



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

MAY 14 2015

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

Dear Mr. Milligan:

SACRAMENTO RIVER TEMPERATURE MODELING AND SUMMARY OF OPERATIONS FOR 2015 TO PROTECT FISH AND WILDLIFE

This letter is in regard to your April/May 2015 Sacramento River temperature model run and estimate of Central Valley Project planned operations for 2015. This information was submitted pursuant to State Water Resources Control Board (State Water Board) Order WR 90-5 and condition 6 of the Order I issued on April 6, 2015, acting on a Temporary Urgency Change Petition (TUCP) submitted by the U.S. Bureau of Reclamation (Reclamation) and the Department of Water Resources (DWR). Condition 6 of the Order required Reclamation to submit a Sacramento River Temperature Management Plan to the Sacramento River Temperature Task Group (SRTTG) and me during April. The plan must provide reasonable protection to winter-run Chinook salmon for the remainder of the water year. Reclamation is required to implement the plan with any changes I require.

The purpose of the early Sacramento River temperature planning is to avoid the high Sacramento River temperatures this summer and fall that occurred last year. Despite modeling that indicated that temperatures could be maintained at or below 56 degrees Fahrenheit at the Clear Creek temperature compliance point throughout the temperature control season last year, beginning in September the temperature target at Clear Creek was not achieved, resulting in high rates of mortality to juvenile winter-run chinook salmon. Based on information included in the report entitled *Sacramento River Temperature Task Group Annual Report of Activities, October 1, 2013 through September 30, 2014*, water temperatures in the Sacramento River were tracking about 4 degrees Fahrenheit higher than modeled temperatures during the late summer and fall last year. Reclamation attributed this circumstance to the inability to access cold water out of the side gates of the Temperature Control Device (TCD) as expected under the temperature modeling.

On April 14 and 15, 2015, you submitted a proposed Sacramento River operations plan and temperature modeling output for that plan. You provided updated operations information on May 4, 2015. I met with you, other representatives from Reclamation, representatives from the National Marine Fisheries Service, Department of Fish and Wildlife, U.S. Fish and Wildlife Service (collectively fisheries agencies) and other interests on April 15, 2015, to discuss the April 14/15 temperature modeling and associated planned operations.

FELICIA MARCUS, CHAIR | THOMAS HOWARD, EXECUTIVE DIRECTOR

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The temperature modeling information that Reclamation provided indicates that temperatures of 56 degrees Fahrenheit can be maintained throughout the temperature control season at the proposed Clear Creek compliance location with the proposed operations. The information also indicates that the TCD side gate operations would not begin until October 10, several weeks later than last year. Based on that information, and in order to allow for planting and other planning decisions to be made, I and the fisheries agencies indicated that the proposed operations would be acceptable. Reclamation indicated that it would include the proposed operations along with updated information received during the month of May, in a final Temperature Management Plan for the Sacramento River for water year 2015 by June 1, 2015.

While end of September storage levels under the April 14/15 operations scenario submitted by Reclamation are nearly identical to end of September storage levels last year, Reclamation indicated that water year 2015 began with a higher volume of cold water this year as compared to last year and therefore Reclamation expects temperature control in the river to be more manageable than last year.

I understand that Reclamation is currently releasing the warmest water in storage, and is targeting higher river temperatures early in the season, in order to save cold water for later. In the final temperature management plan, please describe the technical basis for the finding that there is more cold water this year than last using the latest inflow projections, temperatures profiles and other information. Please include all of the updated information in the final plan and submit to me and the SRTTG by June 1, 2015. As necessary, this final plan is required to be updated to ensure temperature compliance throughout the temperature control season.

In the interim, this letter indicates my provisional approval of the temperature operations plan you submitted on April 14/15 as updated on May 4. This approval is conditioned upon Reclamation operating Shasta Reservoir to achieve temperatures of 56 degrees Fahrenheit at the Clear Creek compliance location throughout the temperature control season. Specifically operations conforming with the following parameters outlined in the plan shall be maintained:

- minimum end of month Shasta storage levels in TAF from May through September as follows:
 - May- 2,352
 - June- 2,050
 - July- 1,688
 - August- 1,368
 - September- 1,161
- maximum monthly Keswick releases in cubic-feet per second from May through June as follows:
 - May- 7,500 (average flows)
 - June- 8,500 (average flows)
 - July- 9,000 (maximum flows)
 - August- 8,500 (average flows)
 - September- 6,500 (average flows)
- Flows should also be provided in a manner that avoids stranding and dewatering impacts.

Pursuant to condition 6(c) of the April 6 TUCP Order, Reclamation is required to implement the above referenced plan as a requirement of the TUCP Order, as well as Order WR 90-5, unless

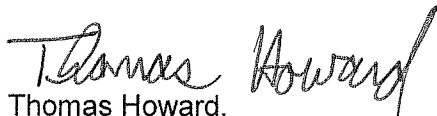
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this approval is modified. If there are any indications that the above plan will not achieve temperature compliance throughout the temperature control season or the plan cannot be met, please notify me immediately. The State Water Board is available to provide any assistance that may be needed to reach our mutual goal of reasonable protection for fish and wildlife while delivering water during this drought.

If you have any questions or would like to discuss this matter further, please contact Diane Riddle at diane.riddle@waterboards.ca.gov or (916) 341-5297.

Sincerely,

A handwritten signature in cursive script that reads "Thomas Howard". The signature is written in black ink and is positioned above the printed name and title.

Thomas Howard,
Executive Director