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Sent: Wednesday, June 29, 2016 11:09 AM

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Subject: RE: Final 2016 Sacramento River Temperature Management Plan

Ron, find below DFW's concurrence with the SRTMP.

The Department of Fish and Wildlife (DFW) has reviewed the Bureau of Reclamation's Final Sacramento River Temperature Management Plan (SRTMP) per Reasonable and Prudent Alternative (RPA) I.2.4. of the National Marine Fisheries Service 2009 *Biological Opinion and Conference Opinion on the Long-term Operations of the Central Valley Project and the State Water Project* for marine species including winter-run Chinook salmon (NMFS BiOp), as well as State Water Resources Control Board (SWRCB) Order 90-5. DFW has also reviewed Reclamation's request for concurrence on the plan to the NMFS transmitted on June 27, 2016 and NMFS' response dated June 28, 2016 concurring on the SRTMP is consistent with RPA I.2.4. of the NMFS BiOp. In addition, DFW staff has participated with NMFS and Reclamation in the development of the plan and will continue to monitor and provide input to its implementation based on Reclamations commitments in the SRTMP as part of the Shasta Water Interagency Management (SWIM) Team.

Under the SRTMP Reclamation will operate to a temperature compliance point and metric not to exceed 56.0° Fahrenheit (F) daily average temperature (DAT) at Balls Ferry. To achieve compliance at this location, an average release temperature of 52.5° F is planned from Keswick Dam. Average flow by month will be 9,000 cfs in June, 10,500 cfs in July, 10,000 cfs in August, 9,000 cfs in September and 6,500 cfs in October. These flows will be subject to adjustment to assure temperature compliance and to assure winter-run redd dewatering is minimized through real-time management by the SWIM Team based on actual conditions and cold water pool volume. Reclamation will provide the SWIM Team with weekly updates as described in the SRTMP to assure that decision making is based on timely information regarding temperature compliance, cold water volume and updated temperature modeling.

Reclamation will also monitor temperature conditions in the Sacramento River at the SAC and CCR gage locations to track that the 7-Day Average of the Daily Maximum water temperature of 55.0° F is being achieved through the winter-run spawning reach as, determined by weekly redd surveys. In the event of a temperature exceedance of 56.0° F DAT at Balls Ferry, Reclamation shall immediately operate to a water temperature not to exceed a daily maximum of 55.0° F at the downstream-most winter-run redd identified.

The July release schedule includes at a minimum, water diverted through the Glenn Colusa Irrigation District system to support Delta Smelt actions in the Yolo Bypass to enhance foodweb support in the Cache Slough area and an increased Delta Outflow Index for July to benefit Delta Smelt.

The SWIM Team will also coordinate flow reductions in September and October to minimize potential dewatering of winter-run redds. Additionally flow reductions will be managed during November, December and January to maintain spawning and rearing conditions and minimizing redd dewatering for fall-run salmon.

Based on our review of the SRTMP and its associated biological analysis and the NMFS concurrence and the fact that the SWIM Team will be able to make management decisions in real time to conserve cold water to delay full side-gate operations of the Temperature Control Device until October 9, DFW concurs with the proposed plan.

The Department is committed to working collaboratively through SWIM Team to assure the commitments of the plan are successfully implemented to achieve the temperature compliance objective. If you have questions, please contact me at (707) 738-4134 or by email at carl.wilcox@wildlife.ca.gov.

Carl Wilcox
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