

Recommendation for the week of June 15, 2009:

The SWG recommends the 14-day average OMR be no more negative than -3500 cfs. Current conditions, described below, prompted the SWG to relax OMR relative to the previous recommendation of -1,500. The SWG recommends that OMR change gradually, with no more than a combined total of 300 cfs of increased exports per day. This is to avoid a sudden change in hydrodynamics that could potentially draw fish rapidly into the south Delta.

In the event that total combined salvage reaches 75% of the remaining June concern level (707 salvaged delta smelt), which would indicate apparent continued vulnerability of delta smelt to export operations, the 14-day average OMR shall no more negative than -1,800 cfs in order to maintain a sufficient level of protection.

The SWG also recommends that actions take place, to the extent feasible, to minimize the effect of SWP salvage being biased by fish rearing inside Clifton Court Forebay. One possible action is a significant drawdown of CCF. However, we understand from the operators that this may not be possible as the current water level in CCF is low and close to the minimum depth required for pumping. Another possible action would be to keep the CCF gates closed and start the increased pumping at the CVP only for the first several days. If there is no salvage at the CVP during the ramp up period then it is likely fish rearing inside CCF may be the current primary source of SWP salvage.

The recommendation is based on a review of active risk factors:

1. **Size of the population.** Delta smelt densities are similar to where they were at this time last year. That cohort subsequently produced the lowest fall midwater trawl index ever recorded. The low abundance of delta smelt warrants conservative measures be taken to protect the population.
2. **Distribution.** The majority of delta smelt are distributed in the western delta and the Cache Slough region based on 20mm Survey Survey 7 and preliminary results from the first Summer Tow Net Survey Survey in addition to those fish occurring in the Sacramento Deepwater Channel. However, recent salvage at both the CVP and SWP suggests that some unknown percentage of fish remain distributed in the south delta. Thus, overall distribution is generally favorable, which was a major reason for relaxing OMR.
3. **Salvage.** Salvage has decreased and become less consistent. This was another reason for relaxing OMR. However, salvage has not completely stopped, suggesting that some fish are still present in the south Delta. However, the lack of detections in the south Delta by the 20mm Survey 7 and the First TNS make that proportion uncertain. Thus the relaxation of OMR is contingent upon salvage not exceeding 75% of the remaining take limit for June.

Delta smelt detections in salvage have continued in low numbers over the past week, with 4 delta smelt caught on June 11 at the CVP and 4 delta smelt on June 12 at the SWP. Additionally, low numbers of delta smelt were salvaged at the CVP on June 12, 13, and 14, however, these numbers are preliminary at this time. The group remains concerned that additional salvage could occur at the facilities, and that the take concern level (759) or the incidental take level (1139) for June in the biological opinion could be reached.

4. Life stage risk. Most delta smelt observed to date are 20 mm or larger. This suggests that they have attained sizes that enable them to be efficiently detected in sampling programs, and that post-larvae and young juveniles are still at risk of entrainment. These fish greater than 20 mm can contribute to the salvage take at the export facilities.

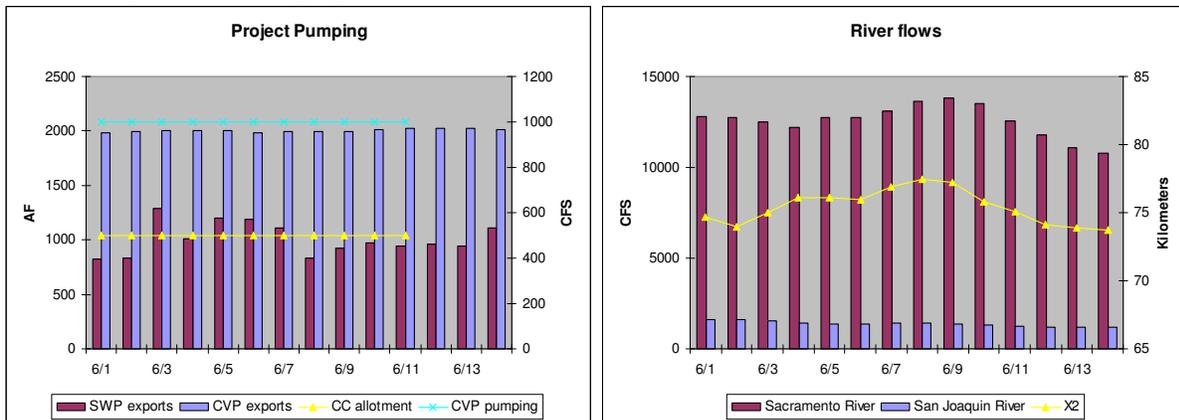
Environmental, Survey, Modeling, and Facilities Data Considered:

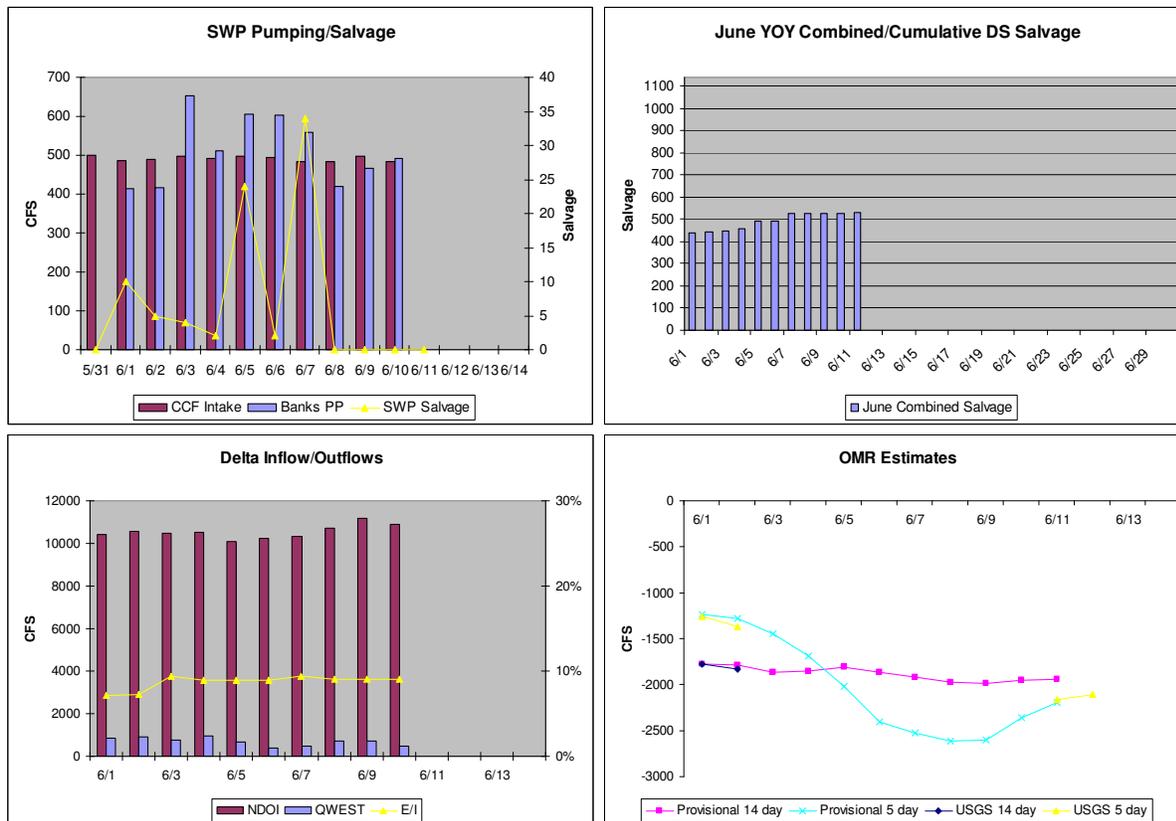
1) Current environmental data.

The provisional OMR estimate by the projects as of June 14 is -1986 cfs for 14 day average, -2205 cfs for 5 day average. As of June 15, Sacramento River inflow was 10767 cfs. X2 is at 73.8 km as of June 14. The E/I ratio was at 9% on June 10. The temperature at Clifton Court Forebay as of June 14 was 21.3°C.

The Project pumping has remained steady for the previous week at 1500 cfs combined pumping.

Data is depicted in the graphs below:





2) Delta fish monitoring:

20mm Survey 7 ran from June 1 through 4. Data are complete for all stations sampled, except Napa River. A total of 199 delta smelt larvae have been identified so far from 16 stations. 20mm Survey 8 is in the field this week. Summer Tow Net Survey 1 ran from June 8 through 11. Data are incomplete. A total of 4 delta smelt were collected so far from stations 704, 804, 801, and 513. STNS 2 will be in the field the week of June 22. The final Spring Kodiak Trawl (survey #5) was completed May 14. 10 delta smelt were collected from stations 719 and 606. Results from previous larval surveys, 20mm surveys and the SKT are available online at: <http://www.delta.dfg.ca.gov/data/projects/?ProjectID=SLS> <http://www.delta.dfg.ca.gov/data/projects/?ProjectID=20mm> <http://www.delta.dfg.ca.gov/data/projects/?ProjectID=SKT>.

3) Particle Tracking Modeling

The group received PTM runs that showed three different scenarios, OMR flows of -2000 cfs (Scenario A), -2500 cfs (Scenario B), and -3000 cfs (Scenario C).

4) Salvage

Adult delta smelt have not been salvaged at either facility since March 11. Delta smelt larvae or post-larvae were first observed at the CVP on April 10 and April 20 at the SWP. Collection of larval delta smelt (< 20 mm FL) occurred on May 4, 6, 15, 16, 21, 23, and 28, and June 5-6 at the

SWP and May 5, 6, 7, 8, 11, 13, 14, 17, 18, 19, 21, 22, 26, and 30, and June 1 at the CVP. Juvenile (> 20 mm FL) delta smelt have been salvaged consistently from June 1 through 7 at the SWP and during June 11-14 at the CVP. A total of 532 juvenile delta smelt were salvaged (combined facilities) as of June 11. Combined salvage has dropped off since June 7 with 4 at the SWP on June 12 and 4 at the CVP on June 11 (additional low numbers of delta smelt salvage occurred at the CVP on June 12, 13, and 14, but the numbers are preliminary at this time.

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

Advice for week of June 15:

The Smelt Working Group provides no new advice.

Basis for advice:

Our concern level for **longfin smelt** is based on:

- (1) longfin smelt juvenile and adult abundance remained low last fall;
- (2) no longfin smelt larvae or juveniles were collected in the central or south Delta during the June 1-4 20mm Survey or the June 8-12 Towntnet Survey and hatching is assumed to be over for the year;
- (3) no longfin smelt larvae or juveniles have not been salvaged by either facility since June 3;
- (4) Delta water temperatures have surpassed 18°C, which is believed to be approaching the threshold to stimulate emigration;
- (5) longfin smelt juveniles remaining in the Delta are located in the Sherman Lake/confluence area, and not vulnerable to the central Delta entrainment until OMR levels surpass -3500 cfs.

The Smelt Working Group longfin smelt advice is based on the following information:

1. Water temperatures. Water temperatures are currently above the range believed suitable for longfin smelt spawning and incubation at about 16°C. Emigration is believed to trigger when Delta water temperatures increase above 18°C, which recently happened in the central and south Delta, and in the Cache Slough area.
2. Recent salvage. Only five longfin smelt caught in salvage recently: single fish on May 14 and May 27 and three on June 3. No longfin smelt have been salvaged since June 3. High Clifton Court water temperatures (23.4°C) in late May made it unlikely that any longfin smelt remained in the forebay, but three were subsequently salvaged.
3. Adult distribution. No new adult information
4. Larva and juvenile distribution. The June 1-4 20mm Survey did not detect longfin smelt larvae or juveniles in the central or south Delta nor did the June 8-12 Towntnet Survey. During the

June surveys, larvae/juveniles were located in the confluence area from station 706 and 804 and locations farther west, so none are expected from the central or south Delta.

5. Particle tracking results. PTM runs were made (see above) but not relevant to longfin smelt.