



State Water Resources Control Board  
 Temporary Urgency Change Orders (6/6/2024)  
 Russian River Hydrologic & Water Quality Report  
 September 13, 2024 - September 19, 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).

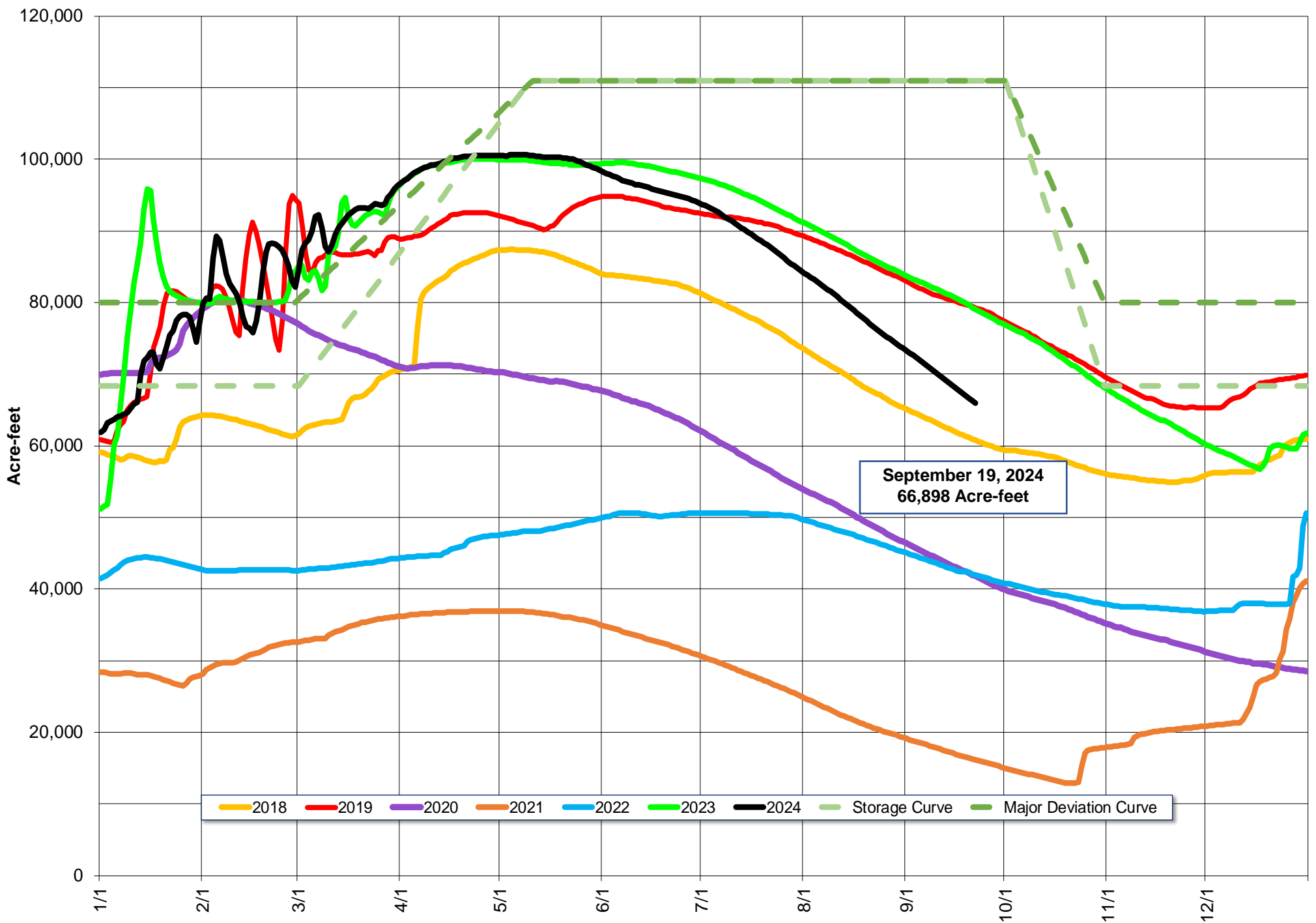
**Instream Flow Requirements as of September 19, 2024**

Basis	Reach	Instantaneous (cfs)	5-day Average (cfs)
Modified Per Order: Normal Condition	Upper Russian River	110	125
D-1610: Normal Condition	Dry Creek	80	-
Modified Per Order: Normal Condition	Lower Russian River	60	70

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**



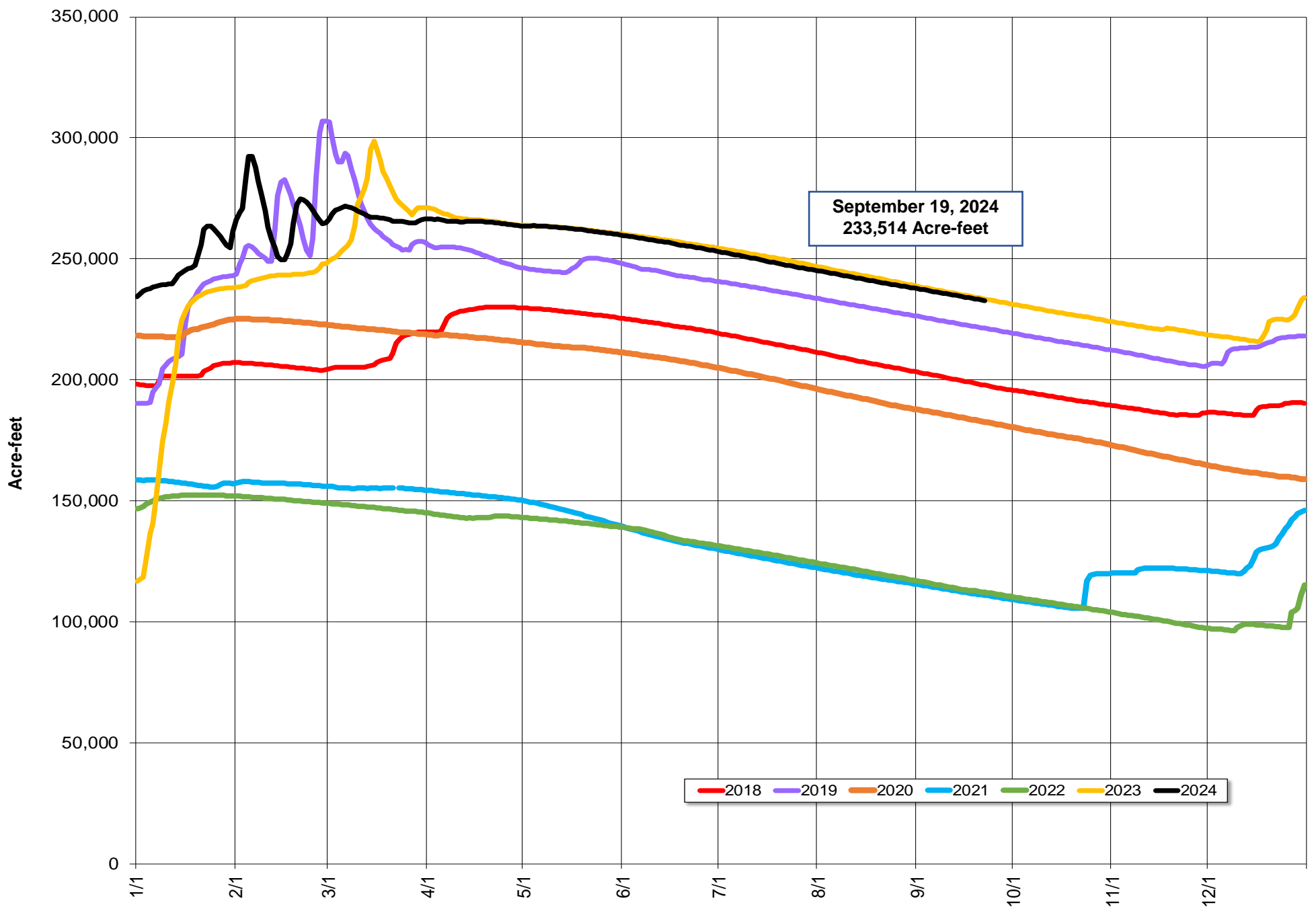
Storage (acre-feet)	September 19, 2024	66,898	
Change in Storage (acre-feet)	Last 30 days	Total	Average Daily Rate
	Last 7 days	-10,543	-351
Daily Inflow (cfs)	Last 7 days	Min	10
		Max	43
		Mean	28
Release (cfs)	Last 7 days	Min	197
		Max	201
		Mean	199

# Lake Sonoma



Todd Schram, February 10, 2024

## Lake Sonoma Storage 2018-2024



Storage (acre-feet)	September 19, 2024	<b>233,514</b>	
		Total	Average Daily Rate
Change in Storage (acre-feet)	Last 30 days	<b>-6,913</b>	<b>-230</b>
	Last 7 days	<b>-1,639</b>	<b>-234</b>
Daily Inflow (cfs)	Last 7 days	Min	<b>0</b>
		Max	<b>4</b>
		Mean	<b>1</b>
Release (cfs)	Last 7 days	Min	<b>97</b>
		Max	<b>98</b>
		Mean	<b>97</b>

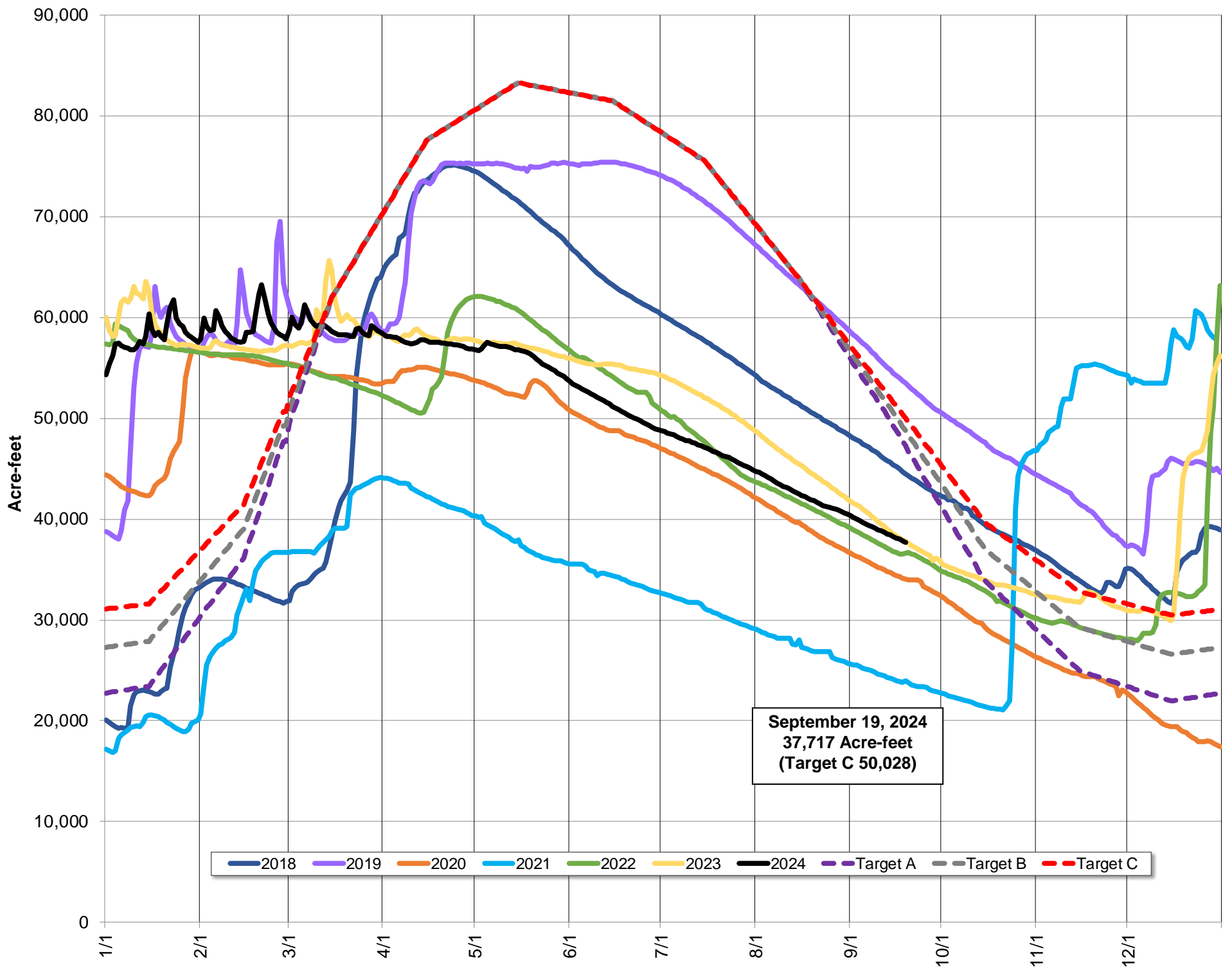
# Potter Valley Project

PVP Diversion (cfs)	September 19, 2024	52
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Parameter	Date Range	Cumulative	Daily Average
Inflow* (acre-feet)	October 1, 2023 - September 19, 2024	487,499	1,373
	Last 7 days	205	29

\*Inflow calculation based on criteria established in D1610

### Lake Pillsbury Storage 2018 - 2024 and Target Storage Scenarios

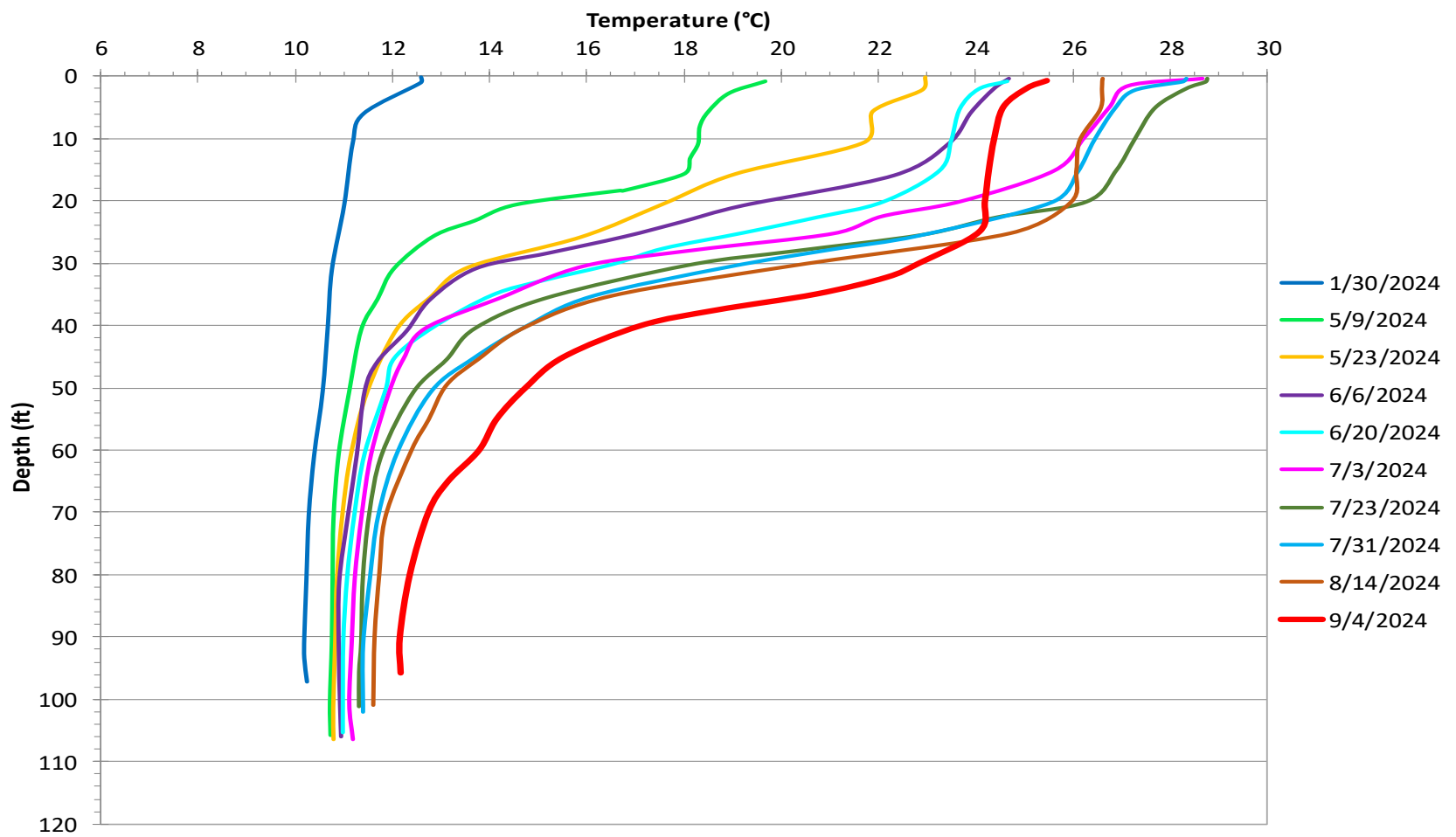


September 19, 2024  
37,717 Acre-feet  
(Target C 50,028)

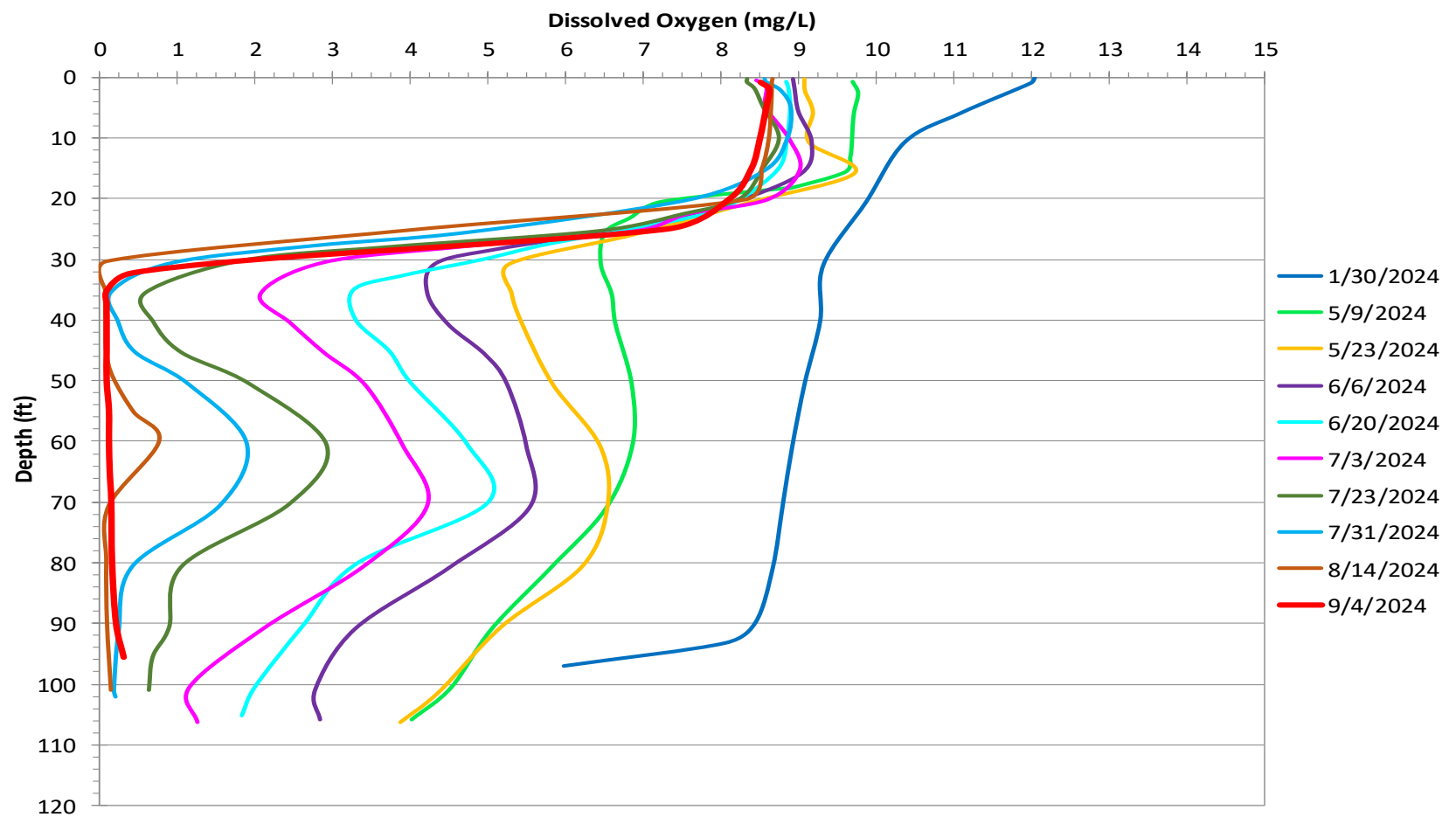
# Lake Mendocino Water Quality Vertical Profiles (January 30 – September 4, 2024)

Provisional Data Subject to Revision

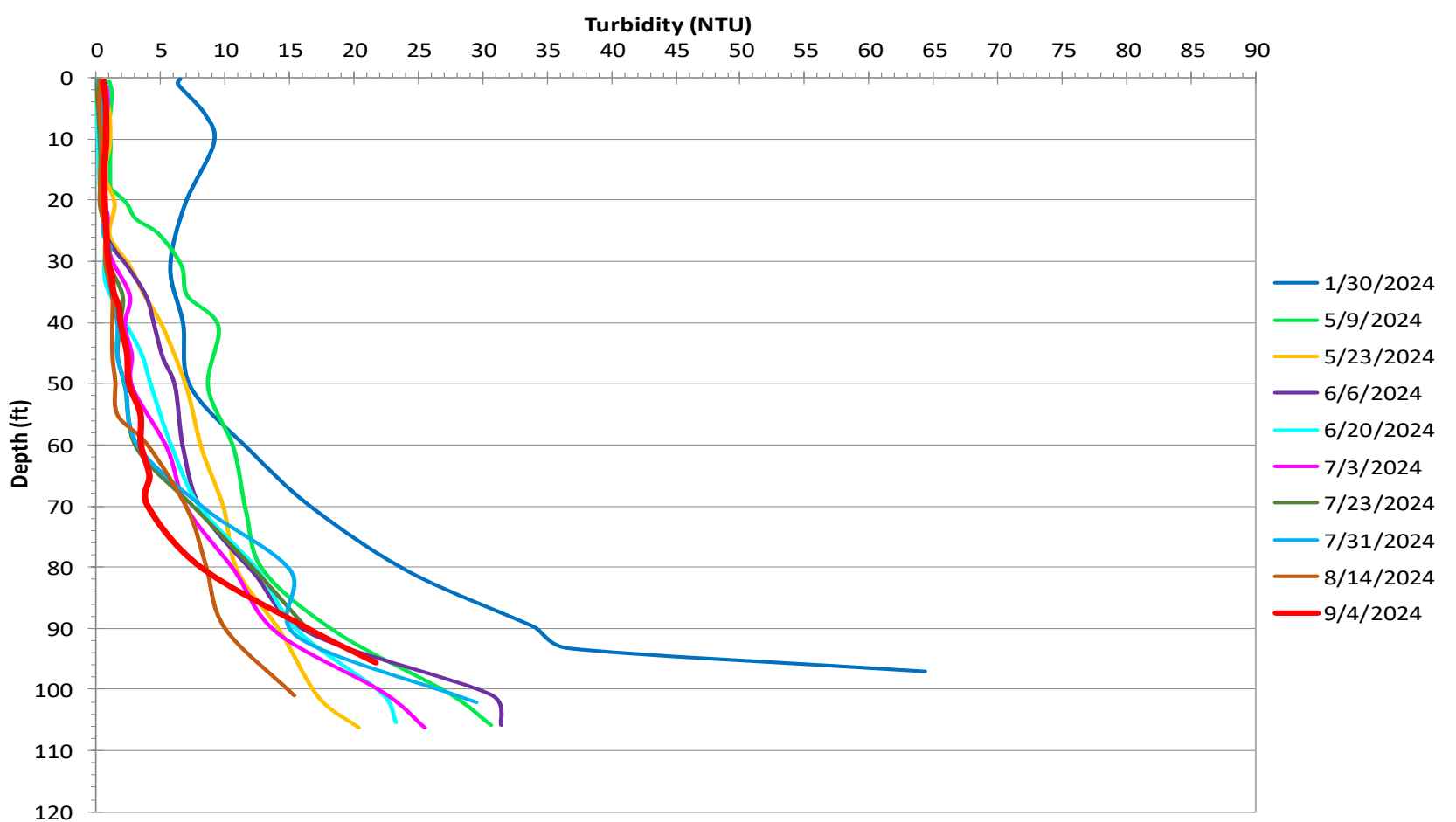
## Lake Mendocino Dam - Vertical Temperature Profile - 2024



## Lake Mendocino Dam - Vertical Dissolved Oxygen Profile - 2024



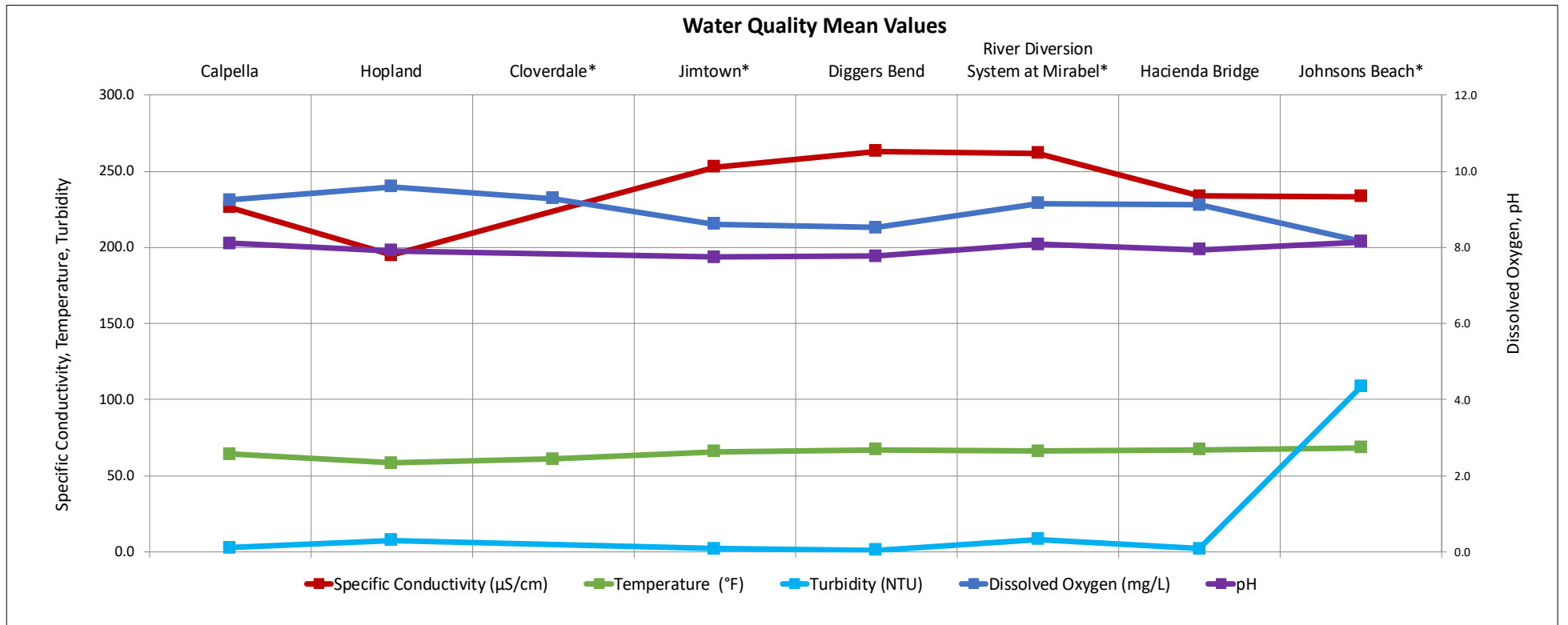
## Lake Mendocino Dam - Vertical Turbidity Profile - 2024



## Russian River Flows (September 13, 2024 - September 19, 2024)

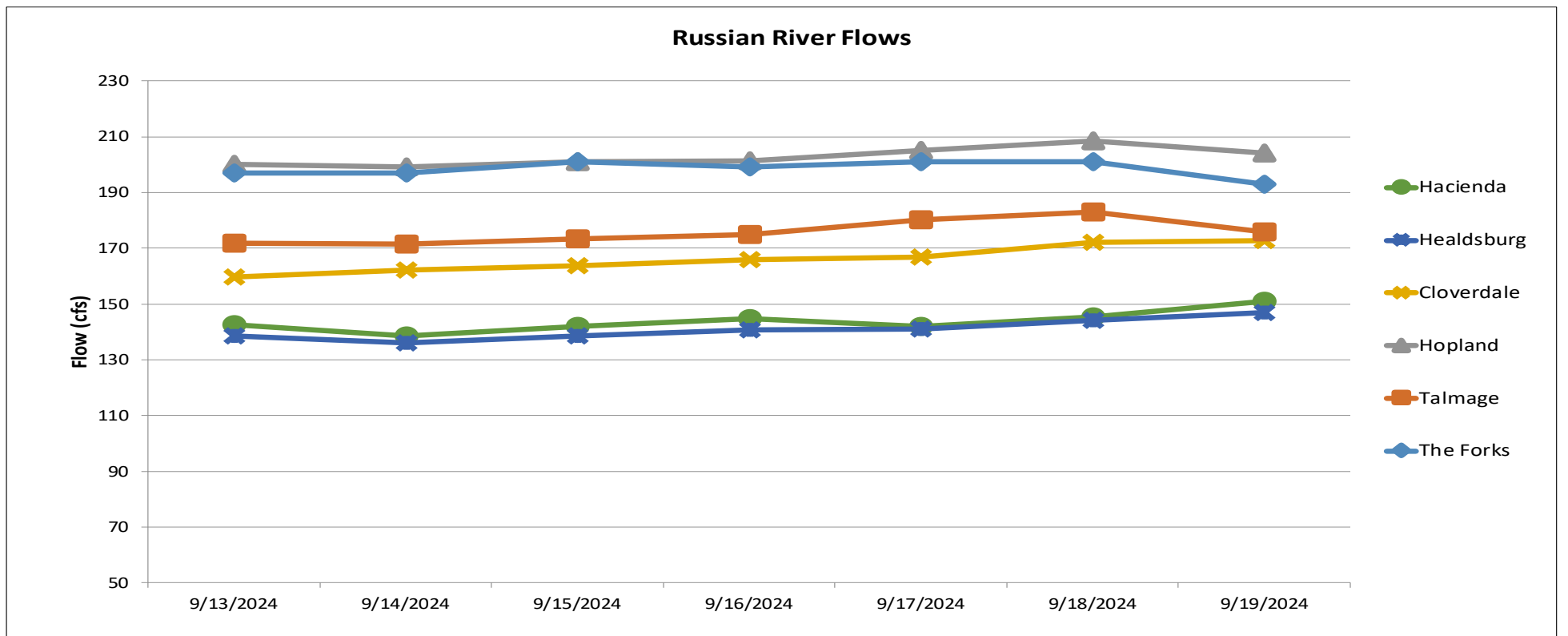
Parameter		Calpella	Hopland	Cloverdale*	Jimtown*	Diggers Bend	River Diversion System at Mirabel*	Hacienda Bridge	Johnsons Beach*
		USGS 11461500	USGS 11462500	USGS 11463000	USGS 11463682	USGS 11463980	SCWA	USGS 11467000	SCWA
Temperature (°F)	Min	61.2	56.3	58.8	63.1	64.2	64.6	64.2	66.4
	Max	67.3	59.7	63.9	69.8	71.2	68.3	70.9	70.5
	Mean	64.0	58.2	60.8	65.9	67.0	66.1	67.0	68.4
Specific Conductivity (µS/cm)	Min	215.0	194.0		250.0	261.0	237.9	232.0	133.6
	Max	235.0	196.0		255.0	265.0	285.9	243.0	245.2
	Mean	226.2	195.0		252.9	263.1	262.0	233.8	233.4
Dissolved Oxygen (mg/L)	Min	8.5	8.7	8.8	7.3	7.4	8.8	7.8	6.9
	Max	10.4	10.9	10.2	10.7	10.3	9.5	10.2	8.6
	Mean	9.2	9.6	9.3	8.6	8.5	9.2	9.1	8.2
Dissolved Oxygen (% Saturation)	Min	89.6	85.3	88.2	77.1	79.1	94.5	83.7	74.5
	Max	109.9	109.0	105.6	118.6	114.0	103.8	112.6	96.4
	Mean	97.2	94.3	94.1	92.6	92.9	98.7	99.2	90.2
pH	Min	7.9	7.8		7.6	7.5	8.0	7.7	7.9
	Max	8.4	8.2		8.1	8.9	8.2	8.2	8.2
	Mean	8.1	7.9		7.7	7.8	8.1	7.9	8.1
Turbidity (NTU)	Min	1.6	6.0		1.3	0.4	2.8	1.1	7.4
	Max	4.7	10.6		4.3	2.1	23.1	2.9	2029.0
	Mean	2.5	7.5		2.0	1.0	8.0	1.9	108.5

\*Station operated seasonally



Gage	24-hr Average Flow (cfs)						
	Sep 13, 2024	Sep 14, 2024	Sep 15, 2024	Sep 16, 2024	Sep 17, 2024	Sep 18, 2024	Sep 19, 2024
The Forks*	197	197	201	199	201	201	193
Talmage USGS 11462080	172	172	173	175	180	183	176
Hopland USGS 11462500	200	199	201	201	205	208	204
Cloverdale USGS 11463000	160	162	164	166	167	172	173
Healdsburg USGS 11464000	139	136	139	141	141	144	147
Hacienda USGS 11467000	143	139	142	145	142	145	151

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

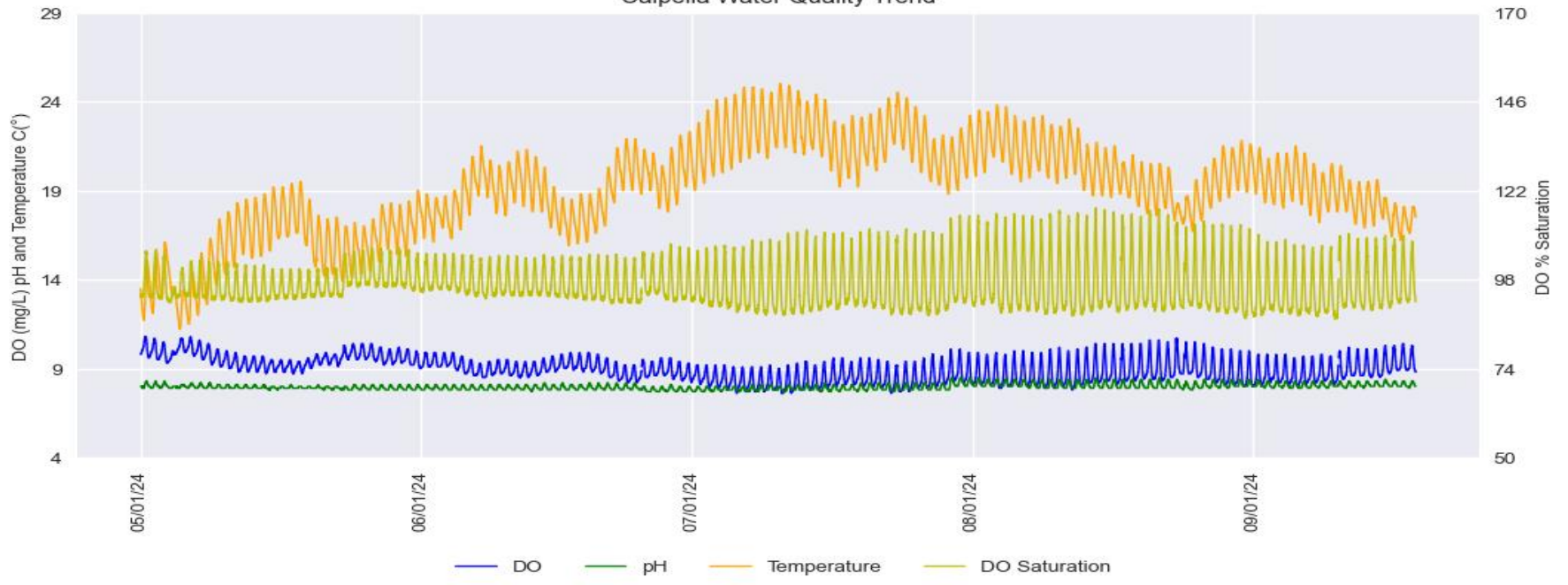


Russian River Water Quality May 1, 2024 – September 19, 2024

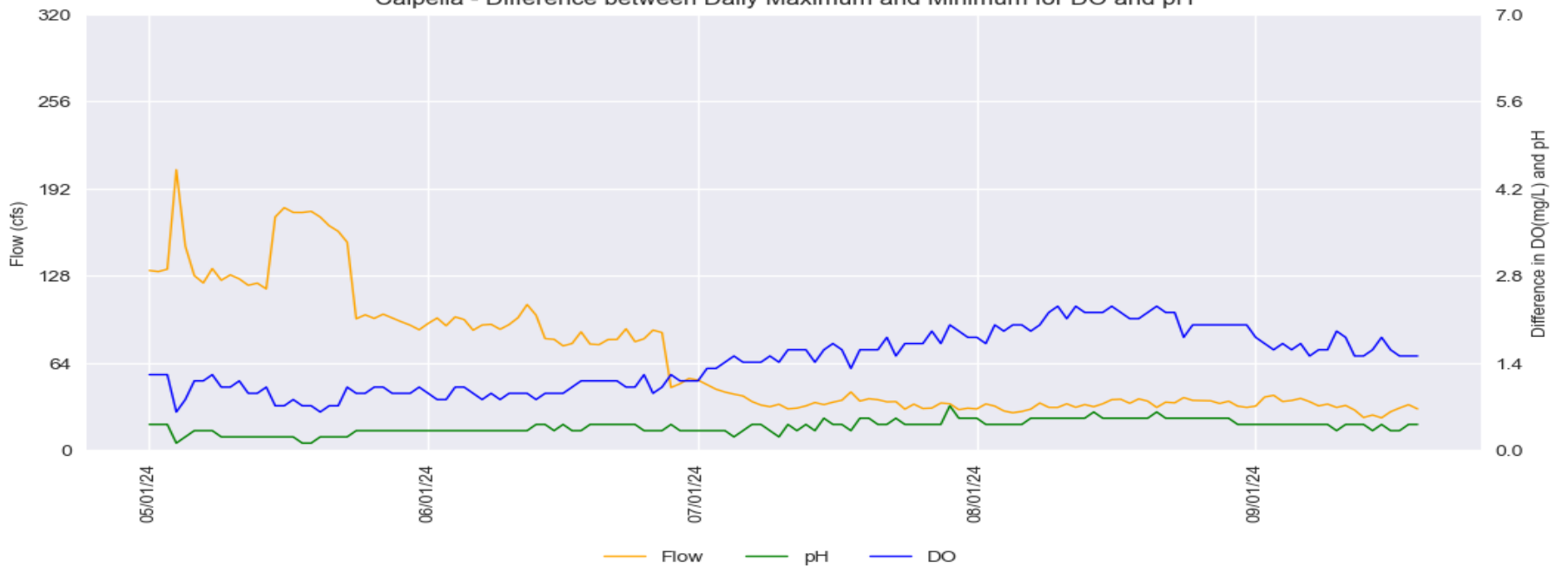
Provisional Data Subject to Revision

**Calpella**

Calpella Water Quality Trend

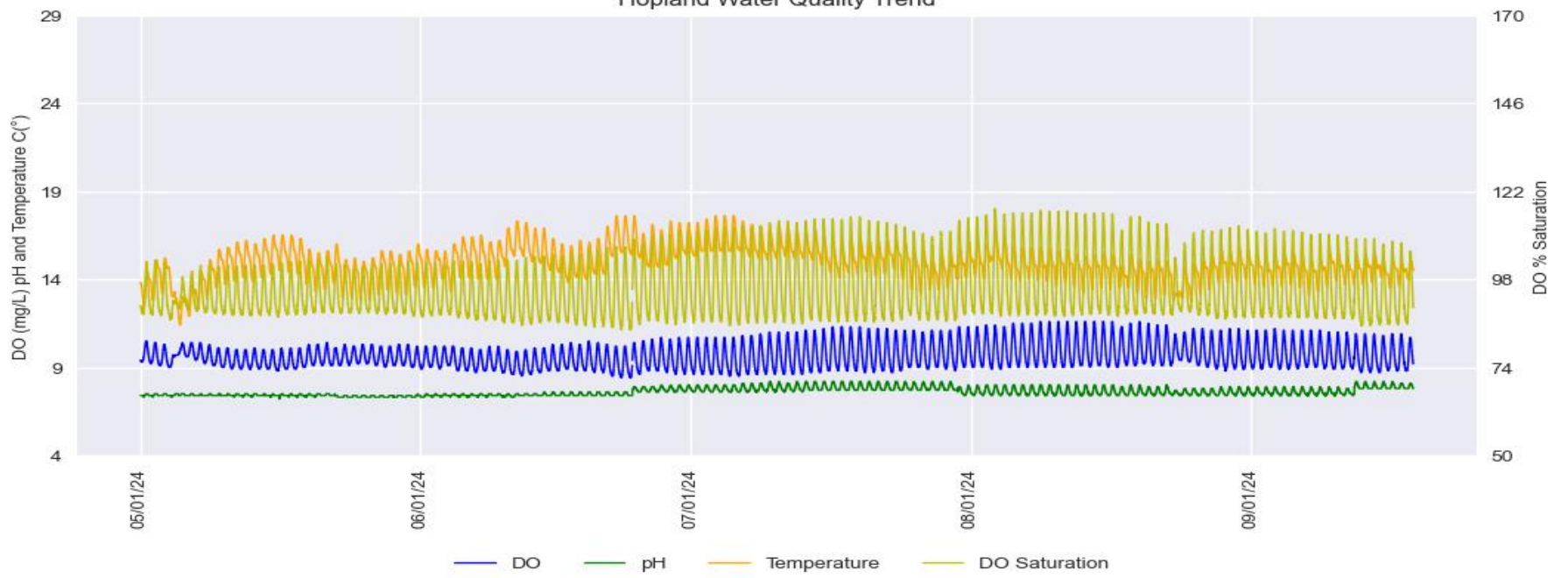


Calpella - Difference between Daily Maximum and Minimum for DO and pH

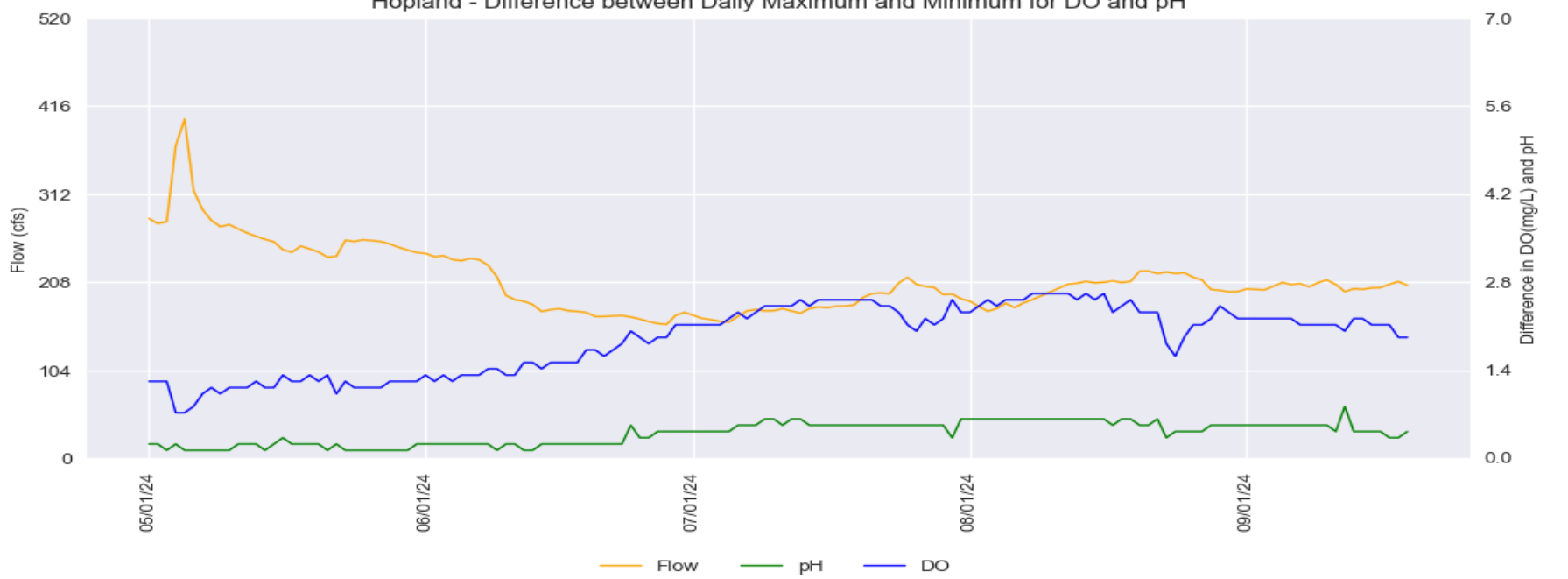


**Hopland**

Hopland Water Quality Trend



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

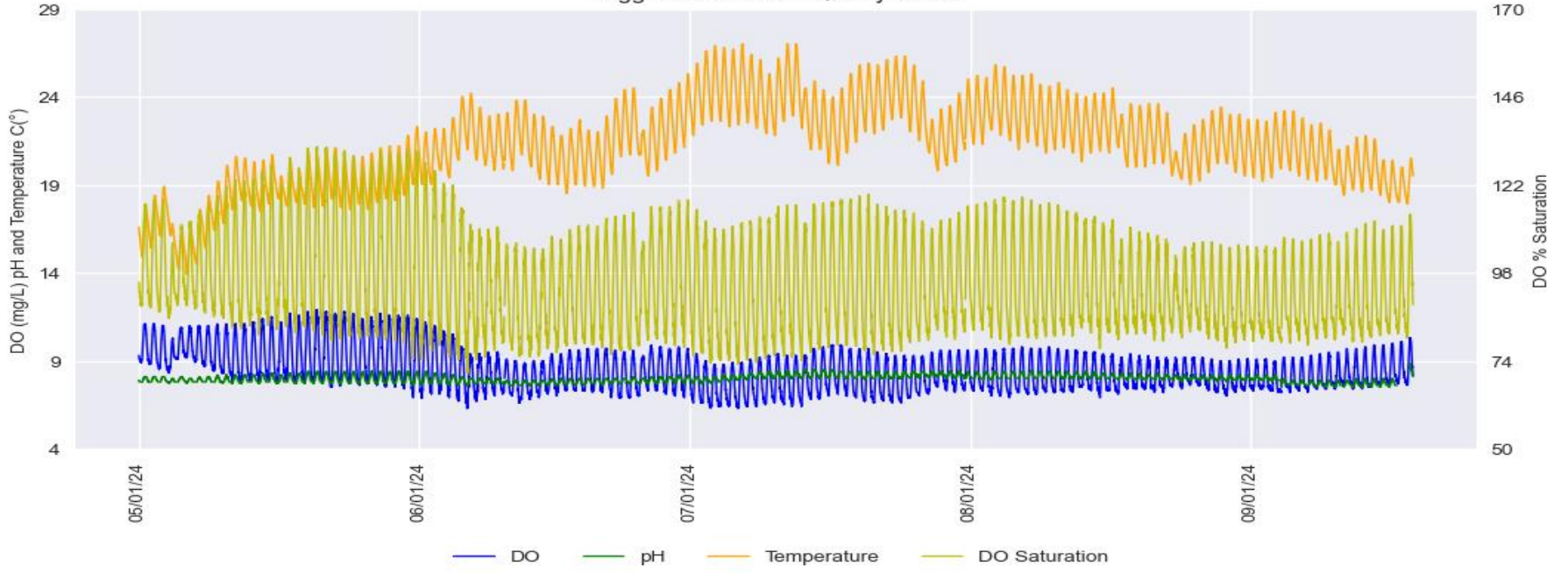


Russian River Water Quality May 1, 2024 – September 19, 2024

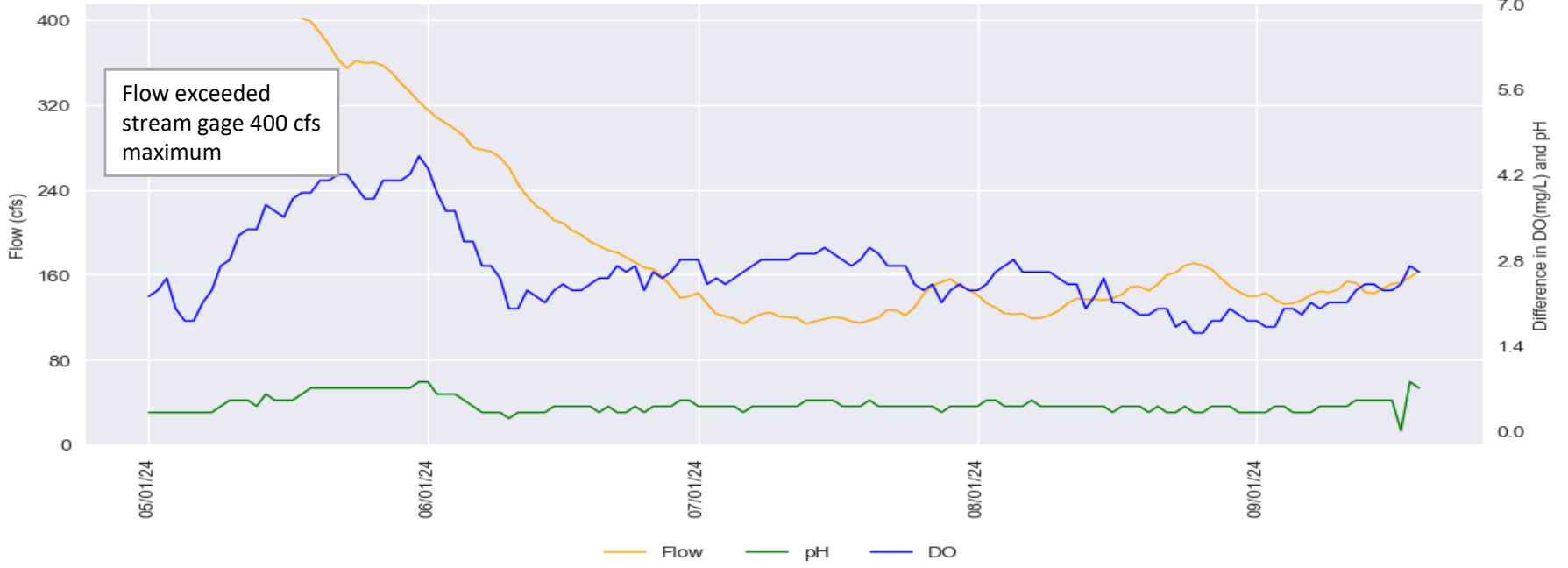
Provisional Data Subject to Revision

**Digger Bend**

Digger Bend Water Quality Trend

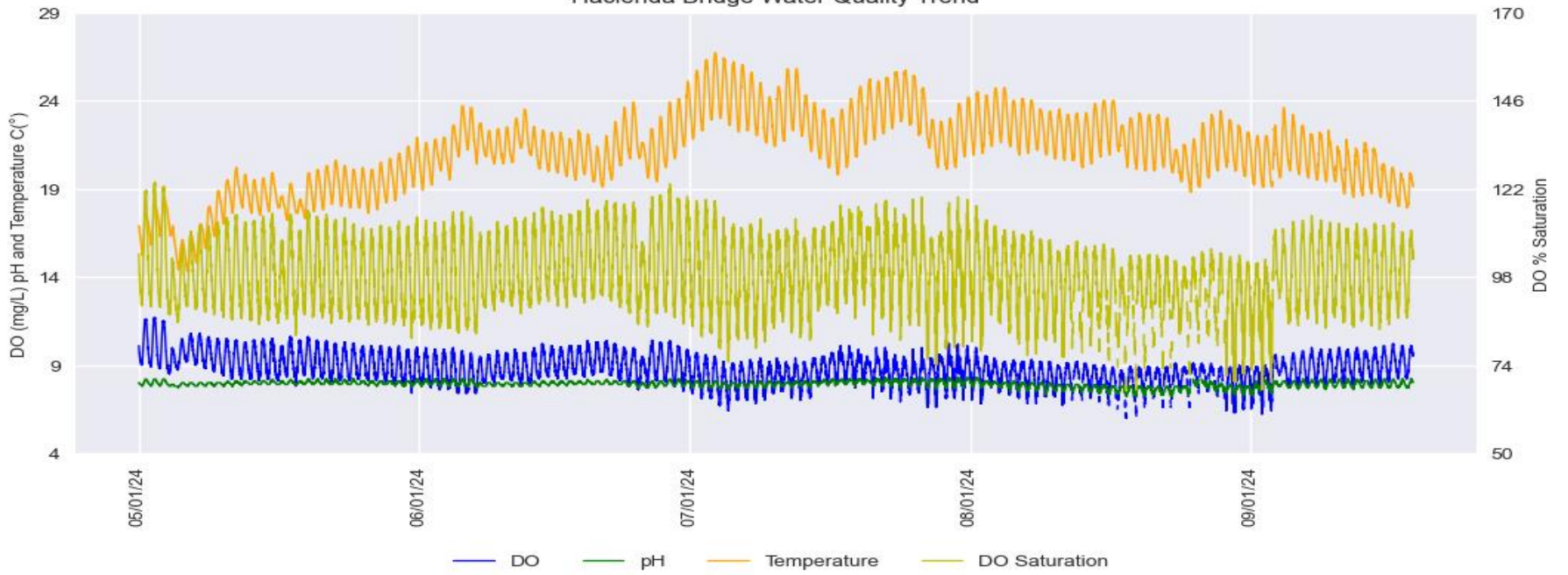


Digger Bend - Difference between Daily Maximum and Minimum for DO and pH

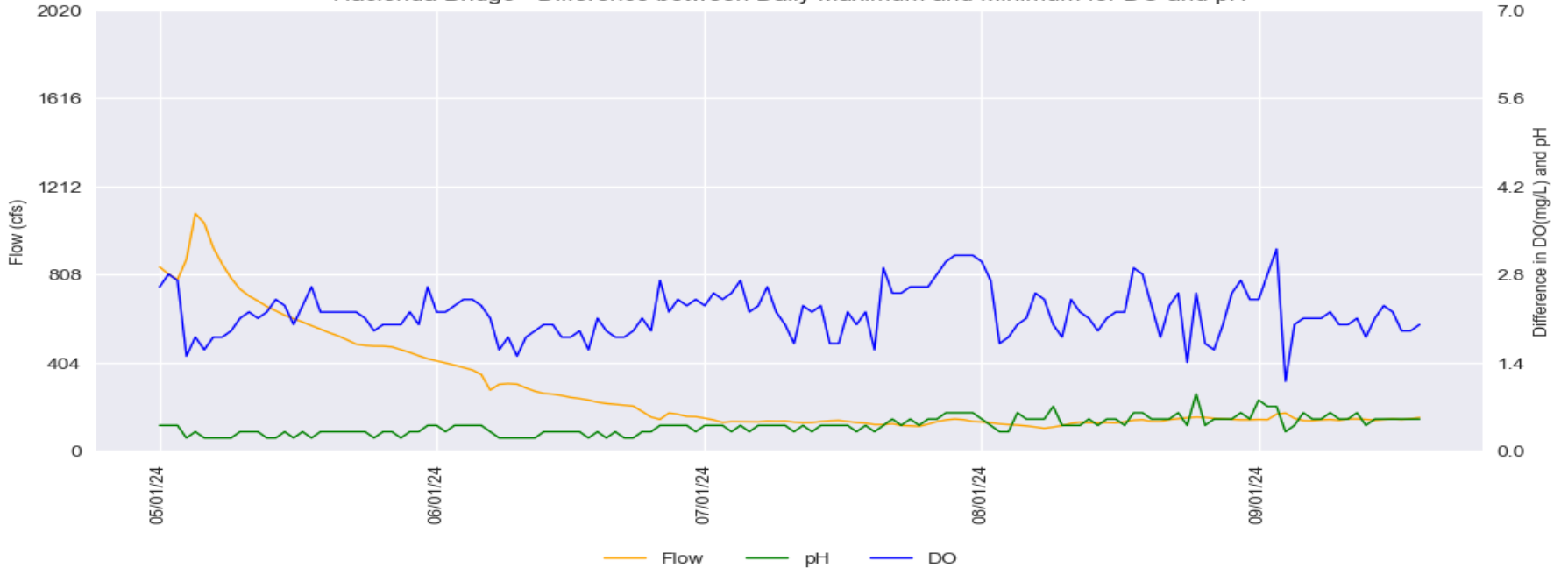


**Hacienda Bridge**

Hacienda Bridge Water Quality Trend



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

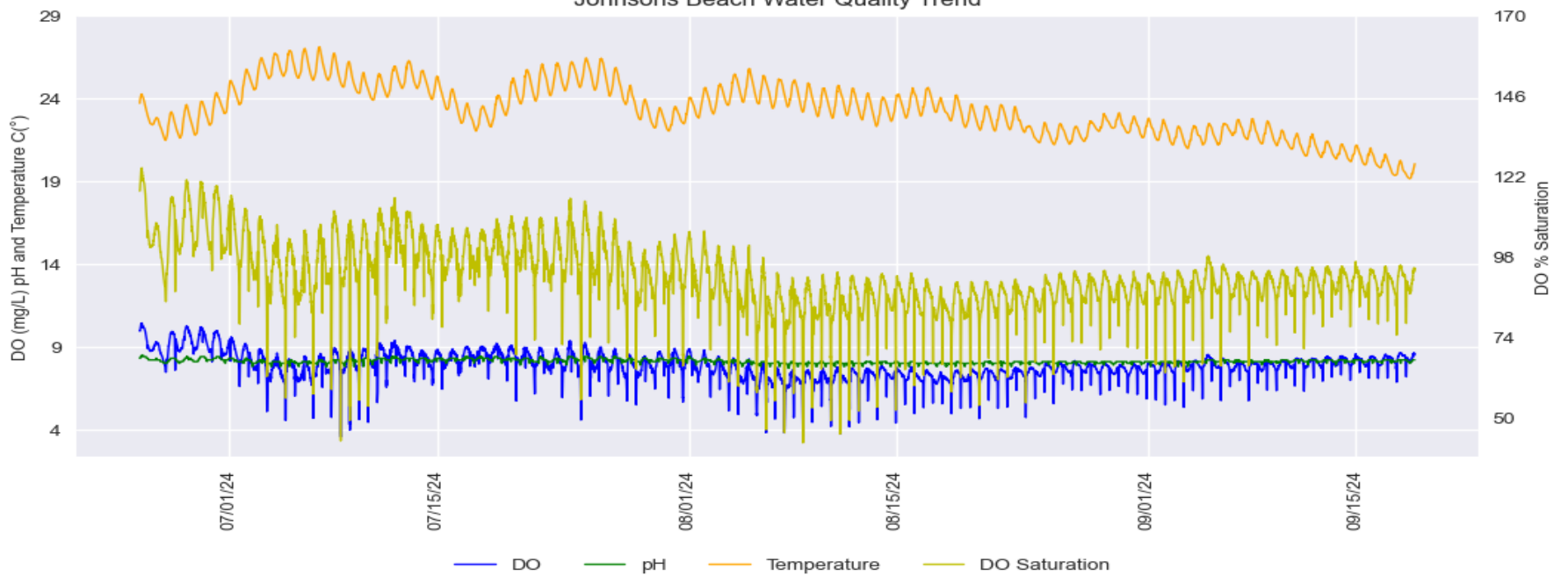


Russian River Water Quality June 24, 2024 – September 19, 2024

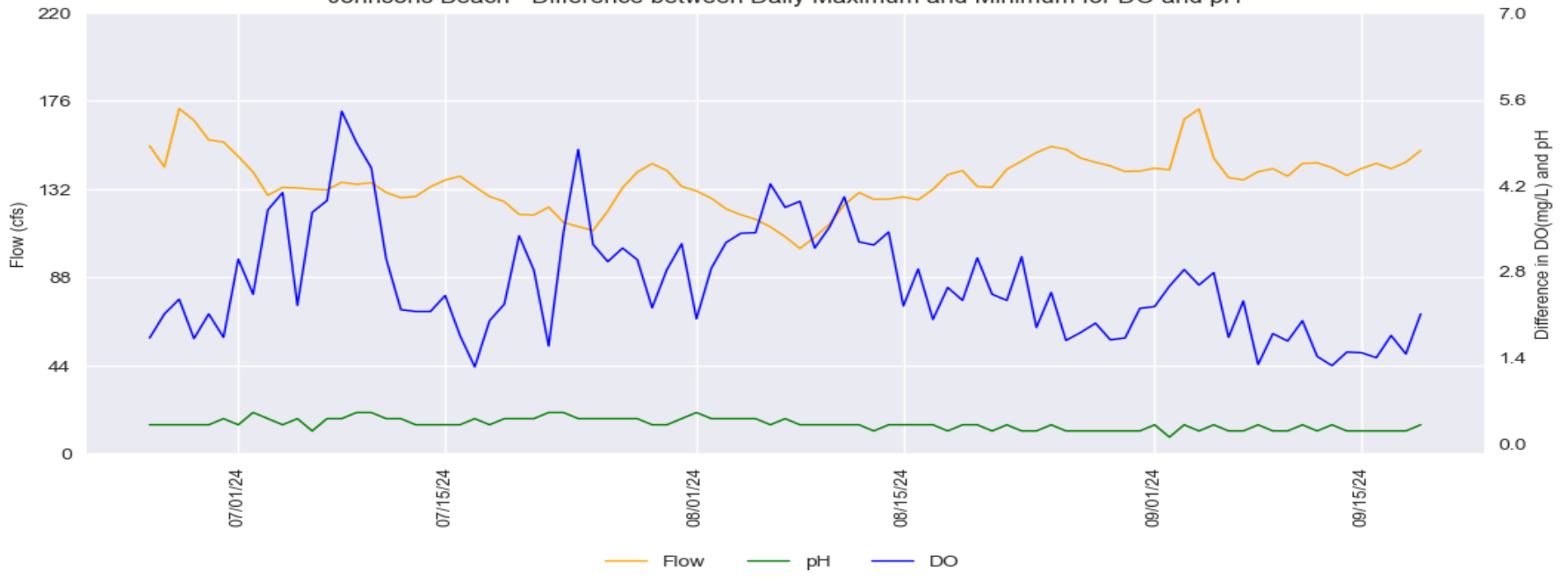
Provisional Data Subject to Revision

Johnsons Beach

Johnsons Beach Water Quality Trend

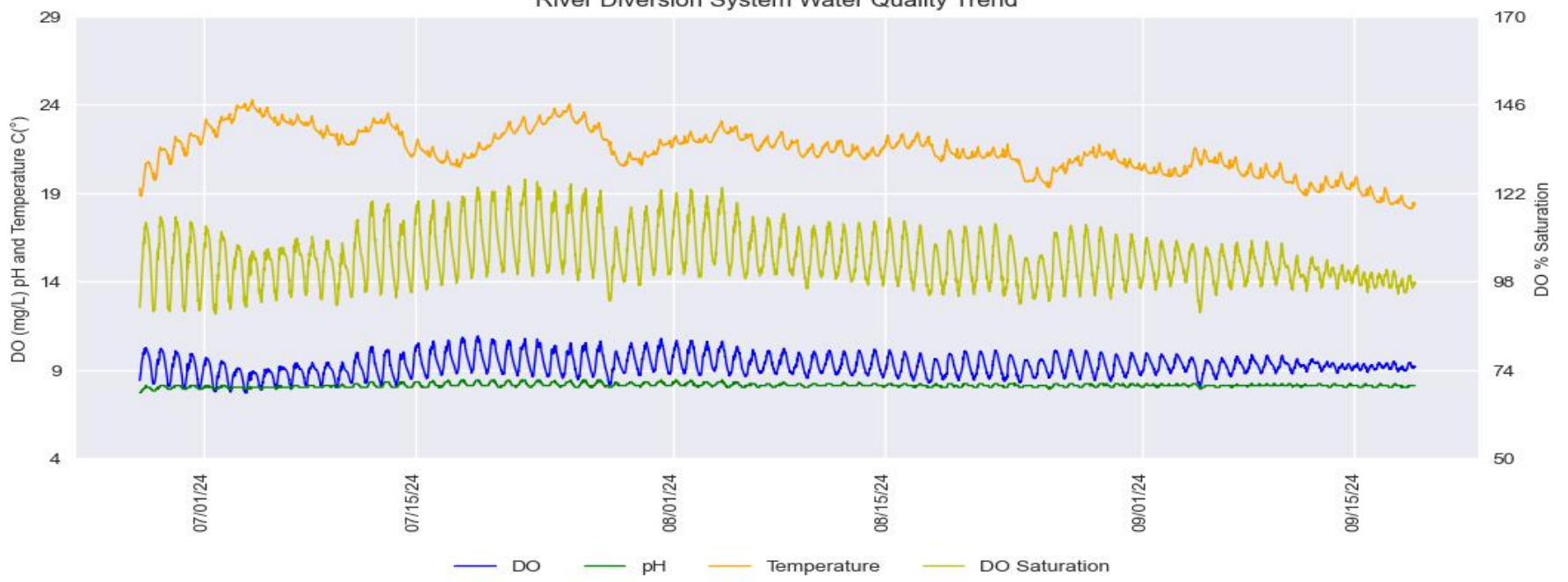


Johnsons Beach - Difference between Daily Maximum and Minimum for DO and pH

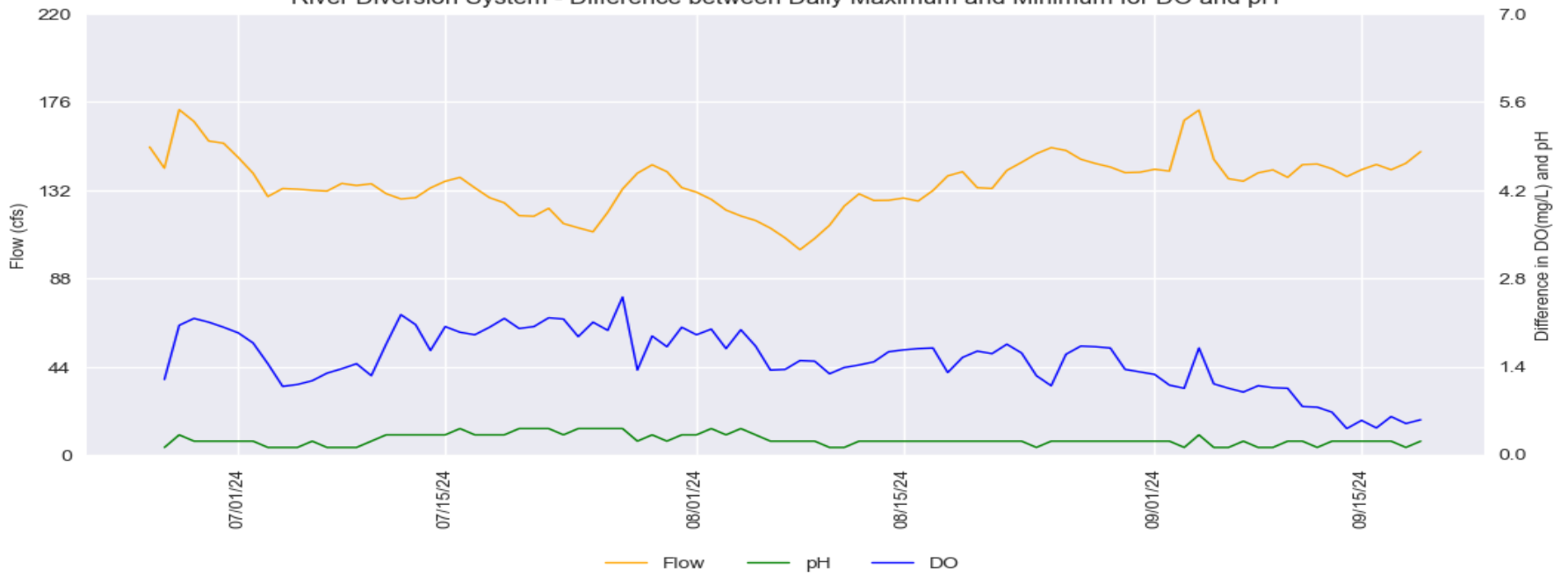


River Diversion System at Mirabel

River Diversion System Water Quality Trend



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

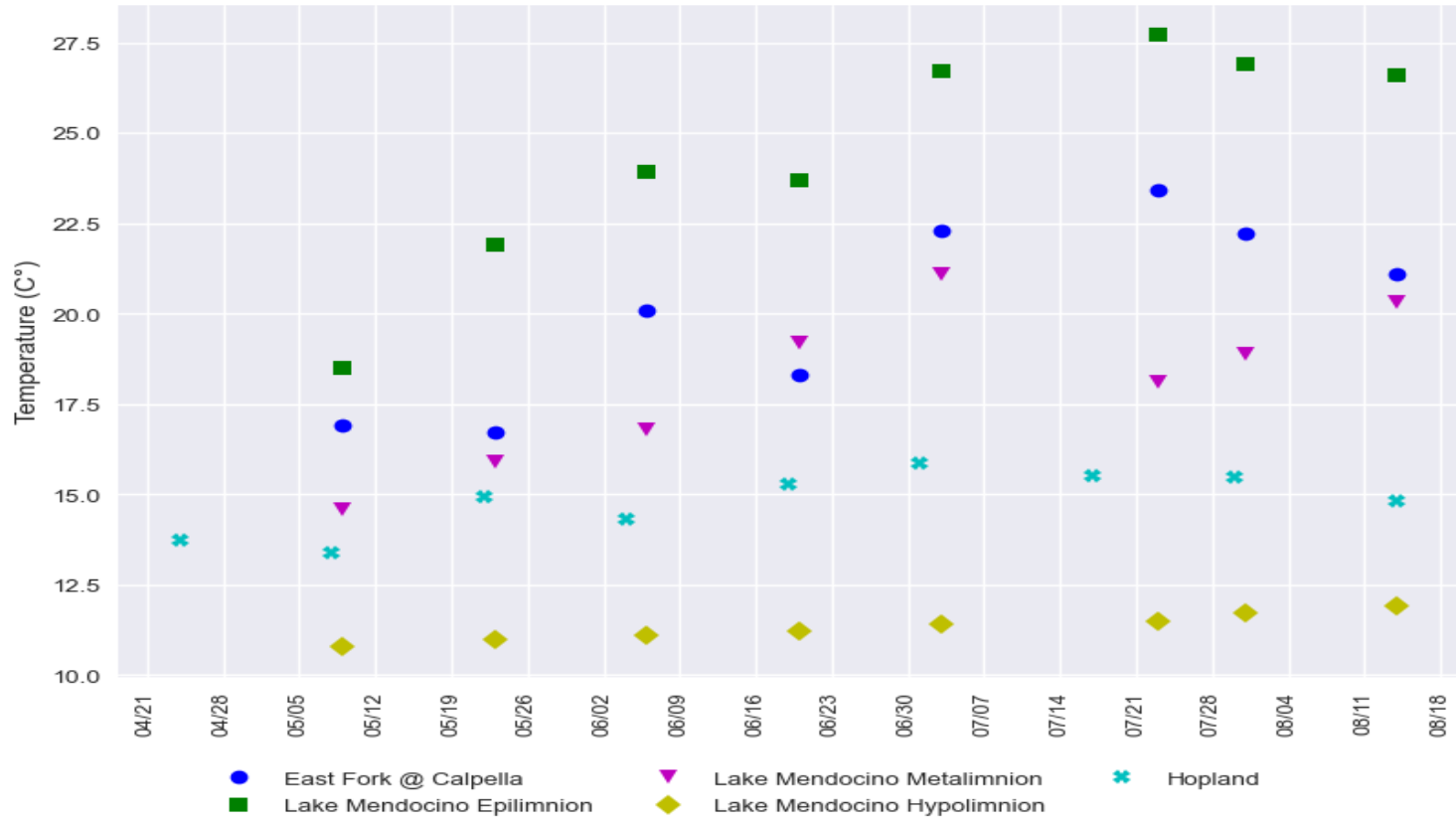




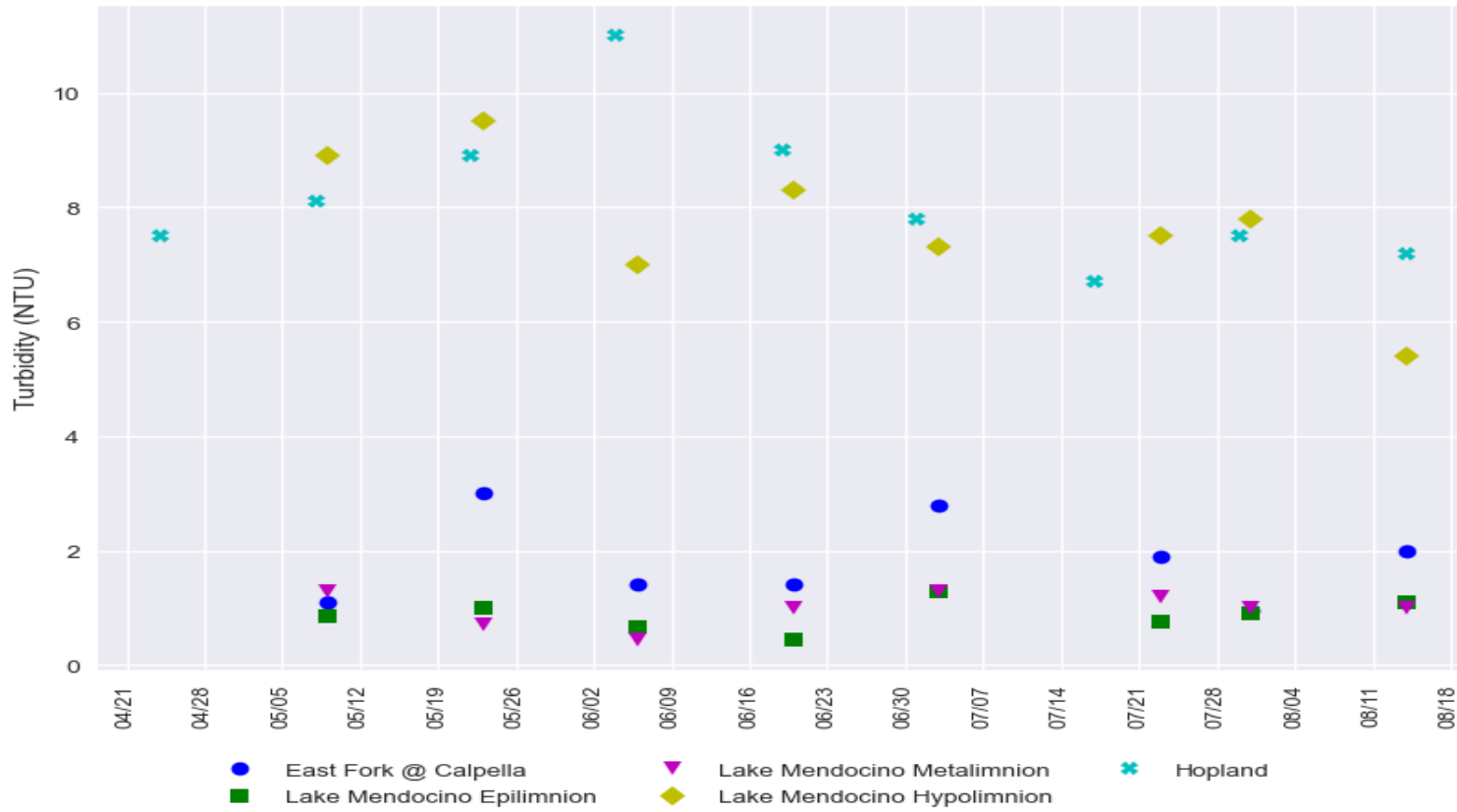
# Russian River Water Quality Grab Samples

Provisional Data Subject to Revision

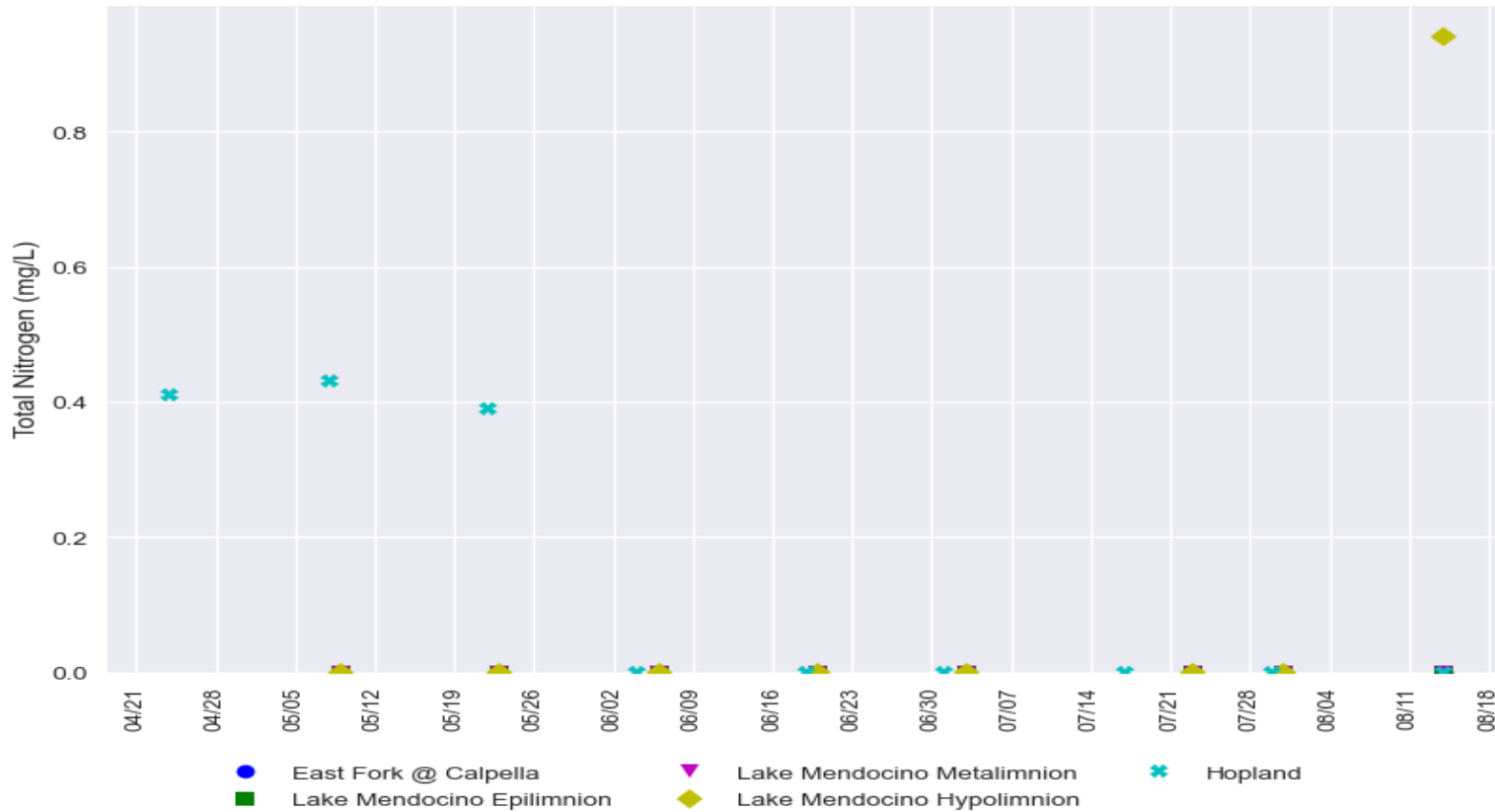
## Temperature - East Fork at Calpella, Lake Mendocino, and Hopland



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



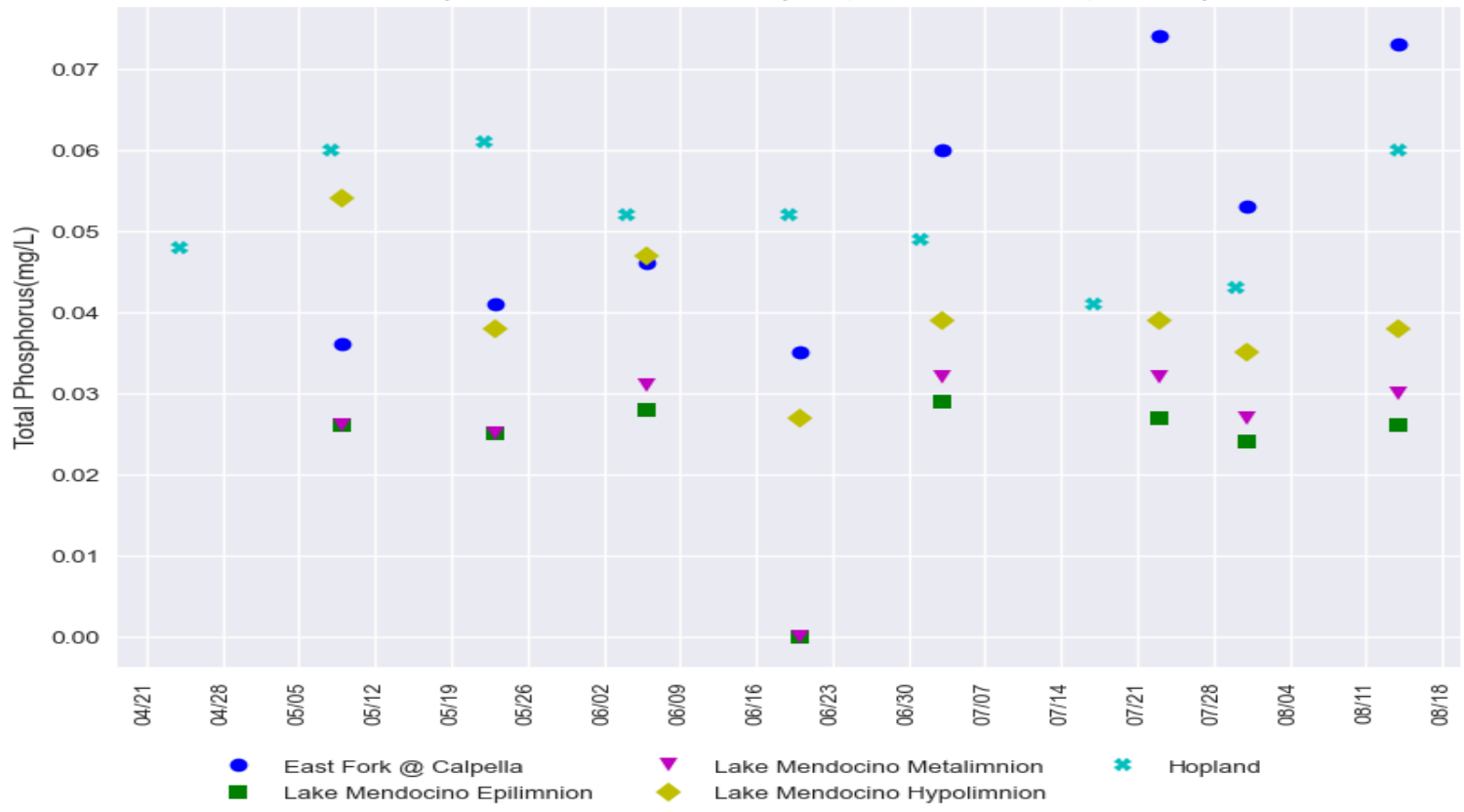
## Total Nitrogen (mg/L) - East Fork at Calpella, Lake Mendocino, and Hopland



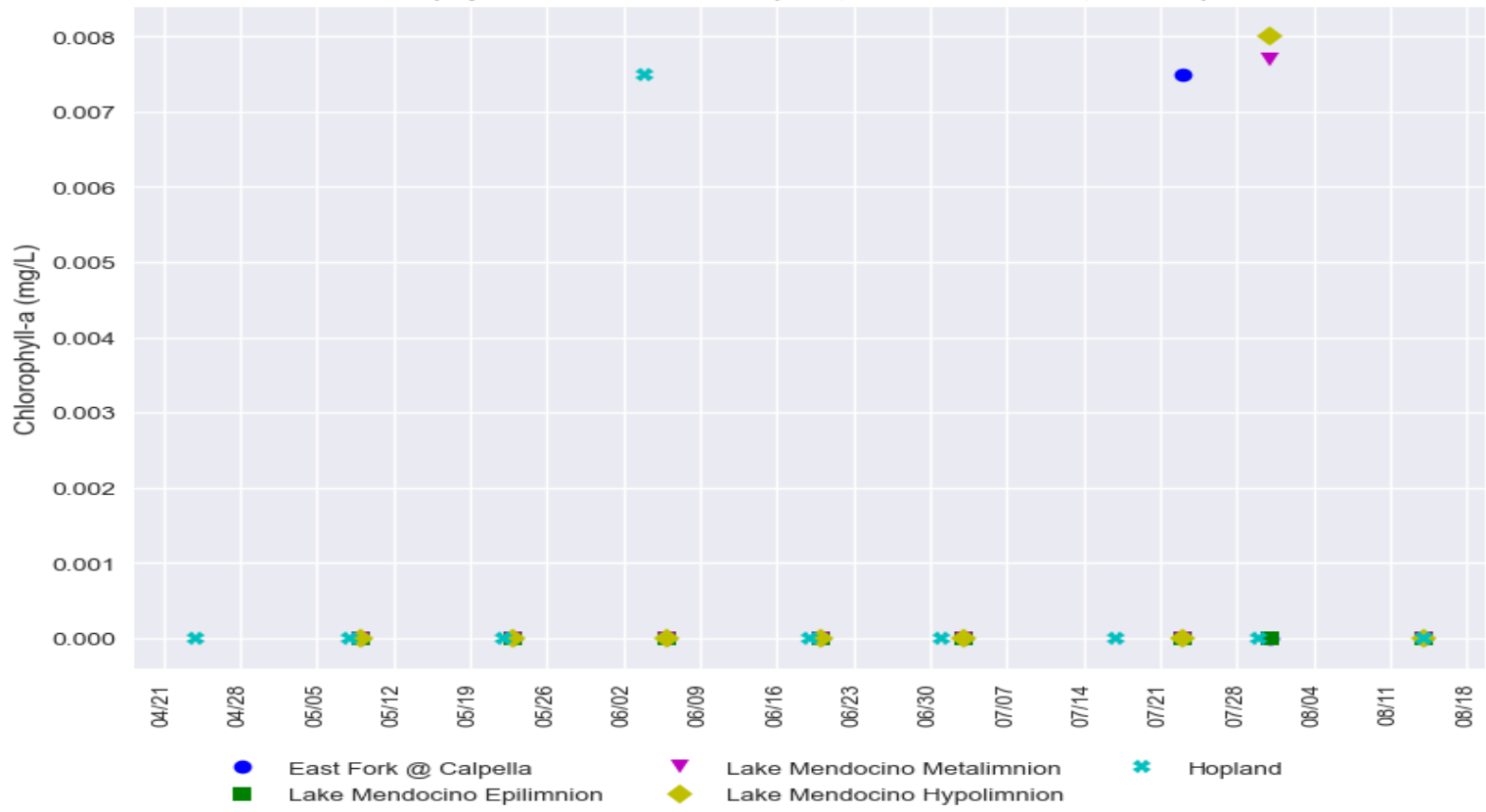
# Russian River Water Quality Grab Samples

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## Total Phosphorus - East Fork at Calpella, Lake Mendocino, and Hopland

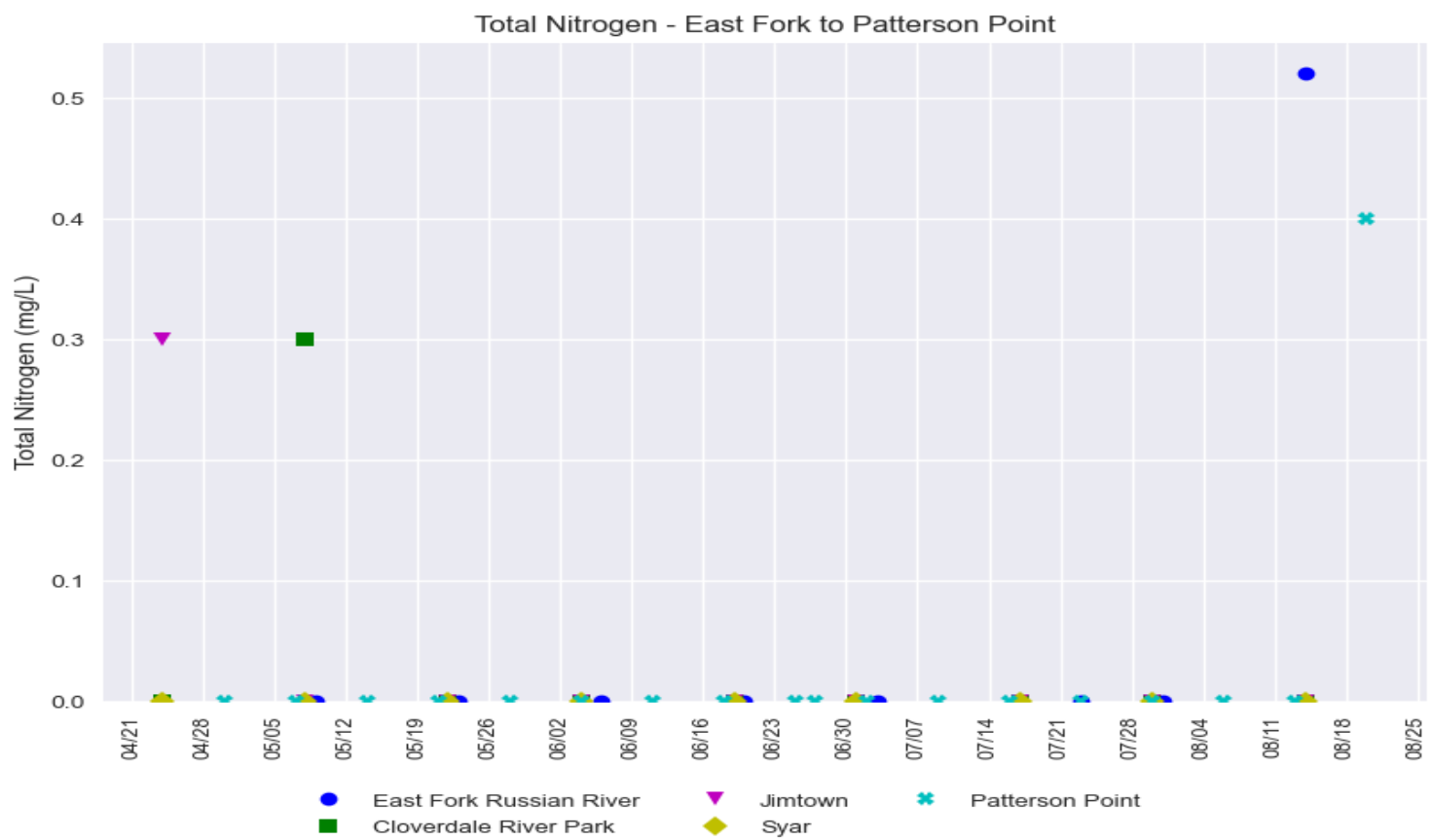
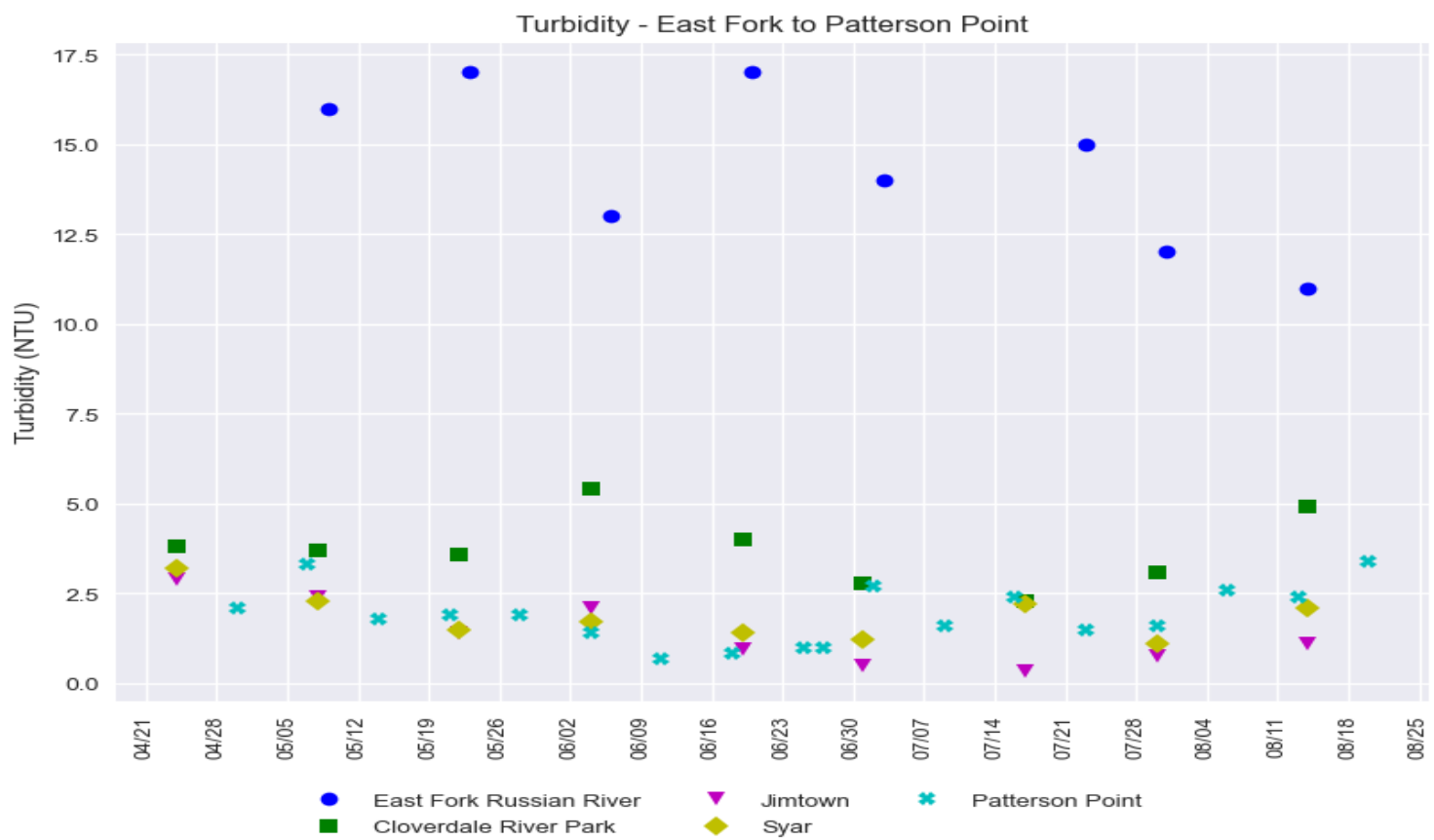
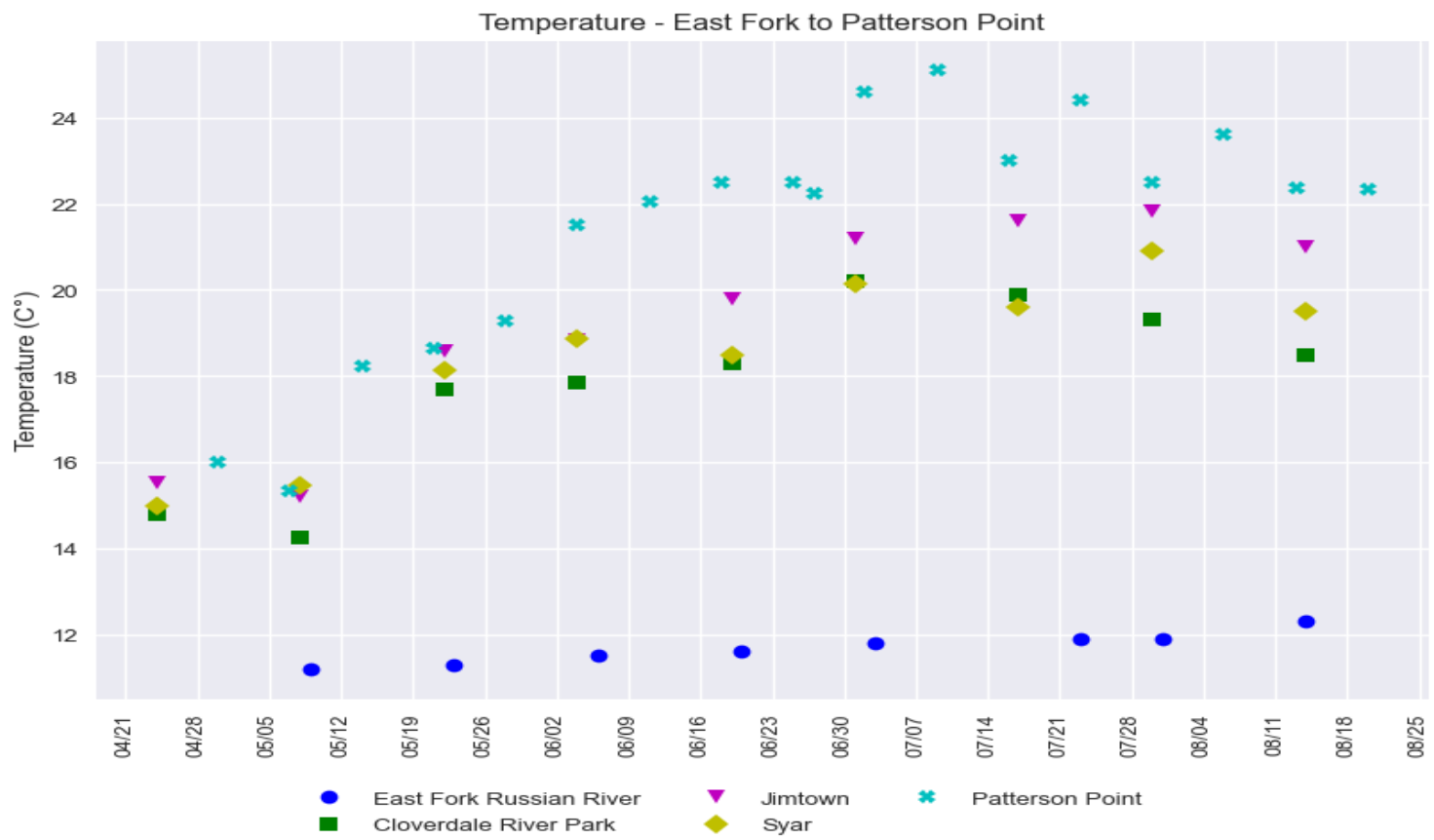


## Chlorophyll-a - East Fork at Calpella, Lake Mendocino, and Hopland



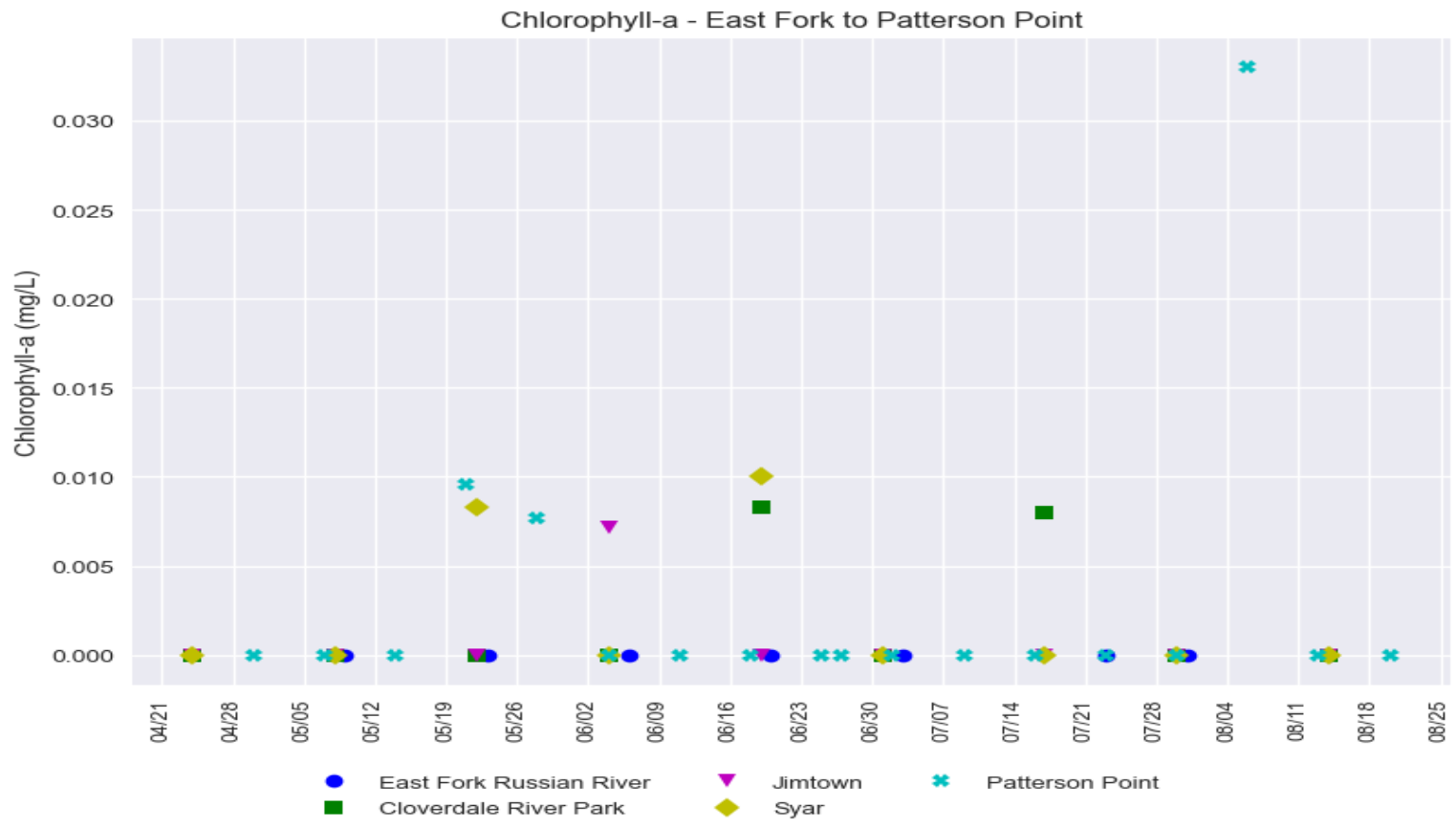
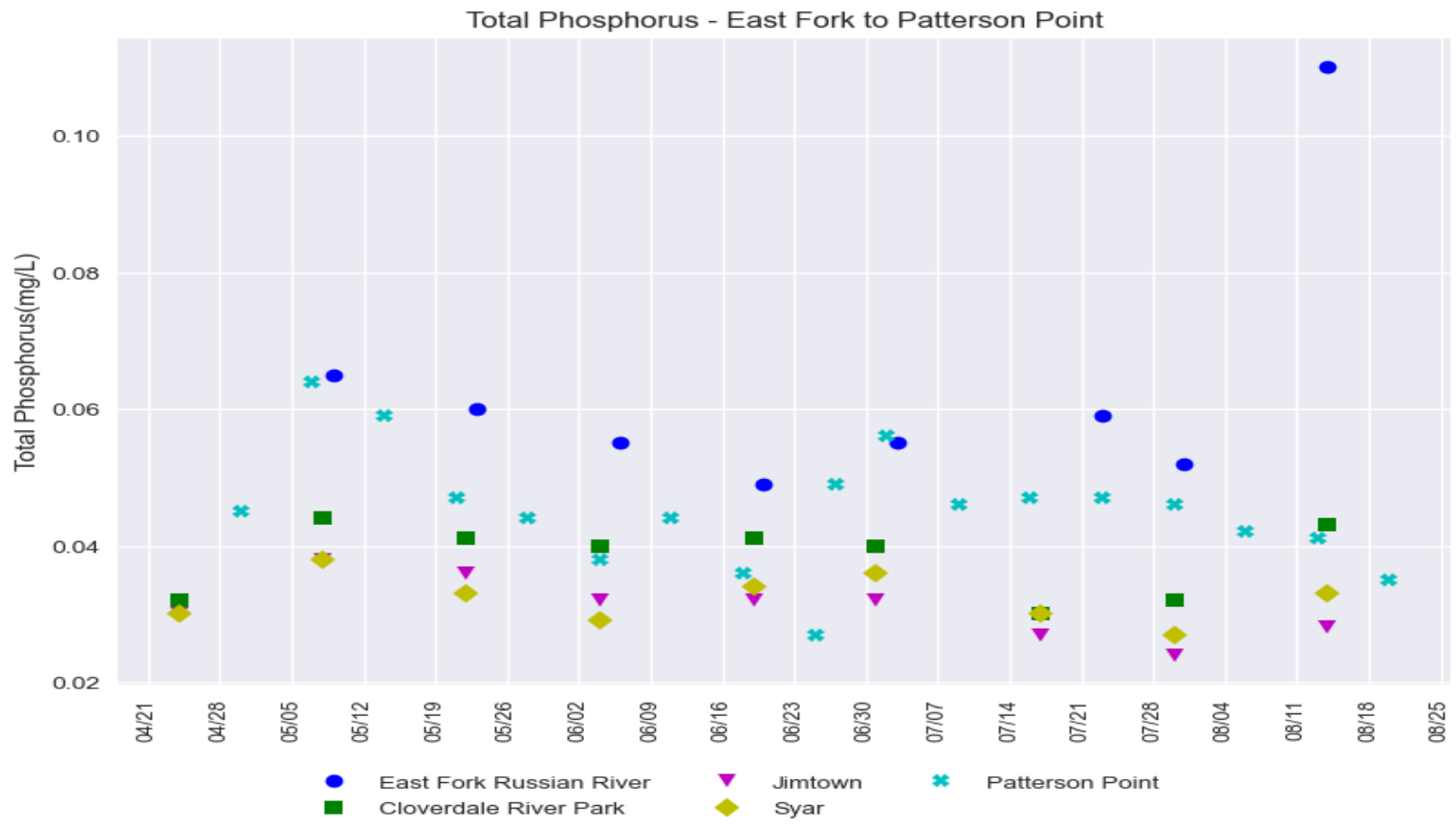
# Russian River Water Quality Grab Samples

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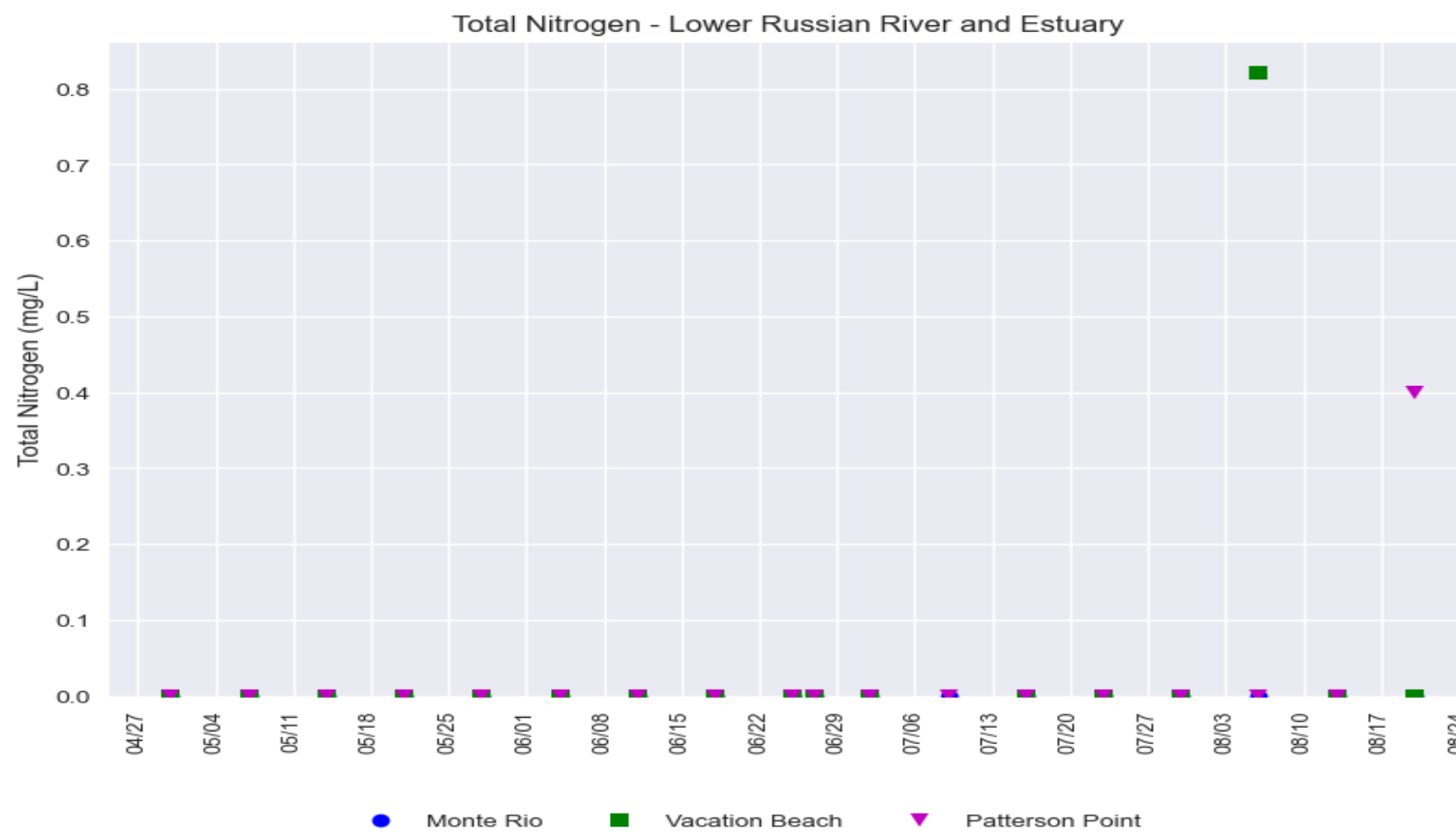
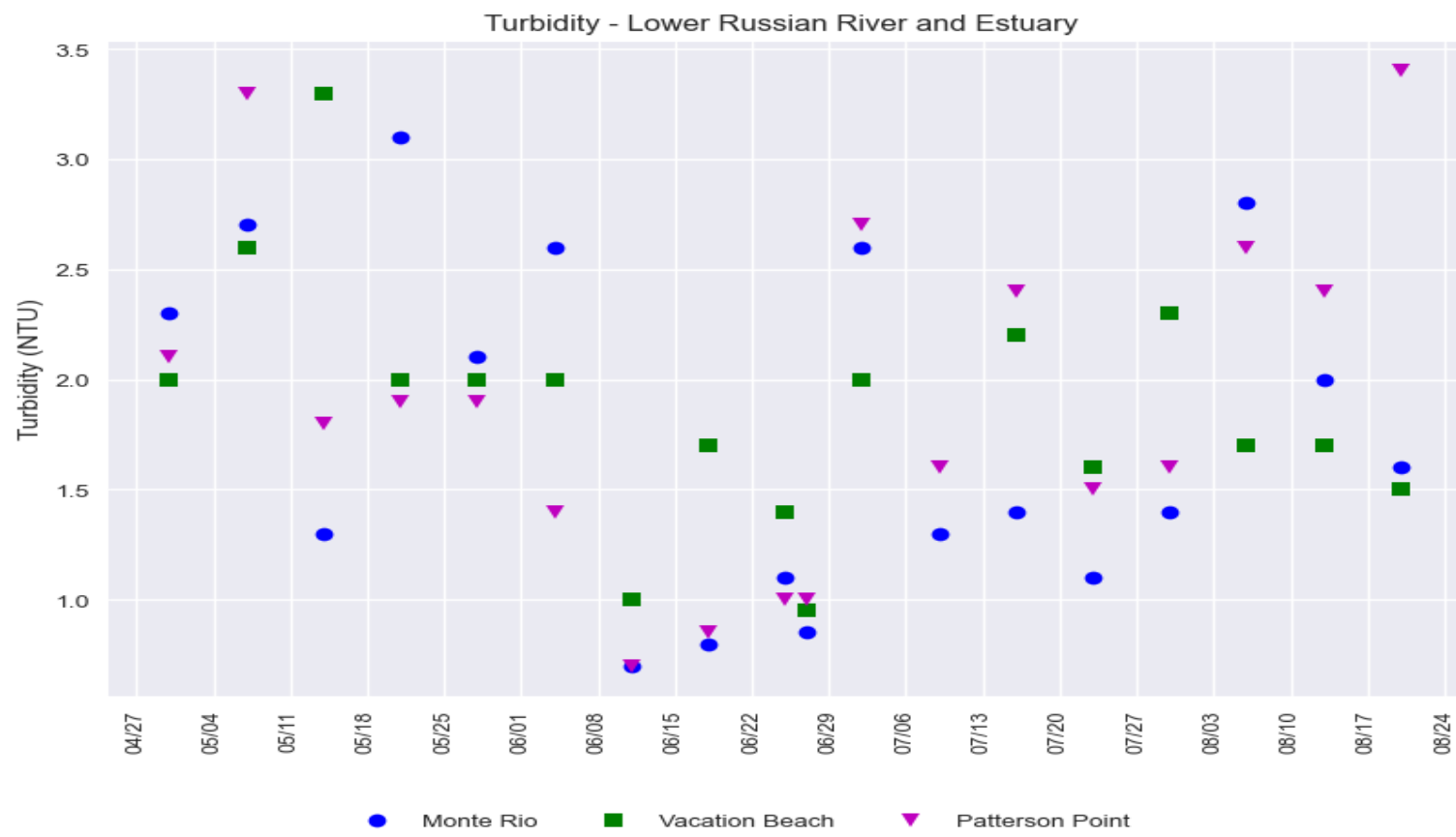
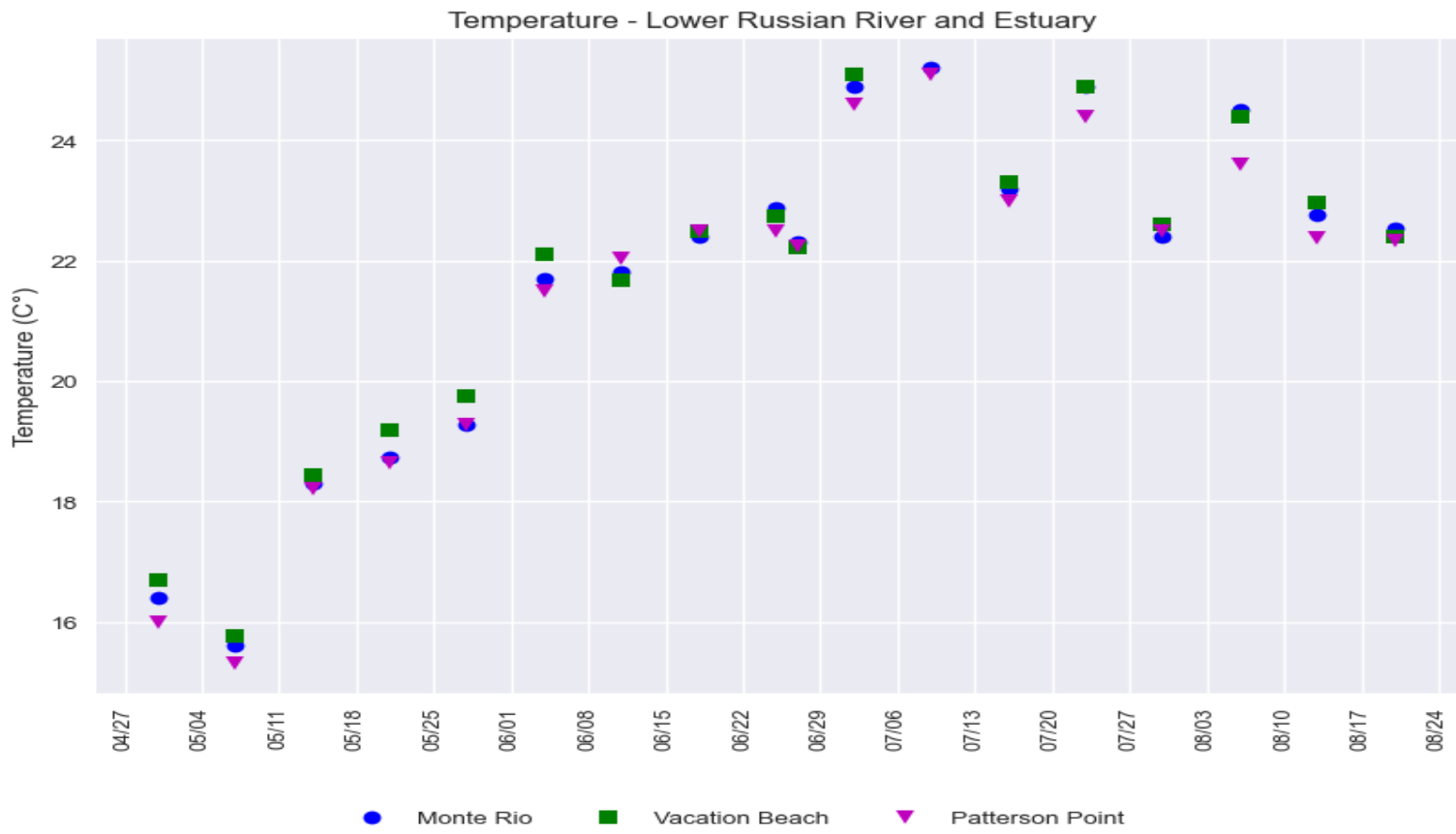
# Russian River Water Quality Grab Samples

Provisional Data Subject to Revision



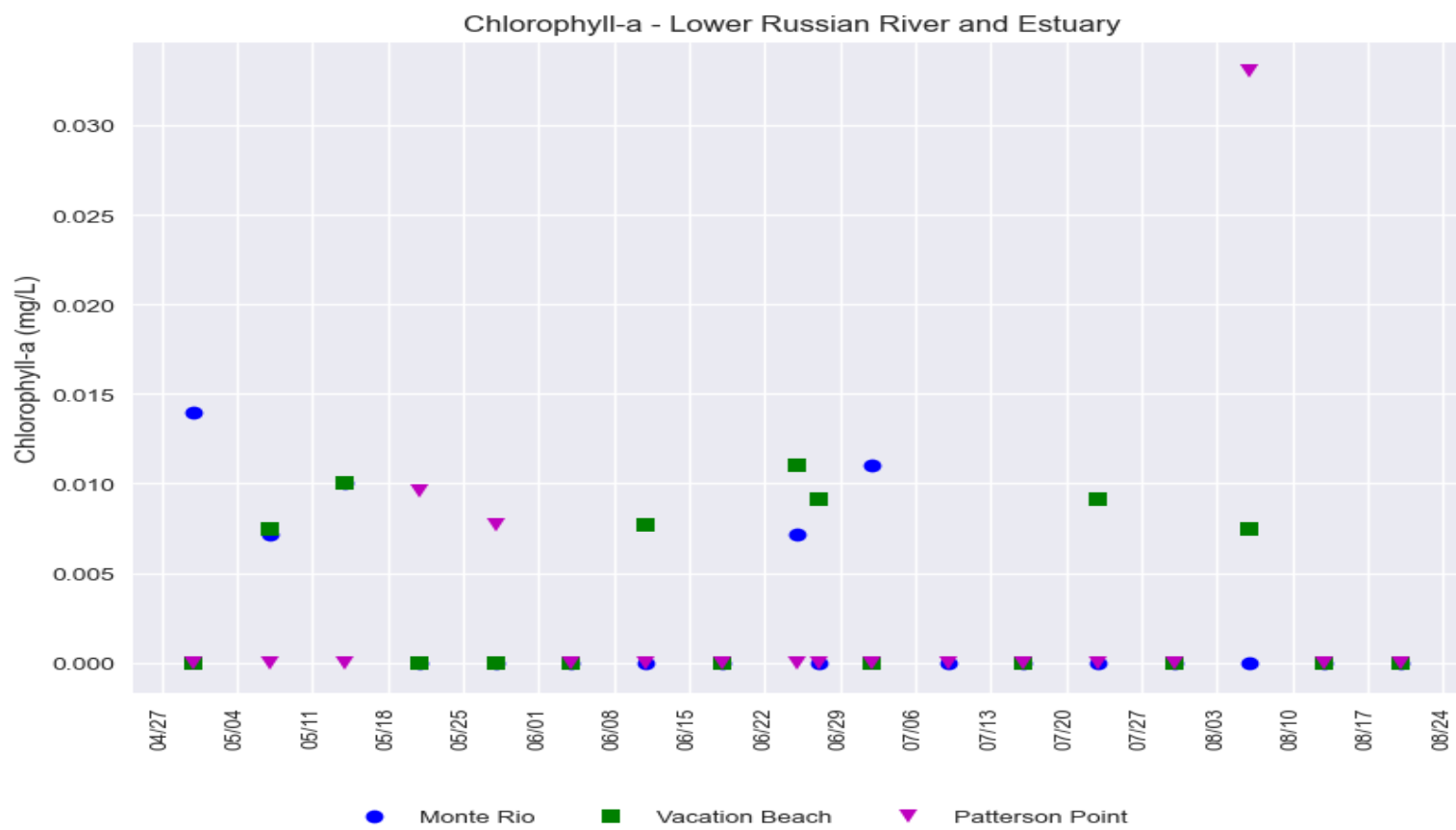
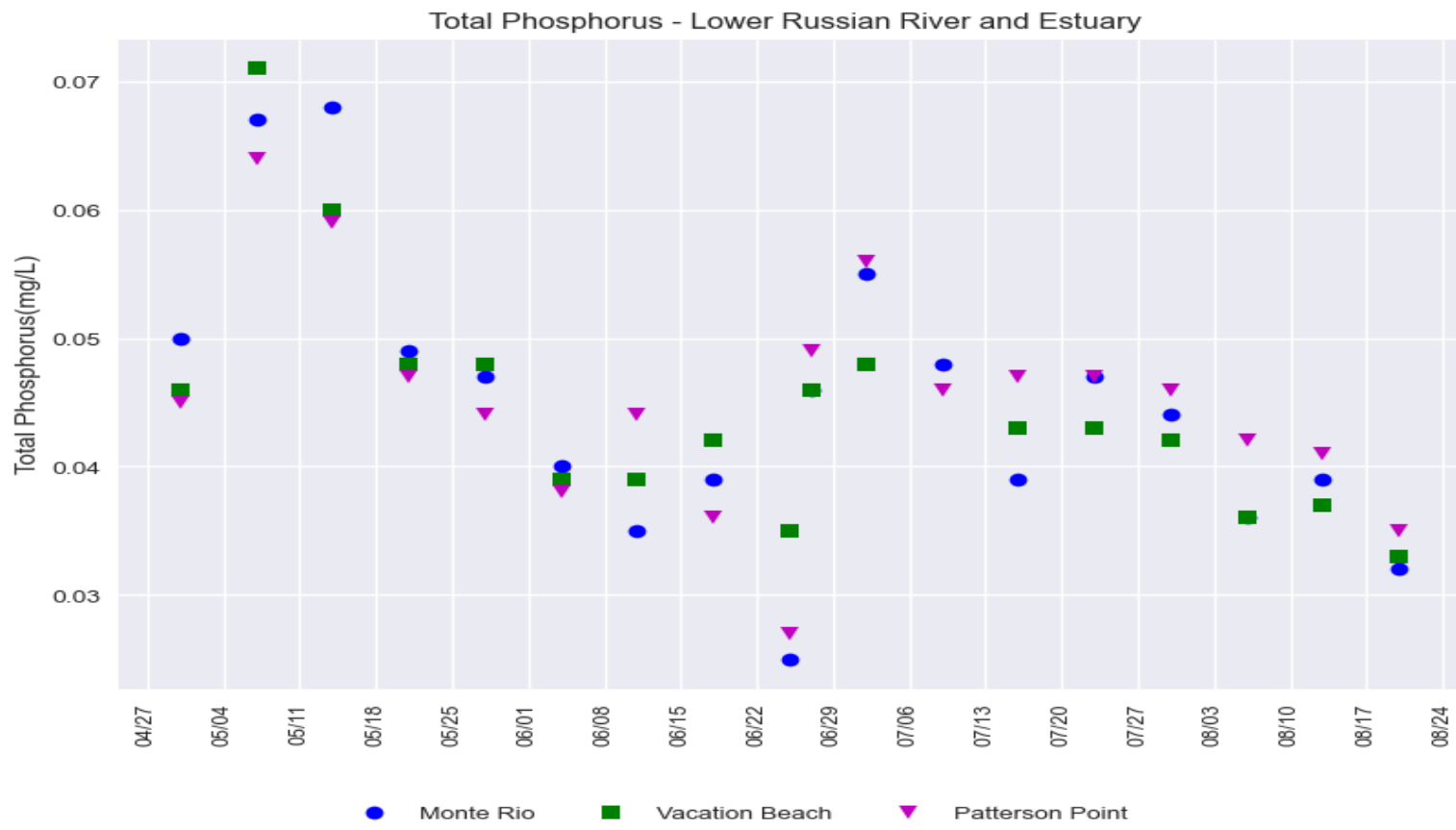
# Russian River Water Quality Grab Samples

Provisional Data Subject to Revision



# Russian River Water Quality Grab Samples

Provisional Data Subject to Revision



# Russian River Water Quality Grab Samples (July 16 - September 3, 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	7/16/2024	6131**	3076**	2909**
		7/23/2024	3448**	3255**	1789**
		7/30/2024	1299.7	1732.9	1553.1
		8/6/2024	1789**	2282**	1553**
		8/13/2024	1732.9	1732.9	1553.1
		8/20/2024	2382**	1153**	1187**
		8/27/2004	1299.7	1986.3	1732.9
		9/3/2024	2419.6	2419.6	980.9
E. Coli MPN/100 mL	235	7/16/2024	21.1	4.1	16
		7/23/2024	29.2	25.9	14.6
		7/30/2024	21.1	21.1	20
		8/6/2024	20.1	6.3	6.3
		8/13/2024	18.5	6.3	6.3
		8/20/2024	52	13.4	8.6
		8/27/2004	26.2	8.6	19.5
		9/3/2024	28.5	12.2	12.1
Enterococcus MPN/100 mL****	61	7/16/2024	5.2	1	3.1
		7/23/2024	21.3	9.7	1
		7/30/2024	14.5	5.2	7.5
		8/6/2024	6.3	1	<1.0
		8/13/2024	17.6	1	5.2
		8/20/2024	51.2	8.6	18.9
		8/27/2004	55.7	8.6	12.2
		9/3/2024	21.1	8.6	2

\*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

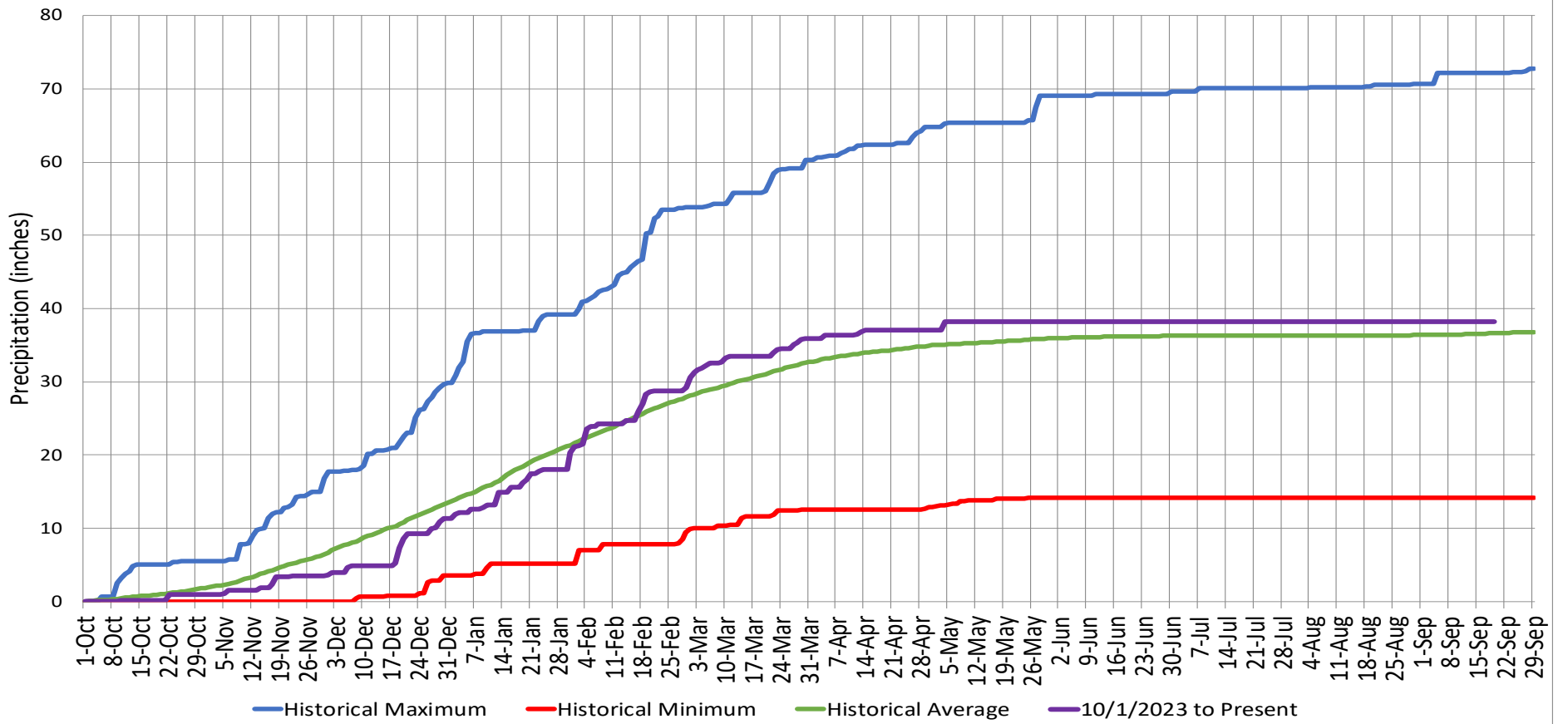
\*\*\*\*We continue to collect enterococcus data, however it is not a reliable fecal indicator bacteria in freshwater

# Precipitation

Ukiah Municipal Airport (WBAN: 72590523275 (KUKI))

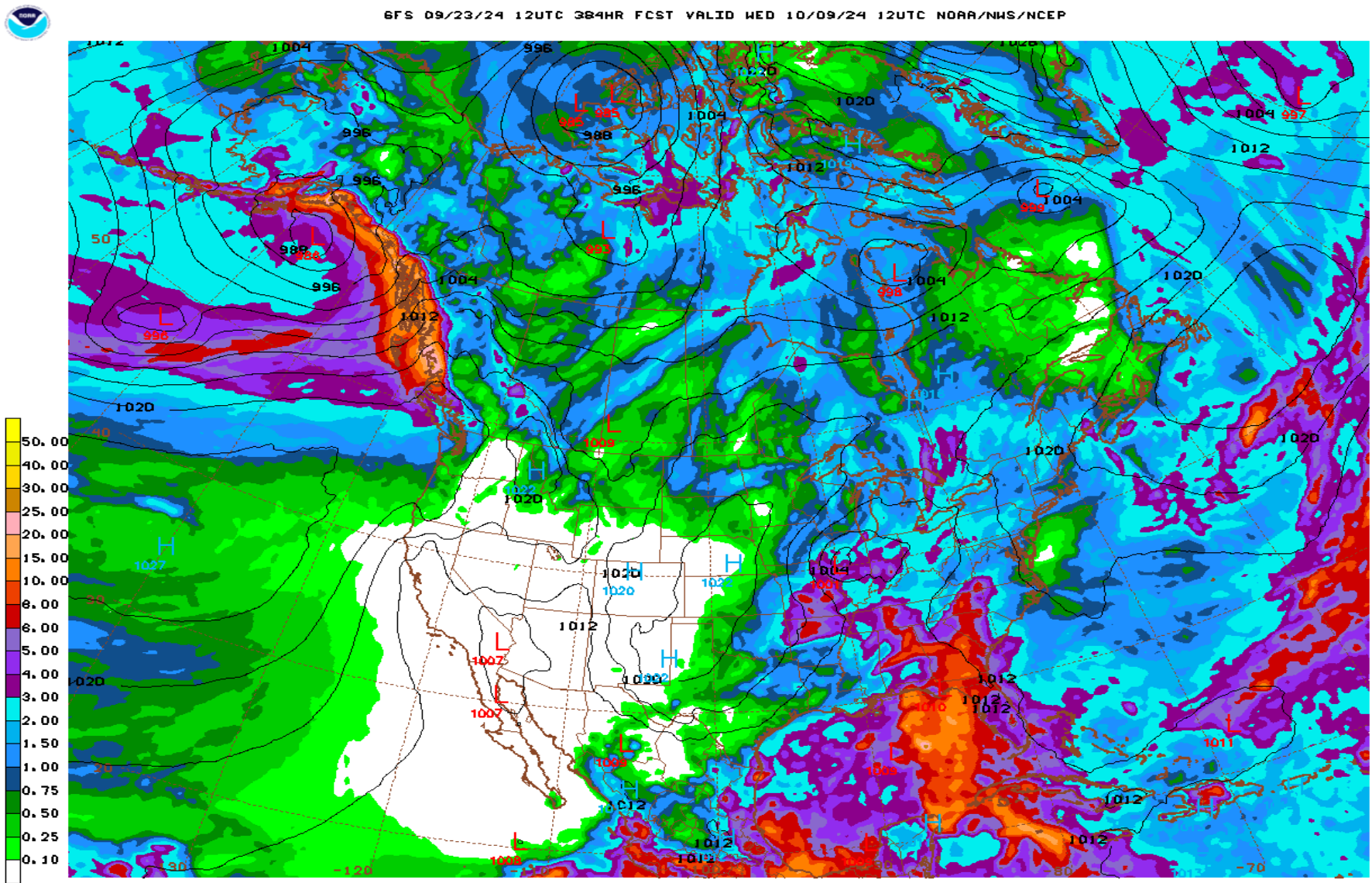
Date Range	Cumulative (inches)
Oct 1, 2023 - Sep 19, 2024	<b>38.22</b>
Last 7 Days*	<b>0.00</b>

Cumulative Precipitation Comparison of Current Year versus Historic Record



## Global Forecast System Model 16-day Cumulative Precipitation Forecast

GFS 09/23/24 12UTC 384HR FCST VALID WED 10/09/24 12UTC NOAA/NWS/NCEP



GFS WED 241009/1200V384 EMSL (4MB), 384HR ACCUMULATED PRECIP (IN)

Date Range  
Sep 23 - Oct 9, 2024

Forecasted Cumulative (inches)  
**0.00**



## Russian River Fisheries Monitoring



Sonoma Water installed the underwater video camera at the Mirabel dam to monitor adult salmon returns to the Russian River. Video monitoring began on September 1, 2024. The first adult Chinook salmon for the 2024 return year was observed on September 14. No other adult salmonids have been observed.