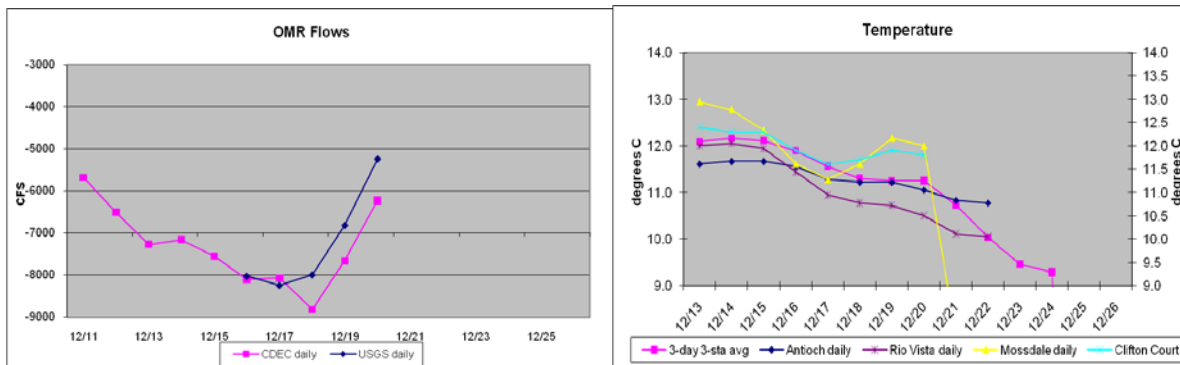
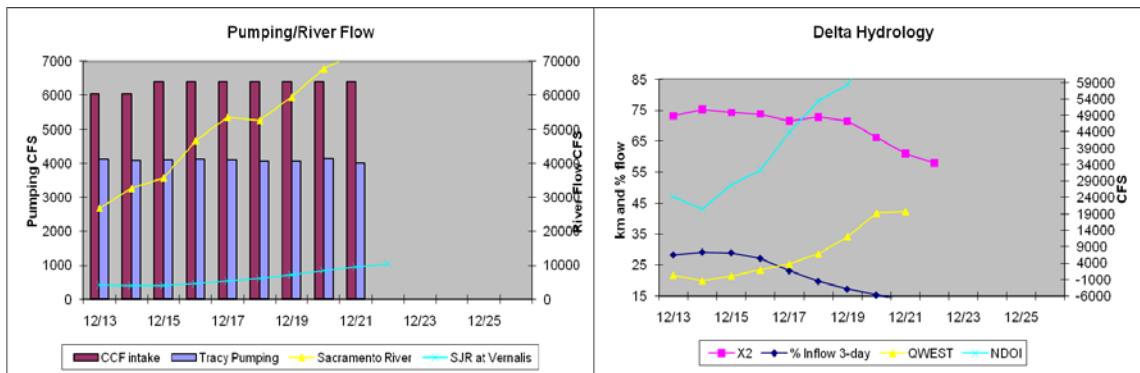
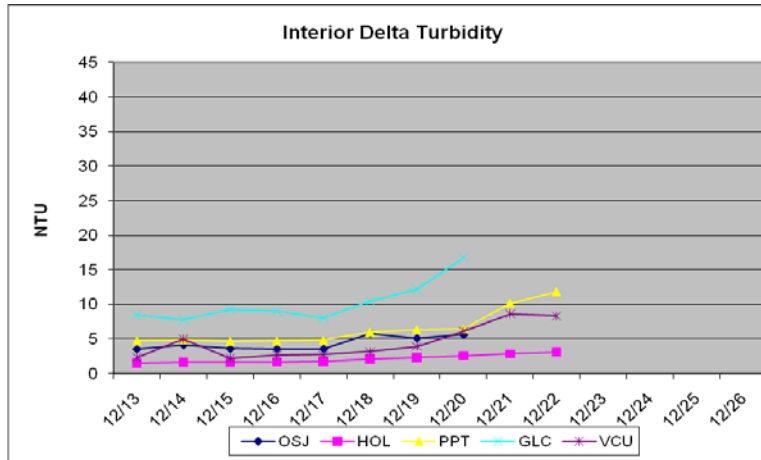


Concern is moderate due to first flush conditions, but risk of entrainment appears to be low. No recommendation was made. The Working Group will continue to monitor salvage, survey data, and hydrological conditions and will reconvene December 27.

1) Current environmental data.

- **Water temperature** for the 3 station average is 9.3°C.
- **OMR** USGS tidally-averaged OMR was -5,240 cfs on December 20, 2010. Project operators reported that their most current estimate is about -5,100 cfs.
- **Flow** Sacramento River inflow is 72,004 cfs and San Joaquin 10,429 cfs. X₂ is about 58 km. As of December 21, the 3-day E/I ratio was 13.7%, QWEST was 19,692 cfs and NDOI was 80,592 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:

FMWT results have been released for September, October, November, and December. The final FMWT Index is 29 for delta smelt and 191 for longfin smelt. The December FMWT collected delta smelt in the Cache Slough complex and at the confluence area. The 2010 Delta Smelt Recovery Index (based on September and October) is 11. More information on the Recovery Index can be found on the Bay-Delta Office’s web site at <http://www.fws.gov/sfbaydelta/> under “hot topics.” Results from larval surveys, SKT, and 20mm Surveys are available online at: <http://www.delta.dfg.ca.gov/delta>

3) Salvage

No salvage reported for longfin smelt or delta smelt since June 2010.

4) Expected Project Operations

Combined CVP/SWP exports are at about 11,500 cfs. Reservoir releases at Oroville remain at 1750 cfs. Releases at Keswick are scheduled to decrease to 11,000 cfs (from 15,000 cfs) tomorrow; releases on the American River are scheduled to decrease to 15,000 cfs today; Goodwin releases are scheduled to decrease to 200 cfs today. Flows on the San Joaquin are expected to begin decreasing soon, but how much or when are unknown. Much of the current San Joaquin flow is originating from reservoir operations on the Tuolumne and the Merced Rivers, over which the Project agencies have no control. Projected operations for these reservoirs are not presently available.

5) Particle Tracking Modeling

The Working Group did not request or receive 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. No recommendation was made.

The period covered by RPA Component 1, protection for pre-spawning adult delta smelt, Action 1(a) (pp 280-282 in the B.O. and Attachment B, pp 329-351), is December 1 through 20. Historic salvage patterns indicate that an entrainment event is unlikely during this period. The Working Group may recommend an action during this period based upon examination of turbidity and salvage data, as well as parameters such as the location of X₂, apparent abundance, and river flows. The historic likelihood of an entrainment event increases after December 20, the period covered by Component 1, Action 1(b). If turbidity criteria are met or exceeded after December 20, Action 1(b), setting average daily OMR flow no more negative than -2000 cfs for a 14-day period, will begin. Component 1, Action 2 (pp 280-281 and Attachment B, pp 352-356) is implemented following the conclusion of Action 1.

The 2010 FMWT index for delta smelt is 29. This means that the authorized incidental take of adults is 210 (estimated) and the concern level is 157 (estimated), cumulative for the December through March period. The Working Group observed that irrespective of Delta conditions, Action 1 would be initiated if salvage at the export facilities occurs on three consecutive days, or exceeds 15 on any given day (B.O. p 329).

There was brief discussion of initial catch data from the Delta turbidity study. Interior has determined that data from this study will not be released until the field work is complete; however, early results indicate that delta smelt migration has begun on the Sacramento River.

The Working Group expressed moderate concern for delta smelt, given the current situation. First flush is occurring, and delta smelt migration is in progress on the Sacramento River, increasing their vulnerability to entrainment. The Working Group noted that while Delta turbidities are currently relatively low, they are trending up. Turbidity at Decker Island has increased from the mid-twenties to the fifties, indicating that expected first flush conditions occur there at least during part of the tidal cycle. Initiation of Action 1 is intended to be proactive, to keep delta smelt from entering the central Delta, but as of the call time, delta smelt did not appear to be moving into the lower San Joaquin River, where turbidity remains low for now.

At the same time, the Working Group also estimated that the overall risk of entrainment currently remains low to moderate. Reverse flows have become less severe; USGS daily OMR has decreased from about -8,000 cfs to about -5200 over the last several days. Project pumping has increased, but SJR flow has also increased, such that total exports are presently little more than SJR flow. Historically, little or no salvage has occurred under these conditions. No modification of Project operations was recommended.

Next Meeting: The SWG is scheduled to meet again via conference call at 10:00 am Monday, December 27.