



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
650 Capitol Mall, Suite 5-100
Sacramento, CA 95814-4700

January 31, 2014

Mr. David Murillo
Regional Director
Bureau of Reclamation
2800 Cottage
Sacramento, California 95825

Mr. Mark Cowin
Director
California Department of Water Resources
1416 Ninth Street
Sacramento, California 95814

Dear Mr. Murillo and Mr. Cowin:

Re: Contingency Plan for February Pursuant to Reasonable and Prudent Alternative (RPA)
Action I.2.3.C of the 2009 Coordinated Long-term Operation of the Central Valley Project
(CVP) and State Water Project (SWP) Biological Opinion (2009 BiOp)

This letter is in response to your January 31, 2014, letter, submitting the Temporary Urgent Change Petition (the TUC Petition) as a contingency plan and outlining your and California Department of Water Resources' (DWR) requested approval from the State Water Resources Control Board (SWRCB) for temporary modification to the Water Rights Decision 1641 (D-1641) permit terms related to the Delta outflow and Delta Cross Channel (DCC) standards described in D-1641, Table 3, for the month of February 2014. The U.S. Bureau of Reclamation (Reclamation) requested NOAA's National Marine Fisheries Service's (NMFS) concurrence that these actions are consistent with the current Endangered Species Act section 7 biological opinion on the long-term operation of the Central Valley Project (CVP) and State Water Project (SWP, CVP/SWP Opinion) that NMFS issued on June 9, 2009.

We understand that California is experiencing unprecedented drought conditions, entering its third straight year of below-average rainfall and very low snowmelt runoff. Calendar year 2013 was the driest year in recorded history for many parts of California, resulting in the low initial storage at the beginning of water year 2014. Water year 2014 is the driest to date. On January 17, 2014, the Governor of California announced an Emergency Proclamation, finding that "conditions of extreme peril to the safety of persons and property exist in California due to water shortage and drought conditions." NMFS stands ready to provide the assistance needed to manage through drought conditions in California. We realize that it is not possible to meet all



needs during this very unusual water year; and we are working with the project operators of the CVP and SWP to protect health and safety while providing needed protections for fish.

NMFS built flexible drought provisions into the current CVP/SWP Opinion. We anticipated drought conditions, when we wrote the CVP/SWP Opinion and its reasonable and prudent alternative (RPA). The RPA Action I.2.3.C (pages 26-27 of the 2009 RPA with 2011 amendments) of the CVP/SWP Opinion provides drought exception procedures and requires that the U.S. Bureau of Reclamation (Reclamation) develop and submit to NMFS a drought contingency plan. The rationale for this action explicitly recognizes that in drought conditions, there is potential for conflict between the need to maintain storage at Shasta Reservoir and other legal and ecological requirements in the Delta, including outflow and salinity standards. This RPA provision is triggered if the February forecast, based on 90 percent hydrology, shows that the Clear Creek temperature compliance point or 1.9 million acre feet end of September storage at Shasta Reservoir is not achievable.

Although the February forecast will not be available for several weeks, the 90 percent hydrology for the January forecast (enclosure 1) indicates that the end of September storage in Shasta Reservoir will be approximately 453 thousand acre feet. The weather and lack of precipitation throughout January indicates that the February forecast will be similar, if not worse, than the January forecast. We agree with your determination that it is not possible for Reclamation to meet the Shasta Reservoir storage requirement and maintain Delta outflow and water quality standards requirements pursuant to D-1641, and that Action I.2.3.C is triggered.

Action I.2.3.C requires that a contingency plan be developed, and NMFS understands that Reclamation is submitting the TUC Petition to serve as the drought contingency plan for the month of February. NMFS finds that all required aspects of the contingency plan have been met, as follows:

- Reclamation commits to target a navigation control point at Wilkins Slough not to exceed 4,000 cfs during the month of February. Since January 8, 2014, flows at Wilkins Slough have been below 4,000 cfs (<http://cdec.water.ca.gov/cgi-progs/queryDaily?WLK>).
- On January 29, 2014, Reclamation and DWR filed a Temporary Urgency Change Petition (TUC Petition) with the State Water Resources Control Board, indicating that there is not an adequate water supply to meet water right permit obligations under D-1641 to support instream and Delta beneficial uses.
- Exports have been curtailed to the combined minimum health and safety rate of 1,500 cfs. Recently, combined exports were reduced to 550 cfs.

In the TUC Petition, Reclamation and DWR requested that the D-1641 Delta outflow standard be changed from a 3-day average of net delta outflow of 7,100 cfs at Collinsville to allow for the necessary 1,500 cfs minimum health and safety deliveries while also allowing additional preservation of cold water pool. Reclamation and DWR indicated that this operation may result in a Delta outflow in the 3,000 cfs to 4,500 cfs range. Reclamation and DWR also requested permission to open the DCC gates for human health and safety purposes based on the consultation process with the fishery agencies provided in the TUC Petition, Attachment 1, sections II.1.c and II.1.d.

The current hydrology and habitat conditions that juvenile Sacramento River winter-run Chinook salmon (winter-run) are experiencing are anomalous, and therefore, winter-run are not following emigration patterns typically seen for this time of year. There are differences in opinion regarding the current location of the bulk of juvenile winter-run, ranging from the majority rearing in the upper Sacramento River, to slow and steady rearing and migration down the Sacramento River as they await environmental cues (pulse flows and higher turbidity) for longer and quicker migrations. Professional opinions range from approximately 5-30% of the cohort are currently in the north Delta.

An interagency team of fisheries biologists from NMFS, Reclamation, DWR, and California Department of Fish and Wildlife (DFW) developed a set of operational criteria that provides for initial DCC gate opening on February 1, 2014, and a set of monitoring triggers that result in DCC gate closures or diurnal gate openings for various durations (enclosure 2). During the development of the operational criteria, hydrological migrational cues, the team discussed the differences in migrational behavior during the day and night, and the influence of flood and ebb tides on the hydrology of the Sacramento River at the confluence of the DCC. Additional monitoring activities have been deployed to augment the current monitoring in order to facilitate the real-time monitoring needs of the modified DCC gate operations (enclosure 3).

During any period in which Reclamation and DWR are operating the CVP/SWP under a temporary change order, there will be close coordination on current and projected operations on a weekly basis through existing meetings [Delta Operations for Salmonids and Sturgeon (DOSS) group, Delta Conditions Team, Water Operations Management Team (WOMT), *etc.*]. NMFS will continue to make weekly determinations under our RPA actions (to include consideration of operations pursuant to a temporary change order) regarding whether changes in operations are necessary to protect listed fish species. These determinations will continue to be presented at the weekly WOMT call. The DOSS, along with consideration of data provided by the Delta Conditions Team, will also continue to provide weekly advice to the NMFS. As discussed below, an additional weekly drought coordination meeting will also be needed to ensure effective coordination. This meeting will help guide development of a CVP/SWP operational strategy and corresponding contingency plan to address operations through the operating season if conditions fail to improve. The result of this effort will inform any future determinations pursuant to the CVP/SWP Opinion as well as any additional TUC Petitions to the SWRCB that may be submitted.

In the TUC Petition, Reclamation and DWR have proposed to convene a team of managers from Reclamation, DWR, SWRCB, DFW, NMFS, and the U.S. Fish and Wildlife Service in order to coordinate management of water supplies and protection of natural resources during the course of the declared drought emergency. NMFS recommends that weekly drought coordination meetings address the following topics:

- Reclamation's and DWR's consideration of any new TUC Petitions during the current water year, utilizing the drought exception procedures described in the 2009 NMFS BiOp.
- To extend the current request beyond February 28, 2014, or for any future changes or modifications to the project description, Reclamation will provide the fish agencies with

detailed descriptions of the changes and a complete effects analysis and determinations of effects to listed species, unless following emergency consultation provisions. NMFS will provide our findings or concurrence in writing prior to Reclamation taking the action.

- Reclamation's development of a contingency plan, to include the development of a comprehensive, system-wide approach to address future ESA compliance for coordinated water project operations during the drought beyond February 28, 2014.

In conclusion, NMFS concurs that the TUC Petition, as modified by the more specific DCC Gate closure criteria provided in enclosure 2, is consistent with Action 1.2.3.C and meets the specified criteria for a drought contingency plan. We are making this finding based on both the real-time physical and biological data and monitoring information attached to your letter, our supplemental rationale for DCC gate operational triggers in enclosure 2, and the underlying analysis of the CVP/SWP Opinion which concluded that implementation of the RPA is not likely to jeopardize the continued existence of Sacramento River winter-run Chinook salmon, Central Valley spring-run Chinook salmon, California Central Valley steelhead, the Southern Distinct Population Segment of North American green sturgeon, and the Southern Resident killer whales, and will not result in the destruction or adverse modification of their designated critical habitats. Furthermore, the best available scientific and commercial data indicate that implementation of this plan will not exceed levels of take anticipated for implementation of the RPA specified in the CVP/SWP Opinion.

We anticipate that the DCC gate operational triggers will continue to be refined throughout the month of February as more real-time data is made available through the extensive monitoring program. That information will be continuously analyzed for changes in risk to species and risk to water quality. In addition, the drought contingency plan will be reviewed and updated based on data gathered through the monitoring efforts to ensure implementation of the plan continues to meet all ESA requirements.

We look forward to continued close coordination with you and your staff throughout this extremely challenging water year.

If you have any questions regarding this letter, please contact me at will.stelle@noaa.gov, (206)526-6150, or contact Maria Rea at (916)930-3600, maria.rea@noaa.gov.

Sincerely,

William W. Stelle, Jr.
Regional Administrator

Enclosures:

1. January forecast at 90 percent hydrology
2. Matrix of DCC gates operational criteria
3. Additional Monitoring Relative to Delta Cross Channel Operations

cc: Copy to file 151422SWR2006SA00268

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