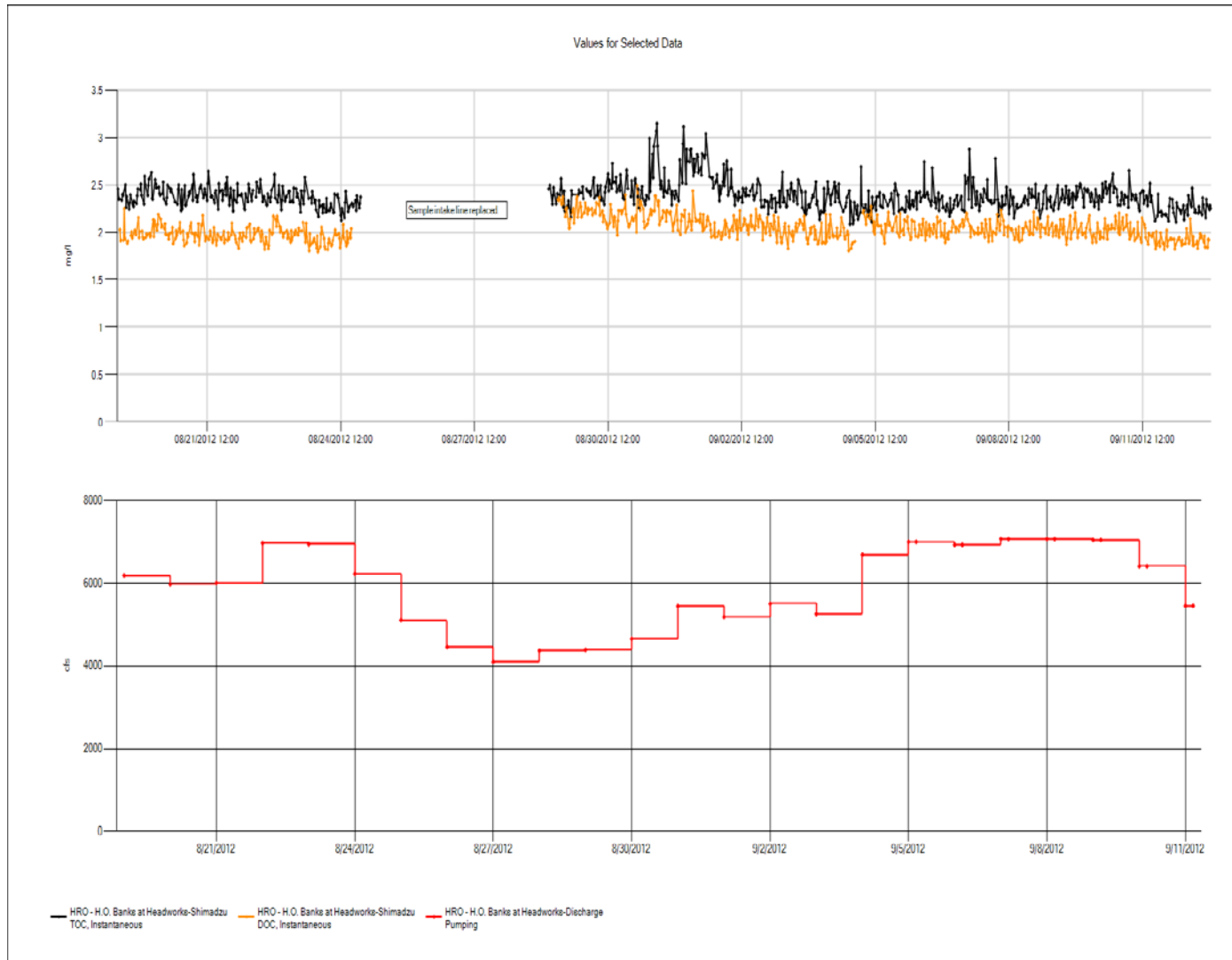


RTDF Graphical Station Update: August-September 2012

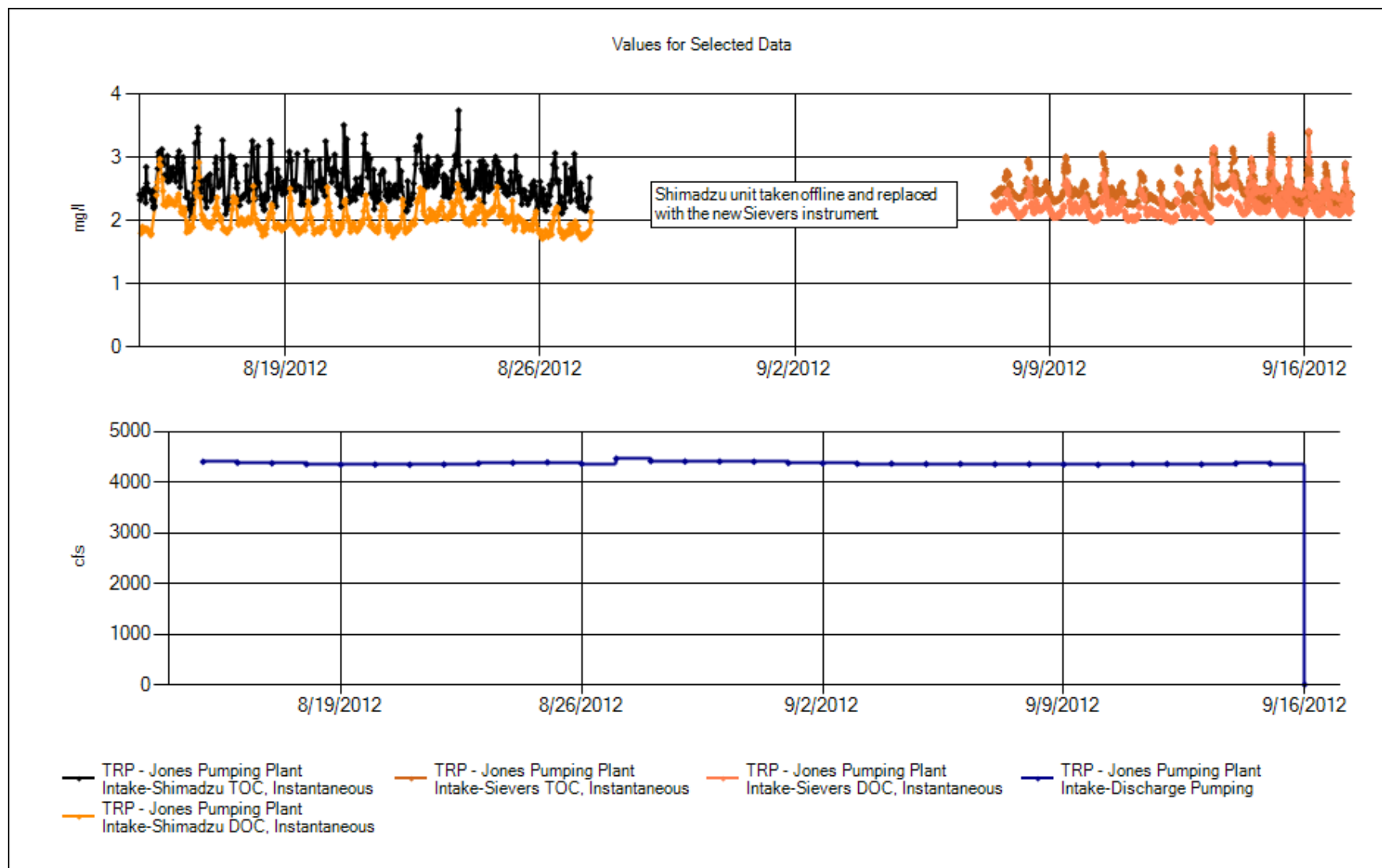
Banks Organic Carbon and Pumping:



Banks Significant Events: August 13, 2012 - September 12, 2012

- Main sample intake line collapsed resulting in needed replacement. System down during this event.

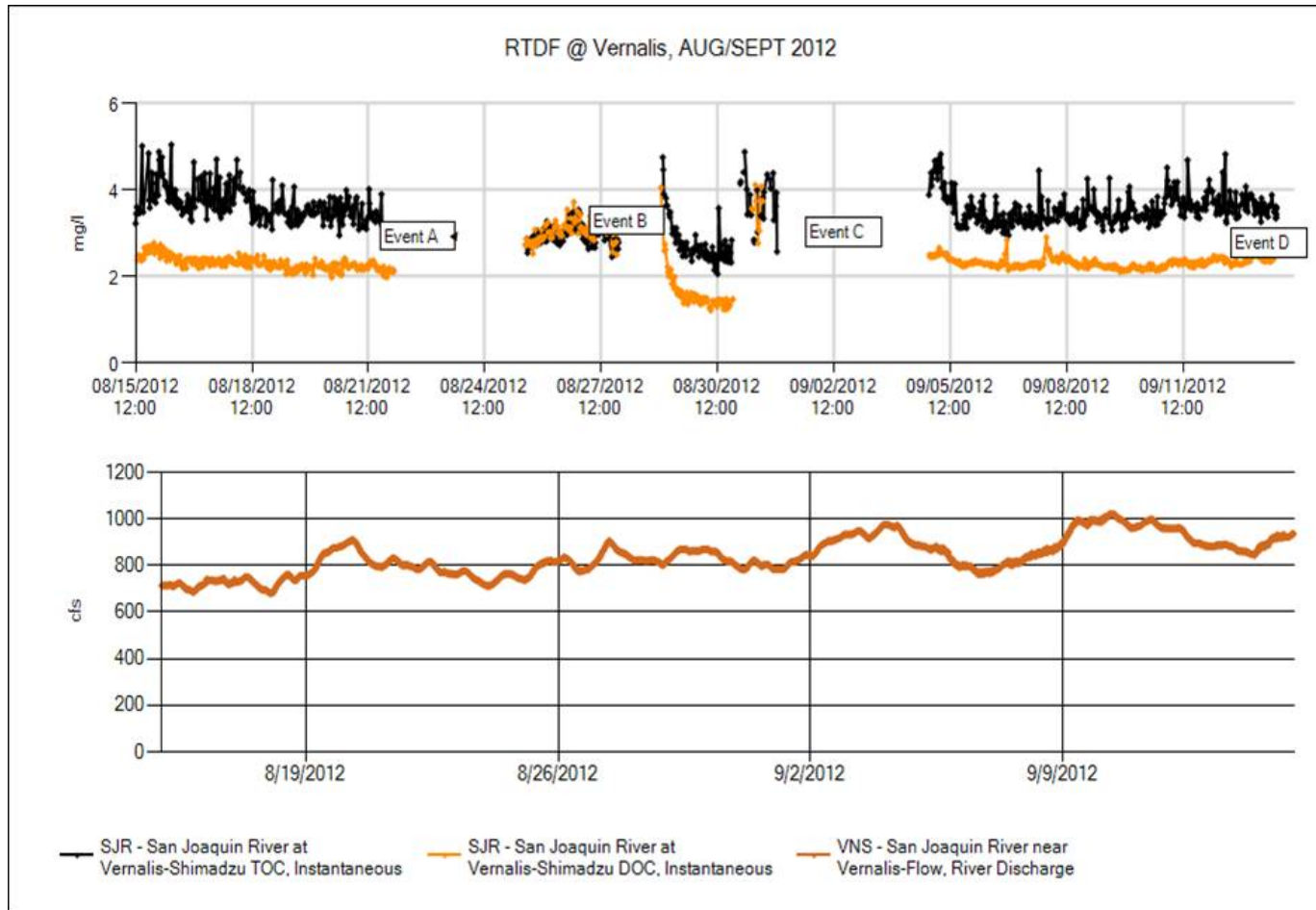
Jones Organic Carbon and Pumping:



Jones Significant Events: August 13, 2012 - September 12, 2012

- Shimadzu removed from service and replaced with new Sievers instrument. Sievers unit is operational, but we are attempting to work out some timing issues that are resulting in overlapping TOC/DOC data prior to sending to CDEC.

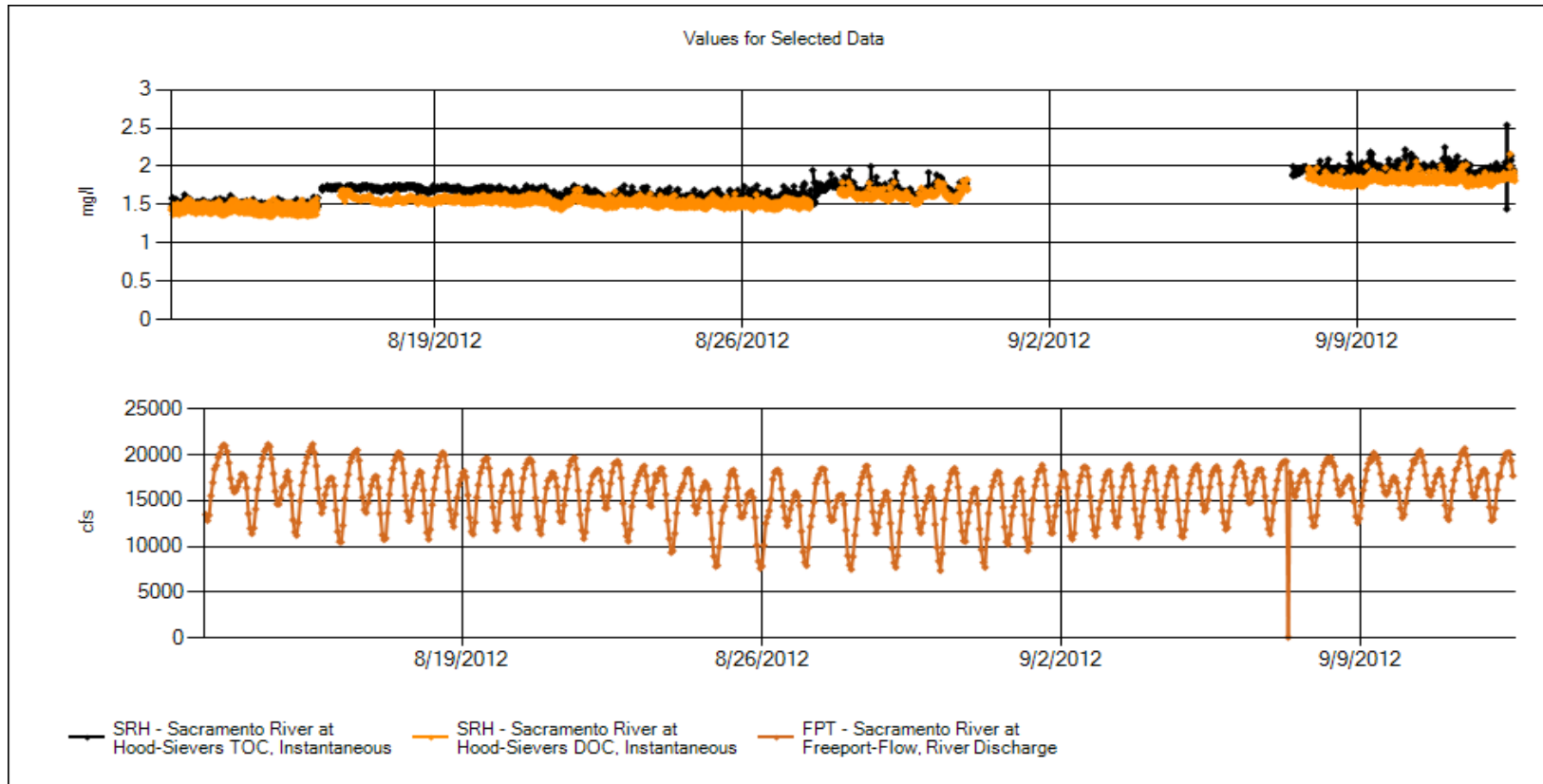
San Joaquin River Organic Carbon and Flow:



Vernalis Significant Events: August 13, 2012 - September 12, 2012

- **Event A:** Instrument operational but data screened due to system instability.
- **Event B:** Due to mixed TOC and DOC results, new catalyst was installed. Data was skewed because the catalyst/analyzer needed some time to acclimate and be recalibrated.
- **Event C:** Spikes and eventual stop in reporting due to a slider assembly malfunction over the Labor Day weekend.
- Good data from 9/5 until 9/12.
- **Event D: From 9/12 to current:** Analyzer running DOC only. May be due to program error while turning acid OFF for QA/QC samples. Failed QC; reported 5 std as 3.5ppm.

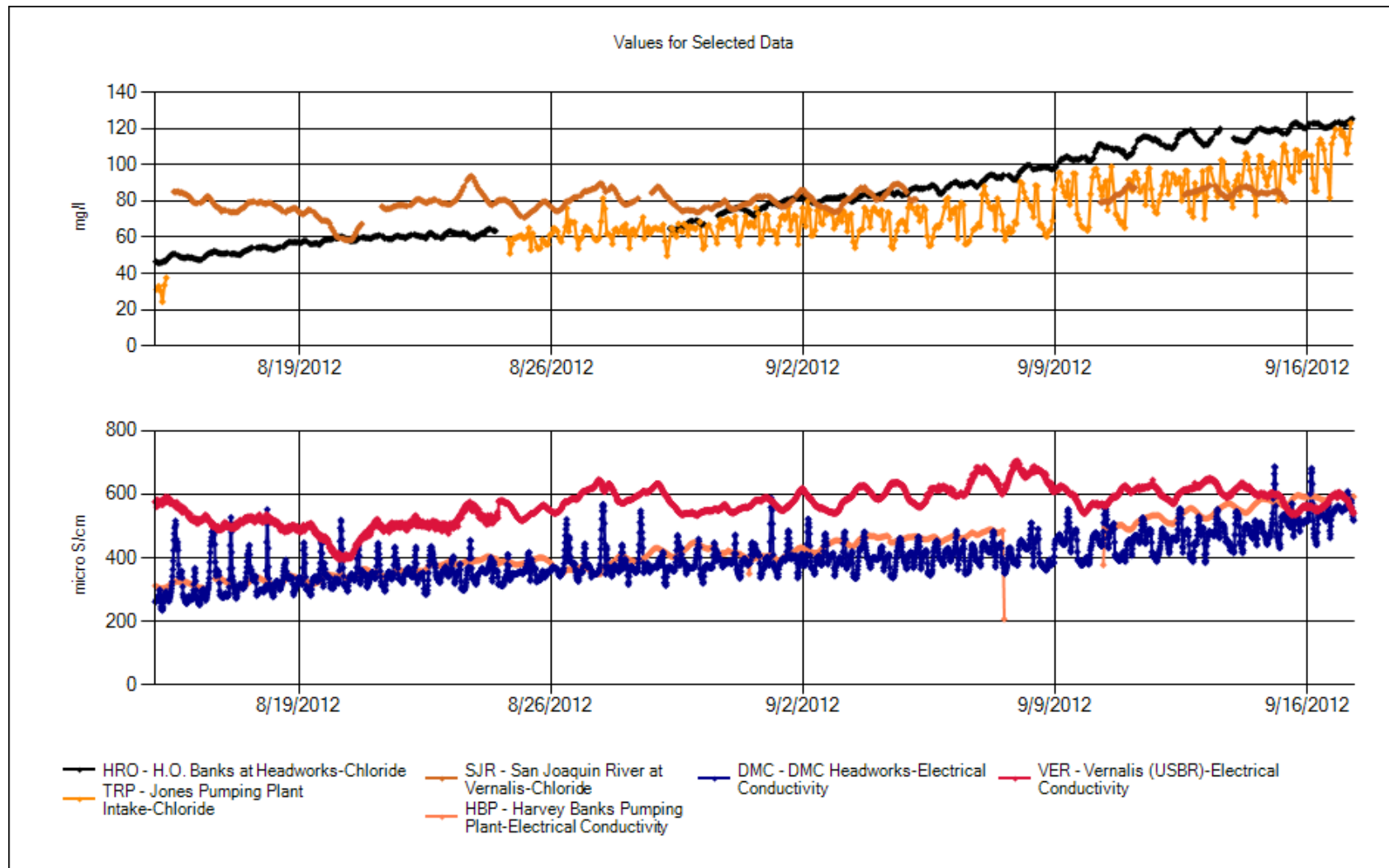
Sacramento River Organic Carbon and Flow:



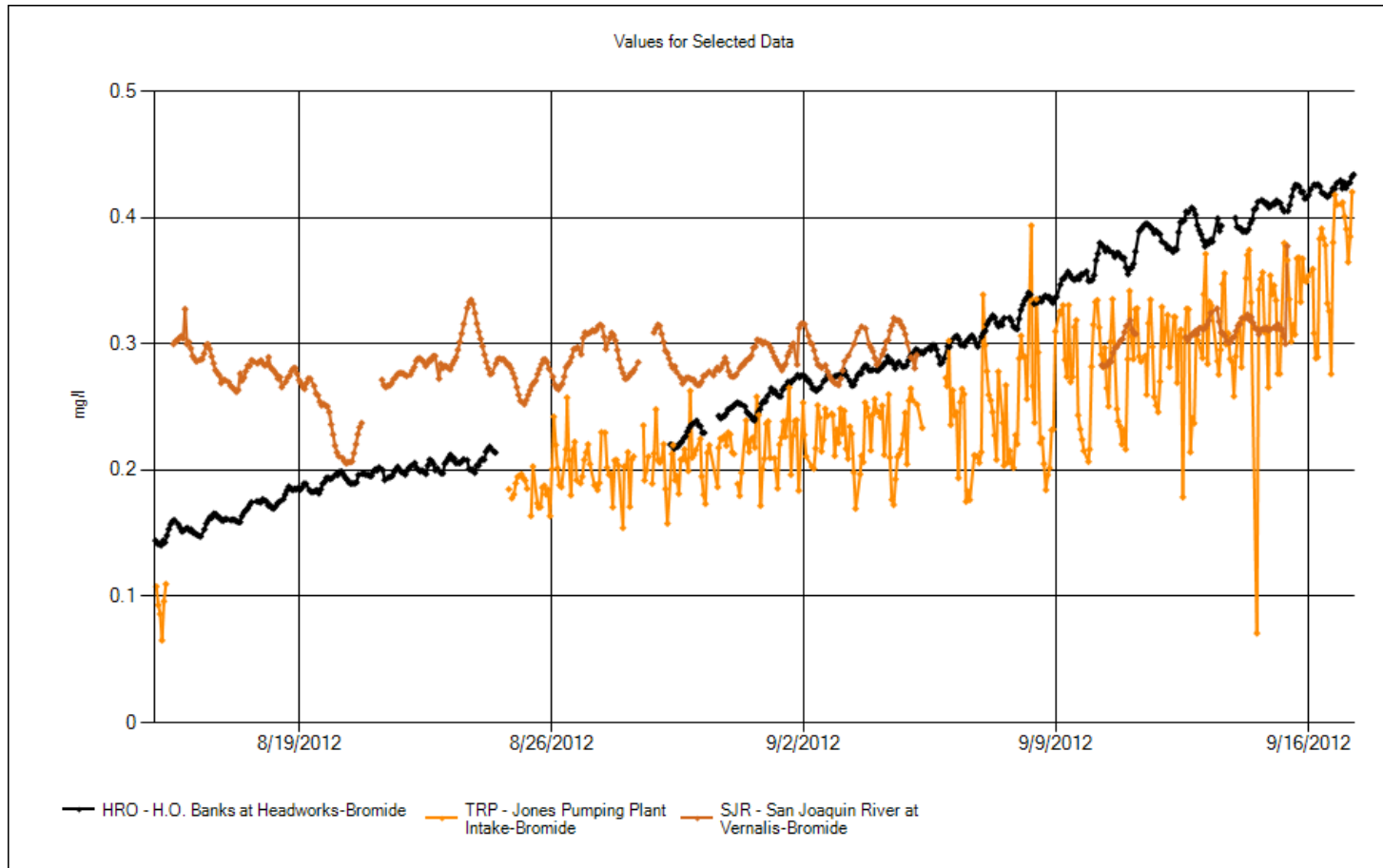
Hood Significant Events: August 13, 2012 - September 12, 2012

- Due to vandalism, there was no power being supplied to Hood Station between **8/31/12 -9/06/12**.
- Power was restored approximately 10:00am on **9/07/12**.
- **9/12/12**, there is a spike in TOC. This is an outlier and the data value should be disregarded.
- **8/13/12 – 8/16/12, 8/20/12 – 9/12/12**: there is some overlapping of TOC and DOC values. This is due to low TC levels in the sample. This can also be attributed to filter overloading which causes the DOC and TOC to have similar values.
- Sacramento River flow rate appeared to remain fairly constant throughout the month.

Chloride at Banks, Jones, and Vernalis:



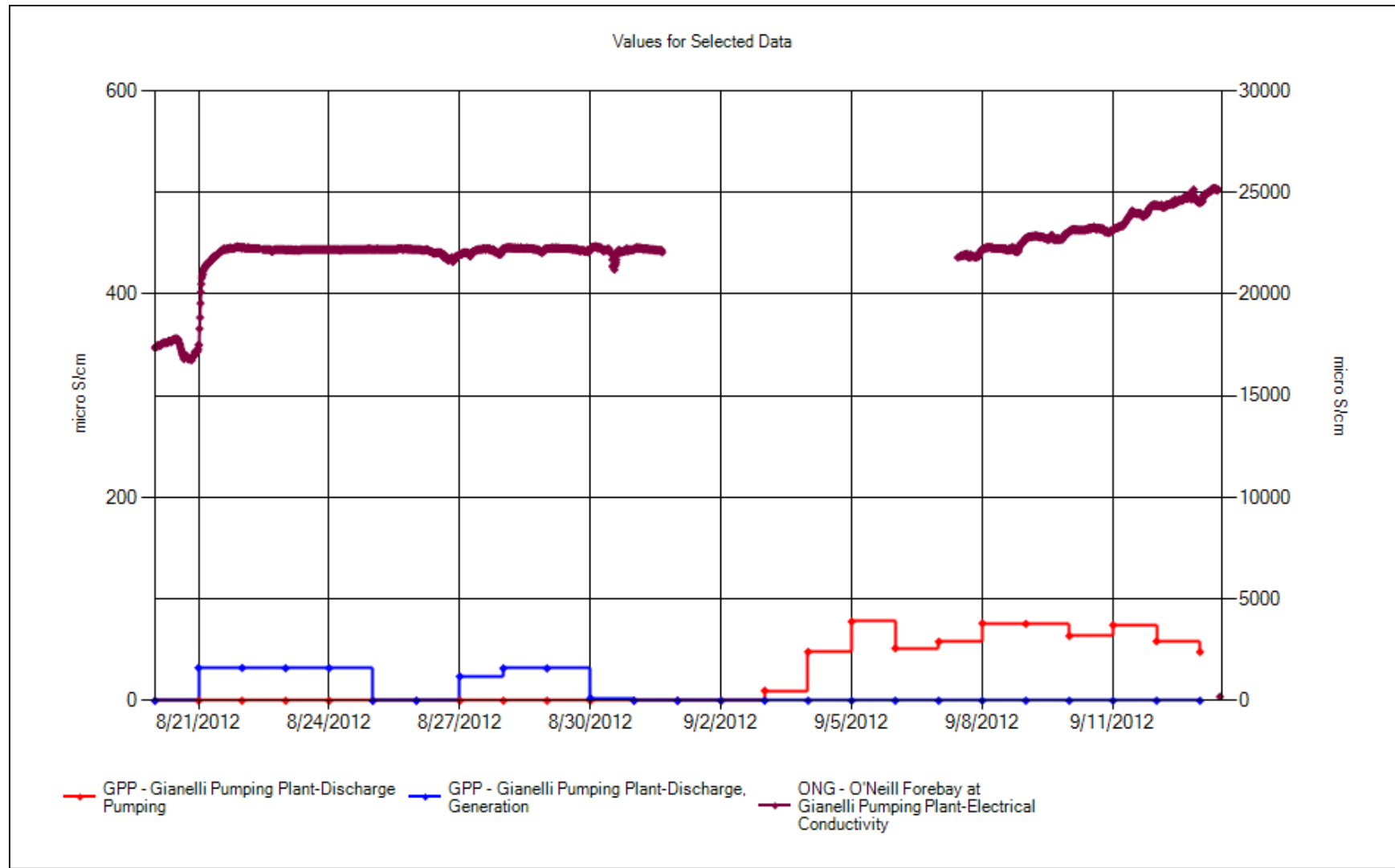
Bromide at Banks, Jones, and Vernalis:



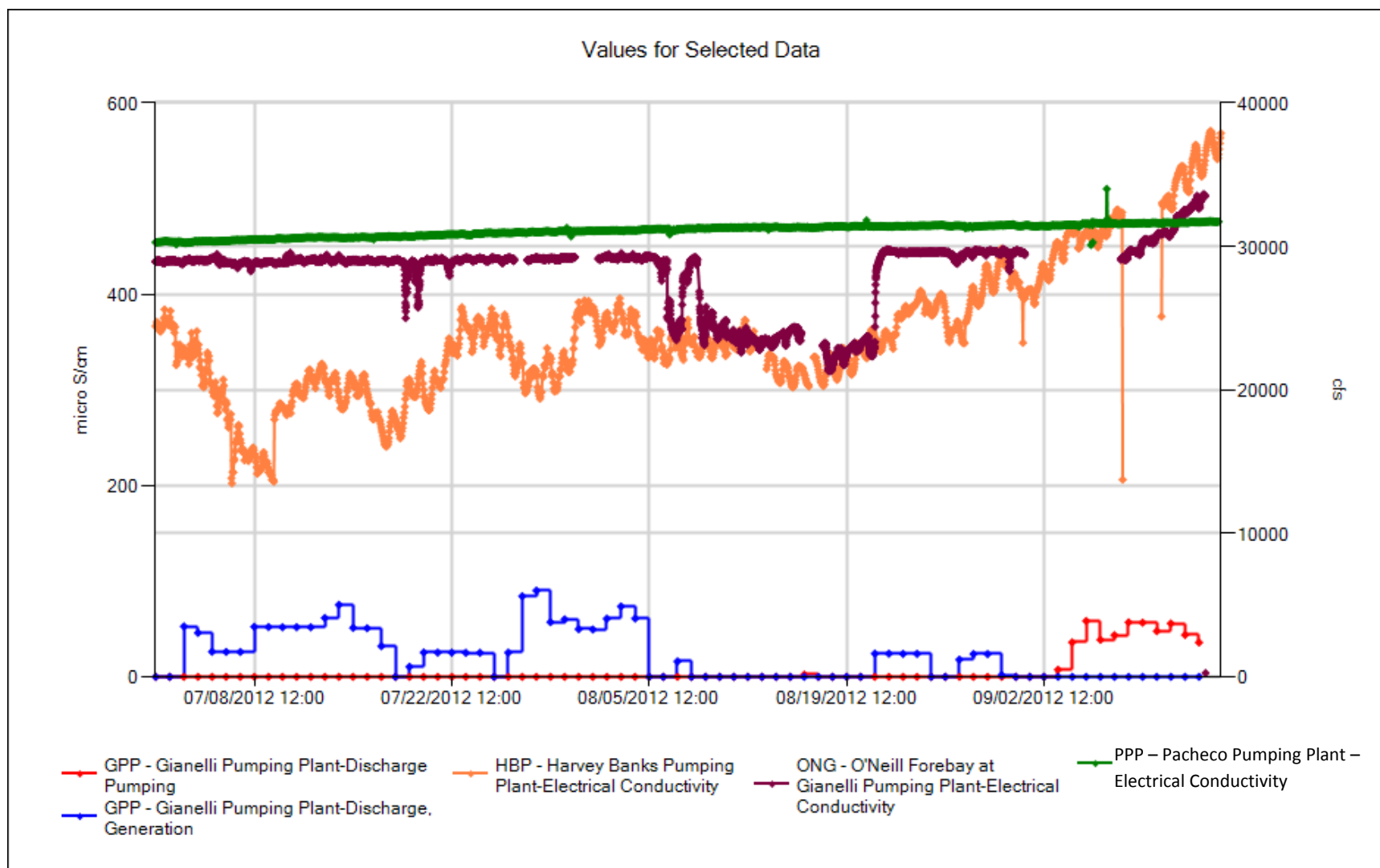
Anion Significant Events: August 13, 2012 - September 12, 2012

- Over the past month, Chloride and Bromide concentrations at the pumping plants have steadily been increasing. This increase is larger than that seen in EC measurements at the pumping plants. Sulfate values have seen a smaller increase which may explain the discrepancy between the EC and Chloride/Bromide correlation.
- The new Dionex instrument at Jones Pumping Plant began proper operation on 8/25. Preceding values were skewed due to bad calibrations caused by improper installation (injection loop improper size).
- Vernalis outage (9/5-9/10) caused by leaking analytical pump which caused system shut down.
- Banks outage (8/24-8/29) caused by water intake line problems.

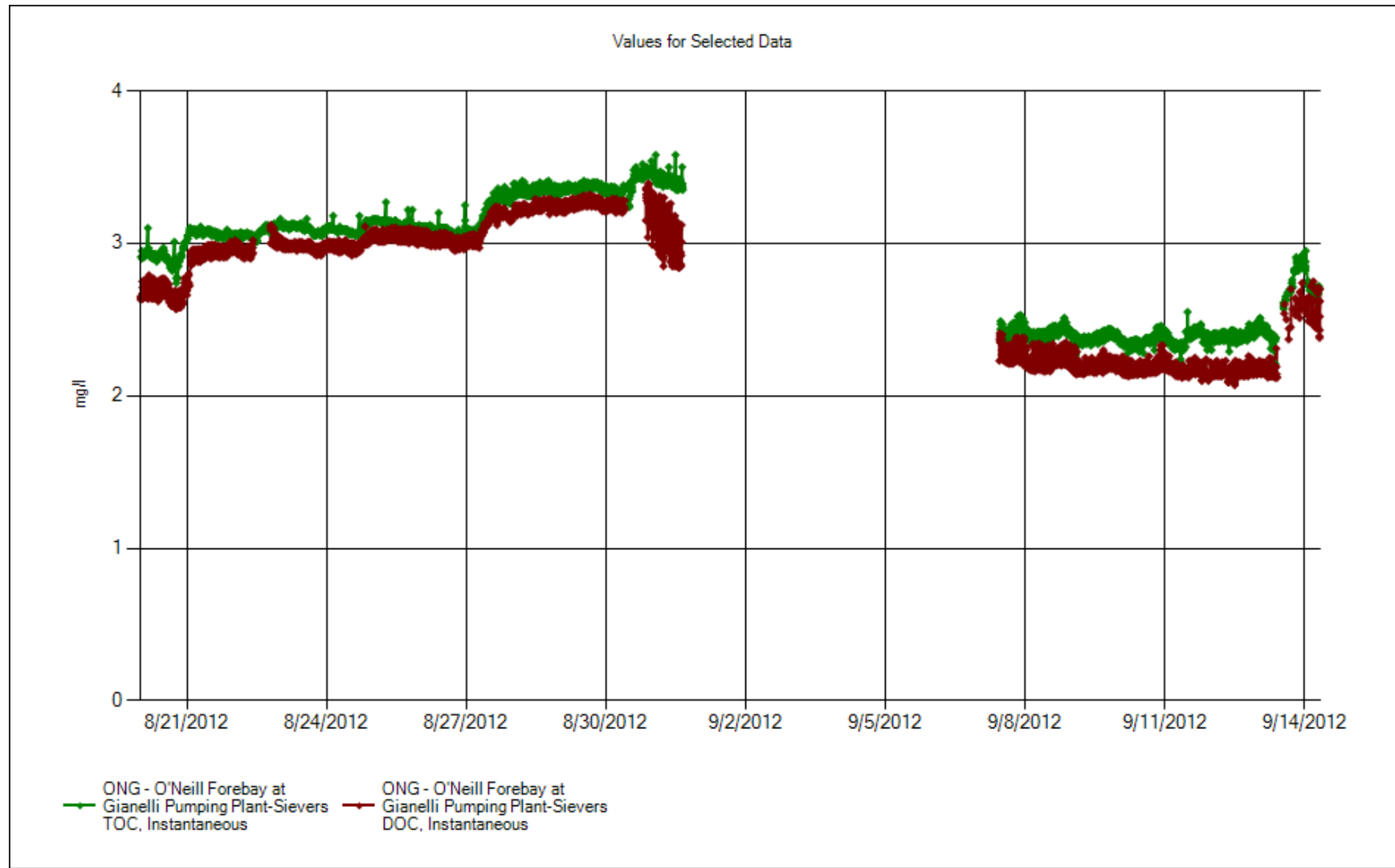
Gianelli Pumping / Generating & EC



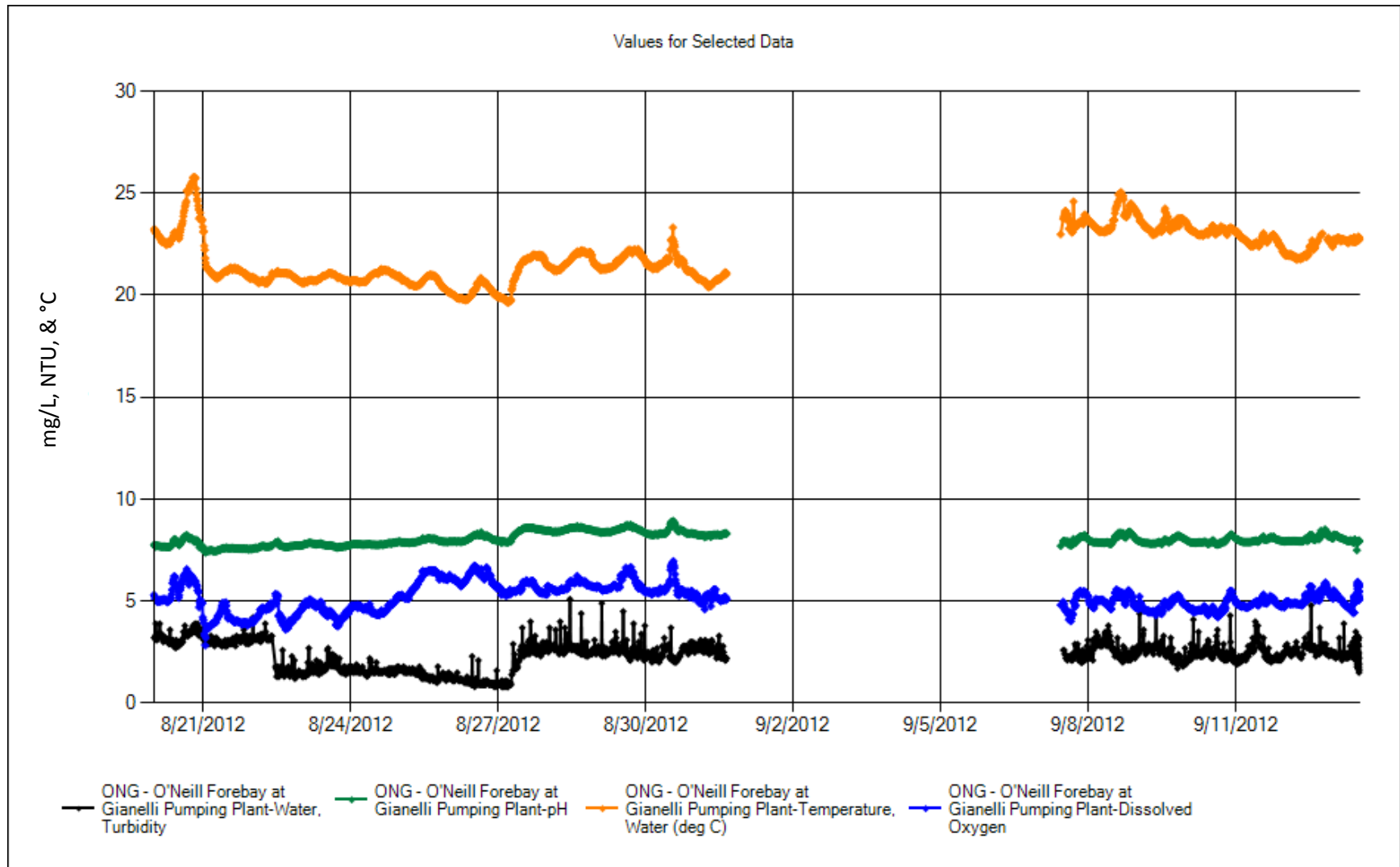
3-Month Gianelli EC vs. Surrounding Sites Comparison (With GPP Pumping Data)



Gianelli OC



Gianelli ph, DO, Turbidity, & Temp



Significant Events

8/31 to 9/7 – Computer problem

There was an issue with the computer connection. Attempts were made to restart the computer remotely, however, this new method didn't work and required a station visit.

9/13 – YSI calibrated

All pre calibration values fell within acceptable values. We didn't have enough turbidity standard to run a full calibration, so the post-calibration value for the 126 NTU standard ended up being 5% off of the accepted value. However, for the low turbidity values at the station, this error translates to a small difference of around 0.5 to 1.5 NTU (normal accuracy is 0.3 NTU). With that in mind, until a proper calibration can be performed, the turbidity values should be taken with a grain of salt. Overall, these values can still be used to observe trends, however, detailed analysis should take this slight inaccuracy into account.