U.S. FISH AND WILDLIFE SERVICE AND U.S. BUREAU OF RECLAMATION

WATER YEAR 2021 FINAL ACCOUNTING
FISHERY AND WATER QUALITY CONTROL PLAN ACTIONS

September 30, 2022

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 decision in San Luis & Delta Mendota Water Authority v. United States, 672 F.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 2021's hydrology under the regulatory environment that existed at the time CVPIA was passed.

The CVP began Water Year 2021 on October 1, 2020 with near average storage levels in Trinity, Shasta, Folsom, and New Melones reservoirs, ranging from 91% to 113% of the 15-year average. Subsequent precipitation in the winter and spring was well below average, and annual inflows to the CVP reservoirs ranged from 32% to 52% of the 15-year average. In the 2021 water year, the Sacramento River basin and the San Joaquin River basin were both classified as Critical, using D-1641 year type classifications. Consistent with Section 3406(b)(2) of the CVPIA and Interior's May 2003 (b)(2) Policy, the total (b)(2) water allocation was 600 thousand-acre feet (TAF) during the 2021 water year.

During the 2021 water year, CVP operations were subject to the Record of Decision (ROD) for the Reinitiation of Consultation on the Coordinated Long-Term Modified Operations of the Central Valley Project and State Water Project, signed Feb. 18, 2020. The ROD incorporated new United States Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS) non-jeopardy biological opinions (BO) without reasonable and prudent alternatives (RPA).

In water year 2021, the 600 TAF (b)(2) allocation was utilized for primary purpose fish actions, Endangered Species Act (ESA) requirements, and/or Water Quality Control Plan (WQCP) requirements. 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 2021. The first attached table, "Water Year 2021 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 2021. This summary table is based on the final daily accounting for water year 2021. This narrative and table constitute Interior's final accounting of fishery actions, including ESA and WQCP actions, covered by CVPIA Section 3406(b)(2) during water year 2021 and explains how Interior exercised its authority and discretion under CVPIA Section 3406(b)(2) during that same period.

Water Year 2021 Fish Actions Covered By (b)(2) Water

October 2020:

On the Stanislaus River, flows were augmented above the hypothetical baseline using approximately 30.9 TAF of (b)(2) water. Approximately 200-1400 cfs was maintained as specified in the ROD 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 2020:

On the Stanislaus River, flows were augmented above the hypothetical baseline using approximately 1.4 TAF of (b)(2) water. Approximately 200-600 cfs was maintained during the first week as specified in the ROD 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).

December 2020:

On Clear Creek, flows were augmented above the hypothetical baseline using approximately 7.1 TAF of (b)(2) water. Approximately 215 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).

On the Sacramento River, flows were augmented above the hypothetical baseline using approximately 10.4 TAF of (b)(2) water. Approximately 3250-4000 cfs was maintained to help meet AFRP flow objectives for fall-run Chinook salmon spawning, emergence, and rearing and to benefit steelhead spawning adults, egg incubation, and juvenile rearing. These releases predominantly contributed to the primary purpose of Section 3406(b)(2).

In the Delta, CVP exports were curtailed to an average of approximately 845 to assist in meeting the d-1641 WQCP NDOI requirement. During that period, CVP exports were reduced below hypothetical baseline pumping levels by approximately 55.2 TAF to improve fall habitat through increased Delta outflow. Interior accounted for these WQCP actions as (b)(2) actions this year.

January 2021:

On Clear Creek, flows were augmented above the hypothetical baseline using approximately 10.1 TAF of (b)(2) water. Approximately 215 cfs was maintained to help meet AFRP flow objectives to benefit spring-run Chinook fry, steelhead juveniles and spawning adults, and instream conditions for fall-run Chinook salmon egg incubation and rearing. These releases predominantly contributed to the primary purpose of Section 3406 (b)(2).

On the American River, flows were augmented above the hypothetical baseline using approximately 8.5 TAF of (b)(2) water. Approximately 1225 cfs was maintained to help meet AFRP flow objectives for fall-run Chinook salmon egg incubation, emergence, and rearing and to benefit steelhead spawning adults, 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 5.8 TAF of (b)(2) water. Approximately 200-450 cfs was released as specified in the winter instability flow schedule contained in the ROD 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, CVP exports were curtailed to an average of approximately 1152 cfs to assist in meeting the d-1641 WQCP NDOI requirement. During that period, CVP exports were reduced below hypothetical baseline pumping levels by approximately 59.1 TAF to improve fall habitat through increased Delta outflow. Interior exercised its discretion and accounted for these WQCP actions as (b)(2) actions this year.

February 2021:

On Clear Creek, flows were augmented above the hypothetical baseline using approximately 8.3 TAF of (b)(2) water. Approximately 200 cfs was maintained to help meet AFRP flow objectives to benefit spring-run Chinook fry, steelhead juveniles and spawning adults, and instream conditions for fall-run Chinook salmon juvenile rearing. These releases predominantly contributed to the primary purpose of Section 3406 (b)(2).

In the Delta, CVP exports were curtailed to an average of approximately 2,054 cfs. Exports were reduced below hypothetical baseline pumping levels by approximately 12.1 TAF to primarily help meet WQCP NDOI requirements. These export reductions also contributed to help reduce the vulnerability of emigrating juvenile fall-run Chinook salmon and CV steelhead within the lower San Joaquin River to entrainment into the channels of the South Delta and at the pumps. Interior exercised its discretion and accounted for these WQCP actions as (b)(2) actions this year.

March 2021:

On Clear Creek, flows were augmented above the hypothetical baseline using approximately 10.0 TAF of (b)(2) water. Approximately 225 cfs was maintained to help meet AFRP flow objectives for fall-run Chinook salmon rearing and emigration and steelhead spawning 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 1.2 TAF of (b)(2) water. Approximately 200-400 cfs was released to assist in meeting d-1641 WQCP Vernalis Base Flow requirements. Interior exercised its discretion and accounted for these WQCP actions as (b)(2) actions this year.

In the Delta, CVP exports were curtailed to an average of approximately 710 cfs. Exports were reduced below hypothetical baseline pumping levels by approximately 56.5 TAF to primarily help meet WQCP NDOI requirements. These export reductions also contributed to help reduce the vulnerability of emigrating juvenile fall-run Chinook salmon and CV steelhead within the lower San Joaquin River to entrainment into the channels of the South Delta and at the pumps. Interior exercised its discretion and accounted for these WQCP actions as (b)(2) actions this year.

April 2021:

On Clear Creek, flows were augmented above the hypothetical baseline using approximately 9.9 TAF of (b)(2) water. Approximately 220 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, CVP exports were curtailed to an average of approximately 711 cfs. Exports were reduced below hypothetical baseline pumping levels by approximately 13.7 TAF to primarily help meet WQCP NDOI requirements. These export reductions also contributed to help reduce the vulnerability of emigrating juvenile fall-run Chinook salmon and CV steelhead within the lower San Joaquin River to

entrainment into the channels of the South Delta and at the pumps. Interior exercised its discretion and accounted for these WQCP actions as (b)(2) actions this year.

May 2021:

On Clear Creek, flows were augmented above the hypothetical baseline using approximately 0.3 TAF of (b)(2) water. Approximately 125-850 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).

June 2021:

On the Stanislaus River, flows were augmented above the hypothetical baseline using approximately 35.2 TAF of (b)(2) water. Approximately 600-1500 cfs was maintained to help meet WQCP NDOI requirements. These releases also contributed to help reduce the vulnerability of emigrating juvenile fall-run Chinook salmon and CV steelhead within the lower San Joaquin River to entrainment into the channels of the South Delta and at the pumps. Interior exercised its discretion and accounted for these WQCP actions as (b)(2) actions this year.

July 2021:

On the Stanislaus River, flows were augmented above the hypothetical baseline using approximately 46.3 TAF of (b)(2) water. Approximately 1500 cfs was maintained to help meet WQCP NDOI requirements. These releases also contributed to help reduce the vulnerability of emigrating juvenile fall-run Chinook salmon and CV steelhead within the lower San Joaquin River to entrainment into the channels of the South Delta and at the pumps. Interior exercised its discretion and accounted for these WQCP actions as (b)(2) actions this year.

August 2021:

On the Stanislaus River, flows were augmented above the hypothetical baseline using approximately 19.9 TAF of (b)(2) water. Approximately 350-1500 cfs was maintained to help meet WQCP NDOI requirements. These releases also contributed to help reduce the vulnerability of emigrating juvenile fall-run Chinook salmon and CV steelhead within the lower San Joaquin River to entrainment into the channels of the South Delta and at the pumps. Interior exercised its discretion and accounted for these WQCP actions as (b)(2) actions this year.

September 2021:

No Actions

Replacement Pumping (July-September):

Under Condition 3 of D-1485[1], 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 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 2021, in the base case operation under D-1485, the CVP would have been entitled to a full replacement pumping volume of 195 TAF.

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-1485[3]. 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 2021 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 2021, Interior distributed the 195 TAF of replacement pumping foregone due to D-1641 uniformly throughout July, August, and September, resulting in 65 TAF of foregone replacement pumping per month. Due to 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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[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 rediversion 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."