



Water Year 2022 Temperature Management Plan for the Lower American River -

U.S. Bureau of Reclamation

June 1, 2022

The following Water Year (WY) 2022 Temperature Management Plan (TMP) for the Lower American River (LAR) has been developed according to the February 18, 2020 Record of Decision (ROD) on the Long-Term Operation of the Central Valley Project (CVP) and State Water Project (SWP). The ROD implements Alternative 1 (the Preferred Alternative) as described in the associated Environmental Impact Statement. Alternative 1 was the Proposed Action consulted upon and analyzed in the Biological Opinions issued in October 2019 by the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS).

In January 2022, the Sacramento Valley Index was classified as Below Normal. Conditions began to deteriorate further in February with a Dry classification and Critical in March and April. As a result, Reclamation implemented a flow minimum release of 1,197 cfs for March, 1,000 cfs for April, and 1,270 cfs for May 2022 using the 90 percent exceedance for determining the Minimum Release Requirement. A series of storms in April 2022 added to the inflows into Folsom and improving reservoir storage conditions. End of May projections for maximum storage at Folsom Reservoir is estimated at 856 Thousand Acre-Feet (TAF), up from around 745 TAF projected in mid April.

Reclamation has modeled conditions using iCPMM which also support the outcome of the CE-QUAL-W2 models that were discussed with ARG stakeholders. April 2022 modeling results indicated a feasible temperature target of 72°F at Watt Avenue Bridge and 69°F at Hazel Ave (as measured at the American River at Fair Oaks - AFO gage). On May 11, 2022 Reclamation suggested to delay the release of the Draft LAR Temperature Management Plan (TMP) until June 1, 2022. In the absence of a May 15, 2022 Draft TMP for review and implementation, Reclamation committed to operating at an upper temperature limit not to exceed 68° F at Hazel Ave. The extension was based on hydrologic changes that had been relatively unpredictable. Reclamation wanted to utilize the May 2022 forecast for modeling which would allow for a better operational response to temperature management through October 15. Updated modeling results in May 2022 showed improvement and resulted in a feasible temperature target of 66°F at Hazel Ave. Based on these various model runs, the LAR TMP goal is 66°F or below at Hazel Ave. from June 1, 2022 to October 31, 2022 and target 58°F from November 1, 2022 until December 31, 2022. The TMP temperature target not to exceed 66°F at Hazel Ave., as agreed upon by NMFS and Reclamation jointly, is consistent with discussions at the May 19, 2022 American River Group (ARG) monthly meeting and the May 25, 2022 ARG Ad-Hoc



meeting. The temperature target not to exceed 66°F at Hazel Ave. is what Reclamation expects to be the lowest achievable and sustainable temperature possible through October 31.

During the March 25, 2022 ARG Ad-Hoc meeting, Reclamation was requested by NMFS to discuss the potential for power bypass during upcoming ARG monthly meetings. Reclamation will continue to review the hydrology and Folsom cold-water pool on a bi-weekly timeframe and update this TMP accordingly. LAR TMP updates will be shared with ARG to seek feedback from the group.

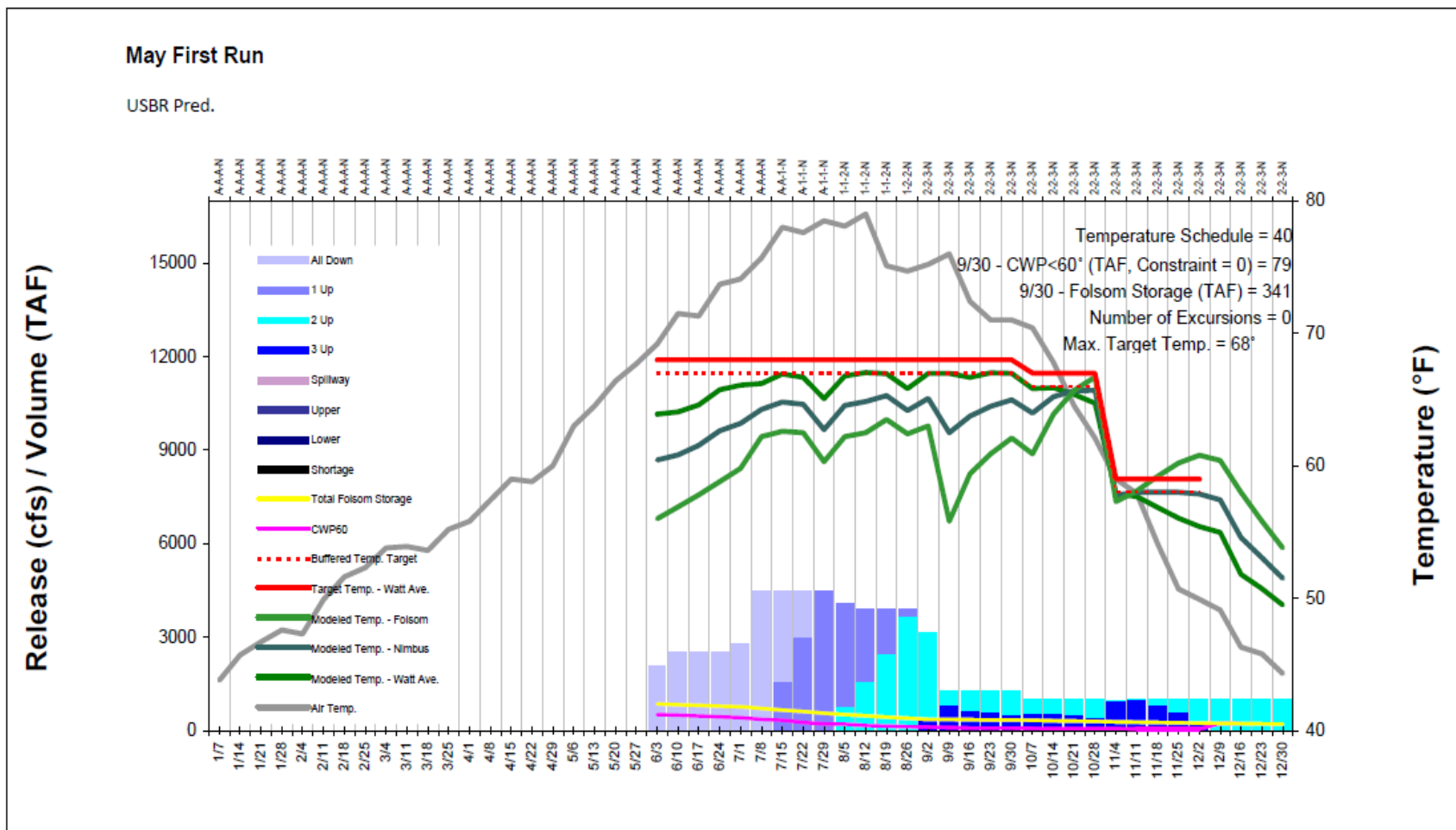
In dry and critical years, the temperature operations target tends to change frequently as reservoir storage and cold water pool volumes decrease. As a result, the TMP may be updated frequently as conditions change.

Reclamation is aware that the water temperature may not be suitable for fall-run Chinook salmon spawning and holding during summer. We continue to consider temperature impacts to salmonids throughout the temperature management season.

Reclamation coordinates with USFWS, NMFS, Department of Water Resources, California Department of Fish and Wildlife, State Board (Agencies) and other American River stakeholders monthly through the ARG. The coordination includes monthly assessments of conditions and potential actions and allows each agency to collaborate on water operations, discuss best available science, and identify actions for current and future discussion, which includes potential elevation of issues to the Directors of the Agencies for resolution.



May 2022 iCPMM Temperature Model Results



this schedule has 68 degrees until Oct 14. Beginning Oct 14 target 65 degrees at Watt



May 2022 CE-QUAL W2 Temperature Model Results

USBR 5/16/22 Inflows/Outflows

2014 Meteorological Data
Operated to Hazel Avenue
66°F July-Sept, 65°F Oct,
58°F Nov

