From: Ryan A. Hernandez <Ryan.Hernandez@dcd.cccounty.us>
Sent: Tuesday, July 29, 2014 2:46 PM
To: BDCP.comments@noaa.gov
Cc: Ryan A. Hernandez; Richard Denton; Yassaman Sarvian
Subject: Contra Costa County Comments on the Draft Bay Delta Conservation Plan, Associated Environmental Impact Report/Statement and Draft Implementing Agreement and Attachements A-G
Attachments: CCC BOS Comment Letter on BDCP .pdf; Attachment A Summary Outline of Comments.pdf; Attachment B Comments on Draft Bay Delta Conservation Plan.pdf; Attachment C Comments on BDCP EIR EIS.pdf; Attachment D Comments on Implementing Agreement.pdf; Attachment E Analysis of BDCP Project Changes to Delta Exports.pdf; Attachment F Analysis of other BDCP Project Impacts based on BDCP Modeling Data.pdf; Attachment G Previous Contra Costa County comments on BDCP.pdf; 1 CCWA scoping comments to NMFS USFWS 24Mar08.pdf; 2 Contra Costa County DWP on BDCP NOP 15May08.pdf; 3 CC County comments on revised NOP for BDCP 5-14-2009.pdf; 4 CC County to Ken Salazar re WWD letter on BDCP 12-14-2010.pdf; 5 CCC letter to Gerald Meral working groups request 5-26-2011.pdf; 6 CCC letter to Senator Feinstein and congress on BDCP 6-3-2013.pdf; 7 Contra Costa County Supervisor Piepho Letter 7-24-12.pdf; 8 CCC Water Agency Comments on Draft CWAP 13Dec13.pdf; 9 Contra Costa Water District Letter on BDCP Impacts 7-19-12.pdf

Attached are Contra Costa County's Comments on the Draft Bay Delta Conservation Plan, Associated Environmental Impact Report/Statement and Draft Implementing Agreement.

Thank you.

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The Board of Supervisors

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July 29, 2014

John Laird
Secretary
California Natural Resources Agency 1416 Ninth Street, Suite 1311 Sacramento, CA 95814

David Murillo
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U.S. Bureau of Reclamation
Federal Office Building 2800 Cottage Way
Sacramento CA 95825-1898

Re: The Draft Bay Delta Conservation Plan (BDCP) Threatens the Delta

Dear Secretary Laird and Director Murillo:

The future of Contra Costa County is closely linked to the health of the Sacramento-San Joaquin Delta and we are writing to express our grave concerns with the threat posed by the Bay Delta Conservation Plan (BDCP) as it has been drafted. We are concerned that the BDCP threatens to take more water from the Delta than ever before, will have significant adverse impacts to water quality, and assumes that new habitat creation will be enough to provide a net improvement in the health of the ecosystem and to protect fish. The lack of meaningful stakeholder participation in the process has led to a draft project that is inadequate and deficient, fails to provide a more reliable water supply for California while concurrently failing to protect, restore, and enhance the Delta ecosystem. We respectfully request that State and Federal water leaders withdraw and revise the Draft BDCP to address these concerns.

Contra Costa County is bounded on its western, northern and eastern sides by the San Francisco Bay and the Sacramento-San Joaquin Delta, and these natural features are the basis for not only the County's identity and quality of life but also our economic vitality. The availability of good quality water in the Delta is essential for municipal drinking water for the residents of Contra Costa County as well as agriculture, recreation, and industry in this region. As a local agency responsible for land use, flood protection, and other services vital for protecting the Delta, Contra Costa County must have a key, decision-making role in governing any proposed solution to the current problems afflicting the Delta.

The 2009 Delta Reform Act requires the achievement of two coequal goals: to provide a more reliable water supply for California and to protect, restore, and enhance the Delta ecosystem. Additionally the Delta Reform Act requires the protection of the unique cultural, recreational, natural resource, and agricultural values of Delta as an evolving place. From our perspective, the BDCP is written to secure the permitting of the twin tunnels estimated at a cost of up to $65 billion dollars, and treats the health of the Delta as an afterthought. The basis for improvement of the Delta is founded on incomplete information, heroic assumptions, and inconsistent base lines. The Draft BDCP project fails to achieve the coequal goals by harming fish, degrading the Delta's water quality and failing to include actions to expand statewide water storage or reduce reliance on the Delta.

When the BDCP planning began, the State required an agency or County to first agree not to oppose the project in order to secure a seat at the Steering Committee table. This was not a reasonable precondition. In addition, all physical impacts of the BDCP are within the Delta while the benefits are realized by water contractors located outside the Delta, yet another reason why the County should have been included in the planning of this project. During implementation, the BDCP proposes to relegate the Counties to a "Stakeholder Council" that has no ability to make decisions on behalf of the health and welfare of the Delta and the communities surrounding it. Any successful management of Delta ecosystem restoration and new Delta conveyance requires a robust Governance structure that includes the locally affected Counties. Each Delta County should have a voting seat on an entity that sits atop the BDCP governance body that oversees the development, approval and implementation of the BDCP. The entity itself should be constituted in a balanced manner with participation by agencies that sell water and control water-related infrastructure, agencies that buy water and the local governments directly impacted. The State cannot claim transparency when people who live, work, recreate, and govern in the Delta are excluded from a meaningful role in the development and implementation of a massive and expensive project like the BDCP.

Contra Costa County has experienced successful implementation of a Habitat Conservation Plan that includes federal, state and local governments working together. Our implementation structure is benefited with local governance and project impacts and mitigation are realized equally. We know it works because we have seen it work.

Taking more water from the Delta, when it is dearly needed to support beneficial uses in the Delta, creates the significant and unavoidable impacts to water quality as described in the BDCP. Water quality impacts to the Delta can be avoided by increasing the amount of water flowing out of the Delta to the San Francisco Bay. The corresponding impact of export water supply can be offset by capturing more water during high flow periods and storing it for use when exports are reduced. The proposed mitigation measure below is not mitigation; rather it is a blank check.

> *"Following initial operations of Conservation Measure 1 (twin tunnels), conduct additional evaluation and modeling of chloride levels to determine feasibility of mitigation to reduce chloride levels (see Mitigation Measure WQ-7)"*

Real mitigation would involve binding agreements for additional flows in the Delta to reduce seawater intrusion and improve Delta water quality. There also needs to be minimum flow and water quality standards for the summer months to ensure fish protection actions in the spring and fall do not redirect impacts to the currently poorly protected summer months.

It is unfortunate that for budgetary reasons, the state and federal administrations appear to be ceding responsibility in addressing the longstanding problems with the current export and storage system to the export water contractors. It is not surprising that the product of this exporter-led process fails to provide the flows necessary to restore the Delta ecosystem, preferring instead to promote habitat restoration (to be paid primarily out of public funds). The BDCP proponents have done very little to develop a holistic and sustainable solution. They have not embraced the full responsibility and complexity of solving the problems of fish decline, degraded Delta water quality, the increasing demands of water, and the impacts of climate change.

The State of California through its Water Action Plan and recent efforts to finally manage California's depleted groundwater basins has made a welcome step in the right direction. The current Drought Emergency Declaration has drawn attention to the need for increased storage upstream and south of the Delta so that standards established to protect fish do not need to be further relaxed during drier periods. The State response to the current emergency has also raised questions as to whether the new BDCP facilities would be operated as promised or whether the BDCP proponents would seek relaxations of the operating rules whenever dry years occur or they deem necessary.

Contra Costa County again requests that the lead agencies withdraw this flawed and inadequate Draft BDCP and establish an inclusive approach to development with involvement of local agencies and other indispensable parties that will provide a comprehensive approach to solving the problems of the Delta and sustaining a healthy ecosystem and reliable water supply.

It is unfortunate that after expenditure of more than $200 million on planning studies and tying up the staff resources of state and federal agencies and stakeholders for more than seven years, the BDCP has failed to produce a viable or legally permissible solution to the water and ecosystem problems facing California. As such, the proposed BDCP and its associated Draft EIR/EIS should not be approved. In order to efficiently and successfully provide water for all of California, continuous collaboration and consultation on developing a suite of actions must take place based on water system operational improvements, creating water storage, levee improvements, regional self-reliance and lasting and meaningful protection of the Delta.

Attached to this letter are Contra Costa County's detailed comments on the Draft Bay Delta Conservation Plan and associated Draft Environmental Impact Report and Environmental Impact Statement. If you have any questions regarding Contra Costa County's comments, please contact me at (925) 521-7100 or Ryan Hernandez at (925) 674-7824.

Sincerely,

Karen Mitchoff
Chair
Contra Costa County Board of Supervisors

Attachments:
A: Summary Outline of CEQA/NEPA Comments
B: Comments on the Draft Bay Delta Conservation Plan
C: Comments on BDCP Draft EIR/EIS
D: Comments on the Draft Implementing Agreement
E: Analysis of BDCP Project Changes to Delta Exports
F: Analysis of other BDCP Project Impacts based on BDCP Modeling Data
G: Previous County Comments on BDCP

Cc: Governor Jerry Brown
U.S. Secretary of Commerce, Jenny Pritzker
U.S. Secretary of Interior, Sally Jewell
Senator Diane Feinstein
Senator Barbara Boxer
Congressman George Miller
Congressman Mike Thompson
Congressman Eric Swalwell
Congressman John Garamendi
Congressman Jerry McNerney
Congressman Jared Huffman
Michael Boots, Acting Chair, Council on Environmental Quality
Will Stelle, Regional Administrator, NOAA Fisheries, West Coast Regional Office
Ren Lohoefener, Regional Director, USFWS, Pacific Southwest Region
Jared Blumenfeld, Region 9 Administrator, U.S. Environmental Protection Agency
Brigadier General C. David Turner, South Pacific Region, U.S. Army Corps of Engineers
Charlton H. Bonham, Director, California Department of Fish and Wildlife
Mark W. Cowin, Director, California Department of Water Resources
Felicia Marcus, Chair, State Water Resources Control Board
Contra Costa County Board of Supervisors

BDCP Comments
Ryan Wulff, NMFS
650 Capitol Mall, Suite 5-100u.s. Bureau of Reclamation
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Summary Outline of CEQA/NEPA Comments

The following is a summary of Contra Costa County's comments regarding the draft Bay Delta Conservation Plan (BDCP) and associated draft Environmental Impact Report/Environmental Impact Statement (DEIR/EIS) (dated December 2013):

1. The draft BDCP proposed project (Alternative 4 - Modified Tunnel Alignment) and the remaining DEIR/EIS alternatives would result in significant adverse water quality impacts in the Delta (as acknowledged in the DEIR/EIS). The DEIR/EIS is inadequate because it fails to mitigate these completely avoidable impacts to municipal and industrial, agricultural, recreational and ecosystem beneficial uses of water.
    a. The DEIR/EIS fails to examine a reasonable range of alternatives;
    b. The DEIR/EIS fails to analyze increased storage for capturing surplus flow in wet months which would allow increased flow for fish and water quality in drier months;
    c. The BDCP proposed project benefits southern California at the expense of northern California, significantly harms the Sacramento-San Joaquin Delta, and does not meet the main goal of the project, improving water supply reliability;
    d. Declaring water quality impacts caused by the SWP unavoidable contravenes the requirements of the Delta Protection Act of 1959 which requires the SWP to maintain salinity control in the Delta and prohibits export of water that is required to meet the needs of the Delta;
    e. The DEIR/EIS fails to avoid the impact altogether by not taking a certain action or parts of an action (CEQA Guidelines Section 15370).

2. The significant adverse water quality impacts of the BDCP must be fully mitigated. A finding and statement of overriding considerations regarding adverse water quality impacts of the BDCP would be inadequate because:
    a. There are feasible alternatives or feasible mitigation measures available which would substantially avoid the significant environmental effects of the BDCP project.
    b. The DEIR/EIS does not examine a reasonable range of alternatives;
    c. The BDCP proposed project does not benefit California as a whole, harms a significant portion of California and the Delta in particular, and does not even provide any additional water supply for the project proponents;
    d. Allowing further degradation of Delta water quality is poor public policy and contrary to the statutory requirements of the 2009 Delta Reform Act (Cal. Water Code 85020(e));
    e. CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining the specific economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits (CEQA Guidelines Section 15093). The limited local benefits of the BDCP proposed project do not outweigh the unavoidable adverse environmental effects.

3. The analysis of **water supply** impacts in the DEIR/EIS uses computer models and assumptions that contain significant errors and, therefore:
    a. Fails to disclose the full magnitude of adverse water supply and Delta flow impacts;
    b. Fails to disclose additional adverse impacts that would occur in subsequent months when the modeling errors are corrected.

4. The analysis of **water quality impacts** in the DEIR/EIS using computer models contains significant errors and, therefore:
    a. Fails to accurately disclose the magnitude of adverse Delta water quality impacts,
    b. Fails to disclose adverse water quality impacts that would occur in subsequent months if these modeling errors were corrected;
    c. Fails to meet required SWRCB standards such as the Rock Slough chloride standards, even in the base cases (i.e., without BDCP);
    d. Fails to apply consistent flow inputs to the water quality models. The use of daily variations in Sacramento River inflows to the Delta but monthly variations in Delta exports in the BDCP modeling studies caused large unrealistic spikes in water quality that distort the impact analyses.

5. The analysis of environmental impacts includes a number of significant changes to existing facilities and existing Delta operation standards (e.g., State Water Resources Control Board water rights decision 1641) such that the individual adverse impacts of each change is masked and therefore not disclosed. These changes are:
    a. Adding new diversion intakes in the North Delta on the Sacramento River;
    b. Shifting the compliance point for the SWRCB's Emmaton water quality standard from Emmaton to Three Mile Slough;
    c. Adding a permanent operable flow barrier at the Head of Old River;
    d. Eliminating the existing U.S. Army Corps limits of the inflow from the south Delta into Clifton Court Forebay;
    e. Relaxing the SWRCB's D-1641 export/inflow standards to allow increased exports;
    f. Ignoring the current biological opinion limits on the ratio of San Joaquin inflow to south Delta exports.

6. The effects of operations of the proposed project on fish are not fully disclosed because actual operations to protect fish will not be determined for at least 10 years after the DEIR is certified and a Record Decision is issued on the DEIS.
    a. The BDCP proponents are proposing to operate according to a Decision Tree which will not be finalized until a 10-year study of fall and spring outflow criteria is completed;

b. The Delta Independent Science Board has expressed concern that the study will not consider six of the species of concern and that criteria to protect Delta smelt may be different than for longfin smelt;

c. The Decision Tree process will end once the new facilities become operational and thereafter, adaptive management will be the primary process for determining the spring and fall outflow operations.

7. The DEIR/EIS fails to analyze a reasonable range of alternatives.
   a. There are essentially only two alternatives: one through-Delta alternative and 13 variations of a new north Delta intake alternative;
   b. No additional storage upstream, downstream or within the Delta is considered;
   c. Because no additional storage is considered, no serious consideration of alternatives that increase flows during drier months by shifting the timing of export diversions to wetter months when water is surplus to the needs of the Delta;
   d. No actions to reduce reliance on the Delta, such as regional supplies, conservation or water use efficiency, are considered (2009 Delta Reform Act, Cal. Water Code Section 80521);
   e. No screening of the Clifton Court Forebay even though screening of other Delta diversions is proposed as a conservation measure, and the Conceptual Engineering Reports shows that constructing a screened intake off Victoria Canal is feasible.

8. The DEIR/EIS is inadequate because it relies on future actions ("blank checks") to be decided after certification of the EIR and the NEPA Record of Decision to mitigate impacts and determine final operational criteria. This is not permitted under both CEQA and NEPA.
   a. Operations will be determined through a Decision Tree process that requires at least 10 years of research study;
   b. Operations to protect fish will be determined after initial operation of the new BDCP facilities through an adaptive management approach;
   c. Mitigation measures to address the significant adverse water quality impacts will not even be considered, and determined whether they are feasible or not, until after initial operation of the proposed BDCP facilities.

9. The DEIR/EIS and BDCP assume new limits on operation of the south Delta export pumps in the fall (September-November) and the spring (March-May), which when combined with existing Delta standards in the spring (February-June X2 limits) will shift the existing impacts of reduced flows and export diversions to July-August. Unless enhanced protections for fish are also set during July and August as well as the Fall (critical, dry and below normal years), the proposed project will put other fish species, not currently listed or in decline, at risk. The DEIR/EIS is therefore inadequate because it fails to protect resident fish species from redirection of adverse impacts to the summer months.

a. The BDCP operations criteria needs to include Old and Middle River flow limits for July- September. This is consistent with the original objectives of reducing (not increasing) exports from the south Delta;

b. The BDCP operational criteria needs to have Fall X2 limits for critical, dry and below normal years, as well as corresponding Delta outflow, X2 and Rio Vista flow requirements for July-August;

c. The BDCP north Delta intake would need to include more protective limits for July-September to avoid shifting adverse impacts to these three months.

10. The DEIR/EIS fails to fully analyze alternatives with increased flows as a percentage of unimpaired flow as informed by the SWRCB's 2010 Delta Flow Criteria Report and corresponding California Department of Fish and Wildlife (formerly Fish and Game) 2010 Quantifiable Biological Objectives and Flow Criteria for Aquatic and Terrestrial Species of Concern Dependent on the Delta Report. The DEIR/EIS also fails to present modeling study flow results as percentages of unimpaired flow to allow comparison with the SWRCB and DFW recommendations.

11. The DEIR/EIS fails to optimize reservoir operation rule curves to represent realistic reservoir and export operations by the SWP and CVP in response to new conveyance facilities, global climate change and enhanced Delta flow requirements.

12. The BDCP proponents are seeking public funding for habitat restoration for the BDCP in lieu of increased Delta outflow even though numerous scientific panels have declared the efficacy of the proposed habitat at such a large scale to be uncertain, and the primary benefits will be additional exports for the proponents. The proponents are also seeking public funding for enhanced environmental flows to meet standards that are already the responsibility of the SWP and CVP, and could be used to increase exports. The BDCP proponents as the primary beneficiaries must fully fund these BDCP project components.

Contra Costa County Comments on Draft Bay Delta Conservation Plan

General Comment – Inconsistent naming of alternatives hinders full disclosure of impacts

The DEIR/EIS and Draft BDCP are inadequate because different names are assigned to essentially the same alternatives in the EIR/EIS and BDCP and in different chapters within these documents.

For example, the DEIR/EIS discussed existing conditions with and without Fall X2. The draft BDCP in Chapter 5, Effects Analysis, refers to EBC1 and EBC2, i.e., Existing Biological Conditions without and with Fall X2. The draft BDCP in Chapter 9, Alternatives to Take, uses the term Existing Conveyance High Outflow Scenario which does not appear to be defined anywhere. However, it presumably refers to existing conditions with Fall X2.

The DEIR/EIS refers to No Action Alternatives for the early long term (2025) and late long term (2060). The draft BDCP on the other hand refers to EBC2_ELT which is EBC2 projected into year 15 (2025) accounting for climate change conditions expected at that time (Draft BDCP Table 5C.0-1). Similarly the No Action alternative at late long term is named EBC2_LLT (year 50 or 2060).

Similarly, the DEIR/EIS analyzes a proposed project (Alternative 4) that has four Decision Tree scenarios. The difference between Scenarios H1, H2, H3 and H4 are whether or not Fall X2 and enhances Spring Outflows are included. Scenario H1 includes neither of these and is referred to as the Low Outflow Scenario. Scenario H4 includes both fish protection actions and is referred to as the High Outflow Scenario. The draft BDCP, however, introduces Evaluated Starting Operations (ESO) which includes the high Fall X2 operation and the low spring outflow operation (Page 5C.0-1, line 22). Table 5C.0-1 in the draft BDCP contains specific descriptions of each of the scenarios evaluated.

The use of different names for the same alternative in different sections of the DEIR/EIS and draft BDCP makes it extremely difficult to understand the environmental impacts of proposed alternatives and prevents full disclosure of these impacts. The EIR/EIS and BDCP must be revised with consistent names for each alternative and recirculated for public review and comment.

Executive Summary – Adverse impacts on listed fish species

The BDCP Executive Summary presents an assessment of the adverse effects of the BDCP Covered Activities on Delta smelt, longfin smelt, Sacramento River winter-run Chinook salmon, Central Valley spring-run, fall-run and late fall-run Chinook salmon, Central Valley steelhead, Sacramento splittail, Green sturgeon, and White Sturgeon (Pages 44, 46, 48, 50, 52, 54, 56 and 58). These fish species are listed as threatened or endangered or are State species of special concern.

The Executive Summary acknowledges that there will be near-field and far-field effects of the North Delta diversions on the Chinook salmon runs and steelhead. These adverse impacts will be caused by physical contact with the fish screens and aggregation of predators, and reduced downstream flows that reduce the survival of migrating anadromous fish and lead to greater probability of predation. The BDCP will reduce flows in the Sacramento River downstream of the new north Delta intakes, which may reduce survival of outmigrating young-of-year juvenile splittail. The reduction in migration flows and reduced transport could negatively impact larval green sturgeon and juvenile white and green sturgeon.

The Executive Summary states that diverting water upstream in the Delta on the Sacramento River will lower attraction flows for migrating salmon and steelhead. The proposed project would significantly reduce Rio Vista flows during the September-December period when SWRCB Decision 1641 attraction flow requirements are in effect. Historically, Rio Vista flows have been higher than the D-1641 minimum flow requirements because other SWRCB standards govern and because of flood control releases from upstream reservoirs. The BDCP CALSIM modeling data suggests that with the proposed project the Rio Vista standards will control in many years (see Attachment F "Analysis of other BDCP Project Impacts based on BDCP Modeling Data").

The Draft BDCP (Chapter 5) discloses that the north Delta intakes will harm salmon species by reducing Sacramento flows below Hood and changing the mixture of Sacramento, San Joaquin, eastside stream and seawater water. This would affect the olfactory cues salmonids use to return to their native spawning areas (BDCP pages 3.2-8, 5.5.3-32 and 5.5.3-39).

The salmonids will also be adversely impacted by exposure to in-water construction and maintenance activities. The BDCP states these effects will be minimized by application of avoidance and minimization measures, but the effectiveness of these poorly specified measures is unknown.

The BDCP also acknowledges that the proposed tidal habitat and floodplain restoration will cause local increases in exposure of salmonids to contaminants but the only mitigation proposed for this adverse impact is to study the effects of this contamination resulting from covered activities. The study of effects of contamination is not a mitigation.

The BDCP also acknowledges Delta smelt may be exposed to greater incidence of Microcystis as a result of the proposed habitat restoration. The proposed response to this adverse impact is to study the problem. The BDCP acknowledges there will be adverse impacts on sturgeon due to contaminants such as methylmercury, pyrethroids, and selenium. The proposed response to this adverse impact due to contamination is to study the problem.

The BDCP acknowledges the new north Delta intakes will adversely affect Delta smelt and longfin smelt by reducing the quantity of sediment entering the BDCP Plan Area and potentially increasing water clarity in some areas.

The BDCP Executive Summary attempts to argue that despite these adverse impacts of the new north Delta intakes, overall entrainment would remain at or be less than current low levels. The Executive Summary argues this will be largely due to reduced reliance on the south Delta export facilities because of the north Delta intakes. However, detailed analysis of the BDCP modeling data reveals that exports from the south Delta will actually increase in drier periods, in part because DWR assumed that the U.S. Army Corps of Engineers limits on inflow to Clifton Court Forebay will not apply in the future. There is also no plan to screen Clifton Court Forebay in the proposed project. The BDCP will still rely on the south Delta for 51% of the total exports.

In fact, Figure 11-4-1 in Chapter 11 of the DEIR/EIS shows that the average annual estimated proportion of the larval/juvenile Delta Smelt population lost to entrainment at the SWP/CVP south Delta facilities will increase, not decrease, for the proposed project (Alternative 4). The BDCP proposed project is clearly inadequate under CEQA, NEPA, the Endangered Species Act and as a matter of public policy because it harms rather than improves the abundance of key fish species.

The BDCP is also inadequate because it attempts to rely on additional fish benefits from implementation of an alternative intake for the North Bay Aqueduct. This alternative intake project is not part of the BDCP and the environmental impacts of this separate project are not analyzed and disclosed as part of the BDCP EIR/EIS. The BDCP cannot rely on uncertain future projects to mitigate the adverse impacts of the proposed north Delta intakes and conveyance system.

The BDCP Executive Summary on pages 48, 50, 53 and 55 states that "the BDCP does not propose any changes in Shasta operating criteria, and the BDCP does not affect upstream temperatures or flows in ways that would require a change in Shasta operations. However, the different new facilities and operating scenarios do change the storage levels in Lake Shasta. If the amount of cold water pool is reduced this could adversely impact salmonids below Shasta. This would change the quality (temperature) of upstream habitat, an important biological objective for winter-run Chinook salmon.

A review of the BDCP modeling of Shasta storage for the proposed project Low Outflow scenario suggests that Shasta end-of-month storage will be significantly reduced in most years relative to the existing conditions (with Fall X2). The reductions will be most significant during drier years (see Attachment F "Analysis of other BDCP Project Impacts based on BDCP Modeling Data") and will adversely impact salmonids. The High Outflow scenario, on the other hand, generally increases Shasta end-of-month storage in drier years.

The Executive Summary on page 48 states:

> *The magnitude of benefits for winter-run Chinook salmon at the population level cannot be quantified with certainty. Nonetheless, the overall net effect is expected to be a positive change that has the potential to increase the resiliency and abundance of winter-run Chinook salmon relative to existing conditions.*

Because the winter-run Chinook salmon is listed as endangered under both the state and federal endangered species acts, it is important that any project proposed by DWR and Reclamation to protect and restore this and other key fish species demonstrate, prior to being permitted, that it will substantially increase the resilience and abundance of winter-run Chinook salmon. Merely "expecting" a positive change that has the "potential" to benefit winter-run is not sufficient. In fact the myriad of adverse impacts of the north Delta intakes and the proposed operating rules described in the BDCP Executive Summary and listed above strongly suggest that there is a strong potential for the new north Delta intakes to significantly harm key fish species.

The DEIR/EIS and Draft BDCP must be withdrawn and new alternatives and operation rules developed that will to increase the resiliency and abundance of the key fish species relative to existing conditions that include Fall X2. A new draft EIR/EIS must be prepared and released for public review and comment.

Chapter 5: Effects Analysis

The Draft BDCP (Chapter 5) discloses that the north Delta intakes will harm salmon species by reducing Sacramento flows below Hood, by changing the mixture of Sacramento, San Joaquin, eastside stream and seawater water and affecting the olfactory cues the salmon use to return to their native spawning areas, and by increasing predation (see e.g., BDCP pages 3.2-8, 5.5.3-32 and 5.5.3-39).

The Draft BDCP assumes that the significant adverse impacts of the north Delta facilities will be offset by other conservation measures (CM2 – CM11), and by the benefits of a future relocation of the North Bay Aqueduct intake. The Draft BDCP indicates that the North Bay Aqueduct Alternate Intake Project is part of CM1 (see Table 3.2-1 on page 3.2-13 of the Draft BDCP.) The Alternative Intake Project would expand pumping from the current historical maximum of 140 cfs up to 240 cfs. However, the Draft EIR/EIS (Page 3-175) states: "The BDCP (or an alternative) would cover operations, but not construction, of any new facility associated with the North Bay Aqueduct Alternative Intake Project. It is not yet known for certain when this facility will be constructed, nor have the details of construction been finalized."

The Draft BDCP assumes benefits from an alternative North Bay Aqueduct intake contribute to offsetting any entrainment and impingement at the proposed BDCP north Delta intakes (see page 5.5.2-24). How can the BDCP take credit for NBA benefits when no analysis has been done as part of the BDCP to review the environmental impacts of increasing of moving the NBA intake and increasing pumping to 240 cfs intake?

The BDCP also assumes that reductions in entrainment at the south Delta export facilities will contribute to offsetting any entrainment and impingement at the proposed north Delta diversion facilities (page 5.5.2-24). However, the BDCP is:

(a) proposing to relax the existing US Army Corps of Engineers limits on inflow to Clifton Court Forebay (increasing exports from 6,680-7,180 cfs up to 10,300 cfs),

(b) not planning on screening the intake to the Forebay (even though DWR's November 2009 Conceptual Engineering Report – Through-Delta Facility Conveyance Option contains feasible examples of how this could be done, see Fig. 7-5 of this CER),

(c) proposing to increase reverse flows (OMR) at certain times of the year relative to existing conditions,

(d) relaxing the existing SWRCB Water Rights Decision 1641 export/inflow ratio limits for some alternatives (DEIR/EIS page 5A-B40),

(e) intending to ignore the existing biological opinion limits on the ratio of San Joaquin inflow to south Delta exports (Draft BDCP, Appendix 5C Part 1, page 2-4),

(f) proposing to still use the south Delta for 51% of the SWP and CVP exports

The BDCP and EIR/EIS are inadequate because the proposed north Delta intakes will harm key fish species and the benefits of "reducing" use of the south Delta intakes are likely overestimated. As such it is incorrect to consider the north Delta intakes and conveyance system to be a Conservation Measure. The BDCP and BDCP EIR/EIS must be revised to include new alternatives that increase rather than reduce Delta flows, and reduce rather than increase entrainment at the south Delta export facilities, while still achieving the other co-equal goal of improving water supply reliability for all Californians.

A revised draft BDCP and draft EIR/EIS must then be released for public review and comment.

Chapter 7: Implementation Structure

Contra Costa County is directly impacted by the construction of the twin tunnels and, therefore, must be a part of any decision making entity as the project moves forward. Since BDCP began, Contra Costa County along with the other four Delta Counties has requested a seat at the table. This chapter assigns the County to a "Stakeholder" role that has no ability to meaningfully affect decisions. In fact, the decisions to be made are heavily represented in favor of the BDCP proponents that are motivated by maximizing water exports. There must be a voice on behalf of the Delta and it should be Contra Costa County, in association with the other Delta Counties. The portions of the project that directly impacts the Counties require a decision making role by each County and this must be reflected in the Implementing Agreement.

Chapter 8: Implementation Costs and Funding Sources

General Comment Regarding the Assumption of Public Funding

The estimated funding of the BDCP by entity, sources and plan component from Draft BDCP Table 8-37 are summarized below. The State and Federal export contractors are proposing that the public fund almost 90% of the cost of Conservation Measures 2-21.

Source	Program Administration	Monitoring, Research, Adaptive Management, and Remedial Actions	Water Facilities and Operations (CM1)	Natural Community Protection and Management (CM3, CM11)	Natural Community Restoration (CM2, CM4-CM10, CM12, CM22)	Other Stressors Conservation (CM13-CM21)
State and Federal Water Contractors	$31	$113	$16,027	$266	$269	$224
State Funding	$0	$145	$0	$399	$2,282	$1,291
Federal Funding	$160	$840	$0	$396	$1,062	$1,087
Interest Income	$145	$0	$0	$0	$0	$20
Total	$336	$1,098	$16,027	$1,061	$3,613	$2,623

However, the BDCP proponents are promoting these habitat and other sources actions in lieu of restoring Delta flows to levels necessary to increase and sustain fish populations. According to various scientific expert panels tasked with reviewing the Effects Analysis and other aspects of the BDCP, the effectiveness of this new habitat at this scale in restoring fish populations is uncertain at best.

The new habitat allows additional water to be exported by the BDCP proponents. The public should not be asked to pay the cost of new habitat when the primary benefits are in the form of higher exports to the San Joaquin Valley and southern California.

Contra Costa County understands that the BDCP proponents are negotiating a Water Acquisition Program that would purchase water to provide Enhanced Environmental Flows (Draft BDCP, page 3.4-356). According to a BDCP March 29, 2013 document, "Response Outline of Water Acquisition/Shared Incentives Proposal," some of the purchased water would be used to meet Fall X2 requirements. The SWP and CVP are already required to operate to Fall X2 under the 2008 USFWS biological opinion. The public should not pay for water to provide flows that the BDCP proponents are required to meet.

The intent of the 1959 Delta Protection Act was that no water would be exported by the SWP that was necessary to meet the salinity and water supply needs of the Delta. This same restriction on exports should also apply to the Delta ecosystem needs. The public should not have to pay to buy water to replace exported water that, if needed for the Delta, should not be exported.

If in the future, adaptive management and monitoring finds that more flow, not just wetland habitat, is indeed needed to restore and sustain fish populations, the BDCP proponents must be held responsible for achieving those increased flows.

Unfortunately, the significant adverse impacts on the Delta Counties of taking land out of agriculture and recreational uses for habitat restoration will have already happened.

The Draft BDCP must be revised to eliminate, or at least significantly reduce, the amount of public funding for CMs 2-21 and a new funding plan, with binding funding commitments, developed. A new Draft BDCP should then be released for public review and comment.

Chapter 9: Alternatives to Take

Page 9-36, line 34

Section 9.3.3 attempts to disclose the consistency of different take alternatives with the BDCP Goals. The draft BDCP reiterates that the overall goal of the BDCP is to provide "*a comprehensive conservation strategy for the Sacramento-San Joaquin River Delta designed to restore and protect ecosystem health, water supply, and* ***water quality*** *in the Delta within a stable regulatory framework*." The ability of each take alternative to meet this goal is summarized in Table 9-8.

The draft BDCP only considers the in-Delta water quality improvement goal to apply to aquatic species. The water supply goal is only applied to mean project water deliveries, not to water supplies for senior water rights holders upstream of the Delta or in-Delta water users. Another water quality goal applies to supply water which is not defined but presumably only applies to CVP and SWP export water quality. The water supply reliability goal which is described as helping to protect water supplies from floods, and seismic events, presumably only applies to CVP and SWP export water supplies. Another BDCP goal that is evaluated in Chapter 9 is whether Banks Pumping Plant is at full capacity.

This analysis of the different take alternatives is inconsistent with the 2009 Delta Reform Act and the intent of the legislature because it fails to analyze the effect of each take alternative on water supply for senior water right holders, and in-Delta water users. The analysis also fails to analyze the effects on water quality in the Delta for other water users, not just the CVP and SWP export contractors. A take alternative must be eliminated if it would degrade water quality for other Delta water users and fails to avoid or mitigate those significant adverse impacts. For example, does the take alternative degrade municipal and industrial water quality for CCWD, the City of Antioch or the City of Stockton?

The DEIR/EIS and draft BDCP is also inadequate because Section 9.5, Assessment of Take Alternatives, only analyzes and discloses the differences in consistency of each take alternative with the overall goal of the BDCP relative to the BDCP Proposed Action (i.e., proposed project,

Alternative 4). As acknowledged in the DEIR/EIS, the BDCP proposed project would cause many significant and unavoidable impacts including significant degradation of Delta water quality. Determining in Table 9-8 that another take alternative is slightly worse than the proposed project is irrelevant because the proposed project itself would cause significant adverse environmental impacts and does not meet the requirements of the 2009 Delta Reform Act or state and federal antidegradation statutes (State Water Resources Control Board Resolution 68-16 and 40 C.F.R § 131).

The DEIR/EIS and draft BDCP must be revised to fully analyze and disclose the individual impacts of each take alternative and not the just disclose how one bad alternative compares with another flawed alternative. The revised EIR/EIS and revised BDCP must then be released as new drafts for public review and comment.

Contra Costa County Comments on Draft BDCP EIR/EIS

General Comment on the Inadequacy of All BDCP Alternatives

Contra Costa County's analysis of the BDCP draft alternatives in this letter focuses on the BDCP proposed project (Alternative 4), a 9,000 cfs isolated facility with continued use of the south Delta export intakes. However, most of the flaws identified by Contra Costa County and others with respect to the proposed project also apply to the other, similar, alternatives in the draft documents. All of the alternatives analyzed in the DEIR/EIS are inadequate. A new DEIR/EIS must be prepared and released for public review and comment.

The BDCP proponents are proposing a Decision Tree approach that postpones serious and necessary decisions on how to restore and recover key fish species until after the flawed north Delta intakes and tunnels are approved and constructed. This "blank check" approach is not permitted under CEQA or NEPA, or under the state and federal endangered species acts.

The County's comments focus on the worst case Decision Tree scenario, the Low Outflow Scenario, under which the export water contractors are proposing to help conserve key fish species by providing flows in the Delta that are worse than existing conditions, e.g., no Fall X2, elimination of the Army Corps limits on inflow to Clifton Court Forebay, failure to comply with the CVP and SWP biological opinion limits on the San Joaquin inflow to south Delta exports ratio, etc. The Low Outflow Scenario (Scenario H1) is so outrageous it brings into question the leadership of the Natural Resources Agency, the Department of Water Resources, Department of Fish and Wildlife and other lead agencies responsible for approving the release of the Draft BDCP and DEIR/EIS.

The Low Outflow Scenario is clearly not in the interests of the key fish species, the Sacramento-San Joaquin Delta or the State of California. However, most of the serious flaws identified by Contra Costa County and others with respect to the Low Outflow Scenario such as the harm caused by CM1 to fish species, degradation of Delta water quality, and failure to improve export area water supplies relative to existing conditions, also apply to other Decision Tree scenarios including the High Outflow Scenario (Scenario H4). Two of the Decision Tree alternatives are already not permitted under existing CVP and SWP biological opinions (those without Fall X2) and the other two rely on increased exports in the driest months and have other flaws that should have eliminated them from consideration in the DEIR/EIS. A new DEIR/EIS must be prepared that includes alternatives that commit to actions that actually achieve the co-equal goals of improving water supply reliability and restoring the Delta ecosystem, while improving Delta water quality and protecting the Delta as a place. The new DEIR/EIS must then be released for public review and comment.

General Comment – The BDCP proposed project hinders rather than contributes to meeting the needs of California

The BDCP proposed project is significantly flawed and is not in the interest of California. The current proposal is the result of the state and federal administrations ceding their responsibilities to the export water contractors.

The proposed north Delta intakes and operating rules harm key fish species by reducing flows downstream of the intakes which also increases predation and reduces survival, altering the olfactory cues for returning salmon and steelhead, and impinging and entraining fish at the new screened intakes. The south Delta export intakes would continue to harm key fish species because the BDCP proponents are intending to increase diversions, rather than decrease diversions, at Clifton Court Forebay, which would remain unscreened.

The proposed project would significantly degrade water quality in the Delta and impair drinking water, agriculture, recreation and fish and wildlife beneficial uses in the Delta. The project proponents state that these water quality impacts are unavoidable even though numerous actions are available to avoid and mitigate these impacts, e.g., increasing Delta outflows.

These significant adverse impacts occur in large part because the BDCP proponents have refused to consider including additional storage which would allow the project to capture additional water in wet months and including water use efficiency and demand reduction actions. This would make more water available in an environmentally responsible way that could then be used to improve water supply reliability and to improve the Delta ecosystem by reducing the amount of exports in drier periods. The current drought emergency has demonstrated the need for ways to capture water in wet months and store it for later use during drier periods.

The proposed project also hinders rather than benefits California because it fails to increase the California's managed water supply. The incredible cost and scale of the proposed north Delta intake and tunnel project fails to produce any additional water supply from the Delta. The immense financial and human resources cost of the proposed project will prevent other actions to address California's water problems from getting off the ground.

The proposed project fails to achieve either of the coequal goals set by the legislature, and endorsed by Congress in 2009 and hinders rather than contributes to addressing California's ecosystem and water needs. The DEIR/EIS and Draft BDCP must be withdrawn and new alternatives developed and analyzed and a revised EIR/EIS released for public comment and review.

General Comment – Proposed BDCP is seriously flawed because it will harm rather than help listed fish species

The BDCP proposed project is seriously flawed and the EIR/EIS must be withdrawn, substantially revised and recirculated. The original basis for the Bay-Delta Conservation Plan was to obtain regulatory assurance (50 years) for operation of the CVP and SWP in the Delta and improved water supply reliability for the CVP and SWP export contractors. The concept was to improve and restore the ecosystem in the Delta for key fish species.

A major component of the proposed ecosystem restoration is adding new export intakes in the north Delta of the Sacramento River to reduce the impacts of the south Delta export facilities on

fish. This had been recommended by the fish agencies for many years. However, as revealed in the DEIR/EIS, the BDCP proponents have developed north Delta intake alternatives that harm rather than benefit key fish species. Significantly, reducing flows on the Sacramento River below the new intakes will reduce the survival of anadromous fish heading to and from the ocean, it will change the olfactory cues used by the salmon to return to their native spawning grounds, and will increase predation (see e.g., BDCP pages 3.2-8, 5.5.3-32 and 5.5.3-39).

The BDCP also assumes that reductions in entrainment at the south Delta export facilities will contribute to offsetting any entrainment and impingement at the proposed north Delta diversion facilities (page 5.5.2-24). However, the BDCP is:

(a) proposing that the existing U.S. Army Corps of Engineers limits on inflow to Clifton Court Forebay be eliminated which would increase the maximum inflow from 6,680-7,180 cfs up to 10,300 cfs (DEIR/EIS page 3-32. line 12)

(b) not planning on screening the intake to the Forebay (even though DWR's November 2009 Conceptual Engineering Report – Through-Delta Facility Conveyance Option contains feasible examples of how this could be done, see Fig. 7-5 of the CER),

(c) proposing to make reverse flows (OMR) worse at certain times of the year relative to existing conditions,

(d) proposing to still use the south Delta for 51% of the SWP and CVP exports

The proposed new intake and tunnel facilities for the BDCP are likely to seriously harm key fish species and fail to contribute to restoring and sustaining the Delta ecosystem. The DEIR/EIS must be revised to include alternatives that reduce the impact of south Delta exports on threatened and endangered species and other resident fish in the Delta, and recirculated for public review and comment.

General Comment – The impacts of the BDCP proposal to increase the inflow to the unscreened Clifton Court Forebay from the south Delta are not disclosed, analyzed or permitted

A detailed review of the BDCP modeling data for Alternative 4 reveals that the monthly exports from the south Delta exceeded the U.S. Army Corps limits on inflow to Clifton Court Forebay from the south Delta.

As described on page 5-36, per U.S. Army Corps of Engineers Public Notice 5820A (13 October 1981), the USACE determined that DWR would not require additional USACE permitting for the SWP's diversions from the Delta as long as the SWP is limited to daily diversion into Clifton Court Forebay that would not exceed 13,870 acre-feet and the 3-day average diversions into Clifton Court Forebay would not exceed 13,250 acre-feet. In addition, the SWP can increase diversions into Clifton Court Forebay by one third of the San Joaquin River flow at Vernalis during the period from mid-December to mid-March when the flow of the San Joaquin River at Vernalis exceeds 1,000 cfs.

As also described on page 5A-B63, an additional capacity of 500 cfs (up to 7,180 cfs) is allowed into Clifton Court Forebay for July–September for reducing impact of NMFS biological opinion (June 2009) Action IV.2.1 Phase II on the SWP.

During July-September, in the CALSIM modeling studies for the proposed project (Alternative 4), the inflows to Clifton Court (SWP through-Delta exports) were as high as 9,800 cfs for a total south Delta export of 14,400 cfs. Considering the existing total exports are normally no more than 11,280-11,780 cfs in July-September, this is not consistent with the goal or need to reduce exports from the south Delta.

The DEIR/EIS is also inadequate because it fails to clearly disclose that the BDCP is proposing to eliminate existing limits on the inflow to Clifton Court. In several locations, it is noted that pumping at Banks Pumping Plant is assumed to be up to the installed capacity of 10,300 cfs. But this could just apply to the sum of north and south Delta exports. In Table 3-6 on page 3-36 of the DEIR/EIS, it is stated that Alternatives 1-4 and Alternatives 6-8 do not incorporate the operational rule related to the permitted limit on Clifton Court Forebay inflow (6,680 cfs plus 1/3 of San Joaquin River Dec 15–March 15). However, it is not clear whether the operation rule is therefore 10,300 cfs.

The proposal to increase exports from the south Delta for the SWP is a major change that could have significant impacts on the Delta ecosystem and Delta water quality. It is also is contrary to the goal of reducing the existing adverse impacts of south Delta diversions. The EIR/EIS must be revised to fully disclose DWR's intent to increase south Delta exports and to analyze operations of the BDCP proposed project without eliminating the current U.S. Army Corps limits. This will enable the public and regulatory agencies to gauge the adverse environmental impacts of this proposed change.

Executive Summary

Page ES-1

The DEIR/EIS states that the **conservation strategy** is designed to restore and protect ecosystem health, water supply, and water quality within a stable regulatory framework. The proposed conservation strategy, however, harms key fish species, results in no net increase in water supply, and would result in significant degradation of Delta water quality. The DEIR/EIS is inadequate because the proposed conservation strategy does not meet the project goals. The DEIR/EIS must be revised to include conservation strategies that actually restore and protect ecosystem health, improve water supply reliability, and improve Delta water quality, and recirculated for public review and comment.

Page ES-7, line 6

The U.S. Bureau of Reclamation operates the CVP in coordination with the SWP through the November 1986 Coordinated Operation Agreement (COA). Implementation of the BDCP proposed project would result in changes to existing CVP operations specific to the Delta, upstream of the Delta and in the export areas south of the Delta. Because Reclamation will adjust CVP operations to accommodate new conveyance facility operations and/or flow requirements under the BDCP, Reclamation must also be included as a permittee for the HCP and be a signatory to any corresponding Implementation Agreement. It is not surprising that the proposed BDCP and the DEIR/EIS fails to address any issues other than those pertaining to the export contractors. It appears that DWR and Reclamation made a conscious decision early in the process to cede their responsibilities to the export contractors. The responsibility for developing proposals to also improve the Delta ecosystem and improve Delta water quality and water supply reliability must not be ceded to the export contractors. DWR and Reclamation as lead agencies must withdraw this flawed DEIR/EIS, develop alternatives that meet the needs of all Californians, and recirculate a draft EIR/EIS for public comment and review.

Chapter 2: Project Objectives and Purpose and Need

Page 2-4, line 16

Bullet "a" should also list the existing CVP Delta export facility. This facility will continue to be used with the BDCP and has the potential to harm key fish species.

Bullet "b" should refer to construction and operation of facilities and/or improvements for the movement of water entering the Delta from the Sacramento Valley watershed out to San Francisco Bay and to the existing SWP and CVP pumping plants located in the southern Delta. Restoration and sustaining a healthy Delta ecosystem will not be possible be unless more water is allowed to pass through the Delta into Suisun Bay.

Page 2-4

The DEIR/EIS must acknowledge that SWP water is exported south of the Delta under junior water rights and that the Delta Protection Act of 1959 (California Water Code Sections 12200 *et seq*.) was intended to protect Delta water users from the, then, future impacts of the SWP. Section 12203 declares the State or the United States should not divert water from the channels of the Sacramento-San Joaquin Delta to which the users within said Delta are entitled. Section 12204 was intended to ensure no water would be exported which is necessary for salinity control in the Delta and the water needs of users of water in the Delta. Had there been a greater awareness of environmental issues in 1959, fish and wildlife would also have been considered as users of water in the Delta.

A key objective for the BDCP must be to conform with the existing California Water Code statutes, including the 1959 Delta Protection Act and ensure that no water be exported that is needed to meet the environmental, water supply and other needs of the Delta.

It also follows that it is incorrect, and thus unacceptable, to claim adverse water quality impacts caused by exports by junior water rights holders unavoidable. The 1959 Delta Protection Act requires that they be avoided or fully mitigated. The 2009 Delta Reform Act requires that any Delta solution improve Delta water quality, as part of the requirement to meet both co-equal goals. The water quality mitigation measures suggested in Chapter 8 and Appendix 3B are not commitments. DWR only agrees to meet with impacted parties after the new BDCP conveyance facilities are operating and determine whether it is feasible to take further action. This is unacceptable under CEQA. The EIR/EIS must be revised to include binding commitments for mitigating all significant adverse water quality impacts, and a new draft EIR/EIS released for public review and comment.

Page 2-4, line 28

The BDCP project purpose of reducing the adverse effects on certain listed species due to diverting water is a key to restoring and sustaining the Delta ecosystem. However, the DEIR/EIS is inadequate because it only analyses 13 variations on a single alternative that diverts water through new intakes in the north Delta (different conveyance alignments and capacities but the same general impact on migrating salmon and other key fish species) and one through-Delta alternative. The DEIR/EIS must be revised to also include analyses of alternatives that include new storage, water use efficiency actions to reduce demand, and different intake locations that allow water to pass further through the Delta before being exported. A new draft EIR/EIS incorporating these additional alternatives must then be released for public comment and review.

Page 2-4, line 28

Project Purpose #3 refers to restoring and protecting the ability of the SWP and CVP to deliver up to full contract amounts, when hydrologic conditions result in the availability of sufficient water. Unfortunately, the draft BDCP appears to interpret availability of sufficient water in terms of the availability of stored water and water year types, and not in terms of seasonal or monthly availability of water in the Delta. Consistent with the original BDCP Planning Principle #2, the EIR/EIS must fully analyze alternatives that divert more water in wetter months when Delta outflows are high and reduce diversions during periods when Delta outflows are low.

The Alternative 4, Scenario H1 (Low outflow scenario), in particular, must be eliminated from further consideration because it relies on increasing Delta exports (from 11,280 cfs up to 15,000 cfs) during dry periods when Delta outflows are lowest. Scenario H1 fails to satisfy the criteria for approval of a natural community conservation plan as provided in subdivision (a) of Section 2820 of the Fish and Game Code, and other operational requirements and flows necessary for recovering the Delta ecosystem and restoring fisheries under a reasonable range of hydrologic

conditions, which will identify the remaining water available for export and other beneficial uses.

The fishery agencies raised similar concerns in two Red Flag memos. The DEIR/EIS must be revised to include alternatives that reduce exports relative to existing conditions in drier months and offset this export reduction in wetter months by capturing and storing water. To meet California's water needs during drought periods and in normal years, it will be necessary to develop additional surface and groundwater storage. This will also ensure that only water that is surplus to the needs of the Delta and senior water right holders is exported. A revised draft EIR/EIS must then be released for public review and comment.

Page 2-5, line 1

The Draft EIR/EIS states that the above Purpose Statement reflects the intent to advance the coequal goals set forth in the Sacramento–San Joaquin Delta Reform Act of 2009 of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem.

The intent of the 2009 Delta Reform Act is that the coequal goals be met, not merely advanced or balanced. The BDCP proposed project (Alternative 4) however fails to enable any increase in water supply reliability from the Delta, while harming key fish species and the water supply for senior water right holders and degrading water quality in the Delta. The BDCP proposed project is not consistent with the 2009 Delta Reform Act and from our point of view is not good public policy. .

The DEIR/EIS and draft BDCP also fail to account for and describe the impacts of integrating the BDCP into the Delta Stewardship Council's Delta Plan. The EIR for the Delta Plan did not include this analysis because the BDCP was not sufficiently developed at that time. Now that a draft BDCP has been released for public review, this analysis must occur and be included in the BDCP and BDCP EIR/EIS.

The state and federal lead agencies must accept their responsibilities and missions and provide leadership in developing a sustainable solution to the current and future problems in the Delta and California's water supply needs. The EIR/EIS must develop and analyze alternatives that make a major contribution toward achieving both co-equal goals and a new draft EIR/EIS released for public review and comment.

Chapter 3: Description of Alternatives

General Comment – New alternatives need to be developed and analyzed

Chapter 3 describes viable alternatives that were suggested by stakeholders that were then dismissed by the project proponents because they: (a) did not focus solely on new North Delta

intakes and conveyance; (b) involved some uncertainties, but no more, and often less, than the alternatives that were retained.

The goals of junior water right holders dependent on surplus flow from the Delta are very different than the needs of California in addressing declining fish numbers, degraded Delta ecosystem, degraded Delta water quality, increasing demand for water and reduced water supply reliability for all Californians. In addition, a project to develop an HCP and NCCP should not start by prescribing large new intakes on the Sacramento River along the migration pathway of key fish species, that in of themselves would harm those fish species. A project that is sold on reducing exports from the south Delta to protect fish should not at the same time assume that existing limits on south Delta diversions to Clifton Court Forebay should be eliminated. The BDCP modeling studies show significant increases in exports would occur from the south Delta during the driest months of the year.

What California needs are projects that actually achieve the coequal goals and the associated actions of improving water quality in the Delta and reducing reliance on the Delta through water use efficiency actions and developing local supplies.

The BDCP must develop and analyze new alternatives based on the following principles and steps that would more likely achieve the co-equal goals and benefit all of California:

1. Increase the restrictions on exports from South Delta to protect fish from reverse flows and entrainment
2. Increase minimum Delta flow requirements to improve the aquatic ecosystem and improve water quality
3. Develop facilities to capture more water when it is surplus to the needs of the Delta and San Francisco Bay
    - Additional diversion capacity
    - Additional storage: upstream of the Delta, south of the Delta, and possibly in the Delta
    - Also consider intakes locations other than in the north Delta to provide physical assurances that water will only be diverted during high flow periods
4. Include other key actions: strengthen levees, water use efficiency, local sources of water, etc.

This approach involves similar actions to the Portfolio Alternative proposed by Natural Resources Defense Council (NRDC) and others. However, it puts more focus on meeting export water needs when surplus flow is available in the Delta which will require significant investment in new storage. The original intent of the State Water Project was to only export water that is surplus to the needs of the Sacramento Valley and Delta. This approach is consistent with the commitments made in the area of origin statutes and 1959 Delta Protection Act.

The DEIR/EIS must be revised to include and analyze in detail new alternatives based on the principles outlined above that will achieve both coequal goals, and a revised draft released for public review and comment.

General Comment – Failure to include new storage actions represents piecemealing under CEQA

The BDCP DEIR/EIS only analyzes new intakes and conveyance and habitat restoration without incorporating other actions necessary to achieve the project purpose. The project is unable achieve the 2009 Delta Reform Act co-equal goals or the BDCP proponents objectives without including new water storage, water transfers, and actions to reduce water demand and increase water use efficiency. Segmenting or "piecemealing" a project is not permitted under CEQA. "An EIR may not define a purpose for a project and then remove from consideration those matters necessary to the assessment whether the purpose can be achieved." *County of Inyo v. City of Los Angeles*, 124 Cal. App. 3d 1, 9 (1981).

The Draft BDCP proposed project does not "*restore water supplies of the SWP and CVP south-of-Delta*" (DEIR/EIS page ES-8), in fact the DEIR/EIS operations modeling suggests it will **reduce** the water supply derived from the Delta. A new draft EIR/EIS must be prepared that analyzes alternatives that include new water storage to capture water during wet months and allow increased Delta flows in drier periods. The new alternatives must also include and analyze actions to reduce demand, increase local self-sufficiency, and water transfers. The new draft must then be released for public review and comment.

Page 3-5, line 3

The DEIR/EIS states that "*the environmental review process for the BDCP, beginning in 2007, involved input from a large group of stakeholders and an extensive evaluation of various options and ongoing effects analysis that goes beyond the normal scope of a CEQA review.*" In reality, the early Stakeholder Committee process was flawed because it was exclusive to a small group of stakeholders who had to agree in advance not to oppose the BDCP. The opportunity for public comments at those meetings was extremely limited. Input from many key stakeholders and experts was excluded or ignored.

The Stakeholder Committee did develop a set of BDCP Planning Principles, including a key principle: "*Divert more water in the wetter periods and less in the drier periods*." http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library_-_Archived/BDCP_Overview_and_Update_-_March_2009.sflb.ashx

The Stakeholder Committee process was terminated in November 2010, and the resulting BDCP proposed project fails to adhere to this principle. Instead the proposed project increases exports from the Delta (from 11,300 cfs up to 15,000 cfs) in the driest months (periods of low Delta outflow) and diverts less in wetter periods because San Luis Reservoir fills and there is nowhere else to store captured water.

Since the last Stakeholder Committee meeting in November 2010, serious issues were raised by the fishery agencies through two Red Flag Memos, but no inclusive stakeholder involvement was allowed. The lead agencies must withdraw this flawed DEIR/EIS and reinstate an effective stakeholder involvement process to develop new alternatives that meet the needs of California and protect, restore and sustain the Delta ecosystem, improve Delta water quality after years of degradation, and improve water supply reliability.

Page 3-14, Table 3-1

CEQA Guidelines Section 15126.6(a) states *"the EIR shall describe a reasonable range of alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant impacts of the project…"* The BDCP EIR/EIS does not describe an adequate range of action alternatives that would avoid or substantially lessen the significant adverse impacts of the project. There is really only one north Delta intakes alternative. The 14 variations are only distinguished by different isolated conveyance alignments and capacities, but have similar impacts on Delta water quality, Delta water supply, and the Delta ecosystem. The only other alternative is a through-Delta/separate corridors alternative (i.e., no new north Delta intakes).

The DEIR/EIS does not analyze other actions such as increasing storage upstream and/or downstream of the Delta, reducing demand through water use efficiency measures and new intakes in other locations such as the western Delta or a screened intake to Clifton Court Forebay located on Victoria Canal. By not considering new storage, the BDCP proposed project is unable to capture surplus water in wetter months to meet California's water needs during droughts and reduce exports during drier periods. Therefore the environmental analysis cannot inform decision-makers on whether new north Delta intakes are the best and least environmentally damaging alternative.

CEQA guidelines call for evaluating a range of alternatives even if some of them don't meet all of the goals of the project. The EIR/EIS must be revised to include new alternatives that represent a reasonable range of alternatives and that actually meet the project objectives, achieve rather than balance the co-equal goals, and the needs of California, and recirculated.

Page 3-55, 3-60 and 3-74

The BDCP West Alignment alternatives (1C, 2C, and 4C) involve construction of open channel canals and tunnels through Contra Costa County, including the heavily urban populated areas of Discovery Bay and other communities like Knightsen and Byron. The canal will also be close to the City of Brentwood. The open channel nature of the canal will be an attractive nuisance and will represent a significant danger to public safety, especially considering the magnitude of the flow (up to 15,000 cfs). The tunnel alignments in the south Delta (e.g., Alternative 4) and construction of an enlarged Clifton Court Forebay will also impact County residents.

Construction of the canal will involve concrete batch plants and fuel stations that would result in air quality, noise, recreation and other adverse impacts on the residents of Contra Costa County. A 40-acre concrete plant and 2-acre fuel station are proposed on Webb Tract just north of Franks Tract. A 2-acre concrete plant and 2-acre fuel station are planned at another location in Contra Costa County about 1 mile north of the Byron Highway.

The DEIR/EIS, on page 22-252, states that construction of the water conveyance facility would involve the operation of thousands of pieces of mobile and stationary diesel-fueled construction equipment for multiple years in close proximity to sensitive receptors. The DEIR/EIS also discloses that one house located along Byron Highway would exceed the Bay Area Air Quality Management District's cancer risk threshold during construction of the canals. If the landowner chooses not to accept DWR's offer of relocation assistance, there would be a significant adverse impact in the form of exposure to excess cancer risk at this location.

The project proponents must meet with Contra Costa County staff as soon as possible to discuss the impacts of the proposed west alignment facilities and work with the County staff to determine measures that will mitigate these adverse impacts. Declaring the impacts of a project designed solely to benefit some water users with junior water rights that are located outside the Delta without mitigation does not comply with CEQA and NEPA, and in our opinion is poor public policy.

Appendix 3A: Identification of Water Conveyance Alternatives, Conservation Measure 1

Page 3A-40 et seq.

These pages describe the screening process that was used to eliminate all except one alternative that did not involve new north Delta intakes. This is a misuse of the CEQA/NEPA process and not in the interests of California and its water and ecosystem problems. Alternatives that create new water such as new storage, and water use efficiency actions to reduce demand (e.g. the Portfolio Alternative as developed by NRDC), as well as other potential intake locations such as the western Delta and a screened intakes to the Clifton Court Forebay on Victoria Canal, should have been included in the environmental analysis so the environmental document could make an informed comparison of the environmental impacts of new north Delta intakes tunnels compared to the impacts of other less environmentally damaging solutions.

A new draft BDCP and DEIR/EIS must be prepared that analyses additional alternatives such as those with new intakes in other areas of the Delta and alternatives that effectively screen the largest existing diversions in the Delta, namely the Clifton Court Forebay and the intake to the Jones Pumping Plant. The new DEIR/EIS must fully disclose, avoid or mitigate all adverse impacts of all of the alternatives, and be released for public review and comment.

Chapter 5: Water Supply

General Comment on SWRCB Delta Flow Criteria

The 2009 Delta Reform Act required that the SWRCB develop a report on flow criteria for the Bay-Delta system to inform development of the BDCP project alternatives. The SWRCB completed this report in August 2010. The SWRCB found that in order to restore and sustain fish species in the Bay-Delta system, it would be necessary to leave a substantial percentage of the unimpaired runoff in the Sacramento and San Joaquin Rivers and in the Delta as Delta outflow. For example, the Net Delta Outflow should be at least 75% of the 14-day average unimpaired flow from January-June each year.

The BDCP DEIR/EIS is inadequate because it fails to present the operations modeling flow data for each alternative as a percentage of unimpaired flow so that the regulatory agencies and the public can determine whether any of the alternatives are consistent with these fish flow requirements. A new DEIR/EIS must be prepared that includes new alternatives and operating criteria that are consistent with the SWRCB Delta flow criteria for January-June (as well as the corresponding Fall X2 criteria) and also presents the modeled flow data as percentages of unimpaired runoff. The new DEIR/EIS must be released for detailed public review and comment.

General Comment – Environmental impacts for first 11 years of BDCP are not analyzed or disclosed

The BDCP DEIR/EIS does not adequately describe how water supply facilities would operate under the BDCP. The DEIR/EIS fails to describe and analyze how the SWP and CVP would operate the first 11 years of BDCP operations, prior to completion of the north Delta intakes and tunnels, or disclose the environmental impacts during that construction period. Some habitat restoration as well as construction impacts, land use changes, and island drainage changes will occur during that period which will have an impact on the Delta ecosystem, water quality, local water supplies, and the Delta as a place. A new Draft EIR/EIS must be prepared that discloses sufficient information for decision-makers and the public to assess the environmental impacts during this initial period, and include actions to avoid or mitigate any significant adverse impacts. The new draft must then be released for public review and comment.

Page 5-46, Line 15

The DEIR/EIS states that "*the (CALSIM) model will still sometimes show **in very dry years dead pool conditions** that appear to prevent Reclamation and DWR from meeting their contractual obligations to these contractors. Such model results are anomalies that reflect the inability of the model to make real-time policy decisions under extreme circumstances, as the actual (human) operators must do. Thus, any reductions simulated due to reservoir storage conditions being near dead pool for these types of delivery should only be considered an indicator of stressed water supply conditions under that Alternative, and **should not necessarily be***

understood to reflect literally what would occur in the future. *In actual future operations, as has always been the case in the past, the project operators would work in real time to satisfy legal and contractual obligations given then current conditions and hydrologic constraints.*"

The DEIR/EIS is inadequate because it fails to model project operations with the BDCP that reflect real world adjustments by the CVP and SWP project operators to dry year conditions and increased demands. MBK Engineers recent review of the BDCP CALSIM modeling also found that the reservoir and export operational rules were not properly adapted to reflect how project operators would adjust to climate change, increase flow requirements, and adding new intakes in the north Delta (Presentation by Walter Bourez on BDCP Operations Modeling Review to Delta Independent Science Board on January 17, 2014). MBK Engineers' analysis suggests that the BDCP modeling underestimates north Delta intake exports and total SWP and CVP exports.

The BDCP modeling of exports with the BDCP alternatives must be redone to include realistic responses by SWP and CVP project operators to the new facilities and fish protection measures. It is especially important to develop new reservoir rule curves when simulating BDCP operations based on the SWRCB flow criteria (Alternative 8). Simulating these increase Delta outflow and Rio Vista flow requirements using existing reservoir rule curves that were tuned to existing facilities and sea level conditions makes no sense. New EIR/EIS analyses must be developed and released for public review and comment.

Appendix 5A: BDCP EIR/EIS Modeling Technical Appendix

Page 5A-B40
SECTION B: CALSIM II AND DSM2 MODELING SIMULATIONS AND ASSUMPTIONS

The DEIR/EIS redefines the SWRCB export/inflow ratio limits in D-1641 for the preferred project Scenarios H1 and H3. In these scenarios, the export/inflow limits are only applied at the south Delta intakes, and the north Delta exports are not included in the Delta inflow or the Delta exports computation.

Conversely, in the Alternative 4 scenarios H2 and H4, this requirement is applied to the total Delta exports by including the north Delta diversion in the Delta inflow and the Delta exports computation used to determine this requirement.

A new DEIR/EIS must be prepared that discloses the additional adverse impacts of this relaxation of the SWRCB's Decision 1641 export/inflow standards and that provides sufficient information to allow the SWRCB to make decisions regarding such a modification of the export/inflow standard and adding new points of diversion for the SWP and CVP. This new DEIR/EIS must then be released for public review and comment.

Chapter 6: Surface Water

Page 6-69, 6-84 and 6-124

Impact SW-4 discusses the project's impacts on existing drainage patterns for the western alignment alternatives 1C, 2C and 6C. The portion of East Contra Costa County the canal would traverse has a surface drainage pattern that flows generally in a north-easterly direction. The Flood Control District has flood protection facilities along Marsh Creek that protects properties east of Marsh Creek from the historic overflows that had inundated this area in the past. However, flooding still occurs from rainwater accumulated from drainage and surface flows east of Marsh Creek and most notably flood the community of Knightsen. Since the 1997 flood, the County and Flood Control District have been working with the community to develop a flood protection and stormwater treatment project. The project proposes to collect stormwater in ditches throughout the Knightsen community and direct them to a constructed wetland that would discharge into No Name Slough. A feasibility study was conducted and several potential sites for a constructed wetland were identified. About two years ago one of the identified sites became available for sale and we have been working towards purchasing that property for the flood protection project, which has been known as the "Knightsen Biofilter". The property is 645 acres located east of Byron Highway, north of Sunset Road and adjacent to the western boundary of Veale Tract. The proposed canal goes right through the middle of this property, eliminating it as a site for a stormwater discharge and treatment facility. These adverse flood control impacts would not only occur during construction of the conveyance facilities (canal) but would persist long after the canal is completed. The BDCP EIR/EIS must be revised to analyze and disclose this impact and mitigate for the loss of this long planned solution to flood protection in the community of Knightsen, and a new DEIR/EIS should then be recirculated for public review and comment.

Page 6-69, 6-84 and 6-124

Alternatives 1C, 2C and 6C include a tunnel under Hotchkiss Tract that discharges into an open channel canal near Rock Slough. It is unclear how water will "drain" from the tunnel into the canal. Will a pump be necessary? The infrastructure features necessary to raise the water from the tunnel to the canal should be identified and their impacts analyzed and any necessary mitigation also identified.

The DEIR/EIS must be revised to describe and disclose in detail all proposed new infrastructure features, and the revised DEIR/EIS released for public review and comment.

Page 6-100, line 32

The discussion of changes in reverse flow conditions for Old and Middle River (Impact SW-3) focuses on changes in OMR with BDCP relative to both Existing Conditions (without Fall X2) and the No Action Alternative, and refers to Figure 6-23. However, the data in Figure 6-23 are the long-term averages of 82 years of data, and these long-term averages mask adverse impacts of OMR flows in individual years.

The discussion of Impact SW-3 in the DEIR/EIS also fails to disclose whether the reverse flows were large and negative in the base case and are only slightly improved with the BDCP. Because the new north Delta intakes and isolated conveyance are being presented as a conservation measure that reduces the adverse impacts of exports from the south Delta, then the BDCP should eliminate any reverse flows lower (more negative) than, say, -4,000 cfs.

The simulated BDCP reverse flow data (OMR) for each year (1922-2003) of certain months is presented in Attachment E, "Analysis of BDCP Project changes to Delta Exports" of this comment letter. These data show that reverse flows in July, August and September would continue to be strongly negative with the BDCP. The OMR values in July and August would get even more negative in some years with BDCP.

The BDCP proposed project is being falsely promoted as a conservation measure because it may reduce exports from the south Delta – which is an explicit admission by the BDCP proponents that the current level south Delta exports do adversely impact fish species. If the proposed project is going to increase reverse flows the adverse impacts of the south Delta exports will increase not decrease and recovery of the key fish species and other resident Delta species will not occur.

The DEIR/EIS is inadequate because it fails to improve conditions in the south Delta and improve the Delta ecosystem. Alternatives that significantly decrease reverse flows (increase OMR) in all months must be developed, analyzed, and the resulting environmental impacts disclosed. A new EIR/EIS must then be released for public review and comment.

Chapter 8: Water Quality

General Comment on Impact Analysis

The DEIR/EIS proposes to make a number of major changes to the current Delta export system and rules under which the Delta is operated. The rule changes include eliminating existing U.S. Army Corps of Engineers limits on inflows to Clifton Court and relaxing the Emmaton water quality standard. The EIR/EIS is inadequate because it fails to analyze and disclose the separate impacts of each of these different aspects of the BDCP project:

- Project conveyance and operations (CM1),
- Habitat restoration,
- Climate change (change in runoff hydrology and sea level rise),
- Moving the Emmaton compliance location (DEIR/EIS page 3-188),
- Adding a permanent operable Head of Old River Barrier (DEIR/EIS page 3-203),
- Elimination of the US Army Corps of Engineers restrictions on inflow to Clifton Court (DEIR/EIS page 3-32),

- Relaxing the SWRCB D-1641 export/inflow ratio limit and existing biological opinion limits on the ratio of San Joaquin inflow to south Delta export,
- Additional storage that is needed for a sustainable Delta solution.

Each of these actions are likely to have significant adverse impacts on key fish species, Delta water quality, the water supply for senior water right holders and water supply reliability in the export areas. These actions will require decisions by different regulatory agencies, including as the SWRCB, U.S. Army Corps of Engineers, the fish agencies, and local agencies. The EIR/EIS will not be able to be used by these regulatory entities without analyses of the individual impacts of each action.

Lumping all these actions together also masks individual impacts and fails to disclose to the public the environmental impacts of each action. DWR has previously released three different EIRs regarding their proposal to implement a permanent operable Head of Old River barrier. The 1990 and 1996 drafts needed to be revised. A new draft was released in 2005 followed by a final EIS/EIR in December 2006. The project has still not been permitted. If this barrier project cannot be justified environmentally on its own merits it should not be slipped in as part of a larger, even more damaging, project.

The analysis of the proposed project includes new intakes and conveyance, new habitat restoration, changes in runoff and tidal elevations due to climate change, moving the compliance point for the Emmaton water quality standard, adding an operable Head of Old River barrier, and eliminating existing restrictions on inflow to Clifton Court Forebay. The proposed project is then compared with an existing base case (which contains none of these) and a No Action alternative (which contains none of these except climate change). This approach masks the impacts of each individual element and fails to disclose to key regulatory agencies and the public the adverse impacts of each element.

The DEIR/EIS is also inadequate because it fails to analyze any alternatives that include a state of the art fish screens for Clifton Court and Jones Pumping Plant. DWR is proposing screening other much smaller unscreened diversions (CM21) yet is unwilling to disclose the potential benefits to key fish species of, e.g., a new screened intake on Victoria Canal or low flow screened intakes.

The January 2014 California Water Action Plan and letters and reports from the Delta Vision Foundation, Delta Stewardship Council and others recommend new storage is needed to be able to meet both co-equal goals under the 2009 Delta Reform Act. However, the BDCP and DEIR/EIS fail to analyze the environmental impacts of new storage. This represents piecemealing of the project which is not permitted under CEQA and represents a failure to disclose likely future operations with the BDCP and disclose and mitigate the likely adverse impacts.

The DEIR/EIS analysis of environmental impacts of the BDCP must be revised to include separate modeling simulations and analyses for: (a) just new conveyance, (b) just new habitat, (c) just new storage, etc., so the separate impacts of each action is fully disclosed and mitigated.

General Comment on Water Quality Modeling

The DEIR/EIS analysis of water quality impacts is inadequate because the decision to disaggregate only some of the monthly CALSIM II flow output into daily flows prior to input into the DSM2 model (DEIR/EIS pages 5A-A15 and 5A-A40). The Sacramento inflows are input as daily data but the exports are still monthly-averages (the same for each day of a given month). In months where a storm occurs late in the month, this disaggregation process can create unrealistic (and not allowed under D-1641) negative daily flows at the beginning of the month and cause unrealistically large spikes in salinity (that often exceed D-6141 standards).

The daily specific conductance (aka electrical conductivity (EC)) data for the No Action Alternative in early November 1981 at Jersey Point and Rock Slough is a good example. The EC at Rock Slough spikes up to an EC of 1,800 µS/cm, equivalent to a chloride concentration of 460 mg/L. This is well in excess of the SWRCB 250 mg/L standard. These errors in the predictive calculations render any comparisons between the baselines and with-projects alternative invalid. This also distorts the potential impacts on water quality, Delta water users and fish.

The BDCP water quality modeling must be corrected and redone using either all daily data as inputs (preferable) or all monthly data. The impact analysis needs to be substantially revised and a new draft EIR/EIS released for public review and comment.

General Comment on Water Quality Impacts on Beneficial Uses

The DEIR/EIS discusses water quality criteria in some detail (Appendix 8A) and lists the SWRCB Bay-Delta water quality standards for EC and chloride. However, degradation of Delta water quality during times of high salinity (typically in the Fall) will not be the only adverse impact of the BDCP project alternatives. Urban water agencies like Contra Costa Water District rely on capturing high quality water when it is available, storing it in Los Vaqueros Reservoir, and using that high quality water to improve delivered water quality when Delta salinities are high (DEIR/EIS page 5A-B7, line 7).

This is analogous to the basic tenant of water resources management, i.e., capturing water during wetter periods for use during drier periods. In fact, this was one of the BDCP's original planning principles (see Planning Principle 2, BDCP March 2009 "An Overview and Update.") http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library_-_Archived/BDCP_Overview_and_Update_-_March_2009.sflb.ashx

The BDCP will reduce the periods of time when there is good water quality in the Delta (e.g., periods when chloride concentrations at CCWD's intakes are less than 50 and 65 mg/L), which

will cause a significant adverse impact on CCWD's delivered water quality and operation of the Los Vaqueros Reservoir.

The City of Antioch historically uses their Antioch pumping plant during periods of good quality water at Antioch. The reduced availability of high quality water at Antioch as a result of the BDCP will cause significant adverse impacts to Antioch (in addition to the existing impacts of the SWP on Antioch's water quality).

The DEIR/EIS and the BDCP proposed project alternatives are also inadequate because water quality degradation in the Delta, during low, medium and high salinity periods, will also impact CVP and SWP contractors. The BDCP is proposing to implement a dual conveyance system. If the quality of the water diverted from the south Delta is significantly degraded, it will also degrade the water conveyed in the Delta Mendota Canal and California Aqueduct to urban water users in the Bay Area and southern California.

The EIR/EIS must develop detailed mitigation measures to avoid or eliminate any degradation of water quality due to the proposed project. The significant adverse water quality impacts acknowledged in the DEIR/EIS are inconsistent with the requirements under the 2009 Delta Reform Act to take measures to improve water quality in the Delta. Both DWR and the federal lead agencies (through Section 205, Public Law 112-74, December 2011) are required to comply with this act. These measures must also protect and extend the periods of time when there is high quality water in the Delta (e.g., chlorides are 50, 65 and 100 mg/L or better.)

General Comment on the Impacts of Aquatic Algae

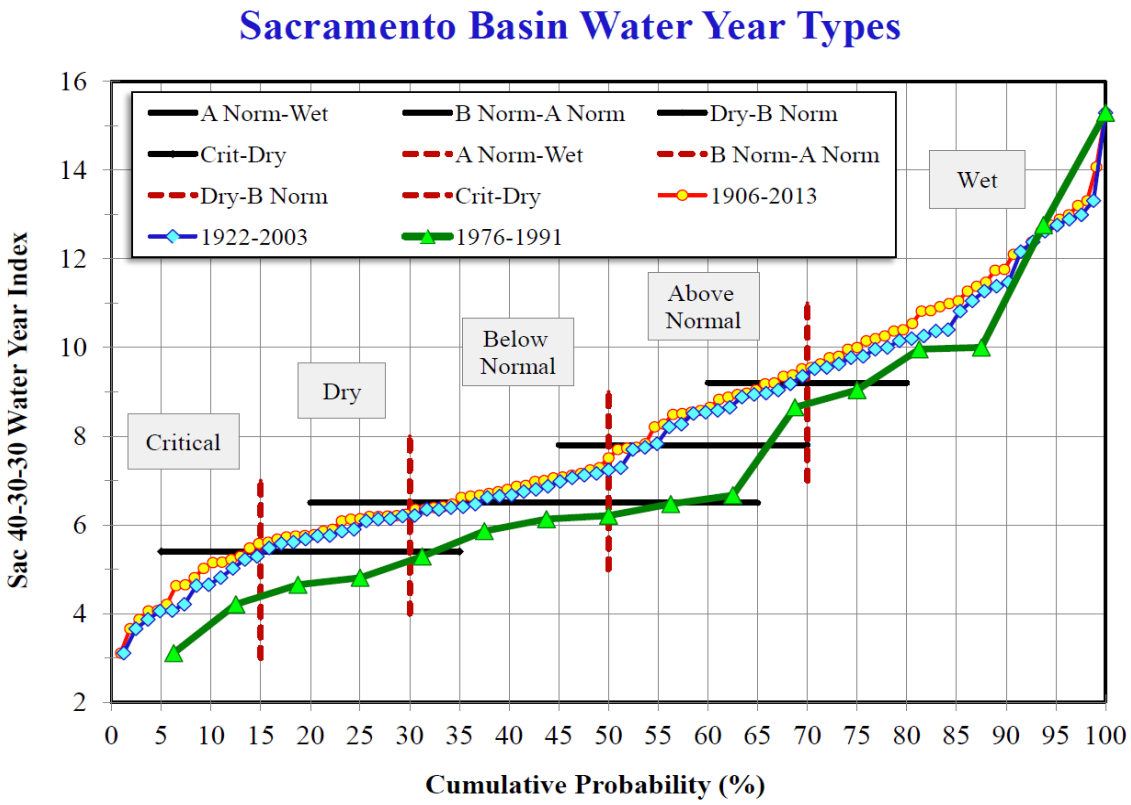
As discussed in Contra Costa Water District's July 25, 2014 comments on the BDCP DEIR/EIS, the DEIR/EIS also fails to analyze the potentially adverse water quality impacts in the south Delta through increased concentrations of aquatic algae. The byproducts of these aquatic algae can be toxic to humans and animals and have noxious tastes and odors. Increases in these byproducts require increased physical removal and chemical treatment by drinking water suppliers. The new south Delta marsh habitat and changes in water operations would create ideal conditions for cyanobacteria. A new Draft EIR/EIS must be prepared that addresses and analyzes these aquatic algae impacts, and discloses, avoids or mitigates all adverse impacts on drinking water quality and other beneficial uses. The new draft must be released for public review and comment.

Page 8-9, Line 17

It would be helpful to note that the original SWRCB water year classifications for the Sacramento Valley were defined in SWRCB Water Rights Decision 1641 such that 30% of historical water years to that time were wet, 20% were above normal, 20% were below normal, 15% were dry and 15% were critically dry. Climate change, however, will likely change those percentages in future years. The water year types for the San Joaquin Valley were based on the same percentages (see page 8-10, line 11).

The EIR/EIS should also disclose that the historical period use for the CALSIM II modeling (1922-2003) is consistent with the longer historical record reported by DWR in their Water Supply Index report (1906-2013). However, the shorter historical period (1976-1991) used by the DSM2 water quality modeling is much drier than the 1906-2013 historical record.

A comparison of the cumulative probabilities for the full historical record (1906-2013), CALSIM modeling (1922-2003) and water quality modeling (1976-1991) is given in the graph below. More than 50% of the years from 1976-1991 are either critical or dry (compared to only 35% for the full historical record.



BDCP DEIR/EIS Appendix 5A includes an August 2013 technical memorandum from DWR staff titled: "CalSim II and DSM2 Modeling for BDCP (16-years versus 82-years)." A bullet in this memorandum page 5A-D208 states that:

> *The distribution of year types in the 16-year period is similar to the distribution in the 82-year period (i.e., a wide range of hydrological conditions is reflected in both data sets).*

It is clear from the probability distributions plotted above that the distribution of year types and Sacramento 40-30-30 indices are not similar. The number of years for the water quality modeling (16) is only 20% of the number of years used for the reservoir, flow and export operations

modeling (82). About 30% of the years in the water quality modeling are critical years, but only about 15% are critical for the reservoir and operation modeling.

The DEIR/EIS is inadequate because it fails to dedicate the same level of detail to analyzing the potential adverse water quality impacts to users of water in and south of the Delta as it does to analyzing water supply impacts. The 16-year simulation period is insufficient to fully disclose the full impacts of the BDCP on Delta water quality.

The DEIR/EIS is also inadequate because it only discloses the drought impacts for a single drought period, water years 1987-1991 (page 8-135, line 23), and fails to disclose the impacts on water quality during other drought periods such as 1928-1934 and 1976-1977. In fact the drought that started in 1987 did not end until 1993 (an above normal year) and 1993 was followed by another critical water year. The period 1987-1991 does not even represent the full extent of the 1987-1992 or 1987-1994 drought.

Given the significance and cost (more than $50 billion) of the proposed project, it is important that water quality be performed for a much longer number of years (i.e., at least 82, and preferably extended through 2013 rather than just 2003). This will provide the necessary information regarding the resilience of the proposed project over a series of drought conditions, not just part of one drought period (i.e., 1987-1991).

The water quality model must be recalibrated to more accurately simulate the water quality at Jersey Point, CCWD's drinking water intakes, Clifton Court, Jones Pumping Plant and the south Delta agricultural stations, and the simulation period should be extended from 1992 through 2013. The revised modeling must then be analyzed in a new DEIR/EIS and released for public review and comment.

Page 8-11, Line 22

DWR is required to reduce the ratio of water exports to inflows by SWRCB D-1641. Jassby *et al.* 1995 is only a second hand citation. The EIR/EIS must also use relevant citations such as D-1641.

Page 8-12, Line 17

CCWD's Los Vaqueros Pipeline also diverts water from **Victoria Canal**, not just Old River at Highway 4. See, e.g., page 8-28, line 1.

Page 8-13, Line 11

Although the maximum intrusion and variability of chloride have been reduced since 1921 because of CVP and SWP reservoir operations (Figure 8-4 and Figure 8-5), salinities in the Delta during the fall have increased in recent years (since 1994). This is due primarily to a shift in export operations away from the spring (to protect fish) to the summer and fall. If Fall X2 is

indeed a factor affecting fish abundance in the Delta, then this degradation of Delta water quality in the fall (increased Fall X2) may be a contributing factor to the Pelagic Organism Decline. Construction of the major storage reservoirs and implementation of Delta water management facilities and operations may have improved water quality from 1921 through the 1980s, but export operations have degraded water quality in the Delta since the mid-1990s.

The EIR/EIS must fully disclose the effects of project operations on Delta water quality in the last 20-30 years, and the subsequent adverse impacts on fish species.

The EIR/EIS and any terms and conditions regarding operation of the BDCP facilities must also take into account the fact that implementation of new Spring X2 standards in 1995 redirected impacts to fish in the Fall. Similarly, additional Fall X2 and spring outflow requirements will redirect the effects of exports and reduced flows to July and August. Although the densities of key covered species in the south Delta are currently not high during July and August, that will likely change and other resident fish species could begin to decline if the SWP and CVP has to increase exports in July and August to make up demand. The EIR/EIS must fully analyze and disclose future impacts of not setting protective fish terms and conditions in July and August.

Figures 8-2 and 8-3

Plot actual 40-30-30 indices and show boundaries between each water year type as horizontal lines. This will indicate whether a given year is, say, dry but almost below normal, or dry but almost critical, etc. Similarly for Fig. 8-3, plot actual 60-20-20 water year indices.

Page 8-129, line 39

As discussed in the DEIR/EIS, changes in Delta water quality can also be attributable to non-construction related actions associated with implementation of other defined conservation measures (CM2–CM22). The DEIR/EIS is inadequate because it fails to assess the effects of implementing CM2–CM22 quantitatively (page 8-137). Even though the other conservation measures are only analyzed at a programmatic level, the adverse impacts of habitat restoration and other measures will be real, e.g., total and dissolved organic carbon, and methyl mercury impacts, and must be mitigated prior to certifying and issuing a Record of Decision for CM1.

Page 8-135, Line 36

As noted in the context of "Calculation of Use of Assimilative Capacity," the Federal and State Antidegradation Policies state that existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected (see section 8.2.1.3 for a full discussion). Existing uses of Delta water include diversions of fresher water (when available) by CCWD for storage in Los Vaqueros Reservoir to meet its delivered drinking water quality goal of 65 mg/L chloride.

Assimilative capacity must not only to be calculated in terms of exceeding adopted SWRCB water quality criteria or objectives, but also relative to other important objectives such as CCWD's 50 mg/L filling goal and 65 mg/L delivered chloride goal.

In addition, the 2009 Delta Reform Act requires actions by the Delta Stewardship Council and others developing Bay-Delta projects to improve Delta water quality (Water Code Sections 85020(e) and 85022(d)(6).) On that basis, there is little or no "*assimilative capacity*" for Delta water and the calculations of assimilative capacity in Chapter 8 are not correct or relevant.

The EIR/EIS must acknowledge that the overstressed Delta, like the San Joaquin Valley, no longer has any assimilative capacity to absorb any further water quality degradation, except during extremely high flow periods. The DEIR/EIS is inadequate because it is inconsistent with the 2009 Delta Reform Act and fails to analyze alternatives that improve rather than degrade Delta water quality.

Page 8-147, Line 15

The assessment locations at Contra Costa Pumping Plant No. 1 and Rock Slough are not always representative of Contra Costa's intakes at Old River and Victoria Canal. They may represent the adverse effect of increases in seawater intrusion (which the BDCP will increase), but the BDCP will also cause buildup of contaminated San Joaquin River water and local agricultural drainage in the south and central Delta. Agricultural drainage will adversely impact CCWD's intake on Victoria Canal differently than it will affect water quality at Rock Slough.

The draft EIR/EIS is inadequate because it fails to analyze, disclose and eliminate adverse water quality impacts on all of CCWD's municipal intakes and other intakes in the Delta (EC, chloride, bromide and the other constituents). It is not sufficient to assume these adverse impacts are represented by the water quality data at Rock Slough. The DEIR/EIS must be revised to analyze and disclose the environmental impacts of the proposed BDCP on all of CCWD's intakes. A new draft EIR/EIS must then be released for public review and comment.

Page 8-153, Line 23

The draft EIR/EIS states: "For the assessment of Alternatives 1–9, the Sacramento River at Emmaton compliance location is relocated to Three Mile Slough near the Sacramento River."

Relocation of the Emmaton compliance location to Three Mile Slough near the Sacramento River would represent a serious degradation of Delta water quality, in direct contradiction to the 2009 Delta Reform Act. Such a relocation would also require a SWRCB water rights action. In order to make a decision regarding relocating the Emmaton standard, the SWRCB will need to rely on a detailed analysis of the environmental impacts of relocating this standard, and will need to determine that there is no harm to other legal users of Delta water.

Contra Costa County opposes any degradation of Delta water quality such as moving the Emmaton compliance location further east. If the BDCP wants to pursue this action, the EIR/EIS must include detailed analyses of the impacts of just moving the Emmaton compliance location, i.e., independent of the individual impacts of new conveyance, installing an operable barrier at the Head of Old River, new habitat restoration and climate change (sea level rise and changed hydrology).

The draft EIR/EIS is inadequate because it fails to disclose the specific adverse water quality impacts of moving the current Emmaton compliance location. The EIR/EIS must be revised to include an analysis of the environmental impacts of the BDCP with and without relocation of the Emmaton standard, provision of full mitigation for all water quality impacts, and a draft EIR/EIS must then be recirculated for public review and comment.

Page 8-157, Line 16

The DEIR/EIS states:

> *Understanding some basic input assumptions for DSM2 is important for interpreting the results and effects analysis, including assessment of compliance with water quality objectives. While DSM2 simulates EC on a 15-minute time-step, the Delta inflow and agricultural return flow inputs, and Delta operations (e.g., Delta Cross Channel gate operations) inputs to DSM2 are on a monthly time-step. Because the DSM2 inputs are on a monthly time-step, the assessment of compliance with sub-monthly objectives (e.g., 14-day running averages) is conducted in terms of assessing the overall direction and degree to which Delta EC would be affected relative to a baseline, and discussion of compliance does not imply that the alternative would literally cause Delta EC to be out of compliance a certain period of time. In other words, the model results are used in a comparative mode, not a predictive mode.*

There appears to be a major problem with the water quality simulations because the monthly CALSIM II flow output, but not the monthly export data, were disaggregated into daily flows for input to the DSM2 model. Where a storm occurs late in a month, this disaggregation process creates unrealistic negative daily Delta outflows at the beginning of the month and lead to unrealistically large spikes in salinity in the DSM2 model output. These spikes often exceed SWRCB D-1641 standards. The DEIR/EIS is inadequate because spikes in the simulations of water quality do not represent real Delta operations and the water quality data are not suitable for disclosing the potential water quality impacts of the BDCP on Delta water users and fish. Considering the potential cost of the BDCP will be over $50 billion, it is reasonable to expect that resources be provided to correct these and other modeling errors.

The DEIR/EIS also argues that using model results in a comparative mode (i.e., subtracting a without-BDCP simulation from a with-BDCP simulation) somehow gives the correct answer even if both simulations are wrong.

If the absolute salinities estimated for the basecase and with-project scenario are inaccurate, then subtracting one from the other will result in erroneous estimates of the net impact of the BDCP. Contrary to what is stated in the draft EIR/EIS, baseline or with-project cases that exceed SWRCB standards are not valid, and considering them in a comparative mode is still not valid.

Considering the incredible cost of the proposed BDCP project, and the apparent significant adverse impacts of the BDCP, it is especially important that the EIR/EIS modeling be accurate in a predictive mode. This will also ensure the water supply benefits of the BDCP are not exaggerated by the modeling.

Because the BDCP modeling estimates that SWRCB water quality standards are being exceeded in the basecase and even more so in the with-project scenarios, the salinity-outflow algorithm in CALSIM II must be underestimating how much Delta outflow and export reductions are needed to meet these standards. If the SWRCB standards are met, as they must be in real life, less water can be exported.

The water quality modeling in the draft EIR/EIS is inadequate for determining the drinking water, irrigation, ecosystem and recreational water quality impacts and possible water supply benefits modeling of the BDCP. The major modeling errors in the DEIR/EIS must be corrected to ensure SWRCB standards are met as required by state law, that the absolute salinities in the base case are consistent with historical data, that all erroneous salinity spikes are eliminated, and all adverse water quality impacts are fully mitigated. A revised draft EIR/EIS must then be recirculated for public review and comment.

Page 8-175, Line 2

The DEIR/EIS incorrectly adds detail to the questions posed in the sample Initial Study checklist in Appendix G of the CEQA Guidelines. The EIR/EIS states that the "*refinements to the language set forth in that document reflects the application of professional judgment and experience to the more general language found in the original."*

In bullet 3 , the DEIR/EIS refers to "***long-term degradation of water quality*** *in one or more water body of the affected environment, resulting in sufficient use of available assimilative capacity such that occasionally exceeding water quality objectives/criteria would be likely and would result in substantially increased risk for adverse effects to one or more beneficial uses."*

The limitation of adverse impacts to long-term impacts is not in the CEQA guidelines. Similarly, CEQA impacts aren't tied to availability of assimilative capacity.

Appendix G simply but clearly asks under VIII. HYDROLOGY AND WATER QUALITY, would the project: (a) Violate any water quality standards or waste discharge requirements, … (f) Otherwise substantially degrade water quality? See page 8-177, Line 8.

The 2009 Delta Reform Act requires the Delta Stewardship Council and, hence, the BDCP, to take actions to improve Delta water quality (as part of meeting the two co-equal goals), so any decrease in water quality caused by the BDCP conveyance, habitat restoration or change in the Emmaton compliance location must be considered to be substantially degrading water quality under CEQA. The EIR/EIS must reject any alternative, such as Alternative 4, which substantially and avoidably degrades Delta water quality.

Bullet 1 (on page 8-176) does refer to assessing adverse impacts "*by frequency, magnitude, and geographic extent*… ." The current version of the EIR/EIS is inadequate because it fails to analyze the reduction in frequency and duration of periods of high quality water in the Delta, e.g., fresher water that is currently available to CCWD for filling Los Vaqueros Reservoir. The EIR/EIS must use thresholds for water quality impacts that are consistent with the 2009 Delta Reform Act, as well as the 1959 Delta Protection Act which requires the State Water Project provide salinity control in the Delta, and not use "*professional judgment and experience"* to weaken the requirements under CEQA.

The EIR/EIS must be revised to analyze and disclose the impacts of the proposed BDCP project on the frequency and duration of periods of higher quality water in the Delta, identify all adverse impacts and degradation of Delta water quality, and provide mitigation for these avoidable project impacts. A revised draft EIR/EIS must then be recirculated for public review and comment.

Page 8-177, Line 36

As discussed above, the Appendix G threshold of *"… substantially degrade water quality*," is not vague, and, in the context of the 2009 Delta Reform Act, requires that degradation of Delta water quality and drinking water derived from the Delta not be degraded by the proposed project. The EIR/EIS must mitigate all significant adverse impacts of the proposed project. A new DEIR/EIS that contains actions to avoid or mitigate all adverse water quality impacts must be prepared and released again for public review and comment.

Page 8-184, Line 39

The DEIR/EIS states: "*For the modeled drought period, long-term bromide concentrations at Emmaton are predicted to increase by about 8%*." This is for the No Action alternative (with Fall X2) relative to the existing baseline under CEQA (without X2). The EIR/EIS must disclose whether this impact is due to shifting the Emmaton compliance location, or otherwise explain this adverse impact.

Page 8-185, Line 13

It is correct that the Mallard Slough (operated by CCWD) and City of Antioch intakes are used infrequently due to water quality constraints related to seawater intrusion. Water of sufficient

quality is only generally available in the winters and early spring of wet and above normal water years. However, in 1983, water of good quality was available for almost the whole year.

The EIR/EIS must analyze and disclose whether the BDCP actions will decrease the frequency and durations of periods of good water quality at these two intakes, i.e., substantially degrade the beneficial use of that water by CCWD and the City of Antioch.

The DEIR/EIS also states that for February–April of wet and above normal water years, the No Action Alternative average bromide concentrations would increase about 5% at the City of Antioch intake and would decrease about 4% at the Mallard Slough intake relative to Existing Conditions (Appendix 8E, *Bromide*, Table 23). Because the Mallard Slough and City of Antioch intakes are in close proximity at the eastern end of Suisun Bay, the salinities at these two stations are highly correlated (as the daily DSM2 EC results confirm). It does not make sense that bromide concentrations at the City of Antioch intake would increase but decrease at Mallard Slough.

The DEIR/EIS is inadequate and still contains a bias in favor of the proposed project. How can a 4% decrease in bromides at Mallard Slough be classified as beneficial when a larger (5%) increase at Antioch is dismissed as not adversely affecting MUN beneficial uses, or any other beneficial use?

The DEIR/EIS is inadequate because it fails to disclose consistent impacts for Antioch and Mallard Slough. This probable modeling error, perhaps due to the disaggregation of monthly flows to daily flows, as well as the focus on long-term averages rather than actual day to day variations, must be corrected and a new draft EIR/EIS released for public review and comment.

Page 187, Line 31

It is correct in general terms that chloride concentrations at Vernalis are inversely correlated to net river flow and the dilution provided by that flow. However, the first major storms of the year typically carry with them a first flush of salt that result in higher salinities at Vernalis for a given flow. It is, therefore, very inaccurate to use a simple best-fit regression of San Joaquin River flow and salinity (in this case, chloride), that does not take into account the first flush resulting from the first large storm of the winter, the differences between the irrigation and non-irrigation seasons, and other effects on salinity at Vernalis.

The DEIR/EIS is inadequate because it relies on an oversimplified regression relationship between salinity and flow at Vernalis. This modeling error must be corrected and a revised draft EIR/EIS released for public comment and review.

Page 238 – Significant and Unavoidable Water Quality Impacts

The DEIR/EIS description of Alternative 1 impacts on water quality describes the adverse impacts on bromide (page 238), chloride (page 246), EC (page 255) and dissolved organic

carbon (page 270) as significant and unavoidable. Similar findings are made in subsequent pages for the other BDCP alternatives. Several water quality mitigation measures are proffered (WQ-5, WQ-7, WQ-11 and WQ-18) but concern is expressed in the DEIR/EIS that "*the effectiveness of this mitigation measure to result in feasible measures for reducing water quality effects is uncertain*."

The proposed mitigation measures are wholly inadequate for eliminating the adverse impacts of water quality degradation caused by the proposed BDCP project on the residents of Contra Costa County and other users of Delta water, including key fish species.

The BDCP project is being proposed by export water users that currently export water from the Delta under junior SWP (and even CVP) water right holders, and that do not have the legal protections of the Area of Origin statutes or 1959 Delta Protection Act. Any adverse water quality impacts due to the proposed project must be avoided (consistent with CEQA, NEPA and the 2009 Delta Reform Act).

The DEIR/EIS is inadequate because it fails to eliminate adverse water quality impacts. A number of Bay-Delta stakeholders have recommended alternatives to the BDCP proponents and consultants that reduce water demands from the Delta, add new storage, increase Delta outflows, or comply with the original BDCP Planning principle to divert more water in wet periods and reduce diversions in dry periods. Capturing new water in new storage during wetter periods would allow some of that stored water to contribute to increased Delta flows during drier periods, as well as producing a net improvement in water supply reliability.

The EIR/EIS must be revised to include analysis of additional alternatives that improve rather than degrade water quality, and a revised draft EIR/EIS released for public review and comment.

Page 8-441, Line 10

Mitigation Measure WQ11: Avoid, minimize, or offset, as feasible, reduced water quality conditions

The EIR/EIS acknowledges that it is not certain that "*the available and existing salinity response and countermeasure actions of SWP and CVP facilities, municipal water purveyors, or Suisun Marsh salinity control facilities would be* ***capable of offsetting the actual level of changes in EC that may occur from implementation of Alternative 4***." Alternative 4 is presented in the draft EIR/EIS as the proposed project. Similar statements are made throughout Chapter 8 with respect to other BDCP alternatives.

The EIR/EIS therefore proposes a series of phased actions **to merely identify possible actions to reduce (not eliminate)** EC and other salinity impacts on Delta beneficial uses (including fish and wildlife). These adverse impacts would be caused by the new isolated facilities (CM1) operations and hydrodynamic effects of tidal restoration under CM4.

CEQA Guidelines section 15126.4(a) (1) (B) provides that "*formulation of mitigation must not be deferred to a future time*." The DEIR/EIS is inadequate because a study to try and identify actions to offset adverse impacts is not an acceptable mitigation measure. The BDCP proponents must commit to not operate the isolated facility, and increasing Delta outflows to eliminate adverse water quality impacts until actions under Mitigation Measure WQ11 are identified and fully implemented or explain why it is not possible to do so. DWR is currently studying the North of Delta Offstream Storage Project (aka Sites Reservoir) and recently released a Preliminary Administrative Draft Environmental Impact Report. http://www.water.ca.gov/storage/northdelta/index.cfm This storage project could be used to release additional flow into the Delta to improve water quality and mitigate the significant adverse water quality impacts of the BDCP proposed project.

CEQA and NEPA require mitigation for significant adverse water quality impacts. However, pursuant to the 2009 Delta Reform Act and good public policy, DWR and Reclamation also have a responsibility not only to avoid degrading Delta water quality, but also to improve Delta water quality. DWR and Reclamation should enter into a binding agreement with key Delta stakeholders that require specific water quality goals, representing net improvements in water quality relative to historical conditions be met. For example, the 1968-1975 period used by U.S. EPA in 1993 to formulate new estuarine habitat standards (Spring X2) under the Clean Water Act. Failure to achieve these legally-binding water quality goals would result in the north Delta intakes being shut down until the water quality goals are again met. The water quality goals could be expressed in terms of required numbers of days per year when the chloride concentrations at given locations must be, say 50, 100, 150 and 200 mg/L or better. The numbers of days per year would vary by water year type. The lower chloride values are necessary to preserve existing periods of time when there is low salinity water in the Delta for agricultural and drinking water use.

A new DEIR/EIS must be prepared that includes actions for mitigating any adverse water quality impacts of the BDCP project, and the new DEIR/EIS released for public review and comment.

Page 8-441, Line 32
Mitigation Measure WQ-11a: Conduct Additional Evaluation and Modeling of Increased EC Levels Following Initial Operations of CM1

Following commencement of initial operations of the new intakes and conveyance system, the BDCP proponents proposed to conduct additional evaluations, and develop additional modeling, to determine whether modified operations could reduce or eliminate the significant adverse water quality impacts of the BDCP proposed project. However, the BDCP proponents state that if sufficient operational flexibility to offset EC increases is not feasible, achieving salinity reduction would not be feasible.

The DEIR/EIS is inadequate because it fails to use operations and water quality models that comply with legal SWRCB Water Rights Decision 1641 standards, and fails to analyze alternatives that **improve** rather than degrade Delta water quality. The DEIR/EIS also fails to

include actions and commitments to avoid or mitigate significant adverse water quality impacts. The BDCP modeling and alternatives must be revised and mitigation measures developed and a new public draft of the EIR/EIS released for public review and comment.

Appendix 3B: Environmental Commitments

Page 3B-42, Line 24

3B.2.1: Partner with Delta Municipal, Industrial, and Agricultural Water Purveyors in Developing Methods to Reduce Potential Water Quality Effects

The DEIR/EIS states that the BDCP proponents commit to assisting in-Delta municipal, industrial, and agricultural water purveyors that will be subject to significant water quality effects from operation of the new intakes and conveyance system and effects on dissolved organic carbon (DOC) due to implementation of the conservation measures. This commitment focuses on the financial costs required to treat or otherwise supply water to acceptable standards. Assistance for construction and/or operation of facilities or the procurement of replacement sources is offered but is limited to reasonable, cost-effective solutions developed with input from the BDCP proponents. This "commitment" would still require thorough investigation and completion of environmental review.

This offer to partner with the adversely impacted stakeholders, and presumably assist with financing mitigation members is appropriate considering the BDCP proponents would be the cause of the adverse water quality impacts. However, development of mitigation measures and commitment to implement these measures is the responsibility of the BDCP proponents. These commitments must be clearly defined prior to certification of the BDCP EIR and issuance of a Record of Decision on the EIS, and mitigation must be in place prior to initial operation of the new intakes and conservation measures.

The DEIR/EIS fails to satisfy mitigation requirements and a new DEIR/EIS that incorporates mitigation and commitments to mitigate must be developed and the new DEIR/EIS released for public review and comment.

Pages 38-28 to 38-29

Environmental Commitments: 38.1.14 Develop and Implement a Fire Prevention and Control Plan As described in various sections of the BDCP, the dual conveyance feature to the project will involve extensive tunnel construction (e.g. 30 miles for two 40 ft. diameter tunnels running from the proposed Intermediate Forebay on Glannvale Tract to the Clifton Court Forebay on the Byron Tract). While EC 38.1.14 commits BDCP proponents to developing a fire prevention and control plan, there is no mention or provision for an emergency response plan to address the very real potential for tunnel, trench, or shaft collapse. This environmental commitment should be expanded to include preparation of an emergency response plan for potential tunnel, trench, or shaft collapse during project construction. It should specifically address the needs and requirements in responding to confined space emergencies since confined space rescue

represents one of the most challenging and dangerous rescue operations undertaken by fire protection agencies and other first responders. Additionally, the emergency response plan should identify how rescue services, equipment, or technical support would be provided in the event of confined space emergency during project construction, and all state and local fire and policies agencies, and other first responders should be consulted in the emergency response planning process.

Chapter 11: Fish and Aquatic Resources

Page 11-58, Line 30

The DEIR/EIS states that: "*While operation of the [North Delta Diversion] NDD intake could affect winter-run Chinook salmon migration conditions, the magnitude of effects is uncertain, and additional modeling assessments are needed to verify that no adverse effects are reasonably likely to occur*."

The DEIR/EIS is replete with similar examples where the effect of operation of the new North Delta intakes are said to be uncertain and that additional modeling assessments are needed to verify that no adverse effects are reasonably likely to occur. If the impacts are uncertain, the proposed project should include addition measures to protect covered fish species, such as increased minimum flow requirements downstream of the new intakes and higher Delta outflows.

The DEIR/EIS is inadequate because it fails to provide a factor of safety to protect key fish species in case the adverse effects of operation of the NDD intake are underestimated. If in the future, it can be shown that the minimum flow requirements and Delta outflow requirements are higher than needed to sustain fish populations, these can be reduced through adaptive management. A new draft BDCP and DEIR/EIS must be prepared that includes higher minimum flow requirements that account for the alleged uncertainty over the adverse impacts of the NDD intake, and released for public review and comment.

Page 11-1533, Line 1

The DEIR/EIS states:

> *Near-field effects of Alternative 4 NDD on Sacramento River steelhead related to impingement and predation associated with three new intake structures could result in negative effects on juvenile migrating* ***steelhead****, although there is high uncertainty regarding the overall effects.*

As discussed above, the initial bypass flows and Delta outflow requirements must be high enough to account for this high uncertainty. A new draft BDCP and DEIR/EIS must be prepared with higher minimum flow requirements and released for public review and comment.

Page 11-1533, Line 12

The DEIR/EIS states:

> *Alternative 4 also includes an Adaptive Management Program and Real-Time Operational Decision-Making Process to evaluate and make limited adjustments intended to provide adequate migration conditions for **steelhead**. However, at this time, due to the absence of comparable facilities anywhere in the lower Sacramento River/Delta, the degree of mortality expected from near-field effects at the NDD remains highly uncertain.*

As discussed above, the initial bypass flows and Delta outflow requirements must be high enough to account for this high uncertainty. A new draft BDCP and DEIR/EIS must be prepared with higher minimum flow requirements and released for public review and comment.

Page 11-1533, Line 17 et seq.

The DEIR/EIS states:

> *Two recent studies (Newman 2003 and Perry 2010) indicate that far-field effects associated with the new intakes could cause a reduction in **smolt survival** in the Sacramento River downstream of the NDD intakes due to reduced flows in this area. …However, until these efforts are completed and their results are fully analyzed, the overall cumulative effect of Alternative 4 on steelhead migration remains uncertain.*

As discussed above, the initial bypass flows and Delta outflow requirements must be high enough to account for this uncertainty. A new draft BDCP and DEIR/EIS must be prepared with higher minimum flow requirements and released for public review and comment.

Page 11-1549, Line 39

The DEIR/EIS states:

> Alternative 4 also includes an Adaptive Management Program and Real-Time Operational Decision-Making Process to evaluate and make limited adjustments intended to provide adequate migration conditions for **fall- and late fall-run Chinook**. However, at this time, due to the absence of comparable facilities anywhere in the lower Sacramento River/Delta, the degree of mortality expected from near-field effects at the [North Delta Diversion] NDD remains highly uncertain.

As discussed above, the initial bypass flows and Delta outflow requirements must be high enough to account for this high uncertainty. A new draft BDCP and DEIR/EIS must be prepared with higher minimum flow requirements and released for public review and comment.

Chapter 15: Recreation

The tunnel alternative (Alternative 4), and western alignment (Alternatives 1C, 2C and 6C) would go through or near Contra Costa County. The Through Delta / Separate Corridors alternative (Alternative 9) would involve multiple flow barriers throughout the central and south Delta which would affect boating and other water recreation.

One recreation facility identified as impacted is Lazy M Marina, a private marina on Italian Slough west of Clifton Court Forebay. The marina is located southwest of the proposed Byron

Tract Forebay, west and northwest of a spoil site, siphon, siphon work area, and east of a work area. Construction would last up to 3 years.

One barge unloading facility would be on the northwest side of Victoria Island along the Old River, less than two miles from Discovery Bay. Peak boat traffic volume is likely high at this location; therefore, if boat passage continued, increased boat traffic congestion could occur during peak use (primarily summer weekends) because boat traffic would be confined to a limited portion of the channel. The Woodward Canal in the vicinity of the barge unloading facilities is a known location for waterskiing and wakeboarding.

The Italian Slough barge unloading facility would be on the west side of Byron Island to the northwest of Clifton Court Forebay, and would occupy more than 400 feet of the riverbank.

In waterways where waterskiing, wakeboarding, and tubing occur, recreation opportunities in the vicinity of the barge unloading facilities would be eliminated during construction.

These adverse impacts to recreation for the residents of Contra Costa County and other Delta counties would be significant and must be mitigated. The BDCP proponents must meet with Contra Costa County staff as soon as possible to discuss these significant adverse impacts and develop appropriate mitigation measures. A revised DEIR/EIS that includes mitigation for these impacts must be prepared and recirculated for public review and comment.

Chapter 19: Transportation

General Comment

DWR will be required to submit for a road encroachment permit(s) whenever work is proposed within County right of way.

General Comment

The applicant shall include the County early in the planning and design process to coordinate property rights, agreements, and to coordinate this project with the County's adjacent capital improvement projects. DWR must address any impacts that could potentially increase costs or constrain the County's future capital road improvements.

General Comment

The applicant will be required to execute an agreement, in addition to the road encroachment permit, that specifies the land rights to be acquired as well as fiscal compensation to mitigate for increased cost related to bridge and road maintenance. The agreement should identify work to be completed by DWR to address impacts to County facilities or how the County will be compensated for impacts related to disruption during construction. This includes subsequent

impacts after construction related to the constraints of operating roadways over bridges or roadways with significant infrastructure bored under existing roadway improvements. Ample time should be provided to execute this agreement(s).

General Comment

The agreement should specify the terms related to the use of county land and the California Department of Water Resources (DWR) responsibility for perpetual maintenance and inspection of the bridge structures and associated approaches that lead up to the bridge. The agreement between DWR and the County must specify the agency responsible for the perpetual operation and maintenance of the bridge, including assumption of all liability. If the County will accept perpetual maintenance and ownership, DWR must address the anticipated increase in maintenance cost that will be experienced by the County.

General Comment

A separate agreement will be executed which addresses the temporary construction impact related to damage to the roadway due to a heavy construction project such as that proposed in the BDCP. It is anticipated that a mitigation fee will be required to return roadway surfaces to pre-project condition.

General Comment

The applicant should perform an automated pre-construction pavement condition survey to be used as a baseline of the pavement's condition just before the project commences. After the project is completed, the applicant should perform an automated post-construction pavement condition survey for comparison per the Metropolitan Transportation Commission's (MTC's) guidelines. The applicant shall either be conditioned to provide a roadway surface treatment and associated repairs as a condition of the road encroachment permit or be required to provide payment to Contra Costa County for the cost of the repairs or to mitigate any degradation of the pavement during construction. The details of how mitigation will be implemented can be itemized in the environmental document for the specific project or through coordination on future agreements between the agencies for this project.

General Comment

Because the duration of construction is estimated to be 10 years, congestion cannot be considered temporary. DWR should provide mitigation measures to relieve construction congestion for the duration of the project.

General Comment

Construction of the bridges and adjacent roadways shall meet County standards and include standard bike lane and pedestrian access that meets the requirements of the Americans with

Disabilities Act (ADA). The bridge structures should provide adequate width for ultimate roadway configurations as identified by the Contra Costa County Public Works Department.

Page 19-35, line 20

The statement, "*All construction related trucks are expected to generate eight trips per day*" is meaningless without documenting how many trucks will be in use.

Tables 22B-5 through 22B-8 (Appendix 22B) give a full comprehensive list (well over 100 pages) of hundreds of equipment types and their anticipated hours of use for the entire project. However, no information is provided regarding how many of each piece of equipment will be used and where exactly within the Plan Area, other than the type of project they'll be used for (i.e. control structures, pipelines, forebays, etc.). Without this additional detail it is not possible to identify the impacts of the project and the EIR/EIS is therefore inadequate and incomplete.

The Traffic Mitigation Program (TMP) required under Mitigation Measure Trans 1-a will be "site-specific," and should consolidate the appropriate information from the referenced tables to indicate; 1) an estimate of how a specific site and transportation infrastructure in the vicinity will be affected, 2) by what types of equipment, and 3) to what degree (duration of days/hours, trips). It would not be reasonable to expect the reader to derive this information on their own based on what is presented in the referenced tables.

General Comment

The characteristics of the project construction impacts are not consistent with what is commonly accepted as “temporary”, namely impermanent and incremental effects on the environment. From a practical standpoint the project proposes impacts which have a duration and intensity which should be considered as permanent and substantial.

Page 19-34, line 22, of DEIR/EIS defines temporary construction activities as "effects limited to those during the 9-year construction period." Contra Costa County rejects the characterization of a 9-year construction period as “temporary”. The impact should be characterized as, effectively, permanent and avoidance and mitigation mechanisms should be developed. Without these changes the EIR/EIS is not accurately disclosing impacts or identifying feasible mitigation measures.

Considering the duration (9 years) and intensity (8 trips per day of an unknown number of trucks) of the construction related impacts the designation of “temporary” is inappropriate. The project proponent is, in effect, initiating a new heavy industrial use which should be treated as a

permanent considering the likely ongoing, substantial effects on the habitability of the community of Byron. The proposed project is likely to be the largest public works project in the state's history. This warrants a concomitant, unprecedented mitigation effort which would preserve the habitability of the impacted communities.

The construction assumptions in Appendix 3C are very broad and do not give an indication as to what degree specific sites will be impacted (i.e. Byron and J4). Again, without this information detail it is not possible to identify the impacts of the project and the EIR is not complete.

Page 19-53, line 32

The DEIR/EIS Mitigation Measure TRANS-1a includes: *"Plans to relocate school bus drop-off and pick-up locations if they will be affected during construction."* Altering school circulation patterns would have to be reviewed but would generally only be feasible or reasonable on a temporary basis. Again, 9 years of impacts should be treated as permanent. An "avoid" mitigation measure would be appropriate in this case.

Since Appendix 3B does not contain environmental commitments specific to school circulation patterns. Assuming MM TRANS 1-a (develop a TMP) will cover this, consultation with County (Public Works and Conservation and Development Departments), the School District, the County Office of Education, and the PTA will be required in the development of the TMP.

General Comment

While the congestion/level of services issues are a concern for the County and what is typically analyzed with a development project, this is not a typical project. The impact analysis and corresponding mitigation measures should not take the form of projects that have impermanent, incremental impacts. The exclusive reliance on traffic analysis protocols commonly used for small projects in this context is inadequate and serves to distort the true impacts of the project.

Considering the surrounding rural community and infrastructure, relative to the scale and intensity of the project and its associated impacts, the traffic impact section is wholly deficient. The volume of trucks needs to be quantified and compared to current volumes and character (% of trucks). The LOS analysis is necessary but is likely a distraction from what the primary impact is likely to be, an intense, semi-permanent industrial activity in a rural/agricultural setting.

The analysis is fundamentally inadequate. A new analysis is needed, one that reflects the broader community impact of the project. As suggested in the original comments, the micro-level LOS analysis and figures serve to obscure the true impacts of the project.

General Comment

Existing traffic impact fee programs rely on traffic forecasts and adopted development plans to form a strategic program of projects and fee levels to address anticipated, incremental growth. The proposed project is well outside these normal, predictable activities. The proposal to participate in these programs suggests that the project is consistent or somehow accommodated in any standing program and has impacts which are incremental in nature. This approach is fundamentally flawed considering the unprecedented nature of the project, the impacts of which are not contemplated in any existing fee program, long or short range plan, or capital improvement program.

The approach in the traffic impact analysis is magnitudes away from being adequate. The project proponent should consider that substantial, secondary infrastructure may need to be constructed (and mitigated for) in order to avoid effectively displacing existing communities. The description of the impacts and mitigation are incomplete without consideration of necessary secondary infrastructure and the associated secondary mitigation measures.

Page 19-164, line 31, and elsewhere

"Alternate access routes" without being defined obscures likely secondary impacts which must be disclosed.

Pages 19-53 and 19-174

"*control for any temporary road closure…*" Please be aware that the road network in the East Contra Costa Area is limited with little redundancy. Again, independent, secondary project supportive infrastructure may be necessary due to the limited ability of the surrounding area to support this industrial activity.

General Comment

There are additional roads which the aqueduct will cross that are not discussed in the DEIR. At a minimum, the roads impacted by the project should be listed in the programmatic DIER. In the future, the project specific DEIR should address each road and the associated impact by the project.

The future project specific DEIR should include information on detours and temporary/bypass roadways established during the construction period. The applicant shall provide detour plans and public notices well in advance of any proposed road closures.

The project specific DEIR should include a drainage study to ensure that the aqueduct does not increase flooding in the area.

DWR shall provide adequate community outreach opportunities and public notification to allow residents the opportunity to comment on potential impacts in their neighborhood. The current plan covers a majority of the state and is too large for the average person to review. Public

information brochures for each area and publications in newspapers will help communities understand the proposed program.

Delta Road from Main Street (old SR4) to Sellers Avenue is under the jurisdiction of the City of Oakley. Delta Road from Sellers Avenue to Byron Highway is under the jurisdiction of Contra Costa County Public Works Department. Revise all tables and other references to reflect the jurisdictional segments.

In general, on Roadway Traffic Operations tables, the "LOS Hourly Volume Threshold" for the various roadway segments should be based on the LOS Classification that is greater than or equal to the "Hourly Volume Range (6AM to 7PM)" . For example, Table 4, "Baseline Roadway Traffic Operations" for Bethel Island Road, classified as a major 2-lane highway, has an hourly volume range of 124 to 330 vehicles/hr, which is just below the LOS C hourly volume threshold of 790 vehicles/hr. But the table shows LOS D, which has an hourly volume threshold of 1600 vehicles/hr. Why was LOS D used?

On page 110, the first paragraph refers to Figure 2A and 2B. These Figures were not included in the document. Are they referring to the Figures in Chapter 19?

Page 19-173, line 22

BDCP proponents, or responsible party designated by BDCP proponents, shall include County in all phases of development of the TMP so it can be properly vetted by staff, appropriate regional transportation agencies, and accepted by the County. This shall be required as part of MM TRANS-1c "Mitigation Agreements."

Page 19-181

There should be a protocol for immediate remediation of already deficient roadways that are degraded to deficient as a result of project related construction activity. Such a protocol can be provided MM TRANS-1a "Traffic Mitigation Plan," and required under MM TRANS-1c "Mitigation Agreements."

Page 19-185, line 19

"*Construction of Alternative 4 would not cross or modify existing railroads*." The proposed canal and siphon in this alternative traverses directly (over or under) Byron Highway/J4 and the Union Pacific Mococo Line. In addition, the expanded Clifton Court Forebay will abut directly adjacent to the aforementioned transportation facilities. Appropriate mitigation should be identified for the impacts of these project elements.

Figure 19-1

This figure should show Byron Airport runways. All figures should be revised to reflect the location of the Byron Airport.

General Comment

The project shall comply with the Contra Costa Airport Land Use Compatibility Plan (ALUCP), Countywide and Byron Airport Policies. The basic function of the ALUCP is to promote compatibility between County Airports and the land uses surrounding them. The BDCP proposes an industrial land use, and should demonstrate how the selected project within the Byron Airport Influence Area complies with the aforementioned policies.

Chapter 22: Air Quality and Greenhouse Gases

The DEIR/EIS proposes to mitigate significant adverse air quality impacts to the residents of Contra Costa County through Mitigation Measure AQ-2c: Relocate Sensitive Receptors to Avoid Excess Health Threats from Exposure to Particulate Matter. DWR proposes to provide any individuals who accept DWR's offer of relocation full compensation for expenses related to the procurement of either (i) temporary housing during the period in which emissions exceed the 24-hour PM10 threshold (estimated to be approximately 8 years) or permanent replacement housing of the same market value as the housing being vacated by the residents or greater.

However, this mitigation measure will only ensure sensitive receptors (local residents) are not exposed to excessive concentrations of PM (PM10 and PM2.5) if the residents choose to accept to DWR's offer of relocation assistance.

Similarly, the BDCP proposed project will also cause Impact AQ-3: Generation of Criteria Pollutants in Excess of the Bay Area Air Quality Management District (BAAQMD) Thresholds during Construction of the Proposed Water Conveyance Facility. Construction emissions associated with Alternative 4 would exceed BAAQMD's daily thresholds for some pollutants for the period of construction, even with implementation of environmental commitments. The highest level of ROG and NOX emissions in the BAAQMD are expected to occur at those sites where the duration and intensity of construction activities would be greatest, including the site of the Byron Tract Forebay adjacent to and south of Clifton Court Forebay within Contra Costa County.

The DEIR/EIS is inadequate because the two proposed mitigation measures, AQ-3a and AQ-3b, only involve reducing emissions elsewhere in the Bay Area so do not help reduce or avoid the local exceedences in the Byron area. These exceedances are related to the PM2.5 emissions associated with the concrete batch plant near Byron Highway. Therefore, this alternative's effect of exposure of sensitive receptors to health threats during construction would be adverse. The BDCP proponents propose Mitigation Measure AQ-12 (Increase Distance between Batch Plant and Sensitive Receptors) to address this effect. The concrete batch plant would be relocated so that there is a minimum of 1,500 meters between the plant and the closest residence.

The DEIR/EIS must be revised to include a binding commitment that the concrete batch plant will not be located less than 1,500 meters from the nearest residence. The revised DEIR/EIS must then be released for public review and comment.

Page 22-251, Line 5

The DEIR/EIS states that alternative 4's PM2.5 emissions during construction would exceed the San Joaquin Valley Air Pollution Control District's (SJVAPCD) thresholds (Table 22-92) and would potentially expose sensitive receptors to significant health threats. Therefore, this adverse impact for PM2.5 emissions would be significant. The DEIR/EIS states that the primary cause of the PM2.5 exceedance is a proposed concrete batch plant that would be located in near Byron Highway. This batch plant would cause exceedances at approximately 20 residences on Kings Island. Mitigation Measure AQ-12 (Increase Distance between Batch Plant and Sensitive Receptors) is again proposed to mitigate these adverse impacts.

The DEIR/EIS must be revised to include a binding commitment that the concrete batch plant will not be located less than 1,500 meters from the nearest residence. The revised DEIR/EIS must then be released for public review and comment.

Chapter 23: Noise

Page 23-67
Table 23-36. Land Use Affected by Equipment Noise from Construction of Conveyance and Associated Facilities, Alternative 1C

Table 23-36 in the DEIR/EIS discloses significant adverse noise impacts from construction of BDCP project facilities in the communities of Knightsen, Discovery Bay and Byron. Two schools would be adversely impacted (Knightsen Elementary and Old River Elementary) along with up to 2851 residential parcels.

The BDCP proponents must provide mitigation for these significant adverse impacts on Contra Costa County residents. The BDCP proponents must meet as soon as possible with Contra Costa County staff to discuss these impacts and propose measures to mitigate these impacts. A new DEIR/EIS must be prepared that avoids or mitigates these significant adverse noise impacts of the BDCP alternatives and released for public review and comment.

Chapter 28: Environmental Justice

Page 28-33, Line 28

The DEIR/EIS states that the overall construction period would be 9 years, and the intensity of the activities in contrast to the current rural/agricultural nature of the area would be substantial.

The intermediate forebay, **Byron Tract Forebay** and several of the work areas adjacent to the southern portion of the conveyance alignment also would generate adverse visual effects for adjacent viewers.

The BDCP proponents must provide mitigation for these significant adverse visual impacts on Contra Costa County residents. The BDCP proponents must meet as soon as possible with Contra Costa County staff to discuss these impacts and propose measures to mitigate these impacts. A new DEIR/EIS must be prepared that avoids or mitigates the construction and visual impacts of the BDCP alternatives and released for public review and comment.

Page 28-57, Line 6

The DEIR/EIS states that the presence of canals and the Byron Tract Forebay would require nighttime lighting for safety, and introduce glare over a large area. Transmission lines would require safety lighting at night so the facility would be visible to aircraft. Because the study area has low levels of ambient daytime glare and nighttime light, light and glare effects related to the presence of bridges, canals, and transmission lines during operation under this alternative and would adversely affect daytime and nighttime views.

The BDCP proponents must provide mitigation for these significant adverse lighting and glare impacts on Contra Costa County. The BDCP proponents must meet as soon as possible with Contra Costa County staff to discuss these impacts and propose measures to mitigate these impacts. A new DEIR/EIS must be prepared that avoids or mitigates these adverse impacts of the BDCP alternatives and released for public review and comment.

Chapter 31: Other CEQA/NEPA Required Sections

Page 31-13
Table 31-1. Summary of Significant and Unavoidable Adverse Impacts

This table in the DEIR/EIS acknowledges that there will be significant health impacts to Contra Costa County residents from Impact AQ-13: Exposure of Sensitive Receptors to Health Threats in Excess of BAAQMD's Health-Risk Assessment Thresholds. There will be an impact of increased cancer risk without mitigation.

The proposed mitigation (AQ-13) is to relocate sensitive receptors to avoid excess cancer risk from exposure to diesel particulate matter. However, as acknowledged in footnote 6, the BDCP proponents cannot ensure that the affected landowner will accept DWR's offer for relocation assistance. If the landowner chooses not to accept DWR's offer of relocation assistance, a significant impact in the form of exposure to excess cancer risk would occur at the receptor location adjacent to Byron Highway. The health impact would remain significant and unavoidable.

The BDCP proponents must meet as soon as possible with Contra Costa County staff to discuss these impacts and develop alternate mitigation measures if it is likely that the landowner(s) will not choose to relocate. A new DEIR/EIS must be prepared that avoids or mitigates these adverse impacts on resident(s) of Contra Costa County and released for public review and comment.

Comments on the BDCP Draft Implementing Agreement (IA)

General Comment on IA

This Implementation Agreement is premature because the BDCP proponents have failed to develop project alternatives that restore and sustain rather than harm key fish species, improve rather than degrade Delta water quality, and increase flows consistent with the recommendations of the SWRCB's 2010 Delta Flow Criteria report and the related Department of Fish and Wildlife flow recommendations.

What is needed is a project that includes new storage to capture surplus flow during wet periods, water use efficiency actions, and reduces exports in drier periods, i.e., reduces reliance on the Delta for export water supplies. Such a project will provide more certainty of success, will not rely on "blank checks" in the form of Decision Trees, adaptive management and as yet unknown and uncertain funding sources. Such a project will require a different Implementing Agreement than the one that has been developed to date.

An IA is intended to define the signatory parties' responsibilities and provide a common understanding of actions to minimize and mitigate the effects on species and their habitats from a proposed project. The agreement also protects the permittees from future unknowns or a worsening of conditions (unforeseen circumstances, no-surprises rule) over the life of the permit, which in the BDCP case is 50 years.

In the BDCP IA, information on key components of BDCP implementation, including assurances to fish agencies that habitat mitigation will happen and assurances to contractors relative to water supply and funding assurances become important, among other things. A governance structure for implementation operations and cost coverage are also key elements warranting close scrutiny, and will be reflected in the County's comments.

On the governance issue, the Counties and other impacted local agencies continue to be relegated to a role well outside any decision-making bodies, whereas the SWP and CVP export water contractors (Contractors), as permittee/ applicants are on all but one of the decision bodies. The IA more clearly vests power to bodies upon which the Contractors sit. The IA allows its supporting agencies, which include the Contractors, to use their respective authorities, providing them with the ability to implement aspects of the Plan, further blurring the line between agency oversight and applicant/permittee interests. There are four primary decision bodies; the Authorized Entity Group (AEG), the Permit Oversight Group (POG), the Adaptive Management Team (AMT) and to a lesser degree, the Real-time Operations Team. The formation of an Implementation Office with Program and Science Managers are also invested with some authority, (hired by and reporting to the AEG). The Contractors sit on all of the decision making bodies except the POG, which is made up of the state and federal wildlife agencies, whose charge is primarily that of implementation monitoring. While the fish and wildlife agencies retain ultimate authority to make decisions if there is a dispute, the IA sets up various levels of preliminary decision making and if the applicants/permittees and the agencies agree, it is not elevated to the POG.

In the IA there appears to be a shift in, or perhaps a more clear delineation of responsibility among these groups, with much of the responsibility taken on by the AMT, with decision authority for decision tree matters (i.e. outflows during critical periods) and changes to the Conservation Measures, (or CM's). There is a clear delineation between the Tunnels (CM1), operations and the other Conservation Measures (2-22) relative to authorities, level of implementation certainty and funding. There is little or no ability for a public presence at meetings of the decision bodies. This is an obvious concern. The Stakeholder Council, where the County would be relegated to one of more than 36 seats, would be public. The Stakeholder Council can advise and comment on Plan Implementation to the Program Manager (rather than directly to any of the decision bodies). A technical facilitation subgroup would be allowed some limited interaction with the Implementation office and the AMT on specific scientific and technical matters.

The IA appears to be weighted toward assurances for the Contractors at the expense of the wildlife agencies, Delta water users and the environment (for which the County and other Delta Counties will be required to give up lands). While it is acknowledged that a number of the clauses in the IA are standard for an HCP IA, the BDCP is unique due to size, scope and separation of impact and benefit areas, among other things. The Contractors seem to have limited liability and a 50-year permit and the wildlife agencies an uncertain programmatic conservation program with insufficient funding to get the job done. Only a portion of funding is assured by the Contractors for the programmatic Conservation Measures. The conservation strategy is very broad in the Plan, providing much flexibility in implementation (and resulting in little certainty and perhaps weak protections as a result), and the IA allows that changes to CM's do not require changes to the Plan or permits. Changes to CM's would be handled by the AMT (which has authority to change, eliminate CM's). In addition, the Contractors would not be on the hook for additional costs, the state (taxpayers) would be required to pay for changes other than those in the IA. There is language indicating that failure to achieve a biological goal would not constitute noncompliance with the Plan (if no more than a minimal effect on a species).

From an operations standpoint, the draft IA would allow permitting for the full range of outflow scenarios (allowing for the full range of north Delta diversions) outlined in the Plan and the AMT would have jurisdiction over decision tree matters, dealing with outflow during critical periods. The adaptive management program would be in effect as soon as the BDCP is permitted, outflow ultimately determined when tunnels operational.

The IA says the permit(s) can be revoked, yet this seems unlikely, given programmatic nature and uncertainty of the Plan's conservation measures, the inherent decision tree and adaptive management processes, legal conservation plan out-clauses (such as changes/unforeseen circumstances and no surprises rules), lengthy meet and confer processes embedded in the governance structure and opportunities for remedial action.

Where many of these clauses are in smaller, regional conservation plans, it seems inappropriate given the size and scope of this plan, the importance of the Delta to the state and significant changes in circumstances that are a given over a 50-year timeframe.

Page 2

It appears that Reclamation needs to take more of a leadership role in making decisions on implementing the BDCP. It is their CVP water, rather than the contractors' water, and CVP operations and conveyance of CVP water are major components of the BDCP. The IA needs to be renegotiated to meet the needs and legal requirements of Reclamation and to give Reclamation a leadership role in implementing the BDCP.

Page 3

Term 2.1.8 states: *The overall goal of the BDCP is to restore and protect ecosystem health, water supply, and <u>water quality</u> within a stable regulatory framework. To accomplish this goal, the Plan: ...*

However, the subsequent bullets say nothing about improving water quality in the Delta. The 2009 Delta Reform Act also calls for improvement of water quality in the Delta. The BDCP must include actions that improve, rather than degrade Delta water quality, and the IA must include terms to ensure that these actions are implemented. The Draft IA is inadequate because it fails to address implementation of measures to improve water quality in the Delta.

Page 5
3.7 Authorized Entity Group

The AEG will be established to provide program oversight and general guidance to the Program Manager regarding the implementation of the Plan. The Authorized Entity Group will consist of the Director of DWR, the Regional Director for Reclamation, a representative of the participating SWP Contractors, and a representative of the participating CVP Contractors, or their designees. The AEG must also consist of representatives of the five affected Delta counties, who must play a role in oversight and guidance of the proposed actions.

Page 14
4.2.2 The Sacramento-San Joaquin Delta Reform Act of 2009

This section contains a predecisional statement that CDFW has found that the BDCP satisfies the requirements of the Sacramento–San Joaquin Delta Reform Act of 2009, Water Code sections 85300 *et seq*. This section further states that, specifically, as required by Water Code, Section 85320, CDFW has found:

- *The BDCP complies with Chapter 10 (commencing with Section 2800) of Division 3 of the Fish & Game Code such that the BDCP can be approved as an NCCP.*
- *The Environmental Impact Report (EIR) prepared for the BDCP complies with Division 13 (commencing with Section 21000) of the California Public Resources Code, including by providing a comprehensive review and analysis of all of the following: …The potential effects of each Delta conveyance alternative on Delta water quality.*

The BDCP DEIR/EIS includes a review and analysis of a number of very similar alternatives so it is not comprehensive or useful for addressing the water and ecosystem needs of California. The DEIR/EIS actually finds that the impacts on Delta water quality are significant and adverse.

Apparently, the Cal Department of Fish and Wildlife has already made Draft findings that the BDCP complies with the 2009 Delta Reform Act. However, the Draft BDCP proposed project fails to satisfy the requirements of the 2009 DRA. The BDCP analyses in the Plan and the DEIR/EIS show the north Delta intakes will harm covered species by reducing flows downstream of the intakes, increasing predation and reduction survival. The new intakes will also change the olfactory cues for returning salmonids, and reduce the dilution of contaminants in the Delta. These adverse impacts are all disclosed in the Draft Executive Summary for the BDCP for each species. An intake and conveyance alternative that harms key fish species is not consistent with the 2009 Delta Reform Act.

The BDCP proponents are planning on increasing south Delta exports in many cases. DWR is assuming that the current limits on inflow to Clifton Court Forebay will be eliminated for BDCP, and DWR is not planning on screening the largest unscreened intake in the Delta, Clifton Court Forebay. However, the Conceptual Engineering Reports show a screened intake to Clifton Court Forebay off Victoria Canal is feasible. The modeling data show south Delta exports will increase, in the driest months (from 11,300 cfs up to 14,400 cfs). The modeling of juvenile Delta smelt show entrainment will increase not decrease (Chapter 11, Figure 11-4-1).

The BDCP DEIR/EIS also acknowledges the project will cause significant adverse impacts on Delta water quality, which will also adversely impact aquatic species. It is not sufficient just to study the potential effects of each Delta conveyance alternative on Delta water quality. The BDCP project must not only avoid or mitigate all significant adverse impacts but contribute to improving Delta water quality. The current proposed project is definitely not consistent with the 2009 Delta Reform Act.

It is not sufficient to merely review water quality effects, under CEQA and NEPA, the DEIR/EIS should have also contained measures to avoid and mitigate those adverse water quality impacts, or develop new alternatives that avoid water quality impacts and result in a net improvement of not only water quality but also covered fish populations and water supply. The DEIR/EIS does none of this, despite the CDFW's conclusory "draft" findings.

Page 23

The section on Conservation Strategy (10.0) states that the "Conservation Strategy has been designed to achieve the BDCP's overall goals of **restoring and protecting** ecosystem health, water supply, and **water quality in the Delta** within a stable regulatory framework."

This is not correct. The BDCP DEIR/EIS in Chapter 8 and elsewhere acknowledges that it will cause significant adverse impacts to water quality in the Delta, in direct conflict to the 2009

Delta Reform Act from which the stated language is derived. The Implementing Agreement is premature because the BDCP and the Conservation Strategy also fail to restore export water supply (exports will reduce relative to existing conditions) and threatens the water supply for senior water right holders in the Delta and upstream.

The Draft IA must be withdrawn until such time as a viable BDCP project and conservation strategies are developed.

Page 27

10.2.2.2.1 Real Time Operations Team

This section states that the voting members of the Real Time Operations Team may, by consensus, expand the membership of the RTO Team. This means that the non-voting members from the SWP and CVP contractors could be made voting members at any time. This provides an opportunity to further shift the power and decision making to the SWP and CVP contractors. The AEG must also consist of representatives of the five affected Delta counties, who must play a role in oversight and guidance of the proposed actions.

It is also important that other affected parties have a voice and a vote on the RTO team, especially potentially impacted senior water right holders and in-Delta representatives. The RTO must, at a minimum, include voting members with technical and operational background representing senior water right holders and in-Delta representatives to be chosen by one representative each from NCWA and CCWD, and one representative representing Central Delta Water Agency and South Delta Water Agency combined.

Page 36

10.3.6 No Requirement for Plan or Permit Amendment

This section states that a change to a Conservation Measure or to a biological objective shall not require an amendment to the BDCP nor to the regulatory authorizations issued pursuant to the Plan, provided such change is adopted through the adaptive management process ... and in a manner consistent with the adaptive resources available for such changes ...

This could result in a decision to allow reduced Delta outflows or other actions that would further degrade Delta water quality beyond the significant adverse impacts already intended by the BDCP proponents. Any proposed changes to a Conservation Measure, especially CM1, that would further adversely impact Delta water quality or the water supply for in-Delta and senior upstream water uses must require a publicly noticed hearing before the AEG. Membership on the AEG for representatives of the Delta counties is essential for many reasons; including oversight over changes to Conservation measures that could further adversely impact the Delta.

Page 44

12.1 Process to Respond to Changed Circumstances

In the event of changed circumstances that require significant modifications to operation of CM1 and the other Conservation Measures, the Implementation Office shall not only notify the Authorized Entity Group, the Permit Oversight Group and the Stakeholder Council of the change in circumstances, but the matter must be brought before the AEG for their approval of the proposed changes to the operating rules and Plan. The AEG must also consist of representatives from the five affected Delta counties, who must play a role in oversight and guidance of the proposed actions.

Page 46

13.1.1 Obligations of the Authorized Entities

This section states that the Authorized Entities will contribute towards all other Conservation Measures and related program elements, as described in the column "Amount Paid by Contractors" in Table 8-41 in Chapter 8.3.4.1. It also states the Authorized Entities shall not be obligated to provide, either directly or through another agency, funding to implement any other elements of the Plan.

The goal of CMs 2-21 and habitat restoration is to reduce the amount of water the export water contractors need to leave in the Delta to restore and sustain key fish species. The main benefit is an increase in the amount of water that can be exported, relative to what SWP and CVP could otherwise export under their D-1641, biological opinion, 1959 Delta Protection Act, and 2009 Delta Reform Act obligations. The state, federal government and the public should not be required to pay for CMs 2-21 or water purchased for enhanced environmental flows, when the real beneficiaries are the Authorized Entities. The Authorized Entities must pay all, or at least most, of the costs of CMs 2-21, not the 10% envisaged in the Draft BDCP Chapter 8.

Page 47

13.2 Inadequate Funding

If circumstances regarding insufficient funding of the BDCP warrant action, that action should be a prohibition on use of the north Delta intakes and more protective limits on the use of the existing south Delta export facilities, until such time as adequate funding is made available. The IA allows for the possibility of revocation of one or both of the Federal Permits and the state permits if inadequate funding is provided. However, the IA should also make clear that operation of CM1 is contingent on adequate funding by the beneficiaries (the export water contractors) for all elements of the Plan, and of course, recovery of the fish populations. The additional possibility that use of the new facilities will be prohibited would serve as a necessary incentive for fully funding the project.

Page 53

14.4.2.1 Interim Obligations upon a Finding of Unforeseen Circumstances under the ESA or NCCPA

The draft BDCP is highly flawed and many of the assumptions and measures in the Draft Plan have been found to be insufficient or uncertain by scientific panels of experts that reviewed earlier versions of the BDCP. It is highly likely, with the current proposed project, that a Fish and Wildlife Agency will continue to find problems with regard to a Covered Species and that additional measures are required for the Covered Species as a result. Additional measures will be necessary. The IA should not absolve the Permittees of the responsibility for implementing additional measures unless a viable BDCP is developed that has a greater certainty of success.

Page 58
15.3 BDCP Authorized Entity Group

The AEG must also include representatives of the parties most likely to be impacted by the proposed BDCP project, namely, the Delta Counties.

Page 62
15.6 BDCP Stakeholder Council

It is appropriate, and necessary, to include representatives of the counties of San Joaquin, Sacramento, Solano, Yolo, and Contra Costa on the Stakeholder Council. However, the SC has no authority or decision making powers. The Authorized Entity Group has that power and must include as voting members, representatives of the Delta Counties.

- Contra Costa County agrees with the following points made by the City of Antioch regarding the Draft Implementing Agreement.

Antioch Letter

1. The IA lacks any operational safeguards or criteria to protect senior water rights holders such as Antioch who will be impacted from BDCP operations as the result of increased salinity. For example, the Decision Tree process only applies to outflows to satisfy biological objectives. The lack of mitigation measures in the BDCP and the lack of any specific operating mitigation criteria in the IA appear to indicate that the BDCP process has no intent to mitigate adverse impacts to senior water rights now or in the future.

2. The IA and the BDCP appear to be attempting to change water rights priorities within the Delta. The vast majority of water to be diverted by the BDCP will go to agricultural uses - not to environmental uses. The BDCP agricultural diversions have lower priority rights to water than does Antioch, which provides drinking water to over 106,000 residents. The BDCP's lower priority agricultural diversions, however, will significantly impact Antioch's ability to use its higher priority rights to provide water for drinking purposes as well as for health and safety

purposes within the City. By failing to provide any mitigation or operating criteria to protect Antioch's superior water rights, the IA is effectively attempting to give the BDCP's junior water rights higher priority than Antioch's superior water rights.

3. The Five Year and Annual Operating Plans required in the IA do not require the protection or consideration of the impacts on non-BDCP-related in-Delta water quality. The IA fails to explain (or set forth operational criteria) how BDCP planned actions to meet export water supply and BDCP-related ecosystem goals will meet the State Water Resources Control Board ("SWRCB") water quality requirements under various SWRCB decisions.

4. The IA fails to incorporate any specific funding and operational provisions for mitigation to protect and sustain non-BDCP-related in-Delta water quality, beneficial uses, or non BDCP-related public trust resources. Again, this indicates that the BDCP does not intend to mitigate such impacts at all.

5. The IA provides certain guarantees and assurances to BDCP participants and beneficiaries regarding flows and water that could potentially conflict with the BDCP's requirements to comply with other applicable laws such as the Delta Protection Act and the co-equal goals of the Delta Reform Act. The IA commits only to operating to address covered species and provides no commitment or operational provisions to comply with other legal requirements with respect to water supply and water quality such as protecting in-Delta water supply and rights.

6. The IA does not provide adequate funding assurances for habitat conservation, restoration and management, which are the primary measures to protect and recover the specified covered species. Instead, the IA provides a broad and non-binding outline of potential funding sources including alleged funding sources that are "generally available" and potential future state and federal bonds and grants. The IA fails to specify how funding would be collected and secured from the contractors. Given the projected construction and operation costs of the BDCP conveyance and habitat restoration, the IA needs to provide firm funding commitments and sources of such funding. It would certainly be ironic and unjust if in-Delta water users adversely impacted by the BDCP end up having to pay portions of operational and restoration costs via bonds or administrative fees.

7. The IA governance structure includes project beneficiaries (e.g. contractors) in position to make critical determinations of implementation and operation. This creates a conflict of interest. At the same time, the governance structure fails to provide any consultation with potentially impacted, non-BDCP parties and no administrative remedies for those parties (unless such parties agree to become part of the BDCP process).

8. The Bureau of Reclamation operates the largest export project and is not a party to the IA. And yet, Reclamation has specified duties under the IA. Reclamation's compliance with its obligations under the IA is a yet to be disclosed "other" agreement. It is simply not possible to properly assess and comment on the IA, the BDCP and the EIRIEIS without having all applicable implementation documents provided for review.

9. The SWRCB needs to be a significant part of BDCP's governance structure given that BDCP operations will impact Delta water quality, non-covered public trust resources and downstream beneficial uses such as senior water rights. There needs to be a streamlined administrative process to allow impacted Delta landowners, recreational users, water right holders and others to address such impacts directly to the SWRCB.

Attachment E

Analysis of BDCP Project Changes to Delta Exports

One of the alleged benefits of the Bay Delta Conservation Plan (BDCP) is that it will reduce the damaging effect of exports from the south Delta. There is general agreement that the location of the south Delta export locations (Clifton Court Forebay and the Jones Pumping Plant) cause reverse flows that direct fish toward the export pumps and adversely impact fish populations.

Another feature of the BDCP highlighted by its proponents is that it will operate according to a Big Gulp, Little Sip principle. This principle was defined in the original planning principles of the BDCP Steering Committee (BDCP March 2009 "An Overview and Update") as to "***Divert more water in the wetter periods and less in the drier periods***."

An inspection of the monthly Delta export data from the BDCP modeling studies suggest that neither of these alleged benefits of the BDCP is actually true. Currently, the maximum rate of exports from the Delta during drier periods is about 11,300 cubic feet per second (6,680 cfs at the SWP export facility plus 4,600 cfs at the CVP pumps.). The modeling data however, show that in many months, the combined SWP and CVP exports from the south Delta could be as high as 14,400 cfs. This is an <u>increase</u> in south Delta pumping of 3,100 cfs.

The same modeling simulations of the BDCP project alternatives suggest that the BDCP proposed project will <u>increase</u> rather than decrease total SWP and CVP exports during periods of low Delta outflow (drier months). During periods of high Delta outflow, there is no significant increase in export diversions, in large part because farmers' fields are already wet and south-of-Delta reservoirs quickly fill.

Increasing exports from the Delta in the dry months is also inconsistent with the 2009 Delta Reform Act (Water Code Section 85021), which states that 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. The BDCP proposed project includes no actions to improve 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.

The following bolded bullet points outline specific concerns regarding the BDCP project on Delta Exports.

- **Changes in South Delta Exports with BDCP Proposed Project**

The diversion of water into Clifton Court Forebay is limited by a U.S. Army Corps of Engineers permit. The diversion rate is restricted to a three-day average inflow of 6,680 cfs and a daily average inflow of 6,993 cfs. From December 15 and March 15, the inflow can be increased by one-third of the San Joaquin River inflow to the Delta at Vernalis (for flows equal to or greater than 1,000 cfs.)

The SWP also has a permit to export an additional 500 cfs between July 1 and September 30 to replace pumping reductions earlier in the year to benefit Delta fish species. This increases the SWP limit during the summer to 7,180 cfs.

The CVP export capacity at Jones Pumping Plant near Tracy is about 4,600 cfs, so exports from the Delta are generally restricted to a total of 11,280 cfs, or 11,780 cfs from July-September.

It is not obvious when reading the DEIR/EIS that the BDCP proponents are proposing to eliminate the existing U.S. Army Corps of Engineers limits on inflow to Clifton Court Forebay (DEIR/EIS page 3-32. line 12). The BDCP proponents also assume in the DEIR/EIS that an additional limit on exports imposed by the 2009 NMFS Biological Opinion, the San Joaquin River inflow/exports ratio for April and May would no longer apply. This limit was assumed for the BDCP baseline condition cases (existing biological conditions), but was not included in the BDCP operations scenarios (Draft BDCP, page 5C.2-4, line 7).

Both of these relaxations of existing limitations will allow an increase in exports from the south Delta. As will be shown below by plotting monthly-averaged exports as a function of monthly-averaged Delta outflow, and despite the BDCP purpose of improving ecosystem conditions by reducing exports from the south Delta, the BDCP proponents are planning to significantly increase exports from the south Delta in many months. Contrary to the "Big Gulp, Little Sip" concept, most of the increases would occur during the driest months when Delta outflows are the lowest.

Figure E-1 shows the historical Delta exports as a function of Delta Outflow for the years since the Bay-Delta Accord and SWRCB Water Rights Decision 1641, and the earlier period (1979-1994) after adoption of SWRCB Water Rights Decision 1485. D-1485 introduced minimum Delta outflow requirements and these were made even more stringent in D-1641. The south Delta exports are limited to 11,280 cfs with an extra 500 cfs allowed July-September. The additional allowance based on San Joaquin inflow to the Delta (December 15 – March 15) typically does not apply until Delta outflows are much higher than 25,000 cfs.

Figure E-1 and subsequent figures were prepared using BDCP modeling data made available by DWR. The data are monthly exports and Delta outflows from CALSIM modeling studies for the BDCP DEIR/EIS for the early long term (ELT). South Delta and total Delta exports are presented in the DEIR/EIS as 82-year averages for each month of the year (e.g., Figure 5-21), or as average annual exports for different water year types (e.g., Figure 5-18 and 5-19). The data plots in this attachment are examples of more detailed types of data presentation that should have been provided in the DEIR/EIS to fully disclose the potential environmental impacts of the BDCP alternatives.

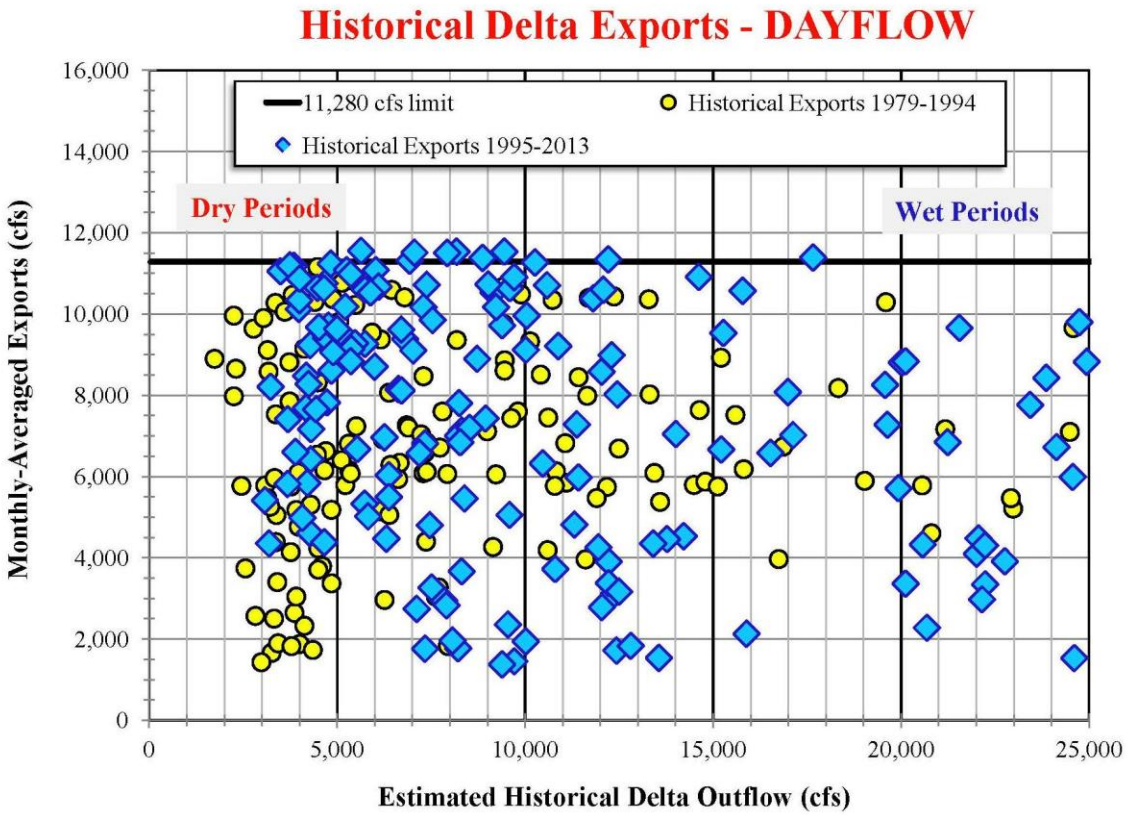


Figure E-1: Historical Delta exports as a function of Delta Outflow for the years since the Bay-Delta Accord and SWRCB Water Rights Decision 1641, and the earlier period (1979-1994) after adoption of SWRCB Water Rights Decision 1485. D-1485 introduced minimum Delta outflow requirements and these were made even more stringent in D-1641. Combined SWP and CVP exports from the south Delta are typically limited to 11,280 cfs, but an extra 500 cfs can be diverted

Figure E-2 shows the south Delta export data from an existing basecase simulation (with Fall X2) for the BDCP, also as a function of Delta outflow. This simulation was based on historical hydrology for water years 1922-2003. However, in this DWR planning study, the level of development and demands are the same for the whole 83-year period. Figure E-2 shows similar results as the historical data (Figure E-1).

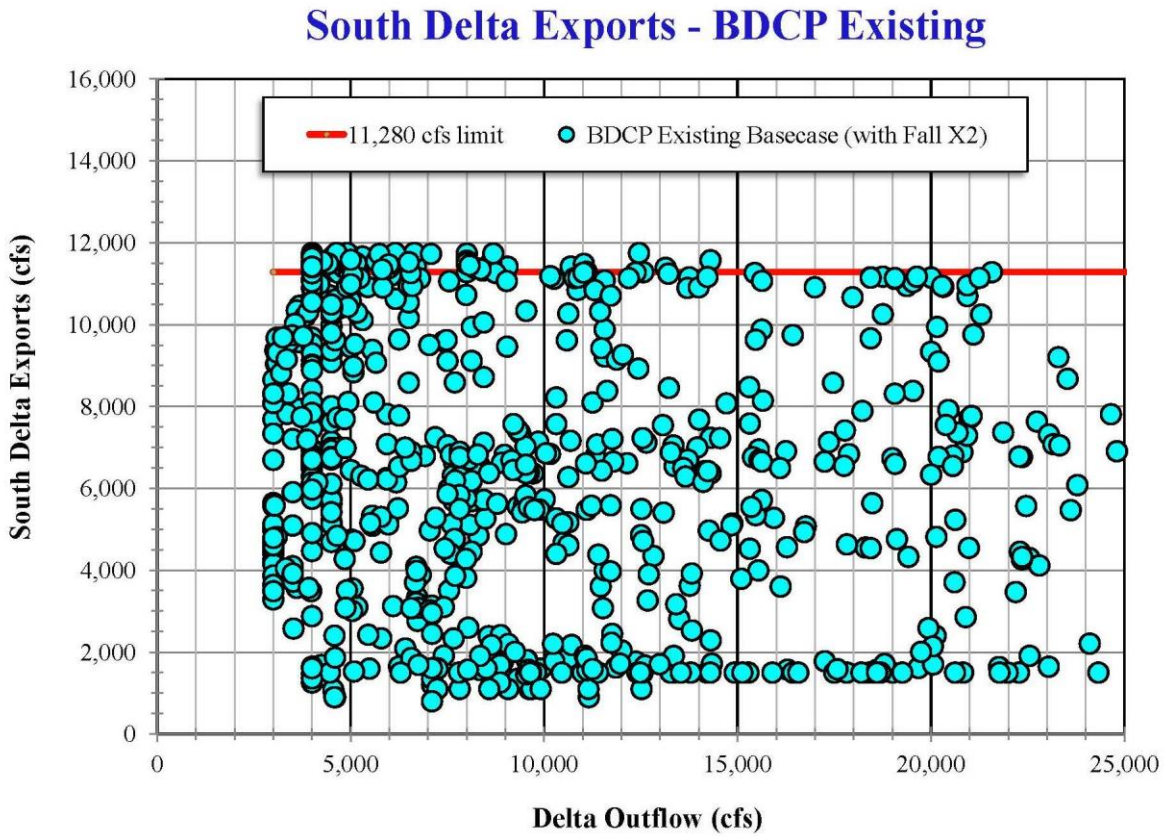


Figure E-2: South Delta exports as a function of Delta Outflow for a BDCP existing base case (with Fall X2) for outflows up to 25,000 cfs. The BDCP is being promoted as improving the Delta ecosystem by reducing exports from the south Delta. The BDCP proposed project, therefore, should be expected to reduce south Delta exports well below 11,280 cfs especially during drier months when fish species are stressed the most.

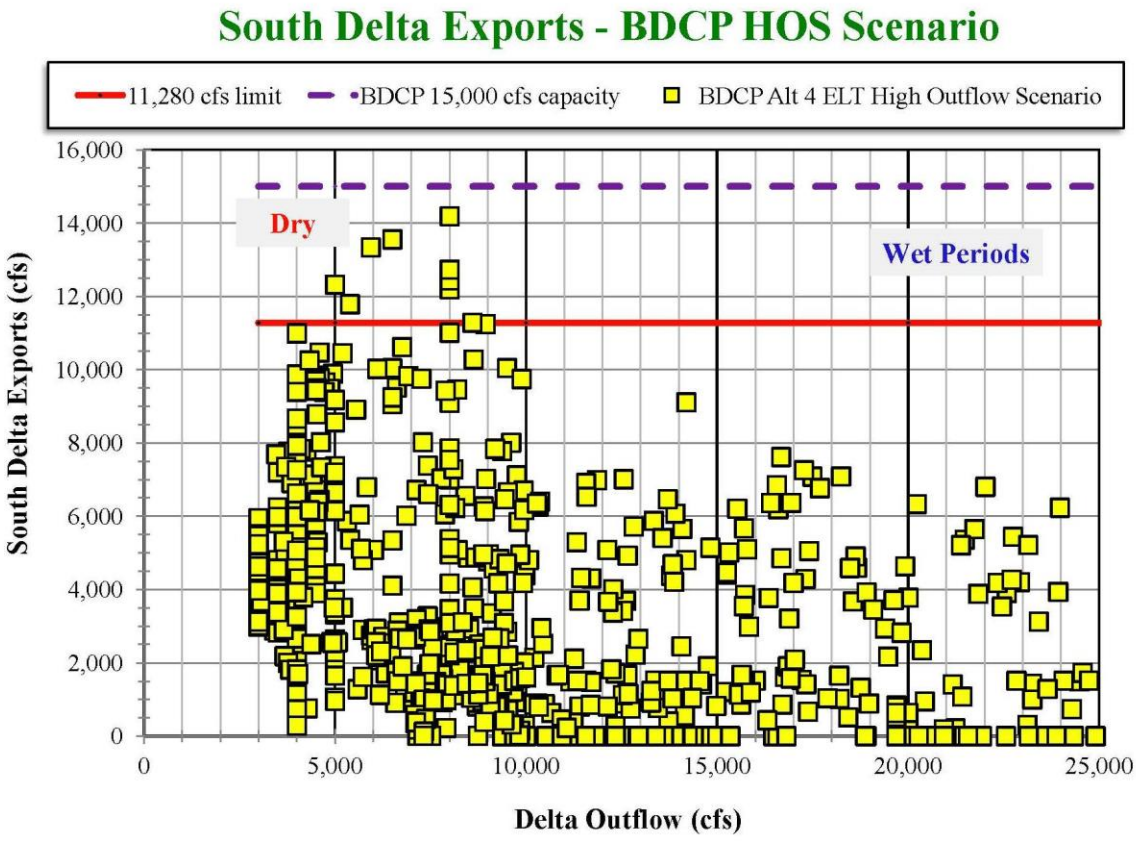


Figure E-3: South Delta exports as a function of Delta Outflow for BDCP Early Long Term Alternative 4 High Outflow Scenario for outflows up to 25,000 cfs. A goal of the BDCP is to improve ecosystem conditions in the south Delta by reducing exports from the south Delta. The BDCP proposed project may reduce south Delta exports in wetter months but significantly increases south Delta exports in a number of drier months when fish species are already stressed.

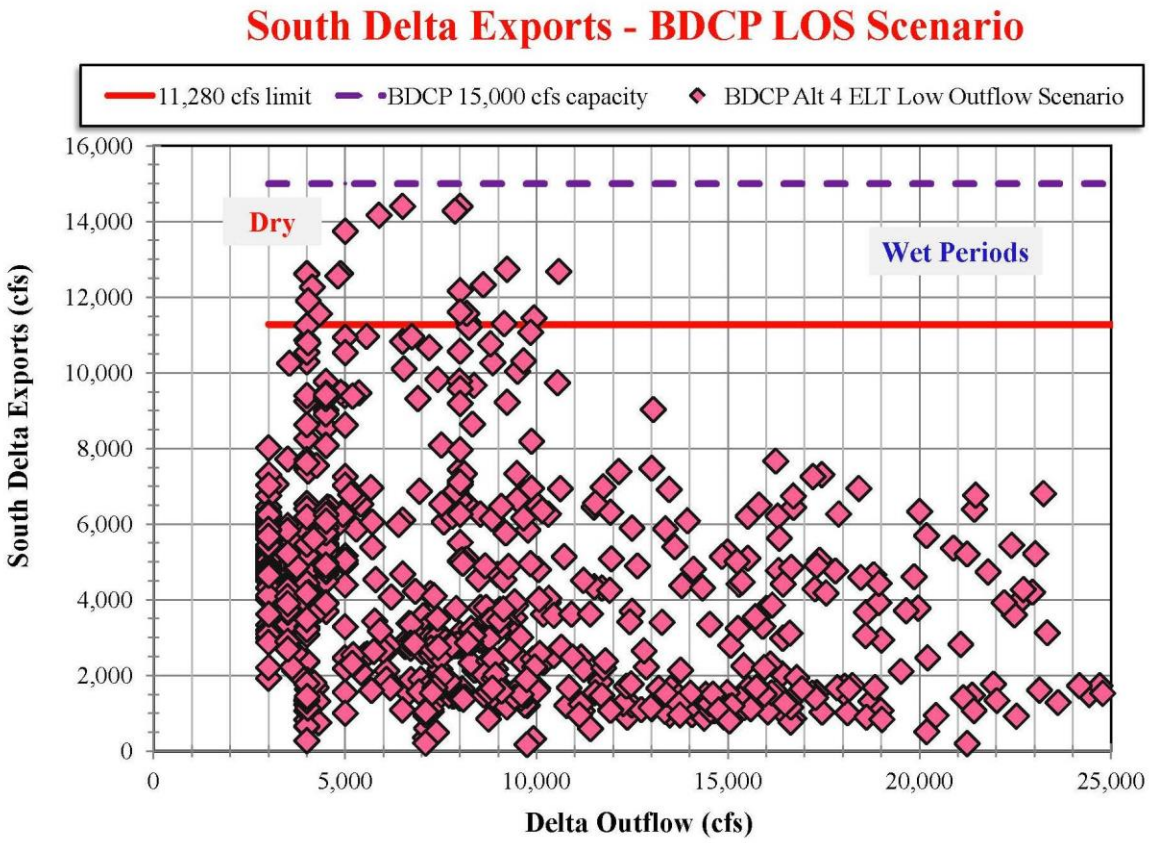


Figure E-4: South Delta exports as a function of Delta Outflow for BDCP Early Long Term Alternative 4 Low Outflow Scenario for outflows up to 25,000 cfs. A goal of the BDCP is to improve ecosystem conditions in the south Delta by reducing exports from the south Delta. The BDCP proposed project needs additional limits on exports because it significantly increases, rather than decreases south Delta exports in a number of months, and all those increases occur during the driest months when fish species are already stressed.

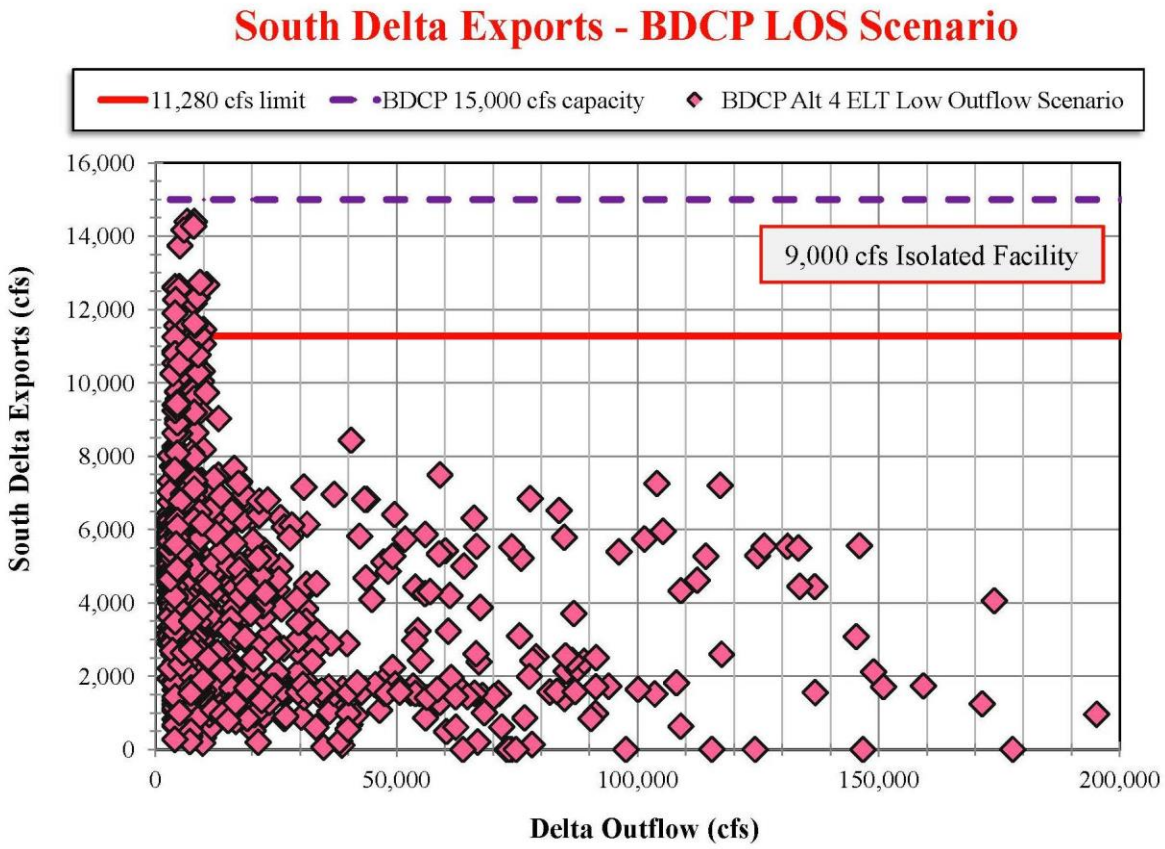


Figure E-5: South Delta exports as a function of Delta Outflow for BDCP Early Long Term Alternative 4 Low Outflow Scenario. This graph is the same as Figure E-4 but shows are larger range of Delta outflows (i.e., up to 200,000 cfs). A goal of the BDCP is to improve ecosystem conditions in the south Delta by reducing exports from the south Delta. The BDCP proposed project is inadequate and fails to meet the original BDCP goals because it significantly increases, rather than decreases, south Delta exports, and all those increase occur during the driest months when fish species are already stressed.

Figure 11-4-1 in Chapter 11 of the Draft EIR/EIS is a clear indication that the BDCP proposed project will make the situation much worse, rather than better, for the Delta smelt. This figure shows the average annual estimated proportion of larval and juvenile Delta Smelt population lost to entrainment at the south Delta export pumps for Alternative 4 for the High Outflow Scenario (H4) and Low Outflow Scenario (H1). The modeling results for each water year type suggest that the Low Outflow Scenario will significantly **increase** entrainment losses at the south Delta export pumps. Even the High Outflow Scenario will increase entrainment losses in dry and critical years.

- **Changes in Total Delta Exports with BDCP Proposed Project**

According to the "*Divert more water in the wetter periods and less in the drier periods*" principle, BDCP should be expected to export less during periods of low outflow, i.e., export less under existing infrastructure and operation rules.

The total export graph for existing conditions is the same as the plot of south Delta exports (Figure E-2) because there are currently no north Delta intakes or isolated facilities. Figures E-6 and E-7 show the total SWP and CVP exports as a function of Delta outflow for the proposed project for the High Outflow Scenario and Low Outflow Scenario, respectively. The proposed project would significantly increase exports in the driest months when Delta outflows are lowest.

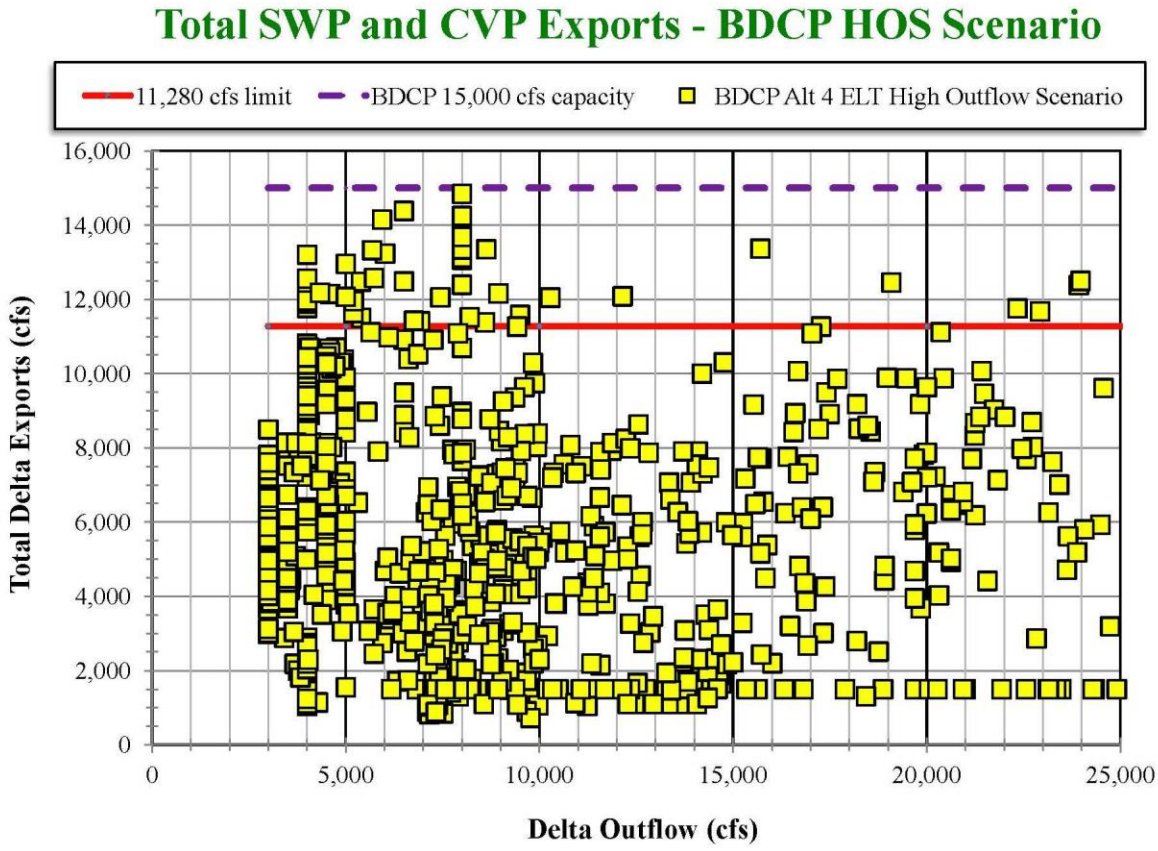


Figure E-6: Total exports as a function of Delta Outflow for BDCP Early Long Term Alternative 4 High Outflow Scenario. Contrary to the BDCP "Big Gulp, Little Sip" planning principle, the BDCP proposed project would increase exports from the Delta during drier months (low Delta outflow).During wetter months (e.g., outflows greater than 10,000 cfs), there are only a few months when exports are greater than existing limit. Without additional south-of-

Delta and near Delta storage, the BDCP alternatives only have limited capacity to capture surplus water ("Big Gulp").

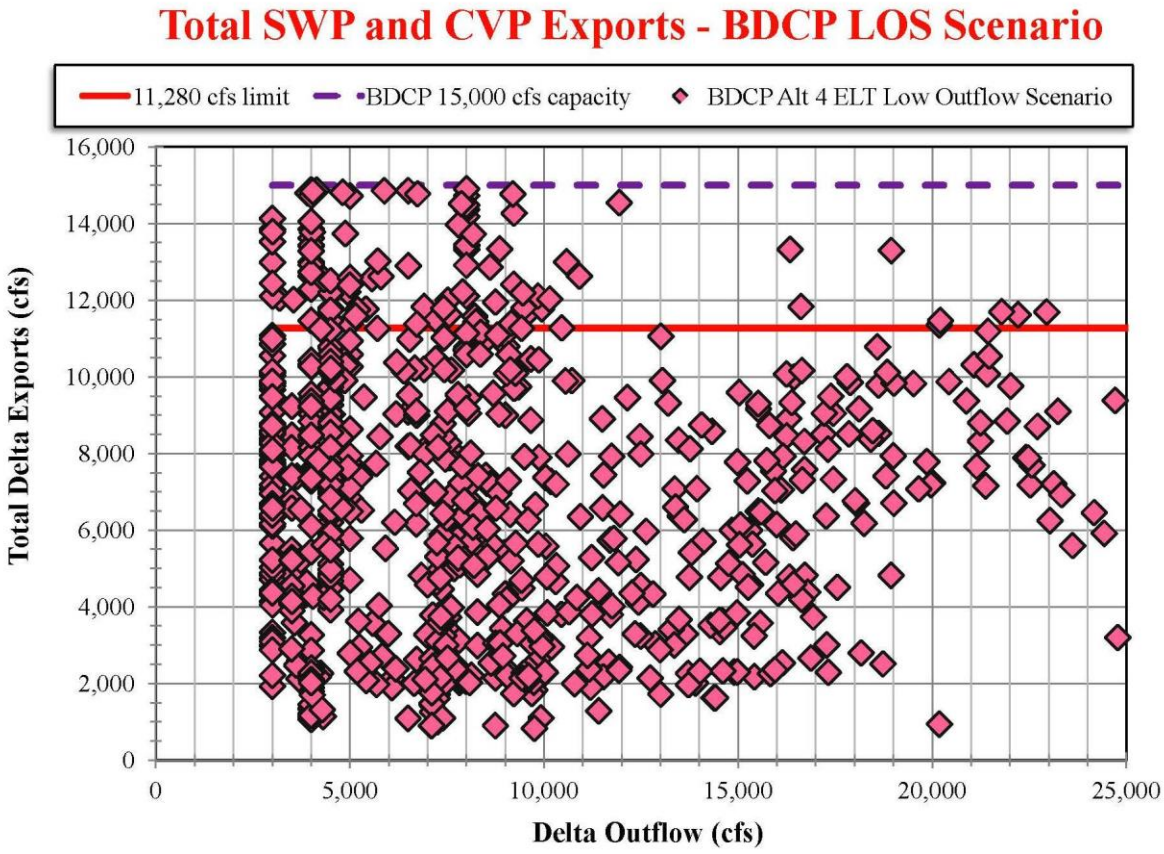


Figure E-7: Total exports as a function of Delta Outflow for BDCP Early Long Term Alternative 4 Low Outflow Scenario. Contrary to the BDCP "Big Gulp, Little Sip" planning principle, the BDCP proposed project would increase exports from the Delta during drier months (low Delta outflow). The increase in exports in drier months is even worse than for the High Outflow Scenario. During wetter months (e.g., outflows greater than 10,000 cfs), there are only a few months when exports are greater than existing limit. Without additional south-of-Delta and near Delta storage, the BDCP alternatives only have limited capacity to capture surplus water ("Big Gulp").

Figure E-8 again shows the total exports for the Low Outflow Scenario, but extends the range of Delta outflows to 200,000 cfs. There are a some very wet months (high Delta outflow) when total exports approach the 15,000 cfs maximum, but also many months when total exports are less than existing levels. Without additional south-of-Delta and near Delta storage, the BDCP alternatives only have limited capacity to capture surplus water during periods of high Delta outflow.

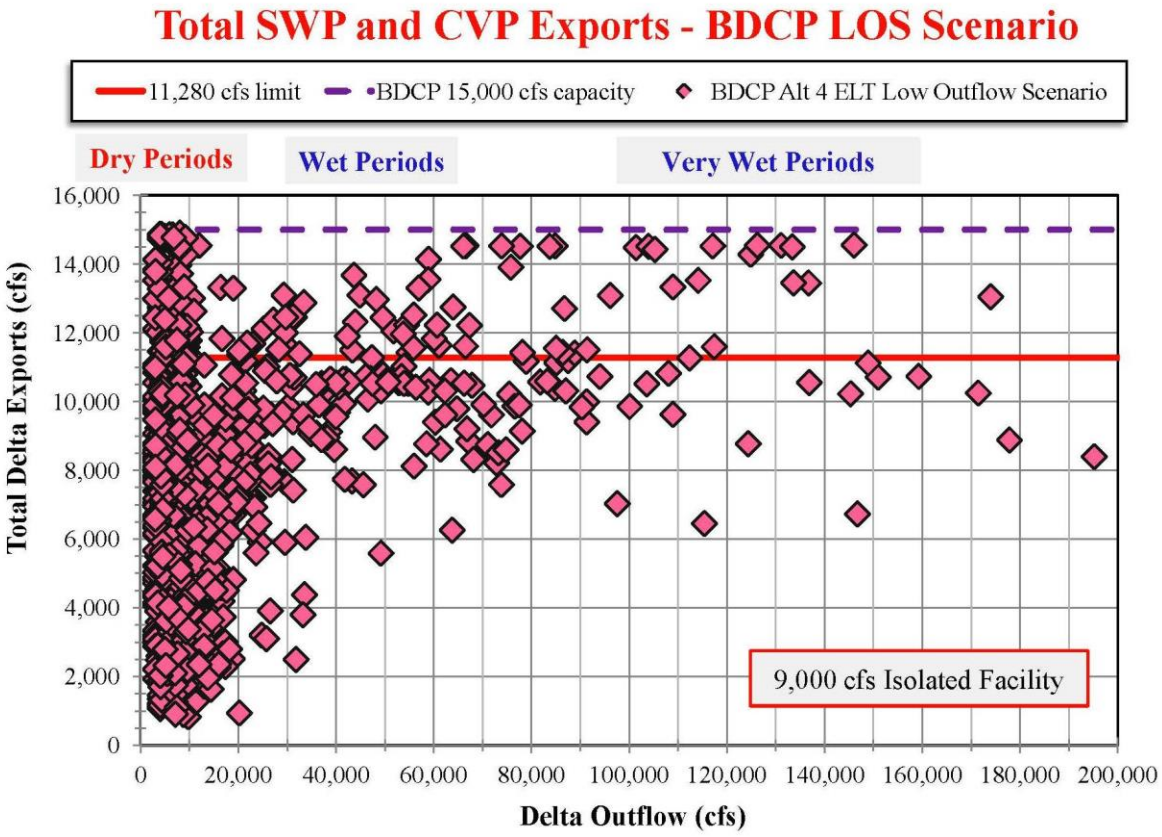


Figure E-8: Total exports as a function of Delta Outflow for BDCP Early Long Term Alternative 4 Low Outflow Scenario. This graph is the same as Figure E-7, but extends the range of Delta outflows to 200,000 cfs. During very wet periods (e.g., outflows greater than 60,000 cfs), there are a some of months when total exports approach the 15,000 cfs maximum, but also many months when total exports are less than existing levels.

Figure E-9 shows the total exports as a function of Delta Outflow for BDCP Alternative 3 at Early Long Term. Alternative 3 only has 6,000 cfs of north Delta intake tunnel capacity. There are more months with exports in excess of 11,300 cfs during wetter periods (high outflow) than for Alternative 4 (9,000 cfs isolated facility). The reasons for this should be discussed and disclosed in the EIR/EIS.

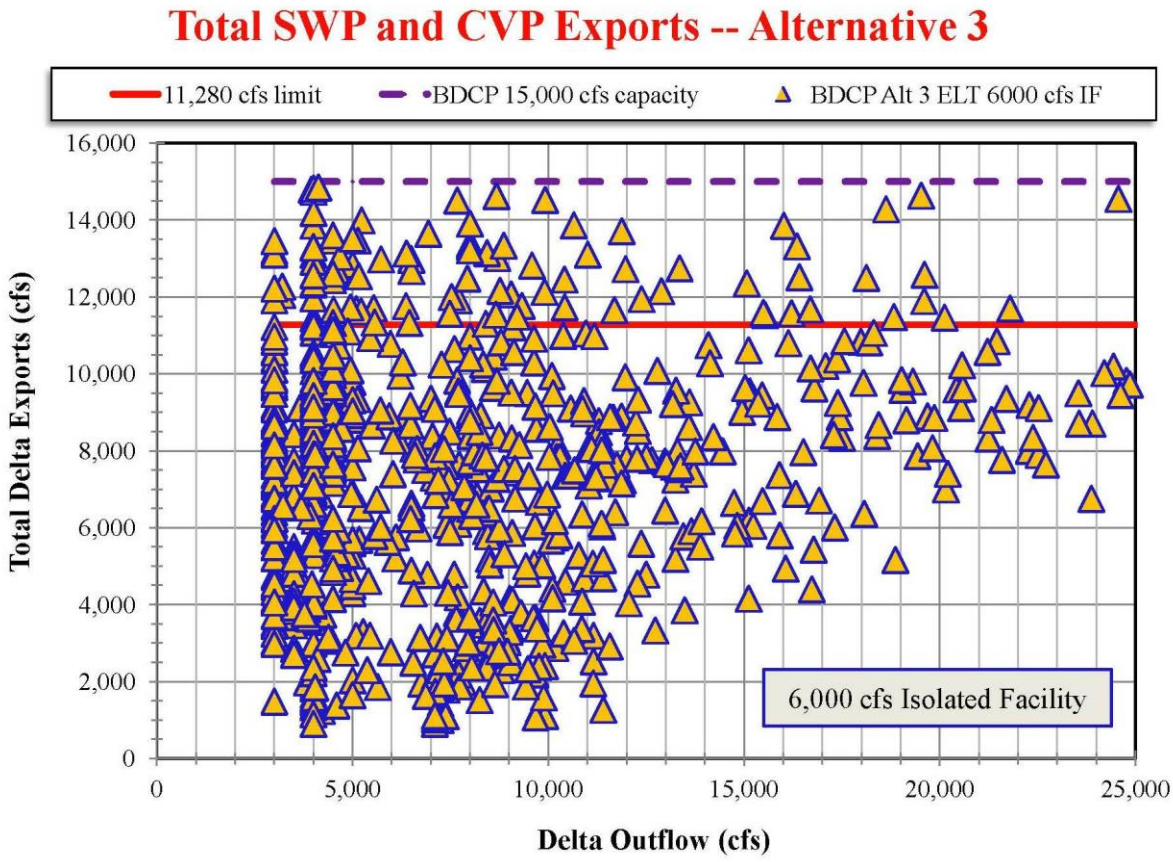


Figure E-9: Total exports as a function of Delta Outflow for BDCP Early Long Term Alternative 3 which has only 6,000 cfs of north Delta intake tunnel capacity. There are more months with exports in excess of 11,300 cfs during wetter periods (high outflow) than for Alternative 4 (9,000 cfs isolated facility). The reasons for this should be discussed and disclosed in the EIR/EIS.

To ensure that the BDCP operations actually reduce exports during periods of low Delta outflow, it will be necessary for the SWRCB and fishery agencies to set limits on exports based on Delta outflow. The minimum Delta outflows in D-1641 could be increased to 4,000 cfs to provide more protection for fish species. If the current lowest value of 3,000 cfs were retained, then the total exports could be limited to 3,000 cfs. Similarly, if the Delta outflow were 7,100 cfs, the combined SWP and CVP exports could not exceed, say, 10,000 cfs. No more than 13,000 cfs could be exported unless the Delta outflow remained at least 11,400 cfs.

These limits on total exports are hypothetical, but are consistent with the principle of reducing exports in drier months, and reducing reliance on the Delta for water supply.

These hypothetical "Little Sip" limits on total exports are shown in Figure E-10. The "Little Sip" export limits are compared with the same Low Outflow Scenario data plotted in Figure E-7. The

limit on total exports increases with increasing Delta outflow, and would allow for export increases in wetter periods to capture water when it is surplus.

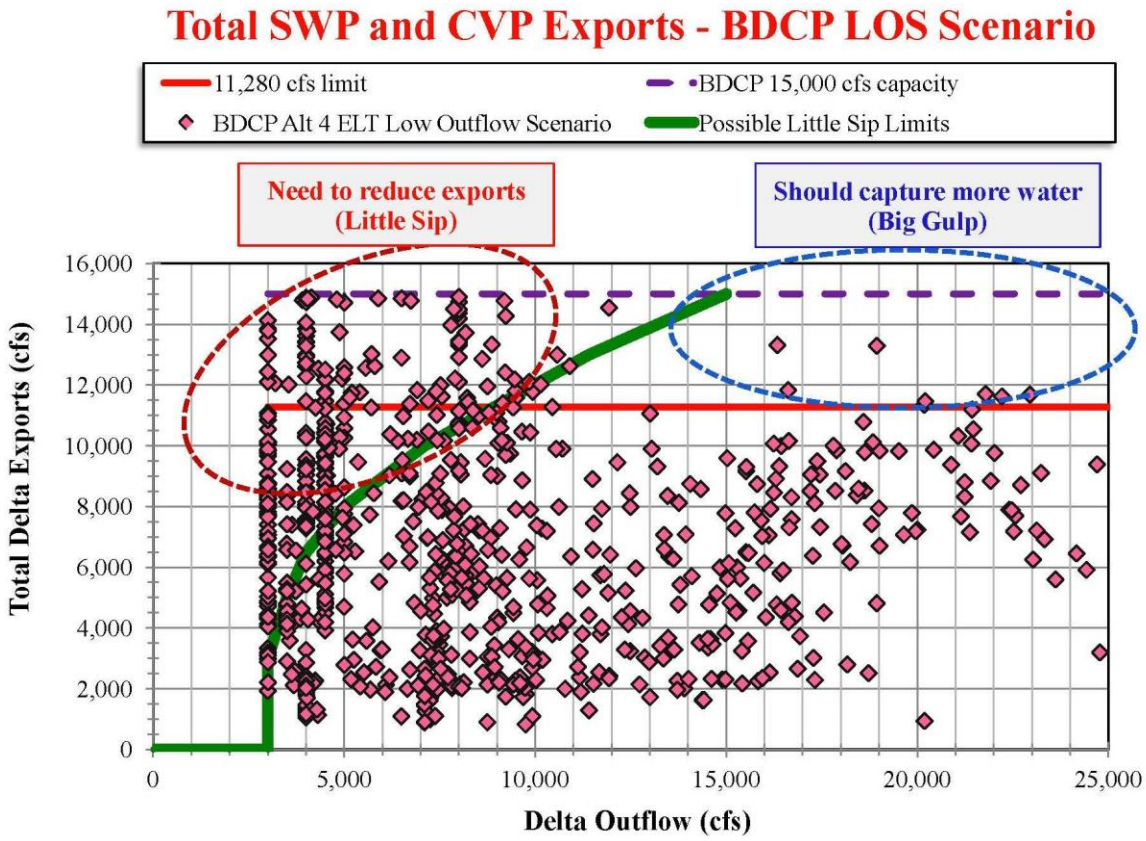


Figure E-10: Total exports as a function of Delta Outflow for BDCP Early Long Term Alternative 4 Low Outflow Scenario. Exports would increase rather than decrease during drier periods (low Delta outflow) and fail to increase to capture more water during wet periods (high Delta outflow). Limiting exports to no more than shown by the green line would ensure that only "little sips" are taken in drier periods to protect fish, and would allow for export increases in wetter periods to capture water when it is surplus.

The BDCP proposed project is deficient because it fails to reduce exports during drier months. This is in part due to the assumption that key operation limits on export operations will be eliminated (e.g., the Army Corps limits on Clifton Court inflow and NMFS Biological Opinion limits on the San Joaquin inflow to south Delta exports limit).

The BDCP DEIR/EIS is also inadequate because it fails to analyze any alternatives that can increase exports above existing levels in wetter months. This is not possible without **new storage** south of and in or immediately adjacent to the Delta.

The BDCP proposed project is also inconsistent with the 2009 Delta Reform Act because it relies on increased exports from the Delta, especially in the driest months. The DEIR/EIS must be revised to include alternatives that do not increase south Delta exports, that reduce total exports in drier months, and capture water to storage in wetter months when flow is available that is surplus to the needs of the Delta ecosystem, Delta water quality, in-Delta water users and the Delta as a place.

Attachment F

Analysis of other BDCP Project Impacts based on BDCP Modeling Data

An analysis of the changes in Delta exports due to the BDCP is presented in Attachment E. This attachment looks at the environmental impacts of the BDCP in terms of other operational parameters such as minimum Delta outflow, Rio Vista flow, export/inflow ratio, Old and Middle River flow, San Joaquin inflow to south Delta export ratio, and Shasta storage. Only data for the BDCP basecase with Fall X2 were provided, and no data for the basecase without Fall X2. The with-Fall-X2 basecase is therefore used for comparison purposes in this attachment. Modeling results were provided for both the early long term (ELT) and late long term (LLT). Only ELT data are presented in this attachment because these simulations are less speculative than those for the LLT that have more climate change effects and more habitat restoration in the Delta.

The DEIR/EIS is inadequate because it fails to present operations and water quality model data in sufficient detail to disclose the significant adverse impacts of the BDCP proposed in many months of different years. The long-term averaging approach used in the DEIR/EIS masks serious adverse impacts in specific months and years that will permanent damage fish populations and other beneficial uses. These impacts cannot necessarily be made up in subsequent years and "averaged out." If a fish species is decimated in one year because of the adverse impacts of the proposed BDCP project, higher flows and better habitat conditions in subsequent years will not necessarily be able to bring back this species from a near-extinct condition. The following are specific areas of concern that will be negatively impacted by the proposed BDCP.

- **Minimum Delta Outflow**

Figure F-1 shows historical variations of monthly Delta outflows for September with water year type (as represented by the Sacramento Valley 40-30-30 water year index (SWRCB D-1641). The flow data are estimates from DWR's DAYFLOW database (1955-2013). The effects of changes in operational rules and level of demand are categorized by three periods: 1956-78; 1979-1994; and 1995-2013. The first period is prior to the August 1978 SWRCB Water Rights Decision 1485 coming into effect. D-1485 included minimum Rio Vista flow standards for all months of the year as well as Chipps Island EC standards which had the effect of limiting reductions in Delta outflow in the Fall. The second period is prior to the December 1994 Bay-Delta Accord and May 1995 Bay-Delta Water Quality Control Plan which introduced new minimum outflow (and Rio Vista minimum flow) objectives. These standards were incorporated into SWRCB Water Rights Decision 1641 (December 1999, revised March 2000). The February-June estuarine habitat standards (February-June X2) were also introduced at this time which had the unintended consequences of shifting export impacts to the Fall.

Figure F-1 shows that Delta outflows in September have steadily decreased over time as Delta exports have increased, and since 1995, September outflows have remained low and close to the D-1641 required outflow of 3,000 cfs. The effect is that now almost every year in September is like a dry year, except in very wet years.

Note that the Sacramento 40-30-30 water year index accounts for some carryover of stored runoff from the previous water year. Shasta and Folsom reservoirs were completed by 1956, but Oroville Dam (1968) and New Melones Dam (1978) were completed later. However, the 40-30-30 index still generally represents the available runoff conditions in those earlier years.

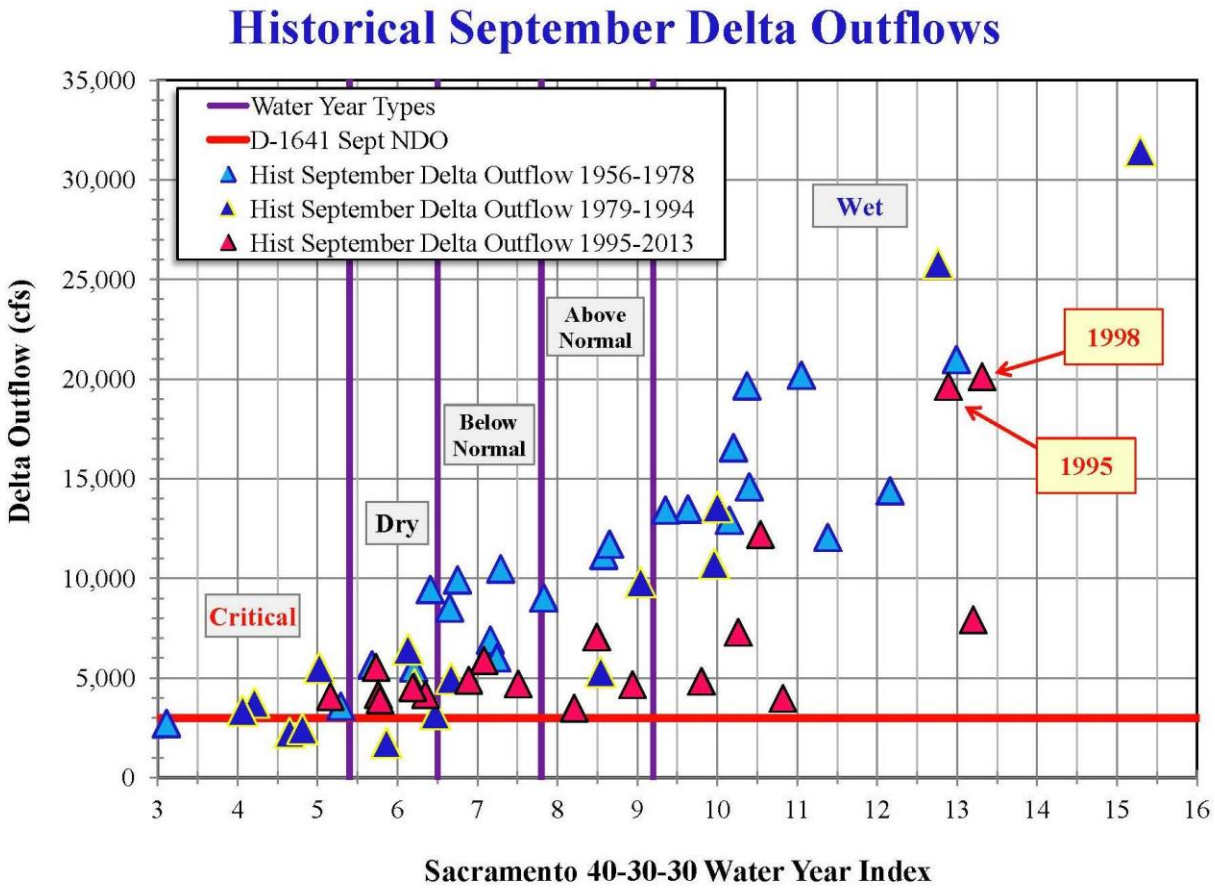


Figure F-1: Monthly-averaged historical September Delta outflows from DWR's DAYFLOW database (1956-2013) as a function of Sacramento Valley water year index. The effects of changes in operational rules and level of demand are categorized by three periods: 1956-78; 1979-1994; and 1995-2013. The minimum required Delta outflow for September under D-1641 is 3,000 cfs.

Figure F-2 shows the corresponding historical October Delta outflows (1955-2012) as a function of Sacramento Valley water year index. The effects of changes in operational rules and level of demand are categorized by three periods: 1955-78; 1979-1994; and 1995-2012. The minimum required Delta outflow for October under D-1641 is 3,000 cfs for critical years and 4,000 cfs for the other water year types. The historical data again show the change in the characteristics on the Delta outflows since the 1995 Water Quality Control Plan with most of the outflows being close to the D-1641 minimums, even in wet years.

This change coincided with the Pelagic Organism Decline and led to the establishment of the Fall X2 requirements in the 2009 NMFS biological opinion. Because of these concerns over the impacts of decreased Fall outflows (increased Fall X2) on Delta smelt and other key fish species, it would be reasonable to assume that DWR, USBR and the other developers of a Conservation Plan to help restore fish species in the Delta would attempt to restore earlier higher Delta outflow conditions. As will be discussed below, this is unfortunately not the case.

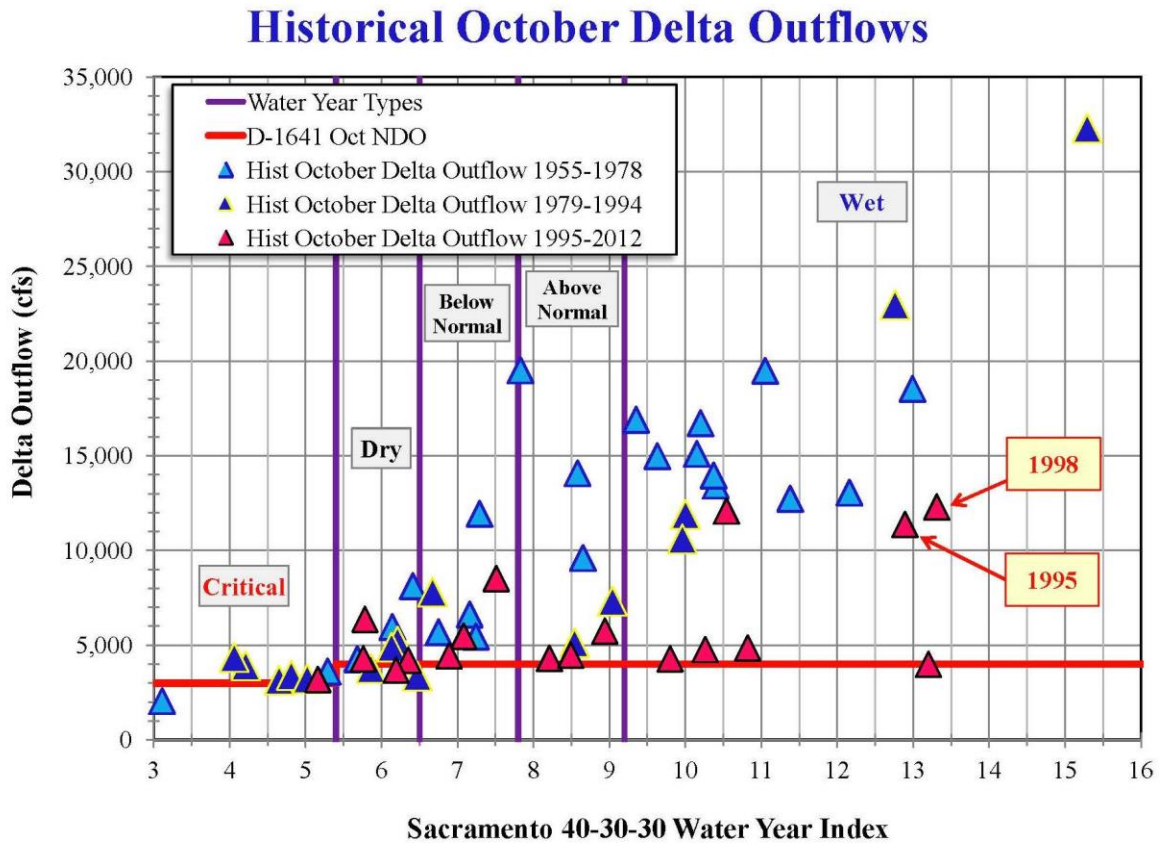


Figure F-2: Monthly-averaged historical October Delta outflows from DWR's DAYFLOW database (1955-2012) as a function of Sacramento Valley water year index. The effects of changes in operational rules and level of demand are categorized by three periods: 1956-78;

1979-1994; and 1995-2013. The minimum required Delta outflow for October under D-1641 is 3,000 cfs for critical years and 4,000 cfs for the other water year types.

The monthly September Delta outflows from the BDCP modeling for three studies (Existing basecase with Fall X2; Alternative 4 High Outflow Scenario at ELT; Alternative 4 Low Outflow Scenario at ELT) are shown in Figure F-3. Both this existing basecase and the High Outflow Scenario include Fall X2 requirements so the September outflows increase with increasing Sacramento Valley runoff consistent with earlier historical conditions. However, the Low Outflow Scenario would continue to maintain adverse flow conditions for the pelagic organisms and reduces the Delta outflows for in most of the years to the D-1641 minimum.

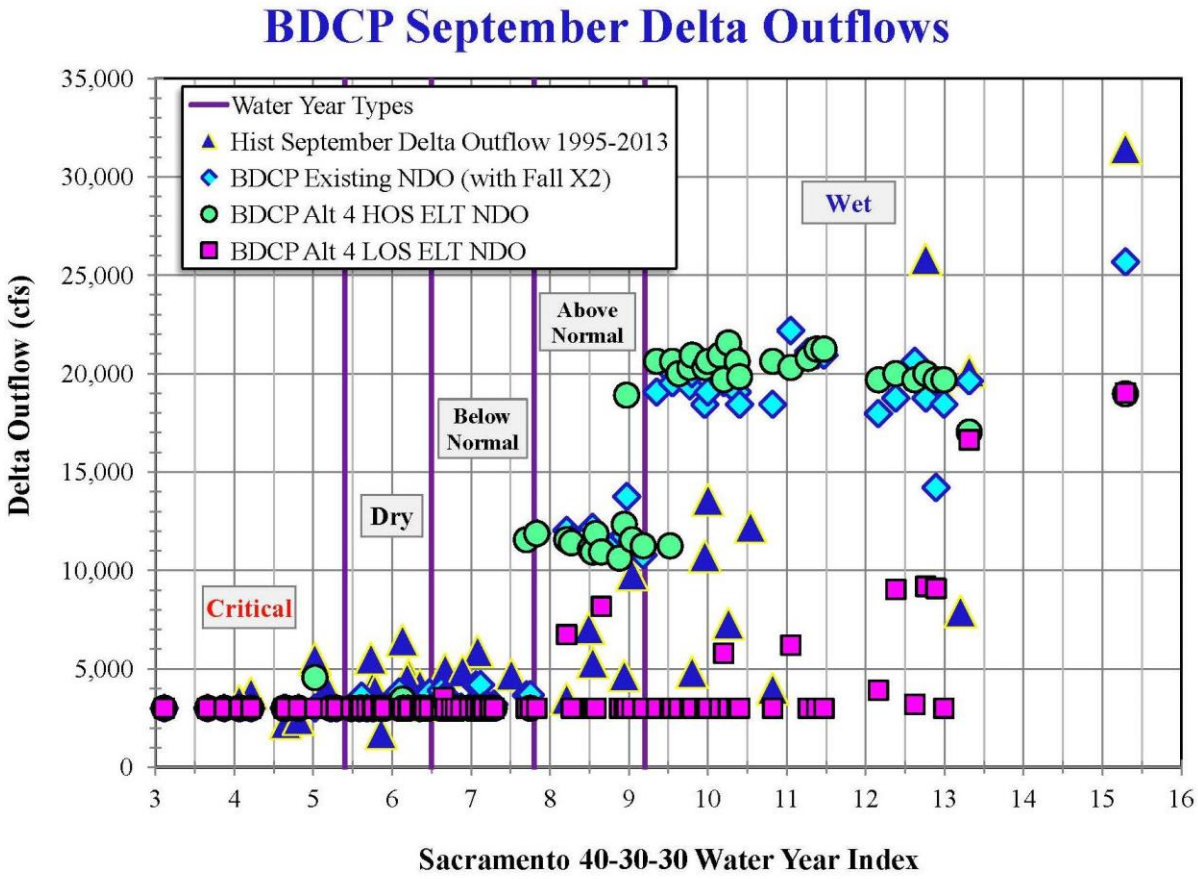


Figure F-3: Monthly-averaged September Delta outflows from the BDCP modeling studies as a function of Sacramento Valley water year index. The three studies are: Existing basecase with Fall X2; Alternative 4 High Outflow Scenario at ELT; Alternative 4 Low Outflow Scenario at ELT. The minimum required Delta outflow for September under D-1641 is 3,000 cfs.

Figure F-4 shows the monthly Delta outflows for November from the same BDCP modeling studies. The Low Outflow Scenario again suggest that outflows would be reduced to the absolute

minimum flows (3,500 or 4,500 cfs) in most years to the detriment of some of the species the BDCP was originally intended to help restore.

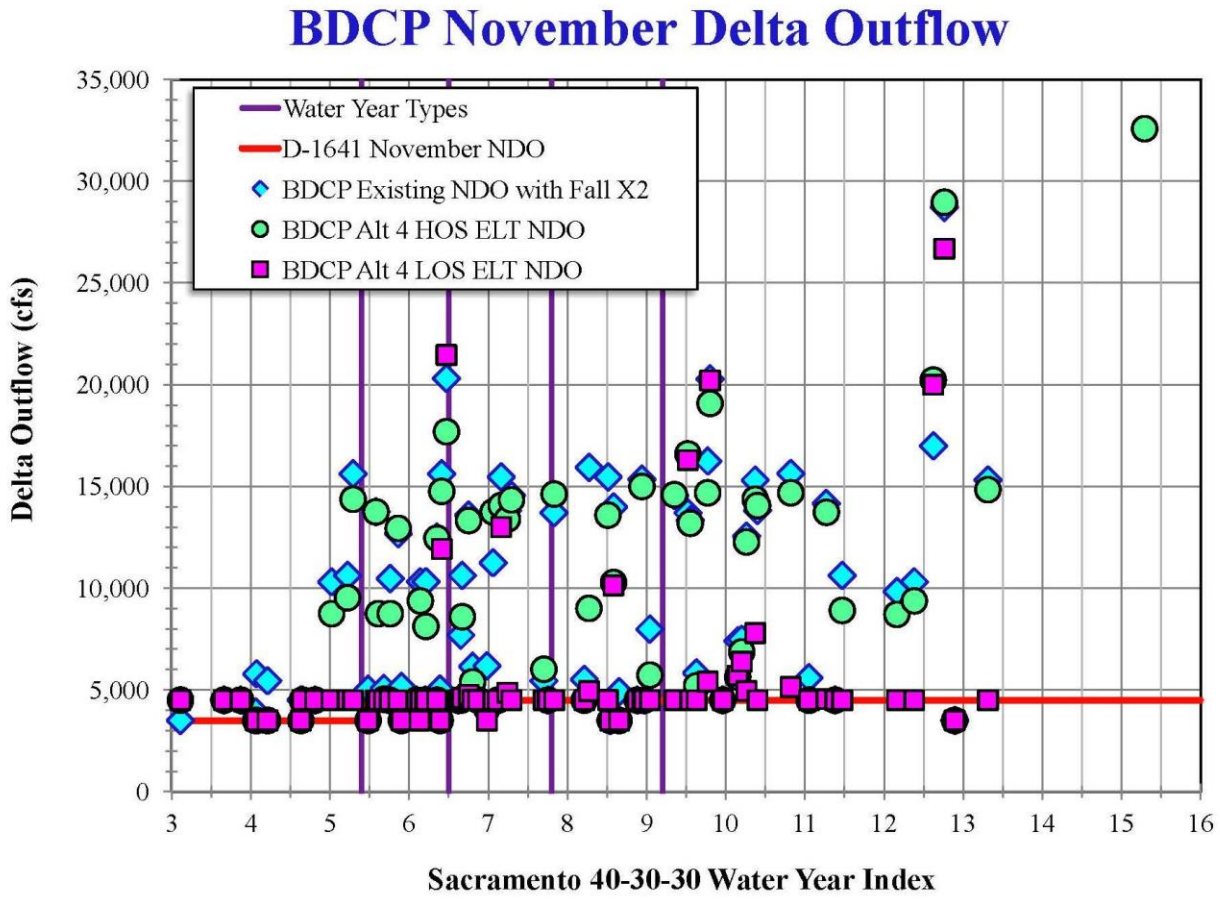


Figure F-4: Monthly-averaged November Delta outflows from the BDCP modeling studies as a function of Sacramento Valley water year index. The three studies are: Existing basecase with Fall X2; Alternative 4 High Outflow Scenario at ELT; Alternative 4 Low Outflow Scenario at ELT. The minimum required Delta outflow for November under D-1641 is 3,500 cfs for critical years and 4,500 cfs for the other water years..

Another key analysis that is missing from the DEIR/EIS is disclosure of Delta outflows as percentages of unimpaired flow. In response to the 2009 Delta Reform Act, the SWRCB prepared an August 2010 report on "Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem" (Delta Flow Criteria report). Water Code section 85086 required the SWRCB to develop new flow criteria for the Sacramento-San Joaquin Delta ecosystem that are necessary to protect public trust resources. The purpose of the flow criteria was to inform planning decisions for the Delta Stewardship Council's Delta Plan and the Bay Delta Conservation Plan.

The DEIR/EIS is inadequate because it fails to disclose quantify the agreement or disagreement of BDCP alternatives with the SWRCB's Delta Flow Criteria. The BDCP proponents must prepare a new Draft EIR/EIS that discloses all the monthly-average Delta outflows percentages of unimpaired flow for each alternative, and discloses the significant adverse environmental impacts of failing to achieve or approach the SWRCB percentages. The new DEIR/EIS must also focus on alternatives that restore flows in the Delta in the Fall consistent with the 2009 Biological Opinion and eliminate harmful alternatives that would further exacerbate the adverse conditions for Delta smelt. A new Draft EIR/EIS must be released for public review and comment.

- **Rio Vista Flow**

SWRCB Decision 1641 sets minimum flow requirements on the Sacramento River at Rio Vista for September through December. The minimum flows range from 3,000 cfs to 4,500 cfs depending on month and water year type. The minimum Rio Vista flow for September is 3,000 cfs in all water year types.

As shown in Figure F-5, Rio Vista flows have historically been much higher than the September minimum flow in all except the drier years. The BDCP existing condition data show a similar trend, except for a number of wet years (40-30-30 water year index > 9.5) where the BDCP existing baseline flows are much higher than the historical trend.

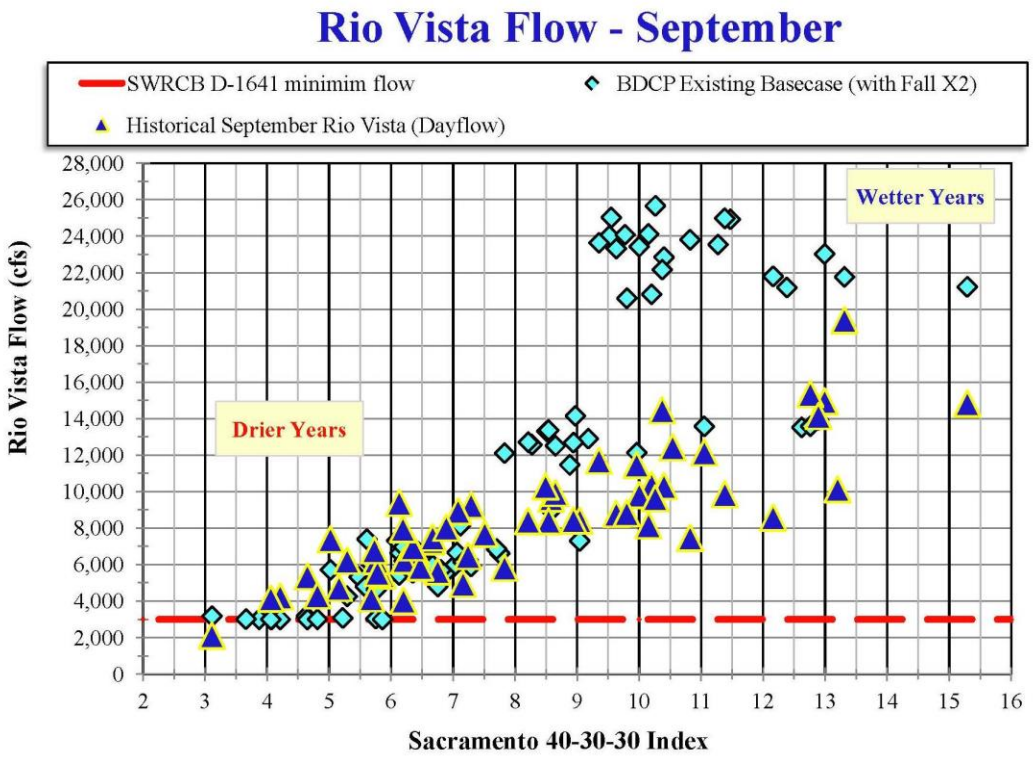


Figure F-5: Monthly-averaged historical Rio Vista flows from DWR's DAYFLOW database (1955-2012) as a function of Sacramento Valley water year index. The historical data are compared with monthly-averaged Rio Vista flows from a BDCP existing basecase with Fall X2. The Rio Vista flows are close to the September minimum in drier years but increase substantially during normal and wet water years.

Figure F-6 shows the variation of monthly Rio Vista flows with water year index for several BDCP project alternatives: Existing basecase with Fall X2; Alternative 4 High Outflow Scenario at early long term (ELT) and Alternative 4 Low Outflow Scenario at ELT. The Low Outflow Scenario would lead to Rio Vista flows in September being reduced to 3,000 cfs in most years, even wet years.

This is a major change from existing Rio Vista flow conditions where flows are typically well above the minimum in wetter years. The DEIR/EIS needs to fully disclose the potential impact of these reduced "attraction flows" on returning anadromous fish and other significant adverse impacts on the Delta.

The High Outflow Scenario includes Fall X2 limits (which effectively limit Delta outflow, and hence Rio Vista flows) so does not reduce Rio Vista flows all the way down to 3,000 cfs.

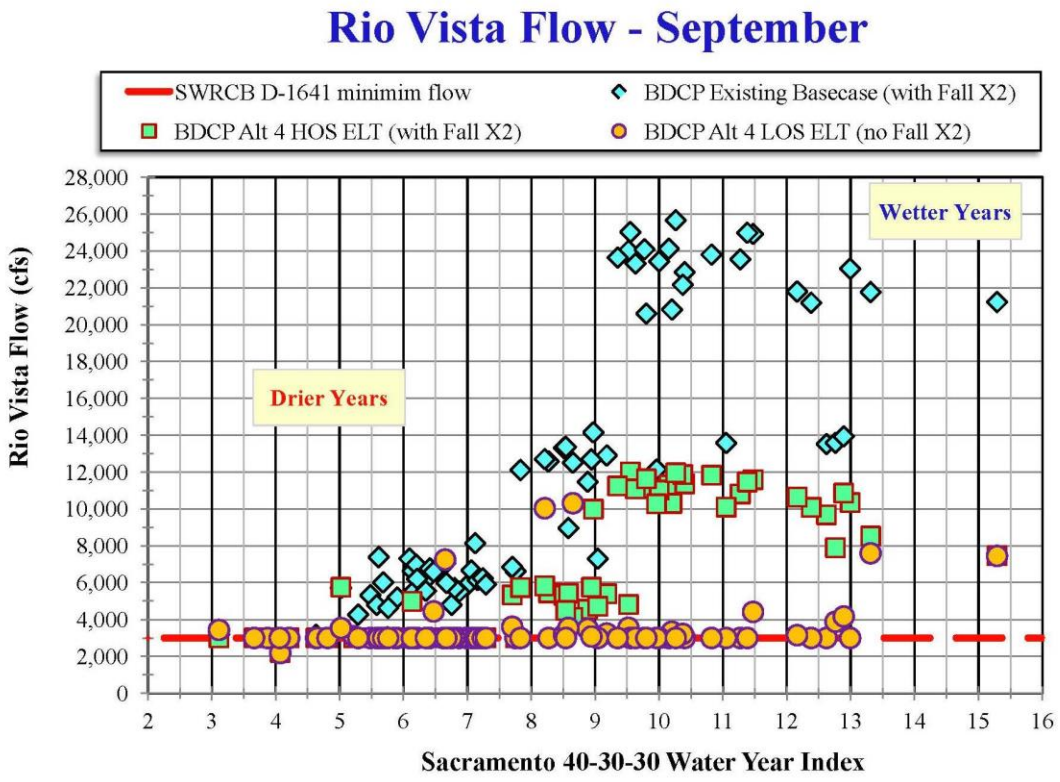


Figure F-6: Monthly-averaged Rio Vista flows from BDCP modeling studies as a function of Sacramento Valley water year index: Existing basecase with Fall X2; Alternative 4 High Outflow Scenario at early long term (ELT) and Alternative 4 Low Outflow Scenario at ELT. The Low Outflow Scenario would lead to Rio Vista flows in September being reduced to 3,000 cfs in most years, even wet years.

Similar significant reductions in Rio Vista flows occur in October and November. The DEIR/EIS must be revised as a new draft to include data plots such as these to disclose the full impacts of the proposed BDCP project on Rio Vista flows and any corresponding significant adverse impacts on the Delta and Central Valley ecosystem. A new Draft EIR/EIS should then be released for public review and comment.

- **Export/Inflow Ratio**

The BDCP DEIR/EIS assumes export/inflow ratio limits for the preferred project (Alternative 4) Scenarios H1 and H3 that are different than the existing SWRCB D-1641 limits. In these two scenarios, the export/inflow limits are only applied at the south Delta intakes, and the north Delta exports are not included in the Delta inflow or the Delta exports computation (DEIR/EIS page 5A-B40, line 3).

Conversely, in the Alternative 4 scenarios H2 and H4, this requirement is applied to the total Delta exports by including the north Delta diversion in the Delta inflow and the Delta exports computation used to determine this requirement.

Figure F-7 shows the export/inflow ratios for BDCP Alternative 4 Low Outflow Scenario (Scenario H1) and High Outflow Scenario (Scenario H4) at early long term for the period October 1988 through October 1996. The export/inflow ratios are calculated using the existing D-1641 method: total Delta exports / total Delta inflow. This figure clearly shows that the proposed modification of the export/inflow formula for the Low Outflow Scenario represents a significant relaxation and will allow substantial increases in exports primarily in September-November.

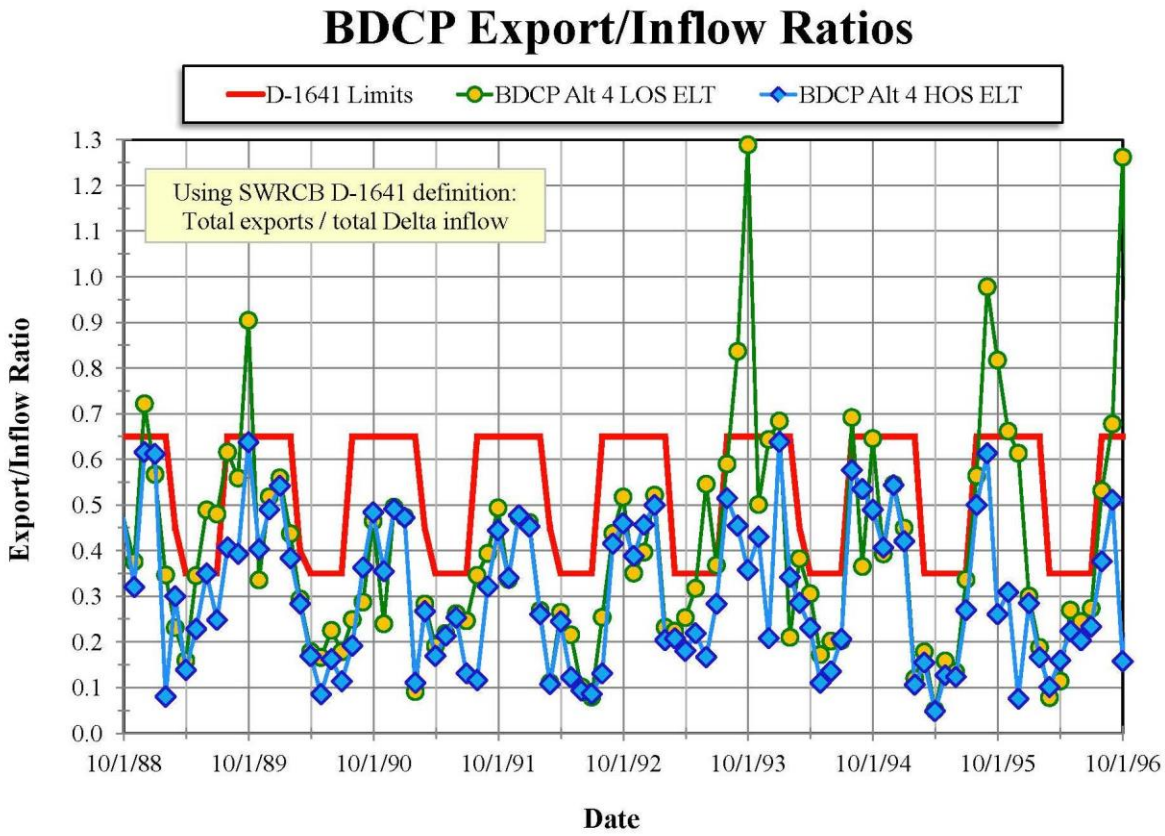


Figure F-7: Monthly-averaged export/inflow ratios calculated using the current SWRCB D-1641 formula for Alternative 4 Low Outflow Scenario (Scenario H1) and Alternative 4 High Outflow Scenario (Scenario H4), both at early long term (ELT). The period shown is October 1988 through September 1996.

The corresponding combined SWP and CVP exports for the same period are shown in Figure F-8. The lower (blue) bar is the allowable monthly export under SWRCB Water Rights Decision 1641, and the upper (red) bar is the amount of additional exports that result from the proposed modification of the SWRCB's definition of the export/inflow ratio.

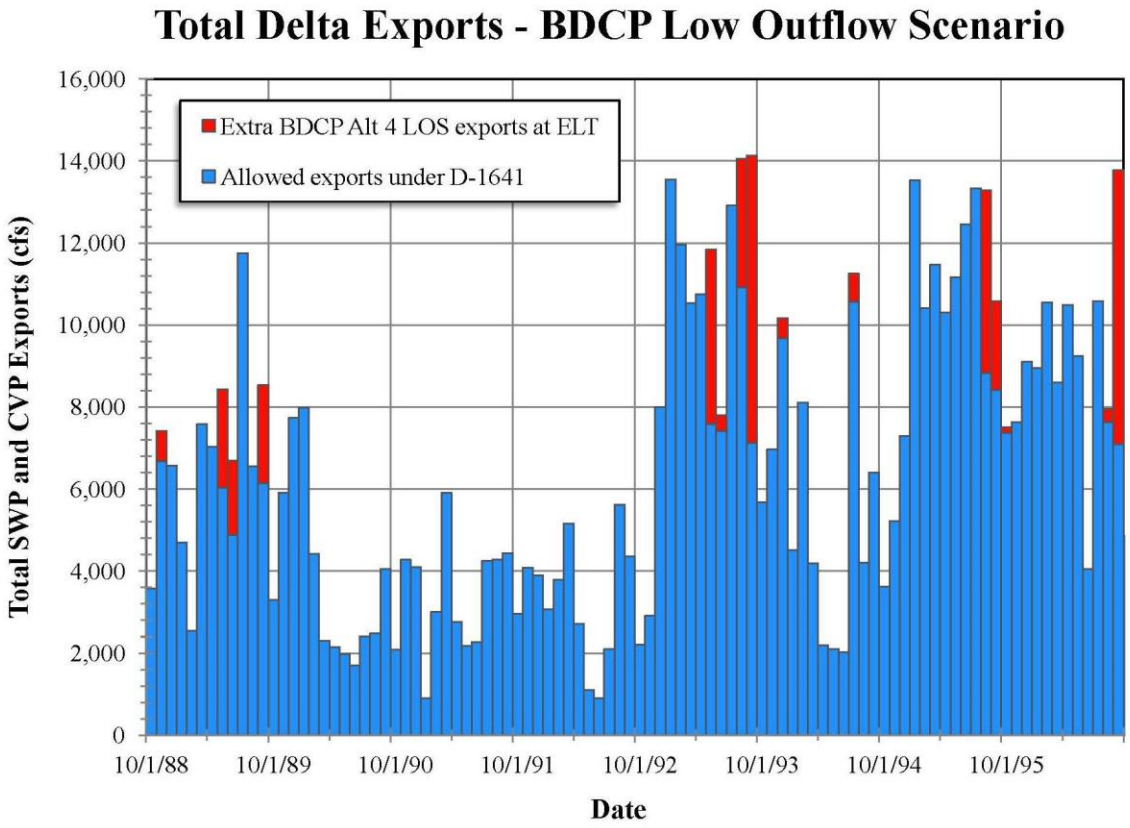


Figure F-8: Monthly-averaged exports for the BDCP Alternative 4 Low Outflow Scenario (Scenario H1) from October 1988 to September 1996. The upper (red bars represent the additional monthly exports that result from the BDCP's proposed modification of theD-1641 definition of the export/inflow ratio.

The health of an estuary can be quantified by considering the percentage of total inflow that is diverted before it can reach the ocean. The remaining inflow acts to convey fish through the Delta, flush out contaminants, and provide a hydraulic barrier against too much sea water intrusion. The SWRCB's definition of the export/inflow ratio is consistent with this holistic approach.

A new DEIR/EIS must be prepared that discloses the additional adverse impacts of these changes to the SWRCB's Decision 1641 export/inflow standards. The new DEIR/EIS must provide sufficient information to allow the SWRCB to make decisions regarding such a modification of

the export/inflow standard and adding new points of diversion for the SWP and CVP. This new DEIR/EIS must then be released for public review and comment.

- **Old and Middle River Flow**

The discussion in the DEIR/EIS of changes in reverse flow conditions for Old and Middle River (OMR) (Impact SW-3) focuses on changes in OMR with BDCP relative to both Existing Conditions (without Fall X2) and the No Action Alternative, and refers to Figure 6-23 (page 6-100). However, the data in Figure 6-23 are the long-term averages of 82 years of data, and these long-term averages mask adverse impacts of OMR flows in individual years.

The discussion of OMR impacts in the DEIR/EIS also fails to disclose whether the reverse flows were large and negative in the base case and are only slightly improved with the BDCP. Because the new north Delta intakes and isolated conveyance are being promoted as a "conservation measure" that reduces the adverse impacts of exports from the south Delta, then the goal of the BDCP should be to eliminate any reverse flows more negative than, say, -5,000 cfs, for all months.

Simulated BDCP reverse flow data (OMR) for each year (1922-2003) of July and August are shown in Figures F-9 and F-10. The OMR values are already strongly negative in the existing conditions basecase in July and August. The BDCP proposed project would make OMR even more negative a number of years to the detriment of fish species that reside in the Delta.

The BDCP proposed project is being promoted as a conservation measure because it is supposed to reduce exports from the south Delta. The irony is that this is an acknowledgement by the BDCP proponents that the current level south Delta exports do adversely impact fish species. If the proposed project has operating rules that allow increases in reverse flows, the adverse impacts of the south Delta exports on key fish species and other resident Delta species will not decrease but increase.

It is also important to remember that there are resident fish in the Delta that are not listed as threatened or endangered. Salvage of other species such as Striped bass, largemouth bass, white cat fish and Mississippi silversides is already large under existing conditions (see Grimaldo et al., "Factors affecting fish entrainment"). This is also likely to be a problem for sturgeon. http://swrcb2.swrcb.ca.gov/waterrights/water_issues/programs/bay_delta/deltaflow/docs/exhibits/sfwc/spprt_docs/sfwc_exh3_grimaldo.pdf

If the months of July and August are in effect sacrificed with respect to control of reverse flows, the adverse impacts of Delta exports will shift to these two months and possibly September and new fish species are likely to decline. OMR has to be controlled in all months to avoid redirecting serious impacts to these months.

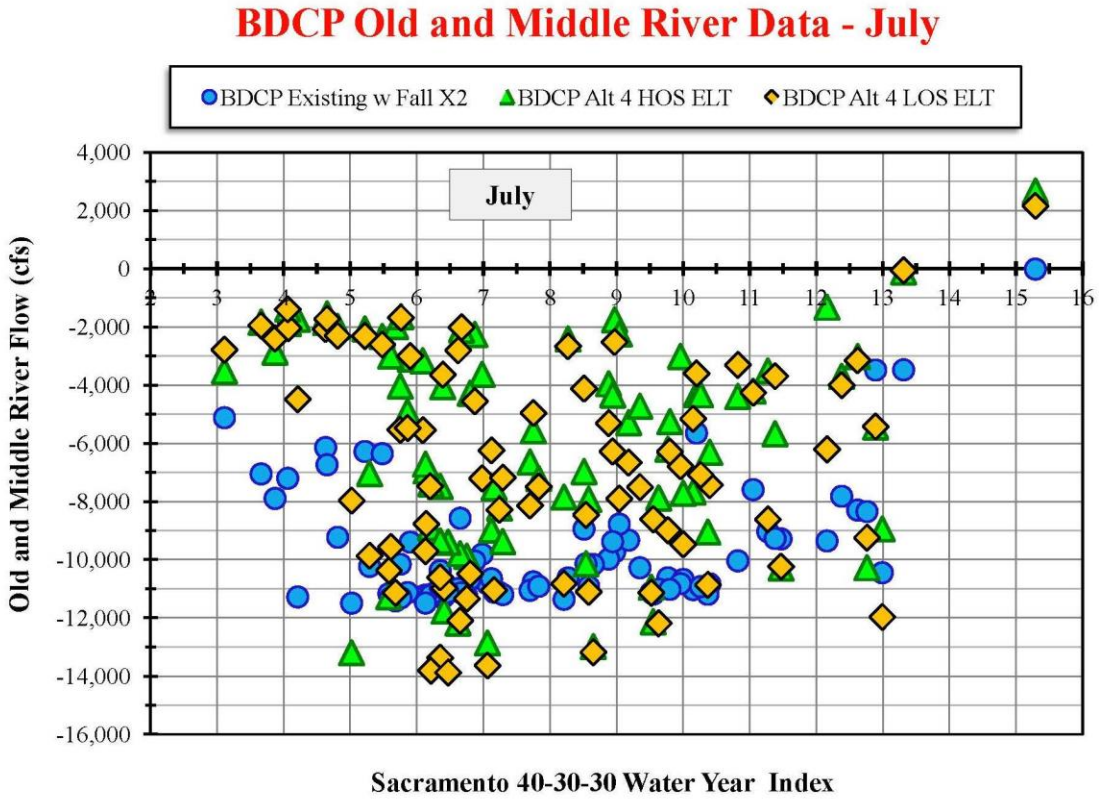


Figure F-9: Monthly-averaged Old and Middle River flows for July for three BDCP model studies: Existing basecase with Fall X2; Alternative 4 High Outflow Scenario at ELT; and Low Outflow Scenario at ELT. The basecase OMR values are about -12,500 cfs or higher. Both of the BDCP proposed project (Alternative 4) scenarios make OMR even more negative in some years.

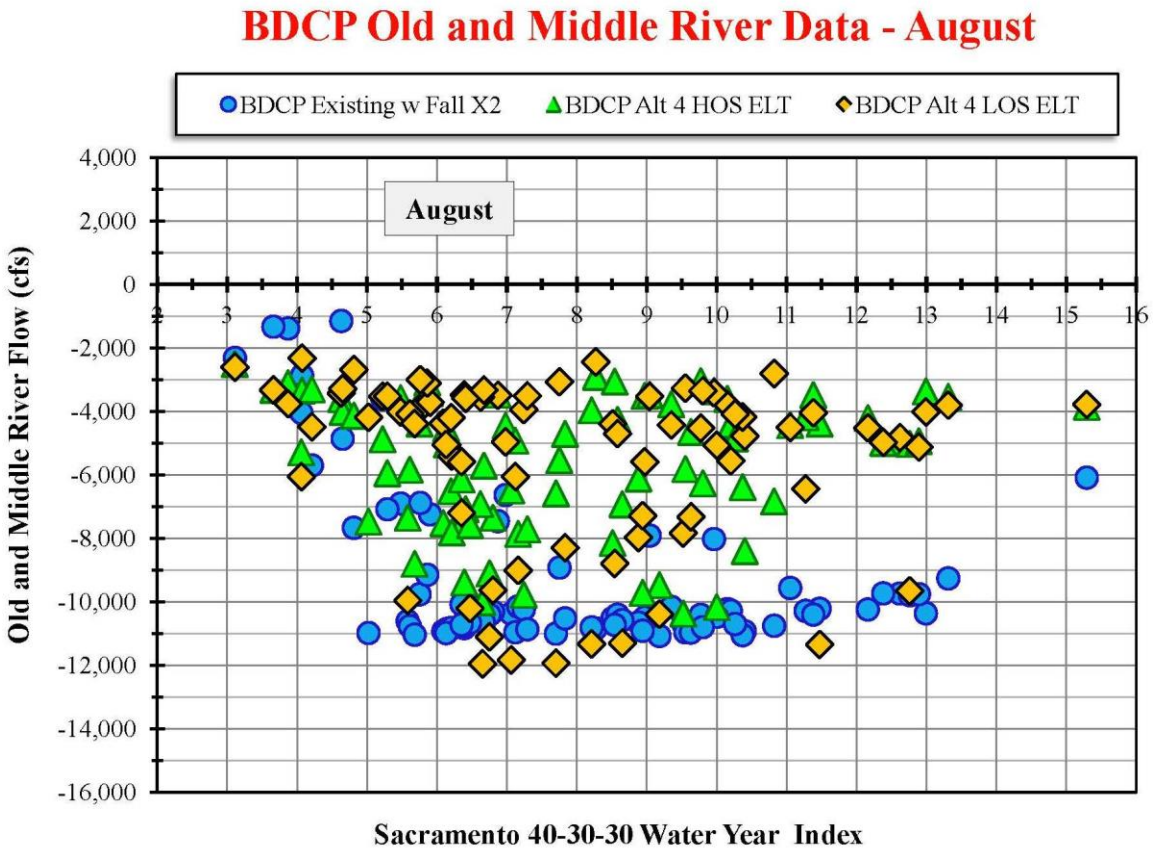


Figure F-10: Monthly-averaged Old and Middle River flows for August for three BDCP model studies: Existing basecase with Fall X2; Alternative 4 High Outflow Scenario at ELT; and Low Outflow Scenario at ELT. The basecase OMR values are about -12,500 cfs or higher. Both of the BDCP proposed project (Alternative 4) scenarios make OMR even more negative in some years.

The DEIR/EIS is inadequate because it fails to improve conditions in the south Delta and improve the Delta ecosystem. The lax OMR limits in July and August will lead to significant adverse impacts of the south Delta export pumps being redirected to those months. Alternatives that significantly decrease reverse flows (increase OMR) in all months must be developed, analyzed, and the resulting environmental impacts disclosed. A new Draft EIR/EIS must then be released for public review and comment.

- **San Joaquin inflow / South Delta exports ratio**

The 2009 NMFS biological opinion sets limits on the ratio of San Joaquin inflow at Vernalis to south Delta exports in April and May. Appendix 5C Part 1, page 2-4 of the Draft BDCP states that "this ratio effectively limits the combined export to 1,500 cfs for San Joaquin River inflows

of less than 6,000 cfs." The BDCP proponents assumed these San Joaquin inflow to exports ratio limits applied for the environmental basecases, but decided not to include them in the BDCP operations scenarios.

Figure F-11 shows the BDCP modeled ratios for the existing base case (with Fall X2) compared to the NMFS biological opinion limits. Data points below the limit line are not in compliance with the NMFS biological opinion. The existing basecase data are generally in compliance.

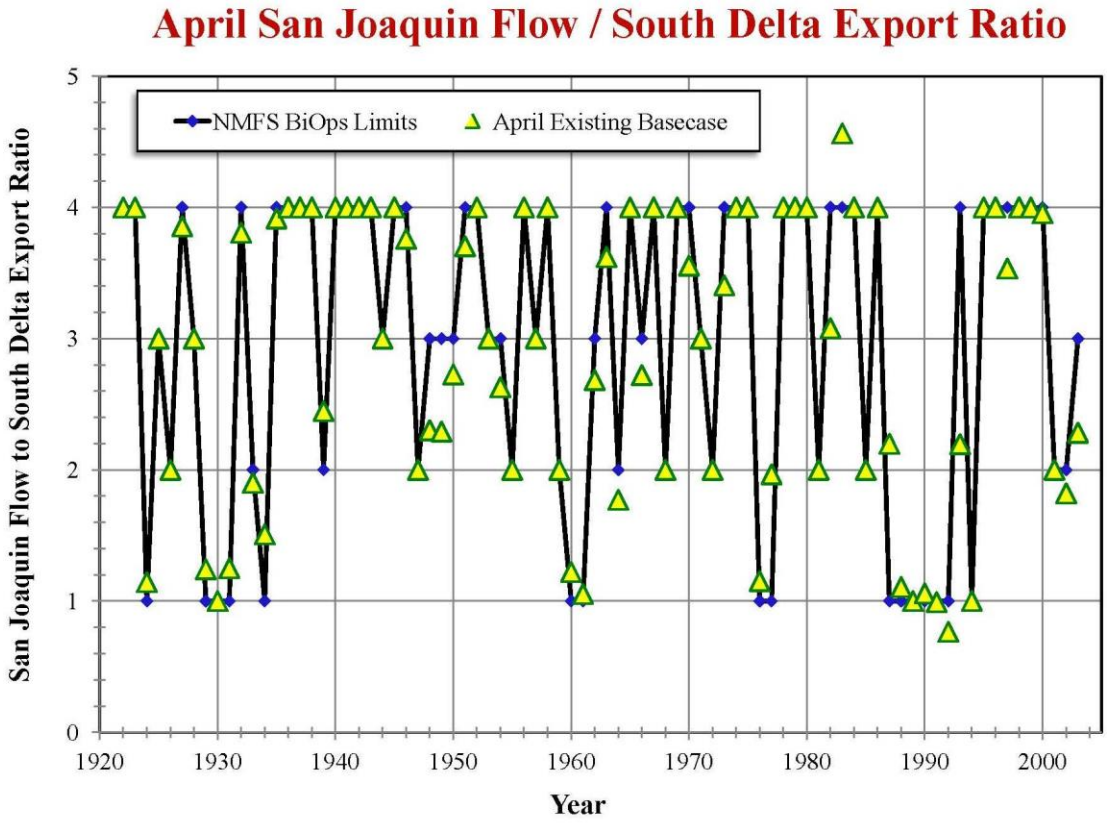


Figure F-11: The ratio of San Joaquin inflow at Vernalis to south Delta exports for a BDCP existing base case (with Fall X2) in April from 1922-2003. The 2009 NMFS biological opinion requires this ratio be 4.0 or greater in wet and critical years but only 1.0 or greater in critical years. This BDCP existing base case is generally in agreement with the biological opinion limits.

The corresponding ratios of San Joaquin inflow at Vernalis to south Delta exports for BDCP Alternative 4, Low Outflow Scenario, at early long term are shown in Figure F-11. Because the BDCP proponents took the liberty of assuming the biological opinion limits will not apply, the minimum ratio values are not always met. In some years, e.g., 1947-1950 this would allow 2 to 3 times as much water to be exported. Similar violations of the NMFS biological opinion limits occur in May.

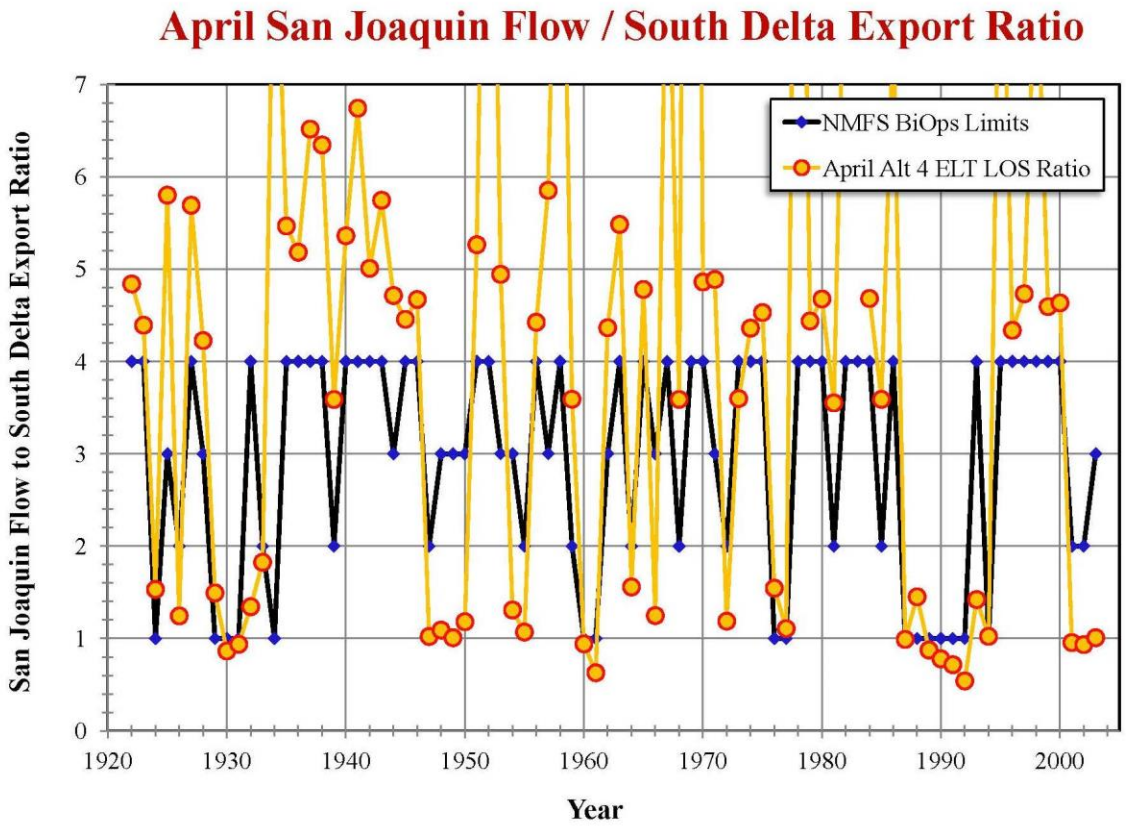


Figure F-12: The ratio of San Joaquin inflow at Vernalis to south Delta exports for BDCP Alternative 4, Low Outflow Scenario, at early long term. The BDCP proponents assumed the biological opinion limits will not apply to their project so the minimum ratio values are not always met.

Figure F-13 shows the corresponding south Delta exports for BDCP Alternative 4, Low Outflow Scenario, at early long term. These data are compared to the exports allowed under the 2009 NMFS biological opinion. The BDCP proponents are intending to significantly increase exports from the south Delta in April (and May) in at least 15 of the 82 years modeled. Considering an alleged benefit of the BDCP is reducing exports from the south Delta, the failure to fully disclose these increases in south Delta exports is particularly troubling.

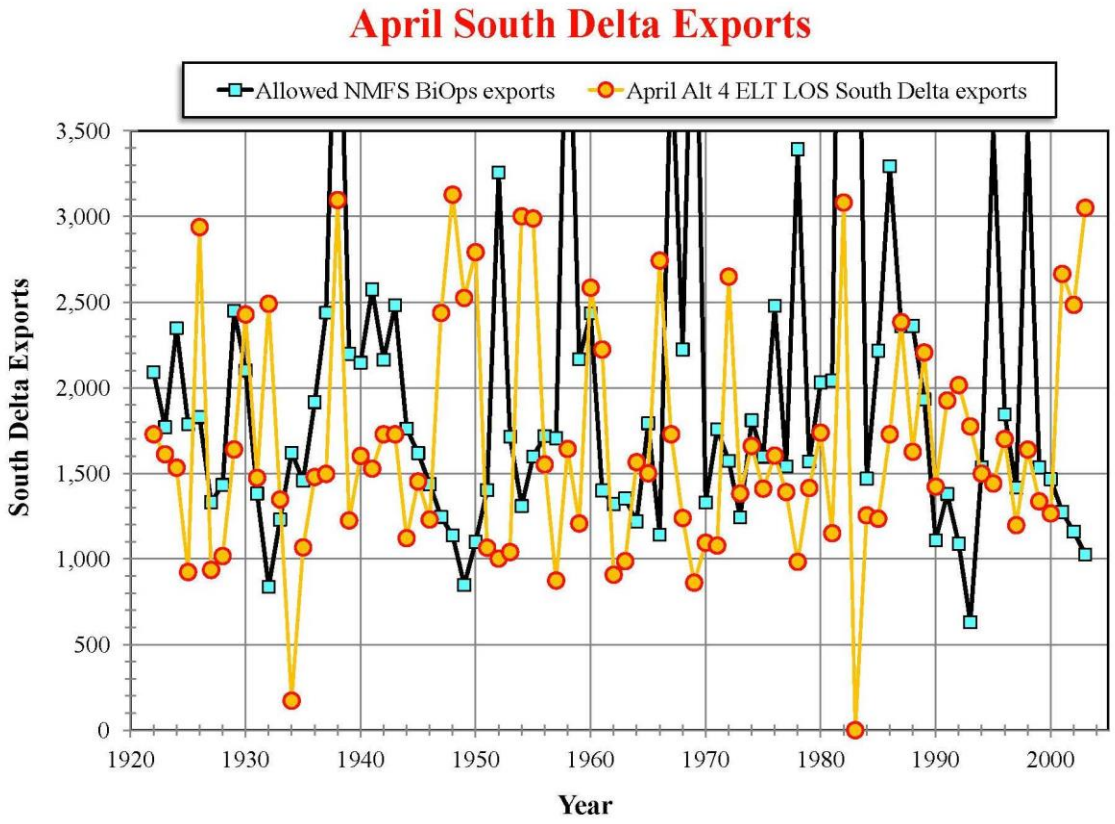


Figure F-13: The modeled south Delta exports for BDCP Alternative 4, Low Outflow Scenario, at early long term compared to the exports allowed under the 2009 NMFS biological opinion. The BDCP proponents are intending to significantly increase exports from the south Delta in April (and May) in at least 15 of the 82 years modeled.

The BDCP DEIR/EIS in Appendix 5A, page 5A-D150, concluded that "on a long-term average, there are minor changes in the flow and storage operations" from modifying the export/inflow ratio, and that "annual Delta exports remained similar between both approaches." A shift in Delta exports from May-June to July-August was also noted. However, the more detailed presentations of the data in Figures F-11 through F-13, suggest that there are sometimes **very large increases** in Delta exports as a result of the BDCP proposed modification to this D-1641 standard.

The DEIR/EIS is inadequate because it fails to clearly and adequately disclose that the BDCP proponents plan to operate the south Delta export pumps in excess of the current biological opinion requirements, and that this will significantly increase (rather than decrease) exports from the south Delta in many months. A new Draft EIR/EIS that corrects these failings must be prepared and released again for public review and comment.

- **Shasta storage**

The Draft BDCP Executive Summary on pages 48, 50, 53 and 55 states that "the BDCP does not propose any changes in Shasta operating criteria, and the BDCP does not affect upstream temperatures or flows in ways that would require a change in Shasta operations. However, the different new facilities and operating scenarios **do** change the storage levels in Lake Shasta. If the amount of cold water pool is reduced this could adversely impact salmonids below Shasta. This would change the quality (temperature) of upstream habitat, an important biological objective for winter-run Chinook salmon.

As shown in Figure F-14, the BDCP modeling of Shasta storage for the proposed project Low Outflow Scenario suggests that Shasta end-of-month storages will be significantly reduced in most years relative to the existing conditions (with Fall X2). The reductions will be greatest during drier years and would adversely impact salmonids. The High Outflow Scenario, on the other hand, generally increases Shasta end-of-month storage in drier years. The BDCP will change storage levels in Lake Shasta.

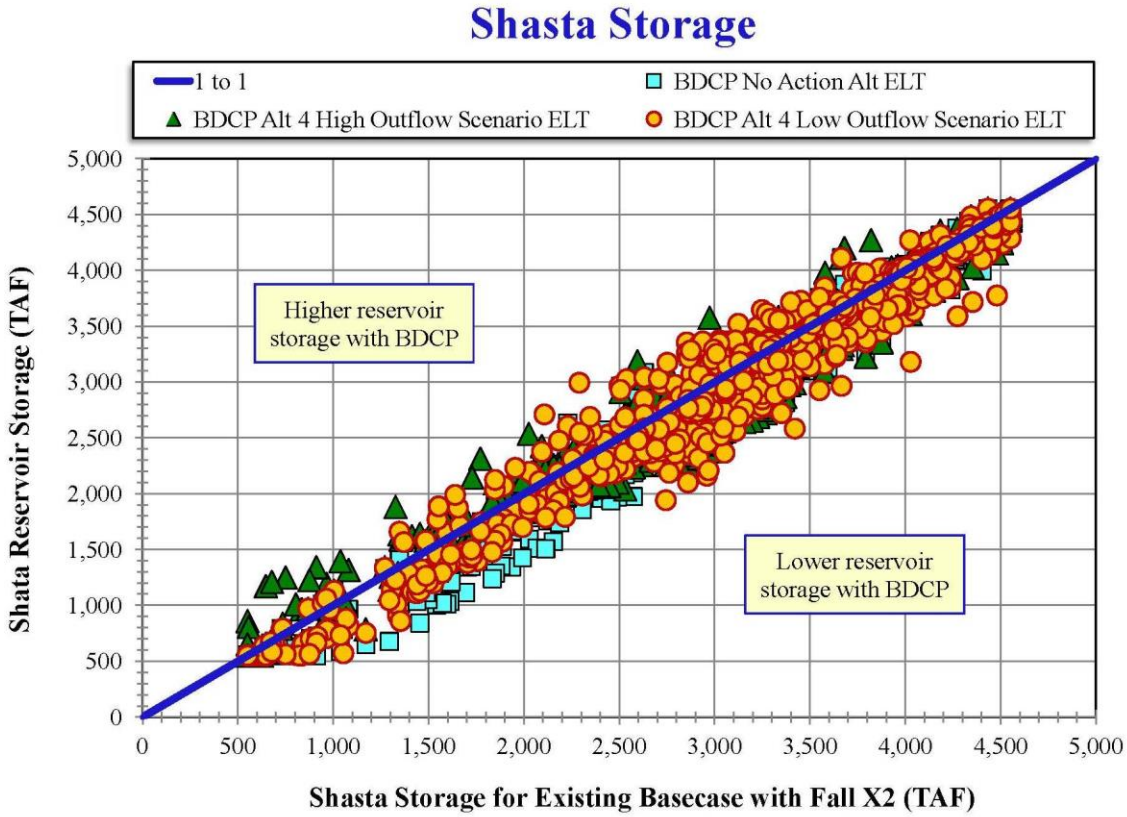


Figure F-14: The BDCP model output for Shasta reservoir storage for Alternative 4 High Outflow Scenario and Low Outflow Scenario at early long term compared to a BDCP Existing

Basecase with Fall X2. The BDCP proposed project will decrease Shasta storage, especially during the driest periods.

- **Impact of BDCP proposed project on Delta water quality**

The water quality modeling for the BDCP is not accurate enough to support approval of a project of the size and impact of the BDCP proposed project. The DSM2 water quality model output contain large spikes that often exceed existing SWRCB D-1641 water quality standards. For example, as shown in Figure F-15, the specific conductance (aka electrical conductivity or EC) spikes to 1,942 µS/cm in October 1981, which is equivalent to a chloride concentration of about 503 mg/L. Note: the EC values are converted to chloride concentration using the conversion equation $Cl = 0.285\ EC - 50$ (see equation 2 on page 8-134 of the DEIR/EIS).

The D-1641 chloride standard at the entrance to the Contra Costa Canal at Pumping Plant No. 1 (aka CCWD's Rock Slough intake) is a maximum of 250 mg/L year round (see DEIR/EIS Appendix 5A, page 5A-B11). The salinity at the Pumping Plant No. 1 is closely correlated with the salinity at Old River at Bacon Island when the Rock Slough intake is operating. The equivalent 250 mg/L chloride concentration and partial year chloride standard of 150 mg/L are also shown in Figure F-15. The October 1981 spike is well in excess of the 250 mg/L standard. Figure F-15 also shows a potential exceedence of the Pumping Plant No. 1 chloride standard for the Alternative 4 Low Outflow Scenario at late long term. Exceedences of the Pumping Plant No. 1 standard are not permitted in real life and should not be allowed in the BDCP modeling studies.

To meet Pumping Plant No. 1 standard in the BDCP modeling studies would require higher Delta outflows. Exceedances of this and other standards such as Jersey Point and Emmaton in the modeling studies mean that either the amount that can be exported in overestimated or the drawdown of upstream reservoir storage is underestimated.

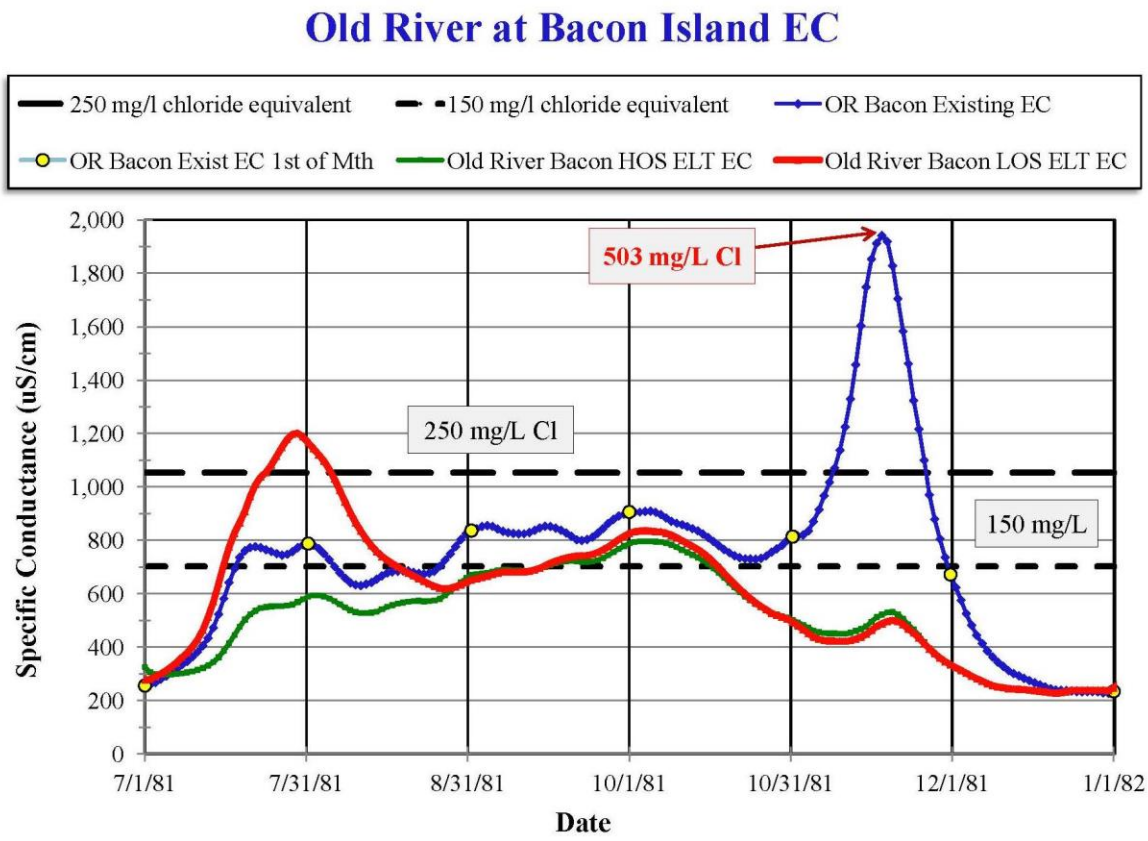


Figure F-15: BDCP modeling of daily salinities (as EC) at Old River at Bacon Island for the BDCP Existing Condition Basecase (with Fall X2), and Alternative 4 High and Low Outflow Scenarios at early long term for July-December 1981. The EC spike in November 1981 represents a probable violation of the SWRCB D-1641 chloride standard at the entrance to the Contra Costa Canal at Pumping Plant No. 1. Model studies that exceed existing D-1641 standards are not valid analyses of existing or future (with project) conditions.

Figure F-16 shows the daily salinities (as EC) at Old River at Bacon Island for the same BDCP alternatives for a later period, July-December 1989. All three simulations exceed the applicable D-1641 standard in November and December 1988. These model studies that exceed existing D-1641 standards are not valid analyses of existing or future (with project) conditions.

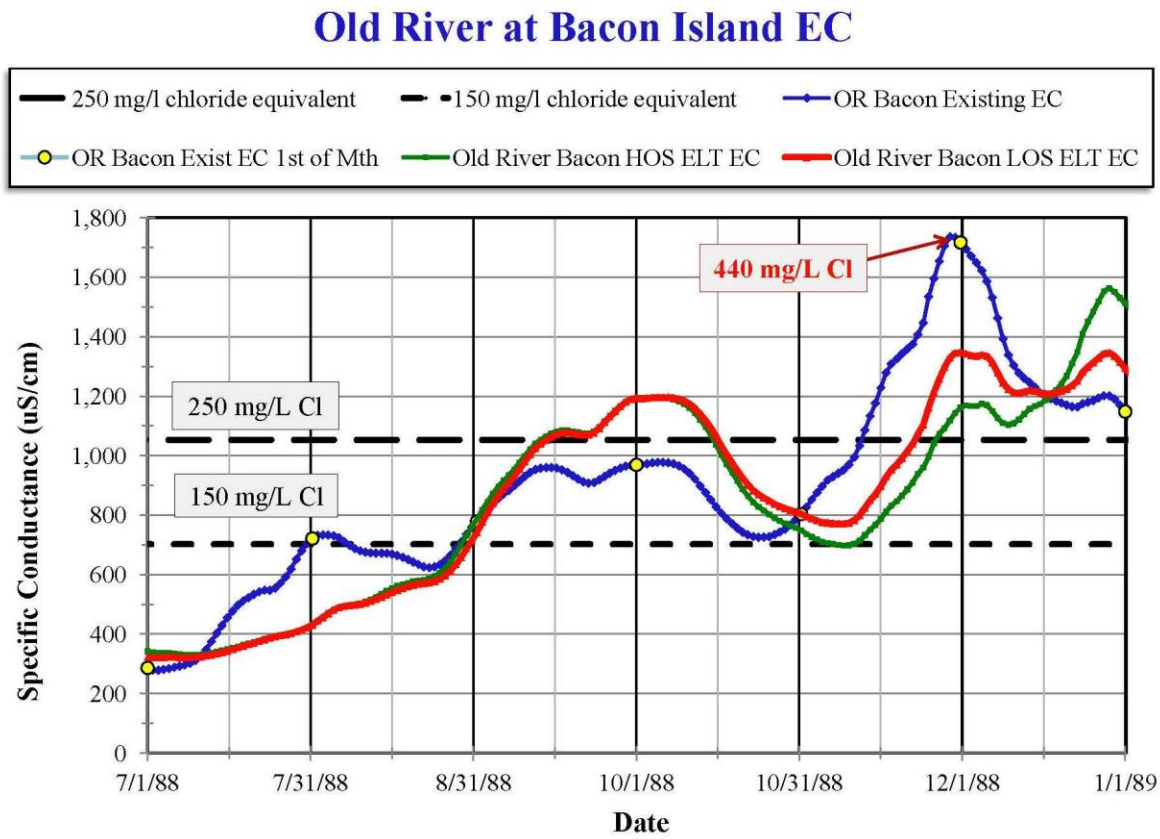


Figure F-16: BDCP modeling of daily salinities (as EC) at Old River at Bacon Island for the BDCP Existing Condition Basecase (with Fall X2), and Alternative 4 High and Low Outflow Scenarios at early long term for July-December 1989. All three simulations exceed the applicable D-1641 standard in November and December 1988.

Similar daily salinities simulations from the BDCP modeling for CCWD's intake on Old River at Highway 4 are shown in Figure F-17. Although CCWD's Old River intake is not a D-1641 compliance location, the November 1981 spike for the existing conditions simulation is not consistent with existing Delta operating regulations and is not a valid analysis for the purposes of disclosing potential BDCP impacts or export water supply benefits.

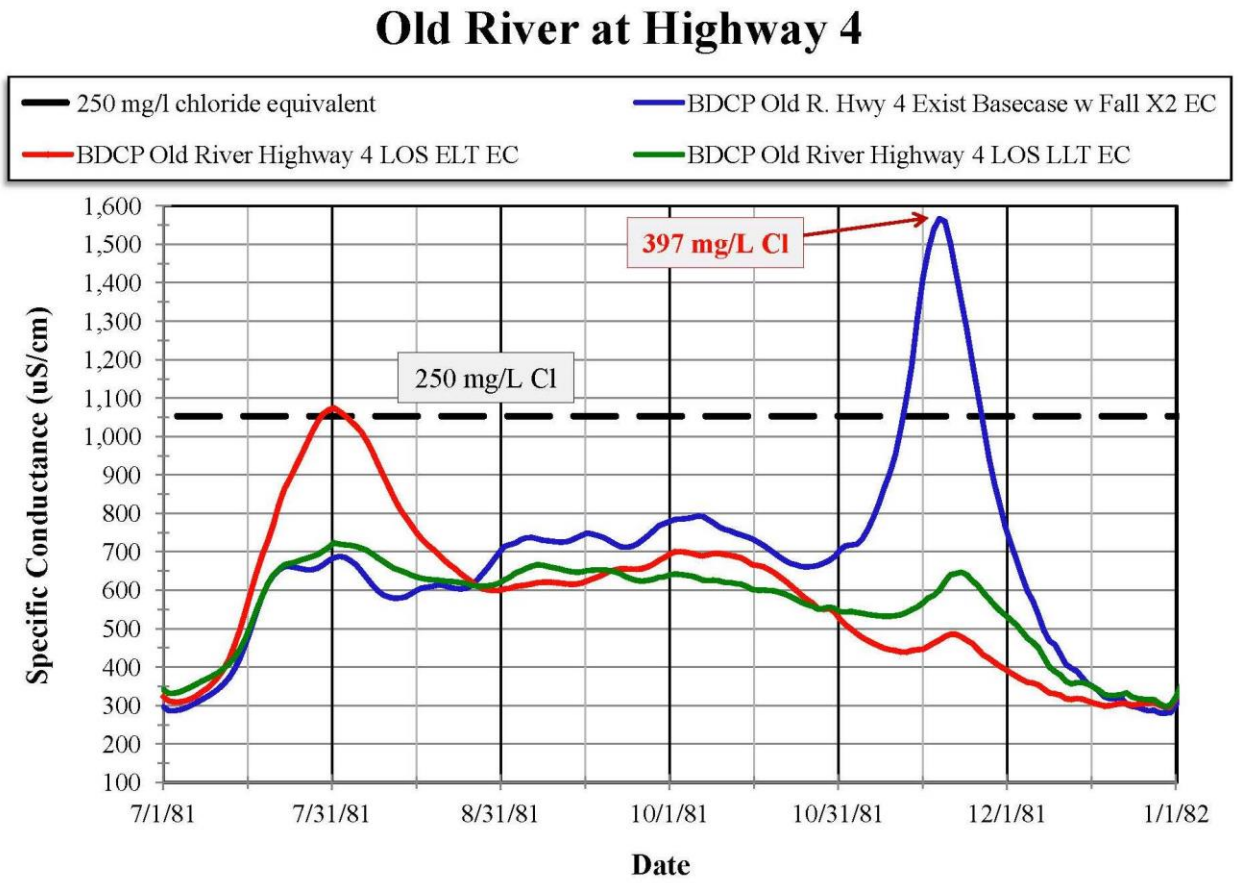


Figure F-17: BDCP modeling of daily salinities (as EC) at Old River at the Highway 4 crossing (CCWD intake) for the BDCP Existing Condition Basecase (with Fall X2), and Alternative 4 High and Low Outflow Scenarios at early long term for July-December 1981. The November 1981 spike for the existing conditions simulation is not consistent with existing Delta operating regulations and is not a valid analysis for the purposes of disclosing potential BDCP impacts or export water supply benefits.

Figure F-18 shows the BDCP simulations of daily EC at Old River at the Highway 4 crossing (CCWD's Old River intake) for the BDCP Existing Condition Basecase (with Fall X2), and Alternative 4 High and Low Outflow Scenarios at early long term. Contra Costa Water District relies on periods of good water quality (typically 50 mg/L or less) to fill Los Vaqueros Reservoir. The large increases in chloride concentrations caused by the BDCP proposed project (e.g., 50 mg/L up to 250 mg/L or as much as to 500%) will significantly impact the quality of drinking water delivered by CCWD to residents in eastern Contra Costa County.

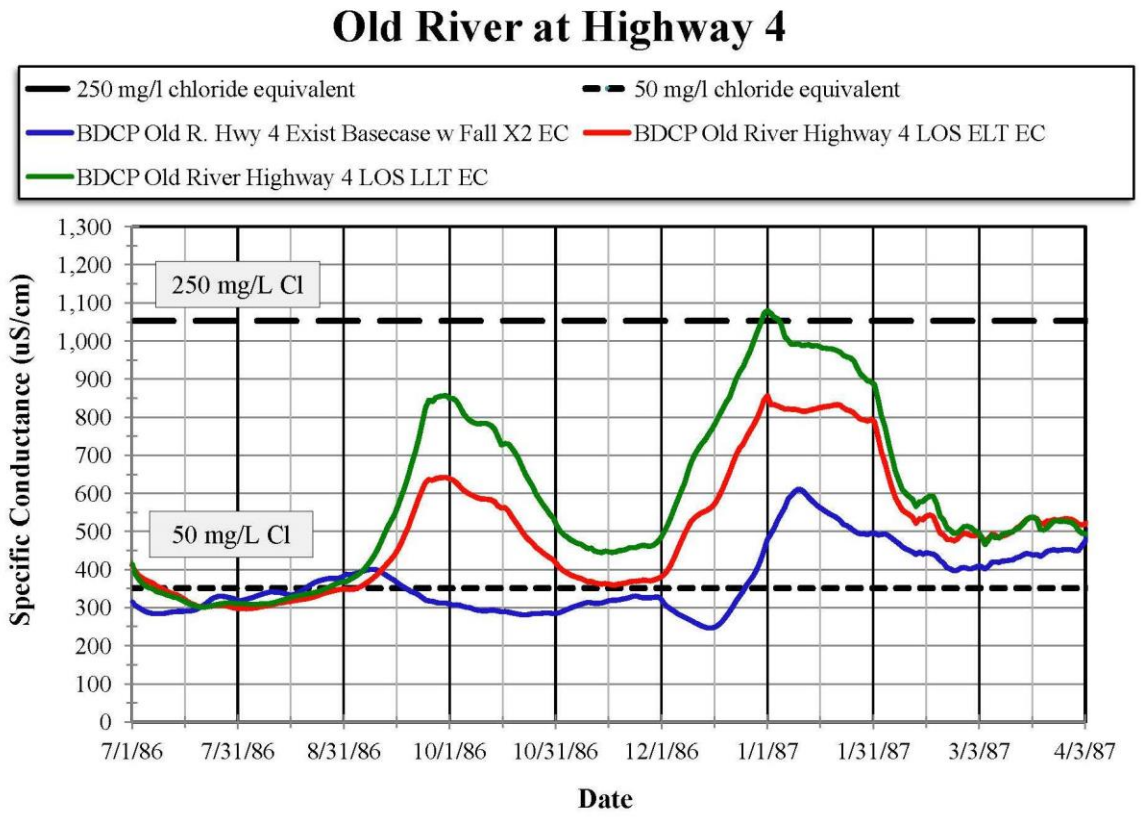


Figure F-18: BDCP modeling of daily salinities (as EC) at Old River at the Highway 4 crossing (CCWD intake) for the BDCP Existing Condition Basecase (with Fall X2), and Alternative 4 High and Low Outflow Scenarios at early long term for July 1986 – April 1987. Contra Costa Water District relies on periods of good water quality (typically 50 mg/L or less) to fill Los Vaqueros Reservoir. The large increases in chloride concentrations caused by the BDCP proposed project (50 up to 250 mg/L or as much as to 500%) will significantly impact the quality of drinking water delivered by CCWD to residents in eastern Contra Costa County.

Figures F-15 through F-18 are just a few examples of major errors in the BDCP modeling of Delta water quality. The BDCP model output contains unrealistic spikes and exceedances of existing SWRCB water quality standards for protection of municipal and industrial, agriculture and other beneficial uses. As a result the modeling studies are not valid simulations of the potential significant adverse impacts of the BDCP on Delta water quality or any export water supply benefits of the proposed project.

Other similar plots could be generated for other D-1641 compliance locations such as Jersey Point, Emmaton and the South Delta agricultural stations. However, this is the responsibility of the project proposers, not the public reviewers. The DEIR/EIS is inadequate and must be revised to include valid representations of the water quality variations with and without the proposed project alternatives. A new Draft EIR/EIS must then be released for public comment and review.

Attachment G

Previous Contra Costa County Comments on BDCP

The following are comments on the BDCP send previously by Contra Costa County to agencies that are proposing the BDCP. Contra Costa County also sent a December 2013 letter to three California Secretaries regarding the Draft California Water Action Plan and how it is addresses California's water supply and ecosystem, unlike the flawed BDCP proposal. Several of these letters are reproduced in this attachment. The County asks that the other letters be incorporated into the County's comments by reference.

Contra Costa County

- March 24, 2008 letter to National Marine Fisheries Service and U.S. Fish and Wildlife Service regarding the Notice of Intent for the Bay-Delta Conservation Plan from Roberta Goulart, Executive Officer, Contra Costa County Water Agency

- May 15, 2008 letter to Delores Brown, Chief, Office of Environmental Compliance, California Department of Water Resources, regarding Response to the Notice of Preparation for EIR and EIS for the Bay Delta Conservation Plan, from Julia R. Bueren, Public Works Director, Contra Costa County

- May 14, 2009 letter to Delores Brown, Chief, Office of Environmental Compliance, Department of Water Resources, regarding the Revised Notice of Preparation for the Bay Delta Conservation Plan from Roberta Goulart, Executive Officer, Contra Costa County Water Agency

- December 14, 2010 letter to Kenneth Salazar, Secretary of the Interior, regarding the Bay Delta Conservation Plan from Contra Costa County Supervisor Mary Nejedly Piepho

- May 25, 2011 letter to Gerald H. Meral, Deputy Secretary for Natural Resources, California regarding Contra Costa County request for participation in BDCP working groups from Contra Costa County Supervisor Mary Nejedly Piepho

- July 24, 2012 letter to Dr. Gerald Meral, Deputy Secretary of the California Natural Resources Agency regarding Contra Costa County's position on the Bay-Delta Conservation Plan from Contra Costa County Supervisor Mary Nejedly Piepho

- June 3, 2013 letter to Senator Dianne Feinstein and Members of Congress regarding Bay-Delta Conservation Plan Process from Contra Costa County Supervisors Mary Nejedly Piepho and Karen Mitchoff

- December 13, 2013 letter to John Laird, Secretary of California Natural Resources Agency, Matthew Rodriquez, Secretary of the California Environmental Protection Agency, and Karen Ross, Secretary of the California Department of Food and Agriculture, regarding the Draft California Water Action Plan, from Ryan Hernandez, Contra Costa County Water Agency.

Contra Costa Water District

Contra Costa County also shares the concerns raised by CCWD in this July 2012 letter to Secretary Laird, and CCWD's requests regarding modifying the BDCP.

- July 19, 2012 letter to The Honorable John Laird, Secretary of the California Natural Resources Agency regarding Bay-Delta Conservation Plan Impacts to Contra Costa Water District and its Customers, from Jerry Brown, General Manager of Contra Costa Water District

APPENDIX G4: 2008 LOCAL AGENCIES PRELIMINARY SCOPING COMMENTS

Water Agency

County Administration Building
651 Pine Street
4th Floor, North Wing
Martinez, California 94553-1229

Contra
Costa
County

March 24, 2008

National Marine Fisheries Service
Attn: Rosalie del Rosario
650 Capitol Mall, Suite 8-30
Sacramento, CA 95819

Fish and Wildlife Service
Attn: Lori Rinek, Chief
Conservation Planning & Recovery Div.
2800 Cottage Way W 2605
Sacramento, CA 95825

SUBJECT: NOTICE OF INTENT TO CONDUCT PUBLIC SCOPING AND PREPARE AN ENVIRONMENTAL IMPACT REPORT/ ENVIRONMENTAL IMPACT STATEMENT (EIR/EIS) RE THE BAY DELTA CONSERVTION PLAN (BDCP) FOR THE SACRAMENTO-SAN JOAQUIN DELTA

Dear Ms Del Rosario and Ms Rinek:

Thank you for the opportunity to comment on the proposed Notice of Intent for environmental documentation for the BDCP.

Because the BDCP project will consider key areas of great concern to the State of California and its inhabitants, it would seem appropriate for the environmental documents to be as complete and as encompassing as possible in terms of full review of all potential projects to accomplish intended goals.

The NOI does not elaborate upon goals of the process, other than to mention the need for Incidental Take Permits. Project goals do not seem to be forthcoming at this time, making it difficult to comment with any specificity. Despite the fact that environmental review of a project is underway, a project per se has not been defined, and no preferred project alternative has been outlined.

The NOI document mentions four conveyance options to be considered, and the intent of the process to narrow the project focus to one or two of these options by fall 2007. We are assuming the date contained in the document was meant to be fall 2008. If this is not correct, it would be important to have detail as to which options will continue to be considered.

In addition to the four conveyance options, the NOI indicates that a range of other activities may also be covered activities. For example, the NOI lists facility improvements to the CVP and SWP as a potential covered activity. This is an extremely

broad example. What kind of improvements are contemplated? New reservoirs? The vast and unclear scope of activities that may be covered make it very difficult to comment effectively on the necessary scope of the environmental review.

Furthermore, due to the huge scope of conveyance and ecosystem options currently under consideration by other agencies, the environmental documents for the BDCP should consider the full range of conveyance alternatives, including through delta conveyance along the eastern delta (as well as Old and Middle Rivers), and alternatives also including the San Joaquin River.

Though the NOI provides very little information on the covered activities related to water supply and delivery, it provides even less information on the conservation measures that will be performed under the BDCP. Is increasing freshwater flows for fish through the Delta one the conservation measures to be evaluated? It should be.

A range of water export volumes should also be examined, including an array of reduced export scenarios, (and appropriate isolated facility capacity downsizing) given the decimated status of the delta ecosystem and the recent Wanger export reductions.

Mitigation for conveyance activities covered as part of this project should be very clearly defined, as opposed to other restoration activities that will be ongoing within the delta. Current ESA law is clear that mitigation must be provided for takings. Furthermore, it is inappropriate for project mitigation to be paid by the taxpayers (through bonds or other means). As a result, project mitigation will need to be clearly defined and compensated accordingly.

Thank you for the opportunity to comment on the process as it has been defined. If you have questions, please do not hesitate to contact me at (925) 335-1226.

Sincerely,

Roberta Goulart,
Executive Officer
County Water Agency

Contra Costa County
Public Works
Department

Julia R. Bueren, Director
Deputy Directors
R. Mitch Avalon • Brian M. Balbas
Stephen Kowalewski • Patricia McNamee

May 15, 2008

Mrs. Delores Brown, Chief, Office of Environmental Compliance
Department of Water Resources
P.O. Box 942836
Sacramento, CA 94236

RE: Response to the Notice of Preparation
for EIR & EIS for the Bay Delta Conservation Plan

Dear Mrs. Brown

We are writing in response to the Notice of Preparation (NOP) for the Environmental Impact Report and Environmental Impact Statement (EIR & EIS) for the Bay Delta Conservation Plan (BDCP) dated March 17, 2008. Thank you for the opportunity to provide comments on this critical document.

The Contra Costa County Public Works Department (PWD) strongly supports the efforts to balance the needs for a reliable water supply and a sustainable Delta ecosystem. However, we are particularly concerned that any water conveyance system that bypasses the Delta may have significant adverse impacts on Contra Costa County (CCC), as well as the downstream portions of the Delta (and the Bays).

This letter will highlight our concerns with regards to the possible impacts to health and safety of the residents, property, and natural systems in CCC, as well as compliance with our National Pollution Discharge Elimination System (NPDES) Permit and the County's Floodplain Management Program. We request that these issues be addressed in the EIR & EIS.

Decreased Water Quality in Receiving Waters:

The proposed "re-plumbing" of the Delta will likely result in Sacramento River water being diverted, with less water reaching the western portion of the Delta, and a reduced amount of Sacramento River water passing through CCC (at least during non-storm events). This will increase the proportional contribution of the San Joaquin River's water to the western Delta (relative to Sacramento River water). Since the Sacramento River generally has a higher water quality (i.e. lower pollutant levels) than the San Joaquin River, the quality of water passing through the Delta and into San Pablo Bay (CCC's receiving waters) will be lower and will contain higher levels of pollutants.

A reduction in the quality of water entering the western Delta will most likely affect the County's NPDES permit and Total Maximum Daily Load (TMDL) requirements by resulting in increased water quality standards for water discharged from CCC's creeks and storm drain
systems to the receiving waters of the Delta and San Pablo Bay. The PWD requests that the EIS & EIR examine the relationships between flows into the western portion of the Delta and potential effects on water quality (and subsequent regulatory implications) when analyzing any alternatives involving bypassing/diverting flows from the Sacramento River to south Delta pumping facilities or otherwise modifying the Delta's flow regimes.

Decreased flows and water quality may also have adverse affects on the economy of the Delta's communities, which are highly dependent on the quality of water in the Delta. Agriculture, recreational boating, recreational and commercial fishing, and industrial water needs would all be negatively affected by a decrease in water quality in the Delta. In addition, the value of many private properties and residential communities located throughout the Delta will likely be adversely affected by a decrease in flow and water quality. Although CEQA and NEPA do not require specific economic analysis, CEQA does require an analysis of housing impacts. The EIR & EIS should analyze the potential effects of large-scale water diversions on agricultural, recreational, residential, industrial, and other business uses within the western portion of the Delta.

Decrease Flows and Resultant Increase in Sediment Deposits:

As mentioned above, one result of re-plumbing the Delta will be decreasing dry weather flows. This, in turn, will result in an increase in the deposition of sediment. This increased sediment deposition will have many significant negative impacts, including increased costs to maintain shipping channels, increased costs to maintain private and public marinas, and increased safety risk to boaters due to additional submerged deposits and exposed sand bars.

Although it is unlikely that flows associated with large storm events would be significantly affected by the re-plumbing of the Delta, the increased flows caused by these events will be impeded by accumulated sediment, and would require an increase in hydraulic head to flush through the Delta system and out to San Pablo Bay. This would increase the depth (height) of flood waters and will exacerbate pressure on flood control facilities and levee systems, resulting in increased probability of failure of levees and flood control systems, hereby increasing risks to both lives and properties. In addition, as a result any increase in flood water heights, Special Flood Hazard Areas (SFHAs), as mapped by the Federal Emergency Management Agency (FEMA), will likely expand. This will add additional properties to the SFHAs, which will increase costs to property owners for compliance with local floodplain regulations including the requirement for mandatory purchase of flood insurance. The PWD requests that the EIR & EIS carefully analyze the potential impacts that any proposed water conveyance

bypass system or conveyance modifications will have upon sediment accumulation in the western Delta, and the impacts that the additional sediment will have upon shipping routes, recreational uses, hydrologic characteristics, public services, flood hazards, and the potential for levee and other flood control structural failures.

Decrease in Flows and Resulting Increase in Salt Water Intrusion:

Due to the decrease in Sacramento River (and overall) flows, salt water from San Francisco Bay will likely encroach further up-stream into the Delta. More extensive salt water intrusion will severely impact residents, farmers, and other businesses dependent on local Delta sources for their water supply. Increased salinity will also have significant detrimental effects on the aquatic life currently supported by the Delta, and will most likely result in decreases in populations of already threatened aquatic species and may result in an increase in non-native invasive species. The likelihood of increased salt water intrusion into the Delta needs to be analyzed and mitigated.

In addition to these comments, please also refer to the March 24th, 2008 letter from the Contra Costa County Water Agency to the Federal agencies regarding the NOI for the BDCP. This letter provides additional comments relative to this project and the NOP.

Thank you again for the opportunity to comment on this NOP for the Bay and Delta Conservation Plan EIR & EIS. We strongly believe that the above discussed issues should be addressed in the EIR & EIS plan. If you have questions with regards to this letter feel free to contact Rich Lierly, our Floodplain and Watershed Manager at (925) 313-2348 or email at rlier@pw.cccounty.us.

Very Truly Yours,

Julia R. Bueren
Public Works Director
Contra Costa County

RL:jj:lz
G:\FldCtl\NPDES\BDCP\Nop comment letter 5-13-08 final.doc

c: Members of the Board of Supervisors
J. Crapo, CAO
M. Avalon, Deputy Director, Public Works
G. Connaughton, Flood Control, Public Works
T. Jensen, Flood Control, Public Works
R. Lierly, County Watershed Program, Public Works
R. Goulart, Community Development Department
D. Freitas, Clean Water Program
M. Wara, Administration

Water Agency

County Administration Building
651 Pine Street
4th Floor, North Wing
Martinez, California 94553-1229

Contra Costa County

Ms. Delores Brown
Chief, Office of Environmental Compliance
Department of Water Resources
P.O. Box 94236
Sacramento, CA

May 14, 2009

Dear Ms. Brown:

Thank you for the opportunity to provide comments on the Revised Notice of Preparation of the Environmental Impact Report and Environmental Impact Statement (EIR/S) documents for the Bay Delta Conservation Plan (BDCP). On separate occasions, both the Contra Costa County Water Agency (3/24/08) and the County Public Works Department have provided specific comments on earlier scoping iterations for this project (see enclosures). We request that these comments be incorporated into the current scoping process. It does not appear that the Water Agency's comments were included in your February 2009 Preliminary Scoping Report. Our latest comments are as follows;

The Habitat Conservation Plan process makes it difficult to understand feasible conveyance alternatives appropriate for the EIR. We question using a Habitat Conservation Plan (HCP) context to frame the environmental review and analysis for a major new isolated conveyance facility project, as the impacts of such a facility encompass a far greater array of impact categories than the permitted 'take' of targeted species. Can you provide background and context for this approach? Will the level of analyses reflect a large number of alternatives to isolated conveyance and the range of potential sizes and capacities of such a facility? Will the EIR/S consider reduced exports or regional self-sufficiency to attain stated goals? Environmental documentation for HCP's usually have a relatively narrow focus on species and restoration, relying on program-level environmental documents to describe the broad range of other required components (such as land use, agriculture, transportation, utilities, other infrastructure & public service systems, cultural resources, etc.) related to the project itself. How will you structure this document to enable the full range of required environmental review for the project in the larger context?

The potential for social and economic impacts needs to be evaluated. The social and economic impacts of an isolated facility, coupled with the conversion of significant tracts of land from agriculture into habitat will indeed be significant. The EIR/S will need to capture the wide range of impacts and complexities inherent in such a scale of change to the Delta.

The EIR should include scientific justification of the geographic scope of its environmental analysis. The existing Delta ecosystem is a part of a much larger estuary that includes a massive watershed. The Delta today has been decimated in many different ways by a number of factors, including but not entirely limited to exports of water from the system. The scientific analysis of conveyance and ecosystem restoration will need to take into account the larger system (and the

factors affecting it), to enable accurate analysis of past and proposed project impacts to a portion of that system, as well as sound mitigation of those impacts. How will you tailor the environmental review to accomplish this?

Evaluation of a canal cannot be isolated from the rest of the water supply and flood control system. The existing antiquated water supply system of which a proposed canal would be part, is critically challenged by a number of factors, among them a lack of storage, increasing precipitation and flood flow among other things, which directly affect how the system operates. How can detailed planning of an isolated facility occur with any measure of future success in the absence of concurrent detailed planning on these other, critically important components of an improved system? How will the BDCP's water quality standards and other performance measures in the Delta be assured if other vulnerable parts of the water supply system fail? How will the EIR/S address this?

Evaluation of the project's effect on outflows and the impact on fish is critical. Outflow is a critical component of a healthy ecosystem, and has a strong scientific correlation to the health of fish species in the Delta and the Bay. Decreased outflow will have clear negative impacts to fish. How will this be addressed?

Initial work should focus on answering fundamental questions on the Delta ecosystem. The fundamental question "How much water in any given season of any given water year is needed to maintain a healthy ecosystem" needs to be determined prior to any meaningful compilation of environmental impacts of new conveyance projects, and restoration activities. How and when will this be accomplished? How can impacts of a new facility on such a decimated existing system realistically be measured? Will the effects of pumping on the existing Delta be identified and incorporated in some way in the EIR/S?

Potential impacts of the project on the Delta Community need to be evaluated.

- How will outflow quantity and quality change under the BDCP? How will changes in Sacramento River and San Joaquin River flow and resultant water quantity affect water supply to Contra Costa County, and water providers and users within the County?

- How will increased salinity (and perhaps changed flow patterns) in the western Delta affect groundwater in the communities that depend on it? How will the project ensure improved water quality for the Central and Western Delta?

- Decreases in outflow will lead to a decrease in sediment transport and increased sediment deposition in Delta channels and at the mouth of creeks, increasing risk of flooding and levee failure and increased dredging. This will have economic impacts to the shipping industry, hazards to boating and increasing Total Maximum Daily Loads (TMDL) requirements, among other things. How will this be assessed in the EIR/S?

- Decreased flow from the Sacramento River and resultant water quality degradation will result in decreased economic vitality in water-based industries (such as commercial/recreational fisheries), recreation, and heavy industry that needs fresh water. These impacts will need to be addressed.

- A decrease in water quality from an increase in San Joaquin flow will lead to increased National Pollution Discharge Elimination System (NPDES) permit regulations and stricter TMDL's. These impacts will need to be addressed in the EIR/S.

- Decreased circulation near Clifton Court Forebay due to proposed flow barriers would lead to potential negative water quality impacts (and resultant negative economic impacts) in the Discovery Bay area. How will this be addressed?

Details need to be disclosed on the dual conveyance alternative. Dual conveyance will require the rehabilitation of levees along Middle River, the proposed conveyance route. The EIR/S will need to provide detail on how this will be accomplished, where sediment will be obtained, a timeline for completion and other items. This, as well as rehabilitation of western levees critical to maintaining existing water quality should be considered as an earlier phase of the overall project to be accomplished, to help ensure continued water supply.

Details need to be disclosed on the canal alternative. A canal (as opposed to a pipeline or other improved structure) will carry with it many of the same problems that exist in the Delta today, such as seepage, seismic instability, problematic peat soils to name a few. How will the EIR/S address these problems? Will the EIR/S consider a more solid structure that avoids these problems, such as a pipeline?

BDCP goals and actions need to be coordinated with local conservation programs. There are a number of ecosystem improvements that may take place in the western Delta, in and around Contra Costa County that will have a broad range of impacts affecting water quality, land use, the economy, etc. How will these ecosystem issues be addressed and how will the state include the local agencies in the planning process? The County has an existing HCP/NCCP in this area of the County. Among many other policies, the County calls for mitigation of impacts in Contra Costa County to occur within the County as well. A clear analysis of the specific project, its impacts, mitigation of those impacts and costs of doing so should be presented in the environmental report.

Thank you for the opportunity to comment on the Revised Notice of Preparation for the EIR/S for the BDCP. If you have questions, please contact me at (925) 335-1226, or rgoul@cd.cccounty.us

Sincerely,

Roberta Goulart
Executive Officer
Contra Costa County Water Agency

Enclosures

Water Agency

County Administration Building
651 Pine Street
4th Floor, North Wing
Martinez, California 94553-1229

Contra
Costa
County

March 24, 2008

National Marine Fisheries Service
Attn: Rosalie del Rosario
650 Capitol Mall, Suite 8-30
Sacramento, CA 95819

Fish and Wildlife Service
Attn: Lori Rinek, Chief
Conservation Planning & Recovery Div.
2800 Cottage Way W 2605
Sacramento, CA 95825

SUBJECT: NOTICE OF INTENT TO CONDUCT PUBLIC SCOPING AND PREPARE AN ENVIRONMENTAL IMPACT REPORT/ ENVIRONMENTAL IMPACT STATEMENT (EIR/EIS) RE THE BAY DELTA CONSERVTION PLAN (BDCP) FOR THE SACRAMENTO-SAN JOAQUIN DELTA

Dear Ms Del Rosario and Ms Rinek:

Thank you for the opportunity to comment on the proposed Notice of Intent for environmental documentation for the BDCP.

Because the BDCP project will consider key areas of great concern to the State of California and its inhabitants, it would seem appropriate for the environmental documents to be as complete and as encompassing as possible in terms of full review of all potential projects to accomplish intended goals.

The NOI does not elaborate upon goals of the process, other than to mention the need for Incidental Take Permits. Project goals do not seem to be forthcoming at this time, making it difficult to comment with any specificity. Despite the fact that environmental review of a project is underway, a project per se has not been defined, and no preferred project alternative has been outlined.

The NOI document mentions four conveyance options to be considered, and the intent of the process to narrow the project focus to one or two of these options by fall 2007. We are assuming the date contained in the document was meant to be fall 2008. If this is not correct, it would be important to have detail as to which options will continue to be considered.

In addition to the four conveyance options, the NOI indicates that a range of other activities may also be covered activities. For example, the NOI lists facility improvements to the CVP and SWP as a potential covered activity. This is an extremely

broad example. What kind of improvements are contemplated? New reservoirs? The vast and unclear scope of activities that may be covered make it very difficult to comment effectively on the necessary scope of the environmental review.

Furthermore, due to the huge scope of conveyance and ecosystem options currently under consideration by other agencies, the environmental documents for the BDCP should consider the full range of conveyance alternatives, including through delta conveyance along the eastern delta (as well as Old and Middle Rivers), and alternatives also including the San Joaquin River.

Though the NOI provides very little information on the covered activities related to water supply and delivery, it provides even less information on the conservation measures that will be performed under the BDCP. Is increasing freshwater flows for fish through the Delta one the conservation measures to be evaluated? It should be.

A range of water export volumes should also be examined, including an array of reduced export scenarios, (and appropriate isolated facility capacity downsizing) given the decimated status of the delta ecosystem and the recent Wanger export reductions.

Mitigation for conveyance activities covered as part of this project should be very clearly defined, as opposed to other restoration activities that will be ongoing within the delta. Current ESA law is clear that mitigation must be provided for takings. Furthermore, it is inappropriate for project mitigation to be paid by the taxpayers (through bonds or other means). As a result, project mitigation will need to be clearly defined and compensated accordingly.

Thank you for the opportunity to comment on the process as it has been defined. If you have questions, please do not hesitate to contact me at (925) 335-1226.

Sincerely,

Roberta Goulart,
Executive Officer
County Water Agency

Contra Costa County
Public Works
Department

Julia R. Bueren, Director
Deputy Directors
R. Mitch Avalon • Brian M. Balbas
Stephen Kowalewski • Patricia McNamee

May 15, 2008

Mrs. Delores Brown, Chief, Office of Environmental Compliance
Department of Water Resources
P.O. Box 942836
Sacramento, CA 94236

RE: Response to the Notice of Preparation
for EIR & EIS for the Bay Delta Conservation Plan

Dear Mrs. Brown

We are writing in response to the Notice of Preparation (NOP) for the Environmental Impact Report and Environmental Impact Statement (EIR & EIS) for the Bay Delta Conservation Plan (BDCP) dated March 17, 2008. Thank you for the opportunity to provide comments on this critical document.

The Contra Costa County Public Works Department (PWD) strongly supports the efforts to balance the needs for a reliable water supply and a sustainable Delta ecosystem. However, we are particularly concerned that any water conveyance system that bypasses the Delta may have significant adverse impacts on Contra Costa County (CCC), as well as the downstream portions of the Delta (and the Bays).

This letter will highlight our concerns with regards to the possible impacts to health and safety of the residents, property, and natural systems in CCC, as well as compliance with our National Pollution Discharge Elimination System (NPDES) Permit and the County's Floodplain Management Program. We request that these issues be addressed in the EIR & EIS.

Decreased Water Quality in Receiving Waters:

The proposed "re-plumbing" of the Delta will likely result in Sacramento River water being diverted, with less water reaching the western portion of the Delta, and a reduced amount of Sacramento River water passing through CCC (at least during non-storm events). This will increase the proportional contribution of the San Joaquin River's water to the western Delta (relative to Sacramento River water). Since the Sacramento River generally has a higher water quality (i.e. lower pollutant levels) than the San Joaquin River, the quality of water passing through the Delta and into San Pablo Bay (CCC's receiving waters) will be lower and will contain higher levels of pollutants.

A reduction in the quality of water entering the western Delta will most likely affect the County's NPDES permit and Total Maximum Daily Load (TMDL) requirements by resulting in increased water quality standards for water discharged from CCC's creeks and storm drain
systems to the receiving waters of the Delta and San Pablo Bay. The PWD requests that the EIS & EIR examine the relationships between flows into the western portion of the Delta and potential effects on water quality (and subsequent regulatory implications) when analyzing any alternatives involving bypassing/diverting flows from the Sacramento River to south Delta pumping facilities or otherwise modifying the Delta's flow regimes.

Decreased flows and water quality may also have adverse affects on the economy of the Delta's communities, which are highly dependent on the quality of water in the Delta. Agriculture, recreational boating, recreational and commercial fishing, and industrial water needs would all be negatively affected by a decrease in water quality in the Delta. In addition, the value of many private properties and residential communities located throughout the Delta will likely be adversely affected by a decrease in flow and water quality. Although CEQA and NEPA do not require specific economic analysis, CEQA does require an analysis of housing impacts. The EIR & EIS should analyze the potential effects of large-scale water diversions on agricultural, recreational, residential, industrial, and other business uses within the western portion of the Delta.

Decrease Flows and Resultant Increase in Sediment Deposits:

As mentioned above, one result of re-plumbing the Delta will be decreasing dry weather flows. This, in turn, will result in an increase in the deposition of sediment. This increased sediment deposition will have many significant negative impacts, including increased costs to maintain shipping channels, increased costs to maintain private and public marinas, and increased safety risk to boaters due to additional submerged deposits and exposed sand bars.

Although it is unlikely that flows associated with large storm events would be significantly affected by the re-plumbing of the Delta, the increased flows caused by these events will be impeded by accumulated sediment, and would require an increase in hydraulic head to flush through the Delta system and out to San Pablo Bay. This would increase the depth (height) of flood waters and will exacerbate pressure on flood control facilities and levee systems, resulting in increased probability of failure of levees and flood control systems, hereby increasing risks to both lives and properties. In addition, as a result any increase in flood water heights, Special Flood Hazard Areas (SFHAs), as mapped by the Federal Emergency Management Agency (FEMA), will likely expand. This will add additional properties to the SFHAs, which will increase costs to property owners for compliance with local floodplain regulations including the requirement for mandatory purchase of flood insurance. The PWD requests that the EIR & EIS carefully analyze the potential impacts that any proposed water conveyance

bypass system or conveyance modifications will have upon sediment accumulation in the western Delta, and the impacts that the additional sediment will have upon shipping routes, recreational uses, hydrologic characteristics, public services, flood hazards, and the potential for levee and other flood control structural failures.

Decrease in Flows and Resulting Increase in Salt Water Intrusion:

Due to the decrease in Sacramento River (and overall) flows, salt water from San Francisco Bay will likely encroach further up-stream into the Delta. More extensive salt water intrusion will severely impact residents, farmers, and other businesses dependent on local Delta sources for their water supply. Increased salinity will also have significant detrimental effects on the aquatic life currently supported by the Delta, and will most likely result in decreases in populations of already threatened aquatic species and may result in an increase in non-native invasive species. The likelihood of increased salt water intrusion into the Delta needs to be analyzed and mitigated.

In addition to these comments, please also refer to the March 24th, 2008 letter from the Contra Costa County Water Agency to the Federal agencies regarding the NOI for the BDCP. This letter provides additional comments relative to this project and the NOP.

Thank you again for the opportunity to comment on this NOP for the Bay and Delta Conservation Plan EIR & EIS. We strongly believe that the above discussed issues should be addressed in the EIR & EIS plan. If you have questions with regards to this letter feel free to contact Rich Lierly, our Floodplain and Watershed Manager at (925) 313-2348 or email at rlier@pw.cccounty.us.

Very Truly Yours,

Julia R. Bueren
Public Works Director
Contra Costa County

RL:jj:lz
G:\FldCtl\NPDES\BDCP\Nop comment letter 5-13-08 final.doc

c: Members of the Board of Supervisors
J. Crapo, CAO
M. Avalon, Deputy Director, Public Works
G. Connaughton, Flood Control, Public Works
T. Jensen, Flood Control, Public Works
R. Lierly, County Watershed Program, Public Works
R. Goulart, Community Development Department
D. Freitas, Clean Water Program
M. Wara, Administration

County of Contra Costa
Office of the Sheriff
Warren E. Rupf
Sheriff

September 17, 2009

Dolores Brown, Chief
Office of Environmental Compliance
Department of Boating and Water Resources
P.O. Box 942836
Sacramento, CA 94236

Dear Ms. Brown:

I write you with regard to what has been described to me as the Bay Delta Conservation Plan to construct new, permanent barriers and gates, in and through Delta waterways. As a Sheriff with responsibility for on water enforcement, and search and rescue responsibilities on Delta waterways, I have some obvious concerns.

We have not been consulted, advised, or otherwise involved in, what one piece of literature describes as, a project that "…could be completed and operating by early 2010." Any dam or gate in the area which is apparently being discussed would have a tremendous impact on vessel traffic in and through our County. A section of Old River apparently referred to in your discussions, is the main thoroughfare between our northern county line and the community of Discovery Bay. We must have 24/7 access to respond to emergencies on or near these waterways.

Our needs and concerns must be considered, and I leave it to you to determine the manner and means of those considerations.

Sincerely,

WARREN E. RUPF, Sheriff

WER:mw

Cc: Mike Chrisman, Secretary of Natural Resources Agency
Lester Snow, Director Department of Water Resources
Sheriff Clay Parker, President California State Sheriffs' Association
David Twa, County Administrator Contra Costa County
Lieutenant Will Duke, Marine Services

County Supervisor Mary Nejedly Piepho, District III
CONTRA COSTA COUNTY BOARD OF SUPERVISORS

December 14, 2010

The Honorable Ken Salazar
Secretary of the Interior
Department of the Interior
1849 C Street, N.W.
Washington, DC 20240

RE: Bay-Delta Conservation Plan

Dear Secretary Salazar:

Contra Costa County appreciates the Department of Interior's actions to date regarding the Bay Delta Conservation Plan (BDCP). First, by recently declining to offer assurances when there is no guarantee that fish populations will recover, and before all the scientific data are developed and environmental documents are completed. Second, the U.S. Fish and Wildlife Services' actions under the Endangered Species Act in proposing operational criteria that offer the best hope for recovery of the at-risk fish species. The current draft BDCP proposed project will not lead to recovery of these species.

We disagree with the characterization of the status of the BDCP and the role of the Department of Interior in Westlands Water District's November 22, 2010 letter to Deputy Secretary David Hayes. Contra Costa County believes:

1. A process which improves water supply reliability and restores the ecosystem (and fishery) is needed and must succeed: the status quo is unacceptable to everyone.
2. The BDCP development process is currently dysfunctional and must be changed; it must include local participation and encompass broader goals, among other things.
3. Flows in the Delta must, at the very least, be increased in order to restore and sustain the Delta ecosystem.
4. The co-equal goals cannot be met under current BDCP scenarios. It is not clear given Westlands' recent actions, that Westlands, and perhaps others, truly support co-equal goals. A process that will achieve the co-equal goals is fundamental to a sustainable solution for the Bay-Delta.

Westlands' letter appears to be a misdirected response to the growing consensus that flows cannot continue to be reduced by increasing diversions from the Delta.

309 Diablo Road, Danville, CA 94526 • 181 Sand Creek Road, Suite L, Brentwood, CA 94513
Danville Phone: (925) 820-8683 • FAX: (925) 820-6627 • Brentwood Phone: (925) 240-7260 • FAX: (925) 240-7261
Email: Dist3@BOS.CCCounty.us • www.co.contra-costa.ca.us/depart/dis3/index.htm

We do not believe the co-equal goals can be met with reduced flow, particularly without looking at the larger picture, for example, by considering new storage and potential habitat and flow improvements in the upstream tributaries.

Contra Costa County borders onto Northern San Francisco Bay and the Sacramento-San Joaquin Delta. The residents of Contra Costa County rely on the Delta for their municipal and industrial water supply, for fishing and other forms of recreation, for work and as a place to live. The County has a strong interest in protecting Delta water quality, restoring the Delta to a sustainable ecosystem, and preserving the values of the Delta as a place to live, work and recreate.

The Sacramento-San Joaquin Delta ecosystem has undergone significant degradation over the last 160 years or more and is now at the point where native fisheries, once thriving, are now on the point of extinction. The December 1994 "Principles for Agreement on Bay-Delta Standards between the State of California and the Federal Government" (also referred to as the Bay-Delta Accord) was an important step toward restoring the Delta ecosystem. This negotiated agreement was the result of participation by major water users and environmental groups, not just the state and federal regulatory agencies. A new estuarine habitat (X2) standard was developed as well as new limits on export diversions from the Delta. Unfortunately, the actions in the Bay-Delta Accord proved to be insufficient and in the early 2000s, the pelagic organisms underwent a serious decline, followed by serious decreases in the populations of Chinook salmon and steelhead. Since the 1994 Accord, exports have continued to increase and there has been a significant shift in the timing of diversions from the spring to the fall, hastening species decline. Because of the precipitous decline in threatened and endangered species, any water supply guarantees or assurances that were understood or implied in 1994 can no longer be considered valid.

Since 1994, the CALFED Bay-Delta Program, and now the Delta Stewardship Council and BDCP have devoted considerable time and resources in scientific research into the causes of the fish decline and development of actions to reverse the decline. The BDCP process has produced some useful ideas for setting biological goals and objectives: however, the relationships between flows, habitat and species abundance, and governance, after 4 years, $150 million and 122 Steering Committee meetings, has resulted in a flawed and incomplete working draft.

The water contractors, as Potentially Regulated Entities (PREs), have spent considerable funds on developing a proposed project that many of the BDCP Steering Committee members and federal regulatory agencies have determined may harm rather than benefit the very fish species it is supposed to protect. Additional work is needed to modify and reanalyze the proposed conveyance facilities, habitat restoration areas, and operational criteria. That will require additional funding and time, and a complete change in the way the BDCP is being developed.

Much of the fault for the inadequacy of the current working draft of the BDCP lies with the PREs themselves and their unrealistic expectations.

1. The PREs argue that the BDCP isolated 15,000 cubic feet per second facility will benefit fish by reducing exports from the south Delta, despite arguing strenuously in court and other venues that their south Delta exports are not causing fish to decline.
2. Moving the diversion facilities to the north Delta directly along the migratory pathway for the winter- run salmon and other anadromous fish is also a major cause for concern.
3. To avoid additional permitting delays, the PREs decided up front not to include increased storage (necessary to reduce exports in drier periods) or flow, operations and habitat modifications in tributaries upstream of the Delta.
4. To avoid having to increase Delta flows (by reducing export diversions), the PREs offered to develop new, and necessary, habitat areas in the Delta. However, increased flows are still needed to provide the necessary connectivity and transport of fish species to and from the habitat areas and to allow diversity in the distribution of fish throughout the Delta.
5. Although the new habitat is intended by the PREs to offset their existing and future increased diversions, they argue that the cost of this new habitat should be a public expense.
6. Although a Steering Committee was established to guide development of the BDCP, much of the information developed by the consultants, and the feedback from technical reviewers, was withheld from the Steering Committee members. The comments by many of the Steering Committee members at meetings, and their written comments, were largely ignored and not incorporated into the BDCP.
7. The environmental group representatives (and federal agencies) on the Steering Committee argued from early on that there needed to be well defined biological goals and objectives before the effects of the proposed project could be analyzed. This task still has not been completed.
8. Only one "proposed project" has been fully analyzed – the promised range of alternatives and subsequent iterations never happened. The recommendations for increased Delta flows by the State Water Resources Control Board and California Department of Fish and Game have not only been ignored, but the proposed project significantly reduces flows in the fall (leading federal biologists to find the project will harm fish).
9. The BDCP management and consultants have refused to share the full Effects Analysis and the comments of reviewers with the Steering Committee or the public, or even the National Research Council scientific panel that has been asked to review the scientific underpinnings of the BDCP. Without an open and transparent process involving all stakeholders, the BDCP is heading for failure.

10. The PREs have developed the attitude that because they have already spent so much time and money on analyzing this flawed initial alternative no more work is necessary.

A process with a more open and cooperative approach, a wider project area, and broader goals and objectives could succeed. Local county and municipal agencies have not been included in the BDCP process, leaving a large and critical component out of these deliberations to date. All parties at the table must understand the need for compromise or the status quo will prevail. Critical to success is the acknowledgement by all parties that there must be an increase in Delta flows if the Delta ecosystem is to be healthy and resilient. During drier periods, when flows are already low, it is unrealistic to expect that exports can be increased without further degrading (rather than restoring) the Delta ecosystem.

We commend the Department of Interior and the other federal agencies for bringing much-needed scientific expertise and a broader, independent perspective to an exceedingly complex task – a task that will require significant continued federal commitment if it is to succeed. As a local agency with jurisdiction over a large portion of the Delta, we look forward to discussions related to what the broader perspective should include and to working with you more closely as the BDCP (or other refined process) evolves that would further the co-equal goals established in state statute.

Sincerely,

MARY NEJEDLY PIEPHO
County Supervisor, District III

cc: The Honorable David Hayes
The Honorable David Nawi
The Honorable Dianne Feinstein
The Honorable George Miller
The Honorable John Garamendi
The Honorable Jerry McNerney
USFWS Regional Director Ren Lohoefener
USBR Regional Director Donald Glaser
NMFS Regional Administrator Rodney McInnis
The Honorable Jerry Brown
The Honorable Lester Snow

County Supervisor Mary Nejedly Piepho, District III

CONTRA COSTA COUNTY BOARD OF SUPERVISORS, VICE CHAIR

COMMITTEES

Internal Operations Committee, Chair

Transportation, Water and Infrastructure Committee, Chair

Contra Costa Regional Medical Center Joint Conference Committee and Professional Affairs Committee, Chair

Sacramento-San Joaquin Delta Conservancy, Chair

Airport Committee, Vice Chair

Delta Counties Coalition

Delta Protection Commission

Central Contra Costa Solid Waste Authority

East Bay Economic Development Alliance

Tri-Valley Transportation Committee

Dougherty Valley Oversight Committee

Doctors Medical Center Management Authority Governing Board, Joint Powers Authority

City-County Relations Committee

SERVING AS ALTERNATE

Local Agency Formation Commission

Contra Costa Transportation Authority

Association of Bay Area Governments

East Contra Costa Regional Fee and Finance Authority

East County Water Management Association

eBART Partnership Policy Advisory Committee

East Contra Costa County Habitat Conservation Plan, Executive Governing Board

Mental Health Commission

San Joaquin Valley Rail Committee

State Route 4 Bypass Authority

South West Area Transportation

TRANSPAC, Central County Transportation Partnership and Cooperation

TRANSPLAN, East County Transportation Planning

May 25, 2011

Gerald H. Meral, Ph.D.
Deputy Secretary for Natural Resources
California Natural Resources Agency
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

Re: Contra Costa County request for participation in BDCP Working Groups

Dear Deputy Secretary Meral:

Contra Costa County has reviewed the Public Involvement in the Bay Delta Conservation Plan (BDCP) document released after the April 25, 2011 public meeting in Sacramento and requests that a representative of Contra Costa County be invited to participate in the following working groups:

First round working group (April-June):

- Water Quality Modeling (in Delta)
- Governance Structure

Second round working groups (June-August):

- BDCP Relationship to San Joaquin River Restoration Program
- Conveyance Facilities – Size and Configuration Issues
- BDCP Implications for Levee Maintenance Mitigation Requirements

Third round working groups (August-October):

- Regulatory Assurances

Contra Costa County has tracked BDCP steering committee meetings and other BDCP activities since the process began. Contra Costa County also participates in and provides comments to other Bay-Delta processes such as the Delta Stewardship Council, Delta Conservancy, and the Delta Protection Commission. The County is a member of the Delta Counties Coalition which consists of elected officials from the five Delta counties that overlap the Delta (Sacramento, Solano, Yolo, San Joaquin, and Contra Costa).

-continued-

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Email: Dist3@BOS.CCCounty.us • Website: www.CCCounty.us/SupervisorPiepho

Contra Costa County borders onto Northern San Francisco Bay and the Sacramento-San Joaquin Delta. The residents of Contra Costa County rely on the Delta for their municipal and industrial water supply, for fishing and other forms of recreation, for work and as a place to live. The County, therefore, has a strong interest and a responsibility in helping develop a solution that restores and sustains the Delta ecosystem, addresses California's water supply needs, while protecting Delta water quality, and preserving the values of the Delta as a place to live, work and recreate.

Thank you for your commitment in making the BDCP more open and transparent and meeting with Contra Costa County and other stakeholders that were kept on the sidelines during the earlier stages of the BDCP.

If you have any questions, please contact John Greitzer at (925) 335-1201.

Sincerely,

MARY NEJEDLY PIEPHO
County Supervisor, District III

The Board of Supervisors

County Administration Building
651 Pine Street, Room 106
Martinez, California 94553

John Gioia, 1st District
Candace K. Andersen, 2nd District
Mary N. Piepho, 3rd District
Karen Mitchoff, 4th District
Federal D. Glover, 5th District

Contra Costa County

David Twa
Clerk of the Board
and
County Administrator
(925) 335-1900

June 3, 2013

The Honorable Senator Dianne Feinstein
United States Senate
331 Hart Senate Office Building
Washington, D.C. 20510

Congressional Signatories to the BDCP Letter

Re: Bay-Delta Conservation Plan (BDCP) Process

Dear Senator Feinstein and Members of Congress:

Dianne and friends,

As members of the Contra Costa County Board of Supervisors, representing districts that are directly on and affected by the Bay-Delta, we are writing to express our thoughts regarding certain elements of your May 22, 2013 letter to Secretary Jewell and Governor Brown.

While your strong support for the BDCP process is understandable given your interest in "our ability to increase our water supply," we would respectfully suggest that this support be for a more comprehensive solution to the issues of the Bay-Delta and the State: a solution that meets both co-equal goals and does not benefit the water supply of a junior water rights holder (Southern California) at the expense of the Delta's water quality, fish species, senior water rights holders in Northern California, and the Delta itself—the Delta as an evolving place.

We commend the actions that some agencies across Southern California have taken to increase local water supplies by investing in water recycling and storage capacity. These actions are essential elements of a portfolio approach to solving the Delta ecosystem and water supply issues, and we encourage their further implementation.

We agree that the BDCP's objective to achieve the co-equal goals of providing water supply reliability for cities, farms, and businesses throughout California and restoring the critically important Sacramento-San Joaquin Delta is crucial to all of our efforts. So, there must be a serious effort, involving input from all stakeholders, to develop a Delta solution that will meet both co-equal goals, including increasing flows necessary to support fish and wildlife and improving Delta water quality and other Delta values. The current BDCP proposal to divert additional water for export during drier periods, thereby reducing Delta flows when the fish need them most, does not meet this necessary objective.

We couldn't agree more that "California's economic and social future is directly tied to a safe supply of reliable, high quality water and we cannot go in with half measures when it comes to water reliability or environmental sustainability." But we simply – and respectfully - don't agree on the public evaluation process of the BDCP. Releasing 20,000 pages of preliminary draft chapters to the public, not allowing meaningful input, and not acting upon input from key impacted stakeholders, does not represent true and meaningful public evaluation.

Furthermore, limiting BDCP alternatives primarily to alternatives involving oversized tunnels that take more water during drier periods does not lend itself to the resultant construction of the most appropriate water conveyance or the development and implementation of comprehensive ecosystem conservation plans.

We understand the difficulties of securing state and federal funds to carry out detailed Delta planning and environmental studies. However, the present model of allowing the state and federal export contractors to fund and skew the outcome of the BDCP effort has not led to a viable science-based proposal.

The mission statement of the California Natural Resources Agency is "(t)o restore, protect and manage the state's natural, historical and cultural resources for current and future generations using creative approaches and solutions based on science, collaboration and respect for all the communities and interests involved." Dusting off the seriously flawed isolated facility proposal rejected by the voters in 1982 is not creative and does not respect our Delta community.

Senator, you have done so much for water and for our natural resources throughout the State of California. And we know we can continue to count on your leadership and assistance in the future. We believe that well-intentioned parties can and must do better than this current effort, and stand willing to assist in an improved process. It is not too late to approve an optimal program that implements a truly balanced approach to addressing the co-equal goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem in a manner that enjoys wide-spread support of parties around the State.

Sincerely,

MARY N. PIEPHO
Contra Costa County Supervisorial
District III

KAREN MITCHOFF
Contra Costa County Supervisorial
District IV

cc: Members, Board of Supervisors
Contra Costa County Legislative Delegation
David Twa, County Administrator
C. Christian, Nielsen Merksamer
Delta Counties Coalition

Thank you for your valuable consideration & concern.

The Board of Supervisors

County Administration Building
651 Pine Street, Room 106
Martinez, California 94553-1293

John Gioia, 1st District
Candace Andersen, 2nd District
Mary N. Piepho, 3rd District
Karen Mitchoff, 4th District
Federal D. Glover, 5th District

Contra Costa County

David J. Twa
Clerk of the Board
and
County Administrator
(925) 335-1900

July 24, 2012

Dr. Gerald Meral
Deputy Secretary
California Natural Resources Agency
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

RE: Contra Costa County's Position on the Bay Delta Conservation Plan

Dear Dr. Meral:

I look forward to our meeting, scheduled for August 9 at my Brentwood office, to discuss the Bay Delta Conservation Plan (BDCP).

In advance of our meeting, I am sending you the County's position on the BDCP as adopted by our Board of Supervisors on July 10, 2012. I am sending this to provide you with an understanding of our perspective in hopes this will help foster a productive conversation at our meeting.

I appreciate your continuing efforts to talk with the Delta counties about the BDCP process.

The attached policy demonstrates that we continue to have serious concerns about the proposed tunnel project. At the same time, Contra Costa County stands by our ongoing offer to work with the exporters and the state on a collaborative basis to develop solutions that work for everyone. We continue to believe that a more reliable water supply can be provided without destructive impacts to the Delta. Given a seat at the table, we are still ready and willing to assist.

Sincerely,

MARY NEJEDLY PIEPHO
Chair, Board of Supervisors

cc: Members, Board of Supervisors
D. Twa, County Administrator
Cathy Christian, Nielsen Merksamer
Paul Schlesinger, Alcalde & Fay
Delta Counties Coalition

See you on the 9th.

Contra Costa County's Request for Changes to the Bay-Delta Conservation Plan

Approved by the Board of Supervisors on July 10, 2012

The proposed 9,000-cubic-feet-per-second tunnel project

Contra Costa County does not support any particular project because not enough information has been developed to support any specific project. Enough information has been developed to reject the proposed tunnel project as described in the current Bay-Delta Conservation Plan (BDCP) . The preliminary environmental analysis has shown the tunnel will have significant negative impacts on protected fish species and water quality. Economic analysis also must be performed to determine the negative impacts that a tunnel project will have on Contra Costa County's Delta economy.

Changes needed for the BDCP effort to gain support from Contra Costa County

- The BDCP should discard all of the alternatives studied to date, including the new 9,000-cubic-feet-per-second (cfs) tunnel proposal.

- The BDCP should analyze a full range of lower-impact alternatives, including smaller tunnel projects of 3,000-cfs tunnel and 6,000-cfs tunnel, and several alternatives that do not divert Sacramento River under or around the Delta at all. These new alternatives would include a western intake alternative that would draw water from the western Delta rather than the Sacramento River, with constraints on the amount of water that can be taken and the timing for when the water can be taken; and other alternatives based on strategies such as water conservation, increased water storage facilities in the Central Valley and Southern California, and desalination. These latter alternatives would address the state policy of reducing reliance on Delta water (something the current BDCP does not address).

- The BDCP should adopt both of the state's "co-equal goals" as objectives to be achieved by the project, with neither goal being accomplished at the expense of the other.

- The chosen BDCP conveyance project should be operated by an independent entity not affiliated with the water contractors who will receive water from it. The independent entity should report monthly to the State Water Resources Control Board to ensure transparency in the operations of the new water facility.

- The BDCP should provide funds for Contra Costa County to: (1) conduct peer review studies to determine the adequacy of the BDCP environmental impact analysis; and (2) to determine water-quality standards in the western Delta to ensure a healthy water supply for Contra Costa County (approximately $500,000).

- BDCP should provide funds for Contra Costa County to conduct an economic analysis to determine the impacts of BDCP alternatives on the County's Delta economy (approximately $150,000).

- Contra Costa County must be given a "seat at the table" so we can work collaboratively with the water contractors and state and federal agencies to develop comprehensive solutions that work for everyone.

- BDCP must be consistent with locally developed Habitat Conservation Plans/National Communities Conservation Plans (HCP/NCCPs). If conflicts exist between locally developed HCP/NCCPs and the BDCP, the BDCP staff must work collaboratively with local HCP staffs to resolve the conflicts. BDCP must not interfere with local HCP/NCCPs' ability to attain their habitat target goals.

- BDCP must be subject to the full extent of state and federal environmental review. Contra Costa County cannot support any streamlining or exemptions from either the California Environmental Quality Act or the National Environmental Protection Act.

- The BDCP must recognize the linkage between the Delta and the Bay, and recognize that any project that emerges from the BDCP could impact the entire Bay-Delta estuary, not just the immediate Delta area in which the project is located. The environmental analysis of the project(s) must examine for potential impacts throughout the entire estuary, including, but not limited to, impacts on flow from the Delta to the Bay, and water quality, species, and habitat impacts throughout the estuary.

Department of Conservation and Development

Water Agency

30 Muir Road
Martinez, CA 94553

Phone: (925) 674-7879

Contra Costa County

Joe Kutsuris
Director

December 13, 2013

The Honorable John Laird, Secretary
California Natural Resources Agency
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

The Honorable Matthew Rodriquez, Secretary
California Environmental Protection Agency
1001 I Street
Sacramento, CA 95814

The Honorable Karen Ross, Secretary
California Department of Food and Agriculture
1220 N Street
Sacramento, CA 95814

Re: Contra Costa County Water Agency Comments on the Draft California Water Action Plan

Dear Secretaries Laird, Rodriquez and Ross:

Contra Costa County appreciates this opportunity to comment on the Draft California Water Action Plan. As outlined in the Draft Action Plan, California faces many major issues regarding water supply reliability, water quality and ecosystem sustainability. Contra Costa County commends you for recognizing the State needs to show leadership in addressing these critical issues and developing a detailed framework of actions.

Contra Costa County has the following detailed comments regarding the Water Action Plan.

The Water Action Plan has a better chance of achieving the co-equal goals of the 2009 Delta Reform Act than the Bay Delta Conservation Plan.

The Water Action Plan provides a more reliable water supply by creating more water (thru storage, conservation and recycled water) and by upgrading Delta levees. It protects, restores and enhances the Delta ecosystem by completing the Bay Delta Water Quality Control Plan, eliminating barriers to fish migration, enhancing water flows, improving operational efficiency of the state and federal water projects, and improving coordination of State Bay Delta actions. In our prior comments on the BDCP we have asked that such actions be included as an alternative to the BDCP and evaluated in its Environmental Impact Report. We have more confidence in such measures from the Water Action Plan than anything offered by the BDCP to date to achieve the co-equal goals.

Completing Comprehensive Plans to Recover Populations of Threatened and Endangered Species in the Delta and Improve Water Supply Reliability for Users of Delta Water should not include the BDCP.

The BDCP by its own admission (2nd Admin draft EIR/EIS) will adversely impact water quality in the Delta. The draft EIR/EIS states these impacts are "unavoidable" and fails to consider alternatives and mitigation measures that would avoid degrading Delta water quality, such as additional storage and reducing diversions in drier months. The BDCP's effects analysis shows it harming rather than protecting key fish species. The comprehensive planning underway should replace the project as currently envisioned with a reasonable range of conservation strategies, include a reasonable range of flow criteria, rates of diversion and other operational criteria required to satisfy the criteria for approval of a natural community conservation plan and other operational requirements and flows necessary for recovering the Delta ecosystem and restoring fisheries.

Streamline the Delta Levees Subvention and Special Projects Programs.

The state's pace at funding Delta levee improvements does not appear to match the state's concern over the risk of levee failure in the Delta. Hundreds of millions of state bonds were passed in 2006 for Delta levee upgrades. Seven years later hundreds of millions of state bonds remain to be spent. The state should evaluate the Levee Subvention and Special Projects Programs to determine if there is an opportunity to streamline their operation and expedite these important projects.

Bay Delta Water Quality Control Plan should focus on improving Delta flows.

The SWRCB should implement increased Delta flows necessary to restore and sustain fish populations, including more stringent limits on reverse flows in the central Delta (OMR limits) and then work with the SWP and CVP to enable them to maintain and increase water supply reliability by capturing more water during wetter months. This will likely require three types of additional storage: new upstream storage to offset the loss of snow pack due to climate change; south-of-the-Delta storage to receive and store increased diversions when Delta flows are very high (and water is truly surplus to the needs of the Delta); and new storage in- or immediately adjacent to the Delta to allow increased diversions during wetter months.

The SWRCB should proactively encourage necessary change in how the Delta is operated to actually protect Delta ecosystem and in-Delta water needs. A win-win solution involving additional storage will achieve both co-equal goals whereas the current lose-lose solutions failed to achieve either.

Actions to Protect and Restore Important Ecosystems and Bring Back Salmon to the San Joaquin River need to have broader scope.

The Draft Action Plan states: "*The Department of Fish and Wildlife and the Department of Water Resources will lead the effort to achieve the state goal of restoring flows to the San Joaquin River from Friant Dam to the confluence of the Merced River, and bringing back a naturally-reproducing, self-sustaining Chinook salmon fishery while reducing or avoiding adverse water supply impacts.*"

The State should be more proactive in restoring the San Joaquin River, especially the section below Friant Dam. Consistent with California Fish and Game Code § 5937 and the Stipulation of Settlement (Settlement) dated September 13, 2006, in *Natural Resources Defense Council, et al. v. Kirk Rodgers, et al.*, the goal should be to restore instream flows below Friant Dam sufficient to restore and sustain Chinook salmon populations and other public trust values. The SWRCB should ensure that its increased flow criteria for the Merced, Tuolomne and Stanislaus Rivers are also applied to the upper San Joaquin River.

The continuing failure to require sufficient water to flow through or around Friant Dam in order to keep the downstream fishery in "good condition" is not acceptable. The State must of course address the issues that will arise once the river flows are restored, such as water supply losses, degraded levee systems and seepage into neighboring lands, and illegal diversions. However, this should not be used as an excuse to delay righting the wrong that was perpetrated when Friant Dam was constructed.

Manage and Prepare for Dry Periods.

Consideration should be given to fund land retirement in the western San Joaquin Valley which has soil that should have never been farmed (i.e. selenium runoff) and has junior (i.e. unreliable) water rights. Additionally, another action would be to discourage agriculture users with junior water rights from planting permanent crops (e.g. orchards) which cannot go fallow during dry periods.

We Support Expanded Water Storage Capacity.

Contra Costa County agrees that additional storage, "*whether surface or groundwater, whether big or small,*" is needed to meet California's environmental and water supply reliability needs. Additional storage is needed (a) upstream of the Delta, and elsewhere, to compensate for the loss of snow pack due to global climate change, (b) south of the Delta to store additional water during wet months for use during drought periods, and (c) in or near the Delta to allow surplus water to be captured during very wet periods at diversion rates.

The Draft Water Action Plan also states that: "*The new conveyance system proposed in the Bay Delta Conservation Plan would provide more water project operational flexibility, which in turn*

would eventually eliminate some of that uncertainty and increase the feasibility of additional water storage. Partnerships to build additional water storage presumably would follow."

If the BDCP facilitates but does not analyze the environmental impacts of additional storage, then the BDCP will be piecemealing its environmental review under CEQA. Contra Costa County also believes that the BDCP will be unable to actually achieve the co-equal goals of restoring and sustaining fish populations, while improving water supply reliability, improving Delta water quality and protecting and enhancing the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place, without incorporating new storage.

If the BDCP proponents are unwilling to incorporate additional storage and some version of the SWRCB Delta Flow Criteria into their preferred project, then permitting of the BDCP should be delayed until the SWRCB has completed its revision of the Bay-Delta Water Quality Control Plan and key elements of the California Water Action Plan are implemented.

The California Natural Resources Agency, California Environmental Protection Agency, and California Department of Food and Agriculture have a duty of stewards of the water resources for all Californians, and as protectors of the public trust, to require that BDCP analyze alternatives that can achieve, rather than merely balance, the co-equal goals and that requires additional storage.

Groundwater Management Strategies need to be coordinated with Streamlining Water Transfers.

Contra Costa County agrees that the State must take steps to give local agencies the authority necessary to manage groundwater sustainably and ensure no groundwater basin is in danger of being permanently damaged by over drafting. The recent USGS report on subsidence in the Central Valley clearly shows the damage that has resulted from unregulated groundwater pumping. The pressure to further extract groundwater from already severely over-drafted basins will continue until California's water supply issues are resolved.

The State must also ensure any streamlining of water transfers does not create incentives for groundwater overdrafting. A large body of evidence exists showing that water transfers have encouraged excessive groundwater use as sellers of water rights in the San Joaquin Valley have increased their reliance on groundwater use.

Identify State Funding Priorities for Delta Levees.

Contra Costa County agrees that the Delta Stewardship Council, in consultation with the Department of Water Resources, the Central Valley Flood Protection Board, the Delta Protection Commission, local agencies, and the California Water Commission, should develop funding priorities for state investments in Delta levees as soon as possible.

Preparing for 2014 and beyond through better technology and improved procedures.

The models used in the current feasibility studies being conducted by the State do not adequately demonstrate whether these projects will provide the intended improvements to operations, ecosystems and water quality. The effects analysis of the BDCP and other feasibility studies reveal that the current CALSIM operations model and DSM2 water quality models have significant limitations. The water bond should fund improvements to water operations models to improve their ability to accurately forecast the effects of water system operations improvements in the Delta. We support the need to better model water deliveries and storage rather than water demands.

Conclusion

The Water Action Plan is correct in acknowledging that "*All Californians have a stake in our water future.*" It is important that the Natural Resources Agency work on behalf of all Californians and the fish and wildlife of California, and not absolve itself of these responsibilities by allowing the export water contractors dictate the direction of the BDCP.

The mission statement of the Natural Resources Agency is: "To restore, protect and manage the state's natural, historical and cultural resources for current and future generations using creative approaches and solutions based on science, collaboration and respect for all the communities and interests involved." The State should indeed spend the time to develop creative alternatives and solutions to the problems caused by exports from the Delta, rather than simply supporting a variant of the 1982 Peripheral Canal that harms key fish species, degrades Delta water quality, and adversely impacts the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place.

Fundamental changes in our approach to water resource management are needed now. It is no longer sustainable or in the interests of California to maintain the current high levels of exports from the Delta during drier months, while failing to develop the facilities needed to capture water when it is surplus to the needs of the Delta including the Delta ecosystem.

If you have any questions regarding Contra Costa County's comments, please contact me at (925) 674-7879.

Sincerely,

Ryan Hernandez
Contra Costa County Water Agency

cc: The Honorable Edmund G. Brown Jr., Governor, State of California
Charlton H. Bonham, Director, California Department of Fish and Wildlife
Mark Cowin, Director, California Department of Water Resources
Phil Isenberg, Chair, Delta Stewardship Council
Felicia Marcus, Chair, State Water Resources Control Board
Contra Costa County Board of Supervisors
John Kopchik, Deputy Director Department of Conservation and Development

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July 19, 2012

The Honorable John Laird
Secretary
Natural Resources Agency
1416 Ninth Street, Ste 1311
Sacramento, CA 95814

Subject: Bay-Delta Conservation Plan Impacts to Contra Costa Water District and its Customers

Dear Secretary Laird:

On behalf of Contra Costa Water District (CCWD), I am writing to continue our dialogue regarding the Bay-Delta Conservation Plan (BDCP) and to alert you that the preliminary operational studies prepared for the BDCP reveal serious adverse effects to Delta drinking water quality for CCWD and its customers. This conclusion is based on the underlying data describing potential BDCP operations. While we acknowledge that reducing the proposed facility intake capacity represents a change from the previous direction, we would like to emphasize that the impacts on CCWD's water quality are the result of operations assumptions rather than capacity size, and we have yet to see a commitment to change in that critical area.

In fact, the BDCP's preliminary operations studies indicate that water quality impacts have been understated, and will be much greater than the studies have acknowledged—to the point where the impacts would be devastating to CCWD's Delta operations. CCWD's $850 million investment in the Los Vaqueros Reservoir and other projects to improve the quality and reliability of CCWD's water supplies, along with the improvements those projects have created for the Delta environment, would be significantly negated by the BDCP. CCWD fully supports the co-equal goals as evidenced by our past significant investments in water supply and quality projects that provided net benefits to the Delta ecosystem. However, based on BDCP's own analysis, the BDCP's advancement toward achieving its own goals would be at the peril of CCWD's already completed progress.

We bring this issue to your agency's attention at this time because we understand that release of the BDCP environmental documents is planned to occur shortly, with little change from the preliminary studies referred to above. We ask, instead, that the Resources Agency direct that Delta water quality be fully analyzed, and that the

impacts to CCWD and its customers be evaluated and fully disclosed. Further, we ask that the draft Environmental Impact Report/Environmental Impact Statement (draft EIR/EIS) for the BDCP include concrete, enforceable mitigation measures that ensure impacts to CCWD do not occur. Until this work has been completed, release of the draft EIR/EIS will be premature.

CCWD recently completed the expansion of the Los Vaqueros Reservoir from 100,000 acre-feet to 160,000 acre-feet. In 2010, CCWD added a screened intake on Victoria Canal to improve the quality of water delivered to its customers. In the past two decades, CCWD has completed eight projects in the Delta, valued at over $850 million. CCWD completed these projects in collaboration with other agencies, including the Department of Water Resources and the U.S. Bureau of Reclamation.

CCWD has been able to complete these projects by designing operations to avoid redirecting impacts to other entities, working closely with the Department of Fish and Game, the U.S. Fish and Wildlife Service and NOAA Fisheries, and by ensuring that each of these projects provided net benefits to the Delta environment. Achieving "co-equal goals" has been a CCWD Board policy for CCWD projects affecting the Delta since the original Los Vaqueros Project planning was started in the 1980's. Avoiding redirected impacts, and providing net benefits to the Delta, have been instrumental in CCWD's success in completing these Delta projects. The BDCP should be directed to adopt this same approach.

The most current BDCP analyses show the BDCP will degrade Delta water quality in a manner that will be devastating to CCWD and its customers.

CCWD recently received from the Department of Water Resources detailed water supply and water quality analyses on each of the draft BDCP alternatives. The water quality analyses of BDCP operations remain incomplete as they are limited largely to salinity effects caused by new conveyance and they fail to analyze adequately the water quality impacts due to the tens of thousands of acres of habitat restoration that is also part of the BDCP. Nonetheless, the BDCP studies performed to date indicate water quality in the Delta would be degraded to levels that obstruct CCWD from filling Los Vaqueros Reservoir and would eliminate nearly all of the benefits of CCWD's investments over the past decade in its new intake and the recent reservoir expansion. Furthermore, it is likely that after fully accounting for the impacts of habitat restoration, the water quality impacts to CCWD will be even more severe.

These impacts are the direct result of the proposed operations of the BDCP and no other causes. The BDCP studies show salinity increases directly attributable to decreased outflow from the Delta and stagnation of water in the south Delta, which allows agricultural wastes to build up. The BDCP must find ways to meet its goals while avoiding such impacts to CCWD and other Delta water users. If impacts cannot be avoided, they must be fully mitigated.

The BDCP preliminary draft EIR/EIS fails to disclose, discuss or propose mitigation for these impacts to CCWD.

These impacts to CCWD are not fully revealed in the preliminary draft EIR/EIS, nor are any mitigation measures proposed that would reduce impacts to CCWD. While the analytical tools used were designed to calculate impacts to CCWD, and the results clearly show them, the preliminary draft EIR/EIS does not disclose at all the extent of these impacts to CCWD operations and Los Vaqueros Reservoir water reliability and water quality. Given that these impacts on CCWD's system, operations and customers are so large, there is no reasonable explanation for the failure to disclose the impacts in the draft EIR/EIS or to identify mitigation for these impacts.

At this point, the BDCP preliminary studies clearly indicate that the BDCP operations (under any alternative) would cause impacts to CCWD that are significant and unacceptable. These impacts will likely be greater once impacts from habitat restoration have been completely analyzed. The BDCP is currently re-evaluating the operations that will be included in the next draft of the EIS/EIR, but those operations are in the range of alternatives already analyzed that show these serious impacts.

You now have the opportunity to direct the BDCP to make the necessary corrections, fully disclose impacts to CCWD and provide full mitigation for those impacts. CCWD urges you to redirect the BDCP efforts to design a plan that 1) avoids impacts where possible, 2) mitigates all impacts that cannot be avoided, and 3) fully discloses the policies, operations, impacts and mitigation of the BDCP prior to releasing the draft EIR/EIS.

If you have any questions, I would be happy to discuss this with you further.

Sincerely,

Jerry Brown
General Manager

JB/GG/rlr

cc: Secretary Ken Salazar
Acting Secretary Rebecca Blank
Senator Dianne Feinstein
Senator Barbara Boxer
Rep. George Miller
Rep. John Garamendi

cc: (continued)
Rep. Jerry McNerney
Rep. Mike Thompson
Rep. Grace Napolitano
State Senator Mark DeSaulnier
State Senator Lois Wolk
State Senator Fran Pavley
Assemblymember Susan Bonilla
Assemblymember Joan Buchanan
Assemblymember Jared Huffman
Dr. Jerry Meral (Natural Resources Agency)
Deputy Secretary David Hayes (DOI)
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Dale Hoffman-Floerke (DWR)