



United States Department of the Interior

BUREAU OF RECLAMATION
Washington, DC 20240

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JAN 09 2015

MEMORANDUM

To: Regional Director
Pacific Southwest Region
U.S. Fish and Wildlife Service

From: David G. Murillo
Regional Director

Subject: Reinitiation of Endangered Species Act Consultation on the Coordinated Long-term
Operation of the Central Valley Project (CVP) and State Water Project (SWP) to
Address Estimated Adult Delta Smelt Take for 2015 Operations

By this memorandum, the Bureau of Reclamation is requesting reinitiation of Section 7 consultation on the estimated adult Delta Smelt incidental take authorization in the 2008 Biological Opinion (BO) regarding the effects of the coordinated long-term operation of the CVP and SWP on Delta Smelt. Endangered Species Act regulations require action agencies to reinitiate consultation when the estimate of incidental take included in the take statement is exceeded. While incidental take for Delta Smelt has not yet been exceeded, the concern level has nearly been reached.

As California manages through the winter after a third consecutive dry year, economic and environmental challenges for our State are mounting. Since December 2013, state and federal agencies that supply water, regulate water quality, and protect fish and wildlife have worked together to cope with persistent drought. On January 17, 2014, the Governor issued a drought State of Emergency proclamation. As we prepare for the worst and assume that current dry conditions will continue, state and federal agencies are planning to manage the CVP and SWP through a fourth year of drought. Given the continued drought conditions, limited surface supplies, lowered groundwater levels south of the Delta, and uncertainty about hydrology over the remainder of the adult Delta Smelt season, it is imperative that CVP and SWP pumping continue so that adequate water is moved into storage to meet health and safety needs this coming year.

Reclamation and the project applicant, the California Department of Water Resources, have managed operations for water year 2015 in light of the continued drought conditions and in an effort to protect adult Delta Smelt by avoiding drawing turbid water from the Sacramento River

into the south Delta. The hydrologic conditions in December 2014 combined with January 2015 wind-driven increases in turbidity in the central and south Delta has resulted in conditions for the early onset of take of adult Delta Smelt, as well as conditions that could result in an occurrence of migration into the south Delta. This migration could create the possibility of exceeding the take level as currently calculated in the BO.

As of today, the expanded take of adult Delta Smelt has reached 56. As prescribed in the BO, the concern level for take of Delta Smelt is 75 percent of the annual Incidental Take Limit (ITL). For 2014, using the current BO calculation method the overall ITL is 78, based on a fall mid-water trawl index of nine. The corresponding 75 percent concern level is 58. Since take is very near the concern level, Reclamation requests reinitiation on the estimated adult Delta Smelt incidental take authorization.

Per our request to you on November 21, 2014, Reclamation requests a recalculation of the ITL for Delta Smelt for water year 2015 using a new Cumulative Salvage Index (CSI) calculation. Reclamation has concluded that the 3 years used in the BO to generate the CSI calculation do not adequately capture high entrainment risk conditions and, more specifically, do not represent variability in salvage observed during first-flush conditions in which Delta Smelt movement following the first storms of the season often results in high salvage events.¹ First-flush conditions are characterized as periods following the first rainfall that measurably increases Delta outflow (~25,000 to 75,000 cfs) and elevates turbidities throughout the Delta. During and after first-flush events, Delta Smelt move upstream and are broadly distributed. Years with first-flush conditions typically present high entrainment risk and are years when the Reasonable and Prudent Alternative (RPA) conditions for adult Delta Smelt would be triggered and remain in effect for the duration of RPA actions. At the time when the original CSI calculation in the BO was generated, data representing first-flush years were not available. However first-flush years have subsequently occurred, but have not yet been incorporated into the CSI calculation. Thus, not including the CSIs from these years for inclusion in the Incidental Take Statement (ITS) could underestimate take expected in these year types, even if the RPA is implemented at more conservative targets (i.e., OMR more positive than -5000 cfs). The new CSI calculation follows RPA guidelines described in the BO and captures a greater range of environmental variability and represents a more robust statistical approach.

It is anticipated that accepting Reclamation's new CSI calculation will have no additional adverse effects on Delta Smelt or its critical habitat that were not previously analyzed in the BO because it does not affect how the RPA actions are implemented. The proposed update will not affect Reclamation's ability to meet the RPA actions or coordination processes included in the BO specific to Delta Smelt.

¹ Grimaldo, L. F., and coauthors. 2009. Factors affecting fish entrainment into massive water diversions in a tidal freshwater estuary: can fish losses be managed? *North American Journal of Fisheries Management* 29(5):1253-1270.

Additionally, Reclamation does not believe that this possible exceedance of the estimated level of take for the remainder of the adult Delta Smelt season should constitute a detrimental effect to the population or critical habitat because Early Warning Survey results have shown higher numbers of Delta Smelt consistently at Jersey Point than at Prisoner's Point. The December Spring Kodiak survey also showed the majority of Delta Smelt distributed in the western and northern Delta. This information supports the conclusion that most of the population is not in the south Delta. Survey results have also shown a declining trend in catch at Prisoner's Point since January 2, 2015, and generally appear to support a strong association of Delta Smelt with turbidity during pre-spawning migrations. However, the threshold of 12 NTU that is used as an indicator should not be considered to be a strongly predictive threshold because Delta Smelt are encountered at lower turbidities, which is why the Smelt Working Group uses a threshold of 10 NTU as a target for presence. Once Delta Smelt are detected, they may continue to be present at lower turbidities for some time before redistributing to higher turbid water, such as littoral habitat, or succumbing to predation in clear water. Delta Smelt are therefore expected to eventually avoid areas of clearing water in the south Delta².

Lastly Reclamation does not believe that it will irretrievably or irreversibly commit any resources which would foreclose the development or implementation of any RPA action during this reinitiated consultation.

Thank you for your time and attention to this important matter. My staff will be available to meet with your staff to continue discussions on how to proceed through the reinitiated consultation.

Sommer, T., and F. Mejia. 2013. A Place to Call Home: A Synthesis of Delta Smelt Habitat in the Upper San Francisco Estuary. *San Francisco Estuary and Watershed Science* 11(2)²