Delta Smelt Working Group Meeting Notes

January 11, 2007

Participating: Bruce Herbold (EPA), Gonzalo Castillo (USFWS), Mike Chotkowski (USBR), Kevin Fleming (CDFG), Lenny Grimaldo (CDWR), Tracy Hinojosa (CDWR), Ann Lubas-Williams (USBR), Ted Sommer (CDWR), Jim White (CDFG), Ryan Olah (USFWS), Victoria Poage (USFWS), and Peter Johnsen (USFWS, convener and scribe)

For Discussion:

1. Spring Kodiak Trawl results
2. What to do after Feb 15
3. What about larvae
4. Head-of-Old River and Agricultural Barriers

Recommendation for WOMT:

The Working Group had two recommendations for WOMT. These recommendations reflect conditions which the Working Group believes are likely to minimize salvage of pre-spawning adult delta smelt in winter and larval delta smelt in spring.
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First, the Working Group recommends continuing the proactive action of keeping Old and Middle Rivers combined flow to a rang of negative 5000 cfs to negative 3500 cfs after February 15. The Working Group will consider and/or generate additional analyses of existing data and continue to monitor conditions in the Delta and survey sampling results to determine whether further refinements to the recommendation are needed.

The second recommendation is to forego installation of the spring Head-of-Old River Barrier.

Meeting Notes:

1. The Delta Smelt Working Group reviewed the preliminary Kodiak Trawl results. Trawl of the Sacramento Deepwater-Channel was started the same day as the meeting and no information existed for that part of the delta. Delta smelt numbers caught at the time of the meeting were comparable to last year. All delta smelt caught in the trawl had been of stage 1, 2, or 3. Water temperature was 7.5 to 8 degrees Celsius.

(Complete SKT results show that delta smelt have moved into the deepwater channel. A total of 109 smelt were sampled. No mature females were caught.)

2. The Delta Smelt Working Group discussed an extended winter action after February 15. The Working Group retained its original conceptual model for the modification of Old and Middle River flows. A proactive action assumes, based on an examination of salvage data and numerous environmental variables, that adult delta smelt movement up the estuary (which increases vulnerability to entrainment) follows decreases in Delta water temperature and increases in Sacramento River flow. Given that Delta water

temperatures are in the 7-8^0 C range, spawning may not be seen for several more weeks. However, the group expected that delta smelt would have started movements into the Delta despite the lack of a three-day average 25,000 cfs increase in Sacramento flow. The group discussed whether continuing the recommended action would exhaust EWA assets that instead could be used to protect larvae and juveniles. It was agreed that a continued action is possible based on the 80 TAF in San Luis Reservoir available for EWA use. The group therefore recommends continuing to moderate Old and Middle River flows after February 15. However, the Work Group noted that the cost of maintaining Old and Middle Rivers flow between negative 5000 cfs and negative 3500 cfs depends on future weather conditions. The Work Group will continue to review delta smelt distribution, flow conditions, water temperature, and salvage to evaluate if continuing to moderate Old and Middle Rivers flow will benefit delta smelt.

3. The Delta Smelt Working Group briefly discussed potential actions to benefit delta smelt larvae. However, the group agreed to postpone any recommendations for a larvae action until delta smelt show signs of being ready to spawn (mature or spent females) and/or Delta water temperatures are favorable for spawning. Currently most females are immature and water temperatures are low.

4. Earlier PTM modeling (see October 30 meeting notes) indicated that the South Delta barriers increase particle entrainment risk from the central Delta. The assumption for using particle tracking to estimate delta smelt larva entrainment risk is that larvae to some extent will behave much as particles, i.e. be more passively transported with water flow than adult fish. The particle tracking is used to identify how changes in hydrodynamic conditions affect the fates of particles, and presumably larvae, that are released where we often find young smelt.

DWR staff presented a refinement of the PTM modeling without the installation of the Head-of-Old River barrier but with the agricultural barriers installed, showing similar results as when none of the barriers are installed. All other conditions were set similar to earlier runs (see October 30 meeting notes) with particles injected at stations 910, 815, and 902 on April 15. The group had some reservations and expressed the need to look closer at the results. However, given that the results are accurate with respect to modeling protocols, the Working Group agreed to change their earlier recommendation to postpone the installation and operation of the agricultural barriers until June 1 and instead only recommend against the installation of the spring Head-of-Old River barrier at this time.

Next meeting: Monday, January 29, 3:00 pm via conference call.

Submitted,
PJ