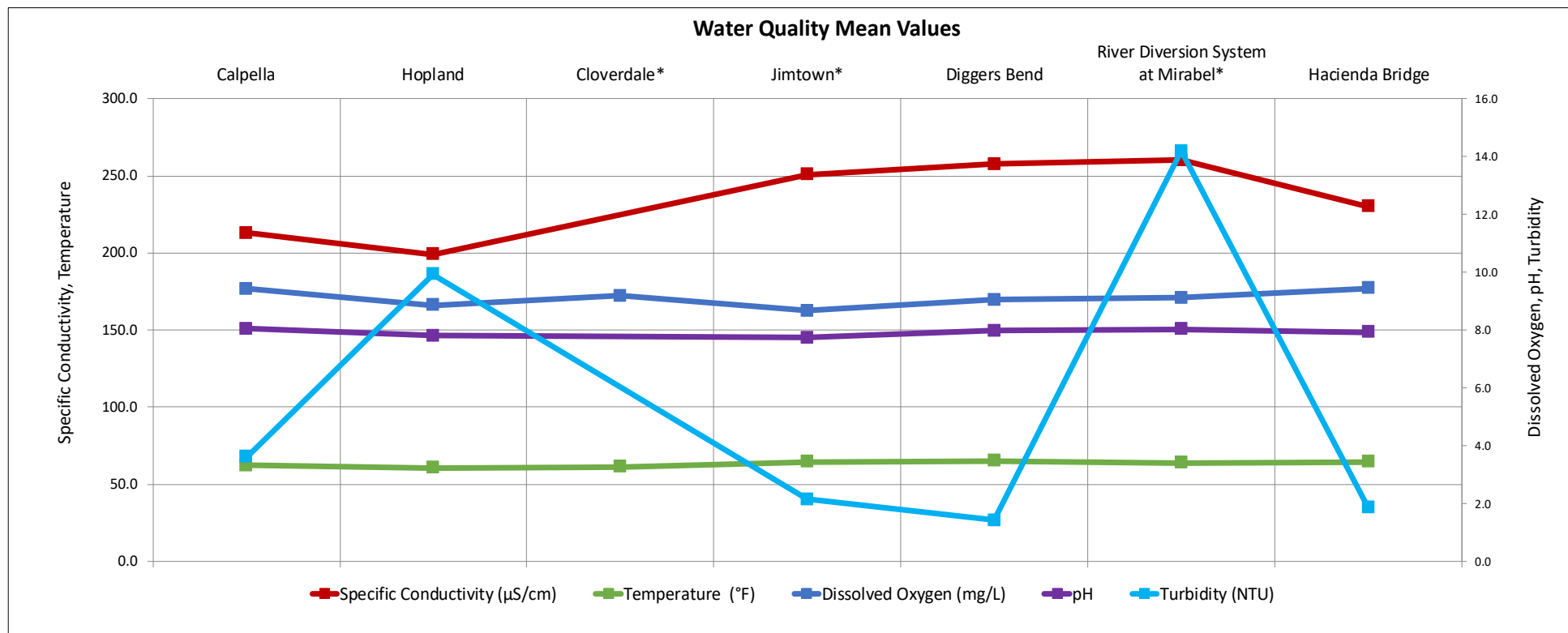
Lake Mendocino Dam - Vertical Turbidity Profile - 2024



Russian River Flows (October 11, 2024 - October 17, 2024)

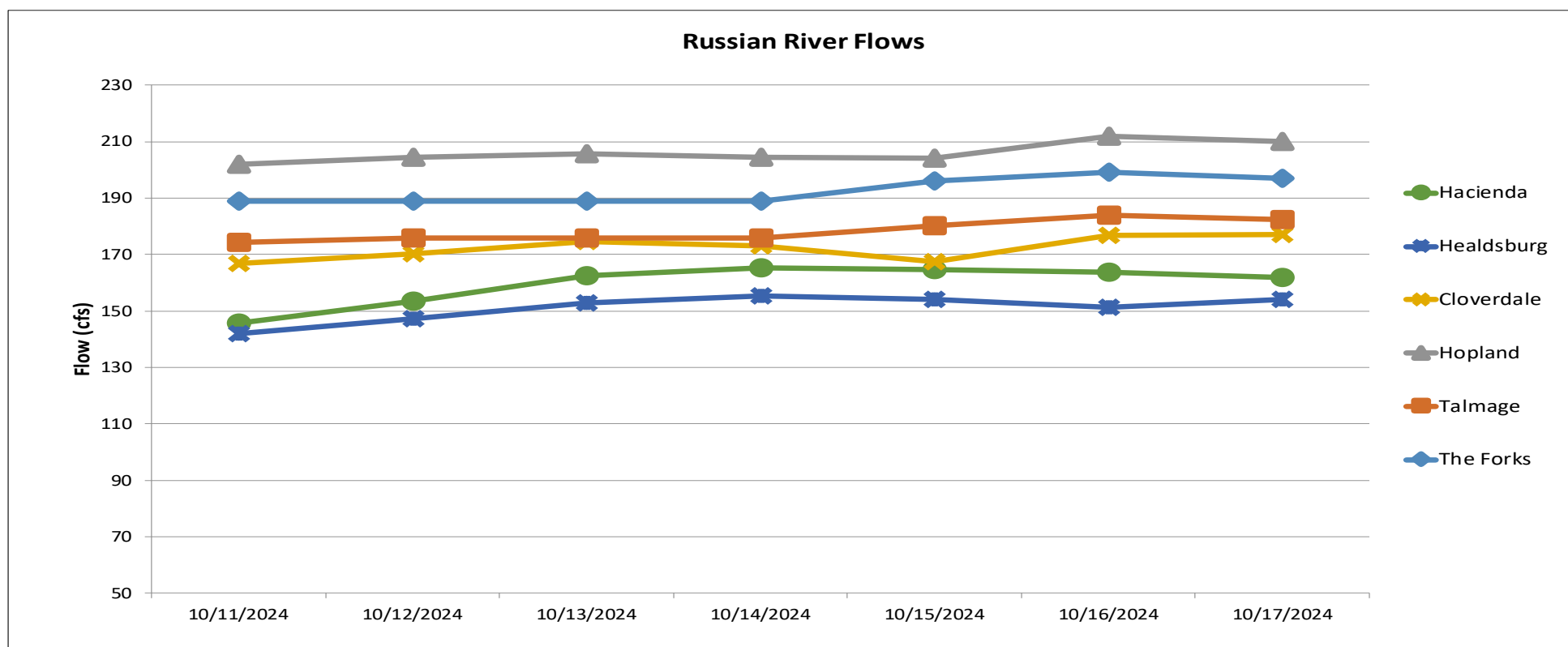
Parameter		Calpella	Hopland	Cloverdale*	Jimtown*	Diggers Bend	River Diversion System at Mirabel*	Hacienda Bridge	Johnsons Beach*
		USGS 11461500	USGS 11462500	USGS 11463000	USGS 11463682	USGS 11463980	SCWA	USGS 11467000	SCWA
Temperature (°F)	Min	59.5	57.7	59.2	62.2	63.0	62.4	62.6	
	Max	64.9	62.6	63.9	66.7	68.0	65.6	66.9	
	Mean	62.3	60.5	61.2	64.4	65.2	63.8	64.3	
Specific Conductivity (µS/cm)	Min	210.0	198.0		249.0	256.0	233.8	228.0	
	Max	217.0	200.0		253.0	261.0	289.0	232.0	
	Mean	213.1	199.1		250.8	257.8	260.2	230.1	
Dissolved Oxygen (mg/L)	Min	9.0	8.4	8.6	7.4	7.7	8.7	7.9	
	Max	10.4	9.8	10.1	10.8	10.8	9.5	10.5	
	Mean	9.4	8.9	9.2	8.7	9.0	9.1	9.4	
Dissolved Oxygen (% Saturation)	Min	92.2	84.9	87.9	77.8	81.3	91.9	82.9	
	Max	106.5	98.0	103.4	116.4	117.1	99.7	113.1	
	Mean	97.3	89.5	93.6	91.7	96.5	95.7	99.7	
pH	Min	7.9	7.7		7.6	7.7	7.9	7.6	
	Max	8.2	7.9		8.0	8.4	8.1	8.3	
	Mean	8.0	7.8		7.7	8.0	8.0	7.9	
Turbidity (NTU)	Min	1.9	8.2		1.4	0.6	12.7	0.7	
	Max	6.5	12.2		2.9	2.4	20.6	3.3	
	Mean	3.6	9.9		2.1	1.4	14.2	1.9	

*Station operated seasonally



Gage	24-hr Average Flow (cfs)						
	Oct 11, 2024	Oct 12, 2024	Oct 13, 2024	Oct 14, 2024	Oct 15, 2024	Oct 16, 2024	Oct 17, 2024
The Forks*	189	189	189	189	196	199	197
Talmage USGS 11462080	174	176	176	176	180	184	182
Hopland USGS 11462500	202	204	206	204	204	212	210
Cloverdale USGS 11463000	167	170	175	173	167	177	177
Healdsburg USGS 11464000	142	147	153	155	154	151	154
Hacienda USGS 11467000	146	153	162	165	165	164	162

*West Fork(USGS 11461000) + East Fork (Coyote Valley Dam Release)

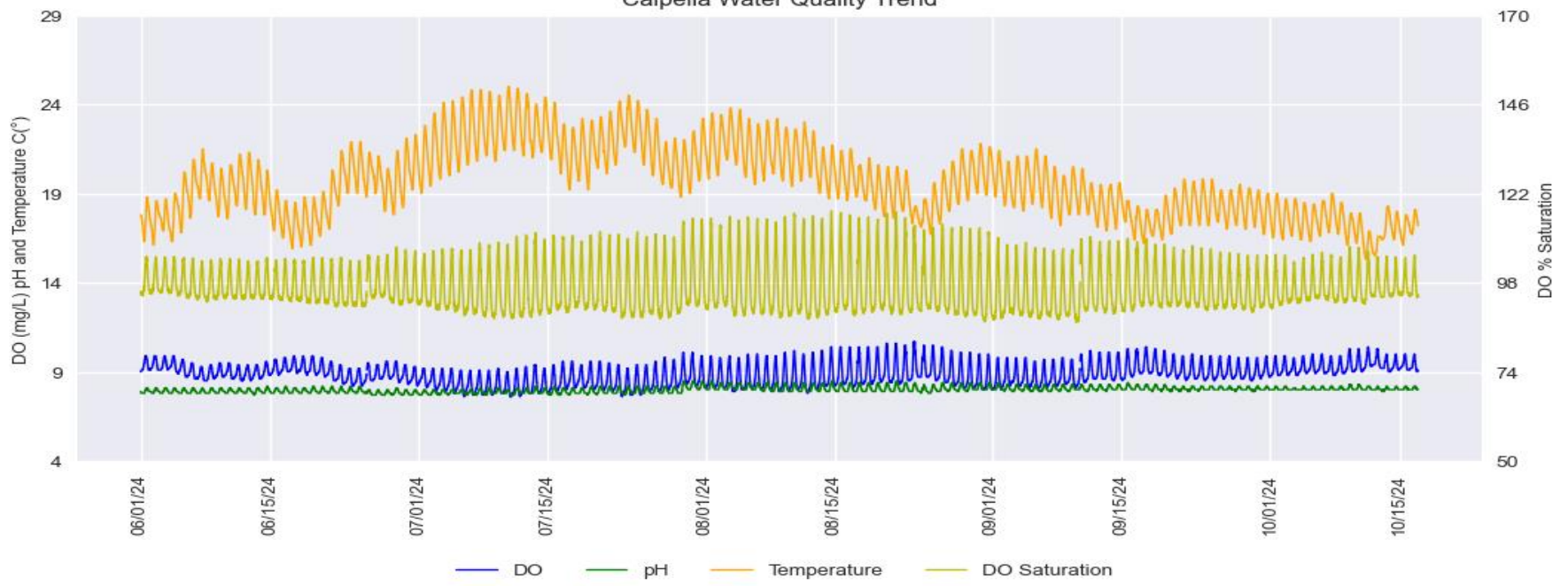


Russian River Water Quality June 1, 2024 – October 17, 2024

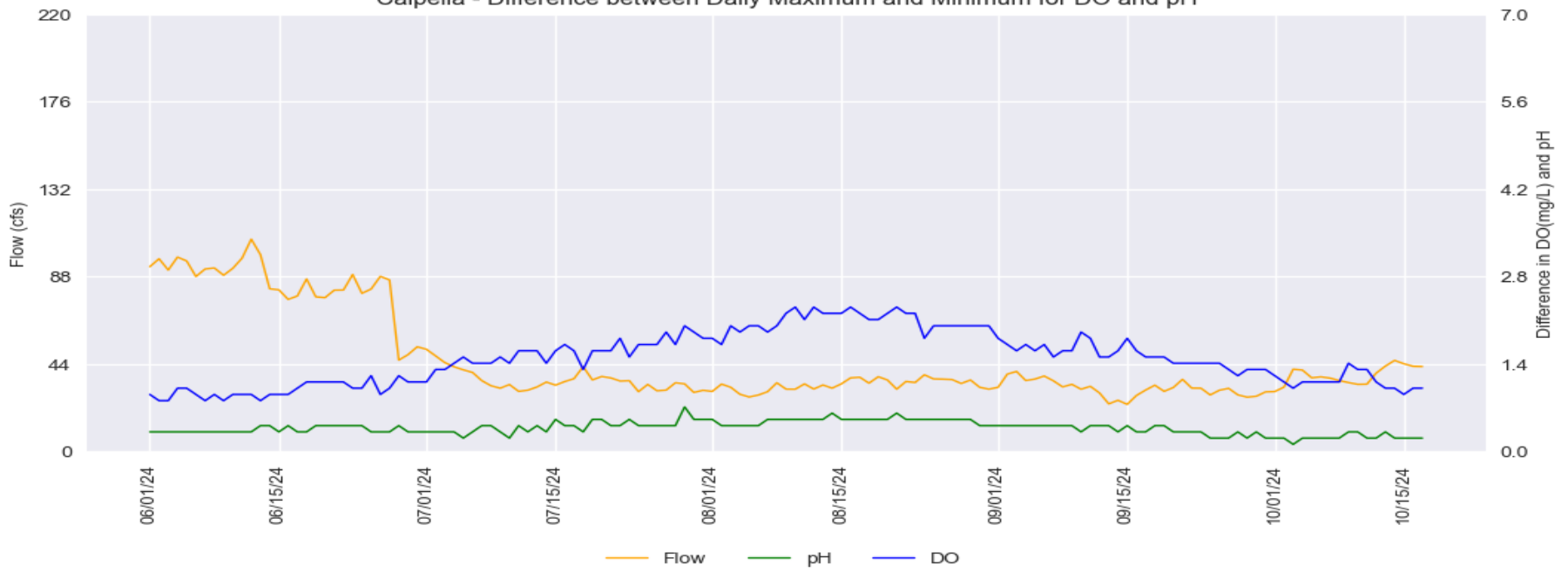
Provisional Data Subject to Revision

Calpella

Calpella Water Quality Trend

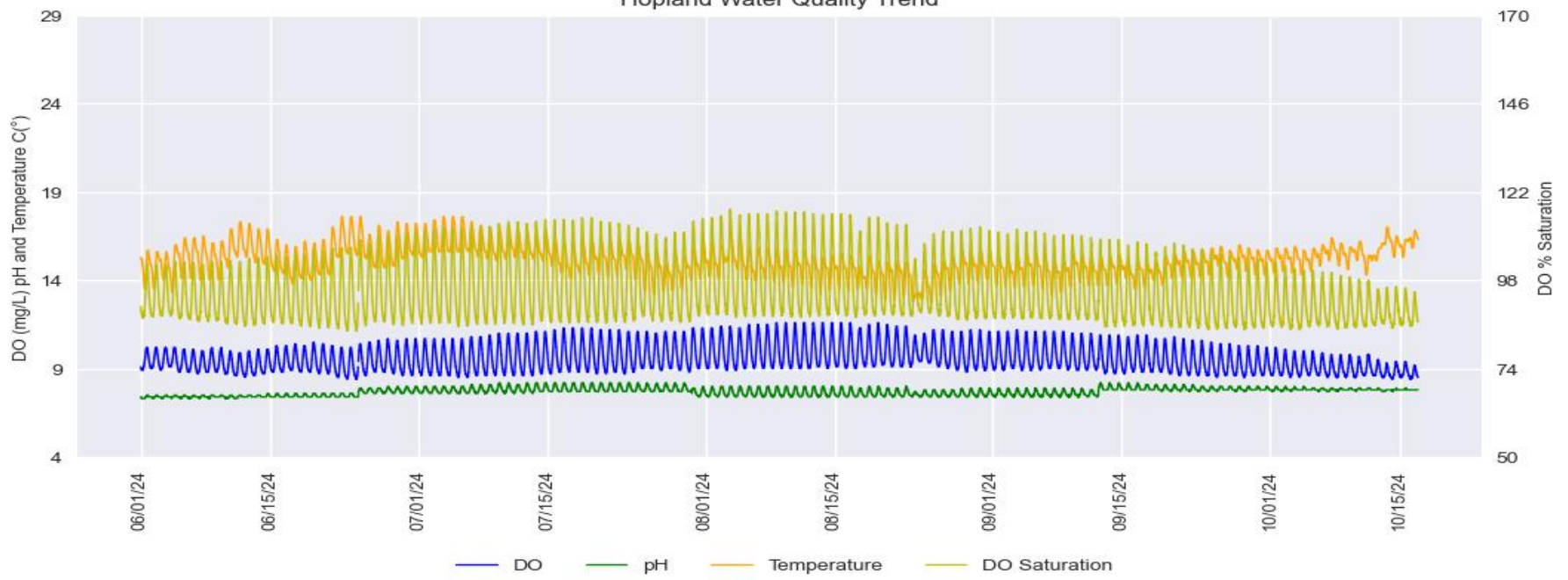


Calpella - Difference between Daily Maximum and Minimum for DO and pH

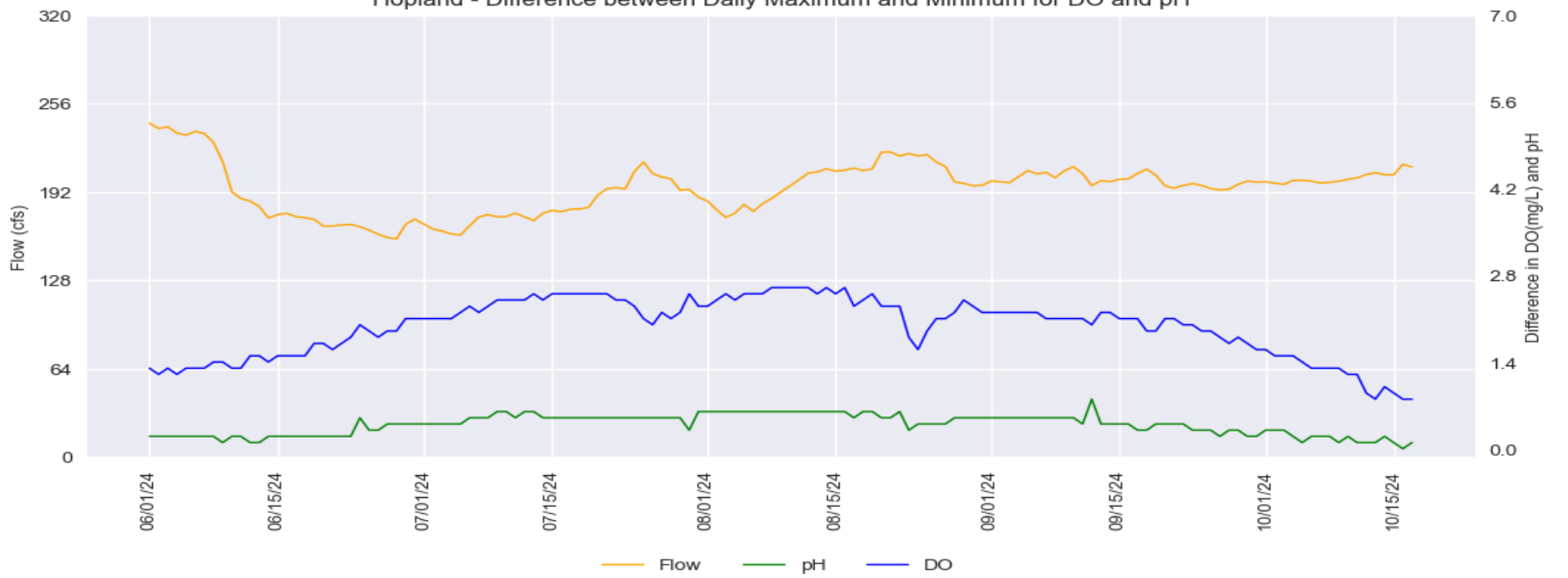


Hopland

Hopland Water Quality Trend



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

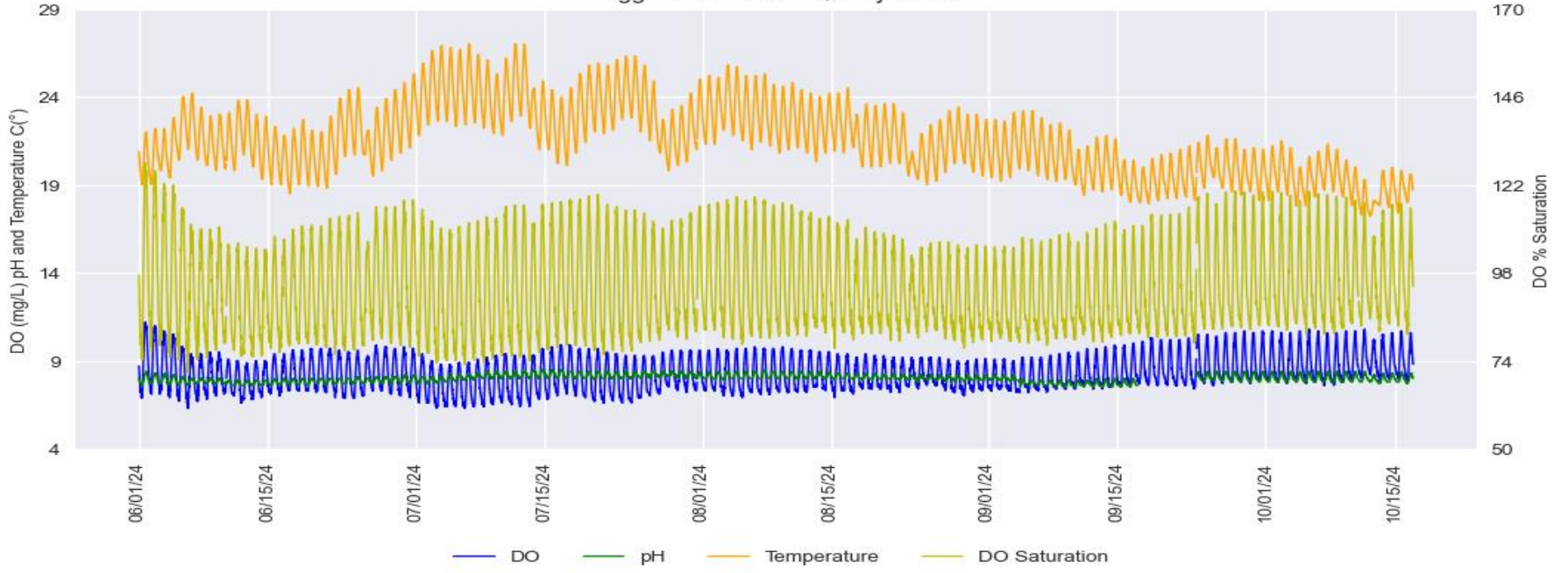


Russian River Water Quality June 1, 2024 – October 17, 2024

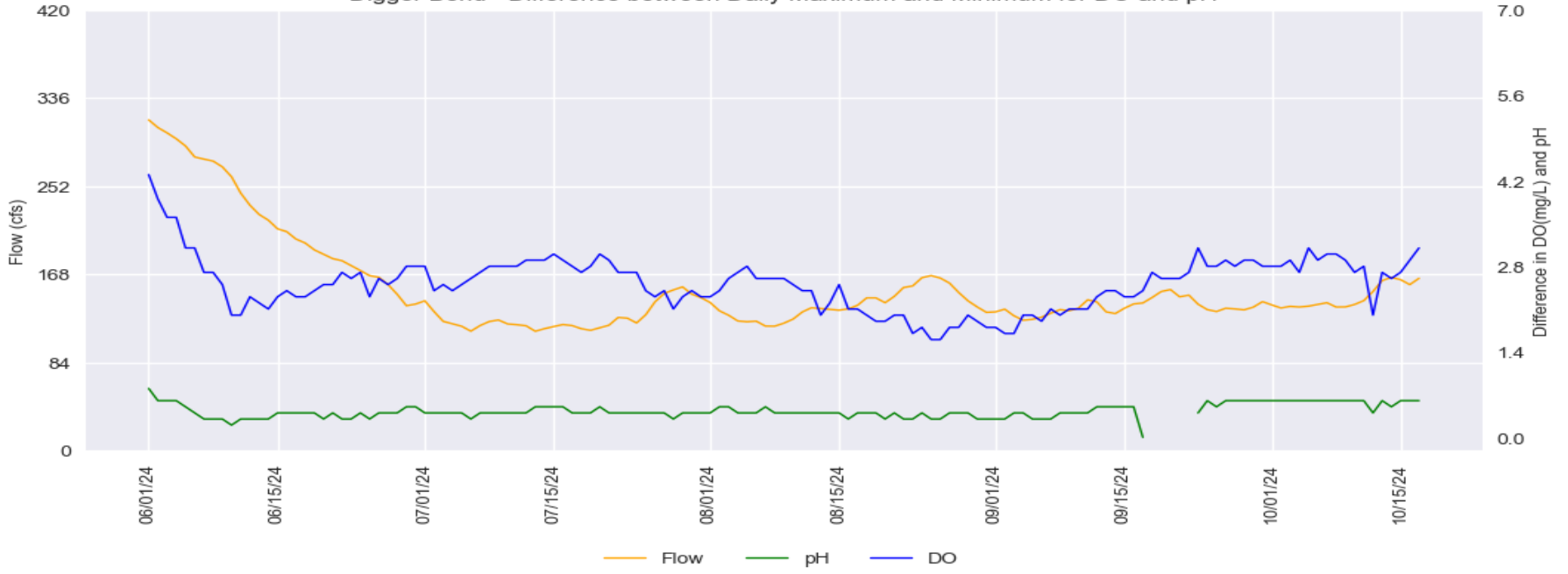
Provisional Data Subject to Revision

Digger Bend

Digger Bend Water Quality Trend

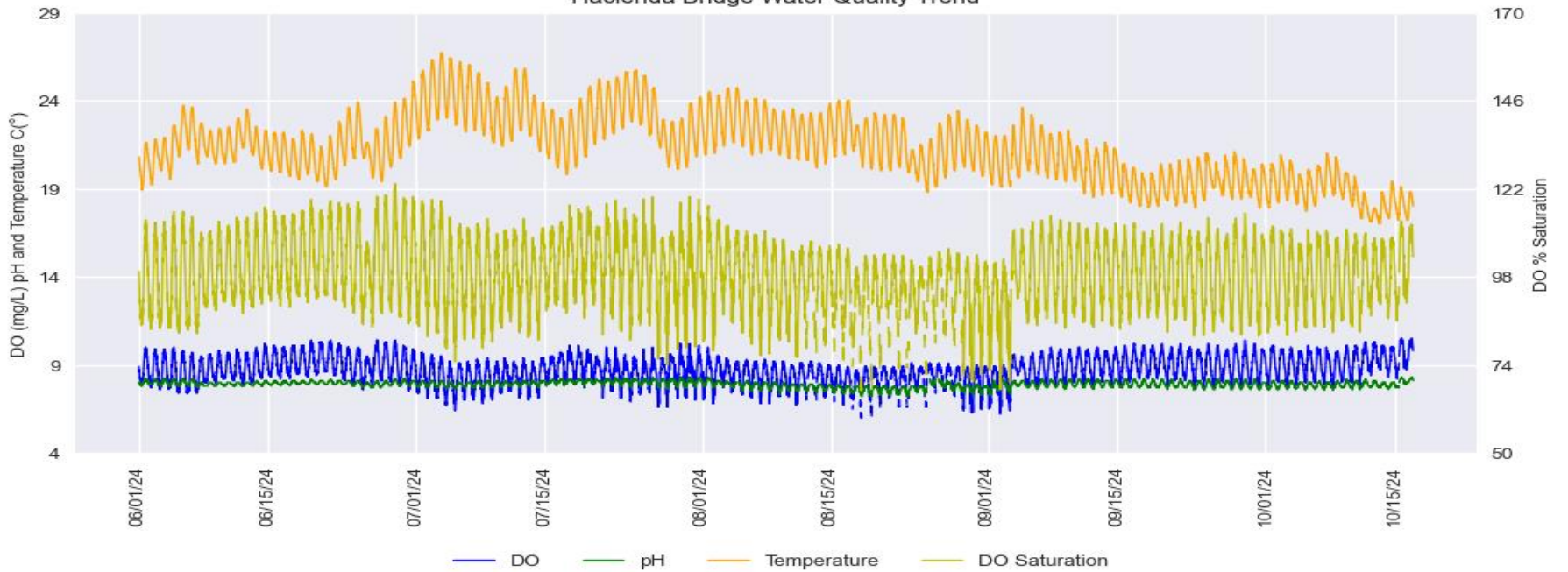


Digger Bend - Difference between Daily Maximum and Minimum for DO and pH

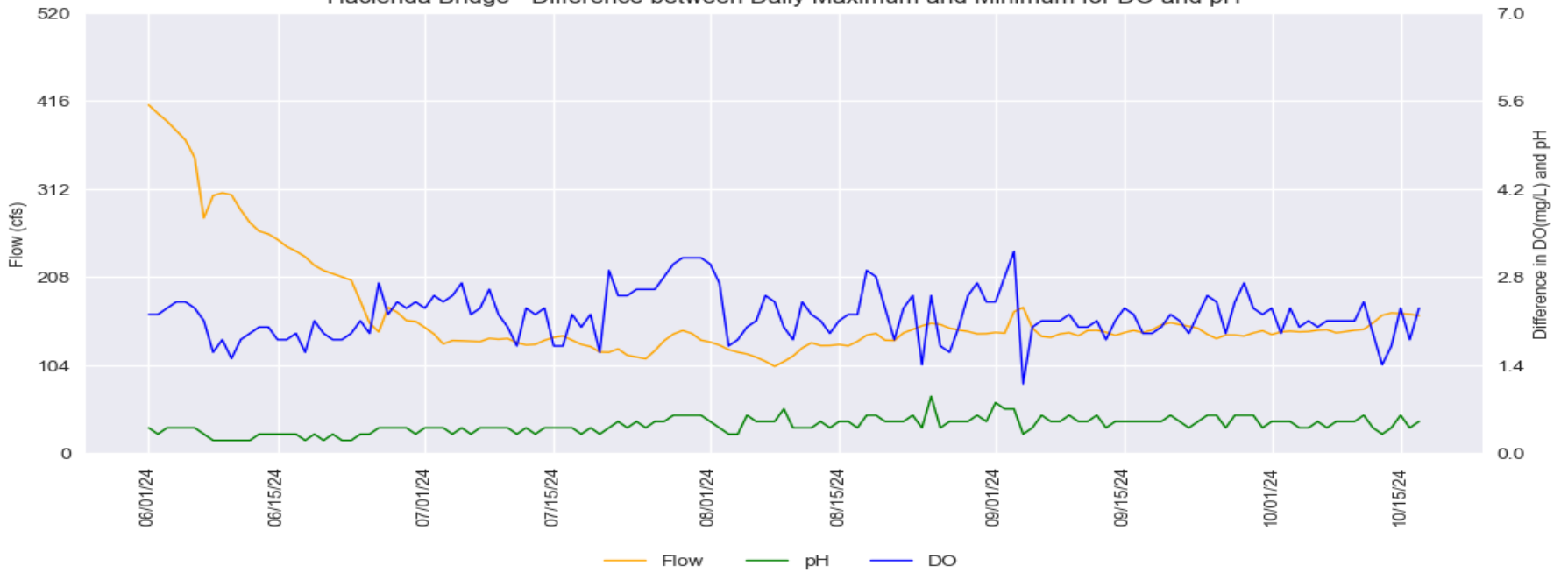


Hacienda Bridge

Hacienda Bridge Water Quality Trend



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



Russian River Water Quality June 24, 2024 – October 17, 2024

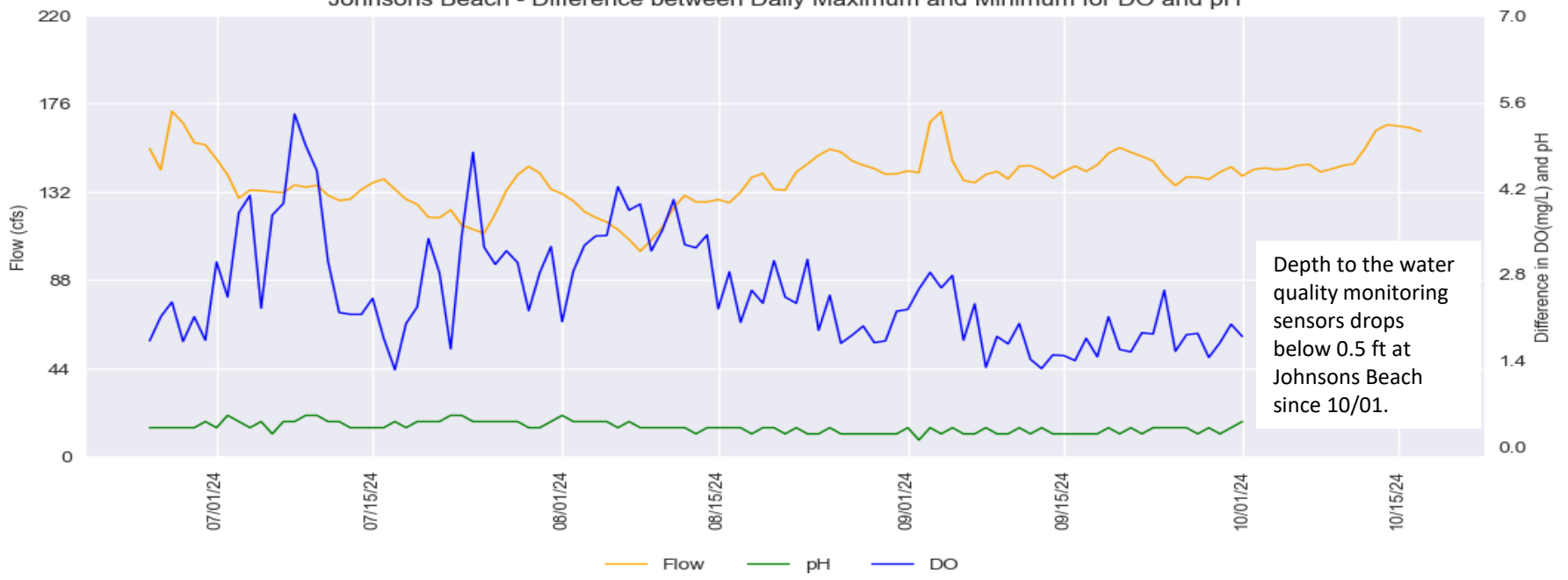
Provisional Data Subject to Revision

Johnsons Beach

Johnsons Beach Water Quality Trend

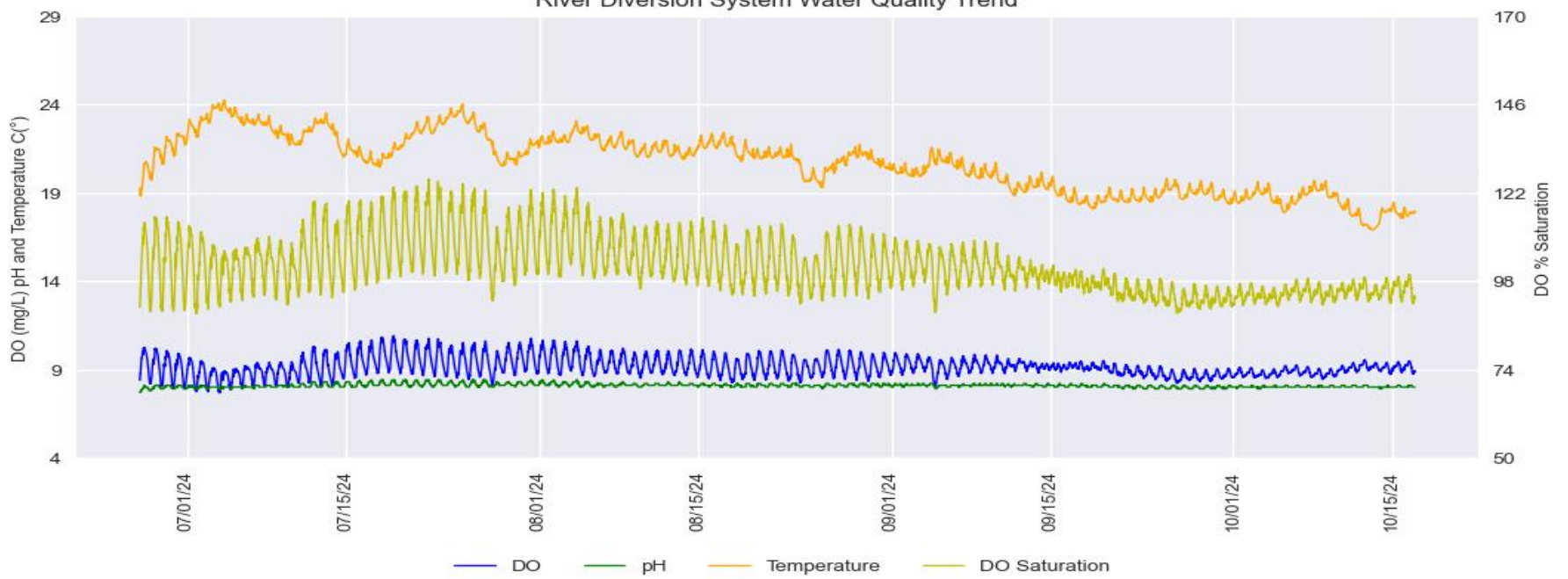


Johnsons Beach - Difference between Daily Maximum and Minimum for DO and pH

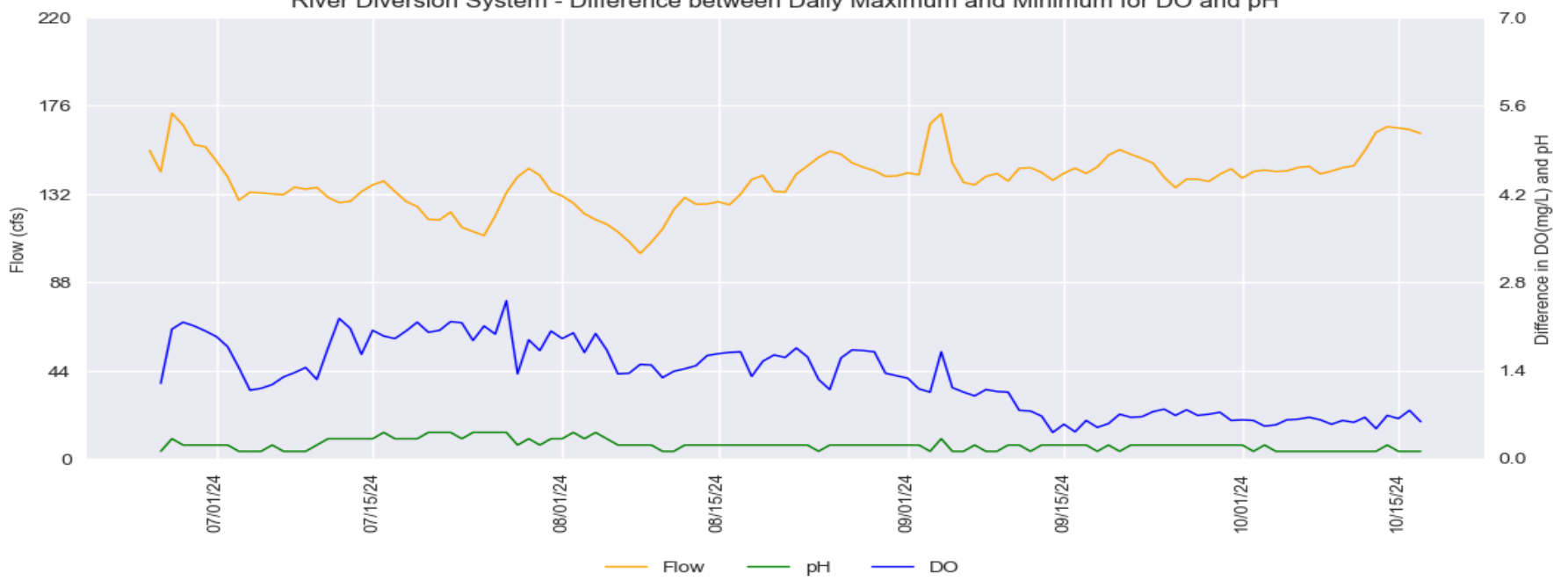


River Diversion System at Mirabel

River Diversion System Water Quality Trend



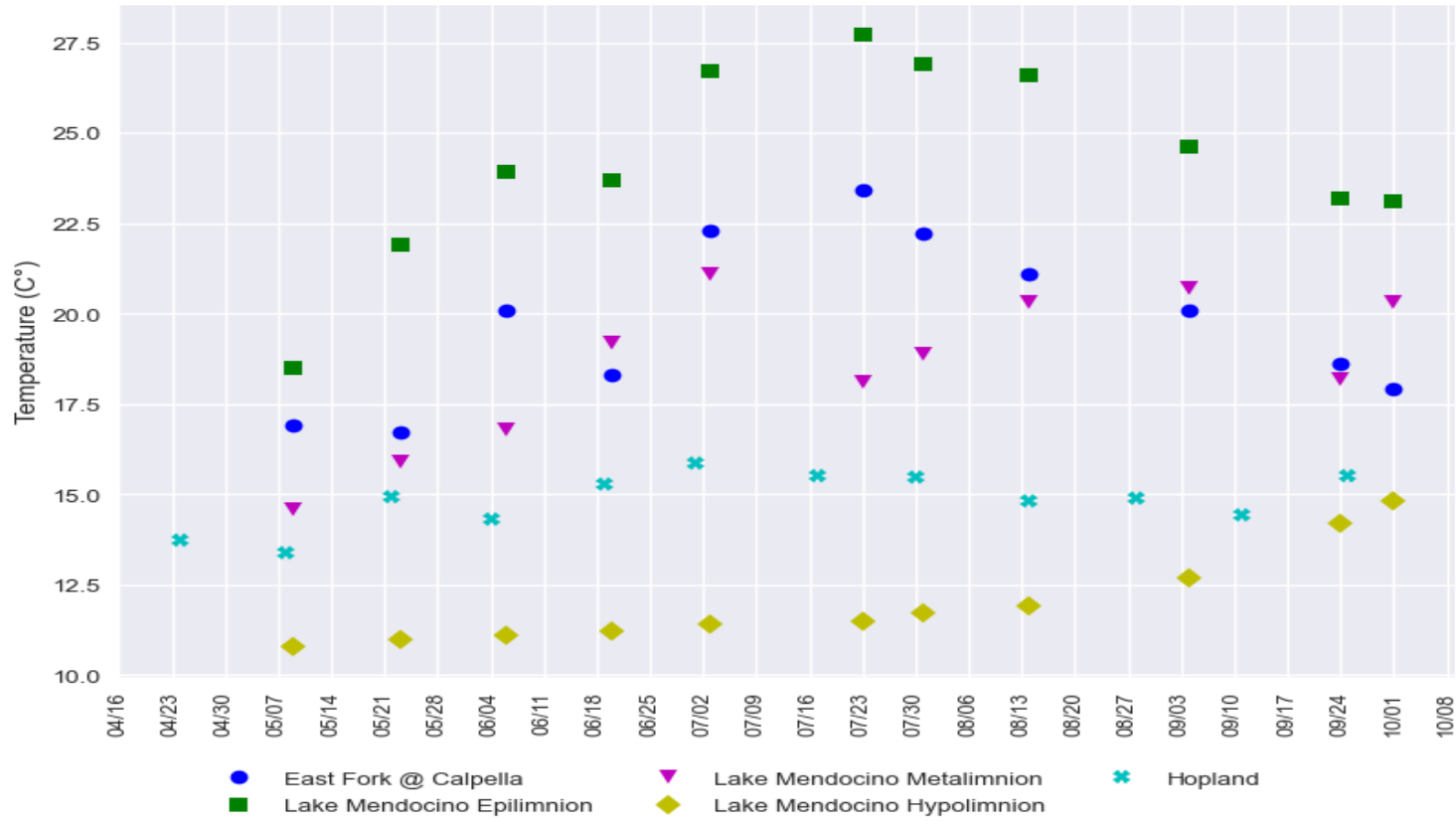
River Diversion System - Difference between Daily Maximum and Minimum for DO and pH



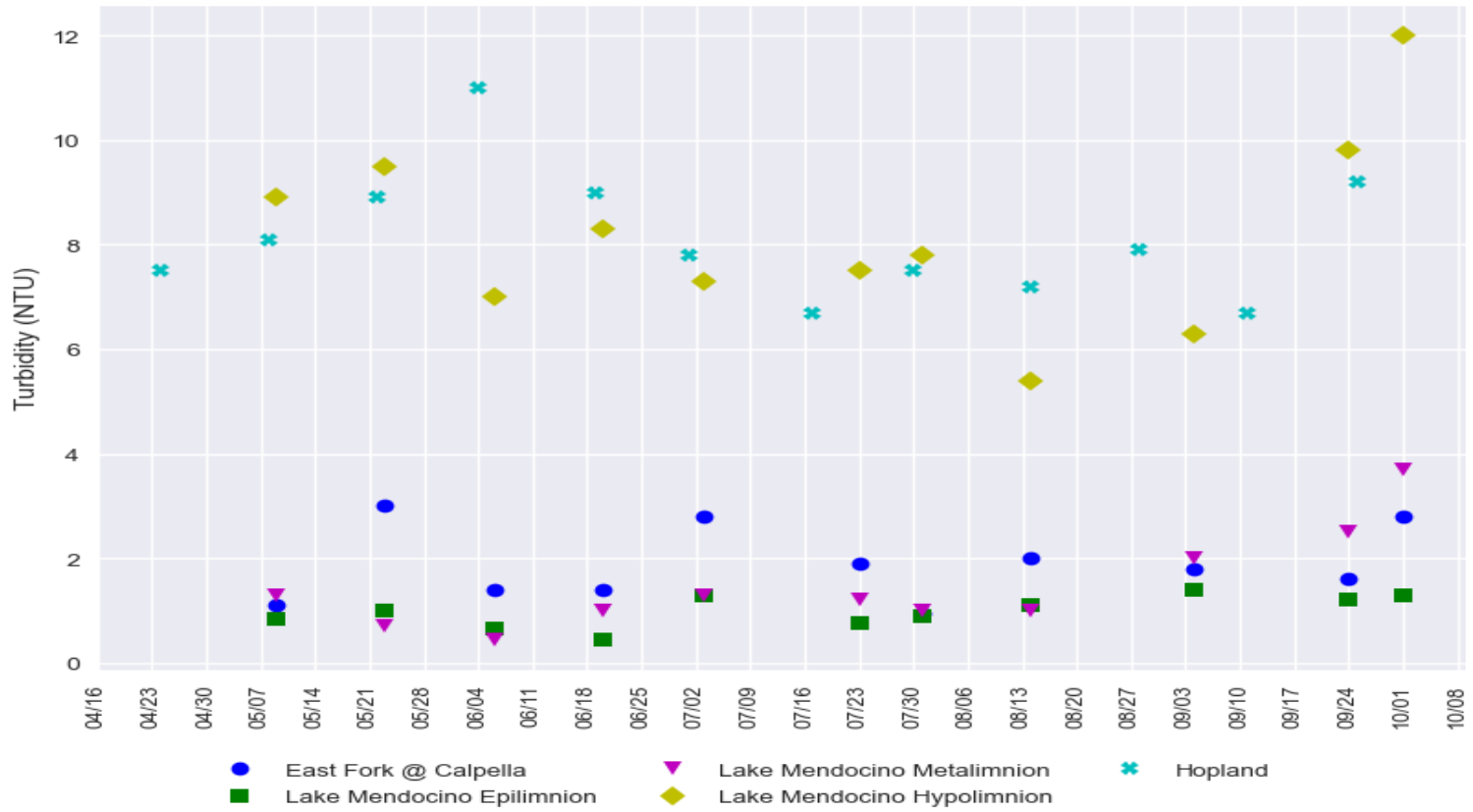
Russian River Water Quality Grab Samples

Provisional Data Subject to Revision

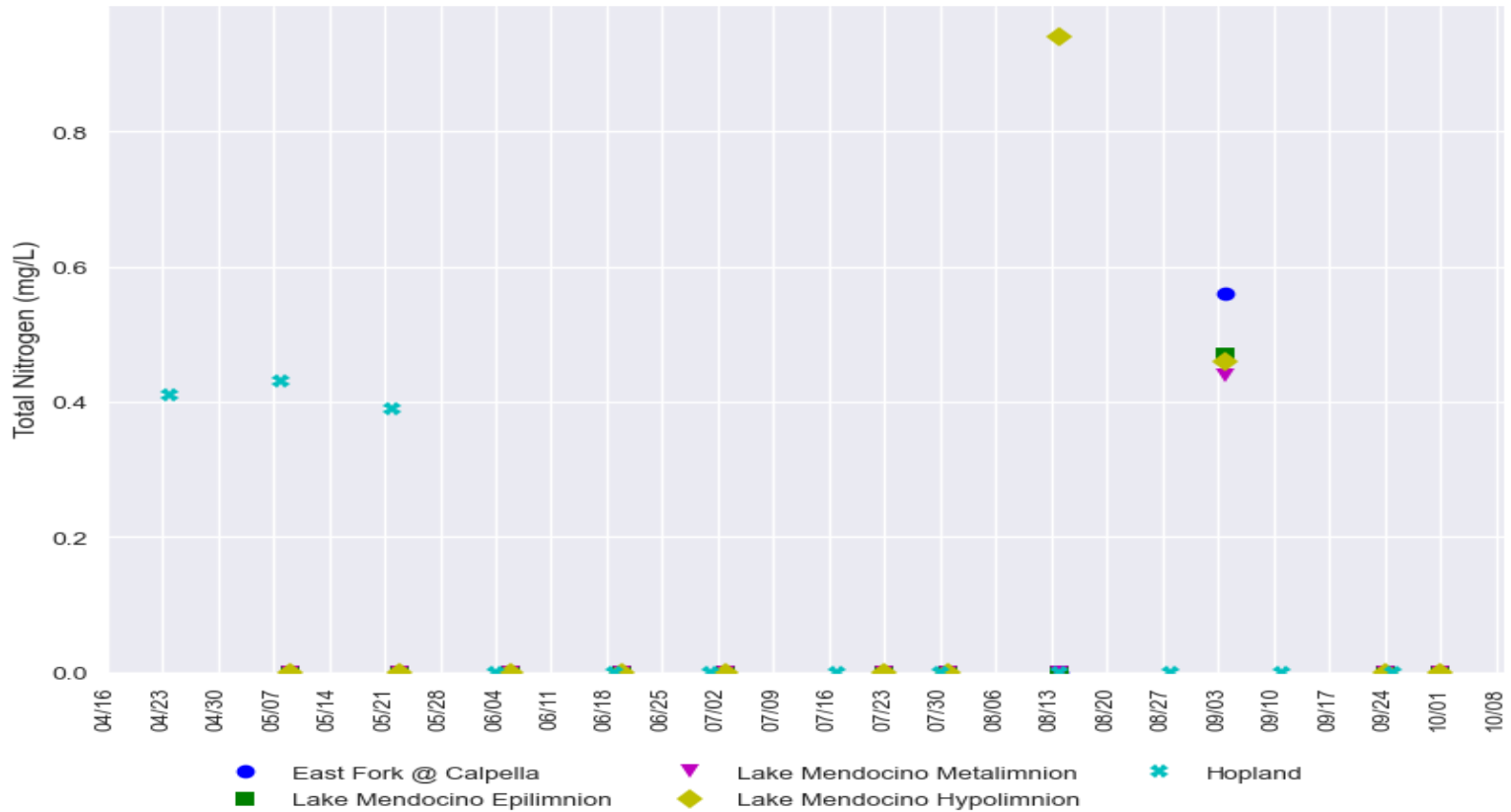
Temperature - East Fork at Calpella, Lake Mendocino, and Hopland



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

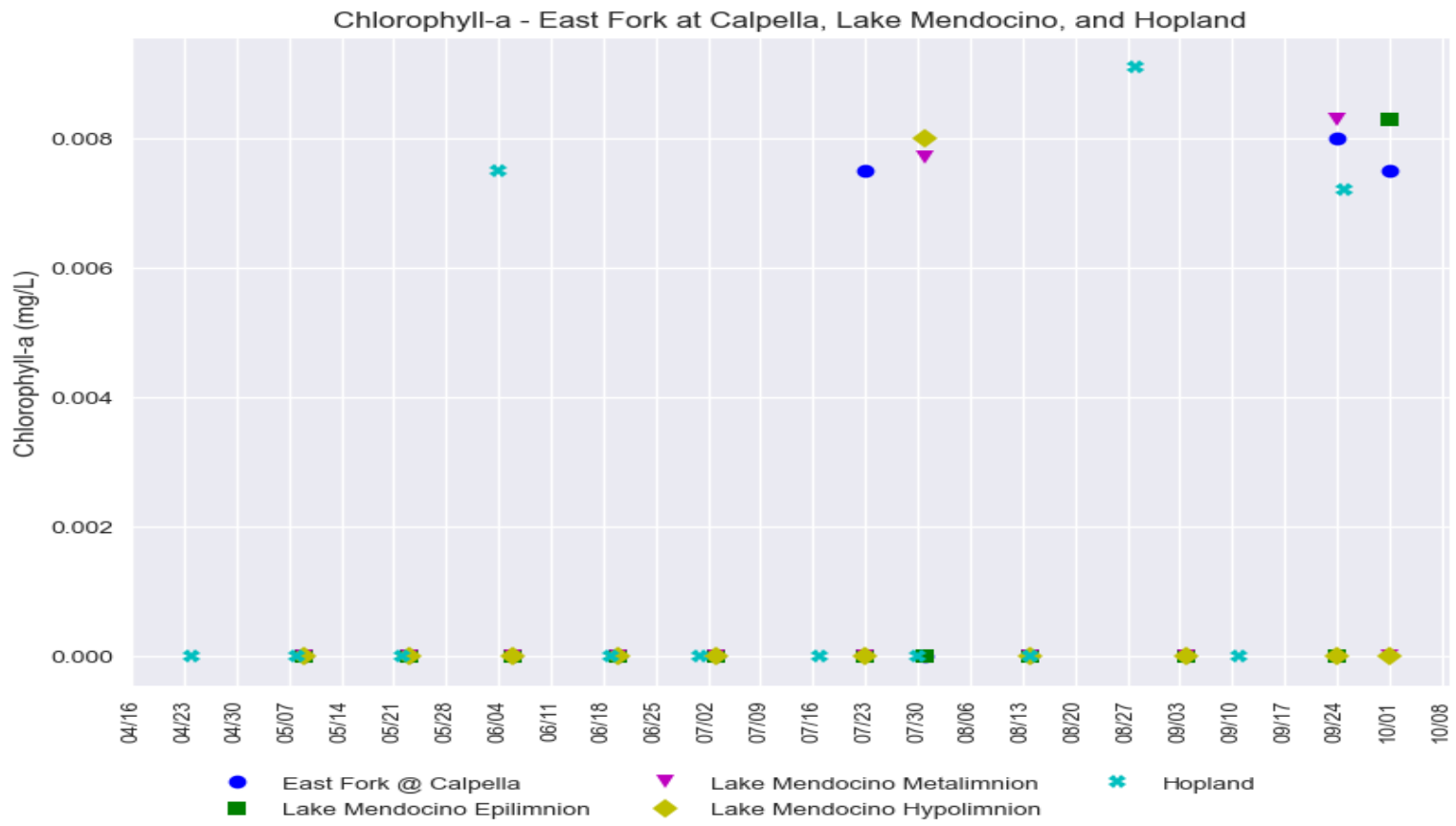
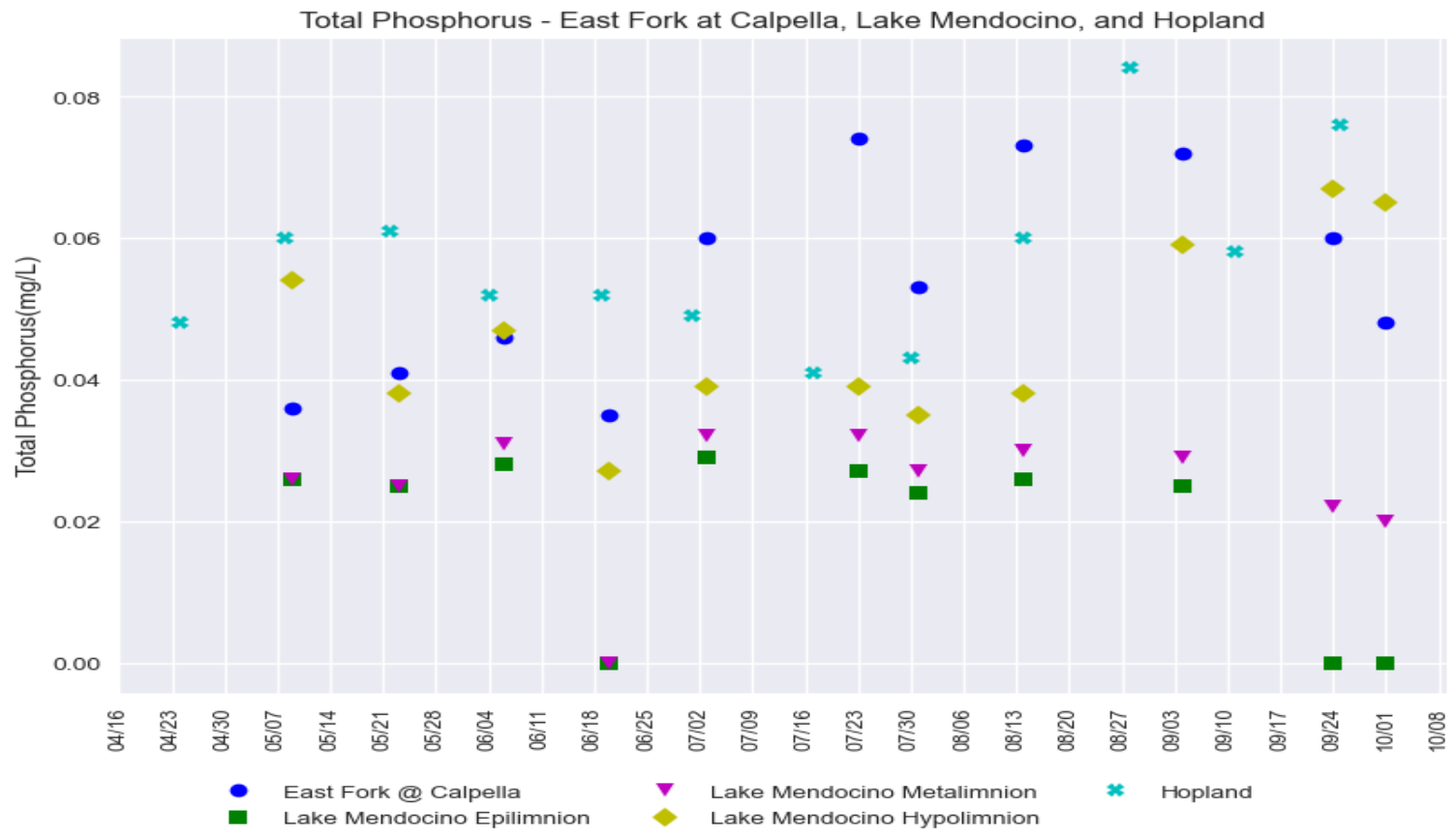


Total Nitrogen (mg/L) - East Fork at Calpella, Lake Mendocino, and Hopland



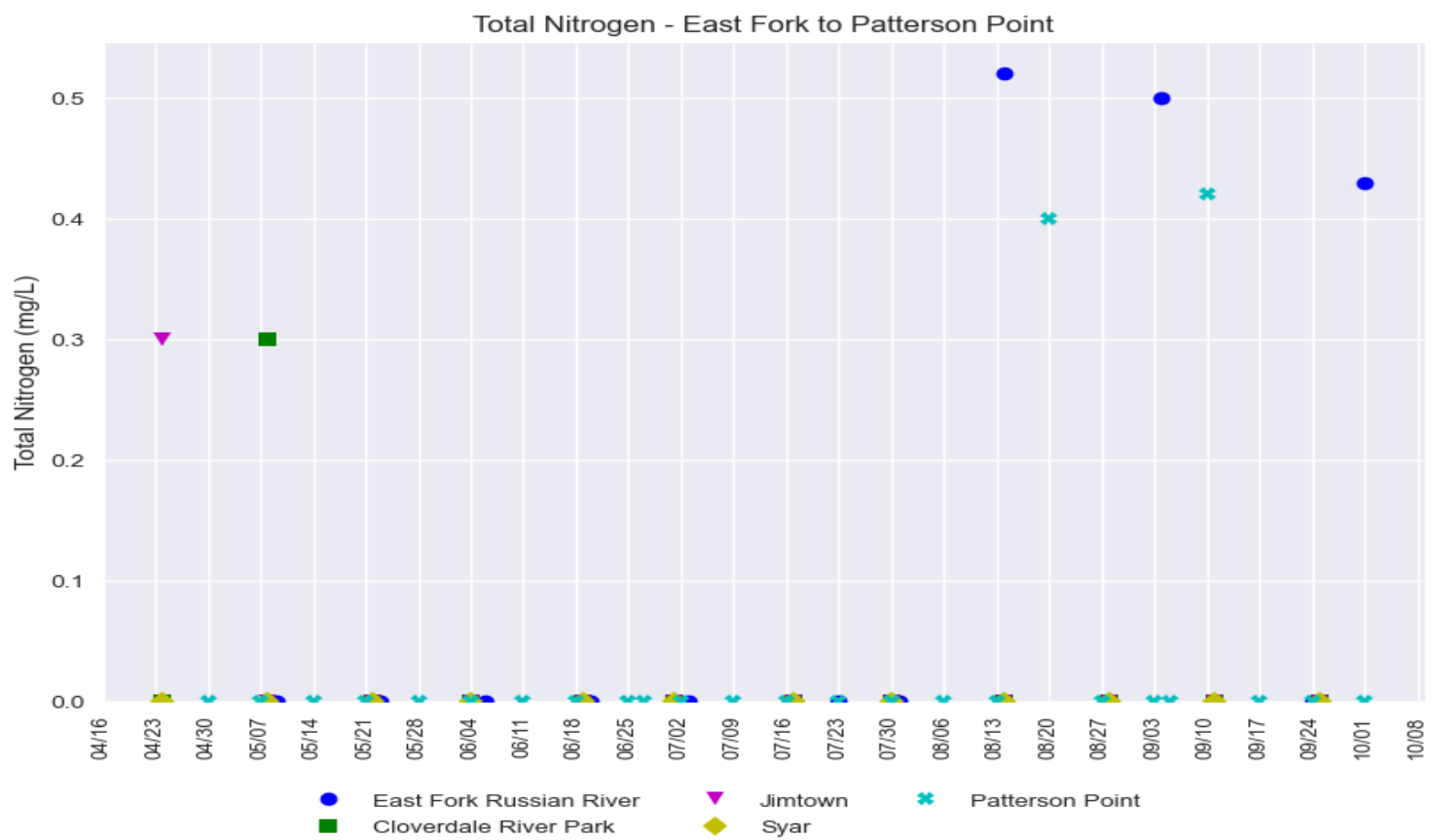
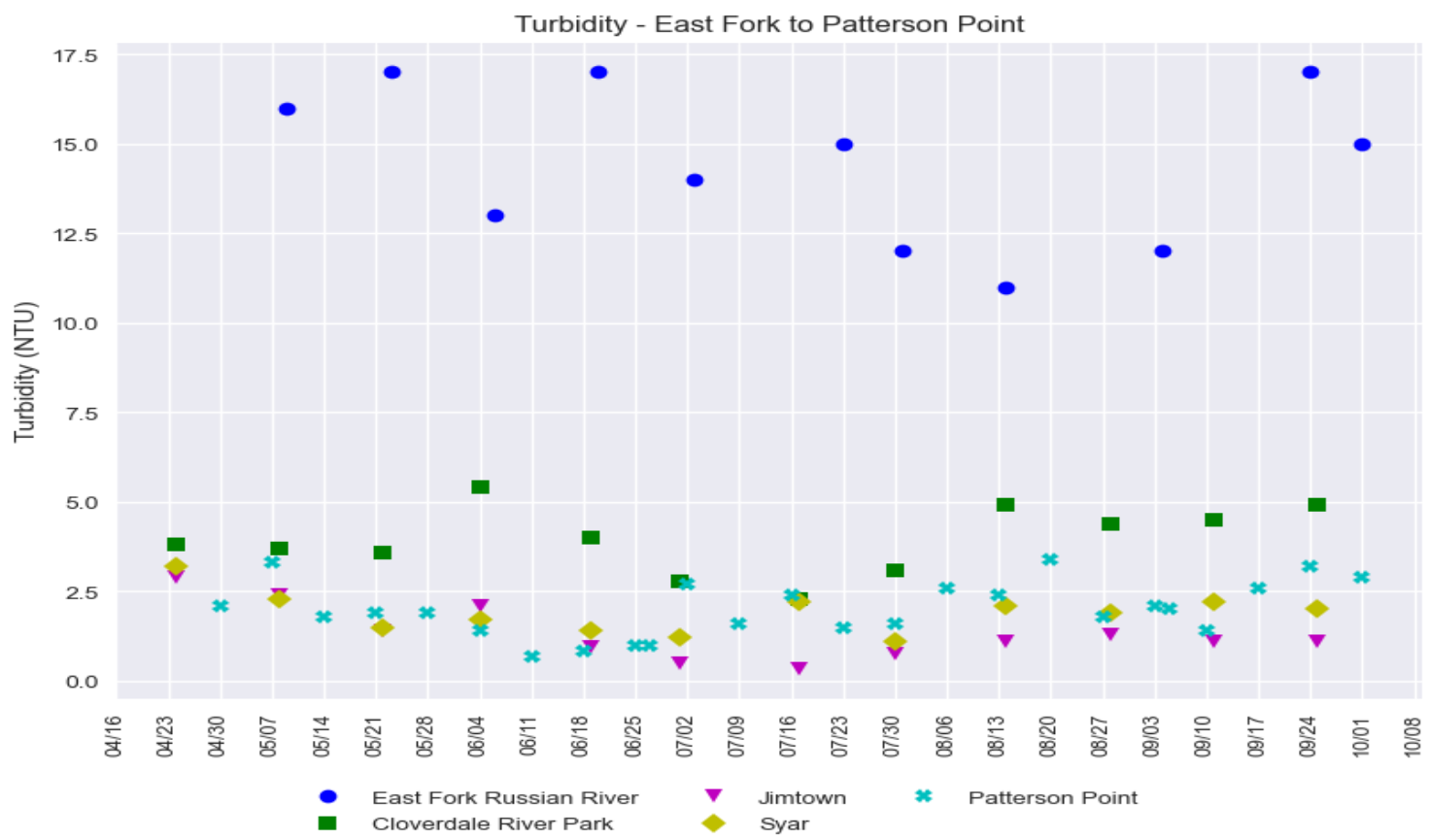
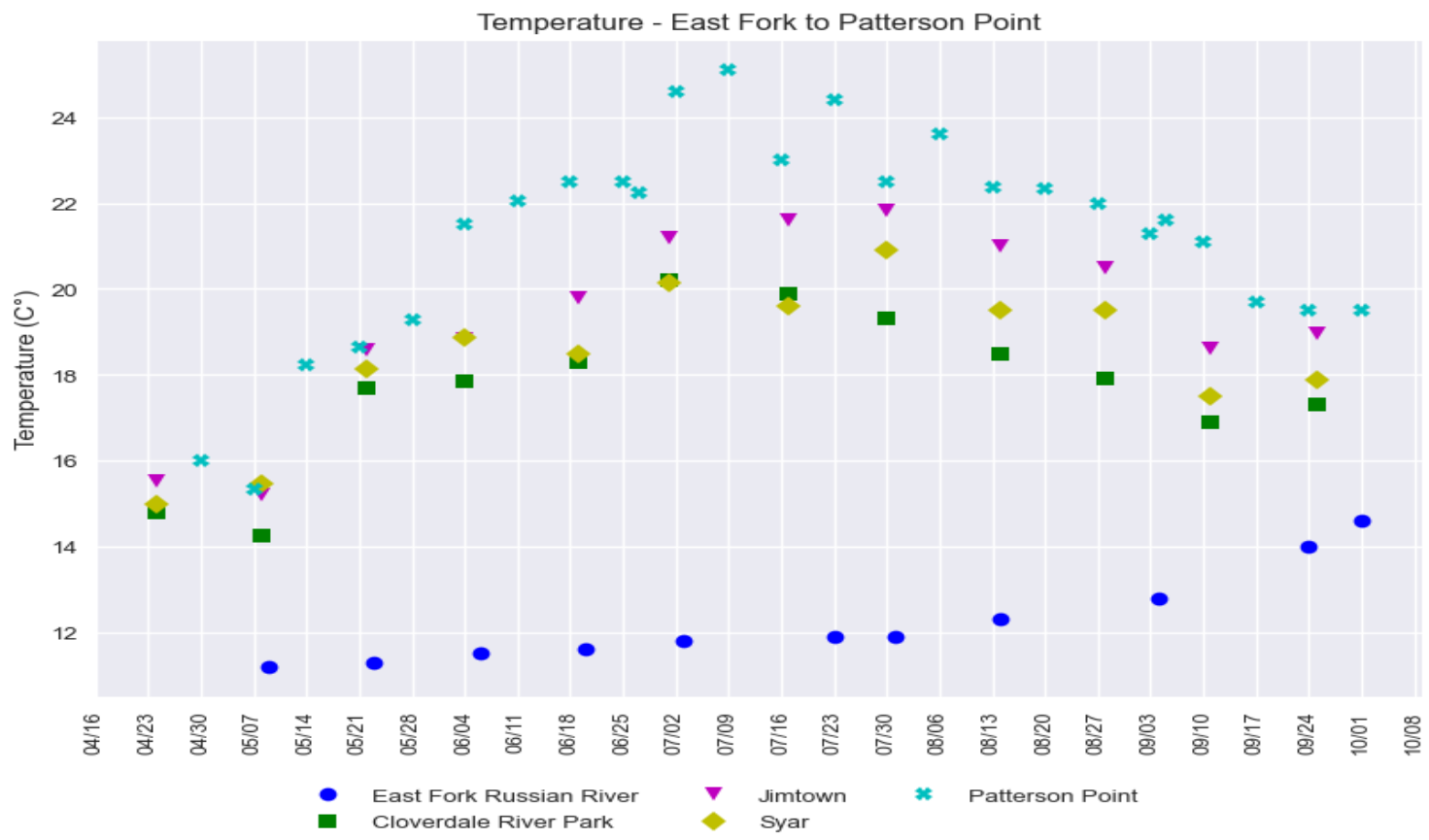
Russian River Water Quality Grab Samples

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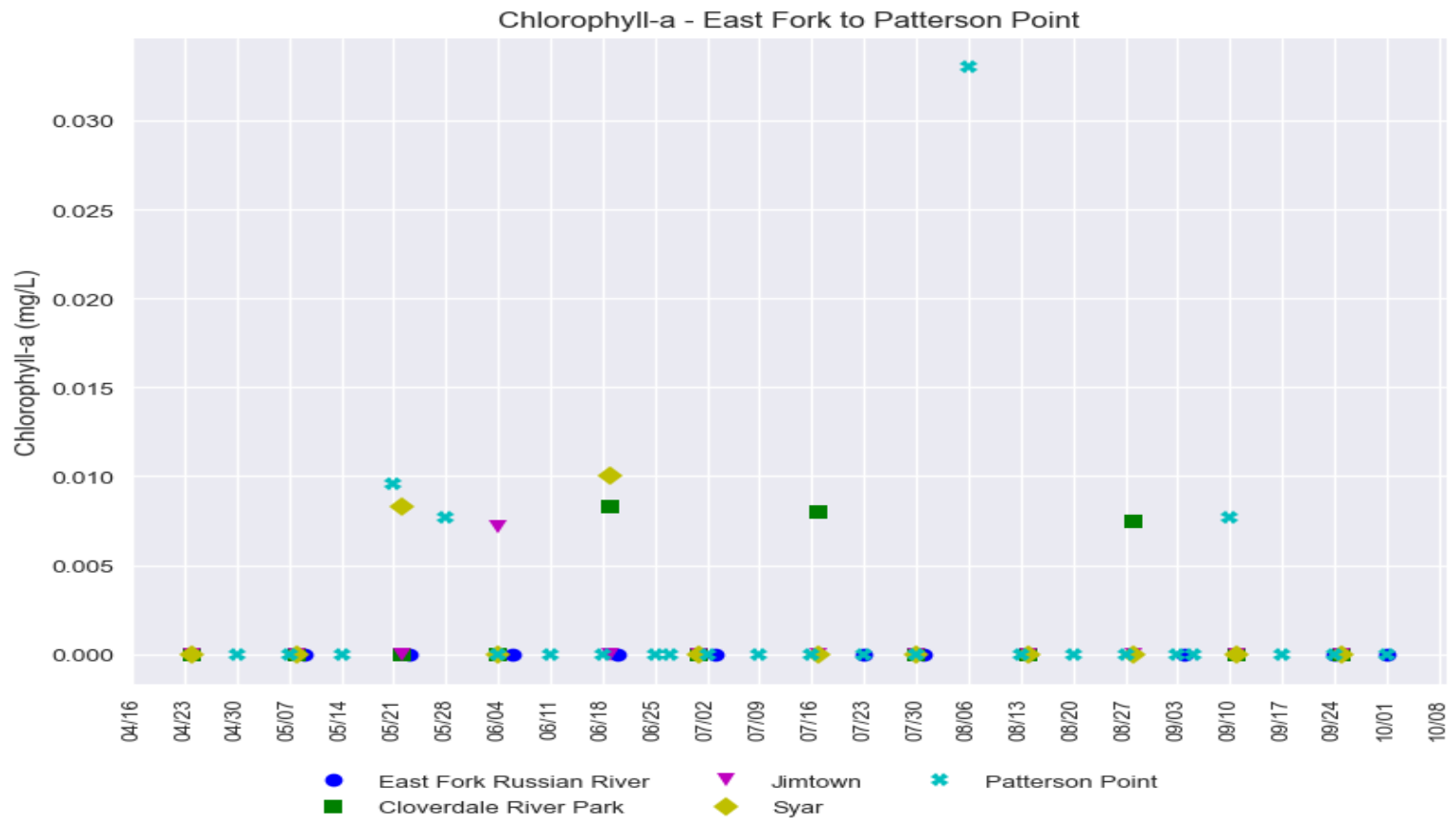
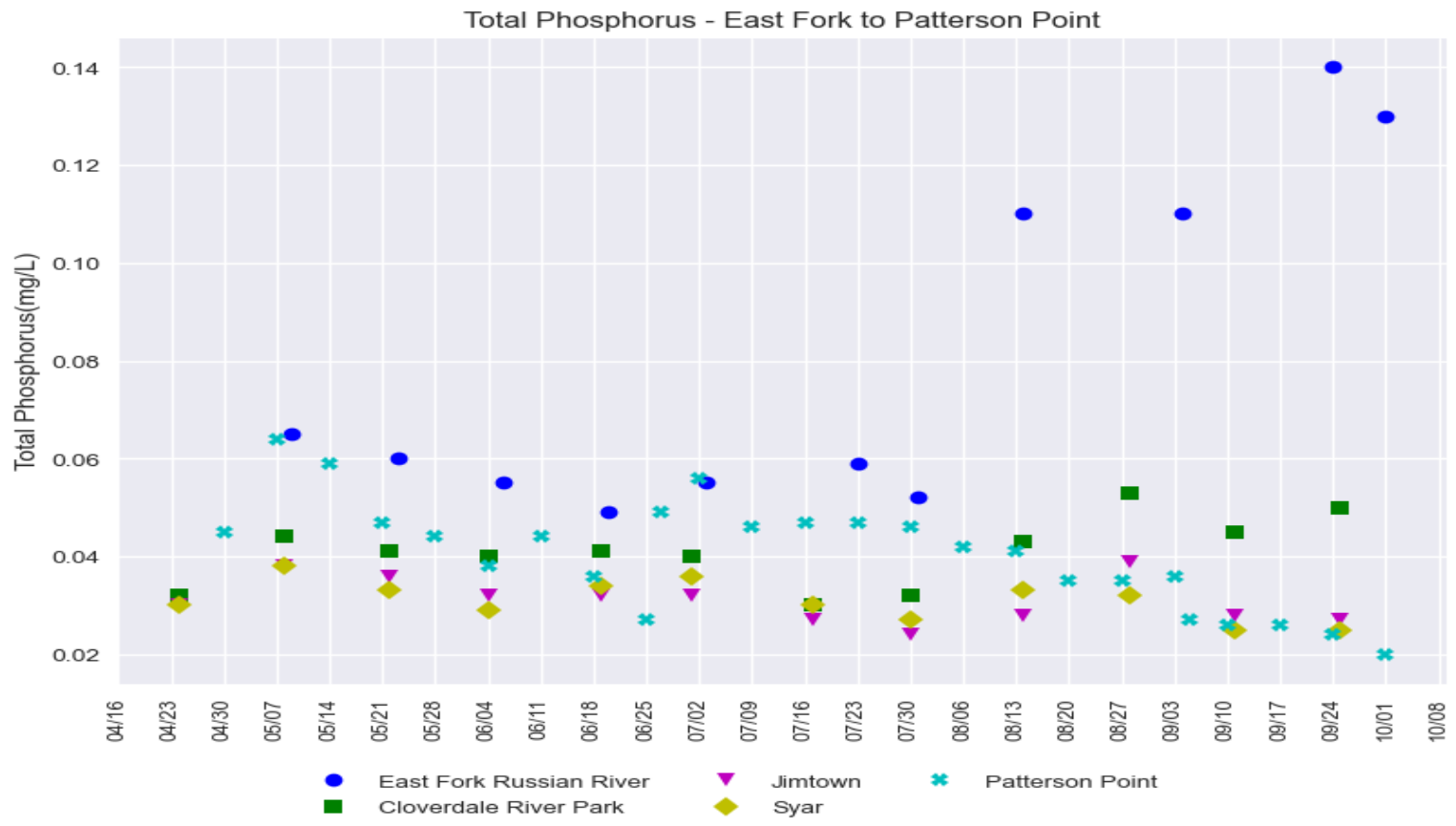
Russian River Water Quality Grab Samples

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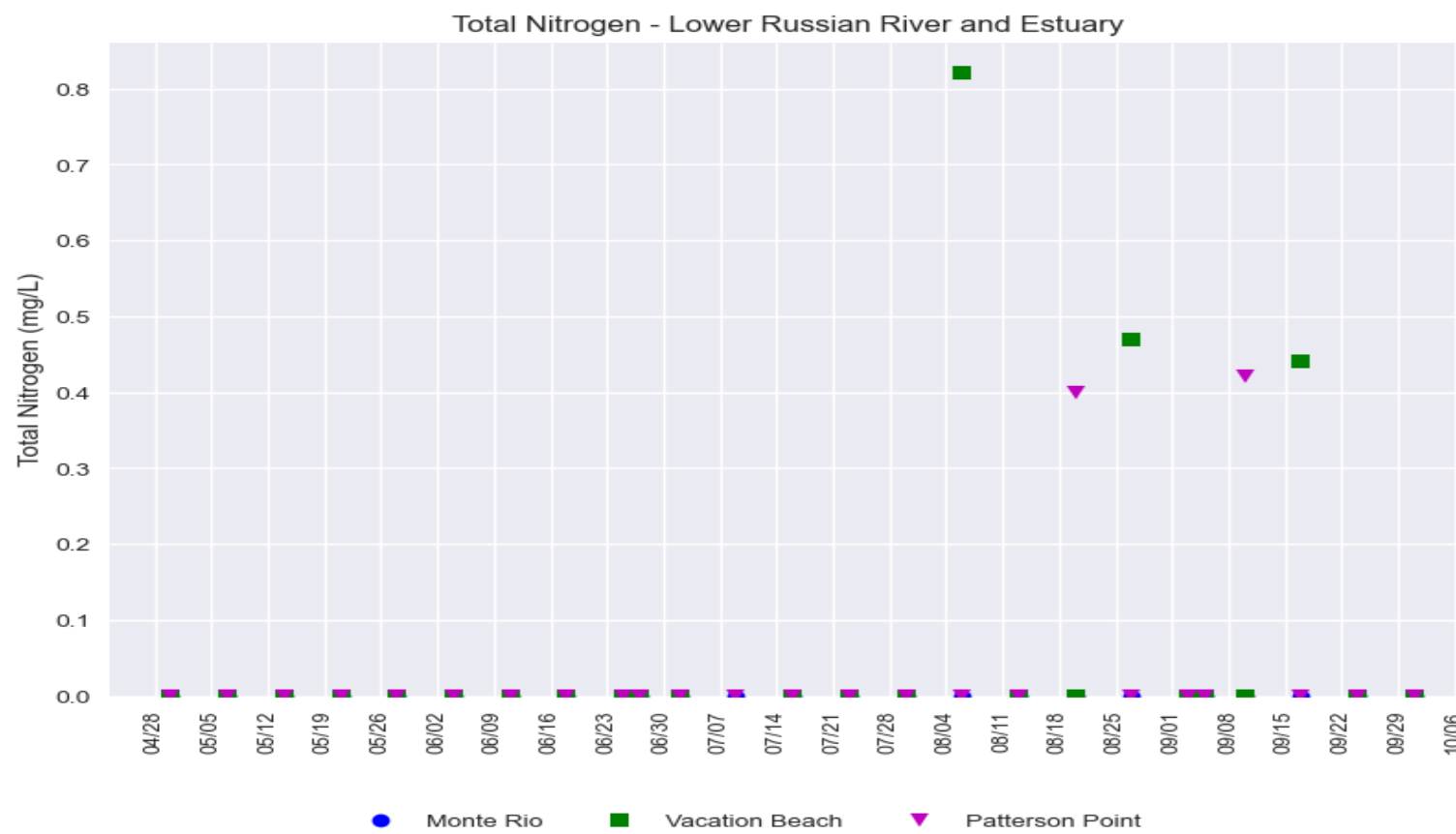
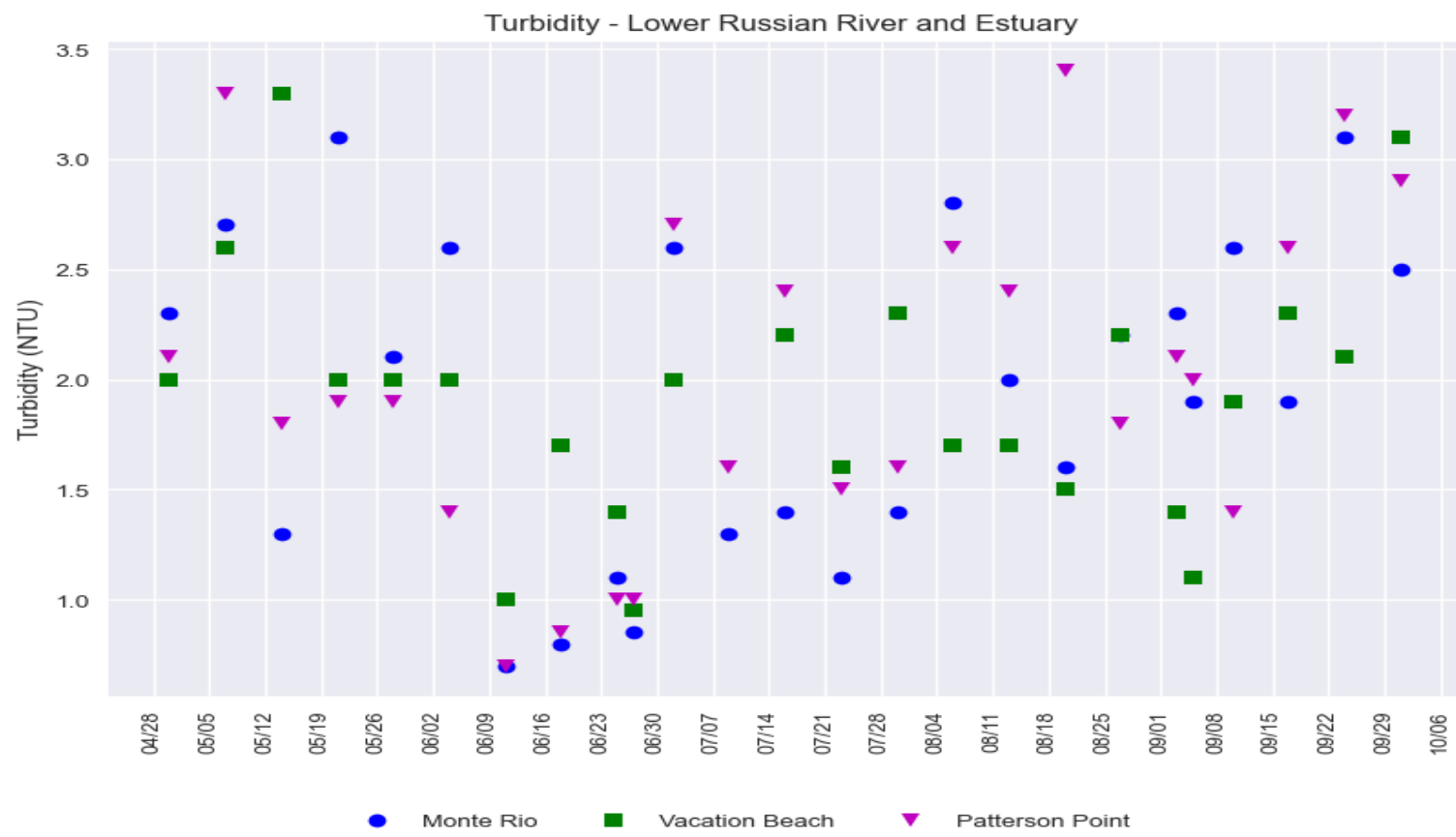
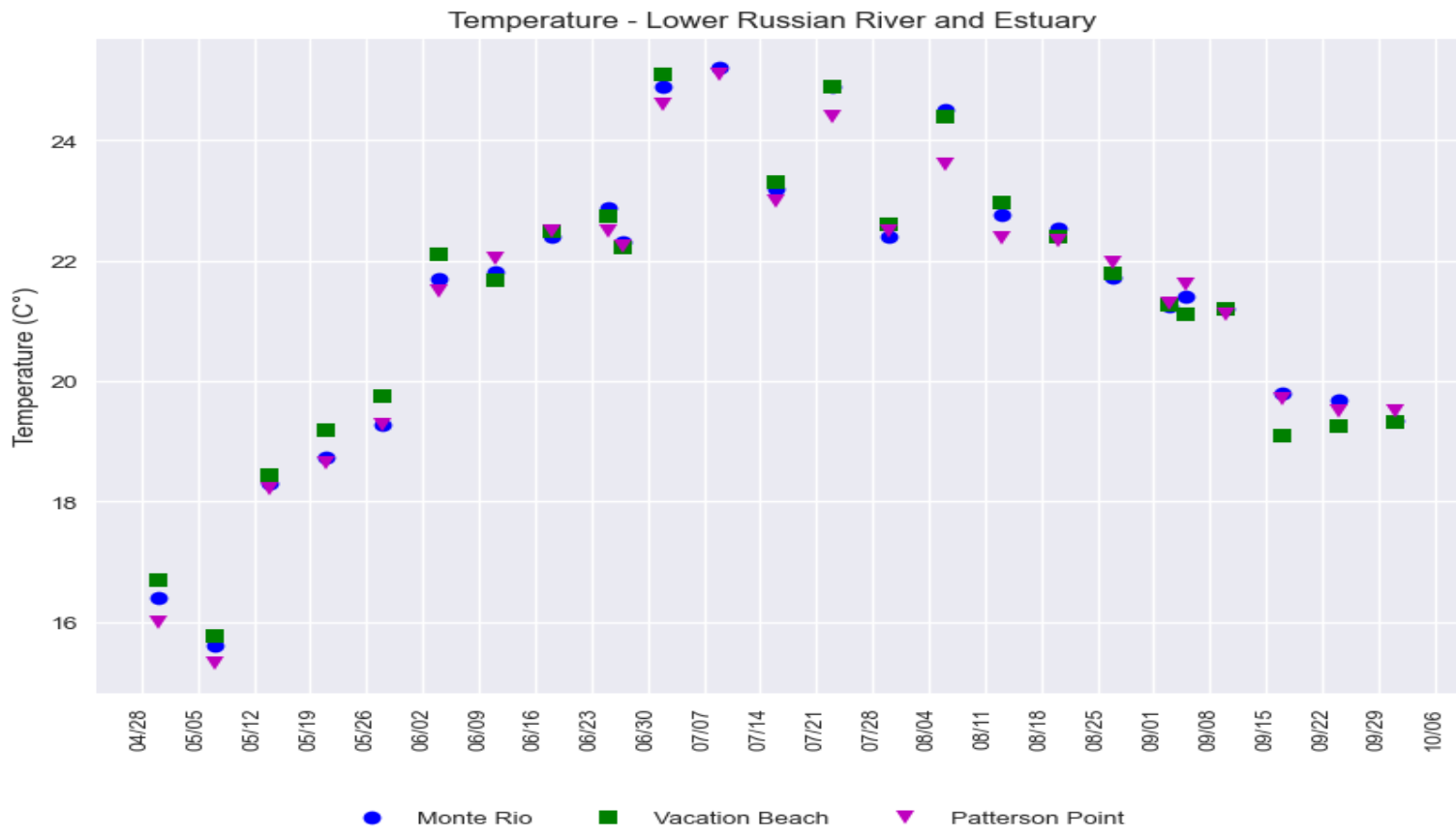
Russian River Water Quality Grab Samples

Provisional Data Subject to Revision



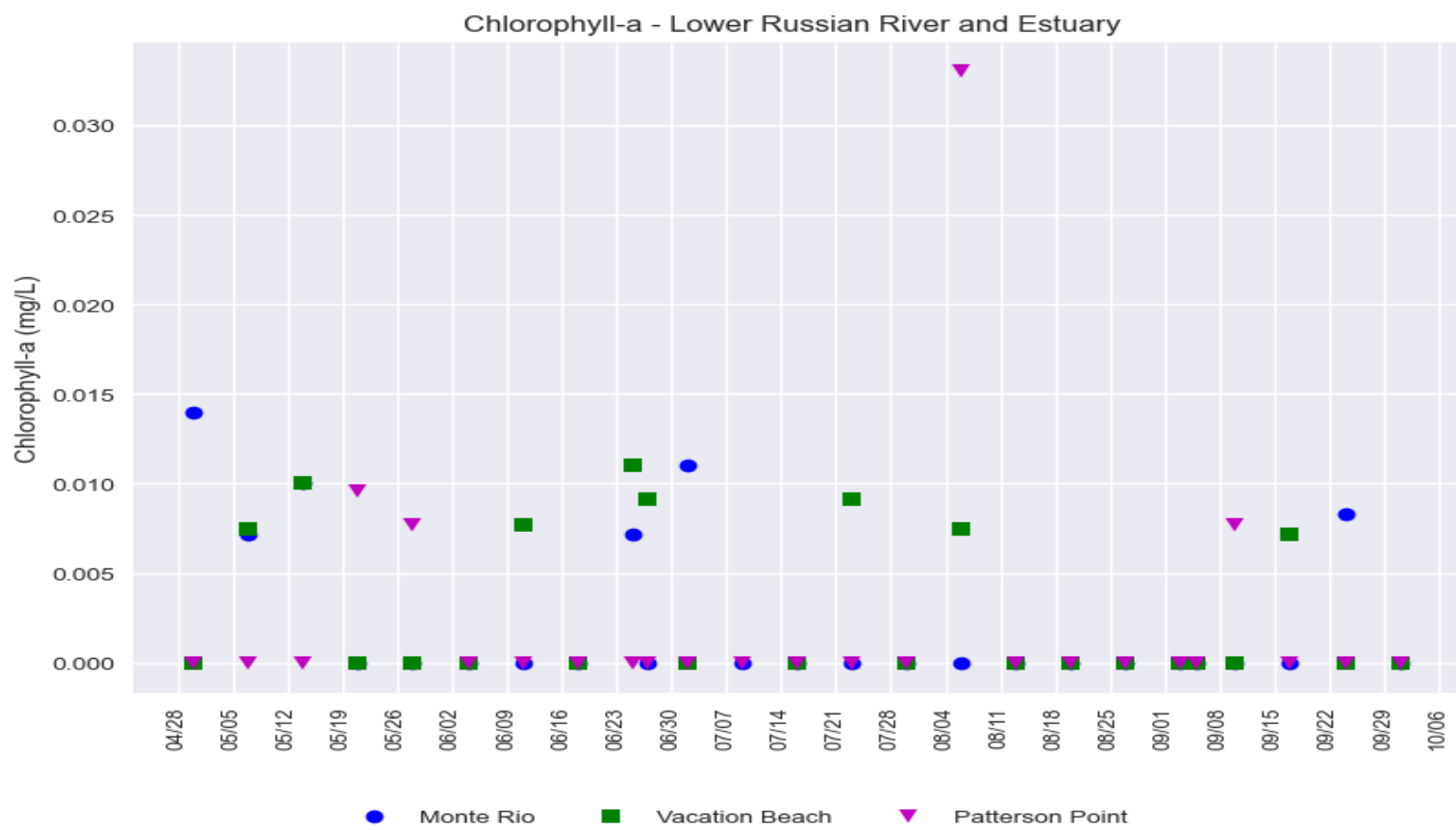
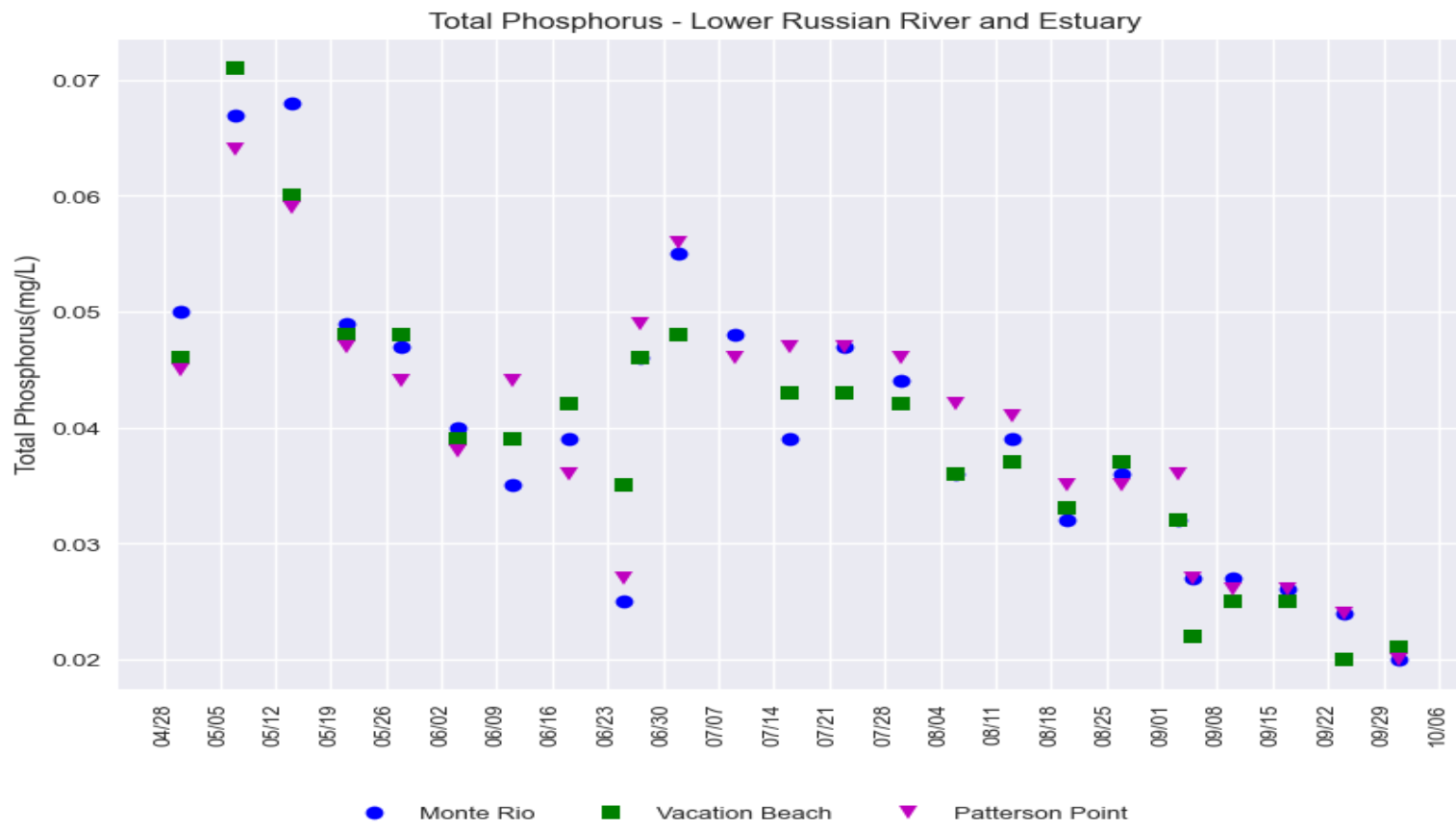
Russian River Water Quality Grab Samples

Provisional Data Subject to Revision



Russian River Water Quality Grab Samples

Provisional Data Subject to Revision



Russian River Water Quality Grab Samples (August 20 - October 1, 2024) Provisional Data Subject to Revision

Russian River Estuary Standard Bacterial Indicators

Parameter***	CDPH Guidance*	Date	Patterson Point	Monte Rio	Vacation Beach
Total Coliforms MPN/100 mL	10,000	8/20/2024	2382**	1153**	1187**
		8/27/2024	1299.7	1986.3	1732.9
		9/3/2024	2419.6	2419.6	980.9
		9/5/2024	1986.3	1732.9	1119.9
		9/10/2024	324.1	1986.3	1119.9
		9/17/2024	2603**	1236**	1500**
		9/24/2024	816.4	648.8	980.4
		10/1/2024	1413.6	1413.6	1203.3
E. Coli MPN/100 mL	235	8/20/2024	52	13.4	8.6
		8/27/2024	26.2	8.6	19.5
		9/3/2024	28.5	12.2	12.1
		9/5/2024	14.8	18.7	14.4
		9/10/2024	42.6	13.4	7.4
		9/17/2024	41.4	1	12
		9/24/2024	14.8	8.6	45
		10/1/2024	27.2	40.8	22.1
Enterococcus MPN/100 mL****	61	8/20/2024	51.2	8.6	18.9
		8/27/2024	55.7	8.6	12.2
		9/3/2024	21.1	8.6	2
		9/5/2024	12.2	14.5	6.3
		9/10/2024	15.8	2	1
		9/17/2024	47.1	5.1	9.8
		9/24/2024	28.2	25.6	4.1
		10/1/2024	44.1	55.6	16

*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

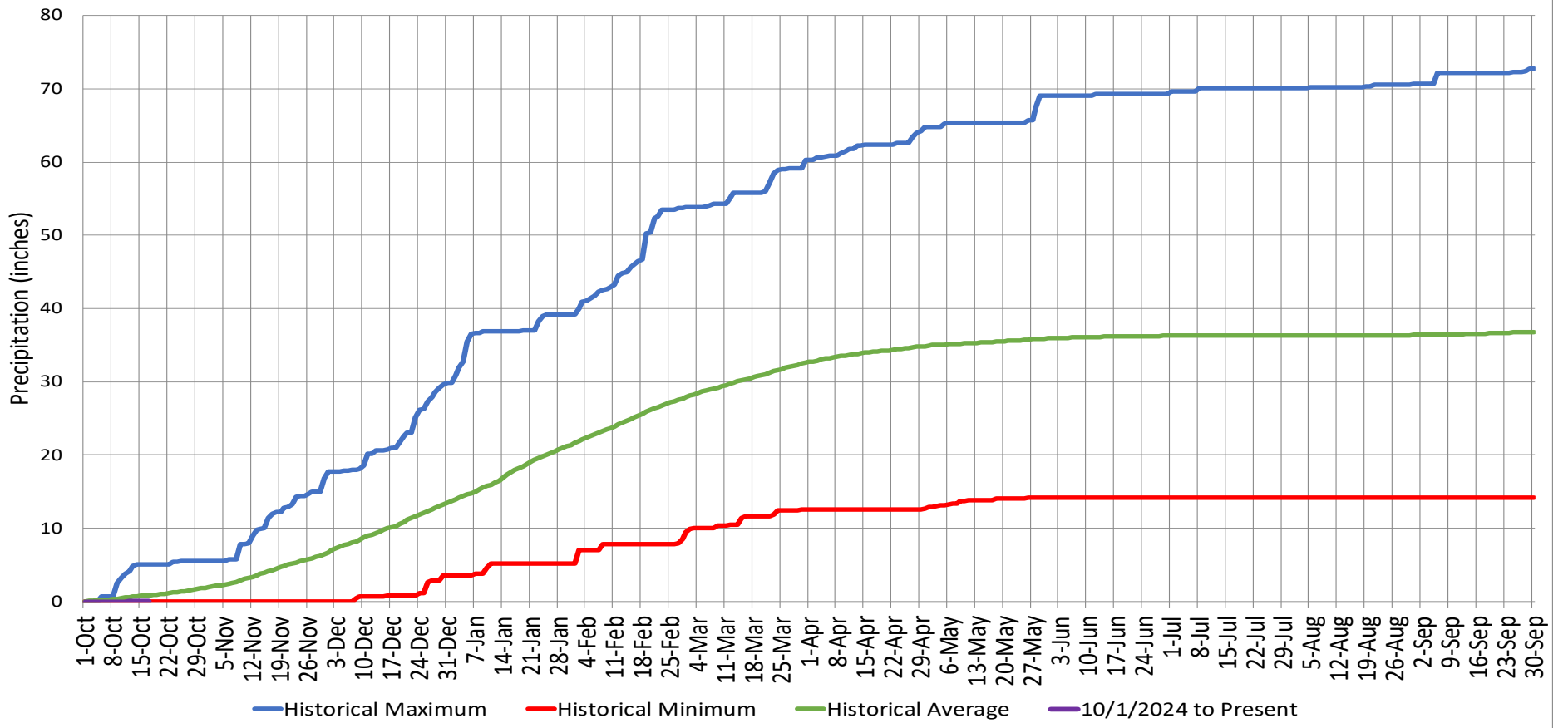
****We continue to collect enterococcus data, however it is not a reliable fecal indicator bacteria in freshwater

Precipitation

Ukiah Municipal Airport (WBAN: 72590523275 (KUKI))

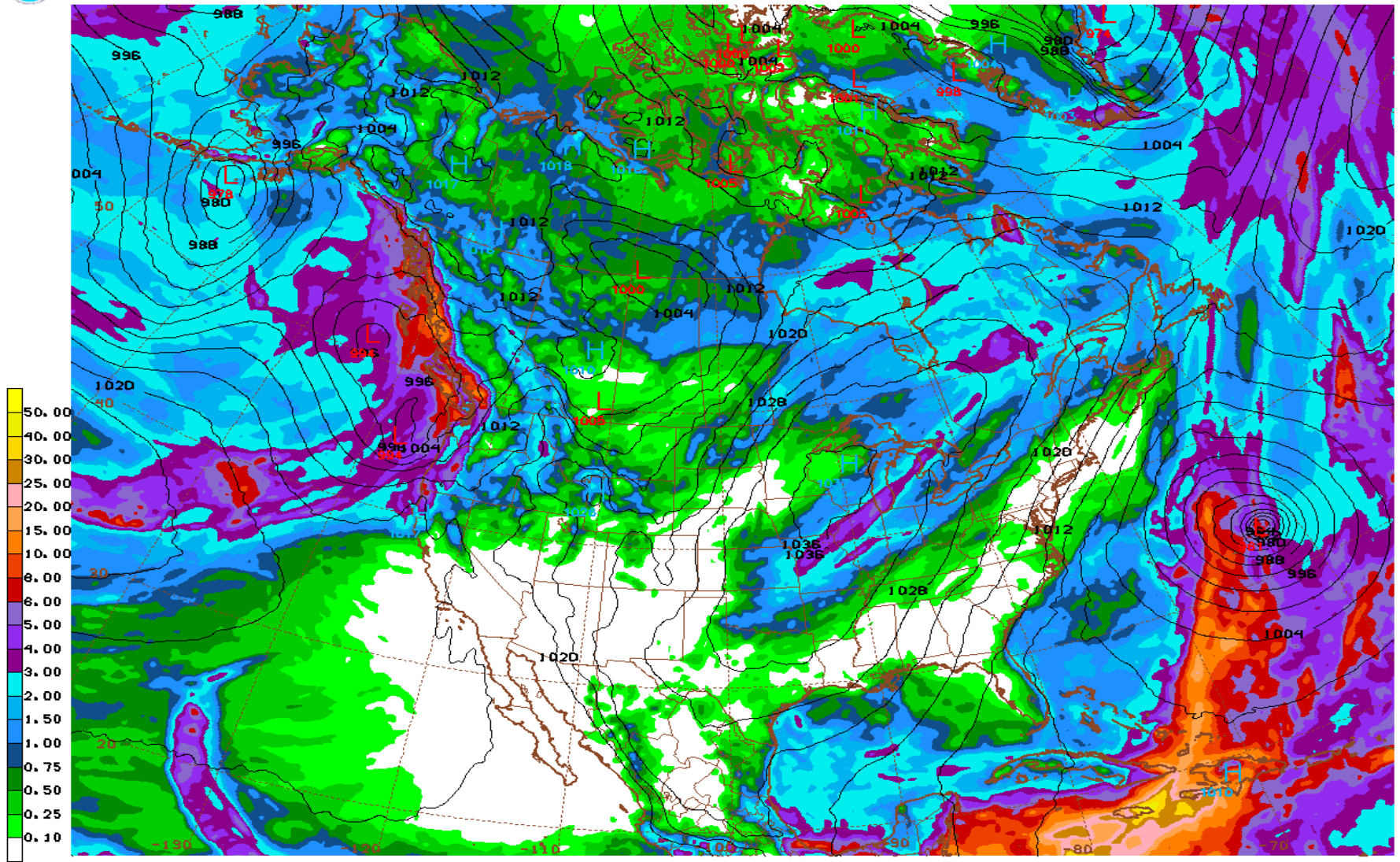
Date Range	Cumulative (inches)
Oct 1, 2024 - Oct 17, 2024	0.08
Last 7 Days*	0.08

Cumulative Precipitation Comparison of Current Year versus Historic Record



Global Forecast System Model 16-day Cumulative Precipitation Forecast

6FS 10/21/24 12UTC 384HR FCST VALID WED 11/06/24 12UTC NOAA/NWS/NCEP



6FS WED 241106/1200V384 ENSL (4MB), 384HR ACCUMULATED PRECIP (IN)

Date Range
Oct 21 - Nov 6, 2024

Forecasted Cumulative (inches)
0.55

Russian River Fisheries Monitoring



Sonoma Water installed a video camera in the fish ladder on September 1, 2024. Video has been reviewed through October 19, 2024. To date, 402 adult Chinook and 4 adult Steelhead have been observed.

Sonoma Water conducted two lower river dive surveys on October 16 and October 21, 2024. Sites surveyed include Monte Rio, Sunset Beach, Hacienda, and Mom's Beach during the October 16 survey and Monte Rio, Hacienda, and Mom's Beach during the October 21 survey. No adult salmonids were observed during either survey. Sonoma Water used these lower river dive surveys to pilot methods for a dive survey of the lower river fish community that will focus on piscivorous fish. During the October 21 survey, 3 divers counted a total of 75 piscivorous fish over 300 mm in the 0.5 km section of river that included Mom's Beach and the Hacienda Hole.