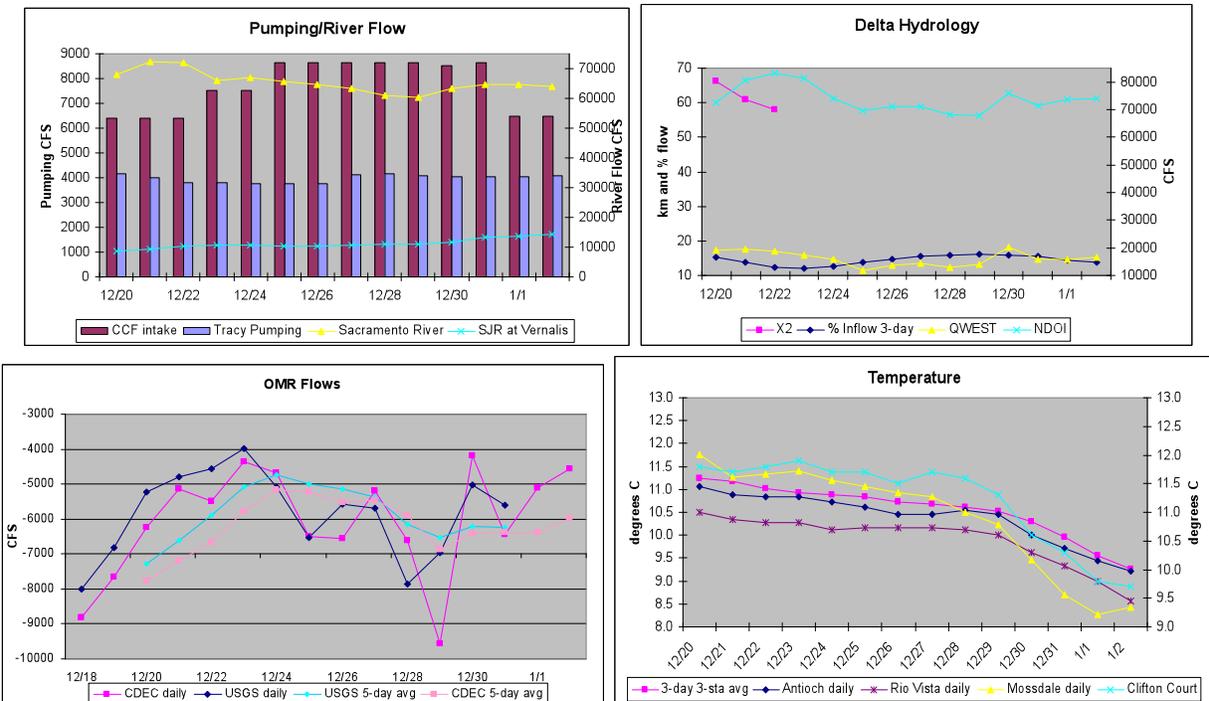


SMELT WORKING GROUP
 Monday, January 3, 2011

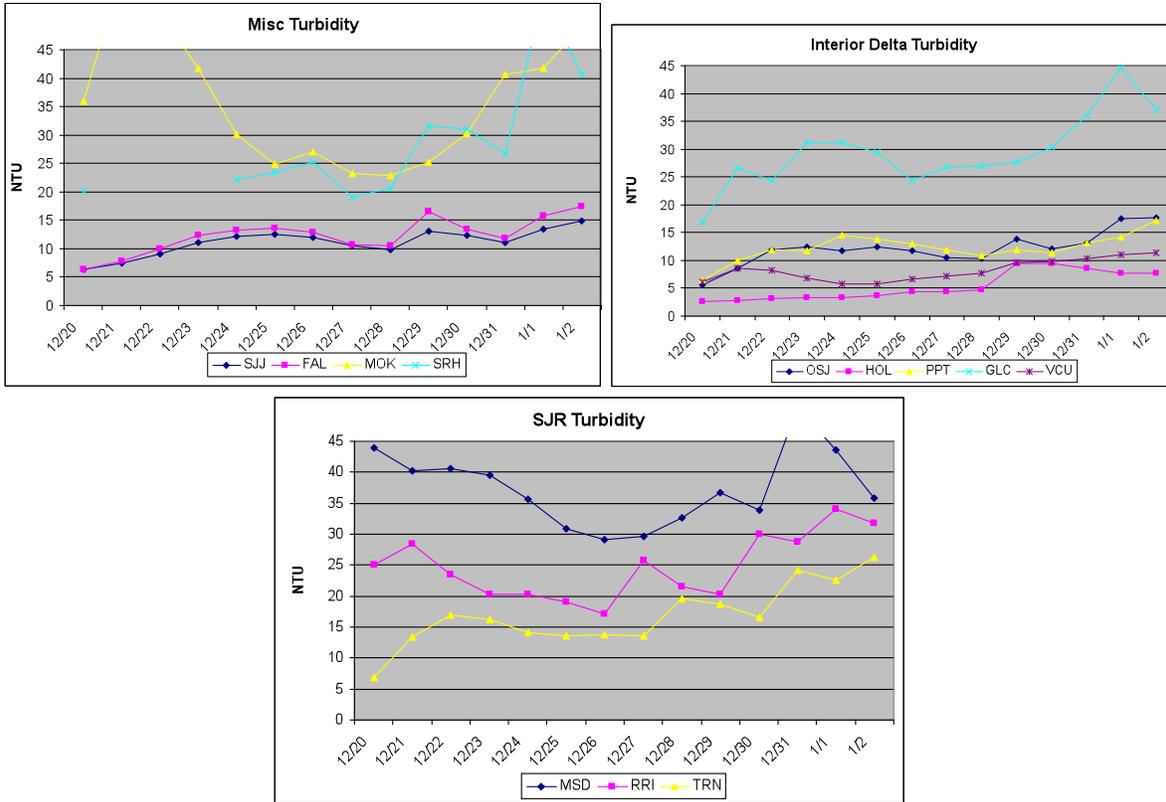
The Working Group will continue to monitor salvage, survey data, and hydrological conditions and will reconvene January 10. No recommendation was made.

1) Current environmental data.

- **Water temperature** for the 3 station average is 9.3°C.
- **OMR** USGS tidally-averaged OMR was -5610 cfs on December 31, 2010. The 5-day USGS OMR was -6226 cfs. The OMR average estimate from CDEC on January 2, 2011 is -4553 cfs. The 5-day CDEC OMR is -5967 cfs.
- **Flow** Sacramento River inflow is 64,072 cfs and San Joaquin 14,375 cfs. X₂ data is currently unavailable. E/I ratio is 13.7%, QWEST is 16,422 cfs and NDOI is 74,084 cfs. The graphs below show the most recent trends in Delta hydrology and water quality that were evaluated by the Working Group.



- **Turbidity** Three-day criterion station averages were 14.81NTU at Prisoner’s Point, 8.00NTU at Holland Cut and 10.91NTU at Victoria Canal. Criteria for the implementation of Action 1 were not met or exceeded. Additionally, the Working Group reviewed turbidity data for several stations in and around the Delta.



2) Delta fish monitoring:

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. Criteria for the implementation of Action 1 were not met or exceeded.

4) Expected Project Operations

Combined CVP/SWP exports are at 10400cfs. Flow on the San Joaquin River at Vernalis is expected to increase to 18,000 cfs by the end of the week due to flood releases at Friant reservoir. The Friant release may result in decreased exports at the CVP as flows enter the Mendota Pool directly. Releases to the Sacramento River from Keswick are expected to remain at about 14,000 cfs, while releases on the American River at Nimbus are expected to decrease from 12,000 cfs to 8,000 cfs on Wednesday.

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. The salvage criteria for initiating an action are three consecutive days of salvage or a noe-time salvage of 15 delta smelt (estimated). 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).

Wet weather across the Sacramento Valley is expected at the end of the week. With Sacramento River flows greater than 60,000 cfs for the past 14 days and San Joaquin River at Vernalis greater than 10,000 cfs for the past 10 days, the first flush of winter precipitation is ongoing.

The Working Group noted that the turbidity on the San Joaquin River is expected to continue to increase as the 4,000 cfs flood release from Friant reaches the Delta. The Working Group discussed recent Prisoner's Point elevated turbidity as potentially coming from the resuspended sediment in Frank's Tract. It can be challenging to determine the source of turbidity at this station, as there are a number of potential sources for the turbidity. In addition to Frank's Tract, turbidity from the Mokelumne River and mainstem San Joaquin River can be detected at Prisoner's Point. Turbidity at other central and south Delta stations remains below 12NTU, although readings have increased in the last few days.

The Working Group estimated that the level of concern for the species was moderate. Apparent distribution currently is favorable, as is hydrology, which indicates a low level of risk for entrainment. Apparent abundance remains very low, and the ongoing first flush conditions raises concern into the moderate range. Delta smelt upstream migration likely has begun. Even though turbidity is expected to increase at Antioch by the end of the week, the risk of delta smelt entering the central and south Delta is expected to remain low, due to the anticipated level of

flow: 18,000 cfs. The Working Group believes that, based upon what is known of delta smelt distribution and Delta conditions, a modification of Project operations to protect delta smelt is not yet needed.

The Working Group will reconvene on Monday, January 10 to review the updated flow, turbidity, and other appropriate data.

WEEKLY ADVICE FOR THE DEPARTMENT OF FISH AND GAME FOR LONGFIN SMELT

Recommendation for week of January 3, 2011:

The Smelt Working Group does not have a longfin smelt recommendation at this time.

Basis for recommendation:

The 2009 State Water Project 2081 for longfin smelt states that advice to the DFG Director shall be based on:

1. Adult Salvage – total adult (≥ 80 mm) longfin smelt salvage (SWP+CVP) for December through February > 5 times the Fall Midwater Trawl longfin smelt annual abundance index.
2. Adult abundance, distribution or other information indicates that OMR flow advice is warranted.
3. Larva distribution in the Smelt Larva Survey or the 20mm Survey finds longfin smelt larvae present at 8 of 12 Central and South Delta sampling stations in 1 survey (809, 812, 815, 901, 902, 906, 910, 912, 914, 915, 918, 919).
4. Larva catch per tow exceeds 15 longfin smelt larvae or juveniles in 4 or more of the 12 survey stations listed.

There is no new adult distribution information from fish surveys. No longfin smelt have been salvaged. A few ripe and spent longfin smelt were observed during the Smelt Turbidity Study at the Decker Island DFG sampling location on December 30 and January 1. The Fall Midwater Trawl longfin smelt annual abundance index for 2010 is 191. The total salvage level threshold for advice is 955 (see criterion in #1). No longfin smelt have been detected salvage as of January 2 for this water year (since October 1, 2010), so no advice is warranted based on this criterion.

San Joaquin River flow was at 14,900 cfs and Sacramento River flow remains above 50,000 cfs, both above the lower flow thresholds for entrainment risk to longfin smelt based on the SWP 2081. The most recent fish survey information for longfin smelt, the December Fall Midwater Trawl and Bay Study surveys completed sampling the week of December 6, also suggests very low risk. The Fall Midwater Trawl collected a single longfin smelt at station 703 in the lower Sacramento River adjacent to Sherman Lake, otherwise no other longfin smelt were collected in the Delta by either survey. Good numbers of longfin smelt were collected by both surveys in Suisun and San Pablo bays. Although longfin smelt are moving upstream in the estuary, high Sacramento and San Joaquin river flows and X2 west of Suisun Bay make it unlikely that many

longfin smelt will move into the Delta. Given this information no advice is warranted based on criterion 2.

No Smelt Larva Survey will be conducted this week; the survey will commence on January 17.

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