

From: Tim Stroshane [<mailto:spillwayguy@gmail.com>]

Sent: Wednesday, July 22, 2015 10:02 AM

To: Satkowski, Rich@Waterboards; Mizell, James@DWR; Amy L. Aufdemberge, Esq.

Cc: Barbara Barrigan-Parrilla; Brian Smith; Michael & Ruth Jackson Esq.; Bill Jennings; Tom Stokely; Chris Shutes; Meserve, Osha@semlawyers.com; ngmplcs@pacbell.net; Herrick, John @aol.com; Thomas H. Keeling; Bob Wright; Bob Wright (Bob-w.sacto@att.net); Conner Everts; Carolee Krieger; Barbara Vlamis

Subject: Protest and Request for Reconsideration Regarding July 3, 2015, Order Approving Temporary Urgency Changes for DWR and Bureau

Dear Mr. Satkowski:

Please discard the previous protest and request for reconsideration submitted earlier this morning. It was missing Exhibit 1. Please replace that petition with the one attached below which includes the exhibit.

On behalf of Barbara Barrigan-Parrilla, executive director with Restore the Delta, attached please find a petition respectfully submitted from Restore the Delta in which we protest and request reconsideration of the State Water Resources Control Board's Order approving the Temporary Urgency Change Petition regarding permits and license of the State Water Project and Central Valley Project, dated July 3, 2015.

Please note that our petition formally incorporates by reference comments already submitted by the California Sportfishing Protection Alliance, as well as comments they will submit in response to the Board's July 3rd Order.

We would appreciate a reply acknowledging that you have received timely submission of our protest petition. If you have questions, please do not hesitate to contact us.

Thank you for the opportunity to submit this petition.

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PROTEST-PETITION

This form may be used for objections to:

PETITION FOR TEMPORARY URGENT CHANGE
APPLICATION _____¹ PERMIT _____¹ LICENSE _____¹
OF _____¹

We, Tim Stroshane (Policy Analyst, Restore the Delta, 639 San Carlos Avenue, Albany, CA 94706; tim@restorethedelta.org) and Barbara Barrigan-Parrilla (Executive Director, Restore the Delta 10500 Trinity Parkway, Suite 100, Stockton, CA 95219; barbara@restorethedelta.org), have carefully read:

- 1) The *Notice of Temporary Urgency Change Petition [TUCP] and Notice of Public Workshop*, dated January 27, 2015, and the subsequent *Order Approving in Part and Denying in Part a Petition for Temporary Urgency Changes to License and Permit Terms and Conditions Requiring Compliance with Delta Water Quality Objectives in Response to Drought Conditions*, dated February 3, 2015;
- 2) The subsequent *March 5, 2015 Order Modifying an Order that Approved in Part and Denied in Part a Petition for Temporary Urgency Changes to License and Permit Conditions Requiring Compliance with Delta Water Quality Objectives in Response to Drought Conditions*, dated March 5, 2015;
- 3) The subsequent *April 6, 2015 Order Modifying an Order that Approved in Part and Denied in Part a Petition for Temporary Urgency Changes to License and Permit Conditions Requiring Compliance with Delta Water Quality Objectives in Response to Drought Conditions*, dated April 6, 2015;
- 4) The subsequent *Notice of Request to Modify and Renew a Temporary Urgency Change Order for SWP and CVP for July through November*, dated June 8, 2015, and the accompanying Temporary Urgency Change Petition (TUCP) filed by the California Department of Water Resources and the US Bureau of Reclamation, dated May 21, 2015; and
- 5) The subsequent email announcing "Order on Temporary Urgency Change Petition from DWR and USBR to Modify Bay-Delta Flow and Water Quality Requirements from July-November," dated July 3, 2015, and said order itself attached to this email, *Order Conditionally Approving a Petition for Temporary Urgency Changes in License and Permit Terms and Conditions Requiring Compliance with Delta Water Quality Objectives in Response to Drought Conditions*, also dated July 3, 2015.

¹ Latest temporary urgency change petition (TUCP) applies to 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.

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We further incorporate by reference the comments and protests of the California Sportfishing Protection Alliance submitted pursuant to the TUCP Notice issued by the State Water Resources Control Board Executive Director on June 8, 2015, and all comments submitted by CSPA in response to the July 3rd email and Order. We also incorporate by reference Restore the Delta's previously submitted protests and comments submitted to the State Water Board on February 13, 2015, May 5, 2015, and June 17, 2015, protesting the temporary urgency changes petition from the California Department of Water Resources and the US Bureau of Reclamation, and requesting reconsideration of the Board's orders implementing TUCP requests. We further incorporate by reference additional protest comments submitted by the California Sportfishing Protection Alliance, the California Water Impact Network, and AquAlliance. We herein further protest and request reconsideration by the State Water Resources Control Board of the July 3, 2015, Order issued by Executive Director Tom Howard.

Our protest and request for reconsideration is based on ENVIRONMENTAL AND PUBLIC INTEREST CONSIDERATIONS:

- not best serve the public interest
- be contrary to law
- have an adverse environmental impact

State facts which support the foregoing allegations:

The latest temporary urgency change petition does not best serve the public interest.

In addition to the other points we have made in previous protests of the sequence of temporary urgency change petitions and Board orders, we add these grounds for protest and reconsideration requests of the following points:

- *The TUCP Order improperly relies upon a "drought economic impact study" from researchers at the University of California at Davis as evidence of economic effects of water supply reductions and evidence of drought conditions in the watershed in which the Order applies (that of the Bay-Delta Watershed in the Central Valley).*

This report was issued on May 31, 2015, just two months into a six-month irrigation season. Its findings as such are speculative. The report acknowledges that "the results summarized here are preliminary and will be revised as we get new information and a clearer picture of irrigation water availability, major water transfers for the 2015 season and acreage of major crops." The report is clearly intended not to be a final set of findings or a post mortem on the 2015 drought experience, as would seem necessary and appropriate to SWRCB making findings of urgency for modifying duly adopted Bay Delta Estuary water quality objectives. Economic impact forecasts are not actual, on-the-ground economic impacts; the State Water Resources Control Board (SWRCB) improperly implies in its Order that the UC Davis study's findings are sufficient evidence of the economic impact of the drought, when they are not.

While the SWRCB cites this study as evidence of impact on agriculture, the study itself suggests concrete ways in which, early in the irrigation and growing season, growers and farmers seek to adjust and adapt to the conditions they face this year. There are a number of adjustments

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California growers make to compensate for or avoid reduced revenue or increased costs in production.

The primary adjustment—increased groundwater pumping—is expected to reduce the surface water shortage by more than 70%. Regional crop shifting in 2014 was significant. For example, contracts for growing processing tomatoes shifted to the Sacramento Valley, resulting in strong yields and a small net increase in the statewide tomato harvest. Water market transfers, another important adjustment to drought, eased the impact on perennial crops throughout the Central Valley last year. Early reports show some transfers from senior water-right holders to perennial crop producers in the eastern San Joaquin Valley. Taken together these adjustments blunt much of the economic costs to crop growers and consumers.²

The TUCP Order itself fails to account for farmers and growers adapting to reduced surface water supplies delivered by the State Water Project (SWP) and the federal Central Valley Project (CVP). For instance, one notable adaptation the SWRCB agreed to six weeks prior to issuance of this TUCP Order, dated July 3, 2015, was a program of agricultural water conservation commitments proposed by Delta farmers, amounting to a reduction of 25 percent. The Delta Watermaster is presently engaged in program implementation to achieve those savings, yet the TUCP Order ignores and omits reference to it. Through its omission, the SWRCB fails to account either for its impact on what is needed for appropriate changes to the petitioned temporary urgency changes, or its relevance as an example of agricultural adaptation to drought conditions.³

In 2014, there was controversy over whether there would be job losses in agriculture due to drought conditions.⁴ As we said, the economic impacts were overstated. Earlier this year, University of the Pacific economist Jeffrey Michael reviewed data from the Quarterly Census of Employment and Wages (a census of employer tax filings, which provides a reliable estimate of employment) and found:

While agricultural employment now appears to have decreased slightly in 2014 [because of losses in the fourth quarter that year] the following should be noted:

- *Farm employment in the Valley remained near an all-time high.*
- *Even in the 4th (worst) quarter, the decline in jobs was less than half the consensus prediction by economists in 2014 (yes that includes me too).*
- *Total agricultural wages were up nearly 4% compared to the previous year.*

² R. Howitt, D. MacEwan, J. Medellin-Azuara, J. Lund, and D.A. Sumner, “Preliminary Analysis: 2015 Drought Economic Impact Study,” provided to California Department of Food and Agriculture, May 31, 2015, pp. 2-3. Accessible online at https://watershed.ucdavis.edu/files/biblio/2015Drought_PrelimAnalysis.pdf.

³ Dale Kasler and Phillip Reese, “California accepts drought water deal with Delta farmers,” *Sacramento Bee*, May 22, 2015, <http://www.sacbee.com/news/state/california/water-and-drought/article21701118.html>.

⁴ Bill Jennings, in CSPA’s analysis of employment impacts in its protest of the May 21 temporary urgency change petition filed June 17, 2015, p. 17, Figures 34 and 35. Accessible online at http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/comments_tucp2015/docs/cspa_billjennings061715.pdf.

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- *Overall employment continues to grow in the San Joaquin Valley, and unemployment has declined to single-digits in most of the Valley, and is significantly lower than its historic average despite the drought.*

In contrast, both farm employment and wages decreased 3-4% during a less severe drought in 2009, which was the basis of predictions of greater losses in 2014. The leading explanation for the smaller than expected loss in jobs is the shift to higher value crops, and while that is certainly part of the explanation, that shift was already well underway in 2009.⁵

In citing highly circumscribed and potentially inaccurate forecasts of economic impacts of the drought as evidence of the drought's economic impact while simultaneously ignoring adaptive conservation efforts by Delta farmers, the Executive Director of SWRCB has failed to best serve the public interest to justify its approval of the TUCP Order.

- *The TUCP Order fails to investigate and verify petitioners' claims and SWRCB's own role in having exercised due diligence in managing the water system prior to filing of TUC petitions and TUCP orders.*

The TUCP Order of April 6, 2015 (Order) cites Water Code Section 1435(c) in part defining "urgent need" as meaning "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 fullest extent of which they are capable and that waste of water be prevented..." (Emphasis added.)

The present TUCP Order has omitted this reference altogether, focusing instead on procedural aspects of Water Code Section 1435(c). We expand below on our viewpoint on this matter, first expressed in Restore the Delta's May 5, 2015, protest and request for consideration.

The "existence of circumstances" which the SWRCB should consider is not limited by the statutory language to identification of natural conditions that contribute to low water supplies in state and federal reservoirs as circumstances pointing to urgent need. Management of state and federal projects' operations in the last few years have also contributed to the depletion of supplies as readily as have the lack of precipitation and record temperatures, even if those actions were not necessarily unlawful or were based on past practice. The plain language of Water Code Section 1435(c) does not limit the State Water Board's authority for exercising its judgment to simply natural conditions, but may and should investigate the manner in which the state and federal water projects have been operated since the start of Water Year 2012.

The SWRCB omits the immediately following language of Section 1435(c) which states "except that the 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 either (1) in petitioning for a change pursuant to provisions of this division other than this chapter, or (2) in pursuing that petition for change." (Emphasis added.) In this specific exception, the Water Code limits the Board's discretion for finding an urgent need in such cases that the applicant fails to exercise due diligence for a temporary urgency change petition (referring to Chapter 6.6 of Division 2 "Water") or any other temporary petition under this same Division 2.

⁵ Jeffrey Michael, "Fourth Quarter Data shows much larger drought effect on Farm Jobs," *Valley Economy*, online blog accessible at <http://valleyecon.blogspot.com/2015/06/fourth-quarter-data-shows-larger.html>.

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While we concede that DWR and the Bureau have in the near term diligently petitioned for temporary urgency changes reasonably promptly given natural conditions of drought in California and the Central Valley watershed of the Delta, the Board's authority to evaluate the temporary urgency change petition, and the petitioners' exercise of due diligence with respect to the substance of the petition, does not end with natural conditions. Instead, the California Constitution, Article X, Section 2, and the Public Trust Doctrine, as well as California Water Code sections 85054⁶, 85021⁷, and 85023⁸ require the Board to consider whether the petitioners have also exercised due diligence in reasonably using and diverting water, as well as protecting public trust resources. It is in light of these doctrines and related policies that the state and federal water project operations should be evaluated by the State Water Board in relation to Water Code Section 1435(c). To date, the Board has not done so in the context of the temporary urgency change petition and the Board's order on that petition. The SWRCB should reconsider its decisions in light of these doctrines and policies in the California Constitution, case law, and the California Water Code.

Recent past water management and allocation decisions by state and federal water project operators and managers reverberate through this year's dire supply conditions. They are not just artifacts of current natural conditions. Without wishing to cast aspersions on their professional integrity, we submit that the projects could have been managed better in the recent past and should be going forward. The SWRCB is also aware that California's climate is widely considered to be getting drier and warmer.

The Board should reconsider its TUCP Order and in so doing undertake to assess and evaluate the role of water project management decisions in contributing to water supply shortages in the Central Valley watershed of the Delta estuary.

We incorporate by reference Restore the Delta's analysis from May 5, 2015, where we used publicly available data to describe SWP and CVP operational behavior and management decisions to demonstrate management patterns in past droughts and since 2012.⁹

- *The TUCP Order continues practices that are contrary to law and are therefore do not best serve the public interest. See our discussions below.*

⁶ Water Code § 85054: "Coequal goals' means the two goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. The coequal goals shall be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place."

⁷ Water Code § 85021: "The policy of the State of California is to reduce reliance on the Delta in meeting California's future water supply needs through a statewide strategy of investing in improved regional supplies, conservation, and water use efficiency. Each region that depends on water from the Delta watershed shall improve its regional self-reliance for water through investment in water use efficiency, water recycling, advanced water technologies, local and regional water supply projects, and improved regional coordination of local and regional water supply efforts."

⁸ Water Code § 85023: "The longstanding constitutional principle of reasonable use and the public trust doctrine shall be the foundation of state water management policy and are particularly important and applicable to the Delta."

⁹ Barbara Barrigan-Parrilla and Tim Stroshane, *Protest-Petition Regarding Temporary Urgency Change*, May 5, 2015, http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/comments_tucp2015/docs/rtd_stroshane05052015.pdf.

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- *The TUCP order condones and allows practices that could lead to significant yet avoidable water quality impacts in Delta river and slough channels and to extinction of fish species that are already vulnerable to extinction under normal operations pursuant to Water Rights Decision 1641, and therefore do not best serve the public interest. See our discussions below.*

The TUCP Order is contrary to law.

- *The Board, in approving previous iterations of this TUCP, has unlawfully neglected its duty under Water Code Section 1435(c) to define and assess the due diligence required of the state and federal water project operators in managing the system and whether a lack of diligence may be grounds for denying the TUCP.*

The requirement of due diligence does not have immediately obvious meaning when applied in the context of California Water Code Section 1435(c). Its meaning should be ascertained with respect to this section in the Water Code, the action being what grounds or legal standards are used to justify approval by the SWRCB of a temporary urgency change petition. This is distinct from the prior appropriation doctrine's customary requirement that appropriative water right holders exercise due diligence in the application of their water right and the construction and operation of water facilities in furtherance of that right.

"Diligence" in the dictionary is defined as "careful and persistent work or effort." To be "diligent" is to be "careful and conscientious in one's work or duties."¹⁰ *Black's Law Dictionary* defines the phrase "due diligence" as "the diligence reasonably expected from, and ordinarily exercised by, a person who seeks to satisfy a legal requirement or to discharge an obligation."

The phrase "due diligence" represents the level of energy, work, forethought, and commitment that must be brought to bear in the SWRCB's domain under Water Code Section 1435(c). California's overarching water policy framework is that domain and must be central to the Board's assessment of due diligence in applying this section of the Water Code. This framework includes the Reasonable Use Doctrine of the California Constitution, the Public Trust Doctrine of case law, and the statewide water policies enacted in the Delta Reform Act of 2009 which apply to all state agencies (not just the Delta Stewardship Council).

The SWRCB and the state and federal water systems have a great deal of unfinished business that the entire TUCP process made painfully apparent. The State Water Project has no licenses for its six water rights permits. The Central Valley Project has just one license (1986) among its 24 water rights permits. In 2009, the US Bureau of Reclamation filed with SWRCB a petition requesting an extension of time for its Central Valley Project water rights permits. In 2010, the California Department of Water Rights filed with SWRCB a petition requesting an extension of time for its State Water Project permits. These extension of time requests sought additional time from the SWRCB because each water system is still not complete and the time extension request was necessary so that the Bureau and DWR would not be in violation of "due diligence" in completing the project in accord with their appropriative water rights permits. Once completed, in theory, SWRCB could conceivably issue licenses on all of the permits indicating that the projects each are complete and stating the conditions under which they will operate.

The California Water Impact Network, California Sportfishing Protection Alliance, and AquAlliance filed protests against these time extension requests. To our knowledge, these requests for time extension, and the protests lodged against them, have yet to be acted upon by

¹⁰ *Compact Oxford English Dictionary*, 9th edition.

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SWRCB. It is our understanding that new water rights petitions will be filed for the Bay Delta Conservation Plan by DWR soon. They are expected to request amendment of its SWP water right permits to allow new points of diversion along the lower Sacramento River in the north Delta, and perhaps other actions needed for Conservation Measure 1 (the Tunnels Project) of the Bay Delta Conservation Plan to divert water and operate within the Bay-Delta Estuary.

There is other unfinished business by the SWRCB (and other state agencies). They have yet to undertake and complete a public trust analysis that analyzes a realistic and feasible balancing of public trust resources and other beneficial uses of water in the Bay-Delta Estuary. This is the kind of analysis Appellate Justice John Racanelli meant when he called upon the SWRCB in 1986 to undertake an accounting of water availability not just for water rights, but for all beneficial uses in the Bay-Delta estuary under federal and state clean water laws. The SWRCB's "paramount duty" in water quality control planning (which includes implementing the effects of water quality control objectives on water rights) remains to "provide 'reasonable protection' to beneficial uses, considering all the demands made upon the water."¹¹ The SWRCB's duty now is to credibly balance all of the beneficial uses of water in the estuary so that public trust resources are protected, and so that reasonable uses and methods of diversion are employed by all water users.

The SWRCB has yet to undertake these tasks. It has not performed its role in protecting public trust resources of the Bay-Delta Estuary and its watershed. The SWRCB must demonstrate, not merely assert, that they have performed public trust balancing.

The environmental reviews of the 1995 Bay-Delta Water Quality Control Plan, D-1641, the 2006 Bay-Delta Plan update, and the SWRCB's most recent efforts in Phase 1 and 2 updates to the Bay-Delta Plan fail to apply a formal public trust analysis of the Bay-Delta estuary to determine whether water is used reasonably and not wastefully in and from the Delta, and whether beneficial public trust uses of the Delta are adequately protected. One step in this direction, which the SWRCB was compelled to take by the passage of the Delta Reform Act of 2009, was to undertake and approve a Delta Flow criteria report in 2010, among whose conclusions was the determination that, "There is sufficient scientific information to support the need for increased flows to protect public trust resources; while there is uncertainty regarding specific numeric criteria scientific certainty is not the standard for agency decision making."¹²

Delay in performing these tasks is justice denied to Bay-Delta estuary public trust resources, including its water, and the aquatic and terrestrial ecosystems dependent on the flow regimes that could help their populations recover, rather than merely hang on by threads. Executive Director Howard claims for the July 3rd TUCP order that:

This Order achieves a reasonable balance of competing demands for the limited water supplies available during the ongoing drought, while taking into consideration: (1) the impacts of reduced Delta outflows on estuarine species and migrating salmonids in the Bay-Delta, (2) the need to conserve water in upstream storage for multiple, critical purposes later in the year, including temperature control on Project rivers, agricultural use, wildlife refuges, municipal and industrial use, and salinity control in the Delta, and (3) the need to export

¹¹ *United States of America v. State Water Resources Control Board* (1986) 182 Cal.App 3d 182.

¹² State Water Resources Control Board, *Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem*, approved August 3, 2010, p. 4. Accessible online at http://www.swrcb.ca.gov/waterrights/water_issues/programs/bay_delta/deltaflow/final_rpt.shtml.

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*water for a variety of uses south of the Delta, including agricultural use, municipal and industrial use, and wildlife refuges.*¹³

But the basis of his claim to “reasonable balance of competing demands” is not supported by evidence provided in the Order. No reasoned analysis or evidence is provided of water users’ reasonable demand (that is, the reasonable amount of water to serve those beneficial uses of those who are dependent on the Delta for imported water; see Water Code §85021), of whether the projects managed their supplies properly or not, nor of how much water is reasonably needed to meet health and safety needs among Delta import-dependent water users. While pages 12 through 17 of the Order are devoted to the plight of Delta smelt, longfin smelt, winter-run Chinook salmon, spring-run Chinook salmon, fall-run Chinook salmon, Central Valley steelhead, and green sturgeon—all threatened or endangered species under the Endangered Species Acts of the United States and the State of California—they are all subordinated to what the SWRCB has presumed without evidence to be higher human beneficial uses of water, primarily imported water supplies from the Delta. The Director cites no evidence from past SWRCB actions where the Board demonstrated certain beneficial uses have higher values than do others and are therefore reasonably deserving of greater protection during critically dry periods.

*In summary, the changes that may result in reductions in flows approved in this Order **balance** the various uses of stored water into the summer and fall by improving water supplies for water allocations, wildlife refuges, and salinity control, and at the same time meeting temperature control requirements. Additionally, the reductions to Delta outflows, Rio Vista flows, and change in Western Delta salinity requirements will allow the Projects to conserve upstream storage for use later in the year for fish and wildlife and other uses. Based on the above, the potential for impairment to fish, wildlife, or other instream beneficial uses from the approved temporary changes is not unreasonable considering the water supply benefits of the changes, and the impacts to agricultural, municipal and wildlife refuge supplies and fish and wildlife that could occur if the temporary changes are not approved.*¹⁴

The “balancing” performed at this juncture in the Order is not a balancing borne of reasoned public trust resource analysis, nor an assessment of whether an appropriative water right can be completed based on completion of a water project, nor an analysis of reasonable use of water. It is balancing among poor to terrible options, hastened by the intensely improvised and stopgap management of the SWP and CVP that lack sufficient water to meet the demands of all competing beneficial uses in a drying climate. Contrary to law, the SWRCB and other state agencies failed to prepare adequately to protect public trust uses from unreasonable uses and methods of diversion and use in and from the Bay-Delta estuary as a matter of fulfilling its water quality control planning and public trust protection duties. The terrible options before these state and federal agencies reflect the bitter fruit of such poor planning now.

We have no doubt that, given such terrible options, state and federal water project managers and operators are using their utmost due diligence to make the best of a bad situation. That is not at issue, nor do we question their work ethic. We question that these same state and federal

¹³ State Water Resources Control Board, *Order Conditionally Approving a Petition for Temporary Urgency Changes in License and Permit Terms and Conditions Requiring Compliance with Delta Water Quality Objectives in Response to Drought Conditions*, Signed by Thomas Howard, Executive Director, July 3, 2015, p. 4.

¹⁴ *Ibid.*, p. 24. Emphasis added.

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agencies, including the SWRCB, met their obligations and duties under the public trust and reasonable use doctrines in performing planning and operating functions in prior years that helped construct today's chamber of hydraulic horrors in the Bay-Delta Estuary.

- *The TUCP Order is contrary to the reasonable use doctrine. The Board must perform its duty to ensure that water management and use by the state and federal water projects and their water contractors has been reasonable, and not wasteful. No such analysis has been performed by either the petitioners or the Board and its staff.*

Article X, Section 2 of the California Constitution states in pertinent part:

The right to water or to the use or flow of water in or from any natural stream or water course in this State is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water.

This passage of the California Constitution states the same thing about water in two ways: reasonable use of water is limited to the amount that “shall be reasonably required for the beneficial use to be served” and that no one is entitled under any right or beneficial use to waste water through unreasonable use, method of use, or method of diversion of water. Moreover, this passage embraces the consideration of reasonable use to include both the “right to water or to the use or flow of water”. We think this includes “beneficial uses” in the Bay-Delta Estuary such as drinking water for human beings; swimmable waters for recreation; fishable waters for sustenance, sport, and commerce; and suitable waters for any agricultural water use that frees farmers for making crop decisions based more on marketing and less about water quality considerations.

Our protest and request that the SWRCB reconsider its TUCP Order is motivated by continuing application of imported water from the Delta to irrigation of drainage impaired agricultural lands of the western San Joaquin Valley. Through May 2015, the San Luis Canal serving the San Luis Unit contractors (including Westlands Water District) have taken delivery of 94,000 acre-feet (excluding wildlife refuge deliveries).¹⁵ In 2014, San Luis Unit deliveries came to 290,000 acre-feet.¹⁶ Application of irrigation water to these soils mobilizes several water quality constituents that must be regulated, including, but not limited to selenium, boron, arsenic, and salinity. C-WIN summarized these issues for selenium and salinity in recent testimony presented to SWRCB in August 2012, and in a September 2012 Bay Delta Plan Phase 2 workshop.¹⁷

There is no accounting from the SWRCB as to how much or whether this water has been applied to drainage impaired lands in the Unit's service area. To the extent it is, this should be investigated as potentially wasteful and unreasonable use of water and factored into SWRCB's

¹⁵ http://www.usbr.gov/mp/cvo/vungvari/table_26_2015.pdf.

¹⁶ http://www.usbr.gov/mp/cvo/vungvari/table_26_2014.pdf.

¹⁷ Tim Stroshane, *Testimony on Recent Salinity and Selenium Science and Modeling for the Bay-Delta Estuary*, prepared for the California Water Impact Network, August 17, 2012, for Workshop #1, Ecosystem Changes and the Low Salinity Zone, September 5, 2012. Accessible online at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/docs/cmnt081712/tim_stroshane.pdf.

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conditions applied to future TUCP orders. To the extent that Bureau and State water rights to operate pumps in the Delta supplying water to such unreasonable uses of water, they should be investigated by the SWRCB as well to determine whether their specific exports represent an unreasonable method of diversion as well.¹⁸

The Board has so far failed to require the SWP and CVP to document who is receiving water imported from the Delta, where it is applied, whether alternative sources were and are available, and for what purposes it was delivered. It has failed to apply due diligence to ensure that scarce supplies controlled by the state and federal water systems are used reasonably and not wastefully.

- *The TUCP continues to be contrary to the federal Clean Water Act as we discussed in our previous protest comments from February 13 and May 5.*

Exhibit 1 to our protest and reconsideration petition documents the specific actions the SWRCB has taken to relax or modify Delta water quality objectives in Water Rights Decision 1641. This exhibit documents the number of times D-1641 was unlawfully modified by the SWRCB, the nature of those modifications, and the dates on which the SWRCB executive director modified water quality objectives. As we alleged in our earlier protests, neither the SWRCB nor its executive are authorized to modify water quality objectives under the federal Clean Water Act without due process (see below under significant adverse environmental effects).

- *The TUCP continues to be contrary to the Delta Protection Act of 1959 as we discussed in our previous protest comments from February 13 and May 5.*
- *The TUCP is contrary to policies in the Delta Reform Act of 2009.*

We cited three sections of the Delta Reform Act of 2009 earlier in this protest and request for reconsideration.¹⁹ Section 85054 of the Water Code states that state policy is to achieve “co-equal goals” of ecosystem restoration and water supply reliability. Section 85021 states the Legislature’s mandate that importers reliant on Delta water supplies must reduce their take from the Delta and look to other sources of supply to meet their future water supply needs. Section 85023 restates settled law that reasonable use and public trust doctrines are the foundations of statewide water management policy.

The Order would have significant adverse environmental effects which are also contrary to law and do not best serve the public interest.

- *The latest TUCP Order continues the trend of worsening salinity conditions in the Delta. It continues imposing unreasonable flow and salinity conditions in the Delta that could extirpate listed fish species in the Delta during 2015. Instead, it would best serve the public interest for the State Water Board to prevent extinctions of Delta smelt, longfin*

¹⁸ The Legislature authorizes SWRCB in the California Water Code to investigate rivers and streams in the service of the state’s constitutional provisions, including, but not necessarily limited to, sections 275, 1050, 1051, 1052, and 1825. See Tim Strohane, *Testimony on Water Availability Analysis for Trinity, Sacramento, and San Joaquin River Basins Tributary to the Bay-Delta Estuary*, submitted for California Water Impact Network and on behalf of California Sportfishing Protection Alliance and AquAlliance, October 26, 2012 for Workshop #3, Analytical Tools for Evaluating the Water Supply, Hydrodynamic, and Hydropower Effects of the Bay-Delta Plan.

¹⁹ See footnotes 6 through 8, above.

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smelt, salmonids, and sturgeon now so that these species' recovery can be effectively planned for when the Board resumes its Phases 1 and 2 work on the Bay Delta Plan.

Water quality objectives are supposed to restore and enhance beneficial uses for which the objectives are intended to protect under the Clean Water Act. While there are naturally occurring geographic and hydrologic variations in how and where salinity penetrates upstream into Bay-Delta Estuary water ways, SWRCB and actions by the state and federal water system operators (including installation of the False River barrier between Bradford and Jersey Islands) have instead exacerbated these variations by partitioning Delta water ways into corridors. On one hand some are allowed to salinize because of low fresh water flows reaching them, and on the other hand, some are deliberately kept fresher to improve supplies for export operations at the Banks and Jones pumping plants near Tracy. See Exhibits 2 and 3 attached to this protest and request for reconsideration.

The petitioners' temporary urgency change petition also presented the map (attached here as Exhibit 3) to indicate the spatial extent to which legal Delta water ways are partitioned according to water quality outcomes in order to benefit the light-blue corridors along Old and Middle River by which water reaches the south Delta pumps.

The latest TUCP documents show that the real beneficiaries of the TUCP and the False River Barrier are the water export interests along the corridors of Old and Middle River.²⁰ It also documents that the western and central Delta, and the region of the Low Salinity Zone will see far higher salinity as a consequence of barrier installation and the various TUCP measures.²¹ **RTD demands that the petitioners prepare for the State Water Resources Control Board's consideration and public review a set of modeling DSM2 modeling outputs that include a D-1641-with-barrier scenario so that a full set of meaningful comparisons may be made between the impacts of D-1641 on water project operations, the TUCP orders, and the False River barrier.**

We further question the modeling artifact of the blue "island" of fresh water between the False River Barrier and Franks Track shown in the TUCP.²² There is no explanation of it in the TUCP narrative in Exhibit A. It raises the question of how the better quality water can arrive in Old and Middle River as it often does when the Delta Cross Channel is open and Sacramento River flows enter the Mokelumne/San Joaquin/Old River corridor on their way to the South Delta pumps. This central portion of the flow corridor for exports is shown to have worse water quality, when it is possible that it takes better water quality getting across the Delta from north to south in order to have the better quality water in the south Delta along Old and Middle Rivers. This requires explanation by the petitioners prior to issuance of the Board's next TUCP order, and during the Board's June 24th workshop.

We also take note that DWR, as required by the SWRCB, notified the Board that the Jersey Island agricultural salinity objective has been violated since July 9th.²³

²⁰ TUCP, Exhibit A, Figure 9, p. 7.

²¹ TUCP, Exhibit A, Figures 2, 4, 5 and 8.

²² TUCP, Exhibit A, Figure 9, p. 7.

²³ http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/docs/tucp/2015/dwr_jerseypt_notification.pdf.

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RTD continues to object to significant adverse effects resulting from continued reliance on the calculated Net Delta Outflow Index (NDOI). The Board should ensure that net Delta outflow is accurately measured, not merely estimated in such a manner that it fails to correlate with salinity conditions in the western Delta. You cannot successfully and transparently manage what you do not accurately measure.

- *As a consequence of this manufactured salinity pattern in the Delta, Delta smelt will be confined to smaller refugia in the north Delta and the Sacramento Deep Water Ship Channel, areas of relatively small water volume (especially when compared with their historical native habitat in the low salinity zone of the western Delta) where they will be vulnerable to mortality due to summer heat waves.*

This year's habitat refugia is likely to be the Delta smelt's smallest in recorded history. The TUCP acknowledges Delta smelts' vulnerability, given that "The majority of the members of the Smelt Working Group expect that larval and juvenile Delta smelt may not be detected in salvage because numbers are so low as to be at detection levels of the larval surveys."²⁴ It also acknowledges the "upstream relocation of X2" where its location influences "both the area and quality of habitat available for Delta Smelt to successfully complete their life cycle."²⁵ DSM2 forecasts that X2 (the salinity location in the Low Salinity Zone where the bottom salinity is 2.0 psu) will be located "towards the upstream end of the range in the Sacramento River between June and November, with greater differences between the D-1641 baseline and the proposed action occurring between July and September."²⁶ The TUCP also acknowledged evidence of Delta smelt spawning failure this spring.²⁷

And the TUCP Order finds similarly:

The proposed TUCP changes will have effects on physical habitat and water quality which may affect Delta smelt. The changes will add to the already unfavorable conditions related to the dry conditions. The Biological Review finds that reductions in inflows and outflows associated with the changes to Delta outflow, Western Delta agricultural salinity and Sacramento River flows may reduce the general quality of habitat conditions throughout the Delta. Further, survival of Delta smelt that are currently in the interior and North Delta may be reduced through increased exposure to degraded habitat and predators and increased travel time for migrating fish. In the lower San Joaquin River, the upstream relocation of X2 may result in a greater proportion of the available habitat encompassing areas of high semi-aquatic vegetation and associated low turbidities. This could result in lower prey availability and higher predation rates on juvenile Delta smelt. Further constraining Delta Smelt closer to the upstream spawning areas in the lower Sacramento River, San Joaquin River, and the Cache Slough Complex/SDWSC will increase Delta smelt exposure to less favorable conditions. Conditions in these regions are generally warmer in the summer than locations further west due to prolonged heat waves and less marine influence. Juvenile Delta smelt may be able to reside in thermal refugia to reduce these effects, but it is not clear how long that cool water refugia will be available this summer. In addition, due to the more upstream location of X2, it is also likely that summer Delta smelt distributions will not be in areas for

²⁴ TUCP, Attachment 2, p. 22.

²⁵ TUCP, Attachment 2, p. 32.

²⁶ *Ibid.*

²⁷ TUCP, Attachment 2, p. 20.

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optimal growth and survival further west in Suisun Bay. Reduced inflows and outflows may also affect Delta smelt's ability to move downstream to cooler habitats with more food resources. These effects could pose additional risks to the persistence of local populations.

Because Delta smelt are not currently expected to be distributed in the central and south Delta and turbidity and exports are expected to be low when operating under the TUCP changes, the Biological Review finds that entrainment and salvage effects associated with the changes are unlikely.

This citation demonstrates that there is more than one way to drive Delta smelt extinct this summer under the provisions of the TUCP Order. Given that low flow and high salinity conditions have moved Delta smelt away from effects of entrainment and salvage at Banks and Jones pumping plants, Restore the Delta's protest and request for reconsideration is motivated by the deteriorating salinity and temperature conditions in the Delta that could extirpate Delta smelt this summer. Delta smelt, as recently as the 1980s, numbered in the "several hundreds of thousands" and could provide ready prey for piscivorous fish as part of a much more robust aquatic ecosystem than exists today in the Bay-Delta estuary.²⁸

It appears from this passage that the operable criterion used by SWRCB's executive director is whether Delta smelt will be entrained or salvaged at the pumps. This unreasonably limits the SWRCB's public trust protection duties to more ordinary climatic and regulatory conditions, and fails to protect an endangered species. This reasoning by SWRCB fails to mitigate significant adverse effects of the TUCP Order (through its effects on reducing inflows over the summer and early fall), is unlawful under the Endangered Species Act for likely contributing to and causing unlawful take of a listed species, and fails to best serve the public interest in helping recover Delta smelt population and with it, the aquatic ecosystems of the Bay-Delta Estuary.

Under what conditions may this protest be disregarded and dismissed? (Conditions should be of a nature that the petitioner can address and may include mitigation measures.)

We incorporate by reference from our February 13, 2015, protest letter the conditions under which this protest may be dismissed, and supplement those conditions with the condition that the State Water Resources Control Board require the Department of Water Resources and the Bureau of Reclamation to perform a hindcast and make recommendations to the State Water Resources Control Board on how they plan to re-operate the Central Valley Project and the State Water Project to begin managing for multi-year droughts.

We thank you for the opportunity to submit these protest remarks and request for reconsideration. Signed by the protestant or authorized representative:

²⁸ California Department of Fish and Game, "Delta Smelt," June 1992. Accessible online at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/deltaflow/docs/exhibits/cwin/cwin_exh15.pdf.

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Date: 22 July 2015

Signed: _____

Executive Director, Restore the Delta



Date: 22 July 2015

Signed: _____

Policy Analyst, Restore the Delta

All protests must be served on the petitioner. Provide the date served and method of service used:

| Served Party | Address | Email Address (service method employed) | Date Served |
|---|---|--|------------------------------|
| Rich Satkowski State Water Board | P.O. Box 2000 Sacramento, CA 95812 | Rich.Satkowski@waterboards.ca.gov | 22 July 2015 |
| James Mizell Department of Water Resources | P.O. Box 942836 Sacramento, CA 94236 | James.Mizell@water.ca.gov | 22 July 2015 |
| Amy Aufdemberge Regional Solicitor's Office | 2800 Cottage Way, Room E-1712, Sacramento, CA 95825 | Amy.Aufdemberge@sol.doi.gov | 22 July 2015 |

EXHIBIT 1
Summary of D-1641 Provisions, Temporary Urgency Change Petition Requests, and SWRCB TUCP Orders, 2015

| D-1641 Provision | TUCP Request by DWR and USBR | TUCP Order | Order Date |
|---|--|--|------------------|
| January 23, 2015 - covering February and March 2015 | | | |
| Net Delta Outflow Index no less than 7,100 cfs (3-day average) during April, May, and June. | Net Delta Outflow Index (NDOI) minimum monthly flow during February and March no less than 4,000 cfs, and “avoid the potential ‘starting gate’ requirement of footnote 10 of Table 3” of D-1641. | Approved by Executive Director: Minimum NDOI during February and March no less than 4,000 cfs on a monthly average. 7-day running average shall be no less than 1,000 cfs below the monthly average. | February 3, 2015 |
| San Joaquin River at Airport Way Bridge at Vernalis minimum monthly average flows of 710 to 1,140 cfs. | San Joaquin River minimum monthly flow at Vernalis of no less than 500 cfs (and consistent with footnote 12) | Minimum monthly flow rate during February and March no less than 500 cfs on a monthly average. | February 3, 2015 |
| Delta Cross Channel (DCC) Gate Operations at Walnut Grove - closure of all gates during February and March (and February through May 20). | Allow DCC gates to be opened during February and March using real-time fish survey criteria established in Appendix G of the April 2014 Drought Operations Plan to determine DCC operations. | DCC gates may be opened during February and March using real-time fish survey criteria in Appendix G of the April 2014 Drought Operations Plan to determine DCC operations. | February 3, 2015 |

EXHIBIT 1
Summary of D-1641 Provisions, Temporary Urgency Change Petition Requests, and SWRCB TUCP Orders, 2015

| D-1641 Provision | TUCP Request by DWR and USBR | TUCP Order | Order Date |
|--|---|---|---|
| <p>Combined export rate shall be no less than 35 percent of the 3-day running average of Delta inflow during February and March.</p> | <p>During February and March when footnote 10 not met, combined Jones and Banks pumping plants to be no greater than 3,500 cfs (3-day running average). During February and March when NDOI of at least 5,500 cfs not being met, or DCC gates are open “during a period inconsistent with footnote 23 of Table 3 of D-1641,” combined Banks and Jones pumping is to be no greater than 1,500 cfs. If NDOI exceeds 7,100 cfs or EC of 2.64 millimhos/cm daily or 14-day average for X2, then exports of natural and abandoned flows are permitted up to D-1641 export limits in Table 3, and the biological opinions.</p> <p style="text-align: center;">March 24, 2015 - covering April through September.</p> | <p>When precip and runoff allow DCC gates to be closed and footnote 10 of Table 3 in D-1641 is met, but X2 is not met, exports are permitted up to D-1641 export and biological opinions’ limits for Banks and Jones pumping plants. When NDOI of 7,100 cfs not being met, and DCC gates are open, combined exports no greater than 1,500 cfs. Subsequent modification: To extent DWR and USBR determine increasing export needed to meet minimum public health and safety needs, they may export up to combined 3,500 cfs of natural and abandoned flows, provided NDOI is greater than 5,500 cfs and DCC gates are closed [a so-called “intermediate rate”].</p> | <p>February 3, 2015; modified March 5, 2015.</p> |
| <p>Net Delta Outflow Index no less than 7,100 cfs (3-day average) during April, May, and June.</p> | <p>Minimum monthly NDOI during April, May and June no less than 4,000 cfs; no less than 3,000 cfs in July. 7-day running average of both objectives would be no less than 1,000 cfs below the monthly average.</p> | <p>Same. A higher pulse flow may be required through consultation process with DWR and USBR.</p> | <p>April 6, 2015</p> |

EXHIBIT 1
Summary of D-1641 Provisions, Temporary Urgency Change Petition Requests, and SWRCB TUCP Orders, 2015

| D-1641 Provision | TUCP Request by DWR and USBR | TUCP Order | Order Date |
|---|---|---|----------------------|
| <p>San Joaquin River at Airport Way Bridge at Vernalis minimum monthly average flows of 710 to 1,140 cfs. 31-day pulse flow period during April and May of no less than 3,110 to 3,540 cfs.</p> | <p>For the 31-day pulse flow period in April and May, San Joaquin River flow at Vernalis to be no less than 710 cfs. But for the base flow period prior to and following the pulse flow, San Joaquin River flow at Vernalis to be no less than 300 cfs in May, and in June “to be approximately 200 cfs.”</p> | <p>Reclamation to provide pulse flow on San Joaquin River from April 6 through April 25th using a flow of no less than 710 cfs at Vernalis, and USBR shall comply with minimum flow schedule in Appendix 2-E of NMFS Biological Opinion as modified by the Stanislaus Ops Group and NMFS.</p> <p>Average minimum flow shall be no less than 300 cfs between April 26 and May 31, 7-day running average shall be no less than 20 percent below the minimum flow rate.</p> <p>Minimum flow at Vernalis in June shall be no less than a monthly average of 200 cfs, 7-day running average not less than 20 percent below the minimum flow.</p> <p>USBR prepares a plan to reasonably protect fish and wildlife on Stanislaus River at March 99th percentile hydrologic exceedance level.</p> | <p>April 6, 2015</p> |

EXHIBIT 1
Summary of D-1641 Provisions, Temporary Urgency Change Petition Requests, and SWRCB TUCP Orders, 2015

| D-1641 Provision | TUCP Request by DWR and USBR | TUCP Order | Order Date |
|--|---|--|----------------------|
| <p>Combined export rate shall be no less than 35 percent of the 3-day running average of Delta inflow during February and March, except according to Footnote 18 and Footnote 21 of Table 3.</p> | <ul style="list-style-type: none"> • When precip and runoff events occur and DCC Gates are closed and 3-day average NDOI of 7,100 cfs or EC of 2.64 mmhos/cm on daily or 14-day running average at Collinsville, but additional Delta outflow requirements in Table 4 of D-1641 are not met, exports of natural and abandoned flows are permitted up to Export Limits of Table 3 in D-1641 at Banks and Jones, subject to the OCAP biological opinions. • When NDOI of at least 7,100 cfs not being met, or DCC gates are open, combined maximum exports at Banks and Jones shall not exceed 1,500 cfs, with one exception: If NDOI is greater than 5,500 cfs and the DCC gates are closed, DWR and USBR may export at Banks and Jones a combined rate of 3,500 cfs of natural and abandoned flows and in consultation with the Real Time Drought Operations Team (RTDOT) confirming such conditions. If conditions not confirmed, DWR and USBR may request final approval from SWRCB Executive Director. • If precipitation events occur that enable DWR and USBR to fully comply with Delta outflow, river flows and DCC Gate Closure requirements in D-1641, then D-1641 shall be operative, except that combined exports greater than 1,500 cfs shall be limited to natural or abandoned flow, or transfers covered by the March 5, 2015 TUCP order. | <p>Same, except that SWRCB stipulates that intermediate export level is subject to SWRCB, DWR fisheries agencies, and USBR agreement that increased exports can be implemented without causing unreasonable harm to fish and wildlife. Exports for health and safety needs shall be met prior to use of exports for other purposes.</p> <p>Water transfers exempted from these limits.</p> | <p>April 6, 2015</p> |
| <p>Delta Cross Channel Gate Operations at Walnut Grove - closure of all gates during February and March (and February through May 20).</p> | <p>Allow DCC gates to be opened during April and May using real-time fish survey criteria established in Appendix G of the April 2014 Drought Operations Plan to determine DCC operations.</p> | <p>Allow DCC gates to be opened between April 1 and May 20 using real-time fish survey criteria established in Appendix G of the April 2014 Drought Operations Plan to determine DCC operations.</p> | <p>April 6, 2015</p> |

EXHIBIT 1
Summary of D-1641 Provisions, Temporary Urgency Change Petition Requests, and SWRCB TUCP Orders, 2015

| D-1641 Provision | TUCP Request by DWR and USBR | TUCP Order | Order Date |
|---|---|---|---------------|
| Minimum monthly Sacramento River at Rio Vista flow in September shall be no less than 3,000 cfs in any water year type. | Minimum monthly Sacramento River flow at Rio Vista no less than 2,500 cfs in September, with 7-day running average no less than 2,000 cfs. | No action taken. "This change cannot be considered at this time because it is for changes after the expiration date of the current TUCP. This request may be considered after a request to renew the TUCP is received." | April 6, 2015 |
| Critical year Emmaton agricultural salinity objective of 14-day running average of 2.78 millimhos/cm EC. | Move the critical year Emmaton objective upstream to Three-Mile Slough for April through August 15 th , subject to 14-day running average of 2.78 mmhos/cm EC. | Approved. | April 6, 2015 |
| San Joaquin River at Airport Way Bridge at Vernalis salinity objective of 0.7 mmhos/cm EC from April 1 through August 31. | Relax this salinity objective to 1.0 mmhos/cm EC at Vernalis, April 1 through August 31. | No action taken. "This change cannot be considered at this time because it is for changes after the expiration date of the current TUCP. This request may be considered after a request to renew the TUCP is received." | April 6, 2015 |
| May 21, 2015 - covering July through November | | | |
| Net Delta Outflow Index in July of no less than 4,000 cfs (minimum monthly average). | Relax NDOI to be no less than a minimum monthly average of 3,000 cfs during July with a 7-day running average no less than 1,000 cfs below the specified monthly average. | Approved by Executive Director: Minimum NDOI during February and March no less than 3,000 cfs on a monthly average. 7-day running average shall be no less than 1,000 cfs below the monthly average. | July 3, 2015 |

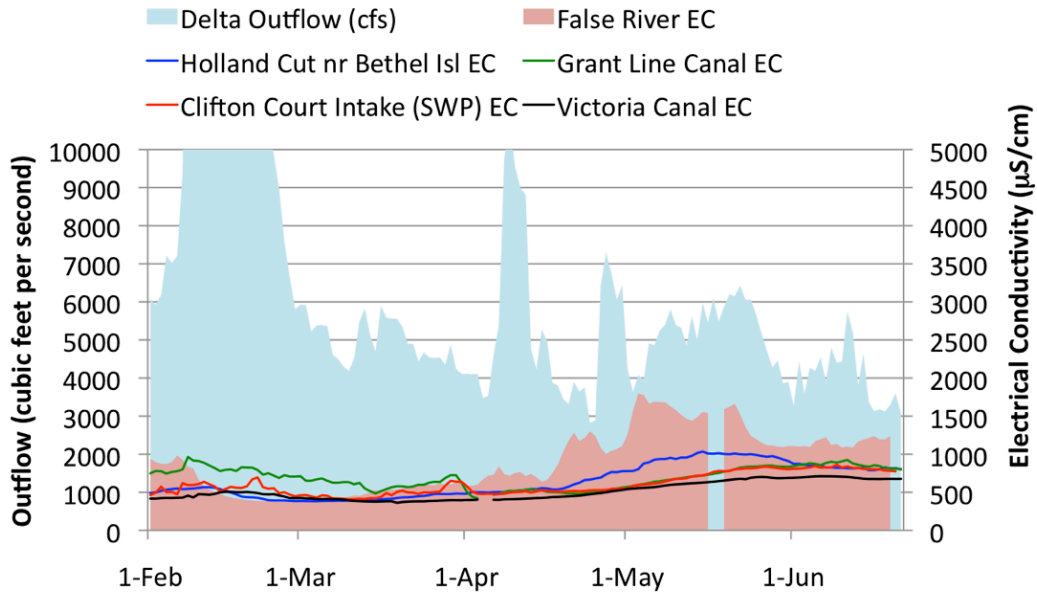
EXHIBIT 1
Summary of D-1641 Provisions, Temporary Urgency Change Petition Requests, and SWRCB TUCP Orders, 2015

| D-1641 Provision | TUCP Request by DWR and USBR | TUCP Order | Order Date |
|---|--|---|---------------------|
| <p>Sacramento River at Rio Vista monthly minimum flow in September and October of no less than 3,000 cfs, with 7-day running average of no less than 1,000 cfs below the monthly average.</p> | <p>Relax Sacramento River at Rio Vista flow to be no less than 2,500 cfs on a monthly average in September, October, and November, with 7-day running average not to be less than 2,000 cfs.</p> | <p>Approved by Executive Director: Minimum NDOI during September, October, and November. No less than 2,500 cfs on a monthly average. 7-day running average shall be no less than 2,000 cfs.</p> | <p>July 3, 2015</p> |
| <p>Agricultural water quality objective on Sacramento River at Emmaton shall be a 14-day running average of 2.78 mmhos/cm EC in critically dry years.</p> | <p>Move the critical year Emmaton objective upstream to Three-Mile Slough for April through August 15th.</p> | <p>Approved as requested. Through November 30, 2015, maximum export limits of Table 3, D-1641 are modified as follows:</p> <ul style="list-style-type: none"> • When D-1641 Delta outflow, Rio Vista flow and Emmaton EC objectives are not met, maximum combined exports at Banks PP and Jones PP shall be no greater than 1,500 cfs. • If precipitation occurs enabling petitioners to fully comply with D-1641, then D-1641 requirements shall take effect, except that Banks and Jones exports greater than 1,500 cfs shall be limited to natural or abandoned flow, or water transfers. • These export limitations do not apply to water transfers. | <p>July 3, 2015</p> |

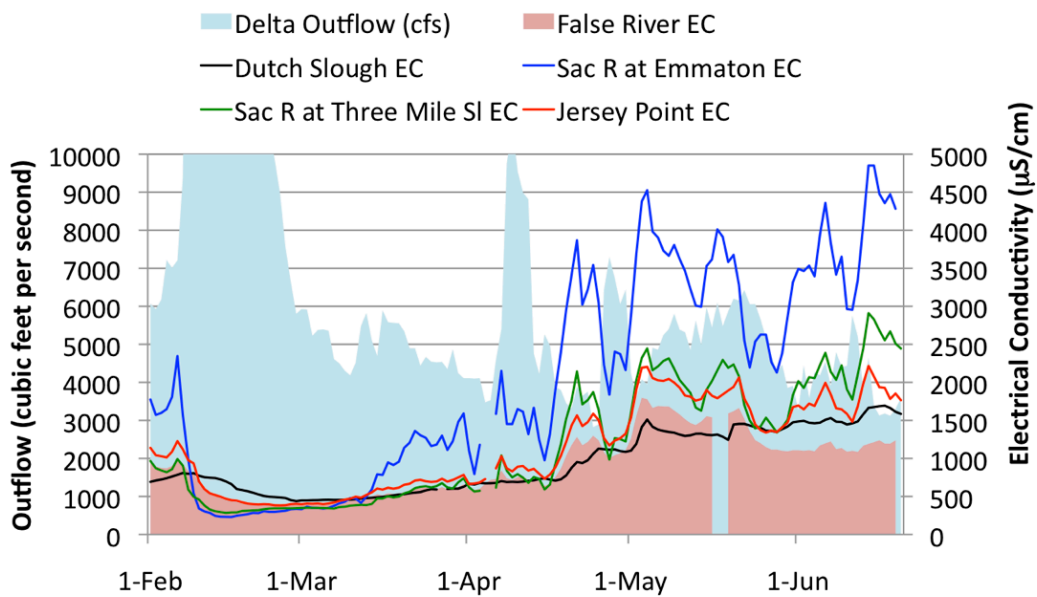
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Exhibit 2

**As Delta Outflow Falls and Barrier Installed,
 Salinity in South Delta Stabilizes to Benefit Exports**



**As Delta Outflow Falls and Barriers Installed,
 Salinity Rises in Western Delta**



Source: California Data Exchange Center; Restore the Delta.

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Exhibit 3

Projected Salinity Effects of False River Barrier
and Temporary Urgency Change Petition on Bay-Delta Estuary
Channels

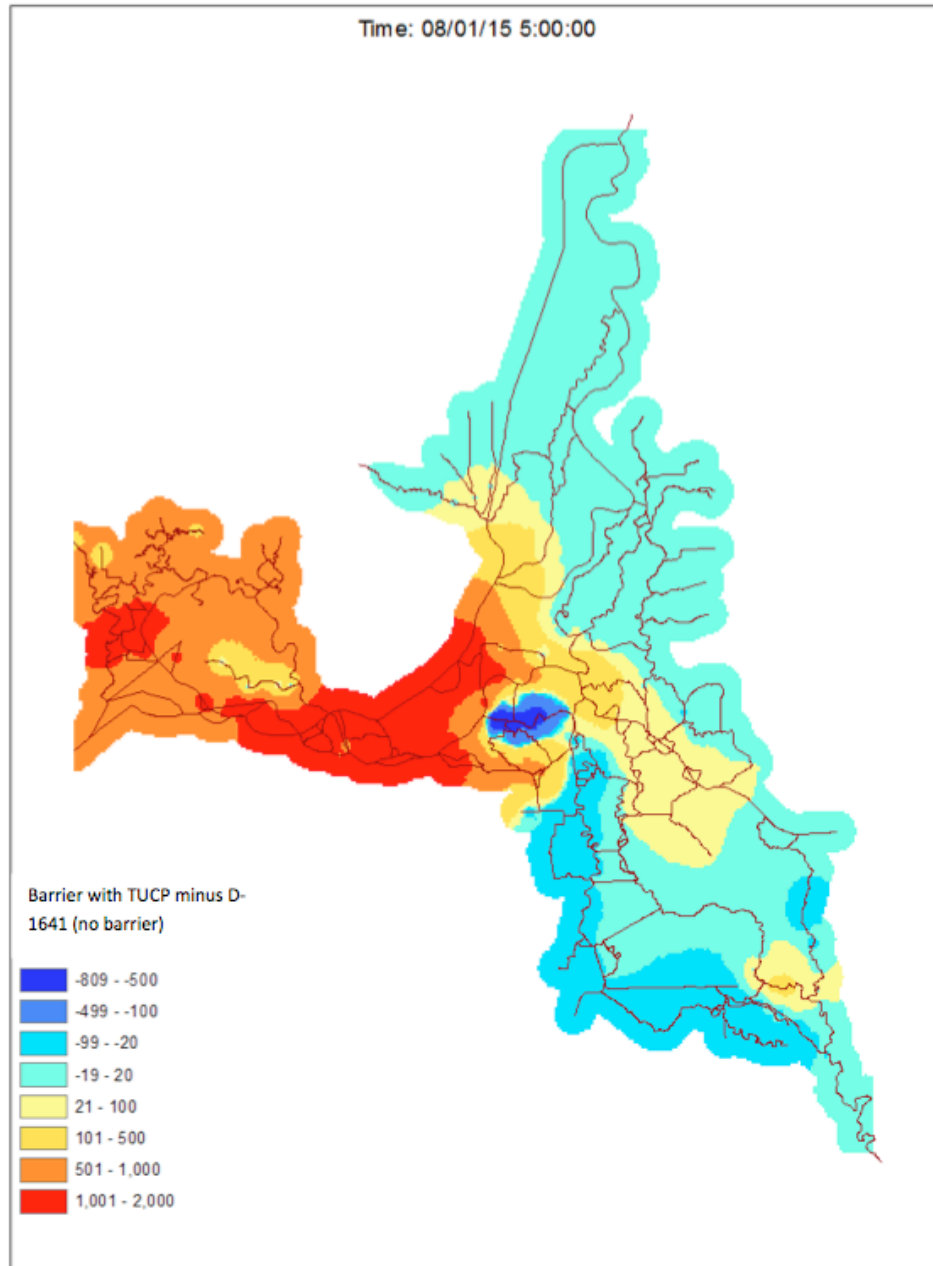


Figure 9: Difference in Salinity - Barrier with TUCP Minus D-1641 (no barrier)

Source: California Department of Water Resources, US Bureau of Reclamation, *Temporary Urgency Change Petition*, submitted May 21, 2015.