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Synthesis of Studies in Fall Low Salinity Habitat of the San Francisco Estuary

Abstract: In Fall 2011, a number of studies were implemented by the Bureau of Reclamation (Reclamation) in cooperation with the Interagency Ecological Program to explore hypotheses about the importance of low salinity habitat (LSH) and its distribution to the ecology of the Sacramento-San Joaquin Delta (Delta), and specifically the biology of delta smelt *Hypomesus transpacificus*. These studies and other activities were motivated by a Biological Opinion on Central Valley Project and State Water Project operations issued by the U.S. Fish and Wildlife Service in 2008. The results of the studies are intended to inform an adaptive management plan undertaken by Reclamation for management of Fall LSH. Adaptive management includes 6 basic steps: 1) assess the problem; 2) design management actions; 3) implement management actions; 4) monitor the outcomes of management actions; 5) evaluate the results of monitoring; and 6) adjust the adaptive management plan based on the evaluation of outcomes. The purpose of the synthesis report is to integrate the results from the Fall 2011 studies and provide an assessment of whether the data collected support predictions based on the conceptual model developed to guide the adaptive management plan. The report will be reviewed by an independent science panel convened by the Delta Science Program in early June 2012. A final report is expected by late September 2012 with public release by the end of calendar year 2012. The results of the synthesis will contribute to the revision of the conceptual model used to guide the adaptive management plan and identify studies to continue or initiate in future years.

Statement of Relevance: The report described in this talk will provide an integrated assessment of data that is critical for management of delta smelt in the San Francisco Estuary. The report will provide the basis for modifications to the conceptual model currently guiding the adaptive management plan for Fall low salinity habitat.