SMELT WORKING GROUP
Monday, June 20, 2011

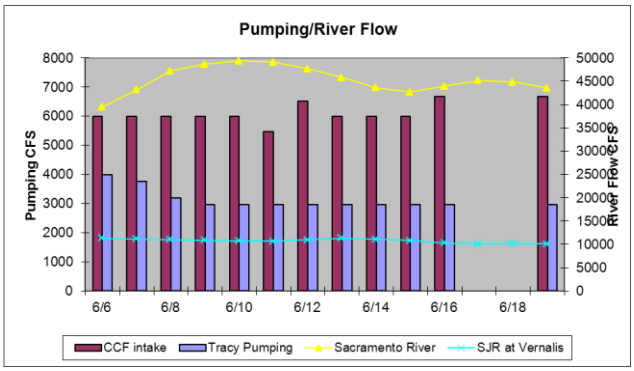
Based on discussions of Delta conditions, salvage and survey data, the Smelt Working Group determined that the risk of entrainment of delta smelt is low. No recommendations were made.

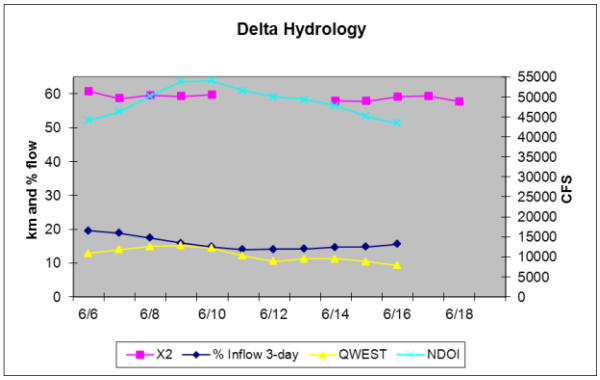
1) Current environmental data.

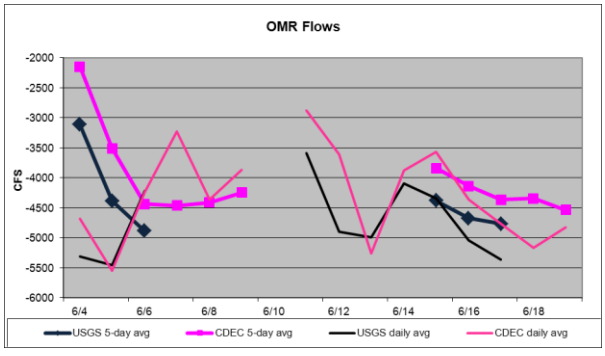
- **Water temperature** for the 3 station average is 19.3°C. The 3-day average for Clifton Court Forebay is 21.6°C.

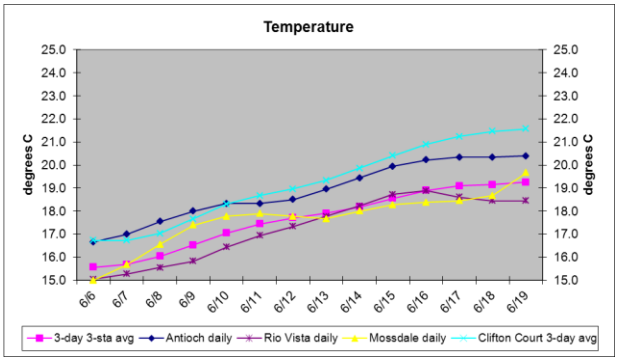
- **OMR** USGS tidally-averaged OMR 5-day average for June 17 was -4,770 cfs. The daily OMR USGS average for June 17 was -5370 cfs. CDEC 5-day average on June 19 was -4,539 cfs. 14-day average OMR values were unavailable.

- **Flow** Sacramento River inflow is 43,503 cfs and San Joaquin 10,079 cfs. X_2 calculation from CDEC on June 18 was 57.66km. The E/I ratio, NDOI, and QWEST for June 16 were 15.6%, 43,410 cfs, and 7839 cfs, respectively. The graphs below show the most recent trends in Delta hydrology and water quality that were evaluated by the Working Group.









- **Turbidity**—turbidity data was not discussed

2) Delta fish monitoring:

20mm Survey #7 was in the field the week of June 6. All 47 stations were sampled; all tows have been processed. No larvae were detected in the central or south Delta stations, except station 809, in the south San Joaquin River west of Frank's Tract. The greatest concentration of larvae was collected from Montezuma Slough. Larvae were also collected at other Sacramento River stations, the confluence, and other stations downstream of the confluence. A total of 252 larvae were collected, ranging in size from 8mm to 51mm (average size 23.4mm). 20mm Survey #8 is in the field this week. The Summer Tow-Net was in the field last week. Preliminary results exhibit a distribution similar to that of 20mm Survey #7, with no delta or longfin smelt collected from the south Delta. The final 2010 FMWT Index is 29 for delta smelt and 191 for longfin smelt. 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.dfg.ca.gov/delta/

3) Salvage

No longfin smelt were salvaged from January 15 through June 19. Four adult delta smelt were salvaged at the CVP on January 15 and 17, February 24, and March 15, 19, and 20, and 12 were salvaged at the CVP on March 22, 8 on March 23, 4 on March 30, 2.1 on April 1, and 1 on April 5 for a seasonal cumulative total of 51 fish. 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. Under the low-entrainment risk scenario for the implementation of Action 2, the salvage criterion is a Daily Salvage Index greater than or equal to 1 (i.e., 29, estimated; B.O. p 338).

No salvage has been reported for adult longfin smelt or delta smelt at the SWP since June 2010. No larvae or juveniles for either delta smelt or longfin smelt has been reported at the CVP facility for the season. No larvae or juvenile longfin smelt has been reported at the SWP facility for the season. One 18mm larval delta smelt was reported at the SWP facility on June 9. Criteria for the implementation of an action were not met or exceeded.

Incidental take for juvenile delta smelt at least 20mm in size is as follows:

	Concern Level	**Authorized Take**
April	9	13
May	378	567
June	958	1436
July	1086	1630

Numbers are estimated salvage for the SWP and the CVP combined. The monthly numbers are cumulative. For example, the authorized take for July includes the salvage from April, May, and June.

4) Expected Project Operations

Combined CVP/SWP exports are approximately 9,680 cfs as of June 20.

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. No recommendation was made.

RPA Component 2, Action 3 is intended to minimize the entrainment of larval delta smelt. Criteria for the implementation of Action 3 are based upon the onset of spawning or the presence of larvae in the system. Risk of entrainment is estimated based upon survey data, Delta conditions, and the occurrence of salvage.

The Working Group will continue to evaluate the risk of entrainment according to the guidance provided in the RPA, as in previous years. The recent OCAP settlement does not change any of the parameters that the Working Group is required to discuss (B.O., pp 358-368). However, the newly-created Delta Condition Team (DCT) may provide additional information for the Working Group's consideration. The settlement additionally provides that the Service may set OMR flows more negative than -5000 cfs; flows as negative as -6100 cfs are allowed on an experimental basis if the "best available science and consideration of all factors…indicate that such flows would be adequately protective" of delta smelt. This rate of flow could apply if the risk of entrainment is believed to be low, based upon evaluation of physical and biological monitoring results. The Working Group has not as yet received any communication from the DCT.

The 3-day, 3-station average water temperature surpassed 12°C on March 10, 2 spent female delta smelt were detected in SKT survey 3, and 1 delta smelt larva was collected during the 20mm Survey #1, any of which meet or exceed the criteria for the implementation of Action 3, entrainment protection for larval smelt. The temperature criterion may indicate that protections are needed based upon the assumption that delta smelt spawning is in progress, whereas the observation of spent females and/or larvae provides direct evidence of spawning.

The Working Group did not receive any advice from the DCT.

Available survey results indicate a favorable distribution of delta smelt larvae. With sizes approaching the range when delta smelt begin to move toward the low-salinity zone, this also suggests a favorable distribution for the immediate future.

The Working Group believes that, based upon what is known of Delta conditions and delta smelt distribution, a modification of Project operations to protect delta smelt is not yet warranted.

Similarly, the lack of young longfin smelt in the central and south Delta indicated a very low risk of entrainment for longfin smelt. No modifications of Project operations to protect longfin smelt are warranted.

The Working Group will meet again on June 27, which is anticipated to be the last meeting for the season.