



**Sonoma Water**

**State Water Resources Control Board  
 Temporary Urgency Change Order (12/11/2021)  
 Russian River Hydrologic Report  
 April 22, 2022 - April 28, 2022**

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

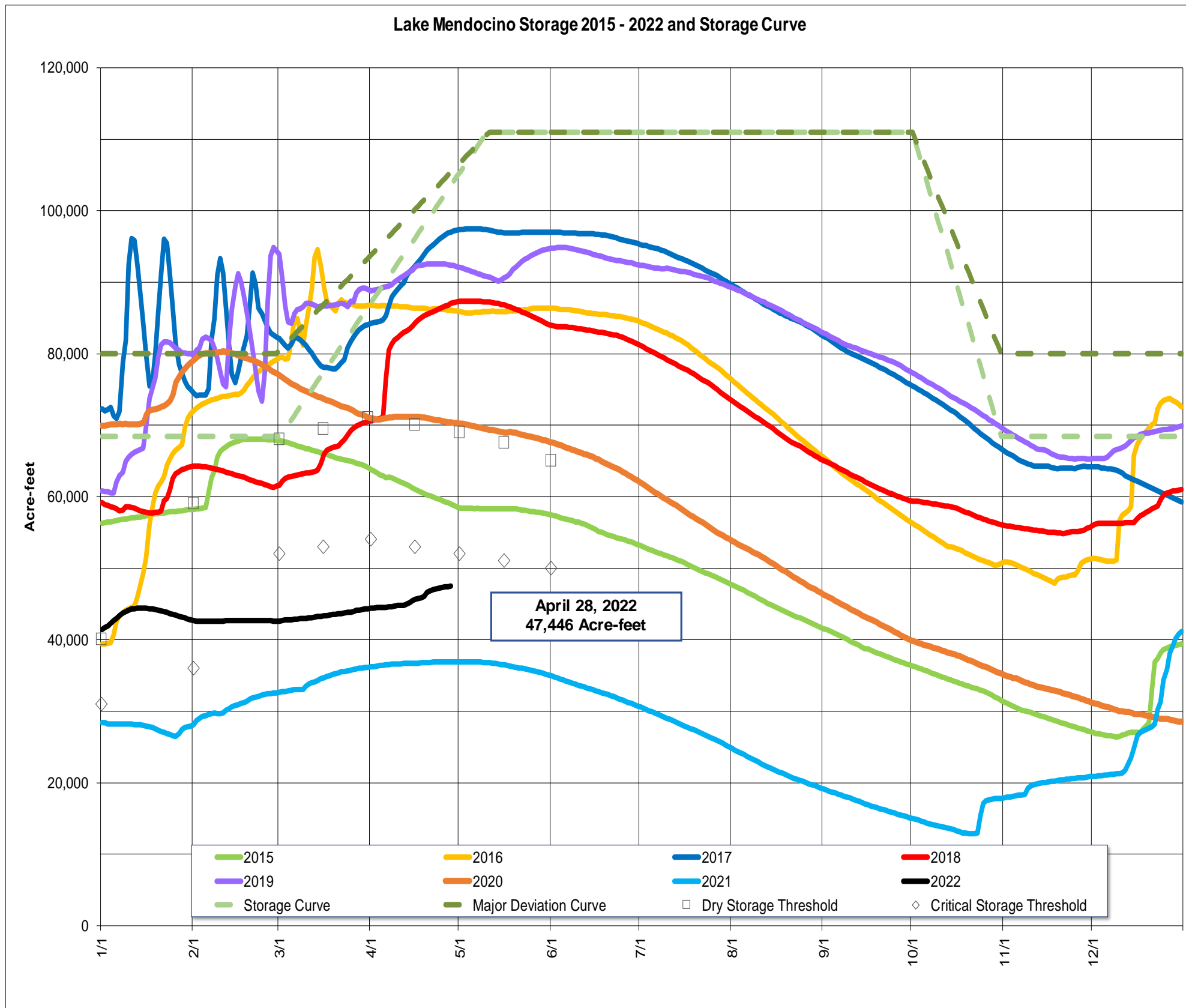
**Instream Flow Requirements as of April 28, 2022**

| Basis                                  | Reach               | Instantaneous (cfs) | 5-day Average (cfs) |
|--|---------------------|---------------------|---------------------|
| Modified Per Order: Critical Condition | Upper Russian River | <b>25</b>           | -                   |
| Modified Per Order: Critical Condition | Dry Creek           | <b>25</b>           | -                   |
| Modified Per Order: Critical Condition | Lower Russian River | <b>35</b>           | -                   |

Upper Russian River, Dry Creek, Lower Russian River based on criteria as established in the Order issued 12/11/2021.

**Lake Mendocino**

**Lake Mendocino Storage 2015 - 2022 and Storage Curve**



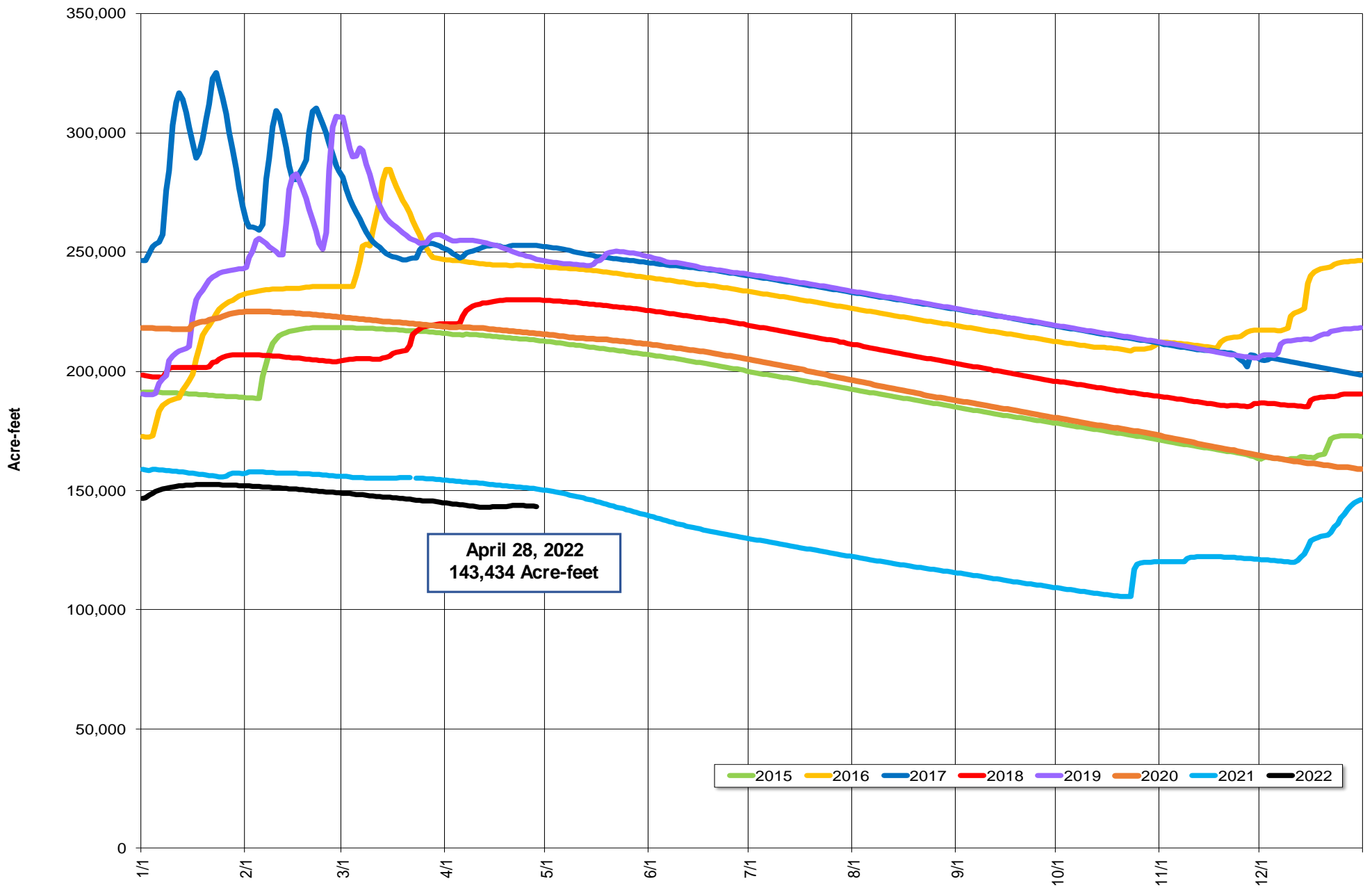
|                               |                |               |                    |
|-------------------------------|----------------|---------------|--------------------|
| Storage (acre-feet)           | April 28, 2022 | <b>47,446</b> |                    |
|                               |                | Total         | Average Daily Rate |
| Change in Storage (acre-feet) | Last 30 days   | <b>3,245</b>  | <b>108</b>         |
|                               | Last 7 days    | <b>603</b>    | <b>86</b>          |
| Daily Inflow (cfs)            | Last 7 days    | Min           | <b>67</b>          |
|                               |                | Max           | <b>157</b>         |
|                               |                | Mean          | <b>97</b>          |
| Release (cfs)                 | Last 7 days    | Min           | <b>27</b>          |
|                               |                | Max           | <b>29</b>          |
|                               |                | Mean          | <b>29</b>          |

# Lake Sonoma



Nathan Baskett, March 3 , 2011

### Lake Sonoma Storage 2015-2022



|                               |                |                |                    |
|-------------------------------|----------------|----------------|--------------------|
| Storage (acre-feet)           | April 28, 2022 | <b>143,434</b> |                    |
|                               |                | Total          | Average Daily Rate |
| Change in Storage (acre-feet) | Last 30 days   | <b>-1,996</b>  | <b>-67</b>         |
|                               | Last 7 days    | <b>-258</b>    | <b>-37</b>         |
| Daily Inflow (cfs)            | Last 7 days    | Min            | <b>23</b>          |
|                               |                | Max            | <b>124</b>         |
|                               |                | Mean           | <b>59</b>          |
| Release (cfs)                 | Last 7 days    | Min            | <b>58</b>          |
|                               |                | Max            | <b>61</b>          |
|                               |                | Mean           | <b>59</b>          |

# Potter Valley Project

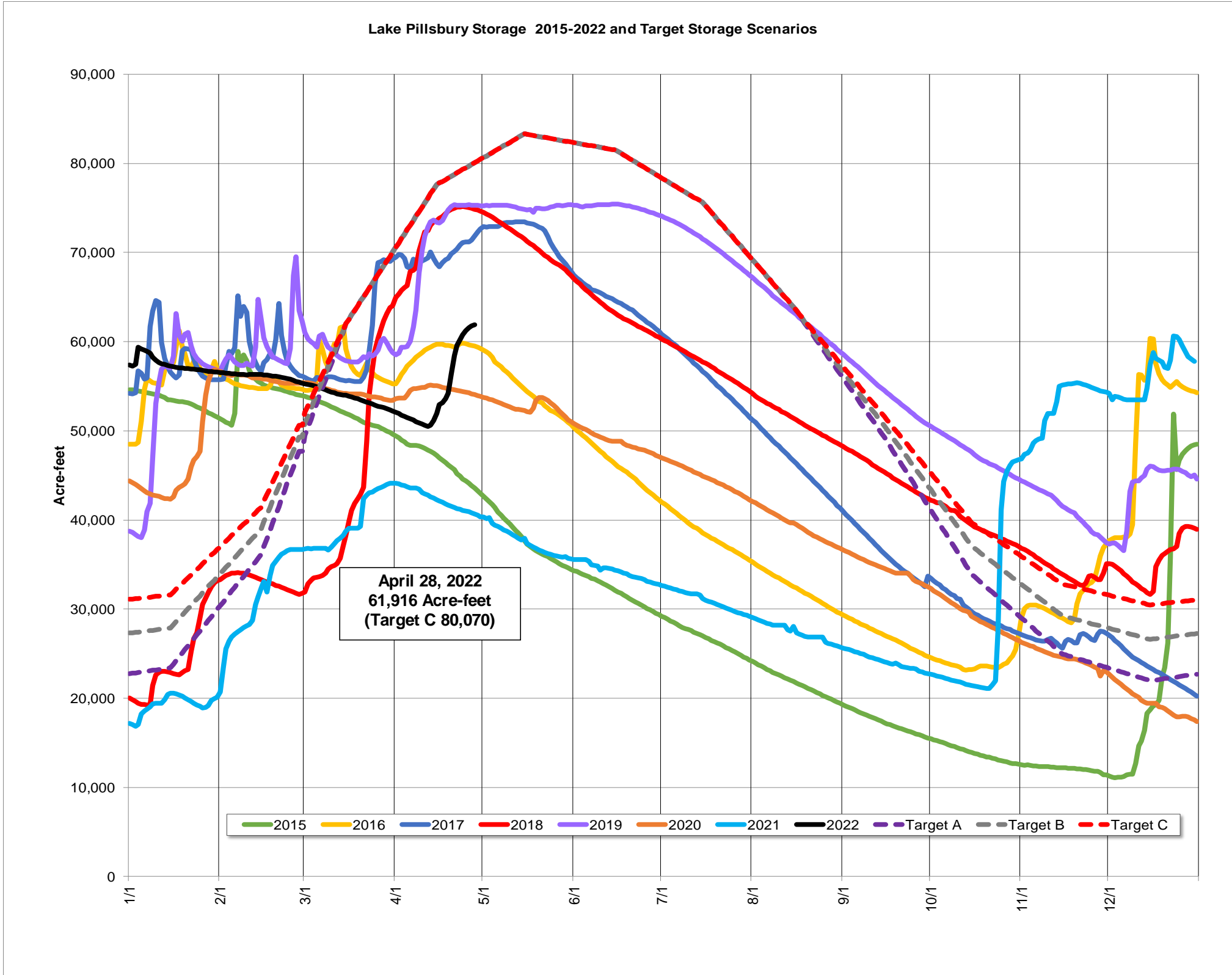
|                     |                |    |
|---------------------|----------------|----|
| PVP Diversion (cfs) | April 28, 2022 | 46 |
|---------------------|----------------|----|

## Lake Pillsbury

| Parameter           | Date Range                       | Cumulative | Daily Average |
|---------------------|----------------------------------|------------|---------------|
| Inflow* (acre-feet) | October 1, 2021 - April 28, 2022 | 214,276    | 1,025         |
|                     | Last 7 days                      | 6,960      | 994           |

\*Inflow calculation based on criteria established in D1610

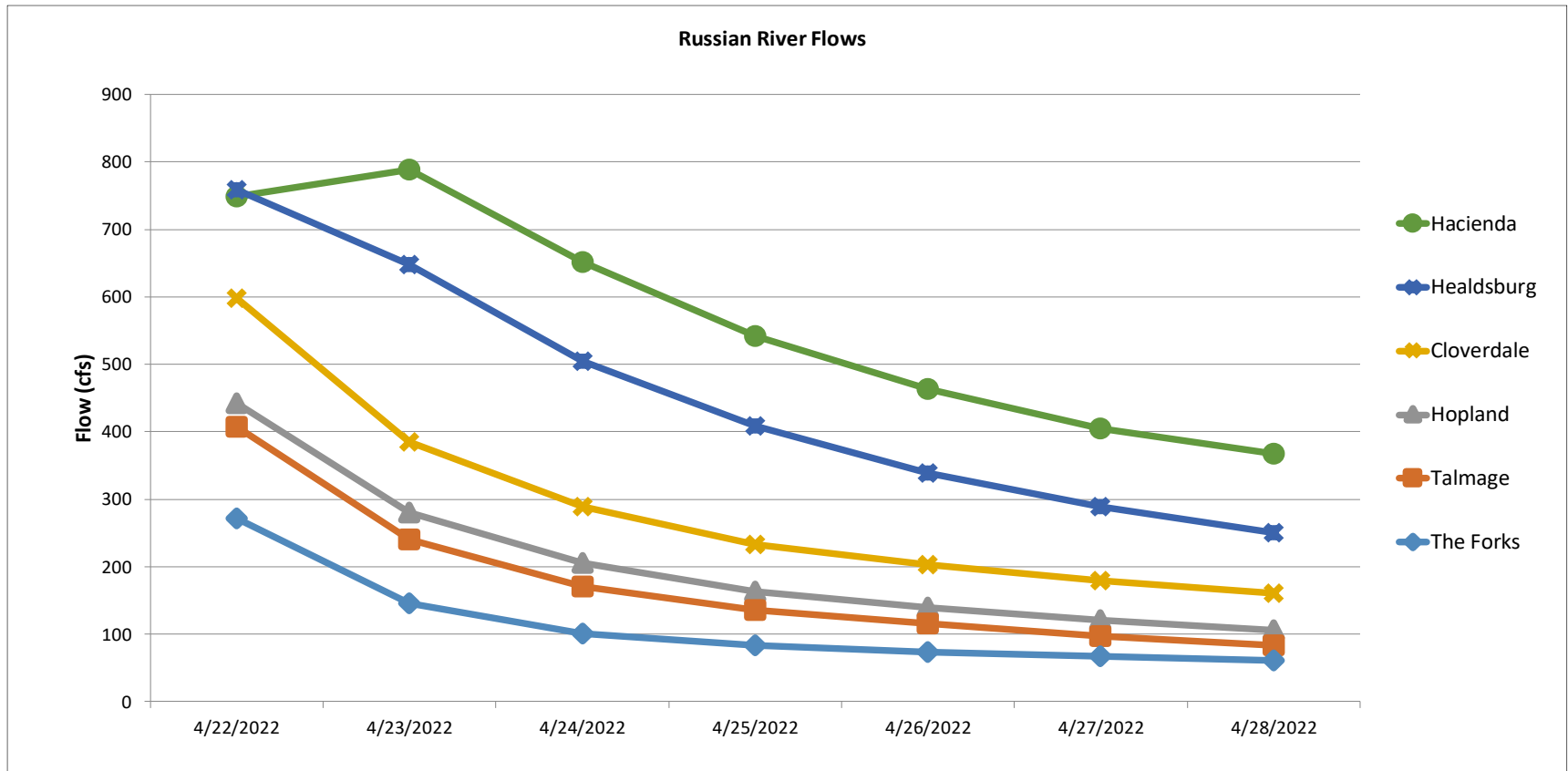
Lake Pillsbury Storage 2015-2022 and Target Storage Scenarios



### Russian River Flows (April 22, 2022 - April 28, 2022)

| Gage                        | 24-hr Average Flow (cfs) |              |              |              |              |              |              |
|-----------------------------|--------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                             | Apr 22, 2022             | Apr 23, 2022 | Apr 24, 2022 | Apr 25, 2022 | Apr 26, 2022 | Apr 27, 2022 | Apr 28, 2022 |
| The Forks*                  | 272                      | 146          | 101          | 83           | 73           | 67           | 62           |
| Talmage<br>USGS 11462080    | 408                      | 241          | 171          | 136          | 115          | 97           | 84           |
| Hopland<br>USGS 11462500    | 442                      | 280          | 205          | 164          | 139          | 121          | 106          |
| Cloverdale<br>USGS 11463000 | 598                      | 385          | 289          | 234          | 203          | 180          | 161          |
| Healdsburg<br>USGS 11464000 | 759                      | 648          | 505          | 409          | 339          | 289          | 251          |
| Hacienda<br>USGS 11467000   | 749                      | 789          | 652          | 542          | 463          | 405          | 368          |

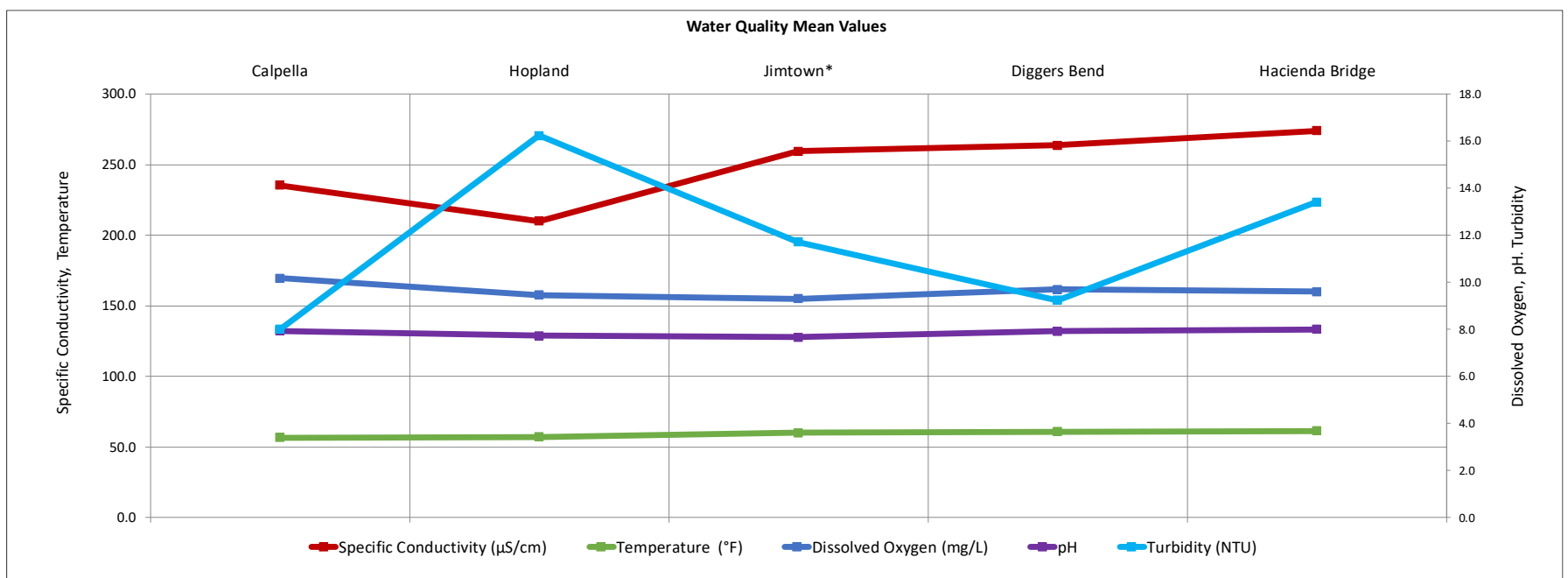
\*West Fork (USGS 11461000) + East Fork (Coyote Valley Dam Release)



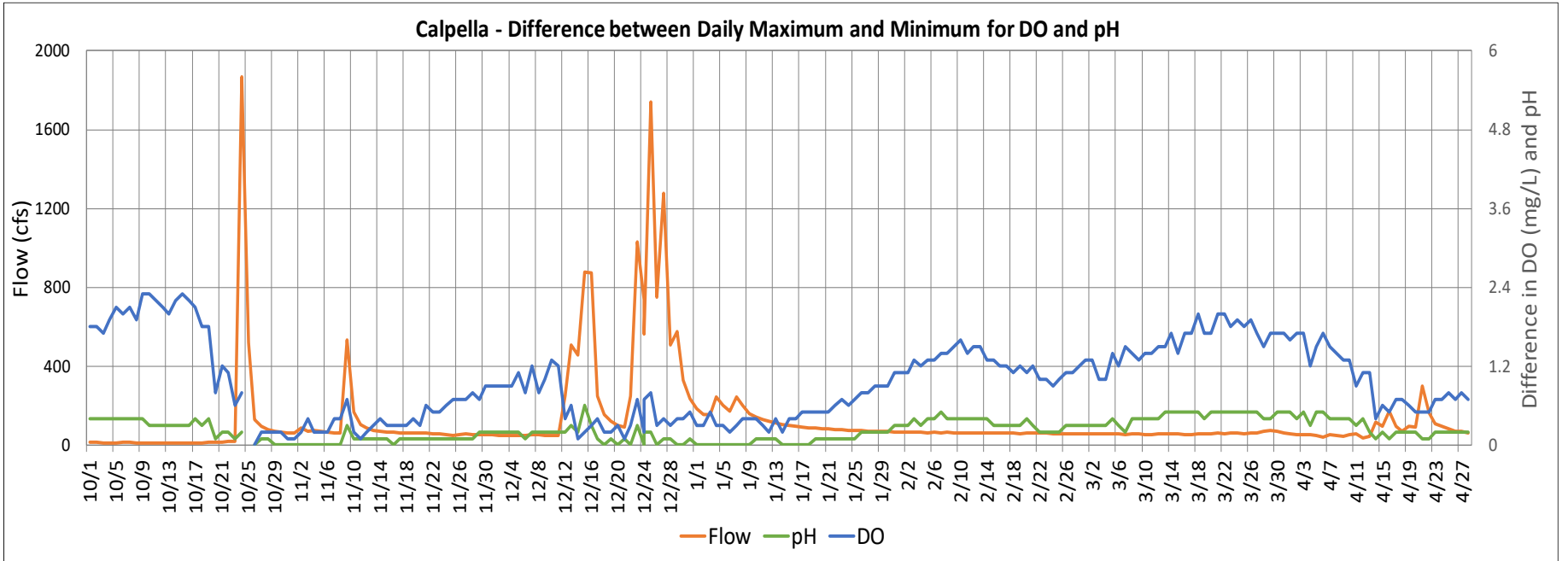
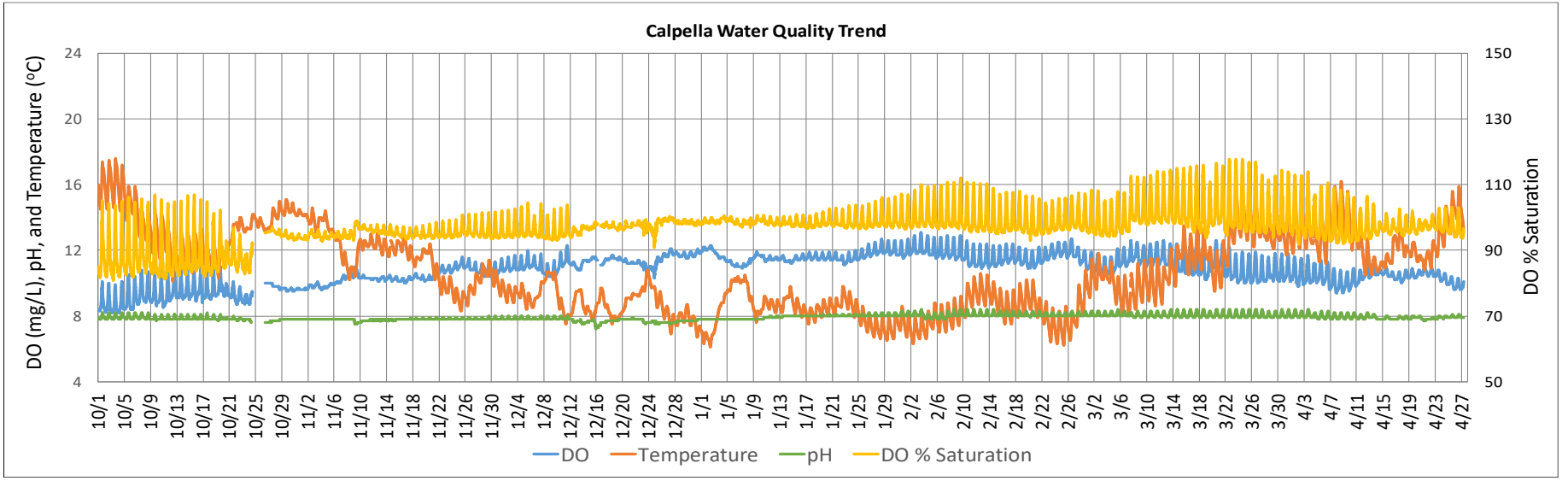
### Russian River Water Quality (April 22, 2022 - April 28, 2022)

| 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  | 51.6          | 51.8          |               | 53.4          | 55.2          |                                    | 56.5            |                 |
|                                 | Max  | 60.6          | 62.2          |               | 64.8          | 66.0          |                                    | 65.3            |                 |
|                                 | Mean | 56.4          | 57.1          |               | 59.8          | 60.8          |                                    | 61.4            |                 |
| Specific Conductivity (µS/cm)   | Min  | 203.0         | 139.0         |               | 187.0         | 202.0         |                                    | 229.0           |                 |
|                                 | Max  | 243.0         | 250.0         |               | 314.0         | 313.0         |                                    | 305.0           |                 |
|                                 | Mean | 235.3         | 209.8         |               | 259.4         | 263.5         |                                    | 274.0           |                 |
| Dissolved Oxygen (mg/L)         | Min  | 9.6           | 8.7           |               | 7.9           | 8.0           |                                    | 7.8             |                 |
|                                 | Max  | 10.9          | 10.5          |               | 10.6          | 13.5          |                                    | 10.9            |                 |
|                                 | Mean | 10.2          | 9.4           |               | 9.3           | 9.7           |                                    | 9.6             |                 |
| Dissolved Oxygen (% Saturation) | Min  | 93.6          | 84.8          |               | 78.5          | 80.4          |                                    | 80.6            |                 |
|                                 | Max  | 103.8         | 98.3          |               | 111.5         | 143.1         |                                    | 115.1           |                 |
|                                 | Mean | 97.7          | 91.4          |               | 93.2          | 98.4          |                                    | 97.9            |                 |
| pH                              | Min  | 7.8           | 7.6           |               | 7.5           | 7.6           |                                    | 7.8             |                 |
|                                 | Max  | 8.1           | 7.8           |               | 7.8           | 8.6           |                                    | 8.4             |                 |
|                                 | Mean | 7.9           | 7.7           |               | 7.7           | 7.9           |                                    | 8.0             |                 |
| Turbidity (NTU)                 | Min  | 2.1           | 3.5           |               | 1.8           | 1.4           |                                    | 5.0             |                 |
|                                 | Max  | 34.4          | 66.0          |               | 55.1          | 40.7          |                                    | 33.0            |                 |
|                                 | Mean | 8.0           | 16.2          |               | 11.7          | 9.2           |                                    | 13.4            |                 |

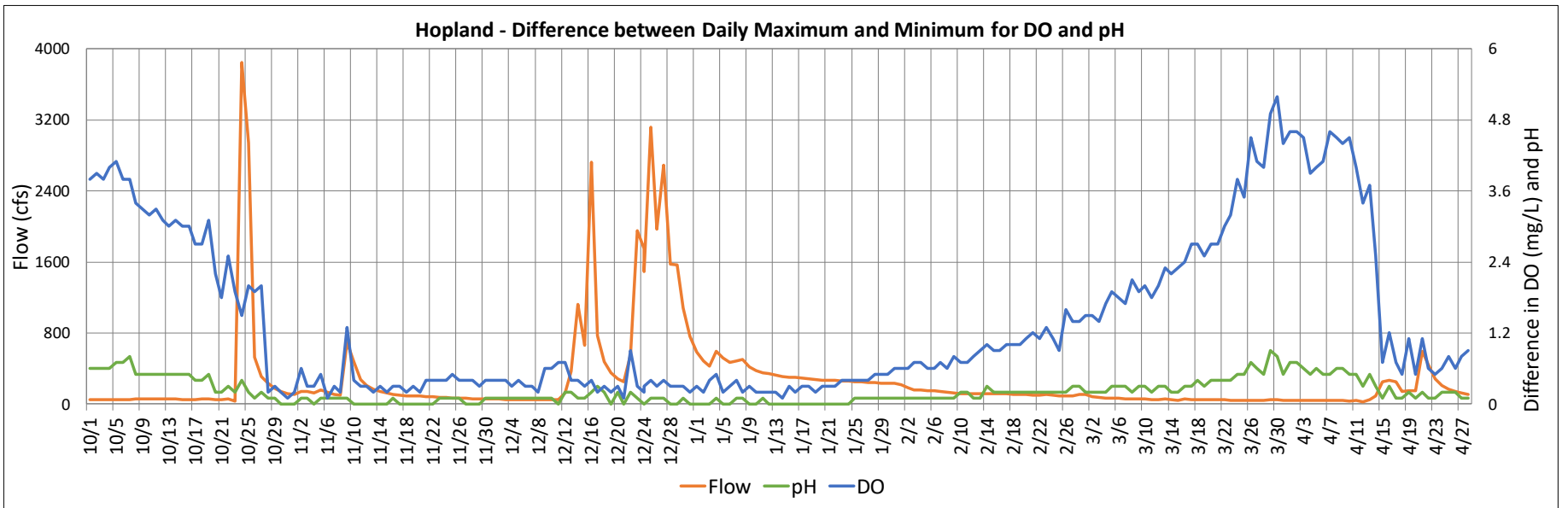
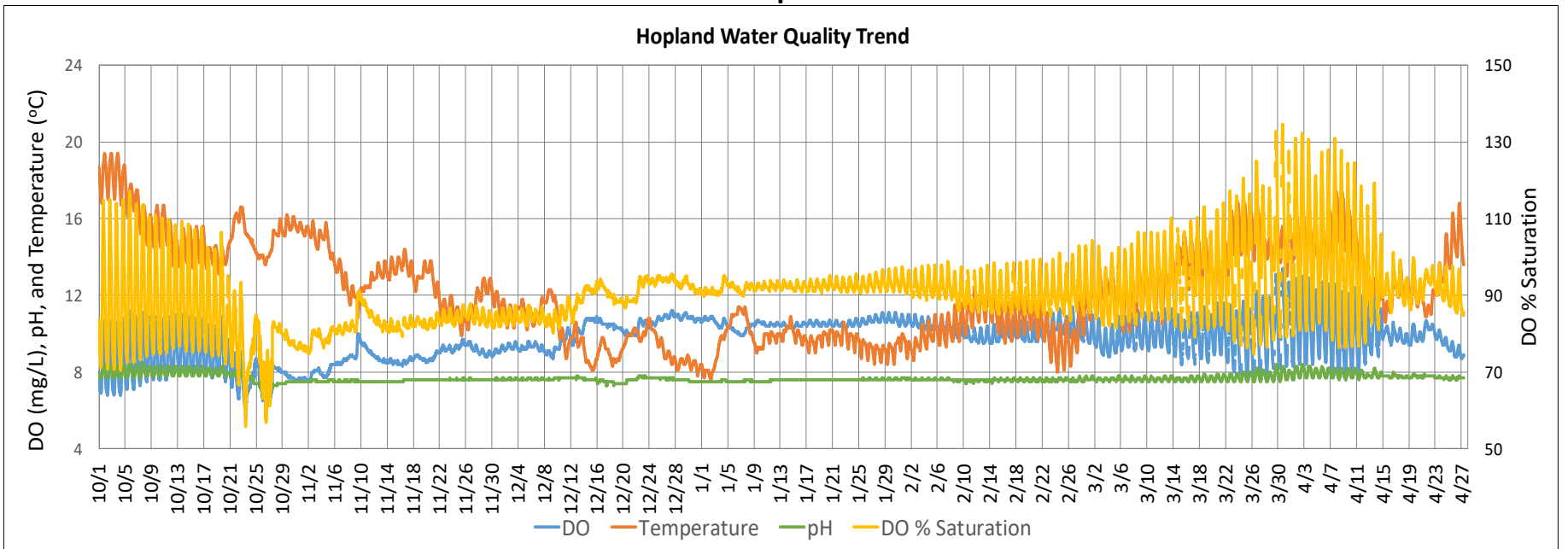
\*Station operated seasonally



**Russian River Water Quality (October 1, 2021 - April 28, 2022)**  
**Calpella (East Fork Russian River)**

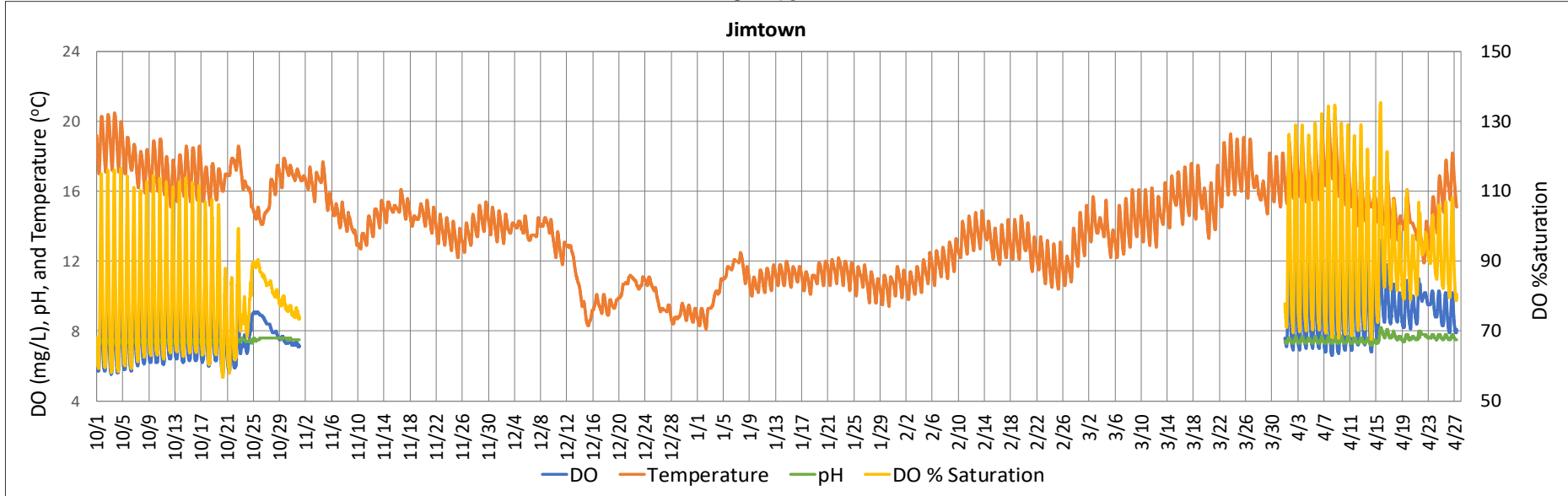


**Russian River Water Quality (October 1, 2021 - April 28, 2022)**  
**Hopland**

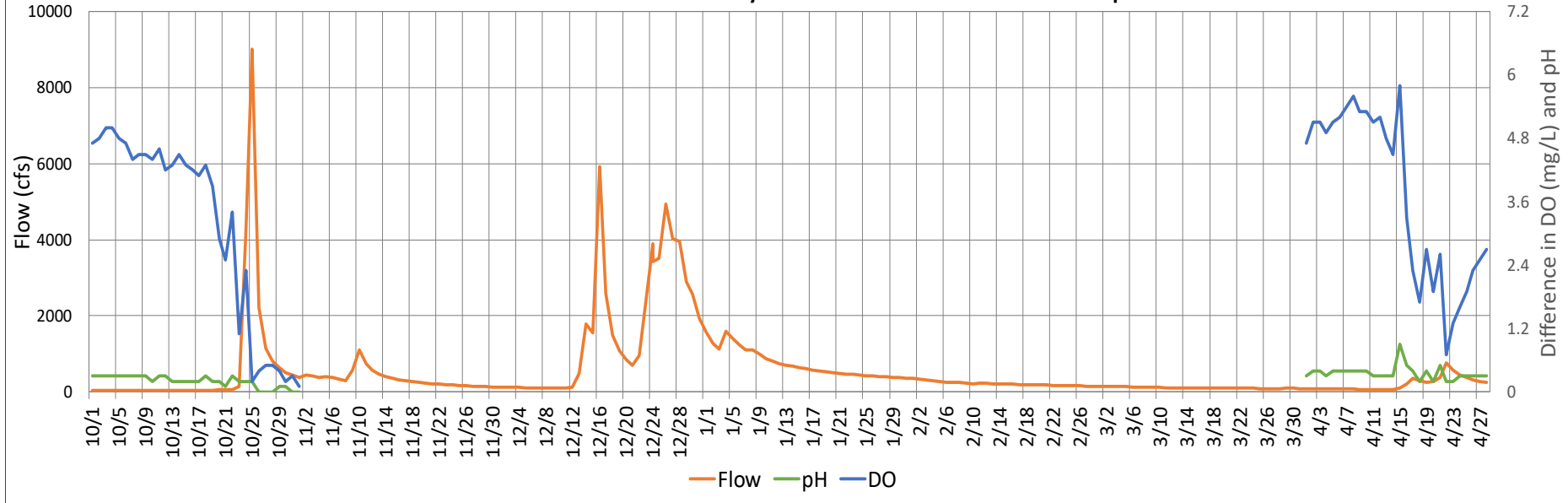


Russian River Water Quality (October 1, 2021 - April 28, 2022)

Jimtown



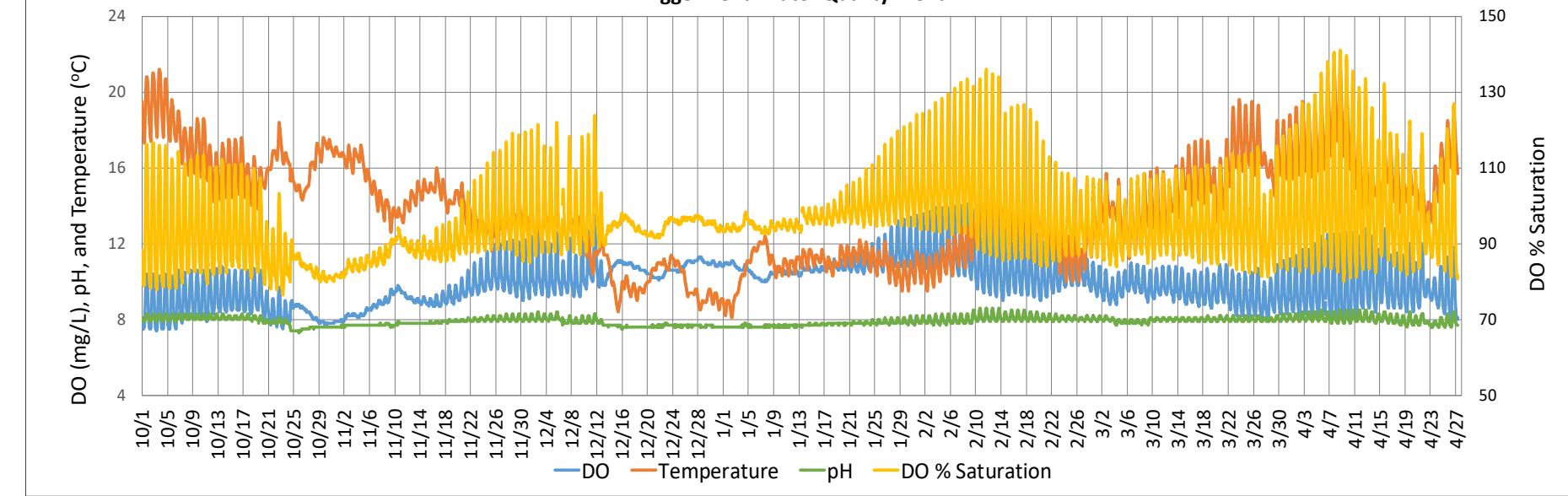
Jimtown - Difference between Daily Maximum and Minimum for DO and pH



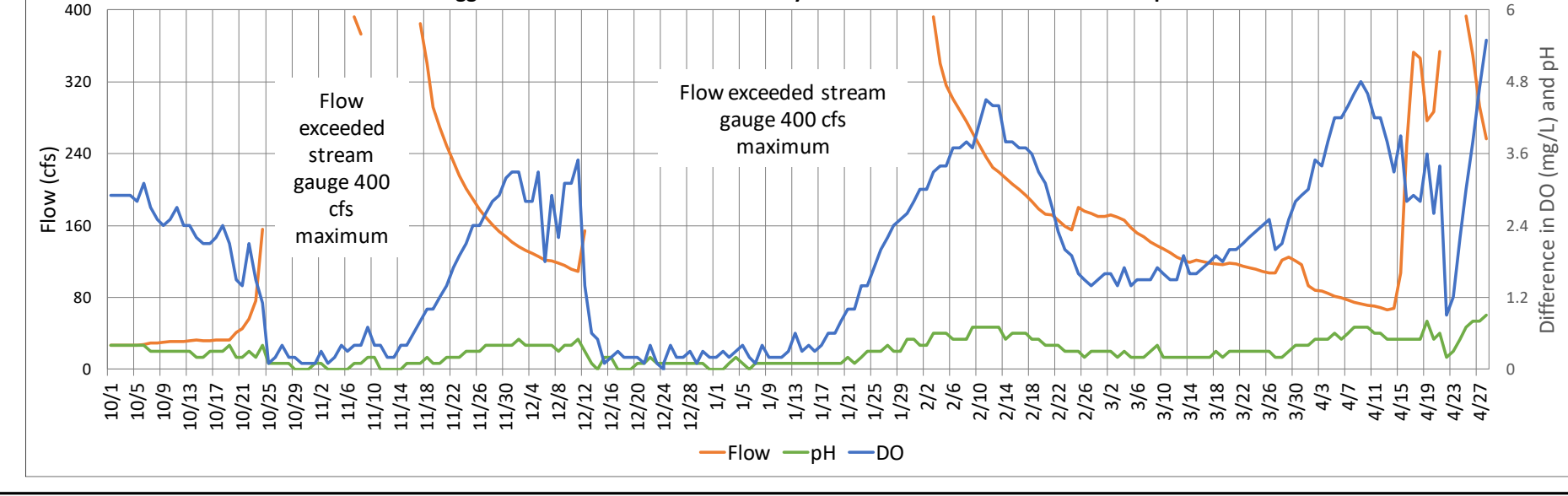
Russian River Water Quality (October 1, 2021 - April 28, 2022)

Digger Bend

Digger Bend Water Quality Trend

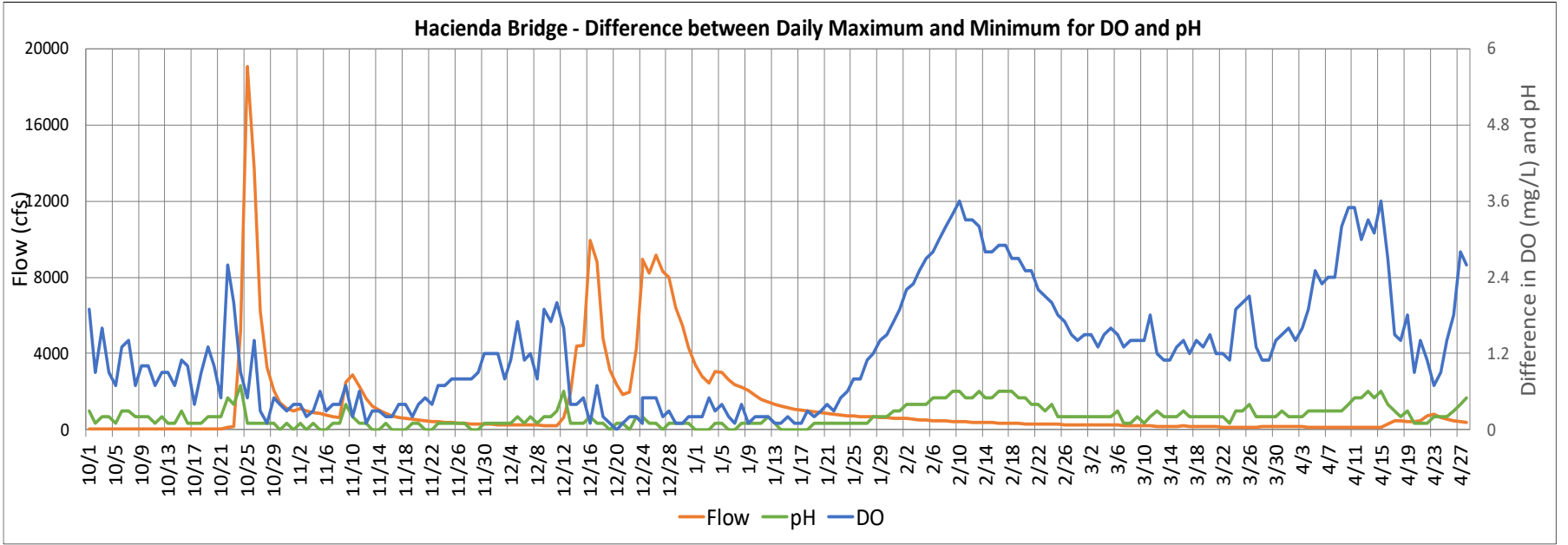
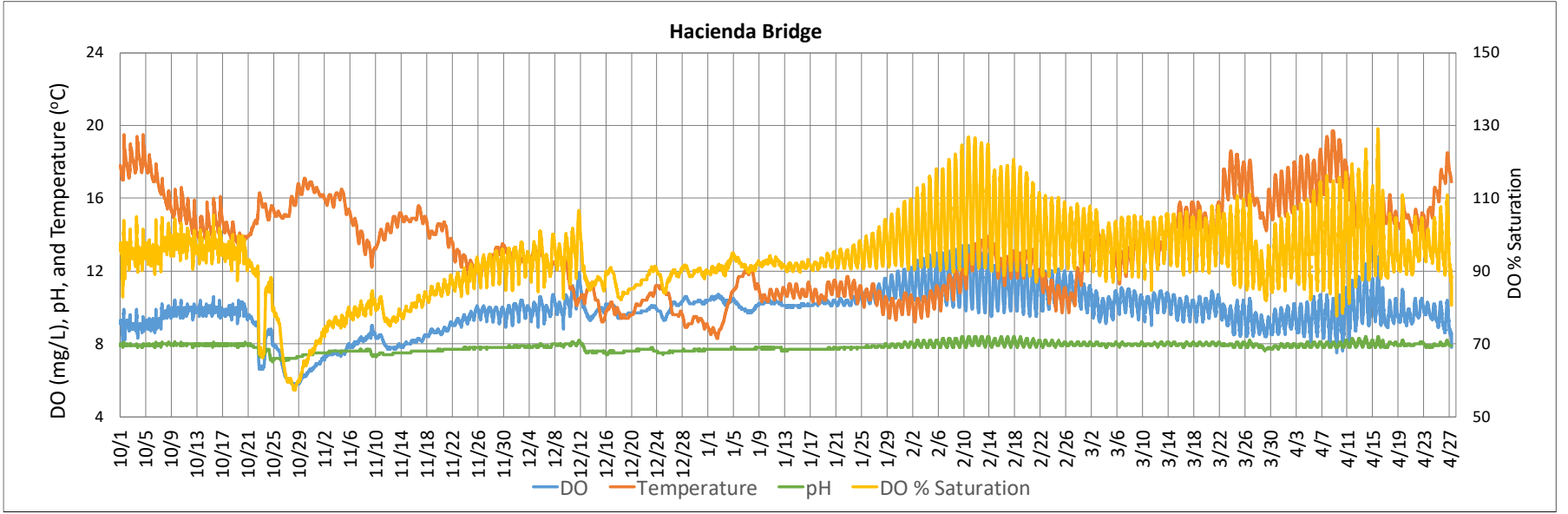


Digger Bend - Difference between Daily Maximum and Minimum for DO and pH



# Russian River Water Quality (October 1, 2021 - April 28, 2022)

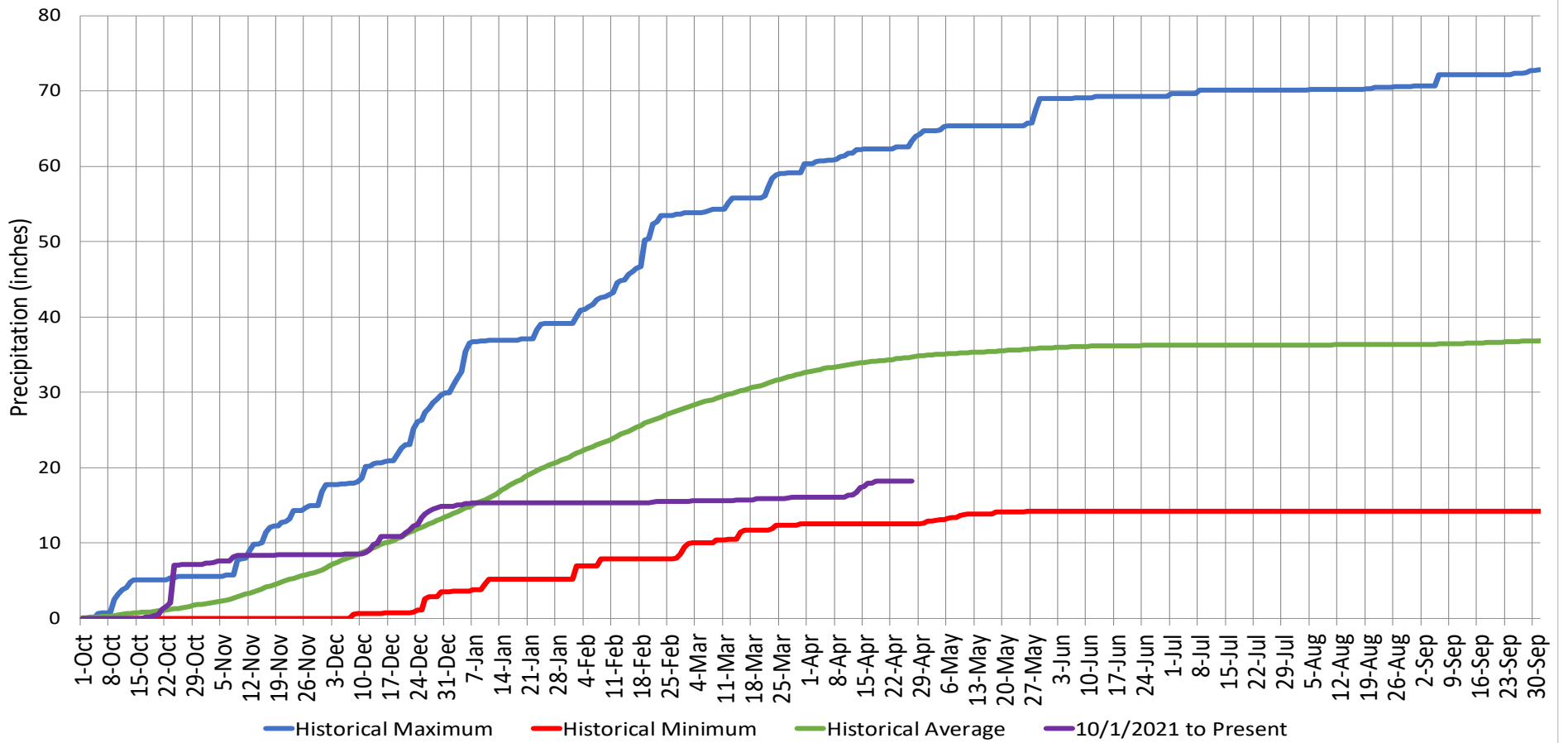
## Hacienda Bridge



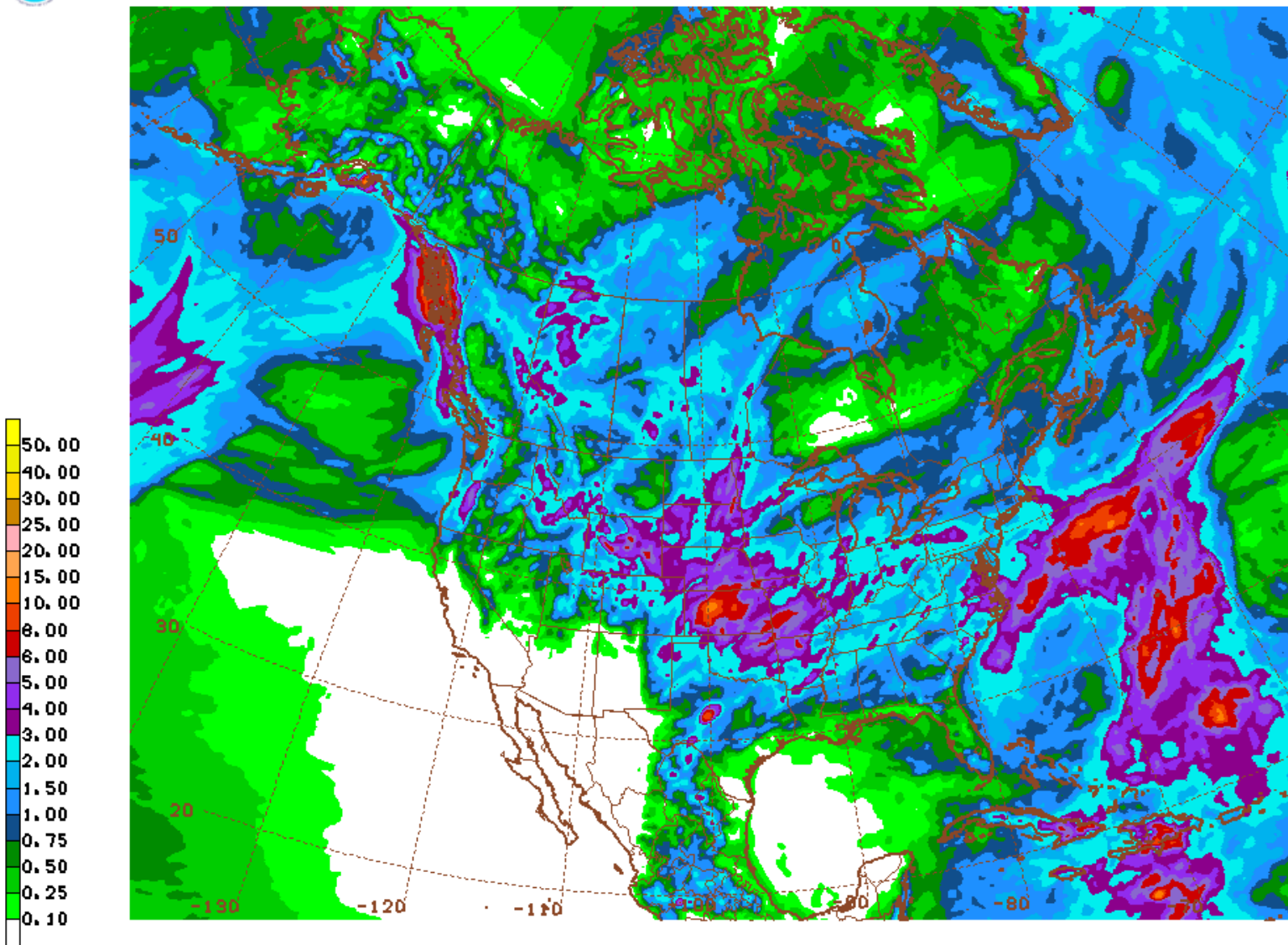
### Precipitation

|  |                     |
|--|---------------------|
| Ukiah Municipal Airport (WBAN: 72590523275 (KUKI)) |                     |
| Date Range   | Cumulative (inches) |
| Oct 1, 2021 - Apr 28, 2022                         | <b>18.18</b>        |
| Last 7 Days*                                       | <b>0.00</b>         |

Cumulative Precipitation Comparison of Current Year versus Historic Record



GFS 05/02/22 12UTC 384HR FCST VALID WED 05/18/22 12UTC NOAA/NWS/NCEP



GFS WED 220518/1200V384 384HR ACCUMULATED PRECIP (IN)

|                      |                                |
|----------------------|--------------------------------|
| Date Range           | Forecasted Cumulative (inches) |
| May 2 - May 18, 2022 | <b>0.00</b>                    |