State of California

The Resources Agency

Memorandum

Date: April 9, 2007

To: Ryan Broddrick, Director
Department of Fish and Game
1416 Ninth Street, 12th Floor
Sacramento, California 95814

From: **Department of Water Resources**

Subject: Biological Opinion on the Long-Term Central Valley Project and State Water Project

Pursuant to Fish and Game Code Section 2080.1, the Department of Water Resources (DWR) requests your determination that the enclosed biological opinions and incidental take statements from the National Marine Fisheries Service (NMFS), Biological Opinion on the Long-Term Central Valley Project and State Water Project Operations Criteria and Plan, ("salmon biological opinion" October 2004) and the U.S. Fish and Wildlife Service (USFWS), Biological Opinion on the Reinitiation of Formal and Early Section 7 Endangered Species Consultation on the Coordinated Operations of the Central Valley Project and State Water Project and the Operational Criteria and Plan to Address Potential Critical Habitat Issues, ("delta smelt biological opinion" February 2005) for State listed winter-run and spring-run Chinook salmon and delta smelt covering the State Water Project (SWP) Delta operations are consistent with the California Endangered Species Act (CESA).

DWR submits this notice in light of the recent Alameda County Superior Court proposed decision finding that DWR does not have incidental take authority for these species through certain plans and agreements pursuant to the provisions of CESA (Fish and Game Code Section 2081.1). The court's proposed decision requires DWR to obtain authorization in compliance with CESA from the Department of Fish and Game (DFG) within sixty days of a final order or cease pumping water at the Harvey O. Banks Pumping Plant. Although DWR believes that the plans and agreements with DFG satisfy the statutory requirements and intends to file objections to this decision, DWR has decided to seek this alternative form of authorization and avoid potentially severe consequences of ceasing operations at the DWR south Delta pumping facilities.

As you are aware, the U.S. Bureau of Reclamation (USBR) and DWR, as an applicant under the Federal Endangered Species Act (FESA) for the federal biological opinions, are in the process of updating both biological opinions. In July 2006, the USBR requested reconsultation on the USFWS delta smelt opinion due to emerging data on the delta smelt with the understanding that the opinion would remain in effect during reconsultation. The consultation will include the new information resulting from studies on the decline of pelagic organisms in the Delta. Also in mid 2006, the USBR requested reconsultation on the NMFS opinion to address federal critical habitat listings for steelhead and salmon and the federal listing of green sturgeon. We anticipate that this consultation will be concluded sometime next year. DWR requests that DFG participate

with DWR in developing these new biological opinions and assist DWR to ensure that the new opinions are also consistent with CESA. When the federal biological opinions are amended or replaced, DWR intends to request a new consistency determination at that time.

In addition, DWR remains committed to the successful completion of the Bay Delta Conservation Plan (BDCP) process. Once the BDCP process is completed and appropriate environmental documentation is prepared, DWR intends to seek appropriate authorization for its Delta activities using the BDCP.

To assist in your consistency review, the federal fishery agencies, under the regulatory requirements of the FESA, analyzed the effects of the SWP and Central Valley Project (CVP) on the continued existence of the listed fish species and whether actions proposed by the Projects were likely to destroy or adversely modify the critical habitat of these fish. In order to obtain incidental take authority under FESA, DWR must implement the reasonable and prudent measures in the opinions, which include operating the SWP as described (see delta smelt opinion pages 228-230, and salmon opinion pages 212-213, 229-235). The federal biological opinions also include measures to prevent adverse modification or destruction of the species' Delta habitat that are essential to their conservation. Examples of habitat protection include measures requiring modification of Delta outflow as provided by adaptive management under the Delta Smelt Risk Assessment Matrix (DSRAM) (see delta smelt opinion pages 191-198), reduction in SWP exports under the Vernalis Adaptive Management Plan (VAMP) (see delta smelt opinion pages 15 and 176), the Environmental Water Account (EWA) (see delta smelt opinion pages 89-91, 130-135, 159, 173, and 176), ecosystem restoration under the 4-Pumps Agreement (salmon biological opinion pages 77-78), and the Adaptive Management Process (see delta smelt opinion pages 23-27, 98-110; and salmon opinion pages 37-40, 98).

DWR requests that DFG consider in its consistency determination the SWP Delta operations described in the federal biological opinions, which consist of the Harvey O. Banks Export Facilities and Skinner Fish Protection Facility, the North Bay Aqueduct Intake at Barker Slough, and the Suisun Marsh facilities. DWR also requests that DFG's review of the project description be limited to the SWP impacts on the two State-listed salmon species and delta smelt within the Delta. The federal opinion analyzed effects of CVP operations on several salmon species in the Sacramento River above the mouth of the Feather River but this analysis does not apply to SWP operations.

The SWP Delta operations vary year to year due to changes in precipitation and hydrology. The project description in the biological opinions reflects the flexible nature of the operations and the fish protection measures that are required under FESA to obtain incidental take authority. DFG participates in many of these ongoing fish protection measures, such as the 4-Pumps Agreement, the VAMP, the EWA, and the Adaptive Management Process referenced in the biological opinions and noted above. Also, DFG participates in an extensive fish monitoring program described in the

biological opinions. DWR and USBR fund the monitoring program that provides real-time information needed to implement the adaptive management measures and to show the effectiveness of the measures in protecting the species (see delta smelt opinion pages 14, 27, 98-99, 223, 228-230; and salmon opinion pages 216-218, 229-231, and 275-281).

The Adaptive Management Process requires DWR and USBR to work closely with DFG, USFWS, and NMFS to coordinate Project operations to protect the listed fish. DFG, as a participant in the Adaptive Management Process, is familiar with the forums that meet regularly to review the real-time monitoring data on each fish species and the Project operations affecting these species. These forums, including the Data Assessment Team (DAT), the Salmon Decision Process, the Delta Smelt Working Group (DSWG), and the Water Operations Management Team (WOMT), enable SWP and CVP operations to be modified in real time as appropriate to avoid impacts to the listed fish and protect critical habitat. As an example of the protections afforded by the Adaptive Management Process in the biological opinions, DWR and USBR made operational changes in their Delta operations to protect listed species at the request of the DAT, the DSWG, and the WOMT. From January 15 through March 2007, DWR reduced the SWP Delta export pumping to protect delta smelt using EWA resources to achieve a target net flow in Old River and Middle River of between -3,500 cfs to -5000 cfs. So far this year the salvage of delta smelt at the SWP facilities in the South Delta have been zero, in contrast to salvage in years with low delta smelt populations similar to this year that have been closer to 2,000.

The federal biological opinions rely heavily upon adaptive management tools and programs, such as the DSRAM and the EWA. The DSRAM provides a pro-active, adaptive management process that allows the Project and fish agencies to consider new scientific information to reconfigure Project operations to reduce risks to fish based on the best available science (see delta smelt opinion pages 98 -110). The EWA, defined by the EWA Operating Principles Agreement, is a flexible program that uses fixed and variable assets of money or water to implement fish protective actions. Under the Operating Principles, the assets can be added to the EWA portfolio according to need, and the assets can be used in ways that are informed by the best available science. The EWA may carry water "debt" to help it function effectively. DWR will adjust or reduce allocation of interruptible water deliveries to repay EWA "carry over debt" so that the project description in the biological opinion for interruptible water is met. Under the Operating Principles, the EWA "fixed assets" of purchased water are to be provided by DWR or USBR. In order to meet the program needs under the current opinions, if purchased assets are insufficient to meet the recent purchased asset targets (210-250 TAF), the SWP will provide water to the purchased water account for EWA to meet these targets.

Under the 4-Pumps Agreement (also known as the SWP Delta Pumping Plant Fish Protection Agreement (1986)) that is part of the SWP project description in the salmon biological opinion, DWR provides funding for salmon restoration projects and species

Under the 4-Pumps Agreement (also known as the SWP Delta Pumping Plant Fish Protection Agreement (1986)) that is part of the SWP project description in the salmon biological opinion, DWR provides funding for salmon restoration projects and species protection (see salmon opinion pages 76-78, and 236). DFG and DWR estimate the annual salmon losses from SWP Delta operations and the mitigation credits from projects funded by the Agreement. The 4-pumps program has completed and continues to fund numerous salmon protection projects such as: installation of fish screens and ladders, replacement and maintenance of spawning gravel, funding of DFG wardens to reduce illegal harvest of salmon in the Bay-Delta Estuary and upstream river basins, water exchange projects to improve in-stream flows, and elimination of salmon predator habitats. DWR and DFG have mutually agreed that the estimated benefits to salmon from these programs have far exceeded the estimated losses to spring-run salmon at the SWP Banks pumping facility. In addition, there are additional but unquantified benefits to salmon from these projects. Also, a though the 4-Pumps Agreement does not specify mitigation projects for delta smelt, the screening of diversions in the Suisun Marsh has benefits to smelt.

In order to facilitate review of consistency, DWR staff are available to provide historic and current data on the ongoing programs to assist your agency in reviewing the large volume of information provided under the opinions. In addition, DWR suggests that the DFG staff who review the federal biological opinions for consistency contact the DFG staff who participate in the adaptive management and monitoring programs described in the Delta biological opinions. Please have your staff contact Barbara McDonnell, Chief of the Division of Environmental Services, by phone (916) 651-9777 or electronically bmcdonne@water.ca.gov, for any assistance or additional information you require for your determination.

Sincerely,

Lester A. Snow
Director

Enclosures:

Biological Opinion on the Reinitiation of Formal and Early Section 7 Endangered Species Consultation on the Coordinated Operations of the Central Valley Project and State Water Project and the Operational Criteria and Plan to Address Potential Critical Habitat Issues (U.S. Fish and Wildlife Service, February 16, 2005) ("Delta Smelt Biological Opinion")

Also available at USFWS website:
http://www.fws.gov/sacramento/es/delta_smelt.htm

Biological Opinion on the Long-Term Central Valley Project and State Water Project Operations Criteria and Plan (National Marine Fisheries Service, Southwest Region, October 2004) ("Salmon Biological Opinion")

Also available at website:
http://swr.nmfs.noaa.gov/sac/myweb8/BiOpFiles/2004/Biological_Opinion_Long_Term_Central_Valley_Project_and_State_Water_Project_Operation_Criteria_and_Plan.pdf