

Delta Smelt Working Group Meeting Notes

April 02, 2007

Participating: Gonzalo Castillo (USFWS), Mike Chotkowski (USBR), Andy C. Chu (CDWR, guest), Kevin Fleming (CDFG), Lenny Grimaldo (CDWR), Bruce Herbold (EPA), Victoria Poage (USFWS), Ted Sommer (CDWR), Kevin Sun (CDWR, guest), Jim White (CDFG), and Peter Johnsen (USFWS, convener and scribe)

For Discussion:

1. 7- or 14-day average as presentation of OR/MR flows
2. WOMT request to develop criteria for opening of barriers
3. Action to protect delta smelt larvae

Recommendation for WOMT:

To minimize diversion of delta smelt larvae into the Central Delta and to the water export facilities, the Working Group recommends keeping Old River and Middle River combined 5-day average flows between negative 5,000 cfs and negative 3,500 cfs.

Meeting Notes:

1. At the March 27, 2007, meeting, the Water Operations Management Team (WOMT) requested that the Delta Smelt Working Group (Working Group) evaluate changing the use of the 5-day averaging period to either a 7-day or a 14-day averaging period when tracking Old River/Middle River (OR/MR) flows. WOMT requested this change so that the averaging period average across the neap-spring tidal cycle.

The Working Group noted that an average over the whole lunar month would be required to properly address daily biases caused by the filling and draining of the delta over the spring-neap cycle; a 7-day or 14-day average would not accomplish this goal. Moreover, the protective action the DSWG recommends is keyed to the actual OR/MR flows; if flows there are negative (i.e. southward), then it is not, as far as the DSWG knows, relevant to delta smelt protection what percentage of the southward flow is attributable to the spring/neap cycle and what to pumping.

The DSWG is also concerned that use of a longer averaging period would imply DSWG agreement that a larger degree of variation in day-to-day OR/MR flow, possibly including periods of several days where southward flow substantially exceeds the DSWG's recommended limit, would not reduce the degree of protection afforded by the action. In fact, the Working Group is of the opinion that such additional variation might very well reduce protection of delta smelt. The Working Group acknowledges that OR/MR flows do vary over time because of various natural causes. The group is therefore not concerned by small variations in the 5-day average OR/MR flows and is satisfied with the Projects' efforts to moderate OR/MR flows to date. Based on the above considerations and the protection of delta smelt provided by the current operations, the

Working Group recommends that DWR continues to use a five-day average flow when tracking OR/MR flows.

2. The WOMT also requested that the Working Group develop criteria for the opening of the Head-of-Old River barrier in the event young of the year delta smelt distribution shifts to the south Delta during VAMP. The Working Group discussed if the opening of the barrier would provide any additional protection to delta smelt given the conditions and operations expected during this years Vernalis Adaptive Management Program (VAMP). Recent PTM-runs by DWR suggests that with the expected combined water export of 1,500 cfs during VAMP, the barriers will have little effect on entrainment of larvae within the Sacramento River portion of the Delta or in the Central Delta (see March 27, 2007, notes). However, the delta smelt may benefit from opening of the barrier if larvae and juveniles are found in or by Franks Tract and OR/MR flows falls below negative 5,000.

Earlier PTM-runs showed that the barriers influence entrainment of particles injected at stations in the South Delta with the percent entrained particles dropping toward zero when the barriers are not installed. Thus, the Working Group would be concerned if adult delta smelt should suddenly move into and spawn in the San Joaquin River. The Working Group thinks, however, that this scenario is unlikely because adult delta smelt are expected to have moved to spawning sites and started to, or is ready to start, spawning.

The group will continue to monitor real-time data and may recommend opening of the Head-of-Old River barrier if the expected hydrology and delta smelt distribution should change. However, because of the projected hydrology during VAMP, time of year, estimated delta smelt distribution, and the observations of delta smelt spawning; the Working Group believes it is unlikely that conditions will be such that opening of the barrier during VAMP will provide additional protection to delta smelt larvae and juveniles. Therefore, the Working Group does not see any need for developing criteria for opening of the barriers during VAMP.

3. The Working Group discussed moderation of OR/MR flows for protection of delta smelt larvae and juveniles. Based on recent PTM-runs (see March 26, 2007, notes) and what is known about delta smelt distribution, the Working Group agreed that OR/MR flows above negative 5,000 cfs would reduce number of delta smelt drawn towards the pumps. To protect larvae and juveniles, the Working Group members therefore agreed to recommend that the water export facilities operate to keep OR/MR flows toward negative 3,500 cfs and not to reduce flows below negative 5,000 cfs.

Next meeting: Monday, April 9 at 3:00 pm via conference call.

Submitted,
PJ