



United States Department of the Interior

BUREAU OF RECLAMATION
Mid-Pacific Regional Office
Klamath Basin Area Office
6600 Washburn Way
Klamath Falls, OR 97603-9365

IN REPLY REFER TO:

KO-320
2.2.1.06 (ENV-7.00)

March 25, 2019

VIA ELECTRONIC MAIL ONLY

MEMORANDUM

TO: Jim Simondet, Klamath Branch Chief
California Coastal Area Office
National Marine Fisheries Service
1655 Heindon Rd.
Arcata, CA 95521

FROM: Jeffrey Nettleton /s/ JEFFREY NETTLETON
Area Manager

SUBJECT: Addendum 3 to the Proposed Action (PA) included in the Bureau of Reclamation's December 21, 2018, *Final Biological Assessment on the Effects of the Proposed Action to Operate the Klamath Project (Project) from April 1, 2019 through March 31, 2024, on Federally-Listed Threatened and Endangered Species*, as modified on February 15, 2019 (modified 2018 BA)

This memorandum provides the National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS; collectively, the Services) an addendum to modify and clarify the PA described and analyzed in Reclamation's modified 2018 BA. There are two specific changes to the modified 2018 BA, as further described below.

Accounting for Project Diversions within the Keno Impoundment Reach

In early March 2019, the Bureau of Reclamation became aware of an error in the Klamath Basin Planning Model (KBPM) in which the model did not account for 7,436 acre-feet (AF) of water (an annual average) assumed for Project irrigation diversions from the Klamath River at locations *other than* Station 48, Miller Hill Pumping Plant, Ady Canal and North Canal. These additional points of diversion from the Klamath River, outside those listed above, are currently designated in the Amended and Corrected Findings of Fact and Order of Determination in the Klamath Basin Adjudication (Consolidated Claim 321-17/293/323-3), dated April 10, 2014 (Attachment 1).

The KBPM relies on a mass balance to ensure that all water in the modeled system at any given time is accounted for in one of three categories: Project diversions, Environmental Water Account (EWA) water, or Upper Klamath Lake (UKL) storage. In the KBPM, the 7,436 AF of water is removed from the modeled system without attributing this volume to one

of the above three categories, thereby throwing off the assumption of mass balance. If this error is not addressed in carrying out the proposed action, observed Iron Gate Dam flows and UKL water surface elevations would presumably differ from (i.e., be less than) those modeled in the KBPM. Over the course of a year, quantifiable and potentially biologically-meaningful changes to river flows and lake levels could possibly be observed. In other words, for the proposed action to result in river and lake conditions consistent with the modeled output analyzed by Reclamation in the modified 2018 BA and provided to the Services for their independent analysis, this volume of water must be accounted for.

Based on this information, Reclamation is amending the modified 2018 BA to account for this volume by subtracting 7,436 AF from the annual Project Supply, as calculated after March 1, April 1, May 1, and June 1, that may be available for diversion through A Canal, Station 48, Miller Hill Pumping Plant, the North Canal and Ady Canal.

To the extent that Reclamation determines and can adequately verify that actual irrigation deliveries at Project-associated points of diversion from the Klamath River *other than* Station 48, Miller Hill Pumping Plant, Ady Canal and North Canal are occurring at volumes less than 7,436 AF during the spring-summer period, the verified volume will be added back to the available Project Supply for diversion at A Canal, Station 48, Miller Hill Pumping Plant, Ady Canal and North Canal. In actual operations, Reclamation will make this determination by notifying Project contractors of the volume available for diversion at these locations, then visually verifying that diversions are consistent with that volume identified as available, and notifying the Services accordingly.

Reclamation has determined that subtracting 7,436 AF from Project Supply annually, until such time that it can be verified that actual diversions at the specified locations are and will be less, will result in hydrologic conditions consistent with those analyzed in the modified 2018 BA and provided to the Services for their independent analysis.

All other water losses (e.g., seepage, evaporation, and other diversions) from the Klamath River between Link River and Keno Dam, outside of the 7,436 AF discussed above, are properly accounted for in a “closure term” in the KBPM and the EWA was sized appropriately to reflect these losses. However, to the extent diversions in this reach increase in comparison to the period of record (1981-2016), the additional diversions could also result in hydrologic conditions inconsistent with the modeled output analyzed in the modified 2018 BA. Accordingly, over the period of the proposed action, Reclamation will monitor these diversions. To the extent that actual diversions at the locations identified above increase over diversions observed in the period of record, Reclamation will deduct the additional volume from Project Supply, in addition to the 7,436 AF discussed above.

Klamath River Coho Restoration Grant Program Conservation Measure

The modified 2018 BA stated that Reclamation proposed to fund the Klamath River Coho Restoration Program (Program) in the amount of \$500,000 annually with an additional \$700,000 for the first two years (fiscal years 2019 and 2020). Reclamation would like to clarify that funding for the Program is proposed to be \$700,000 in each of fiscal years 2019 and 2020, and \$500,000 in each of the successive fiscal years beginning with fiscal year 2021 and ending with fiscal year 2024. These funds will support Program administration and projects that address limiting factors for Southern Oregon Northern California Coast coho salmon in the Klamath Basin. This funding is contingent upon Reclamation’s annual budget process and subject to appropriations.

Reclamation believes that the above modifications and clarifications are responsive to and meet the goals and intent of our recent discussions. Reclamation is appreciative of the collaboration and inter-agency coordination that has taken place to date and will continue to make every effort to aid the Services in the consultation process. If you have any questions, please contact Kristen Hiatt, Environmental Compliance Branch Chief, at 541-883-6935, or via electronic mail at khiatt@usbr.gov.

Attachment

Identical Memorandum Sent To:

Daniel Blake, Field Supervisor
U.S. Fish and Wildlife Service
1936 California Ave.
Klamath Falls, OR 97601