

## **Contra Costa County Comments on Draft BDCP EIR/EIS**

### **General Comment on the Inadequacy of All BDCP Alternatives**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- (a) proposing that the existing U.S. Army Corps of Engineers limits on inflow to Clifton Court Forebay be eliminated which would increase the maximum inflow from 6,680-7,180 cfs up to 10,300 cfs (DEIR/EIS page 3-32. line 12)
- (b) not planning on screening the intake to the Forebay (even though DWR's November 2009 Conceptual Engineering Report – Through-Delta Facility Conveyance Option contains feasible examples of how this could be done, see Fig. 7-5 of the CER),
- (c) proposing to make reverse flows (OMR) worse at certain times of the year relative to existing conditions,
- (d) proposing to still use the south Delta for 51% of the SWP and CVP exports

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

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

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

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

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

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

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

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

## **Executive Summary**

### ***Page ES-1***

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

***Page ES-7, line 6***

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

**Chapter 2: Project Objectives and Purpose and Need**

***Page 2-4, line 16***

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

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

***Page 2-4***

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

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

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

***Page 2-4, line 28***

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

***Page 2-4, line 28***

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

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

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

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

***Page 2-5, line 1***

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

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

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

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

### **Chapter 3: Description of Alternatives**

#### **General Comment – New alternatives need to be developed and analyzed**

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

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

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

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

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

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

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



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

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

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

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

#### ***Page 3-5, line 3***

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

The Stakeholder Committee did develop a set of BDCP Planning Principles, including a key principle: “*Divert more water in the wetter periods and less in the drier periods.*”

[http://baydeltaconservationplan.com/Libraries/Dynamic\\_Document\\_Library -  
Archived/BDCP Overview and Update - March 2009.sflb.ashx](http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library_-_Archived/BDCP_Overview_and_Update_-_March_2009.sflb.ashx)

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

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

***Page 3-14, Table 3-1***

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

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

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

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

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

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

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

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

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

#### ***Page 3A-40 et seq.***

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

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

## Chapter 5: Water Supply

### ***General Comment on SWRCB Delta Flow Criteria***

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

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

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

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

### ***Page 5-46, Line 15***

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

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

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

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

## **Appendix 5A: BDCP EIR/EIS Modeling Technical Appendix**

### ***Page 5A-B40***

#### **SECTION B: CALSIM II AND DSM2 MODELING SIMULATIONS AND ASSUMPTIONS**

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

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

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

## **Chapter 6: Surface Water**

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

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

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

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

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

***Page 6-100, line 32***

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

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

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

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

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

## **Chapter 8: Water Quality**

### **General Comment on Impact Analysis**

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

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

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

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

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

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

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

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



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

### **General Comment on Water Quality Modeling**

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

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

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

### **General Comment on Water Quality Impacts on Beneficial Uses**

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

This is analogous to the basic tenant of water resources management, i.e., capturing water during wetter periods for use during drier periods. In fact, this was one of the BDCP's original planning principles (see Planning Principle 2, BDCP March 2009 "An Overview and Update.")  
[http://baydeltaconservationplan.com/Libraries/Dynamic\\_Document\\_Library -  
\\_Archived/BDCP\\_Overview\\_and\\_Update\\_-\\_March\\_2009.sflb.ashx](http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library_-_Archived/BDCP_Overview_and_Update_-_March_2009.sflb.ashx)

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

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

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

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

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

### **General Comment on the Impacts of Aquatic Algae**

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

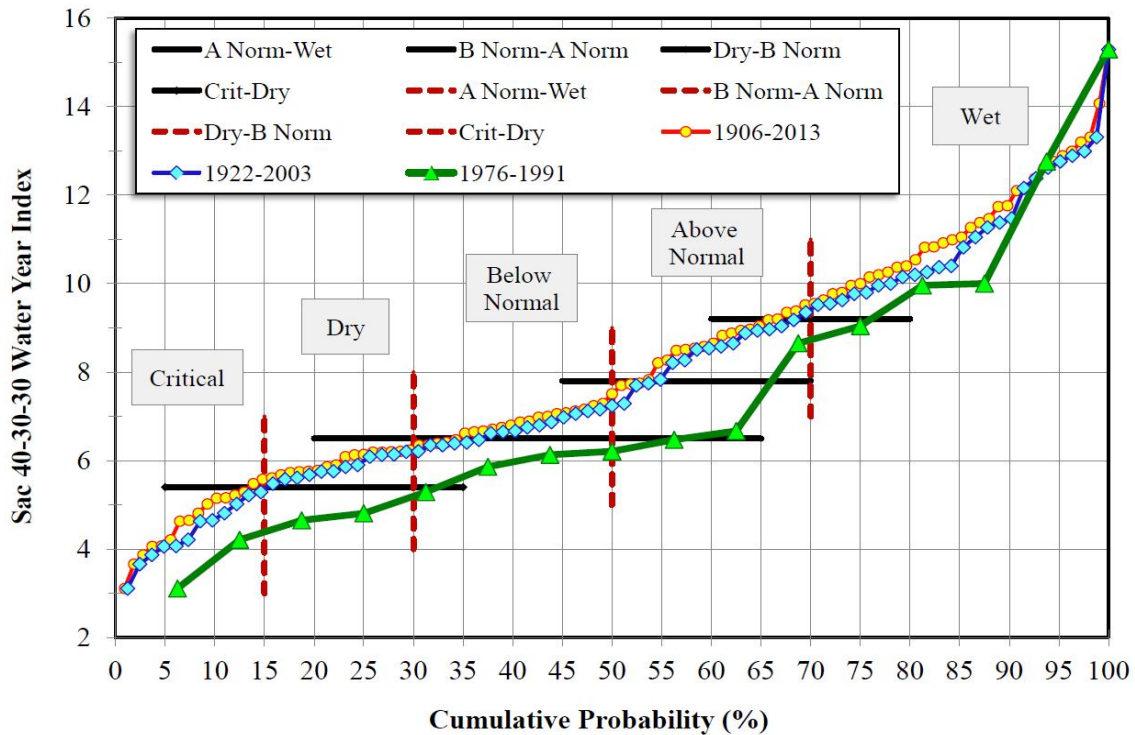
### ***Page 8-9, Line 17***

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

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

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

### Sacramento Basin Water Year Types



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

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

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

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

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

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

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

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

***Page 8-11, Line 22***

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

***Page 8-12, Line 17***

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

***Page 8-13, Line 11***

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

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

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

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

***Figures 8-2 and 8-3***

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

***Page 8-129, line 39***

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

***Page 8-135, Line 36***

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

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

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

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

***Page 8-147, Line 15***

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

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

***Page 8-153, Line 23***

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

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

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

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

***Page 8-157, Line 16***

The DEIR/EIS states:

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

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

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

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

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

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

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

### **Page 8-175, Line 2**

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

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

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

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



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

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

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

***Page 8-177, Line 36***

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

***Page 8-184, Line 39***

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

***Page 8-185, Line 13***

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

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

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

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

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

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

***Page 187, Line 31***

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

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

***Page 238 – Significant and Unavoidable Water Quality Impacts***

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

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

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

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

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

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

***Page 8-441, Line 10***

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

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

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

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

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

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

*Page 8-441, Line 32*

**Mitigation Measure WQ-11a: Conduct Additional Evaluation and Modeling of Increased EC Levels Following Initial Operations of CMI**

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

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

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

## **Appendix 3B: Environmental Commitments**

### ***Page 3B-42, Line 24***

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

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

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

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

### ***Pages 38-28 to 38-29***

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

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

## **Chapter 11: Fish and Aquatic Resources**

### ***Page 11-58, Line 30***

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

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

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

### ***Page 11-1533, Line 1***

The DEIR/EIS states:

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

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

### ***Page 11-1533, Line 12***

The DEIR/EIS states:

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

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

***Page 11-1533, Line 17 et seq.***

The DEIR/EIS states:

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

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

***Page 11-1549, Line 39***

The DEIR/EIS states:

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

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

## **Chapter 15: Recreation**

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

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

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

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

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

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

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

## **Chapter 19: Transportation**

### ***General Comment***

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

### ***General Comment***

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

### ***General Comment***

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



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

***General Comment***

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

***General Comment***

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

***General Comment***

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

***General Comment***

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

***General Comment***

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

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

***Page 19-35, line 20***

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

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

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

***General Comment***

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

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

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

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

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

***Page 19-53, line 32***

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

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

***General Comment***

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

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

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

***General Comment***

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

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

***Page 19-164, line 31, and elsewhere***

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

***Pages 19-53 and 19-174***

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

***General Comment***

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

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

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

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

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

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

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

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

***Page 19-173, line 22***

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

***Page 19-181***

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

***Page 19-185, line 19***

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

**Figure 19-1**

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

### ***General Comment***

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

## **Chapter 22: Air Quality and Greenhouse Gases**

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

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

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

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

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

***Page 22-251, Line 5***

The DEIR/EIS states that alternative 4's PM<sub>2.5</sub> emissions during construction would exceed the San Joaquin Valley Air Pollution Control District's (SJVAPCD) thresholds (Table 22-92) and would potentially expose sensitive receptors to significant health threats. Therefore, this adverse impact for PM<sub>2.5</sub> emissions would be significant. The DEIR/EIS states that the primary cause of the PM<sub>2.5</sub> exceedance is a proposed concrete batch plant that would be located in near Byron Highway. This batch plant would cause exceedances at approximately 20 residences on Kings Island. Mitigation Measure AQ-12 (Increase Distance between Batch Plant and Sensitive Receptors) is again proposed to mitigate these adverse impacts.

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

**Chapter 23: Noise**

***Page 23-67***

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

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

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

**Chapter 28: Environmental Justice**

***Page 28-33, Line 28***

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

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

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

***Page 28-57, Line 6***

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

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

**Chapter 31: Other CEQA/NEPA Required Sections**

***Page 31-13***

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

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

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



Attachment C

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Page C-41

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