

## Smelt Working Group Meeting Notes

February 19, 2008

Participating: Julio Adib-Samii (CDFG), Leigh Bartoo (FWS), Randy Baxter (CDFG), CVO Operations, Mike Chotkowski (USBR), Fred Feyrer (CDWR), Ann Lubas-Williams (USBR), SWR Operations, Jim White (CDFG), and Peter Johnsen (USFWS, convener and scribe)

### For Discussion:

1. Update on current conditions, survey data, and salvage
2. Wagner's Court Order – SWG's Charge
3. Develop request for PTM runs
4. Discuss potential recommendation

### Recommendation for WOMT: No recommendations.

1. Two Spring Kodiak Trawl (SKT) surveys have been completed so far; the last one was completed on February 7, 2008. Most adult delta smelt were sampled in the Cache Slough and Sacramento Deep Water Ship Channel area but two males were collected in the central delta during survey 2. Three smelt were sampled at the confluence of Sacramento River and San Joaquin River. None of the smelt collected in the surveys were mature (Stage V) or ripe (Stage VI).

SWP/CVP continues to entrain delta smelt. A 74 mm FL female with eggs in running condition and 0.8 to 0.9 mm diameter eggs was collected in the fish facilities on Sunday February 17, 2008. Its low weight (2.99 gram) relative to length combined with the seemingly mature eggs suggests that the female had spawned (i.e. spent) but this needs to be confirmed. A spent delta smelt male was also collected at one of the facilities on February 15, 2008. Further, a spent longfin smelt female has been collected at the fish collection facilities. The three-station average water temperature on February 18, 2008, was 11.3 degrees Celsius with water temperature at Antioch measuring 10.4°C, Rio Vista measuring 10.8°C, and at Mossdale 12.6°C.

### 2. Wagner's Court Order – SWG's Charge

Until the new biological opinion for the Operation Criteria and Plan (OCAP) is completed, the Water Projects must comply with the Interim Remedial Order Following Summary Judgment dated December 14, 2007 (Order). The Order requires that the U.S. Fish and Wildlife Service (Service), in consultation with the Bureau of Reclamation and the California Department of Water Resources, set a combined Old River and Middle River (OR/MR) seven-day average flow of 750 cfs to 5,000 cfs towards the pumps (negative flow) to protect delta smelt larvae and juveniles. The action will start at the onset of spawning with flows being set on a weekly basis based upon the best available scientific and commercial information concerning smelt distribution and status.

The Service has therefore requested that the Smelt Working Group provide recommendations for OR/MR flows protective of delta smelt larvae on a weekly basis. Based on this request, the Working Group has developed a process to evaluate OR/MR flow for protection of delta smelt larvae and a developed the form and timing for developing recommendations. In developing recommendations, the Working Group will use Particle Tracking Modeling (PTM) to determine the pumps' relevant hydrological influence at different OR/MR flows and to characterize the entrainment risk at the State and Federal Water Projects. The Working Group would therefore request that DWR perform PTM runs if necessary. The Working Group would then meet weekly on Mondays to evaluate available information and the PTM results to develop recommendations before the WOMT meeting on the following Tuesday.

The Working Group assumes that it was a spent female that was collected at the SWP/CVP facilities given the higher water temperatures and the earlier presence of a spent male. Further, based on delta smelt and Delta conditions it is likely that more spent females will be collected at the facilities in the near future. Therefore the Working Group will start the process of developing for the Service a recommendation on the OR/MR flow to provide protection of delta smelt larvae and juveniles under the current hydrological conditions. Since the protective measure shall be developed following a weekly decision schedule, the Working Group will provide the Service with a recommendation by Monday afternoon on Friday 25, 2008.

### 3. PTM Run Request

The Working Group will use PTM runs to estimate the pumps' influence on hydrology at relevant areas of the Delta at different OR/MR flows. This will be use together with what is known about distribution of delta smelt to estimate exposure and risk of entrainment at different OR/MR flows.

The Spring Kodiak Trawl (SKT) suggests that a majority of delta smelt spawning will occur in Sacramento River by Cache Slough and the Sacramento Deep Water Ship Channel (SDWSC). However, the second Spring Kodiak Trawl together with continuous salvage of delta smelt at the CVP and SWP fish collection facilities confirms that adult delta smelt have moved into the central and southern Delta. One delta smelt was collected in the South Fork Mokelumne River in areas where larvae has been commonly sampled in the 20-mm trawl in previous years. It should also be noted that during years of low abundance, the Spring Kodiak Trawl has failed in sampling adult delta smelt in the central and south Delta despite salvage at the water diversion facilities. The SKT is therefore not an efficient tool in determining either the proportion or abundance of delta smelt in the central and south delta. Since the SKT did sample delta smelt in the central delta and delta smelt have been salvaged at the water export facilities in the south Delta, the Working Group finds it likely that delta smelt larvae will be produced in the central/southern Delta during the spring of 2008.

Based on what we know about current delta smelt distribution, the Working Group finds that pumping rates that would influence the lower San Joaquin River hydrology would expose larvae to entrainment. We therefore request that DWR inject particle for the PTM runs at 20-mm survey stations (Figure 1) in the lower San Joaquin River. We also request that particles be

injected in the south delta and in Sacramento River downstream of SDWSC. The following 20-mm survey stations were identified as injection points:

Sacramento River d/stream of SDWSC	Station	711
Lower San Joaquin River	Stations	809, 812, 815
South Delta	Stations	902, 915

DWR staff told the group that model run results should be ready by Friday afternoon.

#### 4. Recommendation for WOMT February 19, 2008

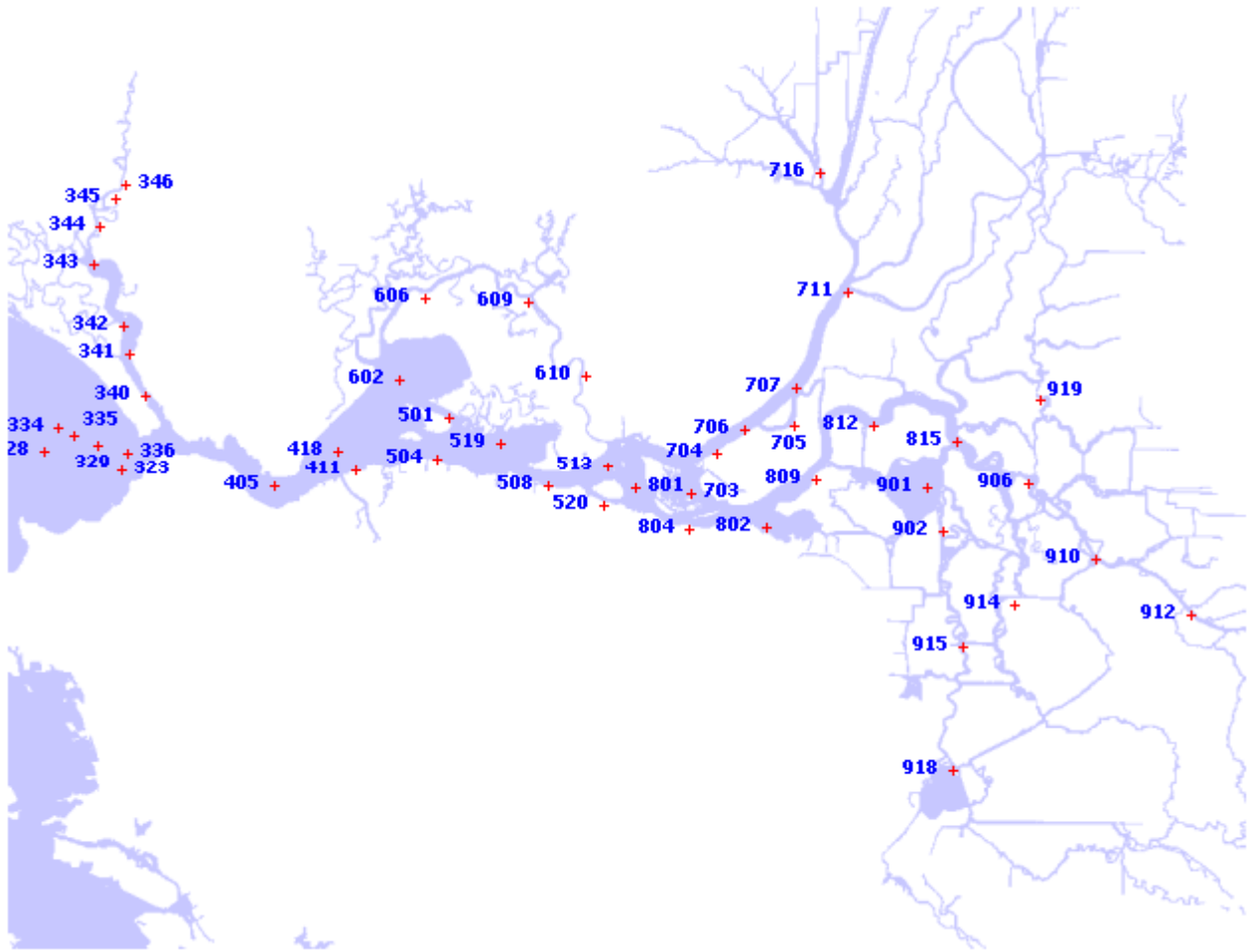
Based on current information available, the Working Group discussed a possible interim recommendation for the WOMT February 19, 2008, meeting to maintain an OR/MR flow between negative (i.e. flow towards the pumps) 2,000 and 3,500 cfs. However, the Working Group refrained from providing a recommendation at this time since we are in the process of evaluating the information currently available and waiting for results of PTM runs. We will provide a recommendation on OR/MR flows once the PTM runs using current Delta hydrology are completed.

Next scheduled meeting: Thursday February 21, 2008, at 8:00 am.

Submitted,

PBJ

**Figure 1.** 20-mm survey sampling stations.



Source: <http://www.delta.dfg.ca.gov/data/20mm/stations.asp>