

State Water Resources Control Board

July 8, 2016

Mr. Ron Milligan
U.S. Bureau of Reclamation
2800 Cottage Way
Sacramento, CA 95825

Dear Mr. Milligan:

SACRAMENTO RIVER TEMPERATURE MANAGEMENT PLAN

This letter responds to your July 5, 2016 submittal of the U.S. Bureau of Reclamation's (Reclamation) June 27, 2016 final Sacramento River Temperature Management Plan (2016 Plan). The 2016 Plan was submitted after several weeks of analysis and discussion between Reclamation, the National Marine Fisheries Service (NMFS), the Department of Fish and Wildlife (DFW) and State Water Board staff. The 2016 Plan was also discussed with the Sacramento River Temperature Task Group (SRTTG) and various stakeholders.

Reclamation submitted the 2016 Plan to the State Water Board pursuant to the requirements of State Water Board Order WR 90-5. Order WR 90-5 requires Reclamation to meet a daily average water temperature (DAT) of 56 degrees Fahrenheit (F) at Red Bluff Diversion Dam on the Sacramento River during periods when higher temperatures will be detrimental to the fishery. When uncontrollable factors preclude Reclamation from meeting the temperature requirement (as is the case this year), Reclamation must designate an alternative compliance location after consultation with DFW, NMFS, and the U.S. Western Area Power Administration (a member of the SRTTG) and submit an operations plan to the State Water Board. To avoid the significant mortality to winter-run Chinook salmon and other Sacramento and Trinity River salmonids from operations during the drought years of 2014 and 2015, Order 2015-0043¹ required Reclamation to prepare a management plan for the Sacramento River for 2016 that ensures that Central Valley Project operations will not result in red dewatering, stranding, or temperature impacts to winter-run Chinook salmon or indirect impacts to other salmonids in the Sacramento or Trinity River basins.

On June 27, 2016, Reclamation submitted its final 2016 Plan to NMFS and DFW. On June 28, 2016, NMFS submitted a concurrence letter to Reclamation indicating that the final 2016 Plan is consistent with the requirements of NMFS' 2009 Biological Opinion for the Coordinated Long-Term Operation of the Central Valley Project and State Water Project with

¹ In Order WR 2015-0043, the State Water Board denied in part and granted in part petitions for reconsideration of and addressed objections to a series of orders issued in 2015 that took action on a petition to make temporary, urgency changes to the water rights for the State Water Project and the Central Valley Project in response to ongoing drought conditions.

specific expectations regarding monitoring and real-time operations. DFW submitted a similar concurrence determination on June 29, 2016. The State Water Board held an informational item on this matter at its July 6, 2016 Board meeting, and did not hear significant concerns with the proposed plan.

I have determined that the 2016 Plan, including the monitoring and real-time operations components of the plan identified below, complies with the requirements of Order WR 90-5. Accordingly, the plan is approved, and Reclamation shall implement the plan, provided that Reclamation coordinates with the designated representative of the State Water Board as well as the fishery agencies concerning implementation of all elements of the plan.

- Reclamation shall monitor temperature profiles at Shasta Reservoir on a weekly basis and distribute all associated data and model run results to designated representatives of the State Water Board, DFW, NMFS, the U.S. Fish and Wildlife Service and the Department of Water Resources (members of the Shasta Water Interagency Management Team (SWIM)) as soon as possible and prior to the weekly SWIM team meetings. The SWIM team shall confirm that all metrics (*e.g.* full side gate access on or after October 9, 2016, volume of Shasta Reservoir water of less than 49 degrees F greater than 95 percent of modeled volume, 56.0 degree F DAT at Balls Ferry, no winter-run Chinook salmon redd dewatering, *etc.*) can still be met through the remainder of the temperature control season.
- The timing for reductions in flows in September and October shall be scheduled in coordination with DFW, NMFS and the State Water Board to reduce risk of winter-run Chinook salmon redd dewatering.
- In the event of a temperature exceedance of 56.0 degree F DAT at Balls Ferry, Reclamation shall immediately operate to a water temperature not to exceed a daily maximum of 55.0 degrees F at the downstream-most winter-run Chinook salmon redd identified.
- If the volume of Shasta Reservoir water less than 49 degrees F is less than 95 percent of the modeled volume from Reclamation's June 7 Sacramento River temperature model run, Reclamation shall reduce Keswick Dam releases by 1,000 cubic-feet per second (cfs). If, after a week, the volume of Shasta Reservoir water less than 49 degrees F is less than 100 percent of the June 7 projection, Reclamation shall immediately reduce Keswick Dam releases by another 1,000 cfs (but not to a release less than 8,000 cfs) and Reclamation shall immediately call a special SWIM agency Directors-level meeting to assess whether the variation in overall cold water pool is significant enough to require a reformulation of the 2016 Plan.
- If overall conditions are better than forecasted (*e.g.*, greater than anticipated cold water volume), the 2016 Plan may be revised through the SWIM team process with the goal to create a modified temperature compliance metric and location of the 55.0 degree F 7-day average daily maximum (7 DADM) through the winter-run spawning area.

This approval is also conditioned on the requirement that Reclamation notify the State Water Board immediately if conditions related to Sacramento River operations or winter-run Chinook salmon protection change substantially this year. Consistent with Order WR 90-5, I may require changes to the 2016 Plan if warranted based on changed conditions, new information, or upon

the request of the fishery agencies. The provisions of Order WR 90-5 remain in effect and contain further requirements not addressed above. State Water Board staff looks forward to continuing to work with Reclamation, other agencies and stakeholders to ensure the protection of winter-run Chinook salmon and other species this year and into the future.

If you have any questions, please contact Diane Riddle at diane.riddle@waterboards.ca.gov or (916) 341-5927. Written correspondence should be addressed as follows: State Water Resources Control Board, Division of Water Rights, Attn: Diane Riddle, P.O. Box 2000, Sacramento, CA 95812-2000.

Sincerely,



Thomas Howard
Executive Director

cc: Shasta Water Interagency Management Team
Sacramento River Temperature Task Group