



Sonoma Water

**State Water Resources Control Board
 Temporary Urgency Change Order (12/11/2021)
 Russian River Hydrologic Report
 April 29, 2022 - May 5, 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).

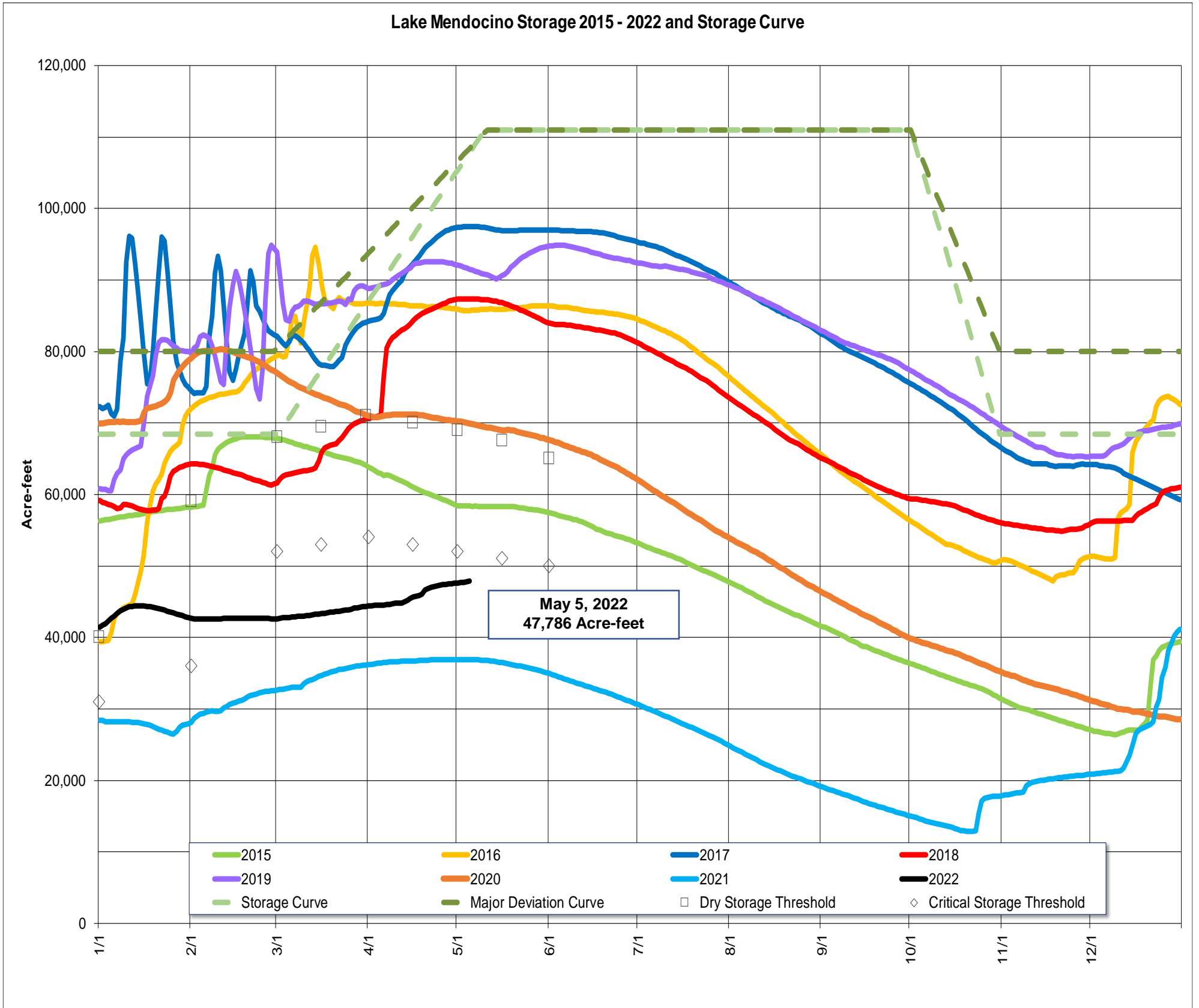
Instream Flow Requirements as of May 5, 2022

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

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



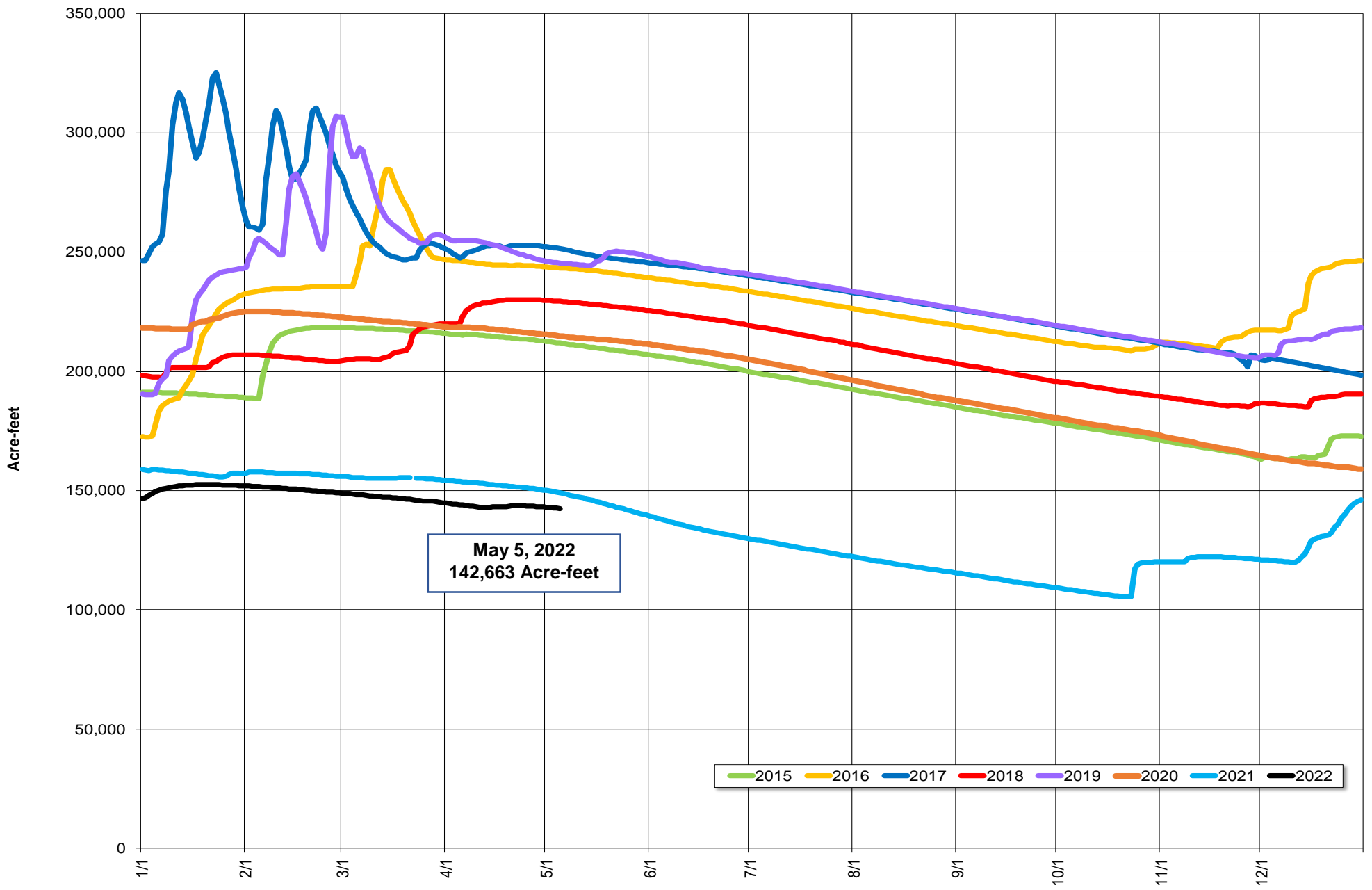
| | | | |
|-------------------------------|--------------|---------------|--------------------|
| Storage (acre-feet) | May 5, 2022 | 47,786 | |
| | | Total | Average Daily Rate |
| Change in Storage (acre-feet) | Last 30 days | 3,342 | 111 |
| | Last 7 days | 310 | 44 |
| Daily Inflow (cfs) | Last 7 days | Min | 54 |
| | | Max | 69 |
| | | Mean | 62 |
| Release (cfs) | Last 7 days | Min | 29 |
| | | Max | 30 |
| | | Mean | 29 |

Lake Sonoma



Nathan Baskett, March 3, 2011

Lake Sonoma Storage 2015-2022



| | | | |
|-------------------------------|--------------|----------------|--------------------|
| Storage (acre-feet) | May 5, 2022 | 142,663 | |
| | | Total | Average Daily Rate |
| Change in Storage (acre-feet) | Last 30 days | -1,509 | -50 |
| | Last 7 days | -661 | -94 |
| Daily Inflow (cfs) | Last 7 days | Min | 12 |
| | | Max | 40 |
| | | Mean | 22 |
| Release (cfs) | Last 7 days | Min | 63 |
| | | Max | 66 |
| | | Mean | 66 |

Potter Valley Project

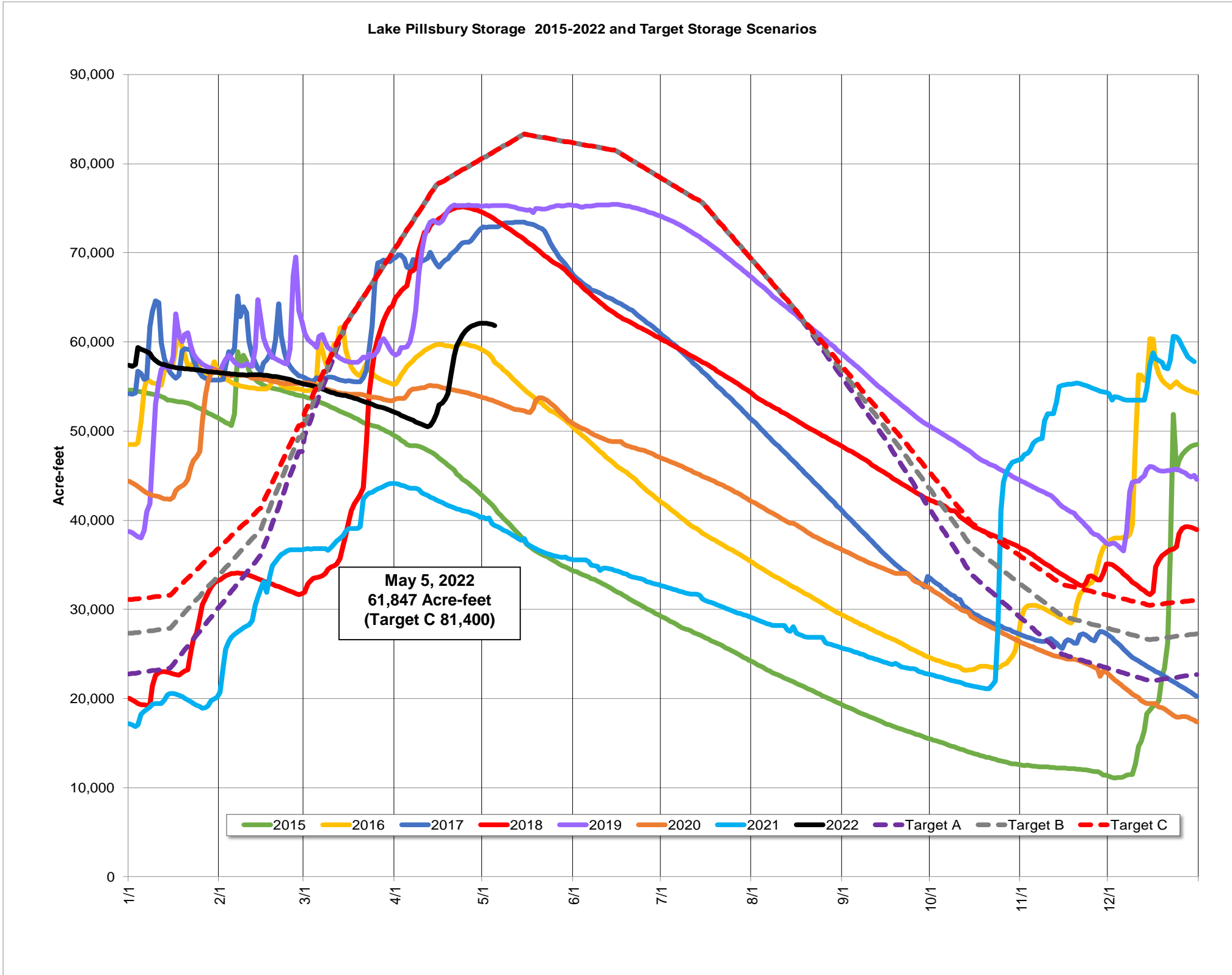
| | | |
|---------------------|-------------|----|
| PVP Diversion (cfs) | May 5, 2022 | 58 |
|---------------------|-------------|----|

Lake Pillsbury

| Parameter | Date Range | Cumulative | Daily Average |
|---------------------|-------------------------------|------------|---------------|
| Inflow* (acre-feet) | October 1, 2021 - May 5, 2022 | 218,467 | 1,011 |
| | Last 7 days | 3,485 | 498 |

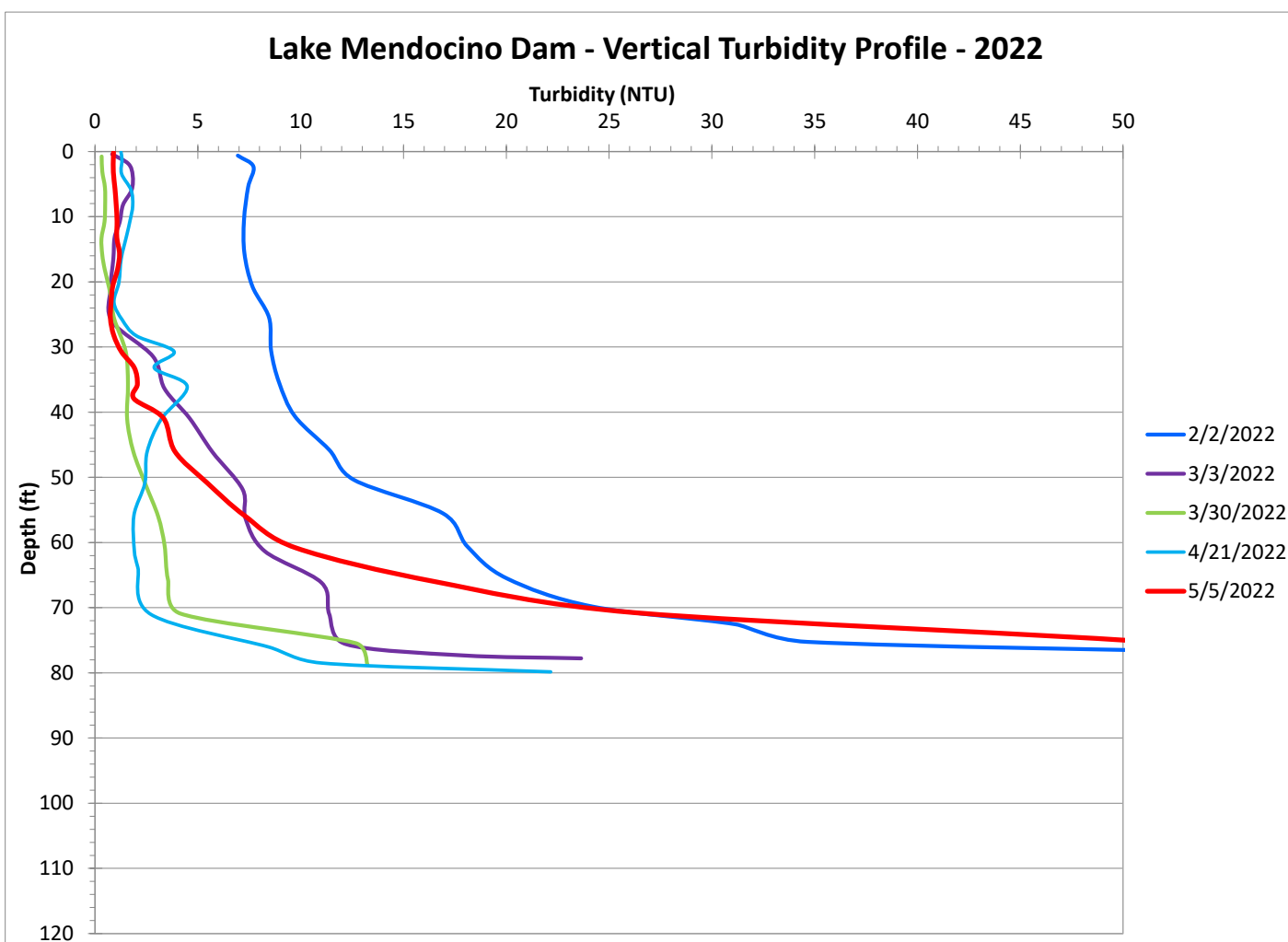
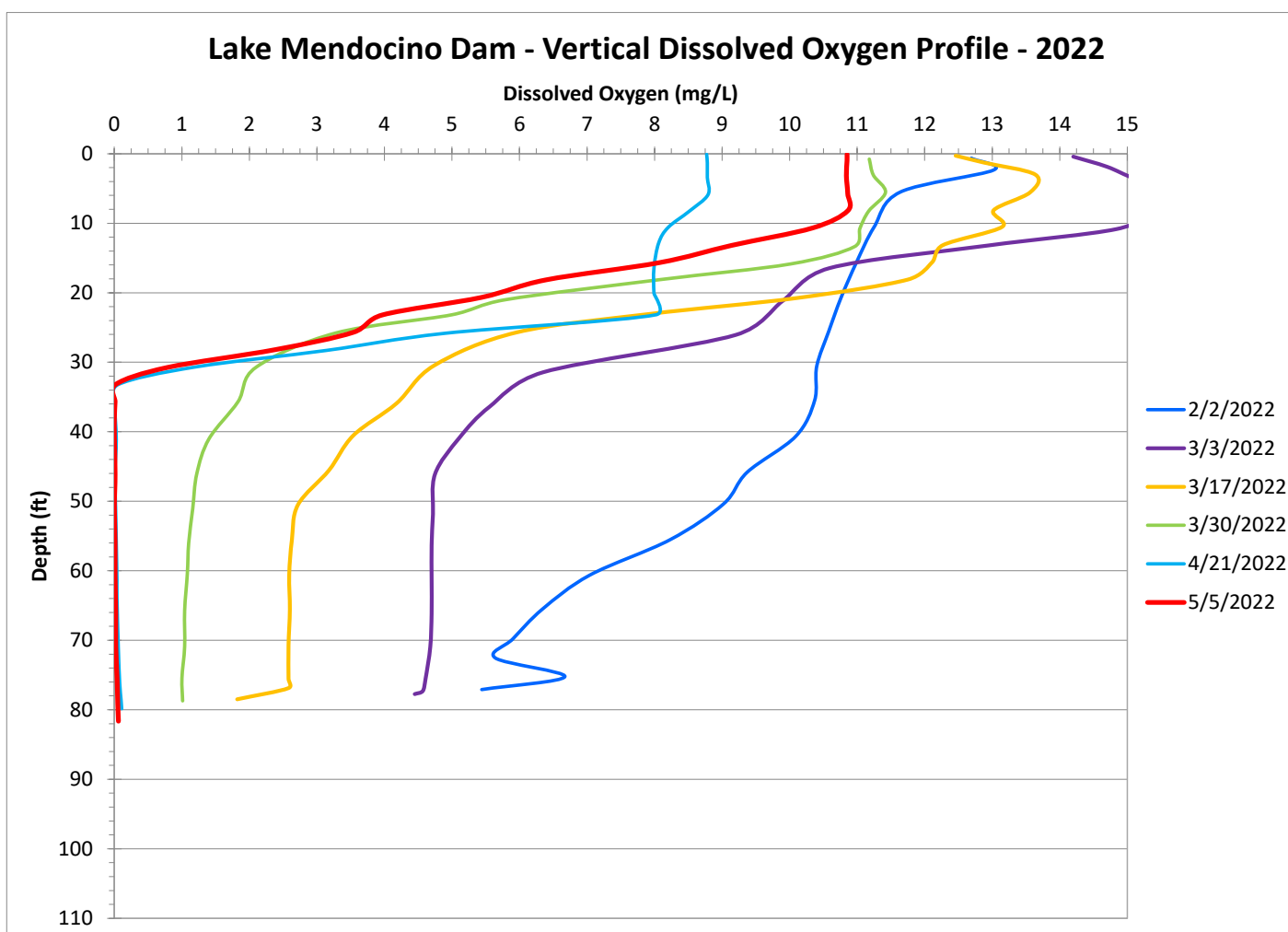
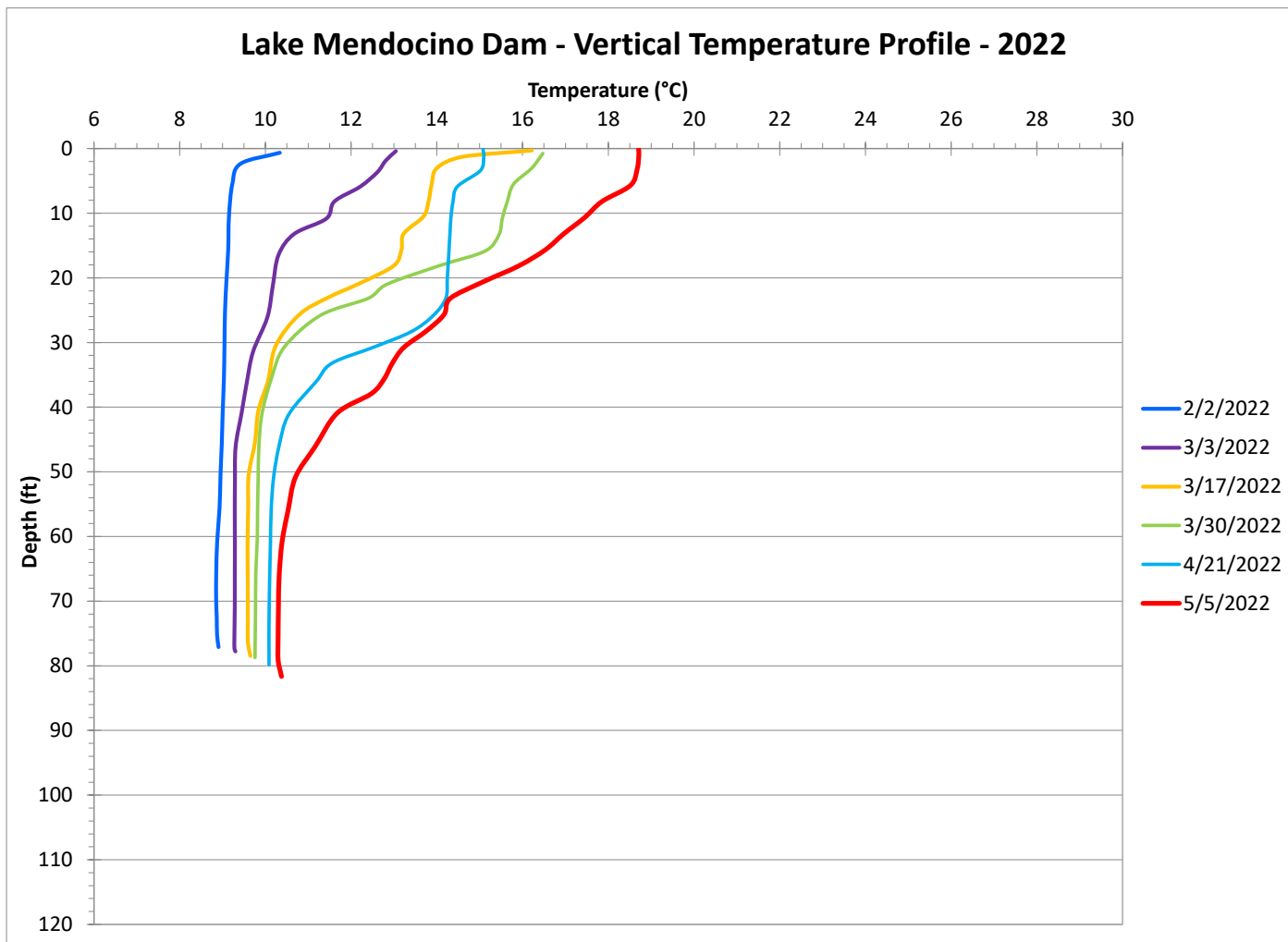
*Inflow calculation based on criteria established in D1610

Lake Pillsbury Storage 2015-2022 and Target Storage Scenarios



Lake Mendocino Water Quality Vertical Profiles (February 2 – May 5, 2022)

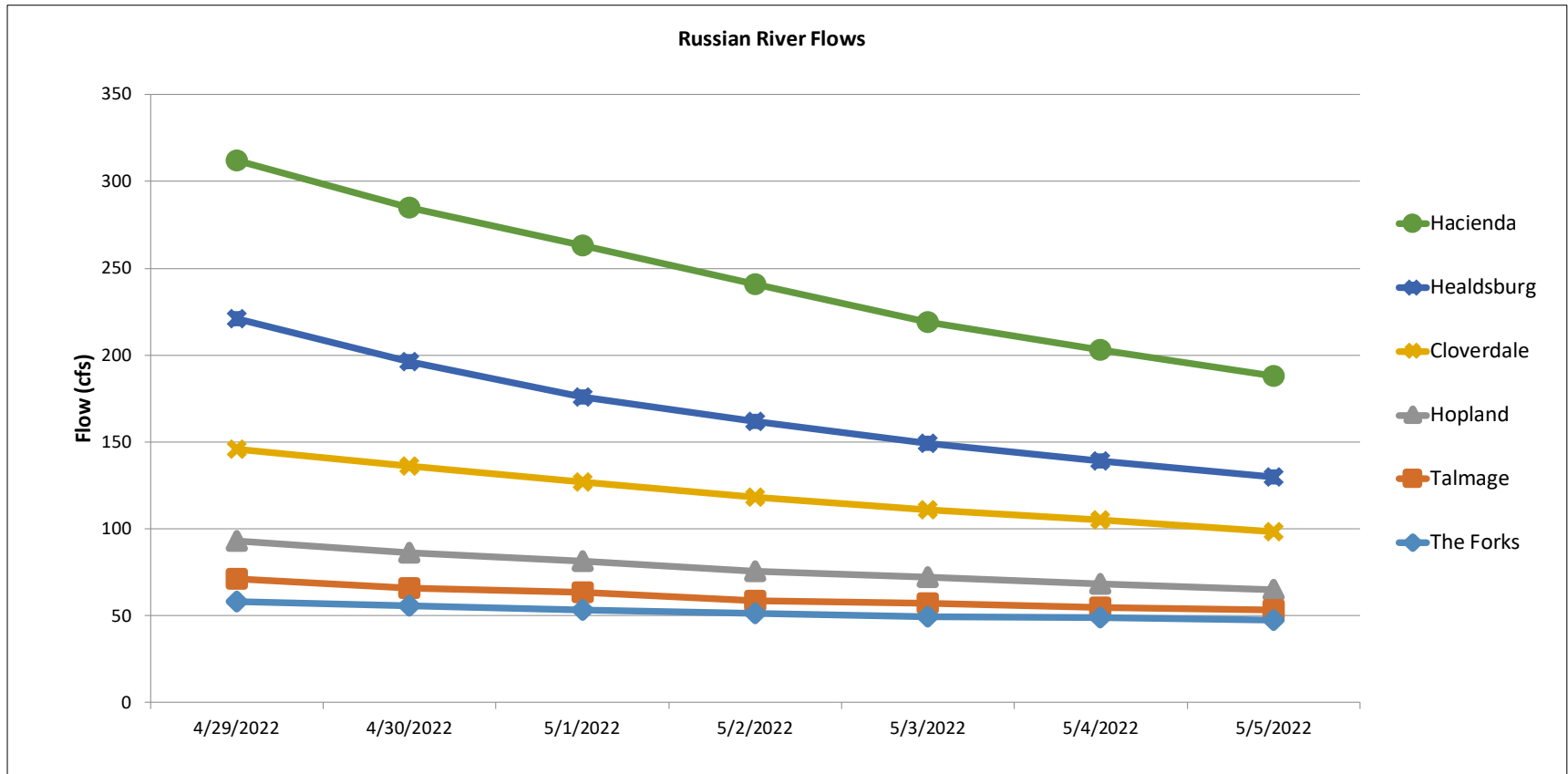
Provisional Data Subject to Revision



Russian River Flows (April 29, 2022 - May 5, 2022)

| Gage | 24-hr Average Flow (cfs) | | | | | | |
|-----------------------------|--------------------------|--------------|-------------|-------------|-------------|-------------|-------------|
| | Apr 29, 2022 | Apr 30, 2022 | May 1, 2022 | May 2, 2022 | May 3, 2022 | May 4, 2022 | May 5, 2022 |
| The Forks* | 58 | 56 | 53 | 51 | 50 | 49 | 47 |
| Talmage USGS 11462080 | 71 | 66 | 63 | 59 | 57 | 55 | 53 |
| Hopland USGS 11462500 | 93 | 86 | 81 | 76 | 72 | 68 | 65 |
| Cloverdale USGS 11463000 | 146 | 136 | 127 | 118 | 111 | 105 | 98 |
| Healdsburg USGS 11464000 | 221 | 196 | 176 | 162 | 149 | 139 | 130 |
| Hacienda USGS 11467000 | 312 | 285 | 263 | 241 | 219 | 203 | 188 |

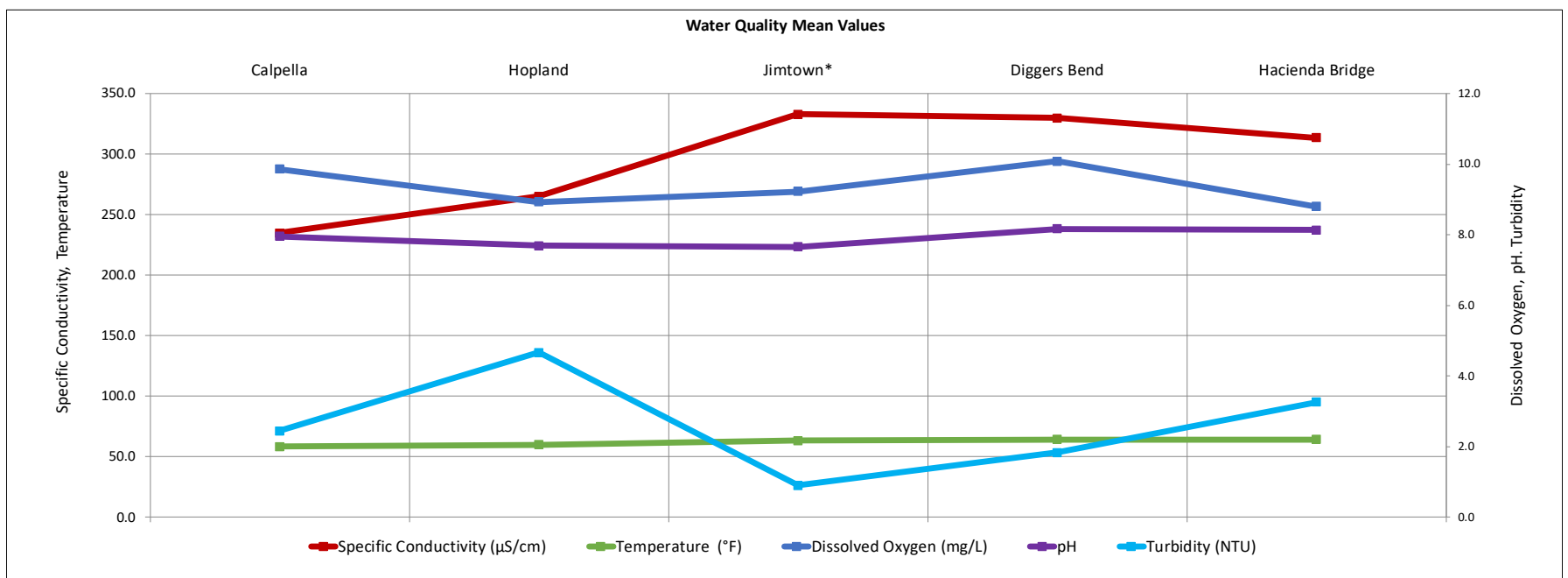
*West Fork (USGS 11461000) + East Fork (Coyote Valley Dam Release)



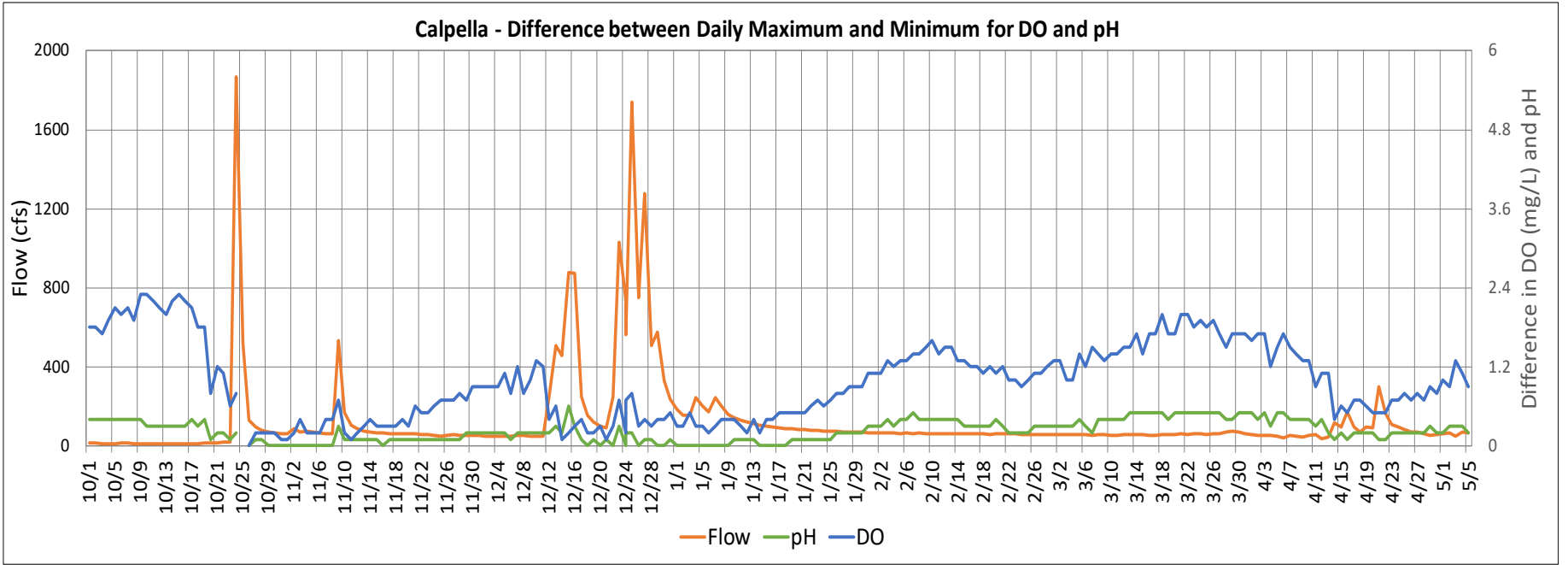
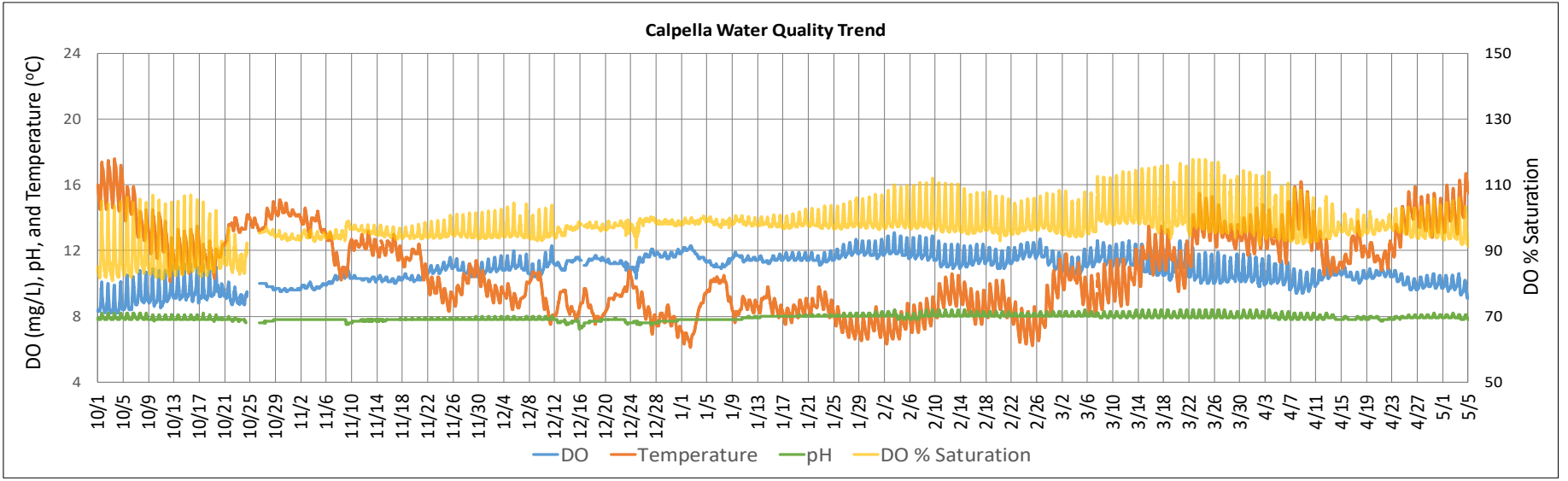
Russian River Water Quality (April 29, 2022 - May 5, 2022)

| 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 | 55.0 | 55.2 | | 59.0 | 59.7 | | 61.2 | |
| | Max | 62.1 | 64.9 | | 68.4 | 69.8 | | 68.7 | |
| | Mean | 58.3 | 59.8 | | 63.1 | 64.2 | | 64.2 | |
| Specific Conductivity (µS/cm) | Min | 222.0 | 250.0 | | 314.0 | 312.0 | | 304.0 | |
| | Max | 248.0 | 274.0 | | 351.0 | 344.0 | | 319.0 | |
| | Mean | 234.9 | 264.9 | | 333.0 | 329.9 | | 313.6 | |
| Dissolved Oxygen (mg/L) | Min | 9.1 | 7.9 | | 7.1 | 7.6 | | 6.6 | |
| | Max | 10.6 | 9.7 | | 11.7 | 14.2 | | 11.3 | |
| | Mean | 9.9 | 8.9 | | 9.2 | 10.1 | | 8.8 | |
| Dissolved Oxygen (% Saturation) | Min | 91.2 | 80.0 | | 73.6 | 79.2 | | 68.2 | |
| | Max | 106.0 | 99.9 | | 129.2 | 154.3 | | 125.0 | |
| | Mean | 96.8 | 89.5 | | 96.2 | 106.5 | | 92.9 | |
| pH | Min | 7.8 | 7.5 | | 7.4 | 7.7 | | 7.8 | |
| | Max | 8.2 | 7.9 | | 8.0 | 8.8 | | 8.5 | |
| | Mean | 8.0 | 7.7 | | 7.7 | 8.2 | | 8.1 | |
| Turbidity (NTU) | Min | 1.7 | 1.8 | | 0.5 | 1.3 | | 0.4 | |
| | Max | 3.2 | 12.5 | | 1.6 | 3.9 | | 12.5 | |
| | Mean | 2.4 | 4.7 | | 0.9 | 1.8 | | 3.3 | |

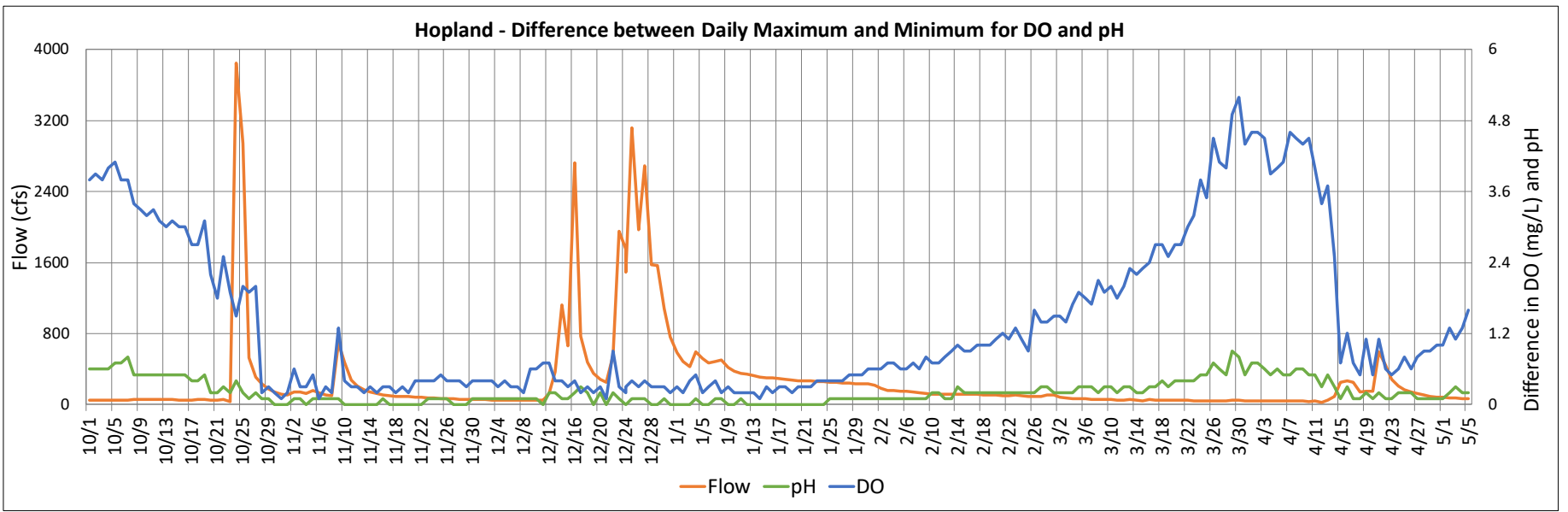
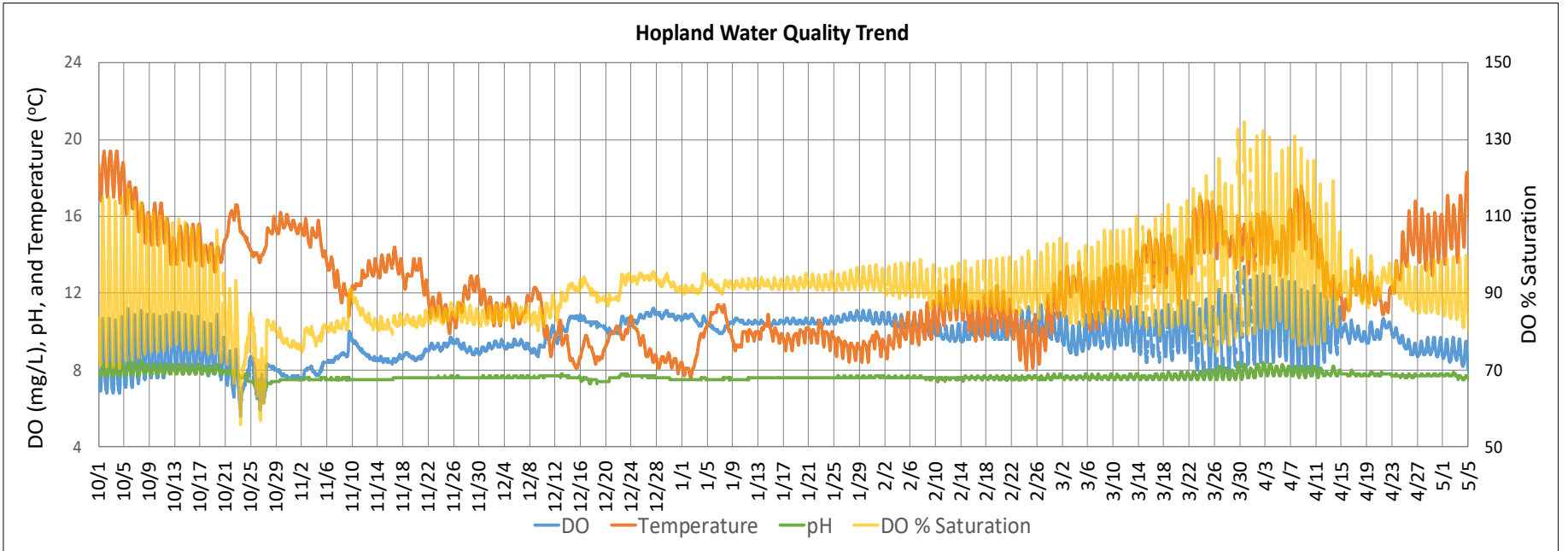
*Station operated seasonally



Russian River Water Quality (October 1, 2021 - May 5, 2022)
Calpella (East Fork Russian River)

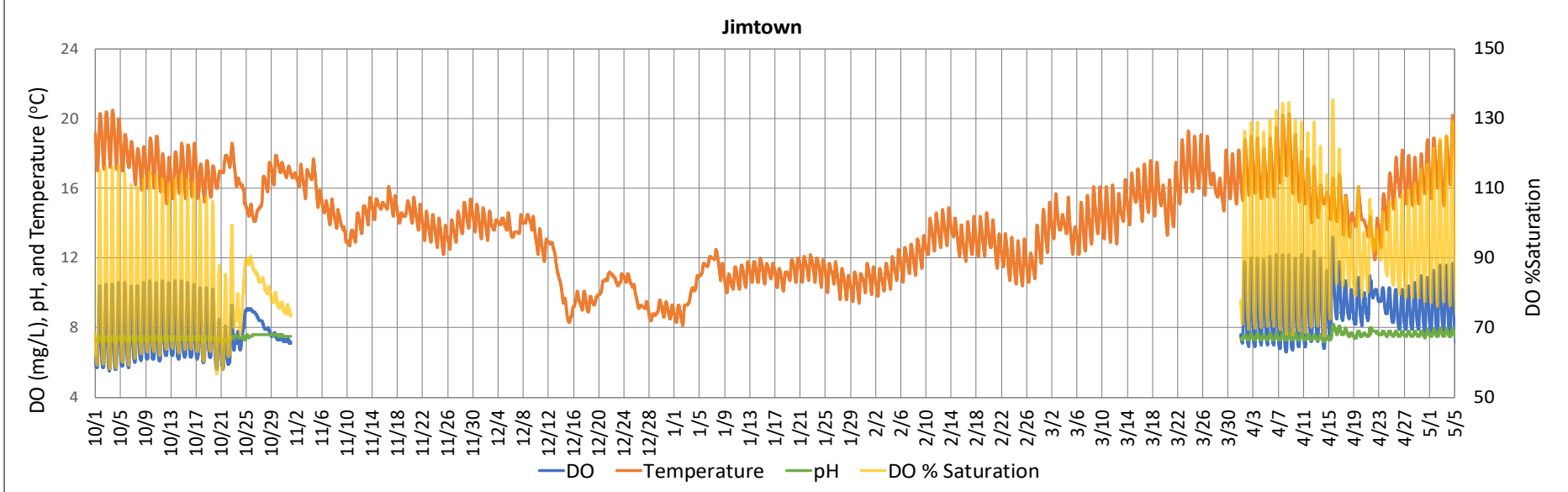


Russian River Water Quality (October 1, 2021 - May 5, 2022)
Hopland

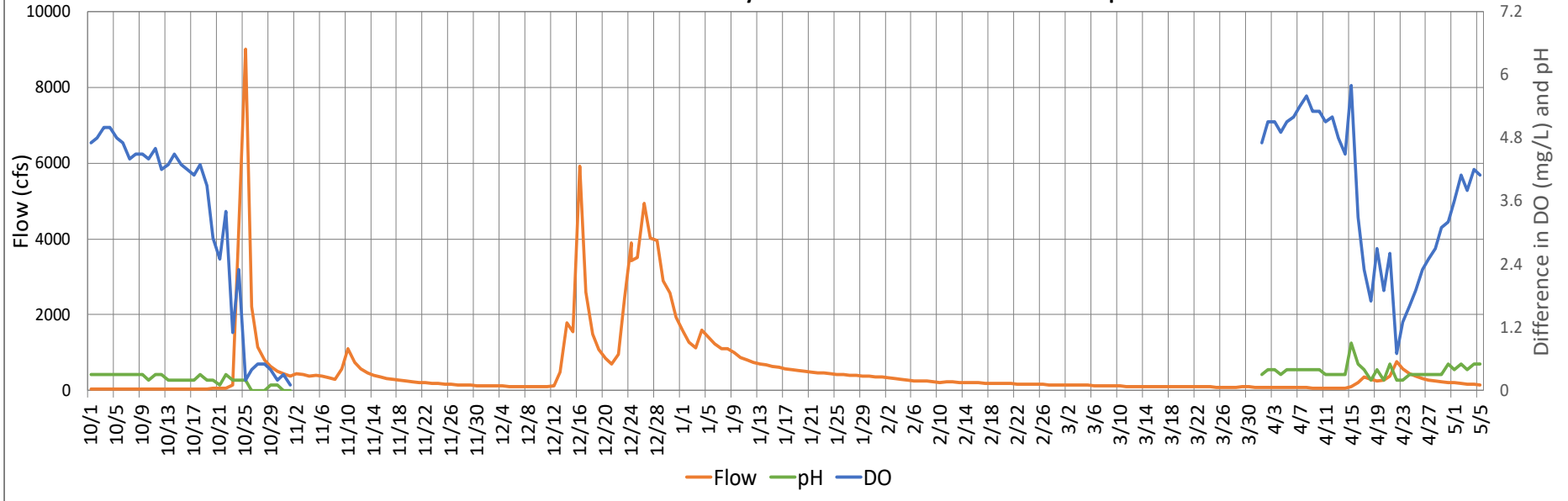


Russian River Water Quality (October 1, 2021 - May 5, 2022)

Jimtown



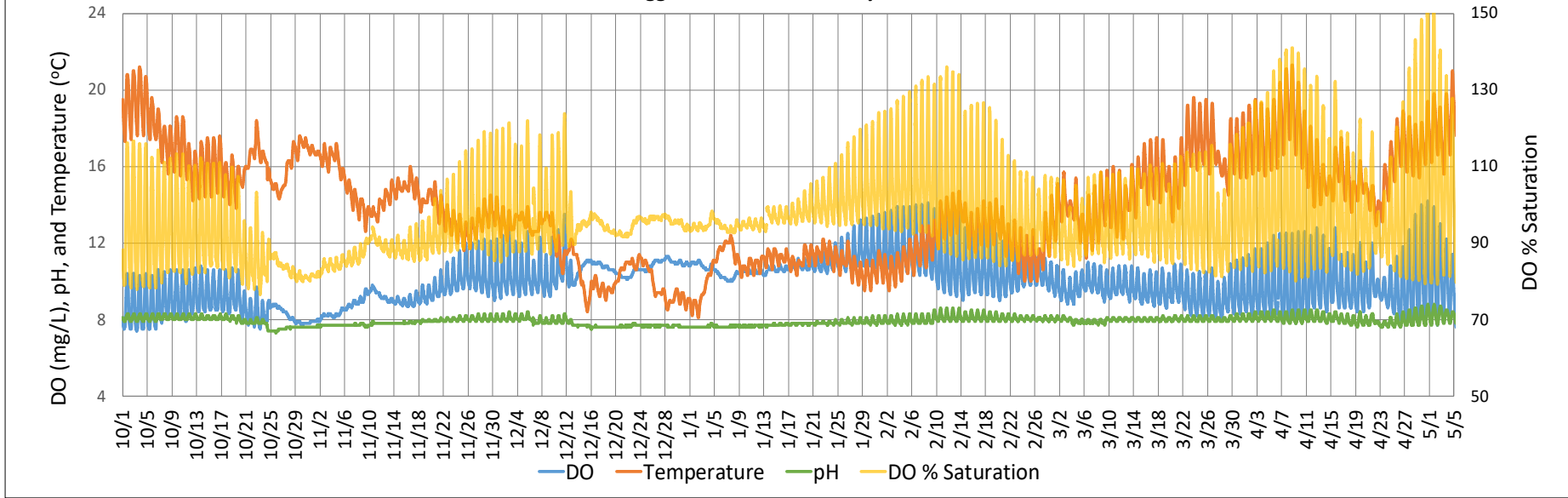
Jimtown - Difference between Daily Maximum and Minimum for DO and pH



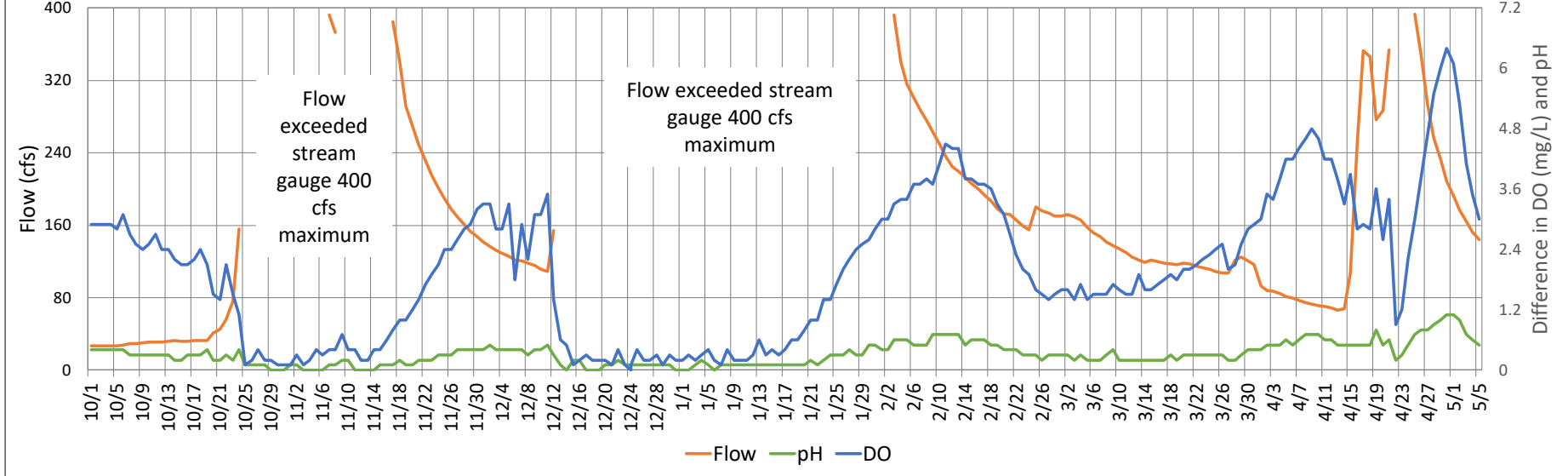
Russian River Water Quality (October 1, 2021 - May 5, 2022)

Digger Bend

Digger Bend Water Quality Trend

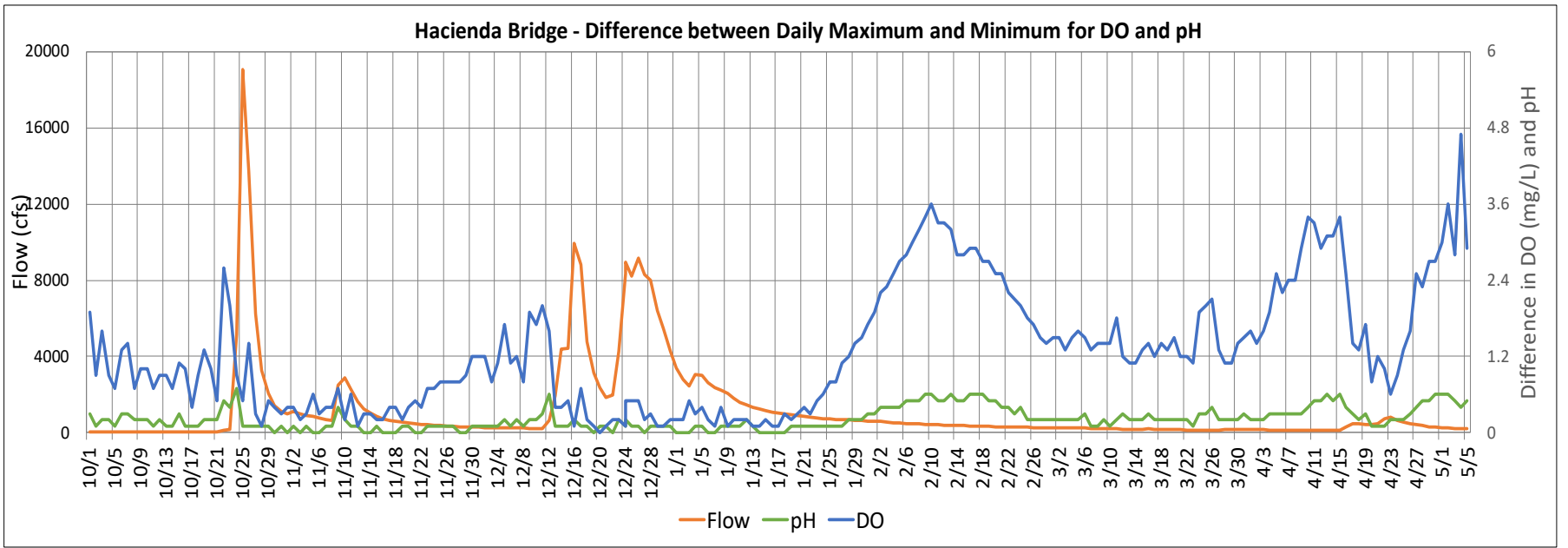
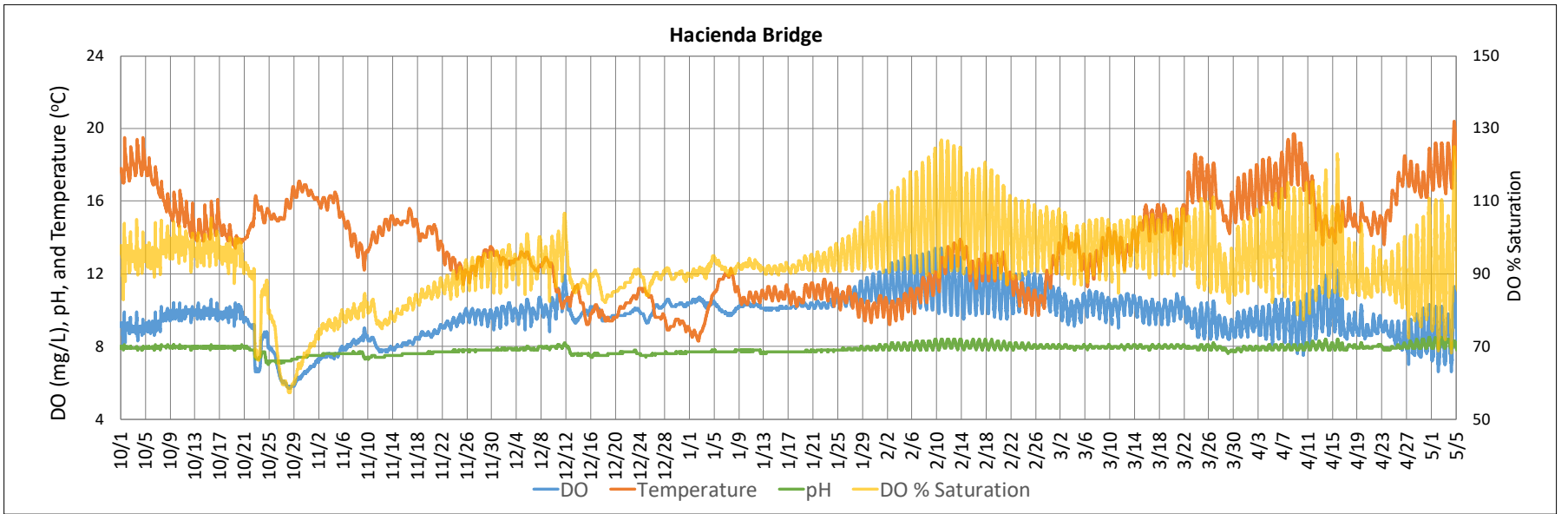


Digger Bend - Difference between Daily Maximum and Minimum for DO and pH



Russian River Water Quality (October 1, 2021 - May 5, 2022)

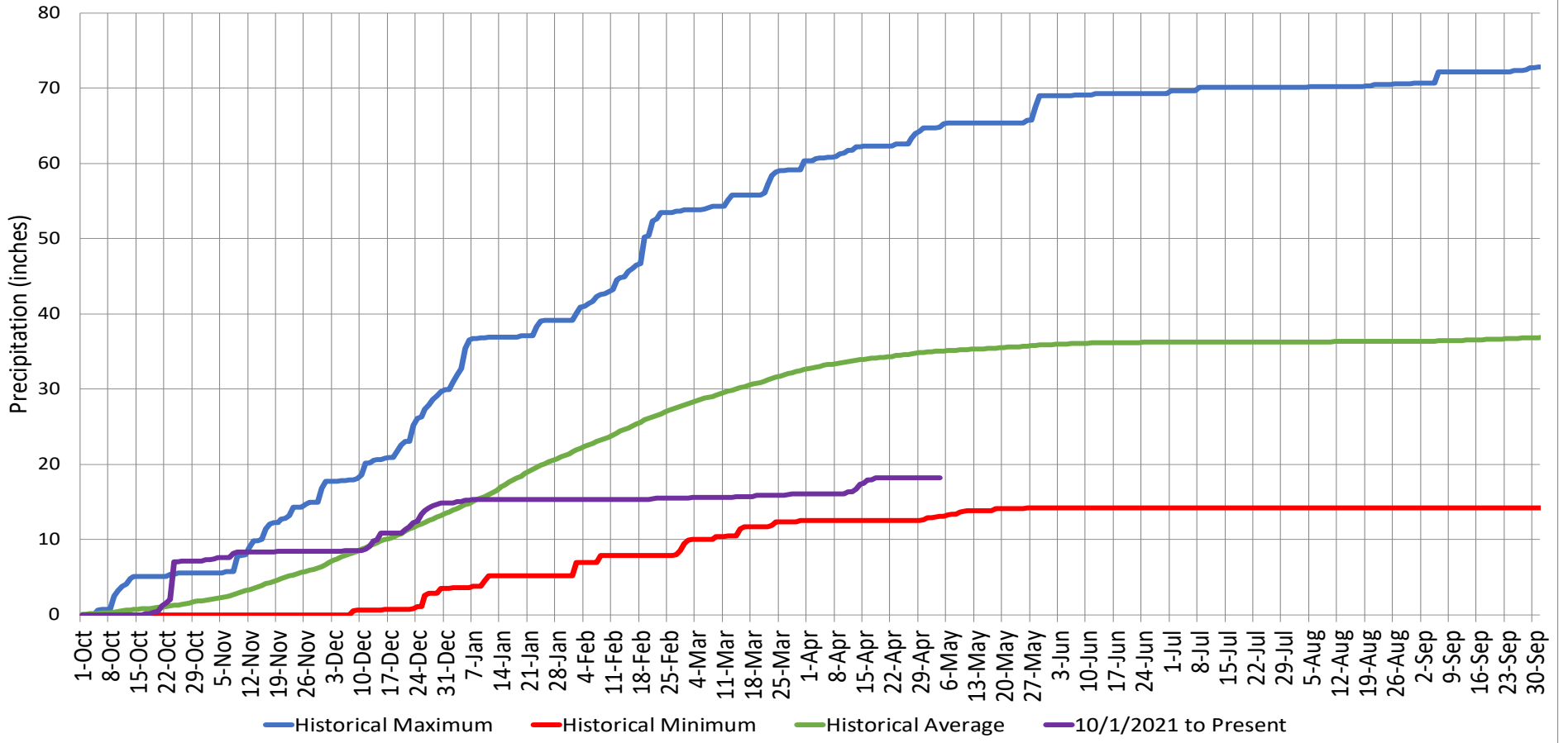
Hacienda Bridge



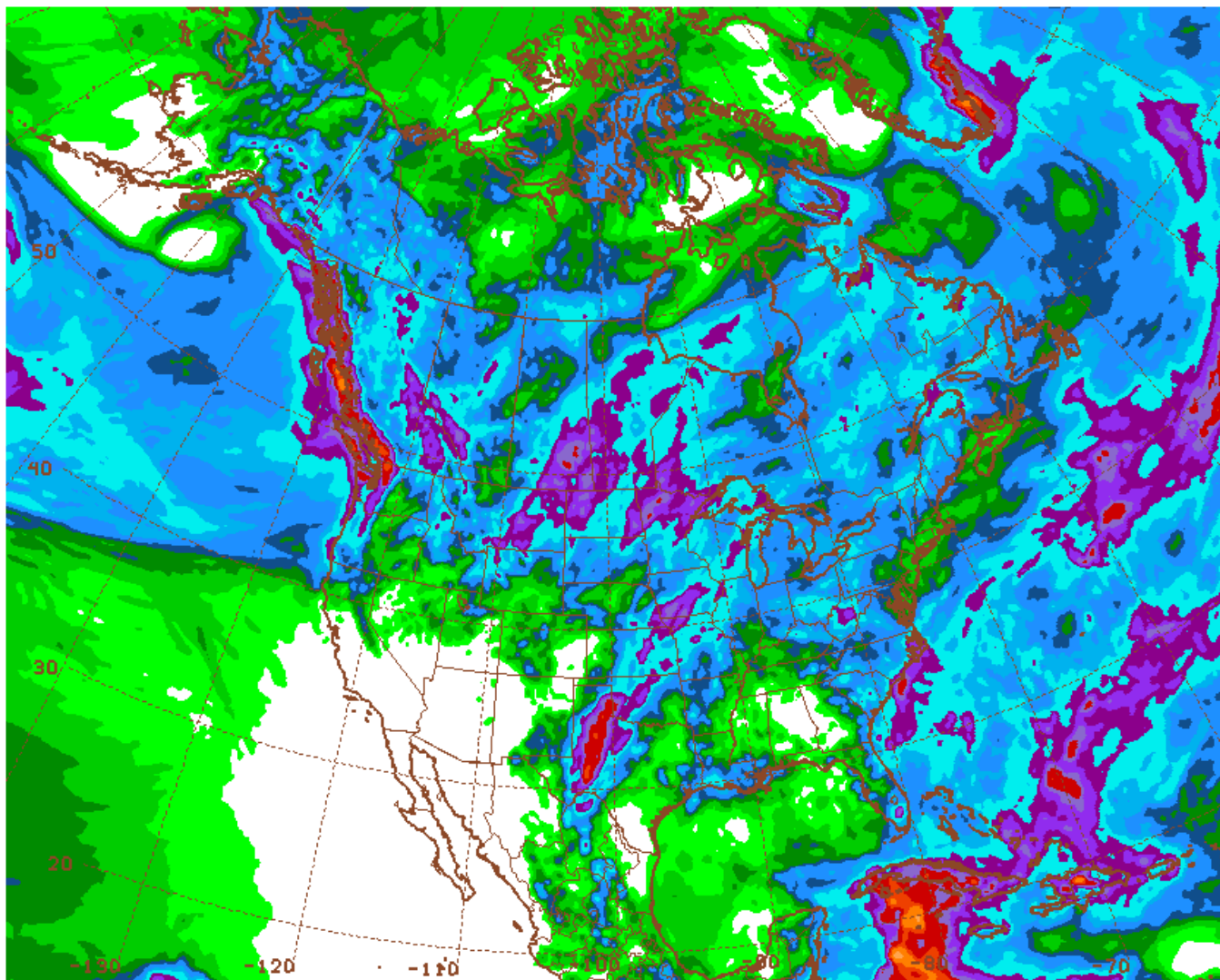
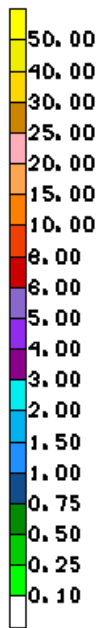
Precipitation

| | |
|--|---------------------|
| Ukiah Municipal Airport (WBAN: 72590523275 (KUKI)) | |
| Date Range | Cumulative (inches) |
| Oct 1, 2021 - May 5, 2022 | 18.18 |
| Last 7 Days* | 0.00 |

Cumulative Precipitation Comparison of Current Year versus Historic Record



GFS 05/09/22 12UTC 384HR FCST VALID WED 05/25/22 12UTC NOAA/NWS/NCEP



GFS WED 220525/1200Y384 384HR ACCUMULATED PRECIP (IN)

Date Range
May 9 - May 25, 2022

Forecasted Cumulative (inches)
0.00