State of California
State Water Resources Control Board
DIVISION OF WATER RIGHTS
P.O. Box 2000, Sacramento, CA 95812-2000
Info: (916) 341-5300, FAX: (916) 341-5400, Web: http://www.waterboards.ca.gov/waterrights

PROTEST– PETITION

This form may also be used for objections

PETITION FOR TIME EXTENSION, CHANGE, TEMPORARY URGENT CHANGE OR TRANSFER ON

APPLICATION See attached. **PERMIT** See attached. **LICENSE** See attached.

OF U.S. Bureau of Reclamation, CA Department of Water Resources

I (We) have carefully read the notice (state name): County of Solano
William Emlen, Director of Resource Management

Address, email address and phone number of protestant or authorized agent:
675 Texas Street, Suite 5500, Fairfield, CA 94533

WFEmlen@solanocounty.com (707) 784-6765

Attach supplemental sheets as needed. To simplify this form, all references herein are to protests and protestants although the form may be used to file comments on temporary urgent changes and transfers.

Protest based on ENVIRONMENTAL OR PUBLIC INTEREST CONSIDERATIONS (Prior right protests should be completed in the section below):

- the proposed action will not be within the State Water Resources Control Board's jurisdiction ☐
- not best serve the public interest ☒
- be contrary to law ☒
- have an adverse environmental impact ☒

State facts which support the foregoing allegations ***See attached pages***

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

See attached pages

Protest based on INJURY TO PRIOR RIGHTS:

To the best of my (our) information and belief the proposed change or transfer will result in injury as follows: _____

Protestant claims a right to the use of water from the source from which petitioner is diverting, or proposes to divert, which right is based on (identify type of right protestant claims, such as permit, license, pre-1914 appropriative or riparian right):: _____

List permit or license or statement of diversion and use numbers, which cover your use of water (if adjudicated right, list decree).

_____

Where is your diversion point located?__¼ of ____ ¼ of Section _____, T ___,R____, ____B&M

If new point of diversion is being requested, is your point of diversion downstream from petitioner's proposed point of diversion? _____

The extent of present and past use of water by protestant or his predecessors in interest is as follows:

a. Source _____
b. Approximate date first use made _____
c. Amount used (list units) _____
d. Diversion season _____
e. Purpose(s) of use _____

Under what conditions may this protest be disregarded and dismissed? _____

All protests must be signed by the protestant or authorized representative:

Signed: Bill Ehr Date: January 5, 2016

All protests must be served on the petitioner. Provide the date served and method of service used:
January 5, 2016 via email.

Protest of the California Department of Water Resources' and U.S. Department of the Interior, Bureau of Reclamation's Petition for Change in Points of Diversion and Rediversion of Certain Permits within the Sacramento/San Joaquin Delta Estuary

The County of Solano protests DWR and USBR's August 25, 2015 petition to modify DWR permits 16478, 16479, 16481, 16482 for the State Water Project (SWP) and Reclamation permits 11315, 11316, 12721, 12722, 12723, 11967, 11968, 11969, 11971, 11973, and 12364 for the Central Valley Project (CVP) to add points of diversion and rediversion within the Delta. These changes would support the proposed "California WaterFix" project.

The County is committed to working collaboratively with local, state, and federal partners to address the challenges facing the Delta region. While we remain open to seeking solutions to these challenges, we continue to have major concerns regarding the proposed project's impacts on the people and environment of Solano County, including the quantity and quality of water available from the Delta for beneficial use within Solano County. In this protest, we raise specific issues and impacts that the State Water Resources Control Board, DWR, and Reclamation must consider in evaluating the legality of the petition and the project's impacts on the public interest.

The County requests that the SWRCB consider rejecting the petition at this time. The California WaterFix project would result in significant direct, indirect, and cumulative impacts in the Delta region, and the single-minded pursuit of isolated conveyance constrains the WaterFix proposal from the outset.

Consideration of the petition is also premature. The petition lacks accurate information in key areas and relies on a deeply flawed, draft environmental analysis — the Bay Delta Conservation Plan/California Water Fix Recirculated Draft Environmental Impact Report and Supplemental Draft Environmental Impact Statement ("RDEIR/SDEIS") — that fails to accurately describe the impacts of the WaterFix project.[1] The project proponents are only compounding these flaws by relying on the RDEIR/SDEIS as they push to obtain authorizations for the project from the SWRCB. The SWRCB is also legally required to update the Bay-Delta Water Quality Control Plan with adequate flow and water quality objectives to protect fish and wildlife beneficial uses and public trust resources prior to approving the requested changes in point of diversion.

The documents and analyses provided to date simply do not provide sufficient information to allow the public or the SWRCB a meaningful opportunity to understand and comment on this

[1] This protest fully incorporates and submits the County's previous comments on the environmental documentation for BDCP and WaterFix. *See* Solano County Comments on the Draft Bay Delta Conservation Plan (BDCP) / California WaterFix (CA WaterFix) Partially Recirculated Draft Environmental Impact Report and Supplemental Draft Environmental Impact Statement (RDEIR/SDEIS) (Oct. 30, 2015); *see also* Solano County comments on the Bay Delta Conservation Plan (BDCP), Associated EIR/EIS, and Implementing Agreement (July 28, 2014), attached hereto as Exhibit B.

project's substantial adverse impacts. Until these documents and analyses are revised and recirculated, petitioners cannot demonstrate that the requested changes would serve the public interest.

The County makes this protest based on the information currently available to it, but reserves the right to file an amended protest after the supporting environmental documentation is revised and the federal and state Endangered Species Act consultations, and other permitting processes, are concluded.

I. The SWRCB cannot legally grant the petition prior to updating the Bay-Delta Water Quality Control Plan

It appears that the SWRCB will make a final decision on the petition prior to completing phase 2 of the update of the Bay-Delta Water Quality Control Plan. Limiting review of the change petition to the existing Water Quality Control Plan and D-1641 is contrary to law. The SWRCB is legally required to update the Bay-Delta Water Quality Control Plan with adequate flow and water quality objectives to protect fish and wildlife beneficial uses and public trust resources prior to approving the requested changes in point of diversion.

The 2009 Delta Reform Act, at Cal. Water Code § 85086(b)(2), requires the SWRCB to adopt updated flow criteria in assessing whether the change petition would cause unreasonable injury to fish and wildlife. The SWRCB itself has previously acknowledged that the water quality standards must be updated in order to review the change petition. And existing flows under D-1641 and the existing water quality control plan fail to reasonably protect fish and wildlife beneficial uses and public trust resources.

The SWRCB must complete the periodic review of the Bay Delta Water Quality Control Plan prior to issuing any order authorizing a change in point of diversion, and clarify that the standards for review of whether the change in point of diversion causes unreasonable impacts on fish and wildlife shall not be limited to D-1641 and the existing water quality control plan.

II. Petitioners cannot demonstrate that the requested changes will serve the public interest

The WaterFix project, by itself and in combination with other proposed projects and ecosystem restoration initiatives in the Delta, will cause significant, harmful, and lasting impacts to the communities of the Delta region. In addition, the County has continued to express its concerns regarding potentially adverse environmental impacts associated with installation and operation of the related WaterFix intakes on the Sacramento River. The County and many others have described the project's extensive significant impacts in voluminous comments on the RDEIR/SDEIS and the environmental analyses performed for previous iterations of the project. The County's most recent submission - our October 30, 2015 comment letter on the RDEIR/SDEIS - is attached hereto as Exhibit A. WaterFix fails to serve the public interest when other, less harmful alternatives exist to develop water supply in those areas that will receive

water from the project. Based on the project's significant detrimental impacts, the record fails to show that the requested changes are in the public interest.

At the very least, the petition fails to provide enough information for the SWRCB to determine that WaterFix serves the public interest. The environmental documentation prepared by the petitioners does not adequately demonstrate how the proposed project could impact the people and environment of Solano County, including the quantity and quality of water available from the Delta for beneficial use within Solano County.

For example, as a County with a very large agricultural base, Solano County has significant concerns about the WaterFix project's impacts on water quality and supply. Water quality is critical to our agriculture, and even small changes in salinity have huge impacts to farmers, determining what crops can be planted at what time and even whether planting can occur in a given year. Yet the water quality modeling in the environmental documentation is far too broad, quite outdated, and among many other problems, does not recognize that small changes in salinity can have significant impacts.

As described in this letter and the attached exhibits, the WaterFix RDEIR/SDEIS is deeply flawed. The project proponents have not yet completed the federal and state endangered species act consultations. In addition, the responses to the extensive number of comments in the environmental documents are not yet available. In the absence of this information, the SWRCB must reject the Petition. A full evaluation of all direct, indirect, and cumulative impacts - thus far not performed by DWR/USBR - is the first step toward a reasoned decision regarding this project proposal. The SWRCB must insist on reviewing a full and final environmental analysis for the WaterFix project in order to adequately examine and evaluate its significant impacts on the public interest. The SWRCB should reject the petition as incomplete until the project proponents adequately analyze the WaterFix project. Until then, the record cannot support a finding that these requested changes are in the public interest.

III. Conditions for Dismissal

Any order approving the petition will fail to comply with the Board's legal obligations, will not best serve the public interest, and will have an adverse environmental impact. It is time for the project proponents to abandon this flawed environmental review process in favor of a more comprehensive approach to water supply issues. This approach must include a halt to all Federal and State permitting processes, including this SWRCB petition process, until the proponents have provided environmental documentation for WaterFix that appropriately addresses the deficiencies identified in this protest and in the attached comments.

At the very least, the petition must be rejected until the environmental documentation for WaterFix is revised to:

- Meet the basic requirements of the National Environmental Policy Act (NEPA) or the California Environmental Quality Act (CEQA) to appropriately inform the public of the

DEPARTMENT OF RESOURCE MANAGEMENT

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October 30, 2015

BDCP/CA WaterFix Comments
P.O. Box 1919
Sacramento, CA 95812
BDCPComments@icfi.com

RE: Solano County Comments on the Draft Bay Delta Conservation Plan (BDCP) / California WaterFix (CA WaterFix) Partially Recirculated Draft Environmental Impact Report and Supplemental Draft Environmental Impact Statement (RDEIR/SDEIS)

Dear BDCP/CA WaterFix:

Thank you for the opportunity to comment on the draft Bay Delta Conservation Plan/California Water Fix Recirculated Draft Environmental Impact Report and Supplemental Draft Environmental Impact Statement (RDEIR/SDEIS). Our comments on the new project are included here as Attachment 1. Solano County provided comments on the prior iteration of the project, the Bay Delta Conservation Plan (BDCP) on July 28, 2014. We note that our prior comments and concerns were not addressed in this new draft but assume they will be considered in the Final RDEIR/SDEIS applicable to both the original alternatives and the new alternatives associated with the CA WaterFix.

Solano County continues to have significant concerns about the BDCP and the new Water Fix Project. As a County with a very large agricultural base that is expected to take on a significant degree of habitat restoration entailing the conversion of agricultural land, we are particularly concerned about the lack of information available about the impacts to our region. The divestment of the Habitat Conservation Plan/Natural Communities Conservation Plan components, which identified some 153,000 acres of habitat restoration and protected lands, is now absent, replaced by a series of unformed or non-public plans and programs, and EcoRestore, which purports to restore/protect some 30,000 acres, most of which are required by existing Biological Opinions and for which very little information is available. We understand that this ecosystem restoration will occur, but there is no indication that a public process will be required or initiated for implementation of these projects that will impact us so greatly. In addition, the siting and development of habitat will have great impacts to the sustainability of remaining agricultural areas, also not discussed in the documents.

The sheer volume of the combined documents and the difficulty in reviewing a significantly changed project which uses parts of the original project as a base continues to be problematic to agencies and the public in enabling meaningful understanding, review or comment, and is particularly troubling in a project of this size. This is further exacerbated by the narrow focus of the project on isolated conveyance and the speed at which the project is moving as well as the lack of scientific and technical underpinning for a project of this complexity. Among other problems, the lack of scientific and technical basis precludes meaningful identification of impacts and their level of significance, mitigation and subsequent analysis of cumulative impacts. In many areas of the documents, analysis and decisions are delayed to an undetermined point in the future by an unidentified entity.

For example, water quality is critical to our agriculture, and even small changes in salinity have huge impacts to farmers, determining what crops can be planted at what time and even whether planting can occur in a given year. Yet the water quality modeling in the document is far too broad, quite outdated, and among many other problems, does not recognize that small changes in salinity can have significant impacts.

Despite the excessively large and ponderous nature of the environmental document, it is amazingly lacking in critical analysis on significant impacts to the Delta region. This of particular concern to Solano County where we believe agriculture and the local economy it serves will be seriously impacted by the "Wate Fix" and "EcoRestore" projects over the years they are implemented and beyond. By segregating the two projects in terms of environmental and economic impacts the documents prepared have effectively downplayed the true and cumulative impacts of the projects being proposed.

Thank you for the opportunity to comment. Solano County looks forward to working with you as this process continues to evolve.

Sincerely,

Bill Emlen, Director

Enclosure

CC: Solano County Board of Supervisors
Rep. Mike Thomson
Rep. John Garamendi
Senator Dianne Feinstein
Senator Barbara Boxer
Senator Lois Wolk
Assemblymember Susan Bonilla
Assemblymember Jim Frazier
Assemblymember Bill Dodd

Attachment 1

Solano County Comments on the WaterFix RDEIR/SDEIS

Solano County's interest in submitting these comments is two-fold: First, the County seeks to ensure that the entire EIR/EIS document prepared by the state and federal lead agencies for their proposed project – particularly the WaterFix RDEIR/SDEIS document released for public review and comment in July 2015 – fully discusses how the proposed project could impact the people and environment of Solano County, including the quantity and quality of water available from the Delta for beneficial use within Solano County; second, the County seeks to ensure that the EIR/EIS document identifies feasible mitigation measures and a reasonable range of project alternative that will effectively mitigate or avoid any significant impacts of the proposed project.

General Comments regarding Structure of the RDEIR/SDEIS

An accurate, stable, and finite project description is the *sine qua non* of a legally-adequate EIR, because without such a project description, it is impossible for an EIR to provide an adequate discussion of project impacts, potential mitigation measures, or feasible project alternative. The Draft EIR/EIS for the proposed project, now consisting of both the original BDCP DEIR/DEIS released for public review in December 2013 and the WaterFix RDEIR/SDEIS released for public review in July 2015, is fundamentally and fatally flawed due to the unstable and open-ended project description provided in that document. This shifting project description causes two separate but related points of concern: (1) the Draft EIR/EIS fails as an informative public-disclosure document; and (2) because the Draft EIR/EIS discusses project "alternatives" that far exceed the water export capacity of either the proposed BDCP project or the proposed WaterFix project, the discussion of those expanded water export options in this Draft EIR/EIS document opens the possibility that the lead agencies may approve a much larger project than either the BDCP or WaterFix projects without ever conducting further environmental impact review.

A Partially-Recirculated DEIR (RDEIR) is not the appropriate type of CEQA Document to evaluate the recently-proposed California WaterFix Project

Section ES.1.2.1 of the WaterFix RDEIR/SDEIS contends there is sufficient legal justification for both the state and federal lead agencies to use the combination of the 2013 BDCP DEIR/DEIS and the 2015 WaterFix RDEIR/SDEIS documents to evaluate the potential environmental impacts of the WaterFix project. While the CEQ's NEPA regulations allow a federal lead agency to use a supplement to a draft EIS when the

agency "makes substantial changes in the proposed action that are relevant to environmental concerns" (40 C.F.R. § 1502.9(c)(1)(i)), this is a point on which CEQA and NEPA differ.

Section ES.1.2.1 of the WaterFix RDEIR/SDEIS cites section 21092.1 of the Public Resources Code and section 15088.5 of the CEQA Guidelines as legal authority for DWR use a partially-recirculated draft EIR to evaluate the WaterFix project. (WaterFix RDEIR/SDEIS, p. ES-4, lines 24 – 27.) Section 21092.1 authorizes a CEQA lead agency to use the recirculation process when "significant new information" is added to an EIR prior to certification, but that statutory section does not define what the Legislature meant by its use of the phrase "new information." Instead, the phrase "new information" has been broadly defined in the CEQA Guidelines as including changes in the proposed project, changes in the project's environmental setting, or other additional data and information. (CEQA Guidelines, § 15088.5(a).) The use of the recirculation process to publicly vet significant new information regarding a project's environmental setting, impacts, mitigation measures, or alternatives is clearly sanctioned by section 21092.1 and CEQA case law. But a lead agency's use of the recirculation process to vet new information regarding significant changes to the proposed project being evaluated in the EIR is fundamentally inconsistent with well-established CEQA case law.

In *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 193 and 199, the Court of Appeal said:

> [A]n accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR. The defined project and not some different project must be the EIR's bona fide subject.

This statement has been cited by the Supreme Court and by the Court of Appeal in more than twenty published appellate opinions.

While section 15088.5 of the CEQA Guidelines purports to authorize use of a partially-recirculated draft EIR whenever the lead agency makes substantial changes to the proposed project after publication of the original draft EIR, such practice means that the project description in the EIR is evolving over time rather than remaining stable throughout the entire document. The Supreme Court has repeatedly said that courts should afford great weight to the Guidelines except when a provision is clearly unauthorized or erroneous under CEQA. (See, e.g., *Sunset Sky Ranch Pilots Assn. v. County of Sacramento* (2009) 47 Cal.4th 902, 907 fn. 3; *Muzzy Ranch Co. v. Solano*

County Airport Land Use Com. (2007) 41 Cal.4th 372, 380 fn. 2; *Laurel Heights Improvement Assoc. v. Regents* (1988) 47 Cal.3d 376, 391 fn. 2.) To the extent language in section 15088.5 is interpreted by a lead agency as allowing it to use an unstable or evolving project description in an EIR, such an interpretation of section 15088.5 would be clearly unauthorized and erroneous under CEQA.

If a CEQA lead agency chooses to make significant modifications to its proposed project after a draft EIR had been circulated for public review and prior to certification of that EIR, CEQA gives the lead agency only one option: start the CEQA process over by preparing a new draft EIR for that newly-defined project and then circulate that new document for public review. If the lead agency instead cuts corners by utilizing the recirculation process to patch a draft EIR prepared for a previously-proposed and subsequently-abandoned project, the agency has not proceeded in the manner required by law.

There are Significant Differences between California WaterFix and BDCP

The recently-proposed California WaterFix project is substantially different than the Bay Delta Conservation Plan project described by the lead agencies in the 2013 BDCP DEIR/DEIS.

The Bay Delta Conservation Plan or "BDCP" is defined in the Sacramento-San Joaquin Delta Reform Act of 2009 as "a multispecies conservation plan." (Pub. Res. Code, § 85053.) Under federal law, a multispecies conservation plan is referred to as a habitat conservation plan (HCP), prepared and approved pursuant to section 10 of the federal Endangered Species Act (16 USC § 1539), while under state law such a plan is referred to as a natural community conservation plan, prepared and approved pursuant to the Natural Community Conservation Planning Act (Fish & G. Code, § 2800 et seq.). (See BDCP DEIR/DEIS, p. 1-15, lines 25 – 30, & p. 2-2, lines 5 – 10.)

The lead agencies' November 2013 Public Draft BDCP proposes a collection twenty-two separate project components consisting of infrastructure projects and habitat restoration and enhancement programs; these project components are euphemistically identified in the Public Draft BDCP document as "conservation measures" CM 1 through 22. (See BDCP, section 3.4.) Taken together, these twenty-two separate project components comprise the overall "project" that is purportedly evaluated in the BDCP DEIR/DEIS. (See CEQA Guidelines, § 15378 ["'project' means the whole of an action"].) Component CM 1 includes construction of new water conveyance facilities and

operational plans for both existing and new facilities (BDCP, section 3.4.1), while components CM 2 through 22 "will restore over 80,000 acres of natural communities, including tidal natural communities, seasonally inundated floodplains, and adjacent transition uplands; enhance 20 miles of channel margin; and enhance seasonally inundated floodplain in the Yolo Bypass through operation of a modified Fremont Weir" (BDCP, Ex. Sum., p. 8). The duration of the BDCP project is described in section 1.4.5 of the Public Draft BDCP document as follows:

> DWR is seeking take permits from the fish and wildlife agencies that remain in effect for a term of 50 years. The proposed 50-year permit duration is necessary to allow sufficient time for the proper implementation of the actions set out in the Plan and to realize the overall BDCP goals of water supply reliability and ecosystem restoration.

For purposes of CEQA and NEPA compliance, the lead agencies will "approve" the overall BDCP project when they submit applications for incidental take permits and a NCCP permit to the relevant federal and state fish and wildlife agencies. (BDCP DEIR/DEIS, section 1.6; see CEQA Guidelines, § 15352(a) ["'approval' means the decision by a public agency which commits the agency to a definite course of action in regard to a project"].) We anticipate that the lead agencies will promptly file the CEQA Notice of Determination and NEPA Record of Decision after formally deciding to submit such applications. (Pub. Res. Code, § 21108; 40 C.F.R. § 1505.2.) While the fish and wildlife agencies rather than the lead agencies have final authority to decide whether the BDCP, as drafted by the lead agencies, will be approved as governing HCP/NCCP document, the lead agencies will commit themselves to a definite course of action regarding the overall BDCP project at the time they each formally make a decision to submit their respective applications to the fish and wildlife agencies.

In contrast, the description of the California WaterFix project provided in the lead agencies' various PR documents is much narrower than the BDCP project in both scope and process. We have attached two of these PR documents – two sets of Frequently Asked Questions (FAQs) prepared by the lead agencies, one undated and the other dated July 2015 – to ensure that these statements by the lead agencies regarding the WaterFix project are physically included within the final EIR/EIS document rather than simply included as part of the administrative record.

According to these FAQ documents, the WaterFix project would consist only of a new variation of the water conveyance facilities and operational plans described in the Public

Draft BDCP as component CM 1, and would omit the habitat restoration and enhancement programs described as components CM 2 through 22. A substantially-reduced subset of the twenty-one BDCP habitat programs have now been split off into a separate project – repackaged and renamed as California EcoRestore and limited to 30,000 acres – that might be considered and approved by either the WaterFix lead agencies or other agencies under an independent and unspecified timeline. (July 2015 FAQ, p. 6.) Significantly, while components CM 2 through 22 were identified as part of the proposed BDCP project rather than mitigation measures for water facility construction and operations, the lead agencies have now done a complete about-face and have recharacterized some habitat restoration activities – limited to approximately 2,300 acres – as mitigation for construction and operation of the WaterFix project. (July 2015 FAQ, pp. 4 & 6.)

Under WaterFix, the lead agencies will no longer be seeking approval of a HCP/NCCP multispecies conservation plan from the federal and state fish and wildlife agencies. Instead, the lead agencies now propose to engage in formal section 7 consultation with the UFWS and NMFS (16 USC § 1536) and to seek incidental take permits from the state DFW (Fish & G. Code, § 2081(b). (July 2015 FAQ, p. 4.) In addition, the lead agencies are no longer seeking take authorization from the fish and wildlife agencies for a 50-year period. The WaterFix RDEIR/SDEIS fails to explain why a 50-year permit duration is no longer "necessary to allow sufficient time for the proper implementation of the actions set out in the [proposed project] and to realize the overall [project] goals of water supply reliability and ecosystem restoration," as was the case with the BDCP project. (See BDCP, p. 1-26, lines 28 – 30.) The implication is that the goals and objectives of the WaterFix project are much different than those of the BDCP project, even though the WaterFix RDEIR/SDEIS does not make any revisions to Chapter 2 of the BDCP DEIR/DEIS.

The WaterFix Proposal requires Changes to the Public Draft BDCP

For the original BDCP DEIR/DEIS, DWR chose to utilize a document preparation procedure similar to the one described in section 15166 of the CEQA Guidelines, which allows a city or county to combine a local general plan (see Gov. Code, § 65300) and the EIR for that general plan into a single document. DWR's decision to combine the Public Draft BDCP and the BDCP DEIR/DEIS into a single, unified document is reflected in Chapter 1, footnote 3, of the BDCP DEIR/DEIS, which states as follows:

> The full Draft EIR/EIS should be understood to include not only the EIR/EIS itself and its appendices but also the proposed BDCP documentation including all appendices. For example, the Chapter 5, Effects Analysis, and its associated appendices are repeatedly referred to herein and include much of the substantial evidence supporting the environmental analysis and conclusions herein, and Chapter 3, Conservation Strategy, more fully describes the proposed project.

This footnote has not been altered in the WaterFix RDEIR/SDEIS, and therefore remains the lead agencies' definitive statement as to the intended contents of their combined draft CEQA/NEPA document for the proposed project. It is therefore our understanding that the full draft EIR/EIS is now almost 50,000 pages in length and includes the following component documents:

Document	pages
Public Draft BDCP, w/o appendices	2,740
BDCP appendices	6,251
2013 BDCP DEIR/DEIS (bare)	13,365
BDCP DEIR/DEIS appendices	17,863
WaterFix RDEIR/SDEIS, w/o appendices	2,927
WaterFix RDEIR/SDEIS appendices	5,976
Total page count	49,122

The final EIR/EIS will of course be a much larger document because it will also include all comments on the BDCP DEIR/DEIS and the WaterFix RDEIR/SDEIS, as well as the lead agencies' responses to those comments.

Because the Public Draft BDCP document has been physically integrated into the full DEIR/DEIS rather than simply being referenced, any change to the BDCP document is also a change to the Draft EIR/EIS. On the other hand, if the lead agencies make changes to the project description through the WaterFix RDEIR/SDEIS process but fail to make conforming changes within the Public Draft BDCP document, then the draft EIR/EIS is rendered internally inconsistent. That is exactly what has happened here.

The lead agencies have described their proposal in so many different ways that it is not clear what version of the project is the proposed "project" for purposes of CEQA and NEPA evaluation. According to the Public Draft BDCP document, the water conveyance

infrastructure to be built as part of project component CM 1 would include three new north Delta intakes with a total combined intake capacity not exceeding 9,000 cfs. (BDCP, p. 3.4-12, lines 39 – 41.) The Public Draft BDCP implies that the proposed twin 40-foot diameter tunnels have been sized no larger than necessary to allow gravity flow of the maximum 9,000 cfs quantity from these three proposed intakes. (BDCP, p. 3.4-13, lines 1 – 3, & p. 4-11, Table 4-3.) "Diversions at the north Delta intake[s] would be greatest in wetter years and lowest in drier years, when south Delta diversions would provide the majority of the CVP and SWP south of Delta exports." (BDCP, p. 3.4-12, lines 29 – 31.)

Yet ten of the fourteen "action" alternatives described in the DEIR/DEIS would have an export capacity of 15,000 cfs using the same twin 40-foot diameter tunnels. The DEIR/EIS does not explain how any of the ten 15,000 cfs export alternatives would "avoid or substantially lessen any of the significant effects of the project." (CEQA Guidelines, § 15126.6(a); see also 40 C.F.R. § 1502.1.) Even more troubling, the DEIR/DEIS does not explain the inconsistency between its implication that the twin 40-foot diameter tunnels are no larger than necessary to convey the maximal 9,000 cfs flows from the three proposed north Delta intakes, but yet large enough to handle gravity flows of up to 15,000 cfs if two additional north Delta intakes are constructed.

Further, it is not clear whether the project described in the Public Draft BDCP, which functions as the project description in the draft EIR/EIS for purposes of CEQA and NEPA, is actually the project that the lead agencies intend to approve. According to their latest public statements, reflected in the two FAQ documents attached hereto, the lead agencies are now proposing to approve the WaterFix project and are deferring consideration of the EcoRestore project until some future time. But according to the 50,000-page draft EIR/EIS currently before the public, as augmented in July 2015 to include the WaterFix RDEIR/SDEIS, the state and federal lead agencies are still proposing to approve all twenty-two components of the BDCP project through a single project-approval action by each agency.

As a result of this shifting an unstable project description, there are at least three different projects described in the draft EIR/EIS as it currently exists. The draft EIR/EIS does not provide an adequate CEQA/NEPA environmental impact evaluation of any of these projects, but the first step in providing an adequate evaluation is for the lead agencies to settle on a single stable, accurate, and finite project description. The three different projects described or alluded to in the current draft EIR/EIS are the following:

- BDCP: up to 9,000 cfs export capacity; approximately 80,000 to 145,000 acres of habitat enhancement, restoration, or preservation; impacts to special status species to be mitigated through federal Section 10 HCP process and state NCCP process, with 50-year duration of commitments.

- California WaterFix: up to 9,000 cfs export capacity; project impact mitigation of approximately 2,300 acres of habitat restoration and up to 13,300 acres of habitat preservation; impacts to special status species to be mitigated through federal Section 7 consultation and state 2081(b) incidental take permit process. An additional approximately 30,000 acres of habitat may be enhanced or restored through the future and yet undefined California EcoRestore project, but approval and implementation of the WaterFix project is not dependent on approval of the EcoRestore project.

- "Super" BDCP: up to 15,000 cfs export capacity; approximately 80,000 to 145,000 acres of habitat enhancement, restoration, or preservation; impacts to special status species to be mitigated through federal Section 10 HCP process and state NCCP process, with 50-year duration of commitments.

WaterFix and BDCP cannot be evaluated in same Draft EIR/EIS

The differences between the WaterFix project and the BDCP project present the problem discussed by the Supreme Court in *Vineyard Area Citizens v. City of Rancho Cordova* (2007) 40 Cal.4th 412, namely, the requirement for a lead agency to discuss the reasonably foreseeable impacts of incomplete project implementation in its EIR. (*Id.* at p. 434.) In *Vineyard*, the City of Rancho Cordova proposed to adopt two planning documents: a conceptual community plan for a 6,000-acre area that envisioned more than 22,000 homes and as many as 60,000 people, and a specific plan for a 2,600-acre subarea of the community plan area that established land use and infrastructure plans for 9,886 homes. The City recognized that the two plans together constituted a single "project" for purposes of CEQA review, and therefore evaluated the net environmental impacts of the two plans by preparing a single EIR for the overall project. The City had firm water supplies for anticipated development in the 2,600-acre specific plan area, but sources of water to develop the remaining 3,400 acres of the community plan area were less certain. To mitigate for this uncertainty, the City's EIR provided that development of the 3,400-acre would not be approved until firm water supplies were identified and evaluated through a future CEQA process.

The Supreme Court held that the City's EIR was legally inadequate because it failed to evaluate the reasonably foreseeable impacts of developing only the 2,600-acre specific plan area without also developing the remaining 3,400 acres of the community plan area. Although the City's EIR had evaluated the net impacts of the two plans being implemented in combination, it did not evaluate the impacts of the specific plan being implemented without the community plan. Given the uncertainty that the City would ever secure water supplies for development of the remaining 3,400 acres, it was reasonably foreseeable that only the 2,600-acre specific plan area would be developed, and that this reasonably foreseeable smaller project could have significant environmental impacts that were not identified and discussed in the EIR.

The courts have long been vigilant against agency attempts to piecemeal CEQA review. "The requirements of CEQA cannot be avoided by piecemeal review which results from 'chopping a large project into many little ones—each with a minimal potential impact on the environment—which cumulatively may have disastrous consequences.'" (*Rio Vista Farm Bureau Center v. County of Solano* (1992) 5 Cal.App.4th 351, 370.) In *Vineyard*, the Supreme Court held that adequate CEQA review also requires a lead agency to identify and evaluate the reasonably foreseeable environmental impacts of piecemeal or incomplete project approval and implementation.

By now proposing the WaterFix and EcoRestore projects as substitutes for the BDCP project, the lead agencies are acknowledging that approval and implementation of the BDCP project will be intentionally piecemealed. In addition, by fast-tracking approval and implementation of WaterFix while deferring analysis and consideration of EcoRestore – effectively de-linking the two sets of activities – the lead agencies are acknowledging that approval of their substitute projects will potentially be incomplete.

Despite the approximately 50,000 pages of environmental impact analysis included in the lead agencies' draft EIR/EIS, that draft document does not adequately identify and discuss the reasonably foreseeable significant environmental impacts of the WaterFix project being approved and implemented in isolation from other possible future projects, such as EcoRestore or project components CM 2 through 22 that were proposed as part of the apparently-abandoned BDCP project. Of course, any EIR/EIS for the WaterFix project must discuss the cumulative impacts of that project in combination with other past, present, and reasonably foreseeable future projects, but a cumulative impacts analysis is not a substitute for a project impact analysis. (Compare CEQA Guidelines, § 15126.2 with § 15130.) Because EcoRestore is now being proposed as a project separate and independent from WaterFix, any beneficial impacts of EcoRestore are relevant only

to a discussion of WaterFix's cumulative impacts, and cannot be used as mitigation or otherwise balanced against the significant adverse impacts that will be caused directly or indirectly by the WaterFix project. The current draft EIR/EIS does not provide such an impact analysis of the WaterFix project and is therefore inadequate to be used as the CEQA/NEPA document to support approval of that project.

The Draft EIR/EIS must not include Super BDCP as a Project Alternatives

The draft EIR/EIS evaluates ten alternatives to the BDCP project that would enable the lead agencies to export of up to 15,000 cfs from the north Delta rather than "only" the 9,000 cfs of export capacity that would be provided by the project described in the Public Draft BDCP. We will refer to these 15,000 cfs alternatives as "Super BDCP." The lead agencies' draft EIR/EIS – both as originally released for public review in 2013 and as augmented by the 2015 WateFix RDEIR/SDEIS – does not adequately explain how increasing water exports from the north Delta would "avoid or substantially lessen any of the significant effects of the [BDCP] project." (CEQA Guidelines, § 15126.6(a); see also 40 C.F.R. § 1502.1 [EIS "shall inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment"].)

Given the apparent lack of any legitimate environmental reason for evaluating a Super BDCP project alternative – with sixty-seven percent more water export capacity – in the draft EIR/EIS, the County is concerned that a Super BDCP project or some equivalent-capacity variation thereof, rather than the 9,000 cfs BDCP project, may in fact be the bona fide subject of the draft EIR/EIS document.

In *Committee for a Progressive Gilroy v. State Water Resources Control Board* (1987) 192 Cal.App.3d 847, the City of Gilroy had prepared and certified an EIR for a wastewater treatment plant with a capacity of 6.4 million gallons per day (mgd). The City built the facility it had evaluated in the EIR, but the Regional Water Quality Control Board limited operation of the facility to 5.15 mgd. After the City made some improvements and management changes at the facility, the Regional Board gave the City authorization to operate up to a maximum flow of 6.1 mgd. The Committee challenged the Regional Board's approval action, arguing that further CEQA review was required before the Regional Board could approve operation of the facility at the higher treatment capacity. The Court of Appeal disagreed, holding that the Regional Board's approval simply authorized the City to operate the facility in a manner that had already been evaluated in the certified EIR was not a new project subject to a new EIR. (*Id.*, at pp.

862-863.) Because none of the factors that would require preparation of a subsequent or supplemental EIR were present (see Pub. Res. Code, § 21166; see also CEQA Guidelines, §§ 15162 & 15163), the Regional Board could have authorized the City to operate to operate the facility up to the full 6.4 mgd design capacity evaluated in the certified EIR without conducting any further CEQA review.

In light of the *Committee for Progressive Gilroy* decision and given the lead agencies' acknowledgment that the proposed twin 40-foot diameter tunnels could comfortably convey by gravity flow exports from the north Delta of up to 15,000 cfs, the County is justifiably concerned that the bona fide subject of the draft EIR/EIS, as augmented with the WaterFix RDEIR/SDEIS, could be a 15,000 cfs Super BDCP project rather than a 9,000 cfs project. For this reason, the County requests that all 15,000 cfs alternatives be deleted from the draft EIR/EIS document, and that a new DEIR/DEIS document that properly describes the true proposed project and discusses a properly focused range of reasonable project alternatives be circulated for public review and comment.

General Comments on Contents of WaterFix RDEIR/SDEIS

The WaterFix RDEIR/SDEIS is inadequate because it fails to describe and analyze alternatives that would improve rather than degrade water quality in the Delta

CEQA requires that an "*EIR shall describe a range of reasonable 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 effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decisionmaking and public participation.*" (CEQA Guidelines, § 15126.6(a))

The WaterFix RDEIR/SDEIS is inadequate because it fails to consider and analyze feasible alternatives that incorporate additional storage and infrastructure to capture "new" water during periods of high flow in the Delta, as well as other more viable intake locations that would not harm key fish species. Both the south Delta and north Delta intake locations would significantly harm fish species. The south Delta intakes are unscreened or inadequately screened and cause reverse flows that increase entrainment and mortality of fish species in the Delta.

The north Delta intakes will reduce flow into and through the Delta, cause reverse flows in the north Delta, reduce migrating fish survival, and increase predation impacts. The

2013 Public Draft BDCP acknowledged that the north Delta intakes will have an adverse impact on key fish species. This is not offset by reducing exports from the south Delta because the south Delta intakes will continue to be used for 50% of the total exports and most of the exports will still be from the south Delta in dry periods.

The WaterFix RDEIR/SDEIS also fails to adequately analyze alternatives that incorporate increased Delta flows consistent with the Delta Flow Criteria developed by the SWRCB and Department of Fish and Wildlife in 2010. The analyses that were done (BDCP Alt. 8 and WaterFix Alt. 4H3) used the same configuration as the proposed project without incorporating any infrastructure such as new storage that would allow "new" water to be captured to offset the water being made available to help restore and sustain the Delta ecosystem. New alternatives involving higher Delta flows during dry periods and new storage would improve water quality in the Delta, as required by the 2009 Delta Reform Act, rather than degrade it.

The WaterFix RDEIR/SDEIS is inadequate because it assumes away significant adverse impacts on water quality without doing any detailed modeling runs

The 2013 BDCP DEIR/DEIS concludes that the BDCP project will have significant adverse impacts on water quality in the Delta. The BDCP DEIR/DEIS described these significant adverse impacts as unavoidable, despite State policy and antidegradation statutes requiring that Bay-Delta projects not only contribute to achieving both of the coequal goals, but also contribute to improving water quality in the Delta (2009 Delta Reform Act, Cal. Water Code § 85020(e)). The BDCP DEIR/DEIS failed to offer any meaningful, binding, or effective mitigation for these significant adverse impacts.

The July 2015 California WaterFix RDEIR/SDEIS concludes that the new alternatives (4A, 2D, and 5A) will not have any significant impacts on water quality in the Delta. Apparently, the lead agencies new position is that the significant adverse impacts identified in the BDCP DEIR/DEIS were avoidable after all, but this change in position is not explained in the WaterFix RDEIR/SDEIS or supported by any substantial evidence.

The WaterFix RDEIR/SDEIS assumes away these significant adverse impacts without supporting those assumptions with any detailed model runs, and only using "brief sensitivity analyses" (WaterFix RDEIR/SDEIS Appen. B, p. B-1) based on flawed modeling studies used for the BDCP DEIR/DEIS. Comments on the BDCP DEIR/DEIS by the North Delta Water Agency, Contra Costa Water District, City of Antioch, and others identified significant problems with those studies and the modeling tools that were

used. The WaterFix RDEIR/SDEIS acknowledges that the CALSIMII model has since been updated (*id.,* at p. B-3), but the RDEIR/SDEIS fails to provide the public and regulatory agencies with new, corrected, detailed model runs. Instead, the CALSIM II model runs from the BDCP DEIR/DEIS were "used as is ... to remain consistent with the draft EIR/EIS modeling." (*Ibid.*) As a result, all errors and shortcoming of the original modeling are repeated in the WaterFix RDEIR/SDEIS's sensitivity analyses.

The conclusions reached in the WaterFix RDEIR/SDEIS that there are no significant adverse water quality impacts are purely speculative and optimistic, without any accurate analysis to support them.

Sensitivity Analyses based on completely different operating rules and climate change conditions are not a substitute for full model runs

The conclusions reached in the WaterFix RDEIR/SDEIS are based on "brief sensitivity analyses" that DWR acknowledges are not full model runs.

The WaterFix RDEIR/SDEIS revised language of the BDCP DEIR/DESIS to state: "Understanding the uncertainties and limitations in the modeling and assessment approach is important for interpreting the results and effects analysis, including assessment of compliance with water quality objectives.... In light of these limitations, the assessment of compliance is conducted in terms of assessing the overall direction and degree to which Delta chloride would be affected relative to a baseline, and discussion of compliance does not imply that the alternative would literally cause Delta chloride 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." (WaterFix RDEIR/SDEIS Appen. A revision to Appen. 8G, p. 8G-1): The WaterFix RDEIR/SDEIS is inadequate because it fails to carry out full model runs that simulate the full impacts of the proposed project.

The WaterFix RDEIR/SDEIS states that Alternative 4 CALSIM II models from draft EIR/EIS were used as-is for the Alternative 4A sensitivity analysis, without including any recent updates and improvements that have been made to the CALSIM II. (WaterFix RDEIR/SDEIS Appen. B, p. B-3.) The WaterFix RDEIR/SDEIS says the reason for not using the most recent, corrected versions of the CALSIMII flow operations model was "to remain consistent with the draft EIR/EIS modeling." (*Ibid.*) As discussed in detail in comments by the North Delta Water Agency, Contra Costa Water District, the City of Antioch, and others on the BDCP DEIR/DEIS, the modeling used in that 2013 DEIR/DEIS was seriously flawed and the models themselves have been updated.

The sensitivity analysis approach in the WaterFix RDEIR/SDEIS is not valid and does not inform the Alternative 4A impact analysis in the REIR/EIS, and in fact may result in misleading results. For example, the water quality sensitivity analyses were carried out using the BDCP project Alternative 4 at late long term (year 2060 future conditions, 65,000 acres of habitat restoration and 45 cm of sea level rise), but the impact analysis in the WaterFix RDEIR/SDEIS is done at the early long term (year 2025, 25,000 acres of habitat restoration and 15 cm of sea level rise) conditions. Because the water quality analyses still included sea level rise, the effect of seawater is simulated to be much greater at late long term than at early long term.

The WaterFix RDEIR/SDEIS is inadequate because it uses the same flawed modeling used in the BDCP DEIR/DEIS and a "brief sensitivity analysis" to analyze and disclose the environmental impacts of a project of statewide importance that is likely to cause significant harm to the Delta ecosystem and other Delta beneficial uses. (WaterFix RDEIR/SDEIS Appen. B, p. B-1.) In addition, the WaterFix RDEIR/SDEIS acknowledges that "there is notable uncertainty in the results of all quantitative assessments that refer to modeling results, due to the differing assumptions used in the modeling and the description of the No Action Alternative (ELT)." (WaterFix RDEIR/SDEIS, p. 4.2-18).

The WaterFix RDEIR/SDEIS states: "Based on the sensitivity analyses, optimizing the design and siting of restoration areas is expected to be able to reduce EC and chloride increases in Suisun Marsh, relative to Existing Conditions and the No Action Alternative, to levels that would be less than significant." (WaterFix RDEIR/SDEIS, p. ES-27, line 16.) As discussed above, the sensitivity analyses were performed under quite different conditions (late long term with additional sea level rise and much more habitat restoration, 65,000 acres) than the preferred alternative, Alternative 4A (early long term, less sea level rise, no shift in the Emmaton compliance location, and no significant amount of habitat restoration). The WaterFix RDEIR/SDEIS makes no firm commitments to mitigate the expected impacts by implementing habitat restoration at optimized sites. Only a small amount of habitat restoration is being considered as part of California EcoRestore, most of which is already required under the OCAP Biological Opinions. There is no longer a commitment by the WaterFix lead agencies to conduct that habitat restoration in a manner that would mitigate impacts to Suisun Marsh or Barker Slough, or to mitigate other expected Delta water quality impacts. There is no substantial evidence included or cited in the WaterFix RDEIR/SDEIS to support the optimistic expectation that water quality impacts will be reduced to less than significant

levels. Detailed modeling studies and analysis are necessary to identify the impacts of Alternative 4A and to recommend appropriate mitigation measures.

Sensitivity Analyses show a large range of potential water quality impacts at Barker Slough and in Suisun Marsh

The Sensitivity Analyses were based on the flawed modeling for Alternative 4, Scenario H3 at late long term, i.e., 2060 conditions with habitat restoration (which is no longer included with new Alternative 4A), and not updated using the most recent versions of the CALSIMII and DSM2 models. The following two figures show the range of EC at Barker Slough for the following sensitivity analyses used by DWR:

SA1 BDCP Draft EIR/EIS Alternative 4, Scenario H3 at LLT
SA2d Same as SA1 but with compliance at Emmaton and daily flow variations
SA4 Same as SA1 but with Suisun Marsh Control Gate operations consistent with the NAA
SA4a Same as SA4 but without the 65,000 acres of tidal habitat restoration

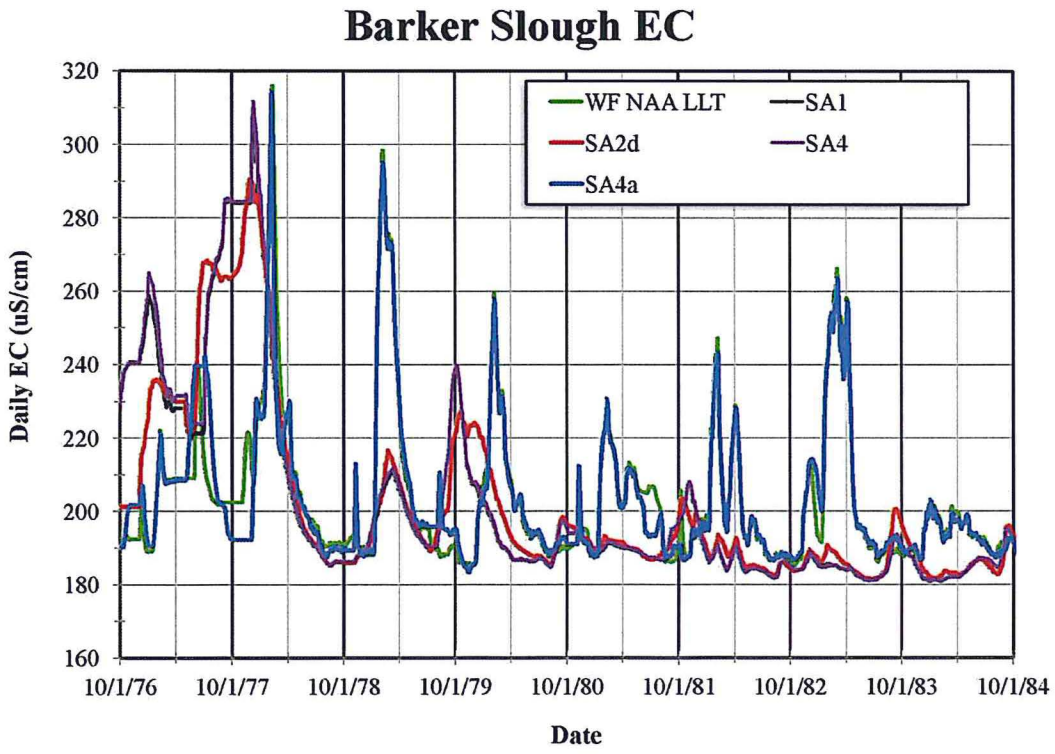

Figure 1: Daily EC values at Barker Slough from the sensitivity analyses for the period October 1976 through September 1984.

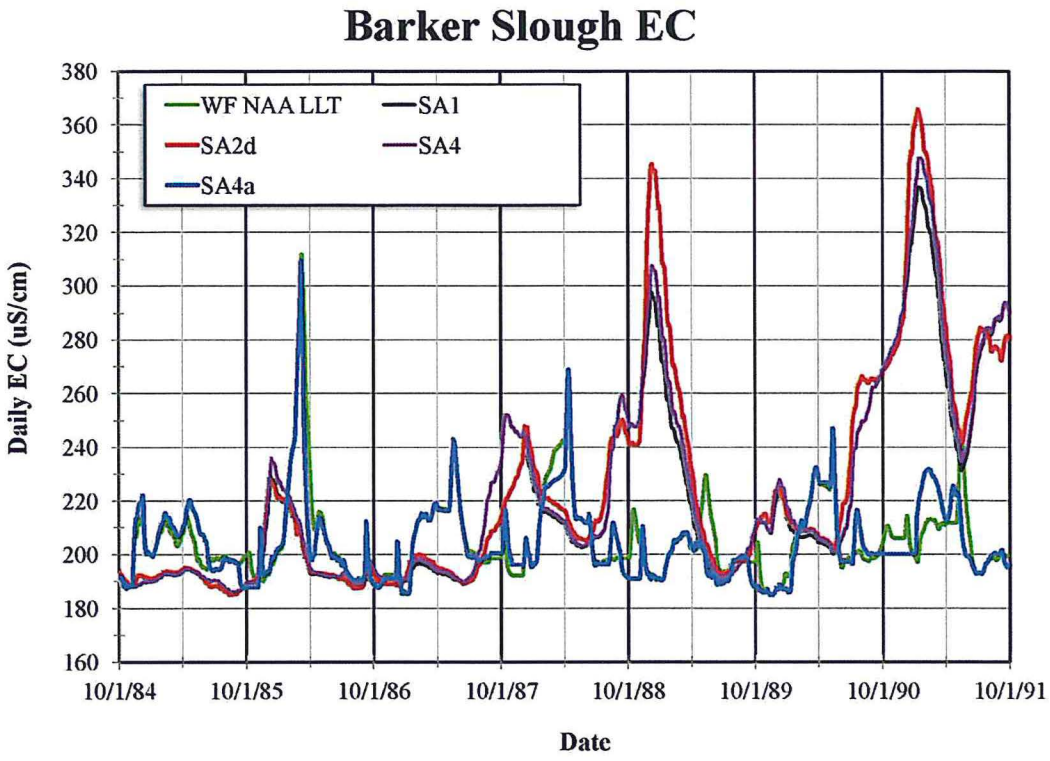

Figure 2: Daily EC values at Barker Slough from the sensitivity analyses for the period October 1984 through September 1991.

Also plotted for comparison purposes is the No Action Alternative developed for the WaterFix RDEIR/SDEIS for late long term. The WaterFix RDEIR/SDEIS only presented the water quality data as the averages for each month of the year for the short period modeled, water years 1976-1991, and for the water year 1987-1991 drought period. The 1976-1977 drought period was not included in the drought averaging.

As shown in Figures 1 and 2, the changed circumstances of removing 65,000 acres of habitat restoration could reduce EC at Barker Slough during drought periods (relative to the BDCP DEIR/DEIS proposed project, SA1) but increase EC significantly in normal and wetter years.

The WaterFix RDEIR/SDEIS only presents bromide concentration changes at Barker Slough and Belden's Landing as period averages (Appendix B, Tables Br-1 and Br-2) but does present chloride concentration changes at these two locations as period averages for each month of the year (Tables Cl-6 and Cl-7). The bromide and chloride concentrations are derived from the simulated EC data using two different methods. However, the

corresponding presentation of EC data (Table EC-8A) does not show the averages for Barker Slough or Belden's Landing. This is a significant omission.

However, as noted by the Delta Independent Science Board in their September 30, 2015 review of the WaterFix RDEIR/SDEIS, the presentation of data in this environmental document is "sufficiently incomplete and opaque to deter its evaluation and use by decision makers, resource managers, scientists and the broader public." The use of long-term averages in the tables in Appendix B masks the significant changes in water quality at Barker Slough and Belden's Landing and fails to disclose significant adverse water quality impacts.

Depending on where the habitat restoration needed to mitigate the significant adverse impacts of the WaterFix preferred alternative is implemented, and where the habitat restoration for California EcoRestore is implemented, the water quality impacts at Barker Slough and in Suisun Marsh could be significant. The timing of those impacts will also vary depending on the degree of habitat restoration. It is crucial that these impacts be determined, analyzed using full model runs, disclosed, and then either avoided or mitigated before any decisions regarding the WaterFix project are made by the lead agencies and regulatory agencies such as SWRCB and the Army Corps.

The following figures (Figures 3 and 4) show the EC data for each month of the 16-year sensitivity analysis simulation period (192 data points) in the form of scatter plots. The EC data for Barker Slough and Belden's Landing for Sensitivity Analysis #4 (no habitat restoration) are plotted as a function of the WaterFix No Action Alternative. Both are at late long term.

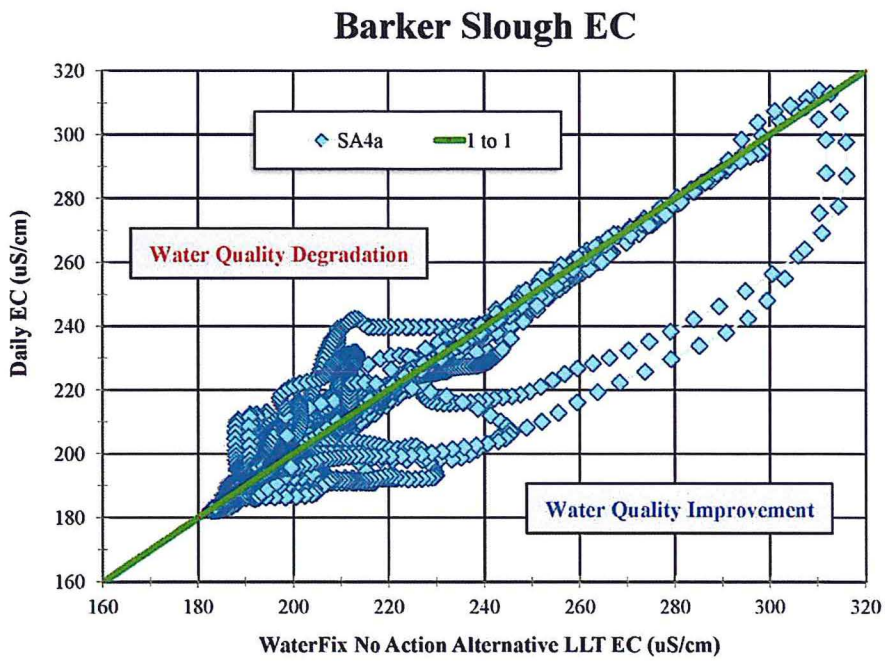

Figure 3: Scatter plot of daily EC values at Barker Slough from the WaterFix sensitivity analyses with no restoration (SA4a, LLT) for the period October 1975 through September 1991. Some peak EC are reduced relative to the No Action equivalent but significant adverse impacts occur at other times.

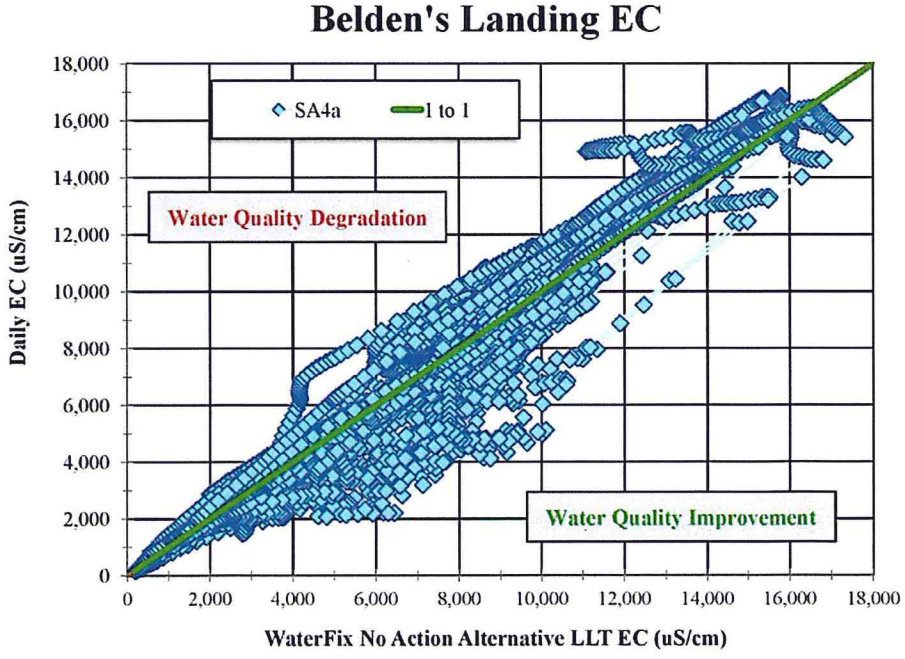

Figure 4: Scatter plot of daily EC values at Belden's Landing from the WaterFix sensitivity analyses with no restoration (SA4a, LLT) for the period October 1975 through September

1991. There are some reductions in EC relative to the No Action equivalent but significant adverse impacts occur at other times.

Some peak ECs at Barker Slough are reduced relative to the No Action equivalent but significant adverse impacts occur at other times. There are some reductions in EC relative to the No Action equivalent at Belden's Landing but significant adverse impacts occur at other times. The presentation of water quality data must present the data in sufficient detail to fully disclose the daily or month to month variations in water quality, in particular the occasions when salinities increase significantly. It is not acceptable to only present long-term averages that obscure and reduce the significant impacts on urban and agricultural water users, and the Delta ecosystem.

The WaterFix RDEIR/SDEIS is inadequate because it fails to present analysis data in a form that discloses the daily or month to month impacts of the proposed project on water quality and fails to avoid or provide definitive mitigation for these significant impacts on water quality.

The WaterFix RDEIR/SDEIS presents unsubstantiated water quality data for the new alternatives

The WaterFix RDEIR/SDEIS is inadequate and confusing for the public and decisionmakers because it claims that Alternatives 4A, 2D, and 5A were evaluated and that the evaluation was at early long term. Of particular concern are the tables in Appendix B, *Supplemental Modeling Results for New Alternatives*, that claim to present the water qualities for Alternative 4A for Scenario H3 and H4 at early long term when no full model runs or even sensitivity runs were performed for those cases.

Detailed Comments on Contents of the WaterFix RDEIR/SDEIS

Executive Summary

Page ES-8, line 33

The WaterFix RDEIR/SDEIS states: "the other alternatives evaluated in the WaterFix RDEIR/SDEIS, Alternative 4A, 2D, and 5A, are evaluated at the Early Long-Term (ELT) timeframe because the project implementation period is anticipated to be shorter." This is not correct. No full model runs for these three alternatives were carried out and the "brief sensitivity analyses" of water quality impacts that were performed were at late long term (2060 rather than 2025 conditions). The sensitivity analyses were based on flawed Alternative 4 model runs from the BDCP DEIR/DEIS, never included all the components

of the preferred alternative 4A, and most included 65,000 acres of habitat restoration and much greater sea level rise and seawater intrusion.

The WaterFix RDEIR/SDEIS inaccurately claims that Alternatives 4A, 2D, and 5A were evaluated, and that the evaluation was at early long term. Of particular concern are the tables in Appendix B, Supplemental Modeling Results for New Alternatives, that claim to present the water qualities for Alternative 4A for Scenario H3 and H4 at early long term when no full model runs or even sensitivity runs were performed for those cases.

Section ES.1.3 (page ES-9): Areas of Known Controversy

The WaterFix RDEIR/SDEIS identifies an insufficient range of reasonable project alternatives as one known area of controvery. The range and adequacy of project alternatives is an issue of concern to the public as well as to governmental agencies. Of the fifteen project alternatives described in the BDCP DEIR/DEIS, only one (Alternative 9) was substantially different in terms of infrastructure than the others. The others all involved new intakes in the north Delta with an isolated conveyance system linking various configuration of three to five intakes to the SWP and CVP export pumps in the south Delta. The adverse environmental impacts on aquatic species and water quality in the Delta were not significantly different whether the isolated conveyance was a canal, pipeline or tunnel or whether it followed an eastern or western alignment. The three new "sub-alternatives" added by the WaterFix RDEIR/SDEIS are very similar to the earlier fourteen in terms of intake location and isolated conveyance, and again fail to reduce exports during drier months and capture more water in wetter months when it is surplus to the needs of the Delta, or otherwise contribute to achievement of the coequal goals.

A new Draft EIR/EIS is warranted that includes new alternatives that are substantially different than those already studied, e.g., incorporating new storage, actions to reduce demand on the Delta – such as water reuse – especially during drier periods, levee strengthening, and fully analyzes and discloses, avoids, and mitigates their impacts.

Section ES.1.4.3 (page ES-12): Cumulative Impact Analyses

The WaterFix RDEIR/SDEIS includes additional reasonably foreseeable proposed projects that, when considered together with the action alternatives, could have a significant cumulative effect. The analysis includes a discussion of the California Water Action Plan, California EcoRestore, and the Sustainable Groundwater Management Act to better describe the roles of the new Delta conveyance facilities and habitat restoration in the context of the state's comprehensive vision for water management.

The proposed project fails to produce any significant improvement in water supply reliability, degrades rather than improves water quality in the Delta, harms key fish species (BDCP Executive Summary), and otherwise fails to meet the state and federal statutory requirements to contribute to achieving the coequal goals. The California Water Action Plan includes additional actions such as new storage that will be necessary. As such the WaterFix RDEIR/SDEIS should have analyzed operations of the preferred alternative in the future with new storage, actions to reduce demand, and the long overdue habitat restoration required by the SWP and CVP biological opinions. DWR also indicated, in the BDCP Draft EIR/EIS, its intent to request that the compliance location for the Emmaton standard be moved to Three Mile Slough. The new alternatives do not include this change in compliance location to reduce the significant adverse water quality impacts of the BDCP alternatives, but a future request that this compliance location be shifted is reasonably foreseeable and should also be modeled as a cumulative impact.

The WaterFix RDEIR/SDEIS also notes that the SWRCB is working on revising its Water Quality Control Plan to increase flows on the San Joaquin River (Phase 1) and in the Delta and the other tributaries. The cumulative impact of these flow increases on the proposed project and the viability of the new intakes and twin tunnels once the increased flows are implemented by the SWRCB must be fully analyzed.

Page ES-15

The WaterFix RDEIR/SDEIS says their alternative implementation strategy (Alternatives 4A, 2D, and 5A) focuses on the conveyance facility improvements necessary for the SWP to address more immediate water supply reliability needs, and allows for other state and federal programs to address the long-term conservation efforts for species recovery through programs separate from the proposed project. This is further confirmation that the WaterFix proposal is contrary to the 2009 Delta Reform Act because it only attempts to achieve one of the coequal goals.

The new conveyance facilities will not improve conditions for endangered and threatened aquatic species in the Delta. Instead, reverse flows in the south Delta will continue, exports from the south Delta will actually increase during drier months, Clifton Court Forebay will remain unscreened, and the new north Delta intakes will harm key fish species. (Draft BDCP, Executive Summary.) Implementing the conveyance facilities will exacerbate rather than help resolve many of the concerns with the current south Delta conveyance system. The WaterFix RDEIR/SDEIS also fails to present any evidence or

arguments why implementing new conveyance separately will allow for implementing habitat restoration projects on an expedited schedule through the state's EcoRestore program. These are restoration projects required under the biological opinions and there is no guarantee that these programs will be implemented or completed.

Page ES-26

The WaterFix RDEIR/SDEIS states that "the cause of the modeled increases in bromide in Barker Slough, which was driving the impact conclusion for almost all alternatives, is due to the assumptions regarding tidal habitat restoration not due to conveyance facility operations." No full model runs were performed for Alternative 4A to support this statement, and the brief sensitivity analyses do not provide adequate support. There are also no full model runs to support the speculation that "because new alternatives 4A, 2D, and 5A contain a lower acreage of tidal restoration, significant impacts with regard to bromide are not expected under these alternatives."

Page ES-27, line 16

The WaterFix RDEIR/SDEIS speculates that "based on the sensitivity analyses, optimizing the design and siting of restoration areas is expected to be able to reduce EC and chloride increases in Suisun Marsh, relative to Existing Conditions and the No Action Alternative, to levels that would be less than significant." The brief sensitivity analyses are not full model runs and were not even carried out for the preferred alternative configuration and operations. The CEQA requirement to avoid or mitigate significant adverse impacts requires more than an expectation that as yet specified habitat restoration will not result in significant adverse water quality impacts. The full, albeit flawed, model runs for Alternative 4 clearly indicate the impacts of habitat restoration on water quality at Barker Slough and in Suisun Marsh. The habitat restoration to be done as part of WaterFix, EcoRestore, and other relevant programs must be analyzed in the environmental documentation from the proposed WaterFix project and disclosed, not piecemealed and postponed.

An established best estimate of the habitat restoration activities under WaterFix and, as part of the Cumulative Impacts Analysis, EcoRestore and other relevant BDCP habitat programs that are no longer part of WaterFix, is required. This requires full model runs as well as analysis and disclosure of the water quality impacts.

Page ES-27, line 36

Because Alternatives 4A, 2D, and 5A were not fully modeled for the WaterFix RDEIR/SDEIS, it is not possible to be certain that they would not result in significant impacts for EC related to objective exceedance in the Sacramento River at Emmaton, or would not result in substantial degradation in the western Delta due to increased chloride concentrations, or would have less adverse water quality effects in the western Delta related to EC, or would have fewer exceedances of the fish and wildlife EC objective between Prisoners Point and Jersey Point. The same applies to speculation regarding bromide concentration impacts at Barker Slough (p. ES-28, line 18).

The WaterFix RDEIR/SDEIS contains inadequate information to support this speculation regarding water quality impacts. A new Draft EIR/EIS must be prepared that models, analyzes, discloses and avoids or mitigates the impacts of the new alternatives and habitat restoration on water quality in the western Delta. The new Draft EIR/EIS must then be released for public review and comment.

Section 1: Introduction

Page 1-5, line 34

The WaterFix RDEIR/SDEIS discusses CEQA Guidelines § 15088.5, which provides examples of disclosure that constitute "significant new information" for purposes of requiring recirculation of a revised EIR. Because the WaterFix RDEIR/SDEIS is so fundamentally and basically inadequate and conclusory in nature, meaningful public review and comment has been precluded. As found by the Delta Independent Science Board (September 30, 2015 review comments), the WaterFix RDEIR/SDEIS is "sufficiently incomplete and opaque to deter its evaluation and use by decisionmakers, resource managers, scientists, and the broader public."

There are also feasible project alternatives considerably different from the two types of alternatives previously analyzed that would clearly lessen the environmental impacts of the proposed WaterFix project, but the lead agencies have declined to consider them. Such alternatives include the following: modified project components that increase Delta flows to restore and sustain fish populations (2010 Delta Flow Criteria); new storage to enable new water to be captured, stored, and conveyed to the California Aqueduct and Delta Mendota Canal; levee strengthening to protect the Delta and export water supply and water quality; and actions to reduce demand for water from the Delta. These types of alternatives should have been considered as part of a holistic solution. Most of these are

identified in the July 2014 California Water Action Plan, which DWR helped to prepare, and some are required by the 2009 Delta Reform Act.

Page 1-20, line 35: San Joaquin Delta Estuary Water Quality Control Plan (Bay-Delta WQCP).

The 2009 Delta Reform Act states that an order by the SWRCB approving any change petitions for the proposed project shall include appropriate Delta flow criteria and shall be informed by the analysis performed pursuant to Section 85086 of the Water Code (Cal. Water Code § 85086(c)(2)). The intent of the 2009 Delta Reform Act was that development of the BDCP and WaterFix project alternatives would also be informed by the Delta flow criteria developed by the SWRCB and Department of Fish and Wildlife.

The WaterFix RDEIR/SDEIS is inadequate because it fails to present alternatives compatible with, and including, increased Delta flow requirements consistent with the 2010 Delta Flow Criteria as required by State statutes. The legal reasoning for this is contained in the September 29, 2015 letter from NRDC, et al., sent to Tom Howard at the SWRCB[1]. This letter is hereby incorporated into the County's comments by reference. (See *Consolidated Irrigation Dist. v. Superior Ct.* (2012) 205 Cal.App.4th 697, 723.)

Section 2: Substantive Draft EIR/EIS Revisions

Page 2-6, line 31

The sensitivity analyses conducted by the lead agencies were performed at late long term (2060) rather than early long term (2025), which is the chosen future reference time for the WaterFix RDEIR/SDEIS. The sensitivity analyses were based on, and relative to, earlier modeling of BDCP Alternative 4 at late long term. This alternative is very different than the WaterFix project, and the earlier BDCP modeling was flawed; the CALSIMII and DSM2 models have since been updated. The sensitivity analyses did not include these updates and corrections.

Full model runs for the alternatives must be produced. The statewide importance of the proposed project and the high level of public controversy require that the modeling results be disclosed for public review and comment now rather than slipped into a Final

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1 http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/early_petition_comments/docs/nrdc_obegi093015.pdf

EIR/EIS document, leaving little chance for serious regulatory agency and public review and discussion.

Page 2-8, line 2-9

It is not acceptable to merely anticipate that the new alternatives 2D, 4A, and 5A, will contain a much lower acreage of tidal restoration, and therefore the new alternatives will not have significant impacts with respect to EC and chloride in Suisun Marsh. A range of reasonably expected habitat restoration projects and acreages in the north Delta and Suisun Marsh under WaterFix and EcoRestore must be analyzed using full detailed model runs to quantify and disclose the potential significant adverse impacts to water quality in this region.

Page 2-13

The WaterFix RDEIR/SDEIS claims that "it is now known that the cause of the modeled increases in bromide in Barker Slough, which was driving the impact determinations for almost all alternatives, is assumptions regarding CM4 implementation, not operations in CM1." The WaterFix RDEIR/SDEIS fails to perform full model runs to determine whether this is correct. It is also not sufficient to speculate that "because the new alternatives (2D, 4A, and 5A) contain a lower acreage of tidal restoration, significant impacts with regards to bromide are not expected under these alternatives."

Section 4: New Alternatives: Alternatives 4A, 2D, and 5A

Section 4.2.7, pages 4.2-18 and 4.3.4-1: Water Quality

The WaterFix RDEIR/SDEIS states: "In general, the significance of this difference is the assessment of bromide, chloride and EC for the No Action Alternative (ELT), relative to Existing Conditions, likely underestimates increases in bromide, EC, and chloride that could occur, particularly in the west Delta. Nevertheless, there is notable uncertainty in the results of all quantitative assessments that refer to modeling results, due to the differing assumptions used in the modeling and the description of the No Action Alternative (ELT)."

Because of the statewide importance of developing a Delta solution that achieves both of the coequal goals, the public controversy surrounding the WaterFix project, and the extremely high cost of the new intakes and tunnels, it is very important that the models and modeling be refined. For example, daily rather than monthly timesteps should be used in the CALSIMII model, and the differing assumptions should be reconciled to

reduce the acknowledged "notable uncertainty." A substantial amount of uncertainty was introduced by the lead agencies' decision to cut corners and use only "brief sensitivity analyses" based on earlier flawed modeling runs rather than performing new, updated full model runs.

Page 4.3.4-24, line 4

The WaterFix RDEIR/SDEIS notes the significant differences between Alternative 4A and the modeling conducted for Alternative 4 in the early long term. The WaterFix RDEIR/SDEIS also claims "there are several factors related to the modeling approach that may result in modeling artifacts that show objective exceedance, when in reality no such exceedance would occur. The County agrees with the statement made in the WaterFix RDEIR/SDEIS: "*The result of all of these factors is that the quantitative modeling results presented in this assessment is not entirely predictive of actual effects under Alternative 4A, and the results should be interpreted with caution.*"

The lead agencies' apparent rush to release the WaterFix RDEIR/SDEIS without performing full model runs of the new alternatives or correcting the prior model runs for the BDCP alternatives is unacceptable, inconsistent with accepted scientific practices, and contrary to the requirements of CEQA and NEPA. Presenting tables of water quality impacts in Appendix B for Alternative 4A at early long term when no such analyses were actually performed is also unacceptable.

Section 5: Revisions to Cumulative Impacts Analyses

Page 5-78, line 23: Electrical Conductivity

The WaterFix RDEIR/SDEIS claims: "Implementation of facilities operations and maintenance under these action alternatives, along with Mitigation Measure WQ-11, would not be expected to contribute substantially to this adverse cumulative condition for EC, because no additional exceedance of Bay-Delta WQCP EC objectives would be expected, and substantial long-term degradation with respect to EC would be avoided."

Degradation of water quality in the Delta cannot be judged in terms of exceedance of the SWRCB's Bay-Delta water quality standards. Significant impacts can occur to urban and agricultural water uses even when water quality standards are not exceeded. For example, farmers in the north Delta, including Solano County, have developed farming practices and crops that rely on very fresh water. Increasing salinities in this area will have a significant adverse impact on these beneficial uses, even if SWRCB chloride

standards are not exceeded. The environmental documentation must be revised to acknowledge that increasing salinities by even a small percentage can be a significant adverse water quality impact.

WaterFix RDEIR/SDEIS Appendix A

Appendix A, Chapter 8, page 8-53

The WaterFix RDEIR/SDEIS states: "In reality, staff from DWR and Reclamation constantly monitor Delta water quality conditions and adjust operations of the SWP and CVP in real time as necessary to meet water quality objectives. These decisions take into account real-time conditions and are able to account for many factors that the best available models cannot simulate.... Thus, it is likely that some objective exceedances simulated in the modeling would not occur under the real-time monitoring and operational paradigm that will be in place to prevent such exceedances."

It is not sufficient to speculate "it is likely that" some predicted exceedances will not occur in practice when there is no substantial evidence presented in the WaterFix RDEIR/SDEIS to support such a statement. To the extent DWR and Reclamation staff will need to increase flows or reduce exports through real time operations monitoring and adjustments in order to meet water quality objectives, staff will reduce flows and increase exports in subsequent months to meet water delivery commitment, which could cause adverse impacts that are not disclosed in the WaterFix RDEIR/SDEIS. The WaterFix RDEIR/SDEIS is inadequate because it fails to analyze and disclose, using actual water quality model runs, the significant adverse impacts of the proposed project and provide reasonable estimates of the frequency of water quality objective exceedances, and disclose how the project will likely operate in real time.

Appendix A, Chapter 8, page 8-219

The WaterFix RDEIR/SDEIS discusses the effects of site-specific restoration areas proposed under CM 4 on bromide concentrations in Barker Slough, stating as follows: "It is anticipated that these efforts will be able to reduce the level of projected increase, though it is unknown whether it would be able to completely eliminate any increases." The WaterFix RDEIR/SDEIS further states: "If sufficient operational flexibility to offset bromide increases is not practicable/feasible under Alternative 4 operations, and/or siting and design of restoration areas cannot feasibly reduce bromide increases to a less than significant level without compromising the benefits of the proposed areas, achieving

bromide reduction pursuant to this mitigation measure would not be feasible under this alternative."

If Mitigation Measure WQ-5 (Avoid, Minimize, or Offset, as Feasible, Adverse Water Quality Conditions; Site and Design Restoration Sites to Reduce Bromide Increases in Barker Slough) is insufficient to fully mitigate the significant adverse bromide impacts in the Barker Slough region, additional mitigation measures must be developed.

Appendix A, Chapter 8, page 8-225: 303(d) Listed Water Bodies–Relative to No Action Alternative

The WaterFix RDEIR/SDEIS states: "Modeling results indicated that monthly average chloride concentrations at source water channel locations for the Suisun Marsh (Appendix 8G, Figures Cl-5, Cl-7 and Cl-8) would increase substantially in some months during October through May compared to the No Action Alternative conditions, but sensitivity analyses suggest that operation of the Salinity Control Gates and restoration area siting and design considerations could reduce these increases. However, the chloride concentration increases at certain locations could be substantial, depending on siting and design of restoration areas. Thus, these increased chloride levels in Suisun Marsh are considered to contribute to additional, measureable long-term degradation in Suisun Marsh that potentially would adversely affect the necessary actions to reduce chloride loading for any TMDL that is developed."

It is not sufficient to merely do sensitivity analyses, especially when even the sensitivity analyses indicate that the proposed project will cause significant adverse impacts to water quality in Suisun Marsh. These significant impacts must be avoided or fully mitigated. Full model runs of the flows and exports in the Delta, and corresponding water quality variations, must be conducted. Based on the results of these model runs, all identified significant water quality impacts must be mitigated or avoided.

Appendix A, Chapter 8, page 8-228

The WaterFix RDEIR/SDEIS continues to propose aspirational water quality mitigation measures that defer development and identification of specific mitigation measures until after the project is completed. There are no commitments on behalf of the lead agencies that any mitigation will actually be identified or implemented. Mitigation Measure WQ-7 (Conduct Additional Evaluation and Modeling of Increased Chloride Levels and Develop and Implement Phased Mitigation Actions) and Mitigation Measure WQ-7c (Consult with Delta Water Purveyors to Identify Means to Avoid, Minimize, or Offset for

Reduced Seasonal Availability of Water That Meets Applicable Water Quality Objectives) are open ended and put much of the onus for project impact mitigation on the impacted parties.

The significant water quality impacts of the proposed project must be avoided or fully mitigated by the project proponents at no financial or resource cost to the impacted parties. Measures to avoid or fully mitigate all adverse water quality impacts and contributions to improvement of water quality in the Delta (Wat. Code, § 85020) must be incorporated into the CEQA/NEPA document and made available for public review and comment.

Appendix A, Chapter 8, page 8-237

The revised language provided in the WaterFix RDEIR/SDEIS states: "As discussed in Chapter 5, Water Supply, Section 5.3.1, Methods for Analysis, under extreme hydrologic and operational conditions where there is not enough water supply to meet all requirements, CALSIM II uses a series of operating rules to reach a solution that is a simplified version of the very complex decision processes that SWP and CVP operators would use in actual extreme conditions. Thus, it is unlikely that the Emmaton objective would actually be violated due to dead pool conditions. However, these results indicate that water supply conditions could be either under greater stress or under stress earlier in the year, and levels at Emmaton and in the western Delta may increase as a result, leading to EC degradation and increased possibility of adverse effects to agricultural beneficial uses."

It does not necessarily follow that because the CALSIMII model is not able to handle extreme conditions that exceedances of the Emmaton objective are unlikely. Limitations in the CALSIMII model could result in exceedances being underestimated. Because of the statewide importance of finding a solution to the drastic problems of the Delta, it is imperative that the CALSIMII model be upgraded to adequately account for extreme conditions, such as the current drought situation, and to simulate daily rather than monthly time steps. The adverse impacts to agricultural beneficial uses indicated by the results must also be fully mitigated. New, accurate modeling must be conducted that analyzes project operations using an upgraded CALSIM II model and full model runs for flow and export operations and water quality over the full simulation period.

Appendix A, Appendix 8H, page 8H-1

The WaterFix RDEIR/SDEIS states: "The sensitivity analysis modeling runs were limited to the Existing Conditions, No Action Alternative, and Alternative 4 Scenario H3, but the findings from these analyses can generally be extended to other scenarios of Alternative 4 and the other project alternatives." Because the sensitivity analyses were applied to Alternative 4 at late long term, they are not representative of Alternative 4A at early long term, which has almost no habitat restoration and significantly less sea level rise and seawater intrusion.

The WaterFix RDEIR/SDEIS also states: "DWR and USBR have every intention of operating SWP and CVP facilities by fine tuning reservoir storage and exports in real time to meet D-1641 standards, and any changes to D-1641 as adopted by the SWRCB. Actual operations are continuously adjusted to respond to reservoir storages, river flows, exports, in-Delta demands, tides, and other factors to insure compliance to regulatory requirements to the extent possible." Because of the failure of the WaterFix RDEIR/SDEIS to actually model the new alternatives and revise the flawed modeling used for the 2013 BDCP DEIR/DEIS alternatives, actual operations of the WaterFix would likely be much different than what is described in the WaterFix RDEIR/SDEIS. For example, exports may need to be reduced in a given month and compensating increases made in a subsequent month, thereby shifting impacts to other more critical months.

Appendix A, Appendix 8H – Attachment 1, page 3

BDCP EIR/EIS Water Quality Sensitivity Analysis

The Draft Technical Memorandum, included as an attachment to the WaterFix RDEIR/SDEIS, states: *"DSM2 sensitivity runs listed above were simulated at LLT conditions. NAA DSM2 run at LLT accounts for 45 cm sea level rise at the Golden Gate Bridge. Alt4 H3 DSM2 runs at LLT account for 65,000 acres of restoration in addition to the 45 cm sea level rise. Even though the sensitivity analyses were performed at LLT, the factors identified to explain modeled salinity exceedances at LLT <u>are expected to be valid similarly</u> at Early Long-term (ELT) conditions."*

This speculation is not correct. The late long term conditions in the Delta will include a significant amount of additional seawater intrusion, especially at locations like Barker Slough (as shown by the sensitivity analyses). Comparing two simulations with a lot of seawater intrusion (subtracting one from the other) is very different from comparing two

simulations under conditions with significantly less seawater intrusion (i.e., at early long term).

It is also incorrect to claim that "the Lead Agencies have determined that they may reasonably rely on the modeling conducted for Alternative 4 to accurately predict the environmental effects of Alternative 4A." (*Id.*, p. 4.2-18.) As is acknowledged in the WaterFix RDEIR/SDEIS on page 4.3.4-24, "*the quantitative modeling results presented in this assessment is(sp) not entirely predictive of actual effects under Alternative 4A, and the results should be interpreted with caution.*"

WaterFix RDEIR/SDEIS Appendix B

Page B-3

The WaterFix RDEIR/SDEIS states: "For the Alternative 4A sensitivity analysis Alternative 4 CALSIM II models from draft EIR/EIS were used as is, without including any recent updates to the CALSIM II since the draft EIR/EIS was completed, to remain consistent with the draft EIR/EIS modeling."

The environmental analyses and disclosures of impacts in the WaterFix RDEIR/SDEIS are inadequate because of flaws identified for the earlier BDCP model runs and CALSIMII and DSM2 models, and are exacerbated by the failure to include the recent updates to the models and revise the earlier modeling runs. The approach chosen by the lead agencies therefore does not allow any reliable verification of whether the draft EIR/EIS modeling could be used to inform Alternative 4A impact analysis in the RDEIR/SDEIS.

Appendix F: Supplemental Modeling Results at ELT for 3 Alternative 4 at H1 and H2

Page F-1

WaterFix RDEIR/SDEIS Appendix F presents the CALSIM water operations modeling results for Alternative 4 for operational scenarios referred to as "Scenarios H1 and H2" at early long term. These two scenarios from the BDCP DEIR/ EIS do not include the Fall X2 required by the biological opinions and found by the SWRCB to be necessary to restore and sustain recovery of fish species in the Delta. Recent court decisions confirmed the validity of the USFWS's biological opinion requirement to meet Fall X2 in wet and above normal years.

The WaterFix RDEIR/SDEIS does not explain why a project that has a stated objective of improving conditions for key fish species also proposes SWP and CVP operations that do not include the Fall X2 required by the applicable biological opinions. The failure of the project to conform to these biological opinions would result in continued to harm key fish species. This is contrary to the state and federal requirements to contribute to achieving the coequal goals.

July 2015

California WaterFix (Alternative 4A)/Recirculated Environmental Analysis
Frequently Asked Questions

1. **What is the purpose and need for California WaterFix (Alternative 4A)?**
   The California Department of Water Resources' (DWR's) primary purpose in proposing California WaterFix (Alternative 4A) is to make the physical and operational improvements to the California's main water delivery system in the Sacramento-San Joaquin Delta (Delta) that will protect water supplies, restore and protect ecosystem health, and improve water quality within a stable regulatory framework.

   The Delta has long been an important resource for California, providing municipal, industrial, agricultural and recreational uses, fish and wildlife habitat, and water supply for 25 million Californians. However, the Delta is in crisis. There is an urgent need to improve the conditions for threatened and endangered fish species within the Delta. Improvements to the conveyance system are needed to respond to increased demands upon and risks to water supply reliability, water quality, and the aquatic ecosystem.

2. **What is the new California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA) preferred alternative?**
   California WaterFix (Alternative 4A) has been identified as the new CEQA and NEPA Preferred Alternative, replacing Alternative 4 (the proposed Bay Delta Conservation Plan). Alternative 4A includes an underground conveyance facility, three northern intakes capable of diverting a combined total of up to 9,000 cubic feet per second, and mitigation measures and environmental commitments to meet the requirements of CEQA, NEPA, the federal Endangered Species Act (ESA) Section 7, section 2081(b) of the California Endangered Species Act (CESA), and other environmental requirements. California WaterFix (Alternative 4A) achieves the co-equal goals by securing state water supplies from climate change and seismic risk, and improving operations and environmental conditions to benefit fish species. California WaterFix (Alternative 4A) was developed in response to public and agency input, as well as an interest in exploring multiple regulatory approaches (e.g. Section 7 consultation) to achieving the dual goals.

3. **Who are the lead agencies for California WaterFix (Alternative 4A)?**
   The Partially Recirculated Draft Environmental Impact Report/Supplement Draft Environmental Impact Statement (RDEIR/SDEIS) associated with California WaterFix (Alternative 4A) is a joint document prepared by DWR as the CEQA lead

agency and the Bureau of Reclamation (Reclamation) as the NEPA lead agency. The National Marine Fisheries Service (NMFS) and United States Fish and Wildlife Service (USFWS) serve as NEPA cooperating agencies, and the lead agencies will consult with NMFS and USFWS under Section 7 of the ESA. The California Department of Fish and Wildlife serves as a CEQA responsible and trustee agency and will be considering the issuance of the Section 2081(b) permit after EIR/EIS approval.

4. **Why is there a recirculated environmental document?**
   The RDEIR/SDEIS has been prepared to provide the public and interested agencies an opportunity to review engineering refinements made to the water conveyance facilities; to introduce new sub-alternatives (Alternatives 4A, or California WaterFix, 2D and 5A); and, to include updated environmental analyses that in part were conducted in response to issues raised in the more than 12,000 comments received on the 2013 Bay Delta Conservation Plan (BDCP) Draft EIR/EIS.

5. **What is the difference in the regulatory strategy between the BDCP (Alternative 4) and California WaterFix (Alternative 4A)?**
   DWR's initial regulatory strategy proposed a habitat conservation plan, presented as Alternative 4 in the 2013 BDCP Draft EIR/EIS (i.e. a conservation plan that seeks 50-year permits as a Habitat Conservation Plan (HCP) through Section 10 of the ESA and a Natural Community Conservation Plan (NCCP) through the California Natural Community Conservation Planning Act (NCCPA)). The proposed habitat conservation plan would provide for both broad-scale regional habitat restoration and new Delta water delivery infrastructure for the State Water Project (SWP). California WaterFix (Alternative 4A) reflects an alternative regulatory strategy (through federal ESA Section 7 consultation and the CESA Section 2081(b) permit process) to meet the project purpose and need and includes the new Delta water delivery infrastructure for the SWP, the same as proposed in Alternative 4, without a habitat conservation plan. California WaterFix (Alternative 4A) allows for other state and federal programs to address broader habitat conservation efforts over a shorter timeframe.

   Both Alternative 4 and 4A propose new infrastructure (updated in the RDEIR/SDEIS) to modernize the SWP's water delivery system to address water supply reliability needs in conjunction with related ecosystem improvements, such as significantly reducing reverse flows and direct impacts to fish species associated with the existing south Delta intakes.

6. **Why did the state select the alternative regulatory strategy of California WaterFix (Alternative 4A) as the preferred alternative?**
   California WaterFix (Alternative 4A) would allow for an alternative implementation strategy for the new Delta water delivery infrastructure under

Section 7 of the ESA and Section 2081(b) of CESA, and reflects the lead agencies interest in exploring alternate regulatory approaches that could facilitate expeditious progress on Delta solutions. California WaterFix (Alternative 4A) was developed in response to input from the 2013 BDCP Draft EIR/EIS comment period as well as from agencies' comments regarding the challenges with meeting the standards required to issue long-term assurances associated with compliance with Section 10 of the ESA and the NCCPA. These challenges relate to the difficulties in assessing species status and issuing assurances over a 50-year period, in light of climate change, and accurately factoring in the benefits of long-term conservation in contributing to the recovery of the covered species. There were also questions raised as to the ability to implement large-scale habitat restoration and an interest in early implementation of certain restoration actions, untethered to the water infrastructure approval.

7. **What is the difference between ESA Section 7 consultation and Section 10 permitting? What is the difference between compliance with the NCCPA and Section 2081 CESA permitting?**

A project's compliance with the Federal ESA varies depending on federal agency involvement and the project's potential effects to listed species. Where a project is proposed by a non-federal entity and the proposed project would "take" a listed species, Section 10 of the ESA provides USFWS and NMFS with the authority to issue incidental take permits with an approved HCP. Where a project would involve the take of a species listed under CESA, the California Fish and Game Code provides the California Department of Fish and Wildlife (DFW) with the authority to allow for take of listed species and issue assurances for a larger list of covered species, with an approved NCCP and through a Section 2081(b) incidental take permit.

The primary requirement for issuance of the incidental take permit is that the action must minimize and fully mitigate the impacts of the proposed take. Where long-term assurances are sought for a range of actions affecting a large list of covered species (as with the BDCP), the HCP/NCCP necessarily requires detailed documentation as to the potential effects to those species, sufficiency of mitigation for those effects, and sufficiency of funding for that mitigation over the entire permit term. Like the BDCP, these types of HCPs/NCCPs can also require a complicated Implementation Agreement to specify management actions over the life of the permit.

Section 7 of the ESA requires that federal agencies ensure their actions do not jeopardize the continued existence of a listed species or adversely modify or destroy critical habitat. Section 7 may require formal consultation with USFWS and NMFS where the federal action could adversely affect a listed species, including where take could occur. Through formal consultation, USFWS and NMFS issue biological opinions that may, among other things, authorize the

taking of the listed species. Measures may be required as part of the opinion to minimize the impacts of take; however, because no long-term assurances are issued for a large list of covered species, the same level of detailed documentation as to the potential effects to species, sufficiency of mitigation for those effects, and sufficiency of funding for that mitigation over the entire permit term is not required. The duration of the ESA authorization under Section 7 does not have a "permit term" or Implementation Agreement and instead the authorization and management of actions relate to the triggers for re-initiation of consultation.

California WaterFix (Alternative 4A) is not presented as habitat conservation /natural community conservation plans according to ESA Section 10 and the NCCPA. A 50-year permit and long term assurances are not being sought and the proposed BDCP habitat restoration and stressor reduction measures (i.e., CM2 through CM21) that are presented in the Draft BDCP (and proposed to meet that stringent requirements of Section 10 of the ESA and NCCPA) are not carried forward fully for California WaterFix (Alternative 4A), except where elements of the former conservation measures are retained to mitigate the potential impacts of the proposed project in compliance with CEQA, NEPA, and other environmental regulatory permitting requirements. Under the proposed California WaterFix (Alternative 4A), compliance with the federal ESA would be achieved by Reclamation, and DWR as the permit applicant, under Section 7 through formal consultation with the USFWS and NMFS. Under California WaterFix (Alternative 4A), take authorization for state-listed species would be obtained by DWR through Section 2081(b) of CESA and DFW's incidental take permit process.

8. **Why is the BDCP still referenced in the environmental analysis?**
All alternatives will be included for decision-makers to consider. The alternatives, including Alternative 4 (BDCP), and the environmental analysis in the 2013 BDCP Draft EIR/EIS, along with the additional alternatives and environmental analysis contained in the RDEIR/SDEIS and comments received on the both documents, will be considered in agency decision-making when preparing the Final EIR/EIS and determining whether to approve the proposed project. The analysis for Alternative 4 also forms the basis for California WaterFix (Alternative 4A) due to the overlap in the proposed conveyance facilities. California WaterFix (Alternative 4A) has been added to the environmental analysis as the new CEQA and NEPA preferred alternative. No final decisions have been made regarding the proposed action or in selecting an alternative; those decisions will only occur after the completion of the environmental review process.

9. **What has changed since the 2013-2014 Public Draft EIR/EIS?**
The recirculated environmental documents cover several substantive changes, including:

- Introduction of three new sub-alternatives -- Alternative 4A (California WaterFix) as the new preferred alternative, Alternative 2D, and Alternative 5A. These alternatives were designed to reduce environmental effects, respond to public and agency input, and explore multiple regulatory approaches.
- Design modifications to Alternative 4 (also applied to Alternatives 4A, 2D and 5A) to reduce impacts to Delta communities, minimize disturbances or dislocation to greater sandhill cranes, and improve the long-term reliability and operation of the conveyance facilities.
- Updated Fish and Aquatic Habitat analysis to include additional rationale for impact conclusions and methods for determining impacts.
- Additional Water Quality analysis and modeling to more accurately characterize the potential for exceedances of water quality standards, resulting in the reduction of several water quality impacts to less than significant.
- Inclusion of downstream effects, including an assessment of water quality and fish and aquatic resources in the San Francisco Bay.
- Updated engineering, construction assumptions, performance standards, and air quality models for the Air Quality, Health Risk Assessment, Traffic and Noise impact analysis.
- Updated analyses of water facility construction to include geotechnical investigations
- Inclusion of Additional NEPA Determinations – includes NEPA determinations on conclusions previously deemed "No Determination."

10. Will the public have an opportunity to comment?

Yes. The public can comment on the recirculated environmental analysis from July 10, 2015 through August 31, 2015. Comments received on the RDEIR/SDEIS will be considered in the Final EIR/EIS and decision-making process.

11. What is the proposed operational structure for the conveyance facilities?

Implementation of California WaterFix (Alternative 4A) will include operations of both new and existing water conveyance facilities ("dual conveyance") once the new north Delta facilities are operational. The dual conveyance facilities will be operated as directed by California WaterFix environmental compliance requirements, and in compliance with the USFWS (2008) and NMFS (2009) Biological Opinions and D-1641 guidelines. These operations may be subject to adjustments through an adaptive management process consistent with and similar to the program already described in the 2008 and 2009 Biological Opinions. The proposed project incorporates existing criteria from the 2008 and 2009 Biological Opinions (including Fall X2) and adds additional criteria for spring outflow and new minimum flow criteria at Rio Vista from January through August.

12. **Will habitat restoration/protection be proposed as part of California WaterFix (Alternative 4A)?**
    Based on ongoing review of potential construction and operation impacts, mitigation for California WaterFix (Alternative 4A) construction and operation will include about 2,300 acres of habitat restoration and up to 13,300 acres of habitat protection (e.g. conservation easements). This additional acreage will focus primarily on preserving the existing cultivated lands habitat and working landscape values in the Delta. DWR and Reclamation anticipate these revised acreage targets for habitat restoration and protection will be the maximum amount required for mitigation. Final determinations will be based on actual project impacts and consultation with fish and wildlife agencies. All habitat restoration and protection costs for California WaterFix (Alternative 4A) will be paid for exclusively by water agencies benefiting from the project.

13. **What additional habitat restoration does the state of California plan to implement?**
    Separate from California WaterFix (Alternative 4A) and over the next 5 years, California will pursue more than 30,000 acres of critical Delta habitat restoration under the California EcoRestore program, pursuant to pre-existing regulatory requirements such as the 2008 and 2009 Biological Opinions and various enhancements to improve the overall health of the Delta ecosystem. Proposition 1 funds and other state public dollars will be directed exclusively for public benefits unassociated with any regulatory compliance responsibilities.

14. **What is the anticipated yield for California WaterFix (Alternative 4A)?**
    California WaterFix (Alternative 4A) is estimated to include an average annual yield of 4.9 million acre-feet and provides the greatest complement to local water supply projects by allowing the safe capture of water in wet and above-normal years so that it can be stored and used in dry years.

15. **What is the anticipated cost for California WaterFix (Alternative 4A)?**
    The cost to fix California's primary water delivery system is estimated at $14.9 billion – or about $5 a month for urban water users – and will be paid for by public water agencies that rely on the supplies.

16. **When will the lead agencies respond to my comments on the Draft EIR/EIS and the recirculated environmental document?**
    DWR and Reclamation, as the state and federal lead agencies, will consider and prepare responses to all substantive comments received during the public review periods for the Draft EIR/EIS (December 13, 2013 through July 29, 2014) and RDEIR/SDEIS (July 10, 2015 through August 31, 2015). Responses will appear in the Final EIR/EIS, which is the next milestone in the environmental planning process. Comments will be sorted, coded, and logged into a tracking system,

categorized by subject area, and then a response to the comment will be drafted. The comments will be assessed both individually and collectively and the Final EIR/EIS will include copies of the comments received and the responses prepared. If the EIR/EIS was changed in response to comments, these changes will be referenced in the responses.

17. When can the public expect a Final EIR/EIS?

Following completion of the RDEIR/SDEIS public review period, DWR and Reclamation will prepare a Final EIR/EIS. The timing associated with preparation and publication of the Final EIR/EIS will depend on the volume and nature of the comments received on the Draft EIR/EIS and RDEIR/SDEIS. To allow sufficient time to adequately meet all requirements associated with completion of a Final EIR/EIS, it is anticipated this document will be available in late 2015 or early 2016.

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CALIFORNIA WATER FIX
RELIABLE. CLEAN. WATER.

CALIFORNIA ECO RESTORE
A STRONGER DELTA ECOSYSTEM.

Frequently Asked Questions

1. **What is California WaterFix?**
   California WaterFix is a proposal backed by the administrations of Governor Edmund G. Brown Jr. and President Barack Obama to change how we divert water from the Sacramento-San Joaquin Delta. The Delta is a source of water for two-thirds of California's population and one-third of its irrigated farmland. The plan seeks to accomplish three primary goals that have long bedeviled state and federal policymakers:

   1. Allow for more natural flows in the Delta to benefit salmon, smelt, and other species
   2. Increase water supply reliability by giving the water projects that divert from the Delta more flexibility to move water without harming fish
   3. Guard the Delta water diversion point from natural disaster disruption, such as earthquake or flood.

   The proposal involves construction of three new intakes, each with a maximum diversion capacity of 3,000 cubic feet per second, on the east bank of the Sacramento River between Clarksburg and Courtland in the north Delta. Each intake site would employ state-of-the-art on-bank fish screens and, although the diversions would be located outside of the main range for delta and longfin smelt, the fish screens would be designed to meet delta smelt criteria. Two 40-foot-wide underground pipelines would carry the diverted water by gravity flow approximately 30 miles to the expanded Clifton Court forebay where two pumping plants would be constructed to maintain optimal water levels in the forebay for the existing State Water Project (SWP) and Central Valley Project (CVP) pumping facilities. Those existing pumps would lift the water into the canals that flow hundreds of miles to supply San Joaquin Valley farms and cities as far away as San Diego.

   The North Delta intakes would be operated with the existing south Delta pumping facilities as a "dual conveyance system" which would be a significant upgrade from the existing system. The existing south Delta pumps pull water from nearby channels in an unnatural direction, called "reverse flows," which can draw fish off their migratory path into predator-rich channels.

   Besides the environmental imperative to restore more natural flows to the Delta, there are infrastructure security reasons to modernize the Delta water conveyance system. The Delta's peat soil, composed of thousands of years' worth of rotted tules and other wetland plants, oxidizes when dried and tilled.

Now many of the approximately 60 islands that make up the Delta – most are farmed – are sunken as much as 20 feet below sea level in their centers. Should an earthquake, flood, or some other force knock down those levees, the sunken islands would fill up with water, drawing saltwater from San Francisco Bay eastward toward the SWP and CVP south Delta water intakes. Water supplies could be disrupted for weeks, months, or years, depending upon the extent of the damage.

2. **What is California EcoRestore?**
   The Delta hardly resembles the vibrant estuary of 200 years ago. Starting with the Gold Rush, people drained the Delta's marshes. They also dredged and straightened its meandering channels so that they could farm its rich, peat soil. People built levees -- mounds of earth -- along the channels to hold back water, and in many places, lined those channels with big rocks to protect the levees from being scoured by water. In this way, the Delta lost not just its wetlands but also the riverside forest that shaded and harbored native fish. California EcoRestore is an initiative by state and federal water and wildlife agencies to restore 30,000 acres of Delta wildlife habitat over the next four years. The types of habitat targeted include tidal wetland, floodplain, and channel margin.

3. **How do California WaterFix and California EcoRestore relate to the Bay Delta Conservation Plan?**
   Federal and state water and wildlife agencies, in cooperation with the public water districts that depend upon water delivered from the Delta, launched the Bay Delta Conservation Plan (BDCP) in 2007. The effort aimed to find a way to accomplish dual goals:
   - Enhance, protect and restore the Delta ecosystem and;
   - Improve the reliability of water supplies for California.

   After hundreds of public meetings and extensive analysis, a draft BDCP and corresponding environmental analysis was released in December 2013 for public review. The plan was a habitat conservation plan under Section 10 of the U.S. Endangered Species Act and a natural community conservation plan (NCCP) under the state Natural Community Conservation Planning Act. Regional habitat conservation plans and NCCPs cover a wide range of species over a large landscape, and include commitments and assurances for a specific permit term (the BDCP requested a 50-year term). The draft BDCP included a preferred alternative with the same basic water conveyance changes that are now embodied in California WaterFix. The draft plan also included 145,000 acres of protected or restored habitat related to meeting the requirements of the federal and state laws for contributions to the recovery of the covered species in conjunction with the assurances requested for the 50-year permit.

Review of thousands of public comments received on the draft BDCP and its draft environmental impact documents raised considerable doubts as to whether a Section 10/NCCP approach -- with a 50-year term -- is realistic, given the uncertainty about future ecological conditions under climate change, as well as a lack of scientific data about how the Delta's estuary might respond to habitat restoration.

In April 2015, the principal backers of the BDCP -- the California Department of Water Resources and the U.S. Bureau of Reclamation -- announced a pivot in their approach to accomplishing the dual goals of ecosystem restoration and water supply reliability. They have chosen to study additional alternatives to modernize the Delta's water conveyance system and achieve the dual goals through implementation of the North Delta intakes and associated conveyance facilities, including the tunnels. These "sub-alternatives" would achieve compliance with the U.S. Endangered Species Act through the Section 7 consultation process and California Endangered Species Act through obtaining a 2081b incidental take permit and would not include long-term assurances for water project operators. The California Department of Water Resources has identified one of these sub-alternatives, Alternative 4A (California WaterFix), as its proposed project.

At the same time, the state and federal governments, through California EcoRestore, will pursue a more aggressive short-term schedule for habitat restoration in the Delta – 30,000 acres launched over the next four years – so that scientists may learn from the effort and ideally help native species begin to recover.

The draft BDCP and associated Draft EIR/EIS are still "live" documents; they will be referenced in several of the sub-alternatives evaluated in the Partially Recirculated Draft Environmental Impact Report (EIR)/Supplemental Draft Environmental Impact Statement (EIS). Those documents are scheduled for public review in June 2015. The BDCP website is still available, and all the documents are available there for continued public reference. There is a new website [CaliforniaWaterFix.com] for information about specifically Alternative 4A, the new proposed project under the California Environmental Quality Act (CEQA).

4. **What caused federal and state agencies to shift from a habitat conservation plan?**

The U.S. Fish and Wildlife Agency, National Marine Fisheries Service, and California Department of Fish and Wildlife face great uncertainty about how climate change will affect the recovery of native fish in the Delta. (The average early spring snowpack in the Sierra Nevada has decreased by about 10 percent during the last century, a loss of 1.5 million acre-feet of snowpack storage, and

there has been an observed rise in sea level of seven inches at the Golden Gate over the past century.)

Through the extensive analysis of the draft BDCP, it became increasingly clear that it would not be feasible for the state and federal governments and public water agencies to put in place enough funding and water (in terms of water available for Delta outflow to San Francisco Bay) to deal with all contingencies that could affect species recovery over the next 50 years. In other words, the terms of a 50-year permit would be too high, given uncertainty, for the state and federal government and Delta water users to bear.

However, California's water supply for 25 million people remains vulnerable, as do the existing risks to sensitive aquatic species without this upgrade. We cannot in good conscience set aside these risks, so we are seeking to implement a proposed project with a reduced long-term objective with more limited authorizations under the federal and state endangered species acts to get this project started.

We are also going to immediately move forward with a goal of starting 30,000 acres of fish and wildlife habitat restoration over the next four years. Separating the habitat conservation from water conveyance allows for the evaluation of the new intakes and pipelines on their merits, while habitat restoration can immediately proceed with the objective of restoring the Delta ecosystem.

5. **Will the changed permitting process require new environmental analysis? What is the process and timeline going forward?**
   The Partially Recirculated Draft EIR/Supplemental EIS that analyzes this change is expected in late June 2015. A new Notice of Intent will be published by the U.S. Bureau of Reclamation in the Federal Register to announce the availability of the Recirculated Draft EIR/Supplemental Draft EIS. The alternatives in the original Draft EIR/EIS remain the same, and they are still part of the required range of alternatives to be considered in the Recirculated draft. Additional alternatives will also be presented in the Partially Recirculated Draft EIR/Supplemental Draft EIS, including Alternative 4A, also known as California WaterFix, which is the new CEQA proposed project. There will be a 45-day comment period associated with the Partially Recirculated Draft EIR/Supplemental Draft EIS.

6. **What habitat restoration efforts will be included as part of the mitigation for California WaterFix?**
   California Water Fix will include approximately 2,100 acres of habitat restoration to mitigate for the potential adverse impacts of the construction and operation of the new water facilities. These costs will be paid for exclusively by water agencies benefiting from the project.

7. **How will California EcoRestore be funded?**
   California EcoRestore aims to break ground on – and in some cases complete – at least 30,000 acres of habitat restoration in the next four years. Over this time period, we expect costs to reach at least $300 million. Much of that will be borne by the public water agencies that buy water from the SWP, operated by the California Department of Water Resources, and the CVP, operated by the U.S. Bureau of Reclamation. The public agencies that take delivery of water from those two Delta-based projects are responsible for creation of 25,000 acres of various kinds of habitat deemed beneficial to threatened and endangered native fish.

   Roughly $130 million from the state and federal water project contractors will be needed to get moving on restoration in the next three or four years. It's likely that the completion of all of these projects will add significantly to that estimated cost. Their total obligation will be based on what's needed to finish these projects and be in compliance with their regulatory obligations.

   California EcoRestore must be realistic to succeed. Habitat restoration is complicated and difficult. It involves negotiation, acquisition, permitting, design, construction, engineering, collaboration with landowners and local interests, mitigation, and financing. The Brown Administration committed to turning back the clock on 30,000 acres of altered Delta landscape. The state has a big involvement and firm commitment to making this happen for the sake of our natural heritage, regardless of who funds individual projects.

   Currently, the state plans to administer at least $75 million through Proposition 1 public funding over the next four years, including Delta restoration funds directed to the Delta Conservancy and the Department of Fish and Wildlife, as well as multi-benefit flood protection funds through the Department of Water Resources.

   AB 32 Greenhouse Gas Reduction Fund investments will likely provide between $20 and $30 million, though the final amount will be determined through the state budget process.

8. **How will this change affect the overall cost of the preferred water conveyance project?**
   The estimated $15 billion cost of the new intakes, pipelines, operation, maintenance and mitigation will not change. All of those costs will be borne by the public water agencies that depend upon the SWP and CVP.

9. **Why can't California just reduce the amount of water it diverts from the Delta?**
   California must continue its substantial investments in local and regional projects that involve conservation, recycling, stormwater capture, new connections

among suppliers, and other ways to improve the efficiency with which we use water and build drought resilience. All of these actions have gained us at least two million acre-feet in additional supply in the last 20 years, and that effort will continue under the Governor's comprehensive California Water Action Plan: http://resources.ca.gov/docs/california_water_action_plan/Final_California_Water_Action_Plan.pdf.

Keeping pace with rising demand and creating a buffer of supply to cope with the vagaries of climate change will require steady progress on using water more efficiently, shoring up the reliability of existing supplies, and using new techniques to expand supplies. To also replace water supply lost as Delta deliveries decline would significantly increase costs and leave local water districts vulnerable to shortages. Desalination and water recycling projects, for example, are more expensive per acre-foot than California WaterFix and take considerable time for planning, permitting, and implementation.

10. How was the capacity of California WaterFix chosen?

A facility capable of diverting up to 9,000 cubic feet per second of water from the Sacramento River provides the greatest complement to local water supply projects because it is the only project that can take full advantage of water that is available in wet and above-normal years. A smaller project costs more and captures less supply.

A 9,000-cfs facility includes the following benefits:

- Reduce south Delta reverse river flows and minimize entrainment of fish that spawn in or migrate through the Delta
- Enhance ability to store surplus outflows and reduce diversions during periods when fish are vulnerable
- Improve drinking water quality and ability of local water districts to meet public health standards
- Support efforts to expand groundwater recharge and recycling to help meet California's new mandate to bring groundwater basins into sustainable patterns of pumping and recharge
- Enhance seismic protection with ability to provide a base supply while Delta levees are repaired

Furthermore, operational redundancy through two pipelines is important during outage scenarios, such as periodic maintenance or a catastrophic event like an earthquake. In addition, a single bore tunnel would require a tunnel size of 60 feet or more. A tunnel this large would set an engineering precedent. It would also increase overall project risk due to increased equipment needs (more tunnel boring machines, etc.), potential leaks, added ground pressure, and engineering uncertainties that would need to be tested.

direct, indirect, and cumulative environmental impacts anticipated with project implementation;

- Include a reasonable range of project alternatives;
- Rely on/use the best available science;
- Include sufficient project details to appropriately assess anticipated environmental impacts;
- Ensure compliance with water quality regulations and standards;
- Ensure the protection of threatened and endangered species as required by the State and federal Endangered Species Acts;
- Reduce reliance on the Delta as required by the 2009 Delta Reform Act; and
- Include a governance structure that ensures the public and those directly affected by the project in the Delta are appropriately represented in the decision making.

The SWRCB undermines public participation in this process by seeking protests on the petition at this stage. The public cannot comment effectively on the impacts of the requested changes at this time. When completed, the updated Delta flow criteria, endangered species act consultation processes, and revised environmental documentation for WaterFix will disclose a wide range of the project's impacts that are relevant to the SWRCB's decisions on this and related petitions. Affected agencies and the public should have the ability to address this additional information, as well as correct errors in the final environmental analysis, when commenting on this petition.

The County reserves the right to state additional dismissal terms based on its review of revised and recirculated environmental documentation and after the completion of the federal and state Endangered Species Act consultations and other permitting processes.

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July 28, 2014

BDCP Comments
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RE: Solano County comments on the Bay Delta Conservation Plan (BDCP), Associated EIR/EIS, and Implementing Agreement

Dear Mr. Wulff:

Thank you for the opportunity to comment on the Bay Delta Conservation Plan ("BDCP" or "Plan"), including the Implementing Agreement and the associated Draft Environmental Impact Report/Environmental Impact Statement (DEIR/EIS). This "Introduction" provides our overarching comments on the subject, with detailed comments provided in the attachments that follow.

Introduction

Solano County, as one of the five "Delta Counties," has been actively following the evolution of the BDCP since its inception. The County has in good faith commented as requested by BDCP proponents during drafting of administrative drafts, formally became a "cooperating agency" under the National Environmental Policy Act (NEPA) for purposes of participating in the environmental review of the BDCP, and participated in numerous meetings and workshops where BDCP was discussed. Through the process the County focused on providing constructive comments intended for drafters to understand local issues and circumstances relative to the BDCP and Solano County with the hope that the Plan would be modified to (1) reduce impacts to our local area and (2) provide full mitigation for any unavoidable impacts.

Regrettably, in reviewing the formal draft BDCP, DEIR/EIS and Implementing Agreement, the County continues to find that the Plan has significant and far-reaching impacts that will erode the agricultural base that the County has spent decades trying to responsibly preserve. Furthermore, we see little evidence of consideration of Plan modifications, or earnest consideration of alternatives or consideration of meaningful mitigation responsive to reducing impacts of the BDCP on Solano County and the Delta region. These are all areas where many comments have been made in prior BDCP public forums from Solano County and many others in the Delta. In light of the current formal draft and the fact that there are few meaningful changes from the earliest drafts, we can only conclude that all of the outreach relative to the BDCP has been nothing more than a "check-off-the-box" exercise with a pre-determined outcome already in place. Hopefully, this comment process will amplify the significance of the local concerns and impacts and result in meaningful changes that respect local concerns.

The following impacts, all of which are described in greater detail in our attached comments, are unique to Solano County and appear to have been largely ignored as the Plan evolved:

- The BDCP will result in the conversion of tens of thousands of the County's Delta agricultural lands. The resulting economic, environmental and social impact to the County and its agricultural base could be devastating. Yet little effort has been expended to reduce critical impacts of the BDCP on the County and the Delta region and mitigate for impacts that are unavoidable.

- As stewards of some of California's best agricultural lands, Solano County notes that the BDCP is inconsistent with the County's General Plan due to the aforementioned conversion of agricultural lands.

- Aside from the significant and deleterious conversion of agricultural land, the BDCP will degrade our water quality, disrupt agricultural infrastructure, and impose new regulatory constraints that will further erode agricultural acreage in Solano County.

- The County has not had an opportunity for any meaningful participation in the Plan's development or implementation.

- The Plan neglects to address viable alternatives that will greatly reduce impacts to Solano County and our region and still achieve core project objectives.

- The BDCP is not consistent with recent State initiatives in addressing climate change, greenhouse gas emissions and sustainable planning practices – nor does it appear to account for climate change itself by failing to evaluate impacts of the BDCP in all regions that will be affected or benefit by the Plans implementation.

- Despite these profound and significant impacts to Solano County, there is little guarantee the BDCP will even achieve its purpose. And if it does not, reversing the damage will be a near impossibility.

- With less fresh water and new large intakes being located upstream of the County, our agricultural areas and recreational areas will be diminished and could be completely choked off in years of water crisis such as this year.

- The Plan and EIR both underestimate or ignore the full range of impacts that will affect Solano County. The vague commitment to address impacts coupled with weak mitigation measures provides little or no confidence that we will not be significantly negatively impacted if the plan is implemented.

- The DEIR/EIS does not serve its intended purpose as an informational document, because it does not provide sufficient analysis of the project, the project's environmental impacts, appropriate mitigation measures, and a reasonable range of project alternatives

As a consequence, at this critical juncture the Solano County Board of Supervisors and staff are unable to lend support to the BDCP in its current form.

Negative Impact to Agriculture

Solano County has some of California's best agricultural land. As stated in the County's General Plan, "Agriculture has historically been both an important industry in Solano County and a central part of the County's identity." The County's General Plan designates virtually all land for the Delta region as agricultural. Moreover, the voters of the County over the years have voted to preserve agricultural areas outside of incorporated cities to assure orderly growth, including Measure T by an overwhelming 70% majority.

The BDCP, by virtue of provisions for large restoration opportunity areas in Cache Slough and the Suisun Marsh, will likely result in the conversion of tens of thousands of acres of the County's Delta agricultural lands. From the County's perspective this will have very real economic, environmental and social impacts, not to mention it being a de-facto penalty for being good stewards of agricultural lands.

Furthermore, beyond ecosystem restoration, there are many other aspects of the BDCP that may have negative consequences on the County's agriculture, including degradation of water quality used for farming operations, disruption of agricultural infrastructure, and new regulatory constraints, among others. These factors, and the associated cumulative impacts, could greatly increase the number of acres of lost productive farmland due to the BDCP well beyond those projected for ecosystem restoration. These are significant issues for the County and one that is basically "papered-over" in the BDCP. This is not acceptable to the County.

Inconsistency with the County's General Plan - and the Co-Equal Goals

Early in development of the BDCP, it would have been appropriate to truly take into account local general plans and policies and local interests in general as BDCP concepts were formulated. If this had occurred, it would have become readily apparent that our County is highly committed to preserving agricultural lands and has been for decades. But that did not occur. And it is important to note that this clear inconsistency with the County's General Plan is not even acknowledged in a serious way in the BDCP documents nor is mitigation for related impacts clearly articulated.

Moreover, the Plan is contradictory to the State Legislature's construct of the "co-equal goals" from the 2009 Delta Legislation. That legislation expressly states that the co-equal goals "shall be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place." (Water Code § 85054.)

Lack of Meaningful Participation in the Plan's Development or Implementation

Despite the significant impacts to the County, it and the larger Delta community will play a diminished if not nonexistent role in governance of the Plan. The County's role is primarily confined to being one voice among dozens of others – including the state and federal water project contractors – on the "Stakeholder Council," which has no real authority. This is true despite the fact the Delta Counties will bear the brunt of impacts from the BDCP. When no meaningful seat at the table was made available during the BDCP process, any expectation that implementation will be less one sided defies credibility.

The net effect of the Plan is to deal a serious if not fatal blow to agriculture and the economy in the Delta region so that other regions can sustain or build their economies. If the public process had not been controlled by regional interests and BDCP proponents, perhaps a more balanced plan could have evolved. Instead, we are left with a draft plan that is strongly opposed by nearly if not all Delta interests and seriously questioned by many other interests throughout the state. By many measures the public process for the BDCP has failed and further divided already disparate interests. A re-start and an honest commitment to an inclusive public process seem essential to achieve progress in meeting the state's current and future water needs.

Lack of Meaningful Exploration of Alternatives

The Plan's imbalance is particularly evident in its choice not to explore alternatives with less impact to the Delta communities. During the course of BDCP development, the County has shown a willingness to work with BDCP proponents in good faith and cooperation, understanding the larger challenges facing our state in the critical area of water. But Plan alternatives that might reduce impacts to Solano County and the Delta region have been summarily dismissed or given only token assessment in the DEIR/EIS.

Solutions like the “Portfolio Alternative” and “Garamendi Plan,” which involve smaller conveyance and less ecosystem restoration, would greatly reduce impacts to our region while still achieving core project objectives. Perhaps even more preferable would be a fresh look at other alternatives that are less dependent on a trans- regional conveyance system that may have reached its maximum limits in the context of climate change and overall available water to be allocated. The current drought crisis highlights the need to invest in new cutting edge ways to meet future water needs. With available dollars precious, it seems prudent to invest in new sources of water that may be derived from new desalination technologies, water recycling infrastructure, groundwater remediation and similar measures where local supply enhancement is emphasized. In this context and with the future in mind, these alternatives seem far more deserving of limited investment dollars than focusing on a project that does not generate more water and is dependent on moving water great distances at great expense.

To elaborate on the investment point, if freshwater flows into and through the Delta continue to diminish on average into the future, it is hard to understand the value of the investment in a BDCP that does not create more water for the system. The BDCP does allow for drawing water at different times than the current south intakes, but the ability to draw water in the new intakes may become constrained anyway due to lower average flows under climate change. Worse yet, the County is concerned that the potential for more frequent drought crisis in the future will force decisions to draw water into the new intakes under emergency declarations despite low flows, which will ultimately make the water in our agricultural channels so saline as to be unusable for agricultural purposes. That would not improve the Delta ecosystem - the key tenant of the BDCP.

Indeed, Solano County recognizes that new statewide solutions to water supply must be developed. Shared sacrifices must clearly be part of the solution. The County is ready to be part of those discussions. What is unacceptable is the current solution which clearly places the burden on the Delta region in an inequitable way. As this process evolves, the County urges further consideration of alternatives that reduce impacts on our region.

Inconsistency with Other State Initiatives

Looking at the bigger picture, it is difficult to understand how the BDCP can be found consistent with recent State initiatives in addressing climate change and sustainable planning practices. As noted above, the BDCP will result both directly and indirectly in the loss of many thousands if not hundreds of thousands of acres of high-quality, sustainably farmed lands in the Delta with a favorable growing climate, good soils, and naturally available water. Producers in the Delta region are able to efficiently move product to nearby urban centers and grow a wide variety of agricultural product, thus minimizing greenhouse gas emissions.

In contrast, the BDCP will essentially take quality farming areas away in the Delta while empowering continuation and expansion of farming in areas with poorer soils, harsher

climates, higher evapotranspiration rates, and higher greenhouse gas emissions both from powering a series of pumps to move water to distant farming areas and from shipping products to distant markets. It is curious the State is advocating for a project with such a glaring contrast from the greenhouse gas policies that have been embraced legislatively.

And there are other looming questions of the BDCP relative to climate change. Impacts from climate change and impacts from drought do not appear to be well thought out. Is the BDCP preferred project concept the best solution going forward in the face of climate change? It seems entirely possible that a climate change scenario evolves whereby Northern California's climate becomes similar to what has been experienced in Southern California over the past few centuries. This means longer and more severe drought periods and fewer higher than normal rainfall years. In essence, the State and Federal water projects were designed under the premise of California climate paradigms that may change dramatically and seem to be changing already. In fact, the past few decades have already shown a pattern of fewer "above the mean" rainfall years in many parts of Northern California and that may be a trend under climate change. Reduced snowpack and earlier snowpack melt-offs are already occurring. Why is this important to the County? With less freshwater coming through the system and new large intakes to be located upstream of the County under the BDCP, freshwater coming into our agricultural areas would be diminished and could be completely choked off in years of water crisis, such as this year. Assuming this occurs more frequently, it is inevitable that large agricultural areas in the Delta would be negatively affected, which represents a loss that is not proposed to be mitigated. Agricultural lands that would be lost as a result of the BDCP project should instead be preserved, because those lands cannot be recreated. Very little of the information in the BDCP document or DEIR/EIS gives the County any assurance that such a scenario can be avoided.

No Guarantee the Plan will even Achieve its Purpose

As noted above, the effects of the BDCP are far reaching and damaging to the County and the Delta region. The offered basis for these changes is a theory that somehow many acres of ecosystem restoration can compensate for significantly modified natural system and reduced freshwater flows where many species are in peril. The reality is the BDCP documents themselves are hardly reassuring that targeted species will be restored. The concept of "Adaptive Management" still seems largely speculative and may not reveal failure to achieve objectives until long after too much has been invested to turn back the clock. In the process the County and other Delta areas will have to deal with the effects of BDCP infrastructure and habitat areas along with an extremely damaged agricultural economy. Furthermore counties like Solano will likely have to respond to the unintended consequences of ecosystem restoration such as service and maintenance costs of such areas. This concern is exacerbated by the fact that mitigation to the County for such impacts is weak and unspecific in current BDCP documents.

Summary

For the reasons that are set forth in this letter, Solano County is unable to support the BDCP as proposed. We had hoped the formal draft would be more reflective and responsive to comments from Solano County during administrative draft phases but, if anything, our concerns have grown as more information has become available. We recognize that statewide solutions to water supply are essential and continue to offer our willingness to share in solutions that address the problem. We are unwilling, however, to support an effort that could devastate our agricultural industry and negatively alter the ecosystem in the Delta. As proposed the Plan appears to ignore the mandated "co-equal goals" as outlined by the 2009 Legislature amplifying the impacts from the BDCP impacts to our County—one that is central to this Plan—in a way that are so significant and so devastating that it leaves Solano County with no alternative at this time but to raise serious objections and call for significant changes responsive to the County's comments and comments from other Counties in the Delta region.

The following attachments contain detailed comments regarding the BDCP, including the Implementing Agreement and the associated DEIR/EIS.

Sincerely,

Bill Emlen
Director, Solano County Department of Resource Management

Enclosure

CC: Solano County Board of Supervisors
Rep. Mike Thompson
Rep. John Garamendi
Senator Dianne Feinstein
Senator Barbara Boxer
Senator Lois Wolk
Assemblymember Susan Bonilla
Assemblymember Jim Frazier
Assemblymember Mariko Yamada

Comments of the County of Solano on The Draft Bay Delta Conservation Plan (BDCP), The Draft EIR/EIS for the BDCP Project (DEIR/EIS), and The Draft Implementing Agreement July 28, 2014

Both the DEIR/EIS and BDCP Documents Fail to Properly Distinguish Between Project, Impacts, and Mitigations

The format and content of the Bay Delta Conservation Plan ("BDCP") and the Draft Environmental Impact Report/Environmental Impact Statement ("DEIR/EIS") are governed by multiple statutes and their implementing regulations. As an environmental impact assessment document, the DEIR/EIS must comply with CEQA for use by California state agencies and must also comply with NEPA for use by federal agencies. The BDCP, as a habitat conservation planning document, must comply with the NCCPA and, to the extent it is intended to be approved as a HCP, the federal ESA. In addition, as to any component of the BDCP project that provides public benefits, the BDCP must comply with requirements established in the DRA in order for that component to be eligible for state funding. (Water Code, § 85320, subd. (b).) As to any component of the BDCP project that does not provide public benefits, that component would be ineligible for state funding due to the constitutional prohibition against gifts of public funds. The CEQA, NEPA, and federal ESA HCP processes are structured so that the various steps required by those processes occur sequentially; if the specified sequence is not followed, the process does not work as intended. Because the entire BDCP document is included as part of the DEIR/EIS, the various sequential processes established in each of these statutes must all be synchronized so that one process does not begin or end its course out of sync with the others.

DWR, a state agency, will be the first agency to take a project approval action on the BDCP project. As a state agency, DWR's primary responsibility when conducting environmental review is to comply with CEQA. Under CEQA, state agencies are instructed to cooperate with federal agencies "to the fullest extent possible to reduce duplication" in the environmental review process, including preparing joint documents when possible. (CEQA Guidelines, § 15226.) The phase "to the fullest extent possible" means that CEQA does not cede document preparation standards to NEPA. Therefore, to the extent the document formatting standards under CEQA differ from those established by NEPA, DWR is required to prepare an EIR that describes and evaluates its proposed project in the manner required by CEQA.

The CEQA Guidelines allow flexibility in document formatting, but recommend that each required element be covered in distinct sections of the EIR. (CEQA Guidelines, § 15120, subd. (a).) The Guidelines identify "Project Description" and "Alternatives to the Proposed Project" as separate elements of an EIR. (CEQA Guidelines, §§ 15123 & 15126.6.) Although the CEQ's NEPA regulations suggest that a proposed action should be described in the same portion of an EIS as the project alternatives, those regulations allow for the proposed action to be described separately from the alternative when the federal agency preparing the EIS determines that there is a compelling reason to do so.

(40 CFR § 1502.10.) In this case, the formatting standards established in the CEQA Guidelines and to which DWR is subject provide a sufficiently compelling reason.

More generally, an EIR must cover each of the topics or elements specified in Article 9 of the CEQA Guidelines, either separated into distinct sections of the EIR or else clearly identified regarding where in the EIR each required element is discussed. (CEQA Guidelines, §§ 15120, subd. (a), & 15160; see *Citizens for a Sustainable Treasure Island v. City and County of San Francisco* (7/7/2014) xxx Cal.App.4th xxx.) These required elements of any EIR include a summary of the project and its consequences, a project description, a description of the project's environmental setting, consideration and discussion of the project's significant environmental impacts, discussion of the project's significant effects which cannot be avoided, consideration and discussion of proposed mitigation measures, consideration and discussion of project alternatives including the No Project Alternative, and a discussion of cumulative impacts. Each of these required elements has unique meaning and significance for the CEQA processes, and the critical distinctions between the various elements cannot be ignored. For example, if a portion of the project description is identified and presented in the EIR as a mitigation measure, then the EIR has likely failed to evaluate the full environmental impacts of the project as proposed. NEPA establishes similar requirements.

The HCP process draws a sharp and clear distinction between the underlying or "otherwise lawful" activity that will be the cause of incidental take, on the one hand, and the measures proposed by the incidental take permit applicant to minimize or mitigate the impacts of that incidental take, on the other. (16 USC § 1539, subd. (a)(1)(B) & (a)(2)(A)(ii).) For example, the opening paragraph of the Department of Interior's Habitat Conservation Planning Handbook ("HCP Handbook") states as follows:

> The purpose of the habitat conservation planning process and subsequent issuance of incidental take permits is to authorize the incidental take of threatened or endangered species, not to authorize the underlying activities that result in take. This process ensures that the effects of the authorized incidental take will be adequately minimized and mitigated to the maximum extent practicable. (HCP Handbook, p. 1-1.)

The HCP Handbook describes the required process for preparing an HCP and identifies the following specific steps, as well as others, that should be performed in sequence in order to be performed correctly:

- The first step is identifying the impacts likely to result from the proposed incidental take. This first step includes multiple subtasks, including (a) delineating the plan area, (b) collecting biological data, (c) identifying the underlying "otherwise lawful" activities that are likely to result in incidental

take, and (d) quantifying anticipated take levels from these activities. (HCP Handbook, pp. 3-10 & 3-12 – 3-15.)

- The second step is identifying measures the applicant will undertake to monitor, minimize, and mitigate the impacts of anticipated incidental take, as well as the funding that will be made available to undertake such measures. (Handbook, p. 3-10.) Determining anticipated take levels, developing the mitigation program, and establishing authorized take levels is necessarily an iterative subroutine, but it is a subroutine that is conducted after the underlying "otherwise lawful" activities have been fully identified as the first step of the process. (HCP Handbook, p. 3-15.)

- Incidental take caused by mitigation activities rather than by the underlying activity, or second-order incidental take, can be permissible where the mitigation measures are intended to minimize more serious forms of take. (HCP Handbook, p. 7-2.) CEQA recognizes an equivalent concept of environmental impacts cause by mitigation measures rather than by the project itself. An EIR must consider and discuss such second-order impacts, but not to the same degree as impacts caused by the proposed project. (CEQA Guidelines, § 15126.4, subd. (a)(1)(D).)

- The HCP document or other evidence in the record must demonstrate that the measures identified in the HCP will minimize and mitigate the impacts of incidental take "to the maximum extent practicable." (16 USC § 1539, subd. (a)(2)(B)(ii).)

Just as the CEQA and NEPA processes require that the proposed project, its environmental impacts, and proposed mitigation measures by separately identified and evaluated in an EIR or EIS, the HCP process requires that the proposed underlying "otherwise lawful" activity, the incidental take caused by that activity, and the measures proposed to minimize or mitigate that incidental take be separately identified and evaluated in an HCP. If an agency uses the "mulligan stew" approach when drafting its EIR, EIS, or HCP, the agency and its document "jumbles several important concepts, each having a different meaning and each entitled to separate consideration." (*Planning and Conservation League v. Dept. of Water Resources* (2000) 83 Cal.App.4th 892, 918.)

The BDCP is not Adequate as a HCP/NCCP

A fundamental problem with the BDCP document, as currently drafted, is the failure to separately identify and quantify the level of anticipated incidental take based on the type

of underlying activity that is the cause of the take. An incidental take permit issued pursuant to either the federal ESA or the NCCPA is prospective, allowing the future occurrence of take that will be caused by the underlying activities. Under the federal ESA, an incidental take permit must be supported by an approved HCP and Section 10(a)(2)(B) findings, while under the NCCPA a permit must be supported by an approved NCCP. Take that has been already been caused by past activities may be the subject of an enforcement action or voluntary remediation, but it cannot be authorized after the fact through issuance of a prospective incidental take permit.

The DRA's definition of "restoration" includes restoration efforts for ecosystem changes that have already occurred or will occur in future due to sea level rise and climate change, but not restoration efforts to offset or mitigate future construction and operational activities of the SWP/CVP. (Water Code, § 85066.) As a state stature, the DRA cannot amend the federal ESA; it explicitly does not amend the NCCPA. (See Water Code, § 85032, subd. (a).) Therefore, the DRA cannot and does not make past activities, future sea level rise, or future climate change an underlying "otherwise lawful" activity for purposes of either the federal ESA or the NCCPA. While species currently listed as threatened or endangered have already been harmed due to past activities, and are likely to be harmed in the future due to sea level rise and climate changes, take caused by these sources of harm cannot be authorized through the HCP and NCCP processes.

Restoration for ecosystem changes that have already occurred can be either voluntary or involuntary. Voluntary creation or enhancement of habitat involving physical changes to the environment is not exempt from CEQA. (*California Farm Bureau Federation v. County of Tehama* (2006) 143 Cal.App.4th 173; cf. CEQA Guidelines, § 15333 [5 ac. exemption].) On the other hand, involuntary remediation of degraded habitat, pursuant to an enforcement order, is exempt from CEQA. (CEQA, § 21174; CEQA Guidelines, § 15321; see *Friends of the East Fork v. Thom* (W.D.Wash. 2010) 688 F.Supp.2d 1245 [application of NEPA in conjunction with ESA enforcement order].) Nevertheless, while remediation to be done pursuant to an enforcement order is exempt from CEQA as a project, it is a reasonably foreseeable future activity that must be addressed in the cumulative impacts analysis during environmental review of related projects.

The BDCP identifies 22 broad categories of covered activities but fails to differentiate the various purposes behind these activities. Construction and operation of a new water conveyance facility and ongoing operation of the existing SWP/CVP system will cause a certain amount of incidental take; voluntary restoration activities to remediate ecosystem changes caused by past operation of the SWP/CVP system may cause an additional amount of incidental take; voluntary restoration activities to remediate ecosystem changes caused by past acts of non-SWP/CVP actors may cause even more incidental take; finally, "restoration" activities to compensate for future sea level

rise and climate may cause even more take. Lumping prospective SWP/CVP operations together with remediation of damage caused by non-SWP/CVP actors is a political choice, not a legal requirement. The amount of take caused by each type of underlying activity needs to be estimated and described in the BDCP, so that the public and the decision makers have full information regarding the need for full or partial implementation of this cafeteria style HCP and issuance of associated incidental take permits. Apportionment can be difficult, but juries are routinely required to apportion causation based on far less evidence than is available here. While apportionment with exact precision is rarely possible, a reasonable apportionment will be upheld if it is supported by substantial evidence.

Another fundamental problem with the BDCP document is its conflation of the underlying otherwise lawful activities, which cannot be authorized through an incidental take permit, with the measures being proposed to minimized or mitigate the effects of take cause by those underlying activities, which will be conditions of an incidental take permit. This is an example of the "mulligan stew" approach to document drafting that the Court of Appeal soundly criticized in the *Planning and Conservation League v. Department of Water Resources* case.

To the extent the concepts of underlying activity and mitigation measure are not fully merged, the BDCP document creates artificial distinctions. For example, with respect to CM1, the BDCP document classifies construction of new facilities as a covered activity while operation of new and existing SWP facilities is classified as mitigation. The BDCP document fails to explain how an environmentally sensitive operations plan carried out during years 11-50 will mitigate for incidental take that would occurs because of environmentally insensitive facility construction practices during years 1-10. In addition, such an artificial distinction between the underlying activity and proposed mitigation either hides or fails to identify incidental take caused by the underlying activity, which consists of both facility construction and system operation. The Implementing Agreement ("IA") further clouds the distinction drawn in the BDCP document between construction and operation of the conveyance facility by stating, in Section 9.2 of the IA on page 21, that the Covered Activities described in Chapter 4 of the BCDP document "consist primarily of activities related to the development *and* operation of water conveyance infrastructure." [Emphasis added.] As a result, it is not clear whether operation of the proposed conveyance facility is part of the underlying activity that will cause incidental take, part of the mitigation proposed to minimize incidental take caused by other activities, or both.

The artificial distinction made in the BDCP document between the underlying activity and the mitigation associated with CM1 is not only an information disclosure problem, it is also a permitting problem. To the extent the operation of the existing or augmented SWP/CVP system might cause incidental take, such take would not be covered by the

HCP/NCCP and associated incidental take permits because system operations is not identified as a covered activity in the BDCP document. An HCP should account for second-order take caused by mitigation (see HCP Handbook, p. 7-2), but the BDCP document fails to provide that required level of detail.

Designing an underlying activity to avoid incidental take or to minimize the impacts of unavoidable take is good, but the applicant for the incidental take permit must still demonstrate that such design avoids or minimizes take to the maximum extent practicable. (16 USC § 1539, subd. (a)(2)(B)(ii).) The BDCP document either fails to make such a required demonstration, or does so in such an oblique manner that it is not readily apparent. When an HCP fails to demonstrate, based on substantial evidence, that impacts to endangered and threatened species have been minimized or mitigated to the maximum extent practicable, the associate environmental document will be defective. The alternatives considered in the EIR or EIS need to bracket the mitigation proposed in the HCP in order to demonstrate, for purposes of CEQA or NEPA, that the HCP provides the maximum practicable extent of impact minimization. (*National Wildlife Federation v. Babbitt* (E.D.Ca. 2000) 128 F.Supp. 1274 ["*Natomas I*"].)

The BDCP document does not provide clear and rational distinctions between the identified underlying activities and the proposed impact minimization and mitigation measures. As a result, it is not clear how much incidental take is anticipated to be caused by the various types of underlying activities, what types of incidental take will be either authorized or outside the scope of the incidental take permit to be issued, and whether the incidental take anticipated to be caused by the full range of underlying activities will be minimized or mitigated to the maximum extent practicable. Adding insult to injury, the analysis provided in the DEIR/EIS suffers substantially as a result of these errors in the BDCP document.

Funding for Mitigations/Conservation Measures in the BDCP is Uncertain

The introduction to Chapter 8 of the BDCP acknowledges that "[t]he federal Endangered Species Act (ESA) requires that habitat conservation plans (HCPs) specify 'the applicant will ensure that adequate funding for the plan will be provided' for conservation actions that minimize and mitigate impacts on covered species (United States Code [USC] 1539(a)(2)(A)). The Natural Community Conservation Planning Act (NCCPA) requires that natural community conservation plans (NCCPs) contain 'provisions that ensure adequate funding to carry out the conservation actions identified in the Plan' (California Fish and Game Code [Fish & Game Code] 2820(a)(10))." However, the BDCP fails to provide a credible plan for funding Conservation Measures 2 through 22, which are necessary to mitigate the impacts of Conservation Measure 1

(water conveyance facilities). For example, according to a February 2014 analysis by the State of California's Legislative Analyst's (LAO) office, "[t]he BDCP expects nearly 90 percent of the costs of ecosystem restoration and program administration to be shared by the state and federal governments. Most state funding is anticipated to be provided by future water bonds, including a bond currently scheduled for the November 2014 ballot. Federal funding is expected to be provided almost exclusively by congressional appropriations with a small amount expected from an existing surcharge on CVP water users." Additionally, the LAO report states, "BDCP relies on two future bond measures to fund the state share of ecosystem restoration, but it is unclear if and when voters will approve them. If bond funds are not available in the near future and no additional funding sources are identified, some ecosystem restoration may not be funded, including the restoration actions needed before the tunnels begin operation. The BDCP states that the SWP and CVP will not pay additional costs or forgo water in the event of a funding shortfall."

It would be irresponsible for the State to move forward with the water conveyance portion of the BDCP project without identifying secure funding sources for the CMs/mitigations needed to address the project's impacts. Reliance on California voters to approve bonds and on the Legislature and U.S. Congress to make appropriations to provide necessary funding in the future is not a secure funding plan. This is a fatal flaw in the BDCP as currently written, which must be addressed prior to moving the project forward. The significance of this flaw is compounded by the fact that the BDCP likely under-estimates the costs of implementation, particularly given the reliance on the BDCP's proposed "adaptive management" approach which, in essence, acknowledges that the project proponents do not know with any degree of certainty whether the proposed CMs/mitigations will be effective and/or the cost of other measures that may be necessary to mitigate adequately the impacts of the proposed project. The BDCP and the DEIR/EIS should acknowledge this situation and incorporate provisions to ensure the availability of funding to mitigate fully the proposed project's impacts, including potential unforeseen impacts and/or unforeseen actions needed to effectively mitigate the impacts that have been identified so far.

The Contents of the DEIR/EIS are not Clearly Identified

The BDCP DEIR/EIS is available through the baydeltaconservationplan.com website ("BDCP website"), but the "Public Review Draft EIR/EIS" page on that website is the electronic equivalent of the cardboard box disparagingly referenced by the Court of Appeal in *Camp v. Board of Supervisors* (1981) 123 Cal.App.3d 334, 349, fn.8. In the *Camp* case, the court described the county general plan it was asked to review as "a sheaf of uncoordinated documents stuffed into an unlabeled carton" and concluded that

"[t]he physical composition of this 'general plan' would appear to make resort to it for planning information an awkward exercise and would also seem to generate doubt concerning the integrity of the plan, when so many of its elements are merely deposited loose in a cardboard box."

On the "Public Review Draft EIR/EIS" page of the baydeltaconservationplan.com website, the DEIR/EIS is presented as a collection of 197 PDF files, over half of which are labeled as appendices. The CEQA Guidelines direct that the inclusion of highly technical and specialized analysis and data within the body of the EIR should be avoided, and that such information should be made available for public examination in appendices separate from the EIR document. (CEQA Guidelines, § 15147; see also 40 C.F.R. § 1502.18.) Based on the CEQA Guidelines and NEPA regulations, one would normally assume that appendices are supplemental to, rather than part of, the DEIR/EIS document. If someone wanted to read only the DEIR/EIS document and not the supporting appendices, especially when presented with a list of 197 PDF files, that person might download and review only the 75 files not labeled as being appendices. Such an assumption would be entirely reasonable, but it would be incorrect.

The DEIR/EIS discloses in a footnote that it is in fact a much larger document than presented on the "Public Review Draft EIR/EIS" webpage, as follows: "The full Draft EIR/EIS should be understood to include not only the EIR/EIS itself and its appendices but also the proposed BDCP documentation including all appendices." (DEIR/EIS, p. 1-2, fn. 3; see also p. ES-3, fn. 3.) In other words, the DEIR/EIS includes not only all 197 files listed on the "Public Review Draft EIR/EIS" webpage, but also all 47 files listed on the "Public Review Draft BDCP" webpage as well. This critical information regarding what the lead agencies themselves consider to be the contents of their DEIR/EIS document appears nowhere on the BDCP website.

The 244 electronic files listed and available for download on the "Public Review Draft EIR/EIS" and "Public Review Draft BDCP" webpages consist of approximately 40,000 pages, in aggregate. The Draft Implementing Agreement ("IA") is a separate file, added to the "Public Review Draft BDCP" webpage on May 30, 2014. We have not found any statements in footnotes or elsewhere indicating that the lead agencies intend for the IA to be understood as part of the DEIR/EIS. In addition, the IA was not available at the time the Notices of Completion and Availability were provided (see CEQA Guidelines, §§ 15085 & 15087) and there is no indication that specific details of the IA were evaluated as part of the proposed project or the proposed action in the DEIR/EIS.

In these comments, we will refer generally to the entire 40,000-page document as the DEIR/EIS, in reliance on the lead agencies' description of the document's contents made in two footnotes. However, specific page references will cite either to the

DEIR/EIS or to the BCDP since those individual portions of the larger 40,000-page document are presented on separate pages of the BDCP website.

The DEIR/EIS is not Useful as an Informational Document due to its Size

The enormous size of the Bay Delta Conservation Plan DEIR/EIR represents a gross violation of both the letter and the spirit of California Environmental Quality Act ("CEQA") and the National Environmental Policy Act ("NEPA"). As a consequence, local agencies such as Solano County, which do not have unlimited in-house staffing resources, and the public have been deprived of any meaningful opportunity to review and comment on that document in its entirety. Solano County requests that the DEIR/EIS be edited and rewritten in compliance with CEQA and NEPA, and then recirculated for public review and comment, prior to any action being taken on any component of the BDCP project. (See CEQA Guidelines, § 15088.5, subd. (a).)

In interpreting CEQA, the CEQA Guidelines are to be accorded "great weight" except where they are clearly unauthorized or erroneous. (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal. 4th 412, 428, fn. 5.) The CEQA Guidelines recommend that "the text of draft EIRs should normally be less than 150 pages and for proposals of unusual scope or complexity should normally be less than 300 pages." (CEQA Guidelines, § 15141.) There is no indication that these page limits recommended in the CEQA Guidelines are clearly erroneous or unauthorized under CEQA. Similar regulations issued by the Council on Environmental Quality ("CEQ") to implement the procedural provisions of NEPA state that the text of environmental impact statements shall "normally be less than 150 pages and for proposals of unusual scope or complexity shall normally be less than 300 pages." (40 CFR § 1502.7.)

As stated above, the DEIR/EIS document is approximately 40,000 pages, according to the self-description of that document provided in footnote 3 of its Executive Summary and in footnote 3 of Chapter 1. This exceeds the maximum pages limits called for in both the CEQA Guidelines and the NEPA regulations by an astounding 13,300%. Even if the statement in footnote 3 regarding the contents of the document incorrectly represents the intent of the lead agencies, in which case reviewers would have been materially misled, Chapters 1 through 31 of the Draft EIR/EIS as presented on the "Public Review Draft EIR/EIS" page of the BDCP website, excluding appendices, are more than 12,000 pages in aggregate. Even such a lesser-sized document exceeds the CEQA and NEPA maximum page limits by 4000%. Such a gross exceedance of the recommended page limits is not a mere technical blunder, but amounts to a prejudicial

abuse of discretion that causes substantial and irreparable injury to both commenting agencies, such as Solano County, and the public in general.

It is by now axiomatic that the EIR is the "heart of CEQA." (CEQA Guidelines, § 15003, subd. (a); see *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 392.) The EIR must be organized and written in a manner that will be meaningful and useful to decision makers and the public. (Pub. Res. Code, § 21003, subd. (b); CEQA Guidelines, § 15002, subd. (a)(1) & (4).) "The audience to whom an EIR must communicate is not the reviewing court but the public and the government officials deciding on the project." (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 443.) "Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, the EIR 'protects not only the environment but also informed self-government.'" (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.) "To this end, public participation is an 'essential part of the CEQA process.'" (*Laurel Heights Improvement Assn. v. Regents of University of California* (1993) 6 Cal.4th 1112, 1123; see also CEQA Guidelines, § 15201.)

This gross exceedance of the recommended maximum page limits has significant adverse consequences to the public participation process. The CEQA Guidelines require the lead agency to provide adequate time for other public agencies and members of the public to review and comment on a draft EIR. (CEQA Guidelines, § 15203; see also 40 C.F.R. § 1503.1, subd. (a)(4).) The minimum standards of adequacy are established within CEQA itself, which requires a minimum 45-day public review period for a draft EIR submitted to the State Clearinghouse. (Pub. Res. Code, § 21091, subd. (a).) The CEQA Guidelines reiterate the 45-day minimum requirement and recommend an upper limit on the public review period of 60 days, "except under unusual circumstances." (CEQA Guidelines, § 15105, subd. (a).) This recommended 60-day upper limit should be read in light section 15141 of the Guidelines, which calls for EIRs to be less than 150 pages except "for proposals of unusual scope and complexity," in which case EIRs can be as large as 300 pages.

Together, CEQA and the CEQA Guidelines establish a presumption that a review period of at least 45 days provides adequate time for public agencies and members of the public to review and comment on a draft EIR that does not exceed 150 pages in length. Extrapolating based on this standard, the minimally adequate review period for a 40,000 page draft EIR would be 12,000 days, or almost 33 years. The review period for the BDCP DEIR/EIS was arbitrarily limited to 228 days, a period of time that CEQA and the CEQA Guidelines imply would be adequate for a document that did not exceed 750 pages in length.

During the recent statewide conversation regarding the need to reform and improve CEQA, one area identified as ripe for reform was the abusive tactic—engaged in by a small number of often-habitual project opponents—of dumping massive quantities of marginally-relevant documents on the lead agency in a way that deprives the lead agency of any meaningful opportunity to review and respond to those documents. A 40,000 page EIR represents this same abusive tactic played in reverse: a monumental document dump by the lead agency on the public and interested agencies, effectively depriving them of any meaningful opportunity to comment on the contents of that document. CEQA is not intended to be a game of gotcha played between opposing sides, where "might makes right" or the biggest stack of documents determines the winner. In fact, CEQA is not a game at all; it is a structured process for participatory democracy, whereby the people of California and their elected state and local officials can work together to intelligently guide growth and development, while protecting the state's natural resources and the environment to the greatest extent practicable. (See CEQA, §§ 21000, 21001, 21002.1, 21003, 21003.1, & 21005.)

In order for the CEQA process to work as intended, an EIR must be readable and understandable on a human scale. Individuals should be able to participate meaningfully in the CEQA process as individual and not just as members of well-staffed organizations or special interest groups. For those citizens who want to participate in the CEQA process as individuals, the price each must pay in order to participate in an informed and meaningful manner is the investment of sufficient time to read the entire EIR or a substantial portion of it. Of course, a typical California resident could not read an entire draft EIR in a single day or even a weekend, due to commitments imposed on him or her by work and/or family. That is why both CEQA and the CEQA Guidelines require a minimum 45-day public review period and recommend that a draft EIR not exceed 150 to 300 pages in length. More broadly, the CEQA Guidelines require a lead agency to "provide adequate time for other public agencies and members of the public to review and comment on a draft EIR." (CEQA Guidelines, § 15203.) In order to read a 40,000-page EIR within a 228-day public review period, however, one would need to average over 175 pages per day, each and every day, for over seven months. In terms of the time commitment required to participate meaningfully in the CEQA process, the lead agencies have set the price far too high for ordinary citizens to afford; public agencies with limited staffing resources, such as Solano County, fare only slightly better.

CEQA allows a lead agency to provide its EIR to the public in electronic format, but does not require it. (Pub. Res. Code, § 21089, subd. (c); CEQA Guidelines, § 15201; see also CEQA Guidelines, § 15206, subd. (a)(2) [lead agency shall submit both printed and electronic copy of draft EIR to State Clearinghouse].) Although the Guidelines may be amended in the future as technology and public access to it evolves, the current

version of the Guidelines makes electronic documents supplemental to, rather than a substitute for, printed hardcopy documents. By providing this DEIR/EIS to the public only or primarily in electronic form rather than as a physical document, the lead agencies have masked the fact that a 40,000-page document is functionally inaccessible in paper format: a physical document of this size could not be carried in one hand, like a normal EIR, but would instead require both a handtruck and a strong back. However, the tradeoff is that this DEIR/EIS is accessible only to those with a computer or other personal electronic device, and only where those devices are present. For someone without a laptop, the document is accessible only at a fixed location. In addition, while electronic documents can be formatted to provide accessibility enhancements not available on paper documents, such as hyperlinks and embedded multimedia, this exclusively-electronic DEIR/EIS fails to take advantage of the electronic medium.

The size of the DEIR/EIS also prevents informed decision making by the CEQA lead agency and the responsible agencies. Prior to approving a project for which an EIR has been prepared, the lead must certify that its decision-making body reviewed and considered the information contained in the final EIR. (CEQA Guidelines, § 15090, subd. (a)(2).) When the lead agency's decision-making body is a single official rather than a board or commission, that individual must certify that he or she has personally read and considered the entire EIR before making a decision to approve the project; certification cannot be delegated by the decision-maker to staff or to a subordinate body. (*California Clean Energy Com. v. City of San Jose* (2013) 220 Cal.App.4th 1325; *POET, LLC v. State Air Resources Bd.* (2013) 218 Cal.App.4th 681; CEQA Guidelines, § 15025, subd. (b)(1).) While a responsible agency is not required to certify the EIR prior to approving its portion of the overall project, the responsible agency is still required to consider all relevant portions of the EIR prior to making a decision. (CEQA Guidelines, § 15096, subd. (f).)

DWR's CEQA regulations allow the Director to delegate decision-making authority. (Cal. Code Regs, tit. 23, § 502, subd. (b).) Because approval of the BDCP project will irrevocably set the course of California's water, agriculture, and urban development policy for the next half century, we expect that the Director will not delegate decision-making authority over this important project to a subordinate. Although we also question whether an unelected public official should be entrusted with major statewide policy decisions of this nature, we will express no opinion at this time as to whether the Legislature has given such policy-setting authority to the Director. Instead, our immediate concern is whether the Director is capable of thoughtfully reviewing the entire 40,000-page DEIR/EIS, plus all comments and responses, while simultaneously carrying out his normal responsibilities as Director of DWR. Like any other citizen, the Director would need to take substantial time away from his normal workplace

responsibilities in order to review and consider the entire 40,000-page DEIR/EIS within the allotted time.

Whether the Director will in fact personally read and consider the entire 40,000-page DEIR/EIS, plus all comments and responses, prior to taking action on the BDCP project is almost beside the point. Often, the public's perception of governmental operations is more important than actual fact. We fear that the Director's certification of this DEIR/EIS will be seen as a sham, a mere formality required to ratify a pre-ordained decision. The inevitable result will be to further undermine the public's faith in a CEQA process that, while not perfect, has helped to improve public agency decision making in California while giving protection to the environment.

The BDCP project is arguably the largest public infrastructure project ever to be reviewed under CEQA. We firmly believe that the CEQA process can work for a project of this size as long as the statute and the CEQA Guidelines are followed, both in letter and in spirit. In order for the CEQA process to work as intended, however, the lead agency must produce an EIR—the heart of CEQA—that is large enough to provide adequate environmental information about the proposed project yet small enough to be reviewed and understood by both the public and the decision maker within a limited amount of time. The courts, of course, have ultimate authority to decide whether the level of information presented in a particular EIR is adequate, but the adequacy of the information is necessarily a function of the document's overall size. An EIR is inadequate as an informational document if the document as a whole is not usable by its intended audience. The lead agencies here have done a substantial disservice both to the public and to agency decision makers by producing a document that is inherently unusable for either audience due to its size.

The Project Description Provided in the DEIR/EIS is not Accurate, Stable, or Finite

It is axiomatic that an accurate, stable, and finite project description is the *sine qua non* of an informative and legally sufficient EIR. Similarly, under NEPA, an EIS must accurately describe the federal action being taken. A fundamental defect of the BDCP DEIR/EIS is its failure to provide an accurate, stable, and finite description of the proposed project.

A legally sufficient project description provides important benefits both to the public and to agencies. The public and commenting agencies, including responsible agencies, needs to be adequately informed of the parameters and details of the proposed project in order to offer meaningful comments on the proposal, including whether the lead agency has sufficiently considered and discussed all impacts, potential mitigation

measures, and a reasonable range of project alternatives that should be evaluated in the EIR or EIS. An adequate project description ensures that the public, commenting agencies, and the lead agency are all evaluating and discussing the same proposal. The lead agency, as an institution, needs to create an adequate record of what it studied as the proposed project in its EIR, so that the institution, in the future, will have a clear record of what was and was not studies. The need for subsequent or supplement environmental review depends, in part, on whether substantial changes are proposed in a project. (CEQA Guidelines, §§ 15162 & 15163.) If there is not a clear and unambiguous record of the parameters and details of the project studied in the original EIR, it will be impossible to determine whether subsequently proposed modifications to the project are significant or not. Close or doubtful calls will likely be resolved adverse to the agency, resulting in a requirement to conduct subsequent environmental reviews that could otherwise have been avoided through better drafting of the project description in the original EIR.

The project description provided in this DEIR/EIS does not comply with regulatory standards and is therefore inadequate. Section 15124 of the CEQA Guidelines describes the four mandatory elements of a legally adequate project description: the precise location and boundaries of the project, a statement of project objectives, a general description of the project's technical, economic, and environmental characteristics, and a statement of intended uses of the EIR, including a list of agencies, approvals, and related environmental review and consultation requirements. All of these elements must be present. Section 15124 section further requires that the presentation of such information in the EIR "should not supply extensive detail beyond that needed for evaluation and review of the environmental impact."

It has been our experience that the four required elements of a CEQA project description are typically presented in a single chapter of an EIR, usually titled "Project Description." This straightforward approach to document formatting enhances the informational value of the EIR to the public and the decision maker, and assists a reviewing court in determining the legal sufficiency of the document. In contrast to this standard practice, the BDCP DEIR/EIS provides a bulleted list of project objectives in Section 2.3, a non-specific statement of intended uses for the EIR/EIS in Section 1.6, a single state-wide map of the Project Area in Figure 1-4, and a general description of the project's technical characteristics scattered across Sections 3.5.9, 3.6.1, 3.6.4, 3.6.2, 3.6.3, and perhaps elsewhere. The DEIR/EIS also includes a reference statement, buried within a footnote, that Chapter 3 of the BCDC document "more fully describes the proposed project." (DEIR/EIS p. 1-2, fn. 3.) We have never seen a programmatic EIR that used the plan or program document itself as the EIR's project description in lieu of providing a concise summary of the plan or program, but the format of the BDCP DEIR/EIS is unprecedented in many ways. However, the reference to Chapter 3 of the

BDCP serves as an unstable project description because the IA, in Section 6.0 on page 15, states that its terms will prevail over any conflicting terms in the BDCP document.

The CEQA Guidelines allow flexibility in document formatting, but recommend that each of the required elements, including the project description, be covered in a distinct section of the EIR; if a required element is presented in multiple sections of the EIR, the document must state where in the document that required element discussed. (CEQA Guidelines, 15120(a).) The DEIR/EIS fails this requirement. For example, the Table of Contents indicates that the Project Objectives are presented in Chapter 2 but anyone wondering where a description of the proposed project might be found in the DEIR/EIS is left guessing.

The four required elements of a project must, or course, be in agreement with each other. Quantitative project objectives must be plausibly achievable through the project's described technical, economic, and environmental characteristics. For example, if a project objective is to transport a specific quantity of water from point A to point B, the proposed hardware must be sized appropriately to accomplish this objective, neither too large nor too small. If an EIR's project characteristics are inconsistent with its project objectives, then the project description is not stable throughout the document. In addition, if the described project characteristics are capable of achieving something other than the stated project objectives, and appropriate limitations are not included through other parts of the project description, it is possible that the lead agency has failed to provide an accurate description of its true proposal.

Qualitative project objectives must be defined and quantified in the description of the project's technical, economic, and environmental characteristics. Without quantification in either of these elements, the project description is not finite. Adaptive management is inherently not finite because it is intentionally open-ended in order to be quantified and adjusted over time as new information becomes available. While properly bounded adaptive management is an appropriate mitigation technique, both in an EIR or EIS and in an HCP or NCCP, it can never be appropriate for a project description in an environmental document or a description of underlying otherwise lawful activities in a conservation plan. For this reason, the adaptive management portions of the BDCP project must not be evaluated as part of the proposed project, but must instead be evaluated as potential mitigation for the impacts that will be caused by the project.

One of the DEIR/EIS's stated project objectives, on page 2-3, is to "restore and protect the ability of the SWP and CVP to deliver up to full contract amounts." While water delivery is identified as only one of three broad project objectives in the DEIR/EIS, the IA clarifies, on page 21, that the development and operation of new Delta water conveyance facilities is the primary objective of the BDCP project. Given its recently acknowledged importance to the overall project, it is critical that the water delivery

objective be quantified in the project description with as much specificity as possible. However, on page 2-5, the phrase "up to full contract amount" is defined as any quantity between the amount delivered under No Project Alternative and the aggregate amount described in all existing contracts. With this qualification, the water delivery objective is neither stable nor finite, but is instead a broad range with no intended target value identified within that range.

In addition, with this qualification of the phrase "up to full contract amount," the DEIR/EIS discloses that the No Project Alternative fully attains DWR's stated water delivery objective. Of the three bulleted project objectives identified on page 2-3, the No Project Alternative fully attains the water delivery objective and renders the HCP objective moot, leaving Delta ecosystem improvement as the sole remaining objective left to be attained by the project. As a result, project alternatives focused only on ecosystem improvement and restoration, without any new conveyance facilities or changes in SWP/CVP operations beyond those described in the No Project Alternative, should have been evaluated in the DEIR/EIS.

While the broad range of water delivery quantity encompassed by the phrase "up to full contract amount" has a clear upper bound, it is not clear whether that upper bound could be achieved by the proposed project. Given the description of the proposed project's technical characteristics diffused throughout Chapter 3 and elsewhere, all that is certain regarding the water delivery capability of the proposed conveyance facility is that it would have a maximum pumping capacity of 9,000 cfs. As a result, regardless of the lower and upper bounds for water delivery defined in the project objective, it is not clear how much water actually could be delivered by the proposed project. The equivocal conclusions on pages 5-106 to 5-107, that deliveries might show a small decrease or an increase relative to an unquantified amount, are not informative.

Although the lead agencies' intended water delivery capabilities for the proposed project are not quantified in the stated project objectives, the 9,000 cfs pumping/export capacity of the proposed project, described in section 4.2.1.1.1 of the BDCP document, is an important benchmark for conducing environmental analysis in the DEIR/EIS. Because the DEIR/EIS fails to quantify the total amount of additional water that the lead agencies seek to export from the Delta through construction and operation of the proposed project, the lead agencies' proposed maximum rate of export from the proposed North Delta diversion facility necessarily serves as the required quantitative objective for the project.

As stated above, one of the reasons that an accurate, stable, and finite project description is the *sine qua non* of a legally sufficient EIR is that the range of project alternatives required to be discussed in the EIR is dependent on the project objectives component of the EIR's project description. An EIR must describe and evaluate "a

range of reasonable 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 effects of the project." (CEQA Guidelines, § 15126.6, subd. (a).) Ten of the fourteen "action" alternatives to the proposed project described and evaluated in the DEIR/EIS would redesign the proposed North Delta diversion facility to have a pumping/export capacity of 15,000 cfs. The DEIR/EIS does not explain how any of the ten 15,000 cfs alternatives would "avoid or substantially lessen any of the significant effects of the project" and it seems highly unusual that a substantially larger project, which could pump/export from the North Delta at 167% of the stated project objective, would be more environmentally benign than the proposed project.

Although the BDCP document describes the proposed project as including a 9,000 cfs North Delta diversion facility, the inclusion of ten 15,000 cfs alternatives in the DEIR/EIS creates the possibility that the lead agency may later approve amendments to the BDCP project to increase diversion capacity to 15,000 cfs without conducting further environmental review. In addition, because the lead agency has included these ten 15,000 cfs alternatives in its DEIR/EIS without any apparent environmental reason to do so, it raises the possibility that the lead agency's true proposed project includes a 15,000 cfs diversion facility rather than a 9,000 cfs one. Regardless of the lead agency's true intent, the inclusion of oversized project alternatives in the DEIR/EIS without apparent environmental reason to do so renders the DEIR/EIS's project description inaccurate and unstable.

The Proposed Project's Technical Characteristics for Exports from the South Delta are not Consistent with the Stated Project Objectives

The modeling data for the proposed project (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 of the DEIR/EIS, 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's daily diversion into Clifton Court Forebay would not exceed 13,870 acre-feet and the 3-day average diversions into Clifton Court Forebay would not exceed 13,250 acre-feet. (DEIR, section 5.2.1.3, p. 5.36.) 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. 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. (DEIR, p. 5A-B63.)

During the July through September period, 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. Additional analysis of the BDCP project's changes to exports is attached to these comments of Solano County as Attachment A. Considering the existing total exports are normally no more than 11,280-11,780 cfs in the July through September period, 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 through 4 and Alternatives 6 through 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 DEIR/EIS must be revised to fully disclose DWR's intent to increase South Delta exports and to analyze operations of the proposed BDCP 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.

The DEIR/EIS does not Describe the Whole of the Action

Under CEQA, the term "project" is broadly defined as "the whole of an action, which has the potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." (CEQA Guidelines, § 15378, subd. (a).) "The term 'project' refers to the activity which is being approved and which may be subject to several discretionary approvals by governmental agencies. The term 'project' does not mean each separate governmental approval." (CEQA Guidelines, § 15378, subd. (c).) NEPA similarly requires that a single EIS encompass the full set of new and ongoing federal actions that are connected, cumulative, or similar in timing or geography. (40 CFR § 1508.25.) The "whole of the

action" includes all actions taken by the lead agency and all responsible agencies to implement the project or any part of the project. Each of these permits or other approval actions must be listed in the EIR. (CEQA Guidelines, § 15124, subd. (d)(1)(B).) The DEIR/EIS, in Table 1-2, identifies agencies that will be using the DEIR/EIS and the statutory authority under which those agencies will be acting, but it does not list the permits or other approvals required to implement the project.

The "whole of the action" that is the BDCP project includes at least the following five components:

1. All proposed changes in the program for export and delivery of water from the Delta using the SWP and CVP, including both operational changes and facility changes. While the project description must describe what these proposed program amendments are, the No Project Alternative must describe the existing SWP/CVP program and what is likely to occur into the future if that existing program is not amended as proposed. (CEQA Guidelines, § 15126.6, subd. (e)(3(A).) The proposed changes to the SWP/CVP program includes the following four sub-components:
    a. Activities within the Delta Region or "Plan Area," as defined in Section 1.5.2 and shown in Figures 1-4 and 1-9 of the DEIR/EIS, that are likely to cause incidental take. Generally, these are the underlying otherwise lawful activities that necessitate the preparation of the BDCP as a HCP and NCCP. Specifically, these activities include the construction of new facilities, the improvement of existing facilities, and changes in SWP/CVP system operations within the Plan Area.
    b. Activities within the Delta Region or Plan Area that will not cause incidental take, either directly or indirectly, and therefore do not need to be described or assessed in the BDCP document.
    c. Any proposed changes in the SWP/CVP program, including facilities or operations, the will occur Upstream of the Delta Region. (See Section 1.5.1 of the DEIR/EIS.) This area is outside of the Plan Area and therefore not part of the BDCP document.
    d. Proposed changes in the SWP/CVP program, including facilities or operations, that will occur in the SWP and CVP Service Areas. (See Section 1.5.3 of the DEIR/EIS.) These areas are outside of the Plan Area and are therefore not part of the BDCP document. The most significant change in the SWP/CVP program that will occur in these areas is increased water deliveries, above the levels described in the No Project Alternative, to meet anticipated increased demand or needs in those areas.

2. Measures proposed in the BDCP, for the purpose of that document serving as a HCP and NCCP, to minimize or mitigate the impacts of incidental take caused by any of the identified underlying otherwise lawful activities. Excluded from this component are measures not specifically identified in the BCDP but instead left to be defined and developed over time through adaptive management. All measures that utilize adaptive management or are otherwise to be developed and defined over time should be evaluated as mitigation in the DEIR/EIS, rather than as part of the proposed project.
3. All proposed actions to improve and restore the Delta ecosystem other than measures proposed in the BDCP for the purpose of that document serving as a HCP and NCCP. Also excluded from this component would be any actions to restore the Delta ecosystem that must be taken pursuant to an enforcement order; such involuntary actions would not be part of the proposed project, but would need to be identified and addressed in the cumulative impact section of the DEIR/EIS.
4. The BDCP Implementation Agreement, to the extent it expands on or proposes activities not included in any of the above-described components.
5. All other activities that will normally and naturally occur as a result of the any of the above-described activities without being subject to separate CEQA review and discretionary approval. For example, if the any of proposed increase delivery of water to SWP/CVP service areas is to serve increase demand by agricultural customers, and these customers can increase their use without CEQA review or discretionary approval, such increased water use must be evaluated as part of the proposed project in the DEIR/EIS.

The No Project Alternative describes the amount of water that would be delivered to the contractors given current or known constraints. The continued operation of the SWP/CVP system, and the continued delivery of water as described in the No Project Alternative, is exempt from CEQA review as an existing or ongoing project. Delivery of the full contract amount of water to SWP and CVP contractors, or any amount greater that can be delivered by the existing SWP/CVP system given current or known constraints, is not exempt from CEQA review as an existing or ongoing project. (*North Coast Rivers Alliance v. Westlands Water Dist.* (7/3/2014) xxx Cal.App.4th xxx.)

Because the delivery commitments made in the existing contracts pre-date CEQA, the environmental impacts of delivery of that full contract amount to SWP and CVP service areas has never been subject to environmental review. The difference between what the contracts promise and what the existing system can actually supply is only paper water and not an enforceable entitlement. (*Planning and Conservation League v. Dept. of Water Resources* (2000) 83 Cal.App.4th 892.) In hindsight, it is now clear that DWR

over promised when it entered into those contracts, because the facilities necessary for DWR to fully perform under those contracts simply did not exist for reasons outside the control of DWR. As a result, the amounts promised in the existing contracts may provide priority to existing contractors in a situation of competing claims to limited supply, but otherwise those amounts are only a wishful number without legal significance.

The purpose of the BDCP project is not to continue ongoing operations under a pre-CEQA or otherwise existing project—this scenario is the represented by the No Project Alternative—but to create new water delivery capability. The SWP/CVP facilities located between the Delta and the SWP and CVP service areas is essentially a large pipe that withdraws water from the Delta at one end of the pipe and delivers it to the SWP and CVP contractors at the other end. The DEIR/EIS evaluates the project's environmental impacts in the Delta, but gives only cursory treatment to the project's environmental impacts in the SWP and CVP service areas, as if the water simply disappeared into a black hole at the delivery end of the pipe. While such impacts at the delivery end were not required to undergo environmental review at the time the contracts entered into, the impacts that will result from the delivery of more water to the service areas than can be delivered under the No Project Alternative are now subject to such review.

Facilitating growth and related land use changes can be either a project objective, a growth inducing project impact, or both, depending on where it will occur. Growth and land use changes that will occur within the project area as a direct result of the project is a project objective and therefore must be evaluated as part of the project. (*Bozung v. Local Agency Formation Com.* (1975) 13 Cal.3d 263.) Growth and land use changes that are likely to occur in the surrounding environment near the project area as a direct or indirect result of the project is a growth inducing impact of the project. (CEQA Guidelines, § 15126.2, subd. (d).) When growth will occur both within the project area and in the surrounding area due to installation of new or improved public infrastructure, growth within the project area must be evaluated as part of the project while off-site growth must be evaluated as a growth inducing impact of the project. (*Clover Valley Foundation v. City of Rocklin* (2011) 197 Cal.App.4th 200.)

The "whole of the action" that is the BDCP project includes growth and land use changes in the SWP and CVP service areas, including changed agricultural practices, that will be served or facilitated by the additional water delivered to those areas above the amounts that could be delivered under the No Project Alternative. To the extent the increase in SWP/CVP water delivery to contractors is the first step in development or land use changes within the SWP and CVP service areas, the effects of probable ultimate development in these areas based on that increased water supply must be evaluated in the DEIR/EIS in order to avoid piecemealing review of the whole of the

action. (*Napa Citizens for Honest Government v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342.)

Water supply and water demand are complementary forces, and planning for both can be done either from the supply side or the demand side. The DEIR/EIS assumes increased demand or need for water in the export service areas, based on Department of Finance forecasts and growth projections contained in the California Water Plan. (See DEIR/EIS sections 30.1.2 & 30.1.3.) The California Water Plan presents DWR's assumptions and other estimates regarding future population, future land use patterns, and future water needs. (Water Code, § 10004.6, subd. (c)(3), (5) & (6).) The California Water Plan is a supply-side planning document, based on DWR's best estimate as to where growth might occur; it is not a demand-side planning document prepared for the purpose of identifying where growth should occur. Under the Planning and Zoning Law, the Legislature has assigned to cities and counties, and not to DWR, the responsibility of regulating where growth occurs within California through the adoption of enforceable demand-side land us plans. Cities and counties carry out this responsibility by adopting local general plans. (Govt. Code, § 65302.) The California Water Plan does not serve the same function as adopted local general plans. When the California Water Plan is erroneously used as a demand-side plan in lieu of adopted general plans to justify construction of water supply infrastructure, then, under the principle of "if you build it, they will come," DWR's own growth and water demand estimates are likely to become self-fulfilling prophesies.

Approval of a water supply project to accommodate anticipated but unplanned growth, based on a supply-side planning document, "places the proverbial cart before the horse" and piecemeals the overall project. (*County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 949.) Making additional water available to an area removes a major barrier to growth and land use changes within that area, and can virtually assure development. If the BDCP project is approved and additional water is made available to the SWP and CVP service areas, local agencies within those export service areas will have no reason to restrict growth to levels that could be served by the amount of water available under the No Project Alternative. However, once a local agency has adopted a general plan after conducting appropriate CEQA review, the water supplier can generally rely on the general plan EIR as an adequate evaluation of growth and land use changes associated with an increased water supply. (*Friends of the Eel River v. Sonoma County Water Agency* (2003) 108 Cal.App.4th 859; see also *Vineyard Area Citizens v. City of Rancho Cordova* (2007) 40 Cal.4th 412.) This latter scenario properly places the proverbial horse before the cart.

The DEIR/EIS Provides an Inadequate List of Permits and Other Approvals Required to Implement the Project

As described above, an EIR must include a list of permits and other approvals required to implement the project. (CEQA Guidelines, § 15124, subd. (d)(1)(B).) The DEIR/EIS, in Table 1-2, states that DWR will be taking one or more discretionary approval actions pursuant to authority conferred on it generally by the Central Valley Project Act (Water Code, Division VI, Part 3, § 11100 et seq.) and the California Water Resource Development Bond Act (Water Code, § 12930 et seq.), and specifically by section 11451 of the CVP Act, which provides that DWR shall have full charge and control of the construction, operation, and maintenance of the CVP.

Table 1-2 does not explicitly reference section 11290, which authorizes DWR to "add additional units [to the CVP] which are consistent with and which may be constructed, maintained, and operated as part of the [CVP] and in furtherance of the single object contemplated by [the Central Valley Project Act]." The Attorney General has concluded that DWR may authorize additional units to the CVP by administrative action, pursuant to section 11290, but in the absence of DWR taking such administrative action any additional units to the CVP must be authorized by the Legislature. (29 Ops.Atty.Gen. 161 (1957).) In addition, Table 1-2 does not explicitly reference section 12931, which describes the SWP as consisting of State Water Facilities as defined in section 12934(d), and such additional facilities as may be authorized "by the Legislature as part of (1) the Central Valley Project or (2) the California Water Plan, and including additional facilities as [DWR] deems necessary and desirable to meet local needs." Again, DWR may take discretionary administrative action approving additional facilities, based on a finding that such facilities are necessary and desirable to meet local needs, but such facilities are not authorized in the absence of DWR taking action.

The DEIR/EIS must identify that DWR will be taking an action approving the construction and operation of one of the conveyance facility alternatives, contingent on approval of incidental take authorization. The DEIR/EIS must also disclose whether DWR will be approving the conveyance facility as (1) an additional unit to the CVP that is consistent with and in furtherance of the single object contemplated by the CVP Act, pursuant to section 11290, (2) an additional facility to the SWP that is necessary and desirable to meet local needs, pursuant to section 12931, (3) a facility that is already a system component of State Water Facilities, as defined in section 12934(d), (4) an additional facility authorized by the Legislature as part of the CVP, or (5) an additional facility authorized by the Legislature as part of the California Water Plan. The DEIR/EIS must also identify that DWR will be taking another administrative action submitting applications to the appropriate state and federal agencies seeing incidental take

authorization, based on the commitment by DWR and others to implement the minimization and mitigation measures described in the proposed HCP/NCCP.

As described above, the underlying activity that will cause incidental take is separate and distinct from the measures proposed to minimize and mitigate such take, and the lead agency's action approving the underlying activity and its action seeking approval of an incidental take permit should be separately identified in the DEIR/EIS. It would seem appropriate for the lead agency to take action approving the underlying activity, contingent on approval of an incidental take permit, prior to taking action directing that the incidental take permit application be submitted, although the two actions could be taken simultaneously. Regardless of sequence, the first action taken will constitute approval of the whole of the action on the part of the lead agency, at which time it must adopt its CEQA findings and Statement of Overriding Considerations, adopt the Mitigation Monitoring or Reporting Plan, and file its Notice of Determination. (See CEQA Guidelines, §§ 15091, 15093, 15094 & 15097.) The DEIR/EIS must provide sufficient details regarding the lead agency's approval actions to enable the public to know both what specific conduct by the lead agency will constitute approval of the project and when that conduct is likely to occur.

The DEIR/EIS Fails to Describe or Evaluate the Possibility of Incomplete Project Approval

Although Table 1-2 falls short of the requirements imposed by section 15124 of the CEQA Guidelines, it makes clear that the discretionary approval actions of many state and federal agencies will be required in order for the BDCP project to be fully implemented. Each state agency acting as a responsible agency on the BDCP project must reach its own conclusions on whether or how to approve its own component of the overall project. (CEQA Guidelines, § 15096, subd. (a).) DWR, as the state lead agency, cannot assume that every state responsible agency and every federal agency will approve its piece of the whole of the action. Instead, the DEIR/EIS must evaluate the possibility of partial approval or incomplete implementation of the project.

The water delivery commitments made in the existing SWP contracts are a good example of outcomes falling short of forecasts due to incomplete project implementation. If the SWP had been fully implemented as DWR anticipated when it entered into those contracts, the BDCP project would not be necessary, at least not in its current form. What will be the environmental consequences if the BDCP project is not fully implemented as proposed?

The Implementing Agreement ("IA") is intended to establish a mechanism that will ensure some portions of the BDCP project are implemented, but it does not cover all

portions of the overall project. At a minimum, the DEIR/EIS should evaluate the possibility that only the portions of the BDCP project covered by the IA by real and enforceable funding commitments are implemented.

The DEIR/EIS should describe the extent to which implementation of the BDCP project is dependent on future actions by the Legislature, including approval of funding for the project. Although actions by the Legislature are not subject to CEQA (see CEQA Guidelines, §§ 15378, subd. (b)(1), & 15383), any required approval actions by the Legislature potentially affecting implementation of the BDCP project or attainment of its anticipated environmental benefits are a contingency that must be addressed in the DEIR/EIS.

The DEIR/EIS Must Clarify the Baseline Used for Preparation of the BDCP

The relevant baseline for conducting environmental impact review under CEQA and NEPA is not necessarily the same as the baseline used for conducting incidental take impact analysis under the state and federal endangered species acts and the NCCPA. Under CEQA, the relevant baseline is existing conditions at the time the Notice of Preparation is issued, although an alternative baseline may also be used in appropriate circumstances. For incidental take impact analysis, the default baseline is existing conditions unless the party or parties seeking authorization for future incidental take have a present enforceable duty to restore habitat or otherwise compensate for past or ongoing incidental take. (*Friends of the East Fork v. Thom* (W.D.Wash. 2010) 688 F.Supp.2d 1245.)

SWRCB's Water Rights Decision 1641 ("D-1641") amended DWR's water rights permits to add terms and conditions intended to protect municipal and industrial, agricultural, and fish and wildlife beneficial uses of the Delta. Pursuant to Water Code section 138.10, DWR prepared a report, dated January 2006, describing its compliance with D-1641. Pages 22 – 23 of that report describe DWR's compliance with state and federal ESA requirements.

It is not clear from the DEIR/EIS whether DWR is currently operating the SWP system in full compliance with state and federal ESA requirements. If the identified species and their habitat are still in the process of recovery, and will continue to recover into the future if the compliance activities described in the January 2006 report or other presently-required restoration measures continue to be followed, then anticipated future equilibrium conditions of species populations rather than current conditions should be used as the baseline for conducting incidental take impact analysis.

The DEIR/EIS Must Acknowledge that SWP Water is Exported from the Delta under Junior Water Rights

As part of both the project description and the discussion of the relevant regulatory setting, 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 the Delta are entitled. Section 12204 was intended to ensure that 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.

An essential but unstated objective of the BDCP project must be that the construction and operation of the project will conform with existing law, including the 1959 Delta Protection Act. To accomplish this objective, the project must ensure no water is exported from the Delta that is needed to meet the environmental, water supply, and other needs of the Delta.

It is therefore unacceptable for the DEIR/EIS to conclude that adverse water quality impacts caused by exports by junior water rights holders is unavoidable. The 1959 Delta Protection Act requires that these types of impacts 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 of the coequal 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 at such time determine whether it is feasible to take further action. This deferral of mitigation development is unacceptable under CEQA. The DEIR/EIS must be revised to recommend binding commitments for mitigating all significant adverse water quality impacts.

The DEIR/EIS does not Evaluate the BDCP's Compliance with the Delta Reform Act or its Consistency with the Delta Plan

Under the Delta Reform Act ("DRA"; Water Code, § 85000 et seq.), all actions defined as "covered actions" within the DRA must be consistent with the Delta Plan ("DP") adopted by the Delta Stewardship Council. (Water Code, § 85225.) The adoption of the BDCP by DWR, together with all state and local agency approvals of discretionary actions within the Delta or Suisun Marsh implementing the BCDP, are "covered actions"

under the DRA. (Water Code, § 85057.5.) The statement on page 13-13 of the DEIR/EIS that the "BDCP is not a project for which a certificate of consistency must be prepared" is not explained and appears to be inconsistent with definition of "covered actions" provided in the DRA. The DRA defines two coequal goals, but the DP and the BDCP are not coequal documents. Because adoption of the BDCP is defined as a covered action under the DRA, and therefore subject to the DRA's consistency requirement, the BDCP is subordinate to the DP.

Appendix 3-I of the DEIR/EIS addresses the BDCP's consistency with subsections 85320(b)(2)(A) through (G) of the DRA but does not evaluate the BDCP's consistency with the DP. The statement at page 13-13 of the DEIR/EIS, that "additional discussion of the relationship between BDCP and the Delta Plan can be found in Appendix 3-I," is hollow. On that same page, it is alleged that Chapter 13 of the DEIR/EIS "discusses how the BDCP is consistent with the 14 policies of the Final Draft Delta Plan," but the discussion provided is cryptic, conclusory, and buried deep within other discussions. For example, the DEIR/EIS's entire discussion of the proposed project's consistency with the DP is provided in a single paragraph on page 13-107, which concludes that "avoidance of all incompatibilities is likely to be considered infeasible."

The DP, adopted several months prior to the release of the DEIR/EIS, is intended to further the coequal goals defined in the DRA. The DP includes subgoals and strategies to assist in guiding state and local agency actions related to the Delta. (Water Code, § 85300, subd. (a).) Specifically, it is intended by both the Legislature and the Delta Stewardship Council that implementation by state and local agencies of the various measures included in the DP will promote both a healthy Delta ecosystem and a reliable water supply. (Water Code, § 85302, subd. (c) & (d).) In addition to the measures intended to promote a healthy Delta ecosystem, the DP also includes subgoals and strategies for restoring a healthy ecosystem. (Water Code, § 85302, subd. (e).) The BDCP and the DEIR/EIS fail to evaluate the BDCP's consistency with any of these measures, subgoals, and strategies.

The DRA required CDFW to produce flow criteria and biological objectives, and required SWRCB to produce a separate set of flow criteria. (Water Code, §§ 85084.5 & 85086.) It is not clear whether the data and conclusions in the BDCP document and in the DEIR/EIS are consistent with the flow criteria and biological objectives that were produced pursuant to these statutory mandates.

By statute, the BDCP is intended to serve as a NCCP and HCP. (Water Code, §§ 85053 & 85320, subd. (d) & (e).) As a result, the BDCP must maintain the distinction between underlying activities and mitigation measure required in the drafting of those types of multispecies conservation plans. The DRA cannot affect the federal ESA or the federal HCP process, and explicitly does not affect NCCPA, CEQA, or the California

ESA. (Water Code, § 85032.) Therefore, to the extent there is a conflict between any provision of the DRA and any of these other statutes, the DRA provision must yield to the requirements imposed through the other statute.

The DRA vests planning responsibility for achieving the coequal goals in DSC and does not authorize the DSC to delegate this planning responsibility to DWR. Given the BDCP's subordinate role with respect to the DP under the DRA, a threshold requirement for the BDCP is for it to explain the purpose of its constellation of underlying activities with respect to the DP. Are the underlying actions identified in the BDCP intended to be actions that implement the DP's measures to promote ecosystem health and water supply reliability, as well as the DP's subgoals and strategies to restore ecosystem health? Or are the BDCP's underlying actions consistent with but largely independent of the DP's measures, subgoals, and strategies?

The DEIR/EIS states that the intent of the lead agencies in proposing the BDCP project is "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." (DEIR/EIS, p. 2-5.) However, the intent of the 2009 DRA is that the coequal goals will be met through the coordinated actions of numerous agencies all following the roadmap laid out in the Delta Plan. The DP loses its purpose as a planning document if each agency if free to decide for itself how it can advance the DRA's coequal goals, following its own muse.

There is, potentially, a high degree of overlap between the DP and the BDCP, and the DRA anticipates that the two documents will be merged. Because of this close connection between the DP and the BDCP, the failure of the BDCP DEIR/EIS to tier off of the DP EIR suggest that environmental review on either the DP or the BDCP, or both, has been inappropriately piecemealed. At a minimum, the functional relationship between the BDCP and the DP must be explained and evaluated more thoroughly within the DEIR/EIS so that the two plans do not become ships passing in the night, heading to similar but different ports.

The DEIR/EIS does not Evaluate the Project's Consistency with Receiving Area General Plans, the Local Protection Program, or the Ecosystem Restoration Program and Recovery Plan

Section 15125, subdivision (d), of the CEQA Guidelines requires an EIR to discuss any inconsistencies between the proposed project and applicable general plans, specific plans, and regional plans.

Sections 13.3.3.9 of the DEIR/EIS discuss the project's consistency with city and county general plan land use designations only within a seven-county study area or Plan Area (see DEIR/EIS, sections 13.2.3.4 & 13.2.3.5; see also § 14.1.1), even though the DEIR/EIS acknowledges that the project area for the BDCP project is larger than the Plan Area and includes areas upstream of the Delta region as well as the SWP and CVP export service areas (see DEIR/EIS, p. 1-11). As a result of this narrow focus, the DEIR/EIS has failed to evaluate the project's consistency with general plans applicable in a significant portion of the project area. In order to comply with the general plan consistency evaluation requirement of section 15125, the DEIR/EIS must identify whether the additional water proposed to be delivered to the export service areas relative to the No Project Alternative is intended to support growth and land use changes that have already planned and subjected to environmental impact analysis in adopted general plans, or is instead intended to support growth and land use changes that is anticipated by DWR but has not been planned or subjected to environmental impact analysis by the cities and counties that exercises land use regulatory authority within those areas.

The DEIR/EIS concludes, at page 13-18, that all public and private development activities proposed as part of the BDCP project are consistent with the Suisun Marsh Protection Plan ("SMPP"). The analysis that supports this conclusion may be correct, but it is insufficient. As required by the Suisun Marsh Protection Act, Solano County has prepared a Local Protection Program ("LPP") regulating development within the unincorporated area of the Suisun Marsh. (See Pub. Res. Code, § 29400.) The County's LPP was certified in 1982, and has been amended several times since then. (See Pub. Res. Code, §§ 29415 & 29418.) Unless exempted by statute, all public and private development within the unincorporated area of Marsh is required to be consistent with the County's certified LPP. (See Pub. Res. Code, §§ 29501, 29503 & 29505.) As a result, consistency with the SMPP is no longer sufficient to support approval of development; instead, consistency with the certified LPP must be found.

The current version of the certified LPP includes provisions requiring that "every effort must be made to preserve natural channels and drainage ways" and allowing modification of existing watercourses "only where no reasonable alternative is available." (See *SPRAWLDEF v. San Francisco Bay Conservation & Development Com.* (2014) 226 Cal.App.4th 905 [petition for review pending].) As a result, the DEIR/EIS must identify whether the BDCP project proposes any modifications to existing watercourses within the portion of the Marsh subject to the County's LPP, and if so, evaluate whether there are any reasonable alternatives available. Solano County is currently considering amendments to these provisions, but any amendments to the LPP will not become effective until certified by the Bay Conservation and Development Commission. (See Pub. Res. Code, § 29419.)

Either Solano County or the Bay Conservation and Development Commission, or both, are responsible for determining whether proposed development within the unincorporated area of the Marsh is consistent with the LPP. If the DEIR/EIS provided an adequate evaluation of the BDCP project's consistency with the LPP, the County and the Commission might be entitled to rely on the DEIR/EIS when approving marsh development permits for activities included within the BDCP project. (See CEQA Guidelines, § 15096.) However, because the DEIR/EIS does not evaluate whether any part of the BDCP project is consistent with the LPP, the County and the Commission will be left to the remedies described in section 15096, subdivision (e), of the CEQA Guidelines.

In May 2014, CDFW issued its Ecosystem Restoration Program Conservation Strategy for Restoration of the Sacramento-San Joaquin Delta ("ERP"). In July 2014, NOAA released its Recovery Plan for salmon and steelhead that recommends recovery activities for the Delta and other areas. While these documents were released after release of the DEIR/EIS, consistency between the activities proposed as part of the BDCP project and those proposed in these two latter documents is critical for the successful implementation of all three plans. CDFW's ERP and NOAA's Recovery Plan potentially constitute significant new information that requires recirculation of the DEIR/EIS. (CEQA Guidelines, § 15088.5.) If the lead agencies decide not to revise and recirculate their DEIR/EIS due to the ERP and Recovery Plan, they must explain why the plans do not constitute significant new information.

The DEIR/EIS's Discussion of Impacts to Water Supply (Chapter 5) is Inadequate

The DEIR/EIS states, "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." (DEIR/EIS, p. 5-46 [emphasis added].)

This discussion of water supply impacts is inadequate because it fails to model project operations under the BDCP to 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 revised 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 does not provide useful information.

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. (DEIR/EIS, p. 5A-B40.) Conversely, in the Alternative 4 H2 and H4 scenarios, 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.

The DEIR/EIS must be revised to disclose the additional adverse impacts of this relaxation of the SWRCB's D-1641 export/inflow standards. In addition, the 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.

The DEIR/EIS's Discussion of Impacts to Surface Water and Recommended Mitigations (Chapter 6) is Inadequate

At page 6-100 of the DEIR/EIS, the discussion of changes in reverse flow conditions for Old and Middle River (Impact SW-3) focuses on changes in OMR with the BDCP project operational relative to both Existing Conditions (without Fall X2) and the No Project 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 baseline case and are therefore only slightly improved with the BDCP project. Because the new North Delta intakes and isolated conveyance facility are being presented as a conservation measure that reduces the adverse impacts of exports from the South Delta, the BDCP should eliminate any reverse flows lower (more negative) that cause adverse impacts. This amount of negative flow may be approximately -4,000 cfs, but a specific amount must be identified in the DEIR/EIS.

The simulated BDCP reverse flow data (OMR) for each year (1922-2003) of certain months is presented in "BDCP Water Quality Impacts in Barker Slough and Suisun Marsh Ares," attached to these comments of Solano County as Attachment B. 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 become even more negative in some years with BDCP.

The BDCP project is being proposed as a conservation measure because it may reduce exports from the South Delta. This amounts to an explicit admission by the BDCP proponents that the current level of South Delta exports adversely impacts fish species. If the proposed project is going to increase reverse flows, then the adverse impacts of the South Delta exports will increase rather than decrease, and recovery of the key fish species and other resident Delta species will not occur.

As proposed, the BDCP project fails to improve conditions in the South Delta and fails to improve the Delta ecosystem. Alternatives to the proposed project that significantly decrease reverse flows (increase OMR) in all months must be developed and analyzed in the DEIR/EIS.

The DEIR/EIS's Discussion of Impacts to Water Quality and Recommended Mitigations (Chapter 8) is Inadequate

The BDCP project proposes to make numerous major changes to the current Delta export system and the rules under which that system 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 DEIR/EIS is inadequate because it fails to analyze and disclose the separate impacts of each of the following elements 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, p. 3-188)
- Adding a permanent operable Head of Old River Barrier (DEIR/EIS, p. 3-203)
- Elimination of the US Army Corps of Engineers restrictions on inflow to Clifton Court (DEIR/EIS, p. 3-32)
- 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 DEIR/EIS will not be able to be used by these other regulatory entities without analyses of the individual impacts of each action.

Lumping all these elements together also masks individual impacts and fails to disclose to the public and the agency decision makers the environmental impacts of each element. DWR has previously released three different EIRs regarding its proposal to implement a permanent operable Head of Old River barrier. The 1990 and 1996 drafts were revised, and a new draft was released in 2005, followed by a final EIS/EIR in December 2006. The project still has 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 BDCP project includes new intakes and conveyance facilities, 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 baseline case, which contains none of these elements, and a No Project Alternative, which also contains none of these elements except climate change. This approach masks the impacts of each individual element and fails to disclose to 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 state of the art fish screens for Clifton Court and the Jones Pumping Plant. DWR is proposing screening other, much smaller unscreened diversions (CM21), yet has not evaluated the potential benefits to key fish species of 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 that new storage is needed to be able to meet both coequal goals under the 2009 Delta Reform Act. However, the BDCP fails to propose new storage and the DEIR/EIS fail to analyze the environmental impacts of new storage. This represents piecemealing of the "whole of the action" needed to achieve the coequal goals, which in turn results in a constricted discussion of true project impacts associated with likely future operations of the BDCP project.

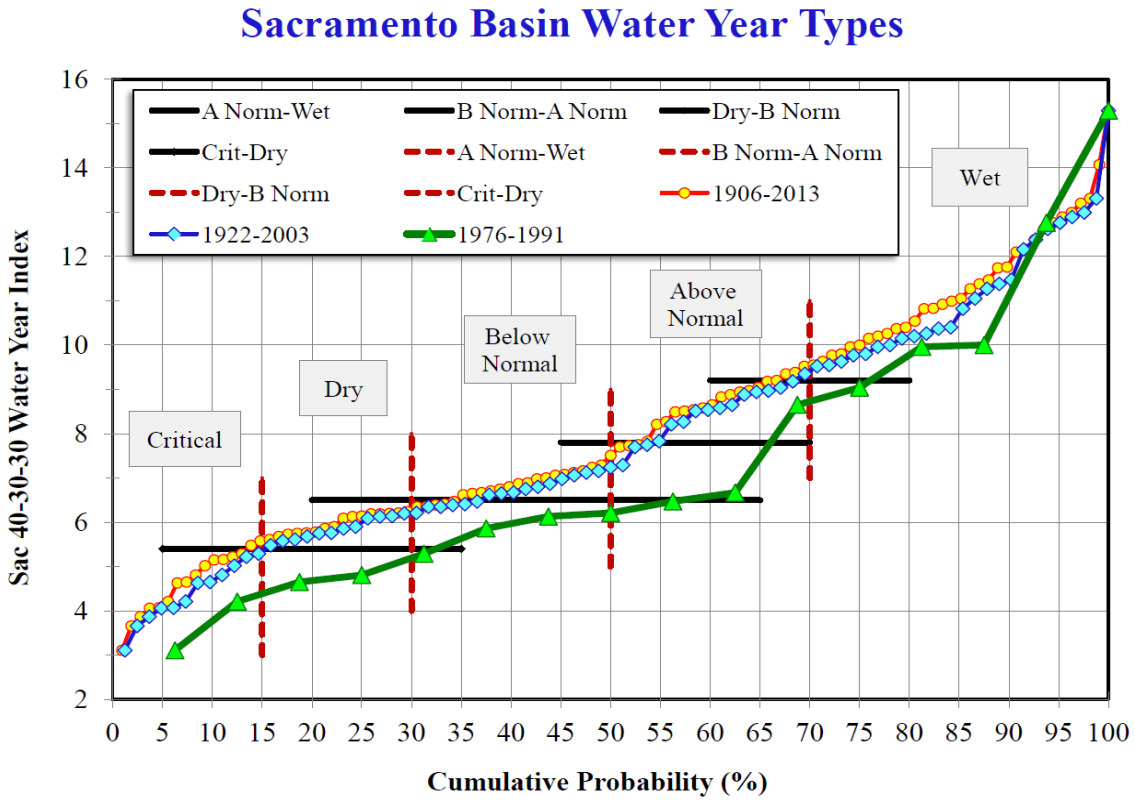
The DEIR/EIS's analysis of environmental impacts of the BDCP must be revised to include separate modeling simulations and analyses for: (a) just new conveyance, (b) just new habitat, and (c) just new storage, so that the separate impacts of each action is fully disclosed and mitigated.

The analysis of water quality impacts in the DEIR/EIS is also flawed 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 pp. 5A-A15 & 5A-A40). The Sacramento inflows are input as daily data but the exports are still monthly-averages, which implies an equal export quantity for each day of a given month. In months where a storm occurs late in the month, this disaggregation process can create unrealistic negative daily flows at the beginning of the month and cause unrealistically large spikes in salinity that often exceed D-6141 standards. The BDCP water quality modeling must be revised using either all daily data as inputs, which is the preferable method, or all monthly data.

The daily specific conductance (EC) data for the No Project Alternative in early November 1981 at Jersey Point and Rock Slough is a good example of this flaw, where the EC at Rock Slough spikes up to 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 baseline and the proposed project or to the project alternatives invalid. This also distorts the potential impacts on water quality, Delta water users, and fish.

In the information presented on pages 8-8 and 8-9 of the DEIR/EIS regarding the Sacramento River Watershed, it should be noted 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. (DEIR/EIS, p. 8-10.)

The DEIR/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 to 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 following graph. More than 50% of the years from 1976-1991 are either critical or dry, compared to only 35% for the full historical record.



Appendix 5A of the DEIR/EIS 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 at page 5A-D208 states, "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 project 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 (p. 8-135), 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 of the proposed project, it is important that water quality be evaluated over a much longer period, preferably for at least 82 and extending through 2013 rather than just through 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.

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), salinity in the Delta during the fall has increased in since 1994. This increase is due primarily to a shift in export operations away from the spring, to protect fish, to 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.

Section 8.2.1.4 of the DEIR/EIS must be revised to fully disclose the effects of project operations on Delta water quality in the last 20 to 30 years, and the subsequent adverse impacts on fish species. The DEIR/EIS, as well as 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 increase exports in July and August to meet demand. The DEIR/EIS must fully analyze and disclose future impacts of not setting protective fish terms and conditions for July and August.

As mentioned at page 8-129 of the DEIR/EIS, changes in Delta water quality can also be attributable to non-construction related actions associated with implementation of conservation measures CM2 through CM22. The DEIR/EIS is inadequate because it fails to assess the effects of implementing CM2 through CM22 quantitatively. (See DEIR/EIS, p. 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 and, like the significant adverse water quality impacts due to operation of CM1 and construction activities—impacts such as total and dissolved organic carbon, as well as methyl mercury—must be identified, quantified, and mitigated.

The DEIR/EIS, at page 8-157, states as follows: "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 leads 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.

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 baseline case 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 DEIR/EIS, baseline or with-project cases that exceed SWRCB standards are not valid, and considering them in a comparative mode is still not valid. It is important that the DEIR/EIS modeling be accurate in a predictive

mode, both to assess project impacts accurately and to ensure the water supply benefits of the BDCP project are not exaggerated by the modeling.

Because the BDCP modeling estimates that SWRCB water quality standards are being exceeded in the baseline case, and even more so in the with-project scenarios, the salinity-outflow algorithm in CALSIM II appears to be underestimating how much Delta outflow and export reductions are needed to meet these standards. 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.

The DEIR/EIS states, at page 187, that chloride concentrations at Vernalis are inversely correlated to net river flow and the dilution provided by that flow. This is correct only in general terms. 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.

The DEIR/EIS's description of Alternative 1 impacts on water quality describes the adverse impacts on bromide, chloride, EC, and dissolved organic carbon as significant and unavoidable. (DEIR/EIS, pp. 8-238, 8-246, 8-255, & 8-270.) Similar findings are made for the other BDCP alternatives. Several water quality mitigation measures are proffered, including WQ-5, WQ-7, WQ-11, and WQ-18) but concern is expressed in the DEIR/EIS as to each of these mitigation measures that "the effectiveness of this mitigation measure to result in feasible measures for reducing water quality effects is uncertain." The proposed mitigation measures are therefore inadequate for eliminating adverse water quality impacts caused by the BDCP project on 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 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. The DEIR/EIS is inadequate because it fails to identify mitigation measures that would eliminate adverse water quality impacts. A number of Bay-Delta stakeholders have recommended alternatives to the BDCP project that would reduce water demands from the Delta, add new storage, increase Delta outflows, or comply with the original BDCP Planning "big

gulp, little sip" 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.

The EIR/EIS acknowledges, at page 8-441, that it is uncertain whether "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 [the proposed project]." Similar statements are made throughout Chapter 8 with respect to the BDCP alternatives. The DEIR/EIS therefore proposes a series of phased actions to merely identify possible actions to reduce but not eliminate EC and other salinity impacts on Delta beneficial uses. These adverse impacts would be caused by the new conveyance facilities operations under CM1 and hydrodynamic effects of tidal restoration under CM4.

CEQA Guidelines section 15126.4, subdivision (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 commit to increasing Delta outflows to eliminate adverse water quality impacts, until actions under Mitigation Measure WQ-11 are identified and fully implemented. DWR is currently studying the North of Delta Offstream Storage Project (aka Sites Reservoir) and recently released a Preliminary Administrative Draft Environmental Impact Report. 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, DWR also has a responsibility not only to avoid degrading Delta water quality, but 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, to 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 could be used as benchmark historical conditions. 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 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.

Following commencement of initial operations of the new intakes and conveyance system, the BDCP proponents propose to conduct additional evaluations, and to develop additional modeling, to determine whether modified operations could reduce or eliminate the significant adverse water quality impacts of the BDCP project. (DEIR/EIS, p. 8-441.) 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 SWRCB D-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 legally binding and effective mitigation measures must be developed.

The DEIR/EIS is inadequate because it fails to disclose the significant adverse impacts of the BDCP project and alternatives on salinity (as represented by electrical conductivity, EC) in the agricultural areas of Solano County near Barker Slough. Appendix 8H of the DEIR/EIS does not present any EC data for the Barker Slough area. However, chloride data for Barker Slough are presented in Tables CL-27 and CL-28 of Appendix 8G for the proposed project (Alternative 4). The chloride data suggest the normally low salinity water presently available to farmers in the area of the North Delta west of the Sacramento River could increase in salinity as much as 73% with the proposed project. The changes in salinity in the Barker Slough region are almost entirely due to the north Delta intake operations, not sea level rise. Degradation of the water supply available to farmers in Solano County will have significant adverse impacts on crop production and the economics of this region.

As shown in Attachment B to this comment letter, the BDCP project will result in significant adverse impacts to the salinity of the water supply of North Delta farmers. The DEIR/EIS must include a detailed analysis of the impacts of both water quality degradation, and conversion of Solano County farmland to habitat, and disclose and mitigate those impacts.

In Appendix 3-B, at page 3B-42, 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 measures, is certainly warranted given that 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's Discussion of Impacts to Fish and Aquatic Resources and Recommended Mitigations (Chapter 11) is Inadequate

The original basis for the Bay-Delta Conservation Plan was to obtain regulatory assurance for 50 years for operation of the CVP and SWP in the Delta and to improve 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 BDCP's 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, by reducing flows in the Sacramento River below the new intakes, the BDCP's proposed North Delta intakes will reduce the survival of anadromous fish heading to and from the ocean, will change the olfactory cues used by the salmon to return to their native spawning grounds, and will increase predation. (See, e.g., BDCP pp. 3.2-8, 5.5.3-32, & 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. (BDCP, p. 5.5.2-24). However, the BDCP is:

- 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, p. 3-32.)
- Not planning on screening the intake to the Forebay, even though DWR's November 2009 Conceptual Engineering Report – Through-Delta Facility Conveyance Option, in Figure 7-5, contains examples of how this could feasibly be done.
- Proposing to make reverse flows (OMR) worse at certain times of the year relative to existing conditions.
- Proposing to continue using 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

The DEIR/EIS, at page 11-58, states, "While operation of the 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 Diversion 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 established minimum flow requirements and Delta outflow requirements are higher than needed to sustain fish populations, these can be reduced through adaptive management. The DEIR/EIS must be revised to include higher minimum flow requirements that account for the acknowledged uncertainty over the adverse impacts of the NDD intake.

The DEIR/EIS, at page 11-1533, makes the following four statements:

> "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."
>
> "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."
>
> "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. … The overall magnitude of each of these factors and how they might interact and/or offset each other in affecting salmonid survival through the plan area is uncertain, and remains an area of active investigation for the BDCP."
>
> "However, until these [modeling] 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 these uncertainties over the adverse impacts of the NDD intakes.

The DEIR/EIS, at page 11-1549, 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 uncertainty.

The DEIR/EIS's Discussion of Impacts to Agriculture and Recommended Mitigations (Chapter 14) is Inadequate

The DEIR/EIS has not evaluated the impacts to agriculture caused by construction activities related to CMs 2–22. Because of the large scale of these operations and the extended duration of the habitat restoration activities, they could have significant and

long-lasting impacts on agricultural operations. The DEIR/EIS must evaluate these types of impacts. The proposed mitigation measures included in the DEIR/EIS only address the permanent conversion of agricultural land to habitat. They do not address the impacts to agricultural operations during the extended (10 to 12-year) construction period, which could increase costs of production and transport of commodities to market. The DEIR/EIS must recommend mitigation measures to address adverse impacts to agricultural and other business operations due to construction activities related to any of the CMs.

In evaluating the significance of the project's impacts on agriculture, the DEIR/EIS must account for the fact that costs of agricultural production could increase on an ongoing basis during the operation of the proposed project due to implementation of various CMs and related activities, which may impose new restrictions and/or requirements on farming operations in order to ensure the effectiveness of CMs. For example, if farmers and/or irrigation water purveyors are required to install and maintain fish screens on existing surface water intakes under CM-21, this would impose up-front costs and ongoing maintenance costs. Similarly, farmers may be required to change their production practices in order to prevent impacts to protected species on adjacent lands that are restored for habitat purposes. Although the concept of "safe harbor" for existing agricultural practices has been referenced in the BDCP, the County and local agricultural stakeholders have grave concerns about the enforceability of safe harbor provisions. The DEIR/EIS must provide an assessment of the potential costs to agricultural operations arising from each of the CMs and recommend appropriate and adequate mitigations to ensure that farmers are compensated for increased costs. If existing agriculture in portions of Solano County is rendered economically infeasible as a result of the BDCP project, this will be a significant change to the physical environment caused by the project.

The DEIR/EIS does not provide an assessment of how increased salinity in Delta water could affect farming operations that are not directly affected by habitat restoration. Impacts could include, but are not limited to, impacts to intakes (consolidation and other infrastructure changes), reduced yields from crops irrigated with water that has increased salinity and/or increased costs of production for farmers who are forced to pump groundwater as a substitute for surface water that has excessive salinity levels, and resultant increases in costs and regulation relative to point and non-point discharges. The DEIR/EIS must analyze the potential impact of increased salinity levels within the Delta waterways and groundwater on farming operations and identify appropriate mitigations to address such impacts.

In evaluating the significance of the project's impacts to agriculture, the DEIR/EIS should address the effect that uncertainty about the plans for habitat acquisition can have on farmers' investment decisions and the ability of property owners and

businesses to obtain financing for improvements and operations. Such uncertainty has the potential to cause disinvestment and lack of maintenance, which in turn can indirectly cause a variety of environmental impacts. The DEIR/EIS should identify appropriate mitigations to address such impacts.

The impacts to agriculture of habitat conversion in adjoining areas present issues of harborage of invasive species that are inadequately addressed in the CMs. Macro fauna proliferation and weed pests can spread to adjoining agriculture causing economic losses to growers. Examples of the effects of invasive species include:

- Blackbird consumption of Sunflowers
- Coyote predation on Lambs
- Beaver lodges impairing agricultural drains
- Johnsongrass and nutsedge propagules carried out to row crops.

The introduction of new invasive species to the Delta is inadequately addressed in the DEIR/EIS. The analysis of invasive species impacts in the document over emphasizes species that impair water conveyance (Quagga and Zebra Mussels) and under emphasizes species that adversely impact agriculture and the environment. Pest Exclusion and Pest Detection programs that prevent the introduction of important invasive pests are not adequately discussed. These programs to prevent the introduction and establishment of new invasives are far more cost effective than eradication post introduction. Invasives that would negatively impact agriculture, fisheries, and the environment include the submersed aquatic weed Hydrilla, the predatory fish Alligator Gar and Northern Pike, riparian weeds such as Red Sesbania and Purple Loosestrife, and floating aquatic weeds such as exotic Spongeworts. These pests are interdicted through the collaboration of the State Border Station network and the County Agricultural Commissioners. Agricultural Commissioners also perform pest exclusion inspections on arriving nursery stock and at package receiving terminals. To adequately protect the Delta from invasive species, High Risk Exclusion funding for Agricultural Commissioners in Delta counties should be restored to full program levels.

Economic impacts from Delta land conversion should consider the opportunity costs of growing high value crops historically cultivated in the Delta. In the past, Liberty Island has produced market peas, asparagus, sugar beets, and other crops that greatly out value recent production. Despite recent changes in crop being grown, the productive capacity, soils, and water availability have not changed. In addition, orchard and vine crops are emerging in importance regionally and the opportunity to plant these should be considered in the analysis.

In Section 14.3.4.1 at page 14-191, the DEIR/EIS asserts that the future of agriculture in the Delta area is uncertain, citing subsidence, levee breaches, and climate change as causes. This assertion is unfounded and exaggerated; agriculture has flourished in this area for well over a hundred years, with most areas unaffected by earthquake, levee break, or flood. The more troubling aspect of this assertion and Section 14.3.4.1 as a whole, however, is its singular focus on the Delta Region and blind eye toward the export service areas, even though both areas plus the upstream watershed is acknowledge in section 1.5 to comprise the EIR/EIS Project Area. A more appropriate examination in Section 14.3.4.1 and elsewhere in Chapter 14 would be the effects of the project and cumulative effects on agriculture in all three portions of the Project Area. For example, the DEIR/EIS should address the future of agriculture in the export service areas, including cumulative effects of toxic soils, lack of adequate drainage, groundwater overdraft, subsidence, increasing drought due to climate change and other causes, and junior water rights. For example, the recent decision in *North Coast Rivers Alliance v. Westlands Water Dist.* (7/3/2014) xxx Cal.App.4th xxx, which discusses the existing drainage problems in the export service areas that will not be improved, and will likely be exacerbated, by the proposed project. Due to these factors, the future of agriculture in export service area is uncertain at best, even if the proposed project is built and lives up to its promises.

The DEIR/EIS's Discussion of Impacts to Recreation and Recommended Mitigations (Chapter 15) is Inadequate

In evaluating the impacts of the BDCP project to recreation, the DEIR/EIS must acknowledge that Delta recreational fishing is a major activity and economic driver that is dependent upon maintaining freshwater in the Delta. The DEIR/EIS must analyze the potential effects of the proposed project and project alternatives on recreational fishing, including potential economic losses due to reductions in fishing activities. The DEIR/EIS must also include mitigations to address such impacts and evaluate the adequacy of the recommended mitigation measures.

The DEIR/EIS must also acknowledge that hunting is a major activity and economic driver that occurs on private and public land within the Delta, and that hunting could be displaced by habitat restoration activities. The DEIR/EIS must analyze the potential effects of the proposed project and project alternatives on hunting, including potential economic losses due to reductions in hunting activities to the extent economic losses affect the significance of the effect. The DEIR/EIS must include mitigations to address all such impacts that are determined to be significant.

The DEIR/EIS's Discussion of Socioeconomic Impacts and Recommended Mitigations (Chapter 16) is Inadequate

Chapter 16 of the DEIR/EIS should acknowledge the many environmental and regulatory restrictions that make it very difficult for Delta communities to adapt to changes in the environment and the economy, and how this can affect the significance of impacts of the proposed project and alternatives. For example, land use and building regulations in the Delta Primary Zone will make it very difficult for businesses, residents, and property owners to make physical changes in order to minimize negative impacts or to take advantage of potential new economic opportunities that may arise. The DEIR/EIS analysis of impacts and proposed mitigation measures should be augmented and revised to acknowledge the challenges to adaptation in the Delta.

Table 16-6 shows generally low housing vacancy rates in Delta communities (except Isleton, which is very small). The DEIR/EIS must identify housing demand created by the proposed construction project and recommend mitigations to address impacts on housing demand from construction and O&M work and possible displacement of existing Delta residents and workforce from available housing stock due to increased competition for a limited supply of housing in the Delta. The DEIR/EIS must also include analysis of the potential disparate impacts and social justice issues related to the impacts of proposed project and alternatives on farmworkers and other lower-income households due to displacement from existing housing in the Delta. The DEIR/EIS must acknowledge that commuting long distances to workplaces in the Delta is not an option for many lower-income employees, and commuting is made difficult by lack of public transit service to worksites in rural areas.

In Section 16.1.1.6, the DEIR/EIS must acknowledge the special role that Reclamation Districts provide in the Delta and their dependence on property assessments for operating revenue. The DEIR/EIS must also acknowledge the other types of local government agencies located in the Delta, such as fire protection districts, that are dependent upon receiving a share of property taxes that are collected on property within the Delta in order to maintain important public services.

Section 16.2.3.4 makes only limited reference to relevant portions of the Solano County General Plan. This discussion needs to be augmented to acknowledge the goals and policies of the Agriculture and Economic Development chapters of the General Plan that influence socioeconomic forces by seeking to preserve agricultural lands for agricultural uses in the unincorporated area of Solano County, in particular goals AR.G-1 [support the critical role of all agricultural lands], AR.G-2 [protect agricultural lands as an irreplaceable resource], AR.G-3 [support the ability of farmers to earn sufficient income], AR.G-5 [reduce conflict between agriculture and non-agricultural uses], AR.G-6 [sustain

agricultural water resources], ED.G-1 [maintain and improve the County's diversified economic base], and ED.G-6 [preserve and expand the County's agricultural base].

Section 16.3 states that nine of the CMs are not anticipated to result in any socioeconomic impacts. The DEIR/EIS should provide an analysis of the individual CMs to justify this conclusion. The unsupported aggregate conclusion stated in the DEIR/EIS is particularly suspect, given that many of the CMs are described only conceptually or programmatically at this point, with many small and large details left to be developed over time through adaptive management or as other new information becomes available.

Section 16.3.1 assumes an 8-year construction period, which is not reasonable for a project of this complexity. At the minimum, the DEIR/EIS must acknowledge that habitat restoration construction activities are likely to extend over multiple decades and provide an analysis of the potential socio-economic impacts due to implementation activities occurring over this extended time period.

Section 16.3.1.1 focuses only on those communities in the Statutory Delta where direct effects of the BDCP project would occur and where social and community effects would be greatest. The DEIR/EIS anticipates that social and community effects elsewhere in the larger five-county Delta region would be minor because they would be spread over a large, heavily populated area and among many communities. This obscures the impacts of the project on Solano County as a whole. The DEIR/EIS should be augmented to provide meaningful analysis of the potential impacts of the proposed project and all alternatives at the level of individual communities within the Delta, impacts on Solano County as a whole, and impacts within the larger five-county region as a whole. Further, the DEIR/EIS should be augmented to identify the cumulative impacts of proposed actions throughout the five-county region.

The economic analysis used to support Chapter 16 in the DEIR/EIS should acknowledge the interdependencies between communities throughout the region. An element of the BDCP project that has direct impact in one location of the Delta may have indirect impacts elsewhere in the Delta, and contribute to cumulative impacts throughout the Delta. While conversion of agricultural land in Solano County will certainly have an impact on other businesses in Solano County, conversion of agricultural land outside of the County can also affect Solano County businesses. If agricultural support businesses located in other counties that serve Solano County agriculture are adversely affected by loss of agriculture anywhere in the Delta, this can affect viability of Solano County agricultural production. These types of concerns and issues should be acknowledged and analyzed in the DEIR/EIS, and appropriate mitigations should be incorporated into the proposed project.

Section 16.3.1.2 states that "changes in employment and income associated with potential abandonment of existing natural gas wells in the study area were not estimated using a regional IMPLAN model because employment effects are anticipated to be very small." The DEIR/EIS should provide analysis rather than assumptions regarding these impacts in order to justify conclusion presented. The analysis should recognize that while employment impacts may be relatively small, effects on income to owners may be significant.

Section 16.3.2 states that "a concentrated, substantial increase in population or new housing associated with BDCP activities would constitute an adverse socioeconomic effect." The DEIR/EIS should also acknowledge that an adverse effect could occur if there are changes in demand that are not addressed via changes in availability of housing. Mitigations measures should be developed to address such impacts.

Section 16.3.2.1 states in conclusory fashion that changes in population and housing are anticipated to be minor, and that effects are anticipated to be dispersed throughout the region. This obscures the potentially significant impacts within small Delta communities. What will happen if competition for employees creates shortages of workers for Delta businesses? What will happen if demand for housing related to the BDCP project results in displacement of the Delta resident labor force, which is necessary for the continued viability of Delta farming and other businesses? The DEIR/EIS must acknowledge that the proposed project may have severe, localized impacts within the Delta.

Section 16.1.1.6 does not adequately acknowledge the economic importance of recreation and tourism to the Delta economy and how existing activities would be affected by the proposed project, especially CMs 2–22. For example, the DEIR/EIS does not acknowledge the economic contributions of hunting as a recreational activity in the Delta. Habitat restoration activities can displace commercial hunting operations as well as non-commercial hunting activity on land currently used for agriculture or other activities. Displacement of this activity can reduce Delta visitation and the associated spending within the local economy. The DEIR/EIS should acknowledge the importance of recreation and tourism and the potential adverse impacts from implementation of the proposed project.

Section 16.3.2 states that "an adverse socioeconomic effect would result if a BDCP activity led to a reduction in local government revenue. A beneficial socioeconomic effect would result if a BDCP activity led to an increase in local government revenue." The EIR/EIS should acknowledge that an adverse socioeconomic effect would also result if a BDCP activity led to an increase in local government costs. For example, many roads in the Delta were not built to withstand the wear from heavy truck and equipment use. Use of such vehicles in conjunction with construction and maintenance

related to any of the CMs could cause extraordinary wear and tear on the roads, which could create the need for increased maintenance expenditures. Similarly, if more people are attracted to the Delta region due to increased activity related to construction and maintenance of the CMs, this could result in increased calls for service to local public safety departments and agencies. The DEIR/EIS should analyze the potential for the proposed project and alternatives to create increased costs for local government agencies.

Section 16.3.3 considers only the economic impacts of loss of agricultural production due to CM-1, and ignores the much greater impacts from conversion of agricultural land for other CMs that involve habitat restoration. As a result, the DEIR/EIS significantly understates the impacts on the local economy from the proposed project and alternatives. The DEIR/EIS must acknowledge and analyze the economic impacts due to conversion of agricultural land as a result of implementing other CMs. Similarly, the DEIR/EIS must acknowledge and analyze the economic losses from displacement of recreational fishing and hunting activities as the direct or indirect result of implementation of the various CMs.

The DEIR/EIS approaches the evaluation of the socio-economic impacts of the various project alternatives by utilizing a standardized set of impacts, labeled ECON-1, ECON-2, ECON-3, etc. For a given socio-economic impact, such as ECON-1, the analytical approach is similar for all of the alternatives; thus the comments on the socioeconomic impact analysis that follow are keyed to the different socio-economic impacts, and generally apply to the analysis contained in the EIR/EIS for all alternatives.

- The DEIR/EIS should provide an analysis of the effect of each CM that is specifically tailored to each individual alternative considered in the EIR. For the most part, the Chapter 16 analysis of impacts for different alternatives mentions only a few of the CMs and completely ignores most of the CMs and their potential impacts. The DEIR/EIS should be modified to correct this. Greater transparency of how conclusions were drawn that certain CMs would have no socio-economic impacts in relation to individual alternatives is necessary. Without such analysis, it is impossible for the reader to have a meaningful understanding of how various aspects of the proposed project could affect local communities.

- Evaluation of alternatives with regard to Impact ECON-1 should be augmented to include analysis of how the increase in job opportunities due to the proposed project may affect Delta businesses that will face increased competition for labor. It is likely that many construction workers could be paid wages that are high relative to the wages of existing Delta residents and workers, which could mean that Delta businesses would face increased competition for labor to sustain Delta businesses. For example, discussion at lines 1-8 of page 16-55 indicates that

peak construction employment impacts could be as high as 12,716 FTE, which would have a significant impact within the context of the existing Delta labor pool.

- The evaluation of alternatives in relation to ECON-2 (housing) has not provided any analysis of how the surge in employment could affect the balance of supply and demand for housing in the Delta, and has instead obscured the impacts with comparison to the population in the five-county region as a whole. The DEIR/EIS must discuss how increased housing demand due to project employment could affect Delta housing prices and availability, particularly given the constraints to production of new housing in the Delta. It is likely that many construction workers could be paid wages that are high relative to the wages of existing Delta residents and workers, which could mean that long-time residents are displaced, which would have an adverse effect on the availability of labor to sustain Delta businesses. The DEIR/EIS should be amended to acknowledge the severe local impacts that could occur under the different alternatives, due to a combination of loss of existing housing and increase in demand for housing due to an influx of workers, many of whom will prefer to live near their worksites, either on a temporary or semi-permanent basis, given the extended construction time-frame for the proposed project and the environmental and regulatory constraints on production of new housing within the Delta.

- The evaluation of alternatives in relation to ECON-4 (local government fiscal impacts) has not provided any assessment of the potential increases in demand for public services and/or increases in costs to provide public services within the Delta due to the proposed project. The DEIR/EIS should evaluate potential adverse impacts due to increased public service costs from issues such, but not limited to, increased roadway maintenance costs, and increased demand for public safety services due to increased presence of human activity in the region.

- The discussion in Section 16.3.3 suggests that Delta communities could grow and take advantage of new economic activity created by the project; however, this does not acknowledge the severe constraints on growth within the Delta, both natural and regulatory, and thus overstates any beneficial economic impacts that might otherwise occur. This section also asserts that the project would generate a beneficial effect from increased sales tax revenues for local government entities to offset losses. In order to state this conclusion, the DEIR/EIS must provide substantiation for it.

- Section 16.3.3 states, in several places, “When required, DWR would provide compensation to property owners for economic losses due to implementation of the alternative.” (E.g., DEIR/EIS, p. 16-63, lines 26-28.) For all alternatives, the DEIR/EIS should expand upon this statement to identify or define when

payments would be required. In addition, the DEIR/EIS should acknowledge that business owners and residential tenants (e.g., lessees of affected property), in addition to property owners, must be compensated for economic losses caused by the project. The DEIR/EIS should also acknowledge the potential need for the project proponents to acquire property needed for mitigation through eminent domain proceedings, if sufficient land required for CMs/mitigation cannot be obtained from willing sellers, and how properties to be acquired through use of eminent domain will be selected.

- Impacts ECON-6 and ECON-7 consider the loss of economic activity during construction and operation of the proposed water conveyance activities. The DEIR/EIS must evaluate the loss of economic activity due to loss of agricultural production. Impact analysis relating to ECON-6 and ECON-7 must also address the issue of increased costs for agricultural production and the need for compensation to farmers due to new restrictions and/or requirements that arise as a result of implementation of the water conveyance facilities.

- Impact ECON-8 acknowledges that the alternatives would generate new employees for O&M of the water conveyance facilities; however, it obscures the impact of increased demand for housing that this would create in the Delta and does not consider that the Delta land use policies will make new housing construction very difficult. The DEIR/EIS should analyze the localized effects of increased housing demand and how that would affect housing and labor availability for existing Delta residents and businesses, respectively, for all of the alternatives.

- Impact ECON-10 considers changes to local government fiscal conditions due to O&M of the water conveyance facilities. The DEIR/EIS analysis relating to ECON-10 must be broadened to consider impacts to local government fiscal conditions resulting from implementation of CMs 2 through 22, in addition to the water conveyance facilities. As with ECON-4, the evaluation of impacts must consider not only changes in local government revenue, but changes in local government service costs, due to all CMs and for all alternatives.

- Evaluation of alternatives relative to Impact ECON-11 must consider not just effects on recreational economics during the O&M of the water conveyance facilities, but also during the ongoing O&M of all other CMs and for all alternatives.

- The evaluation of alternatives relative to Impact ECON-12 is limited to permanent effects on agricultural economics from loss of land in agricultural production due to the water conveyance activities. This assessment must be expanded to

evaluate the impacts on agricultural economics from any increased costs of production for remaining agricultural operations that may be caused by the water conveyance activities, such as, but not limited to, effects on Delta agriculture due to increased salinity of surface water and ground water due to water diversions. This potentially affects use of water for livestock as well as for irrigation.

- Impact ECON-13 is defined as effects on the Delta Region's economy and employment due to the implementation of the proposed CMs 2 through 22; however, the analysis of alternatives in relation to this impact is extremely limited. For example, for Alternative 4, the DEIR/EIS evaluates only the loss of agricultural employment related to implementation of CM-2 in a limited area in Yolo County, and only evaluates the potential losses of employment from abandonment of natural gas wells related to implementation of CMs 4, 5, and 10. This limited discussion is inadequate to provide a meaningful examination of the potential impacts of all of the other CMs not mentioned, and all of the other possible effects of the CMs throughout the affected areas. The DEIR/EIS must carefully evaluate the potential to impact the Delta Region economy due to changes that could occur throughout the region, due to any of the CMs, and consider all economic sectors instead of just the limited slice of the economy such as that examined for Alterative 4.

- Analysis of alternatives relative to Impact ECON-16, changes in local government fiscal conditions as a result of implementing the proposed CMs 2 through 22 must be expanded to include not just changes in revenue, but also changes in service costs.

- Analysis of alternatives in relation to Impact ECON-17 states, "Beneficial recreational effects would generally result during later states of the BDCP permit period as Conservation Measure 2-22 are implemented and environmental conditions supporting recreational activities are enhanced. These effects could improve the quality of recreational experiences, leading to increased economic activities related to recreation, particularly in areas where conservation measure implementation would create new recreational opportunities." The DEIR/EIS analysis for alternatives should clarify the beneficial effects on recreation, and specifically identify how implementation of CMs could expand and ensure public recreational access in the Delta and specifically how the Delta can accommodate increased economic activities related to recreation, acknowledging the significant constraints placed on new development within the Delta by environmental and land use regulations.

- Analysis of alternatives relating to Impact ECON-18, effects on agricultural economics in the Delta Region as a result of implementing the proposed CM 2

through 22, state that BDCP proponents would provide compensation to property owners for losses due to implementation of the project. This should be expanded to include business owners and residents who may be displaced or adversely affected. The analysis of the project and alternatives should also define when and how compensation will be required, to provide a clear commitment as to circumstances when mitigation will be provided and how the appropriate compensation will be determined. The analysis of the project and all alternatives relating to ECON-18 should be expanded to provide a thorough analysis of the impacts of all CMs on agricultural economics. For example, the analysis for Alternative 4 provides only limited discussion of the impacts from CM-2. Also, in addition to direct effects, the analysis should consider the cumulative effects within the Delta from reductions in agricultural production and the larger surrounding region, recognizing that the loss of agricultural production in the Delta may lead to a loss of critical mass of agricultural activity to support key agricultural support businesses, such as suppliers and services, which could jeopardize the viability of other agricultural operations remaining in the Delta and/or outside the Delta.

The heavy reliance on Mitigation Measure AG-1, the Agricultural Land Stewardship Program, in Chapter 16 and elsewhere in the DEIR/EIS, is a major flaw of the BDCP and the DEIR/EIS. This mitigation program lacks any meaningful description of what it would do, how it would be managed, and how it would be funded, to the point that it is impossible for anyone to make a reasonable judgment as to its potential appropriateness and effectiveness in mitigating the impacts for which it is intended. The DEIR/EIS must provide a detailed and meaningful description of Mitigation Measure AG-1 and its potential effectiveness at addressing the types of impacts for which it is being proposed at mitigation. Conceptual mitigation without specific and clearly attainable performance standards is inadequate.

The BDCP will have many localized effects which will be specific to individual communities within the Delta. It is simply not possible for the DEIR/EIS to precisely forecast all of the potential impacts from a project of this geographic magnitude and 50-year duration, and therefore, it will be critical that the BDCP include mechanisms for local governments and their affected stakeholders to have flexibility to make decisions about how best to mitigate unforeseen impacts. The BDCP should incorporate provisions to establish “Community Mitigation Funds” for this purpose, to give local decision-makers the ability to direct funds to address local needs. “Adaptive management” as defined in the DRA can be an appropriate mitigation technique for a variety of project impacts besides impacts to biological resources.

The DEIR/EIS must include mitigation measures to address the impact of “temporary” housing demand that will bring thousands of workers into the Delta over a decade-long

construction project. The DEIR/EIS must discuss how this housing demand will affect the limited availability of housing within the Delta communities. Mitigation measures must be recommended to address how existing Delta businesses will be affected if increased competition for the available housing supply displaces their workers from their homes. Lack of local housing availability will create a major challenge to employee recruitment and retention, and mitigation measures should address this concern. Mitigation measures should incorporate housing strategies to address temporary housing demand and prevent dislocation of existing residents and workforce supporting other Delta industry.

The DEIR/EIS must include mitigation measures to address the impact of the project on competition for the Delta's limited labor force. Mitigation measures should address the fact that employment opportunities related to the construction of the proposed project might prove attractive to workers currently employed in existing Delta businesses, in which case, Delta businesses may face a combination of worker shortages and/or the need to increase wages in order to retain and recruit employees. Mitigation measures should address the potential adverse impacts on the economic viability of Delta businesses from this competition for labor.

The DEIR/EIS suggests that the project will make payments in lieu of taxes to compensate local governments for lost revenues as a result of habitat conversions that take property off the tax rolls. Solano County and other local agencies have grave concerns about the reliability of any such mechanism. Historically, payments in lieu of taxes promised by the State have been subject to appropriations by the State Legislature. In order for payments in lieu of taxes to be reliable mitigations for lost revenues, the BDCP must incorporate enforceable mechanisms to ensure that these payments are sufficient and are made consistently. In addition, such mitigation measures must not involve payments that are fixed in their amount based on current costs. Rather, the mitigation mechanisms must allow for increased payments, to keep pace with increases in costs over time, at least extending over the BDCP's 50-year permit period.

The DEIR/EIS asserts that local governments in the Delta will benefit from increased local sales tax revenues, due to the proposed project. In order to ensure that such benefits will be realized, a mitigation measure should be incorporated to ensure that Delta communities will be recorded as the point of sale for these projected sales transactions.

The DEIR/EIS acknowledges that costs of agricultural production could increase for farmers not directly affected by the project, due to construction delays and other indirect impacts. (E.g., DEIR, p. 16-62). As described above, the project's impacts on the agricultural environment could be significant due to these types of increased costs. The

DEIR/EIS must incorporate a mitigation mechanism to compensate farmers for these types of impacts.

The DEIR/EIS asserts that Delta communities can benefit from increased public recreational access and use in the Delta. The DEIR/EIS must include mitigation measures that will ensure increased public recreational access and use in the Delta. Additional mitigation measures must also be incorporated to address the need for new or expanded business activity in the Delta to accommodate the spending of new recreational visitors within the local economy.

The DEIR/EIS must recommend measures to mitigate for impacts to water quality and water availability for non-project water intakes and groundwater supplies within the Delta. Mitigation must include compensation for increased costs of water due to the need for capital improvements, increased operating costs, and increased costs from switching from relatively lower-cost water supplies, which are compromised by the proposed project and alternatives, to higher-cost water supplies. Mitigations should also include compensation for water conservation improvements that would help Delta residents, farmers, and other businesses cope with impaired water supplies.

Generally, Chapter 16 must be revised to provide more clarity on the types of financial mitigations that will be provided for socio-economic impacts, clarify thresholds for what will trigger implementation of financial mitigations, clarify who will be eligible to receive financial mitigations and how they will be calculated, and identify what mechanisms will be established to ensure the funding for these mitigations on a secure long-term basis. Eligibility for these mitigations should not be limited to property owners, but should also include residential and business tenants within the Delta who would be affected by proposed actions.

Uncertainty regarding the property to be acquired and the conditions under which land that is not acquired will continue to be farmed can have significant negative effects on the continued maintenance and investment in property within the Delta. The DEIR/EIS should incorporate mitigation measures that would help to reduce uncertainty wherever possible, and address the effects of uncertainty, to ensure that Delta property owners and business owners continue to maintain and invest in their property and establishments.

The DEIR/EIS's Discussion of Impacts to Air Quality and Greenhouse Gases and Recommended Mitigations (Chapter 22) is Inadequate

The DEIR/EIS, in discussing Impact AQ-2 at page 22-118, states, "As shown in Table 22-39, construction emissions would exceed SMAQMD's daily NOX threshold for all years between 2014 and 2019, even with implementation of environmental commitments (see Appendix 3B, Environmental Commitments). While equipment could operate at any work area identified for this alternative, the highest level of NOX emissions in the SMAQMD is expected to occur at those sites where the duration and intensity of construction activities would be greatest. This includes all intake and intake pumping plant sites along the west bank of the Sacramento River, as well as the intermediate pumping plant site on Ryer Island."

The BDCP West Alignment alternatives (1C, 2C, and 4C) involve construction of conveyance facilities through Solano County, including Ryer Island. 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 the Delta. An approximately 40-acre concrete plant and 2-acre fuel station is proposed along the canal alignment approximately 1 mile south of the SR 84/SR 220 junction on Ryer Island.

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 DERI/EIS must recommend, and the BDCP proponents must provide, mitigation for all adverse impacts including air-borne pollutants. The DEIR/EIS must be revised to recommend measures that would adequately mitigates the adverse impacts to residents of Solano County from air quality impacts caused by the construction of the intermediate pumping plant on Ryer Island and other similar facilities.

The DEIR/EIS's Discussion of Noise Impacts and Recommended Mitigations (Chapter 23) is Inadequate

The DEIR/EIS, in discussing Impact NOI-2 at page 23-73, states that pile driving at the intake sites for Alternative 1C and other western alignment alternatives will result in adverse ground borne vibration levels at residences nearest to the intake work areas. Construction of intakes and barge unloading facilities would also result in adverse excessive ground borne vibration levels at these nearby residential structures. The

DEIR/EIS identifies two residential parcels in Solano County that would be affected. (DEIR/EIS, Table 23-38.)

The DERI/EIS must recommend, and the BDCP proponents must provide, mitigation for these significant adverse impacts on Solano County residents. The BDCP proponents should meet with Solano County staff to discuss these impacts and develop adequate measures.

The DEIR/EIS's Discussion of Growth Inducing Impacts and Displaced Development (Chapter 30) is Inadequate

As discussed above, growth within the SWP and CVP export service areas due to additional water that would be made available to those areas through implementation of the BDCP project appears to be an objective of the project, and therefore must be evaluated as part of the project itself rather than a growth inducing impact of the project. However, to the extent growth facilitated by the availability of water supply is properly characterized as a project impact rather than objective and component of "the whole of the action," the discussion in Chapter 30 is inadequate because it addresses only the effects of growth being pulled toward the export service areas due to more water being available in those areas, and does not address the displace development effects of growth being pushed away from or precluded from occurring within the water export areas due to less water being available in those areas. The concept of displaced development was discussed by the California Supreme Court in *Muzzy Ranch Co. v. Solano County Airport Land Use Commission* (2007) 41 Cal.4th 372.

The fact that the BDCP is being proposed as a combined habitat conservation plan and water diversion project rather than water just a diversion project indicates that it is no longer possible to divert significant quantities of water for consumptive uses from the Delta or the upstream watershed without causing harm to listed species within the Delta. It is not certain whether the incidental take caused by the BDCP's proposed water diversions will be adequately minimized or mitigated through the conservation measures proposed to be implemented through the HCP/NCCP process, but it is virtually certain that if the BDCP project is approved, any further significant water diversions from the Delta or the upstream watershed would cause additional incidental take within the Delta that would be even more difficult to minimize or mitigate. To the extent the BDCP project causes less water to be available in the Delta and upstream watersheds to support growth and new consumptive uses, then growth that otherwise would have occurred within these areas will be displaced to other areas. Under these circumstances, the potential for displaced development away from the water export areas and its effects must be evaluated in the DEIR/EIS.

The DEIR/EIS Fails to Describe and Evaluate a Reasonable Range of Project Alternatives

Section 15126.6, subdivision (a), CEQA Guidelines provides that "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 DEIR/EIS does not describe an adequate range of project alternatives, in addition to the No Project Alternative, that would avoid or substantially less the significant adverse impacts of the proposed project. Instead, the DEIR/EIS describes and evaluates fourteen variation of one component of the overall BDCP project. The fourteen variations built on the North Delta intake theme are distinguished only 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 evaluated in the DEIR/EIS is a through-Delta/separate corridors alternative (i.e., no new North Delta intakes).

The DEIR/EIS does not analyze other alternative ways of achieving all or most of the stated project objectives, such as increasing storage upstream and/or downstream of the Delta, reducing demand through water use efficiency measures, development of new water through wastewater reuse, or upgrading to a screened intake to Clifton Court Forebay located on Victoria Canal.

One of the stated project objectives is to restore and protect the ability of the SWP and CVP system to deliver up to full contract amounts, when hydrologic conditions result in the availability of sufficient water. Unfortunately, the proposed BDCP project 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 Principles, the DEIR/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. 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. By not considering new storage, the proposed BDCP project is unable to capture surplus water in wetter months and reduce exports during drier periods. Therefore, the environmental analysis does not inform the public and cannot inform decision-makers on whether new North Delta intakes are the least environmentally damaging method to achieve all or most of the project objectives.

In particular, the Alternative 4 (proposed project), H1 Scenario (low outflow scenario), 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.

Chapter 3 of the DEIR/EIS describes various viable project alternatives that were suggested by stakeholders but were then dismissed by the project proponents because those alternatives either did not focus solely on new North Delta intakes and conveyance, or involved some uncertainties, but no more and often less than the alternatives that were retained.

The DEIR/EIS must be revised to describe and evaluate new alternatives based on the following principles inherent in the BDCP's stated project objectives:

- Increase the restrictions on exports from South Delta to protect fish from reverse flows and entrainment.
- Increase minimum Delta flow requirements to improve the aquatic ecosystem and improve water quality.
- Develop facilities to capture more water when it is surplus to the needs of the Delta and San Francisco Bay, including:
  - Additional diversion capacity;
  - Additional storage upstream of the Delta, south of the Delta, and possibly in the Delta; and
  - Consider intakes locations other than in the North Delta to provide physical assurances that water will be diverted only during high flow periods.
- Include other key actions to increase the reliability of California's water supply, including but not limited to:
  - Strengthening levees;
  - Increasing water use efficiency; and
  - Developing additional local sources of water.

This approach involves similar actions to the Portfolio Concept proposed by NRDC and others, but it places greater emphasis on meeting export water needs when surplus flow is available in the Delta, which will require investment in new storage. The original intent of the State Water Project was to export only water that is surplus to the needs of the Sacramento Valley and Delta. Project alternative that follow these principles would be consistent with the commitments made in the area of origin statutes and 1959 Delta

Protection Act, and their inclusion in the DEIR/EIS is necessary in order for that document to describe and evaluate a reasonable range of alternatives that would feasibly attain most of the basic objectives of the project but would substantially avoid or lessen any of the significant impacts of the project.

Specific Comments Regarding Chapter 7 of the BDCP and the Implementing Agreement

Many of the duties of the Program Manager detailed on page 7-5 of the BDCP will be modified by provisions in the subsequently-released Implementing Agreement ("IA"). Nevertheless, consideration should be given in the BDCP and the IA to the Implementing Agency and its Program Manager reporting to the POG, which would then interfaces with the AEG. On page 7-13 of the BDCP, the limited role of the POG—the only decision-making body without the contractors—becomes apparent. We suggest there should be a strong and independent entity comprised of scientists in the governance structure, which is absent here; the Science person in the Implementation Office would not be sufficient to fulfill this role. In addition, we ask that there be a high degree of collaboration with and peer review of AEG, POG, and particularly the AMT and Real-time Operations decisions with the larger scientific community. The governance structure should be thoroughly revamped to remove inherent conflicts of interest posed by the presence of the contractors, provide the POG with direct responsibility over AMT and Operations Team functions, and establish a strong role for agencies representing the impacted Delta region.

The Stakeholder Council, described on page 7-19 of the BDCP, is not proposed as a decision-making body; instead, the structure described in the BDCP requires the Stakeholder Council to report to the Implementation Office Program Manager, which in turn is distanced from decision bodies. Landowners, discussed on page 7-22, a limited to presenting their issues to the Program Manager and have no recourse to an actual decision body. Landowners should have the right to voice their concerns to the decision body in a public hearing process, either in the first instance or as part of an administrative appellate process.

In section 7.2.8 of the BDCP document, on page 7-26, there is a note indicating that an appropriate mechanism to involve Delta counties in Plan implementation will be identified and incorporated into the final BDCP document. The IA does not provide further information on these promised efforts. We expect that the public comment period on the BDCP and IA will be reopened once a mechanism is proposed to the Delta counties, which in turn may require recirculation of the DEIR/EIS.

Section 4.2.1 of the IA lists the various findings required of CDFW to approve the BDCP as a NCCP. Given the programmatic and experimental nature of the conservation measures, the uncertainties expressed in the BDCP document and the DEIR/EIS, and the use of the Decision Tree process to apply adaptive management, we question whether a finding of rough proportionality can be supported by the record. (See IA, section 11.1.1, p. 40.)

The second bullet point of Section 4.2.2 of the IA, at page 14, incorrectly tasks CDFW with determining that the final EIR/EIS complies with CEQA. The determination that a final EIR complies with CEQA is part of the EIR certification process. (CEQA Guidelines, § 15090, subd. (a).) For a state project such as the BDCP, the state lead agency has exclusive responsibility and authority for certifying that the final EIR has been completed in compliance with CEQA. (Pub. Res. Code, § 21100.) This responsibility cannot be delegated to a responsible agency such as CDFW, which is responsible only for determining whether the certified EIR is adequate for its own use. (CEQA Guidelines, § 15096, subd. (e).) The DRA makes certification of the final EIR a prerequisite for incorporation of the BDCP into the DP, but does not specify which agency is responsible for certifying the EIR and explicitly provides that nothing in the DRA affects any provision of CEQA. (Water Code, §§ 85320, subd. (b)(2), & 85032, subd. (f).) Therefore, the authority and responsibility for certifying the final EIR continues to reside with DWR despite what is said in the IA.

In Section 7.2, at page 16, the Fish and Wildlife Agencies are obligated to fund an unspecified portion of the Conservation Strategy. We question why these agencies should assume this obligation for two reasons: first, it obligates taxpayers statewide to pay for remediation of impacts to the Delta caused by past operations of the SWP and CVP systems rather than placing that tax burden on the contractor service areas that directly benefited from those operations; second, it represents a long-term funding commitment by public agencies that are subject to legislative oversight and an annual budget cycle. At a minimum, the IA must acknowledge that any State funding of either specific or yet-to-be-defined conservation measures will remain fully contingent on legislative appropriation throughout the full term of the NCCP.

There is an apparent conflict-of-interest in the governance structure proposed in the BDCP and the IA. The state and federal contractors, as applicants/permittees are on all but one of the decision bodies, and the IA requires their participation on the AEG. (IA, p. 15.) In addition, relative to the BDCP, the IA more clearly vests power in bodies on which the contractors sit. The IA allows Supporting Entities, which include the contractors, to use their respective authorities to implement aspects of the BDCP, further blurring the line between agency oversight and applicant/permittee interests. Conversely, the Delta counties and other local agencies with jurisdiction over impacted areas are not included in any decision bodies. We find the governance structure

presented in the IA and the BDCP inadequate and rife with conflict, constituting a misuse of public trust resources. We question inclusion of contractors on any governance body. At the very least, the establishment of an agency governance buffer between the applicants and the agencies, independent agency and scientific oversight, and full inclusion of the impacted agencies in all decision bodies should be required.

The IA provides a clearer delineation of the responsibilities of the various groups than is provided in the BDCP, and appears to shift more responsibilities onto the AMT, including acting as the decision body for Decision Tree matters such as adjusting outflows during critical periods and approving changes to the Conservation Measures. The AMT is given broad powers to change or abandon Conservation Measures through adaptive management (p. 29), and move funding and/or use supplemental funding sources (pp. 30, 32). There is a clear delineation in both the BDCP and the IA between the conveyance facility (CM1), operations and the other Conservation Measures (CM 2–22) relative to authorities, level of implementation certainty, and funding. There is either restricted or no ability for public participation at meetings of these bodies, with the exception of meetings of the Stakeholder Council, which are public and to which the County is relegated one of more than 36 seats (pp. 62 – 64). The Stakeholder Council can advise and comment on Plan Implementation only to the Program Manager, rather than directly to any of the decision bodies.

The IA appears skewed toward assurances for the contractors at the expense of the wildlife agencies, Delta water users, and the environment. Under the IA, the contractors are given limited liability and a 50-year permit while the wildlife agencies receive an inchoate conservation program with uncertain funding. Only a portion of funding is assured by the contractors for the programmatic Conservation Measures (pp. 1, 16, & 36), with the wildlife agencies and the taxpayers of the State generally left to cover the balance (p. 16). Because the conservation strategy proposed in the BDCP is so broad and allows so much flexibility in implementation, it provides only weak protections as a result. Significantly, the IA provides that changes to CMs would be handled by the AMT, which is given broad discretionary authority, and do not require changes to the BDCP or to the Permits (page 36). In addition, the contractors would not be responsible for additional costs; instead, the State and its taxpayers would be required to pay for any changes other than those identified in the IA. The IA provides that failure to achieve a biological goal would not constitute non-compliance with the Plan (p. 24). Under the IA, the wildlife agencies must authorize take beyond that included in the Plan (p. 19) and take of migratory birds in addition to aquatic and terrestrial species (p. 20), but the agencies may not hold the contractors accountable for failure to achieve biological goals contained in the BDCP (p. 24). The IA requires wildlife agencies to rely heavily on highly uncertain adaptive management and decision tree processes (p. 27) but limits them to operational adjustments contained in the Plan (pp. 27, 28). The

wildlife agencies cannot require additional land or financial compensation (p. 51), and cannot suspend or revoke permits should biological goals not be met (p. 24).

From an operations standpoint, the IA would allow permitting for the full range of outflow scenarios, thereby allowing for the full range of North Delta diversions outlined in the BDCP (pp. 25 & 26), and the conflict-ridden AMT would have jurisdiction over decision tree matters, dealing with flow during critical periods. The adaptive management program would go into effect as soon as the BDCP is approved and permits issued. Changes to Conservation Measures approved as adaptive management would not require an amendment to the BDCP or permits (page 36). It is inappropriate and a conflict for contractors to sit on the Real-time operations Team, and the non-voting status that clearly can be changed at will (p. 27) is unacceptable.

Credit for any future mitigation of past impacts is discussed on page 41 of the IA. Given the programmatic and uncertain nature of future mitigation and the underlying questions of whether and to what extent the taxpayers will be aiding in payment of future mitigation, this section should be removed from the IA until the question of the public interest versus private mitigation is resolved.

Attachment A

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 "***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 increase in south Delta pumping of 3,100 cfs.

The same modeling simulations of the BDCP project alternatives suggest that the BDCP proposed project will increase 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.

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

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 limit 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 from 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 A-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.

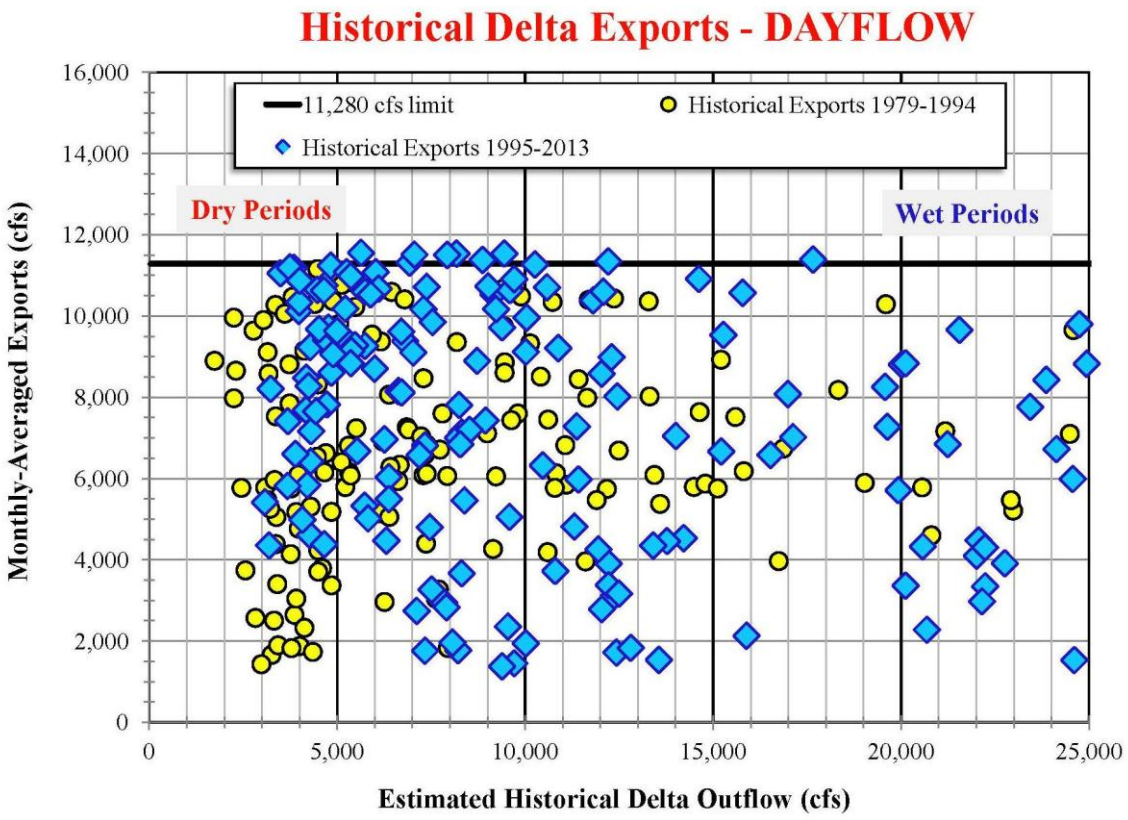


Figure A-1: Historical Delta exports as a function of Delta Outflow for the years since the Bay-Delta Accord and SWRCB Water Rights Decision 1641, and the earlier period (1979-1994) after adoption of SWRCB Water Rights Decision 1485. D-1485 introduced minimum Delta outflow requirements and these were 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 A-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 A-2 shows similar results as the historical data (Figure A-1).

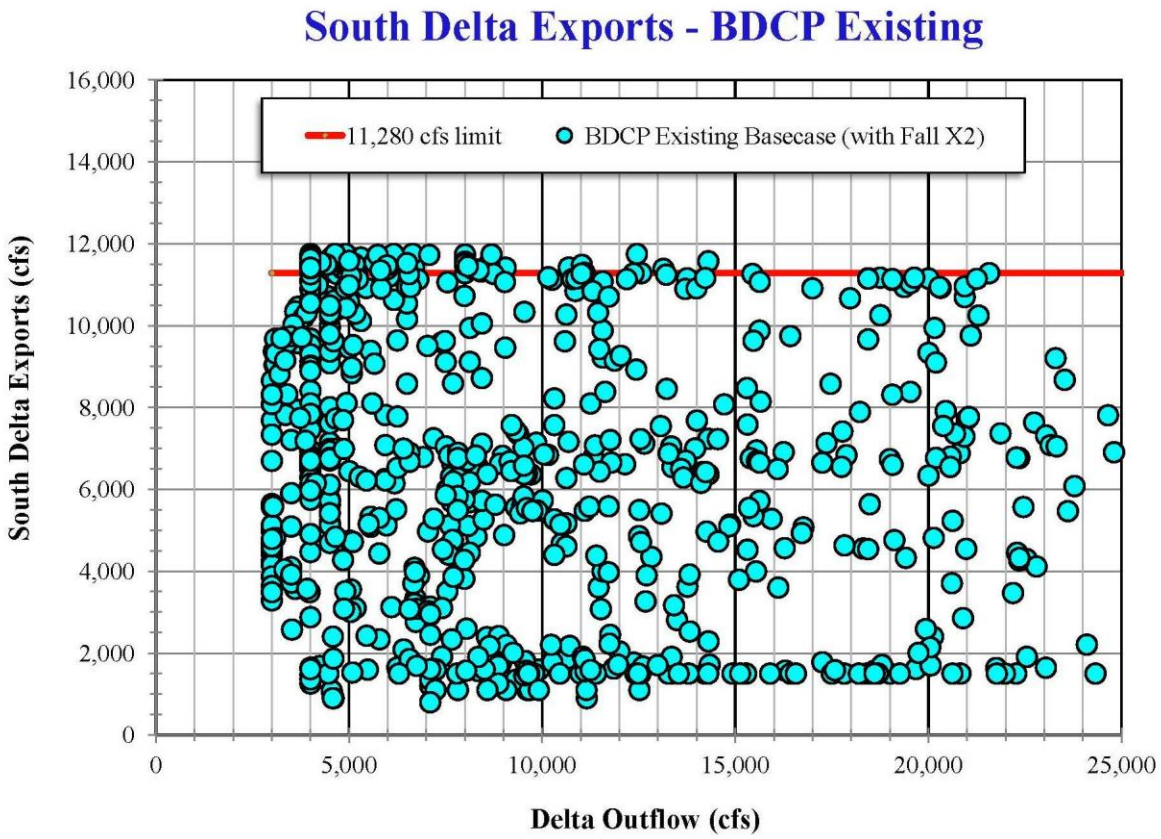


Figure A-2: South Delta exports as a function of Delta Outflow for a BDCP existing base case (with Fall X2) for outflows up to 25,000 cfs. The BDCP is being promoted as improving the Delta ecosystem by reducing exports from the south Delta. The BDCP proposed project, therefore, should be expected to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

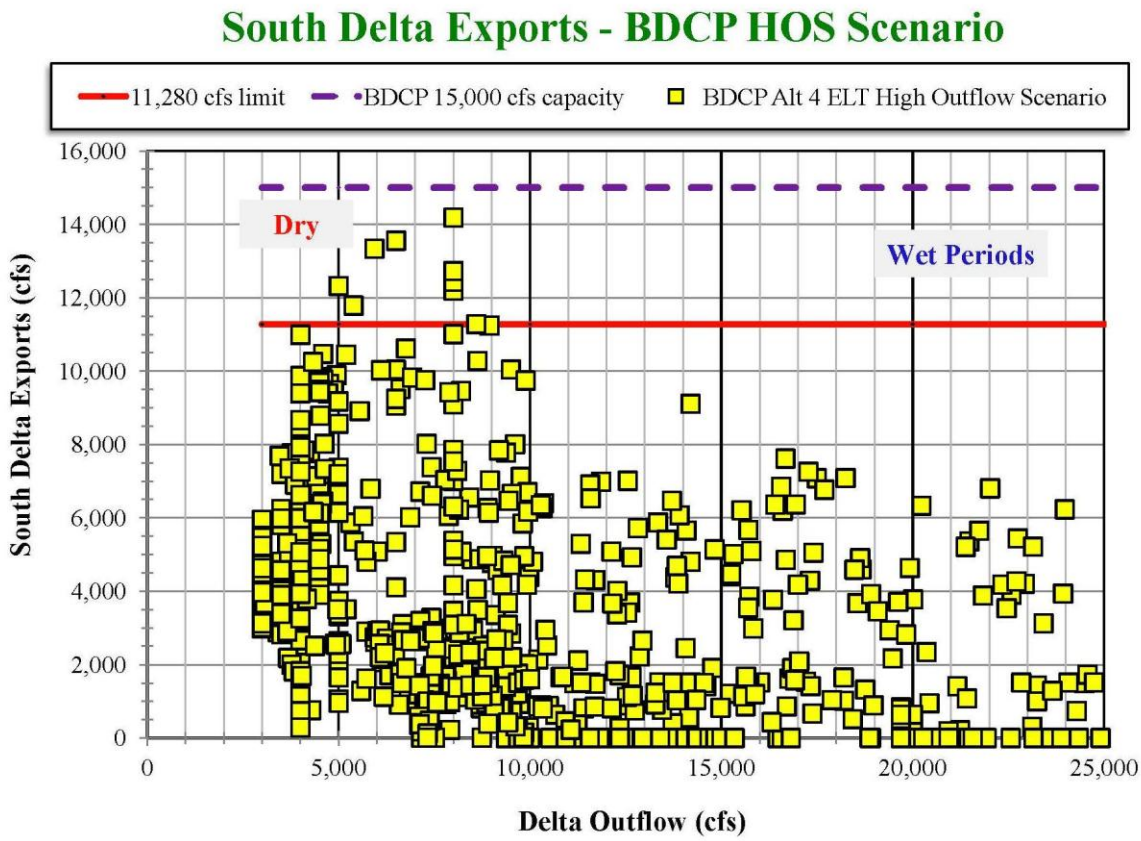


Figure A-3: South Delta exports as a function of Delta Outflow for BDCP Early Long Term Alternative 4 High Outflow Scenario for outflows up to 25,000 cfs. A goal of the BDCP is to improve ecosystem conditions in the south Delta by reducing exports from the south Delta. The BDCP proposed project may reduce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

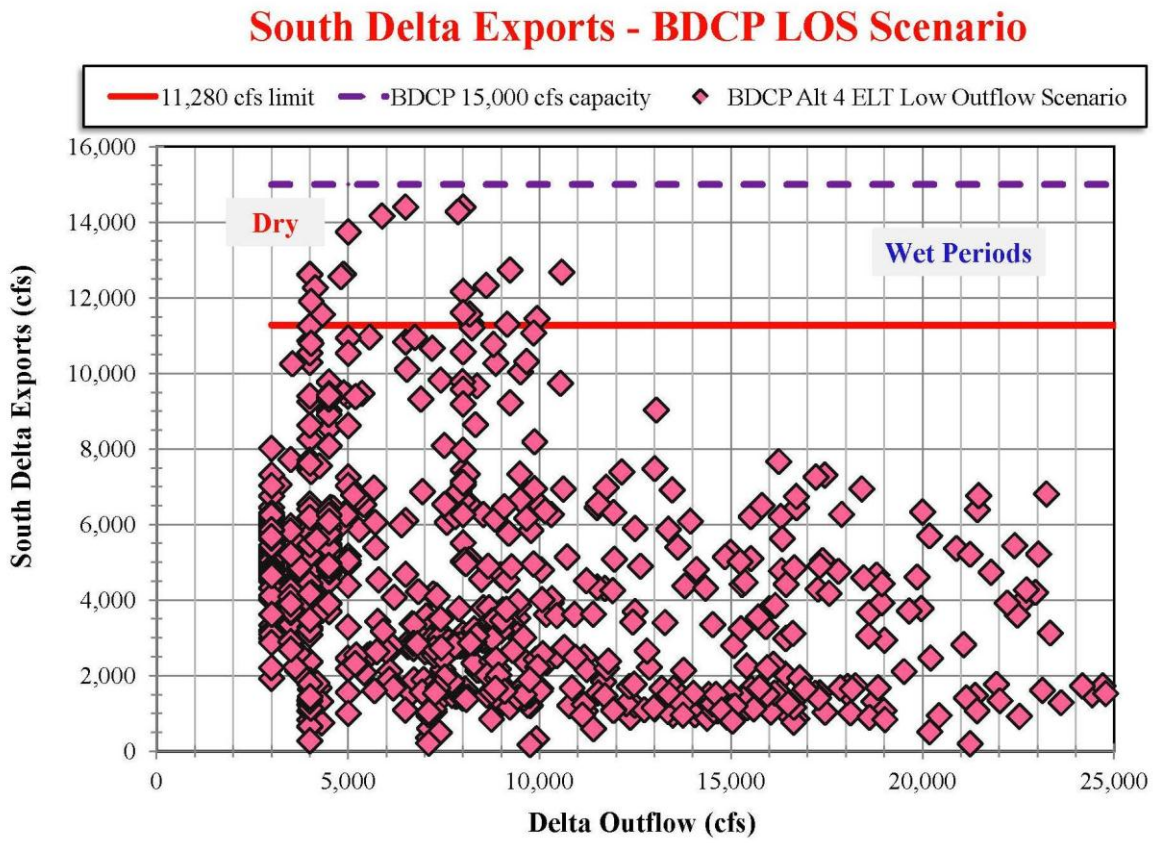


Figure A-4: South Delta exports as a function of Delta Outflow for BDCP Early Long Term Alternative 4 Low Outflow Scenario for outflows up to 25,000 cfs. A goal of the BDCP is to improve ecosystem conditions in the south Delta by reducing exports from the south Delta. The BDCP proposed project needs 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.

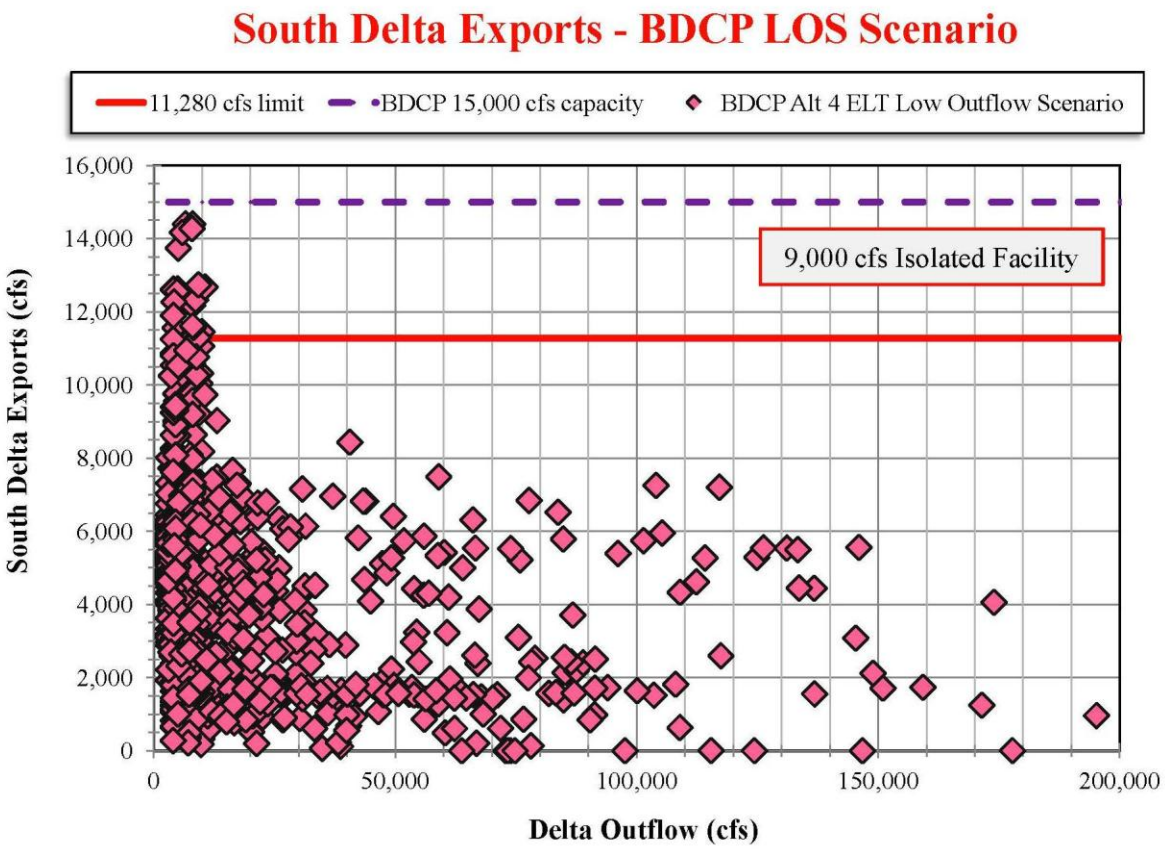


Figure A-5: South Delta exports as a function of Delta Outflow for BDCP Early Long Term Alternative 4 Low Outflow Scenario. This graph is the same as Figure A-4 but shows are larger range of Delta outflows (i.e., up to 200,000 cfs). A goal of the BDCP is to improve ecosystem conditions in the south Delta 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.

- **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 A-2) because there are currently no north Delta intakes or isolated facilities.

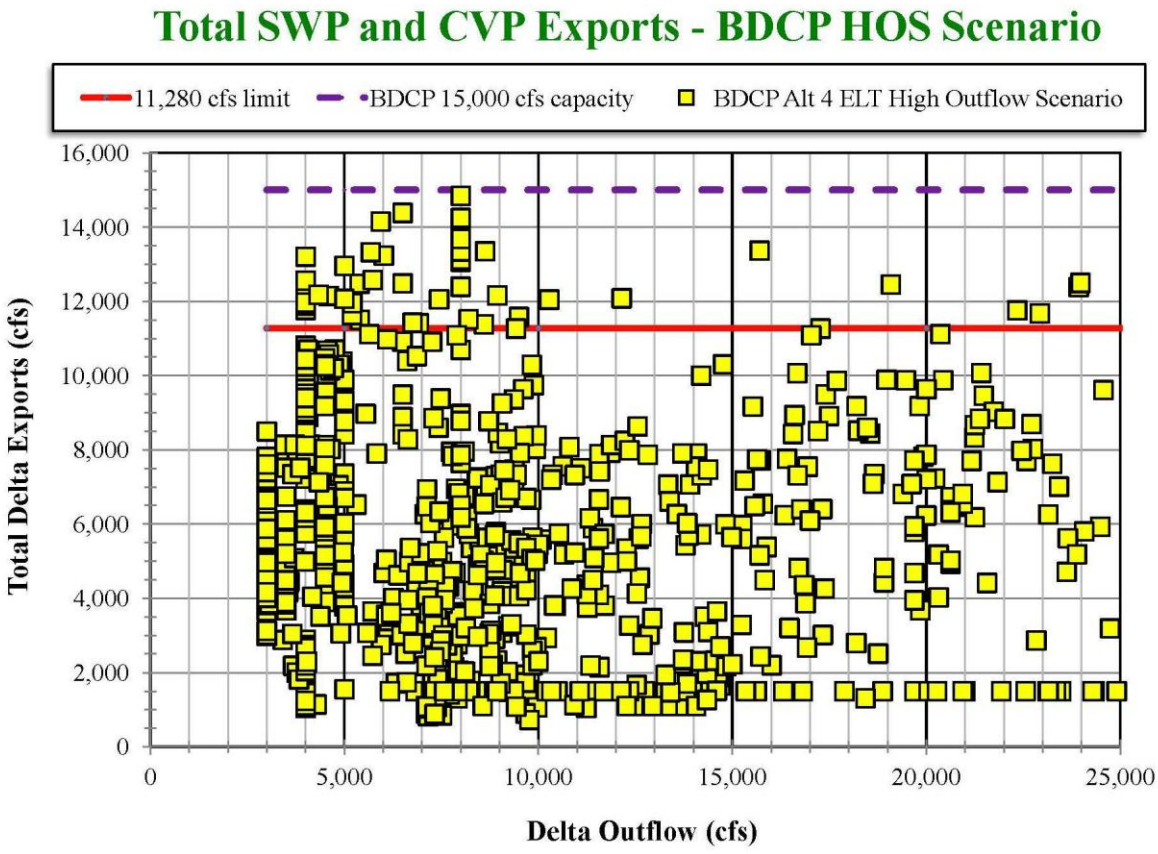


Figure A-6: Total exports as a function of Delta Outflow for BDCP Early Long Term Alternative 4 High Outflow Scenario. Contrary to the BDCP "Big Gulp, Little Sip" planning principle, the BDCP proposed project would increase exports from the Delta during drier months (low Delta outflow).During wetter 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").

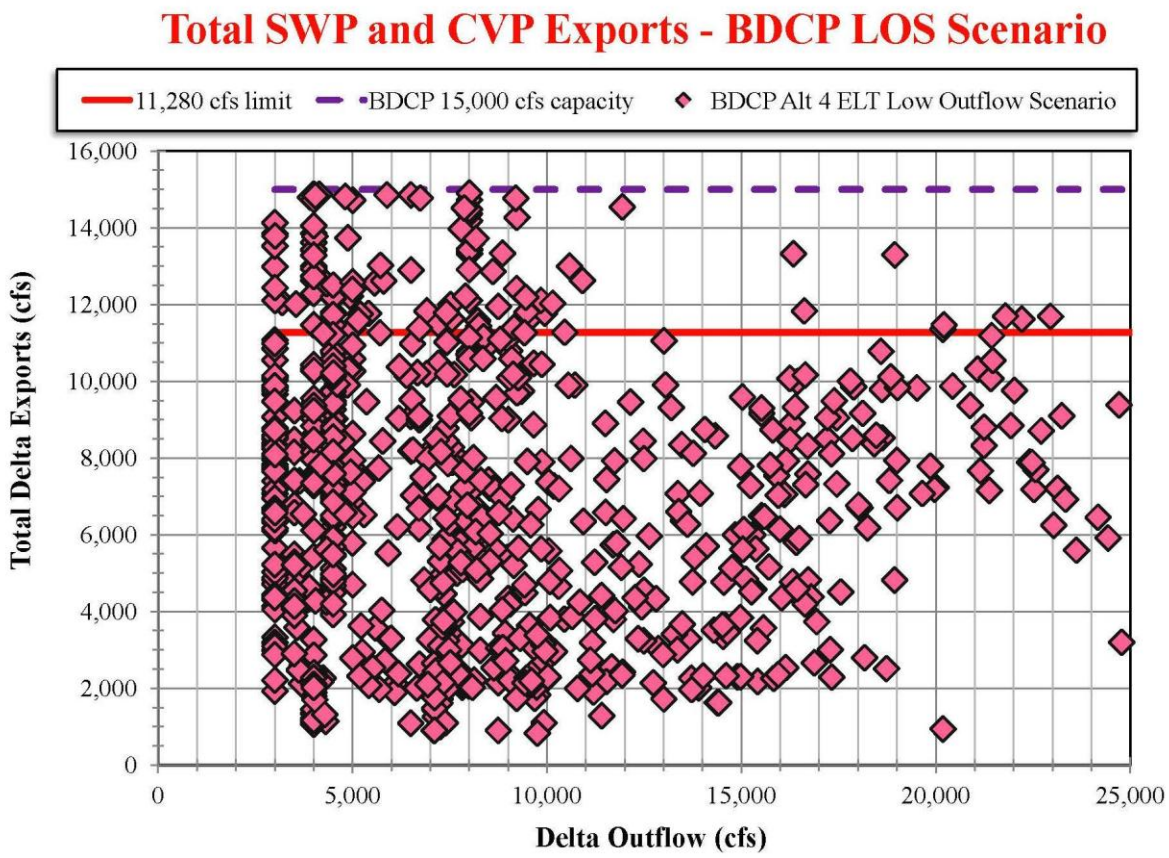


Figure A-7: Total exports as a function of Delta Outflow for BDCP Early Long Term Alternative 4 Low Outflow Scenario. Contrary to the BDCP "Big Gulp, Little Sip" planning principle, the BDCP proposed project would increase exports from the Delta during drier months (low Delta outflow). The increase in 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").

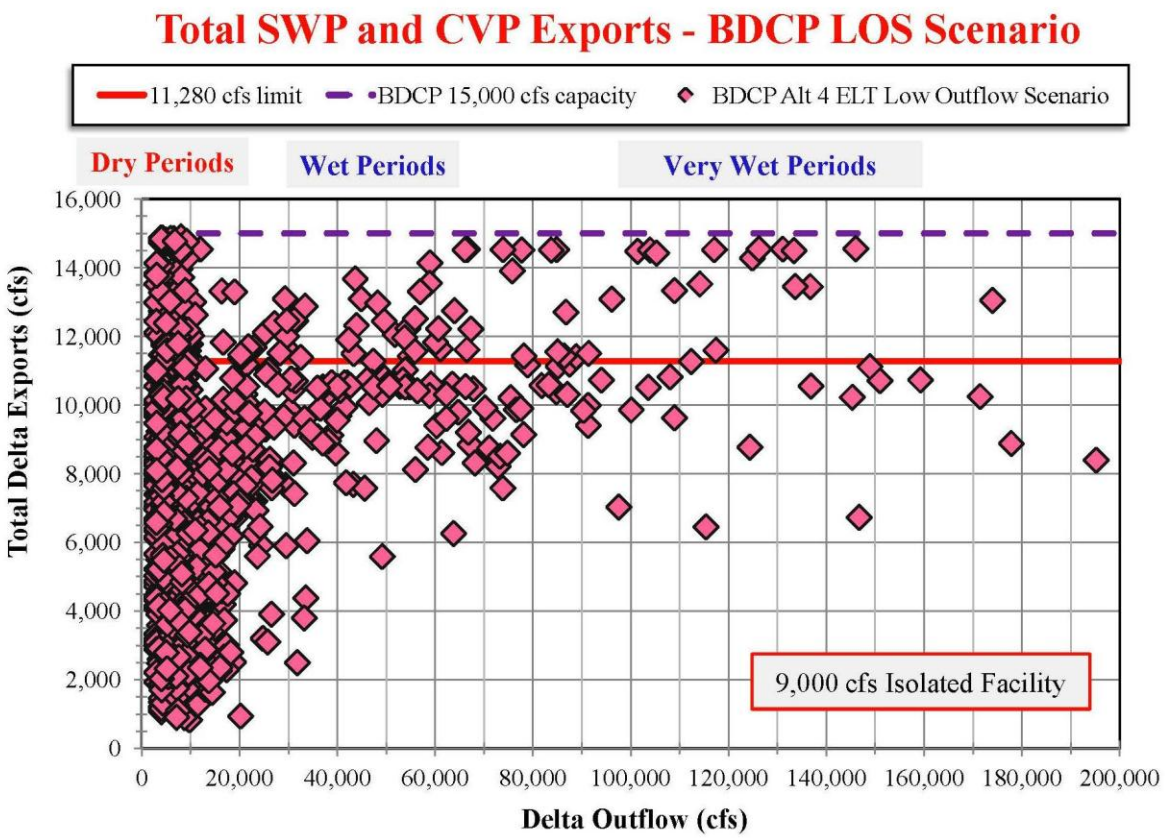


Figure A-8: Total exports as a function of Delta Outflow for BDCP Early Long Term Alternative 4 Low Outflow Scenario. This graph is the same as Figure A-7, but extends the range of Delta outflows to 200,000 cfs. During very wet periods (e.g., outflows greater than 60,000 cfs), there are a some of months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

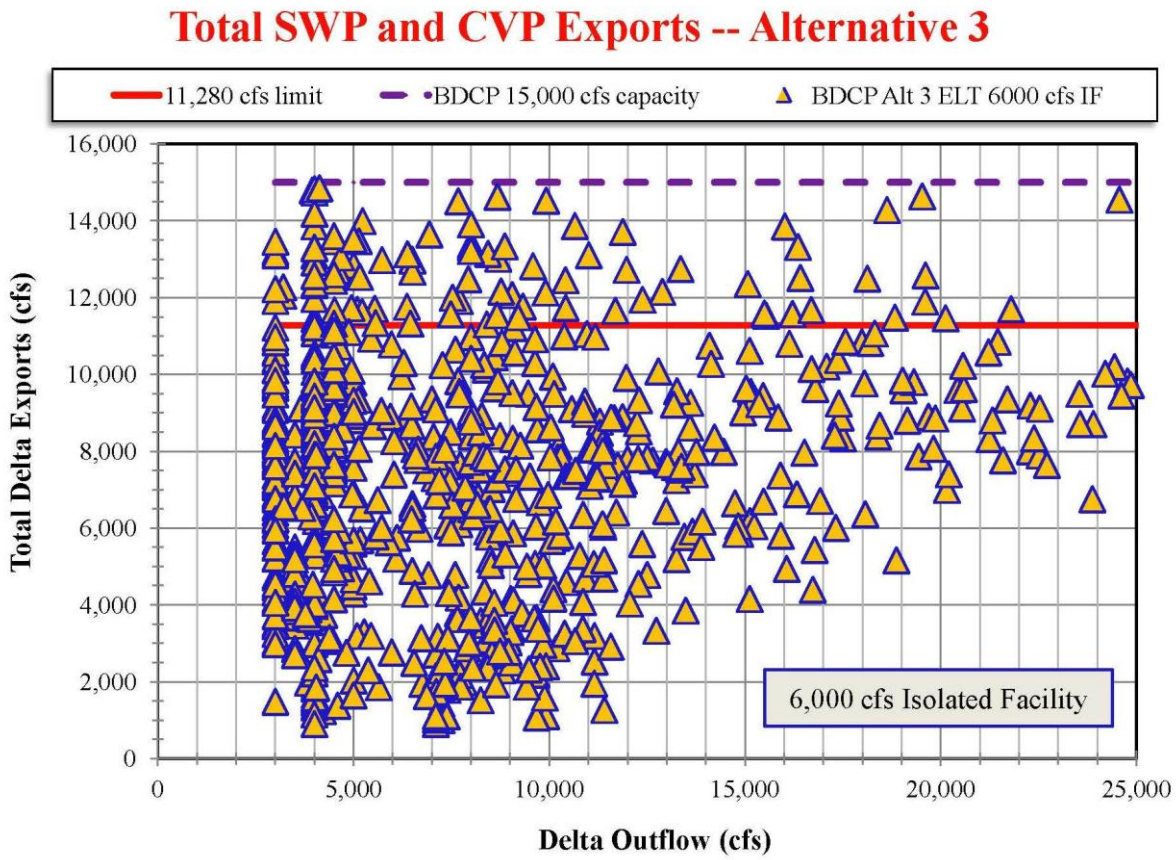


Figure A-9: Total exports as a function of Delta Outflow for BDCP Early Long Term Alternative 3 which has only 6,000 cfs of north Delta intake tunnel capacity. There are more months with exports in excess of 11,300 cfs during wetter periods (high outflow) than for Alternative 4 (9,000 cfs isolated facility). 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 A-10. The "Little Sip" export limits are compared with the same Low Outflow Scenario data plotted in Figure A-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.

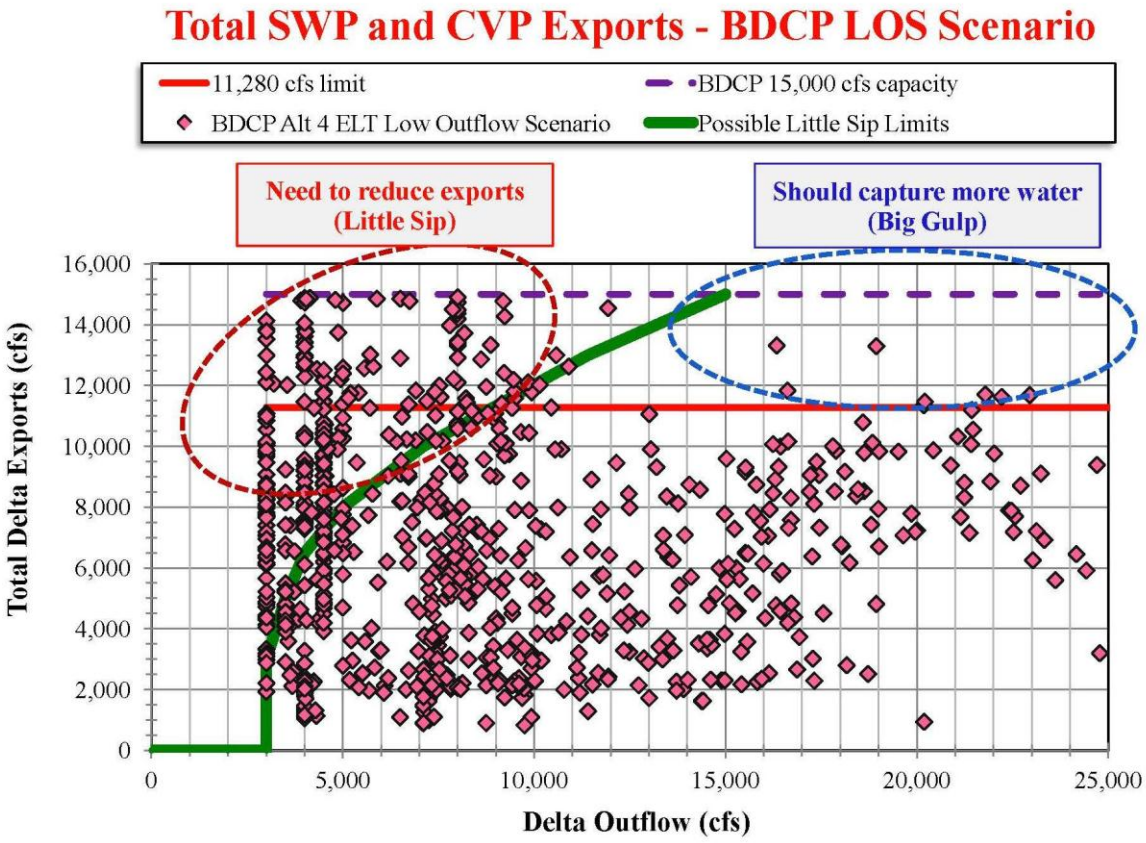


Figure A-10: Total exports as a function of Delta Outflow for BDCP Early Long Term Alternative 4 Low Outflow Scenario. Exports would increase rather than decrease during drier periods (low Delta outflow) and fail to increase to capture more water during wet periods (high Delta outflow). Limiting exports 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 B

BDCP Water Quality Impacts in Barker Slough and Suisun Marsh Areas

The BDCP DEIR/EIS is inadequate because it fails to disclose the impacts of the proposed project and other alternatives on the salinity of water diverted by north Delta farmers in the Barker Slough area (as represented by electrical conductivity, EC). Salinity impacts in some irrigation areas in the Delta are discussed but not the areas of the north Delta within or close to Solano County.

Figure B-1 presents daily EC data for the Barker Slough area for the period October 1976 through October 1983. The data are from four simulations performed for the BDCP using DWR's DSM2 water quality model. The four simulations are:

- No Action Alternative at Late Long Term
- Proposed Project Alternative 4, Low Outflow Scenario (H1) at Early Long Term
- Proposed Project Alternative 4, High Outflow Scenario (H4) at Late Long Term
- Proposed Project Alternative 4, Low Outflow Scenario (H1) at Late Long Term

Note that the BDCP only simulated Delta water quality for the period 1976-1991 and only used data for a single drought period, water years 1987-1991, when disclosing drought year impacts (DEIR/EIS page 8-135, line 23). The DEIR/EIS fails to disclose the impacts on water quality during other drought periods such as 1928-1934 and 1976-1977. 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.

The data in Figure B-1 suggest that the BDCP proposed project will not only significantly increase the salinity of irrigation water for farmers in and near Solano County, but will change the time of the periods of high salinity. The peaks of salinity for the no action alternative at late long term (LLT) occur primarily in February and March and are due to local agricultural drainage (according to the DSM2 fingerprint analysis). The peak salinities for the proposed project at LLT occur earlier in some years (in the fall) and are due to increased seawater intrusion.

The BDCP simulations of daily EC in the Barker Slough area show that the salinity increases are very large for the Low Outflow Scenario and smaller for the High Outflow Scenario (which includes higher outflows in the fall to meet Fall X2 and higher outflow requirements in the spring). The salinities are highest during the 1976-1977 drought years.

The data in Figure B-1 also suggest that habitat restoration in the north Delta after early long term (ELT) and the resulting changes in local flow patterns, combined with additional sea level rise, will cause significant adverse impacts to irrigation water quality in this region. The salinities for the Low Outflow scenario at ELT are much smaller and primarily due to local agricultural drainage.

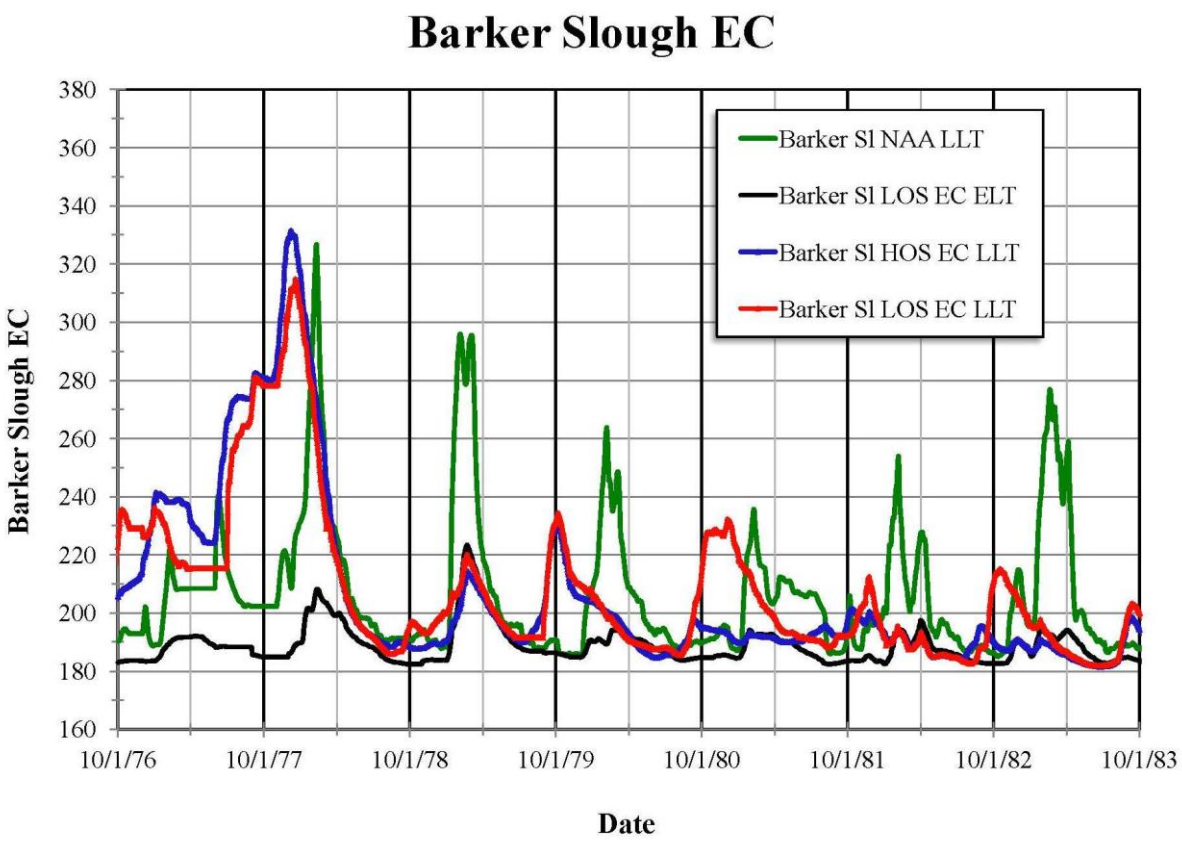


Figure B-1: Variation in daily EC data for the Barker Slough area from October 1976 to October 1983 from the BDCP water quality modeling. Four simulations are shown; No Action at late long term, proposed project Low Outflow Scenario at ELT and LLT and proposed project High Outflow Scenario at LLT.

Figure B-2 shows the variations in EC for the same scenarios for the period October 1984 through October 1991.

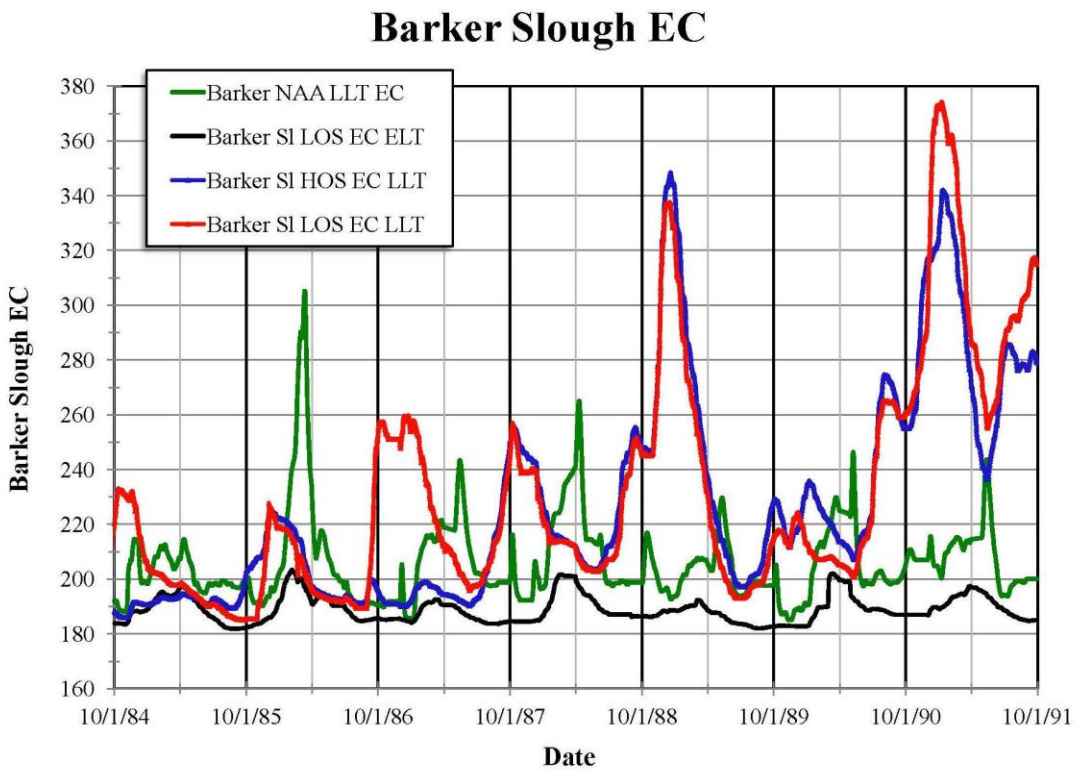


Figure B-2: Variation in daily EC data for the Barker Slough area from October 1984 to October 1991 from the BDCP water quality modeling. Four simulations are shown; No Action at late long term, proposed project Low Outflow Scenario at ELT and LLT and proposed project High Outflow Scenario at LLT.

Suisun Marsh, in Solano County, is one of the largest contiguous estuarine wetlands in North America. The Marsh is a resting and feeding ground for millions of waterfowl migrating on the Pacific Flyway, and provides essential habitat for numerous birds, mammals and fish, including threatened and endangered species. The quality of water in Suisun Marsh is managed to promote preferred waterfowl habitat and retain wetland resource values.

The salinities in eastern Suisun Marsh are controlled under SWRCB Water Rights Decision 1641 at three locations: Sacramento River at Collinsville, Montezuma Slough at National Steel, and Montezuma Slough near Beldon's Landing. The western Delta salinities are regulated at Chadbourne Slough at Sunrise Duck Club and Suisun Slough, 300 feet south of Volanti Slough.

The DEIR/EIS is inadequate because it only assesses Suisun Marsh EC qualitatively, using average EC for the entire period modeled (1976–1991) – see Chapter 8 of the DEIR/EIS at page 8-157. The 82-year averages suggest that the BDCP proposed project would substantially increase salinities at Montezuma Slough at Beldon's Landing (i.e., over a doubling of concentration in December through February) (DEIR/EIS, Appendix 8G, Figure Cl-8). This will seriously impair the ability of Suisun Marsh landowners to manage water quality and will adversely impact fish and wildlife beneficial uses. However, the 82-year averages do not disclose sufficient detail about the timing and magnitude of the salinity changes for individual months of different water year types.

Figure B-3 shows the BDCP simulations of the variation in daily EC in Suisun Marsh at Beldon's Landing from October 1976 through October 1983. There are significant adverse impacts to salinity for the proposed project for both the Low Outflow and High Outflow scenarios. The largest increases in salinity occur primarily in the fall. The impacts are greatest for the Low Outflow scenario which assumes there will not be any Fall X2 requirements.

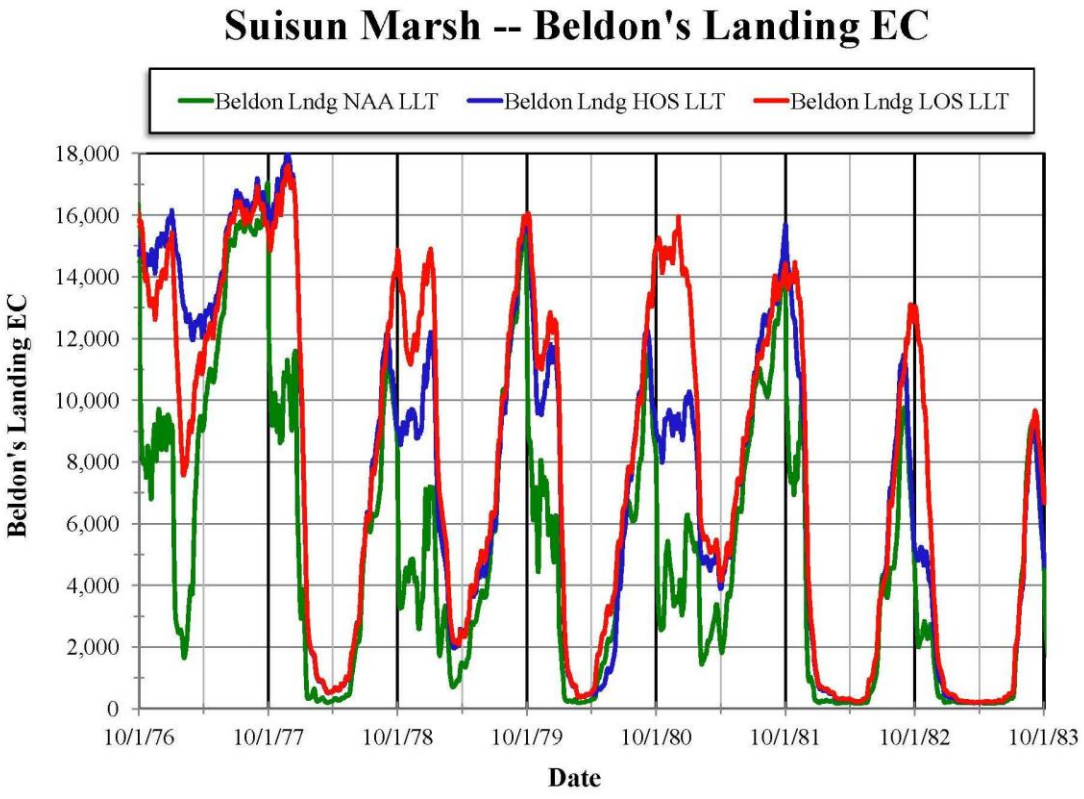


Figure B-3: Variation in daily EC data for the Montezuma Slough at Beldon's Landing from October 1976 to October 1983 from the BDCP water quality modeling. Three simulations are shown; No Action at late long term, proposed project Low Outflow Scenario at LLT, and proposed project High Outflow Scenario at LLT.

Figure B-4 shows the corresponding Beldon's Landing salinity data (EC) for the period October 1984 through October 1991.

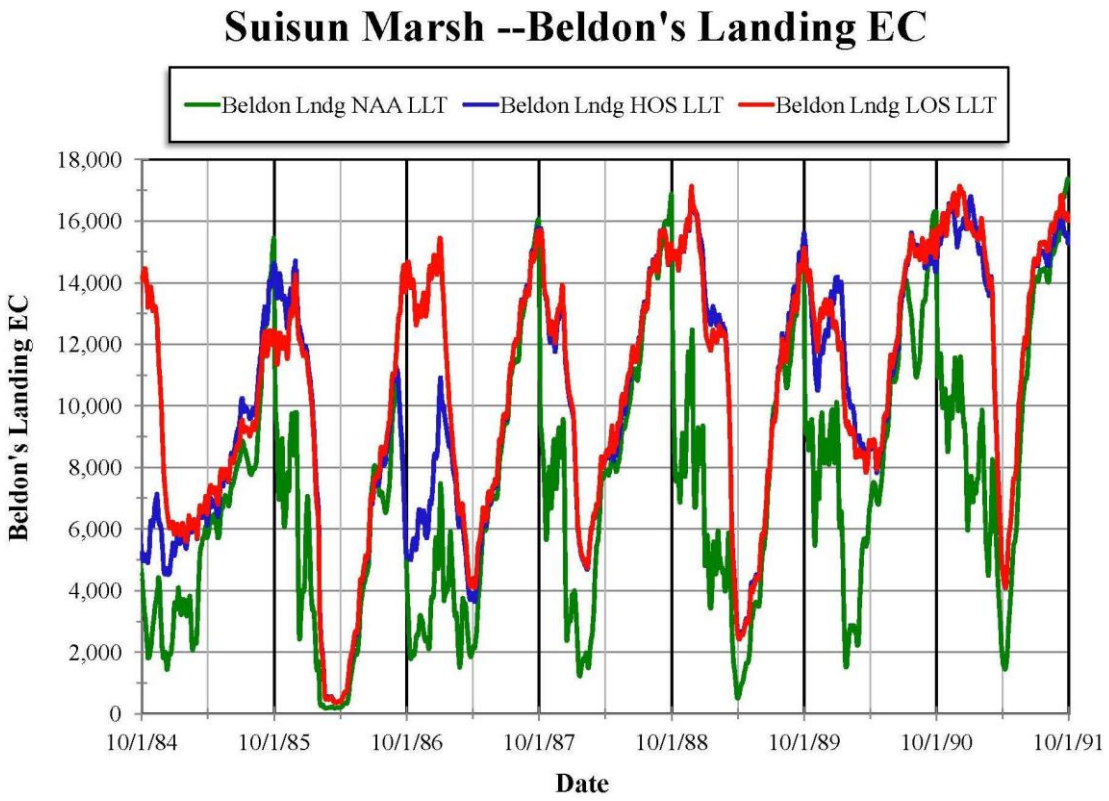


Figure B-4: Variation in daily EC data for the Montezuma Slough at Beldon's Landing from October 1984 to October 1991 from the BDCP water quality modeling. Three simulations are shown; No Action at late long term, proposed project Low Outflow Scenario at LLT, and proposed project High Outflow Scenario at LLT.

These increased EC levels in Suisun Marsh are substantial and will have adverse impacts on marsh beneficial uses, and must be mitigated.