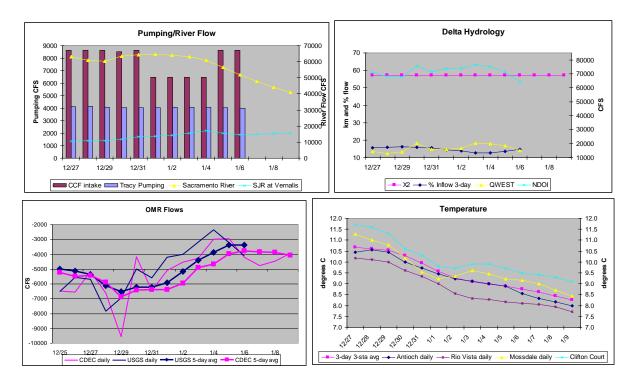
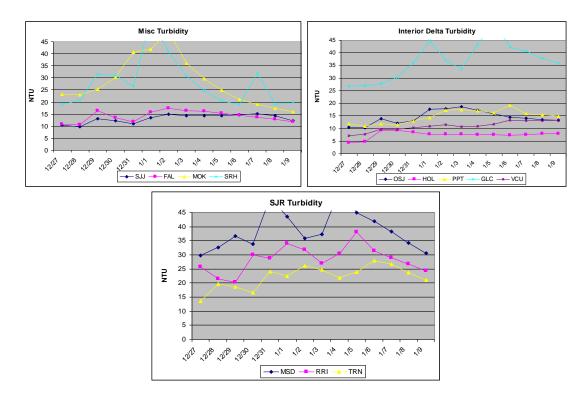
SMELT WORKING GROUP Monday, January 10, 2011

The Working Group will continue to monitor salvage, survey data, and hydrological conditions and will reconvene January 18. No recommendation was made.

- 1) Current environmental data.
- Water temperature for the 3 station average is 8.3°C.
- OMR USGS tidally-averaged OMR was -4,111 cfs on January 6, 2011. The 5-day USGS OMR was -3,382 cfs. The OMR average estimate from CDEC on January 9, 2011 is -3,963 cfs. The 5-day CDEC OMR is -4,081 cfs.
- Flow Sacramento River inflow is 41,167 cfs and San Joaquin 15,517 cfs. X₂ is 57.1km. As of January 6 E/I ratio is 14.8%, QWEST is 14,945 cfs and NDOI is 64,100 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 15.42NTU at Prisoner's Point, 7.79NTU at Holland Cut and 13.23NTU 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:

Spring Kodiak Trawl #1 and the Bay Studies are in the field this week. Smelt Larva Survey #1 will be in the field next week. 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 11,500cfs, and are anticipated to drop to 9,600cfs on January 12. Releases to the Sacramento River from Keswick are expected to decrease to 8,000cfs tomorrow, while releases on the American River at Nimbus decreased today to 4,000cfs.

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 -2,000 cfs for a 14-day period, will begin. The salvage criteria for initiating an action are three consecutive days of salvage or a one-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).

Sacramento River flows have been decreasing over the past week and are expected to continue to decrease. Flows on the San Joaquin River currently are at approximately 15,500cfs.

The Working Group noted that higher turbidity along the Middle River corridor is influencing the Victoria Canal station. This sediment is thought to originate from the San Joaquin River, as opposed to the Sacramento River. As turbidity decreases on the San Joaquin River, the readings at Victoria Canal are anticipated to decrease correspondingly. The Working Group discussed Prisoner's Point turbidity. Although last week the group discussed Frank's Tract as a potential source of sediment (due to the wind event occurring at that time) for Prisoner's Point, this week it appears the source of sediment is the mainstem San Joaquin River. Turbidities along the Old River corridor remain below the 12NTU threshold.

The Working Group estimated that the level of concern for the species was moderate. Distribution information is somewhat dated (late December), although that information showed the distribution to be favorable at that time. Hydrology remains favorable as well, 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 is ongoing. The risk of delta smelt entering the central and south Delta is expected to remain low, due to the anticipated level of flow for the San Joaquin River. 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.

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

Recommendation for week of January 10, 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 (>=80mm) 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 as of January 9, 2011. 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 advice is warranted based on this criterion.

San Joaquin River flow was at 15,000 cfs and Sacramento River flow just dropped below 40,000 cfs January 10, so both were at or 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 was conducted the week of January 3; the survey will commence on January 17.

The Working Group will reconvene on Tuesday, January 18 at 9am to review the updated flow, turbidity, and other appropriate data.