

**U.S. FISH AND WILDLIFE SERVICE AND U.S. BUREAU OF RECLAMATION
WATER YEAR 2016 FINAL ACCOUNTING
FISHERY AND WATER QUALITY CONTROL PLAN ACTIONS**

September 30, 2017

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 2016's hydrology under the regulatory environment that existed at the time CVPIA was passed.

The CVP began Water Year (WY) 2016 on October 1, 2015 with low storage levels in Trinity, Shasta, Folsom, and New Melones reservoirs, ranging from 21% to 68% of the 15-year average. Subsequent precipitation in the winter and spring was slightly above average, and annual inflows to the CVP reservoirs ranged from 105% to 116% of the 15-year average. The Sacramento River basin and the San Joaquin River basin were classified as Below Normal and Dry respectively, using D-1641 year type classifications, for WY 2016. 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 2016 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 2016 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 water year 2016. The attached table, "Water Year 2016 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 water year 2016. The table is based on the final daily accounting for water year 2016. 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 water year 2016 and explains how Interior exercised its authority and discretion under CVPIA Section 3406(b)(2) during that same period.

Water Year 2016 Fish Actions Covered By (b)(2) Water

October 2015:

On the Stanislaus River, flows were augmented above the hypothetical baseline using approximately 5.5 TAF of (b)(2) water. Approximately 200-1200 cfs was maintained as specified in the flow schedule contained in the NMFS BO RPA III.1.3 for adult steelhead migration and to help meet AFRP flow objectives for fall-run Chinook migration and spawning. These releases predominantly contributed to the primary purpose of Section 3406(b)(2).

November 2015:

No (b)(2) actions

December 2015:

No (b)(2) actions

January 2016:

On Clear Creek, flows were augmented above the hypothetical baseline using approximately 7.7 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 4.6 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).

In the Delta, from January 8-14, CVP exports were curtailed to an average of approximately 3344 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 10.5 TAF. Additionally, from Jan 15-31, CVP exports were curtailed to an average of approximately 2297 cfs to assist in moderating flow and turbidity from both the Sacramento and San Joaquin Rivers into the central and south Delta to reduce the vulnerability of pre-spawning adult delta smelt and juvenile salmonid entrainment to the export facilities and as part of the FWS BO Action 2. During that period, CVP exports were reduced below hypothetical baseline pumping levels by approximately 60.8 TAF for a January total export reduction of 71.3 TAF. The Department accounted for these export reductions as (b)(2) actions this water year.

February 2016:

On Clear Creek, flows were augmented above the hypothetical baseline using approximately 8.6 TAF of (b)(2) water. Approximately 200 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 4.3 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).

In the Delta, from February 1-13, CVP exports were curtailed to an average of approximately 2,262 cfs to assist in moderating flow and turbidity from both the Sacramento and San Joaquin Rivers into the central and south Delta to reduce the vulnerability of pre-spawning adult delta smelt and juvenile salmonid entrainment to the export facilities and as part of the FWS BO Action 2. During that period,

CVP exports were reduced below hypothetical baseline pumping levels by approximately 46 TAF. Additionally, from February 22-27, CVP exports were curtailed to an average of approximately 3405 cfs as part of both the NMFS BO Action IV.2.3 and FWS BO Action 2. During that period, CVP exports were reduced below hypothetical baseline pumping levels by approximately 4.5 TAF for a February total export reduction of 50.5 TAF. The Department accounted for these export reductions as (b)(2) actions this water year.

March 2016:

On Clear Creek, flows were augmented above the hypothetical baseline using approximately 9.2 TAF of (b)(2) water. Approximately 200 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).

On the Stanislaus River, flows were augmented above the hypothetical baseline using approximately 2.6 TAF of (b)(2) water. Approximately 200 cfs was maintained as specified in the flow schedule contained in the NMFS BO RPA III.1.3 for steelhead juvenile outmigration and to help meet AFRP flow objectives for fall-run Chinook rearing and outmigration. These releases predominantly contributed to the primary purpose of Section 3406(b)(2).

In the Delta, from March 8-31, CVP exports were curtailed to an average of approximately 3,017 cfs as part of FWS BO Action 3. During that period, CVP exports were reduced below hypothetical baseline pumping levels by approximately 78.5 TAF to reduce the vulnerability of adult and larval delta smelt and juvenile salmonids within the lower Sacramento and San Joaquin rivers to entrainment into the channels of the South Delta and at the pumps. The Department accounted for these export reductions as (b)(2) actions this water year.

April 2016:

On Clear Creek, flows were augmented above the hypothetical baseline using approximately 8.9 TAF of (b)(2) water. Approximately 200 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).

On the Stanislaus River, flows were augmented above the hypothetical baseline using approximately 16.5 TAF of (b)(2) water. Approximately 3000 cfs was released as specified in the flow schedule contained in the NMFS BO RPA III.1.3 for steelhead juvenile outmigration and to help meet AFRP flow objectives for fall-run Chinook rearing and outmigration. These releases predominantly contributed to the primary purpose of Section 3406(b)(2).

In the Delta, from April 1-30, CVP exports were curtailed to an average of approximately 994 cfs as part of NMFS BO Action IV.2.1 (I:E ratio). During that period, CVP exports were reduced below hypothetical baseline pumping levels by approximately 210.2 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 releases predominantly contributed to the primary purpose of Section 3406(b)(2).

May 2016:

On the American River, flows were augmented above the hypothetical baseline using approximately 12.5 TAF of (b)(2) water. Approximately 4000-5000 cfs was maintained from May 19-26 to assist with meeting the WQCP NDOI requirement of 11,400 cfs to enhance habitat for emigrating salmonids. The Department accounted for these export reductions as (b)(2) actions this water year.

On the Stanislaus River, flows were augmented above the hypothetical baseline using approximately 38.5 TAF of (b)(2) water. Approximately 2700 cfs was released as specified in the flow schedule contained in the NMFS BO RPA III.1.3 for steelhead juvenile outmigration and to help meet AFRP flow objectives for fall-run Chinook rearing and outmigration. These releases predominantly contributed to the primary purpose of Section 3406(b)(2).

In the Delta, from May 1-31, CVP exports were curtailed to an average of approximately 1074 cfs as part of NMFS BO Action IV.2.1 (I:E ratio). During that period, CVP exports were reduced below hypothetical baseline pumping levels by approximately 118.4 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 releases predominantly contributed to the primary purpose of Section 3406(b)(2).

June 2016:

On the American River, flows were augmented above the hypothetical baseline using approximately 17.9 TAF of (b)(2) water. Approximately 4000 cfs was maintained from June 19-27 to assist with meeting the WQCP NDOI requirement of 7,100 cfs to enhance habitat for emigrating salmonids. The Department accounted for these export reductions as (b)(2) actions this water year.

On the Stanislaus River, flows were augmented above the hypothetical baseline using approximately 12.9 TAF of (b)(2) water. Approximately 300-500 cfs were maintained as specified in the flow schedule contained in the NMFS BO RPA III.1.3 for steelhead juvenile outmigration and to help meet AFRP flow objectives for fall-run Chinook rearing and outmigration. These releases predominantly contributed to the primary purpose of Section 3406(b)(2).

In the Delta, from June 1-28, CVP exports were curtailed to an average of approximately 863 cfs to assist in meeting WQCP NDOI, E/I ratio, and seasonal salinity requirements. During that period, CVP exports were reduced below hypothetical baseline pumping levels by approximately 114.5 TAF to enhance habitat for emigrating salmonids. The Department accounted for these export reductions as (b)(2) actions this water year.

July – Sept 2016:

No (b)(2) actions