



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Pacific Southwest Region
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IN REPLY REFER TO:
FWS/R&RD

January 10, 2017

Memorandum

To: Regional Director, Bureau of Reclamation, Mid-Pacific Region
Sacramento, California

From: Regional Director, Fish and Wildlife Service, Pacific Southwest Region
Sacramento, California

SUBJECT: Update on the Incidental Take Statement for the 2008 Formal Endangered Species Act Consultation on Coordinated Long-term Operation of the Central Valley Project and State Water Project and Conveyance of a Revised Incidental Take of 64 Adult Delta Smelt for the 2017 Water Year

With this memorandum the U.S. Fish and Wildlife Service (Service) provides to the Bureau of Reclamation (Reclamation), an amended adult delta smelt incidental take statement for the Service's 2008 Biological Opinion (2008 BiOp) for the Coordinated Long-term Operation of the Central Valley Project and State Water Project (Service File No. 81420-2008-F-1481-5).

In the 2008 BiOp, the Service calculated expected salvage levels due to project operations under the Reasonable and Prudent Alternative (RPA), using historic salvage information from years when similar water operations were in effect (2006 to 2008; see page 386 of the 2008 BiOp). We calculated a Cumulative Salvage Index (CSI) for each of the three years by dividing observed salvage by the previous fall midwater trawl index (FMWT). We then calculated an average CSI for the years 2006 through 2008. Estimated salvage was expected to vary as a function of the delta smelt population size, therefore, take is calculated using a multiplier of the average CSI * FMWT for each water year.

In the January 9, 2015, memorandum to Reclamation, the Service accepted Reclamation's alternative incidental take calculation method with the modification provided by the Independent Review Panel for the 2014 Long-term Operation Biological Opinions (LOBO) Annual Science Review as a viable interim approach to addressing incidental take estimation to the method set forth in the 2008 BiOp. Subsequently, the Service corrected the initial 2015 approach by reducing the data set to only years that included Old and Middle River flow values less negative or equal to -5000 cfs during the relevant months. This correction was necessary because the calculated incidental take should estimate the amount of take anticipated from project operations analyzed in the 2008 Biological Opinion. The corrected CSI variable is 7.98. Using the data for this water year (the 2016 FMWT index is 8) the adult delta smelt anticipated incidental take for WY 2017 is 64 ($7.98 * 8 = 64$) delta smelt.

Thank you for your continued leadership in protecting the Bay Delta Ecosystem. If you have any questions, please do not hesitate to call.