

**U.S. FISH AND WILDLIFE SERVICE AND U.S. BUREAU OF RECLAMATION
WATER YEAR 2017 FINAL ACCOUNTING
FISHERY AND WATER QUALITY CONTROL PLAN ACTIONS**

September 30, 2018

BACKGROUND

Pursuant to section 3406(b)(2) of the Central Valley Project Improvement Act (CVPIA), the Secretary of the Interior must:

dedicate and manage annually eight hundred thousand acre-feet of Central Valley Project yield for [1] the primary purpose of implementing the fish, wildlife, and habitat restoration purposes and measures authorized by this title; [2] to assist the State of California in its efforts to protect the waters of the San Francisco Bay/Sacramento-San Joaquin Delta Estuary; and [3] to help meet such obligations as may be legally imposed upon the Central Valley Project under State or Federal law following the date of enactment of this title, including but not limited to additional obligations under the Federal Endangered Species Act.

The Department of the Interior (Interior) manages (b)(2) water consistent with its May 9, 2003 (b)(2) Policy and December 17, 2003 (b)(2) Guidance and relevant case law, including the Ninth Circuit Court's decision in Bay Inst. of San Francisco v. United States, 87 Fed. Appx 637 (2004) (hereinafter "2004 Decision"), confirming Interior's discretion to give effect to the "hierarchy of purposes" in Section 3406(b)(2), and the Ninth Circuit's recent decision in San Luis & Delta Mendota Water Authority v. United States, 672F.3d 676 (2012) (hereinafter "2012 Decision"), affirming the District's Court's memorandum opinion in San Luis & Delta Mendota Water Authority v. Dept. of the Interior, 1:97-cv-6140, 1:98-cv-5261 OWW DLB (E.D. Cal. Sept. 19, 2008) (hereinafter SLDMWA).

In SLDMWA, Judge Wanger stated that the "primary purpose" of CVPIA Section 3406(b)(2) "includes all those fish and wildlife restoration activities specifically described in section 3406(b)," including "water dedicated to accomplish the anadromous fish doubling goal set forth in section 3406(b)(1)" and "water needed to accomplish any of the other specifically enumerated programs listed in section 3406(b)(2). SLDMWA, at 43 (underline in original). Judge Wanger also recognized that some WQCP and/or ESA actions "may serve the primary purpose of the CVPIA." Id. at 47. Thus, "if an action taken under the WQCP and/or ESA predominantly contributes to one of the primary purpose programs (e.g., fish doubling), it must be counted toward the 800,000 AF limit." Id. at 48. In so doing, Judge Wanger recognized that there may be some "primacy" to section 3406(b)(1) in relation to other stated purposes of section 3406(b), but he did not rule on that question. Id. at 45.

As explained in Interior's May 2003 policy, "actions" in the context of (b)(2) accounting are computed increases in Central Valley Project (CVP) releases and decreases in CVP exports relative to hypothetical baseline operations. The hypothetical baseline operations reflect how the CVP would have been

operated experiencing WY 2017's hydrology under the regulatory environment that existed at the time CVPIA was passed.

The CVP began Water Year (WY) 2017 on October 1, 2016 with moderate storage levels in Trinity, Shasta, Folsom, and New Melones reservoirs, ranging from 43% to 117% of the 15-year average. Subsequent precipitation in the winter and spring was well above average, and annual inflows to the CVP reservoirs ranged from 171% to 282% of the 15-year average. The Sacramento River basin and the San Joaquin River basin were both classified as WET, using D-1641 year type classifications, for WY 2017. Consistent with Section 3406(b)(2) of the CVPIA and Interior's May 2003 (b)(2) Policy, the total (b)(2) water allocation was 800 thousand acre-feet (TAF) during the 2017 water year. The (b)(2) allocation was utilized for primary purpose fish actions, Endangered Species Act (ESA) requirements, and/or Water Quality Control Plan (WQCP) requirements.

CVP operations during the 2017 water year were subject to implementation of two biological opinions: (1) the United States Fish and Wildlife Service (FWS) Biological Opinion (BO) on the Coordinated Operations of the CVP and the State Water Project (SWP) for the protection of federally-listed delta smelt, issued in December 2008 (FWS BO), and (2) the National Marine Fisheries Service (NMFS) BO on the Long-term Operations of the CVP and SWP for the protection of listed salmonids and Green Sturgeon, issued in June 2009 (NMFS BO). Both biological opinions included a reasonable and prudent alternative (RPA) to avoid jeopardy to the subject species.

The purpose of this document is to explain Interior's final accounting of fish actions covered by CVPIA Section 3406(b)(2) in WY 2017. The attached table, "Water Year 2017 Final CVP Accounting of (b)(2) Actions in TAF," summarizes the fishery actions, including WQCP and ESA actions (relative to the hypothetical baseline operations) covered by CVPIA Section 3406(b)(2) in WY 2017. The table is based on the final daily accounting for WY 2017. This narrative, together with the attached table, constitutes Interior's final accounting of fishery actions, including ESA and WQCP actions, covered by CVPIA Section 3406(b)(2) during WY 2017 and explains how Interior exercised its authority and discretion under CVPIA Section 3406(b)(2) during that same period.

Water Year 2017 Fish Actions Covered By (b)(2) Water

October 2016:

No (b)(2) actions

November 2016:

On Clear Creek, flows were augmented above the hypothetical baseline using approximately 5.4 TAF of (b)(2) water. Approximately 250 cubic feet per second (cfs) was maintained to help meet AFRP flow objectives for spring-run Chinook egg incubation and rearing, and improved instream conditions for spawning fall-run Chinook salmon. These releases predominantly contributed to the primary purpose of Section 3406(b)(2).

December 2016:

On Clear Creek, flows were augmented above the hypothetical baseline using approximately 7.5 TAF of (b)(2) water. Approximately 240 cfs was maintained to help meet AFRP flow objectives to benefit spring-run Chinook fry, steelhead juveniles and pre-spawning adults, and instream conditions for fall-run Chinook salmon spawning and egg incubation. These releases predominantly contributed to the primary purpose of Section 3406 (b)(2).

In the Delta, from December 18-27, CVP exports were curtailed to an average of approximately 3,541 cfs to assist in meeting the OMR flow requirement included in FWS RPA Action 1, Parts 1 and 2. During that period, CVP exports were reduced below hypothetical baseline pumping levels by approximately 11.3 TAF to reduce the vulnerability of pre-spawning adult delta smelt within the lower Sacramento and San Joaquin Rivers to entrainment into the channels of the South Delta and at the pumps. Consistent with the Ninth Circuit's 2004 Decision, confirming Interior's discretion to give effect to Section 3406(b)(2)'s hierarchy of purposes and 2012 Decision, Interior exercised its discretion and accounted for these ESA actions as (b)(2) actions this year.

January 2017:

On Clear Creek, flows were augmented above the hypothetical baseline using approximately 12.3 TAF of (b)(2) water. Approximately 200 cfs was maintained to help meet AFRP flow objectives to benefit spring-run Chinook juvenile rearing, steelhead juveniles and spawning adults, and instream conditions for fall-run Chinook egg incubation and juvenile rearing. These releases predominantly contributed to the primary purpose of Section 3406 (b)(2).

On the Stanislaus River, flows were augmented above the hypothetical baseline using approximately 0.4 TAF of (b)(2) water. Approximately 200-225 cfs was released as specified in the flow schedule contained in the NMFS BO RPA III.1.3 to enhance access to varied rearing habitats for CV steelhead. These releases predominantly contributed to the primary purpose of Section 3406(b)(2).

In the Delta, from January 1-6, CVP exports were curtailed to an average of approximately 2639 cfs as part of the NMFS BO Action IV.2.3 (OMR management). During that period, CVP exports were reduced below hypothetical baseline pumping levels by approximately 16.8 TAF. These export reductions predominantly contributed to the primary purpose of Section 3406 (b)(2).

February 2017:

On Clear Creek, flows were augmented above the hypothetical baseline using approximately 8.3 TAF of (b)(2) water. Approximately 250 cfs was maintained to help meet AFRP flow objectives for fall-run Chinook salmon incubation, emergence, and rearing and steelhead spawning, incubation, and emergence. These releases predominantly contributed to the primary purpose of Section 3406(b)(2).

On the Stanislaus River, flows were augmented above the hypothetical baseline using approximately 0.5 TAF of (b)(2) water. Approximately 200 cfs was released as specified in the flow schedule contained in

the NMFS BO RPA III.1.3 to enhance access to varied rearing habitats for CV steelhead. These releases predominantly contributed to the primary purpose of Section 3406(b)(2).

March 2017:

On Clear Creek, flows were augmented above the hypothetical baseline using approximately 12.3 TAF of (b)(2) water. Approximately 240 cfs was maintained to help meet AFRP flow objectives for fall-run Chinook salmon rearing and steelhead incubation and emergence. These releases predominantly contributed to the primary purpose of Section 3406(b)(2).

April 2017:

On Clear Creek, flows were augmented above the hypothetical baseline using approximately 11.9 TAF of (b)(2) water. Approximately 240 cfs was maintained to help meet AFRP flow objectives for fall-run Chinook salmon rearing and steelhead incubation and emergence. These releases predominantly contributed to the primary purpose of Section 3406(b)(2).

May 2017:

On Clear Creek, flows were augmented above the hypothetical baseline using approximately 11.6 TAF of (b)(2) water. Approximately 175-250 cfs was maintained to help meet AFRP flow objectives for fall-run Chinook, late fall-run Chinook, and steelhead juvenile rearing and outmigration. These releases predominantly contributed to the primary purpose of Section 3406(b)(2).

In the Delta, from May 22-31, CVP exports were curtailed to an average of approximately 1847 cfs as part of NMFS BO Action IV.2.1. During that period, CVP exports were reduced below hypothetical baseline pumping levels by approximately 22.9 TAF to reduce the vulnerability of juvenile salmonids within the lower Sacramento and San Joaquin rivers to entrainment into the channels of the South Delta and at the pumps. These export reductions predominantly contributed to the primary purpose of Section 3406(b)(2).

June 2017:

On Clear Creek, flows were augmented above the hypothetical baseline using approximately 12.8 TAF of (b)(2) water. Approximately 150-200 cfs was maintained to help meet AFRP flow objectives for fall-run Chinook, late fall-run Chinook, and steelhead juvenile rearing and outmigration, as well as for spring-run Chinook attraction flows in accordance with NMFS RPA I.1.1. These releases predominantly contributed to the primary purpose of Section 3406(b)(2).

July 2017:

On Clear Creek, flows were augmented above the hypothetical baseline using approximately 6.0 TAF of (b)(2) water. Approximately 150 cfs was maintained to help meet AFRP flow objectives for fall-run

Chinook, late fall-run Chinook, and steelhead juvenile rearing and outmigration. These releases predominantly contributed to the primary purpose of Section 3406(b)(2).

August 2017:

On Clear Creek, flows were augmented above the hypothetical baseline using approximately 6.1 TAF of (b)(2) water. Approximately 150 cfs was maintained to help meet AFRP flow objectives for fall-run Chinook, late fall-run Chinook, and steelhead juvenile rearing and outmigration. These releases predominantly contributed to the primary purpose of Section 3406(b)(2).

September 2017:

On Clear Creek, flows were augmented above the hypothetical baseline using approximately 7.1 TAF of (b)(2) water. Approximately 175 cfs was maintained to help meet AFRP flow objectives for fall-run Chinook, late fall-run Chinook, and steelhead juvenile rearing and outmigration. These releases predominantly contributed to the primary purpose of Section 3406(b)(2).

In the Delta, Reclamation reduced CVP exports below baseline pumping levels by approximately 16 TAF from September 19-27 to implement RPA Component 3 of the FWS BO (Fall X2) as stipulated in the US Bureau of Reclamation's July 21, 2011 "Coordinated Operation and Implementation of RPA Component 3" memorandum and the FWS July 22, 2011 "Acceptance" memorandum. The objective of this RPA component is to improve fall habitat for delta smelt through increasing Delta outflow during the fall months.

Replacement Pumping (July-September):

Under Condition 3 of D-1485¹, and Article 10(b) of the "Agreement Between the United States of America and State of California for the Coordinated Operation of [CVP] and State Water Project" (COA), Interior would have been able to replace up to about 195 TAF of exports foregone in May and June due to D-1485 requirements later in the year (generally July through September)². This ability to make up for reductions in exports during May and June of any year under D-1485 is commonly referred to as "replacement pumping" and is considered part of the base case operation for CVPIA 3406(b)(2) purposes, consistent with Interior's 2003 (b)(2) Policy. If actual CVP exports are more than the 3,000 cfs

¹ Condition 3 of D-1485 states, "To the extent that operational constraints on the Central Valley Project to minimize diversion of young striped bass from the Delta during May and June reduce project exports, permittee, the United States Bureau of Reclamation, shall be allowed through coordinated operations to make up such deficiencies during later periods of the year by direct diversion or by redirection of releases of stored water through State Water Project facilities."

² Generally, the 195 TAF of replacement pumping allowed under D-1485 and the COA is calculated as the difference between the designed pumping capacity of the Jones Pumping Plant (4,600 cfs) and allowable exports under D-1485 (3,000 cfs) during the 61 days in May and June. Interior assumes that replacement pumping under D-1485 would have occurred at a uniform rate from July 1 through September 30. Thus, Interior accounts for replacement pumping foregone due to D-1641 based on a uniform rate in July, August, and September.

³ Condition 8 of SWRCB Water Rights Decision 1641 (D-1641) rescinded Condition 3 of D-1485 stating, "SWRCB Decision 1485 (D-1485) ordered that certain terms and conditions in this license/permit be added or amended. Except as amended or deleted herein, the terms and conditions set forth in D-1485 remain in this license/permit. The terms and conditions in D-1485 numbered 2, 3, 4, 5, and 8 are rescinded."

base case operation in May or June, the incremental amount of exports above 3,000 cfs is subtracted from the nominal 195 TAF of replacement pumping allowed under D-1485 and the COA. In WY 2017, in the base case operation under D-1485, the CVP would have been entitled to a replacement pumping volume of 67.4 TAF.

However, Condition 8 of SWRCB Decision 1641 (D-1641) eliminated Interior's ability to make up for export reductions later in the year by rescinding Condition 3 of D-1485³. The SWRCB's decision to rescind Condition 3 and eliminate replacement pumping is a WQCP requirement mandated through D-1641 and, therefore, any replacement pumping foregone in the 2017 water year due to Condition 8 of D-1641 was considered a WQCP action. Additionally, as explained above, Interior considers operations under D-1485, including the ability to replace foregone CVP pumping in May and June, to be part of the base case condition, consistent with Interior's May 2003 (b)(2) Policy. In water year 2017, Interior distributed the 67.4 TAF of replacement pumping foregone due to D-1641 uniformly throughout July, August, and September. In July, CVP exports were less than base case exports under D-1485, which included about 22.7 TAF of foregone replacement pumping. In August, CVP exports were less than base case operations under D-1485, which included about 22.7 TAF of foregone replacement pumping under D-1641 and the current WQCP. In September, CVP exports were less than base case operations, which included about 22.0 TAF of foregone replacement pumping under D-1641 and the current WQCP. Interior considered the 67.4 TAF of foregone replacement pumping to be a WQCP action that did not predominantly contribute to the primary purpose of CVPIA 3406(b)(2). Nonetheless, due to the favorable conditions in WY 2017 and the availability of (b)(2) water, Interior exercised its discretion and accounted for the foregone replacement pumping as a (b)(2) action this year.

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