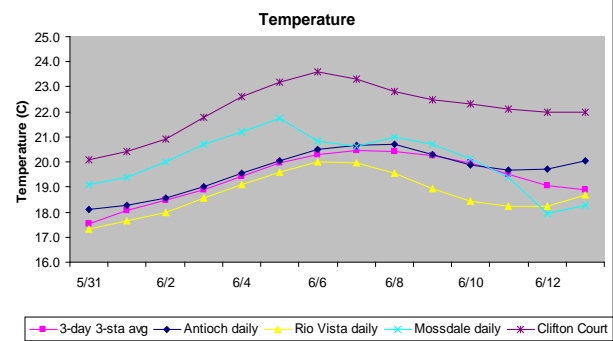
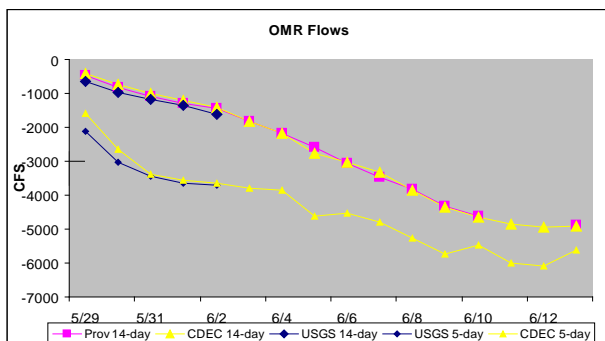
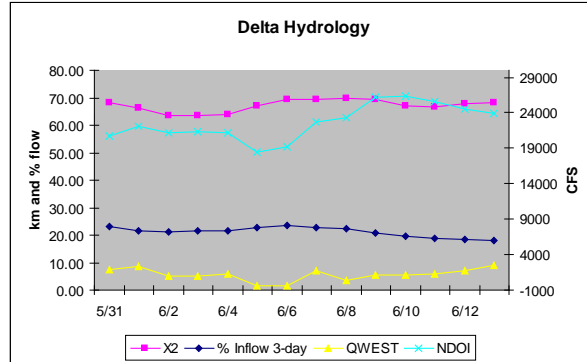
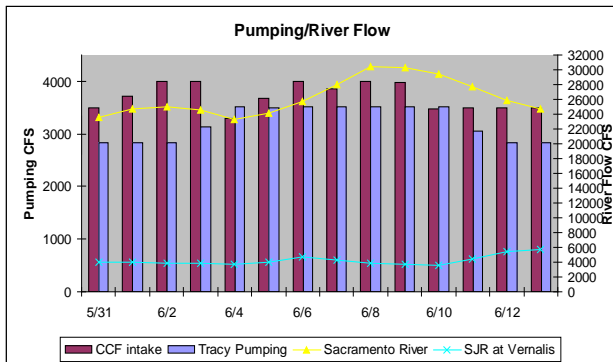


**Recommendation for the week of June 14, 2010:**

The SWG recommended -5000 cfs OMR flow, based upon the low level of salvage since May 21 and the latest survey data, indicating that the overall risk of entrainment is currently low. The Working Group will continue to monitor salvage, survey data, and hydrological conditions and will reconvene June 21.

1) Current environmental data.

- **Water temperature** for the 3 station average is 22°C. The temperature at Clifton Court Forebay is 22°C.
- **OMR** USGS 14-day and 5-day tidally-averaged OMR is unavailable from June 3 through 9. The daily average on June 10 was -5910cfs. The 14-day and 5-day OMR average estimate from CDEC as of June 13 is, respectively, -4919 cfs and -5632 cfs. The 14-day and 5-day provisional estimate of OMR flow is, respectively, -4895 cfs and -5632 cfs.
- **Flow** Sacramento River inflow is 24781 cfs and San Joaquin 5650 cfs. X<sub>2</sub> is 68.21km. As of June 13, E/I ratio is 18.1%, QWEST is 2485 cfs and NDOI is 23901 cfs. The graphs below show the most recent trends in Delta hydrology and water quality that were evaluated by the Working Group.



2) Delta fish monitoring:

20mm Survey #7 was in the field June 7 through 10. All tows have been processed for the central and south Delta stations, while 27 of 39 tows have been processed for the Sacramento River side, and no tows processed for the confluence area and downstream. To date, 61 juvenile delta smelt have been counted, all from the Cache Slough complex. Lengths range from 11 to 48mm, with an average of about 23mm. The first Summer Tow-net Survey is in the field this week. Results from larval surveys, SKT, and 20mm Surveys are available online at: <http://www.delta.dfg.ca.gov/delta>

### 3) Salvage

As of June 14, juvenile delta smelt salvage was 29. The total authorized take for juveniles (> 20 mm) for May under the biological opinion was 333, expanded. The total authorized take for juveniles (> 20 mm) for June under the biological opinion is 842, expanded. The Concern Level for June is 561. Larval sampling has been discontinued at the CVP and continues at the SWP fish facilities. Delta smelt larvae were detected at the CVP on May 12. Longfin smelt larvae were detected at the CVP on April 18.

### 4) Expected Project Operations

Both the CVP and SWP expect to operate to maintain the -5000 cfs OMR flow as determined by the Service under RPA Action 3.

### 5) Particle Tracking Modeling

The Working Group did not request PTM runs for this week.

### 6) Discussion for Recommendation

The Working Group reviewed and discussed all relevant data from fish surveys, Delta monitoring, salvage, and planned Project operations.

The juvenile protective phase of the biological opinion (RPA Component 2; Action 3 in Attachment B) is in effect. This action will continue until June 30 or until water temperature at Clifton Court Forebay reaches a daily average of 25<sup>0</sup>C for three consecutive days, whichever occurs earlier.

Component 2, Action 3 of the biological opinion, which is intended to protect larvae and juvenile delta smelt, includes a range of OMR flow from -1250 cfs to -5000 cfs. The BO provides guidance for the assessment of the risk of entrainment of larvae and juveniles and for determining the appropriately-protective OMR flows within that range for any given week. The BO (pp 353-354) specifies that if entrainment risk is low, OMR flows could be expected to remain as negative as -5000 cfs, but if entrainment risk is higher, OMR flows would be set so as to reduce that risk. The risk factors are (1) evidence (i.e., from survey data) that delta smelt are present in the South or Central Delta, and (2) evidence of ongoing entrainment.

The Working Group noted that cumulative juvenile delta smelt salvage has been low (29 expanded salvage). Additionally, the results from the 20mm Survey #7 provide evidence that juvenile delta smelt may have largely moved downstream of the interior delta and that the risk of entrainment of larval and juvenile delta smelt is likely low. No delta smelt were detected in the interior Delta for 20mm Survey #7.

The San Joaquin River is anticipated to remain at approximately 5000 cfs for the next few days and the Working Group noted that this is anticipated to assist juvenile delta smelt to move downstream to their rearing areas in the low-salinity zone.

Based upon the low overall estimate of the risk of entrainment, the Working Group recommended that the Projects continue to manage to an OMR no more negative than -5000 cfs.

Some Working Group members have recently expressed cautious optimism that this spring's overall favorable conditions (cool temperatures and favorable hydrology) may result in a good production year for delta smelt this fall. However, this productivity (if it occurs) may not be reflected in the Summer Tow-Net Index, which is expected to be set by the small adult population and poor fall habitat conditions of 2009. Spawner/recruit equations, including equations that incorporate fall  $X_2$  effects, predict a 2010 TNS index of 0.33, the same as 2009. The occurrence of larger juvenile fish this summer could indicate better survival and growth from summer to fall. If summer numbers are elevated it would suggest that good springtime conditions may have overridden the small adult populations and poor habitat conditions of 2009. In any case, the Working Group cautions the Service and the WOMT that with population numbers at an all-time low, it may be overly optimistic to expect a detectable increase in production over previous years.

The Working Group noted that longfin smelt distribution is largely westward of the confluence and outside of the influence of the pumping facilities.

**Next Meeting:** Monday, June 21, 2010 at 10 am.