

Delta Smelt Working Group Meeting/Conference Call Minutes

March 27, 2006

Participating: Gonzalo Castillo (USFWS), Mike Dege (CDFG), Lenny Grimaldo (CDWR), Tracy Hinojosa (CDWR), Ann Lubas-Williams (USBR), Matt Nobriga (CDWR), Jim White (CDFG) and Victoria Poage (USFWS, convener and scribe)

For Discussion:

1. Potential pre-VAMP action
2. Ongoing discussion of VAMP recommendation

Recommendation for WOMT:

The Working Group did not have a recommendation for WOMT for this week. The Working Group will continue to monitor for indications that spawning has begun.

Background:

Delta smelt have not been taken at the SWP since January 3, 2006. This is unexpected, as in most years the SWP takes more delta smelt than does the CVP. This suggests to some that delta smelt experience substantial but unknown pre-screen mortality at the SWP, prompting some to question the validity of salvage data as an indicator of SWP entrainment. Studies have been proposed to attempt to quantify the apparent disparity; the value of this work is unclear to some, since it is generally agreed among the Working Group that the indirect effects of the export projects, also as yet unquantified, may be more important overall than the direct effects of entrainment. Others believe that direct effects of exports may be substantial, but at particular times, and that more study is warranted; credible estimates of entrainment are needed before it can be said that its effects are understood. Others believe that a quantitative estimate of pre-screen loss will not contribute substantially to the precision of what is likely a very small survival estimate. Use of juvenile salmon as a surrogate for delta smelt in directed studies has been proposed. Historic salvage data across species, however, does not show a consistent pattern to indicate that pre-screen losses are higher at the SWP. Since no reliable data is available to quantify the meaning of salvage statistics, improved analysis of existing salvage data, combined with the ongoing South Delta studies, are at present the best options available. However, the potential value of further studies should not yet be ruled out.

The utility of conducting a supplemental Spring Kodiak Trawl the week of March 27 has also been discussed. The purpose of the supplemental surveys is to narrow the estimate of the timing of spawning, and to provide samples for histopathological analysis. However, overall numbers of pre-spawning adults appear to be very low, and the value of further sampling is questionable, given that previous surveys have indicated that mature fish are present in what are presumed to be appropriate spawning locations, and the sex ratio is skewed toward females, which is a general precursor to the onset of spawning. While some members of the Working Group would be more comfortable with more data, it was pointed out that the supplemental survey re-samples in areas where pre-spawning adults are already known to occur. Thus, although the supplemental survey is unlikely to significantly impact the population, neither would it provide new insight into distribution or abundance or the onset of spawning, as spawning is already

believed to be imminent. Further, larvae hatched into the Sacramento deepwater ship channel, Montezuma Slough/Suisun Bay or the Napa River would be very unlikely to be affected by Project operations. The utility of the supplemental survey in further informing the Working Group's discussion of a potential pre-VAMP action is limited at this time. The Working Group therefore agreed that that a supplemental SKT is not presently needed.

1. Cumulative salvage reached 324 adult delta smelt taken at the export facilities since December 1; however, no delta smelt have been taken by either Project since March 21. Flows remain good on the San Joaquin and the three-day export-to-inflow (E/I) ratio is less than 5%. The first survey of the 20-mm Survey was completed last week; no delta smelt larvae were collected. The second 20-mm Survey will be conducted next week. The supplemental Spring Kodiak Trawl, originally scheduled to begin today, will not be done (see background discussion). The next full spring Kodiak Trawl survey (survey 4) will begin on April 10. Delta water temperatures have warmed almost two degrees over the last week, but at about 11-12⁰C are still on the cooler end of the preferred spawning range. Cool weather is forecasted so a rapid water temperature rise is unlikely in the near term. It did not appear that a recommendation for a pre-VAMP action was warranted as of this meeting.

2. The Working Group agreed that since the latest round of particle tracking modeling (PTM), completed March 21, revealed very little difference in particle fates between 1500 cfs exports and 3000 cfs exports, they would not object to VAMP exports at either level, provided that San Joaquin River flows are 7000 cfs or greater.

Table 1. Summary of PTM runs showing exports/San Joaquin flow/days after injection; particles past Chippis Island. No HORB, ag barriers as/per USFWS 2001 biological opinion. Hydrology was updated between 31-day and 61-day runs using the most current forecast.

	815	902	910	VNS
D (1500/7000/31 days)	96.5	88.8	79.5	41.7
D2 (1500/7000/61 days)	99.5	99.3	97.0	66.8
H (3000/7000/31 days)	94.2	79.9	63.7	24.6
H2 (3000/7000/61 days)	99.2	96.9	91.4	47.2

The VAMP biology team has recommended that the VAMP start date be pushed back one week, from April 15 to April 22. The Working Group sees no inherent problem with this, as there has as yet been no indication that delta smelt spawning has begun (although it is considered imminent). If spawning is detected, the Working Group is unlikely to recommend a protective action with less than a two-week interval prior to implementation. However, if the weather remains cool and the spawning season extends later into the spring, problems could arise when baseline export pumping resumes following the end of the VAMP. Larvae that have avoided entrainment and had time to grow to a detectable size, if present in the south Delta, could be entrained in substantial numbers, leading to a pumping curtailment to minimize incidental take after the end of the VAMP period. However, all this is presently speculative, and the Working Group has no immediate objection to delaying the start of the VAMP.

Action Items:

1. Jim White will advise the Working Group of pertinent discussion points from this week's WOMT meeting.

Next Scheduled Conference Call: As needed; the regular Monday call time remains reserved.

Submitted,
VLP