



IN REPLY REFER TO

BDO-100
2.2.1.06

Ms. Maria Rea
Assistant Regional Administrator
National Marine Fisheries Service
650 Capitol Mall, Suite 5-100
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United States Department of the Interior

BUREAU OF RECLAMATION
Interior Region 10
Bay-Delta Office
801 I Street, Suite 140
Sacramento, California 95814-2536



DEC 13 2019

Subject: Rapid Genetic Analysis of the Chinook Salmon Salvaged at the Central Valley Project (CVP) and State Water Project (SWP) During Water Year (WY) 2020

Dear Ms. Rea:

Enclosed for your review and concurrence are the Bureau of Reclamation's proposed procedure for implementing WY2020 rapid genetic analysis of the CVP and SWP salvaged older juvenile Chinook salmon (*Oncorhynchus tshawytscha*). Genetic identification aids in an accurate estimation of loss of listed Sacramento River winter-run Chinook salmon at the CVP and SWP fish salvage facilities. Rapid genetic analysis also allows for the timely dissemination of different races of listed and non-listed Chinook salmon that may overlap within the older juvenile size-at-date criteria used at the fish salvage facilities.

Rapid genetic protocol was used as a pilot effort during WYs 2016 and 2017. This procedure has been described in our prior letters dated April 13, 2016, and October 20, 2016. In a letter dated May 6, 2016, the National Marine Fisheries Service (NMFS) agreed that the protocol for the rapid genetic analysis allowed for the identification of juvenile Chinook salmon to race. Additionally, in letters dated November 21 2016, December 18 2017, and December 17 2018, NMFS supported the use of rapid genetic protocol for WYs 2017, 2018 and 2019, with the two additional conditions that all unclipped Chinook salmon have tissue samples collected for genetic analysis, and that the annual incidental take limit was set at one percent of the natural winter-run.

For WY2020, Reclamation and the Department of Water Resources (DWR), in coordination with the California Department of Fish and Wildlife (CDFW), U.S. Fish and Wildlife Service, and NMFS, plan to continue implementation of this previously developed procedure. As in the prior years, rapid genetic analysis will commence once the older juvenile counts exceed the trigger threshold. If the salvaged older juveniles are genetically confirmed to be juvenile winter-run Chinook salmon, protective actions will continue. If the older juvenile Chinook salmon are not genetically confirmed juvenile winter-run Chinook salmon, then export reductions will be rescinded. In addition, Reclamation and DWR have contracts with the CDFW Central Valley Tissue Archive and Cramer Fish Sciences to carry out rapid archiving and genetic analysis of salvaged fish tissue. The genetic analysis will determine the run of each individual Chinook salmon from the tissue sent for analysis.

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Please note, should the Record of Decision to execute the October 2019 NMFS Biological Opinion for the Re-initiation of Consultation on the Long-Term Operation of the CVP and SWP be signed during this water year, Reclamation would apply these genetic monitoring procedures in a manner consistent with the new Biological Opinion. In addition, Reclamation is committed to genotyping the backlog of salvaged Chinook salmon samples collected from the Tracy Fish Collection Facility during WYs 2017 and 2018. We anticipate that these results will be available in the fall of 2020.

Should you have any questions or concerns, please contact Ms. Elissa Buttermore at (916) 414-2416 or ebuttermore@usbr.gov.

Sincerely,



David Mooney
Manager

Enclosure

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