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

WATER YEAR 2009 FINAL ACCOUNTING
FISHERY AND WATER QUALITY CONTROL PLAN ACTIONS

February 24, 2010

BACKGROUND

In the 2009 water year the Sacramento River basin was classified as dry and the San Joaquin River basin was classified as below normal, which resulted in reduced deliveries of Central Valley Project (CVP) water to certain users within the CVP. For that reason, and consistent with Section 3406(b)(2) of the Central Valley Project Improvement Act (CVPIA) and the Department of the Interior's (Interior) May 2003 (b)(2) Policy, total (b)(2) water was ultimately limited to 600,000 acre feet during the 2009 water year.

CVP operations during the 2009 water year were affected by the issuance of two new Biological Opinions: (1) the FWS Biological Opinion on the Coordinated Operations of the Central Valley Project (CVP) and the State Water Project (SWP) for the protection of federally-listed delta smelt, issued in December 2008, and (2) the NOAA Fisheries Biological Opinion on the Long-term Operations of the Central Valley Project and State Water Project for the protection of listed salmonids and Green Sturgeon, issued in June 2009.

Throughout the 2009 water year, Interior managed the (b)(2) water consistent with the Ninth Circuit's decision in Bay Inst. of San Francisco v. United States, 87 Fed. Appx 637 (2004), confirming Interior's discretion to give effect to the "hierarchy of purposes" in Section 3406(b)(2), Interior's May 9, 2003 (b)(2) Policy, and Interior's December 17, 2003 (b)(2) Guidance. The (b)(2) water was also managed consistent with the US District Court, Eastern District of California's memorandum opinion in San Luis & Delta Mendota Water Authority v. Department of the Interior, 1:97-cv-6140, 1:98-cv-5261 OWW DLB (E.D. Cal. Sept. 19, 2008) (hereinafter "SLDMWA"), concerning Interior's (b)(2) accounting for the 2004 water year.[1] Thus, Interior accounted for fishery actions, including Endangered Species Act (ESA) and water

[1] In that opinion, 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). 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.

quality control plan (WQCP) actions during the 2009 water year consistent with that opinion, as well as, the Ninth Circuit's decision in Bay Inst. of San Francisco, Interior's 2003 (b)(2) Policy, and 2003 (b)(2) Guidance.

The purpose of this document is to explain Interior's final accounting of actions covered by CVPIA Section 3406(b)(2) in water year 2009. The first attached table, "Water Year 2009 Final CVP Accounting of (b)(2) Actions in TAF," summarizes the fishery actions, including WQCP and ESA actions covered by CVPIA Section 3406(b)(2) in water year 2009. The second attached table, "Water Year 2009 Final CVP Accounting of WQCP Actions in TAF That Do Not Predominantly Contribute to CVPIA § 3406(b)(2) Primary Purpose," summarizes WQCP actions taken during water year 2009 that did not predominantly contribute to the primary purpose of CVPIA Section3406(b)(2) and were not accounted for as (b)(2) actions. Both of those tables are based on the final daily accounting for water year 2009. This narrative, together with the two attached tables, constitutes Interior's final accounting of fishery actions, including ESA and WQCP actions, covered by CVPIA Section 3406(b)(2) during water year 2009 and explains how Interior exercised its authority and discretion under CVPIA Section 3406(b)(2) during that same period.

Water Year 2009 Actions Covered By (b)(2)

October 2008:

Interior released approximately 12.4 thousand acre feet (TAF) of (b)(2) water above base case operations on the American River to maintain suitable conditions for pre-spawning fall-run Chinook salmon. This release predominantly contributed to the primary purpose of Section 3406(b)(2) of the CVPIA and was accounted for as a (b)(2) action this year.

On the Stanislaus River a very small amount of (b)(2) water (approximately 0.1 TAF) was used in conjunction with (b)(3) acquired water[2] to provide a fall upstream migration flow for fall-run Chinook adult migration and spawning from October 8 through October 23. After the pulse, the remaining (b)(3) acquired water was used to augment low base flows by 50 cfs from October 24 through December 22, 2008. The total amount of (b)(3) acquired water used in the fall of 2008 was approximately 18.7 TAF. The October portion of the (b)(3) flows represented the Stanislaus River's contribution towards the October San Joaquin River pulse flows at Vernalis. (State Water Resources Control Board (SWRCB), D-1641, Table 3, Footnote 15). In its May, 1995 Environmental Report (ER) for the 1995 WQCP (Appendix 1), the SWRCB described

[2] The 18.7 TAF of (b)(3) acquired water was obtained pursuant to CVPIA Section 3406(b)(3) and was not (b)(2) water.

the purpose of the Vernalis pulse flow requirement in October as follows: "The purpose of the pulse flow standard is to attract adult fall-run Chinook salmon into the San Joaquin River. . . . A pulse of water down the mainstem San Joaquin River will provide additional velocity and olfactory cues which should direct salmon to the main river and facilitate passage through the lower Delta." The release of approximately 0.1 TAF of non-acquired water predominantly contributed to the primary purpose of Section 3406(b)(2) of the CVPIA and was accounted for as a (b)(2) action.

November 2008:

On the American River Interior released approximately 4.7 TAF of (b)(2) water above base case operations to maintain suitable conditions for spawning fall-run Chinook salmon. The American River release predominantly contributed to the primary purpose of Section 3406(b)(2) of the CVPIA and was accounted for as a (b)(2) action.

In late November Interior reduced CVP exports by approximately 3.4 TAF to help meet WQCP objectives, specifically salinity requirements in the Delta at Contra Costa pumping plant #1. (SWRCB, D-1641, Table 1). This export reduction was related to temporary Delta cross channel gates closures (SWRCB, D-1641, Table 3), which contributed to higher salinity levels in the Delta. Although the Contra Costa salinity standard is found in Table 1 of the 1995 WQCP and serves "Municipal and Industrial Beneficial Uses," the temporary Delta cross channel gates closures were intended to benefit winter-run (ESA Endangered) and spring-run Chinook salmon outmigrants and other species. Consequently, this export reduction predominantly contributed to the primary purpose of CVPIA Section 3406(b)(2), and Interior accounted for it as (b)(2) action this year.

December 2008:

Interior released water above base case operations on the following CVP-controlled streams: approximately 3.4 TAF of water on Clear Creek (not accomplished through modification of CVP operations) to help meet AFRP flow objectives for spring-run Chinook fry (ESA Threatened), fall-run Chinook spawning and emergence, and to benefit steelhead juveniles and pre-spawning adults (ESA Threatened), and approximately 8.9 TAF on the American River to help meet AFRP flow objectives for fall-run Chinook spawning and emergence and to benefit steelhead juveniles and pre-spawning adults. These releases predominantly contributed to the primary purpose of Section 3406(b)(2) of the CVPIA and were accounted for as (b)(2) actions.

Interior reduced CVP exports by approximately 15.2 TAF to help meet WQCP objectives, specifically salinity requirements in the Delta at Contra Costa pumping plant #1. (SWRCB, D-1641, Table 1). This export reduction was related to temporary Delta cross channel gates closures (SWRCB, D-1641, Table 3), which contributed to higher salinity levels in the Delta. Although the Contra Costa salinity standard is found in Table 1 of the 1995 WQCP and serves "Municipal and Industrial Beneficial Uses," the temporary Delta cross channel gates closures were intended to benefit winter-run (ESA Endangered) and spring-run Chinook salmon outmigrants and other species. Consequently, this export reduction predominantly contributed to the primary purpose of CVPIA Section 3406(b)(2), and Interior accounted for it as a (b)(2) action this year.

January 2009:

On the American River Interior released approximately 33.3 TAF of (b)(2) water above base case operations to help meet AFRP flow objectives for fall-run Chinook salmon spawning and emergence and to benefit steelhead juveniles and pre-spawning adults. This release predominantly contributed to the primary purpose of Section 3406(b)(2) of the CVPIA and was accounted for as a (b)(2) action.

Interior reduced CVP exports by approximately 52 TAF to meet WQCP objectives, specifically net Delta outflow (SWRCB, D-1641, Table 3). "The stated purpose of the outflow standard is to protect 'estuarine habitat for anadromous fishes and other estuarine-dependent species.'"[3]

[3] In SLDMWA, the actions taken to comply with net Delta outflow requirements occurred in June of 2004. In its May, 1995 ER for the 1995 WQCP (Appendix 1), the SWRCB described the purpose of the Delta outflow objectives during the spring (defined in the WQCP as February through June) as follows:

> The purpose of the Delta outflow standards are to increase outflow and restore some of the natural hydrologic patterns that historically occurred in the system and in which native fish and invertebrate species likely evolved and proliferated. The provision of late winter and spring river flow and Delta outflow promotes conditions conducive for spawning and dispersal of delta smelt, longfin smelt, Sacramento splittail, and other estuarine and anadromous species.

The SWRCB also described the purpose of net Delta outflow objectives during the summer (July and August):

> The purpose of these standards is to provide outflow during summer months for maintenance of biological communities in preparation for the fall transition period, described below. The intended benefits are to sustain suitable habitat in the Delta for continued rearing of juvenile and maintenance of adult fish (delta smelt, striped bass, and others) and to reduce seawater intrusions into the estuary to prevent the colonization of undesirable organisms in the Delta (e.g., *Potamacorbula*, *Mya* sp., and others).

The SWRCB described the purpose of the net Delta outflow standard during the fall (September and October) as follows:

SLDMWA, at 50 (quoting 1995 WQCP). Although this standard provides some benefit to anadromous fish species, it does "not specifically identify an intent to support the fish doubling goal (or any other specifically-enumerated 3406 program). . . . Actions taken to comply with the Delta outflow objective . . . do not 'predominantly' contribute to primary purpose programs." Id. at 51-52. Because these reductions did not predominantly contribute to the primary purpose of CVPIA Section 3406(b)(2), Interior had the discretion to refrain from accounting for these export reductions as (b)(2) actions. Nonetheless, Interior exercised its discretion and accounted for these export reductions as (b)(2) actions this year.

February 2009:

Interior released water above base case operations to help meet AFRP flow objectives for fall-run Chinook salmon rearing and steelhead spawning on the following CVP-controlled streams: approximately 3.2 TAF of water on Clear Creek (not accomplished through modification of CVP operations), approximately 27.8 TAF on the American River, and approximately 0.2 TAF on the Stanislaus River. These releases predominantly contributed to the primary purpose of Section 3406(b)(2) of the CVPIA and were accounted for as (b)(2) actions.

Interior reduced CVP exports by approximately 1.8 TAF pursuant to the December 2008 FWS Biological Opinion for the protection of federally-listed delta smelt. 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 Judge Wanger's September, 2008 opinion in SLDMWA, Interior accounted for these export reductions as (b)(2) actions this year.

> The purpose of this standard is to provide outflow for maintaining conditions conducive to growth and maintenance of resident and anadromous adult and juvenile fish populations utilizing the Bay-Delta Estuary during this period and to provide attraction flows for fall-run Chinook salmon.

The SWRCB also described the purpose of net Delta outflow objectives during the winter (November through January):

> The purpose of the standards are to provide net Delta outflow for continued rearing of juvenile and maintenance of adult fish, and to provide conditions conducive for maturation of adult fish in preparation for spring spawning.

These statements suggest that the net Delta outflow objectives are intended to improve habitat conditions in the Delta for a host of species and fortify Judge Wanger's conclusion that they "do not predominantly contribute to primary purpose programs." SLDMWA, at 51-51. This includes net Delta outflow standards in-effect during the winter, spring, and summer.

March 2009:

Interior released approximately 9.3 TAF water above base case operations on Clear Creek to help meet AFRP flow objectives for fall-run Chinook salmon rearing and steelhead spawning and emergence. This release predominantly contributed to the primary purpose of Section 3406(b)(2) of the CVPIA and was accounted for as a (b)(2) action.

Interior reduced CVP exports by approximately 82.3 TAF pursuant to the December 2008 FWS Biological Opinion for the protection of federally-listed delta smelt. 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 Judge Wanger's September, 2008 opinion in SLDMWA, Interior accounted for these export reductions as (b)(2) actions this year.

April 2009:

Interior released approximately 1.5 TAF water above base case operations on Clear Creek (not accomplished through modification of CVP operations) to help meet AFRP flow objectives for fall-run Chinook rearing and steelhead juveniles. This release predominantly contributed to the primary purpose of Section 3406(b)(2) of the CVPIA and was accounted for as a (b)(2) action.

Due to the third consecutive dry year, the spring of 2009 was classified as an off-ramp year for the Vernalis Adaptive Management Program (VAMP). In lieu of the normal San Joaquin River Group releases pursuant to VAMP, Interior released approximately 4.4 TAF of (b)(2) water on the Stanislaus River in conjunction with approximately 11 TAF of acquired (b)(3) water to provide a modest pulse between April 17 – 30. In April and May, fall-run Chinook smolts principally migrate down the lower San Joaquin River (SWRCB, ER for the 1995 WQCP, Appendix 1) and its tributaries (Stanislaus, Tuolumne, and Merced rivers). Thus, during April and May, the purpose of the San Joaquin objectives "is to improve survival of salmon smolts emigrating down the San Joaquin River and to improve habitat conditions in the central and southern Delta for numerous aquatic species." Id. Although these actions provide general benefits to Delta habitat conditions and numerous species, they help meet AFRP flow objectives, benefit fall-run Chinook and steelhead juveniles, and predominantly contributed to the primary purpose of CVPIA Section 3406(b)(2). Consequently, Interior accounted for these releases as (b)(2) actions this year.

Even though 2009 was an off-ramp year for VAMP, the export restrictions for the "VAMP period" in the WQCP still required the combined projects to pump no more than 1,500 cfs or meet the 1:1 ratio of combined exports to Vernalis flows (whichever is greater) during the 31-day period between April 17 and May 17. During the latter half of April, Interior reduced CVP exports by approximately 81.2 TAF to meet the "VAMP" and WQCP export target of a 1:1 ratio of combined exports to Vernalis flows. This action benefitted San Joaquin basin fall-run

Chinook outmigration, helped meet AFRP flow objectives, and predominantly contributed to the primary purpose of CVPIA Section 3406(b)(2). Interior accounted for them as (b)(2) actions.

May 2009:

On Clear Creek, Interior released approximately 9 TAF of water above base case to help meet AFRP flow objectives for fall-run Chinook salmon and steelhead rearing. This release predominantly contributed to the primary purpose of Section 3406(b)(2) of the CVPIA and was accounted for as a (b)(2) action.

On the Stanislaus River, Interior released approximately 16 TAF of (b)(2) water above base case operations to continue the spring pulse flow between May 1 – 17, and 4.3 TAF to provide a gradual ramping down in the latter part of May. As previously stated, during April and May the purpose of the San Joaquin objectives "is to improve survival of salmon smolts emigrating down the San Joaquin River and to improve habitat conditions in the central and southern Delta for numerous aquatic species." Id. Although these actions provide general benefits to Delta habitat conditions and numerous species, they help meet AFRP flow objectives, benefit fall-run Chinook and steelhead juveniles, and predominantly contributed to the primary purpose of CVPIA Section 3406(b)(2). Interior accounted for these releases as (b)(2) actions this year.

Between May 1 - 17, Interior reduced CVP exports by approximately 59.5 TAF to meet the "VAMP" and WQCP export target of a 1:1 ratio of combined exports to Vernalis flows. This action benefitted San Joaquin basin fall-run Chinook outmigration, helped meet AFRP flow objectives, and predominantly contributed to the primary purpose of CVPIA Section 3406(b)(2). Interior accounted for them as (b)(2) actions.

Between May 18 – 31, Interior reduced CVP exports by approximately 59 TAF pursuant to the December 2008 FWS Biological Opinion for the protection of federally-listed delta smelt. 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 Judge Wanger's September, 2008 opinion in SLDMWA, Interior accounted for these export reductions as (b)(2) actions this year.

June 2009:

Interior reduced CVP exports by approximately 94.6 TAF pursuant to the December 2008 FWS Biological Opinion for the protection of federally-listed delta smelt. 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 Judge Wanger's September, 2008 opinion in SLDMWA, Interior accounted for these export reductions as (b)(2) actions this year.

July 2009:

Interior released approximately 4.7 TAF of (b)(2) water on the Stanislaus River to comply with the temperature objectives for rearing juvenile steelhead included in the 2009 NOAA Biological Opinion for the CVP Operating Criteria and Procedures. This release predominantly contributed to the primary purpose of Section 3406(b)(2) of the CVPIA and was accounted for as a (b)(2) action this year.

August 2009:

As described above, Interior released approximately 4.6 TAF of (b)(2) water above base case operations on the Stanislaus River to comply with the temperature objectives for rearing juvenile steelhead in the 2009 NOAA BiOp. This release predominantly contributed to the primary purpose of Section 3406(b)(2) of the CVPIA and was accounted for as a (b)(2) action this year.

September 2009:

As described above, Interior released approximately 3.2 TAF of (b)(2) water above base case operations on the Stanislaus River to comply with the temperature objectives for rearing juvenile steelhead included in the 2009 NOAA BiOp. This release predominantly contributed to the primary purpose of Section 3406(b)(2) of the CVPIA and was accounted for as a (b)(2) action this year.

Water Year 2009 WQCP Actions Not Covered By (b)(2):

From January, 2009 through September, 2009 (on an intermittent basis) Interior reduced CVP exports by approximately 161.7 TAF to comply with WQCP net Delta outflow requirements. As explained above, actions taken to meet WQCP net Delta outflow requirements do not predominantly serve the primary purpose of CVPIA Section 3406(b)(2), SLDMWA, at 51-52. Because these export reductions did not predominantly contribute to the primary purposes of Section 3406(b)(2)[4], Interior had the discretion to refrain from accounting for these export reductions as (b)(2) actions. Due to limited (b)(2) water this year and to give effect to the

[4] See footnote 3.

hierarchy of purposes of Section 3406 (b)(2), Interior exercised it's discretion and did not account for these export reductions as (b)(2) actions this year.

In June, July, and August Interior released approximately 69.4 TAF of water above base case operations from Folsom reservoir to assist in meeting WQCP net Delta outflow requirements. As explained above, actions taken to meet net Delta outflow objectives do not predominantly contribute to the primary purpose of CVPIA Section 3406(b)(2). SLDMWA, at 51-52. Interior recognizes, however, that certain WQCP releases also help meet AFRP flow objectives and benefit Chinook salmon and steelhead, so certain WQCP actions might predominantly contribute to the primary purpose of CVPIA Section 3406(b)(2). None of these June-August releases, however, were necessary to meet AFRP flow objectives, so they did not predominantly contribute to the primary purpose of CVPIA Section 3406(b)(2). Due to limited (b)(2) water in the 2009 water year and to give effect to the hierarchy of purposes of Section 3406 (b)(2), Interior exercised it's discretion and did not account for them as (b)(2) actions this year.

In the latter half of June Interior released approximately 14.1 TAF of water above base case operations from the Stanislaus River to assist in meeting WQCP requirements for San Joaquin River flows at Vernalis. This action took place late in the juvenile salmonid migration season and instream temperatures at Vernalis were approaching lethal levels for smolts (between 77 and 78 degrees farenheit). This June release occurred after peak salmon outmigration and did not predominantly contribute to the primary purpose of CVPIA Section 3406(b)(2), so Interior had the discretion to refrain from accounting for this release as a (b)(2) action[6]. As described above, due to limited (b)(2) water in the 2009 water year and to give effect to the hierarchy of purposes of Section 3406(b)(2), Interior exercised its discretion and refrained from accounting approximately 14.1 TAF of this June release as a (b)(2) action this year.

[6] In SLDMWA, the challenged actions taken to comply with Vernalis flow objectives took place in late June of 2004. Actions taken to meet Vernalis flow objectives during April and May also help to meet AFRP flow objectives and benefit anadromous fish, so they predominantly contribute to the primary purpose of CVPIA Section 3406(b)(2). In June 2009 – as in late June of 2004 – the actions taken to meet Vernalis flow objectives did not predominantly contribute to the primary purpose of CVPIA Section 3406(b)(2).