

STATE OF CALIFORNIA
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
STATE WATER RESOURCES CONTROL BOARD

ORDER WR 2014-0029

**In the Matter of Specified License and Permits¹ of the
Department of Water Resources and U.S. Bureau of Reclamation
for the State Water Project and Central Valley Project**
regarding the Executive Director's January 31, 2014 Order and
Subsequent Modifications to That Order

**ORDER DENYING PETITIONS FOR RECONSIDERATION
AND ADDRESSING OBJECTIONS**

BY THE BOARD:

1.0 INTRODUCTION

By this Order, the State Water Resources Control Board (State Water Board or Board) denies petitions for reconsideration of the Executive Director's January 31, 2014 Order Approving a Temporary Urgency Change Petition (TUCP Order), and subsequent modifications thereto. While this Order denies the petitions for reconsideration, this Order does make some modifications to the TUCP Order in response to issues raised by some of the petitioners and other commenters. The following parties filed petitions for reconsideration: (1) San Luis & Delta-Mendota Water Authority (SLDMWA et. al.) and its member agencies; (2) San Joaquin River Exchange Contractors Water Authority, Central California Irrigation District, San Luis Canal Company, Columbia Canal Company and Firebaugh Canal Water District (Exchange Contractors et. al.); (3) Western Canal Water District, Plumas Mutual Water Company, and the Joint Water Districts Board (WCWD et. al.); (4) Friant Water Authority and its members (Friant); the (5) Natural Resources Defense Council (NRDC) and The Bay Institute (TBI); and (6) California Sportfishing Protection Alliance (CSPA), AquAlliance, and California Water Impact

¹ The petition was filed for Permits 16478, 16479, 16481, 16482 and 16483 (Applications 5630, 14443, 14445A, 17512 and 17514A, respectively) of the Department of Water Resources for the State Water Project and License 1986 and Permits 11315, 11316, 11885, 11886, 11887, 11967, 11968, 11969, 11970, 11971, 11972, 11973, 12364, 12721, 12722, 12723, 12725, 12726, 12727, 12860, 15735, 16597, 20245, and 16600 (Applications 23, 234, 1465, 5638, 13370, 13371, 5628, 15374, 15375, 15376, 16767, 16768, 17374, 17376, 5626, 9363, 9364, 9366, 9367, 9368, 15764, 22316, 14858A, 14858B, and 19304, respectively) of the United States Bureau of Reclamation for the Central Valley Project.

Network (CWIN). This Order also addresses numerous objections to the TUCP Order and subsequent modifications thereto.

On January 31, 2014, the Executive Director conditionally approved a temporary urgency change petition to modify the conditions of the water right permits for the Department of Water Resources' (DWR) State Water Project (SWP) and the water right license and permits for the United States Bureau of Reclamation's (Reclamation) Central Valley Project (CVP) (collectively the CVP and SWP are also referred to as the Projects in this Order). The approval temporarily modified Delta flow and water quality requirements to address critically dry conditions associated with California's ongoing drought. The Executive Director's conditional approval indicated that further modifications to the TUCP Order may be made based on public input or changed circumstances. As the result of changed circumstances and subsequent requests from DWR and Reclamation, the Executive Director modified the TUCP Order on February 7, 2014, February 28, 2014, March 18, 2014, April 9, 2014, April 11, 2014, April 18, 2014, and May 2, 2014, to extend and change the conditions of the TUCP Order. In the May 2, 2014 TUCP Order, the Executive Director renewed the TUCP Order, which now expires on January 27, 2015. Although a formal response to objections to the TUCP Order has not been provided until now, the Executive Director reviewed and considered incoming objections and petitions on a continual basis, and in some instances modified the TUCP Order in response the issues raised in the objections and petitions.

2.0 FACTUAL AND LEGAL BACKGROUND

2.1 State Water Board Revised Decision 1641

In Revised Decision 1641 ([Decision 1641](#)), the State Water Board amended the water right license and permits for the SWP and CVP to require the Projects to meet specified water quality objectives set forth in the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan). The flow and water quality requirements established by the State Water Board in Decision 1641 are summarized in the tables and figures contained in Attachment 1 to this Order: Table 1 (Municipal and Industrial Beneficial Uses), Table 2 (Water Quality Objectives for Agricultural Beneficial Uses), and Table 3 (Water Quality Objectives for Fish and Wildlife Beneficial Uses). Included in Attachment 1 are the footnotes to Table 3 and Figure 1 (Sacramento Valley Water Year Hydrologic Classification), Figure 2 (San Joaquin Valley Water Year Hydrologic Classification), Figure 3 (Formulas for Net

Delta outflow Index and Percent Inflow Diverted), and Table 4 (Chippis Island and Port Chicago Maximum Daily Average Electrical Conductivity).

2.2 Governor's Drought Proclamations

California is currently in the third year of a drought. Water year 2012 was categorized as below normal, calendar year 2013 was the driest year in recorded history for many parts of California, and water year 2014 began on a similar dry trend. Based on these dry conditions, in May 2013, Governor Edmund G. Brown, Jr. issued Executive Order B-21-13, which directed the State Water Board and DWR, among other things, to take immediate action to address dry conditions and water delivery limitations. In December 2013, the Governor also formed a Drought Task Force to review expected water allocations and the state's preparedness for a drought.

At the time that the TUCP was first approved in late January 2014, the State was experiencing historically dry conditions. California generally receives half of its annual precipitation by mid- to late January which made these conditions even more significant from a water supply perspective. As of the end of January 2014, the Northern Sierra 8-station precipitation accumulation was 4.5 inches; which was 9 percent of the annual average and 17 percent of the average to date. Statewide snow water content was at 9 percent of the April 1 average and 15 percent of the average to date, when measured by DWR's snow survey on January 30, 2014. At the end of January 2014, Lake Oroville, the SWP's principal reservoir, was at 36 percent of its 3.5 million acre-foot capacity (54 percent of its historical average for January). Shasta Lake, California's and the CVP's largest reservoir, was at 36 percent of its 4.5 million acre-foot capacity (54 percent of its historical average). San Luis Reservoir, a critical south-of-Delta reservoir for both the SWP and CVP, was at 30 percent of its 2 million acre-foot capacity (38 percent of average for January). Folsom Lake, another CVP reservoir, was at 17 percent of its 1 million acre-feet capacity (32 percent of average for January), and New Melones Reservoir was at 43 percent of its 2.4 million acre-feet capacity (73 percent of average for January). At the same time, the three-month outlook weather forecast from the National Oceanic and Atmospheric Administration predicted below normal precipitation for California through the forecast horizon. The dry conditions and projections for continued dry conditions raised significant concerns about water supplies for the remainder of the season.

Governor Brown issued a Drought Emergency Proclamation on January 17, 2014, based on the dry conditions as of that date. The Proclamation directed the State Water Board, among other

things, to consider petitions, such as the TUCP, to modify requirements for reservoir releases or diversion limitations that were established to implement a water quality control plan. The Proclamation stated that such modifications may be necessary to conserve cold water stored in upstream reservoirs that may be needed later in the year to protect salmon and steelhead, to maintain water supply, and to improve water quality.

Ordinarily, the State Water Board must comply with any applicable requirements of the California Environmental Quality Act (CEQA) prior to issuance of a temporary urgency change order pursuant to Water Code section 1435. (See Cal. Code Regs., tit. 23, § 805.) The Governor's Proclamation concluded, however, that strict compliance with CEQA would "prevent, hinder, or delay the mitigation of the effects of the emergency." Accordingly, as authorized by Government Code section 8571, ordering paragraph 9 of the Governor's Proclamation suspended CEQA, and the regulations adopted pursuant to it, to the extent that CEQA otherwise would have applied to specified actions necessary to mitigate the effects of the drought, including the State Water Board's action on the TUCP.

The Governor's Proclamation also suspended Water Code section 13247 to the extent that it otherwise would have applied to specified activities, including action on the TUCP. Section 13247 requires state agencies, including the State Water Board, to comply with water quality control plans unless otherwise directed or authorized by statute. Absent suspension of section 13247, the State Water Board could not approve a petition to modify water right permits and licenses in a way that does not provide for full attainment of the water quality objectives as specified in the Bay-Delta Plan, even during a drought emergency.

From February through April 2014, a series of precipitation events occurred that improved the hydrology and water supply conditions, however, conditions remained much drier than average. Based on the April 1 forecast, the Sacramento and San Joaquin Valley Water Year Types were still classified as critically dry. Preliminary estimates of the May 1 snowpack also remained low at 11 percent of the April 1 average for the entire state. Rainfall and snow water content for the Northern Sierra was 60 percent of average to date for the water year. At the same time, storage conditions in key reservoirs also remained below average--Lake Oroville was at 53 percent of its capacity (65 percent of its historical average for the date), Shasta Lake also was at 53 percent of its capacity (61percent of its historical average), San Luis Reservoir was at 47 percent of its capacity (53 percent of average for April), Folsom Lake was at

56 percent of its capacity (75 percent of average for April), and New Melones Reservoir was at 38 percent of its capacity (63 percent of average for April).

On April 25, 2014, Governor Brown issued a Proclamation of a Continued State of Emergency related to the drought. The Proclamation found that California's water supplies continued to be severely depleted despite a limited amount of rain and snowfall since January, with very limited snowpack in the Sierra Nevada, decreased water levels in California's reservoirs, and reduced flows in the state's rivers. The Proclamation ordered that the provisions of the January 17, 2014 Proclamation remain in full force and also added several new provisions. Among other things, the Proclamation directed: the State Water Board and DWR to expedite requests to move water to areas of need (including water transfers); called on Californians to refrain from wasting water; required the Department of Fish and Wildlife (DFW) to conduct monitoring and work with agencies and landowners to implement actions to minimize impacts to Endangered Species Act (ESA) listed fish; directed various state agencies to take actions to address water supply and drinking water shortages; and directed the State Water Board to adopt and implement emergency regulations as appropriate to promote water recycling and curtail diversions when water is not available.

2.3 Temporary Urgency Change Petition

In response to the unprecedented critically dry conditions, on January 29, 2014, DWR and Reclamation submitted a TUCP that requested temporary modification of certain Decision 1641 requirements in order to conserve stored water in upstream reservoirs for critical uses later in the year. Specifically, the TUCP requested modifications to the requirement to meet objectives for the protection of fish and wildlife, including the Delta outflow objective during February and the Delta Cross Channel (DCC) Gate Closure objective from February through May 20. To reduce the effects of the changes on fish and wildlife and conserve stored water, the TUCP also proposed more stringent limits on exports at the SWP and CVP pumping facilities in the south Delta. The TUCP also proposed a process to determine other changes to best balance protection of all beneficial uses.

2.4 Executive Director's January 31, 2014 Order and Subsequent Modifications to That Order

2.4.1 January 31 Order

The Executive Director's January 31, 2014 TUCP Order allowed DWR and Reclamation to meet a lower Delta outflow level of 3,000 cubic feet per-second (cfs) in February and allowed the DCC Gates to be operated flexibly from February 1 through May 20.² As proposed by DWR and Reclamation, the TUCP Order restricted exports from the Delta at the SWP and CVP pumping facilities to health and safety needs of no more than 1,500 cubic-feet per second (cfs), with the exception of transfers. The TUCP Order also required that DWR and Reclamation consult with the State Water Board, DFW, National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) (collectively the fisheries agencies) through a Real-Time Drought Operations Management Team (RTDOMT) to discuss real time operational issues. The TUCP Order further required DWR and Reclamation to calculate and maintain a record of the amount of water conserved by the changes and keep that water in storage for use later in the year for purposes of maintaining water supplies, improving water quality, or protecting flows for fisheries. The TUCP Order required DWR and Reclamation to develop a water balance and to conduct necessary modeling and monitoring to inform real time operational decisions. The TUCP Order stated that it may be modified based on additional public input or changed circumstances.

2.4.2 February 7 Modification

The February 7, 2014 modification to the TUCP Order clarified requirements related to exports that would apply when DWR and Reclamation were meeting Decision 1641 requirements. The February 7 modification of the TUCP Order adjusted the temporary export limitations when precipitation events occurred that enabled DWR and Reclamation to comply with the Delta outflow and DCC Gate closure requirements contained in Decision 1641. In these circumstances, exports greater than 1,500 cfs were allowed up to the export limits contained in Decision 1641, except that any SWP and CVP exports greater than 1,500 cfs were required to be limited to natural or abandoned flows, or transfers. The TUCP Order did not require DWR and Reclamation to meet the Decision 1641 Delta outflow requirements unless exports, other than transfers, were greater than 1,500 cfs. All other provisions of the January 31, 2014 TUCP Order were continued.

² The required Delta outflow pursuant to Decision 1641 without the temporary change in February was 7,100 cubic-feet per second. In addition, without the temporary change, Decision 1641 requires that the DCC Gates to be closed from February through May 20 of each year.

2.4.3 February 28 Modification

The February 28, 2014 modification to the TUCP Order continued the modified Delta outflow levels of 3,000 cfs originally approved on January 31, 2014, through the month of March. All other provisions of the TUCP Order continued to be in effect.

2.4.4 March 18 Modification

The March 18, 2014 modification of the TUCP Order provided additional flexibility to export water while Delta inflows were elevated following precipitation events by adding an alternate set of compliance requirements for the end of March that would be in effect while higher Delta inflows persisted. Specifically, when precipitation and runoff events occurred that allowed the DCC Gates to be closed and compliance with the flow or salinity requirements included in footnote 10 of Table 3 in Decision 1641, but the additional Delta outflow requirements contained in Table 4 of Decision 1641 were not being met, the Order permitted exports of natural and abandoned flows up to the Export Limits contained in Table 3 of Decision 1641. The Order also modified the health and safety restriction on exported water to allow the use of exported water for other SWP and CVP purposes, provided that health and safety needs and other critical water needs were first met. All other provisions of the TUCP Order continued to be in effect.

2.4.5 Drought Operations Plan

To plan for future operations during the drought, DWR and Reclamation developed a comprehensive Drought Operations Plan (DOP), which was released on April 8, 2014. The stated intent of the DOP was to provide flows for human health and safety needs, control saltwater intrusion in the Delta, preserve cold water pools in upstream reservoirs, and provide minimum protections for fish and wildlife. The DOP was developed in coordination with the RTDOMT and described DWR's and Reclamation's proposed range of coordinated operations from April through mid-November, including flows and storage levels in Project reservoirs. Specifically, the DOP included proposed operations assuming an average and a very dry hydrology and included an analysis of the effects of those operations on biological resources. Under the drier hydrology, the DOP proposed operations with and without temporary rock barriers in the Delta to reduce the need for upstream releases to repel salinity. DWR later determined that the barriers would not be needed this year. The DOP also identified proposed changes to the TUCP Order and various ESA requirements. Following release of the DOP, the fisheries agencies confirmed that the DOP conformed with ESA requirements. On April 9, 2014, DWR and Reclamation requested changes to the TUCP Order in accordance with the DOP.

2.4.6 April 9 Modification

The April 9, 2014 modification of the TUCP Order extended the Delta outflow and Export modifications of the March 18 TUCP Order into April. All other provisions of the TUCP Order continued to be in effect. The April 9 TUCP Order stated that a comprehensive update to the TUCP Order would be issued in the near future to address other changes included in the DOP that had not yet been acted on by the Executive Director.

2.4.7 April 11 Modification

The April 11 modification of the TUCP Order allowed Reclamation to meet modified San Joaquin River flow requirements from April 11 through June as proposed in the DOP. Specifically, from April 11 until the start of the 31-day pulse flow period beginning in mid-April, minimum San Joaquin River flows at Vernalis were required to be no less than 700 cfs on a 3-day average. During the pulse flow period from mid-April through mid-May, the Order required that minimum flows be no less than 3,300 cfs for 16 days and 1,500 cfs for the remaining 31-day pulse flow period, or any pulse or pulses with an equivalent flow volume that was approved by the fisheries agencies. From the end of the pulse flow period through May, flows were required to be no less than 500 cfs. For June, Reclamation was required to operate to achieve the applicable NMFS Biological Opinion flows, dissolved oxygen requirements on the Stanislaus River at Ripon and Decision 1641 salinity requirements at Vernalis on the San Joaquin River. All other provisions of the TUCP Order continued to be in effect.

2.4.8 April 18 Modification

The April 18 modification allowed DWR and Reclamation to export additional supplies while inflows to the Delta were increased during the April and May San Joaquin River pulse flow period. Specifically, the modifications to the TUCP Order allowed for exports of 100 percent of the 3-day average of San Joaquin River flows at Vernalis or 1,500 cfs, whichever is greater, during the pulse flow period. These export limits were not constrained by meeting Decision 1641 Delta outflow conditions, including Footnote 10 of Table 3 in Decision 1641.

2.4.9 May 2 Modification

The May 2 modification acted on the remaining applicable changes proposed in the DOP. The modification of the Delta outflow requirement to 3,000 cfs was extended to May and July.³ The requirement to meet the Sacramento River flow objective at Rio Vista for the protection of fish

³ DWR and Reclamation did not request any changes to the Delta outflow requirement for June or beyond July.

and wildlife, was modified from September through November 15 to 2,000 cfs on a monthly average, with a 7-day running average of no less than 1,500 cfs. The compliance point for the requirement to meet the Western Delta electrical conductivity (EC – a measure of salinity) objective for the protection of agriculture at Emmaton on the Sacramento River was moved to Threemile Slough on the Sacramento River⁴ from May through August 15. The TUCP Order also included additional deadlines for reporting amounts of water conserved and submittal of updated water balance information. The Export Limits in the TUCP Order were also modified to reflect the current status of the ordering conditions.

2.5 Water Code Section 1435

Water Code section 1435 provides that a permittee or licensee who has an urgent need to change the point of diversion, place of use, or purpose of use from that specified in the permit or license may petition for a conditional temporary change order. The State Water Board's regulations set forth the filing and other procedural requirements applicable to temporary urgency changes. (Cal. Code Regs., tit. 23, §§ 805, 806.) The State Water Board's regulations also clarify that requests for changes to permits or licenses other than changes in point of diversion, place of use, or purpose of use may be filed, subject to the same filing and procedural requirements that apply to changes in point of diversion, place of use, or purpose of use. (*Id.*, § 791, subd. (e).)

Before approving a temporary urgency change, the State Water Board must make the following findings:

1. the permittee or licensee has an urgent need to make the proposed change;
2. the proposed change may be made without injury to any other lawful user of water;
3. the proposed change may be made without unreasonable effect upon fish, wildlife, or other instream beneficial uses; and
4. the proposed change is in the public interest.

(Wat. Code, § 1435, subd. (b)(1-4).)

The Water Code defines “urgent need” to mean “the existence of circumstances from which the board may in its judgment conclude that the proposed temporary change is necessary to further the constitutional policy that the water resources of the state be put to beneficial use to the

⁴ Threemile Slough is approximately three miles upstream of Emmaton.

fullest extent of which they are capable and that waste of water be prevented” (Wat. Code, section 1435, subd. (c).) The Water Code also provides, however, that the State Water Board shall not find a petitioner’s need to be urgent if the Board in its judgment concludes, if applicable, that the petitioner has not exercised due diligence in petitioning for or pursuing a change pursuant to other provisions of the Water Code governing non-urgent changes. (*Ibid.*)

The State Water Board may issue a temporary urgency change order in advance of public notice. (Wat. Code, § 1438, subd. (a).) Public notice must be provided as soon as practicable, unless the change will be in effect less than 10 days. (*Id.*, § 1438, subds. (a), (b) & (c).) Any interested person may file an objection to a temporary urgency change. (*Id.*, subd. (d).) The Board must promptly consider and may hold a hearing on any objection. (*Id.*, subd. (e).) State Water Board [Resolution 2012-0029](#) delegates to the Board Members individually and to the Executive Director the authority to hold a hearing, if necessary, and act on a temporary urgency change petition. (Resolution 2012-0029, ¶¶ 2.2, 4.4.1.)⁵ The authority to act on temporary urgency change petitions is also included in the delegation of authority to the Executive Director in State Water Board Resolution 2012-0061.

The State Water Board exercises continuing supervision over temporary urgency change orders and may modify or revoke temporary urgency change orders at any time. (Wat. Code, §§ 1439, 1440.) Temporary urgency change orders expire automatically 180 days after issuance, unless they are revoked or an earlier expiration date is specified. (*Id.*, § 1440.) The State Water Board may renew temporary urgency change orders for a period not to exceed 180 days. (*Id.*, § 1441.)

2.6 Findings of the State Water Board’s Executive Director

The Executive Director’s January 31, 2014 TUCP Order and subsequent modifications to that Order included all the findings necessary to approve the TUCP and subsequent requests.

The Executive Director found that there was an urgent need for the proposed changes in light of critically dry conditions, low storage levels in Project reservoirs, and the need to conserve stored water in order to protect fishery resources, prevent salt water intrusion into the Delta, and ensure that adequate supplies are available in the future to meet minimal water supply needs.

⁵ The Deputy Director for Water Rights may act on a temporary urgency change petition if there are no objections to the petition. (Resolution 2012-0029, ¶ 4.4.1.)

The Executive Director found that the temporary urgency changes would not injure other lawful users of water. The Executive Director reasoned that other water right holders are not entitled to divert water previously stored or imported by the Projects that is released for use downstream, and therefore no water right holders would be injured to the extent that the changes would cause a reduction in storage releases, but not a reduction in natural and abandoned flows. To the extent that the changes could cause a reduction in natural and abandoned flows, the Executive Director found that other lawful users would not be injured because DWR and Reclamation were required to bypass adequate natural and abandoned flows to meet the demands of other lawful users of water.

In the May 2, 2014 TUCP Order that changed the Western Delta EC requirement, the Executive Director found that other lawful users of water would not be injured by projected increases in salinity levels because salinity levels would still be less than the levels that would exist in the absence of the Projects' operations, which prevent salinity intrusion under dry conditions by supplementing natural flows with storage releases. In addition, DWR and Reclamation had submitted information indicating that water quality would be adequate to meet both drinking water and agricultural requirements. Finally, the Executive Director added a condition to the TUCP Order requiring DWR and Reclamation to bypass natural and abandoned flows when the Projects are operating pursuant to the changes approved by the TUCP Order in order to ensure the protection of other water right holders and reduce the impact of the changes on fish and wildlife and water quality.

The Executive Director also found that the TUCP would not unreasonably affect fish, wildlife, or other beneficial uses. The Executive Director found that although fish and wildlife could be affected by the changes, the primary effects on fish and wildlife were due to the drought itself. Further, the Executive Director found that these effects were not unreasonable given the consequences of not approving the changes and depleting stored water supplies needed to prevent sea water intrusion into the Delta, protect fish and wildlife, and satisfy other demands for water, including health and safety now and in the future if conditions remain dry. The Executive Director also relied on the fact that the fisheries agencies had been consulted and did not object to the proposed changes. Further, the Executive Director relied on the fact that additional measures not included in the changes would be implemented to reduce impacts to fish and wildlife, including specific rules for operations of the DCC Gates, fish rescue provisions, and provisions for flows in future years.

- (a) Irregularity in the proceedings, or any ruling, or abuse of discretion, by which the person was prevented from having a fair hearing;
- (b) The decision or order is not supported by substantial evidence;
- (c) There is relevant evidence which, in the exercise of reasonable diligence, could not have been produced; or
- (d) Error in law.

On reconsideration, the Board may:

- (a) Refuse to reconsider the decision or order if the petition fails to raise substantial issues related to the causes for reconsideration;
- (b) Deny the petition upon a finding that the decision or order was appropriate and proper;.
- (c) Set aside or modify the decision or order; or
- (d) Take other appropriate action.

(Cal. Code Regs., tit. 23, § 770.)⁶

4.0 DISCUSSION

As discussed above, there were numerous and detailed comments submitted on the TUCP Order and the various modifications. All of those comments have been thoroughly reviewed and considered. However, this Order does not provide a point by point discussion of each issue raised in the comments, nor is that necessary to determine whether reconsideration should be granted. Instead, this Order addresses the major substantive issues that were raised to determine if the changes that were made at the time, given the information available at that time, merits reconsideration. For the reasons set forth below, the Board finds that the TUCP Order, and subsequent modifications thereto, was appropriate and proper, and therefore the petitions for reconsideration should be denied. However, the Board does find that changes to the TUCP Order are merited to improve planning and coordination now and in the future in the event of continued dry conditions in order to ensure the protection of the public interest and the reasonable protection of other beneficial uses of water. The main contentions raised in the petitions, protests, and objections are addressed below. To the extent that any issue raised is not addressed in this Order, we conclude that the issue is not a substantial issue that merits review. (Cal. Code Regs., tit. 23 § 770, subd. (a)(1).)

⁶ The State Water Board is directed to order or deny reconsideration on a petition within 90 days from the date on which the board adopts the decision or order. (Wat. Code, § 1122.) If the State Water Board fails to act within that 90-day period, a petitioner may seek judicial review, but the board is not divested of jurisdiction to act upon the petition simply because it failed to complete its review of the petition on time. (State Water Board Order WR 2009-0061 at p. 2, fn. 1; see *California Correctional Peace Officers Ass'n v. State Personnel Bd.* (1995) 10 Cal.4th 1133, 1147-1148, 1150-1151; State Water Board Order WQ 98-05-UST at pp. 3-4.)

4.1 The TUCP Order and Its Subsequent Modifications Correctly Determined that the Changes Were in the Public Interest

We begin by addressing the overarching issue of whether the changes approved by the TUCP Order were in the public interest. Numerous comments addressed this issue. Many of the specific comments are now moot but were considered and, in some cases, acted upon in the various modifications to the TUCP Order that were made by the Executive Director. Primarily, commenters expressed the concern that the changes approved by the TUCP Order were not in the public interest for two disparate reasons, either because they did not constrain Project operations enough and caused unreasonable impacts to fish and wildlife and other beneficial uses of water, or because the changes constrained, or might constrain, Project operations too much and caused or might cause unreasonable impacts to water supplies. Further comments were made that the changes were not in the public interest because the need for the changes resulted from a lack in planning associated with the drought.

The State Water Board finds that all of the various changes that were approved by the Executive Director in the TUCP Order were in the public interest. As discussed above and in the TUCP Order and various modifications, California is in the third year of a serious drought. The drought conditions have significantly reduced the water supplies for all beneficial uses of water this year. Further, there is a strong possibility that the drought could continue into the next water year. As such, difficult decisions about protection of the public interest and other beneficial uses of water were needed this year on a short time frame. The various changes that were approved by the Executive Director in the TUCP Order and modifications to that Order were made to balance the different needs for water this year and next. The changes have extended, and will continue to extend, limited water supplies to help ensure that water is stored in upstream reservoirs that may be needed later this year and next year to protect salmon and steelhead, to maintain water supplies, and to improve water quality, which is in the public interest.

To ensure that the changes approved by the TUCP Order, and any future changes that may be needed in response to the drought, remain in the public interest, and may be made without injury to other lawful users of water or unreasonable effects to fish and wildlife, this Order amends the TUCP Order to require the following:

- DWR and Reclamation to report on conserved water under the Order and updates to the water balance earlier, specifically within 20 working days after the first day of the following month;
- DWR and Reclamation to consult with the State Water Board and fisheries agencies on a weekly basis regarding operational decisions that may affect listed species and other beneficial uses of water, including fall-run Chinook salmon, and to make available to State Water Board and fisheries agency staff the technical information used to make these operational decisions, including planned operations, temperature models, modeling and monitoring information, water quality modeling and monitoring information, and information about potential impacts of operational changes on other water users and to report to the Board monthly at its Board meetings on their drought operations and the information discussed above beginning with the first October Board meeting;
- DWR and Reclamation to develop a water year 2015 drought contingency plan that identifies planned minimum monthly flow and storage conditions that consider Delta salinity control, fishery protection, and supplies for municipal water users related to projected flow and storage conditions, and any other information that may be requested by the Executive Director or his designee; the plan for the beginning of the water year shall be submitted by October 15, 2014; the plan for the remainder of the water year shall be submitted by January 15, 2015, with updates as needed; and
- Reclamation to: immediately identify and evaluate all available options for reducing temperature and redd dewatering impacts to winter-run Chinook salmon on the Sacramento River this summer and fall, and immediately make available technical information to evaluate the feasibility of various temperature management options; report monthly to the State Water Board during its Board meetings on actions that have been or will be taken to reduce impacts to winter-run Chinook salmon that considers other fisheries needs, including spring- and fall-run Chinook salmon; prepare by January 15, 2015, a temperature management plan for the Sacramento River for the 2015 winter-run Chinook salmon spawning and rearing period that is regularly updated as conditions warrant; meet weekly with the Sacramento River Temperature Task Group (SRTTG) to discuss operations and options for reducing or avoiding redd dewatering, stranding and temperature impacts to winter-run Chinook salmon; and confer on recommendations from the SRTTG group at RTDOMT meetings and other applicable SWP and CVP operational decision making meetings.

The above conditions will help to ensure that adequate planning for continued drought conditions is conducted in the near term and that information needed to fully inform future decision-making is developed and made available in a transparent and timely manner.

Below is a discussion of the specific substantive public interest comments that were received and the responses to those comments. Additional comments that were phrased as public

interest comments may be discussed elsewhere in this Order if the substance of the comment was more closely aligned with another issue.⁷

4.1.1 Carryover Storage

NRDC, CSPA, AquAlliance, and CWIN argued that the TUCP Order and its various modifications were not in the public interest because minimum carryover storage requirements were not established to protect cold water pool resources for salmonids and other water quality and flow requirements. CSPA, AquAlliance, and CWIN argued that the Board should conduct a hearing to establish minimum carryover storage requirement that would take into consideration water right priorities, Delta water quality requirements, and North of Delta instream uses, including protection of cold water pools. Conversely, the Northern California Water Association (NCWA) expressed concerns with establishing minimum carryover storage requirements for north of Delta reservoirs and its potential effects on senior water rights and indicated that the Board should consider the amount of existing water supplies in other reservoirs that could be used for health and safety needs when considering whether to establish carryover storage requirements for project reservoirs.⁸ The Cities of Roseville and Folsom and the San Juan Water District commented that the carryover storage forecasts in the DOP did not address contingencies if drought conditions continue into 2015. They requested that Reclamation

⁷ Specifically, various Project contractors and environmental groups commented about whether the export constraints were in the public interest. The contractors commented that it was not in the public interest to constrain exports to health and safety levels and the environmental groups commented that it was not in the public interest to allow for exports greater than actual health and safety levels under the TUCP Order. While the original January 31 TUCP Order did limit exports under the Order to health and safety levels, in response to precipitation events, later modifications were made to allow for additional exports. These modifications were made to reduce the impact of the significant water supply reductions to export contractors resulting from the drought, while also providing protection to other beneficial uses of water by limiting additional exports to natural and abandoned flows and requiring that certain water quality and flow objectives be met in order for those additional diversions to occur. As such, the State Water Board finds that the export limitations included in the Order and its various modifications appropriately balanced the need to meet flow and water quality objectives against very real and severe water supply reductions from reduced exports and were in the public interest. Detailed discussions of the export issues are included in sections 4.3.1, 4.5, and 4.6.5 below.

⁸ WCWD et al. commented related to this issue. Their comments are addressed in the section on injury to other lawful users of water below.

develop a Folsom Reservoir Operations Plan that provides projections for American River operations into 2015.⁹

In the April 9 Order, the Executive Director found that the DOP end of September storage targets appeared to be a reasonable balance between the different demands for water this year and the need to reserve water in storage in the event of a dry year in 2015, but that it was uncertain whether those targets could be achieved given modeling uncertainties and consumptive uses of water. Due to this uncertainty, the TUCP Order stated that the State Water Board would monitor how well the end of month storage estimates in the operational forecasts were tracking with actual conditions to determine whether end of September storage requirements should be established. To date, DWR and Reclamation have met the targets identified in the DOP and as such, carryover storage levels have not been established. The State Water Board finds that this approach continues to be appropriate. In addition, to ensure adequate planning and consideration of the need for carryover storage for a variety of purposes, including fisheries protection, municipal water use, and Delta salinity control, this Order requires DWR and Reclamation to develop a drought contingency plan that takes these issues into consideration. Further, this Order requires additional planning for, and consideration of, temperature control issues and other issues that may affect ESA listed species.

4.1.2 San Joaquin River Flow Modifications

NRDC and TBI argued that the modification of the Vernalis flow requirements were not in the public interest because the change would unreasonably impact fish and wildlife without substantially improving reservoir storage levels, and at the same time substantial water deliveries were planned to junior Stanislaus River contractors. NRDC and TBI referenced analyses by SJTA who also objected to the change on similar grounds. SJTA claimed that the April 11 modification of San Joaquin River flows would contribute to minimal storage increases

⁹The Cities of Roseville and Folsom and the San Juan Water District argued that their contractual entitlements to water from Folsom Reservoir have priority over Project exports based on area of origin protections, and therefore Reclamation should develop a Folsom Reservoir Operations Plan that ensures that their needs will be met. In response, SLDMWA argued that such a plan was not necessary, and that Roseville, Folsom, and San Juan Water District did not have a priority over other CVP water users on the bases they had claimed. We disagree that an operations plan is unnecessary, but recognize that development of a drought contingency plan is a complex undertaking that will require evaluation of DWR's and Reclamation's legal obligations under federal reclamation law, the terms and conditions of the water right permits for the Projects, the ESA, the Coordinated Operations Agreement between DWR and Reclamation, and DWR's and Reclamation's water supply contracts. Factors other than contractual priorities may control how Folsom Reservoir is operated in the near future, and it may not be necessary to resolve the dispute between the agencies with contracts for water supplies from Folsom Reservoir in order to develop an adequate drought contingency plan. Accordingly, it is unnecessary to address the contractors' arguments concerning area of origin protections in this Order.

with no operational benefit in New Melones Reservoir. SJTA stated that the change would only allow Reclamation to maintain approximately 42,000 acre-feet of water in storage that would not otherwise be released. SJTA stated that this minimal savings would have no effect on New Melones operations, including its ability to improve temperatures, water quality and water deliveries. Reclamation responded to SJTA's protest, providing information indicating that New Melones has little reliable Project water available on an annual basis due to senior water rights and variable hydrology. Contrary to SJTA's estimate, Reclamation projected that the savings to storage from the change over the entire period could have been as high as 140,000 acre-feet of water. On August 15, 2014, Reclamation reported that the actual savings was roughly 74,000 acre-feet. While relatively small compared to the roughly 1,000,000 acre-feet of storage available in New Melones (as of mid-April), the savings is significant considering that useable Project storage is much less than this amount and that drought conditions may continue. As such, the State Water Board finds that the change was in the public interest. Further, the additional conditions discussed above will help to better inform future decisions related to this matter to ensure that they are in the public interest.

4.2 The TUCP Order and Its Subsequent Modifications Correctly Determined that there was an Urgent Need for the Temporary Urgency Change

Another issue, which was raised in several objections, is whether DWR and Reclamation had an urgent need for the changes that were approved. In its objection, South Delta Water Agency (SDWA) contended that DWR and Reclamation did not exercise due diligence in pursuing a non-urgent change petition, and therefore Water Code section 1435, subdivision (c) precluded a finding that there was an urgent need for the temporary changes. SDWA argued that DWR and Reclamation knew well before January 2014 that drought conditions existed, and that some if not all of the Decision 1641 requirements could not be met this year. SDWA argued further that DWR and Reclamation could have filed a non-urgent change petition in the fall or early winter of 2013, which would have allowed the State Water Board to conduct a public hearing on the petition. Similarly, the SJTA argued in its objection that Reclamation's difficulty with meeting San Joaquin River flow objectives in successive dry years has been well-documented over the past two decades, and Reclamation's inability to meet the objectives this year was routine and not urgent. SDWA also argued that the May 2, 2014 changes to requirements for agricultural water quality protection and fishery flow needs through November 15 of this year were not urgent, and the Board should have required DWR and Reclamation to use the normal change petition process for these longer term changes rather than the urgency process.

Water Code section 1435, subdivision (c) provides that the State Water Board shall not find the need for a proposed temporary change to be urgent “if the board in its judgment concludes, if applicable, the petitioner has not exercised due diligence . . .” in filing or pursuing a change pursuant to other provisions of the Water Code governing non-urgent changes. The TUCP Order did not address whether DWR and Reclamation had been diligent in filing and pursuing a non-urgent change petition. Nonetheless, the TUCP Order correctly determined that there was an urgent need for the changes requested, for the following reasons.

First, the decision whether to find a lack of diligence is discretionary. As the State Water Board reasoned in [Order WR 2009-0012](#):

[T]he Water Code provides that the State Water Board shall not find the need for a proposed temporary change to be urgent “if the board *in its judgment* concludes, if applicable, that the petitioner has not exercised due diligence . . .” in petitioning for or pursuing a change pursuant to other provisions of the Water Code governing non-urgent changes. (Wat. Code, § 1435, subd. (c), italics added.)¹⁰ In our judgment, it was appropriate not to find a lack of diligence in light of the unusual circumstances that existed . . ., including drought conditions and the Governor’s drought proclamation.

(SWRCB Order WR 2009-0012, pp. 11-12). Similarly, due to the extraordinary circumstances presented by the current drought, it would have been appropriate, in our judgment, for the Executive Director to find an urgent need, and not to make a finding of lack of diligence, even if DWR and Reclamation could have filed a non-urgent petition early enough to have the approval in time to adequately address the need to conserve stored water in order to protect fishery resources, prevent salt water intrusion into the Delta, and ensure that adequate supplies are available in the future to meet minimal water supply needs.

A second reason why SDWA’s contention lacks merit is because the facts do not support SDWA’s claim that DWR and Reclamation could have filed a non-urgent petition in the fall or early winter of 2013 requesting all of the changes that ultimately were needed for this year. In late 2013, DWR and Reclamation did not know with certainty whether the drought would persist

¹⁰ “Section 1435 of the Water Code addresses the petitioner’s diligence in the context of the State Water Board’s determination of whether there is an urgent need for the change. (Wat. Code, § 1435, subd. (c).) Section 1435 does not include a finding of due diligence among the findings that the State Water Board is required to make before the State Water Board may approve a temporary urgency change. (Wat. Code, § 1435, subd. (b).) This structure reinforces the conclusion that while due diligence may be an issue in the State Water Board’s review of a proposed temporary, urgent change, the ultimate issue is whether there is an urgent need, and the State Board may exercise its judgment to conclude that an urgent need exists without finding that the petitioner has exercised due diligence.” (SWRCB Order No. Order WR 2009-0012, p. 11, fn. 4.)

into 2014, or what the severity of the drought would be. Unfortunately, the drought continued, and conditions have remained dry through most of 2014. In order to maximize the beneficial use of water during the drought, and achieve a reasonable balance between demands for Project water supplies this year, the need for water to protect water quality in the Delta, and the need to conserve stored Project water in order to meet water supply and water quality needs in the future, DWR and Reclamation have had to adjust Project operations on a real-time basis. Likewise, they have had to request changes to Decision 1641 requirements on a real-time basis.

Although DWR and Reclamation could not have anticipated with certainty the need for most of the changes requested, SJTA's argument that Reclamation could have anticipated the need to change the requirement to meet the Vernalis flow objectives has merit. It does not follow, however, that Reclamation should have filed a non-urgent change petition because the Board could not have considered approval of the change before Governor Brown suspended Water Code section 13247 as applied to the TUCP in his January 17, 2014 Drought Emergency Proclamation.¹¹

As to the changes approved in the May 2, 2014 Order, contrary to SDWA's assertion, no changes to requirements for agricultural water quality protection are effective through November. The order approved a change in the requirement to meet the Western Delta salinity objective at Emmaton, which was only in effect through August 15, 2014. In addition, the changes to Delta outflow requirements approved in the May 2 Order were effective only for the months of May and July. The May 2 Order also approved changes to the Sacramento River at Rio Vista flow requirements from September through November 15, but none of the objectors or petitioners have objected to this change in particular, or otherwise indicated that a different process should have been followed in order to evaluate the merits of this particular change.¹²

¹¹ Absent suspension of section 13247, the State Water Board could not have approved changes to Decision 1641 requirements that are necessary to fully implement water quality objectives in the manner specified in the Bay-Delta Plan. (*State Water Resources Control Board Cases* (2006) 136 Cal.App.4th 674, 724-734.)

¹² In addition to the arguments described above, SJTA argued that Reclamation had not established an urgent need for the change in the requirement to meet Vernalis flow objectives because the urgency was the result of operational constraints that Reclamation had accepted and Reclamation's decision to allocate 88,000 acre-feet from New Melones to its contractors. Similarly, CSPA, AquAlliance, CWIN, and Planetary Solutionaries, alleged that the need for the TUCP was the result of past operational decisions to draw down Project reservoirs in order to support Project exports instead of maintaining adequate carry-over storage levels. These issues address long-term planning issues for the Projects and do not negate the urgency of the changes needed in this particular year due to the drought. To better plan for continued drought conditions, this Order includes additional conditions discussed above.

4.3 The Changes Do Not and Will Not Result in Injury to Lawful Users of Water

4.3.1 The Export Limitation Did Not and Will Not Result in Injury

A number of water supply contractors objected to the condition of the TUCP Order that limited exports from the Delta to 1,500 cfs or the minimum amount necessary to meet health and safety needs, whichever is less. As stated above, this condition was based on DWR and Reclamation's TUCP, which proposed operating the Projects at combined health and safety exports of 1,500 cfs together with the proposal to relax the requirement to meet the Delta outflow objectives and the DCC Gate objective. Pursuant to the TUCP Order, the 1,500 cfs limitation applied when the Projects were operating to meet a modified Delta outflow requirement of 3,000 cfs when the DCC gates were open. The Executive Director subsequently modified this condition to allow increased exports of natural and abandoned flows when certain water quality requirements were met, and to allow the use of exported water for other authorized purposes, provided that health and safety needs were met. Pursuant to the May 2, 2014 Order modifying the TUCP Order, the modified export limitation also applies when the Sacramento River flow and electric conductivity requirements are not being met.

The water supply contractors made a number of arguments in support of their objections to the export limitation, including the argument, advanced by several CVP contractors, that they are lawful users of water, and the export limitation will result in injury to them by reducing the amount of water delivered to them under their contracts. As explained in section 4.5.1, below, the contractors' objections to the export limitation is largely moot. In addition, as explained in this section, the argument that the limitation will result in injury lacks merit because the contractors are not entitled to more water than DWR and Reclamation can deliver consistent with their water right permits. (The contractors remaining arguments in support of their objections to the export limitation are addressed in sections 4.5.2 through 4.5.4, below.)

As set forth in the January 31, 2014 TUCP Order, the term "injury" as used in Water Code section 1435, subdivision (b)(2) means the invasion of a legally protected interest. (See *State Water Resources Control Board Cases* (2006) 136 Cal.App.4th 674, 738-743.) Irrespective of the terms of their contracts, the contractors do not have a legally protected interest in more water than DWR and Reclamation are authorized to deliver consistent with the conditions of their water right permits. (See *State Water Resources Control Board Cases, supra*, 136 Cal.App.4th at p. 806, fn. 54 [An appropriator cannot give away any more rights than he has];

United States v. State Water Resources Control Bd. (1986) 182 Cal.App.3d 82, 145-148.) As discussed in sections 4.5 and 4.6.5, below, the export limitation is a temporary condition of DWR's and Reclamation's permits and license, which was lawfully imposed pursuant to the Water Code provisions governing temporary urgency changes. During periods when the modified export limitation is operative, DWR and Reclamation must comply with the limitation, and the contractors are not entitled to more water than DWR and Reclamation can deliver consistent with the limitation. Therefore, any reduction in contract deliveries caused by the modified export limitation did not and will not result in injury to the contractors.¹³

4.3.2 An Increase in Salinity Due to the Changes Did Not and Will Not Result in Injury NRDC, Pacific Coast Federation of Fishermen's Associations and the Institute for Fisheries Resources, Golden Gate Salmon Association, Defenders of the Wildlife, and TBI argued that the February 28 Order, that allowed increased exports with a continued reduction in Delta outflow, had the potential to injure lawful users of water by worsening salinity conditions for agricultural users in the Delta. Similarly, SDWA argued that the changes approved by the TUCP Order would harm agricultural uses in the Delta. These arguments do not have merit, because, as explained in the May 2 Order, water right holders only are entitled to the flows to which they are legally entitled for their purposes of use; they are not entitled to have water released from upstream storage in order to provide better water quality than would otherwise exist, and they are not entitled to better water quality than necessary to allow them to use the water to which they are entitled. This argument also lacks merit because the March 18 Order included a condition requiring DWR and Reclamation to bypass natural and abandoned flows to the extent necessary to protect senior water right holders. This condition was further strengthened in the May 2 Order to require DWR and Reclamation to bypass all natural and abandoned flows when they are operating under the changes approved by the TUCP Order.

¹³ In their joint petition for reconsideration, WCWD et al. argued that imposing minimum carry-over storage requirements or earmarking water conserved by the TUCP Order for health and safety purposes would result in injury to them to the extent that such limitations would reduce the amount of water delivered to them under their settlement contracts with DWR. Although they did not allege injury, several other commenters expressed similar concerns about the effect of carryover storage requirements on water deliveries for various purposes in 2014.

These concerns are misplaced because the TUCP Order did not impose minimum carry-over storage requirements or require water conserved as a result of the changes approved by the TUCP Order to be used exclusively for health and safety purposes. As discussed in section 4.1.1 of this Order, DWR and Reclamation's development and implementation of minimum carryover storage targets for Project reservoirs has obviated the need for such requirements to be imposed. If carryover storage requirements were to be imposed as a lawful condition of the TUCP Order, however, any resulting reduction in deliveries under SWP or CVP contracts would not constitute injury for the reasons stated above.

4.3.3 The Change to San Joaquin River Flow Requirements Did Not and Will Not Result in Injury

SJTA argued that the April 11 modified San Joaquin River flow requirements, which provide Reclamation relief from releasing flows from storage in New Melones Reservoir, would cause injury to SWP and CVP contractors because their ability to export water is directly dependent on San Joaquin River flows. The SJTA did not allege that it would be injured by the change to San Joaquin River flow requirements, and the SWP and CVP contractors themselves did not object to the change on this basis. Accordingly, this is not a substantial issue that merits review.

SJTA also argued that the TUCP Order should be clarified to indicate that Reclamation is solely responsible for meeting San Joaquin River flow requirements. In other words, SJTA was concerned that, through the temporary urgency change process, the Executive Director or Board might require other entities that divert from San Joaquin River tributaries to bypass or otherwise provide flows to achieve compliance with the Decision 1641 San Joaquin River flow requirements. This argument is misplaced because the TUCP Order did not operate to affect the obligations of water right holders other than DWR and Reclamation.

4.4. The Changes Did Not and Will Not Unreasonably Affect Fish and Wildlife and Other Instream Uses

Various commenters argued that the changes would have unreasonable effects on fish and wildlife. Many of the specific comments were made moot by changes or are now moot because the effective period for the change has passed. However, all of the comments were considered, and as deemed appropriate by the Executive Director, acted upon in the various modifications to the Order that were made by the Executive Director. Further, as discussed above, additional conditions have been added to this Order to ensure that the changes are in the public interest and do not unreasonably impact fish and wildlife and other beneficial uses of water.

The Executive Director acknowledged that the approved changes to DWR's and Reclamation's requirements to meet flow and water quality objective could impact fish and wildlife, but concluded that those effects would not be unreasonable given the tradeoffs in this third year of a drought with the potential for a continuation of the drought into the future. In determining whether the impact of the changed requirements on fish and wildlife was reasonable, the Executive Director weighed the short-term impacts to fish and wildlife against the long-term impact to all beneficial uses of water, including fish and wildlife, if the changes were not

approved. The Orders noted the critically dry hydrologic conditions in the Sacramento and San Joaquin River watersheds and the associated below average storage levels in all of the Project reservoirs and very low Project water supply allocations. The Orders noted that without the changes, storage levels would have been further reduced and water supplies for various purposes would have been diminished. The Executive Director found that a one-time change to requirements was not likely to harm the long term existence of salmon and steelhead populations. In addition, although fish and wildlife may be affected by these changes, the primary effects on fish and wildlife are due to the drought itself, as the changes are either not likely to result in substantial additional impacts over unchanged conditions, or are intended to prevent more severe adverse effects to species. The Board concludes that although fish and wildlife may have been, and may continue to be affected by the TUCP Order, the Order provided a reasonable balance between protection of fish, wildlife and other instream beneficial uses of water and other needed uses for water from the Delta during the hydrologic conditions that exist this year.

Further, the new conditions discussed above will help to ensure the reasonable protection of fish and wildlife into the future. Specifically, the requirement that DWR and Reclamation consult with the fisheries agencies and the State Water Board on a weekly basis regarding operational decisions that may affect listed species and other beneficial uses, and provide technical information necessary to support those decisions to the State Water Board and fisheries agencies, will ensure that fish and wildlife needs are considered in real-time decision-making under the TUCP Order. In addition, the drought contingency plan will help to ensure that DWR and Reclamation plan for continued drought conditions, and that protection of fish and wildlife and other beneficial uses of water will be considered in that planning. Further, the requirements for specific planning for Sacramento River temperature management throughout the next hydrologic season will help to ensure that actions necessary to protect winter-run Chinook salmon next year are identified early and considered in future operational decisions.

The major issues raised in individual comments are discussed in more detail below. Due to the changed circumstances throughout the effective period of the TUCP Order, the following discussion does not respond to every comment on effects on fish and wildlife, but focuses on major issues.

4.4.1 January 31, February 7, February 28, Conditions

As described in greater detail above, the original TUCP Order allowed for changes to the Delta outflow and DCC Gate operations, the modification made on February 7 allowed for exports in compliance with Decision 1641 during runoff events, and the modification made on February 28 extended the Order into March. CSPA, AquAlliance, and CWIN argued that the changes approved in those Orders would have unreasonable effects on fish and wildlife. CSPA, AquAlliance, and CWIN's primary argument was that modification of Delta outflows to less than half the Decision 1641 requirement could cause the effects of exports to be severe, even during and after rain events, especially with the opening of the DCC Gates. Specifically, CSPA, AquAlliance and CWIN expressed concerns that the combination of conditions would cause increased entrainment of salmonids and larval longfin smelt, and that impacts to pelagic species would likely increase throughout the season.

In approving the change, the Executive Director relied upon information provided by DWR and Reclamation on January 29, 2014, and January 31, 2014, to determine that the changes would not unreasonably affect fish and wildlife. That information indicates that the existing dry conditions would likely adversely affect spawning and rearing conditions for longfin smelt, migration and spawning conditions for delta smelt, and migration conditions for winter-run Chinook salmon, spring-run Chinook salmon, steelhead trout, and green sturgeon, but that those impacts might have been greater without the change. DWR and Reclamation stated that the changes were proposed to balance the short-term and long-term habitat needs of some of the covered anadromous and pelagic species during the entirety of water year 2014. DWR and Reclamation provided information to support the conclusion that while maintaining the required Delta outflows and DCC Gate requirements would have provided short term support for the species, continued dry conditions would likely lead to worse impacts later in the year without the changes. Specifically, DWR and Reclamation stated that reduced flows and opening of the DCC Gates could lead to increased mortality and straying of native fish, but also would provide for water to be maintained in storage for use later in the year. DWR and Reclamation provided information to indicate that failure to maintain adequate reservoir storage could have led to a loss in the Projects' ability to maintain cold water and flow conditions for use later in the year for winter-run Chinook salmon egg survival, to provide suitable upstream conditions for spring-run Chinook salmon and steelhead trout rearing, and to support delta smelt and longfin smelt rearing and maturation later in the year. Further, the changes were mitigated to some extent by the limitations on exports which also provided for reduced entrainment and salvage of listed

species. In addition, criteria for opening and closing the DCC Gates to avoid impacts to fish species that relied on monitoring of fish presence at critical locations to determine whether the DCC Gate may be opened or should be closed, were developed and implemented.

In addition to the above, the Executive Director relied on the concurrence letters from the fisheries agencies to determine that the effects of the changes on fish and wildlife would not be unreasonable. On January 31, 2014, NMFS concurred with DWR and Reclamation's petition and stated that the petition was consistent with the 2009 NMFS Biological Opinion, and that the modified requirements were not likely to jeopardize the continued existence of endangered fish species. USFWS also concurred with the petition, stating that there were low risks of delta smelt entrainment due to low reverse flows in Old and Middle Rivers, low turbidity, favorable distribution of adult delta smelt outside of the south and central Delta, and lack of salvage of delta smelt. USFWS attributed these conditions to the extreme drought conditions resulting in low Delta flows and severely limited exports.

Based on the above, the State Water Board concurs with the Executive Director's determination that the changes approved by the January 31, February 7 and February 28 Order would not unreasonably affect fish and wildlife. While the State Water Board understands that impacts to fish and wildlife occurred due to the change, the State Water Board agrees that the benefits of maintaining water in storage for the protection of fish and wildlife and other uses later in the year and next year outweighed these impacts. Other comments related to whether the above Orders unreasonably affected fish and wildlife are discussed below.

In addition to the changes, CSPA, AquAlliance, and CWIN objected to the fact that the Orders did not limit water transfers in excess of the health and safety export restrictions of 1,500 cfs established in the Order. CSPA, AquAlliance, and CWIN further argued that any limited protective function of reducing exports to health and safety needs of 1,500 cfs would be reduced in proportion to the volume of any water transfers that were allowed to take place, and that the fishery impacts caused by water transfers would become more severe when Delta outflow approaches the temporary minimum of 3,000 cfs.

This objection is misplaced to the extent that it is directed at any transfers that have been or will be effectuated under water rights that are not held by DWR or Reclamation because the TUCP Order did not approve any such transfers. Any transfers effectuated under a third party's

permitted or licensed right would require a separate approval process. The public and the fisheries agencies are provided an opportunity to protest or comment on proposed water transfers. Based on any comments, protests, or other information, the Board may disapprove transfers or approve them subject to conditions designed to protect fish and wildlife. Parties may also petition for reconsideration of any transfer orders if they believe that their protests or comments were not adequately addressed. In addition, while increased exports from transfers may lead to increased entrainment of fish at the export facilities, those impacts are mitigated to some extent by increases in inflows from the transfers, including carriage water. Increased flows from transfers provide some benefits to fish and wildlife from the point where the water was not diverted to the Delta. Some of the transfers this year were also specifically timed to provide fisheries benefits. Finally, export of transfer water is still subject to other constraints on Project operations, including the modified DCC Gate closure requirements, Export to Inflow constraints and other ESA provisions designed to protect fish and wildlife. The State Water Board appreciates that there may have been some impacts to fish and wildlife from not constraining transfers further under the TUCP Order. However, given the dire water supply conditions that existed, the fact that those impacts would have been even worse without transfers, and the fact that the changes were limited in time, the Board finds that the impacts to fish and wildlife were not unreasonable.

CSPA, AquAlliance, and CWIN also argued that the February 7 TUCP Order resulted in a cap on natural flow pulses. The February 7 TUCP Order did not limit pulse flows. The February 7 modification only clarified that when DWR and Reclamation were complying with Decision 1641 requirements during storm events (specifically the Delta outflow and DCC Gate closure requirements contained in Table 3 of Decision 1641) that they could export water in compliance with Decision 1641 limits except that those exports were limited to natural and abandoned flows. The condition allowed DWR and Reclamation to export additional water up to the Decision 1641 export limits during storm events while at the same time ensuring that storage levels were not reduced through the provision requiring additional exports to be supported by natural and abandoned flows. The February 7 TUCP Order did not constrain pulse flows. In fact, Condition 1.a. actually provided for a pulse flow scheduled through the RTDOMT. Based on the above, the State Water Board finds that the February 7 Order appropriately balanced water supply needs with the protection of fish and wildlife and did not unreasonably impact fish and wildlife.

In connection with the original Order and subsequent modifications, California Waterfowl Association, Ducks Unlimited, Audubon California, Defenders of Wildlife, and Grasslands Water District (Grasslands) objected to export limits and other constraints on Project operations that could affect water supply deliveries to refuges, particularly if any such constraints resulted in delivery of less than 75 percent of the Level 2 Water Supply under the federal Central Valley Project Improvement Act (“CVPIA”). Originally, due to the dire water supply conditions, exports were limited to health and safety levels. Following precipitation events, the Match 18 Order expanded those limitations to allow other uses, including refuge water supplies. Subsequently, North of Delta refuges were allocated 75 percent and South of Delta refuges were allocated 65 percent of their contract supplies. Accordingly, this issue is moot. Based on the increased allocations, Grasslands confirmed that its objection was addressed by letter dated May 13, 2014.

4.4.2 March 18 Conditions

The March 18 Order allowed DWR and Reclamation to export water up to the Decision 1641 export limits during March when precipitation and runoff events occurred that allowed the DCC Gates to be closed and the Delta outflow requirements to be met, except for the requirements included in Table 4 of Decision 1641. Footnote 10 of Table 3 of Decision 1641 required a Delta outflow of 7,100 cfs calculated as a 3-day running average, or either a daily or 14-day running average electrical conductivity (EC - a measure of salinity) at the confluence of the Sacramento and San Joaquin rivers of less than or equal to 2.64 millimhos per centimeter (mmhos/cm).¹⁴ The Order found that when compared to Delta outflow levels of 3,000 cfs approved in the February 28 TUCP Order, Delta outflows of 7,100 cfs (or equivalent salinity level) were expected to improve conditions for numerous estuarine and anadromous species in the Delta. In addition, closure of the DCC Gates was expected to improve conditions for fish by reducing entrainment of migrating salmonids into the interior Delta. The TUCP Order found that the effects of higher exports were expected to be offset to some extent by the additional Delta outflows and closure of the DCC Gates. Further, the export of additional water was limited to natural and abandoned flows, ensuring that stored water was maintained in upstream reservoirs for use later in the season for fish and wildlife and other purposes. This change was actually not used during March because DWR and Reclamation were able to comply with both the

¹⁴ Table 4 of Decision 1641 required DWR and Reclamation to meet 29 days of flows at 11,400 cfs on a 3 - day average, or either a daily or 14-day running average EC level of 2.64 mmhos/cm at Chipps Island (station D10) in March.

footnote 10 and Table 4 Delta outflow requirements.¹⁵ However, the arguments are still addressed below because they also are relevant to changes that were made after March.

In an objection to the March 18 Order, NRDC, Pacific Coast Federation of Fishermen's Association and the Institute for Fisheries Resources, Golden Gate Salmon Association, Defenders of Wildlife, and TBI (NRDC et al.) argued that the Order would unreasonably impact fish and wildlife because the changes approved in the Order (and other changes to biological opinion requirements that limit Old and Middle River reverse flows that had been approved by the fisheries agencies¹⁶) would not benefit upstream storage or otherwise benefit fish and wildlife, but would worsen impacts to fish and wildlife. NRDC et al. also argued that the TUCP Order would cause unreasonable effects on fish and wildlife because DWR and Reclamation had failed to address the cumulative effects of prior, current, and proposed future Project management on fish species.¹⁷ NRDC et al. further took issue with the discussion in the TUCP Order that stated that the additional outflows above 3,000 cfs that would occur when increased exports were allowed under the TUCP Order (compliance with Footnote 10 requirements of 7,100 cfs or alternate salinity compliance) would offset the effects of the additional exports. NRDC et al. argued that when evaluating potential impacts to fish and wildlife, the Order should have evaluated the effects of the increased exports compared to Decision 1641 outflow requirements rather than the relaxed outflows of 3,000 cfs allowed for in the February 28 Order.

The change to the Delta outflow requirement to 3,000 cfs for the month of March had already been approved in the February 28 Order. The only change made in the March 18 Order was to allow for additional exports during March when some, but not all of the Decision 1641 Delta outflow requirements were being met. Accordingly, it was not inappropriate to compare the alternate set of compliance requirements to the relaxed requirements that had already been

¹⁵ The Decision 1641 Delta outflow requirement allows additional days of compliance, beyond what is required in a given month, to be carried over into the following month. The Projects earned seven carryover days at Chipps Island in February. In March, twenty-seven days of Delta outflow compliance was required at Chipps Island and four additional days at Collinsville. The Projects met seven of the Chipps Islands days through carryover from February, an additional fifteen day were met through three-day average Delta outflow, and the remaining five were met though 14-day average EC. For the Collinsville days, three were met through three-day average Delta outflow and the fourth was met through 14-day average EC. Thus, the Projects operated in compliance with D-1641 for the entire month of March.

¹⁶ The Executive Director did not approve the changes to Old and Middle river reverse flow requirements. However, the fisheries agencies did concur with changes to the Old and Middle river reverse flow requirements in combination with their concurrence with the changes to the Decision 1641 export constraints.

¹⁷ NRDC et al. also raised issues with the installation of proposed temporary salinity control barriers. Since the barriers were not installed, this Order does not address this issue further.

approved. Regardless of the point of comparison for the change, the State Water Board appreciates the numerous concerns NRDC et al. raised with regards to impacts to fish and wildlife from the drought, antecedent conditions, and the change in Delta outflow requirements, and acknowledges that there were difficult tradeoffs to be made. The decision to be made in the March 18 Order was whether or not to allow the Projects to take advantage of limited opportunities during and following storm events to increase exports to support limited water supply needs for refuges and other south of Delta uses. When approving the change, the Executive Director relied upon information submitted by DWR and Reclamation, and the concurrence of the fisheries agencies to determine that the change would not have unreasonable impacts on fish and wildlife. The fisheries agencies concurred with the changes to the allowable exports in addition to changes in Old and Middle river reverse flow constraints. USFWS determined that any additional effects of both were expected to be minimal because of the short duration of the change, recent Delta smelt distribution data indicating that delta smelt distribution was far outside of the south and central Delta, and the lack of take of delta smelt to date. NMFS determined that the changes would likely cause unquantified reduction in survival to winter-run and spring-run Chinook salmon and steelhead, but that these effects would be minimized through other Old and Middle river flow restrictions and use of older juvenile chinook salmon loss density triggers for export constraints. DFW also agreed with the USFWS and NMFS concurrence letters.

The State Water Board concurs with the Executive Director's determination and finds that the change was not unreasonable given its short duration, the relatively high outflows required when additional exports were allowed, and the severe impacts to water supplies this year. With respect to NRDC et al.'s call for comprehensive planning, the State Water Board agrees that there was a need and continues to be a need to comprehensively address changes to Delta water quality and flow requirements made over time as a result of the drought. Staff from the State Water Board and the fisheries agencies were advocating for such a plan beginning in January. However, it took time for a plan to be developed that was both realistic and reasonable. As discussed above, on April 8, 2014, shortly after the March 18 Order, DWR and Reclamation issued a Drought Operations Plan (DOP), which outlined proposed operations through the end of November.

To ensure that planning is conducted earlier if next year is also dry, this Order includes additional planning, analysis and coordination requirements to support decision making in the coming months in the event that drought conditions continue.

4.4.3 April 11 Conditions

NRDC, TBI and SJTA argued that the April 11 TUCP Order modifying the San Joaquin River at Vernalis flow requirements would unreasonably impact fish and wildlife, particularly salmon and steelhead. NRDC, TBI, and SJTA argued that neither the April 11 Order nor any of the materials submitted by Reclamation with the petition analyzed impacts to fall-run Chinook salmon or spring -run Chinook salmon¹⁸ or to other species not listed under the federal or State ESA, although they would be impacted. While Reclamation did not provide a specific analysis of impacts to fall-run Chinook salmon or other species, it was reasonable to assume that impacts to fall-run Chinook salmon would be similar to impacts to steelhead because steelhead and fall-run Chinook salmon generally have similar needs, especially during the spring period. In fact, due to the limited numbers of steelhead and the limited ability to study steelhead in the San Joaquin River basin, information about fall-run is often used as a surrogate for information on steelhead. While there are behavioral differences between steelhead and fall-run Chinook salmon, it was reasonable to use steelhead as an indicator for impacts to fall-run Chinook salmon for the spring period when the species have similar needs. For example, steelhead adults migrate upstream only slightly later in the fall/winter than adult fall-run Chinook salmon and steelhead juveniles can stay over summer right below the dams and then migrate to the ocean later in life.

NRDC and TBI further argued that the reduced San Joaquin River flows approved in the Order would significantly harm salmon and steelhead without benefiting storage, and that the change would impact temperatures in the spring. The State Water Board appreciates that salmon and steelhead in the San Joaquin River likely have been significantly impacted by the drought. However, the change to the San Joaquin River flow requirements were expected to provide overall benefits. The change was made to save water in storage in New Melones to improve cold water pool resources and for future use. As discussed in section 4.1.2 above, the amount of water conserved by the change was projected to be significant. Storage levels at the time the change was made were a little more than one million acre-feet. Storage levels now are less

¹⁸ While fish that exhibit spring-run Chinook salmon like behaviors have been observed on the Stanislaus River, it is unclear whether a consistent self-sustaining population currently exists. As such, any effects on spring-run Chinook salmon this year were highly speculative, and therefore spring-run are not addressed further in this Order.

than 600,000 acre-feet. Reclamation projected that the change could save up to 140,000 acre-feet of storage and calculated that the actual savings was 74,000 acre-feet. Given prior water right and contract demands on the Stanislaus River, the effects of the change on storage levels were expected to be significant.

Further, it is not clear that providing the full required San Joaquin River flows would have provided a significant benefit to salmon and steelhead due to temperature concerns. While temperatures were projected to be higher during times when flows were reduced, temperatures were projected to be high this year regardless of the change. Specifically, temperatures later in the spring flow season were expected to be too high with or without the change to support migration of steelhead or fall-run Chinook salmon. As a result, the pulse flows provided in the TUCP Order were structured to promote migration earlier when temperatures were still suitable, while still providing for some base flows to support over-summering steelhead below Goodwin Dam. The water conserved by the change was then available to improve cold water pool resources and increase supplies for other uses later in the year. In addition, Reclamation has agreed to provide an additional spring pulse of water down the San Joaquin River in a future year to benefit outmigration of San Joaquin River steelhead, which is likely to benefit fall-run Chinook salmon and other species as well. Finally, a short term one-time reduction in flows in the San Joaquin River is not in itself likely to harm the long term existence of the salmon and steelhead populations in the river because there are other brood years that will not be impacted by these short term flow modifications. Instead, those other brood years should benefit from the improved storage conditions and additional flows in a future year. The State Water Board appreciates the prolonged impacts that salmon, steelhead and other species have experienced on the San Joaquin River and the need to complete the Board's pending update of the San Joaquin River flow objectives and their implementation to address these impacts. The State Water Board is committed to completing that process as soon as possible.

Based on the above, the Board concludes that the Executive Director correctly determined that the modifications approved in the April 11 TUCP Order would not unreasonably impact fish and wildlife. Given the extreme dry conditions, the tradeoffs between flows in the spring and storage later in the year for temperature and flow management, as well as other water supply purposes was reasonable.

4.4.4 April 18 Conditions

CSPA, AquAlliance, and CWIN argued that the changes approved in the April 18 TUCP Order would unreasonably affect fish and wildlife.¹⁹ Specifically, they argued that the change to the export constraints approved in the April 18 Order would negate any benefits of the San Joaquin River pulse flows, leading to the loss of the majority of outmigrating San Joaquin juvenile salmon and steelhead at the export facilities.

The April 11 Order allowed DWR and Reclamation to export at a level equal to 100 percent of the San Joaquin River flow during the April and May pulse flow period. This provision is consistent with the provisions of Decision 1641, which allow for exports of 1,500 cfs or 100 percent of the San Joaquin River flow, whichever is greater, during the pulse flow period. The difference under the TUCP Order is that flows were allowed to be reduced for about half of the 31-day pulse flow period (the pulse flows were essentially required to be met for half of the period) by a little more than half. At the same time, to avoid some of the impacts from exports, DWR and Reclamation planned to shift exports to the extent possible to the Jones Pumping Plant where impacts were expected to be lower on San Joaquin River fish, including steelhead. As discussed above, DWR and Reclamation also agreed to provide a pulse flow in a future year to benefit outmigrating San Joaquin River steelhead that would also benefit Chinook salmon and other species. Specifically, DWR and Reclamation agreed to make an amount of water equivalent to half the volume of increased exports realized over the pulse flow period available to provide for a larger pulse flow, for the fisheries agencies to shape, in the next “dry” or better water year type based on the San Joaquin Valley Index.

The State Water Board appreciates that the change in export requirements may still have impacted fish and wildlife, but given the extreme dry conditions and the various competing demands for water, the State Water Board determines that the impact of the change on fish and wildlife was not unreasonable. Further, the additional conditions imposed by this Order will require that analyses and planning are conducted to ensure that fish and wildlife are not unreasonably impacted by potential future changes that may be needed next year in the event of continued dry conditions.

¹⁹ CSPA, AquAlliance, and CWIN also provided comments on other provisions of the DOP and related approvals. This discussion does not address issues related to actions that were not approved by the TUCP Order and its various modifications.

4.4.5 May 2 Conditions

CSPA, AquAlliance, and CWIN argued that the change to Delta outflow requirements in May and July to 3,000 cfs would reduce the amount of low-salinity habitat in the Delta needed for longfin and delta smelt, and would reduce migration cues for salmon and steelhead. CSPA, AquAlliance, and CWIN further argued that movement of the compliance point for the western Delta salinity objective from Emmaton to Threemile Slough would increase Delta salinities and allow reductions in Delta outflows which would negatively affect smelt, salmon, and steelhead.²⁰

The Board's consideration of whether the effects of the changes on fish and wildlife were reasonable takes into consideration the existing drought conditions, the needs of water users, and information regarding the effects on fish and wildlife. As with the earlier changes, the changes approved in the May 2 TUCP Order were made to preserve storage in upstream reservoirs for temperature control, salinity control and other purposes this year and into next year. The State Water Board appreciates that there were impacts to fish and wildlife, but those impacts were largely due to the drought itself. In addition, as discussed above, the impacts to fish and wildlife might have been even more severe if storage were not conserved to provide minimal flows and temperature protection later this year and next. The Board concludes these effects are not unreasonable given the tradeoffs in this third year of a drought with the potential for a continuation of the drought into the future.

4.5 The Remaining Arguments in Support of Objections to the Export Limitation Lack Merit.

As stated earlier, a number of water supply contractors objected to the condition of the TUCP Order that limited exports from the Delta. The contractors made a number of legal arguments in support of their contention that the export limitation was invalid. For the reasons discussed below, the contractors' objections to the export limitation may be moot. To the extent that any contractors still object to the export limitation, their arguments in support of their objections lack merit. The contractors' argument that the export limitation would result in injury because it would reduce water deliveries under their contracts is addressed in section 4.3.1, above. Their remaining arguments are addressed below.

²⁰ CSPA et al. also commented concerning the impacts of temporary barriers. Since the barriers were not installed and are not planned to be installed in the near future, this issue is not discussed further.

4.5.1. The Objections May Be Moot

In large part, the objections to the export limitation have been rendered moot by precipitation events in February, March, and April and modifications to the TUCP Order. As discussed above, the February 7, 2014 modification to TUCP Order clarified that when precipitation events occur that enable DWR and Reclamation to meet Decision 1641 Delta outflow and DCC Gate requirements, then the export limitations contained in Decision 1641 are operative, provided that exports greater than 1,500 cfs are limited to natural or abandoned flows. In addition, the March 18, 2014 Order, as modified on April 9, 2014, afforded DWR and Reclamation the flexibility to increase exports up to the limitations contained in Decision 1641 when precipitation events during March and April enabled DWR and Reclamation to maintain the DCC Gates in the closed position and to achieve partial compliance with the Delta outflow requirements contained in Decision 1641. The March 18, 2014 order also relaxed the health and safety restriction to allow water exported pursuant to the TUCP Order to be used for any lawful purpose, provided that basic human health and safety needs are met. Finally, the April 18, 2014 order provided another exception to the 1,500 cfs limit on exports during periods when Delta outflow requirements were not being met. Specifically, consistent with the provisions of Decision 1641, the order allowed the Projects to export up to a level equal to 100 percent of the 3-day average of San Joaquin River flows at Vernalis during the April and May pulse flow period.

Due to precipitation events and the modifications to the TUCP Order described above, the TUCP Order has not limited the Projects' exports to only health and safety levels for much of the effective period of the change. To the extent that exports have been limited to health and safety levels since the February 7 Order, that has mostly been the result of drought conditions and limited storage levels rather than the constraints of the TUCP Order. Accordingly, the objections to the condition limiting exports are at least partly moot. To the extent that the Order and its various modifications limited exports to health and safety levels outside of the exceptions described above, those limits have been appropriate given the dire storage conditions and potential for future dry conditions and the need to use stored water for critical purposes for the remainder of this year and next year.

Some of the CVP and SWP contractors argued that the 1,500 cfs limit on exports was not supported by substantial evidence or was not in the public interest because it did not take into account the contractors' water needs during the drought, and was not based on the need to protect listed fish species. The contractors argued that the Board should remove the 1,500 cfs

limit and allow the Projects to take every opportunity to export water in order to mitigate the impacts of the drought south of the Delta. Conversely, environmental groups, argued that the export limit was not stringent enough in light of the need for water to protect fish and wildlife in the Delta, and the Northern California Water Association argued that the export limit was not stringent enough to satisfy the demands of water users upstream of the Delta.

As stated earlier, the original 1,500 cfs limit on exports, which has since been modified, was based on the minimum amount of water needed to meet health and safety needs as identified in the TUCP. Requiring DWR and Reclamation to adhere to this limitation as a condition of approval of the TUCP reflected the Executive Director's concurrence with DWR and Reclamation's apparent recognition that Delta exports should be limited during periods when Delta outflow and DCC Gate requirements are not being met because diverting water from the Delta can adversely affect fish and wildlife. Put another way, the Executive Director's findings that the changes to Delta outflow and DCC Gate requirements would be in the public interest and would not unreasonably affect fish and wildlife were predicated in part on the assumption that exports from the Delta would be limited as proposed in the TUCP. Contrary to the arguments summarized above, these findings were based on a reasonable balancing of competing demands for limited water resources during critically dry conditions, and were supported by substantial evidence in the administrative record. Specifically, the record includes evidence of the need for Project exports for health and safety and other purposes; the impacts of Project exports on fish and wildlife; the potential impacts on fish and wildlife of the temporary urgency changes; and the need for the changes to conserve scarce water supplies needed for consumptive uses, water quality control, and fish and wildlife. Similarly, the subsequent modifications to the export limitation contained in the TUCP Order, which allowed for increased exports during periods when elevated natural flows improved environmental conditions in the Delta, were based on a reasonable balancing of competing demands, and the Executive Director's findings in support of those modifications were also supported by substantial evidence.²¹

²¹ In addition to the argument described above, SLDMWA also argued that condition 2 of the February 7, 2014 TUCP Order should be deleted because condition 2 was not supported by substantial evidence or in the public interest. Condition 2 afforded the Projects the flexibility to increase exports when precipitation events during February, March and April enabled DWR and Reclamation to close the DCC Gates and achieve compliance with the Delta outflow requirements contained in Decision 1641. SLDMWA argued that condition 2 was inconsistent with the State Water Board's finding that there was an urgent need to relax the requirements to meet the DCC Gate Objective and the Delta Outflow Objectives in order to conserve water supplies. The SWC objected to condition 2 for similar reasons.

4.5.2 The TUCP Order Is Consistent with Federal Reclamation Law

Some of the contractors argued that limiting exports to health and safety needs is inconsistent with federal law governing the operation of the CVP, which requires the CVP to be used to satisfy multiple purposes, including irrigation and maintaining habitat within wildlife refuges.

As stated above, the TUCP Order has been modified to allow exports to be used for any lawful purpose, provided that basic human health and safety needs are met. Moreover, to the extent that the TUCP Order still limits exports for purposes other than health and safety needs, the TUCP is not inconsistent with federal law. Section 8 of the Reclamation Act of 1902 requires the CVP to be operated in accordance with state water right law, unless state law is inconsistent with a clear Congressional directive. (*California v. United States* (1978) 438 U.S. 645, 674-678.) In this case, the condition limiting exports to health and safety needs during a narrow and temporary set of circumstances during a drought emergency was not inconsistent with the general federal directive to operate the CVP to supply water for multiple purposes. That the export limitations are not inconsistent with federal reclamation law is evidenced by the fact that Reclamation's 2014 Water Plan for the CVP also prioritizes meeting public health and safety needs in response to the drought. (Mid-Pacific Region, Bureau of Reclamation, U.S. Dept. of Interior, Central Valley Project, Water Plan 2014 (Feb. 3, 2014) p. 15.)

4.5.3 A Definition of "Health and Safety" Is Not Required

A number of objectors called for a definition of the term "health and safety" as used in the export limitation. In addition, some objectors argued that the term should be defined to include the use of water for purposes of irrigation in light of the adverse economic and social effects of reducing the amount of water available for irrigation.

The TUCP Order required DWR and Reclamation to refine what export amounts and deliveries were required to maintain health and safety, and to provide that information to the State Water Board by February 14, 2014. In response, DWR and Reclamation submitted a report dated February 14, 2014, and an update dated April 8, 2014. The report and update provided

These objections lack merit because they are predicated on the incorrect assumption that the TUCP Order required DWR and Reclamation to operate the Projects in accordance with condition 2. Instead, condition 2 was optional, and afforded DWR and Reclamation additional flexibility to take advantage of precipitation events by increasing exports during periods when elevated natural flows enabled DWR and Reclamation to meet D-1641 requirements temporarily and increase exports without releasing water from upstream storage. To the extent that the contractors' position is that no limits should have been imposed on exports, we disagree that allowing unrestricted exports during periods when Delta water quality requirements are not being met would strike the appropriate balance between competing demands.

information concerning the amount of water that had been exported to meet health and safety needs, and the basis for projected future estimates of health and safety needs. In light of the information provided by DWR and Reclamation, and the fact that the TUCP Order has been modified to allow exports for any lawful purpose, provided that health and safety needs are met, a more detailed or expansive definition of the term “health and safety” is not warranted for purposes of interpreting and implementing the TUCP Order.

4.5.4 The Export Limit Is Consistent with the Rules of Water Right Priority

Friant argued that the TUCP Order does not respect water right priorities because it limits CVP pumping, but did not indicate that water right holders junior to Reclamation had been curtailed. Friant is correct that, as a general rule, appropriative water right holders must curtail their diversions of natural and abandoned flows in order of priority to the extent that their collective demand exceeds available supply. The export limit contained in the TUCP Order, however, does not constitute a curtailment of CVP water rights based on a lack of water availability. Rather, the export limit is a valid condition of the Executive Director’s approval of the changes to CVP water rights requested by Reclamation, as discussed in section 4.3.1, above, and section 4.6.5, below. Accordingly, whether any junior diverters had been curtailed at the time when the TUCP Order was issued is irrelevant.

Friant also argued that the TUCP Order violates water right priorities because it purported to approve DWR and Reclamation’s April 8, 2014 DOP, and the DOP violates water right priorities because: (1) it provides that DWR and Reclamation will split water exported from the Delta, even though Reclamation’s water rights are senior to DWR’s rights; and (2) it purports to allow water to be delivered to CVP wildlife refuges before the senior water rights of the Exchange Contractors et al. have been fully satisfied. Friant’s position is that Reclamation must provide to the Exchange Contractors et al. all of the substitute CVP supply to which they are entitled under their exchange contract with Reclamation before Reclamation may provide any water to wildlife refuges pursuant to their CVP contracts. As Friant explained in its petition for reconsideration, if the Exchange Contractors et al. do not receive all of the substitute supply to which they are entitled from the Delta through the Delta-Mendota Canal, they may call for water to be released from Friant Dam on the San Joaquin River. According to Friant, this will deprive Friant’s member agencies of all of their CVP water supply.

Friant's argument that the TUCP Order violates water right priorities because the TUCP Order purported to approve the DOP lacks merit for the simple reason that the TUCP Order did not in fact approve the DOP. The orders modifying the TUCP Order that were issued after DWR and Reclamation developed their DOP made some changes to Decision 1641 requirements consistent with the DOP, but those orders did not approve the DOP itself. Moreover, the TUCP Order does not specify how exports are to be divided between DWR and Reclamation, or address the relative priorities of CVP wildlife refuges and the Exchange Contractors et al. For this reason, it is unnecessary to address the merits of Friant's arguments concerning the consistency of the DOP with the water right priority system in this order.

4.6 Other Topics

4.6.1 The TUCP Order Is Consistent with the Board's Authority under Water Code Section 1435

Several arguments were raised concerning the State Water Board's authority to approve the TUCP, including the argument that Water Code section 1435 is not a mechanism to make the types of changes that were approved, that the changes constituted improper changes to the Bay-Delta Plan, and that the changes constituted an impermissible failure to fully implement the Bay-Delta Plan. These arguments lack merit for the reasons explained below.

As set forth in section 2.5, above, Water Code section 1435 provides that "[a]ny permittee or licensee who has urgent need to change a point of diversion, place of use, or purpose of use from that specified in the permit or license may petition for, and the board may issue, a conditional, temporary change order . . ." SJTA argued, based on the language of this section, that temporary urgency change petitions only may be filed for changes to the point of diversion, place of use, or purpose of use of a permit, and not for changes to permit conditions, such as the changes to Decision 1641 requirements that DWR and Reclamation sought pursuant to the TUCP. SJTA argued further that changes to the conditions of a water right permit only may be made by the Board to the extent that the Board has reserved authority to change the conditions of the permit pursuant to Water Code section 1394.

In Order WR 2009-0061, the State Water Board addressed a similar argument concerning the proper interpretation of Water Code sections 1700-1705, which govern petitions for non-urgent changes to applications, permits, or licenses. In that case, the Board determined that the City of

Santa Cruz could petition to change its permits and license to allow direct diversions in addition to diversions to storage, provided that the changes did not constitute the initiation of a new right. (Order WR 2009-0061, pp. 5-17.) Like Water Code section 1435, sections 1700-1705 explicitly authorize water right holders to petition for changes in point of diversion, place of use, or purpose of use. On this basis, a protestant had argued that Water Code sections 1700-1705 do not authorize water right holders to petition for changes other than changes in point of diversion, place of use, or purpose of use.

In rejecting this argument, the Board pointed out that both Water Code section 1525, subdivision (b), which requires filing fees for change petitions, and section 791, subdivision (e) of the Board's regulations, which specifies procedures for processing change petitions, expressly recognize that petitions may be filed for changes in permit or license conditions other than changes to the authorized point of diversion, place of use, or purpose of use. (Order WR 2009-0061, pp. 13-14.) In addition, the Board explained that it would not make sense to interpret the Water Code to authorize voluntary petitions to change the authorized point of diversion, place of use, or purpose of use of an appropriative right, which are fundamental attributes of the right, but to preclude voluntary petitions to change other, less fundamental conditions of the right. (*Id.*, p. 16.) Finally, the Board explained at length how interpreting the Water Code to preclude voluntary petitions for changes other than changes in point of diversion, place of use, or purpose of use would interfere with the Board's ability to administer water rights effectively, and create unnecessary obstacles to changes in furtherance of important public policies, including improving water efficiency, protecting public trust resources, and maximizing the reasonable and beneficial use of California's water resources. (*Id.* at pp. 14-16.)

The Board's reasoning in Order WR 2009-0061 applies equally in this case. Like Water Code sections 1700-1705, section 1435 should be not interpreted to preclude voluntary petitions for changes to the conditions of a permit or license. Water Code section 1394 provides no support for a different interpretation. That section authorizes the Board to reserve jurisdiction to make changes to the conditions of a permit if sufficient information is not available to properly condition the permit, or if necessary to coordinate the conditions of multiple permits for the same project. The Board's authority to reserve jurisdiction to change permit conditions pursuant to section 1394 does not somehow operate to preclude the Board from changing permit conditions in response to voluntary petitions filed pursuant to other provisions of the Water Code, including section 1435.

A second argument concerning the Board's authority to adopt the TUCP Order was raised by some of the CVP water supply contractors, who argued that the change to the export limit made by the TUCP Order constituted a change to the Bay-Delta Plan, which exceeded the scope of the State Water Board's authority under Water Code section 1435. Similarly, some environmental organizations argued that the changes to salinity requirements constituted an impermissible relaxation of federal water quality criteria.

Contrary to these arguments, the TUCP Order changed some of the conditions of the water right permits and license for the Projects, which otherwise would have required DWR and Reclamation to meet certain water quality objectives contained in the Bay-Delta Plan. The TUCP Order did not change the water quality objectives themselves, or federal water quality criteria. As explained above, the changes to the conditions of the permits and license for the Projects were consistent with the State Water Board's authority under Water Code section 1435.²²

A third argument concerning the Board's authority, also advanced by SJTA, was that relaxing Decision 1641 requirements constituted a failure to fully implement the Bay-Delta Plan in contravention of Water Code section 13247 and the holding in the *State Water Resources Control Board Cases* (2006) 136 Cal.App.4th 674.

The Court of Appeal's opinion in the *State Water Resources Control Board Cases* involved numerous cases challenging Decision 1641. In large part, the Court upheld Decision 1641, but the Court also held that the Board erred when it failed to fully implement the San Joaquin River pulse flow objective and certain southern Delta salinity objectives. (*Id.* at pp. 724-735.) The Court's holding in the *State Water Resources Control Board Cases* was based on Water Code section 13247, which provides that state agencies "in carrying out activities which may affect water quality, shall comply with water quality control plans approved or adopted by the [State Water Board], unless otherwise directed or authorized by statute" Based on this section, the Court faulted Decision 1641 for failing to fully implement the San Joaquin River pulse flow and southern Delta salinity objectives because the program of implementation contained in the

²² The Exchange Contractors et al. also argued that the State Water Board does not have authority to restrict the use of CVP water as part of the proceeding on the TUCP. The Exchange Contractors argued that by limiting exports, the State Water Board has assumed liability that should be borne by the USFWS and NMFS for taking water without compensation. As discussed earlier, however, the export limitation was a valid condition of the Executive Director's approval of the TUCP. In addition, the Exchange Contractors did not cite any authority that supports their contention that imposition of this condition of approval constitutes a compensable taking of water.

Bay-Delta Plan committed to achieving those objectives by assigning responsibility for meeting them to water right holders in the Delta watershed, and the water right proceeding that culminated in the adoption of Decision 1641 had been conducted for the express purpose of allocating responsibility for meeting those objectives. (*State Water Resources Control Board Cases, supra*, 136 Cal.App.4th at pp.729-730.)

SJTA is correct that, consistent with the Court's interpretation of Water Code section 13247, the State Water Board would ordinarily be precluded from relaxing water right requirements that ensure that the water quality objectives in the Bay-Delta Plan will be fully implemented as specified in the plan. In response to the drought emergency, however, Governor Brown suspended section 13247 as applied to certain actions, including the changes to Decision 1641 requirements that were approved by the TUCP Order, pursuant to the California Emergency Services Act (Gov. Code, § 8550 et seq.). Accordingly, section 13247 does not apply to the TUCP Order, and the holding in the *State Water Resources Control Board Cases* is inapplicable as a result.

4.6.2 The Executive Director Had Delegated Authority to Act on the TUCP

The Exchange Contractors et al. and SJTA contended that the TUCP Order is invalid because the Executive Director did not have delegated authority to act on the TUCP. Contrary to this contention, however, State Water Board Resolution 2012-0029 delegated authority to the Executive Director to act on the TUCP, as explained below.

Section 2.2 of Resolution 2012-0029 delegates to the Board Members individually the authority to take action on a temporary urgency change petition or request for renewal. The delegation under section 2.2 expressly includes the authority to hold a hearing on a petition, and to make the findings required by the Water Code and CEQA as conditions precedent to approval. (State Water Board Resolution 2012-0029, §§ 2.2.1-2.2.3.) In addition, section 4.4.1 of Resolution 2012-0029 delegates to the Deputy Director for Water Rights the authority to take initial action on a temporary urgency change petition or request for renewal. In the event that objections to the petition are received, however, section 4.4.1 directs the Deputy Director to "refer the matter to the Executive Director for action under section 2.2." Read together, sections 2.2 and 4.4.1 delegate to the Executive Director the authority to act on a temporary urgency change petition or request for renewal if objections to the petition or request are received, and to hold a hearing on the petition or request, if necessary.

The Exchange Contractors et al. and SJTA argued that the Executive Director is not authorized to take action on a petition that has been referred to the Executive Director pursuant to section 4.4.1 of Resolution 2012-0029. According to the Exchange Contractors et al. and SJTA, only an individual Board Member or the full Board may take action on such a petition because section 2.2 of the resolution does not explicitly delegate authority to the Executive Director to take action on temporary, urgency change petitions. This is not a reasonable interpretation of the resolution as a whole, however, because it ignores the express language of section 4.4.1, which directs the Deputy Director to refer a petition to the Executive Director “for action” if objections are received.

Independent of Resolution 2012-0029, the State Water Board has delegated authority to the Executive Director under Resolution 2012-0061. Resolution 2012-0061 delegates to the Executive Directors authority to conduct and supervise the activities of the State Water Board, with specified exceptions. Approving temporary change petitions is not among the exceptions. Hence, action on temporary urgency change petitions is within the delegation to the Executive Director made by Resolution 2012-0029.

Moreover, an agency’s subsequent approval or ratification of an act delegated to a subordinate validates the act. (*California Sch. Employees Assn. v. Personnel Commission* (1970) 3 Cal.3d 139, 145.) Accordingly, assuming for the sake of argument that the Executive Director did not have delegated authority to act on the TUCP, this order affirming the Executive Director’s Order, and subsequent modifications thereto, serves to ratify the Executive Director’s actions and confirms that the Executive Director has delegated authority to take action on the TUCP in the future.

4.6.3 Issues Pertaining to the Real-Time Drought Operations Management Team

Several interested persons commented on the RTDOMT required to be convened by the TUCP Order. At least one individual raised questions about the RTDOMT’s decision-making process. Other commenters asked for a more open RTDOMT process with wider participation, including the participation of environmental groups and municipalities who might raise scientific issues that might not be identified by the core group. In their petition for reconsideration, CSPA, AquAlliance, and CWIN argued that Board staff participation in the RTDOMT meetings should be subject to ex parte communication restrictions; that DWR and Reclamation should post comprehensive updates of the actions of the RTDOMT no less than once a week; and the

Board should require the RTDOMT to provide a detailed operations update at the beginning of each Board meeting. The Cities of Roseville and Folsom and the San Juan Water District commented that the RTDOMT decisions do not appropriately consider their communities' public health and safety. They commented that the RTDOMT appeared to take action to increase releases from Folsom Reservoir without first discussing with potentially affected water users, even though the region has an active discussion group with RTDOMT member agencies through the American River Water Forum.

Notwithstanding these arguments, both the membership and the decision-making process of the RTDOMT were appropriate and proper in light of the exigencies of the drought. Preliminarily, it is important to clarify that the RTDOMT is not a decision-making body. Past decisions to modify the TUCP Order that were necessary to allow real-time operation of the SWP and the CVP were made by the Executive Director, in consultation with the relevant agencies (including DWR, Reclamation and the fisheries agencies), not by RTDOMT. Likewise, any future decisions related to the TUCP will be made by the Board or the Executive Director, in consultation with the RTDOMT.

In light of the need to be able to make decisions quickly as conditions change, the RTDOMT team members may need to provide input to the Executive Director or his representative on an ad hoc basis, and it is not feasible to establish a more formal process that might allow for greater public participation. To respond to the concerns raised, however, new or revised conditions shall be added to the TUCP Order which will require: earlier reporting of actual operations; ensure that information is available to the fisheries agencies, the State Water Board and the public to understand and consider the effects of real-time operations on fish and wildlife and other beneficial uses of water; the preparation of a drought contingency plan in the event of continued drought conditions for which the public may comment; and advanced planning for and consideration of concerns related to protection of Sacramento River winter-run Chinook salmon and other fisheries needs, including spring- and fall-run Chinook salmon.

4.6.4 Timely Response to Objections and Protests

Objectors stated that the Board failed to provide prompt consideration to the objections and protests that have been received on the original order and its seven modifications that were approved from January through May 2014. Objectors stated it was improper for the Board to not respond to objections and protests while some of the approved actions were being

completed, which rendered those issues moot; and to not respond to outstanding issues that are not yet moot.

Water Code section 1438, subdivision (e) requires the Board to give prompt consideration to any objection to a temporary, urgency change. As stated earlier, although a formal response to objections to the TUCP Order was not provided until now, the Executive Director reviewed and considered incoming objections and comments on a continual basis, and modifications to the TUCP Order were made where appropriate. Those modifications included: (1) modifications to the export constraints on February 7, March 18, and April 18 to allow for additional diversions to improve water supply conditions for refuges and water users south of the Delta; (2) addition of conditions on March 18 and May 2 that required DWR and Reclamation to bypass natural and abandoned flows under certain conditions to ensure no injury to other lawful water users and reduce the effects of the changes on water quality and fish and wildlife; (3) addition of a commitment in the April 9 modification to monitor storage levels to ensure that water is being maintained in storage to meet critical water needs into the future; and (4) addition on May 2 of reporting requirements to ensure that information is timely received to inform real-time decisions. These timely modifications to the Order rendered many objections and comments moot.

4.6.5 An Evidentiary Hearing on the TUCP Was Not Required

Petitioners (CSPA, the Exchange Contractors et al., Friant, and WCWD et al.) and numerous objectors called for hearings on various issues, including definition of health and safety, balancing of carryover storage with the needs of senior water right holders, potential violations of water supply contracts, and to submit evidence concerning the findings included in the Orders. For example, both the Exchange Contractors et al. and WCWD et al. argued that due process requirements under the federal and state constitutions compelled the Board to hold an evidentiary hearing before imposing conditions of approval that restricted the use of Project water. Alternatively, SJTA argued that an evidentiary hearing was required to develop a record adequate to support the findings necessary to approve the TUCP. As explained below, the decision whether to hold an evidentiary hearing on the TUCP was not required by statute or by the federal and state Constitutions, and under the circumstances it was appropriate not to hold an evidentiary hearing.

Consistent with the plain language of the Water Code, an evidentiary hearing was discretionary, not mandatory. Water Code section 1437 provides that, before making the findings necessary to approve a temporary urgency change petition, the Board “shall review available records, files, and decisions which relate to the rights of other legal users of water, consult with representatives of [DFW], and make a field investigation if the investigation is necessary or desirable in the opinion of the board.” Section 1437 does not direct the Board to hold an evidentiary hearing. Similarly, Water Code section 1438 provides that the Board must give prompt consideration to any objection, and “*may* hold a hearing thereon, after notice to all interested persons.” (Wat. Code, § 1438, subd. (e), emphasis added.) In short, the Water Code affords the Board discretion to decide whether to hold an evidentiary hearing on a temporary urgency change petition.

Likewise, an evidentiary hearing was not required as a matter of due process. The federal and state Constitutions provide that no person shall be deprived of life, liberty, or property without due process of law. (U.S. Const., 5th & 14th Amends.; Cal. Const., art. I, §§ 7, 15.) Due process requirements are flexible, and do not necessarily require an evidentiary hearing before depriving a person of a property interest. (*Mathews v. Eldridge* (1976) 424 U.S. 319, 333-335; *Machado v. State Water Resources Control Board* (2001) 90 Cal.App.4th 720, 725-726.) Determining the specific dictates of due process generally requires consideration of three factors: (1) the private interest that will be affected by the government action, (2) the risk of erroneous deprivation of the interest through the procedures used, and the probable value of additional or substitute procedural safeguards, and (3) the government’s interest, including the fiscal and administrative burdens of additional or substitute procedural requirements. (*Mathews v. Eldridge*, *supra*, 424 U.S. at p. 335.) In this case, however, it is unnecessary to evaluate these factors in order to determine whether due process required an evidentiary hearing because no person was deprived of a property interest as a result of the TUCP Order.

The TUCP Order did not deprive DWR, Reclamation or their contractors of a property interest because DWR and Reclamation were not required to operate the Projects in accordance with the TUCP Order. Instead, DWR and Reclamation could have continued to operate the Projects in accordance with Decision 1641 requirements. DWR and Reclamation chose to operate in accordance with the TUCP Order, notwithstanding the export limitations and other conditions of approval, because the changes to Decision 1641 requirements approved by the Order allowed DWR and Reclamation to conserve a significant amount of Project water. (See *General Elec.*

Co. v. Jackson (D.C. Cir. 2010) 610 F.3d 110, 117-119 [administrative order directing company to clean up hazardous waste issued without a hearing did not deprive company of property because company had the option of refusing to comply and forcing the agency to sue in federal court].) In addition, as explained in sections 4.3.1 and 4.5, above, the export limitation is a valid, temporary condition of DWR and Reclamation's permits, and the contractors do not have a protected property interest in more water than DWR and Reclamation can deliver consistent with the limitation. Similarly, although the TUCP Order did not impose any carryover storage requirements, if any such requirements were to be properly imposed as a condition of the TUCP Order they would not invade a legally protected interest. Finally, the TUCP Order did not deprive any third party water right holders of a property interest because the order included conditions of approval designed to ensure that the changes to Decision 1641 requirements would not injure other lawful users of water.

For the foregoing reasons, the Board was not legally required to hold an evidentiary hearing before approving the TUCP or modifying the TUCP Order. Moreover, the decision not to hold an evidentiary hearing was appropriate in this case for three reasons. First, an evidentiary hearing would have taken at least several months, and it was not feasible to hold an evidentiary hearing or hearings and respond appropriately to drought emergency conditions by taking prompt action on the TUCP, and on DWR and Reclamation's subsequent requests to modify the TUCP Order. Second, notice and an opportunity to be heard were provided through notice of the TUCP and an opportunity to submit objections, and through public workshops. Third, sufficient information to support the findings necessary to approve the TUCP was provided through written submittals, including the TUCP and supporting documentation, and through the public workshops on the TUCP. Contrary to SJTA's argument, it was not necessary to hold an evidentiary hearing in order to develop an adequate record.

4.6.6 No Improper Ex Parte Communications Occurred

SJTA argued that State Water Board Chair Felicia Marcus, Board Member Dorene D'Adamo, and the Executive Director, Thomas Howard, should be disqualified from acting on the TUCP because they engaged in ex parte discussions with Reclamation concerning the April 9, 2014 request to change San Joaquin River flow requirements in violation of Government Code sections 11430.10 and 11430.70. SJTA also argued that the Executive Director should be recused because he participated in the development of the DOP, which precluded him from making an impartial and unbiased decision. As discussed below, Government Code sections

11430.10 and 11430.70 do not apply to the proceeding on the TUCP, and no basis exists for disqualification of the Board Members or the Executive Director.

Government Code sections 11430.10 and 11430.70 are part of chapter 4.5 of the Administrative Procedure Act (Gov. Code, § 11400 et seq.) (APA). As a general rule, the APA prohibits ex parte or off-the-record communications between an agency decision-maker and an interested person concerning a substantive or controversial procedural issue in an adjudicative proceeding. (*Id.*, §§ 11430.10, subd. (a), 11430.20, subd. (b), 11430.70, subd. (a).) Normally, the remedy for a violation is disclosure of the communication on the record, but under limited circumstances receipt of an ex parte communication may be grounds for disqualification of the decision-maker. (*Id.*, §§ 11430.50, 11430.60.) In this case, however, the APA's provisions governing ex parte communications do not apply. Chapter 4.5 of the APA applies only to agency decisions "if, under the federal or state Constitution or a federal or state statute, an evidentiary hearing for determination of facts is required for formulation and issuance of the decision." (*Id.*, § 11410.10; see also *Corrales v. Bradstreet* (2007) 153 Cal.App.4th 33, 51-52, 64.) As discussed in section 7.5.5, above, an evidentiary hearing on the TUCP was not required by the federal or state Constitution or by statute, and therefore, chapter 4.5 of the APA's prophylactic prohibition does not apply to this proceeding.

The State Water Board is mindful that due process considerations may call for procedural protections even if they are not required by the APA. Once it is clear that the Board Members will need to decide a quasi-judicial matter not subject to chapter 4.5 of the APA, in an abundance of caution, the Board's practice has been to avoid ex parte communications between interested persons and the Board Members concerning substantive or controversial procedural issues raised in a petition for reconsideration of an underlying order or decision. Consistent with this practice, Board Chair Felicia Marcus and Board Member Dorene D'Adamo have avoided ex parte communications concerning the substantive issues raised in the petitions for reconsideration of the TUCP Order. In March and April of this year, the Board Members participated in several meetings and phone calls with Reclamation and other stakeholders during which an update on the status of the TUCP was provided. But the Board Members ceased participating if any substantive issues were raised. In addition, no petition for reconsideration that raised issues concerning the San Joaquin River flow requirements was pending at the time when these meetings and calls occurred, and it would have been

speculative to assume that such a petition would be filed.²³ In sum, the Board Members' limited communications with Reclamation concerning the TUCP do not provide any support for the conclusion that the Board Members should be disqualified.

Likewise, no basis exists for disqualification of the Executive Director. The Executive Director did not participate in preparation of the DOP as SJTA contends. Instead, the Executive Director provided input on the process that should be followed to effect a change. SJTA and State Water Board staff brought to the Executive Director's attention the fact that Reclamation was not planning to comply with the requirement to meet San Joaquin River flow objectives this year, including the April and May pulse flow objectives. Based on this information, Board staff and the Executive Director informed Reclamation that Reclamation should formally request approval of any proposed changes to San Joaquin River flow requirements. The Executive Director also informed Reclamation that he would not approve a request to eliminate altogether the San Joaquin River flow requirements, including the pulse flow requirements, which resulted in an agreement to provide the reduced base and pulse flows that the Executive Director ultimately approved. This was the extent of the Executive Director's involvement with the issues addressed in the DOP prior to release of the DOP. As a matter of law and State Water Board practice, the prohibition against ex parte communications did not apply to the Executive Director's communications with Reclamation concerning the San Joaquin River flow requirements. Moreover, contrary to SJTA's claim, the Executive Director's communications with Reclamation are not evidence of bias. Rather, his communications demonstrate that he was impartial, and exercised his independent judgment concerning the merits of the changes requested by Reclamation.

4.6.7 The TUCP Order Did Not Violate CEQA

The TUCP Order determined that CEQA had been suspended as applied to action on the TUCP pursuant to the Governor's January 17, 2014 Drought State of Emergency Proclamation. CSPA contended that this determination was incorrect, and the TUCP improperly waived CEQA. Similarly, WCWD contended that the TUCP Order improperly interpreted the scope of the CEQA suspension. As explained below, these contentions lack merit.

²³ On April 28, 2014, NRDC submitted a petition for reconsideration of the April 11, 2014 Order that approved changes to the San Joaquin River flow requirements. Although SJTA objected to the changes, in submittals dated April 17, 2014 and April 21, 2014, SJTA did not file a petition for reconsideration.

As explained in the TUCP Order, the Governor's proclamation concluded that strict compliance with CEQA would "prevent, hinder, or delay the mitigation of the effects of the [drought] emergency." Accordingly, as authorized by the Emergency Services Act, ordering paragraph 9 of the Governor's proclamation suspended CEQA, and the regulations adopted pursuant to it, to the extent that CEQA would otherwise apply to actions necessary to carry out the directives set forth in ordering paragraphs 5 and 8 of the proclamation. Paragraph 8 directed the State Water Board to consider modifications to "requirements for reservoir releases or diversion limitations, where existing requirements were established to implement a water quality control plan. These changes would enable water to be conserved upstream later in the year to protect cold water pools for salmon and steelhead, maintain water supply, and improve water quality."

Action on the TUCP was consistent with the directive set forth in ordering paragraph 8 because the order modified requirements for reservoir releases and diversion limits that had been imposed on DWR and Reclamation pursuant to Decision 1641 in order to implement the Bay-Delta Plan. Although the TUCP Order did not directly modify requirements for reservoir releases, the order modified requirements to meet flow-dependent water quality objectives, which in effect modified the releases from Project reservoirs that otherwise would have been required to meet the objectives. The TUCP Order also modified exports limits, which constitute diversion limitations. As contemplated by paragraph 8, these modifications enabled water to be conserved in upstream reservoirs for use later in the year to protect fishery resources, maintain water supplies, and improve water quality. For these reasons, the TUCP Order correctly concluded that CEQA had been suspended as applied to action on the TUCP.

CSPA's contention that the TUCP Order improperly waived CEQA appears to have been based on the argument that the drought does not constitute an emergency as that term is defined for purposes of the CEQA exemption for emergency projects. The TUCP Order did not determine, however, that approval of the TUCP was exempt from CEQA pursuant to the CEQA emergency exemption. Rather, the TUCP Order determined that CEQA had been suspended as applied to action on the TUCP pursuant to the Governor's proclamation and the Emergency Services Act. Accordingly, it is unnecessary to address the issue of whether the drought constitutes an emergency as defined by CEQA.

For its part, WWCD argued that the CEQA suspension applied only to modifications to reservoir releases or diversion limitations, and did not extend to any carry-over storage requirements or

other limits on the use of the water conserved as a result of the TUCP that might interfere with WWCD's water supply agreements. Contrary to this argument, the CEQA suspension necessarily extended to the whole of the TUCP Order, including any valid conditions of approval. WWCD's interpretation that the suspension applied only to the approval of the TUCP, and not to any necessary conditions of approval, would defeat the purpose of the CEQA suspension, and is not a reasonable interpretation of its scope.

5.0 CONCLUSION

For the forgoing reasons, the State Water Board concludes that the Executive Director's January 31, 2014 TUCP Order and subsequent modifications to that Order were consistent with applicable law and supported by substantial evidence. Accordingly, the petitions to reconsider the Executive Director's TUCP Orders are denied. However, the Board does find that modifications to the Executive Director's May 2 TUCP Order are appropriate to ensure better coordination, planning and transparency for the remainder of the drought. Specifically, modifications to the Order were made to: require earlier reporting of actual operations; ensure that information is available to the fisheries agencies, the State Water Board and the public to understand and consider the effects of real-time operations on fish and wildlife and other beneficial uses of water; require the preparation of a drought contingency plan in the event of continued drought conditions; and require advanced planning for and consideration of concerns related to protection of Sacramento River winter-run Chinook salmon and other fisheries needs, including spring- and fall-run Chinook salmon.

ORDER

IT IS HEREBY ORDERED that, except as modified below, the Executive Director's January 31, 2014 TUCP Order and subsequent modifications to that Order are affirmed, and the petitions for reconsideration are denied. For convenience, the entire ordering section of the Executive Director's May 2, 2014 Order is reproduced below. The modifications to the Order are indicated in **~~bold strikethrough~~**-(deletions) and **bold underline** (additions).

NOW, THEREFORE, IT IS ORDERED that the petition for temporary urgency change in permit and license conditions under Permits 16478, 16479, 16481, 16482 and 16483 (Applications 5630, 14443, 14445A, 17512 and 17514A, respectively) of the Department of Water Resources

(DWR) for the State Water Project (SWP) and License 1986 and Permits 11315, 11316, 11885, 11886, 11887, 11967, 11968, 11969, 11970, 11971, 11972, 11973, 12364, 12721, 12722, 12723, 12725, 12726, 12727, 12860, 15735, 16597, 20245, and 16600 (Applications 23, 234, 1465, 5638, 13370, 13371, 5628, 15374, 15375, 15376, 16767, 16768, 17374, 17376, 5626, 9363, 9364, 9366, 9367, 9368, 15764, 22316, 14858A, 14858B, and 19304, respectively) of the United States Bureau of Reclamation (Reclamation) for the Central Valley Project (CVP); is approved subject to the following terms and conditions. All other terms and conditions of the subject license and permits, including those added by the State Water Resources Control Board (State Water Board) in Revised Decision 1641 (Decision 1641) shall remain in effect. This Order shall be effective until January 27, 2015.

1. Except as otherwise provided in condition 2, below, for a period not to exceed 360 days or until such time as this Order is amended or rescinded based on changed circumstances, the requirements of Decision 1641 for DWR and Reclamation (or Petitioners) to meet specified water quality objectives are amended as follows:
 - a. The minimum Delta outflow levels specified in Table 3 are modified as follows: the minimum Net Delta outflow Index (NDOI) described in Figure 3 of Decision 1641 during the months of February, March, April, May and July shall be no less than 3,000 cubic-feet per second (cfs) on a monthly average. The 7-day running average shall not be less than 1,000 cfs below the monthly average. In addition to base Delta outflows, pursuant to this Order, a higher pulse flow may also be required through the Real-Time Drought Operations Management Process described below.
 - b. The maximum Export Limits included in Table 3 are modified as follows: With the exception of the San Joaquin River pulse flow period, during the effective period of this Order, when the Decision 1641 Delta outflow requirements, DCC Gate closure requirements, Sacramento River flow and electric conductivity (EC) requirements are not being met the combined maximum SWP and CVP export rate for SWP and CVP contractors at the Harvey O. Banks and C.W. "Bill" Jones pumping plants shall be no greater than 1,500 cfs on a 3-day running average. During the May San Joaquin River pulse flow period, exports are permitted up to 100 percent of the 3-day running average of San Joaquin River flows at Vernalis

or 1,500 cfs, whichever is greater, provided DWR and Reclamation are complying with Decision 1641 requirements as modified by this Order. The use of the water exported pursuant this ordering provision 1.b, including previous versions of this ordering provision, is conditioned on DWR and Reclamation following the process described in their March 18, 2014 letter. These limitations do not apply to water transfers under non-SWP or CVP water rights or between SWP and CVP contractors. Based on additional information or changed circumstances, the export limits imposed pursuant to this Order may be modified through the Real-Time Drought Operations Management Process described below.

- c. The Delta Cross Channel (DCC) Gate Closure requirements included in Table 3 are modified as follows: the DCC gates may be opened from February 1 through May 20 as necessary to preserve limited storage in upstream reservoirs and reduce infiltration of high salinity water into the Delta while reducing impacts on migrating Chinook salmon. Requirements for closure of the DCC gates during March through May 20 shall be determined through the Real-Time Drought Operations Management Process described below.
- d. Table 3 San Joaquin River flow requirements at Airport Way Bridge, Vernalis, from the date of this order through June are modified as follows:
 - From the date of this Order to the start of the pulse flow period, flows shall be no less than 700 cfs, on a 3-day running average.
 - The 31-day pulse flow period shall consist of an overall pulse flow volume equivalent to 16-days of flow at 3,300 cfs, and 15 days of flow at 1,500 cfs. The start date and flow schedule for the overall pulse flow volume of water shall be determined through consultation with the Department of Fish and Wildlife, National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (fisheries agencies).
 - From the end of the pulse flow period through May 31, an average flow of 500 cfs shall be maintained.

- For the month of June, flows shall be maintained on the Stanislaus River to meet the NMFS Biological Opinion requirements and water right permit requirements for dissolved oxygen on the Stanislaus River and water right permit salinity requirements on the San Joaquin River at Vernalis.
- e. The Table 3 Sacramento River at Rio Vista flow requirements from September through November 15 of 2014 are modified as follows: flows shall be no less than 2,000 cfs on a monthly average. The 7-day running average shall not be less than 1,500 cfs.
 - f. The Table 2 Western Delta Sacramento River at Emmaton EC requirement is modified as follows: the compliance location is moved from Emmaton on the Sacramento River to Threemile Slough on the Sacramento River.
2. During the effective period of this Order, if precipitation events occur that enable DWR and Reclamation to fully comply with the Delta outflow, DCC Gate Closure, Rio Vista flow and Sacramento River at Emmaton EC requirements contained in Decision 1641, then Decision 1641 requirements shall be operative, except that any SWP and CVP exports greater than 1500 cfs shall be limited to natural or abandoned flow, or transfers as specified in condition 1b.
 3. DWR and Reclamation shall convene a Real-Time Drought Operations Management Team with designated representatives from DWR, Reclamation, the State Water Board, and the fisheries agencies. The Real-Time Drought Operations Management Team shall be convened to discuss potential changes to SWP and CVP operations to meet health and safety requirements and to reasonably protect all beneficial uses of water. The team shall meet on a regular basis, and no less than weekly, to discuss current conditions and may be combined with the existing Water Operations Management Team as appropriate. The State Water Board representative shall be designated by the Executive Director of the State Water Board and shall be authorized to make real-time operational decisions to modify requirements to meet pulse flows associated with the modification to the Delta outflow objective described above, Export Limits, DCC gate closures, and the associated requirements of this Order. If the State Water Board approves any additional temporary urgency changes pursuant to the temporary urgency

change petition that is the subject of this Order, or otherwise modifies this Order, the State Water Board will provide notice and an opportunity for interested persons to comment or object. Based on public comments or objections, further changes may be made to this Order. Information concerning changes to this Order will be posted on the State Water Board's website within 24 hours.

4. DWR and Reclamation shall calculate and maintain a record of the amount of water conserved through the changes authorized by this Order and shall submit such records on a monthly basis to the State Water Board ~~by the end~~ **within 20 working days after the first day** of the following month. The water conserved shall be maintained in storage to protect flows for fisheries, used to maintain water supplies, or used to improve water quality. The use of such water shall be determined through the Real-Time Drought Operations Management Team Process described above.
5. DWR and Reclamation shall develop monthly water balance estimates indicating actual and proposed operations through the end of the water year. Specifically, actual and projected inflows, north of Delta contract deliveries, other channel depletions, exports, and Delta outflows shall be identified. The water balance shall be posted on DWR's website and updated as necessary based on changed conditions. Monthly updates shall be posted and provided to the State Water Board ~~by the end~~ **within 20 working days after the first day** of the following month.
6. **DWR and Reclamation shall consult with the fisheries agencies and the State Water Board on a weekly basis regarding operational decisions that may affect listed species and other beneficial uses of water, including fall-run Chinook salmon.** DWR and Reclamation shall conduct necessary modeling and monitoring **and prepare other necessary technical information** to inform operational decisions. **DWR and Reclamation shall make available, upon request of State Water Board or fisheries agency staff, technical information to inform these operational decisions, including planned operations, temperature models, modeling and monitoring information, water quality modeling and monitoring information, and information about potential impacts of operational changes on other water users. DWR and Reclamation shall report to the Board monthly at its Board meetings on their**

drought operations and the information discussed above beginning with the first October Board meeting.

7. While DWR and Reclamation are operating under the changes approved by this order, they shall bypass natural and abandoned flows in order to prevent injury to other lawful users of water.
8. This Order may be further modified by the Executive Director based on additional public input or changed circumstances.
9. This Order does not authorize any act that results in the taking of a candidate, threatened or endangered species, or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). If a "take" will result from any act authorized under this Order, the Petitioners shall obtain authorization for an incidental take permit prior to construction or operation of the project. Petitioners shall be responsible for meeting all requirements of the applicable Endangered Species Act for the temporary urgency change authorized under this Order.
10. Petitioners shall immediately notify the Executive Director of the State Water Board if any significant change in conditions occurs that warrants reconsideration of this Order.

11. In consultation with the fisheries agencies, DWR and Reclamation shall develop a water year 2015 drought contingency plan for operations in the Delta and the associated Project reservoirs in the event that water supplies remain inadequate to satisfy the Projects' water right permit and license requirements and other uses. The drought contingency plan shall identify the biological and other justifications for the plan. The drought contingency plan shall also identify planned minimum monthly flow and storage conditions that consider Delta salinity control, fishery protection, and supplies for municipal water users related to projected flow and storage conditions using 50, 90, and 99 percent exceedance probabilities for assumed hydrology, and any other information that may be requested by the Executive Director or his designee. The plan for the beginning

of the water year through January 15, 2015, shall be submitted to the Executive Director by October 15, 2014. The plan for the remainder of the water year after January 15, 2015, shall be submitted to the Executive Director by January 15, 2015. The plan shall be updated as necessary based on changed circumstances. Following submittal, the plans and any updates to the plans will be posted on the State Water Board's website for public review. The Executive Director will consider public comments that may be submitted when determining whether to take any action based on the plan or whether to request additional information.

12. Pursuant to the requirements of this Order and State Water Board Order WR 90-5, Reclamation, in consultation with the fisheries agencies, shall take the following actions:

- a. Reclamation shall immediately identify and evaluate all available options for reducing temperature and redd dewatering impacts to winter-run Chinook salmon on the Sacramento River for the remainder of this fall. Reclamation shall immediately make available technical information requested by the Executive Director or his designee through the Real Time Drought Operations Management Team process to evaluate the feasibility of various options. Reclamation shall report monthly to the State Water Board during its Board meeting on actions that have been or will be taken to reduce impacts to winter-run Chinook salmon, beginning with the first October Board meeting and continuing through the drought.

- b. Reclamation, in coordination with the fisheries agencies, shall prepare by January 15, 2015, a temperature management plan for the Sacramento River for the 2015 winter-run Chinook salmon spawning and rearing period that considers other fisheries needs, including spring- and fall-run Chinook salmon. That plan shall identify actions that will be taken throughout the year to manage storage, cold water pool and flow conditions under different potential hydrologic conditions to protect winter-run Chinook salmon and other salmon runs in the Sacramento River from redd dewatering, stranding, and temperature impacts. Reclamation shall update the plan as conditions change or upon the request of the fisheries agencies

or State Water Board staff. For the remainder of the drought, Reclamation shall meet weekly with the Sacramento River Temperature Task Group (SRTTG) to discuss operations and options for reducing or avoiding redd dewatering, stranding and temperature impacts to winter-run Chinook salmon. Reclamation shall confer on recommendations from the SRTTG at the Real Time Drought Operations Management Team meeting and other applicable CVP and SWP operational decision-making meetings.

CERTIFICATION

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of an order duly adopted at a meeting of the State Water Resources Control Board held on September 24, 2014.

AYE: Chair Felicia Marcus
Vice Chair Frances Spivy-Weber
Board Member Tam M. Doduc
Board Member Steven Moore
Board Member Dorene D'Adamo

NAY: None

ABSENT: None

ABSTAIN: None



Jeanine Townsend
Clerk to the Board

TABLE 1
WATER QUALITY OBJECTIVES FOR
MUNICIPAL AND INDUSTRIAL BENEFICIAL USES

COMPLIANCE LOCATION	INTERAGENCY STATION NUMBER (RKI [1])	PARAMETER	DESCRIPTION (UNIT)	WATER YEAR TYPE [2]	TIME PERIOD	VALUE
Contra Costa Canal at Pumping Plant #1	C-5 (CHCCC06)	Chloride (Cl ⁻)	Maximum mean daily 150 mg/l Cl ⁻ for at least the number of days shown during the Calendar Year.	W		No. of days each Calendar Year ≤ 150 mg/l Cl ⁻
-or-						
San Joaquin River at Antioch Water Works Intake	D-12 (near) (RSAN007)		Must be provided in intervals of not less than two weeks duration. (Percentage of Calendar Year shown in parenthesis)	AN		240 (66%)
				BN		190 (52%)
				D		175 (48%)
				C		165 (45%)
						155 (42%)
Contra Costa Canal at Pumping Plant #1	C-5 (CHCCC06)	Chloride (Cl ⁻)	Maximum mean daily (mg/l)	All	Oct-Sep	250
-and-						
West Canal at mouth of Clifton Court Forebay	C-9 (CHWST0)					
-and-						
Delta-Mendota Canal at Tracy Pumping Plant	DMC-1 (CHDMC004)					
-and-						
Barker Slough at North Bay Aqueduct Intake	---- (SLSAR3)					
-and-						
Cache Slough at City of Vallejo Intake [3]	C-19 (SLCCH16)					

[1] River Kilometer Index station number.

[2] The Sacramento Valley 40-30-30 water year hydrologic classification index (see Figure 1) applies for determinations of water year type.

[3] The Cache Slough objective to be effective only when water is being diverted from this location.

**TABLE 2
WATER QUALITY OBJECTIVES FOR AGRICULTURAL BENEFICIAL USES**

COMPLIANCE LOCATION	INTERAGENCY STATION NUMBER (RKI [1])	PARAMETER	DESCRIPTION (UNIT) [2]	WATER YEAR TYPE [3]	TIME PERIOD	VALUE	
WESTERN DELTA							
Sacramento River at Emmaton	D-22 (RSAC092)	Electrical Conductivity (EC)	Maximum 14-day running average of mean daily EC (mmhos/cm)		0.45 EC	EC from date shown to Aug 15 [4]	
					April 1 to date shown	Aug 15	----
				W	Aug 15	----	0.63
				AN	Jul 1	----	1.14
				BN	Jun 20	----	1.67
	D	Jun 15	----	2.78			
	C	----	----	----	----		
San Joaquin River at Jersey Point	D-15I (RSAN018)	Electrical Conductivity (EC)	Maximum 14-day running average of mean daily EC (mmhos/cm)		0.45 EC	EC from date shown to Aug 15 [4]	
					April 1 to date shown	Aug 15	----
				W	Aug 15	----	0.74
				AN	Aug 15	----	1.35
				BN	Jun 20	----	2.20
	D	Jun 15	----	----	----		
	C	----	----	----	----		
INTERIOR DELTA							
South Fork Mokelumne River at Terminous	C-13 (RSMKL08)	Electrical Conductivity (EC)	Maximum 14-day running average of mean daily EC (mmhos/cm)		0.45 EC	EC from date shown to Aug 15 [4]	
					April 1 to date shown	Aug 15	----
				W	Aug 15	----	0.54
				AN	Aug 15	----	----
				BN	Aug 15	----	----
	D	Aug 15	----	----	----		
	C	----	----	----	----		
San Joaquin River at San Andreas Landing	C-4 (RSAN032)	Electrical Conductivity (EC)	Maximum 14-day running average of mean daily EC (mmhos/cm)		0.45 EC	EC from date shown to Aug 15 [4]	
					April 1 to date shown	Aug 15	----
				W	Aug 15	----	0.58
				AN	Aug 15	----	0.87
				BN	Aug 15	----	----
	D	Jun 25	----	----	----		
	C	----	----	----	----		
SOUTHERN DELTA							
San Joaquin River at Airport Way Bridge, Vernalis	C-10 (RSAN112)	Electrical Conductivity (EC)	Maximum 30-day running average of mean daily EC (mmhos/cm)	All	Apr-Aug	0.7	
					Sep-Mar	1.0	

-and-							
San Joaquin River at Brandt Bridge site[5]	C-6 (RSAN073)						
-and-							
Old River near Middle River [5]	C-8 (ROLD69)						
-and-							
Old River at Tracy Road Bridge [5]	P-12 (ROLD69)						
EXPORT AREA							
West Canal at mouth of Clifton Court Forebay	C-9 (CHWST0)	Electrical Conductivity (EC)	Maximum monthly average of mean daily EC (mmhos/cm)	All	Oct-Sep	1.0	
-and-							
Delta-Mendota Canal at Tracy Pumping Plant	DMC-1 (CHDMC004)						

[1] River Kilometer Index station number.

[2] Determination of compliance with an objective expressed as a running average begins on the last day of the averaging period. The averaging period commences with the first day of the time period for the applicable objective. If the objective is not met on the last day of the averaging period, all days in the averaging period are considered out of compliance.

[3] The Sacramento Valley 40-30-30 water year hydrologic classification index (see Figure 1) applies for determinations of water year type.

[4] When no date is shown, EC limit continues from April 1.

[5] The 0.7 EC objective becomes effective on April 1, 2005. The DWR and the USBR shall meet 1.0 EC at these stations year round until April 1, 2005. The 0.7 EC objective is replaced by the 1.0 EC objective from April through August after April 1, 2005 if permanent barriers are constructed, or equivalent measures are implemented, in the southern Delta and an operations plan that reasonably protects southern Delta agriculture is prepared by the DWR and the USBR and approved by the Executive Director of the SWRCB. The SWRCB will review the salinity objectives for the southern Delta in the next review of the Bay-Delta objectives following construction of the barriers.

TABLE 3
WATER QUALITY OBJECTIVES FOR FISH AND WILDLIFE BENEFICIAL USES

COMPLIANCE LOCATION	INTERAGENCY STATION NUMBER (RKI [1])	PARAMETER	DESCRIPTION (UNIT) [2]	WATER YEAR TYPE [3]	TIME PERIOD	VALUE
SAN JOAQUIN RIVER SALINITY						
San Joaquin River at and between Jersey Point and Prisoners Point [4]	D-15 (RSAN018) -and- D-29 (RSAN038)	Electrical Conductivity (EC)	Maximum 14-day running average of mean daily EC(mmhos/cm)	W,AN,BN,D	Apr-May	0.44 [5]
EASTERN SUISUN MARSH SALINITY						
Sacramento River at Collinsville	C-2 (RSAC081)	Electrical Conductivity (EC)	Maximum monthly average of both daily high tide EC values (mmhos/cm), or demonstrate that equivalent or better protection will be provided at the location	All	Oct	19.0
-and- Montezuma Slough at National Steel	S-64 (SLMZU25)				Nov-Dec	15.5
-and- Montezuma Slough near Beldon Landing	S-49 (SLMZU11)				Jan	12.5
					Feb-Mar	8.0
					Apr-May	11.0
WESTERN SUISUN MARSH SALINITY						
Chadbourne Slough at Sunrise Duck Club	S-21 (SLCBN1)	Electrical Conductivity (EC)	Maximum monthly average of both daily high tide EC values (mmhos/cm), or demonstrate that equivalent or better protection will be provided at the location	All but deficiency period [6]	Oct	19.0
-and- Suisun Slough, 300 feet south of Volanti Slough	S-42 (SLSUS12)				Nov	16.5
					Dec	15.5
					Jan	12.5
					Feb-Mar	8.0
					Apr-May	11.0
				Deficiency Period [6]	Oct	19.0
					Nov	16.5
					Dec-Mar	15.6
					Apr	14.0
					May	12.5

TABLE 3 (continued)
WATER QUALITY OBJECTIVES FOR FISH AND WILDLIFE BENEFICIAL USES

COMPLIANCE LOCATION	INTERAGENCY STATION NUMBER(RK14[1])	PARAMETER	DESCRIPTION (UNIT) [2]	WATER YEAR TYPE [3]	TIME PERIOD	VALUE
DELTA OUTFLOW						
		Net Delta Outflow Index (NDOI) [7]	Minimum monthly average [8] NDOI (cfs)	All	Jan	4,500 [9]
				All	Feb-Jun	[10]
				W,AN	Jul	8,000
				BN		6,500
				D		5,000
				C		4,000
				W,AN,BN	Aug	4,000
				D		3,500
				C		3,000
				All	Sep	3,000
				W,AN,BN,D	Oct	4,000
				C		3,000
				W,AN,BN,D	Nov-Dec	4,500
				C		3,500
RIVER FLOWS						
Sacramento River at Rio Vista	D-24 (RSAC101)	Flow rate	Minimum monthly average [11] flow rate (cfs)	All	Sep	3,000
				W,AN,BN,D	Oct	4,000
				C		3,000
				W,AN,BN,D	Nov-Dec	4,500
				C		3,500
San Joaquin River at Airport Way Bridge, Vernalis	C-10 (RSAN112)	Flow rate	Minimum monthly average [12] flow rate (cfs) [13]	W,AN BN,D C	Feb-Apr 14 and May 16-Jun	2,130 or 3,420 1,420 or 2,280 710 or 1,140
				W	Apr 15-	7,330 or 8,620
				AN	May 15 [14]	5,730 or 7,020
				BN		4,620 or 5,480
				D		4,020 or 4,880
				C		3,110 or 3,540
				All	Oct	1,000 [15]
EXPORT LIMITS						
		Combined export rate [16]	Maximum 3-day running average (cfs)	All	Apr 15- May 15 [17]	[18]
			Maximum percent of Delta inflow diverted [19] [20]	All	Feb-Jun	35% Delta inflow [21]
				All	Jul-Jan	65% Delta inflow
DELTA CROSS CHANNEL GATES CLOSURE						
Delta Cross Channel at Walnut Grove	—	Closure of gates	Closed gates	All	Nov-Jan Feb-May 20 May 21- Jun 15	[22] ---- [23]

Table 3 Footnotes

- [1] River Kilometer Index station number.
- [2] Determination of compliance with an objective expressed as a running average begins on the last day of the averaging period. The averaging period commences with the first day of the time period of the applicable objective. If the objective is not met on the last day of the averaging period, all days in the averaging period are considered out of compliance.
- [3] The Sacramento Valley 40-30-30 Water Year Hydrologic Classification Index (see Figure 1) applies unless otherwise specified.
- [4] Compliance will be determined at Jersey Point (station D15) and Prisoners Point (station D29).
- [5] This standard does not apply in May when the best available May estimate of the Sacramento River Index for the water year is less than 8.1 MAF at the 90% exceedence level. [Note: The Sacramento River Index refers to the sum of the unimpaired runoff in the water year as published in the DWR Bulletin 120 for the following locations: Sacramento River above Bend Bridge, near Red Bluff; Feather River, total unimpaired inflow to Oroville Reservoir; Yuba River at Smartville; and American River, total unimpaired inflow to Folsom Reservoir.]
- [6] A deficiency period is: (1) the second consecutive dry water year following a critical year; (2) a dry water year following a year in which the Sacramento River Index (described in footnote 5) was less than 11.35 MAF; or (3) a critical water year following a dry or critical water year. The determination of a deficiency period is made using the prior year's final Water Year Type determination and a forecast of the current year's Water Year Type; and remains in effect until a subsequent water year is other than a Dry or Critical water year as announced on May 31 by DWR and USBR as the final water year determination.
- [7] Net Delta Outflow Index (NDOI) is defined in Figure 3.
- [8] For the May-January objectives, if the value is less than or equal to 5,000 cfs, the 7-day running average shall not be less than 1,000 cfs below the value; if the value is greater than 5,000 cfs, the 7-day running average shall not be less than 80% of the value.
- [9] The objective is increased to 6,000 cfs if the best available estimate of the Eight River Index for December is greater than 800 TAF. [Note: The Eight River Index refers to the sum of the unimpaired runoff as published in the DWR Bulletin 120 for the following locations: Sacramento River flow at Bend Bridge, near Red Bluff; Feather River, total inflow to Oroville Reservoir; Yuba River flow at Smartville; American River, total inflow to Folsom Reservoir; Stanislaus River, total inflow to New Melones Reservoir; Tuolumne River, total inflow to Don Pedro Reservoir; Merced River, total inflow to Exchequer Reservoir; and San Joaquin River, total inflow to Millerton Lake.]
- [10] The minimum daily net Delta outflow shall be 7,100 cfs for this period, calculated as a 3-day running average. This requirement is also met if either the daily average or 14-day running average EC at the confluence of the Sacramento and the San Joaquin rivers is less than or equal to 2.64 mmhos/cm (Collinsville station C2). If the best available estimate of the Eight River Index (described in footnote 9) for January is more than 900 TAF, the daily average or 14-day running average EC at station C2 shall be less than or equal to 2.64 mmhos/cm for at least one day between February 1 and February 14; however, if the best available estimate of the Eight River Index for January is between 650 TAF and 900 TAF, the Executive Director of the SWRCB is delegated authority to decide whether this requirement applies. If the best available estimate of the Eight River Index for February is less than 500 TAF, the standard may be further relaxed in March upon the request of the DWR and the USBR, subject to the approval of the Executive Director of the SWRCB. The standard does not apply in May and June if the best available May estimate of the Sacramento River Index (described in footnote 5) for the water year is less than 8.1 MAF at the 90% exceedence level.

Under this circumstance, a minimum 14-day running average flow of 4,000 cfs is required in May and June. Additional Delta outflow objectives are contained in Table 4.

- [11] The 7-day running average shall not be less than 1,000 cfs below the monthly objective.
- [12] Partial months are averaged for that period. For example, the flow rate for April 1-14 would be averaged over 14 days. The 7-day running average shall not be less than 20% below the flow rate objective, with the exception of the April 15-May 15 pulse flow period when this restriction does not apply.
- [13] The water year classification for the San Joaquin River flow objectives will be established using the best available estimate of the 60-20-20 San Joaquin Valley Water Year Hydrologic Classification (see Figure 2) at the 75% exceedence level. The higher flow objective applies when the 2-ppt isohaline (measured as 2.64 mmhos/cm surface salinity) is required to be at or west of Chipps Island.
- [14] This time period may be varied based on real-time monitoring. One pulse, or two separate pulses of combined duration equal to the single pulse, should be scheduled to coincide with fish migration in San Joaquin River tributaries and the Delta. The USBR will schedule the time period of the pulse or pulses in consultation with the USFWS, the NMFS, and the DFG. Consultation with the CALFED Operations Group established under the Framework Agreement will satisfy the consultation requirement. The schedule is subject to the approval of the Executive Director of the SWRCB.
- [15] Plus up to an additional 28 TAF pulse/attraction flow during all water year types. The amount of additional water will be limited to that amount necessary to provide a monthly average flow of 2,000 cfs. The additional 28 TAF is not required in a critical year following a critical year. The pulse flow will be scheduled by the DWR and the USBR in consultation with the USFWS, the NMFS and the DFG. Consultation with the CALFED Operations Group established under the Framework Agreement will satisfy the consultation requirement.
- [16] Combined export rate for this objective is defined as the Clifton Court Forebay inflow rate (minus actual Byron-Bethany Irrigation District diversions from Clifton Court Forebay) and the export rate of the Tracy pumping plant.
- [17] This time period may be varied based on real-time monitoring and will coincide with the San Joaquin River pulse flow described in footnote 18. The DWR and the USBR, in consultation with the USFWS, the NMFS and the DFG, will determine the time period for this 31-day export limit. Consultation with the CALFED Operations Group established under the Framework Agreement will satisfy the consultation requirement.
- [18] Maximum export rate is 1,500 cfs or 100% of 3-day running average of San Joaquin River flow at Vernalis, whichever is greater. Variations to this maximum export rate may be authorized if agreed to by the USFWS, the NMFS and the DFG. This flexibility is intended to result in no net water supply cost annually within the limits of the water quality and operational requirements of this plan. Variations may result from recommendations of agencies for protection of fish resources, including actions taken pursuant to the State and federal Endangered Species Act. Any variations will be effective immediately upon notice to the Executive Director of the SWRCB. If the Executive Director of the SWRCB does not object to the variations within 10 days, the variations will remain in effect. The Executive Director of the SWRCB is also authorized to grant short-term exemptions to export limits for the purpose of facilitating a study of the feasibility of recirculating export water into the San Joaquin River to meet flow objectives.
- [19] Percent of Delta inflow diverted is defined in Figure 3. For the calculation of maximum percent Delta inflow diverted, the export rate is a 3-day running average and the Delta inflow is a 14-day running average, except when the CVP or the SWP is making storage withdrawals for export, in which case both the export rate and the Delta inflow are 3-day running averages.

- [20] The percent Delta inflow diverted values can be varied either up or down. Variations are authorized subject to the process described in footnote 18.
- [21] If the best available estimate of the Eight River Index (described in footnote 9) for January is less than or equal to 1.0 MAF, the export limit for February is 45% of Delta inflow. If the best available estimate of the Eight River Index for January is greater than 1.5 MAF, the February export limit is 35% of Delta inflow. If the best available estimate of the Eight River Index for January is between 1.0 MAF and 1.5 MAF, the DWR and the USBR will set the export limit for February within the range of 35% to 45%, after consultation with the USFWS, the NMFS and the DFG. Consultation with the CALFED Operations Group established under the Framework Agreement will satisfy the consultation requirement.
- [22] For the November-January period, close Delta Cross Channel gates for a total of up to 45 days. The USBR will determine the timing and duration of the gate closure after consultation with the USFWS, the NMFS and the DFG. Consultation with the CALFED Operations Group established under the Framework Agreement will satisfy the consultation requirement.
- [23] For the May 21-June 15 period, close Delta Cross Channel gates for a total of 14 days. The USBR will determine the timing and duration of the gate closure after consultation with the USFWS, the NMFS and the DFG. Consultation with the CALFED Operations Group established under the Framework Agreement will satisfy the consultation requirement.

Figure 1
Sacramento Valley
Water Year Hydrologic Classification

Year classification shall be determined by computation of the following equation:

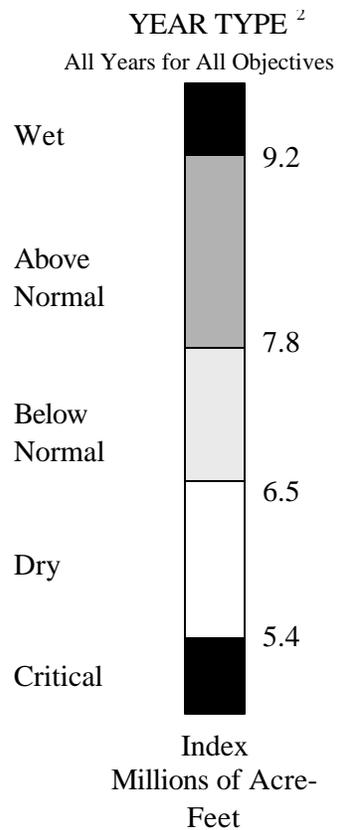
$$\text{INDEX} = 0.4 * X + 0.3 * Y + 0.3 * Z$$

Where: X = Current year's April – July
 Sacramento Valley unimpaired runoff

Y = Current October – March
 Sacramento Valley unimpaired runoff

Z = Previous year's index¹

The Sacramento Valley unimpaired runoff for the current water year (October 1 of the preceding calendar year through September 30 of the current calendar year), as published in California Department of Water Resources Bulletin 120, is a forecast of the sum of the following locations: Sacramento River above Bend Bridge, near Red Bluff; Feather River, total inflow to Oroville Reservoir; Yuba River at Smartville; American River, total inflow to Folsom Reservoir. Preliminary determinations of year classification shall be made in February, March, and April with final determination in May. These preliminary determinations shall be based on hydrologic conditions to date plus forecasts of future runoff assuming normal precipitation for the remainder of the water year.



<u>Classification</u>	<u>Index</u> <u>Millions of Acre-Feet (MAF)</u>
Wet	Equal to or greater than 9.2
Above Normal	Greater than 7.8 and less than 9.2
Below Normal	Equal to or less than 7.8 and greater than 6.5
Dry	Equal to or less than 6.5 and greater than 5.4
Critical	Equal to or less than 5.4

¹ A cap of 10.0 MAF is put on the previous year's index (Z) to account for required flood control reservoir releases during wet years.

² The year type for the preceding water year will remain in effect until the initial forecast of unimpaired runoff for the current water year is available.

Figure 2
San Joaquin Valley
Water Year Hydrologic Classification

Year classification shall be determined by computation of the following equation:

$$\text{INDEX} = 0.6 * X + 0.2 * Y + 0.2 * Z$$

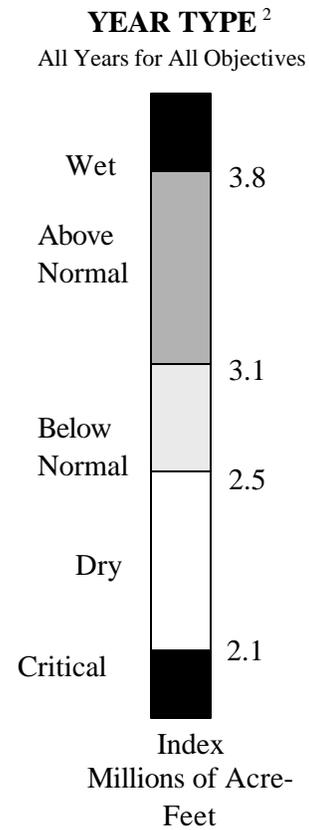
Where: X = Current year's April – July
 San Joaquin Valley unimpaired runoff

Y = Current October – March
 San Joaquin Valley unimpaired runoff

Z = Previous year's index¹

The San Joaquin Valley unimpaired runoff for the current water year (October 1 of the preceding calendar year through September 30 of the current calendar year), as published in California Department of Water Resources Bulletin 120, is a forecast of the sum of the following locations: Stanislaus River, total flow to New Melones Reservoir; Tuolumne River, total inflow to Don Pedro Reservoir; Merced River, total flow to Exchequer Reservoir; San Joaquin River, total inflow to Millerton Lake. Preliminary determinations of year classification shall be made in February, March, and April with final determination in May. These preliminary determinations shall be based on hydrologic conditions to date plus forecasts of future runoff assuming normal precipitation for the remainder of the water year.

<u>Classification</u>	<u>Index</u> <u>Millions of Acre-Feet (MAF)</u>
Wet	Equal to or greater than 3.8
Above Normal	Greater than 3.1 and less than 3.8
Below Normal	Equal to or less than 3.1 and greater than 2.5
Dry	Equal to or less than 2.5 and greater than 2.1
Critical	Equal to or less than 2.1



¹ A cap of 4.5 MAF is put on the previous year's index (Z) to account for required flood control reservoir releases during wet years.

² The year type for the preceding water year will remain in effect until the initial forecast of unimpaired runoff for the current water year is available.

Figure 3
NDOI and PERCENT INFLOW DIVERTED¹

The NDOI and the percent inflow diverted, as described in this footnote, shall be computed daily by the DWR and the USBR using the following formulas (all flows are in cfs):

$$NDOI = DELTA\ INFLOW - NET\ DELTA\ CONSUMPTIVE\ USE - DELTA\ EXPORTS$$

$$PERCENT\ INFLOW\ DIVERTED = (CCF + TPP) \div DELTA\ INFLOW$$

where $DELTA\ INFLOW = SAC + SRTP + YOLO + EAST + MISC + SJR$

- SAC* = Sacramento River at Freeport mean daily flow for the previous day; the 25-hour tidal cycle measurements from 12:00 midnight to 1:00 a.m. may be used instead.
- SRTP* = Sacramento Regional Treatment Plant average daily discharge for the previous week.
- YOLO* = Yolo Bypass mean daily flow for the previous day, which is equal to the flows from the Sacramento Weir, Fremont Weir, Cache Creek at Rumsey, and the South Fork of Putah Creek.
- EAST* = Eastside Streams mean daily flow for the previous day from the Mokelumne River at Woodbridge, Cosumnes River at Michigan Bar, and Calaveras River at Bellota.
- MISC* = Combined mean daily flow for the previous day of Bear Creek, Dry Creek, Stockton Diverting Canal, French Camp Slough, Marsh Creek, and Morrison Creek.
- SJR* = San Joaquin River flow at Vernalis, mean daily flow for the previous day.

where $NET\ DELTA\ CONSUMPTIVE\ USE = GDEPL - PREC$

- GDEPL* = Delta gross channel depletion for the previous day based on water year type using the DWR's latest Delta land use study.²
- PREC* = Real-time Delta precipitation runoff for the previous day estimated from stations within the Delta.

and where $DELTA\ EXPORTS^3 = CCF + TPP + CCC + NBA$

- CCF* = Clifton Court Forebay inflow for the current day.⁴
- TPP* = Tracy Pumping Plant pumping for the current day.
- CCC* = Contra Costa Canal pumping for the current day.
- NBA* = North Bay Aqueduct pumping for the current day.

1 Not all of the Delta tributary streams are gaged and telemetered. When appropriate, other methods of estimating stream flows, such as correlations with precipitation or runoff from nearby streams, may be used instead.

2 The DWR is currently developing new channel depletion estimates. If these new estimates are not available, DAYFLOW channel depletion estimates shall be used.

3 The term "Delta Exports" is used only to calculate the NDOI. It is not intended to distinguish among the listed diversions with respect to eligibility for protection under the area of origin provisions of the California Water Code.

4 Actual Byron-Bethany Irrigation District withdrawals from Clifton Court Forebay shall be subtracted from Clifton Court Forebay inflow. (Byron-Bethany Irrigation District water use is incorporated into the GDEPL term.)

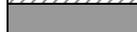
Table 4. Number of Days When Maximum Daily Average Electrical Conductivity of 2.64 mmhos/cm Must Be Maintained at Specified Location

Number of Days When Maximum Daily Average Electrical Conductivity of 2.64 mmhos/cm Must Be Maintained at Specified Location ^[a]																	
PMI ^[b] (TAF)	Chippis Island (Chippis Island Station D10)					PMI ^[b] (TAF)	Port Chicago (Port Chicago Station C14) ^[d]					PMI ^[b] (TAF)	Port Chicago (Port Chicago Station C14) ^[d]				
	FEB	MAR	APR	MAY	JUN		FEB	MAR	APR	MAY	JUN		FEB	MAR	APR	MAY	JUN
≤ 500	0	0	0	0	0	0	0	0	0	0	0	5250	27	29	25	26	6
750	0	0	0	0	0	250	1	0	0	0	0	5500	27	29	26	28	9
1000	28 ^[c]	12	2	0	0	500	4	1	0	0	0	5750	27	29	27	28	13
1250	28	31	6	0	0	750	8	2	0	0	0	6000	27	29	27	29	16
1500	28	31	13	0	0	1000	12	4	0	0	0	6250	27	30	27	29	19
1750	28	31	20	0	0	1250	15	6	1	0	0	6500	27	30	28	30	22
2000	28	31	25	1	0	1500	18	9	1	0	0	6750	27	30	28	30	24
2250	28	31	27	3	0	1750	20	12	2	0	0	7000	27	30	28	30	26
2500	28	31	29	11	1	2000	21	15	4	0	0	7250	27	30	28	30	27
2750	28	31	29	20	2	2250	22	17	5	1	0	7500	27	30	29	30	28
3000	28	31	30	27	4	2500	23	19	8	1	0	7750	27	30	29	31	28
3250	28	31	30	29	8	2750	24	21	10	2	0	8000	27	30	29	31	29
3500	28	31	30	30	13	3000	25	23	12	4	0	8250	28	30	29	31	29
3750	28	31	30	31	18	3250	25	24	14	6	0	8500	28	30	29	31	29
4000	28	31	30	31	23	3500	25	25	16	9	0	8750	28	30	29	31	30
4250	28	31	30	31	25	3750	26	26	18	12	0	9000	28	30	29	31	30
4500	28	31	30	31	27	4000	26	27	20	15	0	9250	28	30	29	31	30
4750	28	31	30	31	28	4250	26	27	21	18	1	9500	28	31	29	31	30
5000	28	31	30	31	29	4500	26	28	23	21	2	9750	28	31	29	31	30
5250	28	31	30	31	29	4750	27	28	24	23	3	10000	28	31	30	31	30
≤ 5500	28	31	30	31	30	5000	27	28	25	25	4	>10000	28	31	30	31	30

- [a] The requirement for number of days the maximum daily average EC (EC) of 2.64 mmhos per centimeter (mmhos/cm) must be maintained at Chippis Island and Port Chicago can also be met with maximum 14-day running average EC of 2.64 mmhos/cm, or 3-day running average NDOIs of 11,400 cfs and 29,200 cfs, respectively. If salinity/flow objectives are met for a greater number of days than the requirements for any month, the excess days shall be applied to meeting the requirements for the following month. The number of days for values of the PMI between those specified in this table shall be determined by linear interpolation.
- [b] PMI is the best available estimate of the previous month's Eight River Index. (Refer to Footnote 10 for Table 3 for a description of the Eight River Index.)
- [c] When the PMI is between 800 TAF and 1000 TAF, the number of days the maximum daily average EC of 2.64 mmhos/cm (or maximum 14-day running average EC of 2.64 mmhos/cm, or 3-day running average NDOI of 11,400 cfs) must be maintained at Chippis Island in February is determined by linear interpolation between 0 and 28 days.
- [d] This standard applies only in months when the average EC at Port Chicago during the 14 days immediately prior to the first day of the month is less than or equal to 2.64 mmhos/cm.

Attachment 2

Comments, Objections, Protests, and Petitions for Reconsideration Received Through May 16, 2014

no fill	Comments, Protests, and Objections
	Protests, Objections, and in the alternative, Petitions for Reconsideration
	Petitions for Reconsideration

Submitter	Dates						
Audubon California, California Waterfowl Association, Defenders of Wildlife, and the Grasslands Water District	5/1/2014						
Audubon California, California Waterfowl Association, Defenders of Wildlife, The Nature Conservancy, The Trust for Public Land, and Ducks Unlimited	3/5/2014						
Bob and Cindy	4/27/2014						
Butte County Board of Supervisors	3/11/2014						
California Farm Bureau Federation	3/10/2014						
California Federation of Teachers	3/21/2014						
California League of Food Processors	3/10/2014						
California Sportfishing Protection Alliance and California Water Impact Network	5/6/2014						
California Sportfishing Protection Alliance, AquAlliance, California Water Impact Network	3/3/2014	4/28/2014					
California Tomato Growers Association	3/7/2014						
California Waterfowl	3/3/2014						
Cities of Folsom and Roseville and San Juan Water District	3/10/2014	4/25/2014	5/6/2014	5/13/2014			
City of Gustine	3/11/2014						
City of Sacramento	3/10/2014						
County of Merced, Board of Supervisors	3/14/2014						
County of Merced, Office of the Sheriff-Coroner	3/13/2014						
Dan and Bonnie Carroll	3/11/2014						
Ducks Unlimited	3/3/2014						
Fresno County Sheriff	3/7/2014						
Friant Water Users Authority							
Grasslands Water District and Grassland Resource Conservation District	2/18/2014	3/3/2014	5/13/2014				
Jack & Pat Jones - Farmers	3/6/2014						
Janet McCleery	2/19/2014						
Kings County Farm Bureau	3/14/2014						
Natural Resources Defense Council	4/10/2014	5/6/2014					

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Comments, Objections, Protests, and Petitions for Reconsideration Received Through May 16, 2014

no fill	Comments, Protests, and Objections
	Protests, Objections, and in the alternative, Petitions for Reconsideration
	Petitions for Reconsideration

Submitter	Dates						
Natural Resources Defense Council and The Bay Institute	4/21/2014	4/28/2014					
Natural Resources Defense Council, The Bay Institute, Defenders of Wildlife, Pacific Coast Federation of Fishermen's Associations and the Institute for Fisheries Resources, and Golden Gate Salmon Association	3/17/2014	3/28/2014					
Norman Crow Farms, LLC	3/11/2014						
North Delta Water Agency	3/3/2014						
Northern California Water Association	3/3/2014						
Oliveira Farms	3/11/2014						
Patrick Porgans & Associates	2/18/2014	4/25/2014	5/6/2014	5/16/2014			
Patterson Irrigation District (PID)	3/6/2014						
Placer County Water Agency	3/11/2014						
Point Blue Conservation Science	3/4/2014						
Richard Morat	2/4/2014	2/4/2014	3/21/2014	4/18/2014			
Russ Brown	5/6/2014						
Sacramento County Water Agency	3/10/2014						
San Joaquin River Exchange Contractors Water Authority (SJRECWA), Central California Irrigation District, San Luis Canal Company, Columbia Canal Company, and Firebaugh Canal Water District	2/28/2014	4/1/2014					
San Joaquin Tributaries Authority	3/10/2014	3/10/2014	4/11/2014	4/17/2024	4/21/2014		
San Luis & Delta-Mendota Water Authority and its member agencies	2/28/2014	3/3/2014	3/10/2014	3/26/2014	3/28/2014	4/21/2014	5/13/2014
Santa Clara Valley Water District	3/3/2014						
South Delta Water Agency	3/28/2014	4/25/2014	5/13/2014				
State Water Contractors	3/3/2014	3/10/2014	3/27/2014				
Teixeira and Sons	3/11/2014						
Western Canal Water District, Richvale Irrigation District, Butte Water District, and Plumas Mutual Water Company	3/3/2014						
Yosemite Farm Credit	3/14/2014						