



**California-Nevada Chapter
American Fisheries Society**
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February 22, 2020

Barry Thom
Regional Administrator for the West Coast Region
NOAA – National Marine Fisheries Service
7600 Sand Point Way Northeast
Seattle, Washington 98115

cc: United States Fish and Wildlife Service, Paul Souza; State Water Resources Control Board, Diane Riddle; Natural Resource Defense Council, Doug Obegi; The Bay Institute, Gary Bobker; Defenders of Wildlife, Rachel Zwillinger; San Francisco Baykeeper, Johnathan Rosenfield; California Sportfishing Protection Alliance, Chris Shutes; Golden Gate Salmon Association, John McManus

Dear Regional Administrator Barry Thom,

I write on behalf of the California-Nevada Chapter of the American Fisheries Society to strongly oppose implementation of the 2019 National Marine Fisheries Service (NMFS) Biological Opinion on the Reinitiation of Consultation on the Coordinated Long-term Operation of the Central Valley Project and State Water Project.

The mission of the American Fisheries Society is to improve the conservation and sustainability of fishery resources and aquatic ecosystems by advancing fisheries and aquatic science and promoting the development of fisheries professionals. The California-Nevada Chapter of the American Fisheries Society was founded in 1966 and includes over 400 fisheries and aquatic science professionals from Federal, State, and Tribal agencies, colleges and universities, and the private sector. The collective diversity and expertise of our members are the basis of an intimate and unparalleled familiarity with fisheries resources and issues within our region. Our Chapter is actively engaged in fisheries and conservation activities throughout California and Nevada to advance our profession and the cause of science-based fisheries conservation and management. Endangered species issues pertaining to the Sacramento-San Joaquin Delta are of particular concern to the California-Nevada Chapter of the American Fisheries Society.

As issued on October 22, 2019, the 2019 NMFS Biological Opinion severely truncates or eliminates existing protections under the 2009 NMFS Biological Opinion for federally listed endangered Sacramento River winter-run Chinook Salmon, threatened Central Valley spring-run Chinook Salmon, threatened California Central Valley steelhead, threatened Southern Distinct Population Segment of North American Green Sturgeon, and threatened Southern Resident Killer Whale. We urge you to consider the scale and range of changes to the communities,

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ecology, and natural resources of California and the Sacramento-San Joaquin Delta (Delta) that would result from requiring the implementing the 2019 NMFS Biological Opinion for the coordinated operations at the Central Valley Project and State Water Project.

The California-Nevada Chapter of the American Fisheries Society concerns with the 2019 NMFS Biological Opinion include changes to the operation of Shasta Dam on the Sacramento River, changes to temperature and dissolved oxygen management on the Stanislaus River, and flow management in the Delta.

The 2019 NMFS Biological Opinion does not include Shasta Dam carryover storage for cold water pool management nor does it require NMFS approval for implementing annual temperature management plans for Shasta Dam used to maintain cold water pool releases for juvenile Chinook Salmon egg incubation. These changes to Shasta operations pose a threat to winter-run Chinook Salmon during summer months when water temperatures can exceed thermal tolerances for egg incubation. The Project Description also includes intervention measures in the Sacramento River under stressful conditions (Tier 4) to increase hatchery production of winter-run Chinook Salmon and to implement trap and haul operations to benefit juvenile Chinook Salmon and steelhead. However, both of these measures have been shown to be detrimental to the species due to increased extinction risk from hatchery influence and added handling stress during collection and transport. Despite winter-run Chinook Salmon declines, there is no requirement or proposal for winter-run Chinook Salmon reintroductions above Shasta Dam, as required by the previous 2009 NMFS Biological Opinion.

Within the Stanislaus River, our concerns include use of the Stepped Release Plan to operate the New Melones Reservoir and temperature and dissolved oxygen management on the Stanislaus River. The Stepped Release Plan uses the San Joaquin 60-20-20 Index to determine water year type instead of the currently used New Melones Index. This change would shift the distribution of water year types and would reclassify above normal and below normal water years as wet and above normal years, respectively. This shift downgrades the two highest flow schedules resulting in reduced flows for San Joaquin spring-run Chinook Salmon and steelhead during spawning, egg incubation, juvenile growth, and emigration. The Project Description does not include cold water releases for the New Melones Reservoir to meet temperature criteria, as currently required by the 2009 NMFS Biological Opinion. Removing temperature criteria will subject steelhead to warmer water temperatures that may be lethal to egg incubation and detrimental to juvenile survival. The Project Description also proposes to move the existing State Water Resources Control Board Water Right Decision 1422 (D-1422) 7 milligrams per liter (mg/L) dissolved oxygen compliance point from Ripon to Orange Blossom on the Stanislaus River. This shift in compliance location will result in lower dissolved oxygen up to 2 mg/L in nearly 31 miles of the Stanislaus River upstream from Ripon. This decrease in dissolved oxygen will reduce available summer rearing habitat and expose steelhead and spring-run Chinook Salmon to suboptimal thermal tolerances, which can reduce viability and survival.

The Project Description includes several changes to Delta operations including Delta Cross Channel operations, Old and Middle River (OMR) flow management, and removal of the San Joaquin Inflow:Export ratio. Changes to Delta Cross Channel operations allow for up to 48 hours

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for gate closure after a trigger as compared to the previous 2009 NMFS Biological Opinion that required operational changes within 24 hours of a trigger. Changes to operations also includes operating the gates at open for up to five days between December 1 and January 31. Delaying gate operations and allowing for five days of gate openings during the winter can lead to adult salmonid and Green Surgeon migratory delays and can route juvenile salmonids and Green Sturgeon into the interior Delta, thereby increasing their transit time and entrainment risk at the export facilities.

The 2009 NMFS Biological Opinion allowed for OMR flow management beginning January 1 as a hard date to provide protections for juvenile salmonids. Under the 2019 NMFS Biological Opinion, OMR flow management only initiates after January 1 if 5% of wild young-of-year winter-run Chinook Salmon, spring-run Chinook Salmon, or steelhead are present in the Delta. Historical trawl data indicate that winter-run Chinook Salmon are in the Delta by January 1. As species decline in abundance, monitoring may not be able to detect species in an area they are present; requiring presence to initiate a trigger may prevent the implementation of any protective action when needed the most. Additionally, zero detection does not equate to the absence of fish and it is inappropriate to assume absence from monitoring efforts that are unable to account for gear selectivity or estimates of uncertainty.

OMR flow management changes also include removal of daily loss density triggers for salmonids and the San Joaquin Inflow:Export ratio that were a requirement under the 2009 NMFS Biological Opinion. The daily loss density triggers were effective triggers that required short-term reductions in operations to minimize juvenile entrainment in the south Delta. The San Joaquin Inflow:Export ratio also provided protections to salmonids, specifically through export reductions in April and May. In replacement of these management actions, the Project Description includes a less protective single-year loss threshold and a cumulative loss threshold for winter-run Chinook Salmon and steelhead. The annual loss threshold allows for OMR flow management only after 50% and 75% of the loss threshold is reached. However, the daily loss density triggers allow for more protective OMR flow management, based on daily salvage densities that can occur earlier in the entrainment season. This results in less overall take of the species and a more even distribution of the take over the entrainment season.

In addition to these changes, the Project Description also includes exemptions to OMR flow management during Storm-Related OMR Flexibility. OMR Flexibility allows for export pumping up to 14,900 cubic feet per second (cfs) with no limit on how often or for how long OMR Flexibility will be implemented. The absence of this information increases the uncertainty in assessing the impacts of implementing OMR Flexibility on listed species.

The proposed decision-making processes and modeling approved in the 2019 NMFS Biological Opinion will be less protective than the existing 2009 NMFS Biological Opinion. Although this reinitiation of consultation process was intended to provide more protective measures¹, the 2019

¹ See Secretary of the Interior Sally Jewell, Memorandum for the President, Update on California Water Issues, August 30, 2016, at 2 (“The reinitiation process will likely lead to new or amended biological opinions that will increase protections for these species.”).

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NMFS Biological Opinion eliminates critical oversight and decision-making authority of NMFS during real-time operations. Most protective actions in the 2019 NMFS Biological Opinion include a risk assessment for implementation that can allow cessation of protective actions if the U.S. Bureau of Reclamation and the California Department of Water Resources determine the risk to the species does not warrant added protections. It is not reasonable to assume that the U.S. Bureau of Reclamation nor the California Department of Water Resources will conduct risk assessments consistent with those done currently by NMFS or the Delta Operations for Salmonids and Sturgeon (DOSS) technical advisory team. Modeling results for the 2019 NMFS Biological Opinion do not include all real-time operations in the Delta nor do they include risk assessments for protective actions. However, this modeling shows reduced through-Delta survival of winter-run and yearling spring-run Chinook salmon using the Perry Survival Model and reduced through-Delta survival for winter-run, spring-run, fall-run, and late-fall run Chinook Salmon using the Delta Passage Model. The Salvage Density Model showed increased juvenile entrainment at the export facilities for winter-run and spring-run Chinook Salmon as well as steelhead. Despite these added impacts to the species and the downward trend in population abundance, the 2019 NMFS Biological Opinion does not include a jeopardy determination for any species. Instead, the 2019 NMFS Biological Opinion increases the uncertainty of recovery of listed species by further exacerbating conditions in the Sacramento and San Joaquin river basins and Delta.

Thank you for your consideration. Please do not hesitate to contact me if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Rob Titus", with a stylized flourish at the end.

Rob Titus, President
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American Fisheries Society
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