



State of California -The Natural Resources Agency  
DEPARTMENT OF FISH AND GAME  
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EDMUND G. BROWN, JR, Governor  
CHARLTON H. BONHAM, Director



October 14, 2011

Mr. Mark Cowin, Director  
California Department of Water Resources  
1416 Ninth Street, 11<sup>th</sup> floor  
Sacramento, CA 95814

Subject: Request for Consistency Determination for Continued Operation of the State Water Project (2080-2011-022-00)

Dear Mr. Cowin:

On October 10, 2011, the California Department of Water Resources (DWR) notified the Department of Fish and Game (DFG) that the United States Fish & Wildlife Service (Service) Biological Opinion (Service file No. 81420-2008-F-1481-5) (BO) dated December 15, 2008, had a Reasonable and Prudent Alternative (RPA) partially enjoined by Federal District Court Judge Oliver Wanger through 2011 (Wanger Order). The notification included a request pursuant to Fish and Game Code section 2080.1 that DFG determine that the BO, including its Incidental Take Statement (ITS) and excluding the portion of the RPA enjoined by the Wanger Order through 2011, is consistent with the California Endangered Species Act (CESA; Fish & G. Code § 2050 et seq) as to anticipated incidental take of delta smelt (*Hypomesus transpacificus*),

Specifically, the Wanger order enjoins the implementation of the 74 km X2 target and prohibits the imposition of an X2 target west of 79 km commencing October 16 through November 30, 2011. The Wanger Order does not completely eliminate the Fall X2 action but instead removes the 74 km criteria from the RPA for calendar year 2011 only. All other requirements of the RPA remain in effect.

DFG has determined that the BO, including its ITS and excluding the portion of the RPA enjoined by the Wanger Order through 2011, is consistent with CESA as to the proposed Project described in the December 15, 2008 BO. A copy of the DFG determination is enclosed for your records.

If you have questions regarding DFG's consistency determination, please contact Scott Cantrell, Acting Water Branch Chief, at (916) 445-1272.

Sincerely,

Sandra Morey  
Deputy Director

Enclosure

Mr. Cowin  
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cc: Mr. Ren Lohofener, Regional Director  
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**CALIFORNIA DEPARTMENT OF FISH AND GAME**  
**CONSISTENCY DETERMINATION**  
**Fish and Game Code Section 2080.1**  
**Tracking Number 2080-2011-022-00**

**PROJECT:** Continued Operation of the State Water Project

**LOCATION:** California Delta and Central Valley

**NOTIFIER:** California Department of Water Resources

**BACKGROUND**

The proposed project (Project) by the Department of Water Resources (DWR) is the continued operation of the State Water Project (SWP) and other water diversion, storage, and conveyance actions that are described in the Operations Criteria and Plan (OCAP) and the federal Biological Opinion (BO) issued by the U.S. Fish and Wildlife Service (USFWS) based on the OCAP Biological Assessment (BA) consultation for the protection of delta smelt (*Hypomesus transpacificus*).

Existing facilities in the Delta include Clifton Court Forebay, John E. Skinner Fish facility, Harvey O. Banks Pumping Plant (collectively referred to as the Banks Pumping Plant Complex), and the North Bay Aqueduct at Barker Slough (NBA). Facilities which are operated in coordination with the federal Central Valley Project (CVP) are the Suisun Marsh Salinity Control Gates, Roaring River Distribution System, Morrow Island Distribution System, Goodyear Slough Outfall, and the South Delta Temporary Barriers Project (TBP). The TBP has four rock barriers across south Delta channels (at Middle River near Victoria Canal, Old River near Tracy, Grant Line Canal near Tracy Boulevard Bridge, and at the head of Old River near the confluence of Old River and the San Joaquin River). Other facilities of the SWP include Lake Oroville which is operated for flood control, water supply, and power generation. Oroville facilities are part of the SWP but are not part of the Project. Oroville facilities are operated according to the existing Federal Energy Regulatory Commission (FERC) license which is in the process of being renewed.

The SWP is operated to provide flood control and water for agricultural, municipal, industrial, recreational, and environmental purposes. Water from Oroville facilities and Sacramento-San Joaquin River flows are captured in the Delta and conveyed to SWP contractors. Water is stored in Oroville Reservoir and released to serve three Feather River-area contractors and two NBA contractors, and water is delivered to an additional 24 contractors in the SWP service areas south of the Delta from the Harvey O. Banks Pumping Plant.

Facilities of the SWP are permitted by the California State Water Resources Control Board (SWRCB) to divert water in the Delta and to re-divert water that is stored in upstream reservoirs. The U.S. Bureau of Reclamation (USBR) and DWR coordinate the operations of the SWP and CVP to meet water quality, quantity, and operational criteria in the Delta set by the SWRCB and to meet federal Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.) requirements for delta smelt, winter and spring-run Chinook salmon, Central Valley steelhead, and green sturgeon.

The California Delta is home to the delta smelt, which is designated as a threatened species under the federal ESA and as an endangered species under the California Endangered Species

Act (CESA) (Fish & G. Code, § 2050 et seq.) Flow disruption, loss of habitat, and entrainment caused by SWP exports result in incidental take of delta smelt.

Because the Project has the potential to take a species listed under ESA, the USBR, on behalf of DWR, consulted with the USFWS under Section 7 of the ESA. On December 15, 2008, USFWS issued a Biological Opinion (Ref. No. 81420-2008-F-1481-5), which includes an incidental take statement (hereafter, the BO). The BO describes the Project, including conservation measures developed to minimize impacts to delta smelt, and sets forth measures to mitigate any remaining impacts to delta smelt and its habitat. The measures in the BO include one "Reasonable and Prudent Alternative" (RPA) with five components which must be implemented and adhered to. The RPA actions are to be implemented using an adaptive approach with specific defined constraints. The BO includes a detailed description of the adaptive process, its framework, and the rationale for each of the RPA components. On June 17, 2009, Chief Deputy Director McCamman of the Department of Fish and Game (DFG) received correspondence from DWR Director Snow, requesting a determination from DFG that the BO and its incidental take statement are consistent with CESA pursuant to Fish and Game Code section 2080.1. On July 16, 2010, DFG issued a consistency determination to DWR which was signed by DFG Deputy Director Sandra Morey.

On September 26, 2011, Federal District Court Judge Oliver Wanger issued a second amended order ("Wanger order") enjoining full implementation of RPA Component 3, Action 4 (the "Fall X2 Action") set forth in the December 15, 2008 USFWS biological opinion. Specifically, the Wanger order enjoins the implementation of the 74 km X2 target and prohibits the imposition of an X2 target west of 79 km commencing October 16 through November 30, 2011. The Wanger order does not completely eliminate the Fall X2 Action but instead removes the 74 km criteria from the RPA for calendar year 2011 only. All other requirements of the RPA remain in effect.

On October 10, 2011, DFG Director Bonham received a written request from DWR Director Cowin for a determination pursuant to Fish and Game Code section 2080.1 that the USFWS biological opinion for delta smelt, as enjoined in part by the Wanger order, including its incidental take statement, is consistent with CESA such that no further authorization from DFG is necessary for Project-related incidental take of delta smelt. The DWR letter, with attachments, includes information on projected hydrology and operations of the SWP and CVP.<sup>1</sup> These letter attachments include:

- 2008 Delta Smelt Biological Opinion and Incidental Take Statement;
- Judge Wanger September 26, 2011 Second Amended Order;
- Bureau of Reclamation's Memo dated July 21, 2011;
- Graph of Estimated Location of X2, dated September 27, 2011;
- Explanation of Graph (Estimated Location of X2) dated September 27, 2011; and
- CDEC Daily X2 calculations from September 1, 2011 to recent posting.

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<sup>1</sup> Prior to issuance of this Consistency Determination, DFG received a letter from the State Water Contractors seeking to 'join' in DWR's request. The Fish and Game Code makes no provision for joinder in such a request for a ministerial determination. DFG, therefore, did not consider the letter in making this determination.

DWR's Graph of Estimated Location of X2 (dated September 27, 2011) provides information on the estimated location of X2 for October and November 2011. The Reclamation memo (July 21, 2011) describes proposed coordinated operations of the CVP and SWP for the months of September, October, and November 2011. DWR also provided a table of daily X2 calculations from Sept 1 through October 9, 2011 (status as of October 5, 2011). DFG evaluated all of the above information, including the DWR letter and attachments, as well as other information available to it, in making its determination.

## **DETERMINATION**

DFG has determined that the BO, excluding the portion of the RPA enjoined by the Wanger Order through 2011, and the incidental take statement and other RPA requirements, is consistent with CESA because the mitigation measures therein meet the conditions set forth in Fish and Game Code section 2081, subdivisions (b) and (c), for DFG to authorize incidental take of CESA listed species. This determination is limited to only those actions specifically identified and analyzed in the December 15, 2008 BO. Specifically, DFG finds that take of delta smelt will be incidental to an otherwise lawful activity (i.e., SWP operations); the measures and RPAs identified in the BO, excluding the portion of the RPA enjoined by the Wanger Order through 2011, that modify flow requirements and restore habitat will minimize and fully mitigate the impacts of the taking of delta smelt; and the Project, with the prescribed measures and RPAs in place, will not jeopardize the continued existence of the species. The avoidance, minimization, and mitigation measures in the BO include, but are not limited to, the following:

### **Minimization and Mitigation Measures**

**Avoidance and Minimization Actions:** The BO requires SWP operational actions which are expected to provide flow conditions that reduce entrainment of delta smelt and retain necessary outflow and habitat to support all its life stages. Specific flow modification requirements are presented in RPA Components 1 and 2, including the information necessary to determine delta smelt risk. These requirements include real-time scientific evaluation of data to inform operational changes to avoid impacts and reduce entrainment losses of delta smelt.

**Mitigation Measures:** The BO includes two actions to increase the area of suitable delta smelt habitat in the estuary: (1) Delta outflow augmentation in the fall following wet and above-normal water years. These higher-outflow conditions will be achieved in fall 2011 as a result of favorable hydrology and SWP/CVP projected operations; and (2) restoration of at least 8,000 acres of intertidal and associated subtidal habitat in the Delta and Suisun Marsh.

**Reporting and Monitoring Actions:** Conditions of the BO and respective RPAs require DWR to develop and follow specific monitoring programs to adaptively evaluate specific flow requirements and action triggers to achieve the RPA objectives. Participation in (including DFG among others), review of, and reporting requirements for these processes are all a condition of and detailed within the BO and RPAs. The BO outlines a monitoring and reporting process to determine specific operational actions set forth in RPA Components 1 and 2. RPA Components 3 and 4 include similar requirements for the design, monitoring, and adaptive management of fall flow actions to improve delta smelt habitat, as well as the implementation of required habitat restoration actions. RPA Component 5 ensures that information is gathered and reported appropriately.

**Ensured Funding:** All SWP operational actions are a conditional requirement of the BO RPAs. RPA Component 4 lays out specific conditions for DWR to create or restore the required 8,000

acres of intertidal and associated subtidal habitat in the Delta and Suisun Marsh. Included in these conditions is the requirement that an endowment or other secure financial assurance and easement be held in place by a third-party or DFG, and approved by the USFWS. This also includes secure financial assurances to fund the monitoring effort and operation and maintenance of the restoration site. To fund these mitigation actions, DWR has the statutory authority to require reimbursement in the SWP contracts for water and power for any costs DWR incurs for SWP-related fish and wildlife preservation. (Water Code, sections 2937, 12938.)

Based on this consistency determination, DWR does not need to obtain authorization from DFG under CESA for incidental take of delta smelt that occurs in connection with the Project, provided DWR implements the Project as described in the BO and complies with the measures, RPAs, and other conditions described in the BO. The suspension of the 74 km X2 target beginning October 16 and continuing through November 30, 2011, does not affect the ability of DFG to find consistency with the BO given that the best available information indicates that the X2 location with the Wanger Order in place is comparable to the X2 location that would otherwise have been observed without the Wanger Order. In addition, the Wanger Order is only valid through calendar year 2011. The Fall X2 action is expected to be fully implemented in future years. The continued implementation of the Fall X2 action in future years when applicable is integral to DFG's ability to find consistency.

The estimated X2 locations for October 16 through November 30 are expected to be close to RPA targets. The attachments to DWR's letter (dated September 27, 2011) describe estimated X2 locations for October and November based on the "most likely case" and the "worst case" hydrologic conditions for October and November, with and without the injunction. DSM2 was used to estimate the X2 position from October 16 through October 31. A Net Delta Outflow Index (NDOI) of 5,700 cfs for November is assumed in the "worst case" circumstances and a NDOI of 9,500 cfs in the "most likely case." The "most likely case" estimate of monthly average X2 *with* the injunction in October is 74.4 km, which is nearly the same as the "most likely case" *without* the injunction (74 km). The "worst case" estimate of monthly average X2 in October *with* the injunction is 74.4 km which is also nearly the same as the "worst case" *without* the injunction (74 km). DFG concludes that favorable hydrology will result in an X2 location which is the same or nearly the same as what is required in the RPA without the injunction. The circumstance of a very slight change in location effectively ensures implementation of the X2 target as described in RPA Component 3, Action 4, notwithstanding the Wanger Order. This conclusion is also supported by the favorable hydrology in October that has occurred to date. The X2 location from October 1 to October 13 averaged 71.7 km.

In addition, it is expected that CVP and SWP operations will be consistent with the RPA component for November. DWR provided information, specifically a letter from USBR to the USFWS, dated July 21, 2011, that states if there is a net increase in Sacramento Basin CVP and SWP storage during November, the increase in reservoir storage shall be released in December in a manner consistent with the RPA. It further states that if this situation should arise, Reclamation will notify the USFWS to discuss project operations into the month of December. DWR's letter includes projections of X2 locations based on the "most likely case" and the "worst case" hydrologic conditions for November, with and without the injunction through November 30, 2011. In November, X2 is estimated to be located between 78.6 km (most likely case with injunction) and 81.9 km (worst case with injunction). Again, the circumstance of a very slight change in location effectively ensures implementation of the X2 target as described in RPA Component 3, Action 4, notwithstanding the Wanger Order.

If the Project as described in the BO, excluding the portion of the RPA enjoined by the Wanger Order through 2011, changes after the date of this Consistency Determination, or if the USFWS amends or replaces the BO, including any of the RPAs, DWR will need to obtain from DFG a new consistency determination (in accordance with Fish and Game Code section 2080.1) or an incidental take permit (in accordance with Fish and Game Code section 2081). This determination replaces DFG's prior determination (Ref. #2080-2009-007-00) issued on July 16, 2009.

By: Sandra Morey

Date: 10/14/11

Sandra Morey  
Deputy Director  
Ecosystem Conservation Division  
California Department of Fish and Game