



# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

Pacific Southwest Region  
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In reply refer to:

January 14, 2016

Subject: Determination Under Component 1 of the 2008 OCAP Biological Opinion

The Service has received the Smelt Working Group recommendation from January 11. The Service has reviewed this recommendation, and for the reasons discussed below, has determined implementation of the recommendation is not warranted at this time. However, the Service concurs with the Smelt Working Group that Delta Smelt are vulnerable during their migration period and that more positive Old and Middle River flows at this time would reduce the risk of Delta Smelt being entrained in the Central and South Delta.

The Smelt Working Group recommended the implementation of Action 1 of the Reasonable and Prudent Alternative (RPA) is warranted and that Old and Middle River (OMR) flows should be no more negative than -2000cfs. The Working Group recognized that the triggers for Action 1 in the 2008 Biological Opinion (BiOp) had not been reached, but that in light of record low Delta Smelt abundance, and using data sources not available when the BiOp was drafted (Service's Early Warning Survey (EWS) trawls, Department of Water Resources turbidity transects), that Delta Smelt were moving up the San Joaquin River while turbid water was moving down Old River elevating their risk of entrainment in a manner the group considered consistent with the conditions that Action 1 is intended to minimize.

The Service agrees that the triggers for Action 1 of turbidity and salvage in the 2008 Biological Opinion have not been met, and further agrees that salvage may not be an accurate indicator of entrainment risk given the low population of Delta Smelt. However, the Service is concerned with reliance on the January 8, 2016 turbidity transect information used by the Smelt Working Group. The substantial dispersal of turbid water into Old River displayed in the January 8 turbidity transect may have been influenced by tides. Equivalent transects from January 11 (not available at the time of the Working Group's meeting) suggested much less dispersal of turbidity into Old River. Further, the January 8 transect was not consistent with the conditions that would be expected based on the CDEC data along the transect. Based on our review of real time information, the Service has determined Action 1 does not need to be implemented at this time.

The Service agrees with the Smelt Working Group that Delta Smelt have recently moved up the San Joaquin River and that those individuals face an elevated risk of entrainment. In light of the level of concern for adult Delta Smelt, the Service believes that we have moved into Action 2 of Component 1 of the 2008 Biological Opinion and that conditions warrant an increased level of protection.

Storms and associated increases in turbidity were observed during the weeks of December 28,

2015 and January 4, 2016. As we have observed during the previous two seasons of EWS, Delta Smelt catches increased in association with the increased inflows and turbidity; Delta Smelt are now occupying the San Joaquin River to at least Prisoner's Point. Based on current conditions, Delta Smelt at Prisoner's Point are at an increased risk of entrainment when flows in Old and Middle River are more negative than -3500 cfs. Given the historic low indices for Delta Smelt in 2015, the Service believes that low adult abundance will translate into low numbers of offspring in 2016. This elevates the Service's concern for adult Delta Smelt that are currently moving in preparation for spawning.

The Smelt Working Group highlighted concerns about turbidity and we share those concerns. The Spring Kodiak Trawl sampling report turbidities of about 20 NTU at Jersey Point and Prisoner's Point on January 11, and CDEC shows average 3-day turbidity at or near 12 NTU for gages at Prisoner's Point and Holland Cut. The Department of Water Resources began the boat transect turbidity survey on December 28. Turbidity has been monitored multiple times a week since then. Turbid water was observed to disperse well into Old River during the January 8 survey; prior and subsequent turbidity transects have not found as much dispersal of turbid water into Old River, but still show turbidity levels at or above 12 NTU extending well into Old River. The Service agrees with the Working Group's observation that some Delta Smelt likely are already in Old River and have been entrained into the Old River with the dispersing turbidity.

Additional data and discussion regarding these conditions is in the Smelt Working Group notes from January 11, 2016.

### **OMR Flow Proposal**

Reclamation and DWR propose to reduce exports consistent with an OMR index value of -3500 cfs beginning the morning of Friday, January 15. This will ensure more positive OMR values during the peak of flow and turbidity from this week's storm. The Service believes that in light of the risk to Delta Smelt, the OMR flow proposal from Reclamation and DWR is prudent. Reclamation and DWR report that they will reassess conditions and weather forecasts again on Tuesday, January 19, and that they will be available to meet over the holiday weekend to confer about real time conditions and if warranted, to reassess and adjust operations. We greatly appreciate the collaborative efforts of the agencies to reduce risk to Delta Smelt during this ecologically sensitive time and will also be available to confer over the weekend if needed.

The Service remains prepared to make a further determination under Action 2 of the BiOp if necessary. We will continue to seek recommendations from the Smelt Working Group and monitor conditions, including turbidity, results of the EWS (particularly at Prisoner's Point) and the Department of Fish and Wildlife's Spring Kodiak Trawl, Sacramento River flow levels and other Delta inflows, and salvage.