

United States Department of the Interior

BUREAU OF RECLAMATION Mid-Pacific Regional Office 2800 Cottage Way Sacramento, CA 95825-1898

APR 1 6 2018

VIA ELECTRONIC MAIL ONLY

Mr. Erik Ekdahl
Deputy Director
Division of Water Rights
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

Re: Monitoring and Reporting Plan Requested in Your Letter of March 14, 2018

Dear Mr. Ekdahl:

Per your letter of March 14, 2018, the State Water Resources Control Board (SWRCB) has requested a plan "identifying how Reclamation will ensure accurate, consistent, transparent, and timely monitoring and reporting of: 1) the Shasta, Trinity, and Whiskeytown reservoir temperature profiles; 2) temperature conditions in the Sacramento River; and 3) potential redd dewatering and stranding" by April 15, 2018 for your approval. Your letter directed that the development of the plan be completed in consultation with the SWRCB and fisheries agencies. Reclamation met with those parties on April 13th to discuss what the plan would include.

This letter is intended to provide the requested plan by providing both sources for publicly available data as well as a contact for obtaining information that is not regularly updated or available online. Our Central Valley Operations Office website (https://www.usbr.gov/mp/cvo/) contains much of the data available pertaining to Sacramento River temperature and flows. The information displayed includes daily mean water temperature, release flow rates and air temperatures for various locations in numerical and graphical form, and isothermobath plots for Shasta, Whiskeytown, and Trinity Reservoirs. The direct link for daily information (updated on business days) is: https://www.usbr.gov/mp/cvo/vungvari/sactemprpt.pdf. Daily information is also summarized by month from 1996 to the present and is available here: https://www.usbr.gov/mp/cvo/temperature.html.

From our meeting on April 13th, it is Reclamation's understanding that the manner in which the information is provided on the website currently meets the needs of the SWRCB and fisheries agencies for the locations currently being monitored. Should the SWRCB or fisheries agencies require the data from any of the monitoring stations discussed in this letter in other formats, or

obtain data from other monitoring sites that Reclamation maintains or has access to, please contact Ms. Randi Field at <u>rfield@usbr.gov</u>.

As discussed in our meeting on April 13th, Reclamation recognizes the possibility of relying on the Airport Way gauge in the future as a potential compliance point in years when the temperature target cannot be met at or downstream of Balls Ferry. Our understanding is that this gauge exists, but it not currently operational due to lack of funding. Reclamation will investigate possible solutions for a long-term operation, maintenance and data collection program at this site.

We intend to provide temperature profile measurements for Shasta, Whiskeytown, and Trinity Reservoirs as shown in the following table:

Reservoir	Every Month	Every Two Weeks	Every Week	Comment
Shasta	01/01 - 03/01 12/1 - 12/31	03/01 – 05/01 11/15 – 12/01	05/01 – 11/15	25 ft intervals for "Every Month", otherwise 5 ft intervals
Whiskeytown	01/01 - 12/31			25 ft intervals
Trinity	01/01 - 12/31			25 ft intervals

The time and depth intervals are linked to the historical stratification and de-stratification of the lakes. When de-stratified and temperature management is inactive, a finer resolution of the thermal profile is not needed.

As discussed in our meeting on April 13th, we believe that monthly temperature profiles for Whiskeytown and Trinity are sufficient to capture the thermal dynamics; both have limited abilities to actively manage selective withdrawal and the cold-water-pool volume does not rapidly change for most of the year. We will post the corresponding isothermobaths on our daily website identified above as soon as the information becomes available.

As in past years, Reclamation intends to rely on the California Department of Water Resources' (CDFW) redd dewatering monitoring program for 2018 to provide information on potential redd dewatering and stranding for informing real-time operations of Shasta and Keswick Dams. Reclamation will continue to coordinate with CDFW on river operations and any flood control releases to ensure this program can be safely and effectively implemented.

Reclamation understands that the National Marine Fisheries Service (NMFS) has funded the purchase of a temperature monitoring pontoon that is designed for collecting real-time temperature data. We look forward to continuing the discussion on how to best meet the data and modeling needs of the regulatory agencies in a manner that is consistent with Federal law and Reclamation policy.

We look forward to continuing a collaborative relationship to meet the objectives of Order 90-5. Please contact me at 916-979-2197 if you have any questions regarding this letter.

Sincerely

Jeff Rieker

Operations Manager