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## State Water Resources Control Board

APR 10 2018

Mr. Jeff Rieker,  
Operations Manager, Central Valley Project  
U.S. Bureau of Reclamation  
3310 El Camino Avenue, Suite 300  
Sacramento, CA 95828  
[jriecker@usbr.gov](mailto:jriecker@usbr.gov)

### ORDER 90-5 SACRAMENTO RIVER TEMPERATURE MANAGEMENT

Dear Mr. Rieker:

This letter responds to your letter dated April 2, 2018, responding to my March 14, 2018 letter directing the U.S. Bureau of Reclamation (Reclamation) to submit an initial Sacramento River temperature management plan (TMP) by April 2, 2018. The TMP is required to identify Reclamation's proposed strategy for ensuring that temperature and related impacts to winter-run Chinook salmon do not occur this year while also avoiding impacts to other native species, including spring-run and fall-run Chinook salmon.

Because operations early in the season are important for temperature control throughout the season, I requested an initial TMP that identifies the strategy that Reclamation will use to ensure that it is operating early in the season and planning appropriately to ensure temperature control throughout the season. Because of significant changes in hydrology in March, Reclamation's April 2 submittal had very limited details. Accordingly, significant additional work is needed in the next several weeks to develop an acceptable TMP for early season operations and to ensure adequate planning for the remainder of the season. In your letter you indicate that Reclamation plans to use the Sacramento River Temperature Task Group (SRTTG) as the primary forum for developing that information. You indicate that you are planning a technical meeting to discuss overall Central Valley Project operations on April 19 and that you plan to have an initial TMP the week of April 23 based on the updated April hydrologic forecast to accommodate SRTTG and stakeholder input.

In order to provide for productive discussions about Reclamation's initial TMP, as stated in my March 14 letter, Reclamation must evaluate a range of operational scenarios for temperature control developed in coordination with the State Water Resources Control Board (State Water Board) and fisheries agencies. The State Water Board recognizes that the scenarios may not reflect Reclamation's proposed operations. Instead, evaluation of these scenarios is intended to identify possible options and their tradeoffs to inform the State Water Board's consideration of the TMP.

Reclamation shall specifically evaluate different water supply delivery assumptions to provide for improved cold water pool maintenance, including evaluation of lower releases from Shasta Reservoir during the spring and summer that meter out the cold water pool resources in order to

provide for temperature control throughout the temperature control season. Specifically, scenarios should be evaluated that result in delayed side gate operations until October 9 (per Action 1.2.3.A of the National Marine Fisheries Service Reasonable and Prudent Alternative amendment) and provide for temperature control through that period that achieve a 55.5 degree Fahrenheit (F) daily average temperature (DAT) at Balls Ferry (to ensure that slight excursions won't exceed 56.0 F DAT), a 53 DAT at the Clear Creek gaging station, or a 55 degree F seven day average daily maximum temperature at Clear Creek. Those scenarios should also include operational assumptions, including base flow levels, that avoid winter-run and fall-run redd dewatering and stranding concerns and redirected impacts to other species (e.g. flows no greater than 11,000 cubic-feet per second (cfs) in the summer ramping down no lower than 6,500 cfs through the end of October). The scenarios must include full systemwide operational forecasts and temperature modeling results for a range of hydrologic and meteorological conditions through the end of October that can be readily compared identifying the dates for partial and full side gate use. The temperature modeling analyses should also address discrepancies between Reclamation's HEC-5Q and NMFS's CE-QUAL-W2 temperature models. To ensure that the State Water Board and fisheries agencies fully understand the scenarios and their tradeoffs, Reclamation must include a clear description of the assumptions for each operational scenario and the bases for those assumptions. The systemwide operations scenarios that will be evaluated should be available for discussion at the April 19 meeting so that Reclamation can address any questions the State Water Board and fisheries agencies have.

The initial TMP that identifies Reclamation's proposed operations and a detailed description of and modeling results for the scenarios above must be submitted to the SRTTG by April 24 unless I provide for an extension of this timeframe for good cause. A SRTTG meeting should be scheduled one to two days following submittal of the initial TMP to discuss and refine the TMP. Reclamation shall furnish such additional information and analyses that may be needed for that refinement as soon as possible. Given potential concerns with temperature management this year and the degraded status of the winter-run Chinook salmon population following the drought, Reclamation should be aware that operational changes may be needed beyond those proposed by Reclamation in their TMP to minimize impacts to winter-run Chinook salmon and avoid redirected impacts to other native species. Reclamation should acknowledge those needs in its TMP and provide for a process for continually evaluating conditions and operations to ensure that needed adjustments to temperature control operations are considered in a timely manner.

The State Water Board appreciates your cooperation on these matters and looks forward to working with you further to ensure compliance with Order 90-5. If you have any questions regarding this letter, please contact Diane Riddle at [diane.riddle@waterboards.ca.gov](mailto:diane.riddle@waterboards.ca.gov) or (916) 341-5297.

Sincerely,

ORIGINAL SIGNED BY:

Erik Ekdahl,  
Deputy Director  
Division of Water Rights