SMELT WORKING GROUP
Monday, December 27, 2010

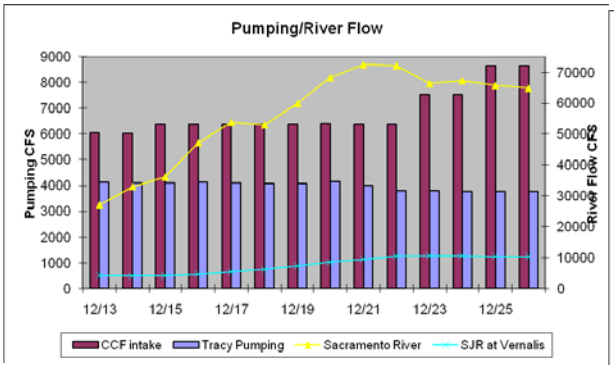
Concern is moderate due to first flush conditions, but risk of entrainment appears to be low. No recommendation was made. The Working Group will continue to monitor salvage, survey data, and hydrological conditions and will reconvene January 3.

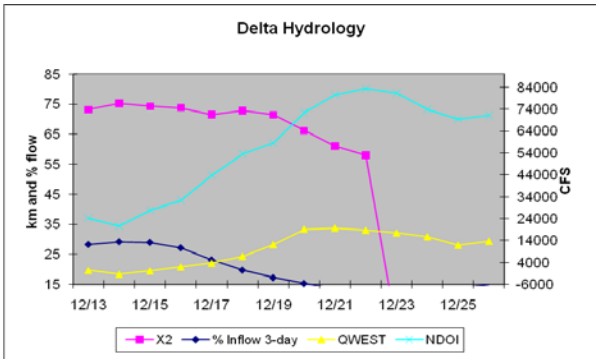
1) Current environmental data.

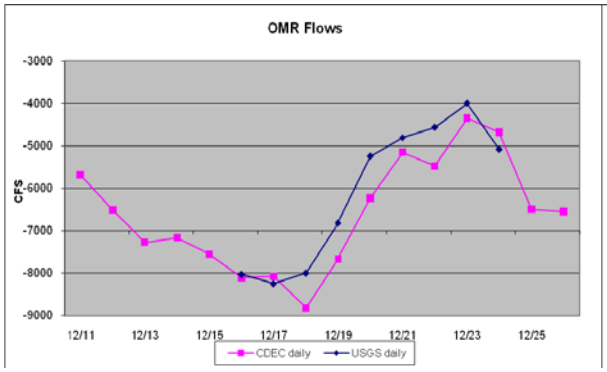
- **Water temperature** for the 3 station average is 10.6°C.

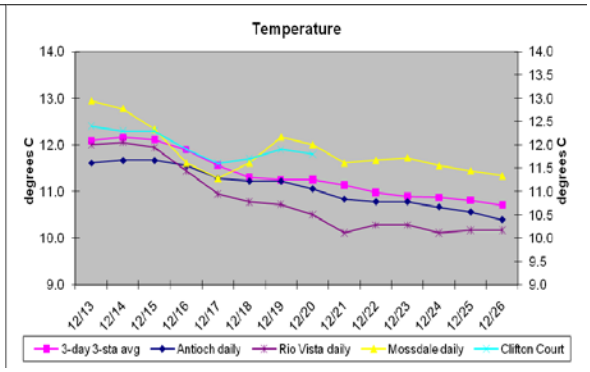
- **OMR** USGS tidally-averaged OMR was -5,080 cfs on December 24, 2010. USGS estimated OMR was -6550 for December 26, 2010.

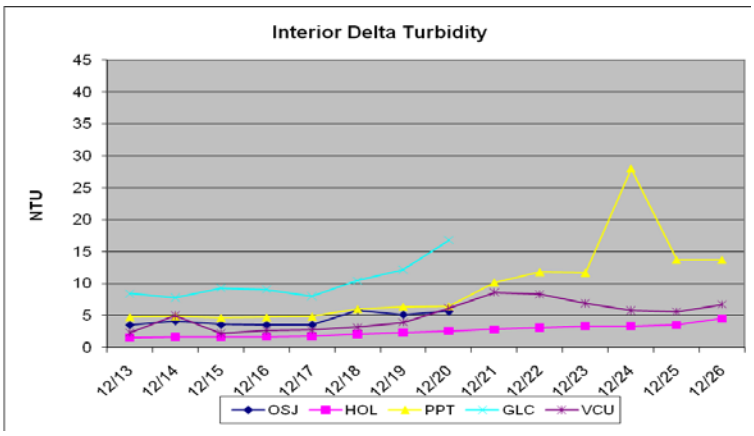
- **Flow** Sacramento River inflow is 64,851 cfs and San Joaquin 10,308 cfs. An updated calculation of X_2 was not available, but was about 58 km as of December 22. As of December 26, the 3-day E/I ratio was 14.8%, QWEST was 13,713 cfs and NDOI was 71,210 cfs. The graphs below show the most recent trends 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 12,300 cfs. Jones is at about 4,100 cfs and the CCF intake is expected to decrease from the current 8660 cfs to 5500 cfs. Reservoir releases at Oroville remain at 1750 cfs. Releases at Keswick are 10,850 cfs; releases on the American River are scheduled to decrease from 15,000 cfs to 12,300 cfs; Goodwin releases are 200 cfs. Flows on the San Joaquin are 10,300 and are expected to remain above 10,000 cfs for the next week to ten days.

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 X_2, 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).

Turbidity at Prisoner's Point is above 12 NTU, but this turbidity has come from the Mokelumne River. Turbidity on the Sacramento River is beginning to decline, while the San Joaquin remains relatively clear. Turbidity is high at Decker Island, but not at Mallard Slough, indicating that a gradient may be occurring across the channel. This type of gradient can likely occur most anywhere in the Delta and denote a large difference in conditions over a short distance.

Total take of delta smelt from the turbidity study is 191; most were taken on the first day of sampling, and all but three were collected on the Sacramento side. The beach seine data is not yet in, but is not expected to increase the take number markedly. It was noted that a lot of spring-run-size Chinook have been collected; these fish will be examined to determine whether they are of hatchery origin.

As overall conditions have not changed markedly since the last call (December 23), the Working Group did not change its estimate of the risk of entrainment. Concern remains moderate, given that first flush is occurring and delta smelt migration is in progress, and apparent abundance remains very low. However, risk of entrainment remains low to moderate overall, as Delta turbidities are decreasing and smelt do not appear to be moving up the San Joaquin River at this time. The Working Group did not recommend a modification of Project operations.

Next Meeting: The SWG is scheduled to meet again via conference call at 10:00 am Monday, January 3.