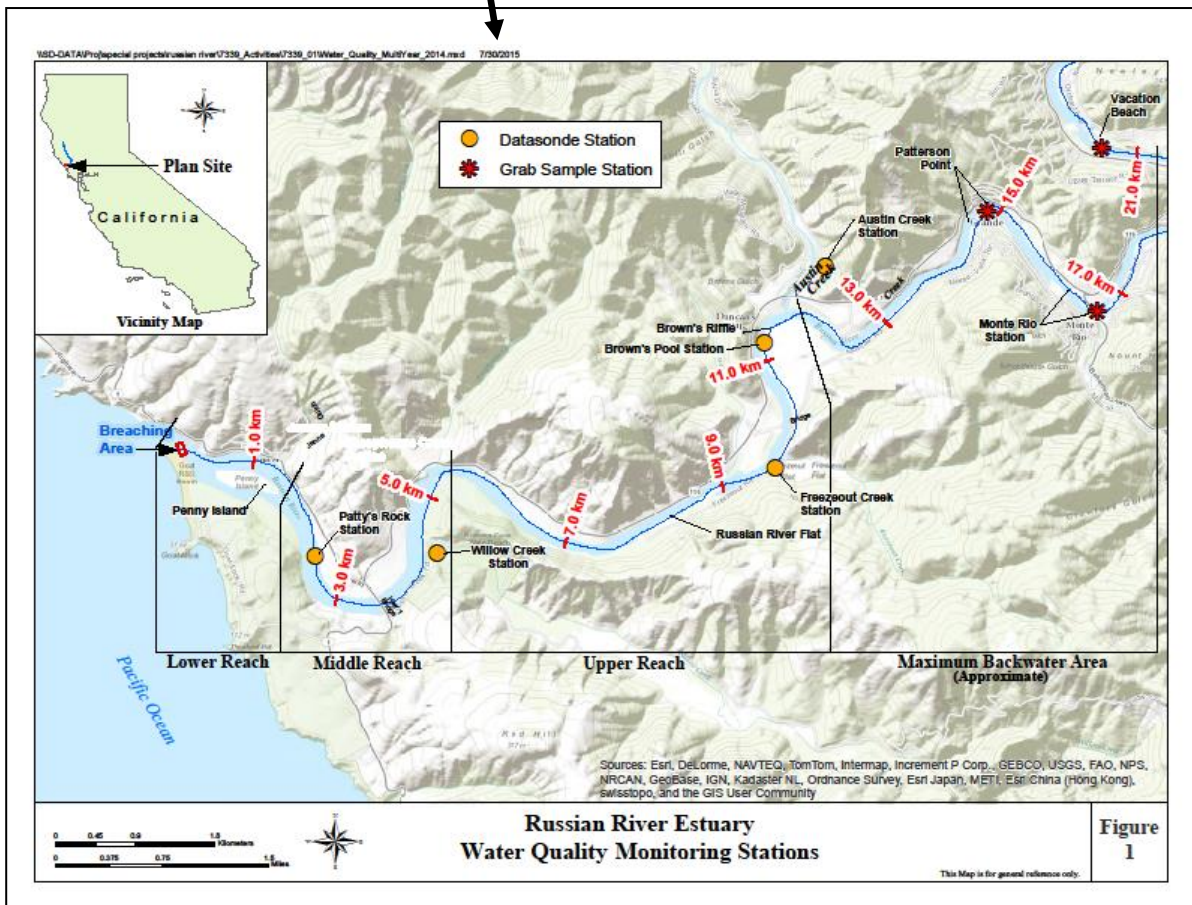
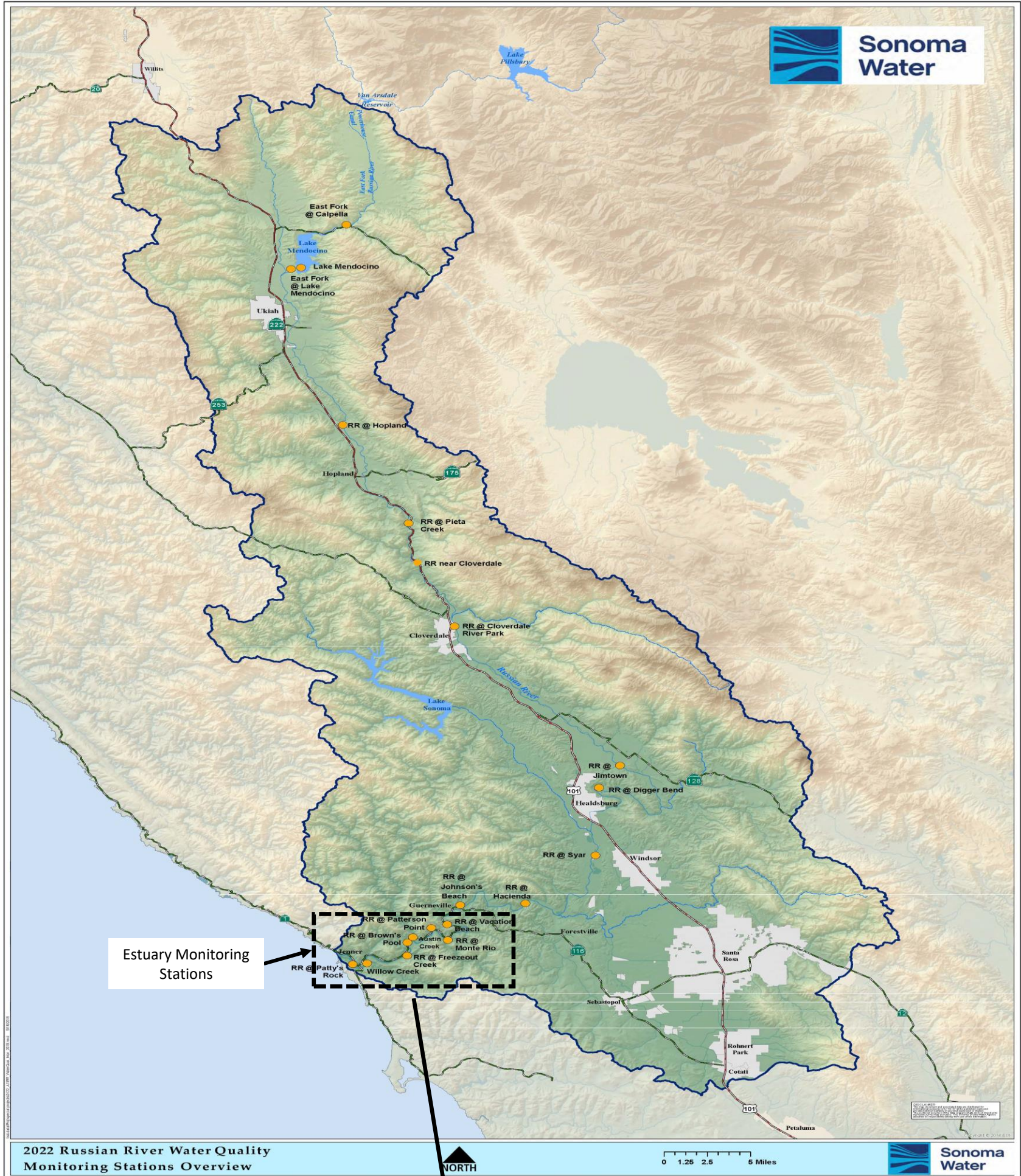




Sonoma Water

# State Water Resources Control Board Temporary Urgency Change Order (6/17/2022) Russian River Water Quality Report September 23, 2022 – September 29, 2022



Russian River Estuary  
Water Quality Monitoring Stations

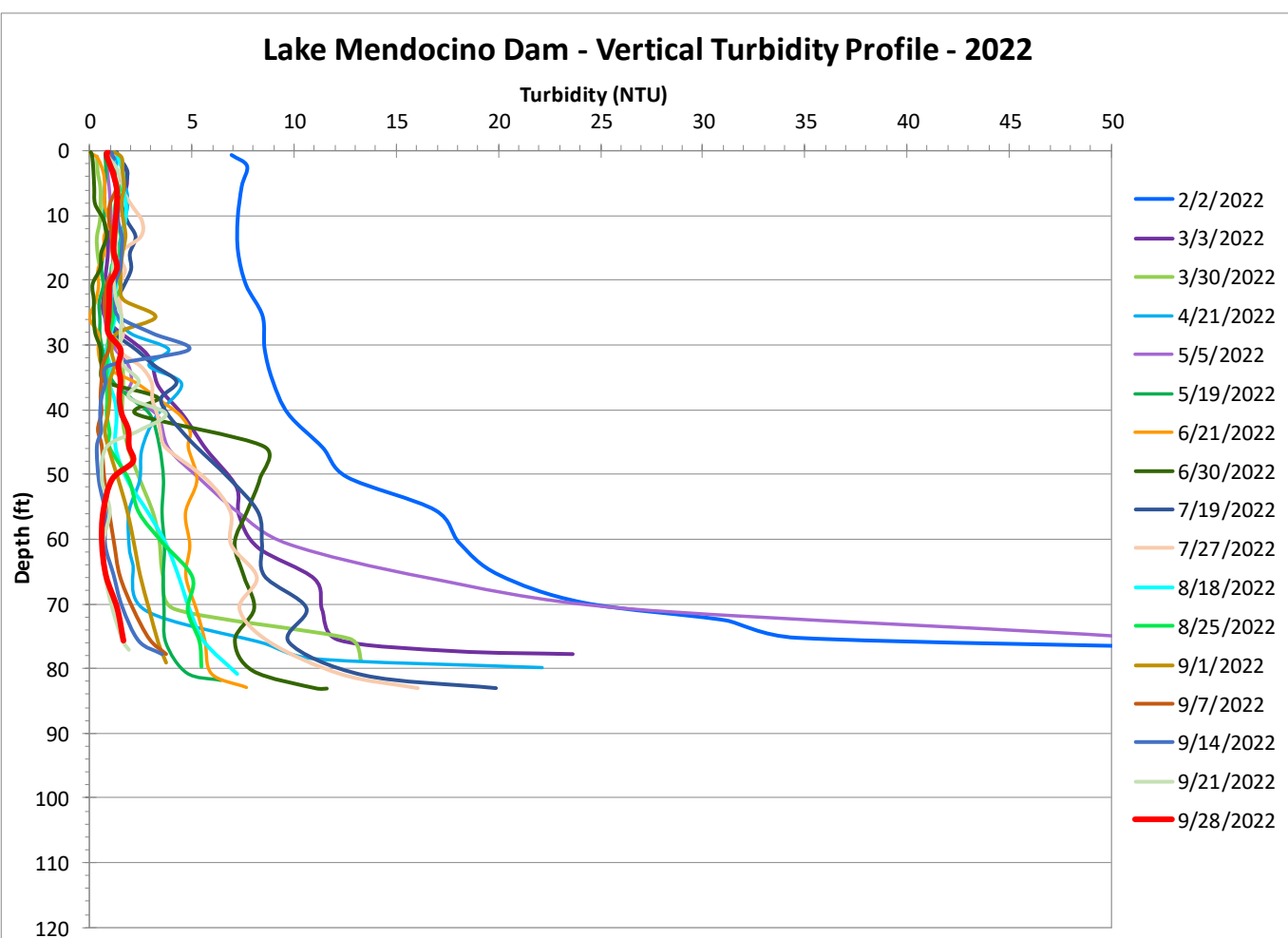
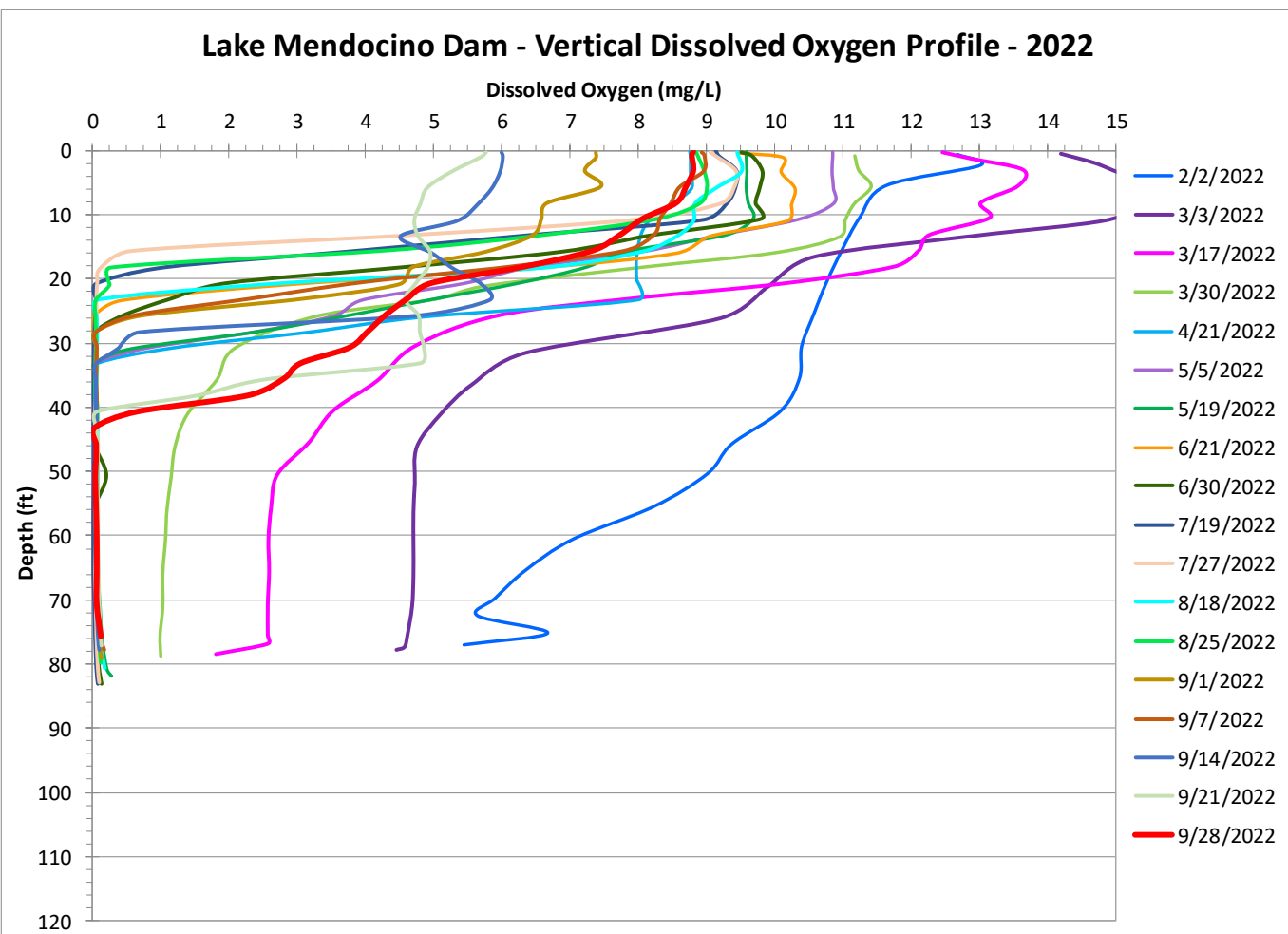
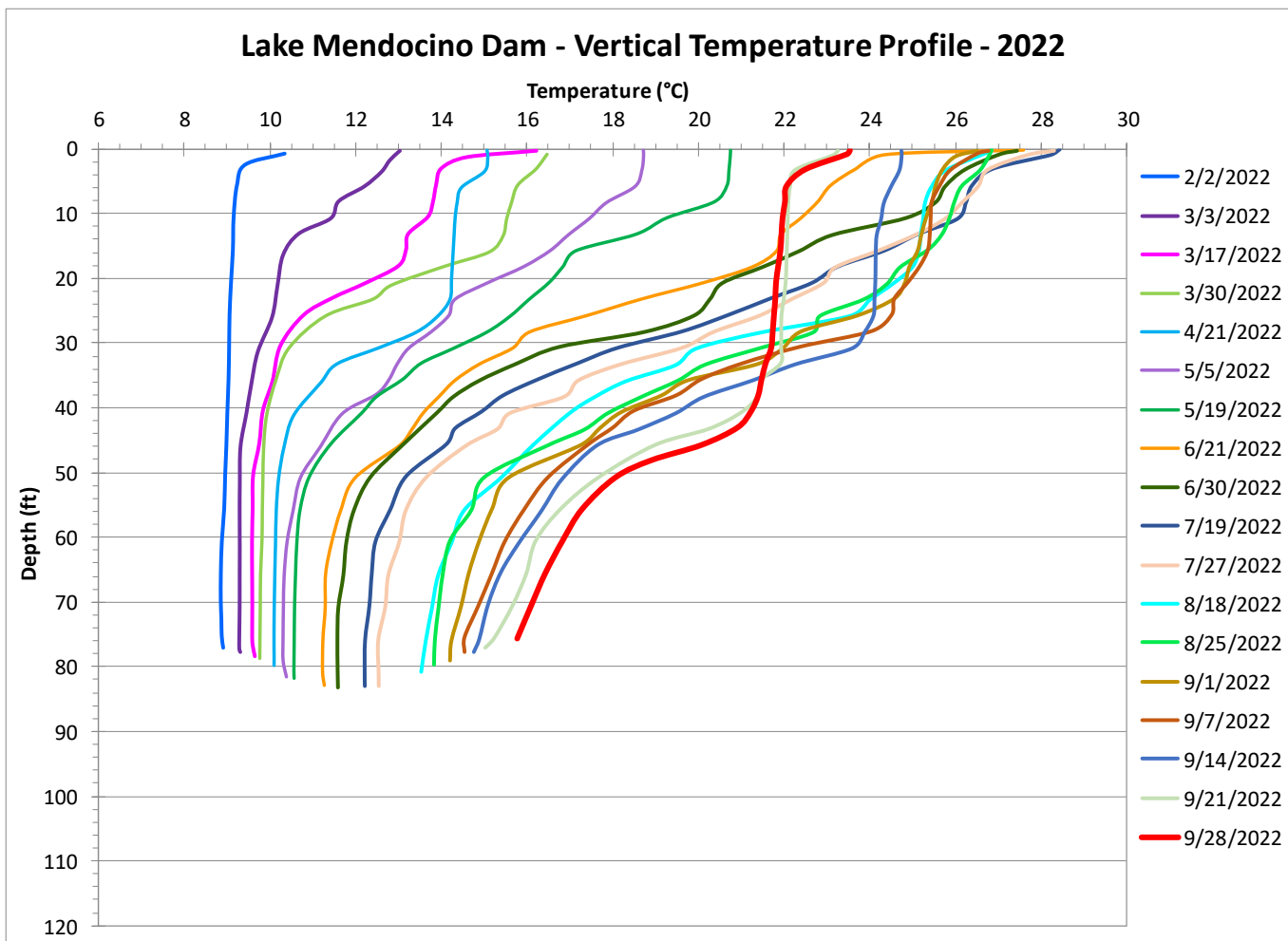
Figure 1

This Map is for general reference only.



# Lake Mendocino Water Quality Vertical Profiles (February 2 – September 28, 2022)

Provisional Data Subject to Revision

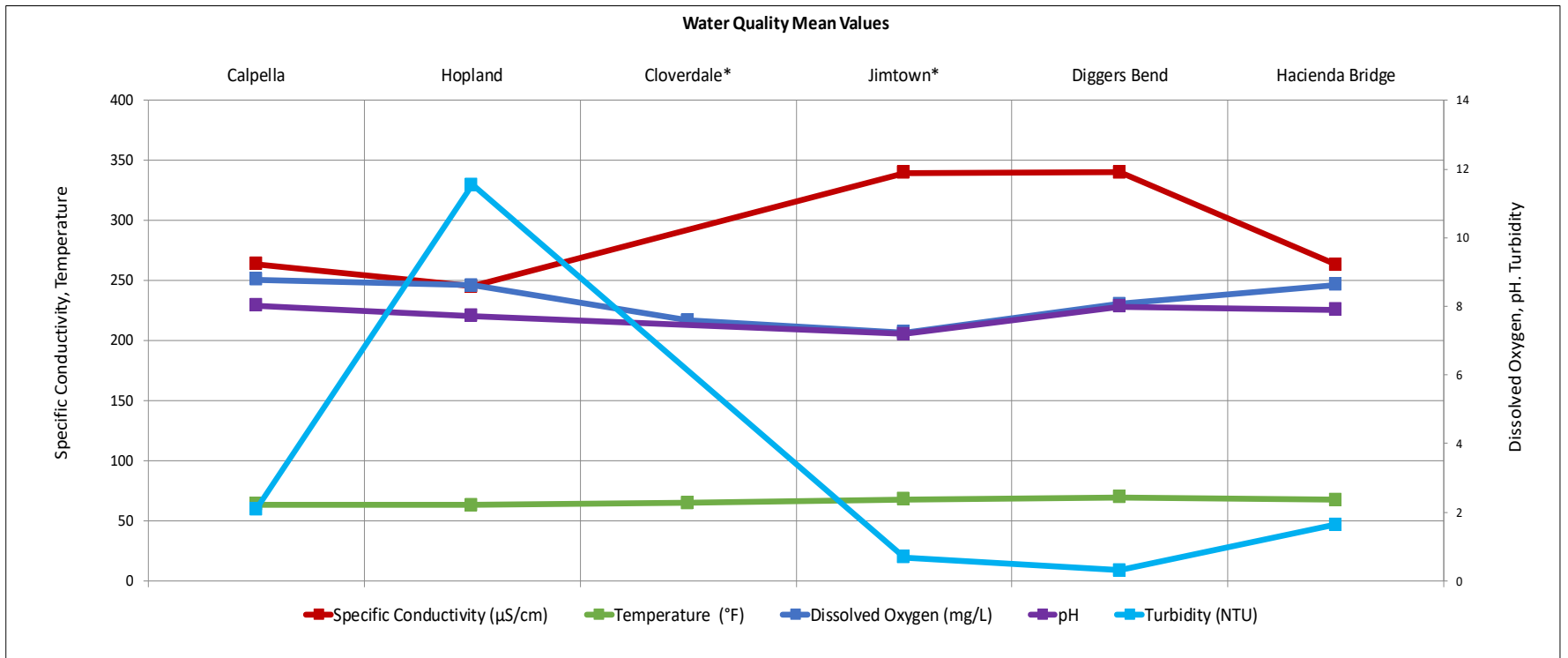


## Russian River Water Quality Sondes (September 23, 2022 – September 29, 2022)

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  | 60.4          | 60.1          | 62.2          | 64.8          | 65.3          |                                    | 64.9            |                 |
|                                 | Max  | 65.7          | 65.8          | 68.2          | 71.6          | 73.4          |                                    | 70.0            |                 |
|                                 | Mean | 63.3          | 63.1          | 64.9          | 67.9          | 69.4          |                                    | 67.5            |                 |
| Specific Conductivity (µS/cm)   | Min  | 259.0         | 242.0         |               | 332.0         | 335.0         |                                    | 261.0           |                 |
|                                 | Max  | 270.0         | 249.0         |               | 346.0         | 343.0         |                                    | 269.0           |                 |
|                                 | Mean | 263.9         | 245.1         |               | 339.6         | 340.0         |                                    | 263.4           |                 |
| Dissolved Oxygen (mg/L)         | Min  | 8.2           | 7.8           | 5.8           | 5.7           | 6.6           |                                    | 7.4             |                 |
|                                 | Max  | 9.8           | 9.9           | 9.9           | 9.9           | 10.2          |                                    | 9.6             |                 |
|                                 | Mean | 8.8           | 8.6           | 7.6           | 7.2           | 8.1           |                                    | 8.6             |                 |
| Dissolved Oxygen (% Saturation) | Min  | 85.1          | 79.0          | 59.9          | 62.1          | 71.4          |                                    | 79.1            |                 |
|                                 | Max  | 103.9         | 105.4         | 108.7         | 110.6         | 117.7         |                                    | 106.1           |                 |
|                                 | Mean | 91.5          | 89.7          | 80.8          | 79.6          | 90.4          |                                    | 94.4            |                 |
| pH                              | Min  | 7.9           | 7.6           |               | 7.1           | 7.8           |                                    | 7.7             |                 |
|                                 | Max  | 8.2           | 7.9           |               | 7.4           | 8.3           |                                    | 8.1             |                 |
|                                 | Mean | 8.0           | 7.7           |               | 7.2           | 8.0           |                                    | 7.9             |                 |
| Turbidity (NTU)                 | Min  | 1.2           | 8.8           |               | 0.3           | 0.1           |                                    | 1.2             |                 |
|                                 | Max  | 3.4           | 17.1          |               | 1.2           | 0.8           |                                    | 2.8             |                 |
|                                 | Mean | 2.1           | 11.5          |               | 0.7           | 0.3           |                                    | 1.6             |                 |

\*Station operated seasonally

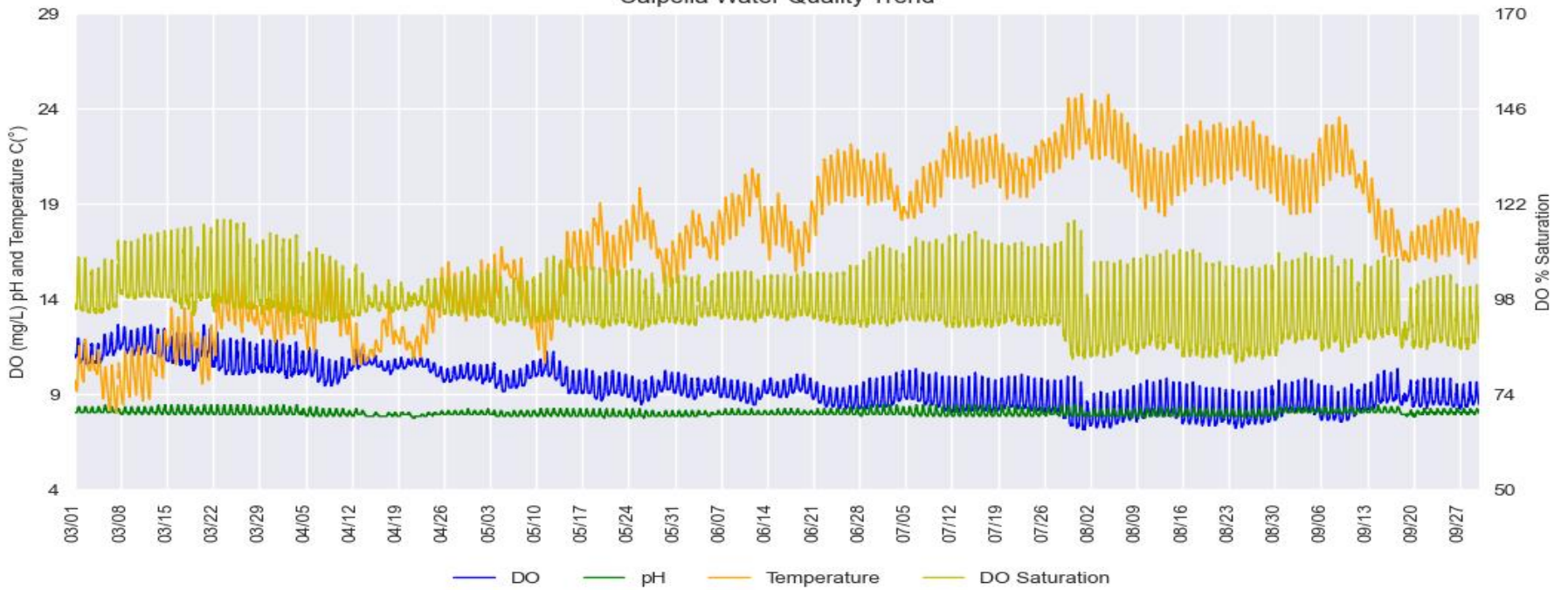


## Russian River Water Quality (March 01, 2022 - September 29, 2022)

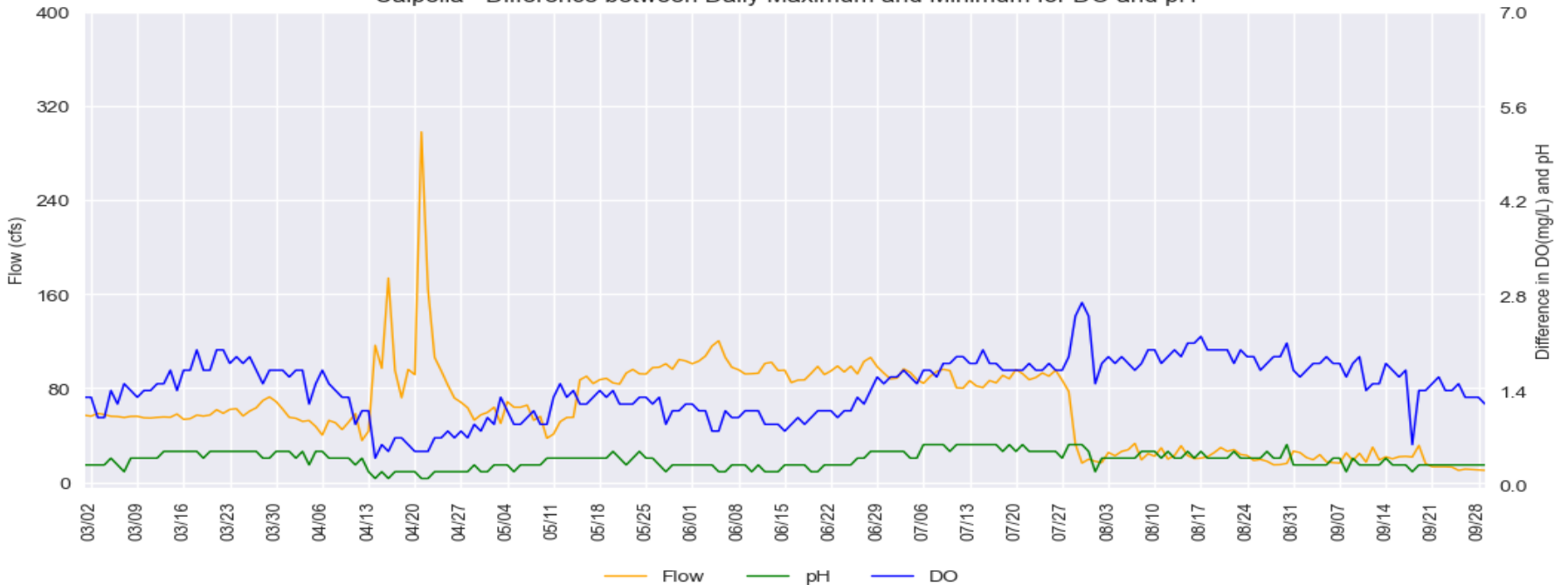
Provisional Data Subject to Revision

### Calpella (East Fork Russian River)

#### Calpella Water Quality Trend



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



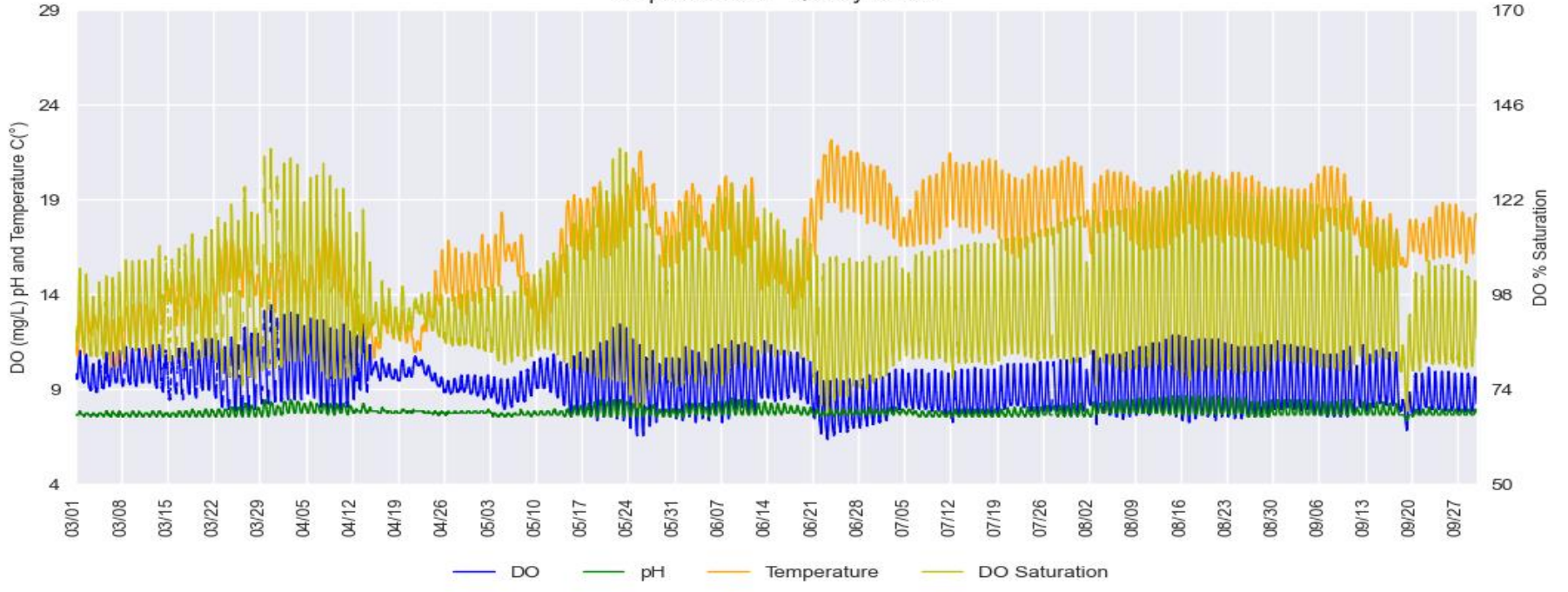


Russian River Water Quality (March 01, 2022 - September 29, 2022)

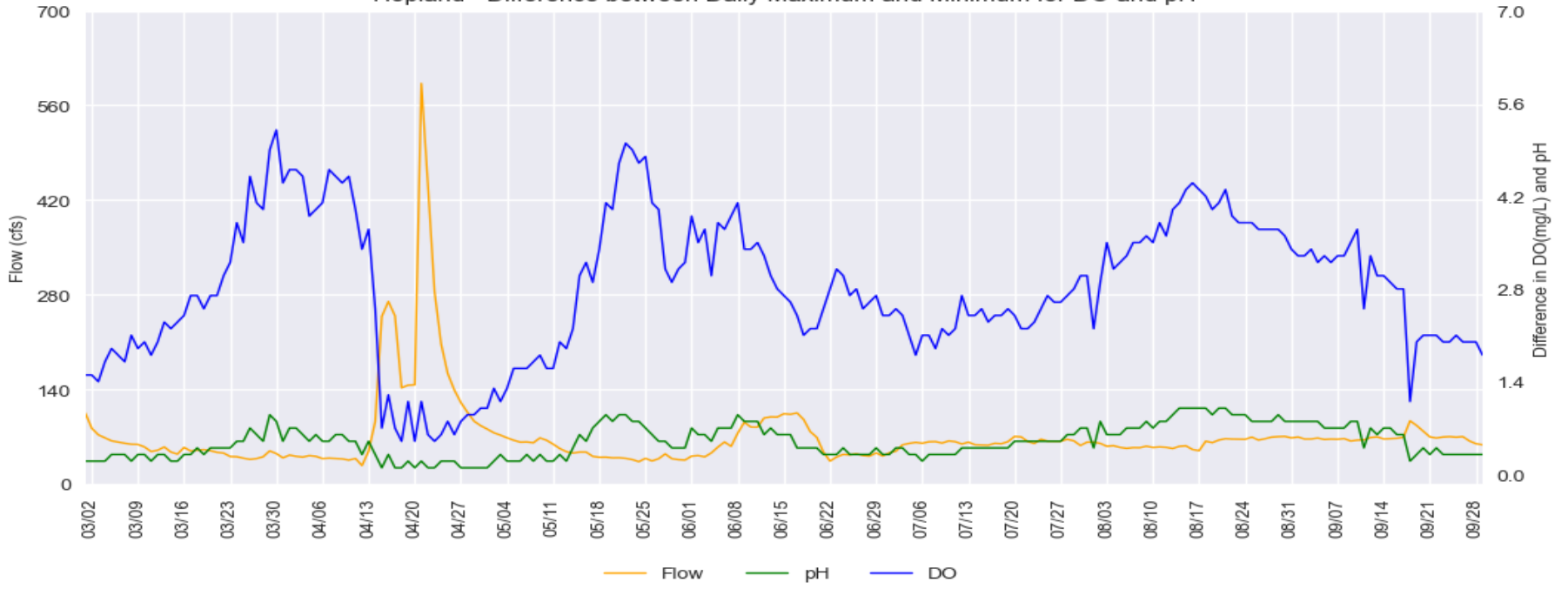
Provisional Data Subject to Revision

**Hopland**

Hopland Water Quality Trend

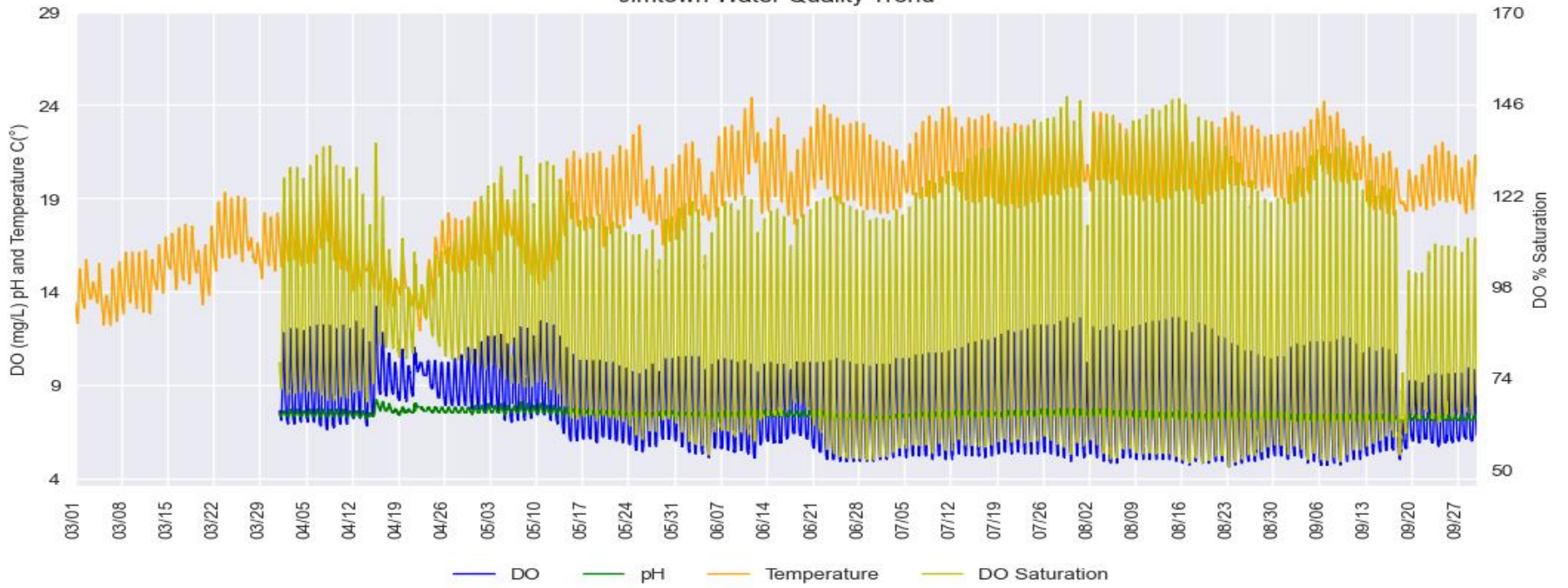


Hopland - Difference between Daily Maximum and Minimum for DO and pH

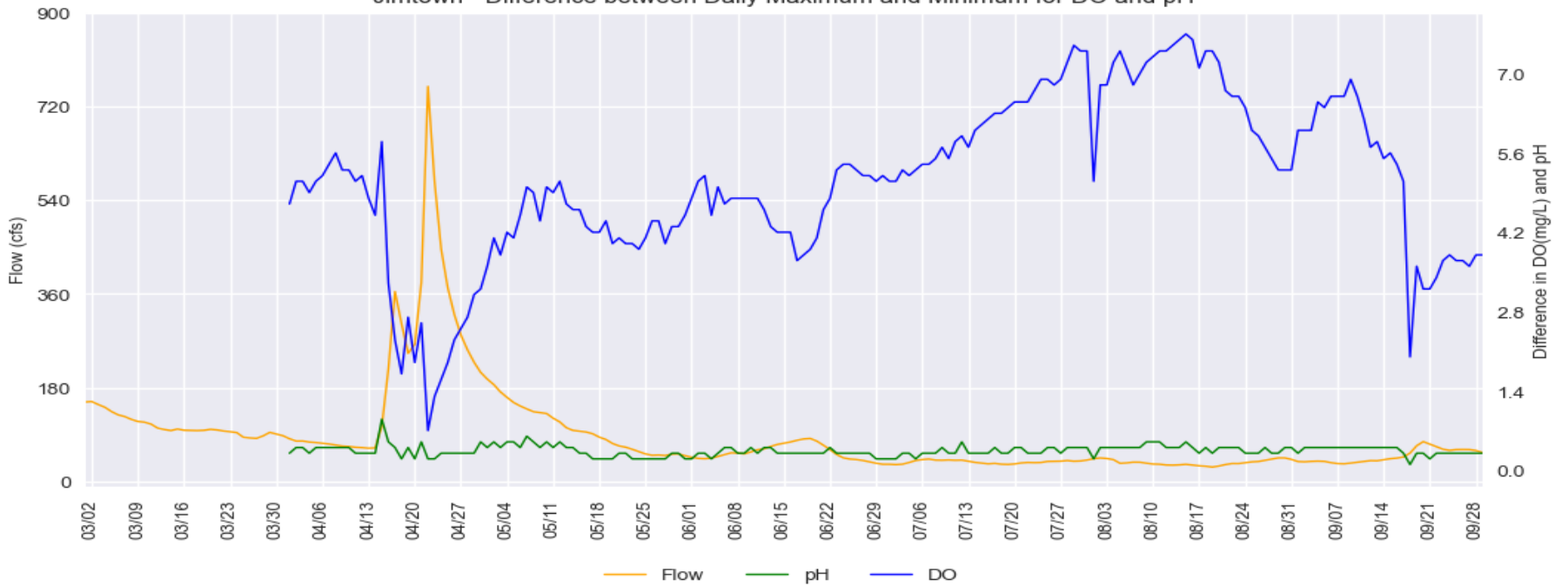


**Jimtown**

Jimtown Water Quality Trend



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



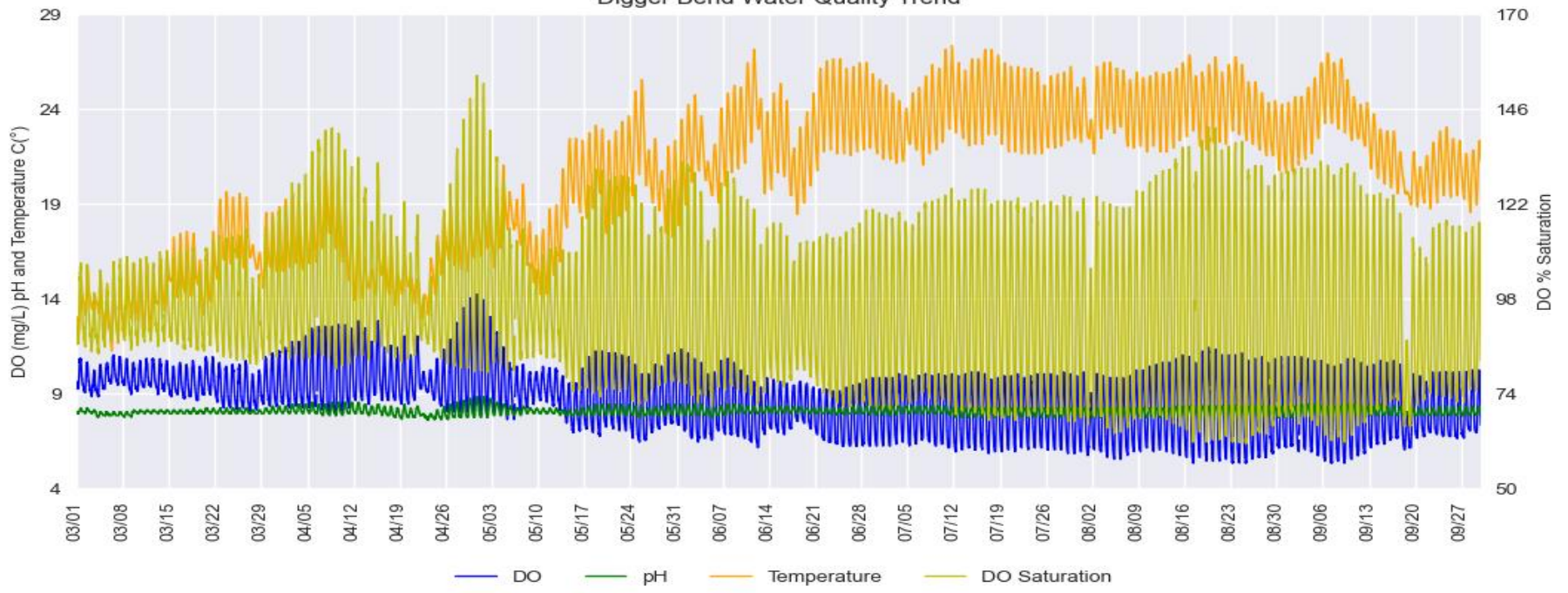


# Russian River Water Quality (March 01, 2022 - September 29, 2022)

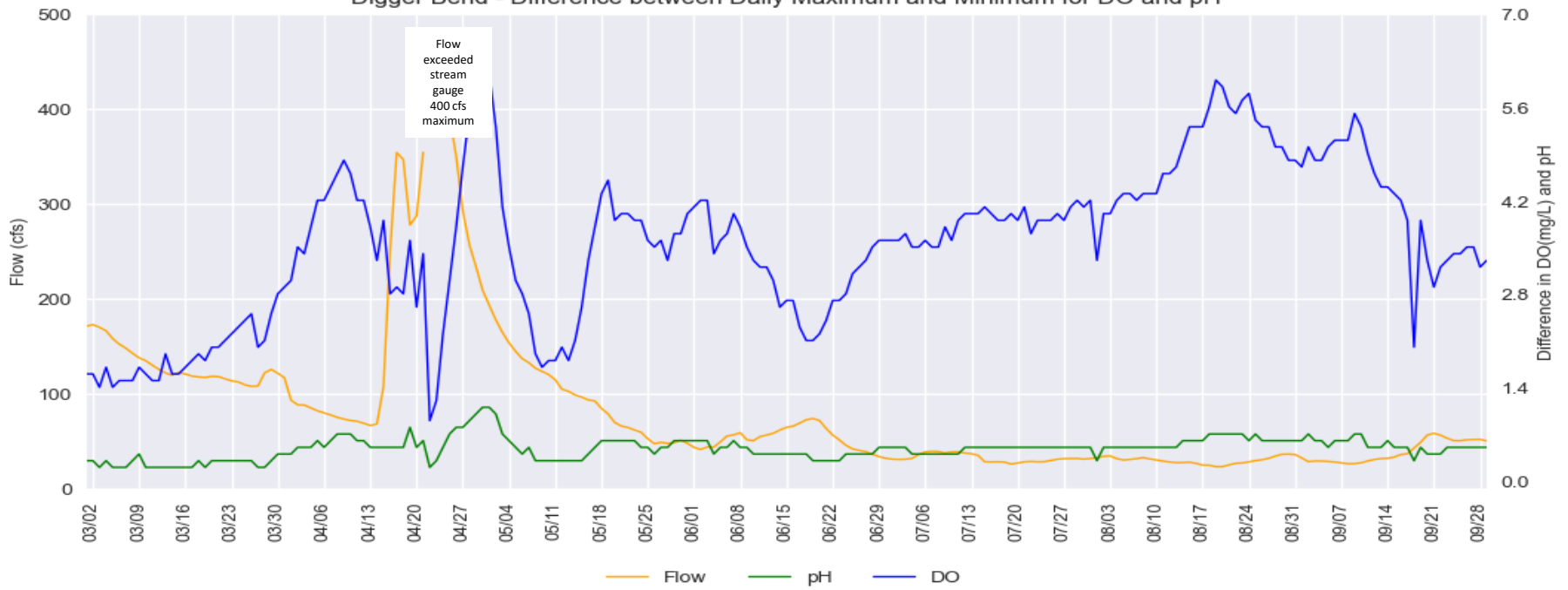
Provisional Data Subject to Revision

## Digger Bend

### Digger Bend Water Quality Trend

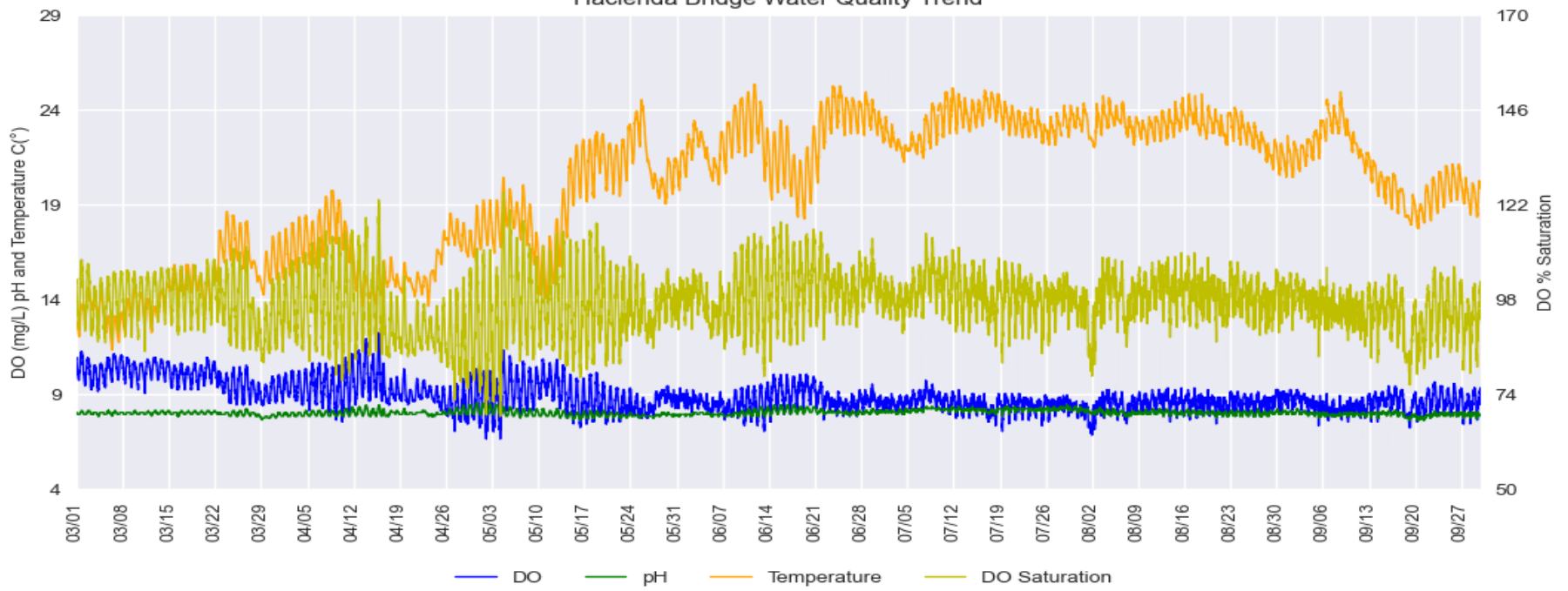


### Digger Bend - Difference between Daily Maximum and Minimum for DO and pH

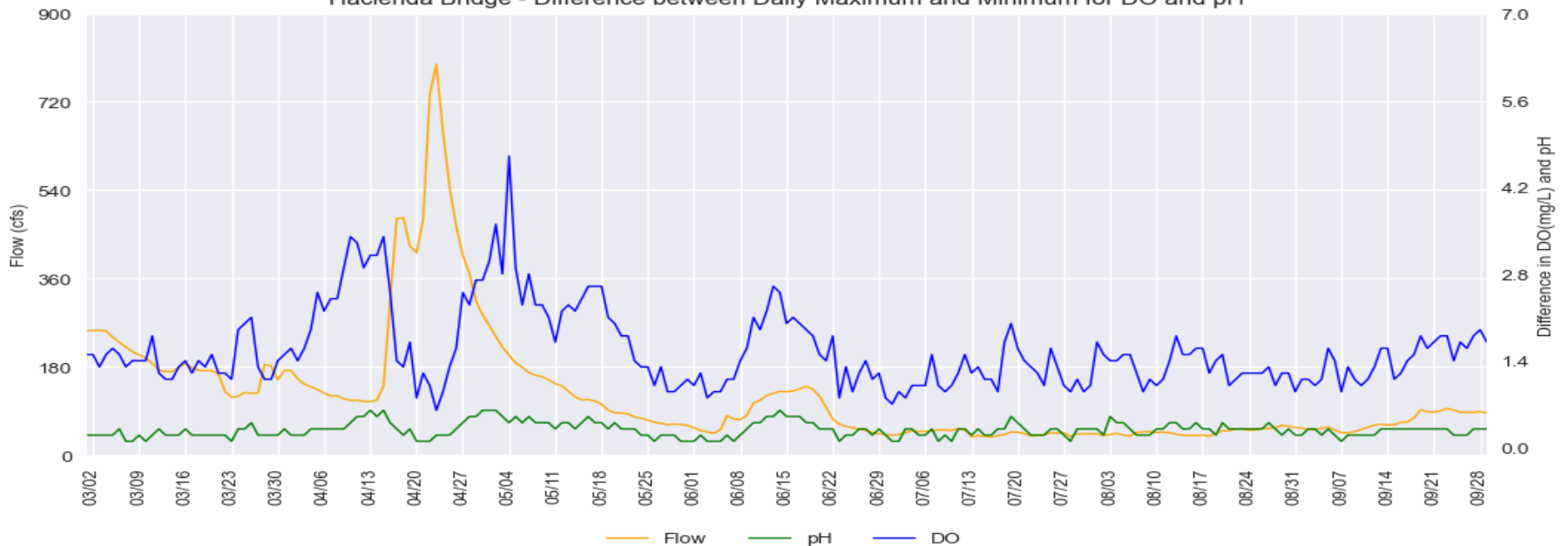


## Hacienda Bridge

### Hacienda Bridge Water Quality Trend



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

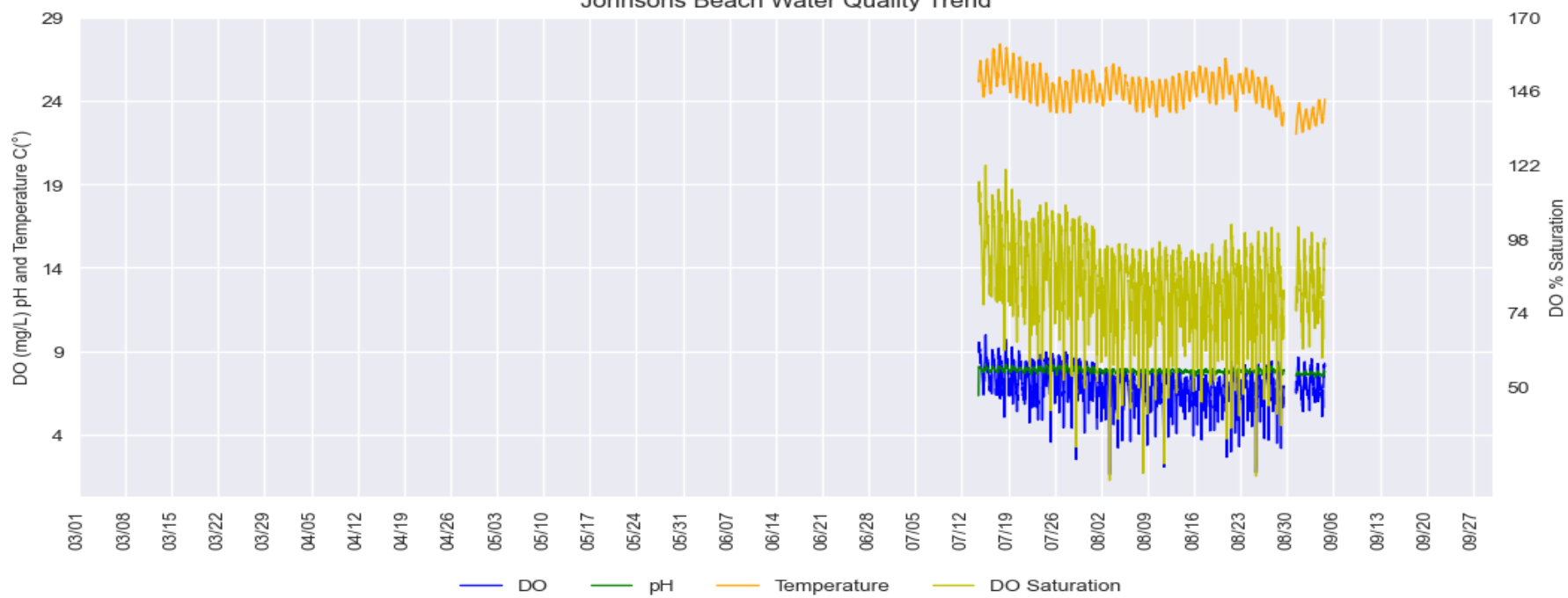


Russian River Water Quality (March 01, 2022 - September 29, 2022)

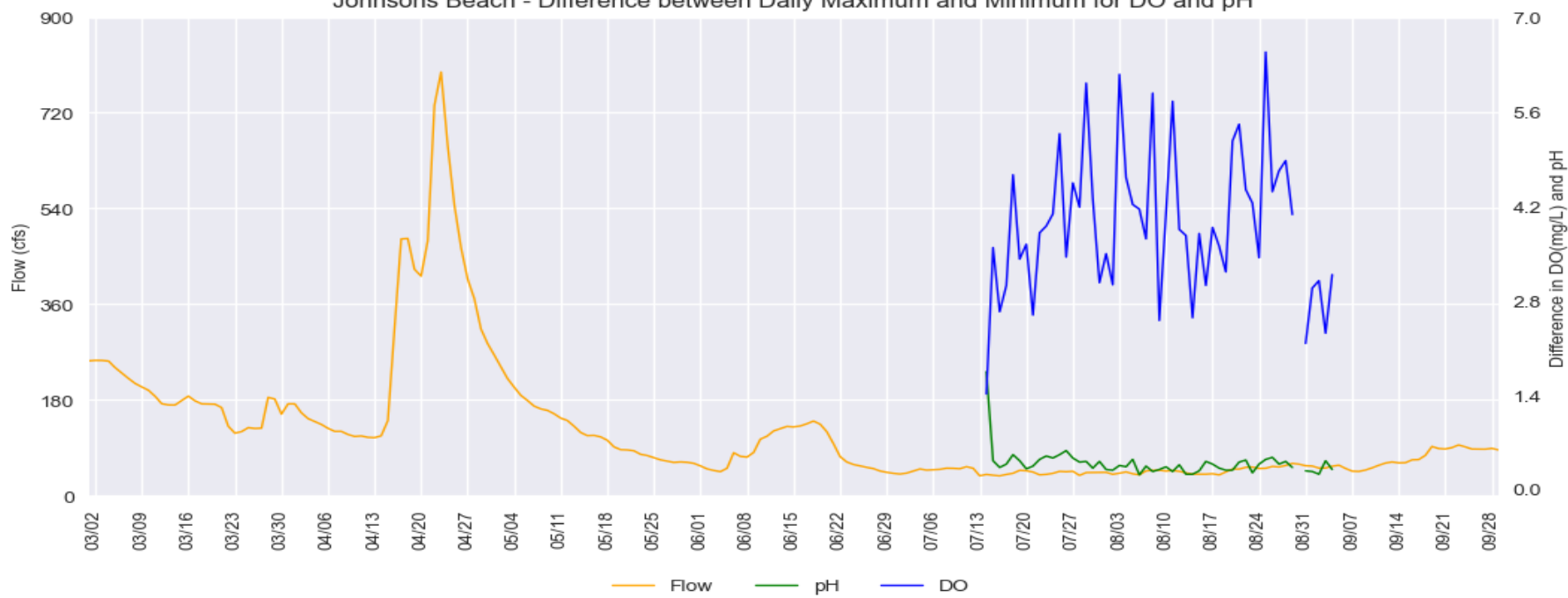
Provisional Data Subject to Revision

Johnsons Beach

Johnsons Beach Water Quality Trend

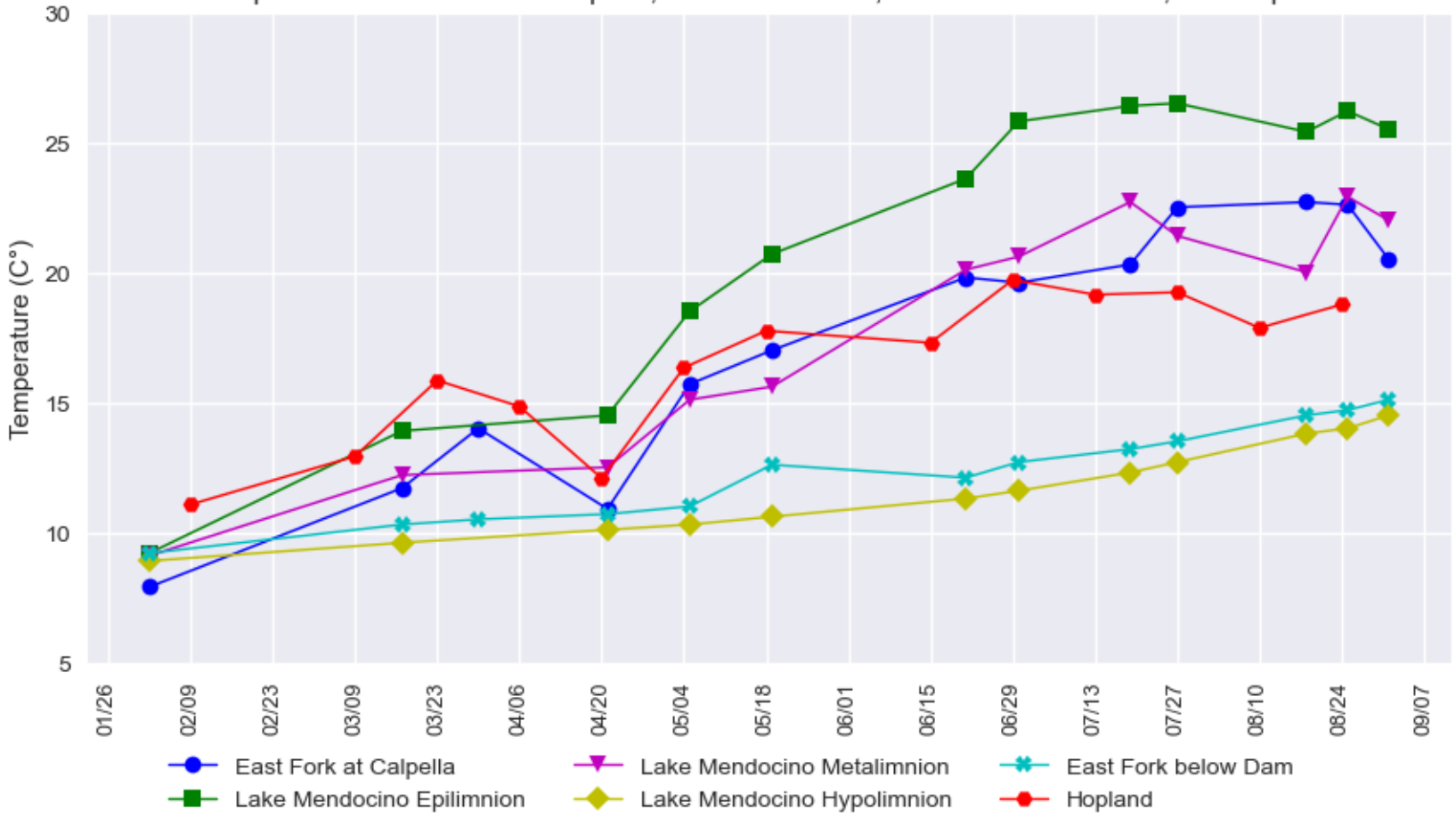


Johnsons Beach - Difference between Daily Maximum and Minimum for DO and pH

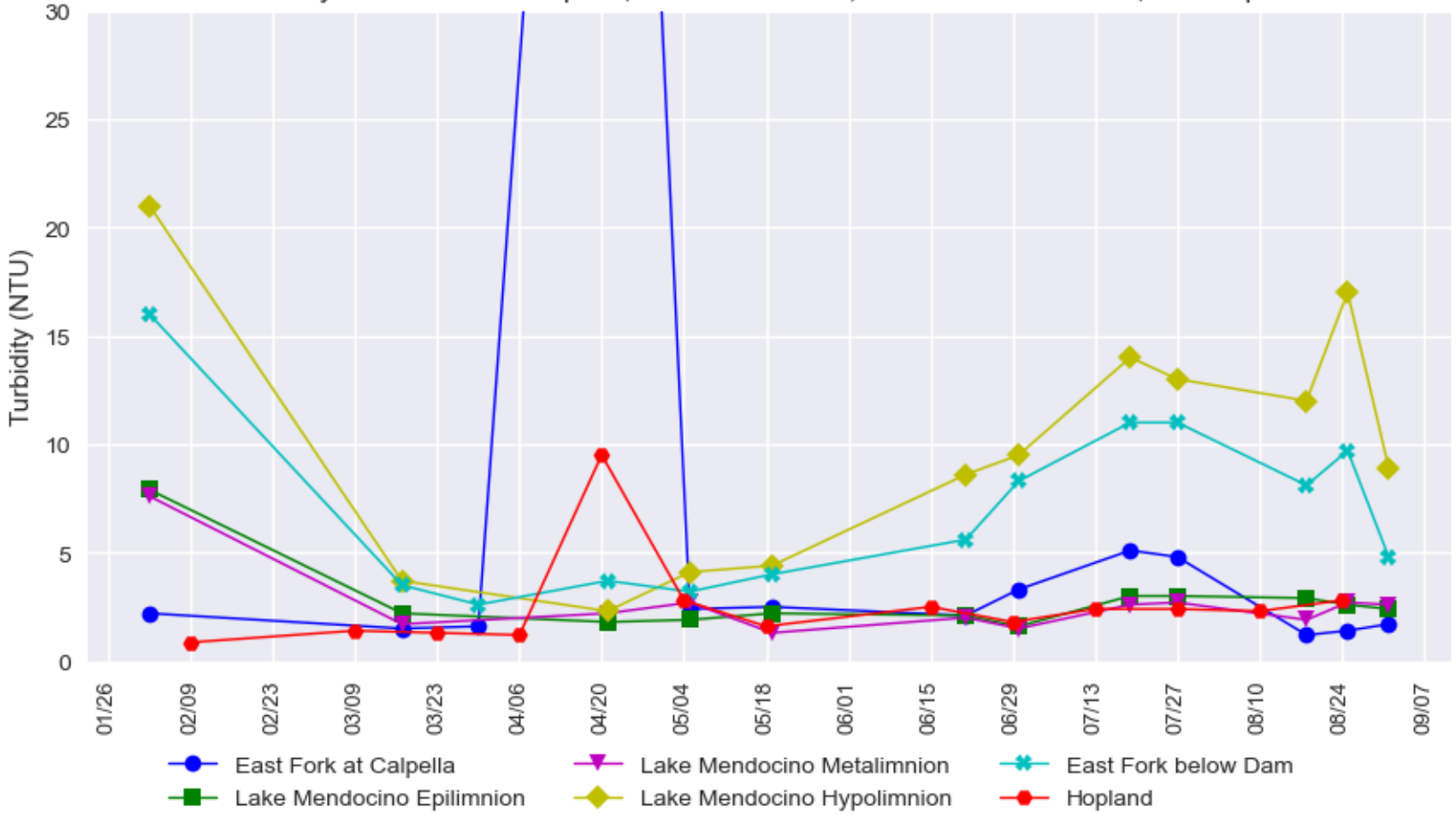


Lake Mendocino to Hopland Water Quality

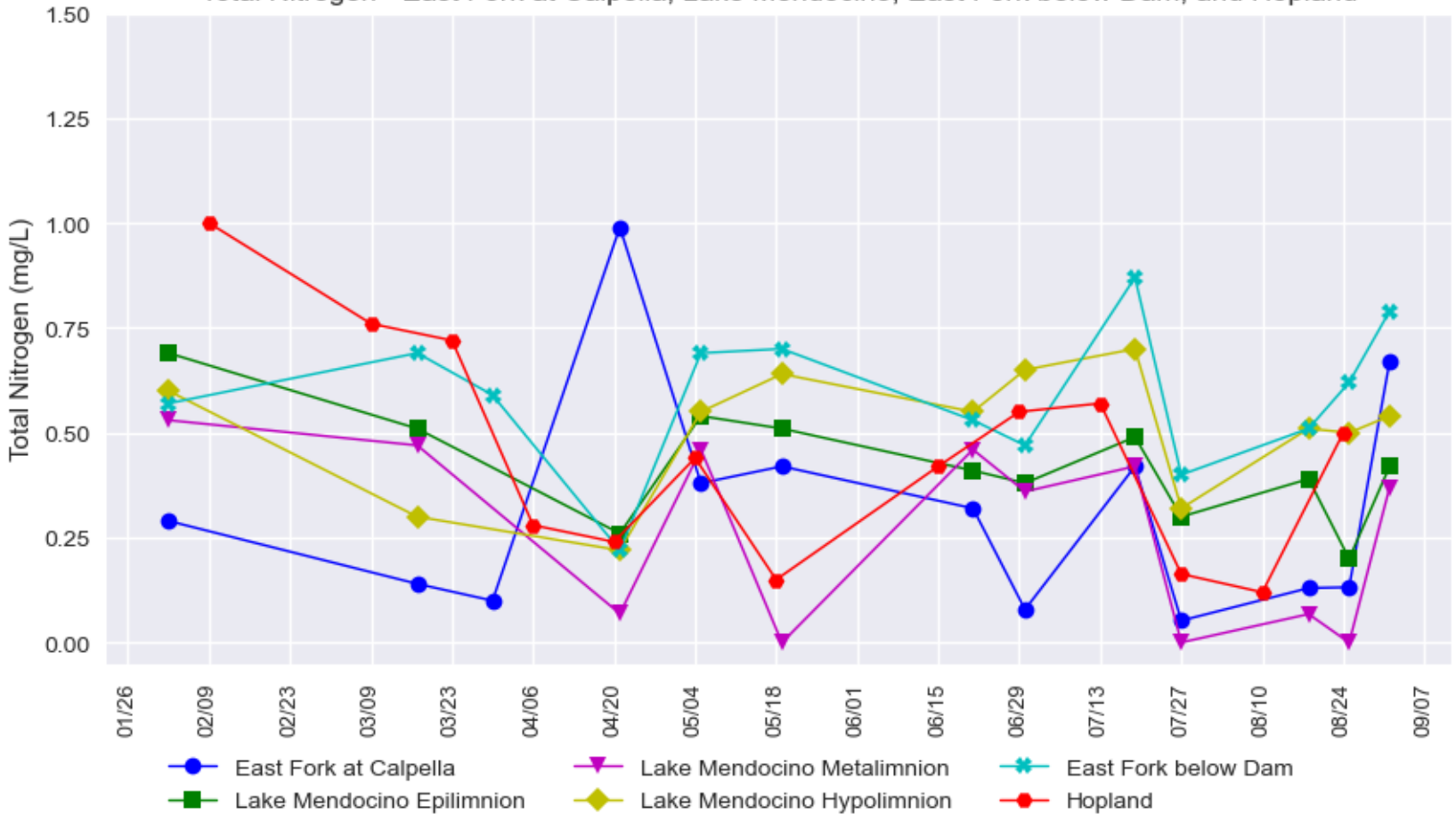
Temperature - East Fork at Calpella, Lake Mendocino, East Fork below Dam, and Hopland



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

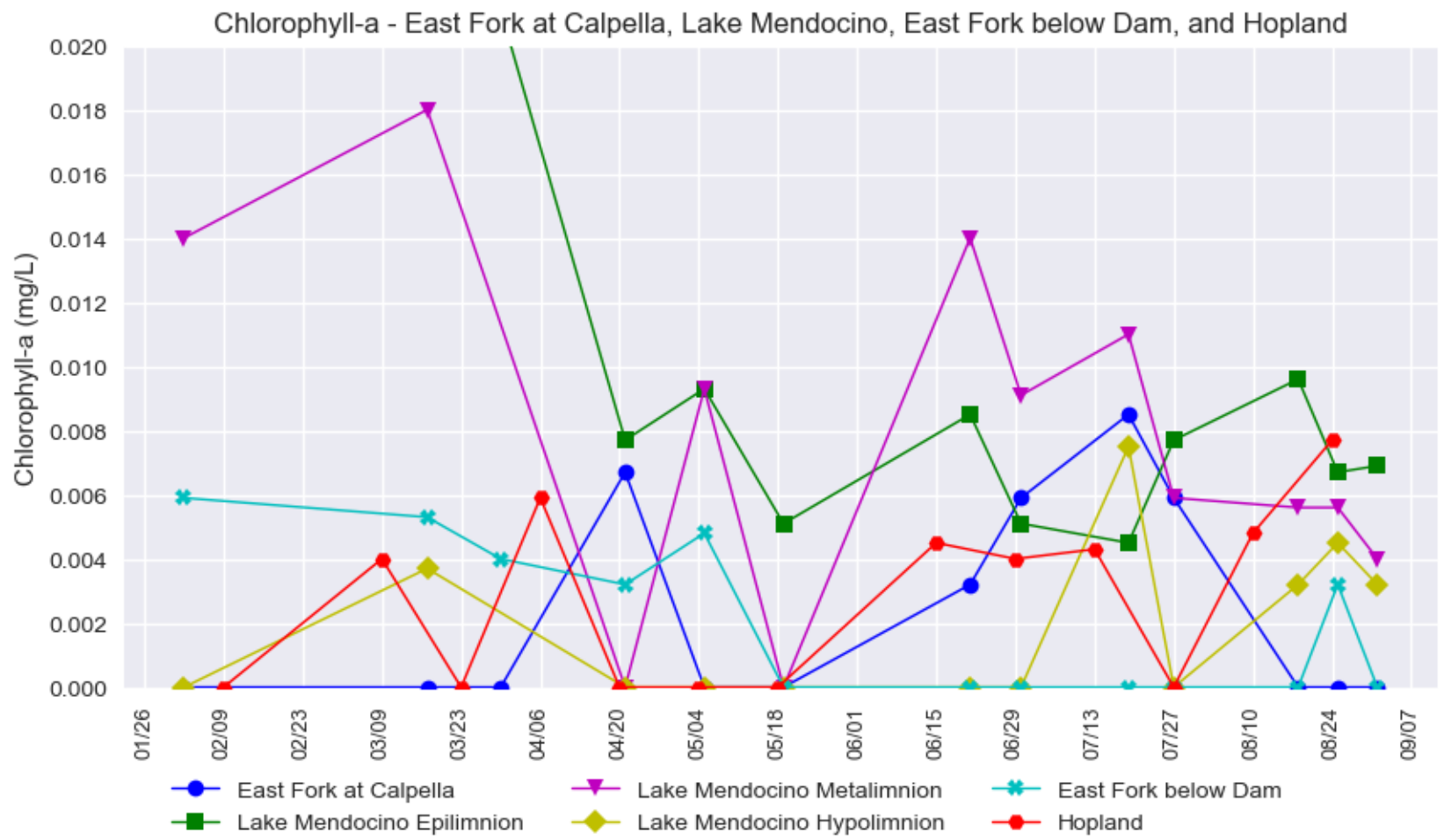
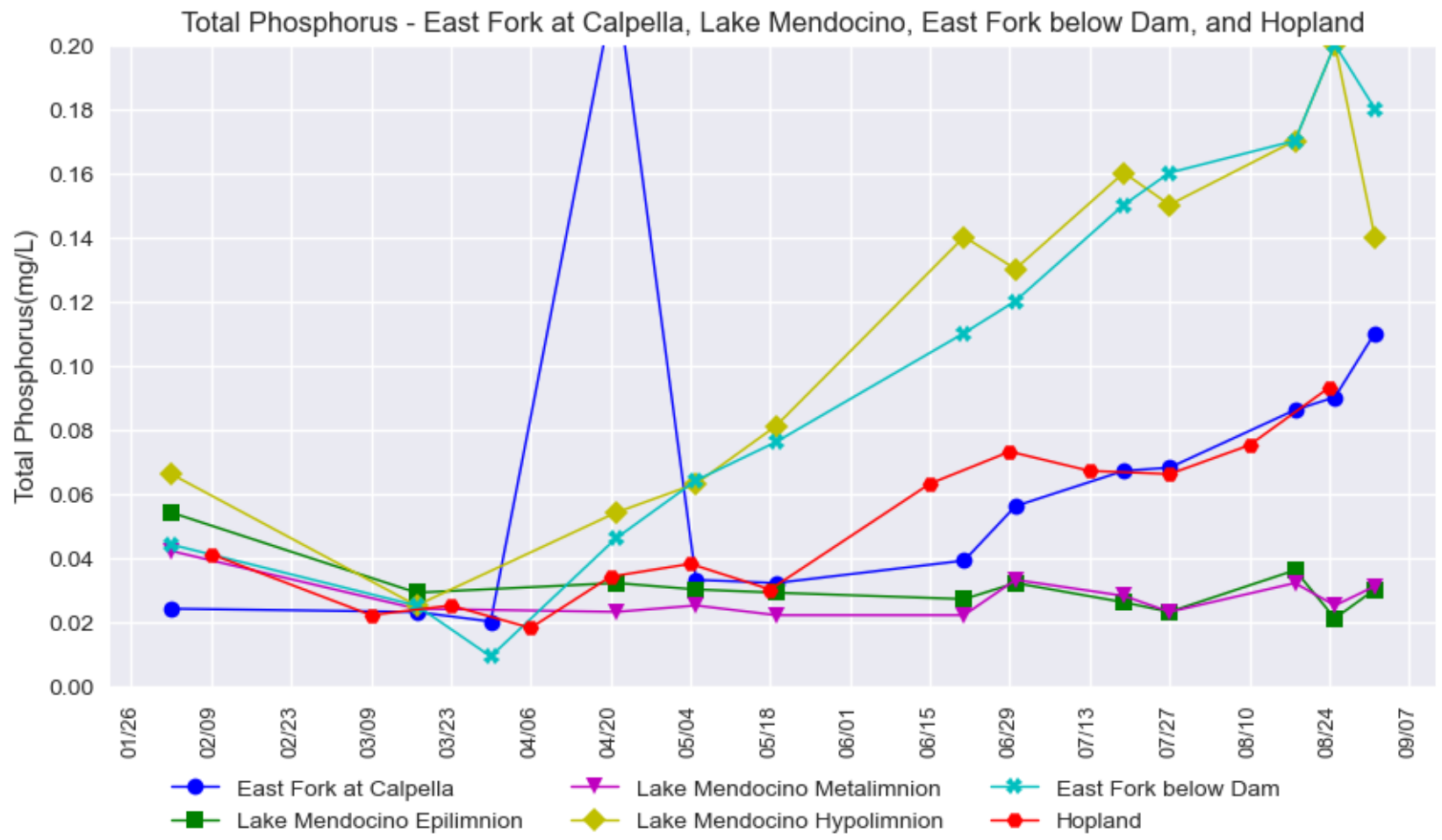


\*Each marker in the plot represents a grab sample. The lines are used to help visualize the data, but do not represent a continuous data measurement.



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.

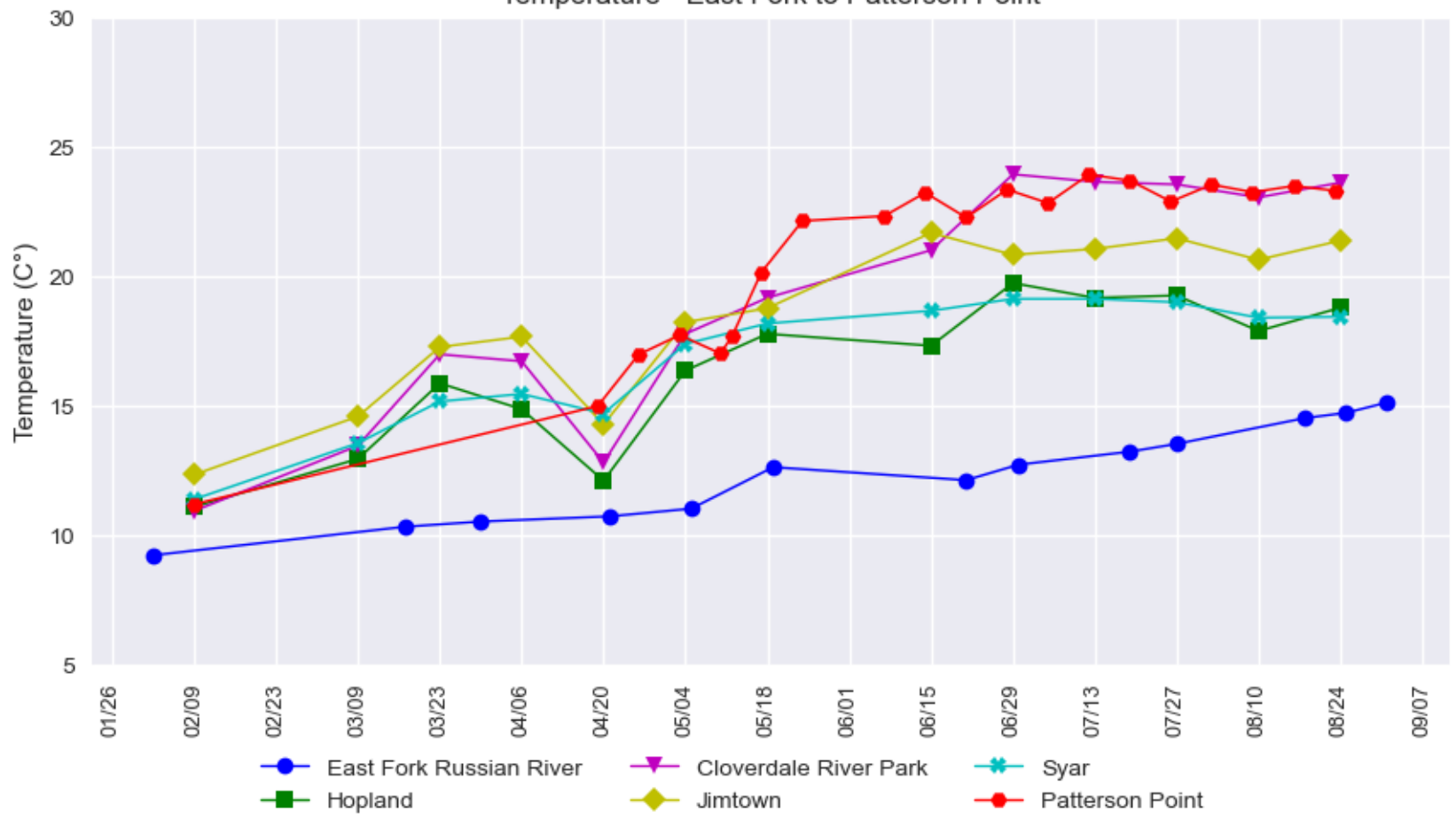


Russian River Water Quality Grab Samples February 02 - September 01, 2022

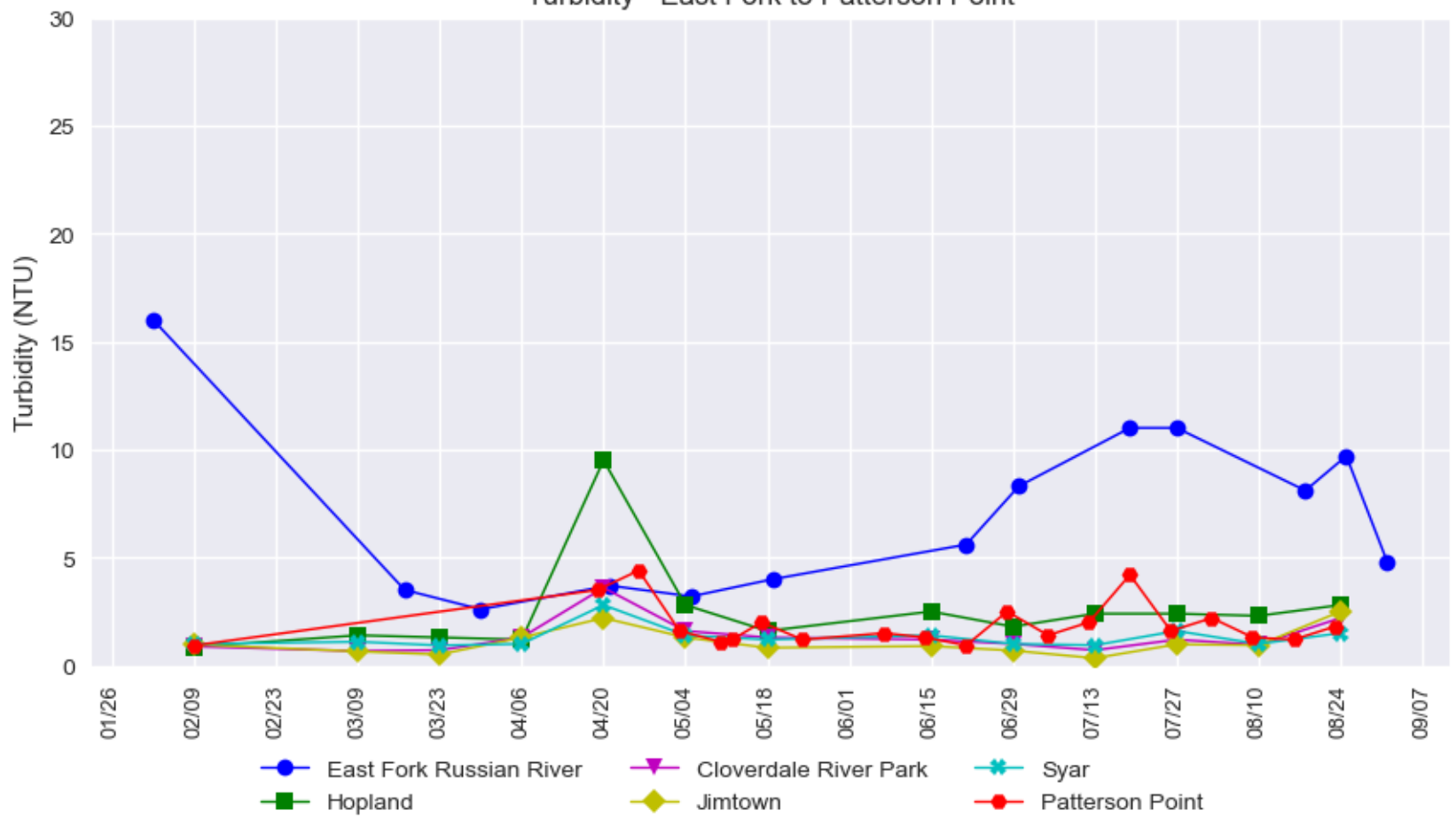
Provisional Data Subject to Revision

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

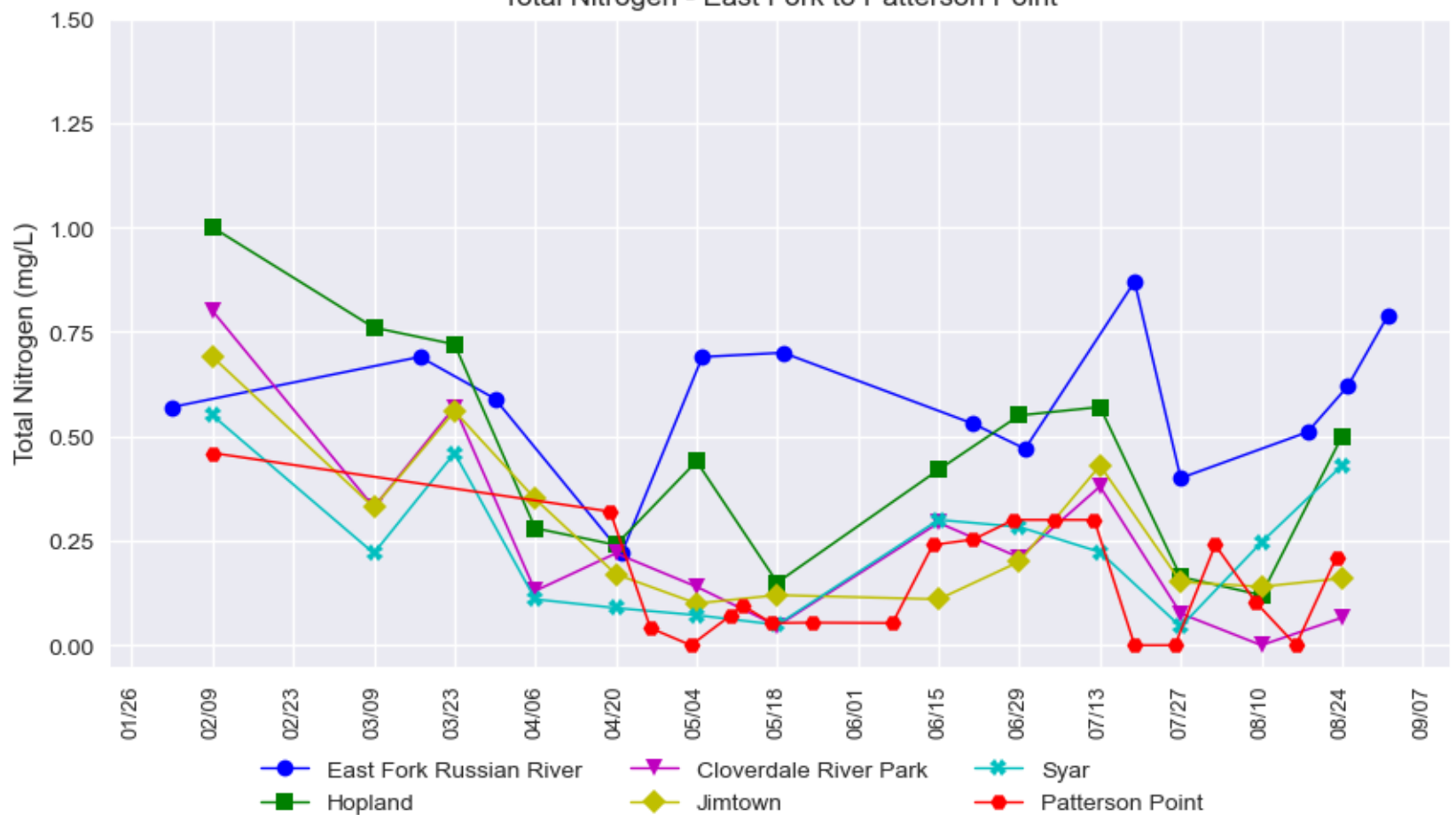
Temperature - East Fork to Patterson Point



Turbidity - East Fork to Patterson Point



Total Nitrogen - East Fork to Patterson Point



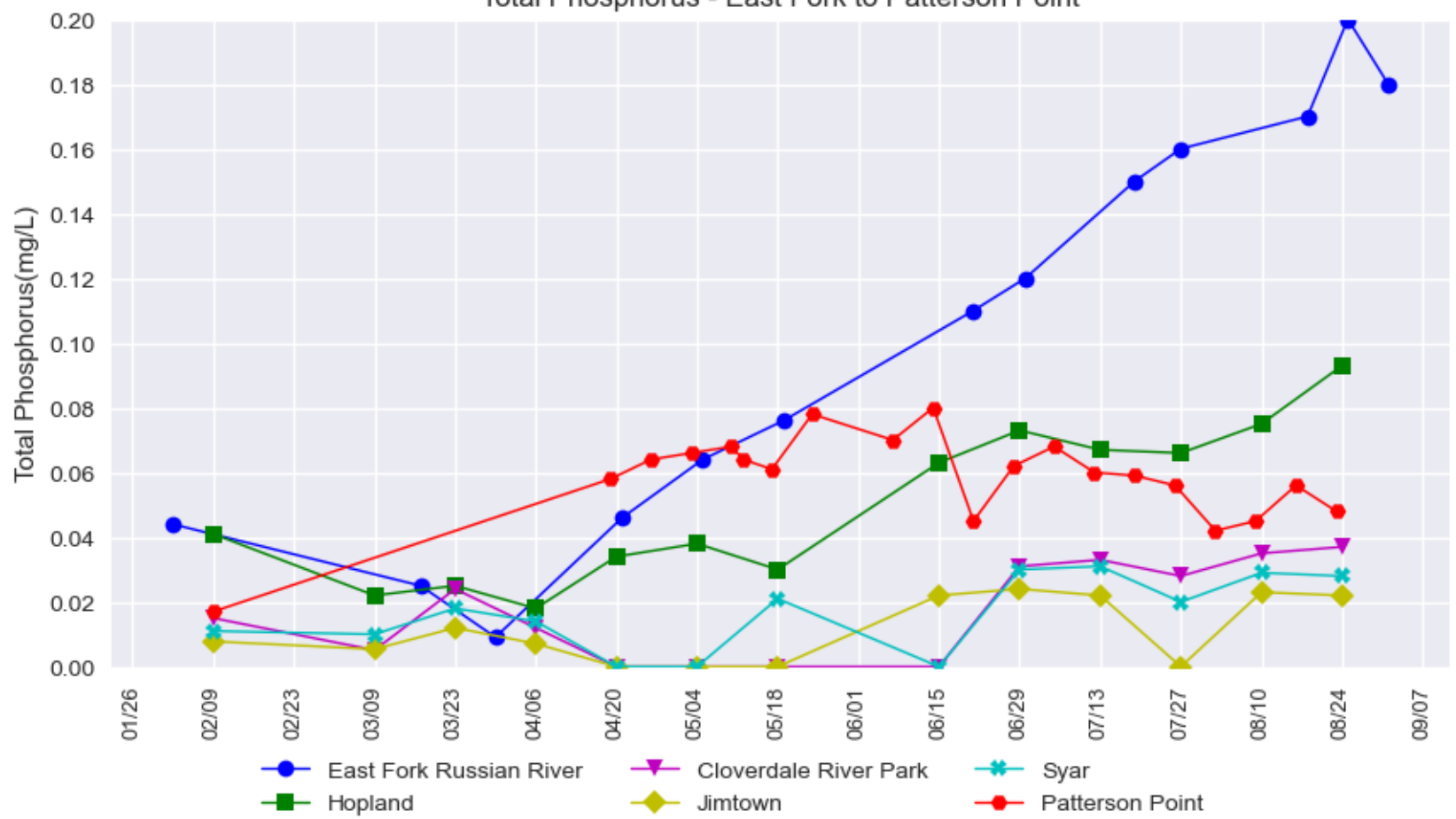
\*Each marker in the plot represents a grab sample. The lines are used to help visualize the data, but do not represent a continuous data measurement.

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

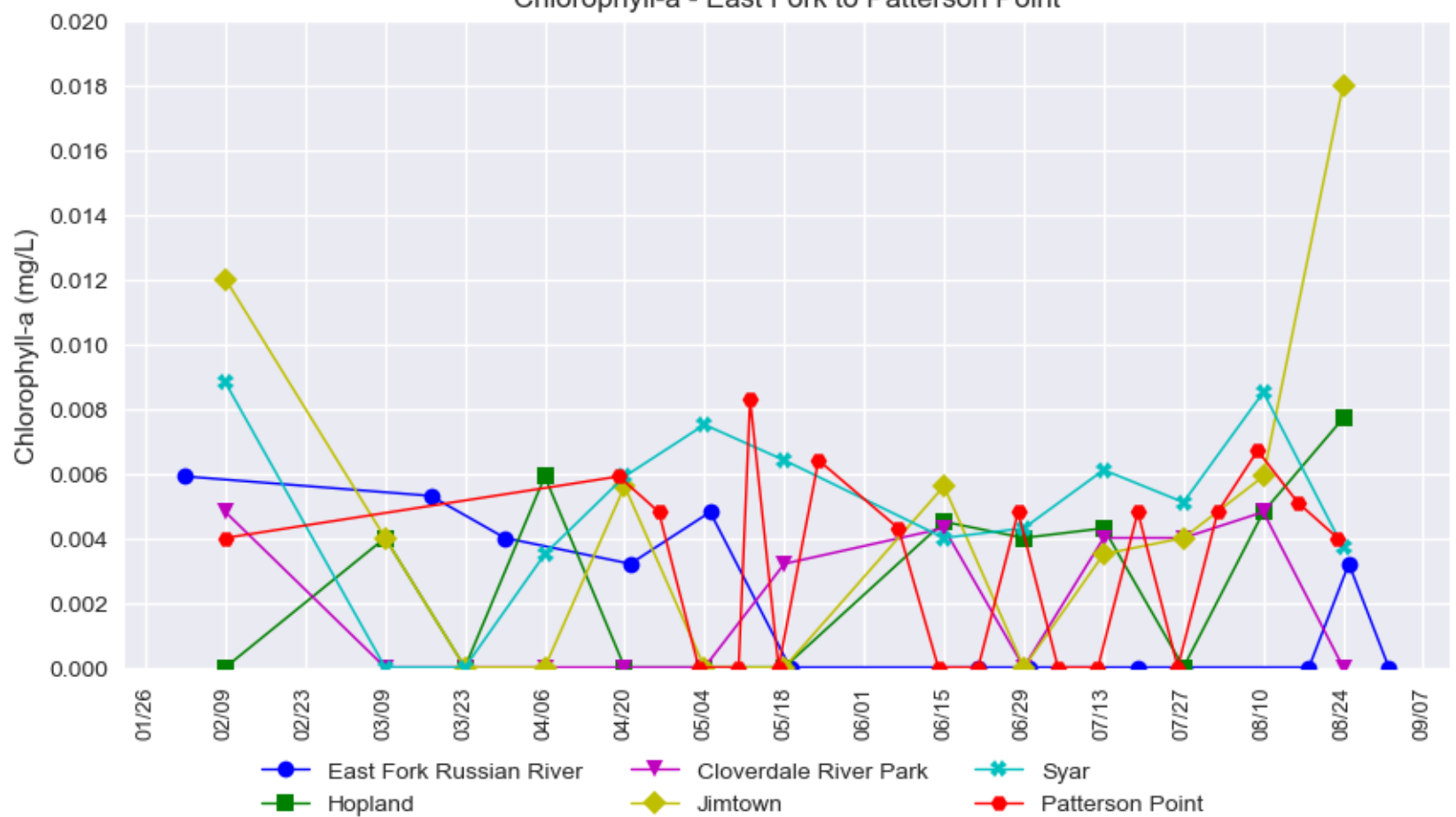
Provisional Data Subject to Revision

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 9 - September 27, 2022)  
Provisional Data Subject to Revision**

| Parameter***                   | CDPH Guidance* | Date      | Patterson Point | Monte Rio | Vacation Beach |
|--------------------------------|----------------|-----------|-----------------|-----------|----------------|
| Total Coliforms<br>MPN/100 mL  | 10,000         | 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**         |
|                                |                | 9/27/2022 | 1850**          | 2359**    | 1918**         |
| E. Coli<br>MPN/100 mL          | 235            | 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           |
|                                |                | 9/27/2022 | 34.5            | 51.2      | 25.6           |
| Enterococcus<br>MPN/100 mL**** | 61             | 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           |
|                                |                | 9/27/2022 | 60.9            | 53.7      | 32.3           |

\*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   |           |                 |           |                |