



State Water Resources Control Board
 Temporary Urgency Change Orders (6/6/2024)
 Russian River Hydrologic & Water Quality Report
 August 30, 2024 - September 5, 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).

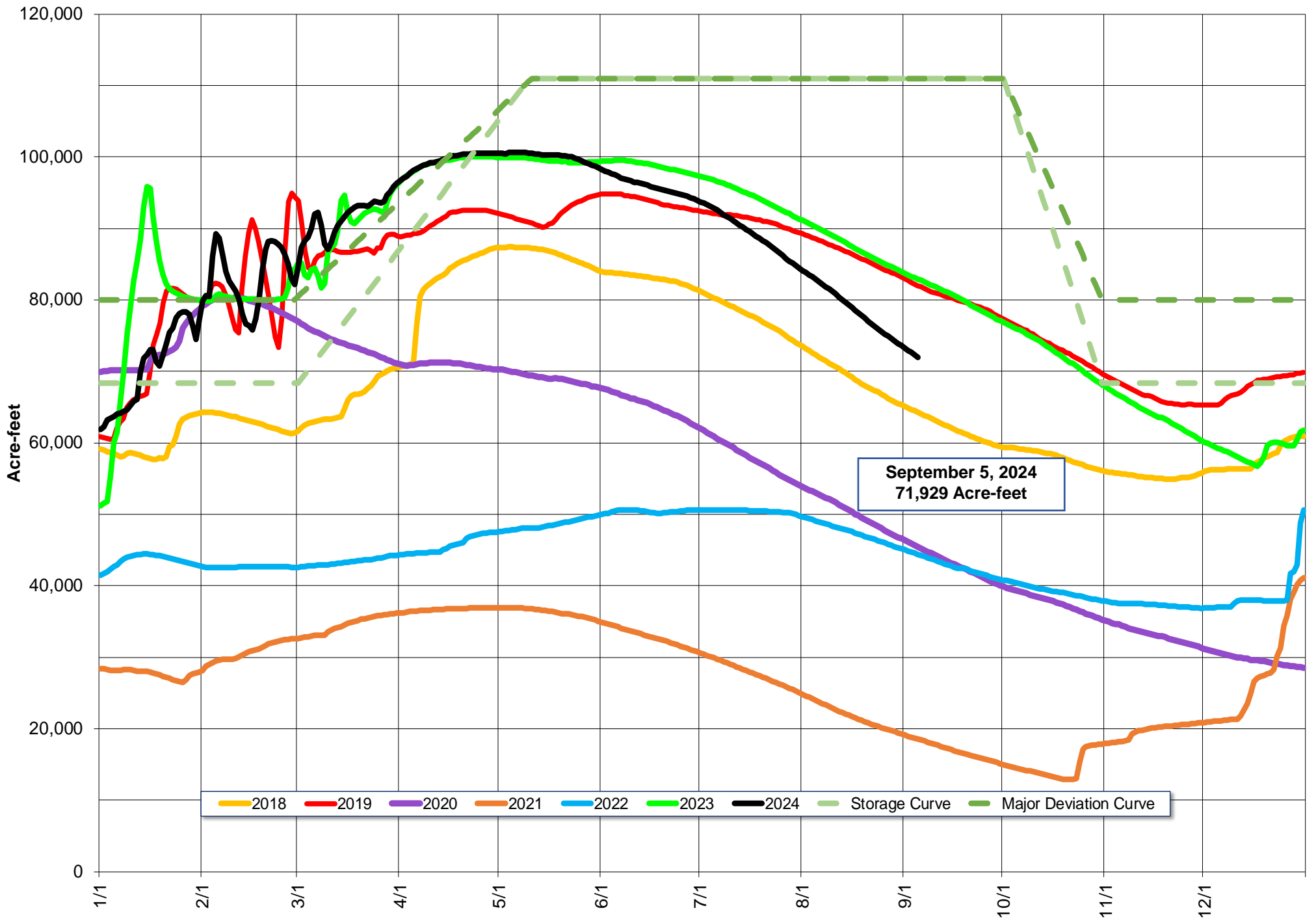
Instream Flow Requirements as of September 5, 2024

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



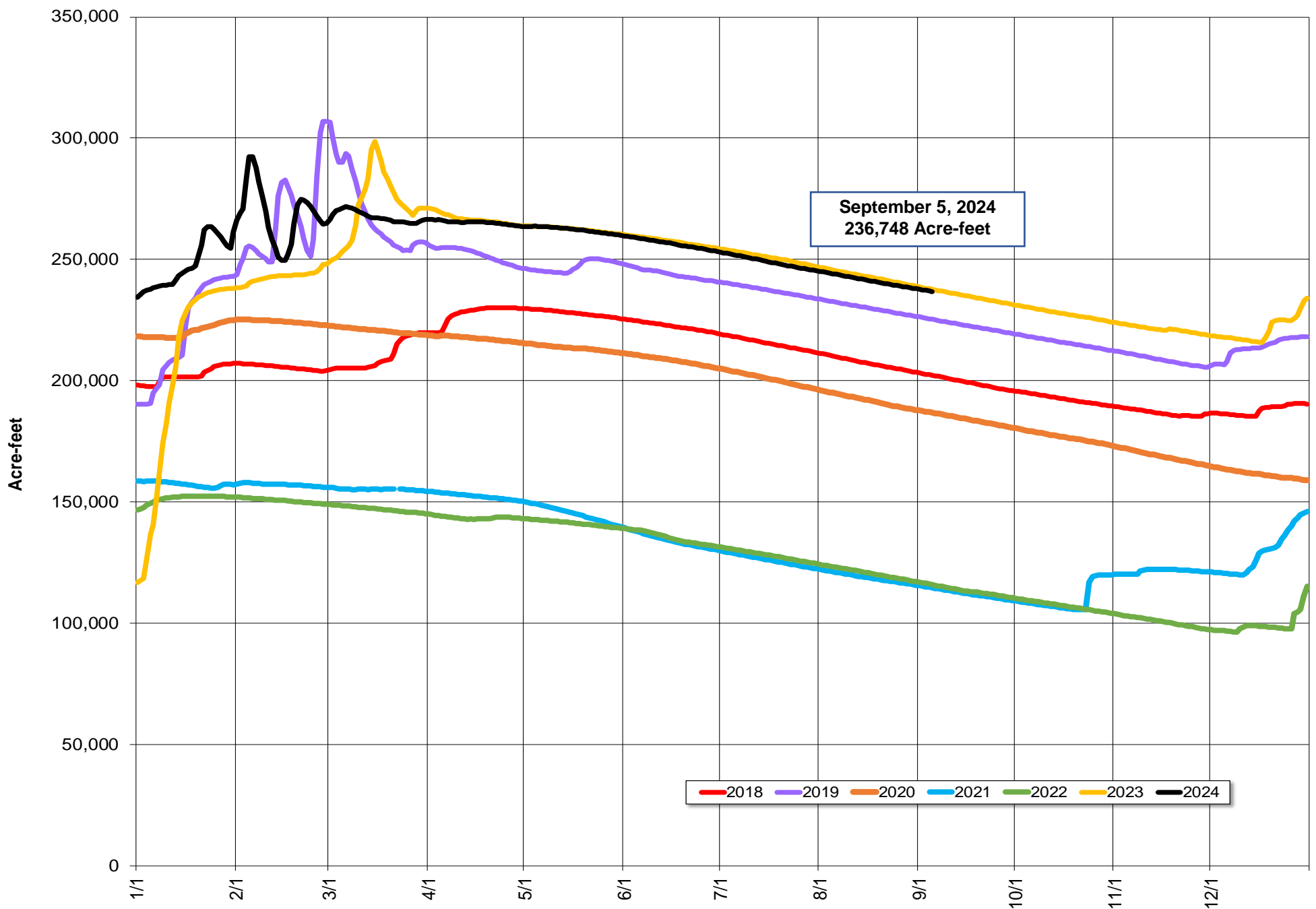
Storage (acre-feet)	September 5, 2024	71,929	
Change in Storage (acre-feet)	Last 30 days	Total	Average Daily Rate
		-10,579	-353
	Last 7 days	-1,998	-285
Daily Inflow (cfs)	Last 7 days	Min	42
		Max	61
		Mean	49
Release (cfs)	Last 7 days	Min	197
		Max	213
		Mean	201

Lake Sonoma



Todd Schram, February 10, 2024

Lake Sonoma Storage 2018-2024



Storage (acre-feet)	September 5, 2024	236,748	
		Total	Average Daily Rate
Change in Storage (acre-feet)	Last 30 days	-7,134	-238
	Last 7 days	-1,601	-229
Daily Inflow (cfs)	Last 7 days	Min	0
		Max	8
		Mean	3
Release (cfs)	Last 7 days	Min	97
		Max	97
		Mean	97

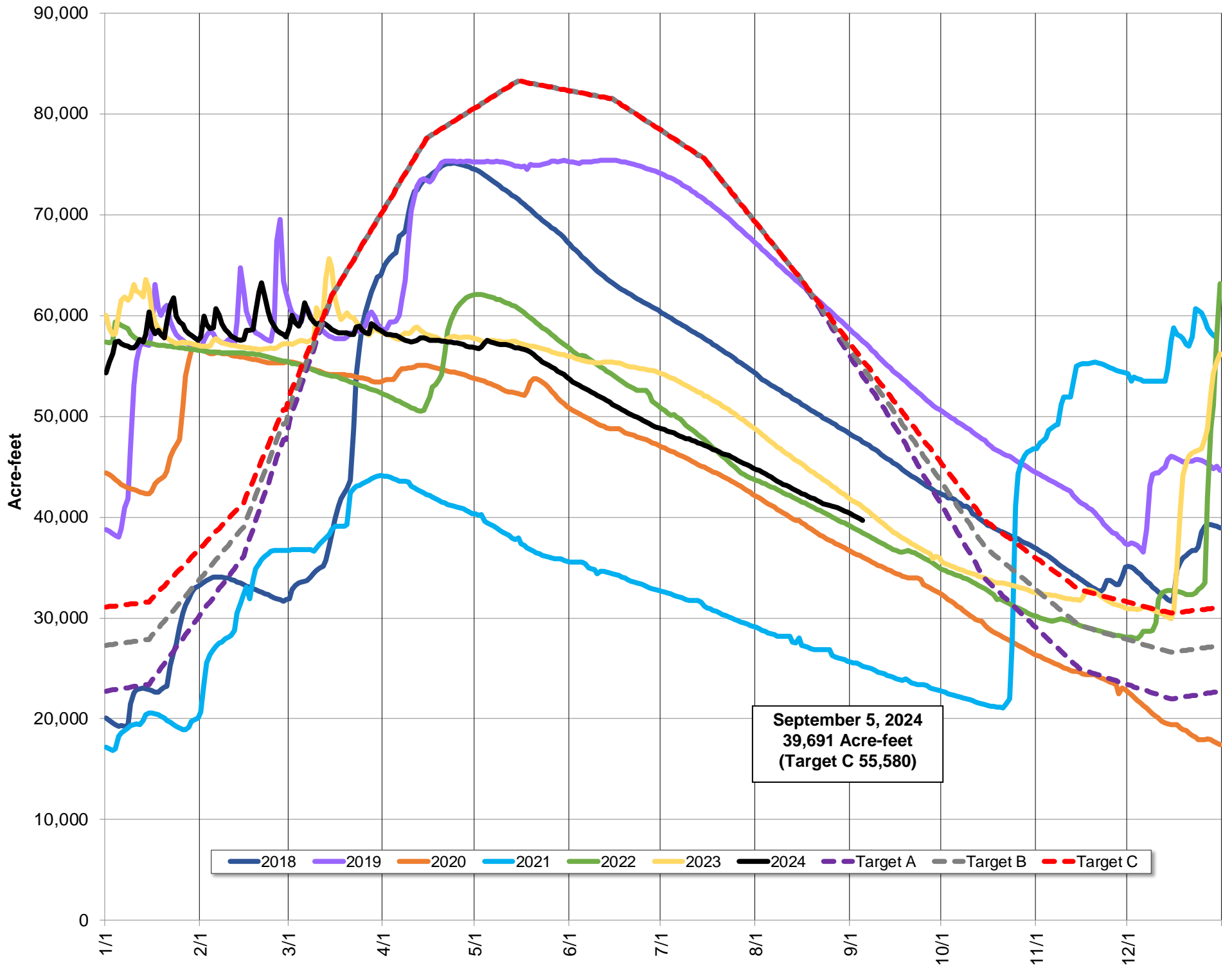
Potter Valley Project

PVP Diversion (cfs)	September 5, 2024	52
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Parameter	Date Range	Cumulative	Daily Average
Inflow* (acre-feet)	October 1, 2023 - September 5, 2024	487,200	1,429
	Last 7 days	53	8

*Inflow calculation based on criteria established in D1610

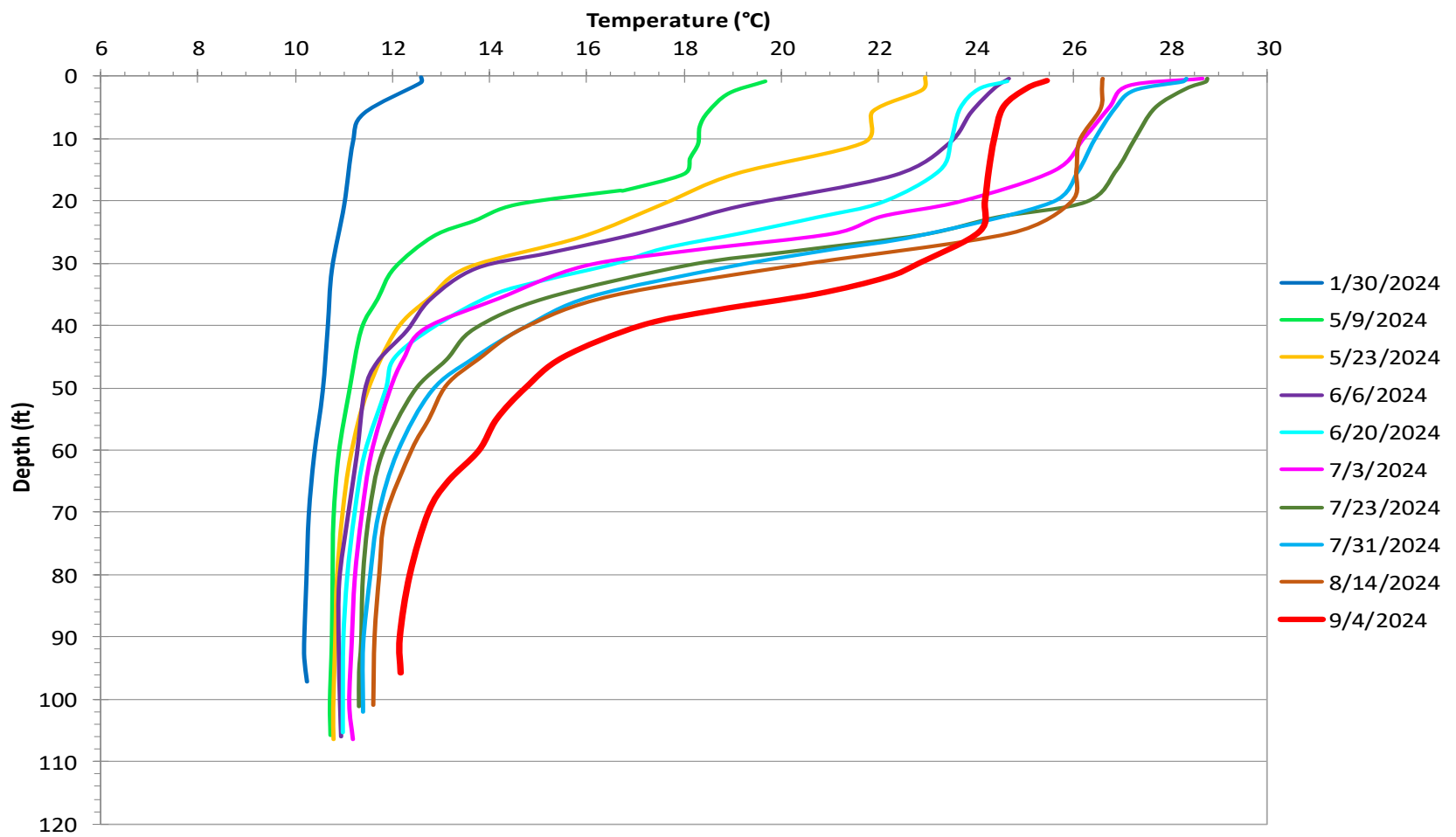
Lake Pillsbury Storage 2018 - 2024 and Target Storage Scenarios



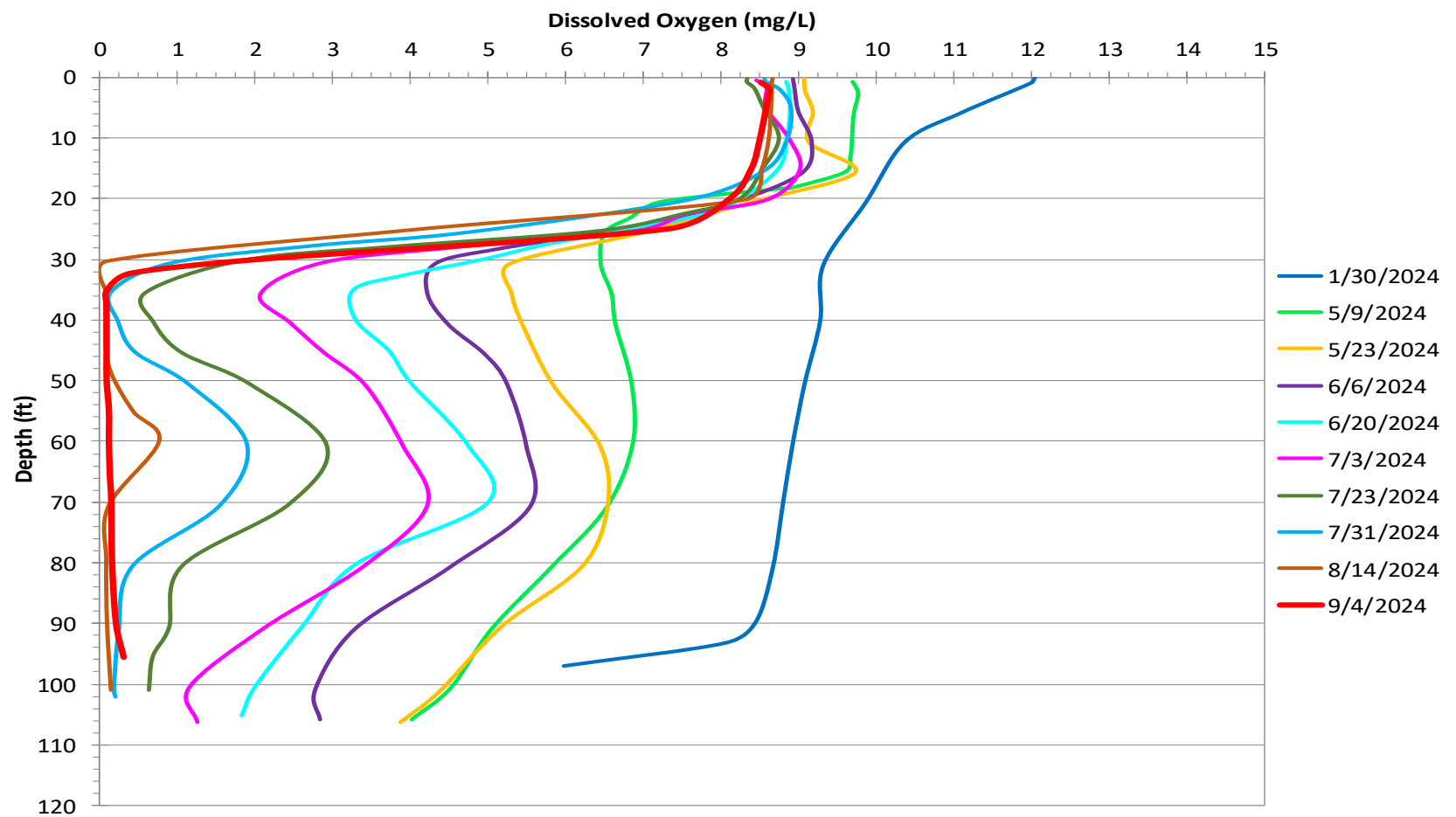
Lake Mendocino Water Quality Vertical Profiles (January 30 – September 4, 2024)

Provisional Data Subject to Revision

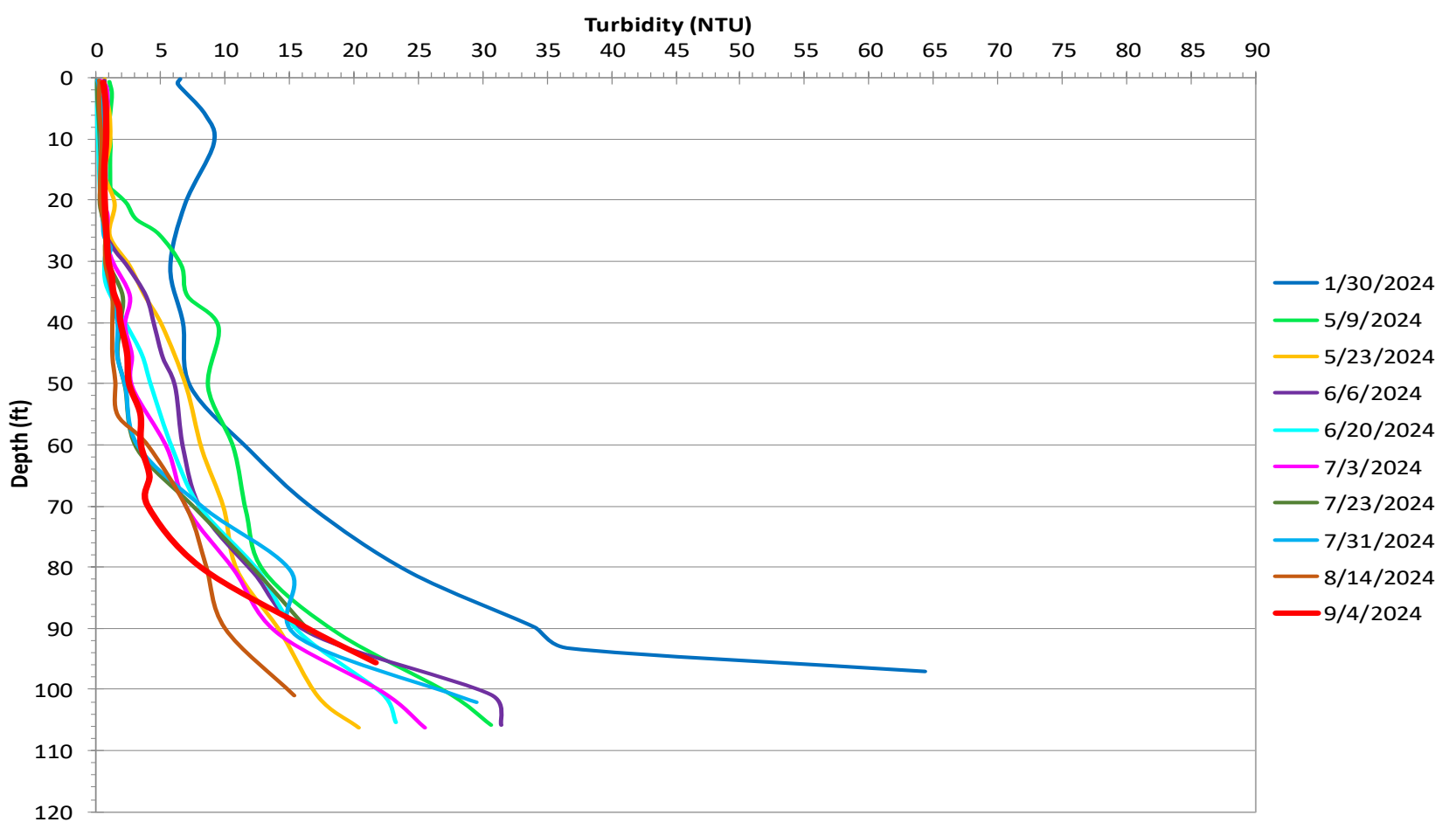
Lake Mendocino Dam - Vertical Temperature Profile - 2024



Lake Mendocino Dam - Vertical Dissolved Oxygen Profile - 2024



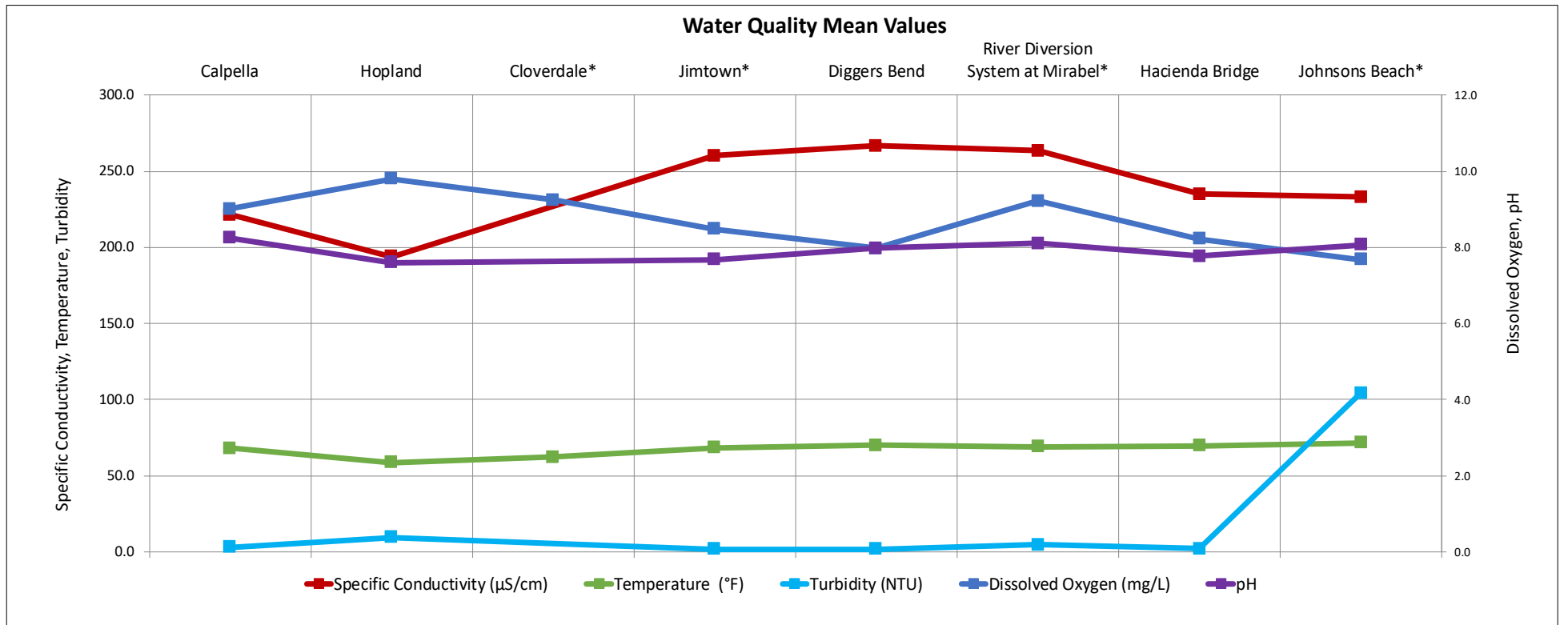
Lake Mendocino Dam - Vertical Turbidity Profile - 2024



Russian River Flows (August 30, 2024 - September 5, 2024)

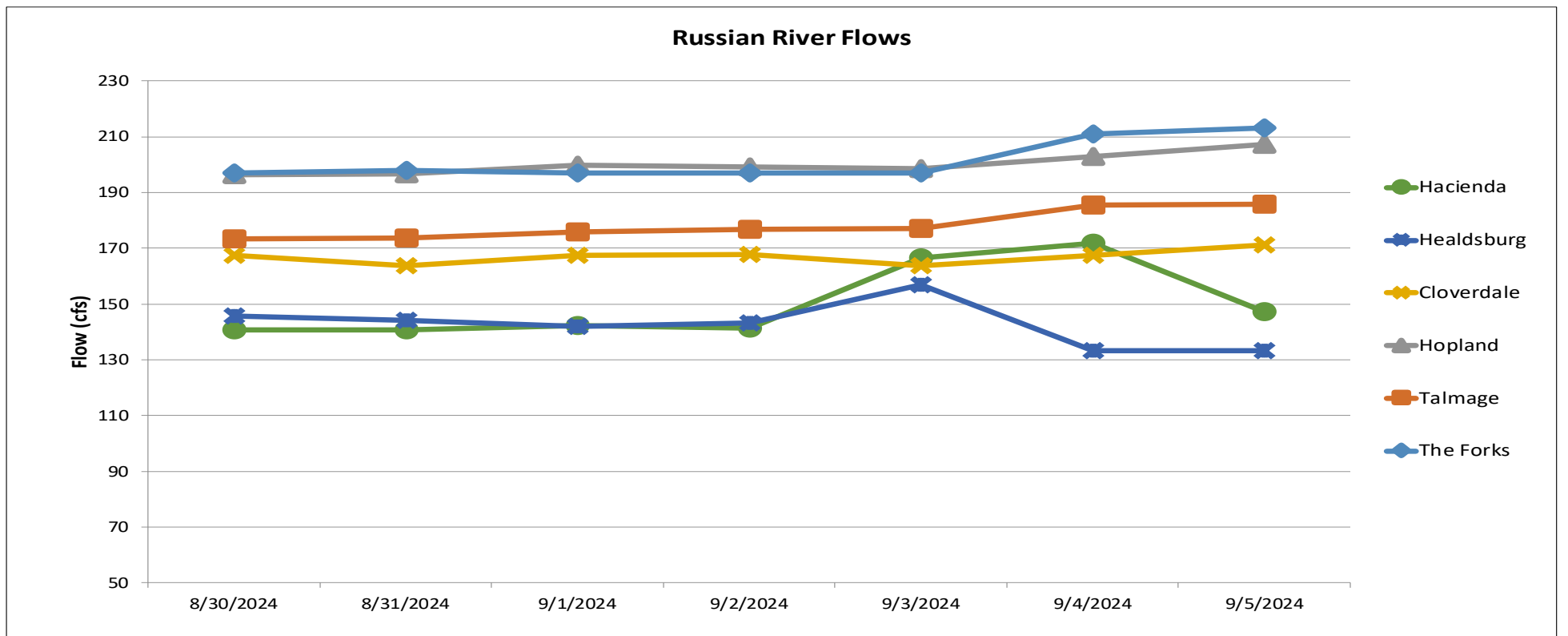
Parameter		Calpella	Hopland	Cloverdale*	Jimtown*	Diggers Bend	River Diversion System at Mirabel*	Hacienda Bridge	Johnsons Beach*
		USGS 11461500	USGS 11462500	USGS 11463000	USGS 11463682	USGS 11463980	SCWA	USGS 11467000	SCWA
Temperature (°F)	Min	64.4	56.5	59.7	65.1	66.6	67.8	66.4	69.7
	Max	71.2	60.3	65.3	71.8	73.8	70.8	74.5	73.6
	Mean	67.8	58.5	62.2	68.4	70.1	68.8	69.7	71.5
Specific Conductivity (µS/cm)	Min	212.0	193.0		259.0	264.0	255.1	232.0	133.2
	Max	232.0	195.0		262.0	270.0	279.6	248.0	245.1
	Mean	221.6	194.0		260.2	266.8	263.5	235.1	233.0
Dissolved Oxygen (mg/L)	Min	8.2	8.9	8.7	6.9	7.2	8.0	6.2	5.4
	Max	10.4	11.2	10.3	10.9	9.2	10.0	9.6	8.5
	Mean	9.0	9.8	9.2	8.5	8.0	9.2	8.2	7.7
Dissolved Oxygen (% Saturation)	Min	90.5	87.5	88.9	74.7	78.9	89.4	67.2	60.5
	Max	117.1	112.5	109.2	124.7	107.6	110.9	111.1	97.7
	Mean	98.9	96.7	95.3	93.9	89.9	102.4	92.3	87.7
pH	Min	8.1	7.4		7.4	7.6	7.9	7.3	7.8
	Max	8.6	7.9		8.1	8.2	8.2	8.2	8.2
	Mean	8.2	7.6		7.7	8.0	8.1	7.8	8.1
Turbidity (NTU)	Min	2.0	7.8		1.0	0.4	3.0	0.9	4.7
	Max	5.4	11.8		2.7	2.3	12.1	3.0	1539.4
	Mean	3.1	9.5		1.8	1.5	4.7	1.8	104.2

*Station operated seasonally



Gage	24-hr Average Flow (cfs)						
	Aug 30, 2024	Aug 31, 2024	Sep 1, 2024	Sep 2, 2024	Sep 3, 2024	Sep 4, 2024	Sep 5, 2024
The Forks*	197	198	197	197	197	211	213
Talmage USGS 11462080	174	174	176	177	177	186	186
Hopland USGS 11462500	196	197	200	199	199	203	207
Cloverdale USGS 11463000	167	164	167	168	164	167	171
Healdsburg USGS 11464000	146	144	142	143	157	133	133
Hacienda USGS 11467000	141	141	142	141	167	172	147

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

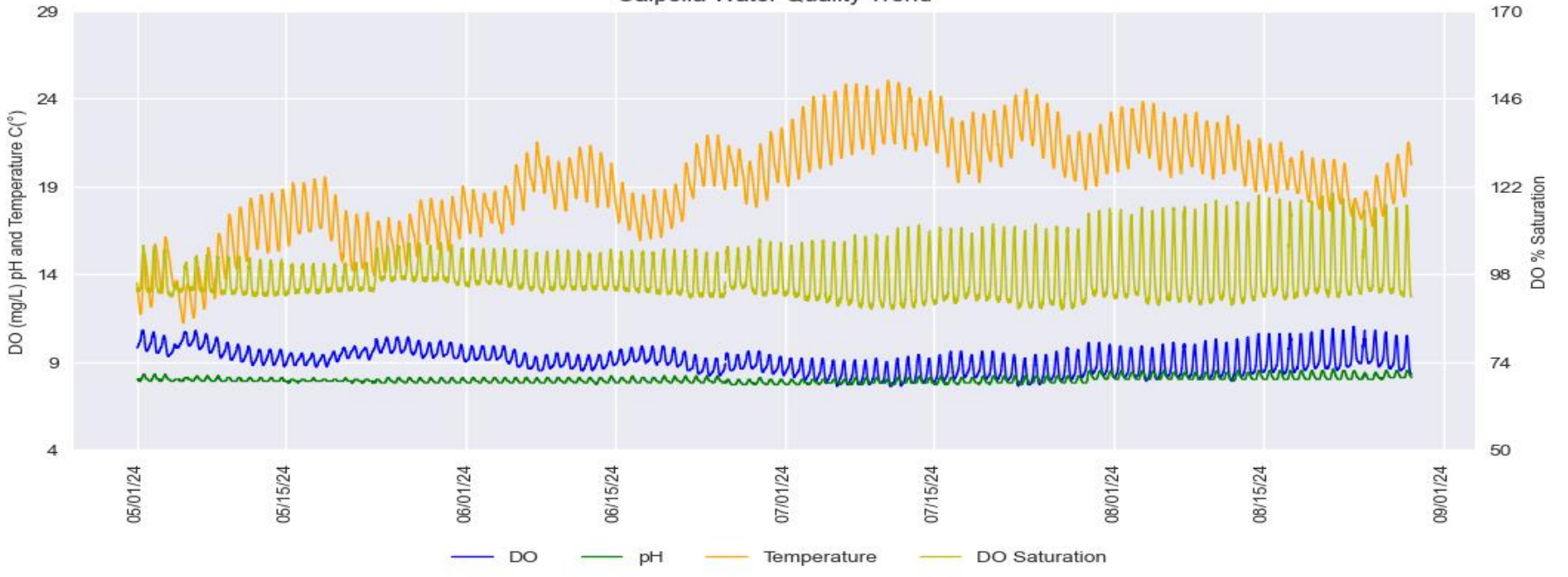


Russian River Water Quality May 1, 2024 – September 5, 2024

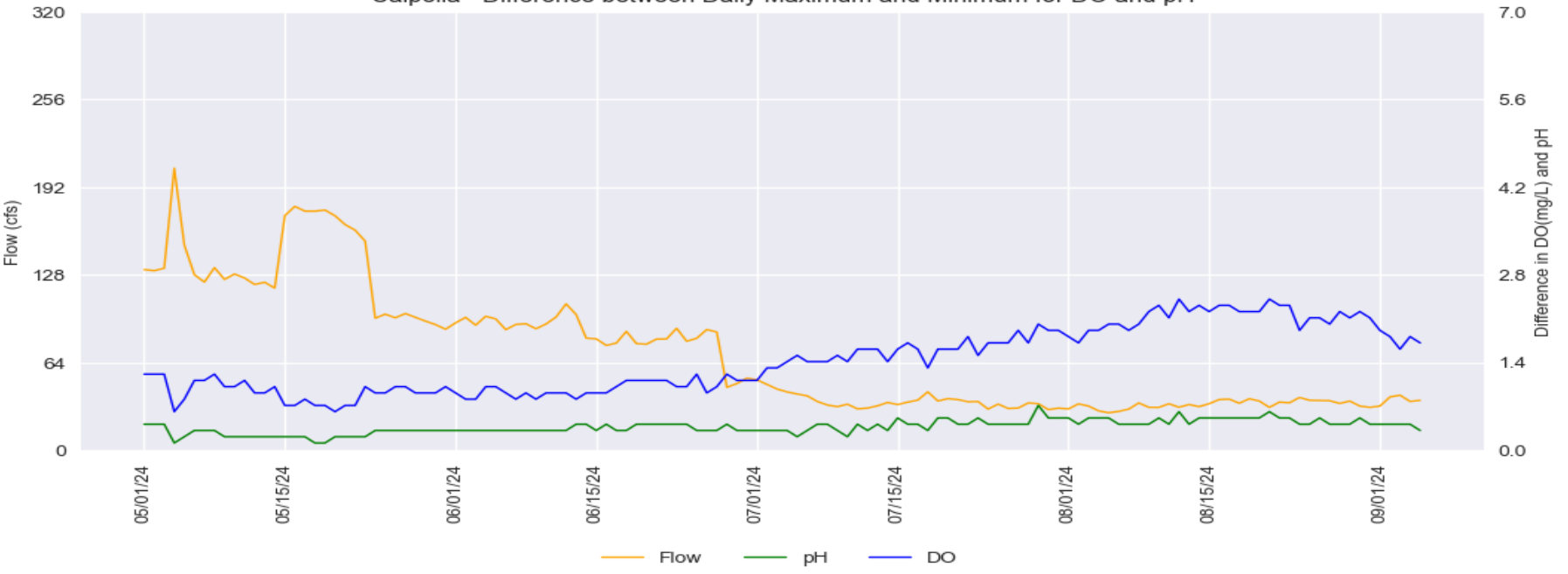
Provisional Data Subject to Revision

Calpella

Calpella Water Quality Trend

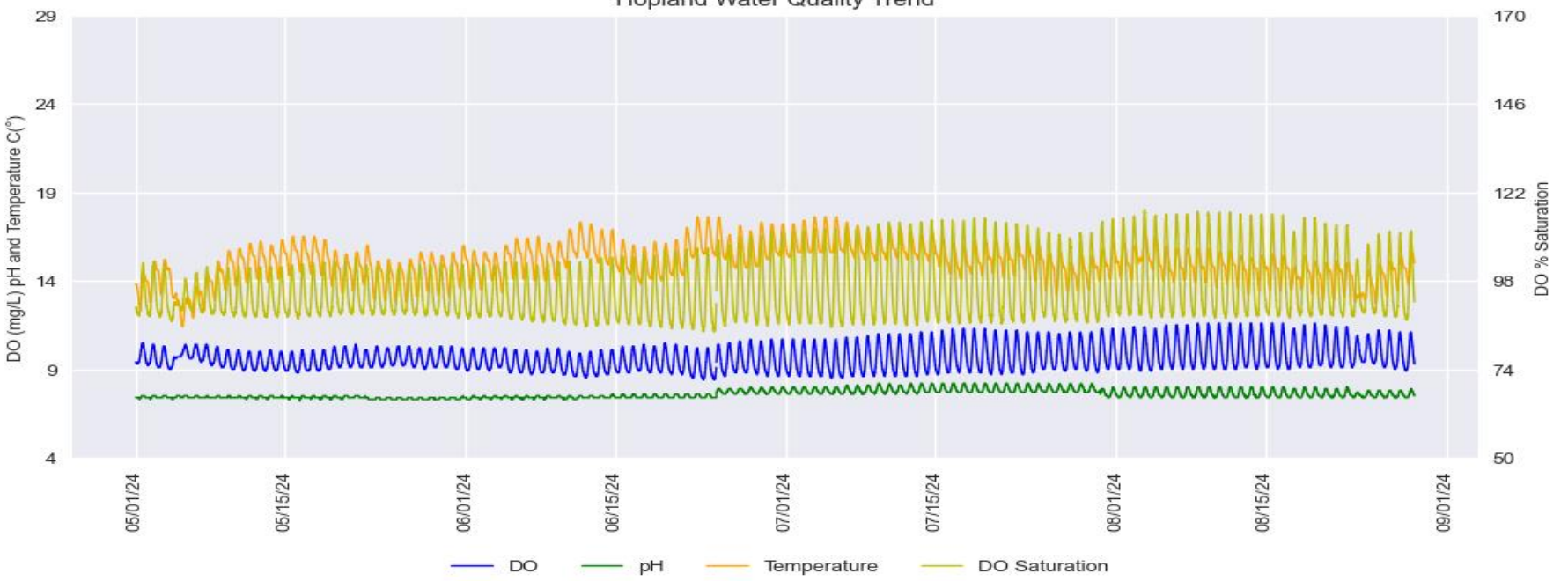


Calpella - Difference between Daily Maximum and Minimum for DO and pH

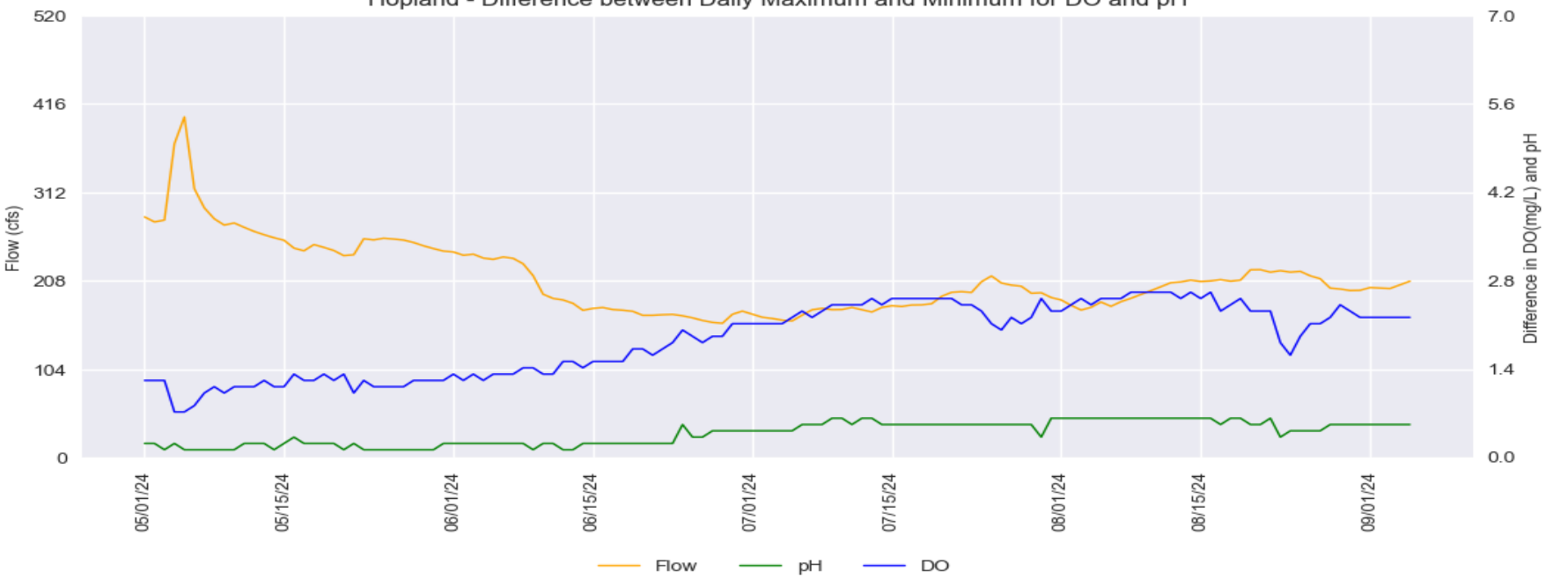


Hopland

Hopland Water Quality Trend



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

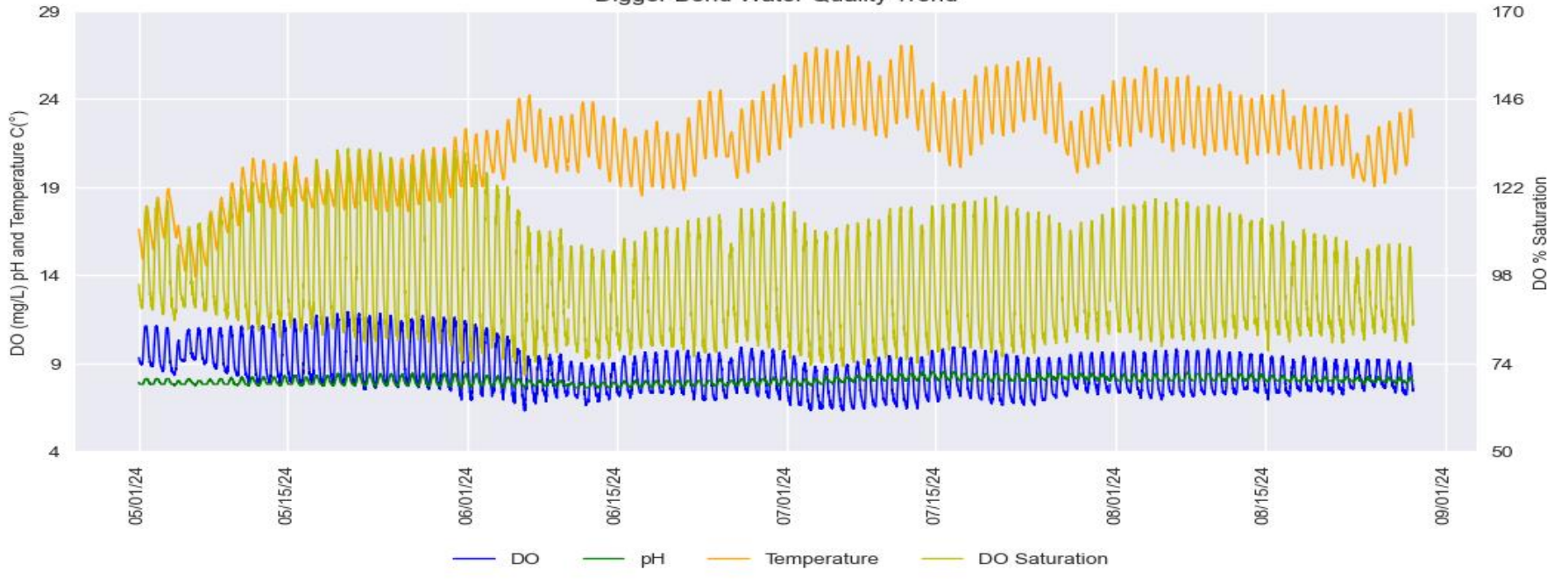


Russian River Water Quality May 1, 2024 – September 5, 2024

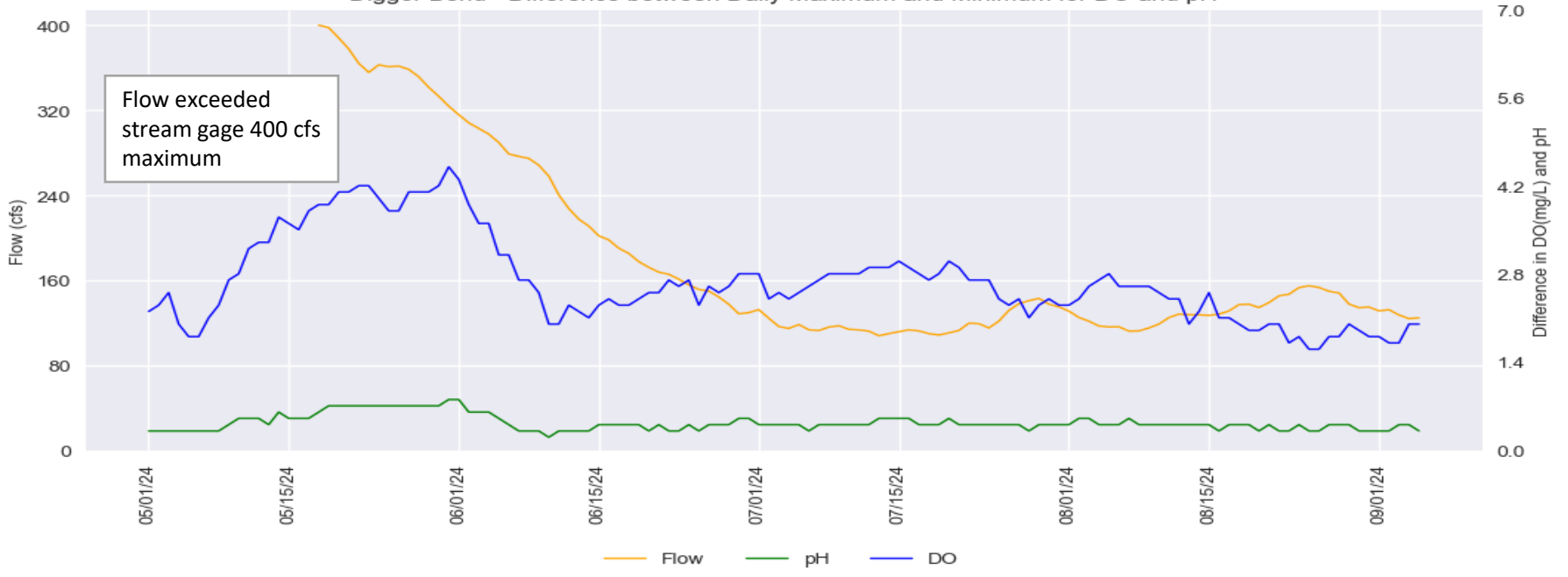
Provisional Data Subject to Revision

Digger Bend

Digger Bend Water Quality Trend

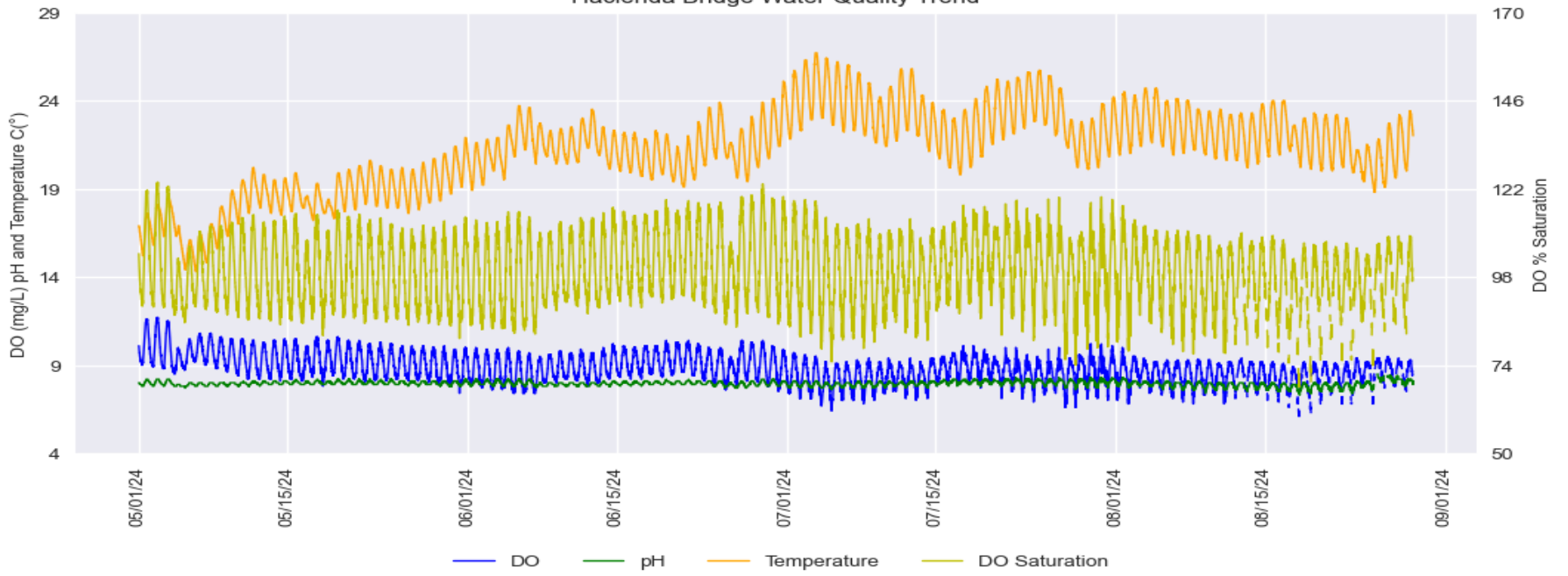


Digger Bend - Difference between Daily Maximum and Minimum for DO and pH

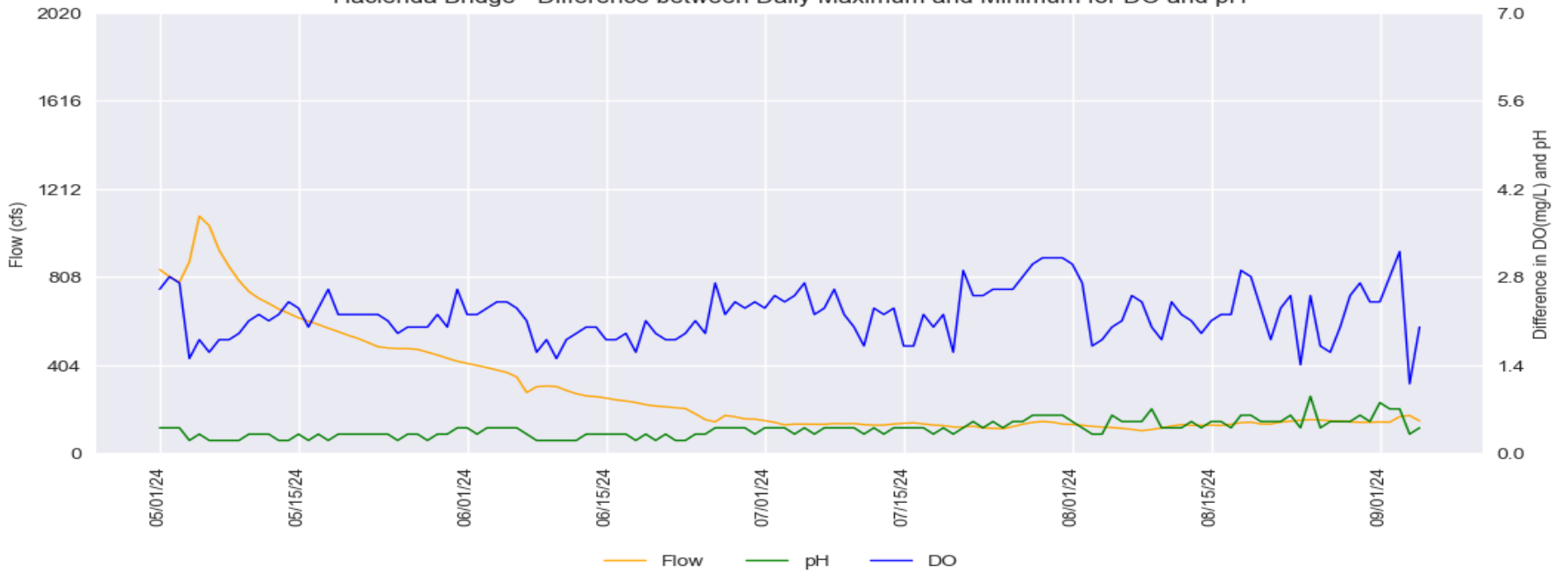


Hacienda Bridge

Hacienda Bridge Water Quality Trend



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

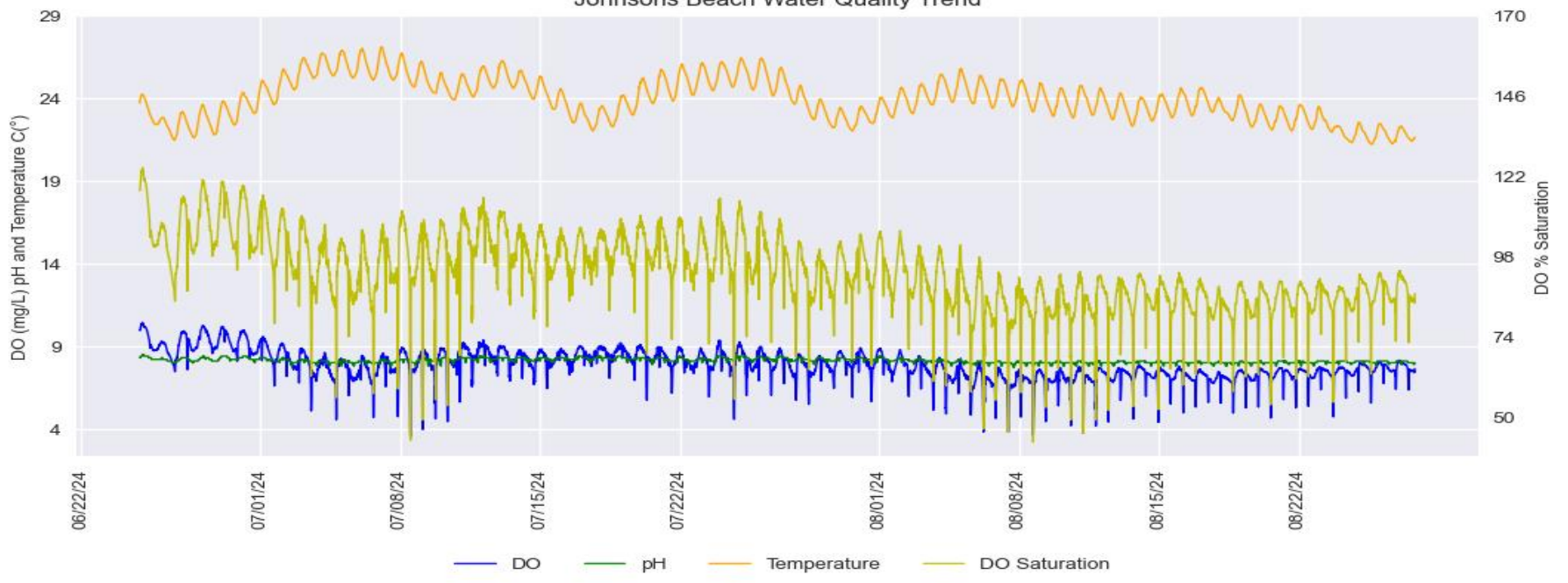


Russian River Water Quality June 24, 2024 – August 29, 2024

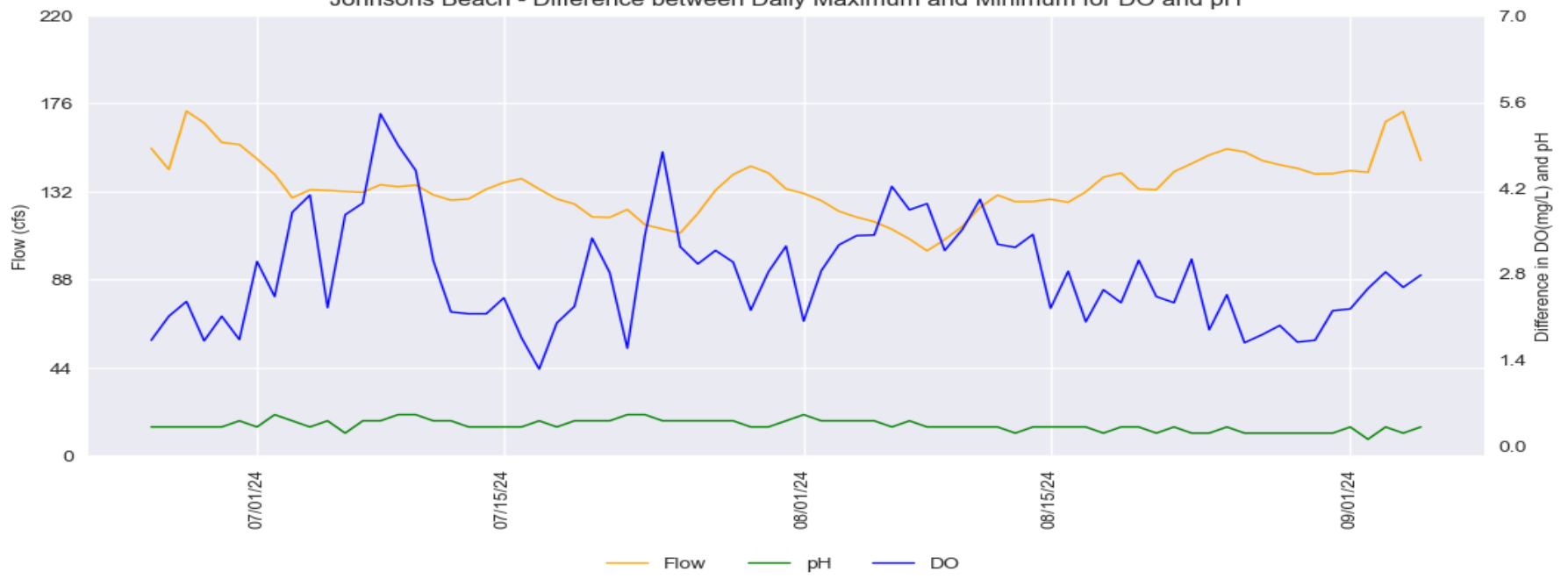
Provisional Data Subject to Revision

Johnsons Beach

Johnsons Beach Water Quality Trend

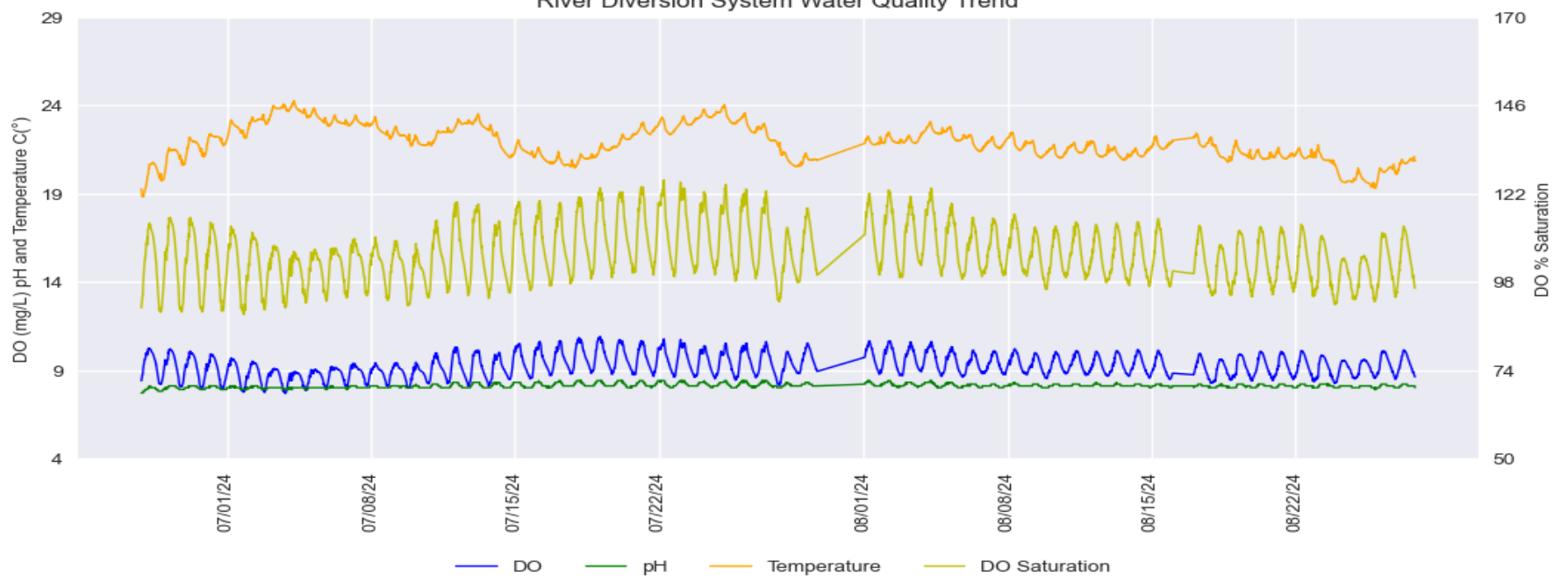


Johnsons Beach - Difference between Daily Maximum and Minimum for DO and pH

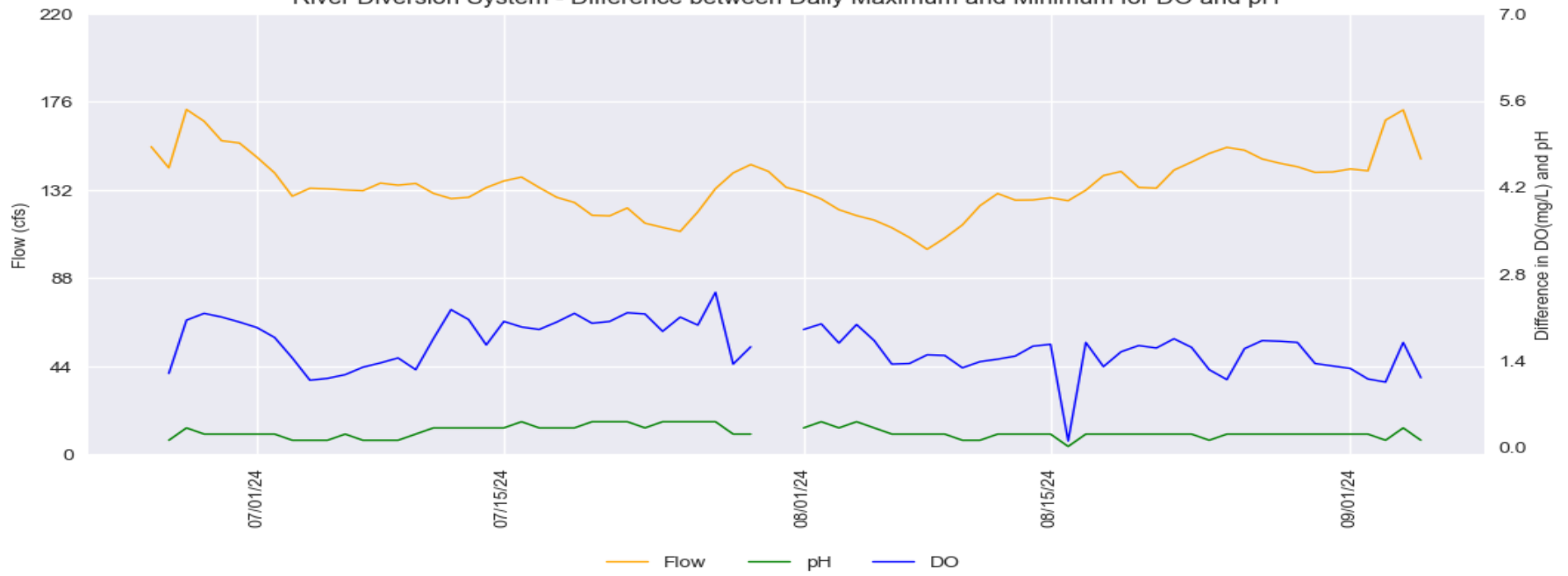


River Diversion System at Mirabel

River Diversion System Water Quality Trend



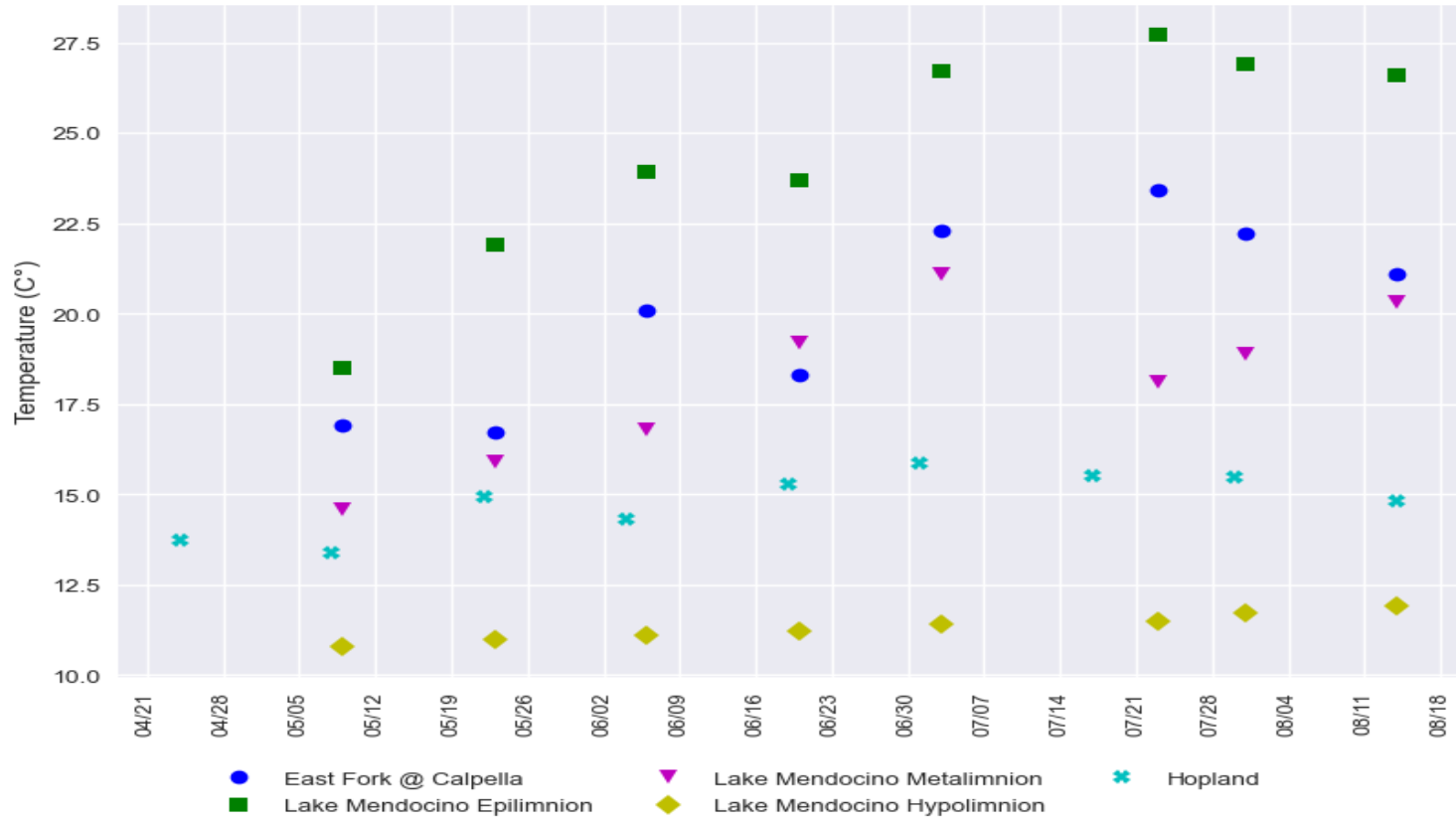
River Diversion System - Difference between Daily Maximum and Minimum for DO and pH



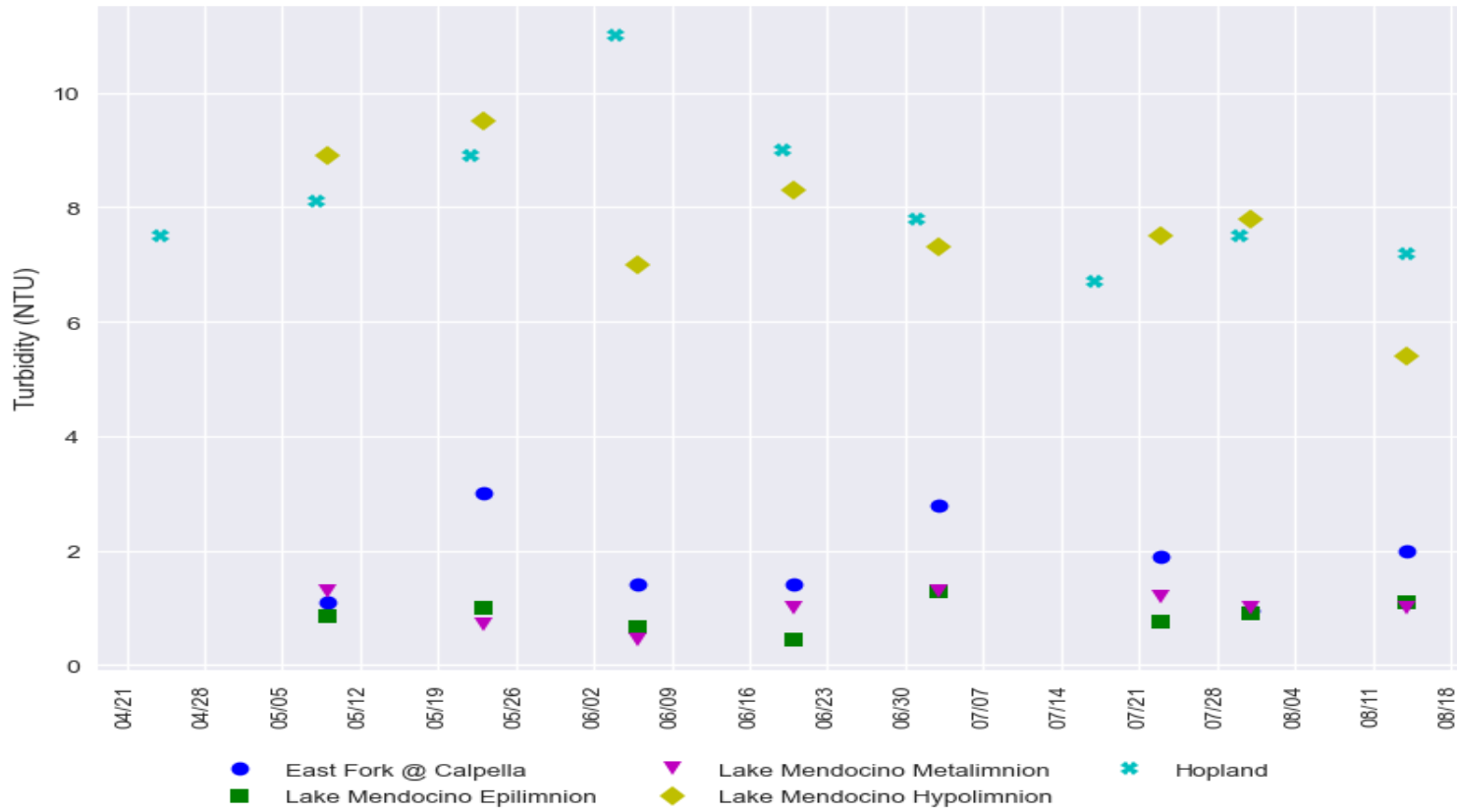
Russian River Water Quality Grab Samples

Provisional Data Subject to Revision

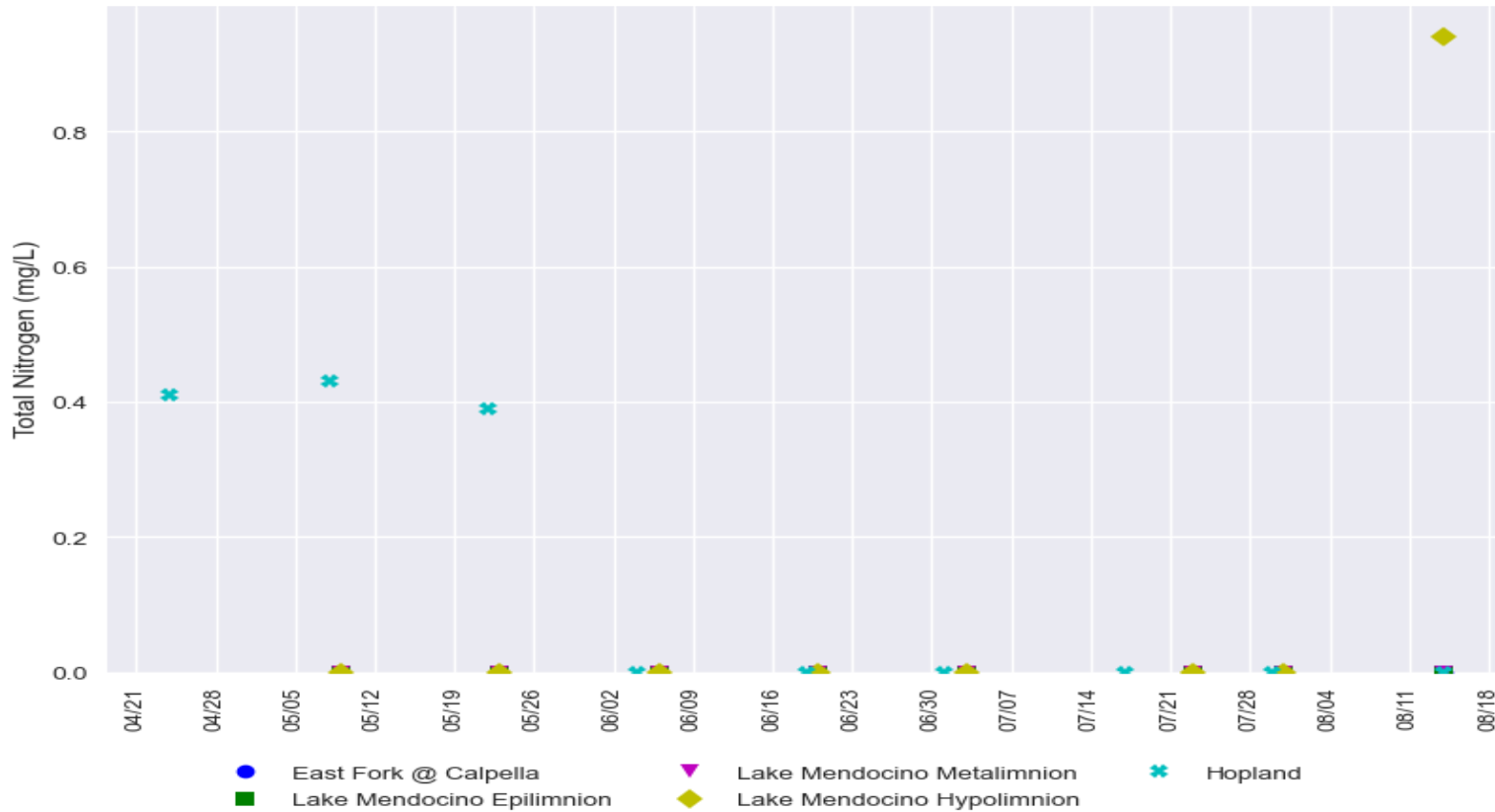
Temperature - East Fork at Calpella, Lake Mendocino, and Hopland



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



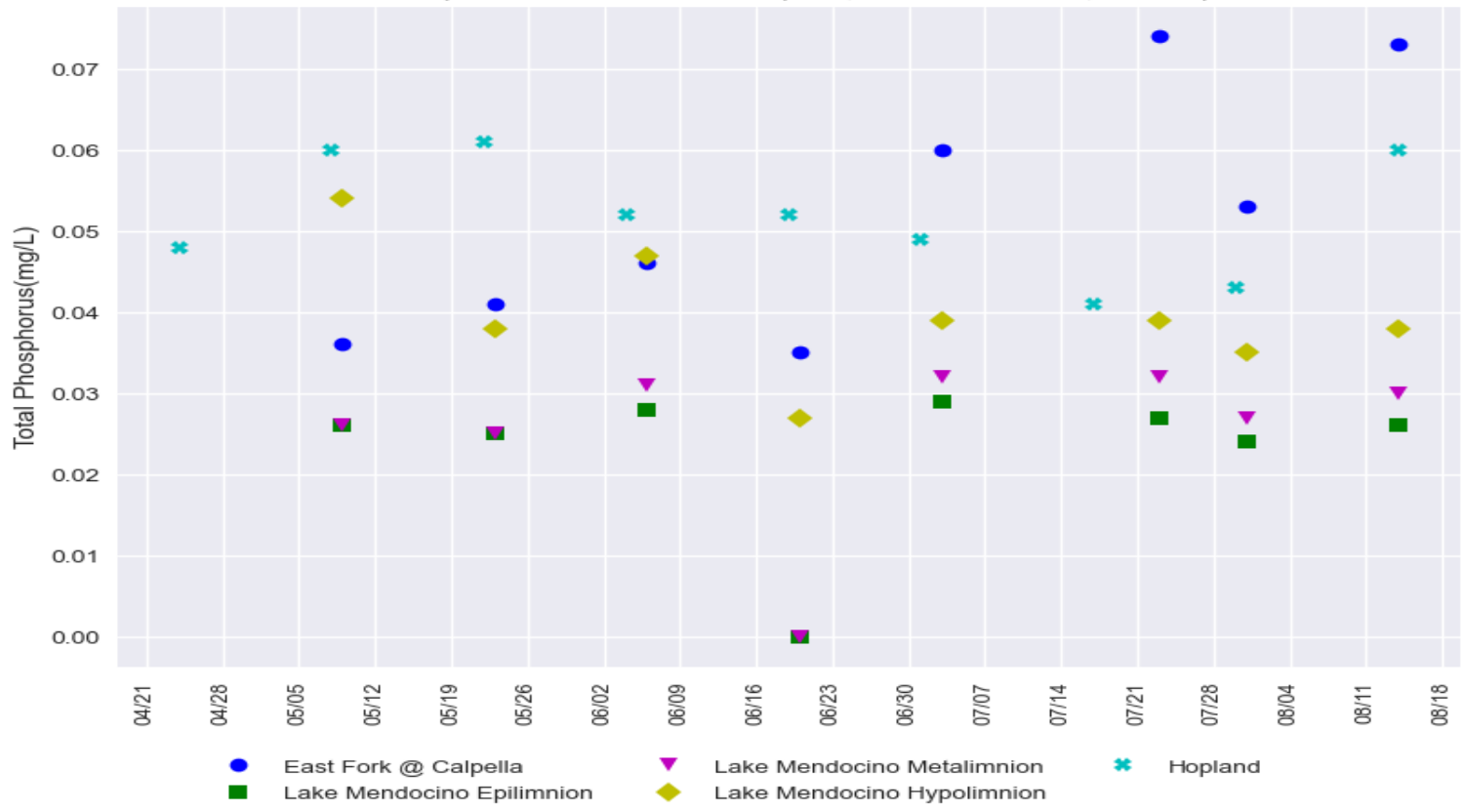
Total Nitrogen (mg/L) - East Fork at Calpella, Lake Mendocino, and Hopland



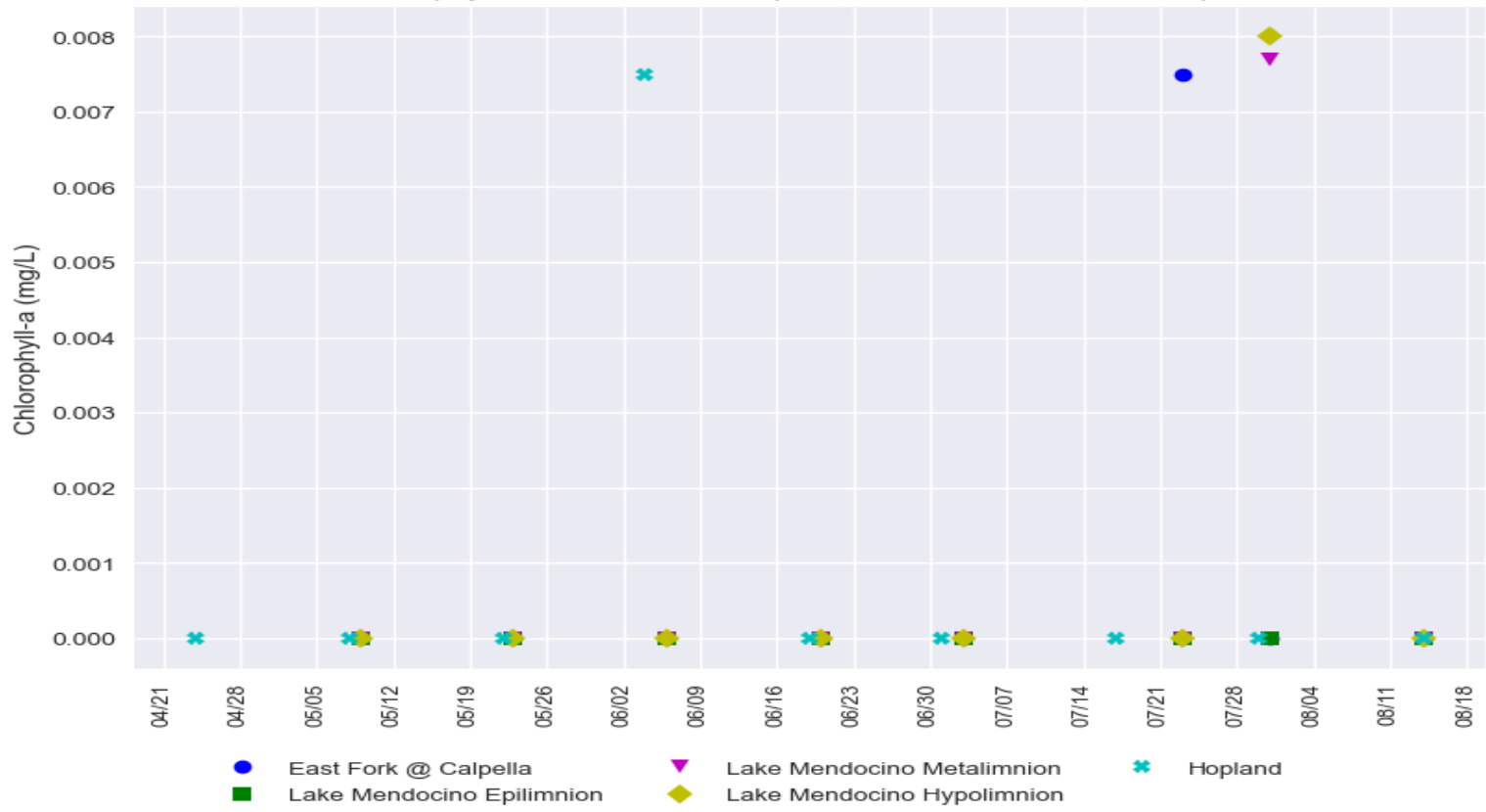
Russian River Water Quality Grab Samples

Provisional Data Subject to Revision

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

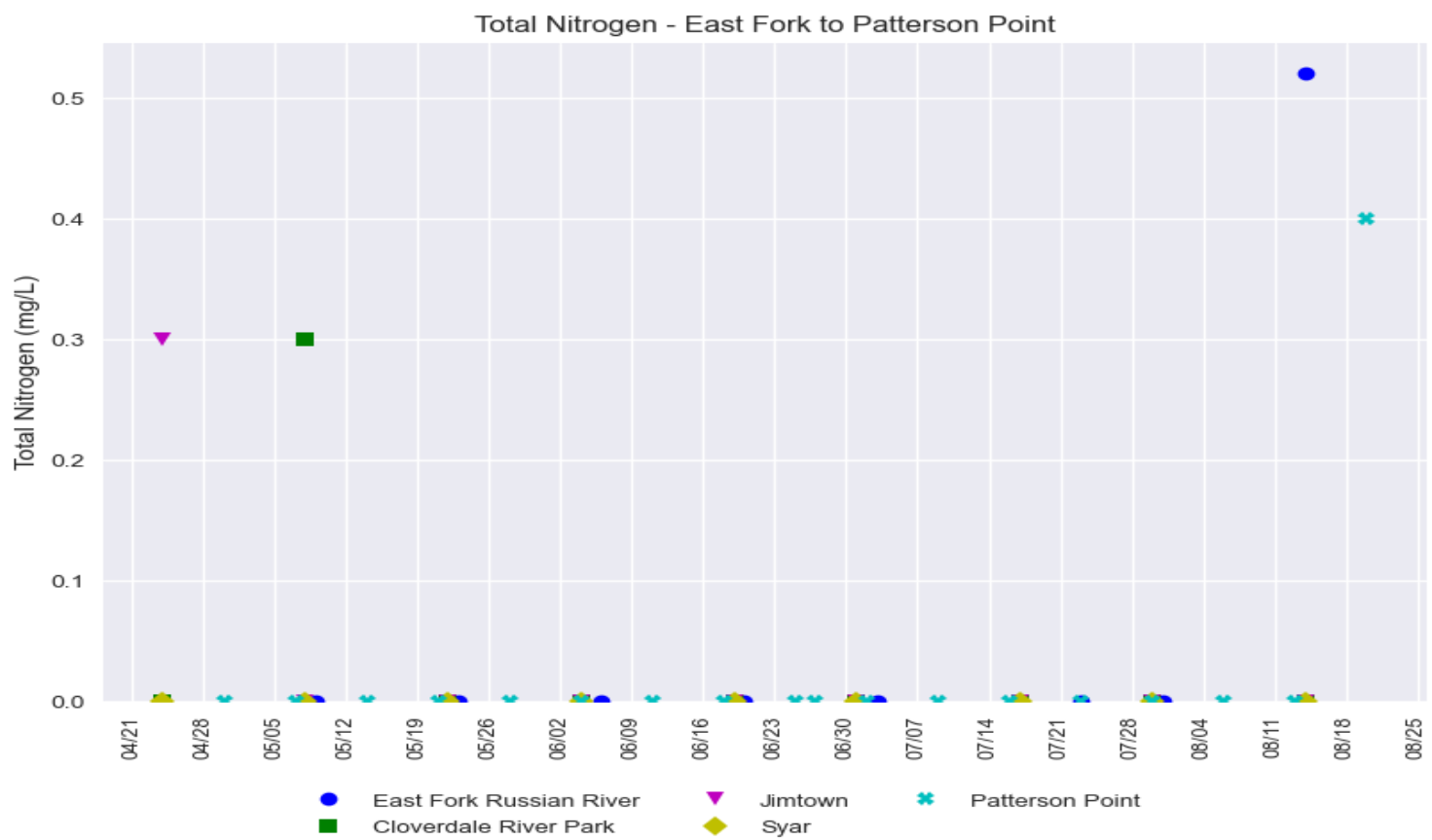
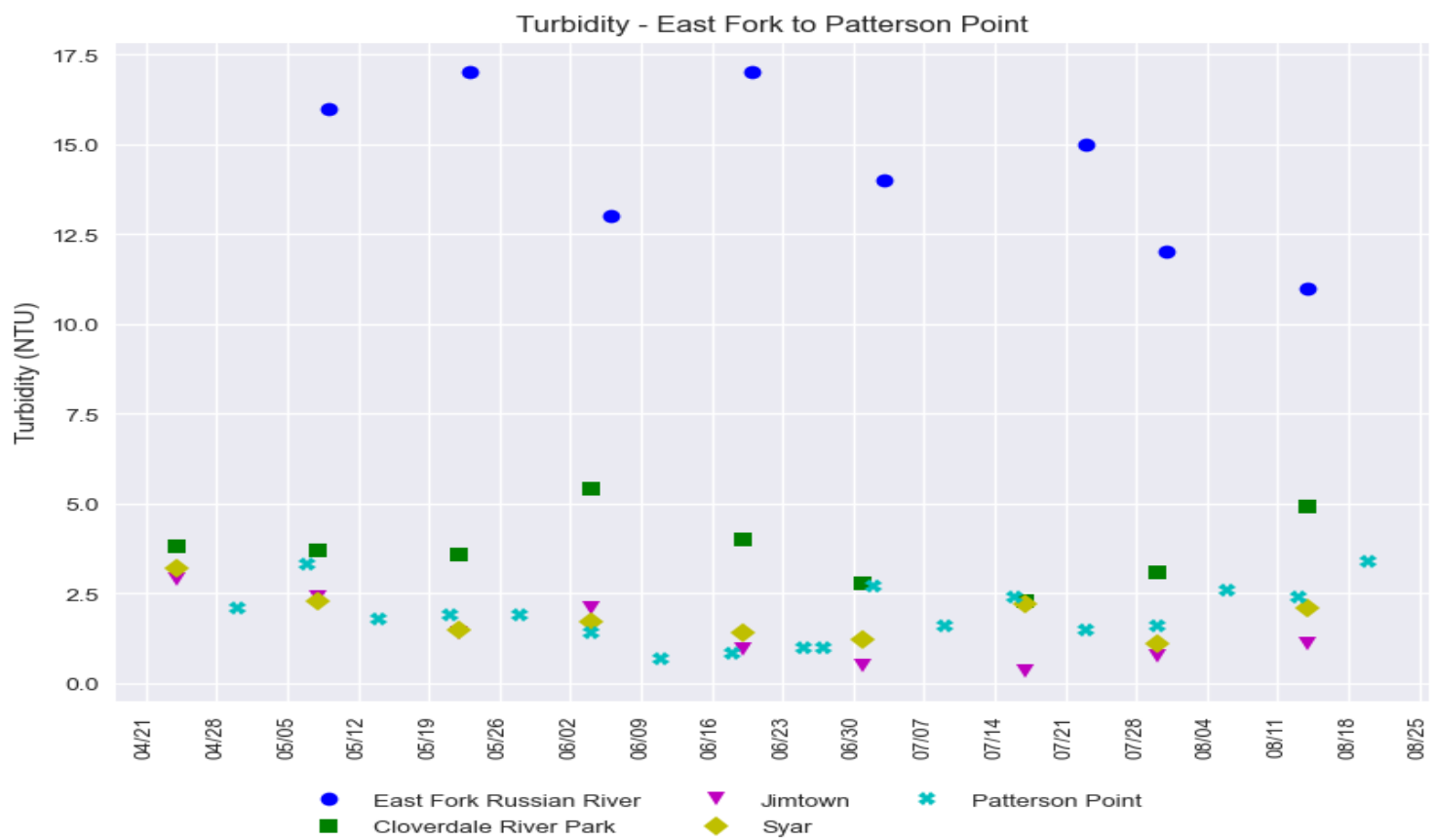
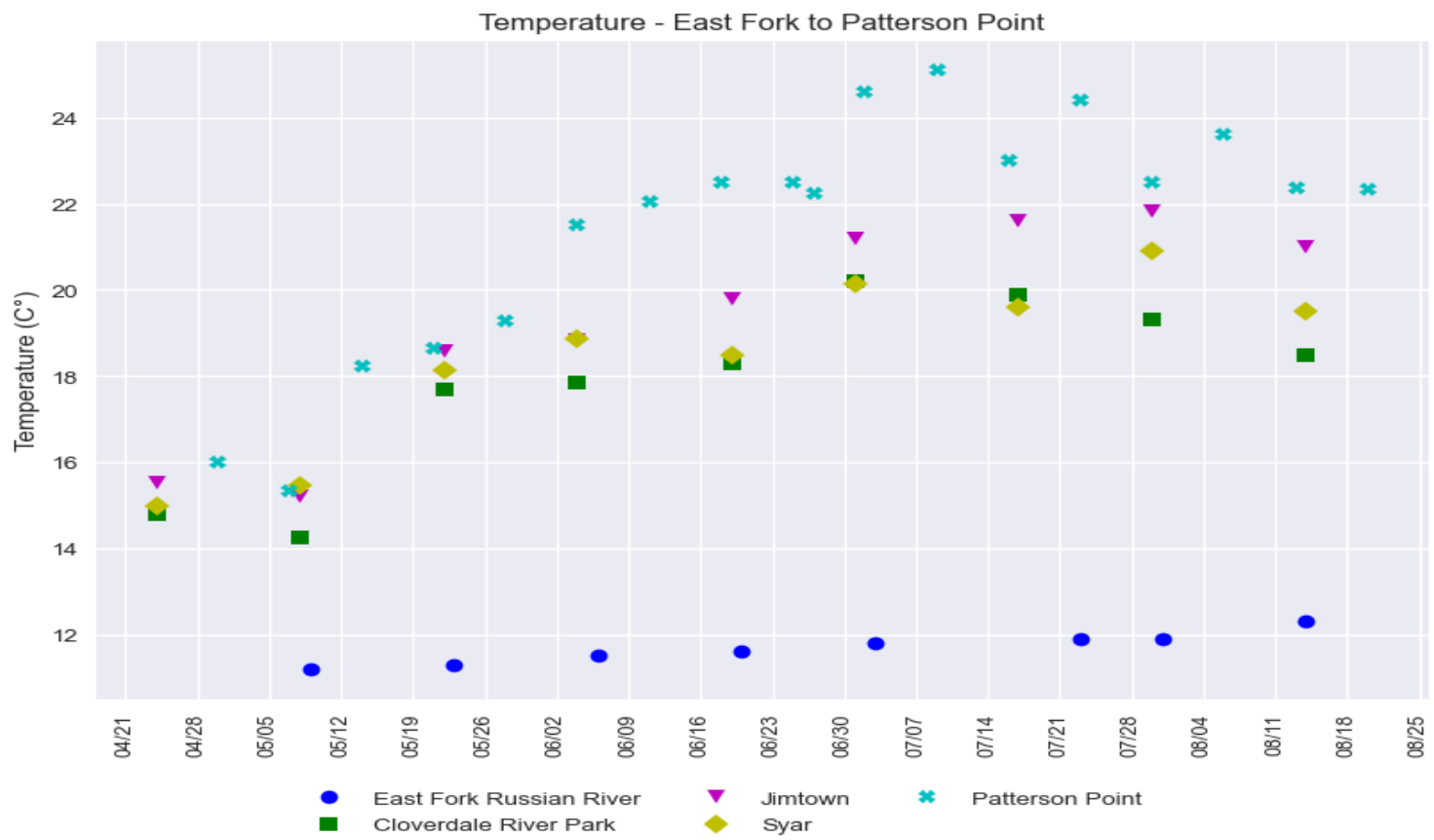


Chlorophyll-a - East Fork at Calpella, Lake Mendocino, and Hopland



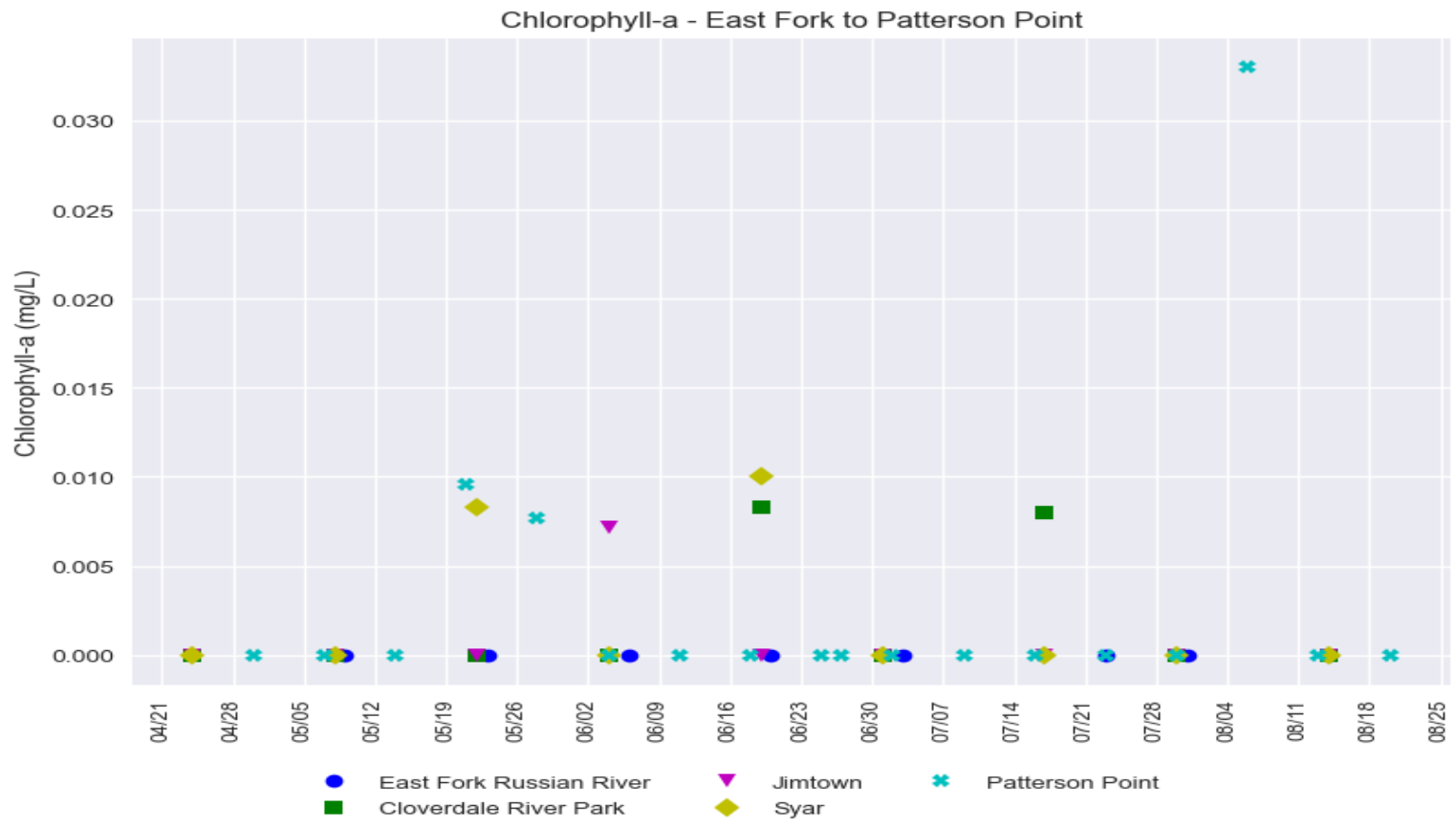
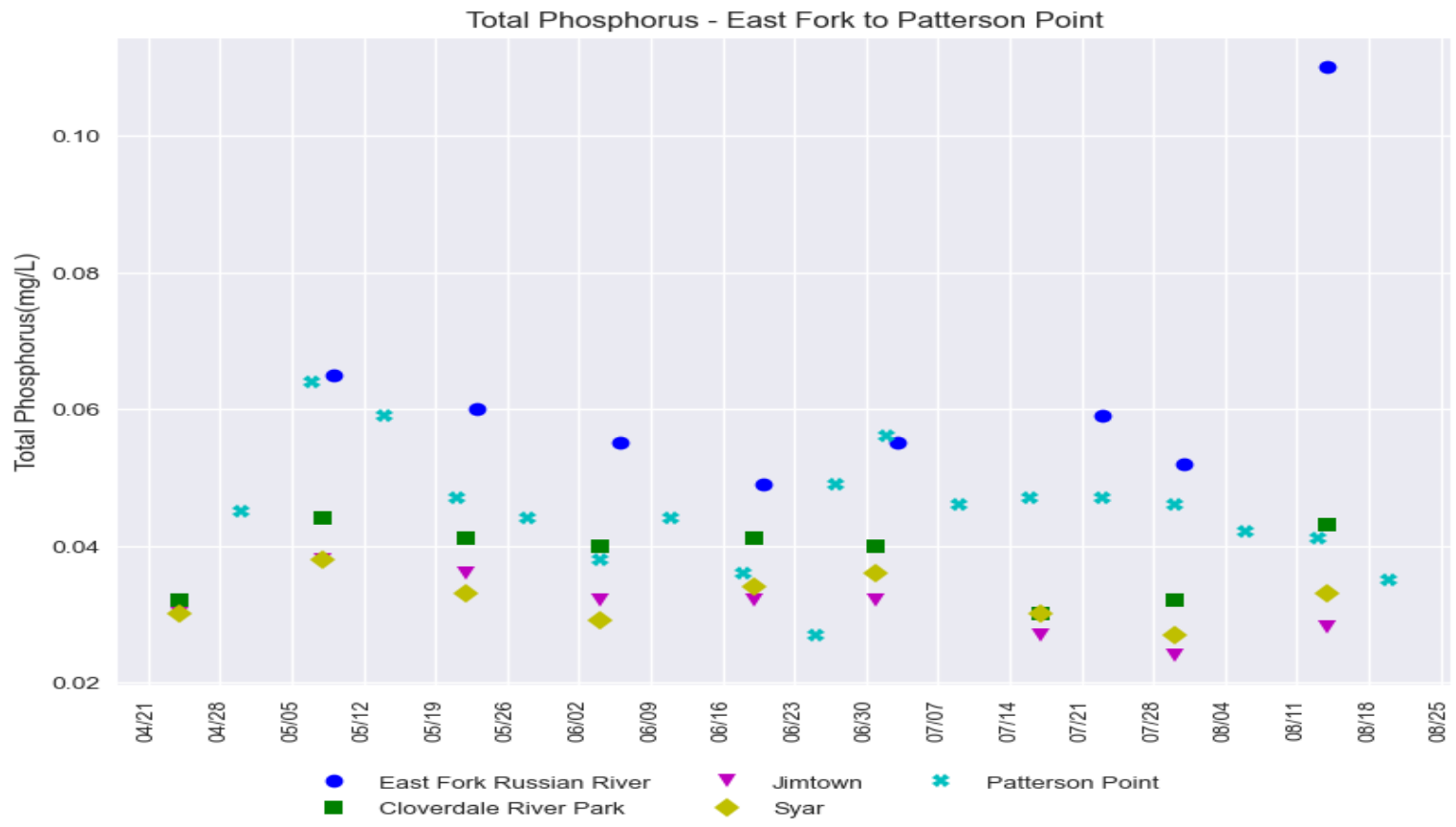
Russian River Water Quality Grab Samples

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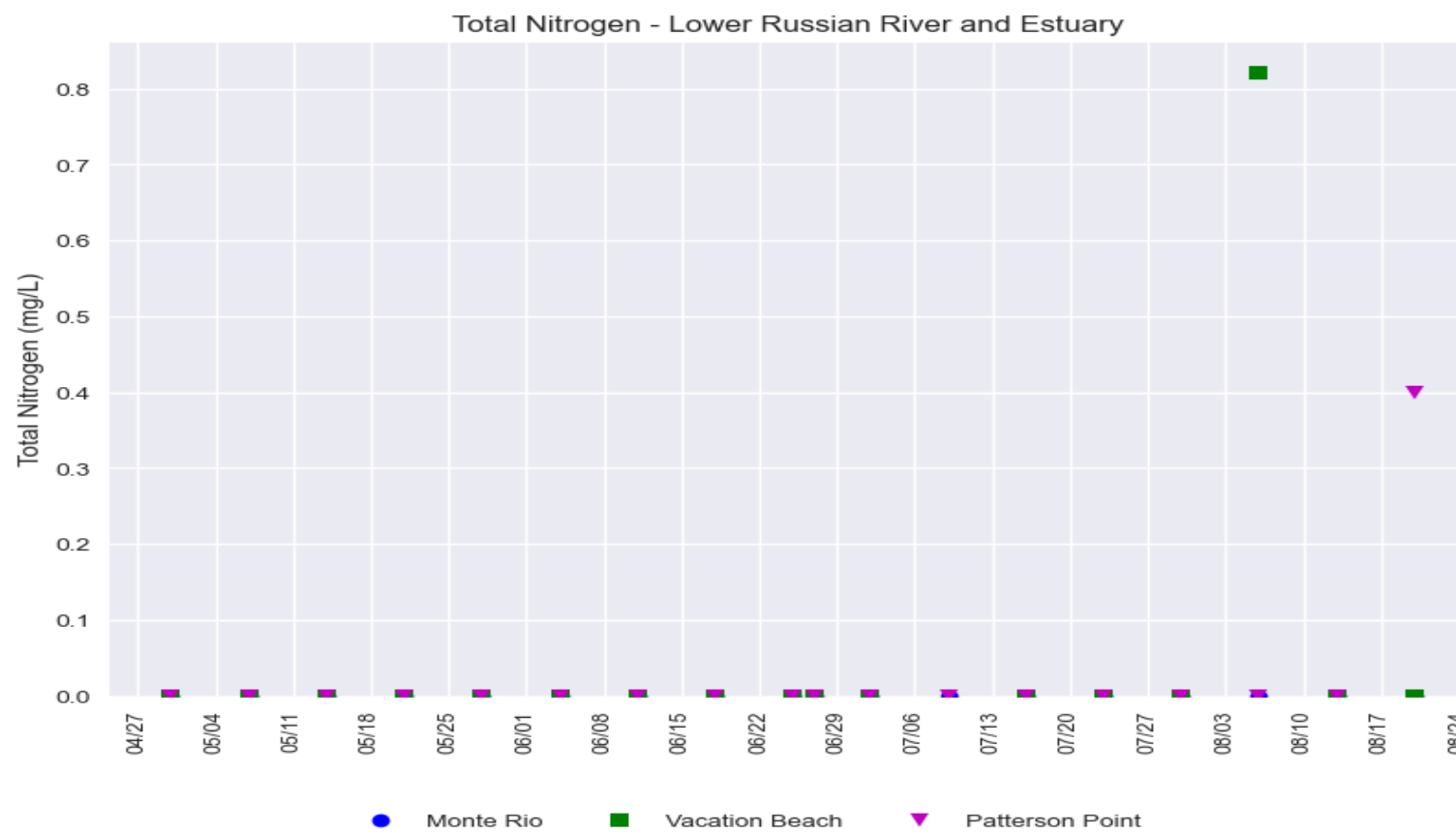
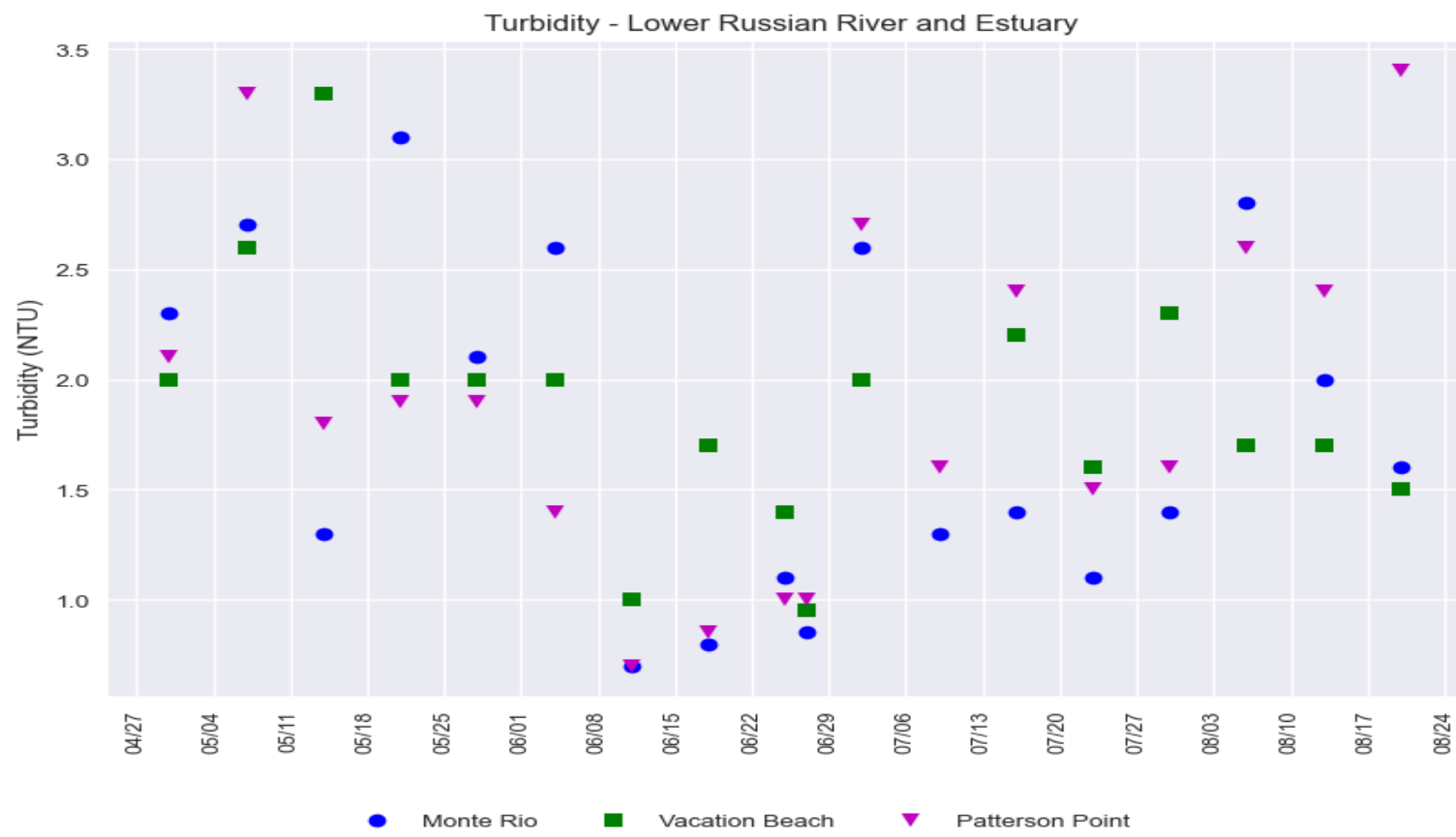
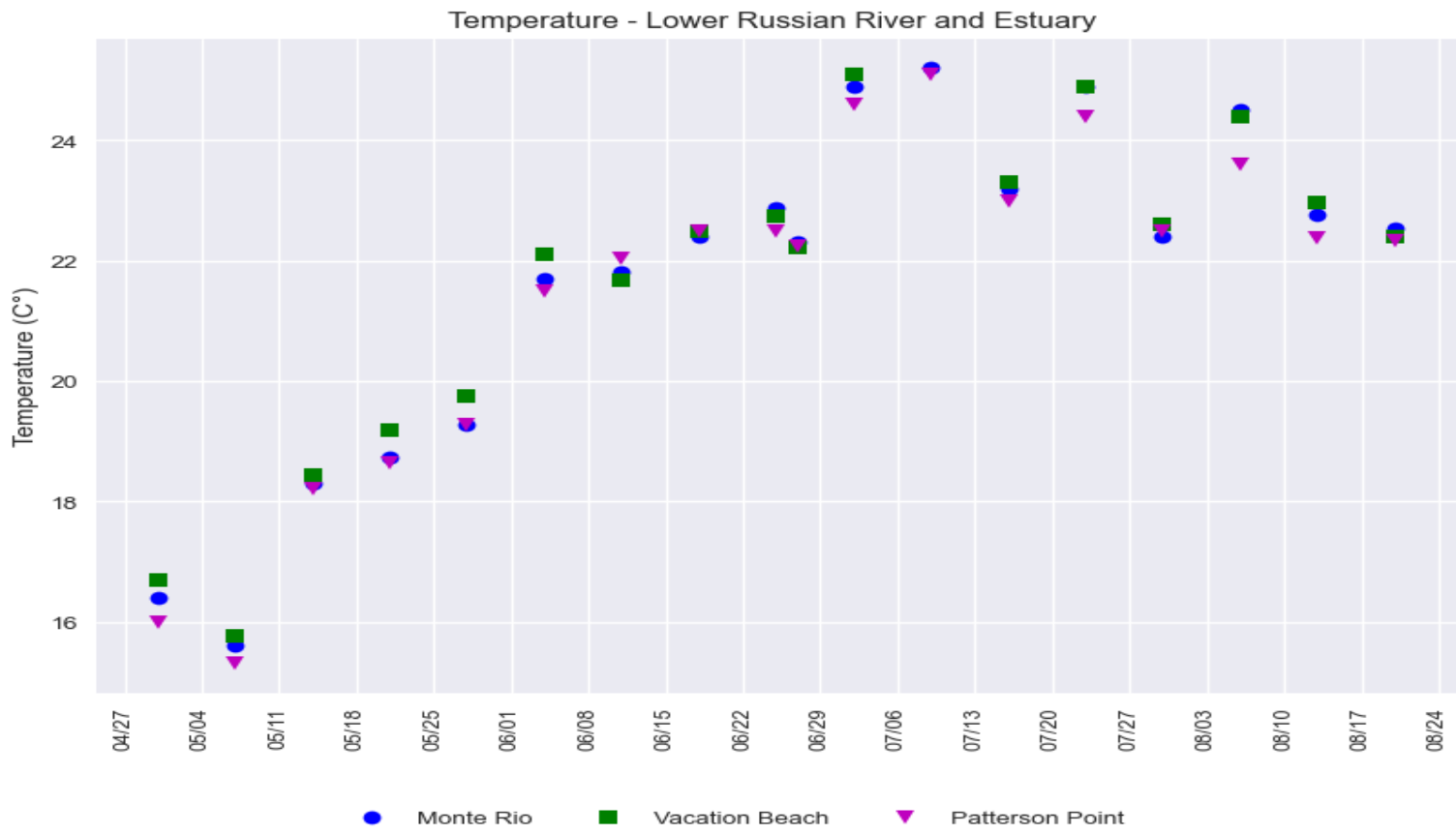
Russian River Water Quality Grab Samples

Provisional Data Subject to Revision



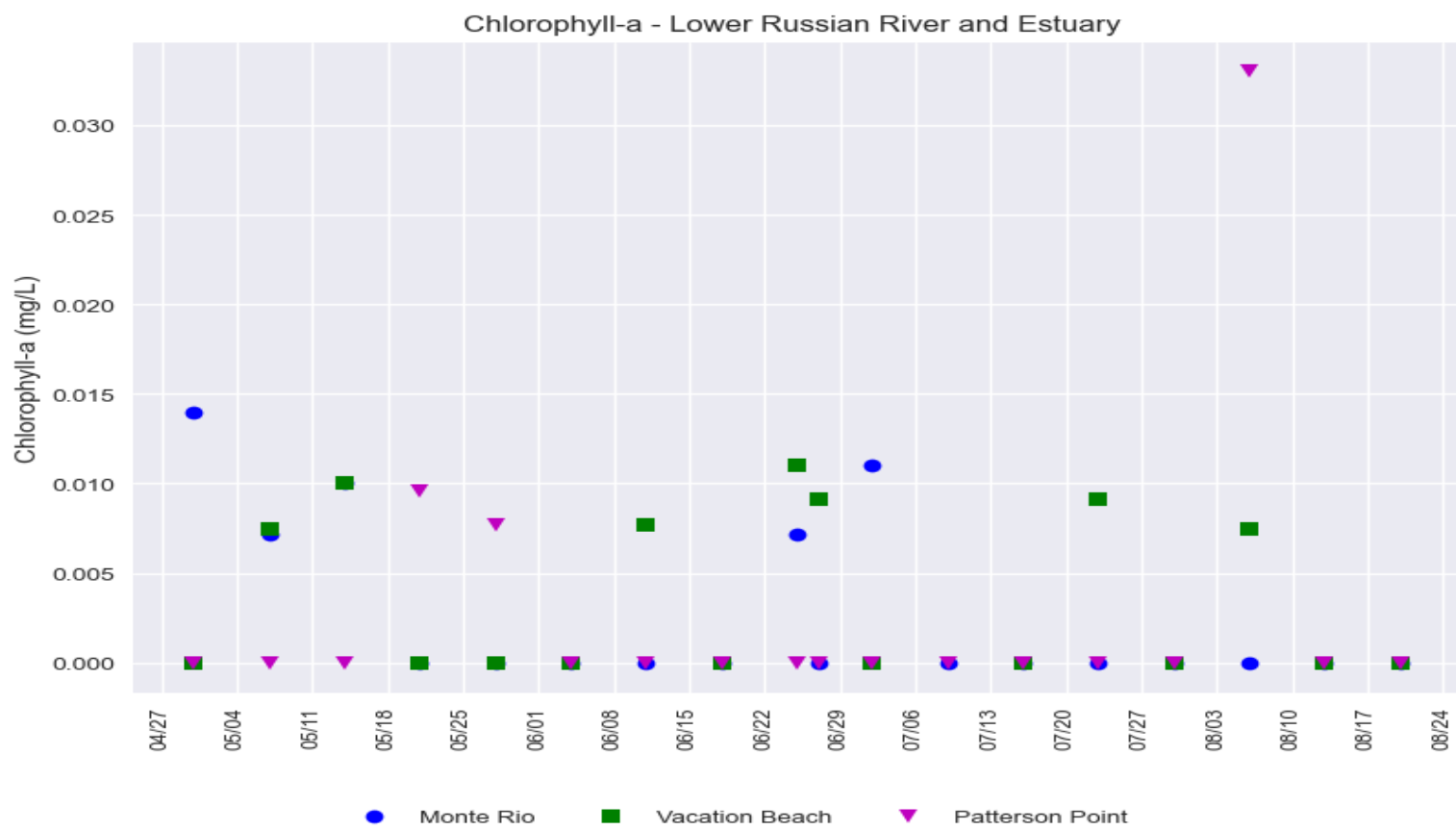
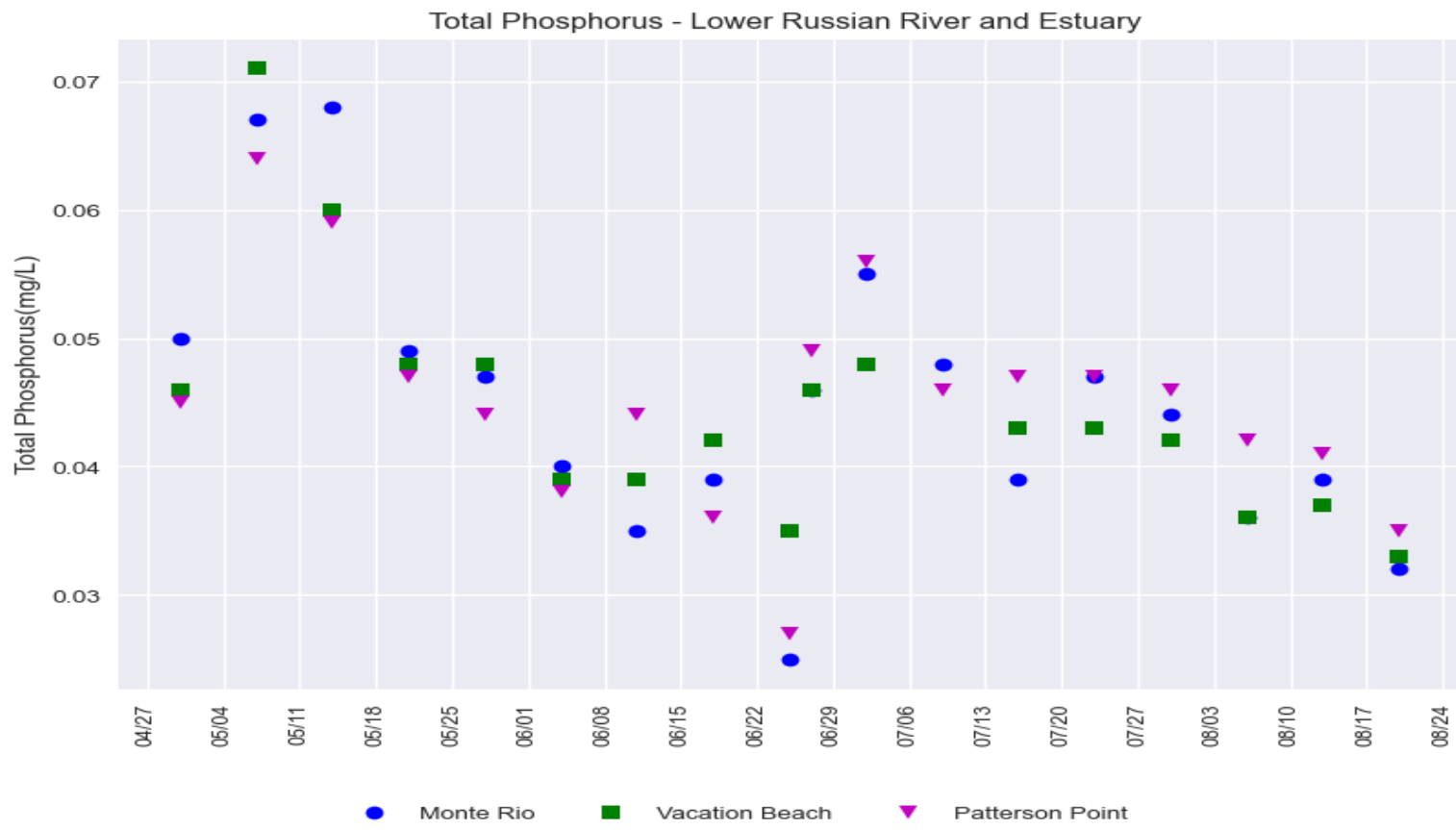
Russian River Water Quality Grab Samples

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

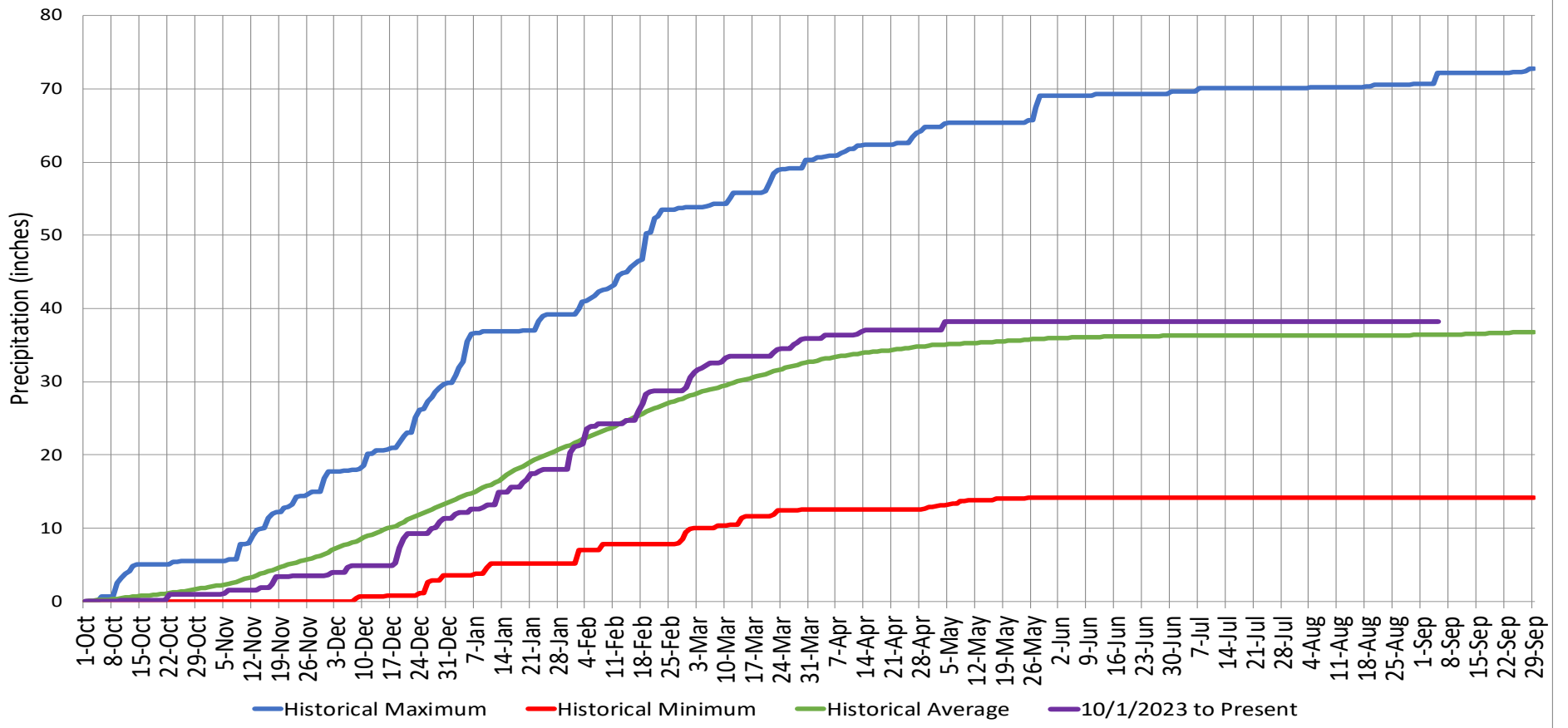
****We continue to collect enterococcus data, however it is not a reliable fecal indicator bacteria in freshwater

Precipitation

Ukiah Municipal Airport (WBAN: 72590523275 (KUKI))

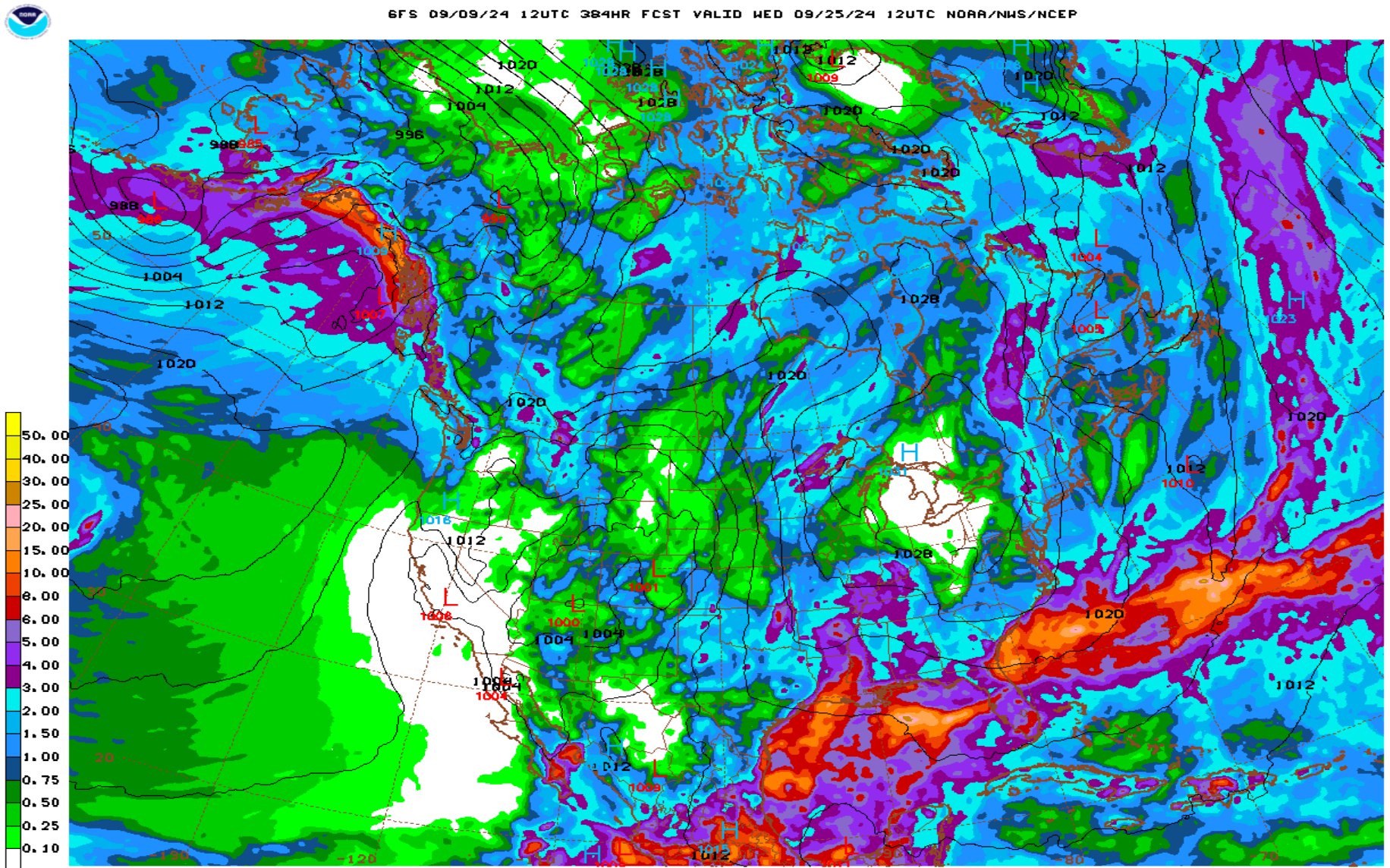
Date Range	Cumulative (inches)
Oct 1, 2023 - Sep 5, 2024	38.22
Last 7 Days*	0.00

Cumulative Precipitation Comparison of Current Year versus Historic Record



Global Forecast System Model 16-day Cumulative Precipitation Forecast

GFS 09/09/24 12UTC 384HR FCST VALID MED 09/25/24 12UTC NOAA/NWS/NCEP



GFS MED 240925/1200V384 EMSL (4MB), 384HR ACCUMULATED PRECIP (IN)
 Date Range: Sep 9 - Sep 25, 2024
 Forecasted Cumulative (inches): **0.00**