
State Water Resources Control Board

JUN 07 2018

Mr. Jeff Rieker,
Operations Manager, Central Valley Project
U.S. Bureau of Reclamation
3310 El Camino Avenue, Suite 300
Sacramento, CA 95828
jrieker@usbr.gov

ORDER 90-5 SACRAMENTO RIVER TEMPERATURE MANAGEMENT

Dear Mr. Rieker:

Thank you for your letter dated May 15, 2018, submitting the U.S. Bureau of Reclamation's (Reclamation) 2018 Sacramento River Temperature Management Plan (TMP). The TMP is required pursuant to State Water Resources Control Board (State Water Board) Water Right Order 90-5, and identifies Reclamation's proposed strategy for preventing temperature-related impacts to winter-run Chinook salmon while also avoiding impacts to other native species, including spring-run and fall-run Chinook salmon. Reclamation also submitted the National Marine Fisheries Service's (NMFS) May 15, 2018 response to the TMP to the State Water Board, which is related to requirements included in Reclamation's Biological Opinion from NMFS.

The State Water Board appreciates Reclamation's early and regular coordination on this matter with State Water Board staff and other stakeholders this year. Through this regular and early communication, Reclamation has developed a TMP that proposes the following key elements:

- 1) A 56-degree Fahrenheit (F) daily average temperature (DAT) compliance point at Balls Ferry from May 15 through October 31;
- 2) A study targeting 53.5 degrees F DAT on the Sacramento River above Clear Creek (CCR gage) (a surrogate location for the most downstream winter-run Chinook salmon redd) during the same time frame unless cold water pool volumes are less than expected;
- 3) Monitoring of actual cold-water pool (water equal to or less than 49 degrees F) volumes and conducting modeling on a regular basis to inform operational decisions;
- 4) Reconvening the Sacramento River Temperature Task Group (SRTTG) to discuss operations, including a potential conclusion of the study and a reversion to compliance measured only at Balls Ferry, if: the measured volume of cold water equal to or less than 49 degrees F is less than projected, the difference between the measured and projected volumes is greater than ten percent, and fall temperature performance appears at risk;
- 5) A commitment from Reclamation to work with the SRTTG on fall operations to prevent redd dewatering.

Reclamation's TMP is based on April hydrological and operational forecasts at the 50 and 90 percent exceedance levels, using historical meteorological forecasts at the 50 and 10 percent exceedance levels. Based on these assumptions, Reclamation indicates that it has confidence in its ability to provide temperature control this year. As you point out in your letter, however, the cold water pool volume is less than average this year. At the same time, hydrologic conditions appear to be trending drier than the 90 percent exceedance and, depletions from the Sacramento River have been trending somewhat higher than projected. As a result, I am including the following conditions on my approval of the TMP:

1. Reclamation shall consult with the SRTTG to discuss necessary modifications to the TMP as soon as the assumptions upon which the plan are based (including cold water pool volumes, release schedules, or any other controllable factors) change in a manner that could affect temperature control this season. This condition is consistent with Reclamation's TMP proposal to conduct regular monitoring and modeling, to meet with the SRTTG at least monthly, and to reconvene the SRTTG if cold-water pool conditions deviate from modeled projections. The State Water Board reserves the authority to rescind or modify this approval as necessary based on information that indicates that the current TMP may not achieve reasonable temperature control this year.
2. Reclamation shall consult with the SRTTG to develop and implement specific provisions to avoid winter-run and fall-run Chinook salmon stranding and redd dewatering based on the California Department of Fish and Wildlife's real-time redd monitoring data and other relevant information. This condition is consistent with Reclamation's TMP proposal to work with the SRTTG on fall operations to avoid redd dewatering. The State Water Board reserves authority to modify this approval to require implementation of specific measures to avoid stranding and redd dewatering as necessary.
3. Reclamation shall follow the expectations detailed in NMFS's May 15, 2018 response to the TMP.

The State Water Board appreciates Reclamation's efforts to improve coordination and transparency related to temperature control planning this year, and we look forward to continuing to work with you on these matters. Historically, Reclamation has submitted TMPs to the State Water Board late in the spring, at which point there is less opportunity to discuss and understand temperature control operations as conditions evolve. This year, Reclamation engaged with State Water Board staff earlier in the season, providing the opportunity to review and respond to the spring's changing hydrologic conditions. We believe that the earlier coordination in 2018 was helpful and request that Reclamation engage the State Water Board beginning in January of future water years on temperature control and related considerations.

During previous meetings in early 2018, Reclamation and the State Water Board discussed the benefits of developing an updated protocol for conducting temperature monitoring, modeling, planning, and reporting. Relatedly, and consistent with my letter dated March 14, 2018, we reiterate our request that Reclamation work with the Board – in addition to other interested stakeholders, including fisheries agencies and water use interests (Northern California Water Agencies, Western Area Power Administration, and other SRTTG members) – to work throughout the summer and fall to develop an updated protocol for conducting temperature monitoring, modeling, planning, and reporting to provide a clear communication and coordination pathway for temperature compliance pursuant to Order 90-5. We request that Reclamation meet with the State Water Board and SRTTG members to discuss development of the protocol this summer/early fall and that Reclamation submit a draft protocol to the Board by

November 1st of 2018. We also encourage federal agencies and stakeholders to consider development of a charter to address temperature management issues in the upper Sacramento River in a coordinated fashion.

We propose that the protocol describe how Reclamation, the Board, and other stakeholders can work together so that initial temperature planning begins prior to initial water supply allocations in February. The development of earlier TMPs and related data will help ensure that the requirements of Order 90-5 are met, allows for adaptive management as water supply conditions solidify in the spring of each year, and can identify compliance issues early on (so that water supply considerations are planned for in advance). The protocol would also provide for coordination with the NMFS Biological Opinion process to avoid redundancy and any unnecessary conflicts.

Based on the discussions that occurred during the April 2018 meeting on Reclamation's forecasts, Reclamation's current planning tools do not appear to allow for evaluation of lower Shasta releases and delivery assumptions in drier conditions to conserve cold water pool resources without redistributing those impacts to Folsom or Oroville reservoirs, or causing violations of water quality and flow requirements in the Delta. Tools that can evaluate different release and delivery assumptions are necessary to prepare for future dry conditions, and to evaluate options to avoid impacts to salmonids and other species that occurred during the dry conditions of 2014 and 2015. Accordingly, the protocol should also identify how Reclamation will develop tools that incorporate different operational assumptions (that do not have redirected impacts to other watersheds or Delta conditions). The ability to evaluate different operational assumptions will be critical in drier years when water supplies are limited, and when deliveries may need to be limited to provide for temperature control.

The State Water Board appreciates the coordination and outreach between our agencies, and looks forward to continued cooperation on these matters and 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 or (916) 341-5297.

Sincerely,

ORIGINAL SIGNED BY

Erik Ekdahl,
Deputy Director
Division of Water Rights